

ALMANAC

IV

PLANETARY

PHENOMENA OF

MERCURY IN CE

The almanac IV contains a list of planetary phenomena of Mercury from the 1st millennium CE to the 6th millennium CE, from the 1st century CE to the 51st century CE.

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 217

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

morning max el	-1 Nov 28 j 01:50	11° \mathbb{M} 56'11	22°12'08	transit middle	00 Oct 23 j 04:14	28° \mathbb{A} 17'49	0°11'58
greatest brilliancy	-1 Dec 02 j 17:54	17° \mathbb{M} 11'22	-0.3m	transit begin	00 Oct 23 j 02:23	28° \mathbb{A} 24'06	
	-1 Dec 12 j 08:09	0° \mathbb{A}		transit end	00 Oct 23 j 06:04	28° \mathbb{A} 11'32	
desc. node	-1 Dec 15 j 09:05	4° \mathbb{A} 22'19		morning rise	00 Oct 28 j 14:07	22° \mathbb{A} 07'19	
morning set	-1 Dec 31 j 03:41	28° \mathbb{A} 36'09		direct	00 Nov 01 j 13:24	20° \mathbb{A} 38'18	
	00 Jan 01 j 00:23	0° \mathbb{B}		morning max el	00 Nov 09 j 19:42	25° \mathbb{A} 26'51	20°52'17
max. Earth dist.	00 Jan 05 j 19:09	7° \mathbb{B} 54'12	1.40964 AU		00 Nov 13 j 20:21	0° \mathbb{M}	
				greatest brilliancy	00 Nov 15 j 13:36	2° \mathbb{M} 10'05	-0.5m
superior conj	00 Jan 13 j 14:01	21° \mathbb{B} 22'45	-2°-1'-27	desc. node	00 Dec 01 j 06:09	24° \mathbb{M} 36'14	
minimum elong	00 Jan 13 j 14:59	21° \mathbb{B} 27'04	2°01'26		00 Dec 04 j 19:21	0° \mathbb{A}	
	00 Jan 18 j 08:17	0° \mathbb{M}		morning set	00 Dec 09 j 08:20	7° \mathbb{A} 01'02	
evening rise	00 Jan 23 j 22:04	10° \mathbb{M} 21'37		max. Earth dist.	00 Dec 17 j 23:41	20° \mathbb{A} 45'44	1.42844 AU
asc. node	00 Feb 01 j 16:46	26° \mathbb{M} 10'14			00 Dec 23 j 14:04	0° \mathbb{B}	
	00 Feb 04 j 03:06	0° \mathbb{K}					
evening max el	00 Feb 09 j 03:54	6° \mathbb{K} 17'51	18°16'35	superior conj	00 Dec 24 j 20:08	2° \mathbb{B} 06'25	-1°-57'-47
retrograde	00 Feb 16 j 06:09	9° \mathbb{K} 50'00		minimum elong	00 Dec 24 j 16:40	1° \mathbb{B} 51'46	1°57'41
evening set	00 Feb 18 j 18:25	9° \mathbb{K} 24'23		evening rise	01 Jan 05 j 16:42	22° \mathbb{B} 45'56	
inferior conj	00 Feb 25 j 20:36	4° \mathbb{K} 41'16	3°29'29		01 Jan 09 j 18:20	0° \mathbb{M}	
minimum elong	00 Feb 25 j 23:27	4° \mathbb{K} 35'04	3°29'04	asc. node	01 Jan 18 j 13:49	14° \mathbb{M} 26'38	
min. Earth dist.	00 Feb 29 j 06:13	1° \mathbb{K} 45'57	0.59630 AU	evening max el	01 Jan 22 j 15:08	19° \mathbb{M} 22'48	18°07'38
	00 Mar 02 j 13:57	30° \mathbb{K}		retrograde	01 Jan 29 j 05:16	22° \mathbb{M} 47'34	
morning rise	00 Mar 04 j 01:00	29° \mathbb{M} 04'09		evening set	01 Jan 31 j 21:55	22° \mathbb{M} 13'05	
direct	00 Mar 10 j 12:35	27° \mathbb{M} 09'20		inferior conj	01 Feb 07 j 10:39	17° \mathbb{M} 08'15	3°49'05
desc. node	00 Mar 12 j 08:13	27° \mathbb{M} 18'06		minimum elong	01 Feb 07 j 11:14	17° \mathbb{M} 06'47	3°49'04
	00 Mar 18 j 20:23	0° \mathbb{K}		min. Earth dist.	01 Feb 10 j 10:51	14° \mathbb{M} 09'49	0.61726 AU
morning max el	00 Mar 24 j 19:43	4° \mathbb{K} 54'21	27°16'25	morning rise	01 Feb 13 j 22:07	11° \mathbb{M} 15'16	
	00 Apr 12 j 08:48	0° \mathbb{Y}		direct	01 Feb 20 j 20:29	8° \mathbb{M} 48'16	
morning set	00 Apr 24 j 18:49	23° \mathbb{Y} 25'23		desc. node	01 Feb 27 j 05:16	10° \mathbb{M} 37'02	
	00 Apr 27 j 21:21	0° \mathbb{B}		morning max el	01 Mar 06 j 22:42	16° \mathbb{M} 39'09	27°45'52
asc. node	00 Apr 29 j 16:05	3° \mathbb{B} 51'26			01 Mar 17 j 23:36	0° \mathbb{K}	
					01 Apr 04 j 23:21	0° \mathbb{Y}	
superior conj	00 May 01 j 22:41	8° \mathbb{B} 50'18	0°23'54	morning set	01 Apr 08 j 23:23	7° \mathbb{Y} 57'10	
minimum elong	00 May 01 j 21:38	8° \mathbb{B} 44'31	0°23'41	max. Earth dist.	01 Apr 14 j 21:44	20° \mathbb{Y} 28'17	1.32553 AU
max. Earth dist.	00 May 01 j 10:59	7° \mathbb{B} 46'06	1.32327 AU				
evening rise	00 May 08 j 21:10	23° \mathbb{B} 52'43		superior conj	01 Apr 16 j 09:10	23° \mathbb{Y} 40'43	0°-1'-45
	00 May 11 j 20:20	0° \mathbb{H}		minimum elong	01 Apr 16 j 09:15	23° \mathbb{Y} 41'10	0°01'44
	00 May 29 j 18:27	0° \mathbb{B}		behind sun begin	01 Apr 16 j 04:10	23° \mathbb{Y} 13'28	
evening max el	00 Jun 06 j 03:02	8° \mathbb{B} 21'25	25°59'20	behind sun end	01 Apr 16 j 14:20	24° \mathbb{Y} 08'52	
desc. node	00 Jun 08 j 07:31	10° \mathbb{B} 18'51		asc. node	01 Apr 16 j 13:09	24° \mathbb{Y} 02'22	
retrograde	00 Jun 20 j 04:12	15° \mathbb{B} 33'51			01 Apr 19 j 06:42	0° \mathbb{B}	
evening set	00 Jun 26 j 08:21	14° \mathbb{B} 01'33		evening rise	01 Apr 23 j 08:39	8° \mathbb{B} 47'25	
min. Earth dist.	00 Jun 30 j 15:43	11° \mathbb{B} 23'02	0.58901 AU		01 May 04 j 09:38	0° \mathbb{H}	
inferior conj	00 Jul 03 j 23:12	8° \mathbb{B} 55'16	-4°-45'-18	evening max el	01 May 18 j 19:24	19° \mathbb{H} 15'51	24°36'04
minimum elong	00 Jul 03 j 23:37	8° \mathbb{B} 54'30	4°45'18	desc. node	01 May 26 j 04:32	24° \mathbb{H} 40'39	
morning rise	00 Jul 11 j 18:29	4° \mathbb{B} 28'23		retrograde	01 Jun 01 j 17:51	26° \mathbb{H} 18'36	
direct	00 Jul 14 j 05:54	4° \mathbb{B} 07'53		evening set	01 Jun 06 j 15:33	25° \mathbb{H} 24'27	
morning max el	00 Jul 22 j 05:56	7° \mathbb{B} 56'42	18°32'54	min. Earth dist.	01 Jun 12 j 06:48	22° \mathbb{H} 31'04	0.56998 AU
asc. node	00 Jul 26 j 15:18	13° \mathbb{B} 07'20		inferior conj	01 Jun 15 j 02:36	20° \mathbb{H} 41'39	-4°-29'-8
	00 Aug 05 j 11:58	0° \mathbb{Q}		minimum elong	01 Jun 14 j 22:18	20° \mathbb{H} 48'39	4°28'36
morning set	00 Aug 07 j 09:47	3° \mathbb{Q} 39'59		morning rise	01 Jun 23 j 08:49	16° \mathbb{H} 35'34	
				direct	01 Jun 25 j 23:03	16° \mathbb{H} 16'53	
superior conj	00 Aug 16 j 08:36	20° \mathbb{Q} 47'34	1°42'13	morning max el	01 Jul 05 j 05:17	20° \mathbb{H} 35'17	19°23'46
minimum elong	00 Aug 16 j 10:48	20° \mathbb{Q} 57'52	1°42'06		01 Jul 12 j 14:57	0° \mathbb{B}	
	00 Aug 21 j 09:41	0° \mathbb{H}		asc. node	01 Jul 13 j 12:23	1° \mathbb{B} 26'21	
max. Earth dist.	00 Aug 23 j 15:37	3° \mathbb{H} 57'50	1.39913 AU	morning set	01 Jul 22 j 09:45	17° \mathbb{B} 58'53	
evening rise	00 Aug 27 j 22:43	11° \mathbb{H} 18'39			01 Jul 28 j 09:52	0° \mathbb{Q}	
desc. node	00 Sep 04 j 06:55	23° \mathbb{H} 12'35					
	00 Sep 08 j 16:50	0° \mathbb{A}		superior conj	01 Jul 30 j 13:41	4° \mathbb{Q} 15'26	1°47'08
	00 Oct 01 j 10:26	0° \mathbb{M}		minimum elong	01 Jul 30 j 13:51	4° \mathbb{Q} 16'11	1°47'08
evening max el	00 Oct 01 j 20:59	0° \mathbb{M} 26'34	23°47'55	max. Earth dist.	01 Aug 05 j 19:02	16° \mathbb{Q} 05'08	1.37904 AU
retrograde	00 Oct 12 j 15:46	6° \mathbb{M} 47'39		evening rise	01 Aug 09 j 15:02	22° \mathbb{Q} 59'58	
evening set	00 Oct 17 j 18:29	4° \mathbb{M} 40'45			01 Aug 13 j 16:22	0° \mathbb{H}	
	00 Oct 21 j 22:02	30° \mathbb{R}		desc. node	01 Aug 22 j 03:55	13° \mathbb{H} 40'10	
min. Earth dist.	00 Oct 22 j 16:00	28° \mathbb{A} 59'27	0.67584 AU		01 Sep 02 j 12:07	0° \mathbb{A}	
asc. node	00 Oct 22 j 14:30	29° \mathbb{A} 04'31		evening max el	01 Sep 14 j 08:47	14° \mathbb{A} 02'37	25°05'13
inferior conj	00 Oct 23 j 04:31	28° \mathbb{A} 16'49	0°12'06	retrograde	01 Sep 26 j 03:54	20° \mathbb{A} 52'36	
minimum elong	00 Oct 23 j 04:14	28° \mathbb{A} 17'49	0°11'58	evening set	01 Oct 01 j 21:25	18° \mathbb{A} 28'25	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 218

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

min. Earth dist.	01 Oct 06 j 10:22	13°♄22'11	0.67183 AU		02 Aug 30 j 10:19	0°♄	
inferior conj	01 Oct 07 j 09:32	12°♄06'12	0°-43'-4	retrograde	02 Sep 09 j 11:17	4°♄48'16	
minimum elong	01 Oct 07 j 10:37	12°♄02'41	0°42'38	evening set	02 Sep 15 j 19:12	2°♄10'21	
asc. node	01 Oct 09 j 11:34	9°♄27'22			02 Sep 18 j 00:38	30°♄	
morning rise	01 Oct 13 j 00:19	6°♄03'56		min. Earth dist.	02 Sep 20 j 00:10	27°♄41'06	0.66445 AU
direct	01 Oct 16 j 11:31	4°♄54'33		inferior conj	02 Sep 21 j 10:50	25°♄53'47	-1°-39'-20
morning max el	01 Oct 23 j 21:21	9°♄08'15	19°44'37	minimum elong	02 Sep 21 j 13:22	25°♄45'57	1°38'19
greatest brilliancy	01 Oct 31 j 20:41	19°♄05'40	-0.6m	asc. node	02 Sep 26 j 08:38	20°♄41'30	
	01 Nov 08 j 06:54	0°♄		morning rise	02 Sep 27 j 08:30	20°♄01'42	
morning set	01 Nov 18 j 05:22	15°♄12'53		direct	02 Sep 30 j 09:44	19°♄08'30	
desc. node	01 Nov 18 j 03:13	15°♄04'36		morning max el	02 Oct 07 j 05:58	22°♄57'29	18°51'44
	01 Nov 27 j 16:44	0°♄			02 Oct 12 j 23:09	0°♄	
max. Earth dist.	01 Nov 30 j 11:57	4°♄26'01	1.44228 AU	morning set	02 Oct 28 j 18:50	24°♄19'08	
					02 Nov 01 j 09:15	0°♄	
superior conj	01 Dec 04 j 23:23	11°♄36'06	-1°-36'-44	desc. node	02 Nov 05 j 00:14	5°♄42'21	
minimum elong	01 Dec 04 j 15:36	11°♄04'45	1°36'05	max. Earth dist.	02 Nov 13 j 04:52	18°♄34'55	1.44948 AU
	01 Dec 16 j 03:11	0°♄					
evening rise	01 Dec 18 j 16:27	4°♄18'42		superior conj	02 Nov 14 j 04:46	20°♄08'54	0°-57'-55
	02 Jan 03 j 19:26	0°♄		minimum elong	02 Nov 13 j 21:40	19°♄40'58	0°57'04
asc. node	02 Jan 05 j 10:52	1°♄56'01			02 Nov 20 j 10:22	0°♄	
evening max el	02 Jan 06 j 03:41	2°♄40'20	18°17'48	evening rise	02 Nov 29 j 17:21	14°♄52'55	
retrograde	02 Jan 12 j 15:30	6°♄10'48			02 Dec 09 j 02:30	0°♄	
evening set	02 Jan 15 j 12:35	5°♄26'39		evening max el	02 Dec 20 j 14:57	16°♄04'31	18°46'16
inferior conj	02 Jan 21 j 15:11	0°♄01'31	3°46'25	asc. node	02 Dec 23 j 07:54	18°♄24'59	
minimum elong	02 Jan 21 j 13:54	0°♄05'04	3°46'19	retrograde	02 Dec 27 j 08:35	19°♄51'33	
	02 Jan 21 j 15:43	30°♄		evening set	02 Dec 30 j 11:05	18°♄56'32	
min. Earth dist.	02 Jan 24 j 00:55	27°♄20'54	0.63622 AU	inferior conj	03 Jan 05 j 06:22	13°♄13'36	3°27'47
morning rise	02 Jan 27 j 13:37	23°♄58'17		minimum elong	03 Jan 05 j 03:59	13°♄20'54	3°27'22
direct	02 Feb 03 j 12:31	21°♄12'02		min. Earth dist.	03 Jan 07 j 00:48	11°♄04'12	0.65173 AU
desc. node	02 Feb 14 j 02:21	26°♄07'55		morning rise	03 Jan 10 j 19:46	7°♄03'49	
morning max el	02 Feb 17 j 06:30	29°♄02'59	27°38'25	direct	03 Jan 17 j 11:32	4°♄12'55	
	02 Feb 18 j 04:57	0°♄		morning max el	03 Jan 30 j 16:18	11°♄55'13	26°57'49
	02 Mar 11 j 20:06	0°♄		desc. node	03 Jan 31 j 23:25	13°♄15'19	
morning set	02 Mar 23 j 21:11	22°♄05'13			03 Feb 14 j 03:55	0°♄	
	02 Mar 27 j 18:27	0°♄			03 Mar 04 j 09:00	0°♄	
max. Earth dist.	02 Mar 29 j 02:32	2°♄47'48	1.33174 AU	morning set	03 Mar 07 j 09:04	5°♄39'46	
				max. Earth dist.	03 Mar 11 j 21:31	14°♄34'28	1.34226 AU
superior conj	02 Mar 31 j 16:37	8°♄17'44	0°-28'-29				
minimum elong	02 Mar 31 j 17:59	8°♄25'05	0°28'13	superior conj	03 Mar 15 j 19:00	22°♄35'09	0°-55'-14
asc. node	02 Apr 03 j 10:11	14°♄10'28		minimum elong	03 Mar 15 j 21:39	22°♄48'56	0°54'46
evening rise	02 Apr 07 j 20:23	23°♄38'27			03 Mar 19 j 07:33	0°♄	
	02 Apr 10 j 22:16	0°♄		asc. node	03 Mar 21 j 07:13	4°♄11'47	
evening max el	02 Apr 30 j 10:04	29°♄49'43	23°01'08	evening rise	03 Mar 23 j 06:31	8°♄19'38	
	02 Apr 30 j 14:22	0°♄			03 Apr 03 j 21:50	0°♄	
desc. node	02 May 13 j 01:33	6°♄27'36		evening max el	03 Apr 12 j 06:26	10°♄34'36	21°29'18
retrograde	02 May 13 j 19:07	6°♄28'49		retrograde	03 Apr 24 j 10:32	16°♄30'12	
evening set	02 May 17 j 06:23	6°♄02'25		evening set	03 Apr 26 j 21:09	16°♄16'38	
min. Earth dist.	02 May 24 j 19:22	2°♄40'46	0.55591 AU	desc. node	03 Apr 29 j 22:35	15°♄24'35	
inferior conj	02 May 26 j 10:31	1°♄43'59	-3°-29'-9	inferior conj	03 May 06 j 06:08	12°♄15'50	-1°-47'-14
minimum elong	02 May 26 j 03:16	1°♄54'32	3°27'19	minimum elong	03 May 06 j 01:11	12°♄22'47	1°45'33
	02 May 29 j 12:51	30°♄		min. Earth dist.	03 May 06 j 08:16	12°♄12'50	0.54992 AU
morning rise	02 Jun 04 j 03:12	27°♄50'16		morning rise	03 May 15 j 05:41	8°♄17'15	
direct	02 Jun 06 j 21:23	27°♄32'13		direct	03 May 18 j 08:20	7°♄56'07	
	02 Jun 14 j 12:00	0°♄		morning max el	03 May 30 j 19:59	13°♄50'49	22°04'54
morning max el	02 Jun 17 j 18:04	2°♄34'06	20°35'25		03 Jun 11 j 23:11	0°♄	
asc. node	02 Jun 30 j 09:27	20°♄22'32		asc. node	03 Jun 17 j 06:30	9°♄46'39	
	02 Jul 05 j 08:49	0°♄		morning set	03 Jun 21 j 01:23	17°♄27'40	
morning set	02 Jul 06 j 15:40	2°♄36'51			03 Jun 26 j 23:48	0°♄	
superior conj	02 Jul 14 j 06:51	18°♄20'32	1°43'46	superior conj	03 Jun 28 j 08:22	2°♄51'45	1°33'55
minimum elong	02 Jul 14 j 05:29	18°♄13'35	1°43'42	minimum elong	03 Jun 28 j 06:08	2°♄40'02	1°33'42
max. Earth dist.	02 Jul 19 j 02:01	27°♄54'44	1.36070 AU	max. Earth dist.	03 Jul 01 j 17:22	9°♄52'17	1.34570 AU
	02 Jul 20 j 03:55	0°♄		evening rise	03 Jul 06 j 10:12	19°♄14'34	
evening rise	02 Jul 23 j 04:28	5°♄42'46			03 Jul 12 j 04:46	0°♄	
	02 Aug 06 j 12:01	0°♄		desc. node	03 Jul 26 j 21:55	23°♄38'08	
desc. node	02 Aug 09 j 00:56	3°♄51'10			03 Jul 31 j 13:57	0°♄	
evening max el	02 Aug 27 j 20:18	27°♄38'58	26°12'06	evening max el	03 Aug 10 j 08:08	11°♄09'27	27°00'50

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 219

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

retrograde	03 Aug 23 j 13:30	18° $\mathring{\text{M}}$ 27'54			04 Jun 17 j 11:56	0° $\mathring{\text{E}}$	
evening set	03 Aug 30 j 09:32	15° $\mathring{\text{M}}$ 43'15		evening rise	04 Jun 19 j 03:42	3° $\mathring{\text{E}}$ 21'34	
min. Earth dist.	03 Sep 03 j 07:13	11° $\mathring{\text{M}}$ 51'24	0.65352 AU		04 Jul 03 j 23:40	0° $\mathring{\text{O}}$	
inferior conj	03 Sep 05 j 06:21	9° $\mathring{\text{M}}$ 36'18	-2°-34'-39	desc. node	04 Jul 12 j 18:56	12° $\mathring{\text{O}}$ 50'31	
minimum elong	03 Sep 05 j 10:13	9° $\mathring{\text{M}}$ 25'14	2°33'17	evening max el	04 Jul 22 j 19:18	24° $\mathring{\text{O}}$ 23'11	27°24'21
morning rise	03 Sep 11 j 12:23	3° $\mathring{\text{M}}$ 57'26			04 Jul 30 j 05:46	0° $\mathring{\text{M}}$	
asc. node	03 Sep 13 j 05:42	3° $\mathring{\text{M}}$ 22'16		retrograde	04 Aug 05 j 09:53	1° $\mathring{\text{M}}$ 42'50	
direct	03 Sep 14 j 06:06	3° $\mathring{\text{M}}$ 16'36			04 Aug 11 j 03:12	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$	
morning max el	03 Sep 20 j 19:25	6° $\mathring{\text{M}}$ 50'05	18°15'07	evening set	04 Aug 12 j 13:28	29° $\mathring{\text{O}}$ 01'57	
	03 Oct 06 j 14:04	0° $\mathring{\text{A}}$		min. Earth dist.	04 Aug 16 j 05:26	25° $\mathring{\text{O}}$ 44'57	0.63894 AU
morning set	03 Oct 09 j 12:30	4° $\mathring{\text{A}}$ 49'31		inferior conj	04 Aug 18 j 17:38	23° $\mathring{\text{O}}$ 08'29	-3°-26'-17
desc. node	03 Oct 22 j 21:14	26° $\mathring{\text{A}}$ 26'02		minimum elong	04 Aug 18 j 22:20	22° $\mathring{\text{O}}$ 56'14	3°24'57
				morning rise	04 Aug 25 j 09:15	17° $\mathring{\text{O}}$ 46'07	
superior conj	03 Oct 24 j 06:31	28° $\mathring{\text{A}}$ 37'59	0°-9'-7	direct	04 Aug 27 j 22:03	17° $\mathring{\text{O}}$ 14'07	
minimum elong	03 Oct 24 j 05:20	28° $\mathring{\text{A}}$ 33'18	0°08'59	asc. node	04 Aug 30 j 02:44	17° $\mathring{\text{O}}$ 38'26	
behind sun begin	03 Oct 23 j 20:02	27° $\mathring{\text{A}}$ 56'27		morning max el	04 Sep 03 j 11:04	20° $\mathring{\text{O}}$ 40'15	17°55'54
behind sun end	03 Oct 24 j 14:39	29° $\mathring{\text{A}}$ 10'07			04 Sep 10 j 11:40	0° $\mathring{\text{M}}$	
	03 Oct 25 j 03:16	0° $\mathring{\text{M}}$		morning set	04 Sep 20 j 09:03	16° $\mathring{\text{M}}$ 38'05	
max. Earth dist.	03 Oct 26 j 23:19	2° $\mathring{\text{M}}$ 53'47	1.44939 AU		04 Sep 28 j 05:26	0° $\mathring{\text{A}}$	
evening rise	03 Nov 09 j 18:47	24° $\mathring{\text{M}}$ 29'52					
	03 Nov 13 j 07:32	0° $\mathring{\text{A}}$		superior conj	04 Oct 03 j 01:47	8° $\mathring{\text{A}}$ 01'39	0°37'09
greatest brilliancy	03 Nov 25 j 11:31	18° $\mathring{\text{A}}$ 34'58	-0.7m	minimum elong	04 Oct 03 j 05:38	8° $\mathring{\text{A}}$ 17'26	0°36'39
evening max el	03 Dec 03 j 22:46	29° $\mathring{\text{A}}$ 31'33	19°31'35	max. Earth dist.	04 Oct 08 j 16:42	17° $\mathring{\text{A}}$ 06'32	1.44213 AU
	03 Dec 04 j 10:02	0° $\mathring{\text{E}}$		desc. node	04 Oct 08 j 18:16	17° $\mathring{\text{A}}$ 12'46	
asc. node	03 Dec 10 j 04:56	3° $\mathring{\text{E}}$ 38'16			04 Oct 16 j 21:35	0° $\mathring{\text{M}}$	
retrograde	03 Dec 11 j 05:11	3° $\mathring{\text{E}}$ 44'00		evening rise	04 Oct 19 j 04:05	3° $\mathring{\text{M}}$ 30'32	
evening set	03 Dec 14 j 14:45	2° $\mathring{\text{E}}$ 36'24			04 Nov 05 j 20:45	0° $\mathring{\text{A}}$	
	03 Dec 17 j 11:46	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		greatest brilliancy	04 Nov 09 j 23:50	5° $\mathring{\text{A}}$ 42'13	-0.5m
inferior conj	03 Dec 20 j 04:59	26° $\mathring{\text{A}}$ 38'29	2°57'31	evening max el	04 Nov 16 j 01:34	13° $\mathring{\text{A}}$ 00'04	20°31'31
minimum elong	03 Dec 20 j 02:12	26° $\mathring{\text{A}}$ 47'35	2°56'46	retrograde	04 Nov 24 j 02:46	17° $\mathring{\text{A}}$ 45'02	
min. Earth dist.	03 Dec 21 j 09:07	25° $\mathring{\text{A}}$ 06'51	0.66345 AU	asc. node	04 Nov 26 j 01:58	17° $\mathring{\text{A}}$ 23'03	
morning rise	03 Dec 25 j 12:53	20° $\mathring{\text{A}}$ 24'48		evening set	04 Nov 27 j 21:25	16° $\mathring{\text{A}}$ 22'46	
direct	03 Dec 31 j 16:40	17° $\mathring{\text{A}}$ 41'58		inferior conj	04 Dec 03 j 08:30	10° $\mathring{\text{A}}$ 12'57	2°18'35
morning max el	04 Jan 13 j 01:32	25° $\mathring{\text{A}}$ 02'06	25°51'37	minimum elong	04 Dec 03 j 05:53	10° $\mathring{\text{A}}$ 21'50	2°17'42
	04 Jan 17 j 14:08	0° $\mathring{\text{E}}$		min. Earth dist.	04 Dec 03 j 23:52	9° $\mathring{\text{A}}$ 20'51	0.67139 AU
desc. node	04 Jan 18 j 20:27	1° $\mathring{\text{E}}$ 30'42		morning rise	04 Dec 08 j 13:52	3° $\mathring{\text{A}}$ 57'36	
	04 Feb 07 j 15:20	0° $\mathring{\text{A}}$		direct	04 Dec 14 j 03:02	1° $\mathring{\text{A}}$ 31'50	
morning set	04 Feb 18 j 06:37	18° $\mathring{\text{A}}$ 26'40		morning max el	04 Dec 25 j 09:47	8° $\mathring{\text{A}}$ 15'28	24°29'33
max. Earth dist.	04 Feb 22 j 04:20	25° $\mathring{\text{A}}$ 47'04	1.35735 AU	desc. node	05 Jan 04 j 17:28	20° $\mathring{\text{A}}$ 34'34	
	04 Feb 24 j 08:28	0° $\mathring{\text{K}}$			05 Jan 11 j 11:31	0° $\mathring{\text{E}}$	
				morning set	05 Jan 30 j 08:18	0° $\mathring{\text{A}}$ 10'20	
superior conj	04 Feb 27 j 13:43	6° $\mathring{\text{K}}$ 24'25	-1°-20'-30		05 Jan 30 j 05:56	0° $\mathring{\text{A}}$	
minimum elong	04 Feb 27 j 17:20	6° $\mathring{\text{K}}$ 42'39	1°19'59	max. Earth dist.	05 Feb 03 j 01:42	6° $\mathring{\text{A}}$ 48'51	1.37646 AU
evening rise	04 Mar 06 j 13:00	22° $\mathring{\text{K}}$ 43'31					
asc. node	04 Mar 07 j 04:14	24° $\mathring{\text{K}}$ 01'04		superior conj	05 Feb 09 j 21:32	19° $\mathring{\text{A}}$ 36'55	-1°-42'-10
	04 Mar 10 j 04:13	0° $\mathring{\text{Y}}$		minimum elong	05 Feb 10 j 01:22	19° $\mathring{\text{A}}$ 55'24	1°41'47
evening max el	04 Mar 24 j 13:19	21° $\mathring{\text{Y}}$ 51'38	20°10'50		05 Feb 15 j 04:23	0° $\mathring{\text{K}}$	
retrograde	04 Apr 04 j 00:52	26° $\mathring{\text{Y}}$ 53'32		evening rise	05 Feb 18 j 13:32	6° $\mathring{\text{K}}$ 43'46	
evening set	04 Apr 06 j 03:30	26° $\mathring{\text{Y}}$ 42'11		asc. node	05 Feb 22 j 01:16	13° $\mathring{\text{K}}$ 33'22	
inferior conj	04 Apr 15 j 02:49	22° $\mathring{\text{Y}}$ 43'39	0°12'00		05 Mar 03 j 23:08	0° $\mathring{\text{Y}}$	
minimum elong	04 Apr 15 j 03:21	22° $\mathring{\text{Y}}$ 42'51	0°11'49	evening max el	05 Mar 07 j 07:19	3° $\mathring{\text{Y}}$ 46'43	19°10'42
transit middle	04 Apr 15 j 03:21	22° $\mathring{\text{Y}}$ 42'51	0°11'49	retrograde	05 Mar 16 j 03:12	8° $\mathring{\text{Y}}$ 01'40	
transit begin	04 Apr 15 j 00:40	22° $\mathring{\text{Y}}$ 46'51		evening set	05 Mar 18 j 08:08	7° $\mathring{\text{Y}}$ 46'55	
transit end	04 Apr 15 j 06:03	22° $\mathring{\text{Y}}$ 38'50		inferior conj	05 Mar 26 j 13:48	3° $\mathring{\text{Y}}$ 35'39	1°55'25
desc. node	04 Apr 15 j 19:37	22° $\mathring{\text{Y}}$ 18'35		minimum elong	05 Mar 26 j 17:50	3° $\mathring{\text{Y}}$ 28'47	1°54'11
min. Earth dist.	04 Apr 16 j 22:10	21° $\mathring{\text{Y}}$ 39'12	0.55356 AU	min. Earth dist.	05 Mar 29 j 13:19	1° $\mathring{\text{Y}}$ 34'59	0.56597 AU
morning rise	04 Apr 24 j 00:38	18° $\mathring{\text{Y}}$ 21'41			05 Apr 01 j 04:02	30° $\mathring{\text{R}}$ $\mathring{\text{K}}$	
direct	04 Apr 27 j 21:45	17° $\mathring{\text{Y}}$ 48'45		desc. node	05 Apr 02 j 16:38	29° $\mathring{\text{K}}$ 13'39	
morning max el	04 May 11 j 13:26	24° $\mathring{\text{Y}}$ 32'20	23°44'56	morning rise	05 Apr 03 j 23:30	28° $\mathring{\text{K}}$ 41'15	
	04 May 16 j 13:33	0° $\mathring{\text{B}}$		direct	05 Apr 08 j 22:48	27° $\mathring{\text{K}}$ 43'50	
asc. node	04 Jun 03 j 03:31	29° $\mathring{\text{B}}$ 30'30			05 Apr 16 j 16:06	0° $\mathring{\text{Y}}$	
	04 Jun 03 j 09:14	0° $\mathring{\text{H}}$		morning max el	05 Apr 23 j 03:56	5° $\mathring{\text{Y}}$ 01'23	25°22'57
morning set	04 Jun 04 j 12:59	2° $\mathring{\text{H}}$ 24'46			05 May 11 j 03:35	0° $\mathring{\text{B}}$	
				morning set	05 May 20 j 00:53	17° $\mathring{\text{B}}$ 22'56	
superior conj	04 Jun 11 j 15:21	17° $\mathring{\text{H}}$ 39'08	1°18'58	asc. node	05 May 21 j 00:33	19° $\mathring{\text{B}}$ 28'17	
minimum elong	04 Jun 11 j 12:52	17° $\mathring{\text{H}}$ 25'42	1°18'37		05 May 25 j 21:10	0° $\mathring{\text{H}}$	
max. Earth dist.	04 Jun 13 j 18:12	22° $\mathring{\text{H}}$ 11'14	1.33458 AU				

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 220

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

superior conj	05 May 27 j 01:37	2° Π 35'30	0°59'59	superior conj	06 May 11 j 13:19	17° \mathcal{B} 34'40	0°37'49
minimum elong	05 May 26 j 23:22	2° Π 23'12	0°59'35	minimum elong	06 May 11 j 11:43	17° \mathcal{B} 25'56	0°37'30
max. Earth dist.	05 May 28 j 02:33	4° Π 51'31	1.32732 AU	max. Earth dist.	06 May 11 j 14:55	17° \mathcal{B} 43'32	1.32367 AU
evening rise	05 Jun 03 j 05:29	17° Π 52'56			06 May 17 j 06:30	0° Π	
	05 Jun 09 j 09:15	0° \mathcal{E}		evening rise	06 May 18 j 12:45	2° Π 39'38	
	05 Jun 28 j 15:35	0° Ω			06 Jun 02 j 07:45	0° \mathcal{E}	
desc. node	05 Jun 29 j 15:58	1° Ω 13'37		desc. node	06 Jun 16 j 12:58	18° \mathcal{E} 27'12	
evening max el	05 Jul 05 j 03:26	7° Ω 06'30	27°16'57	evening max el	06 Jun 17 j 05:48	19° \mathcal{E} 08'02	26°36'30
retrograde	05 Jul 18 j 23:30	14° Ω 23'40		retrograde	06 Jul 01 j 05:27	26° \mathcal{E} 22'46	
evening set	05 Jul 26 j 03:11	11° Ω 59'27		evening set	06 Jul 07 j 22:15	24° \mathcal{E} 28'20	
min. Earth dist.	05 Jul 29 j 17:20	9° Ω 09'34	0.62106 AU	min. Earth dist.	06 Jul 11 j 19:07	21° \mathcal{E} 51'15	0.60088 AU
inferior conj	05 Aug 01 j 17:37	6° Ω 22'41	-4°-10'-1	inferior conj	06 Jul 15 j 02:54	19° \mathcal{E} 10'28	-4°-39'-6
minimum elong	05 Aug 01 j 22:08	6° Ω 12'14	4°09'10	minimum elong	06 Jul 15 j 05:27	19° \mathcal{E} 05'19	4°38'54
morning rise	05 Aug 08 j 19:42	1° Ω 20'14		morning rise	06 Jul 22 j 15:54	14° \mathcal{E} 30'39	
direct	05 Aug 11 j 06:15	0° Ω 54'10		direct	06 Jul 25 j 02:31	14° \mathcal{E} 08'31	
asc. node	05 Aug 16 j 23:47	3° Ω 21'23		morning max el	06 Aug 01 j 13:22	17° \mathcal{E} 45'41	18°13'16
morning max el	05 Aug 18 j 02:01	4° Ω 21'05	17°54'56	asc. node	06 Aug 03 j 20:51	20° \mathcal{E} 16'55	
morning set	05 Sep 03 j 02:25	29° Ω 26'15			06 Aug 10 j 08:42	0° Ω	
	05 Sep 03 j 09:53	0° \mathcal{M}		morning set	06 Aug 17 j 10:56	12° Ω 58'33	
					06 Aug 26 j 14:00	0° \mathcal{M}	
superior conj	05 Sep 14 j 00:07	18° \mathcal{M} 45'29	1°12'29	superior conj	06 Aug 27 j 00:06	0° \mathcal{M} 45'49	1°34'48
minimum elong	05 Sep 14 j 05:03	19° \mathcal{M} 06'40	1°11'56	minimum elong	06 Aug 27 j 03:33	1° \mathcal{M} 01'26	1°34'31
	05 Sep 20 j 16:49	0° \mathcal{A}		max. Earth dist.	06 Sep 03 j 14:37	14° \mathcal{M} 06'16	1.41059 AU
max. Earth dist.	05 Sep 21 j 06:30	0° \mathcal{A} 56'03	1.42861 AU	evening rise	06 Sep 08 j 15:11	22° \mathcal{M} 27'32	
desc. node	05 Sep 25 j 15:18	7° \mathcal{A} 58'53		desc. node	06 Sep 12 j 12:21	28° \mathcal{M} 41'15	
evening rise	05 Sep 28 j 13:19	12° \mathcal{A} 35'22			06 Sep 13 j 08:20	0° \mathcal{A}	
	05 Oct 10 j 00:00	0° \mathcal{M}			06 Oct 04 j 02:01	0° \mathcal{M}	
greatest brilliancy	05 Oct 25 j 01:57	20° \mathcal{M} 55'53	-0.4m	greatest brilliancy	06 Oct 07 j 04:34	3° \mathcal{M} 54'40	-0.2m
evening max el	05 Oct 29 j 22:35	26° \mathcal{M} 28'55	21°42'59	evening max el	06 Oct 12 j 14:22	9° \mathcal{M} 59'10	23°01'35
	05 Nov 02 j 23:54	0° \mathcal{A}		retrograde	06 Oct 22 j 17:49	16° \mathcal{M} 00'14	
retrograde	05 Nov 07 j 23:28	1° \mathcal{A} 51'19		evening set	06 Oct 27 j 12:30	14° \mathcal{M} 03'27	
evening set	05 Nov 12 j 05:13	0° \mathcal{A} 12'26		asc. node	06 Oct 30 j 20:04	10° \mathcal{M} 28'24	
	05 Nov 12 j 11:21	30° $\mathcal{R}\mathcal{M}$		inferior conj	06 Nov 01 j 21:57	7° \mathcal{M} 40'12	0°42'44
asc. node	05 Nov 12 j 23:01	29° \mathcal{M} 34'27		minimum elong	06 Nov 01 j 20:58	7° \mathcal{M} 43'37	0°42'19
inferior conj	05 Nov 17 j 14:46	23° \mathcal{M} 54'01	1°33'06	min. Earth dist.	06 Nov 01 j 15:17	8° \mathcal{M} 03'11	0.67675 AU
minimum elong	05 Nov 17 j 12:47	24° \mathcal{M} 00'52	1°32'20	morning rise	06 Nov 07 j 05:27	1° \mathcal{M} 28'02	
min. Earth dist.	05 Nov 17 j 18:41	23° \mathcal{M} 40'31	0.67575 AU		06 Nov 09 j 22:39	30° $\mathcal{R}\mathcal{A}$	
morning rise	05 Nov 22 j 20:07	17° \mathcal{M} 39'08		direct	06 Nov 11 j 12:26	29° \mathcal{A} 46'50	
direct	05 Nov 27 j 17:53	15° \mathcal{M} 35'10			06 Nov 13 j 03:37	0° \mathcal{M}	
morning max el	05 Dec 07 j 19:16	21° \mathcal{M} 33'34	23°01'41	morning max el	06 Nov 20 j 09:25	4° \mathcal{M} 59'28	21°36'55
greatest brilliancy	05 Dec 12 j 14:56	26° \mathcal{M} 57'03	-0.3m	greatest brilliancy	06 Nov 25 j 08:51	10° \mathcal{M} 39'33	-0.4m
	05 Dec 15 j 01:40	0° \mathcal{A}		desc. node	06 Dec 09 j 11:36	0° \mathcal{A} 15'40	
desc. node	05 Dec 22 j 14:31	10° \mathcal{A} 12'42			06 Dec 09 j 07:22	0° \mathcal{A}	
	06 Jan 04 j 19:03	0° \mathcal{E}		morning set	06 Dec 22 j 02:18	19° \mathcal{A} 36'24	
morning set	06 Jan 11 j 07:49	10° \mathcal{E} 34'32			06 Dec 28 j 12:29	0° \mathcal{E}	
max. Earth dist.	06 Jan 15 j 21:08	18° \mathcal{E} 17'03	1.39766 AU	max. Earth dist.	06 Dec 28 j 21:18	0° \mathcal{E} 36'26	1.41812 AU
	06 Jan 22 j 11:42	0° \approx					
superior conj	06 Jan 23 j 14:09	2° \approx 01'02	-1°-57'-16	superior conj	07 Jan 05 j 10:22	13° \mathcal{E} 24'31	-2°-1'-47
minimum elong	06 Jan 23 j 16:46	2° \approx 13'00	1°57'09	minimum elong	07 Jan 05 j 09:39	13° \mathcal{E} 21'24	2°01'48
evening rise	06 Feb 02 j 05:18	20° \approx 12'52			07 Jan 14 j 16:47	0° \approx	
	06 Feb 07 j 10:09	0° \mathcal{H}		evening rise	07 Jan 16 j 08:52	3° \approx 03'24	
asc. node	06 Feb 08 j 22:19	2° \mathcal{H} 42'18		asc. node	07 Jan 26 j 19:22	21° \approx 20'32	
evening max el	06 Feb 18 j 10:17	16° \mathcal{H} 14'56	18°30'31	evening max el	07 Feb 01 j 19:20	29° \approx 08'36	18°10'21
retrograde	06 Feb 26 j 00:26	19° \mathcal{H} 58'20			07 Feb 02 j 17:34	0° \mathcal{H}	
evening set	06 Feb 28 j 10:02	19° \mathcal{H} 37'11		retrograde	07 Feb 08 j 15:20	2° \mathcal{H} 36'18	
inferior conj	06 Mar 07 j 21:26	15° \mathcal{H} 06'01	3°05'07	evening set	07 Feb 11 j 05:22	2° \mathcal{H} 07'08	
minimum elong	06 Mar 08 j 01:21	14° \mathcal{H} 58'13	3°04'18		07 Feb 14 j 20:33	30° $\mathcal{R}\approx$	
min. Earth dist.	06 Mar 11 j 07:34	12° \mathcal{H} 24'15	0.58432 AU	inferior conj	07 Feb 18 j 01:22	27° \approx 14'33	3°41'00
morning rise	06 Mar 15 j 12:45	9° \mathcal{H} 41'53		minimum elong	07 Feb 18 j 03:16	27° \approx 10'11	3°40'50
desc. node	06 Mar 20 j 13:40	8° \mathcal{H} 11'40		min. Earth dist.	07 Feb 21 j 07:52	24° \approx 14'51	0.60525 AU
direct	06 Mar 21 j 13:07	8° \mathcal{H} 09'12		morning rise	07 Feb 24 j 22:06	21° \approx 29'26	
morning max el	06 Apr 04 j 21:31	15° \mathcal{H} 46'53	26°43'34	direct	07 Mar 03 j 15:22	19° \approx 19'48	
	06 Apr 16 j 10:40	0° \mathcal{Y}		desc. node	07 Mar 07 j 10:44	19° \approx 58'38	
	06 May 03 j 09:08	0° \mathcal{B}		morning max el	07 Mar 17 j 21:14	27° \approx 08'37	27°33'40
morning set	06 May 04 j 11:25	2° \mathcal{B} 16'34			07 Mar 20 j 14:43	0° \mathcal{H}	
asc. node	06 May 07 j 21:37	9° \mathcal{B} 35'04			07 Apr 10 j 00:23	0° \mathcal{Y}	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 221

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

morning set	07 Apr 18 j 18:45	16° Υ 58'23		minimum elong	08 Jan 31 j 21:50	9° \approx 54'55	3°50'14
asc. node	07 Apr 24 j 18:40	29° Υ 45'37		min. Earth dist.	08 Feb 03 j 16:38	7° \approx 00'47	0.62564 AU
	07 Apr 24 j 21:18	0° \mathcal{B}		morning rise	08 Feb 07 j 03:30	3° \approx 56'06	
max. Earth dist.	07 Apr 25 j 03:17	0° \mathcal{B} 32'43	1.32368 AU	direct	08 Feb 14 j 03:16	1° \approx 18'45	
				desc. node	08 Feb 22 j 07:48	4° \approx 18'21	
superior conj	07 Apr 26 j 00:42	2° \mathcal{B} 29'50	0°13'14	morning max el	08 Feb 28 j 02:37	9° \approx 11'28	27°47'05
minimum elong	07 Apr 26 j 00:06	2° \mathcal{B} 26'33	0°13'05		08 Mar 15 j 06:09	0° \mathcal{H}	
behind sun begin	07 Apr 25 j 21:15	2° \mathcal{B} 10'56			08 Apr 01 j 04:35	0° Υ	
behind sun end	07 Apr 26 j 02:57	2° \mathcal{B} 42'10		morning set	08 Apr 01 j 20:45	1° Υ 21'20	
evening rise	07 May 02 j 23:13	17° \mathcal{B} 33'03		max. Earth dist.	08 Apr 07 j 11:48	13° Υ 06'00	1.32758 AU
	07 May 09 j 03:22	0° Π					
	07 May 29 j 15:25	0° \mathcal{S}		superior conj	08 Apr 09 j 10:07	17° Υ 15'29	0°-13'00
evening max el	07 May 30 j 01:09	0° \mathcal{S} 23'34	25°26'18	minimum elong	08 Apr 09 j 10:44	17° Υ 18'49	0°12'53
desc. node	07 Jun 03 j 10:00	4° \mathcal{S} 01'49		behind sun begin	08 Apr 09 j 07:41	17° Υ 02'19	
retrograde	07 Jun 13 j 02:09	7° \mathcal{S} 33'56		behind sun end	08 Apr 09 j 13:47	17° Υ 35'20	
evening set	07 Jun 18 j 18:40	6° \mathcal{S} 18'03		asc. node	08 Apr 10 j 15:43	19° Υ 56'01	
min. Earth dist.	07 Jun 23 j 13:08	3° \mathcal{S} 35'15	0.58049 AU		08 Apr 15 j 07:23	0° \mathcal{B}	
inferior conj	07 Jun 26 j 17:52	1° \mathcal{S} 21'09	-4°-43'-12	evening rise	08 Apr 16 j 11:00	2° \mathcal{B} 26'48	
minimum elong	07 Jun 26 j 16:20	1° \mathcal{S} 23'50	4°43'09		08 May 01 j 13:45	0° Π	
	07 Jun 28 j 17:10	30° \mathcal{R} Π		evening max el	08 May 10 j 15:59	11° Π 05'43	23°56'17
morning rise	07 Jul 04 j 17:52	27° Π 04'05		desc. node	08 May 20 j 07:00	17° Π 21'33	
direct	07 Jul 07 j 06:16	26° Π 44'34		retrograde	08 May 24 j 10:59	18° Π 01'05	
	07 Jul 14 j 22:20	0° \mathcal{S}		evening set	08 May 28 j 17:23	17° Π 20'48	
morning max el	07 Jul 15 j 18:01	0° \mathcal{S} 44'06	18°51'59	min. Earth dist.	08 Jun 04 j 03:02	14° Π 16'34	0.56314 AU
asc. node	07 Jul 21 j 17:55	8° \mathcal{S} 09'07		inferior conj	08 Jun 06 j 12:35	12° Π 48'15	-4°-9'-27
morning set	07 Aug 01 j 06:12	27° \mathcal{S} 02'37		minimum elong	08 Jun 06 j 06:33	12° Π 57'34	4°08'22
	07 Aug 02 j 18:20	0° \mathcal{Q}		morning rise	08 Jun 14 j 23:23	8° Π 48'45	
				direct	08 Jun 17 j 14:49	8° Π 30'40	
superior conj	07 Aug 09 j 20:09	13° \mathcal{Q} 46'07	1°45'26	morning max el	08 Jun 27 j 13:04	13° Π 06'33	19°51'46
minimum elong	07 Aug 09 j 21:26	13° \mathcal{Q} 52'16	1°45'23	asc. node	08 Jul 07 j 14:58	26° Π 44'57	
max. Earth dist.	07 Aug 16 j 17:57	26° \mathcal{Q} 31'05	1.39049 AU		08 Jul 09 j 10:49	0° \mathcal{S}	
	07 Aug 18 j 17:16	0° \mathcal{H}		morning set	08 Jul 15 j 08:58	11° \mathcal{S} 29'59	
evening rise	07 Aug 20 j 17:27	3° \mathcal{H} 28'26					
desc. node	07 Aug 30 j 09:22	19° \mathcal{H} 15'22		superior conj	08 Jul 23 j 06:52	27° \mathcal{S} 31'01	1°46'35
	07 Sep 06 j 12:46	0° \mathcal{L}		minimum elong	08 Jul 23 j 06:18	27° \mathcal{S} 28'12	1°46'35
evening max el	07 Sep 25 j 02:51	23° \mathcal{L} 32'26	24°21'30		08 Jul 24 j 12:56	0° \mathcal{Q}	
	07 Oct 04 j 23:56	0° \mathcal{M}		max. Earth dist.	08 Jul 28 j 21:47	8° \mathcal{Q} 25'53	1.37093 AU
retrograde	07 Oct 06 j 08:39	0° \mathcal{M} 07'39		evening rise	08 Aug 01 j 19:21	15° \mathcal{Q} 37'28	
	07 Oct 07 j 16:19	30° \mathcal{R} \mathcal{L}			08 Aug 10 j 04:11	0° \mathcal{H}	
evening set	07 Oct 11 j 17:33	27° \mathcal{L} 53'04		desc. node	08 Aug 16 j 06:22	9° \mathcal{H} 36'27	
min. Earth dist.	07 Oct 16 j 11:15	22° \mathcal{L} 26'19	0.67452 AU		08 Aug 31 j 02:25	0° \mathcal{L}	
inferior conj	07 Oct 17 j 04:17	21° \mathcal{L} 29'04	0°-11'-5	evening max el	08 Sep 06 j 14:25	7° \mathcal{L} 09'15	25°35'27
minimum elong	07 Oct 17 j 04:33	21° \mathcal{L} 28'10	0°10'59	retrograde	08 Sep 18 j 18:54	14° \mathcal{L} 09'02	
transit middle	07 Oct 17 j 04:33	21° \mathcal{L} 28'10	0°10'59	evening set	08 Sep 24 j 18:32	11° \mathcal{L} 38'39	
transit begin	07 Oct 17 j 02:32	21° \mathcal{L} 34'57		min. Earth dist.	08 Sep 29 j 04:06	6° \mathcal{L} 47'39	0.66909 AU
transit end	07 Oct 17 j 06:34	21° \mathcal{L} 21'23		inferior conj	08 Sep 30 j 07:58	5° \mathcal{L} 18'11	-1°-6'-55
asc. node	07 Oct 17 j 17:07	20° \mathcal{L} 46'02		minimum elong	08 Sep 30 j 09:39	5° \mathcal{L} 12'46	1°06'13
morning rise	07 Oct 22 j 15:52	15° \mathcal{L} 22'14		asc. node	08 Oct 03 j 14:11	1° \mathcal{L} 24'40	
direct	07 Oct 26 j 09:39	14° \mathcal{L} 02'08			08 Oct 05 j 02:53	30° \mathcal{R} \mathcal{H}	
morning max el	07 Nov 03 j 06:38	18° \mathcal{L} 35'04	20°21'44	morning rise	08 Oct 06 j 01:27	29° \mathcal{H} 19'35	
greatest brilliancy	07 Nov 09 j 19:32	26° \mathcal{L} 25'18	-0.5m	direct	08 Oct 09 j 08:05	28° \mathcal{H} 17'30	
	07 Nov 12 j 10:16	0° \mathcal{M}			08 Oct 13 j 19:23	0° \mathcal{L}	
desc. node	07 Nov 26 j 08:40	20° \mathcal{M} 36'18		morning max el	08 Oct 16 j 11:21	2° \mathcal{L} 19'47	19°20'03
morning set	07 Dec 01 j 00:40	27° \mathcal{M} 46'54		greatest brilliancy	08 Oct 26 j 06:25	15° \mathcal{L} 04'28	-0.7m
	07 Dec 02 j 10:58	0° \mathcal{J}			08 Nov 05 j 01:37	0° \mathcal{M}	
max. Earth dist.	07 Dec 11 j 04:51	13° \mathcal{J} 48'53	1.43500 AU	morning set	08 Nov 09 j 02:06	6° \mathcal{M} 14'33	
				desc. node	08 Nov 12 j 05:41	11° \mathcal{M} 08'52	
superior conj	07 Dec 17 j 05:09	23° \mathcal{J} 36'40	-1°-51'-9	max. Earth dist.	08 Nov 22 j 19:05	27° \mathcal{M} 42'14	1.44622 AU
minimum elong	07 Dec 16 j 23:34	23° \mathcal{J} 13'37	1°50'50		08 Nov 24 j 05:54	0° \mathcal{J}	
	07 Dec 21 j 01:01	0° \mathcal{Z}					
evening rise	07 Dec 29 j 20:02	15° \mathcal{Z} 07'01		superior conj	08 Nov 25 j 21:44	2° \mathcal{J} 38'10	-1°-22'-11
	08 Jan 07 j 11:25	0° \approx		minimum elong	08 Nov 25 j 13:25	2° \mathcal{J} 05'04	1°21'20
asc. node	08 Jan 13 j 16:25	9° \approx 18'45		evening rise	08 Dec 10 j 10:21	26° \mathcal{J} 14'51	
evening max el	08 Jan 16 j 07:29	12° \approx 20'05	18°09'42		08 Dec 12 j 16:35	0° \mathcal{Z}	
retrograde	08 Jan 22 j 19:41	15° \approx 45'56		evening max el	08 Dec 29 j 19:51	25° \mathcal{Z} 41'19	18°27'49
evening set	08 Jan 25 j 14:03	15° \approx 07'37		asc. node	08 Dec 30 j 13:28	26° \mathcal{Z} 24'17	
inferior conj	08 Jan 31 j 22:07	9° \approx 54'11	3°50'14	retrograde	09 Jan 05 j 09:07	29° \mathcal{Z} 17'17	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 223

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

greatest brilliancy	10 Nov 19 j 05:18	13°♂30'16	-0.6m	evening max el	11 Nov 09 j 12:00	6°♂03'41	21°00'43
evening max el	10 Nov 26 j 11:45	22°♂35'26	19°55'20	retrograde	11 Nov 17 j 23:00	11°♂04'47	
retrograde	10 Dec 04 j 01:25	27°♂01'02		asc. node	11 Nov 21 j 04:34	10°♂05'45	
asc. node	10 Dec 04 j 07:32	27°♂00'40		evening set	11 Nov 21 j 22:02	9°♂35'45	
evening set	10 Dec 07 j 14:39	25°♂47'19		inferior conj	11 Nov 27 j 08:16	3°♂21'37	2°00'00
inferior conj	10 Dec 13 j 03:19	19°♂43'39	2°41'55	minimum elong	11 Nov 27 j 05:53	3°♂29'50	1°59'08
minimum elong	10 Dec 13 j 00:32	19°♂52'53	2°41'05	min. Earth dist.	11 Nov 27 j 18:37	2°♂46'07	0.67361 AU
min. Earth dist.	10 Dec 14 j 01:43	18°♂29'07	0.66730 AU		11 Nov 29 j 20:46	30°♂	
morning rise	10 Dec 18 j 09:49	13°♂28'58		morning rise	11 Dec 02 j 13:19	27°♂05'57	
direct	10 Dec 24 j 07:26	10°♂52'54		direct	11 Dec 07 j 19:50	24°♂49'10	
morning max el	11 Jan 05 j 06:00	17°♂58'58	25°18'03		11 Dec 17 j 07:49	0°♂	
desc. node	11 Jan 12 j 22:57	26°♂51'25		morning max el	11 Dec 18 j 14:33	1°♂14'59	23°52'18
	11 Jan 15 j 08:59	0°♂		desc. node	11 Dec 30 j 19:59	16°♂11'29	
	11 Feb 04 j 04:53	0°♂			12 Jan 09 j 09:00	0°♂	
morning set	11 Feb 10 j 10:58	10°♂54'05		morning set	12 Jan 23 j 02:20	22°♂06'30	
max. Earth dist.	11 Feb 14 j 05:12	17°♂48'52	1.36511 AU	max. Earth dist.	12 Jan 27 j 00:31	28°♂56'50	1.38533 AU
					12 Jan 27 j 14:43	0°♂	
superior conj	11 Feb 20 j 05:40	29°♂26'13	-1°-30'-18				
minimum elong	11 Feb 20 j 09:30	29°♂45'13	1°29'48	superior conj	12 Feb 03 j 07:37	12°♂19'50	-1°-49'-35
	11 Feb 20 j 12:28	0°♂		minimum elong	12 Feb 03 j 11:09	12°♂36'33	1°49'20
evening rise	11 Feb 28 j 11:24	16°♂04'05		evening rise	12 Feb 12 j 08:38	29°♂52'25	
asc. node	11 Mar 02 j 06:50	19°♂41'41			12 Feb 12 j 10:11	0°♂	
	11 Mar 07 j 17:21	0°♂		asc. node	12 Feb 17 j 03:53	9°♂05'14	
evening max el	11 Mar 17 j 20:29	14°♂10'29	19°42'47	evening max el	12 Feb 28 j 18:41	26°♂21'07	18°51'10
retrograde	11 Mar 27 j 14:37	18°♂51'28			12 Mar 05 j 14:03	0°♂	
evening set	11 Mar 29 j 17:21	18°♂39'14		retrograde	12 Mar 08 j 00:42	0°♂20'42	
inferior conj	11 Apr 07 j 09:35	14°♂36'19	0°59'24	evening set	12 Mar 10 j 07:24	0°♂03'38	
minimum elong	11 Apr 07 j 12:03	14°♂32'26	0°58'32		12 Mar 10 j 13:03	30°♂	
min. Earth dist.	11 Apr 09 j 18:48	13°♂06'56	0.55785 AU	inferior conj	12 Mar 18 j 05:08	25°♂44'42	2°29'21
desc. node	11 Apr 10 j 22:05	12°♂26'08		minimum elong	12 Mar 18 j 09:29	25°♂36'47	2°28'12
morning rise	11 Apr 16 j 03:22	10°♂00'50		min. Earth dist.	12 Mar 21 j 11:23	23°♂23'46	0.57321 AU
direct	11 Apr 20 j 10:50	9°♂19'24		morning rise	12 Mar 26 j 07:21	20°♂36'23	
morning max el	11 May 04 j 10:16	16°♂19'29	24°27'54	desc. node	12 Mar 27 j 19:09	20°♂02'46	
	11 May 15 j 10:11	0°♂		direct	12 Mar 31 j 17:52	19°♂24'42	
asc. node	11 May 29 j 06:05	25°♂18'09		morning max el	12 Apr 15 j 01:37	26°♂53'11	26°00'10
morning set	11 May 29 j 15:24	26°♂07'05			12 Apr 18 j 01:17	0°♂	
	11 May 31 j 11:15	0°♂			12 May 07 j 15:15	0°♂	
				morning set	12 May 13 j 02:56	11°♂04'09	
superior conj	11 Jun 05 j 16:42	11°♂19'27	1°11'22	asc. node	12 May 15 j 03:09	15°♂20'33	
minimum elong	11 Jun 05 j 14:15	11°♂06'10	1°10'59				
max. Earth dist.	11 Jun 07 j 08:14	14°♂52'59	1.33097 AU	superior conj	12 May 20 j 03:49	26°♂18'08	0°50'56
evening rise	11 Jun 13 j 00:53	26°♂49'26		minimum elong	12 May 20 j 01:48	26°♂07'05	0°50'33
	11 Jun 14 j 14:50	0°♂		max. Earth dist.	12 May 20 j 18:32	27°♂38'43	1.32530 AU
	11 Jul 01 j 23:39	0°♂			12 May 21 j 20:23	0°♂	
desc. node	11 Jul 07 j 21:23	8°♂05'58		evening rise	12 May 27 j 05:19	11°♂28'29	
evening max el	11 Jul 16 j 00:04	17°♂11'52	27°25'08		12 Jun 05 j 20:01	0°♂	
retrograde	11 Jul 29 j 17:17	24°♂31'20		desc. node	12 Jun 23 j 18:25	26°♂02'35	
evening set	11 Aug 05 j 22:09	21°♂55'26		evening max el	12 Jun 27 j 05:56	29°♂38'11	27°03'44
min. Earth dist.	11 Aug 09 j 12:29	18°♂51'35	0.63168 AU		12 Jun 27 j 15:12	0°♂	
inferior conj	11 Aug 12 j 06:15	16°♂08'42	-3°-46'-10	retrograde	12 Jul 11 j 04:09	6°♂55'04	
minimum elong	11 Aug 12 j 11:03	15°♂56'48	3°44'59	evening set	12 Jul 18 j 04:31	4°♂42'02	
morning rise	11 Aug 19 j 02:17	10°♂54'47		min. Earth dist.	12 Jul 21 j 20:05	1°♂59'31	0.61260 AU
direct	11 Aug 21 j 13:46	10°♂25'42			12 Jul 24 j 03:02	30°♂	
asc. node	11 Aug 25 j 05:18	11°♂29'41		inferior conj	12 Jul 25 j 00:25	29°♂12'43	-4°-24'-45
morning max el	11 Aug 28 j 04:47	13°♂51'02	17°53'16	minimum elong	12 Jul 25 j 04:21	29°♂04'05	4°24'10
	11 Sep 08 j 07:18	0°♂		morning rise	12 Aug 01 j 07:08	24°♂19'42	
morning set	11 Sep 13 j 15:06	9°♂18'25		direct	12 Aug 03 j 17:16	23°♂55'40	
				morning max el	12 Aug 10 j 18:36	27°♂26'03	18°00'18
superior conj	11 Sep 25 j 12:22	29°♂45'41	0°53'43	asc. node	12 Aug 11 j 02:22	27°♂45'17	
minimum elong	11 Sep 25 j 17:08	0°♂05'34	0°53'07		12 Aug 13 j 02:16	0°♂	
	11 Sep 25 j 15:48	0°♂		morning set	12 Aug 26 j 15:31	22°♂26'48	
max. Earth dist.	11 Oct 02 j 00:14	10°♂23'58	1.43700 AU		12 Aug 30 j 18:11	0°♂	
desc. node	11 Oct 03 j 20:43	13°♂22'09					
evening rise	11 Oct 11 j 01:09	24°♂38'49		superior conj	12 Sep 05 j 22:08	11°♂03'26	1°23'30
	11 Oct 14 j 12:45	0°♂		minimum elong	12 Sep 06 j 02:38	11°♂23'09	1°23'03
greatest brilliancy	11 Nov 04 j 01:23	29°♂40'36	-0.5m	max. Earth dist.	12 Sep 13 j 11:06	23°♂55'55	1.42129 AU
	11 Nov 04 j 07:26	0°♂			12 Sep 17 j 04:01	0°♂	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 224

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

evening rise	12 Sep 19 j 15:46	3°♄59'21		desc. node	13 Sep 06 j 14:46	24°♄46'38	
desc. node	12 Sep 19 j 17:46	4°♄07'17			13 Sep 09 j 23:39	0°♄	
	12 Oct 06 j 22:03	0°♄			13 Oct 01 j 23:21	0°♄	
greatest brilliancy	12 Oct 17 j 13:21	14°♄14'19	-0.3m	evening max el	13 Oct 04 j 20:54	3°♄05'07	23°36'00
evening max el	12 Oct 22 j 06:41	19°♄33'22	22°15'59	retrograde	13 Oct 15 j 11:40	9°♄21'01	
retrograde	12 Oct 31 j 18:53	25°♄12'39		evening set	13 Oct 20 j 12:18	7°♄16'41	
evening set	12 Nov 05 j 05:49	23°♄26'31		asc. node	13 Oct 24 j 22:40	2°♄12'53	
asc. node	12 Nov 07 j 01:37	21°♄41'18		inferior conj	13 Oct 25 j 22:09	0°♄52'55	0°20'14
inferior conj	12 Nov 10 j 15:10	17°♄05'40	1°12'17	minimum elong	13 Oct 25 j 21:40	0°♄54'34	0°20'02
minimum elong	12 Nov 10 j 13:34	17°♄11'12	1°11'38	min. Earth dist.	13 Oct 25 j 11:09	1°♄30'30	0.67618 AU
min. Earth dist.	12 Nov 10 j 14:35	17°♄07'40	0.67650 AU		13 Oct 26 j 13:42	30°♄	
morning rise	12 Nov 15 j 21:08	10°♄51'25		morning rise	13 Oct 31 j 07:09	24°♄42'43	
direct	12 Nov 20 j 12:31	8°♄56'57		direct	13 Nov 04 j 08:24	23°♄10'35	
morning max el	12 Nov 30 j 01:28	14°♄35'50	22°24'49	morning max el	13 Nov 12 j 18:15	28°♄04'56	21°03'31
greatest brilliancy	12 Dec 04 j 16:24	19°♄46'57	-0.3m		13 Nov 14 j 13:22	0°♄	
	12 Dec 12 j 11:08	0°♄		greatest brilliancy	13 Nov 18 j 06:24	4°♄28'18	-0.5m
desc. node	12 Dec 16 j 17:02	6°♄01'38		desc. node	13 Dec 03 j 14:04	26°♄12'43	
	13 Jan 01 j 08:58	0°♄			13 Dec 06 j 02:15	0°♄	
morning set	13 Jan 02 j 13:29	1°♄55'29		morning set	13 Dec 12 j 21:12	10°♄28'12	
max. Earth dist.	13 Jan 07 j 20:56	10°♄44'00	1.40660 AU	max. Earth dist.	13 Dec 21 j 00:25	23°♄27'48	1.42591 AU
					13 Dec 24 j 23:28	0°♄	
superior conj	13 Jan 15 j 16:20	24°♄20'47	-2°00'44				
minimum elong	13 Jan 15 j 17:48	24°♄27'24	2°00'44	superior conj	13 Dec 28 j 02:13	5°♄15'00	-1°-59'-24
	13 Jan 18 j 19:04	0°♄		minimum elong	13 Dec 27 j 23:30	5°♄03'26	1°59'20
evening rise	13 Jan 25 j 19:43	13°♄06'34		evening rise	14 Jan 08 j 16:46	25°♄37'55	
asc. node	13 Feb 03 j 00:57	28°♄02'38			14 Jan 11 j 03:12	0°♄	
	13 Feb 04 j 05:23	0°♄		asc. node	14 Jan 20 j 21:59	16°♄25'09	
evening max el	13 Feb 11 j 00:45	9°♄02'17	18°19'31	evening max el	14 Jan 25 j 11:29	22°♄04'37	18°07'43
retrograde	13 Feb 18 j 05:36	12°♄36'41		retrograde	14 Feb 01 j 02:47	25°♄29'43	
evening set	13 Feb 20 j 17:15	12°♄12'12		evening set	14 Feb 03 j 18:46	24°♄56'37	
inferior conj	13 Feb 27 j 21:43	7°♄32'13	3°24'01	inferior conj	14 Feb 10 j 09:16	19°♄54'47	3°47'41
minimum elong	13 Feb 28 j 00:54	7°♄25'30	3°23'31	minimum elong	14 Feb 10 j 10:11	19°♄52'31	3°47'39
min. Earth dist.	13 Mar 03 j 07:53	4°♄39'39	0.59320 AU	min. Earth dist.	14 Feb 13 j 11:14	16°♄55'24	0.61420 AU
morning rise	13 Mar 07 j 04:56	1°♄58'16		morning rise	14 Feb 16 j 23:02	14°♄03'39	
direct	13 Mar 13 j 14:00	0°♄09'05		direct	14 Feb 23 j 20:23	11°♄40'54	
desc. node	13 Mar 14 j 16:13	0°♄12'14		desc. node	14 Mar 01 j 13:15	13°♄08'11	
morning max el	13 Mar 27 j 21:27	7°♄52'12	27°08'56	morning max el	14 Mar 09 j 23:38	19°♄31'12	27°43'58
	13 Apr 13 j 14:45	0°♄			14 Mar 18 j 22:10	0°♄	
morning set	13 Apr 27 j 12:19	25°♄53'28			14 Apr 06 j 10:23	0°♄	
	13 Apr 29 j 11:05	0°♄		morning set	14 Apr 11 j 17:41	10°♄28'32	
asc. node	13 May 02 j 00:13	5°♄29'33		max. Earth dist.	14 Apr 17 j 18:41	23°♄16'11	1.32492 AU
				asc. node	14 Apr 18 j 21:17	25°♄40'53	
superior conj	13 May 04 j 15:36	11°♄16'29	0°27'39				
minimum elong	13 May 04 j 14:24	11°♄09'53	0°27'23	superior conj	14 Apr 19 j 02:23	26°♄08'44	0°02'16
max. Earth dist.	13 May 04 j 07:18	10°♄30'54	1.32329 AU	minimum elong	14 Apr 19 j 02:16	26°♄08'08	0°02'14
evening rise	13 May 11 j 14:13	26°♄19'12		behind sun begin	14 Apr 18 j 21:14	25°♄40'36	
	13 May 13 j 08:40	0°♄		behind sun end	14 Apr 19 j 07:19	26°♄35'41	
	13 May 30 j 15:26	0°♄			14 Apr 20 j 20:42	0°♄	
evening max el	13 Jun 09 j 05:31	11°♄20'31	26°09'50	evening rise	14 Apr 26 j 01:30	11°♄14'17	
desc. node	13 Jun 10 j 15:27	12°♄38'12			14 May 05 j 16:14	0°♄	
retrograde	13 Jun 23 j 06:19	18°♄33'20		evening max el	14 May 21 j 22:34	22°♄20'26	24°49'34
evening set	13 Jun 29 j 14:12	16°♄55'13		desc. node	14 May 28 j 12:28	27°♄21'01	
min. Earth dist.	13 Jul 03 j 18:22	14°♄17'39	0.59207 AU	retrograde	14 Jun 04 j 21:51	29°♄25'31	
inferior conj	13 Jul 07 j 02:17	11°♄45'58	-4°-44'-41	evening set	14 Jun 10 j 00:47	28°♄25'54	
minimum elong	13 Jul 07 j 03:19	11°♄43'59	4°44'39	min. Earth dist.	14 Jun 15 j 10:01	25°♄35'49	0.57259 AU
morning rise	13 Jul 14 j 19:55	7°♄15'40		inferior conj	14 Jun 18 j 08:45	23°♄39'26	-4°-34'-13
direct	13 Jul 17 j 07:07	6°♄54'44		minimum elong	14 Jun 18 j 05:10	23°♄45'24	4°33'52
morning max el	13 Jul 25 j 03:22	10°♄40'09	18°27'08	morning rise	14 Jun 26 j 13:23	19°♄30'49	
asc. node	13 Jul 28 j 23:26	15°♄06'29		direct	14 Jun 29 j 03:10	19°♄11'55	
	13 Aug 06 j 22:23	0°♄		morning max el	14 Jul 08 j 04:12	23°♄24'48	19°14'49
morning set	13 Aug 10 j 05:04	6°♄13'49			14 Jul 13 j 16:19	0°♄	
				asc. node	14 Jul 15 j 20:29	3°♄19'15	
superior conj	13 Aug 19 j 07:17	23°♄30'40	1°40'37	morning set	14 Jul 25 j 03:55	20°♄29'43	
minimum elong	13 Aug 19 j 09:49	23°♄42'25	1°40'27		14 Jul 29 j 22:20	0°♄	
	13 Aug 22 j 20:41	0°♄					
max. Earth dist.	13 Aug 26 j 16:58	6°♄46'53	1.40214 AU	superior conj	14 Aug 02 j 10:14	6°♄52'29	1°46'57
evening rise	13 Aug 31 j 03:39	14°♄19'39		minimum elong	14 Aug 02 j 10:40	6°♄54'37	1°46'57

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 225

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

max. Earth dist.	14 Aug 08 j 20:19	18°♄59'03	1.38200 AU		15 Jul 21 j 16:04	0°♄	
evening rise	14 Aug 12 j 16:27	25°♄51'09		max. Earth dist.	15 Jul 22 j 02:13	0°♄49'05	1.36327 AU
	14 Aug 15 j 02:01	0°♄		evening rise	15 Jul 26 j 03:05	8°♄25'58	
desc. node	14 Aug 24 j 11:47	15°♄16'24			15 Aug 07 j 18:45	0°♄	
	14 Sep 03 j 13:53	0°♄		desc. node	15 Aug 11 j 08:48	5°♄30'33	
evening max el	14 Sep 17 j 08:45	16°♄40'24	24°54'07		15 Aug 30 j 13:12	0°♄	
retrograde	14 Sep 29 j 00:29	23°♄26'51		evening max el	15 Aug 30 j 20:12	0°♄17'06	26°03'03
evening set	14 Oct 04 j 15:49	21°♄04'59		retrograde	15 Sep 12 j 08:43	7°♄24'31	
min. Earth dist.	14 Oct 09 j 05:57	15°♄53'28	0.67266 AU	evening set	15 Sep 18 j 14:31	4°♄48'18	
inferior conj	14 Oct 10 j 03:33	14°♄42'09	0°-34'-37	min. Earth dist.	15 Sep 22 j 20:38	0°♄13'22	0.66578 AU
minimum elong	14 Oct 10 j 04:24	14°♄39'19	0°34'16		15 Sep 23 j 00:56	30°♄	
asc. node	14 Oct 11 j 19:42	12°♄32'24		inferior conj	15 Sep 24 j 05:31	28°♄30'30	-1°-30'-48
morning rise	14 Oct 15 j 17:27	8°♄38'42		minimum elong	15 Sep 24 j 07:50	28°♄23'16	1°29'52
direct	14 Oct 19 j 06:16	7°♄26'43		asc. node	15 Sep 28 j 16:44	23°♄36'12	
morning max el	14 Oct 26 j 18:46	11°♄44'58	19°53'44	morning rise	15 Sep 30 j 02:04	22°♄36'39	
greatest brilliancy	14 Nov 03 j 07:40	21°♄03'09	-0.6m	direct	15 Oct 03 j 04:35	21°♄41'19	
	14 Nov 09 j 12:13	0°♄		morning max el	15 Oct 10 j 02:29	25°♄33'35	18°58'30
desc. node	14 Nov 20 j 11:04	16°♄38'59			15 Oct 13 j 21:44	0°♄	
morning set	14 Nov 21 j 17:37	18°♄36'50		morning set	15 Nov 01 j 03:28	27°♄31'57	
	14 Nov 29 j 01:00	0°♄			15 Nov 02 j 17:08	0°♄	
max. Earth dist.	14 Dec 03 j 11:29	7°♄01'12	1.44058 AU	desc. node	15 Nov 07 j 08:06	7°♄15'42	
				max. Earth dist.	15 Nov 16 j 03:40	21°♄06'20	1.44884 AU
superior conj	14 Dec 08 j 09:18	14°♄54'47	-1°-41'-8				
minimum elong	14 Dec 08 j 01:58	14°♄25'04	1°40'33	superior conj	15 Nov 17 j 17:07	23°♄33'54	-1°-4'-41
	14 Dec 17 j 12:10	0°♄		minimum elong	15 Nov 17 j 09:29	23°♄03'47	1°03'49
evening rise	14 Dec 21 j 19:31	7°♄18'37			15 Nov 21 j 18:44	0°♄	
	15 Jan 04 j 15:51	0°♄		evening rise	15 Dec 02 j 23:58	18°♄01'47	
asc. node	15 Jan 07 j 19:01	4°♄02'26			15 Dec 10 j 08:38	0°♄	
evening max el	15 Jan 08 j 23:57	5°♄20'31	18°15'09	evening max el	15 Dec 23 j 11:33	18°♄44'12	18°40'59
retrograde	15 Jan 15 j 11:38	8°♄49'36		asc. node	15 Dec 25 j 16:02	20°♄41'35	
evening set	15 Jan 18 j 07:58	8°♄07'01		retrograde	15 Dec 30 j 03:53	22°♄28'10	
inferior conj	15 Jan 24 j 11:53	2°♄44'49	3°47'59	evening set	16 Jan 02 j 05:28	21°♄34'55	
minimum elong	15 Jan 24 j 10:51	2°♄47'40	3°47'55	inferior conj	16 Jan 08 j 01:41	15°♄54'38	3°31'26
min. Earth dist.	15 Jan 26 j 23:56	0°♄00'21	0.63351 AU	minimum elong	16 Jan 07 j 23:25	16°♄01'28	3°31'04
	15 Jan 27 j 00:04	30°♄		min. Earth dist.	16 Jan 09 j 22:26	13°♄39'50	0.64964 AU
morning rise	15 Jan 30 j 11:58	26°♄42'41		morning rise	16 Jan 13 j 16:11	9°♄45'38	
direct	15 Feb 06 j 11:16	23°♄58'18		direct	16 Jan 20 j 09:27	6°♄54'21	
desc. node	15 Feb 16 j 10:17	28°♄21'35		morning max el	16 Feb 02 j 16:34	14°♄39'00	27°05'42
	15 Feb 18 j 08:31	0°♄		desc. node	16 Feb 03 j 07:19	15°♄16'26	
morning max el	15 Feb 20 j 06:58	1°♄50'15	27°41'52		16 Feb 15 j 05:58	0°♄	
	15 Mar 13 j 03:15	0°♄			16 Mar 04 j 19:32	0°♄	
morning set	15 Mar 26 j 16:39	24°♄41'02		morning set	16 Mar 09 j 06:13	8°♄21'18	
	15 Mar 29 j 07:30	0°♄		max. Earth dist.	16 Mar 13 j 21:05	17°♄31'19	1.34038 AU
max. Earth dist.	15 Apr 01 j 00:37	5°♄40'10	1.33049 AU				
				superior conj	16 Mar 17 j 13:38	25°♄09'08	0°-51'-14
superior conj	15 Apr 03 j 10:22	10°♄48'19	0°-24'-24	minimum elong	16 Mar 17 j 16:05	25°♄22'01	0°50'46
minimum elong	15 Apr 03 j 11:33	10°♄54'36	0°24'09		16 Mar 19 j 20:48	0°♄	
asc. node	15 Apr 05 j 18:19	15°♄49'57		asc. node	16 Mar 22 j 15:21	5°♄52'45	
evening rise	15 Apr 10 j 13:17	26°♄06'23		evening rise	16 Mar 24 j 23:45	10°♄49'20	
	15 Apr 12 j 10:05	0°♄			16 Apr 04 j 01:02	0°♄	
	15 Apr 30 j 18:11	0°♄		evening max el	16 Apr 14 j 08:06	13°♄37'06	21°42'22
evening max el	15 May 03 j 12:59	2°♄55'30	23°15'27	retrograde	16 Apr 26 j 17:32	19°♄39'58	
desc. node	15 May 15 j 09:30	9°♄33'34		evening set	16 Apr 29 j 06:41	19°♄25'22	
retrograde	15 May 17 j 01:12	9°♄39'47		desc. node	16 May 01 j 06:31	18°♄54'54	
evening set	15 May 20 j 17:11	9°♄10'16		inferior conj	16 May 08 j 15:58	15°♄22'57	-2°-4'-38
min. Earth dist.	15 May 27 j 22:49	5°♄53'30	0.55754 AU	minimum elong	16 May 08 j 10:20	15°♄30'51	2°02'46
inferior conj	15 May 29 j 19:19	4°♄48'09	-3°-41'-17	min. Earth dist.	16 May 08 j 11:43	15°♄28'55	0.55023 AU
minimum elong	15 May 29 j 12:13	4°♄58'37	3°39'38	morning rise	16 May 17 j 14:51	11°♄26'06	
morning rise	15 Jun 07 j 10:33	0°♄53'31		direct	16 May 20 j 15:46	11°♄05'46	
direct	15 Jun 10 j 03:50	0°♄35'36		morning max el	16 Jun 01 j 22:04	16°♄52'43	21°50'39
morning max el	15 Jun 20 j 18:41	5°♄30'21	20°23'28		16 Jun 12 j 04:10	0°♄	
asc. node	15 Jul 02 j 17:32	22°♄10'30		asc. node	16 Jun 18 j 14:35	11°♄30'46	
	15 Jul 06 j 20:24	0°♄		morning set	16 Jun 22 j 18:21	19°♄54'23	
morning set	15 Jul 09 j 09:06	5°♄05'23			16 Jun 27 j 13:24	0°♄	
superior conj	15 Jul 17 j 01:52	20°♄53'08	1°44'43	superior conj	16 Jun 30 j 02:19	5°♄20'50	1°35'46
minimum elong	15 Jul 17 j 00:42	20°♄47'12	1°44'41	minimum elong	16 Jun 30 j 00:11	5°♄09'38	1°35'35

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 226

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

max. Earth dist.	16 Jul 03 j 16:04	12° \mathfrak{G} 43'41	1.34771 AU	superior conj	17 Jun 14 j 08:39	20° \mathbb{H} 06'29	1°21'32
evening rise	16 Jul 08 j 06:40	21° \mathfrak{G} 51'17		minimum elong	17 Jun 14 j 06:10	19° \mathbb{H} 53'07	1°21'11
	16 Jul 12 j 15:11	0° \mathcal{Q}		max. Earth dist.	17 Jun 16 j 15:43	25° \mathbb{H} 00'07	1.33599 AU
desc. node	16 Jul 28 j 05:50	25° \mathcal{Q} 21'50			17 Jun 19 j 01:02	0° \mathfrak{G}	
	16 Jul 31 j 13:35	0° \mathfrak{M}		evening rise	17 Jun 21 j 22:41	5° \mathfrak{G} 54'04	
evening max el	16 Aug 12 j 08:06	13° \mathfrak{M} 49'34	26°55'03		17 Jul 05 j 06:01	0° \mathcal{Q}	
retrograde	16 Aug 25 j 11:45	21° \mathfrak{M} 07'08		desc. node	17 Jul 15 j 02:51	14° \mathcal{Q} 40'35	
evening set	16 Sep 01 j 06:08	18° \mathfrak{M} 23'07		evening max el	17 Jul 25 j 19:39	27° \mathcal{Q} 07'27	27°22'44
min. Earth dist.	16 Sep 05 j 04:54	14° \mathfrak{M} 25'37	0.65537 AU		17 Jul 29 j 02:40	0° \mathfrak{M}	
inferior conj	16 Sep 07 j 02:04	12° \mathfrak{M} 14'28	-2°-26'-25	retrograde	17 Aug 08 j 08:59	4° \mathfrak{M} 26'49	
minimum elong	16 Sep 07 j 05:44	12° \mathfrak{M} 03'47	2°25'06	evening set	17 Aug 15 j 11:52	1° \mathfrak{M} 44'42	
morning rise	16 Sep 13 j 06:45	6° \mathfrak{M} 33'17			17 Aug 17 j 13:08	30° \mathcal{R} \mathcal{Q}	
asc. node	16 Sep 14 j 13:47	6° \mathfrak{M} 03'01		min. Earth dist.	17 Aug 19 j 04:34	28° \mathcal{Q} 22'51	0.64133 AU
direct	16 Sep 16 j 01:26	5° \mathfrak{M} 50'49		inferior conj	17 Aug 21 j 14:47	25° \mathcal{Q} 49'10	-3°-18'-53
morning max el	16 Sep 22 j 15:21	9° \mathfrak{M} 26'07	18°19'28	minimum elong	17 Aug 21 j 19:25	25° \mathcal{Q} 36'55	3°17'30
	16 Oct 06 j 21:39	0° \mathfrak{A}		morning rise	17 Aug 28 j 04:54	20° \mathcal{Q} 24'03	
morning set	16 Oct 11 j 16:55	7° \mathfrak{A} 50'20		direct	17 Aug 30 j 18:20	19° \mathcal{Q} 50'51	
desc. node	16 Oct 24 j 05:07	27° \mathfrak{A} 58'56		asc. node	17 Sep 01 j 10:50	20° \mathcal{Q} 05'27	
	16 Oct 25 j 11:40	0° \mathfrak{M}		morning max el	17 Sep 06 j 06:52	23° \mathcal{Q} 17'29	17°57'40
					17 Sep 11 j 14:21	0° \mathfrak{M}	
superior conj	16 Oct 26 j 18:02	1° \mathfrak{M} 59'59	0°-16'-38	morning set	17 Sep 23 j 09:55	19° \mathfrak{M} 29'10	
minimum elong	16 Oct 26 j 15:51	1° \mathfrak{M} 51'23	0°16'21		17 Sep 29 j 14:42	0° \mathfrak{A}	
max. Earth dist.	16 Oct 28 j 22:06	5° \mathfrak{M} 25'12	1.44990 AU				
evening rise	16 Nov 12 j 04:43	27° \mathfrak{M} 46'53		superior conj	17 Oct 06 j 09:48	11° \mathfrak{A} 13'27	0°30'43
	16 Nov 13 j 14:44	0° \mathfrak{A}		minimum elong	17 Oct 06 j 13:08	11° \mathfrak{A} 27'02	0°30'16
greatest brilliancy	16 Nov 26 j 19:42	20° \mathfrak{A} 23'04	-0.7m	desc. node	17 Oct 11 j 02:10	18° \mathfrak{A} 45'47	
	16 Dec 03 j 20:55	0° \mathfrak{G}		max. Earth dist.	17 Oct 11 j 16:15	19° \mathfrak{A} 41'53	1.44369 AU
evening max el	16 Dec 05 j 20:02	2° \mathfrak{G} 11'19	19°23'51		17 Oct 18 j 05:22	0° \mathfrak{M}	
asc. node	16 Dec 11 j 13:04	6° \mathfrak{G} 07'25		evening rise	17 Oct 22 j 15:42	6° \mathfrak{M} 51'43	
retrograde	16 Dec 13 j 00:04	6° \mathfrak{G} 19'16			17 Nov 06 j 23:49	0° \mathfrak{A}	
evening set	16 Dec 16 j 08:31	5° \mathfrak{G} 13'37		greatest brilliancy	17 Nov 12 j 15:28	7° \mathfrak{A} 58'20	-0.6m
	16 Dec 21 j 10:18	30° \mathcal{R} \mathfrak{A}		evening max el	17 Nov 18 j 23:44	15° \mathfrak{A} 40'11	20°21'41
inferior conj	16 Dec 21 j 23:23	29° \mathfrak{A} 17'52	3°02'40	retrograde	17 Nov 26 j 21:42	20° \mathfrak{A} 19'43	
minimum elong	16 Dec 21 j 20:37	29° \mathfrak{A} 26'49	3°01'59	asc. node	17 Nov 28 j 10:06	20° \mathfrak{A} 06'38	
min. Earth dist.	16 Dec 23 j 05:34	27° \mathfrak{A} 40'24	0.66199 AU	evening set	17 Nov 30 j 14:54	18° \mathfrak{A} 59'41	
morning rise	16 Dec 27 j 07:55	23° \mathfrak{A} 04'44		inferior conj	17 Dec 06 j 02:21	12° \mathfrak{A} 51'21	2°24'55
direct	17 Jan 02 j 13:45	20° \mathfrak{A} 19'59		minimum elong	17 Dec 05 j 23:41	13° \mathfrak{A} 00'23	2°24'03
morning max el	17 Jan 15 j 01:50	27° \mathfrak{A} 43'59	26°02'41	min. Earth dist.	17 Dec 06 j 19:28	11° \mathfrak{A} 53'32	0.67051 AU
	17 Jan 17 j 05:34	0° \mathfrak{G}		morning rise	17 Dec 11 j 07:57	6° \mathfrak{A} 36'12	
desc. node	17 Jan 20 j 04:20	3° \mathfrak{G} 22'56		direct	17 Dec 16 j 23:22	4° \mathfrak{A} 07'37	
	17 Feb 07 j 22:49	0° \mathfrak{A}		morning max el	17 Dec 28 j 10:15	10° \mathfrak{A} 57'05	24°42'18
morning set	17 Feb 20 j 06:12	21° \mathfrak{A} 15'58		desc. node	18 Jan 07 j 01:24	22° \mathfrak{A} 20'37	
max. Earth dist.	17 Feb 24 j 05:37	28° \mathfrak{A} 47'46	1.35484 AU		18 Jan 12 j 15:13	0° \mathfrak{G}	
	17 Feb 24 j 20:30	0° \mathfrak{H}			18 Jan 31 j 15:47	0° \mathfrak{A}	
				morning set	18 Feb 02 j 11:14	3° \mathfrak{A} 09'55	
superior conj	17 Mar 01 j 09:40	9° \mathfrak{H} 03'05	-1°-16'-52	max. Earth dist.	18 Feb 06 j 04:12	9° \mathfrak{A} 49'41	1.37346 AU
minimum elong	17 Mar 01 j 13:10	9° \mathfrak{H} 20'51	1°16'19				
evening rise	17 Mar 09 j 06:53	25° \mathfrak{H} 16'05		superior conj	18 Feb 12 j 19:21	22° \mathfrak{A} 21'35	-1°-39'-14
asc. node	17 Mar 09 j 12:24	25° \mathfrak{H} 44'14		minimum elong	18 Feb 12 j 23:14	22° \mathfrak{A} 40'25	1°38'50
	17 Mar 11 j 14:59	0° \mathfrak{Y}			18 Feb 16 j 16:23	0° \mathfrak{H}	
evening max el	17 Mar 27 j 13:18	24° \mathfrak{Y} 48'36	20°21'27	evening rise	18 Feb 21 j 08:30	9° \mathfrak{H} 20'21	
retrograde	17 Apr 07 j 06:57	29° \mathfrak{Y} 58'14		asc. node	18 Feb 24 j 09:27	15° \mathfrak{H} 19'28	
evening set	17 Apr 09 j 10:03	29° \mathfrak{Y} 46'56			18 Mar 04 j 19:42	0° \mathfrak{Y}	
inferior conj	17 Apr 18 j 11:31	25° \mathfrak{Y} 49'13	0°-5'-42	evening max el	18 Mar 10 j 05:42	6° \mathfrak{Y} 37'48	19°18'23
minimum elong	17 Apr 18 j 11:15	25° \mathfrak{Y} 49'36	0°05'37	retrograde	18 Mar 19 j 07:01	10° \mathfrak{Y} 59'07	
transit middle	17 Apr 18 j 11:15	25° \mathfrak{Y} 49'36	0°05'37	evening set	18 Mar 21 j 11:19	10° \mathfrak{Y} 45'05	
transit begin	17 Apr 18 j 07:28	25° \mathfrak{Y} 55'08		inferior conj	18 Mar 29 j 19:45	6° \mathfrak{Y} 36'10	1°41'45
transit end	17 Apr 18 j 15:01	25° \mathfrak{Y} 44'03		minimum elong	18 Mar 29 j 23:30	6° \mathfrak{Y} 29'55	1°40'34
desc. node	17 Apr 18 j 03:32	26° \mathfrak{Y} 00'53		min. Earth dist.	18 Apr 01 j 16:05	4° \mathfrak{Y} 43'19	0.56361 AU
min. Earth dist.	17 Apr 20 j 01:20	24° \mathfrak{Y} 53'49	0.55242 AU	desc. node	18 Apr 05 j 00:35	2° \mathfrak{Y} 46'36	
morning rise	17 Apr 27 j 10:17	21° \mathfrak{Y} 31'47		morning rise	18 Apr 07 j 07:48	1° \mathfrak{Y} 46'46	
direct	17 May 01 j 04:10	21° \mathfrak{Y} 01'17		direct	18 Apr 12 j 02:57	0° \mathfrak{Y} 53'59	
morning max el	17 May 14 j 16:23	27° \mathfrak{Y} 38'05	23°29'52	morning max el	18 Apr 26 j 06:58	8° \mathfrak{Y} 07'18	25°09'14
	17 May 17 j 00:22	0° \mathfrak{G}			18 May 12 j 10:49	0° \mathfrak{G}	
	17 Jun 04 j 21:28	0° \mathbb{H}		morning set	18 May 22 j 17:46	19° \mathfrak{G} 49'53	
asc. node	17 Jun 05 j 11:39	1° \mathbb{H} 12'24		asc. node	18 May 23 j 08:42	21° \mathfrak{G} 08'48	
morning set	17 Jun 07 j 05:48	4° \mathbb{H} 51'11			18 May 27 j 11:12	0° \mathbb{H}	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 227

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

superior conj	18 May 29 j 18:33	5°II02'06	1°03'06	superior conj	19 May 14 j 06:09	20°801'33	0°41'22
minimum elong	18 May 29 j 16:14	4°II49'28	1°02'42	minimum elong	19 May 14 j 04:27	19°852'09	0°41'02
max. Earth dist.	18 May 30 j 23:16	7°II38'23	1.32811 AU	max. Earth dist.	19 May 14 j 11:12	20°829'14	1.32394 AU
evening rise	18 Jun 05 j 23:24	20°II22'31			19 May 18 j 20:00	0°II	
	18 Jun 10 j 19:57	0°8		evening rise	19 May 21 j 06:00	5°II07'33	
	18 Jun 29 j 10:46	0°8			19 Jun 03 j 12:34	0°8	
desc. node	18 Jul 01 j 23:54	3°812'37		desc. node	19 Jun 18 j 20:55	20°838'23	
evening max el	18 Jul 08 j 04:21	9°856'09	27°20'10	evening max el	19 Jun 20 j 07:34	22°803'58	26°44'34
retrograde	18 Jul 21 j 23:35	17°813'46		retrograde	19 Jul 04 j 06:55	29°819'31	
evening set	18 Jul 29 j 04:01	14°845'59		evening set	19 Jul 11 j 02:08	27°819'45	
min. Earth dist.	18 Aug 01 j 17:58	11°853'00	0.62392 AU	min. Earth dist.	19 Jul 14 j 21:06	24°841'57	0.60397 AU
inferior conj	18 Aug 04 j 16:42	9°806'42	-4°-4'-12	inferior conj	19 Jul 18 j 04:22	21°858'48	-4°-36'-5
minimum elong	18 Aug 04 j 21:20	8°855'45	4°03'14	minimum elong	19 Jul 18 j 07:20	21°852'38	4°35'47
morning rise	18 Aug 11 j 17:12	4°801'12		morning rise	19 Jul 25 j 15:45	17°815'40	
direct	18 Aug 14 j 03:56	3°834'24		direct	19 Jul 28 j 02:10	16°853'07	
asc. node	18 Aug 19 j 07:54	5°836'20		morning max el	19 Aug 04 j 10:15	20°828'06	18°09'14
morning max el	18 Aug 20 j 22:09	7°800'27	17°53'54	asc. node	19 Aug 06 j 04:58	22°821'51	
	18 Sep 04 j 19:38	0°8			19 Aug 11 j 14:23	0°8	
morning set	18 Sep 06 j 00:31	2°809'31		morning set	19 Aug 20 j 07:02	15°835'43	
					19 Aug 28 j 00:56	0°8	
superior conj	18 Sep 17 j 04:00	21°845'16	1°07'58	superior conj	19 Aug 30 j 00:26	3°834'52	1°32'12
minimum elong	18 Sep 17 j 08:59	22°806'31	1°07'22	minimum elong	19 Aug 30 j 04:11	3°851'44	1°31'53
	18 Sep 22 j 02:01	0°8		max. Earth dist.	19 Sep 06 j 15:24	16°851'27	1.41346 AU
max. Earth dist.	18 Sep 24 j 06:47	3°836'16	1.43097 AU	evening rise	19 Sep 11 j 22:17	25°835'28	
desc. node	18 Sep 27 j 23:12	9°832'20		desc. node	19 Sep 14 j 20:14	0°815'20	
evening rise	18 Oct 01 j 23:45	15°852'54			19 Sep 14 j 16:21	0°8	
	18 Oct 11 j 05:47	0°8			19 Oct 05 j 02:02	0°8	
greatest brilliancy	18 Oct 27 j 22:08	23°825'45	-0.4m	greatest brilliancy	19 Oct 10 j 12:41	6°858'43	-0.3m
evening max el	18 Nov 01 j 21:35	29°808'58	21°31'42	evening max el	19 Oct 15 j 13:58	12°838'32	22°49'40
	18 Nov 02 j 18:09	0°8		retrograde	19 Oct 25 j 13:33	18°834'19	
retrograde	18 Nov 10 j 18:43	4°825'48		evening set	19 Oct 30 j 06:08	16°840'18	
evening set	18 Nov 14 j 22:42	2°849'26		asc. node	19 Nov 02 j 04:12	13°835'47	
asc. node	18 Nov 15 j 07:09	2°832'16		inferior conj	19 Nov 04 j 15:31	10°817'26	0°50'39
	18 Nov 17 j 17:32	30°8		minimum elong	19 Nov 04 j 14:21	10°821'26	0°50'09
inferior conj	18 Nov 20 j 08:22	26°831'56	1°40'21	min. Earth dist.	19 Nov 04 j 10:24	10°835'05	0.67677 AU
minimum elong	18 Nov 20 j 06:16	26°839'11	1°39'33	morning rise	19 Nov 09 j 22:32	4°804'36	
min. Earth dist.	18 Nov 20 j 13:52	26°812'55	0.67533 AU	direct	19 Nov 14 j 07:36	2°820'02	
morning rise	18 Nov 25 j 13:34	20°816'48		morning max el	19 Nov 23 j 08:41	7°839'32	21°49'02
direct	18 Nov 30 j 13:33	18°809'34		greatest brilliancy	19 Nov 28 j 04:52	13°808'40	-0.4m
morning max el	18 Dec 10 j 19:29	24°815'07	23°14'45		19 Dec 10 j 12:20	0°8	
	18 Dec 15 j 22:24	0°8		desc. node	19 Dec 11 j 19:29	1°854'12	
greatest brilliancy	18 Dec 15 j 22:11	29°859'21	-0.3m	morning set	19 Dec 25 j 13:46	23°801'09	
desc. node	18 Dec 24 j 22:28	11°854'33			19 Dec 29 j 21:18	0°8	
	19 Jan 06 j 02:22	0°8		max. Earth dist.	19 Dec 31 j 22:30	3°823'06	1.41520 AU
morning set	19 Jan 14 j 15:06	13°847'35					
max. Earth dist.	19 Jan 18 j 23:31	21°812'40	1.39447 AU	superior conj	20 Jan 08 j 14:13	16°827'46	-2°-1'-59
	19 Jan 23 j 22:23	0°8		minimum elong	20 Jan 08 j 14:08	16°827'26	2°02'00
superior conj	19 Jan 26 j 14:36	4°854'14	-1°-55'-33		20 Jan 16 j 02:57	0°8	
minimum elong	19 Jan 26 j 17:31	5°807'44	1°55'25	evening rise	20 Jan 19 j 07:29	5°852'18	
evening rise	19 Feb 05 j 01:51	22°855'20		asc. node	20 Jan 29 j 03:31	23°816'25	
	19 Feb 08 j 19:02	0°8			20 Feb 02 j 22:17	0°8	
asc. node	19 Feb 11 j 06:29	4°832'48		evening max el	20 Feb 04 j 15:54	1°852'48	18°12'05
evening max el	19 Feb 21 j 07:32	19°802'02	18°35'12	retrograde	20 Feb 11 j 13:53	5°821'47	
retrograde	19 Mar 01 j 01:31	22°849'16		evening set	20 Feb 14 j 03:16	4°853'55	
evening set	19 Mar 03 j 10:17	22°829'17		inferior conj	20 Feb 21 j 01:22	0°804'42	3°37'26
inferior conj	19 Mar 11 j 00:17	18°801'20	2°56'48	minimum elong	20 Feb 21 j 03:37	29°859'38	3°37'10
minimum elong	19 Mar 11 j 04:23	17°853'20	2°55'54		20 Feb 21 j 03:27	30°8	
min. Earth dist.	19 Mar 14 j 09:52	15°824'13	0.58130 AU	min. Earth dist.	20 Feb 24 j 09:12	27°805'54	0.60212 AU
morning rise	19 Mar 18 j 18:28	12°840'55		morning rise	20 Feb 28 j 00:43	24°822'08	
desc. node	19 Mar 22 j 21:38	11°821'35		direct	20 Mar 05 j 16:11	22°817'29	
direct	19 Mar 24 j 15:22	11°813'53		desc. node	20 Mar 08 j 18:41	22°843'14	
morning max el	19 Apr 07 j 23:57	18°849'40	26°33'17		20 Mar 19 j 20:28	0°8	
	19 Apr 17 j 09:37	0°8		morning max el	20 Mar 19 j 22:39	0°805'21	27°28'24
	19 May 04 j 21:25	0°8			20 Apr 10 j 08:50	0°8	
morning set	19 May 07 j 04:38	4°844'53		morning set	20 Apr 20 j 12:32	19°828'44	
asc. node	19 May 10 j 05:46	11°814'50			20 Apr 25 j 11:12	0°8	





































































































































Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 228

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

asc. node	20 Apr 26 j 02:49	1°♄25'03		desc. node	21 Feb 23 j 15:43	6°♁41'55	
max. Earth dist.	20 Apr 26 j 23:41	3°♄19'05	1.32344 AU	morning max el	21 Mar 02 j 03:10	12°♁01'39	27°47'23
					21 Mar 16 j 09:19	0°♄	
superior conj	20 Apr 27 j 17:41	4°♄57'39	0°17'05		21 Apr 02 j 16:36	0°♄	
minimum elong	20 Apr 27 j 16:55	4°♄53'27	0°16'55	morning set	21 Apr 04 j 15:26	3°♄54'38	
evening rise	20 May 04 j 16:06	20°♄00'18		max. Earth dist.	21 Apr 10 j 08:58	15°♄55'10	1.32678 AU
	20 May 09 j 13:51	0°♄					
	20 May 28 j 20:54	0°♄		superior conj	21 Apr 12 j 03:29	19°♄44'56	0°-8'-58
evening max el	20 Jun 01 j 03:55	3°♄25'55	25°38'19	minimum elong	21 Apr 12 j 03:54	19°♄47'13	0°08'53
desc. node	20 Jun 04 j 17:56	6°♄29'54		behind sun begin	21 Apr 11 j 23:36	19°♄23'52	
retrograde	20 Jun 15 j 05:12	10°♄37'18		behind sun end	21 Apr 12 j 08:13	20°♄10'35	
evening set	20 Jun 21 j 01:59	9°♄15'40		asc. node	21 Apr 12 j 23:51	21°♄35'33	
min. Earth dist.	20 Jun 25 j 16:10	6°♄34'41	0.58341 AU		21 Apr 16 j 20:44	0°♄	
inferior conj	20 Jun 28 j 22:10	4°♄15'22	-4°-44'-46	evening rise	21 Apr 19 j 03:48	4°♄54'17	
minimum elong	20 Jun 28 j 21:22	4°♄16'49	4°44'46		21 May 02 j 14:49	0°♄	
morning rise	20 Jul 06 j 20:32	29°♄54'56		evening max el	21 May 13 j 19:11	14°♄11'44	24°10'21
	20 Jul 06 j 13:08	30°♄		desc. node	21 May 22 j 14:57	20°♄12'18	
direct	20 Jul 09 j 08:29	29°♄35'09		retrograde	21 May 27 j 15:39	21°♄09'55	
	20 Jul 12 j 01:48	0°♄		evening set	21 Jun 01 j 03:25	20°♄25'07	
morning max el	20 Jul 17 j 16:02	3°♄30'45	18°44'53	min. Earth dist.	21 Jun 07 j 06:27	17°♄24'54	0.56540 AU
asc. node	20 Jul 23 j 02:01	10°♄06'15		inferior conj	21 Jun 09 j 19:52	15°♄49'03	-4°-17'-30
morning set	20 Aug 03 j 00:56	29°♄35'36		minimum elong	21 Jun 09 j 14:23	15°♄57'40	4°16'38
	20 Aug 03 j 05:56	0°♄		morning rise	21 Jun 18 j 05:03	11°♄47'23	
				direct	21 Jun 20 j 20:04	11°♄29'07	
superior conj	20 Aug 11 j 17:49	16°♄27'10	1°44'28	morning max el	21 Jun 30 j 12:34	15°♄58'43	19°41'33
minimum elong	20 Aug 11 j 19:26	16°♄34'48	1°44'25	asc. node	21 Jul 09 j 23:04	28°♄36'10	
max. Earth dist.	20 Aug 18 j 19:08	29°♄22'28	1.39350 AU		21 Jul 10 j 18:32	0°♄	
	20 Aug 19 j 03:38	0°♄		morning set	21 Jul 18 j 02:45	14°♄00'04	
evening rise	20 Aug 22 j 20:49	6°♄26'03					
desc. node	20 Aug 31 j 17:14	20°♄51'07		superior conj	21 Jul 26 j 02:38	0°♄06'10	1°46'55
	20 Sep 06 j 17:49	0°♄		minimum elong	21 Jul 26 j 02:18	0°♄04'34	1°46'56
evening max el	20 Sep 27 j 02:49	26°♄11'38	24°09'52		21 Jul 26 j 01:23	0°♄	
	20 Oct 01 j 11:45	0°♄		max. Earth dist.	21 Jul 31 j 22:40	11°♄21'01	1.37371 AU
retrograde	20 Oct 08 j 04:54	2°♄42'12		evening rise	21 Aug 04 j 19:26	18°♄25'33	
evening set	20 Oct 13 j 11:35	0°♄30'20			21 Aug 11 j 12:40	0°♄	
	20 Oct 14 j 01:10	30°♄		desc. node	21 Aug 18 j 14:15	11°♄14'43	
inferior conj	20 Oct 18 j 22:03	24°♄06'14	0°-2'-44		21 Aug 31 j 23:14	0°♄	
minimum elong	20 Oct 18 j 22:07	24°♄06'01	0°02'44	evening max el	21 Sep 09 j 14:28	9°♄48'23	25°25'09
transit middle	20 Oct 18 j 22:07	24°♄06'01	0°02'44	retrograde	21 Sep 21 j 15:46	16°♄44'49	
transit begin	20 Oct 18 j 19:26	24°♄15'06		evening set	21 Sep 27 j 13:16	14°♄16'36	
transit end	20 Oct 19 j 00:48	23°♄56'56		min. Earth dist.	21 Oct 02 j 00:02	9°♄20'13	0.67013 AU
min. Earth dist.	20 Oct 18 j 06:37	24°♄58'22	0.67504 AU	inferior conj	21 Oct 03 j 02:13	7°♄55'29	0°-58'-22
asc. node	20 Oct 19 j 01:14	23°♄55'29		minimum elong	21 Oct 03 j 03:41	7°♄50'44	0°57'46
morning rise	20 Oct 24 j 08:54	17°♄58'19		asc. node	21 Oct 05 j 22:16	4°♄27'20	
direct	20 Oct 28 j 04:33	16°♄35'08		morning rise	21 Oct 08 j 18:44	1°♄55'29	
morning max el	20 Nov 05 j 04:41	21°♄13'26	20°32'06	direct	21 Oct 12 j 02:56	0°♄50'53	
greatest brilliancy	20 Nov 11 j 10:29	28°♄38'22	-0.5m	morning max el	21 Oct 19 j 08:18	4°♄56'51	19°28'18
	20 Nov 12 j 10:58	0°♄		greatest brilliancy	21 Oct 28 j 08:33	16°♄29'05	-0.7m
desc. node	20 Nov 27 j 16:30	22°♄12'24			21 Nov 06 j 08:09	0°♄	
	20 Dec 02 j 18:25	0°♄		morning set	21 Nov 12 j 13:08	9°♄35'35	
morning set	20 Dec 03 j 13:48	1°♄15'03		desc. node	21 Nov 14 j 13:30	12°♄43'24	
max. Earth dist.	20 Dec 13 j 04:49	16°♄27'50	1.43282 AU		21 Nov 25 j 14:08	0°♄	
				max. Earth dist.	21 Nov 25 j 18:24	0°♄16'54	1.44502 AU
superior conj	20 Dec 19 j 12:59	26°♄50'56	-1°-53'-55				
minimum elong	20 Dec 19 j 08:08	26°♄30'45	1°53'40	superior conj	21 Nov 29 j 09:04	6°♄01'32	-1°-27'-43
	20 Dec 21 j 10:10	0°♄		minimum elong	21 Nov 29 j 00:49	5°♄28'32	1°26'56
evening rise	20 Dec 31 j 21:19	18°♄03'05		evening rise	21 Dec 13 j 14:55	29°♄19'22	
	21 Jan 07 j 17:37	0°♄			21 Dec 14 j 00:39	0°♄	
asc. node	21 Jan 15 j 00:33	11°♄21'18		evening max el	22 Jan 01 j 16:15	28°♄22'04	18°23'59
evening max el	21 Jan 18 j 03:47	15°♄02'10	18°08'36	asc. node	22 Jan 01 j 21:35	28°♄35'28	
retrograde	21 Jan 24 j 16:26	18°♄27'16			22 Jan 03 j 11:35	0°♄	
evening set	21 Jan 27 j 10:12	17°♄50'19		retrograde	22 Jan 08 j 04:48	1°♄55'50	
inferior conj	21 Feb 02 j 19:51	12°♄39'55	3°50'13	evening set	22 Jan 11 j 03:20	1°♄08'44	
minimum elong	21 Feb 02 j 19:52	12°♄39'53	3°50'12		22 Jan 12 j 20:40	30°♄	
min. Earth dist.	21 Feb 05 j 16:27	9°♄44'19	0.62278 AU	inferior conj	22 Jan 17 j 03:39	25°♄38'34	3°42'38
morning rise	21 Feb 09 j 03:17	6°♄43'32		minimum elong	22 Jan 17 j 02:00	25°♄43'18	3°42'28
direct	21 Feb 16 j 02:49	4°♄09'27		min. Earth dist.	22 Jan 19 j 09:11	23°♄05'34	0.64092 AU

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 229

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

morning rise	22 Jan 22 j 23:13	19°  33'26		minimum elong	22 Dec 31 j 18:38	9°  02'32	3°19'57
direct	22 Jan 29 j 20:56	16°  44'20		min. Earth dist.	23 Jan 02 j 11:27	6°  55'26	0.65543 AU
desc. node	22 Feb 10 j 12:43	22°  42'04		morning rise	23 Jan 06 j 08:46	2°  43'35	
morning max el	22 Feb 12 j 11:34	24°  33'37	27°30'10		23 Jan 11 j 15:11	30°  R 	
	22 Feb 17 j 10:22	0° 		direct	23 Jan 12 j 21:36	29°  45'401	
	22 Mar 09 j 18:38	0° 			23 Jan 14 j 04:48	0° 	
morning set	22 Mar 19 j 10:48	17°  54'12		morning max el	23 Jan 25 j 21:23	7°  30'55	26°41'38
max. Earth dist.	22 Mar 24 j 11:16	28°  05'45	1.33419 AU	desc. node	23 Jan 28 j 09:45	10°  10'15	
	22 Mar 25 j 09:06	0° 			23 Feb 12 j 09:14	0° 	
					23 Mar 02 j 03:00	0° 	
superior conj	22 Mar 27 j 09:44	4°  17'12	0°-35'-50	morning set	23 Mar 02 j 19:10	1°  16'27	
minimum elong	22 Mar 27 j 11:28	4°  26'24	0°35'29	max. Earth dist.	23 Mar 07 j 03:07	9°  42'41	1.34603 AU
asc. node	22 Mar 30 j 20:54	11°  42'22					
evening rise	22 Apr 03 j 15:15	19°  43'14		superior conj	23 Mar 11 j 10:16	18°  42'17	-1°-2'-22
	22 Apr 08 j 16:57	0° 		minimum elong	23 Mar 11 j 13:13	18°  42'34	1°01'51
evening max el	22 Apr 25 j 10:53	24°  46'11	22°34'56		23 Mar 16 j 22:41	0° 	
	22 May 02 j 20:36	0° 		asc. node	23 Mar 17 j 17:57	1°  40'47	
retrograde	22 May 08 j 13:19	1°  14'29		evening rise	23 Mar 19 j 00:35	4°  20'10	
desc. node	22 May 09 j 11:58	1°  12'29			23 Apr 02 j 12:29	0° 	
evening set	22 May 11 j 16:18	0°  53'04		evening max el	23 Apr 07 j 09:46	5°  37'45	21°05'54
	22 May 14 j 12:06	30°  R 		retrograde	23 Apr 19 j 03:04	11°  48'51	
min. Earth dist.	22 May 19 j 18:55	27°  42'31	0.55335 AU	evening set	23 Apr 21 j 10:09	11°  46'34	
inferior conj	22 May 20 j 23:22	26°  41'03	-3°-4'-54	desc. node	23 Apr 26 j 09:00	9°  27'03	
minimum elong	22 May 20 j 16:10	26°  51'19	3°02'52	inferior conj	23 Apr 30 j 17:41	7°  07'55	-1°-14'-49
morning rise	22 May 29 j 18:26	22°  47'48		minimum elong	23 Apr 30 j 14:09	7°  12'55	1°13'35
direct	22 Jun 01 j 14:29	22°  29'17		min. Earth dist.	23 May 01 j 07:44	6°  48'04	0.54996 AU
morning max el	22 Jun 12 j 22:09	27°  45'21	20°58'36	morning rise	23 May 09 j 17:49	3°  04'54	
	22 Jun 15 j 03:17	0° 		direct	23 May 13 j 00:36	2°  41'36	
asc. node	22 Jun 26 j 20:07	17°  40'56		morning max el	23 May 25 j 21:15	8°  50'12	22°32'07
morning set	22 Jul 02 j 09:57	28°  42'26			23 Jun 09 j 23:18	0° 	
	22 Jul 03 j 01:00	0° 		asc. node	23 Jun 13 j 17:11	7°  11'01	
				morning set	23 Jun 16 j 20:22	13°  43'27	
superior conj	22 Jul 09 j 22:26	14°  19'29	1°41'39				
minimum elong	22 Jul 09 j 20:46	14°  10'56	1°41'33	superior conj	23 Jun 24 j 01:43	28°  45'42	1°30'19
max. Earth dist.	22 Jul 14 j 07:55	23°  11'55	1.35620 AU	minimum elong	23 Jun 23 j 23:21	28°  43'13	1°30'03
	22 Jul 17 j 20:12	0° 			23 Jun 24 j 13:52	0° 	
evening rise	22 Jul 18 j 13:54	1°  23'34		max. Earth dist.	23 Jun 27 j 02:07	5°  15'09	1.34220 AU
	22 Aug 04 j 13:41	0° 		evening rise	23 Jul 01 j 23:16	15°  05'47	
desc. node	22 Aug 05 j 11:18	1°  42'20			23 Jul 10 j 00:24	0° 	
evening max el	22 Aug 23 j 02:19	23°  42'01	26°27'44	desc. node	23 Jul 23 j 08:21	20°  42'03	
	22 Sep 01 j 12:41	0° 			23 Jul 30 j 06:20	0° 	
retrograde	22 Sep 04 j 21:39	0°  37'06		evening max el	23 Aug 05 j 14:06	6°  51'46	27°10'07
	22 Sep 08 j 01:41	30°  R 		retrograde	23 Aug 18 j 22:11	14°  42'54	
evening set	22 Sep 11 j 09:15	27°  42'42		evening set	23 Aug 25 j 21:02	11°  42'58	
min. Earth dist.	22 Sep 15 j 12:13	23°  37'47	0.66183 AU	min. Earth dist.	23 Aug 29 j 16:54	7°  44'27	0.64986 AU
inferior conj	22 Sep 17 j 02:10	21°  42'35	-1°-54'-35	inferior conj	23 Aug 31 j 19:40	5°  42'37	-2°-49'-16
minimum elong	22 Sep 17 j 05:05	21°  33'43	1°53'27	minimum elong	23 Aug 31 j 23:50	5°  42'59	2°47'52
asc. node	22 Sep 22 j 19:18	16°  03'26			23 Sep 06 j 18:49	30°  R 	
morning rise	22 Sep 23 j 01:59	15°  43'44		morning rise	23 Sep 07 j 04:15	29°  48'09	
direct	22 Sep 26 j 01:00	15°  40'11		direct	23 Sep 09 j 20:24	29°  41'03	
morning max el	22 Oct 02 j 18:30	18°  47'45	18°39'54	asc. node	23 Sep 09 j 16:21	29°  41'12	
	22 Oct 11 j 07:06	0° 			23 Sep 12 j 22:29	0° 	
morning set	22 Oct 23 j 10:07	19°  40'51		morning max el	23 Sep 16 j 08:53	2°  40'27	18°08'08
	22 Oct 30 j 07:03	0° 		morning set	23 Oct 04 j 11:47	29°  42'09	
desc. node	22 Nov 01 j 10:33	3°  42'25			23 Oct 04 j 11:59	0° 	
superior conj	22 Nov 08 j 11:16	14°  42'19	0°-45'-3	superior conj	23 Oct 18 j 16:12	23°  40'09	0°04'16
minimum elong	22 Nov 08 j 05:29	14°  40'33	0°44'19	minimum elong	23 Oct 18 j 16:43	23°  40'14	0°04'12
max. Earth dist.	22 Nov 08 j 12:36	14°  42'33	1.45029 AU	behind sun begin	23 Oct 18 j 06:13	22°  42'22	
	22 Nov 18 j 07:56	0° 		behind sun end	23 Oct 19 j 03:13	23°  45'10	
evening rise	22 Nov 24 j 09:13	9°  43'35		desc. node	23 Oct 19 j 07:38	24°  40'37	
	22 Dec 07 j 06:24	0° 		max. Earth dist.	23 Oct 22 j 07:25	28°  45'01	1.44808 AU
evening max el	22 Dec 16 j 02:48	11°  47'34	18°57'10		23 Oct 23 j 00:24	0° 	
asc. node	22 Dec 19 j 18:37	14°  45'20		evening rise	23 Nov 04 j 05:13	19°  42'27	
retrograde	22 Dec 22 j 23:09	15°  40'31			23 Nov 11 j 07:34	0° 	
evening set	22 Dec 26 j 03:32	14°  42'03		greatest brilliancy	23 Nov 21 j 17:46	15°  43'22	-0.6m
inferior conj	22 Dec 31 j 21:11	8°  54'33	3°20'27	evening max el	23 Nov 29 j 09:21	25°  45'26	19°46'41

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 230

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

retrograde	23 Dec 06 j 20:24	29°♂36'25		asc. node	24 Nov 22 j 12:40	12°♂55'29	
asc. node	23 Dec 06 j 15:38	29°♂36'12		evening set	24 Nov 23 j 15:28	12°♂12'36	
evening set	23 Dec 10 j 08:17	28°♂24'54		inferior conj	24 Nov 29 j 01:58	5°♂59'57	2°06'47
inferior conj	23 Dec 15 j 21:28	22°♂23'07	2°47'38	minimum elong	24 Nov 28 j 23:30	6°♂08'26	2°05'55
minimum elong	23 Dec 15 j 18:40	22°♂32'21	2°46'51	min. Earth dist.	24 Nov 29 j 14:04	5°♂18'35	0.67291 AU
min. Earth dist.	23 Dec 16 j 21:50	21°♂02'34	0.66603 AU	morning rise	24 Dec 04 j 07:04	29°♂44'17	
morning rise	23 Dec 21 j 04:23	16°♂08'41			24 Dec 04 j 00:09	30°♂	
direct	23 Dec 27 j 04:11	13°♂30'04		direct	24 Dec 09 j 15:56	27°♂24'12	
morning max el	24 Jan 08 j 06:33	20°♂41'30	25°30'05		24 Dec 16 j 03:21	0°♂	
desc. node	24 Jan 15 j 06:49	28°♂41'02		morning max el	24 Dec 20 j 14:56	3°♂56'32	24°05'23
	24 Jan 16 j 07:47	0°♂		desc. node	25 Jan 01 j 03:52	17°♂55'34	
	24 Feb 05 j 13:28	0°♂			25 Jan 09 j 14:39	0°♂	
morning set	24 Feb 13 j 11:57	13°♂48'12		morning set	25 Jan 25 j 07:04	25°♂11'53	
max. Earth dist.	24 Feb 17 j 07:10	20°♂50'47	1.36232 AU		25 Jan 28 j 01:00	0°♂	
	24 Feb 22 j 00:41	0°♂		max. Earth dist.	25 Jan 29 j 02:57	1°♂55'23	1.38221 AU
superior conj	24 Feb 23 j 02:23	2°♂07'38	-1°-26'-54	superior conj	25 Feb 05 j 06:29	15°♂08'04	-1°-47'-7
minimum elong	24 Feb 23 j 06:09	2°♂26'28	1°26'23	minimum elong	25 Feb 05 j 10:09	15°♂25'34	1°46'48
evening rise	24 Mar 02 j 05:46	18°♂38'46			25 Feb 12 j 21:30	0°♂	
asc. node	24 Mar 03 j 15:01	21°♂26'17		evening rise	25 Feb 14 j 04:13	2°♂31'14	
	24 Mar 08 j 01:04	0°♂		asc. node	25 Feb 18 j 12:02	10°♂52'51	
evening max el	24 Mar 19 j 19:46	17°♂05'14	19°52'12	evening max el	25 Mar 02 j 16:34	29°♂10'30	18°57'33
retrograde	24 Mar 29 j 20:00	21°♂53'26			25 Mar 03 j 14:15	0°♂	
evening set	24 Mar 31 j 22:28	21°♂41'38		retrograde	25 Mar 11 j 03:11	3°♂14'59	
inferior conj	24 Apr 09 j 17:18	17°♂40'32	0°42'57	evening set	25 Mar 13 j 09:14	2°♂58'47	
minimum elong	24 Apr 09 j 19:10	17°♂37'40	0°42'19		25 Mar 19 j 13:04	30°♂	
min. Earth dist.	24 Apr 11 j 22:01	16°♂19'41	0.55616 AU	inferior conj	25 Mar 21 j 09:45	28°♂42'44	2°17'56
desc. node	24 Apr 12 j 06:01	16°♂07'41		minimum elong	25 Mar 21 j 14:04	28°♂35'05	2°16'45
morning rise	24 Apr 18 j 12:42	13°♂09'48		min. Earth dist.	25 Mar 24 j 14:05	26°♂28'27	0.57058 AU
direct	24 Apr 22 j 16:22	12°♂31'38		morning rise	25 Mar 29 j 14:40	23°♂39'09	
morning max el	24 May 06 j 13:29	19°♂26'25	24°13'00	desc. node	25 Mar 30 j 03:03	23°♂27'00	
	24 May 15 j 10:06	0°♂		direct	25 Apr 03 j 21:26	22°♂32'35	
asc. node	24 May 30 j 14:16	26°♂59'33		morning max el	25 Apr 18 j 04:23	29°♂57'38	25°47'37
morning set	24 May 31 j 08:14	28°♂33'34			25 Apr 18 j 05:22	0°♂	
	24 Jun 01 j 00:36	0°♂			25 May 09 j 01:22	0°♂	
superior conj	24 Jun 07 j 09:50	13°♂46'28	1°14'10	morning set	25 May 15 j 19:55	13°♂31'01	
minimum elong	24 Jun 07 j 07:22	13°♂33'05	1°13'48	asc. node	25 May 17 j 11:21	17°♂00'25	
max. Earth dist.	24 Jun 09 j 05:13	17°♂40'02	1.33214 AU	superior conj	25 May 22 j 20:41	28°♂44'26	0°54'14
evening rise	24 Jun 14 j 19:22	29°♂20'23		minimum elong	25 May 22 j 18:35	28°♂32'53	0°53'51
	24 Jun 15 j 03:13	0°♂			25 May 23 j 10:30	0°♂	
	24 Jul 02 j 02:56	0°♂		max. Earth dist.	25 May 23 j 14:53	0°♂23'59	1.32589 AU
desc. node	24 Jul 09 j 05:22	9°♂59'34		evening rise	25 May 29 j 22:55	13°♂56'56	
evening max el	24 Jul 18 j 00:29	19°♂57'34	27°25'32		25 Jun 07 j 04:59	0°♂	
retrograde	24 Jul 31 j 16:56	27°♂17'20		desc. node	25 Jun 26 j 02:22	28°♂06'09	
evening set	24 Aug 07 j 21:29	24°♂39'23			25 Jun 27 j 19:38	0°♂	
min. Earth dist.	24 Aug 11 j 12:16	21°♂31'08	0.63426 AU	evening max el	25 Jun 30 j 07:16	2°♂30'27	27°09'09
inferior conj	24 Aug 14 j 04:08	18°♂50'11	-3°-39'-20	retrograde	25 Jul 14 j 04:50	9°♂47'25	
minimum elong	24 Aug 14 j 08:56	18°♂38'04	3°38'05	evening set	25 Jul 21 j 06:34	7°♂30'14	
morning rise	24 Aug 20 j 22:37	13°♂33'15		min. Earth dist.	25 Jul 24 j 21:28	4°♂45'25	0.61558 AU
direct	24 Aug 23 j 10:28	13°♂03'15		inferior conj	25 Jul 28 j 00:27	1°♂58'16	-4°-19'-55
asc. node	24 Aug 26 j 13:26	13°♂51'00		minimum elong	25 Jul 28 j 04:38	1°♂48'53	4°19'14
morning max el	24 Aug 30 j 00:41	16°♂28'48	17°53'48		25 Jul 30 j 07:14	30°♂	
	24 Sep 08 j 14:34	0°♂		morning rise	25 Aug 04 j 05:32	27°♂01'48	
morning set	24 Sep 15 j 14:38	12°♂05'20		direct	25 Aug 06 j 15:44	26°♂37'07	
	24 Sep 26 j 01:14	0°♂		asc. node	25 Aug 13 j 10:31	29°♂55'27	
superior conj	24 Sep 27 j 18:33	2°♂51'54	0°48'05	morning max el	25 Aug 13 j 14:58	0°♂06'10	17°57'59
minimum elong	24 Sep 27 j 23:04	3°♂10'38	0°47'28		25 Aug 13 j 12:25	0°♂	
max. Earth dist.	24 Oct 03 j 23:41	12°♂59'29	1.43889 AU	morning set	25 Aug 29 j 12:42	25°♂07'06	
desc. node	24 Oct 05 j 04:40	14°♂55'27			25 Sep 01 j 04:48	0°♂	
evening rise	24 Oct 13 j 12:32	27°♂58'52		superior conj	25 Sep 09 j 00:22	13°♂57'56	1°19'50
	24 Oct 14 j 20:00	0°♂		minimum elong	25 Sep 09 j 05:03	14°♂18'22	1°19'20
	24 Nov 04 j 05:49	0°♂		max. Earth dist.	25 Sep 16 j 11:36	26°♂38'00	1.42395 AU
greatest brilliancy	24 Nov 05 j 19:07	2°♂03'26	-0.5m		25 Sep 18 j 12:54	0°♂	
evening max el	24 Nov 11 j 10:31	8°♂43'45	20°50'16	desc. node	25 Sep 22 j 01:42	5°♂41'02	
retrograde	24 Nov 19 j 18:02	13°♂39'09		evening rise	25 Sep 23 j 00:57	7°♂13'10	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 231

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	25 Oct 08 j 02:18	0°♄			26 Oct 02 j 16:54	0°♄	
greatest brilliancy	25 Oct 20 j 12:35	16°♄52'31	-0.3m	evening max el	26 Oct 07 j 20:44	5°♄44'07	23°23'57
evening max el	25 Oct 25 j 06:01	22°♄13'10	22°04'19	retrograde	26 Oct 18 j 07:30	11°♄54'48	
retrograde	25 Nov 03 j 14:12	27°♄46'26		evening set	26 Oct 23 j 06:03	9°♄53'05	
evening set	25 Nov 07 j 23:17	26°♄02'52		asc. node	26 Oct 27 j 06:46	5°♄21'34	
asc. node	25 Nov 09 j 09:43	24°♄43'20		inferior conj	26 Oct 28 j 15:45	3°♄29'25	0°28'23
inferior conj	25 Nov 13 j 08:41	19°♄42'52	1°19'52	minimum elong	26 Oct 28 j 15:05	3°♄31'43	0°28'05
minimum elong	25 Nov 13 j 06:56	19°♄48'53	1°19'09	min. Earth dist.	26 Oct 28 j 06:14	4°♄01'59	0.67647 AU
min. Earth dist.	25 Nov 13 j 09:40	19°♄39'27	0.67634 AU		26 Oct 31 j 07:41	30°♄	
morning rise	25 Nov 18 j 14:23	13°♄28'22		morning rise	26 Nov 03 j 00:10	27°♄18'34	
direct	25 Nov 23 j 08:01	11°♄30'30		direct	26 Nov 07 j 03:24	25°♄43'18	
morning max el	25 Dec 03 j 01:13	17°♄16'04	22°37'34		26 Nov 14 j 23:14	0°♄	
greatest brilliancy	25 Dec 07 j 16:03	22°♄26'12	-0.3m	morning max el	26 Nov 15 j 17:00	0°♄43'43	21°14'58
	25 Dec 13 j 12:51	0°♄		greatest brilliancy	26 Nov 21 j 00:04	6°♄49'42	-0.4m
desc. node	25 Dec 19 j 00:55	7°♄41'34		desc. node	26 Dec 05 j 21:57	27°♄49'45	
	26 Jan 02 j 17:13	0°♄			26 Dec 07 j 08:41	0°♄	
morning set	26 Jan 05 j 22:32	5°♄13'00		morning set	26 Dec 16 j 09:46	13°♄55'01	
max. Earth dist.	26 Jan 10 j 22:50	13°♄35'18	1.40354 AU	max. Earth dist.	26 Dec 24 j 01:15	26°♄11'03	1.42325 AU
					26 Dec 26 j 08:43	0°♄	
superior conj	26 Jan 18 j 18:04	27°♄17'22	-1°-59'-46				
minimum elong	26 Jan 18 j 19:59	27°♄26'04	1°59'43	superior conj	26 Dec 31 j 07:39	8°♄22'04	-2°00'-37
	26 Jan 20 j 05:48	0°♄		minimum elong	26 Dec 31 j 05:41	8°♄13'36	2°00'35
evening rise	26 Jan 28 j 16:59	15°♄50'42		evening rise	27 Jan 11 j 16:24	28°♄29'05	
asc. node	26 Feb 05 j 09:03	29°♄54'17			27 Jan 12 j 12:30	0°♄	
	26 Feb 05 j 10:23	0°♄		asc. node	27 Jan 23 j 06:04	18°♄22'42	
evening max el	26 Feb 13 j 21:37	11°♄47'18	18°22'55	evening max el	27 Jan 28 j 07:49	24°♄47'00	18°08'13
retrograde	26 Feb 21 j 05:24	15°♄24'24		retrograde	27 Feb 04 j 00:34	28°♄12'48	
evening set	26 Feb 23 j 16:23	15°♄01'06		evening set	27 Feb 06 j 15:52	27°♄41'06	
inferior conj	26 Mar 02 j 23:13	10°♄24'09	3°17'55	inferior conj	27 Feb 13 j 08:12	22°♄42'24	3°45'48
minimum elong	26 Mar 03 j 02:40	10°♄16'58	3°17'18	minimum elong	27 Feb 13 j 09:28	22°♄39'22	3°45'42
min. Earth dist.	26 Mar 06 j 09:38	7°♄34'54	0.59009 AU	min. Earth dist.	27 Feb 16 j 11:52	19°♄42'29	0.61107 AU
morning rise	26 Mar 10 j 09:16	4°♄53'30		morning rise	27 Feb 20 j 00:20	16°♄53'12	
direct	26 Mar 16 j 15:31	3°♄10'05		direct	27 Feb 26 j 20:26	14°♄34'56	
desc. node	26 Mar 17 j 00:05	3°♄10'25		desc. node	27 Mar 03 j 21:07	15°♄42'46	
morning max el	26 Mar 30 j 23:18	10°♄51'14	27°00'46	morning max el	27 Mar 13 j 00:42	22°♄24'45	27°41'09
	26 Apr 14 j 19:10	0°♄			27 Mar 19 j 17:49	0°♄	
morning set	26 Apr 30 j 05:43	28°♄21'44			27 Apr 07 j 20:44	0°♄	
	26 May 01 j 00:27	0°♄		morning set	27 Apr 14 j 11:49	12°♄59'38	
asc. node	26 May 04 j 08:22	7°♄08'28		max. Earth dist.	27 Apr 20 j 15:29	26°♄03'52	1.32444 AU
				asc. node	27 Apr 21 j 05:23	27°♄19'38	
superior conj	26 May 07 j 08:27	13°♄42'58	0°31'20				
minimum elong	26 May 07 j 07:06	13°♄35'33	0°31'03	superior conj	27 Apr 21 j 19:29	28°♄36'33	0°06'14
max. Earth dist.	26 May 07 j 03:35	13°♄16'13	1.32334 AU	minimum elong	27 Apr 21 j 19:11	28°♄34'59	0°06'10
evening rise	26 May 14 j 07:16	28°♄46'16		behind sun begin	27 Apr 21 j 14:30	28°♄09'19	
	26 May 14 j 21:21	0°♄		behind sun end	27 Apr 21 j 23:53	29°♄00'40	
	26 May 31 j 15:12	0°♄			27 Apr 22 j 10:44	0°♄	
evening max el	26 Jun 12 j 07:51	14°♄19'25	26°19'49	evening rise	27 Apr 28 j 18:20	13°♄41'10	
desc. node	26 Jun 12 j 23:23	14°♄55'45			27 May 07 j 00:10	0°♄	
retrograde	26 Jun 26 j 08:13	21°♄32'46		evening max el	27 May 25 j 01:35	25°♄24'12	25°02'41
evening set	26 Jul 02 j 19:34	19°♄48'49		desc. node	27 May 30 j 20:23	29°♄57'40	
min. Earth dist.	26 Jul 06 j 20:51	17°♄11'51	0.59514 AU		27 May 30 j 21:56	0°♄	
inferior conj	26 Jul 10 j 04:57	14°♄36'37	-4°-43'-21	retrograde	27 Jun 08 j 01:33	2°♄31'20	
minimum elong	26 Jul 10 j 06:34	14°♄33'27	4°43'18	evening set	27 Jun 13 j 09:29	1°♄26'05	
morning rise	26 Jul 17 j 20:58	10°♄02'57			27 Jun 16 j 08:07	30°♄	
direct	26 Jul 20 j 07:58	9°♄41'36		min. Earth dist.	27 Jun 18 j 13:07	28°♄38'53	0.57531 AU
morning max el	26 Jul 28 j 00:40	13°♄23'48	18°21'50	inferior conj	27 Jun 21 j 14:22	26°♄35'55	-4°-38'-22
asc. node	26 Jul 31 j 07:35	17°♄07'37		minimum elong	27 Jun 21 j 11:30	26°♄40'45	4°38'08
	26 Aug 08 j 07:48	0°♄		morning rise	27 Jun 29 j 17:23	22°♄24'32	
morning set	26 Aug 13 j 00:33	8°♄49'05		direct	27 Jul 02 j 06:42	22°♄05'25	
				morning max el	27 Jul 11 j 02:52	26°♄13'14	19°06'25
superior conj	26 Aug 22 j 06:24	26°♄15'53	1°38'45		27 Jul 14 j 12:54	0°♄	
minimum elong	26 Aug 22 j 09:17	26°♄29'04	1°38'34	asc. node	27 Jul 18 j 04:38	5°♄13'06	
	26 Aug 24 j 07:37	0°♄		morning set	27 Jul 27 j 22:13	23°♄00'47	
max. Earth dist.	26 Aug 29 j 18:19	9°♄36'00	1.40515 AU		27 Jul 31 j 10:42	0°♄	
evening rise	26 Sep 03 j 09:12	17°♄23'06					
desc. node	26 Sep 08 j 22:43	26°♄21'22		superior conj	27 Aug 05 j 07:03	9°♄30'20	1°46'34
	26 Sep 11 j 06:45	0°♄		minimum elong	27 Aug 05 j 07:47	9°♄33'52	1°46'34

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 232

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

max. Earth dist.	27 Aug 11 j 21:33	21° Ω 51'59	1.38495 AU		28 Jul 22 j 04:30	0° Ω	
evening rise	27 Aug 15 j 18:21	28° Ω 43'40		max. Earth dist.	28 Jul 24 j 02:28	3° Ω 42'25	1.36587 AU
	27 Aug 16 j 11:59	0° \mathbb{N}		evening rise	28 Jul 28 j 02:02	11° Ω 09'40	
desc. node	27 Aug 26 j 19:43	16° \mathbb{N} 52'31			28 Aug 08 j 02:13	0° \mathbb{N}	
	27 Sep 04 j 16:49	0° $\underline{\Delta}$		desc. node	28 Aug 12 j 16:45	7° \mathbb{N} 09'17	
evening max el	27 Sep 20 j 08:41	19° $\underline{\Delta}$ 18'13	24°42'51		28 Aug 30 j 00:18	0° $\underline{\Delta}$	
retrograde	27 Oct 01 j 21:01	26° $\underline{\Delta}$ 01'01		evening max el	28 Sep 01 j 20:08	2° $\underline{\Delta}$ 55'05	25°53'45
evening set	27 Oct 07 j 10:07	23° $\underline{\Delta}$ 41'33		retrograde	28 Sep 14 j 06:03	10° $\underline{\Delta}$ 00'17	
min. Earth dist.	27 Oct 12 j 01:27	18° $\underline{\Delta}$ 24'44	0.67338 AU	evening set	28 Sep 20 j 09:41	7° $\underline{\Delta}$ 26'01	
inferior conj	27 Oct 12 j 21:28	17° $\underline{\Delta}$ 18'11	0°-26'-11	min. Earth dist.	28 Sep 24 j 16:59	2° $\underline{\Delta}$ 45'24	0.66698 AU
minimum elong	27 Oct 12 j 22:07	17° $\underline{\Delta}$ 16'02	0°25'55	inferior conj	28 Sep 26 j 00:06	1° $\underline{\Delta}$ 07'07	-1°-22'-18
asc. node	27 Oct 14 j 03:49	15° $\underline{\Delta}$ 38'39		minimum elong	28 Sep 26 j 02:12	1° $\underline{\Delta}$ 00'30	1°21'26
morning rise	27 Oct 18 j 10:33	11° $\underline{\Delta}$ 13'33			28 Sep 26 j 21:32	30° \mathbb{R} \mathbb{N}	
direct	27 Oct 22 j 01:01	9° $\underline{\Delta}$ 58'50		asc. node	28 Sep 30 j 00:53	26° \mathbb{N} 32'46	
morning max el	27 Oct 29 j 16:23	14° $\underline{\Delta}$ 22'03	20°03'13	morning rise	28 Oct 01 j 19:33	25° \mathbb{N} 11'31	
greatest brilliancy	27 Nov 05 j 20:07	23° $\underline{\Delta}$ 06'09	-0.6m	direct	28 Oct 04 j 23:26	24° \mathbb{N} 13'57	
	27 Nov 10 j 16:42	0° \mathbb{M}		morning max el	28 Oct 11 j 23:07	28° \mathbb{N} 09'36	19°05'43
desc. node	27 Nov 22 j 18:58	18° \mathbb{M} 13'46			28 Oct 13 j 15:45	0° $\underline{\Delta}$	
morning set	27 Nov 25 j 06:15	22° \mathbb{M} 02'11			28 Nov 03 j 00:51	0° \mathbb{M}	
	27 Nov 30 j 09:07	0° \mathbb{J}		morning set	28 Nov 03 j 12:50	0° \mathbb{M} 46'53	
max. Earth dist.	27 Dec 06 j 11:06	9° \mathbb{J} 37'06	1.43873 AU	desc. node	28 Nov 08 j 16:01	8° \mathbb{M} 49'10	
				max. Earth dist.	28 Nov 18 j 02:32	23° \mathbb{M} 38'01	1.44807 AU
superior conj	27 Dec 11 j 18:45	18° \mathbb{J} 12'23	-1°-45'-5				
minimum elong	27 Dec 11 j 11:58	17° \mathbb{J} 44'43	1°44'37	superior conj	28 Nov 20 j 05:23	26° \mathbb{M} 58'41	-1°-11'-13
	27 Dec 18 j 21:18	0° \mathbb{Z}		minimum elong	28 Nov 19 j 21:21	26° \mathbb{M} 26'57	1°10'19
evening rise	27 Dec 24 j 22:08	10° \mathbb{Z} 17'27			28 Nov 22 j 03:10	0° \mathbb{J}	
	28 Jan 05 j 16:38	0° \approx		evening rise	28 Dec 05 j 06:06	21° \mathbb{J} 09'15	
asc. node	28 Jan 10 j 03:06	6° \approx 07'25			28 Dec 10 j 15:36	0° \mathbb{Z}	
evening max el	28 Jan 11 j 20:12	8° \approx 00'59	18°12'54	evening max el	28 Dec 25 j 08:08	21° \mathbb{Z} 23'48	18°36'03
retrograde	28 Jan 18 j 07:57	11° \approx 28'49		asc. node	28 Dec 27 j 00:09	22° \mathbb{Z} 56'13	
evening set	28 Jan 21 j 03:33	10° \approx 47'47		retrograde	28 Dec 31 j 23:16	25° \mathbb{Z} 04'46	
inferior conj	28 Jan 27 j 08:51	5° \approx 28'38	3°49'07	evening set	29 Jan 04 j 00:01	24° \mathbb{Z} 13'12	
minimum elong	28 Jan 27 j 08:04	5° \approx 30'45	3°49'05	inferior conj	29 Jan 09 j 21:13	18° \mathbb{Z} 35'34	3°34'45
min. Earth dist.	28 Jan 29 j 23:12	2° \approx 40'39	0.63078 AU	minimum elong	29 Jan 09 j 19:06	18° \mathbb{Z} 41'54	3°34'27
	28 Feb 01 j 18:42	30° \mathbb{R} \mathbb{Z}		min. Earth dist.	29 Jan 11 j 20:16	16° \mathbb{Z} 15'39	0.64751 AU
morning rise	28 Feb 02 j 10:41	29° \mathbb{Z} 27'45		morning rise	29 Jan 15 j 12:55	12° \mathbb{Z} 27'29	
direct	28 Feb 09 j 10:17	26° \mathbb{Z} 45'32		direct	29 Jan 22 j 07:35	9° \mathbb{Z} 36'11	
	28 Feb 17 j 21:42	0° \approx		morning max el	29 Feb 04 j 16:47	17° \mathbb{Z} 22'32	27°12'55
desc. node	28 Feb 18 j 18:09	0° \approx 37'24		desc. node	29 Feb 04 j 15:12	17° \mathbb{Z} 18'35	
morning max el	28 Feb 23 j 07:28	4° \approx 38'12	27°44'27		29 Feb 15 j 06:38	0° \approx	
	28 Mar 13 j 09:35	0° \mathbb{H}			29 Mar 06 j 05:51	0° \mathbb{H}	
morning set	28 Mar 28 j 11:54	27° \mathbb{H} 15'52		morning set	29 Mar 12 j 03:04	11° \mathbb{H} 01'08	
	28 Mar 29 j 20:21	0° \mathbb{Y}		max. Earth dist.	29 Mar 16 j 20:20	20° \mathbb{H} 26'32	1.33861 AU
max. Earth dist.	28 Apr 02 j 22:23	8° \mathbb{Y} 31'10	1.32939 AU				
superior conj	28 Apr 05 j 04:00	13° \mathbb{Y} 18'13	0°-20'-18	superior conj	29 Mar 20 j 08:07	27° \mathbb{H} 41'57	0°-47'-12
minimum elong	28 Apr 05 j 04:58	13° \mathbb{Y} 23'27	0°20'07	minimum elong	29 Mar 20 j 10:23	27° \mathbb{H} 53'55	0°46'47
asc. node	28 Apr 07 j 02:25	17° \mathbb{Y} 29'02			29 Mar 21 j 10:16	0° \mathbb{Y}	
evening rise	28 Apr 12 j 06:08	28° \mathbb{Y} 33'45		asc. node	29 Mar 24 j 23:28	7° \mathbb{Y} 32'43	
	28 Apr 12 j 22:32	0° \mathbb{X}		evening rise	29 Mar 27 j 16:54	13° \mathbb{Y} 18'04	
	28 Apr 30 j 07:32	0° \mathbb{I}			29 Apr 05 j 06:48	0° \mathbb{X}	
evening max el	28 May 05 j 15:56	6° \mathbb{I} 00'51	23°29'43	evening max el	29 Apr 17 j 10:02	16° \mathbb{X} 39'43	21°55'41
desc. node	28 May 16 j 17:24	12° \mathbb{I} 34'35		retrograde	29 Apr 30 j 00:21	22° \mathbb{X} 49'32	
retrograde	28 May 19 j 06:55	12° \mathbb{I} 49'33		evening set	29 May 02 j 16:32	22° \mathbb{X} 33'37	
evening set	28 May 23 j 03:48	12° \mathbb{I} 16'34		desc. node	29 May 03 j 14:26	22° \mathbb{X} 21'14	
min. Earth dist.	28 May 30 j 02:18	9° \mathbb{I} 04'21	0.55937 AU	min. Earth dist.	29 May 11 j 15:09	18° \mathbb{X} 44'11	0.55075 AU
inferior conj	28 Jun 01 j 03:41	7° \mathbb{I} 50'45	-3°-52'-20	inferior conj	29 May 12 j 01:46	18° \mathbb{X} 29'17	-2°-21'-26
minimum elong	28 May 31 j 20:51	8° \mathbb{I} 00'58	3°50'52	minimum elong	29 May 11 j 19:33	18° \mathbb{X} 38'01	2°19'27
morning rise	28 Jun 09 j 17:23	3° \mathbb{I} 54'41		morning rise	29 May 20 j 23:50	14° \mathbb{X} 33'51	
direct	28 Jun 12 j 09:56	3° \mathbb{I} 36'47		direct	29 May 23 j 23:17	14° \mathbb{X} 14'09	
morning max el	28 Jun 22 j 18:59	8° \mathbb{I} 24'43	20°12'00	morning max el	29 Jun 04 j 23:55	19° \mathbb{X} 53'11	21°36'40
asc. node	28 Jul 04 j 01:41	23° \mathbb{I} 58'53			29 Jun 13 j 06:41	0° \mathbb{I}	
	28 Jul 07 j 07:23	0° \mathbb{G}		asc. node	29 Jun 20 j 22:44	13° \mathbb{I} 15'15	
morning set	28 Jul 11 j 02:35	7° \mathbb{G} 33'29		morning set	29 Jun 25 j 11:22	22° \mathbb{I} 20'47	
					29 Jun 29 j 02:59	0° \mathbb{G}	
superior conj	28 Jul 18 j 21:03	23° \mathbb{G} 25'38	1°45'32	superior conj	29 Jul 02 j 20:23	7° \mathbb{G} 49'44	1°37'30
minimum elong	28 Jul 18 j 20:05	23° \mathbb{G} 20'45	1°45'30	minimum elong	29 Jul 02 j 18:21	7° \mathbb{G} 39'09	1°37'19

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 233

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

max. Earth dist.	29 Jul 06 j 15:03	15° \mathfrak{G} 35'21	1.34981 AU	superior conj	30 Jun 17 j 02:02	22° \mathbb{I} 33'34	1°23'59
evening rise	29 Jul 11 j 03:24	24° \mathfrak{G} 28'19		minimum elong	30 Jun 16 j 23:33	22° \mathbb{I} 20'21	1°23'40
	29 Jul 14 j 02:05	0° \mathcal{O}		max. Earth dist.	30 Jun 19 j 13:31	27° \mathbb{I} 49'32	1.33749 AU
desc. node	29 Jul 30 j 13:48	27° \mathcal{O} 04'31			30 Jun 20 j 14:26	0° \mathfrak{G}	
	29 Aug 01 j 15:06	0° \mathfrak{M}		evening rise	30 Jun 24 j 17:51	8° \mathfrak{G} 26'38	
evening max el	29 Aug 15 j 08:08	16° \mathfrak{M} 29'12	26°48'46		30 Jul 06 j 13:22	0° \mathcal{O}	
retrograde	29 Aug 28 j 09:52	23° \mathfrak{M} 45'31		desc. node	30 Jul 17 j 10:49	16° \mathcal{O} 29'07	
evening set	29 Sep 04 j 02:32	21° \mathfrak{M} 02'17		evening max el	30 Jul 28 j 19:53	29° \mathcal{O} 50'13	27°20'21
min. Earth dist.	29 Sep 08 j 02:24	16° \mathfrak{M} 59'11	0.65713 AU		30 Jul 29 j 00:00	0° \mathfrak{M}	
inferior conj	29 Sep 09 j 21:38	14° \mathfrak{M} 52'06	-2°-18'-10	retrograde	30 Aug 11 j 07:50	7° \mathfrak{M} 09'18	
minimum elong	29 Sep 10 j 01:07	14° \mathfrak{M} 41'51	2°16'52	evening set	30 Aug 18 j 09:56	4° \mathfrak{M} 26'06	
morning rise	29 Sep 16 j 01:00	9° \mathfrak{M} 08'43		min. Earth dist.	30 Aug 22 j 03:25	0° \mathfrak{M} 59'19	0.64371 AU
asc. node	29 Sep 16 j 21:57	8° \mathfrak{M} 45'40			30 Aug 23 j 01:47	30° \mathcal{R} \mathcal{O}	
direct	29 Sep 18 j 20:44	8° \mathfrak{M} 24'29		inferior conj	30 Aug 24 j 11:41	28° \mathcal{O} 28'32	-3°-11'-17
morning max el	29 Sep 25 j 11:22	12° \mathfrak{M} 01'44	18°24'14	minimum elong	30 Aug 24 j 16:13	28° \mathcal{O} 16'21	3°09'53
	29 Oct 08 j 04:42	0° \mathfrak{A}		morning rise	30 Aug 31 j 00:20	23° \mathcal{O} 00'50	
morning set	29 Oct 14 j 22:00	10° \mathfrak{A} 52'43		direct	30 Sep 02 j 14:26	22° \mathcal{O} 26'25	
desc. node	29 Oct 26 j 13:04	29° \mathfrak{A} 31'45		asc. node	30 Sep 03 j 19:00	22° \mathcal{O} 33'47	
	29 Oct 26 j 20:12	0° \mathfrak{M}		morning max el	30 Sep 09 j 02:40	25° \mathcal{O} 53'37	17°59'46
					30 Sep 12 j 13:56	0° \mathfrak{M}	
superior conj	29 Oct 30 j 05:55	5° \mathfrak{M} 22'45	0°-24'-10	morning set	30 Sep 26 j 11:09	22° \mathfrak{M} 20'23	
minimum elong	29 Oct 30 j 02:45	5° \mathfrak{M} 10'14	0°23'45		30 Oct 01 j 00:02	0° \mathfrak{A}	
max. Earth dist.	29 Oct 31 j 21:06	7° \mathfrak{M} 56'56	1.45025 AU				
	29 Nov 14 j 22:20	0° \mathfrak{A}		superior conj	30 Oct 09 j 18:19	14° \mathfrak{A} 25'47	0°24'05
evening rise	29 Nov 15 j 14:17	1° \mathfrak{A} 02'42		minimum elong	30 Oct 09 j 21:03	14° \mathfrak{A} 36'50	0°23'42
greatest brilliancy	29 Nov 29 j 00:18	21° \mathfrak{A} 56'32	-0.7m	desc. node	30 Oct 13 j 10:09	20° \mathfrak{A} 18'13	
	29 Dec 04 j 15:39	0° \mathfrak{C}		max. Earth dist.	30 Oct 14 j 15:40	22° \mathfrak{A} 15'37	1.44508 AU
evening max el	29 Dec 08 j 17:16	4° \mathfrak{C} 50'48	19°16'26		30 Oct 19 j 13:34	0° \mathfrak{M}	
asc. node	29 Dec 13 j 21:12	8° \mathfrak{C} 34'13		evening rise	30 Oct 26 j 03:10	10° \mathfrak{M} 11'32	
retrograde	29 Dec 15 j 19:02	8° \mathfrak{C} 54'25			30 Nov 08 j 04:10	0° \mathfrak{A}	
evening set	29 Dec 19 j 02:24	7° \mathfrak{C} 50'38		greatest brilliancy	30 Nov 15 j 06:25	10° \mathfrak{A} 11'12	-0.6m
inferior conj	29 Dec 24 j 17:56	1° \mathfrak{C} 56'58	3°07'38	evening max el	30 Nov 21 j 21:43	18° \mathfrak{A} 19'16	20°12'11
minimum elong	29 Dec 24 j 15:12	2° \mathfrak{C} 05'44	3°06'59	retrograde	30 Nov 29 j 16:37	22° \mathfrak{A} 53'44	
min. Earth dist.	29 Dec 26 j 02:10	0° \mathfrak{C} 13'49	0.66047 AU	asc. node	30 Nov 30 j 18:15	22° \mathfrak{A} 47'15	
	29 Dec 26 j 06:33	30° \mathcal{R} \mathfrak{A}		evening set	30 Dec 03 j 08:26	21° \mathfrak{A} 35'52	
morning rise	29 Dec 30 j 03:10	25° \mathfrak{A} 44'25		inferior conj	30 Dec 08 j 20:15	15° \mathfrak{A} 29'03	2°31'08
direct	30 Jan 05 j 10:58	22° \mathfrak{A} 58'04		minimum elong	30 Dec 08 j 17:32	15° \mathfrak{A} 38'12	2°30'16
	30 Jan 17 j 15:55	0° \mathfrak{C}		min. Earth dist.	30 Dec 09 j 15:10	14° \mathfrak{A} 25'30	0.66949 AU
morning max el	30 Jan 18 j 02:11	0° \mathfrak{C} 25'34	26°13'21	morning rise	30 Dec 14 j 02:07	9° \mathfrak{A} 14'06	
desc. node	30 Jan 22 j 12:15	5° \mathfrak{C} 15'39		direct	30 Dec 19 j 19:44	6° \mathfrak{A} 42'49	
	30 Feb 09 j 05:53	0° \approx		morning max el	30 Dec 31 j 10:46	13° \mathfrak{A} 38'10	24°54'59
morning set	30 Feb 23 j 05:24	24° \approx 03'15		desc. node	31 Jan 09 j 09:19	24° \mathfrak{A} 06'43	
	30 Feb 26 j 08:33	0° \mathfrak{H}			31 Jan 13 j 18:08	0° \mathfrak{C}	
max. Earth dist.	30 Feb 27 j 06:44	1° \mathfrak{H} 47'39	1.35241 AU		31 Feb 02 j 01:29	0° \approx	
				morning set	31 Feb 05 j 13:40	6° \approx 07'27	
superior conj	30 Mar 04 j 05:25	11° \mathfrak{H} 40'22	-1°-13'-8	max. Earth dist.	31 Feb 09 j 06:42	12° \approx 50'42	1.37048 AU
minimum elong	30 Mar 04 j 08:48	11° \mathfrak{H} 57'36	1°12'36				
asc. node	30 Mar 11 j 20:32	27° \mathfrak{H} 26'12		superior conj	31 Feb 15 j 16:54	25° \approx 04'49	-1°-36'-11
evening rise	30 Mar 12 j 00:42	27° \mathfrak{H} 47'40		minimum elong	31 Feb 15 j 20:47	25° \approx 23'50	1°35'44
	30 Mar 13 j 02:36	0° \mathfrak{Y}			31 Feb 18 j 04:39	0° \mathfrak{H}	
evening max el	30 Mar 30 j 13:35	27° \mathfrak{Y} 45'52	20°32'27	evening rise	31 Feb 24 j 03:20	11° \mathfrak{H} 55'58	
	30 Apr 02 j 04:41	0° \mathfrak{B}		asc. node	31 Feb 26 j 17:34	17° \mathfrak{H} 04'20	
retrograde	30 Apr 10 j 13:23	3° \mathfrak{B} 03'33			31 Mar 05 j 21:12	0° \mathfrak{Y}	
evening set	30 Apr 12 j 17:08	2° \mathfrak{B} 52'11		evening max el	31 Mar 13 j 04:18	9° \mathfrak{Y} 29'10	19°26'29
	30 Apr 19 j 22:48	30° \mathcal{R} \mathfrak{Y}		retrograde	31 Mar 22 j 11:21	13° \mathfrak{Y} 57'11	
desc. node	30 Apr 20 j 11:26	29° \mathfrak{Y} 42'18		evening set	31 Mar 24 j 14:59	13° \mathfrak{Y} 43'53	
inferior conj	30 Apr 21 j 20:32	28° \mathfrak{Y} 54'49	0°-23'-45	inferior conj	31 Apr 02 j 02:11	9° \mathfrak{Y} 37'10	1°27'18
minimum elong	30 Apr 21 j 19:25	28° \mathfrak{Y} 56'26	0°23'21	minimum elong	31 Apr 02 j 05:34	9° \mathfrak{Y} 31'39	1°26'12
min. Earth dist.	30 Apr 23 j 04:28	28° \mathfrak{Y} 08'39	0.55146 AU	min. Earth dist.	31 Apr 04 j 18:57	7° \mathfrak{Y} 52'21	0.56140 AU
morning rise	30 Apr 30 j 20:01	24° \mathfrak{Y} 41'47		desc. node	31 Apr 07 j 08:28	6° \mathfrak{Y} 21'50	
direct	30 May 04 j 10:49	24° \mathfrak{Y} 13'29		morning rise	31 Apr 10 j 16:25	4° \mathfrak{Y} 52'43	
	30 May 17 j 00:28	0° \mathfrak{B}		direct	31 Apr 15 j 07:22	4° \mathfrak{Y} 04'15	
morning max el	30 May 17 j 19:18	0° \mathfrak{B} 43'11	23°14'47	morning max el	31 Apr 29 j 10:06	11° \mathfrak{Y} 13'11	24°55'09
	30 Jun 06 j 09:08	0° \mathbb{I}			31 May 13 j 16:44	0° \mathfrak{B}	
asc. node	30 Jun 07 j 19:48	2° \mathbb{I} 54'24		morning set	31 May 25 j 10:39	22° \mathfrak{B} 16'11	
morning set	30 Jun 09 j 22:38	7° \mathbb{I} 17'19		asc. node	31 May 25 j 16:51	22° \mathfrak{B} 48'54	
					31 May 29 j 01:13	0° \mathbb{I}	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 234

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

superior conj	31 Jun 01 j 11:31	7° Π 28'13	1°06'08	superior conj	32 May 15 j 22:58	22° 8 27'15	0°44'51
minimum elong	31 Jun 01 j 09:09	7° Π 15'19	1°05'44	minimum elong	32 May 15 j 21:08	22° 8 17'13	0°44'30
max. Earth dist.	31 Jun 02 j 20:01	10° Π 24'40	1.32901 AU	max. Earth dist.	32 May 16 j 07:23	23° 8 13'25	1.32430 AU
evening rise	31 Jun 08 j 17:27	22° Π 51'45			32 May 19 j 09:53	0° Π	
	31 Jun 12 j 07:20	0° 8		evening rise	32 May 22 j 23:18	7° Π 34'28	
	31 Jun 30 j 09:06	0° 9			32 Jun 03 j 19:02	0° 8	
desc. node	31 Jul 04 j 07:49	5° 9 09'15		desc. node	32 Jun 20 j 04:48	22° 8 46'18	
evening max el	31 Jul 11 j 05:01	12° 9 43'39	27°22'33	evening max el	32 Jun 22 j 09:08	24° 8 57'44	26°51'57
retrograde	31 Jul 24 j 23:31	20° 9 01'53			32 Jun 28 j 21:47	0° 9	
evening set	31 Aug 01 j 04:22	17° 9 30'54		retrograde	32 Jul 06 j 08:11	2° 9 13'58	
min. Earth dist.	31 Aug 04 j 18:17	14° 9 34'27	0.62674 AU	evening set	32 Jul 13 j 05:28	0° 9 09'14	
inferior conj	31 Aug 07 j 15:23	11° 9 49'00	-3°-58'-2		32 Jul 13 j 11:37	30° 9 38	
minimum elong	31 Aug 07 j 20:07	11° 9 37'38	3°56'59	min. Earth dist.	32 Jul 16 j 22:55	27° 9 30'13	0.60700 AU
morning rise	31 Aug 14 j 14:20	6° 9 40'32		inferior conj	32 Jul 20 j 05:22	24° 9 45'18	-4°-32'-33
direct	31 Aug 17 j 01:17	6° 9 12'59		minimum elong	32 Jul 20 j 08:44	24° 9 38'10	4°32'10
asc. node	31 Aug 21 j 16:03	7° 9 52'10		morning rise	32 Jul 27 j 15:08	19° 9 58'45	
morning max el	31 Aug 23 j 18:11	9° 9 38'29	17°53'14	direct	32 Jul 30 j 01:22	19° 9 35'46	
	31 Sep 06 j 05:08	0° 9		morning max el	32 Aug 06 j 06:56	23° 9 08'57	18°05'40
morning set	31 Sep 08 j 22:53	4° 9 52'29		asc. node	32 Aug 07 j 13:06	24° 9 27'20	
					32 Aug 11 j 17:43	0° 9	
superior conj	31 Sep 20 j 08:23	24° 9 45'33	1°03'09	morning set	32 Aug 22 j 03:21	18° 9 12'45	
minimum elong	31 Sep 20 j 13:21	25° 9 06'34	1°02'33		32 Aug 28 j 12:00	0° 9	
	31 Sep 23 j 11:30	0° 9					
max. Earth dist.	31 Sep 27 j 06:40	6° 9 13'40	1.43320 AU	superior conj	32 Sep 01 j 01:10	6° 9 24'27	1°29'20
desc. node	31 Sep 30 j 07:10	11° 9 05'03		minimum elong	32 Sep 01 j 05:13	6° 9 42'27	1°28'59
evening rise	31 Oct 05 j 10:24	19° 9 09'57		max. Earth dist.	32 Sep 08 j 16:01	19° 9 34'53	1.41627 AU
	31 Oct 12 j 12:16	0° 9		evening rise	32 Sep 14 j 05:53	28° 9 44'15	
greatest brilliancy	31 Oct 30 j 17:31	25° 9 52'27	-0.4m		32 Sep 15 j 00:48	0° 9	
	31 Nov 03 j 04:11	0° 9		desc. node	32 Sep 16 j 04:10	1° 9 48'54	
evening max el	31 Nov 04 j 20:22	1° 9 47'54	21°20'41		32 Oct 05 j 03:41	0° 9	
retrograde	31 Nov 13 j 13:54	6° 9 59'19		greatest brilliancy	32 Oct 12 j 16:49	9° 9 50'22	-0.3m
evening set	31 Nov 17 j 16:07	5° 9 25'30		evening max el	32 Oct 17 j 13:28	15° 9 17'21	22°37'49
asc. node	31 Nov 17 j 15:16	5° 9 27'07		retrograde	32 Oct 27 j 09:08	21° 9 07'34	
	31 Nov 22 j 11:07	30° 9 11		evening set	32 Oct 31 j 23:41	19° 9 16'22	
inferior conj	31 Nov 23 j 01:56	29° 9 09'03	1°47'31	asc. node	32 Nov 03 j 12:19	16° 9 41'19	
minimum elong	31 Nov 22 j 23:44	29° 9 16'40	1°46'40	inferior conj	32 Nov 06 j 09:01	12° 9 54'03	0°58'28
min. Earth dist.	31 Nov 23 j 09:06	28° 9 44'22	0.67478 AU	minimum elong	32 Nov 06 j 07:41	12° 9 58'38	0°57'55
morning rise	31 Nov 28 j 07:02	22° 9 53'40		min. Earth dist.	32 Nov 06 j 05:29	13° 9 06'17	0.67674 AU
direct	31 Dec 03 j 09:15	20° 9 43'07		morning rise	32 Nov 11 j 15:37	6° 9 40'37	
morning max el	31 Dec 13 j 19:44	26° 9 55'55	23°27'54	direct	32 Nov 16 j 02:52	4° 9 52'37	
	31 Dec 16 j 16:10	0° 9		morning max el	32 Nov 25 j 08:03	10° 9 18'57	22°01'20
greatest brilliancy	31 Dec 19 j 15:04	3° 9 30'24	-0.2m	greatest brilliancy	32 Nov 30 j 01:43	15° 9 39'36	-0.4m
desc. node	31 Dec 27 j 06:23	13° 9 36'14			32 Dec 10 j 16:47	0° 9	
	32 Jan 07 j 09:27	0° 9		desc. node	32 Dec 13 j 03:24	3° 9 32'35	
morning set	32 Jan 17 j 21:43	16° 9 58'03		morning set	32 Dec 28 j 00:35	26° 9 23'25	
max. Earth dist.	32 Jan 22 j 01:58	24° 9 08'36	1.39125 AU		32 Dec 30 j 06:08	0° 9	
	32 Jan 25 j 09:08	0° 9		max. Earth dist.	33 Jan 02 j 23:44	6° 9 09'52	1.41224 AU
superior conj	32 Jan 29 j 14:36	7° 9 45'20	-1°-53'-38	superior conj	33 Jan 10 j 17:26	19° 9 28'26	-2°-1'-51
minimum elong	32 Jan 29 j 17:46	8° 9 00'10	1°53'27	minimum elong	33 Jan 10 j 17:57	19° 9 30'45	2°01'52
evening rise	32 Feb 07 j 22:07	25° 9 36'08			33 Jan 16 j 13:28	0° 9	
	32 Feb 10 j 04:56	0° 9		evening rise	33 Jan 21 j 05:41	8° 9 39'04	
asc. node	32 Feb 13 j 14:36	6° 9 21'40		asc. node	33 Jan 30 j 11:37	25° 9 10'22	
evening max el	32 Feb 24 j 04:54	21° 9 48'53	18°40'20		33 Feb 02 j 16:00	0° 9	
retrograde	32 Mar 03 j 02:53	25° 9 40'11		evening max el	33 Feb 06 j 12:31	4° 9 36'32	18°14'18
evening set	32 Mar 05 j 10:53	25° 9 21'18		retrograde	33 Feb 13 j 12:41	8° 9 07'02	
inferior conj	32 Mar 13 j 03:33	20° 9 56'34	2°47'44	evening set	33 Feb 16 j 01:28	7° 9 40'25	
minimum elong	32 Mar 13 j 07:48	20° 9 48'29	2°46'43	inferior conj	33 Feb 23 j 01:44	2° 9 54'30	3°33'12
min. Earth dist.	32 Mar 16 j 12:19	18° 9 24'35	0.57839 AU	minimum elong	33 Feb 23 j 04:19	2° 9 48'48	3°32'52
morning rise	32 Mar 21 j 00:34	15° 9 40'04			33 Feb 26 j 09:20	30° 9 11	
desc. node	32 Mar 24 j 05:30	14° 9 34'29		min. Earth dist.	33 Feb 26 j 10:37	29° 9 57'18	0.59900 AU
direct	32 Mar 26 j 17:56	14° 9 18'33		morning rise	33 Mar 02 j 03:47	27° 9 14'44	
morning max el	32 Apr 10 j 02:29	21° 9 52'11	26°22'18	direct	33 Mar 08 j 17:17	25° 9 15'16	
	32 Apr 17 j 05:42	0° 9		desc. node	33 Mar 11 j 02:32	25° 9 30'26	
	32 May 05 j 09:22	0° 9			33 Mar 19 j 14:58	0° 9	
morning set	32 May 08 j 21:44	7° 9 11'46		morning max el	33 Mar 23 j 00:08	3° 9 01'47	27°22'19
asc. node	32 May 11 j 13:54	12° 9 53'33			33 Apr 11 j 16:34	0° 9	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 235

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

morning set	33 Apr 23 j 06:10	21°Υ57'35		desc. node	34 Feb 25 j 23:35	9°≈07'30	
	33 Apr 27 j 01:08	0°Ϡ		morning max el	34 Mar 05 j 03:47	14°≈51'50	27°46'57
asc. node	33 Apr 28 j 10:56	3°Ϡ03'24			34 Mar 17 j 11:06	0°Ϡ	
					34 Apr 04 j 04:21	0°Υ	
superior conj	33 Apr 30 j 10:37	7°Ϡ24'18	0°20'54	morning set	34 Apr 07 j 09:59	6°Υ26'52	
minimum elong	33 Apr 30 j 09:41	7°Ϡ19'12	0°20'43	max. Earth dist.	34 Apr 13 j 06:04	18°Υ43'41	1.32604 AU
max. Earth dist.	33 Apr 29 j 19:58	6°Ϡ03'58	1.32328 AU				
evening rise	33 May 07 j 09:01	22°Ϡ26'39		superior conj	34 Apr 14 j 20:48	22°Υ13'32	0°-4'-55
	33 May 11 j 01:14	0°Π		minimum elong	34 Apr 14 j 21:02	22°Υ14'48	0°04'54
	33 May 29 j 10:18	0°Ϡ		behind sun begin	34 Apr 14 j 16:07	21°Υ48'08	
evening max el	33 Jun 04 j 06:38	6°Ϡ26'56	25°49'56	behind sun end	34 Apr 15 j 01:56	22°Υ41'29	
desc. node	33 Jun 07 j 01:48	8°Ϡ54'21		asc. node	34 Apr 15 j 07:58	23°Υ14'21	
retrograde	33 Jun 18 j 07:57	13°Ϡ39'03			34 Apr 18 j 10:27	0°Ϡ	
evening set	33 Jun 24 j 08:49	12°Ϡ11'38		evening rise	34 Apr 21 j 20:37	7°Ϡ21'20	
min. Earth dist.	33 Jun 28 j 19:08	9°Ϡ32'11	0.58636 AU		34 May 03 j 18:28	0°Π	
inferior conj	33 Jul 02 j 02:04	7°Ϡ08'09	-4°-45'-35	evening max el	34 May 16 j 22:27	17°Π17'21	24°24'19
minimum elong	33 Jul 02 j 01:57	7°Ϡ08'22	4°45'35	desc. node	34 May 24 j 22:49	22°Π59'09	
morning rise	33 Jul 09 j 22:45	2°Ϡ44'17		retrograde	34 May 30 j 20:06	24°Π18'06	
direct	33 Jul 12 j 10:23	2°Ϡ24'09		evening set	34 Jun 04 j 13:16	23°Π28'24	
morning max el	33 Jul 20 j 13:50	6°Ϡ16'03	18°38'15	min. Earth dist.	34 Jun 10 j 09:49	20°Π32'01	0.56779 AU
asc. node	33 Jul 25 j 10:10	12°Ϡ04'00		inferior conj	34 Jun 13 j 02:49	18°Π48'46	-4°-24'-30
	33 Aug 04 j 17:13	0°Ω		minimum elong	34 Jun 12 j 21:57	18°Π56'32	4°23'50
morning set	33 Aug 05 j 19:51	2°Ω08'49		morning rise	34 Jun 21 j 10:23	14°Π44'48	
				direct	34 Jun 24 j 01:00	14°Π26'18	
superior conj	33 Aug 14 j 15:51	19°Ω08'48	1°43'17	morning max el	34 Jul 03 j 11:54	18°Π49'49	19°31'49
minimum elong	33 Aug 14 j 17:48	19°Ω17'55	1°43'12	asc. node	34 Jul 12 j 07:13	0°Ϡ27'57	
	33 Aug 20 j 14:18	0°Π			34 Jul 12 j 00:28	0°Ϡ	
max. Earth dist.	33 Aug 21 j 20:25	2°Π13'02	1.39654 AU	morning set	34 Jul 20 j 20:43	16°Ϡ30'29	
evening rise	33 Aug 26 j 00:47	9°Π24'54			34 Jul 27 j 13:57	0°Ω	
desc. node	33 Sep 03 j 01:10	22°Π26'21					
	33 Sep 07 j 23:39	0°Ω		superior conj	34 Jul 28 j 22:43	2°Ω41'59	1°47'06
evening max el	33 Sep 30 j 02:48	28°Ω50'31	23°58'02	minimum elong	34 Jul 28 j 22:40	2°Ω41'41	1°47'06
	33 Oct 01 j 07:37	0°Π		max. Earth dist.	34 Aug 03 j 23:51	14°Ω16'12	1.37657 AU
retrograde	33 Oct 11 j 01:00	5°Π16'03		evening rise	34 Aug 07 j 20:03	21°Ω14'47	
evening set	33 Oct 16 j 05:31	3°Π06'53			34 Aug 12 j 21:42	0°Π	
	33 Oct 19 j 04:04	30°RΩ		desc. node	34 Aug 20 j 22:12	12°Π52'19	
min. Earth dist.	33 Oct 21 j 01:54	27°Ω29'52	0.67555 AU		34 Sep 01 j 22:23	0°Ω	
asc. node	33 Oct 21 j 09:21	27°Ω04'36		evening max el	34 Sep 12 j 14:35	12°Ω27'11	25°14'29
inferior conj	33 Oct 21 j 15:46	26°Ω42'50	0°05'32	retrograde	34 Sep 24 j 12:34	19°Ω20'06	
minimum elong	33 Oct 21 j 15:38	26°Ω43'18	0°05'29	evening set	34 Sep 30 j 07:55	16°Ω54'05	
transit middle	33 Oct 21 j 15:38	26°Ω43'18	0°05'29	min. Earth dist.	34 Oct 04 j 19:51	11°Ω52'23	0.67112 AU
transit begin	33 Oct 21 j 13:04	26°Ω52'00		inferior conj	34 Oct 05 j 20:25	10°Ω32'19	0°-49'-51
transit end	33 Oct 21 j 18:12	26°Ω34'36		minimum elong	34 Oct 05 j 21:40	10°Ω28'15	0°49'20
morning rise	33 Oct 27 j 01:55	20°Ω33'59		asc. node	34 Oct 08 j 06:25	7°Ω31'06	
direct	33 Oct 30 j 23:31	19°Ω07'41		morning rise	34 Oct 11 j 11:59	4°Ω31'06	
morning max el	33 Nov 08 j 02:53	23°Ω51'20	20°42'45	direct	34 Oct 14 j 21:49	3°Ω23'55	
	33 Nov 13 j 09:41	0°Π		morning max el	34 Oct 22 j 05:28	7°Ω33'51	19°36'52
greatest brilliancy	33 Nov 14 j 02:06	0°Π53'05	-0.5m	greatest brilliancy	34 Oct 30 j 15:19	18°Ω11'01	-0.6m
desc. node	33 Nov 30 j 00:27	23°Π48'37			34 Nov 07 j 14:21	0°Π	
	33 Dec 04 j 01:47	0°Ϡ		morning set	34 Nov 16 j 00:45	12°Π57'58	
morning set	33 Dec 07 j 02:52	4°Ϡ42'31		desc. node	34 Nov 16 j 21:30	14°Π18'19	
max. Earth dist.	33 Dec 16 j 04:58	19°Ϡ07'09	1.43055 AU		34 Nov 26 j 22:27	0°Ϡ	
				max. Earth dist.	34 Nov 28 j 17:58	2°Ϡ52'08	1.44364 AU
superior conj	33 Dec 22 j 20:08	0°Ϡ02'37	-1°-56'-15				
minimum elong	33 Dec 22 j 16:02	29°Ϡ45'26	1°56'05	superior conj	34 Dec 02 j 20:03	9°Ϡ23'32	-1°-32'-53
	33 Dec 22 j 19:31	0°Ϡ		minimum elong	34 Dec 02 j 12:00	8°Ϡ51'12	1°32'09
evening rise	34 Jan 03 j 22:06	20°Ϡ57'01			34 Dec 15 j 09:08	0°Ϡ	
	34 Jan 09 j 01:10	0°≈		evening rise	34 Dec 16 j 19:02	2°Ϡ22'25	
asc. node	34 Jan 17 j 08:39	13°≈21'45			35 Jan 03 j 13:13	0°≈	
evening max el	34 Jan 21 j 00:04	17°≈43'38	18°07'55	asc. node	35 Jan 04 j 05:41	0°≈44'44	
retrograde	34 Jan 27 j 13:25	21°≈08'23		evening max el	35 Jan 04 j 12:38	1°≈02'37	18°20'31
evening set	34 Jan 30 j 06:36	20°≈32'45		retrograde	35 Jan 11 j 00:41	4°≈34'29	
inferior conj	34 Feb 05 j 17:51	15°≈25'20	3°49'40	evening set	35 Jan 13 j 22:27	3°≈48'57	
minimum elong	34 Feb 05 j 18:11	15°≈24'30	3°49'40		35 Jan 18 j 12:22	30°RϠ	
min. Earth dist.	34 Feb 08 j 16:27	12°≈28'00	0.61984 AU	inferior conj	35 Jan 19 j 23:57	28°Ϡ21'29	3°44'49
morning rise	34 Feb 12 j 03:26	9°≈30'45		minimum elong	35 Jan 19 j 22:30	28°Ϡ25'34	3°44'42
direct	34 Feb 19 j 02:27	7°≈00'20		min. Earth dist.	35 Jan 22 j 07:46	25°Ϡ44'15	0.63839 AU

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 236

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

morning rise	35 Jan 25 j 21:02	22°☿17'21		minimum elong	36 Jan 03 j 13:48	11°☿43'11	3°24'08
direct	35 Feb 01 j 19:27	19°☿29'43		min. Earth dist.	36 Jan 05 j 08:45	9°☿30'51	0.65349 AU
desc. node	35 Feb 12 j 20:39	24°☿52'10		morning rise	36 Jan 09 j 04:47	5°☿25'10	
morning max el	35 Feb 15 j 11:57	27°☿20'00	27°34'59	direct	36 Jan 15 j 19:13	2°☿34'48	
	35 Feb 18 j 00:50	0°≈		morning max el	36 Jan 28 j 21:48	10°☿14'49	26°50'35
	35 Mar 11 j 02:52	0°✕		desc. node	36 Jan 30 j 17:43	12°☿09'10	
morning set	35 Mar 22 j 06:43	20°✕31'37			36 Feb 13 j 13:11	0°≈	
	35 Mar 26 j 22:22	0°☿			36 Mar 02 j 14:01	0°✕	
max. Earth dist.	35 Mar 27 j 09:51	1°☿00'03	1.33281 AU	morning set	36 Mar 04 j 16:59	4°✕00'22	
				max. Earth dist.	36 Mar 09 j 03:22	12°✕41'53	1.34396 AU
superior conj	35 Mar 30 j 03:44	6°☿48'57	0°-31'-44				
minimum elong	35 Mar 30 j 05:16	6°☿57'07	0°31'26	superior conj	36 Mar 13 j 05:15	21°✕02'44	0°-58'-26
asc. node	35 Apr 02 j 05:01	13°☿22'17		minimum elong	36 Mar 13 j 08:02	21°✕17'14	0°57'56
evening rise	35 Apr 06 j 08:16	22°☿12'02			36 Mar 17 j 11:37	0°☿	
	35 Apr 10 j 03:30	0°♄		asc. node	36 Mar 19 j 02:03	3°☿22'14	
evening max el	35 Apr 28 j 13:34	27°♄51'39	22°49'00	evening rise	36 Mar 20 j 18:02	6°☿51'04	
	35 Apr 30 j 23:34	0°♅			36 Apr 02 j 09:37	0°♄	
retrograde	35 May 11 j 19:41	4°♅25'55		evening max el	36 Apr 09 j 10:58	8°♄39'00	21°18'21
desc. node	35 May 11 j 19:51	4°♅25'55		retrograde	36 Apr 21 j 10:14	14°♄28'06	
evening set	35 May 15 j 03:04	4°♅01'56		evening set	36 Apr 23 j 19:02	14°♄15'12	
min. Earth dist.	35 May 22 j 22:17	0°♅35'52	0.55467 AU	desc. node	36 Apr 27 j 16:53	13°♄03'15	
	35 May 23 j 23:17	30°♄♄		inferior conj	36 May 03 j 03:30	10°♄15'31	-1°-32'-55
inferior conj	35 May 24 j 08:40	29°♄46'31	-3°-18'-48	minimum elong	36 May 02 j 23:09	10°♄21'38	1°31'24
minimum elong	35 May 24 j 01:22	29°♄57'01	3°16'52	min. Earth dist.	36 May 03 j 11:08	10°♄04'46	0.54985 AU
morning rise	35 Jun 02 j 02:27	25°♄53'13		morning rise	36 May 12 j 03:23	6°♄15'03	
direct	35 Jun 04 j 21:30	25°♄34'57		direct	36 May 15 j 07:49	5°♄53'02	
	35 Jun 15 j 03:53	0°♅		morning max el	36 May 27 j 23:47	11°♄54'08	22°17'23
morning max el	35 Jun 15 j 23:13	0°♅43'12	20°45'57		36 Jun 10 j 07:12	0°♅	
asc. node	35 Jun 29 j 04:17	19°♅28'09		asc. node	36 Jun 15 j 01:20	8°♅54'51	
	35 Jul 04 j 13:27	0°♄		morning set	36 Jun 18 j 13:17	16°♅02'15	
morning set	35 Jul 05 j 03:15	1°♄10'33			36 Jun 25 j 03:30	0°♄	
superior conj	35 Jul 12 j 17:08	16°♄50'59	1°42'52	superior conj	36 Jun 25 j 19:28	1°♄24'25	1°32'21
minimum elong	35 Jul 12 j 15:38	16°♄43'19	1°42'48	minimum elong	36 Jun 25 j 17:11	1°♄12'20	1°32'08
max. Earth dist.	35 Jul 17 j 07:52	26°♄06'15	1.35861 AU	max. Earth dist.	36 Jun 29 j 00:26	8°♄05'49	1.34403 AU
	35 Jul 19 j 08:07	0°♄		evening rise	36 Jul 03 j 19:15	17°♄41'08	
evening rise	35 Jul 21 j 11:51	4°♄04'40			36 Jul 10 j 10:04	0°♄	
	35 Aug 05 j 19:11	0°♅		desc. node	36 Jul 24 j 16:14	22°♄44'19	
desc. node	35 Aug 07 j 19:13	3°♅00'54			36 Jul 30 j 02:06	0°♅	
evening max el	35 Aug 26 j 02:14	26°♅03'40	26°19'29	evening max el	36 Aug 07 j 14:02	9°♅32'31	27°05'25
	35 Aug 30 j 16:55	0°♅		retrograde	36 Aug 20 j 20:45	16°♅51'31	
retrograde	35 Sep 07 j 19:14	3°♅14'18		evening set	36 Aug 27 j 18:07	14°♅06'37	
evening set	35 Sep 14 j 04:54	0°♅35'09		min. Earth dist.	36 Aug 31 j 14:55	10°♅19'36	0.65182 AU
	35 Sep 14 j 20:51	30°♄♅		inferior conj	36 Sep 02 j 15:45	8°♅01'17	-2°-41'-13
min. Earth dist.	35 Sep 18 j 08:57	26°♅10'42	0.66328 AU	minimum elong	36 Sep 02 j 19:45	7°♅49'56	2°39'50
inferior conj	35 Sep 19 j 21:07	24°♅19'42	-1°-46'-7	morning rise	36 Sep 08 j 22:57	2°♅24'28	
minimum elong	35 Sep 19 j 23:49	24°♅11'24	1°45'03	asc. node	36 Sep 11 j 00:32	1°♅47'11	
asc. node	35 Sep 25 j 03:29	18°♅54'42		direct	36 Sep 11 j 15:54	1°♅44'58	
morning rise	35 Sep 25 j 19:46	18°♅29'07		morning max el	36 Sep 18 j 04:47	5°♅16'58	18°11'45
direct	35 Sep 28 j 19:57	17°♅37'39			36 Oct 04 j 20:18	0°♅	
morning max el	35 Oct 05 j 14:51	21°♅24'00	18°46'06	morning set	36 Oct 06 j 15:05	2°♅56'53	
	35 Oct 12 j 09:53	0°♅		desc. node	36 Oct 20 j 15:34	25°♅41'54	
morning set	35 Oct 26 j 17:39	22°♅15'05					
	35 Oct 31 j 15:08	0°♅		superior conj	36 Oct 21 j 02:54	26°♅26'59	0°-3'-7
desc. node	35 Nov 03 j 18:32	4°♅57'15		minimum elong	36 Oct 21 j 02:30	26°♅25'21	0°03'05
				behind sun begin	36 Oct 20 j 15:43	25°♅42'31	
superior conj	35 Nov 11 j 23:48	17°♅52'51	0°-52'-14	behind sun end	36 Oct 21 j 13:17	27°♅08'09	
minimum elong	35 Nov 11 j 17:15	17°♅27'03	0°51'26		36 Oct 23 j 08:43	0°♅	
max. Earth dist.	35 Nov 11 j 11:37	17°♅04'54	1.44994 AU	max. Earth dist.	36 Oct 24 j 06:16	1°♅25'01	1.44884 AU
	35 Nov 19 j 16:05	0°♅		evening rise	36 Nov 06 j 15:50	22°♅21'19	
evening rise	35 Nov 27 j 16:56	12°♅49'34			36 Nov 11 j 14:04	0°♅	
	35 Dec 08 j 10:42	0°♅		greatest brilliancy	36 Nov 23 j 05:16	17°♅36'37	-0.7m
evening max el	35 Dec 18 j 23:35	14°♅27'33	18°51'07	evening max el	36 Dec 01 j 06:51	27°♅55'26	19°38'22
asc. node	35 Dec 22 j 02:45	17°♅05'31			36 Dec 03 j 12:55	0°♅	
retrograde	35 Dec 25 j 18:24	18°♅17'16		asc. node	36 Dec 07 j 23:47	2°♅09'25	
evening set	35 Dec 28 j 21:46	17°♅20'39		retrograde	36 Dec 08 j 15:21	2°♅11'47	
inferior conj	36 Jan 03 j 16:16	11°♅35'34	3°24'36	evening set	36 Dec 12 j 01:58	1°♅02'24	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 237

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	36 Dec 13 j 09:32	30° RA		asc. node	37 Nov 24 j 20:50	15° A 42'49	
inferior conj	36 Dec 17 j 15:42	25° A 02'41	2°53'12	evening set	37 Nov 26 j 08:53	14° A 49'22	
minimum elong	36 Dec 17 j 12:54	25° A 11'51	2°52'25	inferior conj	37 Dec 01 j 19:41	8° A 38'13	2°13'24
min. Earth dist.	36 Dec 18 j 18:06	23° A 36'06	0.66472 AU	minimum elong	37 Dec 01 j 17:08	8° A 46'56	2°12'31
morning rise	36 Dec 22 j 23:07	18° A 48'34		min. Earth dist.	37 Dec 02 j 09:31	7° A 51'05	0.67216 AU
direct	36 Dec 29 j 01:04	16° A 07'35		morning rise	37 Dec 07 j 00:54	2° A 22'42	
morning max el	37 Jan 10 j 07:01	23° A 23'53	25°41'44		37 Dec 12 j 03:41	30° RA	
	37 Jan 16 j 04:21	0° C		direct	37 Dec 12 j 12:06	29° M 59'28	
desc. node	37 Jan 16 j 14:46	0° C 31'55			37 Dec 12 j 20:35	0° A	
	37 Feb 05 j 21:39	0° \approx		morning max el	37 Dec 23 j 15:16	6° A 37'58	24°18'22
morning set	37 Feb 15 j 12:23	16° \approx 40'31		desc. node	38 Jan 03 j 11:48	19° A 40'41	
max. Earth dist.	37 Feb 19 j 08:51	23° \approx 52'09	1.35964 AU		38 Jan 10 j 19:35	0° C	
	37 Feb 22 j 12:49	0° K		morning set	38 Jan 28 j 11:06	28° C 15'16	
					38 Jan 29 j 11:05	0° \approx	
superior conj	37 Feb 24 j 22:47	4° K 47'57	-1°-23'-24	max. Earth dist.	38 Feb 01 j 05:20	4° \approx 54'39	1.37912 AU
minimum elong	37 Feb 25 j 02:29	5° K 06'30	1°22'53				
evening rise	37 Mar 04 j 23:55	21° K 12'30		superior conj	38 Feb 08 j 04:57	17° \approx 55'12	-1°-44'-28
asc. node	37 Mar 05 j 23:05	23° K 09'52		minimum elong	38 Feb 08 j 08:43	18° \approx 13'20	1°44'07
	37 Mar 09 j 10:13	0° Y			38 Feb 14 j 09:04	0° K	
evening max el	37 Mar 22 j 19:16	20° Y 00'35	20°02'00	evening rise	38 Feb 16 j 23:32	5° K 09'24	
retrograde	37 Apr 02 j 01:34	24° Y 56'06		asc. node	38 Feb 20 j 20:08	12° K 39'53	
evening set	37 Apr 04 j 04:01	24° Y 44'37			38 Mar 03 j 17:06	0° Y	
inferior conj	37 Apr 13 j 01:21	20° Y 45'05	0°26'03	evening max el	38 Mar 05 j 14:36	2° Y 00'44	19°04'24
minimum elong	37 Apr 13 j 02:30	20° Y 43'20	0°25'38	retrograde	38 Mar 14 j 06:05	6° Y 10'38	
desc. node	37 Apr 14 j 13:55	19° Y 49'47		evening set	38 Mar 16 j 11:30	5° Y 55'16	
min. Earth dist.	37 Apr 15 j 01:11	19° Y 32'57	0.55467 AU	inferior conj	38 Mar 24 j 14:47	1° Y 41'53	2°05'47
morning rise	37 Apr 21 j 22:07	16° Y 19'06		minimum elong	38 Mar 24 j 18:59	1° Y 34'37	2°04'33
direct	37 Apr 25 j 22:13	15° Y 43'52			38 Mar 27 j 01:42	30° RA	
morning max el	37 May 09 j 16:35	22° Y 32'53	23°58'00	min. Earth dist.	38 Mar 27 j 16:44	29° K 34'46	0.56802 AU
	37 May 16 j 06:23	0° B		desc. node	38 Apr 01 j 10:56	26° K 54'55	
asc. node	37 Jun 01 j 22:22	28° B 40'50		morning rise	38 Apr 01 j 22:20	26° K 43'16	
	37 Jun 02 j 13:35	0° II		direct	38 Apr 07 j 01:10	25° K 41'42	
morning set	37 Jun 03 j 01:00	0° II 59'53			38 Apr 17 j 18:42	0° Y	
				morning max el	38 Apr 21 j 07:11	3° Y 02'54	25°34'38
superior conj	37 Jun 10 j 02:59	16° II 13'31	1°16'53		38 May 10 j 10:24	0° B	
minimum elong	37 Jun 10 j 00:30	16° II 00'05	1°16'31	morning set	38 May 18 j 12:50	15° B 58'15	
max. Earth dist.	37 Jun 12 j 02:19	20° II 27'36	1.33338 AU	asc. node	38 May 19 j 19:24	18° B 40'23	
	37 Jun 16 j 15:53	0° S			38 May 25 j 00:32	0° II	
evening rise	37 Jun 17 j 13:58	1° S 51'50					
	37 Jul 03 j 07:32	0° Q		superior conj	38 May 25 j 13:33	1° II 11'11	0°57'29
desc. node	37 Jul 11 j 13:14	11° Q 51'40		minimum elong	38 May 25 j 11:22	0° II 59'12	0°57'05
evening max el	37 Jul 21 j 00:52	22° Q 42'50	27°25'15	max. Earth dist.	38 May 26 j 11:21	3° II 10'16	1.32659 AU
	37 Aug 02 j 17:36	0° M		evening rise	38 Jun 01 j 16:36	16° II 26'13	
retrograde	37 Aug 03 j 16:22	0° M 02'37			38 Jun 08 j 14:35	0° S	
	37 Aug 04 j 14:52	30° RQ		desc. node	38 Jun 28 j 10:14	0° Q 08'04	
evening set	37 Aug 10 j 20:28	27° Q 22'58			38 Jun 28 j 07:28	0° Q	
min. Earth dist.	37 Aug 14 j 11:51	24° Q 10'04	0.63679 AU	evening max el	38 Jul 03 j 08:26	5° Q 22'03	27°13'43
inferior conj	37 Aug 17 j 01:44	21° Q 31'25	-3°-32'-15	retrograde	38 Jul 17 j 05:11	12° Q 39'02	
minimum elong	37 Aug 17 j 06:30	21° Q 19'11	3°30'57	evening set	38 Jul 24 j 08:06	10° Q 17'57	
morning rise	37 Aug 23 j 18:41	16° Q 11'30		min. Earth dist.	38 Jul 27 j 22:32	7° Q 30'30	0.61857 AU
direct	37 Aug 26 j 06:59	15° Q 40'29		inferior conj	38 Jul 31 j 00:05	4° Q 43'24	-4°-14'-42
asc. node	37 Aug 28 j 21:36	16° Q 14'22		minimum elong	38 Jul 31 j 04:29	4° Q 33'22	4°13'54
morning max el	37 Sep 01 j 20:31	19° Q 06'21	17°54'44		38 Aug 06 j 10:40	30° RS	
	37 Sep 09 j 20:28	0° M		morning rise	38 Aug 07 j 03:34	29° S 43'37	
morning set	37 Sep 18 j 14:33	14° M 53'35		direct	38 Aug 09 j 13:55	29° S 18'13	
	37 Sep 27 j 10:38	0° A			38 Aug 12 j 15:25	0° Q	
				asc. node	38 Aug 15 j 18:38	2° Q 07'21	
superior conj	37 Oct 01 j 01:18	5° A 59'55	0°42'08	morning max el	38 Aug 16 j 11:11	2° Q 46'01	17°56'06
minimum elong	37 Oct 01 j 05:30	6° A 17'09	0°41'35	morning set	38 Sep 01 j 10:09	27° Q 48'28	
max. Earth dist.	37 Oct 06 j 23:06	15° A 34'49	1.44068 AU		38 Sep 02 j 15:06	0° M	
desc. node	37 Oct 07 j 12:35	16° A 28'39					
	37 Oct 16 j 03:26	0° M		superior conj	38 Sep 12 j 03:06	16° M 54'10	1°15'51
evening rise	37 Oct 17 j 00:00	1° M 19'20		minimum elong	38 Sep 12 j 07:57	17° M 15'06	1°15'20
	37 Nov 05 j 06:24	0° A		max. Earth dist.	38 Sep 19 j 11:59	29° M 19'15	1.42654 AU
greatest brilliancy	37 Nov 08 j 12:15	4° A 24'32	-0.5m		38 Sep 19 j 21:55	0° A	
evening max el	37 Nov 14 j 08:53	11° A 23'50	20°40'03	desc. node	38 Sep 24 j 09:35	7° A 14'36	
retrograde	37 Nov 22 j 12:59	16° A 13'34		evening rise	38 Sep 26 j 10:32	10° A 28'13	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 238

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	38 Oct 09 j 07:12	0°♌		desc. node	39 Sep 11 j 06:36	27°♍56'02	
greatest brilliancy	38 Oct 23 j 10:28	19°♌26'57	-0.4m		39 Sep 12 j 14:11	0°♌	
evening max el	38 Oct 28 j 05:12	24°♌52'53	21°52'47		39 Oct 03 j 13:29	0°♌	
	38 Nov 04 j 08:18	0°♏		greatest brilliancy	39 Oct 04 j 18:44	1°♌31'22	-0.2m
retrograde	38 Nov 06 j 09:25	0°♏20'15		evening max el	39 Oct 10 j 20:28	8°♌23'30	23°11'57
	38 Nov 08 j 08:19	30°♌		retrograde	39 Oct 21 j 03:18	14°♌29'02	
evening set	38 Nov 10 j 16:42	28°♌39'12		evening set	39 Oct 25 j 23:46	12°♌29'57	
asc. node	38 Nov 11 j 17:53	27°♌43'26		asc. node	39 Oct 29 j 14:55	8°♌30'03	
inferior conj	38 Nov 16 j 02:10	22°♌20'03	1°27'15	inferior conj	39 Oct 31 j 09:19	6°♌06'27	0°36'23
minimum elong	38 Nov 16 j 00:17	22°♌26'33	1°26'31	minimum elong	39 Oct 31 j 08:28	6°♌09'22	0°36'02
min. Earth dist.	38 Nov 16 j 04:43	22°♌11'13	0.67607 AU	min. Earth dist.	39 Oct 31 j 01:19	6°♌33'57	0.67664 AU
morning rise	38 Nov 21 j 07:39	16°♌05'22		morning rise	39 Nov 05 j 17:13	29°♌54'55	
direct	38 Nov 26 j 03:31	14°♌04'10			39 Nov 05 j 14:40	30°♌	
morning max el	38 Dec 06 j 01:04	19°♌56'33	22°50'29	direct	39 Nov 09 j 22:28	28°♌16'30	
greatest brilliancy	38 Dec 10 j 17:24	25°♌10'33	-0.3m		39 Nov 14 j 16:49	0°♌	
	38 Dec 14 j 13:04	0°♏		morning max el	39 Nov 18 j 15:58	3°♌23'23	21°26'41
desc. node	38 Dec 21 j 08:51	9°♏22'23		greatest brilliancy	39 Nov 23 j 18:39	9°♌14'29	-0.4m
	39 Jan 04 j 01:06	0°♏		desc. node	39 Dec 08 j 05:53	29°♌27'46	
morning set	39 Jan 09 j 06:57	8°♏29'02			39 Dec 08 j 14:33	0°♏	
max. Earth dist.	39 Jan 14 j 00:57	16°♏28'27	1.40037 AU	morning set	39 Dec 19 j 22:00	17°♏21'35	
				max. Earth dist.	39 Dec 27 j 02:16	28°♏56'03	1.42049 AU
superior conj	39 Jan 21 j 19:18	0°♏12'53	-1°-58'-31		39 Dec 27 j 17:46	0°♏	
minimum elong	39 Jan 21 j 21:37	0°♏23'29	1°58'26				
	39 Jan 21 j 16:28	0°♏		superior conj	40 Jan 03 j 12:30	11°♏27'56	-2°-1'-27
evening rise	39 Jan 31 j 13:58	18°♏34'27		minimum elong	40 Jan 03 j 11:14	11°♏22'28	2°01'27
	39 Feb 06 j 17:10	0°♏			40 Jan 13 j 22:09	0°♏	
asc. node	39 Feb 07 j 17:10	1°♏45'52		evening rise	40 Jan 14 j 15:39	1°♏19'41	
evening max el	39 Feb 16 j 18:36	14°♏33'23	18°26'48	asc. node	40 Jan 25 j 14:14	20°♏20'06	
retrograde	39 Feb 24 j 05:41	18°♏13'44		evening max el	40 Jan 31 j 04:14	27°♏30'13	18°09'12
evening set	39 Feb 26 j 15:55	17°♏51'36			40 Feb 03 j 10:15	0°♏	
inferior conj	39 Mar 06 j 01:10	13°♏17'45	3°11'03	retrograde	40 Feb 06 j 22:39	0°♏56'57	
minimum elong	39 Mar 06 j 04:54	13°♏10'11	3°10'19	evening set	40 Feb 09 j 13:16	0°♏26'38	
min. Earth dist.	39 Mar 09 j 11:34	10°♏32'19	0.58696 AU		40 Feb 10 j 13:09	30°♌	
morning rise	39 Mar 13 j 14:04	7°♏50'33		inferior conj	40 Feb 16 j 07:32	25°♏31'12	3°43'15
desc. node	39 Mar 19 j 08:00	6°♏13'20		minimum elong	40 Feb 16 j 09:09	25°♏27'25	3°43'08
direct	39 Mar 19 j 17:13	6°♏12'57		min. Earth dist.	40 Feb 19 j 12:47	22°♏31'11	0.60793 AU
morning max el	39 Apr 03 j 01:22	13°♏52'12	26°51'51	morning rise	40 Feb 23 j 02:07	19°♏44'04	
	39 Apr 15 j 21:42	0°♏		direct	40 Feb 29 j 20:45	17°♏30'26	
morning set	39 May 02 j 23:02	0°♏50'34		desc. node	40 Mar 05 j 05:02	18°♏21'05	
	39 May 02 j 13:20	0°♏		morning max el	40 Mar 15 j 01:57	25°♏19'48	27°37'28
asc. node	39 May 06 j 16:26	8°♏47'44			40 Mar 19 j 09:36	0°♏	
					40 Apr 08 j 06:23	0°♏	
superior conj	39 May 10 j 01:17	16°♏10'04	0°35'00	morning set	40 Apr 16 j 05:49	15°♏30'42	
minimum elong	39 May 09 j 23:48	16°♏01'54	0°34'40	max. Earth dist.	40 Apr 22 j 12:08	28°♏51'15	1.32403 AU
max. Earth dist.	39 May 09 j 23:54	16°♏02'29	1.32348 AU	asc. node	40 Apr 22 j 13:30	28°♏58'42	
	39 May 16 j 10:18	0°♏			40 Apr 23 j 00:43	0°♏	
evening rise	39 May 17 j 00:23	1°♏14'10					
	39 Jun 01 j 17:07	0°♏		superior conj	40 Apr 23 j 12:32	1°♏04'35	0°10'10
desc. node	39 Jun 15 j 07:15	17°♏11'09		minimum elong	40 Apr 23 j 12:04	1°♏02'03	0°10'03
evening max el	39 Jun 15 j 09:58	17°♏17'36	26°29'04	behind sun begin	40 Apr 23 j 08:08	0°♏40'32	
retrograde	39 Jun 29 j 09:55	24°♏31'36		behind sun end	40 Apr 23 j 16:00	1°♏23'34	
evening set	39 Jul 06 j 00:22	22°♏41'55		evening rise	40 Apr 30 j 11:11	16°♏08'20	
min. Earth dist.	39 Jul 09 j 23:06	20°♏05'07	0.59826 AU		40 May 07 j 09:11	0°♏	
inferior conj	39 Jul 13 j 07:09	17°♏26'42	-4°-41'-24	evening max el	40 May 27 j 04:30	28°♏27'43	25°15'29
minimum elong	39 Jul 13 j 09:18	17°♏22'25	4°41'15		40 May 28 j 21:02	0°♏	
morning rise	39 Jul 20 j 21:34	12°♏49'44		desc. node	40 Jun 01 j 04:17	2°♏31'16	
direct	39 Jul 23 j 08:21	12°♏27'58		retrograde	40 Jun 10 j 05:04	5°♏36'39	
morning max el	39 Jul 30 j 21:47	16°♏07'19	18°17'00	evening set	40 Jun 15 j 17:44	4°♏25'40	
asc. node	39 Aug 02 j 15:41	19°♏10'13		min. Earth dist.	40 Jun 20 j 16:15	1°♏40'59	0.57809 AU
	39 Aug 09 j 16:04	0°♏			40 Jun 23 j 03:18	30°♌	
morning set	39 Aug 15 j 20:15	11°♏25'20		inferior conj	40 Jun 23 j 19:31	29°♏31'52	-4°-41'-32
				minimum elong	40 Jun 23 j 17:24	29°♏35'32	4°41'25
superior conj	39 Aug 25 j 05:56	29°♏02'46	1°36'39	morning rise	40 Jul 01 j 20:56	25°♏17'30	
minimum elong	39 Aug 25 j 09:08	29°♏17'19	1°36'24	direct	40 Jul 04 j 09:44	24°♏58'12	
	39 Aug 25 j 18:32	0°♏		morning max el	40 Jul 13 j 01:18	29°♏01'24	18°58'28
max. Earth dist.	39 Sep 01 j 19:30	12°♏24'06	1.40812 AU		40 Jul 14 j 01:00	0°♏	
evening rise	39 Sep 06 j 15:17	20°♏28'24		asc. node	40 Jul 19 j 12:43	7°♏08'11	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 239

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morning set	40 Jul 29 j 16:39	25° $\overline{5}$ 32'52		morning set	41 Jul 08 j 17:13	0° $\overline{5}$	
	40 Jul 31 j 22:47	0° Ω			41 Jul 13 j 20:13	10° $\overline{5}$ 03'02	
superior conj	40 Aug 07 j 04:10	12° Ω 09'44	1°46'01	superior conj	41 Jul 21 j 16:28	25° $\overline{5}$ 59'50	1°46'10
minimum elong	40 Aug 07 j 05:12	12° Ω 14'43	1°45'59	minimum elong	41 Jul 21 j 15:43	25° $\overline{5}$ 56'05	1°46'09
max. Earth dist.	40 Aug 13 j 22:45	24° Ω 44'46	1.38791 AU		41 Jul 23 j 16:51	0° Ω	
	40 Aug 16 j 22:03	0° $\overline{\eta}$		max. Earth dist.	41 Jul 27 j 03:00	6° Ω 37'17	1.36855 AU
evening rise	40 Aug 17 j 20:46	1° $\overline{\eta}$ 38'26		evening rise	41 Jul 31 j 01:25	13° Ω 55'46	
desc. node	40 Aug 28 j 03:38	18° $\overline{\eta}$ 28'54			41 Aug 09 j 09:59	0° $\overline{\eta}$	
	40 Sep 04 j 20:32	0° $\underline{\Delta}$		desc. node	41 Aug 15 j 00:39	8° $\overline{\eta}$ 48'18	
evening max el	40 Sep 22 j 08:39	21° $\underline{\Delta}$ 57'07	24°31'27		41 Aug 30 j 16:00	0° $\underline{\Delta}$	
retrograde	40 Oct 03 j 17:32	28° $\underline{\Delta}$ 36'03		evening max el	41 Sep 04 j 20:11	5° $\underline{\Delta}$ 34'20	25°44'02
evening set	40 Oct 09 j 04:22	26° $\underline{\Delta}$ 19'10		retrograde	41 Sep 17 j 03:17	12° $\underline{\Delta}$ 36'47	
min. Earth dist.	40 Oct 13 j 20:57	20° $\underline{\Delta}$ 57'00	0.67402 AU	evening set	41 Sep 23 j 04:44	10° $\underline{\Delta}$ 04'38	
inferior conj	40 Oct 14 j 15:23	19° $\underline{\Delta}$ 55'23	0°-17'-46	min. Earth dist.	41 Sep 27 j 13:15	5° $\underline{\Delta}$ 18'23	0.66815 AU
minimum elong	40 Oct 14 j 15:49	19° $\underline{\Delta}$ 53'55	0°17'35	inferior conj	41 Sep 28 j 18:37	3° $\underline{\Delta}$ 44'47	-1°-13'-43
asc. node	40 Oct 15 j 11:58	18° $\underline{\Delta}$ 47'00		minimum elong	41 Sep 28 j 20:29	3° $\underline{\Delta}$ 38'50	1°12'57
morning rise	40 Oct 20 j 03:39	13° $\underline{\Delta}$ 49'32			41 Oct 01 j 22:09	30° $\overline{\mathbb{R}}$ $\overline{\eta}$	
direct	40 Oct 23 j 19:52	12° $\underline{\Delta}$ 31'58		asc. node	41 Oct 02 j 09:00	29° $\overline{\eta}$ 32'30	
morning max el	40 Oct 31 j 14:12	17° $\underline{\Delta}$ 00'20	20°13'01	morning rise	41 Oct 04 j 13:00	27° $\overline{\eta}$ 47'31	
greatest brilliancy	40 Nov 07 j 09:41	25° $\underline{\Delta}$ 14'17	-0.6m	direct	41 Oct 07 j 18:20	26° $\overline{\eta}$ 47'34	
	40 Nov 10 j 19:51	0° $\overline{\mathbb{M}}$			41 Oct 14 j 00:41	0° $\underline{\Delta}$	
desc. node	40 Nov 24 j 02:55	19° $\overline{\mathbb{M}}$ 49'44		morning max el	41 Oct 14 j 19:53	0° $\underline{\Delta}$ 46'42	19°13'16
morning set	40 Nov 27 j 19:11	25° $\overline{\mathbb{M}}$ 29'25			41 Nov 04 j 08:03	0° $\overline{\mathbb{M}}$	
	40 Nov 30 j 16:52	0° $\overline{\mathbb{X}}$		morning set	41 Nov 06 j 22:52	4° $\overline{\mathbb{M}}$ 04'47	
max. Earth dist.	40 Dec 08 j 10:47	12° $\overline{\mathbb{X}}$ 14'16	1.43678 AU	desc. node	41 Nov 10 j 23:59	10° $\overline{\mathbb{M}}$ 23'49	
				max. Earth dist.	41 Nov 21 j 01:35	26° $\overline{\mathbb{M}}$ 11'18	1.44719 AU
superior conj	40 Dec 14 j 03:41	21° $\overline{\mathbb{X}}$ 29'28	-1°-48'-39		41 Nov 23 j 11:26	0° $\overline{\mathbb{X}}$	
minimum elong	40 Dec 13 j 21:32	21° $\overline{\mathbb{X}}$ 04'12	1°48'14	superior conj	41 Nov 23 j 17:28	0° $\overline{\mathbb{X}}$ 23'58	-1°-17'-25
	40 Dec 19 j 06:24	0° $\overline{\mathbb{Z}}$		minimum elong	41 Nov 23 j 09:13	29° $\overline{\mathbb{M}}$ 51'13	1°16'33
evening rise	40 Dec 27 j 00:19	13° $\overline{\mathbb{Z}}$ 15'50		evening rise	41 Dec 08 j 11:45	24° $\overline{\mathbb{X}}$ 16'22	
	41 Jan 05 j 20:03	0° \approx			41 Dec 11 j 23:00	0° $\overline{\mathbb{Z}}$	
asc. node	41 Jan 11 j 11:17	8° \approx 12'06		evening max el	41 Dec 28 j 04:40	24° $\overline{\mathbb{Z}}$ 04'18	18°31'26
evening max el	41 Jan 13 j 16:29	10° \approx 42'23	18°11'02	asc. node	41 Dec 29 j 08:19	25° $\overline{\mathbb{Z}}$ 10'07	
retrograde	41 Jan 20 j 04:26	14° \approx 09'04		retrograde	42 Jan 03 j 18:42	27° $\overline{\mathbb{Z}}$ 42'24	
evening set	41 Jan 22 j 23:21	13° \approx 29'32		evening set	42 Jan 06 j 18:41	26° $\overline{\mathbb{Z}}$ 52'24	
inferior conj	41 Jan 29 j 06:06	8° \approx 13'27	3°49'49	inferior conj	42 Jan 12 j 16:55	21° $\overline{\mathbb{Z}}$ 17'26	3°37'48
minimum elong	41 Jan 29 j 05:35	8° \approx 14'48	3°49'49	minimum elong	42 Jan 12 j 14:57	21° $\overline{\mathbb{Z}}$ 23'14	3°37'32
min. Earth dist.	41 Jan 31 j 22:43	5° \approx 22'21	0.62802 AU	min. Earth dist.	42 Jan 14 j 18:17	18° $\overline{\mathbb{Z}}$ 52'39	0.64533 AU
morning rise	41 Feb 04 j 09:49	2° \approx 13'59		morning rise	42 Jan 14 j 18:17	18° $\overline{\mathbb{Z}}$ 52'39	0.64533 AU
	41 Feb 08 j 13:28	30° $\overline{\mathbb{R}}$ $\overline{\mathbb{Z}}$		direct	42 Jan 18 j 09:54	15° $\overline{\mathbb{Z}}$ 10'19	
direct	41 Feb 11 j 09:33	29° $\overline{\mathbb{Z}}$ 34'13		direct	42 Jan 25 j 05:48	12° $\overline{\mathbb{Z}}$ 19'26	
	41 Feb 14 j 08:25	0° \approx		desc. node	42 Feb 06 j 23:10	19° $\overline{\mathbb{Z}}$ 23'14	
desc. node	41 Feb 20 j 02:05	2° \approx 56'10		morning max el	42 Feb 07 j 16:58	20° $\overline{\mathbb{Z}}$ 07'00	27°19'32
morning max el	41 Feb 25 j 07:59	7° \approx 27'08	27°46'13		42 Feb 16 j 05:14	0° \approx	
	41 Mar 14 j 14:51	0° $\overline{\mathbb{X}}$			42 Mar 07 j 15:35	0° $\overline{\mathbb{X}}$	
morning set	41 Mar 31 j 06:58	29° $\overline{\mathbb{X}}$ 50'27		morning set	42 Mar 14 j 23:40	13° $\overline{\mathbb{X}}$ 40'40	
	41 Mar 31 j 08:52	0° $\overline{\mathbb{Y}}$		max. Earth dist.	42 Mar 19 j 19:21	23° $\overline{\mathbb{X}}$ 21'43	1.33694 AU
max. Earth dist.	41 Apr 05 j 19:54	11° $\overline{\mathbb{Y}}$ 21'28	1.32836 AU		42 Mar 22 j 23:38	0° $\overline{\mathbb{Y}}$	
superior conj	41 Apr 07 j 21:34	15° $\overline{\mathbb{Y}}$ 48'17	0°-16'-14	superior conj	42 Mar 23 j 02:28	0° $\overline{\mathbb{Y}}$ 14'58	0°-43'-10
minimum elong	41 Apr 07 j 22:20	15° $\overline{\mathbb{Y}}$ 52'28	0°16'04	minimum elong	42 Mar 23 j 04:33	0° $\overline{\mathbb{Y}}$ 25'58	0°42'45
asc. node	41 Apr 09 j 10:34	19° $\overline{\mathbb{Y}}$ 08'38		asc. node	42 Mar 27 j 07:37	9° $\overline{\mathbb{Y}}$ 13'24	
	41 Apr 14 j 11:23	0° $\overline{\mathbb{B}}$		evening rise	42 Mar 30 j 10:01	15° $\overline{\mathbb{Y}}$ 47'13	
evening rise	41 Apr 14 j 22:59	1° $\overline{\mathbb{B}}$ 01'26			42 Apr 06 j 14:14	0° $\overline{\mathbb{B}}$	
	41 May 01 j 02:34	0° $\overline{\mathbb{I}}$		evening max el	42 Apr 20 j 12:12	19° $\overline{\mathbb{B}}$ 43'50	22°09'16
evening max el	41 May 08 j 19:04	9° $\overline{\mathbb{I}}$ 07'11	23°44'03	retrograde	42 May 03 j 07:06	26° $\overline{\mathbb{B}}$ 00'22	
desc. node	41 May 19 j 01:18	15° $\overline{\mathbb{I}}$ 32'25		desc. node	42 May 05 j 22:20	25° $\overline{\mathbb{B}}$ 44'59	
retrograde	41 May 22 j 12:23	15° $\overline{\mathbb{I}}$ 59'44		evening set	42 May 06 j 02:42	25° $\overline{\mathbb{B}}$ 42'50	
evening set	41 May 26 j 14:22	15° $\overline{\mathbb{I}}$ 22'58		inferior conj	42 May 15 j 11:31	21° $\overline{\mathbb{B}}$ 36'12	-2°-37'-43
min. Earth dist.	41 Jun 02 j 05:52	12° $\overline{\mathbb{I}}$ 15'08	0.56132 AU	minimum elong	42 May 15 j 04:50	21° $\overline{\mathbb{B}}$ 45'37	2°35'38
inferior conj	41 Jun 04 j 11:46	10° $\overline{\mathbb{I}}$ 53'32	-4°-2'-21	min. Earth dist.	42 May 14 j 18:33	22° $\overline{\mathbb{B}}$ 00'06	0.55144 AU
minimum elong	41 Jun 04 j 05:20	11° $\overline{\mathbb{I}}$ 03'20	4°01'06	morning rise	42 May 24 j 08:37	17° $\overline{\mathbb{B}}$ 41'55	
morning rise	41 Jun 12 j 23:54	6° $\overline{\mathbb{I}}$ 55'45		direct	42 May 27 j 06:47	17° $\overline{\mathbb{B}}$ 22'42	
direct	41 Jun 15 j 15:50	6° $\overline{\mathbb{I}}$ 37'47		morning max el	42 Jun 08 j 01:33	22° $\overline{\mathbb{B}}$ 53'43	21°23'02
morning max el	41 Jun 25 j 19:04	11° $\overline{\mathbb{I}}$ 19'10	20°00'56		42 Jun 14 j 05:23	0° $\overline{\mathbb{I}}$	
asc. node	41 Jul 06 j 09:47	25° $\overline{\mathbb{I}}$ 48'44		asc. node	42 Jun 23 j 06:51	15° $\overline{\mathbb{I}}$ 01'06	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 240

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

morning set	42 Jun 28 j 04:28	24° Π 48'37		morning max el	43 May 20 j 22:07	3° \mathcal{B} 48'21	22°59'46
	42 Jun 30 j 16:12	0° \mathfrak{G}			43 Jun 07 j 19:55	0° Π	
				asc. node	43 Jun 10 j 03:55	4° Π 37'06	
superior conj	42 Jul 05 j 14:37	10° \mathfrak{G} 20'10	1°39'05	morning set	43 Jun 12 j 15:28	9° Π 43'55	
minimum elong	42 Jul 05 j 12:42	10° \mathfrak{G} 10'15	1°38'57				
max. Earth dist.	42 Jul 09 j 14:25	18° \mathfrak{G} 29'19	1.35197 AU	superior conj	43 Jun 19 j 19:27	25° Π 01'16	1°26'20
evening rise	42 Jul 14 j 00:27	27° \mathfrak{G} 07'20		minimum elong	43 Jun 19 j 17:01	24° Π 48'15	1°26'03
	42 Jul 15 j 13:08	0° \mathcal{Q}			43 Jun 22 j 03:53	0° \mathfrak{G}	
desc. node	42 Aug 01 j 21:40	28° \mathcal{Q} 47'11		max. Earth dist.	43 Jun 22 j 11:26	0° \mathfrak{G} 39'34	1.33907 AU
	42 Aug 02 j 17:46	0° \mathfrak{M}		evening rise	43 Jun 27 j 13:10	11° \mathfrak{G} 00'00	
evening max el	42 Aug 18 j 08:11	19° \mathfrak{M} 09'30	26°41'52		43 Jul 07 j 21:23	0° \mathcal{Q}	
retrograde	42 Aug 31 j 07:46	26° \mathfrak{M} 24'19		desc. node	43 Jul 19 j 18:39	18° \mathcal{Q} 16'45	
evening set	42 Sep 06 j 22:42	23° \mathfrak{M} 42'00			43 Jul 29 j 07:36	0° \mathfrak{M}	
min. Earth dist.	42 Sep 10 j 23:41	19° \mathfrak{M} 33'18	0.65887 AU	evening max el	43 Jul 31 j 19:57	2° \mathfrak{M} 32'27	27°17'20
inferior conj	42 Sep 12 j 17:01	17° \mathfrak{M} 30'23	-2°-9'-45	retrograde	43 Aug 14 j 06:32	9° \mathfrak{M} 51'28	
minimum elong	42 Sep 12 j 20:18	17° \mathfrak{M} 20'36	2°08'32	evening set	43 Aug 21 j 07:41	7° \mathfrak{M} 07'24	
morning rise	42 Sep 18 j 19:07	11° \mathfrak{M} 44'57		min. Earth dist.	43 Aug 25 j 01:57	3° \mathfrak{M} 35'36	0.64597 AU
asc. node	42 Sep 19 j 06:03	11° \mathfrak{M} 31'33		inferior conj	43 Aug 27 j 08:18	1° \mathfrak{M} 07'48	-3°-3'-34
direct	42 Sep 21 j 15:57	10° \mathfrak{M} 58'54		minimum elong	43 Aug 27 j 12:43	0° \mathfrak{M} 55'46	3°02'10
morning max el	42 Sep 28 j 07:25	14° \mathfrak{M} 38'09	18°29'20		43 Aug 28 j 09:29	30° \mathcal{R} \mathcal{Q}	
	42 Oct 09 j 10:46	0° \mathfrak{A}		morning rise	43 Sep 02 j 19:32	25° \mathcal{Q} 37'41	
morning set	42 Oct 18 j 03:40	13° \mathfrak{A} 57'37		direct	43 Sep 05 j 10:18	25° \mathcal{Q} 02'02	
	42 Oct 28 j 04:30	0° \mathfrak{M}		asc. node	43 Sep 06 j 03:06	25° \mathcal{Q} 04'37	
desc. node	42 Oct 28 j 21:00	1° \mathfrak{M} 05'18		morning max el	43 Sep 11 j 22:25	28° \mathcal{Q} 30'02	18°02'17
					43 Sep 13 j 07:44	0° \mathfrak{M}	
superior conj	42 Nov 02 j 18:04	8° \mathfrak{M} 47'04	0°-31'-40	morning set	43 Sep 29 j 12:50	25° \mathfrak{M} 13'17	
minimum elong	42 Nov 02 j 13:54	8° \mathfrak{M} 30'41	0°31'08		43 Oct 02 j 09:04	0° \mathfrak{A}	
max. Earth dist.	42 Nov 03 j 20:08	10° \mathfrak{M} 29'33	1.45044 AU				
	42 Nov 16 j 05:57	0° \mathcal{A}		superior conj	43 Oct 13 j 03:22	17° \mathfrak{A} 40'18	0°17'12
evening rise	42 Nov 18 j 23:24	4° \mathcal{A} 18'14		minimum elong	43 Oct 13 j 05:24	17° \mathfrak{A} 48'27	0°16'56
greatest brilliancy	42 Nov 30 j 19:30	22° \mathcal{A} 53'48	-0.7m	desc. node	43 Oct 15 j 17:59	21° \mathfrak{A} 50'51	
	42 Dec 05 j 14:24	0° \mathfrak{B}		max. Earth dist.	43 Oct 17 j 14:51	24° \mathfrak{A} 49'03	1.44628 AU
evening max el	42 Dec 11 j 14:22	7° \mathfrak{B} 31'02	19°09'21		43 Oct 20 j 21:45	0° \mathfrak{M}	
asc. node	42 Dec 16 j 05:20	10° \mathfrak{B} 59'55		evening rise	43 Oct 29 j 14:25	13° \mathfrak{M} 31'27	
retrograde	42 Dec 18 j 14:02	11° \mathfrak{B} 30'38			43 Nov 09 j 09:08	0° \mathcal{A}	
evening set	42 Dec 21 j 20:21	10° \mathfrak{B} 28'42		greatest brilliancy	43 Nov 17 j 20:27	12° \mathcal{A} 21'42	-0.6m
inferior conj	42 Dec 27 j 12:35	4° \mathfrak{B} 37'08	3°12'26	evening max el	43 Nov 24 j 19:31	20° \mathcal{A} 58'55	20°03'01
minimum elong	42 Dec 27 j 09:54	4° \mathfrak{B} 45'39	3°11'49	retrograde	43 Dec 02 j 11:33	25° \mathcal{A} 28'36	
min. Earth dist.	42 Dec 28 j 22:53	2° \mathfrak{B} 48'23	0.65880 AU	asc. node	43 Dec 03 j 02:22	25° \mathcal{A} 26'26	
	42 Dec 31 j 08:02	30° \mathcal{R} \mathcal{A}		evening set	43 Dec 06 j 01:58	24° \mathcal{A} 12'56	
morning rise	43 Jan 01 j 22:34	28° \mathcal{A} 25'10		inferior conj	43 Dec 11 j 14:13	18° \mathcal{A} 07'46	2°37'10
direct	43 Jan 08 j 08:15	25° \mathcal{A} 37'29		minimum elong	43 Dec 11 j 11:27	18° \mathcal{A} 16'59	2°36'20
	43 Jan 17 j 16:46	0° \mathfrak{B}		min. Earth dist.	43 Dec 12 j 10:58	16° \mathcal{A} 58'21	0.66834 AU
morning max el	43 Jan 21 j 02:32	3° \mathfrak{B} 08'23	26°23'42	morning rise	43 Dec 16 j 20:23	11° \mathcal{A} 52'57	
desc. node	43 Jan 24 j 20:14	7° \mathfrak{B} 10'44		direct	43 Dec 22 j 16:09	9° \mathcal{A} 19'04	
	43 Feb 10 j 12:01	0° \approx		morning max el	44 Jan 03 j 11:17	16° \mathcal{A} 20'16	25°07'31
morning set	43 Feb 26 j 04:13	26° \approx 50'19		desc. node	44 Jan 11 j 17:15	25° \mathcal{A} 54'40	
	43 Feb 27 j 20:14	0° \mathfrak{H}			44 Jan 14 j 19:36	0° \mathfrak{B}	
max. Earth dist.	43 Mar 02 j 07:44	4° \mathfrak{H} 48'34	1.35009 AU		44 Feb 03 j 10:38	0° \approx	
				morning set	44 Feb 08 j 15:34	9° \approx 04'18	
superior conj	43 Mar 07 j 00:58	14° \mathfrak{H} 17'53	-1°-9'-21	max. Earth dist.	44 Feb 12 j 09:07	15° \approx 53'12	1.36757 AU
minimum elong	43 Mar 07 j 04:13	14° \mathfrak{H} 34'29	1°08'49				
asc. node	43 Mar 14 j 04:40	29° \mathfrak{H} 08'49		superior conj	44 Feb 18 j 14:06	27° \approx 47'50	-1°-32'-58
evening rise	43 Mar 14 j 18:25	0° \mathfrak{Y} 19'49		minimum elong	44 Feb 18 j 17:58	28° \approx 06'55	1°32'31
	43 Mar 14 j 14:34	0° \mathfrak{Y}			44 Feb 19 j 16:48	0° \mathfrak{H}	
	43 Apr 01 j 20:07	0° \mathfrak{B}		evening rise	44 Feb 26 j 21:58	14° \mathfrak{H} 31'45	
evening max el	43 Apr 02 j 14:04	0° \mathfrak{B} 44'37	20°43'47	asc. node	44 Feb 29 j 01:41	18° \mathfrak{H} 49'34	
retrograde	43 Apr 13 j 20:02	6° \mathfrak{B} 10'29			44 Mar 06 j 01:37	0° \mathfrak{Y}	
evening set	43 Apr 16 j 00:41	5° \mathfrak{B} 58'55		evening max el	44 Mar 15 j 03:06	12° \mathfrak{Y} 22'00	19°35'02
desc. node	43 Apr 22 j 19:22	3° \mathfrak{B} 23'14		retrograde	44 Mar 24 j 16:04	16° \mathfrak{Y} 56'57	
inferior conj	43 Apr 25 j 05:48	2° \mathfrak{B} 01'26	0°-41'-57	evening set	44 Mar 26 j 19:08	16° \mathfrak{Y} 44'16	
minimum elong	43 Apr 25 j 03:49	2° \mathfrak{B} 04'17	0°41'14	inferior conj	44 Apr 04 j 09:05	12° \mathfrak{Y} 39'38	1°12'08
min. Earth dist.	43 Apr 26 j 07:35	1° \mathfrak{B} 24'32	0.55074 AU	minimum elong	44 Apr 04 j 12:00	12° \mathfrak{Y} 34'59	1°11'08
	43 Apr 28 j 21:11	30° \mathcal{R} \mathfrak{Y}		min. Earth dist.	44 Apr 06 j 21:56	11° \mathfrak{Y} 03'02	0.55942 AU
morning rise	43 May 04 j 05:43	27° \mathfrak{Y} 52'22		desc. node	44 Apr 08 j 16:25	9° \mathfrak{Y} 59'49	
direct	43 May 07 j 17:33	27° \mathfrak{Y} 26'02		morning rise	44 Apr 13 j 01:18	8° \mathfrak{Y} 00'01	
	43 May 16 j 00:44	0° \mathfrak{B}		direct	44 Apr 17 j 12:10	7° \mathfrak{Y} 15'30	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 241

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

morning max el	44 May 01 j 13:17	14° Υ 19'46	24°40'38	morning max el	45 Apr 13 j 05:04	24° Υ 55'23	26°10'42
	44 May 13 j 20:46	0° Υ			45 Apr 17 j 21:30	0° Υ	
morning set	44 May 27 j 03:27	24° Υ 42'23			45 May 06 j 20:43	0° Υ	
asc. node	44 May 27 j 00:57	24° Υ 29'17		morning set	45 May 11 j 14:46	9° Υ 38'30	
	44 May 29 j 15:01	0° Π		asc. node	45 May 13 j 22:00	14° Υ 32'26	
superior conj	44 Jun 03 j 04:31	9° Π 54'28	1°09'06	superior conj	45 May 18 j 15:47	24° Υ 53'06	0°48'17
minimum elong	44 Jun 03 j 02:05	9° Π 41'20	1°08'42	minimum elong	45 May 18 j 13:51	24° Υ 42'29	0°47'54
max. Earth dist.	44 Jun 04 j 16:46	13° Π 10'47	1.33001 AU	max. Earth dist.	45 May 19 j 03:33	25° Υ 57'35	1.32477 AU
evening rise	44 Jun 10 j 11:36	25° Π 21'17			45 May 20 j 23:55	0° Π	
	44 Jun 12 j 19:11	0° Υ		evening rise	45 May 25 j 16:42	10° Π 01'50	
	44 Jun 30 j 09:39	0° Ω			45 Jun 05 j 02:38	0° Υ	
desc. node	44 Jul 05 j 15:41	7° Ω 04'28		desc. node	45 Jun 22 j 12:43	24° Υ 52'32	
evening max el	44 Jul 13 j 05:32	15° Ω 30'14	27°24'16	evening max el	45 Jun 25 j 10:35	27° Υ 50'45	26°58'39
retrograde	44 Jul 26 j 23:21	22° Ω 49'10			45 Jun 27 j 20:46	0° Ω	
evening set	44 Aug 03 j 04:19	20° Ω 15'21		retrograde	45 Jul 09 j 09:13	5° Ω 07'27	
min. Earth dist.	44 Aug 06 j 18:22	17° Ω 15'06	0.62942 AU	evening set	45 Jul 16 j 08:18	2° Ω 58'06	
inferior conj	44 Aug 09 j 13:44	14° Ω 30'52	-3°-51'-41	min. Earth dist.	45 Jul 20 j 00:37	0° Ω 17'23	0.60999 AU
minimum elong	44 Aug 09 j 18:31	14° Ω 19'09	3°50'32		45 Jul 20 j 08:59	30° Υ	
morning rise	44 Aug 16 j 11:07	9° Ω 19'28		inferior conj	45 Jul 23 j 05:59	27° Υ 31'15	-4°-28'-34
direct	44 Aug 18 j 22:19	8° Ω 51'08		minimum elong	45 Jul 23 j 09:41	27° Υ 23'15	4°28'04
asc. node	44 Aug 23 j 00:09	10° Ω 09'55		morning rise	45 Jul 30 j 14:07	22° Υ 41'14	
morning max el	44 Aug 25 j 14:08	12° Ω 16'28	17°53'03	direct	45 Aug 02 j 00:15	22° Υ 17'44	
	44 Sep 06 j 13:55	0° Υ		morning max el	45 Aug 09 j 03:30	25° Υ 49'22	18°02'37
morning set	44 Sep 10 j 21:38	7° Υ 36'55		asc. node	45 Aug 09 j 21:13	26° Υ 34'13	
					45 Aug 12 j 17:13	0° Ω	
superior conj	44 Sep 22 j 13:22	27° Υ 48'06	0°58'02	morning set	45 Aug 25 j 00:00	20° Ω 50'54	
minimum elong	44 Sep 22 j 18:15	28° Υ 08'36	0°57'26		45 Aug 29 j 22:59	0° Υ	
	44 Sep 23 j 20:55	0° Ω					
max. Earth dist.	44 Sep 29 j 06:26	8° Ω 50'45	1.43530 AU	superior conj	45 Sep 04 j 02:27	9° Υ 15'45	1°26'12
desc. node	44 Oct 01 j 14:59	12° Ω 37'40		minimum elong	45 Sep 04 j 06:45	9° Υ 34'45	1°25'47
evening rise	44 Oct 07 j 21:20	22° Ω 28'23		max. Earth dist.	45 Sep 11 j 16:33	22° Υ 17'33	1.41901 AU
	44 Oct 12 j 19:02	0° Ω			45 Sep 16 j 09:27	0° Ω	
greatest brilliancy	44 Nov 01 j 12:13	28° Ω 17'48	-0.4m	evening rise	45 Sep 17 j 14:06	1° Ω 54'56	
	44 Nov 02 j 20:51	0° Υ		desc. node	45 Sep 18 j 12:01	3° Ω 22'08	
evening max el	44 Nov 06 j 19:01	4° Υ 27'18	21°09'50		45 Oct 06 j 06:31	0° Ω	
retrograde	44 Nov 15 j 09:01	9° Υ 33'11		greatest brilliancy	45 Oct 15 j 18:44	12° Ω 35'52	-0.3m
asc. node	44 Nov 18 j 23:24	8° Υ 20'15		evening max el	45 Oct 20 j 12:56	17° Ω 56'34	22°26'01
evening set	44 Nov 19 j 09:30	8° Υ 01'58		retrograde	45 Oct 30 j 04:37	23° Ω 40'58	
inferior conj	44 Nov 24 j 19:32	1° Υ 46'40	1°54'29	evening set	45 Nov 03 j 17:12	21° Ω 52'31	
minimum elong	44 Nov 24 j 17:13	1° Υ 54'39	1°53'39	asc. node	45 Nov 05 j 20:27	19° Ω 45'42	
min. Earth dist.	44 Nov 25 j 04:22	1° Υ 16'14	0.67419 AU	inferior conj	45 Nov 09 j 02:32	15° Ω 30'57	1°06'10
	44 Nov 26 j 02:44	30° Ω		minimum elong	45 Nov 09 j 01:03	15° Ω 36'03	1°05'35
morning rise	44 Nov 30 j 00:34	25° Ω 31'06		min. Earth dist.	45 Nov 09 j 00:35	15° Ω 37'41	0.67668 AU
direct	44 Dec 05 j 05:05	23° Ω 17'11		morning rise	45 Nov 14 j 08:46	9° Ω 17'00	
morning max el	44 Dec 15 j 20:02	29° Ω 37'07	23°41'00	direct	45 Nov 18 j 22:14	7° Ω 25'30	
	44 Dec 16 j 05:02	0° Υ		morning max el	45 Nov 28 j 07:33	12° Ω 58'33	22°13'48
desc. node	44 Dec 28 j 14:16	15° Υ 18'50		greatest brilliancy	45 Dec 02 j 23:23	18° Ω 12'55	-0.3m
	45 Jan 07 j 16:02	0° Υ			45 Dec 11 j 20:21	0° Υ	
morning set	45 Jan 20 j 03:34	20° Υ 06'34		desc. node	45 Dec 15 j 11:17	5° Υ 11'22	
max. Earth dist.	45 Jan 24 j 04:20	27° Υ 05'18	1.38808 AU	morning set	45 Dec 31 j 10:50	29° Υ 43'58	
	45 Jan 25 j 19:41	0° \approx			45 Dec 31 j 14:47	0° Υ	
				max. Earth dist.	46 Jan 06 j 01:07	8° Υ 57'39	1.40924 AU
superior conj	45 Jan 31 j 14:07	10° \approx 35'13	-1°-51'-30				
minimum elong	45 Jan 31 j 17:30	10° \approx 51'12	1°51'17	superior conj	46 Jan 13 j 20:07	22° Υ 27'32	-2°-1'-24
evening rise	45 Feb 09 j 18:06	28° \approx 16'08		minimum elong	46 Jan 13 j 21:11	22° Υ 32'18	2°01'24
	45 Feb 10 j 15:28	0° Υ			46 Jan 18 j 00:08	0° \approx	
asc. node	45 Feb 14 j 22:44	8° Υ 10'14		evening rise	46 Jan 24 j 03:32	11° \approx 24'40	
evening max el	45 Feb 26 j 02:25	24° Υ 36'36	18°45'55	asc. node	46 Feb 01 j 19:47	27° \approx 03'36	
retrograde	45 Mar 06 j 04:38	28° Υ 32'11			46 Feb 03 j 15:49	0° Υ	
evening set	45 Mar 08 j 11:53	28° Υ 14'20		evening max el	46 Feb 09 j 09:14	7° Υ 20'43	18°16'58
inferior conj	45 Mar 16 j 07:17	23° Υ 52'45	2°37'50	retrograde	46 Feb 16 j 11:50	10° Υ 53'08	
minimum elong	45 Mar 16 j 11:37	23° Υ 44'43	2°36'44	evening set	46 Feb 18 j 23:59	10° Υ 27'42	
min. Earth dist.	45 Mar 19 j 14:51	21° Υ 26'29	0.57558 AU	inferior conj	46 Feb 26 j 02:29	5° Υ 45'01	3°28'19
morning rise	45 Mar 24 j 07:07	18° Υ 40'30		minimum elong	46 Feb 26 j 05:24	5° Υ 38'43	3°27'54
desc. node	45 Mar 26 j 13:28	17° Υ 51'25		min. Earth dist.	46 Mar 01 j 12:12	2° Υ 50'02	0.59584 AU
direct	45 Mar 29 j 20:52	17° Υ 24'18		morning rise	46 Mar 05 j 07:18	0° Υ 08'18	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 242

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	46 Mar 05 j 13:09	30° \approx		evening set	47 Feb 02 j 03:15	23° \approx 15'51	
direct	46 Mar 11 j 18:32	28° \approx 14'18		inferior conj	47 Feb 08 j 16:12	18° \approx 11'26	3°48'43
desc. node	46 Mar 13 j 10:30	28° \approx 21'39		minimum elong	47 Feb 08 j 16:52	18° \approx 09'49	3°48'41
	46 Mar 18 j 06:03	0° \approx		min. Earth dist.	47 Feb 11 j 16:41	15° \approx 12'48	0.61679 AU
morning max el	46 Mar 26 j 01:43	5° \approx 59'08	27°15'32	morning rise	47 Feb 15 j 04:01	12° \approx 18'40	
	46 Apr 12 j 23:11	0° \approx		direct	47 Feb 22 j 02:13	9° \approx 52'18	
morning set	46 Apr 25 j 23:46	24° \approx 26'30		desc. node	47 Feb 28 j 07:32	11° \approx 36'18	
	46 Apr 28 j 14:53	0° \approx		morning max el	47 Mar 08 j 04:36	17° \approx 43'13	27°45'45
asc. node	46 Apr 30 j 19:04	4° \approx 42'05			47 Mar 18 j 11:01	0° \approx	
max. Earth dist.	46 May 02 j 16:17	8° \approx 49'25	1.32321 AU		47 Apr 05 j 15:38	0° \approx	
				morning set	47 Apr 10 j 04:25	8° \approx 58'49	
superior conj	46 May 03 j 03:33	9° \approx 51'15	0°24'42	max. Earth dist.	47 Apr 16 j 03:09	21° \approx 32'20	1.32539 AU
minimum elong	46 May 03 j 02:28	9° \approx 45'18	0°24'28				
evening rise	46 May 10 j 02:02	24° \approx 53'38		superior conj	47 Apr 17 j 14:04	24° \approx 42'00	0°00'-54
	46 May 12 j 13:10	0° \approx		minimum elong	47 Apr 17 j 14:06	24° \approx 42'12	0°00'54
	46 May 30 j 04:42	0° \approx		behind sun begin	47 Apr 17 j 09:00	24° \approx 14'26	
evening max el	46 Jun 07 j 09:17	9° \approx 27'29	26°00'57	behind sun end	47 Apr 17 j 19:12	25° \approx 09'58	
desc. node	46 Jun 09 j 09:46	11° \approx 16'30		asc. node	47 Apr 17 j 16:07	24° \approx 53'14	
retrograde	46 Jun 21 j 10:23	16° \approx 39'59			47 Apr 20 j 00:20	0° \approx	
evening set	46 Jun 27 j 15:10	15° \approx 06'48		evening rise	47 Apr 24 j 13:28	9° \approx 48'29	
min. Earth dist.	46 Jul 01 j 21:59	12° \approx 28'31	0.58941 AU		47 May 05 j 00:03	0° \approx	
inferior conj	46 Jul 05 j 05:33	10° \approx 00'11	-4°-45'-31	evening max el	47 May 20 j 01:43	20° \approx 22'36	24°38'02
minimum elong	46 Jul 05 j 06:05	9° \approx 59'11	4°45'32	desc. node	47 May 27 j 06:48	25° \approx 22'31	
morning rise	46 Jul 13 j 00:36	5° \approx 32'50		retrograde	47 Jun 03 j 00:18	27° \approx 25'42	
direct	46 Jul 15 j 11:59	5° \approx 12'16		evening set	47 Jun 07 j 22:50	26° \approx 23'04	
morning max el	46 Jul 23 j 11:28	9° \approx 00'38	18°32'04	min. Earth dist.	47 Jun 13 j 13:06	23° \approx 23'53	0.57035 AU
asc. node	46 Jul 27 j 18:16	14° \approx 02'35		inferior conj	47 Jun 16 j 09:22	21° \approx 24'26	-4°-30'-25
	46 Aug 06 j 03:59	0° \approx		minimum elong	47 Jun 16 j 05:12	21° \approx 25'41	4°29'57
morning set	46 Aug 08 j 15:00	4° \approx 42'33		morning rise	47 Jun 24 j 15:21	17° \approx 24'01	
				direct	47 Jun 27 j 05:32	17° \approx 22'17	
superior conj	46 Aug 17 j 14:16	21° \approx 51'20	1°41'52	morning max el	47 Jul 06 j 11:01	21° \approx 23'54	19°22'27
minimum elong	46 Aug 17 j 16:33	22° \approx 01'56	1°41'45		47 Jul 13 j 03:56	0° \approx	
	46 Aug 22 j 01:13	0° \approx		asc. node	47 Jul 14 j 15:20	2° \approx 20'04	
max. Earth dist.	46 Aug 24 j 21:44	5° \approx 02'44	1.39959 AU	morning set	47 Jul 23 j 14:47	19° \approx 00'48	
evening rise	46 Aug 29 j 05:18	12° \approx 25'02			47 Jul 29 j 02:33	0° \approx	
desc. node	46 Sep 05 j 09:04	24° \approx 00'54					
	46 Sep 09 j 06:08	0° \approx		superior conj	47 Jul 31 j 19:03	5° \approx 18'07	1°47'04
	46 Oct 01 j 16:11	0° \approx		minimum elong	47 Jul 31 j 19:15	5° \approx 19'09	1°47'04
evening max el	46 Oct 03 j 02:48	1° \approx 29'15	23°46'09	max. Earth dist.	47 Aug 07 j 01:07	17° \approx 10'27	1.37949 AU
retrograde	46 Oct 13 j 21:01	7° \approx 49'33		evening rise	47 Aug 10 j 21:06	24° \approx 04'41	
evening set	46 Oct 18 j 23:25	5° \approx 43'02			47 Aug 14 j 07:14	0° \approx	
asc. node	46 Oct 23 j 17:30	0° \approx 13'23		desc. node	47 Aug 23 j 06:07	14° \approx 28'54	
	46 Oct 23 j 21:27	30° \approx			47 Sep 02 j 23:22	0° \approx	
inferior conj	46 Oct 24 j 09:28	29° \approx 19'05	0°13'46	evening max el	47 Sep 15 j 14:38	15° \approx 05'10	25°03'37
minimum elong	46 Oct 24 j 09:08	29° \approx 20'13	0°13'37	retrograde	47 Sep 27 j 09:15	21° \approx 54'37	
transit middle	46 Oct 24 j 09:08	29° \approx 20'13	0°13'37	evening set	47 Oct 03 j 02:27	19° \approx 30'48	
transit begin	46 Oct 24 j 07:38	29° \approx 25'17		min. Earth dist.	47 Oct 07 j 15:34	14° \approx 23'51	0.67199 AU
transit end	46 Oct 24 j 10:37	29° \approx 15'08		inferior conj	47 Oct 08 j 14:32	13° \approx 08'27	0°-41'-19
min. Earth dist.	46 Oct 23 j 21:08	0° \approx 01'03	0.67597 AU	minimum elong	47 Oct 08 j 15:34	13° \approx 05'04	0°40'55
morning rise	46 Oct 29 j 18:58	23° \approx 09'28		asc. node	47 Oct 10 j 14:32	10° \approx 35'34	
direct	46 Nov 02 j 18:32	21° \approx 40'01		morning rise	47 Oct 14 j 05:12	7° \approx 06'03	
morning max el	46 Nov 11 j 01:17	26° \approx 29'12	20°53'44	direct	47 Oct 17 j 16:37	5° \approx 56'17	
	46 Nov 14 j 05:23	0° \approx		morning max el	47 Oct 25 j 02:48	10° \approx 10'32	19°45'48
greatest brilliancy	46 Nov 16 j 18:24	3° \approx 09'40	-0.5m	greatest brilliancy	47 Nov 02 j 00:35	20° \approx 02'04	-0.6m
desc. node	46 Dec 02 j 08:20	25° \approx 24'39			47 Nov 08 j 20:05	0° \approx	
	46 Dec 05 j 08:55	0° \approx		desc. node	47 Nov 19 j 05:23	15° \approx 52'41	
morning set	46 Dec 10 j 15:53	8° \approx 09'52		morning set	47 Nov 19 j 12:49	16° \approx 21'27	
max. Earth dist.	46 Dec 19 j 05:28	21° \approx 47'58	1.42812 AU		47 Nov 28 j 06:46	0° \approx	
	46 Dec 24 j 04:54	0° \approx		max. Earth dist.	47 Dec 01 j 17:39	5° \approx 27'49	1.44206 AU
superior conj	46 Dec 26 j 02:45	3° \approx 12'37	-1°-58'-12	superior conj	47 Dec 06 j 06:34	12° \approx 44'01	-1°-37'-38
minimum elong	46 Dec 25 j 23:24	2° \approx 58'31	1°58'04	minimum elong	47 Dec 05 j 22:51	12° \approx 12'54	1°36'59
evening rise	47 Jan 06 j 22:30	23° \approx 49'52			47 Dec 16 j 17:57	0° \approx	
	47 Jan 10 j 09:35	0° \approx		evening rise	47 Dec 19 j 22:40	5° \approx 24'00	
asc. node	47 Jan 19 j 16:50	15° \approx 21'13			48 Jan 04 j 05:19	0° \approx	
evening max el	47 Jan 23 j 20:24	20° \approx 25'21	18°07'40	asc. node	48 Jan 06 j 13:52	2° \approx 52'23	
retrograde	47 Jan 30 j 10:42	23° \approx 50'08		evening max el	48 Jan 07 j 08:58	3° \approx 42'56	18°17'25

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 243

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

retrograde	48 Jan 13 j 20:44	7° \approx 13'09			48 Dec 08 j 16:16	0° $\overline{\text{C}}$	
evening set	48 Jan 16 j 17:44	6° \approx 29'13		evening max el	48 Dec 20 j 20:16	17° $\overline{\text{C}}$ 07'03	18°45'27
inferior conj	48 Jan 22 j 20:29	1° \approx 04'31	3°46'39	asc. node	48 Dec 23 j 10:53	19° $\overline{\text{C}}$ 23'22	
minimum elong	48 Jan 22 j 19:16	1° \approx 07'56	3°46'33	retrograde	48 Dec 27 j 13:41	20° $\overline{\text{C}}$ 53'37	
	48 Jan 23 j 19:32	30° $\overline{\text{R}}$ $\overline{\text{C}}$		evening set	48 Dec 30 j 16:05	19° $\overline{\text{C}}$ 58'49	
min. Earth dist.	48 Jan 25 j 06:35	28° $\overline{\text{C}}$ 23'17	0.63581 AU	inferior conj	49 Jan 05 j 11:28	14° $\overline{\text{C}}$ 16'17	3°28'26
morning rise	48 Jan 28 j 19:09	25° $\overline{\text{C}}$ 01'24		minimum elong	49 Jan 05 j 09:07	14° $\overline{\text{C}}$ 23'28	3°28'02
direct	48 Feb 04 j 18:06	22° $\overline{\text{C}}$ 15'26		min. Earth dist.	49 Jan 07 j 06:15	12° $\overline{\text{C}}$ 06'02	0.65148 AU
desc. node	48 Feb 15 j 04:34	27° $\overline{\text{C}}$ 03'59		morning rise	49 Jan 11 j 01:02	8° $\overline{\text{C}}$ 06'33	
	48 Feb 18 j 09:41	0° \approx		direct	49 Jan 17 j 17:00	5° $\overline{\text{C}}$ 15'33	
morning max el	48 Feb 18 j 12:23	0° \approx 06'41	27°39'01	morning max el	49 Jan 30 j 22:07	12° $\overline{\text{C}}$ 58'14	26°58'56
	48 Mar 11 j 10:32	0° H		desc. node	49 Feb 01 j 01:36	14° $\overline{\text{C}}$ 08'47	
morning set	48 Mar 24 j 02:22	23° H 07'35			49 Feb 13 j 16:10	0° \approx	
	48 Mar 27 j 11:34	0° Y			49 Mar 04 j 00:51	0° H	
max. Earth dist.	48 Mar 29 j 08:06	3° Y 52'38	1.33153 AU	morning set	49 Mar 07 j 14:26	6° H 42'26	
				max. Earth dist.	49 Mar 12 j 03:12	15° H 39'08	1.34199 AU
superior conj	48 Mar 31 j 21:34	9° Y 19'26	0°-27'-39				
minimum elong	48 Mar 31 j 22:54	9° Y 26'34	0°27'22	superior conj	49 Mar 16 j 00:02	23° H 36'46	0°-54'-28
asc. node	48 Apr 03 j 13:10	15° Y 01'42		minimum elong	49 Mar 16 j 02:38	23° H 50'23	0°53'58
evening rise	48 Apr 08 j 01:12	24° Y 39'44			49 Mar 19 j 00:52	0° Y	
	48 Apr 10 j 14:58	0° B		asc. node	49 Mar 21 j 10:13	5° Y 03'02	
	48 Apr 29 j 17:37	0° II		evening rise	49 Mar 23 j 11:20	9° Y 20'38	
evening max el	48 Apr 30 j 16:19	0° II 56'29	23°03'11		49 Apr 03 j 11:01	0° B	
desc. node	48 May 13 j 03:48	7° II 34'27		evening max el	49 Apr 12 j 12:23	11° B 40'09	21°31'07
retrograde	48 May 14 j 01:50	7° II 36'21		retrograde	49 Apr 24 j 17:18	17° B 36'54	
evening set	48 May 17 j 13:48	7° II 09'30		evening set	49 Apr 27 j 04:14	17° B 23'13	
min. Earth dist.	48 May 25 j 01:40	3° II 48'34	0.55616 AU	desc. node	49 Apr 30 j 00:48	16° B 35'35	
inferior conj	48 May 26 j 17:38	2° II 50'31	-3°-31'-45	inferior conj	49 May 06 j 13:17	13° B 22'14	-1°-50'-39
minimum elong	48 May 26 j 10:23	3° II 01'05	3°29'56	minimum elong	49 May 06 j 08:11	13° B 29'23	1°48'55
	48 Jun 01 j 03:42	30° $\overline{\text{R}}$ B		min. Earth dist.	49 May 06 j 14:31	13° B 20'30	0.54993 AU
morning rise	48 Jun 04 j 10:03	28° B 56'41		morning rise	49 May 15 j 12:41	9° B 23'57	
direct	48 Jun 07 j 04:09	28° B 38'38		direct	49 May 18 j 15:08	9° B 02'55	
	48 Jun 12 j 19:49	0° II		morning max el	49 May 31 j 02:03	14° B 56'32	22°02'57
morning max el	48 Jun 17 j 23:59	3° II 39'25	20°33'41		49 Jun 11 j 13:30	0° II	
asc. node	48 Jun 30 j 12:23	21° II 15'08		asc. node	49 Jun 17 j 09:27	10° II 38'31	
	48 Jul 05 j 01:30	0° $\overline{\text{C}}$		morning set	49 Jun 21 j 06:12	18° II 28'40	
morning set	48 Jul 06 j 20:34	3° $\overline{\text{C}}$ 38'11			49 Jun 26 j 17:09	0° $\overline{\text{C}}$	
superior conj	48 Jul 14 j 11:57	19° $\overline{\text{C}}$ 22'21	1°43'57	superior conj	49 Jun 28 j 13:18	3° $\overline{\text{C}}$ 53'03	1°34'18
minimum elong	48 Jul 14 j 10:38	19° $\overline{\text{C}}$ 15'38	1°43'54	minimum elong	49 Jun 28 j 11:06	3° $\overline{\text{C}}$ 41'26	1°34'06
max. Earth dist.	48 Jul 19 j 07:53	28° $\overline{\text{C}}$ 59'44	1.36108 AU	max. Earth dist.	49 Jul 01 j 22:58	10° $\overline{\text{C}}$ 56'43	1.34594 AU
	48 Jul 19 j 20:19	0° Ω		evening rise	49 Jul 06 j 15:29	20° $\overline{\text{C}}$ 16'57	
evening rise	48 Jul 23 j 10:06	6° Ω 46'07			49 Jul 11 j 20:16	0° Ω	
	48 Aug 06 j 01:36	0° H		desc. node	49 Jul 27 j 00:08	24° Ω 28'32	
desc. node	48 Aug 09 j 03:09	4° H 40'30			49 Jul 31 j 00:30	0° H	
evening max el	48 Aug 28 j 02:07	28° H 41'31	26°10'51	evening max el	49 Aug 10 j 13:59	12° H 12'39	27°00'06
	48 Aug 29 j 11:32	0° $\underline{\text{A}}$		retrograde	49 Aug 23 j 19:08	19° H 31'02	
retrograde	48 Sep 09 j 16:46	5° $\underline{\text{A}}$ 50'37		evening set	49 Aug 30 j 14:54	16° H 46'31	
evening set	48 Sep 16 j 00:22	3° $\underline{\text{A}}$ 12'58		min. Earth dist.	49 Sep 03 j 12:45	12° H 53'53	0.65376 AU
	48 Sep 19 j 03:50	30° $\overline{\text{R}}$ H		inferior conj	49 Sep 05 j 11:36	10° H 39'19	-2°-33'-5
min. Earth dist.	48 Sep 20 j 05:31	28° H 42'54	0.66464 AU	minimum elong	49 Sep 05 j 15:26	10° H 28'19	2°31'43
inferior conj	48 Sep 21 j 15:56	26° H 56'11	-1°-37'-37	morning rise	49 Sep 11 j 17:27	5° H 00'08	
minimum elong	48 Sep 21 j 18:25	26° H 48'29	1°36'38	asc. node	49 Sep 13 j 08:37	4° H 25'51	
asc. node	48 Sep 26 j 11:34	21° H 47'35		direct	49 Sep 14 j 11:17	4° H 19'05	
morning rise	48 Sep 27 j 13:26	21° H 03'52		morning max el	49 Sep 21 j 00:41	7° H 52'51	18°15'44
direct	48 Sep 30 j 14:50	20° H 10'23			49 Oct 06 j 04:19	0° $\underline{\text{A}}$	
morning max el	48 Oct 07 j 11:17	23° H 59'48	18°52'38	morning set	49 Oct 09 j 18:57	5° $\underline{\text{A}}$ 55'41	
	48 Oct 12 j 10:28	0° $\underline{\text{A}}$		desc. node	49 Oct 22 j 23:26	27° $\underline{\text{A}}$ 14'23	
morning set	48 Oct 29 j 01:48	25° $\underline{\text{A}}$ 26'21					
	48 Oct 31 j 23:12	0° M		superior conj	49 Oct 24 j 14:02	29° $\underline{\text{A}}$ 47'24	0°-10'-34
desc. node	48 Nov 05 j 02:24	6° M 30'22		minimum elong	49 Oct 24 j 12:40	29° $\underline{\text{A}}$ 41'58	0°10'24
max. Earth dist.	48 Nov 13 j 10:30	19° M 36'26	1.44941 AU	behind sun begin	49 Oct 24 j 04:04	29° $\underline{\text{A}}$ 07'56	
				behind sun end	49 Oct 24 j 21:16	0° M 15'58	
superior conj	48 Nov 14 j 12:19	21° M 18'03	0°-59'-14		49 Oct 24 j 17:13	0° M	
minimum elong	48 Nov 14 j 05:06	20° M 49'38	0°58'23	max. Earth dist.	49 Oct 27 j 05:02	3° M 55'59	1.44949 AU
	48 Nov 20 j 00:27	0° Z		evening rise	49 Nov 10 j 02:05	25° M 38'31	
evening rise	48 Nov 30 j 00:06	15° Z 59'45			49 Nov 12 j 21:10	0° Z	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 244

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

greatest brilliancy	49 Nov 25 j 15:17	19°♂31'26	-0.7m	minimum elong	50 Oct 04 j 12:27	9°♂24'31	0°35'25
	49 Dec 03 j 15:05	0°♂		desc. node	50 Oct 09 j 20:27	18°♂00'59	
evening max el	49 Dec 04 j 04:13	0°♂34'40	19°30'23	max. Earth dist.	50 Oct 09 j 22:28	18°♂09'01	1.44239 AU
asc. node	49 Dec 10 j 07:54	4°♂39'38			50 Oct 17 j 11:17	0°♂	
retrograde	49 Dec 11 j 10:16	4°♂46'23		evening rise	50 Oct 20 j 11:31	4°♂39'21	
evening set	49 Dec 14 j 19:41	3°♂39'03			50 Nov 06 j 08:50	0°♂	
	49 Dec 18 j 14:18	30°♂		greatest brilliancy	50 Nov 11 j 04:36	6°♂42'23	-0.5m
inferior conj	49 Dec 20 j 10:00	27°♂41'27	2°58'30	evening max el	50 Nov 17 j 07:08	14°♂03'11	20°30'07
minimum elong	49 Dec 20 j 07:13	27°♂50'31	2°57'47	retrograde	50 Nov 25 j 07:53	18°♂47'24	
min. Earth dist.	49 Dec 21 j 14:26	26°♂08'57	0.66332 AU	asc. node	50 Nov 27 j 04:56	18°♂27'22	
morning rise	49 Dec 25 j 17:59	21°♂27'49		evening set	50 Nov 29 j 02:20	17°♂25'25	
direct	49 Dec 31 j 22:05	18°♂44'40		inferior conj	50 Dec 04 j 13:28	11°♂15'49	2°19'51
morning max el	50 Jan 13 j 07:24	26°♂05'20	25°53'07	minimum elong	50 Dec 04 j 10:51	11°♂24'43	2°18'59
	50 Jan 16 j 22:16	0°♂		min. Earth dist.	50 Dec 05 j 05:04	10°♂22'55	0.67129 AU
desc. node	50 Jan 18 j 22:39	2°♂22'47		morning rise	50 Dec 09 j 18:51	5°♂00'31	
	50 Feb 07 j 05:34	0°♂		direct	50 Dec 15 j 08:21	2°♂34'18	
morning set	50 Feb 18 j 12:22	19°♂30'39		morning max el	50 Dec 26 j 15:41	9°♂18'48	24°31'21
max. Earth dist.	50 Feb 22 j 10:16	26°♂52'24	1.35702 AU	desc. node	51 Jan 05 j 19:42	21°♂25'35	
	50 Feb 24 j 01:00	0°♂			51 Jan 11 j 23:55	0°♂	
					51 Jan 30 j 21:05	0°♂	
superior conj	50 Feb 27 j 18:57	7°♂26'53	-1°-19'-49	morning set	51 Jan 31 j 14:36	1°♂16'28	
minimum elong	50 Feb 27 j 22:33	7°♂45'03	1°19'18	max. Earth dist.	51 Feb 04 j 07:52	7°♂54'51	1.37602 AU
evening rise	50 Mar 07 j 17:56	23°♂45'05					
asc. node	50 Mar 08 j 07:14	24°♂52'49		superior conj	51 Feb 11 j 03:06	20°♂40'55	-1°-41'-38
	50 Mar 10 j 20:33	0°♂		minimum elong	51 Feb 11 j 06:57	20°♂59'31	1°41'16
evening max el	50 Mar 25 j 19:03	22°♂56'26	20°12'16		51 Feb 15 j 20:57	0°♂	
retrograde	50 Apr 05 j 07:28	27°♂59'28		evening rise	51 Feb 19 j 18:42	7°♂46'39	
evening set	50 Apr 07 j 10:06	27°♂48'09		asc. node	51 Feb 23 j 04:17	14°♂26'11	
inferior conj	50 Apr 16 j 09:46	23°♂49'48	0°08'38		51 Mar 04 j 09:12	0°♂	
minimum elong	50 Apr 16 j 10:09	23°♂49'13	0°08'30	evening max el	51 Mar 08 j 12:54	4°♂51'32	19°11'45
transit middle	50 Apr 16 j 10:09	23°♂49'13	0°08'30	retrograde	51 Mar 17 j 09:34	9°♂07'26	
transit begin	50 Apr 16 j 06:45	23°♂54'16		evening set	51 Mar 19 j 14:21	8°♂52'48	
transit end	50 Apr 16 j 13:33	23°♂44'09		inferior conj	51 Mar 27 j 20:26	4°♂41'53	1°52'42
desc. node	50 Apr 16 j 21:51	23°♂31'48		minimum elong	51 Mar 28 j 00:25	4°♂35'08	1°51'29
min. Earth dist.	50 Apr 18 j 04:21	22°♂46'37	0.55334 AU	min. Earth dist.	51 Mar 30 j 19:32	2°♂42'22	0.56558 AU
morning rise	50 Apr 25 j 07:41	19°♂28'33		desc. node	51 Apr 03 j 18:53	0°♂25'57	
direct	50 Apr 29 j 04:24	18°♂55'56			51 Apr 04 j 18:29	30°♂	
morning max el	50 May 12 j 19:36	25°♂38'38	23°42'56	morning rise	51 Apr 05 j 06:29	29°♂48'15	
	50 May 16 j 21:44	0°♂		direct	51 Apr 10 j 05:11	28°♂51'32	
asc. node	50 Jun 04 j 06:30	0°♂22'12			51 Apr 15 j 15:41	0°♂	
	50 Jun 04 j 02:11	0°♂		morning max el	51 Apr 24 j 10:10	6°♂08'28	25°21'06
morning set	50 Jun 05 j 17:48	3°♂25'57			51 May 11 j 18:28	0°♂	
				morning set	51 May 21 j 05:45	18°♂24'48	
superior conj	50 Jun 12 j 20:12	18°♂40'24	1°19'31	asc. node	51 May 22 j 03:34	20°♂20'16	
minimum elong	50 Jun 12 j 17:43	18°♂26'59	1°19'10		51 May 26 j 14:42	0°♂	
max. Earth dist.	50 Jun 14 j 23:40	23°♂15'43	1.33472 AU				
	50 Jun 18 j 04:54	0°♂		superior conj	51 May 28 j 06:28	3°♂37'18	1°00'40
evening rise	50 Jun 20 j 08:46	4°♂23'33		minimum elong	51 May 28 j 04:12	3°♂24'56	1°00'15
	50 Jul 04 j 13:22	0°♂		max. Earth dist.	51 May 29 j 07:57	5°♂56'17	1.32739 AU
desc. node	50 Jul 13 j 21:10	13°♂42'23		evening rise	51 Jun 04 j 10:27	18°♂55'07	
evening max el	50 Jul 24 j 01:12	25°♂27'08	27°24'12		51 Jun 10 j 01:03	0°♂	
	50 Jul 29 j 16:09	0°♂			51 Jun 29 j 00:36	0°♂	
retrograde	50 Aug 06 j 15:35	2°♂46'43		desc. node	51 Jun 30 j 18:11	2°♂07'37	
evening set	50 Aug 13 j 19:06	0°♂05'39		evening max el	51 Jul 06 j 09:27	8°♂11'41	27°17'27
	50 Aug 13 j 22:05	30°♂		retrograde	51 Jul 20 j 05:22	15°♂28'51	
min. Earth dist.	50 Aug 17 j 11:11	26°♂47'57	0.63929 AU	evening set	51 Jul 27 j 09:12	13°♂04'05	
inferior conj	50 Aug 19 j 23:05	24°♂11'55	-3°-24'-59	min. Earth dist.	51 Jul 30 j 23:18	10°♂13'46	0.62151 AU
minimum elong	50 Aug 20 j 03:47	23°♂59'38	3°23'38	inferior conj	51 Aug 02 j 23:22	7°♂26'58	-4°-9'-7
morning rise	50 Aug 26 j 14:30	18°♂49'07		minimum elong	51 Aug 03 j 03:56	7°♂16'23	4°08'13
direct	50 Aug 29 j 03:22	18°♂16'59		morning rise	51 Aug 10 j 01:16	2°♂24'03	
asc. node	50 Aug 31 j 05:41	18°♂39'12		direct	51 Aug 12 j 11:49	1°♂57'55	
morning max el	50 Sep 04 j 16:19	21°♂43'11	17°56'05	asc. node	51 Aug 18 j 02:45	4°♂20'02	
	50 Sep 11 j 00:43	0°♂		morning max el	51 Aug 19 j 07:20	5°♂24'40	17°54'41
morning set	50 Sep 21 j 14:57	17°♂42'39		morning set	51 Sep 04 j 07:55	0°♂29'56	
	50 Sep 28 j 20:07	0°♂			51 Sep 04 j 01:17	0°♂	
superior conj	50 Oct 04 j 08:42	9°♂09'09	0°35'56	superior conj	51 Sep 15 j 06:26	19°♂51'23	1°11'36

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 245

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

minimum elong	51 Sep 15 j 11:22	20° \mathring{M} 12'34	1°11'02	superior conj	52 Aug 27 j 05:56	1° \mathring{M} 50'22	1°34'15
	51 Sep 21 j 07:16	0° \mathring{A}		minimum elong	52 Aug 27 j 09:26	2° \mathring{M} 06'14	1°33'59
max. Earth dist.	51 Sep 22 j 12:18	1° \mathring{A} 59'08	1.42900 AU	max. Earth dist.	52 Sep 03 j 20:34	15° \mathring{M} 10'30	1.41101 AU
desc. node	51 Sep 26 j 17:29	8° \mathring{A} 47'16		evening rise	52 Sep 08 j 21:58	23° \mathring{M} 34'46	
evening rise	51 Sep 29 j 20:34	13° \mathring{A} 43'42		desc. node	52 Sep 12 j 14:32	29° \mathring{M} 29'59	
	51 Oct 10 j 12:53	0° \mathring{M}			52 Sep 12 j 22:08	0° \mathring{A}	
greatest brilliancy	51 Oct 26 j 07:19	21° \mathring{M} 57'47	-0.4m		52 Oct 03 j 12:29	0° \mathring{M}	
evening max el	51 Oct 31 j 04:16	27° \mathring{M} 32'01	21°41'26	greatest brilliancy	52 Oct 07 j 11:49	5° \mathring{M} 02'18	-0.2m
	51 Nov 02 j 20:12	0° \mathring{A}		evening max el	52 Oct 12 j 20:07	11° \mathring{M} 02'24	22°59'55
retrograde	51 Nov 09 j 04:38	2° \mathring{A} 53'41		retrograde	52 Oct 22 j 23:03	17° \mathring{M} 02'48	
evening set	51 Nov 13 j 10:09	1° \mathring{A} 15'09		evening set	52 Oct 27 j 17:26	15° \mathring{M} 06'24	
asc. node	51 Nov 14 j 02:00	0° \mathring{A} 41'38		asc. node	52 Oct 30 j 23:02	11° \mathring{M} 37'43	
	51 Nov 14 j 19:15	30° \mathring{R} \mathring{M}		inferior conj	52 Nov 02 j 02:53	8° \mathring{M} 43'11	0°44'23
inferior conj	51 Nov 18 j 19:43	24° \mathring{M} 56'50	1°34'35	minimum elong	52 Nov 02 j 01:51	8° \mathring{M} 46'43	0°43'56
minimum elong	51 Nov 18 j 17:42	25° \mathring{M} 03'46	1°33'49	min. Earth dist.	52 Nov 01 j 20:25	9° \mathring{M} 05'28	0.67676 AU
min. Earth dist.	51 Nov 18 j 23:50	24° \mathring{M} 42'35	0.67570 AU	morning rise	52 Nov 07 j 10:18	2° \mathring{M} 30'57	
morning rise	51 Nov 24 j 01:01	18° \mathring{M} 41'57		direct	52 Nov 11 j 17:35	0° \mathring{M} 49'15	
direct	51 Nov 28 j 23:06	16° \mathring{M} 37'30		morning max el	52 Nov 20 j 15:08	6° \mathring{M} 02'52	21°38'35
morning max el	51 Dec 09 j 01:07	22° \mathring{M} 36'54	23°03'30	greatest brilliancy	52 Nov 25 j 14:05	11° \mathring{M} 41'17	-0.4m
greatest brilliancy	51 Dec 13 j 21:22	28° \mathring{M} 02'08	-0.3m		52 Dec 08 j 20:05	0° \mathring{A}	
	51 Dec 15 j 11:34	0° \mathring{A}		desc. node	52 Dec 09 j 13:46	1° \mathring{A} 05'16	
desc. node	51 Dec 23 j 16:43	11° \mathring{A} 02'51		morning set	52 Dec 22 j 09:49	20° \mathring{A} 46'24	
	52 Jan 05 j 08:48	0° \mathring{A}			52 Dec 28 j 02:51	0° \mathring{A}	
morning set	52 Jan 12 j 14:45	11° \mathring{A} 42'51		max. Earth dist.	52 Dec 29 j 03:20	1° \mathring{A} 40'57	1.41769 AU
max. Earth dist.	52 Jan 17 j 03:20	19° \mathring{A} 22'44	1.39717 AU				
	52 Jan 23 j 03:17	0° \mathring{A}		superior conj	53 Jan 05 j 16:46	14° \mathring{A} 31'26	-2°-1'-56
				minimum elong	53 Jan 05 j 16:11	14° \mathring{A} 28'52	2°01'56
superior conj	52 Jan 24 j 20:06	3° \mathring{A} 06'30	-1°-57'00		53 Jan 14 j 08:18	0° \mathring{A}	
minimum elong	52 Jan 24 j 22:47	3° \mathring{A} 18'49	1°56'54	evening rise	53 Jan 16 j 14:33	4° \mathring{A} 08'25	
evening rise	52 Feb 03 j 10:43	21° \mathring{A} 16'56		asc. node	53 Jan 26 j 22:23	22° \mathring{A} 15'40	
	52 Feb 08 j 01:30	0° \mathring{A}			53 Feb 01 j 19:32	0° \mathring{A}	
asc. node	52 Feb 10 j 01:20	3° \mathring{A} 36'16		evening max el	53 Feb 02 j 00:42	0° \mathring{A} 12'53	18°10'35
evening max el	52 Feb 19 j 15:45	17° \mathring{A} 19'33	18°31'09	retrograde	53 Feb 08 j 20:58	3° \mathring{A} 40'44	
retrograde	52 Feb 27 j 06:26	21° \mathring{A} 03'30		evening set	53 Feb 11 j 10:54	3° \mathring{A} 11'46	
evening set	52 Feb 29 j 15:53	20° \mathring{A} 42'32			53 Feb 16 j 10:15	30° \mathring{R} \mathring{A}	
inferior conj	52 Mar 08 j 03:40	16° \mathring{A} 11'50	3°03'23	inferior conj	53 Feb 18 j 07:12	28° \mathring{A} 19'41	3°40'12
minimum elong	52 Mar 08 j 07:37	16° \mathring{A} 03'59	3°02'33	minimum elong	53 Feb 18 j 09:10	28° \mathring{A} 15'10	3°39'59
min. Earth dist.	52 Mar 11 j 13:44	13° \mathring{A} 30'43	0.58388 AU	min. Earth dist.	53 Feb 21 j 13:54	25° \mathring{A} 20'04	0.60479 AU
morning rise	52 Mar 15 j 19:25	10° \mathring{A} 48'11		morning rise	53 Feb 25 j 04:19	22° \mathring{A} 34'51	
desc. node	52 Mar 20 j 15:56	9° \mathring{A} 19'42		direct	53 Mar 03 j 21:19	20° \mathring{A} 25'59	
direct	52 Mar 21 j 19:15	9° \mathring{A} 16'22		desc. node	53 Mar 07 j 12:58	21° \mathring{A} 01'44	
morning max el	52 Apr 05 j 03:42	16° \mathring{A} 53'46	26°42'09	morning max el	53 Mar 18 j 03:17	28° \mathring{A} 14'45	27°32'59
	52 Apr 15 j 22:23	0° \mathring{Y}			53 Mar 19 j 20:24	0° \mathring{A}	
	52 May 03 j 01:59	0° \mathring{A}			53 Apr 09 j 15:30	0° \mathring{Y}	
morning set	52 May 04 j 16:19	3° \mathring{A} 18'29		morning set	53 Apr 18 j 23:43	18° \mathring{Y} 00'42	
asc. node	52 May 08 j 00:37	10° \mathring{A} 26'49		asc. node	53 Apr 24 j 21:40	0° \mathring{A} 37'27	
					53 Apr 24 j 14:48	0° \mathring{A}	
superior conj	52 May 11 j 18:09	18° \mathring{A} 36'22	0°38'35	max. Earth dist.	53 Apr 25 j 08:37	1° \mathring{A} 37'13	1.32366 AU
minimum elong	52 May 11 j 16:32	18° \mathring{A} 27'30	0°38'15				
max. Earth dist.	52 May 11 j 20:14	18° \mathring{A} 47'51	1.32372 AU	superior conj	53 Apr 26 j 05:34	3° \mathring{A} 31'49	0°14'02
	52 May 16 j 23:47	0° \mathring{I}		minimum elong	53 Apr 26 j 04:56	3° \mathring{A} 28'20	0°13'54
evening rise	52 May 18 j 17:38	3° \mathring{I} 41'24		behind sun begin	53 Apr 26 j 02:31	3° \mathring{A} 15'05	
	52 Jun 01 j 21:09	0° \mathring{A}		behind sun end	53 Apr 26 j 07:21	3° \mathring{A} 41'35	
desc. node	52 Jun 16 j 15:13	19° \mathring{A} 23'23		evening rise	53 May 03 j 04:03	18° \mathring{A} 34'50	
evening max el	52 Jun 17 j 11:54	20° \mathring{A} 13'44	26°37'38		53 May 08 j 19:19	0° \mathring{I}	
retrograde	52 Jul 01 j 11:29	27° \mathring{A} 28'29			53 May 28 j 19:11	0° \mathring{A}	
evening set	52 Jul 08 j 04:40	25° \mathring{A} 33'14		evening max el	53 May 30 j 07:22	1° \mathring{A} 30'12	25°27'58
min. Earth dist.	52 Jul 12 j 01:13	22° \mathring{A} 56'07	0.60133 AU	desc. node	53 Jun 03 j 12:15	5° \mathring{A} 01'25	
inferior conj	52 Jul 15 j 08:56	20° \mathring{A} 15'01	-4°-38'-48	retrograde	53 Jun 13 j 08:22	8° \mathring{A} 40'38	
minimum elong	52 Jul 15 j 11:34	20° \mathring{A} 09'40	4°38'36	evening set	53 Jun 19 j 01:34	7° \mathring{A} 23'54	
morning rise	52 Jul 22 j 21:44	15° \mathring{A} 34'45		min. Earth dist.	53 Jun 23 j 19:23	4° \mathring{A} 41'22	0.58091 AU
direct	52 Jul 25 j 08:18	15° \mathring{A} 12'34		inferior conj	53 Jun 27 j 00:16	2° \mathring{A} 26'34	-4°-43'-50
morning max el	52 Aug 01 j 18:46	18° \mathring{A} 49'28	18°12'40	minimum elong	53 Jun 26 j 22:53	2° \mathring{A} 29'01	4°43'48
asc. node	52 Aug 03 j 23:49	21° \mathring{A} 13'24			53 Jun 30 j 17:17	30° \mathring{R} \mathring{I}	
	52 Aug 09 j 23:02	0° \mathring{A}		morning rise	53 Jul 05 j 00:03	28° \mathring{I} 09'02	
morning set	52 Aug 17 j 16:11	14° \mathring{A} 01'30		direct	53 Jul 07 j 12:23	27° \mathring{I} 49'29	
	52 Aug 26 j 05:36	0° \mathring{M}			53 Jul 13 j 18:42	0° \mathring{A}	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 246

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

morning max el	53 Jul 15 j 23:33	1° $\overline{5}$ 48'28	18°50'58	min. Earth dist.	54 Jun 05 j 09:23	15° $\overline{\text{II}}$ 24'58	0.56344 AU
asc. node	53 Jul 21 j 20:52	9° $\overline{5}$ 04'10		inferior conj	54 Jun 07 j 19:32	13° $\overline{\text{II}}$ 55'31	-4°-11'-21
morning set	53 Aug 01 j 11:16	28° $\overline{5}$ 05'05		minimum elong	54 Jun 07 j 13:35	14° $\overline{\text{II}}$ 04'43	4°10'19
	53 Aug 02 j 10:42	0° $\overline{\Omega}$		morning rise	54 Jun 16 j 06:04	9° $\overline{\text{II}}$ 55'44	
				direct	54 Jun 18 j 21:29	9° $\overline{\text{II}}$ 37'37	
superior conj	53 Aug 10 j 01:36	14° $\overline{\Omega}$ 49'39	1°45'13	morning max el	54 Jun 28 j 18:53	14° $\overline{\text{II}}$ 12'36	19°50'15
minimum elong	53 Aug 10 j 02:57	14° $\overline{\Omega}$ 56'06	1°45'11	asc. node	54 Jul 08 j 17:56	27° $\overline{\text{II}}$ 39'29	
max. Earth dist.	53 Aug 16 j 23:56	27° $\overline{\Omega}$ 36'16	1.39090 AU		54 Jul 10 j 01:51	0° $\overline{5}$	
	53 Aug 18 j 08:25	0° $\overline{\eta}$		morning set	54 Jul 16 j 13:56	12° $\overline{5}$ 32'47	
evening rise	53 Aug 20 j 23:43	4° $\overline{\eta}$ 34'23					
desc. node	53 Aug 30 j 11:34	20° $\overline{\eta}$ 04'39		superior conj	54 Jul 24 j 12:05	28° $\overline{5}$ 34'26	1°46'39
	53 Sep 06 j 01:14	0° $\overline{\Omega}$		minimum elong	54 Jul 24 j 11:34	28° $\overline{5}$ 31'52	1°46'38
evening max el	53 Sep 25 j 08:37	24° $\overline{\Omega}$ 35'45	24°19'52		54 Jul 25 j 05:20	0° $\overline{\Omega}$	
	53 Oct 02 j 06:45	0° $\overline{\text{M}}$		max. Earth dist.	54 Jul 30 j 03:47	9° $\overline{\Omega}$ 32'23	1.37134 AU
retrograde	53 Oct 06 j 13:55	1° $\overline{\text{M}}$ 10'24		evening rise	54 Aug 03 j 01:12	16° $\overline{\Omega}$ 42'47	
	53 Oct 10 j 11:46	30° $\overline{\text{R}}$ $\overline{\Omega}$			54 Aug 10 j 18:18	0° $\overline{\eta}$	
evening set	53 Oct 11 j 22:30	28° $\overline{\Omega}$ 56'14		desc. node	54 Aug 17 j 08:36	10° $\overline{\eta}$ 26'44	
min. Earth dist.	53 Oct 16 j 16:23	23° $\overline{\Omega}$ 28'45	0.67462 AU		54 Aug 31 j 11:20	0° $\overline{\Omega}$	
inferior conj	53 Oct 17 j 09:13	22° $\overline{\Omega}$ 32'10	0°-9'-21	evening max el	54 Sep 07 j 20:15	8° $\overline{\Omega}$ 13'05	25°33'57
minimum elong	53 Oct 17 j 09:26	22° $\overline{\Omega}$ 31'24	0°09'17	retrograde	54 Sep 20 j 00:17	15° $\overline{\Omega}$ 12'19	
transit middle	53 Oct 17 j 09:26	22° $\overline{\Omega}$ 31'24	0°09'17	evening set	54 Sep 25 j 23:36	12° $\overline{\Omega}$ 42'18	
transit begin	53 Oct 17 j 07:12	22° $\overline{\Omega}$ 38'58		min. Earth dist.	54 Sep 30 j 09:20	7° $\overline{\Omega}$ 50'33	0.66929 AU
transit end	53 Oct 17 j 11:41	22° $\overline{\Omega}$ 23'51		inferior conj	54 Oct 01 j 12:58	6° $\overline{\Omega}$ 21'43	-1°-5'-10
asc. node	53 Oct 17 j 20:04	21° $\overline{\Omega}$ 55'45		minimum elong	54 Oct 01 j 14:37	6° $\overline{\Omega}$ 16'25	1°04'30
morning rise	53 Oct 22 j 20:42	16° $\overline{\Omega}$ 25'11		asc. node	54 Oct 04 j 17:06	2° $\overline{\Omega}$ 33'23	
direct	53 Oct 26 j 14:44	15° $\overline{\Omega}$ 04'39		morning rise	54 Oct 07 j 06:20	0° $\overline{\Omega}$ 22'54	
morning max el	53 Nov 03 j 12:08	19° $\overline{\Omega}$ 38'15	20°23'07		54 Oct 07 j 22:24	30° $\overline{\text{R}}$ $\overline{\eta}$	
greatest brilliancy	53 Nov 10 j 00:04	27° $\overline{\Omega}$ 24'57	-0.5m	direct	54 Oct 10 j 13:11	29° $\overline{\eta}$ 20'28	
	53 Nov 11 j 21:44	0° $\overline{\text{M}}$			54 Oct 13 j 06:25	0° $\overline{\Omega}$	
desc. node	53 Nov 26 j 10:48	21° $\overline{\text{M}}$ 25'20		morning max el	54 Oct 17 j 16:42	3° $\overline{\Omega}$ 23'10	19°21'08
morning set	53 Dec 01 j 08:15	28° $\overline{\text{M}}$ 56'46		greatest brilliancy	54 Oct 27 j 08:40	15° $\overline{\Omega}$ 55'47	-0.7m
	53 Dec 02 j 00:34	0° $\overline{\text{J}}$			54 Nov 05 j 14:58	0° $\overline{\text{M}}$	
max. Earth dist.	53 Dec 11 j 10:33	14° $\overline{\text{J}}$ 51'37	1.43474 AU	morning set	54 Nov 10 j 09:22	7° $\overline{\text{M}}$ 23'40	
				desc. node	54 Nov 13 j 07:51	11° $\overline{\text{M}}$ 57'56	
superior conj	53 Dec 17 j 12:01	24° $\overline{\text{J}}$ 44'32	-1°-51'-45	max. Earth dist.	54 Nov 24 j 00:44	28° $\overline{\text{M}}$ 44'49	1.44612 AU
minimum elong	53 Dec 17 j 06:33	24° $\overline{\text{J}}$ 21'58	1°51'27		54 Nov 24 j 19:45	0° $\overline{\text{J}}$	
	53 Dec 20 j 15:40	0° $\overline{5}$					
evening rise	53 Dec 30 j 01:59	16° $\overline{5}$ 12'20		superior conj	54 Nov 27 j 05:07	3° $\overline{\text{J}}$ 47'41	-1°-23'-16
	54 Jan 07 j 01:29	0° $\overline{\approx}$		minimum elong	54 Nov 26 j 20:47	3° $\overline{\text{J}}$ 14'31	1°22'26
asc. node	54 Jan 13 j 19:24	10° $\overline{\approx}$ 14'47		evening rise	54 Dec 11 j 16:46	27° $\overline{\text{J}}$ 21'35	
evening max el	54 Jan 16 j 12:44	13° $\overline{\approx}$ 23'25	18°09'33		54 Dec 13 j 06:54	0° $\overline{5}$	
retrograde	54 Jan 23 j 00:59	16° $\overline{\approx}$ 49'08		evening max el	54 Dec 31 j 01:07	26° $\overline{5}$ 44'38	18°27'14
evening set	54 Jan 25 j 19:17	16° $\overline{\approx}$ 11'00		asc. node	54 Dec 31 j 16:24	27° $\overline{5}$ 22'06	
inferior conj	54 Feb 01 j 03:33	10° $\overline{\approx}$ 58'01	3°50'08		55 Jan 04 j 16:01	0° $\overline{\approx}$	
minimum elong	54 Feb 01 j 03:20	10° $\overline{\approx}$ 58'36	3°50'08	retrograde	55 Jan 06 j 14:14	0° $\overline{\approx}$ 20'12	
min. Earth dist.	54 Feb 03 j 22:24	8° $\overline{\approx}$ 04'12	0.62522 AU		55 Jan 08 j 12:05	30° $\overline{\text{R}}$ $\overline{5}$	
morning rise	54 Feb 07 j 09:14	5° $\overline{\approx}$ 00'08		evening set	55 Jan 09 j 13:27	29° $\overline{5}$ 31'46	
direct	54 Feb 14 j 08:57	2° $\overline{\approx}$ 23'15		inferior conj	55 Jan 15 j 12:46	23° $\overline{5}$ 59'24	3°40'32
desc. node	54 Feb 22 j 09:59	5° $\overline{\approx}$ 16'46		minimum elong	55 Jan 15 j 10:58	24° $\overline{5}$ 04'37	3°40'20
morning max el	54 Feb 28 j 08:29	10° $\overline{\approx}$ 16'01	27°47'17	min. Earth dist.	55 Jan 17 j 16:23	21° $\overline{5}$ 30'03	0.64300 AU
	54 Mar 15 j 19:01	0° $\overline{\text{H}}$		morning rise	55 Jan 21 j 07:07	17° $\overline{5}$ 53'19	
	54 Apr 01 j 21:09	0° $\overline{\text{Y}}$		direct	55 Jan 28 j 04:04	15° $\overline{5}$ 03'15	
morning set	54 Apr 03 j 01:51	2° $\overline{\text{Y}}$ 24'05		desc. node	55 Feb 09 j 07:01	21° $\overline{5}$ 29'26	
max. Earth dist.	54 Apr 08 j 17:14	14° $\overline{\text{Y}}$ 10'56	1.32739 AU	morning max el	55 Feb 10 j 17:09	22° $\overline{5}$ 51'52	27°25'34
					55 Feb 17 j 01:25	0° $\overline{\approx}$	
superior conj	54 Apr 10 j 15:02	18° $\overline{\text{Y}}$ 17'47	0°-12'-10		55 Mar 09 j 00:47	0° $\overline{\text{H}}$	
minimum elong	54 Apr 10 j 15:36	18° $\overline{\text{Y}}$ 20'54	0°12'03	morning set	55 Mar 17 j 19:58	16° $\overline{\text{H}}$ 19'20	
behind sun begin	54 Apr 10 j 12:12	18° $\overline{\text{Y}}$ 02'30		max. Earth dist.	55 Mar 22 j 18:11	26° $\overline{\text{H}}$ 16'34	1.33539 AU
behind sun end	54 Apr 10 j 19:00	18° $\overline{\text{Y}}$ 39'19			55 Mar 24 j 12:57	0° $\overline{\text{Y}}$	
asc. node	54 Apr 11 j 18:44	20° $\overline{\text{Y}}$ 48'02					
	54 Apr 16 j 00:37	0° $\overline{8}$		superior conj	55 Mar 25 j 20:39	2° $\overline{\text{Y}}$ 47'30	0°-39'-5
evening rise	54 Apr 17 j 15:48	3° $\overline{8}$ 28'46		minimum elong	55 Mar 25 j 22:32	2° $\overline{\text{Y}}$ 57'31	0°38'43
	54 May 02 j 01:41	0° $\overline{\text{II}}$		asc. node	55 Mar 29 j 15:45	10° $\overline{\text{Y}}$ 53'53	
evening max el	54 May 11 j 22:19	12° $\overline{\text{II}}$ 13'38	23°58'23	evening rise	55 Apr 02 j 03:04	18° $\overline{\text{Y}}$ 16'15	
desc. node	54 May 21 j 09:15	18° $\overline{\text{II}}$ 26'28			55 Apr 07 j 23:04	0° $\overline{8}$	
retrograde	54 May 25 j 17:33	19° $\overline{\text{II}}$ 09'28		evening max el	55 Apr 23 j 14:34	22° $\overline{8}$ 48'35	22°23'03
evening set	54 May 30 j 00:47	18° $\overline{\text{II}}$ 28'32		retrograde	55 May 06 j 13:41	29° $\overline{8}$ 11'37	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 247

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

desc. node	55 May 08 j 06:16	29°♄05'14		evening set	56 Apr 18 j 08:39	9°♄06'08	
evening set	55 May 09 j 13:08	28°♄52'07		desc. node	56 Apr 24 j 03:16	7°♄02'32	
min. Earth dist.	55 May 17 j 21:54	25°♄15'39	0.55237 AU	inferior conj	56 Apr 27 j 15:12	5°♄08'11	-1°00'-9
inferior conj	55 May 18 j 21:08	24°♄42'46	-2°-53'-10	minimum elong	56 Apr 27 j 12:21	5°♄12'14	0°59'09
minimum elong	55 May 18 j 14:06	24°♄52'44	2°51'06	min. Earth dist.	56 Apr 28 j 10:44	4°♄40'27	0.55024 AU
morning rise	55 May 27 j 17:10	20°♄49'15		morning rise	56 May 06 j 15:19	1°♄02'34	
direct	55 May 30 j 14:09	20°♄30'26		direct	56 May 10 j 00:22	0°♄37'59	
morning max el	55 Jun 11 j 02:58	25°♄53'19	21°09'43	morning max el	56 May 23 j 00:47	6°♄52'54	22°44'53
	55 Jun 14 j 22:56	0°♄			56 Jun 08 j 05:46	0°♄	
asc. node	55 Jun 25 j 15:00	16°♄47'40		asc. node	56 Jun 11 j 12:04	6°♄20'20	
morning set	55 Jun 30 j 21:37	27°♄16'38		morning set	56 Jun 14 j 08:19	12°♄10'35	
	55 Jul 02 j 05:10	0°♄					
superior conj	55 Jul 08 j 08:59	12°♄50'57	1°40'34	superior conj	56 Jun 21 j 13:00	27°♄29'20	1°28'36
minimum elong	55 Jul 08 j 07:12	12°♄41'47	1°40'27	minimum elong	56 Jun 21 j 10:36	27°♄16'36	1°28'19
max. Earth dist.	55 Jul 12 j 14:01	21°♄23'42	1.35424 AU		56 Jun 22 j 17:27	0°♄	
evening rise	55 Jul 16 j 21:47	29°♄47'06		max. Earth dist.	56 Jun 24 j 09:28	3°♄29'45	1.34070 AU
	55 Jul 17 j 00:31	0°♄		evening rise	56 Jun 29 j 08:43	13°♄34'01	
	55 Aug 03 j 21:38	0°♄			56 Jul 08 j 06:04	0°♄	
desc. node	55 Aug 04 j 05:37	0°♄29'24		desc. node	56 Jul 21 j 02:38	20°♄04'09	
evening max el	55 Aug 21 j 08:10	21°♄49'10	26°34'26		56 Jul 28 j 21:16	0°♄	
retrograde	55 Sep 03 j 05:30	29°♄02'28		evening max el	56 Aug 02 j 19:57	5°♄14'23	27°13'44
evening set	55 Sep 09 j 18:40	26°♄21'09		retrograde	56 Aug 16 j 05:13	12°♄33'28	
min. Earth dist.	55 Sep 13 j 20:44	22°♄06'55	0.66052 AU	evening set	56 Aug 23 j 05:11	9°♄48'49	
inferior conj	55 Sep 15 j 12:13	20°♄08'10	-2°-1'-22	min. Earth dist.	56 Aug 27 j 00:17	6°♄11'53	0.64809 AU
minimum elong	55 Sep 15 j 15:19	19°♄58'52	2°00'11	inferior conj	56 Aug 29 j 04:44	3°♄47'11	-2°-55'-44
morning rise	55 Sep 21 j 13:05	14°♄20'51		minimum elong	56 Aug 29 j 09:01	3°♄35'21	2°54'19
asc. node	55 Sep 21 j 14:09	14°♄19'24			56 Sep 01 j 22:55	30°♄	
direct	55 Sep 24 j 11:04	13°♄32'56		morning rise	56 Sep 04 j 14:32	28°♄14'45	
morning max el	55 Oct 01 j 03:32	17°♄14'21	18°34'49	direct	56 Sep 07 j 06:02	27°♄37'49	
	55 Oct 10 j 15:53	0°♄		asc. node	56 Sep 07 j 11:14	27°♄38'04	
morning set	55 Oct 21 j 09:56	17°♄04'06			56 Sep 12 j 13:26	0°♄	
	55 Oct 29 j 12:44	0°♄		morning max el	56 Sep 13 j 18:15	1°♄06'58	18°05'15
desc. node	55 Oct 31 j 04:54	2°♄38'49		morning set	56 Oct 01 j 15:08	28°♄08'27	
					56 Oct 02 j 17:49	0°♄	
superior conj	55 Nov 06 j 06:21	12°♄11'48	0°-39'-6	superior conj	56 Oct 15 j 13:08	20°♄57'26	0°10'08
minimum elong	55 Nov 06 j 01:16	11°♄51'47	0°38'27	minimum elong	56 Oct 15 j 14:21	21°♄02'21	0°09'57
max. Earth dist.	55 Nov 06 j 19:09	13°♄02'08	1.45043 AU	behind sun begin	56 Oct 15 j 05:51	20°♄28'17	
	55 Nov 17 j 13:45	0°♄		behind sun end	56 Oct 15 j 22:52	21°♄36'22	
evening rise	55 Nov 22 j 07:59	7°♄32'31		desc. node	56 Oct 17 j 01:55	23°♄24'15	
	55 Dec 06 j 15:52	0°♄		max. Earth dist.	56 Oct 19 j 14:02	27°♄22'42	1.44732 AU
evening max el	55 Dec 14 j 11:18	10°♄11'10	19°02'37		56 Oct 21 j 05:55	0°♄	
asc. node	55 Dec 18 j 13:25	13°♄23'39		evening rise	56 Nov 01 j 01:33	16°♄51'43	
retrograde	55 Dec 21 j 09:06	14°♄07'06			56 Nov 09 j 14:41	0°♄	
evening set	55 Dec 24 j 14:23	13°♄07'00		greatest brilliancy	56 Nov 19 j 09:38	14°♄29'28	-0.6m
inferior conj	55 Dec 30 j 07:20	7°♄17'35	3°16'56	evening max el	56 Nov 26 j 17:13	23°♄38'57	19°54'06
minimum elong	55 Dec 30 j 04:43	7°♄25'49	3°16'23	retrograde	56 Dec 04 j 06:30	28°♄03'55	
min. Earth dist.	55 Dec 31 j 19:45	5°♄23'15	0.65704 AU	asc. node	56 Dec 04 j 10:28	28°♄03'46	
morning rise	56 Jan 04 j 18:09	1°♄06'10		evening set	56 Dec 07 j 19:33	26°♄50'29	
	56 Jan 06 j 03:49	30°♄		inferior conj	56 Dec 13 j 08:16	20°♄47'05	2°43'02
direct	56 Jan 11 j 05:34	28°♄17'24		minimum elong	56 Dec 13 j 05:30	20°♄56'19	2°42'13
	56 Jan 16 j 20:35	0°♄		min. Earth dist.	56 Dec 14 j 06:58	19°♄31'41	0.66714 AU
morning max el	56 Jan 24 j 02:51	5°♄51'33	26°33'34	morning rise	56 Dec 18 j 14:49	14°♄32'25	
desc. node	56 Jan 27 j 04:03	9°♄06'48		direct	56 Dec 24 j 12:44	11°♄55'58	
	56 Feb 11 j 17:21	0°♄		morning max el	57 Jan 05 j 11:51	19°♄02'50	25°19'44
morning set	56 Feb 29 j 02:36	29°♄36'04		desc. node	57 Jan 13 j 01:06	27°♄43'29	
	56 Feb 29 j 07:40	0°♄			57 Jan 14 j 19:30	0°♄	
max. Earth dist.	56 Mar 04 j 08:29	7°♄49'10	1.34789 AU		57 Feb 03 j 19:23	0°♄	
				morning set	57 Feb 10 j 16:54	11°♄59'37	
superior conj	56 Mar 08 j 20:16	16°♄54'28	-1°-5'-29	max. Earth dist.	57 Feb 14 j 11:17	18°♄55'29	1.36474 AU
minimum elong	56 Mar 08 j 23:21	17°♄10'23	1°04'58				
	56 Mar 15 j 02:58	0°♄		superior conj	57 Feb 20 j 11:00	0°♄29'55	-1°-29'-40
asc. node	56 Mar 15 j 12:47	0°♄51'06		minimum elong	57 Feb 20 j 14:50	0°♄48'56	1°29'11
evening rise	56 Mar 16 j 12:00	2°♄51'27			57 Feb 20 j 04:58	0°♄	
	56 Apr 01 j 05:12	0°♄		evening rise	57 Feb 28 j 16:25	17°♄06'52	
evening max el	56 Apr 04 j 14:44	3°♄43'54	20°55'28	asc. node	57 Mar 02 j 09:49	20°♄34'25	
retrograde	56 Apr 16 j 02:49	9°♄18'02			57 Mar 07 j 08:15	0°♄	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 248

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

evening max el	57 Mar 18 j 02:07	15° Υ 15'46	19°44'02	evening max el	58 Mar 01 j 00:09	27° X 25'37	18°52'00
retrograde	57 Mar 27 j 21:06	19° Υ 57'47			58 Mar 04 j 07:50	0° Υ	
evening set	57 Mar 29 j 23:45	19° Υ 45'38		retrograde	58 Mar 09 j 06:47	1° Υ 25'50	
inferior conj	57 Apr 07 j 16:23	15° Υ 43'00	0°56'14	evening set	58 Mar 11 j 13:21	1° Υ 08'55	
minimum elong	57 Apr 07 j 18:45	15° Υ 39'18	0°55'26		58 Mar 14 j 13:25	30° R X	
min. Earth dist.	57 Apr 10 j 01:00	14° Υ 14'46	0.55758 AU	inferior conj	58 Mar 19 j 11:30	26° X 50'24	2°27'07
desc. node	57 Apr 11 j 00:17	13° Υ 39'53		minimum elong	58 Mar 19 j 15:51	26° X 42'31	2°25'57
morning rise	57 Apr 16 j 10:22	11° Υ 08'11		min. Earth dist.	58 Mar 22 j 17:31	24° X 30'22	0.57282 AU
direct	57 Apr 20 j 17:20	10° Υ 27'12		morning rise	58 Mar 27 j 14:06	21° X 42'44	
morning max el	57 May 04 j 16:29	17° Υ 26'37	24°25'59	desc. node	58 Mar 28 j 21:20	21° X 13'02	
	57 May 14 j 22:27	0° B		direct	58 Apr 02 j 00:08	20° X 31'45	
asc. node	57 May 29 j 09:08	26° B 10'36		morning max el	58 Apr 16 j 07:45	27° X 59'48	25°58'34
morning set	57 May 29 j 20:16	27° B 09'02			58 Apr 18 j 07:01	0° Υ	
	57 May 31 j 04:31	0° II			58 May 08 j 07:12	0° B	
				morning set	58 May 14 j 07:47	12° B 05'57	
superior conj	57 Jun 05 j 21:35	12° II 21'28	1°11'58	asc. node	58 May 16 j 06:10	16° B 12'32	
minimum elong	57 Jun 05 j 19:08	12° II 08'10	1°11'35				
max. Earth dist.	57 Jun 07 j 13:39	15° II 57'47	1.33106 AU	superior conj	58 May 21 j 08:39	27° B 19'53	0°51'38
evening rise	57 Jun 13 j 05:56	27° II 51'58		minimum elong	58 May 21 j 06:36	27° B 08'44	0°51'15
	57 Jun 14 j 07:21	0° S		max. Earth dist.	58 May 21 j 23:49	28° B 43'00	1.32531 AU
	57 Jul 01 j 11:52	0° Ω			58 May 22 j 13:54	0° II	
desc. node	57 Jul 07 j 23:38	8° Ω 59'23		evening rise	58 May 28 j 10:13	12° II 30'29	
evening max el	57 Jul 16 j 06:01	18° Ω 16'57	27°25'19		58 Jun 06 j 11:01	0° S	
retrograde	57 Jul 29 j 23:09	25° Ω 36'30		desc. node	58 Jun 24 j 20:40	26° S 57'57	
evening set	57 Aug 06 j 03:58	23° Ω 00'16			58 Jun 27 j 17:47	0° Ω	
min. Earth dist.	57 Aug 09 j 18:21	19° Ω 55'51	0.63203 AU	evening max el	58 Jun 28 j 12:00	0° Ω 44'08	27°04'40
inferior conj	57 Aug 12 j 11:51	17° Ω 13'14	-3°-45'00	retrograde	58 Jul 12 j 10:08	8° Ω 01'03	
minimum elong	57 Aug 12 j 16:40	17° Ω 01'16	3°43'48	evening set	58 Jul 19 j 10:45	5° Ω 47'23	
morning rise	57 Aug 19 j 07:41	11° Ω 58'52		min. Earth dist.	58 Jul 23 j 02:11	3° Ω 04'36	0.61300 AU
direct	57 Aug 21 j 19:11	11° Ω 29'42		inferior conj	58 Jul 26 j 06:19	0° Ω 17'45	-4°-24'-3
asc. node	57 Aug 25 j 08:19	12° Ω 30'23		minimum elong	58 Jul 26 j 10:19	0° Ω 08'57	4°23'28
morning max el	57 Aug 28 j 10:06	14° Ω 55'06	17°53'18		58 Jul 26 j 14:24	30° R S	
	57 Sep 07 j 21:44	0° M		morning rise	58 Aug 02 j 12:50	25° S 24'15	
morning set	57 Sep 13 j 20:52	10° M 23'29		direct	58 Aug 04 j 22:57	25° S 00'09	
	57 Sep 25 j 06:15	0° A		morning max el	58 Aug 11 j 23:59	28° S 30'22	17°59'56
				asc. node	58 Aug 12 j 05:23	28° S 43'40	
superior conj	57 Sep 25 j 19:05	0° A 53'29	0°52'37		58 Aug 13 j 09:56	0° Ω	
minimum elong	57 Sep 25 j 23:48	1° A 13'08	0°52'01	morning set	58 Aug 27 j 20:58	23° Ω 30'57	
max. Earth dist.	57 Oct 02 j 06:03	11° A 27'36	1.43731 AU		58 Aug 31 j 09:41	0° M	
desc. node	57 Oct 03 j 22:58	14° A 11'28					
evening rise	57 Oct 11 j 08:36	25° A 48'30		superior conj	58 Sep 07 j 04:17	12° M 09'31	1°22'45
	57 Oct 14 j 02:00	0° M		minimum elong	58 Sep 07 j 08:49	12° M 29'22	1°22'18
	57 Nov 03 j 17:23	0° J		max. Earth dist.	58 Sep 14 j 17:03	25° M 00'25	1.42173 AU
greatest brilliancy	57 Nov 04 j 06:23	0° J 42'09	-0.5m		58 Sep 17 j 18:07	0° A	
evening max el	57 Nov 09 j 17:37	7° J 07'29	20°59'11	evening rise	58 Sep 20 j 22:55	5° A 08'09	
retrograde	57 Nov 18 j 04:08	12° J 07'45		desc. node	58 Sep 20 j 20:01	4° A 56'37	
asc. node	57 Nov 21 j 07:32	11° J 11'58			58 Oct 07 j 10:08	0° M	
evening set	57 Nov 22 j 02:56	10° J 39'03		greatest brilliancy	58 Oct 18 j 19:05	15° M 17'45	-0.3m
inferior conj	57 Nov 27 j 13:13	4° J 25'06	2°01'23	evening max el	58 Oct 23 j 12:24	20° M 36'55	22°14'17
minimum elong	57 Nov 27 j 10:48	4° J 33'22	2°00'31	retrograde	58 Nov 02 j 00:03	26° M 15'19	
min. Earth dist.	57 Nov 27 j 23:47	3° J 48'48	0.67358 AU	evening set	58 Nov 06 j 10:43	24° M 29'33	
	57 Nov 30 j 22:52	30° R M		asc. node	58 Nov 08 j 04:35	22° M 49'44	
morning rise	57 Dec 02 j 18:15	28° M 09'25		inferior conj	58 Nov 11 j 20:05	18° M 08'47	1°13'52
direct	57 Dec 08 j 01:07	25° M 52'08		minimum elong	58 Nov 11 j 18:27	18° M 14'25	1°13'11
	57 Dec 16 j 09:29	0° J		min. Earth dist.	58 Nov 11 j 19:43	18° M 10'03	0.67656 AU
morning max el	57 Dec 18 j 20:25	2° J 18'51	23°54'02	morning rise	58 Nov 17 j 02:00	11° M 54'30	
desc. node	57 Dec 30 j 22:10	17° J 02'30		direct	58 Nov 21 j 17:43	9° M 59'32	
	58 Jan 08 j 22:01	0° Z		morning max el	58 Dec 01 j 07:13	15° M 39'14	22°26'28
morning set	58 Jan 23 j 08:48	23° Z 13'31		greatest brilliancy	58 Dec 05 j 22:05	20° M 49'59	-0.3m
	58 Jan 27 j 06:01	0° \approx			58 Dec 12 j 22:40	0° J	
max. Earth dist.	58 Jan 27 j 06:37	0° \approx 02'40	1.38492 AU	desc. node	58 Dec 17 j 19:13	6° J 51'38	
					59 Jan 01 j 23:03	0° Z	
superior conj	58 Feb 03 j 13:16	13° \approx 24'22	-1°-49'-11	morning set	59 Jan 03 j 20:32	3° Z 04'01	
minimum elong	58 Feb 03 j 16:50	13° \approx 41'16	1°48'54	max. Earth dist.	59 Jan 09 j 02:52	11° Z 48'23	1.40617 AU
	58 Feb 12 j 02:28	0° X					
evening rise	58 Feb 12 j 13:50	0° X 55'40		superior conj	59 Jan 16 j 22:21	25° Z 26'21	-2°00'-39
asc. node	58 Feb 17 j 06:51	9° X 58'27		minimum elong	59 Jan 16 j 23:55	25° Z 33'23	2°00'38

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 249

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	59 Jan 19 j 10:42	0° \approx		minimum elong	59 Dec 29 j 06:12	6° \approx 11'04	1°59'40
evening rise	59 Jan 27 j 01:08	14° \approx 10'29		evening rise	60 Jan 09 j 22:32	26° \approx 42'47	
asc. node	59 Feb 04 j 03:53	28° \approx 56'39			60 Jan 11 j 18:26	0° \approx	
	59 Feb 04 j 19:02	0° \approx		asc. node	60 Jan 22 j 00:55	17° \approx 20'11	
evening max el	59 Feb 12 j 06:06	10° \approx 06'24	18°20'01	evening max el	60 Jan 26 j 16:46	23° \approx 08'11	18°07'45
retrograde	59 Feb 19 j 11:22	13° \approx 41'11		retrograde	60 Feb 02 j 08:15	26° \approx 33'20	
evening set	59 Feb 21 j 22:54	13° \approx 16'54		evening set	60 Feb 05 j 00:08	26° \approx 00'26	
inferior conj	59 Mar 01 j 03:42	8° \approx 37'21	3°22'46	inferior conj	60 Feb 11 j 14:52	20° \approx 59'03	3°47'13
minimum elong	59 Mar 01 j 06:55	8° \approx 30'32	3°22'14	minimum elong	60 Feb 11 j 15:52	20° \approx 56'38	3°47'09
min. Earth dist.	59 Mar 04 j 13:56	5° \approx 45'12	0.59270 AU	min. Earth dist.	60 Feb 14 j 17:06	17° \approx 59'31	0.61373 AU
morning rise	59 Mar 08 j 11:20	3° \approx 03'51		morning rise	60 Feb 18 j 04:59	15° \approx 08'07	
direct	59 Mar 14 j 19:58	1° \approx 15'32		direct	60 Feb 25 j 02:08	12° \approx 46'04	
desc. node	59 Mar 15 j 18:22	1° \approx 17'49		desc. node	60 Mar 01 j 15:24	14° \approx 08'53	
morning max el	59 Mar 29 j 03:29	8° \approx 58'25	27°07'56	morning max el	60 Mar 10 j 05:34	20° \approx 36'23	27°43'40
	59 Apr 14 j 04:18	0° \approx			60 Mar 18 j 08:23	0° \approx	
morning set	59 Apr 28 j 17:14	26° \approx 55'45			60 Apr 06 j 02:15	0° \approx	
	59 Apr 30 j 04:16	0° \approx		morning set	60 Apr 11 j 22:40	11° \approx 30'41	
asc. node	59 May 03 j 03:12	6° \approx 21'33		max. Earth dist.	60 Apr 18 j 00:03	24° \approx 20'45	1.32485 AU
superior conj	59 May 05 j 20:26	12° \approx 18'35	0°28'26	superior conj	60 Apr 19 j 07:13	27° \approx 10'27	0°03'06
minimum elong	59 May 05 j 19:12	12° \approx 11'48	0°28'11	minimum elong	60 Apr 19 j 07:04	27° \approx 09'40	0°03'04
max. Earth dist.	59 May 05 j 12:37	11° \approx 35'38	1.32325 AU	behind sun begin	60 Apr 19 j 02:04	26° \approx 42'21	
evening rise	59 May 12 j 19:03	27° \approx 21'20		behind sun end	60 Apr 19 j 12:04	27° \approx 36'59	
	59 May 14 j 01:28	0° \approx		asc. node	60 Apr 19 j 00:14	26° \approx 32'21	
	59 May 31 j 02:35	0° \approx			60 Apr 20 j 14:14	0° \approx	
evening max el	59 Jun 10 j 11:45	12° \approx 27'30	26°11'20	evening rise	60 Apr 26 j 06:17	12° \approx 15'49	
desc. node	59 Jun 11 j 17:40	13° \approx 36'19			60 May 05 j 07:05	0° \approx	
retrograde	59 Jun 24 j 12:28	19° \approx 40'18		evening max el	60 May 22 j 04:47	23° \approx 12'09	24°51'24
evening set	59 Jun 30 j 20:55	18° \approx 01'16		desc. node	60 May 28 j 14:40	28° \approx 12'11	
min. Earth dist.	59 Jul 05 j 00:36	15° \approx 23'51	0.59252 AU		60 Jun 01 j 10:22	0° \approx	
inferior conj	59 Jul 08 j 08:33	12° \approx 51'40	-4°-44'-45	retrograde	60 Jun 05 j 04:08	0° \approx 32'27	
minimum elong	59 Jul 08 j 09:42	12° \approx 49'27	4°44'43		60 Jun 08 j 22:14	30° \approx 12'11	
morning rise	59 Jul 16 j 01:58	8° \approx 20'51		evening set	60 Jun 10 j 07:51	29° \approx 13'18	
direct	59 Jul 18 j 13:08	7° \approx 59'52		min. Earth dist.	60 Jun 15 j 16:14	26° \approx 12'19	0.57300 AU
morning max el	59 Jul 26 j 08:52	11° \approx 44'50	18°26'20	inferior conj	60 Jun 18 j 15:20	24° \approx 14'50	-4°-35'-22
asc. node	59 Jul 30 j 02:26	16° \approx 02'58		minimum elong	60 Jun 18 j 11:52	24° \approx 15'04	4°35'02
	59 Aug 07 j 13:55	0° \approx		morning rise	60 Jun 26 j 19:44	20° \approx 13'01	
morning set	59 Aug 11 j 10:17	7° \approx 17'13		direct	60 Jun 29 j 09:28	20° \approx 17'04	
				morning max el	60 Jul 08 j 09:49	24° \approx 12'13	19°13'38
					60 Jul 13 j 03:36	0° \approx	
superior conj	59 Aug 20 j 13:00	24° \approx 35'24	1°40'13	asc. node	60 Jul 15 j 23:28	4° \approx 13'37	
minimum elong	59 Aug 20 j 15:37	24° \approx 47'26	1°40'04	morning set	60 Jul 25 j 08:55	21° \approx 31'45	
	59 Aug 23 j 12:06	0° \approx			60 Jul 29 j 14:55	0° \approx	
max. Earth dist.	59 Aug 27 j 23:03	7° \approx 52'23	1.40261 AU				
evening rise	59 Sep 01 j 10:19	15° \approx 17'02		superior conj	60 Aug 02 j 15:34	7° \approx 55'24	1°46'52
desc. node	59 Sep 07 j 17:02	25° \approx 13'08		minimum elong	60 Aug 02 j 16:03	7° \approx 57'49	1°46'52
	59 Sep 10 j 12:56	0° \approx		max. Earth dist.	60 Aug 09 j 02:18	20° \approx 04'17	1.38240 AU
	59 Oct 02 j 06:56	0° \approx		evening rise	60 Aug 12 j 22:31	26° \approx 05'12	
evening max el	59 Oct 06 j 02:43	4° \approx 08'41	23°34'14		60 Aug 14 j 16:55	0° \approx	
retrograde	59 Oct 16 j 16:55	10° \approx 12'34		desc. node	60 Aug 24 j 14:02	16° \approx 05'49	
evening set	59 Oct 21 j 17:15	8° \approx 19'51			60 Sep 03 j 01:27	0° \approx	
asc. node	59 Oct 26 j 01:37	3° \approx 12'42		evening max el	60 Sep 17 j 14:34	17° \approx 43'33	24°52'34
min. Earth dist.	59 Oct 26 j 16:17	2° \approx 13'25	0.67628 AU	retrograde	60 Sep 29 j 05:50	24° \approx 29'35	
inferior conj	59 Oct 27 j 03:05	1° \approx 15'02	0°21'56	evening set	60 Oct 04 j 20:51	22° \approx 08'04	
minimum elong	59 Oct 27 j 02:34	1° \approx 15'49	0°21'42	min. Earth dist.	60 Oct 09 j 11:08	16° \approx 55'50	0.67275 AU
	59 Oct 28 j 13:33	30° \approx 12'11		inferior conj	60 Oct 10 j 08:31	15° \approx 45'08	0°-32'-54
morning rise	59 Nov 01 j 12:00	25° \approx 45'46		minimum elong	60 Oct 10 j 09:20	15° \approx 42'26	0°32'33
direct	59 Nov 05 j 13:33	24° \approx 13'10		asc. node	60 Oct 11 j 22:40	13° \approx 41'34	
morning max el	59 Nov 13 j 23:53	29° \approx 08'15	21°05'02	morning rise	60 Oct 15 j 22:18	9° \approx 41'33	
	59 Nov 14 j 19:50	0° \approx		direct	60 Oct 19 j 11:21	8° \approx 29'10	
greatest brilliancy	59 Nov 19 j 11:19	5° \approx 12'08	-0.5m	morning max el	60 Oct 27 j 00:15	12° \approx 48'06	19°55'03
desc. node	59 Dec 04 j 16:16	27° \approx 12'13		greatest brilliancy	60 Nov 03 j 11:45	22° \approx 01'01	-0.6m
	59 Dec 06 j 15:27	0° \approx			60 Nov 09 j 00:55	0° \approx	
morning set	59 Dec 14 j 04:46	11° \approx 38'04		desc. node	60 Nov 20 j 13:19	17° \approx 12'12	
max. Earth dist.	59 Dec 22 j 06:18	24° \approx 31'23	1.42555 AU	morning set	60 Nov 22 j 01:15	19° \approx 14'46	
	59 Dec 25 j 14:02	0° \approx			60 Nov 28 j 14:47	0° \approx	
				max. Earth dist.	60 Dec 03 j 17:17	8° \approx 04'12	1.44034 AU
superior conj	59 Dec 29 j 08:47	6° \approx 22'04	-1°-59'-43				

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 250

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

superior conj	60 Dec 08 j 16:31	16° ♄ 03'43	-1°-41'-57	superior conj	61 Nov 18 j 00:41	24° ♄ 43'29	-1°-5'-59
minimum elong	60 Dec 08 j 09:16	15° ♄ 34'17	1°41'24	minimum elong	61 Nov 17 j 16:57	24° ♄ 13'00	1°05'05
	60 Dec 17 j 02:47	0° ♄			61 Nov 21 j 08:43	0° ♄	
evening rise	60 Dec 22 j 01:46	8° ♄ 24'50		evening rise	61 Dec 03 j 06:40	19° ♄ 08'50	
	61 Jan 04 j 03:32	0° ♄			61 Dec 09 j 22:36	0° ♄	
asc. node	61 Jan 07 j 21:57	4° ♄ 59'00		evening max el	61 Dec 23 j 16:53	19° ♄ 47'09	18°40'13
evening max el	61 Jan 09 j 05:14	6° ♄ 23'50	18°14'45	asc. node	61 Dec 25 j 18:59	21° ♄ 39'55	
retrograde	61 Jan 15 j 16:54	9° ♄ 52'40		retrograde	61 Dec 30 j 09:01	23° ♄ 30'37	
evening set	61 Jan 18 j 13:08	9° ♄ 10'18		evening set	62 Jan 02 j 10:30	22° ♄ 37'34	
inferior conj	61 Jan 24 j 17:14	3° ♄ 48'32	3°48'05	inferior conj	62 Jan 08 j 06:51	16° ♄ 57'40	3°32'00
minimum elong	61 Jan 24 j 16:15	3° ♄ 51'13	3°48'02	minimum elong	62 Jan 08 j 04:37	17° ♄ 04'24	3°31'39
min. Earth dist.	61 Jan 27 j 05:38	1° ♄ 03'29	0.63316 AU	min. Earth dist.	62 Jan 10 j 03:56	14° ♄ 42'04	0.64939 AU
	61 Jan 28 j 06:14	30° ♄		morning rise	62 Jan 13 j 21:31	10° ♄ 48'45	
morning rise	61 Jan 30 j 17:35	27° ♄ 46'30		direct	62 Jan 20 j 14:59	7° ♄ 57'26	
direct	61 Feb 06 j 16:55	25° ♄ 02'25		morning max el	62 Feb 02 j 22:24	15° ♄ 42'21	27°06'42
desc. node	61 Feb 16 j 12:27	29° ♄ 18'32		desc. node	62 Feb 03 j 09:30	16° ♄ 10'26	
	61 Feb 17 j 08:51	0° ♄			62 Feb 14 j 17:37	0° ♄	
morning max el	61 Feb 20 j 12:50	2° ♄ 54'31	27°42'15		62 Mar 05 j 11:12	0° ♄	
	61 Mar 12 j 17:18	0° ♄		morning set	62 Mar 10 j 11:35	9° ♄ 24'06	
morning set	61 Mar 26 j 21:47	25° ♄ 43'20		max. Earth dist.	62 Mar 15 j 02:44	18° ♄ 36'03	1.34010 AU
	61 Mar 29 j 00:28	0° ♄					
max. Earth dist.	61 Apr 01 j 06:04	6° ♄ 44'37	1.33033 AU	superior conj	62 Mar 18 j 18:40	26° ♄ 10'59	0°-50'-26
				minimum elong	62 Mar 18 j 21:06	26° ♄ 23'43	0°49'59
superior conj	61 Apr 03 j 15:16	11° ♄ 49'57	0°-23'-33		62 Mar 20 j 14:08	0° ♄	
minimum elong	61 Apr 03 j 16:24	11° ♄ 56'02	0°23'20	asc. node	62 Mar 23 j 18:18	6° ♄ 43'52	
asc. node	61 Apr 05 j 21:15	16° ♄ 41'07		evening rise	62 Mar 26 j 04:35	11° ♄ 50'34	
evening rise	61 Apr 10 j 18:04	27° ♄ 07'36			62 Apr 04 j 15:10	0° ♄	
	61 Apr 12 j 03:01	0° ♄		evening max el	62 Apr 15 j 14:09	14° ♄ 43'15	21°44'15
	61 Apr 30 j 01:28	0° ♄		retrograde	62 Apr 28 j 00:21	20° ♄ 47'14	
evening max el	61 May 03 j 19:08	4° ♄ 01'59	23°17'26	evening set	62 Apr 30 j 13:53	20° ♄ 32'29	
desc. node	61 May 15 j 11:41	10° ♄ 39'16		desc. node	62 May 02 j 08:42	20° ♄ 05'51	
retrograde	61 May 17 j 07:46	10° ♄ 46'56		inferior conj	62 May 09 j 23:11	16° ♄ 29'52	-2°-7'-58
evening set	61 May 21 j 00:29	10° ♄ 16'55		minimum elong	62 May 09 j 17:25	16° ♄ 37'57	2°06'05
min. Earth dist.	61 May 28 j 05:05	7° ♄ 00'49	0.55779 AU	min. Earth dist.	62 May 09 j 18:00	16° ♄ 37'09	0.55024 AU
inferior conj	61 May 30 j 02:16	5° ♄ 54'18	-3°-43'-38	morning rise	62 May 18 j 21:54	12° ♄ 33'20	
minimum elong	61 May 29 j 19:12	6° ♄ 04'45	3°42'01	direct	62 May 21 j 22:39	12° ♄ 13'04	
morning rise	61 Jun 07 j 17:14	1° ♄ 59'29		morning max el	62 Jun 03 j 04:09	17° ♄ 58'56	21°48'42
direct	61 Jun 10 j 10:29	1° ♄ 41'33			62 Jun 12 j 17:27	0° ♄	
morning max el	61 Jun 21 j 00:30	6° ♄ 35'18	20°21'51	asc. node	62 Jun 19 j 17:34	12° ♄ 23'22	
asc. node	61 Jul 02 j 20:31	23° ♄ 03'37		morning set	62 Jun 23 j 23:12	20° ♄ 55'56	
	61 Jul 06 j 12:47	0° ♄			62 Jun 28 j 06:39	0° ♄	
morning set	61 Jul 09 j 13:57	6° ♄ 06'41					
				superior conj	62 Jul 01 j 07:18	6° ♄ 22'41	1°36'08
superior conj	61 Jul 17 j 06:56	21° ♄ 54'58	1°44'53	minimum elong	62 Jul 01 j 05:11	6° ♄ 11'37	1°35'57
minimum elong	61 Jul 17 j 05:48	21° ♄ 49'14	1°44'50	max. Earth dist.	62 Jul 04 j 21:48	13° ♄ 49'04	1.34798 AU
	61 Jul 21 j 08:30	0° ♄		evening rise	62 Jul 09 j 12:01	22° ♄ 54'17	
max. Earth dist.	61 Jul 22 j 07:59	1° ♄ 53'50	1.36361 AU		62 Jul 13 j 06:47	0° ♄	
evening rise	61 Jul 26 j 08:40	9° ♄ 29'22		desc. node	62 Jul 29 j 08:04	26° ♄ 12'26	
	61 Aug 07 j 08:31	0° ♄			62 Aug 01 j 00:48	0° ♄	
desc. node	61 Aug 11 j 11:02	6° ♄ 20'10		evening max el	62 Aug 13 j 13:57	14° ♄ 52'57	26°54'11
	61 Aug 29 j 18:02	0° ♄		retrograde	62 Aug 26 j 17:20	22° ♄ 10'17	
evening max el	61 Aug 31 j 01:59	1° ♄ 19'57	26°01'50	evening set	62 Sep 02 j 11:27	19° ♄ 26'24	
retrograde	61 Sep 12 j 14:11	8° ♄ 27'09		min. Earth dist.	62 Sep 06 j 10:24	15° ♄ 28'04	0.65565 AU
evening set	61 Sep 18 j 19:39	5° ♄ 51'15		inferior conj	62 Sep 08 j 07:17	13° ♄ 17'29	-2°-24'-51
min. Earth dist.	61 Sep 23 j 01:55	1° ♄ 15'32	0.66592 AU	minimum elong	62 Sep 08 j 10:56	13° ♄ 06'52	2°23'31
inferior conj	61 Sep 24 j 10:35	29° ♄ 33'14	-1°-29'-9	morning rise	62 Sep 14 j 11:48	7° ♄ 35'57	
minimum elong	61 Sep 24 j 12:51	29° ♄ 26'08	1°28'13	asc. node	62 Sep 15 j 16:47	7° ♄ 07'00	
	61 Sep 24 j 02:04	30° ♄		direct	62 Sep 17 j 06:36	6° ♄ 53'16	
asc. node	61 Sep 28 j 19:44	24° ♄ 42'53		morning max el	62 Sep 23 j 20:37	10° ♄ 28'49	18°20'04
morning rise	61 Sep 30 j 06:58	23° ♄ 39'10			62 Oct 07 j 11:43	0° ♄	
direct	61 Oct 03 j 09:40	22° ♄ 43'33		morning set	62 Oct 12 j 23:22	8° ♄ 56'20	
morning max el	61 Oct 10 j 07:48	26° ♄ 36'15	18°59'30	desc. node	62 Oct 25 j 07:22	28° ♄ 47'22	
	61 Oct 13 j 07:23	0° ♄			62 Oct 26 j 01:42	0° ♄	
morning set	61 Nov 01 j 10:33	28° ♄ 39'58					
	61 Nov 02 j 06:56	0° ♄		superior conj	62 Oct 28 j 01:30	3° ♄ 08'58	0°-18'-3
desc. node	61 Nov 07 j 10:20	8° ♄ 04'23		minimum elong	62 Oct 27 j 23:08	2° ♄ 59'37	0°17'45
max. Earth dist.	61 Nov 16 j 09:20	22° ♄ 08'25	1.44876 AU	max. Earth dist.	62 Oct 30 j 03:45	6° ♄ 27'00	1.44999 AU

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 251

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

evening rise	62 Nov 13 j 11:52	28° \mathbb{M} 54'50		morning set	63 Sep 24 j 15:48	20° \mathbb{M} 33'11	
	62 Nov 14 j 04:31	0° \mathbb{Z}			63 Sep 30 j 05:29	0° \mathbb{Z}	
greatest brilliancy	62 Nov 27 j 23:11	21° \mathbb{Z} 18'10	-0.7m				
	62 Dec 04 j 05:44	0° \mathbb{Z}		superior conj	63 Oct 07 j 16:43	12° \mathbb{Z} 20'23	0°29'29
evening max el	62 Dec 07 j 01:29	3° \mathbb{Z} 14'13	19°22'47	minimum elong	63 Oct 07 j 19:57	12° \mathbb{Z} 33'31	0°29'02
asc. node	62 Dec 12 j 16:03	7° \mathbb{Z} 08'11		desc. node	63 Oct 12 j 04:25	19° \mathbb{Z} 33'50	
retrograde	62 Dec 14 j 05:11	7° \mathbb{Z} 21'30		max. Earth dist.	63 Oct 12 j 21:52	20° \mathbb{Z} 43'18	1.44391 AU
evening set	62 Dec 17 j 13:30	6° \mathbb{Z} 16'06			63 Oct 18 j 19:16	0° \mathbb{M}	
inferior conj	62 Dec 23 j 04:26	0° \mathbb{Z} 20'37	3°03'38	evening rise	63 Oct 23 j 23:03	7° \mathbb{M} 59'41	
minimum elong	62 Dec 23 j 01:40	0° \mathbb{Z} 29'32	3°02'57		63 Nov 07 j 12:27	0° \mathbb{Z}	
	62 Dec 23 j 10:49	30° \mathbb{R} \mathbb{Z}		greatest brilliancy	63 Nov 13 j 20:09	8° \mathbb{Z} 57'44	-0.6m
min. Earth dist.	62 Dec 24 j 10:54	28° \mathbb{Z} 42'21	0.66181 AU	evening max el	63 Nov 20 j 05:15	16° \mathbb{Z} 42'47	20°20'24
morning rise	62 Dec 28 j 13:03	24° \mathbb{Z} 07'34		retrograde	63 Nov 28 j 02:48	21° \mathbb{Z} 21'40	
direct	63 Jan 03 j 19:11	21° \mathbb{Z} 22'33		asc. node	63 Nov 29 j 13:06	21° \mathbb{Z} 10'03	
morning max el	63 Jan 16 j 07:43	28° \mathbb{Z} 47'06	26°04'11	evening set	63 Dec 01 j 19:50	20° \mathbb{Z} 01'54	
	63 Jan 17 j 11:59	0° \mathbb{Z}		inferior conj	63 Dec 07 j 07:19	13° \mathbb{Z} 53'47	2°26'12
desc. node	63 Jan 21 j 06:33	4° \mathbb{Z} 15'07		minimum elong	63 Dec 07 j 04:38	14° \mathbb{Z} 02'50	2°25'19
	63 Feb 08 j 12:49	0° \mathbb{Z}		min. Earth dist.	63 Dec 08 j 00:41	12° \mathbb{Z} 55'10	0.67034 AU
morning set	63 Feb 21 j 11:57	22° \mathbb{Z} 19'58		morning rise	63 Dec 12 j 12:55	7° \mathbb{Z} 38'42	
max. Earth dist.	63 Feb 25 j 11:34	29° \mathbb{Z} 53'17	1.35449 AU	direct	63 Dec 18 j 04:40	5° \mathbb{Z} 09'42	
	63 Feb 25 j 12:58	0° \mathbb{X}		morning max el	63 Dec 29 j 16:09	12° \mathbb{Z} 00'05	24°44'10
				desc. node	64 Jan 08 j 03:37	23° \mathbb{Z} 11'29	
superior conj	63 Mar 02 j 14:56	10° \mathbb{X} 05'43	-1°-16'-9		64 Jan 13 j 03:20	0° \mathbb{Z}	
minimum elong	63 Mar 02 j 18:25	10° \mathbb{X} 23'24	1°15'37		64 Feb 01 j 06:50	0° \mathbb{Z}	
evening rise	63 Mar 10 j 11:53	26° \mathbb{X} 17'55		morning set	64 Feb 03 j 17:31	4° \mathbb{Z} 15'52	
asc. node	63 Mar 10 j 15:21	26° \mathbb{X} 35'43		max. Earth dist.	64 Feb 07 j 10:29	10° \mathbb{Z} 56'08	1.37301 AU
	63 Mar 12 j 07:37	0° \mathbb{Y}					
evening max el	63 Mar 28 j 19:09	25° \mathbb{Y} 53'57	20°22'57	superior conj	64 Feb 14 j 00:55	23° \mathbb{Z} 25'29	-1°-38'-42
	63 Apr 03 j 14:58	0° \mathbb{Z}		minimum elong	64 Feb 14 j 04:48	23° \mathbb{Z} 44'24	1°38'16
retrograde	63 Apr 08 j 13:41	1° \mathbb{Z} 04'47			64 Feb 17 j 09:02	0° \mathbb{X}	
evening set	63 Apr 10 j 16:48	0° \mathbb{Z} 53'30		evening rise	64 Feb 22 j 13:41	10° \mathbb{X} 23'13	
	63 Apr 13 j 19:35	30° \mathbb{R} \mathbb{Y}		asc. node	64 Feb 25 j 12:25	16° \mathbb{X} 11'52	
desc. node	63 Apr 19 j 05:44	27° \mathbb{Y} 14'37			64 Mar 04 j 07:57	0° \mathbb{Y}	
inferior conj	63 Apr 19 j 18:36	26° \mathbb{Y} 55'51	0°-9'-12	evening max el	64 Mar 10 j 11:21	7° \mathbb{Y} 42'43	19°19'29
minimum elong	63 Apr 19 j 18:10	26° \mathbb{Y} 56'29	0°09'04	retrograde	64 Mar 19 j 13:30	12° \mathbb{Y} 05'01	
transit middle	63 Apr 19 j 18:10	26° \mathbb{Y} 56'29	0°09'04	evening set	64 Mar 21 j 17:39	11° \mathbb{Y} 51'07	
transit begin	63 Apr 19 j 14:51	27° \mathbb{Y} 01'20		inferior conj	64 Mar 30 j 02:31	7° \mathbb{Y} 42'30	1°38'53
transit end	63 Apr 19 j 21:29	26° \mathbb{Y} 51'37		minimum elong	64 Mar 30 j 06:12	7° \mathbb{Y} 36'23	1°37'43
min. Earth dist.	63 Apr 21 j 07:34	26° \mathbb{Y} 01'48	0.55224 AU	min. Earth dist.	64 Apr 01 j 22:20	5° \mathbb{Y} 50'50	0.56329 AU
morning rise	63 Apr 28 j 17:25	22° \mathbb{Y} 39'09		desc. node	64 Apr 05 j 02:46	3° \mathbb{Y} 59'29	
direct	63 May 02 j 10:55	22° \mathbb{Y} 08'56		morning rise	64 Apr 07 j 14:53	2° \mathbb{Y} 53'49	
morning max el	63 May 15 j 22:36	28° \mathbb{Y} 44'42	23°27'48	direct	64 Apr 12 j 09:25	2° \mathbb{Y} 01'40	
	63 May 17 j 05:16	0° \mathbb{Z}		morning max el	64 Apr 26 j 13:16	9° \mathbb{Y} 14'17	25°07'15
	63 Jun 05 j 14:10	0° \mathbb{I}			64 May 12 j 01:17	0° \mathbb{Z}	
asc. node	63 Jun 06 j 14:38	2° \mathbb{I} 04'12		morning set	64 May 22 j 22:38	20° \mathbb{Z} 51'10	
morning set	63 Jun 08 j 10:39	5° \mathbb{I} 52'33		asc. node	64 May 23 j 11:42	22° \mathbb{Z} 00'07	
					64 May 27 j 04:49	0° \mathbb{I}	
superior conj	63 Jun 15 j 13:33	21° \mathbb{I} 07'54	1°22'03				
minimum elong	63 Jun 15 j 11:04	20° \mathbb{I} 54'34	1°21'43	superior conj	64 May 29 j 23:25	6° \mathbb{I} 03'19	1°03'45
max. Earth dist.	63 Jun 17 j 21:17	26° \mathbb{I} 04'52	1.33618 AU	minimum elong	64 May 29 j 21:06	5° \mathbb{I} 50'37	1°03'21
	63 Jun 19 j 18:08	0° \mathbb{Z}		max. Earth dist.	64 May 31 j 04:39	8° \mathbb{I} 42'22	1.32825 AU
evening rise	63 Jun 23 j 03:49	6° \mathbb{Z} 56'14		evening rise	64 Jun 06 j 04:25	21° \mathbb{I} 24'05	
	63 Jul 05 j 20:08	0° \mathbb{Z}			64 Jun 10 j 12:09	0° \mathbb{Z}	
desc. node	63 Jul 16 j 05:05	15° \mathbb{Z} 32'03			64 Jun 28 j 21:15	0° \mathbb{Z}	
evening max el	63 Jul 27 j 01:31	28° \mathbb{Z} 10'57	27°22'23	desc. node	64 Jul 02 j 02:06	4° \mathbb{Z} 05'23	
	63 Jul 29 j 01:39	0° \mathbb{M}		evening max el	64 Jul 08 j 10:18	11° \mathbb{Z} 00'11	27°20'30
retrograde	63 Aug 09 j 14:38	5° \mathbb{M} 30'10		retrograde	64 Jul 22 j 05:24	18° \mathbb{Z} 17'47	
evening set	63 Aug 16 j 17:25	2° \mathbb{M} 47'55		evening set	64 Jul 29 j 09:54	15° \mathbb{Z} 49'32	
	63 Aug 19 j 20:38	30° \mathbb{R} \mathbb{Z}		min. Earth dist.	64 Aug 01 j 23:51	12° \mathbb{Z} 56'04	0.62434 AU
min. Earth dist.	63 Aug 20 j 10:15	29° \mathbb{Z} 25'20	0.64172 AU	inferior conj	64 Aug 04 j 22:21	10° \mathbb{Z} 09'55	-4°-3'-11
inferior conj	63 Aug 22 j 20:11	26° \mathbb{Z} 52'04	-3°-17'-29	minimum elong	64 Aug 05 j 03:01	9° \mathbb{Z} 58'51	4°02'13
minimum elong	63 Aug 23 j 00:49	26° \mathbb{Z} 39'48	3°16'07	morning rise	64 Aug 11 j 22:39	5° \mathbb{Z} 03'58	
morning rise	63 Aug 29 j 10:08	21° \mathbb{Z} 26'33		direct	64 Aug 14 j 09:24	4° \mathbb{Z} 37'06	
direct	63 Aug 31 j 23:38	20° \mathbb{Z} 53'13		asc. node	64 Aug 19 j 10:54	6° \mathbb{Z} 34'34	
asc. node	63 Sep 02 j 13:51	21° \mathbb{Z} 06'14		morning max el	64 Aug 21 j 03:26	8° \mathbb{Z} 03'05	17°53'45
morning max el	63 Sep 07 j 12:06	24° \mathbb{Z} 19'51	17°57'52		64 Sep 04 j 11:03	0° \mathbb{M}	
	63 Sep 12 j 02:23	0° \mathbb{M}		morning set	64 Sep 06 j 06:03	3° \mathbb{M} 12'33	

































































































































Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 252

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

superior conj	64 Sep 17 j 10:22	22° \mathring{M} 50'39	1°07'01		65 Aug 11 j 03:58	0° Ω	
minimum elong	64 Sep 17 j 15:21	23° \mathring{M} 11'51	1°06'27	morning set	65 Aug 20 j 12:20	16° Ω 38'18	
	64 Sep 21 j 16:40	0° $\underline{\Omega}$			65 Aug 27 j 16:41	0° \mathring{M}	
max. Earth dist.	64 Sep 24 j 12:34	4° $\underline{\Omega}$ 38'35	1.43131 AU				
desc. node	64 Sep 28 j 01:27	10° $\underline{\Omega}$ 20'21		superior conj	65 Aug 30 j 06:20	4° \mathring{M} 39'14	1°31'37
evening rise	64 Oct 02 j 07:00	17° $\underline{\Omega}$ 00'34		minimum elong	65 Aug 30 j 10:09	4° \mathring{M} 56'18	1°31'18
	64 Oct 10 j 18:59	0° \mathring{M}		max. Earth dist.	65 Sep 06 j 21:22	17° \mathring{M} 55'17	1.41386 AU
greatest brilliancy	64 Oct 28 j 03:18	24° \mathring{M} 26'30	-0.4m	evening rise	65 Sep 12 j 05:11	26° \mathring{M} 42'38	
	64 Nov 01 j 22:47	0° \mathring{M}			65 Sep 14 j 06:24	0° $\underline{\Omega}$	
evening max el	64 Nov 02 j 03:11	0° \mathring{M} 11'20	21°30'10	desc. node	65 Sep 14 j 22:28	1° $\underline{\Omega}$ 03'47	
retrograde	64 Nov 10 j 23:50	5° \mathring{M} 27'26			65 Oct 04 j 13:14	0° \mathring{M}	
evening set	64 Nov 15 j 03:34	3° \mathring{M} 51'24		greatest brilliancy	65 Oct 10 j 19:11	8° \mathring{M} 03'35	-0.3m
asc. node	64 Nov 15 j 10:08	3° \mathring{M} 38'12		evening max el	65 Oct 15 j 19:42	13° \mathring{M} 41'16	22°47'57
	64 Nov 18 j 18:07	30° \mathring{M}		retrograde	65 Oct 25 j 18:44	19° \mathring{M} 36'18	
inferior conj	64 Nov 20 j 13:15	27° \mathring{M} 34'02	1°41'49	evening set	65 Oct 30 j 11:02	17° \mathring{M} 42'42	
minimum elong	64 Nov 20 j 11:08	27° \mathring{M} 41'21	1°41'01	asc. node	65 Nov 02 j 07:10	14° \mathring{M} 44'16	
min. Earth dist.	64 Nov 20 j 18:59	27° \mathring{M} 14'15	0.67526 AU	inferior conj	65 Nov 04 j 20:25	11° \mathring{M} 19'52	0°52'16
morning rise	64 Nov 25 j 18:26	21° \mathring{M} 18'52		minimum elong	65 Nov 04 j 19:13	11° \mathring{M} 23'59	0°51'46
direct	64 Nov 30 j 18:44	19° \mathring{M} 11'09		min. Earth dist.	65 Nov 04 j 15:30	11° \mathring{M} 36'48	0.67682 AU
morning max el	64 Dec 11 j 01:18	25° \mathring{M} 17'44	23°16'35	morning rise	65 Nov 10 j 03:22	5° \mathring{M} 06'56	
	64 Dec 15 j 07:26	0° \mathring{M}		direct	65 Nov 14 j 12:45	3° \mathring{M} 21'52	
greatest brilliancy	64 Dec 16 j 05:31	1° \mathring{M} 06'28	-0.2m	morning max el	65 Nov 23 j 14:23	8° \mathring{M} 42'15	21°50'40
desc. node	64 Dec 25 j 00:40	12° \mathring{M} 44'11		greatest brilliancy	65 Nov 28 j 10:12	14° \mathring{M} 10'06	-0.4m
	65 Jan 05 j 16:08	0° \mathring{M}			65 Dec 10 j 01:00	0° \mathring{M}	
morning set	65 Jan 14 j 21:52	14° \mathring{M} 54'36		desc. node	65 Dec 11 j 21:43	2° \mathring{M} 43'23	
max. Earth dist.	65 Jan 19 j 05:42	22° \mathring{M} 17'39	1.39400 AU	morning set	65 Dec 25 j 21:05	24° \mathring{M} 09'37	
	65 Jan 23 j 14:04	0° \approx			65 Dec 29 j 11:48	0° \mathring{M}	
				max. Earth dist.	66 Jan 01 j 04:22	4° \mathring{M} 26'12	1.41482 AU
superior conj	65 Jan 26 j 20:25	5° \approx 58'26	-1°-55'-17				
minimum elong	65 Jan 26 j 23:23	6° \approx 12'15	1°55'07	superior conj	66 Jan 08 j 20:26	17° \mathring{M} 33'01	-2°-2'-3
evening rise	65 Feb 05 j 07:10	23° \approx 58'12		minimum elong	66 Jan 08 j 20:28	17° \mathring{M} 33'14	2°02'04
	65 Feb 08 j 10:54	0° \mathring{M}			66 Jan 15 j 18:44	0° \approx	
asc. node	65 Feb 11 j 09:27	5° \mathring{M} 25'36		evening rise	66 Jan 19 j 13:01	6° \approx 55'41	
evening max el	65 Feb 21 j 12:58	20° \mathring{M} 05'39	18°35'55	asc. node	66 Jan 29 j 06:28	24° \approx 09'59	
retrograde	65 Mar 01 j 07:30	23° \mathring{M} 53'27			66 Feb 02 j 07:05	0° \mathring{M}	
evening set	65 Mar 03 j 16:09	23° \mathring{M} 33'39		evening max el	66 Feb 04 j 21:12	2° \mathring{M} 55'38	18°12'24
inferior conj	65 Mar 11 j 06:32	19° \mathring{M} 06'09	2°54'58	retrograde	66 Feb 11 j 19:29	6° \mathring{M} 24'49	
minimum elong	65 Mar 11 j 10:40	18° \mathring{M} 58'08	2°54'02	evening set	66 Feb 14 j 08:46	5° \mathring{M} 57'08	
min. Earth dist.	65 Mar 14 j 16:00	16° \mathring{M} 29'46	0.58087 AU	inferior conj	66 Feb 21 j 07:10	1° \mathring{M} 08'23	3°36'29
morning rise	65 Mar 19 j 01:08	13° \mathring{M} 46'15		minimum elong	66 Feb 21 j 09:28	1° \mathring{M} 03'12	3°36'13
desc. node	65 Mar 22 j 23:48	12° \mathring{M} 29'15			66 Feb 22 j 13:22	30° \mathring{M}	
direct	65 Mar 24 j 21:32	12° \mathring{M} 20'02		min. Earth dist.	66 Feb 24 j 15:10	28° \approx 09'45	0.60165 AU
morning max el	65 Apr 08 j 06:07	19° \mathring{M} 55'33	26°31'49	morning rise	66 Feb 28 j 06:55	25° \approx 26'10	
	65 Apr 16 j 20:33	0° \mathring{M}		direct	66 Mar 06 j 22:05	23° \approx 22'15	
	65 May 04 j 14:14	0° \mathring{M}		desc. node	66 Mar 09 j 20:51	23° \approx 45'31	
morning set	65 May 07 j 09:30	5° \mathring{M} 45'49			66 Mar 19 j 23:14	0° \mathring{M}	
asc. node	65 May 10 j 08:45	12° \mathring{M} 05'34		morning max el	66 Mar 21 j 04:38	1° \mathring{M} 10'03	27°27'41
					66 Apr 10 j 23:50	0° \mathring{M}	
superior conj	65 May 14 j 10:59	21° \mathring{M} 02'19	0°42'07	morning set	66 Apr 21 j 17:28	20° \mathring{M} 29'57	
minimum elong	65 May 14 j 09:14	20° \mathring{M} 52'47	0°41'46		66 Apr 26 j 04:48	0° \mathring{M}	
max. Earth dist.	65 May 14 j 16:29	21° \mathring{M} 32'31	1.32397 AU	asc. node	66 Apr 27 j 05:46	2° \mathring{M} 15'43	
	65 May 18 j 13:32	0° \mathring{M}		max. Earth dist.	66 Apr 28 j 04:58	4° \mathring{M} 22'29	1.32336 AU
evening rise	65 May 21 j 10:52	6° \mathring{M} 08'25					
	65 Jun 03 j 02:44	0° \mathring{M}		superior conj	66 Apr 28 j 22:31	5° \mathring{M} 58'37	0°17'54
desc. node	65 Jun 18 j 23:06	21° \mathring{M} 33'18		minimum elong	66 Apr 28 j 21:43	5° \mathring{M} 54'13	0°17'44
evening max el	65 Jun 20 j 13:38	23° \mathring{M} 08'51	26°45'41	evening rise	66 May 05 j 20:55	21° \mathring{M} 01'09	
	65 Jul 01 j 10:09	0° Ω			66 May 10 j 06:16	0° \mathring{M}	
retrograde	65 Jul 04 j 12:56	0° Ω 24'29			66 May 29 j 04:04	0° \mathring{M}	
	65 Jul 07 j 14:23	30° \mathring{M}		evening max el	66 Jun 02 j 10:10	4° \mathring{M} 32'07	25°40'04
evening set	65 Jul 11 j 08:30	28° \mathring{M} 23'58		desc. node	66 Jun 05 j 20:06	7° \mathring{M} 28'23	
min. Earth dist.	65 Jul 15 j 03:14	25° \mathring{M} 46'02	0.60438 AU	retrograde	66 Jun 16 j 11:28	11° \mathring{M} 43'37	
inferior conj	65 Jul 18 j 10:21	23° \mathring{M} 02'40	-4°-35'-43	evening set	66 Jun 22 j 08:55	10° \mathring{M} 21'06	
minimum elong	65 Jul 18 j 13:25	22° \mathring{M} 56'17	4°35'24	min. Earth dist.	66 Jun 26 j 22:28	7° \mathring{M} 40'25	0.58383 AU
morning rise	65 Jul 25 j 21:32	18° \mathring{M} 19'03		inferior conj	66 Jun 30 j 04:37	5° \mathring{M} 20'24	-4°-45'-18
direct	65 Jul 28 j 07:53	17° \mathring{M} 56'28		minimum elong	66 Jun 30 j 03:56	5° \mathring{M} 21'37	4°45'17
morning max el	65 Aug 04 j 15:38	21° \mathring{M} 31'15	18°08'43	morning rise	66 Jul 08 j 02:44	0° \mathring{M} 59'29	
asc. node	65 Aug 06 j 07:57	23° \mathring{M} 18'06		direct	66 Jul 10 j 14:39	0° \mathring{M} 39'38	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 253

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

morning max el	66 Jul 18 j 21:36	4°  34'44	18°43'52	min. Earth dist.	67 Jun 08 j 12:48	18°  32'35	0.56575 AU
asc. node	66 Jul 24 j 05:00	11°  01'05		inferior conj	67 Jun 11 j 02:48	16°  55'35	-4°-19'-11
	66 Aug 03 j 22:17	0°  0		minimum elong	67 Jun 10 j 21:25	17°  04'04	4°18'22
morning set	66 Aug 04 j 06:02	0°  37'43		morning rise	67 Jun 19 j 11:44	12°  53'36	
				direct	67 Jun 22 j 02:43	12°  35'17	
superior conj	66 Aug 12 j 23:21	17°  30'22	1°44'13	morning max el	67 Jul 01 j 18:23	17°  03'58	19°40'04
minimum elong	66 Aug 13 j 01:01	17°  38'18	1°44'09	asc. node	67 Jul 11 j 02:04	29°  30'08	
	66 Aug 19 j 19:02	0°  0			67 Jul 11 j 09:05	0°  0	
max. Earth dist.	66 Aug 20 j 01:09	0°  07'06	1.39397 AU	morning set	67 Jul 19 j 07:45	15°  02'08	
evening rise	66 Aug 24 j 03:13	7°  31'47			67 Jul 26 j 18:01	0°  0	
desc. node	66 Sep 01 j 19:29	21°  03'47					
	66 Sep 07 j 06:46	0°  0		superior conj	67 Jul 27 j 07:55	1°  08'52	1°46'57
evening max el	66 Sep 28 j 08:38	27°  14'16	24°08'08	minimum elong	67 Jul 27 j 07:39	1°  07'33	1°46'57
	66 Oct 01 j 09:17	0°  0		max. Earth dist.	67 Aug 02 j 04:45	12°  02'44	1.37418 AU
retrograde	66 Oct 09 j 10:10	3°  44'06		evening rise	67 Aug 06 j 01:23	19°  03'012	
evening set	66 Oct 14 j 16:32	1°  32'40			67 Aug 12 j 03:14	0°  0	
	66 Oct 16 j 06:45	30°  0		desc. node	67 Aug 19 j 16:28	12°  03'45	
min. Earth dist.	66 Oct 19 j 11:45	26°  00'00	0.67517 AU		67 Sep 01 j 09:26	0°  0	
inferior conj	66 Oct 20 j 02:59	25°  08'31	0°-1'-2	evening max el	67 Sep 10 j 20:19	10°  05'1'06	25°23'36
minimum elong	66 Oct 20 j 03:00	25°  08'27	0°01'03	retrograde	67 Sep 22 j 21:09	17°  04'6'57	
transit middle	66 Oct 20 j 03:00	25°  08'27	0°01'03	evening set	67 Sep 28 j 18:19	15°  01'9'05	
transit begin	66 Oct 20 j 00:17	25°  01'7'39		min. Earth dist.	67 Oct 03 j 05:16	10°  02'1'56	0.67032 AU
transit end	66 Oct 20 j 05:43	24°  05'9'15		inferior conj	67 Oct 04 j 07:14	8°  05'7'50	0°-56'-40
asc. node	66 Oct 20 j 04:12	25°  04'24		minimum elong	67 Oct 04 j 08:40	8°  05'3'13	0°56'04
morning rise	66 Oct 25 j 13:43	19°  00'2'29		asc. node	67 Oct 07 j 01:16	5°  03'5'04	
direct	66 Oct 29 j 09:39	17°  03'6'51		morning rise	67 Oct 09 j 23:36	2°  05'7'41	
morning max el	66 Nov 06 j 10:12	22°  01'5'47	20°33'30	direct	67 Oct 13 j 08:02	1°  05'2'42	
greatest brilliancy	66 Nov 12 j 15:04	29°  03'7'21	-0.5m	morning max el	67 Oct 20 j 13:41	5°  05'9'09	19°29'24
	66 Nov 12 j 21:55	0°  0		greatest brilliancy	67 Oct 29 j 11:38	17°  02'2'33	-0.7m
desc. node	66 Nov 28 j 18:46	23°  01'1'14			67 Nov 06 j 21:38	0°  0	
	66 Dec 03 j 08:08	0°  0		morning set	67 Nov 13 j 20:30	10°  03'4'57	
morning set	66 Dec 04 j 21:24	2°  02'4'10		desc. node	67 Nov 15 j 15:48	13°  03'2'01	
max. Earth dist.	66 Dec 14 j 10:32	17°  02'9'55	1.43253 AU		67 Nov 26 j 04:12	0°  0	
				max. Earth dist.	67 Nov 27 j 00:07	1°  02'1'8'45	1.44484 AU
superior conj	66 Dec 20 j 19:46	27°  02'5'7'51	-1°-54'-27				
minimum elong	66 Dec 20 j 15:03	27°  02'3'8'10	1°54'13	superior conj	67 Nov 30 j 16:25	7°  02'1'0'05	-1°-28'-45
	66 Dec 22 j 00:59	0°  0		minimum elong	67 Nov 30 j 08:10	6°  02'3'7'06	1°27'58
evening rise	67 Jan 02 j 03:12	19°  02'0'7'30		evening rise	67 Dec 14 j 21:19	0°  0	
	67 Jan 08 j 08:20	0°  0			67 Dec 14 j 15:16	0°  0	
asc. node	67 Jan 16 j 03:29	12°  02'0'16'13		evening max el	68 Jan 02 j 21:32	29°  02'4'4'49	18°23'27
evening max el	67 Jan 19 j 09:02	16°  02'0'4'48	18°08'29	asc. node	68 Jan 03 j 00:32	29°  02'3'2'21	
retrograde	67 Jan 25 j 21:45	19°  02'0'29'48			68 Jan 03 j 11:54	0°  0	
evening set	67 Jan 28 j 15:27	18°  02'0'53'01		retrograde	68 Jan 09 j 09:59	2°  02'0'58'14	
inferior conj	67 Feb 04 j 01:18	13°  02'0'43'06	3°50'00	evening set	68 Jan 12 j 08:25	2°  02'0'11'21	
minimum elong	67 Feb 04 j 01:23	13°  02'0'42'53	3°50'00		68 Jan 15 j 06:36	30°  02'0'0'0	
min. Earth dist.	67 Feb 06 j 22:14	10°  02'0'47'07	0.62232 AU	inferior conj	68 Jan 18 j 08:53	26°  02'0'41'34	3°43'00
morning rise	67 Feb 10 j 09:03	7°  02'0'46'55		minimum elong	68 Jan 18 j 07:16	26°  02'0'46'10	3°42'50
direct	67 Feb 17 j 08:29	5°  02'0'13'22		min. Earth dist.	68 Jan 20 j 14:45	24°  02'0'07'54	0.64056 AU
desc. node	67 Feb 24 j 17:54	7°  02'0'40'11		morning rise	68 Jan 24 j 04:40	20°  02'0'36'32	
morning max el	67 Mar 03 j 09:02	13°  02'0'05'37	27°47'31	direct	68 Jan 31 j 02:29	17°  02'0'37'39	
	67 Mar 16 j 21:48	0°  0		desc. node	68 Feb 11 j 14:59	23°  02'0'37'33	
	67 Apr 03 j 09:07	0°  0		morning max el	68 Feb 13 j 17:25	25°  02'0'37'10	27°30'57
morning set	67 Apr 05 j 20:31	4°  02'0'56'43			68 Feb 17 j 18:35	0°  0	
max. Earth dist.	67 Apr 11 j 14:25	16°  02'0'59'37	1.32661 AU		68 Mar 09 j 09:30	0°  0	
				morning set	68 Mar 19 j 16:03	18°  02'0'56'45	
superior conj	67 Apr 13 j 08:23	20°  02'0'46'34	0°-8'-6	max. Earth dist.	68 Mar 24 j 16:53	29°  02'0'56'10'37	1.33397 AU
minimum elong	67 Apr 13 j 08:46	20°  02'0'48'38	0°08'02		68 Mar 25 j 02:20	0°  0	
behind sun begin	67 Apr 13 j 04:18	20°  02'0'24'22					
behind sun end	67 Apr 13 j 13:15	21°  02'0'12'56		superior conj	68 Mar 27 j 14:43	5°  02'0'19'00	0°-35'00
asc. node	67 Apr 14 j 02:48	22°  02'0'26'35		minimum elong	68 Mar 27 j 16:25	5°  02'0'28'00	0°34'40
	67 Apr 17 j 14:12	0°  0		asc. node	68 Mar 30 j 23:50	12°  02'0'33'21	
evening rise	67 Apr 20 j 08:36	5°  02'0'55'40		evening rise	68 Apr 03 j 20:05	20°  02'0'44'35	
	67 May 03 j 03:56	0°  0			68 Apr 08 j 09:09	0°  0	
evening max el	67 May 15 j 01:33	15°  02'0'19'07	24°12'27	evening max el	68 Apr 25 j 17:03	25°  02'0'52'47	22°36'55
desc. node	67 May 23 j 17:06	21°  02'0'15'47			68 Apr 30 j 23:06	0°  0	
retrograde	67 May 28 j 22:13	22°  02'0'17'41		retrograde	68 May 08 j 20:03	2°  02'0'12'1'59	
evening set	67 Jun 02 j 10:49	21°  02'0'13'20'8		desc. node	68 May 09 j 14:08	2°  02'0'12'0'43	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 254

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

evening set	68 May 11 j 23:40	2° Π 00'13		evening set	69 Apr 21 j 17:07	12° \mathcal{B} 13'22	
	68 May 17 j 06:20	30° \mathcal{R} 8		desc. node	69 Apr 26 j 11:12	10° \mathcal{B} 39'26	
min. Earth dist.	68 May 20 j 01:12	28° \mathcal{B} 29'30	0.55353 AU	inferior conj	69 May 01 j 00:50	8° \mathcal{B} 14'36	-1°-18'-20
inferior conj	68 May 21 j 06:31	27° \mathcal{B} 47'45	-3°-7'-46	minimum elong	69 Apr 30 j 21:08	8° \mathcal{B} 19'49	1°17'02
minimum elong	68 May 20 j 23:17	27° \mathcal{B} 58'04	3°05'45	min. Earth dist.	69 May 01 j 13:59	7° \mathcal{B} 56'02	0.54992 AU
morning rise	68 May 30 j 01:21	23° \mathcal{B} 54'33		morning rise	69 May 10 j 00:53	4° \mathcal{B} 11'59	
direct	68 Jun 01 j 21:19	23° \mathcal{B} 36'03		direct	69 May 13 j 07:23	3° \mathcal{B} 48'52	
morning max el	68 Jun 13 j 04:08	28° \mathcal{B} 50'56	20°56'49	morning max el	69 May 26 j 03:24	9° \mathcal{B} 56'23	22°30'07
	68 Jun 14 j 08:31	0° Π			69 Jun 09 j 14:38	0° Π	
asc. node	68 Jun 26 j 23:07	18° Π 33'40		asc. node	69 Jun 13 j 20:09	8° Π 02'59	
morning set	68 Jul 02 j 14:51	29° Π 43'53		morning set	69 Jun 17 j 01:12	14° Π 36'40	
	68 Jul 02 j 17:59	0° \mathcal{E}					
superior conj	68 Jul 10 j 03:30	15° \mathcal{E} 21'18	1°41'53	superior conj	69 Jun 24 j 06:39	29° Π 57'08	1°30'44
minimum elong	68 Jul 10 j 01:53	15° \mathcal{E} 12'57	1°41'48	minimum elong	69 Jun 24 j 04:18	29° Π 44'45	1°30'29
max. Earth dist.	68 Jul 14 j 13:45	24° \mathcal{E} 17'07	1.35654 AU		69 Jun 24 j 07:11	0° \mathcal{E}	
	68 Jul 17 j 12:25	0° \mathcal{Q}		max. Earth dist.	69 Jun 27 j 07:41	6° \mathcal{E} 19'43	1.34242 AU
evening rise	68 Jul 18 j 19:26	2° \mathcal{Q} 26'45		evening rise	69 Jul 02 j 04:30	16° \mathcal{E} 08'08	
	68 Aug 04 j 02:43	0° \mathcal{M}			69 Jul 09 j 15:32	0° \mathcal{Q}	
desc. node	68 Aug 05 j 13:28	2° \mathcal{M} 09'51		desc. node	69 Jul 23 j 10:31	21° \mathcal{Q} 49'40	
evening max el	68 Aug 23 j 08:08	24° \mathcal{M} 27'47	26°26'36		69 Jul 29 j 15:17	0° \mathcal{M}	
	68 Aug 30 j 11:04	0° \mathcal{A}		evening max el	69 Aug 05 j 19:56	7° \mathcal{M} 55'08	27°09'32
retrograde	68 Sep 05 j 03:10	1° \mathcal{A} 39'42		retrograde	69 Aug 19 j 03:52	15° \mathcal{M} 14'17	
	68 Sep 10 j 06:14	30° \mathcal{R} 7		evening set	69 Aug 26 j 02:29	12° \mathcal{M} 29'21	
evening set	68 Sep 11 j 14:28	28° \mathcal{M} 59'31		min. Earth dist.	69 Aug 29 j 22:28	8° \mathcal{M} 47'06	0.65013 AU
min. Earth dist.	68 Sep 15 j 17:36	24° \mathcal{M} 39'50	0.66204 AU	inferior conj	69 Sep 01 j 00:59	6° \mathcal{M} 25'43	-2°-47'-45
inferior conj	68 Sep 17 j 07:19	22° \mathcal{M} 45'10	-1°-52'-55	minimum elong	69 Sep 01 j 05:08	6° \mathcal{M} 14'08	2°46'21
minimum elong	68 Sep 17 j 10:11	22° \mathcal{M} 36'25	1°51'48	morning rise	69 Sep 07 j 09:24	0° \mathcal{M} 50'56	
asc. node	68 Sep 22 j 22:20	17° \mathcal{M} 08'49		asc. node	69 Sep 09 j 19:24	0° \mathcal{M} 13'02	
morning rise	68 Sep 23 j 06:59	16° \mathcal{M} 56'06		direct	69 Sep 10 j 01:38	0° \mathcal{M} 12'40	
direct	68 Sep 26 j 06:08	16° \mathcal{M} 06'19		morning max el	69 Sep 16 j 14:10	3° \mathcal{M} 43'17	18°08'34
morning max el	68 Oct 02 j 23:48	19° \mathcal{M} 50'12	18°40'42		69 Oct 04 j 02:29	0° \mathcal{A}	
	68 Oct 10 j 19:50	0° \mathcal{A}		morning set	69 Oct 04 j 17:59	1° \mathcal{A} 04'29	
morning set	68 Oct 23 j 16:55	20° \mathcal{A} 12'04					
	68 Oct 29 j 21:02	0° \mathcal{M}		superior conj	69 Oct 18 j 23:27	24° \mathcal{A} 15'33	0°02'53
desc. node	68 Nov 01 j 12:49	4° \mathcal{M} 11'53		minimum elong	69 Oct 18 j 23:49	24° \mathcal{A} 17'00	0°02'50
superior conj	68 Nov 08 j 18:50	15° \mathcal{M} 36'36	0°-46'-25	behind sun begin	69 Oct 18 j 13:07	23° \mathcal{A} 34'23	
minimum elong	68 Nov 08 j 12:53	15° \mathcal{M} 13'13	0°45'41	behind sun end	69 Oct 19 j 10:30	24° \mathcal{A} 59'33	
max. Earth dist.	68 Nov 08 j 18:15	15° \mathcal{M} 34'19	1.45025 AU	desc. node	69 Oct 19 j 09:51	24° \mathcal{A} 57'00	
	68 Nov 17 j 21:55	0° \mathcal{A}		max. Earth dist.	69 Oct 22 j 13:06	29° \mathcal{A} 55'00	1.44824 AU
evening rise	68 Nov 24 j 16:08	10° \mathcal{A} 45'01		evening rise	69 Oct 22 j 14:22	0° \mathcal{M}	
	68 Dec 06 j 19:25	0° \mathcal{B}			69 Nov 04 j 12:29	20° \mathcal{M} 10'41	
evening max el	68 Dec 16 j 08:11	12° \mathcal{B} 50'34	18°56'16	greatest brilliancy	69 Nov 10 j 21:00	0° \mathcal{A}	
asc. node	68 Dec 19 j 21:36	15° \mathcal{B} 44'49		evening max el	69 Nov 21 j 21:57	16° \mathcal{A} 33'15	-0.6m
retrograde	68 Dec 23 j 04:18	16° \mathcal{B} 43'04			69 Nov 29 j 14:48	26° \mathcal{A} 18'12	19°45'29
evening set	68 Dec 26 j 08:33	15° \mathcal{B} 44'49			69 Dec 04 j 09:14	0° \mathcal{B}	
inferior conj	69 Jan 01 j 02:18	9° \mathcal{B} 57'41	3°21'15	asc. node	69 Dec 06 j 18:40	0° \mathcal{B} 38'03	
minimum elong	68 Dec 31 j 23:45	10° \mathcal{B} 05'35	3°20'45	retrograde	69 Dec 07 j 01:30	0° \mathcal{B} 38'31	
min. Earth dist.	69 Jan 02 j 16:53	7° \mathcal{B} 57'44	0.65518 AU		69 Dec 09 j 15:08	30° \mathcal{R} 7	
morning rise	69 Jan 06 j 14:00	3° \mathcal{B} 46'46		evening set	69 Dec 10 j 13:13	29° \mathcal{A} 27'16	
direct	69 Jan 13 j 03:03	0° \mathcal{B} 57'04		inferior conj	69 Dec 16 j 02:27	23° \mathcal{A} 25'47	2°48'43
morning max el	69 Jan 26 j 03:15	8° \mathcal{B} 34'28	26°42'55	minimum elong	69 Dec 15 j 23:40	23° \mathcal{A} 35'00	2°47'56
desc. node	69 Jan 28 j 12:02	11° \mathcal{B} 03'53		min. Earth dist.	69 Dec 17 j 03:07	22° \mathcal{A} 04'22	0.66591 AU
	69 Feb 11 j 22:05	0° \approx		morning rise	69 Dec 21 j 09:26	17° \mathcal{A} 11'22	
morning set	69 Mar 01 j 19:01	0° \mathcal{H}		direct	69 Dec 27 j 09:32	14° \mathcal{A} 32'23	
	69 Mar 03 j 00:41	2° \mathcal{H} 19'58		morning max el	70 Jan 08 j 12:25	21° \mathcal{A} 44'34	25°31'38
max. Earth dist.	69 Mar 07 j 08:59	10° \mathcal{H} 48'21	1.34575 AU	desc. node	70 Jan 15 j 09:04	29° \mathcal{A} 32'48	
					70 Jan 15 j 17:45	0° \mathcal{B}	
superior conj	69 Mar 11 j 15:23	19° \mathcal{H} 29'36	-1°-1'-36		70 Feb 05 j 03:59	0° \approx	
minimum elong	69 Mar 11 j 18:19	19° \mathcal{H} 44'45	1°01'05	morning set	70 Feb 13 j 17:48	14° \approx 52'39	
	69 Mar 16 j 15:52	0° \mathcal{Y}		max. Earth dist.	70 Feb 17 j 13:09	21° \approx 56'17	1.36193 AU
asc. node	69 Mar 17 j 20:53	2° \mathcal{Y} 32'06			70 Feb 21 j 17:16	0° \mathcal{H}	
evening rise	69 Mar 19 j 05:30	5° \mathcal{Y} 21'51		superior conj	70 Feb 23 j 07:40	3° \mathcal{H} 10'25	-1°-26'-16
	69 Apr 01 j 23:05	0° \mathcal{B}		minimum elong	70 Feb 23 j 11:26	3° \mathcal{H} 29'15	1°25'45
evening max el	69 Apr 07 j 15:41	6° \mathcal{B} 43'24	21°07'34	evening rise	70 Mar 03 j 10:45	19° \mathcal{H} 40'41	
retrograde	69 Apr 19 j 09:51	12° \mathcal{B} 25'43		asc. node	70 Mar 04 j 17:58	22° \mathcal{H} 18'06	
					70 Mar 08 j 16:42	0° \mathcal{Y}	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 255

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

evening max el	70 Mar 21 j 01:27	18° Υ 10'09	19°53'33		71 Mar 03 j 15:57	0° Υ	
retrograde	70 Mar 31 j 02:34	22° Υ 59'26		evening max el	71 Mar 03 j 22:04	0° Υ 14'56	18°58'31
evening set	70 Apr 02 j 04:57	22° Υ 47'43		retrograde	71 Mar 12 j 09:22	4° Υ 20'13	
inferior conj	70 Apr 11 j 00:11	18° Υ 46'53	0°39'44	evening set	71 Mar 14 j 15:17	4° Υ 04'10	
minimum elong	70 Apr 11 j 01:55	18° Υ 44'14	0°39'08		71 Mar 22 j 09:41	30° \Re \mathcal{H}	
min. Earth dist.	70 Apr 13 j 04:13	17° Υ 27'16	0.55588 AU	inferior conj	71 Mar 22 j 16:12	29° \mathcal{H} 48'31	2°15'35
desc. node	70 Apr 13 j 08:14	17° Υ 21'15		minimum elong	71 Mar 22 j 20:29	29° \mathcal{H} 40'56	2°14'22
morning rise	70 Apr 19 j 19:44	14° Υ 16'53		min. Earth dist.	71 Mar 25 j 20:13	27° \mathcal{H} 35'15	0.57015 AU
direct	70 Apr 23 j 22:56	13° Υ 39'07		morning rise	71 Mar 30 j 21:30	24° \mathcal{H} 45'41	
morning max el	70 May 07 j 19:41	20° Υ 33'11	24°11'03	desc. node	71 Mar 31 j 05:16	24° \mathcal{H} 37'57	
	70 May 15 j 21:13	0° \mathcal{B}		direct	71 Apr 05 j 03:41	23° \mathcal{H} 39'50	
asc. node	70 May 31 j 17:12	27° \mathcal{B} 51'17			71 Apr 18 j 06:59	0° Υ	
morning set	70 Jun 01 j 13:04	29° \mathcal{B} 35'13		morning max el	71 Apr 19 j 10:31	1° Υ 04'22	25°45'56
	70 Jun 01 j 17:47	0° Π			71 May 09 j 16:56	0° \mathcal{B}	
				morning set	71 May 17 j 00:44	14° \mathcal{B} 32'48	
superior conj	70 Jun 08 j 14:43	14° Π 48'12	1°14'45	asc. node	71 May 18 j 14:15	17° \mathcal{B} 51'55	
minimum elong	70 Jun 08 j 12:14	14° Π 34'49	1°14'23				
max. Earth dist.	70 Jun 10 j 10:39	18° Π 44'47	1.33224 AU	superior conj	71 May 24 j 01:30	29° \mathcal{B} 46'10	0°54'57
	70 Jun 15 j 19:56	0° \mathcal{S}		minimum elong	71 May 23 j 23:23	29° \mathcal{B} 34'32	0°54'33
evening rise	70 Jun 16 j 00:26	0° \mathcal{S} 22'45			71 May 24 j 04:02	0° Π	
	70 Jul 02 j 15:48	0° Ω		max. Earth dist.	71 May 24 j 20:12	1° Π 28'28	1.32595 AU
desc. node	70 Jul 10 j 07:32	10° Ω 52'08		evening rise	71 May 31 j 03:49	14° Π 58'58	
evening max el	70 Jul 19 j 06:25	21° Ω 02'14	27°25'35		71 Jun 07 j 20:19	0° \mathcal{S}	
retrograde	70 Aug 01 j 22:44	28° Ω 22'02		desc. node	71 Jun 27 j 04:33	29° \mathcal{S} 00'39	
evening set	70 Aug 09 j 03:14	25° Ω 43'50			71 Jun 28 j 01:35	0° Ω	
min. Earth dist.	70 Aug 12 j 18:06	22° Ω 34'55	0.63463 AU	evening max el	71 Jul 01 j 13:16	3° Ω 35'51	27°09'51
inferior conj	70 Aug 15 j 09:41	19° Ω 54'18	-3°-38'-5	retrograde	71 Jul 15 j 10:43	10° Ω 52'43	
minimum elong	70 Aug 15 j 14:29	19° Ω 42'08	3°36'49	evening set	71 Jul 22 j 12:39	8° Ω 34'58	
morning rise	70 Aug 22 j 03:58	14° Ω 36'55		min. Earth dist.	71 Jul 26 j 03:27	5° Ω 49'47	0.61602 AU
direct	70 Aug 24 j 15:51	14° Ω 06'49		inferior conj	71 Jul 29 j 06:14	3° Ω 02'39	-4°-19'-9
asc. node	70 Aug 27 j 16:26	14° Ω 51'41		minimum elong	71 Jul 29 j 10:28	2° Ω 53'08	4°18'27
morning max el	70 Aug 31 j 05:58	17° Ω 32'24	17°53'53		71 Aug 01 j 22:21	30° \Re \mathcal{S}	
	70 Sep 09 j 04:38	0° \mathcal{M}		morning rise	71 Aug 05 j 11:07	28° \mathcal{S} 05'42	
morning set	70 Sep 16 j 20:26	13° \mathcal{M} 10'06		direct	71 Aug 07 j 21:19	27° \mathcal{S} 40'55	
	70 Sep 26 j 15:50	0° \mathcal{L}			71 Aug 13 j 12:59	0° Ω	
				asc. node	71 Aug 14 j 13:27	0° Ω 53'31	
superior conj	70 Sep 29 j 01:20	3° \mathcal{L} 59'26	0°46'54	morning max el	71 Aug 14 j 20:16	1° Ω 09'50	17°57'40
minimum elong	70 Sep 29 j 05:48	4° \mathcal{L} 17'53	0°46'20	morning set	71 Aug 30 j 18:08	26° Ω 10'49	
max. Earth dist.	70 Oct 05 j 05:27	14° \mathcal{L} 02'23	1.43923 AU		71 Sep 01 j 20:19	0° \mathcal{M}	
desc. node	70 Oct 06 j 06:52	15° \mathcal{L} 44'04					
evening rise	70 Oct 14 j 20:00	29° \mathcal{L} 08'02		superior conj	71 Sep 10 j 06:33	15° \mathcal{M} 03'42	1°19'03
	70 Oct 15 j 09:29	0° \mathcal{M}		minimum elong	71 Sep 10 j 11:16	15° \mathcal{M} 24'13	1°18'32
	70 Nov 04 j 16:53	0° \mathcal{J}		max. Earth dist.	71 Sep 17 j 17:28	27° \mathcal{M} 41'38	1.42435 AU
greatest brilliancy	70 Nov 07 j 00:00	3° \mathcal{J} 04'02	-0.5m		71 Sep 19 j 03:10	0° \mathcal{L}	
evening max el	70 Nov 12 j 16:06	9° \mathcal{J} 46'49	20°48'46	desc. node	71 Sep 23 j 03:54	6° \mathcal{L} 29'48	
retrograde	70 Nov 20 j 23:08	14° \mathcal{J} 41'23		evening rise	71 Sep 24 j 08:07	8° \mathcal{L} 21'36	
asc. node	70 Nov 23 j 15:42	14° \mathcal{J} 00'22			71 Oct 08 j 14:44	0° \mathcal{M}	
evening set	70 Nov 24 j 20:21	13° \mathcal{J} 15'08		greatest brilliancy	71 Oct 21 j 18:05	17° \mathcal{M} 55'06	-0.3m
inferior conj	70 Nov 30 j 06:54	7° \mathcal{J} 02'41	2°08'06	evening max el	71 Oct 26 j 11:43	23° \mathcal{M} 16'31	22°02'40
minimum elong	70 Nov 30 j 04:24	7° \mathcal{J} 11'13	2°07'14	retrograde	71 Nov 04 j 19:20	28° \mathcal{M} 48'56	
min. Earth dist.	70 Nov 30 j 19:14	6° \mathcal{J} 20'31	0.67289 AU	evening set	71 Nov 09 j 04:10	27° \mathcal{M} 05'44	
morning rise	70 Dec 05 j 12:00	0° \mathcal{J} 47'02		asc. node	71 Nov 10 j 12:42	25° \mathcal{M} 51'10	
	70 Dec 06 j 11:22	30° \Re \mathcal{M}		inferior conj	71 Nov 14 j 13:35	20° \mathcal{M} 45'50	1°21'22
direct	70 Dec 10 j 21:12	28° \mathcal{M} 26'28		minimum elong	71 Nov 14 j 11:49	20° \mathcal{M} 51'58	1°20'40
	70 Dec 15 j 19:02	0° \mathcal{J}		min. Earth dist.	71 Nov 14 j 14:47	20° \mathcal{M} 41'42	0.67633 AU
morning max el	70 Dec 21 j 20:46	4° \mathcal{J} 59'37	24°07'06	morning rise	71 Nov 19 j 19:14	14° \mathcal{M} 31'21	
desc. node	71 Jan 02 j 06:07	18° \mathcal{J} 46'21		direct	71 Nov 24 j 13:12	12° \mathcal{M} 32'59	
	71 Jan 10 j 03:33	0° \mathcal{Z}		morning max el	71 Dec 04 j 06:59	18° \mathcal{M} 19'27	22°39'21
morning set	71 Jan 26 j 13:25	26° \mathcal{Z} 18'03		greatest brilliancy	71 Dec 08 j 21:59	23° \mathcal{M} 29'55	-0.3m
	71 Jan 28 j 16:19	0° \approx			71 Dec 13 j 23:52	0° \mathcal{J}	
max. Earth dist.	71 Jan 30 j 08:57	3° \approx 00'27	1.38176 AU	desc. node	71 Dec 20 j 03:09	8° \mathcal{J} 31'52	
					72 Jan 03 j 07:10	0° \mathcal{Z}	
superior conj	71 Feb 06 j 12:04	16° \approx 11'57	-1°-46'-40	morning set	72 Jan 07 j 05:35	6° \mathcal{Z} 21'36	
minimum elong	71 Feb 06 j 15:46	16° \approx 29'38	1°46'21	max. Earth dist.	72 Jan 12 j 04:56	14° \mathcal{Z} 40'26	1.40308 AU
	71 Feb 13 j 13:57	0° \mathcal{H}					
evening rise	71 Feb 15 j 09:22	3° \mathcal{H} 33'59		superior conj	72 Jan 20 j 00:04	28° \mathcal{Z} 22'59	-1°-59'-36
asc. node	71 Feb 19 j 15:00	11° \mathcal{H} 45'38		minimum elong	72 Jan 20 j 02:04	28° \mathcal{Z} 32'06	1°59'34

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 256

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	72 Jan 20 j 21:24	0°♊		minimum elong	72 Dec 31 j 12:18	9°♊21'17	2°00'50
evening rise	72 Jan 29 j 22:24	16°♊54'44		evening rise	73 Jan 11 j 22:07	29°♊34'07	
	72 Feb 06 j 00:51	0°♋			73 Jan 12 j 03:51	0°♋	
asc. node	72 Feb 06 j 12:02	0°♋48'26		asc. node	73 Jan 23 j 09:04	19°♋17'59	
evening max el	72 Feb 15 j 03:00	12°♋51'35	18°23'27	evening max el	73 Jan 28 j 13:06	25°♋50'41	18°08'17
retrograde	72 Feb 22 j 11:14	16°♋29'10		retrograde	73 Feb 04 j 06:04	29°♋16'32	
evening set	72 Feb 24 j 22:05	16°♋06'02		evening set	73 Feb 06 j 21:15	28°♋45'03	
inferior conj	72 Mar 03 j 05:16	11°♋29'34	3°16'27	inferior conj	73 Feb 13 j 13:52	23°♋46'48	3°45'08
minimum elong	72 Mar 03 j 08:47	11°♋22'18	3°15'50	minimum elong	73 Feb 13 j 15:12	23°♋43'36	3°45'03
min. Earth dist.	72 Mar 06 j 15:42	8°♋40'49	0.58961 AU	min. Earth dist.	73 Feb 16 j 17:46	20°♋46'48	0.61066 AU
morning rise	72 Mar 10 j 15:45	5°♋59'22		morning rise	73 Feb 20 j 06:22	17°♋57'48	
direct	72 Mar 16 j 21:31	4°♋16'51		direct	73 Feb 27 j 02:14	15°♋40'13	
desc. node	72 Mar 17 j 02:18	4°♋16'58		desc. node	73 Mar 03 j 23:21	16°♋44'10	
morning max el	72 Mar 31 j 05:23	11°♋57'47	26°59'36	morning max el	73 Mar 13 j 06:40	23°♋30'02	27°40'42
	72 Apr 14 j 08:06	0°♌			73 Mar 19 j 02:49	0°♌	
morning set	72 Apr 30 j 10:35	29°♌23'52			73 Apr 07 j 12:22	0°♌	
	72 Apr 30 j 17:30	0°♍		morning set	73 Apr 14 j 16:46	14°♌01'38	
asc. node	72 May 04 j 11:18	8°♍00'07		max. Earth dist.	73 Apr 20 j 20:46	27°♌08'00	1.32435 AU
				asc. node	73 Apr 21 j 08:22	28°♌11'08	
superior conj	72 May 07 j 13:15	14°♍44'51	0°32'07				
minimum elong	72 May 07 j 11:53	14°♍37'17	0°31'50	superior conj	73 Apr 22 j 00:18	29°♌38'11	0°07'03
max. Earth dist.	72 May 07 j 08:54	14°♍20'53	1.32335 AU	minimum elong	73 Apr 21 j 23:59	29°♌36'24	0°06'58
evening rise	72 May 14 j 12:06	29°♍48'12		behind sun begin	73 Apr 21 j 19:24	29°♌11'23	
	72 May 14 j 14:20	0°♎		behind sun end	73 Apr 22 j 04:33	0°♍01'27	
	72 May 31 j 03:22	0°♏			73 Apr 22 j 04:18	0°♍	
evening max el	72 Jun 12 j 13:59	15°♏25'42	26°21'09	evening rise	73 Apr 28 j 23:06	14°♍42'36	
desc. node	72 Jun 13 j 01:33	15°♏52'54			73 May 06 j 15:30	0°♎	
retrograde	72 Jun 26 j 14:15	22°♏39'02		evening max el	73 May 25 j 07:48	26°♎31'04	25°04'34
evening set	72 Jul 03 j 02:06	20°♏54'10			73 May 29 j 11:27	0°♏	
min. Earth dist.	72 Jul 07 j 03:00	18°♏17'17	0.59560 AU	desc. node	73 May 30 j 22:34	0°♏58'26	
inferior conj	72 Jul 10 j 11:05	15°♏41'37	-4°-43'-19	retrograde	73 Jun 08 j 07:52	3°♏38'32	
minimum elong	72 Jul 10 j 12:48	15°♏38'14	4°43'13	evening set	73 Jun 13 j 16:33	2°♏32'25	
morning rise	72 Jul 18 j 02:53	11°♏07'28			73 Jun 18 j 10:30	30°♎♎	
direct	72 Jul 20 j 13:50	10°♏46'04		min. Earth dist.	73 Jun 18 j 19:23	29°♎45'39	0.57567 AU
morning max el	72 Jul 28 j 06:04	14°♏27'52	18°21'07	inferior conj	73 Jun 21 j 20:55	27°♎41'48	-4°-39'-19
asc. node	72 Jul 31 j 10:30	18°♏03'43		minimum elong	73 Jun 21 j 18:11	27°♎46'26	4°39'07
	72 Aug 07 j 23:00	0°♐		morning rise	73 Jun 29 j 23:42	23°♎30'03	
morning set	72 Aug 13 j 05:43	9°♐52'03		direct	73 Jul 02 j 12:57	23°♎10'55	
				morning max el	73 Jul 11 j 08:28	27°♎18'05	19°05'17
superior conj	72 Aug 22 j 12:06	27°♐20'16	1°38'20		73 Jul 13 j 21:21	0°♏	
minimum elong	72 Aug 22 j 15:02	27°♐33'43	1°38'07	asc. node	73 Jul 18 j 07:34	6°♏07'54	
	72 Aug 23 j 23:07	0°♑		morning set	73 Jul 28 j 03:14	24°♏03'27	
max. Earth dist.	72 Aug 30 j 00:18	10°♑40'49	1.40557 AU		73 Jul 31 j 03:08	0°♐	
evening rise	72 Sep 03 j 15:50	18°♑30'09					
desc. node	72 Sep 09 j 00:54	27°♑10'25		superior conj	73 Aug 05 j 12:25	10°♐33'57	1°46'27
	72 Sep 10 j 20:14	0°♒		minimum elong	73 Aug 05 j 13:13	10°♐37'47	1°46'26
	72 Oct 02 j 01:50	0°♓		max. Earth dist.	73 Aug 12 j 03:33	22°♐57'48	1.38534 AU
evening max el	72 Oct 08 j 02:30	6°♓47'38	23°22'17	evening rise	73 Aug 16 j 00:29	29°♐49'33	
retrograde	72 Oct 18 j 12:44	12°♓57'39			73 Aug 16 j 02:53	0°♑	
evening set	72 Oct 23 j 10:59	10°♓56'18		desc. node	73 Aug 26 j 21:54	17°♑42'11	
asc. node	72 Oct 27 j 09:44	6°♓31'15			73 Sep 04 j 04:38	0°♒	
inferior conj	72 Oct 28 j 20:39	4°♓32'38	0°30'01	evening max el	73 Sep 20 j 14:31	20°♒22'04	24°41'16
minimum elong	72 Oct 28 j 19:57	4°♓35'04	0°29'43	retrograde	73 Oct 02 j 02:23	27°♒04'27	
min. Earth dist.	72 Oct 28 j 11:21	5°♓04'34	0.67650 AU	evening set	73 Oct 07 j 15:09	24°♒45'22	
	72 Nov 01 j 10:46	30°♒♒		min. Earth dist.	73 Oct 12 j 06:39	19°♒27'48	0.67347 AU
morning rise	72 Nov 03 j 05:00	28°♒21'44		inferior conj	73 Oct 13 j 02:27	18°♒21'54	0°-24'-26
direct	72 Nov 07 j 08:32	26°♒46'00		minimum elong	73 Oct 13 j 03:03	18°♒19'53	0°24'12
	72 Nov 14 j 01:02	0°♓		asc. node	73 Oct 14 j 06:47	16°♒48'46	
morning max el	72 Nov 15 j 22:39	1°♓47'17	21°16'35	morning rise	73 Oct 18 j 15:24	12°♒17'06	
greatest brilliancy	72 Nov 21 j 05:02	7°♓50'57	-0.4m	direct	73 Oct 22 j 06:07	11°♒01'59	
desc. node	72 Dec 06 j 00:10	28°♓39'39		morning max el	73 Oct 29 j 21:53	15°♒25'52	20°04'34
	72 Dec 06 j 21:39	0°♔		greatest brilliancy	73 Nov 06 j 00:21	24°♒05'18	-0.6m
morning set	72 Dec 16 j 17:20	15°♔05'13			73 Nov 10 j 04:51	0°♓	
max. Earth dist.	72 Dec 24 j 07:14	27°♔15'24	1.42290 AU	desc. node	73 Nov 22 j 21:13	19°♓03'38	
	72 Dec 25 j 23:10	0°♕		morning set	73 Nov 25 j 13:56	23°♓12'55	
					73 Nov 29 j 22:41	0°♔	
superior conj	72 Dec 31 j 14:09	9°♕29'13	-2°00'-52	max. Earth dist.	73 Dec 06 j 16:54	10°♔40'40	1.43850 AU

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 257

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

superior conj	73 Dec 12 j 01:53	19° ♄ 21'40	-1°-45'-51	superior conj	74 Nov 21 j 12:54	28° ♄ 08'48	-1°-12'-25
minimum elong	73 Dec 11 j 19:12	18° ♄ 54'23	1°45'23	minimum elong	74 Nov 21 j 04:49	27° ♄ 36'48	1°11'33
	73 Dec 18 j 11:50	0° ♄			74 Nov 22 j 17:00	0° ♄	
evening rise	73 Dec 25 j 04:19	11° ♄ 24'03		evening rise	74 Dec 06 j 12:43	22° ♄ 16'48	
	74 Jan 05 j 05:25	0° ♄			74 Dec 11 j 05:36	0° ♄	
asc. node	74 Jan 10 j 06:07	7° ♄ 04'25		evening max el	74 Dec 26 j 13:29	22° ♄ 27'44	18°35'23
evening max el	74 Jan 12 j 01:30	9° ♄ 04'48	18°12'32	asc. node	74 Dec 28 j 03:09	23° ♄ 55'14	
retrograde	74 Jan 18 j 13:14	12° ♄ 32'23		retrograde	75 Jan 02 j 04:26	26° ♄ 08'14	
evening set	74 Jan 21 j 08:45	11° ♄ 51'33		evening set	75 Jan 05 j 05:06	25° ♄ 16'52	
inferior conj	74 Jan 27 j 14:14	6° ♄ 32'50	3°49'09	inferior conj	75 Jan 11 j 02:25	19° ♄ 39'39	3°35'20
minimum elong	74 Jan 27 j 13:31	6° ♄ 34'47	3°49'06	minimum elong	75 Jan 11 j 00:20	19° ♄ 45'52	3°35'01
min. Earth dist.	74 Jan 30 j 04:57	3° ♄ 44'19	0.63044 AU	min. Earth dist.	75 Jan 13 j 01:49	17° ♄ 18'58	0.64719 AU
morning rise	74 Feb 02 j 16:22	0° ♄ 32'04		morning rise	75 Jan 16 j 18:18	13° ♄ 31'40	
	74 Feb 03 j 09:51	30° ♄		direct	75 Jan 23 j 13:08	10° ♄ 40'25	
direct	74 Feb 09 j 15:58	27° ♄ 50'11		desc. node	75 Feb 05 j 17:28	18° ♄ 14'11	
	74 Feb 16 j 11:46	0° ♄		morning max el	75 Feb 05 j 22:39	18° ♄ 27'04	27°13'56
desc. node	74 Feb 18 j 20:25	1° ♄ 35'20			75 Feb 15 j 17:17	0° ♄	
morning max el	74 Feb 23 j 13:20	5° ♄ 42'55	27°44'43		75 Mar 06 j 21:05	0° ♄	
	74 Mar 13 j 23:11	0° ♄		morning set	75 Mar 13 j 08:29	12° ♄ 05'15	
morning set	74 Mar 29 j 17:02	28° ♄ 18'33		max. Earth dist.	75 Mar 18 j 02:04	21° ♄ 32'46	1.33836 AU
	74 Mar 30 j 13:08	0° ♄					
max. Earth dist.	74 Apr 04 j 03:49	9° ♄ 35'51	1.32922 AU	superior conj	75 Mar 21 j 13:12	28° ♄ 45'12	0°-46'-23
				minimum elong	75 Mar 21 j 15:27	28° ♄ 56'59	0°45'58
superior conj	74 Apr 06 j 08:56	14° ♄ 20'20	0°-19'-28		75 Mar 22 j 03:23	0° ♄	
minimum elong	74 Apr 06 j 09:52	14° ♄ 25'21	0°19'17	asc. node	75 Mar 26 j 02:29	8° ♄ 25'11	
asc. node	74 Apr 08 j 05:25	18° ♄ 20'49		evening rise	75 Mar 28 j 21:49	14° ♄ 20'42	
evening rise	74 Apr 13 j 10:57	29° ♄ 35'28			75 Apr 05 j 21:28	0° ♄	
	74 Apr 13 j 15:36	0° ♄		evening max el	75 Apr 18 j 16:11	17° ♄ 47'19	21°57'35
	74 Apr 30 j 17:04	0° ♄		retrograde	75 May 01 j 07:12	23° ♄ 58'09	
evening max el	74 May 06 j 22:11	7° ♄ 08'14	23°31'46	evening set	75 May 03 j 23:50	23° ♄ 42'01	
desc. node	74 May 17 j 19:37	13° ♄ 40'23		desc. node	75 May 04 j 16:39	23° ♄ 32'46	
retrograde	74 May 20 j 13:34	13° ♄ 57'35		inferior conj	75 May 13 j 09:02	19° ♄ 37'24	-2°-24'-46
evening set	74 May 24 j 11:11	13° ♄ 24'06		minimum elong	75 May 13 j 02:43	19° ♄ 46'17	2°22'45
min. Earth dist.	74 May 31 j 08:37	10° ♄ 12'36	0.55959 AU	min. Earth dist.	75 May 12 j 21:29	19° ♄ 53'38	0.55083 AU
inferior conj	74 Jun 02 j 10:40	8° ♄ 57'50	-3°-54'-33	morning rise	75 May 22 j 06:55	15° ♄ 42'13	
minimum elong	74 Jun 02 j 03:54	9° ♄ 08'00	3°53'08	direct	75 May 25 j 06:13	15° ♄ 22'33	
morning rise	74 Jun 11 j 00:07	5° ♄ 01'36		morning max el	75 Jun 06 j 06:01	21° ♄ 00'24	21°34'43
direct	74 Jun 13 j 16:36	4° ♄ 43'41			75 Jun 13 j 18:29	0° ♄	
morning max el	74 Jun 24 j 00:51	9° ♄ 30'44	20°10'26	asc. node	75 Jun 22 j 01:43	14° ♄ 08'45	
asc. node	74 Jul 05 j 04:38	24° ♄ 52'54		morning set	75 Jun 26 j 16:16	23° ♄ 23'25	
	74 Jul 07 j 23:15	0° ♄			75 Jun 29 j 20:02	0° ♄	
morning set	74 Jul 12 j 07:32	8° ♄ 36'03					
				superior conj	75 Jul 04 j 01:26	8° ♄ 52'39	1°37'49
superior conj	74 Jul 20 j 02:13	24° ♄ 28'47	1°45'38	minimum elong	75 Jul 03 j 23:25	8° ♄ 42'12	1°37'40
minimum elong	74 Jul 20 j 01:18	24° ♄ 24'08	1°45'37	max. Earth dist.	75 Jul 07 j 20:51	16° ♄ 41'50	1.35012 AU
	74 Jul 22 j 20:50	0° ♄		evening rise	75 Jul 12 j 08:50	25° ♄ 32'26	
max. Earth dist.	74 Jul 25 j 08:25	4° ♄ 48'48	1.36624 AU		75 Jul 14 j 17:41	0° ♄	
evening rise	74 Jul 29 j 07:45	12° ♄ 14'32		desc. node	75 Jul 31 j 15:57	27° ♄ 55'27	
	74 Aug 08 j 16:01	0° ♄			75 Aug 02 j 02:42	0° ♄	
desc. node	74 Aug 13 j 18:56	7° ♄ 59'28		evening max el	75 Aug 16 j 13:59	17° ♄ 33'10	26°47'45
	74 Aug 30 j 07:02	0° ♄		retrograde	75 Aug 29 j 15:23	24° ♄ 49'12	
evening max el	74 Sep 03 j 01:58	3° ♄ 58'53	25°52'23	evening set	75 Sep 05 j 07:49	22° ♄ 06'08	
retrograde	74 Sep 15 j 11:31	11° ♄ 03'42		min. Earth dist.	75 Sep 09 j 07:52	18° ♄ 02'12	0.65742 AU
evening set	74 Sep 21 j 14:49	8° ♄ 29'46		inferior conj	75 Sep 11 j 02:49	15° ♄ 55'43	-2°-16'-32
min. Earth dist.	74 Sep 25 j 22:18	3° ♄ 48'20	0.66717 AU	minimum elong	75 Sep 11 j 06:16	15° ♄ 45'32	2°15'15
inferior conj	74 Sep 27 j 05:11	2° ♄ 10'40	-1°-20'-34	morning rise	75 Sep 17 j 06:02	10° ♄ 12'00	
minimum elong	74 Sep 27 j 07:13	2° ♄ 04'12	1°19'44	asc. node	75 Sep 18 j 00:55	9° ♄ 50'47	
	74 Sep 28 j 23:32	30° ♄		direct	75 Sep 20 j 01:54	9° ♄ 27'33	
asc. node	74 Oct 01 j 03:51	27° ♄ 40'46		morning max el	75 Sep 26 j 16:36	13° ♄ 04'59	18°24'50
morning rise	74 Oct 03 j 00:28	26° ♄ 14'50			75 Oct 08 j 18:22	0° ♄	
direct	74 Oct 06 j 04:33	25° ♄ 16'56		morning set	75 Oct 16 j 04:29	11° ♄ 59'23	
morning max el	74 Oct 13 j 04:28	29° ♄ 13'02	19°06'42		75 Oct 27 j 10:04	0° ♄	
	74 Oct 13 j 22:25	0° ♄		desc. node	75 Oct 27 j 15:15	0° ♄	
	74 Nov 03 j 14:24	0° ♄					
morning set	74 Nov 04 j 19:59	1° ♄ 55'43		superior conj	75 Oct 31 j 13:21	6° ♄ 32'14	0°-25'-34
desc. node	74 Nov 09 j 18:15	9° ♄ 38'31		minimum elong	75 Oct 31 j 09:59	6° ♄ 18'59	0°25'08
max. Earth dist.	74 Nov 19 j 08:10	24° ♄ 40'38	1.44796 AU	max. Earth dist.	75 Nov 02 j 02:38	8° ♄ 59'00	1.45030 AU

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 258

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	75 Nov 15 j 11:59	0°♊		superior conj	76 Oct 10 j 01:21	15°♊34'10	0°22'46
evening rise	75 Nov 16 j 21:18	2°♊10'57		minimum elong	76 Oct 10 j 03:57	15°♊44'40	0°22'25
greatest brilliancy	75 Nov 30 j 03:13	22°♊50'12	-0.7m	desc. node	76 Oct 13 j 12:17	21°♊06'52	
	75 Dec 05 j 02:07	0°♋		max. Earth dist.	76 Oct 14 j 21:20	23°♊18'21	1.44526 AU
evening max el	75 Dec 09 j 22:40	5°♋54'28	19°15'28		76 Oct 19 j 03:15	0°♌	
asc. node	75 Dec 15 j 00:12	9°♋35'28		evening rise	76 Oct 26 j 10:30	11°♌20'39	
retrograde	75 Dec 17 j 00:08	9°♋57'32			76 Nov 07 j 16:49	0°♍	
evening set	75 Dec 20 j 07:23	8°♋53'58		greatest brilliancy	76 Nov 15 j 10:52	11°♍10'57	-0.6m
inferior conj	75 Dec 25 j 22:59	3°♋00'38	3°08'34	evening max el	76 Nov 22 j 03:13	19°♍22'54	20°10'54
minimum elong	75 Dec 25 j 20:15	3°♋09'20	3°07'56	retrograde	76 Nov 29 j 21:42	23°♍56'42	
min. Earth dist.	75 Dec 27 j 07:31	1°♋16'40	0.66020 AU	asc. node	76 Nov 30 j 21:13	22°♍51'15	
	75 Dec 28 j 08:14	30°♌♊		evening set	76 Dec 03 j 13:20	22°♍39'08	
morning rise	75 Dec 31 j 08:18	26°♌48'11		inferior conj	76 Dec 09 j 01:12	16°♌32'33	2°32'19
direct	76 Jan 06 j 16:22	24°♌01'36		minimum elong	76 Dec 08 j 22:29	16°♌41'42	2°31'29
	76 Jan 17 j 19:03	0°♍		min. Earth dist.	76 Dec 09 j 20:22	15°♌28'09	0.66933 AU
morning max el	76 Jan 19 j 08:02	1°♍29'40	26°14'55	morning rise	76 Dec 14 j 07:05	10°♌17'36	
desc. node	76 Jan 23 j 14:30	6°♍09'14		direct	76 Dec 20 j 01:01	7°♌45'56	
	76 Feb 09 j 19:19	0°♎		morning max el	76 Dec 31 j 16:39	14°♌42'10	24°56'47
morning set	76 Feb 24 j 11:06	25°♎08'25		desc. node	77 Jan 09 j 11:31	24°♌58'41	
	76 Feb 27 j 00:40	0°♏			77 Jan 13 j 05:32	0°♍	
max. Earth dist.	76 Feb 28 j 12:46	2°♏54'54	1.35207 AU		77 Feb 01 j 16:10	0°♎	
				morning set	77 Feb 05 j 19:47	7°♎13'47	
superior conj	76 Mar 04 j 10:40	12°♏44'12	-1°-12'-24	max. Earth dist.	77 Feb 09 j 12:55	13°♎57'59	1.37006 AU
minimum elong	76 Mar 04 j 14:01	13°♏01'20	1°11'52				
asc. node	76 Mar 11 j 23:31	28°♏19'02		superior conj	77 Feb 15 j 22:20	26°♎09'09	-1°-35'-35
evening rise	76 Mar 12 j 05:41	28°♏50'45		minimum elong	77 Feb 16 j 02:13	26°♎28'14	1°35'09
	76 Mar 12 j 19:12	0°♐			77 Feb 17 j 21:06	0°♏	
evening max el	76 Mar 30 j 19:28	28°♐52'30	20°33'59	evening rise	77 Feb 24 j 08:24	12°♏59'20	
	76 Apr 01 j 01:07	0°♑		asc. node	77 Feb 26 j 20:33	17°♏57'35	
retrograde	76 Apr 10 j 20:08	4°♑11'22			77 Mar 05 j 10:36	0°♐	
evening set	76 Apr 12 j 23:59	3°♑59'59		evening max el	77 Mar 13 j 09:56	10°♐34'48	19°27'40
desc. node	76 Apr 20 j 13:42	0°♑56'51		retrograde	77 Mar 22 j 17:49	15°♐03'50	
inferior conj	76 Apr 22 j 03:41	0°♑02'35	0°-27'-16	evening set	77 Mar 24 j 21:21	14°♐50'38	
minimum elong	76 Apr 22 j 02:24	0°♑04'26	0°26'49	inferior conj	77 Apr 02 j 08:58	10°♐44'11	1°24'20
	76 Apr 22 j 05:28	30°♒♐		minimum elong	77 Apr 02 j 12:16	10°♐38'50	1°23'15
min. Earth dist.	76 Apr 23 j 10:43	29°♐17'46	0.55138 AU	min. Earth dist.	77 Apr 05 j 01:10	9°♐00'35	0.56112 AU
morning rise	76 May 01 j 03:11	25°♐50'08		desc. node	77 Apr 07 j 10:44	7°♐35'33	
direct	76 May 04 j 17:37	25°♐22'06		morning rise	77 Apr 10 j 23:29	6°♐00'26	
	76 May 15 j 22:55	0°♓		direct	77 Apr 15 j 13:52	5°♐12'32	
morning max el	76 May 18 j 01:31	1°♓50'37	23°12'39	morning max el	77 Apr 29 j 16:22	12°♐20'44	24°53'06
	76 Jun 06 j 01:25	0°♑			77 May 13 j 06:22	0°♓	
asc. node	76 Jun 07 j 22:46	3°♑46'51		morning set	77 May 25 j 15:27	23°♓17'54	
morning set	76 Jun 10 j 03:29	8°♑19'14		asc. node	77 May 25 j 19:48	23°♓40'50	
					77 May 28 j 18:39	0°♑	
superior conj	76 Jun 17 j 06:56	23°♑35'34	1°24'29				
minimum elong	76 Jun 17 j 04:28	23°♑22'23	1°24'10	superior conj	77 Jun 01 j 16:21	8°♑29'55	1°06'47
max. Earth dist.	76 Jun 19 j 19:02	28°♑54'32	1.33772 AU	minimum elong	77 Jun 01 j 13:58	8°♑16'57	1°06'22
	76 Jun 20 j 07:30	0°♒		max. Earth dist.	77 Jun 03 j 01:22	11°♑29'07	1.32916 AU
evening rise	76 Jun 24 j 23:00	9°♒29'22		evening rise	77 Jun 08 j 22:26	23°♑53'50	
	76 Jul 06 j 03:40	0°♓			77 Jun 11 j 23:37	0°♒	
desc. node	76 Jul 17 j 13:00	17°♓20'50			77 Jun 29 j 20:18	0°♓	
	76 Jul 28 j 03:29	0°♑		desc. node	77 Jul 04 j 10:01	6°♓02'26	
evening max el	76 Jul 29 j 01:44	0°♑54'16	27°19'59	evening max el	77 Jul 11 j 10:56	13°♓48'10	27°22'50
retrograde	76 Aug 11 j 13:30	8°♑13'18		retrograde	77 Jul 25 j 05:18	21°♓06'27	
evening set	76 Aug 18 j 15:27	5°♑30'01		evening set	77 Aug 01 j 10:11	18°♓35'02	
min. Earth dist.	76 Aug 22 j 09:03	2°♑02'32	0.64402 AU	min. Earth dist.	77 Aug 05 j 00:08	15°♓38'03	0.62711 AU
	76 Aug 24 j 06:45	30°♒♓		inferior conj	77 Aug 07 j 20:58	12°♓52'49	-3°-57'-2
inferior conj	76 Aug 24 j 17:03	29°♓32'10	-3°-9'-54	minimum elong	77 Aug 08 j 01:44	12°♓41'22	3°55'57
minimum elong	76 Aug 24 j 21:34	29°♓20'00	3°08'30	morning rise	77 Aug 14 j 19:43	7°♓43'57	
morning rise	76 Aug 31 j 05:31	24°♓04'09		direct	77 Aug 17 j 06:40	7°♓16'19	
direct	76 Sep 02 j 19:41	23°♓29'35		asc. node	77 Aug 21 j 19:00	8°♓51'25	
asc. node	76 Sep 03 j 21:57	23°♓35'49		morning max el	77 Aug 23 j 23:26	10°♓41'50	17°53'11
morning max el	76 Sep 09 j 07:53	26°♓56'53	18°00'04		77 Sep 05 j 20:09	0°♑	
	76 Sep 11 j 23:49	0°♑		morning set	77 Sep 09 j 04:29	5°♑56'34	
morning set	76 Sep 26 j 17:08	23°♑25'41					
	76 Sep 30 j 14:33	0°♒		superior conj	77 Sep 20 j 14:51	25°♑52'12	1°02'10
				minimum elong	77 Sep 20 j 19:48	26°♑13'06	1°01'34

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	77 Sep 23 j 01:59	0°♄			78 Aug 29 j 03:36	0°♍	
max. Earth dist.	77 Sep 27 j 12:30	7°♄17'03	1.43352 AU				
desc. node	77 Sep 30 j 09:18	11°♄53'35		superior conj	78 Sep 02 j 07:11	7°♍29'49	1°28'42
evening rise	77 Oct 05 j 17:43	20°♄18'50		minimum elong	78 Sep 02 j 11:16	7°♍48'00	1°28'20
	77 Oct 12 j 01:23	0°♍		max. Earth dist.	78 Sep 09 j 21:55	20°♍38'59	1.41671 AU
greatest brilliancy	77 Oct 30 j 22:34	26°♍53'49	-0.4m	evening rise	78 Sep 15 j 12:54	29°♍52'22	
	77 Nov 02 j 11:41	0°♎			78 Sep 15 j 14:48	0°♄	
evening max el	77 Nov 05 j 01:57	2°♎51'06	21°19'06	desc. node	78 Sep 17 j 06:20	2°♄37'40	
retrograde	77 Nov 13 j 18:59	8°♎01'45			78 Oct 05 j 15:14	0°♍	
evening set	77 Nov 17 j 20:58	6°♎28'17		greatest brilliancy	78 Oct 13 j 22:57	10°♍54'45	-0.3m
asc. node	77 Nov 17 j 18:15	6°♎33'27		evening max el	78 Oct 18 j 19:12	16°♍20'37	22°36'06
inferior conj	77 Nov 23 j 06:49	0°♎11'56	1°48'54	retrograde	78 Oct 28 j 14:18	22°♍10'00	
minimum elong	77 Nov 23 j 04:35	0°♎19'39	1°48'04	evening set	78 Nov 02 j 04:34	20°♍19'13	
	77 Nov 23 j 10:17	30°♍		asc. node	78 Nov 04 j 15:16	17°♍50'03	
min. Earth dist.	77 Nov 23 j 14:12	29°♍46'30	0.67476 AU	inferior conj	78 Nov 07 j 13:55	13°♍56'58	1°00'03
morning rise	77 Nov 28 j 11:53	23°♍56'32		minimum elong	78 Nov 07 j 12:33	14°♍01'39	0°59'30
direct	77 Dec 03 j 14:27	21°♍45'28		min. Earth dist.	78 Nov 07 j 10:35	14°♍08'27	0.67680 AU
morning max el	77 Dec 14 j 01:33	27°♍59'15	23°29'38	morning rise	78 Nov 12 j 20:27	7°♍43'27	
	77 Dec 15 j 23:19	0°♎		direct	78 Nov 17 j 08:01	5°♍54'56	
greatest brilliancy	77 Dec 20 j 02:04	4°♎49'42	-0.2m	morning max el	78 Nov 26 j 13:45	11°♍22'06	22°02'59
desc. node	77 Dec 27 j 08:33	14°♎26'36		greatest brilliancy	78 Dec 01 j 07:07	16°♍41'43	-0.4m
	78 Jan 06 j 22:53	0°♏			78 Dec 11 j 05:00	0°♎	
morning set	78 Jan 18 j 04:17	18°♏05'03		desc. node	78 Dec 14 j 05:35	4°♎22'12	
max. Earth dist.	78 Jan 22 j 07:57	25°♏13'30	1.39081 AU	morning set	78 Dec 29 j 07:50	27°♎32'12	
	78 Jan 25 j 00:36	0°♐			78 Dec 30 j 20:25	0°♏	
				max. Earth dist.	79 Jan 04 j 05:37	7°♏13'33	1.41183 AU
superior conj	78 Jan 29 j 20:16	8°♐49'39	-1°-53'-18				
minimum elong	78 Jan 29 j 23:30	9°♐04'45	1°53'07	superior conj	79 Jan 11 j 23:35	20°♏34'06	-2°-1'-52
evening rise	78 Feb 08 j 03:19	26°♐39'12		minimum elong	79 Jan 12 j 00:13	20°♏36'54	2°01'52
	78 Feb 09 j 20:56	0°♑			79 Jan 17 j 05:10	0°♐	
asc. node	78 Feb 13 j 17:35	7°♑15'03		evening rise	79 Jan 22 j 11:11	9°♐42'53	
evening max el	78 Feb 24 j 10:18	22°♑53'03	18°41'08	asc. node	79 Jan 31 j 14:36	26°♐04'32	
retrograde	78 Mar 04 j 08:54	26°♑45'00			79 Feb 03 j 03:25	0°♑	
evening set	78 Mar 06 j 16:45	26°♑26'18		evening max el	79 Feb 07 j 17:49	5°♑40'04	18°14'40
inferior conj	78 Mar 14 j 09:49	22°♑02'02	2°45'45	retrograde	79 Feb 14 j 18:19	9°♑10'50	
minimum elong	78 Mar 14 j 14:04	21°♑53'58	2°44'44	evening set	79 Feb 17 j 06:59	8°♑44'22	
min. Earth dist.	78 Mar 17 j 18:26	19°♑30'50	0.57790 AU	inferior conj	79 Feb 24 j 07:34	3°♑58'57	3°32'09
morning rise	78 Mar 22 j 07:14	16°♑46'09		minimum elong	79 Feb 24 j 10:12	3°♑53'08	3°31'48
desc. node	78 Mar 25 j 07:44	15°♑43'26		min. Earth dist.	79 Feb 27 j 16:37	1°♑01'57	0.59848 AU
direct	78 Mar 28 j 00:03	15°♑25'24			79 Feb 28 j 23:30	30°♑	
morning max el	78 Apr 11 j 08:36	22°♑58'49	26°20'51	morning rise	79 Mar 03 j 10:01	28°♑19'35	
	78 Apr 17 j 14:59	0°♒		direct	79 Mar 09 j 23:10	26°♑20'55	
	78 May 06 j 01:44	0°♓		desc. node	79 Mar 12 j 04:47	26°♑34'13	
morning set	78 May 10 j 02:36	8°♓13'49			79 Mar 19 j 10:36	0°♑	
asc. node	78 May 12 j 16:51	13°♓45'24		morning max el	79 Mar 24 j 06:07	4°♑07'21	27°21'34
					79 Apr 12 j 06:58	0°♒	
superior conj	78 May 17 j 03:47	23°♓29'12	0°45'36	morning set	79 Apr 24 j 11:07	22°♒59'47	
minimum elong	78 May 17 j 01:56	23°♓19'03	0°45'14		79 Apr 27 j 18:30	0°♓	
max. Earth dist.	78 May 17 j 12:41	24°♓17'59	1.32431 AU	asc. node	79 Apr 29 j 13:54	3°♓55'05	
	78 May 20 j 03:17	0°♔		max. Earth dist.	79 May 01 j 01:17	7°♓08'35	1.32320 AU
evening rise	78 May 24 j 04:11	8°♔36'35					
	78 Jun 04 j 09:23	0°♕		superior conj	79 May 01 j 15:27	8°♓26'16	0°21'43
desc. node	78 Jun 21 j 07:02	23°♕42'12		minimum elong	79 May 01 j 14:29	8°♓20'58	0°21'31
evening max el	78 Jun 23 j 15:12	26°♕03'46	26°52'59	evening rise	79 May 08 j 13:50	23°♓28'32	
	78 Jun 28 j 10:00	0°♖			79 May 11 j 17:43	0°♔	
retrograde	78 Jul 07 j 14:12	3°♖20'02			79 May 29 j 19:16	0°♕	
evening set	78 Jul 14 j 11:48	1°♖14'35		evening max el	79 Jun 05 j 12:53	7°♕33'59	25°51'36
	78 Jul 16 j 09:01	30°♕		desc. node	79 Jun 08 j 04:04	9°♕53'22	
min. Earth dist.	78 Jul 18 j 05:03	28°♕35'21	0.60745 AU	retrograde	79 Jun 19 j 14:11	14°♕46'04	
inferior conj	78 Jul 21 j 11:20	25°♕50'14	-4°-32'-3	evening set	79 Jun 25 j 15:41	13°♕17'45	
minimum elong	78 Jul 21 j 14:47	25°♕42'55	4°31'38	min. Earth dist.	79 Jun 30 j 01:25	10°♕38'32	0.58683 AU
morning rise	78 Jul 28 j 20:54	21°♕03'11		inferior conj	79 Jul 03 j 08:28	8°♕13'51	-4°-45'-52
direct	78 Jul 31 j 07:05	20°♕40'08		minimum elong	79 Jul 03 j 08:28	8°♕13'49	4°45'53
morning max el	78 Aug 07 j 12:20	24°♕13'06	18°05'10	morning rise	79 Jul 11 j 04:56	3°♕49'25	
asc. node	78 Aug 08 j 16:03	25°♕24'44		direct	79 Jul 13 j 16:31	3°♕29'14	
	78 Aug 12 j 05:44	0°♗		morning max el	79 Jul 21 j 19:23	7°♕20'37	18°37'16
morning set	78 Aug 23 j 08:42	19°♗16'18		asc. node	79 Jul 26 j 13:07	12°♕59'31	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 260

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	79 Aug 05 j 09:17	0°♌		minimum elong	80 Jun 13 j 04:53	20°♊02'39	4°25'20
morning set	79 Aug 07 j 00:59	3°♌11'28		morning rise	80 Jun 21 j 16:57	15°♊50'44	
				direct	80 Jun 24 j 07:32	15°♊32'11	
superior conj	79 Aug 15 j 21:26	20°♌12'34	1°42'59	morning max el	80 Jul 03 j 17:38	19°♊54'47	19°30'25
minimum elong	79 Aug 15 j 23:26	20°♌21'59	1°42'53		80 Jul 11 j 14:06	0°♊	
	79 Aug 21 j 05:43	0°♍		asc. node	80 Jul 12 j 10:11	1°♊21'58	
max. Earth dist.	79 Aug 23 j 02:25	3°♍17'50	1.39703 AU	morning set	80 Jul 21 j 01:42	17°♊32'30	
evening rise	79 Aug 27 j 07:14	10°♍31'08			80 Jul 27 j 06:35	0°♌	
desc. node	79 Sep 04 j 03:22	23°♍15'09					
	79 Sep 08 j 12:46	0°♎		superior conj	80 Jul 29 j 04:00	3°♌44'41	1°47'04
	79 Oct 01 j 11:15	0°♏		minimum elong	80 Jul 29 j 04:00	3°♌44'40	1°47'05
evening max el	79 Oct 01 j 08:38	29°♎53'28	23°56'22	max. Earth dist.	80 Aug 04 j 05:53	15°♌21'40	1.37701 AU
retrograde	79 Oct 12 j 06:16	6°♏18'16		evening rise	80 Aug 08 j 02:01	22°♌19'28	
evening set	79 Oct 17 j 10:29	4°♏09'30			80 Aug 12 j 12:25	0°♍	
	79 Oct 21 j 04:39	30°♏♎		desc. node	80 Aug 21 j 00:25	13°♍41'26	
inferior conj	79 Oct 22 j 20:43	27°♎45'26	0°07'15		80 Sep 01 j 09:14	0°♎	
minimum elong	79 Oct 22 j 20:32	27°♎46'02	0°07'09	evening max el	80 Sep 12 j 20:24	13°♎29'55	25°12'58
transit middle	79 Oct 22 j 20:32	27°♎46'02	0°07'09	retrograde	80 Sep 24 j 17:56	20°♎22'21	
transit begin	79 Oct 22 j 18:06	27°♎54'20		evening set	80 Sep 30 j 12:59	17°♎56'40	
transit end	79 Oct 22 j 22:59	27°♎37'44		min. Earth dist.	80 Oct 05 j 01:05	12°♎54'14	0.67127 AU
min. Earth dist.	79 Oct 22 j 07:03	28°♎31'48	0.67563 AU	inferior conj	80 Oct 06 j 01:27	11°♎34'48	0°-48'-7
asc. node	79 Oct 22 j 12:19	28°♎13'57		minimum elong	80 Oct 06 j 02:39	11°♎30'51	0°47'37
morning rise	79 Oct 28 j 06:46	21°♎36'31		asc. node	80 Oct 08 j 09:23	8°♎39'19	
direct	79 Nov 01 j 04:39	20°♎09'44		morning rise	80 Oct 11 j 16:53	5°♎33'25	
morning max el	79 Nov 09 j 08:27	24°♎54'07	20°44'14	direct	80 Oct 15 j 02:55	4°♎25'53	
	79 Nov 13 j 19:28	0°♏		morning max el	80 Oct 22 j 10:53	8°♎36'19	19°38'02
greatest brilliancy	79 Nov 15 j 06:45	1°♏52'37	-0.5m	greatest brilliancy	80 Oct 30 j 18:56	19°♎06'34	-0.6m
desc. node	79 Dec 01 j 02:38	24°♏37'35			80 Nov 07 j 03:36	0°♏	
	79 Dec 04 j 15:17	0°♐		morning set	80 Nov 16 j 08:10	14°♏06'41	
morning set	79 Dec 08 j 10:31	5°♐52'22		desc. node	80 Nov 16 j 23:39	15°♏06'38	
max. Earth dist.	79 Dec 17 j 10:51	20°♐10'24	1.43020 AU		80 Nov 26 j 12:27	0°♑	
	79 Dec 23 j 10:11	0°♒		max. Earth dist.	80 Nov 28 j 23:42	3°♑54'20	1.44344 AU
superior conj	79 Dec 24 j 02:55	1°♒10'07	-1°-56'-44	superior conj	80 Dec 03 j 03:19	10°♑32'01	-1°-33'-50
minimum elong	79 Dec 23 j 22:57	0°♒53'28	1°56'34	minimum elong	80 Dec 02 j 19:18	9°♑59'48	1°33'07
evening rise	80 Jan 05 j 04:00	22°♒02'09			80 Dec 14 j 23:47	0°♒	
	80 Jan 09 j 16:04	0°♓		evening rise	80 Dec 17 j 01:22	3°♒28'19	
asc. node	80 Jan 18 j 11:39	14°♓17'18			81 Jan 02 j 20:59	0°♓	
evening max el	80 Jan 22 j 05:23	18°♓47'07	18°07'51	asc. node	81 Jan 04 j 08:43	1°♓41'37	
retrograde	80 Jan 28 j 18:49	22°♓11'48		evening max el	81 Jan 04 j 17:56	2°♓05'30	18°20'02
evening set	80 Jan 31 j 11:55	21°♓36'21		retrograde	81 Jan 11 j 05:55	5°♓37'05	
inferior conj	80 Feb 06 j 23:24	16°♓29'24	3°49'24	evening set	81 Jan 14 j 03:35	4°♓51'46	
minimum elong	80 Feb 06 j 23:48	16°♓28'23	3°49'23		81 Jan 19 j 16:40	30°♒♒	
min. Earth dist.	80 Feb 09 j 22:17	13°♓31'47	0.61938 AU	inferior conj	81 Jan 20 j 05:15	29°♒24'40	3°45'05
morning rise	80 Feb 13 j 09:19	10°♓34'59		minimum elong	81 Jan 20 j 03:51	29°♒28'37	3°44'57
direct	80 Feb 20 j 08:12	8°♓05'11		min. Earth dist.	81 Jan 22 j 13:23	26°♒46'49	0.63806 AU
desc. node	80 Feb 27 j 01:49	10°♓07'06		morning rise	81 Jan 26 j 02:33	23°♒20'37	
morning max el	80 Mar 05 j 09:43	15°♓56'42	27°46'54	direct	81 Feb 02 j 01:01	20°♒33'13	
	80 Mar 16 j 22:47	0°♔		desc. node	81 Feb 12 j 22:51	25°♒47'59	
	80 Apr 03 j 20:36	0°♕		morning max el	81 Feb 15 j 17:47	28°♒23'39	27°35'35
morning set	80 Apr 07 j 15:03	7°♕29'13			81 Feb 17 j 07:11	0°♕	
max. Earth dist.	80 Apr 13 j 11:30	19°♕48'21	1.32592 AU		81 Mar 10 j 17:30	0°♔	
				morning set	81 Mar 22 j 11:54	21°♔33'46	
superior conj	80 Apr 15 j 01:42	23°♕15'27	0°-4'-5		81 Mar 26 j 15:33	0°♕	
minimum elong	80 Apr 15 j 01:53	23°♕16'29	0°04'03	max. Earth dist.	81 Mar 27 j 15:22	2°♕04'21	1.33262 AU
behind sun begin	80 Apr 14 j 20:54	22°♕49'24					
behind sun end	80 Apr 15 j 06:52	23°♕43'34		superior conj	81 Mar 30 j 08:41	7°♕50'22	0°-30'-55
asc. node	80 Apr 15 j 10:58	24°♕05'55		minimum elong	81 Mar 30 j 10:11	7°♕58'20	0°30'36
	80 Apr 18 j 03:56	0°♖		asc. node	81 Apr 02 j 08:02	14°♕13'28	
evening rise	80 Apr 22 j 01:26	8°♖22'58		evening rise	81 Apr 06 j 13:05	23°♕13'01	
	80 May 03 j 08:22	0°♗			81 Apr 09 j 20:05	0°♖	
evening max el	80 May 17 j 04:46	18°♗24'36	24°26'19	evening max el	81 Apr 28 j 19:43	28°♖57'52	22°50'59
desc. node	80 May 25 j 01:05	24°♗01'59			81 Apr 29 j 22:28	0°♗	
retrograde	80 May 31 j 02:32	25°♗25'40		desc. node	81 May 11 j 22:06	5°♗33'00	
evening set	80 Jun 04 j 20:34	24°♗35'09		retrograde	81 May 12 j 02:21	5°♗33'04	
min. Earth dist.	80 Jun 10 j 16:08	21°♗39'21	0.56817 AU	evening set	81 May 15 j 10:23	5°♗08'42	
inferior conj	80 Jun 13 j 09:37	19°♗55'03	-4°-25'-58	min. Earth dist.	81 May 23 j 04:32	1°♗43'25	0.55482 AU

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 261

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

inferior conj	81 May 24 j 15:43	0° Π 52'50	-3°-21'-31	inferior conj	82 May 04 j 10:38	11° 8 21'56	-1°-36'-21
minimum elong	81 May 24 j 08:25	1° Π 03'22	3°19'36	minimum elong	82 May 04 j 06:08	11° 8 28'16	1°34'48
	81 May 26 j 04:49	30° R 8		min. Earth dist.	82 May 04 j 17:21	11° 8 12'29	0.54980 AU
morning rise	81 Jun 02 j 09:16	26° 8 59'33		morning rise	82 May 13 j 10:23	7° 8 21'53	
direct	81 Jun 05 j 04:14	26° 8 41'18		direct	82 May 16 j 14:36	6° 8 59'57	
	81 Jun 14 j 01:20	0° Π		morning max el	82 May 29 j 05:53	13° 8 00'04	22°15'28
morning max el	81 Jun 16 j 05:08	1° Π 48'31	20°44'17		82 Jun 10 j 21:56	0° Π	
asc. node	81 Jun 29 j 07:15	20° Π 20'58		asc. node	82 Jun 16 j 04:18	9° Π 46'52	
	81 Jul 04 j 06:14	0° ☿		morning set	82 Jun 19 j 18:07	17° Π 03'32	
morning set	81 Jul 05 j 08:10	2° ☿ 12'11			82 Jun 25 j 20:49	0° ☿	
superior conj	81 Jul 12 j 22:14	17° ☿ 53'04	1°43'06	superior conj	82 Jun 27 j 00:25	2° ☿ 25'58	1°32'47
minimum elong	81 Jul 12 j 20:46	17° ☿ 45'36	1°43'01	minimum elong	82 Jun 26 j 22:09	2° ☿ 13'59	1°32'32
max. Earth dist.	81 Jul 17 j 13:45	27° ☿ 11'45	1.35891 AU	max. Earth dist.	82 Jun 30 j 06:05	9° ☿ 10'46	1.34424 AU
	81 Jul 19 j 00:24	0° Ω		evening rise	82 Jul 05 j 00:32	18° ☿ 43'42	
evening rise	81 Jul 21 j 17:26	5° Ω 08'13			82 Jul 11 j 01:24	0° Ω	
	81 Aug 05 j 08:28	0° ♊		desc. node	82 Jul 25 j 18:28	23° Ω 35'07	
desc. node	81 Aug 07 j 21:27	3° ♊ 50'51			82 Jul 30 j 12:05	0° ♊	
evening max el	81 Aug 26 j 08:05	27° ♊ 06'51	26°18'17	evening max el	82 Aug 08 j 19:51	10° ♊ 35'51	27°04'42
	81 Aug 29 j 13:45	0° ♋		retrograde	82 Aug 22 j 02:22	17° ♊ 54'46	
retrograde	81 Sep 08 j 00:46	4° ♋ 17'16		evening set	82 Aug 28 j 23:29	15° ♊ 09'57	
evening set	81 Sep 14 j 10:07	1° ♋ 38'21		min. Earth dist.	82 Sep 01 j 20:28	11° ♊ 22'07	0.65212 AU
	81 Sep 16 j 03:47	30° R ♊		inferior conj	82 Sep 03 j 21:01	9° ♊ 04'18	-2°-39'-41
min. Earth dist.	81 Sep 18 j 14:19	27° ♊ 13'08	0.66350 AU	minimum elong	82 Sep 04 j 00:59	8° ♊ 53'01	2°38'17
inferior conj	81 Sep 20 j 02:16	25° ♊ 22'40	-1°-44'-25	morning rise	82 Sep 10 j 04:02	3° ♊ 27'08	
minimum elong	81 Sep 20 j 04:55	25° ♊ 14'29	1°43'22	asc. node	82 Sep 12 j 03:28	2° ♊ 50'23	
asc. node	81 Sep 25 j 06:26	20° ♊ 01'03		direct	82 Sep 12 j 21:06	2° ♊ 47'27	
morning rise	81 Sep 26 j 00:45	19° ♊ 31'51		morning max el	82 Sep 19 j 10:02	6° ♊ 19'40	18°12'15
direct	81 Sep 29 j 01:06	18° ♊ 40'07			82 Oct 05 j 10:42	0° ♋	
morning max el	81 Oct 05 j 20:11	22° ♊ 26'49	18°46'57	morning set	82 Oct 07 j 21:23	4° ♋ 02'18	
	81 Oct 11 j 21:46	0° ♋		desc. node	82 Oct 21 j 17:45	26° ♋ 29'52	
morning set	81 Oct 27 j 00:34	23° ♋ 22'26					
	81 Oct 31 j 05:04	0° ♌		superior conj	82 Oct 22 j 10:15	27° ♋ 35'23	0°-4'-32
desc. node	81 Nov 03 j 20:43	5° ♌ 45'29		minimum elong	82 Oct 22 j 09:40	27° ♋ 33'06	0°04'28
max. Earth dist.	81 Nov 11 j 17:17	18° ♌ 06'46	1.44992 AU	behind sun begin	82 Oct 21 j 23:04	26° ♋ 51'00	
				behind sun end	82 Oct 22 j 20:16	28° ♋ 15'09	
superior conj	81 Nov 12 j 07:24	19° ♌ 02'13	0°-53'-35		82 Oct 23 j 22:46	0° ♌	
minimum elong	81 Nov 12 j 00:42	18° ♌ 35'52	0°52'46	max. Earth dist.	82 Oct 25 j 11:52	2° ♌ 26'24	1.44900 AU
	81 Nov 19 j 06:07	0° ♍		evening rise	82 Nov 07 j 23:03	23° ♌ 29'06	
evening rise	81 Nov 27 j 23:46	13° ♍ 56'42			82 Nov 12 j 03:43	0° ♍	
	81 Dec 08 j 00:14	0° ☿		greatest brilliancy	82 Nov 24 j 09:13	18° ♍ 33'20	-0.7m
evening max el	81 Dec 19 j 04:56	15° ☿ 30'12	18°50'16	evening max el	82 Dec 02 j 12:16	28° ♍ 57'48	19°37'13
asc. node	81 Dec 22 j 05:44	18° ☿ 04'16			82 Dec 03 j 13:35	0° ☿	
retrograde	81 Dec 25 j 23:32	19° ☿ 19'25		asc. node	82 Dec 09 j 02:44	3° ☿ 10'25	
evening set	81 Dec 29 j 02:47	18° ☿ 23'02		retrograde	82 Dec 09 j 20:26	3° ☿ 13'29	
inferior conj	82 Jan 03 j 21:23	12° ☿ 38'18	3°25'16	evening set	82 Dec 13 j 06:53	2° ☿ 04'22	
minimum elong	82 Jan 03 j 18:56	12° ☿ 45'49	3°24'50		82 Dec 15 j 15:39	30° R ♍	
min. Earth dist.	82 Jan 05 j 14:12	10° ☿ 32'45	0.65325 AU	inferior conj	82 Dec 18 j 20:41	26° ♍ 04'56	2°54'13
morning rise	82 Jan 09 j 10:03	6° ☿ 27'57		minimum elong	82 Dec 18 j 17:54	26° ♍ 14'05	2°53'28
direct	82 Jan 16 j 00:42	3° ☿ 37'28		min. Earth dist.	82 Dec 19 j 23:23	24° ♍ 37'29	0.66455 AU
morning max el	82 Jan 29 j 03:39	11° ☿ 17'55	26°51'44	morning rise	82 Dec 24 j 04:11	19° ♍ 50'53	
desc. node	82 Jan 30 j 19:54	13° ☿ 02'23		direct	82 Dec 30 j 06:27	17° ♍ 09'33	
	82 Feb 13 j 01:43	0° ♎		morning max el	83 Jan 11 j 12:52	24° ♍ 26'33	25°43'21
	82 Mar 03 j 05:58	0° ♏			83 Jan 16 j 13:26	0° ☿	
morning set	82 Mar 05 j 22:26	5° ♏ 03'15		desc. node	83 Jan 17 j 16:57	1° ☿ 23'16	
max. Earth dist.	82 Mar 10 j 09:07	13° ♏ 46'44	1.34367 AU		83 Feb 06 j 12:03	0° ♎	
				morning set	83 Feb 16 j 18:13	17° ♎ 44'45	
superior conj	82 Mar 14 j 10:20	22° ♏ 04'32	0°-57'-39	max. Earth dist.	83 Feb 20 j 14:49	24° ♎ 57'31	1.35922 AU
minimum elong	82 Mar 14 j 13:05	22° ♏ 18'52	0°57'09		83 Feb 23 j 05:24	0° ♏	
	82 Mar 18 j 04:56	0° ♐					
asc. node	82 Mar 20 j 05:04	4° ♐ 13'33		superior conj	83 Feb 26 j 04:05	5° ♏ 50'38	-1°-22'-43
evening rise	82 Mar 21 j 22:54	7° ♐ 52'12		minimum elong	83 Feb 26 j 07:46	6° ♏ 09'09	1°22'13
	82 Apr 02 j 22:01	0° ♑		evening rise	83 Mar 06 j 04:54	22° ♏ 14'21	
evening max el	82 Apr 10 j 16:55	9° ♑ 44'29	21°20'06	asc. node	83 Mar 07 j 02:06	24° ♏ 01'45	
retrograde	82 Apr 22 j 17:02	15° ♑ 34'45			83 Mar 10 j 02:19	0° ♐	
evening set	82 Apr 25 j 02:04	15° ♑ 21'47		evening max el	83 Mar 24 j 01:03	21° ♐ 05'49	20°03'29
desc. node	82 Apr 28 j 19:07	14° ♑ 14'46		retrograde	83 Apr 03 j 08:16	26° ♐ 02'30	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 262

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

evening set	83 Apr 05 j 10:40	25° Υ 51'04		retrograde	84 Mar 14 j 12:22	7° Υ 15'43	
inferior conj	83 Apr 14 j 08:23	21° Υ 51'44	0°22'38	evening set	84 Mar 16 j 17:40	7° Υ 00'28	
minimum elong	83 Apr 14 j 09:23	21° Υ 50'13	0°22'17	inferior conj	84 Mar 24 j 21:23	2° Υ 47'27	2°03'11
desc. node	83 Apr 15 j 16:08	21° Υ 03'49		minimum elong	84 Mar 25 j 01:32	2° Υ 40'17	2°01'58
min. Earth dist.	83 Apr 16 j 07:28	20° Υ 40'56	0.55442 AU	min. Earth dist.	84 Mar 27 j 22:55	0° Υ 41'27	0.56764 AU
morning rise	83 Apr 23 j 05:16	17° Υ 26'30			84 Mar 29 j 00:39	30° \Re	
direct	83 Apr 27 j 04:54	16° Υ 51'39		desc. node	84 Apr 01 j 13:10	28° \Re 06'13	
morning max el	83 May 10 j 22:50	23° Υ 39'44	23°55'54	morning rise	84 Apr 02 j 05:17	27° \Re 49'33	
	83 May 16 j 15:52	0° \Re		direct	84 Apr 07 j 07:31	26° \Re 48'43	
asc. node	83 Jun 03 j 01:21	29° \Re 32'38			84 Apr 16 j 11:49	0° Υ	
	83 Jun 03 j 06:38	0° Π		morning max el	84 Apr 21 j 13:24	4° Υ 09'17	25°32'45
morning set	83 Jun 04 j 05:50	2° Π 01'15			84 May 10 j 01:44	0° \Re	
				morning set	84 May 18 j 17:39	16° \Re 59'07	
superior conj	83 Jun 11 j 07:52	17° Π 14'58	1°17'27	asc. node	84 May 19 j 22:24	19° \Re 31'33	
minimum elong	83 Jun 11 j 05:22	17° Π 01'32	1°17'05		84 May 24 j 18:14	0° Π	
max. Earth dist.	83 Jun 13 j 07:47	21° Π 32'06	1.33356 AU				
	83 Jun 17 j 08:48	0° \Re		superior conj	84 May 25 j 18:22	2° Π 11'58	0°58'10
evening rise	83 Jun 18 j 19:04	2° \Re 53'55		minimum elong	84 May 25 j 16:09	1° Π 59'54	0°57'46
	83 Jul 03 j 21:01	0° \Re		max. Earth dist.	84 May 26 j 16:41	4° Π 13'51	1.32670 AU
desc. node	83 Jul 12 j 15:28	12° \Re 43'38		evening rise	84 Jun 01 j 21:32	17° Π 27'20	
evening max el	83 Jul 22 j 06:45	23° \Re 46'41	27°25'07		84 Jun 08 j 06:26	0° \Re	
	83 Jul 30 j 23:58	0° \Re			84 Jun 27 j 15:53	0° \Re	
retrograde	83 Aug 04 j 22:06	1° \Re 06'23		desc. node	84 Jun 28 j 12:29	1° \Re 01'20	
	83 Aug 09 j 13:18	30° \Re		evening max el	84 Jul 03 j 14:25	6° \Re 26'11	27°14'17
evening set	83 Aug 12 j 02:07	28° \Re 26'33		retrograde	84 Jul 17 j 11:02	13° \Re 43'05	
min. Earth dist.	83 Aug 15 j 17:36	25° \Re 12'57	0.63717 AU	evening set	84 Jul 24 j 14:06	11° \Re 21'28	
inferior conj	83 Aug 18 j 07:12	22° \Re 34'41	-3°-30'-59	min. Earth dist.	84 Jul 28 j 04:28	8° \Re 33'38	0.61898 AU
minimum elong	83 Aug 18 j 11:58	22° \Re 22'25	3°29'39	inferior conj	84 Jul 31 j 05:48	5° \Re 46'36	-4°-13'-51
morning rise	83 Aug 24 j 23:57	17° \Re 14'19		minimum elong	84 Jul 31 j 10:14	5° \Re 36'27	4°13'02
direct	83 Aug 27 j 12:19	16° \Re 43'10		morning rise	84 Aug 07 j 09:04	0° \Re 46'22	
asc. node	83 Aug 30 j 00:31	17° \Re 14'34		direct	84 Aug 09 j 19:26	0° \Re 20'54	
morning max el	83 Sep 03 j 01:45	20° \Re 09'04	17°54'52	asc. node	84 Aug 15 j 21:35	3° \Re 04'46	
	83 Sep 10 j 10:05	0° \Re		morning max el	84 Aug 16 j 16:27	3° \Re 48'35	17°55'53
morning set	83 Sep 19 j 20:22	15° \Re 57'41		morning set	84 Sep 01 j 15:36	28° \Re 51'22	
	83 Sep 28 j 01:24	0° \Re			84 Sep 02 j 06:43	0° \Re	
superior conj	83 Oct 02 j 08:07	7° \Re 06'51	0°40'57	superior conj	84 Sep 12 j 09:21	17° \Re 59'19	1°15'02
minimum elong	83 Oct 02 j 12:14	7° \Re 23'44	0°40'24	minimum elong	84 Sep 12 j 14:12	18° \Re 20'17	1°14'29
max. Earth dist.	83 Oct 08 j 04:46	16° \Re 36'41	1.44098 AU	max. Earth dist.	84 Sep 19 j 17:52	0° \Re 22'16	1.42688 AU
desc. node	83 Oct 08 j 14:46	17° \Re 16'37			84 Sep 19 j 12:27	0° \Re	
	83 Oct 16 j 17:10	0° \Re		desc. node	84 Sep 24 j 11:48	8° \Re 02'41	
evening rise	83 Oct 18 j 07:25	2° \Re 27'42		evening rise	84 Sep 26 j 17:45	11° \Re 36'04	
	83 Nov 05 j 18:16	0° \Re			84 Oct 08 j 20:02	0° \Re	
greatest brilliancy	83 Nov 09 j 16:58	5° \Re 24'05	-0.5m	greatest brilliancy	84 Oct 23 j 15:56	20° \Re 28'53	-0.4m
evening max el	83 Nov 15 j 14:26	12° \Re 26'22	20°38'38	evening max el	84 Oct 28 j 10:53	25° \Re 55'46	21°51'10
retrograde	83 Nov 23 j 18:02	17° \Re 15'17			84 Nov 02 j 08:23	0° \Re	
asc. node	83 Nov 25 j 23:45	16° \Re 46'51		retrograde	84 Nov 06 j 14:34	1° \Re 22'20	
evening set	83 Nov 27 j 13:46	15° \Re 51'22			84 Nov 10 j 11:52	30° \Re	
inferior conj	83 Dec 03 j 00:36	9° \Re 40'27	2°14'42	evening set	84 Nov 10 j 21:36	29° \Re 41'38	
minimum elong	83 Dec 02 j 22:02	9° \Re 49'12	2°13'50	asc. node	84 Nov 11 j 20:48	28° \Re 50'43	
min. Earth dist.	83 Dec 03 j 14:41	8° \Re 52'29	0.67207 AU	inferior conj	84 Nov 16 j 07:04	23° \Re 22'34	1°28'48
morning rise	83 Dec 08 j 05:50	3° \Re 24'57		minimum elong	84 Nov 16 j 05:10	23° \Re 29'10	1°28'03
direct	83 Dec 13 j 17:22	1° \Re 01'15		min. Earth dist.	84 Nov 16 j 09:50	23° \Re 13'03	0.67604 AU
morning max el	83 Dec 24 j 21:07	7° \Re 40'34	24°20'10	morning rise	84 Nov 21 j 12:31	17° \Re 07'54	
desc. node	84 Jan 04 j 13:58	20° \Re 30'52		direct	84 Nov 26 j 08:43	15° \Re 06'12	
	84 Jan 11 j 08:20	0° \Re		morning max el	84 Dec 06 j 06:53	20° \Re 59'33	22°52'19
morning set	84 Jan 29 j 17:25	29° \Re 20'55		greatest brilliancy	84 Dec 10 j 23:34	26° \Re 14'29	-0.3m
	84 Jan 30 j 02:23	0° \Re			84 Dec 13 j 23:35	0° \Re	
max. Earth dist.	84 Feb 02 j 11:29	6° \Re 00'01	1.37867 AU	desc. node	84 Dec 21 j 11:01	10° \Re 12'00	
					85 Jan 03 j 15:04	0° \Re	
superior conj	84 Feb 09 j 10:29	18° \Re 58'38	-1°-43'-58	morning set	85 Jan 09 j 13:55	9° \Re 36'49	
minimum elong	84 Feb 09 j 14:18	19° \Re 16'54	1°43'38	max. Earth dist.	85 Jan 14 j 07:08	17° \Re 33'25	1.39996 AU
	84 Feb 15 j 01:40	0° \Re			85 Jan 21 j 08:12	0° \Re	
evening rise	84 Feb 18 j 04:40	6° \Re 11'43					
asc. node	84 Feb 21 j 23:07	13° \Re 32'11		superior conj	85 Jan 22 j 01:15	1° \Re 17'38	-1°-58'-18
	84 Mar 03 j 01:17	0° Υ		minimum elong	85 Jan 22 j 03:39	1° \Re 28'36	1°58'13
evening max el	84 Mar 05 j 20:10	3° Υ 04'56	19°05'26	evening rise	85 Jan 31 j 19:21	19° \Re 37'40	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 263

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	85 Feb 06 j 08:25	0°♄			86 Jan 13 j 13:48	0°♁	
asc. node	85 Feb 07 j 20:08	2°♄38'52		evening rise	86 Jan 14 j 21:20	2°♁23'35	
evening max el	85 Feb 17 j 00:00	15°♄36'48	18°27'21	asc. node	86 Jan 25 j 17:11	21°♁14'00	
retrograde	85 Feb 24 j 11:34	19°♄17'36		evening max el	86 Jan 31 j 09:31	28°♁32'57	18°09'20
evening set	85 Feb 26 j 21:39	18°♄55'40			86 Feb 02 j 01:10	0°♄	
inferior conj	85 Mar 06 j 07:17	14°♄22'13	3°09'28	retrograde	86 Feb 07 j 04:10	1°♄59'48	
minimum elong	85 Mar 06 j 11:03	14°♄14'36	3°08'43	evening set	86 Feb 09 j 18:40	1°♄29'40	
min. Earth dist.	85 Mar 09 j 17:38	11°♄37'22	0.58653 AU		86 Feb 12 j 12:10	30°♁	
morning rise	85 Mar 13 j 20:37	8°♄55'28		inferior conj	86 Feb 16 j 13:13	26°♁34'43	3°42'34
desc. node	85 Mar 19 j 10:12	7°♄19'30		minimum elong	86 Feb 16 j 14:54	26°♁30'47	3°42'25
direct	85 Mar 19 j 23:17	7°♄18'43		min. Earth dist.	86 Feb 19 j 18:43	23°♁34'39	0.60748 AU
morning max el	85 Apr 03 j 07:29	14°♄57'44	26°50'34	morning rise	86 Feb 23 j 08:11	20°♁47'50	
	85 Apr 15 j 10:14	0°♁		direct	86 Mar 02 j 02:33	18°♁34'53	
	85 May 02 j 06:28	0°♄		desc. node	86 Mar 06 j 07:15	19°♁22'08	
morning set	85 May 03 j 03:55	1°♄51'29		morning max el	86 Mar 16 j 07:55	26°♁24'18	27°36'59
asc. node	85 May 06 j 19:28	9°♄38'40			86 Mar 19 j 17:12	0°♄	
					86 Apr 08 j 21:55	0°♁	
superior conj	85 May 10 j 06:06	17°♄10'46	0°35'44	morning set	86 Apr 17 j 10:49	16°♁32'10	
minimum elong	85 May 10 j 04:35	17°♄02'27	0°35'26	max. Earth dist.	86 Apr 23 j 17:28	29°♁54'50	1.32390 AU
max. Earth dist.	85 May 10 j 05:11	17°♄05'46	1.32349 AU	asc. node	86 Apr 23 j 16:31	29°♁49'43	
	85 May 16 j 03:41	0°♄			86 Apr 23 j 18:25	0°♄	
evening rise	85 May 17 j 05:14	2°♄14'56					
	85 Jun 01 j 06:20	0°♄		superior conj	86 Apr 24 j 17:25	2°♄05'43	0°10'58
desc. node	85 Jun 15 j 09:30	18°♄06'53		minimum elong	86 Apr 24 j 16:55	2°♄02'58	0°10'52
evening max el	85 Jun 15 j 16:04	18°♄22'37	26°30'20	behind sun begin	86 Apr 24 j 13:13	1°♄42'44	
retrograde	85 Jun 29 j 15:57	25°♄36'41		behind sun end	86 Apr 24 j 20:36	2°♄23'13	
evening set	85 Jul 06 j 06:51	23°♄46'08		evening rise	86 May 01 j 16:00	17°♄09'17	
min. Earth dist.	85 Jul 10 j 05:14	21°♄09'21	0.59868 AU		86 May 08 j 01:04	0°♄	
inferior conj	85 Jul 13 j 13:14	18°♄30'35	-4°-41'-12	evening max el	86 May 28 j 10:47	29°♄34'18	25°17'23
minimum elong	85 Jul 13 j 15:29	18°♄26'04	4°41'04		86 May 28 j 21:40	0°♄	
morning rise	85 Jul 21 j 03:26	13°♄53'09		desc. node	86 Jun 02 j 06:32	3°♄31'11	
direct	85 Jul 23 j 14:10	13°♄31'20		retrograde	86 Jun 11 j 11:27	6°♄43'33	
morning max el	85 Jul 31 j 03:11	17°♄10'21	18°16'21	evening set	86 Jun 17 j 00:51	5°♄31'41	
asc. node	85 Aug 02 j 18:40	20°♄05'50		min. Earth dist.	86 Jun 21 j 22:34	2°♄47'26	0.57846 AU
	85 Aug 09 j 06:58	0°♄		inferior conj	86 Jun 25 j 02:07	0°♄37'27	-4°-42'-22
morning set	85 Aug 16 j 01:28	12°♄27'27		minimum elong	86 Jun 25 j 00:08	0°♄40'53	4°42'15
					86 Jun 25 j 23:55	30°♁	
superior conj	85 Aug 25 j 11:42	0°♄06'26	1°36'09	morning rise	86 Jul 03 j 03:18	26°♄22'40	
minimum elong	85 Aug 25 j 14:57	0°♄21'14	1°35'55	direct	86 Jul 05 j 16:02	26°♄03'20	
	85 Aug 25 j 10:17	0°♄			86 Jul 14 j 04:25	0°♄	
max. Earth dist.	85 Sep 02 j 01:29	13°♄27'53	1.40852 AU	morning max el	86 Jul 14 j 06:58	0°♄05'57	18°57'21
evening rise	85 Sep 06 j 22:00	21°♄34'48		asc. node	86 Jul 20 j 15:45	8°♄03'02	
desc. node	85 Sep 11 j 08:50	28°♄44'18		morning set	86 Jul 30 j 21:45	26°♄35'10	
	85 Sep 12 j 04:04	0°♄			86 Aug 01 j 15:18	0°♄	
	85 Oct 02 j 23:39	0°♄					
greatest brilliancy	85 Oct 05 j 04:36	2°♄46'27	-0.2m	superior conj	86 Aug 08 j 09:38	13°♄13'00	1°45'50
evening max el	85 Oct 11 j 02:13	9°♄26'07	23°10'15	minimum elong	86 Aug 08 j 10:44	13°♄18'17	1°45'48
retrograde	85 Oct 21 j 08:31	15°♄31'02		max. Earth dist.	86 Aug 15 j 04:49	25°♄49'58	1.38837 AU
evening set	85 Oct 26 j 04:41	13°♄32'19			86 Aug 17 j 13:15	0°♄	
asc. node	85 Oct 29 j 17:52	9°♄38'55		evening rise	86 Aug 19 j 03:02	2°♄43'59	
inferior conj	85 Oct 31 j 14:14	7°♄08'50	0°38'03	desc. node	86 Aug 29 j 05:52	19°♄17'49	
minimum elong	85 Oct 31 j 13:20	7°♄11'53	0°37'40		86 Sep 05 j 08:58	0°♄	
min. Earth dist.	85 Oct 31 j 06:26	7°♄35'40	0.67668 AU	evening max el	86 Sep 23 j 14:29	22°♄59'55	24°29'46
morning rise	85 Nov 05 j 22:03	0°♄57'13		retrograde	86 Oct 04 j 22:53	29°♄38'15	
	85 Nov 07 j 09:14	30°♁		evening set	86 Oct 10 j 09:22	27°♄21'47	
direct	85 Nov 10 j 03:34	29°♄18'20		min. Earth dist.	86 Oct 15 j 02:08	21°♄58'52	0.67416 AU
	85 Nov 13 j 02:16	0°♄		inferior conj	86 Oct 15 j 20:21	20°♄57'53	0°-16'-2
morning max el	85 Nov 18 j 21:38	4°♄26'06	21°28'18	minimum elong	86 Oct 15 j 20:45	20°♄56'34	0°15'53
greatest brilliancy	85 Nov 23 j 23:42	10°♄15'03	-0.4m	transit middle	86 Oct 15 j 20:45	20°♄56'34	0°15'53
desc. node	85 Dec 08 j 08:04	0°♄16'39		transit begin	86 Oct 15 j 20:10	20°♄58'32	
	85 Dec 08 j 03:35	0°♄		transit end	86 Oct 15 j 21:20	20°♄54'36	
morning set	85 Dec 20 j 05:30	18°♄30'41		asc. node	86 Oct 16 j 14:56	19°♄56'03	
	85 Dec 27 j 08:22	0°♄		morning rise	86 Oct 21 j 08:30	14°♄51'54	
max. Earth dist.	85 Dec 27 j 08:12	29°♄59'16	1.42014 AU	direct	86 Oct 25 j 00:59	13°♄33'55	
				morning max el	86 Nov 01 j 19:42	18°♄02'56	20°14'20
superior conj	86 Jan 03 j 18:55	12°♄33'52	-2°-1'-38	greatest brilliancy	86 Nov 08 j 14:05	26°♄12'50	-0.6m
minimum elong	86 Jan 03 j 17:47	12°♄28'57	2°01'38		86 Nov 11 j 07:52	0°♄	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 264

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

desc. node	86 Nov 25 j 05:06	20° \mathbb{M} 38'18		morning max el	87 Oct 16 j 01:13	1° \mathbb{A} 49'02	19°14'15
morning set	86 Nov 29 j 02:48	26° \mathbb{M} 38'45		greatest brilliancy	87 Oct 26 j 20:55	16° \mathbb{A} 08'06	-0.7m
	86 Dec 01 j 06:40	0° \mathbb{A}			87 Nov 04 j 21:43	0° \mathbb{M}	
max. Earth dist.	86 Dec 09 j 16:31	13° \mathbb{A} 16'30	1.43651 AU	morning set	87 Nov 08 j 06:02	5° \mathbb{M} 12'40	
				desc. node	87 Nov 12 j 02:09	11° \mathbb{M} 12'06	
superior conj	86 Dec 15 j 10:40	22° \mathbb{A} 37'12	-1°-49'-19	max. Earth dist.	87 Nov 22 j 07:10	27° \mathbb{M} 12'51	1.44703 AU
minimum elong	86 Dec 15 j 04:38	22° \mathbb{A} 12'22	1°48'56		87 Nov 24 j 01:27	0° \mathbb{A}	
	86 Dec 19 j 21:11	0° \mathbb{B}					
evening rise	86 Dec 28 j 06:23	14° \mathbb{B} 20'59		superior conj	87 Nov 25 j 00:52	1° \mathbb{A} 32'48	-1°-18'-34
	87 Jan 06 j 09:52	0° \mathbb{A}		minimum elong	87 Nov 24 j 16:34	0° \mathbb{A} 59'53	1°17'42
asc. node	87 Jan 12 j 14:14	9° \mathbb{A} 07'43		evening rise	87 Dec 09 j 18:14	25° \mathbb{A} 22'42	
evening max el	87 Jan 14 j 21:46	11° \mathbb{A} 45'19	18°10'47		87 Dec 12 j 13:21	0° \mathbb{B}	
retrograde	87 Jan 21 j 09:43	15° \mathbb{A} 11'47		evening max el	87 Dec 29 j 10:00	25° \mathbb{B} 07'27	18°30'52
evening set	87 Jan 24 j 04:34	14° \mathbb{A} 32'26		asc. node	87 Dec 30 j 11:16	26° \mathbb{B} 07'58	
inferior conj	87 Jan 30 j 11:30	9° \mathbb{A} 16'50	3°49'47	retrograde	88 Jan 04 j 23:53	28° \mathbb{B} 45'11	
minimum elong	87 Jan 30 j 11:03	9° \mathbb{A} 18'02	3°49'47	evening set	88 Jan 07 j 23:46	27° \mathbb{B} 55'23	
min. Earth dist.	87 Feb 02 j 04:28	6° \mathbb{A} 25'15	0.62761 AU	inferior conj	88 Jan 13 j 22:08	22° \mathbb{B} 20'49	3°38'15
morning rise	87 Feb 05 j 15:30	3° \mathbb{A} 17'32		minimum elong	88 Jan 13 j 20:12	22° \mathbb{B} 26'29	3°38'01
direct	87 Feb 12 j 15:15	0° \mathbb{A} 38'11		min. Earth dist.	88 Jan 15 j 23:49	19° \mathbb{B} 55'20	0.64496 AU
desc. node	87 Feb 21 j 04:17	3° \mathbb{A} 53'43		morning rise	88 Jan 19 j 15:18	16° \mathbb{B} 13'51	
morning max el	87 Feb 26 j 13:51	8° \mathbb{A} 31'13	27°46'29	direct	88 Jan 26 j 11:21	13° \mathbb{B} 23'04	
	87 Mar 15 j 04:09	0° \mathbb{H}		desc. node	88 Feb 08 j 01:18	20° \mathbb{B} 18'15	
	87 Apr 01 j 01:37	0° \mathbb{Y}		morning max el	88 Feb 08 j 22:48	21° \mathbb{B} 10'54	27°20'30
morning set	87 Apr 01 j 12:06	0° \mathbb{Y} 52'40			88 Feb 16 j 15:12	0° \mathbb{A}	
max. Earth dist.	87 Apr 07 j 01:21	12° \mathbb{Y} 25'52	1.32819 AU		88 Mar 07 j 06:43	0° \mathbb{H}	
				morning set	88 Mar 15 j 05:00	14° \mathbb{H} 44'00	
superior conj	87 Apr 09 j 02:30	16° \mathbb{Y} 49'59	0°-15'-23	max. Earth dist.	88 Mar 20 j 01:03	24° \mathbb{H} 27'25	1.33672 AU
minimum elong	87 Apr 09 j 03:14	16° \mathbb{Y} 53'56	0°15'14		88 Mar 22 j 16:49	0° \mathbb{Y}	
behind sun begin	87 Apr 09 j 01:45	16° \mathbb{Y} 45'59					
behind sun end	87 Apr 09 j 04:42	17° \mathbb{Y} 01'54		superior conj	88 Mar 23 j 07:30	1° \mathbb{Y} 17'29	0°-42'-19
asc. node	87 Apr 10 j 13:33	19° \mathbb{Y} 59'49		minimum elong	88 Mar 23 j 09:33	1° \mathbb{Y} 28'18	0°41'56
	87 Apr 15 j 04:41	0° \mathbb{B}		asc. node	88 Mar 27 j 10:35	10° \mathbb{Y} 05'06	
evening rise	87 Apr 16 j 03:48	2° \mathbb{B} 02'45		evening rise	88 Mar 30 j 14:53	16° \mathbb{Y} 49'12	
	87 May 01 j 13:53	0° \mathbb{H}			88 Apr 06 j 05:37	0° \mathbb{B}	
evening max el	87 May 10 j 01:23	10° \mathbb{H} 14'17	23°46'07	evening max el	88 Apr 20 j 18:21	20° \mathbb{B} 50'47	22°11'10
desc. node	87 May 20 j 03:34	16° \mathbb{H} 37'06		retrograde	88 May 03 j 13:50	27° \mathbb{B} 08'14	
retrograde	87 May 23 j 19:01	17° \mathbb{H} 07'21		evening set	88 May 06 j 10:01	26° \mathbb{B} 50'25	
evening set	87 May 27 j 21:46	16° \mathbb{H} 29'59		desc. node	88 May 06 j 00:33	26° \mathbb{B} 54'58	
min. Earth dist.	87 Jun 03 j 12:13	13° \mathbb{H} 22'50	0.56161 AU	min. Earth dist.	88 May 15 j 00:51	23° \mathbb{B} 08'36	0.55160 AU
inferior conj	87 Jun 05 j 18:46	12° \mathbb{H} 00'05	-4°-4'-24	inferior conj	88 May 15 j 18:44	22° \mathbb{B} 43'24	-2°-40'-48
minimum elong	87 Jun 05 j 12:24	12° \mathbb{H} 09'48	4°03'11	minimum elong	88 May 15 j 11:57	22° \mathbb{B} 52'57	2°38'45
morning rise	87 Jun 14 j 06:38	8° \mathbb{H} 02'03		morning rise	88 May 24 j 15:37	18° \mathbb{B} 49'15	
direct	87 Jun 16 j 22:30	7° \mathbb{H} 44'03		direct	88 May 27 j 13:41	18° \mathbb{B} 30'03	
morning max el	87 Jun 27 j 00:55	12° \mathbb{H} 24'32	19°59'22	morning max el	88 Jun 08 j 07:35	23° \mathbb{B} 59'49	21°21'08
asc. node	87 Jul 07 j 12:48	26° \mathbb{H} 42'28			88 Jun 13 j 15:41	0° \mathbb{H}	
	87 Jul 09 j 08:48	0° \mathbb{B}		asc. node	88 Jun 23 j 09:51	15° \mathbb{H} 53'57	
morning set	87 Jul 15 j 01:11	11° \mathbb{B} 04'56		morning set	88 Jun 28 j 09:21	25° \mathbb{H} 50'14	
					88 Jun 30 j 09:20	0° \mathbb{B}	
superior conj	87 Jul 22 j 21:41	27° \mathbb{B} 02'20	1°46'16				
minimum elong	87 Jul 22 j 20:59	26° \mathbb{B} 58'50	1°46'14	superior conj	88 Jul 05 j 19:39	11° \mathbb{B} 22'06	1°39'24
	87 Jul 24 j 09:25	0° \mathbb{B}		minimum elong	88 Jul 05 j 17:46	11° \mathbb{B} 12'20	1°39'15
max. Earth dist.	87 Jul 28 j 08:59	7° \mathbb{B} 42'56	1.36897 AU	max. Earth dist.	88 Jul 09 j 20:10	19° \mathbb{B} 34'31	1.35230 AU
evening rise	87 Aug 01 j 07:13	15° \mathbb{B} 00'01		evening rise	88 Jul 14 j 05:54	28° \mathbb{B} 10'32	
	87 Aug 10 j 00:14	0° \mathbb{H}			88 Jul 15 j 05:05	0° \mathbb{B}	
desc. node	87 Aug 16 j 02:55	9° \mathbb{H} 37'47		desc. node	88 Aug 01 j 23:56	29° \mathbb{B} 37'31	
	87 Aug 31 j 00:34	0° \mathbb{A}			88 Aug 02 j 06:06	0° \mathbb{H}	
evening max el	87 Sep 06 j 02:01	6° \mathbb{A} 37'04	25°42'36	evening max el	88 Aug 18 j 14:01	20° \mathbb{H} 12'37	26°40'50
retrograde	87 Sep 18 j 08:41	13° \mathbb{A} 39'04		retrograde	88 Aug 31 j 13:17	27° \mathbb{H} 27'12	
evening set	87 Sep 24 j 09:50	11° \mathbb{A} 07'15		evening set	88 Sep 07 j 03:57	24° \mathbb{H} 45'04	
min. Earth dist.	87 Sep 28 j 18:32	6° \mathbb{A} 20'12	0.66835 AU	min. Earth dist.	88 Sep 11 j 05:06	20° \mathbb{H} 35'35	0.65911 AU
inferior conj	87 Sep 29 j 23:40	4° \mathbb{A} 47'16	-1°-12'-1	inferior conj	88 Sep 12 j 22:11	18° \mathbb{H} 33'14	-2°-8'-10
minimum elong	87 Sep 30 j 01:29	4° \mathbb{A} 41'26	1°11'16	minimum elong	88 Sep 13 j 01:26	18° \mathbb{H} 23'32	2°06'56
asc. node	87 Oct 03 j 11:59	0° \mathbb{A} 39'47		morning rise	88 Sep 19 j 00:07	12° \mathbb{H} 47'32	
	87 Oct 04 j 04:52	30° \mathbb{R} \mathbb{H}		asc. node	88 Sep 19 j 09:02	12° \mathbb{H} 36'24	
morning rise	87 Oct 05 j 17:54	28° \mathbb{H} 49'46		direct	88 Sep 21 j 21:06	12° \mathbb{H} 01'15	
direct	87 Oct 08 j 23:26	27° \mathbb{H} 49'30		morning max el	88 Sep 28 j 12:40	15° \mathbb{H} 40'44	18°30'02
	87 Oct 14 j 01:17	0° \mathbb{A}			88 Oct 09 j 00:15	0° \mathbb{A}	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 265

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

morning set	88 Oct 18 j 10:15	15°♄04'03		direct	89 Sep 05 j 15:33	26°♄05'14	
	88 Oct 27 j 18:29	0°♄		asc. node	89 Sep 06 j 06:04	26°♄07'09	
desc. node	88 Oct 28 j 23:12	1°♄53'41		morning max el	89 Sep 12 j 03:41	29°♄33'24	18°02'42
					89 Sep 12 j 14:03	0°♄	
superior conj	88 Nov 03 j 01:32	9°♄56'08	0°-33'-5	morning set	89 Sep 29 j 18:58	26°♄19'06	
minimum elong	88 Nov 02 j 21:12	9°♄39'04	0°32'31		89 Oct 01 j 23:34	0°♄	
max. Earth dist.	88 Nov 04 j 01:45	11°♄31'21	1.45047 AU				
	88 Nov 15 j 19:49	0°♄		superior conj	89 Oct 13 j 10:37	18°♄49'18	0°15'51
evening rise	88 Nov 19 j 06:21	5°♄25'49		minimum elong	89 Oct 13 j 12:29	18°♄56'50	0°15'35
greatest brilliancy	88 Nov 30 j 19:05	23°♄33'48	-0.7m	behind sun begin	89 Oct 13 j 09:33	18°♄45'01	
	88 Dec 05 j 02:14	0°♄		behind sun end	89 Oct 13 j 15:26	19°♄08'39	
evening max el	88 Dec 11 j 19:43	8°♄33'56	19°08'23	desc. node	89 Oct 15 j 20:15	22°♄39'53	
asc. node	88 Dec 16 j 08:17	11°♄59'59		max. Earth dist.	89 Oct 17 j 20:40	25°♄52'08	1.44647 AU
retrograde	88 Dec 18 j 19:07	12°♄33'00			89 Oct 20 j 11:31	0°♄	
evening set	88 Dec 22 j 01:18	11°♄31'17		evening rise	89 Oct 29 j 21:51	14°♄40'50	
inferior conj	88 Dec 27 j 17:37	5°♄40'02	3°13'15		89 Nov 08 j 22:06	0°♄	
minimum elong	88 Dec 27 j 14:56	5°♄48'29	3°12'40	greatest brilliancy	89 Nov 18 j 00:45	13°♄20'35	-0.6m
min. Earth dist.	88 Dec 29 j 04:13	3°♄50'27	0.65858 AU	evening max el	89 Nov 25 j 01:00	22°♄02'14	20°01'40
	89 Jan 01 j 13:52	30°♄		retrograde	89 Dec 02 j 16:38	26°♄31'12	
morning rise	89 Jan 02 j 03:43	29°♄28'07		asc. node	89 Dec 03 j 05:19	26°♄29'37	
direct	89 Jan 08 j 13:37	26°♄40'17		evening set	89 Dec 06 j 06:52	25°♄15'50	
	89 Jan 16 j 14:32	0°♄		inferior conj	89 Dec 11 j 19:10	19°♄10'53	2°38'20
morning max el	89 Jan 21 j 08:20	4°♄11'41	26°25'06	minimum elong	89 Dec 11 j 16:25	19°♄20'06	2°37'30
desc. node	89 Jan 24 j 22:20	8°♄03'25		min. Earth dist.	89 Dec 12 j 16:12	18°♄00'37	0.66825 AU
	89 Feb 10 j 01:21	0°♄		morning rise	89 Dec 17 j 01:23	12°♄56'04	
morning set	89 Feb 26 j 09:47	27°♄54'09		direct	89 Dec 22 j 21:28	10°♄21'48	
	89 Feb 27 j 12:23	0°♄		morning max el	90 Jan 03 j 17:11	17°♄23'48	25°09'10
max. Earth dist.	89 Mar 02 j 13:38	5°♄54'33	1.34978 AU	desc. node	90 Jan 11 j 19:25	26°♄46'09	
					90 Jan 14 j 06:38	0°♄	
superior conj	89 Mar 07 j 06:06	15°♄20'28	-1°-8'-36		90 Feb 03 j 01:19	0°♄	
minimum elong	89 Mar 07 j 09:19	15°♄36'57	1°08'04	morning set	90 Feb 08 j 21:32	10°♄09'26	
asc. node	89 Mar 14 j 07:37	0°♄00'41		max. Earth dist.	90 Feb 12 j 15:08	16°♄59'00	1.36717 AU
	89 Mar 14 j 07:29	0°♄					
evening rise	89 Mar 14 j 23:18	1°♄21'43		superior conj	90 Feb 18 j 19:27	28°♄51'05	-1°-32'-23
	89 Apr 01 j 01:19	0°♄		minimum elong	90 Feb 18 j 23:19	29°♄10'12	1°31'55
evening max el	89 Apr 02 j 19:54	1°♄50'19	20°45'24		90 Feb 19 j 09:23	0°♄	
retrograde	89 Apr 14 j 02:45	7°♄17'27		evening rise	90 Feb 27 j 02:58	15°♄34'05	
evening set	89 Apr 16 j 07:32	7°♄05'51		asc. node	90 Mar 01 j 04:38	19°♄41'54	
desc. node	89 Apr 22 j 21:32	4°♄36'37			90 Mar 06 j 16:09	0°♄	
inferior conj	89 Apr 25 j 12:53	3°♄08'19	0°-45'-29	evening max el	90 Mar 16 j 08:42	13°♄26'55	19°36'17
minimum elong	89 Apr 25 j 10:44	3°♄11'24	0°44'42	retrograde	90 Mar 25 j 22:34	18°♄02'56	
min. Earth dist.	89 Apr 26 j 13:46	2°♄32'45	0.55064 AU	evening set	90 Mar 28 j 01:30	17°♄50'23	
	89 May 01 j 13:09	30°♄		inferior conj	90 Apr 05 j 15:51	13°♄46'03	1°09'02
morning rise	89 May 04 j 12:48	28°♄59'49		minimum elong	90 Apr 05 j 18:40	13°♄41'35	1°08'06
direct	89 May 08 j 00:17	28°♄33'43		min. Earth dist.	90 Apr 08 j 04:07	12°♄10'40	0.55909 AU
	89 May 14 j 05:05	0°♄		desc. node	90 Apr 09 j 18:34	11°♄13'18	
morning max el	89 May 21 j 04:16	4°♄54'57	22°57'44	morning rise	90 Apr 14 j 08:18	9°♄07'11	
	89 Jun 07 j 11:55	0°♄		direct	90 Apr 18 j 18:37	8°♄23'10	
asc. node	89 Jun 10 j 06:53	5°♄29'22		morning max el	90 May 02 j 19:30	15°♄26'50	24°38'42
morning set	89 Jun 12 j 20:17	10°♄45'27			90 May 14 j 09:38	0°♄	
				morning set	90 May 28 j 08:15	25°♄44'11	
superior conj	89 Jun 20 j 00:21	26°♄02'58	1°26'49	asc. node	90 May 28 j 03:56	25°♄21'27	
minimum elong	89 Jun 19 j 21:56	25°♄50'01	1°26'31		90 May 30 j 08:21	0°♄	
	89 Jun 21 j 21:05	0°♄					
max. Earth dist.	89 Jun 22 j 16:59	1°♄44'27	1.33926 AU	superior conj	90 Jun 04 j 09:20	10°♄56'18	1°09'42
evening rise	89 Jun 27 j 18:21	12°♄02'32		minimum elong	90 Jun 04 j 06:55	10°♄43'08	1°09'19
	89 Jul 07 j 12:01	0°♄		max. Earth dist.	90 Jun 05 j 22:09	14°♄15'35	1.33011 AU
desc. node	89 Jul 19 j 20:55	19°♄08'26		evening rise	90 Jun 11 j 16:35	26°♄23'37	
	89 Jul 28 j 13:50	0°♄			90 Jun 13 j 11:37	0°♄	
evening max el	89 Aug 01 j 01:49	3°♄36'26	27°16'54		90 Jun 30 j 21:31	0°♄	
retrograde	89 Aug 14 j 12:12	10°♄55'28		desc. node	90 Jul 06 j 17:55	7°♄57'50	
evening set	89 Aug 21 j 13:11	8°♄11'20		evening max el	90 Jul 14 j 11:26	16°♄35'02	27°24'29
min. Earth dist.	89 Aug 25 j 07:35	4°♄38'49	0.64625 AU	retrograde	90 Jul 28 j 05:10	23°♄54'04	
inferior conj	89 Aug 27 j 13:39	2°♄11'28	-3°-2'-8	evening set	90 Aug 04 j 10:08	21°♄19'52	
minimum elong	89 Aug 27 j 18:04	1°♄59'27	3°00'43	min. Earth dist.	90 Aug 08 j 00:14	18°♄19'02	0.62981 AU
	89 Aug 29 j 15:28	30°♄		inferior conj	90 Aug 10 j 19:19	15°♄35'02	-3°-50'-31
morning rise	89 Sep 03 j 00:41	26°♄41'02		minimum elong	90 Aug 11 j 00:08	15°♄23'15	3°49'23

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 266

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

morning rise	90 Aug 17 j 16:31	10°♏23'12		inferior conj	91 Jul 24 j 11:55	28°♎36'23	-4°-27'-56
direct	90 Aug 20 j 03:44	9°♏54'47		minimum elong	91 Jul 24 j 15:42	28°♎28'12	4°27'25
asc. node	90 Aug 24 j 03:09	11°♏09'54		morning rise	91 Jul 31 j 19:52	23°♎45'49	
morning max el	90 Aug 26 j 19:25	13°♏20'07	17°53'02	direct	91 Aug 03 j 05:57	23°♎22'15	
	90 Sep 07 j 04:39	0°♐		morning max el	91 Aug 10 j 08:53	26°♎53'41	18°02'07
morning set	90 Sep 12 j 03:19	8°♐41'23		asc. node	91 Aug 11 j 00:13	27°♎32'20	
					91 Aug 13 j 02:59	0°♑	
superior conj	90 Sep 23 j 19:58	28°♐55'13	0°56'59	morning set	91 Aug 26 j 05:22	21°♏54'38	
minimum elong	90 Sep 24 j 00:49	29°♐15'33	0°56'23		91 Aug 30 j 14:33	0°♐	
	90 Sep 24 j 11:27	0°♑					
max. Earth dist.	90 Sep 30 j 12:10	9°♑53'46	1.43563 AU	superior conj	91 Sep 05 j 08:30	10°♐21'20	1°25'30
desc. node	90 Oct 02 j 17:17	13°♑26'48		minimum elong	91 Sep 05 j 12:50	10°♐40'30	1°25'06
evening rise	90 Oct 09 j 04:44	23°♑37'31		max. Earth dist.	91 Sep 12 j 22:24	23°♐21'34	1.41946 AU
	90 Oct 13 j 08:18	0°♒			91 Sep 16 j 23:31	0°♑	
greatest brilliancy	90 Nov 02 j 17:14	29°♒19'06	-0.5m	evening rise	91 Sep 18 j 21:09	3°♑03'15	
	90 Nov 03 j 06:08	0°♓		desc. node	91 Sep 19 j 14:18	4°♑11'28	
evening max el	90 Nov 08 j 00:38	5°♓30'41	21°08'18		91 Oct 06 j 18:25	0°♒	
retrograde	90 Nov 16 j 14:09	10°♓35'49		greatest brilliancy	91 Oct 17 j 00:45	13°♒40'06	-0.3m
asc. node	90 Nov 20 j 02:21	9°♓26'28		evening max el	91 Oct 21 j 18:41	19°♒00'09	22°24'23
evening set	90 Nov 20 j 14:24	9°♓04'56		retrograde	91 Oct 31 j 09:49	24°♒43'44	
inferior conj	90 Nov 26 j 00:27	2°♓49'50	1°55'56	evening set	91 Nov 04 j 22:07	22°♒55'41	
minimum elong	90 Nov 25 j 22:07	2°♓57'51	1°55'04	asc. node	91 Nov 06 j 23:26	20°♒54'32	
min. Earth dist.	90 Nov 26 j 09:33	2°♓18'33	0.67415 AU	inferior conj	91 Nov 10 j 07:28	16°♒34'10	1°07'47
	90 Nov 28 j 02:50	30°♒♒		minimum elong	91 Nov 10 j 05:57	16°♒39'24	1°07'09
morning rise	90 Dec 01 j 05:29	26°♒34'14		min. Earth dist.	91 Nov 10 j 05:43	16°♒40'11	0.67669 AU
direct	90 Dec 06 j 10:20	24°♒19'48		morning rise	91 Nov 15 j 13:38	10°♒20'13	
	90 Dec 16 j 09:29	0°♓		direct	91 Nov 20 j 03:26	8°♒28'12	
morning max el	90 Dec 17 j 01:54	0°♓40'41	23°42'47	morning max el	91 Nov 29 j 13:19	14°♒02'09	22°15'32
desc. node	90 Dec 29 j 16:30	16°♓09'39		greatest brilliancy	91 Dec 04 j 04:53	19°♒15'41	-0.3m
	91 Jan 08 j 05:14	0°♔			91 Dec 12 j 08:06	0°♓	
morning set	91 Jan 21 j 10:09	21°♔13'50		desc. node	91 Dec 16 j 13:33	6°♓01'46	
max. Earth dist.	91 Jan 25 j 10:24	28°♔10'45	1.38761 AU		92 Jan 01 j 04:51	0°♔	
	91 Jan 26 j 11:02	0°♕		morning set	92 Jan 01 j 18:04	0°♔53'24	
				max. Earth dist.	92 Jan 07 j 07:12	10°♔02'46	1.40880 AU
superior conj	91 Feb 01 j 19:49	11°♕39'55	-1°-51'-8				
minimum elong	91 Feb 01 j 23:15	11°♕56'07	1°50'53	superior conj	92 Jan 15 j 02:17	23°♔33'54	-2°-1'-21
evening rise	91 Feb 10 j 23:19	29°♕19'33		minimum elong	92 Jan 15 j 03:27	23°♔39'08	2°01'21
	91 Feb 11 j 07:38	0°♖			92 Jan 18 j 15:43	0°♕	
asc. node	91 Feb 16 j 01:40	9°♖03'30		evening rise	92 Jan 25 j 09:04	12°♕29'18	
evening max el	91 Feb 27 j 07:54	25°♖41'21	18°46'47	asc. node	92 Feb 02 j 22:44	27°♕58'00	
retrograde	91 Mar 07 j 10:45	29°♖37'39			92 Feb 04 j 04:42	0°♖	
evening set	91 Mar 09 j 17:52	29°♖19'57		evening max el	92 Feb 10 j 14:38	8°♖25'08	18°17'20
inferior conj	91 Mar 17 j 13:40	24°♖58'52	2°35'42	retrograde	92 Feb 17 j 17:33	11°♖57'49	
minimum elong	91 Mar 17 j 18:00	24°♖50'51	2°34'35	evening set	92 Feb 20 j 05:37	11°♖32'33	
min. Earth dist.	91 Mar 20 j 21:03	22°♖33'27	0.57510 AU	inferior conj	92 Feb 27 j 08:26	6°♖50'19	3°27'09
morning rise	91 Mar 25 j 13:53	19°♖47'17		minimum elong	92 Feb 27 j 11:24	6°♖43'55	3°26'41
desc. node	91 Mar 27 j 15:37	19°♖01'47		min. Earth dist.	92 Mar 01 j 18:14	3°♖55'41	0.59539 AU
direct	91 Mar 31 j 03:05	18°♖31'53		morning rise	92 Mar 05 j 13:40	1°♖14'01	
morning max el	91 Apr 14 j 11:16	26°♖02'39	26°09'07		92 Mar 08 j 05:39	30°♖♖	
	91 Apr 18 j 04:44	0°♗		direct	92 Mar 12 j 00:32	29°♖20'51	
	91 May 07 j 12:44	0°♘		desc. node	92 Mar 13 j 12:41	29°♖26'52	
morning set	91 May 12 j 19:39	10°♘40'56			92 Mar 15 j 21:50	0°♖	
asc. node	91 May 15 j 01:00	15°♘24'48		morning max el	92 Mar 26 j 07:46	7°♖05'28	27°14'33
					92 Apr 12 j 13:02	0°♗	
superior conj	91 May 19 j 20:38	25°♘55'26	0°49'00	morning set	92 Apr 26 j 04:41	25°♗28'44	
minimum elong	91 May 19 j 18:40	25°♘44'42	0°48'38		92 Apr 28 j 08:08	0°♘	
max. Earth dist.	91 May 20 j 08:53	27°♘02'40	1.32480 AU	asc. node	92 Apr 30 j 22:02	5°♘33'55	
	91 May 21 j 17:19	0°♙					
evening rise	91 May 26 j 21:36	11°♙04'22		superior conj	92 May 03 j 08:23	10°♘53'14	0°25'30
	91 Jun 05 j 17:20	0°♚		minimum elong	92 May 03 j 07:16	10°♘47'06	0°25'15
desc. node	91 Jun 23 j 14:55	25°♚48'13		max. Earth dist.	92 May 02 j 21:35	9°♘53'57	1.32320 AU
evening max el	91 Jun 26 j 16:40	28°♚57'00	26°59'33	evening rise	92 May 10 j 06:51	25°♘55'35	
	91 Jun 27 j 20:00	0°♛			92 May 12 j 05:52	0°♙	
retrograde	91 Jul 10 j 15:14	6°♛13'38			92 May 29 j 15:11	0°♚	
evening set	91 Jul 17 j 14:34	4°♛03'37		evening max el	92 Jun 07 j 15:28	10°♚34'08	26°02'27
min. Earth dist.	91 Jul 21 j 06:44	1°♛22'37	0.61047 AU	desc. node	92 Jun 09 j 11:56	12°♚14'39	
	91 Jul 22 j 21:33	30°♛♚		retrograde	92 Jun 21 j 16:30	17°♚46'37	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 267

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

evening set	92 Jun 27 j 21:52	16° \mathfrak{C} 12'32		evening rise	93 Apr 24 j 18:16	10° \mathfrak{C} 50'13	
min. Earth dist.	92 Jul 02 j 04:12	13° \mathfrak{C} 34'26	0.58986 AU		93 May 04 j 14:33	0° \mathfrak{H}	
inferior conj	92 Jul 05 j 11:49	11° \mathfrak{C} 05'36	-4°-45'-44	evening max el	93 May 20 j 07:56	21° \mathfrak{H} 29'35	24°39'55
minimum elong	92 Jul 05 j 12:28	11° \mathfrak{C} 04'21	4°45'43	desc. node	93 May 27 j 08:58	26° \mathfrak{H} 44'28	
morning rise	92 Jul 13 j 06:39	6° \mathfrak{C} 37'45		retrograde	93 Jun 03 j 06:37	28° \mathfrak{H} 33'01	
direct	92 Jul 15 j 17:59	6° \mathfrak{C} 17'08		evening set	93 Jun 08 j 05:57	27° \mathfrak{H} 37'14	
morning max el	92 Jul 23 j 16:56	10° \mathfrak{C} 05'02	18°31'12	min. Earth dist.	93 Jun 13 j 19:20	24° \mathfrak{H} 44'55	0.57070 AU
asc. node	92 Jul 27 j 21:17	14° \mathfrak{C} 58'44		inferior conj	93 Jun 16 j 16:00	22° \mathfrak{H} 53'31	-4°-31'-43
	92 Aug 05 j 19:45	0° \mathfrak{Q}		minimum elong	93 Jun 16 j 11:57	23° \mathfrak{H} 00'09	4°31'16
morning set	92 Aug 08 j 20:08	5° \mathfrak{Q} 45'29		morning rise	93 Jun 24 j 21:44	18° \mathfrak{H} 46'48	
				direct	93 Jun 27 j 11:54	18° \mathfrak{H} 28'01	
superior conj	92 Aug 17 j 19:52	22° \mathfrak{Q} 55'30	1°41'31	morning max el	93 Jul 06 j 16:40	22° \mathfrak{H} 44'53	19°21'14
minimum elong	92 Aug 17 j 22:12	23° \mathfrak{Q} 06'23	1°41'24		93 Jul 12 j 16:10	0° \mathfrak{C}	
	92 Aug 21 j 16:37	0° \mathfrak{H}		asc. node	93 Jul 14 j 18:20	3° \mathfrak{C} 14'51	
max. Earth dist.	92 Aug 25 j 03:45	6° \mathfrak{H} 07'55	1.40003 AU	morning set	93 Jul 23 j 19:46	20° \mathfrak{C} 03'21	
evening rise	92 Aug 29 j 11:47	13° \mathfrak{H} 31'47			93 Jul 28 j 19:03	0° \mathfrak{Q}	
desc. node	92 Sep 05 j 11:19	24° \mathfrak{H} 50'21					
	92 Sep 08 j 19:19	0° \mathfrak{C}		superior conj	93 Aug 01 j 00:20	6° \mathfrak{Q} 21'26	1°47'01
	92 Sep 30 j 22:31	0° \mathfrak{M}		minimum elong	93 Aug 01 j 00:36	6° \mathfrak{Q} 22'46	1°47'01
evening max el	92 Oct 03 j 08:36	2° \mathfrak{M} 32'51	23°44'30	max. Earth dist.	93 Aug 07 j 07:07	18° \mathfrak{Q} 16'24	1.37988 AU
retrograde	92 Oct 14 j 02:15	8° \mathfrak{M} 52'28		evening rise	93 Aug 11 j 03:04	25° \mathfrak{Q} 10'04	
evening set	92 Oct 19 j 04:23	6° \mathfrak{M} 46'18			93 Aug 13 j 21:55	0° \mathfrak{H}	
asc. node	92 Oct 23 j 20:30	1° \mathfrak{M} 23'17		desc. node	93 Aug 23 j 08:19	15° \mathfrak{H} 18'43	
min. Earth dist.	92 Oct 24 j 02:16	1° \mathfrak{M} 03'40	0.67602 AU		93 Sep 02 j 10:31	0° \mathfrak{C}	
inferior conj	92 Oct 24 j 14:24	0° \mathfrak{M} 22'22	0°15'27	evening max el	93 Sep 15 j 20:25	16° \mathfrak{C} 08'40	25°02'04
minimum elong	92 Oct 24 j 14:02	0° \mathfrak{M} 23'38	0°15'17	retrograde	93 Sep 27 j 14:35	22° \mathfrak{C} 57'40	
transit middle	92 Oct 24 j 14:02	0° \mathfrak{M} 23'38	0°15'17	evening set	93 Oct 03 j 07:28	20° \mathfrak{C} 34'11	
transit begin	92 Oct 24 j 13:05	0° \mathfrak{M} 26'50		min. Earth dist.	93 Oct 07 j 20:44	15° \mathfrak{C} 26'31	0.67213 AU
transit end	92 Oct 24 j 14:58	0° \mathfrak{M} 20'25		inferior conj	93 Oct 08 j 19:31	14° \mathfrak{C} 11'42	0°-39'-39
	92 Oct 24 j 20:58	30° \mathfrak{R} \mathfrak{C}		minimum elong	93 Oct 08 j 20:30	14° \mathfrak{C} 08'27	0°39'14
morning rise	92 Oct 29 j 23:49	24° \mathfrak{C} 12'41		asc. node	93 Oct 10 j 17:32	11° \mathfrak{C} 44'37	
direct	92 Nov 02 j 23:40	22° \mathfrak{C} 42'46		morning rise	93 Oct 14 j 10:03	8° \mathfrak{C} 09'09	
morning max el	92 Nov 11 j 06:53	27° \mathfrak{C} 32'44	20°55'16	direct	93 Oct 17 j 21:41	6° \mathfrak{C} 59'03	
	92 Nov 13 j 13:18	0° \mathfrak{M}		morning max el	93 Oct 25 j 08:13	11° \mathfrak{C} 13'50	19°47'00
greatest brilliancy	92 Nov 16 j 23:07	4° \mathfrak{M} 10'08	-0.5m	greatest brilliancy	93 Nov 02 j 04:34	20° \mathfrak{C} 59'51	-0.6m
desc. node	92 Dec 02 j 10:35	26° \mathfrak{M} 14'41			93 Nov 08 j 08:53	0° \mathfrak{M}	
	92 Dec 04 j 22:06	0° \mathfrak{X}		desc. node	93 Nov 19 j 07:36	16° \mathfrak{M} 42'05	
morning set	92 Dec 10 j 23:32	9° \mathfrak{X} 20'27		morning set	93 Nov 19 j 20:16	17° \mathfrak{M} 31'01	
max. Earth dist.	92 Dec 19 j 11:24	22° \mathfrak{X} 52'09	1.42777 AU		93 Nov 27 j 20:31	0° \mathfrak{X}	
	92 Dec 23 j 19:22	0° \mathfrak{Z}		max. Earth dist.	93 Dec 01 j 23:21	6° \mathfrak{X} 30'34	1.44187 AU
superior conj	92 Dec 26 j 09:27	4° \mathfrak{Z} 20'35	-1°-58'-34	superior conj	93 Dec 06 j 13:42	13° \mathfrak{X} 52'48	-1°-38'-31
minimum elong	92 Dec 26 j 06:15	4° \mathfrak{Z} 07'02	1°58'29	minimum elong	93 Dec 06 j 06:03	13° \mathfrak{X} 21'54	1°37'52
evening rise	93 Jan 07 j 04:22	24° \mathfrak{Z} 55'35			93 Dec 16 j 08:29	0° \mathfrak{Z}	
	93 Jan 10 j 00:36	0° \mathfrak{Z}		evening rise	93 Dec 20 j 04:52	6° \mathfrak{Z} 30'10	
asc. node	93 Jan 19 j 19:47	16° \mathfrak{Z} 16'57			94 Jan 03 j 15:52	0° \mathfrak{Z}	
evening max el	93 Jan 24 j 01:44	21° \mathfrak{Z} 29'26	18°07'36	asc. node	94 Jan 06 j 16:49	3° \mathfrak{Z} 49'23	
retrograde	93 Jan 30 j 16:09	24° \mathfrak{Z} 54'13		evening max el	94 Jan 07 j 14:14	4° \mathfrak{Z} 46'18	18°17'02
evening set	93 Feb 02 j 08:37	24° \mathfrak{Z} 20'07		retrograde	94 Jan 14 j 01:58	8° \mathfrak{Z} 16'19	
inferior conj	93 Feb 08 j 21:48	19° \mathfrak{Z} 16'07	3°48'17	evening set	94 Jan 16 j 22:52	7° \mathfrak{Z} 32'34	
minimum elong	93 Feb 08 j 22:31	19° \mathfrak{Z} 14'19	3°48'15	inferior conj	94 Jan 23 j 01:47	2° \mathfrak{Z} 08'18	3°46'49
min. Earth dist.	93 Feb 11 j 22:32	16° \mathfrak{Z} 17'18	0.61638 AU	minimum elong	94 Jan 23 j 00:37	2° \mathfrak{Z} 11'33	3°46'44
morning rise	93 Feb 15 j 09:57	13° \mathfrak{Z} 23'32			94 Jan 24 j 23:52	30° \mathfrak{R} \mathfrak{Z}	
direct	93 Feb 22 j 07:59	10° \mathfrak{Z} 57'48		min. Earth dist.	94 Jan 25 j 12:14	29° \mathfrak{Z} 26'25	0.63543 AU
desc. node	93 Feb 28 j 09:44	12° \mathfrak{Z} 36'57		morning rise	94 Jan 29 j 00:42	26° \mathfrak{Z} 05'15	
morning max el	93 Mar 08 j 10:32	18° \mathfrak{Z} 48'36	27°45'31	direct	94 Feb 04 j 23:40	23° \mathfrak{Z} 19'34	
	93 Mar 17 j 21:47	0° \mathfrak{X}		desc. node	94 Feb 15 j 06:46	28° \mathfrak{Z} 00'52	
	93 Apr 05 j 07:36	0° \mathfrak{Y}			94 Feb 17 j 12:51	0° \mathfrak{Z}	
morning set	93 Apr 10 j 09:26	10° \mathfrak{Y} 01'14		morning max el	94 Feb 18 j 18:14	1° \mathfrak{Z} 11'05	27°39'34
max. Earth dist.	93 Apr 16 j 08:30	22° \mathfrak{Y} 36'52	1.32531 AU		94 Mar 12 j 00:41	0° \mathfrak{X}	
				morning set	94 Mar 25 j 07:33	24° \mathfrak{X} 10'38	
superior conj	93 Apr 17 j 18:56	25° \mathfrak{Y} 43'58	0°00'-3		94 Mar 28 j 04:30	0° \mathfrak{Y}	
minimum elong	93 Apr 17 j 18:56	25° \mathfrak{Y} 43'58	0°00'05	max. Earth dist.	94 Mar 30 j 13:38	4° \mathfrak{Y} 57'55	1.33131 AU
behind sun begin	93 Apr 17 j 13:55	25° \mathfrak{Y} 16'36					
behind sun end	93 Apr 17 j 23:57	26° \mathfrak{Y} 11'21		superior conj	94 Apr 02 j 02:31	10° \mathfrak{Y} 21'49	0°-26'-48
asc. node	93 Apr 17 j 19:05	25° \mathfrak{Y} 44'47		minimum elong	94 Apr 02 j 03:49	10° \mathfrak{Y} 28'44	0°26'33
	93 Apr 19 j 17:50	0° \mathfrak{Z}		asc. node	94 Apr 04 j 16:07	15° \mathfrak{Y} 53'25	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 268

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

evening rise	94 Apr 09 j 06:00	25° Υ 41'43		95 Mar 19 j 18:01	0° Υ	
	94 Apr 11 j 07:38	0° ♄		asc. node	95 Mar 22 j 13:08	5° Υ 54'58
	94 Apr 29 j 22:18	0° Π		evening rise	95 Mar 24 j 16:12	10° Υ 22'51
evening max el	94 May 01 j 22:32	2° Π 04'03	23°05'15		95 Apr 04 j 00:20	0° ♄
desc. node	94 May 14 j 05:59	8° Π 42'00		evening max el	95 Apr 13 j 18:27	12° ♄ 47'17 21°33'01
retrograde	94 May 15 j 08:33	8° Π 44'47		retrograde	95 Apr 26 j 00:10	18° ♄ 45'10
evening set	94 May 18 j 21:12	8° Π 17'29		evening set	95 Apr 28 j 11:25	18° ♄ 31'20
min. Earth dist.	94 May 26 j 07:58	4° Π 57'19	0.55633 AU	desc. node	95 May 01 j 03:00	17° ♄ 48'07
inferior conj	94 May 28 j 00:43	3° Π 58'01	-3°-34'-16	inferior conj	95 May 07 j 20:32	14° ♄ 30'08 -1°-54'-6
minimum elong	94 May 27 j 17:29	4° Π 08'35	3°32'30	minimum elong	95 May 07 j 15:18	14° ♄ 37'29 1°52'20
morning rise	94 Jun 05 j 16:53	0° Π 04'08		min. Earth dist.	95 May 07 j 20:49	14° ♄ 29'44 0.54993 AU
	94 Jun 06 j 01:04	30° ♄		morning rise	95 May 16 j 19:46	10° ♄ 32'09
direct	94 Jun 08 j 10:53	29° ♄ 46'05		direct	95 May 19 j 22:01	10° ♄ 11'12
	94 Jun 10 j 19:22	0° Π		morning max el	95 Jun 01 j 08:10	16° ♄ 03'40 22°00'56
morning max el	94 Jun 19 j 05:55	4° Π 45'53	20°32'01		95 Jun 12 j 03:12	0° Π
asc. node	94 Jul 01 j 15:22	22° Π 09'12		asc. node	95 Jun 18 j 12:24	11° Π 31'31
	94 Jul 05 j 17:51	0° ♄		morning set	95 Jun 22 j 11:03	19° Π 30'53
morning set	94 Jul 08 j 01:30	4° ♄ 40'56			95 Jun 27 j 10:18	0° ♄
superior conj	94 Jul 15 j 17:05	20° ♄ 25'37	1°44'09	superior conj	95 Jun 29 j 18:17	4° ♄ 55'32 1°34'41
minimum elong	94 Jul 15 j 15:48	20° ♄ 19'07	1°44'05	minimum elong	95 Jun 29 j 16:05	4° ♄ 44'02 1°34'29
max. Earth dist.	94 Jul 20 j 13:49	0° Ω 06'28	1.36142 AU	max. Earth dist.	95 Jul 03 j 04:38	12° ♄ 02'32 1.34623 AU
	94 Jul 20 j 12:29	0° Ω		evening rise	95 Jul 07 j 20:49	21° ♄ 20'31
evening rise	94 Jul 24 j 15:44	7° Ω 50'56			95 Jul 12 j 11:38	0° Ω
	94 Aug 06 j 14:57	0° ♄		desc. node	95 Jul 28 j 02:21	25° Ω 19'44
desc. node	94 Aug 10 j 05:20	5° ♄ 31'10			95 Jul 31 j 11:08	0° ♄
evening max el	94 Aug 29 j 07:55	29° ♄ 45'28	26°09'31	evening max el	95 Aug 11 j 19:47	13° ♄ 16'29 26°59'16
	94 Aug 29 j 13:57	0° ♄		retrograde	95 Aug 25 j 00:43	20° ♄ 34'43
retrograde	94 Sep 10 j 22:14	6° ♄ 54'17		evening set	95 Aug 31 j 20:14	17° ♄ 50'20
evening set	94 Sep 17 j 05:31	4° ♄ 16'54		min. Earth dist.	95 Sep 04 j 18:15	13° ♄ 56'51 0.65404 AU
	94 Sep 21 j 06:16	30° ♄		inferior conj	95 Sep 06 j 16:49	11° ♄ 42'50 -2°-31'-29
min. Earth dist.	94 Sep 21 j 10:50	29° ♄ 46'02	0.66488 AU	minimum elong	95 Sep 06 j 20:37	11° ♄ 31'54 2°30'09
inferior conj	94 Sep 22 j 21:01	27° ♄ 59'54	-1°-35'-56	morning rise	95 Sep 12 j 22:29	6° ♄ 03'19
minimum elong	94 Sep 22 j 23:27	27° ♄ 52'18	1°34'57	asc. node	95 Sep 14 j 11:36	5° ♄ 30'01
asc. node	94 Sep 27 j 14:34	22° ♄ 54'55		direct	95 Sep 15 j 16:27	5° ♄ 22'04
morning rise	94 Sep 28 j 18:22	22° ♄ 07'19		morning max el	95 Sep 22 j 05:55	8° ♄ 56'03 18°16'17
direct	94 Oct 01 j 19:56	21° ♄ 13'33			95 Oct 06 j 18:22	0° ♄
morning max el	94 Oct 08 j 16:36	25° ♄ 03'22	18°53'30	morning set	95 Oct 11 j 01:18	7° ♄ 02'01
	94 Oct 12 j 20:55	0° ♄		desc. node	95 Oct 24 j 01:41	28° ♄ 03'28
morning set	94 Oct 30 j 08:43	26° ♄ 34'27			95 Oct 25 j 07:05	0° ♄
	94 Nov 01 j 12:53	0° ♄		superior conj	95 Oct 25 j 21:25	0° ♄ 56'47 0°-11'-59
desc. node	94 Nov 06 j 04:38	7° ♄ 19'37		minimum elong	95 Oct 25 j 19:52	0° ♄ 50'37 0°11'48
max. Earth dist.	94 Nov 14 j 16:04	20° ♄ 38'40	1.44940 AU	behind sun begin	95 Oct 25 j 12:10	0° ♄ 20'07
superior conj	94 Nov 15 j 19:48	22° ♄ 27'48	-1°00'-32	behind sun end	95 Oct 26 j 03:34	1° ♄ 21'06
minimum elong	94 Nov 15 j 12:29	21° ♄ 58'58	0°59'39	max. Earth dist.	95 Oct 28 j 10:35	4° ♄ 58'03 1.44959 AU
	94 Nov 20 j 14:18	0° ♄		evening rise	95 Nov 11 j 09:14	26° ♄ 47'06
evening rise	94 Dec 01 j 06:46	17° ♄ 07'03			95 Nov 13 j 10:41	0° ♄
	94 Dec 09 j 05:56	0° ♄		greatest brilliancy	95 Nov 26 j 19:01	20° ♄ 28'19 -0.7m
evening max el	94 Dec 22 j 01:34	18° ♄ 10'15	18°44'42		95 Dec 03 j 21:48	0° ♄
asc. node	94 Dec 24 j 13:50	20° ♄ 22'19		evening max el	95 Dec 05 j 09:37	1° ♄ 38'05 19°29'17
retrograde	94 Dec 28 j 18:48	21° ♄ 56'20		asc. node	95 Dec 11 j 10:52	5° ♄ 41'18
evening set	94 Dec 31 j 21:05	21° ♄ 01'46		retrograde	95 Dec 12 j 15:19	5° ♄ 49'09
inferior conj	95 Jan 06 j 16:35	15° ♄ 19'36	3°29'04	evening set	95 Dec 16 j 00:36	4° ♄ 42'04
minimum elong	95 Jan 06 j 14:15	15° ♄ 26'42	3°28'41		95 Dec 20 j 15:38	30° ♄
min. Earth dist.	95 Jan 08 j 11:42	13° ♄ 08'32	0.65120 AU	inferior conj	95 Dec 21 j 15:00	28° ♄ 44'47 2°59'32
morning rise	95 Jan 12 j 06:17	9° ♄ 09'57		minimum elong	95 Dec 21 j 12:13	28° ♄ 53'49 2°58'48
direct	95 Jan 18 j 22:29	6° ♄ 18'53		min. Earth dist.	95 Dec 22 j 19:44	27° ♄ 11'25 0.66313 AU
morning max el	95 Feb 01 j 03:56	14° ♄ 02'01	27°00'04	morning rise	95 Dec 26 j 23:04	22° ♄ 31'13
desc. node	95 Feb 02 j 03:48	15° ♄ 03'05		direct	96 Jan 02 j 03:27	19° ♄ 47'46
	95 Feb 14 j 03:58	0° ♄		morning max el	96 Jan 14 j 13:13	27° ♄ 09'01 25°54'42
	95 Mar 04 j 16:26	0° ♄			96 Jan 17 j 05:35	0° ♄
morning set	95 Mar 08 j 19:50	7° ♄ 46'11		desc. node	96 Jan 20 j 00:52	3° ♄ 15'31
max. Earth dist.	95 Mar 13 j 08:55	16° ♄ 44'55	1.34167 AU		96 Feb 07 j 19:29	0° ♄
superior conj	95 Mar 17 j 05:05	24° ♄ 39'34	0°-53'-40	morning set	96 Feb 19 j 18:08	20° ♄ 35'40
minimum elong	95 Mar 17 j 07:40	24° ♄ 53'01	0°53'11	max. Earth dist.	96 Feb 23 j 16:16	27° ♄ 58'59 1.35664 AU
					96 Feb 24 j 17:18	0° ♄

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 269

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

superior conj	96 Feb 29 j 00:13	8° H 30'26	-1°-19'-8	morning set	97 Jan 31 j 20:49	2° \approx 22'25	
minimum elong	96 Feb 29 j 03:48	8° H 48'32	1°18'35	max. Earth dist.	97 Feb 04 j 14:01	9° \approx 01'00	1.37564 AU
evening rise	96 Mar 07 j 22:55	24° H 47'48					
asc. node	96 Mar 08 j 10:11	25° H 45'18		superior conj	97 Feb 11 j 08:35	21° \approx 44'43	-1°-41'-8
	96 Mar 10 j 12:49	0° Y		minimum elong	97 Feb 11 j 12:27	22° \approx 03'25	1°40'44
evening max el	96 Mar 26 j 00:52	24° Y 02'39	20°13'47		97 Feb 15 j 13:30	0° H	
retrograde	96 Apr 05 j 14:10	29° Y 06'52		evening rise	97 Feb 19 j 23:48	8° H 49'20	
evening set	96 Apr 07 j 16:50	28° Y 55'34		asc. node	97 Feb 23 j 07:14	15° H 18'46	
inferior conj	96 Apr 16 j 16:51	24° Y 57'20	0°05'08		97 Mar 03 j 20:16	0° Y	
minimum elong	96 Apr 16 j 17:05	24° Y 56'59	0°05'04	evening max el	97 Mar 08 j 18:25	5° Y 55'57	19°12'46
transit middle	96 Apr 16 j 17:05	24° Y 56'59	0°05'04	retrograde	97 Mar 17 j 15:51	10° Y 12'44	
transit begin	96 Apr 16 j 13:16	25° Y 02'38		evening set	97 Mar 19 j 20:30	9° Y 58'14	
transit end	96 Apr 16 j 20:54	24° Y 51'20		inferior conj	97 Mar 28 j 03:00	5° Y 47'38	1°50'03
desc. node	96 Apr 17 j 00:00	24° Y 46'42		minimum elong	97 Mar 28 j 06:56	5° Y 41'00	1°48'51
min. Earth dist.	96 Apr 18 j 10:37	23° Y 55'30	0.55317 AU	min. Earth dist.	97 Mar 31 j 01:39	3° Y 49'12	0.56524 AU
morning rise	96 Apr 25 j 14:51	20° Y 36'47		desc. node	97 Apr 03 j 21:04	1° Y 37'47	
direct	96 Apr 29 j 11:10	20° Y 04'30		morning rise	97 Apr 05 j 13:22	0° Y 54'43	
morning max el	96 May 13 j 01:51	26° Y 46'08	23°40'49		97 Apr 09 j 17:21	30° R H	
	96 May 16 j 04:37	0° B		direct	97 Apr 10 j 11:31	29° H 58'39	
	96 Jun 03 j 18:55	0° II			97 Apr 11 j 05:41	0° Y	
asc. node	96 Jun 04 j 09:28	1° II 14'29		morning max el	97 Apr 24 j 16:21	7° Y 15'01	25°19'19
morning set	96 Jun 05 j 22:38	4° II 27'50			97 May 11 j 09:14	0° B	
				morning set	97 May 21 j 10:35	19° B 26'16	
superior conj	96 Jun 13 j 01:06	19° II 42'23	1°20'03	asc. node	97 May 22 j 06:32	21° B 11'50	
minimum elong	96 Jun 12 j 22:36	19° II 28'59	1°19'43		97 May 26 j 08:18	0° II	
max. Earth dist.	96 Jun 15 j 05:09	24° II 20'43	1.33493 AU				
	96 Jun 17 j 21:51	0° S		superior conj	97 May 28 j 11:18	4° II 38'41	1°01'19
evening rise	96 Jun 20 j 13:53	5° S 26'12		minimum elong	97 May 28 j 09:01	4° II 26'15	1°00'55
	96 Jul 04 j 03:09	0° Q		max. Earth dist.	97 May 29 j 13:18	7° II 00'29	1.32745 AU
desc. node	96 Jul 13 j 23:22	14° Q 34'26		evening rise	97 Jun 04 j 15:24	19° II 56'52	
evening max el	96 Jul 24 j 07:06	26° Q 31'20	27°23'59		97 Jun 09 j 17:01	0° S	
	96 Jul 28 j 09:07	0° P			97 Jun 28 j 10:11	0° Q	
retrograde	96 Aug 06 j 21:17	3° P 50'47		desc. node	97 Jun 30 j 20:22	3° Q 01'14	
evening set	96 Aug 14 j 00:41	1° P 09'33		evening max el	97 Jul 06 j 15:26	9° Q 16'39	27°18'01
	96 Aug 15 j 10:49	30° R Q		retrograde	97 Jul 20 j 11:13	16° Q 33'52	
min. Earth dist.	96 Aug 17 j 16:54	27° Q 51'08	0.63963 AU	evening set	97 Jul 27 j 15:12	14° Q 08'33	
inferior conj	96 Aug 20 j 04:30	25° Q 15'31	-3°-23'-38	min. Earth dist.	97 Jul 31 j 05:17	11° Q 17'50	0.62188 AU
minimum elong	96 Aug 20 j 09:12	25° Q 03'13	3°22'17	inferior conj	97 Aug 03 j 05:07	8° Q 31'09	-4°-8'-12
morning rise	96 Aug 26 j 19:44	19° Q 52'18		minimum elong	97 Aug 03 j 09:42	8° Q 20'27	4°07'17
direct	96 Aug 29 j 08:40	19° Q 20'02		morning rise	97 Aug 10 j 06:48	3° Q 27'48	
asc. node	96 Aug 31 j 08:40	19° Q 40'19		direct	97 Aug 12 j 17:20	3° Q 01'35	
morning max el	96 Sep 04 j 21:32	22° Q 46'18	17°56'18	asc. node	97 Aug 18 j 05:45	5° Q 18'50	
	96 Sep 10 j 13:18	0° P		morning max el	97 Aug 19 j 12:39	6° Q 28'14	17°54'32
morning set	96 Sep 21 j 20:49	18° P 47'32			97 Sep 03 j 16:37	0° P	
	96 Sep 28 j 10:44	0° L		morning set	97 Sep 04 j 13:28	1° P 33'59	
superior conj	96 Oct 04 j 15:36	10° L 17'03	0°34'42	superior conj	97 Sep 15 j 12:48	20° P 57'47	1°10'42
minimum elong	96 Oct 04 j 19:16	10° L 31'59	0°34'12	minimum elong	97 Sep 15 j 17:45	21° P 18'58	1°10'08
desc. node	96 Oct 09 j 22:43	18° L 49'57			97 Sep 20 j 21:40	0° L	
max. Earth dist.	96 Oct 10 j 04:13	19° L 11'53	1.44261 AU	max. Earth dist.	97 Sep 22 j 18:14	3° L 03'05	1.42933 AU
	96 Oct 17 j 00:53	0° M		desc. node	97 Sep 26 j 19:44	9° L 36'18	
evening rise	96 Oct 20 j 18:57	5° M 48'35		evening rise	97 Sep 30 j 03:53	14° L 52'41	
	96 Nov 05 j 20:58	0° J			97 Oct 10 j 01:42	0° M	
greatest brilliancy	96 Nov 11 j 09:17	7° J 42'41	-0.5m	greatest brilliancy	97 Oct 26 j 12:41	23° M 00'12	-0.4m
evening max el	96 Nov 17 j 12:41	15° J 06'42	20°28'42	evening max el	97 Oct 31 j 09:57	28° M 35'39	21°39'47
retrograde	96 Nov 25 j 12:58	19° J 50'07			97 Nov 01 j 20:41	0° J	
asc. node	96 Nov 27 j 07:55	19° J 31'54		retrograde	97 Nov 09 j 09:48	3° J 56'33	
evening set	96 Nov 29 j 07:13	18° J 28'26		evening set	97 Nov 13 j 15:03	2° J 18'21	
inferior conj	96 Dec 04 j 18:24	12° J 19'01	2°21'09	asc. node	97 Nov 14 j 04:59	1° J 49'10	
minimum elong	96 Dec 04 j 15:46	12° J 27'57	2°20'16		97 Nov 15 j 23:14	30° R M	
min. Earth dist.	96 Dec 05 j 10:14	11° J 25'20	0.67121 AU	inferior conj	97 Nov 19 j 00:38	26° M 00'09	1°36'06
morning rise	96 Dec 09 j 23:48	6° J 03'45		minimum elong	97 Nov 18 j 22:36	26° M 07'10	1°35'19
direct	96 Dec 15 j 13:38	3° J 37'07		min. Earth dist.	97 Nov 19 j 04:58	25° M 45'10	0.67569 AU
morning max el	96 Dec 26 j 21:33	10° J 22'25	24°33'06	morning rise	97 Nov 24 j 05:54	19° M 45'14	
desc. node	97 Jan 05 j 21:55	22° J 16'59		direct	97 Nov 29 j 04:19	17° M 40'17	
	97 Jan 11 j 12:06	0° Z		morning max el	97 Dec 09 j 06:58	23° M 40'38	23°05'18
	97 Jan 30 j 12:07	0° \approx		greatest brilliancy	97 Dec 14 j 03:56	29° M 07'53	-0.3m

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 270

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

	97 Dec 14 j 20:59	0°♊				98 Dec 09 j 08:47	0°♊		
desc. node	97 Dec 23 j 18:59	11°♊53'31			desc. node	98 Dec 10 j 16:02	1°♊54'58		
	98 Jan 04 j 22:28	0°♋			morning set	98 Dec 23 j 17:16	21°♊55'54		
morning set	98 Jan 12 j 21:37	12°♋50'48				98 Dec 28 j 17:15	0°♋		
max. Earth dist.	98 Jan 17 j 09:27	20°♋28'02	1.39678 AU		max. Earth dist.	98 Dec 30 j 09:16	2°♋44'50	1.41726 AU	
	98 Jan 22 j 18:51	0°♌							
superior conj	98 Jan 25 j 01:58	4°♌11'28	-1°-56'-45		superior conj	99 Jan 06 j 23:08	15°♋37'49	-2°-2'-2	
minimum elong	98 Jan 25 j 04:43	4°♌24'07	1°56'38		minimum elong	99 Jan 06 j 22:40	15°♋35'48	2°02'04	
evening rise	98 Feb 03 j 16:03	22°♌20'25				99 Jan 14 j 23:53	0°♌		
	98 Feb 07 j 17:04	0°♍			evening rise	99 Jan 17 j 20:11	5°♌12'53		
asc. node	98 Feb 10 j 04:17	4°♍29'32			asc. node	99 Jan 28 j 01:20	23°♌10'11		
evening max el	98 Feb 19 j 21:07	18°♍23'15	18°31'44			99 Feb 02 j 01:00	0°♍		
retrograde	98 Feb 27 j 12:20	22°♍07'43			evening max el	99 Feb 03 j 06:02	1°♍16'37	18°10'49	
evening set	98 Mar 01 j 21:37	21°♍46'57			retrograde	99 Feb 10 j 02:33	4°♍44'37		
inferior conj	98 Mar 09 j 09:47	17°♍16'40	3°01'41		evening set	99 Feb 12 j 16:23	4°♍15'51		
minimum elong	98 Mar 09 j 13:46	17°♍08'47	3°00'50			99 Feb 18 j 21:17	30°♌		
min. Earth dist.	98 Mar 12 j 19:48	14°♍36'08	0.58345 AU		inferior conj	99 Feb 19 j 12:59	29°♌24'16	3°39'20	
morning rise	98 Mar 17 j 01:57	11°♍53'29			minimum elong	99 Feb 19 j 15:00	29°♌19'37	3°39'08	
desc. node	98 Mar 21 j 18:08	10°♍26'48			min. Earth dist.	99 Feb 22 j 19:54	26°♌24'43	0.60431 AU	
direct	98 Mar 23 j 01:18	10°♍22'28			morning rise	99 Feb 26 j 10:29	23°♌39'45		
morning max el	98 Apr 06 j 09:48	17°♍59'39	26°40'51		direct	99 Mar 05 j 03:12	21°♌31'38		
	98 Apr 16 j 09:54	0°♎			desc. node	99 Mar 08 j 15:11	22°♌04'28		
	98 May 03 j 18:50	0°♏			morning max el	99 Mar 19 j 09:18	29°♌20'22	27°32'20	
morning set	98 May 05 j 21:11	4°♏19'57				99 Mar 20 j 01:09	0°♏		
asc. node	98 May 09 j 03:34	11°♏18'00				99 Mar 20 j 06:32	0°♎		
					morning set	99 Apr 20 j 04:41	19°♎02'47		
superior conj	98 May 12 j 22:58	19°♏37'39	0°39'20			99 Apr 25 j 08:19	0°♏		
minimum elong	98 May 12 j 21:19	19°♏28'38	0°39'00		asc. node	99 Apr 26 j 00:37	1°♏28'43		
max. Earth dist.	98 May 13 j 01:30	19°♏51'39	1.32368 AU		max. Earth dist.	99 Apr 26 j 13:58	2°♏41'35	1.32359 AU	
	98 May 17 j 17:10	0°♐							
evening rise	98 May 19 j 22:28	4°♐42'46			superior conj	99 Apr 27 j 10:25	4°♏33'35	0°14'53	
	98 Jun 02 j 10:48	0°♑			minimum elong	99 Apr 27 j 09:45	4°♏29'54	0°14'43	
desc. node	98 Jun 17 j 17:24	20°♑19'26			behind sun begin	99 Apr 27 j 07:54	4°♏19'45		
evening max el	98 Jun 18 j 18:01	21°♑19'38	26°38'56		behind sun end	99 Apr 27 j 11:36	4°♏40'04		
retrograde	98 Jul 02 j 17:35	28°♑34'33			evening rise	99 May 04 j 08:52	19°♏36'27		
evening set	98 Jul 09 j 11:10	26°♑38'27				99 May 09 j 11:26	0°♐		
min. Earth dist.	98 Jul 13 j 07:23	24°♑01'20	0.60175 AU			99 May 29 j 00:19	0°♑		
inferior conj	98 Jul 16 j 15:02	21°♑19'51	-4°-38'-32		evening max el	99 May 31 j 13:38	2°♑37'05	25°29'44	
minimum elong	98 Jul 16 j 17:46	21°♑14'17	4°38'18		desc. node	99 Jun 04 j 14:24	6°♑00'53		
morning rise	98 Jul 24 j 03:38	16°♑39'07			retrograde	99 Jun 14 j 14:42	9°♑47'38		
direct	98 Jul 26 j 14:09	16°♑16'54			evening set	99 Jun 20 j 08:34	8°♑29'59		
morning max el	98 Aug 03 j 00:13	19°♑53'30	18°12'02		min. Earth dist.	99 Jun 25 j 01:42	5°♑47'47	0.58135 AU	
asc. node	98 Aug 05 j 02:49	22°♑10'11			inferior conj	99 Jun 28 j 06:47	3°♑32'14	-4°-44'-28	
	98 Aug 10 j 13:03	0°♒			minimum elong	99 Jun 28 j 05:32	3°♑34'27	4°44'26	
morning set	98 Aug 18 j 21:27	15°♒04'33				99 Jul 04 j 02:14	30°♒		
	98 Aug 26 j 21:16	0°♓			morning rise	99 Jul 06 j 06:19	28°♒14'12		
					direct	99 Jul 08 j 18:35	28°♒54'37		
superior conj	98 Aug 28 j 11:46	2°♓55'00	1°33'44			99 Jul 13 j 05:05	0°♓		
minimum elong	98 Aug 28 j 15:20	3°♓11'05	1°33'26		morning max el	99 Jul 17 j 05:10	2°♓53'03	18°49'54	
max. Earth dist.	98 Sep 05 j 02:32	16°♓14'44	1.41144 AU		asc. node	99 Jul 22 j 23:51	9°♓59'15		
evening rise	98 Sep 10 j 04:47	24°♓42'02			morning set	99 Aug 02 j 16:22	29°♓07'31		
desc. node	98 Sep 13 j 16:45	0°♈				99 Aug 03 j 03:05	0°♒		
	98 Sep 13 j 12:01	0°♉							
	98 Oct 03 j 23:16	0°♊			superior conj	99 Aug 11 j 07:06	15°♒53'08	1°45'00	
greatest brilliancy	98 Oct 08 j 19:02	6°♊09'35	-0.2m		minimum elong	99 Aug 11 j 08:31	15°♒59'53	1°44'57	
evening max el	98 Oct 14 j 01:53	12°♊05'27	22°58'14		max. Earth dist.	99 Aug 18 j 05:58	28°♒41'21	1.39139 AU	
retrograde	98 Oct 24 j 04:17	18°♊05'07				99 Aug 18 j 23:43	0°♓		
evening set	98 Oct 28 j 22:22	16°♊09'08			evening rise	99 Aug 22 j 06:03	5°♓40'14		
asc. node	98 Nov 01 j 02:02	12°♊46'36			desc. node	99 Aug 31 j 13:45	20°♓53'22		
inferior conj	98 Nov 03 j 07:48	9°♊45'54	0°46'00			99 Sep 06 j 13:59	0°♈		
minimum elong	98 Nov 03 j 06:45	9°♊49'33	0°45'33		evening max el	99 Sep 26 j 14:26	25°♈38'31	24°18'12	
min. Earth dist.	98 Nov 03 j 01:33	10°♊07'30	0.67680 AU			99 Oct 01 j 18:17	0°♉		
morning rise	98 Nov 08 j 15:08	3°♊33'35			retrograde	99 Oct 07 j 19:13	2°♉12'29		
direct	98 Nov 12 j 22:43	1°♊51'24			evening set	99 Oct 13 j 03:29	29°♈58'43		
morning max el	98 Nov 21 j 20:49	7°♊05'55	21°40'13			99 Oct 13 j 02:52	30°♒♈		
greatest brilliancy	98 Nov 26 j 19:14	12°♊42'33	-0.4m		min. Earth dist.	99 Oct 17 j 21:34	24°♈30'30	0.67473 AU	
					inferior conj	99 Oct 18 j 14:10	23°♈34'36	0°-7'-41	

Planetary Phenomena of Mercury from -400 through 100 (UT), Astrodienst AG 7-Dez-2017 14:47, page 271

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

minimum elong	99 Oct 18 j 14:21	23° ♁ 33'58	0°07'37	retrograde	100 Sep 20 j 05:41	16° ♁ 14'34	
transit middle	99 Oct 18 j 14:21	23° ♁ 33'58	0°07'37	evening set	100 Sep 26 j 04:40	13° ♁ 44'55	
transit begin	99 Oct 18 j 11:56	23° ♁ 42'06		min. Earth dist.	100 Sep 30 j 14:35	8° ♁ 52'25	0.66943 AU
transit end	99 Oct 18 j 16:46	23° ♁ 25'50		inferior conj	100 Oct 01 j 18:00	7° ♁ 24'11	-1°-3'-28
asc. node	99 Oct 18 j 23:05	23° ♁ 04'39		minimum elong	100 Oct 01 j 19:36	7° ♁ 19'02	1°02'48
morning rise	99 Oct 24 j 01:32	17° ♁ 27'27		asc. node	100 Oct 04 j 20:06	3° ♁ 40'58	
direct	99 Oct 27 j 19:51	16° ♁ 06'28		morning rise	100 Oct 07 j 11:13	1° ♁ 25'13	
morning max el	99 Nov 04 j 17:39	20° ♁ 40'45	20°24'28	direct	100 Oct 10 j 18:18	0° ♁ 22'25	
greatest brilliancy	99 Nov 11 j 04:32	28° ♁ 23'43	-0.5m	morning max el	100 Oct 17 j 22:05	4° ♁ 25'34	19°22'16
	99 Nov 12 j 09:08	0° ♁		greatest brilliancy	100 Oct 27 j 11:12	16° ♁ 47'13	-0.7m
desc. node	99 Nov 27 j 13:03	22° ♁ 14'12			100 Nov 05 j 04:32	0° ♁	
morning set	99 Dec 02 j 15:52	0° ♁ 06'11		morning set	100 Nov 10 j 16:43	8° ♁ 32'09	
	99 Dec 02 j 14:17	0° ♁		desc. node	100 Nov 13 j 10:04	12° ♁ 46'23	
max. Earth dist.	99 Dec 12 j 16:17	15° ♁ 54'00	1.43441 AU		100 Nov 24 j 09:47	0° ♁	
				max. Earth dist.	100 Nov 24 j 06:26	29° ♁ 46'43	1.44594 AU
superior conj	99 Dec 18 j 18:55	25° ♁ 52'09	-1°-52'-22				
minimum elong	99 Dec 18 j 13:35	25° ♁ 30'03	1°52'04	superior conj	100 Nov 27 j 12:32	4° ♁ 56'35	-1°-24'-22
	99 Dec 21 j 06:24	0° ♁		minimum elong	100 Nov 27 j 04:11	4° ♁ 23'22	1°23'32
evening rise	99 Dec 31 j 07:59	17° ♁ 17'30		evening rise	100 Dec 11 j 23:14	28° ♁ 27'49	
	100 Jan 07 j 15:48	0° ♁			100 Dec 12 j 21:25	0° ♁	
asc. node	100 Jan 14 j 22:22	11° ♁ 10'36					
evening max el	100 Jan 17 j 18:03	14° ♁ 26'46	18°09'24				
retrograde	100 Jan 24 j 06:21	17° ♁ 52'20					
evening set	100 Jan 27 j 00:33	17° ♁ 14'23					
inferior conj	100 Feb 02 j 09:01	12° ♁ 01'52	3°50'00				
minimum elong	100 Feb 02 j 08:52	12° ♁ 02'17	3°50'00				
min. Earth dist.	100 Feb 05 j 04:10	9° ♁ 07'42	0.62477 AU				
morning rise	100 Feb 08 j 15:01	6° ♁ 04'12					
direct	100 Feb 15 j 14:40	3° ♁ 27'48					
desc. node	100 Feb 23 j 12:13	6° ♁ 15'20					
morning max el	100 Feb 29 j 14:21	11° ♁ 20'35	27°47'24				
	100 Mar 15 j 07:44	0° ♁					
	100 Apr 01 j 13:42	0° ♁					
morning set	100 Apr 03 j 06:55	3° ♁ 26'18					
max. Earth dist.	100 Apr 08 j 22:39	15° ♁ 15'23	1.32730 AU				
superior conj	100 Apr 10 j 19:56	19° ♁ 19'30	0°-11'-18				
minimum elong	100 Apr 10 j 20:28	19° ♁ 22'24	0°11'13				
behind sun begin	100 Apr 10 j 16:46	19° ♁ 02'24					
behind sun end	100 Apr 11 j 00:09	19° ♁ 42'25					
asc. node	100 Apr 11 j 21:39	21° ♁ 39'01					
	100 Apr 15 j 18:01	0° ♁					
evening rise	100 Apr 17 j 20:36	4° ♁ 30'07					
	100 May 01 j 14:16	0° ♁					
evening max el	100 May 12 j 04:33	13° ♁ 20'11	24°00'18				
desc. node	100 May 21 j 11:25	19° ♁ 29'46					
retrograde	100 May 25 j 23:58	20° ♁ 16'21					
evening set	100 May 30 j 08:01	19° ♁ 34'43					
min. Earth dist.	100 Jun 05 j 15:41	16° ♁ 31'44	0.56380 AU				
inferior conj	100 Jun 08 j 02:21	15° ♁ 01'15	-4°-13'-7				
minimum elong	100 Jun 07 j 20:29	15° ♁ 10'21	4°12'07				
morning rise	100 Jun 16 j 12:38	11° ♁ 01'10					
direct	100 Jun 19 j 04:02	10° ♁ 42'59					
morning max el	100 Jun 29 j 00:37	15° ♁ 17'03	19°48'48				
asc. node	100 Jul 08 j 20:53	28° ♁ 32'40					
	100 Jul 09 j 16:57	0° ♁					
morning set	100 Jul 16 j 18:52	13° ♁ 34'13					
superior conj	100 Jul 24 j 17:17	29° ♁ 36'29	1°46'42				
minimum elong	100 Jul 24 j 16:49	29° ♁ 34'11	1°46'41				
	100 Jul 24 j 22:01	0° ♁					
max. Earth dist.	100 Jul 30 j 09:41	10° ♁ 37'14	1.37173 AU				
evening rise	100 Aug 03 j 07:01	17° ♁ 46'44					
	100 Aug 10 j 08:48	0° ♁					
desc. node	100 Aug 17 j 10:45	11° ♁ 15'34					
	100 Aug 30 j 20:59	0° ♁					
evening max el	100 Sep 08 j 02:04	9° ♁ 15'46	25°32'32				

superior conj	100 Apr 10 j 19:56	19° Υ 19'30	0°-11'-18		101 Mar 08 j 15:48	0° X	
minimum elong	100 Apr 10 j 20:28	19° Υ 22'24	0°11'13	morning set	101 Mar 18 j 01:14	17° X 21'57	
behind sun begin	100 Apr 10 j 16:46	19° Υ 02'24		max. Earth dist.	101 Mar 22 j 23:50	27° X 21'35	1.33518 AU
behind sun end	100 Apr 11 j 00:09	19° Υ 42'25			101 Mar 24 j 06:12	0° Υ	
asc. node	100 Apr 11 j 21:39	21° Υ 39'01					
	100 Apr 15 j 18:01	0° X		superior conj	101 Mar 26 j 01:38	3° Υ 49'19	0°-38'-16
evening rise	100 Apr 17 j 20:36	4° X 30'07		minimum elong	101 Mar 26 j 03:29	3° Υ 59'08	0°37'54
	100 May 01 j 14:16	0° Π		asc. node	101 Mar 29 j 18:41	11° Υ 44'56	
evening max el	100 May 12 j 04:33	13° Π 20'11	24°00'18	evening rise	101 Apr 02 j 07:53	19° Υ 17'34	
desc. node	100 May 21 j 11:25	19° Π 29'46			101 Apr 07 j 15:02	0° X	
retrograde	100 May 25 j 23:58	20° Π 16'21		evening max el	101 Apr 23 j 20:42	23° X 54'50	22°24'58
evening set	100 May 30 j 08:01	19° Π 34'43			101 May 03 j 23:43	0° Π	
min. Earth dist.	100 Jun 05 j 15:41	16° Π 31'44	0.56380 AU	retrograde	101 May 06 j 20:22	0° Π 18'45	
inferior conj	100 Jun 08 j 02:21	15° Π 01'15	-4°-13'-7	desc. node	101 May 08 j 08:27	0° Π 13'42	
minimum elong	100 Jun 07 j 20:29	15° Π 10'21	4°12'07	evening set	101 May 09 j 20:25	29° X 58'57	
morning rise	100 Jun 16 j 12:38	11° Π 01'10			101 May 09 j 18:26	30° R X	
direct	100 Jun 19 j 04:02	10° Π 42'59		min. Earth dist.	101 May 18 j 04:07	26° X 23'19	0.55255 AU
morning max el	100 Jun 29 j 00:37	15° Π 17'03	19°48'48	inferior conj	101 May 19 j 04:16	25° X 49'09	-2°-56'-9
asc. node	100 Jul 08 j 20:53	28° Π 32'40		minimum elong	101 May 18 j 21:10	25° X 59'12	2°54'05
	100 Jul 09 j 16:57	0° X		morning rise	101 May 28 j 00:04	21° X 55'43	
morning set	100 Jul 16 j 18:52	13° X 34'13		direct	101 May 30 j 21:00	21° X 36'54	
				morning max el	101 Jun 11 j 08:56	26° X 58'35	21°07'53
superior conj	100 Jul 24 j 17:17	29° X 36'29	1°46'42		101 Jun 14 j 06:47	0° Π	
minimum elong	100 Jul 24 j 16:49	29° X 34'11	1°46'41	asc. node	101 Jun 25 j 17:55	17° Π 39'48	
	100 Jul 24 j 22:01	0° X		morning set	101 Jul 01 j 02:28	28° Π 17'36	
max. Earth dist.	100 Jul 30 j 09:41	10° X 37'14	1.37173 AU		101 Jul 01 j 22:16	0° X	
evening rise	100 Aug 03 j 07:01	17° X 46'44					
	100 Aug 10 j 08:48	0° X		superior conj	101 Jul 08 j 13:59	13° X 52'17	1°40'50
desc. node	100 Aug 17 j 10:45	11° X 15'34		minimum elong	101 Jul 08 j 12:14	13° X 43'17	1°40'43
	100 Aug 30 j 20:59	0° X		max. Earth dist.	101 Jul 12 j 19:45	22° X 28'20	1.35456 AU
evening max el	100 Sep 08 j 02:04	9° X 15'46	25°32'32		101 Jul 16 j 16:43	0° X	
retrograde	100 Sep 20 j 05:41	16° X 14'34		evening rise	101 Jul 17 j 03:14	0° X 49'45	
evening set	100 Sep 26 j 04:40	13° X 44'55			101 Aug 03 j 10:30	0° X	
min. Earth dist.	100 Sep 30 j 14:35	8° X 52'25	0.66943 AU	desc. node	101 Aug 04 j 07:46	1° X 18'46	
inferior conj	100 Oct 01 j 18:00	7° X 24'11	-1°-3'-28	evening max el	101 Aug 21 j 13:59	22° X 51'49	26°33'23
minimum elong	100 Oct 01 j 19:36	7° X 19'02	1°02'48		101 Sep 02 j 06:01	0° X	
asc. node	100 Oct 04 j 20:06	3° X 40'58		retrograde	101 Sep 03 j 10:59	0° X 04'56	
morning rise	100 Oct 07 j 11:13	1° X 25'13			101 Sep 04 j 15:18	30° R X	
direct	100 Oct 10 j 18:18	0° X 22'25		evening set	101 Sep 09 j 23:53	27° X 23'48	
morning max el	100 Oct 17 j 22:05	4° X 25'34	19°22'16	min. Earth dist.	101 Sep 14 j 02:06	23° X 08'50	0.66073 AU
greatest brilliancy	100 Oct 27 j 11:12	16° X 47'13	-0.7m	inferior conj	101 Sep 15 j 17:21	21° X 10'37	-1°-59'-43
	100 Nov 05 j 04:32	0° X		minimum elong	101 Sep 15 j 20:24	21° X 01'25	1°58'33
morning set	100 Nov 10 j 16:43	8° X 32'09		morning rise	101 Sep 21 j 18:03	15° X 23'04	
desc. node	100 Nov 13 j 10:04	12° X 46'23		asc. node	101 Sep 21 j 17:09	15° X 24'20	
	100 Nov 24 j 09:47	0° X		direct	101 Sep 24 j 16:12	14° X 34'55	
max. Earth dist.	100 Nov 24 j 06:26	29° X 46'43	1.44594 AU	morning max el	101 Oct 01 j 08:49	18° X 16'38	18°35'37
					101 Oct 10 j 05:01	0° X	
superior conj	100 Nov 27 j 12:32	4° X 56'35	-1°-24'-22	morning set	101 Oct 21 j 16:40	18° X 10'38	
minimum elong	100 Nov 27 j 04:11	4° X 23'22	1°23'32		101 Oct 29 j 02:48	0° X	
evening rise	100 Dec 11 j 23:14	28° X 27'49		desc. node	101 Oct 31 j 07:05	3° X 26'49	
	100 Dec 12 j 21:25	0° X					
evening max el	100 Dec 31 j 06:26	27° X 47'35	18°26'41	superior conj	101 Nov 06 j 13:54	13° X 20'45	0°-40'-29
asc. node	100 Dec 31 j 19:24	28° X 19'32		minimum elong	101 Nov 06 j 08:38	13° X 00'04	0°39'50
	101 Jan 02 j 20:29	0° X		max. Earth dist.	101 Nov 07 j 00:53	14° X 03'55	1.45045 AU
retrograde	101 Jan 06 j 19:26	1° X 22'49			101 Nov 17 j 03:47	0° X	
evening set	101 Jan 09 j 18:33	0° X 34'33		evening rise	101 Nov 22 j 14:55	8° X 39'37	
	101 Jan 10 j 17:04	30° R X			101 Dec 06 j 04:38	0° X	
inferior conj	101 Jan 15 j 18:01	25° X 02'34	3°40'58	evening max el	101 Dec 14 j 16:40	11° X 13'31	19°01'41
minimum elong	101 Jan 15 j 16:16	25° X 07'39	3°40'45	asc. node	101 Dec 18 j 16:26	14° X 22'48	
min. Earth dist.	101 Jan 17 j 21:58	22° X 32'32	0.64266 AU	retrograde	101 Dec 21 j 14:12	15° X 08'53	
morning rise	101 Jan 21 j 12:34	18° X 56'37		evening set	101 Dec 24 j 19:21	14° X 09'01	
direct	101 Jan 28 j 09:38	16° X 06'42		inferior conj	101 Dec 30 j 12:24	8° X 19'55	3°17'45
desc. node	101 Feb 09 j 09:16	22° X 24'43		minimum elong	101 Dec 30 j 09:48	8° X 28'04	3°17'12
morning max el	101 Feb 10 j 22:59	23° X 55'29	27°26'24	min. Earth dist.	102 Jan 01 j 01:08	6° X 24'44	0.65681 AU
	101 Feb 16 j 10:27	0° X		morning rise	102 Jan 04 j 23:21	2° X 08'31	

	102 Jan 08 j 05:39	30° RA		inferior conj	102 Dec 14 j 13:15	21° A 49'20	2°44'09
direct	102 Jan 11 j 11:00	29° A 19'36		minimum elong	102 Dec 14 j 10:29	21° A 58'34	2°43'21
	102 Jan 14 j 21:39	0° C		min. Earth dist.	102 Dec 15 j 12:13	20° A 33'04	0.66702 AU
morning max el	102 Jan 24 j 08:43	6° C 54'18	26°34'54	morning rise	102 Dec 19 j 19:51	15° A 34'41	
desc. node	102 Jan 27 j 06:19	9° C 59'26		direct	102 Dec 25 j 18:05	12° A 57'49	
	102 Feb 11 j 06:34	0° \approx		morning max el	103 Jan 06 j 17:44	20° A 05'28	25°21'23
morning set	102 Feb 28 j 23:51	0° H		desc. node	103 Jan 14 j 03:22	28° A 34'41	
max. Earth dist.	102 Mar 01 j 08:09	0° H 39'09			103 Jan 15 j 06:07	0° C	
	102 Mar 05 j 14:20	8° H 54'14	1.34753 AU		103 Feb 04 j 10:06	0° \approx	
				morning set	103 Feb 11 j 22:52	13° \approx 04'00	
superior conj	102 Mar 10 j 01:23	17° H 56'24	-1°-4'-45	max. Earth dist.	103 Feb 15 j 17:18	20° \approx 00'34	1.36430 AU
minimum elong	102 Mar 10 j 04:27	18° H 12'11	1°04'13		103 Feb 20 j 21:40	0° H	
	102 Mar 15 j 20:08	0° Y					
asc. node	102 Mar 16 j 15:45	1° Y 42'19		superior conj	103 Feb 21 j 16:22	1° H 32'33	-1°-29'-3
evening rise	102 Mar 17 j 16:53	3° Y 52'44		minimum elong	103 Feb 21 j 20:12	1° H 51'34	1°28'33
	102 Apr 01 j 14:19	0° B		evening rise	103 Mar 01 j 21:28	18° H 08'38	
evening max el	102 Apr 05 j 20:40	4° B 49'35	20°57'15	asc. node	103 Mar 03 j 12:49	21° H 26'08	
retrograde	102 Apr 17 j 09:43	10° B 25'04			103 Mar 07 j 23:38	0° Y	
evening set	102 Apr 19 j 15:41	10° B 13'08		evening max el	103 Mar 19 j 07:49	16° Y 20'28	19°45'23
desc. node	102 Apr 25 j 05:29	8° B 15'36		retrograde	103 Mar 29 j 03:43	21° Y 03'39	
inferior conj	102 Apr 28 j 22:26	6° B 15'06	-1°-3'-46	evening set	103 Mar 31 j 06:16	20° Y 51'36	
minimum elong	102 Apr 28 j 19:24	6° B 19'23	1°02'41	inferior conj	103 Apr 08 j 23:18	16° Y 49'16	0°53'04
min. Earth dist.	102 Apr 29 j 17:00	5° B 48'46	0.55011 AU	minimum elong	103 Apr 09 j 01:32	16° Y 45'46	0°52'17
morning rise	102 May 07 j 22:29	2° B 10'02		min. Earth dist.	103 Apr 11 j 07:17	15° Y 22'17	0.55725 AU
direct	102 May 11 j 07:10	1° B 45'39		desc. node	103 Apr 12 j 02:33	14° Y 53'22	
morning max el	102 May 24 j 07:00	7° B 59'30	22°42'49	morning rise	103 Apr 17 j 17:29	12° Y 15'12	
	102 Jun 08 j 21:23	0° II		direct	103 Apr 21 j 23:53	11° Y 34'42	
asc. node	102 Jun 12 j 14:59	7° II 12'12		morning max el	103 May 05 j 22:46	18° Y 33'26	24°23'57
morning set	102 Jun 15 j 13:10	13° II 12'02			103 May 15 j 10:26	0° B	
				asc. node	103 May 30 j 12:03	27° B 01'56	
superior conj	102 Jun 22 j 17:56	28° II 30'58	1°29'02	morning set	103 May 31 j 01:07	28° B 10'23	
minimum elong	102 Jun 22 j 15:33	28° II 18'18	1°28'47		103 May 31 j 21:50	0° II	
	102 Jun 23 j 10:44	0° S					
max. Earth dist.	102 Jun 25 j 15:07	4° S 34'52	1.34093 AU	superior conj	103 Jun 07 j 02:27	13° II 22'51	1°12'34
evening rise	102 Jun 30 j 13:57	14° S 36'32		minimum elong	103 Jun 07 j 00:00	13° II 09'32	1°12'11
	102 Jul 08 j 21:03	0° Q		max. Earth dist.	103 Jun 08 j 19:05	17° II 02'11	1.33121 AU
desc. node	102 Jul 22 j 04:48	20° Q 54'53		evening rise	103 Jun 14 j 10:59	28° II 53'52	
	102 Jul 29 j 05:26	0° P			103 Jun 15 j 00:04	0° S	
evening max el	102 Aug 04 j 01:48	6° P 17'42	27°13'07		103 Jul 02 j 00:35	0° Q	
retrograde	102 Aug 17 j 10:51	13° P 36'46		desc. node	103 Jul 09 j 01:50	9° Q 51'29	
evening set	102 Aug 24 j 10:39	10° P 52'05		evening max el	103 Jul 17 j 11:55	19° Q 20'46	27°25'20
min. Earth dist.	102 Aug 28 j 05:53	7° P 14'21	0.64843 AU	retrograde	103 Jul 31 j 04:55	26° Q 40'15	
inferior conj	102 Aug 30 j 10:03	4° P 50'08	-2°-54'-13	evening set	103 Aug 07 j 09:43	24° Q 03'44	
minimum elong	102 Aug 30 j 14:19	4° P 38'19	2°52'49	min. Earth dist.	103 Aug 11 j 00:10	20° Q 58'40	0.63246 AU
	102 Sep 04 j 13:20	30° RA		inferior conj	103 Aug 13 j 17:24	18° Q 16'19	-3°-43'-49
morning rise	102 Sep 05 j 19:41	29° Q 17'20		minimum elong	103 Aug 13 j 22:13	18° Q 04'17	3°42'35
direct	102 Sep 08 j 11:15	28° Q 40'15		morning rise	103 Aug 20 j 13:03	13° Q 01'30	
asc. node	102 Sep 08 j 14:12	28° Q 40'20		direct	103 Aug 23 j 00:34	12° Q 32'14	
	102 Sep 12 j 09:37	0° P		asc. node	103 Aug 26 j 11:16	13° Q 29'39	
morning max el	102 Sep 14 j 23:31	2° P 09'34	18°05'38	morning max el	103 Aug 29 j 15:21	15° Q 57'38	17°53'16
morning set	102 Oct 02 j 21:17	29° P 13'20			103 Sep 08 j 12:19	0° P	
	102 Oct 03 j 08:27	0° A		morning set	103 Sep 15 j 02:32	11° P 26'49	
					103 Sep 25 j 21:04	0° A	
superior conj	102 Oct 16 j 20:22	22° A 05'29	0°08'45				
minimum elong	102 Oct 16 j 21:26	22° A 09'46	0°08'36	superior conj	103 Sep 27 j 01:41	1° A 59'30	0°51'31
behind sun begin	102 Oct 16 j 12:17	21° A 33'10		minimum elong	103 Sep 27 j 06:21	2° A 18'55	0°50'56
behind sun end	102 Oct 17 j 06:35	22° A 46'19		max. Earth dist.	103 Oct 03 j 11:41	12° A 29'09	1.43762 AU
desc. node	102 Oct 18 j 04:07	24° A 12'10		desc. node	103 Oct 05 j 01:09	14° A 59'12	
max. Earth dist.	102 Oct 20 j 19:41	28° A 24'14	1.44751 AU	evening rise	103 Oct 12 j 15:57	26° A 56'24	
	102 Oct 21 j 19:57	0° M			103 Oct 14 j 15:39	0° M	
evening rise	102 Nov 02 j 08:54	17° M 59'48			103 Nov 04 j 04:06	0° A	
	102 Nov 10 j 04:05	0° A		greatest brilliancy	103 Nov 05 j 11:23	1° A 42'28	-0.5m
greatest brilliancy	102 Nov 20 j 13:55	15° A 27'21	-0.6m	evening max el	103 Nov 10 j 23:13	8° A 09'56	20°57'44
evening max el	102 Nov 27 j 22:41	24° A 41'19	19°52'51	retrograde	103 Nov 19 j 09:15	10° A 09'26	
retrograde	102 Dec 05 j 11:36	29° A 05'39		asc. node	103 Nov 22 j 10:32	12° A 16'43	
asc. node	102 Dec 05 j 13:30	29° A 05'37		evening set	103 Nov 23 j 07:50	11° A 41'05	
evening set	102 Dec 09 j 00:29	27° A 52'29		inferior conj	103 Nov 28 j 18:08	5° A 27'21	2°02'45

minimum elong	103 Nov 28 j 15:42	5°♂35'40	2°01'53	retrograde	104 Nov 02 j 05:10	27°♂16'59	
min. Earth dist.	103 Nov 29 j 04:57	4°♂50'13	0.67348 AU	evening set	104 Nov 06 j 15:36	25°♂31'34	
	103 Dec 03 j 02:48	30°♂♂		asc. node	104 Nov 08 j 07:34	23°♂♂56'55	
morning rise	103 Dec 03 j 23:10	29°♂♂11'42		inferior conj	104 Nov 12 j 00:58	19°♂♂10'55	1°15'22
direct	103 Dec 09 j 06:22	26°♂♂53'54		minimum elong	104 Nov 11 j 23:19	19°♂♂16'39	1°14'42
	103 Dec 16 j 09:01	0°♂♂		min. Earth dist.	104 Nov 12 j 00:49	19°♂♂11'28	0.67656 AU
morning max el	103 Dec 20 j 02:16	3°♂♂21'35	23°55'53	morning rise	104 Nov 17 j 06:50	12°♂♂56'38	
desc. node	104 Jan 01 j 00:25	17°♂♂52'48		direct	104 Nov 21 j 22:53	11°♂♂01'09	
	104 Jan 09 j 11:10	0°♂♂		morning max el	104 Dec 01 j 12:57	16°♂♂41'46	22°28'13
morning set	104 Jan 24 j 15:21	24°♂♂20'03		greatest brilliancy	104 Dec 06 j 03:42	21°♂♂52'03	-0.3m
	104 Jan 27 j 21:27	0°♂♂			104 Dec 12 j 10:15	0°♂♂	
max. Earth dist.	104 Jan 28 j 12:48	1°♂♂08'03	1.38446 AU	desc. node	104 Dec 17 j 21:25	7°♂♂40'59	
					105 Jan 01 j 13:14	0°♂♂	
superior conj	104 Feb 04 j 18:58	14°♂♂28'26	-1°-48'-45	morning set	105 Jan 04 j 03:37	4°♂♂11'52	
minimum elong	104 Feb 04 j 22:34	14°♂♂45'32	1°48'29	max. Earth dist.	105 Jan 09 j 08:56	12°♂♂52'32	1.40576 AU
	104 Feb 12 j 18:55	0°♂♂					
evening rise	104 Feb 13 j 19:05	1°♂♂58'29		superior conj	105 Jan 17 j 04:23	26°♂♂31'12	-2°00'-32
asc. node	104 Feb 18 j 09:52	10°♂♂51'09		minimum elong	105 Jan 17 j 06:03	26°♂♂38'40	2°00'31
evening max el	104 Mar 01 j 05:41	28°♂♂29'46	18°52'52		105 Jan 19 j 02:28	0°♂♂	
	104 Mar 02 j 23:20	0°♂♂		evening rise	105 Jan 27 j 06:34	15°♂♂13'42	
retrograde	104 Mar 09 j 12:57	2°♂♂30'41		asc. node	105 Feb 04 j 06:54	29°♂♂50'03	
evening set	104 Mar 11 j 19:23	2°♂♂13'55			105 Feb 04 j 09:15	0°♂♂	
	104 Mar 16 j 17:20	30°♂♂		evening max el	105 Feb 12 j 11:27	11°♂♂09'31	18°20'26
inferior conj	104 Mar 19 j 17:57	27°♂♂55'49	2°24'49	retrograde	105 Feb 19 j 17:05	14°♂♂44'38	
minimum elong	104 Mar 19 j 22:17	27°♂♂48'00	2°23'38	evening set	105 Feb 22 j 04:31	14°♂♂20'31	
min. Earth dist.	104 Mar 22 j 23:42	25°♂♂36'44	0.57241 AU	inferior conj	105 Mar 01 j 09:39	9°♂♂41'22	3°21'25
morning rise	104 Mar 27 j 20:56	22°♂♂48'50		minimum elong	105 Mar 01 j 12:55	9°♂♂34'27	3°20'53
desc. node	104 Mar 28 j 23:35	22°♂♂23'13		min. Earth dist.	105 Mar 04 j 19:55	6°♂♂49'39	0.59227 AU
direct	104 Apr 02 j 06:27	21°♂♂38'36		morning rise	105 Mar 08 j 17:42	4°♂♂08'17	
morning max el	104 Apr 16 j 13:58	29°♂♂06'13	25°56'54	direct	105 Mar 15 j 01:56	2°♂♂20'47	
	104 Apr 17 j 11:42	0°♂♂		desc. node	105 Mar 15 j 20:37	2°♂♂22'23	
	104 May 07 j 23:09	0°♂♂		morning max el	105 Mar 29 j 09:30	10°♂♂03'25	27°06'53
morning set	104 May 14 j 12:39	13°♂♂07'14			105 Apr 13 j 17:55	0°♂♂	
asc. node	104 May 16 j 09:08	17°♂♂03'36		morning set	105 Apr 28 j 22:08	27°♂♂56'43	
					105 Apr 29 j 21:38	0°♂♂	
superior conj	104 May 21 j 13:29	28°♂♂21'04	0°52'22	asc. node	105 May 03 j 06:11	7°♂♂12'13	
minimum elong	104 May 21 j 11:26	28°♂♂09'49	0°51'58	max. Earth dist.	105 May 05 j 17:52	12°♂♂38'46	1.32321 AU
max. Earth dist.	104 May 22 j 05:10	29°♂♂46'53	1.32537 AU				
	104 May 22 j 07:34	0°♂♂		superior conj	105 May 06 j 01:15	13°♂♂19'21	0°29'13
evening rise	104 May 28 j 15:08	13°♂♂31'53		minimum elong	105 May 05 j 23:59	13°♂♂12'23	0°28'57
	104 Jun 06 j 02:20	0°♂♂		evening rise	105 May 12 j 23:52	28°♂♂22'05	
desc. node	104 Jun 24 j 22:52	27°♂♂52'00			105 May 13 j 18:35	0°♂♂	
	104 Jun 26 j 22:12	0°♂♂			105 May 30 j 14:26	0°♂♂	
evening max el	104 Jun 28 j 18:02	1°♂♂48'55	27°05'27	evening max el	105 Jun 10 j 17:55	13°♂♂33'14	26°12'52
retrograde	104 Jul 12 j 16:03	9°♂♂05'44		desc. node	105 Jun 11 j 19:53	14°♂♂33'14	
evening set	104 Jul 19 j 16:53	6°♂♂51'26		retrograde	105 Jun 24 j 18:34	20°♂♂46'09	
min. Earth dist.	104 Jul 23 j 08:14	4°♂♂08'19	0.61345 AU	evening set	105 Jul 01 j 03:35	19°♂♂06'14	
inferior conj	104 Jul 26 j 12:09	1°♂♂21'28	-4°-23'-23	min. Earth dist.	105 Jul 05 j 06:48	16°♂♂29'01	0.59290 AU
minimum elong	104 Jul 26 j 16:13	1°♂♂12'30	4°22'45	inferior conj	105 Jul 08 j 14:46	13°♂♂56'20	-4°-44'-49
	104 Jul 28 j 01:48	30°♂♂		minimum elong	105 Jul 08 j 16:03	13°♂♂53'52	4°44'47
morning rise	104 Aug 02 j 18:28	26°♂♂27'25		morning rise	105 Jul 16 j 07:58	9°♂♂25'04	
direct	104 Aug 05 j 04:33	26°♂♂03'16		direct	105 Jul 18 j 19:06	9°♂♂04'02	
morning max el	104 Aug 12 j 05:18	29°♂♂33'18	17°59'31	morning max el	105 Jul 26 j 14:20	12°♂♂48'36	18°25'35
asc. node	104 Aug 12 j 08:19	29°♂♂40'43		asc. node	105 Jul 30 j 05:22	16°♂♂58'28	
	104 Aug 12 j 15:59	0°♂♂			105 Aug 07 j 05:29	0°♂♂	
morning set	104 Aug 28 j 02:19	24°♂♂33'35		morning set	105 Aug 11 j 15:28	8°♂♂19'52	
	104 Aug 31 j 01:25	0°♂♂					
				superior conj	105 Aug 20 j 18:41	25°♂♂39'23	1°39'49
superior conj	104 Sep 07 j 10:20	13°♂♂14'04	1°22'02	minimum elong	105 Aug 20 j 21:21	25°♂♂51'42	1°39'39
minimum elong	104 Sep 07 j 14:54	13°♂♂34'02	1°21'33		105 Aug 23 j 03:41	0°♂♂	
max. Earth dist.	104 Sep 14 j 22:54	26°♂♂03'17	1.42214 AU	max. Earth dist.	105 Aug 28 j 05:08	8°♂♂57'17	1.40304 AU
	104 Sep 17 j 08:32	0°♂♂		evening rise	105 Sep 01 j 16:56	16°♂♂33'42	
desc. node	104 Sep 20 j 22:10	5°♂♂44'27		desc. node	105 Sep 07 j 19:11	26°♂♂24'40	
evening rise	104 Sep 21 j 05:57	6°♂♂15'24			105 Sep 10 j 02:25	0°♂♂	
	104 Oct 06 j 22:36	0°♂♂			105 Oct 01 j 15:15	0°♂♂	
greatest brilliancy	104 Oct 19 j 00:51	16°♂♂20'17	-0.3m	evening max el	105 Oct 06 j 08:30	5°♂♂11'40	23°32'29
evening max el	104 Oct 23 j 18:05	21°♂♂39'23	22°12'40	retrograde	105 Oct 16 j 22:09	11°♂♂26'03	

evening set	105 Oct 21 j 22:10	9° \mathbb{M} 22'29		desc. node	106 Aug 25 j 16:13	16° \mathbb{M} 54'57	
asc. node	105 Oct 26 j 04:35	4° \mathbb{M} 31'57			106 Sep 03 j 13:12	0° \mathbb{L}	
inferior conj	105 Oct 27 j 08:00	2° \mathbb{M} 58'39	0°23'37	evening max el	106 Sep 18 j 20:23	18° \mathbb{L} 46'39	24°50'54
minimum elong	105 Oct 27 j 07:27	3° \mathbb{M} 00'34	0°23'22	retrograde	106 Sep 30 j 11:10	25° \mathbb{L} 32'09	
min. Earth dist.	105 Oct 26 j 21:23	3° \mathbb{M} 34'57	0.67638 AU	evening set	106 Oct 06 j 01:51	23° \mathbb{L} 11'00	
	105 Oct 29 j 14:02	30° \mathbb{R} \mathbb{L}		min. Earth dist.	106 Oct 10 j 16:18	17° \mathbb{L} 58'01	0.67292 AU
morning rise	105 Nov 01 j 16:50	26° \mathbb{L} 48'19		inferior conj	106 Oct 11 j 13:30	16° \mathbb{L} 47'56	0°-31'-8
direct	105 Nov 05 j 18:40	25° \mathbb{L} 15'16		minimum elong	106 Oct 11 j 14:16	16° \mathbb{L} 45'22	0°30'50
morning max el	105 Nov 14 j 05:29	0° \mathbb{M} 11'05	21°06'32	asc. node	106 Oct 13 j 01:36	14° \mathbb{L} 50'38	
	105 Nov 14 j 01:04	0° \mathbb{M}		morning rise	106 Oct 17 j 03:10	10° \mathbb{L} 44'11	
greatest brilliancy	105 Nov 19 j 16:13	6° \mathbb{M} 29'31	-0.5m	direct	106 Oct 20 j 16:26	9° \mathbb{L} 31'25	
desc. node	105 Dec 04 j 18:27	27° \mathbb{M} 51'10		morning max el	106 Oct 28 j 05:43	13° \mathbb{L} 50'57	19°56'17
	105 Dec 06 j 04:42	0° \mathbb{J}		greatest brilliancy	106 Nov 04 j 15:55	22° \mathbb{L} 58'59	-0.6m
morning set	105 Dec 14 j 12:17	12° \mathbb{J} 47'18			106 Nov 09 j 13:34	0° \mathbb{M}	
max. Earth dist.	105 Dec 22 j 12:09	25° \mathbb{J} 34'25	1.42524 AU	desc. node	106 Nov 21 j 15:29	18° \mathbb{M} 16'51	
	105 Dec 25 j 04:40	0° \mathbb{Z}		morning set	106 Nov 23 j 08:45	20° \mathbb{M} 55'59	
					106 Nov 29 j 04:38	0° \mathbb{J}	
superior conj	105 Dec 29 j 15:17	7° \mathbb{Z} 28'23	-2°00'-2	max. Earth dist.	106 Dec 04 j 22:58	9° \mathbb{J} 06'21	1.44012 AU
minimum elong	105 Dec 29 j 12:50	7° \mathbb{Z} 17'57	1°59'58				
evening rise	106 Jan 10 j 04:15	27° \mathbb{Z} 46'58		superior conj	106 Dec 09 j 23:35	17° \mathbb{J} 11'46	-1°-42'-46
	106 Jan 11 j 09:50	0° \mathbb{W}		minimum elong	106 Dec 09 j 16:25	16° \mathbb{J} 42'40	1°42'13
asc. node	106 Jan 22 j 03:55	18° \mathbb{W} 14'48			106 Dec 17 j 17:29	0° \mathbb{Z}	
evening max el	106 Jan 26 j 22:01	24° \mathbb{W} 10'59	18°07'48	evening rise	106 Dec 23 j 07:53	9° \mathbb{Z} 30'16	
retrograde	106 Feb 02 j 13:42	27° \mathbb{W} 36'13			107 Jan 04 j 15:50	0° \mathbb{W}	
evening set	106 Feb 05 j 05:29	27° \mathbb{W} 03'31		asc. node	107 Jan 09 j 00:55	5° \mathbb{W} 55'19	
inferior conj	106 Feb 11 j 20:28	22° \mathbb{W} 02'33	3°46'41	evening max el	107 Jan 10 j 10:29	7° \mathbb{W} 26'44	18°14'26
minimum elong	106 Feb 11 j 21:31	21° \mathbb{W} 59'59	3°46'38	retrograde	107 Jan 16 j 22:09	10° \mathbb{W} 55'21	
min. Earth dist.	106 Feb 14 j 22:58	19° \mathbb{W} 02'53	0.61330 AU	evening set	107 Jan 19 j 18:18	10° \mathbb{W} 13'12	
morning rise	106 Feb 18 j 10:56	16° \mathbb{W} 11'50		inferior conj	107 Jan 25 j 22:33	4° \mathbb{W} 51'54	3°48'13
direct	106 Feb 25 j 07:52	13° \mathbb{W} 50'26		minimum elong	107 Jan 25 j 21:38	4° \mathbb{W} 54'26	3°48'09
desc. node	106 Mar 02 j 17:39	15° \mathbb{W} 09'02		min. Earth dist.	107 Jan 28 j 11:18	2° \mathbb{W} 06'17	0.63275 AU
morning max el	106 Mar 11 j 11:29	21° \mathbb{W} 40'45	27°43'21		107 Jan 30 j 14:13	30° \mathbb{R} \mathbb{Z}	
	106 Mar 18 j 18:24	0° \mathbb{H}		morning rise	107 Jan 31 j 23:10	28° \mathbb{Z} 50'00	
	106 Apr 06 j 18:10	0° \mathbb{Y}		direct	107 Feb 07 j 22:31	26° \mathbb{Z} 06'15	
morning set	106 Apr 13 j 03:39	12° \mathbb{Y} 32'10			107 Feb 17 j 06:39	0° \mathbb{W}	
max. Earth dist.	106 Apr 19 j 05:23	25° \mathbb{Y} 24'27	1.32473 AU	desc. node	107 Feb 17 j 14:41	0° \mathbb{W} 15'29	
asc. node	106 Apr 20 j 03:12	27° \mathbb{Y} 23'14		morning max el	107 Feb 21 j 18:42	3° \mathbb{W} 58'39	27°42'43
					107 Mar 13 j 07:11	0° \mathbb{H}	
superior conj	106 Apr 20 j 12:03	28° \mathbb{Y} 11'33	0°03'55	morning set	107 Mar 28 j 02:57	26° \mathbb{H} 46'00	
minimum elong	106 Apr 20 j 11:53	28° \mathbb{Y} 10'33	0°03'53		107 Mar 29 j 17:21	0° \mathbb{Y}	
behind sun begin	106 Apr 20 j 06:56	27° \mathbb{Y} 43'33		max. Earth dist.	107 Apr 02 j 11:35	7° \mathbb{Y} 49'36	1.33014 AU
behind sun end	106 Apr 20 j 16:49	28° \mathbb{Y} 37'35					
	106 Apr 21 j 07:54	0° \mathbb{B}		superior conj	107 Apr 04 j 20:13	12° \mathbb{Y} 52'02	0°-22'-43
evening rise	106 Apr 27 j 11:04	13° \mathbb{B} 16'46		minimum elong	107 Apr 04 j 21:19	12° \mathbb{Y} 57'53	0°22'29
	106 May 05 j 22:16	0° \mathbb{I}		asc. node	107 Apr 07 j 00:15	17° \mathbb{Y} 32'46	
evening max el	106 May 23 j 11:04	24° \mathbb{I} 33'48	24°53'21	evening rise	107 Apr 11 j 22:53	28° \mathbb{Y} 09'17	
desc. node	106 May 29 j 16:54	29° \mathbb{I} 23'13			107 Apr 12 j 19:59	0° \mathbb{B}	
	106 May 30 j 20:27	0° \mathbb{G}			107 Apr 30 j 09:36	0° \mathbb{I}	
retrograde	106 Jun 06 j 10:32	1° \mathbb{G} 39'28		evening max el	107 May 05 j 01:25	5° \mathbb{I} 09'22	23°19'30
evening set	106 Jun 11 j 15:01	0° \mathbb{G} 38'08		desc. node	107 May 16 j 13:54	11° \mathbb{I} 45'41	
	106 Jun 13 j 02:23	30° \mathbb{R} \mathbb{I}		retrograde	107 May 18 j 14:28	11° \mathbb{I} 55'00	
min. Earth dist.	106 Jun 16 j 22:30	27° \mathbb{I} 49'00	0.57332 AU	evening set	107 May 22 j 07:55	11° \mathbb{I} 24'29	
inferior conj	106 Jun 19 j 21:59	25° \mathbb{I} 50'45	-4°-36'-28	min. Earth dist.	107 May 29 j 11:26	8° \mathbb{I} 09'04	0.55804 AU
minimum elong	106 Jun 19 j 18:39	25° \mathbb{I} 56'18	4°36'10	inferior conj	107 May 31 j 09:21	7° \mathbb{I} 01'20	-3°-46'-3
morning rise	106 Jun 28 j 02:08	21° \mathbb{I} 41'24		minimum elong	107 May 31 j 02:18	7° \mathbb{I} 11'46	3°44'26
direct	106 Jun 30 j 15:49	21° \mathbb{I} 22'25		morning rise	107 Jun 09 j 00:03	3° \mathbb{I} 06'21	
morning max el	106 Jul 09 j 15:29	25° \mathbb{I} 33'54	19°12'28	direct	107 Jun 11 j 17:13	2° \mathbb{I} 48'24	
	106 Jul 13 j 13:58	0° \mathbb{G}		morning max el	107 Jun 22 j 06:25	7° \mathbb{I} 41'09	20°20'12
asc. node	106 Jul 17 j 02:24	5° \mathbb{G} 07'51		asc. node	107 Jul 03 j 23:29	23° \mathbb{I} 57'05	
morning set	106 Jul 26 j 13:58	22° \mathbb{G} 34'09			107 Jul 07 j 04:59	0° \mathbb{G}	
	106 Jul 30 j 07:30	0° \mathbb{Q}		morning set	107 Jul 10 j 18:55	7° \mathbb{G} 08'51	
superior conj	106 Aug 03 j 20:57	8° \mathbb{Q} 58'42	1°46'46	superior conj	107 Jul 18 j 12:07	22° \mathbb{G} 57'41	1°45'01
minimum elong	106 Aug 03 j 21:30	9° \mathbb{Q} 01'25	1°46'46	minimum elong	107 Jul 18 j 11:02	22° \mathbb{G} 52'11	1°45'00
max. Earth dist.	106 Aug 10 j 08:25	21° \mathbb{Q} 10'11	1.38281 AU		107 Jul 22 j 00:56	0° \mathbb{Q}	
evening rise	106 Aug 14 j 04:38	28° \mathbb{Q} 01'40		max. Earth dist.	107 Jul 23 j 13:55	2° \mathbb{Q} 59'41	1.36399 AU
	106 Aug 15 j 07:53	0° \mathbb{M}		evening rise	107 Jul 27 j 14:24	10° \mathbb{Q} 33'44	

	107 Aug 07 j 22:20	0°♎		desc. node	108 Jul 29 j 10:16	27°♏02'53	
desc. node	107 Aug 12 j 13:14	7°♎09'57			108 Jul 31 j 12:15	0°♎	
	107 Aug 29 j 23:45	0°♏		evening max el	108 Aug 13 j 19:48	15°♎56'25	26°53'23
evening max el	107 Sep 01 j 07:48	2°♏23'11	26°00'28	retrograde	108 Aug 26 j 22:56	23°♎13'37	
retrograde	107 Sep 13 j 19:38	9°♏30'05		evening set	108 Sep 02 j 16:47	20°♎29'53	
evening set	107 Sep 20 j 00:47	6°♏54'31		min. Earth dist.	108 Sep 06 j 15:54	16°♎30'47	0.65585 AU
min. Earth dist.	107 Sep 24 j 07:15	2°♏17'57	0.66612 AU	inferior conj	108 Sep 08 j 12:31	14°♎20'46	-2°-23'-16
inferior conj	107 Sep 25 j 15:40	0°♏36'17	-1°-27'-24	minimum elong	108 Sep 08 j 16:08	14°♎10'13	2°21'56
minimum elong	107 Sep 25 j 17:53	0°♏29'18	1°26'30	morning rise	108 Sep 14 j 16:50	8°♎38'56	
	107 Sep 26 j 03:16	30°♎		asc. node	108 Sep 15 j 19:44	8°♎11'26	
asc. node	107 Sep 29 j 22:39	25°♎50'07		direct	108 Sep 17 j 11:47	7°♎56'01	
morning rise	107 Oct 01 j 11:53	24°♎41'58		morning max el	108 Sep 24 j 01:53	11°♎31'51	18°20'44
direct	107 Oct 04 j 14:47	23°♎46'03			108 Oct 07 j 01:36	0°♏	
morning max el	107 Oct 11 j 13:08	27°♎39'10	19°00'27	morning set	108 Oct 13 j 05:54	10°♏03'08	
	107 Oct 13 j 16:07	0°♏		desc. node	108 Oct 25 j 09:33	29°♏36'09	
morning set	107 Nov 02 j 17:38	29°♏48'01			108 Oct 25 j 15:34	0°♎	
	107 Nov 02 j 20:41	0°♎					
desc. node	107 Nov 08 j 12:31	8°♎53'00		superior conj	108 Oct 28 j 09:02	4°♎18'53	0°-19'-30
max. Earth dist.	107 Nov 17 j 14:54	23°♎10'14	1.44868 AU	minimum elong	108 Oct 28 j 06:28	4°♎08'48	0°19'10
				max. Earth dist.	108 Oct 30 j 09:29	7°♎29'43	1.45003 AU
superior conj	107 Nov 19 j 08:13	25°♎53'02	-1°-7'-13	evening rise	108 Nov 13 j 19:04	0°♏03'45	
minimum elong	107 Nov 19 j 00:24	25°♎22'11	1°06'21		108 Nov 13 j 18:07	0°♏	
	107 Nov 21 j 22:41	0°♏		greatest brilliancy	108 Nov 28 j 02:31	22°♏13'33	-0.7m
evening rise	107 Dec 04 j 13:19	20°♏15'52			108 Dec 03 j 15:09	0°♏	
	107 Dec 10 j 12:36	0°♏		evening max el	108 Dec 07 j 06:56	4°♏18'02	19°21'41
evening max el	107 Dec 24 j 22:12	20°♏50'16	18°39'30	asc. node	108 Dec 12 j 19:01	8°♏09'46	
asc. node	107 Dec 26 j 21:58	22°♏38'26		retrograde	108 Dec 14 j 10:17	8°♏24'39	
retrograde	107 Dec 31 j 14:09	24°♏33'16		evening set	108 Dec 17 j 18:28	7°♏19'28	
evening set	108 Jan 03 j 15:32	23°♏40'27		inferior conj	108 Dec 23 j 09:29	1°♏24'20	3°04'36
inferior conj	108 Jan 09 j 11:59	18°♏00'57	3°32'36	minimum elong	108 Dec 23 j 06:44	1°♏33'11	3°03'56
minimum elong	108 Jan 09 j 09:47	18°♏07'34	3°32'15		108 Dec 24 j 11:37	30°♎	
min. Earth dist.	108 Jan 11 j 09:26	15°♏44'33	0.64910 AU	min. Earth dist.	108 Dec 24 j 16:15	29°♏45'12	0.66163 AU
morning rise	108 Jan 15 j 02:50	11°♏52'08		morning rise	108 Dec 28 j 18:12	25°♏11'20	
direct	108 Jan 21 j 20:29	9°♏00'48		direct	109 Jan 04 j 00:37	22°♏26'04	
morning max el	108 Feb 04 j 04:13	16°♏46'03	27°07'47	morning max el	109 Jan 16 j 13:36	29°♏51'06	26°05'42
desc. node	108 Feb 04 j 11:44	17°♏05'00			109 Jan 16 j 17:07	0°♏	
	108 Feb 15 j 04:52	0°♏		desc. node	109 Jan 21 j 08:47	5°♏08'15	
	108 Mar 05 j 02:39	0°♏			109 Feb 08 j 02:30	0°♏	
morning set	108 Mar 10 j 16:57	10°♏27'29		morning set	109 Feb 21 j 17:39	23°♏24'36	
max. Earth dist.	108 Mar 15 j 08:27	19°♏41'39	1.33985 AU	max. Earth dist.	109 Feb 25 j 05:12	0°♏	
					109 Feb 25 j 17:33	0°♏59'43	1.35418 AU
superior conj	108 Mar 18 j 23:43	27°♏13'26	0°-49'-38				
minimum elong	108 Mar 19 j 02:06	27°♏25'59	0°49'11	superior conj	109 Mar 02 j 20:09	11°♏08'56	-1°-15'-25
	108 Mar 20 j 07:20	0°♏		minimum elong	109 Mar 02 j 23:37	11°♏26'33	1°14'54
asc. node	108 Mar 23 j 21:18	7°♏35'47		evening rise	109 Mar 10 j 16:49	27°♏20'18	
evening rise	108 Mar 26 j 09:26	12°♏52'26		asc. node	109 Mar 10 j 18:21	27°♏28'07	
	108 Apr 04 j 05:31	0°♏			109 Mar 12 j 00:11	0°♏	
evening max el	108 Apr 15 j 20:12	15°♏49'50	21°46'06	evening max el	109 Mar 29 j 00:57	26°♏59'42	20°24'26
retrograde	108 Apr 28 j 07:06	21°♏54'51			109 Apr 01 j 19:26	0°♏	
evening set	108 Apr 30 j 21:03	21°♏39'54		retrograde	109 Apr 08 j 20:22	2°♏11'42	
desc. node	108 May 02 j 10:57	21°♏16'54		evening set	109 Apr 10 j 23:31	2°♏00'26	
inferior conj	108 May 10 j 06:23	17°♏37'02	-2°-11'-19		109 Apr 16 j 13:30	30°♎	
minimum elong	108 May 10 j 00:30	17°♏45'18	2°09'23	desc. node	109 Apr 19 j 08:00	28°♏28'30	
min. Earth dist.	108 May 10 j 00:17	17°♏45'36	0.55033 AU	inferior conj	109 Apr 20 j 01:38	28°♏02'49	0°-12'-39
morning rise	108 May 19 j 04:55	13°♏40'44		minimum elong	109 Apr 20 j 01:03	28°♏03'41	0°12'27
direct	108 May 22 j 05:33	13°♏20'31		transit middle	109 Apr 20 j 01:03	28°♏03'41	0°12'27
morning max el	108 Jun 03 j 10:13	19°♏05'12	21°46'44	transit begin	109 Apr 19 j 22:32	28°♏07'21	
	108 Jun 12 j 06:17	0°♏		transit end	109 Apr 20 j 03:33	28°♏00'01	
asc. node	108 Jun 19 j 20:33	13°♏15'56		min. Earth dist.	109 Apr 21 j 13:46	27°♏10'07	0.55211 AU
morning set	108 Jun 24 j 04:03	21°♏57'26		morning rise	109 Apr 29 j 00:32	23°♏46'49	
	108 Jun 27 j 23:54	0°♏		direct	109 May 02 j 17:39	23°♏16'53	
				morning max el	109 May 16 j 04:47	29°♏51'35	23°25'43
superior conj	108 Jul 01 j 12:16	7°♏24'28	1°36'28		109 May 16 j 08:20	0°♏	
minimum elong	108 Jul 01 j 10:11	7°♏13'32	1°36'18		109 Jun 05 j 06:41	0°♏	
max. Earth dist.	108 Jul 05 j 03:26	14°♏53'56	1.34827 AU	asc. node	109 Jun 06 j 17:37	2°♏56'27	
evening rise	108 Jul 09 j 17:22	23°♏57'13		morning set	109 Jun 08 j 15:27	6°♏54'03	
	108 Jul 12 j 22:28	0°♏					

superior conj	109 Jun 15 j 18:25	22° Π 09'29	1°22'34	superior conj	110 May 31 j 04:15	7° Π 05'25	1°04'25
minimum elong	109 Jun 15 j 15:56	21° Π 56'11	1°22'14	minimum elong	110 May 31 j 01:55	6° Π 52'40	1°04'00
max. Earth dist.	109 Jun 18 j 02:46	27° Π 09'37	1.33638 AU	max. Earth dist.	110 Jun 01 j 10:02	9° Π 47'24	1.32832 AU
	109 Jun 19 j 11:12	0° \mathfrak{E}		evening rise	110 Jun 07 j 09:22	22° Π 26'36	
evening rise	109 Jun 23 j 08:55	7° \mathfrak{E} 58'34			110 Jun 11 j 04:13	0° \mathfrak{E}	
	109 Jul 05 j 10:17	0° Ω			110 Jun 29 j 07:43	0° Ω	
desc. node	109 Jul 16 j 07:18	16° Ω 23'51		desc. node	110 Jul 03 j 04:20	4° Ω 59'29	
evening max el	109 Jul 27 j 07:23	29° Ω 14'58	27°22'09	evening max el	110 Jul 09 j 16:15	12° Ω 05'34	27°20'54
	109 Jul 28 j 02:38	0° \mathfrak{M}		retrograde	110 Jul 23 j 11:14	19° Ω 23'15	
retrograde	109 Aug 09 j 20:19	6° \mathfrak{M} 34'09		evening set	110 Jul 30 j 15:50	16° Ω 54'30	
evening set	109 Aug 16 j 23:00	3° \mathfrak{M} 51'45		min. Earth dist.	110 Aug 03 j 05:46	14° Ω 00'34	0.62476 AU
min. Earth dist.	109 Aug 20 j 15:57	0° \mathfrak{M} 28'29	0.64202 AU	inferior conj	110 Aug 06 j 04:02	11° Ω 14'31	-4°-2'-12
	109 Aug 21 j 02:54	30° \mathfrak{R} Ω		minimum elong	110 Aug 06 j 08:44	11° Ω 03'21	4°01'11
inferior conj	109 Aug 23 j 01:36	27° Ω 55'39	-3°-16'-10	morning rise	110 Aug 13 j 04:09	6° Ω 08'09	
minimum elong	109 Aug 23 j 06:13	27° Ω 43'23	3°14'46	direct	110 Aug 15 j 14:54	5° Ω 41'12	
morning rise	109 Aug 29 j 15:21	22° Ω 29'47		asc. node	110 Aug 20 j 13:52	7° Ω 34'07	
direct	109 Sep 01 j 04:55	21° Ω 56'18		morning max el	110 Aug 22 j 08:44	9° Ω 07'05	17°53'35
asc. node	109 Sep 02 j 16:49	22° Ω 07'49			110 Sep 05 j 02:09	0° \mathfrak{M}	
morning max el	109 Sep 07 j 17:20	25° Ω 23'02	17°58'07	morning set	110 Sep 07 j 11:37	4° \mathfrak{M} 16'52	
	109 Sep 11 j 13:34	0° \mathfrak{M}					
morning set	109 Sep 24 j 21:44	21° \mathfrak{M} 38'18		superior conj	110 Sep 18 j 16:46	23° \mathfrak{M} 57'23	1°06'05
	109 Sep 29 j 20:03	0° \mathfrak{A}		minimum elong	110 Sep 18 j 21:45	24° \mathfrak{M} 18'31	1°05'29
					110 Sep 22 j 07:05	0° \mathfrak{A}	
superior conj	109 Oct 07 j 23:42	13° \mathfrak{A} 28'34	0°28'12	max. Earth dist.	110 Sep 25 j 18:21	5° \mathfrak{A} 42'03	1.43168 AU
minimum elong	109 Oct 08 j 02:48	13° \mathfrak{A} 41'12	0°27'47	desc. node	110 Sep 29 j 03:37	11° \mathfrak{A} 09'12	
desc. node	109 Oct 12 j 06:35	20° \mathfrak{A} 22'28		evening rise	110 Oct 03 j 14:18	18° \mathfrak{A} 09'35	
max. Earth dist.	109 Oct 13 j 03:39	21° \mathfrak{A} 46'19	1.44411 AU		110 Oct 11 j 07:58	0° \mathfrak{M}	
	109 Oct 18 j 08:55	0° \mathfrak{M}		greatest brilliancy	110 Oct 29 j 08:32	25° \mathfrak{M} 28'33	-0.4m
evening rise	109 Oct 24 j 06:27	9° \mathfrak{M} 08'57			110 Nov 02 j 04:31	0° \mathfrak{A}	
	109 Nov 07 j 00:55	0° \mathfrak{A}		evening max el	110 Nov 03 j 08:50	1° \mathfrak{A} 14'51	21°28'36
greatest brilliancy	109 Nov 14 j 00:48	9° \mathfrak{A} 58'03	-0.6m	retrograde	110 Nov 12 j 04:58	6° \mathfrak{A} 30'13	
evening max el	109 Nov 20 j 10:48	17° \mathfrak{A} 46'23	20°19'01	evening set	110 Nov 16 j 08:28	4° \mathfrak{A} 54'32	
retrograde	109 Nov 28 j 07:54	22° \mathfrak{A} 24'33		asc. node	110 Nov 16 j 13:07	4° \mathfrak{A} 45'18	
asc. node	109 Nov 29 j 16:04	22° \mathfrak{A} 14'20			110 Nov 20 j 18:03	30° \mathfrak{R} \mathfrak{M}	
evening set	109 Dec 02 j 00:44	21° \mathfrak{A} 05'03		inferior conj	110 Nov 21 j 18:10	28° \mathfrak{M} 37'16	1°43'15
inferior conj	109 Dec 07 j 12:16	14° \mathfrak{A} 57'08	2°27'24	minimum elong	110 Nov 21 j 16:02	28° \mathfrak{M} 44'41	1°42'27
minimum elong	109 Dec 07 j 09:35	15° \mathfrak{A} 06'12	2°26'33	min. Earth dist.	110 Nov 22 j 00:07	28° \mathfrak{M} 16'43	0.67522 AU
min. Earth dist.	109 Dec 08 j 05:52	13° \mathfrak{A} 57'43	0.67025 AU	morning rise	110 Nov 26 j 23:18	22° \mathfrak{M} 22'05	
morning rise	109 Dec 12 j 17:54	8° \mathfrak{A} 42'04		direct	110 Dec 01 j 23:56	20° \mathfrak{M} 13'53	
direct	109 Dec 18 j 09:57	6° \mathfrak{A} 12'39		morning max el	110 Dec 12 j 07:08	26° \mathfrak{M} 21'28	23°18'23
morning max el	109 Dec 29 j 22:01	13° \mathfrak{A} 03'51	24°45'54		110 Dec 15 j 15:32	0° \mathfrak{A}	
desc. node	110 Jan 08 j 05:49	24° \mathfrak{A} 03'05		greatest brilliancy	110 Dec 17 j 12:50	2° \mathfrak{A} 14'38	-0.2m
	110 Jan 12 j 15:05	0° \mathfrak{E}		desc. node	110 Dec 26 j 02:50	13° \mathfrak{A} 34'50	
	110 Jan 31 j 21:41	0° \approx			111 Jan 06 j 05:33	0° \mathfrak{E}	
morning set	110 Feb 03 j 23:39	5° \approx 21'50		morning set	111 Jan 16 j 04:39	16° \mathfrak{E} 02'46	
max. Earth dist.	110 Feb 07 j 16:34	12° \approx 02'20	1.37260 AU	max. Earth dist.	111 Jan 20 j 11:49	23° \mathfrak{E} 23'28	1.39352 AU
					111 Jan 24 j 05:28	0° \approx	
superior conj	110 Feb 14 j 06:22	24° \approx 29'25	-1°-38'-8				
minimum elong	110 Feb 14 j 10:16	24° \approx 48'25	1°37'43	superior conj	111 Jan 28 j 02:14	7° \approx 03'49	-1°-54'-58
	110 Feb 17 j 01:32	0° \mathfrak{H}		minimum elong	111 Jan 28 j 05:17	7° \approx 17'55	1°54'48
evening rise	110 Feb 22 j 18:45	11° \mathfrak{H} 26'08		evening rise	111 Feb 06 j 12:28	25° \approx 02'13	
asc. node	110 Feb 25 j 15:24	17° \mathfrak{H} 04'48			111 Feb 09 j 02:38	0° \mathfrak{H}	
	110 Mar 04 j 20:41	0° \mathfrak{Y}		asc. node	111 Feb 12 j 12:26	6° \mathfrak{H} 19'35	
evening max el	110 Mar 11 j 16:55	8° \mathfrak{Y} 47'41	19°20'35	evening max el	111 Feb 22 j 18:24	21° \mathfrak{H} 10'26	18°36'37
retrograde	110 Mar 20 j 19:53	13° \mathfrak{Y} 10'58		retrograde	111 Mar 02 j 13:29	24° \mathfrak{H} 58'50	
evening set	110 Mar 22 j 23:52	12° \mathfrak{Y} 57'13		evening set	111 Mar 04 j 21:59	24° \mathfrak{H} 39'13	
inferior conj	110 Mar 31 j 09:09	8° \mathfrak{Y} 48'54	1°36'04	inferior conj	111 Mar 12 j 12:46	20° \mathfrak{H} 12'12	2°53'05
minimum elong	110 Mar 31 j 12:46	8° \mathfrak{Y} 42'56	1°34'55	minimum elong	111 Mar 12 j 16:55	20° \mathfrak{H} 04'10	2°52'08
min. Earth dist.	110 Apr 03 j 04:30	6° \mathfrak{Y} 58'22	0.56293 AU	min. Earth dist.	111 Mar 15 j 22:09	17° \mathfrak{H} 36'30	0.58040 AU
desc. node	110 Apr 06 j 05:01	5° \mathfrak{Y} 12'18		morning rise	111 Mar 20 j 07:46	14° \mathfrak{H} 52'50	
morning rise	110 Apr 08 j 21:49	4° \mathfrak{Y} 00'58		desc. node	111 Mar 24 j 02:03	13° \mathfrak{H} 38'16	
direct	110 Apr 13 j 15:46	3° \mathfrak{Y} 09'27		direct	111 Mar 26 j 03:38	13° \mathfrak{H} 27'27	
morning max el	110 Apr 27 j 19:27	10° \mathfrak{Y} 21'30	25°05'25	morning max el	111 Apr 09 j 12:16	21° \mathfrak{H} 02'45	26°30'22
	110 May 12 j 15:19	0° \mathfrak{B}			111 Apr 17 j 06:37	0° \mathfrak{Y}	
morning set	110 May 24 j 03:28	21° \mathfrak{B} 53'17			111 May 05 j 06:39	0° \mathfrak{B}	
asc. node	110 May 24 j 14:40	22° \mathfrak{B} 52'24		morning set	111 May 08 j 14:22	6° \mathfrak{B} 48'15	
	110 May 27 j 22:14	0° Π		asc. node	111 May 11 j 11:42	12° \mathfrak{B} 57'44	

superior conj	111 May 15 j 15:48	22°♄04'35	0°42'52	morning set	112 Apr 21 j 22:24	21°♄32'44	
minimum elong	111 May 15 j 14:02	21°♄54'54	0°42'31		112 Apr 25 j 22:07	0°♄	
max. Earth dist.	111 May 15 j 21:47	22°♄37'26	1.32400 AU	asc. node	112 Apr 27 j 08:45	3°♄07'59	
	111 May 19 j 06:50	0°♄		max. Earth dist.	112 Apr 28 j 10:17	5°♄27'32	1.32335 AU
evening rise	111 May 22 j 15:44	7°♄10'47					
	111 Jun 03 j 16:44	0°♄		superior conj	112 Apr 29 j 03:22	7°♄01'06	0°18'43
desc. node	111 Jun 20 j 01:21	22°♄29'45		minimum elong	112 Apr 29 j 02:32	6°♄56'31	0°18'33
evening max el	111 Jun 21 j 19:42	24°♄15'05	26°46'44	evening rise	112 May 06 j 01:44	22°♄03'29	
	111 Jun 29 j 16:53	0°♄			112 May 09 j 22:32	0°♄	
retrograde	111 Jul 05 j 18:57	1°♄30'44			112 May 28 j 11:45	0°♄	
	111 Jul 11 j 16:21	30°♄		evening max el	112 Jun 02 j 16:23	5°♄39'12	25°41'40
evening set	111 Jul 12 j 14:50	29°♄29'27		desc. node	112 Jun 05 j 22:22	8°♄27'52	
min. Earth dist.	111 Jul 16 j 09:19	26°♄51'22	0.60485 AU	retrograde	112 Jun 16 j 17:38	12°♄50'40	
inferior conj	111 Jul 19 j 16:19	24°♄07'46	-4°-35'-15	evening set	112 Jun 22 j 15:44	11°♄27'16	
minimum elong	111 Jul 19 j 19:29	24°♄01'11	4°34'56	min. Earth dist.	112 Jun 27 j 04:43	8°♄46'48	0.58429 AU
morning rise	111 Jul 27 j 03:19	19°♄23'38		inferior conj	112 Jun 30 j 10:58	6°♄26'10	-4°-45'-42
direct	111 Jul 29 j 13:37	19°♄01'01		minimum elong	112 Jun 30 j 10:26	6°♄27'09	4°45'43
morning max el	111 Aug 05 j 21:01	22°♄35'33	18°08'08	morning rise	112 Jul 08 j 08:52	2°♄04'44	
asc. node	111 Aug 07 j 10:54	24°♄15'27		direct	112 Jul 10 j 20:44	1°♄44'51	
	111 Aug 11 j 16:48	0°♄		morning max el	112 Jul 19 j 03:06	5°♄39'25	18°42'53
morning set	111 Aug 21 j 17:36	17°♄41'45		asc. node	112 Jul 24 j 07:56	11°♄56'41	
	111 Aug 28 j 08:16	0°♄			112 Aug 03 j 14:24	0°♄	
				morning set	112 Aug 04 j 11:06	1°♄40'34	
superior conj	111 Aug 31 j 12:13	5°♄44'22	1°31'02				
minimum elong	111 Aug 31 j 16:05	6°♄01'39	1°30'42	superior conj	112 Aug 13 j 04:50	18°♄34'19	1°43'57
max. Earth dist.	111 Sep 08 j 03:14	18°♄59'29	1.41431 AU	minimum elong	112 Aug 13 j 06:35	18°♄42'33	1°43'53
evening rise	111 Sep 13 j 12:03	27°♄50'25			112 Aug 19 j 10:17	0°♄	
	111 Sep 14 j 20:18	0°♄		max. Earth dist.	112 Aug 20 j 07:06	1°♄32'17	1.39442 AU
desc. node	111 Sep 16 j 00:39	1°♄52'50		evening rise	112 Aug 24 j 09:33	8°♄38'12	
	111 Oct 05 j 00:26	0°♄		desc. node	112 Sep 01 j 21:41	22°♄29'15	
greatest brilliancy	111 Oct 12 j 01:38	9°♄09'05	-0.3m		112 Sep 06 j 19:34	0°♄	
evening max el	111 Oct 17 j 01:25	14°♄44'39	22°46'19	evening max el	112 Sep 28 j 14:24	28°♄17'44	24°06'30
retrograde	111 Oct 26 j 23:56	20°♄38'57			112 Sep 30 j 09:34	0°♄	
evening set	111 Oct 31 j 15:56	18°♄45'45		retrograde	112 Oct 09 j 15:25	4°♄46'54	
asc. node	111 Nov 03 j 10:07	15°♄53'23		evening set	112 Oct 14 j 21:28	2°♄35'53	
inferior conj	111 Nov 06 j 01:18	12°♄22'58	0°53'52		112 Oct 17 j 09:51	30°♄	
minimum elong	111 Nov 06 j 00:05	12°♄27'12	0°53'21	min. Earth dist.	112 Oct 19 j 16:53	27°♄02'31	0.67525 AU
min. Earth dist.	111 Nov 05 j 20:37	12°♄39'11	0.67682 AU	inferior conj	112 Oct 20 j 07:55	26°♄11'43	0°00'40
morning rise	111 Nov 11 j 08:11	6°♄09'59		minimum elong	112 Oct 20 j 07:53	26°♄11'47	0°00'39
direct	111 Nov 15 j 17:54	4°♄24'23		transit middle	112 Oct 20 j 07:53	26°♄11'47	0°00'39
morning max el	111 Nov 24 j 20:06	9°♄45'45	21°52'22	transit begin	112 Oct 20 j 05:10	26°♄21'00	
greatest brilliancy	111 Nov 29 j 15:31	15°♄12'18	-0.4m	transit end	112 Oct 20 j 10:37	26°♄02'34	
	111 Dec 10 j 13:18	0°♄		asc. node	112 Oct 20 j 07:09	26°♄14'18	
desc. node	111 Dec 12 j 23:52	3°♄33'15		morning rise	112 Oct 25 j 18:33	20°♄03'34	
morning set	111 Dec 27 j 04:28	25°♄19'35		direct	112 Oct 29 j 14:46	18°♄39'29	
	111 Dec 30 j 01:58	0°♄		morning max el	112 Nov 06 j 15:43	23°♄19'05	20°34'56
max. Earth dist.	112 Jan 02 j 10:20	5°♄30'56	1.41435 AU		112 Nov 12 j 08:14	0°♄	
				greatest brilliancy	112 Nov 12 j 19:42	0°♄37'29	-0.5m
superior conj	112 Jan 10 j 02:43	18°♄39'56	-2°-2'-8	desc. node	112 Nov 28 j 20:54	23°♄50'29	
minimum elong	112 Jan 10 j 02:53	18°♄40'39	2°02'08		112 Dec 02 j 21:33	0°♄	
	112 Jan 16 j 10:13	0°♄		morning set	112 Dec 05 j 04:59	3°♄34'17	
evening rise	112 Jan 20 j 18:37	8°♄00'46		max. Earth dist.	112 Dec 14 j 16:18	18°♄33'11	1.43222 AU
asc. node	112 Jan 30 j 09:28	25°♄05'16					
	112 Feb 02 j 16:43	0°♄		superior conj	112 Dec 21 j 02:32	29°♄05'44	-1°-54'-58
evening max el	112 Feb 06 j 02:34	4°♄00'24	18°12'44	minimum elong	112 Dec 20 j 21:57	28°♄46'35	1°54'45
retrograde	112 Feb 13 j 01:09	7°♄29'46			112 Dec 21 j 15:32	0°♄	
evening set	112 Feb 15 j 14:20	7°♄02'17		evening rise	113 Jan 02 j 09:06	20°♄12'58	
inferior conj	112 Feb 22 j 13:02	2°♄14'03	3°35'31		113 Jan 07 j 22:56	0°♄	
minimum elong	112 Feb 22 j 15:25	2°♄08'43	3°35'14	asc. node	113 Jan 16 j 06:29	13°♄12'22	
	112 Feb 25 j 00:43	30°♄		evening max el	113 Jan 19 j 14:19	17°♄08'36	18°08'24
min. Earth dist.	112 Feb 25 j 21:12	29°♄15'36	0.60115 AU	retrograde	113 Jan 26 j 03:07	20°♄33'31	
morning rise	112 Feb 29 j 13:12	26°♄32'11		evening set	113 Jan 28 j 20:45	19°♄56'54	
direct	112 Mar 07 j 04:05	24°♄29'04		inferior conj	113 Feb 04 j 06:48	14°♄47'24	3°49'46
desc. node	112 Mar 09 j 23:03	24°♄49'55		minimum elong	113 Feb 04 j 06:57	14°♄47'02	3°49'46
	112 Mar 18 j 23:18	0°♄		min. Earth dist.	113 Feb 07 j 04:02	11°♄51'07	0.62190 AU
morning max el	112 Mar 21 j 10:41	2°♄16'45	27°26'53	morning rise	113 Feb 10 j 14:53	8°♄51'26	
	112 Apr 10 j 14:19	0°♄		direct	113 Feb 17 j 14:13	6°♄18'25	

desc. node	113 Feb 24 j 20:05	8° \approx 39'34		morning rise	114 Jan 24 j 10:09	21° Z 40'18	
morning max el	113 Mar 03 j 14:54	14° \approx 10'37	27°47'31	direct	114 Jan 31 j 08:03	18° Z 51'38	
	113 Mar 16 j 09:48	0° X		desc. node	114 Feb 11 j 17:08	24° Z 33'30	
	113 Apr 03 j 01:24	0° Y		morning max el	114 Feb 13 j 23:16	26° Z 41'21	27°31'40
morning set	113 Apr 06 j 01:34	5° Y 59'22			114 Feb 17 j 01:59	0° \approx	
max. Earth dist.	113 Apr 11 j 19:48	18° Y 04'31	1.32647 AU		114 Mar 10 j 00:08	0° X	
				morning set	114 Mar 20 j 21:18	19° X 59'51	
superior conj	113 Apr 13 j 13:16	21° Y 48'47	0°-7'-17		114 Mar 25 j 19:25	0° Y	
minimum elong	113 Apr 13 j 13:37	21° Y 50'38	0°07'12	max. Earth dist.	114 Mar 25 j 22:28	0° Y 15'56	1.33372 AU
behind sun begin	113 Apr 13 j 09:00	21° Y 25'34					
behind sun end	113 Apr 13 j 18:14	22° Y 15'44		superior conj	114 Mar 28 j 19:42	6° Y 21'25	0°-34'-11
asc. node	113 Apr 14 j 05:48	23° Y 18'39		minimum elong	114 Mar 28 j 21:21	6° Y 30'12	0°33'50
	113 Apr 17 j 07:35	0° X		asc. node	114 Apr 01 j 02:52	13° Y 25'30	
evening rise	113 Apr 20 j 13:24	6° X 57'35		evening rise	114 Apr 05 j 00:55	21° Y 46'32	
	113 May 02 j 17:16	0° II			114 Apr 09 j 01:21	0° X	
evening max el	113 May 15 j 07:51	16° II 26'43	24°14'29	evening max el	114 Apr 26 j 23:16	27° X 00'18	22°38'59
desc. node	113 May 23 j 19:21	22° II 19'34			114 Apr 30 j 12:19	0° II	
retrograde	113 May 29 j 04:40	23° II 25'40		retrograde	114 May 10 j 02:50	3° II 30'30	
evening set	113 Jun 02 j 18:07	22° II 39'23		desc. node	114 May 10 j 16:23	3° II 29'47	
min. Earth dist.	113 Jun 08 j 19:06	19° II 40'27	0.56608 AU	evening set	114 May 13 j 07:06	3° II 08'22	
inferior conj	113 Jun 11 j 09:37	18° II 02'23	-4°-20'-51		114 May 20 j 16:14	30° R X	
minimum elong	113 Jun 11 j 04:21	18° II 10'43	4°20'03	min. Earth dist.	114 May 21 j 07:29	29° X 38'32	0.55366 AU
morning rise	113 Jun 19 j 18:18	14° II 00'06		inferior conj	114 May 22 j 13:43	28° X 55'26	-3°-10'-40
direct	113 Jun 22 j 09:16	13° II 41'43		minimum elong	114 May 22 j 06:26	29° X 05'50	3°08'39
morning max el	113 Jul 02 j 00:08	18° II 09'33	19°38'41	morning rise	114 May 31 j 08:18	25° X 02'20	
	113 Jul 10 j 23:08	0° X		direct	114 Jun 03 j 04:09	24° X 43'50	
asc. node	113 Jul 11 j 05:01	0° X 24'39			114 Jun 14 j 11:11	0° II	
morning set	113 Jul 19 j 12:43	16° X 04'51		morning max el	114 Jun 14 j 10:08	29° X 57'35	20°55'02
	113 Jul 26 j 10:30	0° Q		asc. node	114 Jun 28 j 02:06	19° II 27'28	
					114 Jul 03 j 10:42	0° X	
superior conj	113 Jul 27 j 13:10	2° Q 12'17	1°46'58	morning set	114 Jul 03 j 19:45	0° X 46'28	
minimum elong	113 Jul 27 j 12:57	2° Q 11'14	1°46'58				
max. Earth dist.	113 Aug 02 j 10:46	13° Q 33'08	1.37457 AU	superior conj	114 Jul 11 j 08:35	16° X 24'16	1°42'09
evening rise	113 Aug 06 j 07:18	20° Q 35'37		minimum elong	114 Jul 11 j 07:00	16° X 16'06	1°42'03
	113 Aug 11 j 17:38	0° P		max. Earth dist.	114 Jul 15 j 19:40	25° X 23'46	1.35688 AU
desc. node	113 Aug 19 j 18:43	12° P 54'04			114 Jul 18 j 04:28	0° Q	
	113 Aug 31 j 19:32	0° Q		evening rise	114 Jul 20 j 00:59	3° Q 31'07	
evening max el	113 Sep 11 j 02:11	11° Q 55'04	25°22'04		114 Aug 04 j 15:37	0° P	
retrograde	113 Sep 23 j 02:32	18° Q 50'26		desc. node	114 Aug 06 j 15:45	3° P 00'47	
evening set	113 Sep 28 j 23:23	16° Q 22'55		evening max el	114 Aug 24 j 13:58	25° P 31'34	26°25'23
min. Earth dist.	113 Oct 03 j 10:30	11° Q 25'03	0.67049 AU		114 Aug 29 j 23:12	0° Q	
inferior conj	113 Oct 04 j 12:15	10° Q 01'33	0°-54'-54	retrograde	114 Sep 06 j 08:39	2° Q 43'13	
minimum elong	113 Oct 04 j 13:38	9° Q 57'04	0°54'20	evening set	114 Sep 12 j 19:40	0° Q 03'14	
asc. node	113 Oct 07 j 04:11	6° Q 44'27			114 Sep 12 j 21:13	30° R P	
morning rise	113 Oct 10 j 04:30	4° Q 01'14		min. Earth dist.	114 Sep 16 j 22:58	25° P 42'44	0.66230 AU
direct	113 Oct 13 j 13:10	2° Q 55'54		inferior conj	114 Sep 18 j 12:26	23° P 48'40	-1°-51'-15
morning max el	113 Oct 20 j 19:06	7° Q 02'49	19°30'34	minimum elong	114 Sep 18 j 15:17	23° P 40'01	1°50'08
greatest brilliancy	113 Oct 29 j 14:54	18° Q 17'51	-0.7m	morning rise	114 Sep 24 j 11:57	17° P 59'20	
	113 Nov 06 j 10:44	0° P		asc. node	114 Sep 24 j 01:16	18° P 15'19	
morning set	113 Nov 14 j 03:56	11° P 53'43		direct	114 Sep 27 j 11:15	17° P 09'18	
desc. node	113 Nov 15 j 17:59	14° P 21'20		morning max el	114 Oct 04 j 05:06	20° P 53'30	18°41'30
	113 Nov 25 j 17:59	0° X			114 Oct 11 j 08:05	0° Q	
max. Earth dist.	113 Nov 27 j 05:53	2° X 21'56	1.44471 AU	morning set	114 Oct 24 j 23:43	21° Q 19'39	
					114 Oct 30 j 10:51	0° P	
superior conj	113 Nov 30 j 23:47	8° X 19'44	-1°-29'-46	desc. node	114 Nov 02 j 15:02	5° P 00'53	
minimum elong	113 Nov 30 j 15:33	7° X 46'48	1°29'00				
	113 Dec 14 j 05:40	0° Z		superior conj	114 Nov 10 j 02:24	16° P 46'28	0°-47'-47
evening rise	113 Dec 15 j 03:43	1° Z 32'08		minimum elong	114 Nov 09 j 20:18	16° P 22'30	0°47'02
	114 Jan 02 j 15:59	0° \approx		max. Earth dist.	114 Nov 09 j 23:53	16° P 36'36	1.45025 AU
evening max el	114 Jan 03 j 02:51	0° \approx 28'18	18°22'54		114 Nov 18 j 11:46	0° X	
asc. node	114 Jan 03 j 03:31	0° \approx 29'59		evening rise	114 Nov 25 j 23:00	11° X 52'53	
retrograde	114 Jan 09 j 15:11	4° \approx 01'23			114 Dec 07 j 08:28	0° Z	
evening set	114 Jan 12 j 13:32	3° \approx 14'41		evening max el	114 Dec 17 j 13:31	13° Z 53'54	18°55'23
	114 Jan 16 j 13:19	30° R Z		asc. node	114 Dec 21 j 00:32	16° Z 44'29	
inferior conj	114 Jan 18 j 14:08	27° Z 45'17	3°43'18	retrograde	114 Dec 24 j 09:25	17° Z 45'55	
minimum elong	114 Jan 18 j 12:35	27° Z 49'44	3°43'09	evening set	114 Dec 27 j 13:32	16° Z 47'54	
min. Earth dist.	114 Jan 20 j 20:21	25° Z 10'55	0.64024 AU	inferior conj	115 Jan 02 j 07:23	11° Z 01'06	3°22'00

minimum elong	115 Jan 02 j 04:52	11°☿08'55	3°21'30		115 Dec 12 j 10:21	30°☿☿	
min. Earth dist.	115 Jan 03 j 22:18	9°☿00'18	0.65492 AU	inferior conj	115 Dec 17 j 07:26	24°☿28'55	2°49'48
morning rise	115 Jan 07 j 19:13	4°☿50'14		minimum elong	115 Dec 17 j 04:38	24°☿38'07	2°49'01
direct	115 Jan 14 j 08:30	2°☿00'24		min. Earth dist.	115 Dec 18 j 08:23	23°☿06'37	0.66572 AU
morning max el	115 Jan 27 j 09:08	9°☿38'21	26°44'14	morning rise	115 Dec 22 j 14:28	18°☿14'33	
desc. node	115 Jan 29 j 14:13	11°☿57'39		direct	115 Dec 28 j 14:52	15°☿35'12	
	115 Feb 12 j 10:38	0°≈		morning max el	116 Jan 09 j 18:16	22°☿48'09	25°33'19
	115 Mar 02 j 10:51	0°☿		desc. node	116 Jan 16 j 11:15	0°☿24'56	
morning set	115 Mar 04 j 06:14	3°☿24'13			116 Jan 16 j 03:12	0°☿	
max. Earth dist.	115 Mar 08 j 14:50	11°☿54'32	1.34540 AU		116 Feb 05 j 18:16	0°≈	
				morning set	116 Feb 14 j 23:42	15°≈57'53	
superior conj	115 Mar 12 j 20:33	20°☿32'44	-1°00'-48	max. Earth dist.	116 Feb 18 j 19:14	23°≈02'48	1.36155 AU
minimum elong	115 Mar 12 j 23:26	20°☿47'44	1°00'19		116 Feb 22 j 09:43	0°☿	
	115 Mar 17 j 08:56	0°☿					
asc. node	115 Mar 18 j 23:55	3°☿24'33		superior conj	116 Feb 24 j 13:00	4°☿13'57	-1°-25'-35
evening rise	115 Mar 20 j 10:25	6°☿24'20		minimum elong	116 Feb 24 j 16:46	4°☿32'45	1°25'05
	115 Apr 02 j 10:08	0°☿		evening rise	116 Mar 03 j 15:46	20°☿43'18	
evening max el	115 Apr 08 j 21:42	7°☿50'24	21°09'23	asc. node	116 Mar 04 j 20:56	23°☿10'32	
retrograde	115 Apr 20 j 16:48	13°☿34'02			116 Mar 08 j 08:25	0°☿	
evening set	115 Apr 23 j 00:15	13°☿21'37		evening max el	116 Mar 21 j 07:11	19°☿15'39	19°54'54
desc. node	115 Apr 27 j 13:24	11°☿53'17		retrograde	116 Mar 31 j 09:09	24°☿06'01	
inferior conj	115 May 02 j 08:07	9°☿22'44	-1°-21'-55	evening set	116 Apr 02 j 11:30	23°☿54'22	
minimum elong	115 May 02 j 04:16	9°☿28'11	1°20'35	inferior conj	116 Apr 11 j 07:07	19°☿53'46	0°36'25
min. Earth dist.	115 May 02 j 20:19	9°☿05'32	0.54984 AU	minimum elong	116 Apr 11 j 08:43	19°☿51'20	0°35'52
morning rise	115 May 11 j 08:05	5°☿20'35		desc. node	116 Apr 13 j 10:26	18°☿35'27	
direct	115 May 14 j 14:16	4°☿57'38		min. Earth dist.	116 Apr 13 j 10:28	18°☿35'25	0.55566 AU
morning max el	115 May 27 j 09:38	11°☿04'05	22°28'02	morning rise	116 Apr 20 j 02:50	15°☿24'29	
	115 Jun 10 j 05:31	0°☿		direct	116 Apr 24 j 05:34	14°☿47'07	
asc. node	115 Jun 14 j 23:11	8°☿56'19		morning max el	116 May 08 j 01:56	21°☿40'21	24°08'59
morning set	115 Jun 18 j 06:05	15°☿39'11			116 May 15 j 07:44	0°☿	
				asc. node	116 May 31 j 20:14	28°☿43'29	
superior conj	115 Jun 25 j 11:38	0°☿59'49	1°31'10		116 Jun 01 j 10:54	0°☿	
minimum elong	115 Jun 25 j 09:18	0°☿47'31	1°30'55	morning set	116 Jun 01 j 17:54	0°☿36'48	
	115 Jun 25 j 00:20	0°☿					
max. Earth dist.	115 Jun 28 j 13:22	7°☿25'46	1.34268 AU	superior conj	116 Jun 08 j 19:34	15°☿49'51	1°15'20
evening rise	115 Jul 03 j 09:47	17°☿11'43		minimum elong	116 Jun 08 j 17:06	15°☿36'27	1°14'57
	115 Jul 10 j 06:35	0°☿		max. Earth dist.	116 Jun 10 j 16:04	19°☿49'17	1.33240 AU
desc. node	115 Jul 24 j 12:45	22°☿41'18			116 Jun 15 j 12:44	0°☿	
	115 Jul 30 j 00:27	0°☿		evening rise	116 Jun 16 j 05:28	1°☿24'56	
evening max el	115 Aug 07 j 01:46	8°☿59'07	27°08'49		116 Jul 02 j 04:56	0°☿	
retrograde	115 Aug 20 j 09:29	16°☿18'10		desc. node	116 Jul 10 j 09:46	11°☿44'36	
evening set	115 Aug 27 j 07:54	13°☿33'15		evening max el	116 Jul 19 j 12:19	22°☿06'29	27°25'36
min. Earth dist.	115 Aug 31 j 04:02	9°☿50'10	0.65048 AU	retrograde	116 Aug 02 j 04:30	29°☿26'15	
inferior conj	115 Sep 02 j 06:17	7°☿29'16	-2°-46'-15	evening set	116 Aug 09 j 08:56	26°☿47'48	
minimum elong	115 Sep 02 j 10:23	7°☿17'43	2°44'50	min. Earth dist.	116 Aug 12 j 23:54	23°☿38'14	0.63499 AU
morning rise	115 Sep 08 j 14:31	1°☿54'08		inferior conj	116 Aug 15 j 15:12	20°☿57'57	-3°-36'-52
asc. node	115 Sep 10 j 22:21	1°☿16'22		minimum elong	116 Aug 15 j 20:00	20°☿45'44	3°35'35
direct	115 Sep 11 j 06:50	1°☿15'42		morning rise	116 Aug 22 j 09:17	15°☿40'07	
morning max el	115 Sep 17 j 19:24	4°☿46'28	18°08'58	direct	116 Aug 24 j 21:12	15°☿09'55	
	115 Oct 04 j 16:51	0°☿		asc. node	116 Aug 27 j 19:25	15°☿52'02	
morning set	115 Oct 06 j 00:10	2°☿10'04		morning max el	116 Aug 31 j 11:13	18°☿35'33	17°53'57
					116 Sep 08 j 18:33	0°☿	
superior conj	115 Oct 20 j 06:42	25°☿24'19	0°01'29	morning set	116 Sep 17 j 02:10	14°☿14'24	
minimum elong	115 Oct 20 j 06:53	25°☿25'03	0°01'28		116 Sep 26 j 06:29	0°☿	
behind sun begin	115 Oct 19 j 20:05	24°☿42'01					
behind sun end	115 Oct 20 j 17:41	26°☿08'01		superior conj	116 Sep 29 j 08:02	5°☿06'32	0°45'46
desc. node	115 Oct 20 j 12:03	25°☿45'38		minimum elong	116 Sep 29 j 12:26	5°☿24'41	0°45'11
	115 Oct 23 j 04:14	0°☿		max. Earth dist.	116 Oct 05 j 11:09	15°☿05'00	1.43949 AU
max. Earth dist.	115 Oct 23 j 18:37	0°☿56'47	1.44838 AU	desc. node	116 Oct 06 j 09:05	16°☿32'40	
evening rise	115 Nov 05 j 19:43	21°☿19'10			116 Oct 14 j 23:00	0°☿	
	115 Nov 11 j 10:23	0°☿		evening rise	116 Oct 15 j 03:22	0°☿16'50	
greatest brilliancy	115 Nov 23 j 02:08	17°☿31'35	-0.6m		116 Nov 04 j 04:09	0°☿	
evening max el	115 Nov 30 j 20:15	27°☿21'24	19°44'19	greatest brilliancy	116 Nov 07 j 04:55	4°☿04'55	-0.5m
	115 Dec 03 j 20:06	0°☿		evening max el	116 Nov 12 j 21:40	10°☿50'04	20°47'20
asc. node	115 Dec 07 j 21:35	1°☿40'17		retrograde	116 Nov 21 j 04:13	15°☿43'51	
retrograde	115 Dec 08 j 06:35	1°☿41'04		asc. node	116 Nov 23 j 18:38	15°☿05'32	
evening set	115 Dec 11 j 18:08	0°☿30'06		evening set	116 Nov 25 j 01:14	14°☿17'55	

inferior conj	116 Nov 30 j 11:49	8°♂05'40	2°09'27	evening max el	117 Oct 26 j 17:23	24°♂19'23	22°01'00
minimum elong	116 Nov 30 j 09:18	8°♂14'14	2°08'35	retrograde	117 Nov 05 j 00:27	29°♂50'57	
min. Earth dist.	116 Dec 01 j 00:23	7°♂22'42	0.67280 AU	evening set	117 Nov 09 j 09:02	28°♂08'05	
morning rise	116 Dec 05 j 16:55	1°♂50'03		asc. node	117 Nov 10 j 15:40	26°♂58'27	
	116 Dec 08 j 12:38	30°♂♂		inferior conj	117 Nov 14 j 18:28	21°♂48'17	1°22'54
direct	116 Dec 11 j 02:28	29°♂29'00		minimum elong	117 Nov 14 j 16:40	21°♂54'30	1°22'10
	116 Dec 13 j 20:20	0°♂		min. Earth dist.	117 Nov 14 j 19:52	21°♂43'25	0.67637 AU
morning max el	116 Dec 22 j 02:36	6°♂03'01	24°08'54	morning rise	117 Nov 20 j 00:05	15°♂33'46	
desc. node	117 Jan 02 j 08:17	19°♂37'13		direct	117 Nov 24 j 18:22	13°♂34'54	
	117 Jan 09 j 16:16	0°♂		morning max el	117 Dec 04 j 12:43	19°♂22'12	22°41'02
morning set	117 Jan 26 j 19:48	27°♂24'35		greatest brilliancy	117 Dec 09 j 03:51	24°♂32'58	-0.3m
	117 Jan 28 j 07:30	0°♂			117 Dec 13 j 10:50	0°♂	
max. Earth dist.	117 Jan 30 j 15:07	4°♂06'26	1.38135 AU	desc. node	117 Dec 20 j 05:19	9°♂21'20	
					118 Jan 02 j 21:12	0°♂	
superior conj	117 Feb 06 j 17:39	17°♂16'08	-1°-46'-12	morning set	118 Jan 07 j 12:29	7°♂29'04	
minimum elong	117 Feb 06 j 21:23	17°♂33'58	1°45'53	max. Earth dist.	118 Jan 12 j 10:54	15°♂44'27	1.40267 AU
	117 Feb 13 j 06:24	0°♂					
evening rise	117 Feb 15 j 14:32	4°♂36'57		superior conj	118 Jan 20 j 05:58	29°♂27'32	-1°-59'-27
asc. node	117 Feb 19 j 17:57	12°♂38'20		minimum elong	118 Jan 20 j 08:04	29°♂37'02	1°59'23
	117 Mar 02 j 20:48	0°♂			118 Jan 20 j 13:07	0°♂	
evening max el	117 Mar 04 j 03:34	1°♂19'20	18°59'25	evening rise	118 Jan 30 j 03:44	17°♂57'45	
retrograde	117 Mar 12 j 15:32	5°♂25'20			118 Feb 05 j 15:43	0°♂	
evening set	117 Mar 14 j 21:19	5°♂09'25		asc. node	118 Feb 06 j 14:58	1°♂41'31	
inferior conj	117 Mar 22 j 22:40	0°♂54'06	2°13'09	evening max el	118 Feb 15 j 08:20	13°♂54'53	18°23'59
minimum elong	117 Mar 23 j 02:56	0°♂46'35	2°11'56	retrograde	118 Feb 22 j 17:02	17°♂32'56	
	117 Mar 24 j 05:16	30°♂♂		evening set	118 Feb 25 j 03:45	17°♂09'59	
min. Earth dist.	117 Mar 26 j 02:21	28°♂41'51	0.56980 AU	inferior conj	118 Mar 04 j 11:16	12°♂33'56	3°15'03
morning rise	117 Mar 31 j 04:20	25°♂51'57		minimum elong	118 Mar 04 j 14:49	12°♂26'36	3°14'23
desc. node	117 Mar 31 j 07:27	25°♂48'49		min. Earth dist.	118 Mar 07 j 21:43	9°♂45'41	0.58912 AU
direct	117 Apr 05 j 10:00	24°♂46'48		morning rise	118 Mar 11 j 22:09	7°♂04'12	
	117 Apr 17 j 06:32	0°♂		direct	118 Mar 18 j 03:28	5°♂22'32	
morning max el	117 Apr 19 j 16:41	2°♂10'44	25°44'11	desc. node	118 Mar 18 j 04:28	5°♂22'32	
	117 May 09 j 08:28	0°♂		morning max el	118 Apr 01 j 11:25	13°♂03'17	26°58'30
morning set	117 May 17 j 05:34	15°♂33'59			118 Apr 14 j 20:59	0°♂	
asc. node	117 May 18 j 17:15	18°♂43'22			118 May 01 j 10:38	0°♂	
	117 May 23 j 21:41	0°♂		morning set	118 May 01 j 15:29	0°♂25'22	
				asc. node	118 May 05 j 14:17	8°♂51'19	
superior conj	117 May 24 j 06:19	0°♂47'18	0°55'37				
minimum elong	117 May 24 j 04:10	0°♂35'34	0°55'14	superior conj	118 May 08 j 18:05	15°♂46'10	0°32'53
max. Earth dist.	117 May 25 j 01:29	2°♂32'09	1.32602 AU	minimum elong	118 May 08 j 16:41	15°♂38'26	0°32'36
evening rise	117 May 31 j 08:44	16°♂00'24		max. Earth dist.	118 May 08 j 14:12	15°♂24'48	1.32331 AU
	117 Jun 07 j 11:56	0°♂			118 May 15 j 07:32	0°♂	
desc. node	117 Jun 27 j 06:47	29°♂54'44		evening rise	118 May 15 j 16:57	0°♂49'36	
	117 Jun 27 j 08:37	0°♂			118 May 31 j 15:57	0°♂	
evening max el	117 Jul 01 j 19:17	4°♂40'44	27°10'35	evening max el	118 Jun 13 j 20:11	16°♂31'52	26°22'34
retrograde	117 Jul 15 j 16:36	11°♂57'35		desc. node	118 Jun 14 j 03:47	16°♂49'51	
evening set	117 Jul 22 j 18:44	9°♂39'16		retrograde	118 Jun 27 j 20:23	23°♂45'17	
min. Earth dist.	117 Jul 26 j 09:28	6°♂53'45	0.61641 AU	evening set	118 Jul 04 j 08:44	21°♂59'31	
inferior conj	117 Jul 29 j 12:02	4°♂06'39	-4°-18'-22	min. Earth dist.	118 Jul 08 j 09:11	19°♂22'45	0.59603 AU
minimum elong	117 Jul 29 j 16:19	3°♂56'59	4°17'39	inferior conj	118 Jul 11 j 17:17	16°♂46'38	-4°-43'-13
	117 Aug 03 j 19:41	30°♂♂		minimum elong	118 Jul 11 j 19:07	16°♂43'01	4°43'08
morning rise	117 Aug 05 j 16:42	29°♂09'14		morning rise	118 Jul 19 j 08:52	12°♂12'00	
direct	117 Aug 08 j 02:54	28°♂44'23		direct	118 Jul 21 j 19:47	11°♂50'33	
	117 Aug 12 j 06:32	0°♂		morning max el	118 Jul 29 j 11:33	15°♂31'59	18°20'25
asc. node	117 Aug 14 j 16:28	1°♂51'26		asc. node	118 Aug 01 j 13:30	18°♂59'59	
morning max el	117 Aug 15 j 01:35	2°♂13'08	17°57'23		118 Aug 08 j 14:06	0°♂	
morning set	117 Aug 30 j 23:34	27°♂14'13		morning set	118 Aug 14 j 10:59	10°♂55'07	
	117 Sep 01 j 11:53	0°♂					
superior conj	117 Sep 10 j 12:43	16°♂09'09	1°18'14	superior conj	118 Aug 23 j 17:54	28°♂24'48	1°37'52
minimum elong	117 Sep 10 j 17:28	16°♂29'45	1°17'44	minimum elong	118 Aug 23 j 20:54	28°♂38'31	1°37'40
max. Earth dist.	117 Sep 17 j 23:22	28°♂45'13	1.42474 AU		118 Aug 24 j 14:45	0°♂	
	117 Sep 18 j 17:34	0°♂		max. Earth dist.	118 Aug 31 j 06:25	11°♂45'47	1.40603 AU
desc. node	117 Sep 23 j 06:06	7°♂18'19		evening rise	118 Sep 04 j 22:36	19°♂37'21	
evening rise	117 Sep 24 j 15:16	9°♂29'43		desc. node	118 Sep 10 j 03:09	27°♂59'17	
	117 Oct 08 j 03:20	0°♂			118 Sep 11 j 09:55	0°♂	
greatest brilliancy	117 Oct 21 j 23:36	18°♂57'18	-0.3m	evening max el	118 Oct 02 j 11:22	0°♂	
					118 Oct 09 j 08:17	7°♂50'35	23°20'29

retrograde	118 Oct 19 j 17:57	13° \mathbb{M} 59'49		max. Earth dist.	119 Aug 13 j 09:35	24° Ω 02'43	1.38579 AU
evening set	118 Oct 24 j 15:54	11° \mathbb{M} 58'50			119 Aug 16 j 18:06	0° \mathbb{M}	
asc. node	118 Oct 28 j 12:42	7° \mathbb{M} 40'18		evening rise	119 Aug 17 j 06:41	0° \mathbb{M} 54'42	
min. Earth dist.	118 Oct 29 j 16:27	6° \mathbb{M} 06'25	0.67661 AU	desc. node	119 Aug 28 j 00:11	18° \mathbb{M} 31'07	
inferior conj	118 Oct 30 j 01:35	5° \mathbb{M} 35'09	0°31'41		119 Sep 04 j 16:55	0° Ω	
minimum elong	118 Oct 30 j 00:50	5° \mathbb{M} 37'42	0°31'22	evening max el	119 Sep 21 j 20:20	21° Ω 24'43	24°39'39
	118 Nov 03 j 16:49	30° \mathbb{R} Ω		retrograde	119 Oct 03 j 07:44	28° Ω 06'35	
morning rise	118 Nov 04 j 09:50	29° Ω 24'08		evening set	119 Oct 08 j 20:10	25° Ω 47'55	
direct	118 Nov 08 j 13:40	27° Ω 47'57		min. Earth dist.	119 Oct 13 j 11:51	20° Ω 29'36	0.67359 AU
	118 Nov 13 j 23:35	0° \mathbb{M}		inferior conj	119 Oct 14 j 07:27	19° Ω 24'20	0°-22'-43
morning max el	118 Nov 17 j 04:18	2° \mathbb{M} 50'01	21°18'06	minimum elong	119 Oct 14 j 08:00	19° Ω 22'28	0°22'30
greatest brilliancy	118 Nov 22 j 10:07	8° \mathbb{M} 51'40	-0.4m	asc. node	119 Oct 15 j 09:46	17° Ω 57'36	
desc. node	118 Dec 07 j 02:22	29° \mathbb{M} 28'29		morning rise	119 Oct 19 j 20:16	13° Ω 19'23	
	118 Dec 07 j 10:48	0° \mathbb{M}		direct	119 Oct 23 j 11:14	12° Ω 03'52	
morning set	118 Dec 18 j 00:48	16° \mathbb{M} 14'06		morning max el	119 Oct 31 j 03:24	16° Ω 28'25	20°05'53
max. Earth dist.	118 Dec 25 j 13:05	28° \mathbb{M} 18'16	1.42254 AU	greatest brilliancy	119 Nov 07 j 04:41	25° Ω 03'30	-0.6m
	118 Dec 26 j 13:48	0° Ω			119 Nov 10 j 17:12	0° \mathbb{M}	
				desc. node	119 Nov 23 j 23:26	19° \mathbb{M} 52'09	
superior conj	119 Jan 01 j 20:35	10° Ω 35'06	-2°-1'-6	morning set	119 Nov 26 j 21:33	24° \mathbb{M} 22'13	
minimum elong	119 Jan 01 j 18:52	10° Ω 27'44	2°01'05		119 Nov 30 j 12:33	0° \mathbb{M}	
	119 Jan 12 j 19:25	0° \approx		max. Earth dist.	119 Dec 07 j 22:37	11° \mathbb{M} 42'44	1.43823 AU
evening rise	119 Jan 13 j 03:47	0° \approx 37'56					
asc. node	119 Jan 24 j 12:00	20° \approx 12'02		superior conj	119 Dec 13 j 08:57	20° \mathbb{M} 29'33	-1°-46'-35
evening max el	119 Jan 29 j 18:23	26° \approx 53'29	18°08'26	minimum elong	119 Dec 13 j 02:22	20° \mathbb{M} 02'38	1°46'08
	119 Feb 03 j 10:37	0° \mathbb{M}			119 Dec 19 j 02:37	0° Ω	
retrograde	119 Feb 05 j 11:33	0° \mathbb{M} 19'27		evening rise	119 Dec 26 j 10:27	12° Ω 29'18	
	119 Feb 07 j 13:06	30° \mathbb{R} \approx			120 Jan 05 j 18:47	0° \approx	
evening set	119 Feb 08 j 02:39	29° \approx 48'09		asc. node	120 Jan 11 j 09:03	8° \approx 00'10	
inferior conj	119 Feb 14 j 19:30	24° \approx 50'24	3°44'33	evening max el	120 Jan 13 j 06:47	10° \approx 07'37	18°12'16
minimum elong	119 Feb 14 j 20:54	24° \approx 47'03	3°44'27	retrograde	120 Jan 19 j 18:32	13° \approx 35'00	
min. Earth dist.	119 Feb 17 j 23:40	21° \approx 50'17	0.61015 AU	evening set	120 Jan 22 j 13:57	12° \approx 54'22	
morning rise	119 Feb 21 j 12:22	19° \approx 01'38		inferior conj	120 Jan 28 j 19:38	7° \approx 36'06	3°49'09
direct	119 Feb 28 j 08:00	16° \approx 44'45		minimum elong	120 Jan 28 j 18:58	7° \approx 37'54	3°49'08
desc. node	119 Mar 05 j 01:31	17° \approx 44'52		min. Earth dist.	120 Jan 31 j 10:41	4° \approx 47'03	0.63004 AU
morning max el	119 Mar 14 j 12:37	24° \approx 34'41	27°40'20	morning rise	120 Feb 03 j 22:02	1° \approx 35'30	
	119 Mar 19 j 11:27	0° \mathbb{M}			120 Feb 06 j 10:02	30° \mathbb{R} Ω	
	119 Apr 08 j 03:59	0° \mathbb{Y}		direct	120 Feb 10 j 21:39	28° Ω 53'57	
morning set	119 Apr 15 j 21:45	15° \mathbb{Y} 03'22			120 Feb 15 j 16:24	0° \approx	
max. Earth dist.	119 Apr 22 j 02:08	28° \mathbb{Y} 12'07	1.32424 AU	desc. node	120 Feb 19 j 22:34	2° \approx 32'22	
asc. node	119 Apr 22 j 11:19	29° \mathbb{Y} 02'06		morning max el	120 Feb 24 j 19:13	6° \approx 46'50	27°45'03
	119 Apr 22 j 21:55	0° \mathbb{M}			120 Mar 13 j 12:46	0° \mathbb{M}	
				morning set	120 Mar 29 j 22:09	29° \mathbb{M} 20'38	
superior conj	119 Apr 23 j 05:09	0° \mathbb{M} 39'32	0°07'53		120 Mar 30 j 05:59	0° \mathbb{Y}	
minimum elong	119 Apr 23 j 04:47	0° \mathbb{M} 37'33	0°07'48	max. Earth dist.	120 Apr 04 j 09:17	10° \mathbb{Y} 40'10	1.32905 AU
behind sun begin	119 Apr 23 j 00:21	0° \mathbb{M} 13'18					
behind sun end	119 Apr 23 j 09:14	1° \mathbb{M} 01'50		superior conj	120 Apr 06 j 13:51	15° \mathbb{Y} 21'49	0°-18'-37
evening rise	119 Apr 30 j 03:54	15° \mathbb{M} 43'47		minimum elong	120 Apr 06 j 14:44	15° \mathbb{Y} 26'37	0°18'27
	119 May 07 j 07:06	0° \mathbb{M}		asc. node	120 Apr 08 j 08:22	19° \mathbb{Y} 11'46	
evening max el	119 May 26 j 14:04	27° \mathbb{M} 37'40	25°06'26		120 Apr 13 j 08:50	0° \mathbb{M}	
	119 May 29 j 06:36	0° Ω		evening rise	120 Apr 13 j 15:45	0° \mathbb{M} 36'33	
desc. node	119 Jun 01 j 00:48	1° Ω 58'46			120 Apr 30 j 03:30	0° \mathbb{M}	
retrograde	119 Jun 09 j 14:12	4° Ω 45'22		evening max el	120 May 07 j 04:27	8° \mathbb{M} 14'52	23°33'49
evening set	119 Jun 14 j 23:39	3° Ω 38'21		desc. node	120 May 17 j 21:49	14° \mathbb{M} 45'13	
min. Earth dist.	119 Jun 20 j 01:41	0° Ω 52'00	0.57608 AU	retrograde	120 May 20 j 20:09	15° \mathbb{M} 04'47	
	119 Jun 21 j 08:53	30° \mathbb{R} \mathbb{M}		evening set	120 May 24 j 18:33	14° \mathbb{M} 30'43	
inferior conj	119 Jun 23 j 03:31	28° \mathbb{M} 47'16	-4°-40'-15	min. Earth dist.	120 May 31 j 14:57	11° \mathbb{M} 19'52	0.55990 AU
minimum elong	119 Jun 23 j 00:55	28° \mathbb{M} 51'40	4°40'05	inferior conj	120 Jun 02 j 17:40	10° \mathbb{M} 03'56	-3°-56'-43
morning rise	119 Jul 01 j 06:04	24° \mathbb{M} 35'05		minimum elong	120 Jun 02 j 10:56	10° \mathbb{M} 14'03	3°55'19
direct	119 Jul 03 j 19:15	24° \mathbb{M} 15'55		morning rise	120 Jun 11 j 06:51	6° \mathbb{M} 07'28	
morning max el	119 Jul 12 j 14:07	28° \mathbb{M} 22'25	19°04'07	direct	120 Jun 13 j 23:18	5° \mathbb{M} 49'30	
	119 Jul 14 j 04:28	0° Ω		morning max el	120 Jun 24 j 06:42	10° \mathbb{M} 35'35	20°08'49
asc. node	119 Jul 19 j 10:34	7° Ω 02'17		asc. node	120 Jul 05 j 07:38	25° \mathbb{M} 45'57	
morning set	119 Jul 29 j 08:18	25° Ω 05'25			120 Jul 07 j 15:12	0° Ω	
	119 Jul 31 j 19:46	0° Ω		morning set	120 Jul 12 j 12:26	9° Ω 37'15	
superior conj	119 Aug 06 j 17:51	11° Ω 36'54	1°46'19	superior conj	120 Jul 20 j 07:22	25° Ω 30'33	1°45'46
minimum elong	119 Aug 06 j 18:42	11° Ω 41'01	1°46'18	minimum elong	120 Jul 20 j 06:29	25° Ω 26'09	1°45'44

	120 Jul 22 j 13:28	0°♌		max. Earth dist.	121 Jul 08 j 02:36	17°♌46'44	1.35038 AU
max. Earth dist.	120 Jul 25 j 14:16	5°♌53'24	1.36663 AU	evening rise	121 Jul 12 j 14:13	26°♌35'02	
evening rise	120 Jul 29 j 13:28	13°♌18'00			121 Jul 14 j 09:38	0°♌	
	120 Aug 08 j 06:15	0°♍		desc. node	121 Jul 31 j 18:12	28°♌45'34	
desc. node	120 Aug 13 j 21:12	8°♍48'41			121 Aug 01 j 14:49	0°♍	
	120 Aug 29 j 14:51	0°♎		evening max el	121 Aug 16 j 19:50	18°♍36'16	26°46'51
evening max el	120 Sep 03 j 07:48	5°♎01'26	25°51'04	retrograde	121 Aug 29 j 20:57	25°♍52'06	
retrograde	120 Sep 15 j 16:59	12°♎05'54		evening set	121 Sep 05 j 13:07	23°♍09'12	
evening set	120 Sep 21 j 19:57	9°♎32'19		min. Earth dist.	121 Sep 09 j 13:21	19°♍04'28	0.65766 AU
min. Earth dist.	120 Sep 26 j 03:36	4°♎50'07	0.66732 AU	inferior conj	121 Sep 11 j 08:02	16°♍58'33	-2°-14'-55
inferior conj	120 Sep 27 j 10:15	3°♎13'03	-1°-18'-53	minimum elong	121 Sep 11 j 11:27	16°♍48'28	2°13'38
minimum elong	120 Sep 27 j 12:15	3°♎06'42	1°18'03	morning rise	121 Sep 17 j 11:04	11°♍14'34	
	120 Sep 30 j 02:26	30°♍		asc. node	121 Sep 18 j 03:54	10°♍55'14	
asc. node	120 Oct 01 j 06:51	28°♍47'38		direct	121 Sep 20 j 07:04	10°♍29'52	
morning rise	120 Oct 03 j 05:23	27°♍17'01		morning max el	121 Sep 26 j 21:53	14°♍07'34	18°25'32
direct	120 Oct 06 j 09:40	26°♍18'47			121 Oct 08 j 08:06	0°♎	
	120 Oct 13 j 03:41	0°♎		morning set	121 Oct 16 j 11:05	13°♎05'50	
morning max el	120 Oct 13 j 09:49	0°♎15'20	19°07'43		121 Oct 27 j 00:07	0°♏	
	120 Nov 03 j 04:11	0°♏		desc. node	121 Oct 27 j 17:31	1°♏09'02	
morning set	120 Nov 05 j 03:11	3°♏03'38					
desc. node	120 Nov 09 j 20:29	10°♏26'49		superior conj	121 Oct 31 j 20:56	7°♏41'36	0°-27'-1
max. Earth dist.	120 Nov 19 j 13:52	25°♏42'26	1.44785 AU	minimum elong	121 Oct 31 j 17:23	7°♏27'37	0°26'33
				max. Earth dist.	121 Nov 02 j 08:24	10°♏01'10	1.45036 AU
superior conj	120 Nov 21 j 20:26	29°♏17'55	-1°-13'-39		121 Nov 15 j 01:52	0°♐	
minimum elong	120 Nov 21 j 12:17	28°♏45'40	1°12'45	evening rise	121 Nov 17 j 04:28	3°♐19'01	
	120 Nov 22 j 07:04	0°♐		greatest brilliancy	121 Nov 30 j 05:45	23°♐41'32	-0.7m
evening rise	120 Dec 06 j 19:21	23°♐23'19			121 Dec 04 j 13:22	0°♑	
	120 Dec 10 j 19:56	0°♑		evening max el	121 Dec 10 j 04:06	6°♑57'19	19°14'22
evening max el	120 Dec 26 j 18:49	23°♑30'21	18°34'39	asc. node	121 Dec 15 j 03:10	10°♑35'41	
asc. node	120 Dec 28 j 06:07	24°♑52'51		retrograde	121 Dec 17 j 05:14	10°♑59'44	
retrograde	121 Jan 02 j 09:34	27°♑10'21		evening set	121 Dec 20 j 12:21	9°♑56'24	
evening set	121 Jan 05 j 10:08	26°♑19'10		inferior conj	121 Dec 26 j 04:02	4°♑03'20	3°09'28
inferior conj	121 Jan 11 j 07:36	20°♑42'21	3°35'47	minimum elong	121 Dec 26 j 01:19	4°♑11'59	3°08'50
minimum elong	121 Jan 11 j 05:32	20°♑48'27	3°35'30	min. Earth dist.	121 Dec 27 j 12:51	2°♑18'33	0.66005 AU
min. Earth dist.	121 Jan 13 j 07:20	18°♑20'55	0.64694 AU		121 Dec 29 j 10:44	30°♒	
morning rise	121 Jan 16 j 23:40	14°♑34'27		morning rise	121 Dec 31 j 13:28	27°♒50'57	
direct	121 Jan 23 j 18:40	11°♑43'15		direct	122 Jan 06 j 21:49	25°♒04'09	
desc. node	121 Feb 05 j 19:38	19°♑08'08			122 Jan 16 j 20:57	0°♓	
morning max el	121 Feb 06 j 04:28	19°♑30'04	27°14'50	morning max el	122 Jan 19 j 13:54	2°♓32'41	26°16'19
	121 Feb 15 j 04:03	0°♔		desc. node	122 Jan 23 j 16:41	7°♓01'29	
	121 Mar 06 j 12:33	0°♔			122 Feb 09 j 08:59	0°♔	
morning set	121 Mar 13 j 13:46	13°♔07'20		morning set	122 Feb 24 j 16:44	26°♔11'43	
max. Earth dist.	121 Mar 18 j 07:39	22°♔36'51	1.33812 AU		122 Feb 26 j 17:02	0°♕	
				max. Earth dist.	122 Feb 28 j 18:38	3°♕59'49	1.35177 AU
superior conj	121 Mar 21 j 18:12	29°♕46'26	0°-45'-35				
minimum elong	121 Mar 21 j 20:24	29°♕58'02	0°45'10	superior conj	122 Mar 05 j 15:51	13°♕46'12	-1°-11'-40
	121 Mar 21 j 20:46	0°♖		minimum elong	122 Mar 05 j 19:11	14°♕03'13	1°11'08
asc. node	121 Mar 26 j 05:26	9°♖15'53		evening rise	122 Mar 13 j 10:36	29°♕51'58	
evening rise	121 Mar 29 j 02:37	15°♖21'20		asc. node	122 Mar 13 j 02:28	29°♕10'06	
	121 Apr 05 j 12:43	0°♗			122 Mar 13 j 12:10	0°♖	
evening max el	121 Apr 18 j 22:14	18°♗52'55	21°59'28	evening max el	122 Apr 01 j 01:15	29°♖57'14	20°35'31
retrograde	121 May 01 j 13:56	25°♗04'46			122 Apr 01 j 02:24	0°♗	
evening set	121 May 04 j 07:01	24°♗48'26		retrograde	122 Apr 12 j 02:49	5°♗17'20	
desc. node	121 May 04 j 18:49	24°♗42'07		evening set	122 Apr 14 j 06:43	5°♗05'57	
min. Earth dist.	121 May 13 j 03:42	21°♗01'04	0.55088 AU	desc. node	122 Apr 21 j 15:51	2°♗09'32	
inferior conj	121 May 13 j 16:11	20°♗43'33	-2°-27'-57	inferior conj	122 Apr 23 j 10:42	1°♗08'34	0°-30'-46
minimum elong	121 May 13 j 09:45	20°♗52'35	2°25'55	minimum elong	122 Apr 23 j 09:15	1°♗10'39	0°30'15
morning rise	121 May 22 j 13:51	16°♗48'37		min. Earth dist.	122 Apr 24 j 16:53	0°♗25'03	0.55122 AU
direct	121 May 25 j 13:02	16°♗28'59			122 Apr 25 j 10:31	30°♘	
morning max el	121 Jun 06 j 12:01	22°♗05'44	21°32'52	morning rise	122 May 02 j 10:13	26°♘56'47	
	121 Jun 13 j 06:06	0°♙		direct	122 May 06 j 00:16	26°♘29'00	
asc. node	121 Jun 22 j 04:42	15°♙00'57			122 May 15 j 18:13	0°♘	
morning set	121 Jun 26 j 21:07	24°♙24'28		morning max el	122 May 19 j 07:39	2°♘56'30	23°10'41
	121 Jun 29 j 13:19	0°♚			122 Jun 06 j 17:44	0°♙	
				asc. node	122 Jun 09 j 01:44	4°♙38'31	
superior conj	121 Jul 04 j 06:24	9°♚54'00	1°38'09	morning set	122 Jun 11 j 08:18	9°♙20'16	
minimum elong	121 Jul 04 j 04:26	9°♚43'42	1°38'00				

superior conj	122 Jun 18 j 11:48	24° Π 36'42	1°24'58	superior conj	123 Jun 02 j 21:12	9° Π 31'15	1°07'24
minimum elong	122 Jun 18 j 09:21	24° Π 23'34	1°24'40	minimum elong	123 Jun 02 j 18:49	9° Π 18'15	1°07'00
max. Earth dist.	122 Jun 21 j 00:34	29° Π 59'05	1.33788 AU	max. Earth dist.	123 Jun 04 j 06:46	12° Π 33'21	1.32927 AU
	122 Jun 21 j 00:45	0° \mathfrak{S}		evening rise	123 Jun 10 j 03:25	24° Π 55'35	
evening rise	122 Jun 26 j 04:07	10° \mathfrak{S} 31'19			123 Jun 12 j 16:04	0° \mathfrak{S}	
	122 Jul 06 j 18:15	0° Ω			123 Jun 30 j 07:55	0° Ω	
desc. node	122 Jul 18 j 15:12	18° Ω 12'00		desc. node	123 Jul 05 j 12:11	6° Ω 55'06	
	122 Jul 28 j 08:26	0° \mathfrak{M}		evening max el	123 Jul 12 j 16:50	14° Ω 52'23	27°23'05
evening max el	122 Jul 30 j 07:33	1° \mathfrak{M} 57'38	27°19'35	retrograde	123 Jul 26 j 11:07	22° Ω 10'42	
retrograde	122 Aug 12 j 19:08	9° \mathfrak{M} 16'39		evening set	123 Aug 02 j 16:01	19° Ω 38'51	
evening set	122 Aug 19 j 20:57	6° \mathfrak{M} 33'15		min. Earth dist.	123 Aug 06 j 05:59	16° Ω 41'20	0.62752 AU
min. Earth dist.	122 Aug 23 j 14:40	3° \mathfrak{M} 05'03	0.64437 AU	inferior conj	123 Aug 09 j 02:34	13° Ω 56'17	-3°-55'-55
inferior conj	122 Aug 25 j 22:24	0° \mathfrak{M} 35'05	-3°-8'-28	minimum elong	123 Aug 09 j 07:21	13° Ω 44'44	3°54'50
minimum elong	122 Aug 26 j 02:55	0° \mathfrak{M} 22'56	3°07'04	morning rise	123 Aug 16 j 01:08	8° Ω 46'58	
	122 Aug 26 j 11:28	30° \mathfrak{R} Ω		direct	123 Aug 18 j 12:06	8° Ω 19'16	
morning rise	122 Sep 01 j 10:42	25° Ω 06'43		asc. node	123 Aug 22 j 21:59	9° Ω 50'23	
direct	122 Sep 04 j 00:57	24° Ω 32'01		morning max el	123 Aug 25 j 04:42	11° Ω 44'45	17°53'05
asc. node	122 Sep 05 j 00:57	24° Ω 37'13			123 Sep 06 j 11:14	0° \mathfrak{M}	
morning max el	122 Sep 10 j 13:06	27° Ω 59'22	18°00'22	morning set	123 Sep 10 j 10:04	7° \mathfrak{M} 00'00	
	122 Sep 12 j 08:52	0° \mathfrak{M}					
morning set	122 Sep 27 j 23:07	24° \mathfrak{M} 30'05		superior conj	123 Sep 21 j 21:19	26° \mathfrak{M} 58'08	1°01'09
	122 Oct 01 j 05:17	0° \mathfrak{A}		minimum elong	123 Sep 22 j 02:15	27° \mathfrak{M} 18'55	1°00'34
					123 Sep 23 j 16:40	0° \mathfrak{A}	
superior conj	122 Oct 11 j 08:23	16° \mathfrak{A} 41'37	0°21'28	max. Earth dist.	123 Sep 28 j 18:13	8° \mathfrak{A} 19'19	1.43386 AU
minimum elong	122 Oct 11 j 10:51	16° \mathfrak{A} 51'34	0°21'07	desc. node	123 Oct 01 j 11:33	12° \mathfrak{A} 41'48	
desc. node	122 Oct 14 j 14:32	21° \mathfrak{A} 55'02		evening rise	123 Oct 07 j 01:00	21° \mathfrak{A} 26'51	
max. Earth dist.	122 Oct 16 j 02:59	24° \mathfrak{A} 19'55	1.44547 AU		123 Oct 12 j 14:46	0° \mathfrak{M}	
	122 Oct 19 j 17:12	0° \mathfrak{M}		greatest brilliancy	123 Nov 01 j 03:39	12° \mathfrak{M} 54'32	-0.4m
evening rise	122 Oct 27 j 17:51	12° \mathfrak{M} 28'46			123 Nov 02 j 20:13	0° \mathfrak{A}	
	122 Nov 08 j 05:50	0° \mathfrak{A}		evening max el	123 Nov 06 j 07:33	3° \mathfrak{A} 53'41	21°17'37
greatest brilliancy	122 Nov 16 j 15:22	12° \mathfrak{A} 09'46	-0.6m	retrograde	123 Nov 15 j 00:07	9° \mathfrak{A} 03'36	
evening max el	122 Nov 23 j 08:42	20° \mathfrak{A} 25'28	20°09'37	asc. node	123 Nov 18 j 21:13	7° \mathfrak{A} 39'12	
retrograde	122 Dec 01 j 02:48	24° \mathfrak{A} 58'38		evening set	123 Nov 19 j 01:51	7° \mathfrak{A} 30'29	
asc. node	122 Dec 02 j 00:11	24° \mathfrak{A} 54'08		inferior conj	123 Nov 24 j 11:43	1° \mathfrak{A} 14'19	1°50'21
evening set	122 Dec 04 j 18:15	23° \mathfrak{A} 41'20		minimum elong	123 Nov 24 j 09:28	1° \mathfrak{A} 22'04	1°49'31
inferior conj	122 Dec 10 j 06:10	17° \mathfrak{A} 34'59	2°33'34	min. Earth dist.	123 Nov 24 j 19:20	0° \mathfrak{A} 48'04	0.67467 AU
minimum elong	122 Dec 10 j 03:26	17° \mathfrak{A} 44'09	2°32'42		123 Nov 25 j 09:21	30° \mathfrak{R} \mathfrak{M}	
min. Earth dist.	122 Dec 11 j 01:36	16° \mathfrak{A} 29'45	0.66918 AU	morning rise	123 Nov 29 j 16:46	24° \mathfrak{M} 58'54	
morning rise	122 Dec 15 j 12:05	11° \mathfrak{A} 20'05		direct	123 Dec 04 j 19:40	22° \mathfrak{M} 47'19	
direct	122 Dec 21 j 06:18	8° \mathfrak{A} 48'01		morning max el	123 Dec 15 j 07:24	29° \mathfrak{M} 02'10	23°31'29
morning max el	123 Jan 01 j 22:32	15° \mathfrak{A} 45'08	24°58'34		123 Dec 16 j 05:48	0° \mathfrak{A}	
desc. node	123 Jan 10 j 13:45	25° \mathfrak{A} 49'46		desc. node	123 Dec 28 j 10:46	15° \mathfrak{A} 16'45	
	123 Jan 13 j 17:03	0° \mathfrak{C}			124 Jan 07 j 12:19	0° \mathfrak{C}	
	123 Feb 02 j 07:01	0° \approx		morning set	124 Jan 19 j 10:59	19° \mathfrak{C} 12'17	
morning set	123 Feb 07 j 01:55	8° \approx 19'13		max. Earth dist.	124 Jan 23 j 14:10	26° \mathfrak{C} 19'07	1.39032 AU
max. Earth dist.	123 Feb 10 j 19:06	15° \approx 04'06	1.36961 AU		124 Jan 25 j 16:05	0° \approx	
superior conj	123 Feb 17 j 03:48	27° \approx 12'36	-1°-35'-1	superior conj	124 Jan 31 j 02:03	9° \approx 54'13	-1°-52'-58
minimum elong	123 Feb 17 j 07:42	27° \approx 31'45	1°34'33	minimum elong	124 Jan 31 j 05:20	10° \approx 09'35	1°52'45
	123 Feb 18 j 13:44	0° \mathfrak{H}		evening rise	124 Feb 09 j 08:37	27° \approx 42'29	
evening rise	123 Feb 25 j 13:31	14° \mathfrak{H} 01'49			124 Feb 10 j 13:03	0° \mathfrak{H}	
asc. node	123 Feb 27 j 23:29	18° \mathfrak{H} 49'40		asc. node	124 Feb 14 j 20:31	8° \mathfrak{H} 08'02	
	123 Mar 06 j 00:39	0° \mathfrak{Y}		evening max el	124 Feb 25 j 15:48	23° \mathfrak{H} 57'25	18°41'56
evening max el	123 Mar 14 j 15:34	11° \mathfrak{Y} 39'36	19°28'51	retrograde	124 Mar 04 j 15:00	27° \mathfrak{H} 49'58	
retrograde	123 Mar 24 j 00:20	16° \mathfrak{Y} 09'42		evening set	124 Mar 06 j 22:43	27° \mathfrak{H} 31'26	
evening set	123 Mar 26 j 03:42	15° \mathfrak{Y} 56'37		inferior conj	124 Mar 14 j 16:11	23° \mathfrak{H} 07'39	2°43'43
inferior conj	123 Apr 03 j 15:46	11° \mathfrak{Y} 50'29	1°21'19	minimum elong	124 Mar 14 j 20:28	22° \mathfrak{H} 59'35	2°42'40
minimum elong	123 Apr 03 j 18:58	11° \mathfrak{Y} 45'18	1°20'16	min. Earth dist.	124 Mar 18 j 00:37	20° \mathfrak{H} 37'18	0.57750 AU
min. Earth dist.	123 Apr 06 j 07:24	10° \mathfrak{Y} 08'05	0.56080 AU	morning rise	124 Mar 22 j 14:01	17° \mathfrak{H} 52'21	
desc. node	123 Apr 08 j 12:53	8° \mathfrak{Y} 48'47		desc. node	124 Mar 25 j 09:55	16° \mathfrak{H} 52'44	
morning rise	123 Apr 12 j 06:33	7° \mathfrak{Y} 07'27		direct	124 Mar 28 j 06:19	16° \mathfrak{H} 32'24	
direct	123 Apr 16 j 20:21	6° \mathfrak{Y} 20'08		morning max el	124 Apr 11 j 14:49	24° \mathfrak{H} 05'26	26°19'11
morning max el	123 Apr 30 j 22:38	13° \mathfrak{Y} 27'41	24°51'07		124 Apr 16 j 23:46	0° \mathfrak{Y}	
	123 May 13 j 19:52	0° \mathfrak{C}			124 May 05 j 18:07	0° \mathfrak{C}	
morning set	123 May 26 j 20:17	24° \mathfrak{C} 19'17		morning set	124 May 10 j 07:26	9° \mathfrak{C} 15'01	
asc. node	123 May 26 j 22:46	24° \mathfrak{C} 32'22		asc. node	124 May 12 j 19:49	14° \mathfrak{C} 36'26	
	123 May 29 j 12:08	0° \mathfrak{H}					

superior conj	124 May 17 j 08:36	24°♄30'16	0°46'19	morning set	125 Apr 24 j 16:02	24°♄01'19	
minimum elong	124 May 17 j 06:44	24°♄19'58	0°45'57		125 Apr 27 j 11:57	0°♄	
max. Earth dist.	124 May 17 j 17:57	25°♄21'31	1.32441 AU	asc. node	125 Apr 29 j 16:52	4°♄46'07	
	124 May 19 j 20:53	0°♄					
evening rise	124 May 24 j 09:04	9°♄37'45		superior conj	125 May 01 j 20:18	9°♄27'34	0°22'32
	124 Jun 04 j 00:09	0°♄		minimum elong	125 May 01 j 19:18	9°♄22'06	0°22'19
desc. node	124 Jun 21 j 09:12	24°♄36'41		max. Earth dist.	125 May 01 j 06:35	8°♄12'20	1.32320 AU
evening max el	124 Jun 23 j 21:13	27°♄08'28	26°53'55	evening rise	125 May 08 j 18:41	24°♄29'46	
	124 Jun 27 j 04:36	0°♄			125 May 11 j 10:27	0°♄	
retrograde	124 Jul 07 j 20:08	4°♄24'45			125 May 29 j 05:07	0°♄	
evening set	124 Jul 14 j 18:02	2°♄18'37		evening max el	125 Jun 05 j 19:05	8°♄39'57	25°53'08
	124 Jul 18 j 00:44	30°♄♄		desc. node	125 Jun 08 j 06:13	10°♄51'07	
min. Earth dist.	124 Jul 18 j 11:07	29°♄39'08	0.60787 AU	retrograde	125 Jun 19 j 20:20	15°♄52'00	
inferior conj	124 Jul 21 j 17:13	26°♄53'55	-4°-31'-33	evening set	125 Jun 25 j 22:26	14°♄22'50	
minimum elong	124 Jul 21 j 20:45	26°♄46'25	4°31'07	min. Earth dist.	125 Jun 30 j 07:39	11°♄43'49	0.58726 AU
morning rise	124 Jul 29 j 02:35	22°♄06'23		inferior conj	125 Jul 03 j 14:45	9°♄18'34	-4°-46'-13
direct	124 Jul 31 j 12:43	21°♄43'17		minimum elong	125 Jul 03 j 14:54	9°♄18'18	4°46'13
morning max el	124 Aug 07 j 17:40	25°♄16'05	18°04'44	morning rise	125 Jul 11 j 11:00	4°♄53'39	
asc. node	124 Aug 08 j 19:02	26°♄21'22		direct	125 Jul 13 j 22:33	4°♄33'23	
	124 Aug 11 j 17:16	0°♄		morning max el	125 Jul 22 j 00:52	8°♄24'20	18°36'23
morning set	124 Aug 23 j 14:01	20°♄18'57		asc. node	125 Jul 26 j 16:06	13°♄54'41	
	124 Aug 28 j 19:22	0°♄			125 Aug 05 j 01:22	0°♄	
				morning set	125 Aug 07 j 06:06	4°♄13'42	
superior conj	124 Sep 02 j 13:08	8°♄34'19	1°28'03				
minimum elong	124 Sep 02 j 17:16	8°♄52'41	1°27'41	superior conj	125 Aug 16 j 02:59	21°♄15'58	1°42'41
max. Earth dist.	124 Sep 10 j 03:48	21°♄42'25	1.41709 AU	minimum elong	125 Aug 16 j 05:03	21°♄25'40	1°42'34
	124 Sep 15 j 05:00	0°♄			125 Aug 20 j 21:14	0°♄	
evening rise	124 Sep 15 j 19:51	0°♄59'40		max. Earth dist.	125 Aug 23 j 08:25	4°♄22'26	1.39745 AU
desc. node	124 Sep 17 j 08:35	3°♄26'11		evening rise	125 Aug 27 j 13:40	11°♄37'08	
	124 Oct 05 j 03:02	0°♄		desc. node	125 Sep 04 j 05:36	24°♄03'58	
greatest brilliancy	124 Oct 14 j 05:05	11°♄58'45	-0.3m		125 Sep 08 j 01:58	0°♄	
evening max el	124 Oct 19 j 00:55	17°♄23'33	22°34'27		125 Sep 30 j 16:13	0°♄	
retrograde	124 Oct 28 j 19:29	23°♄12'11		evening max el	125 Oct 01 j 14:26	0°♄56'30	23°54'42
evening set	124 Nov 02 j 09:28	21°♄21'47		retrograde	125 Oct 12 j 11:31	7°♄20'35	
asc. node	124 Nov 04 j 18:15	18°♄58'25		evening set	125 Oct 17 j 15:25	5°♄12'13	
inferior conj	124 Nov 07 j 18:49	14°♄59'37	1°01'40		125 Oct 22 j 04:26	30°♄♄	
minimum elong	124 Nov 07 j 17:26	15°♄04'25	1°01'05	min. Earth dist.	125 Oct 22 j 12:10	29°♄33'51	0.67572 AU
min. Earth dist.	124 Nov 07 j 15:42	15°♄10'22	0.67680 AU	asc. node	125 Oct 22 j 15:19	29°♄23'12	
morning rise	124 Nov 13 j 01:17	8°♄46'03		inferior conj	125 Oct 23 j 01:38	28°♄48'08	0°08'55
direct	124 Nov 17 j 13:11	6°♄57'01		minimum elong	125 Oct 23 j 01:25	28°♄48'52	0°08'49
morning max el	124 Nov 26 j 19:29	12°♄25'06	22°04'43	transit middle	125 Oct 23 j 01:25	28°♄48'52	0°08'49
greatest brilliancy	124 Dec 01 j 12:33	17°♄43'43	-0.4m	transit begin	125 Oct 22 j 23:08	28°♄56'38	
	124 Dec 10 j 17:09	0°♄		transit end	125 Oct 23 j 03:42	28°♄41'06	
desc. node	124 Dec 14 j 07:50	5°♄11'54		morning rise	125 Oct 28 j 11:35	22°♄39'07	
morning set	124 Dec 29 j 15:07	28°♄41'06		direct	125 Nov 01 j 09:45	21°♄11'53	
	124 Dec 30 j 10:40	0°♄		morning max el	125 Nov 09 j 14:00	25°♄56'57	20°45'43
max. Earth dist.	125 Jan 04 j 11:35	8°♄17'37	1.41142 AU		125 Nov 13 j 04:41	0°♄	
				greatest brilliancy	125 Nov 15 j 11:26	2°♄52'23	-0.5m
superior conj	125 Jan 12 j 05:47	21°♄39'52	-2°-1'-51	desc. node	125 Dec 01 j 04:53	25°♄26'52	
minimum elong	125 Jan 12 j 06:31	21°♄43'10	2°01'52		125 Dec 04 j 04:44	0°♄	
	125 Jan 16 j 20:51	0°♄		morning set	125 Dec 08 j 18:08	7°♄01'58	
evening rise	125 Jan 22 j 16:43	10°♄46'51		max. Earth dist.	125 Dec 17 j 16:40	21°♄13'18	1.42990 AU
asc. node	125 Jan 31 j 17:34	26°♄58'28			125 Dec 23 j 00:50	0°♄	
	125 Feb 02 j 15:35	0°♄					
evening max el	125 Feb 07 j 23:12	6°♄43'46	18°15'02	superior conj	125 Dec 24 j 09:37	2°♄17'10	-1°-57'-9
retrograde	125 Feb 15 j 00:01	10°♄14'46		minimum elong	125 Dec 24 j 05:47	2°♄01'04	1°57'01
evening set	125 Feb 17 j 12:35	9°♄48'30		evening rise	126 Jan 05 j 09:51	23°♄06'48	
inferior conj	125 Feb 24 j 13:29	5°♄03'32	3°31'03		126 Jan 09 j 07:07	0°♄	
minimum elong	125 Feb 24 j 16:11	4°♄57'35	3°30'41	asc. node	126 Jan 18 j 14:37	15°♄12'20	
min. Earth dist.	125 Feb 27 j 22:40	2°♄06'49	0.59804 AU	evening max el	126 Jan 22 j 10:39	19°♄50'09	18°07'48
	125 Mar 02 j 17:50	30°♄♄		retrograde	126 Jan 29 j 00:12	23°♄14'48	
morning rise	125 Mar 03 j 16:21	29°♄24'34		evening set	126 Jan 31 j 17:13	22°♄39'32	
direct	125 Mar 10 j 05:09	27°♄26'42		inferior conj	126 Feb 07 j 04:55	17°♄33'01	3°49'03
desc. node	125 Mar 12 j 06:58	27°♄38'11		minimum elong	126 Feb 07 j 05:23	17°♄31'51	3°49'03
	125 Mar 18 j 01:27	0°♄		min. Earth dist.	126 Feb 10 j 04:06	14°♄35'08	0.61893 AU
morning max el	125 Mar 24 j 12:09	5°♄12'54	27°20'39	morning rise	126 Feb 13 j 15:09	11°♄38'49	
	125 Apr 11 j 21:17	0°♄		direct	126 Feb 20 j 13:54	9°♄09'37	

desc. node	126 Feb 27 j 04:02	11° \approx 06'26		morning rise	127 Jan 27 j 08:02	24° \approx 24'06	
morning max el	126 Mar 06 j 15:38	17° \approx 01'12	27°46'54	direct	127 Feb 03 j 06:35	21° \approx 36'56	
	126 Mar 17 j 10:15	0° \approx		desc. node	127 Feb 14 j 01:06	26° \approx 44'18	
	126 Apr 04 j 12:47	0° \approx		morning max el	127 Feb 16 j 23:38	29° \approx 27'40	27°36'16
morning set	126 Apr 08 j 20:08	8° \approx 31'34			127 Feb 17 j 12:28	0° \approx	
max. Earth dist.	126 Apr 14 j 16:56	20° \approx 53'04	1.32575 AU		127 Mar 11 j 07:52	0° \approx	
				morning set	127 Mar 23 j 17:08	22° \approx 36'46	
superior conj	126 Apr 16 j 06:36	24° \approx 17'23	0°-3'-14		127 Mar 27 j 08:33	0° \approx	
minimum elong	126 Apr 16 j 06:45	24° \approx 18'12	0°03'13	max. Earth dist.	127 Mar 28 j 20:57	3° \approx 09'39	1.33237 AU
behind sun begin	126 Apr 16 j 01:43	23° \approx 50'49					
behind sun end	126 Apr 16 j 11:47	24° \approx 45'37		superior conj	127 Mar 31 j 13:39	8° \approx 52'41	0°-30'-4
asc. node	126 Apr 16 j 13:56	24° \approx 57'15		minimum elong	127 Mar 31 j 15:06	9° \approx 00'27	0°29'47
	126 Apr 18 j 21:27	0° \approx		asc. node	127 Apr 03 j 10:58	15° \approx 04'59	
evening rise	126 Apr 23 j 06:16	9° \approx 24'42		evening rise	127 Apr 07 j 17:54	24° \approx 14'56	
	126 May 03 j 22:29	0° \approx			127 Apr 10 j 12:36	0° \approx	
evening max el	126 May 18 j 11:08	19° \approx 32'16	24°28'22		127 Apr 29 j 23:43	0° \approx	
desc. node	126 May 26 j 03:15	25° \approx 04'57		evening max el	127 Apr 30 j 01:58	0° \approx 05'26	22°53'05
retrograde	126 Jun 01 j 09:03	26° \approx 33'42		retrograde	127 May 13 j 09:08	6° \approx 41'34	
evening set	126 Jun 06 j 03:55	25° \approx 42'22		desc. node	127 May 13 j 00:17	6° \approx 41'16	
min. Earth dist.	126 Jun 11 j 22:28	22° \approx 47'12	0.56852 AU	evening set	127 May 16 j 17:51	6° \approx 16'47	
inferior conj	126 Jun 14 j 16:29	21° \approx 01'49	-4°-27'-27	min. Earth dist.	127 May 24 j 10:52	2° \approx 52'20	0.55502 AU
minimum elong	126 Jun 14 j 11:51	21° \approx 09'15	4°26'51	inferior conj	127 May 25 j 22:55	2° \approx 00'26	-3°-24'-13
morning rise	126 Jun 22 j 23:34	16° \approx 57'11		minimum elong	127 May 25 j 15:35	2° \approx 11'00	3°22'19
direct	126 Jun 25 j 14:06	16° \approx 38'36			127 May 29 j 14:37	30° \approx	
morning max el	126 Jul 04 j 23:25	21° \approx 00'20	19°29'01	morning rise	127 Jun 03 j 16:13	28° \approx 07'09	
	126 Jul 12 j 03:09	0° \approx		direct	127 Jun 06 j 11:04	27° \approx 48'55	
asc. node	126 Jul 13 j 13:11	2° \approx 16'37			127 Jun 13 j 16:07	0° \approx	
morning set	126 Jul 22 j 06:44	18° \approx 35'07		morning max el	127 Jun 17 j 11:08	2° \approx 55'01	20°42'28
	126 Jul 27 j 23:09	0° \approx		asc. node	127 Jun 30 j 10:14	21° \approx 14'35	
					127 Jul 04 j 22:48	0° \approx	
superior conj	126 Jul 30 j 09:19	4° \approx 48'01	1°47'03	morning set	127 Jul 06 j 13:04	3° \approx 14'28	
minimum elong	126 Jul 30 j 09:22	4° \approx 48'17	1°47'03				
max. Earth dist.	126 Aug 05 j 11:59	16° \approx 27'57	1.37747 AU	superior conj	127 Jul 14 j 03:19	18° \approx 55'45	1°43'18
evening rise	126 Aug 09 j 08:02	23° \approx 24'49		minimum elong	127 Jul 14 j 01:54	18° \approx 48'30	1°43'14
	126 Aug 13 j 03:06	0° \approx		max. Earth dist.	127 Jul 18 j 19:37	28° \approx 17'47	1.35930 AU
desc. node	126 Aug 22 j 02:37	14° \approx 30'57			127 Jul 19 j 16:38	0° \approx	
	126 Sep 01 j 20:09	0° \approx		evening rise	127 Jul 22 j 23:01	6° \approx 12'20	
evening max el	126 Sep 14 j 02:14	14° \approx 33'11	25°11'22		127 Aug 05 j 21:49	0° \approx	
retrograde	126 Sep 25 j 23:16	21° \approx 25'05		desc. node	127 Aug 08 j 23:38	4° \approx 40'55	
evening set	126 Oct 01 j 18:00	18° \approx 59'44		evening max el	127 Aug 27 j 13:52	28° \approx 10'00	26°17'01
min. Earth dist.	126 Oct 06 j 06:18	13° \approx 56'34	0.67145 AU		127 Aug 29 j 13:30	0° \approx	
inferior conj	126 Oct 07 j 06:26	12° \approx 37'44	0°-46'-25	retrograde	127 Sep 09 j 06:14	5° \approx 20'12	
minimum elong	126 Oct 07 j 07:36	12° \approx 33'56	0°45'55	evening set	127 Sep 15 j 15:16	2° \approx 41'33	
asc. node	126 Oct 09 j 12:23	9° \approx 47'57			127 Sep 18 j 08:10	30° \approx	
morning rise	126 Oct 12 j 21:44	6° \approx 36'12		min. Earth dist.	127 Sep 19 j 19:38	28° \approx 15'31	0.66373 AU
direct	126 Oct 16 j 08:00	5° \approx 28'19		inferior conj	127 Sep 21 j 07:21	26° \approx 25'37	-1°-42'-45
morning max el	126 Oct 23 j 16:18	9° \approx 39'16	19°39'12	minimum elong	127 Sep 21 j 09:59	26° \approx 17'32	1°41'43
greatest brilliancy	126 Oct 31 j 22:32	20° \approx 02'36	-0.6m	asc. node	127 Sep 26 j 09:26	21° \approx 07'17	
	126 Nov 07 j 16:40	0° \approx		morning rise	127 Sep 27 j 05:42	20° \approx 34'34	
morning set	126 Nov 17 j 15:36	15° \approx 15'52		direct	127 Sep 30 j 06:11	19° \approx 42'35	
desc. node	126 Nov 18 j 01:55	15° \approx 55'47		morning max el	127 Oct 07 j 01:28	23° \approx 29'38	18°47'45
	126 Nov 27 j 02:19	0° \approx			127 Oct 12 j 09:10	0° \approx	
max. Earth dist.	126 Nov 30 j 05:25	4° \approx 56'47	1.44325 AU	morning set	127 Oct 28 j 07:23	24° \approx 29'47	
					127 Oct 31 j 18:54	0° \approx	
superior conj	126 Dec 04 j 10:34	11° \approx 40'48	-1°-34'-47	desc. node	127 Nov 04 j 22:57	6° \approx 34'24	
minimum elong	126 Dec 04 j 02:35	11° \approx 08'45	1°34'05	max. Earth dist.	127 Nov 12 j 22:49	19° \approx 08'34	1.44985 AU
	126 Dec 15 j 14:21	0° \approx					
evening rise	126 Dec 18 j 07:39	4° \approx 34'26		superior conj	127 Nov 13 j 14:53	20° \approx 11'43	0°-54'-54
	127 Jan 03 j 06:04	0° \approx		minimum elong	127 Nov 13 j 08:03	19° \approx 44'50	0°54'05
asc. node	127 Jan 05 j 11:40	2° \approx 38'32			127 Nov 19 j 20:01	0° \approx	
evening max el	127 Jan 05 j 23:12	3° \approx 08'34	18°19'34	evening rise	127 Nov 29 j 06:31	15° \approx 04'09	
retrograde	127 Jan 12 j 11:08	6° \approx 39'53			127 Dec 08 j 13:40	0° \approx	
evening set	127 Jan 15 j 08:42	5° \approx 54'45		evening max el	127 Dec 20 j 10:16	16° \approx 33'36	18°49'28
inferior conj	127 Jan 21 j 10:30	0° \approx 28'04	3°45'20	asc. node	127 Dec 23 j 08:42	12° \approx 03'44	
minimum elong	127 Jan 21 j 09:09	0° \approx 31'52	3°45'13	retrograde	127 Dec 27 j 04:39	20° \approx 22'23	
	127 Jan 21 j 20:26	30° \approx		evening set	127 Dec 30 j 07:47	19° \approx 26'13	
min. Earth dist.	127 Jan 23 j 18:59	27° \approx 49'34	0.63768 AU	inferior conj	128 Jan 05 j 02:28	13° \approx 41'53	3°26'00

minimum elong	128 Jan 05 j 00:04	13°☿49'19	3°25'33		128 Dec 16 j 19:06	30°☿☿	
min. Earth dist.	128 Jan 06 j 19:39	11°☿35'29	0.65295 AU	inferior conj	128 Dec 19 j 01:39	27°☿08'10	2°55'15
morning rise	128 Jan 10 j 15:17	7°☿31'36		minimum elong	128 Dec 18 j 22:52	27°☿17'17	2°54'30
direct	128 Jan 17 j 06:08	4°☿41'01		min. Earth dist.	128 Dec 20 j 04:38	25°☿39'52	0.66438 AU
morning max el	128 Jan 30 j 09:29	12°☿21'57	26°53'00	morning rise	128 Dec 24 j 09:13	20°☿54'11	
desc. node	128 Jan 31 j 22:08	13°☿56'48		direct	128 Dec 30 j 11:47	18°☿12'30	
	128 Feb 13 j 13:47	0°☿		morning max el	129 Jan 11 j 18:41	25°☿30'11	25°44'55
	128 Mar 02 j 21:36	0°☿			129 Jan 15 j 21:41	0°☿	
morning set	128 Mar 06 j 03:54	6°☿07'23		desc. node	129 Jan 17 j 19:10	2°☿15'51	
max. Earth dist.	128 Mar 10 j 14:56	14°☿53'04	1.34337 AU		129 Feb 06 j 02:06	0°☿	
				morning set	129 Feb 16 j 23:59	18°☿49'32	
superior conj	128 Mar 14 j 15:26	23°☿07'34	0°-56'-52	max. Earth dist.	129 Feb 20 j 20:46	26°☿03'38	1.35887 AU
minimum elong	128 Mar 14 j 18:09	23°☿21'45	0°56'22		129 Feb 22 j 21:45	0°☿	
	128 Mar 17 j 22:01	0°☿					
asc. node	128 Mar 20 j 08:00	5°☿05'36		superior conj	129 Feb 26 j 09:19	6°☿53'52	-1°-22'-4
evening rise	128 Mar 22 j 03:47	8°☿54'37		minimum elong	129 Feb 26 j 12:59	7°☿12'20	1°21'32
	128 Apr 02 j 10:37	0°☿		evening rise	129 Mar 06 j 09:51	23°☿16'42	
evening max el	128 Apr 10 j 22:55	10°☿51'21	21°21'54	asc. node	129 Mar 07 j 05:02	24°☿54'03	
retrograde	128 Apr 22 j 23:53	16°☿42'47			129 Mar 09 j 18:26	0°☿	
evening set	128 Apr 25 j 09:10	16°☿29'43		evening max el	129 Mar 24 j 06:45	22°☿11'15	20°04'51
desc. node	128 Apr 28 j 21:18	15°☿27'39		retrograde	129 Apr 03 j 14:49	27°☿09'00	
inferior conj	128 May 04 j 17:51	12°☿29'43	-1°-39'-52	evening set	129 Apr 05 j 17:11	26°☿57'37	
minimum elong	128 May 04 j 13:12	12°☿36'15	1°38'16	inferior conj	129 Apr 14 j 15:16	22°☿58'28	0°19'19
min. Earth dist.	128 May 04 j 23:38	12°☿21'35	0.54980 AU	minimum elong	129 Apr 14 j 16:08	22°☿57'10	0°19'00
morning rise	128 May 13 j 17:29	8°☿30'00		desc. node	129 Apr 15 j 18:19	22°☿17'44	
direct	128 May 16 j 21:29	8°☿08'12		min. Earth dist.	129 Apr 16 j 13:38	21°☿48'55	0.55421 AU
morning max el	128 May 29 j 12:02	14°☿07'13	22°13'26	morning rise	129 Apr 23 j 12:17	18°☿33'57	
	128 Jun 10 j 12:10	0°☿		direct	129 Apr 27 j 11:30	17°☿59'25	
asc. node	128 Jun 16 j 07:15	10°☿39'40		morning max el	129 May 11 j 04:59	24°☿46'40	23°53'57
morning set	128 Jun 19 j 22:58	18°☿05'36			129 May 16 j 00:29	0°☿	
	128 Jun 25 j 14:00	0°☿			129 Jun 02 j 23:30	0°☿	
				asc. node	129 Jun 03 j 04:18	0°☿24'46	
superior conj	128 Jun 27 j 05:23	3°☿28'17	1°33'10	morning set	129 Jun 04 j 10:40	3°☿03'10	
minimum elong	128 Jun 27 j 03:07	3°☿16'25	1°32'57				
max. Earth dist.	128 Jun 30 j 11:43	10°☿16'17	1.34452 AU	superior conj	129 Jun 11 j 12:44	18°☿16'59	1°18'00
evening rise	128 Jul 05 j 05:49	19°☿47'02		minimum elong	129 Jun 11 j 10:15	18°☿03'34	1°17'39
	128 Jul 10 j 16:43	0°☿		max. Earth dist.	129 Jun 13 j 13:14	22°☿37'08	1.33368 AU
desc. node	128 Jul 25 j 20:38	24°☿26'10			129 Jun 17 j 01:39	0°☿	
	128 Jul 29 j 22:16	0°☿		evening rise	129 Jun 19 j 00:08	3°☿56'38	
evening max el	128 Aug 09 j 01:41	11°☿39'37	27°03'57		129 Jul 03 j 10:27	0°☿	
retrograde	128 Aug 22 j 07:59	18°☿58'24		desc. node	129 Jul 12 j 17:38	13°☿36'16	
evening set	128 Aug 29 j 04:52	16°☿13'40		evening max el	129 Jul 22 j 12:40	24°☿51'36	27°25'04
min. Earth dist.	128 Sep 02 j 01:59	12°☿25'02	0.65242 AU		129 Jul 29 j 02:49	0°☿	
inferior conj	128 Sep 04 j 02:16	10°☿07'44	-2°-38'-7	retrograde	129 Aug 05 j 03:52	2°☿11'19	
minimum elong	128 Sep 04 j 06:13	9°☿56'30	2°36'45		129 Aug 11 j 15:36	30°☿☿	
morning rise	128 Sep 10 j 09:07	4°☿30'14		evening set	129 Aug 12 j 07:48	29°☿31'17	
asc. node	128 Sep 12 j 06:28	3°☿54'03		min. Earth dist.	129 Aug 15 j 23:24	26°☿17'00	0.63750 AU
direct	128 Sep 13 j 02:16	3°☿50'21		inferior conj	129 Aug 18 j 12:42	23°☿39'08	-3°-29'-40
morning max el	128 Sep 19 j 15:16	7°☿22'48	18°12'43	minimum elong	129 Aug 18 j 17:28	23°☿26'50	3°28'20
	128 Oct 05 j 00:55	0°☿		morning rise	129 Aug 25 j 05:15	18°☿18'22	
morning set	128 Oct 08 j 03:37	5°☿08'11		direct	129 Aug 27 j 17:40	17°☿47'05	
desc. node	128 Oct 21 j 19:57	27°☿18'43		asc. node	129 Aug 30 j 03:30	18°☿16'08	
				morning max el	129 Sep 03 j 07:01	21°☿13'02	17°55'02
superior conj	128 Oct 22 j 17:33	28°☿44'25	0°-5'-56		129 Sep 09 j 23:06	0°☿	
minimum elong	128 Oct 22 j 16:47	28°☿41'23	0°05'51	morning set	129 Sep 20 j 02:15	17°☿03'10	
behind sun begin	128 Oct 22 j 06:27	28°☿00'25			129 Sep 27 j 15:55	0°☿	
behind sun end	128 Oct 23 j 03:06	29°☿22'18					
	128 Oct 23 j 12:37	0°☿		superior conj	129 Oct 02 j 15:01	8°☿15'14	0°39'43
max. Earth dist.	128 Oct 25 j 17:26	3°☿28'33	1.44911 AU	minimum elong	129 Oct 02 j 19:03	8°☿31'44	0°39'12
evening rise	128 Nov 08 j 06:13	24°☿37'36		max. Earth dist.	129 Oct 08 j 10:33	17°☿40'08	1.44127 AU
	128 Nov 11 j 17:11	0°☿		desc. node	129 Oct 08 j 16:59	18°☿05'50	
greatest brilliancy	128 Nov 24 j 13:15	19°☿31'13	-0.7m		129 Oct 16 j 06:38	0°☿	
evening max el	128 Dec 02 j 17:41	0°☿01'08	19°36'05	evening rise	129 Oct 18 j 14:54	3°☿37'30	
	128 Dec 02 j 17:15	0°☿			129 Nov 05 j 06:01	0°☿	
asc. node	128 Dec 09 j 05:45	4°☿12'20		greatest brilliancy	129 Nov 09 j 21:44	6°☿24'55	-0.5m
retrograde	128 Dec 10 j 01:30	4°☿16'08		evening max el	129 Nov 15 j 20:00	13°☿30'04	20°37'09
evening set	128 Dec 13 j 11:48	3°☿07'18		retrograde	129 Nov 23 j 23:07	18°☿18'09	

asc. node	129 Nov 26 j 02:46	17°♂51'52		retrograde	130 Nov 07 j 19:43	2°♂25'16	
evening set	129 Nov 27 j 18:39	16°♂54'32		evening set	130 Nov 12 j 02:30	0°♂44'54	
inferior conj	129 Dec 03 j 05:32	10°♂43'48	2°16'00	asc. node	130 Nov 12 j 23:48	29°♂58'33	
minimum elong	129 Dec 03 j 02:57	10°♂52'36	2°15'07		130 Nov 12 j 23:11	30°♂♂	
min. Earth dist.	129 Dec 03 j 19:52	9°♂55'02	0.67203 AU	inferior conj	130 Nov 17 j 12:00	24°♂25'56	1°30'17
morning rise	129 Dec 08 j 10:47	4°♂28'21		minimum elong	130 Nov 17 j 10:04	24°♂32'36	1°29'32
direct	129 Dec 13 j 22:39	2°♂04'12		min. Earth dist.	130 Nov 17 j 14:58	24°♂15'40	0.67605 AU
morning max el	129 Dec 25 j 02:58	8°♂44'16	24°21'53	morning rise	130 Nov 22 j 17:24	18°♂11'14	
desc. node	130 Jan 04 j 16:13	21°♂22'22		direct	130 Nov 27 j 13:56	16°♂09'04	
	130 Jan 10 j 20:40	0°♂		morning max el	130 Dec 07 j 12:42	22°♂03'19	22°54'03
morning set	130 Jan 29 j 23:40	0°♂27'14		greatest brilliancy	130 Dec 12 j 05:55	27°♂19'43	-0.3m
	130 Jan 29 j 17:25	0°♂			130 Dec 14 j 09:34	0°♂	
max. Earth dist.	130 Feb 02 j 17:32	7°♂05'54	1.37825 AU	desc. node	130 Dec 22 j 13:17	11°♂02'44	
					131 Jan 04 j 04:45	0°♂	
superior conj	130 Feb 09 j 16:00	20°♂02'46	-1°-43'-30	morning set	131 Jan 10 j 20:50	10°♂45'14	
minimum elong	130 Feb 09 j 19:50	20°♂21'11	1°43'08	max. Earth dist.	131 Jan 15 j 13:14	18°♂38'50	1.39950 AU
	130 Feb 14 j 18:07	0°♂			131 Jan 21 j 23:41	0°♂	
evening rise	130 Feb 18 j 09:47	7°♂14'43					
asc. node	130 Feb 22 j 02:05	14°♂25'13		superior conj	131 Jan 23 j 07:09	2°♂23'10	-1°-58'-5
	130 Mar 03 j 10:36	0°♂		minimum elong	131 Jan 23 j 09:38	2°♂34'30	1°58'00
evening max el	130 Mar 07 j 01:40	4°♂09'43	19°06'26	evening rise	131 Feb 02 j 00:43	20°♂41'44	
retrograde	130 Mar 15 j 18:36	8°♂21'22			131 Feb 06 j 23:35	0°♂	
evening set	130 Mar 17 j 23:46	8°♂06'14		asc. node	131 Feb 08 j 23:08	3°♂33'05	
inferior conj	130 Mar 26 j 03:53	3°♂53'34	2°00'39	evening max el	131 Feb 18 j 05:24	16°♂41'26	18°27'59
minimum elong	130 Mar 26 j 08:00	3°♂46'29	1°59'26	retrograde	131 Feb 25 j 17:29	20°♂22'48	
min. Earth dist.	130 Mar 29 j 05:03	1°♂48'35	0.56725 AU	evening set	131 Feb 28 j 03:26	20°♂01'02	
	130 Apr 01 j 05:07	30°♂		inferior conj	131 Mar 07 j 13:26	15°♂28'04	3°07'50
desc. node	130 Apr 02 j 15:22	29°♂18'02		minimum elong	131 Mar 07 j 17:14	15°♂20'24	3°07'05
morning rise	130 Apr 03 j 12:08	28°♂56'23		min. Earth dist.	131 Mar 10 j 23:45	12°♂43'48	0.58602 AU
direct	130 Apr 08 j 13:47	27°♂56'14		morning rise	131 Mar 15 j 03:10	10°♂01'48	
	130 Apr 15 j 21:50	0°♂		desc. node	131 Mar 20 j 12:25	8°♂27'14	
morning max el	130 Apr 22 j 19:32	5°♂16'12	25°31'02	direct	131 Mar 21 j 05:20	8°♂25'57	
	130 May 10 j 16:40	0°♂		morning max el	131 Apr 04 j 13:37	16°♂04'48	26°49'19
morning set	130 May 19 j 22:29	18°♂01'10			131 Apr 15 j 22:02	0°♂	
asc. node	130 May 21 j 01:20	20°♂23'26			131 May 02 j 23:13	0°♂	
	130 May 25 j 11:44	0°♂		morning set	131 May 04 j 08:48	2°♂54'05	
				asc. node	131 May 07 j 22:24	10°♂30'46	
superior conj	130 May 26 j 23:11	3°♂13'59	0°58'51				
minimum elong	130 May 26 j 20:58	3°♂01'50	0°58'26	superior conj	131 May 11 j 10:56	18°♂13'08	0°36'31
max. Earth dist.	130 May 27 j 22:01	5°♂18'39	1.32674 AU	minimum elong	131 May 11 j 09:24	18°♂04'40	0°36'12
evening rise	130 Jun 03 j 02:27	18°♂29'42		max. Earth dist.	131 May 11 j 10:32	18°♂10'58	1.32349 AU
	130 Jun 08 j 22:07	0°♂			131 May 16 j 20:49	0°♂	
	130 Jun 28 j 00:23	0°♂		evening rise	131 May 18 j 10:06	3°♂17'23	
desc. node	130 Jun 29 j 14:40	1°♂55'55			131 Jun 01 j 19:25	0°♂	
evening max el	130 Jul 04 j 20:26	7°♂32'01	27°14'56	desc. node	131 Jun 16 j 11:40	19°♂04'00	
retrograde	130 Jul 18 j 16:56	14°♂48'57		evening max el	131 Jun 16 j 22:14	19°♂29'26	26°31'37
evening set	130 Jul 25 j 20:09	12°♂26'45		retrograde	131 Jun 30 j 22:01	26°♂43'32	
min. Earth dist.	130 Jul 29 j 10:28	9°♂38'34	0.61938 AU	evening set	131 Jul 07 j 13:23	24°♂52'05	
inferior conj	130 Aug 01 j 11:35	6°♂51'36	-4°-12'-59	min. Earth dist.	131 Jul 11 j 11:25	22°♂15'18	0.59914 AU
minimum elong	130 Aug 01 j 16:04	6°♂41'18	4°12'09	inferior conj	131 Jul 14 j 19:22	19°♂36'09	-4°-41'-1
morning rise	130 Aug 08 j 14:39	1°♂50'54		minimum elong	131 Jul 14 j 21:43	19°♂31'25	4°40'50
direct	130 Aug 11 j 01:01	1°♂25'20		morning rise	131 Jul 22 j 09:21	14°♂58'13	
asc. node	130 Aug 17 j 00:33	4°♂03'54		direct	131 Jul 24 j 20:02	14°♂36'22	
morning max el	130 Aug 17 j 21:48	4°♂52'55	17°55'39	morning max el	131 Aug 01 j 08:38	18°♂15'01	18°15'42
morning set	130 Sep 02 j 21:08	29°♂55'57		asc. node	131 Aug 03 j 21:37	21°♂02'51	
	130 Sep 02 j 22:02	0°♂			131 Aug 09 j 21:18	0°♂	
				morning set	131 Aug 17 j 06:43	13°♂31'07	
superior conj	130 Sep 13 j 15:40	19°♂06'05	1°14'10		131 Aug 26 j 01:48	0°♂	
minimum elong	130 Sep 13 j 20:33	19°♂27'05	1°13'37				
	130 Sep 20 j 02:44	0°♂		superior conj	131 Aug 26 j 17:32	1°♂11'41	1°35'40
max. Earth dist.	130 Sep 20 j 23:49	1°♂26'40	1.42729 AU	minimum elong	131 Aug 26 j 20:50	1°♂26'44	1°35'24
desc. node	130 Sep 25 j 14:01	8°♂51'56		max. Earth dist.	131 Sep 03 j 07:30	14°♂33'04	1.40896 AU
evening rise	130 Sep 28 j 01:03	12°♂45'22		evening rise	131 Sep 08 j 04:49	22°♂42'44	
	130 Oct 09 j 08:40	0°♂		desc. node	131 Sep 12 j 11:02	29°♂33'39	
greatest brilliancy	130 Oct 24 j 21:16	21°♂31'21	-0.4m		131 Sep 12 j 17:43	0°♂	
evening max el	130 Oct 29 j 16:35	26°♂59'31	21°49'31		131 Oct 03 j 09:48	0°♂	
	130 Nov 02 j 00:54	0°♂		greatest brilliancy	131 Oct 06 j 13:26	3°♂59'24	-0.2m

evening max el	131 Oct 12 j 08:00	10° \mathbb{M} 29'56	23°08'32		132 Aug 17 j 04:23	0° \mathbb{M}	
retrograde	131 Oct 22 j 13:46	16° \mathbb{M} 34'09		evening rise	132 Aug 19 j 09:14	3° \mathbb{M} 49'57	
evening set	131 Oct 27 j 09:38	14° \mathbb{M} 35'49		desc. node	132 Aug 29 j 08:02	20° \mathbb{M} 07'13	
asc. node	131 Oct 30 j 20:52	10° \mathbb{M} 48'47			132 Sep 04 j 21:20	0° \mathbb{L}	
inferior conj	131 Nov 01 j 19:10	8° \mathbb{M} 12'20	0°39'42	evening max el	132 Sep 23 j 20:18	24° \mathbb{L} 03'40	24°28'12
minimum elong	131 Nov 01 j 18:15	8° \mathbb{M} 15'30	0°39'18		132 Oct 01 j 21:43	0° \mathbb{M}	
min. Earth dist.	131 Nov 01 j 11:34	8° \mathbb{M} 38'29	0.67674 AU	retrograde	132 Oct 05 j 04:13	0° \mathbb{M} 41'30	
morning rise	131 Nov 07 j 02:54	2° \mathbb{M} 00'38			132 Oct 08 j 05:10	30° \mathbb{R} \mathbb{L}	
direct	131 Nov 11 j 08:44	0° \mathbb{M} 21'15		evening set	132 Oct 10 j 14:23	28° \mathbb{L} 25'27	
morning max el	131 Nov 20 j 03:21	5° \mathbb{M} 29'56	21°29'55	min. Earth dist.	132 Oct 15 j 07:19	23° \mathbb{L} 01'48	0.67422 AU
greatest brilliancy	131 Nov 25 j 04:50	11° \mathbb{M} 16'56	-0.4m	inferior conj	132 Oct 16 j 01:20	22° \mathbb{L} 01'29	0°-14'-19
	131 Dec 08 j 16:16	0° \mathbb{J}		minimum elong	132 Oct 16 j 01:41	22° \mathbb{L} 00'19	0°14'10
desc. node	131 Dec 09 j 10:19	1° \mathbb{J} 06'51		transit middle	132 Oct 16 j 01:41	22° \mathbb{L} 00'19	0°14'10
morning set	131 Dec 21 j 13:01	19° \mathbb{J} 40'54		transit begin	132 Oct 16 j 00:20	22° \mathbb{L} 04'49	
	131 Dec 27 j 22:41	0° \mathbb{Z}		transit end	132 Oct 16 j 03:01	21° \mathbb{L} 55'49	
max. Earth dist.	131 Dec 28 j 14:09	1° \mathbb{Z} 03'42	1.41975 AU	asc. node	132 Oct 16 j 17:55	21° \mathbb{L} 06'11	
				morning rise	132 Oct 21 j 13:21	15° \mathbb{L} 55'21	
superior conj	132 Jan 05 j 01:21	13° \mathbb{Z} 41'00	-2°-1'-48	direct	132 Oct 25 j 06:05	14° \mathbb{L} 36'56	
minimum elong	132 Jan 05 j 00:20	13° \mathbb{Z} 36'38	2°01'49	morning max el	132 Nov 02 j 01:14	19° \mathbb{L} 06'41	20°15'46
	132 Jan 14 j 05:13	0° \mathbb{W}		greatest brilliancy	132 Nov 08 j 18:28	27° \mathbb{L} 12'26	-0.6m
evening rise	132 Jan 16 j 03:02	3° \mathbb{W} 28'43			132 Nov 10 j 19:22	0° \mathbb{M}	
asc. node	132 Jan 26 j 20:11	22° \mathbb{W} 09'19		desc. node	132 Nov 25 j 07:21	21° \mathbb{M} 28'13	
evening max el	132 Feb 01 j 14:51	29° \mathbb{W} 37'04	18°09'29	morning set	132 Nov 29 j 10:33	27° \mathbb{M} 49'43	
	132 Feb 02 j 00:24	0° \mathbb{X}			132 Nov 30 j 20:10	0° \mathbb{J}	
retrograde	132 Feb 08 j 09:44	3° \mathbb{X} 04'01		max. Earth dist.	132 Dec 09 j 22:21	14° \mathbb{J} 20'16	1.43624 AU
evening set	132 Feb 11 j 00:07	2° \mathbb{X} 34'07					
	132 Feb 15 j 03:44	30° \mathbb{R} \mathbb{W}		superior conj	132 Dec 15 j 17:45	23° \mathbb{J} 46'24	-1°-50'00
inferior conj	132 Feb 17 j 18:58	27° \mathbb{W} 39'39	3°41'47	minimum elong	132 Dec 15 j 11:50	23° \mathbb{J} 22'02	1°49'37
minimum elong	132 Feb 17 j 20:42	27° \mathbb{W} 35'34	3°41'39		132 Dec 19 j 11:41	0° \mathbb{Z}	
min. Earth dist.	132 Feb 21 j 00:41	24° \mathbb{W} 39'34	0.60703 AU	evening rise	132 Dec 28 j 12:31	15° \mathbb{Z} 27'31	
morning rise	132 Feb 24 j 14:18	21° \mathbb{W} 53'02			133 Jan 05 j 23:40	0° \mathbb{W}	
direct	132 Mar 02 j 08:25	19° \mathbb{W} 40'48		asc. node	133 Jan 12 j 17:14	10° \mathbb{W} 04'29	
desc. node	132 Mar 06 j 09:29	20° \mathbb{W} 24'44		evening max el	133 Jan 15 j 03:05	12° \mathbb{W} 49'17	18°10'29
morning max el	132 Mar 16 j 13:55	27° \mathbb{W} 30'11	27°36'24	retrograde	133 Jan 21 j 15:02	16° \mathbb{W} 15'33	
	132 Mar 18 j 23:32	0° \mathbb{X}		evening set	133 Jan 24 j 09:47	15° \mathbb{W} 36'23	
	132 Apr 08 j 13:03	0° \mathbb{Y}		inferior conj	133 Jan 30 j 16:56	10° \mathbb{W} 21'13	3°49'43
morning set	132 Apr 17 j 15:46	17° \mathbb{Y} 34'31		minimum elong	133 Jan 30 j 16:33	10° \mathbb{W} 22'15	3°49'42
	132 Apr 23 j 11:52	0° \mathbb{Z}		min. Earth dist.	133 Feb 02 j 10:15	7° \mathbb{W} 29'09	0.62727 AU
asc. node	132 Apr 23 j 19:28	0° \mathbb{Z} 41'26		morning rise	133 Feb 05 j 21:15	4° \mathbb{W} 22'04	
max. Earth dist.	132 Apr 23 j 22:46	0° \mathbb{Z} 59'23	1.32385 AU	direct	133 Feb 12 j 20:58	1° \mathbb{W} 43'08	
				desc. node	133 Feb 21 j 06:33	4° \mathbb{W} 52'22	
superior conj	132 Apr 24 j 22:14	3° \mathbb{Z} 07'42	0°11'48	morning max el	133 Feb 26 j 19:44	9° \mathbb{W} 36'08	27°46'37
minimum elong	132 Apr 24 j 21:42	3° \mathbb{Z} 04'46	0°11'41		133 Mar 14 j 17:06	0° \mathbb{X}	
behind sun begin	132 Apr 24 j 18:16	2° \mathbb{Z} 45'58			133 Mar 31 j 18:12	0° \mathbb{Y}	
behind sun end	132 Apr 25 j 01:08	3° \mathbb{Z} 23'33		morning set	133 Apr 01 j 17:11	1° \mathbb{Y} 55'13	
evening rise	132 May 01 j 20:47	18° \mathbb{Z} 11'05		max. Earth dist.	133 Apr 07 j 06:45	13° \mathbb{Y} 30'27	1.32806 AU
	132 May 07 j 16:55	0° \mathbb{H}					
	132 May 28 j 00:08	0° \mathbb{S}		superior conj	133 Apr 09 j 07:23	17° \mathbb{Y} 51'59	0°-14'-33
evening max el	132 May 28 j 16:59	0° \mathbb{S} 41'10	25°19'09	minimum elong	133 Apr 09 j 08:05	17° \mathbb{Y} 55'43	0°14'24
desc. node	132 Jun 02 j 08:42	4° \mathbb{S} 31'14		behind sun begin	133 Apr 09 j 05:53	17° \mathbb{Y} 43'49	
retrograde	132 Jun 11 j 17:42	7° \mathbb{S} 50'35		behind sun end	133 Apr 09 j 10:17	18° \mathbb{Y} 07'38	
evening set	132 Jun 17 j 07:49	6° \mathbb{S} 37'51		asc. node	133 Apr 10 j 16:31	20° \mathbb{Y} 51'27	
min. Earth dist.	132 Jun 22 j 04:50	3° \mathbb{S} 53'55	0.57887 AU		133 Apr 14 j 21:57	0° \mathbb{Z}	
inferior conj	132 Jun 25 j 08:35	1° \mathbb{S} 43'09	-4°-43'-6	evening rise	133 Apr 16 j 08:35	3° \mathbb{Z} 04'21	
minimum elong	132 Jun 25 j 06:44	1° \mathbb{S} 46'22	4°43'01		133 May 01 j 01:38	0° \mathbb{H}	
	132 Jun 27 j 22:14	30° \mathbb{R} \mathbb{H}		evening max el	133 May 10 j 07:36	11° \mathbb{H} 21'20	23°48'06
morning rise	132 Jul 03 j 09:32	27° \mathbb{H} 27'56		desc. node	133 May 20 j 05:45	17° \mathbb{H} 41'33	
direct	132 Jul 05 j 22:13	27° \mathbb{H} 08'33		retrograde	133 May 24 j 01:32	18° \mathbb{H} 14'52	
	132 Jul 13 j 03:56	0° \mathbb{S}		evening set	133 May 28 j 05:02	17° \mathbb{H} 36'54	
morning max el	132 Jul 14 j 12:32	1° \mathbb{S} 10'36	18°56'16	min. Earth dist.	133 Jun 03 j 18:29	14° \mathbb{H} 30'24	0.56189 AU
asc. node	132 Jul 20 j 18:41	8° \mathbb{S} 58'02		inferior conj	133 Jun 06 j 01:38	13° \mathbb{H} 06'33	-4°-6'-22
morning set	132 Jul 31 j 02:47	27° \mathbb{S} 37'44		minimum elong	133 Jun 05 j 19:20	13° \mathbb{H} 16'10	4°05'11
	132 Aug 01 j 07:40	0° \mathbb{L}		morning rise	133 Jun 14 j 13:14	9° \mathbb{H} 08'15	
				direct	133 Jun 17 j 05:05	8° \mathbb{H} 50'12	
superior conj	132 Aug 08 j 15:03	14° \mathbb{L} 16'36	1°45'39	morning max el	133 Jun 27 j 06:41	13° \mathbb{H} 29'48	19°57'53
minimum elong	132 Aug 08 j 16:13	14° \mathbb{L} 22'11	1°45'37	asc. node	133 Jul 07 j 15:45	27° \mathbb{H} 36'15	
max. Earth dist.	132 Aug 15 j 10:45	26° \mathbb{L} 55'13	1.38877 AU		133 Jul 09 j 00:05	0° \mathbb{S}	

morning set	133 Jul 15 j 06:05	12° \mathfrak{G} 06'59		morning set	134 Jun 29 j 14:13	26° \mathbb{I} 52'33	
					134 Jul 01 j 02:19	0° \mathfrak{G}	
superior conj	133 Jul 23 j 02:49	28° \mathfrak{G} 04'57	1°46'19	superior conj	134 Jul 07 j 00:40	12° \mathfrak{G} 24'41	1°39'41
minimum elong	133 Jul 23 j 02:10	28° \mathfrak{G} 01'42	1°46'19	minimum elong	134 Jul 06 j 22:49	12° \mathfrak{G} 15'06	1°39'34
	133 Jul 24 j 01:56	0° \mathfrak{Q}		max. Earth dist.	134 Jul 11 j 02:00	20° \mathfrak{G} 40'52	1.35261 AU
max. Earth dist.	133 Jul 28 j 14:53	8° \mathfrak{Q} 48'38	1.36934 AU	evening rise	134 Jul 15 j 11:20	29° \mathfrak{G} 14'27	
evening rise	133 Aug 01 j 12:56	16° \mathfrak{Q} 04'27			134 Jul 15 j 20:58	0° \mathfrak{Q}	
	133 Aug 09 j 14:26	0° \mathfrak{M}			134 Aug 02 j 18:26	0° \mathfrak{M}	
desc. node	133 Aug 16 j 05:02	10° \mathfrak{M} 27'24		desc. node	134 Aug 03 j 02:04	0° \mathfrak{M} 28'02	
	133 Aug 30 j 09:21	0° \mathfrak{A}		evening max el	134 Aug 19 j 19:50	21° \mathfrak{M} 16'18	26°39'46
evening max el	133 Sep 06 j 07:49	7° \mathfrak{A} 40'32	25°41'15	retrograde	134 Sep 01 j 18:46	28° \mathfrak{M} 30'36	
retrograde	133 Sep 18 j 14:06	14° \mathfrak{A} 42'06		evening set	134 Sep 08 j 09:11	25° \mathfrak{M} 48'39	
evening set	133 Sep 24 j 14:55	12° \mathfrak{A} 10'37		min. Earth dist.	134 Sep 12 j 10:31	21° \mathfrak{M} 38'21	0.65939 AU
min. Earth dist.	133 Sep 28 j 23:47	7° \mathfrak{A} 22'50	0.66850 AU	inferior conj	134 Sep 14 j 03:20	19° \mathfrak{M} 36'34	-2°-6'-30
inferior conj	133 Sep 30 j 04:41	5° \mathfrak{A} 50'30	-1°-10'-18	minimum elong	134 Sep 14 j 06:33	19° \mathfrak{M} 26'57	2°05'17
minimum elong	133 Sep 30 j 06:28	5° \mathfrak{A} 44'48	1°09'34	morning rise	134 Sep 20 j 05:06	13° \mathfrak{M} 50'36	
asc. node	133 Oct 03 j 14:57	1° \mathfrak{A} 47'51		asc. node	134 Sep 20 j 11:59	13° \mathfrak{M} 41'50	
morning rise	133 Oct 05 j 22:46	29° \mathfrak{M} 52'48		direct	134 Sep 23 j 02:15	13° \mathfrak{M} 04'03	
	133 Oct 05 j 18:16	30° \mathfrak{R} \mathfrak{M}		morning max el	134 Sep 29 j 17:55	16° \mathfrak{M} 43'45	18°30'42
direct	133 Oct 09 j 04:32	28° \mathfrak{M} 52'10			134 Oct 09 j 13:30	0° \mathfrak{A}	
	133 Oct 12 j 18:44	0° \mathfrak{A}		morning set	134 Oct 19 j 16:50	16° \mathfrak{A} 10'48	
morning max el	133 Oct 16 j 06:34	2° \mathfrak{A} 52'11	19°15'21		134 Oct 28 j 08:24	0° \mathfrak{M}	
greatest brilliancy	133 Oct 26 j 18:50	16° \mathfrak{A} 42'52	-0.7m	desc. node	134 Oct 30 j 01:21	2° \mathfrak{M} 42'10	
	133 Nov 04 j 11:10	0° \mathfrak{M}					
morning set	133 Nov 08 j 13:17	6° \mathfrak{M} 21'40		superior conj	134 Nov 04 j 09:00	11° \mathfrak{M} 05'30	0°-34'-28
desc. node	133 Nov 12 j 04:21	12° \mathfrak{M} 01'11		minimum elong	134 Nov 04 j 04:29	10° \mathfrak{M} 47'44	0°33'54
max. Earth dist.	133 Nov 22 j 12:53	28° \mathfrak{M} 15'38	1.44690 AU	max. Earth dist.	134 Nov 05 j 07:20	12° \mathfrak{M} 33'17	1.45050 AU
	133 Nov 23 j 15:18	0° \mathfrak{A}			134 Nov 16 j 09:37	0° \mathfrak{A}	
superior conj	133 Nov 25 j 08:20	2° \mathfrak{A} 42'36	-1°-19'-43	evening rise	134 Nov 20 j 13:18	6° \mathfrak{A} 33'38	
minimum elong	133 Nov 25 j 00:00	2° \mathfrak{A} 09'33	1°18'51	greatest brilliancy	134 Dec 01 j 15:23	24° \mathfrak{A} 01'22	-0.8m
evening rise	133 Dec 10 j 00:46	26° \mathfrak{A} 29'49			134 Dec 05 j 14:19	0° \mathfrak{B}	
	133 Dec 12 j 03:36	0° \mathfrak{B}		evening max el	134 Dec 13 j 01:06	9° \mathfrak{B} 37'10	19°07'28
evening max el	133 Dec 29 j 15:19	26° \mathfrak{B} 10'59	18°30'14	asc. node	134 Dec 17 j 11:17	13° \mathfrak{B} 00'20	
asc. node	133 Dec 30 j 14:16	27° \mathfrak{B} 06'14		retrograde	134 Dec 20 j 00:13	13° \mathfrak{B} 35'43	
retrograde	134 Jan 05 j 05:03	29° \mathfrak{B} 48'17		evening set	134 Dec 23 j 06:17	12° \mathfrak{B} 34'13	
evening set	134 Jan 08 j 04:50	28° \mathfrak{B} 58'41		inferior conj	134 Dec 28 j 22:40	6° \mathfrak{B} 43'16	3°14'07
inferior conj	134 Jan 14 j 03:20	23° \mathfrak{B} 24'28	3°38'45	minimum elong	134 Dec 28 j 20:01	6° \mathfrak{B} 51'39	3°13'32
minimum elong	134 Jan 14 j 01:26	23° \mathfrak{B} 30'01	3°38'30	min. Earth dist.	134 Dec 30 j 09:35	4° \mathfrak{B} 52'51	0.65832 AU
min. Earth dist.	134 Jan 16 j 05:21	20° \mathfrak{B} 58'18	0.64467 AU	morning rise	135 Jan 03 j 08:53	0° \mathfrak{B} 31'26	
morning rise	134 Jan 19 j 20:43	17° \mathfrak{B} 17'36			135 Jan 03 j 23:48	30° \mathfrak{R} \mathfrak{A}	
direct	134 Jan 26 j 16:54	14° \mathfrak{B} 26'57		direct	135 Jan 09 j 19:02	27° \mathfrak{A} 43'24	
desc. node	134 Feb 08 j 03:35	21° \mathfrak{B} 13'49			135 Jan 16 j 07:49	0° \mathfrak{B}	
morning max el	134 Feb 09 j 04:39	22° \mathfrak{B} 14'59	27°21'23	morning max el	135 Jan 22 j 14:12	5° \mathfrak{B} 15'21	26°26'34
	134 Feb 16 j 00:45	0° \mathfrak{X}		desc. node	135 Jan 26 j 00:36	8° \mathfrak{B} 56'48	
	134 Mar 07 j 21:45	0° \mathfrak{X}			135 Feb 10 j 14:30	0° \mathfrak{X}	
morning set	134 Mar 16 j 10:18	15° \mathfrak{X} 47'16		morning set	135 Feb 27 j 15:24	28° \mathfrak{X} 58'32	
max. Earth dist.	134 Mar 21 j 06:41	25° \mathfrak{X} 32'44	1.33647 AU		135 Feb 28 j 04:26	0° \mathfrak{X}	
	134 Mar 23 j 09:59	0° \mathfrak{Y}		max. Earth dist.	135 Mar 03 j 19:36	7° \mathfrak{X} 01'04	1.34943 AU
superior conj	134 Mar 24 j 12:31	2° \mathfrak{Y} 19'58	0°-41'-30	superior conj	135 Mar 08 j 11:18	16° \mathfrak{X} 23'37	-1°-7'-51
minimum elong	134 Mar 24 j 14:32	2° \mathfrak{Y} 30'35	0°41'07	minimum elong	135 Mar 08 j 14:29	16° \mathfrak{X} 39'59	1°07'19
asc. node	134 Mar 28 j 13:34	10° \mathfrak{Y} 56'55		asc. node	135 Mar 15 j 10:36	0° \mathfrak{Y} 52'54	
evening rise	134 Mar 31 j 19:44	17° \mathfrak{Y} 51'07			135 Mar 15 j 00:24	0° \mathfrak{Y}	
	134 Apr 06 j 21:11	0° \mathfrak{B}		evening rise	135 Mar 16 j 04:16	2° \mathfrak{Y} 24'12	
evening max el	134 Apr 22 j 00:30	21° \mathfrak{B} 57'53	22°13'08		135 Apr 01 j 08:04	0° \mathfrak{B}	
retrograde	134 May 04 j 20:38	28° \mathfrak{B} 16'22		evening max el	135 Apr 04 j 01:50	2° \mathfrak{B} 56'43	20°47'03
desc. node	134 May 07 j 02:47	28° \mathfrak{B} 05'03		retrograde	135 Apr 15 j 09:35	8° \mathfrak{B} 25'08	
evening set	134 May 07 j 17:20	27° \mathfrak{B} 58'17		evening set	135 Apr 17 j 14:29	8° \mathfrak{B} 13'30	
min. Earth dist.	134 May 16 j 07:08	24° \mathfrak{B} 17'26	0.55168 AU	desc. node	135 Apr 23 j 23:49	5° \mathfrak{B} 50'36	
inferior conj	134 May 17 j 01:56	23° \mathfrak{B} 50'57	-2°-43'-59	inferior conj	135 Apr 26 j 20:05	4° \mathfrak{B} 15'54	0°-49'-2
minimum elong	134 May 16 j 19:05	24° \mathfrak{B} 00'37	2°41'53	minimum elong	135 Apr 26 j 17:46	4° \mathfrak{B} 19'13	0°48'13
morning rise	134 May 25 j 22:37	19° \mathfrak{B} 57'00		min. Earth dist.	135 Apr 27 j 20:03	3° \mathfrak{B} 41'41	0.55056 AU
direct	134 May 28 j 20:34	19° \mathfrak{B} 37'50		morning rise	135 May 05 j 19:59	0° \mathfrak{B} 07'56	
morning max el	134 Jun 09 j 13:37	25° \mathfrak{B} 06'25	21°19'16		135 May 06 j 10:07	30° \mathfrak{R} \mathfrak{Y}	
	134 Jun 14 j 00:57	0° \mathbb{I}		direct	135 May 09 j 07:06	29° \mathfrak{Y} 42'05	
asc. node	134 Jun 24 j 12:47	16° \mathbb{I} 47'10			135 May 12 j 02:58	0° \mathfrak{B}	

morning max el	135 May 22 j 10:29	6°♄02'11	22°55'37	morning rise	136 Apr 14 j 15:28	10°♄14'57	
	135 Jun 08 j 03:42	0°♄		direct	136 Apr 19 j 01:15	9°♄31'26	
asc. node	135 Jun 11 j 09:49	6°♄21'36		morning max el	136 May 03 j 01:49	16°♄34'19	24°36'36
morning set	135 Jun 14 j 01:08	11°♄47'16			136 May 13 j 22:11	0°♄	
				asc. node	136 May 28 j 06:54	26°♄13'06	
superior conj	135 Jun 21 j 05:17	27°♄04'54	1°27'18	morning set	136 May 28 j 13:06	26°♄45'45	
minimum elong	135 Jun 21 j 02:52	26°♄52'01	1°27'00		136 May 30 j 01:43	0°♄	
	135 Jun 22 j 14:17	0°♄					
max. Earth dist.	135 Jun 23 j 22:33	2°♄49'37	1.33951 AU	superior conj	136 Jun 04 j 14:13	11°♄57'52	1°10'20
evening rise	135 Jun 28 j 23:33	13°♄05'17		minimum elong	136 Jun 04 j 11:48	11°♄44'40	1°09'55
	135 Jul 08 j 02:47	0°♄		max. Earth dist.	136 Jun 06 j 03:34	15°♄19'57	1.33029 AU
desc. node	135 Jul 20 j 23:07	19°♄59'44		evening rise	136 Jun 11 j 21:39	27°♄25'38	
	135 Jul 28 j 20:54	0°♄			136 Jun 13 j 04:14	0°♄	
evening max el	135 Aug 02 j 07:38	4°♄40'02	27°16'21		136 Jun 30 j 09:51	0°♄	
retrograde	135 Aug 15 j 17:50	11°♄59'00		desc. node	136 Jul 06 j 20:09	8°♄50'21	
evening set	135 Aug 22 j 18:38	9°♄14'48		evening max el	136 Jul 14 j 17:20	17°♄39'03	27°24'36
min. Earth dist.	135 Aug 26 j 13:09	5°♄41'33	0.64659 AU	retrograde	136 Jul 28 j 10:57	24°♄58'04	
inferior conj	135 Aug 28 j 18:59	3°♄14'37	-3°00'-40	evening set	136 Aug 04 j 15:54	22°♄23'32	
minimum elong	135 Aug 28 j 23:22	3°♄02'37	2°59'15	min. Earth dist.	136 Aug 08 j 06:04	19°♄22'04	0.63019 AU
	135 Aug 31 j 23:11	30°♄		inferior conj	136 Aug 11 j 00:52	16°♄38'21	-3°-49'-25
morning rise	135 Sep 04 j 05:50	27°♄43'51		minimum elong	136 Aug 11 j 05:42	16°♄26'29	3°48'15
direct	135 Sep 06 j 20:46	27°♄07'53		morning rise	136 Aug 17 j 21:53	11°♄26'05	
asc. node	135 Sep 07 j 09:01	27°♄09'16		direct	136 Aug 20 j 09:06	10°♄57'35	
	135 Sep 12 j 17:53	0°♄		asc. node	136 Aug 24 j 06:05	12°♄09'06	
morning max el	135 Sep 13 j 08:54	0°♄36'11	18°03'01	morning max el	136 Aug 27 j 00:40	14°♄22'57	17°53'02
morning set	135 Oct 01 j 01:00	27°♄23'57			136 Sep 06 j 19:25	0°♄	
	135 Oct 02 j 14:10	0°♄		morning set	136 Sep 12 j 08:58	9°♄45'06	
superior conj	135 Oct 14 j 17:42	19°♄57'15	0°14'30	superior conj	136 Sep 24 j 02:32	0°♄01'36	0°55'56
minimum elong	135 Oct 14 j 19:26	20°♄04'11	0°14'17	minimum elong	136 Sep 24 j 07:21	0°♄21'45	0°55'20
behind sun begin	135 Oct 14 j 14:22	19°♄43'52			136 Sep 24 j 02:09	0°♄	
behind sun end	135 Oct 15 j 00:29	20°♄24'28		max. Earth dist.	136 Sep 30 j 17:54	10°♄56'13	1.43593 AU
desc. node	135 Oct 16 j 22:24	23°♄27'57		desc. node	136 Oct 02 j 19:26	14°♄14'51	
max. Earth dist.	135 Oct 19 j 02:16	26°♄53'55	1.44664 AU	evening rise	136 Oct 09 j 12:05	24°♄45'55	
	135 Oct 21 j 01:25	0°♄			136 Oct 12 j 21:45	0°♄	
evening rise	135 Oct 31 j 05:07	15°♄49'05			136 Nov 02 j 16:04	0°♄	
	135 Nov 09 j 11:14	0°♄		greatest brilliancy	136 Nov 02 j 22:14	0°♄19'45	-0.5m
greatest brilliancy	135 Nov 19 j 05:07	14°♄19'21	-0.6m	evening max el	136 Nov 08 j 06:12	6°♄33'25	21°06'48
evening max el	135 Nov 26 j 06:28	23°♄05'13	20°00'28	retrograde	136 Nov 16 j 19:15	11°♄37'48	
retrograde	135 Dec 03 j 21:43	27°♄33'33		asc. node	136 Nov 20 j 05:21	10°♄31'50	
asc. node	135 Dec 04 j 08:18	27°♄32'26		evening set	136 Nov 20 j 19:16	10°♄07'15	
evening set	135 Dec 07 j 11:46	26°♄18'28		inferior conj	136 Nov 26 j 05:21	3°♄52'18	1°57'17
inferior conj	135 Dec 13 j 00:08	20°♄13'46	2°39'29	minimum elong	136 Nov 26 j 03:00	4°♄00'24	1°56'26
minimum elong	135 Dec 12 j 21:22	20°♄22'59	2°38'40	min. Earth dist.	136 Nov 26 j 14:41	3°♄20'14	0.67410 AU
min. Earth dist.	135 Dec 13 j 21:26	19°♄02'38	0.66805 AU		136 Nov 29 j 03:46	30°♄	
morning rise	135 Dec 18 j 06:23	13°♄58'59		morning rise	136 Dec 01 j 10:22	27°♄36'42	
direct	135 Dec 24 j 02:46	11°♄24'18		direct	136 Dec 06 j 15:34	25°♄21'45	
morning max el	136 Jan 04 j 23:05	18°♄27'14	25°10'58		136 Dec 15 j 12:37	0°♄	
desc. node	136 Jan 12 j 21:37	27°♄37'48		morning max el	136 Dec 17 j 07:44	1°♄43'34	23°44'34
	136 Jan 14 j 17:25	0°♄		desc. node	136 Dec 29 j 18:40	16°♄59'42	
	136 Feb 03 j 15:53	0°♄			137 Jan 07 j 18:29	0°♄	
morning set	136 Feb 10 j 03:36	11°♄15'13		morning set	137 Jan 21 j 16:41	22°♄20'17	
max. Earth dist.	136 Feb 13 j 21:22	18°♄05'56	1.36672 AU	max. Earth dist.	137 Jan 25 j 16:27	29°♄15'37	1.38717 AU
					137 Jan 26 j 02:29	0°♄	
superior conj	136 Feb 20 j 00:53	29°♄55'00	-1°-31'-46	superior conj	137 Feb 02 j 01:28	12°♄43'47	-1°-50'-44
minimum elong	136 Feb 20 j 04:45	0°♄14'09	1°31'17	minimum elong	137 Feb 02 j 04:58	13°♄00'13	1°50'30
	136 Feb 20 j 01:53	0°♄			137 Feb 10 j 23:59	0°♄	
evening rise	136 Feb 28 j 08:04	16°♄37'05		evening rise	137 Feb 11 j 04:32	0°♄22'10	
asc. node	136 Mar 01 j 07:39	20°♄34'45		asc. node	137 Feb 16 j 04:42	9°♄56'24	
	136 Mar 06 j 06:55	0°♄		evening max el	137 Feb 27 j 13:22	26°♄45'15	18°47'39
evening max el	136 Mar 16 j 14:25	14°♄32'33	19°37'34		137 Mar 04 j 06:01	0°♄	
retrograde	136 Mar 26 j 05:09	19°♄09'38		retrograde	137 Mar 07 j 16:50	0°♄42'12	
evening set	136 Mar 28 j 07:59	18°♄57'10		evening set	137 Mar 09 j 23:49	0°♄24'40	
inferior conj	136 Apr 05 j 22:47	14°♄53'07	1°05'54		137 Mar 11 j 07:07	30°♄	
minimum elong	136 Apr 06 j 01:29	14°♄48'50	1°04'59	inferior conj	137 Mar 17 j 20:02	26°♄04'00	2°33'30
min. Earth dist.	136 Apr 08 j 10:23	13°♄19'00	0.55882 AU	minimum elong	137 Mar 18 j 00:21	25°♄56'01	2°32'24
desc. node	136 Apr 09 j 20:50	12°♄27'28					

min. Earth dist.	137 Mar 21 j 03:13	23° ✕ 39'28	0.57468 AU	inferior conj	138 Feb 27 j 14:20	7° ✕ 54'15	3°25'55
morning rise	137 Mar 25 j 20:39	20° ✕ 53'05		minimum elong	138 Feb 27 j 17:21	7° ✕ 47'44	3°25'28
desc. node	137 Mar 27 j 17:52	20° ✕ 11'10		min. Earth dist.	138 Mar 03 j 00:15	4° ✕ 59'55	0.59490 AU
direct	137 Mar 31 j 09:19	19° ✕ 38'25		morning rise	138 Mar 06 j 19:58	2° ✕ 18'21	
morning max el	137 Apr 14 j 17:25	27° ✕ 08'48	26°07'32	direct	138 Mar 13 j 06:27	0° ✕ 26'01	
	137 Apr 17 j 11:26	0° Υ		desc. node	138 Mar 14 j 14:55	0° ✕ 30'52	
	137 May 07 j 04:52	0° ♄		morning max el	138 Mar 27 j 13:46	8° ✕ 10'27	27°13'40
morning set	137 May 13 j 00:31	11° ♄ 42'12			138 Apr 13 j 02:57	0° Υ	
asc. node	137 May 15 j 03:59	16° ♄ 16'00		morning set	138 Apr 27 j 09:36	26° Υ 30'06	
					138 Apr 29 j 01:31	0° ♄	
superior conj	137 May 20 j 01:28	26° ♄ 56'39	0°49'44	asc. node	138 May 02 j 01:02	6° ♄ 24'58	
minimum elong	137 May 19 j 23:30	26° ♄ 45'48	0°49'21	max. Earth dist.	138 May 04 j 02:54	10° ♄ 57'44	1.32312 AU
max. Earth dist.	137 May 20 j 14:11	28° ♄ 06'23	1.32484 AU				
	137 May 21 j 10:57	0° ♄		superior conj	138 May 04 j 13:13	11° ♄ 54'23	0°26'17
evening rise	137 May 27 j 02:31	12° ♄ 05'46		minimum elong	138 May 04 j 12:04	11° ♄ 48'04	0°26'03
	137 Jun 05 j 08:27	0° ♄		evening rise	138 May 11 j 11:40	26° ♄ 56'44	
desc. node	137 Jun 23 j 17:10	26° ♄ 42'54			138 May 12 j 22:48	0° ♄	
	137 Jun 26 j 21:50	0° ♄			138 May 30 j 02:18	0° ♄	
evening max el	137 Jun 26 j 22:44	0° ♄ 02'09	27°00'29	evening max el	138 Jun 08 j 21:43	11° ♄ 40'32	26°04'05
retrograde	137 Jul 10 j 21:14	7° ♄ 18'48		desc. node	138 Jun 10 j 14:12	13° ♄ 12'27	
evening set	137 Jul 17 j 20:50	5° ♄ 08'07		retrograde	138 Jun 22 j 22:42	18° ♄ 53'01	
min. Earth dist.	137 Jul 21 j 12:50	2° ♄ 26'52	0.61089 AU	evening set	138 Jun 29 j 04:40	17° ♄ 18'01	
	137 Jul 24 j 08:55	30° ♄		min. Earth dist.	138 Jul 03 j 10:28	14° ♄ 40'09	0.59030 AU
inferior conj	137 Jul 24 j 17:50	29° ♄ 40'32	-4°-27'-19	inferior conj	138 Jul 06 j 18:10	12° ♄ 10'43	-4°-45'-52
minimum elong	137 Jul 24 j 21:41	29° ♄ 32'11	4°26'47	minimum elong	138 Jul 06 j 18:57	12° ♄ 09'14	4°45'52
morning rise	137 Aug 01 j 01:34	24° ♄ 49'28		morning rise	138 Jul 14 j 12:46	7° ♄ 42'21	
direct	137 Aug 03 j 11:38	24° ♄ 25'51		direct	138 Jul 17 j 00:04	7° ♄ 21'42	
morning max el	137 Aug 10 j 14:15	27° ♄ 57'07	18°01'42	morning max el	138 Jul 24 j 22:28	11° ♄ 09'06	18°30'18
asc. node	137 Aug 11 j 03:09	28° ♄ 29'27		asc. node	138 Jul 29 j 00:14	15° ♄ 54'08	
	137 Aug 12 j 11:44	0° ♄			138 Aug 06 j 11:32	0° ♄	
morning set	137 Aug 26 j 10:46	22° ♄ 57'50		morning set	138 Aug 10 j 01:18	6° ♄ 47'57	
	137 Aug 30 j 06:16	0° ♄					
superior conj	137 Sep 05 j 14:35	11° ♄ 26'27	1°24'49	superior conj	138 Aug 19 j 01:30	23° ♄ 59'12	1°41'10
minimum elong	137 Sep 05 j 18:58	11° ♄ 45'46	1°24'22	minimum elong	138 Aug 19 j 03:54	24° ♄ 10'22	1°41'02
max. Earth dist.	137 Sep 13 j 04:20	24° ♄ 25'14	1.41986 AU	max. Earth dist.	138 Aug 22 j 08:13	0° ♄	
	137 Sep 16 j 13:48	0° ♄		evening rise	138 Aug 26 j 09:50	7° ♄ 12'43	1.40052 AU
evening rise	137 Sep 19 j 04:15	4° ♄ 11'11		desc. node	138 Aug 30 j 18:21	14° ♄ 38'04	
desc. node	137 Sep 19 j 16:29	4° ♄ 59'51			138 Sep 06 j 13:30	25° ♄ 38'49	
	137 Oct 06 j 06:35	0° ♄			138 Sep 09 j 08:47	0° ♄	
greatest brilliancy	137 Oct 17 j 06:37	14° ♄ 43'24	-0.3m	evening max el	138 Oct 01 j 05:59	0° ♄	
evening max el	137 Oct 22 j 00:26	20° ♄ 03'11	22°22'39	retrograde	138 Oct 04 j 14:25	3° ♄ 35'32	23°42'46
retrograde	137 Oct 31 j 14:59	25° ♄ 45'53		evening set	138 Oct 15 j 07:30	9° ♄ 54'23	
evening set	137 Nov 05 j 03:01	23° ♄ 58'13		asc. node	138 Oct 20 j 09:19	7° ♄ 48'36	
asc. node	137 Nov 07 j 02:23	22° ♄ 02'40		inferior conj	138 Oct 24 j 23:26	2° ♄ 32'20	
inferior conj	137 Nov 10 j 12:22	17° ♄ 36'49	1°09'21	minimum elong	138 Oct 25 j 19:19	1° ♄ 24'38	0°17'09
minimum elong	137 Nov 10 j 10:49	17° ♄ 42'09	1°08'43	min. Earth dist.	138 Oct 25 j 18:55	1° ♄ 26'02	0°16'57
min. Earth dist.	137 Nov 10 j 10:50	17° ♄ 42'05	0.67674 AU		138 Oct 25 j 07:24	2° ♄ 05'17	0.67613 AU
morning rise	137 Nov 15 j 18:29	11° ♄ 22'48			138 Oct 26 j 20:22	30° ♄	
direct	137 Nov 20 j 08:37	9° ♄ 30'16		morning rise	138 Oct 31 j 04:38	25° ♄ 14'54	
morning max el	137 Nov 29 j 19:03	15° ♄ 05'01	22°17'13	direct	138 Nov 04 j 04:47	23° ♄ 44'31	
greatest brilliancy	137 Dec 04 j 10:29	20° ♄ 17'59	-0.3m	morning max el	138 Nov 12 j 12:28	28° ♄ 35'14	20°56'46
	137 Dec 11 j 19:55	0° ♄			138 Nov 13 j 20:37	0° ♄	
desc. node	137 Dec 16 j 15:43	6° ♄ 51'06		greatest brilliancy	138 Nov 18 j 03:50	5° ♄ 09'37	-0.5m
	137 Dec 31 j 19:06	0° ♄		desc. node	138 Dec 03 j 12:46	27° ♄ 03'22	
morning set	138 Jan 02 j 01:13	2° ♄ 01'29			138 Dec 05 j 11:31	0° ♄	
max. Earth dist.	138 Jan 07 j 13:09	11° ♄ 06'27	1.40842 AU	morning set	138 Dec 12 j 07:08	10° ♄ 29'45	
				max. Earth dist.	138 Dec 20 j 17:17	23° ♄ 55'01	1.42742 AU
					138 Dec 24 j 10:04	0° ♄	
superior conj	138 Jan 15 j 08:21	24° ♄ 38'51	-2°-1'-17	superior conj	138 Dec 27 j 16:05	5° ♄ 27'13	-1°-58'-57
minimum elong	138 Jan 15 j 09:38	24° ♄ 44'32	2°01'17	minimum elong	138 Dec 27 j 13:01	5° ♄ 14'14	1°58'52
	138 Jan 18 j 07:29	0° ♄		evening rise	139 Jan 08 j 10:10	25° ♄ 59'56	
evening rise	138 Jan 25 j 14:31	13° ♄ 32'27			139 Jan 10 j 15:54	0° ♄	
asc. node	138 Feb 03 j 01:44	28° ♄ 51'28			139 Jan 20 j 22:45	17° ♄ 11'38	
	138 Feb 03 j 18:21	0° ♄		asc. node	139 Jan 20 j 22:45	17° ♄ 11'38	
evening max el	138 Feb 10 j 19:57	9° ♄ 28'08	18°17'45	evening max el	139 Jan 25 j 07:00	22° ♄ 32'19	18°07'36
retrograde	138 Feb 17 j 23:13	13° ♄ 01'08		retrograde	139 Jan 31 j 21:34	25° ♄ 57'07	
evening set	138 Feb 20 j 11:11	12° ♄ 36'01		evening set	139 Feb 03 j 13:56	25° ♄ 23'13	

inferior conj	139 Feb 10 j 03:21	20° \approx 19'39	3°47'53	evening set	140 Jan 18 j 04:00	8° \approx 35'11	
minimum elong	139 Feb 10 j 04:09	20° \approx 17'42	3°47'50	inferior conj	140 Jan 24 j 07:05	3° \approx 11'21	3°47'01
min. Earth dist.	139 Feb 13 j 04:22	17° \approx 20'37	0.61591 AU	minimum elong	140 Jan 24 j 05:58	3° \approx 14'28	3°46'56
morning rise	139 Feb 16 j 15:51	14° \approx 27'16		min. Earth dist.	140 Jan 26 j 17:52	0° \approx 28'52	0.63506 AU
direct	139 Feb 23 j 13:43	12° \approx 02'11			140 Jan 27 j 04:45	30° \approx 08'3	
desc. node	139 Mar 01 j 11:57	13° \approx 36'42		morning rise	140 Jan 30 j 06:14	27° \approx 08'25	
morning max el	139 Mar 09 j 16:28	19° \approx 53'03	27°45'23	direct	140 Feb 06 j 05:15	24° \approx 23'00	
	139 Mar 18 j 08:25	0° \approx		desc. node	140 Feb 16 j 08:59	28° \approx 57'06	
	139 Apr 05 j 23:37	0° \approx			140 Feb 17 j 14:42	0° \approx	
morning set	139 Apr 11 j 14:28	11° \approx 03'08		morning max el	140 Feb 20 j 00:04	2° \approx 14'43	27°40'05
max. Earth dist.	139 Apr 17 j 13:54	23° \approx 41'08	1.32517 AU		140 Mar 11 j 14:52	0° \approx	
				morning set	140 Mar 25 j 12:42	25° \approx 12'40	
superior conj	139 Apr 18 j 23:48	26° \approx 45'27	0°00'46		140 Mar 27 j 21:32	0° \approx	
minimum elong	139 Apr 18 j 23:46	26° \approx 45'16	0°00'46	max. Earth dist.	140 Mar 30 j 19:09	6° \approx 02'13	1.33114 AU
behind sun begin	139 Apr 18 j 18:41	26° \approx 17'31					
behind sun end	139 Apr 19 j 04:52	27° \approx 13'02		superior conj	140 Apr 02 j 07:27	11° \approx 23'09	0°-25'-58
asc. node	139 Apr 18 j 22:03	26° \approx 35'55		minimum elong	140 Apr 02 j 08:42	11° \approx 29'51	0°25'43
	139 Apr 20 j 11:26	0° \approx		asc. node	140 Apr 04 j 19:06	16° \approx 44'24	
evening rise	139 Apr 25 j 23:04	11° \approx 51'30		evening rise	140 Apr 09 j 10:48	26° \approx 42'37	
	139 May 05 j 05:22	0° \approx			140 Apr 11 j 00:36	0° \approx	
evening max el	139 May 21 j 14:16	22° \approx 36'39	24°41'55		140 Apr 29 j 04:51	0° \approx	
desc. node	139 May 28 j 11:12	27° \approx 46'18		evening max el	140 May 02 j 04:42	3° \approx 10'11	23°07'13
retrograde	139 Jun 04 j 13:03	29° \approx 40'25		desc. node	140 May 14 j 08:13	9° \approx 47'55	
evening set	139 Jun 09 j 13:13	28° \approx 43'45		retrograde	140 May 15 j 15:11	9° \approx 51'41	
min. Earth dist.	139 Jun 15 j 01:39	25° \approx 51'59	0.57109 AU	evening set	140 May 19 j 04:31	9° \approx 23'57	
inferior conj	139 Jun 17 j 22:46	23° \approx 59'33	-4°-33'00	min. Earth dist.	140 May 26 j 14:13	6° \approx 04'30	0.55656 AU
minimum elong	139 Jun 17 j 18:51	24° \approx 06'00	4°32'34	inferior conj	140 May 28 j 07:43	5° \approx 03'59	-3°-36'-48
morning rise	139 Jun 26 j 04:16	19° \approx 52'28		minimum elong	140 May 28 j 00:30	5° \approx 14'34	3°35'02
direct	139 Jun 28 j 18:23	19° \approx 33'39		morning rise	140 Jun 05 j 23:38	1° \approx 10'01	
morning max el	139 Jul 07 j 22:23	23° \approx 49'40	19°19'53	direct	140 Jun 08 j 17:35	0° \approx 51'57	
	139 Jul 13 j 03:51	0° \approx		morning max el	140 Jun 19 j 11:48	5° \approx 50'46	20°30'23
asc. node	139 Jul 15 j 21:17	4° \approx 08'55		asc. node	140 Jul 01 j 18:20	23° \approx 01'52	
morning set	139 Jul 25 j 00:47	21° \approx 05'19			140 Jul 05 j 10:22	0° \approx	
	139 Jul 29 j 11:44	0° \approx		morning set	140 Jul 08 j 06:24	5° \approx 42'08	
superior conj	139 Aug 02 j 05:40	7° \approx 24'12	1°46'56	superior conj	140 Jul 15 j 22:11	21° \approx 27'19	1°44'19
minimum elong	139 Aug 02 j 06:00	7° \approx 25'48	1°46'57	minimum elong	140 Jul 15 j 20:57	21° \approx 21'02	1°44'16
max. Earth dist.	139 Aug 08 j 13:10	19° \approx 21'42	1.38036 AU		140 Jul 20 j 05:00	0° \approx	
evening rise	139 Aug 12 j 09:08	26° \approx 14'52		max. Earth dist.	140 Jul 20 j 19:38	1° \approx 11'15	1.36176 AU
	139 Aug 14 j 12:56	0° \approx		evening rise	140 Jul 24 j 21:21	8° \approx 54'10	
desc. node	139 Aug 24 j 10:31	16° \approx 07'27			140 Aug 06 j 04:47	0° \approx	
	139 Sep 02 j 22:10	0° \approx		desc. node	140 Aug 10 j 07:32	6° \approx 20'25	
evening max el	139 Sep 17 j 02:13	17° \approx 11'04	25°00'27		140 Aug 28 j 18:18	0° \approx	
retrograde	139 Sep 28 j 19:55	23° \approx 59'34		evening max el	140 Aug 29 j 13:44	0° \approx 48'03	26°08'17
evening set	139 Oct 04 j 12:29	21° \approx 36'27		retrograde	140 Sep 11 j 03:44	7° \approx 56'39	
min. Earth dist.	139 Oct 09 j 01:56	16° \approx 28'01	0.67229 AU	evening set	140 Sep 17 j 10:41	5° \approx 19'33	
inferior conj	139 Oct 10 j 00:30	15° \approx 13'50	0°-37'-54	min. Earth dist.	140 Sep 21 j 16:09	0° \approx 47'54	0.66505 AU
minimum elong	139 Oct 10 j 01:26	15° \approx 10'43	0°37'31		140 Sep 22 j 07:37	30° \approx 08'00	
asc. node	139 Oct 11 j 20:29	12° \approx 52'50		inferior conj	140 Sep 23 j 02:06	29° \approx 02'20	-1°-34'-14
morning rise	139 Oct 15 j 14:54	9° \approx 11'07		minimum elong	140 Sep 23 j 04:31	28° \approx 54'51	1°33'16
direct	139 Oct 19 j 02:46	8° \approx 00'39		asc. node	140 Sep 27 j 17:31	24° \approx 01'12	
morning max el	139 Oct 26 j 13:38	12° \approx 16'00	19°48'12	morning rise	140 Sep 28 j 23:18	23° \approx 09'32	
greatest brilliancy	139 Nov 03 j 08:29	21° \approx 56'18	-0.6m	direct	140 Oct 02 j 01:03	22° \approx 15'29	
	139 Nov 08 j 21:54	0° \approx		morning max el	140 Oct 08 j 21:56	26° \approx 05'43	18°54'25
desc. node	139 Nov 20 j 09:47	17° \approx 30'14			140 Oct 12 j 07:06	0° \approx	
morning set	139 Nov 21 j 03:45	18° \approx 39'37		morning set	140 Oct 30 j 15:44	27° \approx 41'48	
	139 Nov 28 j 10:31	0° \approx			140 Nov 01 j 02:49	0° \approx	
max. Earth dist.	139 Dec 03 j 05:01	7° \approx 32'15	1.44162 AU	desc. node	140 Nov 06 j 06:48	8° \approx 07'38	
				max. Earth dist.	140 Nov 14 j 21:44	21° \approx 40'19	1.44931 AU
superior conj	139 Dec 07 j 20:53	15° \approx 00'46	-1°-39'-23				
minimum elong	139 Dec 07 j 13:18	14° \approx 30'07	1°38'46	superior conj	140 Nov 16 j 03:22	23° \approx 37'00	-1°-1'-49
	139 Dec 16 j 23:14	0° \approx		minimum elong	140 Nov 15 j 19:56	23° \approx 07'42	1°00'57
evening rise	139 Dec 21 j 11:06	7° \approx 35'35			140 Nov 20 j 04:22	0° \approx	
	140 Jan 04 j 03:22	0° \approx		evening rise	140 Dec 01 j 13:31	18° \approx 13'54	
asc. node	140 Jan 07 j 19:47	4° \approx 45'35			140 Dec 08 j 19:52	0° \approx	
evening max el	140 Jan 08 j 19:30	5° \approx 48'56	18°16'38	evening max el	140 Dec 22 j 06:55	19° \approx 13'03	18°43'56
retrograde	140 Jan 15 j 07:12	9° \approx 18'44		asc. node	140 Dec 24 j 16:48	21° \approx 20'43	

retrograde	140 Dec 28 j 23:57	22°♄58'39		asc. node	141 Dec 11 j 13:51	6°♄41'52	
evening set	141 Jan 01 j 02:07	22°♄04'19		retrograde	141 Dec 12 j 20:24	6°♄50'56	
inferior conj	141 Jan 06 j 21:44	16°♄22'32	3°29'42	evening set	141 Dec 16 j 05:33	5°♄44'04	
minimum elong	141 Jan 06 j 19:26	16°♄29'32	3°29'19	inferior conj	141 Dec 21 j 20:01	29°♄47'05	3°00'28
min. Earth dist.	141 Jan 08 j 17:11	14°♄10'39	0.65093 AU	minimum elong	141 Dec 21 j 17:15	29°♄56'05	2°59'47
morning rise	141 Jan 12 j 11:36	10°♄12'58			141 Dec 21 j 16:03	30°♄♂	
direct	141 Jan 19 j 04:00	7°♄21'51		min. Earth dist.	141 Dec 23 j 01:02	28°♄12'53	0.66297 AU
morning max el	141 Feb 01 j 09:48	15°♄05'22	27°01'10	morning rise	141 Dec 27 j 04:10	23°♄33'36	
desc. node	141 Feb 02 j 06:01	15°♄56'55		direct	142 Jan 02 j 08:51	20°♄49'51	
	141 Feb 13 j 15:44	0°♄		morning max el	142 Jan 14 j 19:04	28°♄11'40	25°56'13
	141 Mar 04 j 08:06	0°♄			142 Jan 16 j 12:35	0°♄	
morning set	141 Mar 09 j 01:14	8°♄49'02		desc. node	142 Jan 20 j 03:03	4°♄07'09	
max. Earth dist.	141 Mar 13 j 14:39	17°♄49'52	1.34143 AU		142 Feb 07 j 09:34	0°♄	
				morning set	142 Feb 19 j 23:52	21°♄39'26	
superior conj	141 Mar 17 j 10:09	25°♄41'23	0°-52'-52	max. Earth dist.	142 Feb 23 j 22:11	29°♄04'06	1.35626 AU
minimum elong	141 Mar 17 j 12:42	25°♄54'41	0°52'24		142 Feb 24 j 09:46	0°♄	
	141 Mar 19 j 11:20	0°♄					
asc. node	141 Mar 22 j 16:08	6°♄46'10		superior conj	142 Mar 01 j 05:27	9°♄32'49	-1°-18'-25
evening rise	141 Mar 24 j 21:03	11°♄24'01		minimum elong	142 Mar 01 j 09:01	9°♄50'51	1°17'54
	141 Apr 03 j 14:20	0°♄		evening rise	142 Mar 09 j 03:52	25°♄49'23	
evening max el	141 Apr 14 j 00:26	13°♄52'53	21°34'47	asc. node	142 Mar 09 j 13:11	26°♄36'56	
retrograde	141 Apr 26 j 06:56	19°♄51'47			142 Mar 11 j 05:23	0°♄	
evening set	141 Apr 28 j 18:30	19°♄37'50		evening max el	142 Mar 27 j 06:40	25°♄07'49	20°15'18
desc. node	141 May 01 j 05:15	18°♄58'45			142 Apr 04 j 15:13	0°♄	
inferior conj	141 May 08 j 03:41	15°♄36'26	-1°-57'-27	retrograde	142 Apr 06 j 20:52	0°♄13'14	
minimum elong	141 May 07 j 22:18	15°♄43'58	1°55'39	evening set	142 Apr 08 j 23:33	0°♄01'58	
min. Earth dist.	141 May 08 j 03:04	15°♄37'17	0.54997 AU		142 Apr 09 j 03:53	30°♄♂	
morning rise	141 May 17 j 02:45	11°♄38'43		inferior conj	142 Apr 17 j 23:53	26°♄03'52	0°01'42
direct	141 May 20 j 04:50	11°♄17'50		minimum elong	142 Apr 17 j 23:58	26°♄03'45	0°01'40
morning max el	141 Jun 01 j 14:14	17°♄09'14	21°59'01	transit middle	142 Apr 17 j 23:58	26°♄03'45	0°01'40
	141 Jun 11 j 16:51	0°♄		transit begin	142 Apr 17 j 19:58	26°♄09'40	
asc. node	141 Jun 18 j 15:22	12°♄23'27		transit end	142 Apr 18 j 03:58	25°♄57'49	
morning set	141 Jun 22 j 15:53	20°♄31'50		desc. node	142 Apr 18 j 02:16	26°♄00'21	
	141 Jun 27 j 03:40	0°♄		min. Earth dist.	142 Apr 19 j 16:52	25°♄03'22	0.55295 AU
				morning rise	142 Apr 26 j 21:59	21°♄44'03	
superior conj	141 Jun 29 j 23:14	5°♄56'45	1°35'04	direct	142 Apr 30 j 17:52	21°♄12'06	
minimum elong	141 Jun 29 j 21:04	5°♄45'24	1°34'51	morning max el	142 May 14 j 08:04	27°♄52'45	23°38'46
max. Earth dist.	141 Jul 03 j 10:17	13°♄07'03	1.34647 AU		142 May 16 j 10:34	0°♄	
evening rise	141 Jul 08 j 02:06	22°♄22'51			142 Jun 04 j 11:40	0°♄	
	141 Jul 12 j 03:20	0°♄		asc. node	142 Jun 05 j 12:27	2°♄06'21	
desc. node	141 Jul 28 j 04:34	26°♄10'00		morning set	142 Jun 07 j 03:29	5°♄29'15	
	141 Jul 30 j 22:19	0°♄					
evening max el	141 Aug 12 j 01:37	14°♄19'32	26°58'30	superior conj	142 Jun 14 j 06:00	20°♄43'55	1°20'36
retrograde	141 Aug 25 j 06:18	21°♄37'40		minimum elong	142 Jun 14 j 03:30	20°♄30'32	1°20'15
evening set	141 Sep 01 j 01:35	18°♄53'25		max. Earth dist.	142 Jun 16 j 10:40	25°♄25'27	1.33509 AU
min. Earth dist.	141 Sep 04 j 23:46	14°♄59'08	0.65430 AU		142 Jun 18 j 14:55	0°♄	
inferior conj	141 Sep 06 j 22:04	12°♄45'40	-2°-29'-57	evening rise	142 Jun 21 j 19:01	6°♄28'29	
minimum elong	141 Sep 07 j 01:50	12°♄34'48	2°28'35		142 Jul 04 j 17:09	0°♄	
morning rise	141 Sep 13 j 03:34	7°♄05'49		desc. node	142 Jul 15 j 01:37	15°♄26'22	
asc. node	141 Sep 14 j 14:34	6°♄33'34		evening max el	142 Jul 25 j 13:01	27°♄35'26	27°23'46
direct	141 Sep 15 j 21:38	6°♄24'22			142 Jul 28 j 06:11	0°♄	
morning max el	141 Sep 22 j 11:11	9°♄58'34	18°16'51	retrograde	142 Aug 08 j 03:02	4°♄54'47	
	141 Oct 06 j 08:35	0°♄		evening set	142 Aug 15 j 06:19	2°♄13'24	
morning set	141 Oct 11 j 07:42	8°♄07'40			142 Aug 17 j 20:08	30°♄♂	
desc. node	141 Oct 24 j 03:50	28°♄51'17		min. Earth dist.	142 Aug 18 j 22:38	28°♄54'18	0.63999 AU
	141 Oct 24 j 21:10	0°♄		inferior conj	142 Aug 21 j 09:58	26°♄19'04	-3°-22'-18
				minimum elong	142 Aug 21 j 14:40	26°♄06'45	3°20'55
superior conj	141 Oct 26 j 04:50	2°♄05'24	0°-13'-25	morning rise	142 Aug 28 j 01:00	20°♄55'28	
minimum elong	141 Oct 26 j 03:06	1°♄58'30	0°13'11	direct	142 Aug 30 j 14:01	20°♄23'01	
behind sun begin	141 Oct 25 j 20:32	1°♄32'33		asc. node	142 Sep 01 j 11:37	20°♄41'22	
behind sun end	141 Oct 26 j 09:39	2°♄24'27		morning max el	142 Sep 06 j 02:48	23°♄49'21	17°56'30
max. Earth dist.	141 Oct 28 j 16:13	5°♄59'38	1.44972 AU		142 Sep 11 j 01:29	0°♄	
evening rise	141 Nov 11 j 16:24	27°♄54'47		morning set	142 Sep 23 j 02:45	19°♄52'13	
	141 Nov 13 j 00:29	0°♄			142 Sep 29 j 01:28	0°♄	
greatest brilliancy	141 Nov 26 j 22:43	21°♄24'00	-0.7m				
	141 Dec 03 j 06:09	0°♄		superior conj	142 Oct 05 j 22:34	11°♄24'39	0°33'27
evening max el	141 Dec 05 j 15:02	2°♄40'31	19°28'11	minimum elong	142 Oct 06 j 02:08	11°♄39'09	0°32'58

desc. node	142 Oct 11 j 00:54	19°♄38'04		desc. node	143 Sep 27 j 21:57	10°♄24'40	
max. Earth dist.	142 Oct 11 j 09:58	20°♄14'11	1.44290 AU	evening rise	143 Oct 01 j 11:10	16°♄00'59	
	142 Oct 17 j 14:41	0°♄			143 Oct 10 j 14:45	0°♄	
evening rise	142 Oct 22 j 02:25	6°♄57'19		greatest brilliancy	143 Oct 27 j 17:58	24°♄01'51	-0.4m
	142 Nov 06 j 09:25	0°♄		evening max el	143 Nov 01 j 15:37	29°♄38'41	21°38'11
greatest brilliancy	142 Nov 12 j 13:55	8°♄42'04	-0.5m		143 Nov 02 j 00:04	0°♄	
evening max el	142 Nov 18 j 18:14	16°♄09'25	20°27'17	retrograde	143 Nov 10 j 14:56	4°♄58'49	
retrograde	142 Nov 26 j 18:03	20°♄52'02		evening set	143 Nov 14 j 19:57	3°♄20'58	
asc. node	142 Nov 28 j 10:53	20°♄35'35		asc. node	143 Nov 15 j 07:55	2°♄56'08	
evening set	142 Nov 30 j 12:08	19°♄30'38			143 Nov 18 j 00:45	30°♄	
inferior conj	142 Dec 05 j 23:21	13°♄21'25	2°22'23	inferior conj	143 Nov 20 j 05:33	27°♄02'52	1°37'36
minimum elong	142 Dec 05 j 20:42	13°♄30'23	2°21'32	minimum elong	143 Nov 20 j 03:29	27°♄09'58	1°36'48
min. Earth dist.	142 Dec 06 j 15:26	12°♄26'55	0.67113 AU	min. Earth dist.	143 Nov 20 j 10:05	26°♄47'09	0.67564 AU
morning rise	142 Dec 11 j 04:47	7°♄06'11		morning rise	143 Nov 25 j 10:47	20°♄47'57	
direct	142 Dec 16 j 18:56	4°♄39'08		direct	143 Nov 30 j 09:31	18°♄42'31	
morning max el	142 Dec 28 j 03:25	11°♄25'13	24°34'50	morning max el	143 Dec 10 j 12:49	24°♄43'54	23°07'08
desc. node	143 Jan 07 j 00:06	23°♄07'27			143 Dec 15 j 06:07	0°♄	
	143 Jan 12 j 00:21	0°♄		greatest brilliancy	143 Dec 15 j 10:38	0°♄13'37	-0.3m
	143 Jan 31 j 03:13	0°♄		desc. node	143 Dec 24 j 21:09	12°♄43'28	
morning set	143 Feb 02 j 03:02	3°♄27'52			144 Jan 05 j 12:08	0°♄	
max. Earth dist.	143 Feb 05 j 20:09	10°♄06'28	1.37519 AU	morning set	144 Jan 14 j 04:30	13°♄58'41	
				max. Earth dist.	144 Jan 18 j 15:38	21°♄33'23	1.39632 AU
superior conj	143 Feb 12 j 14:05	22°♄48'07	-1°-40'-36		144 Jan 23 j 10:25	0°♄	
minimum elong	143 Feb 12 j 17:58	23°♄06'56	1°40'13	superior conj	144 Jan 26 j 07:52	5°♄16'28	-1°-56'-29
	143 Feb 16 j 06:08	0°♄		minimum elong	144 Jan 26 j 10:41	5°♄29'26	1°56'21
evening rise	143 Feb 21 j 04:55	9°♄51'43		evening rise	144 Feb 04 j 21:25	23°♄23'59	
asc. node	143 Feb 24 j 10:14	16°♄11'10			144 Feb 08 j 08:44	0°♄	
	143 Mar 04 j 08:10	0°♄		asc. node	144 Feb 11 j 07:17	5°♄23'00	
evening max el	143 Mar 10 j 00:01	7°♄00'30	19°13'53	evening max el	144 Feb 21 j 02:33	19°♄27'22	18°32'22
retrograde	143 Mar 18 j 22:14	11°♄18'18		retrograde	144 Feb 28 j 18:18	23°♄12'22	
evening set	143 Mar 21 j 02:45	11°♄03'56		evening set	144 Mar 02 j 03:26	22°♄51'48	
inferior conj	143 Mar 29 j 09:40	6°♄53'41	1°47'17	inferior conj	144 Mar 09 j 15:59	18°♄21'59	2°59'55
minimum elong	143 Mar 29 j 13:32	6°♄47'11	1°46'06	minimum elong	144 Mar 09 j 20:00	18°♄14'04	2°59'03
min. Earth dist.	143 Apr 01 j 07:51	4°♄56'25	0.56484 AU	min. Earth dist.	144 Mar 13 j 01:56	15°♄42'07	0.58299 AU
desc. node	143 Apr 04 j 23:18	2°♄50'04		morning rise	144 Mar 17 j 08:35	12°♄59'20	
morning rise	143 Apr 06 j 20:22	2°♄01'32		desc. node	144 Mar 21 j 20:19	11°♄34'38	
direct	143 Apr 11 j 17:53	1°♄06'10		direct	144 Mar 23 j 07:25	11°♄29'09	
morning max el	143 Apr 25 j 22:36	8°♄21'56	25°17'26	morning max el	144 Apr 06 j 15:57	19°♄06'08	26°39'27
	143 May 11 j 23:45	0°♄			144 Apr 15 j 20:56	0°♄	
morning set	143 May 22 j 15:25	20°♄27'46		morning set	144 May 03 j 11:32	0°♄	
asc. node	143 May 23 j 09:31	22°♄03'28		asc. node	144 May 06 j 02:04	5°♄21'37	
	143 May 27 j 01:52	0°♄			144 May 09 j 06:35	12°♄09'36	
superior conj	143 May 29 j 16:08	5°♄40'07	1°01'59	superior conj	144 May 13 j 03:47	20°♄39'07	0°40'05
minimum elong	143 May 29 j 13:50	5°♄27'37	1°01'35	minimum elong	144 May 13 j 02:07	20°♄29'57	0°39'45
max. Earth dist.	143 May 30 j 18:42	8°♄04'55	1.32757 AU	max. Earth dist.	144 May 13 j 06:48	20°♄55'45	1.32372 AU
evening rise	143 Jun 05 j 20:22	20°♄58'42			144 May 17 j 10:34	0°♄	
	143 Jun 10 j 09:07	0°♄		evening rise	144 May 20 j 03:19	5°♄44'16	
	143 Jun 28 j 20:18	0°♄			144 Jun 02 j 00:42	0°♄	
desc. node	143 Jul 01 j 22:38	3°♄54'45		desc. node	144 Jun 17 j 19:38	21°♄15'15	
evening max el	143 Jul 07 j 21:24	10°♄21'12	27°18'27	evening max el	144 Jun 19 j 00:04	22°♄25'00	26°40'03
retrograde	143 Jul 21 j 17:02	17°♄38'22		retrograde	144 Jul 02 j 23:34	29°♄39'58	
evening set	143 Jul 28 j 21:08	15°♄12'32		evening set	144 Jul 09 j 17:32	27°♄43'05	
min. Earth dist.	143 Aug 01 j 11:12	12°♄21'21	0.62232 AU	min. Earth dist.	144 Jul 13 j 13:29	25°♄05'50	0.60221 AU
inferior conj	143 Aug 04 j 10:47	9°♄34'49	-4°-7'-14	inferior conj	144 Jul 16 j 21:02	22°♄24'05	-4°-38'-11
minimum elong	143 Aug 04 j 15:25	9°♄24'00	4°06'18	minimum elong	144 Jul 16 j 23:52	22°♄18'18	4°37'56
morning rise	143 Aug 11 j 12:17	4°♄31'00		morning rise	144 Jul 24 j 09:26	17°♄42'52	
direct	143 Aug 13 j 22:49	4°♄04'43		direct	144 Jul 26 j 19:53	17°♄20'37	
asc. node	143 Aug 19 j 08:41	6°♄17'07		morning max el	144 Aug 03 j 05:35	20°♄56'55	18°11'25
morning max el	143 Aug 20 j 17:55	7°♄31'15	17°54'21	asc. node	144 Aug 05 j 05:46	23°♄06'30	
	143 Sep 04 j 08:01	0°♄			144 Aug 10 j 02:46	0°♄	
morning set	143 Sep 05 j 18:59	2°♄37'25		morning set	144 Aug 19 j 02:40	16°♄07'06	
					144 Aug 26 j 12:59	0°♄	
superior conj	143 Sep 16 j 19:09	22°♄03'35	1°09'48	superior conj	144 Aug 28 j 17:34	3°♄59'13	1°33'11
minimum elong	143 Sep 17 j 00:06	22°♄24'45	1°09'13	minimum elong	144 Aug 28 j 21:11	4°♄15'32	1°32'53
	143 Sep 21 j 12:15	0°♄					
max. Earth dist.	143 Sep 24 j 00:06	4°♄06'09	1.42968 AU				

max. Earth dist.	144 Sep 05 j 08:23	17° \mathbb{M} 18'24	1.41184 AU	morning set	145 Aug 02 j 21:25	0° Ω 10'12	
evening rise	144 Sep 10 j 11:33	25° \mathbb{M} 49'00			145 Aug 02 j 19:20	0° Ω	
	144 Sep 13 j 02:00	0° $\underline{\Omega}$					
desc. node	144 Sep 13 j 18:58	1° $\underline{\Omega}$ 07'24		superior conj	145 Aug 11 j 12:34	16° Ω 56'53	1°44'46
	144 Oct 03 j 10:14	0° \mathbb{M}		minimum elong	145 Aug 11 j 14:03	17° Ω 03'55	1°44'43
greatest brilliancy	144 Oct 09 j 02:05	7° \mathbb{M} 16'30	-0.3m	max. Earth dist.	145 Aug 18 j 11:59	29° Ω 46'49	1.39182 AU
evening max el	144 Oct 14 j 07:36	13° \mathbb{M} 08'30	22°56'35		145 Aug 18 j 14:57	0° \mathbb{M}	
retrograde	144 Oct 24 j 09:29	19° \mathbb{M} 07'32		evening rise	145 Aug 22 j 12:20	6° \mathbb{M} 46'25	
evening set	144 Oct 29 j 03:16	17° \mathbb{M} 11'56		desc. node	145 Aug 31 j 15:59	21° \mathbb{M} 42'53	
asc. node	144 Nov 01 j 04:58	13° \mathbb{M} 55'44			145 Sep 06 j 02:40	0° $\underline{\Omega}$	
inferior conj	144 Nov 03 j 12:42	10° \mathbb{M} 48'45	0°47'39	evening max el	145 Sep 26 j 20:16	26° $\underline{\Omega}$ 42'04	24°16'33
minimum elong	144 Nov 03 j 11:36	10° \mathbb{M} 52'32	0°47'10		145 Sep 30 j 13:02	0° \mathbb{M}	
min. Earth dist.	144 Nov 03 j 06:38	11° \mathbb{M} 09'38	0.67680 AU	retrograde	145 Oct 08 j 00:32	3° \mathbb{M} 15'23	
morning rise	144 Nov 08 j 19:56	4° \mathbb{M} 36'21		evening set	145 Oct 13 j 08:27	1° \mathbb{M} 02'02	
direct	144 Nov 13 j 03:50	2° \mathbb{M} 53'40			145 Oct 14 j 10:59	30° \mathbb{R} $\underline{\Omega}$	
morning max el	144 Nov 22 j 02:30	8° \mathbb{M} 09'08	21°41'54	min. Earth dist.	145 Oct 18 j 02:43	25° $\underline{\Omega}$ 33'07	0.67483 AU
greatest brilliancy	144 Nov 27 j 00:24	13° \mathbb{M} 44'03	-0.4m	inferior conj	145 Oct 18 j 19:07	24° $\underline{\Omega}$ 37'51	0°-5'-56
	144 Dec 08 j 21:21	0° \mathbb{M}		minimum elong	145 Oct 18 j 19:16	24° $\underline{\Omega}$ 37'23	0°05'54
desc. node	144 Dec 10 j 18:11	2° \mathbb{M} 44'25		transit middle	145 Oct 18 j 19:16	24° $\underline{\Omega}$ 37'23	0°05'54
morning set	144 Dec 24 j 00:42	23° \mathbb{M} 05'25		transit begin	145 Oct 18 j 16:43	24° $\underline{\Omega}$ 45'58	
	144 Dec 28 j 07:35	0° \mathbb{M}		transit end	145 Oct 18 j 21:48	24° $\underline{\Omega}$ 28'48	
max. Earth dist.	144 Dec 30 j 15:13	3° \mathbb{M} 48'50	1.41689 AU	asc. node	145 Oct 19 j 02:00	24° $\underline{\Omega}$ 14'41	
				morning rise	145 Oct 24 j 06:22	18° $\underline{\Omega}$ 30'36	
superior conj	145 Jan 07 j 05:27	16° \mathbb{M} 44'07	-2°-2'-10	direct	145 Oct 28 j 00:57	17° $\underline{\Omega}$ 09'09	
minimum elong	145 Jan 07 j 05:07	16° \mathbb{M} 42'37	2°02'10	morning max el	145 Nov 04 j 23:10	21° $\underline{\Omega}$ 44'08	20°25'53
	145 Jan 14 j 15:29	0° \mathbb{M}		greatest brilliancy	145 Nov 11 j 09:00	29° $\underline{\Omega}$ 23'18	-0.5m
evening rise	145 Jan 18 j 01:48	6° \mathbb{M} 17'13			145 Nov 11 j 20:00	0° \mathbb{M}	
asc. node	145 Jan 28 j 04:18	24° \mathbb{M} 04'32		desc. node	145 Nov 27 j 15:13	23° \mathbb{M} 03'35	
	145 Feb 01 j 08:44	0° \mathbb{M}			145 Dec 02 j 03:46	0° \mathbb{M}	
evening max el	145 Feb 03 j 11:19	2° \mathbb{M} 19'59	18°11'00	morning set	145 Dec 02 j 23:32	1° \mathbb{M} 16'30	
retrograde	145 Feb 10 j 08:06	5° \mathbb{M} 48'07		max. Earth dist.	145 Dec 12 j 22:05	16° \mathbb{M} 57'22	1.43413 AU
evening set	145 Feb 12 j 21:50	5° \mathbb{M} 19'32					
inferior conj	145 Feb 19 j 18:43	0° \mathbb{M} 28'25	3°38'29	superior conj	145 Dec 19 j 01:49	27° \mathbb{M} 00'26	-1°-52'-56
minimum elong	145 Feb 19 j 20:49	0° \mathbb{M} 23'38	3°38'16	minimum elong	145 Dec 18 j 20:37	26° \mathbb{M} 38'51	1°52'40
	145 Feb 20 j 07:06	30° \mathbb{R} \mathbb{M}			145 Dec 20 j 20:57	0° \mathbb{M}	
min. Earth dist.	145 Feb 23 j 01:52	27° \mathbb{M} 28'55	0.60389 AU	evening rise	145 Dec 31 j 13:59	18° \mathbb{M} 23'13	
morning rise	145 Feb 26 j 16:38	24° \mathbb{M} 44'12			146 Jan 07 j 06:11	0° \mathbb{M}	
direct	145 Mar 05 j 09:04	22° \mathbb{M} 36'48		asc. node	146 Jan 15 j 01:19	12° \mathbb{M} 06'35	
desc. node	145 Mar 08 j 17:21	23° \mathbb{M} 06'49		evening max el	146 Jan 17 j 23:20	15° \mathbb{M} 30'21	18°09'12
	145 Mar 19 j 04:48	0° \mathbb{M}		retrograde	146 Jan 24 j 11:39	18° \mathbb{M} 55'43	
morning max el	145 Mar 19 j 15:16	0° \mathbb{M} 25'27	27°31'40	evening set	146 Jan 27 j 05:48	18° \mathbb{M} 17'57	
	145 Apr 09 j 21:30	0° \mathbb{M}		inferior conj	146 Feb 02 j 14:28	13° \mathbb{M} 05'53	3°49'50
morning set	145 Apr 20 j 09:38	20° \mathbb{M} 04'27		minimum elong	146 Feb 02 j 14:22	13° \mathbb{M} 06'08	3°49'50
	145 Apr 25 j 01:51	0° \mathbb{M}		min. Earth dist.	146 Feb 05 j 09:57	10° \mathbb{M} 11'19	0.62439 AU
asc. node	145 Apr 26 j 03:38	2° \mathbb{M} 20'10		morning rise	146 Feb 08 j 20:46	7° \mathbb{M} 08'22	
max. Earth dist.	145 Apr 26 j 19:13	3° \mathbb{M} 45'19	1.32350 AU	direct	146 Feb 15 j 20:24	4° \mathbb{M} 32'27	
				desc. node	146 Feb 23 j 14:23	7° \mathbb{M} 13'58	
superior conj	145 Apr 27 j 15:15	5° \mathbb{M} 34'57	0°15'40	morning max el	146 Mar 01 j 20:14	12° \mathbb{M} 25'13	27°47'28
minimum elong	145 Apr 27 j 14:32	5° \mathbb{M} 31'04	0°15'32		146 Mar 15 j 20:11	0° \mathbb{M}	
behind sun begin	145 Apr 27 j 13:35	5° \mathbb{M} 25'48			146 Apr 02 j 06:08	0° \mathbb{M}	
behind sun end	145 Apr 27 j 15:30	5° \mathbb{M} 36'20		morning set	146 Apr 04 j 11:59	4° \mathbb{M} 28'41	
evening rise	145 May 04 j 13:39	20° \mathbb{M} 37'40		max. Earth dist.	146 Apr 10 j 04:02	16° \mathbb{M} 19'49	1.32715 AU
	145 May 09 j 03:41	0° \mathbb{M}					
	145 May 28 j 06:37	0° \mathbb{M}		superior conj	146 Apr 12 j 00:49	20° \mathbb{M} 21'26	0°-10'-28
evening max el	145 May 31 j 19:52	3° \mathbb{M} 43'48	25°31'33	minimum elong	146 Apr 12 j 01:19	20° \mathbb{M} 24'07	0°10'23
desc. node	145 Jun 04 j 16:38	7° \mathbb{M} 00'19		behind sun begin	146 Apr 11 j 21:23	20° \mathbb{M} 02'45	
retrograde	145 Jun 14 j 21:00	10° \mathbb{M} 54'32		behind sun end	146 Apr 12 j 05:16	20° \mathbb{M} 45'30	
evening set	145 Jun 20 j 15:32	9° \mathbb{M} 36'01		asc. node	146 Apr 13 j 00:38	22° \mathbb{M} 30'41	
min. Earth dist.	145 Jun 25 j 07:58	6° \mathbb{M} 54'12	0.58173 AU		146 Apr 16 j 11:24	0° \mathbb{M}	
inferior conj	145 Jun 28 j 13:15	4° \mathbb{M} 37'53	-4°-45'-5	evening rise	146 Apr 19 j 01:24	5° \mathbb{M} 31'43	
minimum elong	145 Jun 28 j 12:08	4° \mathbb{M} 39'51	4°45'04		146 May 02 j 03:07	0° \mathbb{M}	
morning rise	145 Jul 06 j 12:33	0° \mathbb{M} 19'23		evening max el	146 May 13 j 10:52	14° \mathbb{M} 27'43	24°02'23
	145 Jul 08 j 18:21	30° \mathbb{R} \mathbb{M}		desc. node	146 May 22 j 13:39	20° \mathbb{M} 33'59	
direct	145 Jul 09 j 00:44	29° \mathbb{M} 59'46		retrograde	146 May 27 j 06:31	21° \mathbb{M} 24'20	
	145 Jul 09 j 07:07	0° \mathbb{M}		evening set	146 May 31 j 15:22	20° \mathbb{M} 42'02	
morning max el	145 Jul 17 j 10:44	3° \mathbb{M} 57'43	18°48'51	min. Earth dist.	146 Jun 06 j 22:01	17° \mathbb{M} 39'44	0.56408 AU
asc. node	145 Jul 23 j 02:50	10° \mathbb{M} 54'36		inferior conj	146 Jun 09 j 09:16	16° \mathbb{M} 08'09	-4°-14'-57

minimum elong	146 Jun 09 j 03:29	16° Π 17'08	4°13'59	min. Earth dist.	147 May 19 j 10:28	27° 8 32'40	0.55271 AU
morning rise	146 Jun 17 j 19:16	12° Π 07'49		inferior conj	147 May 20 j 11:30	26° 8 57'11	-2°-59'-9
direct	146 Jun 20 j 10:38	11° Π 49'36		minimum elong	147 May 20 j 04:21	27° 8 07'20	2°57'05
morning max el	146 Jun 30 j 06:25	16° Π 22'48	19°47'21	morning rise	147 May 29 j 07:05	23° 8 03'52	
asc. node	146 Jul 09 j 23:53	29° Π 27'12		direct	147 Jun 01 j 03:56	22° 8 45'04	
	146 Jul 10 j 07:30	0° 8		morning max el	147 Jun 12 j 14:59	28° 8 05'32	21°06'02
morning set	146 Jul 17 j 23:51	14° 8 36'54			147 Jun 14 j 12:44	0° Π	
				asc. node	147 Jun 26 j 20:57	18° Π 33'42	
superior conj	146 Jul 25 j 22:31	0° 8 39'48	1°46'45	morning set	147 Jul 02 j 07:24	29° Π 20'18	
minimum elong	146 Jul 25 j 22:07	0° 8 37'45	1°46'44		147 Jul 02 j 15:06	0° 8	
	146 Jul 25 j 14:31	0° 8					
max. Earth dist.	146 Jul 31 j 15:45	11° 8 43'52	1.37215 AU	superior conj	147 Jul 09 j 19:05	14° 8 55'19	1°41'06
evening rise	146 Aug 04 j 12:53	18° 8 51'58		minimum elong	147 Jul 09 j 17:23	14° 8 46'30	1°40'59
	146 Aug 10 j 23:09	0° 8		max. Earth dist.	147 Jul 14 j 01:38	23° 8 34'48	1.35490 AU
desc. node	146 Aug 18 j 13:01	12° 8 05'45			147 Jul 17 j 08:44	0° 8	
	146 Aug 31 j 06:43	0° 8		evening rise	147 Jul 18 j 08:47	1° 8 54'08	
evening max el	146 Sep 09 j 07:54	10° 8 19'17	25°31'01		147 Aug 03 j 23:12	0° 8	
retrograde	146 Sep 21 j 11:03	17° 8 17'33		desc. node	147 Aug 05 j 10:02	2° 8 09'44	
evening set	146 Sep 27 j 09:44	14° 8 48'14		evening max el	147 Aug 22 j 19:50	23° 8 55'41	26°32'13
min. Earth dist.	146 Oct 01 j 19:50	9° 8 54'57	0.66963 AU		147 Aug 31 j 00:25	0° 8	
inferior conj	146 Oct 02 j 23:01	8° 8 27'23	-1°-1'-44	retrograde	147 Sep 04 j 16:30	1° 8 08'31	
minimum elong	146 Oct 03 j 00:35	8° 8 22'21	1°01'06		147 Sep 08 j 23:34	30° 8	
asc. node	146 Oct 05 j 23:03	4° 8 49'26		evening set	147 Sep 11 j 05:06	28° 8 27'35	
morning rise	146 Oct 08 j 16:05	2° 8 28'12		min. Earth dist.	147 Sep 15 j 07:30	24° 8 11'50	0.66100 AU
direct	146 Oct 11 j 23:24	1° 8 25'04		inferior conj	147 Sep 16 j 22:31	22° 8 14'09	-1°-58'-4
morning max el	146 Oct 19 j 03:26	5° 8 28'38	19°23'19	minimum elong	147 Sep 17 j 01:31	22° 8 05'04	1°56'54
greatest brilliancy	146 Oct 28 j 13:51	17° 8 39'46	-0.7m	morning rise	147 Sep 22 j 23:03	16° 8 26'23	
	146 Nov 05 j 17:51	0° 8		asc. node	147 Sep 22 j 20:07	16° 8 30'29	
morning set	146 Nov 11 j 23:59	9° 8 41'03		direct	147 Sep 25 j 21:21	15° 8 37'58	
desc. node	146 Nov 14 j 12:16	13° 8 35'28		morning max el	147 Oct 02 j 14:06	19° 8 19'57	18°36'20
	146 Nov 24 j 23:38	0° 8			147 Oct 10 j 17:41	0° 8	
max. Earth dist.	146 Nov 25 j 12:02	0° 8 49'02	1.44578 AU	morning set	147 Oct 22 j 23:22	19° 8 17'55	
					147 Oct 29 j 16:38	0° 8	
superior conj	146 Nov 28 j 19:53	6° 8 05'57	-1°-25'-26	desc. node	147 Nov 01 j 09:19	4° 8 15'52	
minimum elong	146 Nov 28 j 11:32	5° 8 32'41	1°24'37				
evening rise	146 Dec 13 j 05:38	29° 8 34'36		superior conj	147 Nov 07 j 21:24	14° 8 30'28	0°-41'-53
	146 Dec 13 j 11:45	0° 8		minimum elong	147 Nov 07 j 15:58	14° 8 09'09	0°41'11
evening max el	147 Jan 01 j 11:45	28° 8 51'18	18°26'11	max. Earth dist.	147 Nov 08 j 06:28	15° 8 06'05	1.45044 AU
asc. node	147 Jan 01 j 22:20	29° 8 17'32			147 Nov 17 j 17:34	0° 8	
	147 Jan 02 j 16:51	0° 8		evening rise	147 Nov 23 j 21:49	9° 8 47'33	
retrograde	147 Jan 08 j 00:39	2° 8 26'14			147 Dec 06 j 17:18	0° 8	
evening set	147 Jan 10 j 23:40	1° 8 38'10		evening max el	147 Dec 15 j 22:02	12° 8 17'06	19°00'49
	147 Jan 13 j 06:33	30° 8		asc. node	147 Dec 19 j 19:22	15° 8 23'03	
inferior conj	147 Jan 16 j 23:15	26° 8 06'34	3°41'20	retrograde	147 Dec 22 j 19:20	16° 8 12'00	
minimum elong	147 Jan 16 j 21:33	26° 8 11'31	3°41'09	evening set	147 Dec 26 j 00:21	15° 8 12'22	
min. Earth dist.	147 Jan 19 j 03:33	23° 8 35'52	0.64228 AU	inferior conj	147 Dec 31 j 17:29	9° 8 23'36	3°18'33
morning rise	147 Jan 22 j 18:01	20° 8 00'44		minimum elong	147 Dec 31 j 14:54	9° 8 31'41	3°18'01
direct	147 Jan 29 j 15:12	17° 8 11'00		min. Earth dist.	148 Jan 02 j 06:32	7° 8 27'34	0.65652 AU
desc. node	147 Feb 10 j 11:25	23° 8 20'45		morning rise	148 Jan 06 j 04:32	3° 8 12'16	
morning max el	147 Feb 12 j 04:50	25° 8 00'02	27°27'17	direct	148 Jan 12 j 16:24	0° 8 23'13	
	147 Feb 16 j 18:39	0° 8		morning max el	148 Jan 25 j 14:35	7° 8 58'31	26°36'19
	147 Mar 09 j 06:27	0° 8		desc. node	148 Jan 28 j 08:29	10° 8 53'18	
morning set	147 Mar 19 j 06:33	18° 8 25'49			148 Feb 11 j 19:15	0° 8	
max. Earth dist.	147 Mar 24 j 05:32	28° 8 27'50	1.33495 AU		148 Feb 29 j 15:40	0° 8	
	147 Mar 24 j 23:13	0° 8		morning set	148 Mar 01 j 13:43	1° 8 43'51	
				max. Earth dist.	148 Mar 05 j 20:18	10° 8 01'21	1.34721 AU
superior conj	147 Mar 27 j 06:41	4° 8 52'26	0°-37'-24				
minimum elong	147 Mar 27 j 08:30	5° 8 02'03	0°37'03	superior conj	148 Mar 10 j 06:33	18° 8 59'55	-1°-3'-58
asc. node	147 Mar 30 j 21:41	12° 8 37'18		minimum elong	148 Mar 10 j 09:35	19° 8 15'34	1°03'27
evening rise	147 Apr 03 j 12:46	20° 8 20'13			148 Mar 15 j 13:04	0° 8	
	147 Apr 08 j 06:56	0° 8		asc. node	148 Mar 16 j 18:43	2° 8 34'53	
evening max el	147 Apr 25 j 02:55	25° 8 02'42	22°26'57	evening rise	148 Mar 17 j 21:49	4° 8 55'34	
	147 May 01 j 23:09	0° 8			148 Apr 01 j 00:03	0° 8	
retrograde	147 May 08 j 03:09	1° 8 27'34		evening max el	148 Apr 06 j 02:37	5° 8 56'26	20°58'55
desc. node	147 May 09 j 10:39	1° 8 23'43		retrograde	148 Apr 17 j 16:33	11° 8 33'07	
evening set	147 May 11 j 03:49	1° 8 07'25		evening set	148 Apr 19 j 22:41	11° 8 21'08	
	147 May 14 j 14:48	30° 8		desc. node	148 Apr 25 j 07:41	9° 8 29'33	

inferior conj	148 Apr 29 j 05:38	7°♄22'57	-1°-7'-19	evening max el	149 Mar 19 j 13:31	17°♃26'17	19°46'43
minimum elong	148 Apr 29 j 02:27	7°♄27'28	1°06'11	retrograde	149 Mar 29 j 10:19	22°♃10'31	
min. Earth dist.	148 Apr 29 j 23:15	6°♄57'59	0.55009 AU	evening set	149 Mar 31 j 12:45	21°♃58'34	
morning rise	148 May 08 j 05:38	3°♄18'21		inferior conj	149 Apr 09 j 06:12	17°♃56'29	0°49'48
direct	148 May 11 j 14:02	2°♄54'08		minimum elong	149 Apr 09 j 08:19	17°♃53'11	0°49'05
morning max el	148 May 24 j 13:12	9°♄06'51	22°40'44	min. Earth dist.	149 Apr 11 j 13:31	16°♃30'45	0.55700 AU
	148 Jun 08 j 12:39	0°♄		desc. node	149 Apr 12 j 04:43	16°♃07'55	
asc. node	148 Jun 12 j 18:01	8°♄05'09		morning rise	149 Apr 18 j 00:34	13°♃23'08	
morning set	148 Jun 15 j 18:01	14°♄14'05		direct	149 Apr 22 j 06:29	12°♃43'03	
				morning max el	149 May 06 j 05:00	19°♃40'59	24°21'54
superior conj	148 Jun 22 j 22:53	29°♄33'12	1°29'29		149 May 14 j 21:43	0°♄	
minimum elong	148 Jun 22 j 20:30	29°♄20'37	1°29'14	asc. node	149 May 30 j 15:04	27°♄54'27	
	148 Jun 23 j 03:56	0°♄		morning set	149 May 31 j 05:55	29°♄12'22	
max. Earth dist.	148 Jun 25 j 20:42	5°♄40'10	1.34117 AU		149 May 31 j 14:57	0°♄	
evening rise	148 Jun 30 j 19:11	15°♄39'38					
	148 Jul 08 j 12:01	0°♄		superior conj	149 Jun 07 j 07:18	14°♄24'53	1°13'09
desc. node	148 Jul 22 j 07:03	21°♄46'38		minimum elong	149 Jun 07 j 04:51	14°♄11'33	1°12'47
	148 Jul 28 j 13:54	0°♄		max. Earth dist.	149 Jun 09 j 00:28	18°♄07'01	1.33135 AU
evening max el	148 Aug 04 j 07:39	7°♄21'50	27°12'34	evening rise	149 Jun 14 j 16:00	29°♄56'25	
retrograde	148 Aug 17 j 16:32	14°♄40'56			149 Jun 14 j 16:43	0°♄	
evening set	148 Aug 24 j 16:07	11°♄56'14			149 Jul 01 j 13:18	0°♄	
min. Earth dist.	148 Aug 28 j 11:29	8°♄17'46	0.64870 AU	desc. node	149 Jul 09 j 04:04	10°♄44'37	
inferior conj	148 Aug 30 j 15:23	5°♄54'01	-2°-52'-45	evening max el	149 Jul 17 j 17:49	20°♄25'34	27°25'27
minimum elong	148 Aug 30 j 19:38	5°♄42'14	2°51'20	retrograde	149 Jul 31 j 10:43	27°♄45'07	
morning rise	148 Sep 06 j 00:50	0°♄20'54		evening set	149 Aug 07 j 15:29	25°♄08'19	
	148 Sep 06 j 22:27	30°♄		min. Earth dist.	149 Aug 11 j 06:00	22°♄02'36	0.63281 AU
direct	148 Sep 08 j 16:28	29°♄43'40		inferior conj	149 Aug 13 j 22:57	19°♄20'34	-3°-42'-37
asc. node	148 Sep 08 j 17:12	29°♄43'40		minimum elong	149 Aug 14 j 03:47	19°♄08'28	3°41'23
	148 Sep 10 j 10:39	0°♄		morning rise	149 Aug 20 j 18:24	14°♄05'19	
morning max el	148 Sep 15 j 04:47	3°♄13'12	18°06'05	direct	149 Aug 23 j 05:56	13°♄35'57	
	148 Oct 02 j 22:47	0°♄		asc. node	149 Aug 26 j 14:16	14°♄30'16	
morning set	148 Oct 03 j 03:29	0°♄19'35		morning max el	149 Aug 29 j 20:37	17°♄01'24	17°53'19
					149 Sep 08 j 02:27	0°♄	
superior conj	148 Oct 17 j 03:40	23°♄14'59	0°07'22	morning set	149 Sep 15 j 08:16	12°♄31'42	
minimum elong	148 Oct 17 j 04:33	23°♄18'34	0°07'14		149 Sep 25 j 11:36	0°♄	
behind sun begin	148 Oct 16 j 18:53	22°♄39'54					
behind sun end	148 Oct 17 j 14:14	23°♄57'11		superior conj	149 Sep 27 j 08:23	3°♄07'10	0°50'25
desc. node	148 Oct 18 j 06:22	25°♄01'29		minimum elong	149 Sep 27 j 13:00	3°♄26'20	0°49'49
max. Earth dist.	148 Oct 21 j 01:25	29°♄27'21	1.44766 AU	max. Earth dist.	149 Oct 03 j 17:26	13°♄32'30	1.43792 AU
	148 Oct 21 j 09:41	0°♄		desc. node	149 Oct 05 j 03:24	15°♄48'29	
evening rise	148 Nov 02 j 16:16	19°♄09'18		evening rise	149 Oct 12 j 23:23	28°♄05'57	
	148 Nov 09 j 17:12	0°♄			149 Oct 14 j 04:58	0°♄	
greatest brilliancy	148 Nov 20 j 18:07	16°♄26'24	-0.6m		149 Nov 03 j 14:46	0°♄	
evening max el	148 Nov 28 j 04:09	25°♄45'09	19°51'35	greatest brilliancy	149 Nov 05 j 16:19	2°♄43'49	-0.5m
	148 Dec 04 j 10:26	0°♄		evening max el	149 Nov 11 j 04:48	9°♄13'36	20°56'12
retrograde	148 Dec 05 j 16:43	0°♄08'48		retrograde	149 Nov 19 j 14:20	14°♄12'17	
asc. node	148 Dec 05 j 16:25	0°♄08'48		asc. node	149 Nov 22 j 13:29	13°♄22'35	
	148 Dec 06 j 22:22	30°♄		evening set	149 Nov 23 j 12:42	12°♄44'15	
evening set	148 Dec 09 j 05:24	28°♄55'56		inferior conj	149 Nov 28 j 23:02	6°♄30'43	2°04'07
inferior conj	148 Dec 14 j 18:14	22°♄53'03	2°45'17	minimum elong	149 Nov 28 j 20:36	6°♄39'06	2°03'15
minimum elong	148 Dec 14 j 15:28	23°♄02'16	2°44'29	min. Earth dist.	149 Nov 29 j 10:07	5°♄52'46	0.67347 AU
min. Earth dist.	148 Dec 15 j 17:29	21°♄35'55	0.66688 AU	morning rise	149 Dec 04 j 04:04	0°♄15'03	
morning rise	148 Dec 20 j 00:53	16°♄38'26			149 Dec 04 j 11:05	30°♄	
direct	148 Dec 25 j 23:27	14°♄01'10		direct	149 Dec 09 j 11:37	27°♄56'46	
morning max el	149 Jan 06 j 23:39	21°♄09'38	25°23'03		149 Dec 15 j 03:44	0°♄	
desc. node	149 Jan 14 j 05:33	29°♄27'03		morning max el	149 Dec 20 j 08:06	4°♄25'15	23°57'37
	149 Jan 14 j 15:59	0°♄		desc. node	150 Jan 01 j 02:36	18°♄43'53	
	149 Feb 04 j 00:23	0°♄			150 Jan 08 j 23:59	0°♄	
morning set	149 Feb 12 j 04:48	14°♄09'42		morning set	150 Jan 24 j 21:46	25°♄26'53	
max. Earth dist.	149 Feb 15 j 23:22	21°♄07'18	1.36391 AU		150 Jan 27 j 12:37	0°♄	
	149 Feb 20 j 14:03	0°♄		max. Earth dist.	150 Jan 28 j 18:48	2°♄13'30	1.38402 AU
superior conj	149 Feb 21 j 21:42	2°♄36'27	-1°-28'-24	superior conj	150 Feb 05 j 00:33	15°♄32'50	-1°-48'-20
minimum elong	149 Feb 22 j 01:32	2°♄55'28	1°27'54	minimum elong	150 Feb 05 j 04:12	15°♄50'08	1°48'03
evening rise	149 Mar 02 j 02:28	19°♄11'37			150 Feb 12 j 11:14	0°♄	
asc. node	149 Mar 03 j 15:45	22°♄18'56		evening rise	150 Feb 14 j 00:14	3°♄01'39	
	149 Mar 07 j 14:57	0°♄		asc. node	150 Feb 18 j 12:48	11°♄44'16	

evening max el	150 Mar 02 j 11:08	29° Υ 34'32	18°53'48		151 Jan 19 j 18:01	0° \approx	
	150 Mar 02 j 21:59	0° Υ		evening rise	151 Jan 28 j 12:00	16° \approx 17'50	
retrograde	150 Mar 10 j 19:05	3° Υ 36'13			151 Feb 04 j 23:32	0° Υ	
evening set	150 Mar 13 j 01:23	3° Υ 19'36		asc. node	151 Feb 05 j 09:49	0° Υ 44'01	
	150 Mar 19 j 15:32	30° \Re Υ		evening max el	151 Feb 13 j 16:47	12° Υ 13'41	18°20'54
inferior conj	150 Mar 21 j 00:22	29° Υ 01'57	2°22'32	retrograde	151 Feb 20 j 22:49	15° Υ 49'11	
minimum elong	150 Mar 21 j 04:41	28° Υ 54'11	2°21'21	evening set	151 Feb 23 j 10:08	15° Υ 25'14	
min. Earth dist.	150 Mar 24 j 05:52	26° Υ 43'48	0.57195 AU	inferior conj	151 Mar 02 j 15:36	10° Υ 46'33	3°20'07
morning rise	150 Mar 29 j 03:43	23° Υ 55'42		minimum elong	151 Mar 02 j 18:56	10° Υ 39'33	3°19'33
desc. node	150 Mar 30 j 01:44	23° Υ 34'17		min. Earth dist.	151 Mar 06 j 01:56	7° Υ 55'16	0.59177 AU
direct	150 Apr 03 j 12:40	22° Υ 46'13		morning rise	151 Mar 10 j 00:04	5° Υ 13'55	
	150 Apr 17 j 14:32	0° Υ		direct	151 Mar 16 j 07:53	3° Υ 27'18	
morning max el	150 Apr 17 j 20:07	0° Υ 13'26	25°55'17	desc. node	151 Mar 16 j 22:47	3° Υ 28'19	
	150 May 08 j 14:41	0° \Re		morning max el	151 Mar 30 j 15:32	11° Υ 09'46	27°05'53
morning set	150 May 15 j 17:30	14° \Re 09'41			151 Apr 14 j 06:58	0° Υ	
asc. node	150 May 17 j 12:06	17° \Re 56'00		morning set	151 Apr 30 j 03:02	28° Υ 59'08	
					151 Apr 30 j 14:40	0° \Re	
superior conj	150 May 22 j 18:19	29° \Re 23'28	0°53'03	asc. node	151 May 04 j 09:07	8° \Re 04'08	
minimum elong	150 May 22 j 16:15	29° \Re 12'06	0°52'41				
	150 May 23 j 00:59	0° Π		superior conj	151 May 07 j 06:04	14° \Re 21'32	0°30'00
max. Earth dist.	150 May 23 j 10:30	0° Π 52'07	1.32540 AU	minimum elong	151 May 07 j 04:46	14° \Re 14'24	0°29'44
evening rise	150 May 29 j 20:03	14° Π 34'34		max. Earth dist.	151 May 06 j 23:11	13° \Re 43'42	1.32317 AU
	150 Jun 06 j 17:30	0° \Im		evening rise	151 May 14 j 04:41	29° \Re 24'19	
desc. node	150 Jun 26 j 01:04	28° \Im 47'28			151 May 14 j 11:29	0° Π	
	150 Jun 27 j 03:15	0° Ω			151 May 31 j 02:18	0° \Im	
evening max el	150 Jun 30 j 00:07	2° Ω 55'17	27°06'16	evening max el	151 Jun 12 j 00:05	14° \Im 40'08	26°14'18
retrograde	150 Jul 13 j 22:01	10° Ω 12'00		desc. node	151 Jun 12 j 22:04	15° \Im 31'11	
evening set	150 Jul 20 j 23:05	7° Ω 57'03		retrograde	151 Jun 26 j 00:38	21° \Im 53'02	
min. Earth dist.	150 Jul 24 j 14:19	5° Ω 13'38	0.61391 AU	evening set	151 Jul 02 j 10:13	20° \Im 12'12	
inferior conj	150 Jul 27 j 18:03	2° Ω 26'44	-4°-22'-38	min. Earth dist.	151 Jul 06 j 13:00	17° \Im 35'05	0.59339 AU
minimum elong	150 Jul 27 j 22:10	2° Ω 17'36	4°21'59	inferior conj	151 Jul 09 j 20:59	15° \Im 01'55	-4°-44'-50
	150 Jul 30 j 15:59	30° \Re \Im		minimum elong	151 Jul 09 j 22:23	14° \Im 59'14	4°44'47
morning rise	150 Aug 04 j 00:09	27° \Im 32'09		morning rise	151 Jul 17 j 13:59	10° \Im 30'09	
direct	150 Aug 06 j 10:13	27° \Im 07'55		direct	151 Jul 20 j 01:04	10° \Im 09'04	
	150 Aug 12 j 18:26	0° Ω		morning max el	151 Jul 27 j 19:48	13° \Im 53'09	18°24'46
asc. node	150 Aug 13 j 11:20	0° Ω 39'24		asc. node	151 Jul 31 j 08:22	17° \Im 54'59	
morning max el	150 Aug 13 j 10:39	0° Ω 37'46	17°59'07		151 Aug 07 j 20:45	0° Ω	
morning set	150 Aug 29 j 07:44	25° Ω 37'47		morning set	151 Aug 12 j 20:38	9° Ω 23'00	
	150 Aug 31 j 16:53	0° \Re					
superior conj	150 Sep 08 j 16:29	14° \Re 20'13	1°21'15	superior conj	151 Aug 22 j 00:21	26° Ω 43'49	1°39'25
minimum elong	150 Sep 08 j 21:05	14° \Re 40'18	1°20'48	minimum elong	151 Aug 22 j 03:05	26° Ω 56'25	1°39'14
max. Earth dist.	150 Sep 16 j 04:48	27° \Re 07'38	1.42258 AU		151 Aug 23 j 19:12	0° \Re	
	150 Sep 17 j 22:43	0° Δ		max. Earth dist.	151 Aug 29 j 11:08	10° \Re 02'15	1.40351 AU
desc. node	150 Sep 22 j 00:25	6° Δ 33'52		evening rise	151 Sep 02 j 23:31	17° \Re 40'43	
evening rise	150 Sep 22 j 13:07	7° Δ 24'16		desc. node	151 Sep 08 j 21:26	27° \Re 14'00	
	150 Oct 07 j 10:52	0° \Re			151 Sep 10 j 15:53	0° Δ	
greatest brilliancy	150 Oct 20 j 06:36	17° \Re 23'54	-0.3m		151 Oct 01 j 23:57	0° \Re	
evening max el	150 Oct 24 j 23:48	22° \Re 43'04	22°10'58	evening max el	151 Oct 07 j 14:16	6° \Re 15'01	23°30'49
retrograde	150 Nov 03 j 10:19	28° \Re 19'47		retrograde	151 Oct 18 j 03:22	12° \Re 28'43	
evening set	150 Nov 07 j 20:29	26° \Re 34'43		evening set	151 Oct 23 j 03:06	10° \Re 25'31	
asc. node	150 Nov 09 j 10:32	25° \Re 05'20		asc. node	151 Oct 27 j 07:34	5° \Re 41'29	
inferior conj	150 Nov 13 j 05:52	20° \Re 14'09	1°16'56	min. Earth dist.	151 Oct 28 j 02:30	4° \Re 37'20	0.67643 AU
minimum elong	150 Nov 13 j 04:11	20° \Re 20'00	1°16'15	inferior conj	151 Oct 28 j 12:55	4° \Re 01'41	0°25'16
min. Earth dist.	150 Nov 13 j 05:55	20° \Re 13'59	0.67659 AU	minimum elong	151 Oct 28 j 12:20	4° \Re 03'44	0°25'01
morning rise	150 Nov 18 j 11:41	13° \Re 59'52			151 Oct 31 j 16:06	30° \Re Δ	
direct	150 Nov 23 j 04:03	12° \Re 03'52		morning rise	151 Nov 02 j 21:39	27° Δ 51'17	
morning max el	150 Dec 02 j 18:42	17° \Re 45'21	22°29'56	direct	151 Nov 06 j 23:46	26° Δ 17'47	
greatest brilliancy	150 Dec 07 j 09:21	22° \Re 55'16	-0.3m		151 Nov 14 j 04:13	0° \Re	
	150 Dec 12 j 21:20	0° \Re		morning max el	151 Nov 15 j 11:06	1° \Re 14'25	21°08'06
desc. node	150 Dec 18 j 23:39	8° \Re 31'24		greatest brilliancy	151 Nov 20 j 21:04	7° \Re 30'12	-0.5m
	151 Jan 02 j 03:09	0° \Re		desc. node	151 Dec 05 j 20:41	28° \Re 41'00	
morning set	151 Jan 05 j 10:41	5° \Re 20'40			151 Dec 06 j 17:44	0° \Re	
max. Earth dist.	151 Jan 10 j 14:58	13° \Re 57'28	1.40534 AU	morning set	151 Dec 15 j 19:53	13° \Re 57'35	
				max. Earth dist.	151 Dec 23 j 18:05	26° \Re 38'30	1.42485 AU
					151 Dec 25 j 19:05	0° \Re	
superior conj	151 Jan 18 j 10:25	27° \Re 37'00	-2°00'-25				
minimum elong	151 Jan 18 j 12:10	27° \Re 44'54	2°00'23	superior conj	151 Dec 30 j 21:53	8° \Re 35'52	-2°00'-20

minimum elong	151 Dec 30 j 19:34	8°☿25'59	2°00'17	superior conj	152 Dec 10 j 06:40	18°♄20'11	-1°-43'-34
evening rise	152 Jan 11 j 10:03	28°☿52'19		minimum elong	152 Dec 09 j 23:35	17°♄51'25	1°43'02
	152 Jan 12 j 01:05	0°☿			152 Dec 17 j 08:06	0°☿	
asc. node	152 Jan 23 j 06:52	19°♁10'11		evening rise	152 Dec 23 j 14:03	10°☿36'08	
evening max el	152 Jan 28 j 03:20	25°♁15'00	18°07'51		153 Jan 04 j 04:29	0°♁	
retrograde	152 Feb 03 j 19:12	28°♁40'18		asc. node	153 Jan 09 j 03:55	6°♁51'54	
evening set	152 Feb 06 j 10:52	28°♁07'48		evening max el	153 Jan 10 j 15:46	8°♁30'00	18°14'06
inferior conj	152 Feb 13 j 02:06	23°♁07'17	3°46'08	retrograde	153 Jan 17 j 03:26	11°♁58'24	
minimum elong	152 Feb 13 j 03:14	23°♁04'33	3°46'04	evening set	153 Jan 19 j 23:29	11°♁16'26	
min. Earth dist.	152 Feb 16 j 04:51	20°♁07'29	0.61285 AU	inferior conj	153 Jan 26 j 03:55	5°♁55'34	3°48'15
morning rise	152 Feb 19 j 16:56	17°♁16'46		minimum elong	153 Jan 26 j 03:03	5°♁57'58	3°48'13
direct	152 Feb 26 j 13:40	14°♁56'02		min. Earth dist.	153 Jan 28 j 17:01	3°♁09'23	0.63240 AU
desc. node	152 Mar 02 j 19:49	16°♁10'23		morning rise	153 Feb 01 j 04:48	29°☿53'46	
morning max el	152 Mar 11 j 17:26	22°♁46'20	27°43'01		153 Feb 01 j 01:38	30°♄☿	
	152 Mar 18 j 03:38	0°♄		direct	153 Feb 08 j 04:10	27°☿10'21	
	152 Apr 06 j 09:46	0°♄			153 Feb 16 j 00:34	0°♁	
morning set	152 Apr 13 j 08:38	13°♄34'39		desc. node	153 Feb 17 j 16:52	1°♁12'35	
max. Earth dist.	152 Apr 19 j 10:44	26°♄29'10	1.32464 AU	morning max el	153 Feb 22 j 00:34	5°♁02'53	27°43'04
asc. node	152 Apr 20 j 06:09	28°♄14'51			153 Mar 12 j 20:55	0°♄	
				morning set	153 Mar 28 j 08:04	27°♄48'21	
superior conj	152 Apr 20 j 16:55	29°♄13'36	0°04'46		153 Mar 29 j 10:12	0°♄	
minimum elong	152 Apr 20 j 16:42	29°♄12'24	0°04'42	max. Earth dist.	153 Apr 02 j 17:02	8°♄54'02	1.32996 AU
behind sun begin	152 Apr 20 j 11:49	28°♄45'47					
behind sun end	152 Apr 20 j 21:34	29°♄39'02		superior conj	153 Apr 05 j 01:08	13°♄53'45	0°-21'-52
	152 Apr 21 j 01:24	0°♄		minimum elong	153 Apr 05 j 02:11	13°♄59'24	0°21'40
evening rise	152 Apr 27 j 15:52	14°♄18'35		asc. node	153 Apr 07 j 03:12	18°♄23'59	
	152 May 05 j 13:28	0°♄		evening rise	153 Apr 12 j 03:40	29°♄10'36	
evening max el	152 May 23 j 17:17	25°♄40'54	24°55'13		153 Apr 12 j 13:03	0°♄	
	152 May 29 j 02:56	0°♄			153 Apr 29 j 18:43	0°♄	
desc. node	152 May 29 j 19:05	0°♄24'32		evening max el	153 May 05 j 07:38	6°♄16'15	23°21'33
retrograde	152 Jun 06 j 16:51	2°♄46'52		desc. node	153 May 16 j 16:05	12°♄51'29	
evening set	152 Jun 11 j 22:07	1°♄44'40		retrograde	153 May 18 j 21:08	13°♄02'36	
	152 Jun 15 j 11:08	30°♄♄		evening set	153 May 22 j 15:16	12°♄31'35	
min. Earth dist.	152 Jun 17 j 04:45	28°♄56'00	0.57372 AU	min. Earth dist.	153 May 29 j 17:43	9°♄16'54	0.55824 AU
inferior conj	152 Jun 20 j 04:35	26°♄56'48	-4°-37'-33	inferior conj	153 May 31 j 16:20	8°♄07'59	-3°-48'-20
minimum elong	152 Jun 20 j 01:23	27°♄02'09	4°37'16	minimum elong	153 May 31 j 09:20	8°♄18'23	3°46'47
morning rise	152 Jun 28 j 08:30	22°♄47'05		morning rise	153 Jun 09 j 06:46	4°♄12'51	
direct	152 Jun 30 j 22:08	22°♄28'04		direct	153 Jun 11 j 23:52	3°♄54'53	
morning max el	152 Jul 09 j 21:07	26°♄38'50	19°11'15	morning max el	153 Jun 22 j 12:17	8°♄46'46	20°18'40
	152 Jul 12 j 23:09	0°♄		asc. node	153 Jul 04 j 02:27	24°♄50'42	
asc. node	152 Jul 17 j 05:23	6°♄02'41			153 Jul 06 j 21:01	0°♄	
morning set	152 Jul 26 j 18:58	23°♄36'35		morning set	153 Jul 10 j 23:51	8°♄11'06	
	152 Jul 30 j 00:01	0°♄					
				superior conj	153 Jul 18 j 17:16	24°♄00'31	1°45'11
superior conj	152 Aug 04 j 02:17	10°♄02'00	1°46'40	minimum elong	153 Jul 18 j 16:14	23°♄55'16	1°45'08
minimum elong	152 Aug 04 j 02:54	10°♄05'00	1°46'39		153 Jul 21 j 17:20	0°♄	
max. Earth dist.	152 Aug 10 j 14:23	22°♄15'39	1.38324 AU	max. Earth dist.	153 Jul 23 j 19:52	4°♄05'53	1.36432 AU
evening rise	152 Aug 14 j 10:42	29°♄07'04		evening rise	153 Jul 27 j 20:06	11°♄38'16	
	152 Aug 14 j 22:52	0°♄			153 Aug 07 j 12:11	0°♄	
desc. node	152 Aug 25 j 18:27	17°♄44'29		desc. node	153 Aug 12 j 15:29	8°♄00'15	
	152 Sep 03 j 01:04	0°♄			153 Aug 29 j 06:08	0°♄	
evening max el	152 Sep 19 j 02:10	19°♄49'51	24°49'21	evening max el	153 Sep 01 j 13:39	3°♄26'54	25°59'08
retrograde	152 Sep 30 j 16:30	26°♄34'52		retrograde	153 Sep 14 j 01:08	10°♄33'30	
evening set	152 Oct 06 j 06:51	24°♄14'05		evening set	153 Sep 20 j 05:57	7°♄58'14	
min. Earth dist.	152 Oct 10 j 21:29	19°♄00'23	0.67303 AU	min. Earth dist.	153 Sep 24 j 12:35	3°♄20'52	0.66633 AU
inferior conj	152 Oct 11 j 18:29	17°♄50'53	0°-29'-27	inferior conj	153 Sep 25 j 20:46	1°♄39'49	-1°-25'-41
minimum elong	152 Oct 11 j 19:12	17°♄48'28	0°29'09	minimum elong	153 Sep 25 j 22:57	1°♄32'57	1°24'48
asc. node	152 Oct 13 j 04:37	15°♄59'40			153 Sep 27 j 05:03	30°♄♄	
morning rise	152 Oct 17 j 08:01	11°♄47'00		asc. node	153 Sep 30 j 01:39	26°♄57'49	
direct	152 Oct 20 j 21:32	10°♄33'52		morning rise	153 Oct 01 j 16:50	25°♄45'14	
morning max el	152 Oct 28 j 11:11	14°♄54'00	19°57'33	direct	153 Oct 04 j 19:55	24°♄49'00	
greatest brilliancy	152 Nov 04 j 20:09	23°♄57'23	-0.6m	morning max el	153 Oct 11 j 18:31	28°♄42'32	19°01'24
	152 Nov 09 j 02:01	0°♄			153 Oct 12 j 23:33	0°♄	
desc. node	152 Nov 21 j 17:42	19°♄05'59			153 Nov 02 j 10:21	0°♄	
morning set	152 Nov 23 j 16:16	22°♄05'32		morning set	153 Nov 03 j 00:44	0°♄56'25	
	152 Nov 28 j 18:22	0°♄		desc. node	153 Nov 08 j 14:47	9°♄42'04	
max. Earth dist.	152 Dec 05 j 04:42	10°♄09'05	1.43989 AU	max. Earth dist.	153 Nov 17 j 20:34	24°♄12'31	1.44864 AU

superior conj	153 Nov 19 j 15:45	27° \mathbb{M} 02'45	-1°-8'-29		154 Nov 14 j 07:53	0° \mathcal{Z}	
minimum elong	153 Nov 19 j 07:51	26° \mathbb{M} 31'35	1°07'35	evening rise	154 Nov 15 j 02:11	1° \mathcal{Z} 11'45	
	153 Nov 21 j 12:36	0° \mathcal{Z}		greatest brilliancy	154 Nov 29 j 05:45	23° \mathcal{Z} 07'54	-0.7m
evening rise	153 Dec 04 j 19:59	21° \mathcal{Z} 22'57			154 Dec 04 j 01:29	0° \mathcal{Z}	
	153 Dec 10 j 02:39	0° \mathcal{Z}		evening max el	154 Dec 08 j 12:21	5° \mathcal{Z} 20'54	19°20'37
evening max el	153 Dec 25 j 03:32	21° \mathcal{Z} 53'19	18°38'46	asc. node	154 Dec 13 j 21:59	9° \mathcal{Z} 10'23	
asc. node	153 Dec 27 j 00:57	23° \mathcal{Z} 36'48		retrograde	154 Dec 15 j 15:21	9° \mathcal{Z} 26'53	
retrograde	153 Dec 31 j 19:18	25° \mathcal{Z} 35'49		evening set	154 Dec 18 j 23:24	8° \mathcal{Z} 21'55	
evening set	154 Jan 03 j 20:35	24° \mathcal{Z} 43'12		inferior conj	154 Dec 24 j 14:30	2° \mathcal{Z} 27'05	3°05'34
inferior conj	154 Jan 09 j 17:10	19° \mathcal{Z} 04'05	3°33'08	minimum elong	154 Dec 24 j 11:46	2° \mathcal{Z} 35'54	3°04'53
minimum elong	154 Jan 09 j 14:59	19° \mathcal{Z} 10'35	3°32'49	min. Earth dist.	154 Dec 25 j 21:35	0° \mathcal{Z} 47'06	0.66143 AU
min. Earth dist.	154 Jan 11 j 14:56	16° \mathcal{Z} 46'55	0.64884 AU		154 Dec 26 j 12:31	30° \mathcal{R} \mathcal{Z}	
morning rise	154 Jan 15 j 08:11	12° \mathcal{Z} 55'20		morning rise	154 Dec 29 j 23:19	26° \mathcal{Z} 14'10	
direct	154 Jan 22 j 02:02	10° \mathcal{Z} 04'00		direct	155 Jan 05 j 06:01	23° \mathcal{Z} 28'39	
morning max el	154 Feb 04 j 10:03	17° \mathcal{Z} 49'32	27°08'46		155 Jan 16 j 21:26	0° \mathcal{Z}	
desc. node	154 Feb 04 j 13:56	17° \mathcal{Z} 59'16		morning max el	155 Jan 17 j 19:26	0° \mathcal{Z} 54'13	26°07'14
	154 Feb 14 j 15:57	0° \approx		desc. node	155 Jan 22 j 11:01	6° \mathcal{Z} 00'39	
	154 Mar 05 j 18:06	0° \mathcal{H}			155 Feb 08 j 16:14	0° \approx	
morning set	154 Mar 11 j 22:19	11° \mathcal{H} 30'26		morning set	155 Feb 22 j 23:22	24° \approx 28'51	
max. Earth dist.	154 Mar 16 j 14:06	20° \mathcal{H} 46'29	1.33958 AU		155 Feb 25 j 21:30	0° \mathcal{H}	
				max. Earth dist.	155 Feb 26 j 23:32	2° \mathcal{H} 05'42	1.35379 AU
superior conj	154 Mar 20 j 04:46	28° \mathcal{H} 15'30	0°-48'-50				
minimum elong	154 Mar 20 j 07:07	28° \mathcal{H} 27'53	0°48'23	superior conj	155 Mar 04 j 01:24	12° \mathcal{H} 11'50	-1°-14'-43
	154 Mar 21 j 00:37	0° \mathcal{Y}		minimum elong	155 Mar 04 j 04:50	12° \mathcal{H} 29'22	1°14'10
asc. node	154 Mar 25 j 00:16	8° \mathcal{Y} 27'07		evening rise	155 Mar 11 j 21:47	28° \mathcal{H} 22'25	
evening rise	154 Mar 27 j 14:18	13° \mathcal{Y} 53'55		asc. node	155 Mar 11 j 21:19	28° \mathcal{H} 20'00	
	154 Apr 04 j 20:14	0° \mathcal{B}			155 Mar 12 j 16:54	0° \mathcal{Y}	
evening max el	154 Apr 17 j 02:17	16° \mathcal{B} 56'13	21°47'59	evening max el	155 Mar 30 j 06:49	28° \mathcal{Y} 05'35	20°26'01
retrograde	154 Apr 29 j 13:54	23° \mathcal{B} 02'18			155 Apr 01 j 11:35	0° \mathcal{B}	
evening set	154 May 02 j 04:16	22° \mathcal{B} 47'11		retrograde	155 Apr 10 j 03:08	3° \mathcal{B} 18'49	
desc. node	154 May 03 j 13:07	22° \mathcal{B} 27'43		evening set	155 Apr 12 j 06:21	3° \mathcal{B} 07'33	
inferior conj	154 May 11 j 13:35	18° \mathcal{B} 44'05	-2°-14'-38		155 Apr 19 j 22:08	30° \mathcal{R} \mathcal{Y}	
minimum elong	154 May 11 j 07:34	18° \mathcal{B} 52'30	2°12'40	desc. node	155 Apr 20 j 10:09	29° \mathcal{Y} 42'51	
min. Earth dist.	154 May 11 j 06:34	18° \mathcal{B} 53'55	0.55035 AU	inferior conj	155 Apr 21 j 08:47	29° \mathcal{Y} 10'01	0°-16'-15
morning rise	154 May 20 j 11:55	14° \mathcal{B} 48'02		minimum elong	155 Apr 21 j 08:01	29° \mathcal{Y} 11'07	0°15'58
direct	154 May 23 j 12:23	14° \mathcal{B} 27'53		min. Earth dist.	155 Apr 22 j 20:02	28° \mathcal{Y} 18'41	0.55195 AU
morning max el	154 Jun 04 j 16:17	20° \mathcal{B} 11'27	21°44'50	morning rise	155 Apr 30 j 07:44	24° \mathcal{Y} 54'42	
	154 Jun 12 j 18:37	0° \mathbb{I}		direct	155 May 04 j 00:27	24° \mathcal{Y} 25'04	
asc. node	154 Jun 20 j 23:31	14° \mathbb{I} 08'33			155 May 16 j 09:14	0° \mathcal{B}	
morning set	154 Jun 25 j 08:55	22° \mathbb{I} 59'15		morning max el	155 May 17 j 11:02	0° \mathcal{B} 58'41	23°23'35
	154 Jun 28 j 17:06	0° \mathcal{E}			155 Jun 05 j 23:06	0° \mathbb{I}	
				asc. node	155 Jun 07 j 20:35	3° \mathbb{I} 48'32	
superior conj	154 Jul 02 j 17:16	8° \mathcal{E} 26'34	1°36'50	morning set	155 Jun 09 j 20:18	7° \mathbb{I} 55'39	
minimum elong	154 Jul 02 j 15:12	8° \mathcal{E} 15'47	1°36'39				
max. Earth dist.	154 Jul 06 j 09:10	15° \mathcal{E} 59'32	1.34854 AU	superior conj	155 Jun 16 j 23:19	23° \mathbb{I} 11'09	1°23'04
evening rise	154 Jul 10 j 22:44	25° \mathcal{E} 00'32		minimum elong	155 Jun 16 j 20:51	22° \mathbb{I} 57'53	1°22'45
	154 Jul 13 j 14:12	0° \mathcal{Q}		max. Earth dist.	155 Jun 19 j 08:19	28° \mathbb{I} 14'34	1.33659 AU
desc. node	154 Jul 30 j 12:30	27° \mathcal{Q} 53'38			155 Jun 20 j 04:21	0° \mathcal{E}	
	154 Jul 31 j 23:54	0° \mathcal{M}		evening rise	155 Jun 24 j 14:04	9° \mathcal{E} 00'59	
evening max el	154 Aug 15 j 01:39	17° \mathcal{M} 00'01	26°52'27		155 Jul 06 j 00:38	0° \mathcal{Q}	
retrograde	154 Aug 28 j 04:30	24° \mathcal{M} 17'00		desc. node	155 Jul 17 j 09:29	17° \mathcal{Q} 15'16	
evening set	154 Sep 03 j 22:06	21° \mathcal{M} 33'27			155 Jul 28 j 05:28	0° \mathcal{M}	
min. Earth dist.	154 Sep 07 j 21:23	17° \mathcal{M} 33'31	0.65614 AU	evening max el	155 Jul 28 j 13:16	0° \mathcal{M} 18'45	27°21'48
inferior conj	154 Sep 09 j 17:44	15° \mathcal{M} 24'03	-2°-21'-37	retrograde	155 Aug 11 j 01:58	7° \mathcal{M} 37'48	
minimum elong	154 Sep 09 j 21:18	15° \mathcal{M} 13'36	2°20'19	evening set	155 Aug 18 j 04:32	4° \mathcal{M} 55'15	
morning rise	154 Sep 15 j 21:53	9° \mathcal{M} 41'55		min. Earth dist.	155 Aug 21 j 21:37	1° \mathcal{M} 31'16	0.64237 AU
asc. node	154 Sep 16 j 22:43	9° \mathcal{M} 15'56			155 Aug 23 j 08:09	30° \mathcal{R} \mathcal{Q}	
direct	154 Sep 18 j 16:58	8° \mathcal{M} 58'45		inferior conj	155 Aug 24 j 06:59	28° \mathcal{Q} 58'52	-3°-14'-44
morning max el	154 Sep 25 j 07:08	12° \mathcal{M} 34'47	18°21'21	minimum elong	155 Aug 24 j 11:35	28° \mathcal{Q} 46'36	3°13'21
	154 Oct 07 j 15:28	0° \mathcal{A}		morning rise	155 Aug 30 j 20:32	23° \mathcal{Q} 32'37	
morning set	154 Oct 14 j 12:23	11° \mathcal{A} 09'28		direct	155 Sep 02 j 10:11	22° \mathcal{Q} 58'59	
desc. node	154 Oct 26 j 11:50	0° \mathcal{M} 24'51		asc. node	155 Sep 03 j 19:47	23° \mathcal{Q} 09'06	
	154 Oct 26 j 05:34	0° \mathcal{M}		morning max el	155 Sep 08 j 22:33	26° \mathcal{Q} 25'48	17°58'23
					155 Sep 12 j 00:06	0° \mathcal{M}	
superior conj	154 Oct 29 j 16:31	5° \mathcal{M} 28'05	0°-20'-55	morning set	155 Sep 26 j 03:41	22° \mathcal{M} 42'59	
minimum elong	154 Oct 29 j 13:46	5° \mathcal{M} 17'15	0°20'35		155 Sep 30 j 10:46	0° \mathcal{A}	
max. Earth dist.	154 Oct 31 j 15:05	8° \mathcal{M} 31'29	1.45013 AU				

superior conj	155 Oct 09 j 06:42	14°♄36'19	0°26'55		156 Sep 21 j 21:45	0°♄	
minimum elong	155 Oct 09 j 09:42	14°♄48'26	0°26'30	max. Earth dist.	156 Sep 26 j 00:09	6°♄44'47	1.43197 AU
desc. node	155 Oct 13 j 08:51	21°♄10'57		desc. node	156 Sep 29 j 05:51	11°♄57'30	
max. Earth dist.	155 Oct 14 j 09:22	22°♄48'36	1.44432 AU	evening rise	156 Oct 03 j 21:36	19°♄17'51	
	155 Oct 18 j 22:46	0°♄			156 Oct 10 j 21:11	0°♄	
evening rise	155 Oct 25 j 13:52	10°♄17'39		greatest brilliancy	156 Oct 29 j 13:45	26°♄30'02	-0.4m
	155 Nov 07 j 13:39	0°♄			156 Nov 01 j 11:36	0°♄	
greatest brilliancy	155 Nov 15 j 05:20	10°♄57'19	-0.6m	evening max el	156 Nov 03 j 14:28	2°♄17'53	21°27'01
evening max el	155 Nov 21 j 16:19	18°♄49'20	20°17'40	retrograde	156 Nov 12 j 10:06	7°♄32'33	
retrograde	155 Nov 29 j 12:58	23°♄26'46		evening set	156 Nov 16 j 13:21	5°♄57'13	
asc. node	155 Nov 30 j 19:02	23°♄17'51		asc. node	156 Nov 16 j 16:04	5°♄51'52	
evening set	155 Dec 03 j 05:38	22°♄07'33		inferior conj	156 Nov 21 j 23:04	29°♄40'05	1°44'45
inferior conj	155 Dec 08 j 17:12	15°♄59'51	2°28'41	minimum elong	156 Nov 21 j 20:54	29°♄47'34	1°43'55
minimum elong	155 Dec 08 j 14:30	16°♄08'56	2°27'48		156 Nov 21 j 17:18	30°♄	
min. Earth dist.	155 Dec 09 j 11:04	14°♄59'38	0.67012 AU	min. Earth dist.	156 Nov 22 j 05:15	29°♄18'46	0.67517 AU
morning rise	155 Dec 13 j 22:52	9°♄44'49		morning rise	156 Nov 27 j 04:10	23°♄24'53	
direct	155 Dec 19 j 15:15	7°♄15'00		direct	156 Dec 02 j 05:08	21°♄16'09	
morning max el	155 Dec 31 j 03:55	14°♄07'03	24°47'42	morning max el	156 Dec 12 j 12:59	27°♄24'46	23°20'13
desc. node	156 Jan 09 j 08:04	24°♄54'17			156 Dec 14 j 23:10	0°♄	
	156 Jan 13 j 02:50	0°♄		greatest brilliancy	156 Dec 17 j 20:25	3°♄23'07	-0.2m
	156 Feb 01 j 12:36	0°♄		desc. node	156 Dec 26 j 05:06	14°♄25'15	
morning set	156 Feb 05 j 05:48	6°♄27'20			157 Jan 05 j 19:04	0°♄	
max. Earth dist.	156 Feb 08 j 22:46	13°♄08'27	1.37219 AU	morning set	157 Jan 16 j 11:24	17°♄10'08	
				max. Earth dist.	157 Jan 20 j 17:58	24°♄28'42	1.39312 AU
superior conj	156 Feb 15 j 11:49	25°♄32'51	-1°-37'-35		157 Jan 23 j 21:00	0°♄	
minimum elong	156 Feb 15 j 15:44	25°♄51'55	1°37'08				
	156 Feb 17 j 18:09	0°♄		superior conj	157 Jan 28 j 08:02	8°♄08'16	-1°-54'-39
evening rise	156 Feb 23 j 23:51	12°♄28'32		minimum elong	157 Jan 28 j 11:08	8°♄22'40	1°54'29
asc. node	156 Feb 26 j 18:21	17°♄56'57		evening rise	157 Feb 06 j 17:46	26°♄05'16	
	156 Mar 04 j 10:05	0°♄			157 Feb 08 j 18:39	0°♄	
evening max el	156 Mar 11 j 22:30	9°♄52'09	19°21'42	asc. node	157 Feb 12 j 15:22	7°♄12'18	
retrograde	156 Mar 21 j 02:18	14°♄16'25		evening max el	157 Feb 22 j 23:47	22°♄13'56	18°37'16
evening set	156 Mar 23 j 06:09	14°♄02'47		retrograde	157 Mar 02 j 19:27	26°♄02'54	
inferior conj	156 Mar 31 j 15:52	9°♄54'46	1°33'13	evening set	157 Mar 05 j 03:47	25°♄43'28	
minimum elong	156 Mar 31 j 19:24	9°♄48'57	1°32'04	inferior conj	157 Mar 12 j 18:58	21°♄16'52	2°51'13
min. Earth dist.	156 Apr 03 j 10:40	8°♄05'26	0.56262 AU	minimum elong	157 Mar 12 j 23:09	21°♄08'50	2°50'14
desc. node	156 Apr 06 j 07:12	6°♄24'47		min. Earth dist.	157 Mar 16 j 04:16	18°♄41'51	0.58001 AU
morning rise	156 Apr 09 j 04:50	5°♄07'34		morning rise	157 Mar 20 j 14:24	15°♄58'01	
direct	156 Apr 13 j 22:12	4°♄16'39		desc. node	157 Mar 24 j 04:15	14°♄45'59	
morning max el	156 Apr 28 j 01:42	11°♄28'01	25°03'26	direct	157 Mar 26 j 09:45	14°♄33'24	
	156 May 12 j 05:19	0°♄		morning max el	157 Apr 09 j 18:23	22°♄08'23	26°28'53
morning set	156 May 24 j 08:17	22°♄54'11			157 Apr 16 j 16:37	0°♄	
asc. node	156 May 24 j 17:38	23°♄43'34			157 May 04 j 23:17	0°♄	
	156 May 27 j 15:49	0°♄		morning set	157 May 08 j 19:12	7°♄49'01	
				asc. node	157 May 11 j 14:40	13°♄48'25	
superior conj	156 May 31 j 09:04	8°♄06'14	1°05'02				
minimum elong	156 May 31 j 06:43	7°♄53'25	1°04'38	superior conj	157 May 15 j 20:35	23°♄05'12	0°43'36
max. Earth dist.	156 Jun 01 j 15:22	10°♄51'02	1.32844 AU	minimum elong	157 May 15 j 18:48	22°♄55'24	0°43'14
evening rise	156 Jun 07 j 14:19	23°♄27'46		max. Earth dist.	157 May 16 j 03:01	23°♄40'27	1.32401 AU
	156 Jun 10 j 20:37	0°♄			157 May 19 j 00:27	0°♄	
	156 Jun 28 j 18:58	0°♄		evening rise	157 May 22 j 20:35	8°♄11'30	
desc. node	156 Jul 03 j 06:29	5°♄51'55			157 Jun 03 j 07:17	0°♄	
evening max el	156 Jul 09 j 22:09	13°♄09'25	27°21'18	desc. node	157 Jun 20 j 03:30	23°♄24'23	
retrograde	156 Jul 23 j 17:02	20°♄27'11		evening max el	157 Jun 22 j 01:44	25°♄19'51	26°47'51
evening set	156 Jul 30 j 21:43	17°♄57'58			157 Jun 27 j 23:38	0°♄	
min. Earth dist.	156 Aug 03 j 11:38	15°♄03'32	0.62513 AU	retrograde	157 Jul 06 j 00:57	2°♄35'36	
inferior conj	156 Aug 06 j 09:39	12°♄17'40	-4°-1'-12	evening set	157 Jul 12 j 21:11	0°♄33'34	
minimum elong	156 Aug 06 j 14:24	12°♄06'24	4°00'10		157 Jul 13 j 19:02	30°♄	
morning rise	156 Aug 13 j 09:35	7°♄10'53		min. Earth dist.	157 Jul 16 j 15:24	27°♄55'22	0.60526 AU
direct	156 Aug 15 j 20:19	6°♄43'52		inferior conj	157 Jul 19 j 22:18	25°♄11'31	-4°-34'-53
asc. node	156 Aug 20 j 16:51	8°♄32'31		minimum elong	157 Jul 20 j 01:32	25°♄04'44	4°34'31
morning max el	156 Aug 22 j 13:58	10°♄09'42	17°53'28	morning rise	157 Jul 27 j 09:05	20°♄26'55	
	156 Sep 04 j 17:24	0°♄		direct	157 Jul 29 j 19:19	20°♄04'15	
morning set	156 Sep 07 j 17:09	5°♄20'08		morning max el	157 Aug 06 j 02:23	23°♄38'34	18°07'36
				asc. node	157 Aug 07 j 13:53	25°♄11'47	
superior conj	156 Sep 18 j 23:10	25°♄03'11	1°05'07		157 Aug 11 j 05:24	0°♄	
minimum elong	156 Sep 19 j 04:08	25°♄24'15	1°04'32	morning set	157 Aug 21 j 22:52	18°♄44'06	

	157 Aug 28 j 00:05	0° \mathring{M}			158 Aug 04 j 06:37	0° Ω	
				morning set	158 Aug 05 j 16:15	2° Ω 42'57	
superior conj	157 Aug 31 j 18:06	6° \mathring{M} 48'26	1°30'26				
minimum elong	157 Aug 31 j 22:00	7° \mathring{M} 05'55	1°30'05	superior conj	158 Aug 14 j 10:25	19° Ω 37'48	1°43'41
max. Earth dist.	157 Sep 08 j 09:08	20° \mathring{M} 02'50	1.41471 AU	minimum elong	158 Aug 14 j 12:14	19° Ω 46'20	1°43'35
evening rise	157 Sep 13 j 18:54	28° \mathring{M} 57'14			158 Aug 20 j 01:48	0° \mathring{M}	
	157 Sep 14 j 10:30	0° $\underline{\Delta}$		max. Earth dist.	158 Aug 21 j 13:12	2° \mathring{M} 37'14	1.39490 AU
desc. node	157 Sep 16 j 02:50	2° $\underline{\Delta}$ 40'54		evening rise	158 Aug 25 j 16:00	9° \mathring{M} 44'09	
	157 Oct 04 j 12:03	0° \mathring{M}		desc. node	158 Sep 02 j 23:51	23° \mathring{M} 17'37	
greatest brilliancy	157 Oct 12 j 08:09	10° \mathring{M} 13'55	-0.3m		158 Sep 07 j 08:44	0° $\underline{\Delta}$	
evening max el	157 Oct 17 j 07:09	15° \mathring{M} 47'16	22°44'38	evening max el	158 Sep 29 j 20:14	29° $\underline{\Delta}$ 20'20	24°04'48
retrograde	157 Oct 27 j 05:08	21° \mathring{M} 40'49			158 Sep 30 j 12:28	0° \mathring{M}	
evening set	157 Oct 31 j 20:50	19° \mathring{M} 48'01		retrograde	158 Oct 10 j 20:41	5° \mathring{M} 48'46	
asc. node	157 Nov 03 j 13:07	17° \mathring{M} 01'34		evening set	158 Oct 16 j 02:26	3° \mathring{M} 38'08	
inferior conj	157 Nov 06 j 06:12	13° \mathring{M} 25'17	0°55'28		158 Oct 19 j 10:56	30° \mathring{R} $\underline{\Delta}$	
minimum elong	157 Nov 06 j 04:57	13° \mathring{M} 29'38	0°54'57	min. Earth dist.	158 Oct 20 j 22:03	28° $\underline{\Delta}$ 04'03	0.67537 AU
min. Earth dist.	157 Nov 06 j 01:43	13° \mathring{M} 40'47	0.67685 AU	asc. node	158 Oct 21 j 10:10	27° $\underline{\Delta}$ 23'04	
morning rise	157 Nov 11 j 13:00	7° \mathring{M} 12'14		inferior conj	158 Oct 21 j 12:51	27° $\underline{\Delta}$ 13'57	0°02'20
direct	157 Nov 15 j 23:02	5° \mathring{M} 26'08		minimum elong	158 Oct 21 j 12:48	27° $\underline{\Delta}$ 14'09	0°02'19
morning max el	157 Nov 25 j 01:47	10° \mathring{M} 48'24	21°54'03	transit middle	158 Oct 21 j 12:48	27° $\underline{\Delta}$ 14'09	0°02'19
greatest brilliancy	157 Nov 29 j 20:47	16° \mathring{M} 13'32	-0.4m	transit begin	158 Oct 21 j 10:06	27° $\underline{\Delta}$ 23'17	
	157 Dec 10 j 01:44	0° \mathring{J}		transit end	158 Oct 21 j 15:30	27° $\underline{\Delta}$ 05'01	
desc. node	157 Dec 13 j 02:07	4° \mathring{J} 22'39		morning rise	158 Oct 26 j 23:23	21° $\underline{\Delta}$ 05'40	
morning set	157 Dec 27 j 11:48	26° \mathring{J} 28'19		direct	158 Oct 30 j 19:53	19° $\underline{\Delta}$ 41'08	
	157 Dec 29 j 16:21	0° \mathring{Z}		morning max el	158 Nov 07 j 21:16	24° $\underline{\Delta}$ 21'24	20°36'21
max. Earth dist.	158 Jan 02 j 16:17	6° \mathring{Z} 34'28	1.41394 AU		158 Nov 12 j 18:27	0° \mathring{M}	
				greatest brilliancy	158 Nov 14 j 00:17	1° \mathring{M} 36'23	-0.5m
superior conj	158 Jan 10 j 08:58	19° \mathring{Z} 45'32	-2°-2'-9	desc. node	158 Nov 29 j 23:09	24° \mathring{M} 39'11	
minimum elong	158 Jan 10 j 09:15	19° \mathring{Z} 46'45	2°02'11		158 Dec 03 j 11:12	0° \mathring{J}	
	158 Jan 16 j 01:56	0° \approx		morning set	158 Dec 06 j 12:37	4° \mathring{J} 43'30	
evening rise	158 Jan 21 j 00:11	9° \approx 04'28		max. Earth dist.	158 Dec 15 j 22:04	19° \mathring{J} 35'29	1.43189 AU
asc. node	158 Jan 30 j 12:24	25° \approx 58'58					
	158 Feb 02 j 03:47	0° \mathring{K}		superior conj	158 Dec 22 j 09:20	0° \mathring{Z} 12'46	-1°-55'-29
evening max el	158 Feb 06 j 07:53	5° \mathring{K} 03'33	18°13'01	minimum elong	158 Dec 22 j 04:52	29° \mathring{J} 54'08	1°55'16
retrograde	158 Feb 13 j 06:45	8° \mathring{K} 33'05			158 Dec 22 j 06:17	0° \mathring{Z}	
evening set	158 Feb 15 j 19:50	8° \mathring{K} 05'47		evening rise	159 Jan 03 j 15:02	21° \mathring{Z} 17'37	
inferior conj	158 Feb 22 j 18:51	3° \mathring{K} 18'02	3°34'32		159 Jan 08 j 13:50	0° \approx	
minimum elong	158 Feb 22 j 21:17	3° \mathring{K} 12'35	3°34'14	asc. node	159 Jan 17 j 09:28	14° \approx 07'32	
min. Earth dist.	158 Feb 26 j 03:12	0° \mathring{K} 19'45	0.60069 AU	evening max el	159 Jan 20 j 19:38	18° \approx 11'37	18°08'19
	158 Feb 26 j 12:37	30° \mathring{R} \approx		retrograde	159 Jan 27 j 08:31	21° \approx 36'28	
morning rise	158 Mar 01 j 19:24	27° \approx 36'32		evening set	159 Jan 30 j 02:04	21° \approx 00'02	
direct	158 Mar 08 j 09:59	25° \approx 34'11		inferior conj	159 Feb 05 j 12:19	15° \approx 50'59	3°49'31
desc. node	158 Mar 11 j 01:17	25° \approx 52'48		minimum elong	159 Feb 05 j 12:32	15° \approx 50'26	3°49'31
	158 Mar 18 j 21:36	0° \mathring{K}		min. Earth dist.	159 Feb 08 j 09:51	12° \approx 54'25	0.62143 AU
morning max el	158 Mar 22 j 16:41	3° \mathring{K} 21'46	27°26'09	morning rise	159 Feb 11 j 20:43	9° \approx 55'14	
	158 Apr 11 j 04:57	0° \mathring{Y}		direct	159 Feb 18 j 19:57	7° \approx 22'48	
morning set	158 Apr 23 j 03:22	22° \mathring{Y} 34'13		desc. node	159 Feb 25 j 22:20	9° \approx 38'30	
	158 Apr 26 j 15:38	0° \mathring{Z}		morning max el	159 Mar 04 j 20:49	15° \approx 15'00	27°47'34
asc. node	158 Apr 28 j 11:41	3° \mathring{Z} 58'43			159 Mar 16 j 21:44	0° \mathring{K}	
max. Earth dist.	158 Apr 29 j 15:36	6° \mathring{Z} 31'14	1.32328 AU		159 Apr 03 j 17:44	0° \mathring{Y}	
				morning set	159 Apr 07 j 06:39	7° \mathring{Y} 01'27	
superior conj	158 Apr 30 j 08:14	8° \mathring{Z} 02'21	0°19'33	max. Earth dist.	159 Apr 13 j 01:15	19° \mathring{Y} 08'55	1.32635 AU
minimum elong	158 Apr 30 j 07:21	7° \mathring{Z} 57'34	0°19'21				
evening rise	158 May 07 j 06:34	23° \mathring{Z} 04'38		superior conj	159 Apr 14 j 18:11	22° \mathring{Y} 50'25	0°-6'-24
	158 May 10 j 15:08	0° \mathring{II}		minimum elong	159 Apr 14 j 18:30	22° \mathring{Y} 52'03	0°06'22
	158 May 28 j 20:30	0° \mathring{S}		behind sun begin	159 Apr 14 j 13:45	22° \mathring{Y} 26'18	
evening max el	158 Jun 03 j 22:40	6° \mathring{S} 45'41	25°43'25	behind sun end	159 Apr 14 j 23:14	23° \mathring{Y} 17'50	
desc. node	158 Jun 07 j 00:31	9° \mathring{S} 26'20		asc. node	159 Apr 15 j 08:44	24° \mathring{Y} 09'27	
retrograde	158 Jun 17 j 23:56	13° \mathring{S} 57'14			159 Apr 18 j 01:07	0° \mathring{Z}	
evening set	158 Jun 23 j 22:40	12° \mathring{S} 32'56		evening rise	159 Apr 21 j 18:14	7° \mathring{Z} 58'56	
min. Earth dist.	158 Jun 28 j 11:02	9° \mathring{S} 52'46	0.58470 AU		159 May 03 j 07:06	0° \mathring{II}	
inferior conj	158 Jul 01 j 17:25	7° \mathring{S} 31'27	-4°-46'-11	evening max el	159 May 16 j 14:09	17° \mathring{II} 33'32	24°16'26
minimum elong	158 Jul 01 j 17:01	7° \mathring{S} 32'11	4°46'11	desc. node	159 May 24 j 21:34	23° \mathring{II} 22'18	
morning rise	158 Jul 09 j 15:05	3° \mathring{S} 09'30		retrograde	159 May 30 j 11:06	24° \mathring{II} 32'48	
direct	158 Jul 12 j 02:53	2° \mathring{S} 49'34		evening set	159 Jun 04 j 01:25	23° \mathring{II} 45'45	
morning max el	158 Jul 20 j 08:41	6° \mathring{S} 43'39	18°41'54	min. Earth dist.	159 Jun 10 j 01:26	20° \mathring{II} 47'23	0.56645 AU
asc. node	158 Jul 25 j 10:56	12° \mathring{S} 51'49		inferior conj	159 Jun 12 j 16:28	19° \mathring{II} 08'17	-4°-22'-23

minimum elong	159 Jun 12 j 11:17	19° Π 16'28	4°21'39	inferior conj	160 May 22 j 20:53	0° Π 02'10	-3°-13'-28
morning rise	159 Jun 21 j 00:53	15° Π 05'41		minimum elong	160 May 22 j 13:34	0° Π 12'37	3°11'29
direct	159 Jun 23 j 15:51	14° Π 47'14			160 May 22 j 22:23	30° \mathbb{R} 8	
morning max el	159 Jul 03 j 05:54	19° Π 14'10	19°37'16	morning rise	160 May 31 j 15:14	26° \mathbb{B} 09'04	
	159 Jul 11 j 13:05	0° \mathfrak{C}		direct	160 Jun 03 j 11:02	25° \mathbb{B} 50'34	
asc. node	159 Jul 12 j 07:59	1° \mathfrak{C} 18'08			160 Jun 13 j 11:23	0° Π	
morning set	159 Jul 20 j 17:44	17° \mathfrak{C} 06'32		morning max el	160 Jun 14 j 16:07	1° Π 03'07	20°53'12
	159 Jul 27 j 03:16	0° Ω		asc. node	160 Jun 28 j 05:02	20° Π 19'52	
					160 Jul 03 j 03:35	0° \mathfrak{C}	
superior conj	159 Jul 28 j 18:27	3° Ω 14'35	1°46'58	morning set	160 Jul 04 j 00:38	1° \mathfrak{C} 47'41	
minimum elong	159 Jul 28 j 18:18	3° Ω 13'49	1°46'58				
max. Earth dist.	159 Aug 03 j 16:46	14° Ω 38'10	1.37500 AU	superior conj	160 Jul 11 j 13:39	17° \mathfrak{C} 25'54	1°42'22
evening rise	159 Aug 07 j 13:14	21° Ω 39'51		minimum elong	160 Jul 11 j 12:06	17° \mathfrak{C} 17'56	1°42'17
	159 Aug 12 j 08:27	0° \mathbb{N}		max. Earth dist.	160 Jul 16 j 01:29	26° \mathfrak{C} 28'36	1.35724 AU
desc. node	159 Aug 20 j 20:54	13° \mathbb{N} 42'45			160 Jul 17 j 20:51	0° Ω	
	159 Sep 01 j 06:20	0° \mathfrak{A}		evening rise	160 Jul 20 j 06:31	4° Ω 34'08	
evening max el	159 Sep 12 j 08:01	12° \mathfrak{A} 57'33	25°20'35		160 Aug 04 j 05:00	0° \mathbb{N}	
retrograde	159 Sep 24 j 07:55	19° \mathfrak{A} 52'25		desc. node	160 Aug 06 j 17:56	3° \mathbb{N} 50'08	
evening set	159 Sep 30 j 04:27	17° \mathfrak{A} 25'16		evening max el	160 Aug 24 j 19:47	26° \mathbb{N} 34'12	26°24'15
min. Earth dist.	159 Oct 04 j 15:44	12° \mathfrak{A} 26'39	0.67064 AU		160 Aug 28 j 18:12	0° \mathfrak{A}	
inferior conj	159 Oct 05 j 17:17	11° \mathfrak{A} 03'45	0°-53'-11	retrograde	160 Sep 06 j 14:09	3° \mathfrak{A} 45'40	
minimum elong	159 Oct 05 j 18:38	10° \mathfrak{A} 59'24	0°52'38	evening set	160 Sep 13 j 00:53	1° \mathfrak{A} 05'53	
asc. node	159 Oct 08 j 07:13	7° \mathfrak{A} 52'06			160 Sep 14 j 05:52	30° \mathbb{R} \mathbb{N}	
morning rise	159 Oct 11 j 09:23	5° \mathfrak{A} 03'18		min. Earth dist.	160 Sep 17 j 04:20	26° \mathbb{N} 44'38	0.66250 AU
direct	159 Oct 14 j 18:17	3° \mathfrak{A} 57'36		inferior conj	160 Sep 18 j 17:34	24° \mathbb{N} 51'06	-1°-49'-34
morning max el	159 Oct 22 j 00:31	8° \mathfrak{A} 04'59	19°31'42	minimum elong	160 Sep 18 j 20:22	24° \mathbb{N} 42'34	1°48'28
greatest brilliancy	159 Oct 30 j 18:19	19° \mathfrak{A} 12'22	-0.7m	asc. node	160 Sep 24 j 04:16	19° \mathbb{N} 20'45	
	159 Nov 07 j 00:09	0° \mathbb{M}		morning rise	160 Sep 24 j 16:55	19° \mathbb{N} 01'34	
morning set	159 Nov 15 j 11:19	13° \mathbb{M} 02'03		direct	160 Sep 27 j 16:22	18° \mathbb{N} 11'16	
desc. node	159 Nov 16 j 20:12	15° \mathbb{M} 09'35		morning max el	160 Oct 04 j 10:24	21° \mathbb{N} 55'51	18°42'20
	159 Nov 26 j 08:02	0° \mathfrak{A}			160 Oct 10 j 20:17	0° \mathfrak{A}	
max. Earth dist.	159 Nov 28 j 11:34	3° \mathfrak{A} 23'37	1.44450 AU	morning set	160 Oct 25 j 06:32	22° \mathfrak{A} 26'27	
					160 Oct 30 j 00:52	0° \mathbb{M}	
superior conj	159 Dec 02 j 07:06	9° \mathfrak{A} 28'06	-1°-30'-47	desc. node	160 Nov 02 j 17:14	5° \mathbb{M} 48'59	
minimum elong	159 Dec 01 j 22:53	8° \mathfrak{A} 55'15	1°30'01				
	159 Dec 14 j 20:18	0° \mathfrak{C}		superior conj	160 Nov 10 j 09:56	17° \mathbb{M} 55'31	0°-49'-9
evening rise	159 Dec 16 j 10:04	2° \mathfrak{C} 37'55		minimum elong	160 Nov 10 j 03:41	17° \mathbb{M} 30'57	0°48'23
	160 Jan 02 j 22:46	0° \approx		max. Earth dist.	160 Nov 10 j 05:35	17° \mathbb{M} 38'22	1.45022 AU
asc. node	160 Jan 04 j 06:31	1° \approx 27'03			160 Nov 18 j 01:49	0° \mathfrak{A}	
evening max el	160 Jan 04 j 08:10	1° \approx 31'14	18°22'27	evening rise	160 Nov 26 j 05:52	12° \mathfrak{A} 59'55	
retrograde	160 Jan 10 j 20:26	5° \approx 04'04			160 Dec 06 j 21:53	0° \mathfrak{C}	
evening set	160 Jan 13 j 18:41	4° \approx 17'33		evening max el	160 Dec 17 j 18:52	14° \mathfrak{C} 56'25	18°54'30
	160 Jan 18 j 18:04	30° \mathbb{R} \mathfrak{C}		asc. node	160 Dec 21 j 03:34	17° \mathfrak{C} 43'24	
inferior conj	160 Jan 19 j 19:26	28° \mathfrak{C} 48'34	3°43'38	retrograde	160 Dec 24 j 14:32	18° \mathfrak{C} 47'55	
minimum elong	160 Jan 19 j 17:55	28° \mathfrak{C} 52'53	3°43'29	evening set	160 Dec 27 j 18:31	17° \mathfrak{C} 50'09	
min. Earth dist.	160 Jan 22 j 01:59	26° \mathfrak{C} 13'33	0.63984 AU	inferior conj	161 Jan 02 j 12:28	12° \mathfrak{C} 03'42	3°22'44
morning rise	160 Jan 25 j 15:40	22° \mathfrak{C} 43'43		minimum elong	161 Jan 02 j 09:58	12° \mathfrak{C} 11'26	3°22'15
direct	160 Feb 01 j 13:38	19° \mathfrak{C} 55'17		min. Earth dist.	161 Jan 04 j 03:42	10° \mathfrak{C} 02'03	0.65468 AU
desc. node	160 Feb 12 j 19:23	25° \mathfrak{C} 29'22		morning rise	161 Jan 08 j 00:26	5° \mathfrak{C} 52'52	
morning max el	160 Feb 15 j 05:09	27° \mathfrak{C} 45'15	27°32'26	direct	161 Jan 14 j 13:56	3° \mathfrak{C} 02'55	
	160 Feb 17 j 08:46	0° \approx		morning max el	161 Jan 27 j 14:59	10° \mathfrak{C} 41'23	26°45'29
	160 Mar 09 j 14:43	0° \mathfrak{H}		desc. node	161 Jan 29 j 16:26	12° \mathfrak{C} 50'46	
morning set	160 Mar 21 j 02:34	21° \mathfrak{H} 02'42			161 Feb 11 j 23:15	0° \approx	
	160 Mar 25 j 12:31	0° \mathbb{Y}			161 Mar 02 j 02:46	0° \mathfrak{H}	
max. Earth dist.	160 Mar 26 j 04:09	1° \mathbb{Y} 21'24	1.33352 AU	morning set	161 Mar 04 j 11:42	4° \mathfrak{H} 27'15	
				max. Earth dist.	161 Mar 08 j 20:37	12° \mathfrak{H} 59'36	1.34509 AU
superior conj	160 Mar 29 j 00:43	7° \mathbb{Y} 23'30	0°-33'-19				
minimum elong	160 Mar 29 j 02:19	7° \mathbb{Y} 32'06	0°33'00	superior conj	161 Mar 13 j 01:37	21° \mathfrak{H} 34'39	-1°00'-3
asc. node	160 Apr 01 j 05:48	14° \mathbb{Y} 16'40		minimum elong	161 Mar 13 j 04:29	21° \mathfrak{H} 49'31	0°59'32
evening rise	160 Apr 05 j 05:46	22° \mathbb{Y} 48'12			161 Mar 17 j 02:10	0° \mathbb{Y}	
	160 Apr 08 j 17:48	0° \mathbb{B}		asc. node	161 Mar 19 j 02:52	4° \mathbb{Y} 15'49	
evening max el	160 Apr 27 j 05:29	28° \mathbb{B} 07'05	22°40'57	evening rise	161 Mar 20 j 15:17	7° \mathbb{Y} 25'37	
	160 Apr 29 j 07:56	0° Π			161 Apr 01 j 22:08	0° \mathbb{B}	
retrograde	160 May 10 j 09:34	4° Π 38'08		evening max el	161 Apr 09 j 03:38	8° \mathbb{B} 56'09	21°11'10
desc. node	160 May 10 j 18:36	4° Π 37'49		retrograde	161 Apr 20 j 23:39	14° \mathbb{B} 41'02	
evening set	160 May 13 j 14:29	4° Π 15'37		evening set	161 Apr 23 j 07:18	14° \mathbb{B} 28'33	
min. Earth dist.	160 May 21 j 13:47	0° Π 46'34	0.55389 AU	desc. node	161 Apr 27 j 15:36	13° \mathbb{B} 05'37	

inferior conj	161 May 02 j 15:19	10°♄29'33	-1°-25'-29	evening set	162 Apr 03 j 18:01	25°♃00'30	
minimum elong	161 May 02 j 11:17	10°♄35'13	1°24'04	inferior conj	162 Apr 12 j 14:02	21°♃00'11	0°33'09
min. Earth dist.	161 May 03 j 02:33	10°♄13'42	0.54978 AU	minimum elong	162 Apr 12 j 15:29	20°♃57'58	0°32'38
morning rise	161 May 11 j 15:09	6°♄27'50		min. Earth dist.	162 Apr 14 j 16:42	19°♃43'04	0.55536 AU
direct	161 May 14 j 21:03	6°♄05'02		desc. node	162 Apr 14 j 12:39	19°♃49'09	
morning max el	161 May 27 j 15:47	12°♄10'26	22°26'01	morning rise	162 Apr 21 j 09:54	16°♃31'40	
	161 Jun 09 j 20:21	0°♄		direct	162 Apr 25 j 12:08	15°♃54'42	
asc. node	161 Jun 15 j 02:06	9°♄48'12		morning max el	162 May 09 j 08:09	22°♃47'12	24°06'59
morning set	161 Jun 18 j 10:55	16°♄40'33			162 May 15 j 17:40	0°♄	
	161 Jun 24 j 17:39	0°♄		asc. node	162 Jun 01 j 23:09	29°♄35'12	
					162 Jun 02 j 03:55	0°♄	
superior conj	161 Jun 25 j 16:34	2°♄01'26	1°31'35	morning set	162 Jun 02 j 22:43	1°♄38'25	
minimum elong	161 Jun 25 j 14:15	1°♄49'14	1°31'21				
max. Earth dist.	161 Jun 28 j 18:59	8°♄30'42	1.34291 AU	superior conj	162 Jun 10 j 00:26	16°♄51'34	1°15'54
evening rise	161 Jul 03 j 15:02	18°♄14'19		minimum elong	162 Jun 09 j 21:57	16°♄38'10	1°15'32
	161 Jul 09 j 21:54	0°♄		max. Earth dist.	162 Jun 11 j 21:31	20°♄54'06	1.33253 AU
desc. node	161 Jul 24 j 14:56	23°♄32'03			162 Jun 16 j 05:34	0°♄	
	161 Jul 29 j 10:13	0°♄		evening rise	162 Jun 17 j 10:31	2°♄27'16	
evening max el	161 Aug 07 j 07:36	10°♄02'33	27°08'09		162 Jul 02 j 18:13	0°♄	
retrograde	161 Aug 20 j 15:08	17°♄21'36		desc. node	162 Jul 11 j 11:56	12°♄36'55	
evening set	161 Aug 27 j 13:19	14°♄36'45		evening max el	162 Jul 20 j 18:12	23°♄10'49	27°25'33
min. Earth dist.	161 Aug 31 j 09:36	10°♄52'50	0.65076 AU		162 Jul 31 j 02:56	0°♄	
inferior conj	161 Sep 02 j 11:34	8°♄32'27	-2°-44'-41	retrograde	162 Aug 03 j 10:15	0°♄30'30	
minimum elong	161 Sep 02 j 15:39	8°♄20'57	2°43'17		162 Aug 06 j 14:25	30°♄	
morning rise	161 Sep 08 j 19:37	2°♄56'59		evening set	162 Aug 10 j 14:38	27°♄51'50	
asc. node	161 Sep 11 j 01:18	2°♄19'27		min. Earth dist.	162 Aug 14 j 05:41	24°♄41'34	0.63540 AU
direct	161 Sep 11 j 12:03	2°♄18'22		inferior conj	162 Aug 16 j 20:42	22°♄01'37	-3°-35'-35
morning max el	161 Sep 18 j 00:39	5°♄49'22	18°09'27	minimum elong	162 Aug 17 j 01:30	21°♄49'22	3°34'17
	161 Oct 04 j 07:16	0°♄		morning rise	162 Aug 23 j 14:36	16°♄43'20	
morning set	161 Oct 06 j 06:26	3°♄15'46		direct	162 Aug 26 j 02:33	16°♄13'00	
				asc. node	162 Aug 28 j 22:21	16°♄52'22	
superior conj	161 Oct 20 j 14:05	26°♄33'18	0°00'03	morning max el	162 Sep 01 j 16:28	19°♄38'41	17°54'00
minimum elong	161 Oct 20 j 14:05	26°♄33'17	0°00'03		162 Sep 09 j 08:14	0°♄	
behind sun begin	161 Oct 20 j 03:38	25°♄51'40		morning set	162 Sep 18 j 07:56	15°♄18'38	
behind sun end	161 Oct 21 j 00:32	27°♄14'50			162 Sep 26 j 21:13	0°♄	
desc. node	161 Oct 20 j 14:17	26°♄34'05					
	161 Oct 22 j 18:12	0°♄		superior conj	162 Sep 30 j 14:47	6°♄13'33	0°44'36
max. Earth dist.	161 Oct 24 j 00:17	1°♄58'48	1.44854 AU	minimum elong	162 Sep 30 j 19:06	6°♄31'23	0°44'02
evening rise	161 Nov 06 j 03:03	22°♄27'47		max. Earth dist.	162 Oct 06 j 16:49	16°♄07'10	1.43980 AU
	161 Nov 10 j 23:53	0°♄		desc. node	162 Oct 07 j 11:16	17°♄20'58	
greatest brilliancy	161 Nov 23 j 06:15	18°♄29'20	-0.6m		162 Oct 15 j 12:38	0°♄	
evening max el	161 Dec 01 j 01:42	28°♄24'14	19°43'04	evening rise	162 Oct 16 j 10:46	1°♄25'27	
	161 Dec 02 j 17:53	0°♄			162 Nov 04 j 15:45	0°♄	
retrograde	161 Dec 08 j 11:39	2°♄43'12		greatest brilliancy	162 Nov 08 j 09:48	5°♄05'22	-0.5m
asc. node	161 Dec 08 j 00:35	2°♄42'00		evening max el	162 Nov 14 j 03:14	11°♄53'02	20°45'54
evening set	161 Dec 11 j 23:02	1°♄32'31		retrograde	162 Nov 22 j 09:18	16°♄46'00	
	161 Dec 13 j 19:00	30°♄		asc. node	162 Nov 24 j 21:36	16°♄10'14	
inferior conj	161 Dec 17 j 12:24	25°♄31'37	2°50'52	evening set	162 Nov 26 j 06:07	15°♄20'24	
minimum elong	161 Dec 17 j 09:37	25°♄40'47	2°50'06	inferior conj	162 Dec 01 j 16:44	9°♄08'22	2°10'47
min. Earth dist.	161 Dec 18 j 13:39	24°♄08'25	0.66561 AU	minimum elong	162 Dec 01 j 14:13	9°♄16'59	2°09'55
morning rise	161 Dec 22 j 19:30	19°♄17'15		min. Earth dist.	162 Dec 02 j 05:33	8°♄24'35	0.67271 AU
direct	161 Dec 28 j 20:14	16°♄37'31		morning rise	162 Dec 06 j 21:50	2°♄52'47	
morning max el	162 Jan 10 j 00:08	23°♄51'08	25°34'54	direct	162 Dec 12 j 07:44	0°♄31'16	
	162 Jan 15 j 12:26	0°♄		morning max el	162 Dec 23 j 08:28	7°♄06'11	24°10'44
desc. node	162 Jan 16 j 13:29	1°♄16'39		desc. node	163 Jan 03 j 10:32	20°♄28'08	
	162 Feb 05 j 08:38	0°♄			163 Jan 10 j 04:56	0°♄	
morning set	162 Feb 15 j 05:32	17°♄02'12		morning set	163 Jan 28 j 02:14	28°♄31'09	
max. Earth dist.	162 Feb 19 j 01:10	24°♄07'59	1.36115 AU		163 Jan 28 j 22:41	0°♄	
	162 Feb 22 j 02:16	0°♄		max. Earth dist.	163 Jan 31 j 21:16	5°♄12'15	1.38089 AU
superior conj	162 Feb 24 j 18:17	5°♄16'36	-1°-24'-57	superior conj	163 Feb 07 j 23:16	18°♄20'23	-1°-45'-44
minimum elong	162 Feb 24 j 22:02	5°♄35'23	1°24'25	minimum elong	163 Feb 08 j 03:02	18°♄38'23	1°45'25
evening rise	162 Mar 04 j 20:44	21°♄45'04			163 Feb 13 j 22:51	0°♄	
asc. node	162 Mar 05 j 23:54	24°♄02'22		evening rise	163 Feb 16 j 19:43	5°♄39'59	
	162 Mar 09 j 00:26	0°♄		asc. node	163 Feb 20 j 20:56	13°♄31'20	
evening max el	162 Mar 22 j 12:52	20°♄20'33	19°56'18		163 Mar 03 j 03:44	0°♄	
retrograde	162 Apr 01 j 15:44	25°♄12'04		evening max el	163 Mar 05 j 09:07	2°♄24'06	19°00'24

retrograde	163 Mar 13 j 21:47	6°Υ30'56			164 Jan 21 j 04:40	0°≈	
evening set	163 Mar 16 j 03:26	6°Υ15'10		evening rise	164 Jan 31 j 09:10	19°≈01'47	
inferior conj	163 Mar 24 j 05:12	2°Υ00'16	2°10'40		164 Feb 06 j 06:40	0°✠	
minimum elong	163 Mar 24 j 09:26	1°Υ52'50	2°09'27	asc. node	164 Feb 07 j 17:59	2°✠35'33	
	163 Mar 27 j 02:03	30°✠		evening max el	164 Feb 16 j 13:44	14°✠59'07	18°24'31
min. Earth dist.	163 Mar 27 j 08:32	29°✠49'03	0.56937 AU	retrograde	164 Feb 23 j 22:54	18°✠37'36	
morning rise	163 Apr 01 j 11:15	26°✠58'53		evening set	164 Feb 26 j 09:29	18°✠14'51	
desc. node	163 Apr 01 j 09:41	27°✠00'27		inferior conj	164 Mar 04 j 17:21	13°✠39'12	3°13'31
direct	163 Apr 06 j 16:21	25°✠54'28		minimum elong	164 Mar 04 j 20:57	13°✠31'47	3°12'51
	163 Apr 17 j 02:42	0°Υ		min. Earth dist.	164 Mar 08 j 03:47	10°✠51'30	0.58868 AU
morning max el	163 Apr 20 j 22:54	3°Υ17'55	25°42'26	morning rise	164 Mar 12 j 04:40	8°✠09'55	
	163 May 09 j 23:42	0°♁		direct	164 Mar 18 j 09:31	6°✠29'06	
morning set	163 May 18 j 10:26	16°♁36'02		desc. node	164 Mar 18 j 06:44	6°✠29'08	
asc. node	163 May 19 j 20:12	19°♁35'13		morning max el	164 Apr 01 j 17:31	14°✠09'33	26°57'17
	163 May 24 j 15:12	0°♂			164 Apr 14 j 09:28	0°Υ	
					164 May 01 j 03:37	0°♁	
superior conj	163 May 25 j 11:09	1°♂49'15	0°56'20	morning set	164 May 01 j 20:23	1°♁27'09	
minimum elong	163 May 25 j 09:00	1°♂37'26	0°55'56	asc. node	164 May 05 j 17:15	9°♁42'47	
max. Earth dist.	163 May 26 j 06:52	3°♂37'04	1.32609 AU				
evening rise	163 Jun 01 j 13:40	17°♂02'40		superior conj	164 May 08 j 22:55	16°♁47'44	0°33'40
	163 Jun 08 j 03:30	0°♁		minimum elong	164 May 08 j 21:28	16°♁39'50	0°33'22
	163 Jun 27 j 16:12	0°♂		max. Earth dist.	164 May 08 j 19:29	16°♁28'54	1.32331 AU
desc. node	163 Jun 28 j 08:57	0°♂49'07			164 May 15 j 00:44	0°♂	
evening max el	163 Jul 03 j 01:19	5°♂46'15	27°11'15	evening rise	164 May 15 j 21:47	1°♂51'12	
retrograde	163 Jul 16 j 22:29	13°♂03'00			164 May 31 j 04:48	0°♁	
evening set	163 Jul 24 j 00:49	10°♂44'05		evening max el	164 Jun 14 j 02:18	17°♁37'56	26°23'55
min. Earth dist.	163 Jul 27 j 15:29	7°♂58'11	0.61689 AU	desc. node	164 Jun 14 j 05:59	17°♁46'39	
inferior conj	163 Jul 30 j 17:50	5°♂11'08	-4°-17'-35	retrograde	164 Jun 28 j 02:27	24°♁51'26	
minimum elong	163 Jul 30 j 22:11	5°♂01'20	4°16'48	evening set	164 Jul 04 j 15:18	23°♁04'50	
morning rise	163 Aug 06 j 22:19	0°♂13'12		min. Earth dist.	164 Jul 08 j 15:21	20°♁28'08	0.59645 AU
	163 Aug 07 j 16:48	30°♁		inferior conj	164 Jul 11 j 23:25	17°♁51'35	-4°-43'-8
direct	163 Aug 09 j 08:30	29°♁48'17		minimum elong	164 Jul 12 j 01:22	17°♁47'45	4°43'01
	163 Aug 10 j 23:42	0°♂		morning rise	164 Jul 19 j 14:48	13°♁16'31	
asc. node	163 Aug 15 j 19:24	2°♂49'38		direct	164 Jul 22 j 01:40	12°♁55'02	
morning max el	163 Aug 16 j 06:53	3°♂16'50	17°57'01	morning max el	164 Jul 29 j 16:59	16°♁36'07	18°19'43
morning set	163 Sep 01 j 04:59	28°♂17'44		asc. node	164 Aug 01 j 16:27	19°♁56'16	
	163 Sep 02 j 03:24	0°♁			164 Aug 08 j 04:56	0°♂	
				morning set	164 Aug 14 j 16:12	11°♂58'13	
superior conj	163 Sep 11 j 18:53	17°♁14'43	1°17'26				
minimum elong	163 Sep 11 j 23:39	17°♁35'22	1°16'55	superior conj	164 Aug 23 j 23:38	29°♂29'21	1°37'25
max. Earth dist.	163 Sep 19 j 05:12	29°♁48'37	1.42517 AU	minimum elong	164 Aug 24 j 02:42	29°♂43'20	1°37'12
	163 Sep 19 j 07:58	0°♂			164 Aug 24 j 06:21	0°♁	
desc. node	163 Sep 24 j 08:16	8°♂06'47		max. Earth dist.	164 Aug 31 j 12:25	12°♁50'39	1.40646 AU
evening rise	163 Sep 25 j 22:24	10°♂37'52		evening rise	164 Sep 05 j 05:17	20°♁44'36	
	163 Oct 08 j 16:00	0°♁		desc. node	164 Sep 10 j 05:18	28°♁48'10	
greatest brilliancy	163 Oct 23 j 05:10	19°♁59'52	-0.4m		164 Sep 10 j 23:33	0°♂	
evening max el	163 Oct 27 j 23:04	25°♁22'29	21°59'25		164 Oct 01 j 21:05	0°♁	
	163 Nov 02 j 20:03	0°♁		evening max el	164 Oct 09 j 14:04	8°♁54'06	23°18'47
retrograde	163 Nov 06 j 05:35	0°♁53'16		retrograde	164 Oct 19 j 23:11	15°♁02'40	
	163 Nov 09 j 09:13	30°♁		evening set	164 Oct 24 j 20:50	13°♁02'05	
evening set	163 Nov 10 j 13:56	29°♁10'44		asc. node	164 Oct 28 j 15:41	8°♁50'03	
asc. node	163 Nov 11 j 18:39	28°♁05'59		inferior conj	164 Oct 30 j 06:31	6°♁38'22	0°33'21
inferior conj	163 Nov 15 j 23:22	22°♁51'02	1°24'24	minimum elong	164 Oct 30 j 05:44	6°♁41'03	0°33'01
minimum elong	163 Nov 15 j 21:32	22°♁57'21	1°23'41	min. Earth dist.	164 Oct 29 j 21:35	7°♁09'00	0.67666 AU
min. Earth dist.	163 Nov 16 j 00:59	22°♁45'27	0.67634 AU	morning rise	164 Nov 04 j 14:41	0°♁27'18	
morning rise	163 Nov 21 j 04:56	16°♁36'32			164 Nov 05 j 05:49	30°♁	
direct	163 Nov 25 j 23:33	14°♁37'11		direct	164 Nov 08 j 18:48	28°♁50'40	
morning max el	163 Dec 05 j 18:30	20°♁25'26	22°42'50		164 Nov 12 j 14:48	0°♁	
greatest brilliancy	163 Dec 10 j 09:42	25°♁36'20	-0.3m	morning max el	164 Nov 17 j 09:58	3°♁53'34	21°19'42
	163 Dec 13 j 21:25	0°♁		greatest brilliancy	164 Nov 22 j 15:10	9°♁53'04	-0.4m
desc. node	163 Dec 21 j 07:33	10°♁11'33			164 Dec 06 j 23:39	0°♁	
	164 Jan 03 j 11:02	0°♁		desc. node	164 Dec 07 j 04:35	0°♁18'21	
morning set	164 Jan 08 j 19:31	8°♁37'34		morning set	164 Dec 18 j 08:21	17°♁24'16	
max. Earth dist.	164 Jan 13 j 17:03	16°♁49'45	1.40221 AU	max. Earth dist.	164 Dec 25 j 19:04	29°♁22'32	1.42218 AU
					164 Dec 26 j 04:10	0°♁	
superior conj	164 Jan 21 j 11:58	0°≈33'06	-1°-59'-16				
minimum elong	164 Jan 21 j 14:09	0°≈43'00	1°59'13	superior conj	165 Jan 02 j 03:05	11°♁42'15	-2°-1'-20

minimum elong	165 Jan 02 j 01:30	11°☿35'26	2°01'19		165 Nov 30 j 02:11	0°☿	
	165 Jan 12 j 10:48	0°☿		max. Earth dist.	165 Dec 08 j 04:19	12°☿45'31	1.43801 AU
evening rise	165 Jan 13 j 09:32	1°☿43'03					
asc. node	165 Jan 24 j 15:01	21°☿07'19		superior conj	165 Dec 13 j 15:57	21°☿37'54	-1°-47'-19
evening max el	165 Jan 29 j 23:43	27°☿57'23	18°08'32	minimum elong	165 Dec 13 j 09:29	21°☿11'24	1°46'52
	165 Feb 01 j 11:21	0°☿			165 Dec 18 j 17:12	0°☿	
retrograde	165 Feb 05 j 17:06	1°☿23'28		evening rise	165 Dec 26 j 16:31	13°☿35'02	
evening set	165 Feb 08 j 08:05	0°☿52'21			166 Jan 05 j 08:16	0°☿	
	165 Feb 10 j 01:52	30°☿		asc. node	166 Jan 11 j 12:03	8°☿56'42	
inferior conj	165 Feb 15 j 01:13	25°☿55'04	3°43'53	evening max el	166 Jan 13 j 12:03	11°☿11'01	18°12'00
minimum elong	165 Feb 15 j 02:41	25°☿51'34	3°43'46	retrograde	166 Jan 19 j 23:49	14°☿38'13	
min. Earth dist.	165 Feb 18 j 05:37	22°☿54'53	0.60973 AU	evening set	166 Jan 22 j 19:09	13°☿57'47	
morning rise	165 Feb 21 j 18:27	20°☿06'30		inferior conj	166 Jan 29 j 01:01	8°☿40'00	3°49'11
direct	165 Feb 28 j 13:50	17°☿50'19		minimum elong	166 Jan 29 j 00:24	8°☿41'38	3°49'09
desc. node	165 Mar 05 j 03:47	18°☿46'45		min. Earth dist.	166 Jan 31 j 16:25	5°☿50'25	0.62963 AU
morning max el	165 Mar 14 j 18:36	25°☿40'13	27°39'51	morning rise	166 Feb 04 j 03:42	2°☿39'32	
	165 Mar 18 j 19:13	0°☿			166 Feb 10 j 10:02	30°☿	
	165 Apr 07 j 19:23	0°☿		direct	166 Feb 11 j 03:19	29°☿58'22	
morning set	165 Apr 16 j 02:45	16°☿05'31			166 Feb 11 j 20:47	0°☿	
max. Earth dist.	165 Apr 22 j 07:29	29°☿16'25	1.32416 AU	desc. node	166 Feb 20 j 00:50	3°☿30'20	
asc. node	165 Apr 22 j 14:19	29°☿53'40		morning max el	166 Feb 25 j 01:06	7°☿51'27	27°45'24
	165 Apr 22 j 15:29	0°☿			166 Mar 14 j 02:00	0°☿	
					166 Mar 30 j 22:36	0°☿	
superior conj	165 Apr 23 j 10:01	1°☿41'18	0°08'42	morning set	166 Mar 31 j 03:19	0°☿23'40	
minimum elong	165 Apr 23 j 09:37	1°☿39'08	0°08'37	max. Earth dist.	166 Apr 05 j 14:46	11°☿45'18	1.32884 AU
behind sun begin	165 Apr 23 j 05:21	1°☿15'44					
behind sun end	165 Apr 23 j 13:54	2°☿02'32		superior conj	166 Apr 07 j 18:48	16°☿24'19	0°-17'-47
evening rise	165 Apr 30 j 08:43	16°☿45'22		minimum elong	166 Apr 07 j 19:39	16°☿28'54	0°17'36
	165 May 06 j 22:48	0°☿		asc. node	166 Apr 09 j 11:23	20°☿03'48	
evening max el	165 May 26 j 20:19	28°☿44'34	25°08'16		166 Apr 14 j 01:58	0°☿	
	165 May 28 j 05:06	0°☿		evening rise	166 Apr 14 j 20:34	1°☿38'40	
desc. node	165 Jun 01 j 03:02	2°☿59'19			166 Apr 30 j 14:13	0°☿	
retrograde	165 Jun 09 j 20:33	5°☿52'32		evening max el	166 May 08 j 10:46	9°☿22'52	23°35'55
evening set	165 Jun 15 j 06:42	4°☿44'39		desc. node	166 May 19 j 00:04	15°☿51'16	
min. Earth dist.	165 Jun 20 j 07:56	1°☿58'44	0.57643 AU	retrograde	166 May 22 j 02:50	16°☿13'23	
inferior conj	165 Jun 23 j 10:04	29°☿53'09	-4°-41'-8	evening set	166 May 26 j 02:00	15°☿38'44	
minimum elong	165 Jun 23 j 07:36	29°☿57'20	4°41'00	min. Earth dist.	166 Jun 01 j 21:20	12°☿28'35	0.56014 AU
	165 Jun 23 j 06:03	30°☿		inferior conj	166 Jun 04 j 00:42	11°☿11'30	-3°-58'-54
morning rise	165 Jul 01 j 12:22	25°☿40'35		minimum elong	166 Jun 03 j 18:03	11°☿21'32	3°57'33
direct	165 Jul 04 j 01:29	25°☿21'23		morning rise	166 Jun 12 j 13:37	7°☿14'48	
morning max el	165 Jul 12 j 19:44	29°☿27'19	19°03'02	direct	166 Jun 15 j 06:00	6°☿56'49	
	165 Jul 13 j 09:17	0°☿		morning max el	166 Jun 25 j 12:35	11°☿41'58	20°07'15
asc. node	165 Jul 19 j 13:31	7°☿57'13		asc. node	166 Jul 06 j 10:35	26°☿40'15	
morning set	165 Jul 29 j 13:21	26°☿08'15			166 Jul 08 j 06:41	0°☿	
	165 Jul 31 j 12:11	0°☿		morning set	166 Jul 13 j 17:25	10°☿40'14	
superior conj	165 Aug 06 j 23:16	12°☿40'42	1°46'10	superior conj	166 Jul 21 j 12:35	26°☿34'07	1°45'52
minimum elong	165 Aug 07 j 00:11	12°☿45'08	1°46'09	minimum elong	166 Jul 21 j 11:45	26°☿29'57	1°45'51
max. Earth dist.	165 Aug 13 j 15:40	25°☿08'49	1.38619 AU		166 Jul 23 j 05:51	0°☿	
	165 Aug 16 j 09:09	0°☿		max. Earth dist.	166 Jul 26 j 20:16	7°☿00'14	1.36702 AU
evening rise	165 Aug 17 j 12:52	2°☿00'48		evening rise	166 Jul 30 j 19:16	14°☿23'21	
desc. node	165 Aug 28 j 02:20	19°☿20'34			166 Aug 08 j 20:13	0°☿	
	165 Sep 04 j 05:03	0°☿		desc. node	166 Aug 14 j 23:22	9°☿39'00	
evening max el	165 Sep 22 j 02:09	22°☿28'22	24°37'59		166 Aug 29 j 22:44	0°☿	
retrograde	165 Oct 03 j 13:04	29°☿09'41		evening max el	166 Sep 04 j 13:39	6°☿05'26	25°49'37
evening set	165 Oct 09 j 01:10	26°☿51'25		retrograde	166 Sep 16 j 22:25	13°☿09'29	
min. Earth dist.	165 Oct 13 j 17:01	21°☿32'22	0.67373 AU	evening set	166 Sep 23 j 01:04	10°☿36'16	
inferior conj	165 Oct 14 j 12:25	20°☿27'43	0°-20'-59	min. Earth dist.	166 Sep 27 j 08:54	5°☿53'14	0.66755 AU
minimum elong	165 Oct 14 j 12:56	20°☿26'00	0°20'47	inferior conj	166 Sep 28 j 15:19	4°☿16'49	-1°-17'-7
asc. node	165 Oct 15 j 12:44	19°☿07'26		minimum elong	166 Sep 28 j 17:16	4°☿10'36	1°16'19
morning rise	165 Oct 20 j 01:07	14°☿22'37		asc. node	166 Oct 02 j 09:47	29°☿56'04	
direct	165 Oct 23 j 16:21	13°☿06'41			166 Oct 02 j 08:08	30°☿	
morning max el	165 Oct 31 j 08:54	17°☿31'54	20°07'10	morning rise	166 Oct 04 j 10:18	28°☿20'32	
greatest brilliancy	165 Nov 07 j 09:04	26°☿02'47	-0.6m	direct	166 Oct 07 j 14:47	27°☿21'59	
	165 Nov 10 j 05:09	0°☿			166 Oct 13 j 05:38	0°☿	
desc. node	165 Nov 24 j 01:37	20°☿41'24		morning max el	166 Oct 14 j 15:10	1°☿18'54	19°08'42
morning set	165 Nov 27 j 05:07	25°☿32'06			166 Nov 03 j 17:40	0°☿	

morning set	166 Nov 06 j 10:20	4° \mathbb{M} 12'29		superior conj	167 Nov 02 j 04:27	8° \mathbb{M} 51'40	0°-28'-27
desc. node	166 Nov 10 j 22:38	11° \mathbb{M} 15'55		minimum elong	167 Nov 02 j 00:42	8° \mathbb{M} 36'57	0°27'57
max. Earth dist.	166 Nov 20 j 19:26	26° \mathbb{M} 44'44	1.44778 AU	max. Earth dist.	167 Nov 03 j 14:04	11° \mathbb{M} 03'57	1.45039 AU
	166 Nov 22 j 20:53	0° \mathbb{A}			167 Nov 15 j 15:28	0° \mathbb{A}	
superior conj	166 Nov 23 j 03:54	0° \mathbb{A} 27'46	-1°-14'-49	evening rise	167 Nov 18 j 11:31	4° \mathbb{A} 27'47	
minimum elong	166 Nov 22 j 19:42	29° \mathbb{M} 55'17	1°13'57	greatest brilliancy	167 Dec 01 j 08:02	24° \mathbb{A} 33'02	-0.7m
evening rise	166 Dec 08 j 01:54	24° \mathbb{A} 30'28			167 Dec 05 j 00:42	0° \mathbb{B}	
	166 Dec 11 j 10:03	0° \mathbb{B}		evening max el	167 Dec 11 j 09:29	8° \mathbb{B} 01'11	19°13'21
evening max el	166 Dec 28 j 00:06	24° \mathbb{B} 33'46	18°34'00	asc. node	167 Dec 16 j 06:07	11° \mathbb{B} 36'54	
asc. node	166 Dec 29 j 09:05	25° \mathbb{B} 51'19		retrograde	167 Dec 18 j 10:18	12° \mathbb{B} 03'00	
retrograde	167 Jan 03 j 14:42	28° \mathbb{B} 13'21		evening set	167 Dec 21 j 17:17	10° \mathbb{B} 59'54	
evening set	167 Jan 06 j 15:10	27° \mathbb{B} 22'22		inferior conj	167 Dec 27 j 09:03	5° \mathbb{B} 07'09	3°10'21
inferior conj	167 Jan 12 j 12:45	21° \mathbb{B} 45'56	3°36'19	minimum elong	167 Dec 27 j 06:21	5° \mathbb{B} 15'44	3°09'45
minimum elong	167 Jan 12 j 10:44	21° \mathbb{B} 51'55	3°36'02	min. Earth dist.	167 Dec 28 j 18:11	3° \mathbb{B} 21'32	0.65983 AU
min. Earth dist.	167 Jan 14 j 12:50	19° \mathbb{B} 23'44	0.64663 AU		167 Dec 31 j 15:25	30° \mathbb{R} \mathbb{A}	
morning rise	167 Jan 18 j 05:00	15° \mathbb{B} 38'09		morning rise	168 Jan 01 j 18:35	28° \mathbb{A} 54'48	
direct	167 Jan 25 j 00:11	12° \mathbb{B} 47'00		direct	168 Jan 08 j 03:12	26° \mathbb{A} 07'50	
desc. node	167 Feb 06 j 21:52	20° \mathbb{B} 03'24			168 Jan 16 j 20:00	0° \mathbb{B}	
morning max el	167 Feb 07 j 10:16	20° \mathbb{B} 34'05	27°15'50	morning max el	168 Jan 20 j 19:45	3° \mathbb{B} 36'53	26°17'47
	167 Feb 15 j 14:08	0° \approx		desc. node	168 Jan 24 j 18:53	7° \mathbb{B} 55'03	
	167 Mar 07 j 03:37	0° \mathbb{H}			168 Feb 09 j 22:10	0° \approx	
morning set	167 Mar 14 j 19:06	14° \mathbb{H} 11'05		morning set	168 Feb 25 j 22:21	27° \approx 16'33	
max. Earth dist.	167 Mar 19 j 13:20	23° \mathbb{H} 42'52	1.33784 AU		168 Feb 27 j 09:01	0° \mathbb{H}	
				max. Earth dist.	168 Mar 01 j 00:36	5° \mathbb{H} 06'43	1.35144 AU
superior conj	167 Mar 22 j 23:13	0° \mathbb{Y} 49'21	0°-44'-46	superior conj	168 Mar 05 j 21:01	14° \mathbb{H} 49'44	-1°-10'-56
minimum elong	167 Mar 23 j 01:23	1° \mathbb{Y} 00'46	0°44'21	minimum elong	168 Mar 06 j 00:20	15° \mathbb{H} 06'39	1°10'24
	167 Mar 22 j 13:51	0° \mathbb{Y}		asc. node	168 Mar 13 j 05:27	0° \mathbb{Y} 02'53	
asc. node	167 Mar 27 j 08:25	10° \mathbb{Y} 08'14			168 Mar 13 j 04:53	0° \mathbb{Y}	
evening rise	167 Mar 30 j 07:27	16° \mathbb{Y} 23'44		evening rise	168 Mar 13 j 15:31	0° \mathbb{Y} 54'45	
	167 Apr 06 j 03:52	0° \mathbb{B}			168 Mar 31 j 05:48	0° \mathbb{B}	
evening max el	167 Apr 20 j 04:23	20° \mathbb{B} 00'31	22°01'27	evening max el	168 Apr 01 j 07:07	1° \mathbb{B} 03'48	20°37'07
retrograde	167 May 02 j 20:44	26° \mathbb{B} 13'25		retrograde	168 Apr 12 j 09:35	6° \mathbb{B} 25'09	
evening set	167 May 05 j 14:21	25° \mathbb{B} 56'50		evening set	168 Apr 14 j 13:35	6° \mathbb{B} 13'45	
desc. node	167 May 05 j 21:06	25° \mathbb{B} 53'20		desc. node	168 Apr 21 j 18:06	3° \mathbb{B} 23'58	
inferior conj	167 May 14 j 23:27	21° \mathbb{B} 51'38	-2°-31'-13	inferior conj	168 Apr 23 j 17:51	2° \mathbb{B} 16'19	0°-34'-18
minimum elong	167 May 14 j 16:55	22° \mathbb{B} 00'49	2°29'10	minimum elong	168 Apr 23 j 16:13	2° \mathbb{B} 18'39	0°33'44
min. Earth dist.	167 May 14 j 10:01	22° \mathbb{B} 10'30	0.55098 AU	min. Earth dist.	168 Apr 24 j 23:06	1° \mathbb{B} 34'13	0.55111 AU
morning rise	167 May 23 j 20:55	17° \mathbb{B} 56'53			168 Apr 27 j 20:07	30° \mathbb{R} \mathbb{Y}	
direct	167 May 26 j 20:00	17° \mathbb{B} 37'18		morning rise	168 May 02 j 17:23	28° \mathbb{Y} 05'10	
morning max el	167 Jun 07 j 18:06	23° \mathbb{B} 12'49	21°30'54	direct	168 May 06 j 07:03	27° \mathbb{Y} 37'38	
	167 Jun 13 j 16:38	0° \mathbb{I}			168 May 14 j 06:40	0° \mathbb{B}	
asc. node	167 Jun 23 j 07:39	15° \mathbb{I} 54'16		morning max el	168 May 19 j 13:51	4° \mathbb{B} 04'00	23°08'34
morning set	167 Jun 28 j 01:58	25° \mathbb{I} 26'47			168 Jun 06 j 09:41	0° \mathbb{I}	
	167 Jun 30 j 06:20	0° \mathbb{B}		asc. node	168 Jun 09 j 04:42	5° \mathbb{I} 31'12	
				morning set	168 Jun 11 j 13:06	10° \mathbb{I} 22'18	
superior conj	167 Jul 05 j 11:24	10° \mathbb{B} 56'36	1°38'28	superior conj	168 Jun 18 j 16:41	25° \mathbb{I} 38'49	1°25'28
minimum elong	167 Jul 05 j 09:27	10° \mathbb{B} 46'27	1°38'19	minimum elong	168 Jun 18 j 14:14	25° \mathbb{I} 25'45	1°25'09
max. Earth dist.	167 Jul 09 j 08:20	18° \mathbb{B} 52'42	1.35071 AU		168 Jun 20 j 17:52	0° \mathbb{B}	
evening rise	167 Jul 13 j 19:37	27° \mathbb{B} 38'52		max. Earth dist.	168 Jun 21 j 06:07	1° \mathbb{B} 04'28	1.33811 AU
	167 Jul 15 j 01:26	0° \mathbb{Q}		evening rise	168 Jun 26 j 09:16	11° \mathbb{B} 34'14	
desc. node	167 Aug 01 j 20:24	29° \mathbb{Q} 36'28			168 Jul 06 j 08:46	0° \mathbb{Q}	
	167 Aug 02 j 02:53	0° \mathbb{M}		desc. node	168 Jul 18 j 17:26	19° \mathbb{Q} 03'54	
evening max el	167 Aug 18 j 01:41	19° \mathbb{M} 40'10	26°45'53		168 Jul 27 j 14:05	0° \mathbb{M}	
retrograde	167 Aug 31 j 02:29	26° \mathbb{M} 55'45		evening max el	168 Jul 30 j 13:24	3° \mathbb{M} 01'45	27°19'11
evening set	167 Sep 06 j 18:23	24° \mathbb{M} 13'01		retrograde	168 Aug 13 j 00:45	10° \mathbb{M} 20'44	
min. Earth dist.	167 Sep 10 j 18:47	20° \mathbb{M} 07'30	0.65790 AU	evening set	168 Aug 20 j 02:27	7° \mathbb{M} 37'13	
inferior conj	167 Sep 12 j 13:12	18° \mathbb{M} 02'10	-2°-13'-17	min. Earth dist.	168 Aug 23 j 20:18	4° \mathbb{M} 08'17	0.64467 AU
minimum elong	167 Sep 12 j 16:35	17° \mathbb{M} 52'09	2°12'01	inferior conj	168 Aug 26 j 03:45	1° \mathbb{M} 38'47	-3°-7'-4
morning rise	167 Sep 18 j 16:03	12° \mathbb{M} 17'54		minimum elong	168 Aug 26 j 08:15	1° \mathbb{M} 26'38	3°05'39
asc. node	167 Sep 19 j 06:49	12° \mathbb{M} 00'36			168 Aug 27 j 17:06	30° \mathbb{R} \mathbb{Q}	
direct	167 Sep 21 j 12:13	11° \mathbb{M} 32'57		morning rise	168 Sep 01 j 15:51	26° \mathbb{Q} 10'04	
morning max el	167 Sep 28 j 03:08	15° \mathbb{M} 10'55	18°26'13	direct	168 Sep 04 j 06:10	25° \mathbb{Q} 35'13	
	167 Oct 08 j 21:30	0° \mathbb{Q}		asc. node	168 Sep 05 j 03:53	25° \mathbb{Q} 39'30	
morning set	167 Oct 17 j 17:39	14° \mathbb{Q} 13'01		morning max el	168 Sep 10 j 18:19	29° \mathbb{Q} 02'41	18°00'42
	167 Oct 27 j 13:55	0° \mathbb{M}			168 Sep 11 j 16:05	0° \mathbb{M}	
desc. node	167 Oct 28 j 19:40	1° \mathbb{M} 58'01					

morning set	168 Sep 28 j 05:07	25° \mathbb{M} 35'37		superior conj	169 Sep 22 j 03:51	28° \mathbb{M} 05'26	1°00'09
	168 Sep 30 j 19:46	0° \mathbb{A}		minimum elong	169 Sep 22 j 08:46	28° \mathbb{M} 26'06	0°59'32
					169 Sep 23 j 07:09	0° \mathbb{A}	
superior conj	168 Oct 11 j 15:28	17° \mathbb{A} 50'20	0°20'08	max. Earth dist.	169 Sep 29 j 00:01	9° \mathbb{A} 22'57	1.43418 AU
minimum elong	168 Oct 11 j 17:48	17° \mathbb{A} 59'44	0°19'49	desc. node	169 Oct 01 j 13:44	13° \mathbb{A} 30'52	
desc. node	168 Oct 14 j 16:41	22° \mathbb{A} 43'53		evening rise	169 Oct 07 j 08:24	22° \mathbb{A} 36'22	
max. Earth dist.	168 Oct 16 j 08:43	25° \mathbb{A} 23'01	1.44563 AU		169 Oct 12 j 03:53	0° \mathbb{M}	
	168 Oct 19 j 06:53	0° \mathbb{M}		greatest brilliancy	169 Nov 01 j 08:47	28° \mathbb{M} 56'33	-0.4m
evening rise	168 Oct 28 j 01:15	13° \mathbb{M} 38'15			169 Nov 02 j 05:01	0° \mathbb{A}	
	168 Nov 07 j 18:36	0° \mathbb{A}		evening max el	169 Nov 06 j 13:11	4° \mathbb{A} 57'33	21°16'03
greatest brilliancy	168 Nov 16 j 19:51	13° \mathbb{A} 09'44	-0.6m	retrograde	169 Nov 15 j 05:16	10° \mathbb{A} 06'42	
evening max el	168 Nov 23 j 14:12	21° \mathbb{A} 29'16	20°08'16	evening set	169 Nov 19 j 06:45	8° \mathbb{A} 33'56	
retrograde	168 Dec 01 j 07:53	26° \mathbb{A} 01'45		asc. node	169 Nov 19 j 00:11	8° \mathbb{A} 46'10	
asc. node	168 Dec 02 j 03:09	25° \mathbb{A} 58'05		inferior conj	169 Nov 24 j 16:39	2° \mathbb{A} 17'54	1°51'46
evening set	168 Dec 04 j 23:08	24° \mathbb{A} 44'44		minimum elong	169 Nov 24 j 14:23	2° \mathbb{A} 25'44	1°50'56
inferior conj	168 Dec 10 j 11:06	18° \mathbb{A} 38'36	2°34'43	min. Earth dist.	169 Nov 25 j 00:30	1° \mathbb{A} 50'51	0.67464 AU
minimum elong	168 Dec 10 j 08:22	18° \mathbb{A} 47'46	2°33'53		169 Nov 26 j 09:12	30° \mathbb{M}	
min. Earth dist.	168 Dec 11 j 06:47	17° \mathbb{A} 32'33	0.66907 AU	morning rise	169 Nov 29 j 21:41	26° \mathbb{M} 02'28	
morning rise	168 Dec 15 j 17:03	12° \mathbb{A} 23'42		direct	169 Dec 05 j 00:54	23° \mathbb{M} 50'23	
direct	168 Dec 21 j 11:36	9° \mathbb{A} 51'14			169 Dec 15 j 10:48	0° \mathbb{A}	
morning max el	169 Jan 02 j 04:24	16° \mathbb{A} 49'10	25°00'17	morning max el	169 Dec 15 j 13:16	0° \mathbb{A} 06'12	23°33'17
desc. node	169 Jan 10 j 15:54	26° \mathbb{A} 41'43		desc. node	169 Dec 28 j 12:57	16° \mathbb{A} 07'41	
	169 Jan 13 j 04:02	0° \mathbb{A}			170 Jan 07 j 01:27	0° \mathbb{A}	
	169 Feb 01 j 21:36	0° \mathbb{A}		morning set	170 Jan 19 j 17:39	20° \mathbb{A} 20'05	
morning set	169 Feb 07 j 07:57	9° \mathbb{A} 24'59		max. Earth dist.	170 Jan 23 j 20:18	27° \mathbb{A} 25'05	1.38990 AU
max. Earth dist.	169 Feb 11 j 01:10	16° \mathbb{A} 10'29	1.36925 AU		170 Jan 25 j 07:22	0° \mathbb{A}	
superior conj	169 Feb 17 j 09:10	28° \mathbb{A} 16'24	-1°-34'-25	superior conj	170 Jan 31 j 07:48	10° \mathbb{A} 59'17	-1°-52'-36
minimum elong	169 Feb 17 j 13:05	28° \mathbb{A} 35'35	1°33'58	minimum elong	170 Jan 31 j 11:08	11° \mathbb{A} 14'54	1°52'23
	169 Feb 18 j 06:12	0° \mathbb{A}		evening rise	170 Feb 09 j 13:53	28° \mathbb{A} 46'11	
evening rise	169 Feb 25 j 18:33	15° \mathbb{A} 04'38			170 Feb 10 j 05:07	0° \mathbb{A}	
asc. node	169 Feb 28 j 02:29	19° \mathbb{A} 42'36		asc. node	170 Feb 14 j 23:31	9° \mathbb{A} 01'43	
	169 Mar 05 j 14:56	0° \mathbb{A}		evening max el	170 Feb 25 j 21:14	25° \mathbb{A} 01'57	18°42'40
evening max el	169 Mar 14 j 21:07	12° \mathbb{A} 44'31	19°29'59	retrograde	170 Mar 05 j 21:00	28° \mathbb{A} 55'06	
retrograde	169 Mar 24 j 06:44	17° \mathbb{A} 15'38		evening set	170 Mar 08 j 04:35	28° \mathbb{A} 36'44	
evening set	169 Mar 26 j 09:58	17° \mathbb{A} 02'41		inferior conj	170 Mar 15 j 22:28	24° \mathbb{A} 13'24	2°41'39
inferior conj	169 Apr 03 j 22:27	12° \mathbb{A} 56'51	1°18'22	minimum elong	170 Mar 16 j 02:45	24° \mathbb{A} 05'21	2°40'36
minimum elong	169 Apr 04 j 01:33	12° \mathbb{A} 51'50	1°17'21	min. Earth dist.	170 Mar 19 j 06:46	21° \mathbb{A} 43'48	0.57707 AU
min. Earth dist.	169 Apr 06 j 13:33	11° \mathbb{A} 15'35	0.56049 AU	morning rise	170 Mar 23 j 20:42	18° \mathbb{A} 58'41	
desc. node	169 Apr 08 j 15:07	10° \mathbb{A} 01'52		desc. node	170 Mar 26 j 12:09	18° \mathbb{A} 02'11	
morning rise	169 Apr 12 j 13:28	8° \mathbb{A} 14'32		direct	170 Mar 29 j 12:30	17° \mathbb{A} 39'30	
direct	169 Apr 17 j 02:42	7° \mathbb{A} 27'45		morning max el	170 Apr 12 j 20:57	25° \mathbb{A} 12'14	26°17'41
morning max el	169 May 01 j 04:49	14° \mathbb{A} 34'42	24°49'14		170 Apr 17 j 07:41	0° \mathbb{A}	
	169 May 13 j 08:55	0° \mathbb{A}			170 May 06 j 10:16	0° \mathbb{A}	
morning set	169 May 27 j 01:07	25° \mathbb{A} 21'13		morning set	170 May 11 j 12:18	10° \mathbb{A} 17'05	
asc. node	169 May 27 j 01:45	25° \mathbb{A} 24'35		asc. node	170 May 13 j 22:48	15° \mathbb{A} 28'27	
	169 May 29 j 05:27	0° \mathbb{A}					
				superior conj	170 May 18 j 13:26	25° \mathbb{A} 32'14	0°47'04
superior conj	169 Jun 03 j 02:02	10° \mathbb{A} 33'12	1°08'02	minimum elong	170 May 18 j 11:32	25° \mathbb{A} 21'49	0°46'41
minimum elong	169 Jun 02 j 23:38	10° \mathbb{A} 20'09	1°07'38	max. Earth dist.	170 May 18 j 23:14	26° \mathbb{A} 26'03	1.32440 AU
max. Earth dist.	169 Jun 04 j 12:07	13° \mathbb{A} 38'06	1.32935 AU		170 May 20 j 14:20	0° \mathbb{A}	
evening rise	169 Jun 10 j 08:24	25° \mathbb{A} 57'58		evening rise	170 May 25 j 13:57	10° \mathbb{A} 39'53	
	169 Jun 12 j 08:27	0° \mathbb{A}			170 Jun 04 j 14:50	0° \mathbb{A}	
	169 Jun 29 j 19:35	0° \mathbb{A}		desc. node	170 Jun 22 j 11:29	25° \mathbb{A} 32'41	
desc. node	169 Jul 05 j 14:26	7° \mathbb{A} 48'51		evening max el	170 Jun 25 j 03:19	28° \mathbb{A} 14'41	26°54'58
evening max el	169 Jul 12 j 22:46	15° \mathbb{A} 57'33	27°23'25		170 Jun 27 j 02:05	0° \mathbb{A}	
retrograde	169 Jul 26 j 16:58	23° \mathbb{A} 16'00		retrograde	170 Jul 09 j 02:11	5° \mathbb{A} 31'00	
evening set	169 Aug 02 j 21:54	20° \mathbb{A} 43'43		evening set	170 Jul 16 j 00:21	3° \mathbb{A} 24'09	
min. Earth dist.	169 Aug 06 j 11:52	17° \mathbb{A} 45'42	0.62789 AU	min. Earth dist.	170 Jul 19 j 17:15	0° \mathbb{A} 44'28	0.60830 AU
inferior conj	169 Aug 09 j 08:13	15° \mathbb{A} 00'48	-3°-54'-52		170 Jul 20 j 14:42	30° \mathbb{M}	
minimum elong	169 Aug 09 j 13:01	14° \mathbb{A} 49'10	3°53'45	inferior conj	170 Jul 22 j 23:12	27° \mathbb{A} 59'06	-4°-30'-59
morning rise	169 Aug 16 j 06:35	9° \mathbb{A} 51'04		minimum elong	170 Jul 23 j 02:48	27° \mathbb{A} 51'24	4°30'32
direct	169 Aug 18 j 17:33	9° \mathbb{A} 23'17		morning rise	170 Jul 30 j 08:21	23° \mathbb{A} 11'01	
asc. node	169 Aug 23 j 00:56	10° \mathbb{A} 50'23		direct	170 Aug 01 j 18:27	22° \mathbb{A} 47'54	
morning max el	169 Aug 25 j 10:00	12° \mathbb{A} 48'45	17°53'02	morning max el	170 Aug 08 j 23:04	26° \mathbb{A} 20'30	18°04'14
	169 Sep 06 j 02:00	0° \mathbb{A}		asc. node	170 Aug 09 j 22:00	27° \mathbb{A} 19'11	
morning set	169 Sep 10 j 15:43	8° \mathbb{A} 04'43			170 Aug 12 j 03:35	0° \mathbb{A}	

morning set	170 Aug 24 j 19:23	21°♂22'45		asc. node	171 Jul 27 j 19:04	14°♂50'32	
	170 Aug 29 j 10:59	0°♍			171 Aug 05 j 17:13	0°♂	
				morning set	171 Aug 08 j 11:15	5°♂16'41	
superior conj	170 Sep 03 j 19:09	9°♍39'53	1°27'24				
minimum elong	170 Sep 03 j 23:19	9°♍58'25	1°27'00	superior conj	171 Aug 17 j 08:35	22°♂20'08	1°42'21
max. Earth dist.	170 Sep 11 j 09:43	22°♍46'45	1.41754 AU	minimum elong	171 Aug 17 j 10:44	22°♂20'07	1°42'15
	170 Sep 15 j 19:05	0°♎			171 Aug 21 j 12:41	0°♍	
evening rise	170 Sep 17 j 02:51	2°♎07'54		max. Earth dist.	171 Aug 24 j 14:27	5°♍27'38	1.39793 AU
desc. node	170 Sep 18 j 10:47	4°♎15'13		evening rise	171 Aug 28 j 20:10	12°♍43'51	
	170 Oct 05 j 14:50	0°♏		desc. node	171 Sep 05 j 07:50	24°♍53'13	
greatest brilliancy	170 Oct 15 j 11:16	13°♏03'27	-0.3m		171 Sep 08 j 15:10	0°♎	
evening max el	170 Oct 20 j 06:40	18°♏27'04	22°32'48		171 Sep 30 j 22:10	0°♏	
retrograde	170 Oct 30 j 00:42	24°♏14'54		evening max el	171 Oct 02 j 20:15	1°♏59'49	23°53'01
evening set	170 Nov 03 j 14:24	22°♏24'53		retrograde	171 Oct 13 j 16:47	8°♏23'08	
asc. node	170 Nov 05 j 21:13	20°♏07'22		evening set	171 Oct 18 j 20:23	6°♏15'10	
inferior conj	170 Nov 08 j 23:45	16°♏02'48	1°03'15	min. Earth dist.	171 Oct 23 j 17:20	0°♏36'06	0.67581 AU
minimum elong	170 Nov 08 j 22:20	16°♏07'42	1°02'40	asc. node	171 Oct 23 j 18:16	0°♏32'54	
min. Earth dist.	170 Nov 08 j 20:51	16°♏12'49	0.67681 AU	inferior conj	171 Oct 24 j 06:35	29°♎51'03	0°10'38
morning rise	170 Nov 14 j 06:09	9°♏49'11		minimum elong	171 Oct 24 j 06:20	29°♎51'55	0°10'30
direct	170 Nov 18 j 18:23	7°♏59'36		transit middle	171 Oct 24 j 06:20	29°♎51'55	0°10'30
morning max el	170 Nov 28 j 01:15	13°♏28'38	22°06'25	transit begin	171 Oct 24 j 04:15	29°♎58'59	
greatest brilliancy	170 Dec 02 j 17:59	18°♏46'10	-0.4m	transit end	171 Oct 24 j 08:25	29°♎44'52	
	170 Dec 11 j 05:01	0°♐			171 Oct 24 j 03:58	30°♏♎	
desc. node	170 Dec 15 j 10:00	6°♐01'51		morning rise	171 Oct 29 j 16:26	23°♎41'57	
morning set	170 Dec 30 j 22:26	29°♐50'43		direct	171 Nov 02 j 14:54	22°♎14'16	
	170 Dec 31 j 00:44	0°♑		morning max el	171 Nov 10 j 19:34	26°♎59'59	20°47'11
max. Earth dist.	171 Jan 05 j 17:37	9°♑22'27	1.41095 AU		171 Nov 13 j 13:12	0°♏	
				greatest brilliancy	171 Nov 16 j 16:10	3°♏52'27	-0.5m
superior conj	171 Jan 13 j 12:00	22°♑46'25	-2°-1'-51	desc. node	171 Dec 02 j 07:03	26°♏16'00	
minimum elong	171 Jan 13 j 12:51	22°♑50'12	2°01'51		171 Dec 04 j 18:05	0°♐	
	171 Jan 17 j 12:22	0°♒		morning set	171 Dec 10 j 01:45	8°♐11'55	
evening rise	171 Jan 23 j 22:16	11°♒51'38		max. Earth dist.	171 Dec 18 j 22:29	22°♐16'33	1.42954 AU
asc. node	171 Feb 01 j 20:34	27°♒53'20			171 Dec 23 j 15:23	0°♑	
	171 Feb 03 j 04:08	0°♓					
evening max el	171 Feb 09 j 04:36	7°♓48'26	18°15'26	superior conj	171 Dec 25 j 16:20	3°♑24'43	-1°-57'-36
retrograde	171 Feb 16 j 05:45	11°♓19'42		minimum elong	171 Dec 25 j 12:38	3°♑09'10	1°57'28
evening set	171 Feb 18 j 18:13	10°♓53'36		evening rise	172 Jan 06 j 15:43	24°♑12'04	
inferior conj	171 Feb 25 j 19:26	6°♓09'07	3°29'56		172 Jan 09 j 22:07	0°♒	
minimum elong	171 Feb 25 j 22:12	6°♓03'03	3°29'33	asc. node	172 Jan 19 j 17:36	16°♒08'04	
min. Earth dist.	171 Mar 01 j 04:44	3°♓12'44	0.59754 AU	evening max el	172 Jan 23 j 15:58	20°♒53'57	18°07'46
morning rise	171 Mar 04 j 22:43	0°♓30'34		retrograde	172 Jan 30 j 05:39	24°♒18'37	
	171 Mar 05 j 20:55	30°♒♒		evening set	172 Feb 01 j 22:34	23°♒43'31	
direct	171 Mar 11 j 11:11	28°♒33'32		inferior conj	172 Feb 08 j 10:29	18°♒37'26	3°48'43
desc. node	171 Mar 13 j 09:11	28°♒43'20		minimum elong	172 Feb 08 j 11:01	18°♒36'06	3°48'42
	171 Mar 17 j 06:52	0°♓		min. Earth dist.	172 Feb 11 j 09:57	15°♒39'20	0.61847 AU
morning max el	171 Mar 25 j 18:13	6°♓19'32	27°19'44	morning rise	172 Feb 14 j 21:04	12°♒43'27	
	171 Apr 12 j 11:12	0°♔		direct	172 Feb 21 j 19:40	10°♒14'53	
morning set	171 Apr 25 j 21:00	25°♔03'55		desc. node	172 Feb 28 j 06:13	12°♒06'34	
	171 Apr 28 j 05:11	0°♕		morning max el	172 Mar 06 j 21:32	18°♒06'23	27°46'46
asc. node	171 Apr 30 j 19:52	5°♕38'16			172 Mar 16 j 21:14	0°♓	
max. Earth dist.	171 May 02 j 11:55	9°♕17'16	1.32319 AU		172 Apr 04 j 04:47	0°♔	
				morning set	172 Apr 09 j 01:09	9°♔34'00	
superior conj	171 May 03 j 01:10	10°♕29'56	0°23'20	max. Earth dist.	172 Apr 14 j 22:21	21°♔57'53	1.32568 AU
minimum elong	171 May 03 j 00:08	10°♕24'17	0°23'07				
evening rise	171 May 09 j 23:32	25°♕32'04		superior conj	172 Apr 16 j 11:29	25°♔19'20	0°-2'-24
	171 May 12 j 03:06	0°♖		minimum elong	172 Apr 16 j 11:35	25°♔19'58	0°02'22
	171 May 29 j 15:13	0°♗		behind sun begin	172 Apr 16 j 06:31	24°♔52'21	
evening max el	171 Jun 07 j 01:20	9°♗47'01	25°54'42	behind sun end	172 Apr 16 j 16:40	25°♔47'35	
desc. node	171 Jun 09 j 08:29	11°♗49'59		asc. node	172 Apr 16 j 16:57	25°♔49'08	
retrograde	171 Jun 21 j 02:30	16°♗59'02			172 Apr 18 j 14:57	0°♕	
evening set	171 Jun 27 j 05:15	15°♗28'58		evening rise	172 Apr 23 j 11:04	10°♕26'25	
min. Earth dist.	171 Jul 01 j 13:57	12°♗50'08	0.58773 AU		172 May 03 j 12:53	0°♖	
inferior conj	171 Jul 04 j 21:07	10°♗24'19	-4°-46'-26	evening max el	172 May 18 j 17:24	20°♖39'12	24°30'15
minimum elong	171 Jul 04 j 21:23	10°♗23'49	4°46'28	desc. node	172 May 26 j 05:30	26°♖07'15	
morning rise	171 Jul 12 j 17:09	5°♗58'53		retrograde	172 Jun 01 j 15:24	27°♖40'54	
direct	171 Jul 15 j 04:39	5°♗38'34		evening set	172 Jun 06 j 11:06	26°♖48'47	
morning max el	171 Jul 23 j 06:24	9°♗29'00	18°35'27	min. Earth dist.	172 Jun 12 j 04:43	23°♖54'07	0.56891 AU

inferior conj	172 Jun 14 j 23:11	22°II07'44	-4°-28'-50	min. Earth dist.	173 May 24 j 17:08	4°II00'21	0.55522 AU
minimum elong	172 Jun 14 j 18:41	22°II15'00	4°28'16	inferior conj	173 May 26 j 05:59	3°II07'11	-3°-26'-54
morning rise	172 Jun 23 j 06:02	18°II02'46		minimum elong	173 May 25 j 22:40	3°II17'47	3°25'00
direct	172 Jun 25 j 20:33	17°II44'07			173 Jun 01 j 09:35	30°R8	
morning max el	172 Jul 05 j 05:05	22°II05'03	19°27'43	morning rise	173 Jun 03 j 23:02	29°813'51	
	172 Jul 11 j 15:47	0°☾		direct	173 Jun 06 j 17:49	28°855'37	
asc. node	172 Jul 13 j 16:08	3°☾10'41			173 Jun 11 j 19:18	0°II	
morning set	172 Jul 22 j 11:42	19°☾37'09		morning max el	173 Jun 17 j 17:02	4°II00'37	20°40'44
	172 Jul 27 j 15:47	0°♁		asc. node	173 Jun 30 j 13:11	22°II07'43	
					173 Jul 04 j 15:22	0°☾	
superior conj	172 Jul 30 j 14:36	5°♁50'49	1°47'01	morning set	173 Jul 06 j 17:56	4°☾16'07	
minimum elong	172 Jul 30 j 14:42	5°♁51'21	1°47'01				
max. Earth dist.	172 Aug 05 j 17:58	17°♁33'21	1.37786 AU	superior conj	173 Jul 14 j 08:23	19°☾57'51	1°43'30
evening rise	172 Aug 09 j 13:59	24°♁29'38		minimum elong	173 Jul 14 j 07:00	19°☾50'48	1°43'26
	172 Aug 12 j 17:55	0°☾		max. Earth dist.	173 Jul 19 j 01:27	29°☾23'14	1.35965 AU
desc. node	172 Aug 22 j 04:51	15°☾20'27			173 Jul 19 j 08:59	0°♁	
	172 Sep 01 j 07:20	0°♁		evening rise	173 Jul 23 j 04:34	7°♁15'55	
evening max el	172 Sep 14 j 08:04	15°♁36'28	25°09'52		173 Aug 05 j 11:21	0°☾	
retrograde	172 Sep 26 j 04:39	22°♁27'55		desc. node	173 Aug 09 j 01:51	5°☾30'53	
evening set	172 Oct 01 j 23:03	20°♁02'55		evening max el	173 Aug 27 j 19:39	29°☾12'59	26°15'48
min. Earth dist.	172 Oct 06 j 11:30	14°♁59'02	0.67156 AU		173 Aug 28 j 15:25	0°♁	
inferior conj	172 Oct 07 j 11:26	13°♁40'48	0°-44'-39	retrograde	173 Sep 09 j 11:41	6°♁23'00	
minimum elong	172 Oct 07 j 12:33	13°♁37'08	0°44'12	evening set	173 Sep 15 j 20:25	3°♁44'36	
asc. node	172 Oct 09 j 15:18	10°♁56'59			173 Sep 19 j 10:57	30°R☾	
morning rise	172 Oct 13 j 02:36	7°♁39'08		min. Earth dist.	173 Sep 20 j 00:57	29°☾17'46	0.66394 AU
direct	172 Oct 16 j 13:06	6°♁30'52		inferior conj	173 Sep 21 j 12:26	27°☾28'27	-1°-41'-4
morning max el	172 Oct 23 j 21:44	10°♁42'23	19°40'27	minimum elong	173 Sep 21 j 15:01	27°☾20'29	1°40'02
greatest brilliancy	172 Nov 01 j 02:14	20°♁59'03	-0.6m	asc. node	173 Sep 26 j 12:21	22°☾13'36	
	172 Nov 07 j 05:38	0°♁		morning rise	173 Sep 27 j 10:37	21°☾37'09	
morning set	172 Nov 17 j 23:09	16°♁25'33		direct	173 Sep 30 j 11:16	20°☾44'54	
desc. node	172 Nov 18 j 04:06	16°♁44'44		morning max el	173 Oct 07 j 06:46	24°☾32'22	18°48'39
	172 Nov 26 j 16:08	0°♁			173 Oct 11 j 20:10	0°♁	
max. Earth dist.	172 Nov 30 j 11:14	5°♁59'44	1.44305 AU	morning set	173 Oct 28 j 14:17	25°♁37'13	
					173 Oct 31 j 08:47	0°♁	
superior conj	172 Dec 04 j 17:53	12°♁50'00	-1°-35'-43	desc. node	173 Nov 05 j 01:08	7°♁22'49	
minimum elong	172 Dec 04 j 09:58	12°♁18'07	1°35'03	max. Earth dist.	173 Nov 13 j 04:27	20°♁10'26	1.44982 AU
	172 Dec 15 j 04:54	0°☾					
evening rise	172 Dec 18 j 14:00	5°☾40'54		superior conj	173 Nov 13 j 22:26	21°♁21'08	0°-56'-14
	173 Jan 02 j 16:10	0°☾		minimum elong	173 Nov 13 j 15:29	20°♁53'45	0°55'24
asc. node	173 Jan 05 j 14:37	3°☾35'34			173 Nov 19 j 10:00	0°♁	
evening max el	173 Jan 06 j 04:30	4°☾11'54	18°19'06	evening rise	173 Nov 29 j 13:18	16°♁11'17	
retrograde	173 Jan 12 j 16:22	7°☾42'55			173 Dec 08 j 03:22	0°☾	
evening set	173 Jan 15 j 13:50	6°☾58'00		evening max el	173 Dec 20 j 15:35	17°☾36'17	18°48'38
inferior conj	173 Jan 21 j 15:48	1°☾31'43	3°45'34	asc. node	173 Dec 23 j 11:38	20°☾02'19	
minimum elong	173 Jan 21 j 14:30	1°☾35'22	3°45'28	retrograde	173 Dec 27 j 09:46	21°☾24'35	
	173 Jan 23 j 00:18	30°R☾		evening set	173 Dec 30 j 12:46	20°☾28'40	
min. Earth dist.	173 Jan 24 j 00:38	28°☾52'33	0.63733 AU	inferior conj	174 Jan 05 j 07:34	14°☾44'40	3°26'39
morning rise	173 Jan 27 j 13:35	25°☾27'49		minimum elong	174 Jan 05 j 05:11	14°☾52'01	3°26'14
direct	173 Feb 03 j 12:11	22°☾40'55		min. Earth dist.	174 Jan 07 j 01:05	12°☾37'25	0.65270 AU
desc. node	173 Feb 14 j 03:16	27°☾40'39		morning rise	174 Jan 10 j 20:32	8°☾34'26	
	173 Feb 16 j 16:34	0°☾		direct	174 Jan 17 j 11:36	5°☾43'44	
morning max el	173 Feb 17 j 05:31	0°☾31'53	27°36'53	morning max el	174 Jan 30 j 15:20	13°☾25'09	26°54'12
	173 Mar 10 j 22:08	0°☾		desc. node	174 Feb 01 j 00:19	14°☾50'15	
morning set	173 Mar 23 j 22:20	23°☾39'28			174 Feb 13 j 01:53	0°☾	
	173 Mar 27 j 01:34	0°☾			174 Mar 03 j 13:20	0°☾	
max. Earth dist.	173 Mar 29 j 02:31	4°☾14'40	1.33217 AU	morning set	174 Mar 07 j 09:22	7°☾10'40	
				max. Earth dist.	174 Mar 11 j 20:41	15°☾58'13	1.34302 AU
superior conj	173 Mar 31 j 18:37	9°☾54'40	0°-29'-14				
minimum elong	173 Mar 31 j 20:01	10°☾02'13	0°28'57	superior conj	174 Mar 15 j 20:31	24°☾09'47	0°-56'-4
asc. node	173 Apr 03 j 13:57	15°☾56'36		minimum elong	174 Mar 15 j 23:13	24°☾23'48	0°55'35
evening rise	173 Apr 07 j 22:42	25°☾16'27			174 Mar 18 j 15:16	0°☾	
	173 Apr 10 j 05:19	0°☾		asc. node	174 Mar 21 j 10:59	5°☾57'12	
	173 Apr 29 j 03:21	0°II		evening rise	174 Mar 23 j 08:39	9°☾56'12	
evening max el	173 Apr 30 j 08:09	1°II12'17	22°55'05		174 Apr 02 j 23:50	0°☾	
desc. node	173 May 13 j 02:30	7°II48'33		evening max el	174 Apr 12 j 04:57	11°☾57'48	21°23'48
retrograde	173 May 13 j 15:49	7°II49'15		retrograde	174 Apr 24 j 06:47	17°☾50'31	
evening set	173 May 17 j 01:13	7°II24'02		evening set	174 Apr 26 j 16:21	17°☾37'21	

desc. node	174 Apr 29 j 23:31	16°♄40'07		retrograde	175 Apr 04 j 21:31	28°♄15'36	
inferior conj	174 May 06 j 01:09	13°♄37'13	-1°-43'-23	evening set	175 Apr 06 j 23:53	28°♄04'16	
minimum elong	174 May 05 j 20:20	13°♄43'58	1°41'45	inferior conj	175 Apr 15 j 22:19	24°♄05'19	0°15'53
min. Earth dist.	174 May 06 j 05:58	13°♄30'26	0.54974 AU	minimum elong	175 Apr 15 j 23:02	24°♄04'14	0°15'38
morning rise	174 May 15 j 00:37	9°♄37'54		transit middle	175 Apr 15 j 23:02	24°♄04'14	0°15'38
direct	174 May 18 j 04:22	9°♄16'14		transit begin	175 Apr 15 j 22:17	24°♄05'22	
morning max el	174 May 30 j 18:13	15°♄14'09	22°11'22	transit end	175 Apr 15 j 23:47	24°♄03'06	
	174 Jun 11 j 02:09	0°♄		desc. node	175 Apr 16 j 20:33	23°♄31'54	
asc. node	174 Jun 17 j 10:15	11°♄32'29		min. Earth dist.	175 Apr 17 j 19:54	22°♄57'06	0.55397 AU
morning set	174 Jun 21 j 03:50	19°♄07'31		morning rise	175 Apr 24 j 19:27	19°♄41'33	
	174 Jun 26 j 07:15	0°♄		direct	175 Apr 28 j 18:14	19°♄07'22	
				morning max el	175 May 12 j 11:15	25°♄53'42	23°51'51
superior conj	174 Jun 28 j 10:20	4°♄30'26	1°33'34		175 May 16 j 08:17	0°♄	
minimum elong	174 Jun 28 j 08:06	4°♄18'41	1°33'21		175 Jun 03 j 16:22	0°♄	
max. Earth dist.	174 Jul 01 j 17:24	11°♄21'53	1.34480 AU	asc. node	175 Jun 04 j 07:18	1°♄16'44	
evening rise	174 Jul 06 j 11:08	20°♄50'12		morning set	175 Jun 05 j 15:31	4°♄04'39	
	174 Jul 11 j 08:09	0°♄					
desc. node	174 Jul 26 j 22:52	25°♄17'06		superior conj	175 Jun 12 j 17:37	19°♄18'33	1°18'34
	174 Jul 30 j 08:52	0°♄		minimum elong	175 Jun 12 j 15:08	19°♄05'08	1°18'12
evening max el	174 Aug 10 j 07:31	12°♄43'06	27°03'07	max. Earth dist.	175 Jun 14 j 18:45	23°♄41'54	1.33387 AU
retrograde	174 Aug 23 j 13:35	20°♄01'43			175 Jun 17 j 18:41	0°♄	
evening set	174 Aug 30 j 10:13	17°♄17'04		evening rise	175 Jun 20 j 05:14	4°♄58'50	
min. Earth dist.	174 Sep 03 j 07:31	13°♄27'36	0.65276 AU		175 Jul 04 j 00:17	0°♄	
inferior conj	174 Sep 05 j 07:31	11°♄10'49	-2°-36'-35	desc. node	175 Jul 13 j 19:53	14°♄28'10	
minimum elong	174 Sep 05 j 11:26	10°♄59'38	2°35'11	evening max el	175 Jul 23 j 18:34	25°♄55'23	27°24'53
morning rise	174 Sep 11 j 14:12	5°♄32'57			175 Jul 28 j 16:47	0°♄	
asc. node	174 Sep 13 j 09:25	4°♄57'29		retrograde	175 Aug 06 j 09:35	3°♄14'56	
direct	174 Sep 14 j 07:27	4°♄52'53		evening set	175 Aug 13 j 13:26	0°♄34'43	
morning max el	174 Sep 20 j 20:30	8°♄25'30	18°13'10		175 Aug 14 j 07:18	30°♄	
	174 Oct 05 j 15:13	0°♄		min. Earth dist.	175 Aug 17 j 05:09	27°♄19'43	0.63790 AU
morning set	174 Oct 09 j 09:53	6°♄13'35		inferior conj	175 Aug 19 j 18:10	24°♄42'14	-3°-28'-22
desc. node	174 Oct 22 j 22:09	28°♄06'51		minimum elong	175 Aug 19 j 22:56	24°♄29'55	3°27'01
				morning rise	175 Aug 26 j 10:32	19°♄21'01	
superior conj	174 Oct 24 j 00:52	29°♄52'54	0°-7'-21	direct	175 Aug 28 j 23:00	18°♄49'37	
minimum elong	174 Oct 23 j 23:56	29°♄49'09	0°07'14	asc. node	175 Aug 31 j 06:29	19°♄16'25	
behind sun begin	174 Oct 23 j 14:00	29°♄09'45		morning max el	175 Sep 04 j 12:15	22°♄15'35	17°55'08
behind sun end	174 Oct 24 j 09:52	0°♄28'31			175 Sep 10 j 12:05	0°♄	
	174 Oct 24 j 02:40	0°♄		morning set	175 Sep 21 j 08:03	18°♄07'01	
max. Earth dist.	174 Oct 26 j 22:59	4°♄29'51	1.44926 AU		175 Sep 28 j 06:44	0°♄	
evening rise	174 Nov 09 j 13:24	25°♄45'27					
	174 Nov 12 j 06:52	0°♄		superior conj	175 Oct 03 j 21:49	9°♄21'55	0°38'32
greatest brilliancy	174 Nov 25 j 17:12	20°♄28'07	-0.7m	minimum elong	175 Oct 04 j 01:45	9°♄38'03	0°38'00
	174 Dec 02 j 23:21	0°♄		max. Earth dist.	175 Oct 09 j 16:13	18°♄41'53	1.44154 AU
evening max el	174 Dec 03 j 23:06	1°♄03'45	19°34'58	desc. node	175 Oct 09 j 19:12	18°♄53'47	
asc. node	174 Dec 10 j 08:40	5°♄13'25			175 Oct 16 j 20:26	0°♄	
retrograde	174 Dec 11 j 06:33	5°♄18'05		evening rise	175 Oct 19 j 22:15	4°♄45'37	
evening set	174 Dec 14 j 16:43	4°♄09'30			175 Nov 05 j 18:14	0°♄	
	174 Dec 18 j 20:39	30°♄		greatest brilliancy	175 Nov 11 j 02:34	7°♄24'54	-0.5m
inferior conj	174 Dec 20 j 06:39	28°♄10'41	2°56'16	evening max el	175 Nov 17 j 01:33	14°♄32'42	20°35'47
minimum elong	174 Dec 20 j 03:52	28°♄19'47	2°55'32	retrograde	175 Nov 25 j 04:13	19°♄20'02	
min. Earth dist.	174 Dec 21 j 09:55	26°♄41'30	0.66420 AU	asc. node	175 Nov 27 j 05:43	18°♄55'54	
morning rise	174 Dec 25 j 14:16	21°♄56'45		evening set	175 Nov 28 j 23:33	17°♄56'42	
direct	174 Dec 31 j 17:09	19°♄14'45		inferior conj	175 Dec 04 j 10:28	11°♄46'12	2°17'18
morning max el	175 Jan 13 j 00:32	26°♄33'04	25°46'32	minimum elong	175 Dec 04 j 07:52	11°♄55'01	2°16'25
	175 Jan 16 j 05:39	0°♄		min. Earth dist.	175 Dec 05 j 01:02	10°♄56'38	0.67191 AU
desc. node	175 Jan 18 j 21:21	3°♄07'33		morning rise	175 Dec 09 j 15:43	5°♄30'48	
	175 Feb 06 j 16:16	0°♄		direct	175 Dec 15 j 03:56	3°♄06'12	
morning set	175 Feb 18 j 05:48	19°♄53'54		morning max el	175 Dec 26 j 08:50	9°♄47'11	24°23'44
max. Earth dist.	175 Feb 22 j 02:46	27°♄09'18	1.35846 AU	desc. node	176 Jan 05 j 18:23	22°♄12'52	
	175 Feb 23 j 14:12	0°♄			176 Jan 11 j 09:05	0°♄	
					176 Jan 30 j 08:32	0°♄	
superior conj	175 Feb 27 j 14:37	7°♄56'43	-1°-21'-22	morning set	176 Jan 31 j 06:01	1°♄33'16	
minimum elong	175 Feb 27 j 18:16	8°♄15'09	1°20'51	max. Earth dist.	176 Feb 03 j 23:45	8°♄11'49	1.37782 AU
evening rise	175 Mar 07 j 14:51	24°♄18'41					
asc. node	175 Mar 08 j 08:01	25°♄45'51		superior conj	176 Feb 10 j 21:35	21°♄06'37	-1°-42'-59
	175 Mar 10 j 10:46	0°♄		minimum elong	176 Feb 11 j 01:26	21°♄25'09	1°42'37
evening max el	175 Mar 25 j 12:33	23°♄16'41	20°06'21		176 Feb 15 j 10:42	0°♄	

evening rise	176 Feb 19 j 14:58	8° Υ 17'26		superior conj	177 Jan 23 j 13:02	3° \approx 27'22	-1°-57'-53
asc. node	176 Feb 23 j 05:03	15° Υ 17'36		minimum elong	177 Jan 23 j 15:35	3° \approx 39'03	1°57'46
	176 Mar 02 j 21:11	0° Υ		evening rise	177 Feb 02 j 06:03	21° \approx 44'30	
evening max el	176 Mar 07 j 07:15	5° Υ 14'10	19°07'26		177 Feb 06 j 15:11	0° Υ	
retrograde	176 Mar 16 j 00:55	9° Υ 26'40		asc. node	177 Feb 09 j 02:06	4° Υ 25'48	
evening set	176 Mar 18 j 05:57	9° Υ 11'41		evening max el	177 Feb 18 j 10:46	17° Υ 44'30	18°28'33
inferior conj	176 Mar 26 j 10:30	4° Υ 59'19	1°58'00	retrograde	177 Feb 25 j 23:21	21° Υ 26'23	
minimum elong	176 Mar 26 j 14:34	4° Υ 52'21	1°56'47	evening set	177 Feb 28 j 09:10	21° Υ 04'48	
min. Earth dist.	176 Mar 29 j 11:15	2° Υ 55'27	0.56690 AU	inferior conj	177 Mar 07 j 19:31	16° Υ 32'16	3°06'15
desc. node	176 Apr 02 j 17:35	0° Υ 29'43		minimum elong	177 Mar 07 j 23:22	16° Υ 24'32	3°05'28
morning rise	176 Apr 03 j 19:06	0° Υ 02'52		min. Earth dist.	177 Mar 11 j 05:49	13° Υ 48'33	0.58558 AU
	176 Apr 03 j 22:06	30° \Re		morning rise	177 Mar 15 j 09:41	11° Υ 06'27	
direct	176 Apr 08 j 20:11	29° Υ 03'23		desc. node	177 Mar 20 j 14:36	9° Υ 33'21	
	176 Apr 13 j 18:22	0° Υ		direct	177 Mar 21 j 11:21	9° Υ 31'25	
morning max el	176 Apr 23 j 01:46	6° Υ 22'42	25°29'12	morning max el	177 Apr 04 j 19:43	17° Υ 10'04	26°48'06
	176 May 10 j 07:37	0° \Re			177 Apr 15 j 09:57	0° Υ	
morning set	176 May 20 j 03:21	19° \Re 02'20			177 May 02 j 16:12	0° \Re	
asc. node	176 May 21 j 04:21	21° \Re 14'45		morning set	177 May 04 j 13:43	3° \Re 55'05	
	176 May 25 j 05:25	0° Π		asc. node	177 May 08 j 01:25	11° \Re 21'36	
superior conj	176 May 27 j 04:03	4° Π 15'05	0°59'31	superior conj	177 May 11 j 15:47	19° \Re 13'58	0°37'17
minimum elong	176 May 27 j 01:49	4° Π 02'51	0°59'07	minimum elong	177 May 11 j 14:12	19° \Re 05'20	0°36'58
max. Earth dist.	176 May 28 j 03:23	6° Π 22'28	1.32683 AU	max. Earth dist.	177 May 11 j 15:50	19° \Re 14'17	1.32345 AU
evening rise	176 Jun 03 j 07:26	19° Π 31'08			177 May 16 j 14:18	0° Π	
	176 Jun 08 j 14:11	0° \Im		evening rise	177 May 18 j 14:58	4° Π 18'17	
	176 Jun 27 j 09:53	0° Ω			177 Jun 01 j 09:05	0° \Im	
desc. node	176 Jun 29 j 16:55	2° Ω 49'19		desc. node	177 Jun 16 j 13:56	20° \Im 00'01	
evening max el	176 Jul 05 j 02:25	8° Ω 36'24	27°15'29	evening max el	177 Jun 17 j 04:24	20° \Im 35'00	26°32'58
retrograde	176 Jul 18 j 22:46	15° Ω 53'17		retrograde	177 Jul 01 j 04:09	27° \Im 49'15	
evening set	176 Jul 26 j 02:10	13° Ω 30'33		evening set	177 Jul 07 j 19:57	25° \Im 56'57	
min. Earth dist.	176 Jul 29 j 16:26	10° Ω 41'57	0.61980 AU	min. Earth dist.	177 Jul 11 j 17:36	23° \Im 20'13	0.59953 AU
inferior conj	176 Aug 01 j 17:20	7° Ω 55'04	-4°-12'-5	inferior conj	177 Jul 15 j 01:30	20° \Im 40'41	-4°-40'-46
minimum elong	176 Aug 01 j 21:51	7° Ω 44'39	4°11'14	minimum elong	177 Jul 15 j 03:58	20° \Im 35'44	4°40'36
morning rise	176 Aug 08 j 20:12	2° Ω 53'56		morning rise	177 Jul 22 j 15:17	16° \Im 02'18	
direct	176 Aug 11 j 06:34	2° Ω 28'17		direct	177 Jul 25 j 01:54	15° \Im 40'24	
asc. node	176 Aug 17 j 03:33	5° Ω 01'44		morning max el	177 Aug 01 j 14:06	19° \Im 18'48	18°15'05
morning max el	176 Aug 18 j 03:06	5° Ω 55'42	17°55'25	asc. node	177 Aug 04 j 00:37	21° \Im 59'07	
	176 Sep 02 j 13:36	0° \P			177 Aug 09 j 11:35	0° Ω	
morning set	176 Sep 03 j 02:37	0° \P 58'56		morning set	177 Aug 17 j 12:01	14° Ω 34'03	
					177 Aug 25 j 17:32	0° \P	
superior conj	176 Sep 13 j 21:56	20° \P 11'15	1°13'18	superior conj	177 Aug 26 j 23:24	2° \P 16'12	1°35'08
minimum elong	176 Sep 14 j 02:49	20° \P 32'16	1°12'45	minimum elong	177 Aug 27 j 02:46	2° \P 31'30	1°34'53
	176 Sep 19 j 17:23	0° Δ		max. Earth dist.	177 Sep 03 j 13:36	15° \P 37'45	1.40940 AU
max. Earth dist.	176 Sep 21 j 05:40	2° Δ 29'27	1.42766 AU	evening rise	177 Sep 08 j 11:39	23° \P 49'59	
desc. node	176 Sep 25 j 16:14	9° Δ 39'58			177 Sep 12 j 07:38	0° Δ	
evening rise	176 Sep 28 j 08:15	13° Δ 53'04		desc. node	177 Sep 12 j 13:17	0° Δ 22'21	
	176 Oct 08 j 21:42	0° \mathbb{M}			177 Oct 02 j 20:28	0° \mathbb{M}	
greatest brilliancy	176 Oct 25 j 02:37	22° \mathbb{M} 32'41	-0.4m	greatest brilliancy	177 Oct 06 j 21:30	5° \mathbb{M} 09'08	-0.2m
evening max el	176 Oct 29 j 22:14	28° \mathbb{M} 01'59	21°47'54	evening max el	177 Oct 12 j 13:47	11° \mathbb{M} 32'49	23°06'45
	176 Nov 01 j 00:01	0° \mathbb{A}		retrograde	177 Oct 22 j 18:59	17° \mathbb{M} 36'16	
retrograde	176 Nov 08 j 00:50	3° \mathbb{A} 26'56		evening set	177 Oct 27 j 14:33	15° \mathbb{M} 38'20	
evening set	176 Nov 12 j 07:23	1° \mathbb{A} 46'55		asc. node	177 Oct 30 j 23:49	11° \mathbb{M} 57'43	
asc. node	176 Nov 13 j 02:46	1° \mathbb{A} 05'06		min. Earth dist.	177 Nov 01 j 16:41	9° \mathbb{M} 40'18	0.67683 AU
	176 Nov 14 j 04:18	30° $\mathbb{R}\mathbb{M}$		inferior conj	177 Nov 02 j 00:05	9° \mathbb{M} 14'50	0°41'22
inferior conj	176 Nov 17 j 16:54	25° \mathbb{M} 28'03	1°31'47	minimum elong	177 Nov 01 j 23:08	9° \mathbb{M} 18'07	0°40'57
minimum elong	176 Nov 17 j 14:56	25° \mathbb{M} 34'48	1°31'01	morning rise	177 Nov 07 j 07:45	3° \mathbb{M} 03'02	
min. Earth dist.	176 Nov 17 j 20:04	25° \mathbb{M} 17'04	0.67604 AU	direct	177 Nov 11 j 13:53	1° \mathbb{M} 23'10	
morning rise	176 Nov 22 j 22:16	19° \mathbb{M} 13'20		morning max el	177 Nov 20 j 09:02	6° \mathbb{M} 32'42	21°31'28
direct	176 Nov 27 j 19:06	17° \mathbb{M} 10'42		greatest brilliancy	177 Nov 25 j 10:04	12° \mathbb{M} 18'03	-0.4m
morning max el	176 Dec 07 j 18:29	23° \mathbb{M} 05'51	22°55'48		177 Dec 08 j 05:10	0° \mathbb{A}	
greatest brilliancy	176 Dec 12 j 12:10	28° \mathbb{M} 23'35	-0.3m	desc. node	177 Dec 09 j 12:30	1° \mathbb{A} 55'40	
	176 Dec 13 j 19:33	0° \mathbb{A}		morning set	177 Dec 21 j 20:25	20° \mathbb{A} 49'34	
desc. node	176 Dec 22 j 15:26	11° \mathbb{A} 51'59			177 Dec 27 j 13:13	0° \Re	
	177 Jan 03 j 18:38	0° \Re		max. Earth dist.	177 Dec 28 j 20:02	2° \Re 06'40	1.41940 AU
morning set	177 Jan 11 j 03:42	11° \Re 52'20					
max. Earth dist.	177 Jan 15 j 19:19	19° \Re 43'10	1.39908 AU	superior conj	178 Jan 05 j 07:41	14° \Re 46'31	-2°-1'-58
	177 Jan 21 j 15:24	0° \approx					

minimum elong	178 Jan 05 j 06:48	14°☿42'42	2°01'58	morning max el	178 Nov 03 j 06:45	20°♄09'15	20°17'05
	178 Jan 13 j 20:55	0°♄		greatest brilliancy	178 Nov 09 j 22:55	28°♄11'06	-0.6m
evening rise	178 Jan 16 j 08:38	4°♄32'16			178 Nov 11 j 06:57	0°♄	
asc. node	178 Jan 26 j 23:08	23°♄03'01		desc. node	178 Nov 26 j 09:34	22°♄16'48	
	178 Feb 01 j 04:37	0°♄		morning set	178 Nov 30 j 18:09	28°♄58'55	
evening max el	178 Feb 01 j 20:07	0°♄39'43	18°09'41		178 Dec 01 j 09:55	0°♄	
retrograde	178 Feb 08 j 15:15	4°♄06'48		max. Earth dist.	178 Dec 11 j 04:01	15°♄22'10	1.43597 AU
evening set	178 Feb 11 j 05:33	3°♄37'05					
	178 Feb 16 j 14:58	30°♄		superior conj	178 Dec 17 j 00:41	24°♄53'49	-1°-50'-37
inferior conj	178 Feb 18 j 00:40	28°♄43'07	3°41'03	minimum elong	178 Dec 16 j 18:52	24°♄29'54	1°50'17
minimum elong	178 Feb 18 j 02:28	28°♄38'53	3°40'53		178 Dec 20 j 02:26	0°♄	
min. Earth dist.	178 Feb 21 j 06:36	25°♄43'02	0.60656 AU	evening rise	178 Dec 29 j 18:31	16°♄32'22	
morning rise	178 Feb 24 j 20:23	22°♄56'45			179 Jan 06 j 13:55	0°♄	
direct	178 Mar 03 j 14:15	20°♄45'14		asc. node	179 Jan 13 j 20:09	10°♄59'50	
desc. node	178 Mar 07 j 11:39	21°♄25'56		evening max el	179 Jan 16 j 08:20	13°♄52'02	18°10'17
morning max el	178 Mar 17 j 19:53	28°♄34'41	27°35'53	retrograde	179 Jan 22 j 20:20	17°♄18'07	
	178 Mar 19 j 05:25	0°♄		evening set	179 Jan 25 j 15:00	16°♄39'09	
	178 Apr 09 j 04:19	0°♄		inferior conj	179 Jan 31 j 22:20	11°♄24'28	3°49'37
morning set	178 Apr 18 j 20:43	18°♄35'52		minimum elong	179 Jan 31 j 22:01	11°♄25'20	3°49'37
	178 Apr 24 j 05:30	0°♄		min. Earth dist.	179 Feb 03 j 16:00	8°♄31'56	0.62684 AU
asc. node	178 Apr 24 j 22:27	1°♄32'14		morning rise	179 Feb 07 j 02:57	5°♄25'31	
max. Earth dist.	178 Apr 25 j 04:04	2°♄02'56	1.32373 AU	direct	179 Feb 14 j 02:38	2°♄47'00	
				desc. node	179 Feb 22 j 08:41	5°♄49'57	
superior conj	178 Apr 26 j 03:05	4°♄08'44	0°12'37	morning max el	179 Feb 28 j 01:35	10°♄40'06	27°46'52
minimum elong	178 Apr 26 j 02:30	4°♄05'35	0°12'30		179 Mar 15 j 06:00	0°♄	
behind sun begin	178 Apr 25 j 23:23	3°♄48'30			179 Apr 01 j 10:47	0°♄	
behind sun end	178 Apr 26 j 05:37	4°♄22'41		morning set	179 Apr 02 j 22:16	2°♄57'24	
evening rise	178 May 03 j 01:35	19°♄11'58		max. Earth dist.	179 Apr 08 j 12:12	14°♄34'55	1.32789 AU
	178 May 08 j 09:05	0°♄					
	178 May 28 j 04:27	0°♄		superior conj	179 Apr 10 j 12:17	18°♄53'40	0°-13'-41
evening max el	178 May 29 j 23:16	1°♄47'41	25°21'02	minimum elong	179 Apr 10 j 12:57	18°♄57'11	0°13'34
desc. node	178 Jun 03 j 10:57	5°♄30'47		behind sun begin	179 Apr 10 j 10:13	18°♄42'28	
retrograde	178 Jun 13 j 00:03	8°♄57'20		behind sun end	179 Apr 10 j 15:40	19°♄11'56	
evening set	178 Jun 18 j 14:53	7°♄43'42		asc. node	179 Apr 11 j 19:29	21°♄42'39	
min. Earth dist.	178 Jun 23 j 11:09	5°♄00'09	0.57925 AU		179 Apr 15 j 15:19	0°♄	
inferior conj	178 Jun 26 j 15:09	2°♄48'34	-4°-43'-51	evening rise	179 Apr 17 j 13:23	4°♄05'42	
minimum elong	178 Jun 26 j 13:26	2°♄51'33	4°43'47		179 May 01 j 13:55	0°♄	
	178 Jul 01 j 01:12	30°♄		evening max el	179 May 11 j 13:55	12°♄28'30	23°50'12
morning rise	178 Jul 04 j 15:51	28°♄32'54		desc. node	179 May 21 j 07:55	18°♄45'55	
direct	178 Jul 07 j 04:27	28°♄13'30		retrograde	179 May 25 j 08:06	19°♄22'29	
	178 Jul 12 j 21:21	0°♄		evening set	179 May 29 j 12:27	18°♄43'53	
morning max el	178 Jul 15 j 18:10	2°♄14'59	18°55'12	min. Earth dist.	179 Jun 05 j 00:50	15°♄38'02	0.56222 AU
asc. node	178 Jul 21 j 21:41	9°♄52'46		inferior conj	179 Jun 07 j 08:36	14°♄13'02	-4°-8'-21
morning set	178 Aug 01 j 07:53	28°♄40'01		minimum elong	179 Jun 07 j 02:23	14°♄22'34	4°07'12
	178 Aug 02 j 00:09	0°♄		morning rise	179 Jun 15 j 19:57	10°♄14'28	
				direct	179 Jun 18 j 11:47	9°♄56'21	
superior conj	178 Aug 09 j 20:32	15°♄19'56	1°45'28	morning max el	179 Jun 28 j 12:31	14°♄35'01	19°56'19
minimum elong	178 Aug 09 j 21:46	15°♄25'48	1°45'25	asc. node	179 Jul 08 j 18:44	28°♄29'54	
max. Earth dist.	178 Aug 16 j 16:51	28°♄00'28	1.38922 AU		179 Jul 09 j 15:14	0°♄	
	178 Aug 17 j 19:43	0°♄		morning set	179 Jul 16 j 11:02	13°♄08'47	
evening rise	178 Aug 20 j 15:32	4°♄55'39					
desc. node	178 Aug 30 j 10:19	20°♄56'15		superior conj	179 Jul 24 j 08:02	29°♄07'22	1°46'25
	178 Sep 05 j 10:02	0°♄		minimum elong	179 Jul 24 j 07:26	29°♄04'22	1°46'24
evening max el	178 Sep 25 j 02:07	25°♄06'27	24°26'29		179 Jul 24 j 18:35	0°♄	
	178 Oct 01 j 02:01	0°♄		max. Earth dist.	179 Jul 29 j 20:50	9°♄53'59	1.36976 AU
retrograde	178 Oct 06 j 09:32	1°♄43'40		evening rise	179 Aug 02 j 18:46	17°♄08'43	
	178 Oct 11 j 03:22	30°♄			179 Aug 10 j 04:53	0°♄	
evening set	178 Oct 11 j 19:22	29°♄28'03		desc. node	179 Aug 17 j 07:19	11°♄16'50	
min. Earth dist.	178 Oct 16 j 12:30	24°♄03'38	0.67436 AU		179 Aug 30 j 18:45	0°♄	
inferior conj	178 Oct 17 j 06:18	23°♄03'59	0°-12'-34	evening max el	179 Sep 07 j 13:41	8°♄43'28	25°39'48
minimum elong	178 Oct 17 j 06:36	23°♄02'58	0°12'28	retrograde	179 Sep 19 j 19:31	15°♄44'33	
transit middle	178 Oct 17 j 06:36	23°♄02'58	0°12'28	evening set	179 Sep 25 j 20:00	13°♄13'26	
transit begin	178 Oct 17 j 04:50	23°♄08'52		min. Earth dist.	179 Sep 30 j 05:04	8°♄24'51	0.66867 AU
transit end	178 Oct 17 j 08:22	22°♄57'03		inferior conj	179 Oct 01 j 09:44	6°♄53'09	-1°-8'-35
asc. node	178 Oct 17 j 20:51	22°♄15'20		minimum elong	179 Oct 01 j 11:28	6°♄47'35	1°07'51
morning rise	178 Oct 22 j 18:11	16°♄57'42		asc. node	179 Oct 04 j 17:55	2°♄55'30	
direct	178 Oct 26 j 11:11	15°♄38'51		morning rise	179 Oct 07 j 03:39	0°♄55'16	

	179 Oct 09 j 09:35	30° \mathbb{R} \mathbb{M}		morning rise	180 Sep 20 j 10:06	14° \mathbb{M} 53'19	
direct	179 Oct 10 j 09:38	29° \mathbb{M} 54'16		asc. node	180 Sep 20 j 14:59	14° \mathbb{M} 47'00	
	179 Oct 11 j 10:02	0° $\underline{\mathbb{A}}$		direct	180 Sep 23 j 07:24	14° \mathbb{M} 06'32	
morning max el	179 Oct 17 j 11:56	3° $\underline{\mathbb{A}}$ 54'43	19°16'25	morning max el	180 Sep 29 j 23:12	17° \mathbb{M} 46'32	18°31'30
greatest brilliancy	179 Oct 27 j 18:50	17° $\underline{\mathbb{A}}$ 24'49	-0.7m		180 Oct 09 j 02:39	0° $\underline{\mathbb{A}}$	
	179 Nov 05 j 00:45	0° \mathbb{M}		morning set	180 Oct 19 j 23:35	17° $\underline{\mathbb{A}}$ 17'58	
morning set	179 Nov 09 j 20:35	7° \mathbb{M} 30'06			180 Oct 27 j 22:21	0° \mathbb{M}	
desc. node	179 Nov 13 j 06:36	12° \mathbb{M} 49'49		desc. node	180 Oct 30 j 03:37	3° \mathbb{M} 31'03	
max. Earth dist.	179 Nov 23 j 18:33	29° \mathbb{M} 17'37	1.44676 AU				
	179 Nov 24 j 05:17	0° \mathbb{A}		superior conj	180 Nov 04 j 16:39	12° \mathbb{M} 15'28	0°-35'-55
				minimum elong	180 Nov 04 j 11:57	11° \mathbb{M} 56'59	0°35'19
superior conj	179 Nov 26 j 15:49	3° \mathbb{A} 51'48	-1°-20'-52	max. Earth dist.	180 Nov 05 j 13:07	13° \mathbb{M} 35'55	1.45050 AU
minimum elong	179 Nov 26 j 07:27	3° \mathbb{A} 18'37	1°20'00		180 Nov 15 j 23:26	0° \mathbb{A}	
evening rise	179 Dec 11 j 07:18	27° \mathbb{A} 36'20		evening rise	180 Nov 20 j 20:24	7° \mathbb{A} 42'03	
	179 Dec 12 j 18:01	0° \mathbb{B}			180 Dec 05 j 02:40	0° \mathbb{B}	
evening max el	179 Dec 30 j 20:37	27° \mathbb{B} 13'55	18°29'35	evening max el	180 Dec 13 j 06:31	10° \mathbb{B} 40'37	19°06'26
asc. node	179 Dec 31 j 17:11	28° \mathbb{B} 03'42		asc. node	180 Dec 17 j 14:13	14° \mathbb{B} 00'40	
	180 Jan 03 j 08:28	0° \approx		retrograde	180 Dec 20 j 05:21	14° \mathbb{B} 38'35	
retrograde	180 Jan 06 j 10:11	0° \approx 50'47		evening set	180 Dec 23 j 11:17	13° \mathbb{B} 37'19	
evening set	180 Jan 09 j 09:53	0° \approx 01'22		inferior conj	180 Dec 29 j 03:45	7° \mathbb{B} 46'40	3°14'58
	180 Jan 09 j 10:53	30° \mathbb{R} \mathbb{B}		minimum elong	180 Dec 29 j 01:07	7° \mathbb{B} 54'59	3°14'24
inferior conj	180 Jan 15 j 08:31	24° \mathbb{B} 27'34	3°39'09	min. Earth dist.	180 Dec 30 j 14:58	5° \mathbb{B} 55'27	0.65812 AU
minimum elong	180 Jan 15 j 06:40	24° \mathbb{B} 32'59	3°38'56	morning rise	181 Jan 03 j 14:05	1° \mathbb{B} 34'53	
min. Earth dist.	180 Jan 17 j 10:53	22° \mathbb{B} 00'40	0.64436 AU		181 Jan 05 j 17:39	30° \mathbb{R} \mathbb{A}	
morning rise	180 Jan 21 j 02:06	18° \mathbb{B} 20'48		direct	181 Jan 10 j 00:30	28° \mathbb{A} 46'42	
direct	180 Jan 27 j 22:26	15° \mathbb{B} 30'16			181 Jan 14 j 16:56	0° \mathbb{B}	
desc. node	180 Feb 09 j 05:44	22° \mathbb{B} 08'38		morning max el	181 Jan 22 j 20:05	6° \mathbb{B} 19'06	26°27'55
morning max el	180 Feb 10 j 10:27	23° \mathbb{B} 18'29	27°22'14	desc. node	181 Jan 26 j 02:48	9° \mathbb{B} 50'01	
	180 Feb 16 j 10:03	0° \approx			181 Feb 10 j 03:34	0° \approx	
	180 Mar 07 j 12:46	0° \mathbb{H}		morning set	181 Feb 27 j 20:59	0° \mathbb{H} 02'17	
morning set	180 Mar 16 j 15:34	16° \mathbb{H} 49'49			181 Feb 27 j 20:30	0° \mathbb{H}	
max. Earth dist.	180 Mar 21 j 12:18	26° \mathbb{H} 37'35	1.33627 AU	max. Earth dist.	181 Mar 04 j 01:29	8° \mathbb{H} 06'45	1.34915 AU
	180 Mar 23 j 03:12	0° \mathbb{Y}					
				superior conj	181 Mar 08 j 16:27	17° \mathbb{H} 26'05	-1°-7'-5
superior conj	180 Mar 24 j 17:30	3° \mathbb{Y} 21'43	0°-40'-41	minimum elong	181 Mar 08 j 19:37	17° \mathbb{H} 42'20	1°06'34
minimum elong	180 Mar 24 j 19:28	3° \mathbb{Y} 32'08	0°40'18		181 Mar 14 j 17:27	0° \mathbb{Y}	
asc. node	180 Mar 28 j 16:30	11° \mathbb{Y} 48'03		asc. node	181 Mar 15 j 13:32	1° \mathbb{Y} 44'23	
evening rise	180 Apr 01 j 00:32	18° \mathbb{Y} 52'20		evening rise	181 Mar 16 j 09:10	3° \mathbb{Y} 25'56	
	180 Apr 06 j 13:03	0° \mathbb{B}			181 Mar 31 j 16:25	0° \mathbb{B}	
evening max el	180 Apr 22 j 06:35	23° \mathbb{B} 04'05	22°15'02	evening max el	181 Apr 04 j 07:40	4° \mathbb{B} 02'07	20°48'37
retrograde	180 May 05 j 03:20	29° \mathbb{B} 23'31		retrograde	181 Apr 15 j 16:19	9° \mathbb{B} 31'45	
desc. node	180 May 07 j 04:55	29° \mathbb{B} 14'01		evening set	181 Apr 17 j 21:20	9° \mathbb{B} 20'06	
evening set	180 May 08 j 00:34	29° \mathbb{B} 05'10		desc. node	181 Apr 24 j 01:58	7° \mathbb{B} 03'28	
min. Earth dist.	180 May 16 j 13:20	25° \mathbb{B} 25'14	0.55182 AU	inferior conj	181 Apr 27 j 03:10	5° \mathbb{B} 22'26	0°-52'-34
inferior conj	180 May 17 j 09:04	24° \mathbb{B} 57'26	-2°-47'-1	minimum elong	181 Apr 27 j 00:41	5° \mathbb{B} 26'00	0°51'40
minimum elong	180 May 17 j 02:08	25° \mathbb{B} 07'13	2°44'56	min. Earth dist.	181 Apr 28 j 02:15	4° \mathbb{B} 49'32	0.55046 AU
morning rise	180 May 26 j 05:32	21° \mathbb{B} 03'39		morning rise	181 May 06 j 03:02	1° \mathbb{B} 15'02	
direct	180 May 29 j 03:23	20° \mathbb{B} 44'31		direct	181 May 09 j 13:48	0° \mathbb{B} 49'24	
morning max el	180 Jun 09 j 19:36	26° \mathbb{B} 11'55	21°17'25	morning max el	181 May 22 j 16:37	7° \mathbb{B} 08'26	22°53'36
	180 Jun 13 j 09:31	0° \mathbb{I}			181 Jun 07 j 19:24	0° \mathbb{I}	
asc. node	180 Jun 24 j 15:47	17° \mathbb{I} 39'47		asc. node	181 Jun 11 j 12:49	7° \mathbb{I} 13'45	
morning set	180 Jun 29 j 19:04	27° \mathbb{I} 53'47		morning set	181 Jun 14 j 05:57	12° \mathbb{I} 48'34	
	180 Jun 30 j 19:25	0° \mathbb{S}					
				superior conj	181 Jun 21 j 10:10	28° \mathbb{I} 06'20	1°27'45
superior conj	180 Jul 07 j 05:40	13° \mathbb{S} 26'14	1°39'59	minimum elong	181 Jun 21 j 07:46	27° \mathbb{I} 53'31	1°27'28
minimum elong	180 Jul 07 j 03:50	13° \mathbb{S} 16'49	1°39'51		181 Jun 22 j 07:34	0° \mathbb{S}	
max. Earth dist.	180 Jul 11 j 07:45	21° \mathbb{S} 45'51	1.35291 AU	max. Earth dist.	181 Jun 24 j 04:06	3° \mathbb{S} 54'17	1.33969 AU
evening rise	180 Jul 15 j 16:46	0° \mathbb{Q} 17'18		evening rise	181 Jun 29 j 04:42	14° \mathbb{S} 07'33	
	180 Jul 15 j 13:07	0° \mathbb{Q}			181 Jul 07 j 17:43	0° \mathbb{Q}	
	180 Aug 02 j 07:09	0° \mathbb{M}		desc. node	181 Jul 21 j 01:19	20° \mathbb{Q} 50'56	
desc. node	180 Aug 03 j 04:18	1° \mathbb{M} 18'02			181 Jul 28 j 04:39	0° \mathbb{M}	
evening max el	180 Aug 20 j 01:40	22° \mathbb{M} 19'26	26°38'47	evening max el	181 Aug 02 j 13:28	5° \mathbb{M} 43'38	27°15'54
retrograde	180 Sep 02 j 00:18	29° \mathbb{M} 33'34		retrograde	181 Aug 15 j 23:30	13° \mathbb{M} 02'40	
evening set	180 Sep 08 j 14:28	26° \mathbb{M} 51'47		evening set	181 Aug 23 j 00:08	10° \mathbb{M} 18'24	
min. Earth dist.	180 Sep 12 j 15:57	22° \mathbb{M} 40'44	0.65958 AU	min. Earth dist.	181 Aug 26 j 18:46	6° \mathbb{M} 44'26	0.64688 AU
inferior conj	180 Sep 14 j 08:31	20° \mathbb{M} 39'31	-2°-4'-53	inferior conj	181 Aug 29 j 00:20	4° \mathbb{M} 17'56	-2°-59'-13
minimum elong	180 Sep 14 j 11:41	20° \mathbb{M} 30'00	2°03'39	minimum elong	181 Aug 29 j 04:42	4° \mathbb{M} 05'57	2°57'47

	181 Sep 02 j 10:52	30° Ω		inferior conj	182 Aug 12 j 06:29	17° Ω 42'37	-3°-48'-13
morning rise	181 Sep 04 j 11:00	28° Ω 46'51		minimum elong	182 Aug 12 j 11:20	17° Ω 30'42	3°47'03
direct	181 Sep 07 j 02:01	28° Ω 10'44		morning rise	182 Aug 19 j 03:18	12° Ω 29'54	
asc. node	181 Sep 07 j 12:03	28° Ω 11'40		direct	182 Aug 21 j 14:32	12° Ω 01'19	
	181 Sep 11 j 17:17	0° \mathbb{M}		asc. node	182 Aug 25 j 09:06	13° Ω 09'22	
morning max el	181 Sep 13 j 14:09	1° \mathbb{M} 39'11	18°03'24	morning max el	182 Aug 28 j 05:58	15° Ω 26'42	17°52'59
morning set	181 Oct 01 j 07:07	28° \mathbb{M} 29'14			182 Sep 07 j 09:54	0° \mathbb{M}	
	181 Oct 02 j 04:44	0° $\underline{\Omega}$		morning set	182 Sep 13 j 14:39	10° \mathbb{M} 49'30	
					182 Sep 24 j 16:47	0° $\underline{\Omega}$	
superior conj	181 Oct 15 j 00:53	21° $\underline{\Omega}$ 05'42	0°13'09				
minimum elong	181 Oct 15 j 02:27	21° $\underline{\Omega}$ 12'01	0°12'56	superior conj	182 Sep 25 j 09:09	1° $\underline{\Omega}$ 08'39	0°54'51
behind sun begin	181 Oct 14 j 20:01	20° $\underline{\Omega}$ 46'09		minimum elong	182 Sep 25 j 13:56	1° $\underline{\Omega}$ 28'36	0°54'16
behind sun end	181 Oct 15 j 08:54	21° $\underline{\Omega}$ 37'51		max. Earth dist.	182 Oct 01 j 23:39	11° $\underline{\Omega}$ 59'06	1.43628 AU
desc. node	181 Oct 17 j 00:39	24° $\underline{\Omega}$ 16'37		desc. node	182 Oct 03 j 21:41	15° $\underline{\Omega}$ 03'41	
max. Earth dist.	181 Oct 19 j 07:57	27° $\underline{\Omega}$ 56'13	1.44681 AU	evening rise	182 Oct 10 j 19:28	25° $\underline{\Omega}$ 54'52	
	181 Oct 20 j 15:18	0° \mathbb{M}			182 Oct 13 j 11:09	0° \mathbb{M}	
evening rise	181 Oct 31 j 12:29	16° \mathbb{M} 57'53			182 Nov 03 j 02:19	0° \mathbb{M}	
	181 Nov 09 j 00:23	0° \mathbb{M}		greatest brilliancy	182 Nov 04 j 03:18	1° \mathbb{M} 21'02	-0.5m
greatest brilliancy	181 Nov 19 j 09:31	15° \mathbb{M} 18'24	-0.6m	evening max el	182 Nov 09 j 11:50	7° \mathbb{M} 36'41	21°05'19
evening max el	181 Nov 26 j 11:59	24° \mathbb{M} 08'27	19°59'12	retrograde	182 Nov 18 j 00:24	12° \mathbb{M} 40'16	
retrograde	181 Dec 04 j 02:51	28° \mathbb{M} 36'08		asc. node	182 Nov 21 j 08:21	11° \mathbb{M} 37'41	
asc. node	181 Dec 04 j 11:17	28° \mathbb{M} 35'26		evening set	182 Nov 22 j 00:11	11° \mathbb{M} 10'04	
evening set	181 Dec 07 j 16:44	27° \mathbb{M} 21'19		inferior conj	182 Nov 27 j 10:18	4° \mathbb{M} 55'18	1°58'42
inferior conj	181 Dec 13 j 05:08	21° \mathbb{M} 16'53	2°40'40	minimum elong	182 Nov 27 j 07:56	5° \mathbb{M} 03'27	1°57'50
minimum elong	181 Dec 13 j 02:22	21° \mathbb{M} 26'06	2°39'50	min. Earth dist.	182 Nov 27 j 19:52	4° \mathbb{M} 22'25	0.67403 AU
min. Earth dist.	181 Dec 14 j 02:43	20° \mathbb{M} 04'53	0.66791 AU		182 Dec 01 j 06:41	30° \mathbb{M}	
morning rise	181 Dec 18 j 11:25	15° \mathbb{M} 02'06		morning rise	182 Dec 02 j 15:17	28° \mathbb{M} 39'43	
direct	181 Dec 24 j 08:07	12° \mathbb{M} 27'03		direct	182 Dec 07 j 20:51	26° \mathbb{M} 24'14	
morning max el	181 Jan 05 j 04:59	19° \mathbb{M} 30'49	25°12'40		182 Dec 15 j 13:20	0° \mathbb{M}	
desc. node	182 Jan 12 j 23:51	28° \mathbb{M} 29'37		morning max el	182 Dec 18 j 13:37	2° \mathbb{M} 47'04	23°46'23
	182 Jan 14 j 03:57	0° \mathbb{M}		desc. node	182 Dec 30 j 20:54	17° \mathbb{M} 50'33	
	182 Feb 03 j 06:24	0° \mathbb{M}			183 Jan 08 j 07:30	0° \mathbb{M}	
morning set	182 Feb 10 j 09:38	12° \mathbb{M} 20'42		morning set	183 Jan 22 j 23:17	23° \mathbb{M} 27'42	
max. Earth dist.	182 Feb 14 j 03:29	19° \mathbb{M} 12'16	1.36630 AU		183 Jan 26 j 17:43	0° \mathbb{M}	
	182 Feb 19 j 18:24	0° \mathbb{M}		max. Earth dist.	183 Jan 26 j 22:36	0° \mathbb{M} 21'32	1.38668 AU
superior conj	182 Feb 20 j 06:17	0° \mathbb{M} 58'37	-1°-31'-9	superior conj	183 Feb 03 j 07:12	13° \mathbb{M} 48'42	-1°-50'-21
minimum elong	182 Feb 20 j 10:10	1° \mathbb{M} 17'47	1°30'39	minimum elong	183 Feb 03 j 10:44	14° \mathbb{M} 05'21	1°50'05
evening rise	182 Feb 28 j 13:08	17° \mathbb{M} 39'46			183 Feb 11 j 16:13	0° \mathbb{M}	
asc. node	182 Mar 02 j 10:35	21° \mathbb{M} 27'01		evening rise	183 Feb 12 j 09:48	1° \mathbb{M} 25'51	
	182 Mar 06 j 21:59	0° \mathbb{M}		asc. node	183 Feb 17 j 07:39	10° \mathbb{M} 49'43	
evening max el	182 Mar 17 j 20:05	15° \mathbb{M} 37'48	19°38'50	evening max el	183 Feb 28 j 18:54	27° \mathbb{M} 50'19	18°48'31
retrograde	182 Mar 27 j 11:43	20° \mathbb{M} 15'59			183 Mar 03 j 10:45	0° \mathbb{M}	
evening set	182 Mar 29 j 14:25	20° \mathbb{M} 03'38		retrograde	183 Mar 08 j 23:00	1° \mathbb{M} 47'57	
inferior conj	182 Apr 07 j 05:38	15° \mathbb{M} 59'54	1°02'46	evening set	183 Mar 11 j 05:51	1° \mathbb{M} 30'35	
minimum elong	182 Apr 07 j 08:13	15° \mathbb{M} 55'48	1°01'53		183 Mar 14 j 20:56	30° \mathbb{M}	
min. Earth dist.	182 Apr 09 j 16:39	14° \mathbb{M} 26'58	0.55851 AU	inferior conj	183 Mar 19 j 02:28	27° \mathbb{M} 10'23	2°31'19
desc. node	182 Apr 10 j 23:01	13° \mathbb{M} 41'27		minimum elong	183 Mar 19 j 06:48	27° \mathbb{M} 02'26	2°30'11
morning rise	182 Apr 15 j 22:32	11° \mathbb{M} 22'27		min. Earth dist.	183 Mar 22 j 09:25	24° \mathbb{M} 46'46	0.57425 AU
direct	182 Apr 20 j 07:46	10° \mathbb{M} 39'26		morning rise	183 Mar 27 j 03:30	22° \mathbb{M} 00'08	
morning max el	182 May 04 j 08:06	17° \mathbb{M} 41'41	24°34'36	desc. node	183 Mar 28 j 20:03	21° \mathbb{M} 22'02	
	182 May 14 j 10:17	0° \mathbb{M}		direct	183 Apr 01 j 15:38	20° \mathbb{M} 46'13	
asc. node	182 May 29 j 09:52	27° \mathbb{M} 05'14		morning max el	183 Apr 15 j 23:38	28° \mathbb{M} 16'11	26°05'51
morning set	182 May 29 j 17:58	27° \mathbb{M} 47'44			183 Apr 17 j 16:41	0° \mathbb{M}	
	182 May 30 j 18:57	0° \mathbb{M}			183 May 07 j 20:40	0° \mathbb{M}	
				morning set	183 May 14 j 05:22	12° \mathbb{M} 44'20	
superior conj	182 Jun 05 j 19:06	12° \mathbb{M} 59'53	1°10'56	asc. node	183 May 16 j 06:55	17° \mathbb{M} 07'48	
minimum elong	182 Jun 05 j 16:40	12° \mathbb{M} 46'39	1°10'33				
max. Earth dist.	182 Jun 07 j 09:00	16° \mathbb{M} 24'55	1.33040 AU	superior conj	183 May 21 j 06:18	27° \mathbb{M} 58'41	0°50'27
evening rise	182 Jun 13 j 02:41	28° \mathbb{M} 28'08		minimum elong	183 May 21 j 04:18	27° \mathbb{M} 47'43	0°50'04
	182 Jun 13 j 20:50	0° \mathbb{M}		max. Earth dist.	183 May 21 j 19:31	29° \mathbb{M} 11'04	1.32493 AU
	182 Jun 30 j 22:14	0° \mathbb{M}			183 May 22 j 04:27	0° \mathbb{M}	
desc. node	182 Jul 07 j 22:20	9° \mathbb{M} 43'29		evening rise	183 May 28 j 07:26	13° \mathbb{M} 08'00	
evening max el	182 Jul 15 j 23:17	18° \mathbb{M} 43'59	27°24'46		183 Jun 05 j 23:33	0° \mathbb{M}	
retrograde	182 Jul 29 j 16:48	26° \mathbb{M} 03'03		desc. node	183 Jun 24 j 19:22	27° \mathbb{M} 37'57	
evening set	182 Aug 05 j 21:44	23° \mathbb{M} 28'10			183 Jun 27 j 01:05	0° \mathbb{M}	
min. Earth dist.	182 Aug 09 j 11:56	20° \mathbb{M} 26'06	0.63060 AU	evening max el	183 Jun 28 j 04:46	1° \mathbb{M} 07'43	27°01'18

retrograde	183 Jul 12 j 03:09	8°♂24'17		desc. node	184 Jun 10 j 16:22	14°♂10'19	
evening set	183 Jul 19 j 03:00	6°♂12'58		retrograde	184 Jun 23 j 04:46	19°♂59'28	
min. Earth dist.	183 Jul 22 j 18:54	3°♂31'23	0.61135 AU	evening set	184 Jun 29 j 11:18	18°♂23'35	
inferior conj	183 Jul 25 j 23:41	0°♂45'03	-4°-26'-39	min. Earth dist.	184 Jul 03 j 16:39	15°♂45'51	0.59077 AU
minimum elong	183 Jul 26 j 03:37	0°♂36'31	4°26'06	inferior conj	184 Jul 07 j 00:22	13°♂15'55	-4°-46'00
	183 Jul 26 j 20:34	30°♂♂		minimum elong	184 Jul 07 j 01:17	13°♂14'12	4°45'59
morning rise	183 Aug 02 j 07:14	25°♂53'28		morning rise	184 Jul 14 j 18:46	8°♂47'03	
direct	183 Aug 04 j 17:15	25°♂29'47		direct	184 Jul 17 j 06:02	8°♂26'20	
morning max el	183 Aug 11 j 19:35	29°♂00'52	18°01'17	morning max el	184 Jul 25 j 03:54	12°♂13'17	18°29'29
asc. node	183 Aug 12 j 06:09	29°♂27'12		asc. node	184 Jul 29 j 03:11	16°♂50'04	
	183 Aug 12 j 18:35	0°♂			184 Aug 06 j 03:05	0°♂	
morning set	183 Aug 27 j 16:07	24°♂01'19		morning set	184 Aug 10 j 06:25	7°♂50'46	
	183 Aug 30 j 21:53	0°♂					
superior conj	183 Sep 06 j 20:38	12°♂31'51	1°24'06	superior conj	184 Aug 19 j 07:06	25°♂03'16	1°40'49
minimum elong	183 Sep 07 j 01:03	12°♂51'18	1°23'40	minimum elong	184 Aug 19 j 09:33	25°♂14'42	1°40'39
max. Earth dist.	183 Sep 14 j 10:11	25°♂29'01	1.42028 AU		184 Aug 21 j 23:44	0°♂	
	183 Sep 17 j 04:01	0°♂		max. Earth dist.	184 Aug 26 j 15:48	8°♂17'35	1.40094 AU
evening rise	183 Sep 20 j 11:18	5°♂19'20		evening rise	184 Aug 31 j 00:51	15°♂44'45	
desc. node	183 Sep 20 j 18:43	5°♂48'53		desc. node	184 Sep 06 j 15:44	26°♂28'08	
	183 Oct 06 j 18:44	0°♂			184 Sep 08 j 22:08	0°♂	
greatest brilliancy	183 Oct 18 j 12:28	15°♂47'02	-0.3m		184 Sep 30 j 13:47	0°♂	
evening max el	183 Oct 23 j 06:08	21°♂06'36	22°21'01	evening max el	184 Oct 04 j 20:11	4°♂39'02	23°41'06
retrograde	183 Nov 01 j 20:08	26°♂48'29		retrograde	184 Oct 15 j 12:43	10°♂57'11	
evening set	183 Nov 06 j 07:54	25°♂01'12		evening set	184 Oct 20 j 14:13	8°♂51'48	
asc. node	183 Nov 08 j 05:23	23°♂11'03		asc. node	184 Oct 25 j 02:25	3°♂42'01	
inferior conj	183 Nov 11 j 17:16	18°♂39'54	1°10'55	min. Earth dist.	184 Oct 25 j 12:29	3°♂07'51	0.67619 AU
minimum elong	183 Nov 11 j 15:42	18°♂45'21	1°10'17	inferior conj	184 Oct 26 j 00:13	2°♂27'49	0°18'48
min. Earth dist.	183 Nov 11 j 15:58	18°♂44'26	0.67673 AU	minimum elong	184 Oct 25 j 23:46	2°♂29'21	0°18'37
morning rise	183 Nov 16 j 23:20	12°♂25'52			184 Oct 27 j 20:35	30°♂♂	
direct	183 Nov 21 j 13:47	10°♂32'49		morning rise	184 Oct 31 j 09:27	26°♂18'02	
morning max el	183 Dec 01 j 00:48	16°♂08'29	22°18'59	direct	184 Nov 04 j 09:53	24°♂47'12	
greatest brilliancy	183 Dec 05 j 16:03	21°♂20'48	-0.3m	morning max el	184 Nov 12 j 18:03	29°♂38'38	20°58'18
	183 Dec 12 j 07:21	0°♂			184 Nov 13 j 02:24	0°♂	
desc. node	183 Dec 17 j 17:57	7°♂41'23		greatest brilliancy	184 Nov 18 j 08:40	6°♂10'23	-0.5m
	184 Jan 01 j 09:04	0°♂		desc. node	184 Dec 03 j 14:59	27°♂53'10	
morning set	184 Jan 03 j 08:26	3°♂10'48			184 Dec 05 j 00:38	0°♂	
max. Earth dist.	184 Jan 08 j 19:11	12°♂11'23	1.40796 AU	morning set	184 Dec 12 j 14:43	11°♂39'53	
				max. Earth dist.	184 Dec 20 j 23:10	24°♂58'53	1.42710 AU
					184 Dec 24 j 00:30	0°♂	
superior conj	184 Jan 16 j 14:30	25°♂45'09	-2°-1'-13	superior conj	184 Dec 27 j 22:40	6°♂34'34	-1°-59'-18
minimum elong	184 Jan 16 j 15:53	25°♂51'17	2°01'12	minimum elong	184 Dec 27 j 19:44	6°♂22'08	1°59'13
	184 Jan 18 j 23:00	0°♂		evening rise	185 Jan 08 j 15:57	27°♂05'01	
evening rise	184 Jan 26 j 20:01	14°♂37'02			185 Jan 10 j 07:04	0°♂	
asc. node	184 Feb 04 j 04:42	29°♂45'56		asc. node	185 Jan 21 j 01:43	18°♂07'00	
	184 Feb 04 j 08:03	0°♂		evening max el	185 Jan 25 j 12:16	23°♂35'54	18°07'36
evening max el	184 Feb 12 j 01:20	10°♂32'44	18°18'12	retrograde	185 Feb 01 j 02:59	27°♂00'42	
retrograde	184 Feb 19 j 04:59	14°♂06'06		evening set	185 Feb 03 j 19:15	26°♂27'00	
evening set	184 Feb 21 j 16:51	13°♂41'10		inferior conj	185 Feb 10 j 08:55	21°♂23'52	3°47'24
inferior conj	184 Feb 28 j 20:19	8°♂59'50	3°24'40	minimum elong	185 Feb 10 j 09:46	21°♂21'45	3°47'22
minimum elong	184 Feb 28 j 23:24	8°♂53'14	3°24'11	min. Earth dist.	185 Feb 13 j 10:12	18°♂24'38	0.61547 AU
min. Earth dist.	184 Mar 03 j 06:19	6°♂05'55	0.59442 AU	morning rise	185 Feb 16 j 21:45	15°♂31'41	
morning rise	184 Mar 07 j 02:24	3°♂24'24		direct	185 Feb 23 j 19:27	13°♂07'15	
direct	184 Mar 13 j 12:27	1°♂32'56		desc. node	185 Mar 01 j 14:08	14°♂37'11	
desc. node	184 Mar 14 j 17:06	1°♂36'42		morning max el	185 Mar 09 j 22:23	20°♂58'09	27°45'11
morning max el	184 Mar 27 j 19:50	9°♂17'04	27°12'38		185 Mar 17 j 18:29	0°♂	
	184 Apr 12 j 16:20	0°♂			185 Apr 05 j 15:23	0°♂	
morning set	184 Apr 27 j 14:31	27°♂32'29		morning set	185 Apr 11 j 19:28	12°♂05'35	
	184 Apr 28 j 18:38	0°♂		max. Earth dist.	185 Apr 17 j 19:16	24°♂45'53	1.32503 AU
asc. node	184 May 02 j 03:58	7°♂16'44					
superior conj	184 May 04 j 18:03	12°♂56'32	0°27'06	superior conj	185 Apr 19 j 04:39	27°♂47'30	0°01'37
minimum elong	184 May 04 j 16:52	12°♂50'02	0°26'50	minimum elong	185 Apr 19 j 04:35	27°♂47'05	0°01'36
max. Earth dist.	184 May 04 j 08:12	12°♂02'30	1.32314 AU	behind sun begin	185 Apr 18 j 23:30	27°♂19'24	
evening rise	184 May 11 j 16:31	27°♂58'50		behind sun end	185 Apr 19 j 09:39	28°♂14'46	
	184 May 12 j 15:40	0°♂		asc. node	185 Apr 19 j 01:01	27°♂27'38	
	184 May 29 j 13:39	0°♂			185 Apr 20 j 04:56	0°♂	
evening max el	184 Jun 09 j 03:53	12°♂47'04	26°05'30	evening rise	185 Apr 26 j 03:51	12°♂53'20	

	185 May 04 j 20:14	0°♂		asc. node	186 Apr 05 j 22:03	17°♄36'10	
evening max el	185 May 21 j 20:34	23°♂44'17	24°43'56	evening rise	186 Apr 10 j 15:36	27°♄44'35	
desc. node	185 May 28 j 13:21	28°♂48'32			186 Apr 11 j 17:27	0°♂	
	185 May 31 j 05:31	0°♂			186 Apr 29 j 12:06	0°♂	
retrograde	185 Jun 04 j 19:28	0°♂48'24		evening max el	186 May 03 j 10:57	4°♂18'00	23°09'21
	185 Jun 09 j 10:14	30°♂♂		desc. node	186 May 15 j 10:23	10°♂55'24	
evening set	185 Jun 09 j 20:27	29°♂50'53		retrograde	186 May 16 j 21:55	11°♂00'23	
min. Earth dist.	185 Jun 15 j 07:56	26°♂59'41	0.57144 AU	evening set	186 May 20 j 11:59	10°♂32'10	
inferior conj	185 Jun 18 j 05:29	25°♂06'15	-4°-34'-14	min. Earth dist.	186 May 27 j 20:33	7°♂13'30	0.55674 AU
minimum elong	185 Jun 18 j 01:41	25°♂12'29	4°33'50	inferior conj	186 May 29 j 14:51	6°♂11'44	-3°-39'-17
morning rise	185 Jun 26 j 10:44	20°♂58'48		minimum elong	186 May 29 j 07:38	6°♂22'18	3°37'34
direct	185 Jun 29 j 00:47	20°♂39'57		morning rise	186 Jun 07 j 06:29	2°♂17'41	
morning max el	185 Jul 08 j 04:04	24°♂55'13	19°18'37	direct	186 Jun 10 j 00:21	1°♂59'37	
	185 Jul 12 j 14:29	0°♂		morning max el	186 Jun 20 j 17:45	6°♂57'26	20°28'41
asc. node	185 Jul 16 j 00:14	5°♂03'57		asc. node	186 Jul 02 j 21:17	23°♂55'59	
morning set	185 Jul 25 j 05:47	22°♂08'17			186 Jul 06 j 02:29	0°♂	
	185 Jul 29 j 04:11	0°♂		morning set	186 Jul 09 j 11:19	6°♂44'55	
superior conj	185 Aug 02 j 11:00	8°♂28'00	1°46'53	superior conj	186 Jul 17 j 03:19	22°♂30'36	1°44'29
minimum elong	185 Aug 02 j 11:23	8°♂29'54	1°46'52	minimum elong	186 Jul 17 j 02:07	22°♂24'32	1°44'26
max. Earth dist.	185 Aug 08 j 19:15	20°♂28'16	1.38077 AU		186 Jul 20 j 21:17	0°♂	
evening rise	185 Aug 12 j 15:11	27°♂20'48		max. Earth dist.	186 Jul 22 j 01:34	2°♂17'53	1.36214 AU
	185 Aug 14 j 03:43	0°♂		evening rise	186 Jul 26 j 03:00	9°♂59'01	
desc. node	185 Aug 24 j 12:44	16°♂57'30			186 Aug 06 j 18:24	0°♂	
	185 Sep 02 j 09:37	0°♂		desc. node	186 Aug 11 j 09:44	7°♂10'56	
evening max el	185 Sep 17 j 08:02	18°♂14'57	24°58'51		186 Aug 28 j 23:18	0°♂	
retrograde	185 Sep 29 j 01:15	25°♂02'59		evening max el	186 Aug 30 j 19:32	1°♂51'46	26°06'56
evening set	185 Oct 04 j 17:30	22°♂40'14		retrograde	186 Sep 12 j 09:11	9°♂00'03	
min. Earth dist.	185 Oct 09 j 07:07	17°♂31'04	0.67243 AU	evening set	186 Sep 18 j 15:49	6°♂23'16	
inferior conj	185 Oct 10 j 05:28	16°♂17'28	0°-36'-10	min. Earth dist.	186 Sep 22 j 21:28	1°♂50'46	0.66529 AU
minimum elong	185 Oct 10 j 06:22	16°♂14'30	0°35'48	inferior conj	186 Sep 24 j 07:11	0°♂05'48	-1°-32'-31
asc. node	185 Oct 11 j 23:26	14°♂02'32		minimum elong	186 Sep 24 j 09:33	29°♂58'26	1°31'35
morning rise	185 Oct 15 j 19:45	10°♂14'37			186 Sep 24 j 09:03	30°♂♂	
direct	185 Oct 19 j 07:50	9°♂03'47		asc. node	186 Sep 28 j 20:30	25°♂08'28	
morning max el	185 Oct 26 j 19:05	13°♂19'44	19°49'27	morning rise	186 Sep 30 j 04:13	24°♂12'45	
greatest brilliancy	185 Nov 03 j 12:24	22°♂54'16	-0.6m	direct	186 Oct 03 j 06:09	23°♂18'24	
	185 Nov 08 j 10:25	0°♂		morning max el	186 Oct 10 j 03:14	27°♂09'01	18°55'17
desc. node	185 Nov 20 j 12:02	18°♂20'02			186 Oct 12 j 16:10	0°♂	
morning set	185 Nov 21 j 11:17	19°♂49'49		morning set	186 Oct 31 j 22:41	28°♂49'56	
	185 Nov 28 j 00:09	0°♂			186 Nov 01 j 16:29	0°♂	
max. Earth dist.	185 Dec 03 j 10:46	8°♂35'30	1.44144 AU	desc. node	186 Nov 07 j 09:04	8°♂57'03	
				max. Earth dist.	186 Nov 16 j 03:16	22°♂42'27	1.44924 AU
superior conj	185 Dec 08 j 04:04	16°♂10'03	-1°-40'-15	superior conj	186 Nov 17 j 10:53	24°♂46'55	-1°-3'-6
minimum elong	185 Dec 07 j 20:33	15°♂39'40	1°39'38	minimum elong	186 Nov 17 j 03:20	24°♂17'12	1°02'14
	185 Dec 16 j 13:41	0°♂			186 Nov 20 j 18:11	0°♂	
evening rise	185 Dec 21 j 17:20	8°♂42'08		evening rise	186 Dec 02 j 20:12	19°♂21'30	
	186 Jan 03 j 15:10	0°♂			186 Dec 09 j 09:38	0°♂	
asc. node	186 Jan 07 j 22:44	5°♂42'39		evening max el	186 Dec 23 j 12:15	20°♂16'43	18°43'11
evening max el	186 Jan 09 j 00:45	6°♂52'27	18°16'12	asc. node	186 Dec 25 j 19:46	22°♂20'00	
retrograde	186 Jan 15 j 12:26	10°♂21'58		retrograde	186 Dec 30 j 05:04	24°♂01'51	
evening set	186 Jan 18 j 09:08	9°♂38'39		evening set	187 Jan 02 j 07:08	23°♂07'44	
inferior conj	186 Jan 24 j 12:23	4°♂15'14	3°47'08	inferior conj	187 Jan 08 j 02:51	17°♂26'23	3°30'21
minimum elong	186 Jan 24 j 11:19	4°♂18'11	3°47'05	minimum elong	187 Jan 08 j 00:35	17°♂33'16	3°29'58
min. Earth dist.	186 Jan 26 j 23:31	1°♂32'08	0.63471 AU	min. Earth dist.	187 Jan 09 j 22:40	15°♂13'39	0.65063 AU
	186 Jan 28 j 11:22	30°♂♂		morning rise	187 Jan 13 j 16:53	11°♂16'53	
morning rise	186 Jan 30 j 11:47	28°♂12'22		direct	187 Jan 20 j 09:29	8°♂25'43	
direct	186 Feb 06 j 10:51	25°♂27'14		morning max el	187 Feb 02 j 15:38	16°♂09'38	27°02'19
desc. node	186 Feb 16 j 11:11	29°♂54'12		desc. node	187 Feb 03 j 08:15	16°♂51'53	
	186 Feb 16 j 14:04	0°♂			187 Feb 14 j 02:58	0°♂	
morning max el	186 Feb 20 j 05:55	3°♂19'10	27°40'35		187 Mar 04 j 23:27	0°♂	
	186 Mar 12 j 04:44	0°♂		morning set	187 Mar 10 j 06:41	9°♂53'18	
morning set	186 Mar 26 j 17:52	26°♂15'39		max. Earth dist.	187 Mar 14 j 20:26	18°♂56'15	1.34113 AU
	186 Mar 28 j 14:21	0°♂					
max. Earth dist.	186 Apr 01 j 00:38	7°♂07'17	1.33090 AU	superior conj	187 Mar 18 j 15:15	26°♂44'40	0°-52'-3
superior conj	186 Apr 03 j 12:23	12°♂25'30	0°-25'-8	minimum elong	187 Mar 18 j 17:46	26°♂57'48	0°51'35
minimum elong	186 Apr 03 j 13:35	12°♂32'00	0°24'53		187 Mar 20 j 04:26	0°♂	

asc. node	187 Mar 23 j 19:06	7°♊38'31		superior conj	188 Mar 01 j 10:43	10°♊36'32	-1°-17'-43
evening rise	187 Mar 26 j 01:57	12°♊26'41		minimum elong	188 Mar 01 j 14:16	10°♊54'30	1°17'11
	187 Apr 04 j 04:21	0°♋		evening rise	188 Mar 09 j 08:51	26°♊52'15	
evening max el	187 Apr 15 j 06:32	15°♋00'23	21°36'40	asc. node	188 Mar 09 j 16:09	27°♊29'29	
retrograde	187 Apr 27 j 13:48	21°♋00'25			188 Mar 10 j 21:50	0°♌	
evening set	187 Apr 30 j 01:44	20°♋46'20		evening max el	188 Mar 27 j 12:28	26°♌13'54	20°16'43
desc. node	187 May 02 j 07:24	20°♌11'27			188 Apr 01 j 16:15	0°♍	
inferior conj	187 May 09 j 10:58	16°♌44'43	-2°00'-56	retrograde	188 Apr 07 j 03:32	1°♍20'24	
minimum elong	187 May 09 j 05:27	16°♍52'27	1°59'05	evening set	188 Apr 09 j 06:13	1°♍09'10	
min. Earth dist.	187 May 09 j 09:24	16°♍46'55	0.54999 AU		188 Apr 12 j 23:53	30°♎♊	
morning rise	187 May 18 j 09:52	12°♍47'20		inferior conj	188 Apr 18 j 06:55	27°♌11'07	0°-1'-45
direct	187 May 21 j 11:48	12°♍26'31		minimum elong	188 Apr 18 j 06:50	27°♌11'15	0°01'43
morning max el	187 Jun 02 j 20:24	18°♌16'47	21°57'00	transit middle	188 Apr 18 j 06:50	27°♌11'15	0°01'43
	187 Jun 12 j 05:43	0°♎		transit begin	188 Apr 18 j 02:50	27°♌17'09	
asc. node	187 Jun 19 j 18:22	13°♎16'52		transit end	188 Apr 18 j 10:50	27°♌05'20	
morning set	187 Jun 23 j 20:47	21°♎34'29		desc. node	188 Apr 18 j 04:28	27°♌14'44	
	187 Jun 27 j 20:47	0°♏		min. Earth dist.	188 Apr 19 j 23:05	26°♌11'56	0.55281 AU
				morning rise	188 Apr 27 j 05:06	22°♌52'00	
superior conj	187 Jul 01 j 04:15	6°♏59'40	1°35'25	direct	188 May 01 j 00:35	22°♌20'20	
minimum elong	187 Jul 01 j 02:06	6°♏48'26	1°35'14	morning max el	188 May 14 j 14:16	28°♌59'57	23°36'43
max. Earth dist.	187 Jul 04 j 16:01	14°♏13'20	1.34677 AU		188 May 15 j 14:53	0°♐	
evening rise	187 Jul 09 j 07:29	23°♏26'52			188 Jun 04 j 04:12	0°♑	
	187 Jul 12 j 18:51	0°♒		asc. node	188 Jun 05 j 15:25	2°♑58'41	
desc. node	187 Jul 29 j 06:45	27°♒01'11		morning set	188 Jun 07 j 08:20	6°♑31'11	
	187 Jul 31 j 09:27	0°♓					
evening max el	187 Aug 13 j 07:29	15°♓23'40	26°57'38	superior conj	188 Jun 14 j 10:54	21°♑45'54	1°21'07
retrograde	187 Aug 26 j 11:54	22°♓41'33		minimum elong	188 Jun 14 j 08:25	21°♑32'33	1°20'47
evening set	187 Sep 02 j 06:56	19°♓57'25		max. Earth dist.	188 Jun 16 j 16:10	26°♑30'28	1.33526 AU
min. Earth dist.	187 Sep 06 j 05:17	16°♓02'18	0.65460 AU		188 Jun 18 j 07:58	0°♔	
inferior conj	187 Sep 08 j 03:19	13°♓49'24	-2°-28'-20	evening rise	188 Jun 22 j 00:08	7°♔31'11	
minimum elong	187 Sep 08 j 07:03	13°♓38'36	2°26'59		188 Jul 04 j 07:12	0°♕	
morning rise	187 Sep 14 j 08:38	8°♓09'11		desc. node	188 Jul 15 j 03:46	16°♕18'26	
asc. node	187 Sep 15 j 17:34	7°♓38'05		evening max el	188 Jul 25 j 18:55	28°♕39'58	27°23'35
direct	187 Sep 17 j 02:49	7°♓27'31			188 Jul 27 j 05:45	0°♖	
morning max el	187 Sep 23 j 16:26	11°♓01'56	18°17'23	retrograde	188 Aug 08 j 08:45	5°♖59'17	
	187 Oct 06 j 22:31	0°♗		evening set	188 Aug 15 j 11:57	3°♖17'45	
morning set	187 Oct 12 j 14:04	9°♗14'04		min. Earth dist.	188 Aug 19 j 04:23	29°♕57'58	0.64031 AU
desc. node	187 Oct 25 j 06:05	29°♗40'25			188 Aug 19 j 03:35	30°♕♒	
	187 Oct 25 j 11:01	0°♘		inferior conj	188 Aug 21 j 15:26	27°♕23'09	-3°-20'-56
				minimum elong	188 Aug 21 j 20:07	27°♕10'49	3°19'34
superior conj	187 Oct 27 j 12:13	3°♘14'50	0°-14'-49	morning rise	188 Aug 28 j 06:17	21°♕59'10	
minimum elong	187 Oct 27 j 10:17	3°♘07'11	0°14'35	direct	188 Aug 30 j 19:21	21°♕26'35	
behind sun begin	187 Oct 27 j 05:19	2°♘47'33		asc. node	188 Sep 01 j 14:38	21°♕43'09	
behind sun end	187 Oct 27 j 15:15	3°♘26'50		morning max el	188 Sep 06 j 08:03	24°♕52'58	17°56'43
max. Earth dist.	187 Oct 29 j 21:48	7°♘01'54	1.44980 AU		188 Sep 10 j 12:56	0°♙	
evening rise	187 Nov 12 j 23:32	29°♘03'23		morning set	188 Sep 23 j 08:41	20°♙57'36	
	187 Nov 13 j 14:02	0°♚			188 Sep 28 j 16:01	0°♑	
greatest brilliancy	187 Nov 28 j 02:28	22°♚21'04	-0.7m				
	187 Dec 03 j 15:04	0°♛		superior conj	188 Oct 06 j 05:31	12°♑33'00	0°32'11
evening max el	187 Dec 06 j 20:28	3°♛44'14	19°27'07	minimum elong	188 Oct 06 j 08:58	12°♑47'03	0°31'43
asc. node	187 Dec 12 j 16:50	7°♛43'41		desc. node	188 Oct 11 j 03:07	20°♑27'10	
retrograde	187 Dec 14 j 01:30	7°♛54'00		max. Earth dist.	188 Oct 11 j 15:43	21°♑17'22	1.44312 AU
evening set	187 Dec 17 j 10:30	6°♛47'24			188 Oct 17 j 04:16	0°♒	
inferior conj	187 Dec 23 j 01:02	0°♛50'44	3°01'29	evening rise	188 Oct 22 j 09:51	8°♒06'51	
minimum elong	187 Dec 22 j 22:16	0°♛59'41	3°00'47		188 Nov 05 j 21:44	0°♓	
	187 Dec 23 j 16:39	30°♒♓		greatest brilliancy	188 Nov 12 j 18:36	9°♓42'38	-0.5m
min. Earth dist.	187 Dec 24 j 06:21	29°♓15'41	0.66275 AU	evening max el	188 Nov 18 j 23:47	17°♓13'12	20°25'53
morning rise	187 Dec 28 j 09:16	24°♓37'20		retrograde	188 Nov 26 j 23:09	21°♓55'04	
direct	188 Jan 03 j 14:14	21°♓53'18		asc. node	188 Nov 28 j 13:53	21°♓40'16	
morning max el	188 Jan 16 j 00:56	29°♓15'44	25°57'48	evening set	188 Nov 30 j 17:02	20°♓33'56	
	188 Jan 16 j 18:15	0°♔		inferior conj	188 Dec 06 j 04:18	14°♓24'55	2°23'40
desc. node	188 Jan 21 j 05:18	5°♔00'25		minimum elong	188 Dec 06 j 01:39	14°♓33'54	2°22'48
	188 Feb 07 j 23:13	0°♕		min. Earth dist.	188 Dec 06 j 20:38	13°♓29'38	0.67104 AU
morning set	188 Feb 21 j 05:38	22°♕44'37		morning rise	188 Dec 11 j 09:45	8°♓09'43	
max. Earth dist.	188 Feb 25 j 04:13	0°♕10'59	1.35592 AU	direct	188 Dec 17 j 00:14	5°♓42'14	
	188 Feb 25 j 01:56	0°♕		morning max el	188 Dec 28 j 09:17	12°♓29'07	24°36'36
				desc. node	189 Jan 07 j 02:21	23°♓59'20	

	189 Jan 11 j 12:09	0°☿		greatest brilliancy	189 Dec 15 j 17:30	1°☿20'10	-0.3m
	189 Jan 30 j 18:02	0°☿		desc. node	189 Dec 24 j 23:24	13°☿33'58	
morning set	189 Feb 02 j 09:14	4°☿34'12			190 Jan 05 j 01:40	0°☿	
max. Earth dist.	189 Feb 06 j 02:19	11°☿13'04	1.37479 AU	morning set	190 Jan 14 j 11:15	15°☿06'18	
				max. Earth dist.	190 Jan 18 j 21:41	22°☿38'29	1.39587 AU
superior conj	189 Feb 12 j 19:35	23°☿52'19	-1°-40'-4		190 Jan 23 j 01:53	0°☿	
minimum elong	189 Feb 12 j 23:29	24°☿11'14	1°39'40				
	189 Feb 15 j 22:35	0°☿		superior conj	190 Jan 26 j 13:40	6°☿21'15	-1°-56'-12
evening rise	189 Feb 21 j 10:01	10°☿54'50		minimum elong	190 Jan 26 j 16:32	6°☿34'33	1°56'05
asc. node	189 Feb 24 j 13:11	17°☿04'04		evening rise	190 Feb 05 j 02:42	24°☿27'25	
	189 Mar 03 j 20:33	0°☿			190 Feb 08 j 00:28	0°☿	
evening max el	189 Mar 10 j 05:34	8°☿05'27	19°14'55	asc. node	190 Feb 11 j 10:14	6°☿16'32	
retrograde	189 Mar 19 j 04:33	12°☿24'10		evening max el	190 Feb 21 j 07:56	20°☿31'34	18°33'05
evening set	189 Mar 21 j 08:56	12°☿09'55		retrograde	190 Mar 01 j 00:15	24°☿17'10	
inferior conj	189 Mar 29 j 16:17	7°☿59'57	1°44'35	evening set	190 Mar 03 j 09:14	23°☿56'47	
minimum elong	189 Mar 29 j 20:05	7°☿53'34	1°43'23	inferior conj	190 Mar 10 j 22:10	19°☿27'28	2°58'09
min. Earth dist.	189 Apr 01 j 14:00	6°☿03'47	0.56452 AU	minimum elong	190 Mar 11 j 02:13	19°☿19'31	2°57'16
desc. node	189 Apr 05 j 01:31	4°☿02'32		min. Earth dist.	190 Mar 14 j 08:02	16°☿48'15	0.58249 AU
morning rise	189 Apr 07 j 03:17	3°☿08'29		morning rise	190 Mar 18 j 15:10	14°☿05'19	
direct	189 Apr 12 j 00:14	2°☿13'45		desc. node	190 Mar 22 j 22:33	12°☿42'43	
morning max el	189 Apr 26 j 04:47	9°☿28'52	25°15'34	direct	190 Mar 24 j 13:28	12°☿35'59	
	189 May 11 j 14:00	0°☿		morning max el	190 Apr 07 j 22:05	20°☿12'49	26°38'07
morning set	189 May 22 j 20:14	21°☿29'24			190 Apr 16 j 07:27	0°☿	
asc. node	189 May 23 j 12:27	22°☿55'08			190 May 04 j 04:03	0°☿	
	189 May 26 j 19:22	0°☿		morning set	190 May 07 j 06:56	6°☿23'46	
				asc. node	190 May 10 j 09:30	13°☿01'15	
superior conj	189 May 29 j 20:57	6°☿41'43	1°02'38				
minimum elong	189 May 29 j 18:39	6°☿29'09	1°02'14	superior conj	190 May 14 j 08:36	21°☿41'06	0°40'51
max. Earth dist.	189 May 31 j 00:01	9°☿09'12	1.32764 AU	minimum elong	190 May 14 j 06:54	21°☿31'48	0°40'30
evening rise	189 Jun 06 j 01:18	22°☿00'39		max. Earth dist.	190 May 14 j 12:07	22°☿00'27	1.32371 AU
	189 Jun 10 j 01:15	0°☿			190 May 18 j 03:55	0°☿	
	189 Jun 28 j 06:42	0°☿		evening rise	190 May 21 j 08:11	6°☿46'23	
desc. node	189 Jul 02 j 00:48	4°☿48'25			190 Jun 02 j 14:40	0°☿	
evening max el	189 Jul 08 j 03:23	11°☿26'21	27°18'58	desc. node	190 Jun 18 j 21:49	22°☿11'35	
retrograde	189 Jul 21 j 22:55	18°☿43'36		evening max el	190 Jun 20 j 06:12	23°☿31'23	26°41'15
evening set	189 Jul 29 j 03:07	16°☿17'14			190 Jun 29 j 21:48	0°☿	
min. Earth dist.	189 Aug 01 j 17:08	13°☿25'40	0.62268 AU	retrograde	190 Jul 04 j 05:37	0°☿46'26	
inferior conj	189 Aug 04 j 16:30	10°☿39'13	-4°-6'-18		190 Jul 08 j 11:07	30°☿☿	
minimum elong	189 Aug 04 j 21:10	10°☿28'17	4°05'20	evening set	190 Jul 11 j 00:00	28°☿48'42	
morning rise	189 Aug 11 j 17:48	5°☿35'00		min. Earth dist.	190 Jul 14 j 19:39	26°☿11'21	0.60266 AU
direct	189 Aug 14 j 04:20	5°☿08'37		inferior conj	190 Jul 18 j 03:06	23°☿29'19	-4°-37'-51
asc. node	189 Aug 19 j 11:41	7°☿16'18		minimum elong	190 Jul 18 j 06:01	23°☿23'19	4°37'34
morning max el	189 Aug 20 j 23:14	8°☿35'06	17°54'12	morning rise	190 Jul 25 j 15:17	18°☿47'36	
	189 Sep 03 j 23:12	0°☿		direct	190 Jul 28 j 01:41	18°☿25'18	
morning set	189 Sep 06 j 00:33	3°☿41'42		morning max el	190 Aug 04 j 11:01	22°☿01'20	18°10'50
				asc. node	190 Aug 06 j 08:43	24°☿03'40	
superior conj	189 Sep 17 j 01:32	23°☿10'14	1°08'52		190 Aug 10 j 15:53	0°☿	
minimum elong	189 Sep 17 j 06:28	23°☿31'21	1°08'18	morning set	190 Aug 20 j 07:58	17°☿10'42	
	189 Sep 21 j 02:43	0°☿			190 Aug 27 j 04:37	0°☿	
max. Earth dist.	189 Sep 24 j 06:01	5°☿10'09	1.43004 AU				
desc. node	189 Sep 28 j 00:08	11°☿13'32		superior conj	190 Aug 29 j 23:30	5°☿04'32	1°32'37
evening rise	189 Oct 01 j 18:28	17°☿10'03		minimum elong	190 Aug 30 j 03:10	5°☿21'04	1°32'19
	189 Oct 10 j 03:41	0°☿		max. Earth dist.	190 Sep 06 j 14:24	18°☿23'12	1.41230 AU
greatest brilliancy	189 Oct 27 j 23:11	25°☿03'44	-0.4m	evening rise	190 Sep 11 j 18:29	26°☿57'02	
	189 Nov 01 j 05:05	0°☿			190 Sep 13 j 15:55	0°☿	
evening max el	189 Nov 01 j 21:16	0°☿42'06	21°36'33	desc. node	190 Sep 14 j 21:09	1°☿56'19	
retrograde	189 Nov 10 j 20:04	6°☿01'26			190 Oct 03 j 21:19	0°☿	
evening set	189 Nov 15 j 00:50	4°☿23'55		greatest brilliancy	190 Oct 10 j 08:57	8°☿23'06	-0.3m
asc. node	189 Nov 15 j 10:56	4°☿03'10		evening max el	190 Oct 15 j 13:22	14°☿11'53	22°54'49
	189 Nov 19 j 01:01	30°☿☿		retrograde	190 Oct 25 j 14:42	20°☿10'09	
inferior conj	189 Nov 20 j 10:27	28°☿05'54	1°39'02	evening set	190 Oct 30 j 08:10	18°☿14'57	
minimum elong	189 Nov 20 j 08:22	28°☿13'05	1°38'15	asc. node	190 Nov 02 j 07:57	15°☿04'51	
min. Earth dist.	189 Nov 20 j 15:12	27°☿49'27	0.67565 AU	inferior conj	190 Nov 04 j 17:37	11°☿51'47	0°49'15
morning rise	189 Nov 25 j 15:39	21°☿50'56		minimum elong	190 Nov 04 j 16:29	11°☿55'41	0°48'47
direct	189 Nov 30 j 14:43	19°☿45'01		min. Earth dist.	190 Nov 04 j 11:46	12°☿11'57	0.67688 AU
morning max el	189 Dec 10 j 18:38	25°☿47'21	23°08'52	morning rise	190 Nov 10 j 00:47	5°☿39'17	
	189 Dec 14 j 14:39	0°☿		direct	190 Nov 14 j 08:59	3°☿56'06	

morning max el	190 Nov 23 j 08:12	9° \mathbb{M} 12'26	21°43'31	transit begin	191 Oct 19 j 21:32	25° \mathbb{A} 49'17	
greatest brilliancy	190 Nov 28 j 05:40	14° \mathbb{M} 45'50	-0.4m	transit end	191 Oct 20 j 02:48	25° \mathbb{A} 31'30	
	190 Dec 09 j 09:50	0° \mathbb{A}		asc. node	191 Oct 20 j 04:59	25° \mathbb{A} 24'09	
desc. node	190 Dec 11 j 20:25	3° \mathbb{A} 34'09		morning rise	191 Oct 25 j 11:12	19° \mathbb{A} 33'20	
morning set	190 Dec 25 j 08:04	24° \mathbb{A} 14'42		direct	191 Oct 29 j 06:04	18° \mathbb{A} 11'27	
	190 Dec 28 j 21:53	0° \mathbb{B}		morning max el	191 Nov 06 j 04:42	22° \mathbb{A} 47'08	20°27'21
max. Earth dist.	190 Dec 31 j 21:04	4° \mathbb{B} 52'25	1.41649 AU		191 Nov 12 j 06:40	0° \mathbb{M}	
				greatest brilliancy	191 Nov 12 j 13:32	0° \mathbb{M} 22'42	-0.5m
superior conj	191 Jan 08 j 11:45	17° \mathbb{B} 50'15	-2°-2'-15	desc. node	191 Nov 28 j 17:27	23° \mathbb{M} 52'47	
minimum elong	191 Jan 08 j 11:31	17° \mathbb{B} 49'17	2°02'16		191 Dec 02 j 17:18	0° \mathbb{A}	
	191 Jan 15 j 07:04	0° \mathbb{A}		morning set	191 Dec 04 j 07:16	2° \mathbb{A} 26'44	
evening rise	191 Jan 19 j 07:23	7° \mathbb{A} 21'26		max. Earth dist.	191 Dec 14 j 03:55	18° \mathbb{A} 00'30	1.43382 AU
asc. node	191 Jan 29 j 07:16	24° \mathbb{A} 59'00					
	191 Feb 01 j 17:56	0° \mathbb{H}		superior conj	191 Dec 20 j 08:46	28° \mathbb{A} 08'36	-1°-53'-32
evening max el	191 Feb 04 j 16:37	3° \mathbb{H} 23'35	18°11'16	minimum elong	191 Dec 20 j 03:41	27° \mathbb{A} 47'31	1°53'15
retrograde	191 Feb 11 j 13:41	6° \mathbb{H} 51'53			191 Dec 21 j 11:32	0° \mathbb{B}	
evening set	191 Feb 14 j 03:18	6° \mathbb{H} 23'30		evening rise	192 Jan 01 j 20:00	19° \mathbb{B} 28'49	
inferior conj	191 Feb 21 j 00:28	1° \mathbb{H} 32'54	3°37'36		192 Jan 07 j 20:44	0° \mathbb{A}	
minimum elong	191 Feb 21 j 02:38	1° \mathbb{H} 27'58	3°37'22	asc. node	192 Jan 16 j 04:18	13° \mathbb{A} 02'33	
	191 Feb 22 j 17:01	30° \mathbb{R} \mathbb{A}		evening max el	192 Jan 19 j 04:38	16° \mathbb{A} 33'53	18°09'01
min. Earth dist.	191 Feb 24 j 07:49	28° \mathbb{A} 33'29	0.60338 AU	retrograde	192 Jan 25 j 16:59	19° \mathbb{A} 59'06	
morning rise	191 Feb 27 j 22:47	25° \mathbb{A} 49'02		evening set	192 Jan 28 j 11:04	19° \mathbb{A} 21'30	
direct	191 Mar 06 j 14:56	23° \mathbb{A} 42'21		inferior conj	192 Feb 03 j 19:57	14° \mathbb{A} 09'52	3°49'39
desc. node	191 Mar 09 j 19:36	24° \mathbb{A} 09'45		minimum elong	192 Feb 03 j 19:55	14° \mathbb{A} 09'58	3°49'39
	191 Mar 19 j 06:42	0° \mathbb{H}		min. Earth dist.	192 Feb 06 j 15:45	11° \mathbb{A} 14'55	0.62398 AU
morning max el	191 Mar 20 j 21:14	1° \mathbb{H} 30'59	27°31'02	morning rise	192 Feb 10 j 02:34	8° \mathbb{A} 12'33	
	191 Apr 10 j 12:12	0° \mathbb{Y}		direct	192 Feb 17 j 02:07	5° \mathbb{A} 37'09	
morning set	191 Apr 21 j 14:33	21° \mathbb{Y} 06'34		desc. node	192 Feb 24 j 16:38	8° \mathbb{A} 12'50	
	191 Apr 25 j 19:16	0° \mathbb{B}		morning max el	192 Mar 02 j 02:07	13° \mathbb{A} 29'52	27°47'33
asc. node	191 Apr 27 j 06:32	3° \mathbb{B} 11'30			192 Mar 15 j 08:26	0° \mathbb{H}	
max. Earth dist.	191 Apr 28 j 00:31	4° \mathbb{B} 49'45	1.32344 AU		192 Apr 01 j 22:31	0° \mathbb{Y}	
				morning set	192 Apr 04 j 17:04	5° \mathbb{Y} 30'57	
superior conj	191 Apr 28 j 20:04	6° \mathbb{B} 36'46	0°16'30	max. Earth dist.	192 Apr 10 j 09:27	17° \mathbb{Y} 24'22	1.32702 AU
minimum elong	191 Apr 28 j 19:20	6° \mathbb{B} 32'42	0°16'20				
evening rise	191 May 05 j 18:27	21° \mathbb{B} 39'20		superior conj	192 Apr 12 j 05:43	21° \mathbb{Y} 23'11	0°-9'-37
	191 May 09 j 20:00	0° \mathbb{H}		minimum elong	192 Apr 12 j 06:10	21° \mathbb{Y} 25'39	0°09'32
	191 May 28 j 13:51	0° \mathbb{B}		behind sun begin	192 Apr 12 j 02:00	21° \mathbb{Y} 03'06	
evening max el	191 Jun 02 j 02:05	4° \mathbb{B} 50'30	25°33'15	behind sun end	192 Apr 12 j 10:20	21° \mathbb{Y} 48'14	
desc. node	191 Jun 05 j 18:49	7° \mathbb{B} 59'34		asc. node	192 Apr 13 j 03:35	23° \mathbb{Y} 21'56	
retrograde	191 Jun 16 j 03:13	12° \mathbb{B} 01'17			192 Apr 16 j 04:51	0° \mathbb{B}	
evening set	191 Jun 21 j 22:26	10° \mathbb{B} 41'53		evening rise	192 Apr 19 j 06:11	6° \mathbb{B} 33'08	
min. Earth dist.	191 Jun 26 j 14:13	8° \mathbb{B} 00'19	0.58219 AU		192 May 01 j 16:23	0° \mathbb{H}	
inferior conj	191 Jun 29 j 19:40	5° \mathbb{B} 43'17	-4°-45'-37	evening max el	192 May 13 j 17:08	15° \mathbb{H} 34'40	24°04'22
minimum elong	191 Jun 29 j 18:41	5° \mathbb{B} 45'02	4°45'36	desc. node	192 May 22 j 15:51	21° \mathbb{H} 37'25	
morning rise	191 Jul 07 j 18:45	1° \mathbb{B} 24'17		retrograde	192 May 27 j 12:59	22° \mathbb{H} 31'37	
direct	191 Jul 10 j 06:54	1° \mathbb{B} 04'37		evening set	192 May 31 j 22:40	21° \mathbb{H} 48'37	
morning max el	191 Jul 18 j 16:17	5° \mathbb{B} 02'01	18°47'49	min. Earth dist.	192 Jun 07 j 04:17	18° \mathbb{H} 46'56	0.56443 AU
asc. node	191 Jul 24 j 05:45	11° \mathbb{B} 49'30		inferior conj	192 Jun 09 j 16:06	17° \mathbb{H} 14'16	-4°-16'-40
	191 Aug 03 j 11:38	0° \mathbb{Q}		minimum elong	192 Jun 09 j 10:26	17° \mathbb{H} 23'07	4°15'45
morning set	191 Aug 04 j 02:29	1° \mathbb{Q} 12'29		morning rise	192 Jun 18 j 01:52	13° \mathbb{H} 13'36	
				direct	192 Jun 20 j 17:13	12° \mathbb{H} 55'19	
superior conj	191 Aug 12 j 18:02	18° \mathbb{Q} 00'14	1°44'32	morning max el	192 Jun 30 j 12:10	17° \mathbb{H} 27'36	19°45'52
minimum elong	191 Aug 12 j 19:35	18° \mathbb{Q} 07'34	1°44'29		192 Jul 09 j 21:56	0° \mathbb{B}	
	191 Aug 19 j 06:21	0° \mathbb{H}		asc. node	192 Jul 10 j 02:48	0° \mathbb{B} 20'40	
max. Earth dist.	191 Aug 19 j 17:55	0° \mathbb{H} 51'24	1.39227 AU	morning set	192 Jul 18 j 04:46	15° \mathbb{B} 38'29	
evening rise	191 Aug 23 j 18:39	7° \mathbb{H} 52'13			192 Jul 25 j 07:13	0° \mathbb{Q}	
desc. node	191 Sep 01 j 18:09	22° \mathbb{H} 31'38					
	191 Sep 06 j 15:35	0° \mathbb{A}		superior conj	192 Jul 26 j 03:42	1° \mathbb{Q} 41'59	1°46'46
evening max el	191 Sep 28 j 02:04	27° \mathbb{A} 45'10	24°14'55	minimum elong	192 Jul 26 j 03:21	1° \mathbb{Q} 40'12	1°46'46
	191 Sep 30 j 12:05	0° \mathbb{M}		max. Earth dist.	192 Jul 31 j 21:41	12° \mathbb{Q} 48'56	1.37256 AU
retrograde	191 Oct 09 j 05:50	4° \mathbb{M} 17'51		evening rise	192 Aug 04 j 18:42	19° \mathbb{Q} 56'01	
evening set	191 Oct 14 j 13:25	2° \mathbb{M} 04'57			192 Aug 10 j 13:48	0° \mathbb{H}	
	191 Oct 16 j 15:14	30° \mathbb{R} \mathbb{A}		desc. node	192 Aug 18 j 15:10	12° \mathbb{H} 54'40	
min. Earth dist.	191 Oct 19 j 07:53	26° \mathbb{A} 35'18	0.67490 AU		192 Aug 30 j 17:00	0° \mathbb{A}	
inferior conj	191 Oct 20 j 00:04	25° \mathbb{A} 40'44	0°-4'-14	evening max el	192 Sep 09 j 13:44	11° \mathbb{A} 22'08	25°29'38
minimum elong	191 Oct 20 j 00:10	25° \mathbb{A} 40'23	0°04'12	retrograde	192 Sep 21 j 16:27	18° \mathbb{A} 19'58	
transit middle	191 Oct 20 j 00:10	25° \mathbb{A} 40'23	0°04'12	evening set	192 Sep 27 j 14:48	15° \mathbb{A} 50'58	

min. Earth dist.	192 Oct 02 j 01:05	10°♄56'58	0.66976 AU		193 Aug 29 j 07:27	0°♄	
inferior conj	192 Oct 03 j 04:03	9°♄30'01	-1°00'-1	retrograde	193 Sep 04 j 22:01	2°♄11'31	
minimum elong	192 Oct 03 j 05:34	9°♄25'07	0°59'23		193 Sep 10 j 19:39	30°♄	
asc. node	192 Oct 06 j 02:03	5°♄57'20		evening set	193 Sep 11 j 10:21	29°♄30'47	
morning rise	192 Oct 08 j 20:58	3°♄30'41		min. Earth dist.	193 Sep 15 j 12:55	25°♄14'14	0.66124 AU
direct	192 Oct 12 j 04:30	2°♄27'10		inferior conj	193 Sep 17 j 03:41	23°♄17'06	-1°-56'-22
morning max el	192 Oct 19 j 08:50	6°♄31'15	19°24'28	minimum elong	193 Sep 17 j 06:39	23°♄08'07	1°55'14
greatest brilliancy	192 Oct 28 j 16:26	18°♄31'36	-0.7m	asc. node	193 Sep 22 j 23:05	17°♄36'08	
	192 Nov 05 j 07:15	0°♄		morning rise	193 Sep 23 j 04:04	17°♄29'05	
morning set	192 Nov 12 j 07:22	10°♄49'53		direct	193 Sep 26 j 02:30	16°♄40'26	
desc. node	192 Nov 14 j 14:27	14°♄24'00		morning max el	193 Oct 02 j 19:24	20°♄22'41	18°37'07
	192 Nov 24 j 13:35	0°♄			193 Oct 10 j 06:17	0°♄	
max. Earth dist.	192 Nov 25 j 17:51	1°♄51'39	1.44561 AU	morning set	193 Oct 23 j 06:08	20°♄24'52	
					193 Oct 29 j 06:38	0°♄	
superior conj	192 Nov 29 j 03:19	7°♄15'09	-1°-26'-31	desc. node	193 Nov 01 j 11:30	5°♄04'05	
minimum elong	192 Nov 28 j 18:58	6°♄41'52	1°25'42				
	192 Dec 13 j 02:14	0°♄		superior conj	193 Nov 08 j 04:59	15°♄39'52	0°-43'-16
evening rise	192 Dec 13 j 12:07	0°♄41'07		minimum elong	193 Nov 07 j 23:24	15°♄17'54	0°42'34
evening max el	193 Jan 01 j 17:05	29°♄54'23	18°25'35	max. Earth dist.	193 Nov 08 j 12:08	16°♄07'59	1.45045 AU
	193 Jan 01 j 19:18	0°♄			193 Nov 17 j 07:32	0°♄	
asc. node	193 Jan 02 j 01:22	0°♄15'01		evening rise	193 Nov 24 j 04:47	10°♄55'09	
retrograde	193 Jan 08 j 05:51	3°♄28'54			193 Dec 06 j 06:22	0°♄	
evening set	193 Jan 11 j 04:47	2°♄41'02		evening max el	193 Dec 16 j 03:26	13°♄20'00	18°59'53
	193 Jan 14 j 14:26	30°♄		asc. node	193 Dec 19 j 22:25	16°♄22'37	
inferior conj	193 Jan 17 j 04:31	27°♄09'48	3°41'43	retrograde	193 Dec 23 j 00:29	17°♄14'24	
minimum elong	193 Jan 17 j 02:51	27°♄14'37	3°41'31	evening set	193 Dec 26 j 05:23	16°♄15'00	
min. Earth dist.	193 Jan 19 j 09:08	24°♄38'27	0.64199 AU	inferior conj	193 Dec 31 j 22:36	10°♄26'33	3°19'20
morning rise	193 Jan 22 j 23:30	21°♄04'03		minimum elong	193 Dec 31 j 20:03	10°♄34'34	3°18'49
direct	193 Jan 29 j 20:47	18°♄14'30		min. Earth dist.	194 Jan 02 j 11:58	8°♄29'41	0.65630 AU
desc. node	193 Feb 10 j 13:41	24°♄16'11		morning rise	194 Jan 06 j 09:47	4°♄15'15	
morning max el	193 Feb 12 j 10:42	26°♄03'40	27°28'00	direct	194 Jan 12 j 21:52	1°♄26'03	
	193 Feb 16 j 02:38	0°♄		morning max el	194 Jan 25 j 20:28	9°♄01'50	26°37'37
	193 Mar 08 j 21:17	0°♄		desc. node	194 Jan 28 j 10:44	11°♄46'29	
morning set	193 Mar 19 j 11:48	19°♄28'08			194 Feb 11 j 08:03	0°♄	
max. Earth dist.	193 Mar 24 j 11:05	29°♄32'13	1.33474 AU		194 Mar 01 j 07:39	0°♄	
	193 Mar 24 j 16:26	0°♄		morning set	194 Mar 02 j 19:18	2°♄47'20	
				max. Earth dist.	194 Mar 07 j 02:11	11°♄06'48	1.34690 AU
superior conj	193 Mar 27 j 11:40	5°♄54'01	0°-36'-36				
minimum elong	193 Mar 27 j 13:26	6°♄03'26	0°36'14	superior conj	194 Mar 11 j 11:43	20°♄02'11	-1°-3'-12
asc. node	193 Mar 31 j 00:39	13°♄28'23		minimum elong	194 Mar 11 j 14:44	20°♄17'43	1°02'40
evening rise	193 Apr 03 j 17:36	21°♄21'18			194 Mar 16 j 06:16	0°♄	
	193 Apr 07 j 23:15	0°♄		asc. node	194 Mar 17 j 21:43	3°♄26'23	
evening max el	193 Apr 25 j 09:04	26°♄09'02	22°28'56	evening rise	194 Mar 19 j 02:45	5°♄57'11	
	193 Apr 30 j 04:51	0°♄			194 Apr 01 j 10:58	0°♄	
retrograde	193 May 08 j 09:53	2°♄34'53		evening max el	194 Apr 07 j 08:33	7°♄02'05	21°00'37
desc. node	193 May 09 j 12:53	2°♄32'03		retrograde	194 Apr 18 j 23:23	12°♄40'04	
evening set	193 May 11 j 11:09	2°♄14'25		evening set	194 Apr 21 j 05:40	12°♄28'02	
	193 May 17 j 06:27	30°♄		desc. node	194 Apr 26 j 09:56	10°♄42'13	
min. Earth dist.	193 May 19 j 16:44	28°♄40'34	0.55282 AU	inferior conj	194 Apr 30 j 12:49	8°♄29'46	-1°-10'-51
inferior conj	193 May 20 j 18:39	28°♄03'48	-3°-2'-7	minimum elong	194 Apr 30 j 09:28	8°♄34'31	1°09'40
minimum elong	193 May 20 j 11:27	28°♄14'02	3°00'03	min. Earth dist.	194 May 01 j 05:31	8°♄06'06	0.54999 AU
morning rise	193 May 29 j 14:00	24°♄10'37		morning rise	194 May 09 j 12:44	4°♄25'39	
direct	193 Jun 01 j 10:44	23°♄51'50		direct	194 May 12 j 20:49	4°♄01'38	
morning max el	193 Jun 12 j 20:58	29°♄11'11	21°04'16	morning max el	194 May 25 j 19:24	10°♄13'19	22°38'43
	193 Jun 13 j 17:18	0°♄			194 Jun 09 j 03:51	0°♄	
asc. node	193 Jun 26 j 23:53	19°♄26'19		asc. node	194 Jun 13 j 20:56	8°♄57'01	
	193 Jul 02 j 08:02	0°♄		morning set	194 Jun 16 j 22:53	15°♄15'34	
morning set	193 Jul 02 j 12:18	0°♄21'57			194 Jun 23 j 21:15	0°♄	
superior conj	193 Jul 10 j 00:08	15°♄57'19	1°41'21	superior conj	194 Jun 24 j 03:49	0°♄34'52	1°29'57
minimum elong	193 Jul 09 j 22:28	15°♄48'42	1°41'16	minimum elong	194 Jun 24 j 01:28	0°♄22'23	1°29'40
max. Earth dist.	193 Jul 14 j 07:30	24°♄40'31	1.35520 AU	max. Earth dist.	194 Jun 27 j 02:19	6°♄45'11	1.34138 AU
	193 Jul 17 j 00:58	0°♄		evening rise	194 Jul 02 j 00:26	16°♄42'12	
evening rise	193 Jul 18 j 14:17	2°♄57'32			194 Jul 09 j 03:13	0°♄	
	193 Aug 03 j 12:15	0°♄		desc. node	194 Jul 23 j 09:15	22°♄37'31	
desc. node	193 Aug 05 j 12:12	2°♄59'38			194 Jul 28 j 23:03	0°♄	
evening max el	193 Aug 23 j 01:40	24°♄58'52	26°31'06	evening max el	194 Aug 05 j 13:29	8°♄25'13	27°11'56

retrograde	194 Aug 18 j 22:11	15° \cap 44'16		desc. node	195 Jul 10 j 06:16	11° Ω 36'43	
evening set	194 Aug 25 j 21:33	12° \cap 59'32		evening max el	195 Jul 18 j 23:42	21° Ω 29'27	27°25'28
min. Earth dist.	194 Aug 29 j 17:04	9° \cap 20'17	0.64904 AU	retrograde	195 Aug 01 j 16:29	28° Ω 48'56	
inferior conj	194 Aug 31 j 20:42	6° \cap 56'59	-2°-51'-13	evening set	195 Aug 08 j 21:11	26° Ω 11'53	
minimum elong	194 Sep 01 j 00:55	6° \cap 45'14	2°49'48	min. Earth dist.	195 Aug 12 j 11:49	23° Ω 05'28	0.63320 AU
morning rise	194 Sep 07 j 05:58	1° \cap 23'31		inferior conj	195 Aug 15 j 04:28	20° Ω 23'46	-3°-41'-24
direct	194 Sep 09 j 21:42	0° \cap 46'07		minimum elong	195 Aug 15 j 09:18	20° Ω 11'37	3°40'09
asc. node	194 Sep 09 j 20:08	0° \cap 46'08		morning rise	195 Aug 21 j 23:43	15° Ω 08'04	
morning max el	194 Sep 16 j 10:02	4° \cap 15'49	18°06'27	direct	195 Aug 24 j 11:17	14° Ω 38'36	
	194 Oct 03 j 13:23	0° Ω		asc. node	195 Aug 27 j 17:11	15° Ω 29'48	
morning set	194 Oct 04 j 09:37	1° Ω 24'25		morning max el	195 Aug 31 j 01:51	18° Ω 04'04	17°53'21
					195 Sep 08 j 16:38	0° \cap	
superior conj	194 Oct 18 j 10:52	24° Ω 22'54	0°05'59	morning set	195 Sep 16 j 13:58	13° \cap 35'22	
minimum elong	194 Oct 18 j 11:36	24° Ω 25'51	0°05'53		195 Sep 26 j 02:25	0° Ω	
behind sun begin	194 Oct 18 j 01:32	23° Ω 45'36					
behind sun end	194 Oct 18 j 21:41	25° Ω 06'04		superior conj	195 Sep 28 j 15:02	4° Ω 13'34	0°49'18
desc. node	194 Oct 19 j 08:32	25° Ω 49'17		minimum elong	195 Sep 28 j 19:36	4° Ω 32'29	0°48'42
	194 Oct 21 j 23:45	0° \cap		max. Earth dist.	195 Oct 04 j 23:07	14° Ω 34'23	1.43823 AU
max. Earth dist.	194 Oct 22 j 07:00	0° \cap 28'38	1.44782 AU	desc. node	195 Oct 06 j 05:34	16° Ω 36'18	
evening rise	194 Nov 03 j 23:32	20° \cap 17'09		evening rise	195 Oct 14 j 06:45	29° Ω 14'06	
	194 Nov 10 j 06:41	0° \nearrow			195 Oct 14 j 18:38	0° \cap	
greatest brilliancy	194 Nov 21 j 22:23	17° \nearrow 24'20	-0.6m		195 Nov 04 j 02:03	0° \nearrow	
evening max el	194 Nov 29 j 09:37	26° \nearrow 47'43	19°50'25	greatest brilliancy	195 Nov 06 j 21:13	3° \nearrow 43'59	-0.5m
	194 Dec 03 j 05:26	0° \searrow		evening max el	195 Nov 12 j 10:21	10° \nearrow 16'05	20°54'45
retrograde	194 Dec 06 j 21:49	1° \searrow 10'43		retrograde	195 Nov 20 j 19:25	15° \nearrow 13'59	
asc. node	194 Dec 06 j 19:26	1° \searrow 10'40		asc. node	195 Nov 23 j 16:27	14° \nearrow 27'12	
evening set	194 Dec 10 j 10:20	29° \nearrow 58'09		evening set	195 Nov 24 j 17:35	13° \nearrow 46'17	
	194 Dec 10 j 09:15	30° \cap \nearrow		inferior conj	195 Nov 30 j 03:57	7° \nearrow 32'57	2°05'27
inferior conj	194 Dec 15 j 23:14	23° \nearrow 55'33	2°46'23	minimum elong	195 Nov 30 j 01:29	7° \nearrow 41'23	2°04'36
minimum elong	194 Dec 15 j 20:27	24° \nearrow 04'46	2°45'36	min. Earth dist.	195 Nov 30 j 15:16	6° \nearrow 54'10	0.67337 AU
min. Earth dist.	194 Dec 16 j 22:46	22° \nearrow 37'32	0.66668 AU	morning rise	195 Dec 05 j 08:58	1° \nearrow 17'19	
morning rise	194 Dec 21 j 05:55	17° \nearrow 40'59			195 Dec 07 j 02:57	30° \cap \cap	
direct	194 Dec 27 j 04:48	15° \nearrow 03'20		direct	195 Dec 10 j 16:52	28° \cap 58'31	
morning max el	195 Jan 08 j 05:34	22° \nearrow 12'42	25°24'48		195 Dec 14 j 14:40	0° \nearrow	
desc. node	195 Jan 15 j 07:47	0° \searrow 18'34		morning max el	195 Dec 21 j 13:56	5° \nearrow 27'57	23°59'28
	195 Jan 15 j 01:50	0° \searrow		desc. node	196 Jan 02 j 04:48	19° \nearrow 34'02	
	195 Feb 04 j 14:49	0° \approx			196 Jan 09 j 12:55	0° \searrow	
morning set	195 Feb 13 j 10:49	15° \approx 14'54		morning set	196 Jan 26 j 04:14	26° \searrow 33'11	
max. Earth dist.	195 Feb 17 j 05:32	22° \approx 13'41	1.36346 AU		196 Jan 28 j 03:55	0° \approx	
	195 Feb 21 j 06:34	0° \times		max. Earth dist.	196 Jan 30 j 00:55	3° \approx 18'46	1.38355 AU
superior conj	195 Feb 23 j 03:07	3° \times 39'54	-1°-27'-45	superior conj	196 Feb 06 j 06:11	16° \approx 36'44	-1°-47'-53
minimum elong	195 Feb 23 j 06:56	3° \times 58'55	1°27'15	minimum elong	196 Feb 06 j 09:52	16° \approx 54'13	1°47'36
evening rise	195 Mar 03 j 07:33	20° \times 14'10			196 Feb 13 j 03:42	0° \times	
asc. node	195 Mar 04 j 18:47	23° \times 11'18		evening rise	196 Feb 15 j 05:25	4° \times 04'20	
	195 Mar 08 j 06:37	0° Υ		asc. node	196 Feb 19 j 15:48	12° \times 37'00	
evening max el	195 Mar 20 j 19:17	18° Υ 31'46	19°48'05		196 Mar 02 j 01:08	0° Υ	
retrograde	195 Mar 30 j 16:58	23° Υ 17'06		evening max el	196 Mar 02 j 16:40	0° Υ 38'48	18°54'45
evening set	195 Apr 01 j 19:20	23° Υ 05'14		retrograde	196 Mar 11 j 01:18	4° Υ 41'14	
inferior conj	195 Apr 10 j 13:12	19° Υ 03'26	0°46'32	evening set	196 Mar 13 j 07:28	4° Υ 24'46	
minimum elong	195 Apr 10 j 15:11	19° Υ 00'20	0°45'50	inferior conj	196 Mar 21 j 06:52	0° Υ 07'30	2°20'08
min. Earth dist.	195 Apr 12 j 19:49	17° Υ 39'00	0.55674 AU	minimum elong	196 Mar 21 j 11:10	29° \times 59'48	2°18'57
desc. node	195 Apr 13 j 06:58	17° Υ 22'14			196 Mar 21 j 11:03	30° \cap \times	
morning rise	195 Apr 19 j 07:46	14° Υ 30'49		min. Earth dist.	196 Mar 24 j 12:04	27° \times 50'22	0.57156 AU
direct	195 Apr 23 j 13:10	13° Υ 51'11		morning rise	196 Mar 29 j 10:37	25° \times 01'58	
morning max el	195 May 07 j 11:19	20° Υ 48'18	24°19'46	desc. node	196 Mar 30 j 03:59	24° \times 44'52	
	195 May 15 j 08:40	0° \searrow		direct	196 Apr 03 j 19:00	23° \times 53'13	
asc. node	195 May 31 j 18:01	28° \searrow 46'00			196 Apr 16 j 15:55	0° Υ	
morning set	195 Jun 01 j 10:46	0° \cap 13'50		morning max el	196 Apr 18 j 02:19	1° Υ 19'51	25°53'29
	195 Jun 01 j 08:09	0° \cap			196 May 08 j 06:19	0° \searrow	
				morning set	196 May 15 j 22:20	15° \searrow 10'41	
superior conj	195 Jun 08 j 12:11	15° \cap 26'23	1°13'45	asc. node	196 May 17 j 15:04	18° \searrow 47'01	
minimum elong	195 Jun 08 j 09:44	15° \cap 13'02	1°13'22				
max. Earth dist.	195 Jun 10 j 05:55	19° \cap 11'26	1.33153 AU	superior conj	196 May 22 j 23:08	0° \cap 24'24	0°53'46
	195 Jun 15 j 09:34	0° \searrow		minimum elong	196 May 22 j 21:02	0° \cap 12'57	0°53'22
evening rise	195 Jun 15 j 21:04	0° \searrow 58'27			196 May 22 j 18:41	0° \cap	
	195 Jul 02 j 02:26	0° Ω		max. Earth dist.	196 May 23 j 15:48	1° \cap 55'37	1.32549 AU

evening rise	196 May 30 j 00:57	15° Π 35'44		max. Earth dist.	197 May 07 j 04:29	14° U 47'20	1.32315 AU
	196 Jun 06 j 09:08	0° S		evening rise	197 May 14 j 09:31	0° Π 25'20	
desc. node	196 Jun 26 j 03:16	29° S 41'15			197 May 14 j 04:43	0° Π	
	196 Jun 26 j 09:54	0° Ω			197 May 30 j 14:50	0° S	
evening max el	196 Jun 30 j 06:08	3° Ω 59'48	27°07'01	evening max el	197 Jun 12 j 06:17	15° S 45'55	26°15'46
retrograde	196 Jul 14 j 03:56	11° Ω 16'27		desc. node	197 Jun 13 j 00:18	16° S 27'56	
evening set	196 Jul 21 j 05:12	9° Ω 00'55		retrograde	197 Jun 26 j 06:45	22° S 58'50	
min. Earth dist.	196 Jul 24 j 20:20	6° Ω 17'10	0.61433 AU	evening set	197 Jul 02 j 16:53	21° S 17'05	
inferior conj	196 Jul 27 j 23:51	3° Ω 30'17	-4°-21'-55	min. Earth dist.	197 Jul 06 j 19:12	18° S 40'08	0.59382 AU
minimum elong	196 Jul 28 j 04:02	3° Ω 21'00	4°21'14	inferior conj	197 Jul 10 j 03:13	16° S 06'29	-4°-44'-50
	196 Aug 01 j 09:23	30° R S		minimum elong	197 Jul 10 j 04:43	16° S 03'33	4°44'46
morning rise	196 Aug 04 j 05:45	28° S 35'13		morning rise	197 Jul 17 j 19:59	11° S 34'14	
direct	196 Aug 06 j 15:48	28° S 10'54		direct	197 Jul 20 j 07:01	11° S 13'06	
	196 Aug 11 j 16:29	0° Ω		morning max el	197 Jul 28 j 01:15	14° S 56'45	18°24'00
morning max el	196 Aug 13 j 15:57	1° Ω 40'37	17°58'47	asc. node	197 Jul 31 j 11:18	18° S 50'26	
asc. node	196 Aug 13 j 14:14	1° Ω 36'27			197 Aug 07 j 12:02	0° Ω	
morning set	196 Aug 29 j 13:08	26° Ω 40'41		morning set	197 Aug 13 j 01:48	10° Ω 25'22	
	196 Aug 31 j 08:36	0° M					
superior conj	196 Sep 08 j 22:36	15° M 25'10	1°20'30	superior conj	197 Aug 22 j 06:02	27° Ω 47'34	1°39'00
minimum elong	196 Sep 09 j 03:14	15° M 45'21	1°20'01	minimum elong	197 Aug 22 j 08:50	28° Ω 00'26	1°38'49
max. Earth dist.	196 Sep 16 j 10:41	28° M 10'51	1.42294 AU		197 Aug 23 j 10:56	0° M	
	196 Sep 17 j 13:11	0° A		max. Earth dist.	197 Aug 29 j 17:12	11° M 06'47	1.40395 AU
desc. node	196 Sep 22 j 02:35	7° A 21'58		evening rise	197 Sep 03 j 06:09	18° M 47'08	
evening rise	196 Sep 22 j 20:14	8° A 32'02		desc. node	197 Sep 08 j 23:36	28° M 02'19	
	196 Oct 06 j 23:28	0° M			197 Sep 10 j 05:37	0° A	
greatest brilliancy	196 Oct 20 j 12:15	18° M 26'28	-0.3m	evening max el	197 Oct 01 j 09:19	0° M	
evening max el	196 Oct 25 j 05:31	23° M 46'02	22°09'18		197 Oct 07 j 20:03	7° M 17'46	23°29'05
retrograde	196 Nov 03 j 15:27	29° M 21'53		retrograde	197 Oct 18 j 08:35	13° M 30'45	
evening set	196 Nov 08 j 01:22	27° M 37'12		evening set	197 Oct 23 j 08:01	11° M 27'56	
asc. node	196 Nov 09 j 13:27	26° M 13'04		asc. node	197 Oct 27 j 10:30	6° M 50'32	
inferior conj	196 Nov 13 j 10:45	21° M 16'44	1°18'29	inferior conj	197 Oct 28 j 17:50	5° M 04'04	0°26'57
minimum elong	196 Nov 13 j 09:02	21° M 22'40	1°17'48	minimum elong	197 Oct 28 j 17:11	5° M 06'15	0°26'40
min. Earth dist.	196 Nov 13 j 11:01	21° M 15'50	0.67659 AU	min. Earth dist.	197 Oct 28 j 07:36	5° M 39'04	0.67651 AU
morning rise	196 Nov 18 j 16:31	15° M 02'25			197 Nov 01 j 20:23	30° R A	
direct	196 Nov 23 j 09:14	13° M 05'55		morning rise	197 Nov 03 j 02:28	28° A 53'36	
morning max el	196 Dec 03 j 00:28	18° M 48'16	22°31'42	direct	197 Nov 07 j 04:53	27° A 19'38	
greatest brilliancy	196 Dec 07 j 15:08	23° M 58'06	-0.3m		197 Nov 13 j 04:46	0° M	
	196 Dec 12 j 08:26	0° A		morning max el	197 Nov 15 j 16:43	2° M 17'04	21°09'39
desc. node	196 Dec 19 j 01:50	9° A 20'55		greatest brilliancy	197 Nov 21 j 01:56	8° M 30'16	-0.5m
	197 Jan 01 j 17:11	0° S		desc. node	197 Dec 05 j 22:52	29° M 29'50	
morning set	197 Jan 05 j 17:46	6° S 28'44			197 Dec 06 j 06:55	0° A	
max. Earth dist.	197 Jan 10 j 21:02	15° S 01'50	1.40493 AU	morning set	197 Dec 16 j 03:27	15° A 06'50	
				max. Earth dist.	197 Dec 23 j 23:58	27° A 41'32	1.42450 AU
					197 Dec 25 j 09:41	0° S	
superior conj	197 Jan 18 j 16:26	28° S 41'58	-2°00'-17				
minimum elong	197 Jan 18 j 18:17	28° S 50'16	2°00'15	superior conj	197 Dec 31 j 04:24	9° S 42'10	-2°00'-37
	197 Jan 19 j 09:42	0° \approx		minimum elong	197 Dec 31 j 02:13	9° S 32'51	2°00'35
evening rise	197 Jan 28 j 17:25	17° \approx 21'07		evening rise	198 Jan 11 j 15:46	29° S 56'27	
	197 Feb 04 j 14:16	0° H			198 Jan 11 j 16:34	0° \approx	
asc. node	197 Feb 05 j 12:48	1° H 37'23		asc. node	198 Jan 23 j 09:50	20° \approx 04'34	
evening max el	197 Feb 13 j 22:08	13° H 17'00	18°21'22	evening max el	198 Jan 28 j 08:36	26° \approx 17'49	18°07'55
retrograde	197 Feb 21 j 04:35	16° H 52'54		retrograde	198 Feb 04 j 00:39	29° \approx 43'11	
evening set	197 Feb 23 j 15:48	16° H 29'08		evening set	198 Feb 06 j 16:14	29° \approx 10'54	
inferior conj	197 Mar 02 j 21:36	11° H 50'53	3°18'43	inferior conj	198 Feb 13 j 07:42	24° \approx 10'52	3°45'37
minimum elong	197 Mar 03 j 00:59	11° H 43'48	3°18'08	minimum elong	198 Feb 13 j 08:54	24° \approx 07'58	3°45'32
min. Earth dist.	197 Mar 06 j 07:58	9° H 00'03	0.59132 AU	min. Earth dist.	198 Feb 16 j 10:43	21° \approx 10'54	0.61237 AU
morning rise	197 Mar 10 j 06:30	6° H 18'40		morning rise	198 Feb 19 j 22:53	18° \approx 20'34	
direct	197 Mar 16 j 13:51	4° H 32'56		direct	198 Feb 26 j 19:25	16° \approx 00'31	
desc. node	197 Mar 17 j 01:01	4° H 33'30		desc. node	198 Mar 03 j 22:04	17° \approx 10'50	
morning max el	197 Mar 30 j 21:36	12° H 15'10	27°04'47	morning max el	198 Mar 12 j 23:23	23° \approx 50'56	27°42'46
	197 Apr 13 j 20:03	0° Y			198 Mar 18 j 12:40	0° H	
morning set	197 Apr 30 j 07:55	0° S 00'19			198 Apr 07 j 01:25	0° Y	
	197 Apr 30 j 07:51	0° S		morning set	198 Apr 14 j 13:41	14° Y 36'38	
asc. node	197 May 04 j 12:06	8° S 55'06		max. Earth dist.	198 Apr 20 j 16:08	27° Y 33'28	1.32450 AU
				asc. node	198 Apr 21 j 09:09	29° Y 06'11	
superior conj	197 May 07 j 10:53	15° S 22'30	0°30'47				
minimum elong	197 May 07 j 09:33	15° S 15'12	0°30'31	superior conj	198 Apr 21 j 21:48	0° S 15'13	0°05'36

minimum elong	198 Apr 21 j 21:33	0°♄13'49	0°05'33		199 Mar 30 j 03:00	0°♅	
behind sun begin	198 Apr 21 j 16:46	29°♅47'41		max. Earth dist.	199 Apr 03 j 22:34	9°♅58'53	1.32975 AU
behind sun end	198 Apr 22 j 02:20	0°♄39'58					
	198 Apr 21 j 19:01	0°♄		superior conj	199 Apr 06 j 06:05	14°♅55'42	0°-21'-2
evening rise	198 Apr 28 j 20:41	15°♄20'02		minimum elong	199 Apr 06 j 07:06	15°♅01'08	0°20'49
	198 May 06 j 04:57	0°♄		asc. node	199 Apr 08 j 06:12	19°♅15'25	
evening max el	198 May 24 j 23:38	26°♄48'10	24°57'13	evening rise	199 Apr 13 j 08:30	0°♄12'09	
	198 May 28 j 17:54	0°♄			199 Apr 13 j 06:12	0°♄	
desc. node	198 May 30 j 21:19	1°♄25'49			199 Apr 30 j 04:32	0°♄	
retrograde	198 Jun 07 j 23:18	3°♄54'30		evening max el	199 May 06 j 13:55	7°♄23'29	23°23'37
evening set	198 Jun 13 j 05:23	2°♄51'25		desc. node	199 May 17 j 18:22	13°♄57'28	
min. Earth dist.	198 Jun 18 j 11:07	0°♄03'15	0.57411 AU	retrograde	199 May 20 j 03:50	14°♄10'31	
	198 Jun 18 j 13:08	30°♄		evening set	199 May 23 j 22:43	13°♄39'00	
inferior conj	198 Jun 21 j 11:20	28°♄03'04	-4°-38'-36	min. Earth dist.	199 May 31 j 00:04	10°♄25'01	0.55851 AU
minimum elong	198 Jun 21 j 08:16	28°♄08'12	4°38'22	inferior conj	199 Jun 01 j 23:25	9°♄14'54	-3°-50'-41
morning rise	198 Jun 29 j 15:00	23°♄52'58		minimum elong	199 Jun 01 j 16:27	9°♄25'15	3°49'09
direct	198 Jul 02 j 04:34	23°♄33'56		morning rise	199 Jun 10 j 13:35	5°♄19'35	
morning max el	198 Jul 11 j 02:51	27°♄43'58	19°10'00	direct	199 Jun 13 j 06:38	5°♄01'35	
	198 Jul 13 j 07:00	0°♄		morning max el	199 Jun 23 j 18:13	9°♄52'31	20°17'00
asc. node	198 Jul 18 j 08:23	6°♄57'24		asc. node	199 Jul 05 j 05:27	25°♄44'12	
morning set	198 Jul 28 j 00:03	24°♄39'06			199 Jul 07 j 12:57	0°♄	
	198 Jul 30 j 16:35	0°♄		morning set	199 Jul 12 j 04:48	9°♄13'02	
superior conj	198 Aug 05 j 07:43	11°♄05'24	1°46'32	superior conj	199 Jul 19 j 22:27	25°♄02'59	1°45'18
minimum elong	198 Aug 05 j 08:24	11°♄08'42	1°46'32	minimum elong	199 Jul 19 j 21:27	24°♄57'57	1°45'16
max. Earth dist.	198 Aug 11 j 20:29	23°♄21'21	1.38372 AU		199 Jul 22 j 09:54	0°♄	
evening rise	198 Aug 15 j 16:54	0°♄12'39		max. Earth dist.	199 Jul 25 j 01:47	5°♄11'22	1.36473 AU
	198 Aug 15 j 14:00	0°♄		evening rise	199 Jul 29 j 01:49	12°♄42'21	
desc. node	198 Aug 26 j 20:37	18°♄33'23			199 Aug 08 j 02:17	0°♄	
	198 Sep 03 j 13:12	0°♄		desc. node	199 Aug 13 j 17:41	8°♄49'44	
evening max el	198 Sep 20 j 08:00	20°♄52'41	24°47'40		199 Aug 29 j 13:29	0°♄	
retrograde	198 Oct 01 j 21:51	27°♄37'10		evening max el	199 Sep 02 j 19:30	4°♄29'51	25°57'48
evening set	198 Oct 07 j 11:52	25°♄16'46		retrograde	199 Sep 15 j 06:37	11°♄36'04	
min. Earth dist.	198 Oct 12 j 02:41	20°♄02'18	0.67319 AU	evening set	199 Sep 21 j 11:06	9°♄01'09	
inferior conj	198 Oct 12 j 23:27	18°♄53'26	0°-27'-42	min. Earth dist.	199 Sep 25 j 17:55	4°♄22'59	0.66653 AU
minimum elong	198 Oct 13 j 00:09	18°♄51'09	0°27'26	inferior conj	199 Sep 27 j 01:51	2°♄42'32	-1°-23'-58
asc. node	198 Oct 14 j 07:34	17°♄08'33		minimum elong	199 Sep 27 j 04:00	2°♄35'48	1°23'06
morning rise	198 Oct 18 j 12:53	12°♄49'22			199 Sep 29 j 07:31	30°♄	
direct	198 Oct 22 j 02:38	11°♄35'51		asc. node	199 Oct 01 j 04:38	28°♄04'51	
morning max el	198 Oct 29 j 16:39	15°♄56'36	19°58'47	morning rise	199 Oct 02 j 21:47	26°♄47'43	
greatest brilliancy	198 Nov 06 j 00:21	24°♄55'11	-0.6m	direct	199 Oct 06 j 01:03	25°♄51'11	
	198 Nov 09 j 14:29	0°♄		morning max el	199 Oct 12 j 23:51	29°♄45'08	19°02'20
desc. node	198 Nov 22 j 19:53	19°♄54'28			199 Oct 13 j 05:40	0°♄	
morning set	198 Nov 24 j 23:50	23°♄14'40			199 Nov 03 j 00:08	0°♄	
	198 Nov 29 j 08:13	0°♄		morning set	199 Nov 04 j 07:48	2°♄04'10	
max. Earth dist.	198 Dec 06 j 10:21	11°♄10'59	1.43964 AU	desc. node	199 Nov 09 j 16:56	10°♄30'20	
				max. Earth dist.	199 Nov 19 j 02:10	25°♄14'15	1.44852 AU
superior conj	198 Dec 11 j 13:47	19°♄28'12	-1°-44'-20	superior conj	199 Nov 20 j 23:15	28°♄12'01	-1°-9'-43
minimum elong	198 Dec 11 j 06:47	18°♄59'46	1°43'50	minimum elong	199 Nov 20 j 15:16	27°♄40'31	1°08'49
	198 Dec 17 j 22:49	0°♄			199 Nov 22 j 02:35	0°♄	
evening rise	198 Dec 24 j 20:12	11°♄41'34		evening rise	199 Dec 06 j 02:37	22°♄29'48	
	199 Jan 04 j 17:37	0°♄			199 Dec 10 j 16:47	0°♄	
asc. node	199 Jan 10 j 06:53	7°♄47'59		evening max el	199 Dec 26 j 08:53	22°♄56'33	18°38'06
evening max el	199 Jan 11 j 21:03	9°♄32'52	18°13'47	asc. node	199 Dec 28 j 03:56	24°♄35'14	
retrograde	199 Jan 18 j 08:42	13°♄01'05		retrograde	200 Jan 02 j 00:28	26°♄38'35	
evening set	199 Jan 21 j 04:39	12°♄19'20		evening set	200 Jan 05 j 01:38	25°♄46'12	
inferior conj	199 Jan 27 j 09:16	6°♄58'55	3°48'23	inferior conj	200 Jan 10 j 22:20	20°♄07'29	3°33'42
minimum elong	199 Jan 27 j 08:27	7°♄01'09	3°48'20	minimum elong	200 Jan 10 j 20:12	20°♄13'53	3°33'23
min. Earth dist.	199 Jan 29 j 22:43	4°♄12'08	0.63198 AU	min. Earth dist.	200 Jan 12 j 20:27	17°♄49'33	0.64852 AU
morning rise	199 Feb 02 j 10:24	0°♄57'15		morning rise	200 Jan 16 j 13:32	13°♄58'51	
	199 Feb 03 j 18:45	30°♄		direct	200 Jan 23 j 07:35	11°♄07'32	
direct	199 Feb 09 j 09:47	28°♄14'08		morning max el	200 Feb 05 j 15:55	18°♄53'24	27°09'50
	199 Feb 15 j 12:18	0°♄		desc. node	200 Feb 05 j 16:08	18°♄53'58	
desc. node	199 Feb 18 j 19:07	2°♄09'40			200 Feb 15 j 02:38	0°♄	
morning max el	199 Feb 23 j 06:26	6°♄06'54	27°43'32		200 Mar 05 j 09:23	0°♄	
	199 Mar 13 j 10:32	0°♄		morning set	200 Mar 12 j 03:42	12°♄33'52	
morning set	199 Mar 29 j 13:15	28°♄50'56					

max. Earth dist.	200 Mar 16 j 19:50	21° K 52'07	1.33933 AU				
				max. Earth dist.	201 Feb 25 j 13:43	0° K	
					201 Feb 27 j 05:25	3° K 11'15	1.35346 AU
superior conj	200 Mar 20 j 09:49	29° K 18'00	0°-48'-1	superior conj	201 Mar 04 j 06:33	13° K 14'26	-1°-13'-59
minimum elong	200 Mar 20 j 12:09	29° K 30'12	0°47'34	minimum elong	201 Mar 04 j 09:59	13° K 31'52	1°13'27
	200 Mar 20 j 17:48	0° Y		evening rise	201 Mar 12 j 02:42	29° K 24'15	
asc. node	200 Mar 25 j 03:15	9° Y 18'55		asc. node	201 Mar 12 j 00:18	29° K 11'59	
evening rise	200 Mar 27 j 19:10	14° Y 55'47			201 Mar 12 j 09:40	0° Y	
	200 Apr 04 j 11:10	0° B		evening max el	201 Mar 30 j 12:36	29° Y 11'00	20°27'33
evening max el	200 Apr 17 j 08:22	18° B 02'53	21°49'51		201 Mar 31 j 09:47	0° B	
retrograde	200 Apr 29 j 20:41	24° B 09'57		retrograde	201 Apr 10 j 09:47	4° B 25'28	
evening set	200 May 02 j 11:29	23° B 54'39		evening set	201 Apr 12 j 13:04	4° B 14'12	
desc. node	200 May 03 j 15:24	23° B 38'31		desc. node	201 Apr 20 j 12:23	0° B 56'19	
inferior conj	200 May 11 j 20:47	19° B 51'16	-2°-17'-55	inferior conj	201 Apr 21 j 15:47	0° B 16'42	0°-19'-41
minimum elong	200 May 11 j 14:40	19° B 59'52	2°15'57	minimum elong	201 Apr 21 j 14:52	0° B 18'03	0°19'22
min. Earth dist.	200 May 11 j 12:51	20° B 02'24	0.55044 AU		201 Apr 22 j 03:16	30° R Y	
morning rise	200 May 20 j 18:57	15° B 55'27		min. Earth dist.	201 Apr 23 j 02:13	29° Y 26'41	0.55177 AU
direct	200 May 23 j 19:17	15° B 35'20		morning rise	201 Apr 30 j 14:46	26° Y 02'03	
morning max el	200 Jun 04 j 22:21	21° B 17'44	21°42'53	direct	201 May 04 j 07:06	25° Y 32'43	
	200 Jun 12 j 06:25	0° II			201 May 15 j 07:21	0° B	
asc. node	200 Jun 21 j 02:29	15° II 01'12		morning max el	201 May 17 j 17:11	2° B 05'19	23°21'37
morning set	200 Jun 25 j 13:47	24° II 00'54			201 Jun 05 j 15:21	0° II	
	200 Jun 28 j 10:19	0° E		asc. node	201 Jun 07 j 23:33	4° II 40'45	
				morning set	201 Jun 10 j 01:07	8° II 57'23	
superior conj	200 Jul 02 j 22:16	9° E 28'30	1°37'10	superior conj	201 Jun 17 j 04:12	24° II 13'02	1°23'36
minimum elong	200 Jul 02 j 20:14	9° E 17'52	1°37'00	minimum elong	201 Jun 17 j 01:44	23° II 59'49	1°23'16
max. Earth dist.	200 Jul 06 j 14:54	17° E 04'51	1.34883 AU	max. Earth dist.	201 Jun 19 j 13:50	29° II 19'40	1.33673 AU
evening rise	200 Jul 11 j 04:07	26° E 03'40			201 Jun 19 j 21:29	0° E	
	200 Jul 13 j 06:04	0° O		evening rise	201 Jun 24 j 19:12	10° E 03'40	
desc. node	200 Jul 30 j 14:44	28° O 44'12			201 Jul 05 j 15:00	0° O	
	200 Jul 31 j 11:49	0° P		desc. node	201 Jul 17 j 11:45	18° O 07'31	
evening max el	200 Aug 15 j 07:30	18° P 03'28	26°51'34		201 Jul 27 j 09:23	0° P	
retrograde	200 Aug 28 j 10:04	25° P 20'16		evening max el	201 Jul 28 j 19:10	1° P 23'15	27°21'31
evening set	200 Sep 04 j 03:26	22° P 36'52		retrograde	201 Aug 11 j 07:41	8° P 42'19	
min. Earth dist.	200 Sep 08 j 02:53	18° P 36'08	0.65640 AU	evening set	201 Aug 18 j 10:07	5° P 59'38	
inferior conj	200 Sep 09 j 22:57	16° P 27'16	-2°-20'-2	min. Earth dist.	201 Aug 22 j 03:18	2° P 34'58	0.64270 AU
minimum elong	200 Sep 10 j 02:30	16° P 16'53	2°18'43	inferior conj	201 Aug 24 j 12:24	0° P 02'58	-3°-13'-21
morning rise	200 Sep 16 j 02:56	10° P 44'48		minimum elong	201 Aug 24 j 17:00	29° O 50'42	3°11'56
asc. node	200 Sep 17 j 01:41	10° P 20'29			201 Aug 24 j 13:31	30° R O	
direct	200 Sep 18 j 22:09	10° P 01'26		morning rise	201 Aug 31 j 01:46	24° O 36'22	
morning max el	200 Sep 25 j 12:24	13° P 37'41	18°21'57	direct	201 Sep 02 j 15:30	24° O 02'35	
	200 Oct 07 j 05:14	0° A		asc. node	201 Sep 03 j 22:43	24° O 11'20	
morning set	200 Oct 14 j 18:51	12° A 15'46		morning max el	201 Sep 09 j 03:49	27° O 29'29	17°58'41
	200 Oct 25 j 19:33	0° M			201 Sep 11 j 09:24	0° P	
desc. node	200 Oct 26 j 13:58	1° M 13'06		morning set	201 Sep 26 j 09:43	23° P 48'38	
					201 Sep 30 j 01:19	0° A	
superior conj	200 Oct 29 j 23:57	6° M 37'16	0°-22'-22	superior conj	201 Oct 09 j 13:48	15° A 45'01	0°25'36
minimum elong	200 Oct 29 j 21:01	6° M 25'42	0°21'58	minimum elong	201 Oct 09 j 16:40	15° A 56'37	0°25'12
max. Earth dist.	200 Oct 31 j 20:44	9° M 33'33	1.45022 AU	desc. node	201 Oct 13 j 11:02	21° A 59'46	
	200 Nov 13 j 21:38	0° J		max. Earth dist.	201 Oct 14 j 15:10	23° A 51'46	1.44459 AU
evening rise	200 Nov 15 j 09:17	2° J 19'48			201 Oct 18 j 12:28	0° M	
greatest brilliancy	200 Nov 29 j 09:01	24° J 02'26	-0.7m	evening rise	201 Oct 25 j 21:21	11° M 27'09	
	200 Dec 03 j 12:20	0° Z			201 Nov 07 j 02:21	0° J	
evening max el	200 Dec 08 j 17:44	6° Z 23'54	19°19'33	greatest brilliancy	201 Nov 15 j 09:48	11° J 56'47	-0.6m
asc. node	200 Dec 14 j 00:58	10° Z 11'04		evening max el	201 Nov 21 j 21:50	19° J 52'40	20°16'14
retrograde	200 Dec 15 j 20:25	10° Z 29'15		retrograde	201 Nov 29 j 18:03	24° J 29'19	
evening set	200 Dec 19 j 04:21	9° Z 24'31		asc. node	201 Nov 30 j 21:59	24° J 21'37	
inferior conj	200 Dec 24 j 19:31	3° Z 29'58	3°06'26	evening set	201 Dec 03 j 10:31	23° J 10'23	
minimum elong	200 Dec 24 j 16:47	3° Z 38'44	3°05'47	inferior conj	201 Dec 08 j 22:08	17° J 02'53	2°29'51
min. Earth dist.	200 Dec 26 j 02:53	1° Z 49'11	0.66126 AU	minimum elong	201 Dec 08 j 19:26	17° J 11'59	2°29'00
	200 Dec 27 j 14:16	30° R J		min. Earth dist.	201 Dec 09 j 16:15	16° J 01'49	0.67006 AU
morning rise	200 Dec 30 j 04:25	27° J 17'07		morning rise	201 Dec 14 j 03:50	10° J 47'51	
direct	201 Jan 05 j 11:24	24° J 31'23		direct	201 Dec 19 j 20:32	8° J 17'39	
	201 Jan 16 j 00:13	0° Z		morning max el	201 Dec 31 j 09:46	15° J 10'28	24°49'22
morning max el	201 Jan 18 j 01:15	1° Z 57'25	26°08'40	desc. node	202 Jan 09 j 10:12	25° J 45'27	
desc. node	201 Jan 22 j 13:10	6° Z 53'03					
	201 Feb 08 j 05:48	0° A					
morning set	201 Feb 23 j 05:00	25° A 32'46					

	202 Jan 12 j 14:19	0°☿		greatest brilliancy	202 Dec 19 j 04:28	4°☿33'32	-0.2m
	202 Feb 01 j 03:22	0°♊		desc. node	202 Dec 27 j 07:16	15°☿15'51	
morning set	202 Feb 05 j 11:53	7°♊32'47			203 Jan 06 j 08:21	0°☿	
max. Earth dist.	202 Feb 09 j 04:50	14°♊14'17	1.37177 AU	morning set	203 Jan 17 j 18:09	18°☿18'07	
				max. Earth dist.	203 Jan 22 j 00:05	25°☿34'26	1.39265 AU
superior conj	202 Feb 15 j 17:14	26°♊36'21	-1°-37'-1		203 Jan 24 j 12:20	0°♋	
minimum elong	202 Feb 15 j 21:09	26°♊55'29	1°36'35				
	202 Feb 17 j 10:41	0°♌		superior conj	203 Jan 29 j 13:50	9°♋13'28	-1°-54'-20
evening rise	202 Feb 24 j 04:53	13°♌31'03		minimum elong	203 Jan 29 j 16:59	9°♋28'09	1°54'09
asc. node	202 Feb 26 j 21:20	18°♌49'37		evening rise	203 Feb 07 j 23:04	27°♋09'08	
	202 Mar 04 j 23:50	0°♍			203 Feb 09 j 10:34	0°♌	
evening max el	202 Mar 13 j 04:03	10°♍56'56	19°22'51	asc. node	203 Feb 13 j 18:21	8°♌06'10	
retrograde	202 Mar 22 j 08:41	15°♍22'15		evening max el	203 Feb 24 j 05:14	23°♌18'44	18°38'02
evening set	202 Mar 24 j 12:23	15°♍08'44		retrograde	203 Mar 04 j 01:29	27°♌08'18	
inferior conj	202 Apr 01 j 22:31	11°♍01'04	1°30'19	evening set	203 Mar 06 j 09:40	26°♌49'04	
minimum elong	202 Apr 02 j 01:58	10°♍55'23	1°29'13	inferior conj	203 Mar 14 j 01:16	22°♌22'58	2°49'15
min. Earth dist.	202 Apr 04 j 16:48	9°♍12'52	0.56224 AU	minimum elong	203 Mar 14 j 05:27	22°♌14'55	2°48'17
desc. node	202 Apr 07 j 09:24	7°♍37'38		min. Earth dist.	203 Mar 17 j 10:25	19°♌48'43	0.57953 AU
morning rise	202 Apr 10 j 11:45	6°♍14'35		morning rise	203 Mar 21 j 21:06	17°♌04'42	
direct	202 Apr 15 j 04:32	5°♍24'17		desc. node	203 Mar 25 j 06:25	15°♌55'25	
morning max el	202 Apr 29 j 07:53	12°♍35'06	25°01'35	direct	203 Mar 27 j 15:55	15°♌40'54	
	202 May 12 j 18:50	0°♎		morning max el	203 Apr 11 j 00:34	23°♌15'40	26°27'24
morning set	202 May 25 j 13:05	23°♎56'07			203 Apr 17 j 01:35	0°♏	
asc. node	202 May 25 j 20:35	24°♎35'42			203 May 05 j 15:30	0°♎	
	202 May 28 j 09:12	0°♐		morning set	203 May 10 j 00:04	8°♎51'24	
				asc. node	203 May 12 j 17:39	14°♎40'46	
superior conj	202 Jun 01 j 13:52	9°♐08'08	1°05'41				
minimum elong	202 Jun 01 j 11:31	8°♐55'17	1°05'17	superior conj	203 May 17 j 01:24	24°♎07'26	0°44'20
max. Earth dist.	202 Jun 02 j 20:45	11°♐55'57	1.32851 AU	minimum elong	203 May 16 j 23:36	23°♎57'29	0°43'59
evening rise	202 Jun 08 j 19:16	24°♐30'07		max. Earth dist.	203 May 17 j 08:19	24°♎45'21	1.32405 AU
	202 Jun 11 j 12:54	0°♑			203 May 19 j 17:49	0°♐	
	202 Jun 29 j 06:11	0°♒		evening rise	203 May 24 j 01:27	9°♐13'49	
desc. node	202 Jul 04 j 08:45	6°♒45'54			203 Jun 03 j 21:41	0°♑	
evening max el	202 Jul 11 j 04:05	14°♒14'38	27°21'40	desc. node	203 Jun 21 j 05:44	24°♑20'33	
retrograde	202 Jul 24 j 22:51	21°♒32'27		evening max el	203 Jun 23 j 07:48	26°♑25'59	26°48'54
evening set	202 Aug 01 j 03:36	19°♒02'45			203 Jun 27 j 13:59	0°♓	
min. Earth dist.	202 Aug 04 j 17:31	16°♒07'50	0.62553 AU	retrograde	203 Jul 07 j 06:57	3°♓41'46	
inferior conj	202 Aug 07 j 15:18	13°♒22'07	-4°00'-9	evening set	203 Jul 14 j 03:31	1°♓38'59	
minimum elong	202 Aug 07 j 20:04	13°♒10'45	3°59'06		203 Jul 16 j 14:46	30°♓☿	
morning rise	202 Aug 14 j 15:01	8°♒14'54		min. Earth dist.	203 Jul 17 j 21:32	29°♓00'34	0.60572 AU
direct	202 Aug 17 j 01:46	7°♒47'48		inferior conj	203 Jul 21 j 04:16	26°♓16'31	-4°-34'-23
asc. node	202 Aug 21 j 19:46	9°♒32'04		minimum elong	203 Jul 21 j 07:35	26°♓09'32	4°34'01
morning max el	202 Aug 23 j 19:15	11°♒13'35	17°53'23	morning rise	203 Jul 28 j 14:51	21°♓31'24	
	202 Sep 05 j 08:22	0°♈		direct	203 Jul 31 j 01:02	21°♓08'41	
morning set	202 Sep 08 j 22:45	6°♈24'37		morning max el	203 Aug 07 j 07:45	24°♓42'46	18°07'04
				asc. node	203 Aug 08 j 16:50	26°♓09'13	
superior conj	202 Sep 20 j 05:39	26°♈10'11	1°04'09		203 Aug 11 j 17:02	0°♉	
minimum elong	202 Sep 20 j 10:36	26°♈31'09	1°03'33	morning set	203 Aug 23 j 04:09	19°♉47'37	
	202 Sep 22 j 12:14	0°♊			203 Aug 28 j 15:42	0°♈	
max. Earth dist.	202 Sep 27 j 05:59	7°♊48'27	1.43233 AU				
desc. node	202 Sep 30 j 08:04	12°♊46'35		superior conj	203 Sep 02 j 00:01	7°♈53'42	1°29'49
evening rise	202 Oct 05 j 04:58	20°♊27'07		minimum elong	203 Sep 02 j 03:58	8°♈11'23	1°29'29
	202 Oct 11 j 10:16	0°♋		max. Earth dist.	203 Sep 09 j 14:58	21°♈07'00	1.41513 AU
greatest brilliancy	202 Oct 30 j 18:52	27°♋31'48	-0.4m	evening rise	203 Sep 15 j 01:49	0°♊05'16	
	202 Nov 01 j 19:22	0°♌			203 Sep 15 j 00:30	0°♊	
evening max el	202 Nov 04 j 20:06	3°♌21'28	21°25'26	desc. node	203 Sep 17 j 05:05	3°♊30'15	
retrograde	202 Nov 13 j 15:15	8°♌35'23			203 Oct 04 j 23:32	0°♋	
evening set	202 Nov 17 j 18:14	7°♌00'24		greatest brilliancy	203 Oct 13 j 14:33	11°♋19'25	-0.3m
asc. node	202 Nov 17 j 19:00	6°♌58'56		evening max el	203 Oct 18 j 12:53	16°♋51'01	22°42'59
inferior conj	202 Nov 23 j 03:59	0°♌43'24	1°46'12	retrograde	203 Oct 28 j 10:20	22°♋43'49	
minimum elong	202 Nov 23 j 01:48	0°♌50'57	1°45'22	evening set	203 Nov 02 j 01:45	20°♋51'26	
min. Earth dist.	202 Nov 23 j 10:23	0°♌21'18	0.67513 AU	asc. node	203 Nov 04 j 16:02	18°♋11'08	
	202 Nov 23 j 16:35	30°♌♋		inferior conj	203 Nov 07 j 11:07	14°♋28'46	0°57'07
morning rise	202 Nov 28 j 09:04	24°♌28'11		minimum elong	203 Nov 07 j 09:50	14°♋33'14	0°56'34
direct	202 Dec 03 j 10:22	22°♌18'56		min. Earth dist.	203 Nov 07 j 06:51	14°♌43'32	0.67685 AU
morning max el	202 Dec 13 j 18:52	28°♌28'36	23°22'01	morning rise	203 Nov 12 j 17:51	8°♌15'39	
	202 Dec 15 j 05:50	0°♌		direct	203 Nov 17 j 04:12	6°♌29'02	

morning max el	203 Nov 26 j 07:31	11° \mathbb{M} 52'13	21°55'46	transit begin	204 Oct 21 j 15:05	28° \mathbb{A} 27'00	
greatest brilliancy	203 Dec 01 j 02:07	17° \mathbb{M} 16'04	-0.4m	transit end	204 Oct 21 j 20:22	28° \mathbb{A} 09'07	
	203 Dec 10 j 13:45	0° \mathbb{A}		asc. node	204 Oct 21 j 13:06	28° \mathbb{A} 33'43	
desc. node	203 Dec 14 j 04:18	5° \mathbb{A} 12'50		morning rise	204 Oct 27 j 04:14	22° \mathbb{A} 09'21	
morning set	203 Dec 28 j 19:11	27° \mathbb{A} 38'18		direct	204 Oct 31 j 01:01	20° \mathbb{A} 44'20	
	203 Dec 30 j 06:24	0° \mathbb{B}		morning max el	204 Nov 08 j 02:51	25° \mathbb{A} 25'21	20°37'53
max. Earth dist.	204 Jan 03 j 22:17	7° \mathbb{B} 39'22	1.41354 AU		204 Nov 12 j 03:41	0° \mathbb{M}	
				greatest brilliancy	204 Nov 14 j 04:50	2° \mathbb{M} 36'43	-0.5m
superior conj	204 Jan 11 j 15:15	20° \mathbb{B} 52'19	-2°-2'-12	desc. node	204 Nov 30 j 01:21	25° \mathbb{M} 29'15	
minimum elong	204 Jan 11 j 15:38	20° \mathbb{B} 54'04	2°02'12		204 Dec 03 j 00:25	0° \mathbb{A}	
	204 Jan 16 j 17:25	0° \mathbb{A}		morning set	204 Dec 06 j 20:23	5° \mathbb{A} 54'47	
evening rise	204 Jan 22 j 05:47	10° \mathbb{A} 09'23		max. Earth dist.	204 Dec 16 j 04:02	20° \mathbb{A} 40'03	1.43158 AU
asc. node	204 Jan 31 j 15:23	26° \mathbb{A} 53'48			204 Dec 21 j 20:39	0° \mathbb{B}	
	204 Feb 02 j 15:22	0° \mathbb{H}					
evening max el	204 Feb 07 j 13:14	6° \mathbb{H} 07'49	18°13'17	superior conj	204 Dec 22 j 16:15	1° \mathbb{B} 21'42	-1°-55'-58
retrograde	204 Feb 14 j 12:23	9° \mathbb{H} 37'33		minimum elong	204 Dec 22 j 11:55	1° \mathbb{B} 03'37	1°55'47
evening set	204 Feb 17 j 01:23	9° \mathbb{H} 10'25		evening rise	205 Jan 03 j 21:03	22° \mathbb{B} 24'02	
inferior conj	204 Feb 24 j 00:42	4° \mathbb{H} 23'09	3°33'32		205 Jan 08 j 04:32	0° \mathbb{A}	
minimum elong	204 Feb 24 j 03:12	4° \mathbb{H} 17'34	3°33'12	asc. node	205 Jan 17 j 12:25	15° \mathbb{A} 03'51	
min. Earth dist.	204 Feb 27 j 09:14	1° \mathbb{H} 25'03	0.60026 AU	evening max el	205 Jan 21 j 00:58	19° \mathbb{A} 15'58	18°08'09
	204 Feb 29 j 03:46	30° \mathbb{R} \mathbb{A}		retrograde	205 Jan 27 j 13:55	22° \mathbb{A} 40'40	
morning rise	204 Mar 02 j 01:41	28° \mathbb{A} 42'00		evening set	205 Jan 30 j 07:23	22° \mathbb{A} 04'25	
direct	204 Mar 08 j 15:56	26° \mathbb{A} 40'26		inferior conj	205 Feb 05 j 17:52	16° \mathbb{A} 55'46	3°49'14
desc. node	204 Mar 11 j 03:28	26° \mathbb{A} 56'54		minimum elong	205 Feb 05 j 18:08	16° \mathbb{A} 55'05	3°49'13
	204 Mar 17 j 15:50	0° \mathbb{H}		min. Earth dist.	205 Feb 08 j 15:41	13° \mathbb{A} 58'56	0.62107 AU
morning max el	204 Mar 22 j 22:41	4° \mathbb{H} 27'48	27°25'17	morning rise	205 Feb 12 j 02:36	11° \mathbb{A} 00'11	
	204 Apr 10 j 19:13	0° \mathbb{Y}		direct	205 Feb 19 j 01:45	8° \mathbb{A} 28'20	
morning set	204 Apr 23 j 08:17	23° \mathbb{Y} 36'21		desc. node	205 Feb 26 j 00:31	10° \mathbb{A} 38'29	
	204 Apr 26 j 08:58	0° \mathbb{B}		morning max el	205 Mar 05 j 02:45	16° \mathbb{A} 20'26	27°47'28
asc. node	204 Apr 28 j 14:43	4° \mathbb{B} 50'44			205 Mar 16 j 09:10	0° \mathbb{H}	
max. Earth dist.	204 Apr 29 j 20:52	7° \mathbb{B} 35'31	1.32325 AU		205 Apr 03 j 09:51	0° \mathbb{Y}	
				morning set	205 Apr 07 j 11:43	8° \mathbb{Y} 04'05	
superior conj	204 Apr 30 j 13:02	9° \mathbb{B} 04'12	0°20'20	max. Earth dist.	205 Apr 13 j 06:38	20° \mathbb{Y} 13'36	1.32626 AU
minimum elong	204 Apr 30 j 12:08	8° \mathbb{B} 59'14	0°20'09				
evening rise	204 May 07 j 11:22	24° \mathbb{B} 06'22		superior conj	205 Apr 14 j 23:06	23° \mathbb{Y} 52'36	0°-5'-35
	204 May 10 j 07:42	0° \mathbb{H}		minimum elong	205 Apr 14 j 23:21	23° \mathbb{Y} 54'02	0°05'32
	204 May 28 j 05:43	0° \mathbb{B}		behind sun begin	205 Apr 14 j 18:31	23° \mathbb{Y} 27'42	
evening max el	204 Jun 04 j 04:52	7° \mathbb{B} 52'29	25°45'04	behind sun end	205 Apr 15 j 04:12	24° \mathbb{Y} 20'23	
desc. node	204 Jun 07 j 02:45	10° \mathbb{B} 25'17		asc. node	205 Apr 15 j 11:46	25° \mathbb{Y} 01'28	
retrograde	204 Jun 18 j 06:08	15° \mathbb{B} 04'03			205 Apr 17 j 18:34	0° \mathbb{B}	
evening set	204 Jun 24 j 05:30	13° \mathbb{B} 38'53		evening rise	205 Apr 21 j 23:03	9° \mathbb{B} 00'49	
min. Earth dist.	204 Jun 28 j 17:16	10° \mathbb{B} 58'59	0.58512 AU		205 May 02 j 21:03	0° \mathbb{H}	
inferior conj	204 Jul 01 j 23:46	8° \mathbb{B} 37'02	-4°-46'-35	evening max el	205 May 16 j 20:26	18° \mathbb{H} 40'58	24°18'24
minimum elong	204 Jul 01 j 23:30	8° \mathbb{B} 37'32	4°46'36	desc. node	205 May 24 j 23:47	24° \mathbb{H} 25'34	
morning rise	204 Jul 09 j 21:13	4° \mathbb{B} 14'35		retrograde	205 May 30 j 17:33	25° \mathbb{H} 40'35	
direct	204 Jul 12 j 08:57	3° \mathbb{B} 54'37		evening set	205 Jun 04 j 08:40	24° \mathbb{H} 52'48	
morning max el	204 Jul 20 j 14:12	7° \mathbb{B} 48'13	18°40'58	min. Earth dist.	205 Jun 10 j 07:44	21° \mathbb{H} 55'03	0.56676 AU
asc. node	204 Jul 25 j 13:55	13° \mathbb{B} 47'36		inferior conj	205 Jun 12 j 23:15	20° \mathbb{H} 14'56	-4°-24'00
	204 Aug 03 j 22:36	0° \mathbb{Q}		minimum elong	205 Jun 12 j 18:11	20° \mathbb{H} 22'58	4°23'16
morning set	204 Aug 05 j 21:21	3° \mathbb{Q} 45'50		morning rise	205 Jun 21 j 07:25	16° \mathbb{H} 12'03	
				direct	205 Jun 23 j 22:20	15° \mathbb{H} 53'34	
superior conj	204 Aug 14 j 15:55	20° \mathbb{Q} 41'50	1°43'23	morning max el	205 Jul 03 j 11:37	20° \mathbb{H} 19'39	19°35'55
minimum elong	204 Aug 14 j 17:48	20° \mathbb{Q} 50'38	1°43'19		205 Jul 11 j 02:21	0° \mathbb{B}	
	204 Aug 19 j 17:10	0° \mathbb{H}		asc. node	205 Jul 12 j 11:00	2° \mathbb{B} 12'57	
max. Earth dist.	204 Aug 21 j 19:12	3° \mathbb{H} 42'40	1.39531 AU	morning set	205 Jul 20 j 22:43	18° \mathbb{B} 09'16	
evening rise	204 Aug 25 j 22:22	10° \mathbb{H} 50'44			205 Jul 26 j 19:47	0° \mathbb{Q}	
desc. node	204 Sep 03 j 02:06	24° \mathbb{H} 07'22					
	204 Sep 06 j 21:42	0° \mathbb{A}		superior conj	205 Jul 28 j 23:42	4° \mathbb{Q} 18'00	1°46'58
	204 Sep 29 j 16:22	0° \mathbb{M}		minimum elong	205 Jul 28 j 23:36	4° \mathbb{Q} 17'29	1°46'58
evening max el	204 Sep 30 j 02:05	0° \mathbb{M} 24'23	24°03'11	max. Earth dist.	205 Aug 03 j 22:49	15° \mathbb{Q} 44'41	1.37540 AU
retrograde	204 Oct 11 j 02:00	6° \mathbb{M} 52'09		evening rise	205 Aug 07 j 19:08	22° \mathbb{Q} 45'15	
evening set	204 Oct 16 j 07:25	4° \mathbb{M} 41'55			205 Aug 11 j 23:02	0° \mathbb{H}	
	204 Oct 20 j 11:28	30° \mathbb{R} \mathbb{A}		desc. node	205 Aug 20 j 23:08	14° \mathbb{H} 32'56	
min. Earth dist.	204 Oct 21 j 03:13	29° \mathbb{A} 07'10	0.67542 AU		205 Aug 31 j 17:00	0° \mathbb{A}	
inferior conj	204 Oct 21 j 17:49	28° \mathbb{A} 17'42	0°04'05	evening max el	205 Sep 12 j 13:50	14° \mathbb{A} 01'19	25°19'05
minimum elong	204 Oct 21 j 17:43	28° \mathbb{A} 18'03	0°04'01	retrograde	205 Sep 24 j 13:16	20° \mathbb{A} 55'43	
transit middle	204 Oct 21 j 17:43	28° \mathbb{A} 18'03	0°04'01	evening set	205 Sep 30 j 09:31	18° \mathbb{A} 28'53	

min. Earth dist.	205 Oct 04 j 20:58	13° Ω 29'32	0.67080 AU		206 Aug 28 j 16:11	0° Ω	
inferior conj	205 Oct 05 j 22:18	12° Ω 07'16	0°-51'-28	retrograde	206 Sep 07 j 19:38	4° Ω 49'20	
minimum elong	205 Oct 05 j 23:36	12° Ω 03'03	0°50'55	evening set	206 Sep 14 j 06:04	2° Ω 09'46	
asc. node	205 Oct 08 j 10:10	9° Ω 01'14			206 Sep 16 j 11:46	30° \mathbb{R} \mathbb{M}	
morning rise	205 Oct 11 j 14:16	6° Ω 06'38		min. Earth dist.	206 Sep 18 j 09:41	27° \mathbb{M} 47'44	0.66276 AU
direct	205 Oct 14 j 23:23	5° Ω 00'35		inferior conj	206 Sep 19 j 22:41	25° \mathbb{M} 54'44	-1°-47'-54
morning max el	205 Oct 22 j 05:55	9° Ω 08'27	19°32'51	minimum elong	206 Sep 20 j 01:27	25° \mathbb{M} 46'18	1°46'48
greatest brilliancy	205 Oct 30 j 21:41	20° Ω 08'00	-0.7m	asc. node	206 Sep 25 j 07:14	20° \mathbb{M} 27'30	
	205 Nov 06 j 13:09	0° \mathbb{M}		morning rise	206 Sep 25 j 21:53	20° \mathbb{M} 04'57	
morning set	205 Nov 15 j 18:44	14° \mathbb{M} 11'45		direct	206 Sep 28 j 21:30	19° \mathbb{M} 14'24	
desc. node	205 Nov 16 j 22:24	15° \mathbb{M} 59'00		morning max el	206 Oct 05 j 15:42	22° \mathbb{M} 59'17	18°43'06
	205 Nov 25 j 21:46	0° \mathbb{M}			206 Oct 11 j 07:49	0° Ω	
max. Earth dist.	205 Nov 28 j 17:17	4° \mathbb{M} 26'37	1.44431 AU	morning set	206 Oct 26 j 13:18	23° Ω 34'02	
					206 Oct 30 j 14:38	0° \mathbb{M}	
superior conj	205 Dec 02 j 14:26	10° \mathbb{M} 37'44	-1°-31'-46	desc. node	206 Nov 03 j 19:26	6° \mathbb{M} 38'02	
minimum elong	205 Dec 02 j 06:15	10° \mathbb{M} 04'57	1°31'02				
	205 Dec 14 j 10:40	0° \mathbb{Z}		superior conj	206 Nov 11 j 17:25	19° \mathbb{M} 05'14	0°-50'-30
evening rise	205 Dec 16 j 16:26	3° \mathbb{Z} 44'55		minimum elong	206 Nov 11 j 11:02	18° \mathbb{M} 40'07	0°49'42
	206 Jan 02 j 06:54	0° \approx		max. Earth dist.	206 Nov 11 j 11:07	18° \mathbb{M} 40'29	1.45020 AU
asc. node	206 Jan 04 j 09:28	2° \approx 24'51			206 Nov 18 j 15:37	0° \mathbb{M}	
evening max el	206 Jan 04 j 13:29	2° \approx 35'09	18°21'58	evening rise	206 Nov 27 j 12:38	14° \mathbb{M} 07'36	
retrograde	206 Jan 11 j 01:41	6° \approx 07'42			206 Dec 07 j 11:10	0° \mathbb{Z}	
evening set	206 Jan 13 j 23:50	5° \approx 21'24		evening max el	206 Dec 19 j 00:12	15° \mathbb{Z} 59'58	18°53'43
	206 Jan 19 j 22:12	30° \mathbb{R} \mathbb{Z}		asc. node	206 Dec 22 j 06:29	18° \mathbb{Z} 43'09	
inferior conj	206 Jan 20 j 00:43	29° \mathbb{Z} 52'48	3°43'55	retrograde	206 Dec 25 j 19:39	19° \mathbb{Z} 51'01	
minimum elong	206 Jan 19 j 23:15	29° \mathbb{Z} 56'59	3°43'48	evening set	206 Dec 28 j 23:32	18° \mathbb{Z} 53'28	
min. Earth dist.	206 Jan 22 j 07:37	27° \mathbb{Z} 17'08	0.63947 AU	inferior conj	207 Jan 03 j 17:34	13° \mathbb{Z} 07'23	3°23'27
morning rise	206 Jan 25 j 21:10	23° \mathbb{Z} 48'03		minimum elong	207 Jan 03 j 15:06	13° \mathbb{Z} 15'02	3°23'00
direct	206 Feb 01 j 19:13	20° \mathbb{Z} 59'50		min. Earth dist.	207 Jan 05 j 09:08	11° \mathbb{Z} 04'52	0.65436 AU
desc. node	206 Feb 12 j 21:34	26° \mathbb{Z} 26'05		morning rise	207 Jan 09 j 05:39	6° \mathbb{Z} 56'37	
morning max el	206 Feb 15 j 11:02	28° \mathbb{Z} 50'03	27°33'10	direct	207 Jan 15 j 19:22	4° \mathbb{Z} 06'33	
	206 Feb 16 j 14:23	0° \approx		morning max el	207 Jan 28 j 20:51	11° \mathbb{Z} 45'37	26°46'50
	206 Mar 10 j 05:00	0° \mathbb{H}		desc. node	207 Jan 30 j 18:36	13° \mathbb{Z} 44'59	
morning set	206 Mar 22 j 07:51	22° \mathbb{H} 06'27			207 Feb 12 j 11:20	0° \approx	
	206 Mar 26 j 05:26	0° \mathbb{Y}			207 Mar 02 j 18:20	0° \mathbb{H}	
max. Earth dist.	206 Mar 27 j 09:48	2° \mathbb{Y} 27'26	1.33330 AU	morning set	207 Mar 05 j 17:14	5° \mathbb{H} 31'56	
				max. Earth dist.	207 Mar 10 j 02:32	14° \mathbb{H} 06'39	1.34475 AU
superior conj	206 Mar 30 j 05:44	8° \mathbb{Y} 26'31	0°-32'-28				
minimum elong	206 Mar 30 j 07:19	8° \mathbb{Y} 34'54	0°32'10	superior conj	207 Mar 14 j 06:46	22° \mathbb{H} 38'13	0°-59'-14
asc. node	206 Apr 02 j 08:48	15° \mathbb{Y} 08'58		minimum elong	207 Mar 14 j 09:36	22° \mathbb{H} 52'56	0°58'45
evening rise	206 Apr 06 j 10:38	23° \mathbb{Y} 50'45			207 Mar 17 j 19:10	0° \mathbb{Y}	
	206 Apr 09 j 10:11	0° \mathbb{B}		asc. node	207 Mar 20 j 05:49	5° \mathbb{Y} 08'19	
evening max el	206 Apr 28 j 11:43	29° \mathbb{B} 14'57	22°42'57	evening rise	207 Mar 21 j 20:12	8° \mathbb{Y} 28'32	
	206 Apr 29 j 06:54	0° \mathbb{H}			207 Apr 02 j 10:19	0° \mathbb{B}	
retrograde	206 May 11 j 16:20	5° \mathbb{H} 46'58		evening max el	207 Apr 10 j 09:40	10° \mathbb{B} 03'31	21°12'58
desc. node	206 May 11 j 20:48	5° \mathbb{H} 46'54		retrograde	207 Apr 22 j 06:34	15° \mathbb{B} 49'35	
evening set	206 May 14 j 21:55	5° \mathbb{H} 24'04		evening set	207 Apr 24 j 14:26	15° \mathbb{B} 37'02	
min. Earth dist.	206 May 22 j 20:07	1° \mathbb{H} 55'52	0.55405 AU	desc. node	207 Apr 28 j 17:50	14° \mathbb{B} 19'25	
inferior conj	206 May 24 j 04:04	1° \mathbb{H} 10'10	-3°-16'-17	inferior conj	207 May 03 j 22:36	11° \mathbb{B} 37'50	-1°-29'00
minimum elong	206 May 23 j 20:44	1° \mathbb{H} 20'41	3°14'19	minimum elong	207 May 03 j 18:25	11° \mathbb{B} 43'44	1°27'34
	206 May 26 j 05:57	30° \mathbb{R} \mathbb{B}		min. Earth dist.	207 May 04 j 08:52	11° \mathbb{B} 23'22	0.54979 AU
morning rise	206 Jun 01 j 22:12	27° \mathbb{B} 17'08		morning rise	207 May 12 j 22:21	7° \mathbb{B} 36'31	
direct	206 Jun 04 j 17:54	26° \mathbb{B} 58'39		direct	207 May 16 j 04:00	7° \mathbb{B} 13'51	
	206 Jun 13 j 06:38	0° \mathbb{H}		morning max el	207 May 28 j 22:00	13° \mathbb{B} 18'05	22°23'53
morning max el	206 Jun 15 j 22:09	2° \mathbb{H} 10'06	20°51'24		207 Jun 10 j 10:41	0° \mathbb{H}	
asc. node	206 Jun 29 j 08:03	21° \mathbb{H} 14'06		asc. node	207 Jun 16 j 05:05	10° \mathbb{H} 41'18	
	206 Jul 03 j 20:07	0° \mathbb{B}		morning set	207 Jun 19 j 15:46	17° \mathbb{H} 42'47	
morning set	206 Jul 05 j 05:34	2° \mathbb{B} 50'35			207 Jun 25 j 10:50	0° \mathbb{B}	
superior conj	206 Jul 12 j 18:46	18° \mathbb{B} 29'11	1°42'36	superior conj	207 Jun 26 j 21:31	3° \mathbb{B} 03'52	1°32'01
minimum elong	206 Jul 12 j 17:15	18° \mathbb{B} 21'25	1°42'31	minimum elong	207 Jun 26 j 19:14	2° \mathbb{B} 51'46	1°31'46
max. Earth dist.	206 Jul 17 j 07:23	27° \mathbb{B} 35'22	1.35758 AU	max. Earth dist.	207 Jun 30 j 00:36	9° \mathbb{B} 36'18	1.34320 AU
	206 Jul 18 j 13:00	0° \mathbb{B}		evening rise	207 Jul 04 j 20:19	19° \mathbb{B} 17'41	
evening rise	206 Jul 21 j 12:06	5° \mathbb{B} 38'49			207 Jul 10 j 13:11	0° \mathbb{B}	
	206 Aug 04 j 18:08	0° \mathbb{M}		desc. node	207 Jul 25 j 17:11	24° \mathbb{B} 23'33	
desc. node	206 Aug 07 j 20:09	4° \mathbb{M} 41'04			207 Jul 29 j 20:12	0° \mathbb{M}	
evening max el	206 Aug 26 j 01:36	27° \mathbb{M} 38'09	26°22'59	evening max el	207 Aug 08 j 13:24	11° \mathbb{M} 06'23	27°07'27

retrograde	207 Aug 21 j 20:44	18° \cap 25'22		desc. node	208 Jul 11 j 14:11	13° Ω 29'25	
evening set	207 Aug 28 j 18:42	15° \cap 40'34		evening max el	208 Jul 21 j 00:05	24° Ω 15'03	27°25'27
min. Earth dist.	207 Sep 01 j 15:09	11° \cap 55'51	0.65105 AU		208 Jul 28 j 17:21	0° \cap	
inferior conj	207 Sep 03 j 16:50	9° \cap 35'59	-2°-43'-10	retrograde	208 Aug 03 j 15:59	1° \cap 34'39	
minimum elong	207 Sep 03 j 20:53	9° \cap 24'32	2°41'46		208 Aug 09 j 05:05	30° \mathbb{R} Ω	
morning rise	207 Sep 10 j 00:42	4° \cap 00'10		evening set	208 Aug 10 j 20:17	28° Ω 55'47	
asc. node	207 Sep 12 j 04:16	3° \cap 22'58		min. Earth dist.	208 Aug 14 j 11:27	25° Ω 44'49	0.63576 AU
direct	207 Sep 12 j 17:12	3° \cap 21'24		inferior conj	208 Aug 17 j 02:10	23° Ω 05'15	-3°-34'-19
morning max el	207 Sep 19 j 05:53	6° \cap 52'36	18°09'55	minimum elong	208 Aug 17 j 06:59	22° Ω 52'58	3°33'01
	207 Oct 04 j 21:32	0° Ω		morning rise	208 Aug 23 j 19:52	17° Ω 46'33	
morning set	207 Oct 07 j 12:39	4° Ω 21'40		direct	208 Aug 26 j 07:52	17° Ω 16'06	
				asc. node	208 Aug 29 j 01:20	17° Ω 52'53	
superior conj	207 Oct 21 j 21:20	27° Ω 42'17	0°-1'-20	morning max el	208 Sep 01 j 21:41	20° Ω 41'49	17°54'07
minimum elong	207 Oct 21 j 21:11	27° Ω 41'38	0°01'20		208 Sep 08 j 21:36	0° \cap	
behind sun begin	207 Oct 21 j 10:20	26° Ω 58'30		morning set	208 Sep 18 j 13:42	16° \cap 23'10	
behind sun end	207 Oct 22 j 08:01	28° Ω 24'44			208 Sep 26 j 11:53	0° Ω	
desc. node	207 Oct 21 j 16:28	27° Ω 22'53					
	207 Oct 23 j 08:03	0° \mathbb{M}		superior conj	208 Sep 30 j 21:32	7° Ω 20'57	0°43'27
max. Earth dist.	207 Oct 25 j 05:51	3° \mathbb{M} 01'01	1.44866 AU	minimum elong	208 Oct 01 j 01:47	7° Ω 38'28	0°42'53
evening rise	207 Nov 07 j 10:16	23° \mathbb{M} 36'30		max. Earth dist.	208 Oct 06 j 22:31	17° Ω 09'53	1.44007 AU
	207 Nov 11 j 13:15	0° \mathbb{M}		desc. node	208 Oct 07 j 13:30	18° Ω 09'49	
greatest brilliancy	207 Nov 24 j 10:21	19° \mathbb{M} 27'40	-0.6m		208 Oct 15 j 02:11	0° \mathbb{M}	
evening max el	207 Dec 02 j 07:07	29° \mathbb{M} 27'43	19°41'56	evening rise	208 Oct 16 j 18:10	2° \mathbb{M} 34'33	
	207 Dec 02 j 19:56	0° \mathbb{M}			208 Nov 04 j 03:26	0° \mathbb{M}	
asc. node	207 Dec 09 j 03:31	3° \mathbb{M} 44'20		greatest brilliancy	208 Nov 08 j 14:36	6° \mathbb{M} 06'00	-0.5m
retrograde	207 Dec 09 j 16:44	3° \mathbb{M} 46'02		evening max el	208 Nov 14 j 08:47	12° \mathbb{M} 56'19	20°44'25
evening set	207 Dec 13 j 03:57	2° \mathbb{M} 35'37		retrograde	208 Nov 22 j 14:21	17° \mathbb{M} 48'27	
	207 Dec 15 j 23:42	30° \mathbb{M} \mathbb{M}		asc. node	208 Nov 25 j 00:33	17° \mathbb{M} 15'08	
inferior conj	207 Dec 18 j 17:22	26° \mathbb{M} 35'01	2°51'56	evening set	208 Nov 26 j 10:58	16° \mathbb{M} 23'09	
minimum elong	207 Dec 18 j 14:35	26° \mathbb{M} 44'10	2°51'10	inferior conj	208 Dec 01 j 21:38	10° \mathbb{M} 11'19	2°12'06
min. Earth dist.	207 Dec 19 j 18:55	25° \mathbb{M} 10'56	0.66540 AU	minimum elong	208 Dec 01 j 19:05	10° \mathbb{M} 19'59	2°11'13
morning rise	207 Dec 24 j 00:32	20° \mathbb{M} 20'43		min. Earth dist.	208 Dec 02 j 10:41	9° \mathbb{M} 26'43	0.67266 AU
direct	207 Dec 30 j 01:35	17° \mathbb{M} 40'37		morning rise	208 Dec 07 j 02:44	3° \mathbb{M} 55'46	
morning max el	208 Jan 11 j 06:00	24° \mathbb{M} 55'01	25°36'36	direct	208 Dec 12 j 12:59	1° \mathbb{M} 33'46	
	208 Jan 15 j 20:56	0° \mathbb{M}		morning max el	208 Dec 23 j 14:16	8° \mathbb{M} 09'27	24°12'29
desc. node	208 Jan 17 j 15:38	2° \mathbb{M} 09'03		desc. node	209 Jan 03 j 12:41	21° \mathbb{M} 18'55	
	208 Feb 05 j 22:39	0° \mathbb{M}			209 Jan 09 j 17:25	0° \mathbb{M}	
morning set	208 Feb 16 j 11:25	18° \mathbb{M} 07'46		morning set	209 Jan 28 j 08:32	29° \mathbb{M} 37'17	
max. Earth dist.	208 Feb 20 j 07:13	25° \mathbb{M} 14'52	1.36073 AU		209 Jan 28 j 13:46	0° \mathbb{M}	
	208 Feb 22 j 18:31	0° \mathbb{M}		max. Earth dist.	209 Feb 01 j 03:19	6° \mathbb{M} 17'42	1.38046 AU
superior conj	208 Feb 25 j 23:35	6° \mathbb{M} 20'32	-1°-24'-16	superior conj	209 Feb 08 j 04:48	19° \mathbb{M} 24'14	-1°-45'-17
minimum elong	208 Feb 26 j 03:20	6° \mathbb{M} 39'16	1°23'45	minimum elong	209 Feb 08 j 08:35	19° \mathbb{M} 42'23	1°44'56
evening rise	208 Mar 05 j 01:44	22° \mathbb{M} 48'07			209 Feb 13 j 15:19	0° \mathbb{M}	
asc. node	208 Mar 06 j 02:50	24° \mathbb{M} 55'06		evening rise	209 Feb 17 j 00:49	6° \mathbb{M} 42'38	
	208 Mar 08 j 16:21	0° \mathbb{M}		asc. node	209 Feb 20 j 23:52	14° \mathbb{M} 23'57	
evening max el	208 Mar 22 j 18:38	21° \mathbb{M} 26'49	19°57'44		209 Mar 02 j 12:22	0° \mathbb{M}	
retrograde	208 Apr 01 j 22:25	26° \mathbb{M} 19'26		evening max el	209 Mar 05 j 14:35	3° \mathbb{M} 28'29	19°01'23
evening set	208 Apr 04 j 00:39	26° \mathbb{M} 07'55		retrograde	209 Mar 14 j 03:57	7° \mathbb{M} 36'10	
inferior conj	208 Apr 12 j 21:04	22° \mathbb{M} 07'48	0°29'44	evening set	209 Mar 16 j 09:29	7° \mathbb{M} 20'31	
minimum elong	208 Apr 12 j 22:22	22° \mathbb{M} 05'48	0°29'17	inferior conj	209 Mar 24 j 11:40	3° \mathbb{M} 06'01	2°08'12
desc. node	208 Apr 14 j 14:49	21° \mathbb{M} 04'15		minimum elong	209 Mar 24 j 15:52	2° \mathbb{M} 58'40	2°06'59
min. Earth dist.	208 Apr 14 j 22:58	20° \mathbb{M} 52'01	0.55515 AU	min. Earth dist.	209 Mar 27 j 14:41	0° \mathbb{M} 55'49	0.56895 AU
morning rise	208 Apr 21 j 17:05	17° \mathbb{M} 39'59			209 Mar 29 j 01:20	30° \mathbb{M} \mathbb{M}	
direct	208 Apr 25 j 18:50	17° \mathbb{M} 03'25		desc. node	209 Apr 01 j 11:50	28° \mathbb{M} 11'45	
morning max el	208 May 09 j 14:25	23° \mathbb{M} 54'55	24°04'49	morning rise	209 Apr 01 j 18:04	28° \mathbb{M} 05'21	
	208 May 15 j 02:43	0° \mathbb{M}		direct	209 Apr 06 j 22:36	27° \mathbb{M} 01'41	
	208 Jun 01 j 20:48	0° \mathbb{M}			209 Apr 15 j 18:35	0° \mathbb{M}	
asc. node	208 Jun 02 j 02:08	0° \mathbb{M} 27'34		morning max el	209 Apr 21 j 05:04	4° \mathbb{M} 24'37	25°40'45
morning set	208 Jun 03 j 03:32	2° \mathbb{M} 40'19			209 May 09 j 14:47	0° \mathbb{M}	
				morning set	209 May 18 j 15:17	17° \mathbb{M} 37'53	
superior conj	208 Jun 10 j 05:18	17° \mathbb{M} 53'32	1°16'28	asc. node	209 May 19 j 23:11	20° \mathbb{M} 27'05	
minimum elong	208 Jun 10 j 02:49	17° \mathbb{M} 40'07	1°16'06		209 May 24 j 08:45	0° \mathbb{M}	
max. Earth dist.	208 Jun 12 j 02:56	21° \mathbb{M} 58'55	1.33275 AU				
	208 Jun 15 j 22:27	0° \mathbb{M}		superior conj	209 May 25 j 15:59	2° \mathbb{M} 51'04	0°57'01
evening rise	208 Jun 17 j 15:36	3° \mathbb{M} 29'49		minimum elong	209 May 25 j 13:49	2° \mathbb{M} 39'09	0°56'37
	208 Jul 02 j 07:43	0° Ω		max. Earth dist.	209 May 26 j 12:14	4° \mathbb{M} 41'43	1.32613 AU

evening rise	209 Jun 01 j 18:36	18° Π 04'49		max. Earth dist.	210 May 10 j 00:49	17° U 33'20	1.32324 AU
	209 Jun 07 j 19:14	0° S			210 May 15 j 17:58	0° Π	
	209 Jun 27 j 00:28	0° Ω		evening rise	210 May 17 j 02:38	2° Π 52'56	
desc. node	209 Jun 28 j 11:10	1° Ω 43'40			210 May 31 j 17:52	0° S	
evening max el	209 Jul 03 j 07:23	6° Ω 51'55	27°11'57	desc. node	210 Jun 15 j 08:12	18° S 43'46	
retrograde	209 Jul 17 j 04:25	14° Ω 08'36		evening max el	210 Jun 15 j 08:30	18° S 44'30	26°25'21
evening set	209 Jul 24 j 06:57	11° Ω 49'04		retrograde	210 Jun 29 j 08:34	25° S 58'05	
min. Earth dist.	209 Jul 27 j 21:32	9° Ω 02'50	0.61732 AU	evening set	210 Jul 05 j 21:56	24° S 10'33	
inferior conj	209 Jul 30 j 23:40	6° Ω 15'49	-4°-16'-42	min. Earth dist.	210 Jul 09 j 21:34	21° S 33'56	0.59691 AU
minimum elong	209 Jul 31 j 04:04	6° Ω 05'52	4°15'56	inferior conj	210 Jul 13 j 05:39	18° S 56'56	-4°-42'-59
morning rise	209 Aug 07 j 03:57	1° Ω 17'23		minimum elong	210 Jul 13 j 07:42	18° S 52'51	4°42'52
direct	209 Aug 09 j 14:07	0° Ω 52'23		morning rise	210 Jul 20 j 20:49	14° S 21'23	
asc. node	209 Aug 15 j 22:24	3° Ω 48'13		direct	210 Jul 23 j 07:38	13° S 59'51	
morning max el	209 Aug 16 j 12:15	4° Ω 20'47	17°56'44	morning max el	210 Jul 30 j 22:29	17° S 40'30	18°18'58
morning set	209 Sep 01 j 10:29	29° Ω 21'45		asc. node	210 Aug 02 j 19:28	20° S 52'53	
	209 Sep 01 j 18:52	0° M			210 Aug 08 j 19:32	0° Ω	
				morning set	210 Aug 15 j 21:27	13° Ω 01'17	
					210 Aug 24 j 22:02	0° M	
superior conj	209 Sep 12 j 01:09	18° M 20'52	1°16'36	superior conj	210 Aug 25 j 05:26	0° M 33'52	1°36'56
minimum elong	209 Sep 12 j 05:56	18° M 41'35	1°16'05	minimum elong	210 Aug 25 j 08:32	0° M 48'06	1°36'43
	209 Sep 18 j 22:22	0° U		max. Earth dist.	210 Sep 01 j 18:28	13° M 55'19	1.40695 AU
max. Earth dist.	209 Sep 19 j 11:10	0° U 52'45	1.42558 AU	evening rise	210 Sep 06 j 12:02	21° M 51'42	
desc. node	209 Sep 24 j 10:33	8° U 55'52		desc. node	210 Sep 11 j 07:34	29° M 37'09	
evening rise	209 Sep 26 j 05:40	11° U 46'42			210 Sep 11 j 13:22	0° U	
	209 Oct 08 j 04:41	0° M			210 Oct 02 j 07:17	0° M	
greatest brilliancy	209 Oct 23 j 10:42	21° M 02'35	-0.4m	evening max el	210 Oct 10 j 19:51	9° M 57'02	23°17'04
evening max el	209 Oct 28 j 04:47	26° M 25'54	21°57'42	retrograde	210 Oct 21 j 04:26	16° M 04'55	
	209 Nov 01 j 07:26	0° J		evening set	210 Oct 26 j 01:47	14° M 04'43	
retrograde	209 Nov 06 j 10:44	1° J 55'49		asc. node	210 Oct 29 j 18:40	9° M 59'07	
evening set	209 Nov 10 j 18:49	0° J 13'38		inferior conj	210 Oct 31 j 11:27	7° M 40'59	0°35'00
	209 Nov 11 j 01:28	30° R M		minimum elong	210 Oct 31 j 10:38	7° M 43'48	0°34'39
asc. node	209 Nov 11 j 21:37	29° M 13'44		min. Earth dist.	210 Oct 31 j 02:44	8° M 10'56	0.67673 AU
inferior conj	209 Nov 16 j 04:16	23° M 54'00	1°25'57	morning rise	210 Nov 05 j 19:32	1° M 29'49	
minimum elong	209 Nov 16 j 02:25	24° M 00'25	1°25'12		210 Nov 08 j 19:56	30° R U	
min. Earth dist.	209 Nov 16 j 06:05	23° M 47'43	0.67637 AU	direct	210 Nov 09 j 23:56	29° U 52'44	
morning rise	209 Nov 21 j 09:48	17° M 39'30			210 Nov 11 j 04:41	0° M	
direct	209 Nov 26 j 04:45	15° M 39'39		morning max el	210 Nov 18 j 15:39	4° M 56'30	21°21'16
morning max el	209 Dec 06 j 00:18	21° M 28'47	22°44'34	greatest brilliancy	210 Nov 23 j 20:10	10° M 53'44	-0.4m
greatest brilliancy	209 Dec 10 j 15:43	26° M 40'12	-0.3m		210 Dec 07 j 12:36	0° J	
	209 Dec 13 j 07:43	0° J		desc. node	210 Dec 08 j 06:49	1° J 07'42	
desc. node	209 Dec 21 j 09:45	11° J 01'36		morning set	210 Dec 19 j 15:54	18° J 33'48	
	210 Jan 03 j 00:52	0° Z			210 Dec 26 j 18:38	0° Z	
morning set	210 Jan 09 j 02:29	9° Z 45'33		max. Earth dist.	210 Dec 27 j 00:57	0° Z 25'57	1.42178 AU
max. Earth dist.	210 Jan 13 j 23:06	17° Z 54'25	1.40181 AU				
	210 Jan 20 j 20:16	0° \approx					
superior conj	210 Jan 21 j 17:55	1° \approx 38'04	-1°-59'-6	superior conj	211 Jan 03 j 09:33	12° Z 48'47	-2°-1'-33
minimum elong	210 Jan 21 j 20:10	1° \approx 48'21	1°59'01	minimum elong	211 Jan 03 j 08:07	12° Z 42'33	2°01'33
evening rise	210 Jan 31 j 14:32	20° \approx 05'10			211 Jan 13 j 02:18	0° \approx	
	210 Feb 05 j 21:53	0° H		evening rise	211 Jan 14 j 15:15	2° \approx 47'35	
asc. node	210 Feb 07 j 20:55	3° H 28'48		asc. node	211 Jan 25 j 17:58	22° \approx 01'53	
evening max el	210 Feb 16 j 19:05	16° H 02'41	18°25'02	evening max el	211 Jan 31 j 05:01	29° \approx 00'51	18°08'40
retrograde	210 Feb 24 j 04:42	19° H 41'37			211 Feb 01 j 06:48	0° H	
evening set	210 Feb 26 j 15:09	19° H 19'03		retrograde	211 Feb 06 j 22:38	2° H 27'03	
inferior conj	210 Mar 05 j 23:22	14° H 43'50	3°12'04	evening set	211 Feb 09 j 13:31	1° H 56'09	
minimum elong	210 Mar 06 j 03:01	14° H 36'22	3°11'22		211 Feb 12 j 20:30	30° R \approx	
min. Earth dist.	210 Mar 09 j 09:49	11° H 56'37	0.58818 AU	inferior conj	211 Feb 16 j 06:55	26° \approx 59'20	3°43'12
morning rise	210 Mar 13 j 11:06	9° H 15'01		minimum elong	211 Feb 16 j 08:27	26° \approx 55'42	3°43'05
desc. node	210 Mar 19 j 08:54	7° H 35'15		min. Earth dist.	211 Feb 19 j 11:34	23° \approx 59'05	0.60924 AU
direct	210 Mar 19 j 15:30	7° H 35'03		morning rise	211 Feb 23 j 00:31	21° \approx 11'02	
morning max el	210 Apr 02 j 23:36	15° H 15'22	26°56'13	direct	211 Mar 01 j 19:39	18° \approx 55'32	
	210 Apr 14 j 21:43	0° Y		desc. node	211 Mar 06 j 05:57	19° \approx 48'19	
	210 May 01 j 20:33	0° B		morning max el	211 Mar 16 j 00:36	26° \approx 45'28	27°39'26
morning set	210 May 03 j 01:18	2° B 29'02			211 Mar 19 j 02:20	0° H	
asc. node	210 May 06 j 20:13	10° B 34'15			211 Apr 08 j 10:40	0° Y	
				morning set	211 Apr 17 j 07:45	17° Y 07'42	
superior conj	210 May 10 j 03:44	17° B 49'24	0°34'27		211 Apr 23 j 09:01	0° B	
minimum elong	210 May 10 j 02:16	17° B 41'21	0°34'09	max. Earth dist.	211 Apr 23 j 12:51	0° B 20'53	1.32405 AU

asc. node	211 Apr 23 j 17:17	0°♄45'00			212 Mar 13 j 15:13	0°♄	
					212 Mar 30 j 15:18	0°♄	
superior conj	211 Apr 24 j 14:54	2°♄43'07	0°09'32	morning set	212 Mar 31 j 08:24	1°♄25'35	
minimum elong	211 Apr 24 j 14:28	2°♄40'43	0°09'26	max. Earth dist.	212 Apr 05 j 20:11	12°♄49'20	1.32871 AU
behind sun begin	211 Apr 24 j 10:22	2°♄18'21					
behind sun end	211 Apr 24 j 18:33	3°♄03'06		superior conj	212 Apr 07 j 23:42	17°♄25'39	0°-16'-56
evening rise	211 May 01 j 13:33	17°♄46'58		minimum elong	212 Apr 08 j 00:30	17°♄30'02	0°16'46
	211 May 07 j 14:38	0°♄		asc. node	212 Apr 09 j 14:19	20°♄54'35	
evening max el	211 May 28 j 02:37	29°♄51'40	25°10'10		212 Apr 13 j 19:20	0°♄	
	211 May 28 j 06:06	0°♄		evening rise	212 Apr 15 j 01:21	2°♄39'35	
desc. node	211 Jun 02 j 05:12	3°♄59'48			212 Apr 30 j 01:51	0°♄	
retrograde	211 Jun 11 j 02:56	6°♄59'54		evening max el	212 May 08 j 16:59	10°♄29'15	23°37'55
evening set	211 Jun 16 j 13:51	5°♄51'07		desc. node	212 May 19 j 02:13	16°♄55'29	
min. Earth dist.	211 Jun 21 j 14:16	3°♄05'37	0.57685 AU	retrograde	212 May 22 j 09:24	17°♄20'17	
inferior conj	211 Jun 24 j 16:42	0°♄59'07	-4°-42'-3	evening set	212 May 26 j 09:18	16°♄45'05	
minimum elong	211 Jun 24 j 14:22	1°♄03'05	4°41'54	min. Earth dist.	212 Jun 02 j 03:36	13°♄35'34	0.56040 AU
	211 Jun 26 j 03:48	30°♄		inferior conj	212 Jun 04 j 07:37	12°♄17'23	-4°00'-59
morning rise	211 Jul 02 j 18:46	26°♄46'07		minimum elong	212 Jun 04 j 01:01	12°♄27'22	3°59'40
direct	211 Jul 05 j 07:50	26°♄26'53		morning rise	212 Jun 12 j 20:15	8°♄20'27	
	211 Jul 13 j 11:13	0°♄		direct	212 Jun 15 j 12:35	8°♄02'26	
morning max el	211 Jul 14 j 01:25	0°♄32'10	19°01'51	morning max el	212 Jun 25 j 18:23	12°♄46'43	20°05'45
asc. node	211 Jul 20 j 16:32	8°♄52'08		asc. node	212 Jul 06 j 13:34	27°♄33'29	
morning set	211 Jul 30 j 18:26	27°♄10'38			212 Jul 07 j 22:14	0°♄	
	211 Aug 01 j 04:42	0°♄		morning set	212 Jul 13 j 22:21	11°♄41'48	
superior conj	211 Aug 08 j 04:43	13°♄44'02	1°46'01	superior conj	212 Jul 21 j 17:45	27°♄36'17	1°45'59
minimum elong	211 Aug 08 j 05:42	13°♄48'45	1°45'59	minimum elong	212 Jul 21 j 16:58	27°♄32'23	1°45'57
max. Earth dist.	211 Aug 14 j 21:42	26°♄14'01	1.38667 AU		212 Jul 22 j 22:31	0°♄	
	211 Aug 17 j 00:25	0°♄		max. Earth dist.	212 Jul 27 j 02:13	8°♄05'35	1.36736 AU
evening rise	211 Aug 18 j 19:06	3°♄06'21		evening rise	212 Jul 31 j 01:00	15°♄27'19	
desc. node	211 Aug 29 j 04:36	20°♄09'40			212 Aug 08 j 10:34	0°♄	
	211 Sep 04 j 17:33	0°♄		desc. node	212 Aug 15 j 01:36	10°♄28'27	
evening max el	211 Sep 23 j 07:59	23°♄31'11	24°36'21		212 Aug 29 j 07:26	0°♄	
	211 Oct 03 j 00:58	0°♄		evening max el	212 Sep 04 j 19:30	7°♄08'30	25°48'16
retrograde	211 Oct 04 j 18:26	0°♄11'56		retrograde	212 Sep 17 j 03:52	14°♄12'11	
	211 Oct 06 j 10:16	30°♄		evening set	212 Sep 23 j 06:12	11°♄39'18	
evening set	211 Oct 10 j 06:11	27°♄54'03		min. Earth dist.	212 Sep 27 j 14:13	6°♄55'29	0.66771 AU
min. Earth dist.	211 Oct 14 j 22:13	22°♄34'15	0.67386 AU	inferior conj	212 Sep 28 j 20:23	5°♄19'41	-1°-15'-24
inferior conj	211 Oct 15 j 17:25	21°♄30'14	0°-19'-16	minimum elong	212 Sep 28 j 22:18	5°♄13'36	1°14'36
minimum elong	211 Oct 15 j 17:53	21°♄28'40	0°19'05	asc. node	212 Oct 02 j 12:46	1°♄03'35	
asc. node	211 Oct 16 j 15:44	20°♄16'20			212 Oct 03 j 17:58	30°♄	
morning rise	211 Oct 21 j 06:00	15°♄24'59		morning rise	212 Oct 04 j 15:13	29°♄23'10	
direct	211 Oct 24 j 21:28	14°♄08'39		direct	212 Oct 07 j 19:55	28°♄24'17	
morning max el	211 Nov 01 j 14:24	18°♄34'30	20°08'27		212 Oct 12 j 03:05	0°♄	
greatest brilliancy	211 Nov 08 j 13:26	27°♄01'10	-0.6m	morning max el	212 Oct 14 j 20:33	2°♄21'39	19°09'45
	211 Nov 10 j 17:07	0°♄			212 Nov 03 j 07:21	0°♄	
desc. node	211 Nov 25 j 03:52	21°♄30'12		morning set	212 Nov 06 j 17:35	5°♄20'49	
morning set	211 Nov 28 j 12:42	26°♄41'22		desc. node	212 Nov 11 j 00:54	12°♄04'36	
	211 Nov 30 j 15:57	0°♄		max. Earth dist.	212 Nov 21 j 01:08	27°♄46'47	1.44769 AU
max. Earth dist.	211 Dec 09 j 10:03	13°♄47'49	1.43773 AU		212 Nov 22 j 10:53	0°♄	
superior conj	211 Dec 14 j 23:00	22°♄45'48	-1°-48'-1	superior conj	212 Nov 23 j 11:26	1°♄37'07	-1°-16'-2
minimum elong	211 Dec 14 j 16:37	22°♄19'42	1°47'36	minimum elong	212 Nov 23 j 03:11	1°♄04'26	1°15'08
	211 Dec 19 j 07:54	0°♄		evening rise	212 Dec 08 j 08:30	25°♄37'08	
evening rise	211 Dec 27 j 22:38	14°♄40'25			212 Dec 11 j 00:24	0°♄	
	212 Jan 05 j 22:08	0°♄		evening max el	212 Dec 28 j 05:26	25°♄36'37	18°33'19
asc. node	212 Jan 12 j 15:01	9°♄52'35		asc. node	212 Dec 29 j 12:03	26°♄48'59	
evening max el	212 Jan 14 j 17:21	12°♄14'03	18°11'43	retrograde	213 Jan 03 j 19:51	29°♄15'43	
retrograde	212 Jan 21 j 05:07	15°♄41'01		evening set	213 Jan 06 j 20:14	28°♄24'56	
evening set	212 Jan 24 j 00:22	15°♄00'47		inferior conj	213 Jan 12 j 17:57	22°♄48'52	3°36'47
inferior conj	212 Jan 30 j 06:25	9°♄43'27	3°49'07	minimum elong	213 Jan 12 j 15:58	22°♄54'44	3°36'31
minimum elong	212 Jan 30 j 05:52	9°♄44'56	3°49'07	min. Earth dist.	213 Jan 14 j 18:22	20°♄25'58	0.64636 AU
min. Earth dist.	212 Feb 01 j 22:09	6°♄53'22	0.62925 AU	morning rise	213 Jan 18 j 10:24	16°♄41'12	
morning rise	212 Feb 05 j 09:23	3°♄43'08		direct	213 Jan 25 j 05:45	13°♄50'08	
direct	212 Feb 12 j 09:00	1°♄02'22		desc. node	213 Feb 07 j 00:04	20°♄57'52	
desc. node	212 Feb 21 j 03:00	4°♄27'43		morning max el	213 Feb 07 j 16:05	21°♄37'22	27°16'44
morning max el	212 Feb 26 j 06:58	8°♄55'31	27°45'39		213 Feb 15 j 00:09	0°♄	

	213 Mar 06 j 18:50	0°♄			214 Feb 09 j 11:36	0°♁	
morning set	213 Mar 15 j 00:24	15°♄13'29		morning set	214 Feb 26 j 03:59	28°♁20'01	
max. Earth dist.	213 Mar 19 j 18:57	24°♄47'17	1.33762 AU		214 Feb 27 j 01:14	0°♄	
	213 Mar 22 j 07:09	0°♃		max. Earth dist.	214 Mar 02 j 06:31	6°♄12'06	1.35107 AU
superior conj	213 Mar 23 j 04:13	1°♃50'55	0°-43'-57	superior conj	214 Mar 07 j 02:12	15°♄51'56	-1°-10'-12
minimum elong	213 Mar 23 j 06:21	2°♃02'08	0°43'32	minimum elong	214 Mar 07 j 05:29	16°♄08'45	1°09'39
asc. node	213 Mar 27 j 11:21	10°♃59'01			214 Mar 13 j 21:54	0°♃	
evening rise	213 Mar 30 j 12:17	17°♃24'42		asc. node	214 Mar 14 j 08:23	0°♃54'07	
	213 Apr 05 j 19:32	0°♂		evening rise	214 Mar 14 j 20:26	1°♃56'15	
evening max el	213 Apr 20 j 10:26	21°♂06'19	22°03'19		214 Mar 31 j 11:41	0°♂	
retrograde	213 May 03 j 03:25	27°♂20'10		evening max el	214 Apr 02 j 13:00	2°♂09'18	20°38'47
evening set	213 May 05 j 21:32	27°♂03'21		retrograde	214 Apr 13 j 16:23	7°♂31'58	
desc. node	213 May 05 j 23:14	27°♂02'29		evening set	214 Apr 15 j 20:29	7°♂20'34	
min. Earth dist.	213 May 14 j 16:15	23°♂17'56	0.55106 AU	desc. node	214 Apr 22 j 20:16	4°♂37'33	
inferior conj	213 May 15 j 06:33	22°♂57'50	-2°-34'-22	inferior conj	214 Apr 25 j 01:00	3°♂23'09	0°-37'-55
minimum elong	213 May 14 j 23:56	23°♂07'09	2°32'18	minimum elong	214 Apr 24 j 23:13	3°♂25'43	0°37'16
morning rise	213 May 24 j 03:49	19°♂03'17		min. Earth dist.	214 Apr 26 j 05:21	2°♂42'25	0.55096 AU
direct	213 May 27 j 02:48	18°♂43'43			214 May 01 j 14:20	30°♄	
morning max el	213 Jun 08 j 00:04	24°♄18'06	21°29'05	morning rise	214 May 04 j 00:32	29°♃12'38	
	213 Jun 13 j 02:48	0°♄		direct	214 May 07 j 13:51	28°♃45'22	
asc. node	213 Jun 23 j 10:36	16°♄46'26			214 May 13 j 08:16	0°♂	
morning set	213 Jun 28 j 06:49	26°♄27'56		morning max el	214 May 20 j 20:04	5°♂10'40	23°06'28
	213 Jun 29 j 23:32	0°♄			214 Jun 07 j 01:38	0°♄	
				asc. node	214 Jun 10 j 07:39	6°♄23'04	
superior conj	213 Jul 05 j 16:23	11°♄58'03	1°38'47	morning set	214 Jun 12 j 17:56	11°♄23'41	
minimum elong	213 Jul 05 j 14:28	11°♄48'04	1°38'38				
max. Earth dist.	213 Jul 09 j 14:04	19°♄57'39	1.35096 AU	superior conj	214 Jun 19 j 21:35	26°♄40'19	1°25'56
evening rise	213 Jul 14 j 01:00	28°♄41'37		minimum elong	214 Jun 19 j 19:09	26°♄27'18	1°25'39
	213 Jul 14 j 17:31	0°♄			214 Jun 21 j 11:09	0°♄	
desc. node	213 Aug 01 j 22:36	0°♄26'28		max. Earth dist.	214 Jun 22 j 11:42	2°♄09'22	1.33831 AU
	213 Aug 01 j 15:21	0°♄		evening rise	214 Jun 27 j 14:27	12°♄36'33	
evening max el	213 Aug 18 j 07:30	20°♄43'18	26°44'56		214 Jul 06 j 23:35	0°♄	
retrograde	213 Aug 31 j 08:02	27°♄58'42		desc. node	214 Jul 19 j 19:35	19°♄54'57	
evening set	213 Sep 06 j 23:39	25°♄16'09			214 Jul 27 j 20:48	0°♄	
min. Earth dist.	213 Sep 11 j 00:13	21°♄09'51	0.65815 AU	evening max el	214 Jul 31 j 19:16	4°♄05'23	27°18'44
inferior conj	213 Sep 12 j 18:23	19°♄05'03	-2°-11'-38	retrograde	214 Aug 14 j 06:25	11°♄24'18	
minimum elong	213 Sep 12 j 21:44	18°♄55'08	2°10'23	evening set	214 Aug 21 j 07:58	8°♄40'40	
morning rise	213 Sep 18 j 21:04	13°♄20'31		min. Earth dist.	214 Aug 25 j 01:56	5°♄11'01	0.64501 AU
asc. node	213 Sep 19 j 09:48	13°♄05'18		inferior conj	214 Aug 27 j 09:07	2°♄41'57	-3°-5'-35
direct	213 Sep 21 j 17:23	12°♄35'19		minimum elong	214 Aug 27 j 13:36	2°♄29'49	3°04'11
morning max el	213 Sep 28 j 08:24	16°♄13'31	18°26'55		214 Aug 29 j 23:58	30°♄	
	213 Oct 08 j 11:00	0°♄		morning rise	214 Sep 02 j 21:02	27°♄12'53	
morning set	213 Oct 18 j 00:15	15°♄19'25		direct	214 Sep 05 j 11:25	26°♄37'52	
	213 Oct 27 j 03:59	0°♄		asc. node	214 Sep 06 j 06:51	26°♄41'18	
desc. node	213 Oct 28 j 21:55	2°♄46'20			214 Sep 11 j 21:22	0°♄	
				morning max el	214 Sep 11 j 23:34	0°♄05'27	18°01'02
superior conj	213 Nov 02 j 11:59	10°♄00'45	0°-29'-52	morning set	214 Sep 29 j 11:10	26°♄40'28	
minimum elong	213 Nov 02 j 08:03	9°♄45'18	0°29'22		214 Oct 01 j 10:28	0°♄	
max. Earth dist.	213 Nov 03 j 19:44	12°♄05'39	1.45048 AU				
	213 Nov 15 j 05:23	0°♄		superior conj	214 Oct 12 j 22:37	18°♄58'19	0°18'48
evening rise	213 Nov 18 j 18:34	5°♄35'17		minimum elong	214 Oct 13 j 00:48	19°♄07'08	0°18'30
greatest brilliancy	213 Dec 01 j 10:01	25°♄22'01	-0.7m	desc. node	214 Oct 15 j 18:56	23°♄32'09	
	213 Dec 04 j 12:46	0°♄		max. Earth dist.	214 Oct 17 j 14:27	26°♄25'07	1.44585 AU
evening max el	213 Dec 11 j 14:52	9°♄03'38	19°12'19		214 Oct 19 j 20:51	0°♄	
asc. node	213 Dec 16 j 09:04	12°♄36'37		evening rise	214 Oct 29 j 08:39	14°♄46'45	
retrograde	213 Dec 18 j 15:23	13°♄04'50			214 Nov 08 j 07:44	0°♄	
evening set	213 Dec 21 j 22:15	12°♄01'57		greatest brilliancy	214 Nov 18 j 00:13	14°♄08'09	-0.6m
inferior conj	213 Dec 27 j 14:05	6°♄09'30	3°11'15	evening max el	214 Nov 24 j 19:42	22°♄31'53	20°06'57
minimum elong	213 Dec 27 j 11:25	6°♄18'02	3°10'38	retrograde	214 Dec 02 j 12:58	27°♄03'39	
min. Earth dist.	213 Dec 28 j 23:31	4°♄23'02	0.65963 AU	asc. node	214 Dec 03 j 06:07	27°♄00'46	
morning rise	214 Jan 01 j 23:44	29°♄57'13		evening set	214 Dec 06 j 04:03	25°♄46'56	
	214 Jan 01 j 22:29	30°♄		inferior conj	214 Dec 11 j 16:04	19°♄41'01	2°35'56
direct	214 Jan 08 j 08:36	27°♄10'04		minimum elong	214 Dec 11 j 13:19	19°♄50'12	2°35'05
	214 Jan 15 j 16:25	0°♄		min. Earth dist.	214 Dec 12 j 12:01	18°♄34'08	0.66895 AU
morning max el	214 Jan 21 j 01:36	4°♄39'37	26°19'13	morning rise	214 Dec 16 j 22:03	13°♄26'08	
desc. node	214 Jan 24 j 21:07	8°♄47'20		direct	214 Dec 22 j 16:55	10°♄53'16	

morning max el	215 Jan 03 j 10:19	17°♂52'03	25°02'00		215 Dec 15 j 14:45	0°♂	
desc. node	215 Jan 11 j 18:10	27°♂32'47		morning max el	215 Dec 16 j 19:09	1°♂09'23	23°35'10
	215 Jan 13 j 15:10	0°♂		desc. node	215 Dec 29 j 15:13	16°♂58'09	
	215 Feb 02 j 12:21	0°♂			216 Jan 07 j 14:43	0°♂	
morning set	215 Feb 08 j 14:01	10°♂29'56		morning set	216 Jan 21 j 00:21	21°♂27'18	
max. Earth dist.	215 Feb 12 j 07:18	17°♂16'08	1.36881 AU	max. Earth dist.	216 Jan 25 j 02:29	28°♂30'31	1.38946 AU
					216 Jan 25 j 22:47	0°♂	
superior conj	215 Feb 18 j 14:35	29°♂19'27	-1°-33'-50	superior conj	216 Feb 01 j 13:35	12°♂03'45	-1°-52'-14
minimum elong	215 Feb 18 j 18:30	29°♂38'40	1°33'21	minimum elong	216 Feb 01 j 16:58	12°♂19'37	1°52'00
	215 Feb 18 j 22:50	0°♂		evening rise	216 Feb 10 j 19:12	29°♂49'19	
evening rise	215 Feb 26 j 23:37	16°♂06'45			216 Feb 10 j 21:24	0°♂	
asc. node	215 Mar 01 j 05:25	20°♂34'25		asc. node	216 Feb 16 j 02:29	9°♂54'29	
	215 Mar 06 j 05:42	0°♂		evening max el	216 Feb 27 j 02:43	26°♂05'56	18°43'25
evening max el	215 Mar 16 j 02:47	13°♂49'12	19°31'15	retrograde	216 Mar 06 j 03:05	29°♂59'42	
retrograde	215 Mar 25 j 13:18	18°♂21'24		evening set	216 Mar 08 j 10:31	29°♂41'30	
evening set	215 Mar 27 j 16:22	18°♂08'34		inferior conj	216 Mar 16 j 04:49	25°♂18'37	2°39'35
inferior conj	215 Apr 05 j 05:17	14°♂03'03	1°15'20	minimum elong	216 Mar 16 j 09:06	25°♂10'35	2°38'30
minimum elong	215 Apr 05 j 08:17	13°♂58'12	1°14'19	min. Earth dist.	216 Mar 19 j 12:58	22°♂49'49	0.57668 AU
min. Earth dist.	215 Apr 07 j 19:47	12°♂23'02	0.56016 AU	morning rise	216 Mar 24 j 03:28	20°♂04'30	
desc. node	215 Apr 09 j 17:18	11°♂15'07		desc. node	216 Mar 26 j 14:22	19°♂11'19	
morning rise	215 Apr 13 j 20:34	9°♂21'29		direct	216 Mar 29 j 18:43	18°♂46'05	
direct	215 Apr 18 j 09:14	8°♂35'15		morning max el	216 Apr 13 j 03:09	26°♂18'26	26°16'04
morning max el	215 May 02 j 11:06	15°♂41'32	24°47'12		216 Apr 16 j 15:04	0°♂	
	215 May 13 j 21:48	0°♂			216 May 06 j 02:28	0°♂	
morning set	215 May 28 j 05:56	26°♂22'20		morning set	216 May 11 j 17:10	11°♂18'11	
asc. node	215 May 28 j 04:42	26°♂15'49		asc. node	216 May 14 j 01:46	16°♂19'21	
	215 May 29 j 22:54	0°♂					
superior conj	215 Jun 04 j 06:52	11°♂34'17	1°08'38	superior conj	216 May 18 j 18:16	26°♂33'12	0°47'47
minimum elong	215 Jun 04 j 04:28	11°♂21'12	1°08'15	minimum elong	216 May 18 j 16:21	26°♂22'40	0°47'24
max. Earth dist.	215 Jun 05 j 17:31	14°♂42'07	1.32950 AU	max. Earth dist.	216 May 19 j 04:32	27°♂29'30	1.32447 AU
evening rise	215 Jun 11 j 13:24	26°♂59'29			216 May 20 j 08:01	0°♂	
	215 Jun 13 j 01:08	0°♂		evening rise	216 May 25 j 18:50	11°♂41'00	
	215 Jun 30 j 07:52	0°♂			216 Jun 04 j 05:57	0°♂	
desc. node	215 Jul 06 j 16:36	8°♂41'03		desc. node	216 Jun 22 j 13:38	26°♂26'56	
evening max el	215 Jul 14 j 04:40	17°♂01'17	27°23'38	evening max el	216 Jun 25 j 09:21	29°♂19'22	26°55'54
retrograde	215 Jul 27 j 22:45	24°♂19'47			216 Jun 26 j 02:47	0°♂	
evening set	215 Aug 04 j 03:43	21°♂47'07		retrograde	216 Jul 09 j 08:09	6°♂35'38	
min. Earth dist.	215 Aug 07 j 17:43	18°♂48'30	0.62828 AU	evening set	216 Jul 16 j 06:35	4°♂28'07	
inferior conj	215 Aug 10 j 13:48	16°♂03'51	-3°-53'-45	min. Earth dist.	216 Jul 19 j 23:19	1°♂48'12	0.60874 AU
minimum elong	215 Aug 10 j 18:37	15°♂52'07	3°52'37		216 Jul 22 j 02:29	30°♂	
morning rise	215 Aug 17 j 11:58	10°♂53'41		inferior conj	216 Jul 23 j 05:06	29°♂02'42	-4°-30'-27
direct	215 Aug 19 j 22:56	10°♂25'49		minimum elong	216 Jul 23 j 08:46	28°♂54'49	4°29'58
asc. node	215 Aug 24 j 03:55	11°♂49'08		morning rise	216 Jul 30 j 14:03	24°♂14'06	
morning max el	215 Aug 26 j 15:14	13°♂51'17	17°52'59	direct	216 Aug 02 j 00:06	23°♂50'55	
	215 Sep 06 j 16:56	0°♂		morning max el	216 Aug 09 j 04:24	27°♂23'21	18°03'45
morning set	215 Sep 11 j 21:19	9°♂08'02		asc. node	216 Aug 10 j 01:00	28°♂15'47	
					216 Aug 11 j 13:09	0°♂	
superior conj	215 Sep 23 j 10:22	29°♂11'26	0°59'07	morning set	216 Aug 25 j 00:41	22°♂25'07	
minimum elong	215 Sep 23 j 15:15	29°♂31'57	0°58'31		216 Aug 29 j 02:50	0°♂	
	215 Sep 23 j 21:56	0°♂		superior conj	216 Sep 04 j 01:05	10°♂44'05	1°26'45
max. Earth dist.	215 Sep 30 j 05:45	10°♂25'10	1.43447 AU	minimum elong	216 Sep 04 j 05:18	11°♂02'47	1°26'21
desc. node	215 Oct 02 j 15:58	14°♂19'01		max. Earth dist.	216 Sep 11 j 15:33	23°♂49'45	1.41792 AU
evening rise	215 Oct 08 j 15:45	23°♂44'36			216 Sep 15 j 09:27	0°♂	
	215 Oct 12 j 17:21	0°♂		evening rise	216 Sep 17 j 09:47	3°♂14'54	
greatest brilliancy	215 Nov 02 j 13:54	29°♂57'36	-0.4m	desc. node	216 Sep 18 j 12:58	5°♂03'20	
	215 Nov 02 j 14:39	0°♂			216 Oct 05 j 02:59	0°♂	
evening max el	215 Nov 07 j 18:49	6°♂00'27	21°14'31	greatest brilliancy	216 Oct 15 j 17:27	14°♂07'25	-0.3m
retrograde	215 Nov 16 j 10:24	11°♂08'53		evening max el	216 Oct 20 j 12:24	19°♂29'52	22°31'10
evening set	215 Nov 20 j 11:39	9°♂36'29		retrograde	216 Oct 30 j 05:53	25°♂16'55	
asc. node	215 Nov 20 j 03:10	9°♂52'04		evening set	216 Nov 03 j 19:18	23°♂27'19	
inferior conj	215 Nov 25 j 21:35	3°♂20'37	1°53'13	asc. node	216 Nov 06 j 00:14	21°♂15'24	
minimum elong	215 Nov 25 j 19:17	3°♂28'31	1°52'22	inferior conj	216 Nov 09 j 04:39	17°♂05'18	1°04'49
min. Earth dist.	215 Nov 26 j 05:40	2°♂52'45	0.67456 AU	minimum elong	216 Nov 09 j 03:12	17°♂10'20	1°04'14
	215 Nov 28 j 09:36	30°♂		min. Earth dist.	216 Nov 09 j 01:58	17°♂14'36	0.67681 AU
morning rise	215 Dec 01 j 02:34	27°♂05'10		morning rise	216 Nov 14 j 10:59	10°♂51'40	
direct	215 Dec 06 j 06:09	24°♂52'33					

direct	216 Nov 18 j 23:33	9° \mathbb{M} 01'33		transit begin	217 Oct 24 j 09:25	1° \mathbb{M} 00'56	
morning max el	216 Nov 28 j 06:59	14° \mathbb{M} 31'31	22°08'10	transit end	217 Oct 24 j 13:02	0° \mathbb{M} 48'39	
greatest brilliancy	216 Dec 02 j 23:23	19° \mathbb{M} 47'54	-0.4m	min. Earth dist.	217 Oct 23 j 22:28	1° \mathbb{M} 38'09	0.67591 AU
	216 Dec 10 j 16:55	0° \mathbb{M}			217 Oct 25 j 03:24	30° \mathbb{R} \mathbb{A}	
desc. node	216 Dec 15 j 12:15	6° \mathbb{M} 51'29		morning rise	217 Oct 29 j 21:17	24° \mathbb{A} 44'35	
	216 Dec 30 j 14:56	0° \mathbb{Z}		direct	217 Nov 02 j 20:01	23° \mathbb{A} 16'26	
morning set	216 Dec 31 j 05:43	0° \mathbb{Z} 59'28		morning max el	217 Nov 11 j 01:09	28° \mathbb{A} 02'53	20°48'39
max. Earth dist.	217 Jan 05 j 23:40	10° \mathbb{Z} 26'41	1.41056 AU		217 Nov 12 j 20:55	0° \mathbb{M}	
				greatest brilliancy	217 Nov 16 j 20:49	4° \mathbb{M} 52'06	-0.5m
superior conj	217 Jan 13 j 18:12	23° \mathbb{Z} 52'00	-2°-1'-48	desc. node	217 Dec 02 j 09:17	27° \mathbb{M} 05'13	
minimum elong	217 Jan 13 j 19:09	23° \mathbb{Z} 56'16	2°01'49		217 Dec 04 j 07:26	0° \mathbb{M}	
	217 Jan 17 j 04:03	0° \mathbb{M}		morning set	217 Dec 10 j 09:23	9° \mathbb{M} 21'42	
evening rise	217 Jan 24 j 03:49	12° \mathbb{M} 55'21		max. Earth dist.	217 Dec 19 j 04:20	23° \mathbb{M} 19'41	1.42921 AU
asc. node	217 Feb 01 j 23:32	28° \mathbb{M} 46'57			217 Dec 23 j 05:58	0° \mathbb{Z}	
	217 Feb 02 j 17:29	0° \mathbb{M}					
evening max el	217 Feb 09 j 09:56	8° \mathbb{M} 51'40	18°15'44	superior conj	217 Dec 25 j 23:03	4° \mathbb{Z} 31'57	-1°-58'-1
retrograde	217 Feb 16 j 11:23	12° \mathbb{M} 23'08		minimum elong	217 Dec 25 j 19:29	4° \mathbb{Z} 16'56	1°57'53
evening set	217 Feb 18 j 23:46	11° \mathbb{M} 57'13		evening rise	218 Jan 06 j 21:35	25° \mathbb{Z} 16'58	
inferior conj	217 Feb 26 j 01:18	7° \mathbb{M} 13'11	3°28'47		218 Jan 09 j 13:16	0° \mathbb{M}	
minimum elong	217 Feb 26 j 04:07	7° \mathbb{M} 07'00	3°28'23	asc. node	218 Jan 19 j 20:35	17° \mathbb{M} 03'14	
min. Earth dist.	217 Mar 01 j 10:44	4° \mathbb{M} 17'03	0.59711 AU	evening max el	218 Jan 23 j 21:16	21° \mathbb{M} 57'13	18°07'43
morning rise	217 Mar 05 j 05:01	1° \mathbb{M} 35'00		retrograde	218 Jan 30 j 11:03	25° \mathbb{M} 21'51	
	217 Mar 08 j 22:28	30° \mathbb{R} \mathbb{M}		evening set	218 Feb 02 j 03:54	24° \mathbb{M} 46'57	
direct	217 Mar 11 j 17:08	29° \mathbb{M} 38'47		inferior conj	218 Feb 08 j 16:02	19° \mathbb{M} 41'16	3°48'20
desc. node	217 Mar 13 j 11:25	29° \mathbb{M} 47'03		minimum elong	218 Feb 08 j 16:38	19° \mathbb{M} 39'47	3°48'19
	217 Mar 14 j 13:13	0° \mathbb{M}		min. Earth dist.	218 Feb 11 j 15:47	16° \mathbb{M} 42'57	0.61804 AU
morning max el	217 Mar 26 j 00:14	7° \mathbb{M} 24'34	27°18'52	morning rise	218 Feb 15 j 02:57	13° \mathbb{M} 47'30	
	217 Apr 12 j 01:14	0° \mathbb{Y}		direct	218 Feb 22 j 01:24	11° \mathbb{M} 19'32	
morning set	217 Apr 26 j 01:56	26° \mathbb{Y} 05'13		desc. node	218 Feb 28 j 08:28	13° \mathbb{M} 06'20	
	217 Apr 27 j 22:36	0° \mathbb{Z}		morning max el	218 Mar 08 j 03:27	19° \mathbb{M} 11'00	27°46'39
asc. node	217 Apr 30 j 22:50	6° \mathbb{Z} 29'01			218 Mar 17 j 08:03	0° \mathbb{M}	
max. Earth dist.	217 May 02 j 17:12	10° \mathbb{Z} 20'44	1.32312 AU		218 Apr 04 j 20:48	0° \mathbb{Y}	
				morning set	218 Apr 10 j 06:11	10° \mathbb{Y} 36'02	
superior conj	217 May 03 j 06:01	11° \mathbb{Z} 31'00	0°24'09	max. Earth dist.	218 Apr 16 j 03:44	23° \mathbb{Y} 02'08	1.32555 AU
minimum elong	217 May 03 j 04:57	11° \mathbb{Z} 25'10	0°23'54				
evening rise	217 May 10 j 04:22	26° \mathbb{Z} 33'04		superior conj	218 Apr 17 j 16:22	26° \mathbb{Y} 20'59	0°-1'-32
	217 May 11 j 20:03	0° \mathbb{II}		minimum elong	218 Apr 17 j 16:26	26° \mathbb{Y} 21'22	0°01'33
	217 May 29 j 02:05	0° \mathbb{Z}		behind sun begin	218 Apr 17 j 11:20	25° \mathbb{Y} 53'37	
evening max el	217 Jun 07 j 07:35	10° \mathbb{Z} 53'19	25°56'22	behind sun end	218 Apr 17 j 21:32	26° \mathbb{Y} 49'08	
desc. node	217 Jun 09 j 10:39	12° \mathbb{Z} 47'46		asc. node	218 Apr 17 j 19:51	26° \mathbb{Y} 39'59	
retrograde	217 Jun 21 j 08:43	18° \mathbb{Z} 05'23			218 Apr 19 j 08:31	0° \mathbb{Z}	
evening set	217 Jun 27 j 12:05	16° \mathbb{Z} 34'26		evening rise	218 Apr 24 j 15:52	11° \mathbb{Z} 27'48	
min. Earth dist.	217 Jul 01 j 20:13	13° \mathbb{Z} 55'53	0.58813 AU		218 May 04 j 03:35	0° \mathbb{II}	
inferior conj	217 Jul 05 j 03:29	11° \mathbb{Z} 29'29	-4°-46'-44	evening max el	218 May 19 j 23:42	21° \mathbb{II} 46'17	24°32'14
minimum elong	217 Jul 05 j 03:53	11° \mathbb{Z} 28'44	4°46'45	desc. node	218 May 27 j 07:42	27° \mathbb{II} 09'30	
morning rise	217 Jul 12 j 23:17	7° \mathbb{Z} 03'34		retrograde	218 Jun 02 j 21:50	28° \mathbb{II} 48'22	
direct	217 Jul 15 j 10:44	6° \mathbb{Z} 43'13		evening set	218 Jun 07 j 18:22	27° \mathbb{II} 55'26	
morning max el	217 Jul 23 j 11:57	10° \mathbb{Z} 33'11	18°34'33	min. Earth dist.	218 Jun 13 j 11:02	25° \mathbb{II} 01'21	0.56926 AU
asc. node	217 Jul 27 j 22:03	15° \mathbb{Z} 46'04		inferior conj	218 Jun 16 j 05:58	23° \mathbb{II} 13'57	-4°-30'-11
	217 Aug 05 j 09:03	0° \mathbb{Q}		minimum elong	218 Jun 16 j 01:35	23° \mathbb{II} 21'02	4°29'40
morning set	217 Aug 08 j 16:25	6° \mathbb{Q} 19'19		morning rise	218 Jun 24 j 12:34	19° \mathbb{II} 08'41	
				direct	218 Jun 27 j 03:03	18° \mathbb{II} 49'59	
superior conj	217 Aug 17 j 14:11	23° \mathbb{Q} 23'56	1°42'02	morning max el	218 Jul 06 j 10:49	23° \mathbb{II} 10'06	19°26'23
minimum elong	217 Aug 17 j 16:23	23° \mathbb{Q} 34'12	1°41'54		218 Jul 12 j 03:47	0° \mathbb{Z}	
	217 Aug 21 j 04:16	0° \mathbb{M}		asc. node	218 Jul 14 j 19:05	4° \mathbb{Z} 04'53	
max. Earth dist.	217 Aug 24 j 20:33	6° \mathbb{M} 32'49	1.39838 AU	morning set	218 Jul 23 j 16:43	20° \mathbb{Z} 39'29	
evening rise	217 Aug 29 j 02:40	13° \mathbb{M} 50'13			218 Jul 28 j 08:25	0° \mathbb{Q}	
desc. node	217 Sep 05 j 10:00	25° \mathbb{M} 41'56					
	217 Sep 08 j 04:32	0° \mathbb{A}		superior conj	218 Jul 31 j 19:54	6° \mathbb{Q} 53'52	1°46'59
	217 Sep 30 j 05:03	0° \mathbb{M}		minimum elong	218 Jul 31 j 20:05	6° \mathbb{Q} 54'42	1°46'58
evening max el	217 Oct 03 j 02:04	3° \mathbb{M} 02'54	23°51'18	max. Earth dist.	218 Aug 07 j 00:02	18° \mathbb{Q} 39'13	1.37830 AU
retrograde	217 Oct 13 j 22:02	9° \mathbb{M} 25'30		evening rise	218 Aug 10 j 19:59	25° \mathbb{Q} 34'43	
evening set	217 Oct 19 j 01:21	7° \mathbb{M} 17'54			218 Aug 13 j 08:49	0° \mathbb{M}	
asc. node	217 Oct 23 j 21:17	1° \mathbb{M} 42'12		desc. node	218 Aug 23 j 07:02	16° \mathbb{M} 09'39	
inferior conj	217 Oct 24 j 11:31	0° \mathbb{M} 53'47	0°12'17		218 Sep 01 j 18:45	0° \mathbb{A}	
minimum elong	217 Oct 24 j 11:14	0° \mathbb{M} 54'47	0°12'10	evening max el	218 Sep 15 j 13:53	16° \mathbb{A} 39'22	25°08'16
transit middle	217 Oct 24 j 11:14	0° \mathbb{M} 54'47	0°12'10	retrograde	218 Sep 27 j 09:59	23° \mathbb{A} 30'19	

evening set	218 Oct 03 j 04:04	21°♂05'40		retrograde	219 Sep 10 j 17:10	7°♂25'58	
min. Earth dist.	218 Oct 07 j 16:41	16°♂01'02	0.67174 AU	evening set	219 Sep 17 j 01:35	4°♂47'48	
inferior conj	218 Oct 08 j 16:25	14°♂43'23	0°-42'-56	min. Earth dist.	219 Sep 21 j 06:17	0°♂20'11	0.66415 AU
minimum elong	218 Oct 08 j 17:30	14°♂39'52	0°42'30		219 Sep 21 j 12:53	30°♂	
asc. node	218 Oct 10 j 18:18	12°♂05'21		inferior conj	219 Sep 22 j 17:31	28°♂31'26	-1°-39'-21
morning rise	218 Oct 14 j 07:28	8°♂41'35		minimum elong	219 Sep 22 j 20:04	28°♂23'35	1°38'21
direct	218 Oct 17 j 18:11	7°♂32'59		asc. node	219 Sep 27 j 15:20	23°♂20'06	
morning max el	218 Oct 25 j 03:08	11°♂44'59	19°41'35	morning rise	219 Sep 28 j 15:33	22°♂39'54	
greatest brilliancy	218 Nov 02 j 06:01	21°♂55'31	-0.6m	direct	219 Oct 01 j 16:22	21°♂47'22	
	218 Nov 07 j 18:36	0°♂		morning max el	219 Oct 08 j 12:04	25°♂35'15	18°49'30
morning set	218 Nov 19 j 06:33	17°♂34'22			219 Oct 12 j 06:33	0°♂	
desc. node	218 Nov 19 j 06:19	17°♂33'29		morning set	219 Oct 29 j 21:11	26°♂44'45	
	218 Nov 27 j 06:00	0°♂			219 Oct 31 j 22:36	0°♂	
max. Earth dist.	218 Dec 01 j 16:51	7°♂01'42	1.44282 AU	desc. node	219 Nov 06 j 03:21	8°♂11'35	
				max. Earth dist.	219 Nov 14 j 10:03	21°♂12'23	1.44976 AU
superior conj	218 Dec 06 j 01:04	13°♂58'25	-1°-36'-39	superior conj	219 Nov 15 j 05:58	22°♂30'41	0°-57'-33
minimum elong	218 Dec 05 j 17:12	13°♂26'43	1°35'58	minimum elong	219 Nov 14 j 22:53	22°♂02'49	0°56'43
	218 Dec 15 j 19:28	0°♂			219 Nov 19 j 23:54	0°♂	
evening rise	218 Dec 19 j 20:14	6°♂46'47		evening rise	219 Nov 30 j 20:03	17°♂18'37	
	219 Jan 03 j 03:06	0°♂			219 Dec 08 j 17:03	0°♂	
asc. node	219 Jan 06 j 17:36	4°♂32'36		evening max el	219 Dec 21 j 20:54	18°♂39'32	18°47'51
evening max el	219 Jan 07 j 09:47	5°♂15'10	18°18'43	asc. node	219 Dec 24 j 14:38	21°♂01'29	
retrograde	219 Jan 13 j 21:37	8°♂45'59		retrograde	219 Dec 28 j 14:53	22°♂27'21	
evening set	219 Jan 16 j 18:59	8°♂01'17		evening set	219 Dec 31 j 17:46	21°♂31'40	
inferior conj	219 Jan 22 j 21:06	2°♂35'26	3°45'48	inferior conj	220 Jan 06 j 12:40	15°♂48'05	3°27'21
minimum elong	219 Jan 22 j 19:51	2°♂38'57	3°45'43	minimum elong	220 Jan 06 j 10:19	15°♂55'19	3°26'56
	219 Jan 25 j 04:41	30°♂		min. Earth dist.	220 Jan 08 j 06:31	13°♂39'59	0.65240 AU
min. Earth dist.	219 Jan 25 j 06:17	29°♂55'38	0.63690 AU	morning rise	220 Jan 12 j 01:46	9°♂37'56	
morning rise	219 Jan 28 j 19:06	26°♂31'39		direct	220 Jan 18 j 17:04	6°♂47'08	
direct	219 Feb 04 j 17:45	23°♂45'02		morning max el	220 Jan 31 j 21:11	14°♂29'04	26°55'25
desc. node	219 Feb 15 j 05:29	28°♂37'25		desc. node	220 Feb 02 j 02:32	15°♂44'35	
	219 Feb 16 j 19:10	0°♂			220 Feb 13 j 13:34	0°♂	
morning max el	219 Feb 18 j 11:23	1°♂36'18	27°37'33		220 Mar 03 j 04:49	0°♂	
	219 Mar 11 j 12:10	0°♂		morning set	220 Mar 07 j 14:48	8°♂14'31	
morning set	219 Mar 25 j 03:33	24°♂42'45		max. Earth dist.	220 Mar 12 j 02:28	17°♂04'17	1.34273 AU
	219 Mar 27 j 18:25	0°♂					
max. Earth dist.	219 Mar 30 j 08:09	5°♂20'33	1.33196 AU	superior conj	220 Mar 16 j 01:35	25°♂12'35	0°-55'-17
				minimum elong	220 Mar 16 j 04:15	25°♂26'26	0°54'47
superior conj	219 Apr 01 j 23:35	10°♂57'15	0°-28'-22		220 Mar 18 j 08:23	0°♂	
minimum elong	219 Apr 02 j 00:57	11°♂04'35	0°28'06	asc. node	220 Mar 21 j 13:56	6°♂49'11	
asc. node	219 Apr 04 j 16:53	16°♂48'19		evening rise	220 Mar 23 j 13:31	10°♂58'22	
evening rise	219 Apr 09 j 03:33	26°♂18'38			220 Apr 02 j 13:22	0°♂	
	219 Apr 10 j 22:02	0°♂		evening max el	220 Apr 12 j 10:57	13°♂04'29	21°25'36
	219 Apr 29 j 08:28	0°♂		retrograde	220 Apr 24 j 13:37	18°♂58'18	
evening max el	219 May 01 j 14:24	2°♂19'51	22°57'07	evening set	220 Apr 26 j 23:28	18°♂45'01	
desc. node	219 May 14 j 04:41	8°♂56'22		desc. node	220 Apr 30 j 01:42	17°♂52'26	
retrograde	219 May 14 j 22:33	8°♂57'37		inferior conj	220 May 06 j 08:21	14°♂44'40	-1°-46'-54
evening set	219 May 18 j 08:39	8°♂31'58		minimum elong	220 May 06 j 03:24	14°♂51'38	1°45'11
min. Earth dist.	219 May 25 j 23:27	5°♂09'02	0.55547 AU	min. Earth dist.	220 May 06 j 12:14	14°♂39'12	0.54978 AU
inferior conj	219 May 27 j 13:08	4°♂14'33	-3°-29'-31	morning rise	220 May 15 j 07:41	10°♂45'40	
minimum elong	219 May 27 j 05:49	4°♂25'10	3°27'39	direct	220 May 18 j 11:12	10°♂24'05	
morning rise	219 Jun 05 j 05:56	0°♂21'09		morning max el	220 May 31 j 00:20	16°♂20'53	22°09'21
direct	219 Jun 08 j 00:39	0°♂02'55			220 Jun 10 j 15:47	0°♂	
morning max el	219 Jun 18 j 23:00	5°♂06'48	20°38'58	asc. node	220 Jun 17 j 13:11	12°♂24'57	
asc. node	219 Jul 01 j 16:07	23°♂01'00		morning set	220 Jun 21 j 08:40	20°♂09'16	
	219 Jul 05 j 07:47	0°♂			220 Jun 26 j 00:30	0°♂	
morning set	219 Jul 07 j 22:50	5°♂18'11					
superior conj	219 Jul 15 j 13:30	21°♂00'24	1°43'42	superior conj	220 Jun 28 j 15:18	5°♂32'27	1°33'57
minimum elong	219 Jul 15 j 12:09	20°♂53'34	1°43'38	minimum elong	220 Jun 28 j 13:05	5°♂20'49	1°33'45
	219 Jul 20 j 01:23	0°♂		max. Earth dist.	220 Jul 01 j 23:00	12°♂27'01	1.34507 AU
max. Earth dist.	219 Jul 20 j 07:19	0°♂28'57	1.36003 AU	evening rise	220 Jul 06 j 16:25	21°♂53'17	
evening rise	219 Jul 24 j 10:11	8°♂19'56			220 Jul 10 j 23:42	0°♂	
	219 Aug 06 j 01:00	0°♂		desc. node	220 Jul 27 j 01:02	26°♂07'55	
desc. node	219 Aug 10 j 04:02	6°♂20'45			220 Jul 29 j 19:44	0°♂	
	219 Aug 28 j 18:50	0°♂		evening max el	220 Aug 10 j 13:20	13°♂46'50	27°02'24
evening max el	219 Aug 29 j 01:27	0°♂16'10	26°14'32	retrograde	220 Aug 23 j 19:12	21°♂05'25	

evening set	220 Aug 30 j 15:36	18° \mathbb{M} 20'54		evening rise	221 Jun 20 j 10:19	6° \mathbb{S} 01'31	
min. Earth dist.	220 Sep 03 j 13:03	14° \mathbb{M} 30'36	0.65299 AU		221 Jul 03 j 14:06	0° \mathbb{Q}	
inferior conj	220 Sep 05 j 12:46	12° \mathbb{M} 14'23	-2°-34'-59	desc. node	221 Jul 13 j 22:03	15° \mathbb{Q} 20'30	
minimum elong	220 Sep 05 j 16:40	12° \mathbb{M} 03'15	2°33'37	evening max el	221 Jul 24 j 00:29	27° \mathbb{Q} 00'04	27°24'46
morning rise	220 Sep 11 j 19:16	6° \mathbb{M} 36'12			221 Jul 27 j 11:27	0° \mathbb{M}	
asc. node	220 Sep 13 j 12:23	6° \mathbb{M} 01'30		retrograde	221 Aug 06 j 15:20	4° \mathbb{M} 19'32	
direct	220 Sep 14 j 12:38	5° \mathbb{M} 55'55		evening set	221 Aug 13 j 19:06	1° \mathbb{M} 39'07	
morning max el	220 Sep 21 j 01:46	9° \mathbb{M} 28'49	18°13'46		221 Aug 15 j 18:47	30° \mathbb{R} \mathbb{Q}	
	220 Oct 05 j 05:19	0° \mathbb{A}		min. Earth dist.	221 Aug 17 j 10:55	28° \mathbb{Q} 23'27	0.63825 AU
morning set	220 Oct 09 j 16:17	7° \mathbb{A} 20'11		inferior conj	221 Aug 19 j 23:39	25° \mathbb{Q} 46'21	-3°-27'-3
desc. node	220 Oct 23 j 00:22	28° \mathbb{A} 55'54		minimum elong	221 Aug 20 j 04:25	25° \mathbb{Q} 34'00	3°25'41
	220 Oct 23 j 16:31	0° \mathbb{M}		morning rise	221 Aug 26 j 15:49	20° \mathbb{Q} 24'43	
				direct	221 Aug 29 j 04:20	19° \mathbb{Q} 53'10	
superior conj	220 Oct 24 j 08:20	1° \mathbb{M} 02'43	0°-8'-47	asc. node	221 Aug 31 j 09:28	20° \mathbb{Q} 17'47	
minimum elong	220 Oct 24 j 07:12	0° \mathbb{M} 58'14	0°08'39	morning max el	221 Sep 04 j 17:31	23° \mathbb{Q} 19'12	17°55'17
behind sun begin	220 Oct 23 j 21:47	0° \mathbb{M} 20'55			221 Sep 10 j 00:22	0° \mathbb{M}	
behind sun end	220 Oct 24 j 16:37	1° \mathbb{M} 35'32		morning set	221 Sep 21 j 13:55	19° \mathbb{M} 12'09	
max. Earth dist.	220 Oct 27 j 04:39	5° \mathbb{M} 32'32	1.44936 AU		221 Sep 27 j 21:21	0° \mathbb{A}	
evening rise	220 Nov 09 j 20:43	26° \mathbb{M} 54'40					
	220 Nov 11 j 20:20	0° \mathbb{A}		superior conj	221 Oct 04 j 04:41	10° \mathbb{A} 29'57	0°37'19
greatest brilliancy	220 Nov 25 j 21:05	21° \mathbb{A} 25'42	-0.7m	minimum elong	221 Oct 04 j 08:32	10° \mathbb{A} 45'42	0°36'48
	220 Dec 02 j 06:38	0° \mathbb{S}		desc. node	221 Oct 09 j 21:23	19° \mathbb{A} 42'39	
evening max el	220 Dec 04 j 04:33	2° \mathbb{S} 07'27	19°33'46	max. Earth dist.	221 Oct 09 j 21:59	19° \mathbb{A} 45'02	1.44181 AU
asc. node	220 Dec 10 j 11:39	6° \mathbb{S} 15'29			221 Oct 16 j 10:01	0° \mathbb{M}	
retrograde	220 Dec 11 j 11:38	6° \mathbb{S} 21'05		evening rise	221 Oct 20 j 05:42	5° \mathbb{M} 55'03	
evening set	220 Dec 14 j 21:39	5° \mathbb{S} 12'44			221 Nov 05 j 06:20	0° \mathbb{A}	
	220 Dec 19 j 21:36	30° \mathbb{R} \mathbb{A}		greatest brilliancy	221 Nov 11 j 07:21	8° \mathbb{A} 25'39	-0.5m
inferior conj	220 Dec 20 j 11:39	29° \mathbb{A} 14'15	2°57'18	evening max el	221 Nov 17 j 07:08	15° \mathbb{A} 36'21	20°34'21
minimum elong	220 Dec 20 j 08:53	29° \mathbb{A} 23'18	2°56'34	retrograde	221 Nov 25 j 09:19	20° \mathbb{A} 22'53	
min. Earth dist.	220 Dec 21 j 15:14	27° \mathbb{A} 44'11	0.66407 AU	asc. node	221 Nov 27 j 08:43	20° \mathbb{A} 00'45	
morning rise	220 Dec 25 j 19:22	23° \mathbb{A} 00'22		evening set	221 Nov 29 j 04:28	18° \mathbb{A} 59'51	
direct	220 Dec 31 j 22:33	20° \mathbb{A} 18'02		inferior conj	221 Dec 04 j 15:25	12° \mathbb{A} 49'32	2°18'35
morning max el	221 Jan 13 j 06:24	27° \mathbb{A} 36'54	25°48'05	minimum elong	221 Dec 04 j 12:49	12° \mathbb{A} 58'23	2°17'42
	221 Jan 15 j 12:40	0° \mathbb{S}		min. Earth dist.	221 Dec 05 j 06:14	11° \mathbb{A} 59'11	0.67184 AU
desc. node	221 Jan 18 j 23:36	4° \mathbb{S} 00'24		morning rise	221 Dec 09 j 20:41	6° \mathbb{A} 34'11	
	221 Feb 06 j 06:08	0° \mathbb{A}		direct	221 Dec 15 j 09:14	4° \mathbb{A} 09'08	
morning set	221 Feb 18 j 11:35	20° \mathbb{A} 58'47		morning max el	221 Dec 26 j 14:43	10° \mathbb{A} 50'57	24°25'29
max. Earth dist.	221 Feb 22 j 08:44	28° \mathbb{A} 15'28	1.35811 AU	desc. node	222 Jan 05 j 20:39	23° \mathbb{A} 04'30	
	221 Feb 23 j 06:28	0° \mathbb{H}			222 Jan 10 j 21:09	0° \mathbb{S}	
					222 Jan 29 j 23:26	0° \mathbb{A}	
superior conj	221 Feb 27 j 19:52	9° \mathbb{H} 00'03	-1°-20'-42	morning set	222 Jan 31 j 12:19	2° \mathbb{A} 39'50	
minimum elong	221 Feb 27 j 23:31	9° \mathbb{H} 18'25	1°20'09	max. Earth dist.	222 Feb 04 j 05:53	9° \mathbb{A} 18'06	1.37737 AU
evening rise	221 Mar 07 j 19:48	25° \mathbb{H} 21'08					
asc. node	221 Mar 08 j 10:59	26° \mathbb{H} 38'16		superior conj	222 Feb 11 j 03:08	22° \mathbb{A} 11'01	-1°-42'-28
	221 Mar 10 j 03:06	0° \mathbb{Y}		minimum elong	222 Feb 11 j 07:01	22° \mathbb{A} 29'41	1°42'06
evening max el	221 Mar 25 j 18:17	24° \mathbb{Y} 22'23	20°07'47		222 Feb 15 j 03:08	0° \mathbb{H}	
retrograde	221 Apr 05 j 04:09	29° \mathbb{Y} 22'27		evening rise	222 Feb 19 j 20:06	9° \mathbb{H} 20'43	
evening set	221 Apr 07 j 06:30	29° \mathbb{Y} 11'09		asc. node	222 Feb 23 j 08:02	16° \mathbb{H} 10'50	
inferior conj	221 Apr 16 j 05:18	25° \mathbb{Y} 12'23	0°12'29		222 Mar 03 j 08:25	0° \mathbb{Y}	
minimum elong	221 Apr 16 j 05:52	25° \mathbb{Y} 11'32	0°12'17	evening max el	222 Mar 08 j 12:49	6° \mathbb{Y} 19'25	19°08'30
transit middle	221 Apr 16 j 05:52	25° \mathbb{Y} 11'32	0°12'17	retrograde	222 Mar 17 j 07:15	10° \mathbb{Y} 32'52	
transit begin	221 Apr 16 j 03:19	25° \mathbb{Y} 15'21		evening set	222 Mar 19 j 12:08	10° \mathbb{Y} 18'01	
transit end	221 Apr 16 j 08:25	25° \mathbb{Y} 07'44		inferior conj	222 Mar 27 j 17:07	6° \mathbb{Y} 06'02	1°55'23
desc. node	221 Apr 16 j 22:45	24° \mathbb{Y} 46'14		minimum elong	222 Mar 27 j 21:07	5° \mathbb{Y} 59'11	1°54'10
min. Earth dist.	221 Apr 18 j 02:08	24° \mathbb{Y} 05'28	0.55375 AU	min. Earth dist.	222 Mar 30 j 17:26	4° \mathbb{Y} 03'17	0.56648 AU
morning rise	221 Apr 25 j 02:33	20° \mathbb{Y} 49'21		desc. node	222 Apr 03 j 19:49	1° \mathbb{Y} 42'26	
direct	221 Apr 29 j 00:54	20° \mathbb{Y} 15'31		morning rise	222 Apr 05 j 02:03	1° \mathbb{Y} 10'22	
morning max el	221 May 12 j 17:28	27° \mathbb{Y} 00'56	23°49'48	direct	222 Apr 10 j 02:33	0° \mathbb{Y} 11'37	
	221 May 15 j 14:56	0° \mathbb{B}		morning max el	222 Apr 24 j 08:01	7° \mathbb{Y} 30'26	25°27'25
	221 Jun 03 j 09:02	0° \mathbb{H}			222 May 10 j 22:02	0° \mathbb{B}	
asc. node	221 Jun 04 j 10:14	2° \mathbb{H} 08'58		morning set	222 May 21 j 08:14	20° \mathbb{B} 04'58	
morning set	221 Jun 05 j 20:20	5° \mathbb{H} 06'33		asc. node	222 May 22 j 07:18	22° \mathbb{B} 07'11	
					222 May 25 j 22:49	0° \mathbb{H}	
superior conj	221 Jun 12 j 22:29	20° \mathbb{H} 20'32	1°19'06				
minimum elong	221 Jun 12 j 20:00	20° \mathbb{H} 07'09	1°18'46	superior conj	222 May 28 j 08:54	5° \mathbb{H} 17'38	1°00'12
max. Earth dist.	221 Jun 15 j 00:12	24° \mathbb{H} 46'58	1.33402 AU	minimum elong	222 May 28 j 06:39	5° \mathbb{H} 05'20	0°59'48
	221 Jun 17 j 11:39	0° \mathbb{S}		max. Earth dist.	222 May 29 j 08:49	7° \mathbb{H} 28'07	1.32690 AU

evening rise	222 Jun 04 j 12:24	20° Π 34'04		max. Earth dist.	223 May 12 j 21:09	20° \mathcal{B} 19'16	1.32346 AU
	222 Jun 09 j 06:01	0° \mathfrak{E}			223 May 17 j 07:33	0° Π	
	222 Jun 27 j 19:22	0° \mathcal{Q}		evening rise	223 May 19 j 19:50	5° Π 20'39	
desc. node	222 Jun 30 j 19:05	3° \mathcal{Q} 43'56			223 Jun 01 j 22:40	0° \mathfrak{E}	
evening max el	222 Jul 06 j 08:28	9° \mathcal{Q} 42'29	27°16'02	desc. node	223 Jun 17 j 16:08	20° \mathfrak{E} 56'52	
retrograde	222 Jul 20 j 04:39	16° \mathcal{Q} 59'20		evening max el	223 Jun 18 j 10:29	21° \mathfrak{E} 41'28	26°34'10
evening set	222 Jul 27 j 08:14	14° \mathcal{Q} 36'01		retrograde	223 Jul 02 j 10:11	28° \mathfrak{E} 55'47	
min. Earth dist.	222 Jul 30 j 22:27	11° \mathcal{Q} 47'00	0.62027 AU	evening set	223 Jul 09 j 02:25	27° \mathfrak{E} 02'38	
inferior conj	222 Aug 02 j 23:07	9° \mathcal{Q} 00'11	-4°-11'-11	min. Earth dist.	223 Jul 12 j 23:44	24° \mathfrak{E} 25'52	0.60000 AU
minimum elong	222 Aug 03 j 03:41	8° \mathcal{Q} 49'39	4°10'17	inferior conj	223 Jul 16 j 07:35	21° \mathfrak{E} 45'59	-4°-40'-31
morning rise	222 Aug 10 j 01:48	3° \mathcal{Q} 58'34		minimum elong	223 Jul 16 j 10:08	21° \mathfrak{E} 40'49	4°40'19
direct	222 Aug 12 j 12:10	3° \mathcal{Q} 32'50		morning rise	223 Jul 23 j 21:10	17° \mathfrak{E} 07'07	
asc. node	222 Aug 18 j 06:31	6° \mathcal{Q} 01'04		direct	223 Jul 26 j 07:44	16° \mathfrak{E} 45'12	
morning max el	222 Aug 19 j 08:26	7° \mathcal{Q} 00'04	17°55'08	morning max el	223 Aug 02 j 19:31	20° \mathfrak{E} 23'15	18°14'25
	222 Sep 03 j 04:51	0° \mathfrak{M}		asc. node	223 Aug 05 j 03:34	22° \mathfrak{E} 56'06	
morning set	222 Sep 04 j 08:07	2° \mathfrak{M} 03'18			223 Aug 10 j 01:18	0° \mathcal{Q}	
				morning set	223 Aug 18 j 17:14	15° \mathcal{Q} 37'27	
superior conj	222 Sep 15 j 04:14	21° \mathfrak{M} 17'50	1°12'25		223 Aug 26 j 09:09	0° \mathfrak{M}	
minimum elong	222 Sep 15 j 09:08	21° \mathfrak{M} 38'51	1°11'52	superior conj	223 Aug 28 j 05:11	3° \mathfrak{M} 21'09	1°34'38
	222 Sep 20 j 07:46	0° \mathfrak{A}		minimum elong	223 Aug 28 j 08:37	3° \mathfrak{M} 36'41	1°34'21
max. Earth dist.	222 Sep 22 j 11:33	3° \mathfrak{A} 33'27	1.42808 AU	max. Earth dist.	223 Sep 04 j 19:31	16° \mathfrak{M} 42'20	1.40984 AU
desc. node	222 Sep 26 j 18:24	10° \mathfrak{A} 28'57		evening rise	223 Sep 09 j 18:24	24° \mathfrak{M} 57'34	
evening rise	222 Sep 29 j 15:31	15° \mathfrak{A} 02'08			223 Sep 12 j 21:27	0° \mathfrak{A}	
	222 Oct 09 j 10:30	0° \mathfrak{M}		desc. node	223 Sep 13 j 15:26	1° \mathfrak{A} 11'22	
greatest brilliancy	222 Oct 26 j 08:04	23° \mathfrak{M} 35'25	-0.4m		223 Oct 03 j 07:08	0° \mathfrak{M}	
evening max el	222 Oct 31 j 03:55	29° \mathfrak{M} 05'38	21°46'17	greatest brilliancy	223 Oct 08 j 05:26	6° \mathfrak{M} 19'10	-0.2m
	222 Nov 01 j 01:55	0° \mathfrak{J}		evening max el	223 Oct 13 j 19:32	12° \mathfrak{M} 36'24	23°05'05
retrograde	222 Nov 09 j 05:59	4° \mathfrak{J} 29'49		retrograde	223 Oct 24 j 00:13	18° \mathfrak{M} 39'09	
evening set	222 Nov 13 j 12:18	2° \mathfrak{J} 50'07		evening set	223 Oct 28 j 19:29	16° \mathfrak{M} 41'37	
asc. node	222 Nov 14 j 05:47	2° \mathfrak{J} 12'44		asc. node	223 Nov 01 j 02:49	13° \mathfrak{M} 07'15	
	222 Nov 16 j 06:58	30° \mathfrak{R} \mathfrak{M}		inferior conj	223 Nov 03 j 05:00	10° \mathfrak{M} 18'07	0°42'58
inferior conj	222 Nov 18 j 21:49	26° \mathfrak{M} 31'21	1°33'15	minimum elong	223 Nov 03 j 04:01	10° \mathfrak{M} 21'32	0°42'34
minimum elong	222 Nov 18 j 19:50	26° \mathfrak{M} 38'11	1°32'30	min. Earth dist.	223 Nov 02 j 21:48	10° \mathfrak{M} 42'54	0.67684 AU
min. Earth dist.	222 Nov 19 j 01:12	26° \mathfrak{M} 19'37	0.67603 AU	morning rise	223 Nov 08 j 12:35	4° \mathfrak{M} 06'15	
morning rise	222 Nov 24 j 03:09	20° \mathfrak{M} 16'37		direct	223 Nov 12 j 19:00	2° \mathfrak{M} 25'55	
direct	222 Nov 29 j 00:19	18° \mathfrak{M} 13'29		morning max el	223 Nov 21 j 14:43	7° \mathfrak{M} 36'21	21°33'07
morning max el	222 Dec 09 j 00:19	24° \mathfrak{M} 09'38	22°57'34	greatest brilliancy	223 Nov 26 j 15:13	13° \mathfrak{M} 19'56	-0.4m
greatest brilliancy	222 Dec 13 j 18:22	29° \mathfrak{M} 28'24	-0.3m		223 Dec 08 j 17:40	0° \mathfrak{J}	
	222 Dec 14 j 04:45	0° \mathfrak{J}		desc. node	223 Dec 10 j 14:42	2° \mathfrak{J} 45'46	
desc. node	222 Dec 23 j 17:41	12° \mathfrak{J} 42'46		morning set	223 Dec 23 j 03:56	21° \mathfrak{J} 59'55	
	223 Jan 04 j 08:10	0° \mathfrak{Z}			223 Dec 28 j 03:24	0° \mathfrak{Z}	
morning set	223 Jan 12 j 10:38	13° \mathfrak{Z} 00'57		max. Earth dist.	223 Dec 30 j 02:00	3° \mathfrak{Z} 11'18	1.41898 AU
max. Earth dist.	223 Jan 17 j 01:27	20° \mathfrak{Z} 48'49	1.39861 AU				
	223 Jan 22 j 06:47	0° \mathfrak{A}		superior conj	224 Jan 06 j 14:06	15° \mathfrak{Z} 53'48	-2°-2'-7
superior conj	223 Jan 24 j 18:58	4° \mathfrak{A} 33'07	-1°-57'-37	minimum elong	224 Jan 06 j 13:21	15° \mathfrak{Z} 50'32	2°02'07
minimum elong	223 Jan 24 j 21:36	4° \mathfrak{A} 45'09	1°57'32		224 Jan 14 j 12:18	0° \mathfrak{A}	
evening rise	223 Feb 03 j 11:27	22° \mathfrak{A} 48'48		evening rise	224 Jan 17 j 14:20	5° \mathfrak{A} 37'36	
	223 Feb 07 j 06:38	0° \mathfrak{H}		asc. node	224 Jan 28 j 02:08	23° \mathfrak{A} 58'30	
asc. node	223 Feb 10 j 05:06	5° \mathfrak{H} 20'03			224 Feb 01 j 10:54	0° \mathfrak{H}	
evening max el	223 Feb 19 j 16:11	18° \mathfrak{H} 49'14	18°29'09	evening max el	224 Feb 03 j 01:28	1° \mathfrak{H} 44'10	18°09'52
retrograde	223 Feb 27 j 05:18	22° \mathfrak{H} 31'39		retrograde	224 Feb 09 j 20:50	5° \mathfrak{H} 11'23	
evening set	223 Mar 01 j 14:57	22° \mathfrak{H} 10'17		evening set	224 Feb 12 j 11:02	4° \mathfrak{H} 41'52	
inferior conj	223 Mar 09 j 01:40	17° \mathfrak{H} 38'12	3°04'34	inferior conj	224 Feb 19 j 06:26	29° \mathfrak{A} 48'23	3°40'14
minimum elong	223 Mar 09 j 05:33	17° \mathfrak{H} 30'25	3°03'46	minimum elong	224 Feb 19 j 08:19	29° \mathfrak{A} 44'01	3°40'04
min. Earth dist.	223 Mar 12 j 11:56	14° \mathfrak{H} 55'05	0.58510 AU		224 Feb 19 j 01:25	30° \mathfrak{R} \mathfrak{A}	
morning rise	223 Mar 16 j 16:15	12° \mathfrak{H} 12'53		min. Earth dist.	224 Feb 22 j 12:36	26° \mathfrak{A} 48'20	0.60610 AU
desc. node	223 Mar 21 j 16:53	10° \mathfrak{H} 41'23		morning rise	224 Feb 26 j 02:32	24° \mathfrak{A} 02'19	
direct	223 Mar 22 j 17:24	10° \mathfrak{H} 38'41		direct	224 Mar 03 j 20:08	21° \mathfrak{A} 51'31	
morning max el	223 Apr 06 j 01:50	18° \mathfrak{H} 17'08	26°46'49	desc. node	224 Mar 07 j 13:54	22° \mathfrak{A} 29'09	
	223 Apr 15 j 21:03	0° \mathfrak{Y}		morning max el	224 Mar 18 j 01:53	29° \mathfrak{A} 40'55	27°35'16
	223 May 03 j 08:47	0° \mathfrak{B}			224 Mar 18 j 09:35	0° \mathfrak{H}	
morning set	223 May 05 j 18:36	4° \mathfrak{B} 57'37			224 Apr 08 j 19:08	0° \mathfrak{Y}	
asc. node	223 May 09 j 04:21	12° \mathfrak{B} 13'38		morning set	224 Apr 19 j 01:41	19° \mathfrak{Y} 38'29	
					224 Apr 23 j 22:54	0° \mathfrak{B}	
superior conj	223 May 12 j 20:36	20° \mathfrak{B} 16'17	0°38'04	asc. node	224 Apr 25 j 01:24	2° \mathfrak{B} 24'07	
minimum elong	223 May 12 j 19:01	20° \mathfrak{B} 07'31	0°37'43	max. Earth dist.	224 Apr 25 j 09:24	3° \mathfrak{B} 07'44	1.32368 AU


























































































































superior conj	224 Apr 26 j 07:56	5°♄10'59	0°13'27	morning max el	225 Feb 28 j 07:27	11°≈44'47	27°47'03
minimum elong	224 Apr 26 j 07:19	5°♄07'39	0°13'18		225 Mar 14 j 18:32	0°♄	
behind sun begin	224 Apr 26 j 04:34	4°♄52'35			225 Apr 01 j 03:11	0°♄	
behind sun end	224 Apr 26 j 10:04	5°♄22'43		morning set	225 Apr 03 j 03:21	4°♄00'04	
evening rise	224 May 03 j 06:23	20°♄14'01		max. Earth dist.	225 Apr 08 j 17:35	15°♄39'37	1.32772 AU
	224 May 08 j 01:10	0°♄					
	224 May 27 j 09:47	0°♄		superior conj	225 Apr 10 j 17:11	19°♄55'51	0°-12'-51
evening max el	224 May 30 j 05:29	2°♄54'48	25°22'46	minimum elong	225 Apr 10 j 17:48	19°♄59'09	0°12'44
desc. node	224 Jun 03 j 13:10	6°♄30'54		behind sun begin	225 Apr 10 j 14:40	19°♄42'14	
retrograde	224 Jun 13 j 06:19	10°♄04'34		behind sun end	225 Apr 10 j 20:55	20°♄16'05	
evening set	224 Jun 18 j 21:49	8°♄50'04		asc. node	225 Apr 11 j 22:27	22°♄34'28	
min. Earth dist.	224 Jun 23 j 17:24	6°♄06'51	0.57966 AU		225 Apr 15 j 08:38	0°♄	
inferior conj	224 Jun 26 j 21:36	3°♄54'30	-4°-44'-31	evening rise	225 Apr 17 j 18:10	5°♄07'31	
minimum elong	224 Jun 26 j 20:01	3°♄57'16	4°44'28		225 May 01 j 02:27	0°♄	
	224 Jul 03 j 17:42	30°♄		evening max el	225 May 11 j 20:11	13°♄36'10	23°52'16
morning rise	224 Jul 04 j 22:04	29°♄38'22		desc. node	225 May 21 j 10:10	19°♄50'45	
direct	224 Jul 07 j 10:36	29°♄18'56		retrograde	225 May 25 j 14:39	20°♄30'39	
	224 Jul 10 j 23:50	0°♄		evening set	225 May 29 j 19:48	19°♄51'24	
morning max el	224 Jul 15 j 23:43	3°♄19'53	18°54'08	min. Earth dist.	225 Jun 05 j 07:10	16°♄46'14	0.56248 AU
asc. node	224 Jul 22 j 00:36	10°♄48'02		inferior conj	225 Jun 07 j 15:31	15°♄20'08	-4°-10'-16
morning set	224 Aug 01 j 12:55	29°♄42'50		minimum elong	225 Jun 07 j 09:24	15°♄29'34	4°09'10
	224 Aug 01 j 16:25	0°♄		morning rise	225 Jun 16 j 02:36	11°♄21'19	
				direct	225 Jun 18 j 18:23	11°♄03'10	
superior conj	224 Aug 10 j 01:57	16°♄23'47	1°45'15	morning max el	225 Jun 28 j 18:18	15°♄40'57	19°54'51
minimum elong	224 Aug 10 j 03:15	16°♄29'57	1°45'13	asc. node	225 Jul 08 j 21:38	29°♄24'10	
max. Earth dist.	224 Aug 16 j 22:49	29°♄06'04	1.38965 AU		225 Jul 09 j 05:53	0°♄	
	224 Aug 17 j 10:55	0°♄		morning set	225 Jul 16 j 16:00	14°♄11'40	
evening rise	224 Aug 20 j 21:45	6°♄01'51			225 Jul 24 j 11:04	0°♄	
desc. node	224 Aug 30 j 12:27	21°♄45'37					
	224 Sep 04 j 22:36	0°♄		superior conj	225 Jul 24 j 13:15	0°♄10'53	1°46'28
evening max el	224 Sep 25 j 07:54	26°♄10'02	24°24'52	minimum elong	225 Jul 24 j 12:42	0°♄08'08	1°46'28
	224 Sep 29 j 17:41	0°♄		max. Earth dist.	225 Jul 30 j 02:51	11°♄00'45	1.37014 AU
retrograde	224 Oct 06 j 14:49	2°♄46'40		evening rise	225 Aug 03 j 00:36	18°♄14'09	
evening set	224 Oct 12 j 00:19	0°♄31'26			225 Aug 09 j 19:09	0°♄	
	224 Oct 12 j 14:21	30°♄		desc. node	225 Aug 17 j 09:29	12°♄07'09	
min. Earth dist.	224 Oct 16 j 17:39	25°♄06'18	0.67446 AU		225 Aug 30 j 04:09	0°♄	
inferior conj	224 Oct 17 j 11:14	24°♄07'19	0°-10'-52	evening max el	225 Sep 07 j 19:32	9°♄47'32	25°38'19
minimum elong	224 Oct 17 j 11:30	24°♄06'25	0°10'46	retrograde	225 Sep 20 j 00:55	16°♄48'09	
transit middle	224 Oct 17 j 11:30	24°♄06'25	0°10'46	evening set	225 Sep 26 j 01:05	14°♄17'24	
transit begin	224 Oct 17 j 09:27	24°♄13'19		min. Earth dist.	225 Sep 30 j 10:20	9°♄28'02	0.66888 AU
transit end	224 Oct 17 j 13:33	23°♄59'32		inferior conj	225 Oct 01 j 14:46	7°♄56'58	-1°-6'-48
asc. node	224 Oct 17 j 23:49	23°♄25'11		minimum elong	225 Oct 01 j 16:28	7°♄51'32	1°06'07
morning rise	224 Oct 22 j 23:01	18°♄00'52		asc. node	225 Oct 04 j 20:50	4°♄04'27	
direct	224 Oct 26 j 16:17	16°♄41'35		morning rise	225 Oct 07 j 08:33	1°♄58'51	
morning max el	224 Nov 03 j 12:15	21°♄12'39	20°18'27	direct	225 Oct 10 j 14:45	0°♄57'31	
greatest brilliancy	224 Nov 10 j 03:24	29°♄10'48	-0.6m	morning max el	225 Oct 17 j 17:18	4°♄58'22	19°17'28
	224 Nov 10 j 18:00	0°♄		greatest brilliancy	225 Oct 27 j 20:08	18°♄12'38	-0.7m
desc. node	224 Nov 26 j 11:42	23°♄06'06			225 Nov 04 j 14:03	0°♄	
	224 Nov 30 j 23:24	0°♄		morning set	225 Nov 10 j 03:51	8°♄39'19	
morning set	224 Dec 01 j 01:43	0°♄09'00		desc. node	225 Nov 13 j 08:45	13°♄38'56	
max. Earth dist.	224 Dec 11 j 09:45	16°♄25'18	1.43571 AU		225 Nov 23 j 19:05	0°♄	
				max. Earth dist.	225 Nov 24 j 00:12	0°♄20'12	1.44668 AU
superior conj	224 Dec 17 j 07:34	26°♄02'03	-1°-51'-16				
minimum elong	224 Dec 17 j 01:53	25°♄38'37	1°50'55	superior conj	225 Nov 26 j 23:13	5°♄01'30	-1°-21'-58
	224 Dec 19 j 16:56	0°♄		minimum elong	225 Nov 26 j 14:50	4°♄28'13	1°21'07
evening rise	224 Dec 30 j 00:30	17°♄38'03		evening rise	225 Dec 11 j 13:45	28°♄43'15	
	225 Jan 06 j 04:08	0°≈			225 Dec 12 j 08:18	0°♄	
asc. node	225 Jan 13 j 23:10	11°≈56'16		evening max el	225 Dec 31 j 01:54	28°♄17'16	18°28'59
evening max el	225 Jan 16 j 13:37	14°≈55'37	18°10'06	asc. node	225 Dec 31 j 20:10	29°♄01'45	
retrograde	225 Jan 23 j 01:37	18°≈21'31			226 Jan 01 j 23:27	0°≈	
evening set	225 Jan 25 j 20:13	17°≈42'44		retrograde	226 Jan 06 j 15:20	1°≈53'45	
inferior conj	225 Feb 01 j 03:46	12°≈28'29	3°49'31	evening set	226 Jan 09 j 14:57	1°≈04'31	
minimum elong	225 Feb 01 j 03:29	12°≈29'12	3°49'31		226 Jan 11 j 05:14	30°♄	
min. Earth dist.	225 Feb 03 j 21:44	9°≈35'33	0.62644 AU	inferior conj	226 Jan 15 j 13:43	25°♄31'04	3°39'35
morning rise	225 Feb 07 j 08:40	6°≈29'42		minimum elong	226 Jan 15 j 11:54	25°♄36'21	3°39'22
direct	225 Feb 14 j 08:20	3°≈51'38		min. Earth dist.	226 Jan 17 j 16:25	23°♄03'27	0.64405 AU
desc. node	225 Feb 22 j 10:55	6°≈48'31		morning rise	226 Jan 21 j 07:30	19°♄24'24	

direct	226 Jan 28 j 03:58	16°☿34'00		min. Earth dist.	226 Dec 31 j 20:20	6°☿58'02	0.65787 AU
desc. node	226 Feb 09 j 07:57	23°☿04'06		morning rise	227 Jan 04 j 19:15	2°☿38'22	
morning max el	226 Feb 10 j 16:15	24°☿22'22	27°23'06		227 Jan 09 j 15:09	30°☿☿	
	226 Feb 15 j 18:44	0°≈		direct	227 Jan 11 j 05:54	29°☿50'02	
	226 Mar 08 j 03:34	0°☿			227 Jan 12 j 22:00	0°☿	
morning set	226 Mar 17 j 20:51	17°☿53'05		morning max el	227 Jan 24 j 01:58	7°☿23'01	26°29'21
max. Earth dist.	226 Mar 22 j 17:55	27°☿43'04	1.33599 AU	desc. node	227 Jan 27 j 05:00	10°☿43'31	
	226 Mar 23 j 20:16	0°☿			227 Feb 10 j 16:23	0°≈	
					227 Feb 28 j 12:22	0°☿	
superior conj	226 Mar 25 j 22:30	4°☿24'14	0°-39'-52	morning set	227 Mar 01 j 02:36	1°☿06'47	
minimum elong	226 Mar 26 j 00:25	4°☿34'28	0°39'29	max. Earth dist.	227 Mar 05 j 07:26	9°☿13'21	1.34880 AU
asc. node	226 Mar 29 j 19:30	12°☿40'09					
evening rise	226 Apr 02 j 05:22	19°☿54'23		superior conj	227 Mar 09 j 21:38	18°☿29'22	-1°-6'-20
	226 Apr 07 j 04:57	0°☿		minimum elong	227 Mar 10 j 00:46	18°☿45'31	1°05'48
evening max el	226 Apr 23 j 12:46	24°☿11'33	22°17'04		227 Mar 15 j 10:24	0°☿	
	226 May 02 j 16:40	0°☿		asc. node	227 Mar 16 j 16:34	2°☿37'01	
retrograde	226 May 06 j 10:08	0°☿32'01		evening rise	227 Mar 17 j 14:06	4°☿28'32	
desc. node	226 May 08 j 07:12	0°☿24'10			227 Apr 01 j 01:34	0°☿	
evening set	226 May 09 j 07:57	0°☿13'23		evening max el	227 Apr 05 j 13:38	5°☿08'54	20°50'21
	226 May 10 j 06:11	30°☿☿		retrograde	227 Apr 16 j 23:13	10°☿39'51	
min. Earth dist.	226 May 17 j 19:38	26°☿34'25	0.55192 AU	evening set	227 Apr 19 j 04:22	10°☿28'10	
inferior conj	226 May 18 j 16:18	26°☿05'16	-2°-50'-9	desc. node	227 Apr 25 j 04:13	8°☿17'47	
minimum elong	226 May 18 j 09:18	26°☿15'10	2°48'02	inferior conj	227 Apr 28 j 10:25	6°☿30'24	0°-56'-10
morning rise	226 May 27 j 12:33	22°☿11'40		minimum elong	227 Apr 28 j 07:46	6°☿34'12	0°55'14
direct	226 May 30 j 10:19	21°☿52'32		min. Earth dist.	227 Apr 29 j 08:32	5°☿58'55	0.55037 AU
morning max el	226 Jun 11 j 01:38	27°☿18'45	21°15'33	morning rise	227 May 07 j 10:15	2°☿23'34	
	226 Jun 13 j 16:28	0°☿		direct	227 May 10 j 20:40	1°☿58'08	
asc. node	226 Jun 25 j 18:42	18°☿33'07		morning max el	227 May 23 j 22:53	8°☿16'03	22°51'29
morning set	226 Jun 30 j 23:58	28°☿56'15			227 Jun 08 j 10:46	0°☿	
	226 Jul 01 j 12:17	0°☿		asc. node	227 Jun 12 j 15:48	8°☿06'32	
				morning set	227 Jun 15 j 10:49	13°☿50'46	
superior conj	226 Jul 08 j 10:42	14°☿29'04	1°40'16				
minimum elong	226 Jul 08 j 08:55	14°☿19'49	1°40'09	superior conj	227 Jun 22 j 15:07	29°☿08'39	1°28'13
max. Earth dist.	226 Jul 12 j 13:36	22°☿52'18	1.35323 AU	minimum elong	227 Jun 22 j 12:44	28°☿55'55	1°27'56
	226 Jul 16 j 05:08	0°☿			227 Jun 23 j 00:47	0°☿	
evening rise	226 Jul 16 j 22:15	1°☿21'27		max. Earth dist.	227 Jun 25 j 09:43	4°☿59'56	1.33994 AU
	226 Aug 02 j 19:49	0°☿		evening rise	227 Jun 30 j 09:56	15°☿10'42	
desc. node	226 Aug 04 j 06:31	2°☿08'56			227 Jul 08 j 08:40	0°☿	
evening max el	226 Aug 21 j 07:32	23°☿23'22	26°37'40	desc. node	227 Jul 22 j 03:32	21°☿42'31	
	226 Aug 30 j 19:58	0°☿			227 Jul 28 j 12:53	0°☿	
retrograde	226 Sep 03 j 05:49	0°☿37'13		evening max el	227 Aug 03 j 19:19	6°☿47'34	27°15'21
	226 Sep 06 j 10:46	30°☿☿		retrograde	227 Aug 17 j 05:08	14°☿06'34	
evening set	226 Sep 09 j 19:42	27°☿55'37		evening set	227 Aug 24 j 05:36	11°☿22'15	
min. Earth dist.	226 Sep 13 j 21:21	23°☿43'46	0.65986 AU	min. Earth dist.	227 Aug 28 j 00:23	7°☿47'29	0.64721 AU
inferior conj	226 Sep 15 j 13:40	21°☿43'07	-2°-3'-11	inferior conj	227 Aug 30 j 05:40	5°☿21'27	-2°-57'-44
minimum elong	226 Sep 15 j 16:48	21°☿33'42	2°01'59	minimum elong	227 Aug 30 j 10:01	5°☿09'31	2°56'19
morning rise	226 Sep 21 j 15:05	15°☿56'39			227 Sep 05 j 07:53	30°☿☿	
asc. node	226 Sep 21 j 17:53	15°☿52'58		morning rise	227 Sep 05 j 16:09	29°☿50'02	
direct	226 Sep 24 j 12:32	15°☿09'37		direct	227 Sep 08 j 07:14	29°☿13'46	
morning max el	226 Oct 01 j 04:29	18°☿49'53	18°32'14	asc. node	227 Sep 08 j 14:58	29°☿14'19	
	226 Oct 09 j 15:28	0°☿			227 Sep 11 j 06:48	0°☿	
morning set	226 Oct 21 j 06:15	18°☿25'17		morning max el	227 Sep 14 j 19:24	2°☿42'21	18°03'47
	226 Oct 28 j 12:13	0°☿		morning set	227 Oct 02 j 13:13	29°☿34'44	
desc. node	226 Oct 31 j 05:48	4°☿19'54			227 Oct 02 j 19:14	0°☿	
superior conj	226 Nov 06 j 00:12	13°☿25'23	0°-37'-19	superior conj	227 Oct 16 j 08:05	22°☿14'27	0°11'47
minimum elong	226 Nov 05 j 19:20	13°☿06'13	0°36'42	minimum elong	227 Oct 16 j 09:30	22°☿20'08	0°11'36
max. Earth dist.	226 Nov 06 j 18:47	14°☿38'25	1.45053 AU	behind sun begin	227 Oct 16 j 02:01	21°☿50'06	
	226 Nov 16 j 13:11	0°☿		behind sun end	227 Oct 16 j 16:59	22°☿50'07	
evening rise	226 Nov 22 j 03:24	8°☿50'17		desc. node	227 Oct 18 j 02:50	25°☿05'16	
	226 Dec 05 j 15:12	0°☿		max. Earth dist.	227 Oct 20 j 13:37	28°☿58'38	1.44696 AU
evening max el	226 Dec 14 j 11:53	11°☿44'04	19°05'28		227 Oct 21 j 05:09	0°☿	
asc. node	226 Dec 18 j 17:11	15°☿01'02		evening rise	227 Nov 01 j 19:52	18°☿06'58	
retrograde	226 Dec 21 j 10:27	15°☿41'29			227 Nov 09 j 13:32	0°☿	
evening set	226 Dec 24 j 16:15	14°☿40'27		greatest brilliancy	227 Nov 20 j 13:53	16°☿17'36	-0.6m
inferior conj	226 Dec 30 j 08:48	8°☿50'07	3°15'48	evening max el	227 Nov 27 j 17:28	25°☿11'55	19°57'55
minimum elong	226 Dec 30 j 06:11	8°☿58'22	3°15'15	retrograde	227 Dec 05 j 07:57	29°☿38'57	

asc. node	227 Dec 05 j 14:15	29°♄38'34		evening set	228 Nov 22 j 05:06	12°♄13'14	
evening set	227 Dec 08 j 21:39	28°♄24'26		inferior conj	228 Nov 27 j 15:14	5°♄58'40	2°00'05
inferior conj	227 Dec 14 j 10:06	22°♄20'16	2°41'48	minimum elong	228 Nov 27 j 12:51	6°♄06'53	1°59'14
minimum elong	227 Dec 14 j 07:20	22°♄29'28	2°40'59	min. Earth dist.	228 Nov 28 j 01:03	5°♄24'57	0.67397 AU
min. Earth dist.	227 Dec 15 j 07:57	21°♄07'23	0.66776 AU	morning rise	228 Dec 02 j 20:13	29°♄43'04	
morning rise	227 Dec 19 j 16:26	16°♄05'30			228 Dec 02 j 12:43	30°♄	
direct	227 Dec 25 j 13:27	13°♄30'01		direct	228 Dec 08 j 02:07	27°♄27'05	
morning max el	228 Jan 06 j 10:54	20°♄34'38	25°14'23		228 Dec 14 j 10:33	0°♄	
desc. node	228 Jan 14 j 02:03	29°♄21'35		morning max el	228 Dec 18 j 19:30	3°♄50'50	23°48'12
	228 Jan 14 j 14:06	0°♄		desc. node	228 Dec 30 j 23:05	18°♄41'26	
	228 Feb 03 j 20:48	0°♄			229 Jan 07 j 20:24	0°♄	
morning set	228 Feb 11 j 15:39	13°♄26'11		morning set	229 Jan 23 j 05:51	24°♄34'55	
max. Earth dist.	228 Feb 15 j 09:36	20°♄18'41	1.36593 AU		229 Jan 26 j 08:56	0°♄	
	228 Feb 20 j 10:52	0°♄		max. Earth dist.	229 Jan 27 j 04:46	1°♄27'28	1.38628 AU
superior conj	228 Feb 21 j 11:40	2°♄02'12	-1°-30'-31	superior conj	229 Feb 03 j 12:54	14°♄53'16	-1°-49'-55
minimum elong	228 Feb 21 j 15:32	2°♄21'23	1°30'02	minimum elong	229 Feb 03 j 16:29	15°♄10'08	1°49'40
evening rise	228 Feb 29 j 18:11	18°♄42'24			229 Feb 11 j 08:32	0°♄	
asc. node	228 Mar 02 j 13:36	22°♄19'40		evening rise	229 Feb 12 j 15:02	2°♄29'04	
	228 Mar 06 j 13:18	0°♄		asc. node	229 Feb 17 j 10:38	11°♄42'48	
evening max el	228 Mar 18 j 01:44	16°♄42'51	19°40'04	evening max el	229 Mar 01 j 00:21	28°♄54'31	18°49'18
retrograde	228 Mar 27 j 18:14	21°♄22'04			229 Mar 02 j 05:36	0°♄	
evening set	228 Mar 29 j 20:49	21°♄09'48		retrograde	229 Mar 09 j 05:04	2°♄52'46	
inferior conj	228 Apr 07 j 12:27	17°♄06'21	0°59'38	evening set	229 Mar 11 j 11:47	2°♄35'32	
minimum elong	228 Apr 07 j 14:56	17°♄02'26	0°58'47		229 Mar 16 j 21:31	30°♄	
min. Earth dist.	228 Apr 09 j 22:53	15°♄34'36	0.55825 AU	inferior conj	229 Mar 19 j 08:50	28°♄15'45	2°29'04
desc. node	228 Apr 11 j 01:15	14°♄54'58		minimum elong	229 Mar 19 j 13:09	28°♄07'51	2°27'56
morning rise	228 Apr 16 j 05:35	12°♄29'35		min. Earth dist.	229 Mar 22 j 15:34	25°♄53'00	0.57387 AU
direct	228 Apr 20 j 14:16	11°♄47'03		morning rise	229 Mar 27 j 10:15	23°♄06'07	
morning max el	228 May 04 j 14:20	18°♄48'35	24°32'37	desc. node	229 Mar 28 j 22:18	22°♄31'51	
	228 May 13 j 22:04	0°♄		direct	229 Apr 01 j 21:53	21°♄52'57	
morning set	228 May 29 j 22:48	28°♄49'11		morning max el	229 Apr 16 j 05:48	29°♄22'27	26°04'13
asc. node	228 May 29 j 12:53	27°♄57'10			229 Apr 16 j 21:03	0°♄	
	228 May 30 j 12:12	0°♄			229 May 07 j 12:30	0°♄	
superior conj	228 Jun 05 j 23:57	14°♄01'21	1°11'32	morning set	229 May 14 j 10:13	13°♄45'35	
minimum elong	228 Jun 05 j 21:31	13°♄48'06	1°11'09	asc. node	229 May 16 j 09:55	17°♄59'13	
max. Earth dist.	228 Jun 07 j 14:22	17°♄29'07	1.33051 AU	superior conj	229 May 21 j 11:07	28°♄59'50	0°51'10
evening rise	228 Jun 13 j 07:41	29°♄30'04		minimum elong	229 May 21 j 09:06	28°♄48'46	0°50'46
	228 Jun 13 j 13:35	0°♄			229 May 21 j 22:06	0°♄	
	228 Jun 30 j 10:59	0°♄		max. Earth dist.	229 May 22 j 00:47	0°♄14'45	1.32495 AU
desc. node	228 Jul 08 j 00:34	10°♄36'13		evening rise	229 May 28 j 12:19	14°♄09'22	
evening max el	228 Jul 16 j 05:12	19°♄48'22	27°24'59		229 Jun 05 j 14:55	0°♄	
retrograde	228 Jul 29 j 22:38	27°♄07'31		desc. node	229 Jun 24 j 21:36	28°♄32'41	
evening set	228 Aug 06 j 03:33	24°♄32'18			229 Jun 26 j 05:47	0°♄	
min. Earth dist.	228 Aug 09 j 17:48	21°♄29'39	0.63095 AU	evening max el	229 Jun 28 j 10:50	2°♄13'04	27°02'16
inferior conj	228 Aug 12 j 12:05	18°♄46'25	-3°-47'-6	retrograde	229 Jul 12 j 09:09	9°♄29'38	
minimum elong	228 Aug 12 j 16:56	18°♄34'25	3°45'53	evening set	229 Jul 19 j 09:14	7°♄17'39	
morning rise	228 Aug 19 j 08:42	13°♄33'16		min. Earth dist.	229 Jul 23 j 01:00	4°♄35'50	0.61175 AU
direct	228 Aug 21 j 19:56	13°♄04'36		inferior conj	229 Jul 26 j 05:36	1°♄49'25	-4°-26'-1
asc. node	228 Aug 25 j 12:04	14°♄09'11		minimum elong	229 Jul 26 j 09:35	1°♄40'43	4°25'26
morning max el	228 Aug 28 j 11:15	16°♄30'00	17°52'59		229 Jul 28 j 09:25	30°♄	
	228 Sep 07 j 00:17	0°♄		morning rise	229 Aug 02 j 12:56	26°♄57'18	
morning set	228 Sep 13 j 20:20	11°♄53'48		direct	229 Aug 04 j 22:55	26°♄33'34	
	228 Sep 24 j 07:26	0°♄			229 Aug 11 j 23:05	0°♄	
superior conj	228 Sep 25 j 15:47	2°♄15'40	0°53'47	morning max el	229 Aug 12 j 00:56	0°♄04'29	18°00'52
minimum elong	228 Sep 25 j 20:31	2°♄35'25	0°53'11	asc. node	229 Aug 12 j 09:07	0°♄24'45	
max. Earth dist.	228 Oct 02 j 05:25	13°♄02'08	1.43655 AU	morning set	229 Aug 27 j 21:30	25°♄04'37	
desc. node	228 Oct 03 j 23:51	15°♄52'16			229 Aug 30 j 13:35	0°♄	
evening rise	228 Oct 11 j 02:53	27°♄04'00		superior conj	229 Sep 07 j 02:42	13°♄37'01	1°23'22
	228 Oct 13 j 00:33	0°♄		minimum elong	229 Sep 07 j 07:09	13°♄56'36	1°22'56
	228 Nov 02 j 12:49	0°♄		max. Earth dist.	229 Sep 14 j 16:07	26°♄32'50	1.42069 AU
greatest brilliancy	228 Nov 04 j 08:22	2°♄22'34	-0.5m		229 Sep 16 j 18:22	0°♄	
evening max el	228 Nov 09 j 17:28	8°♄40'18	21°03'47	evening rise	229 Sep 20 j 18:22	6°♄27'14	
retrograde	228 Nov 18 j 05:32	13°♄43'05		desc. node	229 Sep 20 j 20:53	6°♄37'18	
asc. node	228 Nov 21 j 11:18	12°♄43'53			229 Oct 06 j 07:07	0°♄	

greatest brilliancy	229 Oct 18 j 18:25	16° \mathbb{M} 50'35	-0.3m	evening max el	230 Oct 06 j 01:59	5° \mathbb{M} 41'53	23°39'20
evening max el	229 Oct 23 j 11:52	22° \mathbb{M} 09'37	22°19'20	retrograde	230 Oct 16 j 17:57	11° \mathbb{M} 59'14	
retrograde	229 Nov 02 j 01:18	27° \mathbb{M} 50'41		evening set	230 Oct 21 j 19:10	9° \mathbb{M} 54'14	
evening set	229 Nov 06 j 12:48	26° \mathbb{M} 03'44		asc. node	230 Oct 26 j 05:22	4° \mathbb{M} 51'07	
asc. node	229 Nov 08 j 08:20	24° \mathbb{M} 19'05		min. Earth dist.	230 Oct 26 j 17:37	4° \mathbb{M} 09'34	0.67630 AU
inferior conj	229 Nov 11 j 22:10	19° \mathbb{M} 42'32	1°12'29	inferior conj	230 Oct 27 j 05:09	3° \mathbb{M} 30'12	0°20'30
minimum elong	229 Nov 11 j 20:34	19° \mathbb{M} 48'05	1°11'50	minimum elong	230 Oct 27 j 04:39	3° \mathbb{M} 31'53	0°20'16
min. Earth dist.	229 Nov 11 j 21:05	19° \mathbb{M} 46'20	0.67676 AU		230 Oct 29 j 21:43	30° \mathbb{R} \mathbb{U}	
morning rise	229 Nov 17 j 04:10	13° \mathbb{M} 28'29		morning rise	230 Nov 01 j 14:17	27° \mathbb{U} 20'20	
direct	229 Nov 21 j 18:58	11° \mathbb{M} 34'54		direct	230 Nov 05 j 15:00	25° \mathbb{U} 49'03	
morning max el	229 Dec 01 j 06:32	17° \mathbb{M} 11'28	22°20'42		230 Nov 13 j 06:54	0° \mathbb{M}	
greatest brilliancy	229 Dec 05 j 21:33	22° \mathbb{M} 22'56	-0.3m	morning max el	230 Nov 13 j 23:38	0° \mathbb{M} 41'12	20°59'47
	229 Dec 11 j 18:45	0° \mathbb{X}		greatest brilliancy	230 Nov 19 j 13:30	7° \mathbb{M} 10'17	-0.5m
desc. node	229 Dec 17 j 20:07	8° \mathbb{X} 30'55		desc. node	230 Dec 04 j 17:09	28° \mathbb{M} 41'51	
	229 Dec 31 j 23:06	0° \mathbb{Z}			230 Dec 05 j 13:55	0° \mathbb{X}	
morning set	230 Jan 03 j 15:35	4° \mathbb{Z} 19'21		morning set	230 Dec 13 j 22:17	12° \mathbb{X} 49'10	
max. Earth dist.	230 Jan 09 j 01:11	13° \mathbb{Z} 15'41	1.40752 AU	max. Earth dist.	230 Dec 22 j 04:59	26° \mathbb{X} 01'38	1.42672 AU
					230 Dec 24 j 15:06	0° \mathbb{Z}	
superior conj	230 Jan 16 j 20:36	26° \mathbb{Z} 50'40	-2°-1'-8				
minimum elong	230 Jan 16 j 22:04	26° \mathbb{Z} 57'15	2°01'06	superior conj	230 Dec 29 j 05:16	7° \mathbb{Z} 41'10	-1°-59'-39
	230 Jan 18 j 14:36	0° \mathbb{X}		minimum elong	230 Dec 29 j 02:28	7° \mathbb{Z} 29'19	1°59'34
evening rise	230 Jan 27 j 01:29	15° \mathbb{X} 40'51		evening rise	231 Jan 09 j 21:44	28° \mathbb{Z} 09'28	
	230 Feb 03 j 22:15	0° \mathbb{X}			231 Jan 10 j 22:25	0° \mathbb{X}	
asc. node	230 Feb 04 j 07:39	0° \mathbb{X} 39'47		asc. node	231 Jan 22 j 04:40	19° \mathbb{X} 01'48	
evening max el	230 Feb 12 j 06:42	11° \mathbb{X} 36'34	18°18'38	evening max el	231 Jan 26 j 17:33	24° \mathbb{X} 39'08	18°07'40
retrograde	230 Feb 19 j 10:44	15° \mathbb{X} 10'16		retrograde	231 Feb 02 j 08:27	28° \mathbb{X} 04'02	
evening set	230 Feb 21 j 22:29	14° \mathbb{X} 45'31		evening set	231 Feb 05 j 00:38	27° \mathbb{X} 30'31	
inferior conj	230 Mar 01 j 02:17	10° \mathbb{X} 04'38	3°23'25	inferior conj	231 Feb 11 j 14:31	22° \mathbb{X} 27'51	3°46'58
minimum elong	230 Mar 01 j 05:25	9° \mathbb{X} 57'55	3°22'54	minimum elong	231 Feb 11 j 15:27	22° \mathbb{X} 25'35	3°46'55
min. Earth dist.	230 Mar 04 j 12:21	7° \mathbb{X} 11'07	0.59393 AU	min. Earth dist.	231 Feb 14 j 16:05	19° \mathbb{X} 28'27	0.61497 AU
morning rise	230 Mar 08 j 08:47	4° \mathbb{X} 29'37		morning rise	231 Feb 18 j 03:42	16° \mathbb{X} 35'54	
direct	230 Mar 14 j 18:27	2° \mathbb{X} 39'01		direct	231 Feb 25 j 01:11	14° \mathbb{X} 12'09	
desc. node	230 Mar 15 j 19:19	2° \mathbb{X} 41'52		desc. node	231 Mar 02 j 16:20	15° \mathbb{X} 37'37	
morning max el	230 Mar 29 j 01:53	10° \mathbb{X} 22'56	27°11'39	morning max el	231 Mar 11 j 04:19	22° \mathbb{X} 03'05	27°44'58
	230 Apr 13 j 05:40	0° \mathbb{Y}			231 Mar 18 j 04:12	0° \mathbb{X}	
morning set	230 Apr 28 j 19:26	28° \mathbb{Y} 34'21			231 Apr 06 j 07:07	0° \mathbb{Y}	
	230 Apr 29 j 11:48	0° \mathbb{Z}		morning set	231 Apr 13 j 00:29	13° \mathbb{Y} 07'42	
asc. node	230 May 03 j 06:57	8° \mathbb{Z} 08'12		max. Earth dist.	231 Apr 19 j 00:41	25° \mathbb{Y} 50'30	1.32495 AU
superior conj	230 May 05 j 22:53	13° \mathbb{Z} 58'11	0°27'53	superior conj	231 Apr 20 j 09:31	28° \mathbb{Y} 49'09	0°02'28
minimum elong	230 May 05 j 21:41	13° \mathbb{Z} 51'31	0°27'38	minimum elong	231 Apr 20 j 09:25	28° \mathbb{Y} 48'32	0°02'27
max. Earth dist.	230 May 05 j 13:31	13° \mathbb{Z} 06'44	1.32311 AU	behind sun begin	231 Apr 20 j 04:22	28° \mathbb{Y} 21'02	
evening rise	230 May 12 j 21:22	29° \mathbb{Z} 00'30		behind sun end	231 Apr 20 j 14:27	29° \mathbb{Y} 16'05	
	230 May 13 j 08:42	0° \mathbb{H}		asc. node	231 Apr 20 j 03:58	28° \mathbb{Y} 18'53	
	230 May 30 j 01:30	0° \mathbb{S}			231 Apr 20 j 22:30	0° \mathbb{Z}	
evening max el	230 Jun 10 j 10:07	13° \mathbb{S} 53'36	26°07'03	evening rise	231 Apr 27 j 08:40	13° \mathbb{Z} 54'49	
desc. node	230 Jun 11 j 18:37	15° \mathbb{S} 08'07			231 May 05 j 11:28	0° \mathbb{H}	
retrograde	230 Jun 24 j 10:54	21° \mathbb{S} 06'01		evening max el	231 May 23 j 02:50	24° \mathbb{H} 50'57	24°45'47
evening set	230 Jun 30 j 18:04	19° \mathbb{S} 29'14		desc. node	231 May 29 j 15:37	29° \mathbb{H} 49'48	
min. Earth dist.	230 Jul 04 j 22:55	16° \mathbb{S} 51'40	0.59122 AU		231 May 29 j 23:10	0° \mathbb{S}	
inferior conj	230 Jul 08 j 06:40	14° \mathbb{S} 21'13	-4°-46'-5	retrograde	231 Jun 06 j 01:48	1° \mathbb{S} 55'18	
minimum elong	230 Jul 08 j 07:42	14° \mathbb{S} 19'14	4°46'05	evening set	231 Jun 11 j 03:36	0° \mathbb{S} 56'55	
morning rise	230 Jul 16 j 00:51	9° \mathbb{S} 51'50			231 Jun 13 j 07:15	30° \mathbb{R} \mathbb{H}	
direct	230 Jul 18 j 12:05	9° \mathbb{S} 31'04		min. Earth dist.	231 Jun 16 j 14:12	28° \mathbb{H} 06'11	0.57187 AU
morning max el	230 Jul 26 j 09:25	13° \mathbb{S} 17'33	18°28'39	inferior conj	231 Jun 19 j 12:09	26° \mathbb{H} 11'46	-4°-35'-23
asc. node	230 Jul 30 j 06:09	17° \mathbb{S} 45'53		minimum elong	231 Jun 19 j 08:29	26° \mathbb{H} 17'49	4°35'01
	230 Aug 06 j 18:33	0° \mathbb{Q}		morning rise	231 Jun 27 j 17:10	22° \mathbb{H} 03'56	
morning set	230 Aug 11 j 11:37	8° \mathbb{Q} 53'37		direct	231 Jun 30 j 07:11	21° \mathbb{H} 45'02	
				morning max el	231 Jul 09 j 09:44	25° \mathbb{H} 59'31	19°17'21
superior conj	230 Aug 20 j 12:47	26° \mathbb{Q} 07'23	1°40'24		231 Jul 13 j 00:31	0° \mathbb{S}	
minimum elong	230 Aug 20 j 15:19	26° \mathbb{Q} 19'06	1°40'16	asc. node	231 Jul 17 j 03:12	5° \mathbb{S} 57'48	
	230 Aug 22 j 15:23	0° \mathbb{H}		morning set	231 Jul 26 j 10:48	23° \mathbb{S} 09'58	
max. Earth dist.	230 Aug 27 j 21:53	9° \mathbb{H} 22'33	1.40143 AU		231 Jul 29 j 20:54	0° \mathbb{Q}	
evening rise	230 Sep 01 j 07:28	16° \mathbb{H} 51'28		superior conj	231 Aug 03 j 16:20	9° \mathbb{Q} 30'32	1°46'48
desc. node	230 Sep 07 j 17:55	27° \mathbb{H} 16'48		minimum elong	231 Aug 03 j 16:47	9° \mathbb{Q} 32'43	1°46'47
	230 Sep 09 j 11:42	0° \mathbb{U}		max. Earth dist.	231 Aug 10 j 01:14	21° \mathbb{Q} 33'03	1.38120 AU
	230 Sep 30 j 22:23	0° \mathbb{M}					

evening rise	231 Aug 13 j 21:14	28°♄25'24		max. Earth dist.	232 Jul 22 j 07:23	3°♄22'34	1.36252 AU
	231 Aug 14 j 18:54	0°♄		evening rise	232 Jul 26 j 08:37	11°♄02'15	
desc. node	231 Aug 25 j 14:57	17°♄46'18			232 Aug 06 j 08:29	0°♄	
	231 Sep 02 j 21:36	0°♄		desc. node	232 Aug 11 j 11:59	8°♄00'14	
evening max el	231 Sep 18 j 13:51	19°♄17'33	24°57'18		232 Aug 28 j 05:40	0°♄	
retrograde	231 Sep 30 j 06:37	26°♄05'07		evening max el	232 Aug 31 j 01:20	2°♄54'15	26°05'42
evening set	231 Oct 05 j 22:31	23°♄42'43		retrograde	232 Sep 12 j 14:39	10°♄02'20	
min. Earth dist.	231 Oct 10 j 12:18	18°♄32'50	0.67254 AU	evening set	232 Sep 18 j 20:58	7°♄25'51	
inferior conj	231 Oct 11 j 10:27	17°♄19'50	0°-34'-26	min. Earth dist.	232 Sep 23 j 02:48	2°♄52'33	0.66545 AU
minimum elong	231 Oct 11 j 11:19	17°♄17'01	0°34'05	inferior conj	232 Sep 24 j 12:16	1°♄08'11	-1°-30'-50
asc. node	231 Oct 13 j 02:23	15°♄11'05		minimum elong	232 Sep 24 j 14:35	1°♄00'56	1°29'54
morning rise	231 Oct 17 j 00:36	11°♄16'51			232 Sep 25 j 10:19	30°♄	
direct	231 Oct 20 j 12:56	10°♄05'38		asc. node	232 Sep 28 j 23:27	26°♄14'49	
morning max el	231 Oct 28 j 00:33	14°♄22'13	19°50'43	morning rise	232 Sep 30 j 09:09	25°♄14'54	
greatest brilliancy	231 Nov 04 j 16:28	23°♄51'24	-0.6m	direct	232 Oct 03 j 11:15	24°♄20'16	
	231 Nov 08 j 23:09	0°♄		morning max el	232 Oct 10 j 08:34	28°♄11'19	18°56'15
desc. node	231 Nov 21 j 14:12	19°♄08'19			232 Oct 12 j 00:34	0°♄	
morning set	231 Nov 22 j 18:51	20°♄58'57		morning set	232 Nov 01 j 05:44	29°♄57'22	
	231 Nov 28 j 14:03	0°♄			232 Nov 01 j 06:24	0°♄	
max. Earth dist.	231 Dec 04 j 16:32	9°♄37'44	1.44119 AU	desc. node	232 Nov 07 j 11:14	9°♄45'01	
				max. Earth dist.	232 Nov 16 j 08:55	23°♄44'03	1.44917 AU
superior conj	231 Dec 09 j 11:16	17°♄18'19	-1°-41'-6	superior conj	232 Nov 17 j 18:26	25°♄56'02	-1°-4'-23
minimum elong	231 Dec 09 j 03:50	16°♄48'13	1°40'31	minimum elong	232 Nov 17 j 10:48	25°♄25'55	1°03'30
	231 Dec 17 j 04:23	0°♄			232 Nov 20 j 08:15	0°♄	
evening rise	231 Dec 22 j 23:34	9°♄47'46		evening rise	232 Dec 03 j 02:56	20°♄28'10	
	232 Jan 04 j 03:40	0°♄			232 Dec 08 j 23:45	0°♄	
asc. node	232 Jan 09 j 01:42	6°♄38'57		evening max el	232 Dec 23 j 17:35	21°♄19'11	18°42'24
evening max el	232 Jan 10 j 06:04	7°♄55'24	18°15'51	asc. node	232 Dec 25 j 22:45	21°♄17'58	
retrograde	232 Jan 16 j 17:43	11°♄24'42		retrograde	232 Dec 30 j 10:13	25°♄03'49	
evening set	232 Jan 19 j 14:19	10°♄41'35		evening set	233 Jan 02 j 12:09	24°♄09'55	
inferior conj	232 Jan 25 j 17:44	5°♄18'37	3°47'18	inferior conj	233 Jan 08 j 08:00	18°♄28'55	3°30'54
minimum elong	232 Jan 25 j 16:43	5°♄21'25	3°47'14	minimum elong	233 Jan 08 j 05:45	18°♄35'43	3°30'33
min. Earth dist.	232 Jan 28 j 05:13	2°♄34'55	0.63430 AU	min. Earth dist.	233 Jan 10 j 04:09	16°♄15'23	0.65039 AU
	232 Jan 30 j 20:14	30°♄		morning rise	233 Jan 13 j 22:12	12°♄19'30	
morning rise	232 Jan 31 j 17:24	29°♄15'52		direct	233 Jan 20 j 15:00	9°♄28'16	
direct	232 Feb 07 j 16:29	26°♄31'03		morning max el	233 Feb 02 j 21:28	17°♄12'31	27°03'23
	232 Feb 16 j 10:42	0°♄		desc. node	233 Feb 03 j 10:25	17°♄45'19	
desc. node	232 Feb 17 j 13:22	0°♄50'50			233 Feb 13 j 14:22	0°♄	
morning max el	232 Feb 21 j 11:50	4°♄23'15	27°41'06		233 Mar 04 j 15:01	0°♄	
	232 Mar 11 j 18:35	0°♄		morning set	233 Mar 10 j 12:04	10°♄55'49	
morning set	232 Mar 26 j 23:03	27°♄18'05		max. Earth dist.	233 Mar 15 j 02:06	20°♄00'39	1.34083 AU
	232 Mar 28 j 07:14	0°♄					
max. Earth dist.	232 Apr 01 j 06:11	8°♄12'06	1.33072 AU	superior conj	233 Mar 18 j 20:18	27°♄46'13	0°-51'-15
				minimum elong	233 Mar 18 j 22:46	27°♄59'11	0°50'48
superior conj	232 Apr 03 j 17:20	13°♄27'16	0°-24'-17		233 Mar 19 j 21:46	0°♄	
minimum elong	232 Apr 03 j 18:30	13°♄33'33	0°24'03	asc. node	233 Mar 23 j 22:06	8°♄29'37	
asc. node	232 Apr 06 j 01:01	18°♄27'24		evening rise	233 Mar 26 j 06:47	13°♄27'38	
evening rise	232 Apr 10 j 20:25	28°♄45'54			233 Apr 03 j 19:00	0°♄	
	232 Apr 11 j 10:31	0°♄		evening max el	233 Apr 15 j 12:35	16°♄06'17	21°38'35
	232 Apr 28 j 20:41	0°♄		retrograde	233 Apr 27 j 20:38	22°♄07'31	
evening max el	232 May 03 j 17:11	5°♄24'43	23°11'22	evening set	233 Apr 30 j 08:56	21°♄53'16	
desc. node	232 May 15 j 12:38	12°♄01'28		desc. node	233 May 02 j 09:38	21°♄22'21	
retrograde	232 May 17 j 04:36	12°♄07'46		inferior conj	233 May 09 j 18:12	17°♄51'30	-2°-4'-19
evening set	232 May 20 j 19:23	11°♄39'04		minimum elong	233 May 09 j 12:34	17°♄59'25	2°02'27
min. Earth dist.	232 May 28 j 02:51	8°♄21'06	0.55702 AU	min. Earth dist.	233 May 09 j 15:42	17°♄55'00	0.54998 AU
inferior conj	232 May 29 j 21:55	7°♄18'05	-3°-41'-45	morning rise	233 May 18 j 16:56	13°♄54'27	
minimum elong	232 May 29 j 14:43	7°♄28'39	3°40'03	direct	233 May 21 j 18:40	13°♄33'43	
morning rise	232 Jun 07 j 13:18	3°♄23'52		morning max el	233 Jun 03 j 02:31	19°♄22'55	21°55'02
direct	232 Jun 10 j 07:05	3°♄05'48			233 Jun 11 j 18:25	0°♄	
morning max el	232 Jun 20 j 23:38	8°♄02'32	20°26'58	asc. node	233 Jun 19 j 21:21	14°♄09'14	
asc. node	232 Jul 03 j 00:15	24°♄48'46		morning set	233 Jun 24 j 01:39	22°♄35'52	
	232 Jul 05 j 18:45	0°♄			233 Jun 27 j 14:05	0°♄	
morning set	232 Jul 09 j 16:12	7°♄46'05					
				superior conj	233 Jul 01 j 09:14	8°♄01'21	1°35'48
superior conj	232 Jul 17 j 08:24	23°♄32'16	1°44'39	minimum elong	233 Jul 01 j 07:07	7°♄50'15	1°35'36
minimum elong	232 Jul 17 j 07:15	23°♄26'25	1°44'36	max. Earth dist.	233 Jul 04 j 21:44	15°♄18'29	1.34704 AU
	232 Jul 20 j 13:54	0°♄					

evening rise	233 Jul 09 j 12:50	24°  29'42			234 Jun 04 j 20:43	0° 	
	233 Jul 12 j 10:40	0° 		asc. node	234 Jun 06 j 18:25	3°  50'37	
desc. node	233 Jul 29 j 09:01	27°  51'43		morning set	234 Jun 08 j 13:10	7°  32'36	
	233 Jul 30 j 21:07	0° 					
evening max el	233 Aug 13 j 13:20	16°  26'55	26°56'46	superior conj	234 Jun 15 j 15:47	22°  47'24	1°21'39
retrograde	233 Aug 26 j 17:31	23°  44'36		minimum elong	234 Jun 15 j 13:18	22°  34'05	1°21'19
evening set	233 Sep 02 j 12:17	21°  00'37		max. Earth dist.	234 Jun 17 j 21:44	27°  35'26	1.33544 AU
min. Earth dist.	233 Sep 06 j 10:49	17°  04'40	0.65489 AU		234 Jun 19 j 01:09	0° 	
inferior conj	233 Sep 08 j 08:34	14°  52'19	-2°-26'-45	evening rise	234 Jun 23 j 05:16	8°  33'27	
minimum elong	233 Sep 08 j 12:16	14°  41'35	2°25'24		234 Jul 04 j 21:31	0° 	
morning rise	233 Sep 14 j 13:42	9°  11'46		desc. node	234 Jul 16 j 06:02	17°  10'11	
asc. node	233 Sep 15 j 20:32	8°  41'56		evening max el	234 Jul 27 j 00:48	29°  43'44	27°23'17
direct	233 Sep 17 j 08:01	8°  29'52			234 Jul 27 j 07:41	0° 	
morning max el	233 Sep 23 j 21:42	12°  40'31	18°17'56	retrograde	234 Aug 09 j 14:26	7°  02'54	
	233 Oct 06 j 12:35	0° 		evening set	234 Aug 16 j 17:32	4°  21'13	
morning set	233 Oct 12 j 20:30	10°  19'50		min. Earth dist.	234 Aug 20 j 10:06	1°  00'42	0.64071 AU
desc. node	233 Oct 25 j 08:18	0°  28'27			234 Aug 21 j 09:27	30°  40'01	
	233 Oct 25 j 01:08	0° 		inferior conj	234 Aug 22 j 20:52	28°  26'18	-3°-19'-34
				minimum elong	234 Aug 23 j 01:33	28°  13'58	3°18'10
superior conj	233 Oct 27 j 19:41	4°  23'38	0°-16'-15	morning rise	234 Aug 29 j 11:31	23°  01'54	
minimum elong	233 Oct 27 j 17:34	4°  15'15	0°15'59	direct	234 Sep 01 j 00:39	22°  02'9'11	
behind sun begin	233 Oct 27 j 15:30	4°  07'06		asc. node	234 Sep 02 j 17:36	22°  04'40'2	
behind sun end	233 Oct 27 j 19:38	4°  23'24		morning max el	234 Sep 07 j 13:17	25°  55'35	17°56'53
max. Earth dist.	233 Oct 30 j 03:28	8°  03'29	1.44992 AU		234 Sep 10 j 23:56	0° 	
evening rise	233 Nov 13 j 06:44	0°  11'14		morning set	234 Sep 24 j 14:33	22°  01'43	
	233 Nov 13 j 03:51	0° 			234 Sep 29 j 06:51	0° 	
greatest brilliancy	233 Nov 28 j 06:08	23°  16'35	-0.7m				
	233 Dec 03 j 01:08	0° 		superior conj	234 Oct 07 j 12:26	13°  40'01	0°30'57
evening max el	233 Dec 07 j 01:55	4°  46'48	19°26'00	minimum elong	234 Oct 07 j 15:46	13°  53'37	0°30'29
asc. node	233 Dec 12 j 19:48	8°  44'11		desc. node	234 Oct 12 j 05:21	21°  15'08	
retrograde	233 Dec 14 j 06:34	8°  55'52		max. Earth dist.	234 Oct 12 j 21:23	22°  19'04	1.44339 AU
evening set	233 Dec 17 j 15:27	7°  49'30			234 Oct 17 j 18:12	0° 	
inferior conj	233 Dec 23 j 06:03	1°  53'08	3°02'25	evening rise	234 Oct 23 j 17:13	9°  14'59	
minimum elong	233 Dec 23 j 03:18	2°  02'03	3°01'44		234 Nov 06 j 10:28	0° 	
min. Earth dist.	233 Dec 24 j 11:40	0°  17'14	0.66260 AU	greatest brilliancy	234 Nov 13 j 23:18	10°  42'08	-0.5m
	233 Dec 24 j 17:04	30°  40'01		evening max el	234 Nov 20 j 05:19	18°  15'46	20°24'33
morning rise	233 Dec 28 j 14:22	25°  39'46		retrograde	234 Nov 28 j 04:14	22°  56'56	
direct	234 Jan 03 j 19:39	22°  55'28		asc. node	234 Nov 29 j 16:50	22°  43'44	
	234 Jan 15 j 23:25	0° 		evening set	234 Dec 01 j 21:57	21°  36'05	
morning max el	234 Jan 16 j 06:47	0°  18'25	25°59'18	inferior conj	234 Dec 07 j 09:14	15°  27'16	2°24'55
desc. node	234 Jan 21 j 07:28	5°  52'05		minimum elong	234 Dec 07 j 06:34	15°  36'17	2°24'03
	234 Feb 07 j 13:07	0° 		min. Earth dist.	234 Dec 08 j 01:49	14°  31'11	0.67091 AU
morning set	234 Feb 21 j 11:22	23°  48'17		morning rise	234 Dec 12 j 14:42	9°  12'08	
	234 Feb 24 j 18:20	0° 		direct	234 Dec 18 j 05:30	6°  44'14	
max. Earth dist.	234 Feb 25 j 10:08	1°  16'00	1.35555 AU	morning max el	234 Dec 29 j 15:10	13°  32'01	24°38'26
				desc. node	235 Jan 08 j 04:32	24°  49'59	
superior conj	234 Mar 02 j 15:58	11°  18'38	-1°-17'00		235 Jan 12 j 00:02	0° 	
minimum elong	234 Mar 02 j 19:30	11°  56'42	1°16'29		235 Jan 31 j 08:58	0° 	
evening rise	234 Mar 10 j 13:49	27°  53'41		morning set	235 Feb 03 j 15:30	5°  40'00	
asc. node	234 Mar 10 j 19:09	28°  20'55		max. Earth dist.	235 Feb 07 j 08:30	12°  19'00	1.37433 AU
	234 Mar 11 j 14:37	0° 					
evening max el	234 Mar 28 j 18:16	27°  18'55	20°18'14	superior conj	235 Feb 14 j 01:07	24°  56'03	-1°-39'-31
	234 Apr 01 j 01:11	0° 		minimum elong	235 Feb 14 j 05:02	25°  15'03	1°39'06
retrograde	234 Apr 08 j 10:14	2°  26'39			235 Feb 16 j 15:11	0° 	
evening set	234 Apr 10 j 12:56	2°  15'27		evening rise	235 Feb 22 j 15:11	11°  15'31	
	234 Apr 16 j 13:44	30°  40'01		asc. node	235 Feb 25 j 16:11	17°  15'29	
desc. node	234 Apr 19 j 06:41	28°  28'16			235 Mar 04 j 09:39	0° 	
inferior conj	234 Apr 19 j 13:57	28°  17'33	0°-5'-13	evening max el	235 Mar 11 j 11:11	9°  10'08	19°16'00
minimum elong	234 Apr 19 j 13:43	28°  17'55	0°05'08	retrograde	235 Mar 20 j 10:58	13°  29'49	
transit middle	234 Apr 19 j 13:43	28°  17'55	0°05'08	evening set	235 Mar 22 j 15:12	13°  15'43	
transit begin	234 Apr 19 j 09:54	28°  23'32		inferior conj	235 Mar 30 j 22:59	9°  06'04	1°41'45
transit end	234 Apr 19 j 17:32	28°  12'17		minimum elong	235 Mar 31 j 02:43	8°  59'49	1°40'35
min. Earth dist.	234 Apr 21 j 05:19	27°  19'42	0.55257 AU	min. Earth dist.	235 Apr 02 j 20:12	7°  11'04	0.56416 AU
morning rise	234 Apr 28 j 12:13	23° 59'12		desc. node	235 Apr 06 j 03:42	5° 15'08	
direct	234 May 02 j 07:17	23° 27'51		morning rise	235 Apr 08 j 10:18	4° 15'22	
	234 May 15 j 17:42	0°		direct	235 Apr 13 j 06:39	3° 21'17	
morning max el	234 May 15 j 20:29	0° 06'32	23°34'41	morning max el	235 Apr 27 j 11:03	10° 35'46	25°13'41

	235 May 12 j 04:04	0°♄		morning max el	236 Apr 08 j 04:13	21°♄18'43	26°36'42
morning set	235 May 24 j 01:06	22°♄30'56			236 Apr 15 j 17:44	0°♄	
asc. node	235 May 24 j 15:28	23°♄46'52			236 May 03 j 20:40	0°♄	
	235 May 27 j 12:54	0°♄		morning set	236 May 07 j 11:48	7°♄24'52	
				asc. node	236 May 10 j 12:30	13°♄52'24	
superior conj	235 May 31 j 01:48	7°♄43'10	1°03'17				
minimum elong	235 May 30 j 23:29	7°♄30'32	1°02'53	superior conj	236 May 14 j 13:24	22°♄42'02	0°41'35
max. Earth dist.	235 Jun 01 j 05:25	10°♄13'35	1.32774 AU	minimum elong	236 May 14 j 11:41	22°♄32'35	0°41'15
evening rise	235 Jun 07 j 06:17	23°♄02'28		max. Earth dist.	236 May 14 j 17:23	23°♄03'50	1.32372 AU
	235 Jun 10 j 17:34	0°♄			236 May 17 j 21:28	0°♄	
	235 Jun 28 j 17:37	0°♄		evening rise	236 May 21 j 13:02	7°♄47'23	
desc. node	235 Jul 03 j 03:02	5°♄41'45			236 Jun 02 j 05:03	0°♄	
evening max el	235 Jul 09 j 09:19	12°♄30'51	27°19'23	desc. node	236 Jun 19 j 00:02	23°♄07'01	
retrograde	235 Jul 23 j 04:43	19°♄48'07		evening max el	236 Jun 20 j 12:16	24°♄36'39	26°42'27
evening set	235 Jul 30 j 09:03	17°♄21'14			236 Jun 27 j 16:34	0°♄	
min. Earth dist.	235 Aug 02 j 23:02	14°♄29'13	0.62313 AU	retrograde	236 Jul 04 j 11:40	1°♄51'49	
inferior conj	235 Aug 05 j 22:11	11°♄42'52	-4°-5'-17	evening set	236 Jul 11 j 06:24	29°♄53'19	
minimum elong	235 Aug 06 j 02:53	11°♄31'50	4°04'18		236 Jul 11 j 01:38	30°♄	
morning rise	235 Aug 12 j 23:17	6°♄38'13		min. Earth dist.	236 Jul 15 j 01:45	27°♄15'54	0.60305 AU
direct	235 Aug 15 j 09:50	6°♄11'46		inferior conj	236 Jul 18 j 09:07	24°♄33'35	-4°-37'-29
asc. node	235 Aug 20 j 14:39	8°♄14'47		minimum elong	236 Jul 18 j 12:07	24°♄27'23	4°37'11
morning max el	235 Aug 22 j 04:30	9°♄38'06	17°53'59	morning rise	236 Jul 25 j 21:05	19°♄51'24	
	235 Sep 04 j 14:31	0°♄		direct	236 Jul 28 j 07:25	19°♄29'05	
morning set	235 Sep 07 j 06:02	4°♄44'55		morning max el	236 Aug 04 j 16:24	23°♄04'55	18°10'18
				asc. node	236 Aug 06 j 11:42	25°♄00'16	
superior conj	235 Sep 18 j 07:51	24°♄15'45	1°07'57		236 Aug 10 j 04:39	0°♄	
minimum elong	235 Sep 18 j 12:47	24°♄36'51	1°07'22	morning set	236 Aug 20 j 13:15	18°♄13'38	
	235 Sep 21 j 17:24	0°♄			236 Aug 26 j 20:22	0°♄	
max. Earth dist.	235 Sep 25 j 11:46	6°♄12'37	1.43042 AU				
desc. node	235 Sep 29 j 02:22	12°♄01'44		superior conj	236 Aug 30 j 05:22	6°♄09'10	1°32'02
evening rise	235 Oct 03 j 01:41	18°♄17'54		minimum elong	236 Aug 30 j 09:06	6°♄25'56	1°31'44
	235 Oct 10 j 16:55	0°♄		max. Earth dist.	236 Sep 06 j 20:23	19°♄27'30	1.41271 AU
greatest brilliancy	235 Oct 29 j 04:23	26°♄04'47	-0.4m	evening rise	236 Sep 12 j 01:20	28°♄04'28	
	235 Nov 01 j 11:43	0°♄			236 Sep 13 j 05:59	0°♄	
evening max el	235 Nov 03 j 02:52	1°♄44'38	21°35'00	desc. node	236 Sep 14 j 23:23	2°♄45'10	
retrograde	235 Nov 12 j 01:10	7°♄03'15			236 Oct 03 j 08:40	0°♄	
evening set	235 Nov 16 j 05:42	5°♄26'04		greatest brilliancy	236 Oct 10 j 15:41	9°♄29'06	-0.3m
asc. node	235 Nov 16 j 13:51	5°♄09'29		evening max el	236 Oct 15 j 19:06	15°♄15'03	22°53'06
	235 Nov 21 j 00:18	30°♄		retrograde	236 Oct 25 j 19:54	21°♄12'34	
inferior conj	235 Nov 21 j 15:20	29°♄08'11	1°40'31	evening set	236 Oct 30 j 13:05	19°♄17'47	
minimum elong	235 Nov 21 j 13:14	29°♄15'27	1°39'42	asc. node	236 Nov 02 j 10:53	16°♄13'57	
min. Earth dist.	235 Nov 21 j 20:19	28°♄50'58	0.67559 AU	inferior conj	236 Nov 04 j 22:31	12°♄54'38	0°50'54
morning rise	235 Nov 26 j 20:30	22°♄53'12		minimum elong	236 Nov 04 j 21:21	12°♄58'39	0°50'24
direct	235 Dec 01 j 19:53	20°♄46'48		min. Earth dist.	236 Nov 04 j 16:52	13°♄14'07	0.67693 AU
morning max el	235 Dec 12 j 00:26	26°♄50'09	23°10'40	morning rise	236 Nov 10 j 05:37	6°♄42'04	
	235 Dec 14 j 22:48	0°♄		direct	236 Nov 14 j 14:08	4°♄58'22	
greatest brilliancy	235 Dec 17 j 00:20	2°♄26'03	-0.3m	morning max el	236 Nov 23 j 13:54	10°♄15'37	21°45'09
desc. node	235 Dec 26 j 01:33	14°♄23'41		greatest brilliancy	236 Nov 28 j 10:59	15°♄47'40	-0.4m
	236 Jan 05 j 15:14	0°♄			236 Dec 08 j 22:14	0°♄	
morning set	236 Jan 15 j 18:02	16°♄13'37		desc. node	236 Dec 11 j 22:36	4°♄23'38	
max. Earth dist.	236 Jan 20 j 03:50	23°♄43'32	1.39542 AU	morning set	236 Dec 25 j 15:26	25°♄23'51	
	236 Jan 23 j 17:24	0°♄			236 Dec 28 j 12:09	0°♄	
				max. Earth dist.	237 Jan 01 j 03:00	5°♄56'16	1.41612 AU
superior conj	236 Jan 27 j 19:29	7°♄25'45	-1°-55'-56				
minimum elong	236 Jan 27 j 22:26	7°♄39'21	1°55'47	superior conj	237 Jan 08 j 18:01	18°♄56'13	-2°-2'-20
evening rise	236 Feb 06 j 08:01	25°♄30'33		minimum elong	237 Jan 08 j 17:55	18°♄55'47	2°02'21
	236 Feb 08 j 16:23	0°♄			237 Jan 14 j 22:40	0°♄	
asc. node	236 Feb 12 j 13:12	7°♄09'32		evening rise	237 Jan 19 j 12:58	8°♄25'30	
evening max el	236 Feb 22 j 13:21	21°♄35'16	18°33'44	asc. node	237 Jan 29 j 10:12	25°♄53'04	
retrograde	236 Mar 01 j 06:11	25°♄21'25			237 Feb 01 j 04:23	0°♄	
evening set	236 Mar 03 j 15:03	25°♄01'13		evening max el	237 Feb 04 j 21:56	4°♄26'59	18°11'32
inferior conj	236 Mar 11 j 04:22	20°♄32'20	2°56'21	retrograde	237 Feb 11 j 19:16	7°♄55'26	
minimum elong	236 Mar 11 j 08:26	20°♄24'22	2°55'26	evening set	237 Feb 14 j 08:47	7°♄27'15	
min. Earth dist.	236 Mar 14 j 14:09	17°♄53'47	0.58207 AU	inferior conj	237 Feb 21 j 06:16	2°♄37'07	3°36'42
morning rise	236 Mar 18 j 21:47	15°♄10'40		minimum elong	237 Feb 21 j 08:29	2°♄32'03	3°36'27
desc. node	236 Mar 23 j 00:43	13°♄50'18			237 Feb 24 j 03:36	30°♄	
direct	236 Mar 24 j 19:34	13°♄42'09		min. Earth dist.	237 Feb 24 j 13:48	29°♄37'49	0.60294 AU

morning rise	237 Feb 28 j 04:58	26° \approx 53'33		evening set	238 Jan 28 j 16:19	20° \approx 24'43	
direct	237 Mar 06 j 20:51	24° \approx 47'37		inferior conj	238 Feb 04 j 01:24	15° \approx 13'32	3°49'28
desc. node	237 Mar 09 j 21:45	25° \approx 12'24		minimum elong	238 Feb 04 j 01:26	15° \approx 13'28	3°49'28
	237 Mar 18 j 06:45	0° \approx		min. Earth dist.	238 Feb 06 j 21:31	12° \approx 18'13	0.62354 AU
morning max el	237 Mar 21 j 03:13	2° \approx 36'09	27°30'18	morning rise	238 Feb 10 j 08:20	9° \approx 16'26	
	237 Apr 10 j 02:53	0° \approx		direct	238 Feb 17 j 07:49	6° \approx 41'34	
morning set	237 Apr 21 j 19:29	22° \approx 08'06		desc. node	238 Feb 24 j 18:48	9° \approx 11'29	
	237 Apr 25 j 12:45	0° \approx		morning max el	238 Mar 03 j 07:59	14° \approx 34'18	27°47'41
asc. node	237 Apr 27 j 09:31	4° \approx 02'41			238 Mar 15 j 20:26	0° \approx	
max. Earth dist.	237 Apr 28 j 05:47	5° \approx 53'20	1.32337 AU		238 Apr 02 j 14:48	0° \approx	
				morning set	238 Apr 05 j 22:09	6° \approx 33'30	
superior conj	237 Apr 29 j 00:54	7° \approx 38'02	0°17'18	max. Earth dist.	238 Apr 11 j 14:54	18° \approx 29'13	1.32685 AU
minimum elong	237 Apr 29 j 00:08	7° \approx 33'46	0°17'09				
evening rise	237 May 05 j 23:15	22° \approx 40'28		superior conj	238 Apr 13 j 10:38	22° \approx 25'19	0°-8'-46
	237 May 09 j 12:34	0° \approx		minimum elong	238 Apr 13 j 11:03	22° \approx 27'34	0°08'42
	237 May 27 j 22:03	0° \approx		behind sun begin	238 Apr 13 j 06:42	22° \approx 03'59	
evening max el	237 Jun 02 j 08:19	5° \approx 56'58	25°35'02	behind sun end	238 Apr 13 j 15:24	22° \approx 51'11	
desc. node	237 Jun 05 j 21:02	8° \approx 58'29		asc. node	238 Apr 14 j 06:34	24° \approx 13'34	
retrograde	237 Jun 16 j 09:29	13° \approx 07'54			238 Apr 16 j 22:16	0° \approx	
evening set	237 Jun 22 j 05:21	11° \approx 47'37		evening rise	238 Apr 20 j 11:01	7° \approx 34'59	
min. Earth dist.	237 Jun 26 j 20:31	9° \approx 06'21	0.58255 AU		238 May 02 j 05:53	0° \approx	
inferior conj	237 Jun 30 j 02:06	6° \approx 48'39	-4°-46'-11	evening max el	238 May 14 j 23:30	16° \approx 42'25	24°06'27
minimum elong	237 Jun 30 j 01:15	6° \approx 50'09	4°46'10	desc. node	238 May 23 j 18:03	22° \approx 41'28	
morning rise	237 Jul 08 j 00:56	2° \approx 29'10		retrograde	238 May 28 j 19:32	23° \approx 39'47	
direct	237 Jul 10 j 13:01	2° \approx 09'29		evening set	238 Jun 02 j 06:04	22° \approx 45'04	
morning max el	237 Jul 18 j 21:50	6° \approx 06'24	18°46'51	min. Earth dist.	238 Jun 08 j 10:39	19° \approx 55'02	0.56475 AU
asc. node	237 Jul 24 j 08:45	12° \approx 44'48		inferior conj	238 Jun 10 j 23:02	18° \approx 21'15	-4°-18'-27
	237 Aug 03 j 03:50	0° \approx		minimum elong	238 Jun 10 j 17:28	18° \approx 29'58	4°17'33
morning set	237 Aug 04 j 07:37	2° \approx 15'11		morning rise	238 Jun 19 j 08:32	14° \approx 20'17	
				direct	238 Jun 21 j 23:53	14° \approx 01'57	
superior conj	237 Aug 12 j 23:34	19° \approx 04'03	1°44'18	morning max el	238 Jul 01 j 17:59	18° \approx 33'21	19°44'25
minimum elong	237 Aug 13 j 01:11	19° \approx 11'41	1°44'14		238 Jul 10 j 11:52	0° \approx	
	237 Aug 18 j 21:46	0° \approx		asc. node	238 Jul 11 j 05:50	1° \approx 15'13	
max. Earth dist.	237 Aug 20 j 00:00	1° \approx 56'59	1.39270 AU	morning set	238 Jul 19 j 09:47	16° \approx 41'11	
evening rise	237 Aug 24 j 01:02	8° \approx 58'34			238 Jul 25 j 23:49	0° \approx	
desc. node	237 Sep 01 j 20:25	23° \approx 21'02		superior conj	238 Jul 27 j 09:00	2° \approx 45'20	1°46'48
	237 Sep 06 j 04:32	0° \approx		minimum elong	238 Jul 27 j 08:41	2° \approx 43'49	1°46'48
evening max el	237 Sep 28 j 07:53	28° \approx 48'31	24°13'12	max. Earth dist.	238 Aug 02 j 03:45	13° \approx 55'18	1.37298 AU
	237 Sep 29 j 13:37	0° \approx		evening rise	238 Aug 06 j 00:38	21° \approx 01'20	
retrograde	237 Oct 09 j 11:07	5° \approx 20'32			238 Aug 11 j 04:22	0° \approx	
evening set	237 Oct 14 j 18:23	3° \approx 08'02		desc. node	238 Aug 19 j 17:25	13° \approx 44'41	
	237 Oct 17 j 17:21	30° \approx			238 Aug 31 j 03:21	0° \approx	
min. Earth dist.	237 Oct 19 j 13:02	27° \approx 37'40	0.67504 AU	evening max el	238 Sep 10 j 19:37	12° \approx 25'48	25°28'05
inferior conj	237 Oct 20 j 05:01	26° \approx 43'47	0°-2'-30	retrograde	238 Sep 22 j 21:51	19° \approx 23'05	
minimum elong	237 Oct 20 j 05:05	26° \approx 43'35	0°02'30	evening set	238 Sep 28 j 19:53	16° \approx 54'27	
transit middle	237 Oct 20 j 05:05	26° \approx 43'35	0°02'30	min. Earth dist.	238 Oct 03 j 06:20	11° \approx 59'41	0.66995 AU
transit begin	237 Oct 20 j 02:23	26° \approx 45'24		inferior conj	238 Oct 04 j 09:05	10° \approx 33'21	0°-58'-17
transit end	237 Oct 20 j 07:46	26° \approx 34'29		minimum elong	238 Oct 04 j 10:34	10° \approx 28'35	0°57'40
asc. node	237 Oct 20 j 07:56	26° \approx 33'57		asc. node	238 Oct 07 j 05:01	7° \approx 06'05	
morning rise	237 Oct 25 j 16:02	20° \approx 36'15		morning rise	238 Oct 10 j 01:52	4° \approx 33'50	
direct	237 Oct 29 j 11:11	19° \approx 13'55		direct	238 Oct 13 j 09:38	3° \approx 29'58	
morning max el	237 Nov 06 j 10:14	23° \approx 50'13	20°28'43	morning max el	238 Oct 20 j 14:14	7° \approx 34'30	19°25'34
	237 Nov 11 j 16:55	0° \approx		greatest brilliancy	238 Oct 29 j 19:19	19° \approx 25'04	-0.7m
greatest brilliancy	237 Nov 12 j 18:08	1° \approx 22'22	-0.5m		238 Nov 05 j 20:29	0° \approx	
desc. node	237 Nov 28 j 19:40	24° \approx 41'58		morning set	238 Nov 13 j 14:45	11° \approx 59'07	
	237 Dec 02 j 06:49	0° \approx		desc. node	238 Nov 15 j 16:43	15° \approx 13'13	
morning set	237 Dec 04 j 14:52	3° \approx 36'25			238 Nov 25 j 03:25	0° \approx	
max. Earth dist.	237 Dec 14 j 09:36	19° \approx 02'59	1.43356 AU	max. Earth dist.	238 Nov 26 j 23:33	2° \approx 54'14	1.44547 AU
				superior conj	238 Nov 30 j 10:43	8° \approx 24'34	-1°-27'-34
superior conj	237 Dec 20 j 15:35	29° \approx 16'08	-1°-54'-4	minimum elong	238 Nov 30 j 02:22	7° \approx 51'18	1°26'46
minimum elong	237 Dec 20 j 10:38	28° \approx 55'34	1°53'49		238 Dec 13 j 16:39	0° \approx	
	237 Dec 21 j 02:08	0° \approx		evening rise	238 Dec 14 j 18:33	1° \approx 47'49	
evening rise	238 Jan 02 j 01:56	20° \approx 33'51			239 Jan 02 j 00:44	0° \approx	
	238 Jan 07 j 11:26	0° \approx		evening max el	239 Jan 02 j 22:23	0° \approx 57'44	18°25'01
asc. node	238 Jan 16 j 07:13	13° \approx 57'59		asc. node	239 Jan 03 j 04:17	1° \approx 12'31	
evening max el	238 Jan 19 j 09:54	17° \approx 37'01	18°08'53				
retrograde	238 Jan 25 j 22:19	21° \approx 02'08					

retrograde	239 Jan 09 j 11:02	4° \approx 31'55			239 Dec 06 j 19:20	0° \approx	
evening set	239 Jan 12 j 09:52	3° \approx 44'14		evening max el	239 Dec 17 j 08:49	14° \approx 23'53	18°58'57
	239 Jan 16 j 19:52	30° \approx		asc. node	239 Dec 21 j 01:21	17° \approx 22'58	
inferior conj	239 Jan 18 j 09:44	28° \approx 13'24	3°42'03	retrograde	239 Dec 24 j 05:37	18° \approx 17'47	
minimum elong	239 Jan 18 j 08:07	28° \approx 18'05	3°41'53	evening set	239 Dec 27 j 10:23	17° \approx 18'37	
min. Earth dist.	239 Jan 20 j 14:42	25° \approx 41'20	0.64163 AU	inferior conj	240 Jan 02 j 03:42	11° \approx 30'31	3°20'07
morning rise	239 Jan 24 j 04:56	22° \approx 07'44		minimum elong	240 Jan 02 j 01:10	11° \approx 38'26	3°19'36
direct	239 Jan 31 j 02:20	19° \approx 18'24		min. Earth dist.	240 Jan 03 j 17:23	9° \approx 32'48	0.65605 AU
desc. node	239 Feb 11 j 15:52	25° \approx 12'03		morning rise	240 Jan 07 j 15:00	5° \approx 19'16	
morning max el	239 Feb 13 j 16:33	27° \approx 07'49	27°28'50	direct	240 Jan 14 j 03:20	2° \approx 29'55	
	239 Feb 16 j 09:44	0° \approx		morning max el	240 Jan 27 j 02:22	10° \approx 06'13	26°38'57
	239 Mar 09 j 11:48	0° \approx		desc. node	240 Jan 29 j 12:55	12° \approx 40'38	
morning set	239 Mar 20 j 17:04	20° \approx 31'26			240 Feb 11 j 20:25	0° \approx	
	239 Mar 25 j 09:26	0° \approx			240 Feb 29 j 23:21	0° \approx	
max. Earth dist.	239 Mar 25 j 16:45	0° \approx 37'59	1.33450 AU	morning set	240 Mar 03 j 00:50	3° \approx 51'43	
				max. Earth dist.	240 Mar 07 j 08:03	12° \approx 13'17	1.34662 AU
superior conj	239 Mar 28 j 16:40	6° \approx 56'34	0°-35'-44				
minimum elong	239 Mar 28 j 18:24	7° \approx 05'47	0°35'25	superior conj	240 Mar 11 j 16:51	21° \approx 05'21	-1°-2'-25
asc. node	239 Apr 01 j 03:36	14° \approx 20'11		minimum elong	240 Mar 11 j 19:50	21° \approx 20'44	1°01'54
evening rise	239 Apr 04 j 22:26	22° \approx 23'23			240 Mar 15 j 23:17	0° \approx	
	239 Apr 08 j 15:30	0° \approx		asc. node	240 Mar 18 j 00:39	4° \approx 18'29	
evening max el	239 Apr 26 j 15:16	27° \approx 16'27	22°30'56	evening rise	240 Mar 19 j 07:39	6° \approx 59'40	
	239 Apr 29 j 19:38	0° \approx			240 Mar 31 j 22:19	0° \approx	
retrograde	239 May 09 j 16:40	3° \approx 43'16		evening max el	240 Apr 07 j 14:28	8° \approx 08'34	21°02'17
desc. node	239 May 10 j 15:05	3° \approx 41'18		retrograde	240 Apr 19 j 06:12	13° \approx 47'46	
evening set	239 May 12 j 18:33	3° \approx 22'27		evening set	240 Apr 21 j 12:39	13° \approx 35'41	
	239 May 20 j 15:32	30° \approx		desc. node	240 Apr 26 j 12:07	11° \approx 55'36	
min. Earth dist.	239 May 20 j 23:01	29° \approx 49'28	0.55300 AU	inferior conj	240 Apr 30 j 19:59	9° \approx 37'17	-1°-14'-23
inferior conj	239 May 22 j 01:52	29° \approx 11'22	-3°-5'-1	minimum elong	240 Apr 30 j 16:28	9° \approx 42'16	1°13'09
minimum elong	239 May 21 j 18:36	29° \approx 21'40	3°02'58	min. Earth dist.	240 May 01 j 11:47	9° \approx 14'57	0.54996 AU
morning rise	239 May 30 j 20:59	25° \approx 18'15		morning rise	240 May 09 j 19:51	5° \approx 33'38	
direct	239 Jun 02 j 17:38	24° \approx 59'29		direct	240 May 13 j 03:36	5° \approx 09'47	
	239 Jun 13 j 19:17	0° \approx		morning max el	240 May 26 j 01:33	11° \approx 20'22	22°36'39
morning max el	239 Jun 14 j 02:59	0° \approx 17'36	21°02'24		240 Jun 08 j 18:41	0° \approx	
asc. node	239 Jun 28 j 02:54	20° \approx 19'50		asc. node	240 Jun 13 j 23:56	9° \approx 49'50	
	239 Jul 03 j 00:48	0° \approx		morning set	240 Jun 17 j 03:42	16° \approx 17'25	
morning set	239 Jul 03 j 17:11	1° \approx 24'01			240 Jun 23 j 14:30	0° \approx	
superior conj	239 Jul 11 j 05:11	16° \approx 59'43	1°41'37	superior conj	240 Jun 24 j 08:44	1° \approx 36'53	1°30'22
minimum elong	239 Jul 11 j 03:33	16° \approx 51'17	1°41'31	minimum elong	240 Jun 24 j 06:24	1° \approx 24'29	1°30'07
max. Earth dist.	239 Jul 15 j 13:19	25° \approx 46'18	1.35555 AU	max. Earth dist.	240 Jun 27 j 07:52	7° \approx 50'19	1.34163 AU
	239 Jul 17 j 17:11	0° \approx		evening rise	240 Jul 02 j 05:38	17° \approx 45'05	
evening rise	239 Jul 19 j 19:47	4° \approx 01'15			240 Jul 08 j 18:26	0° \approx	
	239 Aug 04 j 01:22	0° \approx		desc. node	240 Jul 23 j 11:28	23° \approx 02'53	
desc. node	239 Aug 06 j 14:27	3° \approx 50'05			240 Jul 28 j 08:29	0° \approx	
evening max el	239 Aug 24 j 07:30	26° \approx 02'22	26°30'01	evening max el	240 Aug 05 j 19:18	9° \approx 28'59	27°11'23
	239 Aug 28 j 23:13	0° \approx		retrograde	240 Aug 19 j 03:49	16° \approx 48'04	
retrograde	239 Sep 06 j 03:32	3° \approx 14'51		evening set	240 Aug 26 j 02:59	14° \approx 03'20	
evening set	239 Sep 12 j 15:36	0° \approx 34'19		min. Earth dist.	240 Aug 29 j 22:38	10° \approx 23'20	0.64931 AU
	239 Sep 13 j 07:19	30° \approx		inferior conj	240 Sep 01 j 02:00	8° \approx 00'28	-2°-49'-44
min. Earth dist.	239 Sep 16 j 18:18	26° \approx 16'59	0.66143 AU	minimum elong	240 Sep 01 j 06:12	7° \approx 48'46	2°48'19
inferior conj	239 Sep 18 j 08:50	24° \approx 20'26	-1°-54'-44	morning rise	240 Sep 07 j 11:05	2° \approx 26'42	
minimum elong	239 Sep 18 j 11:46	24° \approx 11'33	1°53'35	asc. node	240 Sep 09 j 23:10	1° \approx 49'16	
morning rise	239 Sep 24 j 09:02	18° \approx 32'11		direct	240 Sep 10 j 02:54	1° \approx 49'08	
asc. node	239 Sep 24 j 02:06	18° \approx 42'11		morning max el	240 Sep 16 j 15:16	5° \approx 19'02	18°06'53
direct	239 Sep 27 j 07:38	17° \approx 43'17			240 Oct 03 j 03:45	0° \approx	
morning max el	239 Oct 04 j 00:42	21° \approx 25'54	18°37'56	morning set	240 Oct 04 j 15:46	2° \approx 30'13	
	239 Oct 10 j 18:27	0° \approx					
morning set	239 Oct 24 j 12:55	21° \approx 32'34		superior conj	240 Oct 18 j 18:06	25° \approx 31'59	0°04'37
	239 Oct 29 j 20:26	0° \approx		minimum elong	240 Oct 18 j 18:40	25° \approx 34'15	0°04'32
desc. node	239 Nov 02 j 13:45	5° \approx 53'20		behind sun begin	240 Oct 18 j 08:17	24° \approx 52'45	
				behind sun end	240 Oct 19 j 05:04	26° \approx 15'40	
superior conj	239 Nov 09 j 12:36	16° \approx 50'09	0°-44'-40	desc. node	240 Oct 19 j 10:46	26° \approx 38'24	
minimum elong	239 Nov 09 j 06:51	16° \approx 27'33	0°43'57		240 Oct 21 j 13:34	0° \approx	
max. Earth dist.	239 Nov 09 j 17:51	17° \approx 10'48	1.45041 AU	max. Earth dist.	240 Oct 22 j 12:38	1° \approx 31'12	1.44794 AU
	239 Nov 17 j 21:17	0° \approx		evening rise	240 Nov 04 j 06:50	21° \approx 26'17	
evening rise	239 Nov 25 j 11:46	12° \approx 03'39			240 Nov 09 j 19:56	0° \approx	

greatest brilliancy	240 Nov 22 j 02:41	18°♂23'32	-0.6m		241 Nov 03 j 13:14	0°♂	
evening max el	240 Nov 29 j 15:05	27°♂51'26	19°49'11	greatest brilliancy	241 Nov 07 j 02:13	4°♂45'32	-0.5m
	240 Dec 01 j 22:54	0°♂		evening max el	241 Nov 12 j 15:57	11°♂19'51	20°53'16
asc. node	240 Dec 06 j 22:24	2°♂13'34		retrograde	241 Nov 21 j 00:31	16°♂16'55	
retrograde	240 Dec 07 j 02:55	2°♂13'46		asc. node	241 Nov 23 j 19:26	15°♂32'57	
evening set	240 Dec 10 j 15:16	1°♂01'28		evening set	241 Nov 24 j 22:28	14°♂49'32	
	240 Dec 11 j 21:53	30°♂		inferior conj	241 Nov 30 j 08:52	8°♂36'24	2°06'49
inferior conj	240 Dec 16 j 04:12	24°♂59'10	2°47'29	minimum elong	241 Nov 30 j 06:24	8°♂44'52	2°05'57
minimum elong	240 Dec 16 j 01:26	25°♂08'21	2°46'42	min. Earth dist.	241 Nov 30 j 20:25	7°♂56'49	0.67331 AU
min. Earth dist.	240 Dec 17 j 04:02	23°♂40'16	0.66654 AU	morning rise	241 Dec 05 j 13:53	2°♂20'47	
morning rise	240 Dec 21 j 10:57	18°♂44'36		direct	241 Dec 10 j 22:08	0°♂01'29	
direct	240 Dec 27 j 10:08	16°♂06'35		morning max el	241 Dec 21 j 19:48	6°♂31'49	24°01'15
morning max el	241 Jan 08 j 11:25	23°♂16'41	25°26'26	desc. node	242 Jan 02 j 07:00	20°♂25'24	
	241 Jan 14 j 11:00	0°♂			242 Jan 09 j 01:28	0°♂	
desc. node	241 Jan 15 j 09:58	1°♂11'00		morning set	242 Jan 26 j 10:41	27°♂40'25	
	241 Feb 04 j 04:58	0°♂			242 Jan 27 j 18:55	0°♂	
morning set	241 Feb 13 j 16:43	16°♂20'17		max. Earth dist.	242 Jan 30 j 07:02	4°♂24'58	1.38310 AU
max. Earth dist.	241 Feb 17 j 11:33	23°♂20'07	1.36310 AU				
	241 Feb 20 j 22:55	0°♂		superior conj	242 Feb 06 j 11:49	17°♂41'34	-1°-47'-28
superior conj	241 Feb 23 j 08:26	4°♂43'32	-1°-27'-7	minimum elong	242 Feb 06 j 15:32	17°♂59'15	1°47'08
minimum elong	241 Feb 23 j 12:15	5°♂02'32	1°26'36		242 Feb 12 j 20:00	0°♂	
evening rise	241 Mar 03 j 12:33	21°♂16'52		evening rise	242 Feb 15 j 10:37	5°♂07'57	
asc. node	241 Mar 04 j 21:42	24°♂03'44		asc. node	242 Feb 19 j 18:44	13°♂30'20	
	241 Mar 07 j 22:22	0°♂			242 Mar 02 j 06:39	0°♂	
evening max el	241 Mar 21 j 00:55	19°♂37'10	19°49'22	evening max el	242 Mar 03 j 22:10	1°♂43'55	18°55'39
retrograde	241 Mar 30 j 23:29	24°♂23'34		retrograde	242 Mar 12 j 07:27	5°♂47'05	
evening set	241 Apr 02 j 01:45	24°♂11'47		evening set	242 Mar 14 j 13:29	5°♂30'45	
inferior conj	241 Apr 10 j 20:02	20°♂10'16	0°43'18	inferior conj	242 Mar 22 j 13:18	1°♂13'54	2°17'48
minimum elong	241 Apr 10 j 21:53	20°♂07'23	0°42'39	minimum elong	242 Mar 22 j 17:35	1°♂06'15	2°16'35
min. Earth dist.	241 Apr 13 j 02:01	18°♂47'03	0.55647 AU		242 Mar 24 j 06:34	30°♂	
desc. node	241 Apr 13 j 09:07	18°♂36'21		min. Earth dist.	242 Mar 25 j 18:12	28°♂57'45	0.57115 AU
morning rise	241 Apr 19 j 14:47	15°♂38'23		morning rise	242 Mar 30 j 17:26	26°♂09'05	
direct	241 Apr 23 j 19:42	14°♂59'10		desc. node	242 Mar 31 j 06:09	25°♂56'26	
morning max el	241 May 07 j 17:32	21°♂55'36	24°17'48	direct	242 Apr 05 j 01:17	25°♂01'04	
	241 May 14 j 18:53	0°♂			242 Apr 16 j 14:27	0°♂	
asc. node	241 May 31 j 20:58	29°♂38'24		morning max el	242 Apr 19 j 08:29	2°♂27'12	25°51'48
	241 Jun 01 j 01:07	0°♂			242 May 08 j 21:32	0°♂	
morning set	241 Jun 01 j 15:36	1°♂15'56		morning set	242 May 17 j 03:11	16°♂13'02	
				asc. node	242 May 18 j 17:59	19°♂39'07	
superior conj	241 Jun 08 j 17:02	16°♂28'34	1°14'20		242 May 23 j 12:08	0°♂	
minimum elong	241 Jun 08 j 14:34	16°♂15'13	1°13'58	superior conj	242 May 24 j 03:57	1°♂26'41	0°54'28
max. Earth dist.	241 Jun 10 j 11:20	20°♂16'33	1.33164 AU	minimum elong	242 May 24 j 01:51	1°♂15'07	0°54'04
	241 Jun 15 j 02:19	0°♂		max. Earth dist.	242 May 24 j 21:07	3°♂00'37	1.32556 AU
evening rise	241 Jun 16 j 02:06	2°♂01'12		evening rise	242 May 31 j 05:52	16°♂38'18	
	241 Jul 01 j 15:30	0°♂			242 Jun 07 j 00:36	0°♂	
desc. node	241 Jul 10 j 08:28	12°♂29'57			242 Jun 26 j 16:52	0°♂	
evening max el	241 Jul 19 j 05:38	22°♂34'37	27°25'33	desc. node	242 Jun 27 j 05:29	0°♂36'25	
retrograde	241 Aug 01 j 22:18	29°♂54'08		evening max el	242 Jul 01 j 12:09	5°♂05'48	27°07'46
evening set	241 Aug 09 j 02:57	27°♂16'47		retrograde	242 Jul 15 j 09:49	12°♂22'23	
min. Earth dist.	241 Aug 12 j 17:39	24°♂09'44	0.63357 AU	evening set	242 Jul 22 j 11:19	10°♂06'16	
inferior conj	241 Aug 15 j 10:01	21°♂28'20	-3°-40'-9	min. Earth dist.	242 Jul 26 j 02:22	7°♂22'09	0.61478 AU
minimum elong	241 Aug 15 j 14:52	21°♂16'08	3°38'53	inferior conj	242 Jul 29 j 05:40	4°♂35'18	-4°-21'-7
morning rise	241 Aug 22 j 05:05	16°♂12'10		minimum elong	242 Jul 29 j 09:55	4°♂25'51	4°20'26
direct	241 Aug 24 j 16:40	15°♂42'36			242 Aug 04 j 14:17	30°♂	
asc. node	241 Aug 27 j 20:12	16°♂30'52		morning rise	242 Aug 05 j 11:22	29°♂39'43	
morning max el	241 Aug 31 j 07:08	19°♂08'07	17°53'23	direct	242 Aug 07 j 21:25	29°♂15'20	
	241 Sep 08 j 06:18	0°♂			242 Aug 11 j 02:25	0°♂	
morning set	241 Sep 16 j 19:43	14°♂40'27		asc. node	242 Aug 14 j 17:13	2°♂35'04	
	241 Sep 25 j 16:59	0°♂		morning max el	242 Aug 14 j 21:17	2°♂44'52	17°58'27
				morning set	242 Aug 30 j 18:34	27°♂44'48	
superior conj	241 Sep 28 j 21:46	5°♂21'23	0°48'09		242 Sep 01 j 00:04	0°♂	
minimum elong	241 Sep 29 j 02:15	5°♂40'02	0°47'34				
max. Earth dist.	241 Oct 05 j 04:51	15°♂37'45	1.43854 AU	superior conj	242 Sep 10 j 04:46	16°♂31'16	1°19'43
desc. node	241 Oct 06 j 07:48	17°♂25'37		minimum elong	242 Sep 10 j 09:24	16°♂51'33	1°19'14
	241 Oct 14 j 08:03	0°♂		max. Earth dist.	242 Sep 17 j 16:33	29°♂14'56	1.42338 AU
evening rise	241 Oct 14 j 14:10	0°♂23'40			242 Sep 18 j 03:28	0°♂	

desc. node	242 Sep 23 j 04:50	8°♄11'21		max. Earth dist.	243 Aug 30 j 23:11	12°♎11'52	1.40441 AU
evening rise	242 Sep 24 j 03:22	9°♄40'45		evening rise	243 Sep 04 j 12:47	19°♎54'27	
	242 Oct 07 j 11:55	0°♍		desc. node	243 Sep 10 j 01:51	28°♎51'51	
greatest brilliancy	242 Oct 21 j 17:51	19°♍29'37	-0.3m		243 Sep 10 j 19:11	0°♏	
evening max el	242 Oct 26 j 11:12	24°♍49'38	22°07'40		243 Oct 01 j 18:46	0°♍	
	242 Nov 02 j 13:45	0°♎		evening max el	243 Oct 09 j 01:50	8°♍21'26	23°27'23
retrograde	242 Nov 04 j 20:36	0°♎24'39		retrograde	243 Oct 19 j 13:49	14°♍33'42	
	242 Nov 07 j 00:39	30°♎		evening set	243 Oct 24 j 12:57	12°♍31'15	
evening set	242 Nov 09 j 06:15	28°♍40'18		asc. node	243 Oct 28 j 13:30	8°♍00'20	
asc. node	242 Nov 10 j 16:27	27°♍21'14		inferior conj	243 Oct 29 j 22:45	6°♍07'22	0°28'36
inferior conj	242 Nov 14 j 15:40	22°♍19'57	1°20'02	minimum elong	243 Oct 29 j 22:05	6°♍09'40	0°28'19
minimum elong	242 Nov 14 j 13:55	22°♍25'59	1°19'19	min. Earth dist.	243 Oct 29 j 12:43	6°♍41'44	0.67656 AU
min. Earth dist.	242 Nov 14 j 16:08	22°♍18'19	0.67659 AU	morning rise	243 Nov 04 j 07:18	29°♏56'50	
morning rise	242 Nov 19 j 21:23	16°♍05'38			243 Nov 04 j 05:41	30°♎♏	
direct	242 Nov 24 j 14:25	14°♍08'38		direct	243 Nov 08 j 10:01	28°♏22'25	
morning max el	242 Dec 04 j 06:14	19°♍51'52	22°33'28		243 Nov 12 j 23:56	0°♍	
greatest brilliancy	242 Dec 08 j 20:54	25°♍01'38	-0.3m	morning max el	243 Nov 16 j 22:22	3°♍20'40	21°11'14
	242 Dec 12 j 19:04	0°♎		greatest brilliancy	243 Nov 22 j 06:56	9°♍31'36	-0.5m
desc. node	242 Dec 20 j 04:04	10°♎11'29			243 Dec 06 j 19:48	0°♎	
	243 Jan 02 j 06:56	0°♏		desc. node	243 Dec 07 j 01:07	0°♎19'52	
morning set	243 Jan 07 j 00:52	7°♏37'53		morning set	243 Dec 17 j 11:01	16°♎17'06	
max. Earth dist.	243 Jan 12 j 03:05	16°♏07'09	1.40444 AU	max. Earth dist.	243 Dec 25 j 05:56	28°♎45'48	1.42413 AU
					243 Dec 26 j 00:01	0°♏	
superior conj	243 Jan 19 j 22:29	29°♏48'09	-2°00'-9	superior conj	244 Jan 01 j 10:56	10°♏49'30	-2°00'-53
minimum elong	243 Jan 20 j 00:25	29°♏56'53	2°00'06	minimum elong	244 Jan 01 j 08:53	10°♏40'46	2°00'52
	243 Jan 20 j 01:06	0°♏			244 Jan 12 j 07:51	0°♏	
evening rise	243 Jan 29 j 22:51	18°♏25'43		evening rise	244 Jan 12 j 21:32	1°♏01'42	
	243 Feb 05 j 04:56	0°♐		asc. node	244 Jan 24 j 12:49	21°♏00'00	
asc. node	243 Feb 06 j 15:46	2°♐31'56		evening max el	244 Jan 29 j 13:55	27°♏21'52	18°08'00
evening max el	243 Feb 15 j 03:33	14°♐21'58	18°21'56		244 Feb 02 j 02:12	0°♐	
retrograde	243 Feb 22 j 10:27	17°♐58'20		retrograde	244 Feb 05 j 06:10	0°♐47'20	
evening set	243 Feb 24 j 21:32	17°♐34'45		evening set	244 Feb 07 j 21:39	0°♐15'14	
inferior conj	243 Mar 04 j 03:41	12°♐56'57	3°17'18		244 Feb 08 j 11:35	30°♎♏	
minimum elong	243 Mar 04 j 07:07	12°♐49'47	3°16'42	inferior conj	244 Feb 14 j 13:23	25°♏15'40	3°44'59
min. Earth dist.	243 Mar 07 j 14:04	10°♐06'38	0.59080 AU	minimum elong	244 Feb 14 j 14:39	25°♏12'37	3°44'55
morning rise	243 Mar 11 j 13:00	7°♐25'13		min. Earth dist.	244 Feb 17 j 16:39	22°♏15'35	0.61190 AU
direct	243 Mar 17 j 19:54	5°♐40'22		morning rise	244 Feb 21 j 04:55	19°♏25'34	
desc. node	243 Mar 18 j 03:11	5°♐40'37		direct	244 Feb 28 j 01:13	17°♏06'13	
morning max el	243 Apr 01 j 03:42	13°♐22'21	27°03'39	desc. node	244 Mar 04 j 00:14	18°♏12'29	
	243 Apr 14 j 08:28	0°♑		morning max el	244 Mar 13 j 05:22	24°♏56'40	27°42'23
	243 May 01 j 00:41	0°♒			244 Mar 17 j 20:47	0°♐	
morning set	243 May 01 j 12:50	1°♒03'08			244 Apr 06 j 16:46	0°♑	
asc. node	243 May 05 j 15:02	9°♒47'16		morning set	244 Apr 14 j 18:40	15°♑39'10	
				max. Earth dist.	244 Apr 20 j 21:29	28°♑38'19	1.32441 AU
superior conj	243 May 08 j 15:43	16°♒25'04	0°31'35	asc. node	244 Apr 21 j 12:06	29°♑57'55	
minimum elong	243 May 08 j 14:22	16°♒17'36	0°31'18		244 Apr 21 j 12:29	0°♒	
max. Earth dist.	243 May 08 j 09:50	15°♒52'42	1.32317 AU	superior conj	244 Apr 22 j 02:39	1°♒17'21	0°06'26
	243 May 14 j 21:44	0°♓		minimum elong	244 Apr 22 j 02:22	1°♒15'43	0°06'22
evening rise	243 May 15 j 14:23	1°♓27'55		behind sun begin	244 Apr 21 j 21:41	0°♒50'10	
	243 May 31 j 03:19	0°♓		behind sun end	244 Apr 22 j 07:02	1°♒41'16	
evening max el	243 Jun 13 j 12:28	16°♓52'51	26°17'07	evening rise	244 Apr 29 j 01:29	16°♒21'56	
desc. node	243 Jun 14 j 02:28	17°♓25'41			244 May 05 j 20:29	0°♓	
retrograde	243 Jun 27 j 12:49	24°♓05'43		evening max el	244 May 25 j 05:54	27°♓55'27	24°59'06
evening set	243 Jul 03 j 23:29	22°♓23'04			244 May 27 j 13:42	0°♓	
min. Earth dist.	243 Jul 08 j 01:23	19°♓46'11	0.59431 AU	desc. node	244 May 30 j 23:28	2°♓26'57	
inferior conj	243 Jul 11 j 09:24	17°♓12'04	-4°-44'-47	retrograde	244 Jun 08 j 05:39	5°♓02'03	
minimum elong	243 Jul 11 j 11:01	17°♓08'55	4°44'43	evening set	244 Jun 13 j 12:30	3°♓58'04	
morning rise	243 Jul 19 j 01:58	12°♓39'20		min. Earth dist.	244 Jun 18 j 17:24	1°♓10'21	0.57450 AU
direct	243 Jul 21 j 12:58	12°♓18'08			244 Jun 20 j 11:52	30°♎♓	
morning max el	243 Jul 29 j 06:42	16°♓01'22	18°23'13	inferior conj	244 Jun 21 j 17:56	29°♓09'16	-4°-39'-38
asc. node	243 Aug 01 j 14:15	19°♓47'01		minimum elong	244 Jun 21 j 15:01	29°♓14'12	4°39'24
	243 Aug 08 j 02:54	0°♑		morning rise	244 Jun 29 j 21:23	24°♓58'46	
morning set	243 Aug 14 j 06:59	11°♑28'41		direct	244 Jul 02 j 10:52	24°♓39'42	
				morning max el	244 Jul 11 j 08:29	28°♓49'03	19°08'48
superior conj	243 Aug 23 j 11:44	28°♑52'15	1°38'35		244 Jul 12 j 13:00	0°♓	
minimum elong	243 Aug 23 j 14:35	29°♑05'23	1°38'23				
	243 Aug 24 j 02:30	0°♑					

asc. node	244 Jul 18 j 11:20	7° \mathfrak{C} 52'23		asc. node	245 Jul 05 j 08:25	26° \mathbb{I} 38'11	
morning set	244 Jul 28 j 05:04	25° \mathfrak{C} 41'48			245 Jul 07 j 04:36	0° \mathfrak{C}	
	244 Jul 30 j 09:03	0° \mathcal{Q}		morning set	245 Jul 12 j 09:44	10° \mathfrak{C} 15'27	
superior conj	244 Aug 05 j 13:05	12° \mathcal{Q} 09'03	1°46'25	superior conj	245 Jul 20 j 03:35	26° \mathfrak{C} 05'57	1°45'26
minimum elong	244 Aug 05 j 13:50	12° \mathcal{Q} 12'38	1°46'24	minimum elong	245 Jul 20 j 02:39	26° \mathfrak{C} 01'10	1°45'25
max. Earth dist.	244 Aug 12 j 02:30	24° \mathcal{Q} 27'15	1.38414 AU		245 Jul 22 j 02:22	0° \mathcal{Q}	
	244 Aug 15 j 05:04	0° \mathfrak{M}		max. Earth dist.	245 Jul 25 j 07:42	6° \mathcal{Q} 17'35	1.36510 AU
evening rise	244 Aug 15 j 23:01	1° \mathfrak{M} 18'30		evening rise	245 Jul 29 j 07:31	13° \mathcal{Q} 47'01	
desc. node	244 Aug 26 j 22:52	19° \mathfrak{M} 23'12			245 Aug 07 j 16:20	0° \mathfrak{M}	
	244 Sep 03 j 01:16	0° \mathfrak{L}		desc. node	245 Aug 13 j 19:52	9° \mathfrak{M} 39'49	
evening max el	244 Sep 20 j 13:49	21° \mathfrak{L} 56'27	24°46'04		245 Aug 28 j 21:11	0° \mathfrak{L}	
retrograde	244 Oct 02 j 03:13	28° \mathfrak{L} 40'31		evening max el	245 Sep 03 j 01:19	5° \mathfrak{L} 33'27	25°56'25
evening set	244 Oct 07 j 16:54	26° \mathfrak{L} 20'30		retrograde	245 Sep 15 j 12:04	12° \mathfrak{L} 39'18	
min. Earth dist.	244 Oct 12 j 07:53	21° \mathfrak{L} 05'17	0.67330 AU	evening set	245 Sep 21 j 16:13	10° \mathfrak{L} 04'43	
inferior conj	244 Oct 13 j 04:27	19° \mathfrak{L} 57'03	0°-25'-58	min. Earth dist.	245 Sep 25 j 23:13	5° \mathfrak{L} 25'45	0.66674 AU
minimum elong	244 Oct 13 j 05:06	19° \mathfrak{L} 54'55	0°25'42	inferior conj	245 Sep 27 j 06:55	3° \mathfrak{L} 45'54	-1°-22'-15
asc. node	244 Oct 14 j 10:33	18° \mathfrak{L} 18'31		minimum elong	245 Sep 27 j 09:01	3° \mathfrak{L} 39'17	1°21'24
morning rise	244 Oct 18 j 17:44	13° \mathfrak{L} 52'51			245 Sep 30 j 11:57	30° \mathfrak{R} \mathfrak{M}	
direct	244 Oct 22 j 07:44	12° \mathfrak{L} 38'56		asc. node	245 Oct 01 j 07:37	29° \mathfrak{M} 12'31	
morning max el	244 Oct 29 j 22:09	17° \mathfrak{L} 00'22	20°00'07	morning rise	245 Oct 03 j 02:41	27° \mathfrak{M} 50'51	
greatest brilliancy	244 Nov 06 j 04:31	25° \mathfrak{L} 53'58	-0.6m	direct	245 Oct 06 j 06:09	26° \mathfrak{M} 53'59	
	244 Nov 09 j 02:29	0° \mathfrak{M}			245 Oct 12 j 09:15	0° \mathfrak{L}	
desc. node	244 Nov 22 j 22:11	20° \mathfrak{M} 44'24		morning max el	245 Oct 13 j 05:11	0° \mathfrak{L} 48'21	19°03'17
morning set	244 Nov 25 j 07:30	24° \mathfrak{M} 25'15			245 Nov 02 j 13:44	0° \mathfrak{M}	
	244 Nov 28 j 21:47	0° \mathfrak{X}		morning set	245 Nov 04 j 14:55	3° \mathfrak{M} 12'36	
max. Earth dist.	244 Dec 06 j 16:10	12° \mathfrak{X} 14'28	1.43942 AU	desc. node	245 Nov 09 j 19:12	11° \mathfrak{M} 19'34	
				max. Earth dist.	245 Nov 19 j 07:45	26° \mathfrak{M} 16'24	1.44845 AU
superior conj	244 Dec 11 j 20:57	20° \mathfrak{X} 37'29	-1°-45'-7	superior conj	245 Nov 21 j 06:46	29° \mathfrak{M} 21'47	-1°-10'-56
minimum elong	244 Dec 11 j 14:04	20° \mathfrak{X} 09'24	1°44'38	minimum elong	245 Nov 20 j 22:43	28° \mathfrak{M} 50'00	1°10'03
	244 Dec 17 j 13:18	0° \mathfrak{Z}			245 Nov 21 j 16:27	0° \mathfrak{X}	
evening rise	244 Dec 25 j 02:26	12° \mathfrak{Z} 48'07		evening rise	245 Dec 06 j 09:15	23° \mathfrak{X} 37'00	
	245 Jan 04 j 06:51	0° \mathfrak{Z}			245 Dec 10 j 06:53	0° \mathfrak{Z}	
asc. node	245 Jan 10 j 09:52	8° \mathfrak{Z} 44'49		evening max el	245 Dec 26 j 14:13	23° \mathfrak{Z} 59'52	18°37'23
evening max el	245 Jan 12 j 02:21	10° \mathfrak{Z} 36'33	18°13'24	asc. node	245 Dec 28 j 06:54	25° \mathfrak{Z} 33'43	
retrograde	245 Jan 18 j 13:59	14° \mathfrak{Z} 04'31		retrograde	246 Jan 02 j 05:35	27° \mathfrak{Z} 41'26	
evening set	245 Jan 21 j 09:51	13° \mathfrak{Z} 22'58		evening set	246 Jan 05 j 06:41	26° \mathfrak{Z} 49'14	
inferior conj	245 Jan 27 j 14:38	8° \mathfrak{Z} 02'59	3°48'23	inferior conj	246 Jan 11 j 03:29	21° \mathfrak{Z} 10'55	3°34'16
minimum elong	245 Jan 27 j 13:53	8° \mathfrak{Z} 05'03	3°48'22	minimum elong	246 Jan 11 j 01:23	21° \mathfrak{Z} 17'12	3°33'57
min. Earth dist.	245 Jan 30 j 04:27	5° \mathfrak{Z} 15'38	0.63164 AU	min. Earth dist.	246 Jan 13 j 01:58	18° \mathfrak{Z} 52'10	0.64823 AU
morning rise	245 Feb 02 j 16:03	2° \mathfrak{Z} 01'25		morning rise	246 Jan 16 j 18:52	15° \mathfrak{Z} 02'23	
	245 Feb 06 j 02:21	30° \mathfrak{R} \mathfrak{Z}		direct	246 Jan 23 j 13:06	12° \mathfrak{Z} 11'04	
direct	245 Feb 09 j 15:28	29° \mathfrak{Z} 18'37		desc. node	246 Feb 05 j 18:24	19° \mathfrak{Z} 48'53	
	245 Feb 13 j 09:11	0° \mathfrak{Z}		morning max el	246 Feb 05 j 21:45	19° \mathfrak{Z} 57'14	27°10'53
desc. node	245 Feb 18 j 21:19	3° \mathfrak{Z} 07'20			246 Feb 14 j 13:00	0° \mathfrak{Z}	
morning max el	245 Feb 23 j 12:19	7° \mathfrak{Z} 11'30	27°43'53		246 Mar 06 j 00:33	0° \mathfrak{X}	
	245 Mar 12 j 23:53	0° \mathfrak{X}		morning set	246 Mar 13 j 09:06	13° \mathfrak{X} 37'28	
morning set	245 Mar 29 j 18:24	29° \mathfrak{X} 53'41		max. Earth dist.	246 Mar 18 j 01:32	22° \mathfrak{X} 57'44	1.33902 AU
	245 Mar 29 j 19:40	0° \mathfrak{Y}			246 Mar 21 j 10:57	0° \mathfrak{Y}	
max. Earth dist.	245 Apr 04 j 04:01	11° \mathfrak{Y} 03'36	1.32956 AU	superior conj	246 Mar 21 j 14:54	0° \mathfrak{Y} 20'44	0°-47'-11
superior conj	245 Apr 06 j 11:02	15° \mathfrak{Y} 57'50	0°-20'-11	minimum elong	246 Mar 21 j 17:11	0° \mathfrak{Y} 32'44	0°46'46
minimum elong	245 Apr 06 j 12:00	16° \mathfrak{Y} 03'03	0°19'59	asc. node	246 Mar 26 j 06:13	10° \mathfrak{Y} 10'44	
asc. node	245 Apr 08 j 09:10	20° \mathfrak{Y} 07'01		evening rise	246 Mar 29 j 00:02	15° \mathfrak{Y} 57'53	
	245 Apr 12 j 23:21	0° \mathfrak{B}			246 Apr 05 j 02:16	0° \mathfrak{B}	
evening rise	245 Apr 13 j 13:18	1° \mathfrak{B} 13'52		evening max el	246 Apr 18 j 14:31	19° \mathfrak{B} 10'10	21°51'49
	245 Apr 29 j 14:58	0° \mathbb{I}		retrograde	246 May 01 j 03:34	25° \mathfrak{B} 18'20	
evening max el	245 May 06 j 20:10	8° \mathbb{I} 30'52	23°25'42	evening set	246 May 03 j 18:47	25° \mathfrak{B} 02'51	
desc. node	245 May 17 j 20:30	15° \mathbb{I} 03'25		desc. node	246 May 04 j 17:33	24° \mathfrak{B} 50'03	
retrograde	245 May 20 j 10:29	15° \mathbb{I} 18'36		inferior conj	246 May 13 j 04:05	20° \mathfrak{B} 59'13	-2°-21'-18
evening set	245 May 24 j 06:07	14° \mathbb{I} 46'33		minimum elong	246 May 12 j 21:51	21° \mathfrak{B} 07'59	2°19'17
min. Earth dist.	245 May 31 j 06:24	11° \mathbb{I} 33'17	0.55873 AU	min. Earth dist.	246 May 12 j 19:11	21° \mathfrak{B} 11'43	0.55046 AU
inferior conj	245 Jun 02 j 06:26	10° \mathbb{I} 21'59	-3°-52'-57	morning rise	246 May 22 j 02:03	17° \mathfrak{B} 03'42	
minimum elong	245 Jun 01 j 23:31	10° \mathbb{I} 32'18	3°51'27	direct	246 May 25 j 02:15	16° \mathfrak{B} 43'38	
morning rise	245 Jun 10 j 20:21	6° \mathbb{I} 26'31		morning max el	246 Jun 06 j 04:29	22° \mathfrak{B} 24'53	21°40'55
direct	245 Jun 13 j 13:19	6° \mathbb{I} 08'30			246 Jun 12 j 17:25	0° \mathbb{I}	
morning max el	245 Jun 24 j 00:06	10° \mathbb{I} 58'29	20°15'23				

asc. node	246 Jun 22 j 05:28	15°II54'33			247 May 15 j 01:12	0°8	
morning set	246 Jun 26 j 18:41	25°II03'21		morning max el	247 May 18 j 23:24	3°812'23	23°19'31
	246 Jun 29 j 03:23	0°8			247 Jun 06 j 07:29	0°II	
				asc. node	247 Jun 09 j 02:30	5°II32'50	
superior conj	246 Jul 04 j 03:17	10°831'13	1°37'29	morning set	247 Jun 11 j 05:58	9°II59'04	
minimum elong	246 Jul 04 j 01:16	10°820'43	1°37'20				
max. Earth dist.	246 Jul 07 j 20:42	18°811'14	1.34913 AU	superior conj	247 Jun 18 j 09:06	25°II14'45	1°24'05
evening rise	246 Jul 12 j 09:32	27°807'34		minimum elong	247 Jun 18 j 06:38	25°II01'35	1°23'46
	246 Jul 13 j 21:51	0°8			247 Jun 20 j 14:42	0°8	
desc. node	246 Jul 31 j 16:52	29°834'54		max. Earth dist.	247 Jun 20 j 19:22	0°824'38	1.33694 AU
	246 Jul 31 j 23:48	0°8		evening rise	247 Jun 26 j 00:20	11°806'09	
evening max el	246 Aug 16 j 13:21	19°807'20	26°50'35		247 Jul 06 j 05:36	0°8	
retrograde	246 Aug 29 j 15:37	26°823'50		desc. node	247 Jul 18 j 13:53	18°858'52	
evening set	246 Sep 05 j 08:43	23°840'35			247 Jul 27 j 14:39	0°8	
min. Earth dist.	246 Sep 09 j 08:21	19°839'00	0.65671 AU	evening max el	247 Jul 30 j 01:00	2°827'02	27°21'10
inferior conj	246 Sep 11 j 04:10	17°830'42	-2°-18'-23	retrograde	247 Aug 12 j 13:20	9°846'01	
minimum elong	246 Sep 11 j 07:40	17°820'24	2°17'05	evening set	247 Aug 19 j 15:39	7°803'14	
morning rise	246 Sep 17 j 07:58	11°847'55		min. Earth dist.	247 Aug 23 j 08:57	3°837'51	0.64304 AU
asc. node	246 Sep 18 j 04:41	11°825'17		inferior conj	247 Aug 25 j 17:47	1°806'16	-3°-11'-55
direct	246 Sep 20 j 03:19	11°804'18		minimum elong	247 Aug 25 j 22:22	0°854'01	3°10'31
morning max el	246 Sep 26 j 17:39	14°840'45	18°22'31		247 Aug 26 j 18:52	30°88	
	246 Oct 07 j 18:51	0°8		morning rise	247 Sep 01 j 06:58	25°839'19	
morning set	246 Oct 16 j 01:18	13°822'04		direct	247 Sep 03 j 20:46	25°805'23	
	246 Oct 26 j 09:31	0°8		asc. node	247 Sep 05 j 01:43	25°812'55	
desc. node	246 Oct 27 j 16:12	2°801'49		morning max el	247 Sep 10 j 09:02	28°832'20	17°58'56
					247 Sep 11 j 17:35	0°8	
superior conj	246 Oct 31 j 07:22	7°846'25	0°-23'-46	morning set	247 Sep 27 j 15:38	24°853'19	
minimum elong	246 Oct 31 j 04:15	7°834'07	0°23'22		247 Sep 30 j 16:00	0°8	
max. Earth dist.	246 Nov 02 j 02:19	10°835'26	1.45031 AU				
	246 Nov 14 j 11:22	0°8		superior conj	247 Oct 10 j 20:46	16°852'44	0°24'18
evening rise	246 Nov 16 j 16:20	3°827'46		minimum elong	247 Oct 10 j 23:31	17°803'49	0°23'56
greatest brilliancy	246 Nov 30 j 12:11	24°856'38	-0.7m	desc. node	247 Oct 14 j 13:13	22°848'05	
	246 Dec 03 j 23:36	0°8		max. Earth dist.	247 Oct 15 j 20:49	24°853'55	1.44479 AU
evening max el	246 Dec 09 j 23:08	7°827'01	19°18'32		247 Oct 19 j 02:19	0°8	
asc. node	246 Dec 15 j 03:56	11°811'48		evening rise	247 Oct 27 j 04:41	12°835'45	
retrograde	246 Dec 17 j 01:30	11°831'45			247 Nov 07 j 15:13	0°8	
evening set	246 Dec 20 j 09:17	10°827'15		greatest brilliancy	247 Nov 16 j 14:20	12°856'16	-0.6m
inferior conj	246 Dec 26 j 00:31	4°833'00	3°07'23	evening max el	247 Nov 23 j 03:19	20°855'42	20°14'55
minimum elong	246 Dec 25 j 21:49	4°841'43	3°06'44	retrograde	247 Nov 30 j 23:07	25°831'41	
min. Earth dist.	246 Dec 27 j 08:11	2°851'23	0.66103 AU	asc. node	247 Dec 02 j 00:58	25°825'06	
	246 Dec 29 j 17:28	30°88		evening set	247 Dec 04 j 15:25	24°813'02	
morning rise	246 Dec 31 j 09:32	28°820'14		inferior conj	247 Dec 10 j 03:04	18°805'45	2°31'05
direct	247 Jan 06 j 16:47	25°834'16		minimum elong	247 Dec 10 j 00:22	18°814'52	2°30'14
	247 Jan 16 j 01:00	0°8		min. Earth dist.	247 Dec 10 j 21:27	17°803'52	0.66992 AU
morning max el	247 Jan 19 j 07:06	3°800'54	26°10'12	morning rise	247 Dec 15 j 08:48	11°850'45	
desc. node	247 Jan 23 j 15:26	7°846'02		direct	247 Dec 21 j 01:48	9°820'09	
	247 Feb 08 j 19:11	0°8		morning max el	248 Jan 01 j 15:38	16°813'49	24°51'09
morning set	247 Feb 24 j 10:42	26°837'15		desc. node	248 Jan 10 j 12:27	26°836'59	
	247 Feb 26 j 05:49	0°8			248 Jan 13 j 01:36	0°8	
max. Earth dist.	247 Feb 28 j 11:24	4°817'34	1.35310 AU		248 Feb 01 j 18:02	0°8	
				morning set	248 Feb 06 j 18:00	8°838'32	
superior conj	247 Mar 05 j 11:47	14°817'35	-1°-13'-16	max. Earth dist.	248 Feb 10 j 11:01	15°820'45	1.37136 AU
minimum elong	247 Mar 05 j 15:12	14°834'56	1°12'43				
evening rise	247 Mar 13 j 07:39	0°826'38		superior conj	248 Feb 16 j 22:41	27°840'04	-1°-36'-26
asc. node	247 Mar 13 j 03:14	0°803'58		minimum elong	248 Feb 17 j 02:36	27°859'16	1°35'59
	247 Mar 13 j 02:28	0°8			248 Feb 18 j 03:11	0°8	
	247 Mar 31 j 11:29	0°8		evening rise	248 Feb 25 j 09:59	14°833'47	
evening max el	247 Mar 31 j 18:27	0°817'01	20°29'06	asc. node	248 Feb 28 j 00:16	19°842'00	
retrograde	247 Apr 11 j 16:33	5°832'42			248 Mar 04 j 14:00	0°8	
evening set	247 Apr 13 j 19:54	5°821'27		evening max el	248 Mar 13 j 09:39	12°801'43	19°23'59
desc. node	247 Apr 21 j 14:36	2°810'28		retrograde	248 Mar 22 j 15:06	16°828'02	
inferior conj	247 Apr 22 j 22:55	1°823'57	0°-23'-14	evening set	248 Mar 24 j 18:41	16°814'38	
minimum elong	247 Apr 22 j 21:49	1°825'32	0°22'51	inferior conj	248 Apr 02 j 05:15	12°807'14	1°27'26
min. Earth dist.	247 Apr 24 j 08:27	0°835'18	0.55163 AU	minimum elong	248 Apr 02 j 08:37	12°801'42	1°26'20
	247 Apr 25 j 09:17	30°88		min. Earth dist.	248 Apr 04 j 23:00	10°820'11	0.56195 AU
morning rise	247 May 01 j 21:56	27°809'58		desc. node	248 Apr 07 j 11:38	8°850'27	
direct	247 May 05 j 13:52	26°840'54		morning rise	248 Apr 10 j 18:46	7°821'25	

direct	248 Apr 15 j 10:58	6°♊31'43		desc. node	249 Mar 25 j 08:39	17°♋03'25	
morning max el	248 Apr 29 j 14:07	13°♊41'49	24°59'38	direct	249 Mar 27 j 22:02	16°♋46'54	
	248 May 12 j 08:14	0°♌		morning max el	249 Apr 11 j 06:41	24°♋21'27	26°25'58
morning set	248 May 25 j 17:55	24°♌57'18			249 Apr 16 j 10:20	0°♍	
asc. node	248 May 25 j 23:32	25°♌26'53			249 May 05 j 07:51	0°♌	
	248 May 28 j 02:41	0°♍		morning set	249 May 10 j 04:56	9°♌52'35	
				asc. node	249 May 12 j 20:35	15°♌31'35	
superior conj	248 Jun 01 j 18:43	10°♍09'17	1°06'19	superior conj	249 May 17 j 06:14	25°♌08'31	0°45'05
minimum elong	248 Jun 01 j 16:21	9°♍56'22	1°05'55	minimum elong	249 May 17 j 04:24	24°♌58'26	0°44'43
max. Earth dist.	248 Jun 03 j 02:05	12°♍59'46	1.32863 AU	max. Earth dist.	249 May 17 j 13:36	25°♌48'55	1.32404 AU
evening rise	248 Jun 09 j 00:15	25°♍31'38			249 May 19 j 11:27	0°♎	
	248 Jun 11 j 05:28	0°♏		evening rise	249 May 24 j 06:20	10°♎15'02	
	248 Jun 28 j 17:59	0°♏			249 Jun 03 j 12:30	0°♏	
desc. node	248 Jul 04 j 10:55	7°♏38'30		desc. node	249 Jun 21 j 07:56	25°♏15'41	
evening max el	248 Jul 11 j 10:01	15°♏18'47	27°22'01	evening max el	249 Jun 23 j 13:54	27°♏31'25	26°50'02
retrograde	248 Jul 25 j 04:41	22°♏36'40			249 Jun 26 j 09:38	0°♐	
evening set	248 Aug 01 j 09:28	20°♏06'30		retrograde	249 Jul 07 j 13:00	4°♐47'18	
min. Earth dist.	248 Aug 04 j 23:23	17°♏11'06	0.62590 AU	evening set	249 Jul 14 j 09:53	2°♐43'45	
inferior conj	248 Aug 07 j 20:55	14°♏25'33	-3°-59'-7	min. Earth dist.	249 Jul 18 j 03:41	0°♐05'11	0.60611 AU
minimum elong	248 Aug 08 j 01:43	14°♏14'05	3°58'03		249 Jul 18 j 06:16	30°♑	
morning rise	248 Aug 14 j 20:27	9°♏17'55		inferior conj	249 Jul 21 j 10:16	27°♑20'56	-4°-33'-56
direct	248 Aug 17 j 07:12	8°♏50'44		minimum elong	249 Jul 21 j 13:41	27°♑13'46	4°33'32
asc. node	248 Aug 21 j 22:45	10°♏30'51		morning rise	249 Jul 28 j 20:38	22°♑35'20	
morning max el	248 Aug 24 j 00:31	12°♏16'31	17°53'18	direct	249 Jul 31 j 06:47	22°♑12'35	
	248 Sep 04 j 23:26	0°♒		morning max el	249 Aug 07 j 13:10	25°♑46'28	18°06'36
morning set	248 Sep 09 j 04:19	7°♒28'10		asc. node	249 Aug 08 j 19:48	27°♑06'06	
					249 Aug 11 j 04:02	0°♓	
superior conj	248 Sep 20 j 12:05	27°♒16'14	1°03'09	morning set	249 Aug 23 j 09:32	20°♓50'51	
minimum elong	248 Sep 20 j 17:01	27°♒37'06	1°02'34		249 Aug 28 j 07:29	0°♑	
	248 Sep 22 j 02:57	0°♓		superior conj	249 Sep 02 j 06:02	8°♑58'46	1°29'12
max. Earth dist.	248 Sep 27 j 11:49	8°♓51'21	1.43265 AU	minimum elong	249 Sep 02 j 10:02	9°♑16'39	1°28'50
desc. node	248 Sep 30 j 10:14	13°♓34'41		max. Earth dist.	249 Sep 09 j 20:59	22°♑11'13	1.41555 AU
evening rise	248 Oct 05 j 12:16	21°♓35'25			249 Sep 14 j 14:43	0°♔	
	248 Oct 10 j 23:36	0°♕		evening rise	249 Sep 15 j 08:50	1°♔13'07	
greatest brilliancy	248 Oct 30 j 23:58	28°♕32'43	-0.4m	desc. node	249 Sep 17 j 07:16	4°♔18'41	
	248 Nov 01 j 04:07	0°♖			249 Oct 04 j 11:22	0°♕	
evening max el	248 Nov 05 j 01:42	4°♖24'11	21°23'51	greatest brilliancy	249 Oct 13 j 20:50	12°♕23'55	-0.3m
retrograde	248 Nov 13 j 20:21	9°♖37'19		evening max el	249 Oct 18 j 18:39	17°♕54'02	22°41'13
evening set	248 Nov 17 j 23:06	8°♖02'42		retrograde	249 Oct 28 j 15:32	23°♕46'01	
asc. node	248 Nov 17 j 22:00	8°♖04'48		evening set	249 Nov 02 j 06:40	21°♕54'02	
inferior conj	248 Nov 23 j 08:53	1°♖45'48	1°47'36	asc. node	249 Nov 04 j 19:03	19°♕19'35	
minimum elong	248 Nov 23 j 06:40	1°♖53'26	1°46'47	inferior conj	249 Nov 07 j 16:03	15°♕31'25	0°58'42
min. Earth dist.	248 Nov 23 j 15:30	1°♖22'57	0.67511 AU	minimum elong	249 Nov 07 j 14:43	15°♕36'00	0°58'09
	248 Nov 24 j 15:46	30°♗		min. Earth dist.	249 Nov 07 j 11:59	15°♕45'26	0.67692 AU
morning rise	248 Nov 28 j 13:56	25°♗30'34		morning rise	249 Nov 12 j 22:42	9°♗18'13	
direct	248 Dec 03 j 15:34	23°♗20'49		direct	249 Nov 17 j 09:23	7°♗31'04	
morning max el	248 Dec 14 j 00:40	29°♗31'26	23°23'46	morning max el	249 Nov 26 j 13:15	12°♗55'06	21°57'24
	248 Dec 14 j 11:52	0°♘		greatest brilliancy	249 Dec 01 j 07:33	18°♗17'50	-0.4m
greatest brilliancy	248 Dec 19 j 12:52	5°♘44'09	-0.2m		249 Dec 10 j 01:56	0°♙	
desc. node	248 Dec 27 j 09:29	16°♘05'52		desc. node	249 Dec 14 j 06:32	6°♙02'10	
	249 Jan 05 j 21:46	0°♚		morning set	249 Dec 29 j 02:28	28°♙46'44	
morning set	249 Jan 18 j 00:46	19°♚24'43			249 Dec 29 j 20:42	0°♛	
max. Earth dist.	249 Jan 22 j 06:08	26°♚39'02	1.39223 AU	max. Earth dist.	250 Jan 04 j 04:10	8°♛42'34	1.41316 AU
	249 Jan 24 j 03:48	0°♜		superior conj	250 Jan 11 j 21:26	21°♛57'34	-2°-2'-12
superior conj	249 Jan 29 j 19:33	10°♜17'21	-1°-54'00	minimum elong	250 Jan 11 j 21:57	21°♛59'48	2°02'13
minimum elong	249 Jan 29 j 22:46	10°♜32'18	1°53'49		250 Jan 16 j 09:08	0°♞	
evening rise	249 Feb 08 j 04:18	28°♜11'42		evening rise	250 Jan 22 j 11:18	11°♞12'45	
	249 Feb 09 j 02:45	0°♞		asc. node	250 Jan 31 j 18:22	27°♞47'25	
asc. node	249 Feb 13 j 21:19	8°♞58'50			250 Feb 02 j 03:56	0°♟	
evening max el	249 Feb 24 j 10:38	24°♞22'10	18°38'46	evening max el	250 Feb 07 j 18:32	7°♞10'45	18°13'36
retrograde	249 Mar 04 j 07:27	28°♞12'20		retrograde	250 Feb 14 j 18:00	10°♞40'42	
evening set	249 Mar 06 j 15:30	27°♞53'15		evening set	250 Feb 17 j 06:53	10°♞13'46	
inferior conj	249 Mar 14 j 07:29	23°♞27'38	2°47'20	inferior conj	250 Feb 24 j 06:31	5°♞26'57	3°32'29
minimum elong	249 Mar 14 j 11:41	23°♞19'35	2°46'20	minimum elong	250 Feb 24 j 09:05	5°♞21'15	3°32'10
min. Earth dist.	249 Mar 17 j 16:31	20°♞54'07	0.57909 AU				
morning rise	249 Mar 22 j 03:43	18°♞09'56					

min. Earth dist.	250 Feb 27 j 15:13	2° ✕ 29'03	0.59978 AU	evening max el	251 Jan 22 j 06:16	20° ≈ 18'55	18°08'03
	250 Mar 02 j 22:58	30° ℞		retrograde	251 Jan 28 j 19:17	23° ≈ 43'33	
morning rise	250 Mar 03 j 07:54	29° ≈ 46'12		evening set	251 Jan 31 j 12:40	23° ≈ 07'30	
direct	250 Mar 09 j 21:50	27° ≈ 45'24		inferior conj	251 Feb 06 j 23:23	17° ≈ 59'18	3°48'56
desc. node	250 Mar 12 j 05:43	27° ≈ 59'55		minimum elong	251 Feb 06 j 23:43	17° ≈ 58'26	3°48'56
	250 Mar 17 j 05:13	0° ✕		min. Earth dist.	251 Feb 09 j 21:30	15° ≈ 02'08	0.62061 AU
morning max el	250 Mar 24 j 04:40	5° ✕ 32'39	27°24'33	morning rise	251 Feb 13 j 08:26	12° ≈ 03'55	
	250 Apr 11 j 09:31	0° Υ		direct	251 Feb 20 j 07:28	9° ≈ 32'39	
morning set	250 Apr 24 j 13:13	24° Υ 37'44		desc. node	251 Feb 27 j 02:46	11° ≈ 37'31	
	250 Apr 27 j 02:24	0° ♄		morning max el	251 Mar 06 j 08:39	17° ≈ 24'44	27°47'28
asc. node	250 Apr 29 j 17:38	5° ♄ 41'28			251 Mar 16 j 20:34	0° ✕	
max. Earth dist.	250 May 01 j 02:10	8° ♄ 39'13	1.32317 AU		251 Apr 04 j 02:01	0° Υ	
				morning set	251 Apr 08 j 16:46	9° Υ 06'01	
superior conj	250 May 01 j 17:53	10° ♄ 05'23	0°21'09	max. Earth dist.	251 Apr 14 j 12:04	21° Υ 17'58	1.32613 AU
minimum elong	250 May 01 j 16:56	10° ♄ 00'13	0°20'57				
evening rise	250 May 08 j 16:11	25° ♄ 07'27		superior conj	251 Apr 16 j 03:59	24° Υ 54'05	0°-4'-44
	250 May 11 j 00:30	0° ♄		minimum elong	251 Apr 16 j 04:12	24° Υ 55'17	0°04'42
	250 May 28 j 15:44	0° ♄		behind sun begin	251 Apr 15 j 23:16	24° Υ 28'29	
evening max el	250 Jun 05 j 11:07	8° ♄ 58'46	25°46'46	behind sun end	251 Apr 16 j 09:08	25° Υ 22'07	
desc. node	250 Jun 08 j 04:58	11° ♄ 23'33		asc. node	251 Apr 16 j 14:43	25° Υ 52'27	
retrograde	250 Jun 19 j 12:22	16° ♄ 10'22			251 Apr 18 j 12:09	0° ♄	
evening set	250 Jun 25 j 12:23	14° ♄ 44'19		evening rise	251 Apr 23 j 03:51	10° ♄ 02'02	
min. Earth dist.	250 Jun 29 j 23:34	12° ♄ 04'40	0.58555 AU		251 May 03 j 11:26	0° ♄	
inferior conj	250 Jul 03 j 06:11	9° ♄ 42'05	-4°-46'-57	evening max el	251 May 18 j 02:46	19° ♄ 47'51	24°20'24
minimum elong	250 Jul 03 j 06:02	9° ♄ 42'20	4°46'58	desc. node	251 May 26 j 01:59	25° ♄ 28'02	
morning rise	250 Jul 11 j 03:24	5° ♄ 19'07		retrograde	251 Jun 01 j 00:00	26° ♄ 47'46	
direct	250 Jul 13 j 15:06	4° ♄ 59'05		evening set	251 Jun 05 j 15:59	25° ♄ 59'11	
morning max el	250 Jul 21 j 19:46	8° ♄ 52'13	18°40'00	min. Earth dist.	251 Jun 11 j 14:02	23° ♄ 02'02	0.56715 AU
asc. node	250 Jul 26 j 16:52	14° ♄ 42'30		inferior conj	251 Jun 14 j 06:05	21° ♄ 20'50	-4°-25'-30
	250 Aug 04 j 14:42	0° ♄		minimum elong	251 Jun 14 j 01:08	21° ♄ 28'42	4°24'49
morning set	250 Aug 07 j 02:29	4° ♄ 48'03		morning rise	251 Jun 22 j 14:01	17° ♄ 17'35	
				direct	251 Jun 25 j 04:54	16° ♄ 59'04	
superior conj	250 Aug 15 j 21:30	21° ♄ 45'10	1°43'07	morning max el	251 Jul 04 j 17:22	21° ♄ 24'14	19°34'29
minimum elong	250 Aug 15 j 23:26	21° ♄ 54'16	1°43'00		251 Jul 11 j 15:22	0° ♄	
	250 Aug 20 j 08:48	0° ♄		asc. node	251 Jul 13 j 13:56	3° ♄ 06'24	
max. Earth dist.	250 Aug 23 j 01:13	4° ♄ 47'13	1.39577 AU	morning set	251 Jul 22 j 03:40	19° ♄ 10'46	
evening rise	250 Aug 27 j 04:48	11° ♄ 56'34			251 Jul 27 j 12:34	0° ♄	
desc. node	250 Sep 04 j 04:18	24° ♄ 55'47		superior conj	251 Jul 30 j 04:57	5° ♄ 20'11	1°46'57
	250 Sep 07 j 11:04	0° ♄		minimum elong	251 Jul 30 j 04:55	5° ♄ 19'57	1°46'57
	250 Sep 29 j 21:59	0° ♄		max. Earth dist.	251 Aug 05 j 04:49	16° ♄ 49'39	1.37584 AU
evening max el	250 Oct 01 j 07:55	1° ♄ 27'07	24°01'30	evening rise	251 Aug 09 j 01:04	23° ♄ 49'23	
retrograde	250 Oct 12 j 07:18	7° ♄ 54'10			251 Aug 12 j 14:00	0° ♄	
evening set	250 Oct 17 j 12:24	5° ♄ 44'21		desc. node	251 Aug 22 j 01:19	15° ♄ 21'34	
	250 Oct 22 j 11:01	30° ♄			251 Sep 01 j 04:17	0° ♄	
inferior conj	250 Oct 22 j 22:47	29° ♄ 20'07	0°05'47	evening max el	251 Sep 13 j 19:41	15° ♄ 03'51	25°17'36
minimum elong	250 Oct 22 j 22:38	29° ♄ 20'35	0°05'43	retrograde	251 Sep 25 j 18:39	21° ♄ 57'47	
transit middle	250 Oct 22 j 22:38	29° ♄ 20'35	0°05'43	evening set	251 Oct 01 j 14:35	19° ♄ 31'17	
transit begin	250 Oct 22 j 20:05	29° ♄ 29'14		min. Earth dist.	251 Oct 06 j 02:12	14° ♄ 31'12	0.67092 AU
transit end	250 Oct 23 j 01:11	29° ♄ 11'57		inferior conj	251 Oct 07 j 03:19	13° ♄ 09'32	0°-49'-44
min. Earth dist.	250 Oct 22 j 08:23	0° ♄ 08'54	0.67551 AU	minimum elong	251 Oct 07 j 04:34	13° ♄ 05'28	0°49'13
asc. node	250 Oct 22 j 16:06	29° ♄ 42'47		asc. node	251 Oct 09 j 13:09	10° ♄ 09'10	
morning rise	250 Oct 28 j 09:05	23° ♄ 11'39		morning rise	251 Oct 12 j 19:08	7° ♄ 08'46	
direct	250 Nov 01 j 06:10	21° ♄ 46'10		direct	251 Oct 16 j 04:29	6° ♄ 02'22	
morning max el	250 Nov 09 j 08:25	26° ♄ 27'52	20°39'20	morning max el	251 Oct 23 j 11:20	10° ♄ 10'46	19°34'03
	250 Nov 12 j 12:45	0° ♄		greatest brilliancy	251 Nov 01 j 00:57	21° ♄ 02'11	-0.7m
greatest brilliancy	250 Nov 15 j 09:28	3° ♄ 35'57	-0.5m		251 Nov 07 j 02:22	0° ♄	
desc. node	250 Dec 01 j 03:35	26° ♄ 18'02		morning set	251 Nov 17 j 02:12	15° ♄ 20'34	
	250 Dec 03 j 13:57	0° ♄		desc. node	251 Nov 18 j 00:36	16° ♄ 47'25	
morning set	250 Dec 08 j 04:03	7° ♄ 04'16			251 Nov 26 j 11:44	0° ♄	
max. Earth dist.	250 Dec 17 j 09:52	21° ♄ 42'39	1.43126 AU	max. Earth dist.	251 Nov 29 j 23:05	5° ♄ 28'58	1.44410 AU
	250 Dec 22 j 11:19	0° ♄					
superior conj	250 Dec 23 j 23:03	2° ♄ 28'50	-1°-56'-28	superior conj	251 Dec 03 j 21:48	11° ♄ 46'32	-1°-32'-46
minimum elong	250 Dec 23 j 18:51	2° ♄ 11'17	1°56'17	minimum elong	251 Dec 03 j 13:39	11° ♄ 13'52	1°32'02
evening rise	251 Jan 05 j 02:57	23° ♄ 28'44			251 Dec 15 j 01:17	0° ♄	
	251 Jan 08 j 19:37	0° ≈		evening rise	251 Dec 17 j 22:51	4° ♄ 51'04	
asc. node	251 Jan 18 j 15:25	15° ≈ 58'59			252 Jan 02 j 16:35	0° ≈	

asc. node	252 Jan 05 j 12:28	3° \approx 21'46			252 Nov 18 j 05:36	0° \approx	
evening max el	252 Jan 05 j 18:48	3° \approx 38'03	18°21'26	evening rise	252 Nov 27 j 19:34	15° \approx 15'11	
retrograde	252 Jan 12 j 06:54	7° \approx 10'16			252 Dec 07 j 00:44	0° \approx	
evening set	252 Jan 15 j 04:57	6° \approx 24'11		evening max el	252 Dec 19 j 05:36	17° \approx 02'59	18°52'49
inferior conj	252 Jan 21 j 05:59	0° \approx 55'58	3°44'13	asc. node	252 Dec 22 j 09:30	19° \approx 42'21	
minimum elong	252 Jan 21 j 04:34	1° \approx 00'00	3°44'05	retrograde	252 Dec 26 j 00:48	20° \approx 53'32	
	252 Jan 22 j 01:36	30° \approx		evening set	252 Dec 29 j 04:33	19° \approx 56'14	
min. Earth dist.	252 Jan 23 j 13:13	28° \approx 19'40	0.63914 AU	inferior conj	253 Jan 03 j 22:41	14° \approx 10'31	3°24'12
morning rise	252 Jan 27 j 02:40	24° \approx 51'17		minimum elong	253 Jan 03 j 20:15	14° \approx 18'04	3°23'44
direct	252 Feb 03 j 00:48	22° \approx 03'19		min. Earth dist.	253 Jan 05 j 14:36	12° \approx 07'08	0.65413 AU
desc. node	252 Feb 13 j 23:48	27° \approx 21'53		morning rise	253 Jan 09 j 10:55	7° \approx 59'47	
morning max el	252 Feb 16 j 16:53	29° \approx 53'42	27°33'49	direct	253 Jan 16 j 00:51	5° \approx 09'34	
	252 Feb 16 j 19:24	0° \approx		morning max el	253 Jan 29 j 02:43	12° \approx 49'04	26°48'03
	252 Mar 09 j 19:26	0° \approx		desc. node	253 Jan 30 j 20:51	14° \approx 38'39	
morning set	252 Mar 22 j 13:02	23° \approx 08'32			253 Feb 11 j 23:31	0° \approx	
	252 Mar 25 j 22:32	0° \approx			253 Mar 02 j 10:05	0° \approx	
max. Earth dist.	252 Mar 27 j 15:20	3° \approx 31'44	1.33312 AU	morning set	253 Mar 05 j 22:43	6° \approx 35'06	
				max. Earth dist.	253 Mar 10 j 08:20	15° \approx 11'50	1.34448 AU
superior conj	252 Mar 30 j 10:41	9° \approx 27'51	0°-31'-39	superior conj	253 Mar 14 j 11:52	23° \approx 40'12	0°-58'-28
minimum elong	252 Mar 30 j 12:13	9° \approx 36'02	0°31'20	minimum elong	253 Mar 14 j 14:40	23° \approx 54'46	0°57'58
asc. node	252 Apr 02 j 11:46	15° \approx 59'50			253 Mar 17 j 12:27	0° \approx	
evening rise	252 Apr 06 j 15:26	24° \approx 51'37			253 Mar 20 j 08:48	5° \approx 59'34	
	252 Apr 09 j 02:58	0° \approx		asc. node	253 Mar 22 j 01:05	9° \approx 29'51	
	252 Apr 28 j 09:16	0° \approx		evening rise	253 Mar 22 j 01:05	9° \approx 29'51	
evening max el	252 Apr 28 j 17:50	0° \approx 20'57	22°44'54		253 Apr 01 j 23:25	0° \approx	
retrograde	252 May 11 j 23:00	6° \approx 53'52		evening max el	253 Apr 10 j 15:35	11° \approx 08'53	21°14'39
desc. node	252 May 11 j 23:00	6° \approx 53'52		retrograde	253 Apr 22 j 13:19	16° \approx 56'07	
evening set	252 May 15 j 05:13	6° \approx 30'35		evening set	253 Apr 24 j 21:24	16° \approx 43'30	
min. Earth dist.	252 May 23 j 02:21	3° \approx 03'11	0.55423 AU	desc. node	253 Apr 28 j 20:02	15° \approx 30'57	
inferior conj	252 May 24 j 11:08	2° \approx 16'14	-3°-19'-4	inferior conj	253 May 04 j 05:43	12° \approx 44'11	-1°-32'-30
minimum elong	252 May 24 j 03:46	2° \approx 26'48	3°17'05	minimum elong	253 May 04 j 01:23	12° \approx 50'17	1°30'59
	252 May 28 j 16:18	30° \approx		min. Earth dist.	253 May 04 j 15:06	12° \approx 30'58	0.54975 AU
morning rise	252 Jun 02 j 05:01	28° \approx 23'14		morning rise	253 May 13 j 05:21	8° \approx 43'15	
direct	252 Jun 05 j 00:38	28° \approx 04'46		direct	253 May 16 j 10:45	8° \approx 20'43	
	252 Jun 11 j 19:50	0° \approx		morning max el	253 May 29 j 04:06	14° \approx 23'57	22°21'55
morning max el	252 Jun 16 j 04:03	3° \approx 15'08	20°49'41		253 Jun 10 j 01:01	0° \approx	
asc. node	252 Jun 29 j 10:59	22° \approx 06'27		asc. node	253 Jun 16 j 08:01	11° \approx 33'05	
	252 Jul 03 j 12:50	0° \approx		morning set	253 Jun 19 j 20:35	18° \approx 43'52	
morning set	252 Jul 05 j 10:26	3° \approx 51'43			253 Jun 25 j 04:13	0° \approx	
superior conj	252 Jul 12 j 23:48	19° \approx 30'43	1°42'49	superior conj	253 Jun 27 j 02:26	4° \approx 05'12	1°32'25
minimum elong	252 Jul 12 j 22:20	19° \approx 23'09	1°42'45	minimum elong	253 Jun 27 j 00:10	3° \approx 53'12	1°32'11
max. Earth dist.	252 Jul 17 j 13:11	28° \approx 40'16	1.35790 AU	max. Earth dist.	253 Jun 30 j 06:11	10° \approx 40'54	1.34341 AU
	252 Jul 18 j 05:29	0° \approx		evening rise	253 Jul 05 j 01:33	20° \approx 20'00	
evening rise	252 Jul 21 j 17:37	6° \approx 41'47			253 Jul 10 j 04:44	0° \approx	
	252 Aug 04 j 07:45	0° \approx		desc. node	253 Jul 25 j 19:20	25° \approx 13'59	
desc. node	252 Aug 07 j 22:19	5° \approx 30'23			253 Jul 29 j 06:44	0° \approx	
evening max el	252 Aug 26 j 07:24	28° \approx 40'50	26°21'52	evening max el	253 Aug 08 j 19:13	12° \approx 09'34	27°06'47
	252 Aug 27 j 17:13	0° \approx		retrograde	253 Aug 22 j 02:22	19° \approx 28'31	
retrograde	252 Sep 08 j 01:08	5° \approx 51'55		evening set	253 Aug 29 j 00:05	16° \approx 43'46	
evening set	252 Sep 14 j 11:16	3° \approx 12'36		min. Earth dist.	253 Sep 01 j 20:41	12° \approx 58'16	0.65135 AU
	252 Sep 17 j 15:20	30° \approx		inferior conj	253 Sep 03 j 22:06	10° \approx 38'52	-2°-41'-37
min. Earth dist.	252 Sep 18 j 15:03	28° \approx 49'46	0.66294 AU	minimum elong	253 Sep 04 j 02:08	10° \approx 27'28	2°40'13
inferior conj	252 Sep 20 j 03:48	26° \approx 57'20	-1°-46'-12	morning rise	253 Sep 10 j 05:48	5° \approx 02'43	
minimum elong	252 Sep 20 j 06:32	26° \approx 49'00	1°45'08	asc. node	253 Sep 12 j 07:14	4° \approx 25'55	
asc. node	252 Sep 25 j 10:12	21° \approx 33'19		direct	253 Sep 12 j 22:24	4° \approx 23'45	
morning rise	252 Sep 26 j 02:50	21° \approx 07'19		morning max el	253 Sep 19 j 11:08	7° \approx 55'11	18°10'23
direct	252 Sep 29 j 02:37	20° \approx 16'31			253 Oct 04 j 11:57	0° \approx	
morning max el	252 Oct 05 j 21:00	24° \approx 01'46	18°43'59	morning set	253 Oct 07 j 18:53	5° \approx 26'53	
	252 Oct 10 j 19:11	0° \approx		desc. node	253 Oct 21 j 18:38	28° \approx 10'48	
morning set	252 Oct 26 j 20:13	24° \approx 41'19					
	252 Oct 30 j 04:36	0° \approx		superior conj	253 Oct 22 j 04:39	28° \approx 50'40	0°-2'-46
desc. node	252 Nov 03 j 21:38	7° \approx 26'20		minimum elong	253 Oct 22 j 04:18	28° \approx 49'14	0°02'43
max. Earth dist.	252 Nov 11 j 16:49	19° \approx 42'27	1.45014 AU	behind sun begin	253 Oct 21 j 17:31	28° \approx 06'23	
				behind sun end	253 Oct 22 j 15:04	29° \approx 32'03	
superior conj	252 Nov 12 j 01:04	20° \approx 14'51	0°-51'-52		253 Oct 22 j 22:07	0° \approx	
minimum elong	252 Nov 11 j 18:31	19° \approx 49'09	0°51'04	max. Earth dist.	253 Oct 25 j 11:27	4° \approx 02'27	1.44880 AU

evening rise	253 Nov 07 j 17:29	24° \mathbb{M} 44'22		max. Earth dist.	254 Oct 08 j 04:11	18° \mathbb{L} 11'59	1.44039 AU
	253 Nov 11 j 02:53	0° \mathbb{X}		desc. node	254 Oct 08 j 15:40	18° \mathbb{L} 57'50	
greatest brilliancy	253 Nov 24 j 14:28	20° \mathbb{X} 25'07	-0.7m		254 Oct 15 j 15:55	0° \mathbb{M}	
	253 Dec 02 j 01:01	0° \mathbb{Z}		evening rise	254 Oct 18 j 01:34	3° \mathbb{M} 43'03	
evening max el	253 Dec 02 j 12:34	0° \mathbb{Z} 30'24	19°40'48		254 Nov 04 j 15:27	0° \mathbb{X}	
asc. node	253 Dec 09 j 06:31	4° \mathbb{Z} 45'46		greatest brilliancy	254 Nov 09 j 19:26	7° \mathbb{X} 06'06	-0.5m
retrograde	253 Dec 09 j 21:50	4° \mathbb{Z} 48'04		evening max el	254 Nov 15 j 14:20	13° \mathbb{X} 59'04	20°43'01
evening set	253 Dec 13 j 08:54	3° \mathbb{Z} 37'55		retrograde	254 Nov 23 j 19:27	18° \mathbb{X} 50'25	
	253 Dec 17 j 01:55	30° \mathbb{R} \mathbb{X}		asc. node	254 Nov 26 j 03:32	18° \mathbb{X} 19'28	
inferior conj	253 Dec 18 j 22:23	27° \mathbb{X} 37'38	2°53'00	evening set	254 Nov 27 j 15:52	17° \mathbb{X} 25'24	
minimum elong	253 Dec 18 j 19:36	27° \mathbb{X} 46'46	2°52'14	inferior conj	254 Dec 03 j 02:34	11° \mathbb{X} 13'48	2°13'24
min. Earth dist.	253 Dec 20 j 00:13	26° \mathbb{X} 12'40	0.66521 AU	minimum elong	254 Dec 03 j 00:01	11° \mathbb{X} 22'30	2°12'32
morning rise	253 Dec 24 j 05:36	21° \mathbb{X} 23'24		min. Earth dist.	254 Dec 03 j 15:52	10° \mathbb{X} 28'23	0.67256 AU
direct	253 Dec 30 j 06:58	18° \mathbb{X} 42'56		morning rise	254 Dec 08 j 07:41	4° \mathbb{X} 58'17	
morning max el	254 Jan 11 j 11:53	25° \mathbb{X} 58'07	25°38'16	direct	254 Dec 13 j 18:15	2° \mathbb{X} 35'49	
	254 Jan 15 j 05:11	0° \mathbb{Z}		morning max el	254 Dec 24 j 20:08	9° \mathbb{X} 12'23	24°14'19
desc. node	254 Jan 17 j 17:53	3° \mathbb{Z} 00'56		desc. node	255 Jan 04 j 14:55	22° \mathbb{X} 09'35	
	254 Feb 05 j 12:47	0° \approx			255 Jan 10 j 05:53	0° \mathbb{Z}	
morning set	254 Feb 16 j 17:19	19° \approx 12'38			255 Jan 29 j 04:50	0° \approx	
max. Earth dist.	254 Feb 20 j 13:17	26° \approx 20'57	1.36031 AU	morning set	255 Jan 29 j 14:56	0° \approx 43'41	
	254 Feb 22 j 10:55	0° \mathbb{X}		max. Earth dist.	255 Feb 02 j 09:28	7° \approx 23'31	1.37997 AU
superior conj	254 Feb 26 j 04:56	7° \mathbb{X} 23'46	-1°-23'-35	superior conj	255 Feb 09 j 10:24	20° \approx 28'25	-1°-44'-47
minimum elong	254 Feb 26 j 08:40	7° \mathbb{X} 42'29	1°23'04	minimum elong	255 Feb 09 j 14:14	20° \approx 46'43	1°44'27
evening rise	254 Mar 06 j 06:45	23° \mathbb{X} 50'29			255 Feb 14 j 07:48	0° \mathbb{X}	
asc. node	254 Mar 07 j 05:50	25° \mathbb{X} 47'16		evening rise	255 Feb 18 j 06:00	7° \mathbb{X} 45'42	
	254 Mar 09 j 08:34	0° \mathbb{Y}		asc. node	255 Feb 22 j 02:53	15° \mathbb{X} 16'57	
evening max el	254 Mar 24 j 00:26	22° \mathbb{Y} 32'26	19°59'11		255 Mar 02 j 22:11	0° \mathbb{Y}	
retrograde	254 Apr 03 j 05:06	27° \mathbb{Y} 26'11		evening max el	255 Mar 06 j 20:12	4° \mathbb{Y} 33'31	19°02'26
evening set	254 Apr 05 j 07:18	27° \mathbb{Y} 14'44		retrograde	255 Mar 15 j 10:18	8° \mathbb{Y} 42'04	
inferior conj	254 Apr 14 j 04:06	23° \mathbb{Y} 14'50	0°26'22	evening set	255 Mar 17 j 15:42	8° \mathbb{Y} 26'34	
minimum elong	254 Apr 14 j 05:16	23° \mathbb{Y} 13'04	0°25'56	inferior conj	255 Mar 25 j 18:18	4° \mathbb{Y} 12'25	2°05'37
desc. node	254 Apr 15 j 17:05	22° \mathbb{Y} 18'39		minimum elong	255 Mar 25 j 22:28	4° \mathbb{Y} 05'10	2°04'24
min. Earth dist.	254 Apr 16 j 05:15	22° \mathbb{Y} 00'24	0.55491 AU	min. Earth dist.	255 Mar 28 j 20:55	2° \mathbb{Y} 03'21	0.56856 AU
morning rise	254 Apr 23 j 00:16	18° \mathbb{Y} 47'47			255 Apr 01 j 07:26	30° \mathbb{R} \mathbb{X}	
direct	254 Apr 27 j 01:34	18° \mathbb{Y} 11'35		desc. node	255 Apr 02 j 14:07	29° \mathbb{X} 23'51	
morning max el	254 May 10 j 20:42	25° \mathbb{Y} 02'13	24°02'42	morning rise	255 Apr 03 j 01:04	29° \mathbb{X} 12'31	
	254 May 15 j 11:07	0° \mathbb{Z}		direct	255 Apr 08 j 05:00	28° \mathbb{X} 09'35	
	254 Jun 02 j 13:41	0° \mathbb{II}			255 Apr 15 j 02:39	0° \mathbb{Y}	
asc. node	254 Jun 03 j 05:04	1° \mathbb{II} 19'24		morning max el	255 Apr 22 j 11:19	5° \mathbb{Y} 31'52	25°38'52
morning set	254 Jun 04 j 08:23	3° \mathbb{II} 42'00			255 May 10 j 05:41	0° \mathbb{Z}	
superior conj	254 Jun 11 j 10:11	18° \mathbb{II} 55'17	1°17'03	morning set	255 May 19 j 20:08	18° \mathbb{Z} 39'33	
minimum elong	254 Jun 11 j 07:42	18° \mathbb{II} 41'53	1°16'41	asc. node	255 May 21 j 02:08	21° \mathbb{Z} 18'36	
max. Earth dist.	254 Jun 13 j 08:25	23° \mathbb{II} 03'47	1.33292 AU		255 May 25 j 02:20	0° \mathbb{II}	
	254 Jun 16 j 15:26	0° \mathbb{S}		superior conj	255 May 26 j 20:50	3° \mathbb{II} 52'39	0°57'43
evening rise	254 Jun 18 j 20:41	4° \mathbb{S} 32'13		minimum elong	255 May 26 j 18:39	3° \mathbb{II} 40'39	0°57'18
	254 Jul 02 j 21:25	0° \mathbb{Q}		max. Earth dist.	255 May 27 j 17:35	5° \mathbb{II} 46'06	1.32627 AU
desc. node	254 Jul 12 j 16:22	14° \mathbb{Q} 21'32		evening rise	255 Jun 02 j 23:34	19° \mathbb{II} 06'42	
evening max el	254 Jul 22 j 05:59	25° \mathbb{Q} 19'17	27°25'22		255 Jun 08 j 11:10	0° \mathbb{S}	
	254 Jul 28 j 02:10	0° \mathbb{P}			255 Jun 27 j 09:32	0° \mathbb{Q}	
retrograde	254 Aug 04 j 21:44	2° \mathbb{P} 38'48		desc. node	255 Jun 29 j 13:24	2° \mathbb{Q} 37'29	
evening set	254 Aug 12 j 01:58	29° \mathbb{Q} 59'44		evening max el	255 Jul 04 j 13:23	7° \mathbb{Q} 56'38	27°12'30
	254 Aug 12 j 01:49	30° \mathbb{R} \mathbb{Q}		retrograde	255 Jul 18 j 10:16	15° \mathbb{Q} 13'13	
min. Earth dist.	254 Aug 15 j 17:15	26° \mathbb{Q} 48'03	0.63615 AU	evening set	255 Jul 25 j 12:58	12° \mathbb{Q} 53'09	
inferior conj	254 Aug 18 j 07:40	24° \mathbb{Q} 08'52	-3°-33'-2	min. Earth dist.	255 Jul 29 j 03:30	10° \mathbb{Q} 06'29	0.61777 AU
minimum elong	254 Aug 18 j 12:29	23° \mathbb{Q} 56'33	3°31'43	inferior conj	255 Aug 01 j 05:25	7° \mathbb{Q} 19'34	-4°-15'-53
morning rise	254 Aug 25 j 01:11	18° \mathbb{Q} 49'43		minimum elong	255 Aug 01 j 09:51	7° \mathbb{Q} 09'28	4°15'04
direct	254 Aug 27 j 13:13	18° \mathbb{Q} 19'09		morning rise	255 Aug 08 j 09:29	2° \mathbb{Q} 20'39	
asc. node	254 Aug 30 j 04:16	18° \mathbb{Q} 53'21		direct	255 Aug 10 j 19:40	1° \mathbb{Q} 55'34	
morning max el	254 Sep 03 j 02:56	21° \mathbb{Q} 44'53	17°54'12	asc. node	255 Aug 17 j 01:19	4° \mathbb{Q} 45'57	
	254 Sep 09 j 10:41	0° \mathbb{P}		morning max el	255 Aug 17 j 17:32	5° \mathbb{Q} 23'50	17°56'28
morning set	254 Sep 19 j 19:29	17° \mathbb{P} 27'26			255 Sep 02 j 10:26	0° \mathbb{P}	
	254 Sep 27 j 02:40	0° \mathbb{L}		morning set	255 Sep 02 j 15:55	0° \mathbb{P} 25'00	
superior conj	254 Oct 02 j 04:19	8° \mathbb{L} 27'59	0°42'16	superior conj	255 Sep 13 j 07:22	19° \mathbb{P} 26'16	1°15'47
minimum elong	254 Oct 02 j 08:29	8° \mathbb{L} 45'09	0°41'43	minimum elong	255 Sep 13 j 12:09	19° \mathbb{P} 47'02	1°15'15

	255 Sep 19 j 12:56	0°♄		superior conj	256 Aug 25 j 11:09	1°♄38'00	1°36'28
max. Earth dist.	255 Sep 20 j 17:02	1°♄55'58	1.42594 AU	minimum elong	256 Aug 25 j 14:20	1°♄52'29	1°36'14
desc. node	255 Sep 25 j 12:43	9°♄44'06		max. Earth dist.	256 Sep 02 j 00:26	14°♄59'41	1.40736 AU
evening rise	255 Sep 27 j 12:51	12°♄54'46		evening rise	256 Sep 06 j 18:42	22°♄58'31	
	255 Oct 08 j 17:32	0°♄		desc. node	256 Sep 11 j 09:44	0°♄25'43	
greatest brilliancy	255 Oct 24 j 16:10	22°♄04'47	-0.4m		256 Sep 11 j 03:14	0°♄	
evening max el	255 Oct 29 j 10:28	27°♄29'02	21°56'05		256 Oct 01 j 17:42	0°♄	
	255 Nov 01 j 03:49	0°♄		evening max el	256 Oct 11 j 01:36	11°♄00'08	23°15'22
retrograde	255 Nov 07 j 15:52	2°♄58'09		retrograde	256 Oct 21 j 09:38	17°♄07'22	
evening set	255 Nov 11 j 23:43	1°♄16'19		evening set	256 Oct 26 j 06:42	15°♄07'32	
asc. node	255 Nov 13 j 00:34	0°♄21'13		asc. node	256 Oct 29 j 21:38	11°♄08'23	
	255 Nov 13 j 09:01	30°♄		inferior conj	256 Oct 31 j 16:21	8°♄43'49	0°36'39
inferior conj	255 Nov 17 j 09:10	24°♄56'47	1°27'27	minimum elong	256 Oct 31 j 15:29	8°♄46'45	0°36'17
minimum elong	255 Nov 17 j 07:18	25°♄03'17	1°26'42	min. Earth dist.	256 Oct 31 j 07:49	9°♄13'06	0.67677 AU
min. Earth dist.	255 Nov 17 j 11:12	24°♄49'46	0.67634 AU	morning rise	256 Nov 06 j 00:21	2°♄32'35	
morning rise	255 Nov 22 j 14:39	18°♄42'16		direct	256 Nov 10 j 05:02	0°♄55'01	
direct	255 Nov 27 j 09:57	16°♄41'56		morning max el	256 Nov 18 j 21:18	5°♄59'41	21°22'52
morning max el	255 Dec 07 j 06:06	22°♄32'02	22°46'23	greatest brilliancy	256 Nov 24 j 01:11	11°♄54'44	-0.4m
greatest brilliancy	255 Dec 11 j 21:47	27°♄44'10	-0.3m		256 Dec 07 j 01:23	0°♄	
	255 Dec 13 j 17:43	0°♄		desc. node	256 Dec 08 j 08:59	1°♄57'02	
desc. node	255 Dec 22 j 11:57	11°♄51'37		morning set	256 Dec 19 j 23:24	19°♄43'24	
	256 Jan 03 j 14:36	0°♄			256 Dec 26 j 09:00	0°♄	
morning set	256 Jan 10 j 09:31	10°♄53'56		max. Earth dist.	256 Dec 27 j 06:53	1°♄29'40	1.42143 AU
max. Earth dist.	256 Jan 15 j 05:16	18°♄59'41	1.40135 AU				
	256 Jan 21 j 11:47	0°♄		superior conj	257 Jan 03 j 15:59	13°♄55'17	-2°-1'-45
				minimum elong	257 Jan 03 j 14:40	13°♄49'36	2°01'45
superior conj	256 Jan 22 j 23:55	2°♄43'29	-1°-58'-53		257 Jan 12 j 17:48	0°♄	
minimum elong	256 Jan 23 j 02:15	2°♄54'09	1°58'49	evening rise	257 Jan 14 j 20:56	3°♄52'01	
evening rise	256 Feb 01 j 19:58	21°♄09'03		asc. node	257 Jan 25 j 20:58	22°♄56'34	
	256 Feb 06 j 13:12	0°♄			257 Jan 31 j 08:39	0°♄	
asc. node	256 Feb 08 j 23:56	4°♄22'41		evening max el	257 Jan 31 j 10:18	0°♄04'06	18°08'48
evening max el	256 Feb 18 j 00:31	17°♄06'54	18°25'36	retrograde	257 Feb 07 j 04:09	3°♄30'24	
retrograde	256 Feb 25 j 10:36	20°♄46'20		evening set	257 Feb 09 j 18:55	2°♄59'42	
evening set	256 Feb 27 j 20:56	20°♄23'57			257 Feb 14 j 09:23	30°♄	
inferior conj	256 Mar 06 j 05:31	15°♄49'12	3°10'28	inferior conj	257 Feb 16 j 12:35	28°♄03'23	3°42'32
minimum elong	256 Mar 06 j 09:12	15°♄41'39	3°09'46	minimum elong	257 Feb 16 j 14:11	27°♄59'35	3°42'24
min. Earth dist.	256 Mar 09 j 15:57	13°♄02'33	0.58771 AU	min. Earth dist.	257 Feb 19 j 17:29	25°♄03'02	0.60878 AU
morning rise	256 Mar 13 j 17:40	10°♄20'50		morning rise	257 Feb 23 j 06:33	22°♄15'19	
desc. node	256 Mar 19 j 11:09	8°♄42'15		direct	257 Mar 02 j 01:27	20°♄00'30	
direct	256 Mar 19 j 21:34	8°♄41'46		desc. node	257 Mar 06 j 08:12	20°♄49'51	
morning max el	256 Apr 03 j 05:45	16°♄21'52	26°54'59	morning max el	257 Mar 16 j 06:34	27°♄50'32	27°39'02
	256 Apr 14 j 09:34	0°♄			257 Mar 18 j 08:40	0°♄	
	256 May 01 j 13:23	0°♄			257 Apr 08 j 01:51	0°♄	
morning set	256 May 03 j 06:12	3°♄30'57		morning set	257 Apr 17 j 12:46	18°♄09'53	
asc. node	256 May 06 j 23:13	11°♄25'50			257 Apr 23 j 02:32	0°♄	
				asc. node	257 Apr 23 j 20:17	1°♄36'40	
superior conj	256 May 10 j 08:35	18°♄51'04	0°35'13	max. Earth dist.	257 Apr 23 j 18:11	1°♄25'14	1.32391 AU
minimum elong	256 May 10 j 07:06	18°♄42'51	0°34'55				
max. Earth dist.	256 May 10 j 06:10	18°♄37'44	1.32327 AU	superior conj	257 Apr 24 j 19:46	3°♄44'57	0°10'21
	256 May 15 j 11:18	0°♄		minimum elong	257 Apr 24 j 19:18	3°♄42'21	0°10'16
evening rise	256 May 17 j 07:31	3°♄54'39		behind sun begin	257 Apr 24 j 15:25	3°♄21'08	
	256 May 31 j 07:17	0°♄		behind sun end	257 Apr 24 j 23:10	4°♄03'35	
desc. node	256 Jun 15 j 10:26	19°♄40'19		evening rise	257 May 01 j 18:21	18°♄48'37	
evening max el	256 Jun 15 j 14:39	19°♄50'23	26°26'37		257 May 07 j 06:36	0°♄	
retrograde	256 Jun 29 j 14:36	27°♄03'58			257 May 27 j 08:57	0°♄	
evening set	256 Jul 06 j 04:28	25°♄15'32		evening max el	257 May 28 j 08:55	0°♄59'04	25°12'07
min. Earth dist.	256 Jul 10 j 03:44	22°♄38'57	0.59738 AU	desc. node	257 Jun 02 j 07:27	5°♄00'35	
inferior conj	256 Jul 13 j 11:45	20°♄01'34	-4°-42'-48	retrograde	257 Jun 11 j 09:20	8°♄07'37	
minimum elong	256 Jul 13 j 13:55	19°♄57'16	4°42'40	evening set	257 Jun 16 j 21:00	6°♄57'57	
morning rise	256 Jul 21 j 02:44	15°♄25'31		min. Earth dist.	257 Jun 21 j 20:36	4°♄12'54	0.57722 AU
direct	256 Jul 23 j 13:29	15°♄03'56		inferior conj	257 Jun 24 j 23:19	2°♄05'30	-4°-42'-53
morning max el	256 Jul 31 j 03:54	18°♄44'13	18°18'16	minimum elong	257 Jun 24 j 21:09	2°♄09'14	4°42'46
asc. node	256 Aug 02 j 22:24	21°♄48'53			257 Jun 28 j 04:28	30°♄	
	256 Aug 08 j 09:56	0°♄		morning rise	257 Jul 03 j 01:10	27°♄52'06	
morning set	256 Aug 16 j 02:38	14°♄03'55		direct	257 Jul 05 j 14:09	27°♄32'50	
	256 Aug 24 j 13:46	0°♄			257 Jul 12 j 08:22	0°♄	
				morning max el	257 Jul 14 j 07:05	1°♄37'30	19°00'41

asc. node	257 Jul 20 j 19:29	9°♄47'26		asc. node	258 Jul 07 j 16:32	28°♄27'49	
morning set	257 Jul 30 j 23:30	28°♄13'35			258 Jul 08 j 13:18	0°♄	
	257 Jul 31 j 21:03	0°♄		morning set	258 Jul 15 j 03:19	12°♄44'33	
superior conj	257 Aug 08 j 10:09	14°♄47'58	1°45'49	superior conj	258 Jul 22 j 22:56	28°♄39'37	1°46'04
minimum elong	257 Aug 08 j 11:11	14°♄52'59	1°45'48	minimum elong	258 Jul 22 j 22:13	28°♄35'57	1°46'03
max. Earth dist.	257 Aug 15 j 03:45	27°♄19'58	1.38713 AU		258 Jul 23 j 15:01	0°♄	
	257 Aug 16 j 15:35	0°♄		max. Earth dist.	258 Jul 28 j 08:12	9°♄12'10	1.36779 AU
evening rise	257 Aug 19 j 01:19	4°♄12'34		evening rise	258 Aug 01 j 06:48	16°♄32'24	
desc. node	257 Aug 29 j 06:46	20°♄59'06			258 Aug 09 j 00:48	0°♄	
	257 Sep 04 j 06:00	0°♄		desc. node	258 Aug 16 j 03:48	11°♄18'34	
evening max el	257 Sep 23 j 13:47	24°♄34'38	24°34'39		258 Aug 29 j 16:23	0°♄	
	257 Sep 30 j 12:07	0°♄		evening max el	258 Sep 06 j 01:20	8°♄12'03	25°46'48
retrograde	257 Oct 04 j 23:45	1°♄14'49		retrograde	258 Sep 18 j 09:17	15°♄15'14	
	257 Oct 09 j 01:23	30°♄		evening set	258 Sep 24 j 11:17	12°♄42'41	
evening set	257 Oct 10 j 11:10	28°♄57'21		min. Earth dist.	258 Sep 28 j 19:29	7°♄58'04	0.66794 AU
min. Earth dist.	257 Oct 15 j 03:23	23°♄36'47	0.67401 AU	inferior conj	258 Sep 30 j 01:26	6°♄22'55	-1°-13'-39
inferior conj	257 Oct 15 j 22:22	22°♄33'25	0°-17'-31	minimum elong	258 Sep 30 j 03:18	6°♄16'57	1°12'54
minimum elong	257 Oct 15 j 22:48	22°♄31'59	0°17'22	asc. node	258 Oct 03 j 15:42	2°♄11'37	
asc. node	257 Oct 16 j 18:40	21°♄26'04		morning rise	258 Oct 05 j 20:07	0°♄26'09	
morning rise	257 Oct 21 j 10:50	16°♄28'00			258 Oct 06 j 15:32	30°♄	
direct	257 Oct 25 j 02:33	15°♄11'15		direct	258 Oct 09 j 01:01	29°♄26'56	
morning max el	257 Nov 01 j 19:53	19°♄37'44	20°09'45		258 Oct 11 j 12:23	0°♄	
greatest brilliancy	257 Nov 08 j 17:47	28°♄00'13	-0.6m	morning max el	258 Oct 16 j 01:52	3°♄24'43	19°10'42
	257 Nov 10 j 04:40	0°♄			258 Nov 03 j 20:50	0°♄	
desc. node	257 Nov 25 j 06:01	22°♄19'18		morning set	258 Nov 08 j 00:41	6°♄29'13	
morning set	257 Nov 28 j 20:17	27°♄51'13		desc. node	258 Nov 12 j 03:03	12°♄53'26	
	257 Nov 30 j 05:32	0°♄		max. Earth dist.	258 Nov 22 j 06:42	28°♄48'56	1.44756 AU
max. Earth dist.	257 Dec 09 j 15:44	14°♄50'26	1.43749 AU		258 Nov 23 j 00:43	0°♄	
superior conj	257 Dec 15 j 05:59	23°♄54'05	-1°-48'-43	superior conj	258 Nov 24 j 18:50	2°♄46'35	-1°-17'-10
minimum elong	257 Dec 14 j 23:43	23°♄28'26	1°48'18	minimum elong	258 Nov 24 j 10:32	2°♄13'41	1°16'18
	257 Dec 18 j 22:27	0°♄		evening rise	258 Dec 09 j 15:00	26°♄44'05	
evening rise	257 Dec 28 j 04:42	15°♄46'06			258 Dec 11 j 14:36	0°♄	
	258 Jan 05 j 12:05	0°♄		evening max el	258 Dec 29 j 10:44	26°♄40'13	18°32'42
asc. node	258 Jan 12 j 18:00	10°♄48'50		asc. node	258 Dec 30 j 15:00	27°♄47'26	
evening max el	258 Jan 14 j 22:36	13°♄17'19	18°11'27		259 Jan 03 j 04:28	0°♄	
retrograde	258 Jan 21 j 10:22	16°♄44'05		retrograde	259 Jan 05 j 01:00	0°♄18'54	
evening set	258 Jan 24 j 05:32	16°♄04'02			259 Jan 06 j 21:04	30°♄	
inferior conj	258 Jan 30 j 11:46	10°♄47'10	3°49'08	evening set	259 Jan 08 j 01:17	29°♄28'19	
minimum elong	258 Jan 30 j 11:17	10°♄48'29	3°49'06	inferior conj	259 Jan 13 j 23:06	23°♄52'40	3°37'16
min. Earth dist.	258 Feb 02 j 03:53	7°♄56'33	0.62885 AU	minimum elong	259 Jan 13 j 21:10	23°♄58'24	3°37'01
morning rise	258 Feb 05 j 15:01	4°♄47'00		min. Earth dist.	259 Jan 15 j 23:52	21°♄29'01	0.64602 AU
direct	258 Feb 12 j 14:38	2°♄06'36		morning rise	259 Jan 19 j 15:45	17°♄45'06	
desc. node	258 Feb 21 j 05:13	5°♄25'38		direct	259 Jan 26 j 11:15	14°♄54'08	
morning max el	258 Feb 26 j 12:48	9°♄59'53	27°45'58	desc. node	259 Feb 08 j 02:14	21°♄53'22	
	258 Mar 14 j 04:07	0°♄		morning max el	259 Feb 08 j 21:54	22°♄41'40	27°17'44
	258 Mar 31 j 07:48	0°♄			259 Feb 15 j 09:25	0°♄	
morning set	258 Apr 01 j 13:32	2°♄28'22			259 Mar 07 j 09:40	0°♄	
max. Earth dist.	258 Apr 07 j 01:38	13°♄54'14	1.32849 AU	morning set	259 Mar 16 j 05:44	16°♄17'21	
				max. Earth dist.	259 Mar 21 j 00:38	25°♄53'24	1.33737 AU
superior conj	258 Apr 09 j 04:37	18°♄27'54	0°-16'-6		259 Mar 23 j 00:10	0°♄	
minimum elong	258 Apr 09 j 05:23	18°♄32'03	0°15'56	superior conj	259 Mar 24 j 09:16	2°♄53'59	0°-43'-7
asc. node	258 Apr 10 j 17:19	21°♄46'29		minimum elong	259 Mar 24 j 11:21	3°♄05'01	0°42'43
	258 Apr 14 j 12:35	0°♄		asc. node	259 Mar 28 j 14:21	11°♄51'29	
evening rise	258 Apr 16 j 06:09	3°♄41'29		evening rise	259 Mar 31 j 17:08	18°♄27'13	
	258 Apr 30 j 13:39	0°♄			259 Apr 06 j 11:05	0°♄	
evening max el	258 May 09 j 23:18	11°♄37'11	23°40'04	evening max el	259 Apr 21 j 16:36	22°♄13'58	22°05'16
desc. node	258 May 20 j 04:29	18°♄01'13		retrograde	259 May 04 j 10:14	28°♄28'50	
retrograde	258 May 23 j 16:05	18°♄28'51		evening set	259 May 07 j 04:52	28°♄11'46	
evening set	258 May 27 j 16:46	17°♄53'04		desc. node	259 May 07 j 01:29	28°♄13'25	
min. Earth dist.	258 Jun 03 j 09:58	14°♄44'18	0.56066 AU	min. Earth dist.	259 May 15 j 22:33	24°♄27'20	0.55118 AU
inferior conj	258 Jun 05 j 14:40	13°♄24'55	-4°-3'-7	inferior conj	259 May 16 j 13:48	24°♄05'54	-2°-37'-35
minimum elong	258 Jun 05 j 08:08	13°♄34'48	4°01'50	minimum elong	259 May 16 j 07:05	24°♄15'21	2°35'30
morning rise	258 Jun 14 j 03:02	9°♄27'46		morning rise	259 May 25 j 10:52	20°♄11'33	
direct	258 Jun 16 j 19:19	9°♄09'42		direct	259 May 28 j 09:44	19°♄52'01	
morning max el	258 Jun 27 j 00:16	13°♄53'05	20°04'09				

morning max el	259 Jun 09 j 06:09	25°♄25'10	21°27'10		260 May 06 j 03:00	30°♈♿	
	259 Jun 13 j 11:38	0°♈		direct	260 May 07 j 20:32	29°♿53'26	
asc. node	259 Jun 24 j 13:35	17°♈40'00			260 May 09 j 13:42	0°♄	
morning set	259 Jun 29 j 11:43	27°♈30'29		morning max el	260 May 21 j 02:14	6°♄17'40	23°04'29
	259 Jun 30 j 16:29	0°♄			260 Jun 06 j 17:17	0°♈	
				asc. node	260 Jun 10 j 10:38	7°♈15'47	
superior conj	259 Jul 06 j 21:26	13°♄00'54	1°39'05	morning set	260 Jun 12 j 22:47	12°♈25'45	
minimum elong	259 Jul 06 j 19:32	12°♄51'05	1°38'57				
max. Earth dist.	259 Jul 10 j 19:53	21°♄04'02	1.35129 AU	superior conj	260 Jun 20 j 02:30	27°♈42'32	1°26'26
evening rise	259 Jul 15 j 06:27	29°♄45'45		minimum elong	260 Jun 20 j 00:05	27°♈29'34	1°26'08
	259 Jul 15 j 09:27	0°♈			260 Jun 21 j 04:20	0°♄	
	259 Aug 02 j 03:46	0°♈		max. Earth dist.	260 Jun 22 j 17:14	3°♄14'41	1.33848 AU
desc. node	259 Aug 03 j 00:50	1°♈17'30		evening rise	260 Jun 27 j 19:37	13°♄39'34	
evening max el	259 Aug 19 j 13:21	21°♈47'14	26°43'53		260 Jul 06 j 14:20	0°♈	
retrograde	259 Sep 01 j 13:33	29°♈02'21		desc. node	260 Jul 19 j 21:51	20°♈47'11	
evening set	259 Sep 08 j 04:56	26°♈19'59			260 Jul 27 j 03:55	0°♈	
min. Earth dist.	259 Sep 12 j 05:39	22°♈12'53	0.65842 AU	evening max el	260 Aug 01 j 01:09	5°♈09'58	27°18'21
inferior conj	259 Sep 13 j 23:34	20°♈08'40	-2°-10'00	retrograde	260 Aug 14 j 12:08	12°♈28'57	
minimum elong	259 Sep 14 j 02:53	19°♈58'50	2°08'45	evening set	260 Aug 21 j 13:31	9°♈45'14	
morning rise	259 Sep 20 j 02:05	14°♈23'50		min. Earth dist.	260 Aug 25 j 07:35	6°♈14'53	0.64530 AU
asc. node	259 Sep 20 j 12:45	14°♈10'51		inferior conj	260 Aug 27 j 14:31	3°♈46'13	-3°-4'-10
direct	259 Sep 22 j 22:32	13°♈38'25		minimum elong	260 Aug 27 j 18:59	3°♈34'07	3°02'44
morning max el	259 Sep 29 j 13:39	17°♈16'48	18°27'34		260 Aug 31 j 10:10	30°♈♈	
	259 Oct 09 j 00:09	0°♈		morning rise	260 Sep 03 j 02:14	28°♈16'50	
morning set	259 Oct 19 j 06:48	16°♈26'21		direct	260 Sep 05 j 16:43	27°♈41'41	
	259 Oct 27 j 17:51	0°♈		asc. node	260 Sep 06 j 09:48	27°♈44'20	
desc. node	259 Oct 30 j 00:05	3°♈35'10			260 Sep 10 j 22:46	0°♈	
				morning max el	260 Sep 12 j 04:51	1°♈09'24	18°01'24
superior conj	259 Nov 03 j 19:26	11°♈10'24	0°-31'-17	morning set	260 Sep 29 j 17:17	27°♈46'42	
minimum elong	259 Nov 03 j 15:20	10°♈54'14	0°30'45		260 Oct 01 j 00:54	0°♈	
max. Earth dist.	259 Nov 05 j 01:20	13°♈07'57	1.45052 AU				
	259 Nov 15 j 19:05	0°♈		superior conj	260 Oct 13 j 05:49	20°♈07'42	0°17'27
evening rise	259 Nov 20 j 01:34	6°♈43'34		minimum elong	260 Oct 13 j 07:51	20°♈15'54	0°17'10
greatest brilliancy	259 Dec 02 j 12:00	26°♈12'03	-0.7m	desc. node	260 Oct 15 j 21:08	24°♈21'24	
	259 Dec 05 j 00:50	0°♈		max. Earth dist.	260 Oct 17 j 20:14	27°♈28'36	1.44605 AU
evening max el	259 Dec 12 j 20:14	10°♈07'10	19°11'20		260 Oct 19 j 10:33	0°♈	
asc. node	259 Dec 17 j 12:02	13°♈37'24		evening rise	260 Oct 29 j 16:06	15°♈56'36	
retrograde	259 Dec 19 j 20:28	14°♈07'49			260 Nov 07 j 20:37	0°♈	
evening set	259 Dec 23 j 03:12	13°♈05'10		greatest brilliancy	260 Nov 18 j 04:34	15°♈07'44	-0.6m
inferior conj	259 Dec 28 j 19:07	7°♈13'01	3°12'05	evening max el	260 Nov 25 j 01:13	23°♈35'47	20°05'35
minimum elong	259 Dec 28 j 16:27	7°♈21'29	3°11'30	retrograde	260 Dec 02 j 18:04	28°♈06'49	
min. Earth dist.	259 Dec 30 j 04:51	5°♈25'44	0.65940 AU	asc. node	260 Dec 03 j 09:04	28°♈04'36	
morning rise	260 Jan 03 j 04:52	1°♈00'48		evening set	260 Dec 06 j 08:58	26°♈50'22	
	260 Jan 04 j 11:17	30°♈♈		inferior conj	260 Dec 11 j 21:02	20°♈44'41	2°37'05
direct	260 Jan 09 j 13:59	28°♈13'28		minimum elong	260 Dec 11 j 18:17	20°♈53'52	2°36'15
	260 Jan 15 j 06:33	0°♈		min. Earth dist.	260 Dec 12 j 17:15	19°♈36'56	0.66885 AU
morning max el	260 Jan 22 j 07:25	5°♈43'32	26°20'39	morning rise	260 Dec 17 j 03:04	14°♈29'47	
desc. node	260 Jan 25 j 23:16	9°♈40'41		direct	260 Dec 22 j 22:15	11°♈56'33	
	260 Feb 10 j 00:34	0°♈		morning max el	261 Jan 03 j 16:13	18°♈56'08	25°03'40
morning set	260 Feb 27 j 09:34	29°♈24'29		desc. node	261 Jan 11 j 20:20	28°♈24'46	
	260 Feb 27 j 17:08	0°♈			261 Jan 13 j 01:41	0°♈	
max. Earth dist.	260 Mar 02 j 12:26	7°♈18'37	1.35076 AU		261 Feb 02 j 02:46	0°♈	
				morning set	261 Feb 08 j 20:02	11°♈35'41	
superior conj	260 Mar 07 j 07:21	16°♈55'08	-1°-9'-27	max. Earth dist.	261 Feb 12 j 13:24	18°♈22'43	1.36842 AU
minimum elong	260 Mar 07 j 10:37	17°♈11'51	1°08'55				
	260 Mar 13 j 14:46	0°♈		superior conj	261 Feb 18 j 19:58	0°♈23'17	-1°-33'-13
asc. node	260 Mar 14 j 11:22	1°♈46'40		minimum elong	261 Feb 18 j 23:53	0°♈42'33	1°32'45
evening rise	260 Mar 15 j 01:21	2°♈58'44			261 Feb 18 j 15:14	0°♈	
	260 Mar 30 j 18:55	0°♈		evening rise	261 Feb 27 j 04:39	17°♈09'38	
evening max el	260 Apr 02 j 18:49	3°♈15'23	20°40'20	asc. node	261 Mar 01 j 08:25	21°♈27'22	
retrograde	260 Apr 13 j 23:05	8°♈39'17			261 Mar 05 j 20:33	0°♈	
evening set	260 Apr 16 j 03:17	8°♈27'51		evening max el	261 Mar 16 j 08:23	14°♈54'27	19°32'27
desc. node	260 Apr 22 j 22:29	5°♈51'15		retrograde	261 Mar 25 j 19:44	19°♈27'40	
inferior conj	260 Apr 25 j 08:04	4°♈30'23	0°-41'-24	evening set	261 Mar 27 j 22:42	19°♈14'57	
minimum elong	260 Apr 25 j 06:06	4°♈33'12	0°40'42	inferior conj	261 Apr 05 j 12:02	15°♈09'44	1°12'18
min. Earth dist.	260 Apr 26 j 11:32	3°♈50'57	0.55086 AU	minimum elong	261 Apr 05 j 14:56	15°♈05'03	1°11'20
morning rise	260 May 04 j 07:36	0°♈20'27		min. Earth dist.	261 Apr 08 j 01:57	13°♈30'53	0.55985 AU

desc. node	261 Apr 09 j 19:32	12°♄28'42		minimum elong	262 Mar 17 j 15:27	26°♄16'47	2°36'23
morning rise	261 Apr 14 j 03:33	10°♄28'51		min. Earth dist.	262 Mar 20 j 19:08	23°♄56'51	0.57620 AU
direct	261 Apr 18 j 15:40	9°♄43'09		morning rise	262 Mar 25 j 10:13	21°♄11'20	
morning max el	261 May 02 j 17:19	16°♄48'48	24°45'16	desc. node	262 Mar 27 j 16:34	20°♄21'36	
	261 May 13 j 10:08	0°♄		direct	262 Mar 31 j 00:56	19°♄53'41	
morning set	261 May 28 j 10:45	27°♄24'19		morning max el	262 Apr 14 j 09:19	27°♄25'45	26°14'32
asc. node	261 May 28 j 07:41	27°♄08'12			262 Apr 16 j 21:07	0°♄	
	261 May 29 j 16:07	0°♄			262 May 06 j 18:15	0°♄	
				morning set	262 May 12 j 22:02	12°♄20'41	
superior conj	261 Jun 04 j 11:43	12°♄36'17	1°09'16	asc. node	262 May 15 j 04:46	17°♄11'52	
minimum elong	261 Jun 04 j 09:18	12°♄23'10	1°08'52				
max. Earth dist.	261 Jun 05 j 22:53	15°♄46'57	1.32958 AU	superior conj	262 May 19 j 23:06	27°♄35'37	0°48'30
evening rise	261 Jun 11 j 18:23	28°♄01'57		minimum elong	262 May 19 j 21:09	27°♄24'58	0°48'08
	261 Jun 12 j 17:41	0°♄		max. Earth dist.	262 May 20 j 09:51	28°♄34'36	1.32449 AU
	261 Jun 29 j 20:05	0°♄			262 May 21 j 01:26	0°♄	
desc. node	261 Jul 06 j 18:53	9°♄34'51		evening rise	262 May 26 j 23:44	12°♄43'35	
evening max el	261 Jul 14 j 10:36	18°♄06'34	27°23'57		262 Jun 04 j 20:54	0°♄	
retrograde	261 Jul 28 j 04:37	25°♄25'13		desc. node	262 Jun 23 j 15:53	27°♄22'58	
evening set	261 Aug 04 j 09:35	22°♄52'09			262 Jun 26 j 04:43	0°♄	
min. Earth dist.	261 Aug 07 j 23:37	19°♄52'59	0.62864 AU	evening max el	262 Jun 26 j 15:27	0°♄25'48	26°56'53
inferior conj	261 Aug 10 j 19:26	17°♄08'32	-3°-52'-39	retrograde	262 Jul 10 j 14:10	7°♄42'04	
minimum elong	261 Aug 11 j 00:17	16°♄56'44	3°51'30	evening set	262 Jul 17 j 12:54	5°♄33'51	
morning rise	261 Aug 17 j 17:24	11°♄57'57		min. Earth dist.	262 Jul 21 j 05:27	2°♄53'40	0.60919 AU
direct	261 Aug 20 j 04:22	11°♄30'01		inferior conj	262 Jul 24 j 11:03	0°♄08'03	-4°-29'-50
asc. node	261 Aug 24 j 06:53	12°♄49'31		minimum elong	262 Jul 24 j 14:49	29°♄59'59	4°29'20
morning max el	261 Aug 26 j 20:33	14°♄55'30	17°52'58		262 Jul 24 j 14:48	30°♄	
	261 Sep 06 j 07:25	0°♄		morning rise	262 Jul 31 j 19:48	25°♄18'55	
morning set	261 Sep 12 j 03:01	10°♄13'04		direct	262 Aug 03 j 05:49	24°♄55'41	
				morning max el	262 Aug 10 j 09:47	28°♄27'54	18°03'17
superior conj	261 Sep 23 j 16:59	0°♄19'07	0°58'04	asc. node	262 Aug 11 j 03:58	29°♄13'56	
minimum elong	261 Sep 23 j 21:50	0°♄39'29	0°57'27		262 Aug 11 j 20:45	0°♄	
	261 Sep 23 j 12:27	0°♄		morning set	262 Aug 26 j 06:03	23°♄29'13	
max. Earth dist.	261 Sep 30 j 11:37	11°♄29'11	1.43482 AU		262 Aug 29 j 18:24	0°♄	
desc. node	261 Oct 02 j 18:11	15°♄08'20		superior conj	262 Sep 05 j 07:09	11°♄50'02	1°26'03
evening rise	261 Oct 08 j 23:12	24°♄54'22		minimum elong	262 Sep 05 j 11:24	12°♄08'54	1°25'40
	261 Oct 12 j 06:34	0°♄		max. Earth dist.	262 Sep 12 j 21:28	24°♄54'16	1.41836 AU
	261 Nov 02 j 00:27	0°♄			262 Sep 15 j 23:34	0°♄	
greatest brilliancy	261 Nov 02 j 18:57	0°♄59'23	-0.4m	evening rise	262 Sep 18 j 16:52	4°♄23'40	
evening max el	261 Nov 08 j 00:27	7°♄04'15	21°12'56	desc. node	262 Sep 19 j 15:13	5°♄52'47	
retrograde	261 Nov 16 j 15:33	12°♄11'53			262 Oct 05 j 14:58	0°♄	
asc. node	261 Nov 20 j 06:07	10°♄58'47		greatest brilliancy	262 Oct 16 j 23:31	15°♄12'04	-0.3m
evening set	261 Nov 20 j 16:34	10°♄39'50		evening max el	262 Oct 21 j 18:10	20°♄33'47	22°29'27
inferior conj	261 Nov 26 j 02:31	4°♄24'07	1°54'38	retrograde	262 Oct 31 j 11:05	26°♄19'58	
minimum elong	261 Nov 26 j 00:12	4°♄32'05	1°53'46	evening set	262 Nov 05 j 00:13	24°♄30'45	
min. Earth dist.	261 Nov 26 j 10:50	3°♄55'26	0.67455 AU	asc. node	262 Nov 07 j 03:10	22°♄24'40	
	261 Nov 29 j 11:41	30°♄		inferior conj	262 Nov 10 j 09:35	18°♄08'50	1°06'26
morning rise	261 Dec 01 j 07:30	28°♄08'38		minimum elong	262 Nov 10 j 08:06	18°♄13'58	1°05'49
direct	261 Dec 06 j 11:25	25°♄55'30		min. Earth dist.	262 Nov 10 j 07:07	18°♄17'23	0.67685 AU
	261 Dec 14 j 16:31	0°♄		morning rise	262 Nov 15 j 15:51	11°♄55'09	
morning max el	261 Dec 17 j 01:01	2°♄13'17	23°36'54	direct	262 Nov 20 j 04:44	10°♄04'30	
desc. node	261 Dec 29 j 17:23	17°♄49'01		morning max el	262 Nov 29 j 12:44	15°♄35'18	22°09'51
	262 Jan 07 j 03:42	0°♄		greatest brilliancy	262 Dec 04 j 04:52	20°♄50'46	-0.4m
morning set	262 Jan 21 j 06:57	22°♄34'47			262 Dec 11 j 04:25	0°♄	
max. Earth dist.	262 Jan 25 j 08:30	29°♄36'00	1.38900 AU	desc. node	262 Dec 16 j 14:26	7°♄41'44	
	262 Jan 25 j 13:58	0°♄			262 Dec 31 j 04:53	0°♄	
superior conj	262 Feb 01 j 19:17	13°♄08'36	-1°-51'-51	morning set	263 Jan 01 j 12:58	2°♄08'57	
minimum elong	262 Feb 01 j 22:43	13°♄24'43	1°51'38	max. Earth dist.	263 Jan 07 j 05:39	11°♄31'24	1.41014 AU
	262 Feb 10 j 13:32	0°♄		superior conj	263 Jan 15 j 00:23	24°♄58'22	-2°-1'-46
evening rise	262 Feb 11 j 00:25	0°♄52'54		minimum elong	263 Jan 15 j 01:26	25°♄03'06	2°01'46
asc. node	262 Feb 16 j 05:27	10°♄48'06			263 Jan 17 j 19:32	0°♄	
evening max el	262 Feb 27 j 08:10	27°♄10'48	18°44'16	evening rise	263 Jan 25 j 09:20	13°♄59'54	
	262 Mar 03 j 03:12	0°♄		asc. node	263 Feb 03 j 02:30	29°♄41'26	
retrograde	262 Mar 07 j 09:11	1°♄05'14			263 Feb 03 j 07:00	0°♄	
evening set	262 Mar 09 j 16:28	0°♄47'12		evening max el	263 Feb 10 j 15:17	9°♄55'55	18°16'05
	262 Mar 11 j 20:30	30°♄		retrograde	263 Feb 17 j 17:03	13°♄27'40	
inferior conj	262 Mar 17 j 11:10	26°♄24'48	2°37'28				

evening set	263 Feb 20 j 05:20	13° K 01'55		asc. node	264 Jan 20 j 23:32	17° \approx 59'02	
inferior conj	263 Feb 27 j 07:11	8° K 18'21	3°27'39	evening max el	264 Jan 25 j 02:35	23° \approx 01'19	18°07'37
minimum elong	263 Feb 27 j 10:05	8° K 12'04	3°27'13	retrograde	264 Jan 31 j 16:29	26° \approx 25'53	
min. Earth dist.	263 Mar 02 j 16:46	5° K 22'31	0.59664 AU	evening set	264 Feb 03 j 09:13	25° \approx 51'11	
morning rise	263 Mar 06 j 11:19	2° K 40'35		inferior conj	264 Feb 09 j 21:37	20° \approx 45'55	3°47'57
direct	263 Mar 12 j 23:04	0° K 45'12		minimum elong	264 Feb 09 j 22:16	20° \approx 44'16	3°47'55
desc. node	263 Mar 14 j 13:36	0° K 52'04		min. Earth dist.	264 Feb 12 j 21:37	17° \approx 47'23	0.61763 AU
morning max el	263 Mar 27 j 06:15	8° K 30'47	27°17'57	morning rise	264 Feb 16 j 08:53	14° \approx 52'19	
	263 Apr 12 j 14:46	0° Y		direct	264 Feb 23 j 07:11	12° \approx 25'00	
morning set	263 Apr 27 j 06:50	27° Y 07'31		desc. node	264 Feb 29 j 10:39	14° \approx 06'51	
	263 Apr 28 j 15:44	0° B		morning max el	264 Mar 08 j 09:23	20° \approx 16'22	27°46'27
asc. node	263 May 02 j 01:48	7° B 21'02			264 Mar 16 j 18:18	0° K	
					264 Apr 04 j 12:37	0° Y	
superior conj	263 May 04 j 10:49	12° B 33'02	0°24'56	morning set	264 Apr 10 j 11:12	11° Y 38'23	
minimum elong	263 May 04 j 09:43	12° B 27'01	0°24'42	max. Earth dist.	264 Apr 16 j 09:05	24° Y 06'39	1.32547 AU
max. Earth dist.	263 May 03 j 22:30	11° B 25'26	1.32310 AU				
evening rise	263 May 11 j 09:10	27° B 35'03		superior conj	264 Apr 17 j 21:13	27° Y 22'52	0°00'-42
	263 May 12 j 12:52	0° II		minimum elong	264 Apr 17 j 21:15	27° Y 23'03	0°00'43
	263 May 29 j 13:10	0° B		behind sun begin	264 Apr 17 j 16:09	26° Y 55'15	
evening max el	263 Jun 08 j 13:46	12° B 00'03	25°57'54	behind sun end	264 Apr 18 j 02:21	27° Y 50'51	
desc. node	263 Jun 10 j 12:54	13° B 46'10		asc. node	264 Apr 17 j 22:50	27° Y 31'41	
retrograde	263 Jun 22 j 14:50	19° B 12'03			264 Apr 19 j 02:02	0° B	
evening set	263 Jun 28 j 18:48	17° B 40'11		evening rise	264 Apr 24 j 20:39	12° B 29'25	
min. Earth dist.	263 Jul 03 j 02:25	15° B 01'49	0.58860 AU		264 May 03 j 18:26	0° II	
inferior conj	263 Jul 06 j 09:45	12° B 34'51	-4°-46'-56	evening max el	264 May 20 j 05:56	22° II 53'13	24°34'09
minimum elong	263 Jul 06 j 10:17	12° B 33'52	4°46'57	desc. node	264 May 27 j 09:54	28° II 11'32	
morning rise	263 Jul 14 j 05:21	8° B 08'25		retrograde	264 Jun 03 j 04:10	29° II 55'36	
direct	263 Jul 16 j 16:45	7° B 48'00		evening set	264 Jun 08 j 01:31	29° II 01'51	
morning max el	263 Jul 24 j 17:24	11° B 37'29	18°33'40	min. Earth dist.	264 Jun 13 j 17:16	26° II 08'19	0.56962 AU
asc. node	263 Jul 29 j 01:01	16° B 41'55		inferior conj	264 Jun 16 j 12:38	24° II 19'55	-4°-31'-33
	263 Aug 06 j 00:41	0° Q		minimum elong	264 Jun 16 j 08:22	24° II 26'50	4°31'03
morning set	263 Aug 09 j 21:30	7° Q 22'03		morning rise	264 Jun 24 j 19:00	20° II 14'19	
				direct	264 Jun 27 j 09:26	19° II 55'36	
superior conj	263 Aug 18 j 19:45	24° Q 27'52	1°41'41	morning max el	264 Jul 06 j 16:28	24° II 14'52	19°25'05
minimum elong	263 Aug 18 j 22:01	24° Q 38'25	1°41'34		264 Jul 11 j 15:02	0° B	
	263 Aug 21 j 19:49	0° M		asc. node	264 Jul 14 j 22:04	4° B 59'20	
max. Earth dist.	263 Aug 26 j 02:32	7° M 37'47	1.39881 AU	morning set	264 Jul 23 j 21:39	21° B 41'35	
evening rise	263 Aug 30 j 09:06	14° M 56'44			264 Jul 28 j 01:02	0° Q	
desc. node	263 Sep 06 j 12:14	26° M 31'16					
	263 Sep 08 j 17:52	0° A		superior conj	264 Aug 01 j 01:09	7° Q 56'42	1°46'55
	263 Sep 30 j 12:29	0° M		minimum elong	264 Aug 01 j 01:22	7° Q 57'47	1°46'55
evening max el	263 Oct 04 j 07:53	4° M 06'32	23°49'40	max. Earth dist.	264 Aug 07 j 05:59	19° Q 44'42	1.37870 AU
retrograde	263 Oct 15 j 03:18	10° M 28'27		evening rise	264 Aug 11 j 01:54	26° Q 39'32	
evening set	263 Oct 20 j 06:18	8° M 21'14			264 Aug 12 j 23:46	0° M	
min. Earth dist.	263 Oct 25 j 03:36	2° M 40'50	0.67595 AU	desc. node	264 Aug 23 j 09:14	16° M 59'09	
asc. node	263 Oct 25 j 00:13	2° M 52'20			264 Sep 01 j 06:17	0° A	
inferior conj	263 Oct 25 j 16:28	1° M 57'06	0°14'01	evening max el	264 Sep 15 j 19:39	17° A 42'31	25°06'47
minimum elong	263 Oct 25 j 16:07	1° M 58'15	0°13'52	retrograde	264 Sep 27 j 15:19	24° A 33'04	
transit middle	263 Oct 25 j 16:07	1° M 58'15	0°13'52	evening set	264 Oct 03 j 09:05	22° A 08'45	
transit begin	263 Oct 25 j 14:42	2° M 03'07		min. Earth dist.	264 Oct 07 j 21:52	17° A 03'25	0.67185 AU
transit end	263 Oct 25 j 17:33	1° M 53'24		inferior conj	264 Oct 08 j 21:24	15° A 46'21	0°-41'-14
	263 Oct 27 j 03:26	30° R A		minimum elong	264 Oct 08 j 22:26	15° A 42'59	0°40'48
morning rise	263 Oct 31 j 02:06	25° A 47'53		asc. node	264 Oct 10 j 21:16	13° A 14'12	
direct	263 Nov 04 j 01:08	24° A 19'15		morning rise	264 Oct 14 j 12:18	9° A 44'25	
morning max el	263 Nov 12 j 06:45	29° A 06'29	20°50'14	direct	264 Oct 17 j 23:15	8° A 35'27	
	263 Nov 13 j 03:21	0° M		morning max el	264 Oct 25 j 08:33	12° A 48'02	19°42'50
greatest brilliancy	263 Nov 18 j 01:28	5° M 52'25	-0.5m	greatest brilliancy	264 Nov 02 j 09:46	22° A 52'15	-0.6m
desc. node	263 Dec 03 j 11:28	27° M 55'00			264 Nov 07 j 07:21	0° M	
	263 Dec 04 j 20:32	0° A		desc. node	264 Nov 19 j 08:29	18° M 22'29	
morning set	263 Dec 11 j 17:08	10° A 32'38		morning set	264 Nov 19 j 14:03	18° M 44'00	
max. Earth dist.	263 Dec 20 j 10:20	24° A 24'09	1.42887 AU		264 Nov 26 j 19:45	0° A	
	263 Dec 23 j 20:20	0° B		max. Earth dist.	264 Dec 01 j 22:36	8° A 04'37	1.44261 AU
superior conj	263 Dec 27 j 05:50	5° B 40'16	-1°-58'-26	superior conj	264 Dec 06 j 08:19	15° A 07'31	-1°-37'-33
minimum elong	263 Dec 27 j 02:25	5° B 25'51	1°58'19	minimum elong	264 Dec 06 j 00:30	14° A 36'02	1°36'54
evening rise	264 Jan 08 j 03:31	26° B 22'55			264 Dec 15 j 09:57	0° B	
	264 Jan 10 j 04:18	0° \approx		evening rise	264 Dec 20 j 02:32	7° B 53'16	

	265 Jan 02 j 14:38	0°♊		evening rise	265 Dec 01 j 02:46	18°♏25'42	
asc. node	265 Jan 06 j 20:33	5°♊29'38			265 Dec 08 j 06:52	0°♏	
evening max el	265 Jan 07 j 15:05	6°♊18'35	18°18'16	evening max el	265 Dec 22 j 02:15	19°♏42'35	18°47'06
retrograde	265 Jan 14 j 02:51	9°♊49'09		asc. node	265 Dec 24 j 17:35	22°♏00'18	
evening set	265 Jan 17 j 00:08	9°♊04'39		retrograde	265 Dec 28 j 20:02	23°♏29'55	
inferior conj	265 Jan 23 j 02:24	3°♊39'12	3°45'59	evening set	265 Dec 31 j 22:48	22°♏34'28	
minimum elong	265 Jan 23 j 01:12	3°♊42'33	3°45'54	inferior conj	266 Jan 06 j 17:49	16°♏51'15	3°27'58
min. Earth dist.	265 Jan 25 j 11:56	0°♊58'46	0.63656 AU	minimum elong	266 Jan 06 j 15:29	16°♏58'24	3°27'35
	265 Jan 26 j 10:07	30°♊♌		min. Earth dist.	266 Jan 08 j 12:00	14°♏42'19	0.65212 AU
morning rise	265 Jan 29 j 00:40	27°♌35'30		morning rise	266 Jan 12 j 07:04	10°♌41'09	
direct	265 Feb 04 j 23:21	24°♌49'07		direct	266 Jan 18 j 22:34	7°♌50'17	
desc. node	265 Feb 15 j 07:40	29°♌34'02		morning max el	266 Feb 01 j 03:02	15°♌32'41	26°56'36
	265 Feb 15 j 20:01	0°♌		desc. node	266 Feb 02 j 04:42	16°♌38'30	
morning max el	265 Feb 18 j 17:15	2°♌40'34	27°38'05		266 Feb 13 j 01:07	0°♌	
	265 Mar 11 j 02:09	0°♌			266 Mar 03 j 20:19	0°♌	
morning set	265 Mar 25 j 08:45	25°♌45'25		morning set	266 Mar 08 j 20:15	9°♌18'07	
	265 Mar 27 j 11:19	0°♌		max. Earth dist.	266 Mar 13 j 08:16	18°♌09'59	1.34243 AU
max. Earth dist.	265 Mar 30 j 13:40	6°♌25'19	1.33177 AU				
				superior conj	266 Mar 17 j 06:42	26°♌15'09	0°-54'-28
superior conj	265 Apr 02 j 04:32	11°♌59'12	0°-27'-32	minimum elong	266 Mar 17 j 09:19	26°♌28'51	0°54'00
minimum elong	265 Apr 02 j 05:52	12°♌06'20	0°27'16		266 Mar 19 j 01:35	0°♌	
asc. node	265 Apr 04 j 19:52	17°♌39'48		asc. node	266 Mar 22 j 16:54	7°♌40'53	
evening rise	265 Apr 09 j 08:21	27°♌20'09		evening rise	266 Mar 24 j 18:25	12°♌00'19	
	265 Apr 10 j 14:56	0°♌			266 Apr 03 j 03:22	0°♌	
	265 Apr 28 j 15:08	0°♌		evening max el	266 Apr 13 j 17:01	14°♌11'06	21°27'26
evening max el	265 May 01 j 20:34	3°♌26'45	22°59'08	retrograde	266 Apr 25 j 20:29	20°♌06'03	
desc. node	265 May 14 j 06:55	10°♌03'26		evening set	266 Apr 28 j 06:38	19°♌52'40	
retrograde	265 May 15 j 05:15	10°♌05'24		desc. node	266 May 01 j 03:56	19°♌04'35	
evening set	265 May 18 j 16:01	9°♌39'20		inferior conj	266 May 07 j 15:36	15°♌52'07	-1°-50'-19
min. Earth dist.	265 May 26 j 05:43	6°♌17'10	0.55564 AU	minimum elong	266 May 07 j 10:31	15°♌59'16	1°48'36
inferior conj	265 May 27 j 20:12	5°♌21'27	-3°-32'-6	min. Earth dist.	266 May 07 j 18:33	15°♌47'59	0.54978 AU
minimum elong	265 May 27 j 12:53	5°♌32'06	3°30'17	morning rise	266 May 16 j 14:48	11°♌53'27	
morning rise	265 Jun 05 j 12:45	1°♌28'02		direct	266 May 19 j 18:07	11°♌31'57	
direct	265 Jun 08 j 07:23	1°♌09'48		morning max el	266 Jun 01 j 06:29	17°♌27'38	22°07'20
morning max el	265 Jun 19 j 04:56	6°♌12'43	20°37'19		266 Jun 11 j 05:04	0°♌	
asc. node	265 Jul 01 j 19:07	23°♌54'35		asc. node	266 Jun 18 j 16:10	13°♌17'34	
	265 Jul 05 j 00:05	0°♌		morning set	266 Jun 22 j 13:32	21°♌11'03	
morning set	265 Jul 08 j 03:45	6°♌20'22			266 Jun 26 j 17:46	0°♌	
				superior conj	266 Jun 29 j 20:17	6°♌34'30	1°34'21
superior conj	265 Jul 15 j 18:35	22°♌03'03	1°43'54	minimum elong	266 Jun 29 j 18:05	6°♌22'58	1°34'08
minimum elong	265 Jul 15 j 17:17	21°♌56'26	1°43'50	max. Earth dist.	266 Jul 03 j 04:42	13°♌32'24	1.34535 AU
	265 Jul 19 j 17:47	0°♌		evening rise	266 Jul 07 j 21:45	22°♌56'23	
max. Earth dist.	265 Jul 20 j 13:12	1°♌35'00	1.36035 AU		266 Jul 11 j 15:22	0°♌	
evening rise	265 Jul 24 j 15:47	9°♌24'05		desc. node	266 Jul 28 j 03:19	26°♌58'55	
	265 Aug 05 j 14:41	0°♌			266 Jul 30 j 06:56	0°♌	
desc. node	265 Aug 10 j 06:16	7°♌11'07		evening max el	266 Aug 11 j 19:10	14°♌50'14	27°01'36
	265 Aug 27 j 23:23	0°♌		retrograde	266 Aug 25 j 00:47	22°♌08'39	
evening max el	265 Aug 29 j 07:16	1°♌19'36	26°13'16	evening set	266 Aug 31 j 20:56	19°♌24'14	
retrograde	265 Sep 10 j 22:38	8°♌29'07		min. Earth dist.	266 Sep 04 j 18:34	15°♌33'06	0.65329 AU
evening set	265 Sep 17 j 06:45	5°♌51'13		inferior conj	266 Sep 06 j 18:01	13°♌17'25	-2°-33'-25
min. Earth dist.	265 Sep 21 j 11:37	1°♌22'47	0.66438 AU	minimum elong	266 Sep 06 j 21:52	13°♌06'22	2°32'03
inferior conj	265 Sep 22 j 22:37	29°♌34'36	-1°-37'-41	morning rise	266 Sep 13 j 00:20	7°♌38'53	
minimum elong	265 Sep 23 j 01:07	29°♌26'52	1°36'40	asc. node	266 Sep 14 j 15:21	7°♌05'04	
	265 Sep 22 j 14:25	30°♌♍		direct	266 Sep 15 j 17:49	6°♌58'25	
asc. node	265 Sep 27 j 18:18	24°♌26'52		morning max el	266 Sep 22 j 07:00	10°♌31'30	18°14'16
morning rise	265 Sep 28 j 20:29	23°♌42'49			266 Oct 05 j 19:30	0°♌	
direct	265 Oct 01 j 21:29	22°♌50'00		morning set	266 Oct 10 j 22:36	8°♌25'45	
morning max el	265 Oct 08 j 17:23	26°♌38'14	18°50'21	desc. node	266 Oct 24 j 02:37	29°♌44'16	
	265 Oct 11 j 16:11	0°♌			266 Oct 24 j 06:34	0°♌	
morning set	265 Oct 30 j 04:05	27°♌52'15					
	265 Oct 31 j 12:26	0°♌		superior conj	266 Oct 25 j 15:41	2°♌11'19	0°-10'-11
desc. node	265 Nov 06 j 05:32	9°♌00'10		minimum elong	266 Oct 25 j 14:22	2°♌06'06	0°10'02
max. Earth dist.	265 Nov 14 j 15:38	22°♌14'12	1.44972 AU	behind sun begin	266 Oct 25 j 05:36	1°♌31'22	
				behind sun end	266 Oct 25 j 23:08	2°♌40'48	
superior conj	265 Nov 15 j 13:27	23°♌40'02	0°-58'-52	max. Earth dist.	266 Oct 28 j 10:12	6°♌33'58	1.44947 AU
minimum elong	265 Nov 15 j 06:15	23°♌11'42	0°58'00	evening rise	266 Nov 11 j 03:51	28°♌02'31	
	265 Nov 19 j 13:50	0°♌					

	266 Nov 12 j 10:01	0°♄			267 Sep 28 j 12:11	0°♄	
greatest brilliancy	266 Nov 27 j 01:00	22°♄22'37	-0.7m				
	266 Dec 02 j 15:18	0°♄		superior conj	267 Oct 05 j 11:32	11°♄37'01	0°36'06
evening max el	266 Dec 05 j 09:59	3°♄10'18	19°32'42	minimum elong	267 Oct 05 j 15:17	11°♄52'21	0°35'35
asc. node	266 Dec 11 j 14:36	7°♄16'40		desc. node	267 Oct 10 j 23:39	20°♄30'59	
retrograde	266 Dec 12 j 16:44	7°♄23'18		max. Earth dist.	267 Oct 11 j 03:40	20°♄47'00	1.44205 AU
evening set	266 Dec 16 j 02:36	6°♄15'12			267 Oct 16 j 23:51	0°♄	
inferior conj	266 Dec 21 j 16:39	0°♄17'02	2°58'18	evening rise	267 Oct 21 j 13:06	7°♄03'28	
minimum elong	266 Dec 21 j 13:54	0°♄26'03	2°57'35		267 Nov 05 j 18:47	0°♄	
	266 Dec 21 j 21:52	30°♄		greatest brilliancy	267 Nov 12 j 12:03	9°♄25'18	-0.5m
min. Earth dist.	266 Dec 22 j 20:32	28°♄46'06	0.66384 AU	evening max el	267 Nov 18 j 12:40	16°♄39'05	20°32'57
morning rise	266 Dec 27 j 00:26	24°♄03'14		retrograde	267 Nov 26 j 14:23	21°♄24'50	
direct	267 Jan 02 j 03:56	21°♄20'34		asc. node	267 Nov 28 j 11:39	21°♄04'39	
morning max el	267 Jan 14 j 12:17	28°♄40'09	25°49'45	evening set	267 Nov 30 j 09:20	20°♄02'05	
	267 Jan 15 j 19:08	0°♄		inferior conj	267 Dec 05 j 20:20	13°♄51'59	2°19'52
desc. node	267 Jan 20 j 01:46	4°♄52'26		minimum elong	267 Dec 05 j 17:43	14°♄00'52	2°19'00
	267 Feb 06 j 19:59	0°♄		min. Earth dist.	267 Dec 06 j 11:24	13°♄00'49	0.67174 AU
morning set	267 Feb 19 j 17:27	22°♄03'44		morning rise	267 Dec 11 j 01:37	7°♄36'39	
max. Earth dist.	267 Feb 23 j 14:48	29°♄21'54	1.35769 AU	direct	267 Dec 16 j 14:30	5°♄11'11	
	267 Feb 23 j 22:44	0°♄		morning max el	267 Dec 27 j 20:33	11°♄53'47	24°27'18
				desc. node	268 Jan 06 j 22:50	23°♄55'02	
superior conj	267 Mar 01 j 01:12	10°♄03'31	-1°-19'-59		268 Jan 11 j 09:17	0°♄	
minimum elong	267 Mar 01 j 04:50	10°♄21'49	1°19'27		268 Jan 30 j 14:27	0°♄	
evening rise	267 Mar 09 j 00:50	26°♄23'45		morning set	268 Feb 01 j 18:35	3°♄45'28	
asc. node	267 Mar 09 j 13:58	27°♄30'32		max. Earth dist.	268 Feb 05 j 12:03	10°♄23'44	1.37694 AU
	267 Mar 10 j 19:35	0°♄					
evening max el	267 Mar 27 j 00:09	25°♄28'30	20°09'18	superior conj	268 Feb 12 j 08:39	23°♄14'29	-1°-41'-58
	267 Apr 03 j 03:19	0°♄		minimum elong	268 Feb 12 j 12:33	23°♄33'15	1°41'34
retrograde	267 Apr 06 j 10:54	0°♄29'43			268 Feb 15 j 19:43	0°♄	
evening set	267 Apr 08 j 13:16	0°♄18'27		evening rise	268 Feb 21 j 01:13	10°♄23'04	
	267 Apr 09 j 21:36	30°♄		asc. node	268 Feb 24 j 11:00	17°♄03'02	
inferior conj	267 Apr 17 j 12:26	26°♄19'49	0°08'57		268 Mar 02 j 20:39	0°♄	
minimum elong	267 Apr 17 j 12:51	26°♄19'12	0°08'49	evening max el	268 Mar 08 j 18:22	7°♄23'37	19°09'32
transit middle	267 Apr 17 j 12:51	26°♄19'12	0°08'49	retrograde	268 Mar 17 j 13:33	11°♄38'00	
transit begin	267 Apr 17 j 09:30	26°♄24'11		evening set	268 Mar 19 j 18:18	11°♄23'16	
transit end	267 Apr 17 j 16:11	26°♄14'13		inferior conj	268 Mar 27 j 23:43	7°♄11'38	1°52'42
desc. node	267 Apr 18 j 00:56	26°♄01'07		minimum elong	268 Mar 28 j 03:40	7°♄04'53	1°51'30
min. Earth dist.	267 Apr 19 j 08:27	25°♄14'16	0.55357 AU	min. Earth dist.	268 Mar 30 j 23:36	5°♄09'59	0.56612 AU
morning rise	267 Apr 26 j 09:48	21°♄57'30		desc. node	268 Apr 03 j 21:59	2°♄54'09	
direct	267 Apr 30 j 07:42	21°♄24'01		morning rise	268 Apr 05 j 08:59	2°♄16'40	
morning max el	267 May 13 j 23:46	28°♄08'20	23°47'37	direct	268 Apr 10 j 08:53	1°♄18'37	
	267 May 15 j 20:23	0°♄		morning max el	268 Apr 24 j 14:14	8°♄36'49	25°25'35
	267 Jun 04 j 01:42	0°♄			268 May 10 j 12:33	0°♄	
asc. node	267 Jun 05 j 13:15	3°♄01'02		morning set	268 May 21 j 13:04	21°♄06'03	
morning set	267 Jun 07 j 01:11	6°♄08'10		asc. node	268 May 22 j 10:19	22°♄58'31	
					268 May 25 j 16:28	0°♄	
superior conj	267 Jun 14 j 03:24	21°♄22'13	1°19'39				
minimum elong	267 Jun 14 j 00:55	21°♄08'51	1°19'18	superior conj	268 May 28 j 13:44	6°♄18'37	1°00'51
max. Earth dist.	267 Jun 16 j 05:43	25°♄51'40	1.33426 AU	minimum elong	268 May 28 j 11:28	6°♄06'15	1°00'28
	267 Jun 18 j 04:47	0°♄		max. Earth dist.	268 May 29 j 14:10	8°♄31'56	1.32698 AU
evening rise	267 Jun 21 j 15:28	7°♄03'52		evening rise	268 Jun 04 j 17:21	21°♄35'25	
	267 Jul 04 j 04:16	0°♄			268 Jun 08 j 22:17	0°♄	
desc. node	267 Jul 15 j 00:19	16°♄12'20			268 Jun 27 j 05:47	0°♄	
evening max el	267 Jul 25 j 06:22	28°♄03'46	27°24'32	desc. node	268 Jun 30 j 21:19	4°♄37'11	
	267 Jul 27 j 09:58	0°♄		evening max el	268 Jul 06 j 14:28	10°♄46'57	27°16'36
retrograde	267 Aug 07 j 21:02	5°♄23'05		retrograde	268 Jul 20 j 10:31	18°♄03'47	
evening set	267 Aug 15 j 00:42	2°♄42'31		evening set	268 Jul 27 j 14:14	15°♄39'55	
	267 Aug 18 j 03:02	30°♄		min. Earth dist.	268 Jul 31 j 04:25	12°♄50'30	0.62067 AU
min. Earth dist.	267 Aug 18 j 16:39	29°♄26'07	0.63862 AU	inferior conj	268 Aug 03 j 04:52	10°♄03'47	-4°-10'-14
inferior conj	267 Aug 21 j 05:05	26°♄49'26	-3°-25'-42	minimum elong	268 Aug 03 j 09:28	9°♄53'07	4°09'20
minimum elong	267 Aug 21 j 09:51	26°♄37'04	3°24'20	morning rise	268 Aug 10 j 07:20	5°♄01'42	
morning rise	267 Aug 27 j 21:04	21°♄27'23		direct	268 Aug 12 j 17:41	4°♄35'55	
direct	267 Aug 30 j 09:39	20°♄55'42		asc. node	268 Aug 18 j 09:31	6°♄59'11	
asc. node	267 Sep 01 j 12:26	21°♄18'15		morning max el	268 Aug 19 j 13:44	8°♄03'01	17°54'55
morning max el	267 Sep 05 j 22:44	24°♄21'46	17°55'28		268 Sep 02 j 20:18	0°♄	
	267 Sep 10 j 12:23	0°♄		morning set	268 Sep 04 j 13:37	3°♄06'36	
morning set	267 Sep 22 j 19:45	20°♄16'19					

superior conj	268 Sep 15 j 10:32	22° \mathring{M} 23'25	1°11'32		269 Aug 09 j 14:51	0° Ω	
minimum elong	268 Sep 15 j 15:26	22° \mathring{M} 44'27	1°10'59	morning set	269 Aug 18 j 22:29	16° Ω 40'02	
	268 Sep 19 j 22:26	0° $\underline{\Omega}$			269 Aug 26 j 00:59	0° \mathring{M}	
max. Earth dist.	268 Sep 22 j 17:28	4° $\underline{\Omega}$ 36'45	1.42842 AU				
desc. node	268 Sep 26 j 20:41	11° $\underline{\Omega}$ 17'27		superior conj	269 Aug 28 j 11:00	4° \mathring{M} 25'20	1°34'05
evening rise	268 Sep 29 j 22:46	16° $\underline{\Omega}$ 10'19		minimum elong	269 Aug 28 j 14:29	4° \mathring{M} 41'05	1°33'49
	268 Oct 08 j 23:34	0° \mathring{M}		max. Earth dist.	269 Sep 05 j 01:30	17° \mathring{M} 46'20	1.41030 AU
greatest brilliancy	268 Oct 26 j 13:27	24° \mathring{M} 37'14	-0.4m	evening rise	269 Sep 10 j 01:12	26° \mathring{M} 04'25	
	268 Oct 31 j 06:15	0° \mathring{M}			269 Sep 12 j 11:34	0° $\underline{\Omega}$	
evening max el	268 Oct 31 j 09:36	0° \mathring{M} 08'35	21°44'38	desc. node	269 Sep 13 j 17:41	1° $\underline{\Omega}$ 59'51	
retrograde	268 Nov 09 j 11:07	5° \mathring{M} 31'59			269 Oct 02 j 18:19	0° \mathring{M}	
evening set	268 Nov 13 j 17:11	3° \mathring{M} 52'38		greatest brilliancy	269 Oct 08 j 13:13	7° \mathring{M} 27'47	-0.2m
asc. node	268 Nov 14 j 08:43	3° \mathring{M} 19'44		evening max el	269 Oct 14 j 01:16	13° \mathring{M} 38'55	23°03'20
	268 Nov 17 j 07:38	30° \mathring{M}		retrograde	269 Oct 24 j 05:25	19° \mathring{M} 40'58	
inferior conj	268 Nov 19 j 02:43	27° \mathring{M} 33'56	1°34'47	evening set	269 Oct 29 j 00:23	17° \mathring{M} 43'50	
minimum elong	268 Nov 19 j 00:43	27° \mathring{M} 40'52	1°34'00	asc. node	269 Nov 01 j 05:46	14° \mathring{M} 15'44	
min. Earth dist.	268 Nov 19 j 06:19	27° \mathring{M} 21'30	0.67602 AU	inferior conj	269 Nov 03 j 09:54	11° \mathring{M} 20'19	0°44'37
morning rise	268 Nov 24 j 08:00	21° \mathring{M} 19'12		minimum elong	269 Nov 03 j 08:52	11° \mathring{M} 23'52	0°44'11
direct	268 Nov 29 j 05:30	19° \mathring{M} 15'34		min. Earth dist.	269 Nov 03 j 02:55	11° \mathring{M} 44'25	0.67692 AU
morning max el	268 Dec 09 j 06:08	25° \mathring{M} 12'41	22°59'22	morning rise	269 Nov 08 j 17:24	5° \mathring{M} 08'22	
	268 Dec 13 j 13:45	0° \mathring{M}		direct	269 Nov 13 j 00:07	3° \mathring{M} 27'33	
greatest brilliancy	268 Dec 14 j 00:45	0° \mathring{M} 33'03	-0.3m	morning max el	269 Nov 21 j 20:22	8° \mathring{M} 38'52	21°34'42
desc. node	268 Dec 23 j 19:54	13° \mathring{M} 32'37		greatest brilliancy	269 Nov 26 j 20:19	14° \mathring{M} 20'33	-0.4m
	269 Jan 03 j 21:51	0° \mathring{M}			269 Dec 08 j 06:24	0° \mathring{M}	
morning set	269 Jan 12 j 17:30	14° \mathring{M} 08'21		desc. node	269 Dec 10 j 16:56	3° \mathring{M} 34'49	
max. Earth dist.	269 Jan 17 j 07:34	21° \mathring{M} 53'30	1.39820 AU	morning set	269 Dec 23 j 11:21	23° \mathring{M} 08'41	
	269 Jan 21 j 22:22	0° \approx			269 Dec 27 j 17:49	0° \mathring{M}	
				max. Earth dist.	269 Dec 30 j 07:51	4° \mathring{M} 14'11	1.41858 AU
superior conj	269 Jan 25 j 00:50	5° \approx 37'31	-1°-57'-23				
minimum elong	269 Jan 25 j 03:32	5° \approx 49'54	1°57'16	superior conj	270 Jan 06 j 20:27	16° \mathring{M} 59'29	-2°-2'-15
evening rise	269 Feb 03 j 16:47	23° \approx 51'43		minimum elong	270 Jan 06 j 19:49	16° \mathring{M} 56'45	2°02'16
	269 Feb 06 j 22:26	0° \mathring{M}			270 Jan 14 j 03:57	0° \approx	
asc. node	269 Feb 10 j 08:01	6° \mathring{M} 12'44		evening rise	270 Jan 17 j 19:57	6° \approx 41'20	
evening max el	269 Feb 19 j 21:33	19° \mathring{M} 52'29	18°29'45	asc. node	270 Jan 28 j 05:03	24° \approx 52'14	
retrograde	269 Feb 27 j 11:10	23° \mathring{M} 35'23			270 Jan 31 j 19:31	0° \mathring{M}	
evening set	269 Mar 01 j 20:40	23° \mathring{M} 14'12		evening max el	270 Feb 03 j 06:44	2° \mathring{M} 47'03	18°10'04
inferior conj	269 Mar 09 j 07:46	18° \mathring{M} 42'34	3°02'55	retrograde	270 Feb 10 j 02:23	6° \mathring{M} 14'26	
minimum elong	269 Mar 09 j 11:41	18° \mathring{M} 34'45	3°02'06	evening set	270 Feb 12 j 16:28	5° \mathring{M} 45'07	
min. Earth dist.	269 Mar 12 j 17:59	16° \mathring{M} 00'02	0.58464 AU	inferior conj	270 Feb 19 j 12:08	0° \mathring{M} 52'08	3°39'27
morning rise	269 Mar 16 j 22:46	13° \mathring{M} 17'43		minimum elong	270 Feb 19 j 14:05	0° \mathring{M} 47'37	3°39'15
desc. node	269 Mar 21 j 19:02	11° \mathring{M} 47'58			270 Feb 20 j 10:32	30° \mathring{M}	
direct	269 Mar 22 j 23:27	11° \mathring{M} 44'21		min. Earth dist.	270 Feb 22 j 18:33	27° \approx 52'04	0.60561 AU
morning max el	269 Apr 06 j 07:56	19° \mathring{M} 22'37	26°45'33	morning rise	270 Feb 26 j 08:37	25° \approx 06'21	
	269 Apr 15 j 08:10	0° \mathring{M}		direct	270 Mar 05 j 01:57	22° \approx 56'15	
	269 May 03 j 01:32	0° \mathring{M}		desc. node	270 Mar 08 j 16:04	23° \approx 30'55	
morning set	269 May 05 j 23:29	5° \mathring{M} 58'43			270 Mar 18 j 12:56	0° \mathring{M}	
asc. node	269 May 09 j 07:21	13° \mathring{M} 04'37		morning max el	270 Mar 19 j 07:51	0° \mathring{M} 45'41	27°34'45
					270 Apr 09 j 10:03	0° \mathring{M}	
superior conj	269 May 13 j 01:25	21° \mathring{M} 17'12	0°38'48	morning set	270 Apr 20 j 06:40	20° \mathring{M} 40'12	
minimum elong	269 May 12 j 23:48	21° \mathring{M} 08'17	0°38'29		270 Apr 24 j 16:25	0° \mathring{M}	
max. Earth dist.	269 May 13 j 02:26	21° \mathring{M} 22'47	1.32343 AU	asc. node	270 Apr 26 j 04:22	3° \mathring{M} 15'08	
	269 May 17 j 01:04	0° \mathring{M}		max. Earth dist.	270 Apr 26 j 14:44	4° \mathring{M} 11'43	1.32357 AU
evening rise	269 May 20 j 00:40	6° \mathring{M} 21'38					
	269 Jun 01 j 12:45	0° \mathring{M}		superior conj	270 Apr 27 j 12:47	6° \mathring{M} 12'23	0°14'16
desc. node	269 Jun 17 j 18:19	21° \mathring{M} 52'38		minimum elong	270 Apr 27 j 12:08	6° \mathring{M} 08'50	0°14'08
evening max el	269 Jun 18 j 16:37	22° \mathring{M} 47'01	26°35'29	behind sun begin	270 Apr 27 j 09:51	5° \mathring{M} 56'19	
	269 Jul 01 j 21:51	0° Ω		behind sun end	270 Apr 27 j 14:25	6° \mathring{M} 21'22	
retrograde	269 Jul 02 j 16:16	0° Ω 01'30		evening rise	270 May 04 j 11:12	21° \mathring{M} 15'17	
	269 Jul 03 j 10:37	30° \mathring{M}			270 May 08 j 17:33	0° \mathring{M}	
evening set	269 Jul 09 j 08:56	28° \mathring{M} 07'29			270 May 27 j 16:25	0° \mathring{M}	
min. Earth dist.	269 Jul 13 j 05:54	25° \mathring{M} 30'43	0.60043 AU	evening max el	270 May 31 j 11:47	4° \mathring{M} 01'38	25°24'38
inferior conj	269 Jul 16 j 13:42	22° \mathring{M} 50'27	-4°-40'-15	desc. node	270 Jun 04 j 15:19	7° \mathring{M} 30'23	
minimum elong	269 Jul 16 j 16:22	22° \mathring{M} 45'04	4°40'01	retrograde	270 Jun 14 j 12:42	11° \mathring{M} 11'35	
morning rise	269 Jul 24 j 03:05	18° \mathring{M} 11'08		evening set	270 Jun 20 j 04:54	9° \mathring{M} 56'11	
direct	269 Jul 26 j 13:35	17° \mathring{M} 49'10		min. Earth dist.	270 Jun 24 j 23:43	7° \mathring{M} 13'21	0.58008 AU
morning max el	269 Aug 03 j 00:58	21° \mathring{M} 26'53	18°13'45	inferior conj	270 Jun 28 j 04:09	5° \mathring{M} 00'11	-4°-45'-14
asc. node	269 Aug 05 j 06:35	23° \mathring{M} 52'28		minimum elong	270 Jun 28 j 02:43	5° \mathring{M} 02'42	4°45'10

morning rise	270 Jul 06 j 04:24	0° $\overline{5}$ 43'34		retrograde	271 May 26 j 21:09	21° $\overline{\text{II}}$ 37'44	
direct	270 Jul 08 j 16:51	0° $\overline{5}$ 24'05		evening set	271 May 31 j 03:07	20° $\overline{\text{II}}$ 57'50	
morning max el	270 Jul 17 j 05:22	4° $\overline{5}$ 24'28	18°53'01	min. Earth dist.	271 Jun 06 j 13:28	17° $\overline{\text{II}}$ 53'17	0.56281 AU
asc. node	270 Jul 23 j 03:37	11° $\overline{5}$ 43'07		inferior conj	271 Jun 08 j 22:25	16° $\overline{\text{II}}$ 26'06	-4°-12'-7
	270 Aug 02 j 08:48	0° $\overline{\Omega}$		minimum elong	271 Jun 08 j 16:22	16° $\overline{\text{II}}$ 35'25	4°11'04
morning set	270 Aug 02 j 18:01	0° $\overline{\Omega}$ 45'10		morning rise	271 Jun 17 j 09:14	12° $\overline{\text{II}}$ 26'59	
				direct	271 Jun 20 j 01:00	12° $\overline{\text{II}}$ 08'48	
superior conj	270 Aug 11 j 07:27	17° $\overline{\Omega}$ 27'07	1°45'02	morning max el	271 Jun 30 j 00:06	16° $\overline{\text{II}}$ 45'40	19°53'22
minimum elong	270 Aug 11 j 08:49	17° $\overline{\Omega}$ 33'35	1°45'00		271 Jul 09 j 20:33	0° $\overline{5}$	
max. Earth dist.	270 Aug 18 j 04:52	0° $\overline{\eta}$ 11'04	1.39015 AU	asc. node	271 Jul 10 j 00:39	0° $\overline{5}$ 17'36	
	270 Aug 18 j 02:24	0° $\overline{\eta}$		morning set	271 Jul 17 j 20:58	15° $\overline{5}$ 13'13	
evening rise	270 Aug 22 j 04:05	7° $\overline{\eta}$ 07'32			271 Jul 25 j 03:51	0° $\overline{\Omega}$	
desc. node	270 Aug 31 j 14:41	22° $\overline{\eta}$ 34'20					
	270 Sep 05 j 11:35	0° $\overline{\Omega}$		superior conj	271 Jul 25 j 18:28	1° $\overline{\Omega}$ 13'02	1°46'32
evening max el	270 Sep 26 j 13:43	27° $\overline{\Omega}$ 12'36	24°23'10	minimum elong	271 Jul 25 j 17:58	1° $\overline{\Omega}$ 10'33	1°46'31
	270 Sep 29 j 15:16	0° $\overline{\text{M}}$		max. Earth dist.	271 Jul 31 j 08:49	12° $\overline{\Omega}$ 05'54	1.37055 AU
retrograde	270 Oct 07 j 20:08	3° $\overline{\text{M}}$ 48'32		evening rise	271 Aug 04 j 06:26	19° $\overline{\Omega}$ 18'09	
evening set	270 Oct 13 j 05:18	1° $\overline{\text{M}}$ 33'44			271 Aug 10 j 09:50	0° $\overline{\eta}$	
	270 Oct 14 j 19:54	30° $\overline{\text{R}}$ $\overline{\Omega}$		desc. node	271 Aug 18 j 11:42	12° $\overline{\eta}$ 56'09	
min. Earth dist.	270 Oct 17 j 22:49	26° $\overline{\Omega}$ 07'51	0.67461 AU		271 Aug 30 j 14:20	0° $\overline{\Omega}$	
inferior conj	270 Oct 18 j 16:11	25° $\overline{\Omega}$ 09'31	0°-9'-10	evening max el	271 Sep 09 j 01:22	10° $\overline{\Omega}$ 50'11	25°36'54
minimum elong	270 Oct 18 j 16:24	25° $\overline{\Omega}$ 08'46	0°09'05	retrograde	271 Sep 21 j 06:20	17° $\overline{\Omega}$ 50'21	
transit middle	270 Oct 18 j 16:24	25° $\overline{\Omega}$ 08'46	0°09'05	evening set	271 Sep 27 j 06:11	15° $\overline{\Omega}$ 19'56	
transit begin	270 Oct 18 j 14:08	25° $\overline{\Omega}$ 16'24		min. Earth dist.	271 Oct 01 j 15:37	10° $\overline{\Omega}$ 29'49	0.66904 AU
transit end	270 Oct 18 j 18:41	25° $\overline{\Omega}$ 01'09		inferior conj	271 Oct 02 j 19:49	8° $\overline{\Omega}$ 59'24	-1°-5'-7
asc. node	270 Oct 19 j 02:49	24° $\overline{\Omega}$ 33'54		minimum elong	271 Oct 02 j 21:28	8° $\overline{\Omega}$ 54'06	1°04'25
morning rise	270 Oct 24 j 03:51	19° $\overline{\Omega}$ 02'56		asc. node	271 Oct 05 j 23:52	5° $\overline{\Omega}$ 11'55	
direct	270 Oct 27 j 21:23	17° $\overline{\Omega}$ 43'12		morning rise	271 Oct 08 j 13:28	3° $\overline{\Omega}$ 01'06	
morning max el	270 Nov 04 j 17:45	22° $\overline{\Omega}$ 14'55	20°19'46	direct	271 Oct 11 j 19:53	1° $\overline{\Omega}$ 59'24	
	270 Nov 11 j 05:05	0° $\overline{\text{M}}$		morning max el	271 Oct 18 j 22:41	6° $\overline{\Omega}$ 00'42	19°18'32
greatest brilliancy	270 Nov 11 j 07:52	0° $\overline{\text{M}}$ 09'19	-0.5m	greatest brilliancy	271 Oct 28 j 21:49	19° $\overline{\Omega}$ 00'39	-0.7m
desc. node	270 Nov 27 j 13:58	23° $\overline{\text{M}}$ 54'42			271 Nov 05 j 03:36	0° $\overline{\text{M}}$	
	270 Dec 01 j 13:08	0° $\overline{\text{J}}$		morning set	271 Nov 11 j 11:08	9° $\overline{\text{M}}$ 47'32	
morning set	270 Dec 02 j 09:18	1° $\overline{\text{J}}$ 17'58		desc. node	271 Nov 14 j 11:00	14° $\overline{\text{M}}$ 27'23	
max. Earth dist.	270 Dec 12 j 15:26	17° $\overline{\text{J}}$ 27'10	1.43541 AU		271 Nov 24 j 09:06	0° $\overline{\text{J}}$	
				max. Earth dist.	271 Nov 25 j 05:53	1° $\overline{\text{J}}$ 22'01	1.44653 AU
superior conj	270 Dec 18 j 14:29	27° $\overline{\text{J}}$ 09'17	-1°-51'-52				
minimum elong	270 Dec 18 j 08:55	26° $\overline{\text{J}}$ 46'19	1°51'33	superior conj	271 Nov 28 j 06:39	6° $\overline{\text{J}}$ 10'21	-1°-23'-5
	270 Dec 20 j 07:40	0° $\overline{\text{Z}}$		minimum elong	271 Nov 27 j 22:15	5° $\overline{\text{J}}$ 36'58	1°22'14
evening rise	270 Dec 31 j 06:30	18° $\overline{\text{Z}}$ 42'49		evening rise	271 Dec 12 j 20:15	29° $\overline{\text{J}}$ 49'29	
	271 Jan 06 j 18:43	0° $\overline{\approx}$			271 Dec 12 j 22:47	0° $\overline{\text{Z}}$	
asc. node	271 Jan 15 j 02:05	12° $\overline{\approx}$ 51'30		evening max el	272 Jan 01 j 07:14	29° $\overline{\text{Z}}$ 20'09	18°28'24
evening max el	271 Jan 17 j 18:53	15° $\overline{\approx}$ 58'25	18°09'55	asc. node	272 Jan 01 j 23:08	29° $\overline{\text{Z}}$ 59'04	
retrograde	271 Jan 24 j 06:55	19° $\overline{\approx}$ 24'08			272 Jan 01 j 23:32	0° $\overline{\approx}$	
evening set	271 Jan 27 j 01:27	18° $\overline{\approx}$ 45'32		retrograde	272 Jan 07 j 20:32	2° $\overline{\approx}$ 56'16	
inferior conj	271 Feb 02 j 09:11	13° $\overline{\approx}$ 31'46	3°49'24	evening set	272 Jan 10 j 20:03	2° $\overline{\approx}$ 07'13	
minimum elong	271 Feb 02 j 08:58	13° $\overline{\approx}$ 32'19	3°49'24		272 Jan 13 j 15:03	30° $\overline{\text{R}}$ $\overline{\text{Z}}$	
min. Earth dist.	271 Feb 05 j 03:29	10° $\overline{\approx}$ 38'24	0.62600 AU	inferior conj	272 Jan 16 j 18:57	26° $\overline{\text{Z}}$ 34'09	3°39'58
morning rise	271 Feb 08 j 14:23	7° $\overline{\approx}$ 33'10		minimum elong	272 Jan 16 j 17:11	26° $\overline{\text{Z}}$ 39'19	3°39'47
direct	271 Feb 15 j 14:01	4° $\overline{\approx}$ 55'34		min. Earth dist.	272 Jan 18 j 21:59	24° $\overline{\text{Z}}$ 05'52	0.64372 AU
desc. node	271 Feb 23 j 13:07	7° $\overline{\approx}$ 46'23		morning rise	272 Jan 22 j 12:56	20° $\overline{\text{Z}}$ 27'36	
morning max el	271 Mar 01 j 13:18	12° $\overline{\approx}$ 48'47	27°47'15	direct	272 Jan 29 j 09:31	17° $\overline{\text{Z}}$ 37'22	
	271 Mar 15 j 07:01	0° $\overline{\text{H}}$		desc. node	272 Feb 10 j 10:10	23° $\overline{\text{Z}}$ 59'12	
	271 Apr 01 j 19:39	0° $\overline{\text{Y}}$		morning max el	272 Feb 11 j 22:06	25° $\overline{\text{Z}}$ 25'54	27°23'57
morning set	271 Apr 04 j 08:26	5° $\overline{\text{Y}}$ 02'03			272 Feb 16 j 03:03	0° $\overline{\approx}$	
max. Earth dist.	271 Apr 09 j 23:01	16° $\overline{\text{Y}}$ 43'51	1.32757 AU		272 Mar 07 j 18:24	0° $\overline{\text{H}}$	
				morning set	272 Mar 18 j 02:08	18° $\overline{\text{H}}$ 55'39	
superior conj	271 Apr 11 j 22:05	20° $\overline{\text{Y}}$ 57'19	0°-11'-59	max. Earth dist.	272 Mar 22 j 23:34	28° $\overline{\text{H}}$ 47'56	1.33579 AU
minimum elong	271 Apr 11 j 22:40	21° $\overline{\text{Y}}$ 00'25	0°11'54		272 Mar 23 j 13:27	0° $\overline{\text{Y}}$	
behind sun begin	271 Apr 11 j 19:12	20° $\overline{\text{Y}}$ 41'40					
behind sun end	271 Apr 12 j 02:07	21° $\overline{\text{Y}}$ 19'11		superior conj	272 Mar 26 j 03:30	5° $\overline{\text{Y}}$ 26'00	0°-39'-1
asc. node	271 Apr 13 j 01:22	23° $\overline{\text{Y}}$ 25'15		minimum elong	272 Mar 26 j 05:23	5° $\overline{\text{Y}}$ 36'03	0°38'39
	271 Apr 16 j 02:07	0° $\overline{\text{B}}$		asc. node	272 Mar 29 j 22:25	13° $\overline{\text{Y}}$ 31'01	
evening rise	271 Apr 18 j 22:58	6° $\overline{\text{B}}$ 08'37		evening rise	272 Apr 02 j 10:12	20° $\overline{\text{Y}}$ 55'38	
	271 May 01 j 15:36	0° $\overline{\text{II}}$			272 Apr 06 j 21:11	0° $\overline{\text{B}}$	
evening max el	271 May 13 j 02:28	14° $\overline{\text{II}}$ 42'51	23°54'17	evening max el	272 Apr 23 j 18:53	25° $\overline{\text{B}}$ 17'42	22°18'58
desc. node	271 May 22 j 12:20	20° $\overline{\text{II}}$ 54'18			272 Apr 30 j 03:40	0° $\overline{\text{II}}$	

retrograde	272 May 06 j 16:49	1°II39'06		evening max el	273 Apr 05 j 19:31	6°814'19	20°52'02
desc. node	272 May 08 j 09:22	1°II32'43		retrograde	273 Apr 17 j 06:01	11°846'35	
evening set	272 May 09 j 15:13	1°II20'09		evening set	273 Apr 19 j 11:17	11°834'52	
	272 May 13 j 15:08	30°R8		desc. node	273 Apr 25 j 06:23	9°830'39	
min. Earth dist.	272 May 18 j 01:54	27°842'02	0.55207 AU	inferior conj	273 Apr 28 j 17:34	7°837'03	0°-59'-44
inferior conj	272 May 18 j 23:26	27°811'38	-2°-53'-7	minimum elong	273 Apr 28 j 14:44	7°841'05	0°58'43
minimum elong	272 May 18 j 16:21	27°821'38	2°51'02	min. Earth dist.	273 Apr 29 j 14:45	7°806'55	0.55024 AU
morning rise	272 May 27 j 19:28	23°818'09		morning rise	273 May 07 j 17:20	3°830'46	
direct	272 May 30 j 17:09	22°859'02		direct	273 May 11 j 03:25	3°805'33	
morning max el	272 Jun 11 j 07:37	28°824'04	21°13'44	morning max el	273 May 24 j 05:03	9°822'27	22°49'30
	272 Jun 12 j 22:24	0°II			273 Jun 08 j 02:03	0°II	
asc. node	272 Jun 25 j 21:41	19°II25'29		asc. node	273 Jun 12 j 18:45	8°II58'29	
morning set	272 Jul 01 j 04:50	29°II57'25		morning set	273 Jun 15 j 15:39	14°II52'14	
	272 Jul 01 j 05:20	0°8					
				superior conj	273 Jun 22 j 20:03	0°810'19	1°28'40
superior conj	272 Jul 08 j 15:44	15°830'32	1°40'32	minimum elong	273 Jun 22 j 17:40	29°II57'38	1°28'24
minimum elong	272 Jul 08 j 13:58	15°821'28	1°40'25		273 Jun 22 j 18:07	0°8	
max. Earth dist.	272 Jul 12 j 19:22	23°857'09	1.35353 AU	max. Earth dist.	273 Jun 25 j 15:20	6°804'59	1.34012 AU
	272 Jul 15 j 21:27	0°8		evening rise	273 Jun 30 j 15:09	16°813'15	
evening rise	272 Jul 17 j 03:41	2°824'16			273 Jul 07 j 23:50	0°8	
	272 Aug 02 j 08:54	0°8		desc. node	273 Jul 22 j 05:45	22°833'46	
desc. node	272 Aug 04 j 08:44	2°858'41			273 Jul 27 j 21:43	0°8	
evening max el	272 Aug 21 j 13:22	24°826'16	26°36'39	evening max el	273 Aug 04 j 01:11	7°851'25	27°14'50
	272 Aug 28 j 17:51	0°8		retrograde	273 Aug 17 j 10:49	15°810'27	
retrograde	272 Sep 03 j 11:21	1°839'58		evening set	273 Aug 24 j 11:06	12°826'04	
	272 Sep 08 j 15:55	30°88		min. Earth dist.	273 Aug 28 j 06:01	8°850'34	0.64751 AU
evening set	272 Sep 10 j 00:57	28°858'34		inferior conj	273 Aug 30 j 11:01	6°824'58	-2°-56'-12
min. Earth dist.	272 Sep 14 j 02:45	24°845'58	0.66007 AU	minimum elong	273 Aug 30 j 15:21	6°813'04	2°54'48
inferior conj	272 Sep 15 j 18:50	22°845'51	-2°-1'-33	morning rise	273 Sep 05 j 21:20	0°853'12	
minimum elong	272 Sep 15 j 21:57	22°836'31	2°00'21	direct	273 Sep 08 j 12:29	0°816'47	
morning rise	272 Sep 21 j 20:06	16°859'09		asc. node	273 Sep 08 j 17:58	0°817'04	
asc. node	272 Sep 21 j 20:55	16°858'04		morning max el	273 Sep 15 j 00:40	3°845'33	18°04'11
direct	272 Sep 24 j 17:42	16°811'52			273 Oct 02 j 09:47	0°8	
morning max el	272 Oct 01 j 09:47	19°852'25	18°32'59	morning set	273 Oct 02 j 19:23	0°840'17	
	272 Oct 09 j 04:17	0°8					
morning set	272 Oct 21 j 12:57	19°831'52		superior conj	273 Oct 16 j 15:22	23°823'11	0°10'25
	272 Oct 28 j 02:16	0°8		minimum elong	273 Oct 16 j 16:37	23°828'13	0°10'14
desc. node	272 Oct 31 j 08:02	5°808'11		behind sun begin	273 Oct 16 j 08:18	22°854'51	
				behind sun end	273 Oct 17 j 00:56	24°801'32	
superior conj	272 Nov 06 j 07:44	14°834'27	0°-38'-43	desc. node	273 Oct 18 j 05:06	25°853'55	
minimum elong	272 Nov 06 j 02:41	14°814'37	0°38'05		273 Oct 20 j 19:06	0°8	
max. Earth dist.	272 Nov 07 j 00:29	15°840'16	1.45057 AU	max. Earth dist.	273 Oct 20 j 19:22	0°801'05	1.44717 AU
	272 Nov 16 j 03:09	0°8		evening rise	273 Nov 02 j 03:17	19°815'48	
evening rise	272 Nov 22 j 10:22	9°857'38			273 Nov 09 j 02:51	0°8	
	272 Dec 05 j 04:10	0°8		greatest brilliancy	273 Nov 20 j 18:09	17°815'55	-0.6m
evening max el	272 Dec 14 j 17:16	12°846'35	19°04'30	evening max el	273 Nov 27 j 22:57	26°814'45	19°56'35
asc. node	272 Dec 18 j 20:12	16°800'25			273 Dec 02 j 18:19	0°8	
retrograde	272 Dec 21 j 15:33	16°843'27		retrograde	273 Dec 05 j 13:03	0°841'05	
evening set	272 Dec 24 j 21:14	15°842'39		asc. node	273 Dec 05 j 17:15	0°840'54	
inferior conj	272 Dec 30 j 13:52	9°852'37	3°16'36		273 Dec 08 j 04:46	30°R8	
minimum elong	272 Dec 30 j 11:17	10°800'48	3°16'03	evening set	273 Dec 09 j 02:33	29°826'51	
min. Earth dist.	273 Jan 01 j 01:43	7°859'42	0.65768 AU	inferior conj	273 Dec 14 j 15:04	23°822'55	2°42'56
morning rise	273 Jan 05 j 00:26	3°840'53		minimum elong	273 Dec 14 j 12:19	23°832'07	2°42'07
direct	273 Jan 11 j 11:19	0°852'25		min. Earth dist.	273 Dec 15 j 13:13	22°809'11	0.66767 AU
morning max el	273 Jan 24 j 07:49	8°825'53	26°30'39	morning rise	273 Dec 19 j 21:28	17°808'10	
desc. node	273 Jan 27 j 07:13	11°836'10		direct	273 Dec 25 j 18:48	14°832'17	
	273 Feb 10 j 05:19	0°8		morning max el	274 Jan 06 j 16:47	21°837'42	25°16'00
	273 Feb 28 j 04:24	0°8		desc. node	274 Jan 14 j 04:17	0°813'00	
morning set	273 Mar 01 j 08:08	2°809'54			274 Jan 14 j 00:10	0°8	
max. Earth dist.	273 Mar 05 j 13:17	10°818'30	1.34846 AU		274 Feb 03 j 11:16	0°8	
				morning set	274 Feb 11 j 21:36	14°830'51	
superior conj	273 Mar 10 j 02:45	19°831'20	-1°-5'-35	max. Earth dist.	274 Feb 15 j 15:36	21°824'00	1.36551 AU
minimum elong	273 Mar 10 j 05:52	19°847'21	1°05'03		274 Feb 20 j 03:24	0°8	
	273 Mar 15 j 03:34	0°8					
asc. node	273 Mar 16 j 19:29	3°828'08		superior conj	274 Feb 21 j 17:01	3°805'05	-1°-29'-54
evening rise	273 Mar 17 j 18:59	5°829'51		minimum elong	274 Feb 21 j 20:53	3°824'16	1°29'24
	273 Mar 31 j 12:00	0°8		evening rise	274 Mar 01 j 23:12	19°844'23	

asc. node	274 Mar 03 j 16:33	23° Υ 11'31		evening rise	275 Feb 13 j 20:16	3° Υ 32'22	
	274 Mar 07 j 04:54	0° Υ		asc. node	275 Feb 18 j 13:36	12° Υ 35'51	
evening max el	274 Mar 19 j 07:24	17° Υ 47'39	19°41'22	evening max el	275 Mar 02 j 05:51	29° Υ 59'05	18°50'09
retrograde	274 Mar 29 j 00:47	22° Υ 27'59			275 Mar 02 j 06:13	0° Υ	
evening set	274 Mar 31 j 03:15	22° Υ 15'50		retrograde	275 Mar 10 j 11:12	3° Υ 58'03	
inferior conj	274 Apr 08 j 19:18	18° Υ 12'42	0°56'29	evening set	275 Mar 12 j 17:46	3° Υ 40'59	
minimum elong	274 Apr 08 j 21:40	18° Υ 08'59	0°55'40		275 Mar 19 j 17:59	30° Υ	
min. Earth dist.	274 Apr 11 j 05:06	16° Υ 42'11	0.55792 AU	inferior conj	275 Mar 20 j 15:15	29° Υ 21'38	2°26'50
desc. node	274 Apr 12 j 03:26	16° Υ 08'34		minimum elong	275 Mar 20 j 19:33	29° Υ 13'47	2°25'40
morning rise	274 Apr 17 j 12:37	13° Υ 36'42		min. Earth dist.	275 Mar 23 j 21:45	26° Υ 59'48	0.57345 AU
direct	274 Apr 21 j 20:47	12° Υ 54'39		morning rise	275 Mar 28 j 17:04	24° Υ 12'43	
morning max el	274 May 05 j 20:34	19° Υ 55'31	24°30'38	desc. node	275 Mar 30 j 00:28	23° Υ 42'30	
	274 May 14 j 09:21	0° Υ		direct	275 Apr 03 j 04:08	23° Υ 00'18	
asc. node	274 May 30 j 15:48	28° Υ 48'49			275 Apr 16 j 23:40	0° Υ	
morning set	274 May 31 j 03:37	29° Υ 50'45		morning max el	275 Apr 17 j 11:59	0° Υ 29'23	26°02'32
	274 May 31 j 05:22	0° Υ			275 May 08 j 04:04	0° Υ	
				morning set	275 May 15 j 15:04	14° Υ 47'23	
superior conj	274 Jun 07 j 04:47	15° Υ 02'57	1°12'08	asc. node	275 May 17 j 12:52	18° Υ 50'52	
minimum elong	274 Jun 07 j 02:21	14° Υ 49'41	1°11'45				
max. Earth dist.	274 Jun 08 j 19:46	18° Υ 33'41	1.33064 AU	superior conj	275 May 22 j 15:56	0° Υ 01'33	0°51'52
	274 Jun 14 j 06:22	0° Υ		minimum elong	275 May 22 j 13:53	29° Υ 50'22	0°51'29
evening rise	274 Jun 14 j 12:42	0° Υ 32'10			275 May 22 j 15:39	0° Υ	
	274 Jun 30 j 23:56	0° Υ		max. Earth dist.	275 May 23 j 06:06	1° Υ 19'09	1.32502 AU
desc. node	274 Jul 09 j 02:45	11° Υ 28'50		evening rise	275 May 29 j 17:12	15° Υ 11'17	
evening max el	274 Jul 17 j 11:05	20° Υ 52'39	27°25'06		275 Jun 06 j 06:20	0° Υ	
retrograde	274 Jul 31 j 04:25	28° Υ 11'51		desc. node	275 Jun 25 j 23:45	29° Υ 27'14	
evening set	274 Aug 07 j 09:18	25° Υ 36'19			275 Jun 26 j 11:33	0° Υ	
min. Earth dist.	274 Aug 10 j 23:37	22° Υ 33'01	0.63134 AU	evening max el	275 Jun 29 j 16:51	3° Υ 18'24	27°03'04
inferior conj	274 Aug 13 j 17:37	19° Υ 50'02	-3°-45'-53	retrograde	275 Jul 13 j 15:04	10° Υ 34'50	
minimum elong	274 Aug 13 j 22:29	19° Υ 37'59	3°44'40	evening set	275 Jul 20 j 15:23	8° Υ 22'13	
morning rise	274 Aug 20 j 14:02	14° Υ 36'28		min. Earth dist.	275 Jul 24 j 07:02	5° Υ 40'05	0.61221 AU
direct	274 Aug 23 j 01:18	14° Υ 07'42		inferior conj	275 Jul 27 j 11:26	2° Υ 53'38	-4°-25'-20
asc. node	274 Aug 26 j 15:01	15° Υ 08'58		minimum elong	275 Jul 27 j 15:29	2° Υ 44'46	4°24'43
morning max el	274 Aug 29 j 16:29	17° Υ 33'07	17°52'59		275 Jul 31 j 00:56	30° Υ	
	274 Sep 07 j 14:30	0° Υ		morning rise	275 Aug 03 j 18:34	28° Υ 00'59	
morning set	274 Sep 15 j 02:01	12° Υ 57'51		direct	275 Aug 06 j 04:31	27° Υ 37'10	
	274 Sep 24 j 22:11	0° Υ			275 Aug 11 j 23:47	0° Υ	
				morning max el	275 Aug 13 j 06:14	1° Υ 07'55	18°00'27
superior conj	274 Sep 26 j 22:25	3° Υ 22'29	0°52'41	asc. node	275 Aug 13 j 12:05	1° Υ 22'19	
minimum elong	274 Sep 27 j 03:06	3° Υ 42'01	0°52'06	morning set	275 Aug 29 j 02:50	26° Υ 07'43	
max. Earth dist.	274 Oct 03 j 11:06	14° Υ 04'34	1.43686 AU		275 Aug 31 j 05:14	0° Υ	
desc. node	274 Oct 05 j 02:07	16° Υ 40'59					
evening rise	274 Oct 12 j 10:17	28° Υ 12'48		superior conj	275 Sep 08 j 08:42	14° Υ 42'03	1°22'39
	274 Oct 13 j 14:04	0° Υ		minimum elong	275 Sep 08 j 13:11	15° Υ 01'45	1°22'12
	274 Nov 02 j 23:44	0° Υ		max. Earth dist.	275 Sep 15 j 21:56	27° Υ 36'16	1.42108 AU
greatest brilliancy	274 Nov 05 j 13:21	3° Υ 23'32	-0.5m		275 Sep 17 j 08:44	0° Υ	
evening max el	274 Nov 10 j 23:04	9° Υ 43'28	21°02'16	desc. node	275 Sep 21 j 23:06	7° Υ 26'03	
retrograde	274 Nov 19 j 10:39	14° Υ 45'29		evening rise	275 Sep 22 j 01:22	7° Υ 35'01	
asc. node	274 Nov 22 j 14:16	13° Υ 49'28			275 Oct 06 j 19:31	0° Υ	
evening set	274 Nov 23 j 09:59	13° Υ 15'59		greatest brilliancy	275 Oct 20 j 00:18	17° Υ 54'17	-0.3m
inferior conj	274 Nov 28 j 20:09	7° Υ 01'37	2°01'29	evening max el	275 Oct 24 j 17:34	23° Υ 13'00	22°17'44
minimum elong	274 Nov 28 j 17:45	7° Υ 09'53	2°00'37	retrograde	275 Nov 03 j 06:27	28° Υ 53'15	
min. Earth dist.	274 Nov 29 j 06:12	6° Υ 27'04	0.67390 AU	evening set	275 Nov 07 j 17:42	27° Υ 06'41	
morning rise	274 Dec 04 j 01:07	0° Υ 46'01		asc. node	275 Nov 09 j 11:19	25° Υ 27'21	
	274 Dec 05 j 00:08	30° Υ		inferior conj	275 Nov 13 j 03:04	20° Υ 45'35	1°14'02
direct	274 Dec 09 j 07:22	28° Υ 29'31		minimum elong	275 Nov 13 j 01:26	20° Υ 51'14	1°13'23
	274 Dec 14 j 02:03	0° Υ		min. Earth dist.	275 Nov 13 j 02:10	20° Υ 48'40	0.67673 AU
morning max el	274 Dec 20 j 01:21	4° Υ 54'13	23°50'03	morning rise	275 Nov 18 j 09:00	14° Υ 31'32	
desc. node	275 Jan 01 j 01:21	19° Υ 32'19		direct	275 Nov 23 j 00:08	12° Υ 37'26	
	275 Jan 08 j 09:15	0° Υ		morning max el	275 Dec 02 j 12:17	18° Υ 14'56	22°22'30
morning set	275 Jan 24 j 12:26	25° Υ 42'03		greatest brilliancy	275 Dec 07 j 03:06	23° Υ 25'42	-0.3m
	275 Jan 27 j 00:07	0° Υ			275 Dec 12 j 05:48	0° Υ	
max. Earth dist.	275 Jan 28 j 10:54	2° Υ 33'07	1.38582 AU	desc. node	275 Dec 18 j 22:22	9° Υ 21'19	
					276 Jan 01 j 12:58	0° Υ	
superior conj	275 Feb 04 j 18:37	15° Υ 57'51	-1°-49'-31	morning set	276 Jan 04 j 22:47	5° Υ 28'30	
minimum elong	275 Feb 04 j 22:13	16° Υ 14'55	1°49'14	max. Earth dist.	276 Jan 10 j 07:19	14° Υ 20'59	1.40711 AU
	275 Feb 12 j 00:53	0° Υ					

superior conj	276 Jan 18 j 02:42	27°☿56'42	-2°-1'-1	superior conj	276 Dec 29 j 11:55	8°☿49'01	-1°-59'-59
minimum elong	276 Jan 18 j 04:17	28°☿03'44	2°01'00	minimum elong	276 Dec 29 j 09:16	8°☿37'43	1°59'55
	276 Jan 19 j 06:06	0°≈		evening rise	277 Jan 10 j 03:34	29°☿15'04	
evening rise	276 Jan 28 j 06:59	16°≈45'08			277 Jan 10 j 13:35	0°≈	
	276 Feb 04 j 12:40	0°✕		asc. node	277 Jan 22 j 07:39	19°≈57'25	
asc. node	276 Feb 05 j 10:38	1°✕33'52		evening max el	277 Jan 26 j 22:52	25°≈43'08	18°07'39
evening max el	276 Feb 13 j 12:03	12°✕40'33	18°19'00	retrograde	277 Feb 02 j 13:56	29°≈08'03	
retrograde	276 Feb 20 j 16:27	16°✕14'32		evening set	277 Feb 05 j 06:00	28°≈34'45	
evening set	276 Feb 23 j 04:05	15°✕49'58		inferior conj	277 Feb 11 j 20:09	23°≈32'29	3°46'25
inferior conj	276 Mar 01 j 08:14	11°✕09'30	3°22'05	minimum elong	277 Feb 11 j 21:08	23°≈30'04	3°46'23
minimum elong	276 Mar 01 j 11:25	11°✕02'42	3°21'34	min. Earth dist.	277 Feb 14 j 21:57	20°≈32'57	0.61457 AU
min. Earth dist.	276 Mar 04 j 18:21	8°✕16'24	0.59353 AU	morning rise	277 Feb 18 j 09:41	17°≈40'43	
morning rise	276 Mar 08 j 15:09	5°✕34'53		direct	277 Feb 25 j 06:59	15°≈17'37	
direct	276 Mar 15 j 00:26	3°✕45'09		desc. node	277 Mar 02 j 18:34	16°≈38'42	
desc. node	276 Mar 15 j 21:31	3°✕47'11		morning max el	277 Mar 11 j 10:16	23°≈08'28	27°44'39
morning max el	276 Mar 29 j 07:55	11°✕28'47	27°10'35		277 Mar 17 j 13:19	0°✕	
	276 Apr 12 j 18:46	0°☿			277 Apr 05 j 22:41	0°☿	
morning set	276 Apr 29 j 00:19	29°☿35'57		morning set	277 Apr 13 j 05:30	14°☿09'58	
	276 Apr 29 j 04:56	0°♄		max. Earth dist.	277 Apr 19 j 06:02	26°☿54'52	1.32486 AU
asc. node	276 May 03 j 09:54	8°♄59'29		asc. node	277 Apr 20 j 06:56	29°☿10'20	
superior conj	276 May 06 j 03:41	14°♄59'33	0°28'40	superior conj	277 Apr 20 j 14:24	29°☿51'03	0°03'19
minimum elong	276 May 06 j 02:27	14°♄52'43	0°28'24	minimum elong	277 Apr 20 j 14:15	29°☿50'12	0°03'16
max. Earth dist.	276 May 05 j 18:46	14°♄10'34	1.32309 AU	behind sun begin	277 Apr 20 j 09:15	29°☿22'56	
evening rise	276 May 13 j 02:09	0°♄01'51		behind sun end	277 Apr 20 j 19:15	0°♄17'30	
	276 May 13 j 01:48	0°♄			277 Apr 20 j 16:03	0°♄	
	276 May 29 j 13:42	0°♄		evening rise	277 Apr 27 j 13:28	14°♄56'28	
evening max el	276 Jun 10 j 16:17	14°♄59'53	26°08'34		277 May 05 j 02:49	0°♄	
desc. node	276 Jun 11 j 20:45	16°♄05'29		evening max el	277 May 23 j 09:05	25°♄58'05	24°47'42
retrograde	276 Jun 24 j 17:00	22°♄12'21			277 May 28 j 08:10	0°♄	
evening set	276 Jul 01 j 00:44	20°♄34'40		desc. node	277 May 29 j 17:47	0°♄51'21	
min. Earth dist.	276 Jul 05 j 05:06	17°♄57'18	0.59163 AU	retrograde	277 Jun 06 j 08:12	3°♄02'49	
inferior conj	276 Jul 08 j 12:54	15°♄26'21	-4°-46'-13	evening set	277 Jun 11 j 10:46	2°♄03'37	
minimum elong	276 Jul 08 j 14:03	15°♄24'09	4°46'11		277 Jun 15 j 14:18	30°♄♄	
morning rise	276 Jul 16 j 06:52	10°♄56'31		min. Earth dist.	277 Jun 16 j 20:29	29°♄13'24	0.57220 AU
direct	276 Jul 18 j 18:03	10°♄35'42		inferior conj	277 Jun 19 j 18:49	27°♄18'02	-4°-36'-33
morning max el	276 Jul 26 j 14:52	14°♄21'44	18°27'50	minimum elong	277 Jun 19 j 15:16	27°♄23'53	4°36'13
asc. node	276 Jul 30 j 09:08	18°♄41'56		morning rise	277 Jun 27 j 23:36	23°♄09'55	
	276 Aug 06 j 09:48	0°♄		direct	277 Jun 30 j 13:33	22°♄50'59	
morning set	276 Aug 11 j 16:45	9°♄56'32		morning max el	277 Jul 09 j 15:25	27°♄04'47	19°16'09
					277 Jul 12 j 09:04	0°♄	
superior conj	276 Aug 20 j 18:24	27°♄11'35	1°40'02	asc. node	277 Jul 17 j 06:10	6°♄52'43	
minimum elong	276 Aug 20 j 20:59	27°♄23'35	1°39'52	morning set	277 Jul 26 j 15:50	24°♄12'51	
	276 Aug 22 j 06:59	0°♄			277 Jul 29 j 13:24	0°♄	
max. Earth dist.	276 Aug 28 j 03:54	10°♄27'46	1.40184 AU				
evening rise	276 Sep 01 j 13:59	17°♄58'19		superior conj	277 Aug 03 j 21:41	10°♄34'15	1°46'42
desc. node	276 Sep 07 j 20:06	28°♄05'59		minimum elong	277 Aug 03 j 22:12	10°♄36'43	1°46'42
	276 Sep 09 j 01:12	0°♄		max. Earth dist.	277 Aug 10 j 07:18	22°♄39'23	1.38161 AU
	276 Sep 30 j 07:11	0°♄		evening rise	277 Aug 14 j 03:19	29°♄31'14	
evening max el	276 Oct 06 j 07:47	6°♄45'33	23°37'40		277 Aug 14 j 09:53	0°♄	
retrograde	276 Oct 16 j 23:11	13°♄02'16		desc. node	277 Aug 25 j 17:08	18°♄35'59	
evening set	276 Oct 22 j 00:06	10°♄57'37			277 Sep 02 j 09:27	0°♄	
asc. node	276 Oct 26 j 08:21	6°♄01'06		evening max el	277 Sep 18 j 19:40	20°♄21'09	24°55'40
inferior conj	276 Oct 27 j 10:05	4°♄33'36	0°22'10	retrograde	277 Sep 30 j 11:57	27°♄08'13	
minimum elong	276 Oct 27 j 09:33	4°♄35'24	0°21'56	evening set	277 Oct 06 j 03:32	24°♄46'10	
min. Earth dist.	276 Oct 26 j 22:44	5°♄12'18	0.67634 AU	min. Earth dist.	277 Oct 10 j 17:29	19°♄35'32	0.67270 AU
	276 Oct 31 j 01:05	30°♄♄		inferior conj	277 Oct 11 j 15:26	18°♄23'08	0°-32'-43
morning rise	276 Nov 01 j 19:06	28°♄23'39		minimum elong	277 Oct 11 j 16:15	18°♄20'27	0°32'23
direct	276 Nov 05 j 20:07	26°♄51'55		asc. node	277 Oct 13 j 05:23	16°♄20'26	
	276 Nov 12 j 08:37	0°♄		morning rise	277 Oct 17 j 05:28	12°♄19'59	
morning max el	276 Nov 14 j 05:15	1°♄44'52	21°01'22	direct	277 Oct 20 j 18:02	11°♄08'24	
greatest brilliancy	276 Nov 19 j 18:14	8°♄10'56	-0.5m	morning max el	277 Oct 28 j 06:00	15°♄25'33	19°51'56
desc. node	276 Dec 04 j 19:24	29°♄31'57		greatest brilliancy	277 Nov 04 j 20:34	24°♄49'38	-0.6m
	276 Dec 05 j 02:52	0°♄			277 Nov 08 j 11:31	0°♄	
morning set	276 Dec 14 j 05:57	13°♄59'51		desc. node	277 Nov 21 j 16:26	19°♄57'49	
max. Earth dist.	276 Dec 22 j 10:58	27°♄06'03	1.42638 AU	morning set	277 Nov 23 j 02:21	22°♄08'41	
	276 Dec 24 j 05:25	0°♄			277 Nov 28 j 03:42	0°♄	

max. Earth dist.	277 Dec 04 j 22:11	10°♄40'25	1.44095 AU	desc. node	278 Nov 08 j 13:28	10°♍34'17	
				max. Earth dist.	278 Nov 17 j 14:28	24°♍46'12	1.44910 AU
superior conj	277 Dec 09 j 18:24	18°♄27'10	-1°-41'-56	superior conj	278 Nov 19 j 01:56	27°♍05'52	-1°-5'-39
minimum elong	277 Dec 09 j 11:03	17°♄57'22	1°41'21	minimum elong	278 Nov 18 j 18:12	26°♍35'22	1°04'46
	277 Dec 16 j 18:51	0°♄			278 Nov 20 j 22:04	0°♄	
evening rise	277 Dec 23 j 05:45	10°♄54'04		evening rise	278 Dec 04 j 09:35	21°♄35'34	
	278 Jan 03 j 16:21	0°♄			278 Dec 09 j 13:39	0°♄	
asc. node	278 Jan 09 j 04:41	7°♄36'08		evening max el	278 Dec 24 j 22:54	22°♄22'49	18°41'43
evening max el	278 Jan 10 j 11:21	8°♄59'13	18°15'32	asc. node	278 Dec 27 j 01:44	24°♄17'04	
retrograde	278 Jan 16 j 23:00	12°♄28'19		retrograde	278 Dec 31 j 15:21	26°♄07'00	
evening set	278 Jan 19 j 19:30	11°♄45'24		evening set	279 Jan 03 j 17:12	25°♄13'20	
inferior conj	278 Jan 25 j 23:05	6°♄22'54	3°47'26	inferior conj	279 Jan 09 j 13:08	19°♄32'45	3°31'33
minimum elong	278 Jan 25 j 22:08	6°♄25'33	3°47'23	minimum elong	279 Jan 09 j 10:56	19°♄39'25	3°31'11
min. Earth dist.	278 Jan 28 j 10:56	3°♄38'35	0.63388 AU	min. Earth dist.	279 Jan 11 j 09:39	17°♄18'24	0.65005 AU
morning rise	278 Jan 31 j 23:00	0°♄20'17		morning rise	279 Jan 15 j 03:30	13°♄23'26	
	278 Feb 01 j 09:36	30°♄		direct	279 Jan 21 j 20:31	10°♄32'09	
direct	278 Feb 07 j 22:07	27°♄35'46		morning max el	279 Feb 04 j 03:20	18°♄16'52	27°04'34
	278 Feb 15 j 02:15	0°♄		desc. node	279 Feb 04 j 12:41	18°♄40'31	
desc. node	278 Feb 17 j 15:38	1°♄48'37			279 Feb 14 j 01:03	0°♄	
morning max el	278 Feb 21 j 17:44	5°♄28'15	27°41'38		279 Mar 05 j 06:09	0°♄	
	278 Mar 12 j 08:02	0°♄		morning set	279 Mar 11 j 17:30	12°♄00'13	
morning set	278 Mar 28 j 04:17	28°♄21'45		max. Earth dist.	279 Mar 16 j 07:53	21°♄07'19	1.34053 AU
	278 Mar 28 j 23:52	0°♄					
max. Earth dist.	278 Apr 02 j 11:47	9°♄18'08	1.33053 AU	superior conj	279 Mar 20 j 01:24	28°♄49'39	0°-50'-26
				minimum elong	279 Mar 20 j 03:50	29°♄02'26	0°49'59
superior conj	278 Apr 04 j 22:20	14°♄30'17	0°-23'-25		279 Mar 20 j 14:48	0°♄	
minimum elong	278 Apr 04 j 23:27	14°♄36'21	0°23'12	asc. node	279 Mar 25 j 01:02	9°♄22'01	
asc. node	278 Apr 07 j 03:59	19°♄19'33		evening rise	279 Mar 27 j 11:41	14°♄30'26	
evening rise	278 Apr 12 j 01:17	29°♄48'30			279 Apr 04 j 09:35	0°♄	
	278 Apr 12 j 03:28	0°♄		evening max el	279 Apr 16 j 18:41	17°♄13'57	21°40'28
	278 Apr 29 j 05:44	0°♄		retrograde	279 Apr 29 j 03:30	23°♄16'12	
evening max el	278 May 04 j 23:29	6°♄32'52	23°13'25	evening set	279 May 01 j 16:12	23°♄01'48	
desc. node	278 May 16 j 14:49	13°♄08'49		desc. node	279 May 03 j 11:52	22°♄34'42	
retrograde	278 May 18 j 11:21	13°♄16'39		inferior conj	279 May 11 j 01:30	18°♄59'45	-2°-7'-45
evening set	278 May 22 j 02:51	12°♄47'27		minimum elong	279 May 10 j 19:43	19°♄07'51	2°05'50
min. Earth dist.	278 May 29 j 09:14	9°♄30'12	0.55728 AU	min. Earth dist.	279 May 10 j 22:03	19°♄04'35	0.55007 AU
inferior conj	278 May 31 j 05:02	8°♄25'58	-3°-44'-10	morning rise	279 May 20 j 00:04	15°♄02'56	
minimum elong	278 May 30 j 21:53	8°♄36'30	3°42'31	direct	279 May 23 j 01:38	14°♄42'16	
morning rise	278 Jun 08 j 20:10	4°♄31'35		morning max el	279 Jun 04 j 08:39	20°♄30'13	21°52'58
direct	278 Jun 11 j 13:52	4°♄13'30			279 Jun 12 j 06:21	0°♄	
morning max el	278 Jun 22 j 05:36	9°♄09'15	20°25'17	asc. node	279 Jun 21 j 00:18	15°♄02'18	
asc. node	278 Jul 04 j 03:14	25°♄42'56		morning set	279 Jun 25 j 06:31	23°♄38'06	
	278 Jul 06 j 10:35	0°♄			279 Jun 28 j 07:13	0°♄	
morning set	278 Jul 10 j 21:10	8°♄48'58					
				superior conj	279 Jul 02 j 14:13	9°♄03'50	1°36'08
superior conj	278 Jul 18 j 13:36	24°♄35'41	1°44'47	minimum elong	279 Jul 02 j 12:08	8°♄52'51	1°35'58
minimum elong	278 Jul 18 j 12:29	24°♄30'04	1°44'46	max. Earth dist.	279 Jul 06 j 03:23	16°♄24'04	1.34736 AU
	278 Jul 21 j 06:19	0°♄		evening rise	279 Jul 10 j 18:12	25°♄33'18	
max. Earth dist.	278 Jul 23 j 13:20	4°♄29'12	1.36291 AU		279 Jul 13 j 02:25	0°♄	
evening rise	278 Jul 27 j 14:20	12°♄07'15		desc. node	279 Jul 30 j 11:11	28°♄42'34	
	278 Aug 06 j 22:21	0°♄			279 Jul 31 j 08:49	0°♄	
desc. node	278 Aug 12 j 14:09	8°♄50'32		evening max el	279 Aug 14 j 19:10	17°♄30'46	26°55'56
	278 Aug 28 j 12:19	0°♄		retrograde	279 Aug 27 j 23:06	24°♄48'18	
evening max el	278 Sep 01 j 07:10	3°♄58'07	26°04'20	evening set	279 Sep 03 j 17:36	22°♄04'29	
retrograde	278 Sep 13 j 20:08	11°♄05'52		min. Earth dist.	279 Sep 07 j 16:19	18°♄07'44	0.65514 AU
evening set	278 Sep 20 j 02:07	8°♄29'41		inferior conj	279 Sep 09 j 13:47	15°♄55'57	-2°-25'-8
min. Earth dist.	278 Sep 24 j 08:07	3°♄55'33	0.66568 AU	minimum elong	279 Sep 09 j 17:28	15°♄45'17	2°23'48
inferior conj	278 Sep 25 j 17:21	2°♄11'47	-1°-29'-6	morning rise	279 Sep 15 j 18:45	10°♄15'06	
minimum elong	278 Sep 25 j 19:38	2°♄04'40	1°28'11	asc. node	279 Sep 16 j 23:30	9°♄46'36	
	278 Sep 27 j 12:41	30°♄		direct	279 Sep 18 j 13:11	9°♄32'59	
asc. node	278 Sep 30 j 02:27	27°♄22'25		morning max el	279 Sep 25 j 02:57	13°♄07'52	18°18'33
morning rise	278 Oct 01 j 14:05	26°♄18'14			279 Oct 07 j 02:19	0°♄	
direct	278 Oct 04 j 16:22	25°♄23'19		morning set	279 Oct 14 j 02:56	11°♄26'39	
morning max el	278 Oct 11 j 13:54	29°♄14'46	18°57'08		279 Oct 25 j 14:58	0°♄	
	278 Oct 12 j 07:13	0°♄		desc. node	279 Oct 26 j 10:30	1°♄17'36	
	278 Nov 01 j 20:03	0°♄					
morning set	278 Nov 02 j 12:44	1°♄05'37					

superior conj	279 Oct 29 j 03:08	5°♄33'31	0°-17'-41	asc. node	280 Sep 02 j 20:34	23°♂45'41	
minimum elong	279 Oct 29 j 00:50	5°♄24'23	0°17'23	morning max el	280 Sep 07 j 18:30	26°♂58'54	17°57'07
max. Earth dist.	279 Oct 31 j 09:05	9°♄06'08	1.44998 AU		280 Sep 10 j 09:49	0°♄	
	279 Nov 13 j 17:22	0°♄		morning set	280 Sep 24 j 20:26	23°♄06'49	
evening rise	279 Nov 14 j 13:54	1°♄20'13			280 Sep 28 j 21:27	0°♄	
greatest brilliancy	279 Nov 29 j 09:41	24°♄13'05	-0.7m				
	279 Dec 03 j 11:24	0°♄		superior conj	280 Oct 07 j 19:21	14°♂48'08	0°29'40
evening max el	279 Dec 08 j 07:20	5°♄50'41	19°24'54	minimum elong	280 Oct 07 j 22:34	15°♂01'16	0°29'15
asc. node	279 Dec 13 j 22:47	9°♄45'58		desc. node	280 Oct 12 j 07:30	22°♂03'56	
retrograde	279 Dec 15 j 11:39	9°♄59'05		max. Earth dist.	280 Oct 13 j 03:08	23°♂22'10	1.44361 AU
evening set	279 Dec 18 j 20:23	8°♄52'56			280 Oct 17 j 07:52	0°♄	
inferior conj	279 Dec 24 j 11:04	2°♄56'54	3°03'24	evening rise	280 Oct 24 j 00:36	10°♄24'17	
minimum elong	279 Dec 24 j 08:20	3°♄05'46	3°02'43		280 Nov 05 j 23:01	0°♄	
min. Earth dist.	279 Dec 25 j 16:59	1°♄20'08	0.66241 AU	greatest brilliancy	280 Nov 14 j 03:56	11°♄42'24	-0.5m
	279 Dec 26 j 18:29	30°♄		evening max el	280 Nov 20 j 10:50	19°♄19'19	20°23'08
morning rise	279 Dec 29 j 19:28	26°♄43'36		retrograde	280 Nov 28 j 09:18	23°♄59'42	
direct	280 Jan 05 j 01:02	23°♄59'02		asc. node	280 Nov 29 j 19:50	23°♄47'57	
	280 Jan 16 j 02:44	0°♄		evening set	280 Dec 02 j 02:49	22°♄39'09	
morning max el	280 Jan 17 j 12:37	1°♄22'30	26°00'52	inferior conj	280 Dec 07 j 14:09	16°♄30'32	2°26'08
desc. node	280 Jan 22 j 09:44	6°♄45'29		minimum elong	280 Dec 07 j 11:29	16°♄39'33	2°25'17
	280 Feb 08 j 02:31	0°♄		min. Earth dist.	280 Dec 08 j 06:58	15°♄33'39	0.67083 AU
morning set	280 Feb 22 j 17:06	24°♄53'25		morning rise	280 Dec 12 j 19:38	10°♄15'24	
	280 Feb 25 j 10:22	0°♄		direct	280 Dec 18 j 10:46	7°♄47'06	
max. Earth dist.	280 Feb 26 j 16:08	2°♄22'53	1.35519 AU	morning max el	280 Dec 29 j 21:00	14°♄35'40	24°40'09
				desc. node	281 Jan 08 j 06:46	25°♄41'39	
superior conj	280 Mar 02 j 21:12	12°♄42'30	-1°-16'-18		281 Jan 11 j 11:31	0°♄	
minimum elong	280 Mar 03 j 00:43	13°♄00'19	1°15'45		281 Jan 30 j 23:40	0°♄	
evening rise	280 Mar 10 j 18:45	28°♄56'33		morning set	281 Feb 03 j 21:37	6°♄45'51	
asc. node	280 Mar 10 j 22:05	29°♄13'35		max. Earth dist.	281 Feb 07 j 14:34	13°♄24'59	1.37392 AU
	280 Mar 11 j 07:11	0°♄					
evening max el	280 Mar 29 j 00:04	28°♄25'16	20°19'46	superior conj	281 Feb 14 j 06:33	25°♄59'52	-1°-38'-59
	280 Mar 30 j 18:55	0°♄		minimum elong	281 Feb 14 j 10:29	26°♄18'57	1°38'34
retrograde	280 Apr 08 j 16:55	3°♄34'12			281 Feb 16 j 07:37	0°♄	
evening set	280 Apr 10 j 19:41	3°♄23'00		evening rise	281 Feb 22 j 20:14	13°♄00'17	
	280 Apr 18 j 21:12	30°♄		asc. node	281 Feb 25 j 19:08	18°♄49'21	
desc. node	280 Apr 19 j 08:54	29°♄42'58			281 Mar 03 j 23:06	0°♄	
inferior conj	280 Apr 19 j 21:02	29°♄25'11	0°-8'-42	evening max el	281 Mar 11 j 16:42	10°♄14'59	19°17'06
minimum elong	280 Apr 19 j 20:38	29°♄25'47	0°08'34	retrograde	281 Mar 20 j 17:18	14°♄35'39	
transit middle	280 Apr 19 j 20:38	29°♄25'47	0°08'34	evening set	281 Mar 22 j 21:22	14°♄21'41	
transit begin	280 Apr 19 j 17:14	29°♄30'46		inferior conj	281 Mar 31 j 05:34	10°♄12'23	1°39'01
transit end	280 Apr 20 j 00:02	29°♄20'47		minimum elong	281 Mar 31 j 09:14	10°♄06'16	1°37'51
min. Earth dist.	280 Apr 21 j 11:33	28°♄28'42	0.55242 AU	min. Earth dist.	281 Apr 03 j 02:19	8°♄18'30	0.56376 AU
morning rise	280 Apr 28 j 19:22	25°♄07'30		desc. node	281 Apr 06 j 05:55	6°♄27'46	
direct	280 May 02 j 14:02	24°♄36'28		morning rise	281 Apr 08 j 17:11	5°♄22'25	
	280 May 14 j 17:51	0°♄		direct	281 Apr 13 j 12:58	4°♄28'58	
morning max el	280 May 16 j 02:42	1°♄14'03	23°32'33	morning max el	281 Apr 27 j 17:13	11°♄42'56	25°11'54
	280 Jun 04 j 12:57	0°♄			281 May 11 j 17:42	0°♄	
asc. node	280 Jun 06 j 21:21	4°♄43'01		morning set	281 May 24 j 05:56	23°♄33'09	
morning set	280 Jun 08 j 17:59	8°♄34'34		asc. node	281 May 24 j 18:24	24°♄38'58	
					281 May 27 j 06:16	0°♄	
superior conj	280 Jun 15 j 20:39	23°♄49'27	1°22'10	superior conj	281 May 31 j 06:38	8°♄45'20	1°03'57
minimum elong	280 Jun 15 j 18:11	23°♄36'09	1°21'50	minimum elong	281 May 31 j 04:18	8°♄32'38	1°03'33
max. Earth dist.	280 Jun 18 j 03:12	28°♄40'35	1.33565 AU	max. Earth dist.	281 Jun 01 j 10:48	11°♄18'46	1.32780 AU
	280 Jun 18 j 18:15	0°♄		evening rise	281 Jun 07 j 11:14	24°♄05'02	
evening rise	280 Jun 23 j 10:22	9°♄36'12			281 Jun 10 j 09:47	0°♄	
	280 Jul 04 j 11:51	0°♄			281 Jun 28 j 04:36	0°♄	
desc. node	280 Jul 16 j 08:12	18°♄02'08		desc. node	281 Jul 03 j 05:12	6°♄35'50	
	280 Jul 26 j 10:55	0°♄		evening max el	281 Jul 09 j 15:18	13°♄36'27	27°19'51
evening max el	280 Jul 27 j 06:40	0°♄48'01	27°23'02	retrograde	281 Jul 23 j 10:34	20°♄53'46	
retrograde	280 Aug 09 j 20:06	8°♄07'05		evening set	281 Jul 30 j 15:01	18°♄26'22	
evening set	280 Aug 16 j 23:06	5°♄25'15		min. Earth dist.	281 Aug 03 j 04:59	15°♄33'53	0.62355 AU
min. Earth dist.	280 Aug 20 j 15:47	2°♄04'02	0.64104 AU	inferior conj	281 Aug 06 j 03:54	12°♄47'38	-4°-4'-18
	280 Aug 22 j 14:58	30°♄		minimum elong	281 Aug 06 j 08:38	12°♄36'29	4°03'17
inferior conj	280 Aug 23 j 02:16	29°♄30'03	-3°-18'-12	morning rise	281 Aug 13 j 04:48	7°♄42'32	
minimum elong	280 Aug 23 j 06:57	29°♄17'43	3°16'48	direct	281 Aug 15 j 15:21	7°♄16'01	
morning rise	280 Aug 29 j 16:44	24°♄05'17		asc. node	281 Aug 20 j 17:36	9°♄14'23	
direct	280 Sep 01 j 05:56	23°♄32'26					

morning max el	281 Aug 22 j 09:49	10°Ω42'15	17°53'48	morning rise	282 Jul 27 j 02:55	20°☾56'05	
	281 Sep 04 j 05:32	0°൬		direct	282 Jul 29 j 13:12	20°☾33'43	
morning set	281 Sep 07 j 11:36	5°൬49'21		morning max el	282 Aug 05 j 21:49	24°☾09'16	18°09'41
				asc. node	282 Aug 07 j 14:38	25°☾57'30	
superior conj	281 Sep 18 j 14:15	25°൬22'35	1°07'00		282 Aug 10 j 16:39	0°Ω	
minimum elong	281 Sep 18 j 19:11	25°൬43'37	1°06'25	morning set	282 Aug 21 j 18:31	19°Ω17'01	
	281 Sep 21 j 07:54	0°♎			282 Aug 27 j 12:03	0°൬	
max. Earth dist.	281 Sep 25 j 17:36	7°♎16'26	1.43081 AU				
desc. node	281 Sep 29 j 04:31	12°♎50'38		superior conj	282 Aug 31 j 11:15	7°൬14'11	1°31'28
evening rise	281 Oct 03 j 09:01	19°♎27'05		minimum elong	282 Aug 31 j 15:02	7°൬31'08	1°31'08
	281 Oct 10 j 05:57	0°♏		max. Earth dist.	282 Sep 08 j 02:15	20°൬31'37	1.41317 AU
greatest brilliancy	281 Oct 29 j 09:38	27°♏06'55	-0.4m	evening rise	282 Sep 13 j 08:11	29°൬12'05	
	281 Oct 31 j 19:01	0°♐			282 Sep 13 j 20:03	0°♎	
evening max el	281 Nov 03 j 08:31	2°♐48'08	21°33'22	desc. node	282 Sep 16 j 01:33	3°♎33'56	
retrograde	281 Nov 12 j 06:18	8°♐06'00			282 Oct 03 j 20:09	0°♏	
evening set	281 Nov 16 j 10:35	6°♐29'10		greatest brilliancy	282 Oct 11 j 22:20	10°♏34'55	-0.3m
asc. node	281 Nov 16 j 16:52	6°♐16'31		evening max el	282 Oct 17 j 00:50	16°♏18'14	22°51'26
inferior conj	281 Nov 21 j 20:14	0°♐11'23	1°41'56	retrograde	282 Oct 27 j 01:07	22°♏15'00	
minimum elong	281 Nov 21 j 18:06	0°♐18'43	1°41'08	evening set	282 Oct 31 j 17:59	20°♏20'38	
	281 Nov 21 j 23:31	30°♑♏		asc. node	282 Nov 03 j 13:53	17°♏22'48	
min. Earth dist.	281 Nov 22 j 01:26	29°♏53'24	0.67559 AU	inferior conj	282 Nov 06 j 03:26	13°♏57'30	0°52'29
morning rise	281 Nov 27 j 01:22	23°♏56'22		minimum elong	282 Nov 06 j 02:14	14°♏01'38	0°51'59
direct	281 Dec 02 j 01:04	21°♏49'28		min. Earth dist.	282 Nov 05 j 22:00	14°♏16'16	0.67695 AU
morning max el	281 Dec 12 j 06:15	27°♏53'48	23°12'26	morning rise	282 Nov 11 j 10:27	7°♏44'52	
	281 Dec 14 j 05:58	0°♐		direct	282 Nov 15 j 19:17	6°♏00'40	
greatest brilliancy	281 Dec 17 j 07:13	3°♐32'48	-0.3m	morning max el	282 Nov 24 j 19:36	11°♏18'50	21°46'47
desc. node	281 Dec 26 j 03:47	15°♐14'23		greatest brilliancy	282 Nov 29 j 16:16	16°♏49'31	-0.4m
	282 Jan 05 j 04:34	0°♑			282 Dec 09 j 10:29	0°♐	
morning set	282 Jan 16 j 00:48	17°♑21'28		desc. node	282 Dec 13 j 00:49	5°♐13'24	
max. Earth dist.	282 Jan 20 j 09:53	24°♑48'47	1.39498 AU	morning set	282 Dec 26 j 22:49	26°♐33'23	
	282 Jan 23 j 08:44	0°♑			282 Dec 29 j 02:18	0°♑	
				max. Earth dist.	283 Jan 02 j 08:57	7°♑00'27	1.41568 AU
superior conj	282 Jan 28 j 01:18	8°♑30'46	-1°-55'-38				
minimum elong	282 Jan 28 j 04:18	8°♑44'41	1°55'29	superior conj	283 Jan 10 j 00:19	20°♑02'43	-2°-2'-24
evening rise	282 Feb 06 j 13:18	26°♑34'11		minimum elong	283 Jan 10 j 00:20	20°♑02'48	2°02'25
	282 Feb 08 j 08:16	0°♒			283 Jan 15 j 14:10	0°♑	
asc. node	282 Feb 12 j 16:10	8°♒03'13		evening rise	283 Jan 20 j 18:34	9°♑30'09	
evening max el	282 Feb 22 j 18:43	22°♒39'29	18°34'24	asc. node	283 Jan 30 j 13:13	26°♑47'59	
retrograde	282 Mar 02 j 12:07	26°♒26'13			283 Feb 01 j 15:35	0°♒	
evening set	282 Mar 04 j 20:49	26°♒06'12		evening max el	283 Feb 06 j 03:16	5°♒31'06	18°11'48
inferior conj	282 Mar 12 j 10:31	21°♒37'47	2°54'32	retrograde	283 Feb 13 j 00:53	8°♒59'44	
minimum elong	282 Mar 12 j 14:36	21°♒29'48	2°53'37	evening set	283 Feb 15 j 14:19	8°♒31'43	
min. Earth dist.	282 Mar 15 j 20:14	18°♒59'52	0.58159 AU	inferior conj	283 Feb 22 j 12:05	3°♒42'06	3°35'44
morning rise	282 Mar 20 j 04:20	16°♒16'39		minimum elong	283 Feb 22 j 14:22	3°♒36'54	3°35'29
desc. node	282 Mar 24 j 02:58	14°♒58'33		min. Earth dist.	283 Feb 25 j 19:49	0°♒42'56	0.60246 AU
direct	282 Mar 26 j 01:36	14°♒48'55			283 Feb 26 j 16:18	30°♒♑	
morning max el	282 Apr 09 j 10:18	22°♒25'19	26°35'23	morning rise	283 Mar 01 j 11:11	27°♑58'52	
	282 Apr 16 j 03:14	0°♓		direct	283 Mar 08 j 02:46	25°♑53'42	
	282 May 04 j 12:58	0°♔		desc. node	283 Mar 11 j 00:00	26°♑16'04	
morning set	282 May 08 j 16:40	8°♔27'06			283 Mar 18 j 03:43	0°♒	
asc. node	282 May 11 j 15:25	14°♔44'12		morning max el	283 Mar 22 j 09:14	3°♒42'09	27°29'36
					283 Apr 10 j 17:13	0°♓	
superior conj	282 May 15 j 18:13	23°♔44'06	0°42'21	morning set	283 Apr 23 j 00:27	23°♓10'28	
minimum elong	282 May 15 j 16:29	23°♔34'31	0°41'59		283 Apr 26 j 06:05	0°♔	
max. Earth dist.	282 May 15 j 22:40	24°♔08'32	1.32370 AU	asc. node	283 Apr 28 j 12:29	4°♔54'23	
	282 May 18 j 14:52	0°♕		max. Earth dist.	283 Apr 29 j 11:07	6°♔57'58	1.32332 AU
evening rise	282 May 22 j 17:53	8°♕49'32					
	282 Jun 02 j 19:23	0°☾		superior conj	283 Apr 30 j 05:45	8°♔40'06	0°18'08
desc. node	282 Jun 20 j 02:14	24°☾03'23		minimum elong	283 Apr 30 j 04:57	8°♔35'39	0°17'57
evening max el	282 Jun 21 j 18:21	25°☾42'57	26°43'36	evening rise	283 May 07 j 04:04	23°♔42'23	
	282 Jun 27 j 01:44	0°Ω			283 May 10 j 05:05	0°♕	
retrograde	282 Jul 05 j 17:42	2°Ω58'12			283 May 28 j 06:49	0°☾	
evening set	282 Jul 12 j 12:48	0°Ω58'54		evening max el	283 Jun 03 j 14:34	7°☾03'59	25°36'44
	282 Jul 14 j 02:23	30°♒☾		desc. node	283 Jun 06 j 23:16	9°☾57'50	
min. Earth dist.	282 Jul 16 j 07:53	28°☾21'24	0.60351 AU	retrograde	283 Jun 17 j 15:44	14°☾14'56	
inferior conj	282 Jul 19 j 15:08	25°☾38'46	-4°-37'-5	evening set	283 Jun 23 j 12:16	12°☾53'46	
minimum elong	282 Jul 19 j 18:15	25°☾32'21	4°36'46	min. Earth dist.	283 Jun 28 j 02:48	10°☾12'47	0.58299 AU

inferior conj	283 Jul 01 j 08:32	7°54'23	-4°-46'-39	evening max el	284 May 15 j 05:45	17°II49'15	24°08'26
minimum elong	283 Jul 01 j 07:49	7°55'39	4°46'39	desc. node	284 May 23 j 20:17	23°II44'35	
morning rise	283 Jul 09 j 07:09	3°53'423		retrograde	284 May 29 j 01:58	24°II46'59	
direct	283 Jul 11 j 19:09	3°51'438		evening set	284 Jun 02 j 13:20	24°II02'34	
morning max el	283 Jul 20 j 03:24	7°51'02	18°45'50	min. Earth dist.	284 Jun 08 j 16:57	21°II02'08	0.56505 AU
asc. node	283 Jul 25 j 11:41	13°54'06		inferior conj	284 Jun 11 j 05:51	19°II27'20	-4°-20'-7
	283 Aug 03 j 19:56	0°		minimum elong	284 Jun 11 j 00:22	19°II35'54	4°19'16
morning set	283 Aug 05 j 12:42	3°17'50		morning rise	284 Jun 19 j 15:05	15°II26'05	
				direct	284 Jun 22 j 06:24	15°II07'42	
superior conj	283 Aug 14 j 05:04	20°10'46	1°44'02	morning max el	284 Jul 01 j 23:43	19°II38'15	19°43'03
minimum elong	283 Aug 14 j 06:45	20°15'42	1°43'58		284 Jul 10 j 01:30	0°	
	283 Aug 19 j 13:14	0°		asc. node	284 Jul 11 j 08:45	2°58'58	
max. Earth dist.	283 Aug 21 j 06:01	3°02'09	1.39316 AU	morning set	284 Jul 19 j 14:46	17°543'21	
evening rise	283 Aug 25 j 07:22	10°04'41			284 Jul 25 j 16:30	0°	
desc. node	283 Sep 02 j 22:35	24°09'59					
	283 Sep 06 j 17:36	0°		superior conj	284 Jul 27 j 14:15	3°148'11	1°46'49
evening max el	283 Sep 29 j 13:42	29°51'42	24°11'34	minimum elong	284 Jul 27 j 14:00	3°146'56	1°46'49
	283 Sep 29 j 17:04	0°		max. Earth dist.	284 Aug 02 j 09:46	15°101'11	1.37335 AU
retrograde	283 Oct 10 j 16:24	6°123'01		evening rise	284 Aug 06 j 06:32	22°106'10	
evening set	283 Oct 15 j 23:22	4°10'55			284 Aug 10 j 19:04	0°	
	283 Oct 19 j 18:05	30°		desc. node	284 Aug 19 j 19:37	14°134'17	
inferior conj	283 Oct 21 j 09:59	27°46'38	0°00'-48		284 Aug 30 j 14:01	0°	
minimum elong	283 Oct 21 j 10:00	27°46'34	0°00'49	evening max el	284 Sep 11 j 01:29	13°29'19	25°26'36
transit middle	283 Oct 21 j 10:00	27°46'34	0°00'49	retrograde	284 Sep 23 j 03:16	20°26'09	
transit begin	283 Oct 21 j 07:16	27°55'47		evening set	284 Sep 29 j 00:59	17°57'52	
transit end	283 Oct 21 j 12:43	27°37'22		min. Earth dist.	284 Oct 03 j 11:36	13°02'21	0.67010 AU
min. Earth dist.	283 Oct 20 j 18:13	28°39'51	0.67513 AU	inferior conj	284 Oct 04 j 14:08	11°36'37	0°-56'-30
asc. node	283 Oct 21 j 10:55	27°43'27		minimum elong	284 Oct 04 j 15:34	11°32'00	0°55'55
morning rise	283 Oct 26 j 20:54	21°38'58		asc. node	284 Oct 07 j 07:57	8°14'56	
direct	283 Oct 30 j 16:19	20°16'11		morning rise	284 Oct 10 j 06:47	5°36'57	
morning max el	283 Nov 07 j 15:47	24°53'10	20°30'07	direct	284 Oct 13 j 14:46	4°32'43	
	283 Nov 12 j 02:45	0°		morning max el	284 Oct 20 j 19:39	8°37'41	19°26'43
greatest brilliancy	283 Nov 13 j 22:43	2°12'53	-0.5m	greatest brilliancy	284 Oct 29 j 22:23	20°19'07	-0.7m
desc. node	283 Nov 29 j 21:50	25°13'00			284 Nov 05 j 09:41	0°	
	283 Dec 02 j 20:17	0°		morning set	284 Nov 13 j 22:10	13°108'22	
morning set	283 Dec 05 j 22:29	4°46'13		desc. node	284 Nov 15 j 18:54	16°102'04	
max. Earth dist.	283 Dec 15 j 15:25	20°06'03	1.43325 AU		284 Nov 24 j 17:17	0°	
				max. Earth dist.	284 Nov 27 j 05:19	3°56'51	1.44534 AU
superior conj	283 Dec 21 j 22:26	0°23'52	-1°-54'-37				
minimum elong	283 Dec 21 j 17:36	0°03'49	1°54'22	superior conj	284 Nov 30 j 18:07	9°33'53	-1°-28'-36
	283 Dec 21 j 16:41	0°		minimum elong	284 Nov 30 j 09:48	9°00'39	1°27'49
evening rise	284 Jan 03 j 07:54	21°39'09			284 Dec 13 j 07:07	0°	
	284 Jan 08 j 02:13	0°		evening rise	284 Dec 15 j 01:00	2°54'22	
asc. node	284 Jan 17 j 10:16	14°53'56			285 Jan 01 j 08:19	0°	
evening max el	284 Jan 20 j 15:13	18°40'30	18°08'45	evening max el	285 Jan 03 j 03:42	2°00'48	18°24'27
retrograde	284 Jan 27 j 03:42	22°05'29		asc. node	285 Jan 03 j 07:18	2°09'52	
evening set	284 Jan 29 j 21:36	21°28'15		retrograde	285 Jan 09 j 16:14	5°34'38	
inferior conj	284 Feb 05 j 06:54	16°17'29	3°49'15	evening set	285 Jan 12 j 14:59	4°47'09	
minimum elong	284 Feb 05 j 06:59	16°17'15	3°49'14		285 Jan 17 j 23:50	30°	
min. Earth dist.	284 Feb 08 j 03:19	13°21'52	0.62314 AU	inferior conj	285 Jan 18 j 15:00	29°16'40	3°42'23
morning rise	284 Feb 11 j 14:09	10°20'34		minimum elong	285 Jan 18 j 13:25	29°21'13	3°42'13
direct	284 Feb 18 j 13:34	7°46'14		min. Earth dist.	285 Jan 20 j 20:18	26°43'56	0.64133 AU
desc. node	284 Feb 25 j 21:03	10°10'30		morning rise	285 Jan 24 j 10:25	23°11'05	
morning max el	284 Mar 03 j 13:52	15°38'54	27°47'42	direct	285 Jan 31 j 07:54	20°21'57	
	284 Mar 15 j 08:11	0°		desc. node	285 Feb 11 j 18:06	26°07'39	
	284 Apr 02 j 07:01	0°		morning max el	285 Feb 13 j 22:23	28°11'30	27°29'32
morning set	284 Apr 06 j 03:12	7°35'35			285 Feb 15 j 16:16	0°	
max. Earth dist.	284 Apr 11 j 20:16	19°33'22	1.32675 AU		285 Mar 09 j 02:21	0°	
				morning set	285 Mar 20 j 22:19	21°33'55	
superior conj	284 Apr 13 j 15:31	23°26'57	0°-7'-56		285 Mar 25 j 02:32	0°	
minimum elong	284 Apr 13 j 15:53	23°28'59	0°07'52	max. Earth dist.	285 Mar 25 j 22:21	1°42'43	1.33429 AU
behind sun begin	284 Apr 13 j 11:22	23°04'30					
behind sun end	284 Apr 13 j 20:24	23°53'29		superior conj	285 Mar 28 j 21:39	7°58'19	0°-34'-56
asc. node	284 Apr 14 j 09:33	25°04'56		minimum elong	285 Mar 28 j 23:20	8°07'19	0°34'35
	284 Apr 16 j 15:48	0°		asc. node	285 Apr 01 j 06:37	15°11'35	
evening rise	284 Apr 20 j 15:48	8°36'17		evening rise	285 Apr 05 j 03:15	23°24'40	
	284 May 01 j 19:49	0°			285 Apr 08 j 08:03	0°	

evening max el	285 Apr 26 j 21:25	28°♄22'52	22°32'53	evening rise	286 Mar 20 j 12:33	8°♄01'27	
	285 Apr 28 j 16:19	0°♄			286 Apr 01 j 10:27	0°♄	
retrograde	285 May 09 j 23:22	4°♄50'39		evening max el	286 Apr 08 j 20:27	9°♄14'50	21°04'05
desc. node	285 May 10 j 17:19	4°♄49'23		retrograde	286 Apr 20 j 13:08	14°♄55'20	
evening set	285 May 13 j 01:52	4°♄29'29		evening set	286 Apr 22 j 19:45	14°♄43'13	
min. Earth dist.	285 May 21 j 05:15	0°♄57'21	0.55313 AU	desc. node	286 Apr 27 j 14:21	13°♄08'47	
inferior conj	285 May 22 j 08:58	0°♄17'58	-3°-7'-56	inferior conj	286 May 02 j 03:15	10°♄44'42	-1°-17'-59
minimum elong	285 May 22 j 01:40	0°♄28'21	3°05'53	minimum elong	286 May 01 j 23:34	10°♄49'55	1°16'42
	285 May 22 j 21:38	30°♄8		min. Earth dist.	286 May 02 j 18:04	10°♄23'46	0.54988 AU
morning rise	285 May 31 j 03:51	26°♄24'58		morning rise	286 May 11 j 03:01	6°♄41'32	
direct	285 Jun 03 j 00:26	26°♄06'13		direct	286 May 14 j 10:28	6°♄17'52	
	285 Jun 12 j 18:22	0°♄		morning max el	286 May 27 j 07:47	12°♄27'21	22°34'32
morning max el	285 Jun 14 j 08:56	1°♄23'14	21°00'39		286 Jun 09 j 09:19	0°♄	
asc. node	285 Jun 28 j 05:50	21°♄12'32		asc. node	286 Jun 15 j 02:54	10°♄42'12	
	285 Jul 02 j 17:35	0°♄		morning set	286 Jun 18 j 08:33	17°♄19'07	
morning set	285 Jul 03 j 22:04	2°♄25'42			286 Jun 24 j 07:48	0°♄	
superior conj	285 Jul 11 j 10:14	18°♄01'48	1°41'51	superior conj	286 Jun 25 j 13:40	2°♄38'45	1°30'48
minimum elong	285 Jul 11 j 08:38	17°♄53'33	1°41'46	minimum elong	286 Jun 25 j 11:21	2°♄26'26	1°30'33
max. Earth dist.	285 Jul 15 j 19:10	26°♄51'56	1.35584 AU	max. Earth dist.	286 Jun 28 j 13:30	8°♄55'35	1.34188 AU
	285 Jul 17 j 09:32	0°♄		evening rise	286 Jul 03 j 10:53	18°♄47'51	
evening rise	285 Jul 20 j 01:17	5°♄04'44			286 Jul 09 j 09:48	0°♄	
	285 Aug 03 j 14:41	0°♄		desc. node	286 Jul 24 j 13:39	24°♄19'46	
desc. node	285 Aug 06 j 16:39	4°♄40'12			286 Jul 28 j 18:27	0°♄	
evening max el	285 Aug 24 j 13:20	27°♄05'42	26°28'53	evening max el	286 Aug 07 j 01:07	10°♄32'23	27°10'43
	285 Aug 27 j 19:48	0°♄		retrograde	286 Aug 20 j 09:26	17°♄51'26	
retrograde	285 Sep 06 j 09:02	4°♄17'58		evening set	286 Aug 27 j 08:24	15°♄06'43	
evening set	285 Sep 12 j 20:48	1°♄37'37		min. Earth dist.	286 Aug 31 j 04:12	11°♄25'53	0.64963 AU
	285 Sep 14 j 14:34	30°♄8		inferior conj	286 Sep 02 j 07:17	9°♄03'31	-2°-48'-13
min. Earth dist.	285 Sep 16 j 23:40	27°♄19'32	0.66167 AU	minimum elong	286 Sep 02 j 11:28	8°♄51'52	2°46'48
inferior conj	285 Sep 18 j 13:58	25°♄23'31	-1°-53'-1	morning rise	286 Sep 08 j 16:11	3°♄29'24	
minimum elong	285 Sep 18 j 16:51	25°♄14'44	1°51'54	direct	286 Sep 11 j 08:05	2°♄51'40	
asc. node	285 Sep 24 j 05:00	19°♄48'12		asc. node	286 Sep 11 j 02:04	2°♄52'01	
morning rise	285 Sep 24 j 14:00	19°♄35'01		morning max el	286 Sep 17 j 20:29	6°♄21'44	18°07'19
direct	285 Sep 27 j 12:46	18°♄45'51			286 Oct 03 j 18:14	0°♄	
morning max el	285 Oct 04 j 06:00	22°♄28'47	18°38'44	morning set	286 Oct 05 j 21:57	3°♄35'27	
	285 Oct 10 j 06:23	0°♄		superior conj	286 Oct 20 j 01:23	26°♄40'27	0°03'12
morning set	285 Oct 24 j 19:43	22°♄39'42		minimum elong	286 Oct 20 j 01:47	26°♄42'01	0°03'10
	285 Oct 29 j 10:24	0°♄		behind sun begin	286 Oct 19 j 15:10	25°♄59'40	
desc. node	285 Nov 02 j 15:56	6°♄41'43		behind sun end	286 Oct 20 j 12:23	27°♄24'18	
superior conj	285 Nov 09 j 20:11	17°♄59'35	0°-46'-3	desc. node	286 Oct 20 j 12:56	27°♄26'30	
minimum elong	285 Nov 09 j 14:16	17°♄36'22	0°45'19		286 Oct 22 j 03:35	0°♄	
max. Earth dist.	285 Nov 09 j 23:32	18°♄12'47	1.45043 AU	max. Earth dist.	286 Oct 23 j 18:14	2°♄32'49	1.44809 AU
	285 Nov 17 j 11:14	0°♄		evening rise	286 Nov 05 j 14:08	22°♄34'36	
evening rise	285 Nov 25 j 18:40	13°♄11'05			286 Nov 10 j 09:25	0°♄	
	285 Dec 06 j 08:41	0°♄		greatest brilliancy	286 Nov 23 j 06:52	19°♄21'28	-0.6m
evening max el	285 Dec 17 j 14:10	15°♄26'36	18°58'02	evening max el	286 Nov 30 j 20:32	28°♄54'11	19°47'58
asc. node	285 Dec 21 j 04:19	18°♄22'09			286 Dec 01 j 23:21	0°♄	
retrograde	285 Dec 24 j 10:43	19°♄19'59		retrograde	286 Dec 08 j 07:59	3°♄15'53	
evening set	285 Dec 27 j 15:21	18°♄21'03		asc. node	286 Dec 08 j 01:20	3°♄15'27	
inferior conj	286 Jan 02 j 08:46	12°♄33'17	3°20'53	evening set	286 Dec 11 j 20:10	2°♄03'51	
minimum elong	286 Jan 02 j 06:15	12°♄41'08	3°20'23		286 Dec 14 j 03:54	30°♄8	
min. Earth dist.	286 Jan 03 j 22:47	10°♄34'42	0.65580 AU	inferior conj	286 Dec 17 j 09:10	26°♄01'50	2°48'35
morning rise	286 Jan 07 j 20:12	6°♄22'04		minimum elong	286 Dec 17 j 06:24	26°♄11'00	2°47'48
direct	286 Jan 14 j 08:46	3°♄32'35		min. Earth dist.	286 Dec 18 j 09:17	24°♄42'02	0.66637 AU
morning max el	286 Jan 27 j 08:14	11°♄09'28	26°40'17	morning rise	286 Dec 22 j 15:58	19°♄47'18	
desc. node	286 Jan 29 j 15:09	13°♄33'51		direct	286 Dec 28 j 15:28	17°♄08'52	
	286 Feb 11 j 08:53	0°♄		morning max el	287 Jan 09 j 17:18	24°♄19'45	25°28'08
	286 Mar 01 j 15:10	0°♄			287 Jan 14 j 20:02	0°♄	
morning set	286 Mar 04 j 06:23	4°♄55'19		desc. node	287 Jan 16 j 12:10	2°♄02'38	
max. Earth dist.	286 Mar 08 j 13:55	13°♄18'54	1.34626 AU		287 Feb 04 j 19:13	0°♄	
superior conj	286 Mar 12 j 22:00	22°♄07'48	-1°-1'-38	morning set	287 Feb 14 j 22:38	17°♄25'04	
minimum elong	286 Mar 13 j 00:57	22°♄23'02	1°01'07	max. Earth dist.	287 Feb 18 j 17:37	24°♄25'57	1.36269 AU
	286 Mar 16 j 16:28	0°♄			287 Feb 21 j 15:21	0°♄	
asc. node	286 Mar 19 j 03:40	5°♄10'19		superior conj	287 Feb 24 j 13:46	5°♄46'33	-1°-26'-26

minimum elong	287 Feb 24 j 17:34	6° ✕ 05'32	1°25'56	minimum elong	288 Feb 07 j 21:13	19° ≈ 03'32	1°46'41
evening rise	287 Mar 04 j 17:34	22° ✕ 18'59			288 Feb 13 j 12:29	0° ✕	
asc. node	287 Mar 06 j 00:41	24° ✕ 55'47		evening rise	288 Feb 16 j 15:49	6° ✕ 10'47	
	287 Mar 08 j 14:24	0° Υ		asc. node	288 Feb 20 j 21:43	14° ✕ 22'57	
evening max el	287 Mar 22 j 06:38	20° Υ 42'13	19°50'43		288 Mar 01 j 14:29	0° Υ	
retrograde	287 Apr 01 j 06:05	25° Υ 29'44		evening max el	288 Mar 04 j 03:41	2° Υ 48'03	18°56'31
evening set	287 Apr 03 j 08:18	25° Υ 18'01		retrograde	288 Mar 12 j 13:36	6° Υ 51'56	
inferior conj	287 Apr 12 j 02:59	21° Υ 16'46	0°40'01	evening set	288 Mar 14 j 19:32	6° Υ 35'44	
minimum elong	287 Apr 12 j 04:43	21° Υ 14'06	0°39'25	inferior conj	288 Mar 22 j 19:46	2° Υ 19'15	2°15'21
desc. node	287 Apr 14 j 11:23	19° Υ 50'09		minimum elong	288 Mar 23 j 00:02	2° Υ 11'41	2°14'10
min. Earth dist.	287 Apr 14 j 08:17	19° Υ 54'49	0.55623 AU	min. Earth dist.	288 Mar 26 j 00:22	0° Υ 04'05	0.57079 AU
morning rise	287 Apr 20 j 21:55	16° Υ 45'36			288 Mar 26 j 02:47	30° ℞ ✕	
direct	287 Apr 25 j 02:19	16° Υ 06'50		morning rise	288 Mar 31 j 00:18	27° ✕ 15'06	
morning max el	287 May 08 j 23:47	23° Υ 02'24	24°15'40	desc. node	288 Mar 31 j 08:24	27° ✕ 06'57	
	287 May 15 j 04:43	0° ♄		direct	288 Apr 05 j 07:37	26° ✕ 07'49	
asc. node	287 Jun 01 j 23:57	0° ♅ 29'56			288 Apr 15 j 10:20	0° Υ	
	287 Jun 01 j 18:11	0° ♅		morning max el	288 Apr 19 j 14:40	3° Υ 33'22	25°50'02
morning set	287 Jun 02 j 20:24	2° ♅ 16'58			288 May 08 j 12:53	0° ♄	
				morning set	288 May 17 j 08:01	17° ♄ 13'54	
superior conj	287 Jun 09 j 21:53	17° ♅ 29'39	1°14'55	asc. node	288 May 18 j 21:00	20° ♄ 30'10	
minimum elong	287 Jun 09 j 19:25	17° ♅ 16'17	1°14'32		288 May 23 j 05:52	0° ♅	
max. Earth dist.	287 Jun 11 j 16:43	21° ♅ 20'28	1.33182 AU				
	287 Jun 15 j 19:20	0° ♄		superior conj	288 May 24 j 08:47	2° ♅ 27'28	0°55'10
evening rise	287 Jun 17 j 07:08	3° ♄ 02'48		minimum elong	288 May 24 j 06:39	2° ♅ 15'49	0°54'45
	287 Jul 02 j 05:06	0° ♄		max. Earth dist.	288 May 25 j 02:25	4° ♅ 04'03	1.32564 AU
desc. node	287 Jul 11 j 10:41	13° ♄ 21'43		evening rise	288 May 31 j 10:47	17° ♅ 39'22	
evening max el	287 Jul 20 j 11:30	23° ♄ 38'07	27°25'34		288 Jun 06 j 16:30	0° ♄	
	287 Jul 29 j 13:38	0° ♅			288 Jun 26 j 01:06	0° ♄	
retrograde	287 Aug 03 j 04:03	0° ♅ 57'34		desc. node	288 Jun 27 j 07:43	1° ♄ 30'02	
	287 Aug 07 j 12:40	30° ℞ ♄		evening max el	288 Jul 01 j 18:10	6° ♄ 10'12	27°08'31
evening set	287 Aug 10 j 08:38	28° ♄ 19'59		retrograde	288 Jul 15 j 15:42	13° ♄ 26'43	
min. Earth dist.	287 Aug 13 j 23:25	25° ♄ 12'17	0.63394 AU	evening set	288 Jul 22 j 17:25	11° ♄ 09'59	
inferior conj	287 Aug 16 j 15:31	22° ♄ 31'12	-3°-38'-58	min. Earth dist.	288 Jul 26 j 08:23	8° ♄ 25'33	0.61520 AU
minimum elong	287 Aug 16 j 20:22	22° ♄ 18'57	3°37'40	inferior conj	288 Jul 29 j 11:28	5° ♄ 38'43	-4°-20'-23
morning rise	287 Aug 23 j 10:22	17° ♄ 14'36		minimum elong	288 Jul 29 j 15:46	5° ♄ 29'08	4°19'40
direct	287 Aug 25 j 21:59	16° ♄ 44'55		morning rise	288 Aug 05 j 16:58	0° ♄ 42'39	
asc. node	287 Aug 28 j 23:08	17° ♄ 30'18		direct	288 Aug 08 j 03:00	0° ♄ 18'11	
morning max el	287 Sep 01 j 12:21	20° ♄ 10'29	17°53'26	asc. node	288 Aug 14 j 20:11	3° ♄ 32'14	
	287 Sep 08 j 20:02	0° ♅		morning max el	288 Aug 15 j 02:35	3° ♄ 47'33	17°58'06
morning set	287 Sep 18 j 01:25	15° ♅ 43'59		morning set	288 Aug 30 j 23:57	28° ♄ 47'25	
	287 Sep 26 j 07:51	0° ♅			288 Aug 31 j 15:48	0° ♅	
superior conj	287 Sep 30 j 04:25	6° ♅ 27'46	0°47'02	superior conj	288 Sep 10 j 10:52	17° ♅ 35'53	1°18'57
minimum elong	287 Sep 30 j 08:51	6° ♅ 46'07	0°46'27	minimum elong	288 Sep 10 j 15:32	17° ♅ 56'15	1°18'27
max. Earth dist.	287 Oct 06 j 10:31	16° ♅ 39'40	1.43879 AU		288 Sep 17 j 18:06	0° ♅	
desc. node	287 Oct 07 j 09:57	18° ♅ 13'27		max. Earth dist.	288 Sep 17 j 22:25	0° ♅ 17'51	1.42376 AU
	287 Oct 14 j 21:45	0° ♅		desc. node	288 Sep 23 j 06:59	8° ♅ 59'06	
evening rise	287 Oct 15 j 21:32	1° ♅ 31'57		evening rise	288 Sep 24 j 10:27	10° ♅ 48'04	
	287 Nov 04 j 00:54	0° ♄			288 Oct 07 j 00:46	0° ♅	
greatest brilliancy	287 Nov 08 j 07:11	5° ♄ 46'13	-0.5m	greatest brilliancy	288 Oct 21 j 23:34	20° ♅ 32'05	-0.3m
evening max el	287 Nov 13 j 21:33	12° ♄ 22'49	20°51'49	evening max el	288 Oct 26 j 16:54	25° ♅ 52'11	22°06'03
retrograde	287 Nov 22 j 05:37	17° ♄ 19'05			288 Oct 31 j 15:55	0° ♄	
asc. node	287 Nov 24 j 22:22	16° ♄ 37'56		retrograde	288 Nov 05 j 01:44	1° ♄ 26'25	
evening set	287 Nov 26 j 03:22	15° ♄ 52'02		evening set	288 Nov 09 j 11:08	29° ♅ 42'24	
inferior conj	287 Dec 01 j 13:47	9° ♄ 39'08	2°08'10		288 Nov 09 j 01:57	30° ℞ ♅	
minimum elong	287 Dec 01 j 11:18	9° ♄ 47'39	2°07'18	asc. node	288 Nov 10 j 19:25	28° ♅ 28'21	
min. Earth dist.	287 Dec 02 j 01:35	8° ♄ 58'43	0.67321 AU	inferior conj	288 Nov 14 j 20:33	23° ♅ 22'09	1°21'32
morning rise	287 Dec 06 j 18:48	3° ♄ 23'32		minimum elong	288 Nov 14 j 18:47	23° ♅ 28'17	1°20'50
direct	287 Dec 12 j 03:23	1° ♄ 03'44		min. Earth dist.	288 Nov 14 j 21:14	23° ♅ 19'48	0.67658 AU
morning max el	287 Dec 23 j 01:39	7° ♄ 34'59	24°03'07	morning rise	288 Nov 20 j 02:13	17° ♅ 07'50	
desc. node	288 Jan 03 j 09:11	21° ♄ 15'59		direct	288 Nov 24 j 19:35	15° ♅ 10'20	
	288 Jan 09 j 14:05	0° ♄		morning max el	288 Dec 04 j 11:59	20° ♅ 54'30	22°35'14
morning set	288 Jan 27 j 17:10	28° ♄ 47'00		greatest brilliancy	288 Dec 09 j 02:35	26° ♅ 03'55	-0.3m
	288 Jan 28 j 10:03	0° ≈			288 Dec 12 j 05:44	0° ♄	
max. Earth dist.	288 Jan 31 j 13:15	5° ≈ 30'52	1.38268 AU	desc. node	288 Dec 20 j 06:13	11° ♄ 00'45	
					289 Jan 01 j 20:53	0° ♄	
superior conj	288 Feb 07 j 17:28	18° ≈ 45'42	-1°-46'-59	morning set	289 Jan 07 j 07:55	8° ♄ 45'42	

max. Earth dist.	289 Jan 12 j 09:09	17°☿11'25	1.40402 AU	max. Earth dist.	289 Dec 25 j 11:46	29°♄48'30	1.42375 AU
	289 Jan 19 j 16:45	0°♊			289 Dec 25 j 14:35	0°☿	
superior conj	289 Jan 20 j 04:30	0°♊52'59	-2°00'00	superior conj	290 Jan 01 j 17:25	11°☿55'34	-2°-1'-10
minimum elong	289 Jan 20 j 06:31	1°♊02'07	1°59'56	minimum elong	290 Jan 01 j 15:31	11°☿47'23	2°01'07
evening rise	289 Jan 30 j 04:16	19°♊28'56			290 Jan 11 j 23:23	0°♊	
	289 Feb 04 j 20:07	0°♋		evening rise	290 Jan 13 j 03:15	2°♊05'41	
asc. node	289 Feb 06 j 18:45	3°♋25'08		asc. node	290 Jan 24 j 15:47	21°♊54'19	
evening max el	289 Feb 15 j 08:55	15°♋25'13	18°22'25	evening max el	290 Jan 29 j 19:12	28°♊24'48	18°08'08
retrograde	289 Feb 22 j 16:15	19°♋02'00			290 Jan 31 j 15:02	0°♋	
evening set	289 Feb 25 j 03:11	18°♋38'36		retrograde	290 Feb 05 j 11:41	1°♋50'23	
inferior conj	289 Mar 04 j 09:41	14°♋01'12	3°15'53	evening set	290 Feb 08 j 03:03	1°♋18'29	
minimum elong	289 Mar 04 j 13:10	13°♋53'58	3°15'15		290 Feb 10 j 12:12	30°♋	
min. Earth dist.	289 Mar 07 j 20:06	11°♋11'22	0.59035 AU	inferior conj	290 Feb 14 j 19:03	26°♋19'23	3°44'26
morning rise	289 Mar 11 j 19:25	8°♋29'55		minimum elong	290 Feb 14 j 20:22	26°♋16'12	3°44'20
direct	289 Mar 18 j 01:53	6°♋45'55		min. Earth dist.	290 Feb 17 j 22:34	23°♋19'11	0.61140 AU
desc. node	289 Mar 18 j 05:26	6°♋45'58		morning rise	290 Feb 21 j 10:56	20°♋29'32	
morning max el	289 Apr 01 j 09:46	14°♋27'40	27°02'35	direct	290 Feb 28 j 07:00	18°♋10'51	
	289 Apr 13 j 21:02	0°♌		desc. node	290 Mar 05 j 02:28	19°♋13'16	
	289 Apr 30 j 17:46	0°♍		morning max el	290 Mar 14 j 11:20	26°♋01'24	27°42'04
morning set	289 May 01 j 17:46	2°♍04'25			290 Mar 18 j 04:33	0°♋	
asc. node	289 May 05 j 18:03	10°♍38'15			290 Apr 07 j 08:11	0°♌	
				morning set	290 Apr 15 j 23:41	16°♌41'03	
superior conj	289 May 08 j 20:35	17°♍26'09	0°32'22	max. Earth dist.	290 Apr 22 j 02:54	29°♌42'38	1.32430 AU
minimum elong	289 May 08 j 19:12	17°♍18'31	0°32'04		290 Apr 22 j 06:06	0°♍	
max. Earth dist.	289 May 08 j 15:09	16°♍56'17	1.32313 AU	asc. node	290 Apr 22 j 15:05	0°♍49'02	
	289 May 14 j 15:06	0°♎					
evening rise	289 May 15 j 19:15	2°♎29'02		superior conj	290 Apr 23 j 07:32	2°♍18'50	0°07'16
	289 May 30 j 16:26	0°♏		minimum elong	290 Apr 23 j 07:12	2°♍17'00	0°07'12
evening max el	289 Jun 13 j 18:40	17°♏58'46	26°18'34	behind sun begin	290 Apr 23 j 02:39	1°♍52'09	
desc. node	289 Jun 14 j 04:44	18°♏22'30		behind sun end	290 Apr 23 j 11:45	2°♍41'52	
retrograde	289 Jun 27 j 18:58	25°♏11'44		evening rise	290 Apr 30 j 06:19	17°♍23'16	
evening set	289 Jul 04 j 06:09	23°♏28'12			290 May 06 j 12:21	0°♎	
min. Earth dist.	289 Jul 08 j 07:37	20°♏51'28	0.59473 AU	evening max el	290 May 26 j 12:12	29°♎02'15	25°00'59
inferior conj	289 Jul 11 j 15:38	18°♏16'53	-4°-44'-42		290 May 27 j 13:02	0°♏	
minimum elong	289 Jul 11 j 17:23	18°♏13'29	4°44'38	desc. node	290 Jun 01 j 01:47	3°♏27'39	
morning rise	289 Jul 19 j 08:00	13°♏43'41		retrograde	290 Jun 09 j 12:03	6°♏09'06	
direct	289 Jul 21 j 18:57	13°♏22'27		evening set	290 Jun 14 j 19:40	5°♏04'15	
morning max el	289 Jul 29 j 12:13	17°♏05'17	18°22'28	min. Earth dist.	290 Jun 19 j 23:43	2°♏16'59	0.57490 AU
asc. node	289 Aug 01 j 17:15	20°♏42'53		inferior conj	290 Jun 23 j 00:36	0°♏14'58	-4°-40'-34
	289 Aug 07 j 17:45	0°♐		minimum elong	290 Jun 22 j 21:49	0°♏19'40	4°40'23
morning set	289 Aug 14 j 12:14	12°♐31'25			290 Jun 23 j 09:30	30°♐	
				morning rise	290 Jul 01 j 03:49	26°♐04'03	
superior conj	289 Aug 23 j 17:30	29°♐56'23	1°38'07	direct	290 Jul 03 j 17:15	25°♐44'57	
minimum elong	289 Aug 23 j 20:25	0°♑09'46	1°37'56	morning max el	290 Jul 12 j 14:11	29°♐53'38	19°07'36
	289 Aug 23 j 18:18	0°♑			290 Jul 12 j 16:54	0°♑	
max. Earth dist.	289 Aug 31 j 05:17	13°♑16'33	1.40488 AU	asc. node	290 Jul 19 j 14:19	8°♑46'41	
evening rise	289 Sep 04 j 19:30	21°♑01'11		morning set	290 Jul 29 j 10:08	26°♑43'52	
desc. node	289 Sep 10 j 04:03	29°♑40'14			290 Jul 31 j 01:40	0°♒	
	289 Sep 10 j 09:04	0°♒					
	289 Oct 01 j 04:52	0°♓		superior conj	290 Aug 06 j 18:30	13°♒12'02	1°46'17
evening max el	289 Oct 09 j 07:37	9°♓24'04	23°25'37	minimum elong	290 Aug 06 j 19:19	13°♒15'54	1°46'16
retrograde	289 Oct 19 j 19:02	15°♓35'35		max. Earth dist.	290 Aug 13 j 08:34	25°♒32'23	1.38459 AU
evening set	289 Oct 24 j 17:53	13°♓33'32			290 Aug 15 j 20:25	0°♑	
asc. node	289 Oct 28 j 16:28	9°♓09'09		evening rise	290 Aug 17 j 05:12	2°♑23'39	
min. Earth dist.	289 Oct 29 j 17:50	7°♓43'19	0.67666 AU	desc. node	290 Aug 28 j 01:07	20°♑12'03	
inferior conj	289 Oct 30 j 03:41	7°♓09'36	0°30'16		290 Sep 03 j 13:46	0°♓	
minimum elong	289 Oct 30 j 02:58	7°♓12'02	0°29'58	evening max el	290 Sep 21 j 19:38	22°♓59'01	24°44'26
morning rise	289 Nov 04 j 12:09	0°♓58'59		retrograde	290 Oct 03 j 08:34	29°♓42'33	
	289 Nov 06 j 01:50	30°♓		evening set	290 Oct 08 j 21:55	27°♓22'55	
direct	289 Nov 08 j 15:08	29°♓24'08		min. Earth dist.	290 Oct 13 j 13:04	22°♓06'58	0.67344 AU
	289 Nov 11 j 08:03	0°♔		inferior conj	290 Oct 14 j 09:26	20°♓59'21	0°-24'-13
morning max el	289 Nov 17 j 04:00	4°♔23'08	21°12'45	minimum elong	290 Oct 14 j 10:02	20°♓57'22	0°23'59
greatest brilliancy	289 Nov 22 j 11:55	10°♔31'50	-0.4m	asc. node	290 Oct 15 j 13:30	19°♓27'16	
	289 Dec 06 j 08:54	0°♕		morning rise	290 Oct 19 j 22:36	14°♓55'00	
desc. node	289 Dec 07 j 03:16	1°♕08'24		direct	290 Oct 23 j 12:50	13°♓40'41	
morning set	289 Dec 17 j 18:32	17°♕26'03		morning max el	290 Oct 31 j 03:39	18°♓02'46	20°01'22

greatest brilliancy	290 Nov 07 j 08:48	26°♄51'52	-0.6m	morning max el	291 Oct 14 j 10:31	1°♄50'45	19°04'16
	290 Nov 09 j 14:39	0°♄			291 Nov 03 j 03:29	0°♄	
desc. node	290 Nov 24 j 00:20	21°♄32'36		morning set	291 Nov 05 j 22:02	4°♄20'24	
morning set	290 Nov 26 j 15:02	25°♄34'08		desc. node	291 Nov 10 j 21:23	12°♄07'49	
	290 Nov 29 j 11:37	0°♄		max. Earth dist.	291 Nov 20 j 13:22	27°♄18'02	1.44835 AU
max. Earth dist.	290 Dec 07 j 21:50	13°♄16'17	1.43915 AU		291 Nov 22 j 06:27	0°♄	
superior conj	290 Dec 13 j 04:00	21°♄45'10	-1°-45'-52	superior conj	291 Nov 22 j 14:17	0°♄30'56	-1°-12'-9
minimum elong	290 Dec 12 j 21:13	21°♄17'28	1°45'24	minimum elong	291 Nov 22 j 06:09	29°♄58'51	1°11'16
	290 Dec 18 j 04:00	0°♄		evening rise	291 Dec 07 j 15:53	24°♄43'37	
evening rise	290 Dec 26 j 08:32	13°♄53'16			291 Dec 10 j 21:10	0°♄	
	291 Jan 04 j 20:34	0°♄		evening max el	291 Dec 27 j 19:31	25°♄02'35	18°36'39
asc. node	291 Jan 11 j 12:49	9°♄40'46		asc. node	291 Dec 29 j 09:51	26°♄31'32	
evening max el	291 Jan 13 j 07:38	11°♄39'27	18°13'09	retrograde	292 Jan 03 j 10:42	28°♄43'41	
retrograde	291 Jan 19 j 19:17	15°♄07'13		evening set	292 Jan 06 j 11:41	27°♄51'41	
evening set	291 Jan 22 j 15:03	14°♄25'52		inferior conj	292 Jan 12 j 08:38	22°♄13'45	3°34'45
inferior conj	291 Jan 28 j 20:01	9°♄06'23	3°48'27	minimum elong	292 Jan 12 j 06:34	22°♄19'56	3°34'28
minimum elong	291 Jan 28 j 19:19	9°♄08'18	3°48'25	min. Earth dist.	292 Jan 14 j 07:26	19°♄54'15	0.64796 AU
min. Earth dist.	291 Jan 31 j 10:11	6°♄18'29	0.63119 AU	morning rise	292 Jan 18 j 00:11	16°♄05'20	
morning rise	291 Feb 03 j 21:42	3°♄04'59		direct	292 Jan 24 j 18:36	13°♄14'02	
direct	291 Feb 10 j 21:08	0°♄22'32		desc. node	292 Feb 06 j 20:32	20°♄43'02	
desc. node	291 Feb 19 j 23:30	4°♄04'30		morning max el	292 Feb 07 j 03:32	21°♄00'26	27°11'52
morning max el	291 Feb 24 j 18:13	8°♄15'41	27°44'20		292 Feb 14 j 23:11	0°♄	
	291 Mar 13 j 13:08	0°♄			292 Mar 05 j 15:45	0°♄	
morning set	291 Mar 30 j 23:34	0°♄56'19		morning set	292 Mar 13 j 14:24	14°♄40'09	
	291 Mar 30 j 12:18	0°♄		max. Earth dist.	292 Mar 18 j 07:10	24°♄02'29	1.33877 AU
max. Earth dist.	291 Apr 05 j 09:33	12°♄08'37	1.32937 AU		292 Mar 21 j 04:11	0°♄	
superior conj	291 Apr 07 j 15:58	16°♄59'53	0°-19'-20	superior conj	292 Mar 21 j 19:54	1°♄22'32	0°-46'-23
minimum elong	291 Apr 07 j 16:54	17°♄04'52	0°19'08	minimum elong	292 Mar 21 j 22:09	1°♄34'21	0°45'57
asc. node	291 Apr 09 j 12:09	20°♄58'32		asc. node	292 Mar 26 j 09:12	11°♄02'08	
	291 Apr 13 j 16:36	0°♄		evening rise	292 Mar 29 j 04:50	16°♄59'06	
evening rise	291 Apr 14 j 18:08	2°♄15'30			292 Apr 04 j 17:45	0°♄	
	291 Apr 30 j 02:04	0°♄		evening max el	292 Apr 18 j 20:33	20°♄16'20	21°53'43
evening max el	291 May 08 j 02:28	9°♄38'11	23°27'47	retrograde	292 May 01 j 10:18	26°♄25'34	
desc. node	291 May 18 j 22:46	16°♄09'03		evening set	292 May 04 j 02:00	26°♄09'52	
retrograde	291 May 21 j 17:09	16°♄26'28		desc. node	292 May 04 j 19:45	26°♄00'09	
evening set	291 May 25 j 13:34	15°♄53'51		inferior conj	292 May 13 j 11:15	22°♄06'00	-2°-24'-33
min. Earth dist.	291 Jun 01 j 12:46	12°♄41'16	0.55904 AU	minimum elong	292 May 13 j 04:54	22°♄14'55	2°22'31
inferior conj	291 Jun 03 j 13:31	11°♄28'45	-3°-55'-13	min. Earth dist.	292 May 13 j 01:26	22°♄19'47	0.55052 AU
minimum elong	291 Jun 03 j 06:38	11°♄39'01	3°53'44	morning rise	292 May 22 j 09:02	18°♄10'44	
morning rise	291 Jun 12 j 03:09	7°♄33'01		direct	292 May 25 j 09:07	17°♄50'43	
direct	291 Jun 14 j 20:04	7°♄14'59		morning max el	292 Jun 06 j 10:31	23°♄30'50	21°39'01
morning max el	291 Jun 25 j 05:59	12°♄03'56	20°13'42		292 Jun 12 j 03:56	0°♄	
asc. node	291 Jul 06 j 11:23	27°♄31'27		asc. node	292 Jun 22 j 08:27	16°♄47'09	
	291 Jul 07 j 20:12	0°♄		morning set	292 Jun 26 j 23:31	26°♄04'48	
morning set	291 Jul 13 j 14:39	11°♄17'04			292 Jun 28 j 20:33	0°♄	
superior conj	291 Jul 21 j 08:45	27°♄08'07	1°45'34	superior conj	292 Jul 04 j 08:16	11°♄32'59	1°37'50
minimum elong	291 Jul 21 j 07:51	27°♄03'34	1°45'32	minimum elong	292 Jul 04 j 06:17	11°♄22'38	1°37'40
	291 Jul 22 j 19:03	0°♄		max. Earth dist.	292 Jul 08 j 02:24	19°♄16'24	1.34941 AU
max. Earth dist.	291 Jul 26 j 13:35	7°♄22'42	1.36551 AU	evening rise	292 Jul 12 j 14:54	28°♄10'34	
evening rise	291 Jul 30 j 13:15	14°♄50'52			292 Jul 13 j 13:53	0°♄	
	291 Aug 08 j 06:42	0°♄		desc. node	292 Jul 31 j 19:07	0°♄25'26	
desc. node	291 Aug 14 j 22:08	10°♄29'18			292 Jul 31 j 12:09	0°♄	
	291 Aug 29 j 05:44	0°♄		evening max el	292 Aug 16 j 19:12	20°♄10'46	26°49'41
evening max el	291 Sep 04 j 07:08	6°♄36'08	25°55'05	retrograde	292 Aug 29 j 21:12	27°♄27'03	
retrograde	291 Sep 16 j 17:31	13°♄41'40		evening set	292 Sep 05 j 14:01	24°♄43'58	
evening set	291 Sep 22 j 21:21	11°♄07'26		min. Earth dist.	292 Sep 09 j 13:50	20°♄41'36	0.65696 AU
min. Earth dist.	291 Sep 27 j 04:31	6°♄27'38	0.66691 AU	inferior conj	292 Sep 11 j 09:22	18°♄33'52	-2°-16'-47
inferior conj	291 Sep 28 j 11:59	4°♄48'26	-1°-20'-32	minimum elong	292 Sep 11 j 12:51	18°♄23'39	2°15'28
minimum elong	291 Sep 28 j 14:02	4°♄41'56	1°19'42	morning rise	292 Sep 17 j 13:00	12°♄50'47	
asc. node	291 Oct 02 j 10:33	0°♄19'32		asc. node	292 Sep 18 j 07:37	12°♄30'00	
	291 Oct 02 j 19:19	30°♄		direct	292 Sep 20 j 08:29	12°♄06'56	
morning rise	291 Oct 04 j 07:36	28°♄53'08		morning max el	292 Sep 26 j 22:55	15°♄43'38	18°23'12
direct	291 Oct 07 j 11:15	27°♄55'58			292 Oct 07 j 08:24	0°♄	
	291 Oct 12 j 09:29	0°♄		morning set	292 Oct 16 j 07:52	14°♄28'44	

	292 Oct 25 j 23:31	0°♄		asc. node	293 Sep 05 j 04:40	26°♄14'55	
desc. node	292 Oct 27 j 18:25	2°♄50'26		morning max el	293 Sep 10 j 14:17	29°♄35'31	17°59'12
					293 Sep 10 j 23:51	0°♄	
superior conj	292 Oct 31 j 14:56	8°♄56'02	0°-25'-12	morning set	293 Sep 27 j 21:37	25°♄58'21	
minimum elong	292 Oct 31 j 11:37	8°♄42'59	0°24'47		293 Sep 30 j 06:39	0°♄	
max. Earth dist.	292 Nov 02 j 08:02	11°♄37'49	1.45038 AU				
	292 Nov 14 j 01:08	0°♄		superior conj	293 Oct 11 j 03:49	18°♄00'47	0°23'01
evening rise	292 Nov 16 j 23:30	4°♄36'11		minimum elong	293 Oct 11 j 06:25	18°♄11'20	0°22'39
greatest brilliancy	292 Nov 30 j 15:08	25°♄50'01	-0.7m	desc. node	293 Oct 14 j 15:26	23°♄36'40	
	292 Dec 03 j 11:15	0°♄		max. Earth dist.	293 Oct 16 j 02:32	25°♄56'21	1.44503 AU
evening max el	292 Dec 10 j 04:33	8°♄30'09	19°17'25		293 Oct 18 j 16:11	0°♄	
asc. node	292 Dec 15 j 06:52	12°♄12'22		evening rise	293 Oct 27 j 12:04	13°♄44'32	
retrograde	292 Dec 17 j 06:34	12°♄34'13			293 Nov 07 j 04:10	0°♄	
evening set	292 Dec 20 j 14:14	11°♄29'57		greatest brilliancy	293 Nov 16 j 18:53	13°♄55'45	-0.6m
inferior conj	292 Dec 26 j 05:33	5°♄35'59	3°08'16	evening max el	293 Nov 23 j 08:50	21°♄58'46	20°13'36
minimum elong	292 Dec 26 j 02:51	5°♄44'39	3°07'38	retrograde	293 Dec 01 j 04:13	26°♄34'04	
min. Earth dist.	292 Dec 27 j 13:31	3°♄53'32	0.66088 AU	asc. node	293 Dec 02 j 03:54	26°♄28'32	
	292 Dec 30 j 22:55	30°♄		evening set	293 Dec 04 j 20:19	25°♄15'42	
morning rise	292 Dec 31 j 14:39	29°♄23'16		inferior conj	293 Dec 10 j 08:02	19°♄08'38	2°32'17
direct	293 Jan 06 j 22:11	26°♄37'06		minimum elong	293 Dec 10 j 05:19	19°♄17'45	2°31'26
	293 Jan 14 j 23:10	0°♄		min. Earth dist.	293 Dec 11 j 02:40	18°♄05'56	0.66980 AU
morning max el	293 Jan 19 j 12:56	4°♄04'11	26°11'38	morning rise	293 Dec 15 j 13:47	12°♄53'39	
desc. node	293 Jan 23 j 17:36	8°♄38'31		direct	293 Dec 21 j 07:06	10°♄22'39	
	293 Feb 08 j 08:33	0°♄		morning max el	294 Jan 01 j 21:31	17°♄17'13	24°52'54
morning set	293 Feb 24 j 16:20	27°♄41'01		desc. node	294 Jan 10 j 14:39	27°♄28'19	
	293 Feb 25 j 21:57	0°♄			294 Jan 12 j 12:41	0°♄	
max. Earth dist.	293 Feb 28 j 17:17	5°♄22'59	1.35277 AU		294 Feb 01 j 08:39	0°♄	
				morning set	294 Feb 07 j 00:09	9°♄44'16	
superior conj	293 Mar 05 j 16:58	15°♄20'01	-1°-12'-32	max. Earth dist.	294 Feb 10 j 17:08	16°♄26'53	1.37092 AU
minimum elong	293 Mar 05 j 20:21	15°♄37'17	1°12'00				
	293 Mar 12 j 19:24	0°♄		superior conj	294 Feb 17 j 04:08	28°♄43'50	-1°-35'-51
asc. node	293 Mar 13 j 06:13	0°♄55'42		minimum elong	294 Feb 17 j 08:04	29°♄03'06	1°35'25
evening rise	293 Mar 13 j 12:33	1°♄28'17			294 Feb 17 j 19:40	0°♄	
	293 Mar 30 j 16:00	0°♄		evening rise	294 Feb 25 j 15:04	15°♄36'35	
evening max el	293 Apr 01 j 00:14	1°♄22'17	20°30'38	asc. node	294 Feb 28 j 03:14	20°♄34'37	
retrograde	293 Apr 11 j 23:15	6°♄39'13			294 Mar 05 j 04:27	0°♄	
evening set	293 Apr 14 j 02:38	6°♄27'58		evening max el	294 Mar 14 j 15:16	13°♄06'50	19°25'09
desc. node	293 Apr 21 j 16:46	3°♄23'49		retrograde	294 Mar 23 j 21:36	17°♄34'13	
inferior conj	293 Apr 23 j 05:56	2°♄30'32	0°-26'-43	evening set	294 Mar 26 j 01:00	17°♄20'57	
minimum elong	293 Apr 23 j 04:41	2°♄32'21	0°26'17	inferior conj	294 Apr 03 j 12:00	13°♄13'53	1°24'27
min. Earth dist.	293 Apr 24 j 14:37	1°♄43'13	0.55145 AU	minimum elong	294 Apr 03 j 15:17	13°♄08'31	1°23'23
	293 Apr 27 j 18:39	30°♄		min. Earth dist.	294 Apr 06 j 05:13	11°♄28'02	0.56158 AU
morning rise	293 May 02 j 04:59	28°♄17'15		desc. node	294 Apr 08 j 13:49	10°♄03'59	
direct	293 May 05 j 20:32	27°♄48'27		morning rise	294 Apr 12 j 01:47	8°♄28'51	
	293 May 13 j 12:45	0°♄		direct	294 Apr 16 j 17:23	7°♄39'43	
morning max el	293 May 19 j 05:33	4°♄18'57	23°17'32	morning max el	294 Apr 30 j 20:23	14°♄49'16	24°57'43
	293 Jun 05 j 23:27	0°♄			294 May 12 j 21:08	0°♄	
asc. node	293 Jun 09 j 05:29	6°♄25'11		morning set	294 May 26 j 22:46	25°♄59'28	
morning set	293 Jun 11 j 10:47	11°♄00'41		asc. node	294 May 27 j 02:32	26°♄19'20	
					294 May 28 j 19:59	0°♄	
superior conj	293 Jun 18 j 13:58	26°♄16'28	1°24'35				
minimum elong	293 Jun 18 j 11:31	26°♄03'21	1°24'16	superior conj	294 Jun 02 j 23:34	11°♄11'26	1°06'57
	293 Jun 20 j 07:55	0°♄		minimum elong	294 Jun 02 j 21:12	10°♄58'28	1°06'33
max. Earth dist.	293 Jun 21 j 00:55	1°♄29'49	1.33710 AU	max. Earth dist.	294 Jun 04 j 07:30	14°♄04'55	1.32872 AU
evening rise	293 Jun 26 j 05:28	12°♄08'41		evening rise	294 Jun 10 j 05:15	26°♄34'12	
	293 Jul 05 j 20:16	0°♄			294 Jun 11 j 21:55	0°♄	
desc. node	293 Jul 18 j 16:07	19°♄50'43			294 Jun 29 j 05:49	0°♄	
	293 Jul 26 j 20:44	0°♄		desc. node	294 Jul 05 j 13:08	8°♄32'14	
evening max el	293 Jul 30 j 06:52	3°♄31'08	27°20'49	evening max el	294 Jul 12 j 15:58	16°♄23'59	27°22'20
retrograde	293 Aug 12 j 18:59	10°♄50'06		retrograde	294 Jul 26 j 10:32	23°♄41'57	
evening set	293 Aug 19 j 21:12	8°♄07'10		evening set	294 Aug 02 j 15:23	21°♄11'19	
min. Earth dist.	293 Aug 23 j 14:38	4°♄41'05	0.64339 AU	min. Earth dist.	294 Aug 06 j 05:17	18°♄15'24	0.62634 AU
inferior conj	293 Aug 25 j 23:11	2°♄09'54	-3°-10'-31	inferior conj	294 Aug 09 j 02:35	15°♄29'59	-3°-58'-2
minimum elong	293 Aug 26 j 03:45	1°♄57'39	3°09'05	minimum elong	294 Aug 09 j 07:25	15°♄18'26	3°56'56
	293 Aug 28 j 01:21	30°♄		morning rise	294 Aug 16 j 01:56	10°♄21'55	
morning rise	293 Sep 01 j 12:11	26°♄42'36		direct	294 Aug 18 j 12:41	9°♄54'39	
direct	293 Sep 04 j 02:02	26°♄08'31		asc. node	294 Aug 23 j 01:44	11°♄30'37	

morning max el	294 Aug 25 j 05:50	13°Ω20'22	17°53'09	morning rise	295 Jul 30 j 02:22	23°☿39'29	
	294 Sep 05 j 14:15	0°♊		direct	295 Aug 01 j 12:28	23°☿16'41	
morning set	294 Sep 10 j 09:55	8°♊32'22		morning max el	295 Aug 08 j 18:32	26°☿50'24	18°06'06
				asc. node	295 Aug 09 j 22:48	28°☿03'32	
superior conj	294 Sep 21 j 18:33	28°♊22'53	1°02'10		295 Aug 11 j 13:55	0°Ω	
minimum elong	294 Sep 21 j 23:28	28°♊43'40	1°01'34	morning set	295 Aug 24 j 14:50	21°Ω54'13	
	294 Sep 22 j 17:34	0°♊			295 Aug 28 j 23:11	0°♊	
max. Earth dist.	294 Sep 28 j 17:33	9°♊54'23	1.43303 AU				
desc. node	294 Oct 01 j 12:28	14°♊23'32		superior conj	295 Sep 03 j 11:58	10°♊03'55	1°28'33
evening rise	294 Oct 06 j 19:35	22°♊44'14		minimum elong	295 Sep 03 j 16:02	10°♊21'59	1°28'12
	294 Oct 11 j 12:52	0°♋		max. Earth dist.	295 Sep 11 j 02:53	23°♊15'23	1.41596 AU
greatest brilliancy	294 Nov 01 j 05:05	29°♋34'09	-0.4m		295 Sep 15 j 04:53	0°♋	
	294 Nov 01 j 13:19	0°♋		evening rise	295 Sep 16 j 15:46	2°♋21'01	
evening max el	294 Nov 06 j 07:20	5°♋27'25	21°22'19	desc. node	295 Sep 18 j 09:31	5°♋07'50	
retrograde	294 Nov 15 j 01:29	10°♋39'48			295 Oct 04 j 23:12	0°♋	
evening set	294 Nov 19 j 04:01	9°♋05'31		greatest brilliancy	295 Oct 15 j 03:08	13°♋28'59	-0.3m
asc. node	294 Nov 19 j 00:58	9°♋11'20		evening max el	295 Oct 20 j 00:24	18°♋57'35	22°39'35
inferior conj	294 Nov 24 j 13:48	2°♋48'47	1°49'03	retrograde	295 Oct 29 j 20:45	24°♋48'48	
minimum elong	294 Nov 24 j 11:34	2°♋56'28	1°48'13	evening set	295 Nov 03 j 11:35	22°♋57'13	
min. Earth dist.	294 Nov 24 j 20:40	2°♋25'07	0.67506 AU	asc. node	295 Nov 05 j 22:00	20°♋28'43	
	294 Nov 26 j 15:46	30°♌		inferior conj	295 Nov 08 j 20:58	16°♋34'40	1°00'19
morning rise	294 Nov 29 j 18:50	26°♋33'30		minimum elong	295 Nov 08 j 19:36	16°♋39'22	0°59'45
direct	294 Dec 04 j 20:47	24°♋23'16		min. Earth dist.	295 Nov 08 j 17:07	16°♋47'58	0.67693 AU
	294 Dec 14 j 16:29	0°♌		morning rise	295 Nov 14 j 03:33	10°♋21'25	
morning max el	294 Dec 15 j 06:31	0°♌34'53	23°25'33	direct	295 Nov 18 j 14:34	8°♋33'44	
greatest brilliancy	294 Dec 20 j 21:36	6°♌56'25	-0.2m	morning max el	295 Nov 27 j 18:59	13°♋58'43	21°59'06
desc. node	294 Dec 28 j 11:41	16°♌56'23		greatest brilliancy	295 Dec 02 j 12:56	19°♋20'17	-0.4m
	295 Jan 06 j 10:56	0°♍			295 Dec 10 j 13:44	0°♌	
morning set	295 Jan 19 j 07:30	20°♍32'26		desc. node	295 Dec 15 j 08:44	6°♌52'16	
max. Earth dist.	295 Jan 23 j 12:18	27°♍44'48	1.39176 AU	morning set	295 Dec 30 j 09:48	29°♌56'23	
	295 Jan 24 j 19:04	0°♍			295 Dec 30 j 10:42	0°♍	
				max. Earth dist.	296 Jan 05 j 10:12	9°♍47'23	1.41275 AU
superior conj	295 Jan 31 j 01:21	11°♍22'23	-1°-53'-40				
minimum elong	295 Jan 31 j 04:37	11°♍37'37	1°53'28	superior conj	296 Jan 13 j 03:41	23°♍04'07	-2°-2'-13
evening rise	295 Feb 09 j 09:37	29°♍15'27		minimum elong	296 Jan 13 j 04:19	23°♍06'52	2°02'14
	295 Feb 09 j 18:50	0°♎			296 Jan 17 j 00:37	0°♍	
asc. node	295 Feb 15 j 00:17	9°♎52'20		evening rise	296 Jan 23 j 16:53	12°♍17'30	
evening max el	295 Feb 25 j 16:06	25°♎26'50	18°39'30	asc. node	296 Feb 01 j 21:20	28°♍42'00	
retrograde	295 Mar 05 j 13:30	29°♎17'36			296 Feb 02 j 16:46	0°♎	
evening set	295 Mar 07 j 21:24	28°♎58'42		evening max el	296 Feb 08 j 23:55	8°♎15'04	18°13'55
inferior conj	295 Mar 15 j 13:47	24°♎33'33	2°45'21	retrograde	296 Feb 15 j 23:40	11°♎45'12	
minimum elong	295 Mar 15 j 18:01	24°♎25'30	2°44'19	evening set	296 Feb 18 j 12:28	11°♎18'27	
min. Earth dist.	295 Mar 18 j 22:42	22°♎00'47	0.57866 AU	inferior conj	296 Feb 25 j 12:24	6°♎32'06	3°31'26
morning rise	295 Mar 23 j 10:26	19°♎16'24		minimum elong	296 Feb 25 j 15:02	6°♎26'17	3°31'05
desc. node	295 Mar 26 j 10:51	18°♎12'52		min. Earth dist.	296 Feb 28 j 21:14	3°♎34'27	0.59934 AU
direct	295 Mar 29 j 04:14	17°♎54'10		morning rise	296 Mar 03 j 14:12	0°♎51'42	
morning max el	295 Apr 12 j 12:52	25°♎28'25	26°24'26		296 Mar 05 j 05:08	30°♏	
	295 Apr 16 j 18:04	0°♏		direct	296 Mar 10 j 03:50	28°♏51'42	
	295 May 05 j 23:56	0°♏		desc. node	296 Mar 12 j 07:54	29°♏04'18	
morning set	295 May 11 j 09:48	10°♏54'32			296 Mar 15 j 07:06	0°♏	
asc. node	295 May 13 j 23:35	16°♏23'30		morning max el	296 Mar 24 j 10:41	6°♏38'44	27°23'40
					296 Apr 10 j 23:26	0°♏	
superior conj	295 May 18 j 11:04	26°♏10'19	0°45'49	morning set	296 Apr 24 j 18:09	25°♏39'50	
minimum elong	295 May 18 j 09:12	26°♏00'07	0°45'27		296 Apr 26 j 19:40	0°♏	
max. Earth dist.	295 May 18 j 18:54	26°♏53'17	1.32410 AU	asc. node	296 Apr 29 j 20:38	6°♏33'12	
	295 May 20 j 04:58	0°♐					
evening rise	295 May 25 j 11:13	11°♐16'58		superior conj	296 May 01 j 22:43	11°♏07'13	0°21'57
	295 Jun 04 j 03:22	0°♑		minimum elong	296 May 01 j 21:45	11°♏01'53	0°21'44
desc. node	295 Jun 22 j 10:10	26°♑11'16		max. Earth dist.	296 May 01 j 07:26	9°♏43'24	1.32316 AU
evening max el	295 Jun 24 j 19:58	28°♑37'07	26°51'02	evening rise	296 May 08 j 21:01	26°♏09'11	
	295 Jun 26 j 08:18	0°♒			296 May 10 j 17:18	0°♐	
retrograde	295 Jul 08 j 19:00	5°♒53'00			296 May 28 j 02:08	0°♑	
evening set	295 Jul 15 j 16:11	3°♒48'46		evening max el	296 Jun 05 j 17:18	10°♑05'19	25°48'21
min. Earth dist.	295 Jul 19 j 09:46	1°♒10'00	0.60655 AU	desc. node	296 Jun 08 j 07:12	12°♑22'05	
	295 Jul 20 j 19:41	30°♓		retrograde	296 Jun 19 j 18:31	17°♑16'56	
inferior conj	295 Jul 22 j 16:13	28°♑25'35	-4°-33'-25	evening set	296 Jun 25 j 19:09	15°♑50'02	
minimum elong	295 Jul 22 j 19:42	28°♑18'14	4°33'00	min. Earth dist.	296 Jun 30 j 05:48	13°♑10'35	0.58596 AU

inferior conj	296 Jul 03 j 12:29	10° $\overline{54}$ 47'27	-4°-47'-18	evening max el	297 May 18 j 09:03	20° $\overline{\text{II}}$ 55'28	24°22'26
minimum elong	296 Jul 03 j 12:29	10° $\overline{54}$ 47'28	4°47'19	desc. node	297 May 26 j 04:12	26° $\overline{\text{II}}$ 31'16	
morning rise	296 Jul 11 j 09:29	6° $\overline{52}$ 24'00		retrograde	297 Jun 01 j 06:28	27° $\overline{\text{II}}$ 55'47	
direct	296 Jul 13 j 21:09	6° $\overline{52}$ 03'55		evening set	297 Jun 05 j 23:16	27° $\overline{\text{II}}$ 06'27	
morning max el	296 Jul 22 j 01:15	9° $\overline{55}$ 56'35	18°39'07	min. Earth dist.	297 Jun 11 j 20:19	24° $\overline{\text{II}}$ 09'55	0.56747 AU
asc. node	296 Jul 26 j 19:52	15° $\overline{53}$ 38'17		inferior conj	297 Jun 14 j 12:53	22° $\overline{\text{II}}$ 27'39	-4°-27'-2
	296 Aug 04 j 06:31	0° $\overline{\Omega}$		minimum elong	297 Jun 14 j 08:03	22° $\overline{\text{II}}$ 35'22	4°26'22
morning set	296 Aug 07 j 07:36	5° $\overline{\Omega}$ 50'58		morning rise	297 Jun 22 j 20:34	18° $\overline{\text{II}}$ 24'08	
				direct	297 Jun 25 j 11:25	18° $\overline{\text{II}}$ 05'33	
superior conj	296 Aug 16 j 03:02	22° $\overline{\Omega}$ 49'14	1°42'48	morning max el	297 Jul 04 j 23:06	22° $\overline{\text{II}}$ 29'55	19°33'09
minimum elong	296 Aug 16 j 05:02	22° $\overline{\Omega}$ 58'37	1°42'42		297 Jul 11 j 03:32	0° $\overline{\mathfrak{E}}$	
	296 Aug 20 j 00:18	0° $\overline{\mathfrak{M}}$		asc. node	297 Jul 13 j 16:55	4° $\overline{\mathfrak{E}}$ 01'20	
max. Earth dist.	296 Aug 23 j 07:15	5° $\overline{\mathfrak{M}}$ 52'39	1.39618 AU	morning set	297 Jul 22 j 08:40	20° $\overline{\mathfrak{E}}$ 13'44	
evening rise	296 Aug 27 j 11:13	13° $\overline{\mathfrak{M}}$ 03'13			297 Jul 27 j 05:06	0° $\overline{\Omega}$	
desc. node	296 Sep 04 j 06:33	25° $\overline{\mathfrak{M}}$ 45'23					
	296 Sep 07 j 00:14	0° $\overline{\mathfrak{A}}$		superior conj	297 Jul 30 j 10:14	6° $\overline{\Omega}$ 23'52	1°46'56
	296 Sep 29 j 04:11	0° $\overline{\mathfrak{M}}$		minimum elong	297 Jul 30 j 10:15	6° $\overline{\Omega}$ 23'55	1°46'56
evening max el	296 Oct 01 j 13:43	2° $\overline{\mathfrak{M}}$ 30'48	23°59'49	max. Earth dist.	297 Aug 05 j 10:53	17° $\overline{\Omega}$ 56'23	1.37623 AU
retrograde	296 Oct 12 j 12:32	8° $\overline{\mathfrak{M}}$ 57'09		evening rise	297 Aug 09 j 07:01	24° $\overline{\Omega}$ 55'05	
evening set	296 Oct 17 j 17:21	6° $\overline{\mathfrak{M}}$ 47'43			297 Aug 12 j 04:43	0° $\overline{\mathfrak{M}}$	
min. Earth dist.	296 Oct 22 j 13:31	1° $\overline{\mathfrak{M}}$ 11'37	0.67562 AU	desc. node	297 Aug 22 j 03:34	16° $\overline{\mathfrak{M}}$ 11'55	
asc. node	296 Oct 22 j 19:04	0° $\overline{\mathfrak{M}}$ 52'49			297 Aug 31 j 15:20	0° $\overline{\mathfrak{A}}$	
inferior conj	296 Oct 23 j 03:43	0° $\overline{\mathfrak{M}}$ 23'28	0°07'28	evening max el	297 Sep 14 j 01:31	16° $\overline{\mathfrak{A}}$ 07'49	25°16'01
minimum elong	296 Oct 23 j 03:32	0° $\overline{\mathfrak{M}}$ 24'05	0°07'24	retrograde	297 Sep 26 j 00:01	23° $\overline{\mathfrak{A}}$ 01'14	
transit middle	296 Oct 23 j 03:32	0° $\overline{\mathfrak{M}}$ 24'05	0°07'24	evening set	297 Oct 01 j 19:37	20° $\overline{\mathfrak{A}}$ 35'04	
transit begin	296 Oct 23 j 01:06	0° $\overline{\mathfrak{M}}$ 32'19		min. Earth dist.	297 Oct 06 j 07:24	15° $\overline{\mathfrak{A}}$ 34'16	0.67111 AU
transit end	296 Oct 23 j 05:57	0° $\overline{\mathfrak{M}}$ 15'52		inferior conj	297 Oct 07 j 08:19	14° $\overline{\mathfrak{A}}$ 13'10	0°-48'00
	296 Oct 23 j 10:39	30° $\overline{\mathfrak{R}}$ $\overline{\mathfrak{A}}$		minimum elong	297 Oct 07 j 09:31	14° $\overline{\mathfrak{A}}$ 09'15	0°47'29
morning rise	296 Oct 28 j 13:55	24° $\overline{\mathfrak{A}}$ 14'55		asc. node	297 Oct 09 j 16:06	11° $\overline{\mathfrak{A}}$ 18'34	
direct	296 Nov 01 j 11:16	22° $\overline{\mathfrak{A}}$ 48'59		morning rise	297 Oct 13 j 00:00	8° $\overline{\mathfrak{A}}$ 12'16	
morning max el	296 Nov 09 j 13:58	27° $\overline{\mathfrak{A}}$ 31'20	20°40'47	direct	297 Oct 16 j 09:35	7° $\overline{\mathfrak{A}}$ 05'29	
	296 Nov 11 j 20:45	0° $\overline{\mathfrak{M}}$		morning max el	297 Oct 23 j 16:44	11° $\overline{\mathfrak{A}}$ 14'23	19°35'11
greatest brilliancy	296 Nov 15 j 14:09	4° $\overline{\mathfrak{M}}$ 36'18	-0.5m	greatest brilliancy	297 Nov 01 j 04:30	21° $\overline{\mathfrak{A}}$ 58'35	-0.6m
desc. node	296 Dec 01 j 05:47	27° $\overline{\mathfrak{M}}$ 07'38			297 Nov 06 j 15:12	0° $\overline{\mathfrak{M}}$	
	296 Dec 03 j 03:11	0° $\overline{\mathfrak{A}}$		morning set	297 Nov 17 j 09:36	16° $\overline{\mathfrak{M}}$ 30'13	
morning set	296 Dec 08 j 11:39	8° $\overline{\mathfrak{A}}$ 14'23		desc. node	297 Nov 18 j 02:49	17° $\overline{\mathfrak{M}}$ 36'55	
max. Earth dist.	296 Dec 17 j 15:39	22° $\overline{\mathfrak{A}}$ 46'02	1.43098 AU		297 Nov 26 j 01:26	0° $\overline{\mathfrak{A}}$	
	296 Dec 22 j 01:45	0° $\overline{\mathfrak{E}}$		max. Earth dist.	297 Nov 30 j 04:47	6° $\overline{\mathfrak{A}}$ 31'54	1.44396 AU
superior conj	296 Dec 24 j 05:46	3° $\overline{\mathfrak{E}}$ 36'30	-1°-56'-55	superior conj	297 Dec 04 j 05:03	12° $\overline{\mathfrak{A}}$ 55'48	-1°-33'-44
minimum elong	296 Dec 24 j 01:42	3° $\overline{\mathfrak{E}}$ 19'30	1°56'45	minimum elong	297 Dec 03 j 20:57	12° $\overline{\mathfrak{A}}$ 23'16	1°33'00
evening rise	297 Jan 05 j 08:49	24° $\overline{\mathfrak{E}}$ 33'58			297 Dec 14 j 15:40	0° $\overline{\mathfrak{E}}$	
	297 Jan 08 j 10:35	0° $\overline{\approx}$		evening rise	297 Dec 18 j 05:09	5° $\overline{\mathfrak{E}}$ 57'36	
asc. node	297 Jan 18 j 18:22	16° $\overline{\approx}$ 54'31			298 Jan 02 j 03:00	0° $\overline{\approx}$	
evening max el	297 Jan 22 j 11:31	21° $\overline{\approx}$ 22'23	18°07'58	asc. node	298 Jan 05 j 15:23	4° $\overline{\approx}$ 18'59	
retrograde	297 Jan 29 j 00:39	24° $\overline{\approx}$ 46'59		evening max el	298 Jan 06 j 00:03	4° $\overline{\approx}$ 41'23	18°20'57
evening set	297 Jan 31 j 17:57	24° $\overline{\approx}$ 11'05		retrograde	298 Jan 12 j 12:04	8° $\overline{\approx}$ 13'18	
inferior conj	297 Feb 07 j 04:52	19° $\overline{\approx}$ 03'18	3°48'38	evening set	298 Jan 15 j 10:02	7° $\overline{\approx}$ 27'25	
minimum elong	297 Feb 07 j 05:16	19° $\overline{\approx}$ 02'17	3°48'37	inferior conj	298 Jan 21 j 11:13	1° $\overline{\approx}$ 59'36	3°44'27
min. Earth dist.	297 Feb 10 j 03:18	16° $\overline{\approx}$ 05'52	0.62019 AU	minimum elong	298 Jan 21 j 09:51	2° $\overline{\approx}$ 03'29	3°44'20
morning rise	297 Feb 13 j 14:15	13° $\overline{\approx}$ 08'07			298 Jan 23 j 05:20	30° $\overline{\mathfrak{R}}$ $\overline{\mathfrak{E}}$	
direct	297 Feb 20 j 13:10	10° $\overline{\approx}$ 37'26		min. Earth dist.	298 Jan 23 j 18:47	29° $\overline{\mathfrak{E}}$ 22'37	0.63879 AU
desc. node	297 Feb 27 j 04:56	12° $\overline{\approx}$ 37'06		morning rise	298 Jan 27 j 08:08	25° $\overline{\mathfrak{E}}$ 54'59	
morning max el	297 Mar 06 j 14:31	18° $\overline{\approx}$ 29'30	27°47'26	direct	298 Feb 03 j 06:20	23° $\overline{\mathfrak{E}}$ 07'15	
	297 Mar 16 j 07:28	0° $\overline{\mathfrak{H}}$		desc. node	298 Feb 14 j 01:58	28° $\overline{\mathfrak{E}}$ 18'13	
	297 Apr 03 j 17:57	0° $\overline{\mathfrak{Y}}$			298 Feb 15 j 22:57	0° $\overline{\approx}$	
morning set	297 Apr 08 j 21:49	10° $\overline{\mathfrak{Y}}$ 08'31		morning max el	298 Feb 16 j 22:43	0° $\overline{\approx}$ 57'54	27°34'30
max. Earth dist.	297 Apr 14 j 17:27	22° $\overline{\mathfrak{Y}}$ 22'41	1.32598 AU		298 Mar 10 j 09:31	0° $\overline{\mathfrak{H}}$	
				morning set	298 Mar 23 j 18:14	24° $\overline{\mathfrak{H}}$ 11'40	
superior conj	297 Apr 16 j 08:52	25° $\overline{\mathfrak{Y}}$ 56'10	0°-3'-53		298 Mar 26 j 15:23	0° $\overline{\mathfrak{Y}}$	
minimum elong	297 Apr 16 j 09:03	25° $\overline{\mathfrak{Y}}$ 57'10	0°03'52	max. Earth dist.	298 Mar 28 j 20:54	4° $\overline{\mathfrak{Y}}$ 37'13	1.33287 AU
behind sun begin	297 Apr 16 j 04:02	25° $\overline{\mathfrak{Y}}$ 29'59					
behind sun end	297 Apr 16 j 14:03	26° $\overline{\mathfrak{Y}}$ 24'22		superior conj	298 Mar 31 j 15:38	10° $\overline{\mathfrak{Y}}$ 30'20	0°-30'-48
asc. node	297 Apr 16 j 17:41	26° $\overline{\mathfrak{Y}}$ 44'13		minimum elong	298 Mar 31 j 17:07	10° $\overline{\mathfrak{Y}}$ 38'18	0°30'31
	297 Apr 18 j 05:37	0° $\overline{\mathfrak{B}}$		asc. node	298 Apr 03 j 14:42	16° $\overline{\mathfrak{Y}}$ 51'45	
evening rise	297 Apr 23 j 08:38	11° $\overline{\mathfrak{B}}$ 03'53		evening rise	298 Apr 07 j 20:14	25° $\overline{\mathfrak{Y}}$ 53'41	
	297 May 03 j 01:53	0° $\overline{\text{II}}$			298 Apr 09 j 19:36	0° $\overline{\mathfrak{B}}$	

	298 Apr 28 j 13:04	0°♂		evening rise	299 Mar 23 j 05:58	10°♂32'30	
evening max el	298 Apr 30 j 00:03	1°♂28'39	22°47'00		299 Apr 02 j 12:37	0°♂	
retrograde	298 May 13 j 05:46	8°♂02'30		evening max el	299 Apr 11 j 21:34	12°♂16'00	21°16'27
desc. node	298 May 13 j 01:12	8°♂02'25		retrograde	299 Apr 23 j 20:10	18°♂04'26	
evening set	298 May 16 j 12:39	7°♂38'49		evening set	299 Apr 26 j 04:31	17°♂51'43	
min. Earth dist.	298 May 24 j 08:38	4°♂12'15	0.55441 AU	desc. node	299 Apr 29 j 22:12	16°♂44'16	
inferior conj	298 May 25 j 18:18	3°♂23'58	-3°-21'-47	inferior conj	299 May 05 j 12:58	13°♂52'15	-1°-36'-2
minimum elong	298 May 25 j 10:55	3°♂34'35	3°19'50	minimum elong	299 May 05 j 08:28	13°♂58'34	1°34'28
	298 Jun 01 j 17:37	30°♂♂		min. Earth dist.	299 May 05 j 21:24	13°♂40'22	0.54974 AU
morning rise	298 Jun 03 j 11:57	29°♂30'58		morning rise	299 May 14 j 12:29	9°♂51'41	
direct	298 Jun 06 j 07:27	29°♂12'32		direct	299 May 17 j 17:37	9°♂29'17	
	298 Jun 10 j 16:27	0°♂		morning max el	299 May 30 j 10:16	15°♂31'23	22°19'50
morning max el	298 Jun 17 j 10:02	4°♂21'45	20°47'53		299 Jun 10 j 14:45	0°♂	
asc. node	298 Jun 30 j 13:58	23°♂00'20		asc. node	299 Jun 17 j 11:01	12°♂26'16	
	298 Jul 04 j 05:13	0°♂		morning set	299 Jun 21 j 01:25	19°♂46'05	
morning set	298 Jul 06 j 15:19	4°♂54'10			299 Jun 25 j 21:25	0°♂	
superior conj	298 Jul 14 j 04:52	20°♂33'35	1°43'03	superior conj	299 Jun 28 j 07:23	5°♂07'37	1°32'49
minimum elong	298 Jul 14 j 03:26	20°♂26'14	1°42'58	minimum elong	299 Jun 28 j 05:08	4°♂55'44	1°32'35
	298 Jul 18 j 21:47	0°♂		max. Earth dist.	299 Jul 01 j 11:47	11°♂46'27	1.34370 AU
max. Earth dist.	298 Jul 18 j 19:02	29°♂46'34	1.35826 AU	evening rise	299 Jul 06 j 06:49	21°♂23'23	
evening rise	298 Jul 22 j 23:09	7°♂46'04			299 Jul 10 j 20:12	0°♂	
	298 Aug 04 j 21:14	0°♂		desc. node	299 Jul 26 j 21:34	26°♂05'21	
desc. node	298 Aug 09 j 00:35	6°♂21'08			299 Jul 29 j 17:23	0°♂	
evening max el	298 Aug 27 j 13:12	29°♂44'27	26°20'39	evening max el	299 Aug 10 j 01:01	13°♂13'23	27°06'04
	298 Aug 27 j 19:39	0°♂		retrograde	299 Aug 23 j 07:59	20°♂32'13	
retrograde	298 Sep 09 j 06:35	6°♂55'20		evening set	299 Aug 30 j 05:27	17°♂47'32	
evening set	298 Sep 15 j 16:26	4°♂16'15		min. Earth dist.	299 Sep 03 j 02:12	14°♂01'14	0.65163 AU
	298 Sep 19 j 17:56	30°♂♂		inferior conj	299 Sep 05 j 03:21	11°♂42'20	-2°-40'-5
min. Earth dist.	298 Sep 19 j 20:23	29°♂52'36	0.66316 AU	minimum elong	299 Sep 05 j 07:22	11°♂31'00	2°38'41
inferior conj	298 Sep 21 j 08:54	28°♂00'45	-1°-44'-32	morning rise	299 Sep 11 j 10:52	6°♂05'51	
minimum elong	298 Sep 21 j 11:35	27°♂52'32	1°43'28	asc. node	299 Sep 13 j 10:13	5°♂29'32	
asc. node	298 Sep 26 j 13:09	22°♂40'00		direct	299 Sep 14 j 03:34	5°♂26'42	
morning rise	298 Sep 27 j 07:46	22°♂10'30		morning max el	299 Sep 20 j 16:21	8°♂58'21	18°10'52
direct	298 Sep 30 j 07:41	21°♂19'27			299 Oct 05 j 02:07	0°♂	
morning max el	298 Oct 07 j 02:17	25°♂05'05	18°44'49	morning set	299 Oct 09 j 01:07	6°♂32'54	
	298 Oct 11 j 05:45	0°♂		desc. node	299 Oct 22 j 20:54	29°♂00'02	
morning set	298 Oct 28 j 03:02	25°♂49'13					
	298 Oct 30 j 18:19	0°♂		superior conj	299 Oct 23 j 11:57	29°♂59'54	0°-4'-9
desc. node	298 Nov 04 j 23:52	8°♂15'44		minimum elong	299 Oct 23 j 11:26	29°♂57'48	0°04'06
				behind sun begin	299 Oct 23 j 00:48	29°♂15'35	
superior conj	298 Nov 13 j 08:37	21°♂25'01	0°-53'-13	behind sun end	299 Oct 23 j 22:03	0°♂39'59	
minimum elong	298 Nov 13 j 01:56	20°♂58'46	0°52'24		299 Oct 23 j 11:59	0°♂	
max. Earth dist.	298 Nov 12 j 22:25	20°♂44'58	1.45009 AU	max. Earth dist.	299 Oct 26 j 17:02	5°♂04'49	1.44889 AU
	298 Nov 18 j 19:21	0°♂		evening rise	299 Nov 09 j 00:44	25°♂53'23	
evening rise	298 Nov 29 j 02:23	16°♂23'18			299 Nov 11 j 16:17	0°♂	
	298 Dec 07 j 14:10	0°♂		greatest brilliancy	299 Nov 25 j 18:34	21°♂23'39	-0.7m
evening max el	298 Dec 20 j 10:55	18°♂06'44	18°51'58		299 Dec 02 j 07:29	0°♂	
asc. node	298 Dec 23 j 12:25	20°♂42'08		evening max el	299 Dec 03 j 18:01	1°♂34'11	19°39'37
retrograde	298 Dec 27 j 05:55	21°♂56'49		asc. node	299 Dec 10 j 09:28	5°♂48'12	
evening set	298 Dec 30 j 09:32	20°♂59'45		retrograde	299 Dec 11 j 02:54	5°♂51'10	
inferior conj	299 Jan 05 j 03:46	15°♂14'24	3°24'53	evening set	299 Dec 14 j 13:49	4°♂41'17	
minimum elong	299 Jan 05 j 01:21	15°♂21'52	3°24'27		299 Dec 19 j 03:11	30°♂♂	
min. Earth dist.	299 Jan 06 j 20:01	13°♂10'10	0.65385 AU	inferior conj	299 Dec 20 j 03:22	28°♂41'19	2°54'03
morning rise	299 Jan 10 j 16:09	9°♂03'43		minimum elong	299 Dec 20 j 00:35	28°♂50'26	2°53'18
direct	299 Jan 17 j 06:18	6°♂13'23		min. Earth dist.	299 Dec 21 j 05:29	27°♂15'29	0.66505 AU
morning max el	299 Jan 30 j 08:34	13°♂53'25	26°49'19	morning rise	299 Dec 25 j 10:39	22°♂27'08	
desc. node	299 Jan 31 j 23:01	15°♂33'05		direct	299 Dec 31 j 12:19	19°♂46'19	
	299 Feb 12 j 11:12	0°♂		morning max el	300 Jan 12 j 17:44	27°♂02'09	25°39'53
	299 Mar 03 j 01:30	0°♂			300 Jan 15 j 12:30	0°♂	
morning set	299 Mar 07 j 04:12	7°♂39'31		desc. node	300 Jan 18 j 20:04	3°♂53'41	
max. Earth dist.	299 Mar 11 j 14:09	16°♂18'20	1.34418 AU		300 Feb 06 j 02:37	0°♂	
				morning set	300 Feb 17 j 23:09	20°♂17'51	
superior conj	299 Mar 15 j 16:58	24°♂43'29	0°-57'-40	max. Earth dist.	300 Feb 21 j 19:18	27°♂27'31	1.35998 AU
minimum elong	299 Mar 15 j 19:44	24°♂57'54	0°57'10		300 Feb 23 j 03:08	0°♂	
	299 Mar 18 j 05:28	0°♂					
asc. node	299 Mar 21 j 11:44	6°♂51'57		superior conj	300 Feb 27 j 10:13	8°♂27'20	-1°-22'-55

minimum elong	300 Feb 27 j 13:56	8° Υ 46'00	1°22'23	minimum elong	301 Feb 09 j 19:50	21° \approx 51'26	1°43'56
evening rise	300 Mar 06 j 11:44	24° Υ 53'06			301 Feb 14 j 00:11	0° Υ	
asc. node	300 Mar 07 j 08:47	26° Υ 39'40		evening rise	301 Feb 18 j 11:11	8° Υ 49'03	
	300 Mar 09 j 00:49	0° Υ		asc. node	301 Feb 22 j 05:49	16° Υ 09'56	
evening max el	300 Mar 24 j 06:07	23° Υ 37'52	20°00'29		301 Mar 02 j 08:59	0° Υ	
retrograde	300 Apr 03 j 11:38	28° Υ 32'39		evening max el	301 Mar 07 j 01:43	5° Υ 38'22	19°03'21
evening set	300 Apr 05 j 13:47	28° Υ 21'15		retrograde	301 Mar 15 j 16:31	9° Υ 47'43	
inferior conj	300 Apr 14 j 10:58	24° Υ 21'34	0°23'01	evening set	301 Mar 17 j 21:47	9° Υ 32'20	
minimum elong	300 Apr 14 j 12:00	24° Υ 20'00	0°22'40	inferior conj	301 Mar 26 j 00:49	5° Υ 18'32	2°03'06
desc. node	300 Apr 15 j 19:13	23° Υ 32'40		minimum elong	301 Mar 26 j 04:56	5° Υ 11'22	2°01'53
min. Earth dist.	300 Apr 16 j 11:26	23° Υ 08'21	0.55471 AU	min. Earth dist.	301 Mar 29 j 03:04	3° Υ 10'30	0.56820 AU
morning rise	300 Apr 23 j 07:17	19° Υ 55'12		desc. node	301 Apr 02 j 16:17	0° Υ 35'41	
direct	300 Apr 27 j 08:10	19° Υ 19'22		morning rise	301 Apr 03 j 07:56	0° Υ 19'20	
morning max el	300 May 11 j 02:53	26° Υ 09'09	24°00'43		301 Apr 04 j 05:11	30° \Re Υ	
	300 May 14 j 18:37	0° \Re		direct	301 Apr 08 j 11:19	29° Υ 17'04	
	300 Jun 02 j 06:26	0° Π			301 Apr 12 j 17:47	0° Υ	
asc. node	300 Jun 03 j 08:05	2° Π 11'41		morning max el	301 Apr 22 j 17:30	6° Υ 38'45	25°37'06
morning set	300 Jun 04 j 13:12	4° Π 43'44			301 May 09 j 20:22	0° \Re	
				morning set	301 May 20 j 00:59	19° \Re 41'19	
superior conj	300 Jun 11 j 15:03	19° Π 57'07	1°17'35	asc. node	301 May 21 j 05:06	22° \Re 10'25	
minimum elong	300 Jun 11 j 12:34	19° Π 43'43	1°17'14		301 May 24 j 19:53	0° Π	
max. Earth dist.	300 Jun 13 j 13:51	24° Π 08'32	1.33305 AU				
	300 Jun 16 j 08:27	0° \Im		superior conj	301 May 27 j 01:40	4° Π 54'21	0°58'23
evening rise	300 Jun 19 j 01:45	5° \Im 34'40		minimum elong	301 May 26 j 23:27	4° Π 42'16	0°57'59
	300 Jul 02 j 11:12	0° Ω		max. Earth dist.	301 May 27 j 22:55	6° Π 50'29	1.32632 AU
desc. node	300 Jul 12 j 18:34	15° Ω 14'05		evening rise	301 Jun 03 j 04:30	20° Π 08'45	
evening max el	300 Jul 22 j 11:54	26° Ω 23'58	27°25'22		301 Jun 08 j 03:08	0° \Im	
	300 Jul 26 j 18:08	0° \mathfrak{M}			301 Jun 26 j 18:56	0° Ω	
retrograde	300 Aug 05 j 03:31	3° \mathfrak{M} 43'28		desc. node	301 Jun 29 j 15:37	3° Ω 31'50	
evening set	300 Aug 12 j 07:40	1° \mathfrak{M} 04'10		evening max el	301 Jul 04 j 19:24	9° Ω 02'11	27°13'13
	300 Aug 13 j 15:55	30° \Re Ω		retrograde	301 Jul 18 j 16:10	16° Ω 18'47	
min. Earth dist.	300 Aug 15 j 23:03	27° Ω 51'50	0.63648 AU	evening set	301 Jul 25 j 19:04	13° Ω 58'08	
inferior conj	300 Aug 18 j 13:11	25° Ω 13'01	-3°-31'-44	min. Earth dist.	301 Jul 29 j 09:32	11° Ω 11'09	0.61816 AU
minimum elong	300 Aug 18 j 18:00	25° Ω 00'39	3°30'24	inferior conj	301 Aug 01 j 11:13	8° Ω 24'15	-4°-15'00
morning rise	300 Aug 25 j 06:30	19° Ω 53'25		minimum elong	301 Aug 01 j 15:43	8° Ω 14'01	4°14'11
direct	300 Aug 27 j 18:34	19° Ω 22'43		morning rise	301 Aug 08 j 15:06	3° Ω 24'53	
asc. node	300 Aug 30 j 07:17	19° Ω 54'32		direct	301 Aug 11 j 01:17	2° Ω 59'44	
morning max el	300 Sep 03 j 08:12	22° Ω 48'32	17°54'20	asc. node	301 Aug 17 j 04:21	5° Ω 44'48	
	300 Sep 08 j 23:14	0° \mathfrak{M}		morning max el	301 Aug 17 j 22:52	6° Ω 27'49	17°56'12
morning set	300 Sep 20 j 01:19	18° \mathfrak{M} 32'30			301 Sep 02 j 01:49	0° \mathfrak{M}	
	300 Sep 26 j 17:19	0° $\underline{\Delta}$		morning set	301 Sep 02 j 21:26	1° \mathfrak{M} 29'06	
superior conj	300 Oct 02 j 11:08	9° $\underline{\Delta}$ 35'55	0°41'04	superior conj	301 Sep 13 j 13:37	20° \mathfrak{M} 32'28	1°14'56
minimum elong	300 Oct 02 j 15:14	9° $\underline{\Delta}$ 52'44	0°40'32	minimum elong	301 Sep 13 j 18:26	20° \mathfrak{M} 53'16	1°14'24
max. Earth dist.	300 Oct 08 j 09:58	19° $\underline{\Delta}$ 15'17	1.44064 AU		301 Sep 19 j 03:25	0° $\underline{\Delta}$	
desc. node	300 Oct 08 j 17:56	19° $\underline{\Delta}$ 47'06		max. Earth dist.	301 Sep 20 j 22:57	3° $\underline{\Delta}$ 00'00	1.42635 AU
	300 Oct 15 j 05:28	0° \mathfrak{M}		desc. node	301 Sep 25 j 14:58	10° $\underline{\Delta}$ 33'12	
evening rise	300 Oct 18 j 09:00	4° \mathfrak{M} 52'35		evening rise	301 Sep 27 j 20:04	14° $\underline{\Delta}$ 03'30	
	300 Nov 04 j 03:23	0° \mathfrak{J}			301 Oct 08 j 06:21	0° \mathfrak{M}	
greatest brilliancy	300 Nov 10 j 00:21	8° \mathfrak{J} 07'26	-0.5m	greatest brilliancy	301 Oct 24 j 21:38	23° \mathfrak{M} 07'18	-0.4m
evening max el	300 Nov 15 j 19:57	15° \mathfrak{J} 02'56	20°41'34	evening max el	301 Oct 29 j 16:10	28° \mathfrak{M} 32'24	21°54'27
retrograde	300 Nov 24 j 00:34	19° \mathfrak{J} 53'30			301 Oct 31 j 04:21	0° \mathfrak{J}	
asc. node	300 Nov 26 j 06:31	19° \mathfrak{J} 24'52		retrograde	301 Nov 07 j 21:01	4° \mathfrak{J} 00'42	
evening set	300 Nov 27 j 20:48	18° \mathfrak{J} 28'46		evening set	301 Nov 12 j 04:37	2° \mathfrak{J} 19'12	
inferior conj	300 Dec 03 j 07:31	12° \mathfrak{J} 17'22	2°14'44	asc. node	301 Nov 13 j 03:34	1° \mathfrak{J} 28'45	
minimum elong	300 Dec 03 j 04:57	12° \mathfrak{J} 26'06	2°13'52		301 Nov 14 j 12:45	30° \Re \mathfrak{M}	
min. Earth dist.	300 Dec 03 j 21:04	11° \mathfrak{J} 31'10	0.67248 AU	inferior conj	301 Nov 17 j 14:06	25° \mathfrak{M} 59'46	1°28'58
morning rise	300 Dec 08 j 12:38	6° \mathfrak{J} 01'54		minimum elong	301 Nov 17 j 12:12	26° \mathfrak{M} 06'21	1°28'12
direct	300 Dec 13 j 23:34	3° \mathfrak{J} 38'57		min. Earth dist.	301 Nov 17 j 16:20	25° \mathfrak{M} 52'01	0.67634 AU
morning max el	300 Dec 25 j 02:01	10° \mathfrak{J} 16'23	24°16'07	morning rise	301 Nov 22 j 19:32	19° \mathfrak{M} 45'14	
desc. node	301 Jan 04 j 17:08	23° \mathfrak{J} 01'10		direct	301 Nov 27 j 15:08	17° \mathfrak{M} 44'25	
	301 Jan 09 j 17:59	0° \Re		morning max el	301 Dec 07 j 11:55	23° \mathfrak{M} 35'25	22°48'08
	301 Jan 28 j 19:42	0° \approx		greatest brilliancy	301 Dec 12 j 03:50	28° \mathfrak{M} 48'13	-0.3m
morning set	301 Jan 29 j 21:18	1° \approx 50'33			301 Dec 13 j 03:18	0° \mathfrak{J}	
max. Earth dist.	301 Feb 02 j 15:38	8° \approx 29'59	1.37957 AU	desc. node	301 Dec 22 j 14:12	12° \mathfrak{J} 42'00	
					302 Jan 03 j 04:13	0° \Re	
superior conj	301 Feb 09 j 16:00	21° \approx 32'59	-1°-44'-18	morning set	302 Jan 10 j 16:29	12° \Re 02'20	

max. Earth dist.	302 Jan 15 j 11:21	20°☾04'50	1.40087 AU	max. Earth dist.	302 Dec 28 j 12:46	2°☾33'14	1.42102 AU
	302 Jan 21 j 03:12	0°☾					
superior conj	302 Jan 23 j 05:52	3°☾48'59	-1°-58'-41	superior conj	303 Jan 04 j 22:25	15°☾01'49	-2°-1'-56
minimum elong	302 Jan 23 j 08:17	4°☾00'01	1°58'36	minimum elong	303 Jan 04 j 21:14	14°☾56'42	2°01'57
evening rise	302 Feb 02 j 01:21	22°☾13'04		evening rise	303 Jan 13 j 09:16	0°☾	
	302 Feb 06 j 04:36	0°☾		asc. node	303 Jan 16 j 02:37	4°☾56'35	
asc. node	302 Feb 09 j 02:52	5°☾16'33			303 Jan 26 j 23:55	23°☾51'15	
evening max el	302 Feb 18 j 05:55	18°☾11'24	18°26'13		303 Jan 31 j 13:49	0°☾	
retrograde	302 Feb 25 j 16:32	21°☾51'23		evening max el	303 Feb 01 j 15:36	1°☾07'48	18°08'59
evening set	302 Feb 28 j 02:42	21°☾29'12		retrograde	303 Feb 08 j 09:42	4°☾34'14	
inferior conj	302 Mar 07 j 11:39	16°☾54'54	3°08'55	evening set	303 Feb 11 j 00:22	4°☾03'45	
minimum elong	302 Mar 07 j 15:22	16°☾47'18	3°08'10		303 Feb 16 j 19:57	30°☾☾	
min. Earth dist.	302 Mar 10 j 22:04	14°☾08'49	0.58721 AU	inferior conj	303 Feb 17 j 18:18	29°☾07'56	3°41'48
morning rise	302 Mar 15 j 00:13	11°☾27'01		minimum elong	303 Feb 17 j 19:58	29°☾04'00	3°41'40
desc. node	302 Mar 20 j 13:20	9°☾49'45		min. Earth dist.	303 Feb 20 j 23:26	26°☾07'35	0.60828 AU
direct	302 Mar 21 j 03:36	9°☾48'50		morning rise	303 Feb 24 j 12:38	23°☾20'09	
morning max el	302 Apr 04 j 11:53	17°☾28'44	26°53'44	direct	303 Mar 03 j 07:18	21°☾06'03	
	302 Apr 14 j 20:58	0°☾		desc. node	303 Mar 07 j 10:23	21°☾52'00	
	302 May 02 j 06:02	0°☾		morning max el	303 Mar 17 j 12:33	28°☾56'09	27°38'32
morning set	302 May 04 j 11:07	4°☾33'19			303 Mar 18 j 13:50	0°☾	
asc. node	302 May 08 j 02:09	12°☾17'37			303 Apr 08 j 16:48	0°☾	
				morning set	303 Apr 18 j 17:44	19°☾12'09	
superior conj	302 May 11 j 13:26	19°☾53'13	0°36'00		303 Apr 23 j 19:59	0°☾	
minimum elong	302 May 11 j 11:55	19°☾44'51	0°35'41	asc. node	303 Apr 24 j 23:12	2°☾27'59	
max. Earth dist.	302 May 11 j 11:31	19°☾42'40	1.32328 AU	max. Earth dist.	303 Apr 24 j 23:33	2°☾29'54	1.32386 AU
	302 May 16 j 04:35	0°☾					
evening rise	302 May 18 j 12:23	4°☾56'52		superior conj	303 Apr 26 j 00:37	4°☾46'49	0°11'12
	302 May 31 j 20:49	0°☾		minimum elong	303 Apr 26 j 00:06	4°☾44'02	0°11'05
desc. node	302 Jun 16 j 12:37	20°☾37'11		behind sun begin	303 Apr 25 j 20:28	4°☾24'08	
evening max el	302 Jun 16 j 20:49	20°☾56'55	26°27'54	behind sun end	303 Apr 26 j 03:44	5°☾03'56	
retrograde	302 Jun 30 j 20:42	28°☾10'30		evening rise	303 May 02 j 23:09	19°☾50'18	
evening set	302 Jul 07 j 11:01	26°☾21'11			303 May 07 j 22:43	0°☾	
min. Earth dist.	302 Jul 11 j 09:55	23°☾44'37	0.59785 AU		303 May 27 j 13:32	0°☾	
inferior conj	302 Jul 14 j 17:55	21°☾06'50	-4°-42'-37	evening max el	303 May 29 j 15:08	2°☾05'46	25°13'52
minimum elong	302 Jul 14 j 20:11	21°☾02'18	4°42'28	desc. node	303 Jun 03 j 09:37	6°☾00'26	
morning rise	302 Jul 22 j 08:41	16°☾30'17		retrograde	303 Jun 12 j 15:36	9°☾14'26	
direct	302 Jul 24 j 19:23	16°☾08'40		evening set	303 Jun 18 j 03:59	8°☾03'53	
morning max el	302 Aug 01 j 09:22	19°☾48'34	18°17'34	min. Earth dist.	303 Jun 23 j 02:52	5°☾19'09	0.57767 AU
asc. node	302 Aug 04 j 01:24	22°☾45'36		inferior conj	303 Jun 26 j 05:50	3°☾10'56	-4°-43'-40
	302 Aug 08 j 23:55	0°☾		minimum elong	303 Jun 26 j 03:47	3°☾14'28	4°43'34
morning set	302 Aug 17 j 07:53	15°☾07'09			303 Jul 01 j 11:07	30°☾☾	
	302 Aug 25 j 05:29	0°☾		morning rise	303 Jul 04 j 07:27	28°☾57'03	
				direct	303 Jul 06 j 20:21	28°☾37'46	
superior conj	302 Aug 26 j 16:58	2°☾42'45	1°35'58		303 Jul 11 j 21:42	0°☾	
minimum elong	302 Aug 26 j 20:12	2°☾57'28	1°35'44	morning max el	303 Jul 15 j 12:40	2°☾41'48	18°59'32
max. Earth dist.	302 Sep 03 j 06:28	16°☾04'29	1.40782 AU	asc. node	303 Jul 21 j 22:26	10°☾42'02	
evening rise	302 Sep 08 j 01:29	24°☾05'54		morning set	303 Aug 01 j 04:31	29°☾15'34	
	302 Sep 11 j 17:08	0°☾			303 Aug 01 j 13:32	0°☾	
desc. node	302 Sep 12 j 12:00	1°☾14'50		superior conj	303 Aug 09 j 15:32	15°☾50'56	1°45'40
	302 Oct 02 j 04:21	0°☾		minimum elong	303 Aug 09 j 16:39	15°☾56'15	1°45'38
greatest brilliancy	302 Oct 05 j 21:13	4°☾45'26	-0.2m	max. Earth dist.	303 Aug 16 j 09:40	28°☾24'38	1.38756 AU
evening max el	302 Oct 12 j 07:22	12°☾03'21	23°13'38		303 Aug 17 j 07:00	0°☾	
retrograde	302 Oct 22 j 14:52	18°☾09'50		evening rise	303 Aug 20 j 07:30	5°☾17'49	
evening set	302 Oct 27 j 11:38	16°☾10'22		desc. node	303 Aug 30 j 08:59	21°☾48'03	
asc. node	302 Oct 31 j 00:37	12°☾17'33			303 Sep 04 j 18:44	0°☾	
inferior conj	302 Nov 01 j 21:16	9°☾46'37	0°38'17	evening max el	303 Sep 24 j 19:34	25°☾37'33	24°33'05
minimum elong	302 Nov 01 j 20:23	9°☾49'41	0°37'55		303 Sep 29 j 23:53	0°☾	
min. Earth dist.	302 Nov 01 j 12:56	10°☾15'15	0.67684 AU	retrograde	303 Oct 06 j 05:04	2°☾17'14	
morning rise	302 Nov 07 j 05:11	3°☾35'18		evening set	303 Oct 11 j 16:09	0°☾00'11	
direct	302 Nov 11 j 10:11	1°☾57'15			303 Oct 11 j 16:14	30°☾☾	
morning max el	302 Nov 20 j 02:58	7°☾02'47	21°24'27	min. Earth dist.	303 Oct 16 j 08:33	24°☾38'52	0.67408 AU
greatest brilliancy	302 Nov 25 j 06:18	12°☾55'54	-0.4m	inferior conj	303 Oct 17 j 03:19	23°☾36'11	0°-15'-50
	302 Dec 07 j 14:08	0°☾		minimum elong	303 Oct 17 j 03:42	23°☾34'53	0°15'40
desc. node	302 Dec 09 j 11:15	2°☾46'39		transit middle	303 Oct 17 j 03:42	23°☾34'53	0°15'40
morning set	302 Dec 21 j 06:54	20°☾52'56		transit begin	303 Oct 17 j 02:58	23°☾37'20	
	302 Dec 26 j 23:21	0°☾		transit end	303 Oct 17 j 04:26	23°☾32'26	

asc. node	303 Oct 17 j 21:39	22°♄35'15		minimum elong	304 Sep 30 j 08:17	7°♄19'33	1°11'12
morning rise	303 Oct 22 j 15:39	17°♄30'36		asc. node	304 Oct 03 j 18:42	3°♄18'45	
direct	303 Oct 26 j 07:38	16°♄13'26		morning rise	304 Oct 06 j 00:59	1°♄28'26	
morning max el	303 Nov 03 j 01:23	20°♄40'38	20°11'09	direct	304 Oct 09 j 06:06	0°♄28'52	
greatest brilliancy	303 Nov 09 j 22:07	28°♄58'52	-0.6m	morning max el	304 Oct 16 j 07:12	4°♄27'05	19°11'44
	303 Nov 10 j 16:04	0°♄			304 Nov 03 j 10:27	0°♄	
desc. node	303 Nov 26 j 08:17	23°♄08'33		morning set	304 Nov 08 j 07:53	7°♄37'16	
morning set	303 Nov 30 j 03:58	29°♄01'12		desc. node	304 Nov 12 j 05:17	13°♄41'57	
	303 Nov 30 j 19:10	0°♄		max. Earth dist.	304 Nov 22 j 12:23	29°♄50'49	1.44745 AU
max. Earth dist.	303 Dec 10 j 21:30	15°♄53'11	1.43721 AU		304 Nov 22 j 14:43	0°♄	
superior conj	303 Dec 16 j 13:03	25°♄02'27	-1°-49'-24	superior conj	304 Nov 25 j 02:17	3°♄55'33	-1°-18'-21
minimum elong	303 Dec 16 j 06:54	24°♄37'13	1°49'01	minimum elong	304 Nov 24 j 17:57	3°♄22'29	1°17'27
	303 Dec 19 j 13:02	0°♄		evening rise	304 Dec 09 j 21:32	27°♄50'24	
evening rise	303 Dec 29 j 10:49	16°♄51'49			304 Dec 11 j 05:00	0°♄	
	304 Jan 06 j 02:16	0°♄		evening max el	304 Dec 29 j 16:03	27°♄42'50	18°32'03
asc. node	304 Jan 13 j 20:57	11°♄44'51		asc. node	304 Dec 30 j 17:59	28°♄44'52	
evening max el	304 Jan 16 j 03:54	14°♄20'36	18°11'10		305 Jan 01 j 08:25	0°♄	
retrograde	304 Jan 22 j 15:40	17°♄47'08		retrograde	305 Jan 05 j 06:07	1°♄21'05	
evening set	304 Jan 25 j 10:45	17°♄07'18		evening set	305 Jan 08 j 06:19	0°♄30'40	
inferior conj	304 Jan 31 j 17:11	11°♄50'52	3°49'03		305 Jan 09 j 02:03	30°♄	
minimum elong	304 Jan 31 j 16:45	11°♄52'02	3°49'03	inferior conj	305 Jan 14 j 04:17	24°♄55'23	3°37'43
min. Earth dist.	304 Feb 03 j 09:37	8°♄59'46	0.62846 AU	minimum elong	305 Jan 14 j 02:23	25°♄01'00	3°37'28
morning rise	304 Feb 06 j 20:43	5°♄50'52		min. Earth dist.	305 Jan 16 j 05:23	22°♄31'00	0.64573 AU
direct	304 Feb 13 j 20:20	3°♄10'51		morning rise	305 Jan 19 j 21:07	18°♄47'54	
desc. node	304 Feb 22 j 07:26	6°♄23'32		direct	305 Jan 26 j 16:46	15°♄57'01	
morning max el	304 Feb 27 j 18:40	11°♄04'11	27°46'13	desc. node	305 Feb 08 j 04:29	22°♄47'54	
	304 Mar 13 j 16:53	0°♄		morning max el	305 Feb 09 j 03:43	23°♄44'44	27°18'39
	304 Mar 31 j 00:19	0°♄			305 Feb 14 j 18:39	0°♄	
morning set	304 Apr 01 j 18:38	3°♄30'37			305 Mar 07 j 00:42	0°♄	
max. Earth dist.	304 Apr 07 j 07:03	14°♄58'38	1.32834 AU	morning set	305 Mar 16 j 11:03	17°♄19'49	
				max. Earth dist.	305 Mar 21 j 06:15	26°♄57'55	1.33709 AU
superior conj	304 Apr 09 j 09:31	19°♄29'35	0°-15'-14		305 Mar 22 j 17:23	0°♄	
minimum elong	304 Apr 09 j 10:14	19°♄33'31	0°15'06	superior conj	305 Mar 24 j 14:16	3°♄55'39	0°-42'-18
behind sun begin	304 Apr 09 j 08:37	19°♄24'43		minimum elong	305 Mar 24 j 16:19	4°♄06'29	0°41'54
behind sun end	304 Apr 09 j 11:52	19°♄42'19		asc. node	305 Mar 28 j 17:17	12°♄42'25	
asc. node	304 Apr 10 j 20:14	22°♄37'31		evening rise	305 Mar 31 j 21:57	19°♄28'19	
	304 Apr 14 j 05:58	0°♄			305 Apr 06 j 03:04	0°♄	
evening rise	304 Apr 16 j 10:56	4°♄42'45		evening max el	305 Apr 21 j 22:44	23°♄20'25	22°07'16
	304 Apr 30 j 02:07	0°♄		retrograde	305 May 04 j 17:03	29°♄36'21	
evening max el	304 May 10 j 05:32	12°♄43'57	23°42'05	desc. node	305 May 07 j 03:39	29°♄23'06	
desc. node	304 May 20 j 06:38	19°♄05'30		evening set	305 May 07 j 12:11	29°♄19'03	
retrograde	304 May 23 j 22:36	19°♄36'05		min. Earth dist.	305 May 16 j 04:50	25°♄35'39	0.55123 AU
evening set	304 May 28 j 00:05	18°♄59'43		inferior conj	305 May 16 j 21:02	25°♄12'53	-2°-40'-46
min. Earth dist.	304 Jun 03 j 16:16	15°♄51'36	0.56097 AU	minimum elong	305 May 16 j 14:13	25°♄22'28	2°38'40
inferior conj	304 Jun 05 j 21:35	14°♄31'05	-4°-5'-7	morning rise	305 May 25 j 17:53	21°♄18'46	
minimum elong	304 Jun 05 j 15:07	14°♄40'53	4°03'53	direct	305 May 28 j 16:37	20°♄59'17	
morning rise	304 Jun 14 j 09:42	10°♄33'41		morning max el	305 Jun 09 j 12:12	26°♄31'17	21°25'16
direct	304 Jun 17 j 01:58	10°♄15'34			305 Jun 12 j 19:40	0°♄	
morning max el	304 Jun 27 j 06:04	14°♄58'01	20°02'34	asc. node	305 Jun 24 j 16:32	18°♄32'43	
asc. node	304 Jul 07 j 19:29	29°♄21'10		morning set	305 Jun 29 j 16:36	28°♄32'15	
	304 Jul 08 j 04:20	0°♄			305 Jun 30 j 09:31	0°♄	
morning set	304 Jul 15 j 08:12	13°♄46'00		superior conj	305 Jul 07 j 02:27	14°♄02'57	1°39'23
superior conj	304 Jul 23 j 04:04	29°♄41'37	1°46'09	minimum elong	305 Jul 07 j 00:35	13°♄53'17	1°39'15
minimum elong	304 Jul 23 j 03:23	29°♄38'12	1°46'08	max. Earth dist.	305 Jul 11 j 01:43	22°♄09'54	1.35160 AU
	304 Jul 23 j 07:44	0°♄		evening rise	305 Jul 15 j 11:54	0°♄49'06	
max. Earth dist.	304 Jul 28 j 14:03	10°♄17'05	1.36819 AU		305 Jul 15 j 01:36	0°♄	
evening rise	304 Aug 01 j 12:30	17°♄36'10			305 Aug 01 j 16:33	0°♄	
	304 Aug 08 j 15:20	0°♄		desc. node	305 Aug 03 j 02:59	2°♄07'32	
desc. node	304 Aug 16 j 05:58	12°♄07'39		evening max el	305 Aug 19 j 19:12	22°♄50'29	26°42'49
	304 Aug 29 j 01:59	0°♄			305 Aug 31 j 12:40	0°♄	
evening max el	304 Sep 06 j 07:07	9°♄14'44	25°45'27	retrograde	305 Sep 01 j 19:04	0°♄05'19	
retrograde	304 Sep 18 j 14:41	16°♄17'31			305 Sep 03 j 00:46	30°♄	
evening set	304 Sep 24 j 16:21	13°♄45'19		evening set	305 Sep 08 j 10:11	27°♄23'07	
min. Earth dist.	304 Sep 29 j 00:44	8°♄59'56	0.66810 AU	min. Earth dist.	305 Sep 12 j 11:06	23°♄15'11	0.65872 AU
inferior conj	304 Sep 30 j 06:27	7°♄25'23	-1°-11'-58				

inferior conj	305 Sep 14 j 04:45	21° \cap 11'33	-2°-8'-20	min. Earth dist.	306 Aug 26 j 13:13	7° \cap 17'20	0.64567 AU
minimum elong	305 Sep 14 j 08:02	21° \cap 01'48	2°07'05	inferior conj	306 Aug 28 j 19:52	4° \cap 49'05	-3°-2'-39
morning rise	305 Sep 20 j 07:06	15° \cap 26'26		minimum elong	306 Aug 29 j 00:19	4° \cap 37'00	3°01'14
asc. node	305 Sep 20 j 15:45	15° \cap 15'42			306 Sep 03 j 01:31	30° \cap 00	
direct	305 Sep 23 j 03:42	14° \cap 40'46		morning rise	306 Sep 04 j 07:25	29° \cap 19'22	
morning max el	305 Sep 29 j 18:55	18° \cap 19'22	18°28'13	direct	306 Sep 06 j 21:58	28° \cap 44'04	
	305 Oct 08 j 13:20	0° \cap		asc. node	306 Sep 07 j 12:48	28° \cap 46'04	
morning set	305 Oct 19 j 13:21	17° \cap 32'29			306 Sep 10 j 18:25	0° \cap	
	305 Oct 27 j 07:57	0° \cap		morning max el	306 Sep 13 j 10:05	2° \cap 11'51	18°01'41
desc. node	305 Oct 30 j 02:19	4° \cap 23'21		morning set	306 Sep 30 j 23:18	28° \cap 51'02	
					306 Oct 01 j 15:40	0° \cap	
superior conj	305 Nov 04 j 02:55	12° \cap 19'11	0°-32'-41				
minimum elong	305 Nov 03 j 22:38	12° \cap 02'19	0°32'08	superior conj	306 Oct 14 j 12:53	21° \cap 15'06	0°16'07
max. Earth dist.	305 Nov 05 j 06:58	14° \cap 09'28	1.45059 AU	minimum elong	306 Oct 14 j 14:46	21° \cap 22'43	0°15'51
	305 Nov 15 j 09:02	0° \cap		behind sun begin	306 Oct 14 j 12:35	21° \cap 13'56	
evening rise	305 Nov 20 j 08:34	7° \cap 50'53		behind sun end	306 Oct 14 j 16:58	21° \cap 31'30	
greatest brilliancy	305 Dec 02 j 13:31	26° \cap 59'10	-0.7m	desc. node	306 Oct 16 j 23:22	25° \cap 09'17	
	305 Dec 04 j 13:26	0° \cap		max. Earth dist.	306 Oct 19 j 01:50	28° \cap 29'52	1.44626 AU
evening max el	305 Dec 13 j 01:38	11° \cap 09'40	19°10'22		306 Oct 20 j 00:38	0° \cap	
asc. node	305 Dec 17 j 15:02	14° \cap 37'04		evening rise	306 Oct 30 j 23:25	17° \cap 04'27	
retrograde	305 Dec 20 j 01:34	15° \cap 09'45			306 Nov 08 j 09:57	0° \cap	
evening set	305 Dec 23 j 08:10	14° \cap 07'19		greatest brilliancy	306 Nov 19 j 09:02	16° \cap 06'15	-0.6m
inferior conj	305 Dec 29 j 00:10	8° \cap 15'26	3°12'57	evening max el	306 Nov 26 j 06:41	24° \cap 38'10	20°04'20
minimum elong	305 Dec 28 j 21:31	8° \cap 23'50	3°12'22	retrograde	306 Dec 03 j 23:10	29° \cap 08'34	
min. Earth dist.	305 Dec 30 j 10:11	6° \cap 27'21	0.65919 AU	asc. node	306 Dec 04 j 12:04	29° \cap 06'56	
morning rise	306 Jan 03 j 10:01	2° \cap 03'17		evening set	306 Dec 07 j 13:53	27° \cap 52'25	
	306 Jan 06 j 11:23	30° \cap 00		inferior conj	306 Dec 13 j 01:59	21° \cap 46'59	2°38'16
direct	306 Jan 09 j 19:24	29° \cap 15'45		minimum elong	306 Dec 12 j 23:15	21° \cap 56'10	2°37'26
	306 Jan 13 j 09:17	0° \cap		min. Earth dist.	306 Dec 13 j 22:29	20° \cap 38'22	0.66868 AU
morning max el	306 Jan 22 j 13:16	6° \cap 46'21	26°22'05	morning rise	306 Dec 18 j 08:03	15° \cap 32'06	
desc. node	306 Jan 26 j 01:32	10° \cap 33'14		direct	306 Dec 24 j 03:32	12° \cap 58'28	
	306 Feb 09 j 13:42	0° \cap		morning max el	307 Jan 04 j 22:06	19° \cap 58'57	25°05'27
	306 Feb 27 j 09:14	0° \cap		desc. node	307 Jan 12 j 22:35	29° \cap 15'58	
morning set	306 Feb 27 j 15:12	0° \cap 27'57			307 Jan 13 j 12:17	0° \cap	
max. Earth dist.	306 Mar 03 j 18:20	8° \cap 23'51	1.35040 AU		307 Feb 02 j 17:20	0° \cap	
				morning set	307 Feb 10 j 02:08	12° \cap 40'52	
superior conj	306 Mar 08 j 12:33	17° \cap 57'23	-1°-8'-42	max. Earth dist.	307 Feb 13 j 19:35	19° \cap 28'47	1.36799 AU
minimum elong	306 Mar 08 j 15:47	18° \cap 13'59	1°08'10		307 Feb 19 j 07:47	0° \cap	
	306 Mar 14 j 07:53	0° \cap					
asc. node	306 Mar 15 j 14:20	2° \cap 37'56		superior conj	307 Feb 20 j 01:25	1° \cap 26'35	-1°-32'-37
evening rise	306 Mar 16 j 06:18	4° \cap 00'17		minimum elong	307 Feb 20 j 05:20	1° \cap 45'52	1°32'08
	306 Mar 31 j 03:42	0° \cap		evening rise	307 Feb 28 j 09:46	18° \cap 12'00	
evening max el	306 Apr 04 j 00:43	4° \cap 20'55	20°41'59	asc. node	307 Mar 02 j 11:24	22° \cap 19'25	
retrograde	306 Apr 15 j 05:55	9° \cap 46'07			307 Mar 06 j 11:50	0° \cap	
evening set	306 Apr 17 j 10:12	9° \cap 34'41		evening max el	307 Mar 17 j 14:04	15° \cap 59'14	19°33'40
desc. node	306 Apr 24 j 00:42	7° \cap 04'35		retrograde	307 Mar 27 j 02:17	20° \cap 33'31	
inferior conj	306 Apr 26 j 15:14	5° \cap 37'12	0°-44'-59	evening set	307 Mar 29 j 05:07	20° \cap 20'54	
minimum elong	306 Apr 26 j 13:06	5° \cap 40'15	0°44'13	inferior conj	307 Apr 06 j 18:52	16° \cap 15'59	1°09'14
min. Earth dist.	306 Apr 27 j 17:47	4° \cap 59'08	0.55070 AU	minimum elong	307 Apr 06 j 21:41	16° \cap 11'29	1°08'16
morning rise	306 May 05 j 14:44	1° \cap 27'53		min. Earth dist.	307 Apr 09 j 08:13	14° \cap 38'19	0.55955 AU
direct	306 May 09 j 03:18	1° \cap 01'07		desc. node	307 Apr 10 j 21:45	13° \cap 42'01	
morning max el	306 May 22 j 08:27	7° \cap 24'17	23°02'26	morning rise	307 Apr 15 j 10:38	11° \cap 35'48	
	306 Jun 07 j 08:54	0° \cap		direct	307 Apr 19 j 22:12	10° \cap 50'37	
asc. node	306 Jun 11 j 13:35	8° \cap 07'36		morning max el	307 May 03 j 23:36	17° \cap 55'35	24°43'17
morning set	306 Jun 14 j 03:39	13° \cap 27'14			307 May 13 j 22:17	0° \cap	
				asc. node	307 May 29 j 10:39	27° \cap 59'25	
superior conj	306 Jun 21 j 07:26	28° \cap 44'08	1°26'54	morning set	307 May 29 j 15:37	28° \cap 25'34	
minimum elong	306 Jun 21 j 05:01	28° \cap 31'14	1°26'37		307 May 30 j 09:29	0° \cap	
	306 Jun 21 j 21:41	0° \cap					
max. Earth dist.	306 Jun 23 j 22:51	4° \cap 19'43	1.33870 AU	superior conj	307 Jun 05 j 16:36	13° \cap 37'31	1°09'53
evening rise	306 Jun 29 j 00:49	14° \cap 41'59		minimum elong	307 Jun 05 j 14:11	13° \cap 24'22	1°09'29
	306 Jul 07 j 05:24	0° \cap		max. Earth dist.	307 Jun 07 j 04:18	16° \cap 50'59	1.32971 AU
desc. node	306 Jul 21 j 00:01	21° \cap 38'06		evening rise	307 Jun 12 j 23:25	29° \cap 03'36	
	306 Jul 27 j 12:03	0° \cap			307 Jun 13 j 10:31	0° \cap	
evening max el	306 Aug 02 j 06:59	6° \cap 13'18	27°17'50		307 Jun 30 j 08:51	0° \cap	
retrograde	306 Aug 15 j 17:46	13° \cap 32'14		desc. node	307 Jul 07 j 21:03	10° \cap 27'03	
evening set	306 Aug 22 j 19:00	10° \cap 48'26		evening max el	307 Jul 15 j 16:32	19° \cap 10'29	27°24'08

retrograde	307 Jul 29 j 10:26	26°♂29'09		desc. node	308 Jun 23 j 18:04	28°♂17'12	
evening set	307 Aug 05 j 15:24	23°♂55'43			308 Jun 25 j 08:48	0°♂	
min. Earth dist.	307 Aug 09 j 05:28	20°♂55'58	0.62903 AU	evening max el	308 Jun 26 j 21:30	1°♂30'39	26°57'54
inferior conj	307 Aug 12 j 01:01	18°♂11'45	-3°-51'-30	retrograde	308 Jul 10 j 20:10	8°♂46'59	
minimum elong	307 Aug 12 j 05:54	17°♂59'52	3°50'20	evening set	308 Jul 17 j 19:10	6°♂38'05	
morning rise	307 Aug 18 j 22:48	13°♂00'43		min. Earth dist.	308 Jul 21 j 11:34	3°♂57'42	0.60957 AU
direct	307 Aug 21 j 09:47	12°♂32'42		inferior conj	308 Jul 24 j 16:59	1°♂11'58	-4°-29'-17
asc. node	307 Aug 25 j 09:51	13°♂48'31		minimum elong	308 Jul 24 j 20:48	1°♂03'44	4°28'45
morning max el	307 Aug 28 j 01:50	15°♂58'11	17°52'54		308 Jul 26 j 03:01	30°♂	
	307 Sep 06 j 22:05	0°♂		morning rise	308 Aug 01 j 01:31	26°♂22'22	
morning set	307 Sep 13 j 08:38	11°♂16'24		direct	308 Aug 03 j 11:29	25°♂59'04	
	307 Sep 24 j 03:19	0°♂		morning max el	308 Aug 10 j 15:09	29°♂31'09	18°02'53
				asc. node	308 Aug 11 j 06:55	0°♂10'52	
superior conj	307 Sep 24 j 23:31	1°♂25'02	0°57'01		308 Aug 11 j 02:43	0°♂	
minimum elong	307 Sep 25 j 04:19	1°♂45'14	0°56'25	morning set	308 Aug 26 j 11:26	24°♂32'15	
max. Earth dist.	307 Oct 01 j 17:21	12°♂31'18	1.43514 AU		308 Aug 29 j 10:12	0°♂	
desc. node	307 Oct 03 j 20:23	15°♂56'13		superior conj	308 Sep 05 j 13:12	12°♂54'59	1°25'23
evening rise	307 Oct 10 j 06:31	26°♂02'20		minimum elong	308 Sep 05 j 17:30	13°♂14'00	1°24'57
	307 Oct 12 j 20:10	0°♂		max. Earth dist.	308 Sep 13 j 03:26	25°♂58'06	1.41875 AU
	307 Nov 02 j 11:01	0°♂			308 Sep 15 j 13:58	0°♂	
greatest brilliancy	307 Nov 03 j 23:59	1°♂59'48	-0.4m	evening rise	308 Sep 18 j 23:55	5°♂31'27	
evening max el	307 Nov 09 j 06:03	8°♂06'40	21°11'25	desc. node	308 Sep 19 j 17:25	6°♂41'09	
retrograde	307 Nov 17 j 20:40	13°♂13'31			308 Oct 05 j 03:17	0°♂	
asc. node	307 Nov 21 j 09:07	12°♂03'54		greatest brilliancy	308 Oct 17 j 05:28	16°♂15'31	-0.3m
evening set	307 Nov 21 j 21:26	11°♂41'49		evening max el	308 Oct 21 j 23:54	21°♂36'45	22°27'43
inferior conj	307 Nov 27 j 07:25	5°♂26'16	1°56'00	retrograde	308 Oct 31 j 16:14	27°♂22'06	
minimum elong	307 Nov 27 j 05:05	5°♂34'17	1°55'10	evening set	308 Nov 05 j 05:07	25°♂33'15	
min. Earth dist.	307 Nov 27 j 15:58	4°♂56'48	0.67449 AU	asc. node	308 Nov 07 j 06:09	23°♂32'45	
	307 Dec 01 j 15:34	30°♂		inferior conj	308 Nov 10 j 14:29	19°♂11'27	1°08'00
morning rise	307 Dec 02 j 12:23	29°♂10'47		minimum elong	308 Nov 10 j 12:59	19°♂16'41	1°07'23
direct	307 Dec 07 j 16:39	26°♂57'08		min. Earth dist.	308 Nov 10 j 12:14	19°♂19'15	0.67691 AU
	307 Dec 14 j 16:09	0°♂		morning rise	308 Nov 15 j 20:42	12°♂57'41	
morning max el	307 Dec 18 j 06:51	3°♂15'55	23°38'41	direct	308 Nov 20 j 09:55	11°♂06'32	
desc. node	307 Dec 30 j 19:38	18°♂39'01		morning max el	308 Nov 29 j 18:28	16°♂38'09	22°11'32
	308 Jan 07 j 16:53	0°♂		greatest brilliancy	308 Dec 04 j 10:23	21°♂52'51	-0.3m
morning set	308 Jan 22 j 13:31	23°♂41'06			308 Dec 10 j 16:00	0°♂	
	308 Jan 26 j 05:20	0°♂		desc. node	308 Dec 16 j 16:40	8°♂31'14	
max. Earth dist.	308 Jan 26 j 14:37	0°♂40'48	1.38857 AU		308 Dec 30 j 19:00	0°♂	
superior conj	308 Feb 03 j 00:59	14°♂12'19	-1°-51'-29	morning set	309 Jan 01 j 20:08	3°♂17'04	
minimum elong	308 Feb 03 j 04:28	14°♂28'40	1°51'14	max. Earth dist.	309 Jan 07 j 11:35	12°♂34'56	1.40978 AU
	308 Feb 11 j 05:57	0°♂		superior conj	309 Jan 15 j 06:28	26°♂03'21	-2°-1'-42
evening rise	308 Feb 12 j 05:39	1°♂55'21		minimum elong	309 Jan 15 j 07:38	26°♂08'33	2°01'43
asc. node	308 Feb 17 j 08:27	11°♂40'33			309 Jan 17 j 11:13	0°♂	
evening max el	308 Feb 28 j 13:37	28°♂14'17	18°45'03	evening rise	309 Jan 25 j 14:48	15°♂03'05	
	308 Mar 01 j 15:38	0°♂			309 Feb 02 j 21:09	0°♂	
retrograde	308 Mar 07 j 15:13	2°♂09'19		asc. node	309 Feb 03 j 05:28	0°♂34'46	
evening set	308 Mar 09 j 22:22	1°♂51'28		evening max el	309 Feb 10 j 20:35	10°♂58'50	18°16'28
	308 Mar 14 j 02:22	30°♂		retrograde	309 Feb 17 j 22:43	14°♂30'51	
inferior conj	308 Mar 17 j 17:29	27°♂29'29	2°35'22	evening set	309 Feb 20 j 10:53	14°♂05'17	
minimum elong	308 Mar 17 j 21:46	27°♂21'29	2°34'16	inferior conj	309 Feb 27 j 13:04	9°♂22'09	3°26'26
min. Earth dist.	308 Mar 21 j 01:15	25°♂02'22	0.57581 AU	minimum elong	309 Feb 27 j 16:00	9°♂15'45	3°26'01
morning rise	308 Mar 25 j 16:56	22°♂16'38		min. Earth dist.	309 Mar 02 j 22:45	6°♂26'38	0.59619 AU
desc. node	308 Mar 27 j 18:48	21°♂30'23		morning rise	309 Mar 06 j 17:36	3°♂44'47	
direct	308 Mar 31 j 07:09	20°♂59'42		direct	309 Mar 13 j 05:00	1°♂50'13	
morning max el	308 Apr 14 j 15:27	28°♂31'24	26°12'58	desc. node	309 Mar 14 j 15:50	1°♂55'49	
	308 Apr 16 j 02:41	0°♂		morning max el	309 Mar 27 j 12:13	9°♂35'33	27°17'02
	308 May 06 j 10:16	0°♂			309 Apr 12 j 04:25	0°♂	
morning set	308 May 13 j 02:54	13°♂21'26		morning set	309 Apr 27 j 11:43	28°♂08'30	
asc. node	308 May 15 j 07:43	18°♂02'27			309 Apr 28 j 09:03	0°♂	
superior conj	308 May 20 j 03:55	28°♂36'17	0°49'14	asc. node	309 May 02 j 04:45	8°♂11'36	
minimum elong	308 May 20 j 01:57	28°♂25'31	0°48'51	max. Earth dist.	309 May 04 j 03:45	12°♂28'40	1.32305 AU
max. Earth dist.	308 May 20 j 15:07	29°♂37'40	1.32451 AU	superior conj	309 May 04 j 15:38	13°♂33'50	0°25'44
	308 May 20 j 19:11	0°♂		minimum elong	309 May 04 j 14:30	13°♂27'39	0°25'29
evening rise	308 May 27 j 04:37	13°♂44'25		evening rise	309 May 11 j 13:58	28°♂35'50	
	308 Jun 04 j 12:20	0°♂					

	309 May 12 j 06:00	0°♂		minimum elong	310 Apr 19 j 02:05	28°♂24'23	0°00'08
	309 May 29 j 00:57	0°♂		behind sun begin	310 Apr 18 j 21:00	27°♂56'41	
evening max el	309 Jun 08 j 19:59	13°♂06'01	25°59'33	behind sun end	310 Apr 19 j 07:10	28°♂52'05	
desc. node	309 Jun 10 j 15:05	14°♂43'34		asc. node	310 Apr 19 j 01:47	28°♂22'46	
retrograde	309 Jun 22 j 21:01	20°♂18'04			310 Apr 19 j 19:37	0°♂	
evening set	309 Jun 29 j 01:35	18°♂45'20		evening rise	310 Apr 26 j 01:27	13°♂30'47	
min. Earth dist.	309 Jul 03 j 08:40	16°♂07'12	0.58899 AU		310 May 04 j 09:33	0°♂	
inferior conj	309 Jul 06 j 16:04	13°♂39'40	-4°-47'-9	evening max el	310 May 21 j 12:15	24°♂00'21	24°36'09
minimum elong	309 Jul 06 j 16:43	13°♂38'26	4°47'09	desc. node	310 May 28 j 12:05	29°♂13'28	
morning rise	309 Jul 14 j 11:26	9°♂12'45			310 May 30 j 04:46	0°♂	
direct	309 Jul 16 j 22:48	8°♂52'16		retrograde	310 Jun 04 j 10:36	1°♂03'03	
morning max el	309 Jul 24 j 22:55	12°♂41'20	18°32'49	evening set	310 Jun 09 j 08:48	0°♂08'27	
asc. node	309 Jul 29 j 03:58	17°♂37'08			310 Jun 09 j 17:52	30°♂♂	
	309 Aug 05 j 16:19	0°♂		min. Earth dist.	310 Jun 14 j 23:35	27°♂15'28	0.57000 AU
morning set	309 Aug 10 j 02:40	8°♂24'33		inferior conj	310 Jun 17 j 19:25	25°♂26'03	-4°-32'-51
				minimum elong	310 Jun 17 j 15:16	25°♂32'46	4°32'23
superior conj	309 Aug 19 j 01:22	25°♂31'35	1°41'21	morning rise	310 Jun 26 j 01:32	21°♂20'05	
minimum elong	309 Aug 19 j 03:42	25°♂42'26	1°41'12	direct	310 Jun 28 j 15:55	21°♂01'18	
	309 Aug 21 j 11:32	0°♂		morning max el	310 Jul 07 j 22:11	25°♂19'45	19°23'45
max. Earth dist.	309 Aug 26 j 08:37	8°♂42'46	1.39925 AU		310 Jul 12 j 01:30	0°♂	
evening rise	309 Aug 30 j 15:38	16°♂03'07		asc. node	310 Jul 16 j 01:01	5°♂53'26	
desc. node	309 Sep 06 j 14:25	27°♂19'53		morning set	310 Jul 25 j 02:40	22°♂43'41	
	309 Sep 08 j 07:26	0°♂			310 Jul 28 j 17:43	0°♂	
	309 Sep 29 j 20:44	0°♂					
evening max el	309 Oct 04 j 13:42	5°♂09'31	23°47'54	superior conj	310 Aug 02 j 06:29	8°♂59'36	1°46'51
retrograde	309 Oct 15 j 08:33	11°♂30'40		minimum elong	310 Aug 02 j 06:46	9°♂00'59	1°46'52
evening set	309 Oct 20 j 11:14	9°♂23'50		max. Earth dist.	310 Aug 08 j 12:03	20°♂50'19	1.37914 AU
asc. node	309 Oct 25 j 03:11	4°♂01'34		evening rise	310 Aug 12 j 07:56	27°♂44'30	
inferior conj	309 Oct 25 j 21:23	2°♂59'40	0°15'42		310 Aug 13 j 14:52	0°♂	
minimum elong	309 Oct 25 j 21:00	3°♂00'58	0°15'32	desc. node	310 Aug 24 j 11:24	17°♂48'05	
transit middle	309 Oct 25 j 21:00	3°♂00'58	0°15'32		310 Sep 01 j 18:07	0°♂	
transit begin	309 Oct 25 j 20:11	3°♂03'45		evening max el	310 Sep 17 j 01:29	18°♂45'27	25°05'12
transit end	309 Oct 25 j 21:50	2°♂58'11		retrograde	310 Sep 28 j 20:40	25°♂35'32	
min. Earth dist.	309 Oct 25 j 08:43	3°♂42'46	0.67607 AU	evening set	310 Oct 04 j 14:08	23°♂11'33	
	309 Oct 28 j 04:03	30°♂♂		min. Earth dist.	310 Oct 09 j 03:04	18°♂05'29	0.67199 AU
morning rise	309 Oct 31 j 06:56	26°♂50'22		inferior conj	310 Oct 10 j 02:24	16°♂49'02	0°-39'-29
direct	309 Nov 04 j 06:16	25°♂21'17		minimum elong	310 Oct 10 j 03:23	16°♂45'48	0°39'04
	309 Nov 12 j 08:40	0°♂		asc. node	310 Oct 12 j 00:14	14°♂22'53	
morning max el	309 Nov 12 j 12:20	0°♂09'12	20°51'42	morning rise	310 Oct 15 j 17:10	10°♂46'56	
greatest brilliancy	309 Nov 18 j 06:13	6°♂52'11	-0.5m	direct	310 Oct 19 j 04:20	9°♂37'36	
desc. node	309 Dec 03 j 13:42	28°♂44'03		morning max el	310 Oct 26 j 13:59	13°♂50'46	19°44'04
	309 Dec 04 j 09:51	0°♂		greatest brilliancy	310 Nov 03 j 13:31	23°♂48'33	-0.6m
morning set	309 Dec 12 j 00:43	11°♂42'00			310 Nov 07 j 20:07	0°♂	
max. Earth dist.	309 Dec 20 j 16:10	25°♂26'57	1.42856 AU	desc. node	310 Nov 20 j 10:43	19°♂11'20	
	309 Dec 23 j 10:54	0°♂		morning set	310 Nov 20 j 21:35	19°♂53'18	
					310 Nov 27 j 09:35	0°♂	
superior conj	309 Dec 27 j 12:29	6°♂46'59	-1°-58'-49	max. Earth dist.	310 Dec 03 j 04:21	9°♂07'02	1.44238 AU
minimum elong	309 Dec 27 j 09:12	6°♂33'07	1°58'43				
evening rise	310 Jan 08 j 09:19	27°♂27'18		superior conj	310 Dec 07 j 15:36	16°♂16'16	-1°-38'-28
	310 Jan 09 j 19:35	0°♂		minimum elong	310 Dec 07 j 07:50	15°♂45'00	1°37'49
asc. node	310 Jan 21 j 02:29	18°♂53'46			310 Dec 16 j 00:32	0°♂	
evening max el	310 Jan 25 j 07:50	24°♂04'09	18°07'35	evening rise	310 Dec 21 j 08:50	8°♂59'20	
retrograde	310 Jan 31 j 21:52	27°♂28'44			311 Jan 03 j 02:47	0°♂	
evening set	310 Feb 03 j 14:31	26°♂54'13		asc. node	311 Jan 07 j 23:32	6°♂26'20	
inferior conj	310 Feb 10 j 03:08	21°♂49'24	3°47'32	evening max el	311 Jan 08 j 20:22	7°♂21'40	18°17'49
minimum elong	310 Feb 10 j 03:52	21°♂47'35	3°47'31	retrograde	311 Jan 15 j 08:06	10°♂51'58	
min. Earth dist.	310 Feb 13 j 03:26	18°♂50'37	0.61717 AU	evening set	311 Jan 18 j 05:16	10°♂07'41	
morning rise	310 Feb 16 j 14:44	15°♂56'00		inferior conj	311 Jan 24 j 07:42	4°♂42'40	3°46'12
direct	310 Feb 23 j 12:52	13°♂29'20		minimum elong	311 Jan 24 j 06:33	4°♂45'52	3°46'07
desc. node	310 Mar 01 j 12:53	15°♂06'32		min. Earth dist.	311 Jan 26 j 17:34	2°♂01'37	0.63619 AU
morning max el	310 Mar 09 j 15:17	21°♂20'46	27°46'21		311 Jan 28 j 17:13	30°♂♂	
	310 Mar 17 j 04:24	0°♂		morning rise	311 Jan 30 j 06:12	28°♂39'03	
	310 Apr 05 j 04:25	0°♂		direct	311 Feb 06 j 04:56	25°♂52'58	
morning set	310 Apr 11 j 16:13	12°♂40'20			311 Feb 15 j 18:33	0°♂	
max. Earth dist.	310 Apr 17 j 14:30	25°♂11'04	1.32533 AU	desc. node	311 Feb 16 j 09:56	0°♂30'44	
				morning max el	311 Feb 19 j 23:07	3°♂44'39	27°38'40
superior conj	310 Apr 19 j 02:06	28°♂24'27	0°00'08		311 Mar 11 j 16:01	0°♂	

morning set	311 Mar 26 j 13:56	26° Υ 47'57		morning set	312 Mar 09 j 01:42	10° Υ 21'44	
	311 Mar 28 j 04:10	0° Υ		max. Earth dist.	312 Mar 13 j 14:03	19° Υ 15'46	1.34220 AU
max. Earth dist.	311 Mar 31 j 19:12	7° Υ 30'09	1.33159 AU				
				superior conj	312 Mar 17 j 11:47	27° Υ 17'41	0°-53'-40
superior conj	311 Apr 03 j 09:29	13° Υ 01'03	0°-26'-42	minimum elong	312 Mar 17 j 14:23	27° Υ 31'13	0°53'11
minimum elong	311 Apr 03 j 10:46	13° Υ 07'58	0°26'26		312 Mar 18 j 18:46	0° Υ	
asc. node	311 Apr 05 j 22:49	18° Υ 31'03		asc. node	312 Mar 22 j 19:53	8° Υ 32'34	
evening rise	311 Apr 10 j 13:10	28° Υ 21'33		evening rise	312 Mar 24 j 23:18	13° Υ 02'10	
	311 Apr 11 j 07:56	0° Υ			312 Apr 02 j 17:43	0° Υ	
	311 Apr 28 j 22:59	0° Υ		evening max el	312 Apr 13 j 22:59	15° Υ 17'11	21°29'09
evening max el	311 May 03 j 02:45	4° Υ 33'26	23°01'07	retrograde	312 Apr 26 j 03:14	21° Υ 13'11	
desc. node	311 May 15 j 09:07	11° Υ 10'03		evening set	312 Apr 28 j 13:42	20° Υ 59'41	
retrograde	311 May 16 j 11:54	11° Υ 12'53		desc. node	312 May 01 j 06:11	20° Υ 15'54	
evening set	311 May 19 j 23:22	10° Υ 46'22		inferior conj	312 May 07 j 22:45	16° Υ 58'57	-1°-53'-44
min. Earth dist.	311 May 27 j 12:00	7° Υ 24'56	0.55588 AU	minimum elong	312 May 07 j 17:31	17° Υ 06'18	1°51'57
inferior conj	311 May 29 j 03:16	6° Υ 28'00	-3°-34'-40	min. Earth dist.	312 May 08 j 00:48	16° Υ 56'05	0.54982 AU
minimum elong	311 May 28 j 19:57	6° Υ 38'39	3°32'51	morning rise	312 May 16 j 21:49	13° Υ 00'36	
morning rise	311 Jun 06 j 19:35	2° Υ 34'30		direct	312 May 20 j 00:58	12° Υ 39'12	
direct	311 Jun 09 j 14:07	2° Υ 16'16		morning max el	312 Jun 01 j 12:35	18° Υ 33'48	22°05'21
morning max el	311 Jun 20 j 10:51	7° Υ 18'07	20°35'36		312 Jun 10 j 18:02	0° Υ	
asc. node	311 Jul 02 j 22:04	24° Υ 47'30		asc. node	312 Jun 18 j 19:07	14° Υ 09'50	
	311 Jul 05 j 16:22	0° Υ		morning set	312 Jun 22 j 18:21	22° Υ 12'22	
morning set	311 Jul 09 j 08:38	7° Υ 21'50			312 Jun 26 j 11:04	0° Υ	
superior conj	311 Jul 16 j 23:40	23° Υ 04'59	1°44'03	superior conj	312 Jun 30 j 01:13	7° Υ 36'04	1°34'43
minimum elong	311 Jul 16 j 22:25	22° Υ 58'34	1°44'01	minimum elong	312 Jun 29 j 23:03	7° Υ 24'40	1°34'31
	311 Jul 20 j 10:22	0° Υ		max. Earth dist.	312 Jul 03 j 10:17	14° Υ 37'08	1.34560 AU
max. Earth dist.	311 Jul 21 j 19:00	2° Υ 39'57	1.36071 AU	evening rise	312 Jul 08 j 03:01	23° Υ 59'00	
evening rise	311 Jul 25 j 21:21	10° Υ 27'29			312 Jul 11 j 07:10	0° Υ	
	311 Aug 06 j 04:40	0° Υ		desc. node	312 Jul 28 j 05:28	27° Υ 49'18	
desc. node	311 Aug 11 j 08:25	8° Υ 00'26			312 Jul 29 j 18:26	0° Υ	
	311 Aug 28 j 05:09	0° Υ		evening max el	312 Aug 12 j 00:59	15° Υ 53'33	27°00'53
evening max el	311 Aug 30 j 13:04	2° Υ 22'28	26°12'05	retrograde	312 Aug 25 j 06:24	23° Υ 11'53	
retrograde	311 Sep 12 j 04:09	9° Υ 31'50		evening set	312 Sep 01 j 02:18	20° Υ 27'34	
evening set	311 Sep 18 j 11:56	6° Υ 54'13		min. Earth dist.	312 Sep 05 j 00:06	16° Υ 35'39	0.65354 AU
min. Earth dist.	311 Sep 22 j 16:57	2° Υ 25'00	0.66453 AU	inferior conj	312 Sep 06 j 23:16	14° Υ 20'30	-2°-31'-52
inferior conj	311 Sep 24 j 03:44	0° Υ 37'23	-1°-35'-59	minimum elong	312 Sep 07 j 03:06	14° Υ 09'30	2°30'30
minimum elong	311 Sep 24 j 06:11	0° Υ 29'46	1°35'00	morning rise	312 Sep 13 j 05:24	8° Υ 41'37	
	311 Sep 24 j 15:51	30° Υ		asc. node	312 Sep 14 j 18:21	8° Υ 08'45	
asc. node	311 Sep 28 j 21:18	25° Υ 33'20		direct	312 Sep 15 j 23:00	8° Υ 00'57	
morning rise	311 Sep 30 j 01:26	24° Υ 45'23		morning max el	312 Sep 22 j 12:16	11° Υ 34'17	18°14'48
direct	311 Oct 03 j 02:36	23° Υ 52'18			312 Oct 05 j 09:35	0° Υ	
morning max el	311 Oct 09 j 22:42	27° Υ 40'58	18°51'17	morning set	312 Oct 11 j 04:55	9° Υ 31'33	
	311 Oct 12 j 01:00	0° Υ			312 Oct 23 j 20:34	0° Υ	
morning set	311 Oct 31 j 11:06	29° Υ 00'11		desc. node	312 Oct 24 j 04:45	0° Υ 32'31	
	311 Nov 01 j 02:15	0° Υ					
desc. node	311 Nov 07 j 07:44	9° Υ 48'51		superior conj	312 Oct 25 j 23:02	3° Υ 20'11	0°-11'-36
max. Earth dist.	311 Nov 15 j 21:18	23° Υ 16'28	1.44961 AU	minimum elong	312 Oct 25 j 21:32	3° Υ 14'15	0°11'24
				behind sun begin	312 Oct 25 j 13:35	2° Υ 42'46	
superior conj	311 Nov 16 j 21:06	24° Υ 50'03	-1°00'-11	behind sun end	312 Oct 26 j 05:29	3° Υ 45'44	
minimum elong	311 Nov 16 j 13:46	24° Υ 21'14	0°59'20	max. Earth dist.	312 Oct 28 j 15:51	7° Υ 36'01	1.44956 AU
	311 Nov 20 j 03:43	0° Υ		evening rise	312 Nov 11 j 11:01	29° Υ 10'46	
evening rise	311 Dec 02 j 09:37	19° Υ 33'31			312 Nov 11 j 23:39	0° Υ	
	311 Dec 08 j 20:40	0° Υ		greatest brilliancy	312 Nov 27 j 04:56	23° Υ 19'54	-0.7m
evening max el	311 Dec 23 j 07:38	20° Υ 46'12	18°46'17		312 Dec 02 j 00:43	0° Υ	
asc. node	311 Dec 25 j 20:35	22° Υ 59'37		evening max el	312 Dec 05 j 15:26	4° Υ 13'35	19°31'37
retrograde	311 Dec 30 j 01:12	24° Υ 33'03		asc. node	312 Dec 11 j 17:39	8° Υ 18'11	
evening set	312 Jan 02 j 03:51	23° Υ 37'50		retrograde	312 Dec 12 j 21:50	8° Υ 25'54	
inferior conj	312 Jan 07 j 22:58	17° Υ 55'01	3°28'39	evening set	312 Dec 16 j 07:34	7° Υ 18'04	
minimum elong	312 Jan 07 j 20:40	18° Υ 02'03	3°28'15	inferior conj	312 Dec 21 j 21:41	1° Υ 20'12	2°59'17
min. Earth dist.	312 Jan 09 j 17:30	15° Υ 45'15	0.65185 AU	minimum elong	312 Dec 21 j 18:56	1° Υ 29'11	2°58'35
morning rise	312 Jan 13 j 12:23	11° Υ 45'00			312 Dec 22 j 22:17	30° Υ	
direct	312 Jan 20 j 04:06	8° Υ 54'03		min. Earth dist.	312 Dec 23 j 01:51	29° Υ 48'26	0.66366 AU
morning max el	312 Feb 02 j 08:55	16° Υ 36'49	26°57'44	morning rise	312 Dec 27 j 05:33	25° Υ 06'27	
desc. node	312 Feb 03 j 06:58	17° Υ 33'11		direct	313 Jan 02 j 09:20	22° Υ 23'29	
	312 Feb 13 j 12:21	0° Υ		morning max el	313 Jan 14 j 18:09	29° Υ 43'42	25°51'19
	312 Mar 03 j 11:42	0° Υ			313 Jan 15 j 00:35	0° Υ	

desc. node	313 Jan 20 j 04:00	5°☾45'01		minimum elong	313 Dec 05 j 22:39	15°☿03'53	2°20'15
	313 Feb 06 j 09:41	0°☿		min. Earth dist.	313 Dec 06 j 16:35	14°☿03'00	0.67165 AU
morning set	313 Feb 19 j 23:14	23°☿08'27		morning rise	313 Dec 11 j 06:34	8°☿39'42	
	313 Feb 23 j 14:56	0°☿		direct	313 Dec 16 j 19:46	6°☿13'46	
max. Earth dist.	313 Feb 23 j 20:47	0°☿28'02	1.35732 AU	morning max el	313 Dec 28 j 02:25	12°☿57'13	24°29'05
				desc. node	314 Jan 07 j 01:02	24°☿46'19	
superior conj	313 Mar 01 j 06:28	11°☿06'45	-1°-19'-17		314 Jan 10 j 21:06	0°☿	
minimum elong	313 Mar 01 j 10:05	11°☿25'00	1°18'45		314 Jan 30 j 05:14	0°☿	
evening rise	313 Mar 09 j 05:49	27°☿26'09		morning set	314 Feb 02 j 00:51	4°☿51'54	
asc. node	313 Mar 09 j 16:57	28°☿22'51		max. Earth dist.	314 Feb 05 j 18:10	11°☿29'57	1.37647 AU
	313 Mar 10 j 12:08	0°☿					
evening max el	313 Mar 27 j 05:56	26°☿34'12	20°10'44	superior conj	314 Feb 12 j 14:12	24°☿18'49	-1°-41'-26
	313 Mar 31 j 18:47	0°☿		minimum elong	314 Feb 12 j 18:06	24°☿37'42	1°41'02
retrograde	313 Apr 06 j 17:34	1°☿36'33			314 Feb 15 j 12:07	0°☿	
evening set	313 Apr 08 j 19:55	1°☿25'19		evening rise	314 Feb 21 j 06:22	11°☿26'20	
	313 Apr 13 j 03:29	30°☿		asc. node	314 Feb 24 j 14:00	17°☿56'18	
inferior conj	313 Apr 17 j 19:26	27°☿26'49	0°05'35		314 Mar 03 j 09:15	0°☿	
minimum elong	313 Apr 17 j 19:41	27°☿26'26	0°05'28	evening max el	314 Mar 09 j 23:57	8°☿28'57	19°10'37
transit middle	313 Apr 17 j 19:41	27°☿26'26	0°05'28	retrograde	314 Mar 18 j 19:55	12°☿44'18	
transit begin	313 Apr 17 j 15:55	27°☿32'03		evening set	314 Mar 21 j 00:32	12°☿29'42	
transit end	313 Apr 17 j 23:28	27°☿20'49		inferior conj	314 Mar 29 j 06:21	8°☿18'24	1°50'00
desc. node	313 Apr 18 j 03:13	27°☿15'13		minimum elong	314 Mar 29 j 10:15	8°☿11'47	1°48'48
min. Earth dist.	313 Apr 19 j 14:40	26°☿22'35	0.55337 AU	min. Earth dist.	314 Apr 01 j 05:48	6°☿17'55	0.56572 AU
morning rise	313 Apr 26 j 16:54	23°☿05'15		desc. node	314 Apr 05 j 00:15	4°☿07'05	
direct	313 Apr 30 j 14:23	22°☿32'05		morning rise	314 Apr 06 j 15:57	3°☿24'13	
morning max el	313 May 14 j 05:58	29°☿15'27	23°45'34	direct	314 Apr 11 j 15:15	2°☿26'51	
	313 May 15 j 00:22	0°☿		morning max el	314 Apr 25 j 20:28	9°☿44'27	25°23'42
	313 Jun 03 j 18:10	0°☿			314 May 11 j 02:33	0°☿	
asc. node	313 Jun 05 j 16:11	3°☿53'11		morning set	314 May 22 j 17:54	22°☿08'17	
morning set	313 Jun 07 j 06:02	7°☿10'04		asc. node	314 May 23 j 13:14	23°☿50'32	
					314 May 26 j 09:52	0°☿	
superior conj	313 Jun 14 j 08:17	22°☿24'12	1°20'12	superior conj	314 May 29 j 18:34	7°☿20'47	1°01'33
minimum elong	313 Jun 14 j 05:48	22°☿10'51	1°19'51	minimum elong	314 May 29 j 16:18	7°☿08'20	1°01'07
max. Earth dist.	313 Jun 16 j 11:13	26°☿56'49	1.33442 AU	max. Earth dist.	314 May 30 j 19:33	9°☿37'01	1.32710 AU
	313 Jun 17 j 21:52	0°☿		evening rise	314 Jun 05 j 22:19	22°☿37'56	
evening rise	313 Jun 21 j 20:34	8°☿06'35			314 Jun 09 j 14:25	0°☿	
	313 Jul 03 j 18:24	0°☿			314 Jun 27 j 16:18	0°☿	
desc. node	313 Jul 15 j 02:31	17°☿04'38		desc. node	314 Jul 01 j 23:33	5°☿31'20	
evening max el	313 Jul 25 j 12:16	29°☿08'22	27°24'22	evening max el	314 Jul 07 j 20:25	11°☿52'09	27°17'02
	313 Jul 26 j 10:28	0°☿		retrograde	314 Jul 21 j 16:20	19°☿08'56	
retrograde	313 Aug 08 j 02:46	6°☿27'37		evening set	314 Jul 28 j 20:10	16°☿44'32	
evening set	313 Aug 15 j 06:20	3°☿46'54		min. Earth dist.	314 Aug 01 j 10:19	13°☿54'41	0.62112 AU
min. Earth dist.	313 Aug 18 j 22:25	0°☿29'47	0.63899 AU	inferior conj	314 Aug 04 j 10:32	11°☿08'04	-4°-9'-18
	313 Aug 19 j 10:06	30°☿		minimum elong	314 Aug 04 j 15:11	10°☿57'18	4°08'22
inferior conj	313 Aug 21 j 10:34	27°☿53'31	-3°-24'-22	morning rise	314 Aug 11 j 12:50	6°☿05'33	
minimum elong	313 Aug 21 j 15:19	27°☿41'08	3°22'59	direct	314 Aug 13 j 23:11	5°☿39'40	
morning rise	313 Aug 28 j 02:21	22°☿31'03		asc. node	314 Aug 19 j 12:25	7°☿57'56	
direct	313 Aug 30 j 15:00	21°☿59'14		morning max el	314 Aug 20 j 19:00	9°☿06'40	17°54'42
asc. node	313 Sep 01 j 15:23	22°☿19'45			314 Sep 03 j 11:32	0°☿	
morning max el	313 Sep 06 j 04:00	25°☿25'20	17°55'38	morning set	314 Sep 05 j 19:06	4°☿10'29	
	313 Sep 09 j 23:32	0°☿					
morning set	313 Sep 23 j 01:38	21°☿21'21		superior conj	314 Sep 16 j 16:50	23°☿29'35	1°10'40
	313 Sep 28 j 02:52	0°☿		minimum elong	314 Sep 16 j 21:44	23°☿50'36	1°10'05
superior conj	313 Oct 05 j 18:26	12°☿44'54	0°34'52		314 Sep 20 j 12:59	0°☿	
minimum elong	313 Oct 05 j 22:05	12°☿59'49	0°34'22	max. Earth dist.	314 Sep 23 j 23:16	5°☿40'11	1.42880 AU
desc. node	313 Oct 11 j 01:48	21°☿19'31		desc. node	314 Sep 27 j 22:51	12°☿06'11	
max. Earth dist.	313 Oct 11 j 09:23	21°☿49'45	1.44234 AU	evening rise	314 Oct 01 j 05:59	17°☿18'55	
	313 Oct 16 j 13:33	0°☿			314 Oct 09 j 12:34	0°☿	
evening rise	313 Oct 21 j 20:31	8°☿12'35		greatest brilliancy	314 Oct 27 j 18:42	25°☿39'10	-0.4m
	313 Nov 05 j 07:13	0°☿			314 Oct 31 j 11:55	0°☿	
greatest brilliancy	313 Nov 12 j 16:48	10°☿25'41	-0.5m	evening max el	314 Nov 01 j 15:14	1°☿11'54	21°43'03
evening max el	313 Nov 18 j 18:13	17°☿42'23	20°31'33	retrograde	314 Nov 10 j 16:14	6°☿34'31	
retrograde	313 Nov 26 j 19:28	22°☿27'22		evening set	314 Nov 14 j 22:03	4°☿55'31	
asc. node	313 Nov 28 j 14:41	22°☿08'59		asc. node	314 Nov 15 j 11:40	4°☿26'56	
evening set	313 Nov 30 j 14:15	21°☿04'52			314 Nov 19 j 07:25	30°☿	
inferior conj	313 Dec 06 j 01:16	14°☿54'59	2°21'06	inferior conj	314 Nov 20 j 07:36	28°☿36'55	1°36'14

minimum elong	314 Nov 20 j 05:34	28° \mathbb{M} 43'56	1°35'27	asc. node	315 Nov 02 j 08:42	15° \mathbb{M} 25'09	
min. Earth dist.	314 Nov 20 j 11:25	28° \mathbb{M} 23'45	0.67597 AU	inferior conj	315 Nov 04 j 14:47	12° \mathbb{M} 23'29	0°46'15
morning rise	314 Nov 25 j 12:51	22° \mathbb{M} 22'10		minimum elong	315 Nov 04 j 13:43	12° \mathbb{M} 27'09	0°45'47
direct	314 Nov 30 j 10:41	20° \mathbb{M} 18'04		min. Earth dist.	315 Nov 04 j 08:00	12° \mathbb{M} 46'53	0.67693 AU
morning max el	314 Dec 10 j 11:57	26° \mathbb{M} 16'11	23°01'11	morning rise	315 Nov 09 j 22:12	6° \mathbb{M} 11'27	
	314 Dec 13 j 22:02	0° \mathbb{M}		direct	315 Nov 14 j 05:13	4° \mathbb{M} 30'08	
greatest brilliancy	314 Dec 15 j 07:16	1° \mathbb{M} 38'35	-0.3m	morning max el	315 Nov 23 j 02:02	9° \mathbb{M} 42'24	21°36'22
desc. node	314 Dec 24 j 22:05	14° \mathbb{M} 23'03		greatest brilliancy	315 Nov 28 j 01:28	15° \mathbb{M} 22'22	-0.4m
	315 Jan 04 j 11:16	0° \mathbb{M}			315 Dec 08 j 18:44	0° \mathbb{M}	
morning set	315 Jan 14 j 00:23	15° \mathbb{M} 16'45		desc. node	315 Dec 11 j 19:06	4° \mathbb{M} 24'41	
max. Earth dist.	315 Jan 18 j 13:42	22° \mathbb{M} 59'10	1.39770 AU	morning set	315 Dec 24 j 18:47	24° \mathbb{M} 18'34	
	315 Jan 22 j 13:41	0° \mathbb{M}			315 Dec 28 j 07:57	0° \mathbb{M}	
				max. Earth dist.	315 Dec 31 j 13:46	5° \mathbb{M} 18'29	1.41820 AU
superior conj	315 Jan 26 j 06:44	6° \mathbb{M} 43'04	-1°-57'-8				
minimum elong	315 Jan 26 j 09:30	6° \mathbb{M} 55'48	1°57'01	superior conj	316 Jan 08 j 02:47	18° \mathbb{M} 06'12	-2°-2'-23
evening rise	315 Feb 04 j 22:08	24° \mathbb{M} 55'51		minimum elong	316 Jan 08 j 02:17	18° \mathbb{M} 04'00	2°02'23
	315 Feb 07 j 14:05	0° \mathbb{M}			316 Jan 14 j 19:23	0° \mathbb{M}	
asc. node	315 Feb 11 j 11:02	7° \mathbb{M} 07'02		evening rise	316 Jan 19 j 01:34	7° \mathbb{M} 46'06	
evening max el	315 Feb 21 j 02:58	20° \mathbb{M} 57'19	18°30'26	asc. node	316 Jan 29 j 08:03	25° \mathbb{M} 47'19	
retrograde	315 Feb 28 j 17:08	24° \mathbb{M} 40'49			316 Feb 01 j 05:10	0° \mathbb{M}	
evening set	315 Mar 03 j 02:30	24° \mathbb{M} 19'49		evening max el	316 Feb 04 j 12:02	3° \mathbb{M} 50'59	18°10'17
inferior conj	315 Mar 10 j 13:58	19° \mathbb{M} 48'40	3°01'09	retrograde	316 Feb 11 j 07:56	7° \mathbb{M} 18'30	
minimum elong	315 Mar 10 j 17:55	19° \mathbb{M} 40'49	3°00'20	evening set	316 Feb 13 j 21:55	6° \mathbb{M} 49'23	
min. Earth dist.	315 Mar 14 j 00:07	17° \mathbb{M} 06'48	0.58414 AU	inferior conj	316 Feb 20 j 17:53	1° \mathbb{M} 56'52	3°38'37
morning rise	315 Mar 18 j 05:23	14° \mathbb{M} 24'20		minimum elong	316 Feb 20 j 19:53	1° \mathbb{M} 52'13	3°38'25
desc. node	315 Mar 22 j 21:16	12° \mathbb{M} 56'31			316 Feb 22 j 20:21	30° \mathbb{R}	
direct	315 Mar 24 j 05:32	12° \mathbb{M} 51'51		min. Earth dist.	316 Feb 24 j 00:30	28° \mathbb{M} 56'51	0.60515 AU
morning max el	315 Apr 07 j 14:06	20° \mathbb{M} 29'57	26°44'12	morning rise	316 Feb 27 j 14:45	26° \mathbb{M} 11'24	
	315 Apr 15 j 18:23	0° \mathbb{M}		direct	316 Mar 05 j 07:49	24° \mathbb{M} 02'00	
	315 May 03 j 17:55	0° \mathbb{M}		desc. node	316 Mar 08 j 18:17	24° \mathbb{M} 33'48	
morning set	315 May 07 j 04:22	7° \mathbb{M} 01'17			316 Mar 17 j 14:13	0° \mathbb{M}	
asc. node	315 May 10 j 10:18	13° \mathbb{M} 56'49		morning max el	316 Mar 19 j 13:49	1° \mathbb{M} 51'23	27°34'09
					316 Apr 09 j 00:38	0° \mathbb{M}	
superior conj	315 May 14 j 06:14	22° \mathbb{M} 19'32	0°39'35	morning set	316 Apr 20 j 11:37	21° \mathbb{M} 42'32	
minimum elong	315 May 14 j 04:35	22° \mathbb{M} 10'28	0°39'14		316 Apr 24 j 09:46	0° \mathbb{M}	
max. Earth dist.	315 May 14 j 07:46	22° \mathbb{M} 27'55	1.32346 AU	asc. node	316 Apr 26 j 07:22	4° \mathbb{M} 07'09	
	315 May 17 j 18:24	0° \mathbb{M}		max. Earth dist.	316 Apr 26 j 20:00	5° \mathbb{M} 16'10	1.32348 AU
evening rise	315 May 21 j 05:32	7° \mathbb{M} 24'02					
	315 Jun 02 j 02:47	0° \mathbb{M}		superior conj	316 Apr 27 j 17:37	7° \mathbb{M} 14'25	0°15'05
desc. node	315 Jun 18 j 20:33	22° \mathbb{M} 49'16		minimum elong	316 Apr 27 j 16:56	7° \mathbb{M} 10'40	0°14'56
evening max el	315 Jun 19 j 22:41	23° \mathbb{M} 53'16	26°36'37	behind sun begin	316 Apr 27 j 15:16	7° \mathbb{M} 01'31	
	315 Jun 28 j 15:59	0° \mathbb{M}		behind sun end	316 Apr 27 j 18:36	7° \mathbb{M} 19'50	
retrograde	315 Jul 03 j 22:15	1° \mathbb{M} 07'44		evening rise	316 May 04 j 15:59	22° \mathbb{M} 17'08	
	315 Jul 09 j 01:28	30° \mathbb{R}			316 May 08 j 09:53	0° \mathbb{M}	
evening set	315 Jul 10 j 15:20	29° \mathbb{M} 12'53			316 May 26 j 23:46	0° \mathbb{M}	
min. Earth dist.	315 Jul 14 j 12:01	26° \mathbb{M} 36'01	0.60092 AU	evening max el	316 May 31 j 18:01	5° \mathbb{M} 08'55	25°26'28
inferior conj	315 Jul 17 j 19:43	23° \mathbb{M} 55'27	-4°-39'-54	desc. node	316 Jun 04 j 17:33	8° \mathbb{M} 30'28	
minimum elong	315 Jul 17 j 22:29	23° \mathbb{M} 49'51	4°39'40	retrograde	316 Jun 14 j 18:59	12° \mathbb{M} 19'04	
morning rise	315 Jul 25 j 08:54	19° \mathbb{M} 15'37		evening set	316 Jun 20 j 11:53	11° \mathbb{M} 02'47	
direct	315 Jul 27 j 19:21	18° \mathbb{M} 53'37		min. Earth dist.	316 Jun 25 j 06:01	8° \mathbb{M} 20'18	0.58048 AU
morning max el	315 Aug 04 j 06:20	22° \mathbb{M} 31'01	18°13'05	inferior conj	316 Jun 28 j 10:39	6° \mathbb{M} 06'21	-4°-45'-51
asc. node	315 Aug 06 j 09:28	24° \mathbb{M} 49'13		minimum elong	316 Jun 28 j 09:21	6° \mathbb{M} 08'38	4°45'49
	315 Aug 10 j 03:44	0° \mathbb{M}		morning rise	316 Jul 06 j 10:40	1° \mathbb{M} 49'17	
morning set	315 Aug 20 j 03:40	17° \mathbb{M} 43'06		direct	316 Jul 08 j 23:03	1° \mathbb{M} 29'47	
	315 Aug 26 j 16:40	0° \mathbb{M}		morning max el	316 Jul 17 j 10:57	5° \mathbb{M} 29'37	18°51'56
				asc. node	316 Jul 23 j 06:33	12° \mathbb{M} 38'40	
superior conj	315 Aug 29 j 16:47	5° \mathbb{M} 30'01	1°33'34		316 Aug 02 j 00:56	0° \mathbb{M}	
minimum elong	315 Aug 29 j 20:19	5° \mathbb{M} 46'00	1°33'17	morning set	316 Aug 02 j 23:04	1° \mathbb{M} 48'13	
max. Earth dist.	315 Sep 06 j 07:22	18° \mathbb{M} 50'34	1.41073 AU				
evening rise	315 Sep 11 j 07:56	27° \mathbb{M} 11'46		superior conj	316 Aug 11 j 12:54	18° \mathbb{M} 31'13	1°44'49
	315 Sep 13 j 01:32	0° \mathbb{M}		minimum elong	316 Aug 11 j 14:20	18° \mathbb{M} 37'59	1°44'46
desc. node	315 Sep 14 j 19:52	2° \mathbb{M} 48'52			316 Aug 17 j 17:41	0° \mathbb{M}	
	315 Oct 03 j 05:26	0° \mathbb{M}		max. Earth dist.	316 Aug 18 j 10:52	1° \mathbb{M} 16'51	1.39059 AU
greatest brilliancy	315 Oct 09 j 20:43	8° \mathbb{M} 36'29	-0.2m	evening rise	316 Aug 22 j 10:22	8° \mathbb{M} 14'04	
evening max el	315 Oct 15 j 06:58	14° \mathbb{M} 42'18	23°01'41	desc. node	316 Aug 31 j 16:53	23° \mathbb{M} 24'04	
retrograde	315 Oct 25 j 10:36	20° \mathbb{M} 43'43			316 Sep 05 j 00:21	0° \mathbb{M}	
evening set	315 Oct 30 j 05:16	18° \mathbb{M} 46'58		evening max el	316 Sep 26 j 19:32	28° \mathbb{M} 16'28	24°21'30

	316 Sep 28 j 15:21	0°♄		max. Earth dist.	317 Jul 31 j 14:53	13°♄12'47	1.37095 AU
retrograde	316 Oct 08 j 01:26	4°♄51'47		evening rise	317 Aug 04 j 12:17	20°♄23'36	
evening set	316 Oct 13 j 10:16	2°♄37'25			317 Aug 10 j 00:18	0°♄	
	316 Oct 15 j 23:12	30°♄		desc. node	317 Aug 18 j 13:55	13°♄46'25	
min. Earth dist.	316 Oct 18 j 03:59	27°♄10'48	0.67472 AU		317 Aug 30 j 00:26	0°♄	
inferior conj	316 Oct 18 j 21:08	26°♄13'08	0°-7'-24	evening max el	317 Sep 09 j 07:13	11°♄54'04	25°35'23
minimum elong	316 Oct 18 j 21:19	26°♄12'32	0°07'22	retrograde	317 Sep 21 j 11:43	18°♄53'42	
transit middle	316 Oct 18 j 21:19	26°♄12'32	0°07'22	evening set	317 Sep 27 j 11:16	16°♄23'37	
transit begin	316 Oct 18 j 18:53	26°♄20'44		min. Earth dist.	317 Oct 01 j 20:52	11°♄32'43	0.66926 AU
transit end	316 Oct 18 j 23:45	26°♄04'20		inferior conj	317 Oct 03 j 00:51	10°♄02'55	-1°-3'-21
asc. node	316 Oct 19 j 05:44	25°♄44'17		minimum elong	317 Oct 03 j 02:28	9°♄57'45	1°02'41
morning rise	316 Oct 24 j 08:41	20°♄06'25		asc. node	317 Oct 06 j 02:48	6°♄20'42	
direct	316 Oct 28 j 02:30	18°♄46'15		morning rise	317 Oct 08 j 18:22	4°♄04'25	
morning max el	316 Nov 04 j 23:15	23°♄18'37	20°21'09	direct	317 Oct 12 j 00:59	3°♄02'22	
	316 Nov 10 j 15:23	0°♄		morning max el	317 Oct 19 j 04:03	7°♄04'05	19°19'33
greatest brilliancy	316 Nov 11 j 12:20	1°♄09'13	-0.5m	greatest brilliancy	317 Oct 28 j 23:44	19°♄50'40	-0.7m
desc. node	316 Nov 27 j 16:08	24°♄44'24			317 Nov 04 j 16:51	0°♄	
	316 Dec 01 j 02:29	0°♄		morning set	317 Nov 11 j 18:23	10°♄56'31	
morning set	316 Dec 02 j 16:57	2°♄28'33		desc. node	317 Nov 14 j 13:11	15°♄16'32	
max. Earth dist.	316 Dec 12 j 21:13	18°♄30'40	1.43516 AU		317 Nov 23 j 22:53	0°♄	
				max. Earth dist.	317 Nov 25 j 11:32	2°♄24'36	1.44640 AU
superior conj	316 Dec 18 j 21:25	28°♄17'56	-1°-52'-29				
minimum elong	316 Dec 18 j 15:59	27°♄55'27	1°52'10	superior conj	317 Nov 28 j 14:02	7°♄19'53	-1°-24'-10
	316 Dec 19 j 22:04	0°♄		minimum elong	317 Nov 28 j 05:37	6°♄46'26	1°23'20
evening rise	316 Dec 31 j 12:32	19°♄48'51			317 Dec 12 j 13:05	0°♄	
	317 Jan 06 j 09:10	0°♄		evening rise	317 Dec 13 j 02:42	0°♄56'25	
asc. node	317 Jan 15 j 05:05	13°♄47'55			318 Jan 01 j 03:24	0°♄	
evening max el	317 Jan 18 j 00:10	17°♄02'10	18°09'40	evening max el	318 Jan 01 j 12:33	0°♄23'48	18°27'50
retrograde	317 Jan 24 j 12:13	20°♄27'42		asc. node	318 Jan 02 j 02:06	0°♄57'10	
evening set	317 Jan 27 j 06:40	19°♄49'17		retrograde	318 Jan 08 j 01:43	3°♄59'32	
inferior conj	317 Feb 02 j 14:37	14°♄35'56	3°49'16	evening set	318 Jan 11 j 01:08	3°♄10'42	
minimum elong	317 Feb 02 j 14:28	14°♄36'19	3°49'15		318 Jan 14 j 21:31	30°♄	
min. Earth dist.	317 Feb 05 j 09:15	11°♄42'08	0.62563 AU	inferior conj	318 Jan 17 j 00:10	27°♄38'00	3°40'24
morning rise	317 Feb 08 j 20:07	8°♄37'29		minimum elong	318 Jan 16 j 22:26	27°♄43'02	3°40'11
direct	317 Feb 15 j 19:43	6°♄00'21		min. Earth dist.	318 Jan 19 j 03:32	25°♄09'01	0.64337 AU
desc. node	317 Feb 23 j 15:20	8°♄45'11		morning rise	318 Jan 22 j 18:21	21°♄31'33	
morning max el	317 Mar 01 j 19:10	13°♄53'32	27°47'23	direct	318 Jan 29 j 15:04	18°♄41'29	
	317 Mar 14 j 19:06	0°♄		desc. node	318 Feb 10 j 12:23	24°♄55'12	
	317 Apr 01 j 11:54	0°♄		morning max el	318 Feb 12 j 03:57	26°♄30'18	27°24'51
morning set	317 Apr 04 j 13:32	6°♄04'44			318 Feb 15 j 10:29	0°♄	
max. Earth dist.	317 Apr 10 j 04:25	17°♄48'35	1.32740 AU		318 Mar 08 j 08:54	0°♄	
				morning set	318 Mar 19 j 07:28	19°♄59'28	
superior conj	317 Apr 12 j 03:00	21°♄59'33	0°-11'-10	max. Earth dist.	318 Mar 24 j 05:14	29°♄53'55	1.33553 AU
minimum elong	317 Apr 12 j 03:32	22°♄02'25	0°11'03		318 Mar 24 j 06:24	0°♄	
behind sun begin	317 Apr 11 j 23:47	21°♄42'07					
behind sun end	317 Apr 12 j 07:17	22°♄22'44		superior conj	318 Mar 27 j 08:33	6°♄29'04	0°-38'-11
asc. node	317 Apr 13 j 04:24	24°♄17'19		minimum elong	318 Mar 27 j 10:24	6°♄38'54	0°37'49
	317 Apr 15 j 19:30	0°♄		asc. node	318 Mar 31 j 01:27	14°♄23'33	
evening rise	317 Apr 19 j 03:46	7°♄10'30		evening rise	318 Apr 03 j 15:05	21°♄58'11	
	317 May 01 j 04:52	0°♄			318 Apr 07 j 13:19	0°♄	
evening max el	317 May 13 j 08:48	15°♄50'42	23°56'23	evening max el	318 Apr 25 j 01:07	26°♄25'38	22°20'59
desc. node	317 May 22 j 14:35	21°♄59'00			318 Apr 29 j 10:48	0°♄	
retrograde	317 May 27 j 03:45	22°♄46'04		retrograde	318 May 07 j 23:39	2°♄48'03	
evening set	317 May 31 j 10:31	22°♄05'31		desc. node	318 May 09 j 11:37	2°♄43'02	
min. Earth dist.	317 Jun 06 j 19:48	19°♄01'41	0.56307 AU	evening set	318 May 10 j 22:39	2°♄28'47	
inferior conj	317 Jun 09 j 05:21	17°♄33'22	-4°-14'-2		318 May 17 j 06:24	30°♄	
minimum elong	317 Jun 08 j 23:24	17°♄42'34	4°13'00	min. Earth dist.	318 May 19 j 08:14	28°♄51'38	0.55218 AU
morning rise	317 Jun 17 j 15:54	13°♄34'00		inferior conj	318 May 20 j 06:42	28°♄19'54	-2°-56'-14
direct	317 Jun 20 j 07:38	13°♄15'46		minimum elong	318 May 19 j 23:33	28°♄30'00	2°54'07
morning max el	317 Jun 30 j 05:55	17°♄51'47	19°51'53	morning rise	318 May 29 j 02:30	24°♄26'33	
	317 Jul 09 j 10:34	0°♄		direct	318 Jun 01 j 00:05	24°♄07'28	
asc. node	317 Jul 10 j 03:37	1°♄12'16		morning max el	318 Jun 12 j 13:42	29°♄31'18	21°11'52
morning set	317 Jul 18 j 01:57	16°♄16'10			318 Jun 13 j 01:49	0°♄	
	317 Jul 24 j 20:23	0°♄		asc. node	318 Jun 27 j 00:42	20°♄19'31	
					318 Jul 01 j 22:03	0°♄	
superior conj	317 Jul 25 j 23:41	2°♄16'36	1°46'34	morning set	318 Jul 02 j 09:47	1°♄00'22	
minimum elong	317 Jul 25 j 23:15	2°♄14'23	1°46'34				

superior conj	318 Jul 09 j 20:50	16° \mathfrak{G} 33'48	1°40'49	superior conj	319 Jun 24 j 00:59	1° \mathfrak{G} 12'28	1°29'08
minimum elong	318 Jul 09 j 19:06	16° \mathfrak{G} 24'54	1°40'42	minimum elong	319 Jun 23 j 22:37	0° \mathfrak{G} 59'52	1°28'51
max. Earth dist.	318 Jul 14 j 01:17	25° \mathfrak{G} 04'05	1.35386 AU	max. Earth dist.	319 Jun 26 j 20:54	7° \mathfrak{G} 10'13	1.34034 AU
	318 Jul 16 j 13:34	0° Ω		evening rise	319 Jul 01 j 20:22	17° \mathfrak{G} 16'13	
evening rise	318 Jul 18 j 09:14	3° Ω 28'51			319 Jul 08 j 15:01	0° Ω	
	318 Aug 02 j 21:49	0° \mathfrak{P}		desc. node	319 Jul 23 j 07:59	23° Ω 25'24	
desc. node	318 Aug 05 j 10:57	3° \mathfrak{P} 49'40			319 Jul 28 j 06:54	0° \mathfrak{P}	
evening max el	318 Aug 22 j 19:13	25° \mathfrak{P} 30'19	26°35'30	evening max el	319 Aug 05 j 07:02	8° \mathfrak{P} 55'27	27°14'19
	318 Aug 28 j 05:34	0° \mathfrak{A}		retrograde	319 Aug 18 j 16:30	16° \mathfrak{P} 14'29	
retrograde	318 Sep 04 j 16:51	2° \mathfrak{A} 43'44		evening set	319 Aug 25 j 16:34	13° \mathfrak{P} 30'03	
evening set	318 Sep 11 j 06:12	0° \mathfrak{A} 02'31		min. Earth dist.	319 Aug 29 j 11:36	9° \mathfrak{P} 53'50	0.64780 AU
	318 Sep 11 j 07:25	30° \mathfrak{R} \mathfrak{P}		inferior conj	319 Aug 31 j 16:21	7° \mathfrak{P} 28'40	-2°-54'-45
min. Earth dist.	318 Sep 15 j 08:11	25° \mathfrak{P} 49'07	0.66036 AU	minimum elong	319 Aug 31 j 20:40	7° \mathfrak{P} 16'47	2°53'19
inferior conj	318 Sep 17 j 00:01	23° \mathfrak{P} 49'33	-1°-59'-52	morning rise	319 Sep 07 j 02:29	1° \mathfrak{P} 56'35	
minimum elong	318 Sep 17 j 03:05	23° \mathfrak{P} 40'19	1°58'41	direct	319 Sep 09 j 17:43	1° \mathfrak{P} 20'01	
asc. node	318 Sep 22 j 23:52	18° \mathfrak{P} 04'18		asc. node	319 Sep 09 j 20:56	1° \mathfrak{P} 20'06	
morning rise	318 Sep 23 j 01:07	18° \mathfrak{P} 02'35		morning max el	319 Sep 16 j 05:56	4° \mathfrak{P} 48'56	18°04'34
direct	318 Sep 25 j 22:52	17° \mathfrak{P} 15'04			319 Oct 03 j 00:12	0° \mathfrak{A}	
morning max el	318 Oct 02 j 15:04	20° \mathfrak{P} 55'49	18°33'40	morning set	319 Oct 04 j 01:30	1° \mathfrak{A} 46'00	
	318 Oct 09 j 16:37	0° \mathfrak{A}					
morning set	318 Oct 22 j 19:35	20° \mathfrak{A} 39'03		superior conj	319 Oct 17 j 22:33	24° \mathfrak{A} 32'04	0°09'02
	318 Oct 28 j 16:07	0° \mathfrak{M}		minimum elong	319 Oct 17 j 23:39	24° \mathfrak{A} 36'28	0°08'53
desc. node	318 Nov 01 j 10:13	5° \mathfrak{M} 57'03		behind sun begin	319 Oct 17 j 14:40	24° \mathfrak{A} 00'28	
				behind sun end	319 Oct 18 j 08:38	25° \mathfrak{A} 12'25	
superior conj	318 Nov 07 j 15:14	15° \mathfrak{M} 44'08	0°-40'-7	desc. node	319 Oct 19 j 07:15	26° \mathfrak{A} 42'40	
minimum elong	318 Nov 07 j 10:01	15° \mathfrak{M} 23'38	0°39'26		319 Oct 21 j 08:56	0° \mathfrak{M}	
max. Earth dist.	318 Nov 08 j 06:04	16° \mathfrak{M} 42'27	1.45059 AU	max. Earth dist.	319 Oct 22 j 01:03	1° \mathfrak{M} 03'43	1.44732 AU
	318 Nov 16 j 16:55	0° \mathfrak{X}		evening rise	319 Nov 03 j 10:36	20° \mathfrak{M} 24'51	
evening rise	318 Nov 23 j 17:17	11° \mathfrak{X} 05'38			319 Nov 09 j 16:03	0° \mathfrak{X}	
	318 Dec 05 j 17:04	0° \mathfrak{Z}		greatest brilliancy	319 Nov 21 j 22:26	18° \mathfrak{X} 14'54	-0.6m
evening max el	318 Dec 15 j 22:38	13° \mathfrak{Z} 50'02	19°03'35	evening max el	319 Nov 29 j 04:25	27° \mathfrak{X} 18'16	19°55'21
asc. node	318 Dec 19 j 23:09	17° \mathfrak{Z} 00'39			319 Dec 02 j 05:32	0° \mathfrak{Z}	
retrograde	318 Dec 22 j 20:40	17° \mathfrak{Z} 46'25		retrograde	319 Dec 06 j 18:08	1° \mathfrak{Z} 43'55	
evening set	318 Dec 26 j 02:13	16° \mathfrak{Z} 45'51		asc. node	319 Dec 06 j 20:11	1° \mathfrak{Z} 43'53	
inferior conj	318 Dec 31 j 18:56	10° \mathfrak{Z} 56'08	3°17'24	evening set	319 Dec 10 j 07:28	0° \mathfrak{Z} 29'59	
minimum elong	318 Dec 31 j 16:22	11° \mathfrak{Z} 04'15	3°16'52		319 Dec 10 j 23:21	30° \mathfrak{R} \mathfrak{X}	
min. Earth dist.	319 Jan 02 j 07:06	9° \mathfrak{Z} 02'23	0.65741 AU	inferior conj	319 Dec 15 j 20:02	24° \mathfrak{X} 26'18	2°44'02
morning rise	319 Jan 06 j 05:37	4° \mathfrak{Z} 44'28		minimum elong	319 Dec 15 j 17:17	24° \mathfrak{X} 35'30	2°43'14
direct	319 Jan 12 j 16:43	1° \mathfrak{Z} 55'50		min. Earth dist.	319 Dec 16 j 18:27	23° \mathfrak{X} 11'43	0.66752 AU
morning max el	319 Jan 25 j 13:40	9° \mathfrak{Z} 29'53	26°32'05	morning rise	319 Dec 21 j 02:29	18° \mathfrak{X} 11'34	
desc. node	319 Jan 28 j 09:26	12° \mathfrak{Z} 29'57		direct	319 Dec 27 j 00:08	15° \mathfrak{X} 35'19	
	319 Feb 10 j 17:47	0° \mathfrak{A}		morning max el	320 Jan 07 j 22:40	22° \mathfrak{X} 41'33	25°17'41
	319 Feb 28 j 20:06	0° \mathfrak{H}			320 Jan 14 j 09:36	0° \mathfrak{Z}	
morning set	319 Mar 02 j 13:43	3° \mathfrak{H} 14'28		desc. node	320 Jan 15 j 06:27	1° \mathfrak{Z} 05'06	
max. Earth dist.	319 Mar 06 j 19:14	11° \mathfrak{H} 25'16	1.34814 AU		320 Feb 04 j 01:27	0° \mathfrak{A}	
				morning set	320 Feb 13 j 03:33	15° \mathfrak{A} 36'22	
superior conj	319 Mar 11 j 07:56	20° \mathfrak{H} 34'40	-1°-4'-48	max. Earth dist.	320 Feb 16 j 21:42	22° \mathfrak{A} 30'39	1.36513 AU
minimum elong	319 Mar 11 j 11:01	20° \mathfrak{H} 50'33	1°04'17		320 Feb 20 j 19:43	0° \mathfrak{H}	
	319 Mar 15 j 20:33	0° \mathfrak{Y}					
asc. node	319 Mar 17 j 22:30	4° \mathfrak{Y} 20'41		superior conj	320 Feb 22 j 22:22	4° \mathfrak{H} 08'47	-1°-29'-15
evening rise	319 Mar 18 j 23:55	6° \mathfrak{Y} 32'30		minimum elong	320 Feb 23 j 02:14	4° \mathfrak{H} 27'58	1°28'46
	319 Mar 31 j 22:55	0° \mathfrak{B}		evening rise	320 Mar 02 j 04:13	20° \mathfrak{H} 47'09	
evening max el	319 Apr 07 j 01:26	7° \mathfrak{B} 20'53	20°53'41	asc. node	320 Mar 03 j 19:31	24° \mathfrak{H} 04'11	
retrograde	319 Apr 18 j 12:50	12° \mathfrak{B} 54'23			320 Mar 06 j 20:33	0° \mathfrak{Y}	
evening set	319 Apr 20 j 18:15	12° \mathfrak{B} 42'38		evening max el	320 Mar 19 j 13:03	18° \mathfrak{Y} 53'01	19°42'38
desc. node	319 Apr 26 j 08:39	10° \mathfrak{B} 44'21		retrograde	320 Mar 29 j 07:18	23° \mathfrak{Y} 34'22	
inferior conj	319 Apr 30 j 00:45	8° \mathfrak{B} 44'43	-1°-3'-15	evening set	320 Mar 31 j 09:41	23° \mathfrak{Y} 22'18	
minimum elong	319 Apr 29 j 21:45	8° \mathfrak{B} 48'58	1°02'12	inferior conj	320 Apr 09 j 02:08	19° \mathfrak{Y} 19'26	0°53'18
min. Earth dist.	319 Apr 30 j 21:01	8° \mathfrak{B} 15'54	0.55018 AU	minimum elong	320 Apr 09 j 04:23	19° \mathfrak{Y} 15'54	0°52'32
morning rise	319 May 09 j 00:28	4° \mathfrak{B} 38'55		min. Earth dist.	320 Apr 11 j 11:18	17° \mathfrak{Y} 50'09	0.55767 AU
direct	319 May 12 j 10:14	4° \mathfrak{B} 13'54		desc. node	320 Apr 12 j 05:41	17° \mathfrak{Y} 22'26	
morning max el	319 May 25 j 11:16	10° \mathfrak{B} 29'41	22°47'25	morning rise	320 Apr 17 j 19:40	14° \mathfrak{Y} 44'07	
	319 Jun 08 j 17:01	0° \mathfrak{I}		direct	320 Apr 22 j 03:21	14° \mathfrak{Y} 02'30	
asc. node	319 Jun 13 j 21:46	9° \mathfrak{I} 51'17		morning max el	320 May 06 j 02:48	21° \mathfrak{Y} 02'37	24°28'35
morning set	319 Jun 16 j 20:31	15° \mathfrak{I} 54'14			320 May 13 j 20:05	0° \mathfrak{B}	
	319 Jun 23 j 11:23	0° \mathfrak{G}		asc. node	320 May 30 j 18:48	29° \mathfrak{B} 40'49	
					320 May 30 j 22:28	0° \mathfrak{I}	

morning set	320 May 31 j 08:25	0° Π 52'15			321 May 07 j 19:30	0° \mathcal{B}	
superior conj	320 Jun 07 j 09:38	16° Π 04'30	1°12'44	morning set	321 May 15 j 19:54	15° \mathcal{B} 49'04	
minimum elong	320 Jun 07 j 07:11	15° Π 51'12	1°12'20	asc. node	321 May 17 j 15:50	19° \mathcal{B} 42'36	
max. Earth dist.	320 Jun 09 j 01:08	19° Π 37'58	1.33077 AU		321 May 22 j 09:13	0° Π	
	320 Jun 13 j 23:14	0° \mathfrak{S}		superior conj	321 May 22 j 20:45	1° Π 03'11	0°52'35
evening rise	320 Jun 14 j 17:42	1° \mathfrak{S} 34'13		minimum elong	321 May 22 j 18:41	0° Π 51'54	0°52'11
	320 Jun 30 j 13:06	0° \mathcal{Q}		max. Earth dist.	321 May 23 j 11:23	2° Π 23'25	1.32505 AU
desc. node	320 Jul 09 j 05:01	12° \mathcal{Q} 21'40		evening rise	321 May 29 j 22:06	16° Π 13'10	
evening max el	320 Jul 17 j 16:59	21° \mathcal{Q} 57'05	27°25'16		321 Jun 05 j 21:53	0° \mathfrak{S}	
retrograde	320 Jul 31 j 10:13	29° \mathcal{Q} 16'21			321 Jun 25 j 18:10	0° \mathcal{Q}	
evening set	320 Aug 07 j 15:04	26° \mathcal{Q} 40'30		desc. node	321 Jun 26 j 02:01	0° \mathcal{Q} 22'17	
min. Earth dist.	320 Aug 11 j 05:27	23° \mathcal{Q} 36'35	0.63167 AU	evening max el	321 Jun 29 j 22:55	4° \mathcal{Q} 24'04	27°03'57
inferior conj	320 Aug 13 j 23:10	20° \mathcal{Q} 53'54	-3°-44'-44	retrograde	321 Jul 13 j 21:02	11° \mathcal{Q} 40'29	
minimum elong	320 Aug 14 j 04:03	20° \mathcal{Q} 41'47	3°43'29	evening set	321 Jul 20 j 21:35	9° \mathcal{Q} 27'15	
morning rise	320 Aug 20 j 19:23	15° \mathcal{Q} 39'54		min. Earth dist.	321 Jul 24 j 13:07	6° \mathcal{Q} 44'48	0.61262 AU
direct	320 Aug 23 j 06:40	15° \mathcal{Q} 11'02		inferior conj	321 Jul 27 j 17:19	3° \mathcal{Q} 58'18	-4°-24'-37
asc. node	320 Aug 26 j 17:59	16° \mathcal{Q} 09'04		minimum elong	321 Jul 27 j 21:26	3° \mathcal{Q} 49'16	4°23'59
morning max el	320 Aug 29 j 21:45	18° \mathcal{Q} 36'31	17°53'02		321 Aug 01 j 22:59	30° \mathcal{R} \mathfrak{S}	
	320 Sep 07 j 04:27	0° \mathfrak{M}		morning rise	321 Aug 04 j 00:14	29° \mathfrak{S} 05'09	
morning set	320 Sep 15 j 07:43	14° \mathfrak{M} 02'18		direct	321 Aug 06 j 10:11	28° \mathfrak{S} 41'15	
	320 Sep 24 j 12:53	0° \mathfrak{A}			321 Aug 10 j 17:13	0° \mathcal{Q}	
superior conj	320 Sep 27 j 05:03	4° \mathfrak{A} 29'40	0°51'36	morning max el	321 Aug 13 j 11:36	2° \mathcal{Q} 11'51	18°00'05
minimum elong	320 Sep 27 j 09:41	4° \mathfrak{A} 48'58	0°51'00	asc. node	321 Aug 13 j 15:02	2° \mathcal{Q} 20'16	
max. Earth dist.	320 Oct 03 j 16:53	15° \mathfrak{A} 07'42	1.43716 AU	morning set	321 Aug 29 j 08:16	27° \mathcal{Q} 11'32	
desc. node	320 Oct 05 j 04:18	17° \mathfrak{A} 29'39			321 Aug 30 j 20:51	0° \mathfrak{M}	
evening rise	320 Oct 12 j 17:41	29° \mathfrak{A} 21'53		superior conj	321 Sep 08 j 14:51	15° \mathfrak{M} 47'50	1°21'54
	320 Oct 13 j 03:33	0° \mathfrak{M}		minimum elong	321 Sep 08 j 19:23	16° \mathfrak{M} 07'40	1°21'27
	320 Nov 02 j 10:51	0° \mathfrak{J}		max. Earth dist.	321 Sep 16 j 03:53	28° \mathfrak{M} 40'25	1.42150 AU
greatest brilliancy	320 Nov 05 j 18:18	4° \mathfrak{J} 24'35	-0.5m		321 Sep 16 j 23:07	0° \mathfrak{A}	
evening max el	320 Nov 11 j 04:38	10° \mathfrak{J} 46'41	21°00'44	evening rise	321 Sep 22 j 08:32	8° \mathfrak{A} 43'36	
retrograde	320 Nov 19 j 15:43	15° \mathfrak{J} 47'52		desc. node	321 Sep 22 j 01:20	8° \mathfrak{A} 14'58	
asc. node	320 Nov 22 j 17:13	14° \mathfrak{J} 54'58			321 Oct 06 j 08:01	0° \mathfrak{M}	
evening set	320 Nov 23 j 14:50	14° \mathfrak{J} 18'41		greatest brilliancy	321 Oct 20 j 06:03	18° \mathfrak{M} 57'31	-0.3m
inferior conj	320 Nov 29 j 01:03	8° \mathfrak{J} 04'30	2°02'49	evening max el	321 Oct 24 j 23:18	24° \mathfrak{M} 16'21	22°16'00
minimum elong	320 Nov 28 j 22:37	8° \mathfrak{J} 12'49	2°01'58	retrograde	321 Nov 03 j 11:36	29° \mathfrak{M} 55'41	
min. Earth dist.	320 Nov 29 j 11:20	7° \mathfrak{J} 29'09	0.67388 AU	evening set	321 Nov 07 j 22:35	28° \mathfrak{M} 09'29	
morning rise	320 Dec 04 j 06:00	1° \mathfrak{J} 48'54		asc. node	321 Nov 09 j 14:14	26° \mathfrak{M} 35'33	
	320 Dec 07 j 02:12	30° \mathcal{R} \mathfrak{M}		inferior conj	321 Nov 13 j 07:58	21° \mathfrak{M} 48'28	1°15'36
direct	320 Dec 09 j 12:36	29° \mathfrak{M} 31'53		minimum elong	321 Nov 13 j 06:18	21° \mathfrak{M} 54'13	1°14'56
	320 Dec 12 j 02:38	0° \mathfrak{J}		min. Earth dist.	321 Nov 13 j 07:17	21° \mathfrak{M} 50'49	0.67678 AU
morning max el	320 Dec 20 j 07:10	5° \mathfrak{J} 57'27	23°51'46	morning rise	321 Nov 18 j 13:51	15° \mathfrak{M} 34'23	
desc. node	321 Jan 01 j 03:29	20° \mathfrak{J} 22'47		direct	321 Nov 23 j 05:19	13° \mathfrak{M} 39'46	
	321 Jan 07 j 22:00	0° \mathfrak{Z}		morning max el	321 Dec 02 j 18:02	19° \mathfrak{M} 18'04	22°24'11
morning set	321 Jan 24 j 18:50	26° \mathfrak{Z} 48'23		greatest brilliancy	321 Dec 07 j 08:46	24° \mathfrak{M} 28'29	-0.3m
	321 Jan 26 j 15:15	0° \approx			321 Dec 11 j 16:45	0° \mathfrak{J}	
max. Earth dist.	321 Jan 28 j 16:52	3° \approx 37'58	1.38540 AU	desc. node	321 Dec 19 j 00:32	10° \mathfrak{J} 10'58	
					322 Jan 01 j 02:55	0° \mathfrak{Z}	
superior conj	321 Feb 05 j 00:12	17° \approx 01'45	-1°-49'-6	morning set	322 Jan 05 j 05:52	6° \mathfrak{Z} 36'44	
minimum elong	321 Feb 05 j 03:51	17° \approx 19'01	1°48'49	max. Earth dist.	322 Jan 10 j 13:17	15° \mathfrak{Z} 25'03	1.40670 AU
	321 Feb 11 j 17:16	0° \mathfrak{H}		superior conj	322 Jan 18 j 08:44	29° \mathfrak{Z} 01'52	-2°00'-55
evening rise	321 Feb 14 j 01:25	4° \mathfrak{H} 35'01		minimum elong	322 Jan 18 j 10:24	29° \mathfrak{Z} 09'20	2°00'53
asc. node	321 Feb 18 j 16:33	13° \mathfrak{H} 28'39			322 Jan 18 j 21:40	0° \approx	
	321 Mar 01 j 10:31	0° \mathcal{Y}		evening rise	322 Jan 28 j 12:23	17° \approx 48'34	
evening max el	321 Mar 02 j 11:17	1° \mathcal{Y} 03'12	18°51'03		322 Feb 04 j 03:26	0° \mathfrak{H}	
retrograde	321 Mar 10 j 17:17	5° \mathcal{Y} 02'53		asc. node	322 Feb 05 j 13:34	2° \mathfrak{H} 27'22	
evening set	321 Mar 12 j 23:43	4° \mathcal{Y} 45'58		evening max el	322 Feb 13 j 17:22	13° \mathfrak{H} 43'57	18°19'27
inferior conj	321 Mar 20 j 21:36	0° \mathcal{Y} 27'03	2°24'34	retrograde	322 Feb 20 j 22:08	17° \mathfrak{H} 18'19	
minimum elong	321 Mar 21 j 01:53	0° \mathcal{Y} 19'14	2°23'25	evening set	322 Feb 23 j 09:41	16° \mathfrak{H} 53'55	
	321 Mar 21 j 12:27	30° \mathcal{R} \mathfrak{H}		inferior conj	322 Mar 02 j 14:09	12° \mathfrak{H} 13'55	3°20'49
min. Earth dist.	321 Mar 24 j 03:52	28° \mathfrak{H} 06'08	0.57301 AU	minimum elong	322 Mar 02 j 17:23	12° \mathfrak{H} 07'01	3°20'16
morning rise	321 Mar 28 j 23:48	25° \mathfrak{H} 18'50		min. Earth dist.	322 Mar 06 j 00:22	9° \mathfrak{H} 21'11	0.59302 AU
desc. node	321 Mar 30 j 02:40	24° \mathfrak{H} 52'40		morning rise	322 Mar 09 j 21:29	6° \mathfrak{H} 39'44	
direct	321 Apr 03 j 10:19	24° \mathfrak{H} 07'09		direct	322 Mar 16 j 06:20	4° \mathfrak{H} 50'51	
	321 Apr 16 j 00:30	0° \mathcal{Y}		desc. node	322 Mar 16 j 23:42	4° \mathfrak{H} 52'14	
morning max el	321 Apr 17 j 18:05	1° \mathcal{Y} 35'48	26°00'57				

morning max el	322 Mar 30 j 13:56	12° 34 20	27°09'38	direct	323 Feb 26 j 12:47	16° 22 36	
	322 Apr 13 j 07:37	0° 39		desc. node	323 Mar 03 j 20:44	17° 39 21	
	322 Apr 29 j 21:58	0° 38		morning max el	323 Mar 12 j 16:14	24° 13 28	27°44'23
morning set	322 Apr 30 j 05:13	0° 37 43			323 Mar 17 j 22:02	0° 38	
asc. node	322 May 04 j 12:52	9° 50 55			323 Apr 06 j 14:13	0° 39	
				morning set	323 Apr 14 j 10:30	15° 39 11'58	
superior conj	322 May 07 j 08:30	16° 50 1'05	0°29'27	max. Earth dist.	323 Apr 20 j 11:25	27° 39 59'12	1.32476 AU
minimum elong	322 May 07 j 07:13	15° 54 04	0°29'11	asc. node	323 Apr 21 j 09:56	0° 50 1'42	
max. Earth dist.	322 May 07 j 00:05	15° 54 54	1.32304 AU		323 Apr 21 j 09:37	0° 50	
	322 May 13 j 18:57	0° 51					
evening rise	322 May 14 j 06:58	1° 51 03'25		superior conj	323 Apr 21 j 19:16	0° 52 36	0°04'08
	322 May 30 j 02:12	0° 52		minimum elong	323 Apr 21 j 19:04	0° 51 33	0°04'06
evening max el	322 Jun 11 j 22:29	16° 50 6'14	26°10'03	behind sun begin	323 Apr 21 j 14:08	0° 52 43'7	
desc. node	322 Jun 12 j 23:01	17° 50 3'03		behind sun end	323 Apr 22 j 00:01	1° 51 8'31	
retrograde	322 Jun 25 j 23:06	23° 51 8'40		evening rise	323 Apr 28 j 18:16	15° 55 7'48	
evening set	322 Jul 02 j 07:24	21° 54 0'03			323 May 05 j 18:24	0° 56	
min. Earth dist.	322 Jul 06 j 11:18	19° 50 2'50	0.59210 AU	evening max el	323 May 24 j 15:21	27° 50 4'50	24°49'36
inferior conj	322 Jul 09 j 19:09	16° 53 1'22	-4°-46'-13		323 May 28 j 00:45	0° 56	
minimum elong	322 Jul 09 j 20:25	16° 52 8'55	4°46'11	desc. node	323 May 30 j 20:02	1° 55 2'25	
morning rise	322 Jul 17 j 12:54	12° 50 1'00		retrograde	323 Jun 07 j 14:33	4° 50 9'51	
direct	322 Jul 20 j 00:02	11° 54 0'08		evening set	323 Jun 12 j 17:56	3° 50 9'47	
morning max el	322 Jul 27 j 20:21	15° 52 5'42	18°27'00	min. Earth dist.	323 Jun 18 j 02:46	0° 52 0'03	0.57260 AU
asc. node	322 Jul 31 j 12:05	19° 53 7'40			323 Jun 18 j 15:14	30° 52	
	322 Aug 07 j 00:57	0° 54		inferior conj	323 Jun 21 j 01:29	28° 52 3'42	-4°-37'-41
morning set	322 Aug 12 j 21:55	10° 54 59'04		minimum elong	323 Jun 20 j 22:05	28° 52 9'21	4°37'22
				morning rise	323 Jun 29 j 06:03	24° 52 15'12	
superior conj	322 Aug 22 j 00:03	28° 51 5'25	1°39'38	direct	323 Jul 01 j 19:57	23° 52 56'15	
minimum elong	322 Aug 22 j 02:42	28° 50 27'40	1°39'28	morning max el	323 Jul 10 j 21:05	28° 52 09'15	19°14'52
	322 Aug 22 j 22:45	0° 56			323 Jul 12 j 16:23	0° 56	
max. Earth dist.	322 Aug 29 j 09:56	11° 56 32'17	1.40230 AU	asc. node	323 Jul 18 j 09:10	7° 56 46'57	
evening rise	322 Sep 02 j 20:34	19° 56 04'43		morning set	323 Jul 27 j 20:49	25° 56 14'36	
desc. node	322 Sep 08 j 22:22	28° 56 54'48			323 Jul 30 j 06:04	0° 57	
	322 Sep 09 j 14:57	0° 58					
	322 Sep 30 j 16:39	0° 59		superior conj	323 Aug 05 j 03:00	11° 58 36'49	1°46'36
evening max el	322 Oct 07 j 13:35	7° 59 48'31	23°36'00	minimum elong	323 Aug 05 j 03:34	11° 58 39'34	1°46'36
retrograde	322 Oct 18 j 04:27	14° 59 04'33		max. Earth dist.	323 Aug 11 j 13:16	23° 59 44'10	1.38206 AU
evening set	322 Oct 23 j 05:04	12° 59 00'16		evening rise	323 Aug 15 j 09:21	0° 59 35'52	
asc. node	322 Oct 27 j 11:17	7° 59 10'28			323 Aug 15 j 01:10	0° 59	
min. Earth dist.	322 Oct 28 j 03:52	6° 59 14'18	0.67639 AU	desc. node	323 Aug 26 j 19:23	19° 59 24'55	
inferior conj	322 Oct 28 j 15:01	5° 59 36'14	0°23'52		323 Sep 02 j 21:45	0° 59	
minimum elong	322 Oct 28 j 14:27	5° 59 38'10	0°23'37	evening max el	323 Sep 20 j 01:28	21° 59 23'42	24°54'09
	322 Nov 02 j 07:37	30° 59		retrograde	323 Oct 01 j 17:19	28° 59 10'22	
morning rise	322 Nov 02 j 23:57	29° 59 26'14		evening set	323 Oct 07 j 08:35	25° 59 48'41	
direct	322 Nov 07 j 01:15	27° 59 54'02		min. Earth dist.	323 Oct 11 j 22:42	20° 59 37'19	0.67279 AU
	322 Nov 12 j 06:53	0° 59		inferior conj	323 Oct 12 j 20:26	19° 59 25'32	0°-31'00
morning max el	322 Nov 15 j 10:53	2° 59 47'48	21°02'57	minimum elong	323 Oct 12 j 21:13	19° 59 22'59	0°30'41
greatest brilliancy	322 Nov 20 j 23:03	9° 59 11'03	-0.5m	asc. node	323 Oct 14 j 08:22	17° 59 29'02	
desc. node	322 Dec 05 j 21:35	0° 59 21'04		morning rise	323 Oct 18 j 10:20	13° 59 22'15	
	322 Dec 05 j 15:57	0° 59		direct	323 Oct 21 j 23:07	12° 59 10'17	
morning set	322 Dec 15 j 13:37	15° 59 09'48		morning max el	323 Oct 29 j 11:28	16° 59 28'05	19°53'13
max. Earth dist.	322 Dec 23 j 16:56	28° 59 09'42	1.42601 AU	greatest brilliancy	323 Nov 06 j 00:36	25° 59 46'47	-0.6m
	322 Dec 24 j 19:53	0° 59			323 Nov 08 j 23:57	0° 59	
				desc. node	323 Nov 22 j 18:37	20° 59 46'21	
superior conj	322 Dec 30 j 18:34	9° 59 56'09	-2°00'-18	morning set	323 Nov 24 j 09:56	23° 59 18'02	
minimum elong	322 Dec 30 j 16:03	9° 59 45'26	2°00'15		323 Nov 28 j 17:30	0° 59	
evening rise	323 Jan 11 j 09:24	0° 59 19'58		max. Earth dist.	323 Dec 06 j 03:58	11° 59 42'54	1.44069 AU
	323 Jan 11 j 04:57	0° 59					
asc. node	323 Jan 23 j 10:37	20° 59 52'19		superior conj	323 Dec 11 j 01:36	19° 59 35'38	-1°-42'-45
evening max el	323 Jan 28 j 04:11	26° 59 46'34	18°07'40	minimum elong	323 Dec 10 j 18:20	19° 59 06'07	1°42'12
	323 Feb 02 j 06:14	0° 59			323 Dec 17 j 09:29	0° 59	
retrograde	323 Feb 03 j 19:25	0° 59 11'31		evening rise	323 Dec 24 j 12:01	11° 59 59'57	
	323 Feb 05 j 08:53	30° 59			324 Jan 04 j 05:34	0° 59	
evening set	323 Feb 06 j 11:23	29° 59 38'25		asc. node	324 Jan 10 j 07:40	8° 59 32'27	
inferior conj	323 Feb 13 j 01:46	24° 59 36'36	3°45'56	evening max el	324 Jan 11 j 16:40	10° 59 02'14	18°15'08
minimum elong	323 Feb 13 j 02:50	24° 59 34'01	3°45'52	retrograde	324 Jan 18 j 04:17	13° 59 31'06	
min. Earth dist.	323 Feb 16 j 03:50	21° 59 36'54	0.61411 AU	evening set	324 Jan 21 j 00:41	12° 59 48'24	
morning rise	323 Feb 19 j 15:40	18° 59 45'02		inferior conj	324 Jan 27 j 04:27	7° 59 26'19	3°47'30

minimum elong	324 Jan 27 j 03:33	7° \approx 28'49	3°47'28	inferior conj	325 Jan 09 j 18:19	20° \approx 35'43	3°32'05
min. Earth dist.	324 Jan 29 j 16:38	4° \approx 41'25	0.63353 AU	minimum elong	325 Jan 09 j 16:09	20° \approx 42'17	3°31'45
morning rise	324 Feb 02 j 04:38	1° \approx 23'47		min. Earth dist.	325 Jan 11 j 15:10	18° \approx 20'34	0.64979 AU
	324 Feb 04 j 06:23	30° \approx 39'33		morning rise	325 Jan 15 j 08:51	14° \approx 26'28	
direct	324 Feb 09 j 03:46	28° \approx 39'33		direct	325 Jan 22 j 02:04	11° \approx 35'11	
	324 Feb 14 j 10:07	0° \approx		morning max el	325 Feb 04 j 09:12	19° \approx 20'13	27°05'37
desc. node	324 Feb 18 j 17:47	2° \approx 45'17		desc. node	325 Feb 04 j 14:51	19° \approx 34'26	
morning max el	324 Feb 22 j 23:37	6° \approx 32'09	27°42'01		325 Feb 13 j 11:47	0° \approx	
	324 Mar 11 j 21:38	0° \approx			325 Mar 04 j 21:30	0° \approx	
morning set	324 Mar 28 j 09:26	29° \approx 32'40		morning set	325 Mar 11 j 22:54	13° \approx 03'01	
	324 Mar 28 j 16:41	0° \approx		max. Earth dist.	325 Mar 16 j 13:36	22° \approx 12'04	1.34028 AU
max. Earth dist.	324 Apr 02 j 17:15	10° \approx 22'06	1.33037 AU				
				superior conj	325 Mar 20 j 06:28	29° \approx 51'30	0°-49'-37
superior conj	324 Apr 05 j 03:15	15° \approx 31'31	0°-22'-35	minimum elong	325 Mar 20 j 08:52	0° \approx 04'06	0°49'11
minimum elong	324 Apr 05 j 04:21	15° \approx 37'22	0°22'22		325 Mar 20 j 08:05	0° \approx	
asc. node	324 Apr 07 j 07:00	20° \approx 10'29		asc. node	325 Mar 25 j 04:02	10° \approx 13'08	
	324 Apr 11 j 20:45	0° \approx		evening rise	325 Mar 27 j 16:34	15° \approx 31'38	
evening rise	324 Apr 12 j 06:05	0° \approx 49'19			325 Apr 04 j 00:47	0° \approx	
	324 Apr 28 j 16:01	0° \approx		evening max el	325 Apr 17 j 00:44	18° \approx 19'46	21°42'16
evening max el	324 May 05 j 05:40	7° \approx 39'03	23°15'25	retrograde	325 Apr 29 j 10:16	24° \approx 23'03	
desc. node	324 May 16 j 17:02	14° \approx 14'06		evening set	325 May 01 j 23:20	24° \approx 08'29	
retrograde	324 May 18 j 18:00	14° \approx 23'34		desc. node	325 May 03 j 14:04	23° \approx 45'03	
evening set	324 May 22 j 10:11	13° \approx 53'54		inferior conj	325 May 11 j 08:39	20° \approx 06'13	-2°-11'-3
min. Earth dist.	324 May 29 j 15:30	10° \approx 37'22	0.55747 AU	minimum elong	325 May 11 j 02:46	20° \approx 14'30	2°09'07
inferior conj	324 May 31 j 12:02	9° \approx 31'58	-3°-46'-33	min. Earth dist.	325 May 11 j 04:18	20° \approx 12'20	0.55009 AU
minimum elong	324 May 31 j 04:54	9° \approx 42'29	3°44'55	morning rise	325 May 20 j 07:03	16° \approx 09'41	
morning rise	324 Jun 09 j 02:54	5° \approx 37'29		direct	325 May 23 j 08:28	15° \approx 49'05	
direct	324 Jun 11 j 20:32	5° \approx 19'23		morning max el	325 Jun 04 j 14:43	21° \approx 35'56	21°51'04
morning max el	324 Jun 22 j 11:29	10° \approx 14'15	20°23'42		325 Jun 11 j 18:03	0° \approx	
asc. node	324 Jul 04 j 06:14	26° \approx 36'02		asc. node	325 Jun 21 j 03:17	15° \approx 54'34	
	324 Jul 06 j 02:32	0° \approx		morning set	325 Jun 25 j 11:22	24° \approx 39'22	
morning set	324 Jul 11 j 02:05	9° \approx 50'27			325 Jun 28 j 00:30	0° \approx	
				superior conj	325 Jul 02 j 19:12	10° \approx 05'23	1°36'30
superior conj	324 Jul 18 j 18:43	25° \approx 37'43	1°44'57	minimum elong	325 Jul 02 j 17:08	9° \approx 54'33	1°36'19
minimum elong	324 Jul 18 j 17:39	25° \approx 32'20	1°44'54	max. Earth dist.	325 Jul 06 j 09:06	17° \approx 29'08	1.34761 AU
	324 Jul 20 j 22:58	0° \approx		evening rise	325 Jul 10 j 23:33	26° \approx 36'01	
max. Earth dist.	324 Jul 23 j 19:14	5° \approx 34'30	1.36324 AU		325 Jul 12 j 18:25	0° \approx	
evening rise	324 Jul 27 j 20:00	13° \approx 10'55		desc. node	325 Jul 30 j 13:26	29° \approx 33'01	
	324 Aug 06 j 12:34	0° \approx			325 Jul 30 j 20:55	0° \approx	
desc. node	324 Aug 12 j 16:25	9° \approx 40'14		evening max el	325 Aug 15 j 01:00	18° \approx 33'55	26°55'04
	324 Aug 27 j 19:58	0° \approx		retrograde	325 Aug 28 j 04:39	25° \approx 51'17	
evening max el	324 Sep 01 j 13:01	5° \approx 01'04	26°03'03	evening set	325 Sep 03 j 22:55	23° \approx 07'36	
retrograde	324 Sep 14 j 01:38	12° \approx 08'32		min. Earth dist.	325 Sep 07 j 21:48	19° \approx 10'02	0.65543 AU
evening set	324 Sep 20 j 07:17	9° \approx 32'39		inferior conj	325 Sep 09 j 19:00	16° \approx 58'48	-2°-23'-32
min. Earth dist.	324 Sep 24 j 13:28	4° \approx 57'44	0.66587 AU	minimum elong	325 Sep 09 j 22:39	16° \approx 48'13	2°22'12
inferior conj	324 Sep 25 j 22:28	3° \approx 14'33	-1°-27'-24	morning rise	325 Sep 15 j 23:47	11° \approx 17'37	
minimum elong	324 Sep 26 j 00:42	3° \approx 07'33	1°26'29	asc. node	325 Sep 17 j 02:28	10° \approx 50'33	
	324 Sep 28 j 16:07	30° \approx 39'33		direct	325 Sep 18 j 18:22	10° \approx 35'17	
asc. node	324 Sep 30 j 05:25	28° \approx 29'20		morning max el	325 Sep 25 j 08:12	14° \approx 10'21	18°19'07
morning rise	324 Oct 01 j 19:02	27° \approx 20'46			325 Oct 06 j 16:12	0° \approx	
direct	324 Oct 04 j 21:30	26° \approx 25'32		morning set	325 Oct 14 j 09:21	12° \approx 32'17	
	324 Oct 11 j 12:16	0° \approx			325 Oct 25 j 05:07	0° \approx	
morning max el	324 Oct 11 j 19:16	0° \approx 17'24	18°58'04	desc. node	325 Oct 26 j 12:44	2° \approx 05'40	
	324 Nov 01 j 09:52	0° \approx					
morning set	324 Nov 02 j 19:48	2° \approx 13'20		superior conj	325 Oct 29 j 10:33	6° \approx 42'01	0°-19'-6
desc. node	324 Nov 08 j 15:41	11° \approx 22'38		minimum elong	325 Oct 29 j 08:03	6° \approx 32'09	0°18'47
max. Earth dist.	324 Nov 17 j 20:08	25° \approx 48'00	1.44903 AU	max. Earth dist.	325 Oct 31 j 14:39	10° \approx 07'19	1.45010 AU
					325 Nov 13 j 07:15	0° \approx	
superior conj	324 Nov 19 j 09:30	28° \approx 15'11	-1°-6'-55	evening rise	325 Nov 14 j 20:59	2° \approx 27'38	
minimum elong	324 Nov 19 j 01:41	27° \approx 44'20	1°06'01	greatest brilliancy	325 Nov 29 j 13:13	25° \approx 08'07	-0.7m
	324 Nov 20 j 12:04	0° \approx			325 Dec 02 j 22:34	0° \approx	
evening rise	324 Dec 04 j 16:19	22° \approx 27'42'27		evening max el	325 Dec 08 j 12:45	6° \approx 53'06	19°23'52
	324 Dec 09 j 03:49	0° \approx		asc. node	325 Dec 14 j 01:43	10° \approx 46'13	
evening max el	324 Dec 25 j 04:17	23° \approx 25'42	18°40'58	retrograde	325 Dec 15 j 16:44	11° \approx 00'54	
asc. node	324 Dec 27 j 04:43	25° \approx 15'15		evening set	325 Dec 19 j 01:20	9° \approx 54'59	
retrograde	324 Dec 31 j 20:31	27° \approx 09'22		inferior conj	325 Dec 24 j 16:05	3° \approx 59'15	3°04'20
evening set	325 Jan 03 j 22:15	26° \approx 15'55					

minimum elong	325 Dec 24 j 13:21	4°☿08'04	3°03'41			326 Nov 06 j 11:56	0°☿	
min. Earth dist.	325 Dec 25 j 22:18	2°☿21'38	0.66219 AU	greatest brilliancy		326 Nov 15 j 08:27	12°☿41'14	-0.6m
	325 Dec 27 j 20:32	30°☿		evening max el		326 Nov 21 j 16:20	20°☿21'47	20°21'46
morning rise	325 Dec 30 j 00:35	27°☿46'03		retrograde		326 Nov 29 j 14:21	25°☿01'25	
direct	326 Jan 05 j 06:25	25°☿01'13		asc. node		326 Nov 30 j 22:44	24°☿51'05	
	326 Jan 15 j 04:59	0°☿		evening set		326 Dec 03 j 07:42	23°☿41'08	
morning max el	326 Jan 17 j 18:29	2°☿25'18	26°02'27	inferior conj		326 Dec 08 j 19:04	17°☿32'44	2°27'23
desc. node	326 Jan 22 j 11:54	7°☿37'23		minimum elong		326 Dec 08 j 16:23	17°☿41'47	2°26'31
	326 Feb 07 j 16:07	0°☿		min. Earth dist.		326 Dec 09 j 12:09	16°☿35'01	0.67071 AU
morning set	326 Feb 22 j 22:52	25°☿57'37		morning rise		326 Dec 14 j 00:35	11°☿17'38	
	326 Feb 25 j 02:34	0°☿		direct		326 Dec 19 j 16:02	8°☿48'56	
max. Earth dist.	326 Feb 26 j 22:08	3°☿28'44	1.35478 AU	morning max el		326 Dec 31 j 02:52	15°☿38'22	24°41'56
				desc. node		327 Jan 09 j 08:57	26°☿32'15	
superior conj	326 Mar 04 j 02:28	13°☿45'20	-1°-15'-34			327 Jan 11 j 23:06	0°☿	
minimum elong	326 Mar 04 j 05:58	14°☿03'04	1°15'02			327 Jan 31 j 14:29	0°☿	
evening rise	326 Mar 11 j 23:44	29°☿58'35		morning set		327 Feb 05 j 03:48	7°☿51'13	
asc. node	326 Mar 12 j 01:03	0°☿05'19		max. Earth dist.		327 Feb 08 j 20:45	14°☿30'51	1.37347 AU
	326 Mar 12 j 00:01	0°☿						
evening max el	326 Mar 30 j 05:57	29°☿31'02	20°21'20	superior conj		327 Feb 15 j 12:01	27°☿03'12	-1°-38'-25
	326 Mar 30 j 18:15	0°☿		minimum elong		327 Feb 15 j 15:58	27°☿22'22	1°38'00
retrograde	326 Apr 09 j 23:42	4°☿41'13				327 Feb 17 j 00:11	0°☿	
evening set	326 Apr 12 j 02:31	4°☿30'01		evening rise		327 Feb 24 j 01:19	14°☿02'37	
desc. node	326 Apr 20 j 11:05	0°☿57'17		asc. node		327 Feb 26 j 22:05	19°☿41'24	
inferior conj	326 Apr 21 j 04:11	0°☿32'17	0°-12'-17			327 Mar 04 j 13:08	0°☿	
minimum elong	326 Apr 21 j 03:37	0°☿33'07	0°12'05	evening max el		327 Mar 12 j 22:18	11°☿19'32	19°18'15
transit middle	326 Apr 21 j 03:37	0°☿33'07	0°12'05	retrograde		327 Mar 21 j 23:44	15°☿41'14	
transit begin	326 Apr 21 j 01:00	0°☿36'58		evening set		327 Mar 24 j 03:40	15°☿27'24	
transit end	326 Apr 21 j 06:14	0°☿29'16		inferior conj		327 Apr 01 j 12:18	11°☿18'25	1°36'08
	326 Apr 22 j 02:11	30°☿☿		minimum elong		327 Apr 01 j 15:54	11°☿12'26	1°34'59
min. Earth dist.	326 Apr 22 j 17:50	29°☿37'11	0.55225 AU	min. Earth dist.		327 Apr 04 j 08:32	9°☿25'44	0.56342 AU
morning rise	326 Apr 30 j 02:35	26°☿15'19		desc. node		327 Apr 07 j 08:06	7°☿40'27	
direct	326 May 03 j 20:50	25°☿44'36		morning rise		327 Apr 10 j 00:13	6°☿29'12	
	326 May 14 j 15:12	0°☿		direct		327 Apr 14 j 19:24	5°☿36'24	
morning max el	326 May 17 j 08:57	2°☿21'04	23°30'24	morning max el		327 Apr 28 j 23:29	12°☿49'42	25°09'55
	326 Jun 05 j 05:11	0°☿				327 May 12 j 07:17	0°☿	
asc. node	326 Jun 08 j 00:20	5°☿35'02		morning set		327 May 25 j 10:45	24°☿34'12	
morning set	326 Jun 09 j 22:49	9°☿36'02		asc. node		327 May 25 j 21:23	25°☿30'19	
						327 May 27 j 23:47	0°☿	
superior conj	326 Jun 17 j 01:33	24°☿50'58	1°22'41					
minimum elong	326 Jun 16 j 23:05	24°☿37'44	1°22'21	superior conj		327 Jun 01 j 11:27	9°☿46'17	1°04'35
	326 Jun 19 j 11:31	0°☿		minimum elong		327 Jun 01 j 09:07	9°☿33'32	1°04'11
max. Earth dist.	326 Jun 19 j 08:44	29°☿45'20	1.33587 AU	max. Earth dist.		327 Jun 02 j 16:10	12°☿22'38	1.32793 AU
evening rise	326 Jun 24 j 15:31	10°☿38'29		evening rise		327 Jun 08 j 16:11	25°☿06'23	
	326 Jul 05 j 02:29	0°☿				327 Jun 11 j 02:22	0°☿	
desc. node	326 Jul 17 j 10:26	18°☿53'36				327 Jun 28 j 16:20	0°☿	
	326 Jul 26 j 15:40	0°☿		desc. node		327 Jul 04 j 07:26	7°☿28'28	
evening max el	326 Jul 28 j 12:33	1°☿51'38	27°22'42	evening max el		327 Jul 10 j 21:13	14°☿40'20	27°20'13
retrograde	326 Aug 11 j 01:47	9°☿10'35		retrograde		327 Jul 24 j 16:22	21°☿57'40	
evening set	326 Aug 18 j 04:39	6°☿28'37		evening set		327 Jul 31 j 20:53	19°☿29'45	
min. Earth dist.	326 Aug 21 j 21:27	3°☿06'41	0.64141 AU	min. Earth dist.		327 Aug 04 j 10:51	16°☿36'47	0.62395 AU
inferior conj	326 Aug 24 j 07:40	0°☿33'07	-3°-16'-48	inferior conj		327 Aug 07 j 09:31	13°☿50'43	-4°-3'-16
minimum elong	326 Aug 24 j 12:20	0°☿20'47	3°15'23	minimum elong		327 Aug 07 j 14:17	13°☿39'28	4°02'15
	326 Aug 24 j 20:14	30°☿☿		morning rise		327 Aug 14 j 10:14	8°☿45'11	
morning rise	326 Aug 30 j 21:57	25°☿07'59		direct		327 Aug 16 j 20:46	8°☿18'35	
direct	326 Sep 02 j 11:13	24°☿34'58		asc. node		327 Aug 21 j 20:35	10°☿12'34	
asc. node	326 Sep 03 j 23:31	24°☿46'42		morning max el		327 Aug 23 j 15:03	11°☿44'45	17°53'40
morning max el	326 Sep 08 j 23:43	28°☿01'29	17°57'20			327 Sep 04 j 20:46	0°☿	
	326 Sep 10 j 18:48	0°☿		morning set		327 Sep 08 j 17:06	6°☿52'23	
morning set	326 Sep 26 j 02:21	24°☿11'09						
	326 Sep 29 j 12:17	0°☿		superior conj		327 Sep 19 j 20:36	26°☿28'05	1°06'04
				minimum elong		327 Sep 20 j 01:32	26°☿49'04	1°05'29
superior conj	326 Oct 09 j 02:18	15°☿55'27	0°28'25			327 Sep 21 j 22:42	0°☿	
minimum elong	326 Oct 09 j 05:25	16°☿08'05	0°27'59	max. Earth dist.		327 Sep 26 j 23:25	8°☿19'02	1.43112 AU
desc. node	326 Oct 13 j 09:45	22°☿52'06		desc. node		327 Sep 30 j 06:47	13°☿38'52	
max. Earth dist.	326 Oct 14 j 08:50	24°☿24'02	1.44386 AU	evening rise		327 Oct 04 j 16:16	20°☿35'02	
	326 Oct 17 j 21:50	0°☿				327 Oct 10 j 19:17	0°☿	
evening rise	326 Oct 25 j 07:59	11°☿32'34		greatest brilliancy		327 Oct 30 j 14:51	28°☿08'11	-0.4m

	327 Nov 01 j 03:22	0°♊		evening rise	328 Sep 13 j 15:02	0°♎18'56	
evening max el	327 Nov 04 j 14:08	3°♊50'54	21°31'47	desc. node	328 Sep 16 j 03:47	4°♎22'19	
retrograde	327 Nov 13 j 11:25	9°♊08'03			328 Oct 03 j 07:57	0°♏	
evening set	327 Nov 17 j 15:27	7°♊31'34		greatest brilliancy	328 Oct 12 j 05:01	11°♏40'19	-0.3m
asc. node	327 Nov 17 j 19:47	7°♊22'56		evening max el	328 Oct 17 j 06:33	17°♏20'54	22°49'45
inferior conj	327 Nov 23 j 01:07	1°♊13'55	1°43'26	retrograde	328 Oct 27 j 06:18	23°♏16'57	
minimum elong	327 Nov 22 j 22:58	1°♊21'19	1°42'37	evening set	328 Oct 31 j 22:53	21°♏22'59	
min. Earth dist.	327 Nov 23 j 06:33	0°♊55'10	0.67554 AU	asc. node	328 Nov 03 j 16:51	18°♏31'10	
	327 Nov 23 j 22:35	30°♏		inferior conj	328 Nov 06 j 08:19	14°♏59'54	0°54'06
morning rise	327 Nov 28 j 06:13	24°♏58'52		minimum elong	328 Nov 06 j 07:05	15°♏04'10	0°53'35
direct	327 Dec 03 j 06:15	22°♏51'28		min. Earth dist.	328 Nov 06 j 03:06	15°♏17'57	0.67699 AU
morning max el	327 Dec 13 j 12:05	28°♏56'50	23°14'15	morning rise	328 Nov 11 j 15:16	8°♏47'12	
	327 Dec 14 j 12:30	0°♊		direct	328 Nov 16 j 00:24	7°♏02'29	
greatest brilliancy	327 Dec 18 j 14:19	4°♊39'34	-0.3m	morning max el	328 Nov 25 j 01:17	12°♏21'33	21°48'27
desc. node	327 Dec 27 j 06:00	16°♊04'24		greatest brilliancy	328 Nov 29 j 21:29	17°♏50'41	-0.4m
	328 Jan 05 j 17:59	0°♋			328 Dec 08 j 22:44	0°♊	
morning set	328 Jan 17 j 07:35	18°♋28'45		desc. node	328 Dec 13 j 03:02	6°♊02'43	
max. Earth dist.	328 Jan 21 j 16:01	25°♋53'48	1.39455 AU	morning set	328 Dec 27 j 06:10	27°♊42'07	
	328 Jan 24 j 00:10	0°♌			328 Dec 28 j 16:34	0°♋	
				max. Earth dist.	329 Jan 02 j 14:51	8°♋03'48	1.41531 AU
superior conj	328 Jan 29 j 07:07	9°♌35'10	-1°-55'-20				
minimum elong	328 Jan 29 j 10:11	9°♌49'23	1°55'10	superior conj	329 Jan 10 j 06:35	21°♋08'17	-2°-2'-27
evening rise	328 Feb 07 j 18:37	27°♌37'12		minimum elong	329 Jan 10 j 06:43	21°♋08'54	2°02'29
	328 Feb 09 j 00:22	0°♌			329 Jan 15 j 05:49	0°♌	
asc. node	328 Feb 13 j 19:06	8°♌55'56		evening rise	329 Jan 21 j 00:09	10°♌33'48	
evening max el	328 Feb 24 j 00:08	23°♌43'07	18°35'04	asc. node	329 Jan 30 j 16:09	27°♌41'34	
retrograde	328 Mar 02 j 18:06	27°♌30'24			329 Feb 01 j 03:46	0°♌	
evening set	328 Mar 05 j 02:38	27°♌10'34		evening max el	329 Feb 06 j 08:34	6°♌34'02	18°12'03
inferior conj	328 Mar 12 j 16:44	22°♌42'37	2°52'42	retrograde	329 Feb 13 j 06:27	10°♌02'51	
minimum elong	328 Mar 12 j 20:51	22°♌34'37	2°51'44	evening set	329 Feb 15 j 19:47	9°♌35'01	
min. Earth dist.	328 Mar 16 j 02:21	20°♌05'24	0.58117 AU	inferior conj	329 Feb 22 j 17:51	4°♌45'52	3°34'49
morning rise	328 Mar 20 j 10:58	17°♌22'01		minimum elong	329 Feb 22 j 20:12	4°♌40'33	3°34'32
desc. node	328 Mar 24 j 05:09	16°♌06'25		min. Earth dist.	329 Feb 26 j 01:47	1°♌46'48	0.60200 AU
direct	328 Mar 26 j 07:45	15°♌55'05			329 Feb 28 j 07:27	30°♌	
morning max el	328 Apr 09 j 16:27	23°♌31'14	26°33'56	morning rise	329 Mar 01 j 17:20	29°♌03'00	
	328 Apr 15 j 12:27	0°♍		direct	329 Mar 08 j 08:38	26°♌58'34	
	328 May 04 j 05:23	0°♋		desc. node	329 Mar 11 j 02:11	27°♌18'37	
morning set	328 May 08 j 21:32	9°♋28'12			329 Mar 16 j 21:21	0°♌	
asc. node	328 May 11 j 18:25	15°♋35'14		morning max el	329 Mar 22 j 15:12	4°♌46'57	27°28'57
					329 Apr 10 j 07:37	0°♍	
superior conj	328 May 15 j 23:03	24°♋45'02	0°43'05	morning set	329 Apr 23 j 05:25	24°♍12'05	
minimum elong	328 May 15 j 21:16	24°♋35'19	0°42'44		329 Apr 25 j 23:31	0°♋	
max. Earth dist.	328 May 16 j 03:57	25°♋11'57	1.32372 AU	asc. node	329 Apr 28 j 15:28	5°♋45'26	
	328 May 18 j 08:31	0°♎		max. Earth dist.	329 Apr 29 j 16:25	8°♋01'44	1.32322 AU
evening rise	328 May 22 j 22:45	9°♎50'33					
	328 Jun 02 j 10:11	0°♏		superior conj	329 Apr 30 j 10:37	9°♋41'27	0°18'57
desc. node	328 Jun 20 j 04:26	24°♏58'21		minimum elong	329 Apr 30 j 09:46	9°♋36'48	0°18'46
evening max el	328 Jun 22 j 00:24	26°♏47'55	26°44'43	evening rise	329 May 07 j 08:54	24°♋43'38	
	328 Jun 25 j 18:38	0°♏			329 May 09 j 21:50	0°♎	
retrograde	328 Jul 05 j 23:43	4°♏03'15			329 May 27 j 16:21	0°♏	
evening set	328 Jul 12 j 19:10	2°♏03'11		evening max el	329 Jun 03 j 20:52	8°♏10'44	25°38'31
	328 Jul 15 j 20:14	30°♏		desc. node	329 Jun 07 j 01:27	10°♏56'42	
min. Earth dist.	328 Jul 16 j 14:00	29°♏25'33	0.60394 AU	retrograde	329 Jun 17 j 22:04	15°♏21'48	
inferior conj	328 Jul 19 j 21:08	26°♏42'40	-4°-36'-41	evening set	329 Jun 23 j 19:15	13°♏59'45	
minimum elong	328 Jul 20 j 00:20	26°♏36'03	4°36'20	min. Earth dist.	329 Jun 28 j 09:07	11°♏19'07	0.58340 AU
morning rise	328 Jul 27 j 08:43	21°♏59'30		inferior conj	329 Jul 01 j 15:01	9°♏00'00	-4°-47'-10
direct	328 Jul 29 j 18:56	21°♏37'06		minimum elong	329 Jul 01 j 14:27	9°♏01'01	4°47'10
morning max el	328 Aug 06 j 03:11	25°♏12'25	18°09'07	morning rise	329 Jul 09 j 13:24	4°♏39'30	
asc. node	328 Aug 07 j 17:39	26°♏53'56		direct	329 Jul 12 j 01:21	4°♏19'43	
	328 Aug 10 j 04:12	0°♏		morning max el	329 Jul 20 j 09:01	8°♏15'38	18°44'49
morning set	328 Aug 21 j 23:47	20°♏19'25		asc. node	329 Jul 25 j 14:43	14°♏35'38	
	328 Aug 27 j 03:57	0°♐			329 Aug 03 j 12:01	0°♏	
				morning set	329 Aug 05 j 17:51	4°♏20'29	
superior conj	328 Aug 31 j 17:07	8°♐18'18	1°30'52				
minimum elong	328 Aug 31 j 20:56	8°♐35'28	1°30'33	superior conj	329 Aug 14 j 10:37	21°♏11'30	1°43'46
max. Earth dist.	328 Sep 08 j 08:08	21°♐35'02	1.41358 AU	minimum elong	329 Aug 14 j 12:22	21°♏19'43	1°43'41
	328 Sep 13 j 10:21	0°♑			329 Aug 19 j 04:48	0°♐	

max. Earth dist.	329 Aug 21 j 12:06	4° $\mathring{\text{M}}$ 07'27	1.39364 AU	morning set	330 Jul 20 j 19:46	18° $\mathring{\text{S}}$ 45'35	
evening rise	329 Aug 25 j 13:47	11° $\mathring{\text{M}}$ 10'52			330 Jul 26 j 09:13	0° $\mathring{\text{O}}$	
desc. node	329 Sep 03 j 00:49	24° $\mathring{\text{M}}$ 58'58					
	329 Sep 06 j 06:50	0° $\mathring{\text{L}}$		superior conj	330 Jul 28 j 19:31	4° $\mathring{\text{O}}$ 51'01	1°46'50
	329 Sep 28 j 21:58	0° $\mathring{\text{M}}$		minimum elong	330 Jul 28 j 19:19	4° $\mathring{\text{O}}$ 50'03	1°46'49
evening max el	329 Sep 29 j 19:32	0° $\mathring{\text{M}}$ 54'39	24°09'51	max. Earth dist.	330 Aug 03 j 15:48	16° $\mathring{\text{O}}$ 07'03	1.37379 AU
retrograde	329 Oct 10 j 21:41	7° $\mathring{\text{M}}$ 25'13		evening rise	330 Aug 07 j 12:26	23° $\mathring{\text{O}}$ 10'54	
evening set	329 Oct 16 j 04:20	5° $\mathring{\text{M}}$ 13'32			330 Aug 11 j 09:55	0° $\mathring{\text{M}}$	
	329 Oct 20 j 17:56	30° $\mathring{\text{R}}$ $\mathring{\text{L}}$		desc. node	330 Aug 20 j 21:52	15° $\mathring{\text{M}}$ 23'43	
min. Earth dist.	329 Oct 20 j 23:22	29° $\mathring{\text{L}}$ 41'45	0.67527 AU		330 Aug 31 j 01:01	0° $\mathring{\text{L}}$	
inferior conj	329 Oct 21 j 14:56	28° $\mathring{\text{L}}$ 49'11	0°00'52	evening max el	330 Sep 12 j 07:18	14° $\mathring{\text{L}}$ 32'15	25°25'06
minimum elong	329 Oct 21 j 14:54	28° $\mathring{\text{L}}$ 49'15	0°00'52	retrograde	330 Sep 24 j 08:38	21° $\mathring{\text{L}}$ 28'36	
transit middle	329 Oct 21 j 14:54	28° $\mathring{\text{L}}$ 49'15	0°00'52	evening set	330 Sep 30 j 06:03	19° $\mathring{\text{L}}$ 00'38	
transit begin	329 Oct 21 j 12:11	28° $\mathring{\text{L}}$ 58'28		min. Earth dist.	330 Oct 04 j 16:51	14° $\mathring{\text{L}}$ 04'23	0.67029 AU
transit end	329 Oct 21 j 17:38	28° $\mathring{\text{L}}$ 40'03		inferior conj	330 Oct 05 j 19:10	12° $\mathring{\text{L}}$ 39'16	0°-54'-48
asc. node	329 Oct 21 j 13:55	28° $\mathring{\text{L}}$ 52'34		minimum elong	330 Oct 05 j 20:33	12° $\mathring{\text{L}}$ 34'48	0°54'13
morning rise	329 Oct 27 j 01:44	22° $\mathring{\text{L}}$ 41'24		asc. node	330 Oct 08 j 10:59	9° $\mathring{\text{L}}$ 22'58	
direct	329 Oct 30 j 21:26	21° $\mathring{\text{L}}$ 18'09		morning rise	330 Oct 11 j 11:40	6° $\mathring{\text{L}}$ 39'26	
morning max el	329 Nov 07 j 21:18	25° $\mathring{\text{L}}$ 55'47	20°31'29	direct	330 Oct 14 j 19:53	5° $\mathring{\text{L}}$ 34'52	
	329 Nov 11 j 12:07	0° $\mathring{\text{M}}$		morning max el	330 Oct 22 j 01:02	9° $\mathring{\text{L}}$ 40'16	19°27'48
greatest brilliancy	329 Nov 14 j 03:17	3° $\mathring{\text{M}}$ 21'04	-0.5m	greatest brilliancy	330 Oct 31 j 01:29	21° $\mathring{\text{L}}$ 12'57	-0.7m
desc. node	329 Nov 30 j 00:05	26° $\mathring{\text{M}}$ 19'57			330 Nov 05 j 22:54	0° $\mathring{\text{M}}$	
	329 Dec 02 j 09:48	0° $\mathring{\text{J}}$		morning set	330 Nov 15 j 05:29	14° $\mathring{\text{M}}$ 16'54	
morning set	329 Dec 06 j 06:04	5° $\mathring{\text{J}}$ 55'30		desc. node	330 Nov 16 j 21:08	16° $\mathring{\text{M}}$ 50'51	
max. Earth dist.	329 Dec 15 j 21:10	21° $\mathring{\text{J}}$ 08'28	1.43296 AU		330 Nov 25 j 07:11	0° $\mathring{\text{J}}$	
	329 Dec 21 j 07:18	0° $\mathring{\text{Z}}$		max. Earth dist.	330 Nov 28 j 10:57	4° $\mathring{\text{J}}$ 58'50	1.44515 AU
superior conj	329 Dec 22 j 05:14	1° $\mathring{\text{Z}}$ 31'03	-1°-55'-8	superior conj	330 Dec 02 j 01:25	10° $\mathring{\text{J}}$ 42'38	-1°-29'-38
minimum elong	329 Dec 22 j 00:32	1° $\mathring{\text{Z}}$ 11'31	1°54'55	minimum elong	330 Dec 01 j 17:06	10° $\mathring{\text{J}}$ 09'25	1°28'50
evening rise	330 Jan 03 j 13:49	22° $\mathring{\text{Z}}$ 43'54			330 Dec 13 j 21:35	0° $\mathring{\text{Z}}$	
	330 Jan 07 j 17:11	0° $\mathring{\text{W}}$		evening rise	330 Dec 16 j 07:22	4° $\mathring{\text{Z}}$ 00'34	
asc. node	330 Jan 17 j 13:12	15° $\mathring{\text{W}}$ 49'03			331 Jan 01 j 17:15	0° $\mathring{\text{W}}$	
evening max el	330 Jan 20 j 20:29	19° $\mathring{\text{W}}$ 43'25	18°08'37	asc. node	331 Jan 04 j 10:15	3° $\mathring{\text{W}}$ 07'13	
retrograde	330 Jan 27 j 09:01	23° $\mathring{\text{W}}$ 08'17		evening max el	331 Jan 04 j 09:00	3° $\mathring{\text{W}}$ 04'02	18°23'58
evening set	330 Jan 30 j 02:51	22° $\mathring{\text{W}}$ 31'14		retrograde	331 Jan 10 j 21:27	6° $\mathring{\text{W}}$ 37'35	
inferior conj	330 Feb 05 j 12:21	17° $\mathring{\text{W}}$ 20'55	3°49'00	evening set	331 Jan 13 j 20:06	5° $\mathring{\text{W}}$ 50'18	
minimum elong	330 Feb 05 j 12:30	17° $\mathring{\text{W}}$ 20'31	3°49'01	inferior conj	331 Jan 19 j 20:15	0° $\mathring{\text{W}}$ 20'12	3°42'42
min. Earth dist.	330 Feb 08 j 09:05	14° $\mathring{\text{W}}$ 24'57	0.62271 AU	minimum elong	331 Jan 19 j 18:43	0° $\mathring{\text{W}}$ 24'36	3°42'33
morning rise	330 Feb 11 j 19:55	11° $\mathring{\text{W}}$ 24'10			331 Jan 20 j 03:16	30° $\mathring{\text{R}}$ $\mathring{\text{Z}}$	
direct	330 Feb 18 j 19:15	8° $\mathring{\text{W}}$ 50'22		min. Earth dist.	331 Jan 22 j 01:53	27° $\mathring{\text{Z}}$ 46'49	0.64094 AU
desc. node	330 Feb 25 j 23:15	11° $\mathring{\text{W}}$ 09'07		morning rise	331 Jan 25 j 15:53	24° $\mathring{\text{Z}}$ 14'44	
morning max el	330 Mar 04 j 19:44	16° $\mathring{\text{W}}$ 43'05	27°47'48	direct	331 Feb 01 j 13:27	21° $\mathring{\text{Z}}$ 25'49	
	330 Mar 15 j 19:44	0° $\mathring{\text{H}}$		desc. node	331 Feb 12 j 20:17	27° $\mathring{\text{Z}}$ 03'38	
	330 Apr 02 j 23:11	0° $\mathring{\text{Y}}$		morning max el	331 Feb 15 j 04:13	29° $\mathring{\text{Z}}$ 15'37	27°30'21
morning set	330 Apr 07 j 08:17	8° $\mathring{\text{Y}}$ 37'45			331 Feb 15 j 21:43	0° $\mathring{\text{W}}$	
max. Earth dist.	330 Apr 13 j 01:42	20° $\mathring{\text{Y}}$ 37'47	1.32658 AU		331 Mar 09 j 16:39	0° $\mathring{\text{H}}$	
superior conj	330 Apr 14 j 20:25	24° $\mathring{\text{Y}}$ 28'41	0°-7'-5	morning set	331 Mar 22 j 03:34	22° $\mathring{\text{H}}$ 37'06	
minimum elong	330 Apr 14 j 20:45	24° $\mathring{\text{Y}}$ 30'31	0°07'02		331 Mar 25 j 19:28	0° $\mathring{\text{Y}}$	
behind sun begin	330 Apr 14 j 16:06	24° $\mathring{\text{Y}}$ 05'15		max. Earth dist.	331 Mar 27 j 03:59	2° $\mathring{\text{Y}}$ 48'20	1.33408 AU
behind sun end	330 Apr 15 j 01:25	24° $\mathring{\text{Y}}$ 55'47		superior conj	331 Mar 30 j 02:38	9° $\mathring{\text{Y}}$ 00'45	0°-34'-4
asc. node	330 Apr 15 j 12:30	25° $\mathring{\text{Y}}$ 56'03		minimum elong	331 Mar 30 j 04:17	9° $\mathring{\text{Y}}$ 09'33	0°33'45
	330 Apr 17 j 09:19	0° $\mathring{\text{B}}$		asc. node	331 Apr 02 j 09:33	16° $\mathring{\text{Y}}$ 03'09	
evening rise	330 Apr 21 j 20:37	9° $\mathring{\text{B}}$ 37'44		evening rise	331 Apr 06 j 08:06	24° $\mathring{\text{Y}}$ 26'39	
	330 May 02 j 09:59	0° $\mathring{\text{I}}$			331 Apr 09 j 00:36	0° $\mathring{\text{B}}$	
evening max el	330 May 16 j 12:05	18° $\mathring{\text{I}}$ 56'34	24°10'29	evening max el	331 Apr 28 j 03:35	29° $\mathring{\text{B}}$ 30'01	22°34'51
desc. node	330 May 24 j 22:30	24° $\mathring{\text{I}}$ 47'57			331 Apr 28 j 16:14	0° $\mathring{\text{I}}$	
retrograde	330 May 30 j 08:28	25° $\mathring{\text{I}}$ 54'42		retrograde	331 May 11 j 06:05	5° $\mathring{\text{I}}$ 58'42	
evening set	330 Jun 03 j 20:41	25° $\mathring{\text{I}}$ 09'33		desc. node	331 May 11 j 19:30	5° $\mathring{\text{I}}$ 58'00	
min. Earth dist.	330 Jun 09 j 23:17	22° $\mathring{\text{I}}$ 09'46	0.56539 AU	evening set	331 May 14 j 09:14	5° $\mathring{\text{I}}$ 37'11	
inferior conj	330 Jun 12 j 12:44	20° $\mathring{\text{I}}$ 33'53	-4°-21'-46	min. Earth dist.	331 May 22 j 11:32	2° $\mathring{\text{I}}$ 05'52	0.55332 AU
minimum elong	330 Jun 12 j 07:22	20° $\mathring{\text{I}}$ 42'19	4°20'58	inferior conj	331 May 23 j 16:08	1° $\mathring{\text{I}}$ 25'12	-3°-10'-46
morning rise	330 Jun 20 j 21:44	16° $\mathring{\text{I}}$ 32'20		minimum elong	331 May 23 j 08:48	1° $\mathring{\text{I}}$ 35'39	3°08'44
direct	330 Jun 23 j 13:00	16° $\mathring{\text{I}}$ 13'55			331 May 26 j 05:26	30° $\mathring{\text{R}}$ $\mathring{\text{B}}$	
morning max el	330 Jul 03 j 05:31	20° $\mathring{\text{I}}$ 43'34	19°41'36	morning rise	331 Jun 01 j 10:47	27° $\mathring{\text{B}}$ 32'15	
	330 Jul 10 j 14:39	0° $\mathring{\text{S}}$		direct	331 Jun 04 j 07:17	27° $\mathring{\text{B}}$ 13'31	
asc. node	330 Jul 12 j 11:46	3° $\mathring{\text{S}}$ 03'12			331 Jun 12 j 12:31	0° $\mathring{\text{I}}$	

morning max el	331 Jun 15 j 14:55	2° Π 29'22	20°58'50		332 Jun 08 j 23:40	0° Π	
asc. node	331 Jun 29 j 08:48	22° Π 05'46		asc. node	332 Jun 15 j 05:51	11° Π 34'35	
	331 Jul 03 j 10:13	0° \mathfrak{S}		morning set	332 Jun 18 j 13:22	18° Π 20'48	
morning set	331 Jul 05 j 02:57	3° \mathfrak{S} 27'39			332 Jun 24 j 01:05	0° \mathfrak{S}	
superior conj	331 Jul 12 j 15:18	19° \mathfrak{S} 04'08	1°42'06	superior conj	332 Jun 25 j 18:35	3° \mathfrak{S} 40'42	1°31'13
minimum elong	331 Jul 12 j 13:44	18° \mathfrak{S} 56'04	1°42'00	minimum elong	332 Jun 25 j 16:17	3° \mathfrak{S} 28'28	1°30'59
max. Earth dist.	331 Jul 17 j 00:59	27° \mathfrak{S} 57'33	1.35618 AU	max. Earth dist.	332 Jun 28 j 19:05	10° \mathfrak{S} 00'45	1.34207 AU
	331 Jul 18 j 01:55	0° \mathfrak{Q}		evening rise	332 Jul 03 j 16:06	19° \mathfrak{S} 50'46	
evening rise	331 Jul 21 j 06:48	6° \mathfrak{Q} 08'25			332 Jul 09 j 01:13	0° \mathfrak{Q}	
	331 Aug 04 j 04:07	0° \mathfrak{N}		desc. node	332 Jul 24 j 15:52	25° \mathfrak{Q} 11'13	
desc. node	331 Aug 07 j 18:53	5° \mathfrak{N} 30'26			332 Jul 28 j 04:35	0° \mathfrak{N}	
evening max el	331 Aug 25 j 19:09	28° \mathfrak{N} 08'57	26°27'44	evening max el	332 Aug 07 j 06:57	11° \mathfrak{N} 36'29	27°10'09
	331 Aug 27 j 19:24	0° \mathfrak{A}		retrograde	332 Aug 20 j 15:07	18° \mathfrak{N} 55'36	
retrograde	331 Sep 07 j 14:32	5° \mathfrak{A} 21'02		evening set	332 Aug 27 j 13:51	16° \mathfrak{N} 10'54	
evening set	331 Sep 14 j 02:01	2° \mathfrak{A} 40'54		min. Earth dist.	332 Aug 31 j 09:47	12° \mathfrak{N} 29'18	0.64989 AU
	331 Sep 16 j 19:18	30° \mathfrak{R} \mathfrak{N}		inferior conj	332 Sep 02 j 12:35	10° \mathfrak{N} 07'25	-2°46'-39
min. Earth dist.	331 Sep 18 j 05:02	28° \mathfrak{N} 22'03	0.66190 AU	minimum elong	332 Sep 02 j 16:45	9° \mathfrak{N} 55'48	2°45'15
inferior conj	331 Sep 19 j 19:06	26° \mathfrak{N} 26'33	-1°-51'-22	morning rise	332 Sep 08 j 21:18	4° \mathfrak{N} 32'57	
minimum elong	331 Sep 19 j 21:57	26° \mathfrak{N} 17'53	1°50'15	asc. node	332 Sep 11 j 05:03	3° \mathfrak{N} 55'42	
asc. node	331 Sep 25 j 08:01	20° \mathfrak{N} 54'08		direct	332 Sep 11 j 13:18	3° \mathfrak{N} 55'04	
morning rise	331 Sep 25 j 18:59	20° \mathfrak{N} 37'51		morning max el	332 Sep 18 j 01:46	7° \mathfrak{N} 25'23	18°07'49
direct	331 Sep 28 j 17:53	19° \mathfrak{N} 48'27			332 Oct 03 j 08:30	0° \mathfrak{A}	
morning max el	331 Oct 05 j 11:17	23° \mathfrak{N} 31'41	18°39'31	morning set	332 Oct 06 j 04:13	4° \mathfrak{A} 41'49	
	331 Oct 10 j 17:54	0° \mathfrak{A}					
morning set	331 Oct 26 j 02:27	23° \mathfrak{A} 46'50		superior conj	332 Oct 20 j 08:44	27° \mathfrak{A} 50'01	0°01'48
	331 Oct 30 j 00:18	0° \mathfrak{M}		minimum elong	332 Oct 20 j 08:58	27° \mathfrak{A} 50'55	0°01'45
desc. node	331 Nov 03 j 18:11	7° \mathfrak{M} 30'34		behind sun begin	332 Oct 19 j 22:13	27° \mathfrak{A} 08'05	
				behind sun end	332 Oct 20 j 19:42	28° \mathfrak{A} 33'42	
superior conj	331 Nov 11 j 03:41	19° \mathfrak{M} 09'04	0°-47'-25	desc. node	332 Oct 20 j 15:14	28° \mathfrak{A} 15'53	
minimum elong	331 Nov 10 j 21:37	18° \mathfrak{M} 45'14	0°46'40		332 Oct 21 j 17:25	0° \mathfrak{M}	
max. Earth dist.	331 Nov 11 j 05:10	19° \mathfrak{M} 14'54	1.45042 AU	max. Earth dist.	332 Oct 23 j 23:57	3° \mathfrak{M} 35'46	1.44826 AU
	331 Nov 18 j 01:06	0° \mathfrak{J}		evening rise	332 Nov 05 j 21:30	23° \mathfrak{M} 43'58	
evening rise	331 Nov 27 j 01:32	14° \mathfrak{J} 18'40			332 Nov 09 j 22:45	0° \mathfrak{J}	
	331 Dec 06 j 22:04	0° \mathfrak{Z}		greatest brilliancy	332 Nov 23 j 10:59	20° \mathfrak{J} 19'55	-0.6m
evening max el	331 Dec 18 j 19:30	16° \mathfrak{Z} 29'40	18°57'09	evening max el	332 Dec 01 j 01:59	29° \mathfrak{J} 57'41	19°46'41
asc. node	331 Dec 22 j 07:17	19° \mathfrak{Z} 21'38			332 Dec 01 j 02:53	0° \mathfrak{Z}	
retrograde	331 Dec 25 j 15:49	20° \mathfrak{Z} 22'32		asc. node	332 Dec 08 j 04:18	4° \mathfrak{Z} 17'54	
evening set	331 Dec 28 j 20:19	19° \mathfrak{Z} 23'50		retrograde	332 Dec 08 j 13:04	4° \mathfrak{Z} 18'39	
inferior conj	332 Jan 03 j 13:50	13° \mathfrak{Z} 36'25	3°21'36	evening set	332 Dec 12 j 01:04	3° \mathfrak{Z} 06'55	
minimum elong	332 Jan 03 j 11:20	13° \mathfrak{Z} 44'10	3°21'07		332 Dec 15 j 07:12	30° \mathfrak{R} \mathfrak{J}	
min. Earth dist.	332 Jan 05 j 04:10	11° \mathfrak{Z} 36'59	0.65556 AU	inferior conj	332 Dec 17 j 14:09	27° \mathfrak{J} 05'10	2°49'40
morning rise	332 Jan 09 j 01:23	7° \mathfrak{Z} 25'13		minimum elong	332 Dec 17 j 11:22	27° \mathfrak{J} 14'20	2°48'53
direct	332 Jan 15 j 14:10	4° \mathfrak{Z} 35'37		min. Earth dist.	332 Dec 18 j 14:33	25° \mathfrak{J} 44'30	0.66627 AU
morning max el	332 Jan 28 j 14:03	12° \mathfrak{Z} 13'00	26°41'32	morning rise	332 Dec 22 j 21:01	20° \mathfrak{J} 50'40	
desc. node	332 Jan 30 j 17:20	14° \mathfrak{Z} 27'26		direct	332 Dec 28 j 20:50	18° \mathfrak{J} 11'51	
	332 Feb 11 j 21:02	0° \mathfrak{W}		morning max el	333 Jan 09 j 23:10	25° \mathfrak{J} 23'26	25°29'42
	332 Mar 01 j 06:48	0° \mathfrak{H}			333 Jan 14 j 04:23	0° \mathfrak{Z}	
morning set	332 Mar 04 j 11:50	5° \mathfrak{H} 58'51		desc. node	333 Jan 16 j 14:24	2° \mathfrak{Z} 54'56	
max. Earth dist.	332 Mar 08 j 19:43	14° \mathfrak{H} 24'35	1.34597 AU		333 Feb 04 j 09:15	0° \mathfrak{W}	
				morning set	333 Feb 15 j 04:29	18° \mathfrak{W} 29'58	
superior conj	332 Mar 13 j 03:04	23° \mathfrak{H} 10'12	-1°00'-52	max. Earth dist.	333 Feb 18 j 23:33	25° \mathfrak{W} 31'43	1.36231 AU
minimum elong	332 Mar 13 j 05:59	23° \mathfrak{H} 25'18	1°00'21		333 Feb 21 j 07:39	0° \mathfrak{H}	
	332 Mar 16 j 09:35	0° \mathfrak{Y}					
asc. node	332 Mar 19 j 06:35	6° \mathfrak{Y} 01'57		superior conj	333 Feb 24 j 19:02	6° \mathfrak{H} 49'46	-1°-25'-48
evening rise	332 Mar 20 j 17:24	9° \mathfrak{Y} 03'13		minimum elong	333 Feb 24 j 22:50	7° \mathfrak{H} 08'43	1°25'17
	332 Mar 31 j 23:06	0° \mathfrak{X}		evening rise	333 Mar 04 j 22:31	23° \mathfrak{H} 21'18	
evening max el	332 Apr 09 j 02:20	10° \mathfrak{X} 20'42	21°05'46	asc. node	333 Mar 06 j 03:37	25° \mathfrak{H} 48'00	
retrograde	332 Apr 20 j 19:52	16° \mathfrak{X} 02'24			333 Mar 08 j 06:29	0° \mathfrak{Y}	
evening set	332 Apr 23 j 02:40	15° \mathfrak{X} 50'13		evening max el	333 Mar 22 j 12:18	21° \mathfrak{Y} 47'30	19°52'05
desc. node	332 Apr 27 j 16:29	14° \mathfrak{X} 21'16		retrograde	333 Apr 01 j 12:38	26° \mathfrak{Y} 36'05	
inferior conj	332 May 02 j 10:21	11° \mathfrak{X} 51'36	-1°-21'-30	evening set	333 Apr 03 j 14:46	26° \mathfrak{Y} 24'28	
minimum elong	332 May 02 j 06:30	11° \mathfrak{X} 57'01	1°20'08	inferior conj	333 Apr 12 j 09:50	22° \mathfrak{Y} 23'28	0°36'45
min. Earth dist.	332 May 03 j 00:15	11° \mathfrak{X} 31'57	0.54982 AU	minimum elong	333 Apr 12 j 11:26	22° \mathfrak{Y} 21'00	0°36'12
morning rise	332 May 11 j 10:01	7° \mathfrak{X} 48'52		min. Earth dist.	333 Apr 14 j 14:28	21° \mathfrak{Y} 02'45	0.55595 AU
direct	332 May 14 j 17:12	7° \mathfrak{X} 25'21		desc. node	333 Apr 14 j 13:32	21° \mathfrak{Y} 04'10	
morning max el	332 May 27 j 13:53	13° \mathfrak{X} 33'50	22°32'35	morning rise	333 Apr 21 j 04:55	17° \mathfrak{Y} 53'02	

direct	333 Apr 25 j 08:51	17°♿14'40		morning rise	334 Apr 01 j 07:10	28°♿22'22	
morning max el	333 May 09 j 05:58	24°♿09'28	24°13'42	desc. node	334 Apr 01 j 10:35	28°♿18'54	
	333 May 14 j 13:39	0°♿		direct	334 Apr 06 j 13:55	27°♿15'50	
	333 Jun 01 j 11:01	0°♿			334 Apr 15 j 00:36	0°♿	
asc. node	333 Jun 02 j 02:53	1°♿22'05		morning max el	334 Apr 20 j 20:53	4°♿40'54	25°48'19
morning set	333 Jun 03 j 01:12	3°♿18'50			334 May 09 j 03:44	0°♿	
				morning set	334 May 18 j 12:52	18°♿16'20	
superior conj	333 Jun 10 j 02:43	18°♿31'36	1°15'29	asc. node	334 May 19 j 23:57	21°♿22'28	
minimum elong	333 Jun 10 j 00:14	18°♿18'14	1°15'07		334 May 23 j 23:18	0°♿	
max. Earth dist.	333 Jun 11 j 22:06	22°♿25'23	1.33193 AU				
	333 Jun 15 j 12:14	0°♿		superior conj	334 May 25 j 13:36	3°♿29'49	0°55'51
evening rise	333 Jun 17 j 12:08	4°♿05'21		minimum elong	334 May 25 j 11:27	3°♿18'04	0°55'28
	333 Jul 01 j 18:36	0°♿		max. Earth dist.	334 May 26 j 07:47	5°♿09'18	1.32570 AU
desc. node	333 Jul 11 j 12:52	14°♿14'35		evening rise	334 Jun 01 j 15:42	18°♿42'00	
evening max el	333 Jul 20 j 17:23	24°♿42'58	27°25'38		334 Jun 07 j 08:12	0°♿	
	333 Jul 27 j 13:58	0°♿			334 Jun 26 j 09:28	0°♿	
retrograde	333 Aug 03 j 09:49	2°♿02'28		desc. node	334 Jun 28 j 09:51	2°♿24'51	
	333 Aug 09 j 17:47	30°♿		evening max el	334 Jul 03 j 00:13	7°♿16'13	27°09'14
evening set	333 Aug 10 j 14:22	29°♿24'39		retrograde	334 Jul 16 j 21:37	14°♿32'36	
min. Earth dist.	333 Aug 14 j 05:13	26°♿16'17	0.63430 AU	evening set	334 Jul 23 j 23:32	12°♿15'16	
inferior conj	333 Aug 16 j 21:02	23°♿35'31	-3°-37'-40	min. Earth dist.	334 Jul 27 j 14:26	9°♿30'28	0.61566 AU
minimum elong	333 Aug 17 j 01:54	23°♿23'14	3°36'23	inferior conj	334 Jul 30 j 17:18	6°♿43'39	-4°-19'-35
morning rise	333 Aug 23 j 15:42	18°♿18'30		minimum elong	334 Jul 30 j 21:39	6°♿33'55	4°18'50
direct	333 Aug 26 j 03:21	17°♿48'42		morning rise	334 Aug 06 j 22:36	1°♿47'03	
asc. node	333 Aug 29 j 02:06	18°♿31'16		direct	334 Aug 09 j 08:37	1°♿22'31	
morning max el	333 Sep 01 j 17:36	21°♿14'19	17°53'32	asc. node	334 Aug 15 j 23:10	4°♿30'54	
	333 Sep 08 j 09:08	0°♿		morning max el	334 Aug 16 j 07:54	4°♿51'42	17°57'45
morning set	333 Sep 18 j 07:12	16°♿49'06		morning set	334 Sep 01 j 05:22	29°♿51'28	
	333 Sep 25 j 22:30	0°♿			334 Sep 01 j 07:14	0°♿	
superior conj	333 Sep 30 j 11:11	7°♿35'41	0°45'52	superior conj	334 Sep 11 j 17:02	18°♿41'59	1°18'09
minimum elong	333 Sep 30 j 15:33	7°♿53'45	0°45'18	minimum elong	334 Sep 11 j 21:43	19°♿02'25	1°17'39
max. Earth dist.	333 Oct 06 j 16:15	17°♿42'54	1.43910 AU		334 Sep 18 j 08:29	0°♿	
desc. node	333 Oct 07 j 12:14	19°♿02'49		max. Earth dist.	334 Sep 19 j 04:19	1°♿22'02	1.42416 AU
	333 Oct 14 j 11:14	0°♿		desc. node	334 Sep 24 j 09:14	9°♿48'25	
evening rise	333 Oct 16 j 05:00	2°♿41'36		evening rise	334 Sep 25 j 17:36	11°♿56'53	
	333 Nov 03 j 12:31	0°♿			334 Oct 07 j 13:22	0°♿	
greatest brilliancy	333 Nov 08 j 12:03	6°♿47'22	-0.5m	greatest brilliancy	334 Oct 23 j 05:16	21°♿35'40	-0.3m
evening max el	333 Nov 14 j 03:08	13°♿26'33	20°50'19	evening max el	334 Oct 27 j 22:38	26°♿56'06	22°04'25
retrograde	333 Nov 22 j 10:43	18°♿22'00			334 Oct 31 j 08:33	0°♿	
asc. node	333 Nov 25 j 01:21	17°♿43'30		retrograde	334 Nov 06 j 06:55	2°♿29'32	
evening set	333 Nov 26 j 08:15	16°♿55'16		evening set	334 Nov 10 j 16:04	0°♿45'51	
inferior conj	333 Dec 01 j 18:43	10°♿42'34	2°09'32	asc. node	334 Nov 11 j 22:25	29°♿36'47	
minimum elong	333 Dec 01 j 16:13	10°♿51'08	2°08'39		334 Nov 11 j 12:59	30°♿	
min. Earth dist.	333 Dec 02 j 06:46	10°♿01'20	0.67316 AU	inferior conj	334 Nov 16 j 01:29	24°♿25'42	1°23'05
morning rise	333 Dec 06 j 23:44	4°♿27'00		minimum elong	334 Nov 15 j 23:41	24°♿31'55	1°22'22
direct	333 Dec 12 j 08:41	2°♿06'43		min. Earth dist.	334 Nov 16 j 02:22	24°♿22'39	0.67656 AU
morning max el	333 Dec 23 j 07:31	8°♿38'48	24°04'54	morning rise	334 Nov 21 j 07:06	18°♿11'24	
desc. node	334 Jan 03 j 11:28	22°♿07'31		direct	334 Nov 26 j 00:48	16°♿13'23	
	334 Jan 09 j 02:24	0°♿		morning max el	334 Dec 05 j 17:48	21°♿58'30	22°37'02
morning set	334 Jan 27 j 23:36	29°♿54'03		greatest brilliancy	334 Dec 10 j 08:24	27°♿07'50	-0.3m
	334 Jan 28 j 00:59	0°♿			334 Dec 12 j 15:43	0°♿	
max. Earth dist.	334 Jan 31 j 19:21	6°♿36'54	1.38223 AU	desc. node	334 Dec 21 j 08:30	11°♿51'45	
					335 Jan 02 j 10:28	0°♿	
superior conj	334 Feb 07 j 23:06	19°♿50'23	-1°-46'-32	morning set	335 Jan 08 j 15:01	9°♿55'01	
minimum elong	334 Feb 08 j 02:52	20°♿08'24	1°46'12	max. Earth dist.	335 Jan 13 j 15:20	18°♿17'20	1.40358 AU
	334 Feb 13 j 04:49	0°♿			335 Jan 20 j 08:05	0°♿	
evening rise	334 Feb 16 j 21:00	7°♿14'14					
asc. node	334 Feb 21 j 00:40	15°♿16'12		superior conj	335 Jan 21 j 10:34	1°♿59'17	-1°-59'-49
	334 Mar 01 j 23:28	0°♿		minimum elong	335 Jan 21 j 12:40	2°♿08'50	1°59'46
evening max el	334 Mar 05 j 09:12	3°♿53'11	18°57'29	evening rise	335 Jan 31 j 09:45	20°♿33'36	
retrograde	334 Mar 13 j 19:49	7°♿57'52			335 Feb 05 j 11:11	0°♿	
evening set	334 Mar 16 j 01:36	7°♿41'49		asc. node	335 Feb 07 j 21:43	4°♿19'30	
inferior conj	334 Mar 24 j 02:16	3°♿25'46	2°12'57	evening max el	335 Feb 16 j 14:19	16°♿29'54	18°22'52
minimum elong	334 Mar 24 j 06:30	3°♿18'16	2°11'44	retrograde	335 Feb 23 j 22:05	20°♿07'04	
min. Earth dist.	334 Mar 27 j 06:34	1°♿11'37	0.57036 AU	evening set	335 Feb 26 j 08:54	19°♿43'52	
	334 Mar 29 j 03:06	30°♿		inferior conj	335 Mar 05 j 15:44	15°♿06'54	3°14'25

minimum elong	335 Mar 05 j 19:16	14° H 59'35	3°13'46	minimum elong	336 Feb 16 j 02:08	27° \approx 21'15	3°43'40
min. Earth dist.	335 Mar 09 j 02:10	12° H 17'34	0.58990 AU	min. Earth dist.	336 Feb 19 j 04:31	24° \approx 24'19	0.61100 AU
morning rise	335 Mar 13 j 01:55	9° H 36'03		morning rise	336 Feb 22 j 17:01	21° \approx 34'57	
direct	335 Mar 19 j 07:56	7° H 52'55		direct	336 Feb 29 j 12:52	19° \approx 16'57	
desc. node	335 Mar 19 j 07:39	7° H 52'55		desc. node	336 Mar 05 j 04:43	20° \approx 15'34	
morning max el	335 Apr 02 j 15:52	15° H 34'25	27°01'24	morning max el	336 Mar 14 j 17:21	27° \approx 07'24	27°41'35
	335 Apr 14 j 08:58	0° Y			336 Mar 17 j 11:10	0° H	
	335 May 01 j 10:32	0° B			336 Apr 06 j 23:17	0° Y	
morning set	335 May 02 j 22:39	3° B 06'39		morning set	336 Apr 16 j 04:41	17° Y 43'33	
asc. node	335 May 06 j 21:00	11° B 30'04			336 Apr 21 j 23:33	0° B	
				max. Earth dist.	336 Apr 22 j 08:14	0° B 47'10	1.32424 AU
superior conj	335 May 10 j 01:24	18° B 28'08	0°33'08	asc. node	336 Apr 22 j 18:03	1° B 40'41	
minimum elong	335 May 09 j 23:59	18° B 20'21	0°32'50				
max. Earth dist.	335 May 09 j 20:27	18° B 00'55	1.32315 AU	superior conj	336 Apr 23 j 12:25	3° B 20'54	0°08'06
	335 May 15 j 08:19	0° II		minimum elong	336 Apr 23 j 12:02	3° B 18'52	0°08'01
evening rise	335 May 17 j 00:05	3° II 31'03		behind sun begin	336 Apr 23 j 07:38	2° B 54'48	
	335 May 31 j 05:35	0° B		behind sun end	336 Apr 23 j 16:27	3° B 42'57	
evening max el	335 Jun 15 j 00:48	19° B 05'11	26°19'56	evening rise	336 Apr 30 j 11:08	18° B 25'05	
desc. node	335 Jun 15 j 06:53	19° B 19'35			336 May 06 j 04:14	0° II	
retrograde	335 Jun 29 j 00:59	26° B 18'10			336 May 26 j 14:36	0° B	
evening set	335 Jul 05 j 12:43	24° B 33'45		evening max el	336 May 26 j 18:25	0° B 09'11	25°02'47
min. Earth dist.	335 Jul 09 j 13:46	21° B 57'05	0.59518 AU	desc. node	336 Jun 01 j 03:56	4° B 28'16	
inferior conj	335 Jul 12 j 21:47	19° B 22'05	-4°-44'-40	retrograde	336 Jun 09 j 18:22	7° B 16'18	
minimum elong	335 Jul 12 j 23:39	19° B 18'27	4°44'34	evening set	336 Jun 15 j 02:42	6° B 10'37	
morning rise	335 Jul 20 j 13:57	14° B 48'24		min. Earth dist.	336 Jun 20 j 05:57	3° B 23'46	0.57527 AU
direct	335 Jul 23 j 00:51	14° B 27'08		inferior conj	336 Jun 23 j 07:08	1° B 20'52	-4°-41'-31
morning max el	335 Jul 30 j 17:38	18° B 09'32	18°21'43	minimum elong	336 Jun 23 j 04:29	1° B 25'22	4°41'20
asc. node	335 Aug 02 j 20:14	21° B 39'26			336 Jun 25 j 08:14	30° R II	
	335 Aug 08 j 08:11	0° Q		morning rise	336 Jul 01 j 10:07	27° II 09'36	
morning set	335 Aug 15 j 17:24	13° Q 34'28		direct	336 Jul 03 j 23:29	26° II 50'28	
	335 Aug 24 j 09:57	0° M			336 Jul 11 j 17:09	0° B	
superior conj	335 Aug 24 j 23:11	1° M 00'50	1°37'41	morning max el	336 Jul 12 j 19:48	0° B 58'32	19°06'28
minimum elong	335 Aug 25 j 02:09	1° M 14'29	1°37'29	asc. node	336 Jul 19 j 17:17	9° B 41'44	
max. Earth dist.	335 Sep 01 j 11:14	14° M 21'25	1.40529 AU	morning set	336 Jul 29 j 15:09	27° B 46'30	
evening rise	335 Sep 06 j 02:06	22° M 08'17			336 Jul 30 j 18:06	0° Q	
	335 Sep 10 j 22:48	0° A		superior conj	336 Aug 06 j 23:51	14° Q 15'34	1°46'08
desc. node	335 Sep 11 j 06:14	0° A 29'27		minimum elong	336 Aug 07 j 00:43	14° Q 19'44	1°46'07
	335 Oct 01 j 14:56	0° M		max. Earth dist.	336 Aug 13 j 14:32	26° Q 38'02	1.38500 AU
evening max el	335 Oct 10 j 13:24	10° M 27'51	23°23'59		336 Aug 15 j 11:36	0° M	
retrograde	335 Oct 21 j 00:18	16° M 38'47		evening rise	336 Aug 17 j 11:17	3° M 29'21	
evening set	335 Oct 25 j 22:51	14° M 37'06		desc. node	336 Aug 28 j 03:15	21° M 01'28	
asc. node	335 Oct 29 j 19:28	10° M 19'10			336 Sep 03 j 02:08	0° A	
inferior conj	335 Oct 31 j 08:37	8° M 13'10	0°31'55	evening max el	336 Sep 22 j 01:25	24° A 02'30	24°42'52
minimum elong	335 Oct 31 j 07:52	8° M 15'45	0°31'36		336 Sep 30 j 02:39	0° M	
min. Earth dist.	335 Oct 30 j 22:59	8° M 46'14	0.67667 AU	retrograde	336 Oct 03 j 13:54	0° M 45'32	
morning rise	335 Nov 05 j 16:59	2° M 02'30			336 Oct 06 j 19:00	30° R A	
direct	335 Nov 09 j 20:15	0° M 27'10		evening set	336 Oct 09 j 02:54	28° A 26'17	
morning max el	335 Nov 18 j 09:40	5° M 27'06	21°14'25	min. Earth dist.	336 Oct 13 j 18:14	23° A 09'36	0.67355 AU
greatest brilliancy	335 Nov 23 j 16:48	11° M 33'07	-0.4m	inferior conj	336 Oct 14 j 14:24	22° A 02'36	0°-22'-33
	335 Dec 06 j 21:32	0° A		minimum elong	336 Oct 14 j 14:57	22° A 00'45	0°22'19
desc. node	335 Dec 08 j 05:33	1° A 58'56		asc. node	336 Oct 15 j 16:31	20° A 36'39	
morning set	335 Dec 19 j 02:13	18° A 37'09		morning rise	336 Oct 20 j 03:26	15° A 58'05	
	335 Dec 26 j 04:44	0° B		direct	336 Oct 23 j 17:55	14° A 43'22	
max. Earth dist.	335 Dec 26 j 17:49	0° B 53'31	1.42337 AU	morning max el	336 Oct 31 j 09:06	19° A 06'06	20°02'40
				greatest brilliancy	336 Nov 07 j 13:04	27° A 50'45	-0.6m
superior conj	336 Jan 03 j 00:03	13° B 03'40	-2°-1'-24		336 Nov 09 j 02:20	0° M	
minimum elong	336 Jan 02 j 22:16	12° B 56'04	2°01'23	desc. node	336 Nov 24 j 02:33	22° M 22'08	
	336 Jan 12 j 14:37	0° \approx		morning set	336 Nov 26 j 22:36	26° M 44'10	
evening rise	336 Jan 14 j 09:05	3° \approx 11'41			336 Nov 29 j 01:09	0° A	
asc. node	336 Jan 25 j 18:47	22° \approx 50'05		max. Earth dist.	336 Dec 08 j 03:33	14° A 19'20	1.43889 AU
evening max el	336 Jan 31 j 00:33	29° \approx 29'18	18°08'10				
	336 Jan 31 j 13:26	0° H		superior conj	336 Dec 13 j 11:03	22° A 53'54	-1°-46'-38
retrograde	336 Feb 06 j 17:14	2° H 54'56		minimum elong	336 Dec 13 j 04:22	22° A 26'35	1°46'09
evening set	336 Feb 09 j 08:29	2° H 23'15			336 Dec 17 j 18:27	0° B	
	336 Feb 13 j 04:02	30° R \approx		evening rise	336 Dec 26 j 14:39	14° B 59'26	
inferior conj	336 Feb 16 j 00:45	27° \approx 24'37	3°43'45		337 Jan 04 j 10:17	0° \approx	

asc. node	337 Jan 11 j 15:49	10° \approx 37'38		asc. node	337 Dec 29 j 12:50	27° \approx 30'00	
evening max el	337 Jan 13 j 12:56	12° \approx 43'13	18°12'52	retrograde	338 Jan 03 j 15:50	29° \approx 46'35	
retrograde	337 Jan 20 j 00:34	16° \approx 10'46		evening set	338 Jan 06 j 16:44	28° \approx 54'47	
evening set	337 Jan 22 j 20:15	15° \approx 29'37		inferior conj	338 Jan 12 j 13:47	23° \approx 17'15	3°35'17
inferior conj	337 Jan 29 j 01:24	10° \approx 10'36	3°48'28	minimum elong	338 Jan 12 j 11:45	23° \approx 23'18	3°35'00
minimum elong	337 Jan 29 j 00:45	10° \approx 12'21	3°48'27	min. Earth dist.	338 Jan 14 j 12:56	20° \approx 56'59	0.64762 AU
min. Earth dist.	337 Jan 31 j 15:55	7° \approx 22'09	0.63079 AU	morning rise	338 Jan 18 j 05:31	17° \approx 08'56	
morning rise	337 Feb 04 j 03:21	4° \approx 09'20		direct	338 Jan 25 j 00:06	14° \approx 17'41	
direct	337 Feb 11 j 02:47	1° \approx 27'15		desc. node	338 Feb 06 j 22:47	21° \approx 38'14	
desc. node	337 Feb 20 j 01:45	5° \approx 02'41		morning max el	338 Feb 07 j 09:21	22° \approx 04'25	27°12'57
morning max el	337 Feb 25 j 00:06	9° \approx 20'34	27°44'42		338 Feb 14 j 08:46	0° \approx	
	337 Mar 13 j 02:02	0° \approx			338 Mar 06 j 06:39	0° \approx	
	337 Mar 30 j 04:46	0° \approx		morning set	338 Mar 14 j 19:47	15° \approx 44'01	
morning set	337 Mar 31 j 04:44	1° \approx 59'28		max. Earth dist.	338 Mar 19 j 12:52	25° \approx 08'32	1.33847 AU
max. Earth dist.	337 Apr 05 j 15:03	13° \approx 13'56	1.32919 AU		338 Mar 21 j 21:12	0° \approx	
superior conj	337 Apr 07 j 20:56	18° \approx 02'27	0°-18'-28	superior conj	338 Mar 23 j 00:57	2° \approx 25'33	0°-45'-34
minimum elong	337 Apr 07 j 21:49	18° \approx 07'13	0°18'18	minimum elong	338 Mar 23 j 03:10	2° \approx 37'11	0°45'08
asc. node	337 Apr 09 j 15:06	21° \approx 50'20		asc. node	338 Mar 27 j 12:08	11° \approx 54'12	
	337 Apr 13 j 09:48	0° \approx		evening rise	338 Mar 30 j 09:42	18° \approx 01'34	
evening rise	337 Apr 14 j 22:58	3° \approx 17'39			338 Apr 05 j 09:13	0° \approx	
	337 Apr 29 j 13:34	0° \approx		evening max el	338 Apr 20 j 02:43	21° \approx 23'58	21°55'41
evening max el	337 May 08 j 08:45	10° \approx 45'58	23°29'50	retrograde	338 May 02 j 17:09	27° \approx 34'14	
desc. node	337 May 19 j 00:58	17° \approx 15'01		evening set	338 May 05 j 09:20	27° \approx 18'19	
retrograde	337 May 21 j 23:49	17° \approx 34'52		desc. node	338 May 05 j 22:00	27° \approx 11'34	
evening set	337 May 25 j 20:58	17° \approx 01'43		inferior conj	338 May 14 j 18:33	23° \approx 14'08	-2°-27'-52
min. Earth dist.	337 Jun 01 j 19:06	13° \approx 49'50	0.55929 AU	minimum elong	338 May 14 j 12:05	23° \approx 23'11	2°25'48
inferior conj	337 Jun 03 j 20:32	12° \approx 36'10	-3°-57'-23	min. Earth dist.	338 May 14 j 07:46	23° \approx 29'15	0.55062 AU
minimum elong	337 Jun 03 j 13:43	12° \approx 46'22	3°55'58	morning rise	338 May 23 j 16:08	19° \approx 19'03	
morning rise	337 Jun 12 j 09:55	8° \approx 40'14		direct	338 May 26 j 16:05	18° \approx 59'05	
direct	337 Jun 15 j 02:45	8° \approx 22'10		morning max el	338 Jun 07 j 16:37	24° \approx 37'56	21°36'59
morning max el	337 Jun 25 j 11:52	13° \approx 10'13	20°12'07		338 Jun 12 j 13:23	0° \approx	
asc. node	337 Jul 06 j 14:19	28° \approx 25'37		asc. node	338 Jun 23 j 11:21	17° \approx 40'11	
	337 Jul 07 j 11:23	0° \approx		morning set	338 Jun 28 j 04:23	27° \approx 07'03	
morning set	337 Jul 13 j 19:36	12° \approx 19'50			338 Jun 29 j 13:34	0° \approx	
superior conj	337 Jul 21 j 13:55	28° \approx 11'26	1°45'40	superior conj	338 Jul 05 j 13:16	12° \approx 35'29	1°38'09
minimum elong	337 Jul 21 j 13:04	28° \approx 07'08	1°45'39	minimum elong	338 Jul 05 j 11:19	12° \approx 25'17	1°38'00
	337 Jul 22 j 11:33	0° \approx		max. Earth dist.	338 Jul 09 j 08:09	20° \approx 22'17	1.34976 AU
max. Earth dist.	337 Jul 26 j 19:33	8° \approx 29'21	1.36589 AU	evening rise	338 Jul 13 j 20:18	29° \approx 14'17	
evening rise	337 Jul 30 j 18:59	15° \approx 55'55			338 Jul 14 j 05:53	0° \approx	
	337 Aug 07 j 20:52	0° \approx			338 Aug 01 j 00:34	0° \approx	
desc. node	337 Aug 15 j 00:17	11° \approx 19'29		desc. node	338 Aug 01 j 21:19	1° \approx 16'05	
	337 Aug 28 j 14:21	0° \approx		evening max el	338 Aug 18 j 01:01	21° \approx 14'21	26°48'41
evening max el	337 Sep 04 j 12:57	7° \approx 39'57	25°53'40	retrograde	338 Aug 31 j 02:43	28° \approx 30'22	
retrograde	337 Sep 16 j 22:56	14° \approx 45'04		evening set	338 Sep 06 j 19:17	25° \approx 47'28	
evening set	337 Sep 23 j 02:27	12° \approx 11'09		min. Earth dist.	338 Sep 10 j 19:15	21° \approx 44'18	0.65723 AU
min. Earth dist.	337 Sep 27 j 09:49	7° \approx 30'32	0.66714 AU	inferior conj	338 Sep 12 j 14:32	19° \approx 37'08	-2°-15'-7
inferior conj	337 Sep 28 j 17:02	5° \approx 51'57	-1°-18'-48	minimum elong	338 Sep 12 j 17:59	19° \approx 27'00	2°13'51
minimum elong	337 Sep 28 j 19:03	5° \approx 45'35	1°17'59	morning rise	338 Sep 18 j 18:00	13° \approx 53'46	
asc. node	337 Oct 02 j 13:32	1° \approx 27'29		asc. node	338 Sep 19 j 10:34	13° \approx 34'53	
	337 Oct 04 j 10:09	30° \approx 19'19		direct	338 Sep 21 j 13:38	13° \approx 09'40	
morning rise	337 Oct 04 j 12:30	29° \approx 56'24		morning max el	338 Sep 28 j 04:08	16° \approx 46'35	18°23'50
direct	337 Oct 07 j 16:21	28° \approx 58'54			338 Oct 07 j 21:44	0° \approx	
	337 Oct 11 j 01:48	0° \approx		morning set	338 Oct 17 j 14:20	15° \approx 35'15	
morning max el	337 Oct 14 j 15:51	2° \approx 54'05	19°05'12		338 Oct 26 j 13:27	0° \approx	
	337 Nov 02 j 17:01	0° \approx		desc. node	338 Oct 28 j 20:37	3° \approx 39'11	
morning set	337 Nov 06 j 05:05	5° \approx 28'44		superior conj	338 Nov 01 j 22:22	10° \approx 05'24	0°-26'-37
desc. node	337 Nov 10 j 23:35	12° \approx 56'53		minimum elong	338 Nov 01 j 18:52	9° \approx 51'37	0°26'10
max. Earth dist.	337 Nov 20 j 18:55	28° \approx 20'05	1.44828 AU	max. Earth dist.	338 Nov 03 j 13:36	12° \approx 39'49	1.45043 AU
	337 Nov 21 j 20:16	0° \approx			338 Nov 14 j 14:50	0° \approx	
superior conj	337 Nov 22 j 21:42	1° \approx 40'25	-1°-13'-21	evening rise	338 Nov 18 j 06:32	5° \approx 44'17	
minimum elong	337 Nov 22 j 13:31	1° \approx 08'05	1°12'27	greatest brilliancy	338 Dec 01 j 18:04	26° \approx 43'32	-0.7m
evening rise	337 Dec 07 j 22:24	25° \approx 50'30			338 Dec 03 j 23:10	0° \approx	
	337 Dec 10 j 11:18	0° \approx		evening max el	338 Dec 11 j 09:55	9° \approx 33'26	19°16'25
evening max el	337 Dec 28 j 00:49	26° \approx 05'55	18°36'02	asc. node	338 Dec 16 j 09:51	13° \approx 13'09	

retrograde	338 Dec 18 j 11:38	13°☿36'55			339 Nov 07 j 17:09	0°☿	
evening set	338 Dec 21 j 19:10	12°☿32'52		greatest brilliancy	339 Nov 17 j 23:22	14°☿55'08	-0.6m
inferior conj	338 Dec 27 j 10:33	6°☿39'13	3°09'11	evening max el	339 Nov 24 j 14:19	23°☿01'55	20°12'15
minimum elong	338 Dec 27 j 07:52	6°☿47'49	3°08'33	retrograde	339 Dec 02 j 09:17	27°☿36'30	
min. Earth dist.	338 Dec 28 j 18:49	4°☿55'55	0.66064 AU	asc. node	339 Dec 03 j 06:54	27°☿31'54	
morning rise	339 Jan 01 j 19:46	0°☿26'34		evening set	339 Dec 06 j 01:12	26°☿18'25	
	339 Jan 02 j 08:13	30°☿		inferior conj	339 Dec 11 j 12:57	20°☿11'33	2°33'28
direct	339 Jan 08 j 03:33	27°☿40'10		minimum elong	339 Dec 11 j 10:14	20°☿20'41	2°32'38
	339 Jan 14 j 16:59	0°☿		min. Earth dist.	339 Dec 12 j 07:50	19°☿08'02	0.66968 AU
morning max el	339 Jan 20 j 18:46	5°☿07'50	26°13'11	morning rise	339 Dec 16 j 18:44	13°☿56'35	
desc. node	339 Jan 24 j 19:49	9°☿31'42		direct	339 Dec 22 j 12:23	11°☿25'10	
	339 Feb 08 j 21:36	0°☿		morning max el	340 Jan 03 j 03:23	18°☿20'35	24°54'38
morning set	339 Feb 25 j 22:00	28°☿45'46		desc. node	340 Jan 11 j 16:52	28°☿19'48	
	339 Feb 26 j 13:52	0°☿			340 Jan 12 j 23:32	0°☿	
max. Earth dist.	339 Mar 01 j 23:17	6°☿29'48	1.35240 AU		340 Feb 01 j 23:13	0°☿	
				morning set	340 Feb 08 j 06:13	10°☿49'37	
superior conj	339 Mar 06 j 22:11	16°☿23'28	-1°-11'-48	max. Earth dist.	340 Feb 11 j 23:15	17°☿32'50	1.37052 AU
minimum elong	339 Mar 07 j 01:32	16°☿40'38	1°11'15				
	339 Mar 13 j 12:13	0°☿		superior conj	340 Feb 18 j 09:32	29°☿47'13	-1°-35'-17
asc. node	339 Mar 14 j 09:11	1°☿48'11		minimum elong	340 Feb 18 j 13:29	0°☿06'31	1°34'49
evening rise	339 Mar 14 j 17:30	2°☿31'00			340 Feb 18 j 12:09	0°☿	
	339 Mar 30 j 22:04	0°☿		evening rise	340 Feb 26 j 20:07	16°☿38'58	
evening max el	339 Apr 02 j 06:08	2°☿28'52	20°32'16	asc. node	340 Feb 29 j 06:14	21°☿27'04	
retrograde	339 Apr 13 j 06:03	7°☿47'05			340 Mar 04 j 19:16	0°☿	
evening set	339 Apr 15 j 09:32	7°☿35'49		evening max el	340 Mar 14 j 20:50	14°☿11'25	19°26'19
desc. node	339 Apr 22 j 19:00	4°☿38'32		retrograde	340 Mar 24 j 04:01	18°☿39'48	
inferior conj	339 Apr 24 j 13:08	3°☿38'23	0°-30'-19	evening set	340 Mar 26 j 07:17	18°☿26'40	
minimum elong	339 Apr 24 j 11:42	3°☿40'27	0°29'49	inferior conj	340 Apr 03 j 18:42	14°☿19'55	1°21'33
min. Earth dist.	339 Apr 25 j 20:53	2°☿52'29	0.55133 AU	minimum elong	340 Apr 03 j 21:53	14°☿14'43	1°20'29
	339 May 01 j 16:30	30°☿		min. Earth dist.	340 Apr 06 j 11:23	12°☿35'13	0.56125 AU
morning rise	339 May 03 j 12:12	29°☿25'44		desc. node	340 Apr 08 j 16:02	11°☿16'45	
direct	339 May 07 j 03:23	28°☿57'13		morning rise	340 Apr 12 j 08:45	9°☿35'36	
	339 May 12 j 10:21	0°☿		direct	340 Apr 16 j 23:48	8°☿47'03	
morning max el	339 May 20 j 11:49	5°☿26'35	23°15'21	morning max el	340 May 01 j 02:36	15°☿56'00	24°55'51
	339 Jun 06 j 15:11	0°☿			340 May 12 j 09:50	0°☿	
asc. node	339 Jun 10 j 08:25	7°☿17'30		morning set	340 May 27 j 03:37	27°☿01'03	
morning set	339 Jun 12 j 15:37	12°☿02'40		asc. node	340 May 27 j 05:30	27°☿10'58	
					340 May 28 j 13:20	0°☿	
superior conj	339 Jun 19 j 18:53	27°☿18'32	1°25'05				
minimum elong	339 Jun 19 j 16:27	27°☿05'27	1°24'46	superior conj	340 Jun 03 j 04:26	12°☿12'58	1°07'35
	339 Jun 21 j 01:10	0°☿		minimum elong	340 Jun 03 j 02:03	11°☿59'58	1°07'11
max. Earth dist.	339 Jun 22 j 06:29	2°☿35'05	1.33736 AU	max. Earth dist.	340 Jun 04 j 12:54	15°☿09'20	1.32880 AU
evening rise	339 Jun 27 j 10:39	13°☿11'29		evening rise	340 Jun 10 j 10:14	27°☿36'10	
	339 Jul 06 j 11:06	0°☿			340 Jun 11 j 14:35	0°☿	
desc. node	339 Jul 19 j 18:19	20°☿42'13			340 Jun 28 j 18:04	0°☿	
	339 Jul 27 j 03:43	0°☿		desc. node	340 Jul 05 j 15:20	9°☿25'18	
evening max el	339 Jul 31 j 12:44	4°☿34'57	27°20'22	evening max el	340 Jul 12 j 21:55	17°☿28'42	27°22'41
retrograde	339 Aug 14 j 00:38	11°☿53'47		retrograde	340 Jul 26 j 16:23	24°☿46'47	
evening set	339 Aug 21 j 02:42	9°☿10'45		evening set	340 Aug 02 j 21:17	22°☿15'43	
min. Earth dist.	339 Aug 24 j 20:16	5°☿43'55	0.64374 AU	min. Earth dist.	340 Aug 06 j 11:13	19°☿19'17	0.62672 AU
inferior conj	339 Aug 27 j 04:33	3°☿13'11	-3°-9'-4	inferior conj	340 Aug 09 j 08:16	16°☿34'02	-3°-56'-58
minimum elong	339 Aug 27 j 09:06	3°☿00'57	3°07'39	minimum elong	340 Aug 09 j 13:07	16°☿22'23	3°55'50
	339 Aug 30 j 09:42	30°☿		morning rise	340 Aug 16 j 07:25	11°☿25'33	
morning rise	339 Sep 02 j 17:21	27°☿45'31		direct	340 Aug 18 j 18:09	10°☿58'13	
direct	339 Sep 05 j 07:17	27°☿11'18		asc. node	340 Aug 23 j 04:42	12°☿30'03	
asc. node	339 Sep 06 j 07:37	27°☿16'39		morning max el	340 Aug 25 j 11:08	14°☿23'53	17°53'03
	339 Sep 11 j 03:29	0°☿			340 Sep 05 j 05:01	0°☿	
morning max el	339 Sep 11 j 19:30	0°☿38'23	17°59'29	morning set	340 Sep 10 j 15:32	9°☿36'28	
morning set	339 Sep 29 j 03:35	27°☿03'12					
	339 Sep 30 j 21:19	0°☿		superior conj	340 Sep 22 j 01:04	29°☿29'33	1°01'09
				minimum elong	340 Sep 22 j 05:58	29°☿50'12	1°00'33
superior conj	339 Oct 12 j 10:50	19°☿08'45	0°21'42		340 Sep 22 j 08:17	0°☿	
minimum elong	339 Oct 12 j 13:19	19°☿18'45	0°21'22	max. Earth dist.	340 Sep 28 j 23:23	10°☿57'36	1.43336 AU
desc. node	339 Oct 15 j 17:38	24°☿25'08		desc. node	340 Oct 01 j 14:39	15°☿12'04	
max. Earth dist.	339 Oct 17 j 08:15	26°☿58'49	1.44522 AU	evening rise	340 Oct 07 j 02:58	23°☿53'08	
	339 Oct 19 j 06:04	0°☿			340 Oct 11 j 02:13	0°☿	
evening rise	339 Oct 28 j 19:26	14°☿53'19			340 Oct 31 j 23:01	0°☿	

greatest brilliancy	340 Nov 01 j 10:15	0°♂35'40	-0.4m	max. Earth dist.	341 Sep 11 j 08:50	24°♂19'20	1.41643 AU
evening max el	340 Nov 06 j 12:58	6°♂30'38	21°20'43		341 Sep 14 j 19:13	0°♂	
retrograde	340 Nov 15 j 06:38	11°♂42'16		evening rise	341 Sep 16 j 22:45	3°♂28'42	
evening set	340 Nov 19 j 08:55	10°♂08'20		desc. node	341 Sep 18 j 11:41	5°♂56'13	
asc. node	340 Nov 19 j 03:57	10°♂17'40			341 Oct 04 j 11:20	0°♂	
inferior conj	340 Nov 24 j 18:44	3°♂51'43	1°50'28	greatest brilliancy	341 Oct 15 j 09:24	14°♂33'16	-0.3m
minimum elong	340 Nov 24 j 16:29	3°♂59'30	1°49'38	evening max el	341 Oct 20 j 06:09	20°♂00'27	22°37'52
min. Earth dist.	340 Nov 25 j 01:49	3°♂27'16	0.67504 AU	retrograde	341 Oct 30 j 01:57	25°♂50'49	
	340 Nov 27 j 16:51	30°♂		evening set	341 Nov 03 j 16:30	23°♂59'39	
morning rise	340 Nov 29 j 23:44	27°♂36'25		asc. node	341 Nov 06 j 01:00	21°♂36'56	
direct	340 Dec 05 j 02:01	25°♂25'39		inferior conj	341 Nov 09 j 01:53	17°♂37'09	1°01'53
	340 Dec 13 j 19:32	0°♂		minimum elong	341 Nov 09 j 00:30	17°♂41'58	1°01'19
morning max el	340 Dec 15 j 12:22	1°♂38'14	23°27'20	min. Earth dist.	341 Nov 08 j 22:15	17°♂49'43	0.67699 AU
greatest brilliancy	340 Dec 21 j 07:00	8°♂10'32	-0.2m	morning rise	341 Nov 14 j 08:25	11°♂23'50	
desc. node	340 Dec 28 j 13:55	17°♂46'52		direct	341 Nov 18 j 19:44	9°♂35'39	
	341 Jan 06 j 00:06	0°♂		morning max el	341 Nov 28 j 00:42	15°♂01'29	22°00'44
morning set	341 Jan 19 j 14:10	21°♂39'31		greatest brilliancy	341 Dec 02 j 18:19	20°♂21'54	-0.4m
max. Earth dist.	341 Jan 23 j 18:22	28°♂49'43	1.39134 AU		341 Dec 10 j 01:36	0°♂	
	341 Jan 24 j 10:23	0°♂		desc. node	341 Dec 15 j 10:58	7°♂41'42	
					341 Dec 30 j 00:51	0°♂	
superior conj	341 Jan 31 j 07:06	12°♂26'41	-1°-53'-18	morning set	341 Dec 30 j 17:05	1°♂05'01	
minimum elong	341 Jan 31 j 10:25	12°♂42'11	1°53'07	max. Earth dist.	342 Jan 05 j 16:08	10°♂51'02	1.41232 AU
	341 Feb 09 j 11:05	0°♂					
evening rise	341 Feb 09 j 14:53	0°♂18'23		superior conj	342 Jan 13 j 09:53	24°♂09'42	-2°-2'-13
asc. node	341 Feb 15 j 03:17	10°♂45'19		minimum elong	342 Jan 13 j 10:37	24°♂12'56	2°02'14
evening max el	341 Feb 25 j 21:30	26°♂30'31	18°40'14		342 Jan 16 j 16:14	0°♂	
	341 Mar 03 j 08:46	0°♂		evening rise	342 Jan 23 j 22:25	13°♂21'16	
retrograde	341 Mar 05 j 19:29	0°♂21'53		asc. node	342 Feb 02 j 00:20	29°♂35'59	
evening set	341 Mar 08 j 03:15	0°♂03'09			342 Feb 02 j 06:14	0°♂	
	341 Mar 08 j 07:51	30°♂		evening max el	342 Feb 09 j 05:15	9°♂18'33	18°14'16
inferior conj	341 Mar 15 j 20:01	25°♂38'27	2°43'21	retrograde	342 Feb 16 j 05:19	12°♂48'55	
minimum elong	341 Mar 16 j 00:15	25°♂30'24	2°42'19	evening set	342 Feb 18 j 18:01	12°♂22'19	
min. Earth dist.	341 Mar 19 j 04:49	23°♂06'23	0.57822 AU	inferior conj	342 Feb 25 j 18:16	7°♂36'28	3°30'20
morning rise	341 Mar 23 j 17:04	20°♂21'52		minimum elong	342 Feb 25 j 20:57	7°♂30'32	3°29'59
desc. node	341 Mar 26 j 13:06	19°♂21'19		min. Earth dist.	342 Mar 01 j 03:15	4°♂39'03	0.59884 AU
direct	341 Mar 29 j 10:21	19°♂00'23		morning rise	342 Mar 04 j 20:27	1°♂56'27	
morning max el	341 Apr 12 j 18:59	26°♂34'22	26°23'01		342 Mar 10 j 09:46	30°♂	
	341 Apr 16 j 01:15	0°♂		direct	342 Mar 11 j 09:46	29°♂57'15	
	341 May 05 j 16:01	0°♂			342 Mar 12 j 09:58	0°♂	
morning set	341 May 11 j 14:41	11°♂56'00		desc. node	342 Mar 13 j 10:09	0°♂08'08	
asc. node	341 May 14 j 02:33	17°♂14'45		morning max el	342 Mar 25 j 16:42	7°♂44'10	27°22'53
					342 Apr 11 j 13:16	0°♂	
superior conj	341 May 18 j 15:54	27°♂11'41	0°46'33	morning set	342 Apr 25 j 23:06	26°♂41'41	
minimum elong	341 May 18 j 14:01	27°♂01'21	0°46'11		342 Apr 27 j 12:56	0°♂	
max. Earth dist.	341 May 19 j 00:11	27°♂57'10	1.32407 AU	asc. node	342 Apr 30 j 23:36	7°♂24'28	
	341 May 19 j 22:35	0°♂		max. Earth dist.	342 May 02 j 12:46	10°♂47'37	1.32310 AU
evening rise	341 May 25 j 16:05	12°♂18'28					
	341 Jun 03 j 18:27	0°♂		superior conj	342 May 03 j 03:35	12°♂08'50	0°22'46
desc. node	341 Jun 22 j 12:22	27°♂06'36		minimum elong	342 May 03 j 02:34	12°♂03'18	0°22'33
evening max el	341 Jun 25 j 02:04	29°♂42'55	26°52'10	evening rise	342 May 10 j 01:51	27°♂10'43	
	341 Jun 25 j 09:19	0°♂			342 May 11 j 10:13	0°♂	
retrograde	341 Jul 09 j 01:05	6°♂58'52			342 May 28 j 13:04	0°♂	
evening set	341 Jul 15 j 22:35	4°♂53'53		evening max el	342 Jun 06 j 23:35	11°♂12'05	25°50'03
min. Earth dist.	341 Jul 19 j 15:56	2°♂15'00	0.60698 AU	desc. node	342 Jun 09 j 09:24	13°♂20'30	
	341 Jul 22 j 08:17	30°♂		retrograde	342 Jun 21 j 00:45	18°♂23'42	
inferior conj	341 Jul 22 j 22:15	29°♂30'21	-4°-32'-54	evening set	342 Jun 27 j 02:02	16°♂55'52	
minimum elong	341 Jul 23 j 01:49	29°♂22'48	4°32'27	min. Earth dist.	342 Jul 01 j 12:07	14°♂16'41	0.58641 AU
morning rise	341 Jul 30 j 08:12	24°♂43'43		inferior conj	342 Jul 04 j 18:54	11°♂52'54	-4°-47'-36
direct	341 Aug 01 j 18:14	24°♂20'53		minimum elong	342 Jul 04 j 19:02	11°♂52'41	4°47'37
morning max el	341 Aug 08 j 23:58	27°♂54'24	18°05'33	morning rise	342 Jul 12 j 15:40	7°♂28'56	
asc. node	341 Aug 10 j 01:46	29°♂00'48		direct	342 Jul 15 j 03:17	7°♂08'49	
	341 Aug 10 j 22:33	0°♂		morning max el	342 Jul 23 j 06:49	11°♂00'57	18°38'09
morning set	341 Aug 24 j 20:11	22°♂57'28		asc. node	342 Jul 27 j 22:49	16°♂33'40	
	341 Aug 28 j 14:58	0°♂			342 Aug 04 j 22:20	0°♂	
				morning set	342 Aug 08 j 12:45	6°♂53'31	
superior conj	341 Sep 03 j 17:58	11°♂08'54	1°27'55				
minimum elong	341 Sep 03 j 22:04	11°♂27'08	1°27'32	superior conj	342 Aug 17 j 08:38	23°♂52'56	1°42'29

minimum elong	342 Aug 17 j 10:42	24°♄02'37	1°42'23		343 Jul 11 j 15:23	0°♄	
	342 Aug 20 j 15:59	0°♄		asc. node	343 Jul 14 j 19:51	4°♄54'44	
max. Earth dist.	342 Aug 24 j 13:20	6°♄57'39	1.39668 AU	morning set	343 Jul 23 j 13:39	21°♄15'18	
evening rise	342 Aug 28 j 17:42	14°♄09'26			343 Jul 27 j 21:54	0°♄	
desc. node	342 Sep 05 j 08:42	26°♄33'51					
	342 Sep 07 j 13:44	0°♄		superior conj	343 Jul 31 j 15:31	7°♄26'10	1°46'54
	342 Sep 29 j 11:31	0°♄		minimum elong	343 Jul 31 j 15:35	7°♄26'29	1°46'55
evening max el	342 Oct 02 j 19:32	3°♄33'33	23°58'06	max. Earth dist.	343 Aug 06 j 16:52	19°♄01'24	1.37663 AU
retrograde	342 Oct 13 j 17:48	9°♄59'08		evening rise	343 Aug 10 j 12:57	25°♄59'24	
evening set	342 Oct 18 j 22:19	7°♄50'05			343 Aug 12 j 19:49	0°♄	
asc. node	342 Oct 23 j 22:03	2°♄01'51		desc. node	343 Aug 23 j 05:44	17°♄00'38	
inferior conj	342 Oct 24 j 08:40	1°♄25'49	0°09'10		343 Sep 01 j 02:58	0°♄	
minimum elong	342 Oct 24 j 08:27	1°♄26'34	0°09'04	evening max el	343 Sep 15 j 07:20	17°♄10'32	25°14'31
transit middle	342 Oct 24 j 08:27	1°♄26'34	0°09'04	retrograde	343 Sep 27 j 05:23	24°♄03'32	
transit begin	342 Oct 24 j 06:11	1°♄34'15		evening set	343 Oct 03 j 00:40	21°♄37'43	
transit end	342 Oct 24 j 10:42	1°♄18'54		min. Earth dist.	343 Oct 07 j 12:37	16°♄36'12	0.67124 AU
min. Earth dist.	342 Oct 23 j 18:40	2°♄13'17	0.67574 AU	inferior conj	343 Oct 08 j 13:19	15°♄15'42	0°-46'-14
	342 Oct 25 j 10:12	30°♄		minimum elong	343 Oct 08 j 14:29	15°♄11'54	0°45'46
morning rise	342 Oct 29 j 18:46	25°♄17'10		asc. node	343 Oct 10 j 19:04	12°♄26'55	
direct	342 Nov 02 j 16:24	23°♄50'46		morning rise	343 Oct 14 j 04:53	9°♄14'39	
morning max el	342 Nov 10 j 19:32	28°♄33'47	20°42'11	direct	343 Oct 17 j 14:41	8°♄07'32	
	342 Nov 12 j 04:10	0°♄		morning max el	343 Oct 24 j 22:10	12°♄16'56	19°36'24
greatest brilliancy	342 Nov 16 j 18:47	5°♄35'29	-0.5m	greatest brilliancy	343 Nov 02 j 08:07	22°♄54'12	-0.6m
desc. node	342 Dec 02 j 07:59	27°♄56'19			343 Nov 07 j 04:14	0°♄	
	342 Dec 03 j 16:37	0°♄		morning set	343 Nov 18 j 17:06	17°♄39'11	
morning set	342 Dec 09 j 19:15	9°♄23'37		desc. node	343 Nov 19 j 05:00	18°♄25'18	
max. Earth dist.	342 Dec 18 j 21:27	23°♄48'32	1.43064 AU		343 Nov 26 j 15:21	0°♄	
	342 Dec 22 j 16:22	0°♄		max. Earth dist.	343 Dec 01 j 10:33	7°♄34'08	1.44377 AU
superior conj	342 Dec 25 j 12:30	4°♄43'25	-1°-57'-23	superior conj	343 Dec 05 j 12:23	14°♄04'27	-1°-34'-42
minimum elong	342 Dec 25 j 08:35	4°♄26'58	1°57'13	minimum elong	343 Dec 05 j 04:19	13°♄32'05	1°33'59
evening rise	343 Jan 06 j 14:42	25°♄38'35			343 Dec 15 j 06:16	0°♄	
	343 Jan 09 j 01:46	0°♄		evening rise	343 Dec 19 j 11:30	7°♄03'35	
asc. node	343 Jan 19 j 21:22	17°♄49'38			344 Jan 02 j 14:21	0°♄	
evening max el	343 Jan 23 j 16:49	22°♄25'24	18°07'54	asc. node	344 Jan 06 j 18:23	5°♄15'40	
retrograde	343 Jan 30 j 06:02	25°♄49'57		evening max el	344 Jan 07 j 05:21	5°♄44'11	18°20'27
evening set	343 Feb 01 j 23:15	25°♄14'15		retrograde	344 Jan 13 j 17:18	9°♄15'49	
inferior conj	343 Feb 08 j 10:23	20°♄06'53	3°48'19	evening set	344 Jan 16 j 15:10	8°♄30'08	
minimum elong	343 Feb 08 j 10:51	20°♄05'41	3°48'18	inferior conj	344 Jan 22 j 16:30	3°♄02'43	3°44'43
min. Earth dist.	343 Feb 11 j 09:05	17°♄09'13	0.61975 AU	minimum elong	344 Jan 22 j 15:11	3°♄06'28	3°44'36
morning rise	343 Feb 14 j 20:06	14°♄11'55		min. Earth dist.	344 Jan 25 j 00:25	0°♄25'05	0.63845 AU
direct	343 Feb 21 j 18:53	11°♄41'49			344 Jan 25 j 09:39	30°♄	
desc. node	343 Feb 28 j 07:11	13°♄36'27		morning rise	344 Jan 28 j 13:39	26°♄58'11	
morning max el	343 Mar 07 j 20:23	19°♄33'49	27°47'23	direct	344 Feb 04 j 11:55	24°♄10'42	
	343 Mar 16 j 18:11	0°♄		desc. node	344 Feb 15 j 04:13	29°♄14'11	
	343 Apr 04 j 09:56	0°♄			344 Feb 16 j 01:15	0°♄	
morning set	343 Apr 10 j 02:50	11°♄10'14		morning max el	344 Feb 18 j 04:34	2°♄01'32	27°35'06
max. Earth dist.	343 Apr 15 j 22:50	23°♄26'39	1.32589 AU		344 Mar 09 j 23:41	0°♄	
				morning set	344 Mar 23 j 23:26	25°♄13'44	
superior conj	343 Apr 17 j 13:44	26°♄57'28	0°-3'-3		344 Mar 26 j 08:23	0°♄	
minimum elong	343 Apr 17 j 13:52	26°♄58'13	0°03'02	max. Earth dist.	344 Mar 29 j 02:28	5°♄41'38	1.33270 AU
behind sun begin	343 Apr 17 j 08:49	26°♄30'45					
behind sun end	343 Apr 17 j 18:55	27°♄25'43		superior conj	344 Mar 31 j 20:34	11°♄31'39	0°-29'-58
asc. node	343 Apr 17 j 20:39	27°♄35'08		minimum elong	344 Mar 31 j 22:01	11°♄39'24	0°29'41
	343 Apr 18 j 23:14	0°♄		asc. node	344 Apr 03 j 17:40	17°♄42'37	
evening rise	343 Apr 24 j 13:26	12°♄04'53		evening rise	344 Apr 08 j 01:02	26°♄54'32	
	343 May 03 j 16:46	0°♄			344 Apr 09 j 12:34	0°♄	
evening max el	343 May 19 j 15:18	22°♄01'47	24°24'20		344 Apr 27 j 19:04	0°♄	
desc. node	343 May 27 j 06:25	27°♄33'03		evening max el	344 Apr 30 j 06:11	2°♄34'33	22°48'55
retrograde	343 Jun 02 j 12:48	29°♄02'25		desc. node	344 May 13 j 03:27	9°♄08'54	
evening set	343 Jun 07 j 06:27	28°♄12'18		retrograde	344 May 13 j 12:23	9°♄09'13	
min. Earth dist.	343 Jun 13 j 02:35	25°♄16'17	0.56782 AU	evening set	344 May 16 j 19:55	8°♄45'08	
inferior conj	343 Jun 15 j 19:36	23°♄33'03	-4°-28'-27	min. Earth dist.	344 May 24 j 14:50	5°♄19'19	0.55460 AU
minimum elong	343 Jun 15 j 14:53	23°♄40'36	4°27'50	inferior conj	344 May 26 j 01:19	4°♄29'48	-3°-24'-28
morning rise	343 Jun 24 j 03:02	19°♄29'12		minimum elong	344 May 25 j 17:55	4°♄40'26	3°22'31
direct	343 Jun 26 j 17:52	19°♄10'35		morning rise	344 Jun 03 j 18:43	0°♄36'47	
morning max el	343 Jul 06 j 04:47	23°♄34'07	19°31'50	direct	344 Jun 06 j 14:09	0°♄18'20	

morning max el	344 Jun 17 j 15:55	5° Π 26'31	20°46'12		345 Jun 10 j 04:22	0° Π	
asc. node	344 Jun 30 j 16:53	23° Π 52'34		asc. node	345 Jun 17 j 13:57	13° Π 18'12	
	344 Jul 03 j 21:46	0° \mathfrak{S}		morning set	345 Jun 21 j 06:16	20° Π 47'21	
morning set	344 Jul 06 j 20:10	5° \mathfrak{S} 55'07			345 Jun 25 j 14:46	0° \mathfrak{S}	
superior conj	344 Jul 14 j 09:54	21° \mathfrak{S} 35'00	1°43'14	superior conj	345 Jun 28 j 12:19	6° \mathfrak{S} 09'07	1°33'13
minimum elong	344 Jul 14 j 08:30	21° \mathfrak{S} 27'50	1°43'10	minimum elong	345 Jun 28 j 10:05	5° \mathfrak{S} 57'20	1°33'00
	344 Jul 18 j 14:24	0° \mathfrak{Q}		max. Earth dist.	345 Jul 01 j 17:26	12° \mathfrak{S} 51'19	1.34394 AU
max. Earth dist.	344 Jul 19 j 00:50	0° \mathfrak{Q} 51'14	1.35856 AU	evening rise	345 Jul 06 j 12:05	22° \mathfrak{S} 25'54	
evening rise	344 Jul 23 j 04:40	8° \mathfrak{Q} 48'55			345 Jul 10 j 11:56	0° \mathfrak{Q}	
	344 Aug 04 j 11:07	0° \mathfrak{P}		desc. node	345 Jul 26 j 23:47	26° \mathfrak{Q} 55'54	
desc. node	344 Aug 09 j 02:45	7° \mathfrak{P} 10'26			345 Jul 29 j 04:33	0° \mathfrak{P}	
	344 Aug 26 j 23:53	0° \mathfrak{A}		evening max el	345 Aug 10 j 06:51	14° \mathfrak{P} 16'36	27°05'21
evening max el	344 Aug 27 j 18:59	0° \mathfrak{A} 47'05	26°19'30	retrograde	345 Aug 23 j 13:36	21° \mathfrak{P} 35'25	
retrograde	344 Sep 09 j 12:04	7° \mathfrak{A} 57'49		evening set	345 Aug 30 j 10:51	18° \mathfrak{P} 50'49	
evening set	344 Sep 15 j 21:37	5° \mathfrak{A} 18'57		min. Earth dist.	345 Sep 03 j 07:46	15° \mathfrak{P} 03'40	0.65191 AU
min. Earth dist.	344 Sep 20 j 01:42	0° \mathfrak{A} 54'33	0.66335 AU	inferior conj	345 Sep 05 j 08:37	12° \mathfrak{P} 45'18	-2°-38'-31
	344 Sep 20 j 19:34	30° \mathfrak{R} \mathfrak{P}		minimum elong	345 Sep 05 j 12:36	12° \mathfrak{P} 34'00	2°37'07
inferior conj	344 Sep 21 j 14:00	29° \mathfrak{P} 03'15	-1°-42'-50	morning rise	345 Sep 11 j 15:57	7° \mathfrak{P} 08'28	
minimum elong	344 Sep 21 j 16:38	28° \mathfrak{P} 55'09	1°41'47	asc. node	345 Sep 13 j 13:09	6° \mathfrak{P} 32'46	
asc. node	344 Sep 26 j 16:06	23° \mathfrak{P} 45'53		direct	345 Sep 14 j 08:46	6° \mathfrak{P} 29'08	
morning rise	344 Sep 27 j 12:42	23° \mathfrak{P} 12'46		morning max el	345 Sep 20 j 21:36	10° \mathfrak{P} 00'59	18°11'22
direct	344 Sep 30 j 12:47	22° \mathfrak{P} 21'26			345 Oct 04 j 16:25	0° \mathfrak{A}	
morning max el	344 Oct 07 j 07:35	26° \mathfrak{P} 07'28	18°45'42	morning set	345 Oct 09 j 07:26	7° \mathfrak{A} 38'24	
	344 Oct 10 j 15:59	0° \mathfrak{A}		desc. node	345 Oct 22 j 23:04	29° \mathfrak{A} 48'00	
morning set	344 Oct 28 j 09:56	26° \mathfrak{A} 56'13			345 Oct 23 j 02:05	0° \mathfrak{M}	
	344 Oct 30 j 08:20	0° \mathfrak{M}					
desc. node	344 Nov 05 j 02:01	9° \mathfrak{M} 03'38		superior conj	345 Oct 23 j 19:21	1° \mathfrak{M} 08'35	0°-5'-35
max. Earth dist.	344 Nov 13 j 04:06	21° \mathfrak{M} 46'37	1.45008 AU	minimum elong	345 Oct 23 j 18:38	1° \mathfrak{M} 05'45	0°05'30
				behind sun begin	345 Oct 23 j 08:16	0° \mathfrak{M} 24'35	
superior conj	344 Nov 13 j 16:10	22° \mathfrak{M} 34'02	0°-54'-33	behind sun end	345 Oct 24 j 05:00	1° \mathfrak{M} 46'54	
minimum elong	344 Nov 13 j 09:21	22° \mathfrak{M} 07'15	0°53'44	max. Earth dist.	345 Oct 26 j 22:39	6° \mathfrak{M} 06'23	1.44904 AU
	344 Nov 18 j 09:24	0° \mathfrak{J}		evening rise	345 Nov 09 j 08:01	27° \mathfrak{M} 01'31	
evening rise	344 Nov 29 j 09:12	17° \mathfrak{J} 30'05			345 Nov 11 j 05:58	0° \mathfrak{J}	
	344 Dec 07 j 04:02	0° \mathfrak{Z}		greatest brilliancy	345 Nov 25 j 22:35	22° \mathfrak{J} 20'44	-0.7m
evening max el	344 Dec 20 j 16:15	19° \mathfrak{Z} 09'00	18°51'07		345 Dec 01 j 15:40	0° \mathfrak{Z}	
asc. node	344 Dec 23 j 15:24	21° \mathfrak{Z} 40'28		evening max el	345 Dec 03 j 23:28	2° \mathfrak{Z} 36'48	19°38'26
retrograde	344 Dec 27 j 11:02	22° \mathfrak{Z} 58'34		asc. node	345 Dec 10 j 12:27	6° \mathfrak{Z} 49'22	
evening set	344 Dec 30 j 14:31	22° \mathfrak{Z} 01'45		retrograde	345 Dec 11 j 07:59	6° \mathfrak{Z} 53'05	
inferior conj	345 Jan 05 j 08:52	16° \mathfrak{Z} 16'45	3°25'34	evening set	345 Dec 14 j 18:45	5° \mathfrak{Z} 43'28	
minimum elong	345 Jan 05 j 06:29	16° \mathfrak{Z} 24'07	3°25'08	inferior conj	345 Dec 20 j 08:22	29° \mathfrak{J} 43'48	2°55'03
min. Earth dist.	345 Jan 07 j 01:27	14° \mathfrak{Z} 11'41	0.65362 AU	minimum elong	345 Dec 20 j 05:36	29° \mathfrak{J} 52'53	2°54'20
morning rise	345 Jan 10 j 21:24	10° \mathfrak{Z} 06'07			345 Dec 20 j 03:26	30° \mathfrak{R} \mathfrak{J}	
direct	345 Jan 17 j 11:46	7° \mathfrak{Z} 15'41		min. Earth dist.	345 Dec 21 j 10:48	28° \mathfrak{J} 17'04	0.66490 AU
morning max el	345 Jan 30 j 14:26	14° \mathfrak{Z} 56'12	26°50'29	morning rise	345 Dec 25 j 15:44	23° \mathfrak{J} 29'39	
desc. node	345 Feb 01 j 01:15	16° \mathfrak{Z} 26'12		direct	345 Dec 31 j 17:43	20° \mathfrak{J} 48'30	
	345 Feb 11 j 23:06	0° \approx		morning max el	346 Jan 12 j 23:37	28° \mathfrak{J} 04'57	25°41'28
	345 Mar 02 j 17:11	0° \mathfrak{H}			346 Jan 14 j 19:35	0° \mathfrak{Z}	
morning set	345 Mar 07 j 09:38	8° \mathfrak{H} 42'13		desc. node	346 Jan 18 j 22:17	4° \mathfrak{Z} 45'18	
max. Earth dist.	345 Mar 11 j 19:53	17° \mathfrak{H} 22'58	1.34385 AU		346 Feb 05 j 16:39	0° \approx	
				morning set	346 Feb 18 j 05:00	21° \approx 22'01	
superior conj	345 Mar 15 j 22:02	25° \mathfrak{H} 45'08	0°-56'-54	max. Earth dist.	346 Feb 22 j 01:17	28° \approx 32'48	1.35958 AU
minimum elong	345 Mar 16 j 00:47	25° \mathfrak{H} 59'24	0°56'24		346 Feb 22 j 19:31	0° \mathfrak{H}	
	345 Mar 17 j 22:47	0° \mathfrak{Y}					
asc. node	345 Mar 21 j 14:44	7° \mathfrak{Y} 43'04		superior conj	346 Feb 27 j 15:31	9° \mathfrak{H} 29'57	-1°-22'-14
evening rise	345 Mar 23 j 10:49	11° \mathfrak{Y} 33'31		minimum elong	346 Feb 27 j 19:14	9° \mathfrak{H} 48'35	1°21'42
	345 Apr 02 j 02:34	0° \mathfrak{X}		evening rise	346 Mar 07 j 16:44	25° \mathfrak{H} 54'51	
evening max el	345 Apr 12 j 03:33	13° \mathfrak{X} 21'42	21°18'18	asc. node	346 Mar 08 j 11:47	27° \mathfrak{H} 31'26	
retrograde	345 Apr 24 j 03:03	19° \mathfrak{X} 11'22			346 Mar 09 j 17:22	0° \mathfrak{Y}	
evening set	345 Apr 26 j 11:37	18° \mathfrak{X} 58'34		evening max el	346 Mar 25 j 11:53	24° \mathfrak{Y} 42'58	20°01'56
desc. node	345 Apr 30 j 00:28	17° \mathfrak{X} 55'59		retrograde	346 Apr 04 j 18:19	29° \mathfrak{Y} 38'55	
inferior conj	345 May 05 j 20:11	14° \mathfrak{X} 58'57	-1°-39'-31	evening set	346 Apr 06 j 20:26	29° \mathfrak{Y} 27'35	
minimum elong	345 May 05 j 15:32	15° \mathfrak{X} 05'29	1°37'55	inferior conj	346 Apr 15 j 18:00	25° \mathfrak{Y} 28'07	0°19'40
min. Earth dist.	345 May 06 j 03:40	14° \mathfrak{X} 48'25	0.54969 AU	minimum elong	346 Apr 15 j 18:53	25° \mathfrak{Y} 26'47	0°19'20
morning rise	345 May 14 j 19:34	10° \mathfrak{X} 58'48		desc. node	346 Apr 16 j 21:31	24° \mathfrak{Y} 46'30	
direct	345 May 18 j 00:26	10° \mathfrak{X} 36'31		min. Earth dist.	346 Apr 17 j 17:43	24° \mathfrak{Y} 16'13	0.55446 AU
morning max el	345 May 30 j 16:25	16° \mathfrak{X} 37'34	22°17'50	morning rise	346 Apr 24 j 14:26	21° \mathfrak{Y} 02'31	

direct	346 Apr 28 j 14:51	20°♿27'04		morning rise	347 Apr 04 j 14:53	1°♿25'54	
morning max el	346 May 12 j 09:08	27°♿15'58	23°58'37	direct	347 Apr 09 j 17:42	0°♿24'22	
	346 May 15 j 01:10	0°♿		morning max el	347 Apr 23 j 23:44	7°♿45'26	25°35'17
	346 Jun 02 j 23:11	0°♿			347 May 10 j 10:58	0°♿	
asc. node	346 Jun 04 j 11:02	3°♿03'16		morning set	347 May 21 j 05:50	20°♿42'39	
morning set	346 Jun 05 j 18:02	5°♿44'59		asc. node	347 May 22 j 08:07	23°♿01'53	
					347 May 25 j 13:31	0°♿	
superior conj	346 Jun 12 j 19:55	20°♿58'25	1°18'10	superior conj	347 May 28 j 06:31	5°♿55'34	0°59'04
minimum elong	346 Jun 12 j 17:26	20°♿45'03	1°17'47	minimum elong	347 May 28 j 04:17	5°♿43'24	0°58'39
max. Earth dist.	346 Jun 14 j 19:19	25°♿12'57	1.33324 AU	max. Earth dist.	347 May 29 j 04:17	7°♿54'33	1.32642 AU
	346 Jun 17 j 01:37	0°♿		evening rise	347 Jun 04 j 09:27	21°♿10'17	
evening rise	346 Jun 20 j 06:50	6°♿36'36			347 Jun 08 j 19:20	0°♿	
	346 Jul 03 j 01:21	0°♿			347 Jun 27 j 05:04	0°♿	
desc. node	346 Jul 13 j 20:49	16°♿05'49		desc. node	347 Jun 30 j 17:51	4°♿25'19	
evening max el	346 Jul 23 j 17:48	27°♿27'34	27°25'14	evening max el	347 Jul 06 j 01:23	10°♿06'38	27°13'47
	346 Jul 26 j 14:58	0°♿		retrograde	347 Jul 19 j 21:59	17°♿23'09	
retrograde	346 Aug 06 j 09:14	4°♿46'54		evening set	347 Jul 27 j 01:04	15°♿01'56	
evening set	346 Aug 13 j 13:18	2°♿07'25		min. Earth dist.	347 Jul 30 j 15:29	12°♿14'32	0.61861 AU
	346 Aug 16 j 01:41	30°♿0		inferior conj	347 Aug 02 j 16:58	9°♿27'43	-4°-14'-9
min. Earth dist.	346 Aug 17 j 04:48	28°♿54'22	0.63687 AU	minimum elong	347 Aug 02 j 21:30	9°♿17'22	4°13'18
inferior conj	346 Aug 19 j 18:38	26°♿15'56	-3°-30'-28	morning rise	347 Aug 09 j 20:39	4°♿27'53	
minimum elong	346 Aug 19 j 23:27	26°♿03'33	3°29'06	direct	347 Aug 12 j 06:49	4°♿02'39	
morning rise	346 Aug 26 j 11:46	20°♿55'55		asc. node	347 Aug 18 j 07:18	6°♿42'26	
direct	346 Aug 28 j 23:53	20°♿25'04		morning max el	347 Aug 19 j 04:09	7°♿30'33	17°55'54
asc. node	346 Aug 31 j 10:13	20°♿54'30			347 Sep 02 j 17:22	0°♿	
morning max el	346 Sep 04 j 13:25	23°♿50'56	17°54'26	morning set	347 Sep 04 j 02:50	2°♿31'52	
	346 Sep 09 j 11:36	0°♿					
morning set	346 Sep 21 j 07:06	19°♿36'17		superior conj	347 Sep 14 j 19:47	21°♿37'21	1°14'07
	346 Sep 27 j 08:14	0°♿		minimum elong	347 Sep 15 j 00:37	21°♿58'12	1°13'34
					347 Sep 19 j 18:08	0°♿	
superior conj	346 Oct 03 j 17:55	10°♿42'36	0°39'54	max. Earth dist.	347 Sep 22 j 04:45	4°♿02'39	1.42670 AU
minimum elong	346 Oct 03 j 21:55	10°♿59'03	0°39'21	desc. node	347 Sep 26 j 17:08	11°♿21'09	
max. Earth dist.	346 Oct 09 j 15:39	20°♿17'09	1.44089 AU	evening rise	347 Sep 29 j 03:11	15°♿10'59	
desc. node	346 Oct 09 j 20:07	20°♿34'58			347 Oct 08 j 19:25	0°♿	
	346 Oct 15 j 19:19	0°♿		greatest brilliancy	347 Oct 26 j 03:11	24°♿09'27	-0.4m
evening rise	346 Oct 19 j 16:24	6°♿00'52		evening max el	347 Oct 30 j 21:50	29°♿35'09	21°52'53
	346 Nov 04 j 15:44	0°♿			347 Oct 31 j 07:43	0°♿	
greatest brilliancy	346 Nov 11 j 05:13	9°♿07'39	-0.5m	retrograde	347 Nov 09 j 02:10	5°♿02'45	
evening max el	346 Nov 17 j 01:32	16°♿05'49	20°40'09	evening set	347 Nov 13 j 09:31	3°♿21'34	
retrograde	346 Nov 25 j 05:40	20°♿55'36		asc. node	347 Nov 14 j 06:32	2°♿35'47	
asc. node	346 Nov 27 j 09:29	20°♿29'12			347 Nov 16 j 14:06	30°♿	
evening set	346 Nov 29 j 01:42	19°♿31'10		inferior conj	347 Nov 18 j 19:00	27°♿02'14	1°30'27
inferior conj	346 Dec 04 j 12:27	13°♿20'00	2°16'01	minimum elong	347 Nov 18 j 17:04	27°♿08'55	1°29'42
minimum elong	346 Dec 04 j 09:53	13°♿28'46	2°15'10	min. Earth dist.	347 Nov 18 j 21:26	26°♿53'47	0.67629 AU
min. Earth dist.	346 Dec 05 j 02:15	12°♿32'58	0.67237 AU	morning rise	347 Nov 24 j 00:23	20°♿47'44	
morning rise	346 Dec 09 j 17:35	7°♿04'34		direct	347 Nov 28 j 20:19	18°♿46'24	
direct	346 Dec 15 j 04:51	4°♿41'10		morning max el	347 Dec 08 j 17:42	24°♿38'25	22°49'58
morning max el	346 Dec 26 j 07:54	11°♿19'30	24°17'59	greatest brilliancy	347 Dec 13 j 09:47	29°♿51'35	-0.3m
desc. node	347 Jan 05 j 19:20	23°♿51'51			347 Dec 13 j 12:34	0°♿	
	347 Jan 10 j 06:09	0°♿		desc. node	347 Dec 23 j 16:21	13°♿31'44	
	347 Jan 29 j 10:40	0°♿			348 Jan 03 j 17:52	0°♿	
morning set	347 Jan 31 j 03:42	2°♿56'54		morning set	348 Jan 11 j 23:28	13°♿10'25	
max. Earth dist.	347 Feb 03 j 21:53	9°♿36'03	1.37913 AU	max. Earth dist.	348 Jan 16 j 17:32	21°♿10'00	1.40044 AU
					348 Jan 21 j 18:41	0°♿	
superior conj	347 Feb 10 j 21:38	22°♿37'05	-1°-43'-47	superior conj	348 Jan 24 j 11:50	4°♿54'04	-1°-58'-28
minimum elong	347 Feb 11 j 01:30	22°♿55'40	1°43'25	minimum elong	348 Jan 24 j 14:20	5°♿05'29	1°58'23
	347 Feb 14 j 16:43	0°♿		evening rise	348 Feb 03 j 06:46	23°♿16'38	
evening rise	347 Feb 19 j 16:24	9°♿51'58			348 Feb 06 j 20:14	0°♿	
asc. node	347 Feb 23 j 08:51	17°♿02'41		asc. node	348 Feb 10 j 05:53	6°♿10'03	
	347 Mar 02 j 20:45	0°♿		evening max el	348 Feb 19 j 11:18	19°♿15'04	18°26'44
evening max el	347 Mar 08 j 07:18	6°♿42'52	19°04'18	retrograde	348 Feb 26 j 22:24	22°♿55'31	
retrograde	347 Mar 16 j 22:48	10°♿53'02		evening set	348 Feb 29 j 08:25	22°♿33'31	
evening set	347 Mar 19 j 03:56	10°♿37'49		inferior conj	348 Mar 07 j 17:44	17°♿59'38	3°07'17
inferior conj	347 Mar 27 j 07:24	6°♿24'22	2°00'29	minimum elong	348 Mar 07 j 21:30	17°♿51'58	3°06'32
minimum elong	347 Mar 27 j 11:28	6°♿17'18	1°59'17	min. Earth dist.	348 Mar 11 j 04:08	15°♿14'06	0.58679 AU
min. Earth dist.	347 Mar 30 j 09:15	4°♿17'25	0.56784 AU				
desc. node	347 Apr 03 j 18:32	1°♿47'20					

morning rise	348 Mar 15 j 06:44	12° ✕ 32'12		min. Earth dist.	349 Feb 21 j 05:23	27° ≈ 11'50	0.60782 AU
desc. node	348 Mar 20 j 15:34	10° ✕ 56'19		morning rise	349 Feb 24 j 18:43	24° ≈ 24'41	
direct	348 Mar 21 j 09:39	10° ✕ 54'50		direct	349 Mar 03 j 13:07	22° ≈ 11'17	
morning max el	348 Apr 04 j 17:59	18° ✕ 34'28	26°52'30	desc. node	349 Mar 07 j 12:35	22° ≈ 53'58	
	348 Apr 14 j 08:17	0° ∇			349 Mar 17 j 17:58	0° ✕	
	348 May 01 j 22:48	0° ✕		morning max el	349 Mar 17 j 18:32	0° ✕ 01'23	27°38'01
morning set	348 May 04 j 16:01	5° ✕ 34'37			349 Apr 08 j 07:42	0° ∇	
asc. node	348 May 08 j 05:11	13° ✕ 08'53		morning set	349 Apr 18 j 22:42	20° ∇ 14'05	
					349 Apr 23 j 13:28	0° ✕	
superior conj	348 May 11 j 18:16	20° ✕ 54'19	0°36'46	max. Earth dist.	349 Apr 25 j 04:52	3° ✕ 34'02	1.32377 AU
minimum elong	348 May 11 j 16:43	20° ✕ 45'47	0°36'27	asc. node	349 Apr 25 j 02:12	3° ✕ 19'27	
max. Earth dist.	348 May 11 j 16:47	20° ✕ 46'11	1.32326 AU				
	348 May 15 j 22:06	0° II		superior conj	349 Apr 26 j 05:28	5° ✕ 48'26	0°12'01
evening rise	348 May 18 j 17:14	5° II 57'59		minimum elong	349 Apr 26 j 04:55	5° ✕ 45'25	0°11'54
	348 May 31 j 10:46	0° ☾		behind sun begin	349 Apr 26 j 01:34	5° ✕ 27'03	
desc. node	348 Jun 16 j 14:52	21° ☾ 33'27		behind sun end	349 Apr 26 j 08:16	6° ✕ 03'48	
evening max el	348 Jun 17 j 02:57	22° ☾ 02'36	26°29'15	evening rise	349 May 03 j 03:58	20° ✕ 51'44	
retrograde	348 Jul 01 j 02:47	29° ☾ 16'22			349 May 07 j 15:01	0° II	
evening set	348 Jul 07 j 17:34	27° ☾ 26'13			349 May 26 j 19:22	0° ☾	
min. Earth dist.	348 Jul 11 j 16:04	24° ☾ 49'42	0.59825 AU	evening max el	349 May 29 j 21:25	3° ☾ 12'41	25°15'43
inferior conj	348 Jul 15 j 00:03	22° ☾ 11'31	-4°-42'-24	desc. node	349 Jun 03 j 11:53	7° ☾ 00'34	
minimum elong	348 Jul 15 j 02:26	22° ☾ 06'46	4°42'15	retrograde	349 Jun 12 j 21:58	10° ☾ 21'35	
morning rise	348 Jul 22 j 14:37	17° ☾ 34'32		evening set	349 Jun 18 j 11:04	9° ☾ 10'09	
direct	348 Jul 25 j 01:15	17° ☾ 12'53		min. Earth dist.	349 Jun 23 j 09:10	6° ☾ 25'51	0.57805 AU
morning max el	348 Aug 01 j 14:49	20° ☾ 52'29	18°16'53	inferior conj	349 Jun 26 j 12:23	4° ☾ 16'48	-4°-44'-25
asc. node	348 Aug 04 j 04:21	23° ☾ 41'54		minimum elong	349 Jun 26 j 10:29	4° ☾ 20'05	4°44'21
	348 Aug 08 j 13:36	0° ♂		morning rise	349 Jul 04 j 13:47	0° ☾ 02'29	
morning set	348 Aug 17 j 13:06	16° ♂ 10'02			349 Jul 04 j 17:54	30° ♂ II	
	348 Aug 24 j 21:16	0° ♂		direct	349 Jul 07 j 02:35	29° II 43'10	
					349 Jul 09 j 09:49	0° ☾	
superior conj	348 Aug 26 j 22:44	3° ♂ 47'09	1°35'28	morning max el	349 Jul 15 j 18:18	3° ☾ 46'39	18°58'26
minimum elong	348 Aug 27 j 02:01	4° ♂ 02'08	1°35'13	asc. node	349 Jul 22 j 01:24	11° ☾ 37'03	
max. Earth dist.	348 Sep 03 j 12:28	17° ♂ 09'03	1.40825 AU	morning set	349 Aug 01 j 09:35	0° ♂ 18'15	
evening rise	348 Sep 08 j 08:12	25° ♂ 12'58			349 Aug 01 j 05:53	0° ♂	
	348 Sep 11 j 07:07	0° ♂					
desc. node	348 Sep 12 j 14:10	2° ♂ 03'32		superior conj	349 Aug 09 j 21:00	16° ♂ 54'38	1°45'28
	348 Oct 01 j 15:15	0° ♂		minimum elong	349 Aug 09 j 22:10	17° ♂ 00'14	1°45'26
greatest brilliancy	348 Oct 06 j 09:31	6° ♂ 08'35	-0.2m	max. Earth dist.	349 Aug 16 j 15:46	29° ♂ 30'25	1.38801 AU
evening max el	348 Oct 12 j 13:08	13° ♂ 06'27	23°11'55		349 Aug 16 j 22:22	0° ♂	
retrograde	348 Oct 22 j 20:05	19° ♂ 12'14		evening rise	349 Aug 20 j 13:45	6° ♂ 23'51	
evening set	348 Oct 27 j 16:33	17° ♂ 13'10		desc. node	349 Aug 30 j 11:13	22° ♂ 37'25	
asc. node	348 Oct 31 j 03:33	13° ♂ 26'49			349 Sep 04 j 07:29	0° ♂	
inferior conj	348 Nov 02 j 02:11	10° ♂ 49'24	0°39'57	evening max el	349 Sep 25 j 01:22	26° ♂ 40'43	24°31'23
minimum elong	348 Nov 02 j 01:15	10° ♂ 52'36	0°39'33		349 Sep 28 j 18:55	0° ♂	
min. Earth dist.	348 Nov 01 j 18:03	11° ♂ 17'22	0.67689 AU	retrograde	349 Oct 06 j 10:22	3° ♂ 19'47	
morning rise	348 Nov 07 j 10:01	4° ♂ 38'00		evening set	349 Oct 11 j 21:07	1° ♂ 03'08	
direct	348 Nov 11 j 15:17	2° ♂ 59'29			349 Oct 13 j 00:05	30° ♂ ♂	
morning max el	348 Nov 20 j 08:37	8° ♂ 05'52	21°26'02	min. Earth dist.	349 Oct 16 j 13:43	25° ♂ 41'04	0.67424 AU
greatest brilliancy	348 Nov 25 j 11:23	13° ♂ 57'03	-0.4m	inferior conj	349 Oct 17 j 08:16	24° ♂ 39'01	0°-14'-4
	348 Dec 07 j 02:47	0° ♂		minimum elong	349 Oct 17 j 08:37	24° ♂ 37'52	0°13'57
desc. node	348 Dec 09 j 13:23	3° ♂ 35'53		transit middle	349 Oct 17 j 08:37	24° ♂ 37'52	0°13'57
morning set	348 Dec 21 j 14:23	22° ♂ 02'29		transit begin	349 Oct 17 j 07:12	24° ♂ 42'35	
	348 Dec 26 j 13:38	0° ♂		transit end	349 Oct 17 j 10:01	24° ♂ 33'10	
max. Earth dist.	348 Dec 28 j 18:41	3° ♂ 36'56	1.42063 AU	asc. node	349 Oct 18 j 00:34	23° ♂ 44'45	
				morning rise	349 Oct 22 j 20:29	18° ♂ 33'17	
superior conj	349 Jan 05 j 04:50	16° ♂ 08'17	-2°-2'-8	direct	349 Oct 26 j 12:44	17° ♂ 15'41	
minimum elong	349 Jan 05 j 03:46	16° ♂ 03'43	2°02'07	morning max el	349 Nov 03 j 06:52	21° ♂ 43'31	20°12'25
	349 Jan 13 j 00:45	0° ≈		greatest brilliancy	349 Nov 10 j 02:32	29° ♂ 57'51	-0.6m
evening rise	349 Jan 16 j 08:17	6° ≈ 01'03			349 Nov 10 j 03:10	0° ♂	
asc. node	349 Jan 27 j 02:53	24° ≈ 45'55		desc. node	349 Nov 26 j 10:27	23° ♂ 57'23	
	349 Jan 30 j 21:19	0° ✕		morning set	349 Nov 30 j 11:30	0° ♂ 10'37	
evening max el	349 Feb 01 j 20:54	2° ✕ 11'17	18°09'09		349 Nov 30 j 08:45	0° ♂	
retrograde	349 Feb 08 j 15:14	5° ✕ 37'52		max. Earth dist.	349 Dec 11 j 03:07	16° ♂ 55'24	1.43693 AU
evening set	349 Feb 11 j 05:48	5° ✕ 07'34					
inferior conj	349 Feb 18 j 00:00	0° ✕ 12'14	3°41'05	superior conj	349 Dec 16 j 19:58	26° ♂ 10'18	-1°-50'-3
minimum elong	349 Feb 18 j 01:44	0° ✕ 08'09	3°40'55	minimum elong	349 Dec 16 j 13:56	25° ♂ 45'31	1°49'41
	349 Feb 18 j 05:12	30° ♂ ≈			349 Dec 19 j 03:35	0° ♂	

evening rise	349 Dec 29 j 16:49	17°☿57'10			350 Dec 11 j 19:17	0°☿	
	350 Jan 05 j 16:34	0°♊		evening max el	350 Dec 30 j 21:21	28°☿46'13	18°31'26
asc. node	350 Jan 13 j 23:53	12°♊40'58		asc. node	350 Dec 31 j 20:55	29°☿42'54	
evening max el	350 Jan 16 j 09:10	15°♊23'59	18°11'00		351 Jan 01 j 04:40	0°♊	
retrograde	350 Jan 22 j 20:59	18°♊50'22		retrograde	351 Jan 06 j 11:16	2°♊24'04	
evening set	350 Jan 25 j 15:58	18°♊10'44		evening set	351 Jan 09 j 11:23	1°♊33'51	
inferior conj	350 Jan 31 j 22:35	12°♊54'47	3°49'02		351 Jan 11 j 15:09	30°♊☿	
minimum elong	350 Jan 31 j 22:12	12°♊55'47	3°49'01	inferior conj	351 Jan 15 j 09:28	25°☿58'57	3°38'10
min. Earth dist.	350 Feb 03 j 15:22	10°♊03'13	0.62799 AU	minimum elong	351 Jan 15 j 07:36	26°☿04'27	3°37'56
morning rise	350 Feb 07 j 02:24	6°♊54'59		min. Earth dist.	351 Jan 17 j 10:55	23°☿33'50	0.64539 AU
direct	350 Feb 14 j 02:00	4°♊15'23		morning rise	351 Jan 21 j 02:29	19°☿51'37	
desc. node	350 Feb 22 j 09:37	7°♊21'48		direct	351 Jan 27 j 22:17	17°☿00'50	
morning max el	350 Feb 28 j 00:33	12°♊08'55	27°46'34	desc. node	351 Feb 09 j 06:40	23°☿43'17	
	350 Mar 14 j 05:17	0°♋		morning max el	351 Feb 10 j 09:31	24°☿48'47	27°19'38
	350 Mar 31 j 16:36	0°♌			351 Feb 15 j 03:04	0°♋	
morning set	350 Apr 02 j 23:46	4°♌33'46			351 Mar 07 j 15:22	0°♋	
max. Earth dist.	350 Apr 08 j 12:33	16°♌04'07	1.32816 AU	morning set	351 Mar 17 j 16:22	18°♋23'26	
				max. Earth dist.	351 Mar 22 j 11:57	28°♋03'55	1.33683 AU
superior conj	350 Apr 10 j 14:27	20°♌32'14	0°-14'-23		351 Mar 23 j 10:23	0°♌	
minimum elong	350 Apr 10 j 15:09	20°♌35'56	0°14'14				
behind sun begin	350 Apr 10 j 12:49	20°♌23'21		superior conj	351 Mar 25 j 19:17	4°♌58'26	0°-41'-28
behind sun end	350 Apr 10 j 17:28	20°♌48'31		minimum elong	351 Mar 25 j 21:18	5°♌09'05	0°41'04
asc. node	350 Apr 11 j 23:14	23°♌29'40		asc. node	351 Mar 29 j 20:16	13°♌34'37	
	350 Apr 14 j 23:15	0°♍		evening rise	351 Apr 02 j 02:48	20°♌30'35	
evening rise	350 Apr 17 j 15:46	5°♍45'02			351 Apr 06 j 19:01	0°♍	
	350 Apr 30 j 14:45	0°♎		evening max el	351 Apr 23 j 04:52	24°♍27'46	22°09'13
evening max el	350 May 11 j 11:53	13°♎52'05	23°44'11		351 May 01 j 14:26	0°♎	
desc. node	350 May 21 j 08:52	20°♎10'58		retrograde	351 May 05 j 23:49	0°♎44'41	
retrograde	350 May 25 j 05:13	20°♎44'41		desc. node	351 May 08 j 05:53	0°♎33'24	
evening set	350 May 29 j 07:33	20°♎07'40		evening set	351 May 08 j 19:30	0°♎27'06	
min. Earth dist.	350 Jun 04 j 22:40	17°♎00'13	0.56130 AU		351 May 10 j 13:02	30°♎☿	
inferior conj	350 Jun 07 j 04:37	15°♎38'32	-4°-7'-11	min. Earth dist.	351 May 17 j 11:07	26°♎44'41	0.55137 AU
minimum elong	350 Jun 06 j 22:14	15°♎48'16	4°05'57	inferior conj	351 May 18 j 04:15	26°♎20'34	-2°-43'-54
morning rise	350 Jun 15 j 16:28	11°♎40'51		minimum elong	351 May 17 j 21:21	26°♎30'17	2°41'48
direct	350 Jun 18 j 08:42	11°♎22'42		morning rise	351 May 27 j 00:54	22°♎26'38	
morning max el	350 Jun 28 j 11:56	16°♎04'09	20°00'58	direct	351 May 29 j 23:34	22°♎07'09	
asc. node	350 Jul 08 j 22:28	0°♏15'26		morning max el	351 Jun 10 j 18:15	27°♎37'55	21°23'21
	350 Jul 08 j 18:54	0°♏			351 Jun 13 j 02:15	0°♎	
morning set	350 Jul 16 j 13:11	14°♏48'36		asc. node	351 Jun 25 j 19:32	19°♎26'05	
				morning set	351 Jun 30 j 21:28	29°♎34'19	
superior conj	350 Jul 24 j 09:18	0°♏44'48	1°46'13		351 Jul 01 j 02:26	0°♏	
minimum elong	350 Jul 24 j 08:40	0°♏41'38	1°46'13				
	350 Jul 24 j 00:22	0°♐		superior conj	351 Jul 08 j 07:29	15°♏05'19	1°39'41
max. Earth dist.	350 Jul 29 j 20:02	11°♐23'14	1.36863 AU	minimum elong	351 Jul 08 j 05:39	14°♏55'50	1°39'33
evening rise	350 Aug 02 j 18:20	18°♐41'11		max. Earth dist.	351 Jul 12 j 07:29	23°♏15'36	1.35193 AU
	350 Aug 09 j 05:49	0°♑			351 Jul 15 j 17:47	0°♐	
desc. node	350 Aug 17 j 08:14	12°♑57'43		evening rise	351 Jul 16 j 17:20	1°♐52'44	
	350 Aug 29 j 11:43	0°♒			351 Aug 02 j 05:24	0°♑	
evening max el	350 Sep 07 j 12:58	10°♒18'12	25°43'59	desc. node	351 Aug 04 j 05:15	2°♑58'15	
retrograde	350 Sep 19 j 20:06	17°♒20'31		evening max el	351 Aug 21 j 01:04	23°♑54'10	26°41'50
evening set	350 Sep 25 j 21:27	14°♒48'41			351 Aug 29 j 07:19	0°♒	
min. Earth dist.	350 Sep 30 j 06:02	10°♒02'30	0.66830 AU	retrograde	351 Sep 03 j 00:37	1°♒08'47	
inferior conj	350 Oct 01 j 11:30	8°♒28'37	-1°-10'-13		351 Sep 07 j 08:58	30°♒☿	
minimum elong	350 Oct 01 j 13:17	8°♒22'54	1°09'29	evening set	351 Sep 09 j 15:28	28°♒26'45	
asc. node	350 Oct 04 j 21:37	4°♒26'59		min. Earth dist.	351 Sep 13 j 16:32	24°♒18'04	0.65895 AU
morning rise	350 Oct 07 j 05:53	2°♒31'25		inferior conj	351 Sep 15 j 09:56	22°♒14'59	-2°-6'-42
direct	350 Oct 10 j 11:12	1°♒31'31		minimum elong	351 Sep 15 j 13:11	22°♒05'21	2°05'28
morning max el	350 Oct 17 j 12:33	5°♒30'08	19°12'45	morning rise	351 Sep 21 j 12:07	16°♒29'38	
	350 Nov 03 j 23:53	0°♓		asc. node	351 Sep 21 j 18:43	16°♒21'18	
morning set	350 Nov 09 j 15:06	8°♓45'55		direct	351 Sep 24 j 08:52	15°♒43'43	
desc. node	350 Nov 13 j 07:30	14°♓30'53		morning max el	351 Oct 01 j 00:12	19°♒22'37	18°28'57
	350 Nov 23 j 04:33	0°♈			351 Oct 09 j 02:07	0°♒	
max. Earth dist.	350 Nov 23 j 17:58	0°♈52'54	1.44733 AU	morning set	351 Oct 20 j 20:01	18°♒39'50	
					351 Oct 27 j 21:49	0°♓	
superior conj	350 Nov 26 j 09:44	5°♈05'03	-1°-19'-28	desc. node	351 Oct 31 j 04:32	5°♓12'27	
minimum elong	350 Nov 26 j 01:21	4°♈31'49	1°18'37				
evening rise	350 Dec 11 j 04:03	28°♈57'15		superior conj	351 Nov 05 j 10:30	13°♓29'20	0°-34'-7

minimum elong	351 Nov 05 j 06:02	13° \mathbb{M} 11'45	0°33'32	behind sun begin	352 Oct 14 j 17:03	22° \mathbb{A} 11'59	
max. Earth dist.	351 Nov 06 j 12:43	15° \mathbb{M} 12'25	1.45060 AU	behind sun end	352 Oct 15 j 02:27	22° \mathbb{A} 49'43	
	351 Nov 15 j 22:43	0° \mathbb{A}		desc. node	352 Oct 17 j 01:34	25° \mathbb{A} 58'14	
evening rise	351 Nov 21 j 15:39	8° \mathbb{A} 59'36		max. Earth dist.	352 Oct 19 j 07:33	29° \mathbb{A} 32'43	1.44645 AU
greatest brilliancy	351 Dec 03 j 14:20	27° \mathbb{A} 44'45	-0.7m		352 Oct 19 j 14:26	0° \mathbb{M}	
	351 Dec 05 j 01:56	0° \mathbb{B}		evening rise	352 Oct 31 j 06:47	18° \mathbb{M} 13'40	
evening max el	351 Dec 14 j 07:02	12° \mathbb{B} 13'28	19°09'20		352 Nov 07 j 23:01	0° \mathbb{A}	
asc. node	351 Dec 18 j 17:58	15° \mathbb{B} 37'51		greatest brilliancy	352 Nov 19 j 13:29	17° \mathbb{A} 05'54	-0.6m
retrograde	351 Dec 21 j 06:41	16° \mathbb{B} 12'57		evening max el	352 Nov 26 j 12:11	25° \mathbb{A} 41'40	20°03'01
evening set	351 Dec 24 j 13:09	15° \mathbb{B} 10'45			352 Dec 02 j 17:33	0° \mathbb{B}	
inferior conj	351 Dec 30 j 05:13	9° \mathbb{B} 19'11	3°13'47	retrograde	352 Dec 04 j 04:16	0° \mathbb{B} 11'26	
minimum elong	351 Dec 30 j 02:36	9° \mathbb{B} 27'31	3°13'13	asc. node	352 Dec 04 j 15:02	0° \mathbb{B} 10'17	
min. Earth dist.	351 Dec 31 j 15:34	7° \mathbb{B} 30'15	0.65898 AU		352 Dec 05 j 14:07	30° \mathbb{R} \mathbb{A}	
morning rise	352 Jan 04 j 15:12	3° \mathbb{B} 07'04		evening set	352 Dec 07 j 18:48	28° \mathbb{A} 55'33	
direct	352 Jan 11 j 00:50	0° \mathbb{B} 19'22		inferior conj	352 Dec 13 j 06:58	22° \mathbb{A} 50'20	2°39'23
morning max el	352 Jan 23 j 19:09	7° \mathbb{B} 50'29	26°23'30	minimum elong	352 Dec 13 j 04:13	22° \mathbb{A} 59'31	2°38'34
desc. node	352 Jan 27 j 03:43	11° \mathbb{B} 26'48		min. Earth dist.	352 Dec 14 j 03:43	21° \mathbb{A} 40'53	0.66858 AU
	352 Feb 10 j 02:24	0° \mathbb{A}		morning rise	352 Dec 18 j 13:04	16° \mathbb{A} 35'28	
	352 Feb 28 j 01:02	0° \mathbb{H}		direct	352 Dec 24 j 08:51	14° \mathbb{A} 01'25	
morning set	352 Feb 28 j 20:48	1° \mathbb{H} 32'24		morning max el	353 Jan 05 j 03:59	21° \mathbb{A} 02'45	25°07'06
max. Earth dist.	352 Mar 04 j 00:16	9° \mathbb{H} 30'16	1.35009 AU		353 Jan 12 j 22:17	0° \mathbb{B}	
				desc. node	353 Jan 13 j 00:46	0° \mathbb{B} 07'52	
superior conj	352 Mar 08 j 17:43	19° \mathbb{H} 00'33	-1°-7'-56		353 Feb 02 j 07:37	0° \mathbb{A}	
minimum elong	352 Mar 08 j 20:56	19° \mathbb{H} 17'02	1°07'25	morning set	353 Feb 10 j 08:08	13° \mathbb{A} 46'27	
	352 Mar 14 j 00:50	0° \mathbb{Y}		max. Earth dist.	353 Feb 14 j 01:37	20° \mathbb{A} 34'52	1.36758 AU
asc. node	352 Mar 15 j 17:19	3° \mathbb{Y} 30'18			353 Feb 19 j 00:09	0° \mathbb{H}	
evening rise	352 Mar 16 j 11:12	5° \mathbb{Y} 02'43					
	352 Mar 30 j 13:16	0° \mathbb{B}		superior conj	353 Feb 20 j 06:48	2° \mathbb{H} 30'17	-1°-32'00
evening max el	352 Apr 04 j 06:35	5° \mathbb{B} 27'10	20°43'36	minimum elong	353 Feb 20 j 10:43	2° \mathbb{H} 49'36	1°31'31
retrograde	352 Apr 15 j 12:42	10° \mathbb{B} 53'37		evening rise	353 Feb 28 j 14:47	19° \mathbb{H} 14'47	
evening set	352 Apr 17 j 17:05	10° \mathbb{B} 42'10		asc. node	353 Mar 02 j 14:22	23° \mathbb{H} 12'08	
desc. node	352 Apr 24 j 02:55	8° \mathbb{B} 18'26			353 Mar 06 j 03:10	0° \mathbb{Y}	
inferior conj	352 Apr 26 j 22:22	6° \mathbb{B} 44'38	0°-48'-30	evening max el	353 Mar 17 j 19:41	17° \mathbb{Y} 04'34	19°34'55
minimum elong	352 Apr 26 j 20:04	6° \mathbb{B} 47'55	0°47'42	retrograde	353 Mar 27 j 08:47	21° \mathbb{Y} 39'57	
min. Earth dist.	352 Apr 28 j 00:00	6° \mathbb{B} 07'56	0.55059 AU	evening set	353 Mar 29 j 11:29	21° \mathbb{Y} 27'27	
morning rise	352 May 05 j 21:51	2° \mathbb{B} 35'55		inferior conj	353 Apr 07 j 01:39	17° \mathbb{Y} 22'51	1°06'08
direct	352 May 09 j 10:04	2° \mathbb{B} 09'22		minimum elong	353 Apr 07 j 04:21	17° \mathbb{Y} 18'33	1°05'14
morning max el	352 May 22 j 14:38	8° \mathbb{B} 31'28	23°00'23	min. Earth dist.	353 Apr 09 j 14:26	15° \mathbb{Y} 46'22	0.55920 AU
	352 Jun 07 j 00:10	0° \mathbb{I}		desc. node	353 Apr 10 j 23:57	14° \mathbb{Y} 55'58	
asc. node	352 Jun 11 j 16:36	9° \mathbb{I} 00'31		morning rise	353 Apr 15 j 17:38	12° \mathbb{Y} 43'25	
morning set	352 Jun 14 j 08:29	14° \mathbb{I} 29'15		direct	353 Apr 20 j 04:38	11° \mathbb{Y} 58'46	
				morning max el	353 May 04 j 05:50	19° \mathbb{Y} 03'09	24°41'23
superior conj	352 Jun 21 j 12:20	29° \mathbb{I} 46'15	1°27'23		353 May 13 j 09:42	0° \mathbb{B}	
minimum elong	352 Jun 21 j 09:56	29° \mathbb{I} 33'25	1°27'05	morning set	353 May 29 j 20:29	29° \mathbb{B} 28'02	
	352 Jun 21 j 14:55	0° \mathbb{B}		asc. node	353 May 29 j 13:39	28° \mathbb{B} 52'11	
max. Earth dist.	352 Jun 24 j 04:25	5° \mathbb{B} 25'10	1.33890 AU		353 May 30 j 02:32	0° \mathbb{I}	
evening rise	352 Jun 29 j 06:00	15° \mathbb{B} 44'56					
	352 Jul 06 j 20:25	0° \mathbb{Q}		superior conj	353 Jun 05 j 21:28	14° \mathbb{I} 40'01	1°10'30
desc. node	352 Jul 21 j 02:16	22° \mathbb{Q} 30'01		minimum elong	353 Jun 05 j 19:02	14° \mathbb{I} 26'50	1°10'06
	352 Jul 26 j 20:28	0° \mathbb{M}		max. Earth dist.	353 Jun 07 j 09:43	17° \mathbb{I} 56'26	1.32979 AU
evening max el	352 Aug 02 j 12:51	7° \mathbb{M} 17'32	27°17'24	evening rise	353 Jun 13 j 04:26	0° \mathbb{B} 06'34	
retrograde	352 Aug 15 j 23:26	14° \mathbb{M} 36'29			353 Jun 13 j 03:09	0° \mathbb{B}	
evening set	352 Aug 23 j 00:31	11° \mathbb{M} 52'36			353 Jun 29 j 21:27	0° \mathbb{Q}	
min. Earth dist.	352 Aug 26 j 18:51	8° \mathbb{M} 20'47	0.64598 AU	desc. node	353 Jul 07 j 23:18	11° \mathbb{Q} 20'58	
inferior conj	352 Aug 29 j 01:15	5° \mathbb{M} 52'58	-3°-1'-14	evening max el	353 Jul 15 j 22:29	20° \mathbb{Q} 16'02	27°24'22
minimum elong	352 Aug 29 j 05:41	5° \mathbb{M} 40'54	2°59'47	retrograde	353 Jul 29 j 16:18	27° \mathbb{Q} 34'47	
morning rise	352 Sep 04 j 12:37	0° \mathbb{M} 22'55		evening set	353 Aug 05 j 21:16	25° \mathbb{Q} 00'57	
	352 Sep 05 j 14:08	30° \mathbb{R} \mathbb{Q}		min. Earth dist.	353 Aug 09 j 11:22	22° \mathbb{Q} 00'39	0.62945 AU
direct	352 Sep 07 j 03:14	29° \mathbb{Q} 47'28		inferior conj	353 Aug 12 j 06:40	19° \mathbb{Q} 16'35	-3°-50'-20
asc. node	352 Sep 07 j 15:48	29° \mathbb{Q} 48'55		minimum elong	353 Aug 12 j 11:33	19° \mathbb{Q} 04'39	3°49'09
	352 Sep 08 j 16:21	0° \mathbb{M}		morning rise	353 Aug 19 j 04:16	14° \mathbb{Q} 05'08	
morning max el	352 Sep 13 j 15:20	3° \mathbb{M} 15'23	18°02'01	direct	353 Aug 21 j 15:14	13° \mathbb{Q} 37'01	
morning set	352 Oct 01 j 05:21	29° \mathbb{M} 56'39		asc. node	353 Aug 25 j 12:52	14° \mathbb{Q} 49'12	
	352 Oct 01 j 06:09	0° \mathbb{A}		morning max el	353 Aug 28 j 07:08	17° \mathbb{Q} 02'29	17°52'49
					353 Sep 06 j 12:15	0° \mathbb{M}	
superior conj	352 Oct 14 j 20:00	22° \mathbb{A} 23'50	0°14'47	morning set	353 Sep 13 j 14:18	12° \mathbb{M} 21'16	
minimum elong	352 Oct 14 j 21:45	22° \mathbb{A} 30'52	0°14'32		353 Sep 23 j 17:55	0° \mathbb{A}	

superior conj	353 Sep 25 j 06:06	2°♄32'29	0°55'58	asc. node	354 Aug 12 j 09:53	1°♁09'00	
minimum elong	353 Sep 25 j 10:53	2°♄52'31	0°55'22	morning set	354 Aug 27 j 16:47	25°♁36'03	
max. Earth dist.	353 Oct 01 j 23:06	13°♄34'43	1.43551 AU		354 Aug 30 j 01:48	0°♈	
desc. node	353 Oct 03 j 22:36	16°♄45'25					
evening rise	353 Oct 10 j 13:55	27°♄11'46		superior conj	354 Sep 06 j 19:13	14°♈00'38	1°24'40
	353 Oct 12 j 09:31	0°♈		minimum elong	354 Sep 06 j 23:33	14°♈19'48	1°24'15
	353 Nov 01 j 21:36	0°♈		max. Earth dist.	354 Sep 14 j 09:19	27°♈02'19	1.41919 AU
greatest brilliancy	353 Nov 04 j 05:03	3°♈01'27	-0.4m		354 Sep 16 j 04:14	0°♄	
evening max el	353 Nov 09 j 11:40	9°♈10'14	21°09'52	evening rise	354 Sep 20 j 06:56	6°♄39'46	
retrograde	353 Nov 18 j 01:47	14°♈16'16		desc. node	354 Sep 20 j 19:39	7°♄30'28	
asc. node	353 Nov 21 j 12:05	13°♈10'08			354 Oct 05 j 15:31	0°♈	
evening set	353 Nov 22 j 02:20	12°♈44'55		greatest brilliancy	354 Oct 18 j 11:25	17°♈19'41	-0.3m
inferior conj	353 Nov 27 j 12:20	6°♈29'32	1°57'23	evening max el	354 Oct 23 j 05:37	22°♈40'18	22°26'05
minimum elong	353 Nov 27 j 09:59	6°♈37'37	1°56'32	retrograde	354 Nov 01 j 21:24	28°♈24'50	
min. Earth dist.	353 Nov 27 j 21:08	5°♈59'14	0.67447 AU	evening set	354 Nov 06 j 10:00	26°♈36'22	
morning rise	353 Dec 02 j 17:17	0°♈14'01		asc. node	354 Nov 08 j 09:06	24°♈41'25	
	353 Dec 02 j 23:52	30°♈		inferior conj	354 Nov 11 j 19:23	20°♈14'38	1°09'35
direct	353 Dec 07 j 21:53	27°♈59'53		minimum elong	354 Nov 11 j 17:51	20°♈19'59	1°08'57
	353 Dec 13 j 10:54	0°♈		min. Earth dist.	354 Nov 11 j 17:21	20°♈21'43	0.67692 AU
morning max el	353 Dec 18 j 12:41	4°♈19'35	23°40'25	morning rise	354 Nov 17 j 01:33	14°♈00'52	
desc. node	353 Dec 30 j 21:48	19°♈29'54		direct	354 Nov 21 j 15:05	12°♈09'11	
	354 Jan 07 j 05:40	0°♄		morning max el	354 Dec 01 j 00:12	17°♈41'43	22°13'15
morning set	354 Jan 22 j 20:05	24°♄48'31		greatest brilliancy	354 Dec 05 j 15:54	22°♈55'37	-0.3m
	354 Jan 25 j 20:25	0°♈			354 Dec 11 j 03:09	0°♈	
max. Earth dist.	354 Jan 26 j 20:42	1°♈46'29	1.38812 AU	desc. node	354 Dec 17 j 18:51	9°♈21'25	
					354 Dec 31 j 08:50	0°♄	
superior conj	354 Feb 03 j 06:41	15°♈17'11	-1°-51'-6	morning set	355 Jan 03 j 03:21	4°♄26'26	
minimum elong	354 Feb 03 j 10:13	15°♈33'46	1°50'50	max. Earth dist.	355 Jan 08 j 17:36	13°♄39'53	1.40933 AU
	354 Feb 10 j 22:10	0°♈					
evening rise	354 Feb 12 j 10:53	2°♈58'56		superior conj	355 Jan 16 j 12:37	27°♄09'43	-2°-1'-40
asc. node	354 Feb 17 j 11:24	12°♈34'01		minimum elong	355 Jan 16 j 13:53	27°♄15'23	2°01'39
evening max el	354 Feb 28 j 19:04	29°♈19'03	18°45'51		355 Jan 18 j 02:36	0°♈	
	354 Mar 01 j 12:48	0°♈		evening rise	355 Jan 26 j 20:18	16°♈07'44	
retrograde	354 Mar 08 j 21:16	3°♈14'45			355 Feb 03 j 11:17	0°♈	
evening set	354 Mar 11 j 04:17	2°♈57'03		asc. node	355 Feb 04 j 08:26	1°♈29'21	
	354 Mar 17 j 00:55	30°♈		evening max el	355 Feb 12 j 01:57	12°♈03'23	18°16'52
inferior conj	354 Mar 18 j 23:48	28°♈35'33	2°33'14	retrograde	355 Feb 19 j 04:26	15°♈35'42	
minimum elong	354 Mar 19 j 04:05	28°♈27'35	2°32'07	evening set	355 Feb 21 j 16:30	15°♈10'18	
min. Earth dist.	354 Mar 22 j 07:24	26°♈09'15	0.57535 AU	inferior conj	355 Feb 28 j 19:00	10°♈27'37	3°25'15
morning rise	354 Mar 26 j 23:38	23°♈23'20		minimum elong	355 Feb 28 j 22:00	10°♈21'07	3°24'47
desc. node	354 Mar 28 j 20:59	22°♈40'45		min. Earth dist.	355 Mar 04 j 04:46	7°♈32'29	0.59572 AU
direct	354 Apr 01 j 13:20	22°♈07'11		morning rise	355 Mar 07 j 23:57	4°♈50'40	
morning max el	354 Apr 15 j 21:36	29°♈38'33	26°11'26	direct	355 Mar 14 j 10:59	2°♈56'57	
	354 Apr 16 j 06:22	0°♈		desc. node	355 Mar 15 j 18:00	3°♈01'24	
	354 May 07 j 01:48	0°♄		morning max el	355 Mar 28 j 18:15	10°♈42'02	27°16'05
morning set	354 May 14 j 07:45	14°♄23'50			355 Apr 12 j 17:28	0°♈	
asc. node	354 May 16 j 10:41	18°♄54'45		morning set	355 Apr 28 j 16:38	29°♈10'55	
					355 Apr 29 j 02:03	0°♄	
superior conj	354 May 21 j 08:44	29°♄38'35	0°49'57	asc. node	355 May 03 j 07:43	9°♄03'38	
minimum elong	354 May 21 j 06:45	29°♄27'42	0°49'34				
	354 May 21 j 12:39	0°♈		superior conj	355 May 05 j 20:27	14°♄36'01	0°26'31
max. Earth dist.	354 May 21 j 20:25	0°♈42'39	1.32454 AU	minimum elong	355 May 05 j 19:18	14°♄29'38	0°26'17
evening rise	354 May 28 j 09:30	14°♈46'54		max. Earth dist.	355 May 05 j 09:03	13°♄33'22	1.32304 AU
	354 Jun 05 j 03:35	0°♄		evening rise	355 May 12 j 18:47	29°♄37'57	
desc. node	354 Jun 24 j 20:19	29°♄12'59			355 May 12 j 22:58	0°♈	
	354 Jun 25 j 13:35	0°♈			355 May 29 j 12:48	0°♄	
evening max el	354 Jun 28 j 03:33	2°♈36'51	26°58'49	evening max el	355 Jun 10 j 02:10	14°♄12'50	26°01'04
retrograde	354 Jul 12 j 02:07	9°♈53'07		desc. node	355 Jun 11 j 17:19	15°♄41'52	
evening set	354 Jul 19 j 01:23	7°♈43'33		retrograde	355 Jun 24 j 03:05	21°♄24'51	
min. Earth dist.	354 Jul 22 j 17:39	5°♈02'53	0.61003 AU	evening set	355 Jun 30 j 08:17	19°♄51'14	
inferior conj	354 Jul 25 j 22:53	2°♈17'04	-4°-28'-36	min. Earth dist.	355 Jul 04 j 14:52	17°♄13'15	0.58944 AU
minimum elong	354 Jul 26 j 02:46	2°♈08'39	4°28'04	inferior conj	355 Jul 07 j 22:19	14°♄45'12	-4°-47'-18
	354 Jul 28 j 17:38	30°♈		minimum elong	355 Jul 07 j 23:06	14°♄43'44	4°47'18
morning rise	354 Aug 02 j 07:13	27°♄26'54		morning rise	355 Jul 15 j 17:28	10°♄17'47	
direct	354 Aug 04 j 17:08	27°♄03'34		direct	355 Jul 18 j 04:49	9°♄57'15	
	354 Aug 11 j 05:16	0°♈		morning max el	355 Jul 26 j 04:22	13°♄45'50	18°31'58
morning max el	354 Aug 11 j 20:30	0°♈35'27	18°02'25	asc. node	355 Jul 30 j 06:56	18°♄33'18	

	355 Aug 06 j 07:37	0°♄		morning rise	356 Jun 26 j 07:58	22°♄26'02	
morning set	355 Aug 11 j 07:48	9°♄27'37		direct	356 Jun 28 j 22:19	22°♄07'13	
				morning max el	356 Jul 08 j 03:52	26°♄24'56	19°22'32
superior conj	355 Aug 20 j 06:58	26°♄35'53	1°40'59		356 Jul 11 j 10:45	0°♄	
minimum elong	355 Aug 20 j 09:21	26°♄47'00	1°40'51	asc. node	356 Jul 16 j 03:59	6°♄48'13	
	355 Aug 22 j 03:07	0°♄		morning set	356 Jul 25 j 07:41	23°♄46'30	
max. Earth dist.	355 Aug 27 j 14:36	9°♄47'59	1.39969 AU		356 Jul 28 j 10:15	0°♄	
evening rise	355 Aug 31 j 22:07	17°♄09'58					
desc. node	355 Sep 07 j 16:40	28°♄09'28		superior conj	356 Aug 02 j 11:48	10°♄03'14	1°46'48
	355 Sep 08 j 20:54	0°♄		minimum elong	356 Aug 02 j 12:08	10°♄04'54	1°46'48
	355 Sep 30 j 05:16	0°♄		max. Earth dist.	356 Aug 08 j 18:08	21°♄56'45	1.37952 AU
evening max el	355 Oct 05 j 19:28	6°♄13'05	23°46'15	evening rise	356 Aug 12 j 13:58	28°♄50'15	
retrograde	355 Oct 16 j 13:46	12°♄33'32			356 Aug 13 j 05:51	0°♄	
evening set	355 Oct 21 j 16:10	10°♄27'05		desc. node	356 Aug 24 j 13:41	18°♄38'21	
asc. node	355 Oct 26 j 06:08	5°♄11'29			356 Sep 01 j 05:50	0°♄	
min. Earth dist.	355 Oct 26 j 13:50	4°♄45'22	0.67614 AU	evening max el	356 Sep 17 j 07:20	19°♄49'26	25°03'37
inferior conj	355 Oct 27 j 02:18	4°♄02'55	0°17'23	retrograde	356 Sep 29 j 02:03	26°♄39'03	
minimum elong	355 Oct 27 j 01:53	4°♄04'20	0°17'12	evening set	356 Oct 04 j 19:10	24°♄15'24	
	355 Oct 30 j 06:23	30°♄		min. Earth dist.	356 Oct 09 j 08:17	19°♄08'37	0.67214 AU
morning rise	355 Nov 01 j 11:45	27°♄53'32		inferior conj	356 Oct 10 j 07:24	17°♄52'45	0°-37'-43
direct	355 Nov 05 j 11:22	26°♄24'00		minimum elong	356 Oct 10 j 08:21	17°♄49'39	0°37'20
	355 Nov 12 j 11:44	0°♄		asc. node	356 Oct 12 j 03:10	15°♄32'45	
morning max el	355 Nov 13 j 17:54	1°♄12'37	20°53'13	morning rise	356 Oct 15 j 22:03	11°♄50'30	
greatest brilliancy	355 Nov 19 j 11:01	7°♄52'52	-0.5m	direct	356 Oct 19 j 09:27	10°♄40'47	
desc. node	355 Dec 04 j 15:53	29°♄33'39		morning max el	356 Oct 26 j 19:28	14°♄54'32	19°45'18
	355 Dec 04 j 22:53	0°♄		greatest brilliancy	356 Nov 03 j 17:25	24°♄46'20	-0.6m
morning set	355 Dec 13 j 08:18	12°♄52'07			356 Nov 07 j 08:33	0°♄	
max. Earth dist.	355 Dec 21 j 22:02	26°♄30'42	1.42824 AU	desc. node	356 Nov 20 j 12:57	20°♄00'55	
	355 Dec 24 j 01:15	0°♄		morning set	356 Nov 21 j 05:07	21°♄03'22	
					356 Nov 26 j 23:13	0°♄	
superior conj	355 Dec 28 j 19:06	7°♄54'25	-1°-59'-11	max. Earth dist.	356 Dec 03 j 10:09	10°♄10'17	1.44222 AU
minimum elong	355 Dec 28 j 15:57	7°♄41'07	1°59'05				
evening rise	356 Jan 09 j 15:07	28°♄32'28		superior conj	356 Dec 07 j 22:50	17°♄25'29	-1°-39'-20
	356 Jan 10 j 10:45	0°♄		minimum elong	356 Dec 07 j 15:08	16°♄54'28	1°38'43
asc. node	356 Jan 22 j 05:27	19°♄49'11			356 Dec 15 j 14:58	0°♄	
evening max el	356 Jan 26 j 13:07	25°♄07'45	18°07'34	evening rise	356 Dec 21 j 15:06	10°♄05'48	
retrograde	356 Feb 02 j 03:17	28°♄32'21			357 Jan 02 j 15:18	0°♄	
evening set	356 Feb 04 j 19:51	27°♄58'02		asc. node	357 Jan 08 j 02:29	7°♄23'13	
inferior conj	356 Feb 11 j 08:42	22°♄53'37	3°47'05	evening max el	357 Jan 09 j 01:39	8°♄25'00	18°17'22
minimum elong	356 Feb 11 j 09:29	22°♄51'39	3°47'04	retrograde	357 Jan 15 j 13:19	11°♄55'01	
min. Earth dist.	356 Feb 14 j 09:16	19°♄54'39	0.61676 AU	evening set	357 Jan 18 j 10:24	11°♄10'57	
morning rise	356 Feb 17 j 20:39	17°♄00'25		inferior conj	357 Jan 24 j 13:00	5°♄46'20	3°46'19
direct	356 Feb 24 j 18:36	14°♄34'23		minimum elong	357 Jan 24 j 11:55	5°♄49'23	3°46'15
desc. node	356 Mar 01 j 15:02	16°♄06'53		min. Earth dist.	357 Jan 26 j 23:13	3°♄04'39	0.63586 AU
morning max el	356 Mar 09 j 21:11	22°♄25'45	27°46'08	morning rise	357 Jan 30 j 11:46	29°♄42'47	
	356 Mar 16 j 13:53	0°♄			357 Jan 30 j 03:19	30°♄	
	356 Apr 04 j 20:02	0°♄		direct	357 Feb 06 j 10:33	26°♄56'58	
morning set	356 Apr 11 j 21:13	13°♄42'31			357 Feb 14 j 13:35	0°♄	
max. Earth dist.	356 Apr 17 j 19:50	26°♄15'28	1.32522 AU	desc. node	357 Feb 16 j 12:05	1°♄27'25	
				morning max el	357 Feb 20 j 05:00	4°♄48'52	27°39'10
superior conj	356 Apr 19 j 06:56	29°♄26'10	0°00'58		357 Mar 11 j 05:43	0°♄	
minimum elong	356 Apr 19 j 06:53	29°♄25'56	0°00'58	morning set	357 Mar 26 j 19:06	27°♄50'36	
behind sun begin	356 Apr 19 j 01:48	28°♄58'10			357 Mar 27 j 20:56	0°♄	
behind sun end	356 Apr 19 j 11:59	29°♄53'43		max. Earth dist.	357 Apr 01 j 00:43	8°♄34'56	1.33138 AU
asc. node	356 Apr 19 j 04:46	29°♄14'20					
	356 Apr 19 j 13:08	0°♄		superior conj	357 Apr 03 j 14:25	14°♄03'03	0°-25'-51
evening rise	356 Apr 26 j 06:13	14°♄32'19		minimum elong	357 Apr 03 j 15:40	14°♄09'45	0°25'36
	356 May 04 j 00:48	0°♄		asc. node	357 Apr 06 j 01:49	19°♄22'38	
evening max el	356 May 21 j 18:31	25°♄07'29	24°38'07	evening rise	357 Apr 10 j 17:58	29°♄23'08	
	356 May 28 j 02:59	0°♄			357 Apr 11 j 00:58	0°♄	
desc. node	356 May 28 j 14:18	0°♄15'27			357 Apr 28 j 07:41	0°♄	
retrograde	356 Jun 04 j 17:00	2°♄10'34		evening max el	357 May 03 j 08:59	5°♄40'39	23°03'11
evening set	356 Jun 09 j 15:59	1°♄15'09		desc. node	357 May 15 j 11:19	12°♄17'05	
	356 Jun 12 j 11:01	30°♄		retrograde	357 May 16 j 18:38	12°♄20'57	
min. Earth dist.	356 Jun 15 j 05:49	28°♄22'43	0.57032 AU	evening set	357 May 20 j 06:47	11°♄53'59	
inferior conj	356 Jun 18 j 02:06	26°♄32'18	-4°-34'-9	min. Earth dist.	357 May 27 j 18:19	8°♄33'19	0.55605 AU
minimum elong	356 Jun 17 j 22:05	26°♄38'50	4°33'42	inferior conj	357 May 29 j 10:21	7°♄35'09	-3°-37'-11

minimum elong	357 May 29 j 03:03	7°II45'48	3°35'25	morning rise	358 May 18 j 04:58	14°808'49	
morning rise	357 Jun 07 j 02:24	3°II41'33		direct	358 May 21 j 07:54	13°847'30	
direct	357 Jun 09 j 20:50	3°II23'20		morning max el	358 Jun 02 j 18:45	19°840'58	22°03'18
morning max el	357 Jun 20 j 16:46	8°II24'11	20°33'56		358 Jun 11 j 06:20	0°II	
asc. node	357 Jul 03 j 01:04	25°II41'13		asc. node	358 Jun 19 j 22:09	15°II02'59	
	357 Jul 05 j 08:22	0°☿		morning set	358 Jun 23 j 23:14	23°II14'29	
morning set	357 Jul 09 j 13:33	8°☿24'09			358 Jun 27 j 04:16	0°☿	
superior conj	357 Jul 17 j 04:47	24°☿07'48	1°44'15	superior conj	358 Jul 01 j 06:13	8°☿38'26	1°35'05
minimum elong	357 Jul 17 j 03:35	24°☿01'37	1°44'11	minimum elong	358 Jul 01 j 04:04	8°☿27'09	1°34'53
	357 Jul 20 j 02:51	0°♂		max. Earth dist.	358 Jul 04 j 15:59	15°☿42'47	1.34589 AU
max. Earth dist.	357 Jul 22 j 00:55	3°♂46'13	1.36104 AU	evening rise	358 Jul 09 j 08:22	25°☿02'25	
evening rise	357 Jul 26 j 02:59	11°♂31'53			358 Jul 11 j 22:57	0°♂	
	357 Aug 05 j 18:34	0°♍		desc. node	358 Jul 29 j 07:42	28°♂40'15	
desc. node	357 Aug 11 j 10:42	8°♍51'01			358 Jul 30 j 06:05	0°♍	
	357 Aug 27 j 11:29	0°♂		evening max el	358 Aug 13 j 06:50	16°♍57'14	27°00'03
evening max el	357 Aug 30 j 18:53	3°♂26'06	26°10'48	retrograde	358 Aug 26 j 12:01	24°♍15'22	
retrograde	357 Sep 12 j 09:38	10°♂35'16		evening set	358 Sep 02 j 07:40	21°♍31'11	
evening set	357 Sep 18 j 17:06	7°♂57'55		min. Earth dist.	358 Sep 06 j 05:37	17°♍38'26	0.65383 AU
min. Earth dist.	357 Sep 22 j 22:18	3°♂27'52	0.66474 AU	inferior conj	358 Sep 08 j 04:31	15°♍23'49	-2°-30'-17
inferior conj	357 Sep 24 j 08:50	1°♂40'51	-1°-34'-16	minimum elong	358 Sep 08 j 08:19	15°♍12'53	2°28'55
minimum elong	357 Sep 24 j 11:15	1°♂33'21	1°33'18	morning rise	358 Sep 14 j 10:28	9°♍44'36	
	357 Sep 25 j 17:54	30°♍		asc. node	358 Sep 15 j 21:20	9°♍12'46	
asc. node	357 Sep 29 j 00:15	26°♍40'36		direct	358 Sep 17 j 04:11	9°♍03'43	
morning rise	357 Sep 30 j 06:22	25°♍48'36		morning max el	358 Sep 23 j 17:30	12°♍37'16	18°15'20
direct	357 Oct 03 j 07:42	24°♍55'13			358 Oct 05 j 23:32	0°♂	
morning max el	357 Oct 10 j 04:02	28°♍44'17	18°52'11	morning set	358 Oct 12 j 11:17	10°♂37'40	
	357 Oct 11 j 08:27	0°♂			358 Oct 24 j 10:33	0°♍	
morning set	357 Oct 31 j 18:05	0°♍08'21		desc. node	358 Oct 25 j 07:02	1°♍21'28	
	357 Oct 31 j 15:58	0°♍					
desc. node	357 Nov 07 j 10:01	10°♍38'07		superior conj	358 Oct 27 j 06:27	4°♍29'28	0°-13'-1
max. Earth dist.	357 Nov 16 j 02:55	24°♍18'40	1.44957 AU	minimum elong	358 Oct 27 j 04:46	4°♍22'46	0°12'49
				behind sun begin	358 Oct 26 j 21:53	3°♍55'32	
superior conj	357 Nov 17 j 04:41	26°♍00'04	-1°-1'-30	behind sun end	358 Oct 27 j 11:38	4°♍50'00	
minimum elong	357 Nov 16 j 21:15	25°♍30'48	1°00'37	max. Earth dist.	358 Oct 29 j 21:27	8°♍38'03	1.44964 AU
	357 Nov 19 j 17:33	0°♂		evening rise	358 Nov 12 j 18:14	0°♂19'20	
evening rise	357 Dec 02 j 16:23	20°♂41'08			358 Nov 12 j 13:17	0°♂	
	357 Dec 08 j 10:33	0°☿		greatest brilliancy	358 Nov 28 j 08:47	24°♂17'00	-0.7m
evening max el	357 Dec 23 j 12:58	21°☿49'31	18°45'29		358 Dec 02 j 10:46	0°☿	
asc. node	357 Dec 25 j 23:31	23°☿58'31		evening max el	358 Dec 06 j 20:53	5°☿17'00	19°30'29
retrograde	357 Dec 30 j 06:20	25°☿35'54		asc. node	358 Dec 12 j 20:35	9°☿19'43	
evening set	358 Jan 02 j 08:52	24°☿40'54		retrograde	358 Dec 14 j 02:55	9°☿28'38	
inferior conj	358 Jan 08 j 04:06	18°☿58'28	3°29'16	evening set	358 Dec 17 j 12:30	8°☿21'02	
minimum elong	358 Jan 08 j 01:50	19°☿05'24	3°28'54	inferior conj	358 Dec 23 j 02:42	2°☿23'30	3°00'18
min. Earth dist.	358 Jan 09 j 22:59	16°☿47'51	0.65158 AU	minimum elong	358 Dec 22 j 23:57	2°☿32'27	2°59'36
morning rise	358 Jan 13 j 17:40	12°☿48'31		min. Earth dist.	358 Dec 24 j 07:10	0°☿50'52	0.66346 AU
direct	358 Jan 20 j 09:36	9°☿57'29			358 Dec 24 j 23:05	30°♍♂	
morning max el	358 Feb 02 j 14:47	17°☿40'40	26°58'55	morning rise	358 Dec 28 j 10:38	26°♂09'50	
desc. node	358 Feb 03 j 09:10	18°☿27'31		direct	359 Jan 03 j 14:44	23°♂26'33	
	358 Feb 12 j 23:21	0°♍			359 Jan 15 j 04:52	0°☿	
	358 Mar 04 j 02:59	0°♂		morning max el	359 Jan 16 j 00:01	0°☿47'22	25°52'55
morning set	358 Mar 10 j 07:10	11°♂25'34		desc. node	359 Jan 21 j 06:13	6°☿37'41	
max. Earth dist.	358 Mar 14 j 19:49	20°♂21'34	1.34189 AU		359 Feb 06 j 23:16	0°♍	
				morning set	359 Feb 21 j 05:02	24°♍13'14	
superior conj	358 Mar 18 j 16:54	28°♂20'30	0°-52'-51		359 Feb 24 j 07:05	0°♂	
minimum elong	358 Mar 18 j 19:28	28°♂33'52	0°52'23	max. Earth dist.	359 Feb 25 j 02:50	1°♂34'28	1.35698 AU
	358 Mar 19 j 11:55	0°♍					
asc. node	358 Mar 23 j 22:52	9°♍24'32		superior conj	359 Mar 02 j 11:45	12°♂10'00	-1°-18'-34
evening rise	358 Mar 26 j 04:12	14°♍04'21		minimum elong	359 Mar 02 j 15:21	12°♂28'11	1°18'02
	358 Apr 03 j 08:17	0°♂		evening rise	359 Mar 10 j 10:48	28°♂28'29	
evening max el	358 Apr 15 j 05:04	16°♂24'11	21°31'02	asc. node	359 Mar 10 j 19:54	29°♂14'49	
retrograde	358 Apr 27 j 10:08	22°♂21'22			359 Mar 11 j 04:47	0°♍	
evening set	358 Apr 29 j 20:56	22°♂07'44		evening max el	359 Mar 28 j 11:42	27°♍39'41	20°12'08
desc. node	358 May 02 j 08:20	21°♂28'18			359 Mar 31 j 06:46	0°♂	
inferior conj	358 May 09 j 06:03	18°♂06'50	-1°-57'-13	retrograde	359 Apr 08 j 00:12	2°♂43'08	
minimum elong	358 May 09 j 00:41	18°♂14'23	1°55'24	evening set	359 Apr 10 j 02:34	2°♂31'56	
min. Earth dist.	358 May 09 j 07:09	18°♂05'18	0.54983 AU		359 Apr 16 j 14:37	30°♍♍	

inferior conj	359 Apr 19 j 02:27	28° Υ 33'34	0°02'06		360 Mar 02 j 22:32	0° Υ	
minimum elong	359 Apr 19 j 02:33	28° Υ 33'25	0°02'05	evening max el	360 Mar 10 j 05:30	9° Υ 33'27	19°11'36
transit middle	359 Apr 19 j 02:33	28° Υ 33'25	0°02'05	retrograde	360 Mar 19 j 02:13	13° Υ 49'39	
transit begin	359 Apr 18 j 22:34	28° Υ 39'20		evening set	360 Mar 21 j 06:41	13° Υ 35'11	
transit end	359 Apr 19 j 06:32	28° Υ 27'30		inferior conj	360 Mar 29 j 12:57	9° Υ 24'09	1°47'18
desc. node	359 Apr 19 j 05:23	28° Υ 29'12		minimum elong	360 Mar 29 j 16:47	9° Υ 17'38	1°46'06
min. Earth dist.	359 Apr 20 j 20:53	27° Υ 30'39	0.55322 AU	min. Earth dist.	360 Apr 01 j 11:56	7° Υ 24'46	0.56542 AU
morning rise	359 Apr 28 j 00:02	24° Υ 12'42		desc. node	360 Apr 05 j 02:25	5° Υ 19'03	
direct	359 May 01 j 21:07	23° Υ 39'51		morning rise	360 Apr 06 j 22:53	4° Υ 30'39	
	359 May 15 j 02:41	0° ♄		direct	360 Apr 11 j 21:37	3° Υ 33'55	
morning max el	359 May 15 j 12:11	0° ♄ 22'12	23°43'29	morning max el	360 Apr 26 j 02:39	10° Υ 50'48	25°21'50
	359 Jun 04 j 10:37	0° ♂			360 May 10 j 16:36	0° ♄	
asc. node	359 Jun 06 j 19:12	4° ♂ 45'10		morning set	360 May 22 j 22:43	23° ♄ 09'13	
morning set	359 Jun 08 j 10:51	8° ♂ 11'19		asc. node	360 May 23 j 16:13	24° ♄ 41'44	
					360 May 26 j 03:27	0° ♂	
superior conj	359 Jun 15 j 13:09	23° ♂ 25'30	1°20'42				
minimum elong	359 Jun 15 j 10:41	23° ♂ 12'10	1°20'23	superior conj	360 May 29 j 23:23	8° ♂ 21'39	1°02'10
max. Earth dist.	359 Jun 17 j 16:40	28° ♂ 01'11	1.33460 AU	minimum elong	360 May 29 j 21:06	8° ♂ 09'08	1°01'47
	359 Jun 18 j 15:07	0° ♄		max. Earth dist.	360 May 31 j 00:51	10° ♂ 40'32	1.32719 AU
evening rise	359 Jun 23 j 01:39	9° ♄ 08'32		evening rise	360 Jun 06 j 03:15	23° ♂ 39'09	
	359 Jul 04 j 08:51	0° ♂			360 Jun 09 j 06:53	0° ♄	
desc. node	359 Jul 16 j 04:43	17° ♂ 56'09			360 Jun 27 j 03:28	0° ♂	
	359 Jul 26 j 13:06	0° ♄		desc. node	360 Jul 02 j 01:44	6° ♂ 24'19	
evening max el	359 Jul 26 j 18:09	0° ♄ 12'05	27°24'13	evening max el	360 Jul 08 j 02:22	12° ♂ 56'26	27°17'35
retrograde	359 Aug 09 j 08:27	7° ♄ 31'15		retrograde	360 Jul 21 j 22:10	20° ♂ 13'17	
evening set	359 Aug 16 j 11:57	4° ♄ 50'21		evening set	360 Jul 29 j 02:09	17° ♂ 48'23	
min. Earth dist.	359 Aug 20 j 04:08	1° ♄ 32'33	0.63932 AU	min. Earth dist.	360 Aug 01 j 16:14	14° ♂ 58'08	0.62150 AU
	359 Aug 21 j 15:53	30° ♂		inferior conj	360 Aug 04 j 16:15	12° ♂ 11'36	-4°-8'-21
inferior conj	359 Aug 22 j 16:00	28° ♂ 56'41	-3°-23'-1	minimum elong	360 Aug 04 j 20:56	12° ♂ 00'42	4°07'24
minimum elong	359 Aug 22 j 20:45	28° ♂ 44'18	3°21'38	morning rise	360 Aug 11 j 18:21	7° ♂ 08'40	
morning rise	359 Aug 29 j 07:36	23° ♂ 33'50		direct	360 Aug 14 j 04:42	6° ♂ 42'43	
direct	359 Aug 31 j 20:18	23° ♂ 01'53		asc. node	360 Aug 19 j 15:27	8° ♂ 56'17	
asc. node	359 Sep 02 j 18:25	23° ♂ 20'34		morning max el	360 Aug 21 j 00:17	10° ♂ 09'36	17°54'31
morning max el	359 Sep 07 j 09:13	26° ♂ 28'02	17°55'48		360 Sep 03 j 02:52	0° ♄	
	359 Sep 10 j 10:05	0° ♄		morning set	360 Sep 06 j 00:36	5° ♄ 13'44	
morning set	359 Sep 24 j 07:28	22° ♄ 25'41					
	359 Sep 28 j 17:39	0° ♂		superior conj	360 Sep 16 j 23:07	24° ♄ 35'06	1°09'45
superior conj	359 Oct 07 j 01:17	13° ♂ 52'12	0°33'38	minimum elong	360 Sep 17 j 04:01	24° ♄ 56'06	1°09'11
minimum elong	359 Oct 07 j 04:50	14° ♂ 06'41	0°33'09		360 Sep 20 j 03:43	0° ♂	
desc. node	359 Oct 12 j 04:03	22° ♂ 08'02		max. Earth dist.	360 Sep 24 j 05:07	6° ♂ 43'10	1.42915 AU
max. Earth dist.	359 Oct 12 j 15:06	22° ♂ 52'10	1.44255 AU	desc. node	360 Sep 28 j 01:04	12° ♂ 54'25	
	359 Oct 17 j 03:22	0° ♄		evening rise	360 Oct 01 j 13:12	18° ♂ 26'53	
evening rise	359 Oct 23 j 03:53	9° ♄ 21'18			360 Oct 09 j 01:46	0° ♄	
	359 Nov 05 j 19:47	0° ♄		greatest brilliancy	360 Oct 28 j 00:00	26° ♄ 40'38	-0.4m
greatest brilliancy	359 Nov 13 j 21:36	11° ♄ 26'08	-0.5m		360 Oct 30 j 18:58	0° ♄	
evening max el	359 Nov 19 j 23:47	18° ♄ 45'43	20°30'11	evening max el	360 Nov 01 j 20:52	2° ♄ 14'35	21°41'27
retrograde	359 Nov 28 j 00:34	23° ♄ 29'58		retrograde	360 Nov 10 j 21:21	7° ♄ 36'28	
asc. node	359 Nov 29 j 17:38	23° ♄ 13'22		evening set	360 Nov 15 j 02:55	5° ♄ 57'48	
evening set	359 Dec 01 j 19:09	22° ♄ 07'45		asc. node	360 Nov 15 j 14:40	5° ♄ 33'23	
inferior conj	359 Dec 07 j 06:13	15° ♄ 58'04	2°22'25		360 Nov 20 j 06:30	30° ♄	
minimum elong	359 Dec 07 j 03:35	16° ♄ 07'00	2°21'32	inferior conj	360 Nov 20 j 12:29	29° ♄ 39'19	1°37'42
min. Earth dist.	359 Dec 07 j 21:46	15° ♄ 05'18	0.67152 AU	minimum elong	360 Nov 20 j 10:26	29° ♄ 46'24	1°36'55
morning rise	359 Dec 12 j 11:31	9° ♄ 42'50		min. Earth dist.	360 Nov 20 j 16:31	29° ♄ 25'23	0.67595 AU
direct	359 Dec 18 j 01:04	7° ♄ 16'28		morning rise	360 Nov 25 j 17:42	23° ♄ 24'31	
morning max el	359 Dec 29 j 08:18	14° ♄ 00'48	24°30'55	direct	360 Nov 30 j 15:50	21° ♄ 19'56	
desc. node	360 Jan 08 j 03:16	25° ♄ 37'40		morning max el	360 Dec 10 j 17:44	27° ♄ 19'01	23°02'57
	360 Jan 11 j 08:44	0° ♄			360 Dec 13 j 05:53	0° ♄	
	360 Jan 30 j 19:59	0° ♄		greatest brilliancy	360 Dec 15 j 13:42	2° ♄ 43'18	-0.3m
morning set	360 Feb 03 j 07:08	5° ♄ 58'08		desc. node	360 Dec 25 j 00:18	15° ♄ 12'55	
max. Earth dist.	360 Feb 07 j 00:23	12° ♄ 36'23	1.37607 AU		361 Jan 04 j 00:47	0° ♄	
				morning set	361 Jan 14 j 07:13	16° ♄ 24'08	
superior conj	360 Feb 13 j 19:44	25° ♄ 22'50	-1°-40'-54	max. Earth dist.	361 Jan 18 j 19:46	24° ♄ 03'51	1.39725 AU
minimum elong	360 Feb 13 j 23:40	25° ♄ 41'50	1°40'29		361 Jan 22 j 05:08	0° ♄	
	360 Feb 16 j 04:35	0° ♄		superior conj	361 Jan 26 j 12:35	7° ♄ 47'35	-1°-56'-52
evening rise	360 Feb 22 j 11:30	12° ♄ 29'13		minimum elong	361 Jan 26 j 15:25	8° ♄ 00'39	1°56'44
asc. node	360 Feb 25 j 16:55	18° ♄ 48'39		evening rise	361 Feb 05 j 03:27	25° ♄ 58'58	

	361 Feb 07 j 06:00	0°♄			362 Jan 14 j 11:02	0°♊	
asc. node	361 Feb 11 j 13:57	7°♄59'57		evening rise	362 Jan 19 j 07:09	8°♊49'42	
evening max el	361 Feb 21 j 08:21	22°♄01'00	18°31'05	asc. node	362 Jan 29 j 10:59	26°♊41'06	
retrograde	361 Feb 28 j 23:03	25°♄45'04			362 Jan 31 j 16:09	0°♄	
evening set	361 Mar 03 j 08:16	25°♄24'16		evening max el	362 Feb 04 j 17:20	4°♄54'01	18°10'34
inferior conj	361 Mar 10 j 20:07	20°♄53'35	2°59'27	retrograde	362 Feb 11 j 13:31	8°♄21'43	
minimum elong	361 Mar 11 j 00:06	20°♄45'41	2°58'35	evening set	362 Feb 14 j 03:23	7°♄52'47	
min. Earth dist.	361 Mar 14 j 06:13	18°♄12'19	0.58367 AU	inferior conj	362 Feb 20 j 23:38	3°♄00'48	3°37'46
morning rise	361 Mar 18 j 11:56	15°♄29'44		minimum elong	362 Feb 21 j 01:42	2°♄56'01	3°37'33
desc. node	361 Mar 22 j 23:26	14°♄03'55			362 Feb 24 j 06:51	30°♄	
direct	361 Mar 24 j 11:35	13°♄58'05		min. Earth dist.	362 Feb 24 j 06:28	0°♄00'51	0.60463 AU
morning max el	361 Apr 07 j 20:14	21°♄35'59	26°42'53	morning rise	362 Feb 27 j 20:53	27°♄15'40	
	361 Apr 15 j 04:28	0°♄		direct	362 Mar 06 j 13:41	25°♄07'00	
	361 May 03 j 10:24	0°♄		desc. node	362 Mar 09 j 20:29	25°♄36'04	
morning set	361 May 07 j 09:15	8°♄02'46			362 Mar 17 j 13:39	0°♄	
asc. node	361 May 10 j 13:14	14°♄47'48		morning max el	362 Mar 20 j 19:48	2°♄56'26	27°33'35
					362 Apr 09 j 15:12	0°♄	
superior conj	361 May 14 j 11:04	23°♄20'50	0°40'20	morning set	362 Apr 21 j 16:35	22°♄44'20	
minimum elong	361 May 14 j 09:24	23°♄11'37	0°40'00		362 Apr 25 j 03:13	0°♄	
max. Earth dist.	361 May 14 j 13:04	23°♄31'51	1.32347 AU	asc. node	362 Apr 27 j 10:16	4°♄57'59	
	361 May 17 j 11:57	0°♄		max. Earth dist.	362 Apr 28 j 01:21	6°♄20'20	1.32341 AU
evening rise	361 May 21 j 10:24	8°♄25'25					
	361 Jun 01 j 17:14	0°♄		superior conj	362 Apr 28 j 22:28	8°♄15'53	0°15'55
desc. node	361 Jun 18 j 22:44	23°♄44'58		minimum elong	362 Apr 28 j 21:45	8°♄11'57	0°15'45
evening max el	361 Jun 20 j 04:49	24°♄58'55	26°37'50	behind sun begin	362 Apr 28 j 21:17	8°♄09'27	
	361 Jun 26 j 17:09	0°♄		behind sun end	362 Apr 28 j 22:12	8°♄14'27	
retrograde	361 Jul 04 j 04:20	2°♄13'27		evening rise	362 May 05 j 20:48	23°♄18'27	
evening set	361 Jul 10 j 21:48	0°♄17'46			362 May 09 j 02:30	0°♄	
	361 Jul 11 j 10:06	30°♄			362 May 27 j 08:14	0°♄	
min. Earth dist.	361 Jul 14 j 18:10	27°♄40'52	0.60136 AU	evening max el	362 Jun 02 j 00:16	6°♄15'21	25°28'12
inferior conj	361 Jul 18 j 01:48	24°♄59'58	-4°-39'-35	desc. node	362 Jun 05 j 19:45	9°♄29'28	
minimum elong	361 Jul 18 j 04:39	24°♄54'09	4°39'19	retrograde	362 Jun 16 j 01:14	13°♄25'33	
morning rise	361 Jul 25 j 14:47	20°♄19'39		evening set	362 Jun 21 j 18:51	12°♄08'22	
direct	361 Jul 28 j 01:10	19°♄57'37		min. Earth dist.	362 Jun 26 j 12:19	9°♄26'10	0.58094 AU
morning max el	361 Aug 04 j 11:46	23°♄34'45	18°12'30	inferior conj	362 Jun 29 j 17:08	7°♄11'29	-4°-46'-26
asc. node	361 Aug 06 j 12:28	25°♄45'45		minimum elong	362 Jun 29 j 15:58	7°♄13'32	4°46'24
	361 Aug 09 j 16:15	0°♄		morning rise	362 Jul 07 j 16:55	2°♄53'53	
morning set	361 Aug 20 j 08:58	18°♄45'59		direct	362 Jul 10 j 05:14	2°♄34'21	
	361 Aug 26 j 08:33	0°♄		morning max el	362 Jul 18 j 16:32	6°♄33'35	18°50'52
				asc. node	362 Jul 24 j 09:31	13°♄33'13	
superior conj	361 Aug 29 j 22:40	6°♄34'32	1°33'00		362 Aug 02 j 17:16	0°♄	
minimum elong	361 Aug 30 j 02:15	6°♄50'44	1°32'43	morning set	362 Aug 04 j 04:09	2°♄50'02	
max. Earth dist.	361 Sep 06 j 13:23	19°♄54'47	1.41118 AU				
evening rise	361 Sep 11 j 14:48	28°♄18'57		superior conj	362 Aug 12 j 18:23	19°♄34'05	1°44'36
	361 Sep 12 j 15:45	0°♄		minimum elong	362 Aug 12 j 19:52	19°♄41'08	1°44'32
desc. node	361 Sep 14 j 22:06	3°♄37'21			362 Aug 18 j 09:21	0°♄	
	361 Oct 02 j 16:58	0°♄		max. Earth dist.	362 Aug 19 j 16:50	2°♄21'05	1.39105 AU
greatest brilliancy	361 Oct 10 j 03:52	9°♄43'13	-0.2m	evening rise	362 Aug 23 j 16:39	9°♄19'17	
evening max el	361 Oct 15 j 12:43	15°♄44'55	22°59'56	desc. node	362 Sep 01 j 19:08	24°♄12'33	
retrograde	361 Oct 25 j 15:48	21°♄45'33			362 Sep 05 j 13:36	0°♄	
evening set	361 Oct 30 j 10:10	19°♄49'12		evening max el	362 Sep 28 j 01:20	29°♄18'54	24°19'53
asc. node	361 Nov 02 j 11:42	16°♄33'28			362 Sep 28 j 18:13	0°♄	
inferior conj	361 Nov 04 j 19:41	13°♄25'42	0°47'51	retrograde	362 Oct 09 j 06:45	5°♄53'37	
minimum elong	361 Nov 04 j 18:35	13°♄29'30	0°47'23	evening set	362 Oct 14 j 15:15	3°♄39'39	
min. Earth dist.	361 Nov 04 j 13:06	13°♄48'25	0.67701 AU		362 Oct 18 j 00:20	30°♄	
morning rise	361 Nov 10 j 03:01	7°♄13'35		min. Earth dist.	362 Oct 19 j 09:09	28°♄12'20	0.67480 AU
direct	361 Nov 14 j 10:22	5°♄31'46		inferior conj	362 Oct 20 j 02:06	27°♄15'21	0°-5'-43
morning max el	361 Nov 23 j 07:43	10°♄44'54	21°37'56	minimum elong	362 Oct 20 j 02:14	27°♄14'53	0°05'41
greatest brilliancy	361 Nov 28 j 06:44	16°♄23'24	-0.4m	transit middle	362 Oct 20 j 02:14	27°♄14'53	0°05'41
	361 Dec 08 j 07:17	0°♄		transit begin	362 Oct 19 j 23:40	27°♄23'30	
desc. node	361 Dec 11 j 21:21	5°♄13'44		transit end	362 Oct 20 j 04:48	27°♄06'16	
morning set	361 Dec 25 j 02:09	25°♄27'07		asc. node	362 Oct 20 j 08:44	26°♄53'01	
	361 Dec 27 j 22:19	0°♄		morning rise	362 Oct 25 j 13:32	21°♄08'29	
max. Earth dist.	361 Dec 31 j 19:37	6°♄21'20	1.41779 AU	direct	362 Oct 29 j 07:36	19°♄47'53	
				morning max el	362 Nov 06 j 04:47	24°♄20'55	20°22'33
superior conj	362 Jan 08 j 09:05	19°♄11'41	-2°-2'-29		362 Nov 11 j 01:42	0°♄	
minimum elong	362 Jan 08 j 08:42	19°♄10'02	2°02'30	greatest brilliancy	362 Nov 12 j 16:50	2°♄07'51	-0.5m

desc. node	362 Nov 28 j 18:24	25°♄33'06			363 Nov 05 j 06:19	0°♄	
	362 Dec 01 j 16:09	0°♄		morning set	363 Nov 13 j 01:42	12°♄04'43	
morning set	362 Dec 04 j 00:37	3°♄37'52		desc. node	363 Nov 15 j 15:26	16°♄04'56	
max. Earth dist.	362 Dec 14 j 02:57	19°♄32'46	1.43485 AU		363 Nov 24 j 12:54	0°♄	
				max. Earth dist.	363 Nov 26 j 17:18	3°♄26'35	1.44625 AU
superior conj	362 Dec 20 j 04:21	29°♄25'21	-1°-53'-4				
minimum elong	362 Dec 19 j 23:02	29°♄03'21	1°52'47	superior conj	363 Nov 29 j 21:27	8°♄28'36	-1°-25'-16
	362 Dec 20 j 12:43	0°♄		minimum elong	363 Nov 29 j 13:02	7°♄55'07	1°24'25
evening rise	363 Jan 01 j 18:33	20°♄53'45			363 Dec 13 j 03:38	0°♄	
	363 Jan 06 j 23:58	0°♄		evening rise	363 Dec 14 j 09:11	2°♄02'30	
asc. node	363 Jan 16 j 08:02	14°♄43'17			364 Jan 01 j 10:10	0°♄	
evening max el	363 Jan 19 j 05:28	18°♄05'07	18°09'31	evening max el	364 Jan 02 j 17:52	1°♄26'22	18°27'13
retrograde	363 Jan 25 j 17:34	21°♄30'32		asc. node	364 Jan 03 j 05:07	1°♄54'12	
evening set	363 Jan 28 j 11:56	20°♄52'17		retrograde	364 Jan 09 j 06:53	5°♄01'42	
inferior conj	363 Feb 03 j 20:05	15°♄39'24	3°49'05	evening set	364 Jan 12 j 06:13	4°♄13'03	
minimum elong	363 Feb 03 j 19:59	15°♄39'37	3°49'06		364 Jan 17 j 01:41	30°♄	
min. Earth dist.	363 Feb 06 j 15:03	12°♄45'12	0.62519 AU	inferior conj	364 Jan 18 j 05:23	28°♄40'44	3°40'44
morning rise	363 Feb 10 j 01:53	9°♄41'10		minimum elong	364 Jan 18 j 03:42	28°♄45'38	3°40'33
direct	363 Feb 17 j 01:26	7°♄04'31		min. Earth dist.	364 Jan 20 j 09:05	26°♄11'03	0.64308 AU
desc. node	363 Feb 24 j 17:33	9°♄43'28		morning rise	364 Jan 23 j 23:47	22°♄34'22	
morning max el	363 Mar 03 j 01:03	14°♄57'44	27°47'35	direct	364 Jan 30 j 20:37	19°♄44'27	
	363 Mar 15 j 07:05	0°♄		desc. node	364 Feb 11 j 14:37	25°♄50'04	
	363 Apr 02 j 04:11	0°♄		morning max el	364 Feb 13 j 09:47	27°♄33'26	27°25'38
morning set	363 Apr 05 j 18:38	7°♄06'56			364 Feb 15 j 17:39	0°♄	
max. Earth dist.	363 Apr 11 j 09:53	18°♄53'07	1.32725 AU		364 Mar 07 j 23:36	0°♄	
				morning set	364 Mar 19 j 12:43	21°♄01'31	
superior conj	363 Apr 13 j 07:55	23°♄01'14	0°-10'-18		364 Mar 23 j 23:35	0°♄	
minimum elong	363 Apr 13 j 08:24	23°♄03'53	0°10'13	max. Earth dist.	364 Mar 24 j 10:49	0°♄58'09	1.33530 AU
behind sun begin	363 Apr 13 j 04:24	22°♄42'14					
behind sun end	363 Apr 13 j 12:24	23°♄25'33		superior conj	364 Mar 27 j 13:32	7°♄30'22	0°-37'-22
asc. node	363 Apr 14 j 07:20	25°♄08'15		minimum elong	364 Mar 27 j 15:21	7°♄40'00	0°37'00
	363 Apr 16 j 13:01	0°♄		asc. node	364 Mar 31 j 04:24	15°♄14'15	
evening rise	363 Apr 20 j 08:35	8°♄11'51		evening rise	364 Apr 03 j 19:53	22°♄59'00	
	363 May 01 j 18:39	0°♄			364 Apr 07 j 05:53	0°♄	
evening max el	363 May 14 j 15:07	16°♄57'40	23°58'25	evening max el	364 Apr 25 j 07:15	27°♄31'42	22°22'58
desc. node	363 May 23 j 16:46	23°♄02'31			364 Apr 28 j 03:38	0°♄	
retrograde	363 May 28 j 10:16	23°♄53'24		retrograde	364 May 08 j 06:25	3°♄55'08	
evening set	363 Jun 01 j 17:53	23°♄12'10		desc. node	364 May 09 j 13:47	3°♄51'19	
min. Earth dist.	363 Jun 08 j 02:09	20°♄08'58	0.56344 AU	evening set	364 May 11 j 05:58	3°♄35'35	
inferior conj	363 Jun 10 j 12:17	18°♄39'31	-4°-15'-48	min. Earth dist.	364 May 19 j 14:29	29°♄59'21	0.55228 AU
minimum elong	363 Jun 10 j 06:25	18°♄48'36	4°14'49		364 May 19 j 14:01	30°♄	
morning rise	363 Jun 18 j 22:35	14°♄39'50		inferior conj	364 May 20 j 13:51	29°♄26'19	-2°-59'-13
direct	363 Jun 21 j 14:19	14°♄21'32		minimum elong	364 May 20 j 06:39	29°♄36'30	2°57'07
morning max el	363 Jul 01 j 11:43	18°♄56'36	19°50'20	morning rise	364 May 29 j 09:26	25°♄33'08	
	363 Jul 10 j 00:31	0°♄		direct	364 Jun 01 j 06:54	25°♄14'05	
asc. node	363 Jul 11 j 06:35	2°♄05'35			364 Jun 12 j 03:22	0°♄	
morning set	363 Jul 19 j 06:53	17°♄17'33		morning max el	364 Jun 12 j 19:41	0°♄36'47	21°10'04
	363 Jul 25 j 13:13	0°♄		asc. node	364 Jun 27 j 03:39	21°♄12'00	
					364 Jul 01 j 14:55	0°♄	
superior conj	363 Jul 27 j 04:53	3°♄18'34	1°46'37	morning set	364 Jul 02 j 14:39	2°♄01'46	
minimum elong	363 Jul 27 j 04:30	3°♄16'37	1°46'37				
max. Earth dist.	363 Aug 01 j 20:48	14°♄17'32	1.37139 AU	superior conj	364 Jul 10 j 01:52	17°♄35'32	1°41'04
evening rise	363 Aug 05 j 18:06	21°♄27'25		minimum elong	364 Jul 10 j 00:11	17°♄26'49	1°40'58
	363 Aug 10 j 15:12	0°♄		max. Earth dist.	364 Jul 14 j 07:08	26°♄09'31	1.35416 AU
desc. node	363 Aug 19 j 16:08	14°♄35'14			364 Jul 16 j 05:59	0°♄	
	363 Aug 30 j 11:15	0°♄		evening rise	364 Jul 18 j 14:42	4°♄31'57	
evening max el	363 Sep 10 j 13:04	12°♄56'31	25°33'59		364 Aug 02 j 11:10	0°♄	
retrograde	363 Sep 22 j 17:08	19°♄55'40		desc. node	364 Aug 05 j 13:08	4°♄39'27	
evening set	363 Sep 28 j 16:21	17°♄25'56		evening max el	364 Aug 23 j 01:04	26°♄33'22	26°34'25
min. Earth dist.	363 Oct 03 j 02:08	12°♄34'19	0.66940 AU		364 Aug 27 j 00:12	0°♄	
inferior conj	363 Oct 04 j 05:54	11°♄05'07	-1°-1'-38	retrograde	364 Sep 04 j 22:23	3°♄46'35	
minimum elong	363 Oct 04 j 07:28	11°♄00'05	1°01'00	evening set	364 Sep 11 j 11:28	1°♄05'32	
asc. node	363 Oct 07 j 05:49	7°♄28'03			364 Sep 12 j 16:34	30°♄	
morning rise	363 Oct 09 j 23:15	5°♄06'27		min. Earth dist.	364 Sep 15 j 13:36	26°♄51'21	0.66061 AU
direct	363 Oct 13 j 06:06	4°♄04'03		inferior conj	364 Sep 17 j 05:11	24°♄52'21	-1°-58'-11
morning max el	363 Oct 20 j 09:25	8°♄06'13	19°20'40	minimum elong	364 Sep 17 j 08:13	24°♄43'14	1°57'00
greatest brilliancy	363 Oct 30 j 01:47	20°♄40'01	-0.7m	morning rise	364 Sep 23 j 06:08	19°♄05'08	

asc. node	364 Sep 23 j 02:52	19° \mathbb{M} 09'39		morning max el	365 Sep 16 j 11:10	5° \mathbb{M} 51'42	18°04'55
direct	364 Sep 26 j 04:01	18° \mathbb{M} 17'22			365 Oct 02 j 14:47	0° \mathbb{L}	
morning max el	364 Oct 02 j 20:22	21° \mathbb{M} 58'25	18°34'26	morning set	365 Oct 04 j 07:37	2° \mathbb{L} 50'54	
	364 Oct 09 j 04:52	0° \mathbb{L}					
morning set	364 Oct 23 j 02:19	21° \mathbb{L} 45'45		superior conj	365 Oct 18 j 05:44	25° \mathbb{L} 40'05	0°07'40
	364 Oct 28 j 06:11	0° \mathbb{M}		minimum elong	365 Oct 18 j 06:40	25° \mathbb{L} 43'49	0°07'32
desc. node	364 Nov 01 j 12:29	6° \mathbb{M} 45'28		behind sun begin	365 Oct 17 j 21:09	25° \mathbb{L} 05'41	
				behind sun end	365 Oct 18 j 16:12	26° \mathbb{L} 21'53	
superior conj	364 Nov 07 j 22:49	16° \mathbb{M} 53'22	0°-41'-30	desc. node	365 Oct 19 j 09:29	27° \mathbb{L} 30'51	
minimum elong	364 Nov 07 j 17:26	16° \mathbb{M} 32'13	0°40'50		365 Oct 20 j 23:01	0° \mathbb{M}	
max. Earth dist.	364 Nov 08 j 11:47	17° \mathbb{M} 44'22	1.45062 AU	max. Earth dist.	365 Oct 22 j 06:37	2° \mathbb{M} 05'06	1.44752 AU
	364 Nov 16 j 06:53	0° \mathbb{L}		evening rise	365 Nov 03 j 17:53	21° \mathbb{M} 32'54	
evening rise	364 Nov 24 j 00:18	12° \mathbb{L} 13'10			365 Nov 09 j 05:32	0° \mathbb{L}	
	364 Dec 05 j 06:20	0° \mathbb{L}		greatest brilliancy	365 Nov 22 j 02:45	19° \mathbb{L} 13'07	-0.6m
evening max el	364 Dec 16 j 04:01	14° \mathbb{L} 52'42	19°02'36	evening max el	365 Nov 29 j 09:52	28° \mathbb{L} 20'49	19°54'08
asc. node	364 Dec 20 j 02:10	18° \mathbb{L} 00'00			365 Dec 01 j 03:30	0° \mathbb{L}	
retrograde	364 Dec 23 j 01:47	18° \mathbb{L} 48'31		retrograde	365 Dec 06 j 23:13	2° \mathbb{L} 45'50	
evening set	364 Dec 26 j 07:12	17° \mathbb{L} 48'11		asc. node	365 Dec 06 j 23:11	2° \mathbb{L} 45'50	
inferior conj	365 Jan 01 j 00:01	11° \mathbb{L} 58'47	3°18'11	evening set	365 Dec 10 j 12:23	1° \mathbb{L} 32'11	
minimum elong	364 Dec 31 j 21:28	12° \mathbb{L} 06'49	3°17'39		365 Dec 12 j 07:34	30° \mathbb{R} \mathbb{L}	
min. Earth dist.	365 Jan 02 j 12:29	10° \mathbb{L} 04'11	0.65721 AU	inferior conj	365 Dec 16 j 01:01	25° \mathbb{L} 28'48	2°45'10
morning rise	365 Jan 06 j 10:49	5° \mathbb{L} 47'08		minimum elong	365 Dec 15 j 22:15	25° \mathbb{L} 37'59	2°44'22
direct	365 Jan 12 j 22:10	2° \mathbb{L} 58'21		min. Earth dist.	365 Dec 16 j 23:43	24° \mathbb{L} 13'18	0.66735 AU
morning max el	365 Jan 25 j 19:32	10° \mathbb{L} 32'53	26°33'24	morning rise	365 Dec 21 j 07:29	19° \mathbb{L} 14'05	
desc. node	365 Jan 28 j 11:40	13° \mathbb{L} 22'52		direct	365 Dec 27 j 05:26	16° \mathbb{L} 37'26	
	365 Feb 10 j 06:24	0° \mathbb{M}		morning max el	366 Jan 08 j 04:33	23° \mathbb{L} 44'31	25°19'24
	365 Feb 28 j 11:59	0° \mathbb{H}			366 Jan 13 j 18:55	0° \mathbb{L}	
morning set	365 Mar 02 j 19:17	4° \mathbb{H} 17'37		desc. node	366 Jan 15 j 08:44	1° \mathbb{L} 56'44	
max. Earth dist.	365 Mar 07 j 01:03	12° \mathbb{H} 30'11	1.34782 AU		366 Feb 03 j 15:44	0° \mathbb{M}	
				morning set	366 Feb 13 j 09:33	16° \mathbb{M} 41'26	
superior conj	365 Mar 11 j 13:04	21° \mathbb{H} 36'37	-1°-4'-3	max. Earth dist.	366 Feb 17 j 03:49	23° \mathbb{M} 36'40	1.36469 AU
minimum elong	365 Mar 11 j 16:08	21° \mathbb{H} 52'22	1°03'31		366 Feb 20 j 12:09	0° \mathbb{H}	
	365 Mar 15 j 13:48	0° \mathbb{Y}					
asc. node	365 Mar 18 j 01:27	5° \mathbb{Y} 11'47		superior conj	366 Feb 23 j 03:45	5° \mathbb{H} 12'04	-1°-28'-37
evening rise	365 Mar 19 j 04:50	7° \mathbb{Y} 33'47		minimum elong	366 Feb 23 j 07:37	5° \mathbb{H} 31'15	1°28'06
	365 Mar 31 j 10:50	0° \mathbb{L}		evening rise	366 Mar 03 j 09:17	21° \mathbb{H} 49'30	
evening max el	365 Apr 07 j 07:19	8° \mathbb{L} 26'11	20°55'21	asc. node	366 Mar 04 j 22:29	24° \mathbb{H} 56'15	
retrograde	365 Apr 18 j 19:38	14° \mathbb{L} 00'59			366 Mar 07 j 12:29	0° \mathbb{Y}	
evening set	365 Apr 21 j 01:11	13° \mathbb{L} 49'12		evening max el	366 Mar 20 j 18:45	19° \mathbb{Y} 58'11	19°43'57
desc. node	365 Apr 26 j 10:49	11° \mathbb{L} 56'52		retrograde	366 Mar 30 j 13:53	24° \mathbb{Y} 40'38	
inferior conj	365 Apr 30 j 07:52	9° \mathbb{L} 51'14	-1°-6'-49	evening set	366 Apr 01 j 16:10	24° \mathbb{Y} 28'40	
minimum elong	365 Apr 30 j 04:42	9° \mathbb{L} 55'44	1°05'42	inferior conj	366 Apr 10 j 09:03	20° \mathbb{Y} 26'07	0°50'05
min. Earth dist.	365 May 01 j 03:14	9° \mathbb{L} 23'44	0.55005 AU	minimum elong	366 Apr 10 j 11:10	20° \mathbb{Y} 22'47	0°49'21
morning rise	365 May 09 j 07:31	5° \mathbb{L} 45'59		min. Earth dist.	366 Apr 12 j 17:34	18° \mathbb{Y} 58'04	0.55737 AU
direct	365 May 12 j 16:56	5° \mathbb{L} 21'11		desc. node	366 Apr 13 j 07:52	18° \mathbb{Y} 36'29	
morning max el	365 May 25 j 17:25	11° \mathbb{L} 35'59	22°45'27	morning rise	366 Apr 19 j 02:47	15° \mathbb{Y} 51'33	
	365 Jun 08 j 07:52	0° \mathbb{H}		direct	366 Apr 23 j 09:56	15° \mathbb{Y} 10'24	
asc. node	365 Jun 14 j 00:42	10° \mathbb{H} 43'14		morning max el	366 May 07 j 09:05	22° \mathbb{Y} 09'49	24°26'33
morning set	365 Jun 17 j 01:22	16° \mathbb{H} 55'42			366 May 14 j 06:16	0° \mathbb{L}	
	365 Jun 23 j 04:44	0° \mathbb{L}		asc. node	366 May 31 j 21:45	0° \mathbb{H} 32'35	
					366 May 31 j 15:30	0° \mathbb{H}	
superior conj	365 Jun 24 j 05:54	2° \mathbb{L} 14'06	1°29'34	morning set	366 Jun 01 j 13:16	1° \mathbb{H} 53'57	
minimum elong	365 Jun 24 j 03:33	2° \mathbb{L} 01'35	1°29'18				
max. Earth dist.	365 Jun 27 j 02:31	8° \mathbb{L} 15'17	1.34054 AU	superior conj	366 Jun 08 j 14:30	17° \mathbb{H} 06'13	1°13'19
evening rise	365 Jul 02 j 01:34	18° \mathbb{L} 18'44		minimum elong	366 Jun 08 j 12:03	16° \mathbb{H} 52'55	1°12'56
	365 Jul 08 j 06:23	0° \mathbb{L}		max. Earth dist.	366 Jun 10 j 06:34	20° \mathbb{H} 42'40	1.33091 AU
desc. node	365 Jul 23 j 10:09	24° \mathbb{L} 16'17			366 Jun 14 j 16:10	0° \mathbb{L}	
	365 Jul 27 j 16:39	0° \mathbb{M}		evening rise	366 Jun 15 j 22:45	2° \mathbb{L} 36'27	
evening max el	365 Aug 05 j 12:51	9° \mathbb{M} 58'56	27°13'45		366 Jul 01 j 02:27	0° \mathbb{L}	
retrograde	365 Aug 18 j 22:08	17° \mathbb{M} 17'59		desc. node	366 Jul 10 j 07:09	13° \mathbb{L} 14'01	
evening set	365 Aug 25 j 22:02	14° \mathbb{M} 33'31		evening max el	366 Jul 18 j 22:54	23° \mathbb{L} 01'27	27°25'20
min. Earth dist.	365 Aug 29 j 17:12	10° \mathbb{M} 56'32	0.64815 AU		366 Jul 29 j 22:32	0° \mathbb{M}	
inferior conj	365 Aug 31 j 21:41	8° \mathbb{M} 31'47	-2°-53'-12	retrograde	366 Aug 01 j 16:01	0° \mathbb{M} 20'41	
minimum elong	365 Sep 01 j 01:58	8° \mathbb{M} 19'56	2°51'47		366 Aug 04 j 07:26	30° \mathbb{R} \mathbb{L}	
morning rise	365 Sep 07 j 07:38	2° \mathbb{M} 59'21		evening set	366 Aug 08 j 20:50	27° \mathbb{L} 044'33	
direct	365 Sep 09 j 22:57	2° \mathbb{M} 22'38		min. Earth dist.	366 Aug 12 j 11:17	24° \mathbb{L} 39'59	0.63209 AU
asc. node	365 Sep 09 j 23:55	2° \mathbb{M} 22'38		inferior conj	366 Aug 15 j 04:43	21° \mathbb{L} 57'35	-3°-43'-30

minimum elong	366 Aug 15 j 09:37	21°045'24	3°42'15	inferior conj	367 Jul 28 j 23:09	5°02'20	-4°-23'-56
morning rise	366 Aug 22 j 00:45	16°043'07		minimum elong	367 Jul 29 j 03:19	4°053'08	4°23'16
direct	366 Aug 24 j 12:02	16°014'10		morning rise	367 Aug 05 j 05:51	0°08'41	
asc. node	366 Aug 27 j 20:57	17°009'02			367 Aug 05 j 17:41	30°R☿	
morning max el	366 Aug 31 j 03:00	19°039'39	17°53'00	direct	367 Aug 07 j 15:47	29°☿44'44	
	366 Sep 07 j 18:14	0°☿			367 Aug 09 j 13:09	0°0	
morning set	366 Sep 16 j 13:24	15°☿06'13		morning max el	367 Aug 14 j 16:54	3°015'10	17°59'44
	366 Sep 25 j 03:43	0°☿		asc. node	367 Aug 14 j 17:59	3°017'48	
				morning set	367 Aug 30 j 13:39	28°014'49	
superior conj	366 Sep 28 j 11:40	5°☿36'15	0°50'29		367 Aug 31 j 12:31	0°☿	
minimum elong	366 Sep 28 j 16:15	5°☿55'19	0°49'54	superior conj	367 Sep 09 j 20:57	16°☿53'07	1°21'10
max. Earth dist.	366 Oct 04 j 22:33	16°☿09'55	1.43750 AU	minimum elong	367 Sep 10 j 01:30	17°☿13'03	1°20'41
desc. node	366 Oct 06 j 06:29	18°☿17'53		max. Earth dist.	367 Sep 17 j 09:46	29°☿44'05	1.42189 AU
	366 Oct 13 j 17:12	0°☿			367 Sep 17 j 13:37	0°☿	
evening rise	366 Oct 14 j 01:02	0°☿30'16		desc. node	367 Sep 23 j 03:31	9°☿03'31	
	366 Nov 02 j 22:21	0°☿		evening rise	367 Sep 23 j 15:37	9°☿51'40	
greatest brilliancy	366 Nov 06 j 23:16	5°☿25'08	-0.5m		367 Oct 06 j 20:37	0°☿	
evening max el	366 Nov 12 j 10:13	11°☿49'26	20°59'17	greatest brilliancy	367 Oct 21 j 11:47	20°☿00'43	-0.3m
retrograde	366 Nov 20 j 20:49	16°☿49'49		evening max el	367 Oct 26 j 05:01	25°☿19'40	22°14'20
asc. node	366 Nov 23 j 20:12	15°☿59'54			367 Nov 01 j 02:34	0°☿	
evening set	366 Nov 24 j 19:43	15°☿20'59		retrograde	367 Nov 04 j 16:45	0°☿58'11	
inferior conj	366 Nov 30 j 05:57	9°☿06'59	2°04'11		367 Nov 08 j 00:19	30°☿☿	
minimum elong	366 Nov 30 j 03:31	9°☿15'21	2°03'20	evening set	367 Nov 09 j 03:28	29°☿12'20	
min. Earth dist.	366 Nov 30 j 16:29	8°☿30'49	0.67380 AU	asc. node	367 Nov 10 j 17:14	27°☿43'36	
morning rise	366 Dec 05 j 10:54	2°☿51'24		inferior conj	367 Nov 14 j 12:52	22°☿51'27	1°17'09
direct	366 Dec 10 j 17:51	0°☿33'53		minimum elong	367 Nov 14 j 11:11	22°☿57'18	1°16'28
morning max el	366 Dec 21 j 13:01	7°☿00'25	23°53'35	min. Earth dist.	367 Nov 14 j 12:24	22°☿53'04	0.67679 AU
desc. node	367 Jan 02 j 05:45	21°☿13'26		morning rise	367 Nov 19 j 18:42	16°☿37'21	
	367 Jan 08 j 10:41	0°☿		direct	367 Nov 24 j 10:30	14°☿42'12	
morning set	367 Jan 26 j 01:20	27°☿55'03		morning max el	367 Dec 03 j 23:48	20°☿21'23	22°25'57
	367 Jan 27 j 06:21	0°☿		greatest brilliancy	367 Dec 08 j 14:27	25°☿31'26	-0.3m
max. Earth dist.	367 Jan 29 j 23:02	4°☿43'36	1.38494 AU		367 Dec 12 j 03:23	0°☿	
superior conj	367 Feb 06 j 05:52	18°☿05'59	-1°-48'-40	desc. node	367 Dec 20 j 02:47	11°☿01'10	
minimum elong	367 Feb 06 j 09:33	18°☿23'27	1°48'23		368 Jan 01 j 16:43	0°☿	
	367 Feb 12 j 09:40	0°☿		morning set	368 Jan 06 j 12:59	7°☿45'23	
evening rise	367 Feb 15 j 06:38	5°☿38'03		max. Earth dist.	368 Jan 11 j 19:21	16°☿29'49	1.40629 AU
asc. node	367 Feb 19 j 19:31	14°☿21'30					
	367 Mar 01 j 17:08	0°☿		superior conj	368 Jan 19 j 14:48	0°☿07'27	-2°00'-47
evening max el	367 Mar 03 j 16:48	2°☿07'40	18°51'56	minimum elong	368 Jan 19 j 16:34	0°☿15'22	2°00'46
retrograde	367 Mar 11 j 23:27	6°☿08'02			368 Jan 19 j 13:09	0°☿	
evening set	367 Mar 14 j 05:45	5°☿51'16		evening rise	368 Jan 29 j 17:51	18°☿52'30	
inferior conj	367 Mar 22 j 04:03	1°☿32'45	2°22'16		368 Feb 04 j 18:21	0°☿	
minimum elong	367 Mar 22 j 08:20	1°☿25'00	2°21'05	asc. node	368 Feb 06 j 16:33	3°☿21'14	
	367 Mar 24 j 07:14	30°☿☿		evening max el	368 Feb 14 j 22:45	14°☿47'51	18°19'54
min. Earth dist.	367 Mar 25 j 10:02	29°☿12'49	0.57263 AU	retrograde	368 Feb 22 j 03:55	18°☿22'35	
morning rise	367 Mar 30 j 06:39	26°☿25'13		evening set	368 Feb 24 j 15:20	17°☿58'22	
desc. node	367 Mar 31 j 04:54	26°☿03'17		inferior conj	368 Mar 02 j 20:09	13°☿18'46	3°19'26
direct	367 Apr 04 j 16:39	25°☿14'17		minimum elong	368 Mar 02 j 23:27	13°☿11'47	3°18'53
	367 Apr 15 j 22:51	0°☿		min. Earth dist.	368 Mar 06 j 06:24	10°☿26'30	0.59259 AU
morning max el	367 Apr 19 j 00:16	2°☿42'24	25°59'13	morning rise	368 Mar 10 j 03:54	7°☿45'01	
	367 May 08 j 10:50	0°☿		direct	368 Mar 16 j 12:20	5°☿56'59	
morning set	367 May 17 j 00:44	16°☿50'22		desc. node	368 Mar 17 j 01:57	5°☿57'50	
asc. node	367 May 18 j 18:47	20°☿33'46		morning max el	368 Mar 30 j 19:59	13°☿40'09	27°08'33
	367 May 23 j 02:52	0°☿			368 Apr 12 j 20:14	0°☿	
superior conj	367 May 24 j 01:34	2°☿04'24	0°53'17		368 Apr 29 j 14:58	0°☿	
minimum elong	367 May 23 j 23:29	1°☿53'01	0°52'53	morning set	368 Apr 30 j 10:07	1°☿39'17	
max. Earth dist.	367 May 24 j 16:40	3°☿27'11	1.32513 AU	asc. node	368 May 04 j 15:50	10°☿42'03	
evening rise	367 May 31 j 03:00	17°☿14'37		max. Earth dist.	368 May 07 j 05:22	16°☿18'43	1.32305 AU
	367 Jun 06 j 13:40	0°☿		superior conj	368 May 07 j 13:20	17°☿02'25	0°30'15
	367 Jun 26 j 01:47	0°☿		minimum elong	368 May 07 j 12:01	16°☿55'15	0°29'58
desc. node	367 Jun 27 j 04:10	1°☿16'22			368 May 13 j 12:15	0°☿	
evening max el	367 Jul 01 j 04:56	5°☿29'00	27°04'46	evening rise	368 May 14 j 11:49	2°☿04'46	
retrograde	367 Jul 15 j 02:57	12°☿45'24			368 May 29 j 15:07	0°☿	
evening set	367 Jul 22 j 03:44	10°☿31'34		evening max el	368 Jun 12 j 04:39	17°☿12'14	26°11'30
min. Earth dist.	367 Jul 25 j 19:09	7°☿48'49	0.61303 AU	desc. node	368 Jun 13 j 01:12	18°☿00'02	

retrograde	368 Jun 26 j 05:12	24°♄24'41		evening rise	369 Apr 28 j 23:06	16°♄59'36	
evening set	368 Jul 02 j 14:03	22°♄45'12			369 May 05 j 10:04	0°♄	
min. Earth dist.	368 Jul 06 j 17:29	20°♄08'08	0.59251 AU	evening max el	369 May 24 j 21:41	28°♄12'24	24°51'35
inferior conj	368 Jul 10 j 01:21	17°♄36'11	-4°-46'-17		369 May 26 j 21:22	0°♄	
minimum elong	368 Jul 10 j 02:44	17°♄33'31	4°46'14	desc. node	369 May 30 j 22:14	2°♄54'05	
morning rise	368 Jul 17 j 18:53	13°♄05'23		retrograde	369 Jun 07 j 21:00	5°♄17'45	
direct	368 Jul 20 j 05:59	12°♄44'27		evening set	369 Jun 13 j 01:11	4°♄16'49	
morning max el	368 Jul 28 j 01:48	16°♄29'39	18°26'16	min. Earth dist.	369 Jun 18 j 09:06	1°♄27'35	0.57297 AU
asc. node	368 Jul 31 j 15:03	20°♄33'29			369 Jun 20 j 14:22	30°♄	
	368 Aug 06 j 15:52	0°♄		inferior conj	369 Jun 21 j 08:13	29°♄30'16	-4°-38'-46
morning set	368 Aug 13 j 03:06	12°♄01'55		minimum elong	369 Jun 21 j 04:56	29°♄35'43	4°38'29
				morning rise	369 Jun 29 j 12:32	25°♄21'23	
superior conj	368 Aug 22 j 05:44	29°♄19'38	1°39'14	direct	369 Jul 02 j 02:21	25°♄02'24	
minimum elong	368 Aug 22 j 08:27	29°♄32'10	1°39'03	morning max el	369 Jul 11 j 02:48	29°♄14'42	19°13'38
	368 Aug 22 j 14:29	0°♄			369 Jul 11 j 21:26	0°♄	
max. Earth dist.	368 Aug 29 j 16:00	12°♄37'27	1.40272 AU	asc. node	369 Jul 18 j 12:07	8°♄41'55	
evening rise	368 Sep 03 j 03:10	20°♄11'38		morning set	369 Jul 28 j 01:53	26°♄17'32	
desc. node	368 Sep 09 j 00:32	29°♄43'42			369 Jul 29 j 22:34	0°♄	
	368 Sep 09 j 04:40	0°♄					
	368 Sep 30 j 02:19	0°♄		superior conj	369 Aug 05 j 08:25	12°♄40'38	1°46'29
evening max el	368 Oct 07 j 19:23	8°♄51'58	23°34'16	minimum elong	369 Aug 05 j 09:02	12°♄43'41	1°46'29
retrograde	368 Oct 18 j 09:41	15°♄07'16		max. Earth dist.	369 Aug 11 j 19:23	24°♄50'31	1.38249 AU
evening set	368 Oct 23 j 10:00	13°♄03'22			369 Aug 14 j 16:20	0°♄	
asc. node	368 Oct 27 j 14:17	8°♄20'04		evening rise	369 Aug 15 j 15:30	1°♄41'51	
inferior conj	368 Oct 28 j 19:56	6°♄39'18	0°25'31	desc. node	369 Aug 26 j 21:33	20°♄14'27	
minimum elong	368 Oct 28 j 19:20	6°♄41'22	0°25'16		369 Sep 02 j 09:55	0°♄	
min. Earth dist.	368 Oct 28 j 08:59	7°♄16'45	0.67649 AU	evening max el	369 Sep 20 j 07:18	22°♄27'20	24°52'30
morning rise	368 Nov 03 j 04:47	0°♄29'15		retrograde	369 Oct 01 j 22:40	29°♄13'32	
	368 Nov 03 j 21:28	30°♄		evening set	369 Oct 07 j 13:36	26°♄52'13	
direct	368 Nov 07 j 06:22	28°♄56'35		min. Earth dist.	369 Oct 12 j 03:54	21°♄40'06	0.67295 AU
	368 Nov 10 j 21:29	0°♄		inferior conj	369 Oct 13 j 01:26	20°♄28'57	0°-29'-15
morning max el	368 Nov 15 j 16:31	3°♄51'07	21°04'28	minimum elong	369 Oct 13 j 02:10	20°♄26'32	0°28'57
greatest brilliancy	368 Nov 21 j 03:58	10°♄11'53	-0.5m	asc. node	369 Oct 14 j 11:20	18°♄38'42	
	368 Dec 05 j 04:54	0°♄		morning rise	369 Oct 18 j 15:12	14°♄25'29	
desc. node	368 Dec 05 j 23:49	1°♄10'41		direct	369 Oct 22 j 04:13	13°♄13'08	
morning set	368 Dec 15 j 21:10	16°♄19'35		morning max el	369 Oct 29 j 16:57	17°♄31'33	19°54'28
max. Earth dist.	368 Dec 23 j 22:49	29°♄13'13	1.42569 AU	greatest brilliancy	369 Nov 06 j 04:41	26°♄45'01	-0.6m
	368 Dec 24 j 10:16	0°♄			369 Nov 08 j 11:59	0°♄	
				desc. node	369 Nov 22 j 20:51	21°♄35'46	
superior conj	368 Dec 31 j 01:07	11°♄03'00	-2°00'-36	morning set	369 Nov 24 j 17:31	24°♄28'00	
minimum elong	368 Dec 30 j 22:44	10°♄52'51	2°00'33		369 Nov 28 j 07:07	0°♄	
	369 Jan 10 j 20:18	0°♄		max. Earth dist.	369 Dec 06 j 09:41	12°♄45'44	1.44048 AU
evening rise	369 Jan 11 j 15:09	1°♄24'38					
asc. node	369 Jan 23 j 13:36	21°♄47'14		superior conj	369 Dec 11 j 08:46	20°♄44'31	-1°-43'-34
evening max el	369 Jan 28 j 09:27	27°♄49'49	18°07'42	minimum elong	369 Dec 11 j 01:35	20°♄15'21	1°43'01
	369 Jan 31 j 01:39	0°♄			369 Dec 16 j 23:58	0°♄	
retrograde	369 Feb 04 j 00:51	1°♄14'50		evening rise	369 Dec 24 j 18:13	13°♄06'09	
evening set	369 Feb 06 j 16:43	0°♄41'56			370 Jan 03 j 18:56	0°♄	
	369 Feb 08 j 02:18	30°♄		asc. node	370 Jan 10 j 10:39	9°♄29'12	
inferior conj	369 Feb 13 j 07:22	25°♄40'35	3°45'23	evening max el	370 Jan 11 j 21:56	11°♄05'38	18°14'45
minimum elong	369 Feb 13 j 08:29	25°♄37'50	3°45'20	retrograde	370 Jan 18 j 09:32	14°♄34'16	
min. Earth dist.	369 Feb 16 j 09:43	22°♄40'41	0.61364 AU	evening set	370 Jan 21 j 05:50	13°♄51'47	
morning rise	369 Feb 19 j 21:37	19°♄49'13		inferior conj	370 Jan 27 j 09:47	8°♄30'09	3°47'37
direct	369 Feb 26 j 18:31	17°♄27'27		minimum elong	370 Jan 27 j 08:56	8°♄32'29	3°47'34
desc. node	369 Mar 03 j 23:01	18°♄40'09		min. Earth dist.	370 Jan 29 j 22:19	5°♄44'38	0.63315 AU
morning max el	369 Mar 12 j 22:11	25°♄18'26	27°44'09	morning rise	370 Feb 02 j 10:13	2°♄27'44	
	369 Mar 17 j 06:09	0°♄			370 Feb 07 j 03:58	30°♄	
	369 Apr 06 j 05:35	0°♄		direct	370 Feb 09 j 09:23	29°♄43'47	
morning set	369 Apr 14 j 15:33	16°♄14'20			370 Feb 11 j 16:39	0°♄	
max. Earth dist.	369 Apr 20 j 16:49	29°♄03'54	1.32462 AU	desc. node	370 Feb 18 j 20:04	3°♄42'50	
	369 Apr 21 j 03:08	0°♄		morning max el	370 Feb 23 j 05:29	7°♄36'38	27°42'31
asc. node	369 Apr 21 j 12:54	0°♄53'11			370 Mar 12 j 10:51	0°♄	
					370 Mar 29 j 09:15	0°♄	
superior conj	369 Apr 22 j 00:09	1°♄54'35	0°04'59	morning set	370 Mar 29 j 14:36	0°♄26'44	
minimum elong	369 Apr 21 j 23:55	1°♄53'19	0°04'56	max. Earth dist.	370 Apr 03 j 22:46	11°♄27'23	1.33014 AU
behind sun begin	369 Apr 21 j 19:04	1°♄26'48					
behind sun end	369 Apr 22 j 04:47	2°♄19'52		superior conj	370 Apr 06 j 08:12	16°♄33'58	0°-21'-44

minimum elong	370 Apr 06 j 09:15	16° Υ 39'36	0°21'31		371 Mar 21 j 01:06	0° Υ	
asc. node	370 Apr 08 j 09:57	21° Υ 02'18		asc. node	371 Mar 26 j 07:00	11° Υ 05'29	
	370 Apr 12 j 13:53	0° \mathcal{B}		evening rise	371 Mar 28 j 21:25	16° Υ 34'09	
evening rise	370 Apr 13 j 10:54	1° \mathcal{B} 51'21			371 Apr 04 j 15:56	0° \mathcal{B}	
	370 Apr 29 j 02:34	0° Π		evening max el	371 Apr 18 j 06:48	19° \mathcal{B} 27'01	21°44'07
evening max el	370 May 06 j 11:57	8° Π 46'51	23°17'31	retrograde	371 Apr 30 j 17:04	25° \mathcal{B} 31'19	
desc. node	370 May 17 j 19:17	15° Π 20'50		evening set	371 May 03 j 06:33	25° \mathcal{B} 16'35	
retrograde	370 May 20 j 00:42	15° Π 32'07		desc. node	371 May 04 j 16:18	24° \mathcal{B} 56'39	
evening set	370 May 23 j 17:39	15° Π 01'57		inferior conj	371 May 12 j 15:53	21° \mathcal{B} 14'04	-2°-14'-25
min. Earth dist.	370 May 30 j 21:52	11° Π 46'09	0.55772 AU	minimum elong	371 May 12 j 09:52	21° \mathcal{B} 22'31	2°12'27
inferior conj	370 Jun 01 j 19:08	10° Π 39'31	-3°-48'-55	min. Earth dist.	371 May 12 j 10:35	21° \mathcal{B} 21'30	0.55017 AU
minimum elong	370 Jun 01 j 12:03	10° Π 50'00	3°47'19	morning rise	371 May 21 j 14:07	17° \mathcal{B} 17'48	
morning rise	370 Jun 10 j 09:46	6° Π 44'52		direct	371 May 24 j 15:24	16° \mathcal{B} 57'15	
direct	370 Jun 13 j 03:19	6° Π 26'46		morning max el	371 Jun 05 j 20:49	22° \mathcal{B} 42'57	21°49'05
morning max el	370 Jun 23 j 17:25	11° Π 20'37	20°21'59		371 Jun 12 j 04:48	0° Π	
asc. node	370 Jul 05 j 09:11	27° Π 29'53		asc. node	371 Jun 22 j 06:14	16° Π 47'37	
	370 Jul 06 j 18:05	0° \mathcal{E}		morning set	371 Jun 26 j 16:13	25° Π 41'31	
morning set	370 Jul 12 j 07:01	10° \mathcal{E} 52'51			371 Jun 28 j 17:36	0° \mathcal{E}	
superior conj	370 Jul 19 j 23:51	26° \mathcal{E} 40'35	1°45'04	superior conj	371 Jul 04 j 00:10	11° \mathcal{E} 07'48	1°36'50
minimum elong	370 Jul 19 j 22:50	26° \mathcal{E} 35'26	1°45'03	minimum elong	371 Jul 03 j 22:08	10° \mathcal{E} 57'06	1°36'40
	370 Jul 21 j 15:31	0° \mathcal{Q}		max. Earth dist.	371 Jul 07 j 14:48	18° \mathcal{E} 34'53	1.34791 AU
max. Earth dist.	370 Jul 25 j 01:05	6° \mathcal{Q} 40'23	1.36364 AU	evening rise	371 Jul 12 j 04:53	27° \mathcal{E} 39'34	
evening rise	370 Jul 29 j 01:40	14° \mathcal{Q} 15'22			371 Jul 13 j 10:19	0° \mathcal{Q}	
	370 Aug 07 j 02:44	0° \mathcal{M}			371 Jul 31 j 09:03	0° \mathcal{M}	
desc. node	370 Aug 13 j 18:35	10° \mathcal{M} 30'10		desc. node	371 Jul 31 j 15:37	0° \mathcal{M} 23'49	
	370 Aug 28 j 03:58	0° \mathcal{A}		evening max el	371 Aug 16 j 06:50	19° \mathcal{M} 37'43	26°54'12
evening max el	370 Sep 02 j 18:49	6° \mathcal{A} 04'31	26°01'46	retrograde	371 Aug 29 j 10:13	26° \mathcal{M} 54'50	
retrograde	370 Sep 15 j 07:07	13° \mathcal{A} 11'41		evening set	371 Sep 05 j 04:14	24° \mathcal{M} 11'18	
evening set	370 Sep 21 j 12:26	10° \mathcal{A} 36'08		min. Earth dist.	371 Sep 09 j 03:17	20° \mathcal{M} 12'55	0.65569 AU
min. Earth dist.	370 Sep 25 j 18:47	6° \mathcal{A} 00'25	0.66605 AU	inferior conj	371 Sep 11 j 00:13	18° \mathcal{M} 02'16	-2°-21'-55
inferior conj	370 Sep 27 j 03:33	4° \mathcal{A} 17'50	-1°-25'-40	minimum elong	371 Sep 11 j 03:50	17° \mathcal{M} 51'45	2°20'36
minimum elong	370 Sep 27 j 05:44	4° \mathcal{A} 10'57	1°24'47	morning rise	371 Sep 17 j 04:50	12° \mathcal{M} 20'44	
	370 Sep 30 j 22:10	30° \mathcal{R} \mathcal{M}		asc. node	371 Sep 18 j 05:27	11° \mathcal{M} 55'12	
asc. node	370 Oct 01 j 08:24	29° \mathcal{M} 36'47		direct	371 Sep 19 j 23:31	11° \mathcal{M} 38'12	
morning rise	370 Oct 02 j 23:57	28° \mathcal{M} 23'49		morning max el	371 Sep 26 j 13:26	15° \mathcal{M} 13'29	18°19'42
direct	370 Oct 06 j 02:36	27° \mathcal{M} 28'17			371 Oct 07 j 05:46	0° \mathcal{A}	
	370 Oct 11 j 14:08	0° \mathcal{A}		morning set	371 Oct 15 j 15:45	13° \mathcal{A} 38'48	
morning max el	370 Oct 13 j 00:35	1° \mathcal{A} 20'35	18°59'00		371 Oct 25 j 19:01	0° \mathcal{M}	
	370 Nov 01 j 23:28	0° \mathcal{M}		desc. node	371 Oct 27 j 14:53	2° \mathcal{M} 54'28	
morning set	370 Nov 04 j 02:51	3° \mathcal{M} 21'47		superior conj	371 Oct 30 j 17:57	7° \mathcal{M} 51'34	0°-20'-32
desc. node	370 Nov 09 j 17:52	12° \mathcal{M} 11'45		minimum elong	371 Oct 30 j 15:16	7° \mathcal{M} 40'58	0°20'10
max. Earth dist.	370 Nov 19 j 01:44	26° \mathcal{M} 50'28	1.44891 AU	max. Earth dist.	371 Nov 01 j 20:18	11° \mathcal{M} 09'52	1.45015 AU
superior conj	370 Nov 20 j 17:03	29° \mathcal{M} 25'22	-1°-8'-10		371 Nov 13 j 20:50	0° \mathcal{A}	
minimum elong	370 Nov 20 j 09:08	28° \mathcal{M} 54'09	1°07'17	evening rise	371 Nov 16 j 04:06	3° \mathcal{A} 36'20	
	370 Nov 21 j 01:50	0° \mathcal{A}		greatest brilliancy	371 Nov 30 j 16:47	26° \mathcal{A} 04'27	-0.7m
evening rise	370 Dec 05 j 23:01	23° \mathcal{A} 50'16			371 Dec 03 j 09:47	0° \mathcal{B}	
	370 Dec 09 j 17:46	0° \mathcal{B}		evening max el	371 Dec 09 j 18:10	7° \mathcal{B} 56'55	19°22'48
evening max el	370 Dec 26 j 09:37	24° \mathcal{B} 29'39	18°40'14	asc. node	371 Dec 15 j 04:45	11° \mathcal{B} 47'49	
asc. node	370 Dec 28 j 07:42	26° \mathcal{B} 14'32		retrograde	371 Dec 16 j 21:49	12° \mathcal{B} 04'04	
retrograde	371 Jan 02 j 01:40	28° \mathcal{B} 12'52		evening set	371 Dec 20 j 06:17	10° \mathcal{B} 58'23	
evening set	371 Jan 05 j 03:18	27° \mathcal{B} 19'37		inferior conj	371 Dec 25 j 21:06	5° \mathcal{B} 02'57	3°05'16
inferior conj	371 Jan 10 j 23:28	21° \mathcal{B} 39'50	3°32'41	minimum elong	371 Dec 25 j 18:23	5° \mathcal{B} 11'43	3°04'37
minimum elong	371 Jan 10 j 21:20	21° \mathcal{B} 46'18	3°32'21	min. Earth dist.	371 Dec 27 j 03:36	3° \mathcal{B} 24'32	0.66200 AU
min. Earth dist.	371 Jan 12 j 20:40	19° \mathcal{B} 23'52	0.64948 AU		371 Dec 30 j 00:47	30° \mathcal{R} \mathcal{A}	
morning rise	371 Jan 16 j 14:10	15° \mathcal{B} 30'42		morning rise	371 Dec 31 j 05:41	28° \mathcal{A} 49'50	
direct	371 Jan 23 j 07:35	12° \mathcal{B} 39'23		direct	372 Jan 06 j 11:49	26° \mathcal{A} 04'45	
morning max el	371 Feb 05 j 15:02	20° \mathcal{B} 24'44	27°06'42		372 Jan 15 j 04:23	0° \mathcal{B}	
desc. node	371 Feb 05 j 17:05	20° \mathcal{B} 29'53		morning max el	372 Jan 19 j 00:19	3° \mathcal{B} 29'24	26°03'58
	371 Feb 13 j 21:48	0° \mathcal{A}		desc. node	372 Jan 23 j 14:06	8° \mathcal{B} 30'42	
	371 Mar 05 j 12:28	0° \mathcal{H}			372 Feb 08 j 05:17	0° \mathcal{A}	
morning set	371 Mar 13 j 04:18	14° \mathcal{H} 07'09		morning set	372 Feb 24 j 04:33	27° \mathcal{A} 02'27	
max. Earth dist.	371 Mar 17 j 19:20	23° \mathcal{H} 18'24	1.34003 AU		372 Feb 25 j 18:30	0° \mathcal{H}	
superior conj	371 Mar 21 j 11:32	0° Υ 54'40	0°-48'-49	max. Earth dist.	372 Feb 28 j 04:05	4° \mathcal{H} 35'15	1.35448 AU
minimum elong	371 Mar 21 j 13:54	1° Υ 07'05	0°48'21	superior conj	372 Mar 04 j 07:40	14° \mathcal{H} 48'46	-1°-14'-51

minimum elong	372 Mar 04 j 11:09	15° Υ 06'26	1°14'18		373 Jan 31 j 04:57	0° \approx	
	372 Mar 11 j 16:45	0° Υ		morning set	373 Feb 05 j 09:58	8° \approx 57'36	
evening rise	372 Mar 12 j 04:41	1° Υ 01'12		max. Earth dist.	373 Feb 09 j 02:53	15° \approx 37'34	1.37304 AU
asc. node	372 Mar 12 j 04:02	0° Υ 57'57					
	372 Mar 29 j 20:47	0° \mathcal{B}		superior conj	373 Feb 15 j 17:29	28° \approx 07'32	-1°-37'-51
evening max el	372 Mar 30 j 11:43	0° \mathcal{B} 36'57	20°22'47	minimum elong	373 Feb 15 j 21:27	28° \approx 26'47	1°37'25
retrograde	372 Apr 10 j 06:20	5° \mathcal{B} 48'16			373 Feb 16 j 16:31	0° \mathcal{H}	
evening set	372 Apr 12 j 09:11	5° \mathcal{B} 37'05		evening rise	373 Feb 24 j 06:25	15° \mathcal{H} 05'55	
desc. node	372 Apr 20 j 13:19	2° \mathcal{B} 11'13		asc. node	373 Feb 27 j 01:04	20° \mathcal{H} 34'43	
inferior conj	372 Apr 21 j 11:10	1° \mathcal{B} 39'24	0°-15'-43		373 Mar 04 j 03:17	0° Υ	
minimum elong	372 Apr 21 j 10:26	1° \mathcal{B} 40'28	0°15'28	evening max el	373 Mar 13 j 03:52	12° Υ 24'54	19°19'22
transit middle	372 Apr 21 j 10:26	1° \mathcal{B} 40'28	0°15'28	retrograde	373 Mar 22 j 06:08	16° Υ 47'37	
transit begin	372 Apr 21 j 09:30	1° \mathcal{B} 41'50		evening set	373 Mar 24 j 09:55	16° Υ 33'54	
transit end	372 Apr 21 j 11:22	1° \mathcal{B} 39'06		inferior conj	373 Apr 01 j 18:58	12° Υ 25'14	1°33'17
min. Earth dist.	372 Apr 23 j 00:00	0° \mathcal{B} 45'35	0.55210 AU	minimum elong	373 Apr 01 j 22:29	12° Υ 19'24	1°32'10
	372 Apr 24 j 08:04	30° $\mathcal{R}\Upsilon$		min. Earth dist.	373 Apr 04 j 14:43	10° Υ 33'41	0.56307 AU
morning rise	372 Apr 30 j 09:37	27° Υ 23'07		desc. node	373 Apr 07 j 10:21	8° Υ 53'47	
direct	372 May 04 j 03:29	26° Υ 52'40		morning rise	373 Apr 10 j 07:11	7° Υ 36'43	
	372 May 13 j 08:00	0° \mathcal{B}		direct	373 Apr 15 j 01:45	6° Υ 44'33	
morning max el	372 May 17 j 15:06	3° \mathcal{B} 28'08	23°28'25	morning max el	373 Apr 29 j 05:42	13° Υ 57'15	25°08'02
	372 Jun 04 j 21:09	0° Π			373 May 11 j 20:19	0° \mathcal{B}	
asc. node	372 Jun 08 j 03:16	6° Π 27'27		morning set	373 May 25 j 15:35	25° \mathcal{B} 36'28	
morning set	372 Jun 10 j 03:39	10° Π 38'06		asc. node	373 May 26 j 00:18	26° \mathcal{B} 22'31	
					373 May 27 j 17:04	0° Π	
superior conj	372 Jun 17 j 06:26	25° Π 53'08	1°23'12				
minimum elong	372 Jun 17 j 03:58	25° Π 39'55	1°22'52	superior conj	373 Jun 01 j 16:17	10° Π 48'31	1°05'15
	372 Jun 19 j 04:41	0° \mathcal{E}		minimum elong	373 Jun 01 j 13:56	10° Π 35'43	1°04'50
max. Earth dist.	372 Jun 19 j 14:14	0° \mathcal{E} 50'39	1.33602 AU	max. Earth dist.	373 Jun 02 j 21:32	13° Π 27'43	1.32802 AU
evening rise	372 Jun 24 j 20:38	11° \mathcal{E} 41'25		evening rise	373 Jun 08 j 21:09	26° Π 09'00	
	372 Jul 04 j 17:01	0° \mathcal{Q}			373 Jun 10 j 18:46	0° \mathcal{E}	
desc. node	372 Jul 17 j 12:38	19° \mathcal{Q} 45'57			373 Jun 28 j 03:57	0° \mathcal{Q}	
	372 Jul 25 j 21:02	0° \mathcal{H}		desc. node	373 Jul 04 j 09:40	8° \mathcal{Q} 22'37	
evening max el	372 Jul 28 j 18:26	2° \mathcal{H} 56'25	27°22'28	evening max el	373 Jul 11 j 03:11	15° \mathcal{Q} 45'52	27°20'38
retrograde	372 Aug 11 j 07:29	10° \mathcal{H} 15'22		retrograde	373 Jul 24 j 22:13	23° \mathcal{Q} 03'16	
evening set	372 Aug 18 j 10:15	7° \mathcal{H} 33'16		evening set	373 Aug 01 j 02:49	20° \mathcal{Q} 34'52	
min. Earth dist.	372 Aug 22 j 03:10	4° \mathcal{H} 10'39	0.64173 AU	min. Earth dist.	373 Aug 04 j 16:46	17° \mathcal{Q} 41'27	0.62435 AU
inferior conj	372 Aug 24 j 13:06	1° \mathcal{H} 37'29	-3°-15'-24	inferior conj	373 Aug 07 j 15:12	14° \mathcal{Q} 55'29	-4°-2'-15
minimum elong	372 Aug 24 j 17:45	1° \mathcal{H} 25'08	3°13'59	minimum elong	373 Aug 07 j 20:00	14° \mathcal{Q} 44'09	4°01'12
	372 Aug 26 j 02:41	30° $\mathcal{R}\mathcal{Q}$		morning rise	373 Aug 14 j 15:44	9° \mathcal{Q} 49'32	
morning rise	372 Aug 31 j 03:12	26° \mathcal{Q} 11'58		direct	373 Aug 17 j 02:16	9° \mathcal{Q} 22'51	
direct	372 Sep 02 j 16:32	25° \mathcal{Q} 38'49		asc. node	373 Aug 21 j 23:30	11° \mathcal{Q} 12'18	
asc. node	372 Sep 04 j 02:28	25° \mathcal{Q} 49'05		morning max el	373 Aug 23 j 20:22	12° \mathcal{Q} 48'58	17°53'33
morning max el	372 Sep 09 j 04:59	29° \mathcal{Q} 05'23	17°57'36		373 Sep 04 j 11:35	0° \mathcal{H}	
	372 Sep 10 j 01:48	0° \mathcal{H}		morning set	373 Sep 08 j 22:42	7° \mathcal{H} 57'05	
morning set	372 Sep 26 j 08:19	25° \mathcal{H} 16'54					
	372 Sep 29 j 02:49	0° \mathcal{A}		superior conj	373 Sep 20 j 03:04	27° \mathcal{H} 35'11	1°05'06
superior conj	372 Oct 09 j 09:20	17° \mathcal{A} 04'11	0°27'07	minimum elong	373 Sep 20 j 07:59	27° \mathcal{H} 56'05	1°04'30
minimum elong	372 Oct 09 j 12:19	17° \mathcal{A} 16'19	0°26'42		373 Sep 21 j 13:16	0° \mathcal{A}	
desc. node	372 Oct 13 j 11:55	23° \mathcal{A} 41'08		max. Earth dist.	373 Sep 27 j 05:17	9° \mathcal{A} 23'01	1.43149 AU
max. Earth dist.	372 Oct 14 j 14:35	25° \mathcal{A} 27'21	1.44410 AU	desc. node	373 Sep 30 j 08:58	14° \mathcal{A} 27'57	
	372 Oct 17 j 11:30	0° \mathcal{M}		evening rise	373 Oct 04 j 23:37	21° \mathcal{A} 44'23	
evening rise	372 Oct 25 j 15:26	12° \mathcal{M} 42'15			373 Oct 10 j 08:25	0° \mathcal{M}	
	372 Nov 06 j 00:36	0° \mathcal{J}		greatest brilliancy	373 Oct 30 j 20:00	29° \mathcal{M} 10'04	-0.4m
greatest brilliancy	372 Nov 15 j 13:03	13° \mathcal{J} 41'39	-0.6m		373 Oct 31 j 12:05	0° \mathcal{J}	
evening max el	372 Nov 21 j 21:52	21° \mathcal{J} 25'36	20°20'23	evening max el	373 Nov 04 j 19:47	4° \mathcal{J} 54'34	21°30'12
retrograde	372 Nov 29 j 19:27	26° \mathcal{J} 04'31		retrograde	373 Nov 13 j 16:34	10° \mathcal{J} 10'55	
asc. node	372 Dec 01 j 01:45	25° \mathcal{J} 55'28		evening set	373 Nov 17 j 20:22	8° \mathcal{J} 34'46	
evening set	372 Dec 03 j 12:36	24° \mathcal{J} 44'30		asc. node	373 Nov 17 j 22:46	8° \mathcal{J} 30'02	
inferior conj	372 Dec 09 j 00:01	18° \mathcal{J} 36'19	2°28'35	inferior conj	373 Nov 23 j 06:03	2° \mathcal{J} 17'13	1°44'52
minimum elong	372 Dec 08 j 21:20	18° \mathcal{J} 45'22	2°27'44	minimum elong	373 Nov 23 j 03:53	2° \mathcal{J} 24'42	1°44'03
min. Earth dist.	372 Dec 09 j 17:21	17° \mathcal{J} 37'46	0.67061 AU	min. Earth dist.	373 Nov 23 j 11:42	1° \mathcal{J} 57'43	0.67551 AU
morning rise	372 Dec 14 j 05:33	12° \mathcal{J} 21'13			373 Nov 24 j 22:20	30° $\mathcal{R}\mathcal{M}$	
direct	372 Dec 19 j 21:19	9° \mathcal{J} 52'06		morning rise	373 Nov 28 j 11:07	26° \mathcal{M} 02'10	
morning max el	372 Dec 31 j 08:44	16° \mathcal{J} 42'22	24°43'42	direct	373 Dec 03 j 11:29	23° \mathcal{M} 54'16	
desc. node	373 Jan 09 j 11:09	27° \mathcal{J} 24'08		morning max el	373 Dec 13 j 17:57	0° \mathcal{J} 00'39	23°16'02
	373 Jan 11 j 10:07	0° \mathcal{Z}			373 Dec 13 j 17:42	0° \mathcal{J}	
				greatest brilliancy	373 Dec 18 j 21:47	5° \mathcal{J} 48'10	-0.2m

desc. node	373 Dec 27 j 08:12	16° ♄ 55'10		greatest brilliancy	374 Dec 01 j 02:48	18° ♄ 52'55	-0.4m
	374 Jan 05 j 07:07	0° ♄			374 Dec 09 j 10:39	0° ♄	
morning set	374 Jan 17 j 14:22	19° ♄ 36'56		desc. node	374 Dec 14 j 05:15	6° ♄ 52'46	
max. Earth dist.	374 Jan 21 j 22:08	26° ♄ 59'36	1.39405 AU	morning set	374 Dec 28 j 13:34	28° ♄ 51'54	
	374 Jan 23 j 15:20	0° ♄			374 Dec 29 j 06:34	0° ♄	
				max. Earth dist.	375 Jan 03 j 20:48	9° ♄ 08'12	1.41488 AU
superior conj	374 Jan 29 j 12:56	10° ♄ 40'35	-1°-55'-1				
minimum elong	374 Jan 29 j 16:04	10° ♄ 55'06	1°54'51	superior conj	375 Jan 11 j 12:53	22° ♄ 14'56	-2°-2'-31
evening rise	374 Feb 07 j 23:56	28° ♄ 41'17		minimum elong	375 Jan 11 j 13:08	22° ♄ 16'04	2°02'31
	374 Feb 08 j 16:17	0° ♄			375 Jan 15 j 21:15	0° ♄	
asc. node	374 Feb 13 j 22:07	9° ♄ 50'09		evening rise	375 Jan 22 j 05:45	11° ♄ 38'35	
evening max el	374 Feb 24 j 05:36	24° ♄ 48'13	18°35'51	asc. node	375 Jan 31 j 19:10	28° ♄ 36'32	
retrograde	374 Mar 04 j 00:09	28° ♄ 36'08			375 Feb 01 j 16:17	0° ♄	
evening set	374 Mar 06 j 08:33	28° ♄ 16'30		evening max el	375 Feb 07 j 13:55	7° ♄ 38'19	18°12'21
inferior conj	374 Mar 13 j 23:02	23° ♄ 49'04	2°50'45	retrograde	375 Feb 14 j 12:06	11° ♄ 07'20	
minimum elong	374 Mar 14 j 03:10	23° ♄ 41'02	2°49'48	evening set	375 Feb 17 j 01:19	10° ♄ 39'41	
min. Earth dist.	374 Mar 17 j 08:32	21° ♄ 12'35	0.58066 AU	inferior conj	375 Feb 23 j 23:42	5° ♄ 51'01	3°33'49
morning rise	374 Mar 21 j 17:41	18° ♄ 29'02		minimum elong	375 Feb 24 j 02:07	5° ♄ 45'35	3°33'31
desc. node	374 Mar 25 j 07:23	17° ♄ 16'05		min. Earth dist.	375 Feb 27 j 07:48	2° ♄ 52'08	0.60152 AU
direct	374 Mar 27 j 13:56	17° ♄ 02'57		morning rise	375 Mar 02 j 23:36	0° ♄ 08'31	
morning max el	374 Apr 10 j 22:40	24° ♄ 38'55	26°32'29		375 Mar 03 j 05:15	30° ♄	
	374 Apr 15 j 20:31	0° ♄		direct	375 Mar 09 j 14:35	28° ♄ 04'51	
	374 May 04 j 21:21	0° ♄		desc. node	375 Mar 12 j 04:26	28° ♄ 22'43	
morning set	374 May 10 j 02:26	10° ♄ 30'59			375 Mar 16 j 07:44	0° ♄	
asc. node	374 May 12 j 21:23	16° ♄ 27'40		morning max el	375 Mar 23 j 21:13	5° ♄ 53'06	27°28'11
					375 Apr 10 j 21:34	0° ♄	
superior conj	374 May 17 j 03:53	25° ♄ 47'39	0°43'51	morning set	375 Apr 24 j 10:22	25° ♄ 14'29	
minimum elong	374 May 17 j 02:06	25° ♄ 37'47	0°43'29		375 Apr 26 j 16:44	0° ♄	
max. Earth dist.	374 May 17 j 09:18	26° ♄ 17'23	1.32377 AU	asc. node	375 Apr 29 j 18:28	6° ♄ 37'27	
	374 May 19 j 01:55	0° ♄		max. Earth dist.	375 Apr 30 j 21:44	9° ♄ 06'24	1.32319 AU
evening rise	374 May 24 j 03:39	10° ♄ 53'17					
	374 Jun 03 j 00:50	0° ♄		superior conj	375 May 01 j 15:28	10° ♄ 43'35	0°19'45
desc. node	374 Jun 21 j 06:41	25° ♄ 54'49		minimum elong	375 May 01 j 14:35	10° ♄ 38'44	0°19'34
evening max el	374 Jun 23 j 06:31	27° ♄ 54'29	26°45'47	evening rise	375 May 08 j 13:43	25° ♄ 45'37	
	374 Jun 25 j 14:56	0° ♄			375 May 10 j 14:33	0° ♄	
retrograde	374 Jul 07 j 05:45	5° ♄ 09'47			375 May 28 j 02:21	0° ♄	
evening set	374 Jul 14 j 01:33	3° ♄ 08'56		evening max el	375 Jun 05 j 03:05	9° ♄ 17'39	25°40'11
min. Earth dist.	374 Jul 17 j 20:10	0° ♄ 31'06	0.60443 AU	desc. node	375 Jun 08 j 03:42	11° ♄ 55'50	
	374 Jul 18 j 11:39	30° ♄		retrograde	375 Jun 19 j 04:17	16° ♄ 28'45	
inferior conj	374 Jul 21 j 03:10	27° ♄ 48'00	-4°-36'-12	evening set	375 Jun 25 j 02:07	15° ♄ 05'50	
minimum elong	374 Jul 21 j 06:26	27° ♄ 41'11	4°35'51	min. Earth dist.	375 Jun 29 j 15:24	12° ♄ 25'26	0.58385 AU
morning rise	374 Jul 28 j 14:32	23° ♄ 04'18		inferior conj	375 Jul 02 j 21:25	10° ♄ 05'39	-4°-47'-34
direct	374 Jul 31 j 00:43	22° ♄ 41'52		minimum elong	375 Jul 02 j 20:59	10° ♄ 06'26	4°47'35
morning max el	374 Aug 07 j 08:36	26° ♄ 16'54	18°08'32	morning rise	375 Jul 10 j 19:35	5° ♄ 44'39	
asc. node	374 Aug 08 j 20:34	27° ♄ 51'22		direct	375 Jul 13 j 07:29	5° ♄ 24'50	
	374 Aug 10 j 14:29	0° ♄		morning max el	375 Jul 21 j 14:33	9° ♄ 20'13	18°43'48
morning set	374 Aug 23 j 05:04	21° ♄ 23'02		asc. node	375 Jul 26 j 17:40	15° ♄ 31'06	
	374 Aug 27 j 19:39	0° ♄			375 Aug 04 j 03:56	0° ♄	
				morning set	375 Aug 06 j 22:55	5° ♄ 23'10	
superior conj	374 Sep 01 j 23:02	9° ♄ 23'39	1°30'17				
minimum elong	374 Sep 02 j 02:54	9° ♄ 41'01	1°29'56	superior conj	375 Aug 15 j 16:07	22° ♄ 15'17	1°43'29
max. Earth dist.	374 Sep 09 j 14:02	22° ♄ 39'27	1.41403 AU	minimum elong	375 Aug 15 j 17:56	22° ♄ 23'48	1°43'25
	374 Sep 14 j 00:29	0° ♄			375 Aug 19 j 20:21	0° ♄	
evening rise	374 Sep 14 j 21:56	1° ♄ 27'00		max. Earth dist.	375 Aug 22 j 18:03	5° ♄ 12'30	1.39407 AU
desc. node	374 Sep 17 j 06:00	5° ♄ 11'30		evening rise	375 Aug 26 j 20:08	12° ♄ 17'10	
	374 Oct 03 j 19:39	0° ♄		desc. node	375 Sep 04 j 03:01	25° ♄ 48'14	
greatest brilliancy	374 Oct 13 j 11:37	12° ♄ 46'22	-0.3m		375 Sep 06 j 20:03	0° ♄	
evening max el	374 Oct 18 j 12:19	18° ♄ 24'32	22°48'05		375 Sep 29 j 03:42	0° ♄	
retrograde	374 Oct 28 j 11:31	24° ♄ 19'51		evening max el	375 Oct 01 j 01:22	1° ♄ 58'18	24°08'13
evening set	374 Nov 02 j 03:49	22° ♄ 26'16		retrograde	375 Oct 12 j 03:00	8° ♄ 28'12	
asc. node	374 Nov 04 j 19:49	19° ♄ 40'35		evening set	375 Oct 17 j 09:19	6° ♄ 16'56	
inferior conj	374 Nov 07 j 13:15	16° ♄ 03'15	0°55'43	min. Earth dist.	375 Oct 22 j 04:32	0° ♄ 44'28	0.67533 AU
minimum elong	374 Nov 07 j 11:59	16° ♄ 07'37	0°55'11	inferior conj	375 Oct 22 j 19:53	29° ♄ 52'34	0°02'37
min. Earth dist.	374 Nov 07 j 08:15	16° ♄ 20'33	0.67701 AU	minimum elong	375 Oct 22 j 19:49	29° ♄ 52'47	0°02'34
morning rise	374 Nov 12 j 20:07	9° ♄ 50'27		transit middle	375 Oct 22 j 19:49	29° ♄ 52'47	0°02'34
direct	374 Nov 17 j 05:35	8° ♄ 05'13		transit begin	375 Oct 22 j 17:08	0° ♄ 01'53	
morning max el	374 Nov 26 j 07:01	13° ♄ 25'11	21°50'07	transit end	375 Oct 22 j 22:31	29° ♄ 43'41	

asc. node	375 Oct 22 j 16:52	0°♄02'47		inferior conj	376 Oct 06 j 00:10	13°♄42'14	0°-53'-4
	375 Oct 22 j 17:42	30°♄		minimum elong	376 Oct 06 j 01:30	13°♄37'53	0°52'30
morning rise	375 Oct 28 j 06:34	23°♄44'41		asc. node	376 Oct 08 j 13:55	10°♄31'30	
direct	375 Nov 01 j 02:34	22°♄20'58		morning rise	376 Oct 11 j 16:32	7°♄42'14	
morning max el	375 Nov 09 j 02:52	26°♄59'19	20°32'59	direct	376 Oct 15 j 00:58	6°♄37'17	
	375 Nov 11 j 20:33	0°♄		morning max el	376 Oct 22 j 06:25	10°♄43'10	19°28'55
greatest brilliancy	375 Nov 15 j 07:49	4°♄21'00	-0.5m	greatest brilliancy	376 Oct 31 j 04:36	22°♄07'06	-0.7m
desc. node	375 Dec 01 j 02:17	27°♄09'37			376 Nov 05 j 11:58	0°♄	
	375 Dec 02 j 23:03	0°♄		morning set	376 Nov 15 j 12:50	15°♄25'50	
morning set	375 Dec 07 j 13:49	7°♄06'18		desc. node	376 Nov 16 j 23:18	17°♄39'35	
max. Earth dist.	375 Dec 17 j 03:04	22°♄12'24	1.43266 AU		376 Nov 24 j 21:01	0°♄	
	375 Dec 21 j 21:40	0°♄		max. Earth dist.	376 Nov 28 j 16:40	6°♄01'19	1.44500 AU
superior conj	375 Dec 23 j 12:09	2°♄39'36	-1°-55'-39	superior conj	376 Dec 02 j 08:44	11°♄51'37	-1°-30'-38
minimum elong	375 Dec 23 j 07:35	2°♄20'37	1°55'26	minimum elong	376 Dec 02 j 00:27	11°♄18'28	1°29'52
evening rise	376 Jan 04 j 19:50	23°♄49'55			376 Dec 13 j 12:02	0°♄	
	376 Jan 08 j 08:01	0°♄		evening rise	376 Dec 16 j 13:44	5°♄06'54	
asc. node	376 Jan 18 j 16:12	16°♄45'09			377 Jan 01 j 03:17	0°♄	
evening max el	376 Jan 22 j 01:48	20°♄47'18	18°08'25	evening max el	377 Jan 04 j 14:17	4°♄07'06	18°23'26
retrograde	376 Jan 28 j 14:23	24°♄12'00		asc. node	377 Jan 04 j 13:14	4°♄04'25	
evening set	376 Jan 31 j 08:09	23°♄35'08		retrograde	377 Jan 11 j 02:38	7°♄40'19	
inferior conj	376 Feb 06 j 17:52	18°♄25'13	3°48'46	evening set	377 Jan 14 j 01:11	6°♄53'14	
minimum elong	376 Feb 06 j 18:05	18°♄24'40	3°48'45	inferior conj	377 Jan 20 j 01:29	1°♄23'31	3°43'01
min. Earth dist.	376 Feb 09 j 14:54	15°♄28'55	0.62232 AU	minimum elong	377 Jan 19 j 23:59	1°♄27'46	3°42'52
morning rise	376 Feb 13 j 01:45	12°♄28'40			377 Jan 21 j 06:31	30°♄	
direct	376 Feb 20 j 01:00	9°♄55'24		min. Earth dist.	377 Jan 22 j 07:27	28°♄49'27	0.64061 AU
desc. node	376 Feb 27 j 01:29	12°♄08'40		morning rise	377 Jan 25 j 21:20	25°♄18'07	
morning max el	376 Mar 05 j 01:38	17°♄48'01	27°47'48	direct	377 Feb 01 j 19:00	22°♄29'24	
	376 Mar 15 j 06:50	0°♄		desc. node	377 Feb 12 j 22:31	27°♄59'31	
	376 Apr 02 j 15:11	0°♄			377 Feb 15 j 02:13	0°♄	
morning set	376 Apr 07 j 13:21	9°♄40'09		morning max el	377 Feb 15 j 10:04	0°♄19'27	27°31'07
max. Earth dist.	376 Apr 13 j 07:06	21°♄42'20	1.32646 AU		377 Mar 09 j 06:54	0°♄	
superior conj	376 Apr 15 j 01:19	25°♄30'38	0°-6'-15	morning set	377 Mar 22 j 08:50	23°♄39'59	
minimum elong	376 Apr 15 j 01:37	25°♄32'13	0°06'12		377 Mar 25 j 12:25	0°♄	
behind sun begin	376 Apr 14 j 20:50	25°♄06'18		max. Earth dist.	377 Mar 27 j 09:34	3°♄53'20	1.33382 AU
behind sun end	376 Apr 15 j 06:23	25°♄58'09		superior conj	377 Mar 30 j 07:38	10°♄02'54	0°-33'-15
asc. node	376 Apr 15 j 15:31	26°♄47'46		minimum elong	377 Mar 30 j 09:15	10°♄11'30	0°32'55
	376 Apr 17 j 02:50	0°♄		asc. node	377 Apr 02 j 12:33	16°♄54'52	
evening rise	376 Apr 22 j 01:25	10°♄39'20		evening rise	377 Apr 06 j 12:55	25°♄28'20	
	376 May 02 j 00:23	0°♄			377 Apr 08 j 17:17	0°♄	
evening max el	376 May 16 j 18:22	20°♄03'44	24°12'28		377 Apr 27 j 18:43	0°♄	
desc. node	376 May 25 j 00:44	25°♄51'04		evening max el	377 Apr 28 j 09:47	0°♄37'13	22°36'55
retrograde	376 May 30 j 14:55	27°♄02'12		retrograde	377 May 11 j 12:52	7°♄06'55	
evening set	376 Jun 04 j 03:57	26°♄16'19		desc. node	377 May 11 j 21:45	7°♄06'37	
min. Earth dist.	376 Jun 10 j 05:33	23°♄17'09	0.56571 AU	evening set	377 May 14 j 16:39	6°♄45'02	
inferior conj	376 Jun 12 j 19:33	21°♄40'13	-4°-23'-24	min. Earth dist.	377 May 22 j 17:50	3°♄14'37	0.55343 AU
minimum elong	376 Jun 12 j 14:17	21°♄48'30	4°22'37	inferior conj	377 May 23 j 23:19	2°♄32'38	-3°-13'-41
morning rise	376 Jun 21 j 04:17	17°♄38'23		minimum elong	377 May 23 j 15:57	2°♄43'10	3°11'38
direct	376 Jun 23 j 19:32	17°♄19'55			377 May 28 j 19:11	30°♄	
morning max el	376 Jul 03 j 11:14	21°♄48'42	19°40'12	morning rise	377 Jun 01 j 17:45	28°♄39'47	
	376 Jul 10 j 03:15	0°♄		direct	377 Jun 04 j 14:07	28°♄21'05	
asc. node	376 Jul 12 j 14:44	3°♄57'24			377 Jun 10 j 22:12	0°♄	
morning set	376 Jul 21 j 00:43	19°♄47'46		morning max el	377 Jun 15 j 20:56	3°♄35'49	20°57'03
	376 Jul 26 j 01:53	0°♄		asc. node	377 Jun 29 j 11:47	22°♄59'18	
superior conj	376 Jul 29 j 00:43	5°♄53'52	1°46'49		377 Jul 03 j 02:43	0°♄	
minimum elong	376 Jul 29 j 00:35	5°♄53'10	1°46'50	morning set	377 Jul 05 j 07:52	4°♄30'01	
max. Earth dist.	376 Aug 03 j 21:49	17°♄13'01	1.37419 AU	superior conj	377 Jul 12 j 20:23	20°♄06'51	1°42'20
evening rise	376 Aug 07 j 18:18	24°♄15'41		minimum elong	377 Jul 12 j 18:51	19°♄58'59	1°42'15
	376 Aug 11 j 00:46	0°♄		max. Earth dist.	377 Jul 17 j 06:53	29°♄03'56	1.35652 AU
desc. node	376 Aug 21 j 00:02	16°♄13'13			377 Jul 17 j 18:16	0°♄	
	376 Aug 30 j 12:10	0°♄		evening rise	377 Jul 21 j 12:21	7°♄12'32	
evening max el	376 Sep 12 j 13:07	15°♄35'30	25°23'37		377 Aug 03 j 17:36	0°♄	
retrograde	376 Sep 24 j 13:59	22°♄31'21		desc. node	377 Aug 07 j 21:04	6°♄20'45	
evening set	376 Sep 30 j 11:05	20°♄03'43		evening max el	377 Aug 26 j 00:57	29°♄12'23	26°26'30
min. Earth dist.	376 Oct 04 j 22:03	15°♄06'44	0.67046 AU		377 Aug 26 j 21:02	0°♄	

retrograde	377 Sep 07 j 20:00	6°♂24'14		evening set	378 Aug 28 j 19:15	17°♂14'14	
evening set	377 Sep 14 j 07:13	3°♂44'18		min. Earth dist.	378 Sep 01 j 15:20	13°♂31'50	0.65021 AU
	377 Sep 17 j 22:30	30°♂		inferior conj	378 Sep 03 j 17:52	11°♂10'26	-2°-45'-8
min. Earth dist.	377 Sep 18 j 10:24	29°♂24'38	0.66218 AU	minimum elong	378 Sep 03 j 22:00	10°♂58'52	2°43'43
inferior conj	377 Sep 20 j 00:13	27°♂29'42	-1°-49'-40	morning rise	378 Sep 10 j 02:25	5°♂35'38	
minimum elong	377 Sep 20 j 03:02	27°♂21'08	1°48'34	asc. node	378 Sep 12 j 07:59	4°♂58'36	
asc. node	377 Sep 25 j 10:57	22°♂00'20		direct	378 Sep 12 j 18:29	4°♂57'34	
morning rise	377 Sep 25 j 23:57	21°♂40'44		morning max el	378 Sep 19 j 06:59	8°♂28'04	18°08'13
direct	377 Sep 28 j 23:01	20°♂51'05			378 Oct 03 j 22:54	0°♂	
morning max el	377 Oct 05 j 16:34	24°♂34'35	18°40'15	morning set	378 Oct 07 j 10:22	5°♂46'56	
	377 Oct 10 j 04:56	0°♂					
morning set	377 Oct 26 j 09:11	24°♂53'45		superior conj	378 Oct 21 j 15:59	28°♂58'19	0°00'23
	377 Oct 29 j 14:13	0°♂		minimum elong	378 Oct 21 j 16:01	28°♂58'28	0°00'23
desc. node	377 Nov 03 j 20:19	8°♂18'51		behind sun begin	378 Oct 21 j 05:14	28°♂15'30	
				behind sun end	378 Oct 22 j 02:48	29°♂41'23	
superior conj	377 Nov 11 j 11:10	20°♂18'12	0°-48'-46	desc. node	378 Oct 21 j 17:23	29°♂03'56	
minimum elong	377 Nov 11 j 04:57	19°♂53'47	0°48'00		378 Oct 22 j 07:29	0°♂	
max. Earth dist.	377 Nov 11 j 10:43	20°♂16'26	1.45043 AU	max. Earth dist.	378 Oct 25 j 05:31	4°♂37'18	1.44841 AU
	377 Nov 17 j 15:01	0°♂		evening rise	378 Nov 07 j 04:43	24°♂51'58	
evening rise	377 Nov 27 j 08:20	15°♂25'51			378 Nov 10 j 12:19	0°♂	
	377 Dec 06 j 11:36	0°♂		greatest brilliancy	378 Nov 24 j 15:09	21°♂17'46	-0.6m
evening max el	377 Dec 19 j 00:49	17°♂32'27	18°56'18		378 Dec 01 j 08:50	0°♂	
asc. node	377 Dec 22 j 10:15	20°♂20'47		evening max el	378 Dec 02 j 07:25	1°♂00'27	19°45'32
retrograde	377 Dec 25 j 20:55	21°♂24'51		asc. node	378 Dec 09 j 07:16	5°♂19'35	
evening set	377 Dec 29 j 01:18	20°♂26'24		retrograde	378 Dec 09 j 18:08	5°♂20'44	
inferior conj	378 Jan 03 j 18:54	14°♂39'19	3°22'20	evening set	378 Dec 13 j 05:59	4°♂09'17	
minimum elong	378 Jan 03 j 16:26	14°♂46'59	3°21'52		378 Dec 17 j 08:34	30°♂	
min. Earth dist.	378 Jan 05 j 09:34	12°♂39'01	0.65529 AU	inferior conj	378 Dec 18 j 19:07	28°♂07'50	2°50'42
morning rise	378 Jan 09 j 06:36	8°♂28'10		minimum elong	378 Dec 18 j 16:21	28°♂16'59	2°49'57
direct	378 Jan 15 j 19:34	5°♂38'25		min. Earth dist.	378 Dec 19 j 19:48	26°♂46'17	0.66608 AU
morning max el	378 Jan 28 j 19:54	13°♂16'22	26°42'52	morning rise	378 Dec 24 j 02:02	21°♂53'22	
desc. node	378 Jan 30 j 19:32	15°♂20'53		direct	378 Dec 30 j 02:11	19°♂14'12	
	378 Feb 11 j 09:04	0°♂		morning max el	379 Jan 11 j 05:02	26°♂26'35	25°31'23
	378 Mar 01 j 22:24	0°♂			379 Jan 14 j 12:22	0°♂	
morning set	378 Mar 05 j 17:22	7°♂02'37		desc. node	379 Jan 17 j 16:33	3°♂46'36	
max. Earth dist.	378 Mar 10 j 01:35	15°♂30'29	1.34562 AU		379 Feb 04 j 23:17	0°♂	
				morning set	379 Feb 16 j 10:23	19°♂34'53	
superior conj	378 Mar 14 j 08:12	24°♂12'50	-1°00'-5	max. Earth dist.	379 Feb 20 j 05:38	26°♂37'55	1.36190 AU
minimum elong	378 Mar 14 j 11:05	24°♂27'48	0°59'35		379 Feb 21 j 23:58	0°♂	
	378 Mar 17 j 02:44	0°♂					
asc. node	378 Mar 20 j 09:35	6°♂53'51		superior conj	379 Feb 26 j 00:23	7°♂53'01	-1°-25'-7
evening rise	378 Mar 21 j 22:19	10°♂05'13		minimum elong	379 Feb 26 j 04:10	8°♂11'57	1°24'36
	378 Apr 01 j 12:13	0°♂		evening rise	379 Mar 06 j 03:33	24°♂23'40	
evening max el	378 Apr 10 j 08:19	11°♂27'06	21°07'33	asc. node	379 Mar 07 j 06:37	26°♂40'16	
retrograde	378 Apr 22 j 02:45	17°♂10'04			379 Mar 08 j 22:45	0°♂	
evening set	378 Apr 24 j 09:46	16°♂57'49		evening max el	379 Mar 23 j 18:03	22°♂52'53	19°53'27
desc. node	378 Apr 28 j 18:47	15°♂34'15		retrograde	379 Apr 02 j 19:16	27°♂42'31	
inferior conj	378 May 03 j 17:36	12°♂59'04	-1°-25'-1	evening set	379 Apr 04 j 21:20	27°♂30'58	
minimum elong	378 May 03 j 13:35	13°♂04'43	1°23'37	inferior conj	379 Apr 13 j 16:48	23°♂30'10	0°33'26
min. Earth dist.	378 May 04 j 06:33	12°♂40'46	0.54976 AU	minimum elong	379 Apr 13 j 18:16	23°♂27'56	0°32'55
morning rise	378 May 12 j 17:10	8°♂56'46		desc. node	379 Apr 15 j 15:47	22°♂18'12	
direct	378 May 16 j 00:04	8°♂33'25		min. Earth dist.	379 Apr 15 j 20:43	22°♂10'45	0.55573 AU
morning max el	378 May 28 j 20:05	14°♂40'50	22°30'31	morning rise	379 Apr 22 j 12:03	19°♂00'27	
	378 Jun 09 j 13:42	0°♂		direct	379 Apr 26 j 15:32	18°♂22'28	
asc. node	378 Jun 16 j 08:49	12°♂27'03		morning max el	379 May 10 j 12:13	25°♂16'23	24°11'37
morning set	378 Jun 19 j 18:13	19°♂22'36			379 May 14 j 21:56	0°♂	
	378 Jun 24 j 18:24	0°♂			379 Jun 02 j 03:55	0°♂	
				asc. node	379 Jun 03 j 05:53	2°♂13'46	
superior conj	378 Jun 26 j 23:33	4°♂42'40	1°31'39	morning set	379 Jun 04 j 06:03	4°♂20'08	
minimum elong	378 Jun 26 j 21:15	4°♂30'33	1°31'24				
max. Earth dist.	378 Jun 30 j 00:43	11°♂05'59	1.34233 AU	superior conj	379 Jun 11 j 07:36	19°♂32'58	1°16'04
evening rise	378 Jul 04 j 21:22	20°♂53'39		minimum elong	379 Jun 11 j 05:08	19°♂19'35	1°15'41
	378 Jul 09 j 16:47	0°♂		max. Earth dist.	379 Jun 13 j 03:33	23°♂29'37	1.33211 AU
desc. node	378 Jul 25 j 18:07	26°♂02'16			379 Jun 16 j 05:22	0°♂	
	378 Jul 28 j 15:14	0°♂		evening rise	379 Jun 18 j 17:14	5°♂07'17	
evening max el	378 Aug 08 j 12:46	12°♂39'53	27°09'28		379 Jul 02 j 08:31	0°♂	
retrograde	378 Aug 21 j 20:44	19°♂58'54		desc. node	379 Jul 12 j 15:08	15°♂06'41	

evening max el	379 Jul 21 j 23:17	25° Ω 46'48	27°25'37		380 Jun 07 j 00:19	0° Θ	
	379 Jul 27 j 02:46	0° η			380 Jun 25 j 18:48	0° Ω	
retrograde	379 Aug 04 j 15:35	3° η 06'14		desc. node	380 Jun 28 j 12:09	3° Ω 18'52	
evening set	379 Aug 11 j 20:03	0° η 28'11		evening max el	380 Jul 03 j 06:17	8° Ω 21'08	27°10'01
	379 Aug 12 j 10:58	30° \mathcal{R} Ω		retrograde	380 Jul 17 j 03:35	15° Ω 37'32	
min. Earth dist.	379 Aug 15 j 11:02	27° Ω 19'08	0.63465 AU	evening set	380 Jul 24 j 05:41	13° Ω 19'37	
inferior conj	379 Aug 18 j 02:32	24° Ω 38'44	-3°-36'-26	min. Earth dist.	380 Jul 27 j 20:29	10° Ω 34'30	0.61604 AU
minimum elong	379 Aug 18 j 07:24	24° Ω 26'24	3°35'07	inferior conj	380 Jul 30 j 23:09	7° Ω 47'42	-4°-18'-45
morning rise	379 Aug 24 j 21:00	19° Ω 21'16		minimum elong	380 Jul 31 j 03:33	7° Ω 37'49	4°18'00
direct	379 Aug 27 j 08:42	18° Ω 51'21		morning rise	380 Aug 07 j 04:14	2° Ω 50'38	
asc. node	379 Aug 30 j 05:03	19° Ω 31'11		direct	380 Aug 09 j 14:15	2° Ω 26'01	
morning max el	379 Sep 02 j 22:51	22° Ω 17'01	17°53'37	asc. node	380 Aug 16 j 02:08	5° Ω 28'44	
	379 Sep 08 j 22:09	0° η		morning max el	380 Aug 16 j 13:16	5° Ω 55'04	17°57'29
morning set	379 Sep 19 j 12:58	17° η 53'02			380 Aug 31 j 22:50	0° η	
	379 Sep 26 j 13:23	0° $\underline{\Omega}$		morning set	380 Sep 01 j 10:53	0° η 55'03	
superior conj	379 Oct 01 j 17:55	8° $\underline{\Omega}$ 42'25	0°44'44	superior conj	380 Sep 11 j 23:17	19° η 47'41	1°17'20
minimum elong	379 Oct 01 j 22:13	9° $\underline{\Omega}$ 00'10	0°44'09	minimum elong	380 Sep 12 j 04:00	20° η 08'12	1°16'50
max. Earth dist.	379 Oct 07 j 21:59	18° $\underline{\Omega}$ 45'05	1.43938 AU		380 Sep 17 j 23:06	0° $\underline{\Omega}$	
desc. node	379 Oct 08 j 14:25	19° $\underline{\Omega}$ 50'53		max. Earth dist.	380 Sep 19 j 10:19	2° $\underline{\Omega}$ 25'55	1.42454 AU
	379 Oct 15 j 01:01	0° \mathcal{M}		desc. node	380 Sep 24 j 11:29	10° $\underline{\Omega}$ 37'00	
evening rise	379 Oct 17 j 12:24	3° \mathcal{M} 50'02		evening rise	380 Sep 26 j 00:52	13° $\underline{\Omega}$ 05'20	
	379 Nov 04 j 00:35	0° \mathcal{J}			380 Oct 07 j 02:16	0° \mathcal{M}	
greatest brilliancy	379 Nov 09 j 16:55	7° \mathcal{J} 47'33	-0.5m	greatest brilliancy	380 Oct 23 j 10:48	22° \mathcal{M} 38'00	-0.3m
evening max el	379 Nov 15 j 08:42	14° \mathcal{J} 29'13	20°48'51	evening max el	380 Oct 28 j 04:22	27° \mathcal{M} 59'14	22°02'41
retrograde	379 Nov 23 j 15:48	19° \mathcal{J} 23'51			380 Oct 30 j 07:26	0° \mathcal{J}	
asc. node	379 Nov 26 j 04:18	18° \mathcal{J} 47'55		retrograde	380 Nov 06 j 12:04	3° \mathcal{J} 31'45	
evening set	379 Nov 27 j 13:08	17° \mathcal{J} 57'25		evening set	380 Nov 10 j 20:58	1° \mathcal{J} 48'27	
inferior conj	379 Dec 02 j 23:38	11° \mathcal{J} 44'57	2°10'49	asc. node	380 Nov 12 j 01:21	0° \mathcal{J} 44'25	
minimum elong	379 Dec 02 j 21:07	11° \mathcal{J} 53'32	2°09'58		380 Nov 12 j 18:09	30° $\mathcal{R}\mathcal{M}$	
min. Earth dist.	379 Dec 03 j 11:55	11° \mathcal{J} 02'54	0.67311 AU	inferior conj	380 Nov 16 j 06:24	25° \mathcal{M} 28'21	1°24'38
morning rise	379 Dec 08 j 04:39	5° \mathcal{J} 29'23		minimum elong	380 Nov 16 j 04:35	25° \mathcal{M} 34'41	1°23'54
direct	379 Dec 13 j 13:56	3° \mathcal{J} 08'37		min. Earth dist.	380 Nov 16 j 07:30	25° \mathcal{M} 24'35	0.67661 AU
morning max el	379 Dec 24 j 13:21	9° \mathcal{J} 41'32	24°06'40	morning rise	380 Nov 21 j 11:59	19° \mathcal{M} 14'02	
desc. node	380 Jan 04 j 13:36	22° \mathcal{J} 57'38		direct	380 Nov 26 j 06:01	17° \mathcal{M} 15'31	
	380 Jan 09 j 14:52	0° \mathcal{Z}		morning max el	380 Dec 05 j 23:36	23° \mathcal{M} 01'29	22°38'45
	380 Jan 28 j 16:04	0° \approx		greatest brilliancy	380 Dec 10 j 14:23	28° \mathcal{M} 11'14	-0.3m
morning set	380 Jan 29 j 05:57	0° \approx 59'45			380 Dec 12 j 01:41	0° \mathcal{J}	
max. Earth dist.	380 Feb 02 j 01:25	7° \approx 41'46	1.38182 AU	desc. node	380 Dec 21 j 10:40	12° \mathcal{J} 41'11	
					381 Jan 02 j 00:17	0° \mathcal{Z}	
superior conj	380 Feb 09 j 04:39	20° \approx 53'46	-1°-46'-4	morning set	381 Jan 08 j 22:01	11° \mathcal{Z} 02'38	
minimum elong	380 Feb 09 j 08:28	21° \approx 11'56	1°45'44	max. Earth dist.	381 Jan 13 j 21:24	19° \mathcal{Z} 21'31	1.40320 AU
	380 Feb 13 j 21:22	0° \mathcal{H}			381 Jan 19 j 23:41	0° \approx	
evening rise	380 Feb 18 j 02:09	8° \mathcal{H} 16'26					
asc. node	380 Feb 22 j 03:39	16° \mathcal{H} 08'30		superior conj	381 Jan 21 j 16:31	3° \approx 03'49	-1°-59'-39
	380 Mar 01 j 10:00	0° \mathcal{Y}		minimum elong	381 Jan 21 j 18:43	3° \approx 13'46	1°59'35
evening max el	380 Mar 05 j 14:41	4° \mathcal{Y} 56'55	18°58'25	evening rise	381 Jan 31 j 15:08	21° \approx 36'31	
retrograde	380 Mar 14 j 01:59	9° \mathcal{Y} 02'24			381 Feb 05 j 02:43	0° \mathcal{H}	
evening set	380 Mar 16 j 07:39	8° \mathcal{Y} 46'29		asc. node	381 Feb 08 j 00:41	5° \mathcal{H} 12'25	
inferior conj	380 Mar 24 j 08:44	4° \mathcal{Y} 30'47	2°10'29	evening max el	381 Feb 16 j 19:39	17° \mathcal{H} 32'52	18°23'22
minimum elong	380 Mar 24 j 12:55	4° \mathcal{Y} 23'22	2°09'17	retrograde	381 Feb 24 j 03:52	21° \mathcal{H} 10'30	
min. Earth dist.	380 Mar 27 j 12:42	2° \mathcal{Y} 17'38	0.56997 AU	evening set	381 Feb 26 j 14:33	20° \mathcal{H} 47'28	
	380 Mar 31 j 09:35	30° $\mathcal{R}\mathcal{H}$		inferior conj	381 Mar 05 j 21:45	16° \mathcal{H} 10'57	3°12'57
morning rise	380 Apr 01 j 13:59	29° \mathcal{H} 28'06		minimum elong	381 Mar 06 j 01:19	16° \mathcal{H} 03'33	3°12'17
desc. node	380 Apr 01 j 12:48	29° \mathcal{H} 29'19		min. Earth dist.	381 Mar 09 j 08:13	13° \mathcal{H} 22'04	0.58943 AU
direct	380 Apr 06 j 20:11	28° \mathcal{H} 22'17		morning rise	381 Mar 13 j 08:20	10° \mathcal{H} 40'32	
	380 Apr 13 j 07:24	0° \mathcal{Y}		desc. node	381 Mar 19 j 09:51	8° \mathcal{H} 58'20	
morning max el	380 Apr 21 j 03:01	5° \mathcal{Y} 46'48	25°46'38	direct	381 Mar 19 j 13:53	8° \mathcal{H} 58'16	
	380 May 08 j 18:43	0° \mathcal{B}		morning max el	381 Apr 02 j 21:56	16° \mathcal{H} 39'35	27°00'19
morning set	380 May 18 j 17:44	19° \mathcal{B} 17'20			381 Apr 13 j 20:57	0° \mathcal{Y}	
asc. node	380 May 20 j 02:57	22° \mathcal{B} 13'38			381 May 01 j 03:27	0° \mathcal{B}	
	380 May 23 j 17:01	0° \mathcal{H}		morning set	381 May 03 j 03:33	4° \mathcal{B} 07'49	
				asc. node	381 May 07 j 00:00	12° \mathcal{B} 21'05	
superior conj	380 May 25 j 18:27	4° \mathcal{H} 30'47	0°56'32				
minimum elong	380 May 25 j 16:17	4° \mathcal{H} 18'56	0°56'09	superior conj	381 May 10 j 06:13	19° \mathcal{B} 29'04	0°33'54
max. Earth dist.	380 May 26 j 13:06	6° \mathcal{H} 12'52	1.32574 AU	minimum elong	381 May 10 j 04:46	19° \mathcal{B} 21'07	0°33'37
evening rise	380 Jun 01 j 20:38	19° \mathcal{H} 43'16		max. Earth dist.	381 May 10 j 01:45	19° \mathcal{B} 04'34	1.32309 AU

	381 May 15 j 01:47	0°♂		minimum elong	382 Apr 24 j 16:52	4°♂20'06	0°08'51
evening rise	381 May 17 j 04:55	4°♂32'03		behind sun begin	382 Apr 24 j 12:38	3°♂56'57	
	381 May 30 j 19:13	0°♂		behind sun end	382 Apr 24 j 21:06	4°♂43'15	
desc. node	381 Jun 15 j 09:10	20°♂16'14		evening rise	382 May 01 j 15:56	19°♂26'20	
evening max el	381 Jun 15 j 07:00	20°♂11'05	26°21'24		382 May 06 j 20:22	0°♂	
retrograde	381 Jun 29 j 07:08	27°♂24'09			382 May 26 j 18:08	0°♂	
evening set	381 Jul 05 j 19:23	25°♂38'48		evening max el	382 May 28 j 00:43	1°♂16'00	25°04'43
min. Earth dist.	381 Jul 09 j 20:00	23°♂02'15	0.59561 AU	desc. node	382 Jun 02 j 06:09	5°♂28'38	
inferior conj	381 Jul 13 j 04:01	20°♂26'47	-4°-44'-32	retrograde	382 Jun 11 j 00:45	8°♂23'24	
minimum elong	381 Jul 13 j 05:59	20°♂22'56	4°44'26	evening set	382 Jun 16 j 09:52	7°♂16'48	
morning rise	381 Jul 20 j 19:58	15°♂52'37		min. Earth dist.	382 Jun 21 j 12:17	4°♂30'24	0.57569 AU
direct	381 Jul 23 j 06:48	15°♂31'19		inferior conj	382 Jun 24 j 13:48	2°♂26'34	-4°-42'-27
morning max el	381 Jul 30 j 23:08	19°♂13'19	18°20'59	minimum elong	382 Jun 24 j 11:17	2°♂30'50	4°42'17
asc. node	381 Aug 02 j 23:13	22°♂35'17			382 Jun 28 j 10:39	30°♂♂	
	381 Aug 07 j 22:29	0°♂		morning rise	382 Jul 02 j 16:33	28°♂14'52	
morning set	381 Aug 15 j 22:38	14°♂37'04		direct	382 Jul 05 j 05:51	27°♂55'43	
	381 Aug 24 j 01:50	0°♂			382 Jul 11 j 12:09	0°♂	
				morning max el	382 Jul 14 j 01:28	2°♂03'04	19°05'13
superior conj	381 Aug 25 j 04:56	2°♂04'53	1°37'13	asc. node	382 Jul 20 j 20:17	10°♂36'16	
minimum elong	381 Aug 25 j 07:58	2°♂18'47	1°37'01	morning set	382 Jul 30 j 20:11	28°♂48'28	
max. Earth dist.	381 Sep 01 j 17:21	15°♂26'03	1.40574 AU		382 Jul 31 j 10:39	0°♂	
evening rise	381 Sep 06 j 08:48	23°♂14'59					
	381 Sep 10 j 12:49	0°♂		superior conj	382 Aug 08 j 05:16	15°♂18'26	1°45'59
desc. node	381 Sep 11 j 08:30	1°♂18'07		minimum elong	382 Aug 08 j 06:11	15°♂22'54	1°45'58
	381 Oct 01 j 01:34	0°♂		max. Earth dist.	382 Aug 14 j 20:32	27°♂42'51	1.38546 AU
evening max el	381 Oct 10 j 19:13	11°♂30'41	23°22'15		382 Aug 16 j 03:05	0°♂	
retrograde	381 Oct 21 j 05:33	17°♂40'54		evening rise	382 Aug 18 j 17:28	4°♂34'25	
evening set	381 Oct 26 j 03:48	15°♂39'35		desc. node	382 Aug 29 j 05:31	21°♂50'18	
asc. node	381 Oct 29 j 22:24	11°♂28'20			382 Sep 03 j 14:55	0°♂	
min. Earth dist.	381 Oct 31 j 04:07	9°♂48'02	0.67674 AU	evening max el	382 Sep 23 j 07:14	25°♂05'05	24°41'15
inferior conj	381 Oct 31 j 13:34	9°♂15'39	0°33'37		382 Sep 29 j 07:50	0°♂	
minimum elong	381 Oct 31 j 12:46	9°♂18'21	0°33'16	retrograde	382 Oct 04 j 19:15	1°♂47'38	
morning rise	381 Nov 05 j 21:50	3°♂04'53			382 Oct 09 j 16:23	30°♂♂	
direct	381 Nov 10 j 01:24	1°♂29'06		evening set	382 Oct 10 j 07:56	29°♂28'46	
morning max el	381 Nov 18 j 15:21	6°♂29'53	21°15'58	min. Earth dist.	382 Oct 14 j 23:26	24°♂11'19	0.67365 AU
greatest brilliancy	381 Nov 23 j 21:45	12°♂33'26	-0.4m	inferior conj	382 Oct 15 j 19:23	23°♂04'58	0°-20'-48
	381 Dec 06 j 10:27	0°♂		minimum elong	382 Oct 15 j 19:53	23°♂03'15	0°20'36
desc. node	381 Dec 08 j 07:44	2°♂47'51		asc. node	382 Oct 16 j 19:28	21°♂45'32	
morning set	381 Dec 19 j 09:48	19°♂46'31		morning rise	382 Oct 21 j 08:17	17°♂00'18	
	381 Dec 25 j 19:10	0°♂		direct	382 Oct 24 j 23:01	15°♂45'11	
max. Earth dist.	381 Dec 26 j 23:43	1°♂56'42	1.42300 AU	morning max el	382 Nov 01 j 14:35	20°♂08'34	20°03'59
				greatest brilliancy	382 Nov 08 j 17:16	28°♂48'31	-0.6m
superior conj	382 Jan 03 j 06:34	14°♂10'00	-2°-1'-38		382 Nov 09 j 14:03	0°♂	
minimum elong	382 Jan 03 j 04:56	14°♂02'59	2°01'37	desc. node	382 Nov 25 j 04:46	23°♂10'43	
	382 Jan 12 j 06:09	0°♂		morning set	382 Nov 28 j 06:14	27°♂53'37	
evening rise	382 Jan 14 j 14:49	4°♂15'55			382 Nov 29 j 14:53	0°♂	
asc. node	382 Jan 25 j 21:43	23°♂44'18		max. Earth dist.	382 Dec 09 j 09:17	15°♂21'32	1.43860 AU
	382 Jan 30 j 17:11	0°♂					
evening max el	382 Jan 31 j 05:51	0°♂32'17	18°08'15	superior conj	382 Dec 14 j 18:11	24°♂02'07	-1°-47'-21
retrograde	382 Feb 06 j 22:44	3°♂58'02		minimum elong	382 Dec 14 j 11:36	23°♂35'12	1°46'55
evening set	382 Feb 09 j 13:53	3°♂26'33			382 Dec 18 j 09:05	0°♂	
	382 Feb 14 j 15:07	30°♂♂		evening rise	382 Dec 27 j 20:50	16°♂05'05	
inferior conj	382 Feb 16 j 06:24	28°♂28'24	3°43'09		383 Jan 05 j 00:22	0°♂	
minimum elong	382 Feb 16 j 07:52	28°♂24'54	3°43'01	asc. node	383 Jan 12 j 18:45	11°♂33'32	
min. Earth dist.	382 Feb 19 j 10:26	25°♂28'01	0.61052 AU	evening max el	383 Jan 14 j 18:14	13°♂46'17	18°12'32
morning rise	382 Feb 22 j 23:02	22°♂38'59		retrograde	383 Jan 21 j 05:52	17°♂13'37	
direct	382 Mar 01 j 18:40	20°♂21'40		evening set	383 Jan 24 j 01:27	16°♂32'41	
desc. node	382 Mar 06 j 06:53	21°♂16'36		inferior conj	383 Jan 30 j 06:47	11°♂14'06	3°48'28
morning max el	382 Mar 15 j 23:19	28°♂12'13	27°41'14	minimum elong	383 Jan 30 j 06:12	11°♂15'42	3°48'27
	382 Mar 17 j 17:18	0°♂		min. Earth dist.	383 Feb 01 j 21:39	8°♂25'07	0.63041 AU
	382 Apr 07 j 14:26	0°♂		morning rise	383 Feb 05 j 09:01	5°♂12'59	
morning set	382 Apr 17 j 09:41	18°♂45'22		direct	383 Feb 12 j 08:27	2°♂31'15	
	382 Apr 22 j 17:06	0°♂		desc. node	383 Feb 21 j 03:55	6°♂00'03	
max. Earth dist.	382 Apr 23 j 13:36	1°♂51'19	1.32413 AU	morning max el	383 Feb 26 j 05:58	10°♂24'39	27°45'00
asc. node	382 Apr 23 j 21:03	2°♂31'57			383 Mar 13 j 14:57	0°♂	
					383 Mar 30 j 21:20	0°♂	
superior conj	382 Apr 24 j 17:16	4°♂22'21	0°08'55	morning set	383 Apr 01 j 09:50	3°♂01'30	

max. Earth dist.	383 Apr 06 j 20:30	14°♿18'08	1.32906 AU		384 Mar 21 j 14:22	0°♿	
superior conj	383 Apr 09 j 01:50	19°♿03'51	0°-17'-38	superior conj	384 Mar 23 j 06:00	3°♿27'33	0°-44'-43
minimum elong	383 Apr 09 j 02:41	19°♿08'24	0°17'27	minimum elong	384 Mar 23 j 08:10	3°♿39'00	0°44'19
asc. node	383 Apr 10 j 18:05	22°♿41'21		asc. node	384 Mar 27 j 15:06	12°♿45'25	
	383 Apr 14 j 03:14	0°♿		evening rise	384 Mar 30 j 14:34	19°♿02'56	
evening rise	383 Apr 16 j 03:45	4°♿18'38			384 Apr 05 j 01:07	0°♿	
	383 Apr 30 j 01:51	0°♿		evening max el	384 Apr 20 j 08:47	22°♿29'58	21°57'29
evening max el	383 May 09 j 14:58	11°♿52'17	23°31'48	retrograde	384 May 02 j 23:51	28°♿41'09	
desc. node	383 May 20 j 03:09	18°♿19'21		evening set	384 May 05 j 16:30	28°♿25'01	
retrograde	383 May 23 j 06:24	18°♿41'44		desc. node	384 May 06 j 00:11	28°♿21'02	
evening set	383 May 27 j 04:17	18°♿08'03		min. Earth dist.	384 May 14 j 14:00	24°♿36'54	0.55072 AU
min. Earth dist.	383 Jun 03 j 01:23	14°♿56'50	0.55957 AU	inferior conj	384 May 15 j 01:40	24°♿20'32	-2°-31'-1
inferior conj	383 Jun 05 j 03:28	13°♿42'02	-3°-59'-33	minimum elong	384 May 14 j 19:07	24°♿29'44	2°28'57
minimum elong	383 Jun 04 j 20:42	13°♿52'11	3°58'10	morning rise	384 May 23 j 23:04	20°♿25'40	
morning rise	383 Jun 13 j 16:36	9°♿45'54		direct	384 May 26 j 22:54	20°♿05'44	
direct	383 Jun 16 j 09:24	9°♿27'48		morning max el	384 Jun 07 j 22:37	25°♿43'25	21°35'07
morning max el	383 Jun 26 j 17:42	14°♿14'58	20°10'33		384 Jun 11 j 22:17	0°♿	
asc. node	383 Jul 07 j 17:20	29°♿18'48		asc. node	384 Jun 23 j 14:22	18°♿32'36	
	383 Jul 08 j 02:37	0°♿		morning set	384 Jun 28 j 09:14	28°♿08'12	
morning set	383 Jul 15 j 00:30	13°♿21'06			384 Jun 29 j 06:44	0°♿	
superior conj	383 Jul 22 j 19:03	29°♿13'18	1°45'46	superior conj	384 Jul 05 j 18:14	13°♿36'55	1°38'28
minimum elong	383 Jul 22 j 18:15	29°♿09'14	1°45'45	minimum elong	384 Jul 05 j 16:19	13°♿26'52	1°38'19
	383 Jul 23 j 04:21	0°♿		max. Earth dist.	384 Jul 09 j 13:52	21°♿27'12	1.35002 AU
max. Earth dist.	383 Jul 28 j 01:25	9°♿34'11	1.36626 AU		384 Jul 13 j 22:07	0°♿	
evening rise	383 Aug 01 j 00:41	16°♿59'29		evening rise	384 Jul 14 j 01:40	0°♿16'59	
	383 Aug 08 j 11:27	0°♿			384 Jul 31 j 13:21	0°♿	
desc. node	383 Aug 16 j 02:31	12°♿08'41		desc. node	384 Aug 01 j 23:32	2°♿06'13	
	383 Aug 28 j 23:47	0°♿		evening max el	384 Aug 18 j 06:50	22°♿17'26	26°47'47
evening max el	383 Sep 05 j 18:47	8°♿42'39	25°52'22	retrograde	384 Aug 31 j 08:15	29°♿33'16	
retrograde	383 Sep 18 j 04:24	15°♿47'25		evening set	384 Sep 07 j 00:34	26°♿50'33	
evening set	383 Sep 24 j 07:34	13°♿13'50		min. Earth dist.	384 Sep 11 j 00:43	22°♿46'36	0.65748 AU
min. Earth dist.	383 Sep 28 j 15:07	8°♿32'26	0.66729 AU	inferior conj	384 Sep 12 j 19:44	20°♿39'59	-2°-13'-31
inferior conj	383 Sep 29 j 22:06	6°♿54'28	-1°-17'-6	minimum elong	384 Sep 12 j 23:08	20°♿29'56	2°12'14
minimum elong	383 Sep 30 j 00:04	6°♿48'14	1°16'17	morning rise	384 Sep 18 j 23:01	14°♿56'20	
asc. node	383 Oct 03 j 16:31	2°♿34'35		asc. node	384 Sep 19 j 13:34	14°♿39'25	
morning rise	383 Oct 05 j 17:25	0°♿58'42		direct	384 Sep 21 j 18:48	14°♿12'00	
direct	383 Oct 08 j 21:28	0°♿00'52		morning max el	384 Sep 28 j 09:24	17°♿49'08	18°24'30
morning max el	383 Oct 15 j 21:12	3°♿56'31	19°06'14		384 Oct 07 j 11:03	0°♿	
	383 Nov 03 j 06:42	0°♿		morning set	384 Oct 17 j 20:52	16°♿41'23	
morning set	383 Nov 07 j 12:17	6°♿36'52			384 Oct 26 j 03:34	0°♿	
desc. node	383 Nov 12 j 01:47	13°♿45'18		desc. node	384 Oct 28 j 22:49	4°♿27'20	
max. Earth dist.	383 Nov 22 j 00:38	29°♿22'11	1.44813 AU				
	383 Nov 22 j 10:14	0°♿		superior conj	384 Nov 02 j 05:50	11°♿14'16	0°-28'-2
superior conj	383 Nov 24 j 05:15	2°♿49'53	-1°-14'-34	minimum elong	384 Nov 02 j 02:09	10°♿59'46	0°27'33
minimum elong	383 Nov 23 j 21:01	2°♿17'18	1°13'40	max. Earth dist.	384 Nov 03 j 19:15	13°♿41'28	1.45050 AU
evening rise	383 Dec 09 j 05:04	26°♿57'28			384 Nov 14 j 04:43	0°♿	
	383 Dec 11 j 01:35	0°♿		evening rise	384 Nov 18 j 13:34	6°♿51'50	
evening max el	383 Dec 29 j 06:11	27°♿09'11	18°35'21	greatest brilliancy	384 Dec 01 j 20:53	27°♿35'57	-0.7m
asc. node	383 Dec 30 j 15:47	28°♿28'04			384 Dec 03 j 11:32	0°♿	
	384 Jan 01 j 20:31	0°♿		evening max el	384 Dec 11 j 15:20	10°♿36'10	19°15'26
retrograde	384 Jan 04 j 21:01	0°♿49'23		asc. node	384 Dec 16 j 12:49	14°♿13'15	
evening set	384 Jan 07 j 21:49	29°♿57'47		retrograde	384 Dec 18 j 16:44	14°♿39'04	
	384 Jan 07 j 20:13	30°♿		evening set	384 Dec 22 j 00:09	13°♿35'14	
inferior conj	384 Jan 13 j 18:59	24°♿20'39	3°35'46	inferior conj	384 Dec 27 j 15:37	7°♿41'53	3°10'03
minimum elong	384 Jan 13 j 17:00	24°♿26'35	3°35'30	minimum elong	384 Dec 27 j 12:57	7°♿50'25	3°09'27
min. Earth dist.	384 Jan 15 j 18:29	21°♿59'38	0.64733 AU	min. Earth dist.	384 Dec 29 j 00:11	5°♿57'45	0.66042 AU
morning rise	384 Jan 19 j 10:55	18°♿12'26		morning rise	385 Jan 02 j 00:55	1°♿29'19	
direct	384 Jan 26 j 05:41	15°♿21'14			385 Jan 04 j 00:33	30°♿	
desc. node	384 Feb 08 j 00:58	22°♿32'59		direct	385 Jan 08 j 08:58	28°♿42'42	
morning max el	384 Feb 08 j 15:13	23°♿08'11	27°13'54		385 Jan 13 j 03:34	0°♿	
	384 Feb 14 j 18:06	0°♿		morning max el	385 Jan 21 j 00:38	6°♿10'55	26°14'40
	384 Mar 05 j 21:36	0°♿		desc. node	385 Jan 24 j 22:00	10°♿24'07	
morning set	384 Mar 15 j 01:07	16°♿46'54			385 Feb 08 j 10:43	0°♿	
max. Earth dist.	384 Mar 19 j 18:33	26°♿13'35	1.33827 AU	morning set	385 Feb 26 j 03:41	29°♿49'49	
					385 Feb 26 j 05:52	0°♿	

max. Earth dist.	385 Mar 02 j 05:15	7° ✕ 35'42	1.35202 AU	max. Earth dist.	386 Feb 12 j 05:24	18° ≈ 38'55	1.37005 AU
					386 Feb 18 j 04:37	0° ✕	
superior conj	385 Mar 07 j 03:24	17° ✕ 26'14	-1°-11'-2	superior conj	386 Feb 18 j 15:00	0° ✕ 50'47	-1°-34'-41
minimum elong	385 Mar 07 j 06:44	17° ✕ 43'17	1°10'30	minimum elong	386 Feb 18 j 18:56	1° ✕ 10'09	1°34'13
	385 Mar 13 j 05:12	0° ∇		evening rise	386 Feb 27 j 01:13	17° ✕ 41'37	
evening rise	385 Mar 14 j 22:27	3° ∇ 33'02		asc. node	386 Mar 01 j 09:11	22° ✕ 19'28	
asc. node	385 Mar 14 j 12:08	2° ∇ 39'56			386 Mar 05 j 10:19	0° ∇	
	385 Mar 30 j 05:53	0° ♄		evening max el	386 Mar 16 j 02:31	15° ∇ 16'42	19°27'35
evening max el	385 Apr 02 j 12:01	3° ♄ 34'47	20°33'54	retrograde	386 Mar 25 j 10:34	19° ∇ 46'13	
retrograde	385 Apr 13 j 12:51	8° ♄ 54'19		evening set	386 Mar 27 j 13:42	19° ∇ 33'12	
evening set	385 Apr 15 j 16:26	8° ♄ 43'02		inferior conj	386 Apr 05 j 01:32	15° ∇ 26'47	1°18'29
desc. node	385 Apr 22 j 21:12	5° ♄ 52'34		minimum elong	386 Apr 05 j 04:38	15° ∇ 21'45	1°17'28
inferior conj	385 Apr 24 j 20:18	4° ♄ 45'37	0°-33'-54	min. Earth dist.	386 Apr 07 j 17:38	13° ∇ 43'20	0.56088 AU
minimum elong	385 Apr 24 j 18:42	4° ♄ 47'55	0°33'20	desc. node	386 Apr 09 j 18:14	12° ∇ 30'40	
min. Earth dist.	385 Apr 26 j 03:09	4° ♄ 01'05	0.55118 AU	morning rise	386 Apr 13 j 15:51	10° ∇ 43'14	
morning rise	385 May 03 j 19:24	0° ♄ 33'37		direct	386 Apr 18 j 06:18	9° ∇ 55'16	
direct	385 May 07 j 10:10	0° ♄ 05'23		morning max el	386 May 02 j 08:55	17° ∇ 03'35	24°53'50
morning max el	385 May 20 j 18:04	6° ♄ 33'39	23°13'15		386 May 12 j 22:02	0° ♄	
	385 Jun 06 j 06:49	0° ♄		morning set	386 May 28 j 08:28	28° ♄ 02'58	
asc. node	385 Jun 10 j 11:24	8° ♄ 09'49		asc. node	386 May 28 j 08:28	28° ♄ 02'58	
morning set	385 Jun 12 j 20:29	13° ♄ 04'26			386 May 29 j 06:35	0° ♄	
superior conj	385 Jun 19 j 23:49	28° ♄ 20'25	1°25'34	superior conj	386 Jun 04 j 09:18	13° ♄ 14'51	1°08'13
minimum elong	385 Jun 19 j 21:23	28° ♄ 07'24	1°25'16	minimum elong	386 Jun 04 j 06:54	13° ♄ 01'49	1°07'49
	385 Jun 20 j 18:28	0° ♄		max. Earth dist.	386 Jun 05 j 18:20	16° ♄ 14'16	1.32895 AU
max. Earth dist.	385 Jun 22 j 12:04	3° ♄ 40'18	1.33756 AU	evening rise	386 Jun 11 j 15:15	28° ♄ 38'29	
evening rise	385 Jun 27 j 15:50	14° ♄ 14'12			386 Jun 12 j 07:16	0° ♄	
	385 Jul 06 j 02:03	0° ♄			386 Jun 29 j 06:34	0° ♄	
desc. node	385 Jul 19 j 20:34	21° ♄ 33'55		desc. node	386 Jul 06 j 17:35	10° ♄ 18'29	
	385 Jul 26 j 11:21	0° ♄		evening max el	386 Jul 14 j 03:50	18° ♄ 33'12	27°22'53
evening max el	385 Jul 31 j 18:37	5° ♄ 38'58	27°19'57	retrograde	386 Jul 27 j 22:11	25° ♄ 51'17	
retrograde	385 Aug 14 j 06:19	12° ♄ 57'46		evening set	386 Aug 04 j 03:07	23° ♄ 19'48	
evening set	385 Aug 21 j 08:15	10° ♄ 14'38		min. Earth dist.	386 Aug 07 j 17:06	20° ♄ 22'46	0.62715 AU
min. Earth dist.	385 Aug 25 j 01:55	6° ♄ 47'05	0.64409 AU	inferior conj	386 Aug 10 j 13:52	17° ♄ 37'44	-3°-55'-49
inferior conj	385 Aug 27 j 09:56	4° ♄ 16'46	-3°-7'-37	minimum elong	386 Aug 10 j 18:44	17° ♄ 26'01	3°54'42
minimum elong	385 Aug 27 j 14:29	4° ♄ 04'33	3°06'11	morning rise	386 Aug 17 j 12:50	12° ♄ 28'48	
	385 Aug 31 j 22:17	30° ♄		direct	386 Aug 19 j 23:34	12° ♄ 01'24	
morning rise	385 Sep 02 j 22:34	28° ♄ 48'45		asc. node	386 Aug 24 j 07:41	13° ♄ 29'19	
direct	385 Sep 05 j 12:35	28° ♄ 14'23		morning max el	386 Aug 26 j 16:24	15° ♄ 27'03	17°52'57
asc. node	385 Sep 06 j 10:36	28° ♄ 18'46			386 Sep 05 j 19:41	0° ♄	
	385 Sep 10 j 02:25	0° ♄		morning set	386 Sep 11 j 21:08	10° ♄ 40'13	
morning max el	385 Sep 12 j 00:45	1° ♄ 41'33	17°59'47		386 Sep 22 j 23:04	0° ♄	
morning set	385 Sep 29 j 09:37	28° ♄ 08'18					
	385 Sep 30 j 12:00	0° ♄					
				superior conj	386 Sep 23 j 07:33	0° ♄ 35'54	1°00'09
superior conj	385 Oct 12 j 17:56	20° ♄ 16'53	0°20'23	minimum elong	386 Sep 23 j 12:25	0° ♄ 56'25	0°59'33
minimum elong	385 Oct 12 j 20:16	20° ♄ 26'19	0°20'03	max. Earth dist.	386 Sep 30 j 05:09	12° ♄ 00'20	1.43369 AU
desc. node	385 Oct 15 j 19:53	25° ♄ 13'40		desc. node	386 Oct 02 j 16:56	16° ♄ 00'49	
max. Earth dist.	385 Oct 17 j 13:58	28° ♄ 01'06	1.44547 AU	evening rise	386 Oct 08 j 10:18	25° ♄ 01'42	
	385 Oct 18 j 20:01	0° ♄			386 Oct 11 j 15:40	0° ♄	
evening rise	385 Oct 29 j 02:50	16° ♄ 02'01			386 Nov 01 j 09:09	0° ♄	
	385 Nov 07 j 06:16	0° ♄		greatest brilliancy	386 Nov 02 j 15:22	1° ♄ 37'01	-0.4m
greatest brilliancy	385 Nov 18 j 03:48	15° ♄ 53'58	-0.6m	evening max el	386 Nov 07 j 18:35	7° ♄ 33'45	21°19'11
evening max el	385 Nov 24 j 19:50	24° ♄ 04'44	20°10'56	retrograde	386 Nov 16 j 11:46	12° ♄ 44'39	
retrograde	385 Dec 02 j 14:23	28° ♄ 38'36		asc. node	386 Nov 20 j 06:54	11° ♄ 23'54	
asc. node	385 Dec 03 j 09:52	28° ♄ 34'52		evening set	386 Nov 20 j 13:48	11° ♄ 11'04	
evening set	385 Dec 06 j 06:08	27° ♄ 20'48		inferior conj	386 Nov 25 j 23:38	4° ♄ 54'38	1°51'55
inferior conj	385 Dec 11 j 17:55	21° ♄ 14'08	2°34'39	minimum elong	386 Nov 25 j 21:22	5° ♄ 02'27	1°51'04
minimum elong	385 Dec 11 j 15:12	21° ♄ 23'17	2°33'49	min. Earth dist.	386 Nov 26 j 06:58	4° ♄ 29'22	0.67498 AU
min. Earth dist.	385 Dec 12 j 13:04	20° ♄ 09'47	0.66957 AU		386 Nov 29 j 19:42	30° ♄	
morning rise	385 Dec 16 j 23:44	14° ♄ 59'10		morning rise	386 Dec 01 j 04:37	28° ♄ 39'18	
direct	385 Dec 22 j 17:41	12° ♄ 27'23		direct	386 Dec 06 j 07:15	26° ♄ 28'01	
morning max el	386 Jan 03 j 09:17	19° ♄ 23'40	24°56'22		386 Dec 13 j 20:20	0° ♄	
desc. node	386 Jan 11 j 19:04	29° ♄ 10'53		morning max el	386 Dec 16 j 18:14	2° ♄ 41'39	23°29'10
	386 Jan 12 j 10:13	0° ♄		greatest brilliancy	386 Dec 22 j 17:37	9° ♄ 28'33	-0.2m
	386 Feb 01 j 13:44	0° ♄		desc. node	386 Dec 29 j 16:08	18° ♄ 37'25	
morning set	386 Feb 08 j 12:20	11° ♄ 55'05			387 Jan 06 j 13:08	0° ♄	

morning set	387 Jan 20 j 20:53	22°☾47'07		greatest brilliancy	387 Dec 03 j 23:40	21°♄24'02	-0.4m
max. Earth dist.	387 Jan 25 j 00:30	29°☾55'15	1.39087 AU		387 Dec 10 j 13:09	0°♄	
	387 Jan 25 j 01:35	0°♄		desc. node	387 Dec 16 j 13:10	8°♄31'40	
					387 Dec 30 j 14:49	0°☾	
superior conj	387 Feb 01 j 12:54	13°♄31'34	-1°-52'-58	morning set	388 Jan 01 j 00:21	2°☾14'10	
minimum elong	387 Feb 01 j 16:16	13°♄47'19	1°52'44	max. Earth dist.	388 Jan 06 j 22:06	11°☾55'22	1.41194 AU
	387 Feb 10 j 03:16	0°♄					
evening rise	387 Feb 10 j 20:11	1°♄21'58		superior conj	388 Jan 14 j 16:04	25°☾15'42	-2°-2'-12
asc. node	387 Feb 16 j 06:15	11°♄38'37		minimum elong	388 Jan 14 j 16:55	25°☾19'25	2°02'12
evening max el	387 Feb 27 j 02:59	27°♄35'08	18°41'01		388 Jan 17 j 07:43	0°♄	
	387 Mar 02 j 04:45	0°♄		evening rise	388 Jan 25 j 03:57	14°♄25'24	
retrograde	387 Mar 07 j 01:35	1°♄27'08			388 Feb 02 j 20:00	0°♄	
evening set	387 Mar 09 j 09:11	1°♄08'35		asc. node	388 Feb 03 j 03:16	0°♄30'01	
	387 Mar 12 j 05:31	30°♄		evening max el	388 Feb 10 j 10:34	10°♄22'10	18°14'34
inferior conj	387 Mar 17 j 02:22	26°♄44'21	2°41'19	retrograde	388 Feb 17 j 10:55	13°♄52'44	
minimum elong	387 Mar 17 j 06:36	26°♄36'19	2°40'16	evening set	388 Feb 19 j 23:32	13°♄26'20	
min. Earth dist.	387 Mar 20 j 11:01	24°♄13'06	0.57776 AU	inferior conj	388 Feb 27 j 00:05	8°♄40'55	3°29'15
morning rise	387 Mar 24 j 23:49	21°♄28'24		minimum elong	388 Feb 27 j 02:50	8°♄34'52	3°28'52
desc. node	387 Mar 27 j 15:16	20°♄31'07		min. Earth dist.	388 Mar 01 j 09:14	5°♄43'43	0.59840 AU
direct	387 Mar 30 j 16:34	20°♄07'42		morning rise	388 Mar 05 j 02:42	3°♄01'17	
morning max el	387 Apr 14 j 01:11	27°♄41'22	26°21'28	direct	388 Mar 11 j 15:40	1°♄02'52	
	387 Apr 16 j 07:12	0°♄		desc. node	388 Mar 13 j 12:19	1°♄12'08	
	387 May 06 j 07:50	0°♄		morning max el	388 Mar 25 j 22:41	8°♄49'36	27°22'05
morning set	387 May 12 j 19:34	12°♄58'03			388 Apr 11 j 02:51	0°♄	
asc. node	387 May 15 j 05:33	18°♄06'38		morning set	388 Apr 26 j 04:02	27°♄43'36	
					388 Apr 27 j 06:07	0°♄	
superior conj	387 May 19 j 20:44	28°♄13'35	0°47'17	asc. node	388 May 01 j 02:36	8°♄16'02	
minimum elong	387 May 19 j 18:50	28°♄03'08	0°46'55				
max. Earth dist.	387 May 20 j 05:30	29°♄01'40	1.32412 AU	superior conj	388 May 03 j 08:24	13°♄10'30	0°23'33
	387 May 20 j 16:08	0°♄		minimum elong	388 May 03 j 07:22	13°♄04'47	0°23'20
evening rise	387 May 26 j 20:59	13°♄20'29		max. Earth dist.	388 May 02 j 18:03	11°♄51'44	1.32300 AU
	387 Jun 04 j 09:38	0°♄		evening rise	388 May 10 j 06:39	28°♄12'19	
desc. node	387 Jun 23 j 14:35	28°♄01'56			388 May 11 j 03:10	0°♄	
	387 Jun 25 j 12:09	0°♄			388 May 28 j 00:20	0°♄	
evening max el	387 Jun 26 j 08:07	0°♄48'30	26°53'08	evening max el	388 Jun 07 j 05:51	12°♄19'07	25°51'47
retrograde	387 Jul 10 j 07:03	8°♄04'26		desc. node	388 Jun 09 j 11:35	14°♄19'08	
evening set	387 Jul 17 j 04:51	5°♄58'45		retrograde	388 Jun 21 j 07:00	19°♄30'49	
min. Earth dist.	387 Jul 20 j 22:02	3°♄19'36	0.60744 AU	evening set	388 Jun 27 j 08:55	18°♄02'05	
inferior conj	387 Jul 24 j 04:10	0°♄34'48	-4°-32'-19	min. Earth dist.	388 Jul 01 j 18:23	15°♄23'13	0.58680 AU
minimum elong	387 Jul 24 j 07:49	0°♄27'04	4°31'52	inferior conj	388 Jul 05 j 01:18	12°♄58'48	-4°-47'-56
	387 Jul 24 j 20:42	30°♄		minimum elong	388 Jul 05 j 01:33	12°♄58'19	4°47'56
morning rise	387 Jul 31 j 13:56	25°♄47'40		morning rise	388 Jul 12 j 21:50	8°♄34'20	
direct	387 Aug 02 j 23:56	25°♄24'47		direct	388 Jul 15 j 09:23	8°♄14'10	
morning max el	387 Aug 10 j 05:19	28°♄58'03	18°05'01	morning max el	388 Jul 23 j 12:22	12°♄05'51	18°37'13
asc. node	387 Aug 11 j 04:45	29°♄58'06		asc. node	388 Jul 28 j 01:49	17°♄29'52	
	387 Aug 11 j 05:28	0°♄			388 Aug 04 j 13:52	0°♄	
morning set	387 Aug 26 j 01:28	24°♄00'28		morning set	388 Aug 08 j 17:53	7°♄56'46	
	387 Aug 29 j 06:44	0°♄					
superior conj	387 Sep 04 j 23:53	12°♄13'42	1°27'15	superior conj	388 Aug 17 j 14:13	24°♄57'21	1°42'10
minimum elong	387 Sep 05 j 04:01	12°♄32'06	1°26'53	minimum elong	388 Aug 17 j 16:20	25°♄07'19	1°42'03
max. Earth dist.	387 Sep 12 j 14:38	25°♄22'50	1.41684 AU		388 Aug 20 j 07:32	0°♄	
	387 Sep 15 j 09:33	0°♄		max. Earth dist.	388 Aug 24 j 19:26	8°♄03'34	1.39713 AU
evening rise	387 Sep 18 j 05:40	4°♄36'14		evening rise	388 Aug 29 j 00:10	15°♄16'26	
desc. node	387 Sep 19 j 13:57	6°♄45'12		desc. node	388 Sep 05 j 10:57	27°♄23'35	
	387 Oct 04 j 23:29	0°♄			388 Sep 07 j 03:04	0°♄	
greatest brilliancy	387 Oct 16 j 15:36	15°♄37'49	-0.3m		388 Sep 28 j 19:09	0°♄	
evening max el	387 Oct 21 j 11:51	21°♄03'41	22°36'13	evening max el	388 Oct 03 j 01:21	4°♄37'20	23°56'22
retrograde	387 Oct 31 j 07:07	26°♄53'18		retrograde	388 Oct 13 j 23:04	11°♄02'09	
evening set	387 Nov 04 j 21:23	25°♄02'31		evening set	388 Oct 19 j 03:15	8°♄53'30	
asc. node	387 Nov 07 j 03:58	22°♄45'34		min. Earth dist.	388 Oct 23 j 23:48	3°♄16'01	0.67586 AU
inferior conj	387 Nov 10 j 06:47	18°♄40'07	1°03'29	asc. node	388 Oct 24 j 01:00	3°♄11'56	
minimum elong	387 Nov 10 j 05:21	18°♄45'03	1°02'53	inferior conj	388 Oct 24 j 13:36	2°♄29'12	0°10'52
min. Earth dist.	387 Nov 10 j 03:21	18°♄51'57	0.67700 AU	minimum elong	388 Oct 24 j 13:20	2°♄30'06	0°10'45
morning rise	387 Nov 15 j 13:14	12°♄26'46		transit middle	388 Oct 24 j 13:20	2°♄30'06	0°10'45
direct	387 Nov 20 j 00:53	10°♄38'03		transit begin	388 Oct 24 j 11:17	2°♄37'02	
morning max el	387 Nov 29 j 06:24	16°♄04'47	22°02'26	transit end	388 Oct 24 j 15:23	2°♄23'09	
					388 Oct 26 j 10:39	30°♄	

morning rise	388 Oct 29 j 23:36	26°♄20'28		inferior conj	389 Oct 08 j 18:20	16°♄19'04	0°-44'-31
direct	388 Nov 02 j 21:31	24°♄53'36		minimum elong	389 Oct 08 j 19:27	16°♄15'25	0°44'03
morning max el	388 Nov 11 j 01:05	29°♄37'19	20°43'38	asc. node	389 Oct 10 j 22:03	13°♄36'05	
	388 Nov 11 j 09:57	0°♄		morning rise	389 Oct 14 j 09:45	10°♄17'52	
greatest brilliancy	388 Nov 16 j 23:26	6°♄35'45	-0.5m	direct	389 Oct 17 j 19:46	9°♄10'23	
desc. node	388 Dec 02 j 10:12	28°♄46'07		morning max el	389 Oct 25 j 03:34	13°♄20'16	19°37'31
	388 Dec 03 j 05:45	0°♄		greatest brilliancy	389 Nov 02 j 11:46	23°♄50'44	-0.6m
morning set	388 Dec 10 j 02:52	10°♄33'52			389 Nov 06 j 16:55	0°♄	
max. Earth dist.	388 Dec 19 j 03:19	24°♄52'14	1.43036 AU	morning set	389 Nov 19 j 00:29	18°♄48'35	
	388 Dec 22 j 06:43	0°♄		desc. node	389 Nov 19 j 07:15	19°♄14'48	
					389 Nov 26 j 05:02	0°♄	
superior conj	388 Dec 25 j 19:13	5°♄51'10	-1°-57'-48	max. Earth dist.	389 Dec 01 j 16:11	8°♄36'42	1.44358 AU
minimum elong	388 Dec 25 j 15:26	5°♄35'16	1°57'40				
evening rise	389 Jan 06 j 20:34	26°♄43'56		superior conj	389 Dec 05 j 19:36	15°♄13'33	-1°-35'-38
	389 Jan 08 j 16:49	0°♄		minimum elong	389 Dec 05 j 11:35	14°♄41'20	1°34'56
asc. node	389 Jan 20 j 00:18	18°♄45'05			389 Dec 14 j 20:39	0°♄	
evening max el	389 Jan 23 j 22:05	23°♄28'55	18°07'47	evening rise	389 Dec 19 j 17:47	8°♄10'06	
retrograde	389 Jan 30 j 11:24	26°♄53'23			390 Jan 02 j 02:03	0°♄	
evening set	389 Feb 02 j 04:32	26°♄17'52		asc. node	390 Jan 06 j 21:19	6°♄13'02	
inferior conj	389 Feb 08 j 15:53	21°♄10'55	3°47'56	evening max el	390 Jan 07 j 10:37	6°♄47'48	18°20'01
minimum elong	389 Feb 08 j 16:25	21°♄09'34	3°47'55	retrograde	390 Jan 13 j 22:32	10°♄19'13	
min. Earth dist.	389 Feb 11 j 14:52	18°♄12'59	0.61934 AU	evening set	390 Jan 16 j 20:17	9°♄33'44	
morning rise	389 Feb 15 j 01:56	15°♄16'07		inferior conj	390 Jan 22 j 21:47	4°♄06'44	3°44'56
direct	389 Feb 22 j 00:35	12°♄46'37		minimum elong	390 Jan 22 j 20:30	4°♄10'20	3°44'50
desc. node	389 Feb 28 j 09:21	14°♄36'13		min. Earth dist.	390 Jan 25 j 06:02	1°♄28'27	0.63806 AU
morning max el	389 Mar 08 j 02:16	20°♄38'36	27°47'19		390 Jan 26 j 15:35	30°♄	
	389 Mar 16 j 04:24	0°♄		morning rise	390 Jan 28 j 19:09	28°♄02'18	
	389 Apr 04 j 01:41	0°♄		direct	390 Feb 04 j 17:28	25°♄15'04	
morning set	389 Apr 10 j 07:52	12°♄12'36		desc. node	390 Feb 15 j 06:24	0°♄11'06	
max. Earth dist.	389 Apr 16 j 04:11	24°♄31'09	1.32573 AU		390 Feb 15 j 01:05	0°♄	
				morning max el	390 Feb 18 j 10:25	3°♄06'10	27°35'48
superior conj	389 Apr 17 j 18:36	27°♄59'25	0°-2'-12		390 Mar 10 j 13:25	0°♄	
minimum elong	389 Apr 17 j 18:42	27°♄59'59	0°02'12	morning set	390 Mar 25 j 04:40	26°♄17'19	
behind sun begin	389 Apr 17 j 13:37	27°♄32'19			390 Mar 27 j 01:05	0°♄	
behind sun end	389 Apr 17 j 23:47	28°♄27'40		max. Earth dist.	390 Mar 30 j 08:04	6°♄47'33	1.33248 AU
asc. node	389 Apr 17 j 23:36	28°♄26'41					
	389 Apr 18 j 16:44	0°♄		superior conj	390 Apr 02 j 01:33	12°♄34'31	0°-29'-7
evening rise	389 Apr 24 j 18:13	13°♄06'37		minimum elong	390 Apr 02 j 02:58	12°♄42'04	0°28'50
	389 May 03 j 07:41	0°♄		asc. node	390 Apr 04 j 20:38	18°♄34'43	
evening max el	389 May 19 j 21:37	23°♄09'32	24°26'25	evening rise	390 Apr 09 j 05:53	27°♄57'01	
desc. node	389 May 27 j 08:36	28°♄36'03			390 Apr 10 j 05:22	0°♄	
	389 May 31 j 15:48	0°♄			390 Apr 28 j 01:45	0°♄	
retrograde	389 Jun 02 j 19:17	0°♄10'36		evening max el	390 May 01 j 12:25	3°♄42'29	22°50'58
	389 Jun 04 j 23:00	30°♄		desc. node	390 May 14 j 05:36	10°♄17'21	
evening set	389 Jun 07 j 13:46	29°♄19'40		retrograde	390 May 14 j 19:09	10°♄18'04	
min. Earth dist.	389 Jun 13 j 08:54	26°♄24'19	0.56812 AU	evening set	390 May 18 j 03:22	9°♄53'34	
inferior conj	389 Jun 16 j 02:25	24°♄40'01	-4°-29'-55	min. Earth dist.	390 May 25 j 21:10	6°♄28'32	0.55479 AU
minimum elong	389 Jun 15 j 21:49	24°♄47'23	4°29'20	inferior conj	390 May 27 j 08:29	5°♄37'44	-3°-27'-9
morning rise	389 Jun 24 j 09:36	20°♄35'53		minimum elong	390 May 27 j 01:05	5°♄48'25	3°25'14
direct	389 Jun 27 j 00:23	20°♄17'13		morning rise	390 Jun 05 j 01:38	1°♄44'43	
morning max el	389 Jul 06 j 10:32	24°♄39'55	19°30'30	direct	390 Jun 07 j 21:00	1°♄26'16	
	389 Jul 11 j 02:04	0°♄		morning max el	390 Jun 18 j 21:55	6°♄33'22	20°44'28
asc. node	389 Jul 14 j 22:51	5°♄49'49		asc. node	390 Jul 01 j 19:54	24°♄46'44	
morning set	389 Jul 23 j 18:40	22°♄18'23			390 Jul 04 j 13:54	0°♄	
	389 Jul 27 j 14:26	0°♄		morning set	390 Jul 08 j 01:07	6°♄57'59	
superior conj	389 Jul 31 j 20:49	8°♄29'57	1°46'53	superior conj	390 Jul 15 j 15:03	22°♄38'19	1°43'27
minimum elong	389 Jul 31 j 20:56	8°♄30'33	1°46'52	minimum elong	390 Jul 15 j 13:41	22°♄31'22	1°43'23
max. Earth dist.	389 Aug 06 j 22:59	20°♄08'17	1.37706 AU		390 Jul 19 j 06:47	0°♄	
evening rise	389 Aug 10 j 18:57	27°♄05'12		max. Earth dist.	390 Jul 20 j 06:44	1°♄57'52	1.35892 AU
	389 Aug 12 j 10:43	0°♄		evening rise	390 Jul 24 j 10:18	9°♄53'41	
desc. node	389 Aug 23 j 07:58	17°♄50'49			390 Aug 05 j 00:48	0°♄	
	389 Aug 31 j 14:27	0°♄		desc. node	390 Aug 10 j 04:59	8°♄01'10	
evening max el	389 Sep 15 j 13:10	18°♄14'14	25°12'55		390 Aug 27 j 04:46	0°♄	
retrograde	389 Sep 27 j 10:44	25°♄06'43		evening max el	390 Aug 29 j 00:49	1°♄51'03	26°18'14
evening set	389 Oct 03 j 05:42	22°♄41'14		retrograde	390 Sep 10 j 17:35	9°♄01'32	
min. Earth dist.	389 Oct 07 j 17:50	17°♄38'58	0.67144 AU	evening set	390 Sep 17 j 02:49	6°♄22'55	

min. Earth dist.	390 Sep 21 j 07:04	1°♄57'43	0.66358 AU	inferior conj	391 Sep 06 j 13:55	13°♎49'15	-2°-36'-57
inferior conj	390 Sep 22 j 19:07	0°♄06'57	-1°-41'-8	minimum elong	391 Sep 06 j 17:52	13°♎38'00	2°35'33
minimum elong	390 Sep 22 j 21:43	29°♎58'58	1°40'06	morning rise	391 Sep 12 j 21:03	8°♎12'04	
	390 Sep 22 j 21:23	30°♎		asc. node	391 Sep 14 j 16:10	7°♎37'03	
asc. node	390 Sep 27 j 19:06	24°♎53'01		direct	391 Sep 15 j 13:58	7°♎32'33	
morning rise	390 Sep 28 j 17:40	24°♎16'14		morning max el	391 Sep 22 j 02:52	11°♎04'40	18°11'55
direct	390 Oct 01 j 17:56	23°♎24'38			391 Oct 05 j 06:25	0°♄	
morning max el	390 Oct 08 j 12:55	27°♎11'01	18°46'31	morning set	391 Oct 10 j 13:47	8°♄45'09	
	390 Oct 11 j 01:04	0°♄			391 Oct 23 j 15:55	0°♄	
morning set	390 Oct 29 j 16:48	28°♄04'13		desc. node	391 Oct 24 j 01:20	0°♄37'30	
	390 Oct 30 j 22:03	0°♄					
desc. node	390 Nov 06 j 04:18	9°♄53'06		superior conj	391 Oct 25 j 02:46	2°♄18'33	0°-7'00
				minimum elong	391 Oct 25 j 01:52	2°♄14'58	0°06'55
superior conj	390 Nov 14 j 23:42	23°♄44'06	0°-55'-53	behind sun begin	391 Oct 24 j 15:52	1°♄35'16	
minimum elong	390 Nov 14 j 16:46	23°♄16'48	0°55'03	behind sun end	391 Oct 25 j 11:52	2°♄54'37	
max. Earth dist.	390 Nov 14 j 09:42	22°♄49'02	1.45004 AU	max. Earth dist.	391 Oct 28 j 04:22	7°♄09'25	1.44914 AU
	390 Nov 18 j 23:10	0°♄		evening rise	391 Nov 10 j 15:19	28°♄10'56	
evening rise	390 Nov 30 j 16:00	18°♄37'59			391 Nov 11 j 19:23	0°♄	
	390 Dec 07 j 17:40	0°♄		greatest brilliancy	391 Nov 27 j 02:34	23°♄18'56	-0.7m
evening max el	390 Dec 21 j 21:35	20°♄12'41	18°50'18		391 Dec 02 j 00:23	0°♄	
asc. node	390 Dec 24 j 18:22	22°♄40'05		evening max el	391 Dec 05 j 04:56	3°♄40'45	19°37'15
retrograde	390 Dec 28 j 16:09	24°♄01'46		asc. node	391 Dec 11 j 15:25	7°♄51'46	
evening set	390 Dec 31 j 19:32	23°♄05'11		retrograde	391 Dec 12 j 13:06	7°♄56'20	
inferior conj	391 Jan 06 j 13:58	17°♄20'35	3°26'15	evening set	391 Dec 15 j 23:42	6°♄46'59	
minimum elong	391 Jan 06 j 11:37	17°♄27'51	3°25'50	inferior conj	391 Dec 21 j 13:23	0°♄47'37	2°56'06
min. Earth dist.	391 Jan 08 j 06:54	15°♄14'39	0.65334 AU	minimum elong	391 Dec 21 j 10:37	0°♄56'40	2°55'22
morning rise	391 Jan 12 j 02:39	11°♄10'00			391 Dec 22 j 03:53	30°♄	
direct	391 Jan 18 j 17:14	8°♄19'29		min. Earth dist.	391 Dec 22 j 16:06	29°♄20'02	0.66476 AU
morning max el	391 Jan 31 j 20:17	16°♄00'29	26°51'43	morning rise	391 Dec 26 j 20:49	24°♄33'31	
desc. node	391 Feb 02 j 03:28	17°♄20'51		direct	392 Jan 01 j 23:07	21°♄52'01	
	391 Feb 12 j 10:21	0°♄		morning max el	392 Jan 14 j 05:30	29°♄09'06	25°43'02
	391 Mar 03 j 08:27	0°♄			392 Jan 15 j 01:21	0°♄	
morning set	391 Mar 08 j 15:06	9°♄46'25		desc. node	392 Jan 20 j 00:32	5°♄38'21	
max. Earth dist.	391 Mar 13 j 01:43	18°♄29'27	1.34358 AU		392 Feb 06 j 06:16	0°♄	
				morning set	392 Feb 19 j 10:48	22°♄27'12	
superior conj	391 Mar 17 j 03:08	26°♄48'16	0°-56'-5		392 Feb 23 j 11:37	0°♄	
minimum elong	391 Mar 17 j 05:51	27°♄02'21	0°55'36	max. Earth dist.	392 Feb 23 j 07:16	29°♄39'16	1.35923 AU
	391 Mar 18 j 15:50	0°♄					
asc. node	391 Mar 22 j 17:40	8°♄35'13		superior conj	392 Feb 28 j 20:48	10°♄33'33	-1°-21'-33
evening rise	391 Mar 24 j 15:42	12°♄35'59		minimum elong	392 Feb 29 j 00:29	10°♄52'07	1°21'00
	391 Apr 02 j 16:35	0°♄		evening rise	392 Mar 07 j 21:43	26°♄57'34	
evening max el	391 Apr 13 j 09:32	14°♄28'26	21°20'01	asc. node	392 Mar 08 j 14:43	28°♄23'52	
retrograde	391 Apr 25 j 09:50	20°♄19'10			392 Mar 09 j 09:48	0°♄	
evening set	391 Apr 27 j 18:40	20°♄06'17		evening max el	392 Mar 25 j 17:37	25°♄48'44	20°03'19
desc. node	391 May 01 j 02:38	19°♄08'29			392 Mar 31 j 23:02	0°♄	
inferior conj	391 May 07 j 03:21	16°♄06'29	-1°-42'-59	retrograde	392 Apr 05 j 00:54	0°♄45'46	
minimum elong	391 May 06 j 22:33	16°♄13'13	1°41'20	evening set	392 Apr 07 j 03:00	0°♄34'28	
min. Earth dist.	391 May 07 j 09:56	15°♄57'14	0.54971 AU		392 Apr 09 j 07:38	30°♄	
morning rise	391 May 16 j 02:36	12°♄06'40		inferior conj	392 Apr 16 j 00:57	26°♄35'09	0°16'16
direct	391 May 19 j 07:17	11°♄44'28		minimum elong	392 Apr 16 j 01:41	26°♄34'03	0°16'01
morning max el	391 May 31 j 22:32	17°♄44'26	22°15'51	desc. node	392 Apr 16 j 23:41	26°♄00'50	
	391 Jun 10 j 17:25	0°♄		min. Earth dist.	392 Apr 17 j 23:56	25°♄24'32	0.55427 AU
asc. node	391 Jun 18 j 16:57	14°♄11'06		morning rise	392 Apr 24 j 21:31	22°♄10'16	
morning set	391 Jun 22 j 11:07	21°♄49'20		direct	392 Apr 28 j 21:29	21°♄35'10	
	391 Jun 26 j 08:00	0°♄		morning max el	392 May 12 j 15:19	28°♄23'04	23°56'33
					392 May 14 j 06:18	0°♄	
superior conj	391 Jun 29 j 17:17	7°♄11'23	1°33'36		392 Jun 02 j 15:42	0°♄	
minimum elong	391 Jun 29 j 15:05	6°♄59'43	1°33'24	asc. node	392 Jun 04 j 14:00	3°♄55'29	
max. Earth dist.	391 Jul 02 j 23:02	13°♄56'40	1.34417 AU	morning set	392 Jun 05 j 22:50	6°♄46'41	
evening rise	391 Jul 07 j 17:23	23°♄29'10					
	391 Jul 11 j 03:37	0°♄		superior conj	392 Jun 13 j 00:46	22°♄00'13	1°18'41
desc. node	391 Jul 28 j 01:59	27°♄47'11		minimum elong	392 Jun 12 j 22:17	21°♄46'51	1°18'21
	391 Jul 29 j 15:44	0°♄		max. Earth dist.	392 Jun 15 j 00:43	26°♄17'36	1.33339 AU
evening max el	391 Aug 11 j 12:42	15°♄20'45	27°04'43		392 Jun 16 j 18:43	0°♄	
retrograde	391 Aug 24 j 19:16	22°♄39'32		evening rise	392 Jun 20 j 11:53	7°♄39'03	
evening set	391 Aug 31 j 16:16	19°♄55'02			392 Jul 02 j 15:27	0°♄	
min. Earth dist.	391 Sep 04 j 13:20	16°♄07'05	0.65215 AU	desc. node	392 Jul 13 j 23:01	16°♄58'12	

evening max el	392 Jul 23 j 23:42	28°♂32'11	27°25'13	desc. node	393 Jun 30 j 20:01	5°♂19'42	
	392 Jul 25 j 14:08	0°♂		evening max el	393 Jul 06 j 07:25	11°♂12'25	27°14'23
retrograde	392 Aug 06 j 15:01	5°♂51'32		retrograde	393 Jul 20 j 03:53	18°♂28'52	
evening set	392 Aug 13 j 18:59	3°♂11'52		evening set	393 Jul 27 j 07:07	16°♂07'04	
	392 Aug 17 j 09:51	30°♂♂		min. Earth dist.	393 Jul 30 j 21:29	13°♂19'17	0.61904 AU
min. Earth dist.	392 Aug 17 j 10:35	29°♂58'10	0.63717 AU	inferior conj	393 Aug 02 j 22:44	10°♂32'32	-4°-13'-14
inferior conj	392 Aug 20 j 00:08	27°♂20'06	-3°-29'-8	minimum elong	393 Aug 03 j 03:20	10°♂22'03	4°12'22
minimum elong	392 Aug 20 j 04:57	27°♂07'42	3°27'47	morning rise	393 Aug 10 j 02:13	5°♂32'13	
morning rise	392 Aug 26 j 17:03	21°♂59'40		direct	393 Aug 12 j 12:24	5°♂06'54	
direct	392 Aug 29 j 05:14	21°♂28'42		asc. node	393 Aug 18 j 10:17	7°♂41'30	
asc. node	392 Aug 31 j 13:14	21°♂55'53		morning max el	393 Aug 19 j 09:28	8°♂34'40	17°55'39
morning max el	392 Sep 04 j 18:41	24°♂54'37	17°54'37		393 Sep 02 j 08:38	0°♂	
	392 Sep 08 j 23:03	0°♂		morning set	393 Sep 04 j 08:20	3°♂36'08	
morning set	392 Sep 21 j 12:58	20°♂41'36					
	392 Sep 26 j 22:53	0°♂		superior conj	393 Sep 15 j 02:05	22°♂43'50	1°13'14
superior conj	392 Oct 04 j 00:47	11°♂50'49	0°38'41	minimum elong	393 Sep 15 j 06:55	23°♂04'42	1°12'42
minimum elong	392 Oct 04 j 04:42	12°♂06'54	0°38'09		393 Sep 19 j 08:39	0°♂	
desc. node	392 Oct 09 j 22:22	21°♂24'18		max. Earth dist.	393 Sep 22 j 10:41	5°♂06'54	1.42709 AU
max. Earth dist.	392 Oct 09 j 21:27	21°♂20'38	1.44115 AU	desc. node	393 Sep 26 j 19:23	12°♂10'23	
	392 Oct 15 j 08:54	0°♂		evening rise	393 Sep 29 j 10:27	16°♂20'04	
evening rise	392 Oct 19 j 23:52	7°♂10'38			393 Oct 08 j 08:19	0°♂	
	392 Nov 04 j 03:55	0°♂		greatest brilliancy	393 Oct 26 j 08:40	25°♂12'21	-0.4m
greatest brilliancy	392 Nov 11 j 10:00	10°♂08'36	-0.5m		393 Oct 30 j 12:31	0°♂	
evening max el	392 Nov 17 j 07:07	17°♂09'39	20°38'41	evening max el	393 Oct 31 j 03:32	0°♂38'54	21°51'13
retrograde	392 Nov 25 j 10:46	21°♂58'36		retrograde	393 Nov 09 j 07:19	6°♂05'40	
asc. node	392 Nov 27 j 12:29	21°♂34'17		evening set	393 Nov 13 j 14:25	4°♂24'50	
evening set	392 Nov 29 j 06:36	20°♂34'27		asc. node	393 Nov 14 j 09:32	3°♂43'32	
inferior conj	392 Dec 04 j 17:24	14°♂23'29	2°17'20		393 Nov 17 j 14:26	30°♂♂	
minimum elong	392 Dec 04 j 14:48	14°♂32'17	2°16'28	inferior conj	393 Nov 18 j 23:54	28°♂05'35	1°31'57
min. Earth dist.	392 Dec 05 j 07:26	13°♂35'39	0.67232 AU	minimum elong	393 Nov 18 j 21:57	28°♂12'20	1°31'11
morning rise	392 Dec 09 j 22:32	8°♂08'05		min. Earth dist.	393 Nov 19 j 02:33	27°♂56'24	0.67629 AU
direct	392 Dec 15 j 10:08	5°♂44'13		morning rise	393 Nov 24 j 05:15	21°♂51'02	
morning max el	392 Dec 26 j 13:46	12°♂23'18	24°19'43	direct	393 Nov 29 j 01:31	19°♂49'13	
desc. node	393 Jan 05 j 21:35	24°♂43'30		morning max el	393 Dec 08 j 23:32	25°♂42'12	22°51'44
	393 Jan 09 j 17:58	0°♂			393 Dec 12 j 21:07	0°♂	
	393 Jan 29 j 01:25	0°♂		greatest brilliancy	393 Dec 13 j 15:54	0°♂56'08	-0.3m
morning set	393 Jan 31 j 10:00	4°♂03'24		desc. node	393 Dec 23 j 18:38	14°♂22'31	
max. Earth dist.	393 Feb 04 j 03:58	10°♂42'05	1.37870 AU		394 Jan 03 j 07:18	0°♂	
				morning set	394 Jan 12 j 06:26	14°♂18'53	
superior conj	393 Feb 11 j 03:10	23°♂41'21	-1°-43'-17	max. Earth dist.	394 Jan 16 j 23:38	22°♂15'22	1.40000 AU
minimum elong	393 Feb 11 j 07:03	24°♂00'04	1°42'55		394 Jan 21 j 10:00	0°♂	
	393 Feb 14 j 09:05	0°♂		superior conj	394 Jan 24 j 17:46	5°♂59'36	-1°-58'-14
evening rise	393 Feb 19 j 21:30	10°♂55'04		minimum elong	394 Jan 24 j 20:21	6°♂11'22	1°58'09
asc. node	393 Feb 23 j 11:47	17°♂55'36		evening rise	394 Feb 03 j 12:08	24°♂20'38	
	393 Mar 02 j 09:03	0°♂			394 Feb 06 j 11:51	0°♂	
evening max el	393 Mar 08 j 12:48	7°♂47'49	19°05'19	asc. node	394 Feb 10 j 08:50	7°♂03'48	
retrograde	393 Mar 17 j 05:03	11°♂58'54		evening max el	394 Feb 19 j 16:40	20°♂19'20	18°27'18
evening set	393 Mar 19 j 10:03	11°♂43'49		retrograde	394 Feb 27 j 04:15	24°♂00'16	
inferior conj	393 Mar 27 j 13:57	7°♂30'45	1°57'56	evening set	394 Mar 01 j 14:08	23°♂38'28	
minimum elong	393 Mar 27 j 17:58	7°♂23'47	1°56'43	inferior conj	394 Mar 08 j 23:48	19°♂05'03	3°05'42
min. Earth dist.	393 Mar 30 j 15:25	5°♂24'52	0.56743 AU	minimum elong	394 Mar 09 j 03:37	18°♂57'20	3°04'55
desc. node	393 Apr 03 j 20:43	2°♂59'40		min. Earth dist.	394 Mar 12 j 10:11	16°♂20'05	0.58630 AU
morning rise	393 Apr 04 j 21:46	2°♂33'02		morning rise	394 Mar 16 j 13:13	13°♂38'06	
direct	393 Apr 10 j 00:00	1°♂32'13		desc. node	394 Mar 21 j 17:46	12°♂03'45	
morning max el	393 Apr 24 j 05:56	8°♂52'46	25°33'31	direct	394 Mar 22 j 15:40	12°♂01'35	
	393 May 10 j 01:06	0°♂		morning max el	394 Apr 06 j 00:04	19°♂41'03	26°51'17
morning set	393 May 21 j 10:41	21°♂44'53			394 Apr 14 j 18:56	0°♂	
asc. node	393 May 22 j 11:03	23°♂53'59			394 May 02 j 15:16	0°♂	
	393 May 25 j 06:55	0°♂		morning set	394 May 05 j 20:53	6°♂36'49	
				asc. node	394 May 09 j 08:05	14°♂00'31	
superior conj	393 May 28 j 11:20	6°♂57'43	0°59'44				
minimum elong	393 May 28 j 09:06	6°♂45'29	0°59'20	superior conj	394 May 12 j 23:04	21°♂56'17	0°37'32
max. Earth dist.	393 May 29 j 09:39	8°♂59'41	1.32649 AU	minimum elong	394 May 12 j 21:29	21°♂47'36	0°37'12
evening rise	393 Jun 04 j 14:23	22°♂12'48		max. Earth dist.	394 May 12 j 22:05	21°♂50'55	1.32326 AU
	393 Jun 08 j 11:26	0°♂			394 May 16 j 15:27	0°♂	
	393 Jun 26 j 15:18	0°♂		evening rise	394 May 19 j 22:03	7°♂00'00	

	394 Jun 01 j 00:45	0°☿		superior conj	395 Apr 27 j 10:19	6°☿50'23	0°12'51
desc. node	394 Jun 17 j 17:02	22°☿30'01		minimum elong	395 Apr 27 j 09:44	6°☿47'11	0°12'43
evening max el	394 Jun 18 j 09:02	23°☿08'47	26°30'30	behind sun begin	395 Apr 27 j 06:42	6°☿30'36	
	394 Jun 29 j 08:21	0°♌		behind sun end	395 Apr 27 j 12:46	7°☿03'46	
retrograde	394 Jul 02 j 08:47	0°♌22'35		evening rise	395 May 04 j 08:46	21°☿53'28	
	394 Jul 05 j 08:13	30°☿☿			395 May 08 j 07:22	0°♊	
evening set	394 Jul 09 j 00:02	28°☿31'34			395 May 27 j 02:13	0°☿	
min. Earth dist.	394 Jul 12 j 22:12	25°☿55'02	0.59874 AU	evening max el	395 May 31 j 03:38	4°☿19'30	25°17'29
inferior conj	394 Jul 16 j 06:08	23°☿16'27	-4°-42'-11	desc. node	395 Jun 04 j 14:03	8°☿00'22	
minimum elong	394 Jul 16 j 08:37	23°☿11'29	4°41'59	retrograde	395 Jun 14 j 04:15	11°☿28'33	
morning rise	394 Jul 23 j 20:30	18°☿38'59		evening set	395 Jun 19 j 18:03	10°☿16'15	
direct	394 Jul 26 j 07:05	18°☿17'18		min. Earth dist.	395 Jun 24 j 15:25	7°☿32'18	0.57848 AU
morning max el	394 Aug 02 j 20:13	21°☿56'30	18°16'11	inferior conj	395 Jun 27 j 18:53	5°☿22'26	-4°-45'-9
asc. node	394 Aug 05 j 07:19	24°☿38'31		minimum elong	395 Jun 27 j 17:07	5°☿25'29	4°45'05
	394 Aug 09 j 02:48	0°♌		morning rise	395 Jul 05 j 20:03	1°☿07'39	
morning set	394 Aug 18 j 18:17	17°♌12'53		direct	395 Jul 08 j 08:48	0°☿48'19	
	394 Aug 25 j 13:03	0°♍		morning max el	395 Jul 16 j 23:53	4°☿51'13	18°57'18
				asc. node	395 Jul 23 j 04:21	12°☿31'59	
superior conj	394 Aug 28 j 04:28	4°♍51'30	1°34'59		395 Aug 01 j 22:12	0°♌	
minimum elong	394 Aug 28 j 07:49	5°♍06'42	1°34'43	morning set	395 Aug 02 j 14:36	1°♌20'28	
max. Earth dist.	394 Sep 04 j 18:21	18°♍13'08	1.40869 AU				
evening rise	394 Sep 09 j 14:53	26°♍19'56		superior conj	395 Aug 11 j 02:23	17°♌57'48	1°45'17
	394 Sep 11 j 21:09	0°♎		minimum elong	395 Aug 11 j 03:37	18°♌03'42	1°45'14
desc. node	394 Sep 13 j 16:23	2°♎52'24			395 Aug 17 j 13:50	0°♍	
	394 Oct 02 j 02:18	0°♍		max. Earth dist.	395 Aug 17 j 21:40	0°♍35'14	1.38846 AU
greatest brilliancy	394 Oct 07 j 19:59	7°♍26'10	-0.2m	evening rise	395 Aug 21 j 19:54	7°♍29'15	
evening max el	394 Oct 13 j 18:52	14°♍09'41	23°10'17	desc. node	395 Aug 31 j 13:23	23°♍26'17	
retrograde	394 Oct 24 j 01:19	20°♍14'53			395 Sep 04 j 20:25	0°♎	
evening set	394 Oct 28 j 21:29	18°♍16'12		evening max el	395 Sep 26 j 07:09	27°♎43'42	24°29'49
asc. node	394 Nov 01 j 06:34	14°♍36'05			395 Sep 28 j 17:57	0°♍	
inferior conj	394 Nov 03 j 07:06	11°♍52'27	0°41'34	retrograde	395 Oct 07 j 15:41	4°♍22'11	
minimum elong	394 Nov 03 j 06:08	11°♍55'46	0°41'10	evening set	395 Oct 13 j 02:06	2°♍05'57	
min. Earth dist.	394 Nov 02 j 23:10	12°♍19'42	0.67689 AU		395 Oct 15 j 04:18	30°☿♎	
morning rise	394 Nov 08 j 14:50	5°♍40'58		min. Earth dist.	395 Oct 17 j 18:52	26°♎43'10	0.67431 AU
direct	394 Nov 12 j 20:24	4°♍01'59		inferior conj	395 Oct 18 j 13:13	25°♎41'46	0°-12'-24
morning max el	394 Nov 21 j 14:18	9°♍09'20	21°27'44	minimum elong	395 Oct 18 j 13:31	25°♎40'45	0°12'17
greatest brilliancy	394 Nov 26 j 16:24	14°♍58'18	-0.4m	transit middle	395 Oct 18 j 13:31	25°♎40'45	0°12'17
	394 Dec 07 j 15:14	0°♏		transit begin	395 Oct 18 j 11:44	25°♎46'46	
desc. node	394 Dec 10 j 15:39	4°♏25'58		transit end	395 Oct 18 j 15:19	25°♎34'44	
morning set	394 Dec 22 j 21:59	23°♏12'56		asc. node	395 Oct 19 j 03:36	24°♎53'49	
	394 Dec 27 j 03:45	0°♐		morning rise	395 Oct 24 j 01:19	19°♎35'54	
max. Earth dist.	394 Dec 30 j 00:40	4°♐41'24	1.42020 AU	direct	395 Oct 27 j 17:49	18°♎17'52	
				morning max el	395 Nov 04 j 12:21	22°♎46'23	20°13'47
superior conj	395 Jan 06 j 11:20	17°♐15'39	-2°-2'-17		395 Nov 10 j 13:57	0°♍	
minimum elong	395 Jan 06 j 10:25	17°♐11'39	2°02'18	greatest brilliancy	395 Nov 11 j 06:56	0°♍56'46	-0.6m
	395 Jan 13 j 16:06	0°♑		desc. node	395 Nov 27 j 12:39	24°♍46'30	
evening rise	395 Jan 17 j 14:02	7°♑06'24			395 Nov 30 j 22:18	0°♏	
asc. node	395 Jan 28 j 05:52	25°♑41'08		morning set	395 Dec 01 j 19:08	1°♏20'29	
	395 Jan 31 j 06:13	0°♐		max. Earth dist.	395 Dec 12 j 08:54	17°♏58'22	1.43664 AU
evening max el	395 Feb 03 j 02:15	3°♐15'31	18°09'17				
retrograde	395 Feb 09 j 20:48	6°♐42'13		superior conj	395 Dec 18 j 02:58	27°♏18'34	-1°-50'-44
evening set	395 Feb 12 j 11:15	6°♐12'08		minimum elong	395 Dec 17 j 21:03	26°♏54'15	1°50'21
inferior conj	395 Feb 19 j 05:45	1°♐17'17	3°40'16		395 Dec 19 j 18:05	0°♐	
minimum elong	395 Feb 19 j 07:33	1°♐13'03	3°40'07	evening rise	395 Dec 30 j 22:54	19°♐02'55	
	395 Feb 20 j 14:33	30°☿♑			396 Jan 06 j 06:59	0°♑	
min. Earth dist.	395 Feb 22 j 11:22	28°♑16'52	0.60736 AU	asc. node	396 Jan 15 j 02:55	13°♑37'18	
morning rise	395 Feb 26 j 00:51	25°♑30'00		evening max el	396 Jan 17 j 14:29	16°♑27'33	18°10'46
direct	395 Mar 04 j 19:00	23°♑17'18		retrograde	396 Jan 24 j 02:18	19°♑53'43	
desc. node	395 Mar 08 j 14:49	23°♑56'48		evening set	396 Jan 26 j 21:13	19°♑14'15	
	395 Mar 17 j 20:24	0°♐		inferior conj	396 Feb 02 j 04:02	13°♑58'46	3°48'54
morning max el	395 Mar 19 j 00:32	1°♐07'20	27°37'27	minimum elong	396 Feb 02 j 03:43	13°♑59'36	3°48'54
	395 Apr 08 j 22:21	0°♒		min. Earth dist.	396 Feb 04 j 21:08	11°♑06'45	0.62761 AU
morning set	395 Apr 20 j 03:41	21°♒16'27		morning rise	396 Feb 08 j 08:09	7°♑59'06	
	395 Apr 24 j 06:51	0°♑		direct	396 Feb 15 j 07:44	5°♑19'56	
asc. node	395 Apr 26 j 05:08	4°♑10'54		desc. node	396 Feb 23 j 11:51	8°♑20'08	
max. Earth dist.	395 Apr 26 j 10:12	4°♑38'33	1.32372 AU	morning max el	396 Feb 29 j 06:26	13°♑13'29	27°46'45
					396 Mar 13 j 17:34	0°♐	

	396 Mar 31 j 08:57	0°♄		morning max el	397 Feb 10 j 15:22	25°♄52'27	27°20'33
morning set	396 Apr 03 j 04:53	5°♄36'04			397 Feb 14 j 11:07	0°♄	
max. Earth dist.	396 Apr 08 j 17:59	17°♄08'28	1.32802 AU		397 Mar 07 j 06:05	0°♄	
				morning set	397 Mar 17 j 21:42	19°♄26'28	
superior conj	396 Apr 10 j 19:23	21°♄34'00	0°-13'-32	max. Earth dist.	397 Mar 22 j 17:37	29°♄09'06	1.33657 AU
minimum elong	396 Apr 10 j 20:01	21°♄37'30	0°13'24		397 Mar 23 j 03:28	0°♄	
behind sun begin	396 Apr 10 j 17:12	21°♄22'17					
behind sun end	396 Apr 10 j 22:50	21°♄52'43		superior conj	397 Mar 26 j 00:21	6°♄00'41	0°-40'-38
asc. node	396 Apr 12 j 02:11	24°♄20'51		minimum elong	397 Mar 26 j 02:19	6°♄11'08	0°40'15
	396 Apr 14 j 16:43	0°♄		asc. node	397 Mar 29 j 23:14	14°♄26'03	
evening rise	396 Apr 17 j 20:35	6°♄46'24		evening rise	397 Apr 02 j 07:41	21°♄32'18	
	396 Apr 30 j 03:59	0°♄			397 Apr 06 j 11:15	0°♄	
evening max el	396 May 11 j 18:10	14°♄59'04	23°46'12	evening max el	397 Apr 23 j 11:03	25°♄34'40	22°11'11
desc. node	396 May 21 j 11:04	21°♄15'10			397 Apr 29 j 07:29	0°♄	
retrograde	396 May 25 j 11:48	21°♄52'08		retrograde	397 May 06 j 06:37	1°♄52'36	
evening set	396 May 29 j 14:53	21°♄14'32		desc. node	397 May 08 j 08:07	1°♄43'07	
min. Earth dist.	396 Jun 05 j 04:59	18°♄07'44	0.56156 AU	evening set	397 May 09 j 02:52	1°♄34'44	
inferior conj	396 Jun 07 j 11:32	16°♄44'58	-4°-9'-7		397 May 13 j 16:48	30°♄	
minimum elong	396 Jun 07 j 05:14	16°♄54'36	4°07'57	min. Earth dist.	397 May 17 j 17:27	27°♄53'15	0.55147 AU
morning rise	396 Jun 15 j 23:07	12°♄47'02		inferior conj	397 May 18 j 11:30	27°♄27'51	-2°-47'-3
direct	396 Jun 18 j 15:19	12°♄28'51		minimum elong	397 May 18 j 04:31	27°♄37'40	2°44'56
morning max el	396 Jun 28 j 17:45	17°♄09'26	19°59'29	morning rise	397 May 27 j 07:56	23°♄34'05	
	396 Jul 08 j 09:17	0°♄		direct	397 May 30 j 06:29	23°♄14'38	
asc. node	396 Jul 09 j 01:24	1°♄09'06		morning max el	397 Jun 11 j 00:19	28°♄44'11	21°21'28
morning set	396 Jul 16 j 18:08	15°♄50'46			397 Jun 12 j 07:21	0°♄	
	396 Jul 23 j 17:03	0°♄		asc. node	397 Jun 25 j 22:28	20°♄18'45	
					397 Jun 30 j 19:21	0°♄	
superior conj	396 Jul 24 j 14:30	1°♄47'35	1°46'18	morning set	397 Jul 01 j 02:23	0°♄36'14	
minimum elong	396 Jul 24 j 13:55	1°♄44'41	1°46'17				
max. Earth dist.	396 Jul 30 j 02:02	12°♄29'21	1.36900 AU	superior conj	397 Jul 08 j 12:32	16°♄07'32	1°39'58
evening rise	396 Aug 03 j 00:08	19°♄45'49		minimum elong	397 Jul 08 j 10:44	15°♄58'13	1°39'51
	396 Aug 08 j 20:25	0°♄		max. Earth dist.	397 Jul 12 j 13:19	24°♄21'23	1.35225 AU
desc. node	396 Aug 17 j 10:25	13°♄47'22			397 Jul 15 j 10:04	0°♄	
	396 Aug 28 j 21:49	0°♄		evening rise	397 Jul 16 j 22:49	2°♄56'16	
evening max el	396 Sep 07 j 18:49	11°♄21'38	25°42'33		397 Aug 01 j 18:29	0°♄	
retrograde	396 Sep 20 j 01:31	18°♄23'29		desc. node	397 Aug 04 j 07:27	3°♄48'28	
evening set	396 Sep 26 j 02:33	15°♄52'00		evening max el	397 Aug 21 j 06:54	24°♄57'32	26°40'45
min. Earth dist.	396 Sep 30 j 11:19	11°♄05'01	0.66850 AU		397 Aug 27 j 13:59	0°♄	
inferior conj	396 Oct 01 j 16:34	9°♄31'46	-1°-8'-28	retrograde	397 Sep 03 j 06:08	2°♄11'53	
minimum elong	396 Oct 01 j 18:18	9°♄26'12	1°07'45		397 Sep 09 j 05:31	30°♄	
asc. node	396 Oct 05 j 00:37	5°♄35'04		evening set	397 Sep 09 j 20:43	29°♄30'03	
morning rise	396 Oct 07 j 10:48	3°♄34'21		min. Earth dist.	397 Sep 13 j 21:57	25°♄20'34	0.65923 AU
direct	396 Oct 10 j 16:20	2°♄34'06		inferior conj	397 Sep 15 j 15:07	23°♄18'02	-2°-4'-59
morning max el	396 Oct 17 j 17:56	6°♄33'07	19°13'47	minimum elong	397 Sep 15 j 18:19	23°♄08'29	2°03'47
greatest brilliancy	396 Oct 28 j 15:31	20°♄58'52	-0.7m	morning rise	397 Sep 21 j 17:08	17°♄32'25	
	396 Nov 03 j 13:20	0°♄		asc. node	397 Sep 21 j 21:40	17°♄26'34	
morning set	396 Nov 09 j 22:20	9°♄54'24		direct	397 Sep 24 j 14:02	16°♄46'15	
desc. node	396 Nov 13 j 09:43	15°♄19'37		morning max el	397 Oct 01 j 05:29	20°♄25'22	18°29'39
	396 Nov 22 j 18:28	0°♄			397 Oct 08 j 14:48	0°♄	
max. Earth dist.	396 Nov 23 j 23:38	1°♄54'58	1.44723 AU	morning set	397 Oct 21 j 02:39	19°♄46'21	
					397 Oct 27 j 11:53	0°♄	
superior conj	396 Nov 26 j 17:11	6°♄14'15	-1°-20'-37	desc. node	397 Oct 31 j 06:46	6°♄00'51	
minimum elong	396 Nov 26 j 08:46	5°♄40'54	1°19'45				
evening rise	396 Dec 11 j 10:34	0°♄03'49		superior conj	397 Nov 05 j 18:01	14°♄38'27	0°-35'-30
	396 Dec 11 j 09:39	0°♄		minimum elong	397 Nov 05 j 13:22	14°♄20'10	0°34'55
evening max el	396 Dec 31 j 02:41	29°♄49'18	18°30'50	max. Earth dist.	397 Nov 06 j 18:20	16°♄14'03	1.45066 AU
	396 Dec 31 j 06:56	0°♄			397 Nov 15 j 12:38	0°♄	
asc. node	396 Dec 31 j 23:57	0°♄40'43		evening rise	397 Nov 21 j 22:39	10°♄07'06	
retrograde	397 Jan 06 j 16:28	3°♄26'45		greatest brilliancy	397 Dec 03 j 14:24	28°♄26'28	-0.7m
evening set	397 Jan 09 j 16:29	2°♄36'43			397 Dec 04 j 14:53	0°♄	
	397 Jan 12 j 22:49	30°♄		evening max el	397 Dec 14 j 12:25	13°♄16'12	19°08'23
inferior conj	397 Jan 15 j 14:41	27°♄02'11	3°38'36	asc. node	397 Dec 18 j 20:58	16°♄37'37	
minimum elong	397 Jan 15 j 12:52	27°♄07'33	3°38'23	retrograde	397 Dec 21 j 11:47	17°♄15'08	
min. Earth dist.	397 Jan 17 j 16:28	24°♄36'22	0.64507 AU	evening set	397 Dec 24 j 18:07	16°♄13'10	
morning rise	397 Jan 21 j 07:55	20°♄54'57		inferior conj	397 Dec 30 j 10:17	10°♄21'56	3°14'39
direct	397 Jan 28 j 03:52	18°♄04'17		minimum elong	397 Dec 30 j 07:41	10°♄30'12	3°14'05
desc. node	397 Feb 09 j 08:54	24°♄38'26		min. Earth dist.	397 Dec 31 j 20:56	8°♄32'07	0.65872 AU

morning rise	398 Jan 04 j 20:22	4°☾09'51		minimum elong	398 Dec 14 j 09:10	24°☾02'04	2°39'44
direct	398 Jan 11 j 06:14	1°☾22'00		min. Earth dist.	398 Dec 15 j 08:56	22°☾42'34	0.66843 AU
morning max el	398 Jan 24 j 01:01	8°☾53'43	26°24'59	morning rise	398 Dec 19 j 18:03	17°☾38'02	
desc. node	398 Jan 27 j 05:59	12°☾19'47		direct	398 Dec 25 j 14:10	15°☾03'35	
	398 Feb 09 j 15:09	0°☾		morning max el	399 Jan 06 j 09:53	22°☾05'48	25°08'51
	398 Feb 27 j 16:53	0°☾			399 Jan 13 j 08:13	0°☾	
morning set	398 Mar 01 j 02:29	2°☾36'36		desc. node	399 Jan 14 j 03:02	0°☾59'20	
max. Earth dist.	398 Mar 05 j 06:17	10°☾36'38	1.34970 AU		399 Feb 02 j 22:01	0°☾	
				morning set	399 Feb 11 j 14:10	14°☾51'30	
superior conj	398 Mar 09 j 22:57	20°☾03'31	-1°-7'-11	max. Earth dist.	399 Feb 15 j 07:44	21°☾40'47	1.36715 AU
minimum elong	398 Mar 10 j 02:08	20°☾19'53	1°06'38		399 Feb 19 j 16:36	0°☾	
	398 Mar 14 j 17:54	0°☾					
asc. node	398 Mar 16 j 20:19	4°☾22'18		superior conj	399 Feb 21 j 12:12	3°☾33'27	-1°-31'-23
evening rise	398 Mar 17 j 16:11	6°☾05'00		minimum elong	399 Feb 21 j 16:07	3°☾52'47	1°30'54
	398 Mar 30 j 23:48	0°☾		evening rise	399 Mar 01 j 19:51	20°☾17'00	
evening max el	398 Apr 05 j 12:34	6°☾33'37	20°45'19	asc. node	399 Mar 03 j 17:21	24°☾04'13	
retrograde	398 Apr 16 j 19:37	12°☾01'25			399 Mar 06 j 18:51	0°☾	
evening set	398 Apr 19 j 00:08	11°☾49'56		evening max el	399 Mar 19 j 01:21	18°☾09'22	19°36'10
desc. node	398 Apr 25 j 05:08	9°☾32'40		retrograde	399 Mar 28 j 15:21	22°☾45'48	
inferior conj	398 Apr 28 j 05:39	7°☾52'20	0°-52'-11	evening set	399 Mar 30 j 17:55	22°☾33'25	
minimum elong	398 Apr 28 j 03:10	7°☾55'52	0°51'18	inferior conj	399 Apr 08 j 08:30	18°☾29'08	1°03'02
min. Earth dist.	398 Apr 29 j 06:19	7°☾17'04	0.55048 AU	minimum elong	399 Apr 08 j 11:06	18°☾25'00	1°02'09
morning rise	398 May 07 j 05:07	3°☾44'13		min. Earth dist.	399 Apr 10 j 20:41	16°☾53'53	0.55891 AU
direct	398 May 10 j 16:58	3°☾17'54		desc. node	399 Apr 12 j 02:11	16°☾09'24	
morning max el	398 May 23 j 20:56	9°☾38'53	22°58'13	morning rise	399 Apr 17 j 00:43	13°☾50'26	
	398 Jun 07 j 15:17	0°☾		direct	399 Apr 21 j 11:12	13°☾06'16	
asc. node	398 Jun 12 j 19:33	9°☾52'42		morning max el	399 May 05 j 12:07	20°☾09'57	24°39'20
morning set	398 Jun 15 j 13:21	15°☾31'04			399 May 13 j 20:56	0°☾	
	398 Jun 22 j 08:16	0°☾		asc. node	399 May 30 j 16:37	29°☾43'29	
					399 May 30 j 19:46	0°☾	
superior conj	398 Jun 22 j 17:18	0°☾48'11	1°27'50	morning set	399 May 31 j 01:19	0°☾29'09	
minimum elong	398 Jun 22 j 14:54	0°☾35'26	1°27'34				
max. Earth dist.	398 Jun 25 j 10:04	6°☾30'28	1.33915 AU	superior conj	399 Jun 07 j 02:19	15°☾41'07	1°11'06
evening rise	398 Jun 30 j 11:14	16°☾47'40		minimum elong	399 Jun 06 j 23:53	15°☾27'55	1°10'43
	398 Jul 07 j 11:41	0°☾		max. Earth dist.	399 Jun 08 j 15:06	19°☾00'23	1.32992 AU
desc. node	398 Jul 22 j 04:27	23°☾20'59			399 Jun 13 j 20:07	0°☾	
	398 Jul 27 j 05:37	0°☾		evening rise	399 Jun 14 j 09:27	1°☾08'08	
evening max el	398 Aug 03 j 18:42	8°☾21'02	27°16'50		399 Jun 30 j 10:40	0°☾	
retrograde	398 Aug 17 j 05:05	15°☾39'53		desc. node	399 Jul 09 j 01:28	12°☾13'02	
evening set	398 Aug 24 j 06:00	12°☾55'54		evening max el	399 Jul 17 j 04:22	21°☾19'52	27°24'34
min. Earth dist.	398 Aug 28 j 00:28	9°☾23'19	0.64633 AU	retrograde	399 Jul 30 j 22:06	28°☾38'42	
inferior conj	398 Aug 30 j 06:35	6°☾55'57	-2°-59'-43	evening set	399 Aug 07 j 03:05	26°☾04'31	
minimum elong	398 Aug 30 j 11:00	6°☾43'55	2°58'17	min. Earth dist.	399 Aug 10 j 17:13	23°☾03'36	0.62982 AU
morning rise	398 Sep 05 j 17:46	1°☾25'33		inferior conj	399 Aug 13 j 12:15	20°☾19'47	-3°-49'-12
direct	398 Sep 08 j 08:27	0°☾49'57		minimum elong	399 Aug 13 j 17:09	20°☾07'46	3°47'59
asc. node	398 Sep 08 j 18:44	0°☾50'55		morning rise	399 Aug 20 j 09:39	15°☾07'54	
morning max el	398 Sep 14 j 20:34	4°☾18'00	18°02'21	direct	399 Aug 22 j 20:38	14°☾39'42	
	398 Oct 01 j 20:50	0°☾		asc. node	399 Aug 26 j 15:49	15°☾48'21	
morning set	398 Oct 02 j 11:25	1°☾01'24		morning max el	399 Aug 29 j 12:23	18°☾05'11	17°52'47
					399 Sep 07 j 02:31	0°☾	
superior conj	398 Oct 16 j 03:09	23°☾31'46	0°13'26	morning set	399 Sep 14 j 19:56	13°☾24'46	
minimum elong	398 Oct 16 j 04:45	23°☾38'11	0°13'12		399 Sep 24 j 08:48	0°☾	
behind sun begin	398 Oct 15 j 22:35	23°☾13'24					
behind sun end	398 Oct 16 j 10:55	24°☾02'56		superior conj	399 Sep 26 j 12:39	3°☾38'41	0°54'54
desc. node	398 Oct 18 j 03:47	26°☾46'23		minimum elong	399 Sep 26 j 17:23	3°☾58'31	0°54'18
	398 Oct 20 j 04:30	0°☾		max. Earth dist.	399 Oct 03 j 04:49	14°☾36'55	1.43580 AU
max. Earth dist.	398 Oct 20 j 13:13	0°☾34'32	1.44663 AU	desc. node	399 Oct 05 j 00:47	17°☾33'25	
evening rise	398 Nov 01 j 14:08	19°☾21'58		evening rise	399 Oct 11 j 21:17	28°☾20'05	
	398 Nov 08 j 12:22	0°☾			399 Oct 12 j 23:08	0°☾	
greatest brilliancy	398 Nov 20 j 17:51	18°☾04'22	-0.6m		399 Nov 02 j 08:40	0°☾	
evening max el	398 Nov 27 j 17:39	26°☾44'21	20°01'44	greatest brilliancy	399 Nov 05 j 10:08	4°☾02'24	-0.5m
	398 Dec 01 j 14:46	0°☾		evening max el	399 Nov 10 j 17:16	10°☾13'07	21°08'21
retrograde	398 Dec 05 j 09:21	1°☾13'26		retrograde	399 Nov 19 j 06:54	15°☾18'24	
asc. node	398 Dec 05 j 18:01	1°☾12'42		asc. node	399 Nov 22 j 15:03	14°☾15'39	
evening set	398 Dec 08 j 23:42	29°☾57'51		evening set	399 Nov 23 j 07:13	13°☾47'23	
	398 Dec 08 j 22:28	30°☾		inferior conj	399 Nov 28 j 17:15	7°☾32'11	1°58'47
inferior conj	398 Dec 14 j 11:54	23°☾52'53	2°40'33	minimum elong	399 Nov 28 j 14:53	7°☾40'20	1°57'56

min. Earth dist.	399 Nov 29 j 02:17	7°♂01'05	0.67440 AU	evening set	400 Nov 06 j 14:53	27°♂38'29	
morning rise	399 Dec 03 j 22:11	1°♂16'40		asc. node	400 Nov 08 j 12:06	25°♂48'56	
	399 Dec 05 j 16:21	30°♂16'00		inferior conj	400 Nov 12 j 00:17	21°♂16'50	1°11'07
direct	399 Dec 09 j 03:07	29°♂02'00		minimum elong	400 Nov 11 j 22:42	21°♂22'17	1°10'29
	399 Dec 12 j 21:15	0°♂		min. Earth dist.	400 Nov 11 j 22:26	21°♂23'11	0.67696 AU
morning max el	399 Dec 19 j 18:32	5°♂22'40	23°42'15	morning rise	400 Nov 17 j 06:22	15°♂03'01	
desc. node	400 Jan 01 j 00:03	20°♂20'24		direct	400 Nov 21 j 20:15	13°♂10'49	
	400 Jan 07 j 18:33	0°♂		morning max el	400 Dec 01 j 05:54	18°♂44'13	22°14'55
morning set	400 Jan 24 j 02:40	25°♂55'13		greatest brilliancy	400 Dec 05 j 21:22	23°♂57'17	-0.3m
	400 Jan 26 j 11:36	0°♂			400 Dec 10 j 14:24	0°♂	
max. Earth dist.	400 Jan 28 j 02:49	2°♂51'37	1.38770 AU	desc. node	400 Dec 17 j 21:04	10°♂10'44	
					400 Dec 30 j 22:53	0°♂	
superior conj	400 Feb 04 j 12:23	16°♂21'14	-1°-50'-41	morning set	401 Jan 03 j 10:30	5°♂34'26	
minimum elong	400 Feb 04 j 15:58	16°♂38'02	1°50'26	max. Earth dist.	401 Jan 08 j 23:34	14°♂43'32	1.40892 AU
	400 Feb 11 j 14:35	0°♂					
evening rise	400 Feb 13 j 16:07	4°♂01'39		superior conj	401 Jan 16 j 18:42	28°♂14'40	-2°-1'-34
asc. node	400 Feb 18 j 14:22	13°♂26'34		minimum elong	401 Jan 16 j 20:05	28°♂20'48	2°01'34
	400 Feb 29 j 15:17	0°♂			401 Jan 17 j 18:14	0°♂	
evening max el	400 Mar 01 j 00:31	0°♂22'46	18°46'39	evening rise	401 Jan 27 j 01:46	17°♂10'57	
retrograde	400 Mar 09 j 03:20	4°♂19'07			401 Feb 03 j 01:59	0°♂	
evening set	400 Mar 11 j 10:12	4°♂01'34		asc. node	401 Feb 04 j 11:24	2°♂22'41	
	400 Mar 18 j 19:31	30°♂		evening max el	401 Feb 12 j 07:17	13°♂06'27	18°17'16
inferior conj	400 Mar 19 j 06:08	29°♂40'28	2°31'03	retrograde	401 Feb 19 j 10:06	16°♂39'04	
minimum elong	400 Mar 19 j 10:25	29°♂32'33	2°29'55	evening set	401 Feb 21 j 22:04	16°♂13'51	
min. Earth dist.	400 Mar 22 j 13:34	27°♂15'02	0.57496 AU	inferior conj	401 Mar 01 j 00:53	11°♂31'37	3°24'01
morning rise	400 Mar 27 j 06:23	24°♂28'54		minimum elong	401 Mar 01 j 03:56	11°♂25'02	3°23'32
desc. node	400 Mar 28 j 23:14	23°♂50'03		min. Earth dist.	401 Mar 04 j 10:45	8°♂36'49	0.59523 AU
direct	400 Apr 01 j 19:33	23°♂13'30		morning rise	401 Mar 08 j 06:15	5°♂55'05	
	400 Apr 15 j 09:01	0°♂		direct	401 Mar 14 j 16:55	4°♂02'13	
morning max el	400 Apr 16 j 03:45	0°♂44'26	26°09'50	desc. node	401 Mar 15 j 20:16	4°♂05'40	
	400 Apr 06 j 17:28	0°♂		morning max el	401 Mar 29 j 00:16	11°♂47'09	27°15'13
morning set	400 May 14 j 12:36	15°♂24'46			401 Apr 12 j 06:36	0°♂	
asc. node	400 May 16 j 13:39	19°♂45'36		morning set	401 Apr 28 j 21:35	0°♂12'26	
	400 May 21 j 06:22	0°♂			401 Apr 28 j 19:11	0°♂	
superior conj	400 May 21 j 13:33	0°♂39'26	0°50'40	asc. node	401 May 03 j 10:41	9°♂54'33	
minimum elong	400 May 21 j 11:33	0°♂28'27	0°50'17	max. Earth dist.	401 May 05 j 14:22	14°♂37'17	1.32297 AU
max. Earth dist.	400 May 22 j 01:42	1°♂46'01	1.32457 AU	superior conj	401 May 06 j 01:18	15°♂37'19	0°27'20
evening rise	400 May 28 j 14:23	15°♂47'57		minimum elong	401 May 06 j 00:07	15°♂30'46	0°27'04
	400 Jun 04 j 19:16	0°♂		evening rise	401 May 12 j 23:38	0°♂39'16	
desc. node	400 Jun 24 j 22:29	0°♂07'10			401 May 12 j 16:12	0°♂	
	400 Jun 24 j 19:55	0°♂			401 May 29 j 01:12	0°♂	
evening max el	400 Jun 28 j 09:37	3°♂41'47	26°59'47	evening max el	401 Jun 10 j 08:27	15°♂19'21	26°02'41
retrograde	400 Jul 12 j 08:08	10°♂58'02		desc. node	401 Jun 11 j 19:31	16°♂39'32	
evening set	400 Jul 19 j 07:38	8°♂47'48		retrograde	401 Jun 24 j 09:17	22°♂31'25	
min. Earth dist.	400 Jul 22 j 23:44	6°♂06'55	0.61044 AU	evening set	401 Jun 30 j 15:06	20°♂56'52	
inferior conj	400 Jul 26 j 04:48	3°♂21'00	-4°-28'00	min. Earth dist.	401 Jul 04 j 21:10	18°♂19'07	0.58988 AU
minimum elong	400 Jul 26 j 08:46	3°♂12'25	4°27'25	inferior conj	401 Jul 08 j 04:41	15°♂50'30	-4°-47'-27
	400 Jul 30 j 11:40	30°♂		minimum elong	401 Jul 08 j 05:35	15°♂48'47	4°47'26
morning rise	400 Aug 02 j 12:55	28°♂30'19		morning rise	401 Jul 15 j 23:36	11°♂22'35	
direct	400 Aug 04 j 22:49	28°♂06'55		direct	401 Jul 18 j 10:54	11°♂02'00	
	400 Aug 10 j 03:20	0°♂		morning max el	401 Jul 26 j 09:55	14°♂50'06	18°31'06
morning max el	400 Aug 12 j 01:52	1°♂38'38	18°01'58	asc. node	401 Jul 30 j 09:54	19°♂28'57	
asc. node	400 Aug 12 j 12:52	2°♂06'03			401 Aug 05 j 22:53	0°♂	
morning set	400 Aug 27 j 22:08	26°♂38'49		morning set	401 Aug 11 j 13:00	10°♂30'21	
	400 Aug 29 j 17:37	0°♂					
superior conj	400 Sep 07 j 01:14	15°♂05'16	1°23'58	superior conj	401 Aug 20 j 12:39	27°♂39'51	1°40'36
minimum elong	400 Sep 07 j 05:37	15°♂24'34	1°23'32	minimum elong	401 Aug 20 j 15:06	27°♂51'15	1°40'28
max. Earth dist.	400 Sep 14 j 15:13	28°♂05'42	1.41961 AU		401 Aug 21 j 18:56	0°♂	
	400 Sep 15 j 18:48	0°♂		max. Earth dist.	401 Aug 27 j 20:44	10°♂53'03	1.40019 AU
evening rise	400 Sep 20 j 13:57	7°♂47'10		evening rise	401 Sep 01 j 04:44	18°♂16'31	
desc. node	400 Sep 20 j 21:47	8°♂18'22		desc. node	401 Sep 07 j 18:49	28°♂57'47	
	400 Oct 05 j 04:08	0°♂			401 Sep 08 j 10:39	0°♂	
greatest brilliancy	400 Oct 18 j 17:25	18°♂22'56	-0.3m		401 Sep 29 j 14:33	0°♂	
evening max el	400 Oct 23 j 11:20	23°♂42'55	22°24'23	evening max el	401 Oct 06 j 01:17	7°♂15'48	23°44'28
retrograde	400 Nov 02 j 02:33	29°♂26'34		retrograde	401 Oct 16 j 19:01	13°♂35'28	
				evening set	401 Oct 21 j 21:07	11°♂29'23	

asc. node	401 Oct 26 j 09:08	6°♄20'21			402 Sep 01 j 18:03	0°♄	
inferior conj	401 Oct 27 j 07:15	5°♄05'11	0°19'03	evening max el	402 Sep 18 j 13:10	20°♄52'06	25°02'03
minimum elong	401 Oct 27 j 06:47	5°♄06'45	0°18'52	retrograde	402 Sep 30 j 07:25	27°♄41'15	
min. Earth dist.	401 Oct 26 j 18:59	5°♄46'58	0.67627 AU	evening set	402 Oct 06 j 00:14	25°♄17'59	
	401 Oct 31 j 10:58	30°♄		min. Earth dist.	402 Oct 10 j 13:30	20°♄10'28	0.67228 AU
morning rise	401 Nov 01 j 16:36	28°♄55'43		inferior conj	402 Oct 11 j 12:25	18°♄55'11	0°-35'-59
direct	401 Nov 05 j 16:30	27°♄25'43		minimum elong	402 Oct 11 j 13:19	18°♄52'13	0°35'37
	401 Nov 11 j 12:16	0°♄		asc. node	402 Oct 13 j 06:10	16°♄41'14	
morning max el	401 Nov 13 j 23:29	2°♄15'02	20°54'40	morning rise	402 Oct 17 j 02:56	12°♄52'48	
greatest brilliancy	401 Nov 19 j 15:46	8°♄52'23	-0.5m	direct	402 Oct 20 j 14:34	11°♄42'44	
desc. node	401 Dec 04 j 18:05	0°♄22'18		morning max el	402 Oct 28 j 00:56	15°♄57'02	19°46'30
	401 Dec 04 j 12:09	0°♄		greatest brilliancy	402 Nov 04 j 21:27	25°♄43'19	-0.6m
morning set	401 Dec 13 j 15:52	14°♄01'10			402 Nov 07 j 21:08	0°♄	
max. Earth dist.	401 Dec 22 j 03:50	27°♄33'10	1.42789 AU	desc. node	402 Nov 21 j 15:07	20°♄49'14	
	401 Dec 23 j 15:48	0°♄		morning set	402 Nov 22 j 12:38	22°♄12'19	
					402 Nov 27 j 13:04	0°♄	
superior conj	401 Dec 29 j 01:44	9°♄00'50	-1°-59'-33	max. Earth dist.	402 Dec 04 j 15:52	11°♄12'19	1.44198 AU
minimum elong	401 Dec 28 j 22:43	8°♄48'06	1°59'27				
evening rise	402 Jan 09 j 20:55	29°♄36'42		superior conj	402 Dec 09 j 06:02	18°♄33'44	-1°-40'-13
	402 Jan 10 j 02:09	0°♄		minimum elong	402 Dec 08 j 22:25	18°♄02'59	1°39'36
asc. node	402 Jan 22 j 08:27	20°♄43'50			402 Dec 16 j 05:35	0°♄	
evening max el	402 Jan 26 j 18:24	26°♄10'36	18°07'35	evening rise	402 Dec 22 j 21:22	11°♄11'29	
retrograde	402 Feb 02 j 08:44	29°♄35'15			403 Jan 03 j 04:19	0°♄	
evening set	402 Feb 05 j 01:11	29°♄01'08		asc. node	403 Jan 09 j 05:30	8°♄19'45	
inferior conj	402 Feb 11 j 14:16	23°♄57'09	3°46'40	evening max el	403 Jan 10 j 06:57	9°♄27'59	18°17'00
minimum elong	402 Feb 11 j 15:07	23°♄55'01	3°46'37	retrograde	403 Jan 16 j 18:36	12°♄57'47	
min. Earth dist.	402 Feb 14 j 15:06	20°♄57'59	0.61627 AU	evening set	403 Jan 19 j 15:35	12°♄13'55	
morning rise	402 Feb 18 j 02:33	18°♄04'10		inferior conj	403 Jan 25 j 18:21	6°♄49'45	3°46'30
direct	402 Feb 25 j 00:20	15°♄38'46		minimum elong	403 Jan 25 j 17:19	6°♄52'40	3°46'26
desc. node	402 Mar 02 j 17:18	17°♄06'51		min. Earth dist.	403 Jan 28 j 04:55	4°♄07'26	0.63545 AU
morning max el	402 Mar 11 j 03:06	23°♄30'11	27°46'00	morning rise	403 Jan 31 j 17:21	0°♄46'18	
	402 Mar 16 j 23:04	0°♄			403 Feb 01 j 18:26	30°♄	
	402 Apr 05 j 11:39	0°♄		direct	403 Feb 07 j 16:09	28°♄00'47	
morning set	402 Apr 13 j 02:15	14°♄44'26			403 Feb 14 j 03:09	0°♄	
max. Earth dist.	402 Apr 19 j 01:15	27°♄19'45	1.32510 AU	desc. node	403 Feb 17 j 14:20	2°♄24'09	
				morning max el	403 Feb 21 j 10:53	5°♄52'56	27°39'43
superior conj	402 Apr 20 j 11:49	0°♄27'40	0°01'49		403 Mar 11 j 19:18	0°♄	
minimum elong	402 Apr 20 j 11:44	0°♄27'13	0°01'48	morning set	403 Mar 28 j 00:18	28°♄53'10	
behind sun begin	402 Apr 20 j 06:40	29°♄59'33			403 Mar 28 j 13:40	0°♄	
behind sun end	402 Apr 20 j 16:49	0°♄54'55		max. Earth dist.	403 Apr 02 j 06:18	9°♄39'56	1.33119 AU
asc. node	402 Apr 20 j 07:42	0°♄05'13					
	402 Apr 20 j 06:45	0°♄		superior conj	403 Apr 04 j 19:23	15°♄04'56	0°-25'-1
evening rise	402 Apr 27 j 11:02	15°♄33'37		minimum elong	403 Apr 04 j 20:36	15°♄11'25	0°24'45
	402 May 04 j 16:21	0°♄		asc. node	403 Apr 07 j 04:47	20°♄13'55	
evening max el	402 May 23 j 00:48	26°♄14'18	24°40'03	evening rise	403 Apr 11 j 22:48	0°♄24'35	
	402 May 27 j 14:18	0°♄			403 Apr 11 j 18:08	0°♄	
desc. node	402 May 29 j 16:34	1°♄16'59			403 Apr 28 j 17:19	0°♄	
retrograde	402 Jun 05 j 23:24	3°♄17'43		evening max el	403 May 04 j 15:13	6°♄47'27	23°05'11
evening set	402 Jun 10 j 23:13	2°♄21'28		desc. node	403 May 16 j 13:36	13°♄23'26	
	402 Jun 15 j 16:27	30°♄		retrograde	403 May 18 j 01:20	13°♄28'28	
min. Earth dist.	402 Jun 16 j 12:08	29°♄29'33	0.57071 AU	evening set	403 May 21 j 14:11	13°♄01'03	
inferior conj	402 Jun 19 j 08:50	27°♄38'08	-4°-35'-20	min. Earth dist.	403 May 29 j 00:37	9°♄41'06	0.55630 AU
minimum elong	402 Jun 19 j 04:57	27°♄44'29	4°34'57	inferior conj	403 May 30 j 17:26	8°♄41'41	-3°-39'-41
morning rise	402 Jun 27 j 14:28	23°♄31'32		minimum elong	403 May 30 j 10:09	8°♄52'20	3°37'56
direct	402 Jun 30 j 04:47	23°♄12'40		morning rise	403 Jun 08 j 09:14	4°♄47'59	
morning max el	402 Jul 09 j 09:36	27°♄29'37	19°21'14	direct	403 Jun 11 j 03:36	4°♄29'45	
	402 Jul 11 j 18:57	0°♄		morning max el	403 Jun 21 j 22:42	9°♄29'34	20°32'14
asc. node	402 Jul 17 j 06:57	7°♄42'10		asc. node	403 Jul 04 j 04:00	26°♄34'03	
morning set	402 Jul 26 j 12:43	24°♄48'29			403 Jul 06 j 00:22	0°♄	
	402 Jul 29 j 02:59	0°♄		morning set	403 Jul 10 j 18:28	9°♄25'40	
superior conj	402 Aug 03 j 17:10	11°♄06'01	1°46'43	superior conj	403 Jul 18 j 09:55	25°♄09'50	1°44'24
minimum elong	402 Aug 03 j 17:34	11°♄07'58	1°46'43	minimum elong	403 Jul 18 j 08:44	25°♄03'52	1°44'22
max. Earth dist.	402 Aug 10 j 00:10	23°♄01'56	1.37997 AU		403 Jul 20 j 19:33	0°♄	
evening rise	402 Aug 13 j 20:02	29°♄55'04		max. Earth dist.	403 Jul 23 j 06:47	4°♄51'24	1.36140 AU
	402 Aug 13 j 21:09	0°♄		evening rise	403 Jul 27 j 08:37	12°♄35'28	
desc. node	402 Aug 25 j 15:52	19°♄27'03			403 Aug 06 j 08:47	0°♄	

desc. node	403 Aug 12 j 12:55	9° $\mathring{\text{M}}$ 40'30			404 Jul 29 j 17:59	0° $\mathring{\text{M}}$	
	403 Aug 27 j 18:48	0° $\mathring{\text{A}}$		evening max el	404 Aug 13 j 12:42	18° $\mathring{\text{M}}$ 01'01	26°59'17
evening max el	403 Sep 01 j 00:43	4° $\mathring{\text{A}}$ 29'02	26°09'34	retrograde	404 Aug 26 j 17:39	25° $\mathring{\text{M}}$ 19'04	
retrograde	403 Sep 13 j 15:09	11° $\mathring{\text{A}}$ 37'58		evening set	404 Sep 02 j 13:03	22° $\mathring{\text{M}}$ 35'02	
evening set	403 Sep 19 j 22:18	9° $\mathring{\text{A}}$ 00'55		min. Earth dist.	404 Sep 06 j 11:10	18° $\mathring{\text{M}}$ 41'28	0.65409 AU
min. Earth dist.	403 Sep 24 j 03:39	4° $\mathring{\text{A}}$ 30'05	0.66493 AU	inferior conj	404 Sep 08 j 09:47	16° $\mathring{\text{M}}$ 27'24	-2°-28'-39
inferior conj	403 Sep 25 j 13:57	2° $\mathring{\text{A}}$ 43'38	-1°-32'-32	minimum elong	404 Sep 08 j 13:33	16° $\mathring{\text{M}}$ 16'32	2°27'17
minimum elong	403 Sep 25 j 16:19	2° $\mathring{\text{A}}$ 36'15	1°31'35	morning rise	404 Sep 14 j 15:33	10° $\mathring{\text{M}}$ 47'51	
	403 Sep 27 j 20:46	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		asc. node	404 Sep 16 j 00:15	10° $\mathring{\text{M}}$ 17'13	
asc. node	403 Sep 30 j 03:13	27° $\mathring{\text{M}}$ 47'19		direct	404 Sep 17 j 09:23	10° $\mathring{\text{M}}$ 06'46	
morning rise	403 Oct 01 j 11:20	26° $\mathring{\text{M}}$ 51'09		morning max el	404 Sep 23 j 22:47	13° $\mathring{\text{M}}$ 40'32	18°15'56
direct	403 Oct 04 j 12:50	25° $\mathring{\text{M}}$ 57'30			404 Oct 05 j 13:21	0° $\mathring{\text{A}}$	
morning max el	403 Oct 11 j 09:23	29° $\mathring{\text{M}}$ 46'59	18°53'06	morning set	404 Oct 12 j 17:45	11° $\mathring{\text{A}}$ 44'15	
	403 Oct 11 j 14:29	0° $\mathring{\text{A}}$			404 Oct 24 j 00:33	0° $\mathring{\text{M}}$	
	403 Nov 01 j 05:50	0° $\mathring{\text{M}}$		desc. node	404 Oct 25 j 09:13	2° $\mathring{\text{M}}$ 10'04	
morning set	403 Nov 02 j 01:05	1° $\mathring{\text{M}}$ 15'54					
desc. node	403 Nov 08 j 12:10	11° $\mathring{\text{M}}$ 26'18		superior conj	404 Oct 27 j 13:58	5° $\mathring{\text{M}}$ 39'10	0°-14'-29
max. Earth dist.	403 Nov 17 j 08:35	25° $\mathring{\text{M}}$ 20'34	1.44952 AU	minimum elong	404 Oct 27 j 12:06	5° $\mathring{\text{M}}$ 31'44	0°14'14
				behind sun begin	404 Oct 27 j 06:41	5° $\mathring{\text{M}}$ 10'20	
superior conj	403 Nov 18 j 12:15	27° $\mathring{\text{M}}$ 09'24	-1°-2'-47	behind sun end	404 Oct 27 j 17:30	5° $\mathring{\text{M}}$ 53'07	
minimum elong	403 Nov 18 j 04:42	26° $\mathring{\text{M}}$ 39'42	1°01'55	max. Earth dist.	404 Oct 30 j 03:08	9° $\mathring{\text{M}}$ 40'27	1.44978 AU
	403 Nov 20 j 07:32	0° $\mathring{\text{A}}$			404 Nov 12 j 02:56	0° $\mathring{\text{A}}$	
evening rise	403 Dec 03 j 23:09	21° $\mathring{\text{A}}$ 48'06		evening rise	404 Nov 13 j 01:32	1° $\mathring{\text{A}}$ 28'10	
	403 Dec 09 j 00:36	0° $\mathring{\text{A}}$		greatest brilliancy	404 Nov 28 j 12:31	25° $\mathring{\text{A}}$ 13'30	-0.7m
evening max el	403 Dec 24 j 18:19	22° $\mathring{\text{A}}$ 52'15	18°44'41		404 Dec 01 j 21:26	0° $\mathring{\text{A}}$	
asc. node	403 Dec 27 j 02:32	24° $\mathring{\text{A}}$ 56'55		evening max el	404 Dec 07 j 02:20	6° $\mathring{\text{A}}$ 20'10	19°29'17
retrograde	403 Dec 31 j 11:29	26° $\mathring{\text{A}}$ 38'07		asc. node	404 Dec 12 j 23:34	10° $\mathring{\text{A}}$ 20'54	
evening set	404 Jan 03 j 13:53	25° $\mathring{\text{A}}$ 43'21		retrograde	404 Dec 14 j 08:00	10° $\mathring{\text{A}}$ 31'05	
inferior conj	404 Jan 09 j 09:14	20° $\mathring{\text{A}}$ 01'18	3°29'52	evening set	404 Dec 17 j 17:26	9° $\mathring{\text{A}}$ 23'44	
minimum elong	404 Jan 09 j 06:59	20° $\mathring{\text{A}}$ 08'08	3°29'30	inferior conj	404 Dec 23 j 07:43	3° $\mathring{\text{A}}$ 26'30	3°01'14
min. Earth dist.	404 Jan 11 j 04:27	17° $\mathring{\text{A}}$ 49'52	0.65134 AU	minimum elong	404 Dec 23 j 04:58	3° $\mathring{\text{A}}$ 35'24	3°00'33
morning rise	404 Jan 14 j 22:58	13° $\mathring{\text{A}}$ 51'25		min. Earth dist.	404 Dec 24 j 12:29	1° $\mathring{\text{A}}$ 52'59	0.66335 AU
direct	404 Jan 21 j 15:07	11° $\mathring{\text{A}}$ 00'19			404 Dec 26 j 00:37	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
morning max el	404 Feb 03 j 20:37	18° $\mathring{\text{A}}$ 43'52	26°59'59	morning rise	404 Dec 28 j 15:44	27° $\mathring{\text{A}}$ 12'52	
desc. node	404 Feb 04 j 11:22	19° $\mathring{\text{A}}$ 21'21		direct	405 Jan 03 j 20:08	24° $\mathring{\text{A}}$ 29'18	
	404 Feb 13 j 10:14	0° $\mathring{\text{A}}$			405 Jan 14 j 07:52	0° $\mathring{\text{A}}$	
	404 Mar 03 j 18:19	0° $\mathring{\text{H}}$		morning max el	405 Jan 16 j 05:52	1° $\mathring{\text{A}}$ 50'36	25°54'25
morning set	404 Mar 10 j 12:33	12° $\mathring{\text{H}}$ 28'22		desc. node	405 Jan 21 j 08:25	7° $\mathring{\text{A}}$ 29'58	
max. Earth dist.	404 Mar 15 j 01:29	21° $\mathring{\text{H}}$ 26'16	1.34160 AU		405 Feb 06 j 12:50	0° $\mathring{\text{A}}$	
				morning set	405 Feb 21 j 10:46	25° $\mathring{\text{A}}$ 17'22	
superior conj	404 Mar 18 j 21:56	29° $\mathring{\text{H}}$ 22'20	0°-52'-4		405 Feb 23 j 23:15	0° $\mathring{\text{H}}$	
minimum elong	404 Mar 19 j 00:28	29° $\mathring{\text{H}}$ 35'31	0°51'35	max. Earth dist.	405 Feb 25 j 08:44	2° $\mathring{\text{H}}$ 39'52	1.35662 AU
	404 Mar 19 j 05:08	0° $\mathring{\text{Y}}$					
asc. node	404 Mar 24 j 01:51	10° $\mathring{\text{Y}}$ 15'56		superior conj	405 Mar 02 j 16:59	13° $\mathring{\text{H}}$ 12'42	-1°-17'-52
evening rise	404 Mar 26 j 09:02	15° $\mathring{\text{Y}}$ 05'34		minimum elong	405 Mar 02 j 20:34	13° $\mathring{\text{H}}$ 30'48	1°17'20
	404 Apr 02 j 23:18	0° $\mathring{\text{B}}$		evening rise	405 Mar 10 j 15:45	29° $\mathring{\text{H}}$ 30'19	
evening max el	404 Apr 15 j 11:05	17° $\mathring{\text{B}}$ 30'11	21°32'54	asc. node	405 Mar 10 j 22:54	0° $\mathring{\text{Y}}$ 06'50	
retrograde	404 Apr 27 j 16:56	23° $\mathring{\text{B}}$ 28'29			405 Mar 10 j 21:34	0° $\mathring{\text{Y}}$	
evening set	404 Apr 30 j 04:03	23° $\mathring{\text{B}}$ 14'43		evening max el	405 Mar 28 j 17:28	28° $\mathring{\text{Y}}$ 44'59	20°13'38
desc. node	404 May 02 j 10:36	22° $\mathring{\text{B}}$ 39'19			405 Mar 30 j 02:45	0° $\mathring{\text{B}}$	
inferior conj	404 May 09 j 13:14	19° $\mathring{\text{B}}$ 13'39	-2°00'-37	retrograde	405 Apr 08 j 06:51	3° $\mathring{\text{B}}$ 49'39	
minimum elong	404 May 09 j 07:43	19° $\mathring{\text{B}}$ 21'23	1°58'46	evening set	405 Apr 10 j 09:13	3° $\mathring{\text{B}}$ 38'30	
min. Earth dist.	404 May 09 j 13:25	19° $\mathring{\text{B}}$ 13'23	0.54982 AU		405 Apr 18 j 20:07	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$	
morning rise	404 May 18 j 11:58	15° $\mathring{\text{B}}$ 15'56		inferior conj	405 Apr 19 j 09:27	29° $\mathring{\text{Y}}$ 40'17	0°-1'-18
direct	404 May 21 j 14:43	14° $\mathring{\text{B}}$ 54'43		minimum elong	405 Apr 19 j 09:23	29° $\mathring{\text{Y}}$ 40'22	0°01'18
morning max el	404 Jun 03 j 00:50	20° $\mathring{\text{B}}$ 47'06	22°01'22	transit middle	405 Apr 19 j 09:23	29° $\mathring{\text{Y}}$ 40'22	0°01'18
	404 Jun 10 j 18:18	0° $\mathring{\text{II}}$		transit begin	405 Apr 19 j 05:23	29° $\mathring{\text{Y}}$ 46'19	
asc. node	404 Jun 20 j 01:05	15° $\mathring{\text{II}}$ 55'13		transit end	405 Apr 19 j 13:24	29° $\mathring{\text{Y}}$ 34'26	
morning set	404 Jun 24 j 04:05	24° $\mathring{\text{II}}$ 16'02		desc. node	405 Apr 19 j 07:38	29° $\mathring{\text{Y}}$ 42'59	
	404 Jun 26 j 21:31	0° $\mathring{\text{B}}$		min. Earth dist.	405 Apr 21 j 03:06	28° $\mathring{\text{Y}}$ 38'41	0.55298 AU
				morning rise	405 Apr 28 j 07:06	25° $\mathring{\text{Y}}$ 20'10	
superior conj	404 Jul 01 j 11:10	9° $\mathring{\text{B}}$ 40'16	1°35'28	direct	405 May 02 j 03:45	24° $\mathring{\text{Y}}$ 47'40	
minimum elong	404 Jul 01 j 09:03	9° $\mathring{\text{B}}$ 29'07	1°35'16		405 May 14 j 02:33	0° $\mathring{\text{B}}$	
max. Earth dist.	404 Jul 04 j 21:39	16° $\mathring{\text{B}}$ 48'00	1.34613 AU	morning max el	405 May 15 j 18:23	1° $\mathring{\text{B}}$ 29'06	23°41'28
evening rise	404 Jul 09 j 13:42	26° $\mathring{\text{B}}$ 05'25			405 Jun 04 j 02:51	0° $\mathring{\text{II}}$	
	404 Jul 11 j 14:53	0° $\mathring{\text{Q}}$		asc. node	405 Jun 06 j 22:08	5° $\mathring{\text{II}}$ 37'16	
desc. node	404 Jul 29 j 09:56	29° $\mathring{\text{Q}}$ 31'06		morning set	405 Jun 08 j 15:40	9° $\mathring{\text{II}}$ 13'03	

superior conj	405 Jun 15 j 18:01	24° Π 27'20	1°21'15	superior conj	406 May 31 j 04:13	9° Π 23'40	1°02'50
minimum elong	405 Jun 15 j 15:32	24° Π 14'01	1°20'54	minimum elong	406 May 31 j 01:54	9° Π 11'06	1°02'26
max. Earth dist.	405 Jun 17 j 22:10	29° Π 06'18	1.33476 AU	max. Earth dist.	406 Jun 01 j 06:15	11° Π 45'37	1.32728 AU
	405 Jun 18 j 08:18	0° \mathfrak{S}		evening rise	406 Jun 07 j 08:11	24° Π 41'33	
evening rise	405 Jun 23 j 06:44	10° \mathfrak{S} 11'05			406 Jun 09 j 23:13	0° \mathfrak{S}	
	405 Jul 03 j 23:19	0° Ω			406 Jun 27 j 14:42	0° Ω	
desc. node	405 Jul 16 j 06:57	18° Ω 48'22		desc. node	406 Jul 03 j 03:57	7° Ω 18'17	
	405 Jul 25 j 16:54	0° \mathfrak{M}		evening max el	406 Jul 09 j 08:20	14° Ω 01'39	27°18'03
evening max el	405 Jul 27 j 00:03	1° \mathfrak{M} 16'28	27°24'01	retrograde	406 Jul 23 j 03:59	21° Ω 18'29	
retrograde	405 Aug 09 j 14:10	8° \mathfrak{M} 35'32		evening set	406 Jul 30 j 08:06	18° Ω 53'02	
evening set	405 Aug 16 j 17:33	5° \mathfrak{M} 54'28		min. Earth dist.	406 Aug 02 j 22:11	16° Ω 02'20	0.62195 AU
min. Earth dist.	405 Aug 20 j 09:51	2° \mathfrak{M} 35'59	0.63969 AU	inferior conj	406 Aug 05 j 21:57	13° Ω 15'54	-4°-7'-23
inferior conj	405 Aug 22 j 21:27	0° \mathfrak{M} 00'30	-3°-21'-39	minimum elong	406 Aug 06 j 02:40	13° Ω 04'53	4°06'24
minimum elong	405 Aug 23 j 02:11	29° Ω 48'06	3°20'15	morning rise	406 Aug 12 j 23:51	8° Ω 12'30	
	405 Aug 22 j 21:38	30° \mathfrak{R} Ω		direct	406 Aug 15 j 10:12	7° Ω 46'29	
morning rise	405 Aug 29 j 12:50	24° Ω 37'15		asc. node	406 Aug 20 j 18:22	9° Ω 55'12	
direct	405 Sep 01 j 01:36	24° Ω 05'09		morning max el	406 Aug 22 j 05:34	11° Ω 13'12	17°54'17
asc. node	405 Sep 02 j 21:19	24° Ω 21'58			406 Sep 03 j 17:58	0° \mathfrak{M}	
morning max el	405 Sep 07 j 14:27	27° Ω 31'21	17°56'00	morning set	406 Sep 07 j 06:04	6° \mathfrak{M} 17'31	
	405 Sep 09 j 19:27	0° \mathfrak{M}					
morning set	405 Sep 24 j 13:22	23° \mathfrak{M} 30'41		superior conj	406 Sep 18 j 05:24	25° \mathfrak{M} 41'11	1°08'51
	405 Sep 28 j 08:22	0° \mathfrak{A}		minimum elong	406 Sep 18 j 10:18	26° \mathfrak{M} 02'09	1°08'16
					406 Sep 20 j 18:22	0° \mathfrak{A}	
superior conj	405 Oct 07 j 08:14	15° \mathfrak{A} 00'12	0°32'23	max. Earth dist.	406 Sep 25 j 10:53	7° \mathfrak{A} 46'27	1.42951 AU
minimum elong	405 Oct 07 j 11:40	15° \mathfrak{A} 14'15	0°31'55	desc. node	406 Sep 29 j 03:15	13° \mathfrak{A} 43'08	
desc. node	405 Oct 12 j 06:15	22° \mathfrak{A} 56'42		evening rise	406 Oct 02 j 20:25	19° \mathfrak{A} 35'25	
max. Earth dist.	405 Oct 12 j 20:52	23° \mathfrak{A} 55'00	1.44281 AU		406 Oct 09 j 14:53	0° \mathfrak{M}	
	405 Oct 16 j 17:08	0° \mathfrak{M}		greatest brilliancy	406 Oct 29 j 05:21	27° \mathfrak{M} 42'58	-0.4m
evening rise	405 Oct 23 j 11:21	10° \mathfrak{M} 30'34			406 Oct 31 j 02:38	0° \mathfrak{A}	
	405 Nov 05 j 08:24	0° \mathfrak{A}		evening max el	406 Nov 03 j 02:31	3° \mathfrak{A} 18'04	21°39'54
greatest brilliancy	405 Nov 14 j 02:17	12° \mathfrak{A} 26'22	-0.5m	retrograde	406 Nov 12 j 02:30	8° \mathfrak{A} 39'16	
evening max el	405 Nov 20 j 05:21	19° \mathfrak{A} 49'11	20°28'45	evening set	406 Nov 16 j 07:50	7° \mathfrak{A} 00'56	
retrograde	405 Nov 28 j 05:40	24° \mathfrak{A} 32'39		asc. node	406 Nov 16 j 17:37	6° \mathfrak{A} 40'49	
asc. node	405 Nov 29 j 20:34	24° \mathfrak{A} 17'45		inferior conj	406 Nov 21 j 17:24	0° \mathfrak{A} 42'34	1°39'11
evening set	405 Dec 02 j 00:03	23° \mathfrak{A} 10'45		minimum elong	406 Nov 21 j 15:20	0° \mathfrak{A} 49'45	1°38'24
inferior conj	405 Dec 07 j 11:09	17° \mathfrak{A} 01'16	2°23'39	min. Earth dist.	406 Nov 21 j 21:39	0° \mathfrak{A} 27'53	0.67588 AU
minimum elong	405 Dec 07 j 08:31	17° \mathfrak{A} 10'13	2°22'48		406 Nov 22 j 05:44	30° \mathfrak{R} \mathfrak{M}	
min. Earth dist.	405 Dec 08 j 02:57	16° \mathfrak{A} 07'41	0.67143 AU	morning rise	406 Nov 26 j 22:34	24° \mathfrak{M} 27'46	
morning rise	405 Dec 12 j 16:29	10° \mathfrak{A} 46'04		direct	406 Dec 01 j 21:02	22° \mathfrak{M} 22'41	
direct	405 Dec 18 j 06:22	8° \mathfrak{A} 19'17		morning max el	406 Dec 11 j 23:35	28° \mathfrak{M} 22'51	23°04'49
morning max el	405 Dec 29 j 14:12	15° \mathfrak{A} 04'29	24°32'44		406 Dec 13 j 12:39	0° \mathfrak{A}	
desc. node	406 Jan 08 j 05:28	26° \mathfrak{A} 29'05		greatest brilliancy	406 Dec 16 j 20:10	3° \mathfrak{A} 48'57	-0.3m
	406 Jan 10 j 20:11	0° \mathfrak{C}		desc. node	406 Dec 26 j 02:29	16° \mathfrak{A} 03'35	
	406 Jan 30 j 10:38	0° \approx			407 Jan 04 j 14:01	0° \mathfrak{C}	
morning set	406 Feb 03 j 13:25	7° \approx 04'33		morning set	407 Jan 15 j 14:08	17° \mathfrak{C} 32'47	
max. Earth dist.	406 Feb 07 j 06:35	13° \approx 42'51	1.37564 AU	max. Earth dist.	407 Jan 20 j 01:59	25° \mathfrak{C} 09'59	1.39680 AU
					407 Jan 22 j 20:20	0° \approx	
superior conj	406 Feb 14 j 01:17	26° \approx 27'08	-1°-40'-20				
minimum elong	406 Feb 14 j 05:14	26° \approx 46'13	1°39'57	superior conj	407 Jan 27 j 18:30	8° \approx 53'19	-1°-56'-35
	406 Feb 15 j 20:59	0° \mathfrak{H}		minimum elong	407 Jan 27 j 21:24	9° \approx 06'42	1°56'27
evening rise	406 Feb 22 j 16:39	13° \mathfrak{H} 32'24		evening rise	407 Feb 06 j 08:50	27° \approx 03'16	
asc. node	406 Feb 25 j 19:56	19° \mathfrak{H} 41'46			407 Feb 07 j 21:49	0° \mathfrak{H}	
	406 Mar 03 j 12:10	0° \mathfrak{Y}		asc. node	407 Feb 12 j 16:58	8° \mathfrak{H} 54'03	
evening max el	406 Mar 11 j 11:04	10° \mathfrak{Y} 38'34	19°12'39	evening max el	407 Feb 22 j 13:47	23° \mathfrak{H} 05'39	18°31'41
retrograde	406 Mar 20 j 08:35	14° \mathfrak{Y} 55'43		retrograde	407 Mar 02 j 05:01	26° \mathfrak{H} 50'14	
evening set	406 Mar 22 j 12:54	14° \mathfrak{Y} 41'24		evening set	407 Mar 04 j 14:05	26° \mathfrak{H} 29'38	
inferior conj	406 Mar 30 j 19:36	10° \mathfrak{Y} 30'44	1°44'31	inferior conj	407 Mar 12 j 02:19	21° \mathfrak{H} 59'23	2°57'38
minimum elong	406 Mar 30 j 23:22	10° \mathfrak{Y} 24'21	1°43'21	minimum elong	407 Mar 12 j 06:20	21° \mathfrak{H} 51'28	2°56'46
min. Earth dist.	406 Apr 02 j 18:08	8° \mathfrak{Y} 32'30	0.56504 AU	min. Earth dist.	407 Mar 15 j 12:21	19° \mathfrak{H} 18'47	0.58326 AU
desc. node	406 Apr 06 j 04:39	6° \mathfrak{Y} 32'00		morning rise	407 Mar 19 j 18:34	16° \mathfrak{H} 36'02	
morning rise	406 Apr 08 j 05:51	5° \mathfrak{Y} 38'01		desc. node	407 Mar 24 j 01:41	15° \mathfrak{H} 12'21	
direct	406 Apr 13 j 04:00	4° \mathfrak{Y} 41'58		direct	407 Mar 25 j 17:43	15° \mathfrak{H} 05'12	
morning max el	406 Apr 27 j 08:54	11° \mathfrak{Y} 58'16	25°19'58	morning max el	407 Apr 09 j 02:23	22° \mathfrak{H} 42'48	26°41'27
	406 May 11 j 06:07	0° \mathfrak{B}			407 Apr 15 j 13:49	0° \mathfrak{Y}	
morning set	406 May 24 j 03:34	24° \mathfrak{B} 11'21			407 May 04 j 02:41	0° \mathfrak{B}	
asc. node	406 May 24 j 19:12	25° \mathfrak{B} 34'02		morning set	407 May 08 j 14:07	9° \mathfrak{B} 04'38	
	406 May 26 j 20:49	0° \mathfrak{I}		asc. node	407 May 11 j 16:15	15° \mathfrak{B} 39'44	

superior conj	407 May 15 j 15:53	24°♄22'30	0°41'05	morning set	408 Apr 21 j 21:33	23°♃46'41	
minimum elong	407 May 15 j 14:11	24°♄13'09	0°40'44		408 Apr 24 j 20:31	0°♄	
max. Earth dist.	407 May 15 j 18:20	24°♄35'57	1.32350 AU	asc. node	408 Apr 27 j 13:18	5°♄49'57	
	407 May 18 j 05:27	0°♂		max. Earth dist.	408 Apr 28 j 06:40	7°♄24'45	1.32339 AU
evening rise	407 May 22 j 15:15	9°♂27'08					
	407 Jun 02 j 07:47	0°♄		superior conj	408 Apr 29 j 03:20	9°♄17'55	0°16'43
desc. node	407 Jun 20 j 00:58	24°♄41'04		minimum elong	408 Apr 29 j 02:35	9°♄13'47	0°16'34
evening max el	407 Jun 21 j 10:53	26°♄04'46	26°39'02	evening rise	408 May 06 j 01:38	24°♄20'19	
	407 Jun 26 j 05:18	0°♂			408 May 08 j 19:07	0°♂	
retrograde	407 Jul 05 j 10:23	3°♂19'26			408 May 26 j 17:15	0°♄	
evening set	407 Jul 12 j 04:13	1°♂22'58		evening max el	408 Jun 02 j 06:31	7°♄22'15	25°29'54
	407 Jul 14 j 08:26	30°♄♄		desc. node	408 Jun 05 j 22:01	10°♄28'57	
min. Earth dist.	407 Jul 16 j 00:17	28°♄46'00	0.60177 AU	retrograde	408 Jun 16 j 07:31	14°♄32'33	
inferior conj	407 Jul 19 j 07:50	26°♄04'47	-4°-39'-14	evening set	408 Jun 22 j 01:46	13°♄14'30	
minimum elong	407 Jul 19 j 10:47	25°♄58'46	4°38'58	min. Earth dist.	408 Jun 26 j 18:36	10°♄32'37	0.58132 AU
morning rise	407 Jul 26 j 20:36	21°♄24'01		inferior conj	408 Jun 29 j 23:34	8°♄17'15	-4°-47'00
direct	407 Jul 29 j 06:56	21°♄01'57		minimum elong	408 Jun 29 j 22:33	8°♄19'03	4°46'59
morning max el	407 Aug 05 j 17:10	24°♄38'50	18°11'54	morning rise	408 Jul 07 j 23:07	3°♄59'11	
asc. node	407 Aug 07 j 15:26	26°♄42'44		direct	408 Jul 10 j 11:22	3°♄39'37	
	407 Aug 10 j 03:56	0°♂		morning max el	408 Jul 18 j 22:06	7°♄38'23	18°49'52
morning set	407 Aug 21 j 14:13	19°♂49'14		asc. node	408 Jul 24 j 12:30	14°♄28'48	
	407 Aug 27 j 00:17	0°♄			408 Aug 02 j 09:19	0°♂	
				morning set	408 Aug 04 j 09:15	3°♂53'01	
superior conj	407 Aug 31 j 04:29	7°♄39'25	1°32'27				
minimum elong	407 Aug 31 j 08:08	7°♄55'51	1°32'09	superior conj	408 Aug 12 j 23:53	20°♂38'08	1°44'21
max. Earth dist.	407 Sep 07 j 19:17	20°♄59'13	1.41158 AU	minimum elong	408 Aug 13 j 01:25	20°♂45'29	1°44'18
evening rise	407 Sep 12 j 21:35	29°♄26'33			408 Aug 18 j 00:49	0°♄	
	407 Sep 13 j 05:50	0°♄		max. Earth dist.	408 Aug 19 j 22:54	3°♄27'00	1.39147 AU
desc. node	407 Sep 16 j 00:17	4°♄26'26		evening rise	408 Aug 23 j 22:58	10°♄25'47	
	407 Oct 03 j 04:23	0°♄		desc. node	408 Sep 01 j 21:20	25°♄02'09	
greatest brilliancy	407 Oct 11 j 11:09	10°♄51'26	-0.2m		408 Sep 05 j 02:36	0°♄	
evening max el	407 Oct 16 j 18:29	16°♄48'42	22°58'18		408 Sep 27 j 22:07	0°♄	
retrograde	407 Oct 26 j 21:03	22°♄48'39		evening max el	408 Sep 28 j 07:09	0°♄22'36	24°18'13
evening set	407 Oct 31 j 15:07	20°♄52'42		retrograde	408 Oct 09 j 12:02	6°♄56'39	
asc. node	407 Nov 03 j 14:39	17°♄43'18		evening set	408 Oct 14 j 20:13	4°♄43'05	
inferior conj	407 Nov 06 j 00:37	14°♄29'15	0°49'30		408 Oct 19 j 00:50	30°♄♄	
minimum elong	407 Nov 05 j 23:29	14°♄33'10	0°49'01	min. Earth dist.	408 Oct 19 j 14:19	29°♄15'02	0.67493 AU
min. Earth dist.	407 Nov 05 j 18:14	14°♄51'15	0.67701 AU	inferior conj	408 Oct 20 j 07:03	28°♄18'43	0°-3'-59
morning rise	407 Nov 11 j 07:52	8°♄17'04		minimum elong	408 Oct 20 j 07:09	28°♄18'24	0°03'59
direct	407 Nov 15 j 15:31	6°♄34'44		transit middle	408 Oct 20 j 07:09	28°♄18'24	0°03'59
morning max el	407 Nov 24 j 13:26	11°♄48'50	21°39'39	transit begin	408 Oct 20 j 04:30	28°♄27'19	
greatest brilliancy	407 Nov 29 j 11:55	17°♄25'35	-0.4m	transit end	408 Oct 20 j 09:48	28°♄09'29	
	407 Dec 08 j 19:20	0°♄		asc. node	408 Oct 20 j 11:41	28°♄03'07	
desc. node	407 Dec 12 j 23:31	6°♄03'55		morning rise	408 Oct 25 j 18:22	22°♄11'42	
morning set	407 Dec 26 j 09:40	26°♄37'41		direct	408 Oct 29 j 12:43	20°♄50'39	
	407 Dec 28 j 12:16	0°♄		morning max el	408 Nov 06 j 10:18	25°♄24'21	20°23'55
max. Earth dist.	408 Jan 02 j 01:40	7°♄26'29	1.41738 AU		408 Nov 10 j 11:09	0°♄	
				greatest brilliancy	408 Nov 12 j 21:23	3°♄07'42	-0.5m
superior conj	408 Jan 09 j 15:30	20°♄19'06	-2°-2'-35	desc. node	408 Nov 28 j 20:34	26°♄22'28	
minimum elong	408 Jan 09 j 15:14	20°♄18'00	2°02'36		408 Dec 01 j 05:30	0°♄	
	408 Jan 15 j 02:21	0°♄		morning set	408 Dec 04 j 08:13	4°♄48'00	
evening rise	408 Jan 20 j 12:51	9°♄55'09		max. Earth dist.	408 Dec 14 j 08:40	20°♄35'52	1.43457 AU
asc. node	408 Jan 30 j 13:59	27°♄36'25					
	408 Feb 01 j 03:34	0°♄		superior conj	408 Dec 20 j 11:13	0°♄33'31	-1°-53'-39
evening max el	408 Feb 05 j 22:42	5°♄58'36	18°10'46	minimum elong	408 Dec 20 j 06:02	0°♄12'03	1°53'22
retrograde	408 Feb 12 j 19:08	9°♄26'25			408 Dec 20 j 03:07	0°♄	
evening set	408 Feb 15 j 08:55	8°♄57'41		evening rise	409 Jan 02 j 00:31	21°♄59'27	
inferior conj	408 Feb 22 j 05:28	4°♄06'11	3°36'52		409 Jan 06 j 14:37	0°♄	
minimum elong	408 Feb 22 j 07:36	4°♄01'16	3°36'38	asc. node	409 Jan 16 j 11:01	15°♄39'34	
min. Earth dist.	408 Feb 25 j 12:30	1°♄06'19	0.60421 AU	evening max el	409 Jan 19 j 10:46	19°♄09'00	18°09'24
	408 Feb 26 j 20:13	30°♄♄		retrograde	409 Jan 25 j 22:56	22°♄34'17	
morning rise	408 Feb 29 j 03:07	28°♄21'19		evening set	409 Jan 28 j 17:13	21°♄56'14	
direct	408 Mar 06 j 19:38	26°♄13'25		inferior conj	409 Feb 04 j 01:33	16°♄43'48	3°48'57
desc. node	408 Mar 09 j 22:43	26°♄39'48		minimum elong	409 Feb 04 j 01:31	16°♄43'51	3°48'57
	408 Mar 16 j 09:31	0°♄		min. Earth dist.	409 Feb 06 j 20:50	13°♄49'14	0.62473 AU
morning max el	408 Mar 21 j 01:51	4°♄02'42	27°32'50	morning rise	409 Feb 10 j 07:40	10°♄45'47	
	408 Apr 09 j 05:27	0°♄		direct	409 Feb 17 j 07:10	8°♄09'38	

desc. node	409 Feb 24 j 19:45	10° \approx 42'47		morning rise	410 Jan 24 j 05:13	23° \approx 38'20	
morning max el	409 Mar 03 j 06:57	16° \approx 02'55	27°47'46	direct	410 Jan 31 j 02:08	20° \approx 48'36	
	409 Mar 14 j 18:31	0° \approx		desc. node	410 Feb 11 j 16:48	26° \approx 46'12	
	409 Apr 01 j 20:11	0° \approx		morning max el	410 Feb 13 j 15:37	28° \approx 37'52	27°26'34
morning set	409 Apr 05 j 23:47	8° \approx 10'14			410 Feb 14 j 23:33	0° \approx	
max. Earth dist.	409 Apr 11 j 15:22	19° \approx 58'40	1.32709 AU		410 Mar 08 j 13:49	0° \approx	
				morning set	410 Mar 20 j 18:02	22° \approx 05'32	
superior conj	409 Apr 13 j 12:53	24° \approx 04'06	0°-9'-27		410 Mar 24 j 16:23	0° \approx	
minimum elong	409 Apr 13 j 13:19	24° \approx 06'32	0°09'21	max. Earth dist.	410 Mar 25 j 16:32	2° \approx 04'42	1.33502 AU
behind sun begin	409 Apr 13 j 09:07	23° \approx 43'42					
behind sun end	409 Apr 13 j 17:32	24° \approx 29'22		superior conj	410 Mar 28 j 18:33	8° \approx 33'36	0°-36'-31
asc. node	409 Apr 14 j 10:21	26° \approx 00'38		minimum elong	410 Mar 28 j 20:20	8° \approx 43'02	0°36'10
	409 Apr 16 j 06:23	0° \approx		asc. node	410 Apr 01 j 07:23	16° \approx 06'47	
evening rise	409 Apr 20 j 13:26	9° \approx 14'23		evening rise	410 Apr 05 j 00:45	24° \approx 01'46	
	409 May 01 j 08:28	0° \approx			410 Apr 07 j 22:13	0° \approx	
evening max el	409 May 14 j 21:29	18° \approx 05'59	24°00'28	evening max el	410 Apr 26 j 13:29	28° \approx 39'54	22°25'00
desc. node	409 May 23 j 19:02	24° \approx 07'19			410 Apr 28 j 00:26	0° \approx	
retrograde	409 May 28 j 16:50	25° \approx 02'07		retrograde	410 May 09 j 13:14	5° \approx 04'20	
evening set	409 Jun 02 j 01:18	24° \approx 20'11		desc. node	410 May 10 j 16:04	5° \approx 01'32	
min. Earth dist.	409 Jun 08 j 08:32	21° \approx 17'37	0.56377 AU	evening set	410 May 12 j 13:26	4° \approx 44'27	
inferior conj	409 Jun 10 j 19:15	19° \approx 47'05	-4°-17'-37	min. Earth dist.	410 May 20 j 20:49	1° \approx 09'09	0.55246 AU
minimum elong	409 Jun 10 j 13:29	19° \approx 56'03	4°16'40	inferior conj	410 May 21 j 21:09	0° \approx 34'43	-3°-2'-13
morning rise	409 Jun 19 j 05:18	15° \approx 47'07		minimum elong	410 May 21 j 13:53	0° \approx 45'00	3°00'08
direct	409 Jun 21 j 21:00	15° \approx 28'46			410 May 22 j 21:47	30° \approx 08	
morning max el	409 Jul 01 j 17:34	20° \approx 02'54	19°48'50	morning rise	410 May 30 j 16:31	26° \approx 41'39	
	409 Jul 09 j 13:42	0° \approx		direct	410 Jun 02 j 13:54	26° \approx 22'37	
asc. node	409 Jul 11 j 09:34	3° \approx 00'27			410 Jun 12 j 00:39	0° \approx	
morning set	409 Jul 19 j 11:53	18° \approx 20'39		morning max el	410 Jun 14 j 01:46	1° \approx 44'04	21°08'06
	409 Jul 25 j 05:48	0° \approx		asc. node	410 Jun 28 j 06:39	22° \approx 05'54	
					410 Jul 02 j 07:30	0° \approx	
superior conj	409 Jul 27 j 10:10	4° \approx 22'17	1°46'39	morning set	410 Jul 03 j 19:33	3° \approx 04'22	
minimum elong	409 Jul 27 j 09:49	4° \approx 20'36	1°46'38				
max. Earth dist.	409 Aug 02 j 02:50	15° \approx 24'18	1.37182 AU	superior conj	410 Jul 11 j 06:55	18° \approx 38'26	1°41'20
evening rise	409 Aug 06 j 00:01	22° \approx 33'03		minimum elong	410 Jul 11 j 05:16	18° \approx 29'55	1°41'13
	409 Aug 10 j 05:51	0° \approx		max. Earth dist.	410 Jul 15 j 12:57	27° \approx 15'47	1.35455 AU
desc. node	409 Aug 19 j 18:23	15° \approx 25'37			410 Jul 16 j 22:16	0° \approx	
	409 Aug 29 j 21:52	0° \approx		evening rise	410 Jul 19 j 20:13	5° \approx 36'09	
evening max el	409 Sep 10 j 18:54	14° \approx 00'28	25°32'27		410 Aug 03 j 00:27	0° \approx	
retrograde	409 Sep 22 j 22:31	20° \approx 59'06		desc. node	410 Aug 06 j 15:24	5° \approx 30'21	
evening set	409 Sep 28 j 21:26	18° \approx 29'44		evening max el	410 Aug 24 j 06:53	27° \approx 37'05	26°33'17
min. Earth dist.	409 Oct 03 j 07:23	13° \approx 37'20	0.66961 AU		410 Aug 26 j 22:09	0° \approx	
inferior conj	409 Oct 04 j 10:56	12° \approx 08'45	0°-59'-53	retrograde	410 Sep 06 j 03:53	4° \approx 50'04	
minimum elong	409 Oct 04 j 12:27	12° \approx 03'52	0°59'16	evening set	410 Sep 12 j 16:41	2° \approx 09'12	
asc. node	409 Oct 07 j 08:45	8° \approx 37'05			410 Sep 14 j 22:42	30° \approx 08	
morning rise	409 Oct 10 j 04:09	6° \approx 09'54		min. Earth dist.	410 Sep 16 j 18:59	27° \approx 54'14	0.66085 AU
direct	409 Oct 13 j 11:14	5° \approx 07'08		inferior conj	410 Sep 18 j 10:19	25° \approx 55'48	-1°-56'-31
morning max el	409 Oct 20 j 14:48	9° \approx 09'42	19°21'44	minimum elong	410 Sep 18 j 13:19	25° \approx 46'47	1°55'21
greatest brilliancy	409 Oct 30 j 04:20	21° \approx 32'33	-0.7m	morning rise	410 Sep 24 j 11:06	20° \approx 08'21	
	409 Nov 04 j 19:25	0° \approx		asc. node	410 Sep 24 j 05:48	20° \approx 15'49	
morning set	409 Nov 13 j 09:00	13° \approx 13'56		direct	410 Sep 27 j 09:09	19° \approx 20'20	
desc. node	409 Nov 15 j 17:37	16° \approx 54'08		morning max el	410 Oct 04 j 01:38	23° \approx 01'41	18°35'11
	409 Nov 24 j 02:38	0° \approx			410 Oct 09 j 16:30	0° \approx	
max. Earth dist.	409 Nov 26 j 22:54	4° \approx 29'04	1.44611 AU	morning set	410 Oct 24 j 09:01	22° \approx 53'12	
					410 Oct 28 j 19:59	0° \approx	
superior conj	409 Nov 30 j 04:49	9° \approx 38'08	-1°-26'-19	desc. node	410 Nov 02 j 14:40	7° \approx 34'34	
minimum elong	409 Nov 29 j 20:24	9° \approx 04'37	1°25'30				
	409 Dec 12 j 17:55	0° \approx		superior conj	410 Nov 09 j 06:20	18° \approx 03'24	0°-42'-54
evening rise	409 Dec 14 j 15:36	3° \approx 09'21		minimum elong	410 Nov 09 j 00:48	17° \approx 41'36	0°42'12
	409 Dec 31 j 18:14	0° \approx		max. Earth dist.	410 Nov 09 j 17:27	18° \approx 47'04	1.45060 AU
evening max el	410 Jan 02 j 23:10	2° \approx 29'59	18°26'41		410 Nov 16 j 20:36	0° \approx	
asc. node	410 Jan 03 j 08:03	2° \approx 52'06		evening rise	410 Nov 25 j 07:14	13° \approx 21'30	
retrograde	410 Jan 09 j 12:04	6° \approx 05'00			410 Dec 05 j 19:26	0° \approx	
evening set	410 Jan 12 j 11:18	5° \approx 16'32		evening max el	410 Dec 17 j 09:23	15° \approx 56'27	19°01'41
inferior conj	410 Jan 18 j 10:36	29° \approx 34'36	3°41'07	asc. node	410 Dec 21 j 05:05	19° \approx 00'20	
minimum elong	410 Jan 18 j 08:57	29° \approx 49'22	3°40'57	retrograde	410 Dec 24 j 06:53	19° \approx 51'45	
	410 Jan 18 j 05:17	30° \approx 08		evening set	410 Dec 27 j 12:10	18° \approx 51'39	
min. Earth dist.	410 Jan 20 j 14:39	27° \approx 14'12	0.64269 AU	inferior conj	411 Jan 02 j 05:04	13° \approx 02'35	3°18'57

minimum elong	411 Jan 02 j 02:32	13°☿10'32	3°18'27		411 Dec 14 j 12:00	30°☿☿	
min. Earth dist.	411 Jan 03 j 17:51	11°☿07'08	0.65694 AU	inferior conj	411 Dec 17 j 05:57	26°☿32'09	2°46'14
morning rise	411 Jan 07 j 15:59	6°☿50'59		minimum elong	411 Dec 17 j 03:12	26°☿41'19	2°45'28
direct	411 Jan 14 j 03:35	4°☿02'02		min. Earth dist.	411 Dec 18 j 04:56	25°☿15'47	0.66722 AU
morning max el	411 Jan 27 j 01:24	11°☿37'11	26°34'48	morning rise	411 Dec 22 j 12:29	20°☿17'27	
desc. node	411 Jan 29 j 13:50	14°☿16'51		direct	411 Dec 28 j 10:45	17°☿40'23	
	411 Feb 10 j 18:28	0°≈		morning max el	412 Jan 09 j 10:24	24°☿48'15	25°21'03
	411 Mar 01 j 03:29	0°☿			412 Jan 14 j 03:31	0°☿	
morning set	411 Mar 04 j 00:50	5°☿22'18		desc. node	412 Jan 16 j 10:52	2°☿48'48	
max. Earth dist.	411 Mar 08 j 06:58	13°☿37'03	1.34748 AU		412 Feb 04 j 05:44	0°≈	
				morning set	412 Feb 14 j 15:27	17°≈46'40	
superior conj	411 Mar 12 j 18:13	22°☿40'05	-1°-3'-15	max. Earth dist.	412 Feb 18 j 09:47	24°≈42'39	1.36431 AU
minimum elong	411 Mar 12 j 21:15	22°☿55'42	1°02'45		412 Feb 21 j 04:24	0°☿	
	411 Mar 16 j 06:45	0°☿					
asc. node	411 Mar 19 j 04:25	6°☿04'25		superior conj	412 Feb 24 j 09:04	6°☿15'30	-1°-27'-58
evening rise	411 Mar 20 j 09:44	8°☿36'34		minimum elong	412 Feb 24 j 12:55	6°☿34'41	1°27'28
	411 Mar 31 j 22:56	0°☿		evening rise	412 Mar 03 j 14:16	22°☿52'02	
evening max el	411 Apr 08 j 13:16	9°☿33'11	20°57'05	asc. node	412 Mar 05 j 01:27	25°☿48'48	
retrograde	411 Apr 20 j 02:31	15°☿09'16			412 Mar 07 j 04:27	0°☿	
evening set	411 Apr 22 j 08:12	14°☿57'26		evening max el	412 Mar 21 j 00:23	21°☿03'25	19°45'15
desc. node	411 Apr 27 j 13:03	13°☿10'58		retrograde	412 Mar 30 j 20:24	25°☿46'58	
inferior conj	411 May 01 j 15:06	10°☿59'22	-1°-10'-23	evening set	412 Apr 01 j 22:35	25°☿35'05	
minimum elong	411 May 01 j 11:46	11°☿04'05	1°09'13	inferior conj	412 Apr 10 j 15:52	21°☿32'49	0°46'52
min. Earth dist.	411 May 02 j 09:31	10°☿33'15	0.54999 AU	minimum elong	412 Apr 10 j 17:51	21°☿29'42	0°46'11
morning rise	411 May 10 j 14:42	6°☿54'36		min. Earth dist.	412 Apr 12 j 23:46	20°☿05'58	0.55707 AU
direct	411 May 13 j 23:47	6°☿29'59		desc. node	412 Apr 13 j 10:03	19°☿50'25	
morning max el	411 May 26 j 23:38	12°☿43'40	22°43'19	morning rise	412 Apr 19 j 09:46	16°☿58'59	
	411 Jun 08 j 22:13	0°☿		direct	412 Apr 23 j 16:25	16°☿18'18	
asc. node	411 Jun 15 j 03:42	11°☿36'22		morning max el	412 May 07 j 15:17	23°☿17'02	24°24'38
morning set	411 Jun 18 j 06:12	17°☿57'58			412 May 13 j 15:42	0°☿	
	411 Jun 23 j 21:58	0°☿			412 May 31 j 08:21	0°☿	
				asc. node	412 Jun 01 j 00:45	1°☿25'05	
superior conj	411 Jun 25 j 10:50	3°☿16'30	1°30'01	morning set	412 Jun 01 j 18:06	2°☿56'05	
minimum elong	411 Jun 25 j 08:30	3°☿04'05	1°29'45				
max. Earth dist.	411 Jun 28 j 08:07	9°☿20'58	1.34081 AU	superior conj	412 Jun 08 j 19:22	18°☿08'26	1°13'54
evening rise	411 Jul 03 j 06:48	19°☿22'01		minimum elong	412 Jun 08 j 16:54	17°☿55'06	1°13'32
	411 Jul 08 j 21:44	0°☿		max. Earth dist.	412 Jun 10 j 11:59	21°☿47'47	1.33100 AU
desc. node	411 Jul 24 j 12:25	25°☿08'02			412 Jun 14 j 09:03	0°☿	
	411 Jul 28 j 02:37	0°☿		evening rise	412 Jun 16 j 03:47	3°☿39'12	
evening max el	411 Aug 06 j 18:40	11°☿02'52	27°13'08		412 Jun 30 j 15:51	0°☿	
retrograde	411 Aug 20 j 03:46	18°☿21'54		desc. node	412 Jul 10 j 09:24	14°☿07'25	
evening set	411 Aug 27 j 03:28	15°☿37'25		evening max el	412 Jul 19 j 04:50	24°☿06'40	27°25'29
min. Earth dist.	411 Aug 30 j 22:47	11°☿59'38	0.64846 AU		412 Jul 27 j 05:27	0°☿	
inferior conj	411 Sep 02 j 02:59	9°☿35'21	-2°-51'-44	retrograde	412 Aug 01 j 21:51	1°☿25'55	
minimum elong	411 Sep 02 j 07:15	9°☿23'33	2°50'17		412 Aug 07 j 05:58	30°☿☿	
morning rise	411 Sep 08 j 12:45	4°☿02'36		evening set	412 Aug 09 j 02:38	28°☿49'30	
direct	411 Sep 11 j 04:09	3°☿25'44		min. Earth dist.	412 Aug 12 j 17:08	25°☿44'19	0.63246 AU
asc. node	411 Sep 11 j 02:53	3°☿25'45		inferior conj	412 Aug 15 j 10:19	23°☿02'10	-3°-42'-16
morning max el	411 Sep 17 j 16:24	6°☿54'57	18°05'18	minimum elong	412 Aug 15 j 15:13	22°☿49'56	3°40'59
	411 Oct 03 j 05:10	0°☿		morning rise	412 Aug 22 j 06:09	17°☿47'15	
morning set	411 Oct 05 j 13:43	3°☿56'29		direct	412 Aug 24 j 17:28	17°☿18'12	
				asc. node	412 Aug 27 j 23:56	18°☿09'56	
superior conj	411 Oct 19 j 12:55	26°☿48'55	0°06'18	morning max el	412 Aug 31 j 08:18	20°☿43'43	17°53'01
minimum elong	411 Oct 19 j 13:41	26°☿51'59	0°06'12		412 Sep 07 j 07:32	0°☿	
behind sun begin	411 Oct 19 j 03:44	26°☿12'10		morning set	412 Sep 16 j 19:09	16°☿11'14	
behind sun end	411 Oct 19 j 23:39	27°☿31'44			412 Sep 24 j 18:23	0°☿	
desc. node	411 Oct 20 j 11:41	28°☿19'45					
	411 Oct 21 j 12:53	0°☿		superior conj	412 Sep 28 j 18:23	6°☿43'58	0°49'22
max. Earth dist.	411 Oct 23 j 12:14	3°☿07'33	1.44766 AU	minimum elong	412 Sep 28 j 22:54	7°☿02'47	0°48'46
evening rise	411 Nov 05 j 01:11	22°☿41'53		max. Earth dist.	412 Oct 05 j 04:19	17°☿13'14	1.43783 AU
	411 Nov 09 j 18:48	0°☿		desc. node	412 Oct 06 j 08:44	19°☿07'03	
greatest brilliancy	411 Nov 23 j 07:05	20°☿12'20	-0.6m		412 Oct 13 j 06:41	0°☿	
evening max el	411 Nov 30 j 15:19	29°☿24'17	19°52'52	evening rise	412 Oct 14 j 08:29	1°☿39'50	
	411 Dec 01 j 05:31	0°☿			412 Nov 02 j 09:51	0°☿	
retrograde	411 Dec 08 j 04:17	3°☿48'39		greatest brilliancy	412 Nov 07 j 04:15	6°☿26'31	-0.5m
asc. node	411 Dec 08 j 02:07	3°☿48'36		evening max el	412 Nov 12 j 15:49	12°☿53'02	20°57'44
evening set	411 Dec 11 j 17:17	2°☿35'16		retrograde	412 Nov 21 j 01:56	17°☿52'34	

asc. node	412 Nov 23 j 23:09	17°♄05'37		retrograde	413 Nov 04 j 21:55	2°♄00'41	
evening set	412 Nov 25 j 00:36	16°♄24'04		evening set	413 Nov 09 j 08:24	0°♄15'11	
inferior conj	412 Nov 30 j 10:53	10°♄10'16	2°05'32		413 Nov 09 j 15:42	30°♄	
minimum elong	412 Nov 30 j 08:26	10°♄18'40	2°04'40	asc. node	413 Nov 10 j 20:12	28°♄51'41	
min. Earth dist.	412 Nov 30 j 21:40	9°♄33'16	0.67377 AU	inferior conj	413 Nov 14 j 17:48	23°♄54'22	1°18'43
morning rise	412 Dec 05 j 15:50	3°♄54'40		minimum elong	413 Nov 14 j 16:05	24°♄00'20	1°18'00
direct	412 Dec 10 j 23:07	1°♄36'40		min. Earth dist.	413 Nov 14 j 17:33	23°♄55'17	0.67682 AU
morning max el	412 Dec 21 j 18:51	8°♄04'03	23°55'20	morning rise	413 Nov 19 j 23:35	17°♄40'16	
desc. node	413 Jan 02 j 07:55	22°♄04'21		direct	413 Nov 24 j 15:43	15°♄44'38	
	413 Jan 07 j 23:08	0°♄		morning max el	413 Dec 04 j 05:35	21°♄24'43	22°27'39
morning set	413 Jan 26 j 07:48	29°♄01'55		greatest brilliancy	413 Dec 08 j 20:09	26°♄34'24	-0.3m
	413 Jan 26 j 21:19	0°♄			413 Dec 11 j 13:46	0°♄	
max. Earth dist.	413 Jan 30 j 05:06	5°♄49'14	1.38451 AU	desc. node	413 Dec 20 j 04:59	11°♄51'09	
					414 Jan 01 j 06:28	0°♄	
superior conj	413 Feb 06 j 11:30	19°♄10'24	-1°-48'-14	morning set	414 Jan 06 j 20:06	8°♄54'03	
minimum elong	413 Feb 06 j 15:13	19°♄28'03	1°47'56	max. Earth dist.	414 Jan 12 j 01:24	17°♄34'33	1.40584 AU
	413 Feb 12 j 02:01	0°♄			414 Jan 19 j 04:34	0°♄	
evening rise	413 Feb 15 j 11:49	6°♄41'10					
asc. node	413 Feb 19 j 22:29	15°♄14'32		superior conj	414 Jan 19 j 20:52	1°♄13'10	-2°00'-40
	413 Mar 01 j 01:26	0°♄		minimum elong	414 Jan 19 j 22:44	1°♄21'30	2°00'37
evening max el	413 Mar 03 j 22:16	3°♄12'08	18°52'48	evening rise	414 Jan 29 j 23:19	19°♄56'35	
retrograde	413 Mar 12 j 05:32	7°♄13'12			414 Feb 04 j 09:24	0°♄	
evening set	413 Mar 14 j 11:43	6°♄56'34		asc. node	414 Feb 06 j 19:31	4°♄15'14	
inferior conj	413 Mar 22 j 10:25	2°♄38'29	2°19'57	evening max el	414 Feb 15 j 04:08	15°♄52'07	18°20'24
minimum elong	413 Mar 22 j 14:41	2°♄30'47	2°18'46	retrograde	414 Feb 22 j 09:44	19°♄27'15	
min. Earth dist.	413 Mar 25 j 16:10	0°♄19'26	0.57219 AU	evening set	414 Feb 24 j 21:02	19°♄03'13	
	413 Mar 26 j 03:37	30°♄		inferior conj	414 Mar 04 j 02:10	14°♄24'03	3°18'05
morning rise	413 Mar 30 j 13:23	27°♄31'37		minimum elong	414 Mar 04 j 05:31	14°♄16'59	3°17'30
desc. node	413 Mar 31 j 07:05	27°♄13'59		min. Earth dist.	414 Mar 07 j 12:28	11°♄32'14	0.59208 AU
direct	413 Apr 04 j 22:53	26°♄21'24		morning rise	414 Mar 11 j 10:21	8°♄50'46	
	413 Apr 14 j 17:37	0°♄		direct	414 Mar 17 j 18:21	7°♄03'35	
morning max el	413 Apr 19 j 06:25	3°♄49'07	25°57'39	desc. node	414 Mar 18 j 04:07	7°♄04'01	
	413 May 08 j 01:53	0°♄		morning max el	414 Apr 01 j 02:04	14°♄46'31	27°07'31
morning set	413 May 17 j 05:36	17°♄52'26			414 Apr 13 j 08:25	0°♄	
asc. node	413 May 18 j 21:46	21°♄25'49			414 Apr 30 j 07:48	0°♄	
	413 May 22 j 20:24	0°♄		morning set	414 May 01 j 15:03	2°♄41'35	
				asc. node	414 May 05 j 18:50	11°♄33'57	
superior conj	413 May 24 j 06:24	3°♄06'24	0°53'59				
minimum elong	413 May 24 j 04:18	2°♄54'54	0°53'35	superior conj	414 May 08 j 18:11	18°♄04'30	0°31'02
max. Earth dist.	413 May 24 j 22:00	4°♄31'56	1.32513 AU	minimum elong	414 May 08 j 16:51	17°♄57'09	0°30'45
evening rise	413 May 31 j 07:54	18°♄16'54		max. Earth dist.	414 May 08 j 10:43	17°♄23'27	1.32302 AU
	413 Jun 06 j 05:24	0°♄			414 May 14 j 05:28	0°♄	
	413 Jun 25 j 09:48	0°♄		evening rise	414 May 15 j 16:40	3°♄06'52	
desc. node	413 Jun 27 j 06:26	2°♄11'37			414 May 30 j 04:08	0°♄	
evening max el	413 Jul 01 j 11:01	6°♄35'07	27°05'39	evening max el	414 Jun 13 j 10:53	18°♄19'04	26°12'59
retrograde	413 Jul 15 j 08:55	13°♄51'28		desc. node	414 Jun 14 j 03:26	18°♄57'46	
evening set	413 Jul 22 j 09:57	11°♄36'59		retrograde	414 Jun 27 j 11:20	25°♄31'32	
min. Earth dist.	413 Jul 22 j 01:15	8°♄53'56	0.61347 AU	evening set	414 Jul 03 j 20:45	23°♄51'08	
inferior conj	413 Jul 29 j 05:03	6°♄07'24	-4°-23'-8	min. Earth dist.	414 Jul 07 j 23:44	21°♄14'12	0.59297 AU
minimum elong	413 Jul 29 j 09:17	5°♄58'03	4°22'28	inferior conj	414 Jul 11 j 07:37	18°♄41'45	-4°-46'-15
morning rise	413 Aug 05 j 11:33	1°♄13'14		minimum elong	414 Jul 11 j 09:08	18°♄38'50	4°46'12
direct	413 Aug 07 j 21:28	0°♄49'13		morning rise	414 Jul 19 j 00:57	14°♄10'26	
asc. node	413 Aug 14 j 20:59	4°♄16'18		direct	414 Jul 21 j 12:00	13°♄49'28	
morning max el	413 Aug 14 j 22:17	4°♄19'28	17°59'21	morning max el	414 Jul 29 j 07:19	17°♄34'11	18°25'28
morning set	413 Aug 30 j 19:05	29°♄18'50		asc. node	414 Aug 01 j 18:03	21°♄29'55	
	413 Aug 31 j 04:03	0°♄			414 Aug 07 j 06:28	0°♄	
				morning set	414 Aug 14 j 08:19	13°♄05'06	
superior conj	413 Sep 10 j 03:07	17°♄59'04	1°20'23				
minimum elong	413 Sep 10 j 07:41	18°♄19'06	1°19'54	superior conj	414 Aug 23 j 11:28	0°♄24'09	1°38'48
	413 Sep 17 j 04:04	0°♄		minimum elong	414 Aug 23 j 14:14	0°♄36'57	1°38'38
max. Earth dist.	413 Sep 17 j 15:43	0°♄48'19	1.42234 AU		414 Aug 23 j 06:14	0°♄	
desc. node	413 Sep 23 j 05:46	9°♄52'39		max. Earth dist.	414 Aug 30 j 22:04	13°♄42'33	1.40319 AU
evening rise	413 Sep 23 j 22:46	11°♄00'14		evening rise	414 Sep 04 j 09:50	21°♄18'45	
	413 Oct 06 j 09:16	0°♄			414 Sep 09 j 18:28	0°♄	
greatest brilliancy	413 Oct 21 j 17:32	21°♄04'00	-0.3m	desc. node	414 Sep 10 j 02:49	0°♄32'57	
evening max el	413 Oct 26 j 10:45	26°♄23'01	22°12'40		414 Sep 30 j 12:21	0°♄	
	413 Oct 30 j 14:39	0°♄		evening max el	414 Oct 09 j 01:12	9°♄55'15	23°32'32

retrograde	414 Oct 19 j 14:57	16°♄09'49		max. Earth dist.	415 Aug 13 j 01:25	25°♄55'59	1.38288 AU
evening set	414 Oct 24 j 14:58	14°♄06'18			415 Aug 15 j 07:40	0°♄	
asc. node	414 Oct 28 j 17:16	9°♄29'38		evening rise	415 Aug 16 j 21:36	2°♄47'08	
min. Earth dist.	414 Oct 29 j 14:08	8°♄19'00	0.67657 AU	desc. node	415 Aug 27 j 23:50	21°♄03'54	
inferior conj	414 Oct 30 j 00:54	7°♄42'12	0°27'13		415 Sep 02 j 22:21	0°♄	
minimum elong	414 Oct 30 j 00:15	7°♄44'24	0°26'56	evening max el	415 Sep 21 j 13:09	23°♄30'41	24°50'55
morning rise	414 Nov 04 j 09:39	1°♄32'04			415 Oct 01 j 02:44	0°♄	
direct	414 Nov 08 j 11:32	29°♄58'58		retrograde	415 Oct 03 j 04:04	0°♄16'25	
	414 Nov 08 j 00:56	30°♄			415 Oct 05 j 03:10	30°♄	
	414 Nov 08 j 22:14	0°♄		evening set	415 Oct 08 j 18:39	27°♄55'28	
morning max el	414 Nov 16 j 22:10	4°♄54'14	21°05'59	min. Earth dist.	415 Oct 13 j 09:06	22°♄42'38	0.67306 AU
greatest brilliancy	414 Nov 22 j 08:56	11°♄12'36	-0.5m	inferior conj	415 Oct 14 j 06:27	21°♄32'04	0°-27'-29
	414 Dec 05 j 17:50	0°♄		minimum elong	415 Oct 14 j 07:07	21°♄29'49	0°27'13
desc. node	414 Dec 07 j 02:02	2°♄00'02		asc. node	415 Oct 15 j 14:18	19°♄48'13	
morning set	414 Dec 17 j 04:45	17°♄29'21		morning rise	415 Oct 19 j 20:04	15°♄28'28	
max. Earth dist.	414 Dec 25 j 04:43	0°♄16'45	1.42532 AU	direct	415 Oct 23 j 09:21	14°♄15'43	
	414 Dec 25 j 00:37	0°♄		morning max el	415 Oct 30 j 22:28	18°♄34'48	19°55'47
				greatest brilliancy	415 Nov 07 j 08:51	27°♄43'10	-0.6m
superior conj	415 Jan 01 j 07:42	12°♄09'57	-2°00'-53		415 Nov 08 j 23:56	0°♄	
minimum elong	415 Jan 01 j 05:27	12°♄00'23	2°00'51	desc. node	415 Nov 23 j 23:06	22°♄24'56	
	415 Jan 11 j 11:40	0°♄		morning set	415 Nov 26 j 01:10	25°♄37'57	
evening rise	415 Jan 12 j 20:57	2°♄29'29			415 Nov 28 j 20:47	0°♄	
asc. node	415 Jan 24 j 16:34	22°♄42'09		max. Earth dist.	415 Dec 07 j 15:31	13°♄48'41	1.44027 AU
evening max el	415 Jan 29 j 14:46	28°♄53'21	18°07'45				
	415 Jan 30 j 20:02	0°♄		superior conj	415 Dec 12 j 15:59	21°♄53'18	-1°-44'-22
retrograde	415 Feb 05 j 06:22	2°♄18'27		minimum elong	415 Dec 12 j 08:53	21°♄24'29	1°43'51
evening set	415 Feb 07 j 22:08	1°♄45'45			415 Dec 17 j 14:30	0°♄	
	415 Feb 10 j 21:26	30°♄		evening rise	415 Dec 26 j 00:28	14°♄12'13	
inferior conj	415 Feb 14 j 13:01	26°♄44'51	3°44'49		416 Jan 04 j 08:38	0°♄	
minimum elong	415 Feb 14 j 14:13	26°♄41'57	3°44'45	asc. node	416 Jan 11 j 13:36	10°♄25'26	
min. Earth dist.	415 Feb 17 j 15:37	23°♄44'49	0.61319 AU	evening max el	416 Jan 13 j 03:15	12°♄08'46	18°14'21
morning rise	415 Feb 21 j 03:37	20°♄53'41		retrograde	416 Jan 19 j 14:49	15°♄37'07	
direct	415 Feb 28 j 00:19	18°♄32'36		evening set	416 Jan 22 j 11:01	14°♄54'51	
desc. node	415 Mar 05 j 01:10	19°♄41'10		inferior conj	416 Jan 28 j 15:09	9°♄33'39	3°47'39
morning max el	415 Mar 14 j 04:08	26°♄23'34	27°43'48	minimum elong	416 Jan 28 j 14:21	9°♄35'51	3°47'37
	415 Mar 17 j 13:33	0°♄		min. Earth dist.	416 Jan 31 j 04:02	6°♄47'34	0.63280 AU
	415 Apr 06 j 20:51	0°♄		morning rise	416 Feb 03 j 15:51	3°♄31'20	
morning set	415 Apr 15 j 20:32	17°♄16'15		direct	416 Feb 10 j 15:04	0°♄47'43	
	415 Apr 21 j 20:41	0°♄		desc. node	416 Feb 19 j 22:14	4°♄39'50	
max. Earth dist.	415 Apr 21 j 22:11	0°♄08'07	1.32455 AU	morning max el	416 Feb 24 j 11:22	8°♄40'43	27°42'53
asc. node	415 Apr 22 j 15:53	1°♄44'26			416 Mar 12 j 00:04	0°♄	
					416 Mar 29 j 01:53	0°♄	
superior conj	415 Apr 23 j 05:00	2°♄56'04	0°05'48	morning set	416 Mar 29 j 19:44	1°♄28'51	
minimum elong	415 Apr 23 j 04:44	2°♄54'36	0°05'45	max. Earth dist.	416 Apr 04 j 04:14	12°♄31'35	1.32998 AU
behind sun begin	415 Apr 22 j 23:58	2°♄28'35					
behind sun end	415 Apr 23 j 09:30	3°♄20'38		superior conj	416 Apr 06 j 13:07	17°♄35'27	0°-20'-53
evening rise	415 Apr 30 j 03:53	18°♄00'52		minimum elong	416 Apr 06 j 14:08	17°♄40'51	0°20'42
	415 May 06 j 02:00	0°♄		asc. node	416 Apr 08 j 12:55	21°♄53'18	
evening max el	415 May 26 j 03:56	29°♄18'57	24°53'27		416 Apr 12 j 07:14	0°♄	
	415 May 26 j 21:25	0°♄		evening rise	416 Apr 13 j 15:41	2°♄52'23	
desc. node	415 Jun 01 j 00:27	3°♄54'41			416 Apr 28 j 14:00	0°♄	
retrograde	415 Jun 09 j 03:21	6°♄24'34		evening max el	416 May 06 j 18:09	9°♄53'19	23°19'32
evening set	415 Jun 14 j 08:17	5°♄22'46		desc. node	416 May 17 j 21:28	16°♄25'59	
min. Earth dist.	415 Jun 19 j 15:21	2°♄34'00	0.57333 AU	retrograde	416 May 20 j 07:18	16°♄39'12	
inferior conj	415 Jun 22 j 14:49	0°♄35'46	-4°-39'-51	evening set	416 May 24 j 00:58	16°♄08'32	
minimum elong	415 Jun 22 j 11:40	0°♄41'00	4°39'34	min. Earth dist.	416 May 31 j 04:09	12°♄53'25	0.55795 AU
	415 Jun 23 j 12:27	30°♄		inferior conj	416 Jun 02 j 02:07	11°♄45'38	-3°-51'-13
morning rise	415 Jun 30 j 18:54	26°♄26'31		minimum elong	416 Jun 01 j 19:03	11°♄56'05	3°49'39
direct	415 Jul 03 j 08:40	26°♄07'30		morning rise	416 Jun 10 j 16:28	7°♄50'48	
	415 Jul 12 j 00:06	0°♄		direct	416 Jun 13 j 09:57	7°♄32'41	
morning max el	415 Jul 12 j 08:27	0°♄19'08	19°12'28	morning max el	416 Jun 23 j 23:16	12°♄25'35	20°20'24
asc. node	415 Jul 19 j 15:07	9°♄36'20		asc. node	416 Jul 05 j 12:10	28°♄23'02	
morning set	415 Jul 29 j 06:55	27°♄19'42			416 Jul 06 j 09:37	0°♄	
	415 Jul 30 j 15:09	0°♄		morning set	416 Jul 12 j 11:54	11°♄54'21	
superior conj	415 Aug 06 j 13:47	13°♄43'44	1°46'23	superior conj	416 Jul 20 j 04:58	27°♄42'39	1°45'13
minimum elong	415 Aug 06 j 14:28	13°♄47'04	1°46'22	minimum elong	416 Jul 20 j 03:59	27°♄37'43	1°45'11

	416 Jul 21 j 08:15	0°♎		max. Earth dist.	417 Jul 07 j 20:31	19°♎40'17	1.34820 AU
max. Earth dist.	416 Jul 25 j 06:58	7°♎45'40	1.36396 AU	evening rise	417 Jul 12 j 10:15	28°♎42'38	
evening rise	416 Jul 29 j 07:19	15°♎19'07			417 Jul 13 j 02:25	0°♎	
	416 Aug 06 j 17:07	0°♏			417 Jul 30 j 21:31	0°♏	
desc. node	416 Aug 13 j 20:50	11°♏19'53		desc. node	417 Jul 31 j 17:50	1°♏14'12	
	416 Aug 27 j 12:36	0°♐		evening max el	417 Aug 16 j 12:41	20°♏41'03	26°53'18
evening max el	416 Sep 03 j 00:38	7°♐07'34	26°00'29	retrograde	417 Aug 29 j 15:48	27°♏57'55	
retrograde	416 Sep 15 j 12:34	14°♐14'30		evening set	417 Sep 05 j 09:33	25°♏14'32	
evening set	416 Sep 21 j 17:35	11°♐39'16		min. Earth dist.	417 Sep 09 j 08:46	21°♏15'20	0.65597 AU
min. Earth dist.	416 Sep 26 j 00:06	7°♐02'44	0.66623 AU	inferior conj	417 Sep 11 j 05:26	19°♏05'14	-2°-20'-18
inferior conj	416 Sep 27 j 08:37	5°♐20'45	-1°-23'-58	minimum elong	417 Sep 11 j 09:00	18°♏54'48	2°18'59
minimum elong	416 Sep 27 j 10:46	5°♐14'01	1°23'05	morning rise	417 Sep 17 j 09:51	13°♏23'23	
asc. node	416 Oct 01 j 11:21	0°♐43'59		asc. node	417 Sep 18 j 08:25	12°♏59'27	
	416 Oct 02 j 08:52	30°♑♏		direct	417 Sep 20 j 04:42	12°♏40'36	
morning rise	416 Oct 03 j 04:52	29°♏26'30		morning max el	417 Sep 26 j 18:40	16°♏16'07	18°20'18
direct	416 Oct 06 j 07:42	28°♏30'39			417 Oct 06 j 19:21	0°♐	
	416 Oct 10 j 10:58	0°♐		morning set	417 Oct 15 j 22:13	14°♐44'52	
morning max el	416 Oct 13 j 05:55	2°♐23'23	19°00'00		417 Oct 25 j 09:07	0°♑	
	416 Nov 01 j 13:11	0°♑		desc. node	417 Oct 27 j 17:08	3°♑42'54	
morning set	416 Nov 04 j 09:59	4°♑29'51					
desc. node	416 Nov 09 j 20:08	13°♑00'26		superior conj	417 Oct 31 j 01:26	9°♑00'37	0°-21'-57
max. Earth dist.	416 Nov 19 j 07:23	27°♑52'18	1.44886 AU	minimum elong	417 Oct 30 j 22:34	8°♑49'16	0°21'35
	416 Nov 20 j 15:48	0°♒		max. Earth dist.	417 Nov 02 j 01:56	12°♑11'36	1.45024 AU
					417 Nov 13 j 10:39	0°♒	
superior conj	416 Nov 21 j 00:38	0°♒34'50	-1°-9'-26	evening rise	417 Nov 16 j 11:15	4°♒44'17	
minimum elong	416 Nov 20 j 16:38	0°♒03'18	1°08'31	greatest brilliancy	417 Nov 30 j 20:06	26°♒59'01	-0.7m
evening rise	416 Dec 06 j 05:42	24°♒57'06			417 Dec 02 j 21:38	0°♓	
	416 Dec 09 j 07:59	0°♓		evening max el	417 Dec 09 j 23:35	8°♓59'44	19°21'43
evening max el	416 Dec 26 j 14:56	25°♓32'20	18°39'28	asc. node	417 Dec 15 j 07:40	12°♓48'15	
asc. node	416 Dec 28 j 10:37	27°♓12'22		retrograde	417 Dec 17 j 02:53	13°♓06'13	
retrograde	417 Jan 02 j 06:47	29°♓15'03		evening set	417 Dec 20 j 11:14	12°♓00'46	
evening set	417 Jan 05 j 08:19	28°♓22'00		inferior conj	417 Dec 26 j 02:07	6°♓05'39	3°06'12
inferior conj	417 Jan 11 j 04:37	22°♓42'37	3°33'12	minimum elong	417 Dec 25 j 23:25	6°♓14'21	3°05'34
minimum elong	417 Jan 11 j 02:31	22°♓48'57	3°32'54	min. Earth dist.	417 Dec 27 j 08:55	4°♓26'22	0.66180 AU
min. Earth dist.	417 Jan 13 j 02:10	20°♓25'51	0.64922 AU	morning rise	417 Dec 31 j 10:48	29°♒52'35	
morning rise	417 Jan 16 j 19:30	16°♓33'33			417 Dec 31 j 07:30	30°♒♒	
direct	417 Jan 23 j 13:06	13°♓42'15		direct	418 Jan 06 j 17:13	27°♒07'15	
desc. node	417 Feb 05 j 19:17	21°♓23'55			418 Jan 14 j 01:05	0°♓	
morning max el	417 Feb 05 j 20:52	21°♓27'52	27°07'45	morning max el	418 Jan 19 j 06:11	4°♓32'26	26°05'30
	417 Feb 13 j 07:53	0°♔		desc. node	418 Jan 23 j 16:20	9°♓23'01	
	417 Mar 05 j 03:36	0°♔			418 Feb 07 j 18:36	0°♔	
morning set	417 Mar 13 j 09:41	15°♔09'59		morning set	418 Feb 24 j 10:16	28°♔06'27	
max. Earth dist.	417 Mar 18 j 01:01	24°♔23'11	1.33972 AU		418 Feb 25 j 10:36	0°♕	
	417 Mar 20 j 18:18	0°♕		max. Earth dist.	418 Feb 28 j 10:04	5°♕41'00	1.35412 AU
superior conj	417 Mar 21 j 16:35	1°♕56'36	0°-47'-59	superior conj	418 Mar 05 j 12:55	15°♕51'24	-1°-14'-7
minimum elong	417 Mar 21 j 18:55	2°♕08'50	0°47'33	minimum elong	418 Mar 05 j 16:22	16°♕08'58	1°13'34
asc. node	417 Mar 26 j 09:57	11°♕56'37			418 Mar 12 j 09:42	0°♕	
evening rise	417 Mar 29 j 02:16	17°♕35'29		evening rise	418 Mar 13 j 09:38	2°♕03'02	
	417 Apr 04 j 07:31	0°♖		asc. node	418 Mar 13 j 06:58	1°♕49'22	
evening max el	417 Apr 18 j 12:54	20°♖33'28	21°46'04		418 Mar 30 j 01:58	0°♖	
retrograde	417 Apr 30 j 23:55	26°♖38'54		evening max el	418 Mar 31 j 17:34	1°♖42'25	20°24'20
evening set	417 May 03 j 13:49	26°♖24'00		retrograde	418 Apr 11 j 13:06	6°♖54'59	
desc. node	417 May 04 j 18:28	26°♖07'31		evening set	418 Apr 13 j 15:59	6°♖43'49	
inferior conj	417 May 12 j 23:09	22°♖21'17	-2°-17'-46	desc. node	418 Apr 21 j 15:30	3°♖25'03	
minimum elong	417 May 12 j 17:01	22°♖29'53	2°15'47	inferior conj	418 Apr 22 j 18:18	2°♖46'12	0°-19'-16
min. Earth dist.	417 May 12 j 16:55	22°♖30'02	0.55019 AU	minimum elong	418 Apr 22 j 17:24	2°♖47'31	0°18'57
morning rise	417 May 21 j 21:12	18°♖25'18		min. Earth dist.	418 Apr 24 j 06:14	1°♖53'47	0.55194 AU
direct	417 May 24 j 22:20	18°♖04'49			418 Apr 27 j 18:42	30°♗♕	
morning max el	417 Jun 06 j 02:56	23°♖49'22	21°47'05	morning rise	418 May 01 j 16:49	28°♕30'38	
	417 Jun 11 j 14:59	0°♗		direct	418 May 05 j 10:17	28°♕00'30	
asc. node	417 Jun 22 j 09:13	17°♗40'20			418 May 12 j 17:49	0°♖	
morning set	417 Jun 26 j 21:04	26°♗43'08		morning max el	418 May 18 j 21:21	4°♖34'53	23°26'17
	417 Jun 28 j 10:45	0°♘			418 Jun 05 j 13:07	0°♗	
				asc. node	418 Jun 09 j 06:16	7°♗19'18	
superior conj	417 Jul 04 j 05:09	12°♘09'41	1°37'11	morning set	418 Jun 11 j 08:29	11°♗39'20	
minimum elong	417 Jul 04 j 03:08	11°♘59'07	1°37'01				

superior conj	418 Jun 18 j 11:19	26° Π 54'25	1°23'42	superior conj	419 Jun 02 j 21:09	11° Π 49'32	1°05'52
minimum elong	418 Jun 18 j 08:52	26° Π 41'15	1°23'23	minimum elong	419 Jun 02 j 18:48	11° Π 36'40	1°05'28
	418 Jun 19 j 22:03	0° \mathfrak{S}		max. Earth dist.	419 Jun 04 j 02:55	14° Π 31'27	1.32814 AU
max. Earth dist.	418 Jun 20 j 19:48	1° \mathfrak{S} 55'19	1.33624 AU	evening rise	419 Jun 10 j 02:09	27° Π 10'22	
evening rise	418 Jun 26 j 01:46	12° \mathfrak{S} 43'27			419 Jun 11 j 11:33	0° \mathfrak{S}	
	418 Jul 05 j 07:57	0° Ω			419 Jun 28 j 16:16	0° Ω	
desc. node	418 Jul 18 j 14:50	20° Ω 37'02		desc. node	419 Jul 05 j 11:52	9° Ω 15'06	
	418 Jul 26 j 03:47	0° \mathfrak{M}		evening max el	419 Jul 12 j 09:07	16° Ω 49'46	27°20'59
evening max el	418 Jul 30 j 00:17	3° \mathfrak{M} 59'41	27°22'07	retrograde	419 Jul 26 j 04:03	24° Ω 07'14	
retrograde	418 Aug 12 j 13:07	11° \mathfrak{M} 18'32		evening set	419 Aug 02 j 08:43	21° Ω 38'23	
evening set	418 Aug 19 j 15:47	8° \mathfrak{M} 36'17		min. Earth dist.	419 Aug 05 j 22:39	18° Ω 44'28	0.62475 AU
min. Earth dist.	418 Aug 23 j 08:50	5° \mathfrak{M} 12'56	0.64209 AU	inferior conj	419 Aug 08 j 20:52	15° Ω 58'39	-4°-1'-11
inferior conj	418 Aug 25 j 18:29	2° \mathfrak{M} 40'12	-3°-13'-59	minimum elong	419 Aug 09 j 01:41	15° Ω 47'12	4°00'08
minimum elong	418 Aug 25 j 23:08	2° \mathfrak{M} 27'52	3°12'34	morning rise	419 Aug 15 j 21:12	10° Ω 52'16	
	418 Aug 28 j 09:54	30° \mathfrak{R} Ω		direct	419 Aug 18 j 07:44	10° Ω 25'31	
morning rise	418 Sep 01 j 08:24	27° Ω 14'20		asc. node	419 Aug 23 j 02:32	12° Ω 10'46	
direct	418 Sep 03 j 21:48	26° Ω 41'02		morning max el	419 Aug 25 j 01:39	13° Ω 51'34	17°53'24
asc. node	418 Sep 05 j 05:28	26° Ω 50'00			419 Sep 05 j 02:38	0° \mathfrak{M}	
	418 Sep 10 j 07:07	0° \mathfrak{M}		morning set	419 Sep 10 j 04:14	9° \mathfrak{M} 00'05	
morning max el	418 Sep 10 j 10:12	0° \mathfrak{M} 07'38	17°57'50				
morning set	418 Sep 27 j 14:13	26° \mathfrak{M} 20'58		superior conj	419 Sep 21 j 09:26	28° \mathfrak{M} 40'36	1°04'08
	418 Sep 29 j 17:41	0° \mathfrak{A}		minimum elong	419 Sep 21 j 14:20	29° \mathfrak{M} 01'26	1°03'33
					419 Sep 22 j 04:10	0° \mathfrak{A}	
superior conj	418 Oct 10 j 16:16	18° \mathfrak{A} 11'18	0°25'50	max. Earth dist.	419 Sep 28 j 11:02	10° \mathfrak{A} 25'14	1.43181 AU
minimum elong	418 Oct 10 j 19:08	18° \mathfrak{A} 22'57	0°25'27	desc. node	419 Oct 01 j 11:12	15° \mathfrak{A} 15'56	
desc. node	418 Oct 14 j 14:10	24° \mathfrak{A} 29'13		evening rise	419 Oct 06 j 06:52	22° \mathfrak{A} 52'06	
max. Earth dist.	418 Oct 15 j 20:15	26° \mathfrak{A} 29'06	1.44429 AU		419 Oct 10 j 21:55	0° \mathfrak{M}	
	418 Oct 18 j 01:32	0° \mathfrak{M}			419 Oct 31 j 21:41	0° \mathfrak{A}	
evening rise	418 Oct 26 j 22:47	13° \mathfrak{M} 50'28		greatest brilliancy	419 Nov 01 j 01:13	0° \mathfrak{A} 11'05	-0.4m
	418 Nov 06 j 13:38	0° \mathfrak{A}		evening max el	419 Nov 06 j 01:25	5° \mathfrak{A} 57'06	21°28'40
greatest brilliancy	418 Nov 16 j 17:44	14° \mathfrak{A} 41'16	-0.6m	retrograde	419 Nov 14 j 21:42	11° \mathfrak{A} 12'44	
evening max el	418 Nov 23 j 03:24	22° \mathfrak{A} 28'29	20°19'04	evening set	419 Nov 19 j 01:15	9° \mathfrak{A} 36'57	
retrograde	418 Dec 01 j 00:33	27° \mathfrak{A} 06'43		asc. node	419 Nov 19 j 01:46	9° \mathfrak{A} 35'56	
asc. node	418 Dec 02 j 04:43	26° \mathfrak{A} 58'55		inferior conj	419 Nov 24 j 10:57	3° \mathfrak{A} 19'32	1°46'18
evening set	418 Dec 04 j 17:31	25° \mathfrak{A} 47'00		minimum elong	419 Nov 24 j 08:46	3° \mathfrak{A} 27'05	1°45'29
inferior conj	418 Dec 10 j 04:58	19° \mathfrak{A} 39'00	2°29'51	min. Earth dist.	419 Nov 24 j 16:50	2° \mathfrak{A} 59'14	0.67544 AU
minimum elong	418 Dec 10 j 02:17	19° \mathfrak{A} 48'05	2°28'59		419 Nov 26 j 22:34	30° \mathfrak{R} \mathfrak{M}	
min. Earth dist.	418 Dec 10 j 22:33	18° \mathfrak{A} 39'40	0.67045 AU	morning rise	419 Nov 29 j 16:00	27° \mathfrak{M} 04'26	
morning rise	418 Dec 15 j 10:32	13° \mathfrak{A} 23'58		direct	419 Dec 04 j 16:41	24° \mathfrak{M} 56'03	
direct	418 Dec 21 j 02:37	10° \mathfrak{A} 54'26			419 Dec 13 j 21:52	0° \mathfrak{A}	
morning max el	419 Jan 01 j 14:39	17° \mathfrak{A} 45'38	24°45'33	morning max el	419 Dec 14 j 23:47	1° \mathfrak{A} 03'27	23°17'52
desc. node	419 Jan 10 j 13:22	28° \mathfrak{A} 15'18		greatest brilliancy	419 Dec 20 j 05:09	6° \mathfrak{A} 55'36	-0.2m
	419 Jan 11 j 21:10	0° \mathfrak{C}		desc. node	419 Dec 28 j 10:25	17° \mathfrak{A} 45'03	
	419 Jan 31 j 19:33	0° \approx			420 Jan 05 j 20:24	0° \mathfrak{C}	
morning set	419 Feb 06 j 16:12	10° \approx 03'29		morning set	420 Jan 18 j 21:08	20° \mathfrak{C} 44'06	
max. Earth dist.	419 Feb 10 j 09:09	16° \approx 44'01	1.37263 AU	max. Earth dist.	420 Jan 23 j 04:18	28° \mathfrak{C} 04'39	1.39360 AU
					420 Jan 24 j 06:42	0° \approx	
superior conj	419 Feb 16 j 23:01	29° \approx 11'19	-1°-37'-17				
minimum elong	419 Feb 17 j 02:59	29° \approx 30'38	1°36'50	superior conj	420 Jan 30 j 18:46	11° \approx 44'56	-1°-54'-42
	419 Feb 17 j 09:00	0° \mathfrak{H}		minimum elong	420 Jan 30 j 21:57	11° \approx 59'44	1°54'31
evening rise	419 Feb 25 j 11:34	16° \mathfrak{H} 08'40		evening rise	420 Feb 09 j 05:15	29° \approx 44'16	
asc. node	419 Feb 28 j 04:01	21° \mathfrak{H} 26'54			420 Feb 09 j 08:31	0° \mathfrak{H}	
	419 Mar 04 j 17:59	0° \mathfrak{Y}		asc. node	420 Feb 15 j 01:04	10° \mathfrak{H} 42'51	
evening max el	419 Mar 14 j 09:30	13° \mathfrak{Y} 29'35	19°20'26	evening max el	420 Feb 25 j 11:02	25° \mathfrak{H} 51'50	18°36'32
retrograde	419 Mar 23 j 12:35	17° \mathfrak{Y} 53'16		retrograde	420 Mar 04 j 06:08	29° \mathfrak{H} 40'20	
evening set	419 Mar 25 j 16:13	17° \mathfrak{Y} 39'41		evening set	420 Mar 06 j 14:23	29° \mathfrak{H} 20'52	
inferior conj	419 Apr 03 j 01:43	13° \mathfrak{Y} 31'17	1°30'23	inferior conj	420 Mar 14 j 05:17	24° \mathfrak{H} 53'54	2°48'51
minimum elong	419 Apr 03 j 05:09	13° \mathfrak{Y} 25'37	1°29'16	minimum elong	420 Mar 14 j 09:26	24° \mathfrak{H} 45'52	2°47'52
min. Earth dist.	419 Apr 05 j 20:56	11° \mathfrak{Y} 40'55	0.56278 AU	min. Earth dist.	420 Mar 17 j 14:41	22° \mathfrak{H} 18'06	0.58024 AU
desc. node	419 Apr 08 j 12:32	10° \mathfrak{Y} 06'36		morning rise	420 Mar 22 j 00:20	19° \mathfrak{H} 34'23	
morning rise	419 Apr 11 j 14:13	8° \mathfrak{Y} 43'29		desc. node	420 Mar 25 j 09:34	18° \mathfrak{H} 24'10	
direct	419 Apr 16 j 08:13	7° \mathfrak{Y} 51'55		direct	420 Mar 27 j 20:04	18° \mathfrak{H} 09'06	
morning max el	419 Apr 30 j 11:59	15° \mathfrak{Y} 03'54	25°06'04	morning max el	420 Apr 11 j 04:50	25° \mathfrak{H} 44'48	26°31'02
	419 May 12 j 09:19	0° \mathfrak{B}			420 Apr 15 j 04:23	0° \mathfrak{Y}	
morning set	419 May 26 j 20:26	26° \mathfrak{B} 37'32			420 May 04 j 13:33	0° \mathfrak{B}	
asc. node	419 May 27 j 03:18	27° \mathfrak{B} 13'45		morning set	420 May 10 j 07:20	11° \mathfrak{B} 32'09	
	419 May 28 j 10:33	0° Π		asc. node	420 May 13 j 00:22	17° \mathfrak{B} 18'31	

superior conj	420 May 17 j 08:45	26°♄48'40	0°44'35	morning set	421 Apr 24 j 15:20	26°♄16'08	
minimum elong	420 May 17 j 06:56	26°♄38'41	0°44'13		421 Apr 26 j 10:03	0°♄	
max. Earth dist.	420 May 17 j 14:36	27°♄20'51	1.32377 AU	asc. node	421 Apr 29 j 21:24	7°♄28'20	
	420 May 18 j 19:37	0°♄		max. Earth dist.	421 May 01 j 03:03	10°♄10'21	1.32311 AU
evening rise	420 May 24 j 08:33	11°♄54'24					
	420 Jun 02 j 15:58	0°♄		superior conj	421 May 01 j 20:19	11°♄44'59	0°20'35
desc. node	420 Jun 21 j 08:53	26°♄49'52		minimum elong	421 May 01 j 19:24	11°♄39'57	0°20'23
evening max el	420 Jun 23 j 12:39	28°♄59'50	26°46'57	evening rise	421 May 08 j 18:33	26°♄46'55	
	420 Jun 24 j 14:43	0°♄			421 May 10 j 07:29	0°♄	
retrograde	420 Jul 07 j 11:51	6°♄15'15			421 May 27 j 13:01	0°♄	
evening set	420 Jul 14 j 07:58	4°♄13'39		evening max el	421 Jun 05 j 09:22	10°♄24'16	25°41'55
min. Earth dist.	420 Jul 18 j 02:20	1°♄35'43	0.60482 AU	desc. node	421 Jun 08 j 05:54	12°♄54'23	
	420 Jul 20 j 00:57	30°♄		retrograde	421 Jun 19 j 10:33	17°♄35'25	
inferior conj	420 Jul 21 j 09:12	28°♄52'22	-4°-35'-45	evening set	421 Jun 25 j 09:04	16°♄11'36	
minimum elong	420 Jul 21 j 12:34	28°♄45'22	4°35'22	min. Earth dist.	421 Jun 29 j 21:44	13°♄31'29	0.58428 AU
morning rise	420 Jul 28 j 20:23	24°♄08'11		inferior conj	421 Jul 03 j 03:53	11°♄11'02	-4°-47'-59
direct	420 Jul 31 j 06:29	23°♄45'43		minimum elong	421 Jul 03 j 03:35	11°♄11'35	4°48'00
morning max el	420 Aug 07 j 14:02	27°♄20'35	18°08'01	morning rise	421 Jul 11 j 01:49	6°♄49'32	
asc. node	420 Aug 08 j 23:35	28°♄48'16		direct	421 Jul 13 j 13:40	6°♄29'40	
	420 Aug 09 j 23:55	0°♄		morning max el	421 Jul 21 j 20:08	10°♄24'32	18°42'48
morning set	420 Aug 23 j 10:26	22°♄26'07		asc. node	421 Jul 26 j 20:38	16°♄26'19	
	420 Aug 27 j 11:31	0°♄			421 Aug 03 j 19:51	0°♄	
				morning set	421 Aug 07 j 04:03	6°♄25'38	
superior conj	420 Sep 02 j 05:01	10°♄28'29	1°29'39				
minimum elong	420 Sep 02 j 08:56	10°♄46'02	1°29'18	superior conj	421 Aug 15 j 21:41	23°♄18'51	1°43'13
max. Earth dist.	420 Sep 09 j 20:05	23°♄43'42	1.41446 AU	minimum elong	421 Aug 15 j 23:33	23°♄27'39	1°43'07
	420 Sep 13 j 14:50	0°♄			421 Aug 19 j 12:04	0°♄	
evening rise	420 Sep 15 j 04:55	2°♄34'36		max. Earth dist.	421 Aug 23 j 00:07	6°♄17'30	1.39455 AU
desc. node	420 Sep 17 j 08:15	6°♄00'05		evening rise	421 Aug 27 j 02:33	13°♄23'15	
	420 Oct 03 j 07:42	0°♄		desc. node	421 Sep 04 j 05:17	26°♄37'08	
greatest brilliancy	420 Oct 13 j 18:05	13°♄51'14	-0.3m		421 Sep 06 j 09:30	0°♄	
evening max el	420 Oct 18 j 18:05	19°♄27'27	22°46'20		421 Sep 28 j 10:34	0°♄	
retrograde	420 Oct 28 j 16:44	25°♄21'55		evening max el	421 Oct 01 j 07:11	3°♄01'09	24°06'30
evening set	420 Nov 02 j 08:44	23°♄28'45		retrograde	421 Oct 12 j 08:16	9°♄30'21	
asc. node	420 Nov 04 j 22:49	20°♄48'58		evening set	421 Oct 17 j 14:17	7°♄19'29	
inferior conj	420 Nov 07 j 18:11	17°♄05'45	0°57'20	min. Earth dist.	421 Oct 22 j 09:42	1°♄46'19	0.67546 AU
minimum elong	420 Nov 07 j 16:53	17°♄10'15	0°56'47	asc. node	421 Oct 22 j 19:51	1°♄11'59	
min. Earth dist.	420 Nov 07 j 13:23	17°♄22'20	0.67708 AU	inferior conj	421 Oct 23 j 00:50	0°♄55'06	0°04'19
morning rise	420 Nov 13 j 00:58	10°♄52'53		minimum elong	421 Oct 23 j 00:44	0°♄55'27	0°04'16
direct	420 Nov 17 j 10:46	9°♄07'08		transit middle	421 Oct 23 j 00:44	0°♄55'27	0°04'16
morning max el	420 Nov 26 j 12:44	14°♄27'59	21°51'44	transit begin	421 Oct 22 j 22:06	1°♄04'21	
greatest brilliancy	420 Dec 01 j 08:11	19°♄54'31	-0.4m	transit end	421 Oct 23 j 03:22	0°♄46'33	
	420 Dec 08 j 22:40	0°♄			421 Oct 23 j 17:12	30°♄	
desc. node	420 Dec 14 j 07:29	7°♄42'04		morning rise	421 Oct 28 j 11:25	24°♄47'06	
morning set	420 Dec 28 j 20:53	0°♄00'30		direct	421 Nov 01 j 07:41	23°♄22'56	
	420 Dec 28 j 20:46	0°♄		morning max el	421 Nov 09 j 08:24	28°♄01'55	20°34'23
max. Earth dist.	421 Jan 04 j 02:42	10°♄11'30	1.41448 AU		421 Nov 11 j 04:26	0°♄	
				greatest brilliancy	421 Nov 15 j 12:25	5°♄20'13	-0.5m
superior conj	421 Jan 11 j 19:07	23°♄20'25	-2°-2'-32	desc. node	421 Dec 01 j 04:33	27°♄58'38	
minimum elong	421 Jan 11 j 19:29	23°♄22'03	2°02'33		421 Dec 02 j 12:30	0°♄	
	421 Jan 15 j 12:52	0°♄		morning set	421 Dec 07 j 21:26	8°♄15'41	
evening rise	421 Jan 22 j 11:18	12°♄42'11		max. Earth dist.	421 Dec 17 j 08:47	23°♄14'41	1.43235 AU
asc. node	421 Jan 31 j 22:07	29°♄30'12			421 Dec 21 j 12:13	0°♄	
	421 Feb 01 j 05:32	0°♄					
evening max el	421 Feb 07 j 19:15	8°♄41'31	18°12'41	superior conj	421 Dec 23 j 18:57	3°♄46'46	-1°-56'-9
retrograde	421 Feb 14 j 17:44	12°♄10'42		minimum elong	421 Dec 23 j 14:31	3°♄28'18	1°55'57
evening set	421 Feb 17 j 06:51	11°♄43'15		evening rise	422 Jan 05 j 01:44	24°♄54'39	
inferior conj	421 Feb 24 j 05:31	6°♄55'05	3°32'49		422 Jan 07 j 23:06	0°♄	
minimum elong	421 Feb 24 j 08:00	6°♄49'31	3°32'31	asc. node	422 Jan 18 j 19:09	17°♄40'19	
min. Earth dist.	421 Feb 27 j 13:48	3°♄56'22	0.60103 AU	evening max el	422 Jan 22 j 07:05	21°♄50'23	18°08'21
morning rise	421 Mar 03 j 05:49	1°♄12'57		retrograde	422 Jan 28 j 19:45	25°♄15'03	
	421 Mar 05 j 15:29	30°♄		evening set	422 Jan 31 j 13:25	24°♄38'21	
direct	421 Mar 09 j 20:31	29°♄10'03		inferior conj	422 Feb 06 j 23:21	19°♄28'54	3°48'29
desc. node	421 Mar 12 j 06:37	29°♄25'49		minimum elong	422 Feb 06 j 23:38	19°♄28'10	3°48'29
	421 Mar 14 j 05:07	0°♄		min. Earth dist.	422 Feb 09 j 20:42	16°♄32'16	0.62184 AU
morning max el	421 Mar 24 j 03:13	6°♄58'12	27°27'29	morning rise	422 Feb 13 j 07:34	13°♄32'34	
	421 Apr 10 j 11:34	0°♄		direct	422 Feb 20 j 06:42	10°♄59'52	

desc. node	422 Feb 27 j 03:40	13° 30 07'47		morning rise	423 Jan 27 j 02:47	26° 30 21'34	
morning max el	422 Mar 06 j 07:31	18° 30 52'31	27°47'55	direct	423 Feb 03 j 00:32	23° 30 33'04	
	422 Mar 15 j 17:41	0° 30		desc. node	423 Feb 14 j 00:44	28° 30 55'31	
	422 Apr 03 j 07:06	0° 30			423 Feb 15 j 05:22	0° 30	
morning set	422 Apr 08 j 18:26	10° 30 42'39		morning max el	423 Feb 16 j 15:55	1° 30 23'21	27°31'50
max. Earth dist.	422 Apr 14 j 12:34	22° 30 47'18	1.32631 AU		423 Mar 09 j 21:00	0° 30	
				morning set	423 Mar 23 j 14:03	24° 30 42'38	
superior conj	422 Apr 16 j 06:13	26° 30 32'40	0°-5'-23		423 Mar 26 j 05:19	0° 30	
minimum elong	422 Apr 16 j 06:28	26° 30 34'02	0°05'21	max. Earth dist.	423 Mar 28 j 15:09	4° 30 58'22	1.33362 AU
behind sun begin	422 Apr 16 j 01:36	26° 30 07'34					
behind sun end	422 Apr 16 j 11:21	27° 30 00'32		superior conj	423 Mar 31 j 12:35	11° 30 04'49	0°-32'-24
asc. node	422 Apr 16 j 18:27	27° 30 39'07		minimum elong	423 Mar 31 j 14:09	11° 30 13'12	0°32'05
	422 Apr 17 j 20:20	0° 30		asc. node	423 Apr 03 j 15:29	17° 30 46'04	
evening rise	422 Apr 23 j 06:14	11° 30 41'07		evening rise	423 Apr 07 j 17:43	26° 30 29'47	
	422 May 02 j 15:01	0° 30			423 Apr 09 j 10:06	0° 30	
evening max el	422 May 18 j 00:43	21° 30 11'19	24°14'32		423 Apr 27 j 23:18	0° 30	
desc. node	422 May 26 j 02:53	26° 30 54'21		evening max el	423 Apr 29 j 15:56	1° 30 43'53	22°38'53
retrograde	422 May 31 j 21:26	28° 30 10'08		retrograde	423 May 12 j 19:35	8° 30 14'29	
evening set	422 Jun 05 j 11:20	27° 30 23'29		desc. node	423 May 12 j 23:53	8° 30 14'25	
min. Earth dist.	422 Jun 11 j 11:55	24° 30 24'56	0.56610 AU	evening set	423 May 15 j 23:59	7° 30 52'15	
inferior conj	422 Jun 14 j 02:27	22° 30 46'52	-4°-24'-59	min. Earth dist.	423 May 24 j 00:05	4° 30 22'39	0.55361 AU
minimum elong	422 Jun 13 j 21:18	22° 30 55'01	4°24'14	inferior conj	423 May 25 j 06:26	3° 30 39'22	-3°-16'-28
morning rise	422 Jun 22 j 10:57	18° 30 44'42		minimum elong	423 May 24 j 23:02	3° 30 49'57	3°14'27
direct	422 Jun 25 j 02:10	18° 30 26'11			423 Jun 02 j 02:48	30° 30	
morning max el	422 Jul 04 j 17:02	22° 30 54'01	19°38'42	morning rise	423 Jun 03 j 00:37	29° 30 46'35	
	422 Jul 10 j 15:16	0° 30		direct	423 Jun 05 j 20:54	29° 30 42'53	
asc. node	422 Jul 13 j 17:42	4° 30 51'29			423 Jun 09 j 11:51	0° 30	
morning set	422 Jul 22 j 05:42	20° 30 49'54		morning max el	423 Jun 17 j 02:53	4° 30 41'30	20°55'17
	422 Jul 26 j 18:38	0° 30		asc. node	423 Jun 30 j 14:45	23° 30 52'16	
					423 Jul 03 j 19:12	0° 30	
superior conj	422 Jul 30 j 06:00	6° 30 56'39	1°46'50	morning set	423 Jul 06 j 12:44	5° 30 31'38	
minimum elong	422 Jul 30 j 05:55	6° 30 56'14	1°46'49				
max. Earth dist.	422 Aug 05 j 03:50	18° 30 18'36	1.37465 AU	superior conj	423 Jul 14 j 01:25	21° 30 08'52	1°42'33
evening rise	422 Aug 09 j 00:14	25° 30 20'25		minimum elong	423 Jul 13 j 23:56	21° 30 01'13	1°42'29
	422 Aug 11 j 15:48	0° 30			423 Jul 18 j 10:48	0° 30	
desc. node	422 Aug 22 j 02:16	17° 30 02'31		max. Earth dist.	423 Jul 18 j 12:42	0° 30 09'23	1.35685 AU
	422 Aug 30 j 23:38	0° 30		evening rise	423 Jul 22 j 17:51	8° 30 15'58	
evening max el	422 Sep 13 j 18:58	16° 30 38'29	25°22'05		423 Aug 04 j 07:20	0° 30	
retrograde	422 Sep 25 j 19:22	23° 30 33'49		desc. node	423 Aug 08 j 23:15	7° 30 10'36	
evening set	422 Oct 01 j 16:09	21° 30 06'32			423 Aug 27 j 00:23	0° 30	
min. Earth dist.	422 Oct 06 j 03:17	16° 30 08'49	0.67062 AU	evening max el	423 Aug 27 j 06:46	0° 30 15'33	26°25'23
inferior conj	422 Oct 07 j 05:11	14° 30 44'54	0°-51'-20	retrograde	423 Sep 09 j 01:30	7° 30 27'15	
minimum elong	422 Oct 07 j 06:29	14° 30 40'42	0°50'48	evening set	423 Sep 15 j 12:25	4° 30 47'33	
asc. node	422 Oct 09 j 16:54	11° 30 39'46		min. Earth dist.	423 Sep 19 j 15:46	0° 30 27'06	0.66237 AU
morning rise	422 Oct 12 j 21:24	8° 30 44'47			423 Sep 20 j 00:45	30° 30	
direct	422 Oct 16 j 06:04	7° 30 39'28		inferior conj	423 Sep 21 j 05:21	28° 30 32'43	-1°-47'-59
morning max el	422 Oct 23 j 11:48	11° 30 45'51	19°30'04	minimum elong	423 Sep 21 j 08:08	28° 30 24'16	1°46'53
greatest brilliancy	422 Nov 01 j 07:44	23° 30 01'06	-0.7m	asc. node	423 Sep 26 j 13:57	23° 30 06'26	
	422 Nov 06 j 01:02	0° 30		morning rise	423 Sep 27 j 04:55	22° 30 43'31	
morning set	422 Nov 16 j 20:14	16° 30 34'48		direct	423 Sep 30 j 04:08	21° 30 53'38	
desc. node	422 Nov 18 j 01:35	18° 30 28'35		morning max el	423 Oct 06 j 21:52	25° 30 37'31	18°41'06
	422 Nov 25 j 10:52	0° 30			423 Oct 10 j 15:23	0° 30	
max. Earth dist.	422 Nov 29 j 22:26	7° 30 03'45	1.44482 AU	morning set	423 Oct 27 j 16:02	26° 30 01'18	
					423 Oct 30 j 04:06	0° 30	
superior conj	422 Dec 03 j 16:07	13° 30 00'39	-1°-31'-39	desc. node	423 Nov 04 j 22:35	9° 30 07'52	
minimum elong	422 Dec 03 j 07:50	12° 30 27'35	1°30'53				
	422 Dec 14 j 02:31	0° 30		superior conj	423 Nov 12 j 18:47	21° 30 28'11	0°-50'-8
evening rise	422 Dec 17 j 20:09	6° 30 13'18		minimum elong	423 Nov 12 j 12:25	21° 30 03'10	0°49'22
	423 Jan 01 j 14:08	0° 30		max. Earth dist.	423 Nov 12 j 16:25	21° 30 18'53	1.45039 AU
asc. node	423 Jan 05 j 16:11	5° 30 01'30			423 Nov 18 j 04:52	0° 30	
evening max el	423 Jan 05 j 19:35	5° 30 10'12	18°22'53	evening rise	423 Nov 28 j 15:17	16° 30 33'53	
retrograde	423 Jan 12 j 07:50	8° 30 43'05			423 Dec 07 j 01:09	0° 30	
evening set	423 Jan 15 j 06:17	7° 30 56'13		evening max el	423 Dec 20 j 06:12	18° 30 35'50	18°55'22
inferior conj	423 Jan 21 j 06:43	2° 30 26'52	3°43'18	asc. node	423 Dec 23 j 13:13	21° 30 20'23	
minimum elong	423 Jan 21 j 05:16	2° 30 31'00	3°43'10	retrograde	423 Dec 27 j 02:04	22° 30 27'44	
	423 Jan 23 j 10:12	30° 30		evening set	423 Dec 30 j 06:18	21° 30 29'31	
min. Earth dist.	423 Jan 23 j 13:02	29° 30 52'08	0.64026 AU	inferior conj	424 Jan 05 j 00:00	15° 30 42'47	3°23'05

minimum elong	424 Jan 04 j 21:34	15°☿50'22	3°22'36		424 Dec 18 j 09:13	30°☿☿	
min. Earth dist.	424 Jan 06 j 15:00	13°☿41'39	0.65506 AU	inferior conj	424 Dec 19 j 00:07	29°☿11'02	2°51'47
morning rise	424 Jan 10 j 11:50	9°☿31'40		minimum elong	424 Dec 18 j 21:22	29°☿20'08	2°51'01
direct	424 Jan 17 j 01:03	6°☿41'47		min. Earth dist.	424 Dec 20 j 01:07	27°☿48'34	0.66593 AU
morning max el	424 Jan 30 j 01:46	14°☿20'12	26°44'06	morning rise	424 Dec 24 j 07:06	22°☿56'36	
desc. node	424 Jan 31 j 21:48	16°☿14'56		direct	424 Dec 30 j 07:33	20°☿17'04	
	424 Feb 11 j 20:50	0°≈		morning max el	425 Jan 11 j 10:55	27°☿30'11	25°33'00
	424 Mar 01 j 13:54	0°☿			425 Jan 13 j 19:34	0°☿	
morning set	424 Mar 05 j 22:51	8°☿06'14		desc. node	425 Jan 17 j 18:50	4°☿39'05	
max. Earth dist.	424 Mar 10 j 07:22	16°☿36'00	1.34534 AU		425 Feb 04 j 13:08	0°≈	
				morning set	425 Feb 16 j 16:18	20°≈40'05	
superior conj	424 Mar 14 j 13:18	25°☿15'17	0°-59'-18	max. Earth dist.	425 Feb 20 j 11:40	27°≈44'12	1.36150 AU
minimum elong	424 Mar 14 j 16:09	25°☿30'05	0°58'48		425 Feb 21 j 16:11	0°☿	
	424 Mar 16 j 19:54	0°☿					
asc. node	424 Mar 20 j 12:31	7°☿45'21		superior conj	425 Feb 26 j 05:43	8°☿56'34	-1°-24'-28
evening rise	424 Mar 22 j 03:11	11°☿06'58		minimum elong	425 Feb 26 j 09:30	9°☿15'28	1°23'56
	424 Apr 01 j 01:48	0°☿		evening rise	425 Mar 06 j 08:34	25°☿26'18	
evening max el	424 Apr 10 j 14:13	12°☿32'58	21°09'15	asc. node	425 Mar 07 j 09:34	27°☿32'35	
retrograde	424 Apr 22 j 09:31	18°☿17'09			425 Mar 08 j 15:04	0°☿	
evening set	424 Apr 24 j 16:44	18°☿04'50		evening max el	425 Mar 23 j 23:47	23°☿58'37	19°54'50
desc. node	424 Apr 28 j 20:56	16°☿46'31		retrograde	425 Apr 03 j 01:53	28°☿49'24	
inferior conj	424 May 04 j 00:43	14°☿05'59	-1°-28'-32	evening set	425 Apr 05 j 03:54	28°☿37'54	
minimum elong	424 May 03 j 20:34	14°☿11'51	1°27'04	inferior conj	425 Apr 13 j 23:46	24°☿37'24	0°30'07
min. Earth dist.	424 May 04 j 12:48	13°☿48'57	0.54971 AU	minimum elong	425 Apr 14 j 01:05	24°☿35'22	0°29'38
morning rise	424 May 13 j 00:12	10°☿04'06		desc. node	425 Apr 15 j 18:00	23°☿32'48	
direct	424 May 16 j 06:48	9°☿40'55		min. Earth dist.	425 Apr 16 j 03:00	23°☿19'14	0.55545 AU
morning max el	424 May 29 j 02:12	15°☿47'17	22°28'33	morning rise	425 Apr 22 j 19:11	20°☿08'26	
	424 Jun 09 j 03:26	0°☿		direct	425 Apr 26 j 22:11	19°☿30'51	
asc. node	424 Jun 16 j 11:47	13°☿19'28		morning max el	425 May 10 j 18:30	26°☿24'00	24°09'35
morning set	424 Jun 19 j 23:03	20°☿24'14			425 May 14 j 05:03	0°☿	
	424 Jun 24 j 11:42	0°☿			425 Jun 01 j 20:33	0°☿	
				asc. node	425 Jun 03 j 08:50	3°☿06'08	
superior conj	424 Jun 27 j 04:28	5°☿44'31	1°32'03	morning set	425 Jun 04 j 10:54	5°☿22'25	
minimum elong	424 Jun 27 j 02:12	5°☿32'29	1°31'50				
max. Earth dist.	424 Jun 30 j 06:17	12°☿11'02	1.34254 AU	superior conj	425 Jun 11 j 12:30	20°☿35'19	1°16'37
evening rise	424 Jul 05 j 02:35	21°☿56'26		minimum elong	425 Jun 11 j 10:01	20°☿21'57	1°16'16
	424 Jul 09 j 08:24	0°☿		max. Earth dist.	425 Jun 13 j 09:02	24°☿35'06	1.33224 AU
desc. node	424 Jul 25 j 20:15	26°☿53'11			425 Jun 15 j 22:22	0°☿	
	424 Jul 28 j 02:05	0°☿		evening rise	425 Jun 18 j 22:19	6°☿10'16	
evening max el	424 Aug 08 j 18:35	13°☿43'39	27°08'51		425 Jul 01 j 22:20	0°☿	
retrograde	424 Aug 22 j 02:23	21°☿02'41		desc. node	425 Jul 12 j 17:17	15°☿59'26	
evening set	424 Aug 29 j 00:40	18°☿18'04		evening max el	425 Jul 22 j 05:14	26°☿51'54	27°25'36
min. Earth dist.	424 Sep 01 j 20:54	14°☿34'54	0.65049 AU		425 Jul 25 j 20:36	0°☿	
inferior conj	424 Sep 03 j 23:10	12°☿13'57	-2°-43'-35	retrograde	425 Aug 04 j 21:23	4°☿11'16	
minimum elong	424 Sep 04 j 03:17	12°☿02'26	2°42'10	evening set	425 Aug 12 j 01:48	1°☿32'58	
morning rise	424 Sep 10 j 07:32	6°☿38'49			425 Aug 13 j 23:37	30°☿☿	
asc. node	424 Sep 12 j 11:01	6°☿02'05		min. Earth dist.	425 Aug 15 j 16:52	28°☿23'14	0.63506 AU
direct	424 Sep 12 j 23:42	6°☿00'35		inferior conj	425 Aug 18 j 08:06	25°☿43'10	-3°-35'-8
morning max el	424 Sep 19 j 12:15	9°☿31'16	18°08'40	minimum elong	425 Aug 18 j 12:58	25°☿30'48	3°33'48
	424 Oct 03 j 13:10	0°☿		morning rise	425 Aug 25 j 02:22	20°☿25'14	
morning set	424 Oct 07 j 16:36	6°☿52'43		direct	425 Aug 27 j 14:05	19°☿55'13	
				asc. node	425 Aug 30 j 08:03	20°☿32'25	
superior conj	424 Oct 21 j 23:15	0°☿07'11	0°-1'00	morning max el	425 Sep 03 j 04:08	23°☿20'54	17°53'40
minimum elong	424 Oct 21 j 23:08	0°☿06'42	0°01'00		425 Sep 08 j 10:27	0°☿	
behind sun begin	424 Oct 21 j 12:20	29°☿23'41		morning set	425 Sep 19 j 18:45	18°☿57'57	
behind sun end	424 Oct 22 j 09:56	0°☿49'41			425 Sep 26 j 04:07	0°☿	
desc. node	424 Oct 21 j 19:34	29°☿52'29					
	424 Oct 21 j 21:27	0°☿		superior conj	425 Oct 02 j 00:41	9°☿50'05	0°43'32
max. Earth dist.	424 Oct 25 j 11:09	5°☿39'28	1.44856 AU	minimum elong	425 Oct 02 j 04:54	10°☿07'31	0°43'00
evening rise	424 Nov 07 j 11:59	26°☿00'38		max. Earth dist.	425 Oct 08 j 03:43	19°☿48'06	1.43971 AU
	424 Nov 10 j 01:48	0°☿		desc. node	425 Oct 08 j 16:37	20°☿39'43	
greatest brilliancy	424 Nov 24 j 19:21	22°☿16'07	-0.6m		425 Oct 14 j 14:38	0°☿	
	424 Nov 30 j 16:08	0°☿		evening rise	425 Oct 17 j 19:49	4°☿59'15	
evening max el	424 Dec 02 j 12:53	2°☿03'43	19°44'21		425 Nov 03 j 12:37	0°☿	
asc. node	424 Dec 09 j 10:17	6°☿21'42		greatest brilliancy	425 Nov 09 j 21:51	8°☿48'34	-0.5m
retrograde	424 Dec 09 j 23:15	6°☿23'21		evening max el	425 Nov 15 j 14:18	15°☿32'39	20°47'24
evening set	424 Dec 13 j 10:56	5°☿12'10		retrograde	425 Nov 23 j 20:55	20°☿26'28	

asc. node	425 Nov 26 j 07:20	19°♂52'58		retrograde	426 Nov 07 j 17:13	4°♂34'36	
evening set	425 Nov 27 j 18:03	19°♂00'21		evening set	426 Nov 12 j 01:52	2°♂51'37	
inferior conj	425 Dec 03 j 04:35	12°♂48'03	2°12'08	asc. node	426 Nov 13 j 04:22	1°♂52'20	
minimum elong	425 Dec 03 j 02:03	12°♂56'42	2°11'16		426 Nov 14 j 20:41	30°♂	
min. Earth dist.	425 Dec 03 j 17:07	12°♂05'13	0.67304 AU	inferior conj	426 Nov 17 j 11:19	26°♂31'39	1°26'07
morning rise	425 Dec 08 j 09:37	6°♂32'32		minimum elong	426 Nov 17 j 09:28	26°♂38'04	1°25'24
direct	425 Dec 13 j 19:14	4°♂11'18		min. Earth dist.	426 Nov 17 j 12:37	26°♂27'08	0.67658 AU
morning max el	425 Dec 24 j 19:13	10°♂45'05	24°08'27	morning rise	426 Nov 22 j 16:51	20°♂17'19	
desc. node	426 Jan 04 j 15:53	23°♂49'00		direct	426 Nov 27 j 11:13	18°♂18'19	
	426 Jan 09 j 02:58	0°♂		morning max el	426 Dec 07 j 05:24	24°♂05'13	22°40'33
	426 Jan 28 j 06:54	0°♂		greatest brilliancy	426 Dec 11 j 20:17	29°♂15'11	-0.3m
morning set	426 Jan 29 j 12:22	2°♂06'38			426 Dec 12 j 11:00	0°♂	
max. Earth dist.	426 Feb 02 j 07:33	8°♂47'53	1.38135 AU	desc. node	426 Dec 22 j 12:55	13°♂31'54	
					427 Jan 02 j 13:46	0°♂	
superior conj	426 Feb 09 j 10:18	21°♂58'25	-1°-45'-35	morning set	427 Jan 10 j 05:05	12°♂11'41	
minimum elong	426 Feb 09 j 14:08	22°♂16'45	1°45'15	max. Earth dist.	427 Jan 15 j 03:32	20°♂27'10	1.40273 AU
	426 Feb 13 j 13:43	0°♂			427 Jan 20 j 14:58	0°♂	
evening rise	426 Feb 18 j 07:21	9°♂19'56					
asc. node	426 Feb 22 j 06:38	17°♂01'46		superior conj	427 Jan 22 j 22:33	4°♂09'55	-1°-59'-27
	426 Mar 01 j 21:07	0°♂		minimum elong	427 Jan 23 j 00:50	4°♂20'15	1°59'24
evening max el	426 Mar 06 j 20:15	6°♂02'09	18°59'23	evening rise	427 Feb 01 j 20:35	22°♂41'04	
retrograde	426 Mar 15 j 08:15	10°♂08'26			427 Feb 05 j 18:04	0°♂	
evening set	426 Mar 17 j 13:46	9°♂52'40		asc. node	427 Feb 09 j 03:42	6°♂06'51	
inferior conj	426 Mar 25 j 15:16	5°♂37'20	2°08'01	evening max el	427 Feb 18 j 01:04	18°♂37'39	18°23'54
minimum elong	426 Mar 25 j 19:26	5°♂30'00	2°06'48	retrograde	427 Feb 25 j 09:45	22°♂15'45	
min. Earth dist.	426 Mar 28 j 18:53	3°♂25'15	0.56957 AU	evening set	427 Feb 27 j 20:18	21°♂52'55	
morning rise	426 Apr 02 j 20:54	0°♂35'24		inferior conj	427 Mar 07 j 03:51	17°♂16'50	3°11'24
desc. node	426 Apr 02 j 15:03	0°♂41'27		minimum elong	427 Mar 07 j 07:28	17°♂09'23	3°10'44
	426 Apr 04 j 14:06	30°♂		min. Earth dist.	427 Mar 10 j 14:19	14°♂28'29	0.58897 AU
direct	426 Apr 08 j 02:32	29°♂30'18		morning rise	427 Mar 14 j 14:51	11°♂46'52	
	426 Apr 11 j 15:20	0°♂		direct	427 Mar 20 j 19:56	10°♂05'28	
morning max el	426 Apr 22 j 09:14	6°♂54'15	25°44'52	desc. node	427 Mar 20 j 12:06	10°♂05'45	
	426 May 09 j 09:13	0°♂		morning max el	427 Apr 04 j 04:03	17°♂46'32	26°59'06
morning set	426 May 19 j 22:35	20°♂19'33			427 Apr 14 j 08:12	0°♂	
asc. node	426 May 21 j 05:53	23°♂05'32			427 May 01 j 20:02	0°♂	
	426 May 24 j 10:29	0°♂		morning set	427 May 04 j 08:28	5°♂10'12	
				asc. node	427 May 08 j 02:57	13°♂12'53	
superior conj	426 May 26 j 23:17	5°♂32'55	0°57'14				
minimum elong	426 May 26 j 21:07	5°♂20'59	0°56'50	superior conj	427 May 11 j 11:03	20°♂31'13	0°34'42
max. Earth dist.	426 May 27 j 18:28	7°♂17'47	1.32584 AU	minimum elong	427 May 11 j 09:35	20°♂23'06	0°34'23
evening rise	426 Jun 03 j 01:35	20°♂45'43		max. Earth dist.	427 May 11 j 07:05	20°♂09'21	1.32311 AU
	426 Jun 07 j 16:19	0°♂			427 May 15 j 19:06	0°♂	
	426 Jun 26 j 04:22	0°♂		evening rise	427 May 18 j 09:46	5°♂34'13	
desc. node	426 Jun 29 j 14:20	4°♂13'20			427 May 31 j 08:52	0°♂	
evening max el	426 Jul 04 j 12:17	9°♂26'42	27°10'40	desc. node	427 Jun 16 j 11:21	21°♂13'14	
retrograde	426 Jul 18 j 09:27	16°♂43'01		evening max el	427 Jun 16 j 13:08	21°♂17'28	26°22'41
evening set	426 Jul 25 j 11:45	14°♂24'32		retrograde	427 Jun 30 j 13:10	28°♂30'33	
min. Earth dist.	426 Jul 29 j 02:29	11°♂39'02	0.61648 AU	evening set	427 Jul 07 j 01:54	26°♂44'20	
inferior conj	426 Aug 01 j 04:56	8°♂52'17	-4°-17'-56	min. Earth dist.	427 Jul 11 j 02:08	24°♂07'50	0.59605 AU
minimum elong	426 Aug 01 j 09:23	8°♂42'15	4°17'08	inferior conj	427 Jul 14 j 10:08	21°♂31'57	-4°-44'-24
morning rise	426 Aug 08 j 09:49	3°♂54'44		minimum elong	427 Jul 14 j 12:13	21°♂27'52	4°44'17
direct	426 Aug 10 j 19:51	3°♂30'03		morning rise	427 Jul 22 j 01:53	16°♂57'19	
asc. node	426 Aug 17 j 05:06	6°♂27'14		direct	427 Jul 24 j 12:40	16°♂35'58	
morning max el	426 Aug 17 j 18:34	6°♂58'56	17°57'10	morning max el	427 Aug 01 j 04:33	20°♂17'36	18°20'17
	426 Sep 01 j 14:14	0°♂		asc. node	427 Aug 04 j 02:09	23°♂31'47	
morning set	426 Sep 02 j 16:19	1°♂58'56			427 Aug 08 j 12:16	0°♂	
				morning set	427 Aug 17 j 03:49	15°♂40'18	
superior conj	426 Sep 13 j 05:28	20°♂53'39	1°16'32		427 Aug 24 j 17:33	0°♂	
minimum elong	426 Sep 13 j 10:12	21°♂14'13	1°16'00				
	426 Sep 18 j 13:38	0°♂		superior conj	427 Aug 26 j 10:39	3°♂09'35	1°36'46
max. Earth dist.	426 Sep 20 j 16:10	3°♂29'44	1.42493 AU	minimum elong	427 Aug 26 j 13:45	3°♂23'44	1°36'32
desc. node	426 Sep 25 j 13:40	11°♂25'55		max. Earth dist.	427 Sep 02 j 23:20	16°♂31'05	1.40615 AU
evening rise	426 Sep 27 j 08:02	14°♂13'56		evening rise	427 Sep 07 j 15:27	24°♂22'20	
	426 Oct 07 j 15:04	0°♂			427 Sep 11 j 02:40	0°♂	
greatest brilliancy	426 Oct 24 j 16:21	23°♂40'57	-0.3m	desc. node	427 Sep 12 j 10:41	2°♂07'19	
evening max el	426 Oct 29 j 10:04	29°♂02'51	22°01'04		427 Oct 01 j 12:09	0°♂	
	426 Oct 30 j 09:15	0°♂		evening max el	427 Oct 12 j 00:58	12°♂34'24	23°20'33

retrograde	427 Oct 22 j 10:46	18°♄43'57		evening rise	428 Aug 18 j 23:38	5°♄40'53	
evening set	427 Oct 27 j 08:43	16°♄43'00		desc. node	428 Aug 29 j 07:42	22°♄40'12	
asc. node	427 Oct 31 j 01:23	12°♄38'05			428 Sep 03 j 03:25	0°♄	
inferior conj	427 Nov 01 j 18:28	10°♄19'02	0°35'15	evening max el	428 Sep 23 j 13:03	26°♄09'09	24°39'36
minimum elong	427 Nov 01 j 17:38	10°♄21'52	0°34'54		428 Sep 27 j 23:22	0°♄	
min. Earth dist.	427 Nov 01 j 09:12	10°♄50'48	0.67679 AU	retrograde	428 Oct 05 j 00:35	2°♄51'11	
morning rise	427 Nov 07 j 02:39	4°♄08'13		evening set	428 Oct 10 j 12:56	0°♄32'44	
direct	427 Nov 11 j 06:31	2°♄31'57			428 Oct 11 j 03:30	30°♄	
morning max el	427 Nov 19 j 21:00	7°♄33'35	21°17'34	min. Earth dist.	428 Oct 15 j 04:37	25°♄14'31	0.67379 AU
greatest brilliancy	427 Nov 25 j 02:49	13°♄35'05	-0.4m	inferior conj	428 Oct 16 j 00:21	24°♄08'50	0°-19'-3
	427 Dec 06 j 23:00	0°♄		minimum elong	428 Oct 16 j 00:49	24°♄07'15	0°18'52
desc. node	427 Dec 09 j 09:57	3°♄37'53		asc. node	428 Oct 16 j 22:25	22°♄55'54	
morning set	427 Dec 20 j 17:19	20°♄56'41		morning rise	428 Oct 21 j 13:08	18°♄03'59	
	427 Dec 26 j 09:19	0°♄		direct	428 Oct 25 j 04:06	16°♄48'27	
max. Earth dist.	427 Dec 28 j 05:40	3°♄01'00	1.42265 AU	morning max el	428 Nov 01 j 20:05	21°♄12'29	20°05'18
				greatest brilliancy	428 Nov 08 j 21:33	29°♄47'56	-0.6m
superior conj	428 Jan 04 j 13:01	15°♄17'05	-2°-1'-51		428 Nov 09 j 01:06	0°♄	
minimum elong	428 Jan 04 j 11:31	15°♄10'37	2°01'50	desc. node	428 Nov 25 j 06:59	24°♄00'33	
	428 Jan 12 j 21:28	0°♄		morning set	428 Nov 28 j 13:52	29°♄04'10	
evening rise	428 Jan 15 j 20:31	5°♄20'54			428 Nov 29 j 04:18	0°♄	
asc. node	428 Jan 27 j 00:43	24°♄39'32		max. Earth dist.	428 Dec 09 j 15:00	16°♄24'48	1.43839 AU
	428 Jan 30 j 23:27	0°♄					
evening max el	428 Feb 01 j 11:07	1°♄36'03	18°08'22	superior conj	428 Dec 15 j 01:15	25°♄11'06	-1°-48'-5
retrograde	428 Feb 08 j 04:13	5°♄01'52		minimum elong	428 Dec 14 j 18:46	24°♄44'37	1°47'39
evening set	428 Feb 10 j 19:16	4°♄30'36			428 Dec 17 j 23:26	0°♄	
	428 Feb 17 j 00:39	30°♄		evening rise	428 Dec 28 j 02:57	17°♄11'21	
inferior conj	428 Feb 17 j 12:03	29°♄32'56	3°42'26		429 Jan 04 j 14:25	0°♄	
minimum elong	428 Feb 17 j 13:35	29°♄29'16	3°42'20	asc. node	429 Jan 12 j 21:44	12°♄30'16	
min. Earth dist.	428 Feb 20 j 16:20	26°♄32'26	0.61007 AU	evening max el	429 Jan 14 j 23:29	14°♄49'55	18°12'14
morning rise	428 Feb 24 j 05:04	23°♄43'43		retrograde	429 Jan 21 j 11:07	18°♄17'01	
direct	428 Mar 02 j 00:28	21°♄27'06		evening set	429 Jan 24 j 06:37	17°♄36'17	
desc. node	428 Mar 06 j 09:08	22°♄18'31		inferior conj	429 Jan 30 j 12:09	12°♄18'09	3°48'27
morning max el	428 Mar 16 j 05:17	29°♄17'42	27°40'49	minimum elong	429 Jan 30 j 11:37	12°♄19'35	3°48'26
	428 Mar 16 j 22:09	0°♄		min. Earth dist.	429 Feb 02 j 03:21	9°♄28'38	0.63003 AU
	428 Apr 07 j 05:18	0°♄		morning rise	429 Feb 05 j 14:39	6°♄17'10	
morning set	428 Apr 17 j 14:40	19°♄47'47		direct	429 Feb 12 j 14:07	3°♄35'47	
	428 Apr 22 j 10:30	0°♄		desc. node	429 Feb 21 j 06:10	6°♄58'13	
max. Earth dist.	428 Apr 23 j 18:55	2°♄55'55	1.32402 AU	morning max el	429 Feb 26 j 11:49	11°♄29'18	27°45'20
asc. node	428 Apr 24 j 00:00	3°♄23'37			429 Mar 13 j 03:29	0°♄	
					429 Mar 30 j 13:39	0°♄	
superior conj	428 Apr 24 j 22:07	5°♄24'22	0°09'45	morning set	429 Apr 01 j 14:58	4°♄04'26	
minimum elong	428 Apr 24 j 21:40	5°♄21'56	0°09'39	max. Earth dist.	429 Apr 07 j 01:56	15°♄23'07	1.32885 AU
behind sun begin	428 Apr 24 j 17:37	4°♄59'49					
behind sun end	428 Apr 25 j 01:43	5°♄44'03		superior conj	429 Apr 09 j 06:45	20°♄06'15	0°-16'-47
evening rise	428 May 01 j 20:43	20°♄28'10		minimum elong	429 Apr 09 j 07:33	20°♄10'35	0°16'37
	428 May 06 j 12:30	0°♄		asc. node	429 Apr 10 j 21:02	23°♄33'15	
	428 May 25 j 22:52	0°♄			429 Apr 13 j 20:31	0°♄	
evening max el	428 May 28 j 06:59	2°♄23'27	25°06'38	evening rise	429 Apr 16 j 08:32	5°♄20'39	
desc. node	428 Jun 02 j 08:22	6°♄29'31			429 Apr 29 j 14:14	0°♄	
retrograde	428 Jun 11 j 07:07	9°♄31'09		evening max el	429 May 09 j 21:16	13°♄00'19	23°33'57
evening set	428 Jun 16 j 16:59	8°♄23'40		desc. node	429 May 20 j 05:23	19°♄25'19	
min. Earth dist.	428 Jun 21 j 18:35	5°♄37'43	0.57605 AU	retrograde	429 May 23 j 13:03	19°♄50'24	
inferior conj	428 Jun 24 j 20:24	3°♄33'00	-4°-43'-19	evening set	429 May 27 j 11:45	19°♄16'09	
minimum elong	428 Jun 24 j 18:01	3°♄37'03	4°43'11	min. Earth dist.	429 Jun 03 j 07:45	16°♄05'40	0.55982 AU
	428 Jun 30 j 23:29	30°♄		inferior conj	429 Jun 05 j 10:31	14°♄49'41	-4°-1'-42
morning rise	428 Jul 02 j 22:55	29°♄20'54		minimum elong	429 Jun 05 j 03:49	14°♄59'45	4°00'21
direct	428 Jul 05 j 12:07	29°♄01'43		morning rise	429 Jun 13 j 23:23	10°♄53'20	
	428 Jul 09 j 19:14	0°♄		direct	429 Jun 16 j 16:08	10°♄35'13	
morning max el	428 Jul 14 j 07:07	3°♄08'28	19°04'05	morning max el	429 Jun 26 j 23:35	15°♄21'26	20°08'55
asc. node	428 Jul 20 j 23:12	11°♄31'33		asc. node	429 Jul 07 j 20:15	0°♄13'04	
morning set	428 Jul 31 j 01:14	29°♄51'37			429 Jul 07 j 17:16	0°♄	
	428 Jul 31 j 02:56	0°♄		morning set	429 Jul 15 j 05:27	14°♄23'56	
					429 Jul 22 j 20:55	0°♄	
superior conj	428 Aug 08 j 10:40	16°♄22'36	1°45'50				
minimum elong	428 Aug 08 j 11:39	16°♄27'21	1°45'48	superior conj	429 Jul 23 j 00:14	0°♄16'40	1°45'52
max. Earth dist.	428 Aug 15 j 02:36	28°♄49'17	1.38588 AU	minimum elong	429 Jul 22 j 23:28	0°♄12'51	1°45'51
	428 Aug 15 j 18:19	0°♄		max. Earth dist.	429 Jul 28 j 07:22	10°♄40'44	1.36667 AU

evening rise	429 Aug 01 j 06:26	18°04'37		evening rise	430 Jul 15 j 07:07	1°02'107	
	429 Aug 08 j 01:50	0°			430 Aug 01 j 02:03	0°	
desc. node	429 Aug 16 j 04:42	12°58'58		desc. node	430 Aug 03 j 01:43	2°57'02	
	429 Aug 28 j 09:12	0°		evening max el	430 Aug 19 j 12:42	23°21'24	26°46'46
evening max el	429 Sep 06 j 00:37	9°46'31	25°50'57		430 Aug 29 j 03:32	0°	
retrograde	429 Sep 18 j 09:50	16°50'51		retrograde	430 Sep 01 j 13:47	0°36'56	
evening set	429 Sep 24 j 12:41	14°17'38			430 Sep 04 j 19:13	30°	
min. Earth dist.	429 Sep 28 j 20:25	9°35'25	0.66749 AU	evening set	430 Sep 08 j 05:51	27°54'21	
inferior conj	429 Sep 30 j 03:09	7°58'05	-1°-15'-20	min. Earth dist.	430 Sep 12 j 06:11	23°49'35	0.65776 AU
minimum elong	429 Sep 30 j 05:05	7°51'59	1°14'33	inferior conj	430 Sep 14 j 00:56	21°43'34	-2°-11'-51
asc. node	429 Oct 03 j 19:27	3°42'55		minimum elong	430 Sep 14 j 04:18	21°33'36	2°10'35
morning rise	429 Oct 05 j 22:18	2°02'05		morning rise	430 Sep 20 j 04:03	15°59'36	
direct	429 Oct 09 j 02:34	1°03'55		asc. node	430 Sep 20 j 16:32	15°44'48	
morning max el	429 Oct 16 j 02:32	4°59'58	19°07'13	direct	430 Sep 22 j 23:58	15°15'02	
	429 Nov 02 j 20:05	0°		morning max el	430 Sep 29 j 14:40	18°52'24	18°25'08
morning set	429 Nov 07 j 19:28	7°45'52			430 Oct 07 j 23:59	0°	
desc. node	429 Nov 12 j 04:00	14°34'43		morning set	430 Oct 19 j 03:24	17°48'18	
	429 Nov 21 j 23:57	0°			430 Oct 26 j 17:28	0°	
max. Earth dist.	429 Nov 22 j 06:15	0°24'50	1.44802 AU	desc. node	430 Oct 30 j 01:01	5°16'18	
superior conj	429 Nov 24 j 12:46	4°00'06	-1°-15'-45	superior conj	430 Nov 03 j 13:20	12°24'04	0°-29'-27
minimum elong	429 Nov 24 j 04:29	3°27'17	1°14'52	minimum elong	430 Nov 03 j 09:28	12°08'50	0°28'57
evening rise	429 Dec 09 j 11:41	28°05'07		max. Earth dist.	430 Nov 05 j 00:54	14°44'00	1.45052 AU
	429 Dec 10 j 15:41	0°			430 Nov 14 j 18:22	0°	
evening max el	429 Dec 29 j 11:31	28°13'09	18°34'40	evening rise	430 Nov 19 j 20:39	8°00'28	
asc. node	429 Dec 30 j 18:46	29°26'57		greatest brilliancy	430 Dec 02 j 23:38	28°29'08	-0.7m
	429 Dec 31 j 10:54	0°			430 Dec 03 j 23:51	0°	
retrograde	430 Jan 05 j 02:10	1°52'53		evening max el	430 Dec 12 j 20:46	11°40'05	19°14'26
evening set	430 Jan 08 j 02:52	1°01'29		asc. node	430 Dec 17 j 15:49	15°14'29	
	430 Jan 09 j 14:48	30°		retrograde	430 Dec 19 j 21:52	15°42'25	
inferior conj	430 Jan 14 j 00:10	25°24'46	3°36'18	evening set	430 Dec 23 j 05:08	14°38'49	
minimum elong	430 Jan 13 j 22:13	25°30'34	3°36'01	inferior conj	430 Dec 28 j 20:40	8°45'46	3°10'57
min. Earth dist.	430 Jan 16 j 00:01	23°02'57	0.64700 AU	minimum elong	430 Dec 28 j 18:01	8°54'15	3°10'21
morning rise	430 Jan 19 j 16:16	19°16'38		min. Earth dist.	430 Dec 30 j 05:32	7°00'49	0.66017 AU
direct	430 Jan 26 j 11:13	16°25'31		morning rise	431 Jan 03 j 06:04	2°33'16	
desc. node	430 Feb 08 j 03:13	23°28'47			431 Jan 07 j 17:48	30°	
morning max el	430 Feb 08 j 21:03	24°12'43	27°14'56	direct	431 Jan 09 j 14:23	29°46'28	
	430 Feb 14 j 02:41	0°			431 Jan 11 j 12:48	0°	
	430 Mar 06 j 12:14	0°		morning max el	431 Jan 22 j 06:31	7°15'14	26°16'12
morning set	430 Mar 16 j 06:30	17°51'02		desc. node	431 Jan 26 j 00:15	11°17'55	
max. Earth dist.	430 Mar 21 j 00:17	27°19'58	1.33800 AU		431 Feb 08 j 23:25	0°	
	430 Mar 22 j 07:18	0°			431 Feb 26 j 21:37	0°	
superior conj	430 Mar 24 j 11:04	4°30'49	0°-43'-54	morning set	431 Feb 27 j 09:22	0°54'46	
minimum elong	430 Mar 24 j 13:12	4°42'05	0°43'29	max. Earth dist.	431 Mar 03 j 11:15	8°42'39	1.35171 AU
asc. node	430 Mar 28 j 18:05	13°37'56		superior conj	431 Mar 08 j 08:37	18°29'51	-1°-10'-18
evening rise	430 Mar 31 j 19:26	20°05'37		minimum elong	431 Mar 08 j 11:56	18°46'47	1°09'45
	430 Apr 05 j 16:56	0°			431 Mar 13 j 22:05	0°	
evening max el	430 Apr 21 j 14:57	23°37'47	21°59'26	asc. node	431 Mar 15 j 15:08	3°32'34	
retrograde	430 May 04 j 06:43	29°50'00		evening rise	431 Mar 16 j 03:26	4°35'51	
evening set	430 May 06 j 23:51	29°33'38			431 Mar 30 j 14:47	0°	
desc. node	430 May 07 j 02:24	29°32'21		evening max el	431 Apr 03 j 17:53	4°41'03	20°35'25
inferior conj	430 May 16 j 08:58	25°28'50	-2°-34'-20	retrograde	431 Apr 14 j 19:36	10°01'45	
minimum elong	430 May 16 j 02:19	25°38'11	2°32'14	evening set	431 Apr 16 j 23:15	9°50'28	
min. Earth dist.	430 May 15 j 20:20	25°46'34	0.55082 AU	desc. node	431 Apr 23 j 23:27	7°06'31	
morning rise	430 May 25 j 06:11	21°34'12		inferior conj	431 Apr 26 j 03:24	5°52'59	0°-37'-25
direct	430 May 28 j 05:53	21°14'18		minimum elong	431 Apr 26 j 01:38	5°55'32	0°36'48
morning max el	430 Jun 09 j 04:45	26°50'47	21°33'09	min. Earth dist.	431 Apr 27 j 09:23	5°09'47	0.55109 AU
	430 Jun 12 j 05:35	0°		morning rise	431 May 05 j 02:31	1°41'36	
asc. node	430 Jun 24 j 17:20	19°26'09		direct	431 May 08 j 16:55	1°13'36	
morning set	430 Jun 29 j 14:08	29°10'51		morning max el	431 May 22 j 00:16	7°40'46	23°11'12
	430 Jun 29 j 23:36	0°			431 Jun 06 j 22:13	0°	
superior conj	430 Jul 06 j 23:17	14°39'50	1°38'46	asc. node	431 Jun 11 j 14:24	9°02'18	
minimum elong	430 Jul 06 j 21:23	14°29'57	1°38'38	morning set	431 Jun 14 j 01:20	14°06'22	
max. Earth dist.	430 Jul 10 j 19:41	22°33'40	1.35036 AU	superior conj	431 Jun 21 j 04:44	29°22'26	1°26'03
	430 Jul 14 j 14:12	0°		minimum elong	431 Jun 21 j 02:19	29°09'29	1°25'45

	431 Jun 21 j 11:46	0°☿		minimum elong	432 Jun 04 j 11:45	14°♊03'27	1°08'26
max. Earth dist.	431 Jun 23 j 17:37	4°☿45'28	1.33775 AU	max. Earth dist.	432 Jun 05 j 23:42	17°♊18'38	1.32905 AU
evening rise	431 Jun 28 j 21:00	15°☿17'00		evening rise	432 Jun 11 j 20:15	29°♊40'35	
	431 Jul 06 j 17:05	0°♊			432 Jun 12 j 00:04	0°☿	
desc. node	431 Jul 20 j 22:45	22°♊25'36			432 Jun 28 j 19:16	0°♊	
	431 Jul 26 j 19:29	0°♊		desc. node	432 Jul 06 j 19:48	11°♊11'40	
evening max el	431 Aug 02 j 00:29	6°♊43'13	27°19'36	evening max el	432 Jul 14 j 09:48	19°♊38'03	27°23'14
retrograde	431 Aug 15 j 12:01	14°♊02'03		retrograde	432 Jul 28 j 04:04	26°♊56'15	
evening set	431 Aug 22 j 13:48	11°♊18'49		evening set	432 Aug 04 j 09:01	24°♊24'21	
min. Earth dist.	431 Aug 26 j 07:36	7°♊50'34	0.64439 AU	min. Earth dist.	432 Aug 07 j 22:59	21°♊26'50	0.62751 AU
inferior conj	431 Aug 28 j 15:21	5°♊20'39	-3°-6'-11	inferior conj	432 Aug 10 j 19:32	18°♊41'57	-3°-54'-45
minimum elong	431 Aug 28 j 19:53	5°♊08'27	3°04'44	minimum elong	432 Aug 11 j 00:25	18°♊30'09	3°53'35
	431 Sep 03 j 21:08	30°♊♋		morning rise	432 Aug 17 j 18:17	13°♊32'37	
morning rise	431 Sep 04 j 03:48	29°♊52'19		direct	432 Aug 20 j 05:01	13°♊05'08	
direct	431 Sep 06 j 17:53	29°♊17'48		asc. node	432 Aug 24 j 10:39	14°♊29'07	
asc. node	431 Sep 07 j 13:36	29°♊21'19		morning max el	432 Aug 26 j 21:43	16°♊30'47	17°52'54
	431 Sep 09 j 14:35	0°♊			432 Sep 05 j 10:06	0°♊	
morning max el	431 Sep 13 j 06:02	2°♊45'04	18°00'06	morning set	432 Sep 12 j 02:47	11°♊44'36	
morning set	431 Sep 30 j 15:39	29°♊13'51			432 Sep 22 j 13:47	0°♊	
	431 Oct 01 j 02:34	0°♊					
				superior conj	432 Sep 23 j 14:06	1°♊42'51	0°59'07
superior conj	431 Oct 14 j 01:02	21°♊25'33	0°19'02	minimum elong	432 Sep 23 j 18:56	2°♊03'13	0°58'31
minimum elong	431 Oct 14 j 03:14	21°♊34'25	0°18'45	max. Earth dist.	432 Sep 30 j 11:00	13°♊03'51	1.43404 AU
desc. node	431 Oct 16 j 22:03	26°♊02'25		desc. node	432 Oct 02 j 19:05	16°♊49'22	
max. Earth dist.	431 Oct 18 j 19:42	29°♊04'00	1.44565 AU	evening rise	432 Oct 08 j 17:41	26°♊10'46	
	431 Oct 19 j 09:50	0°♊			432 Oct 11 j 05:04	0°♊	
evening rise	431 Oct 30 j 10:15	17°♊11'24			432 Oct 31 j 19:35	0°♊	
	431 Nov 07 j 19:16	0°♊		greatest brilliancy	432 Nov 02 j 20:28	2°♊38'24	-0.4m
greatest brilliancy	431 Nov 19 j 08:20	16°♊53'58	-0.6m	evening max el	432 Nov 08 j 00:13	8°♊37'00	21°17'36
evening max el	431 Nov 26 j 01:22	25°♊08'31	20°09'37	retrograde	432 Nov 16 j 16:54	13°♊47'05	
retrograde	431 Dec 03 j 19:30	29°♊41'44		asc. node	432 Nov 20 j 09:54	12°♊30'03	
asc. node	431 Dec 04 j 12:52	29°♊38'46		evening set	432 Nov 20 j 18:42	12°♊13'52	
evening set	431 Dec 07 j 11:04	28°♊24'13		inferior conj	432 Nov 26 j 04:34	5°♊57'33	1°53'17
inferior conj	431 Dec 12 j 22:54	22°♊17'48	2°35'50	minimum elong	432 Nov 26 j 02:16	6°♊05'26	1°52'27
minimum elong	431 Dec 12 j 20:11	22°♊26'56	2°35'01	min. Earth dist.	432 Nov 26 j 12:07	5°♊31'29	0.67496 AU
min. Earth dist.	431 Dec 13 j 18:19	21°♊12'34	0.66942 AU	morning rise	432 Dec 01 j 09:31	29°♊42'11	
morning rise	431 Dec 18 j 04:45	16°♊02'50			432 Dec 01 j 01:36	30°♊♋	
direct	431 Dec 23 j 23:00	13°♊30'38		direct	432 Dec 06 j 12:29	27°♊30'24	
morning max el	432 Jan 04 j 15:13	20°♊27'48	24°58'09		432 Dec 12 j 17:46	0°♊	
desc. node	432 Jan 12 j 21:18	0°♊03'03		morning max el	432 Dec 17 j 00:06	3°♊45'02	23°30'55
	432 Jan 12 j 20:20	0°♊		greatest brilliancy	432 Dec 23 j 07:56	10°♊58'07	-0.2m
	432 Feb 02 j 03:59	0°♊		desc. node	432 Dec 29 j 18:20	19°♊27'53	
morning set	432 Feb 09 j 18:27	13°♊01'19			433 Jan 06 j 02:05	0°♊	
max. Earth dist.	432 Feb 13 j 11:36	19°♊45'57	1.36965 AU	morning set	433 Jan 21 j 03:31	23°♊54'22	
	432 Feb 18 j 20:55	0°♊			433 Jan 24 j 16:43	0°♊	
				max. Earth dist.	433 Jan 25 j 06:34	1°♊00'30	1.39039 AU
superior conj	432 Feb 19 j 20:27	1°♊55'00	-1°-34'-4	superior conj	433 Feb 01 j 18:38	14°♊36'11	-1°-52'-35
minimum elong	432 Feb 20 j 00:24	2°♊14'24	1°33'36	minimum elong	433 Feb 01 j 22:03	14°♊52'12	1°52'22
evening rise	432 Feb 28 j 06:19	18°♊44'50			433 Feb 09 j 19:29	0°♊	
asc. node	432 Mar 01 j 12:11	23°♊12'29		evening rise	433 Feb 11 j 01:25	2°♊25'18	
	432 Mar 05 j 01:31	0°♊		asc. node	433 Feb 16 j 09:14	12°♊32'04	
evening max el	432 Mar 16 j 08:09	16°♊22'03	19°28'44	evening max el	433 Feb 27 j 08:27	28°♊39'44	18°41'51
retrograde	432 Mar 25 j 17:02	20°♊52'34			433 Feb 28 j 21:01	0°♊	
evening set	432 Mar 27 j 20:03	20°♊39'40		retrograde	433 Mar 07 j 07:39	2°♊32'23	
inferior conj	432 Apr 05 j 08:19	16°♊33'32	1°15'29	evening set	433 Mar 09 j 15:07	2°♊14'00	
minimum elong	432 Apr 05 j 11:19	16°♊28'40	1°14'29		433 Mar 14 j 07:58	30°♊♋	
min. Earth dist.	432 Apr 07 j 23:52	14°♊51'14	0.56060 AU	inferior conj	433 Mar 17 j 08:42	27°♊50'16	2°39'13
desc. node	432 Apr 09 j 20:30	13°♊44'17		minimum elong	433 Mar 17 j 12:57	27°♊42'15	2°38'10
morning rise	432 Apr 13 j 22:53	11°♊50'39		min. Earth dist.	433 Mar 20 j 17:11	25°♊19'51	0.57728 AU
direct	432 Apr 18 j 12:47	11°♊03'14		morning rise	433 Mar 25 j 06:34	22°♊34'58	
morning max el	432 May 02 j 15:10	18°♊10'51	24°51'51	desc. node	433 Mar 27 j 17:32	21°♊41'00	
	432 May 12 j 09:53	0°♊		direct	433 Mar 30 j 22:48	21°♊15'03	
asc. node	432 May 28 j 11:26	28°♊54'50		morning max el	433 Apr 14 j 07:22	28°♊48'27	26°19'57
morning set	432 May 28 j 13:18	29°♊04'39			433 Apr 15 j 11:59	0°♊	
	432 May 28 j 23:47	0°♊			433 May 05 j 23:28	0°♊	
				morning set	433 May 13 j 00:27	14°♊00'15	
superior conj	432 Jun 04 j 14:09	14°♊16'32	1°08'50				

asc. node	433 May 15 j 08:29	18°♄58'29		morning set	434 Apr 27 j 08:58	28°♃45'43	
					434 Apr 27 j 23:12	0°♄	
superior conj	433 May 20 j 01:35	29°♄15'40	0°48'02	asc. node	434 May 02 j 05:32	9°♄07'33	
minimum elong	433 May 19 j 23:39	29°♄05'06	0°47'39	max. Earth dist.	434 May 03 j 23:23	12°♄56'19	1.32297 AU
	433 May 20 j 09:40	0°♂					
max. Earth dist.	433 May 20 j 10:51	0°♂06'30	1.32415 AU	superior conj	434 May 04 j 13:14	14°♄12'22	0°24'22
evening rise	433 May 27 j 01:54	14°♂22'45		minimum elong	434 May 04 j 12:10	14°♄06'29	0°24'09
	433 Jun 04 j 00:55	0°♄		evening rise	434 May 11 j 11:28	29°♄14'08	
desc. node	433 Jun 23 j 16:50	28°♄57'35			434 May 11 j 20:11	0°♂	
	433 Jun 24 j 16:16	0°♂			434 May 28 j 12:04	0°♄	
evening max el	433 Jun 26 j 14:14	1°♂54'36	26°54'08	evening max el	434 Jun 08 j 12:04	13°♄25'45	25°53'21
retrograde	433 Jul 10 j 13:05	9°♂10'30		desc. node	434 Jun 10 j 13:50	15°♄17'27	
evening set	433 Jul 17 j 11:11	7°♂04'06		retrograde	434 Jun 22 j 13:09	20°♄37'21	
min. Earth dist.	433 Jul 21 j 04:12	4°♂24'41	0.60791 AU	evening set	434 Jun 28 j 15:42	19°♄07'44	
inferior conj	433 Jul 24 j 10:09	1°♂39'46	-4°-31'-45	min. Earth dist.	434 Jul 03 j 00:38	16°♄29'03	0.58730 AU
minimum elong	433 Jul 24 j 13:53	1°♂31'50	4°31'15	inferior conj	434 Jul 06 j 07:38	14°♄04'01	-4°-48'-7
	433 Jul 26 j 10:29	30°♄		minimum elong	434 Jul 06 j 08:01	14°♄03'18	4°48'09
morning rise	433 Jul 31 j 19:43	26°♄52'04		morning rise	434 Jul 14 j 03:58	9°♄39'01	
direct	433 Aug 03 j 05:40	26°♄29'08		direct	434 Jul 16 j 15:29	9°♄18'46	
	433 Aug 10 j 09:48	0°♂		morning max el	434 Jul 24 j 17:52	13°♄09'56	18°36'15
morning max el	433 Aug 10 j 10:43	0°♂02'11	18°04'31	asc. node	434 Jul 29 j 04:44	18°♄25'06	
asc. node	433 Aug 11 j 07:41	0°♂55'37			434 Aug 05 j 05:25	0°♂	
morning set	433 Aug 26 j 06:50	25°♂04'02		morning set	434 Aug 09 j 22:59	8°♂59'04	
	433 Aug 28 j 22:28	0°♄					
superior conj	433 Sep 05 j 05:55	13°♄19'06	1°26'36	superior conj	434 Aug 18 j 19:46	26°♂00'48	1°41'50
minimum elong	433 Sep 05 j 10:06	13°♄37'40	1°26'12	minimum elong	434 Aug 18 j 21:58	26°♂11'03	1°41'43
max. Earth dist.	433 Sep 12 j 20:35	26°♄27'00	1.41729 AU		434 Aug 20 j 23:19	0°♄	
	433 Sep 14 j 23:55	0°♂		max. Earth dist.	434 Aug 26 j 01:23	9°♄07'54	1.39760 AU
evening rise	433 Sep 18 j 12:43	5°♂44'24		evening rise	434 Aug 30 j 06:37	16°♄22'25	
desc. node	433 Sep 19 j 16:08	7°♂33'51		desc. node	434 Sep 06 j 13:09	28°♄12'09	
	433 Oct 04 j 11:46	0°♄			434 Sep 07 j 16:43	0°♂	
greatest brilliancy	433 Oct 16 j 21:45	16°♄42'06	-0.3m		434 Sep 29 j 03:38	0°♄	
evening max el	433 Oct 21 j 17:36	22°♄06'53	22°34'28	evening max el	434 Oct 04 j 07:10	5°♄40'14	23°54'43
retrograde	433 Oct 31 j 12:17	27°♄55'38		retrograde	434 Oct 15 j 04:19	12°♄04'21	
evening set	433 Nov 05 j 02:17	26°♄05'14		evening set	434 Oct 20 j 08:12	9°♄56'06	
asc. node	433 Nov 07 j 06:56	23°♄54'02		min. Earth dist.	434 Oct 25 j 04:56	4°♄17'57	0.67592 AU
inferior conj	433 Nov 10 j 11:41	19°♄42'55	1°05'03	asc. node	434 Oct 25 j 03:57	4°♄21'17	
minimum elong	433 Nov 10 j 10:14	19°♄47'57	1°04'28	inferior conj	434 Oct 25 j 18:32	3°♄31'47	0°12'35
min. Earth dist.	433 Nov 10 j 08:29	19°♄54'00	0.67706 AU	minimum elong	434 Oct 25 j 18:13	3°♄32'49	0°12'26
morning rise	433 Nov 15 j 18:05	13°♄29'29		transit middle	434 Oct 25 j 18:13	3°♄32'49	0°12'26
direct	433 Nov 20 j 06:03	11°♄40'15		transit begin	434 Oct 25 j 16:28	3°♄38'47	
morning max el	433 Nov 29 j 12:08	17°♄07'49	22°04'06	transit end	434 Oct 25 j 19:59	3°♄26'51	
greatest brilliancy	433 Dec 04 j 05:06	22°♄26'02	-0.4m		434 Oct 28 j 12:01	30°♄	
	433 Dec 10 j 00:36	0°♄		morning rise	434 Oct 31 j 04:25	27°♄22'58	
desc. node	433 Dec 16 j 15:22	9°♄21'14		direct	434 Nov 04 j 02:39	25°♄55'39	
	433 Dec 30 j 04:49	0°♄			434 Nov 11 j 14:22	0°♄	
morning set	434 Jan 01 j 07:36	3°♄22'53		morning max el	434 Nov 12 j 06:39	0°♄40'06	20°45'10
max. Earth dist.	434 Jan 07 j 03:59	12°♄58'58	1.41151 AU	greatest brilliancy	434 Nov 18 j 04:05	7°♄35'21	-0.5m
				desc. node	434 Dec 03 j 12:24	29°♄35'07	
superior conj	434 Jan 14 j 22:15	26°♄21'21	-2°-2'-10		434 Dec 03 j 18:59	0°♄	
minimum elong	434 Jan 14 j 23:12	26°♄25'33	2°02'11	morning set	434 Dec 11 j 10:34	11°♄43'53	
	434 Jan 16 j 23:14	0°♄		max. Earth dist.	434 Dec 20 j 09:13	25°♄55'34	1.43002 AU
evening rise	434 Jan 25 j 09:27	15°♄29'15			434 Dec 22 j 21:10	0°♄	
	434 Feb 02 j 10:07	0°♄					
asc. node	434 Feb 03 j 06:15	1°♄24'05		superior conj	434 Dec 27 j 02:01	6°♄58'41	-1°-58'-14
evening max el	434 Feb 10 j 15:54	11°♄25'52	18°14'58	minimum elong	434 Dec 26 j 22:22	6°♄43'21	1°58'06
retrograde	434 Feb 17 j 16:36	14°♄56'44		evening rise	435 Jan 08 j 02:29	27°♄49'04	
evening set	434 Feb 20 j 05:06	14°♄30'31			435 Jan 09 j 08:00	0°♄	
inferior conj	434 Feb 27 j 05:58	9°♄45'35	3°28'08	asc. node	435 Jan 21 j 03:17	19°♄40'22	
minimum elong	434 Feb 27 j 08:46	9°♄39'25	3°27'44	evening max el	435 Jan 25 j 03:23	24°♄32'18	18°07'42
min. Earth dist.	434 Mar 02 j 15:15	6°♄48'40	0.59788 AU	retrograde	435 Jan 31 j 16:48	27°♄56'43	
morning rise	434 Mar 06 j 08:59	4°♄06'23		evening set	435 Feb 03 j 09:51	27°♄21'24	
direct	434 Mar 12 j 21:36	2°♄08'47		inferior conj	435 Feb 09 j 21:26	22°♄14'52	3°47'35
desc. node	434 Mar 14 j 14:34	2°♄16'35		minimum elong	435 Feb 09 j 22:02	22°♄13'22	3°47'34
morning max el	434 Mar 27 j 04:41	9°♄55'22	27°21'17	min. Earth dist.	435 Feb 12 j 20:43	19°♄16'40	0.61890 AU
	434 Apr 11 j 16:10	0°♄		morning rise	435 Feb 16 j 07:49	16°♄20'16	
				direct	435 Feb 23 j 06:20	13°♄51'24	

desc. node	435 Mar 01 j 11:36	15° \approx 36'06		min. Earth dist.	436 Jan 26 j 11:40	2° \approx 30'48	0.63774 AU
morning max el	435 Mar 09 j 08:12	21° \approx 43'22	27°47'14		436 Jan 28 j 23:15	30° \approx 30'48	
	435 Mar 16 j 14:15	0° \approx 30'48		morning rise	436 Jan 30 j 00:41	29° \approx 05'21	
	435 Apr 04 j 17:24	0° \approx 30'48		direct	436 Feb 05 j 23:04	26° \approx 18'21	
morning set	435 Apr 11 j 12:55	13° \approx 14'44			436 Feb 14 j 22:45	0° \approx 30'48	
max. Earth dist.	435 Apr 17 j 09:37	25° \approx 35'41	1.32561 AU	desc. node	436 Feb 16 j 08:37	1° \approx 06'59	
				morning max el	436 Feb 19 j 16:17	4° \approx 09'40	27°36'23
superior conj	435 Apr 18 j 23:28	29° \approx 01'03	0°-1'-22		436 Mar 10 j 03:21	0° \approx 30'48	
minimum elong	435 Apr 18 j 23:32	29° \approx 01'24	0°01'22	morning set	436 Mar 25 j 09:52	27° \approx 19'21	
behind sun begin	435 Apr 18 j 18:26	28° \approx 33'37			436 Mar 26 j 17:59	0° \approx 30'48	
behind sun end	435 Apr 19 j 04:39	29° \approx 29'13		max. Earth dist.	436 Mar 30 j 13:35	7° \approx 51'39	1.33225 AU
asc. node	435 Apr 19 j 02:36	29° \approx 18'05					
	435 Apr 19 j 10:18	0° \approx 30'48		superior conj	436 Apr 02 j 06:31	13° \approx 35'52	0°-28'-18
evening rise	435 Apr 25 j 23:01	14° \approx 08'00		minimum elong	436 Apr 02 j 07:53	13° \approx 43'12	0°28'00
	435 May 03 j 22:55	0° \approx 30'48		asc. node	436 Apr 04 j 23:39	19° \approx 25'45	
evening max el	435 May 21 j 03:55	24° \approx 16'27	24°28'23	evening rise	436 Apr 09 j 10:41	28° \approx 57'55	
desc. node	435 May 28 j 10:51	29° \approx 13'08			436 Apr 09 j 22:30	0° \approx 30'48	
	435 May 29 j 05:35	0° \approx 30'48			436 Apr 27 j 10:00	0° \approx 30'48	
retrograde	435 Jun 04 j 01:42	1° \approx 17'48		evening max el	436 May 01 j 18:37	4° \approx 48'58	22°53'02
evening set	435 Jun 08 j 21:02	0° \approx 26'04		desc. node	436 May 14 j 07:52	11° \approx 24'14	
	435 Jun 10 j 00:02	30° \approx 11'16		retrograde	436 May 15 j 01:54	11° \approx 25'31	
min. Earth dist.	435 Jun 14 j 15:11	27° \approx 11'16	0.56851 AU	evening set	436 May 18 j 10:47	11° \approx 00'36	
inferior conj	435 Jun 17 j 09:11	25° \approx 45'56	-4°-31'-17	min. Earth dist.	436 May 26 j 03:29	7° \approx 36'23	0.55493 AU
minimum elong	435 Jun 17 j 04:43	25° \approx 53'07	4°30'45	inferior conj	436 May 27 j 15:37	6° \approx 44'21	-3°-29'-51
morning rise	435 Jun 25 j 16:08	21° \approx 41'27		minimum elong	436 May 27 j 08:12	6° \approx 55'02	3°27'57
direct	435 Jun 28 j 06:52	21° \approx 22'45		morning rise	436 Jun 05 j 08:31	2° \approx 51'19	
morning max el	435 Jul 07 j 16:14	25° \approx 44'34	19°29'07	direct	436 Jun 08 j 03:45	2° \approx 32'54	
	435 Jul 11 j 12:08	0° \approx 30'48		morning max el	436 Jun 19 j 03:53	7° \approx 38'59	20°42'45
asc. node	435 Jul 16 j 01:47	6° \approx 43'38		asc. node	436 Jul 01 j 22:52	25° \approx 13'43	
morning set	435 Jul 24 j 23:37	23° \approx 20'05			436 Jul 04 j 06:06	0° \approx 30'48	
	435 Jul 28 j 07:11	0° \approx 30'48		morning set	436 Jul 08 j 06:03	7° \approx 59'48	
superior conj	435 Aug 02 j 02:04	9° \approx 32'22	1°46'49	superior conj	436 Jul 15 j 20:09	23° \approx 40'34	1°43'38
minimum elong	435 Aug 02 j 02:15	9° \approx 33'15	1°46'50	minimum elong	436 Jul 15 j 18:50	23° \approx 33'50	1°43'35
max. Earth dist.	435 Aug 08 j 04:59	21° \approx 13'28	1.37749 AU		436 Jul 18 j 23:24	0° \approx 30'48	
evening rise	435 Aug 12 j 00:53	28° \approx 09'36		max. Earth dist.	436 Jul 20 j 12:40	3° \approx 03'40	1.35925 AU
	435 Aug 13 j 01:56	0° \approx 30'48		evening rise	436 Jul 24 j 15:54	10° \approx 57'27	
desc. node	435 Aug 24 j 10:09	18° \approx 39'40			436 Aug 04 j 14:50	0° \approx 30'48	
	435 Sep 01 j 02:26	0° \approx 30'48		desc. node	436 Aug 10 j 07:12	8° \approx 51'01	
evening max el	435 Sep 16 j 18:58	19° \approx 16'52	25°11'25		436 Aug 26 j 10:53	0° \approx 30'48	
retrograde	435 Sep 28 j 16:05	26° \approx 08'54		evening max el	436 Aug 29 j 06:40	2° \approx 54'10	26°16'59
evening set	435 Oct 04 j 10:45	23° \approx 43'44		retrograde	436 Sep 10 j 23:06	10° \approx 04'27	
min. Earth dist.	435 Oct 08 j 23:02	18° \approx 40'45	0.67156 AU	evening set	436 Sep 17 j 08:01	7° \approx 26'04	
inferior conj	435 Oct 09 j 23:19	17° \approx 21'28	0°-42'-47	min. Earth dist.	436 Sep 21 j 12:26	3° \approx 00'04	0.66382 AU
minimum elong	435 Oct 10 j 00:24	17° \approx 17'57	0°42'20	inferior conj	436 Sep 23 j 00:16	1° \approx 09'51	-1°-39'-24
asc. node	435 Oct 12 j 01:00	14° \approx 44'23		minimum elong	436 Sep 23 j 02:49	1° \approx 01'59	1°38'23
morning rise	435 Oct 15 j 14:37	11° \approx 20'06			436 Sep 23 j 23:10	30° \approx 30'48	
direct	435 Oct 19 j 00:52	10° \approx 12'16		asc. node	436 Sep 27 j 22:03	25° \approx 59'32	
morning max el	435 Oct 26 j 08:59	14° \approx 22'42	19°38'44	morning rise	436 Sep 28 j 22:39	25° \approx 18'53	
greatest brilliancy	435 Nov 03 j 15:23	24° \approx 46'18	-0.6m	direct	436 Oct 01 j 23:04	24° \approx 27'01	
	435 Nov 07 j 05:45	0° \approx 30'48		morning max el	436 Oct 08 j 18:15	28° \approx 13'44	18°47'21
morning set	435 Nov 20 j 07:57	19° \approx 57'26			436 Oct 10 j 09:22	0° \approx 30'48	
desc. node	435 Nov 20 j 09:24	20° \approx 03'04		morning set	436 Oct 29 j 23:43	29° \approx 11'24	
	435 Nov 26 j 18:55	0° \approx 30'48			436 Oct 30 j 12:00	0° \approx 30'48	
max. Earth dist.	435 Dec 02 j 21:59	9° \approx 39'02	1.44338 AU	desc. node	436 Nov 06 j 06:27	10° \approx 41'10	
				max. Earth dist.	436 Nov 14 j 15:18	23° \approx 50'30	1.45003 AU
superior conj	435 Dec 07 j 02:53	16° \approx 22'01	-1°-36'-34	superior conj	436 Nov 15 j 07:16	24° \approx 53'16	0°-57'-13
minimum elong	435 Dec 06 j 18:55	15° \approx 49'59	1°35'53	minimum elong	436 Nov 15 j 00:12	24° \approx 25'28	0°56'22
	435 Dec 15 j 11:14	0° \approx 30'48			436 Nov 18 j 13:11	0° \approx 30'48	
evening rise	435 Dec 21 j 00:07	9° \approx 15'57		evening rise	436 Nov 30 j 22:49	19° \approx 44'56	
	436 Jan 02 j 14:29	0° \approx 30'48			436 Dec 07 j 07:38	0° \approx 30'48	
asc. node	436 Jan 08 j 00:20	7° \approx 09'33		evening max el	436 Dec 22 j 02:57	21° \approx 15'15	18°49'28
evening max el	436 Jan 08 j 15:55	7° \approx 50'30	18°19'31	asc. node	436 Dec 24 j 21:22	23° \approx 38'33	
retrograde	436 Jan 15 j 03:46	11° \approx 21'36		retrograde	436 Dec 28 j 21:18	25° \approx 03'51	
evening set	436 Jan 18 j 01:25	10° \approx 36'21		evening set	437 Jan 01 j 00:33	24° \approx 07'29	
inferior conj	436 Jan 24 j 03:04	5° \approx 09'43	3°45'09	inferior conj	437 Jan 06 j 19:07	18° \approx 23'14	3°26'53
minimum elong	436 Jan 24 j 01:51	5° \approx 13'11	3°45'03				

minimum elong	437 Jan 06 j 16:47	18°☿30'25	3°26'29	inferior conj	437 Dec 21 j 18:23	1°☿50'03	2°57'05
min. Earth dist.	437 Jan 08 j 12:22	16°☿16'28	0.65309 AU	minimum elong	437 Dec 21 j 15:38	1°☿59'04	2°56'23
morning rise	437 Jan 12 j 07:56	12°☿12'42		min. Earth dist.	437 Dec 22 j 21:24	0°☿21'35	0.66456 AU
direct	437 Jan 18 j 22:44	9°☿22'04			437 Dec 23 j 04:05	30°☿☿	
morning max el	437 Feb 01 j 02:09	17°☿03'30	26°52'53	morning rise	437 Dec 27 j 01:54	25°☿36'01	
desc. node	437 Feb 02 j 05:39	18°☿14'12		direct	438 Jan 02 j 04:31	22°☿54'11	
	437 Feb 11 j 21:44	0°☿			438 Jan 14 j 06:36	0°☿	
	437 Mar 02 j 23:56	0°☿		morning max el	438 Jan 14 j 11:23	0°☿12'00	25°44'41
morning set	437 Mar 08 j 20:35	10°☿49'23		desc. node	438 Jan 20 j 02:43	6°☿30'00	
max. Earth dist.	437 Mar 13 j 07:29	19°☿34'19	1.34327 AU		438 Feb 05 j 20:03	0°☿	
				morning set	438 Feb 19 j 16:41	23°☿☿31'43	
superior conj	437 Mar 17 j 08:15	27°☿50'10	0°-55'-18		438 Feb 23 j 03:52	0°☿	
minimum elong	437 Mar 17 j 10:56	28°☿04'06	0°54'49	max. Earth dist.	438 Feb 23 j 13:20	0°☿45'09	1.35882 AU
	437 Mar 18 j 09:07	0°☿					
asc. node	437 Mar 22 j 20:42	9°☿26'33		superior conj	438 Mar 01 j 02:08	11°☿36'33	-1°-20'-50
evening rise	437 Mar 24 j 20:36	13°☿37'15		minimum elong	438 Mar 01 j 05:49	11°☿55'04	1°20'18
	437 Apr 02 j 07:12	0°☿		evening rise	438 Mar 09 j 02:45	27°☿59'41	
evening max el	437 Apr 13 j 15:33	15°☿34'18	21°21'50	asc. node	438 Mar 09 j 17:45	29°☿15'53	
retrograde	437 Apr 25 j 16:42	21°☿26'16			438 Mar 10 j 02:28	0°☿	
evening set	437 Apr 28 j 01:49	21°☿13'17		evening max el	438 Mar 26 j 23:26	26°☿54'10	20°04'46
desc. node	437 May 01 j 04:54	20°☿20'07			438 Mar 30 j 22:46	0°☿	
inferior conj	437 May 07 j 10:35	17°☿13'22	-1°-46'-27	retrograde	438 Apr 06 j 07:37	1°☿52'19	
minimum elong	437 May 07 j 05:38	17°☿20'19	1°44'46	evening set	438 Apr 08 j 09:42	1°☿41'04	
min. Earth dist.	437 May 07 j 16:14	17°☿05'25	0.54965 AU		438 Apr 13 j 05:39	30°☿☿	
morning rise	437 May 16 j 09:42	13°☿13'57		inferior conj	438 Apr 17 j 08:00	27°☿41'56	0°12'50
direct	437 May 19 j 14:10	12°☿51'53		minimum elong	438 Apr 17 j 08:35	27°☿41'04	0°12'38
morning max el	437 Jun 01 j 04:43	18°☿50'50	22°13'52	transit middle	438 Apr 17 j 08:35	27°☿41'04	0°12'38
	437 Jun 10 j 06:12	0°☿		transit begin	438 Apr 17 j 06:09	27°☿44'44	
asc. node	437 Jun 18 j 19:56	15°☿03'21		transit end	438 Apr 17 j 11:01	27°☿37'24	
morning set	437 Jun 22 j 16:00	22°☿50'57		desc. node	438 Apr 18 j 01:55	27°☿14'58	
	437 Jun 26 j 01:20	0°☿		min. Earth dist.	438 Apr 19 j 06:13	26°☿32'39	0.55406 AU
				morning rise	438 Apr 26 j 04:42	23°☿17'48	
superior conj	437 Jun 29 j 22:17	8°☿13'15	1°34'01	direct	438 Apr 30 j 04:14	22°☿43'02	
minimum elong	437 Jun 29 j 20:05	8°☿01'42	1°33'47	morning max el	438 May 13 j 21:36	29°☿29'59	23°54'28
max. Earth dist.	437 Jul 03 j 04:45	15°☿01'59	1.34442 AU		438 May 14 j 10:05	0°☿	
evening rise	437 Jul 07 j 22:43	24°☿32'05			438 Jun 03 j 08:14	0°☿	
	437 Jul 10 j 19:30	0°☿		asc. node	438 Jun 05 j 17:01	4°☿47'21	
desc. node	437 Jul 28 j 04:15	28°☿37'57		morning set	438 Jun 07 j 03:43	7°☿48'08	
	437 Jul 29 j 03:23	0°☿					
evening max el	437 Aug 11 j 18:34	16°☿24'09	27°03'55	superior conj	438 Jun 14 j 05:41	23°☿01'43	1°19'15
retrograde	437 Aug 25 j 00:54	23°☿42'47		minimum elong	438 Jun 14 j 03:12	22°☿48'22	1°18'53
evening set	437 Aug 31 j 21:40	20°☿58'22		max. Earth dist.	438 Jun 16 j 06:14	27°☿22'14	1.33357 AU
min. Earth dist.	437 Sep 04 j 18:54	17°☿09'36	0.65248 AU		438 Jun 17 j 11:59	0°☿	
inferior conj	437 Sep 06 j 19:12	14°☿52'16	-2°-35'-21	evening rise	438 Jun 21 j 17:00	8°☿41'13	
minimum elong	437 Sep 06 j 23:08	14°☿41'06	2°33'58		438 Jul 03 j 05:53	0°☿	
morning rise	437 Sep 13 j 02:10	9°☿14'44		desc. node	438 Jul 15 j 01:16	17°☿50'02	
asc. node	437 Sep 14 j 19:06	8°☿40'30		evening max el	438 Jul 25 j 05:36	29°☿36'02	27°25'04
direct	437 Sep 15 j 19:11	8°☿35'01			438 Jul 25 j 15:47	0°☿	
morning max el	437 Sep 22 j 08:09	12°☿07'19	18°12'23	retrograde	438 Aug 07 j 20:44	6°☿55'17	
	437 Oct 04 j 20:36	0°☿		evening set	438 Aug 15 j 00:38	4°☿15'25	
morning set	437 Oct 10 j 20:05	9°☿50'28		min. Earth dist.	438 Aug 18 j 16:21	1°☿01'00	0.63756 AU
	437 Oct 23 j 06:05	0°☿			438 Aug 19 j 16:20	30°☿☿	
desc. node	437 Oct 24 j 03:31	1°☿25'24		inferior conj	438 Aug 21 j 05:37	28°☿23'20	-3°-27'-49
				minimum elong	438 Aug 21 j 10:26	28°☿10'55	3°26'26
superior conj	437 Oct 25 j 10:07	3°☿26'54	0°-8'-25	morning rise	438 Aug 27 j 22:20	23°☿02'29	
minimum elong	437 Oct 25 j 09:02	3°☿22'37	0°08'17	direct	438 Aug 30 j 10:35	22°☿31'23	
behind sun begin	437 Oct 24 j 23:31	2°☿44'50		asc. node	438 Sep 01 j 16:10	22°☿56'21	
behind sun end	437 Oct 25 j 18:34	4°☿00'23		morning max el	438 Sep 05 j 23:55	25°☿57'19	17°54'45
max. Earth dist.	437 Oct 28 j 09:57	8°☿10'42	1.44929 AU		438 Sep 09 j 10:03	0°☿	
evening rise	437 Nov 10 j 22:31	29°☿18'41		morning set	438 Sep 22 j 18:47	21°☿45'40	
	437 Nov 11 j 09:09	0°☿			438 Sep 27 j 13:48	0°☿	
greatest brilliancy	437 Nov 27 j 06:35	24°☿15'51	-0.7m				
	437 Dec 01 j 10:18	0°☿		superior conj	438 Oct 05 j 07:37	12°☿57'44	0°37'29
evening max el	437 Dec 05 j 10:23	4°☿43'18	19°36'08	minimum elong	438 Oct 05 j 11:26	13°☿13'25	0°36'57
asc. node	437 Dec 11 j 18:23	8°☿52'41		max. Earth dist.	438 Oct 11 j 03:08	22°☿22'32	1.44143 AU
retrograde	437 Dec 12 j 18:11	8°☿58'11		desc. node	438 Oct 11 j 00:33	22°☿12'14	
evening set	437 Dec 16 j 04:38	7°☿49'07			438 Oct 15 j 22:48	0°☿	

evening rise	438 Oct 21 j 07:16	8°♄18'57		greatest brilliancy	439 Oct 27 j 14:02	26°♄14'16	-0.4m
	438 Nov 04 j 16:32	0°♄			439 Oct 30 j 18:51	0°♄	
greatest brilliancy	438 Nov 12 j 14:45	11°♄08'19	-0.5m	evening max el	439 Nov 01 j 09:14	1°♄42'04	21°49'33
evening max el	438 Nov 18 j 12:40	18°♄12'14	20°37'16	retrograde	439 Nov 10 j 12:27	7°♄08'01	
retrograde	438 Nov 26 j 15:50	23°♄00'24		evening set	439 Nov 14 j 19:18	5°♄27'32	
asc. node	438 Nov 28 j 15:25	22°♄38'08		asc. node	439 Nov 15 j 12:26	4°♄50'54	
evening set	438 Nov 30 j 11:29	21°♄36'32			439 Nov 19 j 13:51	30°♄	
inferior conj	438 Dec 05 j 22:19	15°♄25'47	2°18'36	inferior conj	439 Nov 20 j 04:49	29°♄08'22	1°33'29
minimum elong	438 Dec 05 j 19:43	15°♄34'37	2°17'44	minimum elong	439 Nov 20 j 02:50	29°♄15'14	1°32'42
min. Earth dist.	438 Dec 06 j 12:36	14°♄37'08	0.67223 AU	min. Earth dist.	439 Nov 20 j 07:40	28°♄58'28	0.67629 AU
morning rise	438 Dec 11 j 03:28	9°♄10'25		morning rise	439 Nov 25 j 10:07	22°♄53'49	
direct	438 Dec 16 j 15:24	6°♄46'06		direct	439 Nov 30 j 06:43	20°♄51'31	
morning max el	438 Dec 27 j 19:37	13°♄26'01	24°21'32	morning max el	439 Dec 10 j 05:21	26°♄45'26	22°53'32
desc. node	439 Jan 06 j 23:45	25°♄33'52			439 Dec 13 j 05:15	0°♄	
	439 Jan 10 j 05:54	0°♄		greatest brilliancy	439 Dec 14 j 22:13	2°♄00'44	-0.3m
	439 Jan 29 j 16:18	0°♄		desc. node	439 Dec 24 j 20:48	15°♄12'21	
morning set	439 Feb 01 j 16:18	5°♄09'05			440 Jan 03 j 20:49	0°♄	
max. Earth dist.	439 Feb 05 j 10:07	11°♄47'34	1.37827 AU	morning set	440 Jan 13 j 13:20	15°♄26'38	
				max. Earth dist.	440 Jan 18 j 05:47	23°♄20'20	1.39959 AU
superior conj	439 Feb 12 j 08:42	24°♄44'51	-1°-42'-46		440 Jan 22 j 01:25	0°♄	
minimum elong	439 Feb 12 j 12:37	25°♄03'41	1°42'23				
	439 Feb 15 j 01:36	0°♄		superior conj	440 Jan 25 j 23:40	7°♄04'19	-1°-58'00
evening rise	439 Feb 21 j 02:39	11°♄57'27		minimum elong	440 Jan 26 j 02:19	7°♄16'26	1°57'54
asc. node	439 Feb 24 j 14:46	18°♄47'55		evening rise	440 Feb 04 j 17:29	25°♄23'49	
	439 Mar 02 j 22:08	0°♄			440 Feb 07 j 03:42	0°♄	
evening max el	439 Mar 09 j 18:21	8°♄51'58	19°06'20	asc. node	440 Feb 11 j 11:46	7°♄56'49	
retrograde	439 Mar 18 j 11:20	13°♄03'56		evening max el	440 Feb 20 j 22:03	21°♄22'47	18°27'52
evening set	439 Mar 20 j 16:12	12°♄48'58		retrograde	440 Feb 28 j 10:07	25°♄04'12	
inferior conj	439 Mar 28 j 20:31	8°♄36'12	1°55'16	evening set	440 Mar 01 j 19:52	24°♄42'35	
minimum elong	439 Mar 29 j 00:30	8°♄29'21	1°54'04	inferior conj	440 Mar 09 j 05:55	20°♄09'36	3°04'03
min. Earth dist.	439 Mar 31 j 21:35	6°♄31'26	0.56708 AU	minimum elong	440 Mar 09 j 09:45	20°♄01'51	3°03'15
desc. node	439 Apr 04 j 22:57	4°♄11'07		min. Earth dist.	440 Mar 12 j 16:16	17°♄25'12	0.58586 AU
morning rise	439 Apr 06 j 04:42	3°♄39'13		morning rise	440 Mar 16 j 19:45	14°♄43'06	
direct	439 Apr 11 j 06:20	2°♄39'05		desc. node	440 Mar 21 j 19:58	13°♄10'26	
morning max el	439 Apr 25 j 12:08	9°♄58'58	25°31'40	direct	440 Mar 22 j 21:42	13°♄07'27	
	439 May 10 j 15:19	0°♄		morning max el	440 Apr 06 j 06:10	20°♄46'42	26°50'00
morning set	439 May 22 j 15:30	22°♄45'43			440 Apr 14 j 05:26	0°♄	
asc. node	439 May 23 j 14:04	24°♄45'10			440 May 02 j 07:51	0°♄	
	439 May 26 j 00:34	0°♄		morning set	440 May 06 j 01:45	7°♄37'51	
				asc. node	440 May 09 j 11:06	14°♄51'36	
superior conj	439 May 29 j 16:09	7°♄58'29	1°00'23				
minimum elong	439 May 29 j 13:54	7°♄46'10	0°59'59	superior conj	440 May 13 j 03:52	22°♄57'07	0°38'17
max. Earth dist.	439 May 30 j 14:58	10°♄03'07	1.32657 AU	minimum elong	440 May 13 j 02:16	22°♄48'18	0°37'57
evening rise	439 Jun 05 j 19:18	23°♄13'54		max. Earth dist.	440 May 13 j 03:22	22°♄54'21	1.32326 AU
	439 Jun 09 j 03:54	0°♄			440 May 16 j 09:04	0°♄	
	439 Jun 27 j 02:18	0°♄		evening rise	440 May 20 j 02:53	8°♄00'55	
desc. node	439 Jul 01 j 22:16	6°♄12'59			440 May 31 j 15:11	0°♄	
evening max el	439 Jul 07 j 13:24	12°♄16'47	27°15'01	desc. node	440 Jun 17 j 19:17	23°♄25'50	
retrograde	439 Jul 21 j 09:45	19°♄33'17		evening max el	440 Jun 18 j 15:09	24°♄14'11	26°31'49
evening set	439 Jul 28 j 13:08	17°♄10'56			440 Jun 26 j 13:59	0°♄	
min. Earth dist.	439 Aug 01 j 03:26	14°♄22'47	0.61942 AU	retrograde	440 Jul 02 j 14:52	1°♄28'06	
inferior conj	439 Aug 04 j 04:29	11°♄36'06	-4°-12'-20		440 Jul 08 j 12:13	30°♄	
minimum elong	439 Aug 04 j 09:06	11°♄25'29	4°11'26	evening set	440 Jul 09 j 06:33	29°♄36'12	
morning rise	439 Aug 11 j 07:45	6°♄35'21		min. Earth dist.	440 Jul 13 j 04:21	26°♄59'42	0.59914 AU
direct	439 Aug 13 j 17:56	6°♄09'58		inferior conj	440 Jul 16 j 12:13	24°♄20'46	-4°-41'-55
asc. node	439 Aug 19 j 13:14	8°♄39'27		minimum elong	440 Jul 16 j 14:49	24°♄15'34	4°41'43
morning max el	439 Aug 20 j 14:46	9°♄37'38	17°55'27	morning rise	440 Jul 24 j 02:23	19°♄42'50	
	439 Sep 03 j 00:01	0°♄		direct	440 Jul 26 j 12:54	19°♄21'07	
morning set	439 Sep 05 j 13:49	4°♄39'31		morning max el	440 Aug 03 j 01:38	23°♄00'02	18°15'34
				asc. node	440 Aug 05 j 10:17	25°♄34'38	
superior conj	439 Sep 16 j 08:22	23°♄49'31	1°12'22		440 Aug 08 j 15:38	0°♄	
minimum elong	439 Sep 16 j 13:12	24°♄10'23	1°11'49	morning set	440 Aug 18 j 23:31	18°♄15'33	
	439 Sep 19 j 23:23	0°♄			440 Aug 25 j 04:56	0°♄	
max. Earth dist.	439 Sep 23 j 16:37	6°♄10'22	1.42743 AU				
desc. node	439 Sep 27 j 21:35	12°♄58'47		superior conj	440 Aug 28 j 10:16	5°♄55'48	1°34'27
evening rise	439 Sep 30 j 17:42	17°♄28'25		minimum elong	440 Aug 28 j 13:40	6°♄11'14	1°34'12
	439 Oct 08 j 21:26	0°♄		max. Earth dist.	440 Sep 05 j 00:23	19°♄17'37	1.40910 AU

evening rise	440 Sep 09 j 21:40	27° \mathbb{M} 26'59		superior conj	441 Aug 11 j 07:52	19° \mathbb{Q} 01'23	1°45'04
	440 Sep 11 j 11:20	0° \mathbb{A}		minimum elong	441 Aug 11 j 09:09	19° \mathbb{Q} 07'34	1°45'02
desc. node	440 Sep 13 j 18:37	3° \mathbb{A} 41'05			441 Aug 17 j 05:22	0° \mathbb{M}	
	440 Oct 01 j 13:38	0° \mathbb{M}		max. Earth dist.	441 Aug 18 j 03:43	1° \mathbb{M} 40'31	1.38892 AU
greatest brilliancy	440 Oct 08 j 05:07	8° \mathbb{M} 39'20	-0.2m	evening rise	441 Aug 22 j 02:12	8° \mathbb{M} 35'10	
evening max el	440 Oct 14 j 00:38	15° \mathbb{M} 12'42	23°08'32	desc. node	441 Aug 31 j 15:37	24° \mathbb{M} 15'27	
retrograde	440 Oct 24 j 06:32	21° \mathbb{M} 17'12			441 Sep 04 j 09:28	0° \mathbb{A}	
evening set	440 Oct 29 j 02:23	19° \mathbb{M} 18'55		evening max el	441 Sep 26 j 13:00	28° \mathbb{A} 46'50	24°28'09
asc. node	440 Nov 01 j 09:29	15° \mathbb{M} 45'17			441 Sep 27 j 19:31	0° \mathbb{M}	
inferior conj	440 Nov 03 j 12:00	12° \mathbb{M} 55'10	0°43'15	retrograde	441 Oct 07 j 21:02	5° \mathbb{M} 24'44	
minimum elong	440 Nov 03 j 11:00	12° \mathbb{M} 58'36	0°42'48	evening set	441 Oct 13 j 07:06	3° \mathbb{M} 08'55	
min. Earth dist.	440 Nov 03 j 04:17	13° \mathbb{M} 21'45	0.67697 AU		441 Oct 16 j 06:28	30° \mathbb{R} \mathbb{A}	
morning rise	440 Nov 08 j 19:39	6° \mathbb{M} 43'36		min. Earth dist.	441 Oct 18 j 00:04	27° \mathbb{A} 45'22	0.67443 AU
direct	440 Nov 13 j 01:32	5° \mathbb{M} 04'06		inferior conj	441 Oct 18 j 18:12	26° \mathbb{A} 44'38	0°-10'-39
morning max el	440 Nov 21 j 19:59	10° \mathbb{M} 12'21	21°29'19	minimum elong	441 Oct 18 j 18:27	26° \mathbb{A} 43'46	0°10'34
greatest brilliancy	440 Nov 26 j 21:30	15° \mathbb{M} 59'21	-0.4m	transit middle	441 Oct 18 j 18:27	26° \mathbb{A} 43'46	0°10'34
	440 Dec 07 j 03:44	0° \mathbb{A}		transit begin	441 Oct 18 j 16:22	26° \mathbb{A} 50'45	
desc. node	440 Dec 10 j 17:50	5° \mathbb{A} 15'11		transit end	441 Oct 18 j 20:32	26° \mathbb{A} 36'48	
morning set	440 Dec 23 j 05:26	24° \mathbb{A} 22'10		asc. node	441 Oct 19 j 06:33	26° \mathbb{A} 03'23	
	440 Dec 26 j 18:01	0° \mathbb{A}		morning rise	441 Oct 24 j 06:10	20° \mathbb{A} 38'38	
max. Earth dist.	440 Dec 30 j 06:33	5° \mathbb{A} 44'43	1.41985 AU	direct	441 Oct 27 j 22:56	19° \mathbb{A} 20'10	
				morning max el	441 Nov 04 j 17:52	23° \mathbb{A} 49'20	20°15'09
superior conj	441 Jan 06 j 17:43	18° \mathbb{A} 21'43	-2°-2'-26		441 Nov 10 j 00:20	0° \mathbb{M}	
minimum elong	441 Jan 06 j 16:55	18° \mathbb{A} 18'17	2°02'27	greatest brilliancy	441 Nov 11 j 11:20	1° \mathbb{M} 55'39	-0.6m
	441 Jan 13 j 07:39	0° \mathbb{A}		desc. node	441 Nov 27 j 14:52	25° \mathbb{M} 35'33	
evening rise	441 Jan 17 j 19:41	8° \mathbb{A} 10'27			441 Nov 30 j 11:50	0° \mathbb{A}	
asc. node	441 Jan 28 j 08:48	26° \mathbb{A} 35'10		morning set	441 Dec 02 j 02:48	2° \mathbb{A} 30'24	
	441 Jan 30 j 16:37	0° \mathbb{A}		max. Earth dist.	441 Dec 12 j 14:38	19° \mathbb{A} 00'57	1.43636 AU
evening max el	441 Feb 03 j 07:31	4° \mathbb{A} 18'34	18°09'27				
retrograde	441 Feb 10 j 02:20	7° \mathbb{A} 45'23		superior conj	441 Dec 18 j 09:59	28° \mathbb{A} 26'48	-1°-51'-21
evening set	441 Feb 12 j 16:40	7° \mathbb{A} 15'31		minimum elong	441 Dec 18 j 04:11	28° \mathbb{A} 02'57	1°51'01
inferior conj	441 Feb 19 j 11:26	2° \mathbb{A} 21'10	3°39'32		441 Dec 19 j 08:35	0° \mathbb{A}	
minimum elong	441 Feb 19 j 13:18	2° \mathbb{A} 16'47	3°39'21	evening rise	441 Dec 31 j 04:59	20° \mathbb{A} 08'34	
	441 Feb 21 j 23:51	30° \mathbb{R} \mathbb{A}			442 Jan 05 j 21:33	0° \mathbb{A}	
min. Earth dist.	441 Feb 22 j 17:18	29° \mathbb{A} 20'43	0.60689 AU	asc. node	442 Jan 15 j 05:50	14° \mathbb{A} 33'10	
morning rise	441 Feb 26 j 06:55	26° \mathbb{A} 34'10		evening max el	442 Jan 17 j 19:47	17° \mathbb{A} 30'55	18°10'31
direct	441 Mar 05 j 00:49	24° \mathbb{A} 22'10		retrograde	442 Jan 24 j 07:37	20° \mathbb{A} 56'55	
desc. node	441 Mar 08 j 17:00	24° \mathbb{A} 58'38		evening set	442 Jan 27 j 02:27	20° \mathbb{A} 17'39	
	441 Mar 16 j 21:26	0° \mathbb{A}		inferior conj	442 Feb 02 j 09:27	15° \mathbb{A} 02'37	3°48'49
morning max el	441 Mar 19 j 06:30	2° \mathbb{A} 12'15	27°36'58	minimum elong	442 Feb 02 j 09:12	15° \mathbb{A} 03'18	3°48'49
	441 Apr 08 j 13:00	0° \mathbb{Y}		min. Earth dist.	442 Feb 05 j 02:55	12° \mathbb{A} 10'08	0.62719 AU
morning set	441 Apr 20 j 08:40	22° \mathbb{Y} 18'23		morning rise	442 Feb 08 j 13:52	9° \mathbb{A} 03'09	
	441 Apr 24 j 00:17	0° \mathbb{B}		direct	442 Feb 15 j 13:26	6° \mathbb{A} 24'25	
asc. node	441 Apr 26 j 08:08	5° \mathbb{B} 02'20		desc. node	442 Feb 23 j 14:03	9° \mathbb{A} 18'29	
max. Earth dist.	441 Apr 26 j 15:32	5° \mathbb{B} 42'41	1.32360 AU	morning max el	442 Mar 01 j 12:19	14° \mathbb{A} 18'01	27°47'00
					442 Mar 14 j 05:35	0° \mathbb{A}	
superior conj	441 Apr 27 j 15:10	7° \mathbb{B} 52'00	0°13'40		442 Apr 01 j 01:10	0° \mathbb{Y}	
minimum elong	441 Apr 27 j 14:33	7° \mathbb{B} 48'36	0°13'33	morning set	442 Apr 04 j 10:00	6° \mathbb{Y} 38'44	
behind sun begin	441 Apr 27 j 11:55	7° \mathbb{B} 34'11		max. Earth dist.	442 Apr 09 j 23:27	18° \mathbb{Y} 13'23	1.32786 AU
behind sun end	441 Apr 27 j 17:11	8° \mathbb{B} 03'01					
evening rise	441 May 04 j 13:35	22° \mathbb{B} 54'55		superior conj	442 Apr 12 j 00:18	22° \mathbb{Y} 36'07	0°-12'-40
	441 May 07 j 23:53	0° \mathbb{B}		minimum elong	442 Apr 12 j 00:55	22° \mathbb{Y} 39'24	0°12'33
	441 May 26 j 09:59	0° \mathbb{B}		behind sun begin	442 Apr 11 j 21:42	22° \mathbb{Y} 22'02	
evening max el	441 May 31 j 09:55	5° \mathbb{B} 26'33	25°19'22	behind sun end	442 Apr 12 j 04:07	22° \mathbb{Y} 56'45	
desc. node	441 Jun 04 j 16:17	9° \mathbb{B} 00'18		asc. node	442 Apr 13 j 05:10	25° \mathbb{Y} 12'26	
retrograde	441 Jun 14 j 10:36	12° \mathbb{B} 35'49			442 Apr 15 j 10:09	0° \mathbb{B}	
evening set	441 Jun 20 j 01:08	11° \mathbb{B} 22'37		evening rise	442 Apr 19 j 01:24	7° \mathbb{B} 48'08	
min. Earth dist.	441 Jun 24 j 21:46	8° \mathbb{B} 39'03	0.57888 AU		442 Apr 30 j 17:29	0° \mathbb{B}	
inferior conj	441 Jun 28 j 01:28	6° \mathbb{B} 28'21	-4°-45'-53	evening max el	442 May 13 j 00:29	16° \mathbb{B} 06'31	23°48'15
minimum elong	441 Jun 27 j 23:51	6° \mathbb{B} 31'10	4°45'49	desc. node	442 May 22 j 13:19	22° \mathbb{B} 19'40	
morning rise	441 Jul 06 j 02:25	2° \mathbb{B} 13'07		retrograde	442 May 26 j 18:24	23° \mathbb{B} 00'01	
direct	441 Jul 08 j 15:05	1° \mathbb{B} 53'45		evening set	442 May 30 j 22:17	22° \mathbb{B} 21'48	
morning max el	441 Jul 17 j 05:32	5° \mathbb{B} 56'02	18°56'10	min. Earth dist.	442 Jun 06 j 11:19	19° \mathbb{B} 15'40	0.56189 AU
asc. node	441 Jul 23 j 07:22	13° \mathbb{B} 27'12		inferior conj	442 Jun 08 j 18:31	17° \mathbb{B} 51'46	-4°-11'-4
	441 Aug 01 j 14:29	0° \mathbb{Q}		minimum elong	442 Jun 08 j 12:17	18° \mathbb{B} 01'17	4°09'56
morning set	441 Aug 02 j 19:42	2° \mathbb{Q} 23'02		morning rise	442 Jun 17 j 05:51	13° \mathbb{B} 53'33	
				direct	442 Jun 19 j 22:01	13° \mathbb{B} 35'19	

morning max el	442 Jun 29 j 23:36	18° Π 14'59	19°57'55	morning rise	443 May 28 j 14:55	24° 8 41'30	
	442 Jul 08 j 23:18	0° 5		direct	443 May 31 j 13:22	24° 8 22'05	
asc. node	442 Jul 10 j 04:26	2° 5 03'10			443 Jun 12 j 10:26	0° Π	
morning set	442 Jul 17 j 23:06	16° 5 52'49		morning max el	443 Jun 12 j 06:20	29° 8 50'24	21°19'35
	442 Jul 24 j 09:49	0° Ω		asc. node	443 Jun 27 j 01:29	21° Π 11'58	
					443 Jul 01 j 12:11	0° 5	
superior conj	442 Jul 25 j 19:42	2° Ω 50'12	1°46'21	morning set	443 Jul 02 j 07:15	1° 5 38'05	
minimum elong	442 Jul 25 j 19:10	2° Ω 47'33	1°46'20				
max. Earth dist.	442 Jul 31 j 07:59	13° Ω 34'54	1.36942 AU	superior conj	443 Jul 09 j 17:33	17° 5 09'40	1°40'15
evening rise	442 Aug 04 j 05:56	20° Ω 50'13		minimum elong	443 Jul 09 j 15:47	17° 5 00'32	1°40'07
	442 Aug 09 j 11:11	0° 7		max. Earth dist.	443 Jul 13 j 19:06	25° 5 26'57	1.35256 AU
desc. node	442 Aug 18 j 12:40	14° 7 36'57			443 Jul 16 j 02:25	0° Ω	
	442 Aug 29 j 08:18	0° 5		evening rise	443 Jul 18 j 04:16	3° Ω 59'42	
evening max el	442 Sep 09 j 00:40	12° 5 24'46	25°41'10		443 Aug 02 j 07:41	0° 7	
retrograde	442 Sep 21 j 06:58	19° 5 26'11		desc. node	443 Aug 05 j 09:42	4° 7 38'59	
evening set	442 Sep 27 j 07:41	16° 5 55'01		evening max el	443 Aug 22 j 12:44	26° 7 00'58	26°39'45
min. Earth dist.	442 Oct 01 j 16:37	12° 5 07'17	0.66865 AU		443 Aug 27 j 05:35	0° 5	
inferior conj	442 Oct 02 j 21:38	10° 5 34'39	-1°-6'-46	retrograde	443 Sep 04 j 11:40	3° 5 15'08	
minimum elong	442 Oct 02 j 23:20	10° 5 29'13	1°06'03	evening set	443 Sep 11 j 02:00	0° 5 33'28	
asc. node	442 Oct 06 j 03:37	6° 5 42'59			443 Sep 11 j 17:30	30° R 7	
morning rise	442 Oct 08 j 15:43	4° 5 37'03		min. Earth dist.	443 Sep 15 j 03:24	26° 7 23'13	0.65946 AU
direct	442 Oct 11 j 21:28	3° 5 36'28		inferior conj	443 Sep 16 j 20:18	24° 7 21'14	-2°-3'-23
morning max el	442 Oct 18 j 23:18	7° 5 35'57	19°14'51	minimum elong	443 Sep 16 j 23:28	24° 7 11'47	2°02'09
greatest brilliancy	442 Oct 29 j 12:40	21° 5 30'21	-0.7m	morning rise	443 Sep 22 j 22:09	18° 7 35'22	
	442 Nov 04 j 02:42	0° 7		asc. node	443 Sep 23 j 00:42	18° 7 32'03	
morning set	442 Nov 11 j 05:37	11° 7 03'11		direct	443 Sep 25 j 19:12	17° 7 48'58	
desc. node	442 Nov 14 j 11:55	16° 7 08'28		morning max el	443 Oct 02 j 10:46	21° 7 28'19	18°30'21
	442 Nov 23 j 08:17	0° 8			443 Oct 09 j 03:08	0° 5	
max. Earth dist.	442 Nov 25 j 05:22	2° 8 57'36	1.44705 AU	morning set	443 Oct 22 j 09:16	20° 5 53'11	
					443 Oct 28 j 01:50	0° 7	
superior conj	442 Nov 28 j 00:41	7° 8 24'00	-1°-21'-46	desc. node	443 Nov 01 j 08:57	6° 7 49'29	
minimum elong	442 Nov 27 j 16:14	6° 8 50'31	1°20'53				
	442 Dec 11 j 23:55	0° 8		superior conj	443 Nov 07 j 01:30	15° 7 47'55	0°-36'-55
evening rise	442 Dec 12 j 17:09	1° 8 11'03		minimum elong	443 Nov 06 j 20:41	15° 7 28'58	0°36'17
	442 Dec 31 j 12:05	0° \approx		max. Earth dist.	443 Nov 08 j 00:00	17° 7 16'20	1.45067 AU
evening max el	443 Jan 01 j 08:04	0° \approx 53'10	18°30'14		443 Nov 16 j 02:25	0° 8	
asc. node	443 Jan 02 j 02:54	1° \approx 39'00		evening rise	443 Nov 23 j 05:38	11° 8 15'08	
retrograde	443 Jan 07 j 21:41	4° \approx 30'13		greatest brilliancy	443 Dec 04 j 13:01	29° 8 03'02	-0.8m
evening set	443 Jan 10 j 21:36	3° \approx 40'24			443 Dec 05 j 03:50	0° 8	
	443 Jan 15 j 04:10	30° R 8		evening max el	443 Dec 15 j 17:49	14° 8 19'36	19°07'25
inferior conj	443 Jan 16 j 19:57	28° 8 06'15	3°39'01	asc. node	443 Dec 19 j 23:57	17° 8 37'58	
minimum elong	443 Jan 16 j 18:09	28° 8 11'30	3°38'49	retrograde	443 Dec 22 j 16:55	18° 8 18'02	
min. Earth dist.	443 Jan 18 j 22:03	25° 8 39'45	0.64473 AU	evening set	443 Dec 25 j 23:07	17° 8 16'17	
morning rise	443 Jan 22 j 13:22	21° 8 59'08		inferior conj	443 Dec 31 j 15:21	11° 8 25'21	3°15'25
direct	443 Jan 29 j 09:27	19° 8 08'36		minimum elong	443 Dec 31 j 12:46	11° 8 33'33	3°14'53
desc. node	443 Feb 10 j 11:05	25° 8 34'18		min. Earth dist.	444 Jan 02 j 02:19	9° 8 34'43	0.65849 AU
morning max el	443 Feb 11 j 21:16	26° 8 57'00	27°21'27	morning rise	444 Jan 06 j 01:33	5° 8 13'20	
	443 Feb 14 j 18:16	0° \approx		direct	444 Jan 12 j 11:39	2° 8 25'18	
	443 Mar 07 j 20:31	0° 9		morning max el	444 Jan 25 j 06:53	9° 8 57'33	26°26'23
morning set	443 Mar 19 j 03:02	20° 9 30'04		desc. node	444 Jan 28 j 08:07	13° 8 13'07	
	443 Mar 23 j 20:24	0° 9			444 Feb 10 j 03:35	0° \approx	
max. Earth dist.	443 Mar 23 j 23:19	0° 9 15'02	1.33638 AU		444 Feb 28 j 08:33	0° 9	
				morning set	444 Mar 01 j 08:04	3° 9 40'53	
superior conj	443 Mar 27 j 05:23	7° 9 03'28	0°-39'-47	max. Earth dist.	444 Mar 05 j 12:11	11° 9 42'57	1.34937 AU
minimum elong	443 Mar 27 j 07:20	7° 9 13'43	0°39'25				
asc. node	443 Mar 31 j 02:13	15° 9 17'57		superior conj	444 Mar 10 j 04:06	21° 9 06'34	-1°-6'-25
evening rise	443 Apr 03 j 12:33	22° 9 34'30		minimum elong	444 Mar 10 j 07:16	21° 9 22'48	1°05'53
	443 Apr 07 j 03:33	0° 9			444 Mar 14 j 10:54	0° 9	
evening max el	443 Apr 24 j 17:12	26° 9 41'42	22°13'03	asc. node	444 Mar 16 j 23:16	5° 9 14'28	
	443 Apr 28 j 17:29	0° Π		evening rise	444 Mar 17 j 21:06	7° 9 07'22	
retrograde	443 May 07 j 13:21	3° Π 00'33			444 Mar 30 j 11:03	0° 9	
desc. node	443 May 09 j 10:20	2° Π 52'42		evening max el	444 Apr 05 j 18:26	7° 9 39'50	20°46'57
evening set	443 May 10 j 10:10	2° Π 42'24		retrograde	444 Apr 17 j 02:24	13° 9 08'55	
	443 May 17 j 05:32	30° R 8		evening set	444 Apr 19 j 07:02	12° 9 57'24	
min. Earth dist.	443 May 18 j 23:44	29° 9 01'49	0.55163 AU	desc. node	444 Apr 25 j 07:20	10° 9 46'22	
inferior conj	443 May 19 j 18:41	28° 9 35'08	-2°-50'-5	inferior conj	444 Apr 28 j 12:47	8° 9 59'46	0°-55'-43
minimum elong	443 May 19 j 11:38	28° 9 45'04	2°47'59	minimum elong	444 Apr 28 j 10:08	9° 9 03'32	0°54'47

min. Earth dist.	444 Apr 29 j 12:34	8° ♄ 25'49	0.55037 AU	minimum elong	445 Apr 08 j 17:50	19° ♄ 32'25	0°59'01
morning rise	444 May 07 j 12:13	4° ♄ 52'11		min. Earth dist.	445 Apr 11 j 02:54	18° ♄ 02'21	0.55857 AU
direct	444 May 10 j 23:42	4° ♄ 26'07		desc. node	445 Apr 12 j 04:21	17° ♄ 23'55	
morning max el	444 May 24 j 03:07	10° ♄ 46'03	22°56'11	morning rise	445 Apr 17 j 07:47	14° ♄ 58'25	
	444 Jun 07 j 06:05	0° ♄		direct	445 Apr 21 j 17:43	14° ♄ 14'46	
asc. node	444 Jun 12 j 22:32	10° ♄ 45'27		morning max el	445 May 05 j 18:23	21° ♄ 17'49	24°37'20
morning set	444 Jun 15 j 18:12	16° ♄ 33'12			445 May 13 j 07:18	0° ♄	
	444 Jun 22 j 01:32	0° ♄		asc. node	445 May 30 j 19:34	0° ♄ 36'03	
					445 May 30 j 12:40	0° ♄	
superior conj	444 Jun 22 j 22:13	1° ♄ 50'28	1°28'18	morning set	445 May 31 j 06:08	1° ♄ 31'33	
minimum elong	444 Jun 22 j 19:51	1° ♄ 37'48	1°28'02				
max. Earth dist.	444 Jun 25 j 15:38	7° ♄ 35'59	1.33934 AU	superior conj	445 Jun 07 j 07:10	16° ♄ 43'32	1°11'42
evening rise	444 Jun 30 j 16:26	17° ♄ 50'50		minimum elong	445 Jun 07 j 04:43	16° ♄ 30'18	1°11'19
	444 Jul 07 j 02:54	0° ♄		max. Earth dist.	445 Jun 08 j 20:32	20° ♄ 05'50	1.33006 AU
desc. node	444 Jul 22 j 06:43	24° ♄ 13'06			445 Jun 13 j 12:54	0° ♄	
	444 Jul 26 j 14:54	0° ♄		evening rise	445 Jun 14 j 14:28	2° ♄ 11'03	
evening max el	444 Aug 04 j 00:35	9° ♄ 25'32	27°16'22		445 Jun 29 j 23:45	0° ♄	
retrograde	444 Aug 17 j 10:47	16° ♄ 44'26		desc. node	445 Jul 09 j 03:43	13° ♄ 06'40	
evening set	444 Aug 24 j 11:31	14° ♄ 00'23		evening max el	445 Jul 17 j 10:17	22° ♄ 25'01	27°24'42
min. Earth dist.	444 Aug 28 j 06:06	10° ♄ 27'06	0.64664 AU	retrograde	445 Jul 31 j 03:54	29° ♄ 43'51	
inferior conj	444 Aug 30 j 11:57	8° ♄ 00'08	-2°-58'-13	evening set	445 Aug 07 j 08:52	27° ♄ 09'20	
minimum elong	444 Aug 30 j 16:21	7° ♄ 48'07	2°56'47	min. Earth dist.	445 Aug 10 j 23:04	24° ♄ 07'47	0.63023 AU
morning rise	444 Sep 05 j 22:58	2° ♄ 29'24		inferior conj	445 Aug 13 j 17:49	21° ♄ 24'14	-3°-47'-58
direct	444 Sep 08 j 13:44	1° ♄ 53'39		minimum elong	445 Aug 13 j 22:44	21° ♄ 12'09	3°46'45
asc. node	444 Sep 08 j 21:43	1° ♄ 54'14		morning rise	445 Aug 20 j 15:01	16° ♄ 11'54	
morning max el	444 Sep 15 j 01:51	5° ♄ 21'51	18°02'44	direct	445 Aug 23 j 02:01	15° ♄ 43'37	
	444 Oct 01 j 11:15	0° ♄		asc. node	445 Aug 26 j 18:46	16° ♄ 48'48	
morning set	444 Oct 02 j 17:33	2° ♄ 07'28		morning max el	445 Aug 29 j 17:39	19° ♄ 09'06	17°52'46
					445 Sep 06 j 16:17	0° ♄	
superior conj	444 Oct 16 j 10:23	24° ♄ 40'58	0°12'04	morning set	445 Sep 15 j 01:36	14° ♄ 29'29	
minimum elong	444 Oct 16 j 11:49	24° ♄ 46'45	0°11'51		445 Sep 23 j 23:29	0° ♄	
behind sun begin	444 Oct 16 j 04:33	24° ♄ 17'33					
behind sun end	444 Oct 16 j 19:05	25° ♄ 15'54		superior conj	445 Sep 26 j 19:16	4° ♄ 46'06	0°53'50
desc. node	444 Oct 18 j 06:02	27° ♄ 35'35		minimum elong	445 Sep 26 j 23:57	5° ♄ 05'43	0°53'13
	444 Oct 19 j 18:20	0° ♄		max. Earth dist.	445 Oct 03 j 10:32	15° ♄ 40'09	1.43614 AU
max. Earth dist.	444 Oct 20 j 18:57	1° ♄ 37'33	1.44685 AU	desc. node	445 Oct 05 j 03:04	18° ♄ 22'49	
evening rise	444 Nov 01 j 21:32	20° ♄ 31'23		evening rise	445 Oct 12 j 04:40	29° ♄ 29'27	
	444 Nov 08 j 01:33	0° ♄			445 Oct 12 j 12:34	0° ♄	
greatest brilliancy	444 Nov 20 j 22:11	19° ♄ 03'31	-0.6m		445 Nov 01 j 19:45	0° ♄	
evening max el	444 Nov 27 j 23:09	27° ♄ 47'50	20°00'26	greatest brilliancy	445 Nov 05 j 15:08	5° ♄ 03'54	-0.5m
	444 Nov 30 j 08:32	0° ♄		evening max el	445 Nov 10 j 22:52	11° ♄ 16'43	21°06'50
retrograde	444 Dec 05 j 14:27	2° ♄ 16'12		retrograde	445 Nov 19 j 12:00	16° ♄ 21'12	
asc. node	444 Dec 05 j 20:59	2° ♄ 15'47		asc. node	445 Nov 22 j 17:59	15° ♄ 21'48	
evening set	444 Dec 09 j 04:37	1° ♄ 00'54		evening set	445 Nov 23 j 12:06	14° ♄ 50'32	
	444 Dec 10 j 10:31	30° ♄		inferior conj	445 Nov 28 j 22:10	8° ♄ 35'32	2°00'12
inferior conj	444 Dec 14 j 16:53	24° ♄ 56'11	2°41'40	minimum elong	445 Nov 28 j 19:47	8° ♄ 43'43	1°59'20
minimum elong	444 Dec 14 j 14:08	25° ♄ 05'21	2°40'52	min. Earth dist.	445 Nov 29 j 07:27	8° ♄ 03'35	0.67435 AU
min. Earth dist.	444 Dec 15 j 14:11	23° ♄ 44'59	0.66831 AU	morning rise	445 Dec 04 j 03:05	2° ♄ 20'00	
morning rise	444 Dec 19 j 23:04	18° ♄ 41'19		direct	445 Dec 09 j 08:22	0° ♄ 04'49	
direct	444 Dec 25 j 19:29	16° ♄ 06'29		morning max el	445 Dec 20 j 00:24	6° ♄ 26'28	23°44'05
morning max el	445 Jan 06 j 15:46	23° ♄ 09'33	25°10'32	desc. node	446 Jan 01 j 02:15	21° ♄ 11'29	
	445 Jan 12 j 17:32	0° ♄			446 Jan 07 j 07:07	0° ♄	
desc. node	445 Jan 14 j 05:11	1° ♄ 51'10		morning set	446 Jan 24 j 09:16	27° ♄ 02'52	
	445 Feb 02 j 12:08	0° ♄			446 Jan 26 j 02:32	0° ♄	
morning set	445 Feb 11 j 20:11	15° ♄ 57'10		max. Earth dist.	446 Jan 28 j 08:53	3° ♄ 57'30	1.38721 AU
max. Earth dist.	445 Feb 15 j 13:49	22° ♄ 47'12	1.36671 AU				
	445 Feb 19 j 08:52	0° ♄		superior conj	446 Feb 04 j 18:06	17° ♄ 26'21	-1°-50'-17
				minimum elong	446 Feb 04 j 21:43	17° ♄ 43'22	1°50'01
superior conj	445 Feb 21 j 17:34	4° ♄ 37'18	-1°-30'-46		446 Feb 11 j 06:47	0° ♄	
minimum elong	445 Feb 21 j 21:29	4° ♄ 56'38	1°30'16	evening rise	446 Feb 13 j 21:21	5° ♄ 05'30	
evening rise	445 Mar 02 j 00:53	21° ♄ 19'54		asc. node	446 Feb 18 j 17:19	14° ♄ 20'14	
asc. node	445 Mar 03 j 20:18	24° ♄ 56'57			446 Feb 28 j 20:13	0° ♄	
	445 Mar 06 j 10:32	0° ♄		evening max el	446 Mar 02 j 06:01	1° ♄ 28'07	18°47'33
evening max el	445 Mar 19 j 07:00	19° ♄ 15'03	19°37'29	retrograde	446 Mar 10 j 09:29	5° ♄ 25'11	
retrograde	445 Mar 28 j 21:54	23° ♄ 52'35		evening set	446 Mar 12 j 16:13	5° ♄ 07'47	
evening set	445 Mar 31 j 00:20	23° ♄ 40'18		inferior conj	446 Mar 20 j 12:34	0° ♄ 47'11	2°28'49
inferior conj	445 Apr 08 j 15:21	19° ♄ 36'21	0°59'51	minimum elong	446 Mar 20 j 16:51	0° ♄ 39'17	2°27'40

	446 Mar 21 j 14:06	30° RH		evening max el	447 Feb 13 j 12:39	14° H 10'55	18°17'40
min. Earth dist.	446 Mar 23 j 19:46	28° H 22'40	0.57448 AU	retrograde	447 Feb 20 j 15:50	17° H 43'51	
morning rise	446 Mar 28 j 13:13	25° H 36'20		evening set	447 Feb 23 j 03:42	17° H 18'49	
desc. node	446 Mar 30 j 01:22	25° H 01'30		inferior conj	447 Mar 02 j 06:50	12° H 37'01	3°22'46
direct	446 Apr 03 j 01:49	24° H 21'42		minimum elong	447 Mar 02 j 09:57	12° H 30'20	3°22'15
	446 Apr 15 j 08:52	0° Y		min. Earth dist.	447 Mar 05 j 16:48	9° H 42'34	0.59477 AU
morning max el	446 Apr 17 j 09:57	1° Y 52'14	26°08'11	morning rise	447 Mar 09 j 12:38	7° H 00'54	
	446 May 07 j 08:36	0° B		direct	447 Mar 15 j 22:53	5° H 08'52	
morning set	446 May 15 j 17:28	16° B 27'31		desc. node	447 Mar 16 j 22:26	5° H 11'26	
asc. node	446 May 17 j 16:37	20° B 38'12		morning max el	447 Mar 30 j 06:19	12° H 53'33	27°14'13
	446 May 21 j 23:47	0° II			447 Apr 12 j 19:11	0° Y	
					447 Apr 29 j 12:04	0° B	
superior conj	446 May 22 j 18:23	1° II 42'05	0°51'23	morning set	447 Apr 30 j 02:29	1° B 14'46	
minimum elong	446 May 22 j 16:22	1° II 30'59	0°51'00	asc. node	447 May 04 j 13:40	10° B 46'35	
max. Earth dist.	446 May 23 j 07:02	2° II 51'26	1.32464 AU				
evening rise	446 May 29 j 19:18	16° II 50'48		superior conj	447 May 07 j 06:08	16° B 39'24	0°28'06
	446 Jun 05 j 10:45	0° S		minimum elong	447 May 07 j 04:54	16° B 32'40	0°27'51
	446 Jun 25 j 02:37	0° Q		max. Earth dist.	447 May 06 j 19:40	15° B 41'57	1.32294 AU
desc. node	446 Jun 26 j 00:42	1° Q 02'48			447 May 13 j 09:19	0° II	
evening max el	446 Jun 29 j 15:40	4° Q 48'03	27°00'38	evening rise	447 May 14 j 04:27	1° II 41'19	
retrograde	446 Jul 13 j 14:05	12° Q 04'12			447 May 29 j 13:44	0° S	
evening set	446 Jul 20 j 13:51	9° Q 53'20		evening max el	447 Jun 11 j 14:40	16° S 26'21	26°04'14
min. Earth dist.	446 Jul 24 j 05:50	7° Q 12'07	0.61093 AU	desc. node	447 Jun 12 j 21:42	17° S 37'39	
inferior conj	446 Jul 27 j 10:41	4° Q 26'08	-4°-27'-16	retrograde	447 Jun 25 j 15:26	23° S 38'24	
minimum elong	446 Jul 27 j 14:44	4° Q 17'22	4°26'41	evening set	447 Jul 01 j 21:50	22° S 02'56	
	446 Aug 02 j 16:29	30° RS		min. Earth dist.	447 Jul 06 j 03:23	19° S 25'24	0.59031 AU
morning rise	446 Aug 03 j 18:37	29° S 34'54		inferior conj	447 Jul 09 j 10:58	16° S 56'14	-4°-47'-35
direct	446 Aug 06 j 04:29	29° S 11'26		minimum elong	447 Jul 09 j 12:00	16° S 54'17	4°47'33
	446 Aug 09 j 13:54	0° Q		morning rise	447 Jul 17 j 05:41	12° S 27'50	
morning max el	446 Aug 13 j 07:12	2° Q 42'56	18°01'29	direct	447 Jul 19 j 16:55	12° S 07'13	
asc. node	446 Aug 13 j 15:49	3° Q 04'18		morning max el	447 Jul 27 j 15:25	15° S 54'51	18°30'14
morning set	446 Aug 29 j 03:28	27° Q 42'37		asc. node	447 Jul 31 j 12:54	20° S 25'28	
	446 Aug 30 j 09:11	0° np			447 Aug 06 j 13:46	0° Q	
				morning set	447 Aug 12 j 18:09	11° Q 33'40	
superior conj	446 Sep 08 j 07:16	16° np 10'56	1°23'15				
minimum elong	446 Sep 08 j 11:40	16° np 30'22	1°22'49	superior conj	447 Aug 21 j 18:16	28° Q 44'26	1°40'14
max. Earth dist.	446 Sep 15 j 21:02	29° np 09'39	1.42004 AU	minimum elong	447 Aug 21 j 20:47	28° Q 56'07	1°40'05
	446 Sep 16 j 09:09	0° A			447 Aug 22 j 10:34	0° np	
evening rise	446 Sep 21 j 20:59	8° A 55'34		max. Earth dist.	447 Aug 29 j 02:48	11° np 58'44	1.40063 AU
desc. node	446 Sep 22 j 00:04	9° A 07'53		evening rise	447 Sep 02 j 11:16	19° np 23'44	
	446 Oct 05 j 16:33	0° M		desc. node	447 Sep 08 j 21:05	29° np 47'35	
greatest brilliancy	446 Oct 19 j 23:19	19° M 27'06	-0.3m		447 Sep 09 j 00:14	0° A	
evening max el	446 Oct 24 j 17:04	24° M 46'41	22°22'45		447 Sep 29 j 23:51	0° M	
	446 Oct 31 j 18:59	0° A		evening max el	447 Oct 07 j 07:07	8° M 19'49	23°42'47
retrograde	446 Nov 03 j 07:43	0° A 29'31		retrograde	447 Oct 18 j 00:17	14° M 38'47	
	446 Nov 05 j 17:00	30° RM		evening set	447 Oct 23 j 02:05	12° M 33'05	
evening set	446 Nov 07 j 19:47	28° M 41'48		asc. node	447 Oct 27 j 12:05	7° M 30'45	
asc. node	446 Nov 09 j 15:02	26° M 57'47		min. Earth dist.	447 Oct 28 j 00:07	6° M 50'00	0.67633 AU
inferior conj	446 Nov 13 j 05:11	22° M 20'15	1°12'43	inferior conj	447 Oct 28 j 12:11	6° M 08'52	0°20'45
minimum elong	446 Nov 13 j 03:35	22° M 25'49	1°12'03	minimum elong	447 Oct 28 j 11:42	6° M 10'33	0°20'32
min. Earth dist.	446 Nov 13 j 03:33	22° M 25'53	0.67695 AU	morning rise	447 Nov 02 j 21:27	29° A 59'20	
morning rise	446 Nov 18 j 11:13	16° M 06'26			447 Nov 02 j 21:06	30° RA	
direct	446 Nov 23 j 01:25	14° M 13'43		direct	447 Nov 06 j 21:38	28° A 28'52	
morning max el	446 Dec 02 j 11:39	19° M 47'59	22°16'41		447 Nov 11 j 06:48	0° M	
greatest brilliancy	446 Dec 07 j 02:55	25° M 00'21	-0.3m	morning max el	447 Nov 15 j 05:07	3° M 18'59	20°56'13
	446 Dec 11 j 01:03	0° A		greatest brilliancy	447 Nov 20 j 20:32	9° M 53'17	-0.5m
desc. node	446 Dec 18 j 23:18	11° A 01'20			447 Dec 05 j 00:58	0° A	
	446 Dec 31 j 12:34	0° B		desc. node	447 Dec 05 j 20:21	1° A 12'38	
morning set	447 Jan 04 j 17:43	6° B 43'58		morning set	447 Dec 14 j 23:33	15° A 12'05	
max. Earth dist.	447 Jan 10 j 05:38	15° B 48'49	1.40849 AU	max. Earth dist.	447 Dec 23 j 09:50	28° A 37'48	1.42757 AU
					447 Dec 24 j 06:00	0° B	
superior conj	447 Jan 18 j 00:51	29° B 21'06	-2°-1'-30				
minimum elong	447 Jan 18 j 02:19	29° B 27'41	2°01'29	superior conj	447 Dec 30 j 08:26	10° B 08'59	-1°-59'-53
	447 Jan 18 j 09:33	0° A		minimum elong	447 Dec 30 j 05:33	9° B 56'50	1°59'50
evening rise	447 Jan 28 j 07:16	18° A 15'36			448 Jan 10 j 17:16	0° A	
	447 Feb 03 j 16:37	0° H		evening rise	448 Jan 11 j 02:48	0° A 42'33	
asc. node	447 Feb 05 j 14:21	3° H 17'08		asc. node	448 Jan 23 j 11:24	21° A 39'29	

evening max el	448 Jan 27 j 23:43	27° \approx 14'43	18°07'32	minimum elong	448 Dec 09 j 05:40	19° \approx 12'15	1°40'28
	448 Jan 31 j 17:44	0° \mathbb{H}			448 Dec 15 j 20:00	0° \mathbb{Z}	
retrograde	448 Feb 03 j 14:11	0° \mathbb{H} 39'20		evening rise	448 Dec 23 j 03:36	12° \mathbb{Z} 17'53	
evening set	448 Feb 06 j 06:33	0° \mathbb{H} 05'25			449 Jan 02 j 17:27	0° \approx	
	448 Feb 06 j 11:36	30° $\mathbb{R}\approx$		asc. node	449 Jan 09 j 08:27	9° \approx 16'43	
inferior conj	448 Feb 12 j 19:52	25° \approx 01'51	3°46'10	evening max el	449 Jan 10 j 12:14	10° \approx 31'34	18°16'37
minimum elong	448 Feb 12 j 20:48	24° \approx 59'34	3°46'07	retrograde	449 Jan 16 j 23:52	14° \approx 01'09	
min. Earth dist.	448 Feb 15 j 20:58	22° \approx 02'29	0.61587 AU	evening set	449 Jan 19 j 20:45	13° \approx 17'29	
morning rise	448 Feb 19 j 08:30	19° \approx 09'01		inferior conj	449 Jan 25 j 23:41	7° \approx 53'46	3°46'37
direct	448 Feb 26 j 06:08	16° \approx 44'15		minimum elong	449 Jan 25 j 22:41	7° \approx 56'31	3°46'34
desc. node	448 Mar 02 j 19:29	18° \approx 07'51		min. Earth dist.	449 Jan 28 j 10:36	5° \approx 10'48	0.63507 AU
morning max el	448 Mar 11 j 09:03	24° \approx 35'39	27°45'46	morning rise	449 Jan 31 j 22:55	1° \approx 50'25	
	448 Mar 16 j 07:26	0° \mathbb{H}			449 Feb 03 j 20:57	30° $\mathbb{R}\mathbb{Z}$	
	448 Apr 05 j 03:00	0° \mathbb{Y}		direct	449 Feb 07 j 21:46	29° \mathbb{Z} 05'09	
morning set	448 Apr 13 j 07:18	15° \mathbb{Y} 46'58			449 Feb 12 j 04:50	0° \approx	
max. Earth dist.	448 Apr 19 j 06:37	28° \mathbb{Y} 24'23	1.32498 AU	desc. node	449 Feb 17 j 16:33	3° \approx 21'30	
asc. node	448 Apr 20 j 10:43	0° \mathbb{Y} 57'05		morning max el	449 Feb 21 j 16:46	6° \approx 57'34	27°40'17
	448 Apr 20 j 00:14	0° \mathbb{Y}			449 Mar 11 j 08:34	0° \mathbb{H}	
				morning set	449 Mar 28 j 05:32	29° \mathbb{H} 56'33	
superior conj	448 Apr 20 j 16:43	1° \mathbb{Y} 29'48	0°02'40		449 Mar 28 j 06:14	0° \mathbb{Y}	
minimum elong	448 Apr 20 j 16:35	1° \mathbb{Y} 29'07	0°02'38	max. Earth dist.	449 Apr 02 j 11:52	10° \mathbb{Y} 45'28	1.33096 AU
behind sun begin	448 Apr 20 j 11:33	1° \mathbb{Y} 01'37					
behind sun end	448 Apr 20 j 21:38	1° \mathbb{Y} 56'38		superior conj	449 Apr 05 j 00:23	16° \mathbb{Y} 07'38	0°-24'-9
evening rise	448 Apr 27 j 15:52	16° \mathbb{Y} 35'29		minimum elong	449 Apr 05 j 01:33	16° \mathbb{Y} 13'54	0°23'55
	448 May 04 j 07:55	0° \mathbb{I}		asc. node	449 Apr 07 j 07:46	21° \mathbb{Y} 05'51	
evening max el	448 May 23 j 07:06	27° \mathbb{I} 21'48	24°42'01		449 Apr 11 j 11:14	0° \mathbb{Y}	
	448 May 26 j 07:41	0° \mathbb{Z}		evening rise	449 Apr 12 j 03:39	1° \mathbb{Y} 26'53	
desc. node	448 May 29 j 18:43	2° \mathbb{Z} 18'56			449 Apr 28 j 03:24	0° \mathbb{I}	
retrograde	448 Jun 06 j 05:49	4° \mathbb{Z} 25'36		evening max el	449 May 04 j 21:30	7° \mathbb{I} 55'26	23°07'17
evening set	448 Jun 11 j 06:27	3° \mathbb{Z} 28'31		desc. node	449 May 16 j 15:45	14° \mathbb{I} 30'52	
min. Earth dist.	448 Jun 16 j 18:26	0° \mathbb{Z} 37'09	0.57103 AU	retrograde	449 May 18 j 08:07	14° \mathbb{I} 37'18	
	448 Jun 17 j 17:38	30° $\mathbb{R}\mathbb{I}$		evening set	449 May 21 j 21:40	14° \mathbb{I} 09'25	
inferior conj	448 Jun 19 j 15:33	28° \mathbb{I} 44'45	-4°-36'-36	min. Earth dist.	449 May 29 j 06:59	10° \mathbb{I} 50'15	0.55649 AU
minimum elong	448 Jun 19 j 11:48	28° \mathbb{I} 50'54	4°36'13	inferior conj	449 May 31 j 00:35	9° \mathbb{I} 49'35	-3°-42'-11
morning rise	448 Jun 27 j 20:57	24° \mathbb{I} 37'49		minimum elong	449 May 30 j 17:19	10° \mathbb{I} 00'14	3°40'28
direct	448 Jun 30 j 11:12	24° \mathbb{I} 18'57		morning rise	449 Jun 08 j 16:08	5° \mathbb{I} 55'48	
morning max el	448 Jul 09 j 15:18	28° \mathbb{I} 35'09	19°19'59	direct	449 Jun 11 j 10:25	5° \mathbb{I} 37'34	
	448 Jul 11 j 01:09	0° \mathbb{Z}		morning max el	449 Jun 22 j 04:42	10° \mathbb{I} 36'25	20°30'33
asc. node	448 Jul 17 j 09:58	8° \mathbb{Z} 37'26		asc. node	449 Jul 04 j 07:01	27° \mathbb{I} 28'29	
morning set	448 Jul 26 j 17:45	25° \mathbb{Z} 51'31			449 Jul 05 j 15:57	0° \mathbb{Z}	
	448 Jul 28 j 19:28	0° \mathbb{Q}		morning set	449 Jul 10 j 23:27	10° \mathbb{Z} 28'41	
superior conj	448 Aug 03 j 22:30	12° \mathbb{Q} 09'52	1°46'38	superior conj	449 Jul 18 j 15:05	26° \mathbb{Z} 13'21	1°44'34
minimum elong	448 Aug 03 j 22:58	12° \mathbb{Q} 12'06	1°46'38	minimum elong	449 Jul 18 j 13:57	26° \mathbb{Z} 07'36	1°44'31
max. Earth dist.	448 Aug 10 j 06:16	24° \mathbb{Q} 08'33	1.38038 AU		449 Jul 20 j 12:02	0° \mathbb{Q}	
	448 Aug 13 j 12:16	0° \mathbb{Q}		max. Earth dist.	449 Jul 23 j 12:45	5° \mathbb{Q} 58'16	1.36177 AU
evening rise	448 Aug 14 j 02:06	1° \mathbb{Q} 01'01		evening rise	449 Jul 27 j 14:19	13° \mathbb{Q} 40'32	
desc. node	448 Aug 25 j 18:06	20° \mathbb{Q} 17'06			449 Aug 05 j 22:49	0° \mathbb{Q}	
	448 Sep 01 j 06:06	0° \mathbb{Q}		desc. node	449 Aug 12 j 15:07	10° \mathbb{Q} 31'03	
evening max el	448 Sep 18 j 18:59	21° \mathbb{Q} 55'52	25°00'25		449 Aug 27 j 02:22	0° \mathbb{Q}	
retrograde	448 Sep 30 j 12:47	28° \mathbb{Q} 44'34		evening max el	449 Sep 01 j 06:34	5° \mathbb{Q} 33'00	26°08'13
evening set	448 Oct 06 j 05:16	26° \mathbb{Q} 21'38		retrograde	449 Sep 13 j 20:39	12° \mathbb{Q} 41'36	
min. Earth dist.	448 Oct 10 j 18:42	21° \mathbb{Q} 13'22	0.67245 AU	evening set	449 Sep 20 j 03:28	10° \mathbb{Q} 04'50	
inferior conj	448 Oct 11 j 17:25	19° \mathbb{Q} 58'42	0°-34'-16	min. Earth dist.	449 Sep 24 j 09:00	5° \mathbb{Q} 33'11	0.66518 AU
minimum elong	448 Oct 11 j 18:17	19° \mathbb{Q} 55'53	0°33'54	inferior conj	449 Sep 25 j 19:03	3° \mathbb{Q} 47'19	-1°-30'-50
asc. node	448 Oct 13 j 09:10	17° \mathbb{Q} 50'48		minimum elong	449 Sep 25 j 21:23	3° \mathbb{Q} 40'03	1°29'53
morning rise	448 Oct 17 j 07:49	13° \mathbb{Q} 56'09			449 Sep 29 j 01:49	30° $\mathbb{R}\mathbb{Q}$	
direct	448 Oct 20 j 19:40	12° \mathbb{Q} 45'43		asc. node	449 Sep 30 j 06:14	28° \mathbb{Q} 54'53	
morning max el	448 Oct 28 j 06:23	17° \mathbb{Q} 00'34	19°47'42	morning rise	449 Oct 01 j 16:17	27° \mathbb{Q} 54'34	
greatest brilliancy	448 Nov 05 j 01:27	26° \mathbb{Q} 41'17	-0.6m	direct	449 Oct 04 j 17:58	27° \mathbb{Q} 00'37	
	448 Nov 07 j 09:17	0° \mathbb{M}			449 Oct 10 j 17:48	0° \mathbb{Q}	
desc. node	448 Nov 21 j 17:23	21° \mathbb{M} 38'52		morning max el	449 Oct 11 j 14:43	0° \mathbb{Q} 50'29	18°53'56
morning set	448 Nov 22 j 20:08	23° \mathbb{M} 22'07			449 Oct 31 j 19:30	0° \mathbb{M}	
	448 Nov 27 j 02:40	0° \mathbb{M}		morning set	449 Nov 02 j 08:02	2° \mathbb{M} 23'58	
max. Earth dist.	448 Dec 04 j 21:32	12° \mathbb{M} 15'03	1.44178 AU	desc. node	449 Nov 08 j 14:25	12° \mathbb{M} 15'33	
				max. Earth dist.	449 Nov 17 j 14:09	26° \mathbb{M} 22'41	1.44948 AU
superior conj	448 Dec 09 j 13:13	19° \mathbb{M} 42'44	-1°-41'-4				

superior conj	449 Nov 18 j 19:45	28° \mathbb{M} 19'09	-1°-4'-4	behind sun end	450 Oct 28 j 22:22	6° \mathbb{M} 52'29	
minimum elong	449 Nov 18 j 12:06	27° \mathbb{M} 49'03	1°03'10	max. Earth dist.	450 Oct 31 j 08:45	10° \mathbb{M} 42'41	1.44988 AU
	449 Nov 19 j 21:20	0° \mathcal{A}			450 Nov 12 j 16:32	0° \mathcal{A}	
evening rise	449 Dec 04 j 05:50	22° \mathcal{A} 55'27		evening rise	450 Nov 14 j 08:42	2° \mathcal{A} 36'44	
	449 Dec 08 j 14:33	0° \mathcal{B}		greatest brilliancy	450 Nov 29 j 16:14	26° \mathcal{A} 10'15	-0.7m
evening max el	449 Dec 24 j 23:38	23° \mathcal{B} 55'38	18°43'57		450 Dec 02 j 08:28	0° \mathcal{B}	
asc. node	449 Dec 27 j 05:29	25° \mathcal{B} 55'48		evening max el	450 Dec 08 j 07:45	7° \mathcal{B} 23'37	19°28'12
retrograde	449 Dec 31 j 16:36	27° \mathcal{B} 41'00		asc. node	450 Dec 14 j 02:31	11° \mathcal{B} 22'20	
evening set	450 Jan 03 j 18:54	26° \mathcal{B} 46'28		retrograde	450 Dec 15 j 13:04	11° \mathcal{B} 33'52	
inferior conj	450 Jan 09 j 14:22	21° \mathcal{B} 04'49	3°30'28	evening set	450 Dec 18 j 22:22	10° \mathcal{B} 26'45	
minimum elong	450 Jan 09 j 12:09	21° \mathcal{B} 11'32	3°30'07	inferior conj	450 Dec 24 j 12:43	4° \mathcal{B} 29'50	3°02'13
min. Earth dist.	450 Jan 11 j 09:56	18° \mathcal{B} 52'32	0.65103 AU	minimum elong	450 Dec 24 j 09:59	4° \mathcal{B} 38'41	3°01'32
morning rise	450 Jan 15 j 04:15	14° \mathcal{B} 55'01		min. Earth dist.	450 Dec 25 j 17:46	2° \mathcal{B} 55'28	0.66315 AU
direct	450 Jan 21 j 20:36	12° \mathcal{B} 03'52			450 Dec 28 j 03:36	30° \mathcal{R} \mathcal{A}	
morning max el	450 Feb 04 j 02:28	19° \mathcal{B} 47'53	27°01'10	morning rise	450 Dec 29 j 20:50	28° \mathcal{A} 16'17	
desc. node	450 Feb 04 j 13:36	20° \mathcal{B} 16'05		direct	451 Jan 05 j 01:32	25° \mathcal{A} 32'26	
	450 Feb 12 j 20:35	0° \approx			451 Jan 14 j 08:47	0° \mathcal{B}	
	450 Mar 04 j 09:21	0° \mathcal{H}		morning max el	451 Jan 17 j 11:43	2° \mathcal{B} 54'19	25°55'59
morning set	450 Mar 11 j 17:59	13° \mathcal{H} 32'23		desc. node	451 Jan 22 j 10:38	8° \mathcal{B} 22'50	
max. Earth dist.	450 Mar 16 j 07:16	22° \mathcal{H} 32'28	1.34130 AU		451 Feb 07 j 02:08	0° \approx	
	450 Mar 19 j 22:11	0° \mathcal{Y}		morning set	451 Feb 22 j 16:30	26° \approx 22'12	
					451 Feb 24 j 15:13	0° \mathcal{H}	
superior conj	450 Mar 20 j 03:02	0° \mathcal{Y} 25'22	0°-51'-14	max. Earth dist.	451 Feb 26 j 14:44	3° \mathcal{H} 46'20	1.35626 AU
minimum elong	450 Mar 20 j 05:31	0° \mathcal{Y} 38'23	0°50'47				
asc. node	450 Mar 25 j 04:47	11° \mathcal{Y} 07'53		superior conj	451 Mar 03 j 22:13	14° \mathcal{H} 16'05	-1°-17'-9
evening rise	450 Mar 27 j 13:55	16° \mathcal{Y} 07'57		minimum elong	451 Mar 04 j 01:47	14° \mathcal{H} 34'07	1°16'36
	450 Apr 03 j 14:21	0° \mathcal{B}		evening rise	451 Mar 11 j 20:42	0° \mathcal{Y} 32'52	
evening max el	450 Apr 16 j 17:10	18° \mathcal{B} 37'22	21°34'46		451 Mar 11 j 14:16	0° \mathcal{Y}	
retrograde	450 Apr 28 j 23:48	24° \mathcal{B} 36'43		asc. node	451 Mar 12 j 01:49	0° \mathcal{Y} 58'59	
evening set	450 May 01 j 11:16	24° \mathcal{B} 22'50		evening max el	451 Mar 29 j 23:16	29° \mathcal{Y} 50'56	20°15'07
desc. node	450 May 03 j 12:48	23° \mathcal{B} 51'26			451 Mar 30 j 03:03	0° \mathcal{B}	
inferior conj	450 May 10 j 20:30	20° \mathcal{B} 21'31	-2°-4'-2	retrograde	451 Apr 09 j 13:32	4° \mathcal{B} 56'45	
minimum elong	450 May 10 j 14:51	20° \mathcal{B} 29'27	2°02'09	evening set	451 Apr 11 j 15:56	4° \mathcal{B} 45'36	
min. Earth dist.	450 May 10 j 19:44	20° \mathcal{B} 22'36	0.54986 AU	desc. node	451 Apr 20 j 09:48	0° \mathcal{B} 57'21	
morning rise	450 May 19 j 19:05	16° \mathcal{B} 24'06		inferior conj	451 Apr 20 j 16:30	0° \mathcal{B} 47'27	0°-4'-48
direct	450 May 22 j 21:40	16° \mathcal{B} 02'57		minimum elong	451 Apr 20 j 16:17	0° \mathcal{B} 47'47	0°04'44
morning max el	450 Jun 04 j 06:59	21° \mathcal{B} 54'11	21°59'21	transit middle	451 Apr 20 j 16:17	0° \mathcal{B} 47'47	0°04'44
	450 Jun 11 j 05:29	0° \mathbb{I}		transit begin	451 Apr 20 j 12:26	0° \mathcal{B} 53'28	
asc. node	450 Jun 21 j 04:03	16° \mathbb{I} 48'14		transit end	451 Apr 20 j 20:07	0° \mathcal{B} 42'06	
morning set	450 Jun 25 j 08:57	25° \mathbb{I} 18'09			451 Apr 22 j 00:36	30° \mathcal{R} \mathcal{Y}	
	450 Jun 27 j 14:40	0° \mathcal{E}		min. Earth dist.	451 Apr 22 j 09:20	29° \mathcal{Y} 47'11	0.55283 AU
				morning rise	451 Apr 29 j 14:15	26° \mathcal{Y} 28'01	
superior conj	450 Jul 02 j 16:10	10° \mathcal{E} 42'38	1°35'49	direct	451 May 03 j 10:30	25° \mathcal{Y} 55'50	
minimum elong	450 Jul 02 j 14:04	10° \mathcal{E} 31'37	1°35'38		451 May 13 j 23:08	0° \mathcal{B}	
max. Earth dist.	450 Jul 06 j 03:21	17° \mathcal{E} 53'42	1.34642 AU	morning max el	451 May 17 j 00:35	2° \mathcal{B} 36'08	23°39'20
evening rise	450 Jul 10 j 19:02	27° \mathcal{E} 08'52			451 Jun 04 j 18:58	0° \mathbb{I}	
	450 Jul 12 j 06:49	0° \mathcal{Q}		asc. node	451 Jun 08 j 01:05	6° \mathbb{I} 29'14	
	450 Jul 30 j 06:03	0° \mathcal{M}		morning set	451 Jun 09 j 20:29	10° \mathbb{I} 14'35	
desc. node	450 Jul 30 j 12:09	0° \mathcal{M} 22'02					
evening max el	450 Aug 14 j 18:32	19° \mathcal{M} 04'50	26°58'29	superior conj	451 Jun 16 j 22:53	25° \mathbb{I} 28'55	1°21'46
retrograde	450 Aug 27 j 23:14	26° \mathcal{M} 22'43		minimum elong	451 Jun 16 j 20:25	25° \mathbb{I} 15'39	1°21'26
evening set	450 Sep 03 j 18:24	23° \mathcal{M} 38'49		max. Earth dist.	451 Jun 19 j 03:37	0° \mathcal{E} 10'52	1.33496 AU
min. Earth dist.	450 Sep 07 j 16:41	19° \mathcal{M} 44'25	0.65436 AU		451 Jun 19 j 01:35	0° \mathcal{E}	
inferior conj	450 Sep 09 j 15:01	17° \mathcal{M} 30'55	-2°-27'-2	evening rise	451 Jun 24 j 11:50	11° \mathcal{E} 13'24	
minimum elong	450 Sep 09 j 18:46	17° \mathcal{M} 20'08	2°25'41		451 Jul 04 j 13:59	0° \mathcal{Q}	
morning rise	450 Sep 15 j 20:37	11° \mathcal{M} 51'02		desc. node	451 Jul 17 j 09:09	19° \mathcal{Q} 40'06	
asc. node	450 Sep 17 j 03:16	11° \mathcal{M} 21'37			451 Jul 25 j 21:59	0° \mathcal{M}	
direct	450 Sep 18 j 14:34	11° \mathcal{M} 09'44		evening max el	451 Jul 28 j 05:56	2° \mathcal{M} 20'28	27°23'50
morning max el	450 Sep 25 j 04:02	14° \mathcal{M} 43'43	18°16'29	retrograde	451 Aug 10 j 19:52	9° \mathcal{M} 39'29	
	450 Oct 06 j 03:03	0° \mathcal{L}		evening set	451 Aug 17 j 23:09	6° \mathcal{M} 58'16	
morning set	450 Oct 14 j 00:07	12° \mathcal{L} 50'35		min. Earth dist.	451 Aug 21 j 15:34	3° \mathcal{M} 39'05	0.64000 AU
	450 Oct 24 j 14:30	0° \mathbb{M}		inferior conj	451 Aug 24 j 02:52	1° \mathcal{M} 04'01	-3°-20'-16
desc. node	450 Oct 26 j 11:27	2° \mathbb{M} 59'01		minimum elong	451 Aug 24 j 07:36	0° \mathcal{M} 51'36	3°18'52
					451 Aug 25 j 03:34	30° \mathcal{R} \mathcal{Q}	
superior conj	450 Oct 28 j 21:23	6° \mathbb{M} 48'33	0°-15'-53	morning rise	451 Aug 30 j 18:04	25° \mathcal{Q} 40'23	
minimum elong	450 Oct 28 j 19:18	6° \mathbb{M} 40'22	0°15'38	direct	451 Sep 02 j 06:55	25° \mathcal{Q} 08'08	
behind sun begin	450 Oct 28 j 16:15	6° \mathbb{M} 28'15		asc. node	451 Sep 04 j 00:18	25° \mathcal{Q} 23'15	

morning max el	451 Sep 08 j 19:40	28°Ω34'24	17°56'14		452 Sep 03 j 09:01	0°ྐ	
	451 Sep 10 j 03:32	0°ྐ		morning set	452 Sep 07 j 11:39	7°ྐ21'41	
morning set	451 Sep 25 j 19:16	24°ྐ35'34					
	451 Sep 28 j 23:07	0°Ω		superior conj	452 Sep 18 j 11:50	26°ྐ47'47	1°07'54
				minimum elong	452 Sep 18 j 16:44	27°ྐ08'43	1°07'20
superior conj	451 Oct 08 j 15:10	16°Ω08'05	0°31'07		452 Sep 20 j 09:04	0°Ω	
minimum elong	451 Oct 08 j 18:30	16°Ω21'41	0°30'40	max. Earth dist.	452 Sep 25 j 16:52	8°Ω50'27	1.42986 AU
desc. node	451 Oct 13 j 08:29	23°Ω45'27		desc. node	452 Sep 29 j 05:30	14°Ω32'02	
max. Earth dist.	451 Oct 14 j 02:38	24°Ω57'51	1.44304 AU	evening rise	452 Oct 03 j 03:48	20°Ω44'32	
	451 Oct 17 j 06:57	0°ྐ			452 Oct 09 j 04:05	0°ྐ	
evening rise	451 Oct 24 j 18:47	11°ྐ39'43		greatest brilliancy	452 Oct 29 j 10:39	28°ྐ44'59	-0.4m
	451 Nov 05 j 21:07	0°♌			452 Oct 30 j 11:05	0°♌	
greatest brilliancy	451 Nov 15 j 06:54	13°♌26'17	-0.5m	evening max el	452 Nov 03 j 08:13	4°♌21'30	21°38'12
evening max el	451 Nov 21 j 10:53	20°♌52'26	20°27'19	retrograde	452 Nov 12 j 07:39	9°♌41'53	
retrograde	451 Nov 29 j 10:44	25°♌35'06		evening set	452 Nov 16 j 12:44	8°♌03'53	
asc. node	451 Nov 30 j 23:33	25°♌21'45		asc. node	452 Nov 16 j 20:36	7°♌47'52	
evening set	451 Dec 03 j 04:56	24°♌13'28		inferior conj	452 Nov 21 j 22:19	1°♌45'37	1°40'40
inferior conj	451 Dec 08 j 16:04	18°♌04'11	2°24'54	minimum elong	452 Nov 21 j 20:13	1°♌52'52	1°39'52
minimum elong	451 Dec 08 j 13:25	18°♌13'10	2°24'03	min. Earth dist.	452 Nov 22 j 02:47	1°♌30'11	0.67590 AU
min. Earth dist.	451 Dec 09 j 08:07	17°♌09'48	0.67136 AU		452 Nov 23 j 05:07	30°ྐྐ	
morning rise	451 Dec 13 j 21:26	11°♌49'00		morning rise	452 Nov 27 j 03:28	25°ྐ30'47	
direct	451 Dec 19 j 11:38	9°♌21'49		direct	452 Dec 02 j 02:15	23°ྐ25'11	
morning max el	451 Dec 30 j 20:02	16°♌07'46	24°34'27	morning max el	452 Dec 12 j 05:26	29°ྐ26'18	23°06'34
desc. node	452 Jan 09 j 07:41	27°♌20'17			452 Dec 12 j 18:37	0°♌	
	452 Jan 11 j 07:30	0°♌		greatest brilliancy	452 Dec 17 j 02:56	4°♌55'00	-0.3m
	452 Jan 31 j 01:17	0°♌		desc. node	452 Dec 26 j 04:44	16°♌53'59	
morning set	452 Feb 04 j 19:34	8°♌10'04			453 Jan 04 j 03:20	0°♌	
max. Earth dist.	452 Feb 08 j 12:41	14°♌48'31	1.37524 AU	morning set	453 Jan 15 j 20:57	18°♌40'17	
				max. Earth dist.	453 Jan 20 j 08:04	26°♌14'48	1.39639 AU
					453 Jan 22 j 11:41	0°♌	
superior conj	452 Feb 15 j 06:44	27°♌30'32	-1°-39'-49				
minimum elong	452 Feb 15 j 10:41	27°♌49'42	1°39'23				
	452 Feb 16 j 13:27	0°♌		superior conj	453 Jan 28 j 00:21	9°♌57'52	-1°-56'-18
evening rise	452 Feb 23 j 21:43	14°♌34'43		minimum elong	453 Jan 28 j 03:19	10°♌11'35	1°56'09
asc. node	452 Feb 26 j 22:51	20°♌33'58		evening rise	453 Feb 06 j 14:09	28°♌06'22	
	452 Mar 03 j 02:20	0°ྐ			453 Feb 07 j 13:53	0°♌	
evening max el	452 Mar 11 j 16:35	11°ྐ42'48	19°13'43	asc. node	453 Feb 12 j 19:54	9°♌46'57	
retrograde	452 Mar 20 j 14:52	16°ྐ00'56		evening max el	453 Feb 22 j 19:09	24°♌09'10	18°32'18
evening set	452 Mar 22 j 19:03	15°ྐ46'45		retrograde	453 Mar 02 j 10:55	27°♌54'17	
inferior conj	452 Mar 31 j 02:10	11°ྐ36'25	1°41'49	evening set	453 Mar 04 j 19:50	27°♌33'52	
minimum elong	452 Mar 31 j 05:53	11°ྐ30'10	1°40'38	inferior conj	453 Mar 12 j 08:27	23°♌04'06	2°55'53
min. Earth dist.	452 Apr 03 j 00:15	9°ྐ39'16	0.56466 AU	minimum elong	453 Mar 12 j 12:29	22°♌56'09	2°54'59
desc. node	452 Apr 06 j 06:49	7°ྐ44'01		min. Earth dist.	453 Mar 15 j 18:26	20°♌24'06	0.58279 AU
morning rise	452 Apr 08 j 12:44	6°ྐ44'25		morning rise	453 Mar 20 j 01:07	17°♌41'16	
direct	452 Apr 13 j 10:17	5°ྐ49'02		desc. node	453 Mar 24 j 03:53	16°♌19'48	
morning max el	452 Apr 27 j 15:05	13°ྐ04'48	25°18'10	direct	453 Mar 25 j 23:46	16°♌11'14	
	452 May 10 j 19:32	0°♌		morning max el	453 Apr 09 j 08:29	23°♌48'41	26°40'10
morning set	452 May 24 j 08:23	25°♌12'48			453 Apr 14 j 22:49	0°ྐ	
asc. node	452 May 24 j 22:08	26°♌25'26			453 May 03 j 18:57	0°♌	
	452 May 26 j 14:16	0°♌		morning set	453 May 08 j 19:00	10°♌06'10	
				asc. node	453 May 11 j 19:11	16°♌30'49	
superior conj	452 May 31 j 09:02	10°♌25'05	1°03'29				
minimum elong	452 May 31 j 06:43	10°♌12'26	1°03'05	superior conj	453 May 15 j 20:42	25°♌23'52	0°41'50
max. Earth dist.	452 Jun 01 j 11:36	12°♌49'55	1.32734 AU	minimum elong	453 May 15 j 18:58	25°♌14'22	0°41'29
evening rise	452 Jun 07 j 13:08	25°♌43'21		max. Earth dist.	453 May 15 j 23:38	25°♌39'59	1.32347 AU
	452 Jun 09 j 15:46	0°♌			453 May 17 j 23:02	0°♌	
	452 Jun 27 j 02:23	0°♌		evening rise	453 May 22 j 20:05	10°♌28'35	
desc. node	452 Jul 03 j 06:08	8°♌11'46			453 Jun 01 j 22:33	0°♌	
evening max el	452 Jul 09 j 14:20	15°♌06'41	27°18'36	desc. node	453 Jun 20 j 03:10	25°♌36'48	
retrograde	452 Jul 23 j 09:52	22°♌23'35		evening max el	453 Jun 21 j 17:00	27°♌10'32	26°40'16
evening set	452 Jul 30 j 14:06	19°♌57'35			453 Jun 24 j 23:22	0°♌	
min. Earth dist.	452 Aug 03 j 04:09	17°♌06'28	0.62232 AU	retrograde	453 Jul 05 j 16:26	4°♌25'18	
inferior conj	452 Aug 06 j 03:41	14°♌20'08	-4°-6'-23	evening set	453 Jul 12 j 10:41	2°♌28'01	
minimum elong	452 Aug 06 j 08:26	14°♌09'01	4°05'23		453 Jul 16 j 01:48	30°ྐྐ	
morning rise	452 Aug 13 j 05:23	9°♌16'18		min. Earth dist.	453 Jul 16 j 06:27	29°♌50'58	0.60222 AU
direct	452 Aug 15 j 15:43	8°♌50'12		inferior conj	453 Jul 19 j 13:55	27°♌09'25	-4°-38'-52
asc. node	452 Aug 20 j 21:21	10°♌54'13		minimum elong	453 Jul 19 j 16:57	27°♌03'11	4°38'34
morning max el	452 Aug 22 j 10:53	12°♌16'51	17°54'09	morning rise	453 Jul 27 j 02:29	22°♌28'10	

direct	453 Jul 29 j 12:46	22° $\overline{50}$ 06'03		minimum elong	454 Jul 01 j 05:11	9° $\overline{52}$ 24'14	4°47'32
morning max el	453 Aug 05 j 22:36	25° $\overline{54}$ 42'38	18°11'16	morning rise	454 Jul 09 j 05:25	5° $\overline{50}$ 04'05	
asc. node	453 Aug 07 j 18:25	27° $\overline{53}$ 39'25		direct	454 Jul 11 j 17:35	4° $\overline{54}$ 44'28	
	453 Aug 09 j 14:57	0° Ω		morning max el	454 Jul 20 j 03:42	8° $\overline{54}$ 42'42	18°48'47
morning set	453 Aug 21 j 19:29	20° Ω 52'04		asc. node	454 Jul 25 j 15:29	15° $\overline{52}$ 23'45	
	453 Aug 26 j 16:11	0° $\overline{\eta}$			454 Aug 03 j 01:27	0° Ω	
				morning set	454 Aug 05 j 14:20	4° Ω 55'06	
superior conj	453 Aug 31 j 10:22	8° $\overline{\eta}$ 43'53	1°31'53	superior conj	454 Aug 14 j 05:22	21° Ω 41'15	1°44'06
minimum elong	453 Aug 31 j 14:03	9° $\overline{\eta}$ 00'31	1°31'34	minimum elong	454 Aug 14 j 06:58	21° Ω 48'54	1°44'02
max. Earth dist.	453 Sep 08 j 01:12	22° $\overline{\eta}$ 03'02	1.41202 AU		454 Aug 18 j 16:32	0° $\overline{\eta}$	
	453 Sep 12 j 20:09	0° $\overline{\Delta}$		max. Earth dist.	454 Aug 21 j 04:53	4° $\overline{\eta}$ 31'31	1.39194 AU
evening rise	453 Sep 13 j 04:26	0° $\overline{\Delta}$ 33'41		evening rise	454 Aug 25 j 05:17	11° $\overline{\eta}$ 31'15	
desc. node	453 Sep 16 j 02:31	5° $\overline{\Delta}$ 14'58		desc. node	454 Sep 02 j 23:32	25° $\overline{\eta}$ 50'38	
	453 Oct 02 j 16:12	0° $\overline{\mathcal{M}}$			454 Sep 05 j 16:00	0° $\overline{\Delta}$	
greatest brilliancy	453 Oct 11 j 18:20	11° $\overline{\mathcal{M}}$ 58'29	-0.3m		454 Sep 28 j 03:38	0° $\overline{\mathcal{M}}$	
evening max el	453 Oct 17 j 00:16	17° $\overline{\mathcal{M}}$ 51'39	22°56'37	evening max el	454 Sep 29 j 13:00	1° $\overline{\mathcal{M}}$ 25'21	24°16'37
retrograde	453 Oct 27 j 02:18	23° $\overline{\mathcal{M}}$ 50'56		retrograde	454 Oct 10 j 17:23	7° $\overline{\mathcal{M}}$ 58'44	
evening set	453 Oct 31 j 20:04	21° $\overline{\mathcal{M}}$ 55'23		evening set	454 Oct 16 j 01:14	5° $\overline{\mathcal{M}}$ 45'35	
asc. node	453 Nov 03 j 17:39	18° $\overline{\mathcal{M}}$ 52'06		min. Earth dist.	454 Oct 20 j 19:31	0° $\overline{\mathcal{M}}$ 16'49	0.67500 AU
inferior conj	453 Nov 06 j 05:34	15° $\overline{\mathcal{M}}$ 31'57	0°51'07		454 Oct 21 j 00:31	30° $\overline{\mathcal{R}}$ $\overline{\Delta}$	
minimum elong	453 Nov 06 j 04:24	15° $\overline{\mathcal{M}}$ 36'00	0°50'38	inferior conj	454 Oct 21 j 12:02	29° $\overline{\Delta}$ 21'10	0°-2'-18
min. Earth dist.	453 Nov 05 j 23:24	15° $\overline{\mathcal{M}}$ 53'14	0.67702 AU	minimum elong	454 Oct 21 j 12:05	29° $\overline{\Delta}$ 20'59	0°02'17
morning rise	453 Nov 11 j 12:44	9° $\overline{\mathcal{M}}$ 19'41		transit middle	454 Oct 21 j 12:05	29° $\overline{\Delta}$ 20'59	0°02'17
direct	453 Nov 15 j 20:41	7° $\overline{\mathcal{M}}$ 36'51		transit begin	454 Oct 21 j 09:23	29° $\overline{\Delta}$ 30'06	
morning max el	453 Nov 24 j 19:10	12° $\overline{\mathcal{M}}$ 51'53	21°41'19	transit end	454 Oct 21 j 14:48	29° $\overline{\Delta}$ 11'52	
greatest brilliancy	453 Nov 29 j 17:06	18° $\overline{\mathcal{M}}$ 26'48	-0.4m	asc. node	454 Oct 21 j 14:44	29° $\overline{\Delta}$ 12'06	
	453 Dec 08 j 07:30	0° $\overline{\mathcal{X}}$		morning rise	454 Oct 26 j 23:14	23° $\overline{\Delta}$ 14'02	
desc. node	453 Dec 13 j 01:48	6° $\overline{\mathcal{X}}$ 53'36		direct	454 Oct 30 j 17:52	21° $\overline{\Delta}$ 52'31	
morning set	453 Dec 26 j 17:11	27° $\overline{\mathcal{X}}$ 47'16		morning max el	454 Nov 07 j 15:51	26° $\overline{\Delta}$ 26'56	20°25'20
	453 Dec 28 j 02:25	0° $\overline{\mathcal{Z}}$			454 Nov 10 j 20:18	0° $\overline{\mathcal{M}}$	
max. Earth dist.	454 Jan 02 j 07:38	8° $\overline{\mathcal{Z}}$ 30'18	1.41695 AU	greatest brilliancy	454 Nov 14 j 01:50	4° $\overline{\mathcal{M}}$ 06'26	-0.5m
				desc. node	454 Nov 29 j 22:49	27° $\overline{\mathcal{M}}$ 11'27	
superior conj	454 Jan 09 j 21:54	21° $\overline{\mathcal{Z}}$ 25'32	-2°-2'-40		454 Dec 01 j 19:00	0° $\overline{\mathcal{X}}$	
minimum elong	454 Jan 09 j 21:46	21° $\overline{\mathcal{Z}}$ 24'58	2°02'42	morning set	454 Dec 05 j 15:56	5° $\overline{\mathcal{X}}$ 57'50	
	454 Jan 14 j 17:53	0° $\overline{\approx}$		max. Earth dist.	454 Dec 15 j 14:33	21° $\overline{\mathcal{X}}$ 38'53	1.43423 AU
evening rise	454 Jan 20 j 18:32	10° $\overline{\approx}$ 59'38			454 Dec 20 j 17:38	0° $\overline{\mathcal{Z}}$	
asc. node	454 Jan 30 j 16:58	28° $\overline{\approx}$ 30'45					
	454 Jan 31 j 15:54	0° $\overline{\mathcal{H}}$		superior conj	454 Dec 21 j 18:12	1° $\overline{\mathcal{Z}}$ 41'29	-1°-54'-13
evening max el	454 Feb 06 j 04:03	7° $\overline{\mathcal{H}}$ 02'15	18°10'59	minimum elong	454 Dec 21 j 13:08	1° $\overline{\mathcal{Z}}$ 20'31	1°53'57
retrograde	454 Feb 13 j 00:45	10° $\overline{\mathcal{H}}$ 30'15		evening rise	455 Jan 03 j 06:35	23° $\overline{\mathcal{Z}}$ 04'57	
evening set	454 Feb 15 j 14:25	10° $\overline{\mathcal{H}}$ 01'42			455 Jan 07 j 05:31	0° $\overline{\approx}$	
inferior conj	454 Feb 22 j 11:16	5° $\overline{\mathcal{H}}$ 10'41	3°35'56	asc. node	455 Jan 17 j 14:02	16° $\overline{\approx}$ 35'20	
minimum elong	454 Feb 22 j 13:29	5° $\overline{\mathcal{H}}$ 05'38	3°35'41	evening max el	455 Jan 20 j 16:07	20° $\overline{\approx}$ 12'28	18°09'12
min. Earth dist.	454 Feb 25 j 18:32	2° $\overline{\mathcal{H}}$ 10'54	0.60374 AU	retrograde	455 Jan 27 j 04:18	23° $\overline{\approx}$ 37'34	
	454 Feb 28 j 12:53	30° $\overline{\mathcal{R}}$ $\overline{\approx}$		evening set	455 Jan 29 j 22:31	22° $\overline{\approx}$ 59'42	
morning rise	454 Mar 01 j 09:20	29° $\overline{\approx}$ 26'10		inferior conj	455 Feb 05 j 07:03	17° $\overline{\approx}$ 47'42	3°48'42
direct	454 Mar 08 j 01:34	27° $\overline{\approx}$ 19'00		minimum elong	455 Feb 05 j 07:06	17° $\overline{\approx}$ 47'36	3°48'43
desc. node	454 Mar 11 j 00:56	27° $\overline{\approx}$ 42'52		min. Earth dist.	455 Feb 08 j 02:39	14° $\overline{\approx}$ 52'47	0.62434 AU
	454 Mar 16 j 01:15	0° $\overline{\mathcal{H}}$		morning rise	455 Feb 11 j 13:30	11° $\overline{\approx}$ 49'51	
morning max el	454 Mar 22 j 07:53	5° $\overline{\mathcal{H}}$ 08'11	27°32'10	direct	455 Feb 18 j 12:56	9° $\overline{\approx}$ 14'13	
	454 Apr 09 j 19:39	0° $\overline{\mathcal{Y}}$		desc. node	455 Feb 25 j 22:00	11° $\overline{\approx}$ 41'37	
morning set	454 Apr 23 j 02:32	24° $\overline{\mathcal{Y}}$ 48'37		morning max el	455 Mar 04 j 12:52	17° $\overline{\approx}$ 07'25	27°47'48
	454 Apr 25 j 13:51	0° $\overline{\mathcal{B}}$			455 Mar 15 j 05:56	0° $\overline{\mathcal{H}}$	
asc. node	454 Apr 28 j 16:15	6° $\overline{\mathcal{B}}$ 41'04			455 Apr 02 j 12:18	0° $\overline{\mathcal{Y}}$	
max. Earth dist.	454 Apr 29 j 12:00	8° $\overline{\mathcal{B}}$ 28'56	1.32332 AU	morning set	455 Apr 07 j 04:51	9° $\overline{\mathcal{Y}}$ 12'05	
				max. Earth dist.	455 Apr 12 j 20:46	21° $\overline{\mathcal{Y}}$ 02'38	1.32701 AU
superior conj	454 Apr 30 j 08:12	10° $\overline{\mathcal{B}}$ 19'31	0°17'33				
minimum elong	454 Apr 30 j 07:25	10° $\overline{\mathcal{B}}$ 15'12	0°17'23	superior conj	455 Apr 14 j 17:47	25° $\overline{\mathcal{Y}}$ 05'26	0°-8'-35
evening rise	454 May 07 j 06:28	25° $\overline{\mathcal{B}}$ 21'46		minimum elong	455 Apr 14 j 18:11	25° $\overline{\mathcal{Y}}$ 07'39	0°08'31
	454 May 09 j 11:54	0° $\overline{\Pi}$		behind sun begin	455 Apr 14 j 13:47	24° $\overline{\mathcal{Y}}$ 43'49	
	454 May 27 j 03:00	0° $\overline{\mathcal{G}}$		behind sun end	455 Apr 14 j 22:35	25° $\overline{\mathcal{Y}}$ 31'29	
evening max el	454 Jun 03 j 12:48	8° $\overline{\mathcal{G}}$ 28'55	25°31'39	asc. node	455 Apr 15 j 13:18	26° $\overline{\mathcal{Y}}$ 51'23	
desc. node	454 Jun 07 j 00:11	11° $\overline{\mathcal{G}}$ 27'52			455 Apr 16 j 23:59	0° $\overline{\mathcal{B}}$	
retrograde	454 Jun 17 j 13:50	15° $\overline{\mathcal{G}}$ 39'17		evening rise	455 Apr 21 j 18:15	10° $\overline{\mathcal{B}}$ 15'21	
evening set	454 Jun 23 j 08:45	14° $\overline{\mathcal{G}}$ 20'21			455 May 01 j 22:55	0° $\overline{\Pi}$	
min. Earth dist.	454 Jun 28 j 00:54	11° $\overline{\mathcal{G}}$ 38'47	0.58177 AU	evening max el	455 May 16 j 03:44	19° $\overline{\Pi}$ 12'16	24°02'23
inferior conj	454 Jul 01 j 06:04	9° $\overline{\mathcal{G}}$ 22'40	-4°-47'-33				

desc. node	455 May 24 j 21:12	25°II09'54		456 Apr 27 j 01:27	0°II	
retrograde	455 May 29 j 23:16	26°II08'45		retrograde	456 May 09 j 19:55	6°II11'21
evening set	455 Jun 03 j 08:33	25°II26'07		desc. node	456 May 10 j 18:14	6°II09'24
min. Earth dist.	455 Jun 09 j 14:49	22°II24'10	0.56409 AU	evening set	456 May 12 j 20:43	5°II51'07
inferior conj	455 Jun 12 j 02:04	20°II52'38	-4°-19'-19	min. Earth dist.	456 May 21 j 03:03	2°II16'39 0.55261 AU
minimum elong	455 Jun 11 j 20:24	21°II01'27	4°18'24	inferior conj	456 May 22 j 04:15	1°II40'58 -3°-5'-8
morning rise	455 Jun 20 j 11:52	16°II52'22		minimum elong	456 May 21 j 20:56	1°II51'20 3°03'03
direct	455 Jun 23 j 03:31	16°II33'59			456 May 25 j 05:51	30°R8
morning max el	455 Jul 02 j 23:18	21°II07'14	19°47'26	morning rise	456 May 30 j 23:24	27°848'00
	455 Jul 10 j 02:48	0°☿		direct	456 Jun 02 j 20:42	27°828'59
asc. node	455 Jul 12 j 12:32	3°☿53'43			456 Jun 10 j 17:31	0°II
morning set	455 Jul 20 j 16:51	19°☿22'07		morning max el	456 Jun 14 j 07:43	2°II49'17 21°06'20
	455 Jul 25 j 22:40	0°♄		asc. node	456 Jun 28 j 09:34	22°II58'08
					456 Jul 02 j 00:14	0°☿
superior conj	455 Jul 28 j 15:22	5°♄24'23	1°46'40	morning set	456 Jul 04 j 00:25	4°☿05'32
minimum elong	455 Jul 28 j 15:05	5°♄22'58	1°46'40			
max. Earth dist.	455 Aug 03 j 08:50	16°♄29'32	1.37219 AU	superior conj	456 Jul 11 j 11:57	19°☿39'59 1°41'34
evening rise	455 Aug 07 j 05:51	23°♄37'04		minimum elong	456 Jul 11 j 10:20	19°☿31'39 1°41'29
	455 Aug 10 j 20:52	0°♄		max. Earth dist.	456 Jul 15 j 18:44	28°☿20'44 1.35484 AU
desc. node	455 Aug 20 j 20:33	16°♄14'27			456 Jul 16 j 14:50	0°♄
	455 Aug 30 j 09:05	0°♄		evening rise	456 Jul 20 j 01:40	6°♄39'03
evening max el	455 Sep 12 j 00:45	15°♄03'15	25°31'02		456 Aug 02 j 14:06	0°♄
retrograde	455 Sep 24 j 03:56	22°♄01'28		desc. node	456 Aug 06 j 17:33	6°♄19'51
evening set	455 Sep 30 j 02:31	19°♄32'25		evening max el	456 Aug 24 j 12:41	28°♄39'54 26°32'11
min. Earth dist.	455 Oct 04 j 12:39	14°♄39'16	0.66975 AU		456 Aug 25 j 23:01	0°♄
inferior conj	455 Oct 05 j 15:59	13°♄11'19	0°-58'-9	retrograde	456 Sep 06 j 09:22	5°♄52'44
minimum elong	455 Oct 05 j 17:27	13°♄06'34	0°57'32	evening set	456 Sep 12 j 21:53	3°♄12'04
asc. node	455 Oct 08 j 11:45	9°♄44'58			456 Sep 16 j 02:32	30°R♄
morning rise	455 Oct 11 j 09:03	7°♄12'17		min. Earth dist.	456 Sep 17 j 00:20	28°♄56'21 0.66108 AU
direct	455 Oct 14 j 16:21	6°♄09'10		inferior conj	456 Sep 18 j 15:27	26°♄58'25 -1°-54'-49
morning max el	455 Oct 21 j 20:12	10°♄12'12	19°22'52	minimum elong	456 Sep 18 j 18:24	26°♄49'30 1°53'41
greatest brilliancy	455 Oct 31 j 06:55	22°♄24'10	-0.7m	asc. node	456 Sep 24 j 08:47	21°♄21'11
	455 Nov 05 j 08:43	0°♄		morning rise	456 Sep 24 j 16:04	21°♄10'45
morning set	455 Nov 14 j 16:23	14°♄22'34		direct	456 Sep 27 j 14:16	20°♄22'29
desc. node	455 Nov 16 j 19:51	17°♄42'41		morning max el	456 Oct 04 j 06:55	24°♄04'07 18°35'57
	455 Nov 24 j 16:35	0°♄			456 Oct 09 j 03:58	0°♄
max. Earth dist.	455 Nov 28 j 04:39	5°♄31'12	1.44594 AU	morning set	456 Oct 24 j 15:45	23°♄59'47
					456 Oct 28 j 10:04	0°♄
superior conj	455 Dec 01 j 12:16	10°♄47'10	-1°-27'-24	desc. node	456 Nov 02 j 16:53	8°♄22'40
minimum elong	455 Dec 01 j 03:51	10°♄13'39	1°26'34			
	455 Dec 13 j 08:24	0°♄		superior conj	456 Nov 09 j 13:52	19°♄12'19 0°-44'-16
evening rise	455 Dec 15 j 22:06	4°♄15'45		minimum elong	456 Nov 09 j 08:10	18°♄49'53 0°43'34
	456 Jan 01 j 03:46	0°♄		max. Earth dist.	456 Nov 09 j 23:05	19°♄48'30 1.45062 AU
evening max el	456 Jan 04 j 04:31	3°♄33'02	18°26'07		456 Nov 16 j 10:37	0°♄
asc. node	456 Jan 04 j 11:04	3°♄49'25		evening rise	456 Nov 25 j 14:08	14°♄28'32
retrograde	456 Jan 10 j 17:18	7°♄07'41			456 Dec 05 j 08:58	0°♄
evening set	456 Jan 13 j 16:27	6°♄19'25		evening max el	456 Dec 17 j 14:44	16°♄58'54 19°00'48
inferior conj	456 Jan 19 j 15:52	0°♄47'51	3°41'28	asc. node	456 Dec 21 j 08:05	19°♄59'23
minimum elong	456 Jan 19 j 14:16	0°♄52'28	3°41'18	retrograde	456 Dec 24 j 12:00	20°♄53'41
	456 Jan 20 j 08:21	30°R♄		evening set	456 Dec 27 j 17:10	19°♄53'50
min. Earth dist.	456 Jan 21 j 20:15	28°♄16'48	0.64236 AU	inferior conj	457 Jan 02 j 10:09	14°♄05'06 3°19'45
morning rise	456 Jan 25 j 10:42	24°♄41'41		minimum elong	457 Jan 02 j 07:38	14°♄12'59 3°19'15
direct	456 Feb 01 j 07:44	21°♄52'07		min. Earth dist.	457 Jan 03 j 23:16	12°♄08'46 0.65667 AU
desc. node	456 Feb 12 j 19:03	27°♄41'45		morning rise	457 Jan 07 j 21:11	7°♄53'32
morning max el	456 Feb 14 j 21:29	29°♄41'33	27°27'22	direct	457 Jan 14 j 09:00	5°♄04'28
	456 Feb 15 j 04:49	0°♄		morning max el	457 Jan 27 j 07:17	12°♄40'13 26°36'12
	456 Mar 08 j 04:11	0°♄		desc. node	457 Jan 29 j 16:06	15°♄09'56
morning set	456 Mar 20 j 23:18	23°♄08'02			457 Feb 10 j 06:42	0°♄
	456 Mar 24 j 09:25	0°♄			457 Feb 28 j 19:10	0°♄
max. Earth dist.	456 Mar 25 j 22:10	3°♄09'28	1.33483 AU	morning set	457 Mar 04 j 06:26	6°♄25'59
				max. Earth dist.	457 Mar 08 j 12:54	14°♄42'56 1.34710 AU
superior conj	456 Mar 28 j 23:34	9°♄35'20	0°-35'-41			
minimum elong	456 Mar 29 j 01:18	9°♄44'34	0°35'20	superior conj	457 Mar 12 j 23:23	23°♄42'36 -1°-2'-29
asc. node	456 Apr 01 j 10:21	16°♄57'43		minimum elong	457 Mar 13 j 02:23	23°♄58'05 1°01'57
evening rise	456 Apr 05 j 05:36	25°♄02'59			457 Mar 15 j 23:55	0°♄
	456 Apr 07 j 14:59	0°♄		asc. node	457 Mar 19 j 07:23	6°♄55'57
evening max el	456 Apr 26 j 19:36	29°♄46'00	22°26'54	evening rise	457 Mar 20 j 14:39	9°♄38'25

	457 Mar 31 j 11:49	0°♄		evening rise	458 Mar 04 j 19:18	23°♄54'14	
evening max el	457 Apr 08 j 19:15	10°♄39'29	20°58'53	asc. node	458 Mar 06 j 04:25	26°♄40'46	
retrograde	457 Apr 20 j 09:27	16°♄16'53			458 Mar 07 j 20:40	0°♄	
evening set	457 Apr 22 j 15:19	16°♄05'01		evening max el	458 Mar 22 j 06:08	22°♄08'46	19°46'40
desc. node	457 Apr 27 j 15:16	14°♄24'25		retrograde	458 Apr 01 j 03:05	26°♄53'26	
inferior conj	457 May 01 j 22:24	12°♄06'51	-1°-14'-3	evening set	458 Apr 03 j 05:10	26°♄41'39	
minimum elong	457 May 01 j 18:53	12°♄11'49	1°12'48	inferior conj	458 Apr 11 j 22:51	22°♄39'40	0°43'37
min. Earth dist.	457 May 02 j 15:49	11°♄42'10	0.54990 AU	minimum elong	458 Apr 12 j 00:43	22°♄36'46	0°42'57
morning rise	457 May 10 j 21:55	8°♄02'36		min. Earth dist.	458 Apr 14 j 06:04	21°♄14'08	0.55678 AU
direct	457 May 14 j 06:41	7°♄38'11		desc. node	458 Apr 14 j 12:19	21°♄04'41	
morning max el	457 May 27 j 05:53	13°♄50'46	22°41'10	morning rise	458 Apr 20 j 16:57	18°♄06'37	
	457 Jun 08 j 12:26	0°♄		direct	458 Apr 24 j 23:04	17°♄26'22	
asc. node	457 Jun 15 j 06:37	12°♄28'27		morning max el	458 May 08 j 21:35	24°♄24'18	24°22'30
morning set	457 Jun 18 j 11:03	18°♄59'37			458 May 14 j 00:31	0°♄	
	457 Jun 23 j 15:19	0°♄			458 Jun 01 j 01:15	0°♄	
				asc. node	458 Jun 02 j 03:40	2°♄16'37	
superior conj	457 Jun 25 j 15:47	4°♄18'20	1°30'26	morning set	458 Jun 02 j 22:56	3°♄57'32	
minimum elong	457 Jun 25 j 13:27	4°♄06'00	1°30'11				
max. Earth dist.	457 Jun 28 j 13:45	10°♄26'12	1.34107 AU	superior conj	458 Jun 10 j 00:14	19°♄09'54	1°14'30
evening rise	457 Jul 03 j 12:03	20°♄24'45		minimum elong	458 Jun 09 j 21:46	18°♄56'34	1°14'07
	457 Jul 08 j 13:19	0°♄		max. Earth dist.	458 Jun 11 j 17:26	22°♄52'15	1.33120 AU
desc. node	457 Jul 24 j 14:34	25°♄58'43			458 Jun 15 j 02:09	0°♄	
	457 Jul 27 j 13:08	0°♄		evening rise	458 Jun 17 j 08:50	4°♄41'13	
evening max el	457 Aug 07 j 00:30	12°♄06'15	27°12'29		458 Jul 01 j 05:41	0°♄	
retrograde	457 Aug 20 j 09:24	19°♄25'13		desc. node	458 Jul 11 j 11:35	14°♄59'21	
evening set	457 Aug 27 j 08:54	16°♄40'44		evening max el	458 Jul 20 j 10:43	25°♄10'25	27°25'28
min. Earth dist.	457 Aug 31 j 04:22	13°♄02'08	0.64880 AU		458 Jul 26 j 12:54	0°♄	
inferior conj	457 Sep 02 j 08:17	10°♄38'21	-2°-50'-10	retrograde	458 Aug 03 j 03:37	2°♄29'38	
minimum elong	457 Sep 02 j 12:32	10°♄26'35	2°48'44	evening set	458 Aug 10 j 08:21	29°♄52'57	
morning rise	457 Sep 08 j 17:52	5°♄05'14			458 Aug 10 j 04:23	30°♄	
direct	457 Sep 11 j 09:21	4°♄28'12		min. Earth dist.	458 Aug 13 j 22:57	26°♄47'05	0.63287 AU
asc. node	457 Sep 11 j 05:49	4°♄28'19		inferior conj	458 Aug 16 j 15:50	24°♄05'15	-3°-41'-2
morning max el	457 Sep 17 j 21:38	7°♄57'37	18°05'42	minimum elong	458 Aug 16 j 20:45	23°♄52'58	3°39'44
	457 Oct 02 j 19:41	0°♄		morning rise	458 Aug 23 j 11:28	18°♄49'54	
morning set	457 Oct 05 j 19:52	5°♄01'30		direct	458 Aug 25 j 22:49	18°♄20'44	
				asc. node	458 Aug 29 j 02:52	19°♄09'29	
superior conj	457 Oct 19 j 20:09	27°♄57'05	0°04'55	morning max el	458 Sep 01 j 13:32	21°♄46'16	17°53'01
minimum elong	457 Oct 19 j 20:46	27°♄59'30	0°04'50		458 Sep 07 j 20:47	0°♄	
behind sun begin	457 Oct 19 j 10:28	27°♄18'23		morning set	458 Sep 18 j 00:49	17°♄14'46	
behind sun end	457 Oct 20 j 07:03	28°♄40'34			458 Sep 25 j 09:21	0°♄	
desc. node	457 Oct 20 j 13:53	29°♄07'49					
	457 Oct 21 j 03:00	0°♄		superior conj	458 Sep 30 j 01:01	7°♄50'17	0°48'15
max. Earth dist.	457 Oct 23 j 17:52	4°♄09'10	1.44785 AU	minimum elong	458 Sep 30 j 05:29	8°♄08'50	0°47'40
evening rise	457 Nov 05 j 08:29	23°♄49'59		max. Earth dist.	458 Oct 06 j 09:57	18°♄15'02	1.43811 AU
	457 Nov 09 j 08:21	0°♄		desc. node	458 Oct 07 j 10:55	19°♄55'01	
greatest brilliancy	457 Nov 23 j 11:17	21°♄10'07	-0.6m		458 Oct 13 j 20:28	0°♄	
	457 Nov 30 j 10:33	0°♄		evening rise	458 Oct 15 j 15:51	2°♄48'04	
evening max el	457 Nov 30 j 20:46	0°♄26'47	19°51'39		458 Nov 02 j 21:45	0°♄	
retrograde	457 Dec 08 j 09:22	4°♄50'29		greatest brilliancy	458 Nov 08 j 09:14	7°♄27'10	-0.5m
asc. node	457 Dec 08 j 05:06	4°♄50'18		evening max el	458 Nov 13 j 21:25	13°♄55'54	20°56'17
evening set	457 Dec 11 j 22:11	3°♄37'24		retrograde	458 Nov 22 j 07:01	18°♄54'39	
	457 Dec 15 j 13:55	30°♄		asc. node	458 Nov 25 j 02:08	18°♄10'32	
inferior conj	457 Dec 17 j 10:55	27°♄34'32	2°47'21	evening set	458 Nov 26 j 05:30	17°♄26'29	
minimum elong	457 Dec 17 j 08:10	27°♄43'41	2°46'34	inferior conj	458 Dec 01 j 15:48	11°♄12'55	2°06'53
min. Earth dist.	457 Dec 18 j 10:12	26°♄17'17	0.66706 AU	minimum elong	458 Dec 01 j 13:20	11°♄21'22	2°06'02
morning rise	457 Dec 22 j 17:30	21°♄19'52		min. Earth dist.	458 Dec 02 j 02:50	10°♄35'05	0.67368 AU
direct	457 Dec 28 j 16:06	18°♄42'25		morning rise	458 Dec 06 j 20:44	4°♄57'21	
morning max el	458 Jan 09 j 16:17	25°♄51'07	25°22'45	direct	458 Dec 12 j 04:22	2°♄38'50	
	458 Jan 13 j 11:56	0°♄		morning max el	458 Dec 23 j 00:43	9°♄07'08	23°57'12
desc. node	458 Jan 16 j 13:08	3°♄40'21		desc. node	459 Jan 03 j 10:10	22°♄55'06	
	458 Feb 03 j 19:52	0°♄			459 Jan 08 j 11:34	0°♄	
morning set	458 Feb 14 j 21:25	18°♄51'28		morning set	459 Jan 27 j 14:20	0°♄08'40	
max. Earth dist.	458 Feb 18 j 15:51	25°♄48'23	1.36385 AU		459 Jan 27 j 12:19	0°♄	
	458 Feb 20 j 20:45	0°♄		max. Earth dist.	459 Jan 31 j 11:17	6°♄54'54	1.38406 AU
superior conj	458 Feb 24 j 14:26	7°♄18'35	-1°-27'-19	superior conj	459 Feb 07 j 17:11	20°♄14'42	-1°-47'-46
minimum elong	458 Feb 24 j 18:17	7°♄37'45	1°26'48	minimum elong	459 Feb 07 j 20:56	20°♄32'32	1°47'28

	459 Feb 12 j 18:27	0°♄		460 Jan 19 j 20:03	0°♁	
evening rise	459 Feb 16 j 17:03	7°♄44'12				
asc. node	459 Feb 21 j 01:28	16°♄07'21	superior conj	460 Jan 21 j 02:55	2°♁18'20	-2°00'-31
	459 Mar 01 j 11:09	0°♄	minimum elong	460 Jan 21 j 04:52	2°♁27'05	2°00'29
evening max el	459 Mar 05 j 03:48	4°♄16'35 18°53'42	evening rise	460 Jan 31 j 04:45	21°♁00'05	
retrograde	459 Mar 13 j 11:43	8°♄18'24		460 Feb 05 j 00:44	0°♄	
evening set	459 Mar 15 j 17:47	8°♄01'55	asc. node	460 Feb 07 j 22:32	5°♄08'45	
inferior conj	459 Mar 23 j 16:55	3°♄44'14 2°17'35	evening max el	460 Feb 16 j 09:30	16°♄55'30	18°20'50
minimum elong	459 Mar 23 j 21:09	3°♄36'36 2°16'23	retrograde	460 Feb 23 j 15:29	20°♄31'01	
min. Earth dist.	459 Mar 26 j 22:23	1°♄26'10 0.57179 AU	evening set	460 Feb 26 j 02:39	20°♄07'10	
	459 Mar 29 j 04:04	30°♄	inferior conj	460 Mar 04 j 08:08	15°♄28'25	3°16'41
morning rise	459 Mar 31 j 20:16	28°♄38'05	minimum elong	460 Mar 04 j 11:32	15°♄21'17	3°16'05
desc. node	459 Apr 01 j 09:21	28°♄24'54	min. Earth dist.	460 Mar 07 j 18:29	12°♄37'02	0.59162 AU
direct	459 Apr 06 j 05:12	27°♄28'37	morning rise	460 Mar 11 j 16:44	9°♄55'33	
	459 Apr 14 j 07:09	0°♄	direct	460 Mar 18 j 00:19	8°♄09'14	
morning max el	459 Apr 20 j 12:38	4°♄55'48 25°55'56	desc. node	460 Mar 18 j 06:24	8°♄09'24	
	459 May 08 j 16:52	0°♄	morning max el	460 Apr 01 j 08:07	15°♄52'00	27°06'32
morning set	459 May 18 j 10:29	18°♄53'55		460 Apr 12 j 20:31	0°♄	
asc. node	459 May 20 j 00:44	22°♄17'05		460 Apr 30 j 00:40	0°♄	
	459 May 23 j 14:03	0°♄	morning set	460 May 01 j 20:00	3°♄43'14	
			asc. node	460 May 05 j 21:49	12°♄25'08	
superior conj	459 May 25 j 11:15	4°♄07'48 0°54'42				
minimum elong	459 May 25 j 09:08	3°♄56'13 0°54'17	superior conj	460 May 08 j 23:03	19°♄05'56	0°31'49
max. Earth dist.	459 May 26 j 03:22	5°♄36'03 1.32521 AU	minimum elong	460 May 08 j 21:41	18°♄58'25	0°31'32
evening rise	459 Jun 01 j 12:51	19°♄18'33	max. Earth dist.	460 May 08 j 16:03	18°♄27'27	1.32295 AU
	459 Jun 06 j 21:26	0°♄		460 May 13 j 22:52	0°♄	
	459 Jun 25 j 18:46	0°♄	evening rise	460 May 15 j 21:32	4°♄08'20	
desc. node	459 Jun 28 j 08:37	3°♄05'38		460 May 29 j 17:32	0°♄	
evening max el	459 Jul 02 j 17:04	7°♄40'06 27°06'24	evening max el	460 Jun 13 j 17:07	19°♄25'37	26°14'32
retrograde	459 Jul 16 j 14:51	14°♄56'20	desc. node	460 Jun 14 j 05:39	19°♄55'03	
evening set	459 Jul 23 j 16:05	12°♄41'14	retrograde	460 Jun 27 j 17:30	26°♄38'12	
min. Earth dist.	459 Jul 27 j 07:18	9°♄57'52 0.61392 AU	evening set	460 Jul 04 j 03:30	24°♄56'53	
inferior conj	459 Jul 30 j 10:54	7°♄11'20 -4°-22'-24	min. Earth dist.	460 Jul 08 j 06:00	22°♄20'08	0.59338 AU
minimum elong	459 Jul 30 j 15:12	7°♄01'49 4°21'41	inferior conj	460 Jul 11 j 13:55	19°♄47'11	-4°-46'-14
morning rise	459 Aug 06 j 17:12	2°♄16'38	minimum elong	460 Jul 11 j 15:33	19°♄44'02	4°46'10
direct	459 Aug 09 j 03:06	1°♄52'33	morning rise	460 Jul 19 j 07:02	15°♄15'25	
asc. node	459 Aug 15 j 23:57	5°♄13'47	direct	460 Jul 21 j 18:02	14°♄54'24	
morning max el	459 Aug 16 j 03:37	5°♄22'37 17°58'57	morning max el	460 Jul 29 j 12:51	18°♄38'41	18°24'41
	459 Aug 31 j 19:44	0°♄	asc. node	460 Aug 01 j 21:01	22°♄26'11	
morning set	459 Sep 01 j 00:28	0°♄21'46		460 Aug 06 j 20:48	0°♄	
			morning set	460 Aug 14 j 13:33	14°♄08'19	
superior conj	459 Sep 11 j 09:12	19°♄03'58 1°19'37		460 Aug 22 j 22:01	0°♄	
minimum elong	459 Sep 11 j 13:48	19°♄24'05 1°19'08				
	459 Sep 17 j 18:45	0°♄	superior conj	460 Aug 23 j 17:12	1°♄28'43	1°38'23
max. Earth dist.	459 Sep 18 j 21:36	1°♄51'33 1.42274 AU	minimum elong	460 Aug 23 j 20:02	1°♄41'47	1°38'11
desc. node	459 Sep 24 j 07:55	10°♄40'43	max. Earth dist.	460 Aug 31 j 04:12	14°♄47'59	1.40366 AU
evening rise	459 Sep 25 j 05:51	12°♄07'52	evening rise	460 Sep 04 j 16:31	22°♄25'57	
	459 Oct 06 j 22:09	0°♄		460 Sep 09 j 08:21	0°♄	
greatest brilliancy	459 Oct 22 j 23:18	22°♄06'52 -0.3m	desc. node	460 Sep 10 j 04:58	1°♄21'45	
evening max el	459 Oct 27 j 16:28	27°♄25'54 22°11'02		460 Sep 29 j 22:41	0°♄	
	459 Oct 30 j 11:16	0°♄	evening max el	460 Oct 09 j 07:00	10°♄58'31	23°30'46
retrograde	459 Nov 06 j 03:04	3°♄02'45	retrograde	460 Oct 19 j 20:11	17°♄12'21	
evening set	459 Nov 10 j 13:17	1°♄17'36	evening set	460 Oct 24 j 19:54	15°♄09'12	
asc. node	459 Nov 11 j 23:12	29°♄59'06	asc. node	460 Oct 28 j 20:15	10°♄39'02	
	459 Nov 11 j 22:51	30°♄	inferior conj	460 Oct 30 j 05:50	8°♄45'04	0°28'52
inferior conj	459 Nov 15 j 22:42	24°♄56'53 1°20'12	minimum elong	460 Oct 30 j 05:09	8°♄47'24	0°28'34
minimum elong	459 Nov 15 j 20:57	25°♄02'56 1°19'31	min. Earth dist.	460 Oct 29 j 19:16	9°♄21'13	0.67668 AU
min. Earth dist.	459 Nov 15 j 22:39	24°♄57'05 0.67682 AU	morning rise	460 Nov 04 j 14:30	2°♄34'51	
morning rise	459 Nov 21 j 04:26	18°♄42'47	direct	460 Nov 08 j 16:39	1°♄01'18	
direct	459 Nov 25 j 20:53	16°♄46'38	morning max el	460 Nov 17 j 03:48	5°♄57'20	21°07'29
morning max el	459 Dec 05 j 11:20	22°♄27'38 22°29'24	greatest brilliancy	460 Nov 22 j 13:50	12°♄13'10	-0.5m
greatest brilliancy	459 Dec 10 j 01:49	27°♄36'56 -0.3m		460 Dec 05 j 06:42	0°♄	
	459 Dec 11 j 23:55	0°♄	desc. node	460 Dec 07 j 04:13	2°♄49'18	
desc. node	459 Dec 21 j 07:12	12°♄40'55	morning set	460 Dec 17 j 12:18	18°♄38'54	
	460 Jan 01 j 20:14	0°♄		460 Dec 24 j 14:57	0°♄	
morning set	460 Jan 08 j 03:11	10°♄02'15	max. Earth dist.	460 Dec 25 j 10:35	1°♄20'01	1.42499 AU
max. Earth dist.	460 Jan 13 j 07:30	18°♄39'09 1.40544 AU				

superior conj	461 Jan 01 j 14:14	13°☿16'37	-2°-1'-10		461 Nov 08 j 11:39	0°♍	
minimum elong	461 Jan 01 j 12:07	13°☿07'36	2°01'08	desc. node	461 Nov 24 j 01:16	23°♍13'52	
	461 Jan 11 j 03:03	0°☿		morning set	461 Nov 26 j 08:41	26°♍47'24	
evening rise	461 Jan 13 j 02:41	3°☿34'02			461 Nov 28 j 10:25	0°♌	
asc. node	461 Jan 24 j 19:34	23°☿37'01		max. Earth dist.	461 Dec 07 j 21:10	14°♌51'01	1.44002 AU
	461 Jan 29 j 21:27	0°♋					
evening max el	461 Jan 29 j 20:03	29°☿56'34	18°07'49	superior conj	461 Dec 12 j 23:03	23°♌01'40	-1°-45'-9
retrograde	461 Feb 05 j 11:51	3°♋21'44		minimum elong	461 Dec 12 j 16:03	22°♌33'13	1°44'38
evening set	461 Feb 08 j 03:30	2°♋49'15			461 Dec 17 j 04:59	0°☿	
	461 Feb 12 j 10:09	30°♋		evening rise	461 Dec 26 j 06:36	15°☿18'03	
inferior conj	461 Feb 14 j 18:38	27°☿48'48	3°44'14		462 Jan 03 j 22:27	0°☿	
minimum elong	461 Feb 14 j 19:53	27°☿45'45	3°44'10	asc. node	462 Jan 11 j 16:36	11°☿22'08	
min. Earth dist.	461 Feb 17 j 21:30	24°☿48'37	0.61273 AU	evening max el	462 Jan 13 j 08:32	13°☿12'13	18°14'04
morning rise	461 Feb 21 j 09:35	21°☿57'51		retrograde	462 Jan 19 j 20:05	16°☿40'23	
direct	461 Feb 28 j 06:04	19°☿37'25		evening set	462 Jan 22 j 16:12	15°☿58'19	
desc. node	461 Mar 05 j 03:26	20°☿42'08		inferior conj	462 Jan 28 j 20:30	10°☿37'36	3°47'44
morning max el	461 Mar 14 j 10:04	27°☿28'26	27°43'32	minimum elong	462 Jan 28 j 19:45	10°☿39'38	3°47'41
	461 Mar 16 j 20:13	0°♋		min. Earth dist.	462 Jan 31 j 09:45	7°☿50'55	0.63237 AU
	461 Apr 06 j 11:59	0°♊		morning rise	462 Feb 03 j 21:28	4°☿35'25	
morning set	461 Apr 16 j 01:33	18°♊18'27		direct	462 Feb 10 j 20:41	1°☿52'09	
	461 Apr 21 j 14:11	0°♏		desc. node	462 Feb 20 j 00:27	5°☿37'36	
max. Earth dist.	461 Apr 22 j 03:33	1°♏12'32	1.32440 AU	morning max el	462 Feb 24 j 17:15	9°☿45'24	27°43'21
asc. node	461 Apr 22 j 18:51	2°♏35'51			462 Mar 12 j 12:53	0°♋	
					462 Mar 29 j 18:16	0°♊	
superior conj	461 Apr 23 j 09:53	3°♏57'52	0°06'39	morning set	462 Mar 31 j 00:54	2°♊32'03	
minimum elong	461 Apr 23 j 09:35	3°♏56'12	0°06'34	max. Earth dist.	462 Apr 05 j 09:46	13°♊37'09	1.32979 AU
behind sun begin	461 Apr 23 j 04:56	3°♏30'48					
behind sun end	461 Apr 23 j 14:14	4°♏21'38		superior conj	462 Apr 07 j 18:04	18°♊38'01	0°-20'-3
evening rise	461 Apr 30 j 08:42	19°♏02'30		minimum elong	462 Apr 07 j 19:02	18°♊43'13	0°19'50
	461 May 05 j 18:00	0°♊		asc. node	462 Apr 09 j 15:54	22°♊45'20	
	461 May 25 j 23:25	0°♑			462 Apr 13 j 00:27	0°♏	
evening max el	461 May 26 j 10:15	0°♑26'22	24°55'26	evening rise	462 Apr 14 j 20:31	3°♏54'33	
desc. node	461 Jun 01 j 02:42	4°♑56'05			462 Apr 29 j 01:40	0°♊	
retrograde	461 Jun 09 j 09:48	7°♑32'23		evening max el	462 May 08 j 00:27	11°♊01'10	23°21'36
evening set	461 Jun 14 j 15:32	6°♑29'44		desc. node	462 May 18 j 23:42	17°♊32'20	
min. Earth dist.	461 Jun 19 j 21:41	3°♑41'28	0.57369 AU	retrograde	462 May 21 j 14:01	17°♊47'41	
inferior conj	461 Jun 22 j 21:32	1°♑42'15	-4°-40'-50	evening set	462 May 25 j 08:26	17°♊16'30	
minimum elong	461 Jun 22 j 18:32	1°♑47'16	4°40'37	min. Earth dist.	462 Jun 01 j 10:31	14°♊02'05	0.55823 AU
	461 Jun 25 j 13:07	30°♊		inferior conj	462 Jun 03 j 09:11	12°♊53'05	-3°-53'-32
morning rise	461 Jul 01 j 01:23	27°♊32'39		minimum elong	462 Jun 03 j 02:11	13°♊03'29	3°52'00
direct	461 Jul 03 j 15:05	27°♊13'36		morning rise	462 Jun 11 j 23:17	8°♊58'03	
	461 Jul 10 j 22:23	0°♑		direct	462 Jun 14 j 16:42	8°♊39'54	
morning max el	461 Jul 12 j 14:10	1°♑24'34	19°11'14	morning max el	462 Jun 25 j 05:11	13°♊31'50	20°18'45
asc. node	461 Jul 19 j 18:04	10°♑31'15		asc. node	462 Jul 06 j 15:06	29°♊16'54	
morning set	461 Jul 29 j 11:59	28°♑22'34			462 Jul 07 j 00:44	0°♑	
	461 Jul 30 j 07:37	0°♎		morning set	462 Jul 13 j 16:51	12°♑56'51	
superior conj	461 Aug 06 j 19:12	14°♎47'29	1°46'15	superior conj	462 Jul 21 j 10:08	28°♑45'43	1°45'20
minimum elong	461 Aug 06 j 19:57	14°♎51'07	1°46'14	minimum elong	462 Jul 21 j 09:13	28°♑41'02	1°45'19
max. Earth dist.	461 Aug 13 j 07:31	27°♎02'04	1.38334 AU		462 Jul 22 j 00:53	0°♎	
	461 Aug 14 j 22:59	0°♍		max. Earth dist.	462 Jul 26 j 12:54	8°♎51'52	1.36436 AU
evening rise	461 Aug 17 j 03:46	3°♍53'02		evening rise	462 Jul 30 j 13:03	16°♎23'51	
desc. node	461 Aug 28 j 02:00	21°♍53'15			462 Aug 07 j 07:29	0°♍	
	461 Sep 02 j 10:52	0°♎		desc. node	462 Aug 14 j 23:02	12°♍09'57	
evening max el	461 Sep 21 j 18:58	24°♎33'58	24°49'16		462 Aug 27 j 21:32	0°♎	
	461 Sep 28 j 17:23	0°♍		evening max el	462 Sep 04 j 06:29	8°♎11'10	25°59'07
retrograde	461 Oct 03 j 09:25	1°♍19'10		retrograde	462 Sep 16 j 18:02	15°♎17'45	
	461 Oct 07 j 14:51	30°♎		evening set	462 Sep 22 j 22:43	12°♎42'50	
evening set	461 Oct 08 j 23:40	28°♎58'36		min. Earth dist.	462 Sep 27 j 05:25	8°♎05'29	0.66643 AU
min. Earth dist.	461 Oct 13 j 14:18	23°♎45'01	0.67322 AU	inferior conj	462 Sep 28 j 13:42	6°♎24'08	-1°-22'-12
inferior conj	461 Oct 14 j 11:26	22°♎35'04	0°-25'-45	minimum elong	462 Sep 28 j 15:48	6°♎17'31	1°21'21
minimum elong	461 Oct 14 j 12:04	22°♎32'57	0°25'30	asc. node	462 Oct 02 j 14:18	1°♎51'47	
asc. node	461 Oct 15 j 17:16	20°♎57'33		morning rise	462 Oct 04 j 09:47	0°♎29'37	
morning rise	461 Oct 20 j 00:56	16°♎31'18			462 Oct 05 j 09:14	30°♎	
direct	461 Oct 23 j 14:27	15°♎18'11		direct	462 Oct 07 j 12:49	29°♎33'28	
morning max el	461 Oct 31 j 03:56	19°♎37'51	19°56'59		462 Oct 09 j 17:48	0°♎	
greatest brilliancy	461 Nov 07 j 13:04	28°♎41'30	-0.6m	morning max el	462 Oct 14 j 11:15	3°♎26'36	19°00'56

	462 Nov 02 j 02:46	0°♄		morning set	463 Oct 17 j 04:48	15°♄52'20	
morning set	462 Nov 05 j 17:03	5°♄38'12			463 Oct 25 j 22:59	0°♄	
desc. node	462 Nov 10 j 22:18	13°♄49'20		desc. node	463 Oct 28 j 19:20	4°♄32'08	
max. Earth dist.	462 Nov 20 j 12:59	28°♄54'36	1.44877 AU				
	462 Nov 21 j 05:36	0°♄		superior conj	463 Nov 01 j 09:02	10°♄11'06	0°-23'-25
				minimum elong	463 Nov 01 j 05:58	9°♄59'00	0°23'01
superior conj	462 Nov 22 j 08:08	1°♄44'39	-1°-10'-39	max. Earth dist.	463 Nov 03 j 07:40	13°♄14'45	1.45031 AU
minimum elong	462 Nov 22 j 00:04	1°♄12'48	1°09'46		463 Nov 14 j 00:12	0°♄	
evening rise	462 Dec 07 j 12:20	26°♄04'26		evening rise	463 Nov 17 j 18:29	5°♄53'37	
	462 Dec 09 j 22:04	0°♄		greatest brilliancy	463 Dec 01 j 23:20	27°♄54'12	-0.7m
evening max el	462 Dec 27 j 20:15	26°♄35'48	18°38'45		463 Dec 03 j 09:29	0°♄	
asc. node	462 Dec 29 j 13:37	28°♄11'04		evening max el	463 Dec 11 j 05:02	10°♄03'40	19°20'35
	463 Jan 01 j 16:34	0°♄		asc. node	463 Dec 16 j 10:38	13°♄49'43	
retrograde	463 Jan 03 j 11:55	0°♄18'02		retrograde	463 Dec 18 j 07:58	14°♄09'29	
	463 Jan 05 j 06:44	30°♄		evening set	463 Dec 21 j 16:11	13°♄04'15	
evening set	463 Jan 06 j 13:20	29°♄25'13		inferior conj	463 Dec 27 j 07:09	7°♄09'26	3°07'07
inferior conj	463 Jan 12 j 09:45	23°♄46'13	3°33'45	minimum elong	463 Dec 27 j 04:28	7°♄18'05	3°06'29
minimum elong	463 Jan 12 j 07:41	23°♄52'26	3°33'27	min. Earth dist.	463 Dec 28 j 14:16	5°♄29'18	0.66164 AU
min. Earth dist.	463 Jan 14 j 07:38	21°♄28'40	0.64893 AU	morning rise	464 Jan 01 j 15:56	0°♄56'25	
morning rise	463 Jan 18 j 00:49	17°♄37'16			464 Jan 02 j 19:47	30°♄	
direct	463 Jan 24 j 18:37	14°♄45'57		direct	464 Jan 07 j 22:38	28°♄10'51	
desc. node	463 Feb 06 j 21:29	22°♄18'57			464 Jan 13 j 15:46	0°♄	
morning max el	463 Feb 07 j 02:41	22°♄31'53	27°08'47	morning max el	464 Jan 20 j 12:02	5°♄36'28	26°06'58
	463 Feb 13 j 17:17	0°♄		desc. node	464 Jan 24 j 18:33	10°♄16'21	
	463 Mar 05 j 18:26	0°♄			464 Feb 08 j 07:33	0°♄	
morning set	463 Mar 14 j 15:01	16°♄13'32		morning set	464 Feb 25 j 15:56	29°♄11'03	
max. Earth dist.	463 Mar 19 j 06:41	25°♄28'52	1.33948 AU		464 Feb 26 j 02:27	0°♄	
	463 Mar 21 j 11:19	0°♄		max. Earth dist.	464 Feb 29 j 16:00	6°♄47'20	1.35379 AU
superior conj	463 Mar 22 j 21:36	2°♄59'14	0°-47'-11	superior conj	464 Mar 05 j 18:07	16°♄54'38	-1°-13'-23
minimum elong	463 Mar 22 j 23:54	3°♄11'17	0°46'44	minimum elong	464 Mar 05 j 21:33	17°♄12'06	1°12'50
asc. node	463 Mar 27 j 12:56	12°♄48'44			464 Mar 12 j 02:32	0°♄	
evening rise	463 Mar 30 j 07:06	18°♄37'31		asc. node	464 Mar 13 j 09:58	2°♄41'54	
	463 Apr 04 j 23:09	0°♄		evening rise	464 Mar 13 j 14:33	3°♄05'26	
evening max el	463 Apr 19 j 18:56	21°♄40'14	21°47'55		464 Mar 29 j 08:42	0°♄	
retrograde	463 May 02 j 06:38	27°♄46'41		evening max el	464 Mar 31 j 23:21	2°♄48'22	20°25'51
evening set	463 May 04 j 20:59	27°♄31'35		retrograde	464 Apr 11 j 19:47	8°♄02'09	
desc. node	463 May 05 j 20:42	27°♄18'17		evening set	464 Apr 13 j 22:44	7°♄51'00	
inferior conj	463 May 14 j 06:19	23°♄28'36	-2°-21'-4	desc. node	464 Apr 21 j 17:45	4°♄39'04	
minimum elong	463 May 14 j 00:04	23°♄37'22	2°19'02	inferior conj	464 Apr 23 j 01:20	3°♄53'25	0°-22'-45
min. Earth dist.	463 May 13 j 23:10	23°♄38'37	0.55027 AU	minimum elong	464 Apr 23 j 00:16	3°♄54'59	0°22'23
morning rise	463 May 23 j 04:11	19°♄32'51		min. Earth dist.	464 Apr 24 j 12:26	3°♄02'20	0.55178 AU
direct	463 May 26 j 05:10	19°♄12'25			464 Apr 30 j 19:20	30°♄	
morning max el	463 Jun 07 j 08:58	24°♄55'48	21°45'10	morning rise	464 May 01 j 23:54	29°♄38'32	
	463 Jun 12 j 00:15	0°♄		direct	464 May 05 j 16:59	29°♄08'42	
asc. node	463 Jun 23 j 12:09	18°♄33'11			464 May 10 j 11:44	0°♄	
morning set	463 Jun 28 j 01:55	27°♄45'06		morning max el	464 May 19 j 03:32	5°♄42'03	23°24'14
	463 Jun 29 j 03:48	0°♄			464 Jun 05 j 04:45	0°♄	
				asc. node	464 Jun 09 j 09:13	8°♄11'51	
superior conj	463 Jul 05 j 10:08	13°♄11'56	1°37'30	morning set	464 Jun 11 j 13:17	12°♄41'18	
minimum elong	463 Jul 05 j 08:09	13°♄01'32	1°37'21				
max. Earth dist.	463 Jul 09 j 02:12	20°♄45'50	1.34847 AU	superior conj	464 Jun 18 j 16:11	27°♄56'29	1°24'12
evening rise	463 Jul 13 j 15:37	29°♄46'08		minimum elong	464 Jun 18 j 13:44	27°♄43'22	1°23'53
	463 Jul 13 j 18:30	0°♄			464 Jun 19 j 15:16	0°♄	
	463 Jul 31 j 10:01	0°♄		max. Earth dist.	464 Jun 21 j 01:18	3°♄00'37	1.33641 AU
desc. node	463 Aug 01 j 20:02	2°♄05'11		evening rise	464 Jun 26 j 06:52	13°♄46'17	
evening max el	463 Aug 17 j 18:33	21°♄45'10	26°52'28		464 Jul 04 j 22:46	0°♄	
retrograde	463 Aug 30 j 21:24	29°♄01'55		desc. node	464 Jul 18 j 17:04	21°♄29'18	
evening set	463 Sep 06 j 14:53	26°♄18'42			464 Jul 25 j 10:51	0°♄	
min. Earth dist.	463 Sep 10 j 14:16	22°♄18'43	0.65619 AU	evening max el	464 Jul 30 j 06:11	5°♄04'22	27°21'52
inferior conj	463 Sep 12 j 10:40	20°♄09'11	-2°-18'-39	retrograde	464 Aug 12 j 18:50	12°♄23'11	
minimum elong	463 Sep 12 j 14:12	19°♄58'50	2°17'20	evening set	464 Aug 19 j 21:22	9°♄40'48	
morning rise	463 Sep 18 j 14:54	14°♄27'03		min. Earth dist.	464 Aug 23 j 14:32	6°♄16'46	0.64240 AU
asc. node	463 Sep 19 j 11:20	14°♄04'53		inferior conj	464 Aug 25 j 23:54	3°♄44'27	-3°-12'-35
direct	463 Sep 21 j 09:53	13°♄44'01		minimum elong	464 Aug 26 j 04:33	3°♄32'07	3°11'08
morning max el	463 Sep 27 j 23:57	17°♄19'47	18°21'00		464 Aug 29 j 20:43	30°♄	
	463 Oct 07 j 08:32	0°♄		morning rise	464 Sep 01 j 13:37	28°♄18'13	

direct	464 Sep 04 j 03:06	27° Ω 44'46		asc. node	465 Aug 23 j 05:29	13° Ω 10'47	
asc. node	464 Sep 05 j 08:25	27° Ω 52'28		morning max el	465 Aug 25 j 06:58	14° Ω 55'50	17°53'14
	464 Sep 09 j 08:17	0° \mathbb{M}			465 Sep 04 j 17:13	0° \mathbb{M}	
morning max el	464 Sep 10 j 15:28	1° \mathbb{M} 11'29	17°58'08	morning set	465 Sep 10 j 09:49	10° \mathbb{M} 04'42	
morning set	464 Sep 27 j 20:14	27° \mathbb{M} 26'50					
	464 Sep 29 j 08:14	0° $\underline{\Omega}$		superior conj	465 Sep 21 j 15:54	29° \mathbb{M} 47'43	1°03'09
				minimum elong	465 Sep 21 j 20:47	0° $\underline{\Omega}$ 08'27	1°02'34
superior conj	464 Oct 10 j 23:21	19° $\underline{\Omega}$ 20'16	0°24'32		465 Sep 21 j 18:47	0° $\underline{\Omega}$	
minimum elong	464 Oct 11 j 02:06	19° $\underline{\Omega}$ 31'23	0°24'09	max. Earth dist.	465 Sep 28 j 16:51	11° $\underline{\Omega}$ 28'59	1.43218 AU
desc. node	464 Oct 14 j 16:22	25° $\underline{\Omega}$ 18'22		desc. node	465 Oct 01 j 13:23	16° $\underline{\Omega}$ 05'05	
max. Earth dist.	464 Oct 16 j 02:05	27° $\underline{\Omega}$ 32'43	1.44452 AU	evening rise	465 Oct 06 j 14:13	24° $\underline{\Omega}$ 01'31	
	464 Oct 17 j 15:16	0° \mathbb{M}			465 Oct 10 j 11:08	0° \mathbb{M}	
evening rise	464 Oct 27 j 06:16	15° \mathbb{M} 00'21			465 Oct 31 j 07:20	0° \mathbb{M}	
	464 Nov 06 j 02:26	0° \mathbb{M}		greatest brilliancy	465 Nov 01 j 06:29	1° \mathbb{M} 13'35	-0.4m
greatest brilliancy	464 Nov 16 j 22:18	15° \mathbb{M} 41'32	-0.6m	evening max el	465 Nov 06 j 07:06	7° \mathbb{M} 01'02	21°27'06
evening max el	464 Nov 23 j 08:58	23° \mathbb{M} 32'25	20°17'40	retrograde	465 Nov 15 j 02:53	12° \mathbb{M} 15'57	
retrograde	464 Dec 01 j 05:41	28° \mathbb{M} 09'55		evening set	465 Nov 19 j 06:11	10° \mathbb{M} 40'30	
asc. node	464 Dec 02 j 07:41	28° \mathbb{M} 03'15		asc. node	465 Nov 19 j 04:45	10° \mathbb{M} 43'17	
evening set	464 Dec 04 j 22:27	26° \mathbb{M} 50'28		inferior conj	465 Nov 24 j 15:54	4° \mathbb{M} 23'13	1°47'45
inferior conj	464 Dec 10 j 09:57	20° \mathbb{M} 42'41	2°31'02	minimum elong	465 Nov 24 j 13:42	4° \mathbb{M} 30'51	1°46'56
minimum elong	464 Dec 10 j 07:15	20° \mathbb{M} 51'46	2°30'12	min. Earth dist.	465 Nov 24 j 22:00	4° \mathbb{M} 02'08	0.67540 AU
min. Earth dist.	464 Dec 11 j 03:47	19° \mathbb{M} 42'31	0.67036 AU		465 Nov 28 j 00:42	30° \mathbb{M}	
morning rise	464 Dec 15 j 15:32	14° \mathbb{M} 27'39		morning rise	465 Nov 29 j 20:55	28° \mathbb{M} 08'06	
direct	464 Dec 21 j 07:57	11° \mathbb{M} 57'43		direct	465 Dec 04 j 21:55	25° \mathbb{M} 59'11	
morning max el	465 Jan 01 j 20:35	18° \mathbb{M} 49'46	24°47'18		465 Dec 12 j 23:38	0° \mathbb{M}	
desc. node	465 Jan 10 j 15:35	29° \mathbb{M} 07'18		morning max el	465 Dec 15 j 05:40	2° \mathbb{M} 07'37	23°19'41
	465 Jan 11 j 07:44	0° \mathbb{M}		greatest brilliancy	465 Dec 20 j 12:40	8° \mathbb{M} 04'41	-0.2m
	465 Jan 31 j 09:54	0° \approx		desc. node	465 Dec 28 j 12:37	18° \mathbb{M} 36'09	
morning set	465 Feb 06 j 22:22	11° \approx 09'48			466 Jan 05 j 09:18	0° \mathbb{M}	
max. Earth dist.	465 Feb 10 j 15:17	17° \approx 50'39	1.37220 AU	morning set	466 Jan 19 j 03:57	21° \mathbb{M} 52'37	
				max. Earth dist.	466 Jan 23 j 10:27	29° \mathbb{M} 10'46	1.39314 AU
					466 Jan 23 j 21:44	0° \approx	
superior conj	465 Feb 17 j 04:30	0° \mathbb{M} 15'37	-1°-36'-41				
minimum elong	465 Feb 17 j 08:28	0° \mathbb{M} 35'00	1°36'15	superior conj	466 Jan 31 j 00:38	12° \approx 50'39	-1°-54'-21
	465 Feb 17 j 01:18	0° \mathbb{M}		minimum elong	466 Jan 31 j 03:52	13° \approx 05'44	1°54'11
evening rise	465 Feb 25 j 16:40	17° \mathbb{M} 11'57		evening rise	466 Feb 09 j 10:36	0° \mathbb{M} 48'37	
asc. node	465 Feb 28 j 07:01	22° \mathbb{M} 20'08			466 Feb 09 j 00:31	0° \mathbb{M}	
	465 Mar 04 j 08:45	0° \mathbb{M}		asc. node	466 Feb 15 j 04:05	11° \mathbb{M} 37'00	
evening max el	465 Mar 14 j 15:06	14° \mathbb{M} 35'07	19°21'36	evening max el	466 Feb 25 j 16:30	26° \mathbb{M} 56'54	18°37'14
retrograde	465 Mar 23 j 19:03	18° \mathbb{M} 59'50			466 Mar 01 j 23:56	0° \mathbb{M}	
evening set	465 Mar 25 j 22:31	18° \mathbb{M} 46'23		retrograde	466 Mar 05 j 12:10	0° \mathbb{M} 45'59	
inferior conj	465 Apr 03 j 08:27	14° \mathbb{M} 38'21	1°27'28	evening set	466 Mar 07 j 20:16	0° \mathbb{M} 26'43	
minimum elong	465 Apr 03 j 11:48	14° \mathbb{M} 32'50	1°26'22		466 Mar 09 j 03:50	30° \mathbb{M}	
min. Earth dist.	465 Apr 06 j 03:09	12° \mathbb{M} 49'10	0.56239 AU	inferior conj	466 Mar 15 j 11:33	26° \mathbb{M} 00'12	2°46'53
desc. node	465 Apr 08 j 14:47	11° \mathbb{M} 20'25		minimum elong	466 Mar 15 j 15:44	25° \mathbb{M} 52'10	2°45'53
morning rise	465 Apr 11 j 21:14	9° \mathbb{M} 51'20		min. Earth dist.	466 Mar 18 j 20:52	23° \mathbb{M} 25'08	0.57979 AU
direct	465 Apr 16 j 14:39	9° \mathbb{M} 00'23		morning rise	466 Mar 23 j 07:02	20° \mathbb{M} 41'16	
morning max el	465 Apr 30 j 18:15	16° \mathbb{M} 11'49	25°04'10	desc. node	466 Mar 26 j 11:50	19° \mathbb{M} 33'54	
	465 May 11 j 21:37	0° \mathbb{M}		direct	466 Mar 29 j 02:15	19° \mathbb{M} 16'45	
morning set	465 May 27 j 01:18	27° \mathbb{M} 40'09		morning max el	466 Apr 12 j 11:00	26° \mathbb{M} 52'10	26°29'33
asc. node	465 May 27 j 06:17	28° \mathbb{M} 06'30			466 Apr 15 j 10:54	0° \mathbb{M}	
	465 May 28 j 03:41	0° \mathbb{M}			466 May 05 j 05:20	0° \mathbb{M}	
superior conj	465 Jun 03 j 02:00	12° \mathbb{M} 52'06	1°06'31	morning set	466 May 11 j 12:13	12° \mathbb{M} 34'37	
minimum elong	465 Jun 02 j 23:38	12° \mathbb{M} 39'12	1°06'07	asc. node	466 May 14 j 03:21	18° \mathbb{M} 10'51	
max. Earth dist.	465 Jun 04 j 08:21	15° \mathbb{M} 37'07	1.32823 AU				
evening rise	465 Jun 10 j 07:09	28° \mathbb{M} 13'22		superior conj	466 May 18 j 13:35	27° \mathbb{M} 50'58	0°45'20
	465 Jun 11 j 04:04	0° \mathbb{M}		minimum elong	466 May 18 j 11:44	27° \mathbb{M} 40'52	0°44'57
	465 Jun 28 j 04:24	0° \mathbb{M}		max. Earth dist.	466 May 18 j 19:55	28° \mathbb{M} 25'45	1.32381 AU
desc. node	465 Jul 05 j 14:06	10° \mathbb{M} 09'18			466 May 19 j 13:05	0° \mathbb{M}	
evening max el	465 Jul 12 j 15:05	17° \mathbb{M} 55'28	27°21'21	evening rise	466 May 25 j 13:25	12° \mathbb{M} 56'48	
retrograde	465 Jul 26 j 09:54	25° \mathbb{M} 12'59			466 Jun 03 j 06:59	0° \mathbb{M}	
evening set	465 Aug 02 j 14:40	22° \mathbb{M} 43'39		desc. node	466 Jun 22 j 11:08	27° \mathbb{M} 46'00	
min. Earth dist.	465 Aug 06 j 04:36	19° \mathbb{M} 49'12	0.62519 AU		466 Jun 24 j 16:11	0° \mathbb{M}	
inferior conj	465 Aug 09 j 02:34	17° \mathbb{M} 03'32	-4°00'-8	evening max el	466 Jun 24 j 18:43	0° \mathbb{M} 06'02	26°47'59
minimum elong	465 Aug 09 j 07:25	16° \mathbb{M} 51'59	3°59'02	retrograde	466 Jul 08 j 17:52	7° \mathbb{M} 21'27	
morning rise	465 Aug 16 j 02:42	11° \mathbb{M} 56'42		evening set	466 Jul 15 j 14:19	5° \mathbb{M} 19'06	
direct	465 Aug 18 j 13:14	11° \mathbb{M} 29'53		min. Earth dist.	466 Jul 19 j 08:26	2° \mathbb{M} 41'00	0.60529 AU

inferior conj	466 Jul 22 j 15:11	29° $\overline{57}$ '26	-4°-35'-15	min. Earth dist.	467 Jul 01 j 03:58	14° $\overline{37}$ '45	0.58471 AU
minimum elong	466 Jul 22 j 18:38	29° $\overline{50}$ '14	4°34'51	inferior conj	467 Jul 04 j 10:14	12° $\overline{16}$ '42	-4°-48'-20
	466 Jul 22 j 13:58	30° \overline{R} $\overline{5}$		minimum elong	467 Jul 04 j 10:04	12° $\overline{17}$ '00	4°48'22
morning rise	466 Jul 30 j 02:10	25° $\overline{12}$ '44		morning rise	467 Jul 12 j 07:57	7° $\overline{54}$ '41	
direct	466 Aug 01 j 12:13	24° $\overline{50}$ '13		direct	467 Jul 14 j 19:44	7° $\overline{34}$ '46	
morning max el	466 Aug 08 j 19:25	28° $\overline{24}$ '51	18°07'26	morning max el	467 Jul 23 j 01:39	11° $\overline{29}$ '09	18°41'51
asc. node	466 Aug 10 j 02:33	29° $\overline{45}$ '48		asc. node	467 Jul 27 j 23:36	17° $\overline{22}$ '05	
	466 Aug 10 j 07:36	0° $\overline{8}$			467 Aug 04 j 11:30	0° $\overline{8}$	
morning set	466 Aug 24 j 15:42	23° $\overline{29}$ '33		morning set	467 Aug 08 j 09:08	7° $\overline{28}$ '31	
	466 Aug 28 j 03:14	0° \overline{m}					
				superior conj	467 Aug 17 j 03:11	24° $\overline{22}$ '50	1°42'54
superior conj	466 Sep 03 j 10:54	11° \overline{m} 33'37	1°29'02	minimum elong	467 Aug 17 j 05:07	24° $\overline{31}$ '56	1°42'49
minimum elong	466 Sep 03 j 14:52	11° \overline{m} 51'22	1°28'41		467 Aug 20 j 03:40	0° \overline{m}	
max. Earth dist.	466 Sep 11 j 01:55	24° \overline{m} 47'47	1.41488 AU	max. Earth dist.	467 Aug 24 j 06:08	7° \overline{m} 22'57	1.39499 AU
	466 Sep 14 j 05:05	0° \overline{a}		evening rise	467 Aug 28 j 08:54	14° \overline{m} 29'42	
evening rise	466 Sep 16 j 11:47	3° \overline{a} 42'26		desc. node	467 Sep 05 j 07:27	27° \overline{m} 26'28	
desc. node	466 Sep 18 j 10:26	6° \overline{a} 49'09			467 Sep 06 j 22:51	0° \overline{a}	
	466 Oct 03 j 19:39	0° \overline{m}			467 Sep 28 j 17:53	0° \overline{m}	
greatest brilliancy	466 Oct 15 j 00:39	14° \overline{m} 57'17	-0.3m	evening max el	467 Oct 02 j 12:58	4° \overline{m} 04'41	24°04'52
evening max el	466 Oct 19 j 23:50	20° \overline{m} 31'11	22°44'43	retrograde	467 Oct 13 j 13:31	10° \overline{m} 33'12	
retrograde	466 Oct 29 j 21:58	26° \overline{m} 24'56		evening set	467 Oct 18 j 19:13	8° \overline{m} 22'43	
evening set	466 Nov 03 j 13:40	24° \overline{m} 32'11		min. Earth dist.	467 Oct 23 j 14:50	2° \overline{m} 48'51	0.67555 AU
asc. node	466 Nov 06 j 01:47	21° \overline{m} 58'25		asc. node	467 Oct 23 j 22:48	2° \overline{m} 21'53	
inferior conj	466 Nov 08 j 23:06	18° \overline{m} 09'16	0°58'56	inferior conj	467 Oct 24 j 05:46	1° \overline{m} 58'18	0°06'01
minimum elong	466 Nov 08 j 21:46	18° \overline{m} 13'52	0°58'23	minimum elong	467 Oct 24 j 05:37	1° \overline{m} 58'48	0°05'56
min. Earth dist.	466 Nov 08 j 18:31	18° \overline{m} 25'06	0.67706 AU	transit middle	467 Oct 24 j 05:37	1° \overline{m} 58'48	0°05'56
morning rise	466 Nov 14 j 05:49	11° \overline{m} 56'20		transit begin	467 Oct 24 j 03:05	2° \overline{m} 07'24	
direct	466 Nov 18 j 15:56	10° \overline{m} 10'04		transit end	467 Oct 24 j 08:09	1° \overline{m} 50'13	
morning max el	466 Nov 27 j 18:29	15° \overline{m} 31'53	21°53'30		467 Oct 25 j 17:19	30° \overline{R} \overline{a}	
greatest brilliancy	466 Dec 02 j 13:28	20° \overline{m} 56'57	-0.4m	morning rise	467 Oct 29 j 16:14	25° \overline{a} 50'13	
	466 Dec 09 j 10:10	0° \overline{x}		direct	467 Nov 02 j 12:47	24° \overline{a} 25'35	
desc. node	466 Dec 15 j 09:39	8° \overline{x} 32'23		morning max el	467 Nov 10 j 13:56	29° \overline{a} 05'15	20°35'49
	466 Dec 29 j 10:34	0° \overline{z}			467 Nov 11 j 10:59	0° \overline{m}	
morning set	466 Dec 30 j 04:21	1° \overline{z} 11'00		greatest brilliancy	467 Nov 16 j 17:01	6° \overline{m} 20'13	-0.5m
max. Earth dist.	467 Jan 05 j 08:47	11° \overline{z} 16'53	1.41404 AU	desc. node	467 Dec 02 j 06:40	28° \overline{m} 47'56	
					467 Dec 03 j 01:40	0° \overline{x}	
superior conj	467 Jan 13 j 01:28	24° \overline{z} 27'47	-2°-2'-34	morning set	467 Dec 09 j 05:03	9° \overline{x} 25'54	
minimum elong	467 Jan 13 j 01:58	24° \overline{z} 29'57	2°02'35	max. Earth dist.	467 Dec 18 j 14:36	24° \overline{x} 18'12	1.43204 AU
	467 Jan 16 j 04:10	0° $\overline{\approx}$			467 Dec 22 j 02:33	0° \overline{z}	
evening rise	467 Jan 23 j 16:58	13° $\overline{\approx}$ 47'41					
	467 Feb 01 j 18:52	0° \overline{H}		superior conj	467 Dec 25 j 01:43	4° \overline{z} 54'43	-1°-56'-39
asc. node	467 Feb 02 j 01:07	0° \overline{H} 25'31		minimum elong	467 Dec 24 j 21:25	4° \overline{z} 36'49	1°56'27
evening max el	467 Feb 09 j 00:39	9° \overline{H} 46'24	18°12'57	evening rise	468 Jan 06 j 07:39	26° \overline{z} 00'13	
retrograde	467 Feb 15 j 23:24	13° \overline{H} 15'46			468 Jan 08 j 14:03	0° $\overline{\approx}$	
evening set	467 Feb 18 j 12:26	12° \overline{H} 48'30		asc. node	468 Jan 19 j 22:08	18° $\overline{\approx}$ 36'20	
inferior conj	467 Feb 25 j 11:25	8° \overline{H} 00'48	3°31'46	evening max el	468 Jan 23 j 12:23	22° $\overline{\approx}$ 54'12	18°08'15
minimum elong	467 Feb 25 j 13:57	7° \overline{H} 55'06	3°31'26	retrograde	468 Jan 30 j 01:08	26° $\overline{\approx}$ 18'47	
min. Earth dist.	467 Feb 28 j 19:51	5° \overline{H} 02'17	0.60059 AU	evening set	468 Feb 01 j 18:43	25° $\overline{\approx}$ 42'16	
morning rise	467 Mar 04 j 12:08	2° \overline{H} 19'00		inferior conj	468 Feb 08 j 04:52	20° $\overline{\approx}$ 33'14	3°48'12
direct	467 Mar 11 j 02:31	0° \overline{H} 16'54		minimum elong	468 Feb 08 j 05:12	20° $\overline{\approx}$ 32'21	3°48'12
desc. node	467 Mar 13 j 08:51	0° \overline{H} 30'41		min. Earth dist.	468 Feb 11 j 02:30	17° $\overline{\approx}$ 36'19	0.62142 AU
morning max el	467 Mar 25 j 09:17	8° \overline{H} 04'51	27°26'38	morning rise	468 Feb 14 j 13:24	14° $\overline{\approx}$ 37'06	
	467 Apr 11 j 01:05	0° \overline{Y}		direct	468 Feb 21 j 12:26	12° $\overline{\approx}$ 04'58	
morning set	467 Apr 25 j 20:17	27° \overline{Y} 18'42		desc. node	468 Feb 28 j 05:52	14° $\overline{\approx}$ 07'35	
	467 Apr 27 j 03:09	0° \overline{Z}		morning max el	468 Mar 06 j 13:25	19° $\overline{\approx}$ 57'35	27°47'55
asc. node	467 May 01 j 00:24	8° \overline{Z} 20'27			468 Mar 15 j 04:02	0° \overline{H}	
max. Earth dist.	467 May 02 j 08:22	11° \overline{Z} 15'04	1.32310 AU		468 Apr 02 j 22:50	0° \overline{Y}	
				morning set	468 Apr 08 j 23:30	11° \overline{Y} 45'21	
superior conj	467 May 03 j 01:11	12° \overline{Z} 47'15	0°21'23	max. Earth dist.	468 Apr 14 j 17:57	23° \overline{Y} 52'10	1.32617 AU
minimum elong	467 May 03 j 00:14	12° \overline{Z} 42'02	0°21'11				
evening rise	467 May 09 j 23:23	27° \overline{Z} 49'02		superior conj	468 Apr 16 j 11:07	27° \overline{Y} 34'54	0°-4'-33
	467 May 11 j 00:21	0° \overline{II}		minimum elong	468 Apr 16 j 11:20	27° \overline{Y} 36'05	0°04'31
	467 May 28 j 00:00	0° $\overline{5}$		behind sun begin	468 Apr 16 j 06:22	27° \overline{Y} 09'09	
evening max el	467 Jun 06 j 15:35	11° $\overline{5}$ 31'12	25°43'32	behind sun end	468 Apr 16 j 16:17	28° \overline{Y} 03'02	
desc. node	467 Jun 09 j 08:09	13° $\overline{5}$ 53'22		asc. node	468 Apr 16 j 21:28	28° \overline{Y} 31'08	
retrograde	467 Jun 20 j 16:44	18° $\overline{5}$ 42'19			468 Apr 17 j 13:47	0° \overline{Z}	
evening set	467 Jun 26 j 15:52	17° $\overline{5}$ 17'37		evening rise	468 Apr 23 j 11:02	12° \overline{Z} 43'05	

	468 May 02 j 05:48	0°♊			469 Apr 09 j 02:54	0°♏	
evening max el	468 May 18 j 07:02	22°♊18'59	24°16'33		469 Apr 27 j 05:08	0°♊	
desc. node	468 May 26 j 05:09	27°♊57'45		evening max el	469 Apr 29 j 22:11	2°♊51'37	22°40'59
retrograde	468 Jun 01 j 03:53	29°♊18'12		retrograde	469 May 13 j 02:24	9°♊23'13	
evening set	468 Jun 05 j 18:39	28°♊30'46		desc. node	469 May 13 j 02:10	9°♊23'13	
min. Earth dist.	468 Jun 11 j 18:14	25°♊32'50	0.56641 AU	evening set	469 May 16 j 07:28	9°♊00'35	
inferior conj	468 Jun 14 j 09:17	23°♊53'44	-4°-26'-33	min. Earth dist.	469 May 24 j 06:24	5°♊31'51	0.55378 AU
minimum elong	468 Jun 14 j 04:15	24°♊01'42	4°25'50	inferior conj	469 May 25 j 13:40	4°♊47'13	-3°-19'-18
morning rise	468 Jun 22 j 17:32	19°♊51'16		minimum elong	469 May 25 j 06:14	4°♊57'51	3°17'18
direct	468 Jun 25 j 08:43	19°♊32'42		morning rise	469 Jun 03 j 07:37	0°♊54'27	
morning max el	468 Jul 04 j 22:47	23°♊59'41	19°37'20	direct	469 Jun 06 j 03:48	0°♊35'46	
	468 Jul 10 j 02:26	0°♏		morning max el	469 Jun 17 j 08:55	5°♊48'14	20°53'26
asc. node	468 Jul 13 j 20:39	5°♏46'08		asc. node	469 Jun 30 j 17:42	24°♊45'55	
morning set	468 Jul 22 j 10:41	21°♏52'46			469 Jul 03 j 11:27	0°♏	
	468 Jul 26 j 11:13	0°♎		morning set	469 Jul 06 j 17:39	6°♏34'06	
superior conj	468 Jul 30 j 11:16	8°♎00'13	1°46'49	superior conj	469 Jul 14 j 06:31	22°♏11'45	1°42'47
minimum elong	468 Jul 30 j 11:14	8°♎00'04	1°46'49	minimum elong	469 Jul 14 j 05:04	22°♏04'17	1°42'42
max. Earth dist.	468 Aug 05 j 09:53	19°♎25'14	1.37505 AU		469 Jul 18 j 03:16	0°♎	
evening rise	468 Aug 09 j 06:10	26°♎26'00		max. Earth dist.	469 Jul 18 j 18:35	1°♎15'44	1.35721 AU
	468 Aug 11 j 06:42	0°♐		evening rise	469 Jul 22 j 23:26	9°♎20'14	
desc. node	468 Aug 22 j 04:30	17°♐52'42			469 Aug 03 j 21:05	0°♐	
	468 Aug 30 j 11:01	0°♑		desc. node	469 Aug 09 j 01:32	8°♐01'17	
evening max el	468 Sep 14 j 00:48	17°♑42'20	25°20'31		469 Aug 26 j 04:50	0°♑	
retrograde	468 Sep 26 j 00:44	24°♑37'11		evening max el	469 Aug 27 j 12:35	1°♑19'07	26°24'09
evening set	468 Oct 01 j 21:12	22°♑10'14		retrograde	469 Sep 09 j 07:00	8°♑30'34	
min. Earth dist.	468 Oct 06 j 08:30	17°♑11'47	0.67081 AU	evening set	469 Sep 15 j 17:37	5°♑51'04	
inferior conj	468 Oct 07 j 10:11	15°♑48'27	0°-49'-34	min. Earth dist.	469 Sep 19 j 21:07	1°♑29'49	0.66262 AU
minimum elong	468 Oct 07 j 11:26	15°♑44'23	0°49'03	inferior conj	469 Sep 21 j 10:28	29°♑36'00	-1°-46'-16
asc. node	468 Oct 09 j 19:49	12°♑49'08		minimum elong	469 Sep 21 j 13:12	29°♑27'40	1°45'12
morning rise	468 Oct 13 j 02:17	9°♑48'09			469 Sep 21 j 02:37	30°♑	
direct	468 Oct 16 j 11:10	8°♑42'30		asc. node	469 Sep 26 j 16:52	24°♑13'00	
morning max el	468 Oct 23 j 17:12	12°♑49'19	19°31'11	morning rise	469 Sep 27 j 09:52	23°♑46'34	
greatest brilliancy	468 Nov 01 j 11:10	23°♑56'53	-0.7m	direct	469 Sep 30 j 09:14	22°♑56'24	
	468 Nov 05 j 13:49	0°♒		morning max el	469 Oct 07 j 03:10	26°♑40'38	18°41'54
morning set	468 Nov 17 j 03:37	17°♒44'09			469 Oct 10 j 01:02	0°♑	
desc. node	468 Nov 18 j 03:43	19°♒17'37		morning set	469 Oct 27 j 22:51	27°♑08'48	
	468 Nov 25 j 00:35	0°♓			469 Oct 29 j 17:57	0°♒	
max. Earth dist.	468 Nov 30 j 04:05	8°♓06'19	1.44468 AU	desc. node	469 Nov 05 j 00:48	9°♒56'43	
superior conj	468 Dec 03 j 23:23	14°♓09'48	-1°-32'-38	superior conj	469 Nov 13 j 02:21	22°♒37'56	0°-51'-30
minimum elong	468 Dec 03 j 15:09	13°♓36'50	1°31'53	minimum elong	469 Nov 12 j 19:50	22°♒12'21	0°50'42
	468 Dec 13 j 16:54	0°♑		max. Earth dist.	469 Nov 12 j 22:03	22°♒21'05	1.45037 AU
evening rise	468 Dec 18 j 02:28	7°♑19'44			469 Nov 17 j 18:42	0°♓	
	469 Jan 01 j 01:34	0°♒		evening rise	469 Nov 28 j 22:09	17°♓41'36	
asc. node	469 Jan 05 j 19:08	5°♒58'46			469 Dec 06 j 14:46	0°♑	
evening max el	469 Jan 06 j 00:51	6°♒13'28	18°22'24	evening max el	469 Dec 20 j 11:33	19°♑39'04	18°54'30
retrograde	469 Jan 12 j 13:01	9°♒46'04		asc. node	469 Dec 23 j 16:09	22°♑19'44	
evening set	469 Jan 15 j 11:23	8°♒59'24		retrograde	469 Dec 27 j 07:10	23°♑30'28	
inferior conj	469 Jan 21 j 11:58	3°♒30'27	3°43'34	evening set	469 Dec 30 j 11:17	22°♑32'30	
minimum elong	469 Jan 21 j 10:34	3°♒34'26	3°43'27	inferior conj	470 Jan 05 j 05:05	16°♑46'07	3°23'46
min. Earth dist.	469 Jan 23 j 18:38	0°♒55'01	0.63990 AU	minimum elong	470 Jan 05 j 02:40	16°♑53'37	3°23'20
	469 Jan 24 j 14:54	30°♒♑		min. Earth dist.	470 Jan 06 j 20:25	14°♑44'07	0.65479 AU
morning rise	469 Jan 27 j 08:16	27°♑25'13		morning rise	470 Jan 10 j 17:03	10°♑35'03	
direct	469 Feb 03 j 06:04	24°♑36'56		direct	470 Jan 17 j 06:30	7°♑45'03	
desc. node	469 Feb 14 j 02:54	29°♑51'42		morning max el	470 Jan 30 j 07:39	15°♑24'04	26°45'26
	469 Feb 14 j 06:44	0°♒		desc. node	470 Jan 31 j 23:57	17°♑08'47	
morning max el	469 Feb 16 j 21:45	2°♒27'28	27°32'35		470 Feb 11 j 08:20	0°♒	
	469 Mar 09 j 10:53	0°♐			470 Mar 02 j 05:16	0°♐	
morning set	469 Mar 23 j 19:18	25°♐45'53		morning set	470 Mar 07 j 04:24	9°♐10'25	
	469 Mar 25 j 22:04	0°♑		max. Earth dist.	470 Mar 11 j 13:14	17°♐42'18	1.34500 AU
max. Earth dist.	469 Mar 28 j 20:47	6°♑04'00	1.33336 AU				
superior conj	469 Mar 31 j 17:34	12°♑07'21	0°-31'-34	superior conj	470 Mar 15 j 18:27	26°♐18'21	0°-58'-30
minimum elong	469 Mar 31 j 19:06	12°♑15'31	0°31'15	minimum elong	470 Mar 15 j 21:16	26°♐33'00	0°58'00
asc. node	469 Apr 03 j 18:29	18°♑38'07			470 Mar 17 j 12:58	0°♑	
evening rise	469 Apr 07 j 22:33	27°♑31'53		asc. node	470 Mar 21 j 15:31	8°♑37'40	
				evening rise	470 Mar 23 j 08:07	12°♑09'24	

	470 Apr 01 j 15:38	0°♄		evening rise	471 Mar 07 j 13:35	26°♄28'30	
evening max el	470 Apr 11 j 20:16	13°♄40'00	21°11'05	asc. node	471 Mar 08 j 12:33	28°♄24'42	
retrograde	470 Apr 23 j 16:29	19°♄25'25			471 Mar 09 j 07:33	0°♄	
evening set	470 Apr 25 j 23:54	19°♄13'02		evening max el	471 Mar 25 j 05:30	25°♄03'43	19°56'11
desc. node	470 Apr 29 j 23:10	17°♄59'59		retrograde	471 Apr 04 j 08:28	29°♄55'35	
inferior conj	470 May 05 j 08:02	15°♄14'02	-1°-32'-6	evening set	471 Apr 06 j 10:26	29°♄44'09	
minimum elong	470 May 05 j 03:43	15°♄20'08	1°30'36	inferior conj	471 Apr 15 j 06:42	25°♄43'52	0°26'46
min. Earth dist.	470 May 05 j 19:08	14°♄58'23	0.54967 AU	minimum elong	471 Apr 15 j 07:53	25°♄42'04	0°26'21
morning rise	470 May 14 j 07:24	11°♄12'35		desc. node	471 Apr 16 j 20:12	24°♄46'36	
direct	470 May 17 j 13:44	10°♄49'31		min. Earth dist.	471 Apr 17 j 09:15	24°♄26'57	0.55522 AU
morning max el	470 May 30 j 08:27	16°♄54'46	22°26'25	morning rise	471 Apr 24 j 02:15	21°♄15'38	
	470 Jun 09 j 16:42	0°♄		direct	471 Apr 28 j 04:48	20°♄38'26	
asc. node	470 Jun 17 j 14:48	14°♄12'26		morning max el	471 May 12 j 00:44	27°♄30'44	24°07'34
morning set	470 Jun 21 j 03:56	21°♄26'22			471 May 14 j 11:20	0°♄	
	470 Jun 25 j 04:58	0°♄			471 Jun 02 j 13:14	0°♄	
				asc. node	471 Jun 04 j 11:52	3°♄58'08	
superior conj	470 Jun 28 j 09:27	6°♄46'51	1°32'28	morning set	471 Jun 05 j 15:45	6°♄23'48	
minimum elong	470 Jun 28 j 07:12	6°♄34'56	1°32'14				
max. Earth dist.	470 Jul 01 j 11:57	13°♄16'39	1.34283 AU	superior conj	471 Jun 12 j 17:23	21°♄36'46	1°17'11
evening rise	470 Jul 06 j 07:54	22°♄59'43		minimum elong	471 Jun 12 j 14:54	21°♄23'25	1°16'49
	470 Jul 10 j 00:08	0°♄		max. Earth dist.	471 Jun 14 j 14:28	25°♄39'25	1.33238 AU
desc. node	470 Jul 26 j 22:32	27°♄44'26			471 Jun 16 j 15:34	0°♄	
	470 Jul 28 j 13:16	0°♄		evening rise	471 Jun 20 j 03:23	7°♄12'18	
evening max el	470 Aug 10 j 00:25	14°♄47'13	27°08'07		471 Jul 02 j 12:32	0°♄	
retrograde	470 Aug 23 j 08:00	22°♄06'09		desc. node	471 Jul 13 j 19:33	16°♄51'39	
evening set	470 Aug 30 j 06:05	19°♄21'35		evening max el	471 Jul 23 j 11:10	27°♄56'06	27°25'38
min. Earth dist.	470 Sep 03 j 02:28	15°♄37'33	0.65081 AU		471 Jul 25 j 18:30	0°♄	
inferior conj	470 Sep 05 j 04:28	13°♄17'07	-2°-42'-3	retrograde	471 Aug 06 j 03:12	5°♄15'26	
minimum elong	470 Sep 05 j 08:32	13°♄05'40	2°40'37	evening set	471 Aug 13 j 07:32	5°♄36'55	
morning rise	470 Sep 11 j 12:38	7°♄41'39			471 Aug 16 j 08:55	30°♄	
asc. node	470 Sep 13 j 13:57	7°♄05'20		min. Earth dist.	471 Aug 16 j 22:41	29°♄26'32	0.63540 AU
direct	470 Sep 14 j 04:54	7°♄03'14		inferior conj	471 Aug 19 j 13:38	26°♄46'48	-3°-33'-51
morning max el	470 Sep 20 j 17:29	10°♄34'06	18°09'06	minimum elong	471 Aug 19 j 18:31	26°♄34'24	3°32'30
	470 Oct 04 j 03:26	0°♄		morning rise	471 Aug 26 j 07:43	21°♄28'26	
morning set	470 Oct 08 j 22:49	7°♄58'10		direct	471 Aug 28 j 19:28	20°♄58'17	
	470 Oct 22 j 11:30	0°♄		asc. node	471 Aug 31 j 11:03	21°♄32'56	
desc. node	470 Oct 22 j 21:50	0°♄41'09		morning max el	471 Sep 04 j 09:25	24°♄24'01	17°53'45
					471 Sep 08 j 22:25	0°♄	
superior conj	470 Oct 23 j 06:33	1°♄15'53	0°-2'-25	morning set	471 Sep 21 j 00:33	20°♄02'22	
minimum elong	470 Oct 23 j 06:15	1°♄14'40	0°02'23		471 Sep 26 j 18:58	0°♄	
behind sun begin	470 Oct 22 j 19:29	0°♄31'50					
behind sun end	470 Oct 23 j 17:01	1°♄57'27		superior conj	471 Oct 03 j 07:28	10°♄57'20	0°42'23
max. Earth dist.	470 Oct 26 j 16:43	6°♄41'11	1.44868 AU	minimum elong	471 Oct 03 j 11:37	11°♄14'26	0°41'49
evening rise	470 Nov 08 j 19:15	27°♄09'04		max. Earth dist.	471 Oct 09 j 09:29	20°♄50'48	1.43998 AU
	470 Nov 10 j 15:21	0°♄		desc. node	471 Oct 09 j 18:52	21°♄28'18	
greatest brilliancy	470 Nov 25 j 23:33	23°♄14'23	-0.6m		471 Oct 15 j 04:23	0°♄	
	470 Dec 01 j 00:35	0°♄		evening rise	471 Oct 19 j 03:15	6°♄08'13	
evening max el	470 Dec 03 j 18:20	3°♄06'51	19°43'10		471 Nov 04 j 00:51	0°♄	
asc. node	470 Dec 10 j 13:12	7°♄23'35		greatest brilliancy	471 Nov 11 j 02:47	9°♄49'23	-0.5m
retrograde	470 Dec 11 j 04:20	7°♄25'49		evening max el	471 Nov 16 j 19:55	16°♄35'58	20°45'56
evening set	470 Dec 14 j 15:51	6°♄14'54		retrograde	471 Nov 25 j 02:02	21°♄28'57	
inferior conj	470 Dec 20 j 05:06	0°♄14'04	2°52'49	asc. node	471 Nov 27 j 10:16	20°♄57'54	
minimum elong	470 Dec 20 j 02:21	0°♄23'09	2°52'05	evening set	471 Nov 28 j 22:58	20°♄03'08	
	470 Dec 20 j 09:22	30°♄		inferior conj	471 Dec 04 j 09:32	13°♄51'03	2°13'28
min. Earth dist.	470 Dec 21 j 06:23	28°♄50'44	0.66576 AU	minimum elong	471 Dec 04 j 06:59	13°♄59'44	2°12'36
morning rise	470 Dec 25 j 12:09	23°♄59'41		min. Earth dist.	471 Dec 04 j 22:18	13°♄07'24	0.67297 AU
direct	470 Dec 31 j 12:55	21°♄19'46		morning rise	471 Dec 09 j 14:33	7°♄35'34	
morning max el	471 Jan 12 j 16:47	28°♄33'35	25°34'39	direct	471 Dec 15 j 00:31	5°♄13'50	
	471 Jan 14 j 02:05	0°♄		morning max el	471 Dec 26 j 01:06	11°♄48'28	24°10'15
desc. node	471 Jan 18 j 21:01	5°♄31'06		desc. node	472 Jan 05 j 18:04	24°♄39'51	
	471 Feb 05 j 02:56	0°♄			472 Jan 09 j 15:01	0°♄	
morning set	471 Feb 17 j 22:10	21°♄44'54			472 Jan 28 j 21:46	0°♄	
max. Earth dist.	471 Feb 21 j 17:42	28°♄50'10	1.36113 AU	morning set	472 Jan 30 j 18:46	3°♄12'58	
	471 Feb 22 j 08:23	0°♄		max. Earth dist.	472 Feb 03 j 13:44	9°♄53'44	1.38095 AU
superior conj	471 Feb 27 j 11:02	9°♄59'42	-1°-23'-46	superior conj	472 Feb 10 j 15:54	23°♄02'24	-1°-45'-6
minimum elong	471 Feb 27 j 14:49	10°♄18'34	1°23'15	minimum elong	472 Feb 10 j 19:46	23°♄20'52	1°44'45

	472 Feb 14 j 06:11	0°♄		superior conj	473 Jan 23 j 04:30	5°≈14'37	-1°-59'-16
evening rise	472 Feb 19 j 12:32	10°♄22'39		minimum elong	473 Jan 23 j 06:52	5°≈25'20	1°59'11
asc. node	472 Feb 23 j 09:36	17°♄54'12		evening rise	473 Feb 02 j 01:57	23°≈44'14	
	472 Mar 01 j 09:13	0°♄			473 Feb 05 j 09:46	0°♄	
evening max el	472 Mar 07 j 01:45	7°♄06'16	19°00'16	asc. node	473 Feb 09 j 06:38	6°♄59'54	
retrograde	472 Mar 15 j 14:25	11°♄13'18		evening max el	473 Feb 18 j 06:26	19°♄41'08	18°24'27
evening set	472 Mar 17 j 19:49	10°♄57'40		retrograde	473 Feb 25 j 15:35	23°♄19'43	
inferior conj	472 Mar 25 j 21:45	6°♄42'42	2°05'31	evening set	473 Feb 28 j 01:59	22°♄57'04	
minimum elong	472 Mar 26 j 01:52	6°♄35'27	2°04'19	inferior conj	473 Mar 07 j 09:53	18°♄21'25	3°09'55
min. Earth dist.	472 Mar 29 j 01:01	4°♄31'36	0.56920 AU	minimum elong	473 Mar 07 j 13:33	18°♄13'54	3°09'12
desc. node	472 Apr 02 j 17:14	1°♄52'25		min. Earth dist.	473 Mar 10 j 20:22	15°♄33'36	0.58847 AU
morning rise	472 Apr 03 j 03:44	1°♄41'27		morning rise	473 Mar 14 j 21:18	12°♄51'55	
direct	472 Apr 08 j 08:51	0°♄37'04		desc. node	473 Mar 20 j 14:16	11°♄12'00	
morning max el	472 Apr 22 j 15:25	8°♄00'27	25°43'09	direct	473 Mar 21 j 01:55	11°♄11'23	
	472 May 08 j 23:45	0°♄		morning max el	473 Apr 04 j 10:07	18°♄52'15	26°58'00
morning set	472 May 20 j 03:26	21°♄20'44			473 Apr 13 j 19:20	0°♄	
asc. node	472 May 21 j 08:54	23°♄56'57			473 May 01 j 12:41	0°♄	
	472 May 24 j 04:07	0°♄		morning set	473 May 04 j 13:22	6°♄11'50	
				asc. node	473 May 08 j 05:56	14°♄04'12	
superior conj	472 May 27 j 04:07	6°♄34'00	0°57'54				
minimum elong	472 May 27 j 01:55	6°♄21'59	0°57'31	superior conj	473 May 11 j 15:54	21°♄32'38	0°35'28
max. Earth dist.	472 May 27 j 23:48	8°♄21'38	1.32588 AU	minimum elong	473 May 11 j 14:23	21°♄24'22	0°35'09
evening rise	472 Jun 03 j 06:30	21°♄47'08		max. Earth dist.	473 May 11 j 12:24	21°♄13'26	1.32308 AU
	472 Jun 07 j 08:36	0°♄			473 May 15 j 12:36	0°♄	
	472 Jun 25 j 14:37	0°♄		evening rise	473 May 18 j 14:38	6°♄35'42	
desc. node	472 Jun 29 j 16:35	5°♄07'17			473 May 30 j 22:53	0°♄	
evening max el	472 Jul 04 j 18:21	10°♄31'46	27°11'26	desc. node	473 Jun 16 j 13:35	22°♄09'52	
retrograde	472 Jul 18 j 15:23	17°♄48'05		evening max el	473 Jun 16 j 19:19	22°♄23'37	26°24'05
evening set	472 Jul 25 j 17:53	15°♄29'00		retrograde	473 Jun 30 j 19:18	29°♄36'48	
min. Earth dist.	472 Jul 29 j 08:32	12°♄43'11	0.61689 AU	evening set	473 Jul 07 j 08:32	27°♄49'41	
inferior conj	472 Aug 01 j 10:47	9°♄56'26	-4°-17'-4	min. Earth dist.	473 Jul 11 j 08:21	25°♄13'16	0.59651 AU
minimum elong	472 Aug 01 j 15:17	9°♄46'17	4°16'16	inferior conj	473 Jul 14 j 16:20	22°♄36'56	-4°-44'-14
morning rise	472 Aug 08 j 15:28	4°♄58'26		minimum elong	473 Jul 14 j 18:32	22°♄32'37	4°44'06
direct	472 Aug 11 j 01:28	4°♄33'40		morning rise	473 Jul 22 j 07:53	18°♄01'49	
asc. node	472 Aug 17 j 08:07	7°♄25'25		direct	473 Jul 24 j 18:37	17°♄40'25	
morning max el	472 Aug 17 j 23:55	8°♄02'22	17°56'52	morning max el	473 Aug 01 j 10:02	21°♄21'41	18°19'34
	472 Sep 01 j 05:44	0°♄		asc. node	473 Aug 04 j 05:10	24°♄28'09	
morning set	472 Sep 02 j 21:47	3°♄02'21			473 Aug 08 j 01:46	0°♄	
				morning set	473 Aug 17 j 09:04	16°♄43'09	
superior conj	472 Sep 13 j 11:41	21°♄59'08	1°15'41		473 Aug 24 j 09:27	0°♄	
minimum elong	472 Sep 13 j 16:26	22°♄19'45	1°15'10				
	472 Sep 18 j 04:21	0°♄		superior conj	473 Aug 26 j 16:27	4°♄13'54	1°36'16
max. Earth dist.	472 Sep 20 j 22:07	4°♄33'21	1.42535 AU	minimum elong	473 Aug 26 j 19:36	4°♄28'18	1°36'03
desc. node	472 Sep 25 j 15:54	12°♄14'21		max. Earth dist.	473 Sep 03 j 05:22	17°♄35'34	1.40663 AU
evening rise	472 Sep 27 j 15:13	15°♄22'01		evening rise	473 Sep 07 j 22:13	25°♄29'17	
	472 Oct 07 j 04:07	0°♄			473 Sep 10 j 16:49	0°♄	
greatest brilliancy	472 Oct 24 j 21:55	24°♄43'12	-0.4m	desc. node	473 Sep 12 j 12:55	2°♄55'55	
evening max el	472 Oct 29 j 15:46	0°♄05'38	21°59'24		473 Sep 30 j 23:15	0°♄	
	472 Oct 29 j 13:33	0°♄		evening max el	473 Oct 12 j 06:45	13°♄37'04	23°18'47
retrograde	472 Nov 07 j 22:21	5°♄36'32		retrograde	473 Oct 22 j 16:00	19°♄45'52	
evening set	472 Nov 12 j 06:46	3°♄53'53		evening set	473 Oct 27 j 13:38	17°♄45'19	
asc. node	472 Nov 13 j 07:20	2°♄59'23		asc. node	473 Oct 31 j 04:22	13°♄46'49	
	472 Nov 15 j 21:14	30°♄		inferior conj	473 Nov 01 j 23:23	11°♄21'19	0°36'54
inferior conj	472 Nov 17 j 16:13	27°♄33'59	1°27'39	minimum elong	473 Nov 01 j 22:32	11°♄24'16	0°36'32
minimum elong	472 Nov 17 j 14:21	27°♄40'30	1°26'54	min. Earth dist.	473 Nov 01 j 14:20	11°♄52'24	0.67688 AU
min. Earth dist.	472 Nov 17 j 17:44	27°♄28'46	0.67661 AU	morning rise	473 Nov 07 j 07:30	5°♄10'23	
morning rise	472 Nov 22 j 21:42	21°♄19'38		direct	473 Nov 11 j 11:39	3°♄33'40	
direct	472 Nov 27 j 16:24	19°♄20'08		morning max el	473 Nov 20 j 02:38	8°♄36'07	21°19'06
morning max el	472 Dec 07 j 11:11	25°♄07'57	22°42'16	greatest brilliancy	473 Nov 25 j 07:52	14°♄35'34	-0.4m
	472 Dec 11 j 20:09	0°♄			473 Dec 06 j 11:47	0°♄	
greatest brilliancy	472 Dec 12 j 02:09	0°♄18'03	-0.3m	desc. node	473 Dec 09 j 12:08	4°♄26'41	
desc. node	472 Dec 22 j 15:06	14°♄21'25		morning set	473 Dec 21 j 00:48	22°♄05'36	
	473 Jan 02 j 03:26	0°♄			473 Dec 25 j 23:41	0°♄	
morning set	473 Jan 10 j 12:03	13°♄19'17		max. Earth dist.	473 Dec 28 j 11:30	4°♄03'45	1.42225 AU
max. Earth dist.	473 Jan 15 j 09:34	21°♄31'22	1.40229 AU				
	473 Jan 20 j 06:26	0°≈		superior conj	474 Jan 04 j 19:28	16°♄23'04	-2°-2'-3
				minimum elong	474 Jan 04 j 18:05	16°♄17'10	2°02'03

	474 Jan 12 j 13:00	0°♊		max. Earth dist.	474 Dec 10 j 20:46	17°♊27'04	1.43812 AU
evening rise	474 Jan 16 j 02:12	6°♊24'54					
asc. node	474 Jan 27 j 03:39	25°♊33'37		superior conj	474 Dec 16 j 08:19	26°♊19'02	-1°-48'-47
	474 Jan 30 j 07:53	0°♋		minimum elong	474 Dec 16 j 01:57	25°♊52'58	1°48'22
evening max el	474 Feb 01 j 16:25	2°♋39'05	18°08'31		474 Dec 18 j 14:03	0°♌	
retrograde	474 Feb 08 j 09:44	6°♋05'03		evening rise	474 Dec 29 j 09:05	18°♌16'41	
evening set	474 Feb 11 j 00:41	5°♋33'59			475 Jan 05 j 04:51	0°♍	
inferior conj	474 Feb 17 j 17:44	0°♋36'48	3°41'47	asc. node	475 Jan 14 j 00:41	13°♍25'56	
minimum elong	474 Feb 17 j 19:20	0°♋33'00	3°41'39	evening max el	475 Jan 16 j 04:47	15°♍52'51	18°11'57
	474 Feb 18 j 09:09	30°♌		retrograde	475 Jan 22 j 16:26	19°♍19'44	
min. Earth dist.	474 Feb 20 j 22:16	27°♌36'14	0.60957 AU	evening set	475 Jan 25 j 11:50	18°♍39'12	
morning rise	474 Feb 24 j 11:06	24°♌47'51		inferior conj	475 Jan 31 j 17:33	13°♍21'32	3°48'24
direct	474 Mar 03 j 06:14	22°♌31'55		minimum elong	475 Jan 31 j 17:05	13°♍22'49	3°48'23
desc. node	474 Mar 07 j 11:18	23°♌19'53		min. Earth dist.	475 Feb 03 j 09:06	10°♍31'31	0.62963 AU
	474 Mar 17 j 02:00	0°♍		morning rise	475 Feb 06 j 20:21	7°♍20'42	
morning max el	474 Mar 17 j 11:14	0°♍22'35	27°40'24	direct	475 Feb 13 j 19:50	4°♍39'42	
	474 Apr 07 j 20:09	0°♎		desc. node	475 Feb 22 j 08:20	7°♍55'40	
morning set	474 Apr 18 j 19:39	20°♎49'32		morning max el	475 Feb 27 j 17:42	12°♍33'20	27°45'38
	474 Apr 23 j 04:00	0°♏			475 Mar 13 j 16:00	0°♐	
max. Earth dist.	474 Apr 25 j 00:17	4°♏00'03	1.32394 AU		475 Mar 31 j 06:04	0°♑	
asc. node	474 Apr 25 j 02:57	4°♏14'35		morning set	475 Apr 02 j 20:04	5°♑06'27	
				max. Earth dist.	475 Apr 08 j 07:23	16°♑27'20	1.32870 AU
superior conj	474 Apr 26 j 02:58	6°♏25'45	0°10'35				
minimum elong	474 Apr 26 j 02:29	6°♏23'05	0°10'29	superior conj	475 Apr 10 j 11:40	21°♑07'40	0°-15'-55
behind sun begin	474 Apr 25 j 22:39	6°♏02'11		minimum elong	475 Apr 10 j 12:25	21°♑11'48	0°15'47
behind sun end	474 Apr 26 j 06:18	6°♏44'00		behind sun begin	475 Apr 10 j 11:49	21°♑08'32	
evening rise	474 May 03 j 01:31	21°♏29'20		behind sun end	475 Apr 10 j 13:02	21°♑15'04	
	474 May 07 j 04:55	0°♐		asc. node	475 Apr 11 j 23:59	24°♑24'06	
	474 May 26 j 05:11	0°♑			475 Apr 14 j 14:00	0°♒	
evening max el	474 May 29 j 13:13	3°♑29'50	25°08'26	evening rise	475 Apr 17 j 13:20	6°♒21'39	
desc. node	474 Jun 03 j 10:35	7°♑29'14			475 Apr 30 j 03:21	0°♓	
retrograde	474 Jun 12 j 13:25	10°♑37'41		evening max el	475 May 11 j 03:30	14°♓06'47	23°35'57
evening set	474 Jun 18 j 00:01	9°♑29'20		desc. node	475 May 21 j 07:35	20°♓29'26	
min. Earth dist.	474 Jun 23 j 00:51	6°♑43'45	0.57647 AU	retrograde	475 May 24 j 19:36	20°♓57'20	
inferior conj	474 Jun 26 j 02:56	4°♑38'12	-4°-44'-10	evening set	475 May 28 j 19:04	20°♓22'30	
minimum elong	474 Jun 26 j 00:42	4°♑42'01	4°44'02	min. Earth dist.	475 Jun 04 j 14:04	17°♓12'38	0.56012 AU
morning rise	474 Jul 04 j 05:14	0°♑25'38		inferior conj	475 Jun 06 j 17:27	15°♓55'32	-4°-3'-46
direct	474 Jul 06 j 18:22	0°♑06'26		minimum elong	475 Jun 06 j 10:49	16°♓05'32	4°02'27
morning max el	474 Jul 15 j 12:44	4°♑12'34	19°02'57	morning rise	475 Jun 15 j 06:04	11°♓58'56	
asc. node	474 Jul 22 j 02:11	12°♑25'54		direct	475 Jun 17 j 22:46	11°♓40'46	
	474 Jul 31 j 19:26	0°♒		morning max el	475 Jun 28 j 05:23	16°♓26'02	20°07'21
morning set	474 Aug 01 j 06:17	0°♒53'26			475 Jul 08 j 07:58	0°♔	
				asc. node	475 Jul 08 j 23:14	1°♔06'06	
superior conj	474 Aug 09 j 16:05	17°♒25'24	1°45'40	morning set	475 Jul 16 j 10:21	15°♔25'07	
minimum elong	474 Aug 09 j 17:08	17°♒30'26	1°45'38		475 Jul 23 j 13:47	0°♕	
	474 Aug 16 j 09:56	0°♕					
max. Earth dist.	474 Aug 16 j 08:36	29°♕53'59	1.38631 AU	superior conj	475 Jul 24 j 05:22	1°♕18'26	1°45'58
evening rise	474 Aug 20 j 05:50	6°♕45'56		minimum elong	475 Jul 24 j 04:39	1°♕14'52	1°45'56
desc. node	474 Aug 30 j 09:57	23°♕28'57		max. Earth dist.	475 Jul 29 j 13:14	11°♕45'28	1.36704 AU
	474 Sep 03 j 16:26	0°♖		evening rise	475 Aug 02 j 12:08	19°♕08'09	
evening max el	474 Sep 24 j 18:52	27°♖11'47	24°37'59		475 Aug 08 j 16:37	0°♗	
	474 Sep 27 j 20:55	0°♗		desc. node	475 Aug 17 j 06:58	13°♗48'10	
retrograde	474 Oct 06 j 05:56	3°♗53'18			475 Aug 28 j 19:21	0°♘	
evening set	474 Oct 11 j 17:56	1°♗35'14		evening max el	475 Sep 07 j 06:26	10°♘49'11	25°49'38
	474 Oct 13 j 09:08	30°♘		retrograde	475 Sep 19 j 15:17	17°♘53'11	
min. Earth dist.	474 Oct 16 j 09:48	26°♘16'18	0.67389 AU	evening set	475 Sep 25 j 17:48	15°♘20'19	
inferior conj	474 Oct 17 j 05:19	25°♘11'14	0°-17'-19	min. Earth dist.	475 Sep 30 j 01:42	10°♘37'20	0.66764 AU
minimum elong	474 Oct 17 j 05:45	25°♘09'49	0°17'09	inferior conj	475 Oct 01 j 08:13	9°♘00'37	-1°-13'-38
asc. node	474 Oct 18 j 01:23	24°♘04'49		minimum elong	475 Oct 01 j 10:06	8°♘54'39	1°12'51
morning rise	474 Oct 22 j 17:59	19°♘06'15		asc. node	475 Oct 04 j 22:27	4°♘50'10	
direct	474 Oct 26 j 09:13	17°♘50'18		morning rise	475 Oct 07 j 03:13	3°♘04'25	
morning max el	474 Nov 03 j 01:36	22°♘15'02	20°06'39	direct	475 Oct 10 j 07:41	2°♘05'54	
	474 Nov 09 j 12:14	0°♙		morning max el	475 Oct 17 j 07:54	6°♘02'23	19°08'16
greatest brilliancy	474 Nov 10 j 01:56	0°♙46'16	-0.6m		475 Nov 03 j 09:43	0°♚	
desc. node	474 Nov 26 j 09:11	24°♙49'06		morning set	475 Nov 09 j 02:40	8°♙53'54	
morning set	474 Nov 29 j 21:30	0°♚13'34		desc. node	475 Nov 13 j 06:14	15°♙23'03	
	474 Nov 29 j 18:00	0°♚			475 Nov 22 j 13:57	0°♛	

max. Earth dist.	475 Nov 23 j 11:56	1°♂26'36	1.44793 AU	morning set	476 Oct 19 j 10:02	18°♂54'57	
					476 Oct 26 j 07:33	0°♂	
superior conj	475 Nov 25 j 20:17	5°♂09'09	-1°-16'-57	desc. node	476 Oct 30 j 03:18	6°♂04'53	
minimum elong	475 Nov 25 j 11:56	4°♂36'08	1°16'03				
evening rise	475 Dec 10 j 18:16	29°♂11'30		superior conj	476 Nov 03 j 20:55	13°♂33'33	0°-30'-53
	475 Dec 11 j 06:06	0°♂		minimum elong	476 Nov 03 j 16:52	13°♂17'36	0°30'22
evening max el	475 Dec 30 j 16:50	29°♂15'39	18°33'59	max. Earth dist.	476 Nov 05 j 06:39	15°♂46'14	1.45060 AU
	475 Dec 31 j 10:59	0°♂			476 Nov 14 j 08:14	0°♂	
asc. node	475 Dec 31 j 21:44	0°♂24'16		evening rise	476 Nov 20 j 03:48	9°♂08'32	
retrograde	476 Jan 06 j 07:18	2°♂54'56		greatest brilliancy	476 Dec 03 j 01:59	29°♂19'48	-0.7m
evening set	476 Jan 09 j 07:56	2°♂03'43			476 Dec 03 j 12:38	0°♂	
	476 Jan 12 j 00:06	30°♂♂		evening max el	476 Dec 13 j 02:12	12°♂42'57	19°13'21
inferior conj	476 Jan 15 j 05:21	26°♂27'22	3°36'43	asc. node	476 Dec 17 j 18:47	16°♂14'28	
minimum elong	476 Jan 15 j 03:26	26°♂33'03	3°36'28	retrograde	476 Dec 20 j 02:58	16°♂44'37	
min. Earth dist.	476 Jan 17 j 05:32	24°♂04'49	0.64674 AU	evening set	476 Dec 23 j 10:07	15°♂41'15	
morning rise	476 Jan 20 j 21:40	20°♂19'20		inferior conj	476 Dec 29 j 01:44	9°♂48'30	3°11'48
direct	476 Jan 27 j 16:45	17°♂28'17		minimum elong	476 Dec 28 j 23:06	9°♂56'55	3°11'12
desc. node	476 Feb 09 j 05:23	24°♂22'57		min. Earth dist.	476 Dec 30 j 10:54	8°♂02'42	0.66000 AU
morning max el	476 Feb 10 j 02:52	25°♂15'39	27°15'51	morning rise	477 Jan 03 j 11:15	3°♂36'01	
	476 Feb 14 j 11:16	0°♂		direct	477 Jan 09 j 19:50	0°♂49'02	
	476 Mar 06 j 03:07	0°♂		morning max el	477 Jan 22 j 12:24	8°♂18'18	26°17'36
morning set	476 Mar 16 j 11:49	18°♂53'18		desc. node	477 Jan 26 j 02:27	12°♂10'24	
max. Earth dist.	476 Mar 21 j 05:54	28°♂24'16	1.33773 AU		477 Feb 08 j 12:19	0°♂	
	476 Mar 22 j 00:29	0°♂			477 Feb 26 j 13:34	0°♂	
				morning set	477 Feb 27 j 15:01	1°♂58'18	
superior conj	476 Mar 24 j 16:04	5°♂32'16	0°-43'-4	max. Earth dist.	477 Mar 03 j 17:10	9°♂47'55	1.35137 AU
minimum elong	476 Mar 24 j 18:10	5°♂43'20	0°42'40				
asc. node	476 Mar 28 j 21:03	14°♂28'45		superior conj	477 Mar 08 j 13:50	19°♂32'07	-1°-9'-32
evening rise	476 Apr 01 j 00:15	21°♂06'30		minimum elong	477 Mar 08 j 17:07	19°♂48'57	1°09'00
	476 Apr 05 j 09:12	0°♂			477 Mar 13 j 15:13	0°♂	
evening max el	476 Apr 21 j 21:03	24°♂43'54	22°01'25	asc. node	477 Mar 15 j 18:06	4°♂23'53	
	476 Apr 29 j 14:36	0°♂		evening rise	477 Mar 16 j 08:22	5°♂37'23	
retrograde	476 May 04 j 13:29	0°♂57'13			477 Mar 30 j 00:59	0°♂	
evening set	476 May 07 j 07:09	0°♂40'37		evening max el	477 Apr 03 j 23:45	5°♂46'28	20°37'02
desc. node	476 May 07 j 04:36	0°♂41'51		retrograde	477 Apr 15 j 02:24	11°♂08'28	
	476 May 09 j 17:35	30°♂♂		evening set	477 Apr 17 j 06:07	10°♂57'11	
min. Earth dist.	476 May 16 j 02:37	26°♂54'35	0.55086 AU	desc. node	477 Apr 24 j 01:38	8°♂19'54	
inferior conj	476 May 16 j 16:11	26°♂35'32	-2°-37'-30	inferior conj	477 Apr 26 j 10:33	6°♂59'44	0°-41'00
minimum elong	476 May 16 j 09:26	26°♂45'01	2°35'24	minimum elong	477 Apr 26 j 08:36	7°♂02'32	0°40'18
morning rise	476 May 25 j 13:11	22°♂41'09		min. Earth dist.	477 Apr 27 j 15:37	6°♂17'55	0.55091 AU
direct	476 May 28 j 12:47	22°♂21'17		morning rise	477 May 05 j 09:39	2°♂49'01	
morning max el	476 Jun 09 j 10:48	27°♂56'37	21°31'15	direct	477 May 08 j 23:41	2°♂21'18	
	476 Jun 11 j 11:58	0°♂		morning max el	477 May 22 j 06:29	8°♂47'27	23°09'09
asc. node	476 Jun 24 j 20:18	20°♂18'41			477 Jun 06 j 13:30	0°♂	
morning set	476 Jun 29 j 19:00	0°♂12'18		asc. node	477 Jun 11 j 17:22	9°♂54'23	
	476 Jun 29 j 16:38	0°♂		morning set	477 Jun 14 j 06:11	15°♂07'54	
superior conj	476 Jul 07 j 04:17	15°♂41'35	1°39'05	superior conj	477 Jun 21 j 09:39	0°♂24'03	1°26'32
minimum elong	476 Jul 07 j 02:25	15°♂31'52	1°38'57	minimum elong	477 Jun 21 j 07:14	0°♂11'09	1°26'14
max. Earth dist.	476 Jul 11 j 01:28	23°♂39'01	1.35064 AU		477 Jun 21 j 05:09	0°♂	
	476 Jul 14 j 06:33	0°♂		max. Earth dist.	477 Jun 23 j 23:14	5°♂50'37	1.33795 AU
evening rise	476 Jul 15 j 12:32	2°♂24'10		evening rise	477 Jun 29 j 02:11	16°♂19'26	
	476 Jul 31 j 15:08	0°♂			477 Jul 06 j 08:20	0°♂	
desc. node	476 Aug 03 j 03:59	3°♂47'22		desc. node	477 Jul 21 j 01:00	23°♂16'55	
evening max el	476 Aug 19 j 18:36	24°♂24'47	26°45'48		477 Jul 26 j 04:21	0°♂	
	476 Aug 27 j 00:37	0°♂		evening max el	477 Aug 02 j 06:21	7°♂46'48	27°19'09
retrograde	476 Sep 01 j 19:22	1°♂40'06		retrograde	477 Aug 15 j 17:40	15°♂05'35	
	476 Sep 07 j 01:20	30°♂♂		evening set	477 Aug 22 j 19:19	12°♂22'13	
evening set	476 Sep 08 j 11:10	28°♂57'42		min. Earth dist.	477 Aug 26 j 13:15	8°♂53'14	0.64475 AU
min. Earth dist.	476 Sep 12 j 11:39	24°♂52'08	0.65802 AU	inferior conj	477 Aug 28 j 20:43	6°♂23'44	-3°-4'-42
inferior conj	476 Sep 14 j 06:09	22°♂46'40	-2°-10'-12	minimum elong	477 Aug 29 j 01:14	6°♂11'33	3°03'15
minimum elong	476 Sep 14 j 09:29	22°♂36'48	2°08'56	morning rise	477 Sep 04 j 08:59	0°♂55'03	
morning rise	476 Sep 20 j 09:05	17°♂02'26		direct	477 Sep 06 j 23:08	0°♂20'24	
asc. node	476 Sep 20 j 19:30	16°♂49'50		asc. node	477 Sep 07 j 16:35	0°♂23'09	
direct	476 Sep 23 j 05:10	16°♂17'37		morning max el	477 Sep 13 j 11:16	3°♂47'44	18°00'23
morning max el	476 Sep 29 j 19:57	19°♂55'14	18°25'50	morning set	477 Sep 30 j 21:40	0°♂18'31	
	476 Oct 07 j 12:51	0°♂			477 Sep 30 j 17:17	0°♂	

superior conj	477 Oct 14 j 08:08	22°♄33'22	0°17'44	superior conj	478 Sep 24 j 20:33	2°♄48'53	0°58'06
minimum elong	477 Oct 14 j 10:11	22°♄41'40	0°17'26	minimum elong	478 Sep 25 j 01:21	3°♄09'07	0°57'30
desc. node	477 Oct 17 j 00:20	26°♄50'54		max. Earth dist.	478 Oct 01 j 16:40	14°♄06'02	1.43435 AU
	477 Oct 18 j 23:53	0°♄		desc. node	478 Oct 03 j 21:20	17°♄37'50	
max. Earth dist.	477 Oct 19 j 01:22	0°♄05'54	1.44584 AU	evening rise	478 Oct 10 j 00:57	27°♄18'55	
evening rise	477 Oct 30 j 17:38	18°♄19'54			478 Oct 11 j 18:38	0°♄	
	477 Nov 07 j 08:31	0°♄			478 Nov 01 j 06:26	0°♄	
greatest brilliancy	477 Nov 19 j 12:52	17°♄53'14	-0.6m	greatest brilliancy	478 Nov 04 j 01:36	3°♄39'38	-0.4m
evening max el	477 Nov 26 j 06:53	26°♄11'30	20°08'18	evening max el	478 Nov 09 j 05:49	9°♄39'58	21°16'08
	477 Dec 01 j 03:04	0°♄		retrograde	478 Nov 17 j 22:02	14°♄49'20	
retrograde	477 Dec 04 j 00:38	0°♄44'05		evening set	478 Nov 21 j 23:35	13°♄16'28	
asc. node	477 Dec 04 j 15:50	0°♄41'49		asc. node	478 Nov 21 j 12:52	13°♄35'57	
	477 Dec 06 j 18:46	30°♄		inferior conj	478 Nov 27 j 09:28	7°♄00'20	1°54'44
evening set	477 Dec 07 j 16:00	29°♄26'51		minimum elong	478 Nov 27 j 07:10	7°♄08'18	1°53'53
inferior conj	477 Dec 13 j 03:53	23°♄20'40	2°37'02	min. Earth dist.	478 Nov 27 j 17:16	6°♄33'28	0.67486 AU
minimum elong	477 Dec 13 j 01:09	23°♄29'49	2°36'12	morning rise	478 Dec 02 j 14:24	0°♄44'59	
min. Earth dist.	477 Dec 13 j 23:34	22°♄14'36	0.66927 AU		478 Dec 03 j 13:06	30°♄	
morning rise	477 Dec 18 j 09:46	17°♄05'45		direct	478 Dec 07 j 17:42	28°♄32'40	
direct	477 Dec 24 j 04:19	14°♄33'08			478 Dec 12 j 09:14	0°♄	
morning max el	478 Jan 04 j 21:09	21°♄31'14	24°59'57	morning max el	478 Dec 18 j 05:57	4°♄48'21	23°32'48
	478 Jan 12 j 06:22	0°♄		desc. node	478 Dec 30 j 20:33	20°♄18'31	
desc. node	478 Jan 12 j 23:31	0°♄54'36			479 Jan 06 j 14:55	0°♄	
	478 Feb 01 j 18:19	0°♄		morning set	479 Jan 22 j 10:13	25°♄01'57	
morning set	478 Feb 10 j 00:37	14°♄07'07			479 Jan 25 j 07:47	0°♄	
max. Earth dist.	478 Feb 13 j 17:48	20°♄52'21	1.36922 AU	max. Earth dist.	479 Jan 26 j 12:47	2°♄06'30	1.38994 AU
	478 Feb 18 j 13:18	0°♄					
superior conj	478 Feb 20 j 01:57	2°♄58'49	-1°-33'-28	superior conj	479 Feb 03 j 00:25	15°♄41'03	-1°-52'-13
minimum elong	478 Feb 20 j 05:54	3°♄18'15	1°32'59	minimum elong	479 Feb 03 j 03:53	15°♄57'19	1°51'59
evening rise	478 Feb 28 j 11:27	19°♄47'39		evening rise	479 Feb 12 j 06:43	3°♄28'50	
asc. node	478 Mar 02 j 15:09	24°♄04'49		asc. node	479 Feb 17 j 12:11	13°♄25'11	
	478 Mar 05 j 17:02	0°♄		evening max el	479 Feb 28 j 13:56	29°♄44'08	18°42'36
evening max el	478 Mar 17 j 13:49	17°♄27'10	19°29'54		479 Feb 28 j 20:36	0°♄	
retrograde	478 Mar 26 j 23:35	21°♄58'43		retrograde	479 Mar 08 j 13:42	3°♄37'23	
evening set	478 Mar 29 j 02:26	21°♄45'57		evening set	479 Mar 10 j 21:02	3°♄19'10	
inferior conj	478 Apr 06 j 15:08	17°♄40'07	1°12'24		479 Mar 17 j 04:16	30°♄	
minimum elong	478 Apr 06 j 18:02	17°♄35'27	1°11'26	inferior conj	479 Mar 18 j 15:03	28°♄55'53	2°37'08
min. Earth dist.	478 Apr 09 j 06:08	15°♄59'02	0.56029 AU	minimum elong	479 Mar 18 j 19:18	28°♄47'53	2°36'03
desc. node	478 Apr 10 j 22:40	14°♄58'04		min. Earth dist.	479 Mar 21 j 23:22	26°♄26'16	0.57690 AU
morning rise	478 Apr 15 j 05:58	12°♄57'59		morning rise	479 Mar 26 j 13:19	23°♄41'09	
direct	478 Apr 19 j 19:18	12°♄11'06		desc. node	479 Mar 28 j 19:42	22°♄50'42	
morning max el	478 May 03 j 21:28	19°♄18'05	24°49'51	direct	479 Apr 01 j 05:02	22°♄22'01	
	478 May 12 j 21:20	0°♄		morning max el	479 Apr 15 j 13:33	29°♄55'00	26°18'19
morning set	478 May 29 j 18:10	0°♄06'19			479 Apr 15 j 15:37	0°♄	
asc. node	478 May 29 j 14:26	29°♄46'42			479 May 06 j 15:07	0°♄	
	478 May 29 j 16:58	0°♄		morning set	479 May 14 j 05:18	15°♄01'37	
				asc. node	479 May 16 j 11:28	19°♄49'48	
superior conj	478 Jun 05 j 19:01	15°♄18'10	1°09'26	superior conj	479 May 21 j 06:24	0°♄16'55	0°48'44
minimum elong	478 Jun 05 j 16:36	15°♄05'03	1°09'03	minimum elong	479 May 21 j 04:27	0°♄06'13	0°48'22
max. Earth dist.	478 Jun 07 j 05:06	18°♄23'07	1.32917 AU		479 May 21 j 03:19	0°♄	
	478 Jun 12 j 16:56	0°♄		max. Earth dist.	479 May 21 j 16:06	1°♄10'08	1.32420 AU
evening rise	478 Jun 13 j 01:16	0°♄42'36		evening rise	479 May 28 j 06:46	15°♄24'07	
	478 Jun 29 j 08:16	0°♄			479 Jun 04 j 16:29	0°♄	
desc. node	478 Jul 07 j 21:59	12°♄04'24		desc. node	479 Jun 24 j 19:00	29°♄52'17	
evening max el	478 Jul 15 j 15:42	20°♄42'23	27°23'28		479 Jun 24 j 21:49	0°♄	
retrograde	478 Jul 29 j 09:53	28°♄00'38		evening max el	479 Jun 27 j 20:17	2°♄59'54	26°55'09
evening set	478 Aug 05 j 14:51	25°♄28'19		retrograde	479 Jul 11 j 19:05	10°♄15'50	
min. Earth dist.	478 Aug 09 j 04:51	22°♄30'14	0.62792 AU	evening set	479 Jul 18 j 17:27	8°♄08'45	
inferior conj	478 Aug 12 j 01:08	19°♄45'32	-3°-53'-35	min. Earth dist.	479 Jul 22 j 10:17	5°♄29'09	0.60830 AU
minimum elong	478 Aug 12 j 06:03	19°♄33'40	3°52'25	inferior conj	479 Jul 25 j 16:05	2°♄44'06	-4°-31'-11
morning rise	478 Aug 18 j 23:42	14°♄35'46		minimum elong	479 Jul 25 j 19:53	2°♄35'59	4°30'40
direct	478 Aug 21 j 10:27	14°♄08'12			479 Jul 29 j 02:36	30°♄	
asc. node	478 Aug 25 j 13:39	15°♄28'26		morning rise	479 Aug 02 j 01:26	27°♄55'54	
morning max el	478 Aug 28 j 02:59	17°♄33'48	17°52'47	direct	479 Aug 04 j 11:19	27°♄32'56	
	478 Sep 06 j 00:27	0°♄			479 Aug 10 j 10:32	0°♄	
morning set	478 Sep 13 j 08:21	12°♄48'07		morning max el	479 Aug 11 j 16:04	1°♄05'51	18°04'04
	478 Sep 23 j 04:40	0°♄					

asc. node	479 Aug 12 j 10:41	1°Ω53'01			480 Aug 04 j 20:42	0°Ω	
morning set	479 Aug 27 j 12:10	26°Ω07'18		morning set	480 Aug 10 j 04:08	10°Ω02'04	
	479 Aug 29 j 14:13	0°♊					
superior conj	479 Sep 06 j 11:54	14°♊24'13	1°25'55	superior conj	480 Aug 19 j 01:22	27°Ω04'59	1°41'30
minimum elong	479 Sep 06 j 16:07	14°♊42'57	1°25'31	minimum elong	480 Aug 19 j 03:38	27°Ω15'31	1°41'22
max. Earth dist.	479 Sep 14 j 02:32	27°♊31'11	1.41769 AU	max. Earth dist.	480 Aug 20 j 15:02	0°♊	
	479 Sep 15 j 14:20	0°♊		evening rise	480 Aug 26 j 07:28	10°♊13'25	1.39804 AU
evening rise	479 Sep 19 j 19:41	6°♊52'19		desc. node	480 Aug 30 j 13:06	17°♊29'14	
desc. node	479 Sep 20 j 18:21	8°♊22'49			480 Sep 06 j 15:23	29°♊01'30	
	479 Oct 05 j 00:06	0°♋			480 Sep 07 j 06:17	0°♊	
greatest brilliancy	479 Oct 18 j 03:54	17°♋46'37	-0.3m	evening max el	480 Sep 28 j 12:24	0°♋	
evening max el	479 Oct 22 j 23:20	23°♋10'19	22°32'48	retrograde	480 Oct 04 j 12:58	6°♋43'44	23°52'58
retrograde	479 Nov 01 j 17:28	28°♋58'15		evening set	480 Oct 15 j 09:33	13°♋07'07	
evening set	479 Nov 06 j 07:11	27°♋08'14		asc. node	480 Oct 20 j 13:09	10°♋59'14	
asc. node	479 Nov 08 j 09:54	25°♋02'41		inferior conj	480 Oct 25 j 06:56	5°♋31'01	
inferior conj	479 Nov 11 j 16:36	20°♋45'59	1°06'39	minimum elong	480 Oct 25 j 23:27	4°♋34'54	0°14'15
minimum elong	479 Nov 11 j 15:06	20°♋51'08	1°06'02	transit middle	480 Oct 25 j 23:07	4°♋36'04	0°14'06
min. Earth dist.	479 Nov 11 j 13:36	20°♋56'21	0.67708 AU	transit begin	480 Oct 25 j 23:07	4°♋36'04	0°14'06
morning rise	479 Nov 16 j 22:55	14°♋32'31		transit end	480 Oct 25 j 21:45	4°♋40'41	
direct	479 Nov 21 j 11:13	12°♋42'45		min. Earth dist.	480 Oct 26 j 00:28	4°♋31'27	
morning max el	479 Nov 30 j 17:52	18°♋11'14	22°05'49		480 Oct 25 j 10:04	5°♋20'24	0.67604 AU
greatest brilliancy	479 Dec 05 j 10:32	23°♋28'27	-0.4m		480 Oct 29 j 15:34	30°♋♊	
	479 Dec 10 j 11:45	0°♌		morning rise	480 Oct 31 j 09:15	28°♊25'59	
desc. node	479 Dec 17 j 17:36	10°♌11'22		direct	480 Nov 04 j 07:46	26°♊58'13	
	479 Dec 30 j 18:40	0°♍			480 Nov 10 j 16:09	0°♋	
morning set	480 Jan 02 j 14:51	4°♍32'08		morning max el	480 Nov 12 j 12:13	1°♋43'18	20°46'37
max. Earth dist.	480 Jan 08 j 10:00	14°♍03'37	1.41110 AU	greatest brilliancy	480 Nov 18 j 08:49	8°♋35'35	-0.5m
					480 Dec 03 j 08:05	0°♌	
superior conj	480 Jan 16 j 04:25	27°♍27'28	-2°-2'-8	desc. node	480 Dec 03 j 14:39	0°♌24'45	
minimum elong	480 Jan 16 j 05:29	27°♍32'10	2°02'08	morning set	480 Dec 11 j 18:09	12°♌53'44	
	480 Jan 17 j 14:38	0°♍		max. Earth dist.	480 Dec 20 j 14:59	26°♌58'36	1.42970 AU
evening rise	480 Jan 26 j 14:58	16°♍33'34			480 Dec 22 j 11:31	0°♍	
	480 Feb 03 j 00:27	0°♎		superior conj	480 Dec 27 j 08:41	8°♍06'00	-1°-58'-38
asc. node	480 Feb 04 j 09:12	2°♎18'14		minimum elong	480 Dec 27 j 05:10	7°♍51'14	1°58'31
evening max el	480 Feb 11 j 21:15	12°♎29'55	18°15'20	evening rise	481 Jan 08 j 08:19	28°♍54'05	
retrograde	480 Feb 18 j 22:17	16°♎01'01			481 Jan 08 j 23:10	0°♍	
evening set	480 Feb 21 j 10:41	15°♎34'59		asc. node	481 Jan 21 j 06:13	20°♍35'43	
inferior conj	480 Feb 28 j 11:52	10°♎50'29	3°26'57	evening max el	481 Jan 25 j 08:40	25°♍35'51	18°07'42
minimum elong	480 Feb 28 j 14:44	10°♎44'13	3°26'32	retrograde	481 Jan 31 j 22:13	29°♍00'19	
min. Earth dist.	480 Mar 02 j 21:16	7°♎53'54	0.59743 AU	evening set	481 Feb 03 j 15:10	28°♍25'11	
morning rise	480 Mar 06 j 15:19	5°♎11'41		inferior conj	481 Feb 10 j 02:58	23°♍19'06	3°47'11
direct	480 Mar 13 j 03:36	3°♎14'55		minimum elong	481 Feb 10 j 03:38	23°♍17'26	3°47'10
desc. node	480 Mar 14 j 16:44	3°♎21'20		min. Earth dist.	481 Feb 13 j 02:32	20°♍20'39	0.61841 AU
morning max el	480 Mar 27 j 10:43	11°♎01'15	27°20'21	morning rise	481 Feb 16 j 13:41	17°♍24'44	
	480 Apr 11 j 05:16	0°♏		direct	481 Feb 23 j 12:02	14°♍56'29	
morning set	480 Apr 27 j 13:53	29°♏47'34		desc. node	481 Mar 01 j 13:48	14°♍36'25	
	480 Apr 27 j 16:16	0°♐		morning max el	481 Mar 09 j 14:07	22°♍48'31	27°47'13
asc. node	480 May 02 j 08:29	9°♐58'53			481 Mar 15 j 23:30	0°♎	
max. Earth dist.	480 May 04 j 04:40	14°♐00'22	1.32295 AU		481 Apr 04 j 08:52	0°♏	
				morning set	481 Apr 11 j 17:59	14°♏17'42	
superior conj	480 May 04 j 18:05	15°♐14'01	0°25'11	max. Earth dist.	481 Apr 17 j 15:05	26°♏41'08	1.32547 AU
minimum elong	480 May 04 j 16:58	15°♐07'57	0°24'56				
evening rise	480 May 11 j 16:18	0°♑15'43		superior conj	481 Apr 19 j 04:24	0°♐03'38	0°00'-29
	480 May 11 j 13:19	0°♑		minimum elong	481 Apr 19 j 04:25	0°♐03'44	0°00'30
	480 May 28 j 00:13	0°♒		behind sun begin	481 Apr 18 j 23:18	29°♏35'55	
evening max el	480 Jun 08 j 18:18	14°♒32'19	25°54'57	behind sun end	481 Apr 19 j 09:31	0°♐31'35	
desc. node	480 Jun 10 j 16:00	16°♒15'27		asc. node	481 Apr 19 j 05:32	0°♐09'50	
retrograde	480 Jun 22 j 19:19	21°♒43'57			481 Apr 19 j 03:44	0°♐	
evening set	480 Jun 28 j 22:29	20°♒13'27		evening rise	481 Apr 26 j 03:51	15°♐10'22	
min. Earth dist.	480 Jul 03 j 06:54	17°♒34'59	0.58771 AU		481 May 03 j 14:10	0°♑	
inferior conj	480 Jul 06 j 13:58	15°♒09'24	-4°-48'-23	evening max el	481 May 21 j 10:17	25°♑24'36	24°30'25
minimum elong	480 Jul 06 j 14:29	15°♒08'27	4°48'23		481 May 27 j 07:07	0°♒	
morning rise	480 Jul 14 j 10:04	10°♒43'55		desc. node	481 May 28 j 13:01	0°♒41'09	
direct	480 Jul 16 j 21:32	10°♒23'38		retrograde	481 Jun 04 j 08:12	2°♒26'18	
morning max el	480 Jul 24 j 23:23	14°♒14'20	18°35'23	evening set	481 Jun 09 j 04:23	1°♒33'44	
asc. node	480 Jul 29 j 07:43	19°♒21'00			481 Jun 12 j 14:44	30°♒♑	

min. Earth dist.	481 Jun 14 j 21:32	28° Π 39'31	0.56890 AU	evening set	482 May 19 j 18:15	12° Π 08'57	
inferior conj	481 Jun 17 j 16:02	26° Π 53'06	-4°-32'-40	min. Earth dist.	482 May 27 j 09:49	8° Π 45'31	0.55517 AU
minimum elong	481 Jun 17 j 11:41	27° Π 00'06	4°32'09	inferior conj	482 May 28 j 22:48	7° Π 52'11	-3°-32'-27
morning rise	481 Jun 25 j 22:45	22° Π 48'16		minimum elong	482 May 28 j 15:23	8° Π 02'54	3°30'35
direct	481 Jun 28 j 13:27	22° Π 29'31		morning rise	482 Jun 06 j 15:28	3° Π 59'05	
morning max el	481 Jul 07 j 22:01	26° Π 50'30	19°27'43	direct	482 Jun 09 j 10:36	3° Π 40'40	
	481 Jul 10 j 20:44	0° \mathfrak{S}		morning max el	482 Jun 20 j 09:53	8° Π 45'39	20°40'57
asc. node	481 Jul 16 j 04:47	7° \mathfrak{S} 38'41		asc. node	482 Jul 03 j 01:51	26° Π 33'36	
morning set	481 Jul 25 j 04:40	24° \mathfrak{S} 23'05			482 Jul 04 j 22:00	0° \mathfrak{S}	
	481 Jul 27 j 23:46	0° \mathcal{Q}		morning set	482 Jul 09 j 10:58	9° \mathfrak{S} 02'13	
superior conj	481 Aug 02 j 07:25	10° \mathcal{Q} 36'07	1°46'46	superior conj	482 Jul 17 j 01:16	24° \mathfrak{S} 43'26	1°43'49
minimum elong	481 Aug 02 j 07:40	10° \mathcal{Q} 37'18	1°46'46	minimum elong	482 Jul 17 j 00:00	24° \mathfrak{S} 36'55	1°43'46
max. Earth dist.	481 Aug 08 j 11:04	22° \mathcal{Q} 19'52	1.37795 AU		482 Jul 19 j 15:57	0° \mathcal{Q}	
evening rise	481 Aug 12 j 06:56	29° \mathcal{Q} 15'23		max. Earth dist.	482 Jul 21 j 18:31	4° \mathcal{Q} 09'44	1.35964 AU
	481 Aug 12 j 17:03	0° \mathfrak{M}		evening rise	482 Jul 25 j 21:31	12° \mathcal{Q} 01'47	
desc. node	481 Aug 24 j 12:23	19° \mathfrak{M} 29'30			482 Aug 05 j 04:50	0° \mathfrak{M}	
	481 Aug 31 j 14:20	0° \mathfrak{A}		desc. node	482 Aug 11 j 09:24	9° \mathfrak{M} 41'14	
evening max el	481 Sep 17 j 00:50	20° \mathfrak{A} 20'31	25°09'48		482 Aug 26 j 17:36	0° \mathfrak{A}	
retrograde	481 Sep 28 j 21:27	27° \mathfrak{A} 12'02		evening max el	482 Aug 30 j 12:29	3° \mathfrak{A} 57'41	26°15'46
evening set	481 Oct 04 j 15:47	24° \mathfrak{A} 47'13		retrograde	482 Sep 12 j 04:36	11° \mathfrak{A} 07'47	
min. Earth dist.	481 Oct 09 j 04:14	19° \mathfrak{A} 43'30	0.67174 AU	evening set	482 Sep 18 j 13:13	8° \mathfrak{A} 29'40	
inferior conj	481 Oct 10 j 04:20	18° \mathfrak{A} 24'48	0°-41'-3	min. Earth dist.	482 Sep 22 j 17:48	4° \mathfrak{A} 02'51	0.66402 AU
minimum elong	481 Oct 10 j 05:22	18° \mathfrak{A} 21'25	0°40'37	inferior conj	482 Sep 24 j 05:23	2° \mathfrak{A} 13'14	-1°-37'-42
asc. node	481 Oct 12 j 03:59	15° \mathfrak{A} 53'36		minimum elong	482 Sep 24 j 07:54	2° \mathfrak{A} 05'29	1°36'42
morning rise	481 Oct 15 j 19:29	12° \mathfrak{A} 23'18			482 Sep 26 j 01:50	30° \mathfrak{R} \mathfrak{M}	
direct	481 Oct 19 j 05:58	11° \mathfrak{A} 15'06		asc. node	482 Sep 29 j 01:04	27° \mathfrak{M} 06'28	
morning max el	481 Oct 26 j 14:25	15° \mathfrak{A} 26'04	19°39'55	morning rise	482 Sep 30 j 03:37	28° \mathfrak{M} 22'02	
greatest brilliancy	481 Nov 03 j 19:05	25° \mathfrak{A} 43'02	-0.6m	direct	482 Oct 03 j 04:11	25° \mathfrak{M} 29'54	
	481 Nov 06 j 18:13	0° \mathfrak{M}		morning max el	482 Oct 09 j 23:34	29° \mathfrak{M} 17'02	18°48'13
desc. node	481 Nov 20 j 11:42	20° \mathfrak{M} 52'39			482 Oct 10 j 16:03	0° \mathfrak{A}	
morning set	481 Nov 20 j 15:26	21° \mathfrak{M} 07'06		morning set	482 Oct 31 j 06:38	0° \mathfrak{M} 19'31	
	481 Nov 26 j 08:34	0° \mathfrak{A}			482 Oct 31 j 01:42	0° \mathfrak{M}	
max. Earth dist.	481 Dec 03 j 03:43	10° \mathfrak{A} 41'53	1.44318 AU	desc. node	482 Nov 07 j 08:43	11° \mathfrak{M} 30'35	
superior conj	481 Dec 07 j 10:09	17° \mathfrak{A} 31'13	-1°-37'-29	max. Earth dist.	482 Nov 15 j 20:57	24° \mathfrak{M} 53'06	1.44995 AU
minimum elong	481 Dec 07 j 02:14	16° \mathfrak{A} 59'23	1°36'48	superior conj	482 Nov 16 j 14:52	26° \mathfrak{M} 03'33	0°-58'-32
	481 Dec 15 j 01:38	0° \mathfrak{S}		minimum elong	482 Nov 16 j 07:40	25° \mathfrak{M} 35'15	0°57'41
evening rise	481 Dec 21 j 06:25	10° \mathfrak{S} 22'29			482 Nov 19 j 02:56	0° \mathfrak{A}	
	482 Jan 02 j 03:05	0° \approx		evening rise	482 Dec 02 j 05:39	20° \mathfrak{A} 53'06	
asc. node	482 Jan 08 j 03:16	8° \approx 06'43			482 Dec 07 j 21:22	0° \mathfrak{S}	
evening max el	482 Jan 08 j 21:12	8° \approx 54'03	18°19'05	evening max el	482 Dec 23 j 08:19	22° \mathfrak{S} 19'09	18°48'39
retrograde	482 Jan 15 j 08:59	12° \approx 24'53		asc. node	482 Dec 26 j 00:20	24° \mathfrak{S} 38'13	
evening set	482 Jan 18 j 06:33	11° \approx 39'51		retrograde	482 Dec 30 j 02:27	26° \mathfrak{S} 07'16	
inferior conj	482 Jan 24 j 08:21	6° \approx 13'39	3°45'21	evening set	483 Jan 02 j 05:35	25° \mathfrak{S} 11'09	
minimum elong	482 Jan 24 j 07:11	6° \approx 16'58	3°45'16	inferior conj	483 Jan 08 j 00:14	19° \mathfrak{S} 27'17	3°27'34
min. Earth dist.	482 Jan 26 j 17:18	3° \approx 34'03	0.63733 AU	minimum elong	483 Jan 07 j 21:56	19° \mathfrak{S} 34'21	3°27'09
morning rise	482 Jan 30 j 06:12	0° \approx 09'22		min. Earth dist.	483 Jan 09 j 17:51	17° \mathfrak{S} 19'39	0.65282 AU
	482 Jan 30 j 10:56	30° \mathfrak{R} \mathfrak{S}		morning rise	483 Jan 13 j 13:12	13° \mathfrak{S} 16'49	
direct	482 Feb 06 j 04:38	27° \mathfrak{S} 22'38		direct	483 Jan 20 j 04:14	10° \mathfrak{S} 26'04	
	482 Feb 13 j 15:48	0° \approx		morning max el	483 Feb 02 j 08:01	18° \mathfrak{S} 07'57	26°54'06
desc. node	482 Feb 16 j 10:52	2° \approx 04'05		desc. node	483 Feb 03 j 07:56	19° \mathfrak{S} 09'12	
morning max el	482 Feb 19 j 22:10	5° \approx 14'17	27°37'05		483 Feb 12 j 08:27	0° \approx	
	482 Mar 10 j 16:49	0° \mathfrak{H}			483 Mar 03 j 15:02	0° \mathfrak{H}	
morning set	482 Mar 26 j 15:06	28° \mathfrak{H} 22'53		morning set	483 Mar 10 j 02:03	11° \mathfrak{H} 53'40	
	482 Mar 27 j 10:34	0° \mathfrak{Y}		max. Earth dist.	483 Mar 14 j 13:17	20° \mathfrak{H} 40'37	1.34298 AU
max. Earth dist.	482 Mar 31 j 19:12	8° \mathfrak{Y} 57'38	1.33202 AU	superior conj	483 Mar 18 j 13:22	28° \mathfrak{H} 53'21	0°-54'-29
superior conj	482 Apr 03 j 11:30	14° \mathfrak{Y} 38'41	0°-27'-25	minimum elong	483 Mar 18 j 16:00	29° \mathfrak{H} 07'07	0°54'00
minimum elong	482 Apr 03 j 12:49	14° \mathfrak{Y} 45'49	0°27'10		483 Mar 19 j 02:08	0° \mathfrak{Y}	
asc. node	482 Apr 06 j 02:34	20° \mathfrak{Y} 17'40		asc. node	483 Mar 23 j 23:38	10° \mathfrak{Y} 18'40	
evening rise	482 Apr 10 j 15:31	0° \mathfrak{B} 00'18		evening rise	483 Mar 26 j 01:29	14° \mathfrak{Y} 39'46	
	482 Apr 10 j 15:28	0° \mathfrak{B}			483 Apr 02 j 21:49	0° \mathfrak{B}	
	482 Apr 27 j 18:46	0° Π		evening max el	483 Apr 14 j 21:34	16° \mathfrak{B} 41'18	21°23'38
evening max el	482 May 03 j 00:53	5° Π 56'54	22°55'06	retrograde	483 Apr 26 j 23:32	22° \mathfrak{B} 34'24	
desc. node	482 May 15 j 10:03	12° Π 32'17		evening set	483 Apr 29 j 08:56	22° \mathfrak{B} 21'19	
retrograde	482 May 16 j 08:40	12° Π 34'18		desc. node	483 May 02 j 07:06	21° \mathfrak{B} 32'40	

inferior conj	483 May 08 j 17:48	18°♄21'14	-1°-49'-56	retrograde	484 Apr 06 j 14:12	2°♄59'12	
minimum elong	483 May 08 j 12:43	18°♄28'23	1°48'12	evening set	484 Apr 08 j 16:16	2°♄47'59	
min. Earth dist.	483 May 08 j 22:33	18°♄14'35	0.54966 AU		484 Apr 15 j 14:39	30°♄♂	
morning rise	483 May 17 j 16:48	14°♄22'09		inferior conj	484 Apr 17 j 14:56	28°♄49'04	0°09'27
direct	483 May 20 j 21:02	14°♄00'12		minimum elong	484 Apr 17 j 15:22	28°♄48'25	0°09'18
morning max el	483 Jun 02 j 10:51	19°♄58'02	22°11'50	transit middle	484 Apr 17 j 15:22	28°♄48'25	0°09'18
	483 Jun 10 j 18:16	0°♄		transit begin	484 Apr 17 j 12:07	28°♄53'17	
asc. node	483 Jun 19 j 22:54	15°♄56'23		transit end	484 Apr 17 j 18:37	28°♄43'33	
morning set	483 Jun 23 j 20:51	23°♄53'06		desc. node	484 Apr 18 j 04:07	28°♄29'16	
	483 Jun 26 j 18:30	0°♄		min. Earth dist.	484 Apr 19 j 12:24	27°♄41'03	0.55381 AU
				morning rise	484 Apr 26 j 11:44	24°♄25'40	
superior conj	483 Jul 01 j 03:14	9°♄15'38	1°34'22	direct	484 Apr 30 j 10:52	23°♄51'15	
minimum elong	483 Jul 01 j 01:04	9°♄04'12	1°34'10		484 May 13 j 11:40	0°♄	
max. Earth dist.	483 Jul 04 j 10:22	16°♄07'33	1.34469 AU	morning max el	484 May 14 j 03:48	0°♄37'22	23°52'30
evening rise	483 Jul 09 j 04:00	25°♄35'30			484 Jun 03 j 00:26	0°♄	
	483 Jul 11 j 11:19	0°♄		asc. node	484 Jun 05 j 19:57	5°♄39'51	
desc. node	483 Jul 29 j 06:25	29°♄29'01		morning set	484 Jun 07 j 08:33	8°♄50'29	
	483 Jul 29 j 15:05	0°♄					
evening max el	483 Aug 13 j 00:24	17°♄28'09	27°03'12	superior conj	484 Jun 14 j 10:33	24°♄04'10	1°19'47
retrograde	483 Aug 26 j 06:32	24°♄46'40		minimum elong	484 Jun 14 j 08:05	23°♄50'50	1°19'26
evening set	483 Sep 02 j 03:03	22°♄02'22		max. Earth dist.	484 Jun 16 j 11:44	28°♄27'53	1.33370 AU
min. Earth dist.	483 Sep 06 j 00:26	18°♄12'48	0.65276 AU		484 Jun 17 j 05:04	0°♄	
inferior conj	483 Sep 08 j 00:29	15°♄55'59	-2°-33'-46	evening rise	484 Jun 21 j 22:06	9°♄44'22	
minimum elong	483 Sep 08 j 04:23	15°♄44'52	2°32'23		484 Jul 02 j 20:09	0°♄	
morning rise	483 Sep 14 j 07:16	10°♄18'07		desc. node	484 Jul 15 j 03:26	18°♄42'49	
asc. node	483 Sep 15 j 22:09	9°♄44'44			484 Jul 24 j 18:29	0°♄	
direct	483 Sep 17 j 00:23	9°♄38'13		evening max el	484 Jul 25 j 11:33	0°♄41'18	27°24'58
morning max el	483 Sep 23 j 13:24	13°♄10'42	18°12'52	retrograde	484 Aug 08 j 02:30	8°♄00'29	
	483 Oct 05 j 10:28	0°♄		evening set	484 Aug 15 j 06:20	5°♄20'26	
morning set	483 Oct 12 j 02:22	10°♄56'43		min. Earth dist.	484 Aug 18 j 22:09	2°♄05'20	0.63793 AU
	483 Oct 23 j 19:59	0°♄			484 Aug 20 j 22:50	30°♄♂	
desc. node	483 Oct 25 j 05:44	2°♄14'28		inferior conj	484 Aug 21 j 11:07	29°♄28'03	-3°-26'-26
				minimum elong	484 Aug 21 j 15:56	29°♄15'36	3°25'03
superior conj	483 Oct 26 j 17:27	4°♄36'17	0°-9'-50	morning rise	484 Aug 28 j 03:39	24°♄06'46	
minimum elong	483 Oct 26 j 16:11	4°♄31'16	0°09'40	direct	484 Aug 30 j 15:57	23°♄35'32	
behind sun begin	483 Oct 26 j 07:16	3°♄55'54		asc. node	484 Sep 01 j 19:10	23°♄58'23	
behind sun end	483 Oct 27 j 01:06	5°♄06'36		morning max el	484 Sep 06 j 05:12	27°♄01'29	17°54'53
max. Earth dist.	483 Oct 29 j 15:33	9°♄13'10	1.44941 AU		484 Sep 08 j 19:45	0°♄	
	483 Nov 11 j 22:39	0°♄		morning set	484 Sep 23 j 00:39	22°♄51'13	
evening rise	483 Nov 12 j 05:44	0°♄27'33			484 Sep 27 j 04:26	0°♄	
greatest brilliancy	483 Nov 28 j 10:38	25°♄14'02	-0.7m				
	483 Dec 01 j 20:29	0°♄		superior conj	484 Oct 05 j 14:30	14°♄06'08	0°36'14
evening max el	483 Dec 06 j 15:50	5°♄46'55	19°34'59	minimum elong	484 Oct 05 j 18:14	14°♄21'26	0°35'44
asc. node	483 Dec 12 j 21:25	9°♄54'38		desc. node	484 Oct 11 j 02:46	23°♄01'27	
retrograde	483 Dec 13 j 23:16	10°♄01'08		max. Earth dist.	484 Oct 11 j 08:56	23°♄26'05	1.44175 AU
evening set	483 Dec 17 j 09:34	8°♄52'18			484 Oct 15 j 12:26	0°♄	
inferior conj	483 Dec 22 j 23:23	2°♄53'33	2°58'05	evening rise	484 Oct 21 j 14:44	9°♄28'42	
minimum elong	483 Dec 22 j 20:38	3°♄02'32	2°57'23		484 Nov 04 j 04:57	0°♄	
min. Earth dist.	483 Dec 24 j 02:42	1°♄24'14	0.66442 AU	greatest brilliancy	484 Nov 12 j 19:34	12°♄09'16	-0.5m
	483 Dec 25 j 05:10	30°♄♂		evening max el	484 Nov 18 j 18:14	19°♄15'57	20°35'48
morning rise	483 Dec 28 j 06:58	26°♄39'33		retrograde	484 Nov 26 j 20:55	24°♄03'17	
direct	484 Jan 03 j 09:53	23°♄57'25		asc. node	484 Nov 28 j 18:26	23°♄42'55	
	484 Jan 14 j 10:11	0°♄		evening set	484 Nov 30 j 16:23	22°♄39'43	
morning max el	484 Jan 15 j 17:13	1°♄15'49	25°46'13	inferior conj	484 Dec 06 j 03:15	16°♄29'08	2°19'52
desc. node	484 Jan 21 j 04:58	7°♄22'57		minimum elong	484 Dec 06 j 00:38	16°♄38'00	2°19'00
	484 Feb 06 j 09:29	0°♄		min. Earth dist.	484 Dec 06 j 17:46	15°♄39'42	0.67218 AU
morning set	484 Feb 20 j 22:27	24°♄36'38		morning rise	484 Dec 11 j 08:25	10°♄13'49	
	484 Feb 23 j 19:52	0°♄		direct	484 Dec 16 j 20:41	7°♄49'03	
max. Earth dist.	484 Feb 24 j 19:16	1°♄51'19	1.35847 AU	morning max el	484 Dec 28 j 01:28	14°♄29'48	24°23'15
				desc. node	485 Jan 07 j 02:00	26°♄25'32	
superior conj	484 Mar 01 j 07:23	12°♄39'57	-1°-20'-10		485 Jan 09 j 17:23	0°♄	
minimum elong	484 Mar 01 j 11:03	12°♄58'24	1°19'37		485 Jan 29 j 06:54	0°♄	
evening rise	484 Mar 09 j 07:42	29°♄02'11		morning set	485 Feb 01 j 22:34	6°♄15'33	
asc. node	484 Mar 09 j 20:42	0°♄08'15		max. Earth dist.	485 Feb 05 j 16:12	12°♄53'39	1.37784 AU
	484 Mar 09 j 19:04	0°♄					
evening max el	484 Mar 27 j 05:09	27°♄59'54	20°06'11	superior conj	485 Feb 12 j 14:14	25°♄49'10	-1°-42'-16
	484 Mar 29 j 13:15	0°♄		minimum elong	485 Feb 12 j 18:10	26°♄08'07	1°41'52

	485 Feb 14 j 17:56	0°♄		superior conj	486 Jan 26 j 05:36	8°≈09'58	-1°-57'-45
evening rise	485 Feb 21 j 07:46	13°♄00'39		minimum elong	486 Jan 26 j 08:19	8°≈22'27	1°57'39
asc. node	485 Feb 24 j 17:44	19°♄41'01		evening rise	486 Feb 04 j 22:52	26°≈28'03	
	485 Mar 02 j 11:30	0°♅			486 Feb 06 j 19:26	0°♄	
evening max el	485 Mar 09 j 23:52	9°♅56'57	19°07'20	asc. node	486 Feb 11 j 14:46	8°♄51'03	
retrograde	485 Mar 18 j 17:36	14°♅09'48		evening max el	486 Feb 21 j 03:27	22°♄27'32	18°28'30
evening set	485 Mar 20 j 22:19	13°♅54'59		retrograde	486 Feb 28 j 16:03	26°♄09'31	
inferior conj	485 Mar 29 j 03:02	9°♅42'34	1°52'41	evening set	486 Mar 03 j 01:39	25°♄48'06	
minimum elong	485 Mar 29 j 06:58	9°♅35'49	1°51'28	inferior conj	486 Mar 10 j 12:04	21°♄15'35	3°02'20
min. Earth dist.	485 Apr 01 j 03:42	7°♅38'51	0.56668 AU	minimum elong	486 Mar 10 j 15:57	21°♄07'47	3°01'32
desc. node	485 Apr 05 j 01:09	5°♅23'31		min. Earth dist.	486 Mar 13 j 22:23	18°♄31'47	0.58538 AU
morning rise	485 Apr 06 j 11:32	4°♅46'19		morning rise	486 Mar 18 j 02:19	15°♄49'34	
direct	485 Apr 11 j 12:37	3°♅46'52		desc. node	486 Mar 22 j 22:11	14°♄18'42	
morning max el	485 Apr 25 j 18:17	11°♅06'11	25°29'57	direct	486 Mar 24 j 03:46	14°♄14'46	
	485 May 10 j 04:58	0°♆		morning max el	486 Apr 07 j 12:19	21°♄53'48	26°48'42
morning set	485 May 22 j 20:21	23°♆48'02			486 Apr 14 j 15:03	0°♅	
asc. node	485 May 23 j 16:58	25°♆37'11			486 May 03 j 00:05	0°♆	
	485 May 25 j 17:54	0°♇		morning set	486 May 07 j 06:38	8°♆40'20	
				asc. node	486 May 10 j 14:01	15°♆43'32	
superior conj	485 May 29 j 20:58	9°♇00'44	1°01'04				
minimum elong	485 May 29 j 18:42	8°♇48'20	1°00'39	superior conj	486 May 14 j 08:41	23°♆59'21	0°39'03
max. Earth dist.	485 May 30 j 20:19	11°♇08'16	1.32662 AU	minimum elong	486 May 14 j 07:03	23°♆50'23	0°38'43
evening rise	485 Jun 06 j 00:14	24°♇16'30		max. Earth dist.	486 May 14 j 08:41	23°♆59'18	1.32327 AU
	485 Jun 08 j 20:10	0°♈			486 May 17 j 02:28	0°♇	
	485 Jun 26 j 13:15	0°♉		evening rise	486 May 21 j 07:45	9°♇03'13	
desc. node	485 Jul 02 j 00:27	7°♉07'25			486 Jun 01 j 05:32	0°♈	
evening max el	485 Jul 07 j 19:23	13°♉22'33	27°15'36	desc. node	486 Jun 18 j 21:27	24°♈22'29	
retrograde	485 Jul 21 j 15:36	20°♉39'03		evening max el	486 Jun 19 j 21:16	25°♈20'39	26°33'03
evening set	485 Jul 28 j 19:09	18°♉16'09			486 Jun 25 j 19:03	0°♊	
min. Earth dist.	485 Aug 01 j 09:24	15°♊27'37	0.61985 AU	retrograde	486 Jul 03 j 20:55	2°♊34'36	
inferior conj	485 Aug 04 j 10:13	12°♊40'59	-4°-11'-23	evening set	486 Jul 10 j 13:01	0°♊41'51	
minimum elong	485 Aug 04 j 14:54	12°♊30'15	4°10'28		486 Jul 11 j 17:21	30°♊00'00	
morning rise	485 Aug 11 j 13:19	7°♊39'47		min. Earth dist.	486 Jul 14 j 10:29	28°♊05'19	0.59959 AU
direct	485 Aug 13 j 23:29	7°♊14'18		inferior conj	486 Jul 17 j 18:18	25°♊26'01	-4°-41'-39
asc. node	485 Aug 19 j 16:11	9°♊38'42		minimum elong	486 Jul 17 j 20:59	25°♊20'37	4°41'25
morning max el	485 Aug 20 j 20:04	10°♊41'49	17°55'12	morning rise	486 Jul 25 j 08:15	20°♊47'36	
	485 Sep 02 j 15:07	0°♋		direct	486 Jul 27 j 18:43	20°♊25'50	
morning set	485 Sep 05 j 19:19	5°♋43'50		morning max el	486 Aug 04 j 07:03	24°♊04'27	18°14'55
				asc. node	486 Aug 06 j 13:13	26°♊31'35	
superior conj	485 Sep 16 j 14:39	24°♋56'01	1°11'29		486 Aug 09 j 03:37	0°♌	
minimum elong	485 Sep 16 j 19:30	25°♋16'53	1°10'56	morning set	486 Aug 20 j 04:45	19°♌18'58	
	485 Sep 19 j 13:58	0°♍			486 Aug 25 j 20:42	0°♋	
max. Earth dist.	485 Sep 23 j 22:27	7°♍14'17	1.42784 AU				
desc. node	485 Sep 27 j 23:47	13°♍47'51		superior conj	486 Aug 29 j 16:05	7°♋00'48	1°33'56
evening rise	485 Oct 01 j 00:56	18°♍37'21		minimum elong	486 Aug 29 j 19:32	7°♋16'28	1°33'39
	485 Oct 08 j 10:27	0°♎		max. Earth dist.	486 Sep 06 j 06:20	20°♋22'24	1.40953 AU
greatest brilliancy	485 Oct 27 j 19:20	27°♎16'33	-0.4m	evening rise	486 Sep 11 j 04:25	28°♋34'38	
	485 Oct 30 j 02:00	0°♏			486 Sep 12 j 01:24	0°♍	
evening max el	485 Nov 01 j 14:53	2°♏45'36	21°47'57	desc. node	486 Sep 14 j 20:48	4°♍30'15	
retrograde	485 Nov 10 j 17:35	8°♏10'47			486 Oct 02 j 00:58	0°♎	
evening set	485 Nov 15 j 00:12	6°♏30'39		greatest brilliancy	486 Oct 09 j 13:24	9°♎50'31	-0.2m
asc. node	485 Nov 15 j 15:27	5°♏58'19		evening max el	486 Oct 15 j 06:23	16°♎16'20	23°06'52
inferior conj	485 Nov 20 j 09:43	0°♏11'35	1°34'56	retrograde	486 Oct 25 j 11:46	22°♎20'09	
minimum elong	485 Nov 20 j 07:43	0°♏18'31	1°34'10	evening set	486 Oct 30 j 07:19	20°♎22'15	
min. Earth dist.	485 Nov 20 j 12:48	0°♏00'56	0.67627 AU	asc. node	486 Nov 02 j 12:28	16°♎54'50	
	485 Nov 20 j 13:04	30°♏00'00		inferior conj	486 Nov 04 j 16:56	13°♎58'29	0°44'52
morning rise	485 Nov 25 j 14:59	23°♏57'00		minimum elong	486 Nov 04 j 15:53	14°♎02'03	0°44'26
direct	485 Nov 30 j 11:53	21°♏54'14		min. Earth dist.	486 Nov 04 j 09:24	14°♎24'24	0.67700 AU
morning max el	485 Dec 10 j 11:10	27°♏49'06	22°55'18	morning rise	486 Nov 10 j 00:30	7°♎46'51	
	485 Dec 12 j 12:30	0°♐		direct	486 Nov 14 j 06:41	6°♎06'52	
greatest brilliancy	485 Dec 15 j 04:31	3°♐05'49	-0.3m	morning max el	486 Nov 23 j 01:41	11°♎16'02	21°30'57
desc. node	485 Dec 24 j 23:02	16°♐03'05		greatest brilliancy	486 Nov 28 j 02:43	17°♎01'20	-0.4m
	486 Jan 03 j 10:05	0°♑			486 Dec 07 j 15:56	0°♐	
morning set	486 Jan 13 j 20:16	16°♑35'10		desc. node	486 Dec 11 j 20:04	6°♐05'15	
max. Earth dist.	486 Jan 18 j 11:53	24°♑25'52	1.39912 AU	morning set	486 Dec 24 j 12:56	25°♐32'13	
	486 Jan 21 j 16:36	0°♒			486 Dec 27 j 08:03	0°♑	
				max. Earth dist.	486 Dec 31 j 12:32	6°♑49'12	1.41946 AU

superior conj	487 Jan 08 j 00:07	19°☿28'39	-2°-2'-35		487 Nov 10 j 10:04	0°♄	
minimum elong	487 Jan 07 j 23:27	19°☿25'45	2°02'35	greatest brilliancy	487 Nov 12 j 15:45	2°♄55'16	-0.6m
	487 Jan 13 j 23:00	0°≈		desc. node	487 Nov 28 j 17:07	26°♄25'19	
evening rise	487 Jan 19 j 01:21	9°≈15'24			487 Dec 01 j 01:11	0°♄	
asc. node	487 Jan 29 j 11:48	27°≈30'16		morning set	487 Dec 03 j 10:31	3°♄41'03	
	487 Jan 31 j 03:43	0°♄		max. Earth dist.	487 Dec 13 j 20:27	20°♄04'26	1.43612 AU
evening max el	487 Feb 04 j 12:51	5°♄22'35	18°09'38				
retrograde	487 Feb 11 j 07:54	8°♄49'31		superior conj	487 Dec 19 j 17:01	29°♄35'33	-1°-52'00
evening set	487 Feb 13 j 22:08	8°♄19'50		minimum elong	487 Dec 19 j 11:21	29°♄12'11	1°51'40
inferior conj	487 Feb 20 j 17:12	3°♄25'58	3°38'40		487 Dec 19 j 22:57	0°☿	
minimum elong	487 Feb 20 j 19:08	3°♄21'28	3°38'29	evening rise	488 Jan 01 j 11:05	21°☿14'38	
min. Earth dist.	487 Feb 23 j 23:16	0°♄25'34	0.60645 AU		488 Jan 06 j 12:09	0°≈	
	487 Feb 24 j 11:00	30°♄		asc. node	488 Jan 16 j 08:51	15°≈29'28	
morning rise	487 Feb 27 j 13:04	27°≈39'15		evening max el	488 Jan 19 j 01:05	18°≈34'32	18°10'15
direct	487 Mar 06 j 06:43	25°≈27'58		retrograde	488 Jan 25 j 12:56	22°≈00'18	
desc. node	487 Mar 09 j 19:15	26°≈01'30		evening set	488 Jan 28 j 07:41	21°≈21'13	
	487 Mar 16 j 19:44	0°♄		inferior conj	488 Feb 03 j 14:54	16°≈06'37	3°48'40
morning max el	487 Mar 20 j 12:30	3°♄18'00	27°36'20	minimum elong	488 Feb 03 j 14:42	16°≈07'07	3°48'40
	487 Apr 09 j 03:22	0°♄		min. Earth dist.	488 Feb 06 j 08:41	13°≈13'42	0.62684 AU
morning set	487 Apr 21 j 13:36	23°♄20'27		morning rise	488 Feb 09 j 19:38	10°≈07'18	
	487 Apr 24 j 17:36	0°♄		direct	488 Feb 16 j 19:09	7°≈29'00	
asc. node	487 Apr 27 j 11:05	5°♄53'48		desc. node	488 Feb 24 j 16:19	10°≈17'05	
max. Earth dist.	487 Apr 27 j 20:49	6°♄46'54	1.32355 AU	morning max el	488 Mar 01 j 18:12	15°≈22'33	27°47'08
					488 Mar 13 j 17:22	0°♄	
superior conj	487 Apr 28 j 20:00	8°♄53'43	0°14'30		488 Mar 31 j 17:20	0°♄	
minimum elong	487 Apr 28 j 19:21	8°♄50'07	0°14'21	morning set	488 Apr 04 j 15:06	7°♄41'02	
behind sun begin	487 Apr 28 j 17:12	8°♄38'22		max. Earth dist.	488 Apr 10 j 04:51	19°♄17'42	1.32771 AU
behind sun end	487 Apr 28 j 21:30	9°♄01'53					
evening rise	487 May 05 j 18:22	23°♄56'27		superior conj	488 Apr 12 j 05:13	23°♄37'57	0°-11'-50
	487 May 08 j 16:30	0°♄		minimum elong	488 Apr 12 j 05:47	23°♄41'00	0°11'43
	487 May 26 j 18:34	0°☿		behind sun begin	488 Apr 12 j 02:15	23°♄21'53	
evening max el	487 Jun 01 j 16:09	6°☿33'16	25°21'09	behind sun end	488 Apr 12 j 09:19	24°♄00'07	
desc. node	487 Jun 05 j 18:29	9°☿59'50		asc. node	488 Apr 13 j 08:09	26°♄03'52	
retrograde	487 Jun 15 j 16:53	13°☿42'42			488 Apr 15 j 03:38	0°♄	
evening set	487 Jun 21 j 08:06	12°☿28'38		evening rise	488 Apr 19 j 06:12	8°♄49'36	
min. Earth dist.	487 Jun 26 j 04:03	9°☿45'23	0.57926 AU		488 Apr 30 j 07:21	0°♄	
inferior conj	487 Jun 29 j 07:56	7°☿33'57	-4°-46'-33	evening max el	488 May 13 j 06:45	17°♄13'36	23°50'17
minimum elong	487 Jun 29 j 06:27	7°☿36'32	4°46'30	desc. node	488 May 22 j 15:31	23°♄23'43	
morning rise	487 Jul 07 j 08:39	3°☿18'15		retrograde	488 May 27 j 00:55	24°♄07'35	
direct	487 Jul 09 j 21:15	2°☿58'51		evening set	488 May 31 j 05:38	23°♄28'43	
morning max el	487 Jul 18 j 11:06	7°☿00'37	18°55'08	min. Earth dist.	488 Jun 06 j 17:38	20°♄23'16	0.56216 AU
asc. node	487 Jul 24 j 10:17	14°☿22'13		inferior conj	488 Jun 09 j 01:25	18°♄58'16	-4°-12'-57
	487 Aug 02 j 06:38	0°♄		minimum elong	488 Jun 08 j 19:17	19°♄07'41	4°11'52
morning set	487 Aug 04 j 00:45	3°♄25'41		morning rise	488 Jun 17 j 12:30	14°♄59'48	
				direct	488 Jun 20 j 04:38	14°♄41'32	
superior conj	487 Aug 12 j 13:18	20°♄05'07	1°44'52	morning max el	488 Jun 30 j 05:24	19°♄20'19	19°56'26
minimum elong	487 Aug 12 j 14:40	20°♄11'36	1°44'49		488 Jul 08 j 12:54	0°☿	
	487 Aug 17 j 20:53	0°♄		asc. node	488 Jul 10 j 07:22	2°☿56'58	
max. Earth dist.	487 Aug 19 j 09:44	2°♄46'07	1.38931 AU	morning set	488 Jul 18 j 04:03	17°☿54'59	
evening rise	487 Aug 23 j 08:27	9°♄41'20			488 Jul 24 j 02:33	0°♄	
desc. node	487 Sep 01 j 17:49	25°♄04'55					
	487 Sep 04 j 22:28	0°♄		superior conj	488 Jul 26 j 00:53	3°♄52'57	1°46'24
	487 Sep 27 j 22:37	0°♄		minimum elong	488 Jul 26 j 00:25	3°♄50'34	1°46'24
evening max el	487 Sep 27 j 18:50	29°♄50'39	24°26'32	max. Earth dist.	488 Jul 31 j 13:57	14°♄40'48	1.36979 AU
retrograde	487 Oct 09 j 02:22	6°♄28'00		evening rise	488 Aug 04 j 11:44	21°♄54'50	
evening set	487 Oct 14 j 12:07	4°♄12'35			488 Aug 09 j 01:57	0°♄	
	487 Oct 18 j 07:33	30°♄		desc. node	488 Aug 18 j 14:50	15°♄26'36	
min. Earth dist.	487 Oct 19 j 05:16	28°♄48'19	0.67452 AU		488 Aug 28 j 18:56	0°♄	
inferior conj	487 Oct 19 j 23:11	27°♄48'16	0°-8'-54	evening max el	488 Sep 09 j 06:32	13°♄28'17	25°39'46
minimum elong	487 Oct 19 j 23:24	27°♄47'32	0°08'50	retrograde	488 Sep 21 j 12:23	20°♄29'15	
transit middle	487 Oct 19 j 23:24	27°♄47'32	0°08'50	evening set	488 Sep 27 j 12:47	17°♄58'26	
transit begin	487 Oct 19 j 21:06	27°♄55'15		min. Earth dist.	488 Oct 01 j 21:53	13°♄09'57	0.66882 AU
transit end	487 Oct 20 j 01:42	27°♄39'50		inferior conj	488 Oct 03 j 02:40	11°♄37'55	-1°-5'00
asc. node	487 Oct 20 j 09:31	27°♄13'42		minimum elong	488 Oct 03 j 04:20	11°♄32'37	1°04'19
morning rise	487 Oct 25 j 11:01	21°♄42'05		asc. node	488 Oct 06 j 06:35	7°♄51'24	
direct	487 Oct 29 j 04:04	20°♄23'11		morning rise	488 Oct 08 j 20:37	5°♄40'08	
morning max el	487 Nov 05 j 23:25	24°♄53'02	20°16'34	direct	488 Oct 12 j 02:35	4°♄39'10	

morning max el	488 Oct 19 j 04:40	8°♄39'05	19°15'56	minimum elong	489 Sep 17 j 04:36	25°♄14'58	2°00'29
greatest brilliancy	488 Oct 29 j 12:25	22°♄11'54	-0.7m	morning rise	489 Sep 23 j 03:08	19°♄38'11	
	488 Nov 03 j 15:58	0°♄		asc. node	489 Sep 23 j 03:39	19°♄37'31	
morning set	488 Nov 11 j 12:55	12°♄12'13		direct	489 Sep 26 j 00:21	18°♄51'33	
desc. node	488 Nov 14 j 14:09	16°♄57'33		morning max el	489 Oct 02 j 16:02	22°♄31'08	18°31'03
	488 Nov 22 j 22:06	0°♄			489 Oct 08 j 15:10	0°♄	
max. Earth dist.	488 Nov 25 j 11:04	4°♄00'07	1.44693 AU	morning set	489 Oct 22 j 15:54	21°♄59'55	
					489 Oct 27 j 15:50	0°♄	
superior conj	488 Nov 28 j 08:10	8°♄33'42	-1°-22'-52	desc. node	489 Nov 01 j 11:09	7°♄37'58	
minimum elong	488 Nov 27 j 23:43	8°♄00'07	1°22'01				
	488 Dec 11 j 14:14	0°♄		superior conj	489 Nov 07 j 09:02	16°♄57'19	0°-38'-19
evening rise	488 Dec 12 j 23:41	2°♄18'03		minimum elong	489 Nov 07 j 04:02	16°♄37'41	0°37'41
	488 Dec 30 j 19:26	0°♄		max. Earth dist.	489 Nov 08 j 05:38	18°♄18'21	1.45067 AU
evening max el	489 Jan 01 j 13:24	1°♄56'34	18°29'36		489 Nov 15 j 16:15	0°♄	
asc. node	489 Jan 02 j 05:53	2°♄36'55		evening rise	489 Nov 23 j 12:38	12°♄23'01	
retrograde	489 Jan 08 j 02:51	5°♄33'11			489 Dec 04 j 16:58	0°♄	
evening set	489 Jan 11 j 02:41	4°♄43'33		evening max el	489 Dec 15 j 23:13	15°♄22'51	19°06'29
	489 Jan 16 j 07:53	30°♄		asc. node	489 Dec 20 j 02:56	18°♄38'03	
inferior conj	489 Jan 17 j 01:09	29°♄09'49	3°39'27	retrograde	489 Dec 22 j 22:02	19°♄20'44	
minimum elong	489 Jan 16 j 23:25	29°♄14'55	3°39'14	evening set	489 Dec 26 j 04:06	18°♄19'14	
min. Earth dist.	489 Jan 19 j 03:37	26°♄42'33	0.64440 AU	inferior conj	489 Dec 31 j 20:25	12°♄28'36	3°16'17
morning rise	489 Jan 22 j 18:47	23°♄02'46		minimum elong	489 Dec 31 j 17:51	12°♄36'44	3°15'44
direct	489 Jan 29 j 15:00	20°♄12'23		min. Earth dist.	490 Jan 02 j 07:41	10°♄37'08	0.65822 AU
desc. node	489 Feb 10 j 13:23	26°♄30'00		morning rise	490 Jan 06 j 06:44	6°♄16'38	
morning max el	489 Feb 12 j 03:08	28°♄01'01	27°22'23	direct	490 Jan 12 j 17:05	3°♄28'26	
	489 Feb 14 j 00:50	0°♄		morning max el	490 Jan 25 j 12:46	11°♄01'17	26°27'52
	489 Mar 07 j 10:56	0°♄		desc. node	490 Jan 28 j 10:24	14°♄06'41	
morning set	489 Mar 19 j 08:23	21°♄33'26			490 Feb 09 j 15:54	0°♄	
	489 Mar 23 j 13:21	0°♄			490 Feb 28 j 00:12	0°♄	
max. Earth dist.	489 Mar 24 j 05:01	1°♄20'38	1.33612 AU	morning set	490 Mar 02 j 13:43	4°♄45'12	
				max. Earth dist.	490 Mar 06 j 18:10	12°♄49'24	1.34905 AU
superior conj	489 Mar 27 j 10:27	8°♄06'02	0°-38'-57				
minimum elong	489 Mar 27 j 12:21	8°♄16'05	0°38'34	superior conj	490 Mar 11 j 09:18	22°♄09'36	-1°-5'-38
asc. node	489 Mar 31 j 05:13	16°♄09'48		minimum elong	490 Mar 11 j 12:27	22°♄25'43	1°05'06
evening rise	489 Apr 03 j 17:25	23°♄36'32			490 Mar 15 j 03:58	0°♄	
	489 Apr 06 j 19:59	0°♄		asc. node	490 Mar 18 j 02:15	6°♄06'28	
evening max el	489 Apr 24 j 23:24	27°♄49'03	22°15'03	evening rise	490 Mar 19 j 02:03	8°♄09'40	
	489 Apr 27 j 10:58	0°♄			490 Mar 30 j 23:01	0°♄	
retrograde	489 May 07 j 20:13	4°♄08'57		evening max el	490 Apr 07 j 00:22	8°♄46'00	20°48'35
desc. node	489 May 09 j 12:34	4°♄02'38		retrograde	490 Apr 18 j 09:14	14°♄16'20	
evening set	489 May 10 j 17:35	3°♄50'31		evening set	490 Apr 20 j 14:00	14°♄04'47	
min. Earth dist.	489 May 19 j 06:03	0°♄10'56	0.55173 AU	desc. node	490 Apr 26 j 09:37	11°♄59'50	
	489 May 19 j 13:49	30°♄		inferior conj	490 Apr 29 j 19:59	10°♄07'04	0°-59'-17
inferior conj	489 May 20 j 01:58	29°♄42'52	-2°-53'-15	minimum elong	490 Apr 29 j 17:10	10°♄11'05	0°58'18
minimum elong	489 May 19 j 18:50	29°♄52'55	2°51'07	min. Earth dist.	490 Apr 30 j 18:50	9°♄34'29	0.55031 AU
morning rise	489 May 28 j 21:59	25°♄49'27		morning rise	490 May 08 j 19:24	6°♄00'02	
direct	489 May 31 j 20:19	25°♄30'03		direct	490 May 12 j 06:31	5°♄34'11	
	489 Jun 11 j 10:38	0°♄		morning max el	490 May 25 j 09:21	11°♄52'59	22°54'03
morning max el	489 Jun 12 j 12:26	0°♄57'11	21°17'39		490 Jun 07 j 20:46	0°♄	
asc. node	489 Jun 27 j 04:27	22°♄05'14		asc. node	490 Jun 14 j 01:29	11°♄37'33	
	489 Jul 01 j 04:54	0°♄		morning set	490 Jun 16 j 23:02	17°♄34'42	
morning set	489 Jul 02 j 12:09	2°♄40'19			490 Jun 22 j 18:55	0°♄	
superior conj	489 Jul 09 j 22:36	18°♄12'11	1°40'30	superior conj	490 Jun 24 j 03:08	2°♄52'04	1°28'45
minimum elong	489 Jul 09 j 20:52	18°♄03'13	1°40'24	minimum elong	490 Jun 24 j 00:46	2°♄39'28	1°28'29
max. Earth dist.	489 Jul 14 j 00:57	26°♄33'10	1.35290 AU	max. Earth dist.	490 Jun 26 j 21:12	8°♄40'45	1.33959 AU
	489 Jul 15 j 18:46	0°♄		evening rise	490 Jul 01 j 21:38	18°♄53'13	
evening rise	489 Jul 18 j 09:44	5°♄03'30			490 Jul 07 j 18:23	0°♄	
	489 Aug 01 j 21:00	0°♄		desc. node	490 Jul 23 j 08:53	25°♄03'53	
desc. node	489 Aug 05 j 11:51	5°♄29'09			490 Jul 27 j 00:55	0°♄	
evening max el	489 Aug 22 j 18:35	27°♄04'24	26°38'39	evening max el	490 Aug 05 j 06:23	10°♄28'46	27°15'50
	489 Aug 26 j 01:57	0°♄		retrograde	490 Aug 18 j 16:24	17°♄47'39	
retrograde	489 Sep 04 j 17:10	4°♄18'18		evening set	490 Aug 25 j 16:58	15°♄03'34	
evening set	489 Sep 11 j 07:14	1°♄36'48		min. Earth dist.	490 Aug 29 j 11:41	11°♄29'31	0.64696 AU
	489 Sep 13 j 01:06	30°♄		inferior conj	490 Aug 31 j 17:17	9°♄02'59	-2°-56'-44
min. Earth dist.	489 Sep 15 j 08:49	27°♄25'44	0.65973 AU	minimum elong	490 Aug 31 j 21:39	8°♄51'00	2°55'17
inferior conj	489 Sep 17 j 01:28	25°♄24'20	-2°-1'-41	morning rise	490 Sep 07 j 04:06	3°♄31'55	

direct	490 Sep 09 j 18:56	2°♄56'01		min. Earth dist.	491 Aug 12 j 04:54	25°♂10'44	0.63060 AU
asc. node	490 Sep 10 j 00:41	2°♄56'20		inferior conj	491 Aug 14 j 23:23	22°♂27'27	-3°-46'-50
morning max el	490 Sep 16 j 07:04	6°♄24'21	18°03'04	minimum elong	491 Aug 15 j 04:19	22°♂15'18	3°45'35
	490 Oct 02 j 01:52	0°♄		morning rise	491 Aug 21 j 20:23	17°♂14'40	
morning set	490 Oct 03 j 23:35	3°♄12'07		direct	491 Aug 24 j 07:24	16°♂46'18	
				asc. node	491 Aug 27 j 21:43	17°♂48'09	
superior conj	490 Oct 17 j 17:28	25°♄48'48	0°10'42	morning max el	491 Aug 30 j 22:55	20°♂11'50	17°52'45
minimum elong	490 Oct 17 j 18:45	25°♄53'57	0°10'32		491 Sep 07 j 06:02	0°♄	
behind sun begin	490 Oct 17 j 10:39	25°♄21'24		morning set	491 Sep 16 j 07:16	15°♄33'04	
behind sun end	490 Oct 18 j 02:52	26°♄26'28			491 Sep 24 j 14:27	0°♄	
desc. node	490 Oct 19 j 08:10	28°♄23'30					
	490 Oct 20 j 08:24	0°♄		superior conj	491 Sep 28 j 01:50	5°♄52'19	0°52'45
max. Earth dist.	490 Oct 22 j 00:31	2°♄39'07	1.44698 AU	minimum elong	491 Sep 28 j 06:29	6°♄11'44	0°52'09
evening rise	490 Nov 03 j 04:49	21°♄39'36		max. Earth dist.	491 Oct 04 j 16:16	16°♄42'26	1.43644 AU
	490 Nov 08 j 14:55	0°♄		desc. node	491 Oct 06 j 05:11	19°♄10'34	
greatest brilliancy	490 Nov 22 j 02:36	20°♄02'32	-0.6m		491 Oct 13 j 02:17	0°♄	
evening max el	490 Nov 29 j 04:37	28°♄50'52	19°59'13	evening rise	491 Oct 13 j 12:00	0°♄37'38	
	490 Nov 30 j 08:50	0°♄			491 Nov 02 j 07:21	0°♄	
retrograde	490 Dec 06 j 19:33	3°♄18'38		greatest brilliancy	491 Nov 06 j 20:09	6°♄04'28	-0.5m
asc. node	490 Dec 06 j 23:58	3°♄18'27		evening max el	491 Nov 12 j 04:26	12°♄19'17	21°05'20
evening set	490 Dec 10 j 09:32	2°♄03'37		retrograde	491 Nov 20 j 17:06	17°♄22'58	
	490 Dec 12 j 16:26	30°♄		asc. node	491 Nov 23 j 20:59	16°♄26'41	
inferior conj	490 Dec 15 j 21:51	25°♄59'10	2°42'48	evening set	491 Nov 24 j 16:58	15°♄52'39	
minimum elong	490 Dec 15 j 19:06	26°♄08'20	2°42'01	inferior conj	491 Nov 30 j 03:03	9°♄37'49	2°01'30
min. Earth dist.	490 Dec 16 j 19:26	24°♄47'05	0.66811 AU	minimum elong	491 Nov 30 j 00:39	9°♄46'04	2°00'40
morning rise	490 Dec 21 j 04:04	19°♄44'20		min. Earth dist.	491 Nov 30 j 12:35	9°♄05'03	0.67429 AU
direct	490 Dec 27 j 00:47	17°♄09'05		morning rise	491 Dec 05 j 07:58	3°♄22'17	
morning max el	491 Jan 07 j 21:40	24°♄13'03	25°12'20	direct	491 Dec 10 j 13:36	1°♄06'35	
	491 Jan 13 j 02:30	0°♄		morning max el	491 Dec 21 j 06:13	7°♄29'11	23°45'52
desc. node	491 Jan 15 j 07:24	2°♄43'03		desc. node	492 Jan 02 j 04:25	22°♄01'32	
	491 Feb 03 j 02:13	0°♄			492 Jan 07 j 19:49	0°♄	
morning set	491 Feb 13 j 02:14	17°♄02'50		morning set	492 Jan 25 j 15:46	28°♄09'12	
max. Earth dist.	491 Feb 16 j 20:01	23°♄54'00	1.36630 AU		492 Jan 26 j 17:38	0°♄	
	491 Feb 20 j 01:08	0°♄		max. Earth dist.	492 Jan 29 j 14:57	5°♄02'22	1.38675 AU
superior conj	491 Feb 22 j 22:59	5°♄41'02	-1°-30'-6	superior conj	492 Feb 05 j 23:45	18°♄30'11	-1°-49'-52
minimum elong	491 Feb 23 j 02:54	6°♄00'23	1°29'37	minimum elong	492 Feb 06 j 03:24	18°♄47'24	1°49'36
evening rise	491 Mar 03 j 05:58	22°♄22'42			492 Feb 11 j 23:12	0°♄	
asc. node	491 Mar 04 j 23:16	25°♄49'25		evening rise	492 Feb 15 j 02:33	6°♄08'04	
	491 Mar 07 j 02:27	0°♄		asc. node	492 Feb 19 j 20:19	15°♄12'56	
evening max el	491 Mar 20 j 12:41	20°♄20'17	19°38'43		492 Feb 29 j 03:44	0°♄	
retrograde	491 Mar 30 j 04:26	24°♄58'51		evening max el	492 Mar 02 j 11:30	2°♄32'05	18°48'26
evening set	491 Apr 01 j 06:47	24°♄46'40		retrograde	492 Mar 10 j 15:36	6°♄29'49	
inferior conj	491 Apr 09 j 22:14	20°♄42'58	0°56'42	evening set	492 Mar 12 j 22:11	6°♄12'36	
minimum elong	491 Apr 10 j 00:36	20°♄39'14	0°55'53	inferior conj	492 Mar 20 j 18:57	1°♄52'25	2°26'33
min. Earth dist.	491 Apr 12 j 09:09	19°♄10'11	0.55834 AU	minimum elong	492 Mar 20 j 23:13	1°♄44'35	2°25'25
desc. node	491 Apr 13 j 06:38	18°♄37'42			492 Mar 23 j 08:18	30°♄	
morning rise	491 Apr 18 j 14:53	16°♄05'43		min. Earth dist.	492 Mar 24 j 01:55	29°♄28'49	0.57404 AU
direct	491 Apr 23 j 00:19	15°♄22'32		morning rise	492 Mar 28 j 19:59	26°♄42'15	
morning max el	491 May 07 j 00:40	22°♄24'48	24°35'14	desc. node	492 Mar 30 j 03:38	26°♄11'25	
	491 May 13 j 17:22	0°♄		direct	492 Apr 03 j 08:05	25°♄28'22	
	491 May 31 j 05:44	0°♄			492 Apr 14 j 06:43	0°♄	
asc. node	491 May 31 j 22:31	1°♄27'24		morning max el	492 Apr 17 j 16:07	2°♄58'30	26°06'35
morning set	491 Jun 01 j 10:58	2°♄32'42			492 May 06 j 23:53	0°♄	
				morning set	492 May 15 j 22:20	17°♄28'54	
superior conj	491 Jun 08 j 12:01	17°♄44'42	1°12'19	asc. node	492 May 17 j 19:34	21°♄29'18	
minimum elong	491 Jun 08 j 09:35	17°♄31'27	1°11'55		492 May 21 j 17:27	0°♄	
max. Earth dist.	491 Jun 10 j 01:54	21°♄09'42	1.33022 AU				
	491 Jun 14 j 05:59	0°♄		superior conj	492 May 22 j 23:14	2°♄43'24	0°52'07
evening rise	491 Jun 15 j 19:29	3°♄12'41		minimum elong	492 May 22 j 21:12	2°♄32'11	0°51'43
	491 Jun 30 j 13:23	0°♄		max. Earth dist.	492 May 23 j 12:22	3°♄55'23	1.32468 AU
desc. node	491 Jul 10 j 05:55	13°♄58'46		evening rise	492 May 30 j 00:13	17°♄52'21	
evening max el	491 Jul 18 j 16:11	23°♄28'52	27°24'52		492 Jun 05 j 02:38	0°♄	
	491 Jul 28 j 04:53	0°♄			492 Jun 24 j 10:30	0°♄	
retrograde	491 Aug 01 j 09:43	0°♄47'43		desc. node	492 Jun 26 j 02:57	1°♄57'21	
	491 Aug 05 j 09:59	30°♄		evening max el	492 Jun 29 j 21:46	5°♄53'20	27°01'32
evening set	491 Aug 08 j 14:38	28°♄12'53		retrograde	492 Jul 13 j 20:04	13°♄09'27	

evening set	492 Jul 20 j 20:06	10°♂57'56		retrograde	493 Jun 25 j 21:37	24°♂44'48	
min. Earth dist.	492 Jul 24 j 11:57	8°♂16'25	0.61136 AU	evening set	493 Jul 02 j 04:36	23°♂08'25	
inferior conj	492 Jul 27 j 16:37	5°♂30'24	-4°-26'-35	min. Earth dist.	493 Jul 06 j 09:39	20°♂31'04	0.59079 AU
minimum elong	492 Jul 27 j 20:43	5°♂21'28	4°25'58	inferior conj	493 Jul 09 j 17:18	18°♂01'20	-4°-47'-36
morning rise	492 Aug 04 j 00:20	0°♂38'39		minimum elong	493 Jul 09 j 18:27	17°♂59'08	4°47'35
direct	492 Aug 06 j 10:11	0°♂15'07		morning rise	493 Jul 17 j 11:48	13°♂32'24	
morning max el	492 Aug 13 j 12:35	3°♂46'27	18°01'06	direct	493 Jul 19 j 23:00	13°♂11'44	
asc. node	492 Aug 13 j 18:46	4°♂01'40		morning max el	493 Jul 27 j 20:57	16°♂58'52	18°29'21
morning set	492 Aug 29 j 08:54	28°♂45'56		asc. node	493 Jul 31 j 15:50	21°♂20'54	
	492 Aug 30 j 00:56	0°♂			493 Aug 06 j 04:40	0°♂	
				morning set	493 Aug 12 j 23:20	12°♂36'05	
superior conj	492 Sep 08 j 13:24	17°♂16'11	1°22'31	superior conj	493 Aug 21 j 23:57	29°♂48'06	1°39'50
minimum elong	492 Sep 08 j 17:50	17°♂35'45	1°22'04	minimum elong	493 Aug 22 j 02:31	0°♂00'03	1°39'41
	492 Sep 15 j 23:47	0°♂			493 Aug 22 j 02:30	0°♂	
max. Earth dist.	492 Sep 16 j 03:00	0°♂13'25	1.42048 AU	max. Earth dist.	493 Aug 29 j 08:51	13°♂03'08	1.40112 AU
evening rise	492 Sep 22 j 04:08	10°♂03'36		evening rise	493 Sep 02 j 17:51	20°♂29'58	
desc. node	492 Sep 22 j 02:15	9°♂56'07		desc. node	493 Sep 08 j 23:18	0°♂35'57	
	492 Oct 05 j 05:18	0°♂			493 Sep 08 j 14:12	0°♂	
greatest brilliancy	492 Oct 20 j 05:08	20°♂30'02	-0.3m		493 Sep 29 j 09:54	0°♂	
evening max el	492 Oct 24 j 22:48	25°♂49'30	22°21'00		493 Oct 07 j 12:56	9°♂22'28	23°41'04
	492 Oct 29 j 22:46	0°♂		evening max el	493 Oct 18 j 05:33	15°♂40'42	
retrograde	492 Nov 03 j 12:52	1°♂31'26		retrograde	493 Oct 23 j 07:02	13°♂35'23	
	492 Nov 07 j 16:30	30°♂		evening set	493 Oct 27 j 15:03	8°♂39'45	
evening set	492 Nov 08 j 00:41	29°♂44'05		asc. node	493 Oct 28 j 05:15	7°♂51'38	0.67642 AU
asc. node	492 Nov 09 j 18:00	28°♂05'24		min. Earth dist.	493 Oct 28 j 17:08	7°♂11'08	0°22'27
inferior conj	492 Nov 13 j 10:05	23°♂22'38	1°14'15	inferior conj	493 Oct 28 j 16:36	7°♂12'58	0°22'13
minimum elong	492 Nov 13 j 08:27	23°♂28'17	1°13'35	minimum elong	493 Nov 03 j 02:18	1°♂01'33	
min. Earth dist.	492 Nov 13 j 08:41	23°♂27'30	0.67702 AU	morning rise	493 Nov 04 j 19:33	30°♂	
morning rise	492 Nov 18 j 16:04	17°♂08'45			493 Nov 07 j 02:47	29°♂30'39	
direct	492 Nov 23 j 06:37	15°♂15'31		direct	493 Nov 09 j 12:51	0°♂	
morning max el	492 Dec 02 j 17:24	20°♂50'36	22°18'22	morning max el	493 Nov 15 j 10:44	4°♂21'30	20°57'44
greatest brilliancy	492 Dec 07 j 08:32	26°♂02'27	-0.3m	greatest brilliancy	493 Nov 21 j 01:22	10°♂53'05	-0.5m
	492 Dec 10 j 11:48	0°♂			493 Dec 04 j 14:05	0°♂	
desc. node	492 Dec 19 j 01:29	11°♂50'30		desc. node	493 Dec 05 j 22:32	2°♂01'21	
	492 Dec 31 j 02:31	0°♂		morning set	493 Dec 15 j 07:11	16°♂21'28	
morning set	493 Jan 05 j 00:50	7°♂51'48		max. Earth dist.	493 Dec 23 j 15:44	29°♂40'43	1.42721 AU
max. Earth dist.	493 Jan 10 j 11:33	16°♂52'11	1.40807 AU		493 Dec 23 j 20:28	0°♂	
superior conj	493 Jan 18 j 06:55	0°♂25'53	-2°-1'-24	superior conj	493 Dec 30 j 15:05	11°♂15'39	-2°00'-14
minimum elong	493 Jan 18 j 08:29	0°♂32'55	2°01'23	minimum elong	493 Dec 30 j 12:21	11°♂04'04	2°00'10
	493 Jan 18 j 01:07	0°♂			494 Jan 10 j 08:41	0°♂	
evening rise	493 Jan 28 j 12:42	19°♂18'41		evening rise	494 Jan 11 j 08:38	1°♂46'59	
	493 Feb 03 j 07:44	0°♂		asc. node	494 Jan 23 j 14:24	22°♂34'10	
asc. node	493 Feb 05 j 17:21	4°♂10'29		evening max el	494 Jan 28 j 05:01	28°♂17'45	18°07'33
evening max el	493 Feb 13 j 17:59	15°♂14'05	18°18'08		494 Jan 30 j 04:31	0°♂	
retrograde	493 Feb 20 j 21:33	18°♂47'24		retrograde	494 Feb 03 j 19:39	1°♂42'25	
evening set	493 Feb 23 j 09:19	18°♂22'32		evening set	494 Feb 06 j 11:55	1°♂08'42	
inferior conj	493 Mar 02 j 12:46	13°♂41'11	3°21'29		494 Feb 08 j 13:44	30°♂	
minimum elong	493 Mar 02 j 15:56	13°♂34'23	3°20'58	inferior conj	494 Feb 13 j 01:28	26°♂05'37	3°45'42
min. Earth dist.	493 Mar 05 j 22:50	10°♂47'06	0.59424 AU	minimum elong	494 Feb 13 j 02:28	26°♂03'10	3°45'38
morning rise	493 Mar 09 j 18:58	8°♂05'31		min. Earth dist.	494 Feb 16 j 02:52	23°♂06'02	0.61537 AU
direct	493 Mar 16 j 04:49	6°♂14'20		morning rise	494 Feb 19 j 14:27	20°♂13'00	
desc. node	493 Mar 17 j 00:41	6°♂16'09		direct	494 Feb 26 j 11:54	17°♂48'54	
morning max el	493 Mar 30 j 12:20	13°♂58'50	27°13'20	desc. node	494 Mar 03 j 21:43	19°♂08'11	
	493 Apr 12 j 07:45	0°♂		morning max el	494 Mar 12 j 15:02	25°♂40'23	27°45'37
	493 Apr 29 j 05:02	0°♂			494 Mar 16 j 15:25	0°♂	
morning set	493 Apr 30 j 07:26	2°♂16'27		morning set	494 Apr 05 j 18:21	0°♂	
asc. node	493 May 04 j 16:37	11°♂37'41		max. Earth dist.	494 Apr 14 j 12:21	16°♂49'05	
superior conj	493 May 07 j 10:59	17°♂40'52	0°28'55		494 Apr 20 j 12:04	29°♂29'02	1.32485 AU
minimum elong	493 May 07 j 09:43	17°♂33'58	0°28'39		494 Apr 20 j 17:47	0°♂	
max. Earth dist.	493 May 07 j 01:01	16°♂46'11	1.32288 AU	superior conj	494 Apr 21 j 21:36	2°♂31'28	0°03'30
	493 May 13 j 02:38	0°♂		minimum elong	494 Apr 21 j 21:26	2°♂30'35	0°03'29
evening rise	493 May 14 j 09:18	2°♂42'48		behind sun begin	494 Apr 21 j 16:27	2°♂03'21	
	493 May 29 j 02:45	0°♂		behind sun end	494 Apr 22 j 02:26	2°♂57'50	
evening max el	493 Jun 11 j 20:55	17°♂32'46	26°05'47	asc. node	494 Apr 21 j 13:42	1°♂48'24	
desc. node	493 Jun 12 j 23:59	18°♂35'15					

evening rise	494 Apr 28 j 20:41	17°♄36'58		495 Apr 12 j 04:35	0°♄	
	494 May 04 j 23:46	0°♄		evening rise	495 Apr 13 j 08:27	2°♄27'45
evening max el	494 May 24 j 13:27	28°♄28'58	24°44'01		495 Apr 28 j 14:30	0°♄
	494 May 26 j 05:22	0°♄		evening max el	495 May 06 j 03:42	9°♄01'48 23°09'20
desc. node	494 May 30 j 20:59	3°♄20'26		desc. node	495 May 17 j 18:00	15°♄36'33
retrograde	494 Jun 07 j 12:16	5°♄33'03		retrograde	495 May 19 j 14:47	15°♄44'28
evening set	494 Jun 12 j 13:44	4°♄35'04		evening set	495 May 23 j 05:02	15°♄16'07
min. Earth dist.	494 Jun 18 j 00:46	1°♄44'14	0.57145 AU	min. Earth dist.	495 May 30 j 13:17	11°♄57'41 0.55669 AU
inferior conj	494 Jun 20 j 22:20	29°♄50'48	-4°-37'-45	inferior conj	495 Jun 01 j 07:38	10°♄55'50 -3°-44'-40
minimum elong	494 Jun 20 j 18:43	29°♄56'45	4°37'24	minimum elong	495 Jun 01 j 00:23	11°♄06'28 3°42'58
	494 Jun 20 j 16:44	30°♄		morning rise	495 Jun 09 j 22:55	7°♄01'57
morning rise	494 Jun 29 j 03:30	25°♄43'29		direct	495 Jun 12 j 17:07	6°♄43'43
direct	494 Jul 01 j 17:41	25°♄24'34		morning max el	495 Jun 23 j 10:36	11°♄41'37 20°28'54
morning max el	494 Jul 10 j 21:02	29°♄39'56	19°18'38	asc. node	495 Jul 05 j 09:59	28°♄21'27
	494 Jul 11 j 05:28	0°♄			495 Jul 06 j 07:36	0°♄
asc. node	494 Jul 18 j 12:55	9°♄31'31		morning set	495 Jul 12 j 04:21	11°♄30'14
morning set	494 Jul 27 j 22:46	26°♄53'24				
	494 Jul 29 j 12:09	0°♄		superior conj	495 Jul 19 j 20:12	27°♄15'24 1°44'43
superior conj	494 Aug 05 j 03:51	13°♄12'34	1°46'32	minimum elong	495 Jul 19 j 19:07	27°♄09'53 1°44'41
minimum elong	494 Aug 05 j 04:22	13°♄15'06	1°46'32		495 Jul 21 j 04:48	0°♄
max. Earth dist.	494 Aug 11 j 12:18	25°♄13'41	1.38085 AU	max. Earth dist.	495 Jul 24 j 18:37	7°♄03'34 1.36211 AU
	494 Aug 14 j 03:43	0°♄		evening rise	495 Jul 28 j 19:57	14°♄44'11
evening rise	494 Aug 15 j 08:10	2°♄05'47			495 Aug 06 j 13:14	0°♄
desc. node	494 Aug 26 j 20:19	21°♄05'51		desc. node	495 Aug 13 j 17:20	11°♄20'37
	494 Sep 01 j 18:39	0°♄			495 Aug 27 j 10:48	0°♄
evening max el	494 Sep 20 j 00:49	22°♄58'23	24°58'51	evening max el	495 Sep 02 j 12:24	6°♄35'59 26°06'57
retrograde	494 Oct 01 j 18:09	29°♄46'37		retrograde	495 Sep 15 j 02:09	13°♄44'22
evening set	494 Oct 07 j 10:19	27°♄24'03		evening set	495 Sep 21 j 08:39	11°♄07'54
min. Earth dist.	494 Oct 11 j 23:55	22°♄15'03	0.67258 AU	min. Earth dist.	495 Sep 25 j 14:21	6°♄35'26 0.66537 AU
inferior conj	494 Oct 12 j 22:26	21°♄00'59	0°-32'-30	inferior conj	495 Sep 27 j 00:10	4°♄50'09 -1°-29'-5
minimum elong	494 Oct 12 j 23:14	20°♄58'19	0°32'11	minimum elong	495 Sep 27 j 02:27	4°♄43'01 1°28'10
asc. node	494 Oct 14 j 12:07	18°♄59'21		asc. node	495 Oct 01 j 09:10	0°♄01'51
morning rise	494 Oct 18 j 12:41	14°♄58'17			495 Oct 01 j 10:03	30°♄
direct	494 Oct 22 j 00:46	13°♄47'29		morning rise	495 Oct 02 j 21:14	28°♄57'10
morning max el	494 Oct 29 j 11:51	18°♄02'57	19°48'56	direct	495 Oct 05 j 23:06	28°♄02'55
greatest brilliancy	494 Nov 06 j 05:22	27°♄37'53	-0.6m		495 Oct 10 j 17:31	0°♄
	494 Nov 07 j 21:34	0°♄		morning max el	495 Oct 12 j 20:04	1°♄53'11 18°54'52
desc. node	494 Nov 22 j 19:34	22°♄27'13			495 Nov 01 j 09:18	0°♄
morning set	494 Nov 24 j 03:41	24°♄31'08		morning set	495 Nov 03 j 15:05	3°♄31'43
	494 Nov 27 j 16:30	0°♄		desc. node	495 Nov 09 j 16:36	13°♄03'54
max. Earth dist.	494 Dec 06 j 03:19	13°♄17'17	1.44155 AU	max. Earth dist.	495 Nov 18 j 19:48	27°♄24'30 1.44942 AU
superior conj	494 Dec 10 j 20:27	20°♄51'03	-1°-41'-54	superior conj	495 Nov 20 j 03:21	29°♄28'41 -1°-5'-21
minimum elong	494 Dec 10 j 12:59	20°♄20'51	1°41'20	minimum elong	495 Nov 19 j 19:36	28°♄58'11 1°04'28
	494 Dec 16 j 10:36	0°♄			495 Nov 20 j 11:18	0°♄
evening rise	494 Dec 24 j 09:53	13°♄23'36		evening rise	495 Dec 05 j 12:36	24°♄02'36
	495 Jan 03 j 07:04	0°♄			495 Dec 09 j 04:42	0°♄
asc. node	495 Jan 10 j 11:27	10°♄12'55		evening max el	495 Dec 26 j 05:00	24°♄58'32 18°43'08
evening max el	495 Jan 11 j 17:32	11°♄34'20	18°16'11	asc. node	495 Dec 28 j 08:28	26°♄54'07
retrograde	495 Jan 18 j 05:07	15°♄03'39		retrograde	496 Jan 01 j 21:44	28°♄43'24
evening set	495 Jan 21 j 01:54	14°♄20'13		evening set	496 Jan 04 j 23:56	27°♄49'05
inferior conj	495 Jan 27 j 05:00	8°♄56'54	3°46'44	inferior conj	496 Jan 10 j 19:30	22°♄07'49 3°31'02
minimum elong	495 Jan 27 j 04:04	8°♄59'31	3°46'41	minimum elong	496 Jan 10 j 17:20	22°♄14'26 3°30'42
min. Earth dist.	495 Jan 29 j 16:16	6°♄13'21	0.63472 AU	min. Earth dist.	496 Jan 12 j 15:26	19°♄54'43 0.65079 AU
morning rise	495 Feb 02 j 04:30	2°♄53'39		morning rise	496 Jan 16 j 09:34	15°♄58'05
direct	495 Feb 09 j 03:23	0°♄08'40		direct	496 Jan 23 j 02:07	13°♄06'54
desc. node	495 Feb 18 j 18:46	4°♄18'02		morning max el	496 Feb 05 j 08:18	20°♄51'12 27°02'13
morning max el	495 Feb 22 j 22:38	8°♄01'17	27°40'46	desc. node	496 Feb 05 j 15:48	21°♄10'08
	495 Mar 11 j 21:55	0°♄			496 Feb 13 j 06:49	0°♄
	495 Mar 28 j 22:55	0°♄			496 Mar 04 j 00:31	0°♄
morning set	495 Mar 29 j 10:42	0°♄58'32		morning set	496 Mar 11 j 23:23	14°♄35'13
max. Earth dist.	495 Apr 03 j 17:20	11°♄49'33	1.33077 AU	max. Earth dist.	496 Mar 16 j 12:57	23°♄37'13 1.34104 AU
					496 Mar 19 j 15:23	0°♄
superior conj	495 Apr 06 j 05:19	17°♄08'57	0°-23'-19	superior conj	496 Mar 20 j 08:06	1°♄27'12 0°-50'-26
minimum elong	495 Apr 06 j 06:26	17°♄15'00	0°23'05	minimum elong	496 Mar 20 j 10:33	1°♄40'03 0°49'59
asc. node	495 Apr 08 j 10:46	21°♄56'53		asc. node	496 Mar 25 j 07:48	11°♄59'12

evening rise	496 Mar 27 j 18:46	17°♄09'09		evening rise	497 Mar 12 j 01:41	1°♄35'00	
	496 Apr 03 j 05:52	0°♄		asc. node	497 Mar 12 j 04:49	1°♄51'03	
evening max el	496 Apr 16 j 23:09	19°♄43'09	21°36'34		497 Mar 29 j 06:32	0°♄	
retrograde	496 Apr 29 j 06:33	25°♄43'36		evening max el	497 Mar 30 j 05:05	0°♄56'40	20°16'38
evening set	496 May 01 j 18:23	25°♄29'34		retrograde	497 Apr 09 j 20:16	6°♄03'41	
desc. node	496 May 03 j 15:01	25°♄01'56		evening set	497 Apr 11 j 22:41	5°♄52'34	
inferior conj	496 May 11 j 03:39	21°♄28'06	-2°-7'-23	inferior conj	497 Apr 20 j 23:35	1°♄54'32	0°-8'-17
minimum elong	496 May 10 j 21:52	21°♄36'12	2°05'28	minimum elong	497 Apr 20 j 23:12	1°♄55'06	0°08'10
min. Earth dist.	496 May 11 j 01:59	21°♄30'26	0.54985 AU	transit middle	497 Apr 20 j 23:12	1°♄55'06	0°08'10
morning rise	496 May 20 j 02:03	17°♄31'01		transit begin	497 Apr 20 j 19:45	2°♄00'12	
direct	496 May 23 j 04:29	17°♄09'56		transit end	497 Apr 21 j 02:39	1°♄50'00	
morning max el	496 Jun 04 j 13:03	23°♄00'08	21°57'27	desc. node	497 Apr 20 j 12:03	2°♄11'32	
	496 Jun 10 j 16:14	0°♄		min. Earth dist.	497 Apr 22 j 15:35	0°♄55'38	0.55262 AU
asc. node	496 Jun 21 j 07:02	17°♄40'38			497 Apr 24 j 06:45	30°♄	
morning set	496 Jun 25 j 13:48	26°♄19'37		morning rise	497 Apr 29 j 21:24	27°♄35'52	
	496 Jun 27 j 07:52	0°♄		direct	497 May 03 j 17:14	27°♄04'00	
					497 May 12 j 14:55	0°♄	
superior conj	496 Jul 02 j 21:07	11°♄44'24	1°36'10	morning max el	497 May 17 j 06:49	3°♄43'18	23°37'16
minimum elong	496 Jul 02 j 19:03	11°♄33'31	1°35'59		497 Jun 04 j 10:54	0°♄	
max. Earth dist.	496 Jul 06 j 09:02	18°♄58'57	1.34664 AU	asc. node	497 Jun 08 j 04:04	7°♄21'37	
evening rise	496 Jul 11 j 00:21	28°♄11'47		morning set	497 Jun 10 j 01:20	11°♄16'29	
	496 Jul 11 j 22:55	0°♄					
	496 Jul 29 j 18:24	0°♄		superior conj	497 Jun 17 j 03:47	26°♄30'54	1°22'18
desc. node	496 Jul 30 j 14:21	1°♄12'37		minimum elong	497 Jun 17 j 01:19	26°♄17'40	1°21'57
evening max el	496 Aug 15 j 00:23	20°♄08'21	26°57'40		497 Jun 18 j 18:50	0°♄	
retrograde	496 Aug 28 j 04:50	27°♄26'04		max. Earth dist.	497 Jun 19 j 09:11	1°♄16'13	1.33513 AU
evening set	496 Sep 03 j 23:44	24°♄42'17		evening rise	497 Jun 24 j 16:58	12°♄16'09	
min. Earth dist.	496 Sep 07 j 22:12	20°♄47'06	0.65465 AU		497 Jul 04 j 04:43	0°♄	
inferior conj	496 Sep 09 j 20:16	18°♄34'07	-2°-25'-26	desc. node	497 Jul 17 j 11:22	20°♄32'09	
minimum elong	496 Sep 09 j 23:58	18°♄23'25	2°24'04		497 Jul 25 j 03:56	0°♄	
morning rise	496 Sep 16 j 01:41	12°♄53'54		evening max el	497 Jul 28 j 11:50	3°♄24'50	27°23'34
asc. node	496 Sep 17 j 06:12	12°♄25'51		retrograde	497 Aug 11 j 01:35	10°♄43'45	
direct	496 Sep 18 j 19:45	12°♄12'23		evening set	497 Aug 18 j 04:45	8°♄02'23	
morning max el	496 Sep 25 j 09:17	15°♄46'34	18°17'02	min. Earth dist.	497 Aug 21 j 21:17	4°♄42'30	0.64038 AU
	496 Oct 05 j 16:44	0°♄		inferior conj	497 Aug 24 j 08:19	2°♄07'49	-3°-18'-53
morning set	496 Oct 14 j 06:31	13°♄56'31		minimum elong	497 Aug 24 j 13:02	1°♄55'24	3°17'27
	496 Oct 24 j 04:37	0°♄			497 Aug 26 j 10:40	30°♄	
desc. node	496 Oct 26 j 13:37	3°♄47'10		morning rise	497 Aug 30 j 23:20	26°♄43'48	
				direct	497 Sep 02 j 12:14	26°♄11'24	
superior conj	496 Oct 29 j 04:47	7°♄57'25	0°-17'-20	asc. node	497 Sep 04 j 03:15	26°♄24'51	
minimum elong	496 Oct 29 j 02:32	7°♄48'30	0°17'01	morning max el	497 Sep 09 j 00:55	29°♄37'40	17°56'25
max. Earth dist.	496 Oct 31 j 14:22	11°♄44'27	1.45001 AU		497 Sep 09 j 09:41	0°♄	
	496 Nov 12 j 06:19	0°♄		morning set	497 Sep 26 j 01:10	25°♄40'24	
evening rise	496 Nov 14 j 15:50	3°♄44'38			497 Sep 28 j 13:53	0°♄	
greatest brilliancy	496 Nov 29 j 19:54	27°♄06'06	-0.7m				
	496 Dec 01 j 20:05	0°♄		superior conj	497 Oct 08 j 22:06	17°♄15'50	0°29'52
evening max el	496 Dec 08 j 13:10	8°♄26'22	19°27'07	minimum elong	497 Oct 09 j 01:19	17°♄28'57	0°29'25
asc. node	496 Dec 14 j 05:29	12°♄22'59		desc. node	497 Oct 13 j 10:39	24°♄33'47	
retrograde	496 Dec 15 j 18:09	12°♄35'57		max. Earth dist.	497 Oct 14 j 08:19	26°♄00'12	1.44332 AU
evening set	496 Dec 19 j 03:19	11°♄29'05			497 Oct 16 j 20:50	0°♄	
inferior conj	496 Dec 24 j 17:44	5°♄32'28	3°03'09	evening rise	497 Oct 25 j 02:11	12°♄48'31	
minimum elong	496 Dec 24 j 15:01	5°♄41'17	3°02'29		497 Nov 05 j 09:59	0°♄	
min. Earth dist.	496 Dec 25 j 23:05	3°♄57'16	0.66297 AU	greatest brilliancy	497 Nov 15 j 11:31	14°♄25'55	-0.5m
	496 Dec 29 j 08:32	30°♄		evening max el	497 Nov 21 j 16:24	21°♄55'23	20°25'57
morning rise	496 Dec 30 j 01:56	29°♄18'59		retrograde	497 Nov 29 j 15:48	26°♄37'19	
direct	497 Jan 05 j 06:55	26°♄34'53		asc. node	497 Dec 01 j 02:30	26°♄25'28	
	497 Jan 13 j 07:24	0°♄		evening set	497 Dec 03 j 09:50	25°♄15'57	
morning max el	497 Jan 17 j 17:34	3°♄57'23	25°57'33	inferior conj	497 Dec 08 j 21:01	19°♄06'52	2°26'07
desc. node	497 Jan 22 j 12:50	9°♄15'01		minimum elong	497 Dec 08 j 18:22	19°♄15'52	2°25'17
	497 Feb 06 j 15:28	0°♄		min. Earth dist.	497 Dec 09 j 13:19	18°♄11'40	0.67126 AU
morning set	497 Feb 22 j 22:16	27°♄26'32		morning rise	497 Dec 14 j 02:23	12°♄51'43	
	497 Feb 24 j 07:15	0°♄		direct	497 Dec 19 j 16:54	10°♄24'07	
max. Earth dist.	497 Feb 26 j 20:42	4°♄52'09	1.35587 AU	morning max el	497 Dec 31 j 01:54	17°♄10'55	24°36'13
				desc. node	498 Jan 09 j 09:52	28°♄11'16	
superior conj	497 Mar 04 j 03:29	15°♄19'02	-1°-16'-25		498 Jan 10 j 18:39	0°♄	
minimum elong	497 Mar 04 j 07:02	15°♄36'59	1°15'53		498 Jan 30 j 15:51	0°♄	
	497 Mar 11 j 07:08	0°♄		morning set	498 Feb 05 j 01:48	9°♄16'00	

max. Earth dist.	498 Feb 08 j 18:51	15° \approx 54'40	1.37479 AU	morning set	499 Jan 17 j 03:48	19° \approx 48'24	
				max. Earth dist.	499 Jan 21 j 14:15	27° \approx 20'36	1.39595 AU
superior conj	498 Feb 15 j 12:14	28° \approx 34'25	-1°-39'-15		499 Jan 23 j 02:51	0° \approx	
minimum elong	498 Feb 15 j 16:13	28° \approx 53'42	1°38'50				
	498 Feb 16 j 05:51	0° \approx		superior conj	499 Jan 29 j 06:13	11° \approx 03'06	-1°-56'00
evening rise	498 Feb 24 j 02:50	15° \approx 37'37		minimum elong	499 Jan 29 j 09:15	11° \approx 17'08	1°55'51
asc. node	498 Feb 27 j 01:51	21° \approx 26'44		evening rise	499 Feb 07 j 19:30	29° \approx 10'12	
	498 Mar 03 j 16:46	0° \approx			499 Feb 08 j 05:53	0° \approx	
evening max el	498 Mar 12 j 22:11	12° \approx 47'49	19°14'50	asc. node	499 Feb 13 j 22:53	10° \approx 40'37	
retrograde	498 Mar 21 j 21:18	17° \approx 06'59		evening max el	499 Feb 24 j 00:36	25° \approx 13'36	18°32'58
evening set	498 Mar 24 j 01:20	16° \approx 52'55		retrograde	499 Mar 03 j 16:54	28° \approx 59'16	
inferior conj	498 Apr 01 j 08:53	12° \approx 42'54	1°38'58	evening set	499 Mar 06 j 01:40	28° \approx 39'02	
minimum elong	498 Apr 01 j 12:31	12° \approx 36'47	1°37'49	inferior conj	499 Mar 13 j 14:41	24° \approx 09'44	2°54'02
min. Earth dist.	498 Apr 04 j 06:28	10° \approx 46'56	0.56431 AU	minimum elong	499 Mar 13 j 18:45	24° \approx 01'46	2°53'07
desc. node	498 Apr 07 j 09:04	8° \approx 57'01		min. Earth dist.	499 Mar 17 j 00:35	21° \approx 30'25	0.58236 AU
morning rise	498 Apr 09 j 19:45	7° \approx 51'38		morning rise	499 Mar 21 j 07:46	18° \approx 47'24	
direct	498 Apr 14 j 16:41	6° \approx 56'55		desc. node	499 Mar 25 j 06:06	17° \approx 28'22	
morning max el	498 Apr 28 j 21:20	14° \approx 12'01	25°16'13	direct	499 Mar 27 j 05:55	17° \approx 18'12	
	498 May 11 j 08:34	0° \approx		morning max el	499 Apr 10 j 14:40	24° \approx 55'24	26°38'44
morning set	498 May 25 j 13:14	26° \approx 14'28			499 Apr 15 j 06:58	0° \approx	
asc. node	498 May 26 j 01:07	27° \approx 17'19			499 May 04 j 11:02	0° \approx	
	498 May 27 j 07:38	0° \approx		morning set	499 May 09 j 23:53	11° \approx 07'59	
				asc. node	499 May 12 j 22:11	17° \approx 22'35	
superior conj	498 Jun 01 j 13:52	11° \approx 26'40	1°04'08				
minimum elong	498 Jun 01 j 11:33	11° \approx 13'59	1°03'44	superior conj	499 May 17 j 01:32	26° \approx 25'29	0°42'34
max. Earth dist.	498 Jun 02 j 16:58	13° \approx 54'20	1.32747 AU	minimum elong	499 May 16 j 23:47	26° \approx 15'52	0°42'13
evening rise	498 Jun 08 j 18:07	26° \approx 45'18		max. Earth dist.	499 May 17 j 04:56	26° \approx 44'10	1.32351 AU
	498 Jun 10 j 08:24	0° \approx			499 May 18 j 16:37	0° \approx	
	498 Jun 27 j 14:22	0° \approx		evening rise	499 May 24 j 00:58	11° \approx 30'17	
desc. node	498 Jul 04 j 08:24	9° \approx 05'15			499 Jun 02 j 13:30	0° \approx	
evening max el	498 Jul 10 j 20:17	16° \approx 11'23	27°19'01	desc. node	499 Jun 21 j 05:26	26° \approx 32'37	
retrograde	498 Jul 24 j 15:42	23° \approx 02'19		evening max el	499 Jun 22 j 23:05	28° \approx 16'11	26°41'24
evening set	498 Jul 31 j 20:02	21° \approx 01'48			499 Jun 24 j 21:09	0° \approx	
min. Earth dist.	498 Aug 04 j 10:03	18° \approx 10'15	0.62273 AU	retrograde	499 Jul 06 j 22:28	5° \approx 31'00	
inferior conj	498 Aug 07 j 09:21	15° \approx 02'40	-4°-5'-23	evening set	499 Jul 13 j 17:04	3° \approx 32'56	
minimum elong	498 Aug 07 j 14:09	15° \approx 02'49	4°04'22	min. Earth dist.	499 Jul 17 j 12:35	0° \approx 55'45	0.60264 AU
morning rise	498 Aug 14 j 10:51	10° \approx 19'47			499 Jul 18 j 16:28	30° \approx	
direct	498 Aug 16 j 21:12	9° \approx 53'36		inferior conj	499 Jul 20 j 19:55	28° \approx 13'59	-4°-38'-27
asc. node	498 Aug 22 j 00:18	11° \approx 53'02		minimum elong	499 Jul 20 j 23:03	28° \approx 07'32	4°38'09
morning max el	498 Aug 23 j 16:10	13° \approx 02'12	17°54'00	morning rise	499 Jul 28 j 08:17	23° \approx 32'14	
	498 Sep 04 j 00:00	0° \approx		direct	499 Jul 30 j 18:30	23° \approx 10'06	
morning set	498 Sep 08 j 17:11	8° \approx 25'29		morning max el	499 Aug 07 j 03:59	26° \approx 46'27	18°10'43
				asc. node	499 Aug 08 j 21:23	28° \approx 36'17	
superior conj	498 Sep 19 j 18:12	27° \approx 54'00	1°06'59		499 Aug 10 j 00:53	0° \approx	
minimum elong	498 Sep 19 j 23:06	28° \approx 14'53	1°06'23	morning set	499 Aug 23 j 00:45	21° \approx 55'11	
	498 Sep 20 j 23:49	0° \approx			499 Aug 27 j 08:00	0° \approx	
max. Earth dist.	498 Sep 26 j 22:43	9° \approx 53'50	1.43020 AU				
desc. node	498 Sep 30 j 07:43	15° \approx 20'41		superior conj	499 Sep 01 j 16:13	9° \approx 48'45	1°31'18
evening rise	498 Oct 04 j 11:05	21° \approx 53'12		minimum elong	499 Sep 01 j 19:58	10° \approx 05'36	1°30'59
	498 Oct 09 j 17:21	0° \approx		max. Earth dist.	499 Sep 09 j 07:10	23° \approx 07'30	1.41241 AU
greatest brilliancy	498 Oct 30 j 15:53	29° \approx 46'51	-0.4m		499 Sep 13 j 10:23	0° \approx	
	498 Oct 30 j 20:07	0° \approx		evening rise	499 Sep 14 j 11:17	1° \approx 41'20	
evening max el	498 Nov 04 j 13:53	5° \approx 24'55	21°36'37	desc. node	499 Sep 17 j 04:45	6° \approx 04'04	
retrograde	498 Nov 13 j 12:48	10° \approx 44'32			499 Oct 03 j 03:58	0° \approx	
evening set	498 Nov 17 j 17:38	9° \approx 06'54		greatest brilliancy	499 Oct 13 j 01:18	13° \approx 05'32	-0.3m
asc. node	498 Nov 17 j 23:32	8° \approx 55'00		evening max el	499 Oct 18 j 06:00	18° \approx 55'11	22°54'55
inferior conj	498 Nov 23 j 03:14	2° \approx 48'44	1°42'08	retrograde	499 Oct 28 j 07:31	24° \approx 53'46	
minimum elong	498 Nov 23 j 01:07	2° \approx 56'04	1°41'20	evening set	499 Nov 02 j 00:59	22° \approx 58'37	
min. Earth dist.	498 Nov 23 j 07:55	2° \approx 32'33	0.67585 AU	asc. node	499 Nov 04 j 20:36	20° \approx 01'32	
	498 Nov 25 j 05:09	30° \approx		inferior conj	499 Nov 07 j 10:29	16° \approx 35'14	0°52'46
morning rise	498 Nov 28 j 08:21	26° \approx 33'53		minimum elong	499 Nov 07 j 09:16	16° \approx 39'23	0°52'15
direct	498 Dec 03 j 07:28	24° \approx 27'48		min. Earth dist.	499 Nov 07 j 04:31	16° \approx 55'47	0.67707 AU
	498 Dec 12 j 23:16	0° \approx		morning rise	499 Nov 12 j 17:34	10° \approx 22'52	
morning max el	498 Dec 13 j 11:18	0° \approx 29'56	23°08'24	direct	499 Nov 17 j 01:50	8° \approx 39'31	
greatest brilliancy	498 Dec 18 j 09:50	6° \approx 01'43	-0.3m	morning max el	499 Nov 26 j 00:52	13° \approx 55'28	21°42'58
desc. node	498 Dec 27 j 06:55	17° \approx 44'23		greatest brilliancy	499 Nov 30 j 22:20	19° \approx 28'48	-0.4m
	499 Jan 04 j 16:28	0° \approx			499 Dec 08 j 19:24	0° \approx	

desc. node	499 Dec 14 j 03:58	7° \overline{A} 43'23		morning rise	500 Oct 27 j 04:04	24° \underline{A} 17'29	
morning set	499 Dec 28 j 00:34	28° \overline{A} 56'49		direct	500 Oct 30 j 22:59	22° \underline{A} 55'31	
	499 Dec 28 j 16:25	0° \overline{B}		morning max el	500 Nov 07 j 21:23	27° \underline{A} 30'34	20°26'44
max. Earth dist.	500 Jan 03 j 13:33	9° \overline{B} 34'21	1.41660 AU		500 Nov 10 j 04:19	0° \overline{M}	
				greatest brilliancy	500 Nov 14 j 06:21	5° \overline{M} 06'23	-0.5m
superior conj	500 Jan 11 j 04:12	22° \overline{B} 31'51	-2°-2'-45	desc. node	500 Nov 30 j 01:01	28° \overline{M} 01'06	
minimum elong	500 Jan 11 j 04:11	22° \overline{B} 31'50	2°02'45		500 Dec 01 j 08:14	0° \overline{A}	
	500 Jan 15 j 09:18	0° \approx		morning set	500 Dec 05 j 23:36	7° \overline{A} 08'18	
evening rise	500 Jan 22 j 00:07	12° \approx 04'00		max. Earth dist.	500 Dec 15 j 20:19	22° \overline{A} 42'15	1.43397 AU
asc. node	500 Jan 31 j 19:56	29° \approx 25'08			500 Dec 20 j 07:57	0° \overline{B}	
	500 Feb 01 j 04:44	0° \overline{K}					
evening max el	500 Feb 07 j 09:21	8° \overline{K} 05'47	18°11'12	superior conj	500 Dec 22 j 01:05	2° \overline{B} 49'50	-1°-54'-46
retrograde	500 Feb 14 j 06:19	11° \overline{K} 33'55		minimum elong	500 Dec 21 j 20:09	2° \overline{B} 29'24	1°54'31
evening set	500 Feb 16 j 19:52	11° \overline{K} 05'34		evening rise	501 Jan 03 j 12:34	24° \overline{B} 10'43	
inferior conj	500 Feb 23 j 17:01	6° \overline{K} 15'02	3°35'02		501 Jan 06 j 20:20	0° \approx	
minimum elong	500 Feb 23 j 19:17	6° \overline{K} 09'51	3°34'46	asc. node	501 Jan 17 j 16:58	17° \approx 31'15	
min. Earth dist.	500 Feb 27 j 00:29	3° \overline{K} 15'19	0.60329 AU	evening max el	501 Jan 20 j 21:23	21° \approx 16'05	18°09'00
morning rise	500 Mar 01 j 15:28	0° \overline{K} 30'51		retrograde	501 Jan 27 j 09:36	24° \approx 41'02	
	500 Mar 02 j 12:31	30° \overline{R} \approx		evening set	501 Jan 30 j 03:45	24° \approx 03'20	
direct	500 Mar 08 j 07:26	28° \approx 24'23		inferior conj	501 Feb 05 j 12:29	18° \approx 51'47	3°48'31
desc. node	500 Mar 11 j 03:08	28° \approx 45'52		minimum elong	501 Feb 05 j 12:36	18° \approx 51'31	3°48'30
	500 Mar 14 j 09:17	0° \overline{K}		min. Earth dist.	501 Feb 08 j 08:25	15° \approx 56'28	0.62393 AU
morning max el	500 Mar 22 j 13:51	6° \overline{K} 13'32	27°31'33	morning rise	501 Feb 11 j 19:14	12° \approx 54'06	
	500 Apr 09 j 09:38	0° \overline{Y}		direct	501 Feb 18 j 18:37	10° \approx 18'59	
morning set	500 Apr 23 j 07:30	25° \overline{Y} 50'45		desc. node	501 Feb 26 j 00:11	12° \approx 40'44	
	500 Apr 25 j 07:06	0° \overline{B}		morning max el	501 Mar 04 j 18:43	18° \approx 12'10	27°47'56
asc. node	500 Apr 28 j 19:16	7° \overline{B} 32'53			501 Mar 14 j 16:53	0° \overline{K}	
max. Earth dist.	500 Apr 29 j 17:18	9° \overline{B} 33'11	1.32321 AU		501 Apr 02 j 04:11	0° \overline{Y}	
				morning set	501 Apr 07 j 09:56	10° \overline{Y} 14'49	
superior conj	500 Apr 30 j 13:03	11° \overline{B} 21'24	0°18'21	max. Earth dist.	501 Apr 13 j 02:11	22° \overline{Y} 07'36	1.32683 AU
minimum elong	500 Apr 30 j 12:14	11° \overline{B} 16'53	0°18'11				
evening rise	500 May 07 j 11:17	26° \overline{B} 23'29		superior conj	501 Apr 14 j 22:40	26° \overline{Y} 07'43	0°-7'-45
	500 May 09 j 04:43	0° \overline{II}		minimum elong	501 Apr 14 j 23:02	26° \overline{Y} 09'43	0°07'41
	500 May 26 j 13:10	0° \overline{B}		behind sun begin	501 Apr 14 j 18:29	25° \overline{Y} 45'01	
evening max el	500 Jun 03 j 19:04	9° \overline{B} 36'10	25°33'29	behind sun end	501 Apr 15 j 03:36	26° \overline{Y} 34'25	
desc. node	500 Jun 07 j 02:26	12° \overline{B} 27'29		asc. node	501 Apr 15 j 16:17	27° \overline{Y} 43'19	
retrograde	500 Jun 17 j 20:09	16° \overline{B} 46'41			501 Apr 16 j 17:25	0° \overline{B}	
evening set	500 Jun 23 j 15:45	15° \overline{B} 26'53		evening rise	501 Apr 21 j 23:02	11° \overline{B} 17'19	
min. Earth dist.	500 Jun 28 j 07:14	12° \overline{B} 45'39	0.58216 AU		501 May 01 j 13:20	0° \overline{II}	
inferior conj	500 Jul 01 j 12:34	10° \overline{B} 28'48	-4°-48'-3	evening max el	501 May 16 j 10:04	20° \overline{II} 20'16	24°04'30
minimum elong	500 Jul 01 j 11:50	10° \overline{B} 30'07	4°48'03	desc. node	501 May 24 j 23:28	26° \overline{II} 14'08	
morning rise	500 Jul 09 j 11:41	6° \overline{B} 09'45		retrograde	501 May 30 j 05:50	27° \overline{II} 17'11	
direct	500 Jul 11 j 23:48	5° \overline{B} 50'06		evening set	501 Jun 03 j 15:57	26° \overline{II} 33'52	
morning max el	500 Jul 20 j 09:19	9° \overline{B} 47'49	18°47'44	min. Earth dist.	501 Jun 09 j 21:09	23° \overline{II} 32'36	0.56440 AU
asc. node	500 Jul 25 j 18:28	16° \overline{B} 19'39		inferior conj	501 Jun 12 j 09:00	21° \overline{II} 59'55	-4°-21'-4
	500 Aug 02 j 17:16	0° \overline{O}		minimum elong	501 Jun 12 j 03:26	22° \overline{II} 08'36	4°20'11
morning set	500 Aug 05 j 19:27	5° \overline{O} 58'17		morning rise	501 Jun 20 j 18:33	17° \overline{II} 59'23	
				direct	501 Jun 23 j 10:10	17° \overline{II} 40'58	
superior conj	500 Aug 14 j 10:53	22° \overline{O} 45'30	1°43'50	morning max el	501 Jul 03 j 05:07	22° \overline{II} 13'19	19°45'55
minimum elong	500 Aug 14 j 12:33	22° \overline{O} 53'26	1°43'47		501 Jul 09 j 14:58	0° \overline{B}	
	500 Aug 18 j 08:05	0° \overline{M}		asc. node	501 Jul 12 j 15:32	4° \overline{B} 48'34	
max. Earth dist.	500 Aug 21 j 10:56	5° \overline{M} 37'24	1.39239 AU	morning set	501 Jul 20 j 21:49	20° \overline{B} 24'56	
evening rise	500 Aug 25 j 11:38	12° \overline{M} 38'00			501 Jul 25 j 15:18	0° \overline{O}	
desc. node	500 Sep 03 j 01:47	26° \overline{M} 40'27					
	500 Sep 05 j 05:12	0° \underline{A}		superior conj	501 Jul 28 j 20:36	6° \overline{O} 27'48	1°46'41
	500 Sep 27 j 09:41	0° \overline{M}		minimum elong	501 Jul 28 j 20:22	6° \overline{O} 26'38	1°46'41
evening max el	500 Sep 29 j 18:50	2° \overline{M} 29'13	24°14'55	max. Earth dist.	501 Aug 03 j 14:52	17° \overline{O} 36'04	1.37263 AU
retrograde	500 Oct 10 j 22:41	9° \overline{M} 01'56		evening rise	501 Aug 07 j 11:43	24° \overline{O} 42'21	
evening set	500 Oct 16 j 06:13	6° \overline{M} 49'13			501 Aug 10 j 11:43	0° \overline{M}	
min. Earth dist.	500 Oct 21 j 00:41	1° \overline{M} 19'44	0.67512 AU	desc. node	501 Aug 20 j 22:48	17° \overline{M} 04'41	
inferior conj	500 Oct 21 j 17:00	0° \overline{M} 24'44	0°00'-33		501 Aug 29 j 20:13	0° \underline{A}	
minimum elong	500 Oct 21 j 17:00	0° \overline{M} 24'42	0°00'34	evening max el	501 Sep 12 j 06:36	16° \underline{A} 06'56	25°29'33
transit middle	500 Oct 21 j 17:00	0° \overline{M} 24'42	0°00'34	retrograde	501 Sep 24 j 09:19	23° \underline{A} 04'38	
transit begin	500 Oct 21 j 14:17	0° \overline{M} 33'54		evening set	501 Sep 30 j 07:36	20° \underline{A} 35'54	
transit end	500 Oct 21 j 19:44	0° \overline{M} 15'30		min. Earth dist.	501 Oct 04 j 17:54	15° \underline{A} 42'01	0.66993 AU
asc. node	500 Oct 21 j 17:39	0° \overline{M} 22'30		inferior conj	501 Oct 05 j 21:00	14° \underline{A} 14'41	0°-56'-25
	500 Oct 22 j 00:21	30° \overline{R} \underline{A}		minimum elong	501 Oct 05 j 22:26	14° \underline{A} 10'04	0°55'50

asc. node	501 Oct 08 j 14:43	10°♄53'50		min. Earth dist.	502 Sep 18 j 05:43	29°♍59'13	0.66132 AU
morning rise	501 Oct 11 j 13:55	8°♄15'30			502 Sep 18 j 05:27	30°♍	
direct	501 Oct 14 j 21:27	7°♄12'02		inferior conj	502 Sep 19 j 20:35	28°♍01'49	-1°-53'-11
morning max el	501 Oct 22 j 01:34	11°♄15'31	19°23'57	minimum elong	502 Sep 19 j 23:30	27°♍53'01	1°52'02
greatest brilliancy	501 Oct 31 j 09:26	23°♄16'31	-0.7m	asc. node	502 Sep 25 j 11:46	22°♍27'25	
	501 Nov 04 j 21:39	0°♍		morning rise	502 Sep 25 j 21:02	22°♍13'55	
morning set	501 Nov 14 j 23:42	15°♍31'58		direct	502 Sep 28 j 19:24	21°♍25'25	
desc. node	501 Nov 16 j 22:03	18°♍32'04		morning max el	502 Oct 05 j 12:11	25°♍07'19	18°36'42
	501 Nov 24 j 06:15	0°♎			502 Oct 09 j 14:40	0°♄	
max. Earth dist.	501 Nov 28 j 10:22	6°♎34'14	1.44576 AU	morning set	502 Oct 25 j 22:26	25°♄07'06	
					502 Oct 28 j 23:53	0°♍	
superior conj	501 Dec 01 j 19:39	11°♎57'01	-1°-28'-26	desc. node	502 Nov 03 j 19:05	9°♍11'46	
minimum elong	501 Dec 01 j 11:15	11°♎23'30	1°27'38				
	501 Dec 12 j 22:38	0°♏		superior conj	502 Nov 10 j 21:22	20°♍22'09	0°-45'-39
evening rise	501 Dec 16 j 04:33	5°♏23'03		minimum elong	502 Nov 10 j 15:30	19°♍59'06	0°44'54
	501 Dec 31 j 13:54	0°♐		max. Earth dist.	502 Nov 11 j 04:40	20°♍50'50	1.45059 AU
evening max el	502 Jan 04 j 09:50	4°♐37'06	18°25'34		502 Nov 17 j 00:20	0°♎	
asc. node	502 Jan 04 j 13:59	4°♐47'34		evening rise	502 Nov 26 j 21:01	15°♎36'41	
retrograde	502 Jan 10 j 22:30	8°♐11'26			502 Dec 05 j 22:17	0°♏	
evening set	502 Jan 13 j 21:33	7°♐23'22		evening max el	502 Dec 18 j 20:06	18°♏02'41	18°59'54
inferior conj	502 Jan 19 j 21:06	1°♐52'11	3°41'47	asc. node	502 Dec 22 j 11:01	20°♏59'38	
minimum elong	502 Jan 19 j 19:33	1°♐56'40	3°41'39	retrograde	502 Dec 25 j 17:07	21°♏57'01	
	502 Jan 21 j 11:53	30°♑		evening set	502 Dec 28 j 22:09	20°♏57'23	
min. Earth dist.	502 Jan 22 j 01:49	29°♏20'28	0.64200 AU	inferior conj	503 Jan 03 j 15:13	15°♏09'00	3°20'28
morning rise	502 Jan 25 j 16:09	25°♏46'07		minimum elong	503 Jan 03 j 12:44	15°♏16'48	3°20'00
direct	502 Feb 01 j 13:17	22°♏56'45		min. Earth dist.	503 Jan 05 j 04:39	13°♏11'50	0.65640 AU
desc. node	502 Feb 12 j 21:12	28°♏38'20		morning rise	503 Jan 09 j 02:23	8°♏57'29	
	502 Feb 14 j 08:25	0°♐		direct	503 Jan 15 j 14:24	6°♏08'16	
morning max el	502 Feb 15 j 03:20	0°♐46'26	27°28'11	morning max el	503 Jan 28 j 13:07	13°♏44'34	26°37'33
	502 Mar 08 j 18:06	0°♑		desc. node	503 Jan 30 j 18:14	16°♏04'05	
morning set	502 Mar 22 j 04:35	24°♑11'54			503 Feb 10 j 18:22	0°♐	
	502 Mar 25 j 02:07	0°♑			503 Mar 01 j 10:30	0°♑	
max. Earth dist.	502 Mar 27 j 03:49	4°♑15'40	1.33462 AU	morning set	503 Mar 05 j 11:57	7°♑30'29	
				max. Earth dist.	503 Mar 09 j 18:47	15°♑49'38	1.34682 AU
superior conj	502 Mar 30 j 04:34	10°♑38'26	0°-34'-49				
minimum elong	502 Mar 30 j 06:16	10°♑47'27	0°34'29	superior conj	503 Mar 14 j 04:31	24°♑45'53	-1°-1'-41
asc. node	502 Apr 02 j 13:19	17°♑50'07		minimum elong	503 Mar 14 j 07:29	25°♑01'13	1°01'11
evening rise	502 Apr 06 j 10:26	26°♑05'35			503 Mar 16 j 16:54	0°♑	
	502 Apr 08 j 07:34	0°♒		asc. node	503 Mar 20 j 10:20	7°♑48'22	
	502 Apr 27 j 04:13	0°♓		evening rise	503 Mar 21 j 19:33	10°♑41'02	
evening max el	502 Apr 28 j 01:47	0°♓53'45	22°28'51		503 Apr 01 j 01:00	0°♒	
retrograde	502 May 11 j 02:40	7°♓20'00		evening max el	503 Apr 10 j 01:08	11°♒45'54	21°00'30
desc. node	502 May 11 j 20:27	7°♓18'46		retrograde	503 Apr 21 j 16:11	17°♒24'28	
evening set	502 May 14 j 04:05	6°♓59'26		evening set	503 Apr 23 j 22:13	17°♒12'33	
min. Earth dist.	502 May 22 j 09:21	3°♓25'49	0.55278 AU	desc. node	503 Apr 28 j 17:27	15°♒37'31	
inferior conj	502 May 23 j 11:26	2°♓48'51	-3°-8'-2	inferior conj	503 May 03 j 05:30	13°♒14'15	-1°-17'-31
minimum elong	502 May 23 j 04:05	2°♓59'17	3°05'58	minimum elong	503 May 03 j 01:50	13°♒19'27	1°16'14
	502 May 28 j 22:41	30°♓		min. Earth dist.	503 May 03 j 22:02	12°♒50'50	0.54987 AU
morning rise	502 Jun 01 j 06:22	28°♒55'58		morning rise	503 May 12 j 04:57	9°♒10'26	
direct	502 Jun 04 j 03:33	28°♒36'57		direct	503 May 15 j 13:26	8°♒46'11	
	502 Jun 09 j 23:39	0°♓		morning max el	503 May 28 j 12:01	14°♒57'43	22°39'11
morning max el	502 Jun 15 j 13:44	3°♓56'04	21°04'29		503 Jun 09 j 02:15	0°♓	
asc. node	502 Jun 29 j 12:35	23°♓52'03		asc. node	503 Jun 16 j 09:37	13°♓21'21	
	502 Jul 02 j 16:38	0°♔		morning set	503 Jun 19 j 15:53	20°♓01'37	
morning set	502 Jul 05 j 05:18	5°♔08'03			503 Jun 24 j 08:35	0°♔	
superior conj	502 Jul 12 j 17:00	20°♔42'50	1°41'49	superior conj	503 Jun 26 j 20:42	5°♔20'33	1°30'52
minimum elong	502 Jul 12 j 15:25	20°♔34'41	1°41'43	minimum elong	503 Jun 26 j 18:24	5°♔08'19	1°30'37
max. Earth dist.	502 Jul 17 j 00:34	29°♔27'02	1.35519 AU	max. Earth dist.	503 Jun 29 j 19:17	11°♔31'25	1.34127 AU
	502 Jul 17 j 07:14	0°♕		evening rise	503 Jul 04 j 17:16	21°♔27'51	
evening rise	502 Jul 21 j 07:11	7°♕43'15			503 Jul 09 j 04:53	0°♕	
	502 Aug 03 j 03:39	0°♖		desc. node	503 Jul 25 j 16:49	26°♕50'32	
desc. node	502 Aug 07 j 19:49	7°♖10'42			503 Jul 27 j 23:44	0°♖	
evening max el	502 Aug 25 j 18:29	29°♖43'34	26°31'03	evening max el	503 Aug 08 j 06:20	13°♖10'33	27°11'58
	502 Aug 26 j 01:20	0°♗		retrograde	503 Aug 21 j 15:05	20°♖29'35	
retrograde	502 Sep 07 j 14:51	6°♗56'11		evening set	503 Aug 28 j 14:21	17°♖45'05	
evening set	502 Sep 14 j 03:06	4°♗15'43		min. Earth dist.	503 Sep 01 j 09:57	14°♖05'46	0.64906 AU

inferior conj	503 Sep 03 j 13:37	11° $\mathring{\text{M}}$ 42'25	-2°-48'-39	retrograde	504 Aug 03 j 09:25	3° $\mathring{\text{M}}$ 34'38	
minimum elong	503 Sep 03 j 17:50	11° $\mathring{\text{M}}$ 30'42	2°47'13	evening set	504 Aug 10 j 14:06	0° $\mathring{\text{M}}$ 57'42	
morning rise	503 Sep 09 j 23:01	6° $\mathring{\text{M}}$ 08'58			504 Aug 11 j 19:52	30° $\mathring{\text{R}}$ $\mathring{\text{L}}$	
asc. node	503 Sep 12 j 08:48	5° $\mathring{\text{M}}$ 32'05		min. Earth dist.	504 Aug 14 j 04:48	27° $\mathring{\text{L}}$ 51'10	0.63322 AU
direct	503 Sep 12 j 14:35	5° $\mathring{\text{M}}$ 31'47		inferior conj	504 Aug 16 j 21:23	25° $\mathring{\text{L}}$ 09'40	-3°-39'-46
morning max el	503 Sep 19 j 02:54	9° $\mathring{\text{M}}$ 01'24	18°06'10	minimum elong	504 Aug 17 j 02:18	24° $\mathring{\text{L}}$ 57'20	3°38'28
	503 Oct 03 j 09:54	0° $\mathring{\text{L}}$		morning rise	504 Aug 23 j 16:50	19° $\mathring{\text{L}}$ 53'52	
morning set	503 Oct 07 j 02:05	6° $\mathring{\text{L}}$ 07'53		direct	504 Aug 26 j 04:11	19° $\mathring{\text{L}}$ 24'36	
				asc. node	504 Aug 29 j 05:52	20° $\mathring{\text{L}}$ 10'27	
superior conj	503 Oct 21 j 03:28	29° $\mathring{\text{L}}$ 06'42	0°03'31	morning max el	504 Sep 01 j 18:49	22° $\mathring{\text{L}}$ 50'11	17°53'06
minimum elong	503 Oct 21 j 03:53	29° $\mathring{\text{L}}$ 08'24	0°03'27		504 Sep 07 j 09:19	0° $\mathring{\text{M}}$	
behind sun begin	503 Oct 20 j 17:22	28° $\mathring{\text{L}}$ 26'20		morning set	504 Sep 18 j 06:36	18° $\mathring{\text{M}}$ 19'52	
behind sun end	503 Oct 21 j 14:25	29° $\mathring{\text{L}}$ 50'23			504 Sep 25 j 00:04	0° $\mathring{\text{L}}$	
desc. node	503 Oct 21 j 16:08	29° $\mathring{\text{L}}$ 57'12					
	503 Oct 21 j 16:50	0° $\mathring{\text{M}}$		superior conj	504 Sep 30 j 07:45	8° $\mathring{\text{L}}$ 58'09	0°47'06
max. Earth dist.	503 Oct 24 j 23:34	5° $\mathring{\text{M}}$ 12'14	1.44800 AU	minimum elong	504 Sep 30 j 12:09	9° $\mathring{\text{L}}$ 16'24	0°46'31
evening rise	503 Nov 06 j 15:50	24° $\mathring{\text{M}}$ 59'29		max. Earth dist.	504 Oct 06 j 15:45	19° $\mathring{\text{L}}$ 18'33	1.43843 AU
	503 Nov 09 j 21:38	0° $\mathring{\text{L}}$		desc. node	504 Oct 07 j 13:11	20° $\mathring{\text{L}}$ 44'23	
greatest brilliancy	503 Nov 24 j 15:30	22° $\mathring{\text{L}}$ 09'14	-0.6m		504 Oct 13 j 10:01	0° $\mathring{\text{M}}$	
	503 Nov 30 j 16:53	0° $\mathring{\text{L}}$		evening rise	504 Oct 15 j 23:17	3° $\mathring{\text{M}}$ 57'40	
evening max el	503 Dec 02 j 02:15	1° $\mathring{\text{L}}$ 30'41	19°50'24		504 Nov 02 j 09:34	0° $\mathring{\text{L}}$	
asc. node	503 Dec 09 j 08:03	5° $\mathring{\text{L}}$ 53'15		greatest brilliancy	504 Nov 08 j 14:10	8° $\mathring{\text{L}}$ 28'27	-0.5m
retrograde	503 Dec 09 j 14:29	5° $\mathring{\text{L}}$ 53'40		evening max el	504 Nov 14 j 03:01	14° $\mathring{\text{L}}$ 59'33	20°54'46
evening set	503 Dec 13 j 03:07	4° $\mathring{\text{L}}$ 40'53		retrograde	504 Nov 22 j 12:08	19° $\mathring{\text{L}}$ 57'28	
	503 Dec 17 j 15:03	30° $\mathring{\text{R}}$ $\mathring{\text{L}}$		asc. node	504 Nov 25 j 05:06	19° $\mathring{\text{L}}$ 16'08	
inferior conj	503 Dec 18 j 15:55	28° $\mathring{\text{L}}$ 38'18	2°48'26	evening set	504 Nov 26 j 10:24	18° $\mathring{\text{L}}$ 29'36	
minimum elong	503 Dec 18 j 13:10	28° $\mathring{\text{L}}$ 47'26	2°47'40	inferior conj	504 Dec 01 j 20:44	12° $\mathring{\text{L}}$ 16'14	2°08'15
min. Earth dist.	503 Dec 19 j 15:29	27° $\mathring{\text{L}}$ 20'09	0.66692 AU	minimum elong	504 Dec 01 j 18:15	12° $\mathring{\text{L}}$ 24'44	2°07'22
morning rise	503 Dec 23 j 22:33	22° $\mathring{\text{L}}$ 23'39		min. Earth dist.	504 Dec 02 j 08:01	11° $\mathring{\text{L}}$ 37'35	0.67364 AU
direct	503 Dec 29 j 21:28	19° $\mathring{\text{L}}$ 45'49		morning rise	504 Dec 07 j 01:41	6° $\mathring{\text{L}}$ 00'41	
morning max el	504 Jan 10 j 22:11	26° $\mathring{\text{L}}$ 55'18	25°24'25	direct	504 Dec 12 j 09:39	3° $\mathring{\text{L}}$ 41'40	
	504 Jan 13 j 19:20	0° $\mathring{\text{L}}$		morning max el	504 Dec 23 j 06:35	10° $\mathring{\text{L}}$ 10'50	23°58'58
desc. node	504 Jan 17 j 15:18	4° $\mathring{\text{L}}$ 32'52		desc. node	505 Jan 03 j 12:23	23° $\mathring{\text{L}}$ 46'18	
	504 Feb 04 j 09:37	0° $\mathring{\text{L}}$			505 Jan 07 j 23:43	0° $\mathring{\text{L}}$	
morning set	504 Feb 16 j 03:21	19° $\mathring{\text{L}}$ 57'12			505 Jan 27 j 03:06	0° $\mathring{\text{L}}$	
max. Earth dist.	504 Feb 19 j 21:55	26° $\mathring{\text{L}}$ 55'14	1.36346 AU	morning set	505 Jan 27 j 20:47	1° $\mathring{\text{L}}$ 15'42	
	504 Feb 21 j 12:51	0° $\mathring{\text{L}}$		max. Earth dist.	505 Jan 31 j 17:20	8° $\mathring{\text{L}}$ 00'37	1.38359 AU
superior conj	504 Feb 25 j 19:46	8° $\mathring{\text{L}}$ 22'34	-1°-26'-40	superior conj	505 Feb 07 j 22:49	21° $\mathring{\text{L}}$ 19'23	-1°-47'-20
minimum elong	504 Feb 25 j 23:37	8° $\mathring{\text{L}}$ 41'42	1°26'08	minimum elong	505 Feb 08 j 02:36	21° $\mathring{\text{L}}$ 37'23	1°47'00
evening rise	504 Mar 05 j 00:19	24° $\mathring{\text{L}}$ 57'16			505 Feb 12 j 10:44	0° $\mathring{\text{L}}$	
asc. node	504 Mar 06 j 07:22	27° $\mathring{\text{L}}$ 33'35		evening rise	505 Feb 16 j 22:14	8° $\mathring{\text{L}}$ 47'41	
	504 Mar 07 j 12:50	0° $\mathring{\text{L}}$		asc. node	505 Feb 21 j 04:25	17° $\mathring{\text{L}}$ 00'38	
evening max el	504 Mar 22 j 11:49	23° $\mathring{\text{L}}$ 14'37	19°47'59		505 Feb 28 j 21:42	0° $\mathring{\text{L}}$	
retrograde	504 Apr 01 j 09:38	28° $\mathring{\text{L}}$ 00'20		evening max el	505 Mar 05 j 09:20	5° $\mathring{\text{L}}$ 21'49	18°54'41
evening set	504 Apr 03 j 11:39	27° $\mathring{\text{L}}$ 48'38		retrograde	505 Mar 13 j 17:57	9° $\mathring{\text{L}}$ 24'27	
inferior conj	504 Apr 12 j 05:45	23° $\mathring{\text{L}}$ 46'54	0°40'19	evening set	505 Mar 15 j 23:52	9° $\mathring{\text{L}}$ 08'07	
minimum elong	504 Apr 12 j 07:29	23° $\mathring{\text{L}}$ 44'13	0°39'43	inferior conj	505 Mar 23 j 23:25	4° $\mathring{\text{L}}$ 50'51	2°15'10
min. Earth dist.	504 Apr 14 j 12:17	22° $\mathring{\text{L}}$ 22'37	0.55653 AU	minimum elong	505 Mar 24 j 03:38	4° $\mathring{\text{L}}$ 43'17	2°13'59
desc. node	504 Apr 14 j 14:29	22° $\mathring{\text{L}}$ 19'19		min. Earth dist.	505 Mar 27 j 04:35	2° $\mathring{\text{L}}$ 33'48	0.57134 AU
morning rise	504 Apr 21 j 00:02	19° $\mathring{\text{L}}$ 14'34			505 Mar 31 j 13:54	30° $\mathring{\text{R}}$ $\mathring{\text{L}}$	
direct	504 Apr 25 j 05:41	18° $\mathring{\text{L}}$ 34'44		morning rise	505 Apr 01 j 03:09	29° $\mathring{\text{L}}$ 45'28	
morning max el	504 May 09 j 03:49	25° $\mathring{\text{L}}$ 31'51	24°20'27	desc. node	505 Apr 01 j 11:31	29° $\mathring{\text{L}}$ 36'57	
	504 May 13 j 08:20	0° $\mathring{\text{L}}$		direct	505 Apr 06 j 11:31	28° $\mathring{\text{L}}$ 36'46	
	504 May 31 j 17:55	0° $\mathring{\text{L}}$			505 Apr 12 j 10:09	0° $\mathring{\text{L}}$	
asc. node	504 Jun 02 j 06:39	3° $\mathring{\text{L}}$ 09'08		morning max el	505 Apr 20 j 18:51	6° $\mathring{\text{L}}$ 03'27	25°54'13
morning set	504 Jun 03 j 03:45	4° $\mathring{\text{L}}$ 59'36			505 May 08 j 07:24	0° $\mathring{\text{L}}$	
				morning set	505 May 18 j 15:21	19° $\mathring{\text{L}}$ 56'31	
superior conj	504 Jun 10 j 05:05	20° $\mathring{\text{L}}$ 12'02	1°15'04	asc. node	505 May 20 j 03:43	23° $\mathring{\text{L}}$ 09'36	
minimum elong	504 Jun 10 j 02:37	19° $\mathring{\text{L}}$ 58'41	1°14'42		505 May 23 j 07:28	0° $\mathring{\text{L}}$	
max. Earth dist.	504 Jun 11 j 22:50	23° $\mathring{\text{L}}$ 57'15	1.33133 AU				
	504 Jun 14 j 19:10	0° $\mathring{\text{L}}$		superior conj	505 May 25 j 16:06	5° $\mathring{\text{L}}$ 10'20	0°55'23
evening rise	504 Jun 17 j 13:52	5° $\mathring{\text{L}}$ 43'54		minimum elong	505 May 25 j 13:58	4° $\mathring{\text{L}}$ 58'38	0°55'00
	504 Jun 30 j 19:28	0° $\mathring{\text{L}}$		max. Earth dist.	505 May 26 j 08:44	6° $\mathring{\text{L}}$ 41'26	1.32528 AU
desc. node	504 Jul 11 j 13:51	15° $\mathring{\text{L}}$ 52'30		evening rise	505 Jun 01 j 17:48	20° $\mathring{\text{L}}$ 21'21	
evening max el	504 Jul 20 j 16:38	26° $\mathring{\text{L}}$ 15'24	27°25'34		505 Jun 06 j 13:20	0° $\mathring{\text{L}}$	
	504 Jul 25 j 03:48	0° $\mathring{\text{L}}$			505 Jun 25 j 03:55	0° $\mathring{\text{L}}$	

desc. node	505 Jun 28 j 10:51	4°00'46			506 May 30 j 07:04	0°☿	
evening max el	505 Jul 02 j 23:09	8°04'16	27°07'09	evening max el	506 Jun 14 j 23:18	20°☿32'11	26°15'55
retrograde	505 Jul 16 j 20:48	16°02'22		desc. node	506 Jun 15 j 07:51	20°☿52'22	
evening set	505 Jul 23 j 22:15	13°04'39		retrograde	506 Jun 28 j 23:34	27°☿44'43	
min. Earth dist.	505 Jul 27 j 13:23	11°02'56	0.61440 AU	evening set	506 Jul 05 j 10:06	26°☿02'29	
inferior conj	505 Jul 30 j 16:47	8°01'6	-4°-21'-34	min. Earth dist.	506 Jul 09 j 12:11	23°☿25'49	0.59387 AU
minimum elong	505 Jul 30 j 21:08	8°00'43	4°20'51	inferior conj	506 Jul 12 j 20:07	20°☿52'24	-4°-46'-10
morning rise	505 Aug 06 j 22:52	3°02'10		minimum elong	506 Jul 12 j 21:52	20°☿49'01	4°46'05
direct	505 Aug 09 j 08:46	2°05'59		morning rise	506 Jul 20 j 13:02	16°☿20'07	
asc. node	505 Aug 16 j 02:57	6°01'25		direct	506 Jul 22 j 23:58	15°☿59'04	
morning max el	505 Aug 16 j 08:58	6°02'50	17°58'34	morning max el	506 Jul 30 j 18:17	19°☿42'54	18°23'52
	505 Aug 31 j 11:11	0°☿		asc. node	506 Aug 03 j 00:01	23°☿22'32	
morning set	505 Sep 01 j 05:54	1°☿25'45			506 Aug 07 j 10:49	0°0	
				morning set	506 Aug 15 j 18:42	15°01'10	
superior conj	505 Sep 11 j 15:22	20°☿09'57	1°18'50		506 Aug 23 j 13:51	0°☿	
minimum elong	505 Sep 11 j 19:59	20°☿30'09	1°18'21	superior conj	506 Aug 24 j 22:52	2°☿32'53	1°37'56
	505 Sep 17 j 09:17	0°☿		minimum elong	506 Aug 25 j 01:45	2°☿46'13	1°37'45
max. Earth dist.	505 Sep 19 j 03:28	2°☿55'34	1.42316 AU	max. Earth dist.	506 Sep 01 j 10:11	15°☿52'40	1.40411 AU
desc. node	505 Sep 24 j 10:13	11°☿30'04		evening rise	506 Sep 05 j 23:06	23°☿32'42	
evening rise	505 Sep 25 j 13:01	13°☿16'32			506 Sep 09 j 22:18	0°☿	
	505 Oct 06 j 10:55	0°☿		desc. node	506 Sep 11 j 07:14	2°☿10'55	
greatest brilliancy	505 Oct 23 j 05:00	23°☿10'14	-0.3m		506 Sep 30 j 09:14	0°☿	
evening max el	505 Oct 27 j 22:12	28°☿29'33	22°09'22	evening max el	506 Oct 10 j 12:47	12°☿01'50	23°29'06
	505 Oct 29 j 11:40	0°☿		retrograde	506 Oct 21 j 01:25	18°☿15'02	
retrograde	505 Nov 06 j 08:14	4°☿05'31		evening set	506 Oct 26 j 00:51	16°☿12'14	
evening set	505 Nov 10 j 18:12	2°☿20'44		asc. node	506 Oct 29 j 23:13	11°☿48'36	
asc. node	505 Nov 12 j 02:10	1°☿07'20		inferior conj	506 Oct 31 j 10:45	9°☿48'06	0°30'32
	505 Nov 13 j 02:33	30°☿		minimum elong	506 Oct 31 j 10:02	9°☿50'34	0°30'14
inferior conj	505 Nov 16 j 03:37	26°☿00'06	1°21'46	min. Earth dist.	506 Oct 31 j 00:23	10°☿23'36	0.67671 AU
minimum elong	505 Nov 16 j 01:51	26°☿06'15	1°21'03	morning rise	506 Nov 05 j 19:19	3°☿37'49	
min. Earth dist.	505 Nov 16 j 03:46	25°☿59'34	0.67684 AU	direct	506 Nov 09 j 21:46	2°☿03'48	
morning rise	505 Nov 21 j 09:18	19°☿45'59		morning max el	506 Nov 18 j 09:26	7°☿00'44	21°09'07
direct	505 Nov 26 j 02:05	17°☿49'20		greatest brilliancy	506 Nov 23 j 18:41	13°☿13'51	-0.5m
morning max el	505 Dec 05 j 17:07	23°☿31'12	22°31'09		506 Dec 05 j 19:23	0°☿	
greatest brilliancy	505 Dec 10 j 07:33	28°☿40'16	-0.3m	desc. node	506 Dec 08 j 06:29	3°☿39'13	
	505 Dec 11 j 09:31	0°☿		morning set	506 Dec 18 j 19:58	19°☿49'23	
desc. node	505 Dec 21 j 09:27	13°☿31'23			506 Dec 25 j 05:08	0°☿	
	506 Jan 01 j 09:48	0°☿		max. Earth dist.	506 Dec 26 j 16:35	2°☿24'21	1.42461 AU
morning set	506 Jan 08 j 10:18	11°☿11'08		superior conj	507 Jan 02 j 20:51	14°☿24'09	-2°-1'-26
max. Earth dist.	506 Jan 13 j 13:34	19°☿44'12	1.40499 AU	minimum elong	507 Jan 02 j 18:53	14°☿15'44	2°01'25
	506 Jan 19 j 11:22	0°☿			507 Jan 11 j 18:21	0°☿	
superior conj	506 Jan 21 j 08:59	3°☿24'13	-2°00'-22	evening rise	507 Jan 14 j 08:31	4°☿39'25	
minimum elong	506 Jan 21 j 11:01	3°☿33'23	2°00'19	asc. node	507 Jan 25 j 22:31	24°☿32'06	
evening rise	506 Jan 31 j 10:13	22°☿04'20			507 Jan 30 j 02:18	0°☿	
	506 Feb 04 j 16:03	0°☿		evening max el	507 Jan 31 j 01:22	1°☿00'26	18°07'50
asc. node	506 Feb 08 j 01:28	6°☿02'44		retrograde	507 Feb 06 j 17:20	4°☿25'39	
evening max el	506 Feb 16 j 14:53	17°☿59'52	18°21'19	evening set	507 Feb 09 j 08:53	3°☿53'22	
retrograde	506 Feb 23 j 21:17	21°☿35'49			507 Feb 14 j 20:18	30°☿	
evening set	506 Feb 26 j 08:20	21°☿12'09		inferior conj	507 Feb 16 j 00:17	28°☿53'23	3°43'38
inferior conj	506 Mar 05 j 14:10	16°☿33'52	3°15'18	minimum elong	507 Feb 16 j 01:36	28°☿50'11	3°43'32
minimum elong	506 Mar 05 j 17:36	16°☿26'39	3°14'40	min. Earth dist.	507 Feb 19 j 03:24	25°☿53'04	0.61230 AU
min. Earth dist.	506 Mar 09 j 00:34	13°☿42'56	0.59113 AU	morning rise	507 Feb 22 j 15:36	23°☿02'38	
morning rise	506 Mar 12 j 23:10	11°☿01'27		direct	507 Mar 01 j 11:53	20°☿42'51	
direct	506 Mar 19 j 06:18	9°☿16'00		desc. node	507 Mar 06 j 05:38	21°☿43'42	
desc. node	506 Mar 19 j 08:35	9°☿16'02		morning max el	507 Mar 15 j 16:03	28°☿33'52	27°43'10
morning max el	506 Apr 02 j 14:13	16°☿58'35	27°05'27		507 Mar 17 j 01:50	0°☿	
	506 Apr 13 j 08:01	0°☿			507 Apr 07 j 02:57	0°☿	
	506 Apr 30 j 17:17	0°☿		morning set	507 Apr 17 j 06:34	19°☿20'40	
morning set	506 May 03 j 00:54	4°☿45'36			507 Apr 22 j 07:38	0°☿	
asc. node	506 May 07 j 00:46	13°☿17'00		max. Earth dist.	507 Apr 23 j 08:53	2°☿16'55	1.32432 AU
				asc. node	507 Apr 23 j 21:48	3°☿27'14	
superior conj	506 May 10 j 03:53	20°☿08'02	0°32'36	superior conj	507 Apr 24 j 14:45	4°☿59'41	0°07'29
minimum elong	506 May 10 j 02:29	20°☿00'21	0°32'19	minimum elong	507 Apr 24 j 14:24	4°☿57'47	0°07'24
max. Earth dist.	506 May 09 j 21:23	19°☿32'24	1.32294 AU	behind sun begin	507 Apr 24 j 09:53	4°☿33'05	
	506 May 14 j 16:10	0°☿					
evening rise	506 May 17 j 02:22	5°☿10'27					

behind sun end	507 Apr 24 j 18:55	5°♄22'30		superior conj	508 Apr 07 j 23:00	19°♃39'43	0°-19'-11
evening rise	507 May 01 j 13:30	20°♄04'02		minimum elong	508 Apr 07 j 23:56	19°♃44'42	0°19'00
	507 May 06 j 10:10	0°♄		asc. node	508 Apr 09 j 18:51	23°♃36'25	
	507 May 26 j 03:18	0°♄			508 Apr 12 j 17:51	0°♄	
evening max el	507 May 27 j 16:29	1°♄33'11	24°57'18	evening rise	508 Apr 15 j 01:19	4°♄55'50	
desc. node	507 Jun 02 j 04:52	5°♄56'39			508 Apr 28 j 14:00	0°♄	
retrograde	507 Jun 10 j 16:06	8°♄39'29		evening max el	508 May 08 j 06:42	12°♄08'15	23°23'42
evening set	507 Jun 15 j 22:37	7°♄35'57		desc. node	508 May 19 j 01:52	18°♄37'50	
min. Earth dist.	507 Jun 21 j 03:57	4°♄48'08	0.57408 AU	retrograde	508 May 21 j 20:43	18°♄55'30	
inferior conj	507 Jun 24 j 04:07	2°♄48'01	-4°-41'-51	evening set	508 May 25 j 15:51	18°♄23'48	
minimum elong	507 Jun 24 j 01:15	2°♄52'49	4°41'38	min. Earth dist.	508 Jun 01 j 16:50	15°♄10'09	0.55843 AU
	507 Jun 28 j 18:23	30°♄♄		inferior conj	508 Jun 03 j 16:14	13°♄59'57	-3°-55'-47
morning rise	507 Jul 02 j 07:45	28°♄38'01		minimum elong	508 Jun 03 j 09:16	14°♄10'18	3°54'18
direct	507 Jul 04 j 21:22	28°♄18'57		morning rise	508 Jun 12 j 06:04	10°♄04'47	
	507 Jul 10 j 14:02	0°♄		direct	508 Jun 14 j 23:25	9°♄46'37	
morning max el	507 Jul 13 j 19:48	2°♄29'13	19°10'01	morning max el	508 Jun 25 j 11:05	14°♄37'40	20°17'08
asc. node	507 Jul 20 j 21:03	11°♄26'00		asc. node	508 Jul 06 j 18:05	0°♄10'43	
morning set	507 Jul 30 j 16:58	29°♄24'44			508 Jul 06 j 15:40	0°♄	
	507 Jul 31 j 00:05	0°♄		morning set	508 Jul 13 j 21:48	13°♄59'08	
superior conj	507 Aug 08 j 00:31	15°♄50'31	1°46'07	superior conj	508 Jul 21 j 15:18	29°♄48'33	1°45'28
minimum elong	507 Aug 08 j 01:20	15°♄54'26	1°46'06	minimum elong	508 Jul 21 j 14:25	29°♄44'06	1°45'26
max. Earth dist.	507 Aug 14 j 13:28	28°♄07'17	1.38376 AU		508 Jul 21 j 17:34	0°♄	
	507 Aug 15 j 14:26	0°♄		max. Earth dist.	508 Jul 26 j 18:51	9°♄58'03	1.36473 AU
evening rise	507 Aug 18 j 09:49	4°♄58'12		evening rise	508 Jul 30 j 18:46	17°♄28'23	
desc. node	507 Aug 29 j 04:13	22°♄42'28			508 Aug 06 j 21:58	0°♄	
	507 Sep 02 j 23:34	0°♄		desc. node	508 Aug 15 j 01:14	12°♄59'52	
evening max el	507 Sep 23 j 00:44	25°♄36'54	24°47'41		508 Aug 27 j 06:54	0°♄	
	507 Sep 28 j 05:27	0°♄		evening max el	508 Sep 04 j 12:19	9°♄14'34	25°57'43
retrograde	507 Oct 04 j 14:44	2°♄21'38		retrograde	508 Sep 16 j 23:30	16°♄20'44	
evening set	507 Oct 10 j 04:40	0°♄01'27		evening set	508 Sep 23 j 03:51	13°♄46'09	
	507 Oct 10 j 05:20	30°♄♄		min. Earth dist.	508 Sep 27 j 10:44	9°♄07'59	0.66667 AU
min. Earth dist.	507 Oct 14 j 19:28	24°♄47'07	0.67334 AU	inferior conj	508 Sep 28 j 18:46	7°♄27'14	-1°-20'-30
inferior conj	507 Oct 15 j 16:23	23°♄37'47	0°-24'-4	minimum elong	508 Sep 28 j 20:50	7°♄20'45	1°19'38
minimum elong	507 Oct 15 j 16:59	23°♄35'49	0°23'48	asc. node	508 Oct 02 j 17:18	2°♄59'14	
asc. node	507 Oct 16 j 20:16	22°♄06'26		morning rise	508 Oct 04 j 14:43	1°♄32'28	
morning rise	507 Oct 21 j 05:46	17°♄33'52		direct	508 Oct 07 j 17:56	0°♄35'59	
direct	507 Oct 24 j 19:31	16°♄20'21		morning max el	508 Oct 14 j 16:36	4°♄29'30	19°01'50
morning max el	507 Nov 01 j 09:22	20°♄40'38	19°58'16		508 Nov 01 j 16:24	0°♄	
greatest brilliancy	507 Nov 08 j 17:16	29°♄39'37	-0.6m	morning set	508 Nov 06 j 00:06	6°♄46'00	
	507 Nov 08 j 23:11	0°♄		desc. node	508 Nov 11 j 00:31	14°♄37'59	
desc. node	507 Nov 25 j 03:29	24°♄02'52			508 Nov 20 j 19:31	0°♄	
morning set	507 Nov 27 j 16:13	27°♄56'47		max. Earth dist.	508 Nov 20 j 18:34	29°♄56'14	1.44872 AU
	507 Nov 29 j 00:03	0°♄					
max. Earth dist.	507 Dec 09 j 02:51	15°♄53'21	1.43978 AU	superior conj	508 Nov 22 j 15:35	2°♄53'43	-1°-11'-53
superior conj	507 Dec 14 j 06:07	24°♄09'53	-1°-45'-54	minimum elong	508 Nov 22 j 07:27	2°♄21'35	1°10'58
minimum elong	507 Dec 13 j 23:13	23°♄41'47	1°45'24	evening rise	508 Dec 07 j 18:56	27°♄10'57	
	507 Dec 17 j 19:29	0°♄			508 Dec 09 j 12:20	0°♄	
evening rise	507 Dec 27 j 12:45	16°♄23'41		evening max el	508 Dec 28 j 01:34	27°♄38'32	18°38'05
	508 Jan 04 j 12:32	0°♄		asc. node	508 Dec 29 j 16:35	29°♄08'55	
asc. node	508 Jan 12 j 19:33	12°♄18'13			508 Dec 30 j 19:57	0°♄	
evening max el	508 Jan 14 j 13:47	14°♄15'11	18°13'44	retrograde	509 Jan 03 j 17:02	1°♄20'17	
retrograde	508 Jan 21 j 01:20	17°♄43'08		evening set	509 Jan 06 j 18:22	0°♄27'39	
evening set	508 Jan 23 j 21:22	17°♄01'16			509 Jan 07 j 11:54	30°♄♄	
inferior conj	508 Jan 30 j 01:50	11°♄40'59	3°47'43	inferior conj	509 Jan 12 j 14:55	24°♄49'03	3°34'15
minimum elong	508 Jan 30 j 01:09	11°♄42'51	3°47'42	minimum elong	509 Jan 12 j 12:52	24°♄55'10	3°33'58
min. Earth dist.	508 Feb 01 j 15:27	8°♄53'43	0.63201 AU	min. Earth dist.	509 Jan 14 j 13:08	22°♄30'44	0.64863 AU
morning rise	508 Feb 05 j 03:04	5°♄38'55		morning rise	509 Jan 18 j 06:08	18°♄40'10	
direct	508 Feb 12 j 02:19	2°♄55'56		direct	509 Jan 25 j 00:07	15°♄48'54	
desc. node	508 Feb 21 j 02:39	6°♄34'46		desc. node	509 Feb 06 j 23:42	23°♄13'16	
morning max el	508 Feb 25 j 23:05	10°♄49'20	27°43'45	morning max el	509 Feb 07 j 08:30	23°♄35'08	27°09'50
	508 Mar 12 j 01:42	0°♄			509 Feb 13 j 02:31	0°♄	
	508 Mar 29 j 10:45	0°♄		morning set	509 Mar 05 j 09:21	0°♄	
morning set	508 Mar 31 j 06:03	3°♄34'21		max. Earth dist.	509 Mar 14 j 20:24	17°♄16'29	
max. Earth dist.	508 Apr 05 j 15:13	14°♄41'30	1.32958 AU		509 Mar 19 j 12:22	26°♄33'53	1.33919 AU
					509 Mar 21 j 04:26	0°♄	

superior conj	509 Mar 23 j 02:40	4°♈01'21	0°-46'-21	max. Earth dist.	510 Mar 01 j 22:00	7°♋53'21	1.35341 AU
minimum elong	509 Mar 23 j 04:55	4°♈13'13	0°45'56				
asc. node	509 Mar 27 j 15:52	13°♈39'56		superior conj	510 Mar 06 j 23:21	17°♋57'29	-1°-12'-39
evening rise	509 Mar 30 j 11:58	19°♈39'02		minimum elong	510 Mar 07 j 02:46	18°♋14'52	1°12'06
	509 Apr 04 j 15:05	0°♌			510 Mar 12 j 19:32	0°♈	
evening max el	509 Apr 20 j 01:04	22°♌46'53	21°49'51	evening rise	510 Mar 14 j 19:32	4°♈07'33	
retrograde	509 May 02 j 13:29	28°♌54'23		asc. node	510 Mar 14 j 12:56	3°♈33'37	
evening set	509 May 05 j 04:16	28°♌39'05			510 Mar 29 j 17:00	0°♌	
desc. node	509 May 05 j 22:54	28°♌28'55		evening max el	510 Apr 02 j 05:14	3°♌54'11	20°27'26
min. Earth dist.	509 May 14 j 05:29	24°♌47'12	0.55031 AU	retrograde	510 Apr 13 j 02:34	9°♌09'13	
inferior conj	509 May 14 j 13:34	24°♌35'51	-2°-24'-22	evening set	510 Apr 15 j 05:35	8°♌58'03	
minimum elong	509 May 14 j 07:12	24°♌44'47	2°22'19	desc. node	510 Apr 22 j 19:55	5°♌53'07	
morning rise	509 May 23 j 11:14	20°♌40'22		inferior conj	510 Apr 24 j 08:30	5°♌00'29	0°-26'-21
direct	509 May 26 j 12:05	20°♌19'59		minimum elong	510 Apr 24 j 07:16	5°♌02'17	0°25'54
morning max el	509 Jun 07 j 15:04	26°♌02'12	21°43'14	min. Earth dist.	510 Apr 25 j 18:43	4°♌10'47	0.55164 AU
	509 Jun 11 j 08:36	0°♍		morning rise	510 May 03 j 07:05	0°♌46'15	
asc. node	509 Jun 23 j 15:07	19°♍25'52		direct	510 May 06 j 23:47	0°♌16'41	
morning set	509 Jun 28 j 06:49	28°♍46'56		morning max el	510 May 20 j 09:47	6°♌48'55	23°22'07
	509 Jun 28 j 20:52	0°♎			510 Jun 05 j 20:21	0°♍	
				asc. node	510 Jun 10 j 12:12	9°♍03'43	
superior conj	509 Jul 05 j 15:09	14°♎14'02	1°37'50	morning set	510 Jun 12 j 18:09	13°♍42'45	
minimum elong	509 Jul 05 j 13:11	14°♎03'47	1°37'41				
max. Earth dist.	509 Jul 09 j 08:00	21°♎51'34	1.34877 AU	superior conj	510 Jun 19 j 21:07	28°♍58'00	1°24'41
	509 Jul 13 j 10:45	0°♏		minimum elong	510 Jun 19 j 18:41	28°♍44'56	1°24'23
evening rise	509 Jul 13 j 21:01	0°♏49'27			510 Jun 20 j 08:42	0°♎	
	509 Jul 30 j 22:50	0°♐		max. Earth dist.	510 Jun 22 j 06:52	4°♎05'20	1.33662 AU
desc. node	509 Aug 01 j 22:16	2°♐55'36		evening rise	510 Jun 27 j 12:03	14°♎48'34	
evening max el	509 Aug 18 j 00:23	22°♐48'29	26°51'29		510 Jul 05 j 13:55	0°♏	
	509 Aug 29 j 21:17	0°♑		desc. node	510 Jul 19 j 19:17	22°♏20'27	
retrograde	509 Aug 31 j 02:56	0°♑04'59			510 Jul 25 j 18:55	0°♐	
	509 Sep 01 j 07:57	30°♑♐		evening max el	510 Jul 31 j 12:04	6°♐07'55	27°21'30
evening set	509 Sep 06 j 20:11	27°♐21'55		retrograde	510 Aug 14 j 00:31	13°♐26'40	
min. Earth dist.	509 Sep 10 j 19:45	23°♐21'06	0.65650 AU	evening set	510 Aug 21 j 02:56	10°♐44'09	
inferior conj	509 Sep 12 j 15:52	21°♐12'09	-2°-17'00	min. Earth dist.	510 Aug 24 j 20:12	7°♐19'25	0.64275 AU
minimum elong	509 Sep 12 j 19:23	21°♐01'53	2°15'42	inferior conj	510 Aug 27 j 05:18	4°♐47'29	-3°-11'-6
morning rise	509 Sep 18 j 19:56	15°♐29'42		minimum elong	510 Aug 27 j 09:56	4°♐35'10	3°09'41
asc. node	509 Sep 19 j 14:20	15°♐09'19			510 Sep 01 j 13:07	30°♑♏	
direct	509 Sep 21 j 15:04	14°♐46'27		morning rise	510 Sep 02 j 18:50	29°♏20'55	
morning max el	509 Sep 28 j 05:12	18°♐22'23	18°21'35	direct	510 Sep 05 j 08:24	28°♏47'19	
	509 Oct 06 j 21:48	0°♒		asc. node	510 Sep 06 j 11:24	28°♏53'52	
morning set	509 Oct 17 j 11:15	16°♒58'14			510 Sep 09 j 03:17	0°♐	
	509 Oct 25 j 13:07	0°♓		morning max el	510 Sep 11 j 20:42	2°♐14'06	17°58'24
desc. node	509 Oct 28 j 21:35	5°♓20'29		morning set	510 Sep 29 j 02:12	28°♐31'21	
					510 Sep 29 j 23:03	0°♑	
superior conj	509 Nov 01 j 16:28	11°♓19'50	0°-24'-49				
minimum elong	509 Nov 01 j 13:12	11°♓07'00	0°24'24	superior conj	510 Oct 12 j 06:23	20°♑27'51	0°23'14
max. Earth dist.	509 Nov 03 j 13:15	14°♓16'11	1.45040 AU	minimum elong	510 Oct 12 j 09:00	20°♑38'26	0°22'52
	509 Nov 13 j 14:04	0°♊		desc. node	510 Oct 15 j 18:37	26°♑06'38	
evening rise	509 Nov 18 j 01:33	7°♊01'12		max. Earth dist.	510 Oct 17 j 07:48	28°♑34'43	1.44474 AU
greatest brilliancy	509 Dec 02 j 02:35	28°♊48'22	-0.7m		510 Oct 18 j 05:19	0°♓	
	509 Dec 02 j 21:54	0°♋		evening rise	510 Oct 28 j 13:41	16°♓08'49	
evening max el	509 Dec 11 j 10:25	11°♋06'20	19°19'34		510 Nov 06 j 15:36	0°♊	
asc. node	509 Dec 16 j 13:36	14°♋49'56		greatest brilliancy	510 Nov 18 j 02:47	16°♊40'25	-0.6m
retrograde	509 Dec 18 j 13:03	15°♋11'33		evening max el	510 Nov 24 j 14:29	24°♊35'06	20°16'18
evening set	509 Dec 21 j 21:08	14°♋06'33		retrograde	510 Dec 02 j 10:45	29°♊11'52	
inferior conj	509 Dec 27 j 12:10	8°♋12'02	3°08'01	asc. node	510 Dec 03 j 10:39	29°♊06'15	
minimum elong	509 Dec 27 j 09:30	8°♋20'37	3°07'24	evening set	510 Dec 06 j 03:21	27°♊52'43	
min. Earth dist.	509 Dec 28 j 19:35	6°♋31'03	0.66142 AU	inferior conj	510 Dec 11 j 14:53	21°♊45'09	2°32'15
morning rise	510 Jan 01 j 21:03	1°♋59'05		minimum elong	510 Dec 11 j 12:11	21°♊54'14	2°31'25
	510 Jan 04 j 18:43	30°♒♊		min. Earth dist.	510 Dec 12 j 08:59	20°♊44'09	0.67025 AU
direct	510 Jan 08 j 04:01	29°♊13'17		morning rise	510 Dec 16 j 20:31	15°♊30'07	
	510 Jan 11 j 19:33	0°♌		direct	510 Dec 22 j 13:14	12°♊59'47	
morning max el	510 Jan 20 j 17:53	6°♌39'29	26°08'31	morning max el	511 Jan 03 j 02:27	19°♊52'40	24°49'02
desc. node	510 Jan 24 j 20:45	11°♌08'47		desc. node	511 Jan 11 j 17:50	29°♊58'18	
	510 Feb 07 j 20:35	0°♍			511 Jan 11 j 18:21	0°♋	
morning set	510 Feb 25 j 21:39	0°♌15'14			511 Feb 01 j 00:25	0°♍	
	510 Feb 25 j 18:22	0°♌		morning set	511 Feb 08 j 04:29	12°♍14'50	

max. Earth dist.	511 Feb 11 j 21:27	18° \approx 56'21	1.37180 AU	morning set	512 Jan 20 j 10:40	22° \approx 59'31	
	511 Feb 17 j 17:47	0° \approx		max. Earth dist.	512 Jan 24 j 16:33	0° \approx 15'31	1.39275 AU
					512 Jan 24 j 12:59	0° \approx	
superior conj	511 Feb 18 j 09:56	1° \approx 18'39	-1°-36'-8	superior conj	512 Feb 01 j 06:24	13° \approx 54'42	-1°-54'-1
minimum elong	511 Feb 18 j 13:55	1° \approx 38'05	1°35'39	minimum elong	512 Feb 01 j 09:42	14° \approx 10'04	1°53'49
evening rise	511 Feb 26 j 21:44	18° \approx 13'57			512 Feb 09 j 16:50	0° \approx	
asc. node	511 Mar 01 j 09:58	23° \approx 11'58		evening rise	512 Feb 10 j 15:52	1° \approx 51'16	
	511 Mar 05 j 00:03	0° \approx		asc. node	512 Feb 16 j 07:01	12° \approx 29'25	
evening max el	511 Mar 15 j 20:41	15° \approx 39'13	19°22'44	evening max el	512 Feb 26 j 21:53	28° \approx 00'11	18°37'55
retrograde	511 Mar 25 j 01:27	20° \approx 04'57			512 Feb 29 j 08:03	0° \approx	
evening set	511 Mar 27 j 04:47	19° \approx 51'37		retrograde	512 Mar 05 j 18:08	1° \approx 49'49	
inferior conj	511 Apr 04 j 15:09	15° \approx 43'54	1°24'34	evening set	512 Mar 08 j 02:04	1° \approx 30'43	
minimum elong	511 Apr 04 j 18:25	15° \approx 38'31	1°23'30		512 Mar 11 j 13:10	30° \approx	
min. Earth dist.	511 Apr 07 j 09:19	13° \approx 55'51	0.56207 AU	inferior conj	512 Mar 15 j 17:46	27° \approx 04'40	2°44'57
desc. node	511 Apr 09 j 16:58	12° \approx 32'44		minimum elong	512 Mar 15 j 21:57	26° \approx 56'38	2°43'56
morning rise	511 Apr 13 j 04:12	10° \approx 57'34		min. Earth dist.	512 Mar 19 j 02:59	24° \approx 30'18	0.57937 AU
direct	511 Apr 17 j 21:03	10° \approx 07'12		morning rise	512 Mar 23 j 13:39	21° \approx 46'17	
morning max el	511 May 02 j 00:29	17° \approx 18'02	25°02'16	desc. node	512 Mar 26 j 14:02	20° \approx 41'52	
	511 May 12 j 09:59	0° \approx		direct	512 Mar 29 j 08:22	20° \approx 22'32	
morning set	511 May 28 j 06:08	28° \approx 41'00		morning max el	512 Apr 12 j 17:07	27° \approx 57'41	26°28'07
asc. node	511 May 28 j 09:16	28° \approx 57'32			512 Apr 14 j 17:02	0° \approx	
	511 May 28 j 21:05	0° \approx			512 May 04 j 21:17	0° \approx	
superior conj	511 Jun 04 j 06:51	13° \approx 52'54	1°07'08	morning set	512 May 11 j 17:03	13° \approx 35'30	
minimum elong	511 Jun 04 j 04:28	13° \approx 39'57	1°06'45	asc. node	512 May 14 j 06:18	19° \approx 01'34	
max. Earth dist.	511 Jun 05 j 13:42	16° \approx 40'42	1.32831 AU				
evening rise	511 Jun 11 j 12:07	29° \approx 14'33		superior conj	512 May 18 j 18:23	28° \approx 51'43	0°46'03
	511 Jun 11 j 21:01	0° \approx		minimum elong	512 May 18 j 16:31	28° \approx 41'29	0°45'41
	511 Jun 28 j 17:13	0° \approx		max. Earth dist.	512 May 19 j 01:10	29° \approx 28'58	1.32380 AU
desc. node	511 Jul 06 j 16:17	11° \approx 01'44			512 May 19 j 06:49	0° \approx	
evening max el	511 Jul 13 j 21:03	18° \approx 59'36	27°21'47	evening rise	512 May 25 j 18:16	13° \approx 57'40	
retrograde	511 Jul 27 j 15:47	26° \approx 17'15			512 Jun 02 j 22:27	0° \approx	
evening set	511 Aug 03 j 20:36	23° \approx 47'26		desc. node	512 Jun 22 j 13:18	28° \approx 40'43	
min. Earth dist.	511 Aug 07 j 10:31	20° \approx 52'31	0.62553 AU		512 Jun 23 j 19:47	0° \approx	
inferior conj	511 Aug 10 j 08:14	18° \approx 07'00	-3°-59'-3	evening max el	512 Jun 25 j 00:48	1° \approx 11'09	26°49'09
minimum elong	511 Aug 10 j 13:07	17° \approx 55'22	3°57'57	retrograde	512 Jul 08 j 23:55	8° \approx 26'41	
morning rise	511 Aug 17 j 08:11	12° \approx 59'46		evening set	512 Jul 15 j 20:42	6° \approx 23'36	
direct	511 Aug 19 j 18:42	12° \approx 32'53		min. Earth dist.	512 Jul 19 j 14:35	3° \approx 45'21	0.60569 AU
asc. node	511 Aug 24 j 08:29	14° \approx 09'39		inferior conj	512 Jul 22 j 21:12	1° \approx 01'33	-4°-34'-47
morning max el	511 Aug 26 j 12:16	15° \approx 58'49	17°53'10	minimum elong	512 Jul 23 j 00:44	0° \approx 54'08	4°34'21
	511 Sep 05 j 07:54	0° \approx			512 Jul 24 j 03:00	30° \approx	
morning set	511 Sep 11 j 15:26	11° \approx 08'25		morning rise	512 Jul 30 j 07:58	26° \approx 16'22	
	511 Sep 22 j 09:40	0° \approx		direct	512 Aug 01 j 17:58	25° \approx 53'48	
				morning max el	512 Aug 09 j 00:49	29° \approx 28'13	18°06'55
superior conj	511 Sep 22 j 22:24	0° \approx 54'02	1°02'09		512 Aug 09 j 13:35	0° \approx	
minimum elong	511 Sep 23 j 03:16	1° \approx 14'40	1°01'34	asc. node	512 Aug 10 j 05:33	0° \approx 42'33	
max. Earth dist.	511 Sep 29 j 22:45	12° \approx 32'15	1.43249 AU	morning set	512 Aug 24 j 21:00	24° \approx 32'16	
desc. node	511 Oct 02 j 15:39	16° \approx 53'36			512 Aug 27 j 19:09	0° \approx	
evening rise	511 Oct 07 j 21:37	25° \approx 10'14					
	511 Oct 11 j 00:37	0° \approx		superior conj	512 Sep 03 j 16:50	12° \approx 38'07	1°28'24
	511 Oct 31 j 17:38	0° \approx		minimum elong	512 Sep 03 j 20:51	12° \approx 56'03	1°28'02
greatest brilliancy	511 Nov 02 j 11:40	2° \approx 14'57	-0.4m	max. Earth dist.	512 Sep 11 j 07:51	25° \approx 51'28	1.41529 AU
evening max el	511 Nov 07 j 12:45	8° \approx 04'07	21°25'27		512 Sep 13 j 19:35	0° \approx	
retrograde	511 Nov 16 j 08:02	13° \approx 18'15		evening rise	512 Sep 16 j 18:43	4° \approx 49'43	
evening set	511 Nov 20 j 11:05	11° \approx 43'09		desc. node	512 Sep 18 j 12:39	7° \approx 37'32	
asc. node	511 Nov 20 j 07:43	11° \approx 49'36			512 Oct 03 j 07:59	0° \approx	
inferior conj	511 Nov 25 j 20:49	5° \approx 26'00	1°49'13	greatest brilliancy	512 Oct 15 j 07:08	16° \approx 02'10	-0.3m
minimum elong	511 Nov 25 j 18:36	5° \approx 33'42	1°48'22	evening max el	512 Oct 20 j 05:36	21° \approx 34'02	22°42'59
min. Earth dist.	511 Nov 26 j 03:09	5° \approx 04'08	0.67539 AU	retrograde	512 Oct 30 j 03:10	27° \approx 26'59	
	511 Nov 30 j 04:53	30° \approx		evening set	512 Nov 03 j 18:35	25° \approx 34'38	
morning rise	511 Dec 01 j 01:49	29° \approx 10'51		asc. node	512 Nov 06 j 04:46	23° \approx 06'44	
direct	511 Dec 06 j 03:10	27° \approx 10'124		inferior conj	512 Nov 09 j 04:01	19° \approx 11'47	1°00'32
	511 Dec 12 j 23:02	0° \approx		minimum elong	512 Nov 09 j 02:39	19° \approx 16'30	0°59'58
morning max el	511 Dec 16 j 11:33	3° \approx 10'51	23°21'28	min. Earth dist.	512 Nov 08 j 23:39	19° \approx 26'53	0.67711 AU
greatest brilliancy	511 Dec 21 j 20:43	9° \approx 14'23	-0.2m	morning rise	512 Nov 14 j 10:39	12° \approx 58'47	
desc. node	511 Dec 29 j 14:54	19° \approx 26'29		direct	512 Nov 18 j 21:05	11° \approx 11'59	
	512 Jan 05 j 22:23	0° \approx		morning max el	512 Nov 28 j 00:11	16° \approx 34'41	21°55'09

greatest brilliancy	512 Dec 02 j 18:45	21° \mathbb{M} 58'17	-0.4m	morning rise	513 Oct 29 j 21:05	26° \mathbb{A} 52'30	
	512 Dec 08 j 21:50	0° \mathbb{A}		direct	513 Nov 02 j 17:54	25° \mathbb{A} 27'24	
desc. node	512 Dec 15 j 11:56	9° \mathbb{A} 21'59			513 Nov 10 j 16:24	0° \mathbb{M}	
	512 Dec 29 j 00:38	0° \mathbb{B}		morning max el	513 Nov 10 j 19:29	0° \mathbb{M} 07'47	20°37'16
morning set	512 Dec 30 j 11:41	2° \mathbb{B} 19'46		greatest brilliancy	513 Nov 16 j 21:33	7° \mathbb{M} 19'10	-0.5m
max. Earth dist.	513 Jan 05 j 14:41	12° \mathbb{B} 20'20	1.41364 AU	desc. node	513 Dec 02 j 08:56	29° \mathbb{M} 37'00	
					513 Dec 02 j 15:01	0° \mathbb{A}	
superior conj	513 Jan 13 j 07:43	25° \mathbb{B} 33'25	-2°-2'-34	morning set	513 Dec 09 j 12:44	10° \mathbb{A} 35'35	
minimum elong	513 Jan 13 j 08:20	25° \mathbb{B} 36'05	2°02'36	max. Earth dist.	513 Dec 18 j 20:28	25° \mathbb{A} 21'06	1.43170 AU
	513 Jan 15 j 19:43	0° \mathbb{A}			513 Dec 21 j 17:01	0° \mathbb{B}	
evening rise	513 Jan 23 j 22:32	14° \mathbb{A} 51'24					
	513 Feb 01 j 08:53	0° \mathbb{H}		superior conj	513 Dec 25 j 08:33	6° \mathbb{B} 02'11	-1°-57'-7
asc. node	513 Feb 02 j 04:03	1° \mathbb{H} 19'06		minimum elong	513 Dec 25 j 04:24	5° \mathbb{B} 44'49	1°56'56
evening max el	513 Feb 09 j 05:57	10° \mathbb{H} 49'34	18°13'14	evening rise	514 Jan 06 j 13:36	27° \mathbb{B} 05'18	
retrograde	513 Feb 16 j 05:00	14° \mathbb{H} 19'08			514 Jan 08 j 05:12	0° \mathbb{A}	
evening set	513 Feb 18 j 17:56	13° \mathbb{H} 52'03		asc. node	514 Jan 20 j 01:06	19° \mathbb{A} 31'34	
inferior conj	513 Feb 25 j 17:13	9° \mathbb{H} 04'50	3°30'43	evening max el	514 Jan 23 j 17:41	23° \mathbb{A} 57'30	18°08'08
minimum elong	513 Feb 25 j 19:49	8° \mathbb{H} 59'02	3°30'22	retrograde	514 Jan 30 j 06:30	27° \mathbb{A} 21'59	
min. Earth dist.	513 Mar 01 j 01:51	6° \mathbb{H} 06'30	0.60011 AU	evening set	514 Feb 02 j 00:01	26° \mathbb{A} 45'40	
morning rise	513 Mar 04 j 18:21	3° \mathbb{H} 23'26		inferior conj	514 Feb 08 j 10:22	21° \mathbb{A} 37'04	3°47'53
direct	513 Mar 11 j 08:25	1° \mathbb{H} 22'07		minimum elong	514 Feb 08 j 10:47	21° \mathbb{A} 36'01	3°47'52
desc. node	513 Mar 13 j 11:05	1° \mathbb{H} 34'06		min. Earth dist.	514 Feb 11 j 08:18	18° \mathbb{A} 39'53	0.62098 AU
morning max el	513 Mar 25 j 15:16	9° \mathbb{H} 09'55	27°25'53	morning rise	514 Feb 14 j 19:14	15° \mathbb{A} 41'08	
	513 Apr 10 j 14:39	0° \mathbb{Y}		direct	514 Feb 21 j 18:10	13° \mathbb{A} 09'36	
morning set	513 Apr 26 j 01:13	28° \mathbb{Y} 20'18		desc. node	514 Feb 28 j 08:07	15° \mathbb{A} 07'05	
	513 Apr 26 j 20:21	0° \mathbb{B}		morning max el	514 Mar 07 j 19:19	21° \mathbb{A} 02'11	27°47'54
asc. node	513 May 01 j 03:20	9° \mathbb{B} 11'21			514 Mar 15 j 14:10	0° \mathbb{H}	
max. Earth dist.	513 May 02 j 13:40	12° \mathbb{B} 18'59	1.32303 AU		514 Apr 03 j 14:36	0° \mathbb{Y}	
				morning set	514 Apr 10 j 04:33	12° \mathbb{Y} 47'21	
superior conj	513 May 03 j 06:01	13° \mathbb{B} 48'36	0°22'12	max. Earth dist.	514 Apr 15 j 23:22	24° \mathbb{Y} 56'28	1.32608 AU
minimum elong	513 May 03 j 05:02	13° \mathbb{B} 43'11	0°21'59				
evening rise	513 May 10 j 04:12	28° \mathbb{B} 50'18		superior conj	514 Apr 17 j 16:00	28° \mathbb{Y} 36'28	0°-3'-41
	513 May 10 j 17:27	0° \mathbb{H}		minimum elong	514 Apr 17 j 16:11	28° \mathbb{Y} 37'24	0°03'41
	513 May 27 j 11:34	0° \mathbb{B}		behind sun begin	514 Apr 17 j 11:09	28° \mathbb{Y} 10'07	
evening max el	513 Jun 06 j 21:52	12° \mathbb{B} 37'48	25°45'16	behind sun end	514 Apr 17 j 21:12	29° \mathbb{Y} 04'43	
desc. node	513 Jun 09 j 10:18	14° \mathbb{B} 51'36		asc. node	514 Apr 18 j 00:22	29° \mathbb{Y} 21'53	
retrograde	513 Jun 20 j 23:00	19° \mathbb{B} 48'57			514 Apr 18 j 07:22	0° \mathbb{B}	
evening set	513 Jun 26 j 22:47	18° \mathbb{B} 23'21		evening rise	514 Apr 24 j 15:50	13° \mathbb{B} 44'20	
min. Earth dist.	513 Jul 01 j 10:16	15° \mathbb{B} 43'46	0.58515 AU		514 May 02 j 20:59	0° \mathbb{H}	
inferior conj	513 Jul 04 j 16:40	13° \mathbb{B} 22'02	-4°-48'-43	evening max el	514 May 19 j 13:17	23° \mathbb{H} 25'35	24°18'28
minimum elong	513 Jul 04 j 16:38	13° \mathbb{B} 22'05	4°48'44	desc. node	514 May 27 j 07:19	28° \mathbb{H} 59'49	
morning rise	513 Jul 12 j 14:10	8° \mathbb{B} 59'29			514 May 30 j 02:52	0° \mathbb{B}	
direct	513 Jul 15 j 01:53	8° \mathbb{B} 39'31		retrograde	514 Jun 02 j 10:16	0° \mathbb{B} 25'05	
morning max el	513 Jul 23 j 07:13	12° \mathbb{B} 33'23	18°40'51		514 Jun 05 j 18:20	30° \mathbb{R} \mathbb{H}	
asc. node	513 Jul 28 j 02:35	18° \mathbb{B} 17'22		evening set	514 Jun 07 j 01:53	29° \mathbb{H} 36'54	
	513 Aug 04 j 03:10	0° \mathbb{Q}		min. Earth dist.	514 Jun 13 j 00:31	26° \mathbb{H} 39'32	0.56678 AU
morning set	513 Aug 08 j 14:16	8° \mathbb{Q} 30'49		inferior conj	514 Jun 15 j 16:03	24° \mathbb{H} 59'25	-4°-28'00
				minimum elong	514 Jun 15 j 11:07	25° \mathbb{H} 07'14	4°27'21
superior conj	513 Aug 17 j 08:44	25° \mathbb{Q} 26'14	1°42'36	morning rise	514 Jun 24 j 00:04	20° \mathbb{H} 56'39	
minimum elong	513 Aug 17 j 10:44	25° \mathbb{Q} 35'37	1°42'30	direct	514 Jun 26 j 15:13	20° \mathbb{H} 38'02	
	513 Aug 19 j 19:30	0° \mathbb{M}		morning max el	514 Jul 06 j 04:30	25° \mathbb{H} 04'09	19°35'58
max. Earth dist.	513 Aug 24 j 12:10	8° \mathbb{M} 27'40	1.39547 AU		514 Jul 10 j 13:04	0° \mathbb{B}	
evening rise	513 Aug 28 j 15:20	15° \mathbb{M} 35'35		asc. node	514 Jul 14 j 23:37	6° \mathbb{B} 39'46	
desc. node	513 Sep 05 j 09:38	28° \mathbb{M} 14'55		morning set	514 Jul 23 j 15:40	22° \mathbb{B} 54'23	
	513 Sep 06 j 12:31	0° \mathbb{A}			514 Jul 27 j 04:03	0° \mathbb{Q}	
	513 Sep 28 j 02:07	0° \mathbb{M}					
evening max el	513 Oct 02 j 18:49	5° \mathbb{M} 07'27	24°03'11	superior conj	514 Jul 31 j 16:31	9° \mathbb{Q} 02'30	1°46'47
retrograde	513 Oct 13 j 18:48	11° \mathbb{M} 35'13		minimum elong	514 Jul 31 j 16:33	9° \mathbb{Q} 02'37	1°46'47
evening set	513 Oct 19 j 00:12	9° \mathbb{M} 25'08		max. Earth dist.	514 Aug 06 j 15:53	20° \mathbb{Q} 30'19	1.37546 AU
inferior conj	513 Oct 24 j 10:43	3° \mathbb{M} 00'41	0°07'41	evening rise	514 Aug 10 j 12:05	27° \mathbb{Q} 30'13	
minimum elong	513 Oct 24 j 10:32	3° \mathbb{M} 01'19	0°07'37		514 Aug 11 j 21:58	0° \mathbb{M}	
transit middle	513 Oct 24 j 10:32	3° \mathbb{M} 01'19	0°07'37	desc. node	514 Aug 23 j 06:39	18° \mathbb{M} 41'23	
transit begin	513 Oct 24 j 08:07	3° \mathbb{M} 09'29			514 Aug 30 j 22:57	0° \mathbb{A}	
transit end	513 Oct 24 j 12:56	2° \mathbb{M} 53'10		evening max el	514 Sep 15 j 06:37	18° \mathbb{A} 44'57	25°19'04
min. Earth dist.	513 Oct 23 j 19:59	3° \mathbb{M} 50'35	0.67565 AU	retrograde	514 Sep 27 j 06:06	25° \mathbb{A} 39'22	
asc. node	513 Oct 24 j 01:49	3° \mathbb{M} 30'51		evening set	514 Oct 03 j 02:16	23° \mathbb{A} 12'46	
	513 Oct 26 j 18:03	30° \mathbb{R} \mathbb{A}		min. Earth dist.	514 Oct 07 j 13:44	18° \mathbb{A} 13'35	0.67093 AU

inferior conj	514 Oct 08 j 15:12	16°♄50'52	0°-47'-52	min. Earth dist.	515 Sep 21 j 02:28	2°♄32'02	0.66281 AU
minimum elong	514 Oct 08 j 16:25	16°♄46'56	0°47'21	inferior conj	515 Sep 22 j 15:35	0°♄38'44	-1°-44'-35
asc. node	514 Oct 10 j 22:51	13°♄57'07		minimum elong	515 Sep 22 j 18:17	0°♄30'30	1°43'31
morning rise	514 Oct 14 j 07:10	10°♄50'25			515 Sep 23 j 04:19	30°♄	
direct	514 Oct 17 j 16:16	9°♄44'25		asc. node	515 Sep 27 j 19:53	25°♄18'56	
morning max el	514 Oct 24 j 22:37	13°♄51'45	19°32'22	morning rise	515 Sep 28 j 14:50	24°♄49'04	
greatest brilliancy	514 Nov 02 j 14:33	24°♄51'34	-0.7m	direct	515 Oct 01 j 14:22	23°♄58'39	
	514 Nov 06 j 02:44	0°♄		morning max el	515 Oct 08 j 08:29	27°♄43'14	18°42'44
morning set	514 Nov 18 j 11:04	18°♄53'04			515 Oct 10 j 09:56	0°♄	
desc. node	514 Nov 19 j 05:57	20°♄06'15		morning set	515 Oct 29 j 05:40	28°♄15'50	
	514 Nov 25 j 14:26	0°♄			515 Oct 30 j 07:55	0°♄	
max. Earth dist.	514 Dec 01 j 09:51	9°♄08'39	1.44445 AU	desc. node	515 Nov 06 j 02:59	10°♄44'59	
superior conj	514 Dec 05 j 06:45	15°♄18'44	-1°-33'-38	superior conj	515 Nov 14 j 09:52	23°♄47'06	0°-52'-51
minimum elong	514 Dec 04 j 22:33	14°♄45'53	1°32'53	minimum elong	515 Nov 14 j 03:13	23°♄20'58	0°52'02
	514 Dec 14 j 07:22	0°♄		max. Earth dist.	515 Nov 14 j 03:42	23°♄22'52	1.45034 AU
evening rise	514 Dec 19 j 08:53	8°♄26'07			515 Nov 18 j 08:39	0°♄	
	515 Jan 01 j 13:35	0°♄		evening rise	515 Nov 30 j 04:58	18°♄48'43	
asc. node	515 Jan 06 j 22:08	6°♄56'01			515 Dec 07 j 04:35	0°♄	
evening max el	515 Jan 07 j 06:11	7°♄16'49	18°21'55	evening max el	515 Dec 21 j 16:54	20°♄41'53	18°53'41
retrograde	515 Jan 13 j 18:18	10°♄49'10		asc. node	515 Dec 24 j 19:11	23°♄18'44	
evening set	515 Jan 16 j 16:33	10°♄02'42		retrograde	515 Dec 28 j 12:19	24°♄32'47	
inferior conj	515 Jan 22 j 17:17	4°♄34'09	3°43'50	evening set	515 Dec 31 j 16:19	23°♄35'02	
minimum elong	515 Jan 22 j 15:56	4°♄38'00	3°43'44	inferior conj	516 Jan 06 j 10:12	17°♄49'02	3°24'28
min. Earth dist.	515 Jan 25 j 00:16	1°♄58'06	0.63953 AU	minimum elong	516 Jan 06 j 07:49	17°♄56'27	3°24'02
	515 Jan 26 j 21:20	30°♄		min. Earth dist.	516 Jan 08 j 01:52	15°♄46'10	0.65452 AU
morning rise	515 Jan 28 j 13:48	28°♄29'01		morning rise	516 Jan 11 j 22:18	11°♄38'00	
direct	515 Feb 04 j 11:41	25°♄40'59		direct	516 Jan 18 j 11:58	8°♄47'54	
	515 Feb 14 j 05:50	0°♄		morning max el	516 Jan 31 j 13:31	16°♄27'26	26°46'41
desc. node	515 Feb 15 j 05:10	0°♄48'12		desc. node	516 Feb 02 j 02:12	18°♄02'28	
morning max el	515 Feb 18 j 03:38	3°♄31'44	27°33'17		516 Feb 11 j 19:44	0°♄	
	515 Mar 10 j 00:42	0°♄			516 Mar 01 j 20:39	0°♄	
morning set	515 Mar 25 j 00:33	26°♄48'42		morning set	516 Mar 07 j 09:53	10°♄13'56	
	515 Mar 26 j 14:52	0°♄		max. Earth dist.	516 Mar 11 j 19:04	18°♄47'55	1.34467 AU
max. Earth dist.	515 Mar 30 j 02:25	7°♄09'14	1.33319 AU	superior conj	516 Mar 15 j 23:34	27°♄20'47	0°-57'-43
superior conj	515 Apr 01 j 22:34	13°♄09'24	0°-30'-42	minimum elong	516 Mar 16 j 02:21	27°♄35'16	0°57'13
minimum elong	515 Apr 02 j 00:03	13°♄17'22	0°30'24		516 Mar 17 j 06:08	0°♄	
asc. node	515 Apr 04 j 21:24	19°♄29'14		asc. node	516 Mar 21 j 18:29	9°♄29'14	
evening rise	515 Apr 09 j 03:24	28°♄33'28		evening rise	516 Mar 23 j 13:00	13°♄11'11	
	515 Apr 09 j 19:55	0°♄			516 Apr 01 j 05:57	0°♄	
	515 Apr 27 j 12:34	0°♄		evening max el	516 Apr 12 j 02:15	14°♄46'20	21°12'53
evening max el	515 May 01 j 04:20	3°♄58'04	22°42'52	retrograde	516 Apr 23 j 23:22	20°♄32'57	
retrograde	515 May 14 j 09:02	10°♄30'30		evening set	516 Apr 26 j 07:01	20°♄20'31	
desc. node	515 May 14 j 04:22	10°♄30'25		desc. node	516 Apr 30 j 01:24	19°♄12'32	
evening set	515 May 17 j 14:46	10°♄07'29		inferior conj	516 May 05 j 15:17	16°♄21'23	-1°-35'-40
min. Earth dist.	515 May 25 j 12:40	6°♄39'30	0.55400 AU	minimum elong	516 May 05 j 10:48	16°♄27'42	1°34'06
inferior conj	515 May 26 j 20:44	5°♄53'38	-3°-21'-59	min. Earth dist.	516 May 06 j 01:25	16°♄07'06	0.54963 AU
minimum elong	515 May 26 j 13:17	6°♄04'19	3°20'01	morning rise	516 May 14 j 14:32	12°♄20'22	
morning rise	515 Jun 04 j 14:28	2°♄00'53		direct	516 May 17 j 20:37	11°♄57'26	
direct	515 Jun 07 j 10:34	1°♄42'12		morning max el	516 May 30 j 14:38	18°♄01'38	22°24'22
morning max el	515 Jun 18 j 14:51	6°♄53'33	20°51'41		516 Jun 09 j 05:37	0°♄	
asc. node	515 Jul 01 j 20:39	25°♄38'30		asc. node	516 Jun 17 j 17:42	15°♄04'44	
	515 Jul 04 j 03:46	0°♄		morning set	516 Jun 21 j 08:47	22°♄28'11	
morning set	515 Jul 07 j 22:31	7°♄35'23			516 Jun 24 j 22:15	0°♄	
superior conj	515 Jul 15 j 11:34	23°♄13'27	1°42'59	superior conj	516 Jun 28 j 14:25	7°♄48'54	1°32'52
minimum elong	515 Jul 15 j 10:09	23°♄06'11	1°42'55	minimum elong	516 Jun 28 j 12:11	7°♄37'06	1°32'39
	515 Jul 18 j 19:57	0°♄		max. Earth dist.	516 Jul 01 j 17:37	14°♄22'04	1.34308 AU
max. Earth dist.	515 Jul 20 j 00:22	2°♄20'34	1.35753 AU	evening rise	516 Jul 06 j 13:11	24°♄02'48	
evening rise	515 Jul 24 j 04:56	10°♄23'20			516 Jul 09 j 15:57	0°♄	
	515 Aug 04 j 11:08	0°♄		desc. node	516 Jul 27 j 00:43	28°♄35'24	
desc. node	515 Aug 10 j 03:41	8°♄50'43			516 Jul 28 j 00:42	0°♄	
	515 Aug 26 j 10:32	0°♄		evening max el	516 Aug 10 j 06:17	15°♄51'04	27°07'26
evening max el	515 Aug 28 j 18:23	2°♄21'59	26°23'01	retrograde	516 Aug 23 j 13:40	23°♄09'57	
retrograde	515 Sep 10 j 12:30	9°♄33'18		evening set	516 Aug 30 j 11:30	20°♄25'27	
evening set	515 Sep 16 j 22:49	6°♄54'01		min. Earth dist.	516 Sep 03 j 08:03	16°♄40'36	0.65111 AU

inferior conj	516 Sep 05 j 09:46	14° \cap 20'41	-2°-40'-26	evening max el	517 Jul 23 j 17:03	29° Ω 00'27	27°25'30
minimum elong	516 Sep 05 j 13:48	14° \cap 09'17	2°39'02		517 Jul 24 j 18:46	0° \cap	
morning rise	516 Sep 11 j 17:45	8° \cap 44'51		retrograde	517 Aug 06 j 08:55	6° \cap 19'40	
asc. node	516 Sep 13 j 16:55	8° \cap 09'02		evening set	517 Aug 13 j 13:11	3° \cap 40'57	
direct	516 Sep 14 j 10:07	8° \cap 06'16		min. Earth dist.	517 Aug 17 j 04:28	0° \cap 29'50	0.63581 AU
morning max el	516 Sep 20 j 22:45	11° \cap 37'21	18°09'35		517 Aug 17 j 16:26	30° \mathcal{R} Ω	
	516 Oct 03 j 17:34	0° $\underline{\mathcal{A}}$		inferior conj	517 Aug 19 j 19:07	27° Ω 50'29	-3°-32'-31
morning set	516 Oct 09 j 05:06	9° $\underline{\mathcal{A}}$ 04'09		minimum elong	517 Aug 19 j 23:59	27° Ω 38'03	3°31'10
	516 Oct 22 j 01:31	0° \mathcal{M}		morning rise	517 Aug 26 j 13:00	22° Ω 31'41	
desc. node	516 Oct 23 j 00:02	1° \mathcal{M} 29'46		direct	517 Aug 29 j 00:49	22° Ω 01'24	
				asc. node	517 Aug 31 j 13:59	22° Ω 33'33	
superior conj	516 Oct 23 j 13:56	2° \mathcal{M} 25'03	0°-3'-50	morning max el	517 Sep 04 j 14:38	25° Ω 27'09	17°53'49
minimum elong	516 Oct 23 j 13:26	2° \mathcal{M} 23'05	0°03'47		517 Sep 08 j 09:40	0° \cap	
behind sun begin	516 Oct 23 j 02:49	1° \mathcal{M} 40'48		morning set	517 Sep 21 j 06:18	21° \cap 06'42	
behind sun end	516 Oct 24 j 00:04	3° \mathcal{M} 05'18			517 Sep 26 j 09:49	0° $\underline{\mathcal{A}}$	
max. Earth dist.	516 Oct 26 j 22:23	7° \mathcal{M} 43'26	1.44885 AU				
evening rise	516 Nov 09 j 02:34	28° \mathcal{M} 17'45		superior conj	517 Oct 03 j 14:13	12° $\underline{\mathcal{A}}$ 04'30	0°41'12
	516 Nov 10 j 04:56	0° \mathcal{X}		minimum elong	517 Oct 03 j 18:17	12° $\underline{\mathcal{A}}$ 21'15	0°40'40
greatest brilliancy	516 Nov 26 j 03:39	24° \mathcal{X} 12'13	-0.6m	max. Earth dist.	517 Oct 09 j 15:08	21° $\underline{\mathcal{A}}$ 53'05	1.44026 AU
	516 Nov 30 j 09:54	0° \mathcal{Z}		desc. node	517 Oct 09 j 21:05	22° $\underline{\mathcal{A}}$ 16'52	
evening max el	516 Dec 03 j 23:48	4° \mathcal{Z} 09'53	19°41'57		517 Oct 14 j 18:09	0° \mathcal{M}	
asc. node	516 Dec 10 j 16:14	8° \mathcal{Z} 25'14		evening rise	517 Oct 19 j 10:38	7° \mathcal{M} 17'01	
retrograde	516 Dec 11 j 09:26	8° \mathcal{Z} 28'07			517 Nov 03 j 13:12	0° \mathcal{X}	
evening set	516 Dec 14 j 20:47	7° \mathcal{Z} 17'29		greatest brilliancy	517 Nov 11 j 07:38	10° \mathcal{X} 50'02	-0.5m
inferior conj	516 Dec 20 j 10:06	1° \mathcal{Z} 16'55	2°53'51	evening max el	517 Nov 17 j 01:29	17° \mathcal{X} 39'12	20°44'30
minimum elong	516 Dec 20 j 07:21	1° \mathcal{Z} 25'59	2°53'07	retrograde	517 Nov 25 j 07:06	22° \mathcal{X} 31'24	
	516 Dec 21 j 09:27	30° \mathcal{R} \mathcal{X}		asc. node	517 Nov 27 j 13:15	22° \mathcal{X} 02'37	
min. Earth dist.	516 Dec 21 j 11:41	29° \mathcal{X} 52'42	0.66563 AU	evening set	517 Nov 29 j 03:51	21° \mathcal{X} 05'53	
morning rise	516 Dec 25 j 17:13	25° \mathcal{X} 02'34		inferior conj	517 Dec 04 j 14:27	14° \mathcal{X} 54'02	2°14'46
direct	516 Dec 31 j 18:18	22° \mathcal{X} 22'18		minimum elong	517 Dec 04 j 11:53	15° \mathcal{X} 02'45	2°13'54
morning max el	517 Jan 12 j 22:39	29° \mathcal{X} 36'49	25°36'15	min. Earth dist.	517 Dec 05 j 03:28	14° \mathcal{X} 09'33	0.67287 AU
	517 Jan 13 j 07:47	0° \mathcal{Z}		morning rise	517 Dec 09 j 19:29	8° \mathcal{X} 38'34	
desc. node	517 Jan 18 j 23:16	6° \mathcal{Z} 23'13		direct	517 Dec 15 j 05:47	6° \mathcal{X} 16'23	
	517 Feb 04 j 16:41	0° \approx		morning max el	517 Dec 26 j 06:57	12° \mathcal{X} 51'53	24°12'06
morning set	517 Feb 18 j 04:03	22° \approx 49'38		desc. node	518 Jan 05 j 20:20	25° \mathcal{X} 31'08	
max. Earth dist.	517 Feb 21 j 23:40	29° \approx 55'50	1.36071 AU		518 Jan 09 j 02:50	0° \mathcal{Z}	
	517 Feb 22 j 00:33	0° \mathcal{H}			518 Jan 28 j 12:29	0° \approx	
				morning set	518 Jan 31 j 01:11	4° \approx 19'48	
superior conj	517 Feb 27 j 16:21	11° \mathcal{H} 02'52	-1°-23'-7	max. Earth dist.	518 Feb 03 j 19:54	10° \approx 59'52	1.38048 AU
minimum elong	517 Feb 27 j 20:07	11° \mathcal{H} 21'41	1°22'34				
evening rise	517 Mar 07 j 18:35	27° \mathcal{H} 30'49		superior conj	518 Feb 10 j 21:32	24° \approx 06'57	-1°-44'-36
asc. node	517 Mar 08 j 15:33	29° \mathcal{H} 16'56		minimum elong	518 Feb 11 j 01:25	24° \approx 25'34	1°44'15
	517 Mar 09 j 00:06	0° \mathcal{Y}			518 Feb 13 j 22:31	0° \mathcal{H}	
evening max el	517 Mar 25 j 11:16	26° \mathcal{Y} 09'23	19°57'38	evening rise	518 Feb 19 j 17:43	11° \mathcal{H} 26'00	
	517 Mar 30 j 21:50	0° \mathcal{B}		asc. node	518 Feb 23 j 12:36	18° \mathcal{H} 47'28	
retrograde	517 Apr 04 j 15:09	1° \mathcal{B} 02'26			518 Mar 01 j 21:46	0° \mathcal{Y}	
evening set	517 Apr 06 j 17:03	0° \mathcal{B} 51'03		evening max el	518 Mar 08 j 07:18	8° \mathcal{Y} 11'22	19°01'16
	517 Apr 09 j 15:12	30° \mathcal{R} \mathcal{Y}		retrograde	518 Mar 16 j 20:41	12° \mathcal{Y} 19'17	
inferior conj	517 Apr 15 j 13:42	26° \mathcal{Y} 51'02	0°23'25	evening set	518 Mar 19 j 01:57	12° \mathcal{Y} 03'47	
minimum elong	517 Apr 15 j 14:44	26° \mathcal{Y} 49'27	0°23'02	inferior conj	518 Mar 27 j 04:18	7° \mathcal{Y} 49'13	2°02'58
desc. node	517 Apr 16 j 22:27	26° \mathcal{Y} 01'08		minimum elong	518 Mar 27 j 08:23	7° \mathcal{Y} 42'04	2°01'46
min. Earth dist.	517 Apr 17 j 15:31	25° \mathcal{Y} 35'26	0.55494 AU	min. Earth dist.	518 Mar 30 j 07:14	5° \mathcal{Y} 39'11	0.56878 AU
morning rise	517 Apr 24 j 09:24	22° \mathcal{Y} 23'35		desc. node	518 Apr 03 j 19:29	3° \mathcal{Y} 04'44	
direct	517 Apr 28 j 11:27	21° \mathcal{Y} 46'48		morning rise	518 Apr 04 j 10:39	2° \mathcal{Y} 48'43	
morning max el	517 May 12 j 06:59	28° \mathcal{Y} 38'14	24°05'29	direct	518 Apr 09 j 15:10	1° \mathcal{Y} 45'05	
	517 May 13 j 16:04	0° \mathcal{B}		morning max el	518 Apr 23 j 21:39	9° \mathcal{Y} 07'55	25°41'23
	517 Jun 02 j 05:40	0° \mathcal{H}			518 May 09 j 13:48	0° \mathcal{B}	
asc. node	517 Jun 04 j 14:47	4° \mathcal{H} 50'11		morning set	518 May 21 j 08:18	22° \mathcal{B} 22'58	
morning set	517 Jun 05 j 20:35	7° \mathcal{H} 25'49		asc. node	518 May 22 j 11:51	24° \mathcal{B} 48'59	
					518 May 24 j 21:33	0° \mathcal{H}	
superior conj	517 Jun 12 j 22:15	22° \mathcal{H} 38'51	1°17'45				
minimum elong	517 Jun 12 j 19:47	22° \mathcal{H} 25'29	1°17'23	superior conj	518 May 28 j 08:57	7° \mathcal{H} 36'07	0°58'36
max. Earth dist.	517 Jun 14 j 19:57	26° \mathcal{H} 44'38	1.33257 AU	minimum elong	518 May 28 j 06:45	7° \mathcal{H} 24'01	0°58'11
	517 Jun 16 j 08:42	0° \mathcal{B}		max. Earth dist.	518 May 29 j 05:10	9° \mathcal{H} 26'41	1.32596 AU
evening rise	517 Jun 20 j 08:28	8° \mathcal{B} 15'01		evening rise	518 Jun 04 j 11:27	22° \mathcal{H} 49'33	
	517 Jul 02 j 02:45	0° Ω			518 Jun 08 j 00:48	0° \mathcal{B}	
desc. node	517 Jul 13 j 21:45	17° Ω 44'01			518 Jun 26 j 01:06	0° Ω	

desc. node	518 Jun 30 j 18:45	6°01'31			519 May 31 j 13:01	0°0	
evening max el	518 Jul 06 j 00:21	11°03'12	27°12'01	desc. node	519 Jun 17 j 15:46	23°06'41	
retrograde	518 Jul 19 j 21:14	18°05'23		evening max el	519 Jun 18 j 01:27	23°03'00	26°25'29
evening set	518 Jul 26 j 23:55	16°03'42			519 Jun 27 j 20:19	0°0	
min. Earth dist.	518 Jul 30 j 14:31	13°04'31	0.61736 AU	retrograde	519 Jul 02 j 01:22	0°04'318	
inferior conj	518 Aug 02 j 16:33	11°00'49	-4°-16'-13		519 Jul 06 j 04:43	30°R0	
minimum elong	518 Aug 02 j 21:06	10°05'31	4°15'22	evening set	519 Jul 08 j 15:06	28°05'519	
morning rise	518 Aug 09 j 21:02	6°02'18		min. Earth dist.	519 Jul 12 j 14:30	26°01'900	0.59692 AU
direct	518 Aug 12 j 07:02	5°03'28		inferior conj	519 Jul 15 j 22:29	23°04'213	-4°-44'-4
asc. node	518 Aug 18 j 11:03	8°02'47		minimum elong	519 Jul 16 j 00:47	23°03'741	4°43'55
morning max el	518 Aug 19 j 05:12	9°05'59	17°56'31	morning rise	519 Jul 23 j 13:49	19°06'40	
	518 Sep 01 j 21:05	0°0		direct	519 Jul 26 j 00:30	18°04'515	
morning set	518 Sep 04 j 03:10	4°05'51		morning max el	519 Aug 02 j 15:28	22°02'608	18°18'51
				asc. node	519 Aug 05 j 08:06	25°02'453	
superior conj	518 Sep 14 j 17:50	23°04'43	1°14'52		519 Aug 08 j 14:38	0°0	
minimum elong	518 Sep 14 j 22:36	23°02'52	1°14'20	morning set	519 Aug 18 j 14:16	17°04'631	
	518 Sep 18 j 19:01	0°0			519 Aug 25 j 01:12	0°0	
max. Earth dist.	518 Sep 22 j 03:56	5°03'48	1.42573 AU	superior conj	519 Aug 27 j 22:11	5°01'846	1°35'48
desc. node	518 Sep 26 j 18:04	13°03'00		minimum elong	519 Aug 28 j 01:23	5°03'324	1°35'33
evening rise	518 Sep 28 j 22:19	16°03'10		max. Earth dist.	519 Sep 04 j 11:23	18°04'406	1.40706 AU
	518 Oct 07 j 17:07	0°0		evening rise	519 Sep 09 j 04:54	26°03'648	
greatest brilliancy	518 Oct 26 j 03:28	25°04'600	-0.4m		519 Sep 11 j 06:47	0°0	
	518 Oct 29 j 19:06	0°0		desc. node	519 Sep 13 j 15:05	3°04'507	
evening max el	518 Oct 30 j 21:26	1°08'59	21°57'49		519 Oct 01 j 10:14	0°0	
retrograde	518 Nov 09 j 03:29	6°03'08		evening max el	519 Oct 13 j 12:30	14°04'44	23°17'04
evening set	518 Nov 13 j 11:39	4°06'49		retrograde	519 Oct 23 j 21:13	20°04'854	
asc. node	518 Nov 14 j 10:18	4°06'59		evening set	519 Oct 28 j 18:33	18°04'843	
	518 Nov 17 j 20:59	30°R0		asc. node	519 Nov 01 j 07:19	14°05'639	
inferior conj	518 Nov 18 j 21:06	28°03'701	1°29'08	inferior conj	519 Nov 03 j 04:18	12°04'243	0°38'33
minimum elong	518 Nov 18 j 19:12	28°04'37	1°28'23	minimum elong	519 Nov 03 j 03:24	12°02'748	0°38'10
min. Earth dist.	518 Nov 18 j 22:49	28°03'06	0.67657 AU	min. Earth dist.	519 Nov 02 j 19:26	12°05'508	0.67695 AU
morning rise	518 Nov 24 j 02:32	22°02'42		morning rise	519 Nov 08 j 12:19	6°01'342	
direct	518 Nov 28 j 21:33	20°02'42		direct	519 Nov 12 j 16:45	4°03'631	
morning max el	518 Dec 08 j 16:58	26°01'130	22°44'05	morning max el	519 Nov 21 j 08:17	9°03'949	21°20'41
	518 Dec 12 j 04:30	0°0		greatest brilliancy	519 Nov 26 j 12:52	15°03'704	-0.4m
greatest brilliancy	518 Dec 13 j 08:03	1°02'154	-0.3m		519 Dec 07 j 00:08	0°0	
desc. node	518 Dec 23 j 17:20	15°01'159		desc. node	519 Dec 10 j 14:21	5°01'646	
	519 Jan 02 j 16:49	0°0		morning set	519 Dec 22 j 08:18	23°01'546	
morning set	519 Jan 11 j 19:03	14°02'758			519 Dec 26 j 13:44	0°0	
max. Earth dist.	519 Jan 16 j 15:44	22°03'702	1.40186 AU	max. Earth dist.	519 Dec 29 j 17:24	5°00'759	1.42190 AU
	519 Jan 20 j 21:39	0°0					
superior conj	519 Jan 24 j 10:29	6°02'018	-1°-59'-3	superior conj	520 Jan 06 j 01:54	17°03'010	-2°-2'-15
minimum elong	519 Jan 24 j 12:55	6°03'124	1°58'59	minimum elong	520 Jan 06 j 00:40	17°02'450	2°02'15
evening rise	519 Feb 03 j 07:22	24°04'822			520 Jan 13 j 04:18	0°0	
	519 Feb 06 j 01:23	0°0		evening rise	520 Jan 17 j 07:54	7°02'958	
asc. node	519 Feb 10 j 09:38	7°05'59		asc. node	520 Jan 28 j 06:39	26°02'850	
evening max el	519 Feb 19 j 11:48	20°04'520	18°24'57		520 Jan 30 j 17:25	0°0	
retrograde	519 Feb 26 j 21:24	24°04'241		evening max el	520 Feb 02 j 21:42	3°04'256	18°08'38
evening set	519 Mar 01 j 07:41	24°01'54		retrograde	520 Feb 09 j 15:15	7°00'900	
inferior conj	519 Mar 08 j 15:56	19°02'640	3°08'19	evening set	520 Feb 12 j 06:05	6°03'808	
minimum elong	519 Mar 08 j 19:38	19°01'905	3°07'36	inferior conj	520 Feb 18 j 23:24	1°04'124	3°41'02
min. Earth dist.	519 Mar 12 j 02:24	16°03'922	0.58803 AU	minimum elong	520 Feb 19 j 01:04	1°03'727	3°40'54
morning rise	519 Mar 16 j 03:47	13°05'736			520 Feb 20 j 17:58	30°R0	
desc. node	519 Mar 21 j 16:31	12°04'1859		min. Earth dist.	520 Feb 22 j 04:11	28°04'406	0.60914 AU
direct	519 Mar 22 j 07:57	12°04'1754		morning rise	520 Feb 25 j 17:08	25°05'5240	
morning max el	519 Apr 05 j 16:13	19°05'833	26°56'48	direct	520 Mar 03 j 12:03	23°03'724	
	519 Apr 14 j 05:56	0°0		desc. node	520 Mar 07 j 13:33	24°02'205	
	519 May 02 j 05:09	0°0			520 Mar 16 j 04:05	0°0	
morning set	519 May 05 j 18:15	7°08'1345		morning max el	520 Mar 17 j 17:11	1°02'802	27°39'55
asc. node	519 May 09 j 08:54	14°05'551			520 Apr 07 j 10:45	0°0	
				morning set	520 Apr 19 j 00:37	21°05'149	
superior conj	519 May 12 j 20:42	22°08'3420	0°36'14		520 Apr 22 j 21:21	0°0	
minimum elong	519 May 12 j 19:10	22°08'2554	0°35'54	max. Earth dist.	520 Apr 25 j 05:35	5°00'421	1.32383 AU
max. Earth dist.	519 May 12 j 17:40	22°08'1741	1.32305 AU	asc. node	520 Apr 25 j 05:56	5°00'619	
	519 May 16 j 06:03	0°0					
evening rise	519 May 19 j 19:27	7°08'3726		superior conj	520 Apr 26 j 07:49	7°08'2740	0°11'24

minimum elong	520 Apr 26 j 07:18	7°♄24'48	0°11'18	morning set	521 Apr 03 j 01:14	6°♃09'52	
behind sun begin	520 Apr 26 j 03:43	7°♄05'15		max. Earth dist.	521 Apr 08 j 12:53	17°♃32'57	1.32851 AU
behind sun end	520 Apr 26 j 10:52	7°♄44'22					
evening rise	520 May 03 j 06:19	22°♄31'05		superior conj	521 Apr 10 j 16:37	22°♃10'34	0°-15'-4
	520 May 06 j 21:20	0°♄		minimum elong	521 Apr 10 j 17:21	22°♃14'28	0°14'55
	520 May 25 j 12:12	0°♄		behind sun begin	521 Apr 10 j 15:32	22°♃04'43	
evening max el	520 May 29 j 19:29	4°♄37'09	25°10'21	behind sun end	521 Apr 10 j 19:09	22°♃24'12	
desc. node	520 Jun 03 j 12:48	8°♄29'50		asc. node	521 Apr 12 j 02:59	25°♃16'26	
retrograde	520 Jun 12 j 19:48	11°♄45'20			521 Apr 14 j 07:18	0°♄	
evening set	520 Jun 18 j 07:07	10°♄36'08		evening rise	521 Apr 17 j 18:11	7°♄24'09	
min. Earth dist.	520 Jun 23 j 07:09	7°♄50'59	0.57681 AU		521 Apr 29 j 16:28	0°♄	
inferior conj	520 Jun 26 j 09:31	5°♄44'34	-4°-44'-58	evening max el	521 May 11 j 09:52	15°♄15'09	23°38'03
minimum elong	520 Jun 26 j 07:25	5°♄48'09	4°44'52	desc. node	521 May 21 j 09:50	21°♄35'18	
morning rise	520 Jul 04 j 11:34	1°♄31'37		retrograde	521 May 25 j 02:17	22°♄06'14	
direct	520 Jul 07 j 00:38	1°♄12'23		evening set	521 May 29 j 02:32	21°♄30'48	
morning max el	520 Jul 15 j 18:23	5°♄17'58	19°01'50	min. Earth dist.	521 Jun 04 j 20:27	18°♄21'38	0.56039 AU
asc. node	520 Jul 22 j 05:08	13°♄21'20		inferior conj	521 Jun 07 j 00:30	17°♄03'22	-4°-5'-52
	520 Jul 31 j 11:37	0°♄		minimum elong	521 Jun 06 j 17:57	17°♄13'17	4°04'35
morning set	520 Aug 01 j 11:21	1°♄56'38		morning rise	521 Jun 15 j 12:51	13°♄06'31	
				direct	521 Jun 18 j 05:30	12°♄48'19	
superior conj	520 Aug 09 j 21:31	18°♄29'34	1°45'28	morning max el	521 Jun 28 j 11:18	17°♄32'39	20°05'47
minimum elong	520 Aug 09 j 22:38	18°♄34'54	1°45'27		521 Jul 07 j 21:58	0°♄	
	520 Aug 16 j 01:20	0°♄		asc. node	521 Jul 09 j 02:12	2°♄00'43	
max. Earth dist.	520 Aug 16 j 14:41	1°♄00'18	1.38675 AU	morning set	521 Jul 16 j 15:21	16°♄28'18	
evening rise	520 Aug 20 j 12:03	7°♄52'23			521 Jul 23 j 06:24	0°♄	
desc. node	520 Aug 30 j 12:07	24°♄18'37					
	520 Sep 03 j 05:14	0°♄		superior conj	521 Jul 24 j 10:37	2°♄22'12	1°46'02
evening max el	520 Sep 25 j 00:41	28°♄15'32	24°36'18	minimum elong	521 Jul 24 j 09:57	2°♄18'53	1°46'02
	520 Sep 26 j 21:00	0°♄		max. Earth dist.	521 Jul 29 j 19:17	12°♄52'29	1.36745 AU
retrograde	520 Oct 06 j 11:16	4°♄56'26		evening rise	521 Aug 02 j 17:59	20°♄13'42	
evening set	520 Oct 11 j 22:55	2°♄38'47			521 Aug 08 j 07:09	0°♄	
	520 Oct 14 j 12:25	30°♄		desc. node	521 Aug 17 j 09:08	14°♄38'29	
min. Earth dist.	520 Oct 16 j 14:58	27°♄19'06	0.67405 AU		521 Aug 28 j 05:24	0°♄	
inferior conj	520 Oct 17 j 10:17	26°♄14'40	0°-15'-35	evening max el	521 Sep 07 j 12:18	11°♄53'14	25°48'10
minimum elong	520 Oct 17 j 10:40	26°♄13'23	0°15'26	retrograde	521 Sep 19 j 20:43	18°♄56'46	
transit middle	520 Oct 17 j 10:40	26°♄13'23	0°15'26	evening set	521 Sep 25 j 22:55	16°♄24'14	
transit begin	520 Oct 17 j 09:49	26°♄16'15		min. Earth dist.	521 Sep 30 j 07:01	11°♄40'27	0.66787 AU
transit end	520 Oct 17 j 11:32	26°♄10'31		inferior conj	521 Oct 01 j 13:18	10°♄04'22	-1°-11'-52
asc. node	520 Oct 18 j 04:21	25°♄14'45		minimum elong	521 Oct 01 j 15:08	9°♄58'32	1°11'07
morning rise	520 Oct 22 j 22:50	20°♄09'31		asc. node	521 Oct 05 j 01:24	5°♄58'47	
direct	520 Oct 26 j 14:19	18°♄53'09		morning rise	521 Oct 07 j 08:09	4°♄07'55	
morning max el	520 Nov 03 j 07:04	23°♄18'29	20°07'54	direct	521 Oct 10 j 12:49	3°♄09'05	
	520 Nov 08 j 22:43	0°♄		morning max el	521 Oct 17 j 13:15	7°♄05'57	19°09'14
greatest brilliancy	520 Nov 10 j 06:20	1°♄45'41	-0.6m		521 Nov 02 j 23:02	0°♄	
desc. node	520 Nov 26 j 11:23	25°♄38'33		morning set	521 Nov 09 j 09:50	10°♄02'46	
	520 Nov 29 j 07:25	0°♄		desc. node	521 Nov 13 j 08:25	16°♄12'15	
morning set	520 Nov 30 j 05:03	1°♄23'28			521 Nov 22 j 03:41	0°♄	
max. Earth dist.	520 Dec 11 j 02:24	18°♄29'49	1.43787 AU	max. Earth dist.	521 Nov 23 j 17:32	2°♄29'03	1.44784 AU
superior conj	520 Dec 16 j 15:18	27°♄27'29	-1°-49'-28	superior conj	521 Nov 26 j 03:44	6°♄18'58	-1°-18'-6
minimum elong	520 Dec 16 j 09:02	27°♄01'51	1°49'04	minimum elong	521 Nov 25 j 19:21	5°♄45'46	1°17'13
	520 Dec 18 j 04:24	0°♄			521 Dec 10 j 20:15	0°♄	
evening rise	520 Dec 29 j 15:08	19°♄22'35		evening rise	521 Dec 11 j 00:49	0°♄18'43	
	521 Jan 04 j 19:12	0°♄			521 Dec 30 j 14:42	0°♄	
asc. node	521 Jan 14 j 03:40	14°♄22'36		evening max el	521 Dec 30 j 22:09	0°♄19'20	18°33'21
evening max el	521 Jan 16 j 10:04	16°♄56'36	18°11'44	asc. node	522 Jan 01 j 00:43	1°♄22'47	
retrograde	521 Jan 22 j 21:43	20°♄23'18		retrograde	522 Jan 06 j 12:28	3°♄58'12	
evening set	521 Jan 25 j 17:02	19°♄42'57		evening set	522 Jan 09 j 12:59	3°♄07'11	
inferior conj	521 Jan 31 j 22:56	14°♄25'46	3°48'23		522 Jan 13 j 06:18	30°♄	
minimum elong	521 Jan 31 j 22:31	14°♄26'53	3°48'21	inferior conj	522 Jan 15 j 10:32	27°♄31'13	3°37'12
min. Earth dist.	521 Feb 03 j 14:50	11°♄35'14	0.62920 AU	minimum elong	522 Jan 15 j 08:39	27°♄36'47	3°36'58
morning rise	521 Feb 07 j 02:01	8°♄25'07		min. Earth dist.	522 Jan 17 j 11:03	25°♄07'57	0.64640 AU
direct	521 Feb 14 j 01:29	5°♄44'30		morning rise	522 Jan 21 j 03:02	21°♄23'18	
desc. node	521 Feb 22 j 10:35	8°♄54'16		direct	522 Jan 27 j 22:17	18°♄32'21	
morning max el	521 Feb 27 j 23:35	13°♄38'19	27°45'59	desc. node	522 Feb 09 j 07:38	25°♄18'44	
	521 Mar 13 j 04:00	0°♄		morning max el	522 Feb 10 j 08:42	26°♄20'00	27°16'51
	521 Mar 30 j 22:10	0°♄			522 Feb 13 j 18:47	0°♄	

	522 Mar 06 j 17:32	0°♄		morning max el	523 Jan 23 j 18:16	9°♄22'31	26°19'03
morning set	522 Mar 17 j 17:09	19°♄57'15		desc. node	523 Jan 27 j 04:41	13°♄04'11	
max. Earth dist.	522 Mar 22 j 11:36	29°♄30'31	1.33748 AU		523 Feb 09 j 00:43	0°♄	
	522 Mar 22 j 17:20	0°♄			523 Feb 27 j 05:10	0°♄	
				morning set	523 Feb 28 j 20:39	3°♄03'01	
superior conj	522 Mar 25 j 21:07	6°♄35'23	0°-42'-15	max. Earth dist.	523 Mar 04 j 23:08	10°♄54'46	1.35105 AU
minimum elong	522 Mar 25 j 23:10	6°♄46'16	0°41'50				
asc. node	522 Mar 30 j 00:02	15°♄21'10		superior conj	523 Mar 09 j 19:00	20°♄35'31	-1°-8'-47
evening rise	522 Apr 02 j 05:07	22°♄09'04		minimum elong	523 Mar 09 j 22:16	20°♄52'14	1°08'15
	522 Apr 06 j 01:20	0°♄			523 Mar 14 j 08:08	0°♄	
evening max el	522 Apr 23 j 03:12	25°♄51'26	22°03'20	asc. node	523 Mar 16 j 21:05	5°♄16'29	
	522 Apr 28 j 12:07	0°♄		evening rise	523 Mar 17 j 13:17	6°♄40'03	
retrograde	522 May 05 j 20:15	2°♄05'43			523 Mar 30 j 11:42	0°♄	
desc. node	522 May 08 j 06:52	1°♄52'26		evening max el	523 Apr 05 j 05:36	6°♄52'50	20°38'37
evening set	522 May 08 j 14:27	1°♄48'51		retrograde	523 Apr 16 j 09:09	12°♄16'06	
	522 May 13 j 17:25	30°♄		evening set	523 Apr 18 j 12:59	12°♄04'48	
inferior conj	522 May 17 j 23:25	27°♄43'25	-2°-40'-41	desc. node	523 Apr 25 j 03:54	9°♄33'54	
minimum elong	522 May 17 j 16:34	27°♄53'02	2°38'34	inferior conj	523 Apr 27 j 17:40	8°♄07'18	0°-44'-30
min. Earth dist.	522 May 17 j 08:56	28°♄03'46	0.55100 AU	minimum elong	523 Apr 27 j 15:34	8°♄10'20	0°43'46
morning rise	522 May 26 j 20:13	23°♄49'12		min. Earth dist.	523 Apr 28 j 21:50	7°♄26'50	0.55082 AU
direct	522 May 29 j 19:43	23°♄29'22		morning rise	523 May 06 j 16:47	3°♄57'10	
morning max el	522 Jun 10 j 16:52	29°♄03'26	21°29'20	direct	523 May 10 j 06:27	3°♄29'41	
	522 Jun 11 j 16:19	0°♄		morning max el	523 May 23 j 12:41	9°♄54'43	23°07'03
asc. node	522 Jun 25 j 23:17	21°♄11'59			523 Jun 07 j 04:26	0°♄	
	522 Jun 30 j 09:26	0°♄		asc. node	523 Jun 12 j 20:20	10°♄46'56	
morning set	522 Jun 30 j 23:53	1°♄14'35		morning set	523 Jun 15 j 11:00	16°♄09'45	
					523 Jun 21 j 22:27	0°♄	
superior conj	522 Jul 08 j 09:19	16°♄44'09	1°39'22				
minimum elong	522 Jul 08 j 07:29	16°♄34'35	1°39'14	superior conj	523 Jun 22 j 14:32	1°♄26'01	1°27'00
max. Earth dist.	522 Jul 12 j 07:12	24°♄44'51	1.35095 AU	minimum elong	523 Jun 22 j 12:08	1°♄13'11	1°26'42
	522 Jul 14 j 22:50	0°♄		max. Earth dist.	523 Jun 25 j 04:45	6°♄55'44	1.33816 AU
evening rise	522 Jul 16 j 17:58	3°♄27'58		evening rise	523 Jun 30 j 07:20	17°♄22'11	
	522 Aug 01 j 04:11	0°♄			523 Jul 06 j 23:35	0°♄	
desc. node	522 Aug 04 j 06:11	4°♄38'09		desc. node	523 Jul 22 j 03:14	24°♄08'41	
evening max el	522 Aug 21 j 00:27	25°♄28'45	26°44'51		523 Jul 26 j 13:32	0°♄	
	522 Aug 26 j 12:06	0°♄		evening max el	523 Aug 03 j 12:13	8°♄50'58	27°18'46
retrograde	522 Sep 03 j 00:56	2°♄43'53		retrograde	523 Aug 16 j 23:20	16°♄09'46	
evening set	522 Sep 09 j 16:28	0°♄01'39		evening set	523 Aug 24 j 00:50	13°♄26'18	
	522 Sep 09 j 17:16	30°♄		min. Earth dist.	523 Aug 27 j 18:53	9°♄56'37	0.64503 AU
min. Earth dist.	522 Sep 13 j 17:06	25°♄55'20	0.65824 AU	inferior conj	523 Aug 30 j 02:05	7°♄27'32	-3°-3'-15
inferior conj	522 Sep 15 j 11:21	23°♄50'25	-2°-8'-32	minimum elong	523 Aug 30 j 06:35	7°♄15'23	3°01'48
minimum elong	522 Sep 15 j 14:39	23°♄40'38	2°07'17	morning rise	523 Sep 05 j 14:10	1°♄58'31	
morning rise	522 Sep 21 j 14:07	18°♄05'56		direct	523 Sep 08 j 04:23	1°♄23'43	
asc. node	522 Sep 21 j 22:28	17°♄55'38		asc. node	523 Sep 08 j 19:32	1°♄25'48	
direct	522 Sep 24 j 10:20	17°♄20'52		morning max el	523 Sep 14 j 16:30	4°♄51'12	18°00'44
morning max el	522 Oct 01 j 01:14	20°♄58'43	18°26'32		523 Oct 01 j 07:47	0°♄	
	522 Oct 08 j 01:14	0°♄		morning set	523 Oct 02 j 03:43	1°♄24'12	
morning set	522 Oct 20 j 16:39	20°♄02'22					
	522 Oct 26 j 21:24	0°♄		superior conj	523 Oct 15 j 15:15	23°♄42'15	0°16'22
desc. node	522 Oct 31 j 05:27	6°♄53'56		minimum elong	523 Oct 15 j 17:10	23°♄49'57	0°16'07
				behind sun begin	523 Oct 15 j 16:05	23°♄45'33	
superior conj	522 Nov 05 j 04:28	14°♄43'46	0°-32'-19	behind sun end	523 Oct 15 j 18:16	23°♄54'21	
minimum elong	522 Nov 05 j 00:14	14°♄27'06	0°31'46	desc. node	523 Oct 18 j 02:29	27°♄39'44	
max. Earth dist.	522 Nov 06 j 12:21	16°♄49'08	1.45063 AU		523 Oct 19 j 13:43	0°♄	
	522 Nov 14 j 21:52	0°♄		max. Earth dist.	523 Oct 20 j 07:09	1°♄09'10	1.44602 AU
evening rise	522 Nov 21 j 10:53	10°♄17'23		evening rise	523 Nov 01 j 01:03	19°♄29'23	
greatest brilliancy	522 Dec 04 j 04:09	0°♄10'49	-0.7m		523 Nov 07 j 21:36	0°♄	
	522 Dec 04 j 01:18	0°♄		greatest brilliancy	523 Nov 20 j 17:18	18°♄52'53	-0.6m
evening max el	522 Dec 14 j 07:36	13°♄46'50	19°12'19	evening max el	523 Nov 27 j 12:23	27°♄15'08	20°06'56
asc. node	522 Dec 18 j 21:45	17°♄15'30			523 Nov 30 j 14:48	0°♄	
retrograde	522 Dec 21 j 08:04	17°♄47'55		retrograde	523 Dec 05 j 05:43	1°♄46'59	
evening set	522 Dec 24 j 15:05	16°♄44'47		asc. node	523 Dec 05 j 18:48	1°♄45'18	
inferior conj	522 Dec 30 j 06:47	10°♄52'20	3°12'39	evening set	523 Dec 08 j 20:54	0°♄30'03	
minimum elong	522 Dec 30 j 04:10	11°♄00'41	3°12'04		523 Dec 09 j 12:32	30°♄	
min. Earth dist.	522 Dec 31 j 16:15	9°♄05'41	0.65979 AU	inferior conj	523 Dec 14 j 08:50	24°♄24'05	2°38'09
morning rise	523 Jan 04 j 16:25	4°♄39'54		minimum elong	523 Dec 14 j 06:06	24°♄33'14	2°37'21
direct	523 Jan 11 j 01:14	1°♄52'44		min. Earth dist.	523 Dec 15 j 04:46	23°♄17'11	0.66918 AU

morning rise	523 Dec 19 j 14:45	18° \mathcal{A} 09'09		524 Dec 05 j 16:44	30° $\mathcal{R}\mathcal{M}$	
direct	523 Dec 25 j 09:38	15° \mathcal{A} 36'08		524 Dec 07 j 22:56	29° \mathcal{M} 35'26	
morning max el	524 Jan 06 j 03:01	22° \mathcal{A} 35'03	25°01'37	524 Dec 10 j 08:15	0° \mathcal{A}	
	524 Jan 12 j 15:53	0° \mathcal{C}		morning max el	524 Dec 18 j 11:47	5° \mathcal{A} 52'04 23°34'35
desc. node	524 Jan 14 j 01:43	1° \mathcal{C} 46'30		desc. node	524 Dec 30 j 22:44	21° \mathcal{A} 09'19
	524 Feb 02 j 08:27	0° \approx			525 Jan 06 j 03:34	0° \mathcal{C}
morning set	524 Feb 11 j 06:37	15° \approx 12'35		morning set	525 Jan 22 j 16:51	26° \mathcal{C} 09'22
max. Earth dist.	524 Feb 14 j 23:50	21° \approx 58'21	1.36883 AU		525 Jan 24 j 22:47	0° \approx
	524 Feb 19 j 05:34	0° \mathcal{H}		max. Earth dist.	525 Jan 26 j 18:50	3° \approx 11'51 1.38950 AU
superior conj	524 Feb 21 j 07:18	4° \mathcal{H} 02'23	-1°-32'-51	superior conj	525 Feb 03 j 06:09	16° \approx 45'48 -1°-51'-49
minimum elong	524 Feb 21 j 11:16	4° \mathcal{H} 21'51	1°32'22	minimum elong	525 Feb 03 j 09:40	17° \approx 02'18 1°51'35
evening rise	524 Feb 29 j 16:28	20° \mathcal{H} 50'15			525 Feb 10 j 03:58	0° \mathcal{H}
asc. node	524 Mar 02 j 18:08	24° \mathcal{H} 57'33		evening rise	525 Feb 12 j 11:58	4° \mathcal{H} 32'13
	524 Mar 05 j 08:39	0° \mathcal{Y}		asc. node	525 Feb 17 j 15:10	14° \mathcal{H} 18'32
evening max el	524 Mar 17 j 19:23	18° \mathcal{Y} 32'11	19°31'07		525 Feb 28 j 00:10	0° \mathcal{Y}
retrograde	524 Mar 27 j 06:03	23° \mathcal{Y} 04'47		evening max el	525 Feb 28 j 19:21	0° \mathcal{Y} 48'28 18°43'21
evening set	524 Mar 29 j 08:44	22° \mathcal{Y} 52'09		retrograde	525 Mar 08 j 19:43	4° \mathcal{Y} 42'21
inferior conj	524 Apr 06 j 21:52	18° \mathcal{Y} 46'40	1°09'24	evening set	525 Mar 11 j 02:54	4° \mathcal{Y} 24'18
minimum elong	524 Apr 07 j 00:40	18° \mathcal{Y} 42'09	1°08'27	inferior conj	525 Mar 18 j 21:19	0° \mathcal{Y} 01'29 2°35'01
min. Earth dist.	524 Apr 09 j 12:18	17° \mathcal{Y} 06'45	0.55994 AU	minimum elong	525 Mar 19 j 01:34	29° \mathcal{H} 53'31 2°33'56
desc. node	524 Apr 11 j 00:55	16° \mathcal{Y} 11'33			525 Mar 18 j 22:07	30° $\mathcal{R}\mathcal{H}$
morning rise	524 Apr 15 j 12:56	14° \mathcal{Y} 05'17		min. Earth dist.	525 Mar 22 j 05:30	27° \mathcal{H} 32'39 0.57645 AU
direct	524 Apr 20 j 01:43	13° \mathcal{Y} 18'56		morning rise	525 Mar 26 j 19:59	24° \mathcal{H} 47'23
morning max el	524 May 04 j 03:40	20° \mathcal{Y} 25'20	24°47'56	desc. node	525 Mar 28 j 21:57	24° \mathcal{H} 00'27
	524 May 12 j 08:11	0° \mathcal{B}		direct	525 Apr 01 j 11:11	23° \mathcal{H} 29'01
	524 May 29 j 09:57	0° \mathcal{H}			525 Apr 14 j 17:28	0° \mathcal{Y}
morning set	524 May 29 j 22:59	1° \mathcal{H} 08'23		morning max el	525 Apr 15 j 19:40	1° \mathcal{Y} 01'42 26°16'50
asc. node	524 May 29 j 17:23	0° \mathcal{H} 38'58			525 May 06 j 06:29	0° \mathcal{B}
superior conj	524 Jun 05 j 23:50	16° \mathcal{H} 20'13	1°10'04	morning set	525 May 14 j 10:09	16° \mathcal{B} 03'40
minimum elong	524 Jun 05 j 21:25	16° \mathcal{H} 07'05	1°09'40	asc. node	525 May 16 j 14:26	20° \mathcal{B} 41'44
max. Earth dist.	524 Jun 07 j 10:29	19° \mathcal{H} 28'10	1.32927 AU		525 May 20 j 20:51	0° \mathcal{H}
	524 Jun 12 j 09:46	0° \mathcal{C}		superior conj	525 May 21 j 11:13	1° \mathcal{H} 18'51 0°49'28
evening rise	524 Jun 13 j 06:15	1° \mathcal{C} 45'08		minimum elong	525 May 21 j 09:15	1° \mathcal{H} 08'03 0°49'05
	524 Jun 28 j 21:19	0° \mathcal{Q}		max. Earth dist.	525 May 21 j 21:23	2° \mathcal{H} 14'44 1.32421 AU
desc. node	524 Jul 08 j 00:14	12° \mathcal{Q} 58'00		evening rise	525 May 28 j 11:38	16° \mathcal{H} 26'14
evening max el	524 Jul 15 j 21:38	21° \mathcal{Q} 47'32	27°23'45		525 Jun 04 j 08:02	0° \mathcal{C}
retrograde	524 Jul 29 j 15:43	29° \mathcal{Q} 05'52			525 Jun 24 j 04:07	0° \mathcal{Q}
evening set	524 Aug 05 j 20:43	26° \mathcal{Q} 33'10		desc. node	525 Jun 24 j 21:15	0° \mathcal{Q} 47'51
min. Earth dist.	524 Aug 09 j 10:44	23° \mathcal{Q} 34'30	0.62831 AU	evening max el	525 Jun 28 j 02:20	4° \mathcal{Q} 05'49 26°56'07
inferior conj	524 Aug 12 j 06:46	20° \mathcal{Q} 50'00	-3°-52'-27	retrograde	525 Jul 12 j 01:04	11° \mathcal{Q} 21'42
minimum elong	524 Aug 12 j 11:42	20° \mathcal{Q} 38'02	3°51'16	evening set	525 Jul 18 j 23:43	9° \mathcal{Q} 13'56
morning rise	524 Aug 19 j 05:08	15° \mathcal{Q} 39'47		min. Earth dist.	525 Jul 22 j 16:22	6° \mathcal{Q} 34'06 0.60877 AU
direct	524 Aug 21 j 15:53	15° \mathcal{Q} 12'08		inferior conj	525 Jul 25 j 22:01	3° \mathcal{Q} 48'53 -4°-30'-32
asc. node	524 Aug 25 j 16:35	16° \mathcal{Q} 28'35		minimum elong	525 Jul 26 j 01:53	3° \mathcal{Q} 40'36 4°30'00
morning max el	524 Aug 28 j 08:16	18° \mathcal{Q} 37'43	17°52'43		525 Jul 31 j 00:57	30° $\mathcal{R}\mathcal{C}$
	524 Sep 05 j 14:23	0° \mathcal{H}		morning rise	525 Aug 02 j 07:10	29° \mathcal{C} 00'08
morning set	524 Sep 13 j 14:00	13° \mathcal{H} 52'43		direct	525 Aug 04 j 17:01	28° \mathcal{C} 37'07
	524 Sep 22 j 19:24	0° \mathcal{A}			525 Aug 09 j 04:13	0° \mathcal{Q}
superior conj	524 Sep 25 j 03:07	3° \mathcal{A} 56'08	0°57'03	morning max el	525 Aug 11 j 21:26	2° \mathcal{Q} 09'48 18°03'33
minimum elong	524 Sep 25 j 07:53	4° \mathcal{A} 16'12	0°56'27	asc. node	525 Aug 12 j 13:37	2° \mathcal{Q} 50'37
max. Earth dist.	524 Oct 01 j 22:26	15° \mathcal{A} 09'28	1.43469 AU	morning set	525 Aug 27 j 17:29	27° \mathcal{Q} 10'34
desc. node	524 Oct 03 j 23:31	18° \mathcal{A} 26'46			525 Aug 29 j 05:57	0° \mathcal{H}
evening rise	524 Oct 10 j 08:22	28° \mathcal{A} 28'19		superior conj	525 Sep 06 j 17:52	15° \mathcal{H} 29'16 1°25'14
	524 Oct 11 j 08:03	0° \mathcal{M}		minimum elong	525 Sep 06 j 22:08	15° \mathcal{H} 48'09 1°24'49
	524 Oct 31 j 17:21	0° \mathcal{A}		max. Earth dist.	525 Sep 14 j 08:21	28° \mathcal{H} 34'45 1.41813 AU
greatest brilliancy	524 Nov 04 j 06:44	4° \mathcal{A} 41'29	-0.4m		525 Sep 15 j 04:49	0° \mathcal{A}
evening max el	524 Nov 09 j 11:27	10° \mathcal{A} 43'36	21°14'32	evening rise	525 Sep 20 j 02:38	8° \mathcal{A} 00'02
retrograde	524 Nov 18 j 03:09	15° \mathcal{A} 52'10		desc. node	525 Sep 20 j 20:33	9° \mathcal{A} 11'31
asc. node	524 Nov 21 j 15:50	14° \mathcal{A} 42'22			525 Oct 04 j 12:36	0° \mathcal{M}
evening set	524 Nov 22 j 04:29	14° \mathcal{A} 19'38		greatest brilliancy	525 Oct 18 j 10:04	18° \mathcal{M} 51'00 -0.3m
inferior conj	524 Nov 27 j 14:23	8° \mathcal{A} 03'40	1°56'06	evening max el	525 Oct 23 j 05:05	24° \mathcal{M} 13'34 22°31'11
minimum elong	524 Nov 27 j 12:03	8° \mathcal{A} 11'41	1°55'16	retrograde	525 Nov 01 j 22:39	0° \mathcal{A} 00'42
min. Earth dist.	524 Nov 27 j 22:25	7° \mathcal{A} 35'58	0.67483 AU		525 Nov 01 j 13:34	0° \mathcal{A}
morning rise	524 Dec 02 j 19:18	1° \mathcal{A} 48'16			525 Nov 02 j 07:38	30° $\mathcal{R}\mathcal{M}$

evening set	525 Nov 06 j 12:06	28° \mathbb{M} 11'04		asc. node	526 Oct 26 j 09:54	6° \mathbb{M} 40'20	
asc. node	525 Nov 08 j 12:51	26° \mathbb{M} 11'13		min. Earth dist.	526 Oct 26 j 15:12	6° \mathbb{M} 22'21	0.67610 AU
inferior conj	525 Nov 11 j 21:30	21° \mathbb{M} 48'55	1°08'14	inferior conj	526 Oct 27 j 04:24	5° \mathbb{M} 37'30	0°15'57
minimum elong	525 Nov 11 j 19:59	21° \mathbb{M} 54'10	1°07'36	minimum elong	526 Oct 27 j 04:01	5° \mathbb{M} 38'49	0°15'47
min. Earth dist.	525 Nov 11 j 18:43	21° \mathbb{M} 58'32	0.67707 AU	transit middle	526 Oct 27 j 04:01	5° \mathbb{M} 38'49	0°15'47
morning rise	525 Nov 17 j 03:45	15° \mathbb{M} 35'25		transit begin	526 Oct 27 j 03:20	5° \mathbb{M} 41'06	
direct	525 Nov 21 j 16:24	13° \mathbb{M} 45'07		transit end	526 Oct 27 j 04:41	5° \mathbb{M} 36'31	
morning max el	525 Nov 30 j 23:36	19° \mathbb{M} 14'32	22°07'35		526 Oct 31 j 22:33	30° \mathbb{R} $\underline{\mathbb{A}}$	
greatest brilliancy	525 Dec 05 j 15:56	24° \mathbb{M} 30'38	-0.4m	morning rise	526 Nov 01 j 14:05	29° $\underline{\mathbb{A}}$ 28'32	
	525 Dec 09 j 22:42	0° \mathbb{A}		direct	526 Nov 05 j 12:53	28° $\underline{\mathbb{A}}$ 00'18	
desc. node	525 Dec 17 j 19:46	11° \mathbb{A} 01'15			526 Nov 10 j 14:11	0° \mathbb{M}	
	525 Dec 30 j 08:27	0° \mathbb{B}		morning max el	526 Nov 13 j 17:48	2° \mathbb{M} 46'07	20°48'07
morning set	526 Jan 02 j 22:11	5° \mathbb{B} 41'41		greatest brilliancy	526 Nov 19 j 13:31	9° \mathbb{M} 35'19	-0.5m
max. Earth dist.	526 Jan 08 j 16:05	15° \mathbb{B} 08'32	1.41064 AU		526 Dec 03 j 21:11	0° \mathbb{A}	
				desc. node	526 Dec 04 j 16:48	1° \mathbb{A} 13'43	
superior conj	526 Jan 16 j 10:40	28° \mathbb{B} 33'56	-2°-2'-5	morning set	526 Dec 13 j 01:48	14° \mathbb{A} 03'37	
minimum elong	526 Jan 16 j 11:49	28° \mathbb{B} 39'06	2°02'05	max. Earth dist.	526 Dec 21 j 20:53	28° \mathbb{A} 02'02	1.42933 AU
	526 Jan 17 j 05:59	0° \mathbb{A}			526 Dec 23 j 01:52	0° \mathbb{B}	
evening rise	526 Jan 26 j 20:33	17° \mathbb{A} 38'13		superior conj	526 Dec 28 j 15:24	9° \mathbb{B} 13'24	-1°-59'-3
	526 Feb 02 j 14:59	0° \mathbb{H}		minimum elong	526 Dec 28 j 12:01	8° \mathbb{B} 59'12	1°58'55
asc. node	526 Feb 04 j 12:12	3° \mathbb{H} 12'48		evening rise	527 Jan 09 j 14:12	29° \mathbb{B} 59'14	
evening max el	526 Feb 12 j 02:38	13° \mathbb{H} 34'18	18°15'42		527 Jan 09 j 14:22	0° \mathbb{A}	
retrograde	526 Feb 19 j 04:00	17° \mathbb{H} 05'41		asc. node	527 Jan 22 j 09:14	21° \mathbb{A} 31'11	
evening set	526 Feb 21 j 16:18	16° \mathbb{H} 39'48		evening max el	527 Jan 26 j 14:00	26° \mathbb{A} 39'28	18°07'40
inferior conj	526 Feb 28 j 17:49	11° \mathbb{H} 55'47	3°25'46		527 Feb 01 j 06:14	0° \mathbb{H}	
minimum elong	526 Feb 28 j 20:44	11° \mathbb{H} 49'24	3°25'19	retrograde	527 Feb 02 j 03:41	0° \mathbb{H} 03'55	
min. Earth dist.	526 Mar 04 j 03:19	8° \mathbb{H} 59'31	0.59696 AU		527 Feb 03 j 01:12	30° \mathbb{R} \mathbb{A}	
morning rise	526 Mar 07 j 21:40	6° \mathbb{H} 17'23		evening set	527 Feb 04 j 20:32	29° \mathbb{A} 28'59	
direct	526 Mar 14 j 09:36	4° \mathbb{H} 21'28		inferior conj	527 Feb 11 j 08:34	24° \mathbb{A} 23'18	3°46'47
desc. node	526 Mar 15 j 18:57	4° \mathbb{H} 26'38		minimum elong	527 Feb 11 j 09:18	24° \mathbb{A} 21'28	3°46'45
morning max el	526 Mar 28 j 16:47	12° \mathbb{H} 07'33	27°19'25	min. Earth dist.	527 Feb 14 j 08:24	21° \mathbb{A} 24'40	0.61798 AU
	526 Apr 11 j 18:03	0° \mathbb{Y}		morning rise	527 Feb 17 j 19:38	18° \mathbb{A} 29'07	
	526 Apr 28 j 09:13	0° \mathbb{B}		direct	527 Feb 24 j 17:50	16° \mathbb{A} 01'30	
morning set	526 Apr 28 j 18:49	0° \mathbb{B} 49'48		desc. node	527 Mar 02 j 15:59	17° \mathbb{A} 36'39	
asc. node	526 May 03 j 11:29	10° \mathbb{B} 50'41		morning max el	527 Mar 10 j 20:03	23° \mathbb{A} 53'27	27°47'02
					527 Mar 16 j 08:22	0° \mathbb{H}	
superior conj	526 May 05 j 22:55	16° \mathbb{B} 15'57	0°25'58		527 Apr 05 j 00:21	0° \mathbb{Y}	
minimum elong	526 May 05 j 21:47	16° \mathbb{B} 09'42	0°25'44	morning set	527 Apr 12 j 23:01	15° \mathbb{Y} 19'42	
max. Earth dist.	526 May 05 j 09:59	15° \mathbb{B} 04'56	1.32294 AU	max. Earth dist.	527 Apr 18 j 20:28	27° \mathbb{Y} 45'20	1.32538 AU
	526 May 12 j 06:29	0° \mathbb{I}			527 Apr 19 j 21:18	0° \mathbb{B}	
evening rise	526 May 12 j 21:08	1° \mathbb{I} 17'35		superior conj	527 Apr 20 j 09:16	1° \mathbb{B} 05'10	0°00'20
	526 May 28 j 12:39	0° \mathbb{B}		minimum elong	527 Apr 20 j 09:15	1° \mathbb{B} 05'05	0°00'20
evening max el	526 Jun 10 j 00:31	15° \mathbb{B} 38'58	25°56'30	behind sun begin	527 Apr 20 j 04:09	0° \mathbb{B} 37'16	
desc. node	526 Jun 11 j 18:16	17° \mathbb{B} 13'37		behind sun end	527 Apr 20 j 14:22	1° \mathbb{B} 32'55	
retrograde	526 Jun 24 j 01:27	22° \mathbb{B} 50'33		asc. node	527 Apr 20 j 08:32	1° \mathbb{B} 01'09	
evening set	526 Jun 30 j 05:15	21° \mathbb{B} 19'08		evening rise	527 Apr 27 j 08:40	16° \mathbb{B} 11'39	
min. Earth dist.	526 Jul 04 j 13:09	18° \mathbb{B} 40'53	0.58817 AU		527 May 04 j 05:48	0° \mathbb{I}	
inferior conj	526 Jul 07 j 20:17	16° \mathbb{B} 14'44	-4°-48'-32	evening max el	527 May 22 j 16:33	26° \mathbb{I} 31'15	24°32'20
minimum elong	526 Jul 07 j 20:56	16° \mathbb{B} 13'32	4°48'33		527 May 26 j 20:22	0° \mathbb{B}	
morning rise	526 Jul 15 j 16:11	11° \mathbb{B} 48'45		desc. node	527 May 29 j 15:16	1° \mathbb{B} 42'47	
direct	526 Jul 18 j 03:36	11° \mathbb{B} 28'25		retrograde	527 Jun 05 j 14:35	3° \mathbb{B} 33'18	
morning max el	526 Jul 26 j 04:53	15° \mathbb{B} 18'36	18°34'28	evening set	527 Jun 10 j 11:35	2° \mathbb{B} 39'56	
asc. node	526 Jul 30 j 10:40	20° \mathbb{B} 16'39			527 Jun 15 j 18:55	30° \mathbb{R} \mathbb{I}	
	526 Aug 05 j 11:51	0° \mathbb{Q}		min. Earth dist.	527 Jun 16 j 03:49	29° \mathbb{I} 46'14	0.56924 AU
morning set	526 Aug 11 j 09:15	11° \mathbb{Q} 04'37		inferior conj	527 Jun 18 j 22:45	27° \mathbb{I} 58'51	-4°-33'-59
				minimum elong	527 Jun 18 j 18:32	28° \mathbb{I} 05'40	4°33'30
superior conj	526 Aug 20 j 06:57	28° \mathbb{Q} 08'42	1°41'08	morning rise	527 Jun 27 j 05:14	23° \mathbb{I} 53'43	
minimum elong	526 Aug 20 j 09:15	28° \mathbb{Q} 19'31	1°41'01	direct	527 Jun 29 j 19:53	23° \mathbb{I} 34'56	
	526 Aug 21 j 06:52	0° \mathbb{H}		morning max el	527 Jul 09 j 03:43	27° \mathbb{I} 55'08	19°26'27
max. Earth dist.	526 Aug 27 j 13:28	11° \mathbb{H} 18'14	1.39851 AU		527 Jul 11 j 04:14	0° \mathbb{B}	
evening rise	526 Aug 31 j 19:33	18° \mathbb{H} 35'26		asc. node	527 Jul 17 j 07:45	8° \mathbb{B} 32'45	
desc. node	526 Sep 07 j 17:35	29° \mathbb{H} 50'19		morning set	527 Jul 26 j 09:40	25° \mathbb{B} 25'12	
	526 Sep 07 j 20:02	0° \mathbb{A}			527 Jul 28 j 16:27	0° \mathbb{Q}	
	526 Sep 28 j 21:45	0° \mathbb{M}		superior conj	527 Aug 03 j 12:44	11° \mathbb{Q} 39'02	1°46'42
evening max el	526 Oct 05 j 18:46	7° \mathbb{M} 46'42	23°51'20				
retrograde	526 Oct 16 j 14:48	14° \mathbb{M} 09'22					
evening set	526 Oct 21 j 18:06	12° \mathbb{M} 01'52					

minimum elong	527 Aug 03 j 13:02	11° Ω 40'29	1°46'42	minimum elong	528 Jul 17 j 05:08	25° Θ 39'21	1°43'57
max. Earth dist.	527 Aug 09 j 17:07	23° Ω 25'32	1.37834 AU		528 Jul 19 j 08:40	0° Ω	
	527 Aug 13 j 08:20	0° Π		max. Earth dist.	528 Jul 22 j 00:25	5° Ω 15'21	1.35997 AU
evening rise	527 Aug 13 j 12:57	0° Π 20'22		evening rise	528 Jul 26 j 03:07	13° Ω 05'31	
desc. node	527 Aug 25 j 14:38	20° Π 18'57			528 Aug 04 j 19:06	0° Π	
	527 Sep 01 j 02:30	0° Δ		desc. node	528 Aug 11 j 11:40	10° Π 31'11	
evening max el	527 Sep 18 j 06:40	21° Δ 23'45	25°08'14		528 Aug 26 j 01:09	0° Δ	
retrograde	527 Sep 30 j 02:50	28° Δ 14'49		evening max el	528 Aug 30 j 18:18	5° Δ 00'45	26°14'30
evening set	527 Oct 05 j 20:51	25° Δ 50'22		retrograde	528 Sep 12 j 10:06	12° Δ 10'37	
min. Earth dist.	527 Oct 10 j 09:28	20° Δ 45'55	0.67189 AU	evening set	528 Sep 18 j 18:23	9° Δ 32'46	
inferior conj	527 Oct 11 j 09:21	19° Δ 27'47	0°-39'-16	min. Earth dist.	528 Sep 22 j 23:09	5° Δ 05'09	0.66425 AU
minimum elong	527 Oct 11 j 10:20	19° Δ 24'34	0°38'52	inferior conj	528 Sep 24 j 10:29	3° Δ 16'06	-1°-35'-59
asc. node	527 Oct 13 j 06:56	17° Δ 02'44		minimum elong	528 Sep 24 j 12:58	3° Δ 08'28	1°34'59
morning rise	527 Oct 17 j 00:23	13° Δ 26'09			528 Sep 27 j 05:43	30° \mathcal{R} Π	
direct	527 Oct 20 j 11:05	12° Δ 17'34		asc. node	528 Sep 29 j 03:59	28° Π 13'07	
morning max el	527 Oct 27 j 19:53	16° Δ 29'05	19°41'07	morning rise	528 Sep 30 j 08:33	27° Π 24'38	
greatest brilliancy	527 Nov 04 j 22:57	26° Δ 39'53	-0.6m	direct	528 Oct 03 j 09:18	26° Π 32'14	
	527 Nov 07 j 06:40	0° \mathcal{M}			528 Oct 09 j 20:56	0° Δ	
morning set	527 Nov 21 j 22:57	22° \mathcal{M} 16'24		morning max el	528 Oct 10 j 04:54	0° Δ 19'46	18°49'05
desc. node	527 Nov 21 j 13:52	21° \mathcal{M} 41'20			528 Oct 30 j 15:36	0° \mathcal{M}	
	527 Nov 26 j 22:20	0° \mathcal{A}		morning set	528 Oct 31 j 13:35	1° \mathcal{M} 26'50	
max. Earth dist.	527 Dec 04 j 09:27	11° \mathcal{A} 44'17	1.44300 AU	desc. node	528 Nov 07 j 10:56	12° \mathcal{M} 18'55	
				max. Earth dist.	528 Nov 16 j 02:34	25° \mathcal{M} 54'41	1.44993 AU
superior conj	527 Dec 08 j 17:26	18° \mathcal{A} 39'54	-1°-38'-23	superior conj	528 Nov 16 j 22:25	27° \mathcal{M} 12'45	0°-59'-51
minimum elong	527 Dec 08 j 09:34	18° \mathcal{A} 08'17	1°37'44	minimum elong	528 Nov 16 j 15:07	26° \mathcal{M} 43'59	0°58'59
	527 Dec 15 j 16:09	0° \mathcal{B}			528 Nov 18 j 16:55	0° \mathcal{A}	
evening rise	527 Dec 22 j 12:44	11° \mathcal{B} 28'30		evening rise	528 Dec 02 j 12:25	21° \mathcal{A} 59'57	
	528 Jan 02 j 16:11	0° \approx			528 Dec 07 j 11:26	0° \mathcal{B}	
asc. node	528 Jan 09 j 06:16	9° \approx 03'19		evening max el	528 Dec 23 j 13:39	23° \mathcal{B} 21'42	18°47'51
evening max el	528 Jan 10 j 02:31	9° \approx 57'03	18°18'39	asc. node	528 Dec 26 j 03:16	25° \mathcal{B} 36'27	
retrograde	528 Jan 16 j 14:15	13° \approx 27'37		retrograde	528 Dec 30 j 07:35	27° \mathcal{B} 09'19	
evening set	528 Jan 19 j 11:43	12° \approx 42'47		evening set	529 Jan 02 j 10:35	26° \mathcal{B} 13'26	
inferior conj	528 Jan 25 j 13:41	7° \approx 17'00	3°45'31	inferior conj	529 Jan 08 j 05:21	20° \mathcal{B} 29'56	3°28'11
minimum elong	528 Jan 25 j 12:33	7° \approx 20'10	3°45'26	minimum elong	529 Jan 08 j 03:04	20° \mathcal{B} 36'56	3°27'48
min. Earth dist.	528 Jan 27 j 22:59	4° \approx 36'45	0.63697 AU	min. Earth dist.	529 Jan 09 j 23:18	18° \mathcal{B} 21'28	0.65254 AU
morning rise	528 Jan 31 j 11:46	1° \approx 12'47		morning rise	529 Jan 13 j 18:28	14° \mathcal{B} 19'33	
	528 Feb 02 j 04:59	30° \mathcal{R} \mathcal{B}		direct	529 Jan 20 j 09:43	11° \mathcal{B} 28'42	
direct	528 Feb 07 j 10:14	28° \mathcal{B} 26'19		morning max el	529 Feb 02 j 13:53	19° \mathcal{B} 11'07	26°55'21
	528 Feb 13 j 02:11	0° \approx		desc. node	529 Feb 03 j 10:07	20° \mathcal{B} 02'46	
desc. node	528 Feb 17 j 13:02	3° \approx 00'23			529 Feb 11 j 19:14	0° \approx	
morning max el	528 Feb 21 j 04:03	6° \approx 18'11	27°37'40		529 Mar 03 j 06:17	0° \mathcal{H}	
	528 Mar 10 j 06:21	0° \mathcal{H}		morning set	529 Mar 10 j 07:33	12° \mathcal{H} 57'05	
morning set	528 Mar 26 j 20:20	29° \mathcal{H} 25'21		max. Earth dist.	529 Mar 14 j 19:04	21° \mathcal{H} 46'00	1.34263 AU
	528 Mar 27 j 03:17	0° \mathcal{Y}					
max. Earth dist.	528 Apr 01 j 00:47	10° \mathcal{Y} 02'24	1.33181 AU	superior conj	529 Mar 18 j 18:29	29° \mathcal{H} 55'44	0°-53'-40
superior conj	528 Apr 03 j 16:28	15° \mathcal{Y} 40'28	0°-26'-35	minimum elong	529 Mar 18 j 21:06	0° \mathcal{Y} 09'20	0°53'12
minimum elong	528 Apr 03 j 17:46	15° \mathcal{Y} 47'23	0°26'19		529 Mar 18 j 19:18	0° \mathcal{Y}	
asc. node	528 Apr 06 j 05:36	21° \mathcal{Y} 09'04		asc. node	529 Mar 24 j 02:38	11° \mathcal{Y} 10'19	
	528 Apr 10 j 08:41	0° \mathcal{B}		evening rise	529 Mar 26 j 06:23	15° \mathcal{Y} 41'31	
evening rise	528 Apr 10 j 20:21	1° \mathcal{B} 01'39			529 Apr 02 j 12:53	0° \mathcal{B}	
	528 Apr 27 j 04:40	0° Π		evening max el	529 Apr 15 j 03:39	17° \mathcal{B} 48'00	21°25'33
evening max el	528 May 03 j 07:06	7° Π 03'40	22°57'08	retrograde	529 Apr 27 j 06:29	23° \mathcal{B} 42'19	
desc. node	528 May 15 j 12:18	13° Π 39'00		evening set	529 Apr 29 j 16:11	23° \mathcal{B} 29'07	
retrograde	528 May 16 j 15:25	13° Π 41'54		desc. node	529 May 02 j 09:19	22° \mathcal{B} 44'58	
evening set	528 May 20 j 01:40	13° Π 16'08		inferior conj	529 May 09 j 01:09	19° \mathcal{B} 28'53	-1°-53'-28
min. Earth dist.	528 May 27 j 16:07	9° Π 53'28	0.55535 AU	minimum elong	529 May 08 j 19:55	19° \mathcal{B} 36'14	1°51'41
inferior conj	528 May 29 j 05:54	8° Π 58'52	-3°-35'-4	min. Earth dist.	529 May 09 j 04:54	19° \mathcal{B} 23'36	0.54963 AU
minimum elong	528 May 28 j 22:30	9° Π 09'35	3°33'13	morning rise	529 May 17 j 23:59	15° \mathcal{B} 30'10	
morning rise	528 Jun 06 j 22:19	5° Π 05'43		direct	529 May 21 j 03:59	15° \mathcal{B} 08'19	
direct	528 Jun 09 j 17:22	4° Π 47'18		morning max el	529 Jun 02 j 17:04	21° \mathcal{B} 05'01	22°09'44
morning max el	528 Jun 20 j 15:50	9° Π 51'15	20°39'15		529 Jun 10 j 05:55	0° Π	
asc. node	528 Jul 03 j 04:49	27° Π 26'41		asc. node	529 Jun 20 j 01:54	16° Π 49'08	
	528 Jul 04 j 13:53	0° Θ		morning set	529 Jun 24 j 01:44	24° Π 54'55	
morning set	528 Jul 09 j 15:52	10° Θ 03'58			529 Jun 26 j 11:44	0° Θ	
superior conj	528 Jul 17 j 06:23	25° Θ 45'40	1°44'00	superior conj	529 Jul 01 j 08:13	10° Θ 17'41	1°34'45

minimum elong	529 Jul 01 j 06:05	10° \mathfrak{G} 06'22	1°34'33		530 May 13 j 11:07	0° \mathfrak{B}	
max. Earth dist.	529 Jul 04 j 16:05	17° \mathfrak{G} 13'03	1.34499 AU	morning max el	530 May 15 j 10:03	1° \mathfrak{B} 44'08	23°50'22
evening rise	529 Jul 09 j 09:20	26° \mathfrak{G} 38'36			530 Jun 03 j 16:42	0° \mathfrak{II}	
	529 Jul 11 j 03:21	0° \mathfrak{Q}		asc. node	530 Jun 06 j 22:57	6° \mathfrak{II} 31'39	
desc. node	529 Jul 29 j 08:40	0° \mathfrak{P} 19'42		morning set	530 Jun 08 j 13:23	9° \mathfrak{II} 51'38	
	529 Jul 29 j 03:12	0° \mathfrak{P}					
evening max el	529 Aug 13 j 06:14	18° \mathfrak{P} 31'24	27°02'22	superior conj	530 Jun 15 j 15:26	25° \mathfrak{II} 05'21	1°20'19
retrograde	529 Aug 26 j 12:08	25° \mathfrak{P} 49'45		minimum elong	530 Jun 15 j 12:57	24° \mathfrak{II} 52'03	1°19'58
evening set	529 Sep 02 j 08:24	23° \mathfrak{P} 05'33		max. Earth dist.	530 Jun 17 j 17:12	29° \mathfrak{II} 32'11	1.33389 AU
min. Earth dist.	529 Sep 06 j 05:58	19° \mathfrak{P} 15'08	0.65308 AU		530 Jun 17 j 22:26	0° \mathfrak{G}	
inferior conj	529 Sep 08 j 05:43	16° \mathfrak{P} 58'51	-2°-32'-11	evening rise	530 Jun 23 j 03:11	10° \mathfrak{G} 46'13	
minimum elong	529 Sep 08 j 09:35	16° \mathfrak{P} 47'48	2°30'48		530 Jul 03 j 10:54	0° \mathfrak{Q}	
morning rise	529 Sep 14 j 12:20	11° \mathfrak{P} 20'38		desc. node	530 Jul 16 j 05:40	19° \mathfrak{Q} 34'18	
asc. node	529 Sep 16 j 01:04	10° \mathfrak{P} 48'14			530 Jul 24 j 23:09	0° \mathfrak{P}	
direct	529 Sep 17 j 05:34	10° \mathfrak{P} 40'32		evening max el	530 Jul 26 j 17:26	1° \mathfrak{P} 44'48	27°24'49
morning max el	529 Sep 23 j 18:37	14° \mathfrak{P} 13'12	18°13'21	retrograde	530 Aug 09 j 08:13	9° \mathfrak{P} 03'52	
	529 Oct 05 j 00:27	0° \mathfrak{A}		evening set	530 Aug 16 j 11:57	6° \mathfrak{P} 23'38	
morning set	529 Oct 12 j 08:40	12° \mathfrak{A} 02'06		min. Earth dist.	530 Aug 20 j 03:53	3° \mathfrak{P} 07'51	0.63829 AU
	529 Oct 23 j 10:10	0° \mathfrak{M}		inferior conj	530 Aug 22 j 16:34	0° \mathfrak{P} 30'56	-3°-25'-6
desc. node	529 Oct 25 j 07:57	3° \mathfrak{M} 02'35		minimum elong	530 Aug 22 j 21:23	0° \mathfrak{P} 18'28	3°23'42
					530 Aug 23 j 04:33	30° \mathfrak{R} \mathfrak{Q}	
superior conj	529 Oct 27 j 00:49	5° \mathfrak{M} 44'46	0°-11'-15	morning rise	530 Aug 29 j 08:55	25° \mathfrak{Q} 09'14	
minimum elong	529 Oct 26 j 23:22	5° \mathfrak{M} 39'01	0°11'04	direct	530 Aug 31 j 21:16	24° \mathfrak{Q} 37'52	
behind sun begin	529 Oct 26 j 15:13	5° \mathfrak{M} 06'45		asc. node	530 Sep 02 j 22:08	24° \mathfrak{Q} 58'44	
behind sun end	529 Oct 27 j 07:31	6° \mathfrak{M} 11'17		morning max el	530 Sep 07 j 10:25	28° \mathfrak{Q} 03'52	17°55'00
max. Earth dist.	529 Oct 29 j 21:06	10° \mathfrak{M} 14'24	1.44954 AU		530 Sep 09 j 04:44	0° \mathfrak{P}	
	529 Nov 11 j 12:25	0° \mathfrak{A}		morning set	530 Sep 24 j 06:27	23° \mathfrak{P} 55'02	
evening rise	529 Nov 12 j 12:56	1° \mathfrak{A} 35'24			530 Sep 27 j 19:23	0° \mathfrak{A}	
greatest brilliancy	529 Nov 28 j 14:33	26° \mathfrak{A} 10'46	-0.7m				
	529 Dec 01 j 07:28	0° \mathfrak{B}		superior conj	530 Oct 06 j 21:18	15° \mathfrak{A} 12'52	0°35'02
evening max el	529 Dec 06 j 21:15	6° \mathfrak{B} 49'29	19°33'50	minimum elong	530 Oct 07 j 00:56	15° \mathfrak{A} 27'45	0°34'32
asc. node	529 Dec 13 j 00:19	10° \mathfrak{B} 55'25		desc. node	530 Oct 12 j 04:58	23° \mathfrak{A} 49'25	
retrograde	529 Dec 14 j 04:19	11° \mathfrak{B} 03'01		max. Earth dist.	530 Oct 12 j 14:37	24° \mathfrak{A} 27'56	1.44198 AU
evening set	529 Dec 17 j 14:29	9° \mathfrak{B} 54'26			530 Oct 16 j 02:25	0° \mathfrak{M}	
inferior conj	529 Dec 23 j 04:22	3° \mathfrak{B} 56'00	2°59'04	evening rise	530 Oct 22 j 22:06	10° \mathfrak{M} 36'55	
minimum elong	529 Dec 23 j 01:38	4° \mathfrak{B} 04'57	2°58'23		530 Nov 04 j 17:44	0° \mathfrak{A}	
min. Earth dist.	529 Dec 24 j 07:58	2° \mathfrak{B} 25'48	0.66423 AU	greatest brilliancy	530 Nov 14 j 00:21	13° \mathfrak{A} 09'12	-0.5m
	529 Dec 26 j 06:56	30° \mathfrak{R} \mathfrak{A}		evening max el	530 Nov 19 j 23:47	20° \mathfrak{A} 18'43	20°34'24
morning rise	529 Dec 28 j 12:01	27° \mathfrak{A} 42'05		retrograde	530 Nov 28 j 02:00	25° \mathfrak{A} 05'17	
direct	530 Jan 03 j 15:14	24° \mathfrak{A} 59'36		asc. node	530 Nov 29 j 21:21	24° \mathfrak{A} 46'49	
	530 Jan 13 j 12:36	0° \mathfrak{B}		evening set	530 Dec 01 j 21:16	23° \mathfrak{A} 42'01	
morning max el	530 Jan 15 j 23:03	2° \mathfrak{B} 18'37	25°47'51	inferior conj	530 Dec 07 j 08:10	17° \mathfrak{A} 31'38	2°21'08
desc. node	530 Jan 21 j 07:09	8° \mathfrak{B} 14'46		minimum elong	530 Dec 07 j 05:33	17° \mathfrak{A} 40'32	2°20'17
	530 Feb 05 j 23:02	0° \mathfrak{A}		min. Earth dist.	530 Dec 07 j 22:56	16° \mathfrak{A} 41'25	0.67207 AU
morning set	530 Feb 21 j 04:15	25° \mathfrak{A} 40'54		morning rise	530 Dec 12 j 13:21	11° \mathfrak{A} 16'22	
	530 Feb 23 j 12:00	0° \mathfrak{H}		direct	530 Dec 18 j 01:57	8° \mathfrak{A} 51'10	
max. Earth dist.	530 Feb 25 j 01:17	2° \mathfrak{H} 56'58	1.35807 AU	morning max el	530 Dec 29 j 07:20	15° \mathfrak{A} 32'48	24°25'05
				desc. node	531 Jan 08 j 04:10	27° \mathfrak{A} 16'14	
superior conj	530 Mar 02 j 12:40	13° \mathfrak{H} 42'42	-1°-19'-26		531 Jan 10 j 04:54	0° \mathfrak{B}	
minimum elong	530 Mar 02 j 16:19	14° \mathfrak{H} 01'06	1°18'55		531 Jan 29 j 21:37	0° \mathfrak{A}	
	530 Mar 10 j 11:53	0° \mathfrak{Y}		morning set	531 Feb 03 j 04:51	7° \mathfrak{A} 21'21	
evening rise	530 Mar 10 j 12:41	0° \mathfrak{Y} 04'04		max. Earth dist.	531 Feb 06 j 22:25	13° \mathfrak{A} 59'34	1.37744 AU
asc. node	530 Mar 10 j 23:39	0° \mathfrak{Y} 59'54					
evening max el	530 Mar 28 j 10:57	29° \mathfrak{Y} 05'10	20°07'40	superior conj	531 Feb 13 j 19:47	26° \mathfrak{A} 52'47	-1°-41'-43
	530 Mar 29 j 10:50	0° \mathfrak{B}		minimum elong	531 Feb 13 j 23:44	27° \mathfrak{A} 11'50	1°41'20
retrograde	530 Apr 07 j 20:53	4° \mathfrak{B} 05'39			531 Feb 15 j 10:24	0° \mathfrak{H}	
evening set	530 Apr 09 j 22:57	3° \mathfrak{B} 54'28		evening rise	531 Feb 22 j 12:55	14° \mathfrak{H} 03'06	
inferior conj	530 Apr 18 j 21:59	29° \mathfrak{Y} 55'43	0°06'00	asc. node	531 Feb 25 j 20:40	20° \mathfrak{H} 33'06	
minimum elong	530 Apr 18 j 22:15	29° \mathfrak{Y} 55'18	0°05'54		531 Mar 03 j 01:30	0° \mathfrak{Y}	
transit middle	530 Apr 18 j 22:15	29° \mathfrak{Y} 55'18	0°05'54	evening max el	531 Mar 11 j 05:25	11° \mathfrak{Y} 01'04	19°08'19
transit begin	530 Apr 18 j 18:32	0° \mathfrak{B} 00'52		retrograde	531 Mar 19 j 23:52	15° \mathfrak{Y} 14'48	
transit end	530 Apr 19 j 01:59	29° \mathfrak{Y} 49'44		evening set	531 Mar 22 j 04:27	15° \mathfrak{Y} 00'06	
	530 Apr 18 j 19:07	30° \mathfrak{R} \mathfrak{Y}		inferior conj	531 Mar 30 j 09:37	10° \mathfrak{Y} 48'00	1°49'59
desc. node	530 Apr 19 j 06:21	29° \mathfrak{Y} 43'11		minimum elong	531 Mar 30 j 13:29	10° \mathfrak{Y} 41'22	1°48'48
min. Earth dist.	530 Apr 20 j 18:40	28° \mathfrak{Y} 49'02	0.55360 AU	min. Earth dist.	531 Apr 02 j 09:51	8° \mathfrak{Y} 45'24	0.56634 AU
morning rise	530 Apr 27 j 18:54	25° \mathfrak{Y} 33'04		desc. node	531 Apr 06 j 03:22	6° \mathfrak{Y} 35'06	
direct	530 May 01 j 17:35	24° \mathfrak{Y} 59'01		morning rise	531 Apr 07 j 18:27	5° \mathfrak{Y} 52'28	

direct	531 Apr 12 j 18:58	4°♄53'41		desc. node	532 Mar 23 j 00:23	15°♄25'16	
morning max el	531 Apr 27 j 00:29	12°♄12'24	25°28'07	direct	532 Mar 24 j 09:46	15°♄20'15	
	531 May 10 j 18:40	0°♄		morning max el	532 Apr 07 j 18:23	22°♄59'09	26°47'30
morning set	531 May 24 j 01:11	24°♄48'58			532 Apr 14 j 00:36	0°♄	
asc. node	531 May 24 j 19:59	26°♄28'25			532 May 02 j 16:28	0°♄	
	531 May 26 j 11:28	0°♄		morning set	532 May 07 j 11:32	9°♄41'32	
				asc. node	532 May 10 j 17:01	16°♄34'33	
superior conj	531 May 31 j 01:48	10°♄01'33	1°01'43	superior conj	532 May 14 j 13:32	25°♄00'24	0°39'48
minimum elong	531 May 30 j 23:31	9°♄49'06	1°01'19	minimum elong	532 May 14 j 11:52	24°♄51'17	0°39'28
max. Earth dist.	531 Jun 01 j 01:40	12°♄11'54	1.32670 AU	max. Earth dist.	532 May 14 j 13:58	25°♄02'50	1.32322 AU
evening rise	531 Jun 07 j 05:11	25°♄17'42			532 May 16 j 20:08	0°♄	
	531 Jun 09 j 12:49	0°♄		evening rise	532 May 21 j 12:37	10°♄04'20	
	531 Jun 27 j 00:57	0°♄			532 May 31 j 20:19	0°♄	
desc. node	531 Jul 03 j 02:42	8°♄00'31		desc. node	532 Jun 18 j 23:42	25°♄18'24	
evening max el	531 Jul 09 j 01:22	14°♄26'50	27°16'10	evening max el	532 Jun 20 j 03:25	26°♄26'23	26°34'22
retrograde	531 Jul 22 j 21:26	21°♄43'22			532 Jun 24 j 09:32	0°♄	
evening set	531 Jul 30 j 01:09	19°♄19'55		retrograde	532 Jul 04 j 03:02	3°♄40'30	
min. Earth dist.	531 Aug 02 j 15:22	16°♄30'58	0.62025 AU	evening set	532 Jul 10 j 19:34	1°♄46'56	
inferior conj	531 Aug 05 j 15:58	13°♄44'25	-4°-10'-27		532 Jul 13 j 14:05	30°♄	
minimum elong	531 Aug 05 j 20:40	13°♄33'34	4°09'31	min. Earth dist.	532 Jul 14 j 16:40	29°♄10'24	0.59999 AU
morning rise	531 Aug 12 j 18:51	8°♄42'47		inferior conj	532 Jul 18 j 00:26	26°♄30'43	-4°-41'-19
direct	531 Aug 15 j 05:01	8°♄17'15		minimum elong	532 Jul 18 j 03:13	26°♄25'06	4°41'05
asc. node	531 Aug 20 j 19:12	10°♄36'46		morning rise	532 Jul 25 j 14:11	21°♄51'51	
morning max el	531 Aug 22 j 01:22	11°♄44'37	17°54'59	direct	532 Jul 28 j 00:36	21°♄30'03	
	531 Sep 03 j 06:25	0°♄		morning max el	532 Aug 04 j 12:31	25°♄08'23	18°14'18
morning set	531 Sep 07 j 00:47	6°♄46'50		asc. node	532 Aug 06 j 16:15	27°♄28'13	
					532 Aug 08 j 15:04	0°♄	
superior conj	531 Sep 17 j 20:55	26°♄01'16	1°10'35	morning set	532 Aug 20 j 10:04	20°♄21'58	
minimum elong	531 Sep 18 j 01:46	26°♄22'08	1°10'02		532 Aug 25 j 12:38	0°♄	
	531 Sep 20 j 04:52	0°♄		superior conj	532 Aug 29 j 21:58	8°♄05'23	1°33'22
max. Earth dist.	531 Sep 25 j 04:20	8°♄17'14	1.42821 AU	minimum elong	532 Aug 30 j 01:28	8°♄21'17	1°33'06
desc. node	531 Sep 29 j 01:59	14°♄35'53		max. Earth dist.	532 Sep 06 j 12:23	21°♄26'48	1.40999 AU
evening rise	531 Oct 02 j 08:08	19°♄45'06		evening rise	532 Sep 11 j 11:17	29°♄41'53	
	531 Oct 08 j 23:48	0°♄			532 Sep 11 j 15:43	0°♄	
greatest brilliancy	531 Oct 29 j 00:43	28°♄18'03	-0.4m	desc. node	532 Sep 14 j 23:02	5°♄18'51	
	531 Oct 30 j 10:19	0°♄			532 Oct 01 j 12:41	0°♄	
evening max el	531 Nov 02 j 20:31	3°♄48'05	21°46'19	greatest brilliancy	532 Oct 09 j 21:13	10°♄59'24	-0.2m
retrograde	531 Nov 11 j 22:42	9°♄12'31		evening max el	532 Oct 15 j 12:10	17°♄19'06	23°05'05
evening set	531 Nov 16 j 05:04	7°♄32'42		retrograde	532 Oct 25 j 17:00	23°♄22'08	
asc. node	531 Nov 16 j 18:24	7°♄04'42		evening set	532 Oct 30 j 12:15	21°♄24'38	
inferior conj	531 Nov 21 j 14:36	1°♄13'44	1°36'25	asc. node	532 Nov 02 j 15:27	18°♄03'28	
minimum elong	531 Nov 21 j 12:34	1°♄20'45	1°35'38	inferior conj	532 Nov 04 j 21:51	15°♄00'52	0°46'30
min. Earth dist.	531 Nov 21 j 17:53	1°♄02'21	0.67627 AU	minimum elong	532 Nov 04 j 20:47	15°♄04'33	0°46'03
	531 Nov 22 j 12:00	30°♄		min. Earth dist.	532 Nov 04 j 14:32	15°♄26'05	0.67709 AU
morning rise	531 Nov 26 j 19:50	24°♄59'08		morning rise	532 Nov 10 j 05:21	8°♄49'07	
direct	531 Dec 01 j 17:03	22°♄55'52		direct	532 Nov 14 j 11:50	7°♄08'40	
morning max el	531 Dec 11 j 16:56	28°♄51'42	22°57'02	morning max el	532 Nov 23 j 07:21	12°♄18'39	21°32'30
	531 Dec 12 j 19:16	0°♄		greatest brilliancy	532 Nov 28 j 07:56	18°♄02'21	-0.4m
greatest brilliancy	531 Dec 16 j 10:45	4°♄09'40	-0.3m		532 Dec 07 j 04:19	0°♄	
desc. node	531 Dec 26 j 01:12	16°♄52'32		desc. node	532 Dec 11 j 22:15	6°♄54'09	
	532 Jan 03 j 23:33	0°♄		morning set	532 Dec 24 j 20:19	26°♄40'51	
morning set	532 Jan 15 j 03:05	17°♄42'12			532 Dec 26 j 22:18	0°♄	
max. Earth dist.	532 Jan 19 j 17:56	25°♄30'04	1.39870 AU	max. Earth dist.	532 Dec 31 j 18:22	7°♄52'02	1.41909 AU
	532 Jan 22 j 08:00	0°♄					
superior conj	532 Jan 27 j 11:27	9°♄14'07	-1°-57'-30	superior conj	533 Jan 08 j 06:27	20°♄34'13	-2°-2'-42
minimum elong	532 Jan 27 j 14:15	9°♄26'56	1°57'23	minimum elong	533 Jan 08 j 05:54	20°♄31'53	2°02'43
evening rise	532 Feb 06 j 04:11	27°♄30'47			533 Jan 13 j 14:35	0°♄	
	532 Feb 07 j 11:30	0°♄		evening rise	533 Jan 19 j 06:58	10°♄19'03	
asc. node	532 Feb 12 j 17:42	9°♄43'39		asc. node	533 Jan 29 j 14:45	28°♄24'02	
evening max el	532 Feb 22 j 08:48	23°♄30'35	18°29'04		533 Jan 30 j 15:50	0°♄	
retrograde	532 Feb 29 j 21:55	27°♄13'05		evening max el	533 Feb 04 j 18:08	6°♄25'26	18°09'51
evening set	532 Mar 03 j 07:21	26°♄51'52		retrograde	533 Feb 11 j 13:26	9°♄52'32	
inferior conj	532 Mar 10 j 18:08	22°♄19'47	3°00'41	evening set	533 Feb 14 j 03:34	9°♄23'03	
minimum elong	532 Mar 10 j 22:03	22°♄11'57	2°59'51	inferior conj	533 Feb 20 j 22:55	4°♄29'40	3°37'53
min. Earth dist.	532 Mar 14 j 04:26	19°♄36'34	0.58492 AU	minimum elong	533 Feb 21 j 00:55	4°♄25'02	3°37'40
morning rise	532 Mar 18 j 08:48	16°♄54'16					

min. Earth dist.	533 Feb 24 j 05:13	1° ✕ 29'16	0.60596 AU		534 Jan 06 j 02:58	0° ≈	
	533 Feb 26 j 00:03	30° R ≈		asc. node	534 Jan 16 j 11:48	16° ≈ 25'03	
morning rise	533 Feb 27 j 19:10	28° ≈ 43'15		evening max el	534 Jan 19 j 06:23	19° ≈ 37'40	18°10'05
direct	533 Mar 06 j 12:33	26° ≈ 32'41		retrograde	534 Jan 25 j 18:16	23° ≈ 03'17	
desc. node	533 Mar 09 j 21:25	27° ≈ 03'24		evening set	534 Jan 28 j 12:56	22° ≈ 24'24	
	533 Mar 15 j 15:12	0° ✕		inferior conj	534 Feb 03 j 20:20	17° ≈ 10'15	3°48'31
morning max el	533 Mar 20 j 18:28	4° ✕ 22'45	27°35'49	minimum elong	534 Feb 03 j 20:12	17° ≈ 10'36	3°48'31
	533 Apr 08 j 17:44	0° Υ		min. Earth dist.	534 Feb 06 j 14:27	14° ≈ 16'55	0.62640 AU
morning set	533 Apr 21 j 18:35	24° Υ 22'07		morning rise	534 Feb 10 j 01:22	11° ≈ 11'08	
	533 Apr 24 j 11:00	0° ♄		direct	534 Feb 17 j 00:53	8° ≈ 33'19	
asc. node	533 Apr 27 j 14:03	6° ♄ 44'49		desc. node	534 Feb 24 j 18:28	11° ≈ 15'22	
max. Earth dist.	533 Apr 28 j 02:09	7° ♄ 50'50	1.32345 AU	morning max el	534 Mar 03 j 00:05	16° ≈ 26'56	27°47'21
					534 Mar 14 j 04:54	0° ✕	
superior conj	533 Apr 29 j 00:52	9° ♄ 55'04	0°15'19		534 Apr 01 j 09:24	0° Υ	
minimum elong	533 Apr 29 j 00:10	9° ♄ 51'16	0°15'10	morning set	534 Apr 05 j 20:12	8° Υ 43'24	
behind sun begin	533 Apr 28 j 22:43	9° ♄ 43'18		max. Earth dist.	534 Apr 11 j 10:18	20° Υ 22'20	1.32758 AU
behind sun end	533 Apr 29 j 01:37	9° ♄ 59'14					
evening rise	533 May 05 j 23:11	24° ♄ 57'39		superior conj	534 Apr 13 j 10:08	24° Υ 39'48	0°-10'-59
	533 May 08 j 09:17	0° ♁		minimum elong	534 Apr 13 j 10:39	24° Υ 42'38	0°10'53
	533 May 26 j 03:56	0° ♁		behind sun begin	534 Apr 13 j 06:50	24° Υ 22'00	
evening max el	533 Jun 01 j 22:26	7° ♁ 39'56	25°22'59	behind sun end	534 Apr 13 j 14:28	25° Υ 03'17	
desc. node	533 Jun 05 j 20:44	10° ♁ 59'12		asc. node	534 Apr 14 j 11:07	26° Υ 55'11	
retrograde	533 Jun 15 j 23:13	14° ♁ 49'31			534 Apr 15 j 21:08	0° ♄	
evening set	533 Jun 21 j 15:08	13° ♁ 34'34		evening rise	534 Apr 20 j 11:00	9° ♄ 51'05	
min. Earth dist.	533 Jun 26 j 10:22	10° ♁ 51'41	0.57967 AU		534 Apr 30 j 21:31	0° ♁	
inferior conj	533 Jun 29 j 14:28	8° ♁ 39'28	-4°-47'-12	evening max el	534 May 14 j 13:03	18° ♁ 20'41	23°52'18
minimum elong	533 Jun 29 j 13:08	8° ♁ 41'49	4°47'10	desc. node	534 May 23 j 17:44	24° ♁ 27'32	
morning rise	533 Jul 07 j 14:57	4° ♁ 23'17		retrograde	534 May 28 j 07:25	25° ♁ 15'03	
direct	533 Jul 10 j 03:28	4° ♁ 03'52		evening set	534 Jun 01 j 12:59	24° ♁ 35'31	
morning max el	533 Jul 18 j 16:44	8° ♁ 05'05	18°54'04	min. Earth dist.	534 Jun 07 j 23:59	21° ♁ 30'41	0.56250 AU
asc. node	533 Jul 24 j 13:18	15° ♁ 17'12		inferior conj	534 Jun 10 j 08:21	20° ♁ 04'36	-4°-14'-49
	533 Aug 01 j 22:49	0° ♁		minimum elong	534 Jun 10 j 02:17	20° ♁ 13'55	4°13'46
morning set	533 Aug 04 j 05:52	4° ♁ 28'01		morning rise	534 Jun 18 j 19:10	16° ♁ 05'51	
				direct	534 Jun 21 j 11:17	15° ♁ 47'32	
superior conj	533 Aug 12 j 18:48	21° ♁ 08'28	1°44'38	morning max el	534 Jul 01 j 11:12	20° ♁ 25'22	19°54'55
minimum elong	533 Aug 12 j 20:14	21° ♁ 15'15	1°44'35		534 Jul 09 j 02:09	0° ♁	
	533 Aug 17 j 12:36	0° ♁		asc. node	534 Jul 11 j 10:21	3° ♁ 50'40	
max. Earth dist.	533 Aug 19 j 15:47	3° ♁ 51'12	1.38978 AU	morning set	534 Jul 19 j 09:00	18° ♁ 56'46	
evening rise	533 Aug 23 j 14:46	10° ♁ 47'01			534 Jul 24 j 19:23	0° ♁	
desc. node	533 Sep 01 j 20:06	25° ♁ 53'54					
	533 Sep 04 j 11:47	0° ♁		superior conj	534 Jul 27 j 06:06	4° ♁ 55'21	1°46'28
	533 Sep 27 j 03:29	0° ♁		minimum elong	534 Jul 27 j 05:40	4° ♁ 53'12	1°46'27
evening max el	533 Sep 28 j 00:40	0° ♁ 53'31	24°24'53	max. Earth dist.	534 Aug 01 j 19:53	15° ♁ 46'07	1.37020 AU
retrograde	533 Oct 09 j 07:42	7° ♁ 30'14		evening rise	534 Aug 05 j 17:33	22° ♁ 59'05	
evening set	533 Oct 14 j 17:07	5° ♁ 15'14			534 Aug 09 j 16:55	0° ♁	
	533 Oct 19 j 07:33	30° R ♁		desc. node	534 Aug 19 j 17:08	16° ♁ 16'08	
min. Earth dist.	533 Oct 19 j 10:28	29° ♁ 50'14	0.67464 AU		534 Aug 29 j 05:58	0° ♁	
inferior conj	533 Oct 20 j 04:10	28° ♁ 50'50	0°-7'-11	evening max el	534 Sep 10 j 12:22	14° ♁ 31'16	25°38'21
minimum elong	533 Oct 20 j 04:20	28° ♁ 50'15	0°07'08	retrograde	534 Sep 22 j 17:48	21° ♁ 31'48	
transit middle	533 Oct 20 j 04:20	28° ♁ 50'15	0°07'08	evening set	534 Sep 28 j 17:53	19° ♁ 01'20	
transit begin	533 Oct 20 j 01:53	28° ♁ 58'31		min. Earth dist.	534 Oct 03 j 03:10	14° ♁ 12'06	0.66898 AU
transit end	533 Oct 20 j 06:48	28° ♁ 42'00		inferior conj	534 Oct 04 j 07:44	12° ♁ 40'41	-1°-3'-17
asc. node	533 Oct 20 j 12:30	28° ♁ 22'56		minimum elong	534 Oct 04 j 09:20	12° ♁ 35'31	1°02'36
morning rise	533 Oct 25 j 15:54	22° ♁ 44'31		asc. node	534 Oct 07 j 09:34	8° ♁ 59'20	
direct	533 Oct 29 j 09:12	21° ♁ 25'10		morning rise	534 Oct 10 j 01:31	6° ♁ 42'43	
morning max el	533 Nov 06 j 04:57	25° ♁ 55'42	20°17'54	direct	534 Oct 13 j 07:42	5° ♁ 41'24	
	533 Nov 09 j 19:32	0° ♁		morning max el	534 Oct 20 j 10:03	9° ♁ 41'44	19°17'00
greatest brilliancy	533 Nov 12 j 20:15	3° ♁ 54'08	-0.6m	greatest brilliancy	534 Oct 30 j 13:21	22° ♁ 57'27	-0.7m
desc. node	533 Nov 28 j 19:20	27° ♁ 14'03			534 Nov 04 j 05:17	0° ♁	
	533 Nov 30 j 14:44	0° ♁		morning set	534 Nov 12 j 20:12	13° ♁ 20'45	
morning set	533 Dec 03 j 18:09	4° ♁ 50'28		desc. node	534 Nov 15 j 16:23	17° ♁ 46'19	
max. Earth dist.	533 Dec 14 j 02:11	21° ♁ 06'46	1.43582 AU		534 Nov 23 j 11:59	0° ♁	
				max. Earth dist.	534 Nov 26 j 16:46	5° ♁ 02'18	1.44680 AU
superior conj	533 Dec 19 j 23:57	0° ♁ 43'12	-1°-52'-36				
minimum elong	533 Dec 19 j 18:24	0° ♁ 20'19	1°52'17	superior conj	534 Nov 29 j 15:36	9° ♁ 42'52	-1°-23'-59
	533 Dec 19 j 13:28	0° ♁		minimum elong	534 Nov 29 j 07:08	9° ♁ 09'12	1°23'08
evening rise	534 Jan 01 j 17:06	22° ♁ 19'46			534 Dec 12 j 04:37	0° ♁	

evening rise	534 Dec 14 j 06:12	3°☾24'35		minimum elong	535 Nov 08 j 11:30	17°♌47'13	0°39'05
	534 Dec 31 j 04:20	0°♊		max. Earth dist.	535 Nov 09 j 11:26	19°♌21'15	1.45070 AU
evening max el	535 Jan 02 j 18:42	2°♊59'29	18°28'58		535 Nov 16 j 06:01	0°♊	
asc. node	535 Jan 03 j 08:51	3°♊34'18		evening rise	535 Nov 24 j 19:43	13°♊31'34	
retrograde	535 Jan 09 j 08:00	6°♊35'43			535 Dec 05 j 06:10	0°♊	
evening set	535 Jan 12 j 07:45	5°♊46'17		evening max el	535 Dec 17 j 04:37	16°♊26'16	19°05'26
inferior conj	535 Jan 18 j 06:21	0°♊12'53	3°39'47	asc. node	535 Dec 21 j 05:52	19°♊38'09	
minimum elong	535 Jan 18 j 04:39	0°♊17'52	3°39'36	retrograde	535 Dec 24 j 03:08	20°♊23'34	
	535 Jan 18 j 10:45	30°♊☾		evening set	535 Dec 27 j 09:04	19°♊22'18	
min. Earth dist.	535 Jan 20 j 09:09	27°♊44'57	0.64411 AU	inferior conj	536 Jan 02 j 01:29	13°♊31'59	3°17'04
morning rise	535 Jan 24 j 00:11	24°♊05'57		minimum elong	536 Jan 01 j 22:56	13°♊40'01	3°16'32
direct	535 Jan 30 j 20:31	21°♊15'42		min. Earth dist.	536 Jan 03 j 13:04	11°♊39'39	0.65804 AU
desc. node	535 Feb 11 j 15:31	27°♊25'03		morning rise	536 Jan 07 j 11:55	7°♊20'01	
morning max el	535 Feb 13 j 08:55	29°♊04'28	27°23'12	direct	536 Jan 13 j 22:31	4°♊31'40	
	535 Feb 14 j 06:42	0°♊		morning max el	536 Jan 26 j 18:39	12°♊05'00	26°29'11
	535 Mar 08 j 01:18	0°♋		desc. node	536 Jan 29 j 12:35	15°♊00'04	
morning set	535 Mar 20 j 13:37	22°♋35'54			536 Feb 10 j 04:03	0°♊	
	535 Mar 24 j 06:19	0°♋			536 Feb 28 j 15:48	0°♋	
max. Earth dist.	535 Mar 25 j 10:36	2°♋25'20	1.33590 AU	morning set	536 Mar 02 j 19:15	5°♋48'55	
				max. Earth dist.	536 Mar 07 j 00:00	13°♋55'00	1.34874 AU
superior conj	535 Mar 28 j 15:24	9°♋07'43	0°-38'-7	superior conj	536 Mar 11 j 14:26	23°♋12'06	-1°-4'-52
minimum elong	535 Mar 28 j 17:16	9°♋17'35	0°37'46	minimum elong	536 Mar 11 j 17:32	23°♋28'05	1°04'21
asc. node	535 Apr 01 j 08:09	17°♋01'00			536 Mar 14 j 21:04	0°♋	
evening rise	535 Apr 04 j 22:13	24°♋37'43		asc. node	536 Mar 18 j 05:11	6°♋58'07	
	535 Apr 07 j 12:38	0°♌		evening rise	536 Mar 19 j 06:56	9°♋11'27	
evening max el	535 Apr 26 j 05:28	28°♌55'16	22°16'58		536 Mar 30 j 11:36	0°♌	
	535 Apr 27 j 09:26	0°♌		evening max el	536 Apr 07 j 06:12	9°♌51'41	20°50'13
retrograde	535 May 09 j 02:53	5°♌16'09		retrograde	536 Apr 18 j 16:00	15°♌23'17	
desc. node	535 May 10 j 14:43	5°♌11'10		evening set	536 Apr 20 j 20:52	15°♌11'44	
evening set	535 May 12 j 00:49	4°♌57'27		desc. node	536 Apr 26 j 11:45	13°♌12'50	
min. Earth dist.	535 May 20 j 12:15	1°♌18'45	0.55185 AU	inferior conj	536 Apr 30 j 03:04	11°♌13'58	-1°-2'-50
inferior conj	535 May 21 j 09:04	0°♌49'25	-2°-56'-13	minimum elong	536 Apr 30 j 00:05	11°♌18'12	1°01'46
minimum elong	535 May 21 j 01:52	0°♌59'34	2°54'05	min. Earth dist.	536 May 01 j 01:01	10°♌42'43	0.55019 AU
	535 May 22 j 20:23	30°♌♊		morning rise	536 May 09 j 02:26	7°♌07'29	
morning rise	535 May 30 j 04:52	26°♌56'10		direct	536 May 12 j 13:13	6°♌41'51	
direct	535 Jun 02 j 03:07	26°♌36'47		morning max el	536 May 25 j 15:29	12°♌59'39	22°52'03
	535 Jun 11 j 07:26	0°♌			536 Jun 07 j 11:07	0°♌	
morning max el	535 Jun 13 j 18:23	2°♌02'47	21°15'51	asc. node	536 Jun 14 j 04:27	12°♌30'04	
asc. node	535 Jun 28 j 07:25	22°♌58'02		morning set	536 Jun 17 j 03:50	18°♌36'24	
	535 Jul 01 j 21:37	0°♍			536 Jun 22 j 12:14	0°♍	
morning set	535 Jul 03 j 17:00	3°♍41'49					
superior conj	535 Jul 11 j 03:36	19°♍14'02	1°40'47	superior conj	536 Jun 24 j 08:01	3°♍53'55	1°29'12
minimum elong	535 Jul 11 j 01:54	19°♍05'14	1°40'40	minimum elong	536 Jun 24 j 05:40	3°♍41'24	1°28'56
max. Earth dist.	535 Jul 15 j 06:43	27°♍38'27	1.35318 AU	max. Earth dist.	536 Jun 27 j 02:45	9°♍46'00	1.33978 AU
	535 Jul 16 j 11:16	0°♎		evening rise	536 Jul 02 j 02:47	19°♍55'56	
evening rise	535 Jul 19 j 15:10	6°♎06'41			536 Jul 07 j 09:52	0°♎	
	535 Aug 02 j 10:30	0°♎		desc. node	536 Jul 23 j 11:06	25°♎55'25	
desc. node	535 Aug 06 j 14:07	6°♎19'36			536 Jul 26 j 11:06	0°♎	
evening max el	535 Aug 24 j 00:26	28°♎07'56	26°37'40	evening max el	536 Aug 05 j 12:11	11°♎32'41	27°15'21
	535 Aug 26 j 01:18	0°♏		retrograde	536 Aug 18 j 22:02	18°♎51'38	
retrograde	535 Sep 05 j 22:43	5°♏21'42		evening set	536 Aug 25 j 22:26	16°♎07'30	
evening set	535 Sep 12 j 12:30	2°♏40'22		min. Earth dist.	536 Aug 29 j 17:17	12°♎32'41	0.64726 AU
	535 Sep 15 j 06:16	30°♎♊		inferior conj	536 Aug 31 j 22:36	10°♎06'36	-2°-55'-13
min. Earth dist.	535 Sep 16 j 14:13	28°♎28'34	0.65993 AU	minimum elong	536 Sep 01 j 02:57	9°♎54'39	2°53'47
inferior conj	535 Sep 18 j 06:38	26°♎27'41	-2°00'-1	morning rise	536 Sep 07 j 09:14	4°♎35'12	
minimum elong	535 Sep 18 j 09:43	26°♎18'26	1°58'49	direct	536 Sep 10 j 00:09	3°♎59'09	
morning rise	535 Sep 24 j 08:08	20°♎41'20		asc. node	536 Sep 10 j 03:40	3°♎59'16	
asc. node	535 Sep 24 j 06:37	20°♎43'24		morning max el	536 Sep 16 j 12:18	7°♎27'38	18°03'27
direct	535 Sep 27 j 05:30	19°♎54'26			536 Oct 01 j 16:17	0°♏	
morning max el	535 Oct 03 j 21:19	23°♎34'20	18°31'51	morning set	536 Oct 04 j 05:41	4°♏17'44	
	535 Oct 09 j 02:42	0°♏					
morning set	535 Oct 23 j 22:39	23°♏07'27		superior conj	536 Oct 18 j 00:41	26°♏57'39	0°09'21
	535 Oct 28 j 05:44	0°♐		minimum elong	536 Oct 18 j 01:48	27°♏02'09	0°09'11
desc. node	535 Nov 02 j 13:26	8°♐27'12		behind sun begin	536 Oct 17 j 16:59	26°♏26'48	
				behind sun end	536 Oct 18 j 10:37	27°♏37'28	
superior conj	535 Nov 08 j 16:40	18°♐07'32	0°-39'-44	desc. node	536 Oct 19 j 10:26	29°♏12'38	

	536 Oct 19 j 22:20	0°♄		superior conj	537 Sep 28 j 08:24	6°♄59'20	0°51'39
max. Earth dist.	536 Oct 22 j 06:11	3°♄41'39	1.44716 AU	minimum elong	537 Sep 28 j 13:00	7°♄18'31	0°51'04
evening rise	536 Nov 03 j 12:10	22°♄48'42		max. Earth dist.	537 Oct 04 j 21:55	17°♄45'09	1.43676 AU
	536 Nov 08 j 04:13	0°♄		desc. node	537 Oct 06 j 07:27	19°♄59'39	
greatest brilliancy	536 Nov 22 j 06:59	21°♄01'48	-0.6m		537 Oct 12 j 15:50	0°♄	
evening max el	536 Nov 29 j 10:06	29°♄54'21	19°57'57	evening rise	537 Oct 13 j 19:20	1°♄46'35	
	536 Nov 29 j 12:18	0°♄			537 Nov 01 j 18:53	0°♄	
retrograde	536 Dec 07 j 00:39	4°♄21'28		greatest brilliancy	537 Nov 07 j 01:12	7°♄06'03	-0.5m
asc. node	536 Dec 07 j 02:54	4°♄21'25		evening max el	537 Nov 12 j 10:03	13°♄22'53	21°03'53
evening set	536 Dec 10 j 14:28	3°♄06'44		retrograde	537 Nov 20 j 22:14	18°♄25'47	
	536 Dec 13 j 19:33	30°♄		asc. node	537 Nov 23 j 23:57	17°♄32'40	
inferior conj	536 Dec 16 j 02:49	27°♄02'33	2°43'58	evening set	537 Nov 24 j 21:53	16°♄55'48	
minimum elong	536 Dec 16 j 00:05	27°♄11'42	2°43'09	inferior conj	537 Nov 30 j 07:59	10°♄41'10	2°02'55
min. Earth dist.	536 Dec 17 j 00:42	25°♄49'35	0.66797 AU	minimum elong	537 Nov 30 j 05:34	10°♄49'29	2°02'03
morning rise	536 Dec 21 j 09:05	20°♄47'44		min. Earth dist.	537 Nov 30 j 17:45	10°♄07'36	0.67419 AU
direct	536 Dec 27 j 06:07	18°♄12'04		morning rise	537 Dec 05 j 12:53	4°♄25'40	
morning max el	537 Jan 08 j 03:34	25°♄16'54	25°14'03	direct	537 Dec 10 j 18:51	2°♄09'27	
	537 Jan 12 j 10:55	0°♄		morning max el	537 Dec 21 j 12:06	8°♄33'02	23°47'44
desc. node	537 Jan 15 j 09:39	3°♄35'19		desc. node	538 Jan 02 j 06:41	22°♄52'57	
	537 Feb 02 j 16:09	0°♄			538 Jan 07 j 08:07	0°♄	
morning set	537 Feb 13 j 08:16	18°♄08'35		morning set	538 Jan 25 j 22:23	29°♄17'05	
max. Earth dist.	537 Feb 17 j 02:06	25°♄00'27	1.36588 AU		538 Jan 26 j 08:25	0°♄	
	537 Feb 19 j 17:20	0°♄		max. Earth dist.	538 Jan 29 j 21:10	6°♄09'00	1.38628 AU
superior conj	537 Feb 23 j 04:24	6°♄44'56	-1°-29'-28	superior conj	538 Feb 06 j 05:30	19°♄35'32	-1°-49'-26
minimum elong	537 Feb 23 j 08:18	7°♄04'17	1°28'58	minimum elong	538 Feb 06 j 09:12	19°♄52'58	1°49'09
evening rise	537 Mar 03 j 11:01	23°♄25'38			538 Feb 11 j 15:25	0°♄	
asc. node	537 Mar 05 j 02:13	26°♄41'58		evening rise	538 Feb 15 j 07:50	7°♄12'09	
	537 Mar 06 j 18:27	0°♄		asc. node	538 Feb 19 j 23:15	16°♄06'28	
evening max el	537 Mar 20 j 18:21	21°♄25'54	19°40'00		538 Feb 28 j 12:26	0°♄	
retrograde	537 Mar 30 j 11:01	26°♄05'34		evening max el	538 Mar 03 j 17:02	3°♄37'25	18°49'17
evening set	537 Apr 01 j 13:14	25°♄53'29		retrograde	538 Mar 11 j 21:45	7°♄35'50	
inferior conj	537 Apr 10 j 05:06	21°♄50'07	0°53'29	evening set	538 Mar 14 j 04:13	7°♄18'45	
minimum elong	537 Apr 10 j 07:21	21°♄46'34	0°52'43	inferior conj	538 Mar 22 j 01:24	2°♄59'00	2°24'17
min. Earth dist.	537 Apr 12 j 15:25	20°♄18'33	0.55802 AU	minimum elong	538 Mar 22 j 05:40	2°♄51'13	2°23'07
desc. node	537 Apr 13 j 08:47	19°♄52'15		min. Earth dist.	538 Mar 25 j 08:07	0°♄36'21	0.57366 AU
morning rise	537 Apr 18 j 21:58	17°♄13'37			538 Mar 26 j 05:30	30°♄	
direct	537 Apr 23 j 06:50	16°♄30'55		morning rise	538 Mar 30 j 02:50	27°♄49'29	
morning max el	537 May 07 j 06:55	23°♄32'30	24°33'13	desc. node	538 Mar 31 j 05:50	27°♄22'52	
	537 May 13 j 02:32	0°♄		direct	538 Apr 04 j 14:25	26°♄36'22	
	537 May 30 j 22:31	0°♄			538 Apr 14 j 00:11	0°♄	
asc. node	537 Jun 01 j 01:30	2°♄19'58		morning max el	538 Apr 18 j 22:21	4°♄06'00	26°04'52
morning set	537 Jun 01 j 15:48	3°♄34'57			538 May 07 j 14:47	0°♄	
superior conj	537 Jun 08 j 16:52	18°♄46'59	1°12'53	morning set	538 May 17 j 03:12	18°♄31'01	
minimum elong	537 Jun 08 j 14:26	18°♄33'43	1°12'31	asc. node	538 May 18 j 22:33	22°♄21'20	
max. Earth dist.	537 Jun 10 j 07:19	22°♄14'56	1.33034 AU		538 May 22 j 10:58	0°♄	
	537 Jun 13 j 22:55	0°♄		superior conj	538 May 24 j 04:04	3°♄45'24	0°52'48
evening rise	537 Jun 16 j 00:30	4°♄15'27		minimum elong	538 May 24 j 02:00	3°♄34'05	0°52'25
	537 Jun 30 j 02:53	0°♄		max. Earth dist.	538 May 24 j 17:41	5°♄00'00	1.32477 AU
desc. node	537 Jul 10 j 08:06	14°♄51'53		evening rise	538 May 31 j 05:08	18°♄54'33	
evening max el	537 Jul 18 j 22:06	24°♄33'50	27°24'59		538 Jun 05 j 18:29	0°♄	
	537 Jul 26 j 01:49	0°♄			538 Jun 24 j 18:53	0°♄	
retrograde	537 Aug 01 j 15:31	1°♄52'41		desc. node	538 Jun 27 j 05:07	2°♄52'10	
	537 Aug 07 j 18:48	30°♄		evening max el	538 Jul 01 j 03:48	6°♄58'59	27°02'22
evening set	537 Aug 08 j 20:25	29°♄17'32		retrograde	538 Jul 15 j 02:00	14°♄15'01	
min. Earth dist.	537 Aug 12 j 10:44	26°♄14'45	0.63102 AU	evening set	538 Jul 22 j 02:16	12°♄02'53	
inferior conj	537 Aug 15 j 04:57	23°♄31'42	-3°-45'-35	min. Earth dist.	538 Jul 25 j 18:00	9°♄21'04	0.61180 AU
minimum elong	537 Aug 15 j 09:54	23°♄19'30	3°44'20	inferior conj	538 Jul 28 j 22:28	6°♄35'01	-4°-25'-53
morning rise	537 Aug 22 j 01:46	18°♄18'28		minimum elong	538 Jul 29 j 02:38	6°♄25'55	4°25'14
direct	537 Aug 24 j 12:48	17°♄50'00		morning rise	538 Aug 05 j 05:59	1°♄42'46	
asc. node	537 Aug 28 j 00:43	18°♄48'38		direct	538 Aug 07 j 15:48	1°♄19'10	
morning max el	537 Aug 31 j 04:10	21°♄15'31	17°52'41	morning max el	538 Aug 14 j 17:55	4°♄50'19	18°00'41
	537 Sep 06 j 19:15	0°♄		asc. node	538 Aug 14 j 21:46	4°♄59'48	
morning set	537 Sep 16 j 12:54	16°♄37'26		morning set	538 Aug 30 j 14:15	29°♄49'32	
	537 Sep 24 j 05:14	0°♄			538 Aug 30 j 16:31	0°♄	

superior conj	538 Sep 09 j 19:26	18° \mathbb{M} 21'42	1°21'46		539 Aug 22 j 18:16	0° \mathbb{M}	
minimum elong	538 Sep 09 j 23:54	18° \mathbb{M} 41'22	1°21'20				
	538 Sep 16 j 14:17	0° $\underline{\mathbb{A}}$		superior conj	539 Aug 23 j 05:34	0° \mathbb{M} 52'31	1°39'27
max. Earth dist.	538 Sep 17 j 08:53	1° $\underline{\mathbb{A}}$ 17'27	1.42087 AU	minimum elong	539 Aug 23 j 08:13	1° \mathbb{M} 04'44	1°39'16
evening rise	538 Sep 23 j 11:09	11° $\underline{\mathbb{A}}$ 11'50		max. Earth dist.	539 Aug 30 j 14:53	14° \mathbb{M} 08'30	1.40153 AU
desc. node	538 Sep 23 j 04:29	10° $\underline{\mathbb{A}}$ 45'17		evening rise	539 Sep 04 j 00:23	21° \mathbb{M} 36'59	
	538 Oct 05 j 17:54	0° \mathbb{M}			539 Sep 09 j 03:58	0° $\underline{\mathbb{A}}$	
greatest brilliancy	538 Oct 21 j 11:05	21° \mathbb{M} 34'14	-0.3m	desc. node	539 Sep 10 j 01:30	1° $\underline{\mathbb{A}}$ 25'23	
evening max el	538 Oct 26 j 04:31	26° \mathbb{M} 53'14	22°19'24		539 Sep 29 j 19:54	0° \mathbb{M}	
	538 Oct 29 j 15:46	0° \mathbb{X}		evening max el	539 Oct 08 j 18:43	10° \mathbb{M} 26'08	23°39'22
retrograde	538 Nov 04 j 18:02	2° \mathbb{X} 34'23		retrograde	539 Oct 19 j 10:46	16° \mathbb{M} 43'40	
evening set	538 Nov 09 j 05:36	0° \mathbb{X} 47'23		evening set	539 Oct 24 j 11:58	14° \mathbb{M} 38'43	
	538 Nov 10 j 03:00	30° \mathbb{R} \mathbb{M}		asc. node	539 Oct 28 j 18:03	9° \mathbb{M} 49'30	
asc. node	538 Nov 10 j 21:00	29° \mathbb{M} 13'58		inferior conj	539 Oct 29 j 22:03	8° \mathbb{M} 14'27	0°24'06
inferior conj	538 Nov 14 j 15:00	24° \mathbb{M} 26'03	1°15'48	minimum elong	539 Oct 29 j 21:29	8° \mathbb{M} 16'24	0°23'51
minimum elong	538 Nov 14 j 13:20	24° \mathbb{M} 31'48	1°15'08	min. Earth dist.	539 Oct 29 j 10:22	8° \mathbb{M} 54'19	0.67650 AU
min. Earth dist.	538 Nov 14 j 13:48	24° \mathbb{M} 30'12	0.67700 AU	morning rise	539 Nov 04 j 07:07	2° \mathbb{M} 04'47	
morning rise	538 Nov 19 j 20:55	18° \mathbb{M} 12'11		direct	539 Nov 08 j 07:53	0° \mathbb{M} 33'26	
direct	538 Nov 24 j 11:48	16° \mathbb{M} 18'25		morning max el	539 Nov 16 j 16:20	5° \mathbb{M} 25'01	20°59'14
morning max el	538 Dec 03 j 23:10	21° \mathbb{M} 54'28	22°20'10	greatest brilliancy	539 Nov 22 j 06:13	11° \mathbb{M} 54'00	-0.5m
greatest brilliancy	538 Dec 08 j 14:04	27° \mathbb{M} 05'30	-0.3m		539 Dec 05 j 02:52	0° \mathbb{X}	
	538 Dec 10 j 21:53	0° \mathbb{X}		desc. node	539 Dec 07 j 00:47	2° \mathbb{X} 51'18	
desc. node	538 Dec 20 j 03:44	12° \mathbb{X} 41'16		morning set	539 Dec 16 j 14:45	17° \mathbb{X} 31'35	
	538 Dec 31 j 16:03	0° \mathbb{Z}			539 Dec 24 j 10:39	0° \mathbb{Z}	
morning set	539 Jan 06 j 08:05	9° \mathbb{Z} 01'34		max. Earth dist.	539 Dec 24 j 21:35	0° \mathbb{Z} 44'26	1.42688 AU
max. Earth dist.	539 Jan 11 j 17:42	17° \mathbb{Z} 57'56	1.40763 AU				
	539 Jan 18 j 16:19	0° \approx		superior conj	539 Dec 31 j 21:39	12° \mathbb{Z} 22'59	-2°00'-33
				minimum elong	539 Dec 31 j 19:04	12° \mathbb{Z} 11'58	2°00'30
superior conj	539 Jan 19 j 13:05	1° \approx 32'37	-2°-1'-17		540 Jan 10 j 23:54	0° \approx	
minimum elong	539 Jan 19 j 14:45	1° \approx 40'06	2°01'16	evening rise	540 Jan 12 j 14:24	2° \approx 52'08	
evening rise	539 Jan 29 j 18:14	20° \approx 23'43		asc. node	540 Jan 24 j 17:21	23° \approx 29'34	
	539 Feb 03 j 22:42	0° \mathbb{H}		evening max el	540 Jan 29 j 10:18	29° \approx 21'32	18°07'36
asc. node	539 Feb 06 j 20:19	5° \mathbb{H} 05'08			540 Jan 30 j 02:32	0° \mathbb{H}	
evening max el	539 Feb 14 j 23:25	16° \mathbb{H} 19'01	18°18'34	retrograde	540 Feb 05 j 01:07	2° \mathbb{H} 46'17	
retrograde	539 Feb 22 j 03:22	19° \mathbb{H} 52'39		evening set	540 Feb 07 j 17:16	2° \mathbb{H} 12'46	
evening set	539 Feb 24 j 15:00	19° \mathbb{H} 27'58			540 Feb 11 j 05:14	30° \mathbb{R} \approx	
inferior conj	539 Mar 03 j 18:48	14° \mathbb{H} 47'02	3°20'09	inferior conj	540 Feb 14 j 07:04	27° \approx 10'07	3°45'09
minimum elong	539 Mar 03 j 22:01	14° \mathbb{H} 40'10	3°19'36	minimum elong	540 Feb 14 j 08:07	27° \approx 07'31	3°45'07
min. Earth dist.	539 Mar 07 j 04:54	11° \mathbb{H} 53'25	0.59381 AU	min. Earth dist.	540 Feb 17 j 08:44	24° \approx 10'21	0.61490 AU
morning rise	539 Mar 11 j 01:26	9° \mathbb{H} 11'48		morning rise	540 Feb 20 j 20:23	21° \approx 17'43	
direct	539 Mar 17 j 10:53	7° \mathbb{H} 21'29		direct	540 Feb 27 j 17:38	18° \approx 54'16	
desc. node	539 Mar 18 j 02:53	7° \mathbb{H} 22'39		desc. node	540 Mar 03 j 23:56	20° \approx 09'22	
morning max el	539 Mar 31 j 18:26	15° \mathbb{H} 05'39	27°12'15	morning max el	540 Mar 12 j 20:58	26° \approx 45'50	27°45'26
	539 Apr 12 j 19:44	0° \mathbb{Y}			540 Mar 15 j 22:25	0° \mathbb{H}	
	539 Apr 29 j 21:47	0° \mathbb{Z}			540 Apr 05 j 09:24	0° \mathbb{Y}	
morning set	539 May 01 j 12:22	3° \mathbb{Z} 18'50		morning set	540 Apr 14 j 17:24	17° \mathbb{Y} 52'00	
asc. node	539 May 05 j 19:36	12° \mathbb{Z} 29'31			540 Apr 20 j 11:10	0° \mathbb{Z}	
				max. Earth dist.	540 Apr 20 j 17:29	0° \mathbb{Z} 34'16	1.32471 AU
superior conj	539 May 08 j 15:50	18° \mathbb{Z} 43'00	0°29'43	asc. node	540 Apr 21 j 16:39	2° \mathbb{Z} 40'16	
minimum elong	539 May 08 j 14:33	18° \mathbb{Z} 35'56	0°29'26				
max. Earth dist.	539 May 08 j 06:20	17° \mathbb{Z} 50'48	1.32291 AU	superior conj	540 Apr 22 j 02:30	3° \mathbb{Z} 33'59	0°04'22
	539 May 13 j 19:54	0° \mathbb{I}		minimum elong	540 Apr 22 j 02:18	3° \mathbb{Z} 32'51	0°04'19
evening rise	539 May 15 j 14:10	3° \mathbb{I} 44'54		behind sun begin	540 Apr 21 j 21:22	3° \mathbb{Z} 05'59	
	539 May 29 j 15:56	0° \mathbb{S}		behind sun end	540 Apr 22 j 07:14	3° \mathbb{Z} 59'45	
evening max el	539 Jun 13 j 03:05	18° \mathbb{S} 39'16	26°07'12	evening rise	540 Apr 29 j 01:30	18° \mathbb{Z} 39'15	
desc. node	539 Jun 14 j 02:09	19° \mathbb{S} 32'47			540 May 04 j 15:35	0° \mathbb{I}	
retrograde	539 Jun 27 j 03:40	25° \mathbb{S} 51'17		evening max el	540 May 24 j 19:47	29° \mathbb{I} 36'56	24°46'00
evening set	539 Jul 03 j 11:15	24° \mathbb{S} 14'02			540 May 25 j 05:30	0° \mathbb{S}	
min. Earth dist.	539 Jul 07 j 15:51	21° \mathbb{S} 36'48	0.59122 AU	desc. node	540 May 30 j 23:10	4° \mathbb{S} 22'34	
inferior conj	539 Jul 10 j 23:30	19° \mathbb{S} 06'36	-4°-47'-41	retrograde	540 Jun 07 j 18:43	6° \mathbb{S} 41'21	
minimum elong	539 Jul 11 j 00:47	19° \mathbb{S} 04'10	4°47'39	evening set	540 Jun 12 j 20:59	5° \mathbb{S} 42'31	
morning rise	539 Jul 18 j 17:48	14° \mathbb{S} 37'13		min. Earth dist.	540 Jun 18 j 07:05	2° \mathbb{S} 52'13	0.57181 AU
direct	539 Jul 21 j 04:58	14° \mathbb{S} 16'29		inferior conj	540 Jun 21 j 05:04	0° \mathbb{S} 57'46	-4°-38'-54
morning max el	539 Jul 29 j 02:24	18° \mathbb{S} 03'12	18°28'35	minimum elong	540 Jun 21 j 01:35	1° \mathbb{S} 03'30	4°38'35
asc. node	539 Aug 01 j 18:50	22° \mathbb{S} 17'13			540 Jun 22 j 16:42	30° \mathbb{R} \mathbb{I}	
	539 Aug 06 j 19:07	0° \mathbb{Q}		morning rise	540 Jun 29 j 10:00	26° \mathbb{I} 50'05	
morning set	539 Aug 14 j 04:29	13° \mathbb{Q} 39'12		direct	540 Jul 02 j 00:07	26° \mathbb{I} 31'09	

	540 Jul 10 j 06:12	0°☿		direct	541 Jun 12 j 23:55	7°♊51'35	
morning max el	540 Jul 11 j 02:45	0°☿45'47	19°17'21	morning max el	541 Jun 23 j 16:34	12°♊48'26	20°27'08
asc. node	540 Jul 18 j 15:53	10°☿26'52		asc. node	541 Jul 05 j 12:56	29°♊15'38	
morning set	540 Jul 28 j 03:48	27°☿56'36			541 Jul 05 j 22:46	0°☿	
	540 Jul 29 j 04:34	0°♌		morning set	541 Jul 12 j 09:16	12°☿32'56	
superior conj	540 Aug 05 j 09:13	14°♌16'36	1°46'27	superior conj	541 Jul 20 j 01:20	28°☿18'35	1°44'52
minimum elong	540 Aug 05 j 09:48	14°♌19'26	1°46'25	minimum elong	541 Jul 20 j 00:17	28°☿13'18	1°44'49
max. Earth dist.	540 Aug 11 j 18:23	26°♌20'17	1.38128 AU		541 Jul 20 j 21:23	0°♌	
	540 Aug 13 j 18:57	0°♍		max. Earth dist.	541 Jul 25 j 00:31	8°♌09'58	1.36253 AU
evening rise	540 Aug 15 j 14:15	3°♍11'55		evening rise	541 Jul 29 j 01:37	15°♌48'57	
desc. node	540 Aug 26 j 22:32	21°♍55'54			541 Aug 06 j 03:31	0°♍	
	540 Sep 01 j 06:57	0°♎		desc. node	541 Aug 13 j 19:33	12°♍10'57	
evening max el	540 Sep 20 j 06:38	24°♎02'17	24°57'13		541 Aug 26 j 19:27	0°♎	
	540 Sep 28 j 07:09	0°♏		evening max el	541 Sep 02 j 18:11	7°♎39'30	26°05'37
retrograde	540 Oct 01 j 23:30	0°♏50'00		retrograde	541 Sep 15 j 07:35	14°♎47'35	
	540 Oct 05 j 09:04	30°♏♎		evening set	541 Sep 21 j 13:46	12°♎11'26	
evening set	540 Oct 07 j 15:19	28°♎27'47		min. Earth dist.	541 Sep 25 j 19:39	7°♎38'07	0.66559 AU
min. Earth dist.	540 Oct 12 j 05:06	23°♎18'03	0.67274 AU	inferior conj	541 Sep 27 j 05:14	5°♎53'27	-1°-27'-22
inferior conj	540 Oct 13 j 03:24	22°♎04'35	0°-30'-47	minimum elong	541 Sep 27 j 07:28	5°♎46'27	1°26'28
minimum elong	540 Oct 13 j 04:10	22°♎02'03	0°30'28	asc. node	541 Oct 01 j 12:08	1°♎09'11	
asc. node	540 Oct 14 j 15:06	20°♎09'04		morning rise	541 Oct 03 j 02:08	0°♎00'13	
morning rise	540 Oct 18 j 17:32	16°♎01'43			541 Oct 03 j 02:17	30°♏♍	
direct	540 Oct 22 j 05:51	14°♎50'32		direct	541 Oct 06 j 04:11	29°♏05'41	
morning max el	540 Oct 29 j 17:17	19°♎06'36	19°50'09		541 Oct 09 j 08:42	0°♎	
greatest brilliancy	540 Nov 06 j 09:24	28°♎36'08	-0.6m	morning max el	541 Oct 13 j 01:21	2°♎56'21	18°55'45
	540 Nov 07 j 09:18	0°♏			541 Oct 31 j 22:54	0°♏	
desc. node	540 Nov 22 j 21:49	23°♏16'57		morning set	541 Nov 03 j 22:03	4°♏39'52	
morning set	540 Nov 24 j 11:11	25°♏41'03		desc. node	541 Nov 09 j 18:52	13°♏53'17	
	540 Nov 27 j 06:01	0°♐		max. Earth dist.	541 Nov 19 j 01:20	28°♏26'42	1.44933 AU
max. Earth dist.	540 Dec 06 j 09:00	14°♐20'11	1.44136 AU				
superior conj	540 Dec 11 j 03:35	21°♐59'59	-1°-42'-44	superior conj	541 Nov 20 j 10:51	0°♐38'36	-1°-6'-37
minimum elong	540 Dec 10 j 20:11	21°♐30'06	1°42'10	minimum elong	541 Nov 20 j 03:00	0°♐07'43	1°05'43
	540 Dec 16 j 00:57	0°♑			541 Nov 20 j 01:03	0°♐	
evening rise	540 Dec 24 j 16:04	14°♑29'51		evening rise	541 Dec 05 j 19:17	25°♐10'11	
	541 Jan 02 j 20:41	0°♒			541 Dec 08 j 18:39	0°♑	
asc. node	541 Jan 10 j 14:23	11°♒09'45		evening max el	541 Dec 26 j 10:18	26°♑02'10	18°42'24
evening max el	541 Jan 11 j 22:47	12°♒37'47	18°15'49	asc. node	541 Dec 28 j 11:25	27°♑53'09	
retrograde	541 Jan 18 j 10:21	16°♒06'51		retrograde	542 Jan 02 j 02:51	29°♑46'34	
evening set	541 Jan 21 j 07:01	15°♒23'38		evening set	542 Jan 05 j 04:56	28°♑52'28	
inferior conj	541 Jan 27 j 10:18	10°♒00'46	3°46'50	inferior conj	542 Jan 11 j 00:37	23°♑11'36	3°31'38
minimum elong	541 Jan 27 j 09:24	10°♒03'13	3°46'47	minimum elong	542 Jan 10 j 22:28	23°♑18'07	3°31'17
min. Earth dist.	541 Jan 29 j 21:55	7°♒16'35	0.63432 AU	min. Earth dist.	542 Jan 12 j 20:53	20°♑57'41	0.65049 AU
morning rise	541 Feb 02 j 10:02	3°♒57'37		morning rise	542 Jan 16 j 14:50	17°♑01'57	
direct	541 Feb 09 j 08:59	1°♒12'55		direct	542 Jan 23 j 07:36	14°♑10'43	
desc. node	541 Feb 18 j 20:59	5°♒15'30		morning max el	542 Feb 05 j 14:07	21°♑55'24	27°03'23
morning max el	541 Feb 23 j 04:30	9°♒05'51	27°41'20	desc. node	542 Feb 05 j 18:02	22°♑05'15	
	541 Mar 11 j 10:49	0°♓			542 Feb 12 j 16:23	0°♓	
	541 Mar 28 j 15:17	0°♑			542 Mar 04 j 15:19	0°♓	
morning set	541 Mar 29 j 15:53	2°♑01'54		morning set	542 Mar 13 j 04:47	15°♓39'21	
max. Earth dist.	541 Apr 03 j 22:52	12°♑55'11	1.33053 AU	max. Earth dist.	542 Mar 17 j 18:41	24°♓43'28	1.34075 AU
					542 Mar 20 j 08:19	0°♑	
superior conj	541 Apr 06 j 10:15	18°♑11'41	0°-22'-27	superior conj	542 Mar 21 j 13:10	2°♑30'23	0°-49'-37
minimum elong	541 Apr 06 j 11:21	18°♑17'31	0°22'14	minimum elong	542 Mar 21 j 15:35	2°♑43'02	0°49'10
asc. node	541 Apr 08 j 13:41	22°♑48'50		asc. node	542 Mar 26 j 10:43	12°♑51'24	
	541 Apr 11 j 21:44	0°♒		evening rise	542 Mar 28 j 23:38	18°♑11'41	
evening rise	541 Apr 13 j 13:15	3°♒30'04			542 Apr 03 j 21:19	0°♒	
	541 Apr 28 j 01:45	0°♓		evening max el	542 Apr 18 j 05:14	20°♒50'36	21°38'28
evening max el	541 May 06 j 10:00	10°♓10'03	23°11'28	retrograde	542 Apr 30 j 13:23	26°♒52'10	
desc. node	541 May 17 j 20:11	16°♓43'51		evening set	542 May 03 j 01:37	26°♒37'58	
retrograde	541 May 19 j 21:33	16°♓53'29		desc. node	542 May 04 j 17:12	26°♒14'04	
evening set	541 May 23 j 12:33	16°♓24'38		inferior conj	542 May 12 j 10:56	22°♒36'17	-2°-10'-49
min. Earth dist.	541 May 30 j 19:39	13°♓06'59	0.55692 AU	minimum elong	542 May 12 j 05:01	22°♒44'34	2°08'51
inferior conj	541 Jun 01 j 14:47	12°♓03'51	-3°-47'-4	min. Earth dist.	542 May 12 j 08:19	22°♒39'57	0.54990 AU
minimum elong	541 Jun 01 j 07:34	12°♓14'27	3°45'25	morning rise	542 May 21 j 09:11	18°♒39'30	
morning rise	541 Jun 10 j 05:49	8°♓09'49		direct	542 May 24 j 11:26	18°♒18'29	

morning max el	542 Jun 05 j 19:11	24°♄07'29	21°55'24	transit end	543 Apr 22 j 08:47	2°♄58'05	
	542 Jun 11 j 01:54	0°♄		min. Earth dist.	543 Apr 23 j 21:45	2°♄03'46	0.55245 AU
asc. node	542 Jun 22 j 09:59	18°♄33'52			543 Apr 27 j 18:22	30°♄	
morning set	542 Jun 26 j 18:40	27°♄21'58		morning rise	543 May 01 j 04:26	28°♄43'24	
	542 Jun 28 j 00:54	0°♄		direct	543 May 04 j 23:54	28°♄11'50	
					543 May 11 j 22:50	0°♄	
superior conj	542 Jul 04 j 02:07	12°♄47'00	1°36'30	morning max el	543 May 18 j 12:59	4°♄50'10	23°35'18
minimum elong	542 Jul 04 j 00:04	12°♄36'15	1°36'21		543 Jun 05 j 02:40	0°♄	
max. Earth dist.	542 Jul 07 j 14:44	20°♄04'52	1.34697 AU	asc. node	543 Jun 09 j 07:02	8°♄13'51	
evening rise	542 Jul 12 j 05:43	29°♄15'30		morning set	543 Jun 11 j 06:10	12°♄18'20	
	542 Jul 12 j 14:58	0°♄					
	542 Jul 30 j 06:51	0°♄		superior conj	543 Jun 18 j 08:40	27°♄32'50	1°22'47
desc. node	542 Jul 31 j 16:32	2°♄03'31		minimum elong	543 Jun 18 j 06:13	27°♄19'38	1°22'29
evening max el	542 Aug 16 j 06:13	21°♄12'09	26°56'47		543 Jun 19 j 12:08	0°♄	
retrograde	542 Aug 29 j 10:24	28°♄29'37		max. Earth dist.	543 Jun 20 j 14:42	2°♄21'21	1.33528 AU
evening set	542 Sep 05 j 05:03	25°♄45'58		evening rise	543 Jun 25 j 22:05	13°♄18'50	
min. Earth dist.	542 Sep 09 j 03:41	21°♄49'57	0.65495 AU		543 Jul 04 j 19:33	0°♄	
inferior conj	542 Sep 11 j 01:29	19°♄37'32	-2°-23'-48	desc. node	543 Jul 18 j 13:32	21°♄24'08	
minimum elong	542 Sep 11 j 05:09	19°♄26'54	2°22'28		543 Jul 25 j 10:38	0°♄	
morning rise	542 Sep 17 j 06:43	13°♄56'59		evening max el	543 Jul 29 j 17:44	4°♄29'24	27°23'23
asc. node	542 Sep 18 j 09:12	13°♄30'20		retrograde	543 Aug 12 j 07:18	11°♄48'17	
direct	542 Sep 20 j 00:55	13°♄15'14		evening set	543 Aug 19 j 10:23	9°♄06'46	
morning max el	542 Sep 26 j 14:31	16°♄49'38	18°17'34	min. Earth dist.	543 Aug 23 j 03:02	5°♄46'12	0.64071 AU
	542 Oct 06 j 06:09	0°♄		inferior conj	543 Aug 25 j 13:47	3°♄11'55	-3°-17'-27
morning set	542 Oct 15 j 12:52	15°♄02'44		minimum elong	543 Aug 25 j 18:30	2°♄59'30	3°16'02
	542 Oct 24 j 18:36	0°♄			543 Aug 28 j 20:02	30°♄	
desc. node	542 Oct 27 j 15:52	4°♄36'09		morning rise	543 Sep 01 j 04:36	27°♄47'31	
				direct	543 Sep 03 j 17:35	27°♄14'59	
superior conj	542 Oct 30 j 12:10	9°♄06'40	0°-18'-43	asc. node	543 Sep 05 j 06:15	27°♄26'54	
minimum elong	542 Oct 30 j 09:43	8°♄57'01	0°18'25		543 Sep 09 j 12:52	0°♄	
max. Earth dist.	542 Nov 01 j 19:58	12°♄46'36	1.45008 AU	morning max el	543 Sep 10 j 06:12	0°♄41'18	17°56'39
	542 Nov 12 j 19:56	0°♄		morning set	543 Sep 27 j 07:07	26°♄45'46	
evening rise	542 Nov 15 j 22:58	4°♄53'06			543 Sep 29 j 04:33	0°♄	
greatest brilliancy	542 Nov 30 j 23:37	28°♄02'51	-0.7m				
	542 Dec 02 j 07:48	0°♄		superior conj	543 Oct 10 j 05:05	18°♄24'10	0°28'34
evening max el	542 Dec 09 j 18:35	9°♄29'52	19°26'01	minimum elong	543 Oct 10 j 08:11	18°♄36'48	0°28'09
asc. node	542 Dec 15 j 08:28	13°♄24'19		desc. node	543 Oct 14 j 12:53	25°♄22'46	
retrograde	542 Dec 16 j 23:12	13°♄38'47		max. Earth dist.	543 Oct 15 j 14:07	27°♄03'24	1.44357 AU
evening set	542 Dec 20 j 08:14	12°♄32'09			543 Oct 17 j 10:39	0°♄	
inferior conj	542 Dec 25 j 22:43	6°♄35'50	3°04'06	evening rise	543 Oct 26 j 09:38	13°♄57'56	
minimum elong	542 Dec 25 j 20:00	6°♄44'36	3°03'26		543 Nov 05 j 22:48	0°♄	
min. Earth dist.	542 Dec 27 j 04:22	4°♄59'48	0.66278 AU	greatest brilliancy	543 Nov 16 j 16:13	15°♄26'17	-0.5m
morning rise	542 Dec 31 j 07:00	0°♄22'25		evening max el	543 Nov 22 j 21:58	22°♄58'55	20°24'31
	542 Dec 31 j 17:23	30°♄		retrograde	543 Nov 30 j 20:55	27°♄40'05	
direct	543 Jan 06 j 12:16	27°♄38'02		asc. node	543 Dec 02 j 05:31	27°♄29'38	
	543 Jan 13 j 01:36	0°♄		evening set	543 Dec 04 j 14:45	26°♄19'00	
morning max el	543 Jan 18 j 23:23	5°♄01'05	25°59'05	inferior conj	543 Dec 10 j 01:58	20°♄10'07	2°27'22
desc. node	543 Jan 23 j 15:04	10°♄08'06		minimum elong	543 Dec 09 j 23:18	20°♄19'07	2°26'31
	543 Feb 07 j 04:30	0°♄		min. Earth dist.	543 Dec 10 j 18:30	19°♄14'07	0.67118 AU
morning set	543 Feb 24 j 03:58	28°♄31'07		morning rise	543 Dec 15 j 07:22	13°♄54'59	
	543 Feb 24 j 23:07	0°♄		direct	543 Dec 20 j 22:13	11°♄26'57	
max. Earth dist.	543 Feb 28 j 02:40	5°♄58'23	1.35555 AU	morning max el	544 Jan 01 j 07:48	18°♄14'36	24°37'58
				desc. node	544 Jan 10 j 12:07	29°♄02'58	
superior conj	543 Mar 05 j 08:42	16°♄22'11	-1°-15'-43		544 Jan 11 j 05:28	0°♄	
minimum elong	543 Mar 05 j 12:14	16°♄40'04	1°15'10		544 Jan 31 j 06:17	0°♄	
	543 Mar 11 j 23:58	0°♄		morning set	544 Feb 06 j 07:59	10°♄21'55	
evening rise	543 Mar 13 j 06:37	2°♄37'18		max. Earth dist.	544 Feb 10 j 00:58	17°♄00'47	1.37439 AU
asc. node	543 Mar 13 j 07:46	2°♄43'10					
	543 Mar 29 j 12:12	0°♄		superior conj	544 Feb 16 j 17:43	29°♄38'16	-1°-38'-42
evening max el	543 Mar 31 j 10:50	2°♄02'13	20°18'04	minimum elong	544 Feb 16 j 21:42	29°♄57'37	1°38'16
retrograde	543 Apr 11 j 02:53	7°♄10'24			544 Feb 16 j 22:12	0°♄	
evening set	543 Apr 13 j 05:20	6°♄59'18		evening rise	544 Feb 25 j 07:56	16°♄40'23	
desc. node	543 Apr 21 j 14:13	3°♄25'19		asc. node	544 Feb 28 j 04:49	22°♄19'19	
inferior conj	543 Apr 22 j 06:33	3°♄01'22	0°-11'-45		544 Mar 03 j 07:31	0°♄	
minimum elong	543 Apr 22 j 06:00	3°♄02'10	0°11'33	evening max el	544 Mar 13 j 03:44	13°♄52'26	19°15'52
transit middle	543 Apr 22 j 06:00	3°♄02'10	0°11'33	retrograde	544 Mar 22 j 03:38	18°♄12'30	
transit begin	543 Apr 22 j 03:14	3°♄06'15		evening set	544 Mar 24 j 07:30	17°♄58'34	

inferior conj	544 Apr 01 j 15:28	13° Υ 48'52	1°36'13	retrograde	545 Mar 03 j 22:53	0° Υ 04'06	
minimum elong	544 Apr 01 j 19:03	13° Υ 42'53	1°35'04		545 Mar 05 j 00:14	30° \Re H	
min. Earth dist.	544 Apr 04 j 12:37	11° Υ 53'59	0.56396 AU	evening set	545 Mar 06 j 07:30	29° H 44'03	
desc. node	544 Apr 07 j 11:17	10° Υ 09'25		inferior conj	545 Mar 13 j 20:55	25° H 15'14	2°52'11
morning rise	544 Apr 10 j 02:38	8° Υ 58'18		minimum elong	545 Mar 14 j 00:59	25° H 07'14	2°51'15
direct	544 Apr 14 j 23:02	8° Υ 04'11		min. Earth dist.	545 Mar 17 j 06:44	22° H 36'35	0.58186 AU
morning max el	544 Apr 29 j 03:31	15° Υ 18'42	25°14'26	morning rise	545 Mar 21 j 14:24	19° H 53'26	
	544 May 10 j 21:20	0° B		desc. node	545 Mar 25 j 08:20	18° H 36'54	
morning set	544 May 25 j 18:04	27° B 16'10		direct	545 Mar 27 j 12:01	18° H 25'02	
asc. node	544 May 26 j 04:04	28° B 08'57		morning max el	545 Apr 10 j 20:49	26° H 02'03	26°37'22
	544 May 27 j 00:57	0° II			545 Apr 14 j 14:21	0° Υ	
					545 May 04 j 02:58	0° B	
superior conj	544 Jun 01 j 18:43	12° II 28'19	1°04'47	morning set	545 May 10 j 04:47	12° B 10'02	
minimum elong	544 Jun 01 j 16:23	12° II 15'34	1°04'23	asc. node	545 May 13 j 01:08	18° B 14'08	
max. Earth dist.	544 Jun 02 j 22:20	14° II 58'47	1.32751 AU				
evening rise	544 Jun 08 j 23:04	27° II 47'20		superior conj	545 May 17 j 06:23	27° B 27'21	0°43'20
	544 Jun 10 j 01:04	0° B		minimum elong	545 May 17 j 04:36	27° B 17'35	0°42'58
	544 Jun 27 j 02:33	0° Q		max. Earth dist.	545 May 17 j 10:16	27° B 48'43	1.32351 AU
desc. node	544 Jul 04 j 10:35	9° Q 58'51			545 May 18 j 10:10	0° II	
evening max el	544 Jul 11 j 02:16	17° Q 16'36	27°19'32	evening rise	545 May 24 j 05:52	12° II 32'15	
retrograde	544 Jul 24 j 21:36	24° Q 33'40			545 Jun 02 j 04:34	0° B	
evening set	544 Aug 01 j 02:02	22° Q 06'39		desc. node	545 Jun 21 j 07:36	27° B 28'29	
min. Earth dist.	544 Aug 04 j 16:00	19° Q 14'40	0.62312 AU	evening max el	545 Jun 23 j 05:13	29° B 22'21	26°42'34
inferior conj	544 Aug 07 j 15:06	16° Q 28'32	-4°-4'-21		545 Jun 23 j 21:21	0° Q	
minimum elong	544 Aug 07 j 19:55	16° Q 17'12	4°03'19	retrograde	545 Jul 07 j 04:33	6° Q 37'12	
morning rise	544 Aug 14 j 16:24	11° Q 23'52		evening set	545 Jul 13 j 23:31	4° Q 38'21	
direct	544 Aug 17 j 02:45	10° Q 57'37		min. Earth dist.	545 Jul 17 j 18:46	2° Q 01'04	0.60310 AU
asc. node	544 Aug 22 j 03:18	12° Q 52'29			545 Jul 20 j 06:11	30° \Re B	
morning max el	544 Aug 23 j 21:30	14° Q 24'06	17°53'50	inferior conj	545 Jul 21 j 01:59	29° B 19'00	-4°-38'-3
	544 Sep 03 j 14:47	0° H		minimum elong	545 Jul 21 j 05:13	29° B 12'21	4°37'42
morning set	544 Sep 08 j 22:46	9° H 29'43		morning rise	545 Jul 28 j 14:09	24° B 36'43	
				direct	545 Jul 31 j 00:18	24° B 14'33	
superior conj	544 Sep 20 j 00:38	29° H 00'34	1°06'01	morning max el	545 Aug 07 j 09:26	27° B 50'39	18°10'08
minimum elong	544 Sep 20 j 05:31	29° H 21'23	1°05'26	asc. node	545 Aug 09 j 00:21	29° B 33'25	
	544 Sep 20 j 14:35	0° B			545 Aug 09 j 09:28	0° Q	
max. Earth dist.	544 Sep 27 j 04:36	10° B 57'27	1.43059 AU	morning set	545 Aug 23 j 06:04	22° Q 58'30	
desc. node	544 Sep 30 j 09:55	16° B 09'24			545 Aug 26 j 23:51	0° H	
evening rise	544 Oct 04 j 18:24	23° B 02'03					
	544 Oct 09 j 06:40	0° M		superior conj	545 Sep 01 j 22:09	10° H 53'45	1°30'43
	544 Oct 30 j 05:42	0° J		minimum elong	545 Sep 02 j 01:57	11° H 10'48	1°30'23
greatest brilliancy	544 Oct 30 j 21:06	0° J 48'27	-0.4m	max. Earth dist.	545 Sep 09 j 13:09	24° H 11'53	1.41287 AU
evening max el	544 Nov 04 j 19:32	6° J 28'05	21°35'00		545 Sep 13 j 00:45	0° B	
retrograde	544 Nov 13 j 17:57	11° J 46'55		evening rise	545 Sep 14 j 18:12	2° B 49'02	
evening set	544 Nov 17 j 22:33	10° J 09'37		desc. node	545 Sep 17 j 06:56	6° B 52'44	
asc. node	544 Nov 18 j 02:34	10° J 01'36			545 Oct 02 j 16:00	0° M	
inferior conj	544 Nov 23 j 08:10	3° J 51'33	1°43'34	greatest brilliancy	545 Oct 13 j 08:05	14° M 11'35	-0.3m
minimum elong	544 Nov 23 j 06:02	3° J 58'58	1°42'46	evening max el	545 Oct 18 j 11:47	19° M 58'19	22°53'11
min. Earth dist.	544 Nov 23 j 13:05	3° J 34'36	0.67585 AU	retrograde	545 Oct 28 j 12:45	25° M 56'05	
	544 Nov 26 j 06:13	30° \Re M		evening set	545 Nov 02 j 05:55	24° M 01'21	
morning rise	544 Nov 28 j 13:15	27° M 36'39		asc. node	545 Nov 04 j 23:36	21° M 10'15	
direct	544 Dec 03 j 12:41	25° M 30'05		inferior conj	545 Nov 07 j 15:25	17° M 37'58	0°54'21
	544 Dec 12 j 02:26	0° J		minimum elong	545 Nov 07 j 14:11	17° M 42'15	0°53'51
morning max el	544 Dec 13 j 17:08	1° J 33'12	23°10'08	min. Earth dist.	545 Nov 07 j 09:40	17° M 57'49	0.67713 AU
greatest brilliancy	544 Dec 18 j 16:47	7° J 08'15	-0.3m	morning rise	545 Nov 12 j 22:25	11° M 25'32	
desc. node	544 Dec 27 j 09:11	18° J 34'48		direct	545 Nov 17 j 07:01	9° M 41'40	
	545 Jan 04 j 05:36	0° B		morning max el	545 Nov 26 j 06:35	14° M 58'30	21°44'35
morning set	545 Jan 17 j 10:35	20° B 55'58		greatest brilliancy	545 Dec 01 j 03:39	20° M 30'27	-0.4m
max. Earth dist.	545 Jan 21 j 20:20	28° B 25'33	1.39547 AU		545 Dec 08 j 07:17	0° J	
	545 Jan 22 j 18:03	0° \approx		desc. node	545 Dec 14 j 06:13	8° J 32'58	
				morning set	545 Dec 28 j 07:57	0° B 05'54	
					545 Dec 28 j 06:28	0° B	
superior conj	545 Jan 29 j 12:03	12° \approx 07'53	-1°-55'-41	max. Earth dist.	546 Jan 03 j 19:27	10° B 37'57	1.41619 AU
minimum elong	545 Jan 29 j 15:09	12° \approx 22'13	1°55'32				
	545 Feb 07 j 21:59	0° H					
evening rise	545 Feb 08 j 00:49	0° H 13'38		superior conj	546 Jan 11 j 10:30	23° B 37'52	-2°-2'-48
asc. node	545 Feb 14 j 01:52	11° H 34'01		minimum elong	546 Jan 11 j 10:37	23° B 38'22	2°02'49
evening max el	545 Feb 24 j 06:01	26° H 17'49	18°33'41		546 Jan 15 j 00:47	0° \approx	
	545 Mar 02 j 21:49	0° Υ		evening rise	546 Jan 22 j 05:44	13° \approx 08'09	

asc. node	546 Jan 31 j 22:55	0° K 19'24			546 Dec 20 j 22:24	0° Z	
	546 Jan 31 j 18:05	0° K					
evening max el	546 Feb 07 j 14:41	9° K 09'22	18°11'29	superior conj	546 Dec 23 j 08:01	3° Z 57'43	-1°-55'-18
retrograde	546 Feb 14 j 11:55	12° K 37'39		minimum elong	546 Dec 23 j 03:13	3° Z 37'49	1°55'04
evening set	546 Feb 17 j 01:23	12° K 09'30		evening rise	547 Jan 04 j 18:35	25° Z 16'02	
inferior conj	546 Feb 23 j 22:49	7° K 19'28	3°34'03		547 Jan 07 j 11:21	0° \approx	
minimum elong	546 Feb 24 j 01:09	7° K 14'09	3°33'47	asc. node	547 Jan 18 j 19:57	18° \approx 26'45	
min. Earth dist.	546 Feb 27 j 06:28	4° K 19'54	0.60281 AU	evening max el	547 Jan 22 j 02:41	22° \approx 19'15	18°08'48
morning rise	546 Mar 02 j 21:40	1° K 35'37		retrograde	547 Jan 28 j 14:57	25° \approx 44'03	
	546 Mar 06 j 07:13	30° R \approx		evening set	547 Jan 31 j 09:00	25° \approx 06'32	
direct	546 Mar 09 j 13:22	29° \approx 29'56		inferior conj	547 Feb 06 j 17:58	19° \approx 55'23	3°48'16
desc. node	546 Mar 12 j 05:24	29° \approx 49'09		minimum elong	547 Feb 06 j 18:08	19° \approx 54'58	3°48'15
	546 Mar 12 j 21:47	0° K		min. Earth dist.	547 Feb 09 j 14:12	16° \approx 59'44	0.62355 AU
morning max el	546 Mar 23 j 19:50	7° K 18'58	27°30'50	morning rise	547 Feb 13 j 01:02	13° \approx 57'54	
	546 Apr 09 j 23:27	0° Y		direct	547 Feb 20 j 00:20	11° \approx 23'18	
morning set	546 Apr 24 j 12:26	26° Y 52'30		desc. node	547 Feb 27 j 02:27	13° \approx 39'37	
	546 Apr 26 j 00:19	0° B		morning max el	547 Mar 06 j 00:35	19° \approx 16'24	27°47'58
asc. node	546 Apr 29 j 22:11	8° B 23'54			547 Mar 15 j 03:40	0° K	
max. Earth dist.	546 Apr 30 j 22:36	10° B 37'11	1.32319 AU		547 Apr 02 j 20:07	0° Y	
				morning set	547 Apr 08 j 14:58	11° Y 16'35	
superior conj	546 May 01 j 17:53	12° B 22'51	0°19'11	max. Earth dist.	547 Apr 14 j 07:34	23° Y 11'33	1.32671 AU
minimum elong	546 May 01 j 17:01	12° B 18'08	0°18'59				
evening rise	546 May 08 j 16:05	27° B 24'46		superior conj	547 Apr 16 j 03:33	27° Y 09'00	0°-6'-54
	546 May 09 j 21:42	0° II		minimum elong	547 Apr 16 j 03:52	27° Y 10'46	0°06'51
	546 May 27 j 00:03	0° E		behind sun begin	547 Apr 15 j 23:11	26° Y 45'20	
evening max el	546 Jun 05 j 01:16	10° E 42'22	25°35'09	behind sun end	547 Apr 16 j 08:34	27° Y 36'13	
desc. node	546 Jun 08 j 04:37	13° E 25'53		asc. node	547 Apr 16 j 19:14	28° Y 34'09	
retrograde	546 Jun 19 j 02:20	17° E 52'54			547 Apr 17 j 11:01	0° B	
evening set	546 Jun 24 j 22:36	16° E 32'13		evening rise	547 Apr 23 j 03:49	12° B 18'16	
min. Earth dist.	546 Jun 29 j 13:30	13° E 51'14	0.58259 AU		547 May 02 j 04:14	0° II	
inferior conj	546 Jul 02 j 18:57	11° E 33'44	-4°-48'-31	evening max el	547 May 17 j 16:17	21° II 26'37	24°06'28
minimum elong	546 Jul 02 j 18:21	11° E 34'50	4°48'32	desc. node	547 May 26 j 01:39	27° II 16'34	
morning rise	546 Jul 10 j 17:50	7° E 14'11		retrograde	547 May 31 j 12:13	28° II 23'52	
direct	546 Jul 13 j 05:54	6° E 54'30		evening set	547 Jun 04 j 23:11	27° II 39'50	
morning max el	546 Jul 21 j 14:50	10° E 51'42	18°46'45	min. Earth dist.	547 Jun 11 j 03:24	24° II 39'10	0.56473 AU
asc. node	546 Jul 26 j 21:24	17° E 14'22		inferior conj	547 Jun 13 j 15:47	23° II 05'26	-4°-22'-41
	546 Aug 03 j 09:11	0° Q		minimum elong	547 Jun 13 j 10:19	23° II 13'58	4°21'51
morning set	546 Aug 07 j 00:31	7° Q 00'21		morning rise	547 Jun 22 j 01:05	19° II 04'36	
				direct	547 Jun 24 j 16:41	18° II 46'07	
superior conj	546 Aug 15 j 16:22	23° Q 48'41	1°43'35	morning max el	547 Jul 04 j 10:49	23° II 17'35	19°44'30
minimum elong	546 Aug 15 j 18:06	23° Q 56'55	1°43'30		547 Jul 10 j 02:52	0° E	
	546 Aug 18 j 23:53	0° P		asc. node	547 Jul 13 j 18:27	5° E 41'45	
max. Earth dist.	546 Aug 22 j 16:55	6° P 42'02	1.39281 AU	morning set	547 Jul 22 j 02:44	21° E 26'15	
evening rise	546 Aug 26 j 17:58	13° P 43'40			547 Jul 26 j 08:10	0° Q	
desc. node	546 Sep 04 j 03:57	27° P 29'03					
	546 Sep 05 j 18:43	0° A		superior conj	547 Jul 30 j 01:47	7° Q 29'45	1°46'41
	546 Sep 27 j 16:49	0° M		minimum elong	547 Jul 30 j 01:36	7° Q 28'51	1°46'42
evening max el	546 Oct 01 j 00:39	3° M 32'16	24°13'17	max. Earth dist.	547 Aug 04 j 20:46	18° Q 40'56	1.37300 AU
retrograde	546 Oct 12 j 03:59	10° M 04'21		evening rise	547 Aug 08 j 17:31	25° Q 46'13	
evening set	546 Oct 17 j 11:12	7° M 52'02			547 Aug 11 j 02:53	0° P	
min. Earth dist.	546 Oct 22 j 05:51	2° M 21'51	0.67520 AU	desc. node	547 Aug 22 j 00:57	17° P 53'26	
inferior conj	546 Oct 22 j 21:57	1° M 27'33	0°01'08		547 Aug 30 j 07:51	0° A	
minimum elong	546 Oct 22 j 21:55	1° M 27'39	0°01'08	evening max el	547 Sep 13 j 12:24	17° A 09'40	25°28'08
transit middle	546 Oct 22 j 21:55	1° M 27'39	0°01'08	retrograde	547 Sep 25 j 14:41	24° A 06'57	
transit begin	546 Oct 22 j 19:12	1° M 36'50		evening set	547 Oct 01 j 12:39	21° A 38'34	
transit end	546 Oct 23 j 00:39	1° M 18'28		min. Earth dist.	547 Oct 05 j 23:07	16° A 43'58	0.67007 AU
asc. node	546 Oct 22 j 20:38	1° M 31'59		inferior conj	547 Oct 07 j 02:00	15° A 17'13	0°-54'-41
	546 Oct 24 j 00:10	30° R A		minimum elong	547 Oct 07 j 03:23	15° A 12'44	0°54'06
morning rise	546 Oct 28 j 08:55	25° A 20'10		asc. node	547 Oct 09 j 17:40	12° A 01'49	
direct	546 Nov 01 j 04:06	23° A 57'45		morning rise	547 Oct 12 j 18:47	9° A 17'53	
morning max el	546 Nov 09 j 02:56	28° A 33'29	20°28'12	direct	547 Oct 16 j 02:32	8° A 14'03	
	546 Nov 10 j 11:38	0° M		morning max el	547 Oct 23 j 06:56	12° A 18'01	19°25'06
greatest brilliancy	546 Nov 15 j 10:53	6° M 05'39	-0.5m	greatest brilliancy	547 Nov 01 j 12:12	24° A 08'56	-0.7m
desc. node	546 Dec 01 j 03:15	28° M 50'15			547 Nov 05 j 10:45	0° M	
	546 Dec 01 j 21:36	0° A		morning set	547 Nov 16 j 07:05	16° M 40'40	
morning set	546 Dec 07 j 07:19	8° A 18'21		desc. node	547 Nov 18 j 00:15	19° M 20'32	
max. Earth dist.	546 Dec 17 j 02:10	23° A 45'14	1.43368 AU		547 Nov 24 j 20:09	0° A	

max. Earth dist.	547 Nov 29 j 16:08	7°♂36'33	1.44562 AU	morning set	548 Oct 26 j 05:11	26°♂13'54	
					548 Oct 28 j 13:55	0°♂	
superior conj	547 Dec 03 j 03:03	13°♂05'52	-1°-29'-29	desc. node	548 Nov 03 j 21:16	9°♂59'56	
minimum elong	547 Dec 02 j 18:39	12°♂32'23	1°28'41				
	547 Dec 13 j 13:07	0°♂		superior conj	548 Nov 11 j 04:56	21°♂31'25	0°-47'-2
evening rise	547 Dec 17 j 10:59	6°♂29'10		minimum elong	548 Nov 10 j 22:54	21°♂07'44	0°46'17
	548 Jan 01 j 01:11	0°♂		max. Earth dist.	548 Nov 11 j 10:19	21°♂52'36	1.45059 AU
evening max el	548 Jan 05 j 15:07	5°♂39'41	18°24'59		548 Nov 16 j 14:18	0°♂	
asc. node	548 Jan 05 j 16:59	5°♂44'24		evening rise	548 Nov 27 j 03:58	16°♂44'05	
retrograde	548 Jan 12 j 03:40	9°♂13'38			548 Dec 05 j 11:58	0°♂	
evening set	548 Jan 15 j 02:37	8°♂25'47		evening max el	548 Dec 19 j 01:28	19°♂05'23	18°58'59
inferior conj	548 Jan 21 j 02:20	2°♂54'58	3°42'07	asc. node	548 Dec 22 j 14:01	21°♂58'45	
minimum elong	548 Jan 21 j 00:49	2°♂59'19	3°41'58	retrograde	548 Dec 25 j 22:15	22°♂59'11	
min. Earth dist.	548 Jan 23 j 07:23	0°♂22'32	0.64170 AU	evening set	548 Dec 29 j 03:09	21°♂59'48	
	548 Jan 23 j 15:30	30°♂		inferior conj	549 Jan 03 j 20:18	16°♂11'45	3°21'15
morning rise	548 Jan 26 j 21:35	26°♂48'57		minimum elong	549 Jan 03 j 17:51	16°♂19'27	3°20'46
direct	548 Feb 02 j 18:50	23°♂59'48		min. Earth dist.	549 Jan 05 j 10:04	14°♂13'44	0.65617 AU
desc. node	548 Feb 13 j 23:28	29°♂33'41		morning rise	549 Jan 09 j 07:36	10°♂00'16	
	548 Feb 14 j 11:14	0°♂		direct	549 Jan 15 j 19:52	7°♂10'53	
morning max el	548 Feb 16 j 09:11	1°♂49'40	27°28'56	morning max el	549 Jan 28 j 19:00	14°♂47'43	26°38'51
	548 Mar 08 j 08:16	0°♂		desc. node	549 Jan 30 j 20:30	16°♂57'22	
morning set	548 Mar 22 j 09:50	25°♂14'02			549 Feb 10 j 06:11	0°♂	
	548 Mar 24 j 19:05	0°♂			549 Mar 01 j 02:03	0°♂	
max. Earth dist.	548 Mar 27 j 09:23	5°♂19'59	1.33437 AU	morning set	549 Mar 05 j 17:30	8°♂33'47	
				max. Earth dist.	549 Mar 10 j 00:38	16°♂54'50	1.34651 AU
superior conj	548 Mar 30 j 09:32	11°♂39'50	0°-34'00				
minimum elong	548 Mar 30 j 11:12	11°♂48'39	0°33'40	superior conj	549 Mar 14 j 09:40	25°♂48'01	-1°00'-55
asc. node	548 Apr 02 j 16:17	18°♂40'59		minimum elong	549 Mar 14 j 12:36	26°♂03'12	1°00'24
evening rise	548 Apr 06 j 15:14	27°♂06'30			549 Mar 16 j 10:08	0°♂	
	548 Apr 08 j 00:31	0°♂		asc. node	549 Mar 20 j 13:20	8°♂39'39	
	548 Apr 26 j 09:22	0°♂		evening rise	549 Mar 22 j 00:28	11°♂42'29	
evening max el	548 Apr 28 j 07:57	2°♂00'08	22°30'54		549 Mar 31 j 14:52	0°♂	
retrograde	548 May 11 j 09:26	8°♂27'25		evening max el	549 Apr 10 j 07:05	12°♂51'36	21°02'14
desc. node	548 May 11 j 22:41	8°♂26'44		retrograde	549 Apr 21 j 23:03	18°♂31'27	
evening set	548 May 14 j 11:28	8°♂06'31		evening set	549 Apr 24 j 05:15	18°♂19'28	
min. Earth dist.	548 May 22 j 15:36	4°♂33'49	0.55289 AU	desc. node	549 Apr 28 j 19:43	16°♂49'55	
inferior conj	548 May 23 j 18:36	3°♂55'31	-3°-10'-58	inferior conj	549 May 03 j 12:43	14°♂21'06	-1°-21'-4
minimum elong	548 May 23 j 11:12	4°♂06'01	3°08'54	minimum elong	549 May 03 j 08:53	14°♂26'31	1°19'44
morning rise	548 Jun 01 j 13:18	0°♂02'46		min. Earth dist.	549 May 04 j 04:20	13°♂59'00	0.54979 AU
	548 Jun 01 j 18:38	30°♂		morning rise	549 May 12 j 12:05	10°♂17'45	
direct	548 Jun 04 j 10:23	29°♂43'47		direct	549 May 15 j 20:14	9°♂53'41	
	548 Jun 07 j 00:37	0°♂		morning max el	549 May 28 j 18:13	16°♂04'10	22°37'07
morning max el	548 Jun 15 j 19:43	5°♂01'46	21°02'41		549 Jun 08 j 15:55	0°♂	
asc. node	548 Jun 29 j 15:30	24°♂44'39		asc. node	549 Jun 16 j 12:33	14°♂13'11	
	548 Jul 02 j 09:06	0°♂		morning set	549 Jun 19 j 20:44	21°♂02'56	
morning set	548 Jul 05 j 10:11	6°♂09'36			549 Jun 24 j 02:00	0°♂	
superior conj	548 Jul 12 j 22:02	21°♂44'44	1°42'03	superior conj	549 Jun 27 j 01:38	6°♂22'01	1°31'17
minimum elong	548 Jul 12 j 20:29	21°♂36'47	1°41'58	minimum elong	549 Jun 26 j 23:21	6°♂09'53	1°31'03
	548 Jul 16 j 23:51	0°♂		max. Earth dist.	549 Jun 30 j 00:54	12°♂36'13	1.34152 AU
max. Earth dist.	548 Jul 17 j 06:26	0°♂32'39	1.35550 AU	evening rise	549 Jul 04 j 22:30	22°♂30'13	
evening rise	548 Jul 21 j 12:40	8°♂46'31			549 Jul 08 j 20:43	0°♂	
	548 Aug 02 j 17:31	0°♂		desc. node	549 Jul 25 j 19:01	27°♂41'00	
desc. node	548 Aug 07 j 21:58	8°♂00'21			549 Jul 27 j 10:57	0°♂	
	548 Aug 25 j 05:23	0°♂		evening max el	549 Aug 08 j 12:08	14°♂13'27	27°11'18
evening max el	548 Aug 26 j 00:19	0°♂46'34	26°29'55	retrograde	549 Aug 21 j 20:42	21°♂32'25	
retrograde	548 Sep 07 j 20:21	7°♂58'59		evening set	549 Aug 28 j 19:46	18°♂47'57	
evening set	548 Sep 14 j 08:19	5°♂18'42		min. Earth dist.	549 Sep 01 j 15:30	15°♂07'48	0.64938 AU
min. Earth dist.	548 Sep 18 j 11:05	1°♂01'24	0.66156 AU	inferior conj	549 Sep 03 j 18:54	12°♂44'55	-2°-47'-6
	548 Sep 19 j 07:28	30°♂		minimum elong	549 Sep 03 j 23:05	12°♂33'15	2°45'41
inferior conj	548 Sep 20 j 01:43	29°♂04'34	-1°-51'-27	morning rise	549 Sep 10 j 04:07	7°♂11'09	
minimum elong	548 Sep 20 j 04:36	28°♂55'52	1°50'20	asc. node	549 Sep 12 j 11:45	6°♂34'23	
asc. node	548 Sep 25 j 14:43	23°♂33'07		direct	549 Sep 12 j 19:47	6°♂33'47	
morning rise	548 Sep 26 j 02:00	23°♂16'25		morning max el	549 Sep 19 j 08:07	10°♂03'34	18°06'32
direct	548 Sep 29 j 00:31	22°♂27'40			549 Oct 03 j 00:24	0°♂	
morning max el	548 Oct 05 j 17:28	26°♂09'53	18°37'29	morning set	549 Oct 07 j 08:12	7°♂12'25	
	548 Oct 09 j 00:54	0°♂					

superior conj	549 Oct 21 j 10:38	0°♄14'21	0°02'08	morning max el	550 Sep 03 j 00:03	23°♂52'38	17°53'08
minimum elong	549 Oct 21 j 10:54	0°♄15'26	0°02'06		550 Sep 07 j 21:44	0°♄	
behind sun begin	549 Oct 21 j 00:14	29°♂32'48		morning set	550 Sep 19 j 12:18	19°♄23'18	
behind sun end	549 Oct 21 j 21:35	0°♄57'59			550 Sep 25 j 15:06	0°♂	
	549 Oct 21 j 07:02	0°♄					
desc. node	549 Oct 21 j 18:20	0°♄45'04		superior conj	550 Oct 01 j 14:24	10°♂04'17	0°45'58
max. Earth dist.	549 Oct 25 j 05:06	6°♄13'12	1.44812 AU	minimum elong	550 Oct 01 j 18:44	10°♂22'16	0°45'24
evening rise	549 Nov 06 j 23:04	26°♄07'12		max. Earth dist.	550 Oct 07 j 21:26	20°♂20'18	1.43870 AU
	549 Nov 09 j 11:17	0°♄		desc. node	550 Oct 08 j 15:20	21°♂32'03	
greatest brilliancy	549 Nov 24 j 19:50	23°♄07'27	-0.6m		550 Oct 13 j 23:54	0°♄	
	549 Nov 30 j 00:55	0°♄		evening rise	550 Oct 17 j 06:36	5°♄05'33	
evening max el	549 Dec 02 j 07:43	2°♄33'21	19°49'15		550 Nov 02 j 21:51	0°♄	
asc. node	549 Dec 09 j 11:03	6°♄55'00		greatest brilliancy	550 Nov 09 j 19:09	9°♄28'49	-0.5m
retrograde	549 Dec 09 j 19:35	6°♄55'42		evening max el	550 Nov 15 j 08:36	16°♄02'07	20°53'22
evening set	549 Dec 13 j 08:04	5°♄43'11		retrograde	550 Nov 23 j 17:14	20°♄59'16	
inferior conj	549 Dec 18 j 20:54	29°♄40'56	2°49'30	asc. node	550 Nov 26 j 08:06	20°♄20'32	
minimum elong	549 Dec 18 j 18:09	29°♄50'03	2°48'45	evening set	550 Nov 27 j 15:18	19°♄31'42	
	549 Dec 18 j 15:09	30°♄		inferior conj	550 Dec 03 j 01:39	13°♄18'33	2°09'32
min. Earth dist.	549 Dec 19 j 20:46	28°♄21'53	0.66671 AU	minimum elong	550 Dec 02 j 23:09	13°♄27'06	2°08'41
morning rise	549 Dec 24 j 03:35	23°♄26'19		min. Earth dist.	550 Dec 03 j 13:10	12°♄39'05	0.67353 AU
direct	549 Dec 30 j 02:48	20°♄48'06		morning rise	550 Dec 08 j 06:35	7°♄03'02	
morning max el	550 Jan 11 j 04:05	27°♄58'27	25°26'10	direct	550 Dec 13 j 14:54	4°♄43'31	
	550 Jan 13 j 02:25	0°♄		morning max el	550 Dec 24 j 12:26	11°♄13'38	24°00'49
desc. node	550 Jan 17 j 17:32	5°♄24'39		desc. node	551 Jan 04 j 14:34	24°♄36'37	
	550 Feb 03 j 23:30	0°♄			551 Jan 08 j 11:57	0°♄	
morning set	550 Feb 16 j 09:21	21°♄02'22			551 Jan 27 j 18:01	0°♄	
max. Earth dist.	550 Feb 20 j 04:06	28°♄01'40	1.36306 AU	morning set	551 Jan 29 j 03:15	2°♄22'04	
	550 Feb 21 j 05:04	0°♄		max. Earth dist.	551 Feb 01 j 23:31	9°♄06'14	1.38314 AU
superior conj	550 Feb 26 j 01:11	9°♄25'59	-1°-25'-59	superior conj	551 Feb 09 j 04:28	22°♄23'22	-1°-46'-51
minimum elong	550 Feb 26 j 05:01	9°♄45'06	1°25'28	minimum elong	551 Feb 09 j 08:17	22°♄41'33	1°46'32
evening rise	550 Mar 06 j 05:24	25°♄59'45			551 Feb 13 j 03:11	0°♄	
asc. node	550 Mar 07 j 10:24	28°♄25'48		evening rise	551 Feb 18 j 03:27	9°♄50'26	
	550 Mar 08 j 05:16	0°♄		asc. node	551 Feb 22 j 07:26	17°♄53'22	
evening max el	550 Mar 23 j 17:35	24°♄19'52	19°49'17		551 Mar 01 j 09:24	0°♄	
retrograde	550 Apr 02 j 16:15	29°♄06'39		evening max el	551 Mar 06 j 14:51	6°♄26'01	18°55'34
evening set	550 Apr 04 j 18:12	28°♄55'01		retrograde	551 Mar 15 j 00:09	10°♄29'22	
inferior conj	550 Apr 13 j 12:43	24°♄53'33	0°37'02	evening set	551 Mar 17 j 05:56	10°♄13'11	
minimum elong	550 Apr 13 j 14:19	24°♄51'04	0°36'27	inferior conj	551 Mar 25 j 05:54	5°♄56'17	2°12'43
desc. node	550 Apr 15 j 16:45	23°♄33'17		minimum elong	551 Mar 25 j 10:06	5°♄48'48	2°11'32
min. Earth dist.	550 Apr 15 j 18:35	23°♄30'31	0.55631 AU	min. Earth dist.	551 Mar 28 j 10:45	3°♄40'15	0.57097 AU
morning rise	550 Apr 22 j 07:11	20°♄21'54		morning rise	551 Apr 02 j 10:01	0°♄51'36	
direct	550 Apr 26 j 12:21	19°♄42'30		desc. node	551 Apr 02 j 13:47	0°♄47'44	
morning max el	550 May 10 j 10:07	26°♄38'46	24°18'21		551 Apr 05 j 03:30	30°♄	
	550 May 13 j 15:28	0°♄		direct	551 Apr 07 j 17:52	29°♄43'37	
	550 Jun 01 j 10:42	0°♄			551 Apr 10 j 08:30	0°♄	
asc. node	550 Jun 03 j 09:38	4°♄00'30		morning max el	551 Apr 22 j 01:03	7°♄09'44	25°52'29
morning set	550 Jun 04 j 08:37	6°♄00'47			551 May 08 j 22:04	0°♄	
				morning set	551 May 19 j 20:13	20°♄57'33	
superior conj	550 Jun 11 j 09:59	21°♄13'15	1°15'39	asc. node	551 May 21 j 06:42	24°♄00'37	
minimum elong	550 Jun 11 j 07:31	20°♄59'55	1°15'16		551 May 24 j 01:09	0°♄	
max. Earth dist.	550 Jun 13 j 04:16	25°♄01'17	1.33151 AU				
	550 Jun 15 j 12:26	0°♄		superior conj	551 May 26 j 20:57	6°♄11'17	0°56'05
evening rise	550 Jun 18 j 18:57	6°♄45'40		minimum elong	551 May 26 j 18:48	5°♄59'30	0°55'41
	550 Jul 01 j 09:43	0°♄		max. Earth dist.	551 May 27 j 14:03	7°♄44'58	1.32536 AU
desc. node	550 Jul 12 j 16:03	16°♄44'14		evening rise	551 Jun 02 j 22:44	21°♄22'35	
evening max el	550 Jul 21 j 22:32	27°♄19'03	27°25'35		551 Jun 07 j 05:39	0°♄	
	550 Jul 25 j 00:03	0°♄			551 Jun 25 j 14:00	0°♄	
retrograde	550 Aug 04 j 15:10	4°♄38'12		desc. node	551 Jun 29 j 13:05	4°♄54'32	
evening set	550 Aug 11 j 19:48	2°♄01'00		evening max el	551 Jul 04 j 05:11	9°♄50'58	27°07'55
	550 Aug 14 j 06:34	30°♄		retrograde	551 Jul 18 j 02:43	17°♄07'04	
min. Earth dist.	550 Aug 15 j 10:36	28°♄53'49	0.63360 AU	evening set	551 Jul 25 j 04:23	14°♄50'47	
inferior conj	550 Aug 18 j 02:54	26°♄12'38	-3°-38'-32	min. Earth dist.	551 Jul 28 j 19:25	12°♄06'44	0.61479 AU
minimum elong	550 Aug 18 j 07:50	26°♄00'16	3°37'13	inferior conj	551 Jul 31 j 22:36	9°♄20'12	-4°-20'-48
morning rise	550 Aug 24 j 22:09	20°♄56'23		minimum elong	551 Aug 01 j 03:01	9°♄10'24	4°20'02
direct	550 Aug 27 j 09:32	20°♄27'01		morning rise	551 Aug 08 j 04:30	4°♄24'31	
asc. node	550 Aug 30 j 08:49	21°♄10'02		direct	551 Aug 10 j 14:23	4°♄00'17	

asc. node	551 Aug 17 j 05:53	7°♌09'57		direct	552 Jul 23 j 05:56	17°♌03'25	
morning max el	551 Aug 17 j 14:18	7°♌30'00	17°58'16	morning max el	552 Jul 30 j 23:46	20°♌46'51	18°23'06
	551 Sep 01 j 02:47	0°♍		asc. node	552 Aug 03 j 02:56	24°♌18'23	
morning set	551 Sep 02 j 11:20	2°♍29'00			552 Aug 07 j 00:33	0°♌	
				morning set	552 Aug 15 j 23:54	16°♌13'47	
superior conj	551 Sep 12 j 21:32	21°♍15'15	1°18'03		552 Aug 23 j 05:47	0°♍	
minimum elong	551 Sep 13 j 02:11	21°♍35'32	1°17'32				
	551 Sep 18 j 00:01	0°♎		superior conj	552 Aug 25 j 04:34	3°♍36'58	1°37'30
max. Earth dist.	551 Sep 20 j 09:25	3°♎59'12	1.42355 AU	minimum elong	552 Aug 25 j 07:32	3°♍50'33	1°37'17
desc. node	551 Sep 25 j 12:23	12°♎18'19		max. Earth dist.	552 Sep 01 j 16:14	16°♍57'20	1.40456 AU
evening rise	551 Sep 26 j 20:10	14°♎24'34		evening rise	552 Sep 06 j 05:45	24°♍39'25	
	551 Oct 06 j 23:54	0°♏			552 Sep 09 j 12:24	0°♎	
greatest brilliancy	551 Oct 24 j 10:36	24°♏12'41	-0.3m	desc. node	552 Sep 11 j 09:25	2°♎59'30	
evening max el	551 Oct 29 j 03:54	29°♏32'30	22°07'40		552 Sep 29 j 20:09	0°♏	
	551 Oct 29 j 14:54	0°♐		evening max el	552 Oct 10 j 18:33	13°♏04'43	23°27'21
retrograde	551 Nov 07 j 13:22	5°♐07'38		retrograde	552 Oct 21 j 06:38	19°♏17'11	
evening set	551 Nov 11 j 23:05	3°♐23'11		evening set	552 Oct 26 j 05:46	17°♏14'47	
asc. node	551 Nov 13 j 05:07	2°♐14'47		asc. node	552 Oct 30 j 02:08	12°♏57'43	
	551 Nov 15 j 03:51	30°♑		min. Earth dist.	552 Oct 31 j 05:29	11°♏25'28	0.67680 AU
inferior conj	551 Nov 17 j 08:31	27°♑02'39	1°23'17	inferior conj	552 Oct 31 j 15:39	10°♏50'37	0°32'12
minimum elong	551 Nov 17 j 06:43	27°♑08'53	1°22'34	minimum elong	552 Oct 31 j 14:54	10°♏53'12	0°31'52
min. Earth dist.	551 Nov 17 j 08:53	27°♑01'23	0.67686 AU	morning rise	552 Nov 06 j 00:08	4°♑40'15	
morning rise	551 Nov 22 j 14:09	20°♑48'30		direct	552 Nov 10 j 02:53	3°♑05'46	
direct	551 Nov 27 j 07:16	18°♑51'21		morning max el	552 Nov 18 j 15:03	8°♑03'30	21°10'38
morning max el	551 Dec 06 j 22:53	24°♑34'04	22°32'53	greatest brilliancy	552 Nov 23 j 23:37	14°♑14'17	-0.5m
greatest brilliancy	551 Dec 11 j 13:21	29°♑43'07	-0.3m		552 Dec 05 j 08:08	0°♑	
	551 Dec 11 j 18:55	0°♑		desc. node	552 Dec 08 j 08:40	4°♑28'17	
desc. node	551 Dec 22 j 11:37	14°♑20'56		morning set	552 Dec 19 j 03:29	20°♑58'40	
	552 Jan 01 j 23:28	0°♒			552 Dec 24 j 19:26	0°♒	
morning set	552 Jan 09 j 17:20	12°♒19'00		max. Earth dist.	552 Dec 26 j 22:26	3°♒27'24	1.42424 AU
max. Earth dist.	552 Jan 14 j 19:35	20°♒48'21	1.40457 AU				
	552 Jan 20 j 02:47	0°♓		superior conj	553 Jan 03 j 03:20	15°♒30'32	-2°-1'-41
superior conj	552 Jan 22 j 14:58	4°♓29'04	-2°00'-12	minimum elong	553 Jan 03 j 01:30	15°♒22'41	2°01'40
minimum elong	552 Jan 22 j 17:05	4°♓38'38	2°00'09		553 Jan 11 j 09:46	0°♓	
evening rise	552 Feb 01 j 15:36	23°♓07'33		evening rise	553 Jan 14 j 14:13	5°♓43'41	
	552 Feb 05 j 07:39	0°♔		asc. node	553 Jan 26 j 01:28	25°♓26'40	
asc. node	552 Feb 09 j 04:28	6°♔56'08			553 Jan 29 j 09:42	0°♔	
evening max el	552 Feb 17 j 20:13	19°♔03'15	18°21'50	evening max el	553 Jan 31 j 06:38	2°♔03'36	18°07'57
retrograde	552 Feb 25 j 03:05	22°♔39'39		retrograde	553 Feb 06 j 22:49	5°♔28'56	
evening set	552 Feb 27 j 14:00	22°♔16'10		evening set	553 Feb 09 j 14:15	4°♔56'52	
inferior conj	552 Mar 05 j 20:10	17°♔38'18	3°13'49	inferior conj	553 Feb 16 j 05:54	29°♓57'22	3°43'03
minimum elong	552 Mar 05 j 23:40	17°♔31'01	3°13'11	minimum elong	553 Feb 16 j 07:17	29°♓54'01	3°42'56
min. Earth dist.	552 Mar 09 j 06:36	14°♔47'51	0.59064 AU		553 Feb 16 j 04:49	30°♑	
morning rise	552 Mar 13 j 05:36	12°♔06'20		min. Earth dist.	553 Feb 19 j 09:18	26°♓56'54	0.61178 AU
desc. node	552 Mar 19 j 10:49	10°♔21'46		morning rise	553 Feb 22 j 21:34	24°♓06'51	
direct	552 Mar 19 j 12:16	10°♔21'45		direct	553 Mar 01 j 17:38	21°♓47'46	
morning max el	552 Apr 02 j 20:16	18°♔04'07	27°04'22	desc. node	553 Mar 06 j 07:51	22°♓44'56	
	552 Apr 12 j 19:26	0°♕		morning max el	553 Mar 15 j 22:01	29°♓38'57	27°42'55
	552 Apr 30 j 09:59	0°♖			553 Mar 16 j 06:28	0°♔	
morning set	552 May 03 j 05:48	5°♖47'03			553 Apr 06 j 17:46	0°♕	
asc. node	552 May 07 j 03:45	14°♖08'10		morning set	553 Apr 17 j 11:35	20°♕23'06	
					553 Apr 22 j 01:02	0°♖	
superior conj	552 May 10 j 08:42	21°♖09'16	0°33'23	max. Earth dist.	553 Apr 23 j 14:18	3°♖21'50	1.32418 AU
minimum elong	552 May 10 j 07:16	21°♖01'25	0°33'05	asc. node	553 Apr 24 j 00:47	4°♖18'57	
max. Earth dist.	552 May 10 j 02:42	20°♖36'17	1.32291 AU				
	552 May 14 j 09:40	0°♗		superior conj	553 Apr 24 j 19:37	6°♖01'43	0°08'19
evening rise	552 May 17 j 07:13	6°♗11'45		minimum elong	553 Apr 24 j 19:14	5°♖59'37	0°08'14
	552 May 29 j 21:01	0°♘		behind sun begin	553 Apr 24 j 14:52	5°♖35'46	
evening max el	552 Jun 15 j 05:29	21°♘38'14	26°17'22	behind sun end	553 Apr 24 j 23:36	6°♖23'30	
desc. node	552 Jun 15 j 10:07	21°♘49'11		evening rise	553 May 01 j 18:19	21°♖05'54	
retrograde	552 Jun 29 j 05:42	28°♘50'50			553 May 06 j 02:24	0°♗	
evening set	552 Jul 05 j 16:46	27°♘07'42			553 May 25 j 08:26	0°♘	
min. Earth dist.	552 Jul 09 j 18:23	24°♘31'11	0.59431 AU	evening max el	553 May 27 j 22:49	2°♘40'46	24°59'16
inferior conj	552 Jul 13 j 02:20	21°♘57'16	-4°-46'-4	desc. node	553 Jun 02 j 07:06	6°♘57'49	
minimum elong	552 Jul 13 j 04:12	21°♘53'38	4°45'58	retrograde	553 Jun 10 j 22:32	9°♘47'20	
morning rise	552 Jul 20 j 19:03	17°♘24'31		evening set	553 Jun 16 j 05:50	8°♘42'54	
				min. Earth dist.	553 Jun 21 j 10:18	5°♘55'33	0.57451 AU

inferior conj	553 Jun 24 j 10:50	3° \mathfrak{S} 54'28	-4°-42'-48	evening set	554 May 26 j 23:14	19° \mathbb{I} 31'09	
minimum elong	553 Jun 24 j 08:07	3° \mathfrak{S} 59'02	4°42'36	min. Earth dist.	554 Jun 02 j 23:10	16° \mathbb{I} 18'11	0.55871 AU
	553 Jul 01 j 15:43	30° \mathbb{R} \mathbb{I}		inferior conj	554 Jun 04 j 23:15	15° \mathbb{I} 06'49	-3°-58'-2
morning rise	553 Jul 02 j 14:14	29° \mathbb{I} 44'02		minimum elong	554 Jun 04 j 16:20	15° \mathbb{I} 17'07	3°56'34
direct	553 Jul 05 j 03:46	29° \mathbb{I} 24'57		morning rise	554 Jun 13 j 12:50	11° \mathbb{I} 11'26	
	553 Jul 08 j 12:34	0° \mathfrak{S}		direct	554 Jun 16 j 06:08	10° \mathbb{I} 53'15	
morning max el	553 Jul 14 j 01:30	3° \mathfrak{S} 34'28	19°08'44	morning max el	554 Jun 26 j 16:57	15° \mathbb{I} 43'20	20°15'30
asc. node	553 Jul 21 j 00:00	12° \mathfrak{S} 20'53			554 Jul 07 j 06:21	0° \mathfrak{S}	
morning set	553 Jul 30 j 22:01	0° \mathbb{Q} 27'15		asc. node	554 Jul 07 j 21:03	1° \mathfrak{S} 04'22	
	553 Jul 30 j 16:30	0° \mathbb{Q}		morning set	554 Jul 15 j 02:43	15° \mathfrak{S} 01'06	
					554 Jul 22 j 10:20	0° \mathbb{Q}	
superior conj	553 Aug 08 j 05:55	16° \mathbb{Q} 53'58	1°45'57	superior conj	554 Jul 22 j 20:26	0° \mathbb{Q} 51'03	1°45'34
minimum elong	553 Aug 08 j 06:48	16° \mathbb{Q} 58'11	1°45'57	minimum elong	554 Jul 22 j 19:36	0° \mathbb{Q} 46'51	1°45'33
max. Earth dist.	553 Aug 14 j 19:31	29° \mathbb{Q} 12'52	1.38426 AU	max. Earth dist.	554 Jul 28 j 00:43	11° \mathbb{Q} 03'30	1.36513 AU
	553 Aug 15 j 05:56	0° \mathbb{P}		evening rise	554 Aug 01 j 00:27	18° \mathbb{Q} 32'34	
evening rise	553 Aug 18 j 16:00	6° \mathbb{P} 03'49			554 Aug 07 j 12:36	0° \mathbb{P}	
desc. node	553 Aug 29 j 06:25	23° \mathbb{P} 31'33		desc. node	554 Aug 16 j 03:26	13° \mathbb{P} 49'30	
	553 Sep 02 j 12:25	0° \mathfrak{A}			554 Aug 27 j 16:42	0° \mathfrak{A}	
evening max el	553 Sep 23 j 06:32	26° \mathfrak{A} 39'51	24°46'02	evening max el	554 Sep 05 j 18:08	10° \mathfrak{A} 17'44	25°56'24
	553 Sep 27 j 00:38	0° \mathbb{M}		retrograde	554 Sep 18 j 04:57	17° \mathfrak{A} 23'33	
retrograde	553 Oct 04 j 20:04	3° \mathbb{M} 24'04		evening set	554 Sep 24 j 08:59	14° \mathfrak{A} 49'19	
evening set	553 Oct 10 j 09:40	1° \mathbb{M} 04'16		min. Earth dist.	554 Sep 28 j 16:02	10° \mathfrak{A} 10'22	0.66684 AU
	553 Oct 11 j 13:06	30° \mathbb{R} \mathfrak{A}		inferior conj	554 Sep 29 j 23:51	8° \mathfrak{A} 30'14	-1°-18'-45
min. Earth dist.	553 Oct 15 j 00:39	25° \mathfrak{A} 49'10	0.67348 AU	minimum elong	554 Sep 30 j 01:52	8° \mathfrak{A} 23'51	1°17'56
inferior conj	553 Oct 15 j 21:21	24° \mathfrak{A} 40'29	0°-22'-18	asc. node	554 Oct 03 j 20:15	4° \mathfrak{A} 06'47	
minimum elong	553 Oct 15 j 21:54	24° \mathfrak{A} 38'39	0°22'05	morning rise	554 Oct 05 j 19:38	2° \mathfrak{A} 35'14	
asc. node	553 Oct 16 j 23:11	23° \mathfrak{A} 15'39		direct	554 Oct 08 j 23:03	1° \mathfrak{A} 38'26	
morning rise	553 Oct 21 j 10:36	18° \mathfrak{A} 36'24		morning max el	554 Oct 15 j 21:56	5° \mathfrak{A} 32'22	19°02'49
direct	553 Oct 25 j 00:36	17° \mathfrak{A} 22'29			554 Nov 02 j 05:58	0° \mathbb{M}	
morning max el	553 Nov 01 j 14:50	21° \mathfrak{A} 43'26	19°59'32	morning set	554 Nov 07 j 07:14	7° \mathbb{M} 54'21	
	553 Nov 08 j 10:25	0° \mathbb{M}		desc. node	554 Nov 12 j 02:42	15° \mathbb{M} 26'44	
greatest brilliancy	553 Nov 08 j 21:25	0° \mathbb{M} 37'33	-0.6m		554 Nov 21 j 09:21	0° \mathfrak{A}	
desc. node	553 Nov 25 j 05:41	24° \mathbb{M} 51'45		max. Earth dist.	554 Nov 22 j 00:12	0° \mathfrak{A} 58'30	1.44860 AU
morning set	553 Nov 27 j 23:47	29° \mathbb{M} 06'18					
	553 Nov 28 j 13:40	0° \mathfrak{A}		superior conj	554 Nov 23 j 23:08	4° \mathfrak{A} 03'32	-1°-13'-5
max. Earth dist.	553 Dec 09 j 08:31	16° \mathfrak{A} 55'40	1.43952 AU	minimum elong	554 Nov 23 j 14:55	3° \mathfrak{A} 31'06	1°12'12
superior conj	553 Dec 14 j 13:14	25° \mathfrak{A} 18'14	-1°-46'-39	evening rise	554 Dec 09 j 01:36	28° \mathfrak{A} 18'18	
minimum elong	553 Dec 14 j 06:25	24° \mathfrak{A} 50'32	1°46'11		554 Dec 10 j 02:29	0° \mathfrak{S}	
	553 Dec 17 j 09:58	0° \mathfrak{S}		evening max el	554 Dec 29 j 06:55	28° \mathfrak{S} 42'06	18°37'22
evening rise	553 Dec 27 j 18:54	17° \mathfrak{S} 29'27		asc. node	554 Dec 30 j 19:32	0° \approx 07'29	
	554 Jan 04 j 02:44	0° \approx			554 Dec 30 j 16:01	0° \approx	
asc. node	554 Jan 12 j 22:30	13° \approx 14'29		retrograde	555 Jan 04 j 22:11	2° \approx 23'23	
evening max el	554 Jan 14 j 19:04	15° \approx 18'24	18°13'25	evening set	555 Jan 07 j 23:26	1° \approx 30'58	
retrograde	554 Jan 21 j 06:36	18° \approx 46'07			555 Jan 10 j 00:50	30° \mathbb{R} \mathfrak{S}	
evening set	554 Jan 24 j 02:31	18° \approx 04'28		inferior conj	555 Jan 13 j 20:05	25° \mathfrak{S} 52'45	3°34'46
inferior conj	554 Jan 30 j 07:10	12° \approx 44'38	3°47'47	minimum elong	555 Jan 13 j 18:05	25° \mathfrak{S} 58'45	3°34'29
minimum elong	554 Jan 30 j 06:33	12° \approx 46'21	3°47'45	min. Earth dist.	555 Jan 15 j 18:39	23° \mathfrak{S} 33'40	0.64835 AU
min. Earth dist.	554 Feb 01 j 21:08	9° \approx 56'49	0.63160 AU	morning rise	555 Jan 19 j 11:30	19° \mathfrak{S} 43'59	
morning rise	554 Feb 05 j 08:41	6° \approx 42'44		direct	555 Jan 26 j 05:40	16° \mathfrak{S} 52'44	
direct	554 Feb 12 j 07:57	4° \approx 00'04		desc. node	555 Feb 08 j 01:55	24° \mathfrak{S} 08'29	
desc. node	554 Feb 21 j 04:53	7° \approx 32'26		morning max el	555 Feb 08 j 14:20	24° \mathfrak{S} 39'13	27°10'51
morning max el	554 Feb 26 j 04:56	11° \approx 53'40	27°44'11		555 Feb 13 j 11:03	0° \approx	
	554 Mar 12 j 14:12	0° \mathfrak{H}			555 Mar 06 j 00:01	0° \mathfrak{H}	
	554 Mar 30 j 03:03	0° \mathbb{Y}		morning set	555 Mar 16 j 01:45	18° \mathfrak{H} 19'58	
morning set	554 Apr 01 j 11:12	4° \mathbb{Y} 37'05		max. Earth dist.	555 Mar 20 j 18:03	27° \mathfrak{H} 39'29	1.33895 AU
max. Earth dist.	554 Apr 06 j 20:42	15° \mathbb{Y} 46'24	1.32939 AU		555 Mar 21 j 21:25	0° \mathbb{Y}	
superior conj	554 Apr 09 j 03:55	20° \mathbb{Y} 41'50	0°-18'-21	superior conj	555 Mar 24 j 07:42	5° \mathbb{Y} 03'54	0°-45'-32
minimum elong	554 Apr 09 j 04:48	20° \mathbb{Y} 46'35	0°18'10	minimum elong	555 Mar 24 j 09:56	5° \mathbb{Y} 15'35	0°45'06
asc. node	554 Apr 10 j 21:49	24° \mathbb{Y} 28'06		asc. node	555 Mar 28 j 18:52	14° \mathbb{Y} 31'51	
	554 Apr 13 j 11:12	0° \mathfrak{B}		evening rise	555 Mar 31 j 16:49	20° \mathbb{Y} 40'57	
evening rise	554 Apr 16 j 06:06	5° \mathfrak{B} 57'32			555 Apr 05 j 07:07	0° \mathfrak{B}	
	554 Apr 29 j 02:40	0° \mathbb{I}		evening max el	555 Apr 21 j 07:08	23° \mathfrak{B} 53'34	21°51'42
evening max el	554 May 09 j 12:57	13° \mathbb{I} 15'32	23°25'45		555 May 02 j 21:30	0° \mathbb{I}	
desc. node	554 May 20 j 04:07	19° \mathbb{I} 43'20		retrograde	555 May 03 j 20:14	0° \mathbb{I} 02'04	
retrograde	554 May 23 j 03:20	20° \mathbb{I} 03'23			555 May 04 j 19:09	30° \mathbb{R} \mathfrak{B}	

evening set	555 May 06 j 11:28	29°♄46'35		retrograde	556 Apr 13 j 09:19	10°♄16'29	
desc. node	555 May 07 j 01:10	29°♄39'19		evening set	556 Apr 15 j 12:23	10°♄05'20	
inferior conj	555 May 15 j 20:45	25°♄43'05	-2°-27'-36	desc. node	556 Apr 22 j 22:11	7°♄07'06	
minimum elong	555 May 15 j 14:16	25°♄52'10	2°25'32	inferior conj	556 Apr 24 j 15:34	6°♄07'48	0°-29'-50
min. Earth dist.	555 May 15 j 11:44	25°♄55'43	0.55037 AU	minimum elong	556 Apr 24 j 14:10	6°♄09'50	0°29'21
morning rise	555 May 24 j 18:14	21°♄47'51		min. Earth dist.	556 Apr 26 j 00:56	5°♄19'26	0.55145 AU
direct	555 May 27 j 18:58	21°♄27'30		morning rise	556 May 03 j 14:11	1°♄54'16	
morning max el	555 Jun 08 j 21:07	27°♄08'35	21°41'19	direct	556 May 07 j 06:29	1°♄24'59	
	555 Jun 11 j 15:45	0°♄		morning max el	556 May 20 j 15:59	7°♄56'12	23°20'08
asc. node	555 Jun 24 j 18:07	20°♄18'52			556 Jun 05 j 11:35	0°♄	
morning set	555 Jun 29 j 11:40	29°♄48'47		asc. node	556 Jun 10 j 15:11	9°♄56'32	
	555 Jun 29 j 13:50	0°♄		morning set	556 Jun 12 j 23:01	14°♄45'06	
superior conj	555 Jul 06 j 20:08	15°♄16'11	1°38'09	superior conj	556 Jun 20 j 02:02	0°♄00'27	1°25'12
minimum elong	555 Jul 06 j 18:12	15°♄06'04	1°38'00	minimum elong	556 Jun 19 j 23:36	29°♄47'27	1°24'53
max. Earth dist.	555 Jul 10 j 13:43	22°♄57'10	1.34905 AU		556 Jun 20 j 01:57	0°♄	
	555 Jul 14 j 03:00	0°♄		max. Earth dist.	556 Jun 22 j 12:27	5°♄11'12	1.33678 AU
evening rise	555 Jul 15 j 02:23	1°♄52'48		evening rise	556 Jun 27 j 17:13	15°♄51'51	
	555 Jul 31 j 11:44	0°♄			556 Jul 05 j 04:57	0°♄	
desc. node	555 Aug 03 j 00:29	3°♄46'18		desc. node	556 Jul 19 j 21:32	23°♄12'54	
evening max el	555 Aug 19 j 06:14	23°♄52'14	26°50'37		556 Jul 25 j 03:09	0°♄	
	555 Aug 27 j 14:29	0°♄		evening max el	556 Jul 31 j 17:58	7°♄12'45	27°21'09
retrograde	555 Sep 01 j 08:30	1°♄08'32		retrograde	556 Aug 14 j 06:14	14°♄31'30	
	555 Sep 05 j 17:45	30°♄		evening set	556 Aug 21 j 08:31	11°♄48'52	
evening set	555 Sep 08 j 01:30	28°♄25'38		min. Earth dist.	556 Aug 25 j 01:54	8°♄23'25	0.64311 AU
min. Earth dist.	555 Sep 12 j 01:14	24°♄24'02	0.65676 AU	inferior conj	556 Aug 27 j 10:45	5°♄51'53	-3°-9'-40
inferior conj	555 Sep 13 j 21:06	22°♄15'38	-2°-15'-23	minimum elong	556 Aug 27 j 15:21	5°♄39'34	3°08'13
minimum elong	555 Sep 14 j 00:34	22°♄05'27	2°14'04	morning rise	556 Sep 03 j 00:05	0°♄24'57	
morning rise	555 Sep 20 j 01:00	16°♄32'53			556 Sep 04 j 06:25	30°♄	
asc. node	555 Sep 20 j 17:19	16°♄14'25		direct	556 Sep 05 j 13:43	29°♄51'12	
direct	555 Sep 22 j 20:15	15°♄49'25		asc. node	556 Sep 06 j 14:22	29°♄56'40	
morning max el	555 Sep 29 j 10:29	19°♄25'35	18°22'12		556 Sep 06 j 21:01	0°♄	
	555 Oct 07 j 10:43	0°♄		morning max el	556 Sep 12 j 01:59	3°♄18'02	17°58'39
morning set	555 Oct 18 j 17:44	18°♄04'50		morning set	556 Sep 29 j 08:13	29°♄37'02	
	555 Oct 26 j 03:06	0°♄			556 Sep 29 j 13:37	0°♄	
desc. node	555 Oct 29 j 23:44	6°♄09'03		superior conj	556 Oct 12 j 13:27	21°♄36'32	0°21'55
superior conj	555 Nov 02 j 23:54	12°♄29'14	0°-26'-15	minimum elong	556 Oct 12 j 15:56	21°♄46'35	0°21'34
minimum elong	555 Nov 02 j 20:28	12°♄15'41	0°25'47	desc. node	556 Oct 15 j 20:48	26°♄55'32	
max. Earth dist.	555 Nov 04 j 18:57	15°♄18'39	1.45049 AU	max. Earth dist.	556 Oct 17 j 13:32	29°♄37'44	1.44501 AU
	555 Nov 14 j 03:46	0°♄			556 Oct 17 j 19:09	0°♄	
evening rise	555 Nov 19 j 08:38	8°♄09'27		evening rise	556 Oct 28 j 21:06	17°♄18'12	
greatest brilliancy	555 Dec 03 j 05:46	29°♄42'45	-0.7m		556 Nov 06 j 04:36	0°♄	
	555 Dec 03 j 10:23	0°♄		greatest brilliancy	556 Nov 18 j 07:19	17°♄40'11	-0.6m
evening max el	555 Dec 12 j 15:51	12°♄09'38	19°18'31	evening max el	556 Nov 24 j 20:00	25°♄38'30	20°14'56
asc. node	555 Dec 17 j 16:36	15°♄50'41			556 Dec 01 j 00:24	0°♄	
retrograde	555 Dec 19 j 18:09	16°♄14'13		retrograde	556 Dec 02 j 15:51	0°♄14'33	
evening set	555 Dec 23 j 02:06	15°♄09'26		asc. node	556 Dec 03 j 13:39	0°♄09'52	
inferior conj	555 Dec 28 j 17:13	9°♄15'11	3°08'52		556 Dec 04 j 06:07	30°♄	
minimum elong	555 Dec 28 j 14:33	9°♄23'44	3°08'16	evening set	556 Dec 06 j 08:16	28°♄55'40	
min. Earth dist.	555 Dec 30 j 00:54	7°♄33'25	0.66124 AU	inferior conj	556 Dec 11 j 19:51	22°♄48'18	2°33'24
morning rise	556 Jan 03 j 02:12	3°♄02'19		minimum elong	556 Dec 11 j 17:09	22°♄57'24	2°32'34
direct	556 Jan 09 j 09:26	0°♄16'19		min. Earth dist.	556 Dec 12 j 14:12	21°♄46'27	0.67017 AU
morning max el	556 Jan 21 j 23:44	7°♄43'04	26°09'58	morning rise	556 Dec 17 j 01:30	16°♄33'16	
desc. node	556 Jan 25 j 22:57	12°♄01'42		direct	556 Dec 22 j 18:31	14°♄02'33	
	556 Feb 08 j 09:21	0°♄		morning max el	557 Jan 03 j 08:20	20°♄56'16	24°50'43
	556 Feb 26 j 10:09	0°♄			557 Jan 11 j 04:27	0°♄	
morning set	556 Feb 27 j 03:19	1°♄19'33		desc. node	557 Jan 11 j 20:00	0°♄49'51	
max. Earth dist.	556 Mar 02 j 03:55	8°♄59'18	1.35306 AU		557 Jan 31 j 14:40	0°♄	
superior conj	556 Mar 07 j 04:34	19°♄00'32	-1°-11'-54	morning set	557 Feb 08 j 10:36	13°♄20'42	
minimum elong	556 Mar 07 j 07:57	19°♄17'48	1°11'22	max. Earth dist.	557 Feb 12 j 03:32	20°♄02'32	1.37135 AU
	556 Mar 12 j 12:28	0°♄			557 Feb 17 j 10:03	0°♄	
asc. node	556 Mar 14 j 15:56	4°♄25'56		superior conj	557 Feb 18 j 15:23	2°♄22'35	-1°-35'-32
evening rise	556 Mar 15 j 00:28	5°♄09'49		minimum elong	557 Feb 18 j 19:22	2°♄42'05	1°35'04
	556 Mar 29 j 02:21	0°♄		evening rise	557 Feb 27 j 02:50	19°♄16'58	
evening max el	556 Apr 02 j 11:04	5°♄00'11	20°29'00	asc. node	557 Mar 01 j 12:59	24°♄04'58	

	557 Mar 04 j 15:20	0°♈		evening rise	558 Feb 10 j 21:10	2°♋55'17	
evening max el	557 Mar 16 j 02:17	16°♈44'33	19°23'54	asc. node	558 Feb 16 j 10:01	13°♋23'23	
retrograde	557 Mar 25 j 07:54	21°♈11'21		evening max el	558 Feb 27 j 03:20	29°♋05'10	18°38'40
evening set	557 Mar 27 j 11:06	20°♈58'09			558 Feb 28 j 03:29	0°♈	
inferior conj	557 Apr 04 j 21:52	16°♈50'46	1°21'36	retrograde	558 Mar 07 j 00:10	2°♈55'24	
minimum elong	557 Apr 05 j 01:03	16°♈45'33	1°20'34	evening set	558 Mar 09 j 07:58	2°♈36'29	
min. Earth dist.	557 Apr 07 j 15:31	15°♈03'53	0.56170 AU		558 Mar 14 j 12:36	30°♋	
desc. node	557 Apr 09 j 19:12	13°♈46'25		inferior conj	558 Mar 17 j 00:04	28°♋10'56	2°42'55
morning rise	557 Apr 13 j 11:11	12°♈05'10		minimum elong	558 Mar 17 j 04:16	28°♋02'54	2°41'54
direct	557 Apr 18 j 03:27	11°♈15'24		min. Earth dist.	558 Mar 20 j 09:08	25°♋37'21	0.57891 AU
morning max el	557 May 02 j 06:43	18°♈25'39	25°00'22	morning rise	558 Mar 24 j 20:21	22°♋53'08	
	557 May 11 j 21:33	0°♉		desc. node	558 Mar 27 j 16:13	21°♋51'53	
morning set	557 May 28 j 10:58	29°♉43'20		direct	558 Mar 30 j 14:34	21°♋30'12	
asc. node	557 May 28 j 12:14	29°♉49'58		morning max el	558 Apr 13 j 23:18	29°♋05'03	26°26'36
	557 May 28 j 14:08	0°♊			558 Apr 14 j 21:24	0°♈	
					558 May 05 j 12:47	0°♉	
superior conj	557 Jun 04 j 11:42	14°♊55'12	1°07'47	morning set	558 May 12 j 21:55	14°♉37'53	
minimum elong	557 Jun 04 j 09:19	14°♊42'12	1°07'22	asc. node	558 May 15 j 09:18	19°♉53'55	
max. Earth dist.	557 Jun 05 j 19:06	17°♊45'56	1.32841 AU				
evening rise	557 Jun 11 j 17:06	0°♊17'16		superior conj	558 May 19 j 23:12	29°♉53'56	0°46'47
	557 Jun 11 j 13:44	0°♊		minimum elong	558 May 19 j 21:19	29°♉43'35	0°46'25
	557 Jun 28 j 05:54	0°♋			558 May 20 j 00:18	0°♊	
desc. node	557 Jul 06 j 18:34	11°♋55'43		max. Earth dist.	558 May 20 j 06:27	0°♊33'48	1.32384 AU
evening max el	557 Jul 14 j 02:59	20°♋04'54	27°22'06	evening rise	558 May 26 j 23:08	15°♊00'00	
retrograde	557 Jul 27 j 21:37	27°♋22'35			558 Jun 03 j 13:46	0°♊	
evening set	557 Aug 04 j 02:28	24°♋52'20		desc. node	558 Jun 23 j 15:33	29°♊36'40	
min. Earth dist.	557 Aug 07 j 16:24	21°♋56'54	0.62595 AU		558 Jun 24 j 00:18	0°♋	
inferior conj	557 Aug 10 j 13:52	19°♋11'32	-3°-57'-57	evening max el	558 Jun 26 j 06:50	2°♋17'12	26°50'11
minimum elong	557 Aug 10 j 18:47	18°♋59'49	3°56'49	retrograde	558 Jul 10 j 05:53	9°♋32'43	
morning rise	557 Aug 17 j 13:37	14°♋03'51		evening set	558 Jul 17 j 02:59	7°♋28'55	
direct	557 Aug 20 j 00:08	13°♋36'53		min. Earth dist.	558 Jul 20 j 20:41	4°♋50'26	0.60614 AU
asc. node	557 Aug 24 j 11:25	15°♋09'32		inferior conj	558 Jul 24 j 03:08	2°♋06'28	-4°-34'-13
morning max el	557 Aug 26 j 17:33	17°♋02'47	17°53'04	minimum elong	558 Jul 24 j 06:45	1°♋58'53	4°33'47
	557 Sep 04 j 22:12	0°♌			558 Jul 26 j 18:04	30°♋	
morning set	557 Sep 11 j 21:01	12°♌12'52		morning rise	558 Jul 31 j 13:42	27°♋20'46	
	557 Sep 22 j 00:24	0°♍		direct	558 Aug 02 j 23:38	26°♋58'10	
					558 Aug 09 j 16:15	0°♋	
superior conj	557 Sep 23 j 04:51	2°♍00'59	1°01'10	morning max el	558 Aug 10 j 06:09	0°♋32'21	18°06'24
minimum elong	557 Sep 23 j 09:42	2°♍21'30	1°00'33	asc. node	558 Aug 11 j 08:28	1°♋40'06	
max. Earth dist.	557 Sep 30 j 04:32	13°♍35'44	1.43285 AU	morning set	558 Aug 26 j 02:17	25°♋35'49	
desc. node	557 Oct 02 j 17:52	17°♍42'41			558 Aug 28 j 10:51	0°♌	
evening rise	557 Oct 08 j 04:56	26°♍19'22					
	557 Oct 10 j 13:58	0°♎		superior conj	558 Sep 04 j 22:45	13°♌43'27	1°27'46
	557 Oct 31 j 04:04	0°♏		minimum elong	558 Sep 05 j 02:48	14°♌01'34	1°27'24
greatest brilliancy	557 Nov 02 j 16:46	3°♏16'42	-0.4m	max. Earth dist.	558 Sep 12 j 13:43	26°♌55'48	1.41570 AU
evening max el	557 Nov 07 j 18:22	9°♏07'42	21°23'54		558 Sep 14 j 09:55	0°♍	
retrograde	557 Nov 16 j 13:09	14°♏21'03		evening rise	558 Sep 18 j 01:37	5°♍57'48	
asc. node	557 Nov 20 j 10:39	12°♏56'22		desc. node	558 Sep 19 j 14:53	8°♍26'55	
evening set	557 Nov 20 j 15:58	12°♏46'19			558 Oct 03 j 20:08	0°♎	
inferior conj	557 Nov 26 j 01:44	6°♏29'19	1°50'37	greatest brilliancy	558 Oct 16 j 13:28	17°♎07'37	-0.3m
minimum elong	557 Nov 25 j 23:29	6°♏37'05	1°49'47	evening max el	558 Oct 21 j 11:18	22°♎37'47	22°41'19
min. Earth dist.	557 Nov 26 j 08:18	6°♏06'39	0.67534 AU	retrograde	558 Oct 31 j 08:20	28°♎29'59	
morning rise	557 Dec 01 j 06:41	0°♏14'08		evening set	558 Nov 04 j 23:28	26°♎38'01	
	557 Dec 01 j 13:23	30°♎		asc. node	558 Nov 07 j 07:41	24°♎16'02	
direct	557 Dec 06 j 08:23	28°♎04'11		inferior conj	558 Nov 10 j 08:54	20°♎15'14	1°02'09
	557 Dec 11 j 17:39	0°♏		minimum elong	558 Nov 10 j 07:31	20°♎20'04	1°01'34
morning max el	557 Dec 16 j 17:24	4°♏14'40	23°23'16	min. Earth dist.	558 Nov 10 j 04:45	20°♎29'36	0.67713 AU
greatest brilliancy	557 Dec 22 j 05:04	10°♏25'48	-0.2m	morning rise	558 Nov 15 j 15:29	14°♎02'11	
desc. node	557 Dec 29 j 17:03	20°♏17'14		direct	558 Nov 20 j 02:14	12°♎14'51	
	558 Jan 05 j 11:09	0°♐		morning max el	558 Nov 29 j 05:54	17°♎38'27	21°56'51
morning set	558 Jan 20 j 17:24	24°♐07'34		greatest brilliancy	558 Dec 04 j 00:06	23°♎00'51	-0.4m
	558 Jan 24 j 03:57	0°♑			558 Dec 09 j 09:00	0°♏	
max. Earth dist.	558 Jan 24 j 22:41	1°♑21'28	1.39227 AU	desc. node	558 Dec 16 j 14:05	10°♏12'07	
					558 Dec 29 j 14:23	0°♐	
superior conj	558 Feb 01 j 12:12	15°♑00'02	-1°-53'-40	morning set	558 Dec 31 j 18:59	3°♐29'23	
minimum elong	558 Feb 01 j 15:33	15°♑15'40	1°53'28	max. Earth dist.	559 Jan 06 j 20:39	13°♐24'59	1.41326 AU
	558 Feb 09 j 08:56	0°♑					

superior conj	559 Jan 14 j 13:55	26°☿39'51	-2°-2'-35	morning set	559 Dec 10 j 20:25	11°♄46'28	
minimum elong	559 Jan 14 j 14:38	26°☿43'01	2°02'35	max. Earth dist.	559 Dec 20 j 02:21	26°♄25'12	1.43143 AU
	559 Jan 16 j 11:00	0°♁			559 Dec 22 j 07:12	0°☿	
evening rise	559 Jan 25 j 04:04	15°♁55'57					
	559 Feb 01 j 22:59	0°♁		superior conj	559 Dec 26 j 15:22	7°☿10'34	-1°-57'-34
asc. node	559 Feb 03 j 07:01	2°♁13'41		minimum elong	559 Dec 26 j 11:21	6°☿53'46	1°57'25
evening max el	559 Feb 10 j 11:16	11°♁53'33	18°13'31	evening rise	560 Jan 07 j 19:32	28°☿11'09	
retrograde	559 Feb 17 j 10:36	15°♁23'20			560 Jan 08 j 20:11	0°♁	
evening set	559 Feb 19 j 23:26	14°♁56'26		asc. node	560 Jan 21 j 04:02	20°♁27'22	
inferior conj	559 Feb 26 j 23:02	10°♁09'39	3°29'39	evening max el	560 Jan 24 j 22:58	25°♁01'18	18°07'59
minimum elong	559 Feb 27 j 01:42	10°♁03'43	3°29'17	retrograde	560 Jan 31 j 11:51	28°♁25'41	
min. Earth dist.	559 Mar 02 j 07:49	7°♁11'32	0.59968 AU	evening set	560 Feb 03 j 05:17	27°♁49'33	
morning rise	559 Mar 06 j 00:34	4°♁28'38		inferior conj	560 Feb 09 j 15:52	22°♁41'21	3°47'33
direct	559 Mar 12 j 14:20	2°♁28'05		minimum elong	560 Feb 09 j 16:20	22°♁40'09	3°47'32
desc. node	559 Mar 14 j 13:15	2°♁38'21		min. Earth dist.	560 Feb 12 j 14:05	19°♁43'52	0.62060 AU
morning max el	559 Mar 26 j 21:14	10°♁15'40	27°25'04	morning rise	560 Feb 16 j 01:04	16°♁45'34	
	559 Apr 11 j 03:51	0°♁		direct	560 Feb 22 j 23:52	14°♁14'37	
morning set	559 Apr 27 j 06:07	29°♁22'21		desc. node	560 Feb 29 j 10:17	16°♁06'58	
	559 Apr 27 j 13:22	0°♁		morning max el	560 Mar 08 j 01:12	22°♁07'08	27°47'50
asc. node	559 May 02 j 06:21	10°♁03'19			560 Mar 14 j 23:45	0°♁	
					560 Apr 03 j 06:09	0°♁	
superior conj	559 May 04 j 10:49	14°♁50'23	0°22'59	morning set	560 Apr 10 j 09:35	13°♁49'46	
minimum elong	559 May 04 j 09:48	14°♁44'48	0°22'47	max. Earth dist.	560 Apr 16 j 04:44	26°♁01'04	1.32594 AU
max. Earth dist.	559 May 03 j 18:55	13°♁23'09	1.32297 AU				
evening rise	559 May 11 j 08:58	29°♁52'00		superior conj	560 Apr 17 j 20:52	29°♁38'26	0°-2'-52
	559 May 11 j 10:29	0°♁		minimum elong	560 Apr 17 j 21:01	29°♁39'11	0°02'51
	559 May 27 j 23:24	0°♁		behind sun begin	560 Apr 17 j 15:56	29°♁11'37	
evening max el	559 Jun 08 j 04:04	13°♁44'43	25°46'58	behind sun end	560 Apr 18 j 02:05	0°♁06'45	
desc. node	559 Jun 10 j 12:33	15°♁50'24		asc. node	560 Apr 18 j 03:23	0°♁13'48	
retrograde	559 Jun 22 j 05:12	20°♁55'56			560 Apr 18 j 00:50	0°♁	
evening set	559 Jun 28 j 05:37	19°♁29'27		evening rise	560 Apr 24 j 20:37	14°♁46'04	
min. Earth dist.	559 Jul 02 j 16:31	16°♁50'09	0.58554 AU		560 May 02 j 12:13	0°♁	
inferior conj	559 Jul 05 j 23:01	14°♁27'48	-4°-49'-2	evening max el	560 May 19 j 19:36	24°♁33'12	24°20'31
minimum elong	559 Jul 05 j 23:07	14°♁27'36	4°49'03	desc. node	560 May 27 j 09:34	0°♁02'53	
morning rise	559 Jul 13 j 20:18	10°♁04'46			560 May 27 j 07:08	0°♁	
direct	559 Jul 16 j 07:58	9°♁44'45		retrograde	560 Jun 02 j 16:45	1°♁33'08	
morning max el	559 Jul 24 j 12:43	13°♁38'10	18°39'55	evening set	560 Jun 07 j 09:11	0°♁44'10	
asc. node	559 Jul 29 j 05:32	19°♁13'22			560 Jun 09 j 05:35	30°♁	
	559 Aug 04 j 18:28	0°♁		min. Earth dist.	560 Jun 13 j 06:48	27°♁47'27	0.56709 AU
morning set	559 Aug 09 j 19:22	9°♁34'01		inferior conj	560 Jun 15 j 22:52	26°♁06'16	-4°-29'-32
				minimum elong	560 Jun 15 j 18:04	26°♁13'55	4°28'54
superior conj	559 Aug 18 j 14:16	26°♁30'36	1°42'18	morning rise	560 Jun 24 j 06:38	22°♁03'12	
minimum elong	559 Aug 18 j 16:19	26°♁40'16	1°42'12	direct	560 Jun 26 j 21:44	21°♁44'33	
	559 Aug 20 j 11:09	0°♁		morning max el	560 Jul 06 j 10:15	26°♁09'50	19°34'35
max. Earth dist.	559 Aug 25 j 18:12	9°♁33'30	1.39588 AU		560 Jul 09 j 22:23	0°♁	
evening rise	559 Aug 29 j 21:44	16°♁42'33		asc. node	560 Jul 15 j 02:36	7°♁34'42	
desc. node	559 Sep 06 j 11:54	29°♁04'54		morning set	560 Jul 23 j 20:39	23°♁57'14	
	559 Sep 07 j 01:57	0°♁			560 Jul 26 j 20:38	0°♁	
	559 Sep 28 j 10:25	0°♁					
evening max el	559 Oct 04 j 00:39	6°♁11'37	24°01'30	superior conj	560 Jul 31 j 21:47	10°♁06'02	1°46'46
retrograde	559 Oct 15 j 00:05	12°♁38'42		minimum elong	560 Jul 31 j 21:52	10°♁06'26	1°46'45
evening set	559 Oct 20 j 05:10	10°♁29'00		max. Earth dist.	560 Aug 06 j 21:57	21°♁36'58	1.37587 AU
min. Earth dist.	559 Oct 25 j 01:07	4°♁53'47	0.67574 AU	evening rise	560 Aug 10 j 18:01	28°♁35'44	
asc. node	559 Oct 25 j 04:43	4°♁41'38			560 Aug 11 j 13:02	0°♁	
inferior conj	559 Oct 25 j 15:39	4°♁04'32	0°09'27	desc. node	560 Aug 23 j 08:55	19°♁31'38	
minimum elong	559 Oct 25 j 15:26	4°♁05'19	0°09'20		560 Aug 30 j 10:43	0°♁	
transit middle	559 Oct 25 j 15:26	4°♁05'19	0°09'20	evening max el	560 Sep 15 j 12:27	19°♁48'45	25°17'31
transit begin	559 Oct 25 j 13:12	4°♁12'53		retrograde	560 Sep 27 j 11:28	26°♁42'41	
transit end	559 Oct 25 j 17:40	3°♁57'45		evening set	560 Oct 03 j 07:19	24°♁16'24	
	559 Oct 28 j 20:51	30°♁		min. Earth dist.	560 Oct 07 j 18:57	19°♁16'28	0.67110 AU
morning rise	559 Oct 31 j 01:54	27°♁56'15		inferior conj	560 Oct 08 j 20:13	17°♁54'22	0°-46'-6
direct	559 Nov 03 j 23:02	26°♁30'41		minimum elong	560 Oct 08 j 21:23	17°♁50'35	0°45'37
	559 Nov 10 j 19:13	0°♁		asc. node	560 Oct 11 j 01:47	15°♁06'30	
morning max el	559 Nov 12 j 01:03	1°♁11'44	20°38'45	morning rise	560 Oct 14 j 12:02	11°♁53'46	
greatest brilliancy	559 Nov 18 j 02:09	8°♁19'43	-0.5m	direct	560 Oct 17 j 21:22	10°♁47'23	
desc. node	559 Dec 03 j 11:08	0°♁27'01		morning max el	560 Oct 25 j 04:02	14°♁55'14	19°33'32
	559 Dec 03 j 03:59	0°♁		greatest brilliancy	560 Nov 02 j 17:53	25°♁47'07	-0.7m

	560 Nov 05 j 15:16	0°♄		morning max el	561 Oct 08 j 13:47	28°♄46'27	18°43'32
morning set	560 Nov 18 j 18:30	20°♄02'50			561 Oct 09 j 17:24	0°♄	
desc. node	560 Nov 19 j 08:11	20°♄55'47		morning set	561 Oct 29 j 12:29	29°♄23'23	
	560 Nov 25 j 04:03	0°♄			561 Oct 29 j 21:43	0°♄	
max. Earth dist.	560 Dec 01 j 15:35	10°♄11'45	1.44426 AU	desc. node	561 Nov 06 j 05:13	11°♄34'02	
superior conj	560 Dec 05 j 14:05	16°♄28'22	-1°-34'-35	superior conj	561 Nov 14 j 17:24	24°♄56'54	0°-54'-12
minimum elong	560 Dec 05 j 05:55	15°♄55'39	1°33'52	minimum elong	561 Nov 14 j 10:37	24°♄30'14	0°53'21
	560 Dec 13 j 21:39	0°♄		max. Earth dist.	561 Nov 14 j 09:15	24°♄24'54	1.45029 AU
evening rise	560 Dec 19 j 15:15	9°♄33'07			561 Nov 17 j 22:27	0°♄	
	561 Jan 01 j 01:53	0°♄		evening rise	561 Nov 30 j 11:48	19°♄56'32	
asc. node	561 Jan 07 j 01:04	7°♄53'33			561 Dec 06 j 18:17	0°♄	
evening max el	561 Jan 07 j 11:30	8°♄20'40	18°21'25	evening max el	561 Dec 21 j 22:16	21°♄45'31	18°52'52
retrograde	561 Jan 13 j 23:31	11°♄52'42		asc. node	561 Dec 24 j 22:07	24°♄18'21	
evening set	561 Jan 16 j 21:40	11°♄06'27		retrograde	561 Dec 28 j 17:28	25°♄35'59	
inferior conj	561 Jan 22 j 22:33	5°♄38'19	3°44'05	evening set	561 Dec 31 j 21:20	24°♄38'28	
minimum elong	561 Jan 22 j 21:15	5°♄42'00	3°43'59	inferior conj	562 Jan 06 j 15:19	18°♄52'51	3°25'09
min. Earth dist.	561 Jan 25 j 05:53	3°♄01'35	0.63916 AU	minimum elong	562 Jan 06 j 12:58	19°♄00'10	3°24'44
	561 Jan 28 j 06:34	30°♄		min. Earth dist.	562 Jan 08 j 07:20	16°♄49'07	0.65422 AU
morning rise	561 Jan 28 j 19:18	29°♄33'15		morning rise	562 Jan 12 j 03:34	12°♄41'53	
direct	561 Feb 04 j 17:16	26°♄45'27		direct	562 Jan 18 j 17:25	9°♄51'38	
	561 Feb 13 j 01:30	0°♄		morning max el	562 Jan 31 j 19:24	17°♄31'42	26°48'00
desc. node	561 Feb 15 j 07:21	1°♄45'06		desc. node	562 Feb 02 j 04:24	18°♄56'56	
morning max el	561 Feb 18 j 09:31	4°♄36'28	27°34'00		562 Feb 11 j 06:38	0°♄	
	561 Mar 09 j 14:13	0°♄			562 Mar 02 j 11:46	0°♄	
morning set	561 Mar 25 j 05:49	27°♄52'18		morning set	562 Mar 08 j 15:25	11°♄18'22	
	561 Mar 26 j 07:28	0°♄		max. Earth dist.	562 Mar 13 j 00:58	19°♄54'38	1.34438 AU
max. Earth dist.	561 Mar 30 j 08:02	8°♄15'05	1.33297 AU				
superior conj	561 Apr 02 j 03:35	14°♄12'17	0°-29'-51	superior conj	562 Mar 17 j 04:43	28°♄24'03	0°-56'-54
minimum elong	561 Apr 02 j 05:02	14°♄20'02	0°29'34	minimum elong	562 Mar 17 j 07:28	28°♄38'23	0°56'25
asc. node	561 Apr 05 j 00:25	20°♄21'29			562 Mar 17 j 23:09	0°♄	
evening rise	561 Apr 09 j 08:16	29°♄35'54		asc. node	562 Mar 22 j 21:27	10°♄21'27	
	561 Apr 09 j 12:51	0°♄		evening rise	562 Mar 24 j 17:56	14°♄13'47	
	561 Apr 26 j 20:43	0°♄			562 Apr 01 j 20:27	0°♄	
evening max el	561 May 01 j 10:35	5°♄05'55	22°44'54	evening max el	562 Apr 13 j 08:15	15°♄53'04	21°14'35
desc. node	561 May 14 j 06:34	11°♄38'56		retrograde	562 Apr 25 j 06:11	21°♄40'48	
retrograde	561 May 14 j 15:50	11°♄39'17		evening set	562 Apr 27 j 14:05	21°♄28'16	
evening set	561 May 17 j 22:14	11°♄15'52		desc. node	562 May 01 j 03:37	20°♄25'12	
min. Earth dist.	561 May 25 j 19:01	7°♄48'43	0.55417 AU	inferior conj	562 May 06 j 22:29	17°♄28'59	-1°-39'-7
inferior conj	561 May 27 j 03:56	7°♄01'34	-3°-24'-46	minimum elong	562 May 06 j 17:51	17°♄35'30	1°37'32
minimum elong	561 May 26 j 20:28	7°♄12'17	3°22'48	min. Earth dist.	562 May 07 j 07:43	17°♄15'59	0.54965 AU
morning rise	561 Jun 04 j 21:25	3°♄08'49		morning rise	562 May 15 j 21:38	13°♄28'18	
direct	561 Jun 07 j 17:25	2°♄50'10		direct	562 May 19 j 03:30	13°♄05'30	
morning max el	561 Jun 18 j 20:52	8°♄00'26	20°49'54	morning max el	562 May 31 j 20:49	19°♄08'35	22°22'19
asc. node	561 Jul 01 j 23:41	26°♄32'41			562 Jun 09 j 18:05	0°♄	
	561 Jul 03 j 19:43	0°♄		asc. node	562 Jun 18 j 20:45	15°♄57'35	
morning set	561 Jul 08 j 03:28	8°♄38'09		morning set	562 Jun 22 j 13:39	23°♄29'58	
					562 Jun 25 j 15:32	0°♄	
superior conj	561 Jul 15 j 16:41	24°♄16'36	1°43'11	superior conj	562 Jun 29 j 19:22	8°♄50'55	1°33'16
minimum elong	561 Jul 15 j 15:19	24°♄09'33	1°43'07	minimum elong	562 Jun 29 j 17:10	8°♄39'14	1°33'02
	561 Jul 18 j 12:29	0°♄		max. Earth dist.	562 Jul 02 j 23:12	15°♄27'06	1.34333 AU
max. Earth dist.	561 Jul 20 j 06:16	3°♄27'10	1.35790 AU	evening rise	562 Jul 07 j 18:28	25°♄05'45	
evening rise	561 Jul 24 j 10:33	11°♄27'54			562 Jul 10 j 07:51	0°♄	
	561 Aug 04 j 01:04	0°♄		desc. node	562 Jul 28 j 02:58	29°♄26'30	
desc. node	561 Aug 10 j 05:56	9°♄41'23			562 Jul 28 j 12:23	0°♄	
	561 Aug 25 j 16:49	0°♄		evening max el	562 Aug 11 j 12:07	16°♄54'45	27°06'47
evening max el	561 Aug 29 j 00:12	3°♄25'38	26°21'47	retrograde	562 Aug 24 j 19:19	24°♄13'35	
retrograde	561 Sep 10 j 17:59	10°♄36'44		evening set	562 Aug 31 j 16:55	21°♄29'09	
evening set	561 Sep 17 j 04:01	7°♄57'41		min. Earth dist.	562 Sep 04 j 13:36	17°♄43'32	0.65138 AU
min. Earth dist.	561 Sep 21 j 07:51	3°♄34'52	0.66305 AU	inferior conj	562 Sep 06 j 15:03	15°♄24'06	-2°-38'-55
inferior conj	561 Sep 22 j 20:43	1°♄42'07	-1°-42'-54	minimum elong	562 Sep 06 j 19:04	15°♄12'45	2°37'29
minimum elong	561 Sep 22 j 23:22	1°♄34'00	1°41'50	morning rise	562 Sep 12 j 22:52	9°♄47'56	
	561 Sep 24 j 06:43	30°♄		asc. node	562 Sep 14 j 19:56	9°♄12'42	
asc. node	561 Sep 27 j 22:52	26°♄25'42		direct	562 Sep 15 j 15:19	9°♄09'10	
morning rise	561 Sep 28 j 19:49	25°♄52'13		morning max el	562 Sep 22 j 04:01	12°♄40'28	18°10'03
direct	561 Oct 01 j 19:30	25°♄01'32			562 Oct 04 j 07:37	0°♄	

morning set	562 Oct 10 j 11:21	10°♄09'59		minimum elong	563 Aug 21 j 05:29	28°♄41'36	3°29'52
	562 Oct 22 j 15:31	0°♄		morning rise	563 Aug 27 j 18:17	23°♄34'50	
desc. node	562 Oct 24 j 02:15	2°♄18'33		direct	563 Aug 30 j 06:09	23°♄04'27	
				asc. node	563 Sep 01 j 16:59	23°♄34'16	
superior conj	562 Oct 24 j 21:13	3°♄33'59	0°-5'-14	morning max el	563 Sep 05 j 19:53	26°♄30'14	17°53'58
minimum elong	562 Oct 24 j 20:34	3°♄31'21	0°05'10		563 Sep 08 j 20:07	0°♄	
behind sun begin	562 Oct 24 j 10:10	2°♄50'00		morning set	563 Sep 22 j 12:06	22°♄11'14	
behind sun end	562 Oct 25 j 06:58	4°♄12'39			563 Sep 27 j 00:40	0°♄	
max. Earth dist.	562 Oct 28 j 04:00	8°♄45'37	1.44895 AU				
evening rise	562 Nov 10 j 09:48	29°♄26'23		superior conj	563 Oct 04 j 21:00	13°♄11'51	0°40'01
	562 Nov 10 j 18:27	0°♄		minimum elong	563 Oct 05 j 00:59	13°♄28'15	0°39'29
greatest brilliancy	562 Nov 27 j 07:47	25°♄10'31	-0.7m	desc. node	563 Oct 10 j 23:18	23°♄05'30	
	562 Nov 30 j 19:47	0°♄		max. Earth dist.	563 Oct 10 j 20:54	22°♄55'53	1.44054 AU
evening max el	562 Dec 05 j 05:16	5°♄13'23	19°40'49		563 Oct 15 j 07:56	0°♄	
asc. node	562 Dec 11 j 19:11	9°♄27'18		evening rise	563 Oct 20 j 18:03	8°♄25'57	
retrograde	562 Dec 12 j 14:32	9°♄30'57			563 Nov 04 j 01:41	0°♄	
evening set	562 Dec 16 j 01:44	8°♄20'34		greatest brilliancy	563 Nov 12 j 12:27	11°♄50'26	-0.5m
inferior conj	562 Dec 21 j 15:06	2°♄20'20	2°54'52	evening max el	563 Nov 18 j 07:02	18°♄42'13	20°43'01
minimum elong	562 Dec 21 j 12:22	2°♄29'22	2°54'09	retrograde	563 Nov 26 j 12:10	23°♄33'35	
min. Earth dist.	562 Dec 22 j 16:58	0°♄55'14	0.66543 AU	asc. node	563 Nov 28 j 16:13	23°♄06'59	
	562 Dec 23 j 10:04	30°♄		evening set	563 Nov 30 j 08:43	22°♄08'21	
morning rise	562 Dec 26 j 22:17	26°♄06'02		inferior conj	563 Dec 05 j 19:21	15°♄56'41	2°16'03
direct	563 Jan 01 j 23:41	23°♄25'24		minimum elong	563 Dec 05 j 16:47	16°♄05'26	2°15'11
	563 Jan 13 j 12:09	0°♄		min. Earth dist.	563 Dec 06 j 08:37	15°♄11'24	0.67283 AU
morning max el	563 Jan 14 j 04:33	0°♄40'40	25°37'55	morning rise	563 Dec 11 j 00:24	9°♄41'15	
desc. node	563 Jan 20 j 01:26	7°♄15'43		direct	563 Dec 16 j 11:02	7°♄18'36	
	563 Feb 05 j 06:09	0°♄		morning max el	563 Dec 27 j 12:46	13°♄54'53	24°13'49
morning set	563 Feb 19 j 09:55	23°♄54'57		desc. node	564 Jan 06 j 22:29	26°♄21'46	
	563 Feb 22 j 16:32	0°♄			564 Jan 09 j 14:36	0°♄	
max. Earth dist.	563 Feb 23 j 05:45	1°♄02'35	1.36033 AU		564 Jan 29 j 03:14	0°♄	
				morning set	564 Feb 01 j 07:28	5°♄25'38	
superior conj	563 Feb 28 j 21:40	12°♄06'33	-1°-22'-24	max. Earth dist.	564 Feb 05 j 01:55	12°♄05'00	1.38004 AU
minimum elong	563 Mar 01 j 01:25	12°♄25'19	1°21'52				
evening rise	563 Mar 08 j 23:35	28°♄33'34		superior conj	564 Feb 12 j 03:03	25°♄10'34	-1°-44'-7
asc. node	563 Mar 09 j 18:29	0°♄09'18		minimum elong	564 Feb 12 j 06:57	25°♄29'19	1°43'44
	563 Mar 09 j 16:39	0°♄			564 Feb 14 j 14:56	0°♄	
evening max el	563 Mar 26 j 17:01	27°♄15'09	19°59'00	evening rise	564 Feb 20 j 22:49	12°♄28'29	
	563 Mar 30 j 03:05	0°♄		asc. node	564 Feb 24 j 15:31	19°♄39'50	
retrograde	563 Apr 05 j 21:45	2°♄09'13			564 Mar 01 j 11:00	0°♄	
evening set	563 Apr 07 j 23:39	1°♄57'54		evening max el	564 Mar 08 j 12:48	9°♄15'42	19°02'17
	563 Apr 13 j 07:54	30°♄		retrograde	564 Mar 17 j 02:55	13°♄24'31	
inferior conj	563 Apr 16 j 20:40	27°♄58'02	0°20'01	evening set	564 Mar 19 j 08:02	13°♄09'09	
minimum elong	563 Apr 16 j 21:34	27°♄56'41	0°19'42	inferior conj	564 Mar 27 j 10:48	8°♄54'57	2°00'25
desc. node	563 Apr 18 j 00:38	27°♄15'31		minimum elong	564 Mar 27 j 14:51	8°♄47'53	1°59'13
min. Earth dist.	563 Apr 18 j 21:44	26°♄43'45	0.55477 AU	min. Earth dist.	564 Mar 30 j 13:22	6°♄45'59	0.56836 AU
morning rise	563 Apr 25 j 16:31	23°♄31'17		desc. node	564 Apr 03 j 21:38	4°♄16'22	
direct	563 Apr 29 j 18:10	22°♄54'51		morning rise	564 Apr 04 j 17:30	3°♄55'13	
morning max el	563 May 13 j 13:13	29°♄45'18	24°03'22	direct	564 Apr 09 j 21:26	2°♄52'17	
	563 May 13 j 19:22	0°♄		morning max el	564 Apr 24 j 03:48	10°♄14'34	25°39'39
	563 Jun 02 j 22:04	0°♄			564 May 09 j 03:44	0°♄	
asc. node	563 Jun 05 j 17:46	5°♄42'11		morning set	564 May 21 j 13:08	23°♄24'38	
morning set	563 Jun 07 j 01:24	8°♄27'12		asc. node	564 May 22 j 14:48	25°♄40'40	
					564 May 24 j 15:01	0°♄	
superior conj	563 Jun 14 j 03:06	23°♄40'18	1°18'17	superior conj	564 May 28 j 13:47	8°♄37'44	0°59'16
minimum elong	563 Jun 14 j 00:38	23°♄26'57	1°17'56	minimum elong	564 May 28 j 11:33	8°♄25'34	0°58'52
max. Earth dist.	563 Jun 16 j 01:22	27°♄48'57	1.33275 AU	max. Earth dist.	564 May 29 j 10:31	10°♄31'10	1.32603 AU
	563 Jun 17 j 01:59	0°♄		evening rise	564 Jun 04 j 16:23	23°♄51'31	
evening rise	563 Jun 21 j 13:32	9°♄17'06			564 Jun 07 j 17:12	0°♄	
	563 Jul 02 j 17:14	0°♄			564 Jun 25 j 12:04	0°♄	
desc. node	563 Jul 15 j 00:00	18°♄36'07		desc. node	564 Jun 30 j 20:59	6°♄55'37	
	563 Jul 24 j 21:03	0°♄		evening max el	564 Jul 06 j 06:22	12°♄42'26	27°12'40
evening max el	563 Jul 24 j 22:57	0°♄04'32	27°25'29	retrograde	564 Jul 20 j 03:07	19°♄58'35	
retrograde	563 Aug 07 j 14:40	7°♄23'43		evening set	564 Jul 27 j 06:00	17°♄38'19	
evening set	563 Aug 14 j 18:52	4°♄44'49		min. Earth dist.	564 Jul 30 j 20:31	14°♄51'45	0.61780 AU
min. Earth dist.	563 Aug 18 j 10:15	1°♄33'02	0.63614 AU	inferior conj	564 Aug 02 j 22:20	12°♄05'05	-4°-15'-16
	563 Aug 19 j 22:58	30°♄		minimum elong	564 Aug 03 j 02:56	11°♄54'39	4°14'25
inferior conj	563 Aug 21 j 00:36	28°♄54'04	-3°-31'-14				

morning rise	564 Aug 10 j 02:37	7°06'06		min. Earth dist.	565 Jul 12 j 20:40	27°02'405	0.59740 AU
direct	564 Aug 12 j 12:37	6°04'10		inferior conj	565 Jul 16 j 04:37	24°04'4653	-4°-43'-49
asc. node	564 Aug 18 j 14:02	9°02'22'12		minimum elong	565 Jul 16 j 07:01	24°04'42'07	4°43'39
morning max el	564 Aug 19 j 10:32	10°09'33	17°56'15	morning rise	565 Jul 23 j 19:46	20°04'10'49	
	564 Sep 01 j 12:25	0°00		direct	565 Jul 26 j 06:22	19°04'49'21	
morning set	564 Sep 04 j 08:39	5°00'09'30		morning max el	565 Aug 02 j 20:54	23°04'29'51	18°18'07
				asc. node	565 Aug 05 j 11:04	26°04'21'02	
superior conj	564 Sep 15 j 00:05	24°00'10'32	1°14'01		565 Aug 08 j 03:10	0°00	
minimum elong	564 Sep 15 j 04:52	24°00'31'13	1°13'29	morning set	565 Aug 18 j 19:27	18°04'48'56	
	564 Sep 18 j 09:46	0°00			565 Aug 24 j 17:11	0°00	
max. Earth dist.	564 Sep 22 j 09:51	6°04'40'25	1.42614 AU	superior conj	565 Aug 28 j 03:56	6°00'22'39	1°35'18
desc. node	564 Sep 26 j 20:20	13°04'51'45		minimum elong	565 Aug 28 j 07:11	6°00'37'32	1°35'03
evening rise	564 Sep 29 j 05:34	17°04'38'36		max. Earth dist.	565 Sep 04 j 17:19	19°00'44'36	1.40753 AU
	564 Oct 07 j 06:15	0°00		evening rise	565 Sep 09 j 11:35	27°00'43'17	
greatest brilliancy	564 Oct 26 j 08:54	26°00'48'01	-0.4m		565 Sep 10 j 21:06	0°00	
	564 Oct 29 j 01:56	0°00		desc. node	565 Sep 13 j 17:21	4°04'33'41	
evening max el	564 Oct 31 j 03:07	2°00'11'58	21°56'07		565 Sep 30 j 21:44	0°00	
retrograde	564 Nov 09 j 08:36	7°00'41'14		evening max el	565 Oct 13 j 18:15	15°00'43'20	23°15'24
evening set	564 Nov 13 j 16:31	5°00'59'17		retrograde	565 Oct 24 j 02:26	21°00'50'52	
asc. node	564 Nov 14 j 13:15	5°00'14'04		evening set	565 Oct 28 j 23:29	19°00'51'03	
	564 Nov 18 j 20:05	30°00'00		asc. node	565 Nov 01 j 10:17	16°00'05'22	
inferior conj	564 Nov 19 j 01:59	29°00'39'34	1°30'39	inferior conj	565 Nov 03 j 09:13	13°00'27'03	0°40'12
minimum elong	564 Nov 19 j 00:04	29°00'46'14	1°29'53	minimum elong	565 Nov 03 j 08:17	13°00'30'16	0°39'48
min. Earth dist.	564 Nov 19 j 03:55	29°00'32'54	0.67661 AU	min. Earth dist.	565 Nov 03 j 00:33	13°00'56'48	0.67698 AU
morning rise	564 Nov 24 j 07:23	23°00'25'11		morning rise	565 Nov 08 j 17:08	7°00'15'58	
direct	564 Nov 29 j 02:44	21°00'24'43		direct	565 Nov 12 j 21:52	5°00'38'18	
morning max el	564 Dec 08 j 22:44	27°00'14'24	22°45'48	morning max el	565 Nov 21 j 13:57	10°00'42'33	21°22'18
	564 Dec 11 j 12:25	0°00		greatest brilliancy	565 Nov 26 j 17:53	16°00'37'34	-0.4m
greatest brilliancy	564 Dec 13 j 14:07	2°00'52'33	-0.3m		565 Dec 06 j 12:40	0°00	
desc. node	564 Dec 23 j 19:32	16°00'01'45		desc. node	565 Dec 10 j 16:36	6°00'06'01	
	565 Jan 02 j 06:19	0°00		morning set	565 Dec 22 j 15:52	24°00'25'17	
morning set	565 Jan 12 j 01:58	15°00'35'30			565 Dec 26 j 03:57	0°00	
max. Earth dist.	565 Jan 16 j 21:45	23°00'41'13	1.40143 AU	max. Earth dist.	565 Dec 29 j 23:21	6°00'11'30	1.42150 AU
	565 Jan 20 j 13:02	0°00					
superior conj	565 Jan 24 j 16:23	7°00'24'52	-1°-58'-51	superior conj	566 Jan 06 j 08:24	18°00'36'38	-2°-2'-26
minimum elong	565 Jan 24 j 18:55	7°00'36'21	1°58'45	minimum elong	566 Jan 06 j 07:18	18°00'31'53	2°02'26
evening rise	565 Feb 03 j 12:42	25°00'51'25			566 Jan 12 j 19:46	0°00	
	565 Feb 05 j 17:15	0°00		evening rise	566 Jan 17 j 13:38	8°00'34'24	
asc. node	565 Feb 10 j 12:33	8°00'46'53		asc. node	566 Jan 28 j 09:35	27°00'23'06	
evening max el	565 Feb 19 j 17:08	21°00'48'43	18°25'31		566 Jan 30 j 04:13	0°00	
retrograde	565 Feb 27 j 03:14	25°00'28'14		evening max el	566 Feb 03 j 03:01	4°00'46'14	18°08'45
evening set	565 Mar 01 j 13:21	25°00'05'59		retrograde	566 Feb 09 j 20:47	8°00'12'24	
inferior conj	565 Mar 08 j 21:58	20°00'31'13	3°06'48	evening set	566 Feb 12 j 11:30	7°00'41'45	
minimum elong	565 Mar 09 j 01:42	20°00'23'35	3°06'03	inferior conj	566 Feb 19 j 05:06	2°00'45'30	3°40'18
min. Earth dist.	565 Mar 12 j 08:26	17°00'44'26	0.58751 AU	minimum elong	566 Feb 19 j 06:50	2°00'41'25	3°40'09
morning rise	565 Mar 16 j 10:13	15°00'02'38			566 Feb 22 j 03:24	30°00'00	
desc. node	565 Mar 21 j 18:41	13°00'25'28		min. Earth dist.	566 Feb 22 j 10:07	29°00'44'50	0.60867 AU
direct	565 Mar 22 j 13:54	13°00'23'48		morning rise	566 Feb 25 j 23:13	26°00'57'03	
morning max el	565 Apr 05 j 22:17	21°00'04'21	26°55'42	direct	566 Mar 04 j 17:54	24°00'42'28	
	565 Apr 13 j 16:11	0°00		desc. node	566 Mar 08 j 15:43	25°00'23'53	
	565 May 01 j 21:33	0°00			566 Mar 16 j 04:25	0°00	
morning set	565 May 05 j 23:08	8°00'15'28		morning max el	566 Mar 18 j 23:11	2°00'33'07	27°39'28
asc. node	565 May 09 j 11:50	15°00'04'706			566 Apr 08 j 01:18	0°00	
				morning set	566 Apr 20 j 05:37	22°00'53'39	
superior conj	565 May 13 j 01:30	23°00'08'35'48	0°37'00		566 Apr 23 j 14:46	0°00	
minimum elong	565 May 12 j 23:57	23°00'27'14	0°36'41	asc. node	566 Apr 26 j 08:53	5°00'08'57'20	
max. Earth dist.	565 May 12 j 23:00	23°00'22'03	1.32302 AU	max. Earth dist.	566 Apr 26 j 10:55	6°00'08'25	1.32374 AU
	565 May 15 j 23:34	0°00					
evening rise	565 May 20 j 00:17	8°00'38'58		superior conj	566 Apr 27 j 12:40	8°00'29'06	0°12'14
	565 May 31 j 03:26	0°00		minimum elong	566 Apr 27 j 12:07	8°00'26'03	0°12'07
desc. node	565 Jun 17 j 17:59	24°00'03'06		behind sun begin	566 Apr 27 j 08:50	8°00'08'05	
evening max el	565 Jun 18 j 07:35	24°00'35'58	26°26'48	behind sun end	566 Apr 27 j 15:24	8°00'04'00	
	565 Jun 25 j 13:08	0°00		evening rise	566 May 04 j 11:07	23°00'08'32'18	
retrograde	565 Jul 02 j 07:25	1°00'49'17			566 May 07 j 13:59	0°00	
evening set	565 Jul 08 j 21:38	0°00'00'23			566 May 25 j 20:21	0°00	
	565 Jul 08 j 21:55	30°00'00		evening max el	566 May 31 j 01:44	5°00'04'34'0	25°12'11

desc. node	566 Jun 04 j 14:59	9°♄29'24		asc. node	567 Apr 13 j 05:57	26°♃07'00	
retrograde	566 Jun 14 j 02:06	12°♄52'02			567 Apr 15 j 00:55	0°♄	
evening set	566 Jun 19 j 14:11	11°♄41'56		evening rise	567 Apr 18 j 22:58	8°♄24'45	
min. Earth dist.	566 Jun 24 j 13:26	8°♄57'10	0.57724 AU		567 Apr 30 j 06:20	0°♄	
inferior conj	566 Jun 27 j 16:04	6°♄49'54	-4°-45'-46	evening max el	567 May 12 j 16:06	16°♄21'24	23°40'05
minimum elong	566 Jun 27 j 14:07	6°♄53'15	4°45'40	desc. node	567 May 22 j 12:00	22°♄38'58	
morning rise	566 Jul 05 j 17:55	2°♄36'29		retrograde	567 May 26 j 08:52	23°♄13'02	
direct	566 Jul 08 j 06:54	2°♄17'14		evening set	567 May 30 j 09:52	22°♄37'03	
morning max el	566 Jul 17 j 00:00	6°♄22'10	19°00'39	min. Earth dist.	567 Jun 06 j 02:45	19°♄28'34	0.56063 AU
asc. node	566 Jul 23 j 08:08	14°♄15'53		inferior conj	567 Jun 08 j 07:26	18°♄09'12	-4°-7'-53
	566 Aug 01 j 03:59	0°♄		minimum elong	567 Jun 08 j 00:56	18°♄19'02	4°06'39
morning set	566 Aug 02 j 16:22	2°♄58'22		morning rise	567 Jun 16 j 19:30	14°♄12'09	
				direct	567 Jun 19 j 12:08	13°♄53'54	
superior conj	566 Aug 11 j 02:54	19°♄32'14	1°45'18	morning max el	567 Jun 29 j 17:07	18°♄37'24	20°04'18
minimum elong	566 Aug 11 j 04:05	19°♄37'51	1°45'15		567 Jul 08 j 11:57	0°♄	
	566 Aug 16 j 17:04	0°♄		asc. node	567 Jul 10 j 05:12	2°♄54'02	
max. Earth dist.	566 Aug 17 j 20:36	2°♄04'40	1.38721 AU	morning set	567 Jul 17 j 20:18	17°♄29'51	
evening rise	566 Aug 21 j 18:12	8°♄57'16			567 Jul 23 j 23:17	0°♄	
desc. node	566 Aug 31 j 14:22	25°♄07'17		superior conj	567 Jul 25 j 15:47	3°♄24'21	1°46'07
	566 Sep 03 j 18:30	0°♄		minimum elong	567 Jul 25 j 15:11	3°♄21'17	1°46'06
evening max el	566 Sep 26 j 06:28	29°♄17'55	24°34'44	max. Earth dist.	567 Jul 31 j 01:15	13°♄57'54	1.36780 AU
	566 Sep 26 j 23:48	0°♄		evening rise	567 Aug 03 j 23:44	21°♄17'39	
retrograde	566 Oct 07 j 16:35	5°♄58'17			567 Aug 08 j 22:03	0°♄	
evening set	566 Oct 13 j 03:55	3°♄41'02		desc. node	567 Aug 18 j 11:23	15°♄27'49	
	566 Oct 16 j 13:39	30°♄			567 Aug 28 j 16:04	0°♄	
min. Earth dist.	566 Oct 17 j 20:09	28°♄20'37	0.67414 AU	evening max el	567 Sep 08 j 18:10	12°♄56'13	25°46'48
inferior conj	566 Oct 18 j 15:15	27°♄16'49	0°-13'-53	retrograde	567 Sep 21 j 02:10	19°♄59'19	
minimum elong	566 Oct 18 j 15:36	27°♄15'41	0°13'45	evening set	567 Sep 27 j 04:03	17°♄27'06	
transit middle	566 Oct 18 j 15:36	27°♄15'41	0°13'45	min. Earth dist.	567 Oct 01 j 12:19	12°♄42'33	0.66806 AU
transit begin	566 Oct 18 j 14:08	27°♄20'34		inferior conj	567 Oct 02 j 18:22	11°♄07'04	-1°-10'-8
transit end	566 Oct 18 j 17:04	27°♄10'48		minimum elong	567 Oct 02 j 20:10	11°♄01'22	1°09'23
asc. node	566 Oct 19 j 07:21	26°♄23'19		asc. node	567 Oct 06 j 04:24	7°♄06'22	
morning rise	566 Oct 24 j 03:40	21°♄11'32		morning rise	567 Oct 08 j 13:04	5°♄10'24	
direct	566 Oct 27 j 19:25	19°♄54'45		direct	567 Oct 11 j 17:57	4°♄11'13	
morning max el	566 Nov 04 j 12:33	24°♄20'44	20°09'13	morning max el	567 Oct 18 j 18:38	8°♄08'30	19°10'15
	566 Nov 09 j 09:07	0°♄			567 Nov 03 j 12:33	0°♄	
greatest brilliancy	566 Nov 11 j 10:40	2°♄43'48	-0.6m	morning set	567 Nov 10 j 17:03	11°♄10'48	
desc. node	566 Nov 27 j 13:37	26°♄27'10		desc. node	567 Nov 14 j 10:41	17°♄00'47	
	566 Nov 29 j 21:05	0°♄			567 Nov 22 j 17:39	0°♄	
morning set	566 Dec 01 j 12:38	2°♄32'34		max. Earth dist.	567 Nov 24 j 23:15	3°♄30'56	1.44775 AU
max. Earth dist.	566 Dec 12 j 08:09	19°♄31'57	1.43760 AU	superior conj	567 Nov 27 j 11:14	7°♄27'56	-1°-19'-16
				minimum elong	567 Nov 27 j 02:48	6°♄54'34	1°18'22
superior conj	566 Dec 17 j 22:19	28°♄35'07	-1°-50'-8		567 Dec 11 j 10:41	0°♄	
minimum elong	566 Dec 17 j 16:10	28°♄09'56	1°49'45	evening rise	567 Dec 12 j 07:24	1°♄25'05	
	566 Dec 18 j 18:58	0°♄			567 Dec 30 j 21:20	0°♄	
evening rise	566 Dec 30 j 21:14	20°♄27'43		evening max el	568 Jan 01 j 03:30	1°♄22'00	18°32'41
	567 Jan 05 j 09:54	0°♄		asc. node	568 Jan 02 j 03:42	2°♄20'07	
asc. node	567 Jan 15 j 06:39	15°♄18'05		retrograde	568 Jan 07 j 17:38	5°♄00'24	
evening max el	567 Jan 17 j 15:22	17°♄59'19	18°11'26	evening set	568 Jan 10 j 18:04	4°♄09'35	
retrograde	567 Jan 24 j 03:00	21°♄25'48			568 Jan 15 j 10:10	30°♄	
evening set	567 Jan 26 j 22:15	20°♄45'39		inferior conj	568 Jan 16 j 15:44	28°♄33'59	3°37'36
inferior conj	567 Feb 02 j 04:21	15°♄28'53	3°48'15	minimum elong	568 Jan 16 j 13:54	28°♄39'25	3°37'23
minimum elong	567 Feb 02 j 03:59	15°♄29'51	3°48'15	min. Earth dist.	568 Jan 18 j 16:35	26°♄10'00	0.64612 AU
min. Earth dist.	567 Feb 04 j 20:35	12°♄37'52	0.62884 AU	morning rise	568 Jan 22 j 08:26	22°♄26'09	
morning rise	567 Feb 08 j 07:43	9°♄28'22		direct	568 Jan 29 j 03:50	19°♄35'18	
direct	567 Feb 15 j 07:10	6°♄48'10		desc. node	568 Feb 10 j 09:50	26°♄13'15	
desc. node	567 Feb 23 j 12:47	9°♄51'38		morning max el	568 Feb 11 j 14:32	27°♄23'09	27°17'45
morning max el	567 Mar 01 j 05:26	14°♄41'57	27°46'12		568 Feb 14 j 02:06	0°♄	
	567 Mar 13 j 16:08	0°♄			568 Mar 06 j 08:11	0°♄	
	567 Mar 31 j 14:30	0°♄		morning set	568 Mar 17 j 22:29	20°♄59'35	
morning set	567 Apr 04 j 06:20	7°♄11'24			568 Mar 22 j 10:27	0°♄	
max. Earth dist.	567 Apr 09 j 18:17	18°♄36'30	1.32835 AU	max. Earth dist.	568 Mar 22 j 17:14	0°♄34'52	1.33725 AU
				superior conj	568 Mar 26 j 02:09	7°♄36'57	0°-41'-25
superior conj	567 Apr 11 j 21:31	23°♄11'33	0°-14'-14	minimum elong	568 Mar 26 j 04:10	7°♄47'37	0°41'01
minimum elong	567 Apr 11 j 22:12	23°♄15'15	0°14'06				
behind sun begin	567 Apr 11 j 19:47	23°♄02'09					
behind sun end	567 Apr 12 j 00:38	23°♄28'20					

asc. node	568 Mar 30 j 03:00	16°♈11'58		superior conj	569 Mar 10 j 00:13	21°♋38'02	-1°-8'-1
evening rise	568 Apr 02 j 09:59	23°♈10'03		minimum elong	569 Mar 10 j 03:27	21°♋54'37	1°07'29
	568 Apr 05 j 17:54	0°♌			569 Mar 14 j 01:15	0°♈	
evening max el	568 Apr 23 j 09:18	26°♌57'25	22°05'13	asc. node	569 Mar 17 j 00:02	6°♈07'56	
	568 Apr 27 j 00:41	0°♍		evening rise	569 Mar 17 j 18:15	7°♈41'52	
retrograde	568 May 06 j 03:01	3°♍12'42			569 Mar 29 j 23:23	0°♌	
desc. node	568 May 08 j 09:02	3°♍01'24		evening max el	569 Apr 05 j 11:30	7°♌58'34	20°40'16
evening set	568 May 08 j 21:42	2°♍55'36		retrograde	569 Apr 16 j 15:59	13°♌23'10	
	568 May 16 j 04:08	30°♌		evening set	569 Apr 18 j 19:55	13°♌11'50	
min. Earth dist.	568 May 17 j 15:11	29°♌11'28	0.55106 AU	desc. node	569 Apr 25 j 06:03	10°♌47'30	
inferior conj	568 May 18 j 06:34	28°♌49'51	-2°-43'-48	inferior conj	569 Apr 28 j 00:51	9°♌14'19	0°-48'-9
minimum elong	568 May 17 j 23:39	28°♌59'36	2°41'41	minimum elong	569 Apr 27 j 22:35	9°♌17'36	0°47'19
morning rise	568 May 27 j 03:10	24°♌55'52		min. Earth dist.	569 Apr 29 j 04:06	8°♌35'13	0.55069 AU
direct	568 May 30 j 02:32	24°♌36'04		morning rise	569 May 06 j 23:57	5°♌04'47	
	568 Jun 10 j 18:58	0°♍		direct	569 May 10 j 13:14	4°♌37'35	
morning max el	568 Jun 10 j 22:53	0°♍09'01	21°27'31	morning max el	569 May 23 j 18:55	11°♌01'31	23°04'57
asc. node	568 Jun 26 j 02:15	22°♍04'27			569 Jun 06 j 19:16	0°♍	
	568 Jun 30 j 02:20	0°♎		asc. node	569 Jun 12 j 23:18	11°♍38'59	
morning set	568 Jul 01 j 04:47	2°♎16'03		morning set	569 Jun 15 j 15:51	17°♍11'16	
					569 Jun 21 j 15:52	0°♎	
superior conj	568 Jul 08 j 14:20	17°♎45'54	1°39'40	superior conj	569 Jun 22 j 19:27	2°♎27'38	1°27'27
minimum elong	568 Jul 08 j 12:32	17°♎36'30	1°39'32	minimum elong	569 Jun 22 j 17:04	2°♎14'53	1°27'11
max. Earth dist.	568 Jul 12 j 13:02	25°♎50'20	1.35122 AU	max. Earth dist.	569 Jun 25 j 10:19	8°♎00'38	1.33838 AU
	568 Jul 14 j 15:20	0°♏		evening rise	569 Jun 30 j 12:31	18°♎24'36	
evening rise	568 Jul 16 j 23:24	4°♏31'02			569 Jul 06 j 15:04	0°♏	
	568 Jul 31 j 17:35	0°♐		desc. node	569 Jul 22 j 05:24	24°♏59'39	
desc. node	568 Aug 04 j 08:24	5°♐28'12			569 Jul 25 j 23:18	0°♐	
evening max el	568 Aug 21 j 06:17	26°♐31'52	26°43'50	evening max el	569 Aug 03 j 18:03	9°♐54'29	27°18'17
	568 Aug 25 j 06:28	0°♑		retrograde	569 Aug 17 j 04:59	17°♐13'15	
retrograde	568 Sep 03 j 06:27	3°♑46'48		evening set	569 Aug 24 j 06:20	14°♐29'41	
evening set	568 Sep 09 j 21:44	1°♑04'45		min. Earth dist.	569 Aug 28 j 00:30	10°♐59'16	0.64538 AU
	568 Sep 11 j 02:47	30°♑		inferior conj	569 Aug 30 j 07:26	8°♐30'36	-3°-1'-44
min. Earth dist.	568 Sep 13 j 22:33	26°♑57'38	0.65852 AU	minimum elong	569 Aug 30 j 11:55	8°♐18'28	3°00'18
inferior conj	568 Sep 15 j 16:32	24°♑53'14	-2°-6'-51	morning rise	569 Sep 05 j 19:20	3°♐01'15	
minimum elong	568 Sep 15 j 19:48	24°♑43'34	2°05'37	direct	569 Sep 08 j 09:37	2°♐26'18	
morning rise	568 Sep 21 j 19:08	19°♐08'29		asc. node	569 Sep 08 j 22:30	2°♐27'48	
asc. node	568 Sep 22 j 01:27	19°♐00'33		morning max el	569 Sep 14 j 21:44	5°♐53'53	18°01'03
direct	568 Sep 24 j 15:31	18°♐23'11			569 Sep 30 j 22:29	0°♑	
morning max el	568 Oct 01 j 06:30	22°♐01'13	18°27'12	morning set	569 Oct 02 j 09:44	2°♑28'54	
	568 Oct 07 j 13:35	0°♒					
morning set	568 Oct 20 j 23:14	21°♑08'29		superior conj	569 Oct 15 j 22:21	24°♑50'02	0°15'02
	568 Oct 26 j 11:34	0°♓		minimum elong	569 Oct 16 j 00:07	24°♑57'09	0°14'47
desc. node	568 Oct 31 j 07:44	7°♓42'14		behind sun begin	569 Oct 15 j 19:48	24°♑39'46	
				behind sun end	569 Oct 16 j 04:26	25°♑14'30	
superior conj	568 Nov 05 j 11:57	15°♓52'31	0°-33'-43	desc. node	569 Oct 18 j 04:44	28°♑28'00	
minimum elong	568 Nov 05 j 07:33	15°♓35'09	0°33'10		569 Oct 19 j 03:50	0°♓	
max. Earth dist.	568 Nov 06 j 17:58	17°♓50'30	1.45071 AU	max. Earth dist.	569 Oct 20 j 12:48	2°♓10'55	1.44623 AU
	568 Nov 14 j 11:50	0°♐		evening rise	569 Nov 01 j 08:23	20°♓37'37	
evening rise	568 Nov 21 j 17:54	11°♐24'39			569 Nov 07 j 10:59	0°♐	
	568 Dec 03 j 14:29	0°♑		greatest brilliancy	569 Nov 20 j 21:38	19°♐51'13	-0.6m
greatest brilliancy	568 Dec 04 j 06:10	0°♑59'49	-0.7m	evening max el	569 Nov 27 j 17:51	28°♐17'41	20°05'39
evening max el	568 Dec 14 j 12:59	14°♑49'14	19°11'21		569 Nov 29 j 12:50	0°♑	
asc. node	568 Dec 19 j 00:43	18°♑14'59		retrograde	569 Dec 05 j 10:47	2°♑48'50	
retrograde	568 Dec 21 j 13:10	18°♑49'47		asc. node	569 Dec 05 j 21:45	2°♑47'39	
evening set	568 Dec 24 j 20:03	17°♑46'52		evening set	569 Dec 09 j 01:47	1°♑32'11	
inferior conj	568 Dec 30 j 11:49	11°♑54'43	3°13'30		569 Dec 10 j 20:21	30°♑	
minimum elong	568 Dec 30 j 09:13	12°♑03'00	3°12'56	inferior conj	569 Dec 14 j 13:46	25°♑26'28	2°39'21
min. Earth dist.	568 Dec 31 j 21:36	10°♑07'14	0.65956 AU	minimum elong	569 Dec 14 j 11:02	25°♑35'37	2°38'31
morning rise	569 Jan 04 j 21:34	5°♑42'21		min. Earth dist.	569 Dec 15 j 09:59	24°♑18'41	0.66903 AU
direct	569 Jan 11 j 06:38	2°♑55'00		morning rise	569 Dec 19 j 19:43	19°♑11'31	
morning max el	569 Jan 24 j 00:07	10°♑25'22	26°20'31	direct	569 Dec 25 j 14:55	16°♑38'08	
desc. node	569 Jan 27 j 06:55	13°♑56'44		morning max el	570 Jan 06 j 08:54	23°♑37'56	25°03'22
	569 Feb 08 j 13:18	0°♒			570 Jan 12 j 01:17	0°♑	
	569 Feb 26 j 20:57	0°♒		desc. node	570 Jan 14 j 03:57	2°♑37'47	
morning set	569 Mar 01 j 02:18	4°♒06'47			570 Feb 01 j 22:41	0°♒	
max. Earth dist.	569 Mar 05 j 05:06	12°♒00'29	1.35067 AU	morning set	570 Feb 11 j 12:40	16°♒17'39	

max. Earth dist.	570 Feb 15 j 05:59	23° \approx 04'21	1.36839 AU		571 Jan 25 j 13:47	0° \approx	
	570 Feb 18 j 21:55	0° \approx		max. Earth dist.	571 Jan 28 j 00:57	4° \approx 17'10	1.38908 AU
superior conj	570 Feb 21 j 12:42	5° \approx 05'34	-1°-32'-14	superior conj	571 Feb 04 j 11:52	17° \approx 50'07	-1°-51'-26
minimum elong	570 Feb 21 j 16:40	5° \approx 25'02	1°31'45	minimum elong	571 Feb 04 j 15:26	18° \approx 06'50	1°51'11
evening rise	570 Mar 01 j 21:31	21° \approx 52'29			571 Feb 10 j 20:18	0° \approx	
asc. node	570 Mar 03 j 21:04	25° \approx 49'26		evening rise	571 Feb 13 j 17:13	5° \approx 35'13	
	570 Mar 06 j 00:34	0° \approx		asc. node	571 Feb 18 j 18:05	15° \approx 11'10	
evening max el	570 Mar 19 j 01:02	19° \approx 36'57	19°32'22		571 Feb 28 j 06:29	0° \approx	
retrograde	570 Mar 28 j 12:33	24° \approx 10'37		evening max el	571 Mar 02 j 00:48	1° \approx 52'28	18°44'08
evening set	570 Mar 30 j 15:08	23° \approx 58'05		retrograde	571 Mar 10 j 01:46	5° \approx 46'57	
inferior conj	570 Apr 08 j 04:42	19° \approx 52'54	1°06'18	evening set	571 Mar 12 j 08:49	5° \approx 29'04	
minimum elong	570 Apr 08 j 07:23	19° \approx 48'35	1°05'23	inferior conj	571 Mar 20 j 03:39	1° \approx 06'41	2°32'54
min. Earth dist.	570 Apr 10 j 18:31	18° \approx 14'14	0.55965 AU	minimum elong	571 Mar 20 j 07:54	0° \approx 58'44	2°31'47
desc. node	570 Apr 12 j 03:06	17° \approx 24'59			571 Mar 21 j 15:14	30° \approx	
morning rise	570 Apr 16 j 20:00	15° \approx 12'15		min. Earth dist.	571 Mar 23 j 11:38	28° \approx 38'42	0.57605 AU
direct	570 Apr 21 j 08:15	14° \approx 26'26		morning rise	571 Mar 28 j 02:43	25° \approx 53'13	
morning max el	570 May 05 j 09:57	21° \approx 32'08	24°45'53	desc. node	571 Mar 30 j 00:08	25° \approx 09'59	
	570 May 12 j 18:43	0° \approx		direct	571 Apr 02 j 17:24	24° \approx 35'35	
	570 May 30 j 03:03	0° \approx			571 Apr 14 j 17:29	0° \approx	
asc. node	570 May 30 j 20:20	1° \approx 30'15		morning max el	571 Apr 17 j 01:49	2° \approx 07'50	26°15'13
morning set	570 May 31 j 03:47	2° \approx 09'24			571 May 06 j 21:51	0° \approx	
				morning set	571 May 15 j 14:59	17° \approx 04'44	
superior conj	570 Jun 07 j 04:40	17° \approx 21'13	1°10'39	asc. node	571 May 17 j 17:22	21° \approx 32'42	
minimum elong	570 Jun 07 j 02:15	17° \approx 08'03	1°10'17		571 May 21 j 14:32	0° \approx	
max. Earth dist.	570 Jun 08 j 15:51	20° \approx 31'58	1.32941 AU				
	570 Jun 13 j 02:52	0° \approx		superior conj	571 May 22 j 16:01	2° \approx 19'50	0°50'11
evening rise	570 Jun 14 j 11:14	2° \approx 46'34		minimum elong	571 May 22 j 14:02	2° \approx 08'55	0°49'47
	570 Jun 29 j 10:52	0° \approx		max. Earth dist.	571 May 23 j 02:39	3° \approx 18'10	1.32428 AU
desc. node	570 Jul 09 j 02:24	13° \approx 50'04		evening rise	571 May 29 j 16:31	17° \approx 27'23	
evening max el	570 Jul 17 j 03:31	22° \approx 51'21	27°24'00		571 Jun 04 j 23:55	0° \approx	
	570 Jul 29 j 00:28	0° \approx			571 Jun 24 j 11:37	0° \approx	
retrograde	570 Jul 30 j 21:31	0° \approx 09'46		desc. node	571 Jun 25 j 23:25	1° \approx 42'03	
	570 Aug 01 j 17:39	30° \approx		evening max el	571 Jun 29 j 08:22	5° \approx 10'40	26°57'05
evening set	570 Aug 07 j 02:30	27° \approx 36'42		retrograde	571 Jul 13 j 07:02	12° \approx 26'33	
min. Earth dist.	570 Aug 10 j 16:35	24° \approx 37'26	0.62867 AU	evening set	571 Jul 20 j 05:56	10° \approx 18'07	
inferior conj	570 Aug 13 j 12:20	21° \approx 53'12	-3°-51'-18	min. Earth dist.	571 Jul 23 j 22:27	7° \approx 38'02	0.60918 AU
minimum elong	570 Aug 13 j 17:17	21° \approx 41'10	3°50'06	inferior conj	571 Jul 27 j 03:54	4° \approx 52'44	-4°-29'-57
morning rise	570 Aug 20 j 10:30	16° \approx 42'33		minimum elong	571 Jul 27 j 07:51	4° \approx 44'16	4°29'23
direct	570 Aug 22 j 21:15	16° \approx 14'50		morning rise	571 Aug 03 j 12:51	0° \approx 03'30	
asc. node	570 Aug 26 j 19:33	17° \approx 27'44			571 Aug 03 j 17:29	30° \approx	
morning max el	570 Aug 29 j 13:30	19° \approx 40'27	17°52'42	direct	571 Aug 05 j 22:40	29° \approx 40'25	
	570 Sep 06 j 04:18	0° \approx			571 Aug 08 j 02:47	0° \approx	
morning set	570 Sep 14 j 19:36	14° \approx 56'19		morning max el	571 Aug 13 j 02:46	3° \approx 12'56	18°03'07
	570 Sep 23 j 10:20	0° \approx		asc. node	571 Aug 13 j 16:37	3° \approx 47'40	
				morning set	571 Aug 28 j 22:48	28° \approx 13'24	
superior conj	570 Sep 26 j 09:38	5° \approx 02'26	0°56'00		571 Aug 29 j 21:46	0° \approx	
minimum elong	570 Sep 26 j 14:23	5° \approx 22'20	0°55'24				
max. Earth dist.	570 Oct 03 j 04:12	16° \approx 12'05	1.43498 AU	superior conj	571 Sep 07 j 23:51	16° \approx 33'58	1°24'33
desc. node	570 Oct 05 j 01:45	19° \approx 15'10		minimum elong	571 Sep 08 j 04:09	16° \approx 53'00	1°24'08
evening rise	570 Oct 11 j 15:43	29° \approx 36'50		max. Earth dist.	571 Sep 15 j 14:13	29° \approx 38'17	1.41851 AU
	570 Oct 11 j 21:42	0° \approx			571 Sep 15 j 19:26	0° \approx	
	570 Nov 01 j 04:40	0° \approx		evening rise	571 Sep 21 j 09:37	9° \approx 07'35	
greatest brilliancy	570 Nov 05 j 11:49	5° \approx 42'38	-0.4m	desc. node	571 Sep 21 j 22:45	10° \approx 00'00	
evening max el	570 Nov 10 j 17:04	11° \approx 46'40	21°13'00		571 Oct 05 j 01:14	0° \approx	
retrograde	570 Nov 19 j 08:16	16° \approx 54'29		greatest brilliancy	571 Oct 19 j 16:09	19° \approx 55'01	-0.3m
asc. node	570 Nov 22 j 18:47	15° \approx 48'10		evening max el	571 Oct 24 j 10:48	25° \approx 16'40	22°29'30
evening set	570 Nov 23 j 09:21	15° \approx 22'18			571 Oct 30 j 09:06	0° \approx	
inferior conj	570 Nov 28 j 19:17	9° \approx 06'30	1°57'32	retrograde	571 Nov 03 j 03:49	1° \approx 02'59	
minimum elong	570 Nov 28 j 16:56	9° \approx 14'35	1°56'41		571 Nov 06 j 15:09	30° \approx	
min. Earth dist.	570 Nov 29 j 03:34	8° \approx 37'59	0.67478 AU	evening set	571 Nov 07 j 16:59	29° \approx 13'45	
morning rise	570 Dec 04 j 00:11	2° \approx 51'06		asc. node	571 Nov 09 j 15:50	27° \approx 19'21	
direct	570 Dec 09 j 04:10	0° \approx 37'44		inferior conj	571 Nov 13 j 02:24	22° \approx 51'42	1°09'47
morning max el	570 Dec 19 j 17:39	6° \approx 55'21	23°36'25	minimum elong	571 Nov 13 j 00:51	22° \approx 57'03	1°09'10
desc. node	571 Jan 01 j 01:00	22° \approx 00'02		min. Earth dist.	571 Nov 12 j 23:50	23° \approx 00'35	0.67710 AU
	571 Jan 06 j 16:14	0° \approx		morning rise	571 Nov 18 j 08:35	16° \approx 38'09	
morning set	571 Jan 23 j 23:28	27° \approx 16'23		direct	571 Nov 22 j 21:33	14° \approx 47'20	

morning max el	571 Dec 02 j 05:19	20° \mathbb{M} 17'36	22°09'17		572 Nov 09 j 04:00	0° \mathbb{M}	
greatest brilliancy	571 Dec 06 j 21:21	25° \mathbb{M} 32'41	-0.4m	morning max el	572 Nov 13 j 23:23	3° \mathbb{M} 49'16	20°49'36
	571 Dec 10 j 09:28	0° \mathbb{A}		greatest brilliancy	572 Nov 19 j 18:12	10° \mathbb{M} 35'16	-0.5m
desc. node	571 Dec 18 j 22:02	11° \mathbb{A} 51'13			572 Dec 03 j 10:11	0° \mathbb{A}	
	571 Dec 30 j 22:16	0° \mathbb{B}		desc. node	572 Dec 04 j 19:04	2° \mathbb{A} 03'19	
morning set	572 Jan 04 j 05:24	6° \mathbb{B} 50'19		morning set	572 Dec 13 j 09:27	15° \mathbb{A} 13'40	
max. Earth dist.	572 Jan 09 j 22:03	16° \mathbb{B} 12'34	1.41026 AU	max. Earth dist.	572 Dec 22 j 02:47	29° \mathbb{A} 05'32	1.42900 AU
					572 Dec 22 j 16:11	0° \mathbb{B}	
superior conj	572 Jan 17 j 16:48	29° \mathbb{B} 39'27	-2°-2'-1				
minimum elong	572 Jan 17 j 18:04	29° \mathbb{B} 45'05	2°02'01	superior conj	572 Dec 28 j 22:07	10° \mathbb{B} 20'52	-1°-59'-25
	572 Jan 17 j 21:25	0° \mathbb{A}		minimum elong	572 Dec 28 j 18:53	10° \mathbb{B} 07'14	1°59'19
evening rise	572 Jan 28 j 02:02	18° \mathbb{A} 41'53			573 Jan 09 j 05:35	0° \mathbb{A}	
	572 Feb 03 j 05:53	0° \mathbb{H}		evening rise	573 Jan 09 j 20:04	1° \mathbb{A} 04'23	
asc. node	572 Feb 05 j 15:08	4° \mathbb{H} 06'21		asc. node	573 Jan 22 j 12:12	22° \mathbb{A} 26'23	
evening max el	572 Feb 13 j 07:57	14° \mathbb{H} 37'36	18°16'02	evening max el	573 Jan 26 j 19:17	27° \mathbb{A} 42'57	18°07'37
retrograde	572 Feb 20 j 09:38	18° \mathbb{H} 09'15			573 Jan 29 j 15:44	0° \mathbb{H}	
evening set	572 Feb 22 j 21:50	17° \mathbb{H} 43'33		retrograde	573 Feb 02 j 09:06	1° \mathbb{H} 07'23	
inferior conj	572 Feb 29 j 23:40	12° \mathbb{H} 59'59	3°24'34	evening set	573 Feb 05 j 01:51	0° \mathbb{H} 32'39	
minimum elong	572 Mar 01 j 02:38	12° \mathbb{H} 53'31	3°24'07		573 Feb 06 j 04:04	30° \mathbb{R} \mathbb{A}	
min. Earth dist.	572 Mar 04 j 09:18	10° \mathbb{H} 03'59	0.59649 AU	inferior conj	573 Feb 11 j 14:07	25° \mathbb{A} 27'24	3°46'20
morning rise	572 Mar 08 j 03:56	7° \mathbb{H} 21'59		minimum elong	573 Feb 11 j 14:55	25° \mathbb{A} 25'25	3°46'19
direct	572 Mar 14 j 15:29	5° \mathbb{H} 26'53		min. Earth dist.	573 Feb 14 j 14:13	22° \mathbb{A} 28'32	0.61752 AU
desc. node	572 Mar 15 j 21:11	5° \mathbb{H} 30'59		morning rise	573 Feb 18 j 01:31	19° \mathbb{A} 33'25	
morning max el	572 Mar 28 j 22:46	13° \mathbb{H} 12'48	27°18'35	direct	573 Feb 24 j 23:34	17° \mathbb{A} 06'25	
	572 Apr 11 j 06:45	0° \mathbb{Y}		desc. node	573 Mar 02 j 18:15	18° \mathbb{A} 37'04	
	572 Apr 28 j 02:11	0° \mathbb{B}		morning max el	573 Mar 11 j 01:59	24° \mathbb{A} 58'24	27°46'57
morning set	572 Apr 28 j 23:46	1° \mathbb{B} 51'33			573 Mar 15 j 16:39	0° \mathbb{H}	
asc. node	572 May 03 j 14:26	11° \mathbb{B} 41'48			573 Apr 04 j 15:40	0° \mathbb{Y}	
max. Earth dist.	572 May 05 j 15:18	16° \mathbb{B} 09'01	1.32286 AU	morning set	573 Apr 13 j 04:05	16° \mathbb{Y} 22'09	
				max. Earth dist.	573 Apr 19 j 01:52	28° \mathbb{Y} 50'04	1.32525 AU
superior conj	572 May 06 j 03:46	17° \mathbb{B} 17'30	0°26'47		573 Apr 19 j 14:47	0° \mathbb{B}	
minimum elong	572 May 06 j 02:36	17° \mathbb{B} 11'04	0°26'31	asc. node	573 Apr 20 j 11:28	1° \mathbb{B} 52'29	
	572 May 11 j 23:46	0° \mathbb{H}					
evening rise	572 May 13 j 01:58	2° \mathbb{H} 19'06		superior conj	573 Apr 20 j 14:10	2° \mathbb{B} 07'13	0°01'12
	572 May 28 j 01:27	0° \mathbb{B}		minimum elong	573 Apr 20 j 14:07	2° \mathbb{B} 06'54	0°01'10
evening max el	572 Jun 10 j 06:47	16° \mathbb{B} 45'45	25°58'10	behind sun begin	573 Apr 20 j 09:01	1° \mathbb{B} 39'07	
desc. node	572 Jun 11 j 20:26	18° \mathbb{B} 11'33		behind sun end	573 Apr 20 j 19:13	2° \mathbb{B} 34'42	
retrograde	572 Jun 24 j 07:41	23° \mathbb{B} 57'22		evening rise	573 Apr 27 j 13:29	17° \mathbb{B} 13'26	
evening set	572 Jun 30 j 12:05	22° \mathbb{B} 25'03			573 May 03 j 21:30	0° \mathbb{H}	
min. Earth dist.	572 Jul 04 j 19:25	19° \mathbb{B} 47'03	0.58860 AU	evening max el	573 May 22 j 22:52	27° \mathbb{H} 38'43	24°34'19
inferior conj	572 Jul 08 j 02:39	17° \mathbb{B} 20'18	-4°-48'-45		573 May 25 j 14:55	0° \mathbb{B}	
minimum elong	572 Jul 08 j 03:26	17° \mathbb{B} 18'52	4°48'44	desc. node	573 May 29 j 17:29	2° \mathbb{B} 44'57	
morning rise	572 Jul 15 j 22:20	12° \mathbb{B} 53'49		retrograde	573 Jun 05 j 21:02	4° \mathbb{B} 41'07	
direct	572 Jul 18 j 09:42	12° \mathbb{B} 33'26		evening set	573 Jun 10 j 18:52	3° \mathbb{B} 46'55	
morning max el	572 Jul 26 j 10:26	16° \mathbb{B} 23'09	18°33'33	min. Earth dist.	573 Jun 16 j 10:08	0° \mathbb{B} 53'49	0.56961 AU
asc. node	572 Jul 30 j 13:40	21° \mathbb{B} 12'39			573 Jun 17 j 19:54	30° \mathbb{R} \mathbb{H}	
	572 Aug 05 j 02:45	0° \mathbb{Q}		inferior conj	573 Jun 19 j 05:32	29° \mathbb{H} 05'23	-4°-35'-15
morning set	572 Aug 11 j 14:26	12° \mathbb{Q} 07'33		minimum elong	573 Jun 19 j 01:27	29° \mathbb{H} 12'01	4°34'48
				morning rise	573 Jun 27 j 11:47	24° \mathbb{H} 59'56	
superior conj	572 Aug 20 j 12:35	29° \mathbb{Q} 12'50	1°40'47	direct	573 Jun 30 j 02:23	24° \mathbb{H} 41'07	
minimum elong	572 Aug 20 j 14:57	29° \mathbb{Q} 23'56	1°40'39	morning max el	573 Jul 09 j 09:28	29° \mathbb{H} 00'29	19°25'06
	572 Aug 20 j 22:42	0° \mathbb{H}			573 Jul 10 j 09:43	0° \mathbb{B}	
max. Earth dist.	572 Aug 27 j 19:35	12° \mathbb{H} 23'35	1.39898 AU	asc. node	573 Jul 17 j 10:44	9° \mathbb{B} 27'24	
evening rise	572 Sep 01 j 02:05	19° \mathbb{H} 42'08		morning set	573 Jul 26 j 14:41	26° \mathbb{B} 27'42	
	572 Sep 07 j 09:50	0° \mathbb{A}			573 Jul 28 j 09:04	0° \mathbb{Q}	
desc. node	572 Sep 07 j 19:46	0° \mathbb{A} 39'16					
	572 Sep 28 j 07:24	0° \mathbb{M}		superior conj	573 Aug 03 j 18:03	12° \mathbb{Q} 42'15	1°46'38
evening max el	572 Oct 06 j 00:36	8° \mathbb{M} 50'02	23°49'37	minimum elong	573 Aug 03 j 18:25	12° \mathbb{Q} 43'59	1°46'38
retrograde	572 Oct 16 j 20:05	15° \mathbb{M} 11'57		max. Earth dist.	573 Aug 09 j 23:09	24° \mathbb{Q} 31'23	1.37879 AU
evening set	572 Oct 21 j 23:04	13° \mathbb{M} 04'49			573 Aug 12 j 23:40	0° \mathbb{H}	
asc. node	572 Oct 26 j 12:54	7° \mathbb{M} 49'50		evening rise	573 Aug 13 j 18:57	1° \mathbb{H} 25'34	
inferior conj	572 Oct 27 j 09:21	6° \mathbb{M} 40'26	0°17'37	desc. node	573 Aug 25 j 16:49	21° \mathbb{H} 08'13	
minimum elong	572 Oct 27 j 08:55	6° \mathbb{M} 41'53	0°17'26		573 Aug 31 j 14:49	0° \mathbb{A}	
min. Earth dist.	572 Oct 26 j 20:21	7° \mathbb{M} 24'38	0.67621 AU	evening max el	573 Sep 18 j 12:28	22° \mathbb{A} 26'49	25°06'42
morning rise	572 Nov 01 j 18:56	0° \mathbb{M} 31'24		retrograde	573 Sep 30 j 08:12	29° \mathbb{A} 17'27	
	572 Nov 02 j 13:25	30° \mathbb{R} \mathbb{A}		evening set	573 Oct 06 j 01:54	26° \mathbb{A} 53'21	
direct	572 Nov 05 j 18:01	29° \mathbb{A} 02'42		min. Earth dist.	573 Oct 10 j 14:41	21° \mathbb{A} 48'09	0.67203 AU

inferior conj	573 Oct 11 j 14:22	20°♄30'38	0°-37'-34	min. Earth dist.	574 Sep 24 j 04:29	6°♄07'47	0.66445 AU
minimum elong	573 Oct 11 j 15:18	20°♄27'33	0°37'10	inferior conj	574 Sep 25 j 15:36	4°♄19'17	-1°-34'-16
asc. node	573 Oct 13 j 09:58	18°♄11'27		minimum elong	574 Sep 25 j 18:01	4°♄11'46	1°33'18
morning rise	573 Oct 17 j 05:15	14°♄28'51			574 Sep 29 j 12:19	30°♄	
direct	573 Oct 20 j 16:11	13°♄19'56		asc. node	574 Sep 30 j 07:00	29°♄20'00	
morning max el	573 Oct 28 j 01:19	17°♄31'59	19°42'18	morning rise	574 Oct 01 j 13:30	28°♄27'35	
greatest brilliancy	573 Nov 05 j 02:44	27°♄36'35	-0.6m	direct	574 Oct 04 j 14:25	27°♄34'54	
	573 Nov 06 j 18:55	0°♄			574 Oct 09 j 22:35	0°♄	
desc. node	573 Nov 21 j 16:06	22°♄30'29		morning max el	574 Oct 11 j 10:12	1°♄22'49	18°49'55
morning set	573 Nov 22 j 06:25	23°♄25'49			574 Oct 31 j 05:20	0°♄	
	573 Nov 26 j 12:00	0°♄		morning set	574 Nov 01 j 20:28	2°♄34'32	
max. Earth dist.	573 Dec 04 j 15:08	12°♄46'51	1.44274 AU	desc. node	574 Nov 08 j 13:08	13°♄07'48	
				max. Earth dist.	574 Nov 17 j 08:10	26°♄56'51	1.44987 AU
superior conj	573 Dec 09 j 00:40	19°♄48'56	-1°-39'-17	superior conj	574 Nov 18 j 05:55	28°♄22'24	-1°-1'-9
minimum elong	573 Dec 08 j 16:52	19°♄17'33	1°38'38	minimum elong	574 Nov 17 j 22:30	27°♄53'11	1°00'16
	573 Dec 15 j 06:31	0°♄			574 Nov 19 j 06:43	0°♄	
evening rise	573 Dec 22 j 19:02	12°♄35'02		evening rise	574 Dec 03 j 19:09	23°♄07'26	
	574 Jan 02 j 05:23	0°♄			574 Dec 08 j 01:20	0°♄	
asc. node	574 Jan 09 j 09:16	10°♄00'42		evening max el	574 Dec 24 j 18:59	24°♄25'10	18°47'04
evening max el	574 Jan 10 j 07:50	11°♄00'51	18°18'15	asc. node	574 Dec 27 j 06:18	26°♄35'41	
retrograde	574 Jan 16 j 19:32	14°♄31'14		retrograde	574 Dec 31 j 12:42	28°♄12'17	
evening set	574 Jan 19 j 16:53	13°♄46'36		evening set	575 Jan 03 j 15:36	27°♄16'38	
inferior conj	574 Jan 25 j 19:01	8°♄21'16	3°45'41	inferior conj	575 Jan 09 j 10:28	21°♄33'33	3°28'48
minimum elong	574 Jan 25 j 17:56	8°♄24'16	3°45'37	minimum elong	575 Jan 09 j 08:13	21°♄40'26	3°28'26
min. Earth dist.	574 Jan 28 j 04:40	5°♄40'23	0.63656 AU	min. Earth dist.	575 Jan 11 j 04:46	19°♄24'14	0.65225 AU
morning rise	574 Jan 31 j 17:21	2°♄17'09		morning rise	575 Jan 14 j 23:44	15°♄23'13	
	574 Feb 04 j 17:19	30°♄		direct	575 Jan 21 j 15:11	12°♄32'19	
direct	574 Feb 07 j 15:51	29°♄30'57		morning max el	575 Feb 03 j 19:43	20°♄15'10	26°56'30
	574 Feb 10 j 17:47	0°♄		desc. node	575 Feb 04 j 12:19	20°♄57'27	
desc. node	574 Feb 17 j 15:17	3°♄57'55			575 Feb 12 j 05:24	0°♄	
morning max el	574 Feb 21 j 09:57	7°♄23'06	27°38'17		575 Mar 03 j 21:13	0°♄	
	574 Mar 10 j 19:28	0°♄		morning set	575 Mar 11 j 12:57	14°♄00'56	
	574 Mar 27 j 19:45	0°♄		max. Earth dist.	575 Mar 16 j 00:49	22°♄52'00	1.34236 AU
morning set	574 Mar 28 j 01:33	0°♄28'50		superior conj	575 Mar 19 j 23:33	0°♄58'35	0°-52'-53
max. Earth dist.	574 Apr 02 j 06:24	11°♄08'18	1.33163 AU	minimum elong	575 Mar 20 j 02:07	1°♄12'00	0°52'24
superior conj	574 Apr 04 j 21:28	16°♄43'14	0°-25'-43		575 Mar 19 j 12:18	0°♄	
minimum elong	574 Apr 04 j 22:42	16°♄49'55	0°25'28	asc. node	575 Mar 25 j 05:35	12°♄02'23	
asc. node	574 Apr 07 j 08:32	22°♄00'54		evening rise	575 Mar 27 j 11:14	16°♄43'42	
	574 Apr 11 j 01:47	0°♄			575 Apr 03 j 04:04	0°♄	
evening rise	574 Apr 12 j 01:12	2°♄03'57		evening max el	575 Apr 16 j 09:38	18°♄54'42	21°27'20
	574 Apr 27 j 15:02	0°♄		retrograde	575 Apr 28 j 13:17	24°♄50'05	
evening max el	574 May 04 j 13:20	8°♄11'11	22°59'06	evening set	575 Apr 30 j 23:16	24°♄36'46	
desc. node	574 May 16 j 14:30	14°♄46'14		desc. node	575 May 03 j 11:30	23°♄56'50	
retrograde	574 May 17 j 22:06	14°♄50'11		inferior conj	575 May 10 j 08:18	20°♄36'21	-1°-56'-54
evening set	574 May 21 j 09:04	14°♄23'58		minimum elong	575 May 10 j 02:56	20°♄43'54	1°55'04
min. Earth dist.	574 May 28 j 22:26	11°♄02'02	0.55560 AU	min. Earth dist.	575 May 10 j 11:09	20°♄32'21	0.54965 AU
inferior conj	574 May 30 j 13:00	10°♄06'11	-3°-37'-35	morning rise	575 May 19 j 07:00	16°♄37'57	
minimum elong	574 May 30 j 05:37	10°♄16'55	3°35'47	direct	575 May 22 j 10:49	16°♄16'11	
morning rise	574 Jun 08 j 05:11	6°♄12'57		morning max el	575 Jun 03 j 23:09	22°♄11'48	22°07'46
direct	574 Jun 11 j 00:10	5°♄54'32			575 Jun 10 j 16:52	0°♄	
morning max el	574 Jun 21 j 21:47	10°♄57'26	20°37'31	asc. node	575 Jun 21 j 04:49	17°♄41'49	
asc. node	574 Jul 04 j 07:46	28°♄20'12		morning set	575 Jun 25 j 06:34	25°♄56'57	
	574 Jul 05 j 05:29	0°♄			575 Jun 27 j 04:51	0°♄	
morning set	574 Jul 10 j 20:47	11°♄06'08		superior conj	575 Jul 02 j 13:10	11°♄19'59	1°35'07
superior conj	574 Jul 18 j 11:29	26°♄48'18	1°44'10	minimum elong	575 Jul 02 j 11:03	11°♄08'48	1°34'56
minimum elong	574 Jul 18 j 10:17	26°♄42'13	1°44'07	max. Earth dist.	575 Jul 05 j 21:43	18°♄18'37	1.34523 AU
	574 Jul 20 j 01:20	0°♄		evening rise	575 Jul 10 j 14:38	27°♄42'01	
max. Earth dist.	574 Jul 23 j 06:15	6°♄21'03	1.36034 AU		575 Jul 11 j 19:20	0°♄	
evening rise	574 Jul 27 j 08:44	14°♄09'39			575 Jul 29 j 15:18	0°♄	
	574 Aug 05 j 09:21	0°♄		desc. node	575 Jul 30 j 10:51	1°♄10'52	
desc. node	574 Aug 12 j 13:50	11°♄21'10		evening max el	575 Aug 14 j 12:05	19°♄35'37	27°01'38
	574 Aug 26 j 09:09	0°♄		retrograde	575 Aug 27 j 17:45	26°♄53'54	
evening max el	574 Sep 01 j 00:06	6°♄04'08	26°13'16	evening set	575 Sep 03 j 13:47	24°♄09'50	
retrograde	574 Sep 13 j 15:36	13°♄13'46		min. Earth dist.	575 Sep 07 j 11:31	20°♄18'36	0.65333 AU
evening set	574 Sep 19 j 23:34	10°♄36'11					

inferior conj	575 Sep 09 j 10:59	18° \mathbb{M} 02'52	-2°-30'-33	evening rise	576 Jun 23 j 08:15	11° \mathbb{S} 49'16	
minimum elong	575 Sep 09 j 14:49	17° \mathbb{M} 51'53	2°29'11		576 Jul 03 j 01:28	0° \mathcal{O}	
morning rise	575 Sep 15 j 17:24	12° \mathbb{M} 24'18		desc. node	576 Jul 16 j 07:51	20° \mathcal{O} 26'51	
asc. node	575 Sep 17 j 04:01	11° \mathbb{M} 52'58			576 Jul 24 j 04:22	0° \mathbb{M}	
direct	575 Sep 18 j 10:45	11° \mathbb{M} 44'00		evening max el	576 Jul 26 j 23:19	2° \mathbb{M} 49'40	27°24'38
morning max el	575 Sep 24 j 23:53	15° \mathbb{M} 16'55	18°13'56	retrograde	576 Aug 09 j 13:55	10° \mathbb{M} 08'38	
	575 Oct 05 j 14:02	0° \mathcal{A}		evening set	576 Aug 16 j 17:34	7° \mathbb{M} 28'15	
morning set	575 Oct 13 j 15:04	13° \mathcal{A} 08'59		min. Earth dist.	576 Aug 20 j 09:36	4° \mathbb{M} 11'46	0.63866 AU
	575 Oct 24 j 00:04	0° \mathbb{M}		inferior conj	576 Aug 22 j 22:01	1° \mathbb{M} 35'14	-3°-23'-42
desc. node	575 Oct 26 j 10:10	3° \mathbb{M} 51'50		minimum elong	576 Aug 23 j 02:49	1° \mathbb{M} 22'46	3°22'18
					576 Aug 24 j 11:28	30° \mathcal{R} \mathcal{O}	
superior conj	575 Oct 28 j 08:16	6° \mathbb{M} 54'45	0°-12'-41	morning rise	576 Aug 29 j 14:10	26° \mathcal{O} 13'08	
minimum elong	575 Oct 28 j 06:38	6° \mathbb{M} 48'16	0°12'29	direct	576 Sep 01 j 02:35	25° \mathcal{O} 41'37	
behind sun begin	575 Oct 27 j 23:30	6° \mathbb{M} 20'00		asc. node	576 Sep 03 j 01:03	26° \mathcal{O} 00'31	
behind sun end	575 Oct 28 j 13:46	7° \mathbb{M} 16'30		morning max el	576 Sep 07 j 15:39	29° \mathcal{O} 07'39	17°55'11
max. Earth dist.	575 Oct 31 j 02:48	11° \mathbb{M} 17'21	1.44967 AU		576 Sep 08 j 11:40	0° \mathbb{M}	
	575 Nov 12 j 01:55	0° \mathcal{X}		morning set	576 Sep 24 j 12:19	25° \mathbb{M} 00'24	
evening rise	575 Nov 13 j 20:12	2° \mathcal{X} 44'38			576 Sep 27 j 10:03	0° \mathcal{A}	
greatest brilliancy	575 Nov 29 j 18:24	27° \mathcal{X} 08'16	-0.7m				
	575 Dec 01 j 18:34	0° \mathcal{Z}		superior conj	576 Oct 07 j 04:12	16° \mathcal{A} 21'09	0°33'47
evening max el	575 Dec 08 j 02:41	7° \mathcal{Z} 53'09	19°32'39	minimum elong	576 Oct 07 j 07:44	16° \mathcal{A} 35'37	0°33'18
asc. node	575 Dec 14 j 03:19	11° \mathcal{Z} 57'12		desc. node	576 Oct 12 j 07:11	24° \mathcal{A} 38'35	
retrograde	575 Dec 15 j 09:23	12° \mathcal{Z} 05'58		max. Earth dist.	576 Oct 12 j 20:20	25° \mathcal{A} 31'06	1.44226 AU
evening set	575 Dec 18 j 19:24	10° \mathcal{Z} 57'37			576 Oct 15 j 16:08	0° \mathbb{M}	
inferior conj	575 Dec 24 j 09:21	4° \mathcal{Z} 59'29	3°00'03	evening rise	576 Oct 23 j 05:32	11° \mathbb{M} 46'29	
minimum elong	575 Dec 24 j 06:38	5° \mathcal{Z} 08'23	2°59'21		576 Nov 04 j 06:20	0° \mathcal{X}	
min. Earth dist.	575 Dec 25 j 13:16	3° \mathcal{Z} 28'25	0.66410 AU	greatest brilliancy	576 Nov 14 j 05:02	14° \mathcal{X} 09'46	-0.5m
	575 Dec 28 j 10:47	30° \mathcal{R} \mathcal{X}		evening max el	576 Nov 20 j 05:20	21° \mathcal{X} 22'26	20°32'58
morning rise	575 Dec 29 j 17:06	28° \mathcal{X} 45'37		retrograde	576 Nov 28 j 07:04	26° \mathcal{X} 08'12	
direct	576 Jan 04 j 20:37	26° \mathcal{X} 02'50		asc. node	576 Nov 30 j 00:20	25° \mathcal{X} 51'29	
	576 Jan 13 j 12:25	0° \mathcal{Z}		evening set	576 Dec 02 j 02:09	24° \mathcal{X} 45'13	
morning max el	576 Jan 17 j 04:54	3° \mathcal{Z} 22'25	25°49'23	inferior conj	576 Dec 07 j 13:05	18° \mathcal{X} 35'03	2°22'24
desc. node	576 Jan 22 j 09:23	9° \mathcal{Z} 07'42		minimum elong	576 Dec 07 j 10:28	18° \mathcal{X} 43'58	2°21'32
	576 Feb 06 j 12:14	0° \approx		min. Earth dist.	576 Dec 08 j 04:07	17° \mathcal{X} 44'00	0.67199 AU
morning set	576 Feb 22 j 10:01	26° \approx 45'49		morning rise	576 Dec 12 j 18:18	12° \mathcal{X} 19'48	
	576 Feb 24 j 03:53	0° \mathcal{H}		direct	576 Dec 18 j 07:14	9° \mathcal{X} 54'10	
max. Earth dist.	576 Feb 26 j 07:11	4° \mathcal{H} 03'05	1.35769 AU	morning max el	576 Dec 29 j 13:12	16° \mathcal{X} 36'38	24°26'52
				desc. node	577 Jan 08 j 06:26	28° \mathcal{X} 08'04	
superior conj	576 Mar 02 j 17:55	14° \mathcal{H} 46'08	-1°-18'-45		577 Jan 09 j 15:59	0° \mathcal{Z}	
minimum elong	576 Mar 02 j 21:33	15° \mathcal{H} 04'28	1°18'12		577 Jan 29 j 12:03	0° \approx	
	576 Mar 10 j 04:34	0° \mathcal{Y}		morning set	577 Feb 03 j 11:08	8° \approx 28'04	
evening rise	576 Mar 10 j 17:37	1° \mathcal{Y} 06'39		max. Earth dist.	577 Feb 07 j 04:33	15° \approx 06'04	1.37697 AU
asc. node	576 Mar 11 j 02:37	1° \mathcal{Y} 52'29					
evening max el	576 Mar 28 j 16:42	0° \mathcal{B} 11'10	20°09'08	superior conj	577 Feb 14 j 01:19	27° \approx 57'21	-1°-41'-11
	576 Mar 28 j 12:06	0° \mathcal{B}		minimum elong	577 Feb 14 j 05:17	28° \approx 16'32	1°40'47
retrograde	576 Apr 08 j 03:32	5° \mathcal{B} 12'49			577 Feb 15 j 02:39	0° \mathcal{H}	
evening set	576 Apr 10 j 05:35	5° \mathcal{B} 01'41		evening rise	577 Feb 22 j 18:03	15° \mathcal{H} 06'35	
inferior conj	576 Apr 19 j 04:58	1° \mathcal{B} 03'05	0°02'34	asc. node	577 Feb 25 j 23:39	21° \mathcal{H} 26'31	
minimum elong	576 Apr 19 j 05:05	1° \mathcal{B} 02'54	0°02'31		577 Mar 02 j 15:35	0° \mathcal{Y}	
transit middle	576 Apr 19 j 05:05	1° \mathcal{B} 02'54	0°02'31	evening max el	577 Mar 11 j 10:59	12° \mathcal{Y} 06'37	19°09'24
transit begin	576 Apr 19 j 01:08	1° \mathcal{B} 08'49		retrograde	577 Mar 20 j 06:14	16° \mathcal{Y} 21'21	
transit end	576 Apr 19 j 09:03	0° \mathcal{B} 57'00		evening set	577 Mar 22 j 10:40	16° \mathcal{Y} 06'47	
desc. node	576 Apr 19 j 08:33	0° \mathcal{B} 57'45		inferior conj	577 Mar 30 j 16:16	11° \mathcal{Y} 55'05	1°47'17
	576 Apr 20 j 23:20	30° \mathcal{R} \mathcal{Y}		minimum elong	577 Mar 30 j 20:04	11° \mathcal{Y} 48'35	1°46'05
min. Earth dist.	576 Apr 21 j 00:53	29° \mathcal{Y} 57'44	0.55337 AU	min. Earth dist.	577 Apr 02 j 16:03	9° \mathcal{Y} 53'36	0.56591 AU
morning rise	576 Apr 28 j 01:59	26° \mathcal{Y} 41'12		desc. node	577 Apr 06 j 05:36	7° \mathcal{Y} 48'30	
direct	576 May 02 j 00:14	26° \mathcal{Y} 07'29		morning rise	577 Apr 08 j 01:25	7° \mathcal{Y} 00'19	
	576 May 12 j 06:42	0° \mathcal{B}		direct	577 Apr 13 j 01:19	6° \mathcal{Y} 02'16	
morning max el	576 May 15 j 16:14	2° \mathcal{B} 51'38	23°48'19	morning max el	577 Apr 27 j 06:45	13° \mathcal{Y} 20'27	25°26'17
	576 Jun 03 j 08:35	0° \mathbb{I}			577 May 10 j 07:39	0° \mathcal{B}	
asc. node	576 Jun 07 j 01:51	7° \mathbb{I} 24'07		morning set	577 May 24 j 06:02	25° \mathcal{B} 51'43	
morning set	576 Jun 08 j 18:11	10° \mathbb{I} 53'53		asc. node	577 May 24 j 22:55	27° \mathcal{B} 21'00	
					577 May 26 j 04:40	0° \mathbb{I}	
superior conj	576 Jun 15 j 20:17	26° \mathbb{I} 07'42	1°20'51				
minimum elong	576 Jun 15 j 17:49	25° \mathbb{I} 54'24	1°20'31	superior conj	577 May 31 j 06:39	11° \mathbb{I} 04'13	1°02'23
	576 Jun 17 j 15:36	0° \mathcal{S}		minimum elong	577 May 31 j 04:21	10° \mathbb{I} 51'41	1°01'59
max. Earth dist.	576 Jun 17 j 22:41	0° \mathcal{S} 37'43	1.33406 AU	max. Earth dist.	577 Jun 01 j 07:05	13° \mathbb{I} 17'40	1.32679 AU

evening rise	577 Jun 07 j 10:09	26° Π 20'43		max. Earth dist.	578 May 15 j 19:16	26° 8 07'37	1.32324 AU
	577 Jun 09 j 05:13	0° 6			578 May 17 j 13:36	0° Π	
	577 Jun 26 j 12:31	0° Ω		evening rise	578 May 22 j 17:28	11° Π 06'33	
desc. node	577 Jul 03 j 04:51	8° Ω 54'55			578 Jun 01 j 11:04	0° 6	
evening max el	577 Jul 09 j 07:23	15° Ω 32'46	27°16'40	desc. node	578 Jun 20 j 01:54	26° 6 14'51	
retrograde	577 Jul 23 j 03:18	22° Ω 49'13		evening max el	578 Jun 21 j 09:31	27° 6 32'42	26°35'35
evening set	577 Jul 30 j 07:10	20° Ω 25'11			578 Jun 24 j 04:38	0° Ω	
min. Earth dist.	577 Aug 02 j 21:20	17° Ω 35'49	0.62072 AU	retrograde	578 Jul 05 j 09:04	4° Ω 46'55	
inferior conj	577 Aug 05 j 21:42	14° Ω 49'21	-4°-9'-29	evening set	578 Jul 12 j 02:01	2° Ω 52'31	
minimum elong	577 Aug 06 j 02:27	14° Ω 38'22	4°08'30	min. Earth dist.	578 Jul 15 j 22:50	0° Ω 15'56	0.60045 AU
morning rise	577 Aug 13 j 00:24	9° Ω 47'14			578 Jul 16 j 07:02	30° R 6	
direct	577 Aug 15 j 10:34	9° Ω 21'37		inferior conj	578 Jul 19 j 06:30	27° 6 35'55	-4°-41'-1
asc. node	577 Aug 20 j 22:07	11° Ω 36'08		minimum elong	578 Jul 19 j 09:24	27° 6 30'05	4°40'45
morning max el	577 Aug 22 j 06:40	12° Ω 48'49	17°54'42	morning rise	578 Jul 26 j 20:04	22° 6 56'34	
	577 Sep 02 j 21:20	0° 7		direct	578 Jul 29 j 06:24	22° 6 34'44	
morning set	577 Sep 07 j 06:15	7° 7 51'04		morning max el	578 Aug 05 j 17:56	26° 6 12'45	18°13'38
				asc. node	578 Aug 07 j 19:12	28° 6 25'20	
superior conj	577 Sep 18 j 03:12	27° 7 07'44	1°09'42		578 Aug 09 j 01:24	0° Ω	
minimum elong	577 Sep 18 j 08:03	27° 7 28'35	1°09'08	morning set	578 Aug 21 j 15:17	21° Ω 25'20	
	577 Sep 19 j 19:32	0° 6			578 Aug 26 j 04:26	0° 7	
max. Earth dist.	577 Sep 25 j 10:10	9° 6 21'05	1.42860 AU	superior conj	578 Aug 31 j 03:46	9° 7 10'21	1°32'50
desc. node	577 Sep 29 j 04:11	15° 6 24'58		minimum elong	578 Aug 31 j 07:19	9° 7 26'28	1°32'33
evening rise	577 Oct 02 j 15:22	20° 6 54'01		max. Earth dist.	578 Sep 07 j 18:18	22° 7 31'24	1.41042 AU
	577 Oct 08 j 12:55	0° 7			578 Sep 12 j 05:55	0° 6	
greatest brilliancy	577 Oct 29 j 06:07	29° 7 20'43	-0.4m	evening rise	578 Sep 12 j 18:02	0° 6 49'31	
	577 Oct 29 j 18:53	0° 8		desc. node	578 Sep 16 j 01:12	6° 6 07'57	
evening max el	577 Nov 03 j 02:12	4° 8 51'49	21°44'44		578 Oct 02 j 00:18	0° 7	
retrograde	577 Nov 12 j 03:51	10° 8 15'29		greatest brilliancy	578 Oct 11 j 05:12	12° 7 09'43	-0.2m
evening set	577 Nov 16 j 09:59	8° 8 36'00		evening max el	578 Oct 16 j 17:55	18° 7 22'49	23°03'26
asc. node	577 Nov 16 j 21:23	8° 8 12'17		retrograde	578 Oct 26 j 22:14	24° 7 25'12	
inferior conj	577 Nov 21 j 19:31	2° 8 17'08	1°37'53	evening set	578 Oct 31 j 17:11	22° 7 28'06	
minimum elong	577 Nov 21 j 17:28	2° 8 24'14	1°37'06	asc. node	578 Nov 03 j 18:26	19° 7 13'10	
min. Earth dist.	577 Nov 21 j 23:01	2° 8 05'02	0.67623 AU	inferior conj	578 Nov 06 j 02:47	16° 7 04'21	0°48'07
	577 Nov 23 j 11:44	30° 7		minimum elong	578 Nov 06 j 01:40	16° 7 08'10	0°47'40
morning rise	577 Nov 27 j 00:43	26° 7 02'32		min. Earth dist.	578 Nov 05 j 19:40	16° 7 28'51	0.67710 AU
direct	577 Dec 01 j 22:15	23° 7 58'46		morning rise	578 Nov 11 j 10:11	9° 7 52'32	
morning max el	577 Dec 11 j 22:47	29° 7 55'38	22°58'51	direct	578 Nov 15 j 16:58	8° 7 11'34	
	577 Dec 12 j 00:30	0° 8		morning max el	578 Nov 24 j 13:03	13° 7 22'29	21°34'10
greatest brilliancy	577 Dec 16 j 17:05	5° 8 15'03	-0.3m	greatest brilliancy	578 Nov 29 j 13:03	19° 7 04'16	-0.4m
desc. node	577 Dec 26 j 03:28	17° 8 43'34			578 Dec 07 j 16:13	0° 8	
	578 Jan 03 j 12:36	0° 9		desc. node	578 Dec 13 j 00:30	7° 8 44'30	
morning set	578 Jan 15 j 10:01	18° 8 50'56		morning set	578 Dec 26 j 03:51	27° 8 51'19	
max. Earth dist.	578 Jan 20 j 00:06	26° 8 36'07	1.39824 AU		578 Dec 27 j 12:11	0° 9	
	578 Jan 21 j 23:04	0° 10		max. Earth dist.	579 Jan 02 j 00:21	8° 8 56'46	1.41869 AU
superior conj	578 Jan 27 j 17:23	10° 10 19'57	-1°-57'-13	superior conj	579 Jan 09 j 12:53	21° 8 41'33	-2°-2'-49
minimum elong	578 Jan 27 j 20:15	10° 10 33'07	1°57'06	minimum elong	579 Jan 09 j 12:28	21° 8 39'45	2°02'50
evening rise	578 Feb 06 j 09:35	28° 10 35'10			579 Jan 14 j 05:51	0° 10	
	578 Feb 07 j 03:21	0° 11		evening rise	579 Jan 20 j 12:41	11° 10 24'25	
asc. node	578 Feb 12 j 20:43	10° 11 37'53		asc. node	579 Jan 30 j 17:46	29° 10 19'19	
evening max el	578 Feb 22 j 14:14	24° 11 35'24	18°29'41		579 Jan 31 j 04:13	0° 11	
retrograde	578 Mar 02 j 03:51	28° 11 18'25		evening max el	579 Feb 05 j 23:29	7° 11 29'45	18°10'00
evening set	578 Mar 04 j 13:09	27° 11 57'23		retrograde	579 Feb 12 j 19:01	10° 11 56'57	
inferior conj	578 Mar 12 j 00:19	23° 11 25'47	2°58'55	evening set	579 Feb 15 j 09:03	10° 11 27'40	
minimum elong	578 Mar 12 j 04:15	23° 11 17'54	2°58'04	inferior conj	579 Feb 22 j 04:41	5° 11 34'45	3°36'59
min. Earth dist.	578 Mar 15 j 10:33	20° 11 43'10	0.58447 AU	minimum elong	579 Feb 22 j 06:45	5° 11 29'58	3°36'46
morning rise	578 Mar 19 j 15:23	18° 11 00'45		min. Earth dist.	579 Feb 25 j 11:12	2° 11 34'23	0.60554 AU
desc. node	578 Mar 24 j 02:39	16° 11 33'47			579 Feb 28 j 18:19	30° 11	
direct	578 Mar 25 j 15:52	16° 11 27'34		morning rise	579 Mar 01 j 01:19	29° 11 48'37	
morning max el	578 Apr 09 j 00:32	24° 11 06'14	26°46'10	direct	579 Mar 07 j 18:27	27° 11 38'44	
	578 Apr 14 j 09:06	0° 12		desc. node	579 Mar 10 j 23:42	28° 11 06'46	
	578 May 03 j 08:29	0° 13			579 Mar 15 j 04:52	0° 13	
morning set	578 May 08 j 16:26	10° 13 43'56		morning max el	579 Mar 22 j 00:28	5° 13 28'40	27°35'11
asc. node	578 May 11 j 19:59	17° 13 26'34			579 Apr 09 j 07:43	0° 14	
superior conj	578 May 15 j 18:21	26° 13 02'34	0°40'34	morning set	579 Apr 22 j 23:34	25° 14 24'27	
minimum elong	578 May 15 j 16:40	25° 13 53'19	0°40'13		579 Apr 25 j 04:13	0° 15	

asc. node	579 Apr 28 j 17:03	7°♄36'34		580 Mar 13 j 16:03	0°♄	
max. Earth dist.	579 Apr 29 j 07:27	8°♄55'12	1.32339 AU	580 Apr 01 j 01:20	0°♄	
				morning set	580 Apr 06 j 01:19	9°♄46'07
superior conj	579 Apr 30 j 05:44	10°♄57'04	0°16'08	max. Earth dist.	580 Apr 11 j 15:44	21°♄27'10 1.32739 AU
minimum elong	579 Apr 30 j 05:00	10°♄53'05	0°15'58			
evening rise	579 May 07 j 04:00	25°♄59'28		superior conj	580 Apr 13 j 15:04	25°♄42'04 0°-10'-8
	579 May 09 j 02:04	0°♄		minimum elong	580 Apr 13 j 15:33	25°♄44'40 0°10'02
	579 May 26 j 13:46	0°♄		behind sun begin	580 Apr 13 j 11:29	25°♄22'44
evening max el	579 Jun 03 j 04:39	8°♄46'53	25°24'44	behind sun end	580 Apr 13 j 19:36	26°♄06'37
desc. node	579 Jun 06 j 22:57	11°♄58'47		asc. node	580 Apr 14 j 14:06	27°♄46'58
retrograde	579 Jun 17 j 05:31	15°♄56'36			580 Apr 15 j 14:35	0°♄
evening set	579 Jun 22 j 22:05	14°♄40'48		evening rise	580 Apr 20 j 15:49	10°♄52'59
min. Earth dist.	579 Jun 27 j 16:37	11°♄58'16	0.58005 AU		580 Apr 30 j 11:50	0°♄
inferior conj	579 Jun 30 j 20:56	9°♄45'18	-4°-47'-47	evening max el	580 May 14 j 19:23	19°♄28'29 23°54'23
minimum elong	579 Jun 30 j 19:44	9°♄47'25	4°47'47	desc. node	580 May 23 j 19:59	25°♄31'59
morning rise	579 Jul 08 j 21:12	5°♄28'40		retrograde	580 May 28 j 14:00	26°♄23'20
direct	579 Jul 11 j 09:38	5°♄09'13		evening set	580 Jun 01 j 20:22	25°♄43'08
morning max el	579 Jul 19 j 22:19	9°♄09'56	18°53'01	min. Earth dist.	580 Jun 08 j 06:20	22°♄38'59 0.56277 AU
asc. node	579 Jul 25 j 16:15	16°♄12'37		inferior conj	580 Jun 10 j 15:18	21°♄11'48 -4°-16'-40
	579 Aug 02 j 14:45	0°♄		minimum elong	580 Jun 10 j 09:20	21°♄20'59 4°15'39
morning set	579 Aug 05 j 10:56	5°♄30'51		morning rise	580 Jun 19 j 01:52	17°♄12'48
				direct	580 Jun 21 j 17:55	16°♄54'26
superior conj	579 Aug 14 j 00:15	22°♄12'19	1°44'24	morning max el	580 Jul 01 j 17:01	21°♄31'23 19°53'26
minimum elong	579 Aug 14 j 01:44	22°♄19'24	1°44'21		580 Jul 08 j 14:38	0°♄
	579 Aug 18 j 04:12	0°♄		asc. node	580 Jul 11 j 13:18	4°♄45'08
max. Earth dist.	579 Aug 20 j 21:48	4°♄56'51	1.39020 AU	morning set	580 Jul 19 j 13:59	19°♄59'40
evening rise	579 Aug 24 j 21:01	11°♄53'15			580 Jul 24 j 12:03	0°♄
desc. node	579 Sep 02 j 22:14	26°♄43'11				
	579 Sep 05 j 01:00	0°♄		superior conj	580 Jul 27 j 11:20	5°♄58'51 1°46'29
	579 Sep 27 j 09:07	0°♄		minimum elong	580 Jul 27 j 10:57	5°♄56'59 1°46'29
evening max el	579 Sep 29 j 06:28	1°♄57'04	24°23'14	max. Earth dist.	580 Aug 02 j 01:58	16°♄53'00 1.37060 AU
retrograde	579 Oct 10 j 13:00	8°♄33'08		evening rise	580 Aug 05 j 23:25	24°♄04'29
evening set	579 Oct 15 j 22:06	6°♄18'32			580 Aug 09 j 07:45	0°♄
min. Earth dist.	579 Oct 20 j 15:37	0°♄52'50	0.67477 AU	desc. node	580 Aug 19 j 19:17	17°♄06'07
inferior conj	579 Oct 21 j 09:07	29°♄54'04	0°-5'-29		580 Aug 28 j 16:58	0°♄
minimum elong	579 Oct 21 j 09:15	29°♄53'38	0°05'26	evening max el	580 Sep 10 j 18:12	15°♄35'04 25°36'50
transit middle	579 Oct 21 j 09:15	29°♄53'38	0°05'26	retrograde	580 Sep 22 j 23:11	22°♄35'06
transit begin	579 Oct 21 j 06:40	0°♄02'18		evening set	580 Sep 28 j 22:57	20°♄04'58
transit end	579 Oct 21 j 11:49	29°♄44'58		min. Earth dist.	580 Oct 03 j 08:26	15°♄14'57 0.66921 AU
	579 Oct 21 j 07:21	30°♄		inferior conj	580 Oct 04 j 12:46	13°♄44'10 -1°-1'-30
asc. node	579 Oct 21 j 15:29	29°♄32'42		minimum elong	580 Oct 04 j 14:20	13°♄39'08 1°00'52
morning rise	579 Oct 26 j 20:44	23°♄47'37		asc. node	580 Oct 07 j 12:30	10°♄08'07
direct	579 Oct 30 j 14:18	22°♄27'49		morning rise	580 Oct 10 j 06:25	7°♄45'59
morning max el	579 Nov 07 j 10:27	26°♄58'59	20°19'14	direct	580 Oct 13 j 12:49	6°♄44'19
	579 Nov 10 j 04:05	0°♄		morning max el	580 Oct 20 j 15:24	10°♄45'02 19°18'01
greatest brilliancy	579 Nov 14 j 00:44	4°♄53'43	-0.5m	greatest brilliancy	580 Oct 30 j 15:03	23°♄46'30 -0.7m
desc. node	579 Nov 29 j 21:30	28°♄03'22			580 Nov 03 j 18:22	0°♄
	579 Dec 01 j 04:03	0°♄		morning set	580 Nov 13 j 03:26	14°♄29'31
morning set	579 Dec 05 j 01:43	6°♄00'22		desc. node	580 Nov 15 j 18:32	18°♄35'10
max. Earth dist.	579 Dec 15 j 07:55	22°♄09'44	1.43556 AU		580 Nov 23 j 01:45	0°♄
	579 Dec 20 j 03:49	0°♄		max. Earth dist.	580 Nov 26 j 22:22	6°♄04'31 1.44670 AU
superior conj	579 Dec 21 j 06:51	1°♄51'15	-1°-53'-12	superior conj	580 Nov 29 j 22:57	10°♄52'05 -1°-25'-4
minimum elong	579 Dec 21 j 01:25	1°♄28'52	1°52'53	minimum elong	580 Nov 29 j 14:29	10°♄18'23 1°24'13
evening rise	580 Jan 02 j 23:06	23°♄25'19			580 Dec 11 j 18:56	0°♄
	580 Jan 06 j 17:44	0°♄		evening rise	580 Dec 14 j 12:37	4°♄31'07
asc. node	580 Jan 17 j 14:48	17°♄21'11			580 Dec 30 j 14:12	0°♄
evening max el	580 Jan 20 j 11:40	20°♄41'09	18°09'53	evening max el	581 Jan 02 j 23:58	4°♄02'38 18°28'24
retrograde	580 Jan 26 j 23:34	24°♄06'35		asc. node	581 Jan 03 j 11:50	4°♄31'57
evening set	580 Jan 29 j 18:10	23°♄27'52		retrograde	581 Jan 09 j 13:09	7°♄38'30
inferior conj	580 Feb 05 j 01:46	18°♄14'10	3°48'22	evening set	581 Jan 12 j 12:48	6°♄49'15
minimum elong	580 Feb 05 j 01:41	18°♄14'21	3°48'22	inferior conj	581 Jan 18 j 11:32	1°♄16'13 3°40'11
min. Earth dist.	580 Feb 07 j 20:12	15°♄20'25	0.62599 AU	minimum elong	581 Jan 18 j 09:53	1°♄21'03 3°40'00
morning rise	580 Feb 11 j 07:05	12°♄15'13			581 Jan 19 j 13:35	30°♄
direct	580 Feb 18 j 06:33	9°♄37'52		min. Earth dist.	581 Jan 20 j 14:40	28°♄47'34 0.64377 AU
desc. node	580 Feb 25 j 20:44	12°♄14'12		morning rise	581 Jan 24 j 05:35	25°♄09'22
morning max el	580 Mar 03 j 05:56	17°♄31'32	27°47'34	direct	581 Jan 31 j 02:02	22°♄19'17

desc. node	581 Feb 11 j 17:45	28°☾20'43		morning rise	582 Jan 07 j 17:04	8°☾23'09	
	581 Feb 13 j 11:24	0°≈		direct	582 Jan 14 j 03:53	5°☾34'39	
morning max el	581 Feb 13 j 14:43	0°≈08'17	27°24'06	morning max el	582 Jan 27 j 00:29	13°☾08'34	26°30'36
	581 Mar 07 j 15:26	0°✕		desc. node	582 Jan 29 j 14:46	15°☾53'29	
morning set	581 Mar 20 j 18:54	23°✕39'08			582 Feb 09 j 16:00	0°≈	
	581 Mar 23 j 23:08	0°☿			582 Feb 28 j 07:16	0°✕	
max. Earth dist.	581 Mar 25 j 16:14	3°☿30'52	1.33564 AU	morning set	582 Mar 04 j 00:49	6°✕53'01	
				max. Earth dist.	582 Mar 08 j 05:56	15°✕01'21	1.34840 AU
superior conj	581 Mar 28 j 20:24	10°☿10'13	0°-37'-18				
minimum elong	581 Mar 28 j 22:13	10°☿19'52	0°36'56	superior conj	582 Mar 12 j 19:34	24°✕14'59	-1°-4'-6
asc. node	581 Apr 01 j 11:08	17°☿52'53		minimum elong	582 Mar 12 j 22:39	24°✕30'50	1°03'34
evening rise	581 Apr 05 j 03:03	25°☿39'44			582 Mar 15 j 14:06	0°☿	
	581 Apr 07 j 05:16	0°♄		asc. node	582 Mar 19 j 08:10	7°☿50'18	
	581 Apr 26 j 10:35	0°♅		evening rise	582 Mar 20 j 11:50	10°☿13'39	
evening max el	581 Apr 26 j 11:39	0°♅02'34	22°18'58		582 Mar 31 j 00:36	0°♄	
retrograde	581 May 09 j 09:39	6°♅24'27		evening max el	582 Apr 08 j 12:07	10°♄57'59	20°51'55
desc. node	581 May 10 j 17:01	6°♅20'37		retrograde	582 Apr 19 j 22:50	16°♄30'51	
evening set	581 May 12 j 08:11	6°♅05'25		evening set	582 Apr 22 j 03:50	16°♄19'15	
min. Earth dist.	581 May 20 j 18:33	2°♅27'39	0.55198 AU	desc. node	582 Apr 27 j 14:00	14°♄26'15	
inferior conj	581 May 21 j 16:17	1°♅56'59	-2°-59'-15	inferior conj	582 May 01 j 10:16	12°♄21'22	-1°-6'-23
minimum elong	581 May 21 j 09:01	2°♅07'14	2°57'08	minimum elong	582 May 01 j 07:07	12°♄25'51	1°05'16
	581 May 25 j 06:46	30°♄♄		min. Earth dist.	582 May 02 j 07:15	11°♄51'29	0.55012 AU
morning rise	581 May 30 j 11:52	28°♄03'52		morning rise	582 May 10 j 09:35	8°♄15'23	
direct	581 Jun 02 j 10:01	27°♄44'31		direct	582 May 13 j 20:03	7°♄49'57	
	581 Jun 09 j 21:46	0°♅		morning max el	582 May 26 j 21:41	14°♄06'37	22°49'56
morning max el	581 Jun 14 j 00:25	3°♅09'19	21°13'58		582 Jun 08 j 01:11	0°♅	
asc. node	581 Jun 28 j 10:21	23°♅51'09		asc. node	582 Jun 15 j 07:24	13°♅22'17	
	581 Jul 01 j 14:08	0°♄		morning set	582 Jun 18 j 08:40	19°♅37'58	
morning set	581 Jul 03 j 21:53	4°♄43'56			582 Jun 23 j 05:36	0°♄	
superior conj	581 Jul 11 j 08:38	20°♄16'28	1°41'02	superior conj	582 Jun 25 j 12:56	4°♄55'38	1°29'39
minimum elong	581 Jul 11 j 06:58	20°♄07'51	1°40'56	minimum elong	582 Jun 25 j 10:36	4°♄43'12	1°29'22
max. Earth dist.	581 Jul 15 j 12:31	28°♄44'21	1.35351 AU	max. Earth dist.	582 Jun 28 j 08:19	10°♄50'52	1.34003 AU
	581 Jul 16 j 03:45	0°♄		evening rise	582 Jul 03 j 07:59	20°♄58'29	
evening rise	581 Jul 19 j 20:38	7°♄10'26			582 Jul 08 j 01:33	0°♄	
	581 Aug 02 j 00:05	0°♄		desc. node	582 Jul 24 j 13:20	26°♄46'31	
desc. node	581 Aug 06 j 16:19	7°♄09'58			582 Jul 26 j 21:46	0°♄	
evening max el	581 Aug 24 j 06:14	29°♄11'19	26°36'33	evening max el	582 Aug 06 j 18:01	12°♄36'07	27°14'49
	581 Aug 25 j 02:50	0°♅		retrograde	582 Aug 20 j 03:41	19°♄55'04	
retrograde	581 Sep 06 j 04:12	6°♅24'52		evening set	582 Aug 27 j 03:52	17°♄10'53	
evening set	581 Sep 12 j 17:43	3°♅43'44		min. Earth dist.	582 Aug 30 j 22:52	13°♄35'18	0.64755 AU
	581 Sep 16 j 09:45	30°♄♄		inferior conj	582 Sep 02 j 03:54	11°♄09'40	-2°-53'-44
min. Earth dist.	581 Sep 16 j 19:35	29°♄31'09	0.66019 AU	minimum elong	582 Sep 02 j 08:14	10°♄57'46	2°52'17
inferior conj	581 Sep 18 j 11:46	27°♄30'48	-1°-58'-19	morning rise	582 Sep 08 j 14:21	5°♄37'56	
minimum elong	581 Sep 18 j 14:49	27°♄21'39	1°57'09	direct	582 Sep 11 j 05:21	5°♄01'44	
asc. node	581 Sep 24 j 09:32	21°♄49'08		asc. node	582 Sep 11 j 06:35	5°♄01'45	
morning rise	581 Sep 24 j 13:06	21°♄44'12		morning max el	582 Sep 17 j 17:31	8°♄30'24	18°03'51
direct	581 Sep 27 j 10:37	20°♄57'04			582 Oct 02 j 06:47	0°♅	
morning max el	581 Oct 04 j 02:34	24°♄37'14	18°32'34	morning set	582 Oct 05 j 11:47	5°♅22'55	
	581 Oct 08 j 13:47	0°♅					
morning set	581 Oct 24 j 05:17	24°♅14'16		superior conj	582 Oct 19 j 07:52	28°♅06'04	0°07'58
	581 Oct 27 j 19:42	0°♄		minimum elong	582 Oct 19 j 08:50	28°♅09'56	0°07'50
desc. node	581 Nov 02 j 15:35	9°♄15'39		behind sun begin	582 Oct 18 j 23:27	27°♅32'21	
				behind sun end	582 Oct 19 j 18:12	28°♅47'27	
superior conj	581 Nov 09 j 00:09	19°♄16'55	0°-41'-8	desc. node	582 Oct 20 j 12:37	0°♄00'56	
minimum elong	581 Nov 08 j 18:49	18°♄55'56	0°40'27		582 Oct 20 j 12:22	0°♄	
max. Earth dist.	581 Nov 09 j 17:01	20°♄23'12	1.45072 AU	max. Earth dist.	582 Oct 23 j 11:53	4°♄43'53	1.44731 AU
	581 Nov 15 j 19:50	0°♄		evening rise	582 Nov 04 j 19:31	23°♄57'22	
evening rise	581 Nov 25 j 02:38	14°♄39'17			582 Nov 08 j 17:37	0°♄	
	581 Dec 04 j 19:30	0°☾		greatest brilliancy	582 Nov 23 j 11:16	22°♄00'26	-0.6m
evening max el	581 Dec 17 j 09:57	17°☾29'20	19°04'30		582 Nov 29 j 18:04	0°☾	
asc. node	581 Dec 21 j 08:50	20°☾37'58		evening max el	582 Nov 30 j 15:34	0°☾57'23	19°56'39
retrograde	581 Dec 24 j 08:12	21°☾26'07		retrograde	582 Dec 08 j 05:43	5°☾23'47	
evening set	581 Dec 27 j 14:01	20°☾25'05		asc. node	582 Dec 08 j 05:52	5°☾23'47	
inferior conj	582 Jan 02 j 06:31	14°☾35'05	3°17'50	evening set	582 Dec 11 j 19:21	4°☾09'22	
minimum elong	582 Jan 02 j 03:59	14°☾43'04	3°17'20		582 Dec 15 j 20:48	30°♄♄	
min. Earth dist.	582 Jan 03 j 18:25	12°☾41'54	0.65778 AU	inferior conj	582 Dec 17 j 07:46	28°♄05'26	2°45'02

minimum elong	582 Dec 17 j 05:01	28° ♁ 14'35	2°44'15	inferior conj	583 Dec 01 j 12:55	11° ♁ 44'11	2°04'16
min. Earth dist.	582 Dec 18 j 05:55	26° ♁ 51'37	0.66784 AU	minimum elong	583 Dec 01 j 10:29	11° ♁ 52'32	2°03'25
morning rise	582 Dec 22 j 14:05	21° ♁ 50'38		min. Earth dist.	583 Dec 01 j 22:56	11° ♁ 09'46	0.67417 AU
direct	582 Dec 28 j 11:27	19° ♁ 14'34		morning rise	583 Dec 06 j 17:48	5° ♁ 28'39	
morning max el	583 Jan 09 j 09:26	26° ♁ 20'12	25°15'43	direct	583 Dec 12 j 00:08	3° ♁ 11'56	
	583 Jan 12 j 18:56	0° ♁		morning max el	583 Dec 22 j 17:58	9° ♁ 36'22	23°49'30
desc. node	583 Jan 16 j 11:49	4° ♁ 26'55		desc. node	584 Jan 03 j 08:52	23° ♁ 43'31	
	583 Feb 03 j 06:08	0° ♁			584 Jan 07 j 20:29	0° ♁	
morning set	583 Feb 14 j 14:11	19° ♁ 13'22			584 Jan 26 j 23:22	0° ♁	
max. Earth dist.	583 Feb 18 j 08:07	26° ♁ 06'05	1.36551 AU	morning set	584 Jan 27 j 04:54	0° ♁ 23'35	
	583 Feb 20 j 09:35	0° ♁		max. Earth dist.	584 Jan 31 j 03:15	7° ♁ 14'03	1.38588 AU
superior conj	583 Feb 24 j 09:43	7° ♁ 47'53	-1°-28'-50	superior conj	584 Feb 07 j 11:10	20° ♁ 39'29	-1°-49'00
minimum elong	583 Feb 24 j 13:37	8° ♁ 07'14	1°28'19	minimum elong	584 Feb 07 j 14:54	20° ♁ 57'07	1°48'43
evening rise	583 Mar 04 j 16:01	24° ♁ 27'38			584 Feb 12 j 07:51	0° ♁	
asc. node	583 Mar 06 j 05:12	27° ♁ 34'07		evening rise	584 Feb 16 j 13:02	8° ♁ 14'45	
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evening max el	583 Mar 21 j 23:58	22° ♁ 30'29	19°41'15		584 Feb 28 j 22:45	0° ♁	
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evening set	583 Apr 02 j 19:36	26° ♁ 59'11		retrograde	584 Mar 12 j 03:48	8° ♁ 40'12	
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minimum elong	583 Apr 11 j 14:01	22° ♁ 52'46	0°49'36	inferior conj	584 Mar 22 j 07:45	4° ♁ 03'56	2°21'59
min. Earth dist.	583 Apr 13 j 21:36	21° ♁ 25'44	0.55774 AU	minimum elong	584 Mar 22 j 11:59	3° ♁ 56'11	2°20'50
desc. node	583 Apr 14 j 11:01	21° ♁ 05'24		min. Earth dist.	584 Mar 25 j 14:15	1° ♁ 42'08	0.57325 AU
morning rise	583 Apr 20 j 04:57	18° ♁ 20'20			584 Mar 28 j 06:11	30° ♁	
direct	583 Apr 24 j 13:20	17° ♁ 38'05		morning rise	584 Mar 30 j 09:33	28° ♁ 55'06	
morning max el	583 May 08 j 13:07	24° ♁ 38'58	24°31'16	desc. node	584 Mar 31 j 08:04	28° ♁ 32'39	
	583 May 13 j 11:17	0° ♁		direct	584 Apr 04 j 20:37	27° ♁ 42'42	
	583 May 31 j 15:23	0° ♁			584 Apr 12 j 12:36	0° ♁	
asc. node	583 Jun 02 j 04:29	3° ♁ 11'32		morning max el	584 Apr 19 j 04:28	5° ♁ 11'54	26°03'18
morning set	583 Jun 02 j 20:37	4° ♁ 36'10			584 May 07 j 05:44	0° ♁	
superior conj	583 Jun 09 j 21:43	19° ♁ 48'14	1°13'29	morning set	584 May 17 j 08:03	19° ♁ 32'12	
minimum elong	583 Jun 09 j 19:16	19° ♁ 34'57	1°13'06	asc. node	584 May 19 j 01:32	23° ♁ 12'36	
max. Earth dist.	583 Jun 11 j 12:41	23° ♁ 18'59	1.33045 AU		584 May 22 j 04:38	0° ♁	
	583 Jun 14 j 16:05	0° ♁		superior conj	584 May 24 j 08:53	4° ♁ 46'31	0°53'31
evening rise	583 Jun 17 j 05:31	5° ♁ 17'12		minimum elong	584 May 24 j 06:48	4° ♁ 35'06	0°53'07
	583 Jun 30 j 16:48	0° ♁		max. Earth dist.	584 May 24 j 22:58	6° ♁ 03'46	1.32478 AU
desc. node	583 Jul 11 j 10:21	15° ♁ 44'23		evening rise	584 May 31 j 10:01	19° ♁ 55'55	
evening max el	583 Jul 20 j 04:00	25° ♁ 38'04	27°25'12		584 Jun 05 j 10:36	0° ♁	
	583 Jul 25 j 12:59	0° ♁			584 Jun 24 j 04:01	0° ♁	
retrograde	583 Aug 02 j 21:20	2° ♁ 57'01		desc. node	584 Jun 27 j 07:23	3° ♁ 46'40	
evening set	583 Aug 10 j 02:13	0° ♁ 21'34		evening max el	584 Jul 01 j 09:53	8° ♁ 04'16	27°03'17
	583 Aug 10 j 13:58	30° ♁		retrograde	584 Jul 15 j 08:00	15° ♁ 20'16	
min. Earth dist.	583 Aug 13 j 16:36	27° ♁ 18'09	0.63135 AU	evening set	584 Jul 22 j 08:30	13° ♁ 07'28	
inferior conj	583 Aug 16 j 10:32	24° ♁ 35'23	-3°-44'-24	min. Earth dist.	584 Jul 26 j 00:06	10° ♁ 25'24	0.61222 AU
minimum elong	583 Aug 16 j 15:30	24° ♁ 23'07	3°43'07	inferior conj	584 Jul 29 j 04:23	7° ♁ 39'16	-4°-25'-9
morning rise	583 Aug 23 j 07:09	19° ♁ 21'43		minimum elong	584 Jul 29 j 08:37	7° ♁ 30'00	4°24'29
direct	583 Aug 25 j 18:12	18° ♁ 53'10		morning rise	584 Aug 05 j 11:42	2° ♁ 46'29	
asc. node	583 Aug 29 j 03:39	19° ♁ 48'32		direct	584 Aug 07 j 21:29	2° ♁ 22'49	
morning max el	583 Sep 01 j 09:27	22° ♁ 18'43	17°52'44	morning max el	584 Aug 14 j 23:17	5° ♁ 53'48	18°00'16
	583 Sep 07 j 08:13	0° ♁		asc. node	584 Aug 15 j 00:44	5° ♁ 57'20	
morning set	583 Sep 17 j 18:38	17° ♁ 41'45			584 Aug 30 j 08:13	0° ♁	
	583 Sep 24 j 20:08	0° ♁		morning set	584 Aug 30 j 19:39	0° ♁ 52'39	
superior conj	583 Sep 29 j 15:06	8° ♁ 06'25	0°50'33	superior conj	584 Sep 10 j 01:31	19° ♁ 26'42	1°21'02
minimum elong	583 Sep 29 j 19:38	8° ♁ 25'22	0°49'57	minimum elong	584 Sep 10 j 06:02	19° ♁ 46'29	1°20'34
max. Earth dist.	583 Oct 06 j 03:43	18° ♁ 48'06	1.43705 AU		584 Sep 16 j 05:01	0° ♁	
desc. node	583 Oct 07 j 09:39	20° ♁ 48'10		max. Earth dist.	584 Sep 17 j 14:48	2° ♁ 20'57	1.42129 AU
	583 Oct 13 j 05:31	0° ♁		desc. node	584 Sep 23 j 06:41	11° ♁ 33'36	
evening rise	583 Oct 15 j 02:48	2° ♁ 55'43		evening rise	584 Sep 23 j 18:13	12° ♁ 19'32	
	583 Nov 02 j 06:42	0° ♁			584 Oct 05 j 06:49	0° ♁	
greatest brilliancy	583 Nov 08 j 06:14	8° ♁ 07'11	-0.5m	greatest brilliancy	584 Oct 21 j 17:01	22° ♁ 37'33	-0.3m
evening max el	583 Nov 13 j 15:41	14° ♁ 26'11	21°02'19	evening max el	584 Oct 26 j 10:17	27° ♁ 56'10	22°17'45
retrograde	583 Nov 22 j 03:21	19° ♁ 28'16			584 Oct 28 j 14:45	0° ♁	
asc. node	583 Nov 25 j 02:54	18° ♁ 38'13		retrograde	584 Nov 04 j 23:14	3° ♁ 36'29	
evening set	583 Nov 26 j 02:47	17° ♁ 58'37		evening set	584 Nov 09 j 10:31	1° ♁ 49'50	























































































































asc. node	584 Nov 10 j 23:58	0°♊21'47		asc. node	585 Oct 28 j 21:01	10°♍58'26	
	584 Nov 11 j 07:57	30°♍		min. Earth dist.	585 Oct 29 j 15:31	9°♍55'54	0.67657 AU
inferior conj	584 Nov 14 j 19:56	25°♍28'35	1°17'22	inferior conj	585 Oct 30 j 03:00	9°♍16'42	0°25'47
minimum elong	584 Nov 14 j 18:15	25°♍34'27	1°16'41	minimum elong	585 Oct 30 j 02:23	9°♍18'47	0°25'31
min. Earth dist.	584 Nov 14 j 18:57	25°♍32'01	0.67701 AU	morning rise	585 Nov 04 j 11:58	3°♍06'57	
morning rise	584 Nov 20 j 01:48	19°♍14'43		direct	585 Nov 08 j 13:01	1°♍35'09	
direct	584 Nov 24 j 17:00	17°♍20'26		morning max el	585 Nov 16 j 21:57	6°♍27'31	21°00'46
morning max el	584 Dec 04 j 04:57	22°♍57'24	22°21'54	greatest brilliancy	585 Nov 22 j 11:00	12°♍53'37	-0.5m
greatest brilliancy	584 Dec 08 j 19:37	28°♍07'38	-0.3m		585 Dec 04 j 15:49	0°♊	
	584 Dec 10 j 07:55	0°♊		desc. node	585 Dec 07 j 02:57	3°♊40'03	
desc. node	584 Dec 20 j 05:55	13°♊30'51		morning set	585 Dec 16 j 22:23	18°♊41'08	
	584 Dec 31 j 05:47	0°♋			585 Dec 24 j 01:01	0°♋	
morning set	585 Jan 06 j 15:17	10°♋10'08		max. Earth dist.	585 Dec 25 j 03:29	1°♋47'36	1.42647 AU
max. Earth dist.	585 Jan 11 j 23:48	19°♋02'27	1.40718 AU				
	585 Jan 18 j 07:44	0°♌		superior conj	586 Jan 01 j 04:18	13°♋29'51	-2°00'-52
				minimum elong	586 Jan 01 j 01:51	13°♋19'26	2°00'49
superior conj	585 Jan 19 j 19:13	2°♌38'09	-2°-1'-10		586 Jan 10 j 15:16	0°♌	
minimum elong	585 Jan 19 j 20:59	2°♌46'04	2°01'08	evening rise	586 Jan 12 j 20:14	3°♌56'54	
evening rise	585 Jan 29 j 23:45	21°♌27'32		asc. node	586 Jan 24 j 20:20	24°♌24'24	
	585 Feb 03 j 14:02	0°♍			586 Jan 29 j 05:49	0°♍	
asc. node	585 Feb 06 j 23:18	5°♍58'48		evening max el	586 Jan 29 j 15:37	0°♍24'56	18°07'38
evening max el	585 Feb 15 j 04:48	17°♍22'45	18°18'59	retrograde	586 Feb 05 j 06:37	3°♍49'44	
retrograde	585 Feb 22 j 09:07	20°♍56'45		evening set	586 Feb 07 j 22:40	3°♍16'26	
evening set	585 Feb 24 j 20:39	20°♍32'16			586 Feb 12 j 16:15	30°♍	
inferior conj	585 Mar 04 j 00:47	15°♍51'47	3°18'48	inferior conj	586 Feb 14 j 12:42	28°♍14'14	3°44'38
minimum elong	585 Mar 04 j 04:03	15°♍44'49	3°18'14	minimum elong	586 Feb 14 j 13:50	28°♍11'29	3°44'34
min. Earth dist.	585 Mar 07 j 10:57	12°♍58'34	0.59332 AU	min. Earth dist.	586 Feb 17 j 14:37	25°♍14'20	0.61444 AU
morning rise	585 Mar 11 j 07:50	10°♍16'58		morning rise	586 Feb 21 j 02:23	22°♍22'03	
direct	585 Mar 17 j 16:53	8°♍27'31		direct	586 Feb 27 j 23:25	19°♍59'16	
desc. node	585 Mar 18 j 05:06	8°♍28'13		desc. node	586 Mar 05 j 02:08	21°♍10'13	
morning max el	585 Apr 01 j 00:31	16°♍11'30	27°11'15	morning max el	586 Mar 14 j 02:55	27°♍50'47	27°45'09
	585 Apr 12 j 07:39	0°♎			586 Mar 16 j 04:49	0°♎	
	585 Apr 29 j 14:34	0°♏			586 Apr 06 j 00:29	0°♎	
morning set	585 May 01 j 17:18	4°♏20'36		morning set	586 Apr 15 j 22:24	18°♎53'48	
asc. node	585 May 05 j 22:36	13°♏20'56			586 Apr 21 j 04:42	0°♏	
				max. Earth dist.	586 Apr 21 j 22:52	1°♏38'22	1.32466 AU
superior conj	585 May 08 j 20:41	19°♏44'31	0°30'30	asc. node	586 Apr 22 j 19:38	3°♏31'21	
minimum elong	585 May 08 j 19:22	19°♏37'17	0°30'13				
max. Earth dist.	585 May 08 j 11:41	18°♏55'02	1.32288 AU	superior conj	586 Apr 23 j 07:22	4°♏35'19	0°05'11
	585 May 13 j 13:19	0°♐		minimum elong	586 Apr 23 j 07:08	4°♏34'00	0°05'09
evening rise	585 May 15 j 19:01	4°♐46'26		behind sun begin	586 Apr 23 j 02:17	4°♏07'35	
	585 May 29 j 05:28	0°♑		behind sun end	586 Apr 23 j 11:58	5°♏00'27	
evening max el	585 Jun 13 j 09:19	19°♑45'39	26°08'43	evening rise	586 Apr 30 j 06:19	19°♏40'22	
desc. node	585 Jun 14 j 04:24	20°♑30'07			586 May 05 j 07:48	0°♐	
retrograde	585 Jun 27 j 09:49	26°♑57'40			586 May 25 j 08:26	0°♑	
evening set	585 Jul 03 j 17:59	25°♑19'29		evening max el	586 May 26 j 02:00	0°♑43'05	24°47'48
min. Earth dist.	585 Jul 07 j 22:07	22°♑42'25	0.59169 AU	desc. node	586 Jun 01 j 01:25	5°♑22'59	
inferior conj	585 Jul 11 j 05:49	20°♑11'42	-4°-47'-40	retrograde	586 Jun 09 j 01:02	7°♑47'47	
minimum elong	585 Jul 11 j 07:13	20°♑09'02	4°47'38	evening set	586 Jun 14 j 04:05	6°♑48'07	
morning rise	585 Jul 18 j 23:54	15°♑41'48		min. Earth dist.	586 Jun 19 j 13:21	3°♑58'15	0.57221 AU
direct	585 Jul 21 j 11:01	15°♑21'02		inferior conj	586 Jun 22 j 11:40	2°♑02'53	-4°-39'-58
morning max el	585 Jul 29 j 07:55	19°♑07'14	18°27'43	minimum elong	586 Jun 22 j 08:20	2°♑08'25	4°39'41
asc. node	585 Aug 01 j 21:48	23°♑12'58			586 Jun 25 j 18:07	30°♒♐	
	585 Aug 06 j 09:25	0°♓		morning rise	586 Jun 30 j 16:23	27°♒54'52	
morning set	585 Aug 14 j 09:40	14°♓41'41		direct	586 Jul 03 j 06:27	27°♒35'53	
	585 Aug 22 j 10:15	0°♑			586 Jul 10 j 02:54	0°♑	
				morning max el	586 Jul 12 j 08:24	1°♑49'49	19°16'08
superior conj	585 Aug 23 j 11:15	1°♑56'15	1°39'01	asc. node	586 Jul 19 j 18:51	11°♑20'43	
minimum elong	585 Aug 23 j 13:56	2°♑08'44	1°38'52	morning set	586 Jul 29 j 08:48	28°♑58'10	
max. Earth dist.	585 Aug 30 j 20:56	15°♑12'59	1.40202 AU		586 Jul 29 j 21:14	0°♓	
evening rise	585 Sep 04 j 06:58	22°♑43'16					
	585 Sep 08 j 18:03	0°♒		superior conj	586 Aug 06 j 14:32	15°♓19'03	1°46'19
desc. node	585 Sep 10 j 03:43	2°♒13'48		minimum elong	586 Aug 06 j 15:11	15°♓22'09	1°46'19
	585 Sep 29 j 06:31	0°♓		max. Earth dist.	586 Aug 13 j 00:21	27°♓24'58	1.38169 AU
evening max el	585 Oct 09 j 00:31	11°♓28'45	23°37'41		586 Aug 14 j 10:33	0°♑	
retrograde	585 Oct 19 j 16:01	17°♓45'35		evening rise	586 Aug 16 j 20:18	4°♑16'27	
evening set	585 Oct 24 j 16:56	15°♓40'59		desc. node	586 Aug 28 j 00:45	22°♑44'35	

	586 Sep 01 j 19:45	0°♄		desc. node	587 Aug 14 j 21:46	13°♍00'14	
evening max el	586 Sep 21 j 12:26	25°♄04'51	24°55'40		587 Aug 27 j 04:51	0°♄	
	586 Sep 27 j 13:08	0°♍		evening max el	587 Sep 03 j 23:58	8°♄42'08	26°04'21
retrograde	586 Oct 03 j 04:51	1°♍52'08		retrograde	587 Sep 16 j 13:03	15°♄49'58	
	586 Oct 08 j 05:37	30°♌♄		evening set	587 Sep 22 j 18:53	13°♄14'07	
evening set	586 Oct 08 j 20:21	29°♄30'17		min. Earth dist.	587 Sep 27 j 00:57	8°♄40'01	0.66577 AU
min. Earth dist.	586 Oct 13 j 10:17	24°♄19'49	0.67285 AU	inferior conj	587 Sep 28 j 10:17	6°♄55'57	-1°-25'-40
inferior conj	586 Oct 14 j 08:23	23°♄06'56	0°-29'-2	minimum elong	587 Sep 28 j 12:29	6°♄49'04	1°24'46
minimum elong	586 Oct 14 j 09:07	23°♄04'33	0°28'45	asc. node	587 Oct 02 j 15:04	2°♄15'53	
asc. node	586 Oct 15 j 18:03	21°♄17'43		morning rise	587 Oct 04 j 07:02	1°♄02'28	
morning rise	586 Oct 19 j 22:23	17°♄03'56		direct	587 Oct 07 j 09:16	0°♄07'38	
direct	586 Oct 23 j 10:57	15°♄52'22		morning max el	587 Oct 14 j 06:40	3°♄58'43	18°56'42
morning max el	586 Oct 30 j 22:45	20°♄09'03	19°51'25		587 Nov 01 j 12:42	0°♍	
greatest brilliancy	586 Nov 07 j 13:30	29°♄33'29	-0.6m	morning set	587 Nov 05 j 05:05	5°♍47'16	
	586 Nov 07 j 21:07	0°♍		desc. node	587 Nov 10 j 21:01	14°♍41'17	
desc. node	586 Nov 23 j 23:59	24°♍05'17		max. Earth dist.	587 Nov 20 j 06:58	29°♍28'10	1.44928 AU
morning set	586 Nov 25 j 18:45	26°♍50'14			587 Nov 20 j 15:03	0°♌	
	586 Nov 27 j 19:46	0°♌					
max. Earth dist.	586 Dec 07 j 14:44	15°♌22'21	1.44110 AU	superior conj	587 Nov 21 j 18:21	1°♌47'31	-1°-7'-52
				minimum elong	587 Nov 21 j 10:25	1°♌16'17	1°06'58
superior conj	586 Dec 12 j 10:46	23°♌08'16	-1°-43'-33	evening rise	587 Dec 07 j 01:57	26°♌16'36	
minimum elong	586 Dec 12 j 03:28	22°♌38'42	1°43'00		587 Dec 09 j 08:55	0°♎	
	586 Dec 16 j 15:30	0°♎		evening max el	587 Dec 27 j 15:37	27°♎04'33	18°41'40
evening rise	586 Dec 25 j 22:18	15°♎35'33		asc. node	587 Dec 29 j 14:22	28°♎50'50	
	587 Jan 03 j 10:40	0°♏			587 Dec 31 j 08:19	0°♏	
asc. node	587 Jan 11 j 17:21	12°♏05'57		retrograde	588 Jan 03 j 07:58	0°♏48'27	
evening max el	587 Jan 13 j 04:06	13°♏40'47	18°15'27	evening set	588 Jan 06 j 09:57	29°♎54'34	
retrograde	587 Jan 19 j 15:38	17°♏09'38			588 Jan 06 j 06:05	30°♌♎	
evening set	587 Jan 22 j 12:12	16°♏26'37		inferior conj	588 Jan 12 j 05:45	24°♎14'05	3°32'10
inferior conj	587 Jan 28 j 15:39	11°♏04'13	3°46'55	minimum elong	588 Jan 12 j 03:38	24°♎20'29	3°31'51
minimum elong	587 Jan 28 j 14:49	11°♏06'31	3°46'53	min. Earth dist.	588 Jan 14 j 02:21	21°♎59'21	0.65020 AU
min. Earth dist.	587 Jan 31 j 03:38	8°♏19'25	0.63392 AU	morning rise	588 Jan 17 j 20:08	18°♎04'31	
morning rise	587 Feb 03 j 15:40	5°♏01'10		direct	588 Jan 24 j 13:06	15°♎13'15	
direct	587 Feb 10 j 14:37	2°♏16'47		desc. node	588 Feb 06 j 20:12	22°♎58'59	
desc. node	587 Feb 19 j 23:10	6°♏12'26		morning max el	588 Feb 06 j 19:57	22°♎58'20	27°04'30
morning max el	587 Feb 24 j 10:23	10°♏09'55	27°41'48		588 Feb 13 j 01:58	0°♏	
	587 Mar 11 j 23:44	0°♐			588 Mar 04 j 06:18	0°♐	
	587 Mar 29 j 07:47	0°♑		morning set	588 Mar 13 j 10:12	16°♐42'14	
morning set	587 Mar 30 j 21:03	3°♑04'12		max. Earth dist.	588 Mar 18 j 00:23	25°♐48'18	1.34042 AU
max. Earth dist.	587 Apr 05 j 04:24	13°♑59'47	1.33037 AU		588 Mar 20 j 01:27	0°♑	
superior conj	587 Apr 07 j 15:12	19°♑13'18	0°-21'-36	superior conj	588 Mar 21 j 18:13	3°♑32'20	0°-48'-48
minimum elong	587 Apr 07 j 16:15	19°♑18'55	0°21'24	minimum elong	588 Mar 21 j 20:36	3°♑44'49	0°48'21
asc. node	587 Apr 09 j 16:40	23°♑39'58		asc. node	588 Mar 26 j 13:42	13°♑42'44	
	587 Apr 12 j 15:08	0°♒		evening rise	588 Mar 29 j 04:28	19°♑13'02	
evening rise	587 Apr 14 j 18:04	4°♒31'14			588 Apr 03 j 13:10	0°♒	
	587 Apr 28 j 13:53	0°♓		evening max el	588 Apr 18 j 11:20	21°♒57'07	21°40'26
evening max el	587 May 07 j 16:12	11°♓16'28	23°13'26	retrograde	588 Apr 30 j 20:16	27°♒59'50	
desc. node	587 May 18 j 22:25	17°♓49'05		evening set	588 May 03 j 08:54	27°♒45'28	
retrograde	587 May 21 j 04:11	18°♓00'31		desc. node	588 May 04 j 19:26	27°♒25'09	
evening set	587 May 24 j 19:53	17°♓31'11		inferior conj	588 May 12 j 18:13	23°♒43'36	-2°-14'-12
min. Earth dist.	587 Jun 01 j 01:55	14°♓14'13	0.55719 AU	minimum elong	588 May 12 j 12:11	23°♒52'03	2°12'14
inferior conj	587 Jun 02 j 21:47	13°♓09'54	-3°-49'-26	min. Earth dist.	588 May 12 j 14:39	23°♒48'36	0.54991 AU
minimum elong	587 Jun 02 j 14:36	13°♓20'28	3°47'48	morning rise	588 May 21 j 16:17	19°♒47'07	
morning rise	587 Jun 11 j 12:34	9°♓15'42		direct	588 May 24 j 18:22	19°♒26'11	
direct	587 Jun 14 j 06:35	8°♓57'26		morning max el	588 Jun 06 j 01:19	25°♒14'02	21°53'22
morning max el	587 Jun 24 j 22:25	13°♓53'19	20°25'29		588 Jun 10 j 10:54	0°♓	
asc. node	587 Jul 06 j 15:54	0°♔08'27		asc. node	588 Jun 22 j 12:57	19°♓26'31	
	587 Jul 06 j 14:00	0°♕		morning set	588 Jun 26 j 23:31	28°♓23'39	
morning set	587 Jul 13 j 14:08	13°♕34'05			588 Jun 27 j 18:00	0°♕	
superior conj	587 Jul 21 j 06:25	29°♕20'17	1°45'00	superior conj	588 Jul 04 j 07:06	13°♕48'56	1°36'52
minimum elong	587 Jul 21 j 05:25	29°♕15'13	1°44'58	minimum elong	588 Jul 04 j 05:04	13°♕38'20	1°36'41
	587 Jul 21 j 14:16	0°♎		max. Earth dist.	588 Jul 07 j 20:28	21°♕10'21	1.34727 AU
max. Earth dist.	587 Jul 26 j 06:20	9°♎14'44	1.36287 AU	evening rise	588 Jul 12 j 11:05	0°♎18'38	
evening rise	587 Jul 30 j 07:14	16°♎52'15			588 Jul 12 j 07:13	0°♎	
	587 Aug 06 j 18:11	0°♏			588 Jul 29 j 19:37	0°♏	

desc. node	588 Jul 31 j 18:47	2°♎54'03		minimum elong	589 Jun 18 j 11:08	28°♊21'26	1°22'59
evening max el	588 Aug 16 j 12:04	22°♎15'27	26°55'52		589 Jun 19 j 05:30	0°♊	
retrograde	588 Aug 29 j 15:58	29°♎32'42		max. Earth dist.	589 Jun 20 j 20:16	3°♊26'32	1.33550 AU
evening set	588 Sep 05 j 10:22	26°♎49'13		evening rise	589 Jun 26 j 03:14	14°♊21'19	
min. Earth dist.	588 Sep 09 j 09:11	22°♎52'22	0.65525 AU		589 Jul 04 j 10:37	0°♊	
inferior conj	588 Sep 11 j 06:42	20°♎40'31	-2°-22'-11	desc. node	589 Jul 18 j 15:49	22°♊15'49	
minimum elong	588 Sep 11 j 10:21	20°♎29'57	2°20'50		589 Jul 24 j 18:18	0°♎	
morning rise	588 Sep 17 j 11:45	14°♎59'38		evening max el	589 Jul 29 j 23:37	5°♎33'09	27°23'01
asc. node	588 Sep 18 j 12:07	14°♎34'32		retrograde	589 Aug 12 j 12:58	12°♎51'52	
direct	588 Sep 20 j 06:06	14°♎17'40		evening set	589 Aug 19 j 15:57	10°♎10'11	
morning max el	588 Sep 26 j 19:45	17°♎52'14	18°18'08	min. Earth dist.	589 Aug 23 j 08:43	6°♎48'54	0.64111 AU
	588 Oct 05 j 19:33	0°♊		inferior conj	589 Aug 25 j 19:12	4°♎15'02	-3°-16'-2
morning set	588 Oct 15 j 19:17	16°♊08'35		minimum elong	589 Aug 25 j 23:54	4°♎02'37	3°14'36
	588 Oct 24 j 08:45	0°♎			589 Aug 30 j 09:09	30°♎♊	
desc. node	588 Oct 27 j 18:04	5°♎24'17		morning rise	589 Sep 01 j 09:50	28°♊50'14	
				direct	589 Sep 03 j 22:52	28°♊17'34	
superior conj	588 Oct 30 j 19:36	10°♎15'29	0°-20'-10	asc. node	589 Sep 05 j 09:12	28°♊28'02	
minimum elong	588 Oct 30 j 16:58	10°♎05'06	0°19'49		589 Sep 08 j 11:36	0°♎	
max. Earth dist.	588 Nov 02 j 01:34	13°♎48'08	1.45020 AU	morning max el	589 Sep 10 j 11:25	1°♎43'55	17°56'49
	588 Nov 12 j 09:46	0°♎		morning set	589 Sep 27 j 12:59	27°♎49'57	
evening rise	588 Nov 16 j 06:07	6°♎00'54			589 Sep 28 j 19:25	0°♊	
greatest brilliancy	588 Dec 01 j 03:10	28°♎58'05	-0.7m				
	588 Dec 01 j 20:02	0°♎		superior conj	589 Oct 10 j 12:00	19°♊31'20	0°27'20
evening max el	588 Dec 10 j 00:00	10°♎32'26	19°24'55	minimum elong	589 Oct 10 j 14:59	19°♊43'30	0°26'54
asc. node	588 Dec 15 j 11:24	14°♎24'37		desc. node	589 Oct 14 j 15:07	26°♊10'57	
retrograde	588 Dec 17 j 04:16	14°♎40'41		max. Earth dist.	589 Oct 15 j 19:48	28°♊05'18	1.44381 AU
evening set	588 Dec 20 j 13:10	13°♎34'16			589 Oct 17 j 00:42	0°♎	
inferior conj	588 Dec 26 j 03:43	7°♎38'15	3°05'00	evening rise	589 Oct 26 j 17:00	15°♎06'14	
minimum elong	588 Dec 26 j 01:02	7°♎46'58	3°04'21		589 Nov 05 j 11:53	0°♎	
min. Earth dist.	588 Dec 27 j 09:40	6°♎01'21	0.66260 AU	greatest brilliancy	589 Nov 16 j 20:53	16°♎25'52	-0.5m
morning rise	588 Dec 31 j 12:06	1°♎24'54		evening max el	589 Nov 23 j 03:30	24°♎01'45	20°23'11
	589 Jan 02 j 08:44	30°♎♎		retrograde	589 Dec 01 j 02:00	28°♎42'12	
direct	589 Jan 06 j 17:39	28°♎40'15		asc. node	589 Dec 02 j 08:27	28°♎33'06	
	589 Jan 11 j 13:07	0°♎		evening set	589 Dec 04 j 19:39	27°♎21'24	
morning max el	589 Jan 19 j 05:13	6°♎03'49	26°00'37	inferior conj	589 Dec 10 j 06:54	21°♎12'43	2°28'35
desc. node	589 Jan 23 j 17:15	11°♎00'05		minimum elong	589 Dec 10 j 04:14	21°♎21'45	2°27'44
	589 Feb 06 j 17:39	0°♎		min. Earth dist.	589 Dec 10 j 23:41	20°♎15'55	0.67104 AU
morning set	589 Feb 24 j 09:42	29°♎35'04		morning rise	589 Dec 15 j 12:19	14°♎57'38	
	589 Feb 24 j 15:05	0°♎		direct	589 Dec 21 j 03:29	12°♎29'12	
max. Earth dist.	589 Feb 28 j 08:37	7°♎03'51	1.35514 AU	morning max el	590 Jan 01 j 13:41	19°♎17'46	24°39'48
				desc. node	590 Jan 10 j 14:18	29°♎53'59	
superior conj	589 Mar 05 j 13:57	17°♎24'47	-1°-14'-59		590 Jan 10 j 16:09	0°♎	
minimum elong	589 Mar 05 j 17:28	17°♎42'35	1°14'27		590 Jan 30 j 20:44	0°♎	
	589 Mar 11 j 16:57	0°♎		morning set	590 Feb 06 j 14:13	11°♎27'50	
evening rise	589 Mar 13 j 11:34	3°♎39'06		max. Earth dist.	590 Feb 10 j 07:12	18°♎07'01	1.37395 AU
asc. node	589 Mar 13 j 10:45	3°♎34'53					
	589 Mar 28 j 19:37	0°♎		superior conj	590 Feb 16 j 23:15	0°♎42'08	-1°-38'-7
evening max el	589 Mar 31 j 16:41	3°♎07'52	20°19'40	minimum elong	590 Feb 17 j 03:15	1°♎01'33	1°37'41
retrograde	589 Apr 11 j 09:40	8°♎17'21			590 Feb 16 j 14:34	0°♎	
evening set	589 Apr 13 j 12:08	8°♎06'16		evening rise	590 Feb 25 j 13:06	17°♎43'12	
desc. node	589 Apr 21 j 16:28	4°♎39'27		asc. node	590 Feb 28 j 07:48	23°♎11'50	
inferior conj	589 Apr 22 j 13:41	4°♎08'27	0°-15'-16		590 Mar 03 j 22:33	0°♎	
minimum elong	589 Apr 22 j 12:58	4°♎09'29	0°15'02	evening max el	590 Mar 14 j 09:21	14°♎57'17	19°16'58
transit middle	589 Apr 22 j 12:58	4°♎09'29	0°15'02	retrograde	590 Mar 23 j 10:03	19°♎18'20	
transit begin	589 Apr 22 j 11:39	4°♎11'25		evening set	590 Mar 25 j 13:47	19°♎04'33	
transit end	589 Apr 22 j 14:17	4°♎07'33		inferior conj	590 Apr 02 j 22:11	14°♎55'10	1°33'20
min. Earth dist.	589 Apr 24 j 04:01	3°♎12'14	0.55223 AU	minimum elong	590 Apr 03 j 01:40	14°♎49'19	1°32'13
	589 Apr 30 j 23:21	30°♎♎		min. Earth dist.	590 Apr 05 j 18:49	13°♎01'27	0.56360 AU
morning rise	589 May 01 j 11:38	29°♎51'14		desc. node	590 Apr 08 j 13:29	11°♎22'24	
direct	589 May 05 j 06:40	29°♎19'59		morning rise	590 Apr 11 j 09:39	10°♎05'21	
	589 May 09 j 11:56	0°♎		direct	590 Apr 16 j 05:27	9°♎11'51	
morning max el	589 May 18 j 19:15	5°♎57'19	23°33'10	morning max el	590 Apr 30 j 09:48	16°♎25'47	25°12'33
	589 Jun 04 j 18:18	0°♎			590 May 11 j 09:44	0°♎	
asc. node	589 Jun 09 j 10:01	9°♎06'03		morning set	590 May 26 j 22:57	28°♎17'52	
morning set	589 Jun 11 j 11:01	13°♎20'02		asc. node	590 May 27 j 07:06	29°♎00'52	
					590 May 27 j 18:15	0°♎	
superior conj	589 Jun 18 j 13:35	28°♎34'35	1°23'19				

superior conj	590 Jun 02 j 23:35	13° Π 29'56	1°05'25	morning set	591 May 11 j 09:40	13° \mathcal{B} 11'31	
minimum elong	590 Jun 02 j 21:14	13° Π 17'08	1°05'01	asc. node	591 May 14 j 04:09	19° \mathcal{B} 05'37	
max. Earth dist.	590 Jun 04 j 03:45	16° Π 03'21	1.32761 AU				
evening rise	590 Jun 10 j 04:04	28° Π 49'20		superior conj	591 May 18 j 11:13	28° \mathcal{B} 28'41	0°44'04
	590 Jun 10 j 17:52	0° \mathcal{E}		minimum elong	591 May 18 j 09:25	28° \mathcal{B} 18'47	0°43'43
	590 Jun 27 j 15:06	0° \mathcal{Q}		max. Earth dist.	591 May 18 j 15:32	28° \mathcal{B} 52'25	1.32347 AU
desc. node	590 Jul 05 j 12:50	10° \mathcal{Q} 52'08			591 May 19 j 03:50	0° Π	
evening max el	590 Jul 12 j 08:13	18° \mathcal{Q} 21'11	27°19'56	evening rise	591 May 25 j 10:43	13° Π 33'39	
retrograde	590 Jul 26 j 03:25	25° \mathcal{Q} 38'16			591 Jun 02 j 19:51	0° \mathcal{E}	
evening set	590 Aug 02 j 07:57	23° \mathcal{Q} 10'46		desc. node	591 Jun 22 j 09:50	28° \mathcal{E} 24'14	
min. Earth dist.	590 Aug 05 j 21:55	20° \mathcal{Q} 18'18	0.62355 AU		591 Jun 23 j 23:37	0° \mathcal{Q}	
inferior conj	590 Aug 08 j 20:47	17° \mathcal{Q} 32'17	-4°-3'-18	evening max el	591 Jun 24 j 11:20	0° \mathcal{Q} 28'13	26°43'49
minimum elong	590 Aug 09 j 01:38	17° \mathcal{Q} 20'52	4°02'14	retrograde	591 Jul 08 j 10:39	7° \mathcal{Q} 43'15	
morning rise	590 Aug 15 j 21:54	12° \mathcal{Q} 27'11		evening set	591 Jul 15 j 05:58	5° \mathcal{Q} 43'37	
direct	590 Aug 18 j 08:14	12° \mathcal{Q} 00'52		min. Earth dist.	591 Jul 19 j 00:55	3° \mathcal{Q} 06'17	0.60348 AU
asc. node	590 Aug 23 j 06:17	13° \mathcal{Q} 51'19		inferior conj	591 Jul 22 j 08:03	0° \mathcal{Q} 23'54	-4°-37'-36
morning max el	590 Aug 25 j 02:47	15° \mathcal{Q} 27'14	17°53'38	minimum elong	591 Jul 22 j 11:22	0° \mathcal{Q} 17'03	4°37'14
	590 Sep 04 j 05:34	0° \mathcal{M}			591 Jul 22 j 19:41	30° \mathcal{R} \mathcal{E}	
morning set	590 Sep 10 j 04:16	10° \mathcal{M} 33'04		morning rise	591 Jul 29 j 20:01	25° \mathcal{E} 41'11	
				direct	591 Aug 01 j 06:06	25° \mathcal{E} 18'58	
superior conj	590 Sep 21 j 06:58	0° \mathcal{A} 06'18	1°05'04	morning max el	591 Aug 08 j 14:52	28° \mathcal{E} 54'52	18°09'34
minimum elong	590 Sep 21 j 11:50	0° \mathcal{A} 27'03	1°04'29		591 Aug 09 j 16:17	0° \mathcal{Q}	
	590 Sep 21 j 05:29	0° \mathcal{A}		asc. node	591 Aug 10 j 03:21	0° \mathcal{Q} 30'45	
max. Earth dist.	590 Sep 28 j 10:21	12° \mathcal{A} 00'09	1.43095 AU	morning set	591 Aug 24 j 11:22	24° \mathcal{Q} 01'59	
desc. node	590 Oct 01 j 12:09	16° \mathcal{A} 57'49			591 Aug 27 j 15:40	0° \mathcal{M}	
evening rise	590 Oct 06 j 01:38	24° \mathcal{A} 10'07					
	590 Oct 09 j 20:09	0° \mathcal{M}		superior conj	591 Sep 03 j 04:04	11° \mathcal{M} 58'56	1°30'06
	590 Oct 30 j 15:47	0° \mathcal{X}		minimum elong	591 Sep 03 j 07:54	12° \mathcal{M} 16'11	1°29'46
greatest brilliancy	590 Nov 01 j 02:22	1° \mathcal{X} 49'57	-0.4m	max. Earth dist.	591 Sep 10 j 19:09	25° \mathcal{M} 16'34	1.41330 AU
evening max el	590 Nov 06 j 01:09	7° \mathcal{X} 30'53	21°33'26		591 Sep 13 j 15:06	0° \mathcal{A}	
retrograde	590 Nov 14 j 23:05	12° \mathcal{X} 49'02		evening rise	591 Sep 16 j 01:06	3° \mathcal{A} 56'57	
evening set	590 Nov 19 j 03:25	11° \mathcal{X} 12'05		desc. node	591 Sep 18 j 09:11	7° \mathcal{A} 41'55	
asc. node	590 Nov 19 j 05:31	11° \mathcal{X} 07'57			591 Oct 03 j 04:03	0° \mathcal{M}	
inferior conj	590 Nov 24 j 13:04	4° \mathcal{X} 54'10	1°45'01	greatest brilliancy	591 Oct 14 j 14:44	15° \mathcal{M} 17'37	-0.3m
minimum elong	590 Nov 24 j 10:54	5° \mathcal{X} 01'38	1°44'12	evening max el	591 Oct 19 j 17:32	21° \mathcal{M} 01'45	22°51'27
min. Earth dist.	590 Nov 24 j 18:11	4° \mathcal{X} 36'26	0.67581 AU	retrograde	591 Oct 29 j 17:57	26° \mathcal{M} 58'43	
	590 Nov 28 j 08:59	30° \mathcal{R} \mathcal{M}		evening set	591 Nov 03 j 10:49	25° \mathcal{M} 04'23	
morning rise	590 Nov 29 j 18:07	28° \mathcal{M} 39'13		asc. node	591 Nov 06 j 02:33	22° \mathcal{M} 19'24	
direct	590 Dec 04 j 17:52	26° \mathcal{M} 32'09		inferior conj	591 Nov 08 j 20:19	18° \mathcal{M} 41'02	0°55'59
	590 Dec 12 j 03:23	0° \mathcal{X}		minimum elong	591 Nov 08 j 19:03	18° \mathcal{M} 45'26	0°55'27
morning max el	590 Dec 14 j 22:57	2° \mathcal{X} 36'18	23°11'55	min. Earth dist.	591 Nov 08 j 14:47	19° \mathcal{M} 00'11	0.67721 AU
greatest brilliancy	590 Dec 19 j 23:38	8° \mathcal{X} 14'27	-0.3m	morning rise	591 Nov 14 j 03:16	12° \mathcal{M} 28'32	
desc. node	590 Dec 28 j 11:21	19° \mathcal{X} 24'52		direct	591 Nov 18 j 12:10	10° \mathcal{M} 44'10	
	591 Jan 04 j 18:39	0° \mathcal{Z}		morning max el	591 Nov 27 j 12:17	16° \mathcal{M} 01'50	21°46'10
morning set	591 Jan 18 j 17:21	22° \mathcal{Z} 03'23		greatest brilliancy	591 Dec 02 j 08:58	21° \mathcal{M} 32'29	-0.4m
max. Earth dist.	591 Jan 23 j 02:26	29° \mathcal{Z} 30'38	1.39505 AU		591 Dec 08 j 18:55	0° \mathcal{X}	
	591 Jan 23 j 09:12	0° \approx		desc. node	591 Dec 15 j 08:24	9° \mathcal{X} 22'40	
					591 Dec 28 j 20:24	0° \mathcal{Z}	
superior conj	591 Jan 30 j 17:52	13° \approx 12'29	-1°-55'-23	morning set	591 Dec 29 j 15:16	1° \mathcal{Z} 15'02	
minimum elong	591 Jan 30 j 21:02	13° \approx 27'06	1°55'12	max. Earth dist.	592 Jan 05 j 01:21	11° \mathcal{Z} 41'47	1.41582 AU
	591 Feb 08 j 14:09	0° \mathcal{H}					
evening rise	591 Feb 09 j 06:08	1° \mathcal{H} 16'51		superior conj	592 Jan 12 j 16:44	24° \mathcal{Z} 43'53	-2°-2'-51
asc. node	591 Feb 15 j 04:50	12° \mathcal{H} 27'04		minimum elong	592 Jan 12 j 16:58	24° \mathcal{Z} 44'54	2°02'52
evening max el	591 Feb 25 j 11:25	27° \mathcal{H} 21'31	18°34'18		592 Jan 15 j 16:12	0° \approx	
	591 Feb 28 j 23:05	0° \mathcal{Y}		evening rise	592 Jan 23 j 11:17	14° \approx 12'15	
retrograde	591 Mar 05 j 04:49	1° \mathcal{Y} 08'19			592 Feb 01 j 07:48	0° \mathcal{H}	
evening set	591 Mar 07 j 13:17	0° \mathcal{Y} 48'28		asc. node	592 Feb 02 j 01:52	1° \mathcal{H} 13'31	
	591 Mar 09 j 15:38	30° \mathcal{R} \mathcal{H}		evening max el	592 Feb 08 j 19:59	10° \mathcal{H} 12'49	18°11'44
inferior conj	591 Mar 15 j 03:05	26° \mathcal{H} 20'05	2°50'20	retrograde	592 Feb 15 j 17:29	13° \mathcal{H} 41'16	
minimum elong	591 Mar 15 j 07:11	26° \mathcal{H} 12'05	2°49'22	evening set	592 Feb 18 j 06:51	13° \mathcal{H} 13'18	
min. Earth dist.	591 Mar 18 j 12:50	23° \mathcal{H} 42'04	0.58144 AU	inferior conj	592 Feb 25 j 04:35	8° \mathcal{H} 23'43	3°33'06
morning rise	591 Mar 22 j 20:58	20° \mathcal{H} 58'48		minimum elong	592 Feb 25 j 06:58	8° \mathcal{H} 18'17	3°32'48
desc. node	591 Mar 26 j 10:31	19° \mathcal{H} 44'52		min. Earth dist.	592 Feb 28 j 12:25	5° \mathcal{H} 24'16	0.60236 AU
direct	591 Mar 28 j 18:06	19° \mathcal{H} 31'10		morning rise	592 Mar 03 j 03:49	2° \mathcal{H} 40'13	
morning max el	591 Apr 12 j 02:56	27° \mathcal{H} 07'57	26°36'01	direct	592 Mar 09 j 19:14	0° \mathcal{H} 35'15	
	591 Apr 14 j 21:05	0° \mathcal{Y}		desc. node	592 Mar 12 j 07:33	0° \mathcal{H} 52'19	
	591 May 04 j 18:53	0° \mathcal{B}		morning max el	592 Mar 24 j 01:48	8° \mathcal{H} 24'12	27°30'10

	592 Apr 09 j 13:05	0°♄		direct	593 Feb 20 j 06:01	12°♁28'09	
morning set	592 Apr 24 j 17:22	27°♄54'21		desc. node	593 Feb 27 j 04:35	14°♁38'59	
	592 Apr 25 j 17:29	0°♄		morning max el	593 Mar 06 j 06:27	20°♁21'17	27°48'05
asc. node	592 Apr 30 j 01:10	9°♄15'23			593 Mar 14 j 13:53	0°♁	
max. Earth dist.	592 May 01 j 03:52	11°♄41'09	1.32309 AU		593 Apr 02 j 11:45	0°♄	
				morning set	593 Apr 08 j 20:02	12°♄19'26	
superior conj	592 May 01 j 22:43	13°♄24'26	0°19'59	max. Earth dist.	593 Apr 14 j 13:00	24°♄16'43	1.32657 AU
minimum elong	592 May 01 j 21:49	13°♄19'32	0°19'48				
evening rise	592 May 08 j 20:53	28°♄26'16		superior conj	593 Apr 16 j 08:26	28°♄11'25	0°-6'-3
	592 May 09 j 14:42	0°♄		minimum elong	593 Apr 16 j 08:43	28°♄12'59	0°06'00
	592 May 26 j 11:15	0°♄		behind sun begin	593 Apr 16 j 03:55	27°♄46'54	
evening max el	592 Jun 05 j 07:33	11°♄49'28	25°36'58	behind sun end	593 Apr 16 j 13:32	28°♄39'05	
desc. node	592 Jun 08 j 06:51	14°♄25'03		asc. node	593 Apr 16 j 22:12	29°♄26'08	
retrograde	592 Jun 19 j 08:38	19°♄00'07			593 Apr 17 j 04:25	0°♄	
evening set	592 Jun 25 j 05:34	17°♄38'32		evening rise	593 Apr 23 j 08:37	13°♄20'25	
min. Earth dist.	592 Jun 29 j 19:48	14°♄57'54	0.58296 AU		593 May 01 j 19:06	0°♄	
inferior conj	592 Jul 03 j 01:25	12°♄39'43	-4°-49'00	evening max el	593 May 17 j 22:37	22°♄34'34	24°08'31
minimum elong	592 Jul 03 j 00:57	12°♄40'33	4°49'00	desc. node	593 May 26 j 03:50	28°♄20'24	
morning rise	592 Jul 11 j 00:04	8°♄19'40		retrograde	593 May 31 j 18:42	29°♄32'12	
direct	592 Jul 13 j 12:03	7°♄59'57		evening set	593 Jun 05 j 06:33	28°♄47'25	
morning max el	592 Jul 21 j 20:25	11°♄56'40	18°45'47	min. Earth dist.	593 Jun 11 j 09:45	25°♄47'23	0.56507 AU
asc. node	592 Jul 27 j 00:24	18°♄10'15		inferior conj	593 Jun 13 j 22:40	24°♄12'34	-4°-24'-22
	592 Aug 03 j 00:47	0°♄		minimum elong	593 Jun 13 j 17:19	24°♄20'58	4°23'33
morning set	592 Aug 07 j 05:39	8°♄03'32		morning rise	593 Jun 22 j 07:43	20°♄11'26	
				direct	593 Jun 24 j 23:18	19°♄52'54	
superior conj	592 Aug 15 j 21:54	24°♄52'58	1°43'18	morning max el	593 Jul 04 j 16:36	24°♄23'28	19°43'05
minimum elong	592 Aug 15 j 23:42	25°♄01'28	1°43'13		593 Jul 09 j 13:39	0°♄	
	592 Aug 18 j 15:34	0°♄		asc. node	593 Jul 13 j 21:27	6°♄36'34	
max. Earth dist.	592 Aug 22 j 23:02	7°♄48'07	1.39327 AU	morning set	593 Jul 22 j 07:44	2°♄29'09	
evening rise	592 Aug 27 j 00:22	14°♄50'26			593 Jul 26 j 00:49	0°♄	
desc. node	592 Sep 04 j 06:13	28°♄18'45					
	592 Sep 05 j 08:08	0°♄		superior conj	593 Jul 30 j 07:04	8°♄33'18	1°46'42
	592 Sep 27 j 00:25	0°♄		minimum elong	593 Jul 30 j 06:56	8°♄32'41	1°46'41
evening max el	592 Oct 01 j 06:28	4°♄35'50	24°11'32	max. Earth dist.	593 Aug 05 j 02:49	19°♄47'27	1.37342 AU
retrograde	592 Oct 12 j 09:15	11°♄07'11		evening rise	593 Aug 08 j 23:27	26°♄51'44	
evening set	592 Oct 17 j 16:09	8°♄55'16			593 Aug 10 j 17:54	0°♄	
min. Earth dist.	592 Oct 22 j 11:00	3°♄24'22	0.67535 AU	desc. node	593 Aug 22 j 03:13	18°♄43'41	
asc. node	592 Oct 22 j 23:35	2°♄41'56			593 Aug 29 j 19:23	0°♄	
inferior conj	592 Oct 23 j 02:54	2°♄30'44	0°02'52	evening max el	593 Sep 13 j 18:15	18°♄13'28	25°26'35
minimum elong	592 Oct 23 j 02:49	2°♄30'58	0°02'50	retrograde	593 Sep 25 j 20:04	25°♄10'15	
transit middle	592 Oct 23 j 02:49	2°♄30'58	0°02'50	evening set	593 Oct 01 j 17:43	22°♄42'12	
transit begin	592 Oct 23 j 00:08	2°♄40'03		min. Earth dist.	593 Oct 06 j 04:21	17°♄46'51	0.67025 AU
transit end	592 Oct 23 j 05:31	2°♄21'54		inferior conj	593 Oct 07 j 07:02	16°♄20'42	0°-52'-56
	592 Oct 25 j 00:44	30°♄		minimum elong	593 Oct 07 j 08:22	16°♄16'22	0°52'22
morning rise	592 Oct 28 j 13:45	26°♄23'14		asc. node	593 Oct 09 j 20:38	13°♄10'55	
direct	592 Nov 01 j 09:13	25°♄00'21		morning rise	593 Oct 12 j 23:40	10°♄21'13	
morning max el	592 Nov 09 j 08:27	29°♄36'43	20°29'33	direct	593 Oct 16 j 07:39	9°♄17'01	
	592 Nov 09 j 17:33	0°♄		morning max el	593 Oct 23 j 12:20	13°♄21'26	19°26'13
greatest brilliancy	592 Nov 15 j 15:26	7°♄05'25	-0.5m	greatest brilliancy	593 Nov 01 j 15:14	25°♄03'11	-0.7m
desc. node	592 Dec 01 j 05:27	29°♄39'39			593 Nov 04 j 23:33	0°♄	
	592 Dec 01 j 10:49	0°♄		morning set	593 Nov 16 j 14:27	17°♄50'04	
morning set	592 Dec 07 j 14:53	9°♄28'10		desc. node	593 Nov 18 j 02:30	20°♄09'59	
max. Earth dist.	592 Dec 17 j 07:52	24°♄48'04	1.43340 AU		593 Nov 24 j 09:49	0°♄	
	592 Dec 20 j 12:43	0°♄		max. Earth dist.	593 Nov 29 j 21:49	8°♄39'15	1.44546 AU
superior conj	592 Dec 23 j 14:48	5°♄05'25	-1°-55'-48	superior conj	593 Dec 03 j 10:24	14°♄15'23	-1°-30'-30
minimum elong	592 Dec 23 j 10:08	4°♄46'03	1°55'36	minimum elong	593 Dec 03 j 02:02	13°♄41'58	1°29'43
evening rise	593 Jan 05 j 00:29	26°♄21'19			593 Dec 13 j 03:24	0°♄	
	593 Jan 07 j 02:18	0°♄		evening rise	593 Dec 17 j 17:23	7°♄36'02	
asc. node	593 Jan 18 j 22:52	19°♄22'24			593 Dec 31 j 12:45	0°♄	
evening max el	593 Jan 22 j 07:57	23°♄22'47	18°08'41	asc. node	594 Jan 05 j 19:54	6°♄41'58	
retrograde	593 Jan 28 j 20:17	26°♄47'29		evening max el	594 Jan 05 j 20:24	6°♄43'14	18°24'26
evening set	593 Jan 31 j 14:15	26°♄10'10		retrograde	594 Jan 12 j 08:51	10°♄16'53	
inferior conj	593 Feb 06 j 23:25	20°♄59'28	3°48'00	evening set	594 Jan 15 j 07:42	9°♄29'14	
minimum elong	593 Feb 06 j 23:39	20°♄58'52	3°48'00	inferior conj	594 Jan 21 j 07:33	3°♄58'48	3°42'24
min. Earth dist.	593 Feb 09 j 19:57	18°♄03'29	0.62309 AU	minimum elong	594 Jan 21 j 06:05	4°♄03'01	3°42'16
morning rise	593 Feb 13 j 06:48	15°♄02'11		min. Earth dist.	594 Jan 23 j 12:57	1°♄25'42	0.64135 AU

	594 Jan 24 j 20:40	30° 		min. Earth dist.	595 Jan 06 j 15:29	15°  16'56	0.65595 AU
morning rise	594 Jan 27 j 03:02	27°  52'53		morning rise	595 Jan 10 j 12:50	11°  04'20	
direct	594 Feb 03 j 00:21	25°  03'56		direct	595 Jan 17 j 01:20	8°  14'50	
	594 Feb 13 j 11:39	0° 		morning max el	595 Jan 30 j 00:54	15°  52'09	26°40'07
desc. node	594 Feb 14 j 01:38	0°  30'01		desc. node	595 Jan 31 j 22:42	17°  51'47	
morning max el	594 Feb 16 j 15:00	2°  54'02	27°29'42		595 Feb 10 j 17:27	0° 	
	594 Mar 08 j 22:00	0° 			595 Mar 01 j 17:16	0° 	
morning set	594 Mar 23 j 15:03	26°  17'21		morning set	595 Mar 06 j 23:00	9°  37'59	
	594 Mar 25 j 11:44	0° 		max. Earth dist.	595 Mar 11 j 06:27	18°  01'05	1.34623 AU
max. Earth dist.	594 Mar 28 j 15:01	6°  25'47	1.33417 AU				
				superior conj	595 Mar 15 j 14:46	26°  51'03	-1°00'-7
superior conj	594 Mar 31 j 14:30	12°  42'23	0°-33'-9	minimum elong	595 Mar 15 j 17:40	27°  06'05	0°59'37
minimum elong	594 Mar 31 j 16:07	12°  50'59	0°32'50		595 Mar 17 j 03:08	0° 	
asc. node	594 Apr 03 j 19:13	19°  32'54		asc. node	595 Mar 21 j 16:15	9°  31'45	
evening rise	594 Apr 07 j 20:03	28°  08'36		evening rise	595 Mar 23 j 05:21	12°  44'49	
	594 Apr 08 j 17:21	0° 			595 Apr 01 j 04:52	0° 	
	594 Apr 26 j 15:40	0° 		evening max el	595 Apr 11 j 12:59	13°  57'59	21°03'55
evening max el	594 Apr 29 j 14:05	3°  07'18	22°32'50	retrograde	595 Apr 23 j 05:51	19°  39'01	
retrograde	594 May 12 j 16:07	9°  35'29		evening set	595 Apr 25 j 12:13	19°  27'00	
desc. node	594 May 13 j 00:51	9°  35'12		desc. node	595 Apr 29 j 21:53	18°  02'50	
evening set	594 May 15 j 18:46	9°  14'14		inferior conj	595 May 04 j 19:51	15°  28'30	-1°-24'-34
min. Earth dist.	594 May 23 j 21:50	5°  42'20	0.55309 AU	minimum elong	595 May 04 j 15:52	15°  34'08	1°23'10
inferior conj	594 May 25 j 01:42	5°  02'45	-3°-13'-46	min. Earth dist.	595 May 05 j 10:33	15°  07'43	0.54975 AU
minimum elong	594 May 24 j 18:16	5°  13'20	3°11'43	morning rise	595 May 13 j 19:08	11°  25'36	
morning rise	594 Jun 02 j 20:11	1°  10'03		direct	595 May 17 j 03:00	11°  01'41	
direct	594 Jun 05 j 17:11	0°  51'05		morning max el	595 May 30 j 00:21	17°  11'06	22°35'05
morning max el	594 Jun 17 j 01:41	6°  07'56	21°00'54		595 Jun 09 j 05:02	0° 	
asc. node	594 Jun 30 j 18:30	25°  38'12		asc. node	595 Jun 17 j 15:33	15°  06'06	
	594 Jul 03 j 01:20	0° 		morning set	595 Jun 21 j 01:32	22°  04'47	
morning set	594 Jul 06 j 15:03	7°  11'39			595 Jun 24 j 19:15	0° 	
				superior conj	595 Jun 28 j 06:32	7°  24'04	1°31'42
superior conj	594 Jul 14 j 03:05	22°  47'11	1°42'17	minimum elong	595 Jun 28 j 04:16	7°  12'01	1°31'28
minimum elong	594 Jul 14 j 01:34	22°  39'25	1°42'12	max. Earth dist.	595 Jul 01 j 06:27	13°  41'25	1.34174 AU
	594 Jul 17 j 16:24	0° 		evening rise	595 Jul 06 j 03:42	23°  33'11	
max. Earth dist.	594 Jul 18 j 12:12	1°  38'19	1.35581 AU		595 Jul 09 j 12:28	0° 	
evening rise	594 Jul 22 j 18:10	9°  50'20		desc. node	595 Jul 26 j 21:14	28°  32'29	
	594 Aug 03 j 07:21	0° 			595 Jul 27 j 22:10	0° 	
desc. node	594 Aug 09 j 00:13	8°  05'59		evening max el	595 Aug 09 j 17:58	15°  07'31	27°10'47
	594 Aug 25 j 10:14	0° 		retrograde	595 Aug 23 j 02:22	22°  03'34	
evening max el	594 Aug 27 j 06:09	1°  50'23	26°28'52	evening set	595 Aug 30 j 01:13	19°  02'07	
retrograde	594 Sep 09 j 01:53	9°  02'41		min. Earth dist.	595 Sep 02 j 21:05	16°  01'13	0.64963 AU
evening set	594 Sep 15 j 13:33	6°  22'36		inferior conj	595 Sep 05 j 00:13	13°  08'47	-2°-45'-35
min. Earth dist.	594 Sep 19 j 16:28	2°  04'34	0.66173 AU	minimum elong	595 Sep 05 j 04:23	13°  07'10	2°44'09
inferior conj	594 Sep 21 j 06:52	0°  08'16	-1°-49'-47	morning rise	595 Sep 11 j 09:15	8°  07'42	
minimum elong	594 Sep 21 j 09:42	29°  59'41	1°48'40	asc. node	595 Sep 13 j 14:47	7°  03'08	
	594 Sep 21 j 09:36	30°  00'00		direct	595 Sep 14 j 00:59	7°  03'10	
asc. node	594 Sep 26 j 17:42	24°  39'50		morning max el	595 Sep 20 j 13:22	11°  07'10	18°07'01
morning rise	594 Sep 27 j 06:59	24°  19'54			595 Oct 03 j 14:30	0° 	
direct	594 Sep 30 j 05:39	23°  30'53		morning set	595 Oct 08 j 14:25	8°  18'44	
morning max el	594 Oct 06 j 22:47	27°  13'29	18°38'21		595 Oct 21 j 20:55	0° 	
	594 Oct 09 j 10:01	0° 		superior conj	595 Oct 22 j 17:58	1°  23'59	0°00'44
morning set	594 Oct 27 j 12:03	27°  22'09		minimum elong	595 Oct 22 j 18:03	1°  24'20	0°00'43
	594 Oct 29 j 03:40	0° 		behind sun begin	595 Oct 22 j 07:18	0° 	
desc. node	594 Nov 04 j 23:32	10°  49'35		behind sun end	595 Oct 23 j 04:47	2°  07'08	
				desc. node	595 Oct 22 j 20:34	1°  34'23	
superior conj	594 Nov 12 j 12:35	22°  42'08	0°-48'-26	max. Earth dist.	595 Oct 26 j 10:47	7°  16'14	1.44825 AU
minimum elong	594 Nov 12 j 06:24	22°  17'51	0°47'39	evening rise	595 Nov 08 j 06:26	27°  16'45	
max. Earth dist.	594 Nov 12 j 16:06	22°  55'55	1.45056 AU		595 Nov 10 j 00:37	0° 	
	594 Nov 17 j 03:58	0° 		greatest brilliancy	595 Nov 26 j 00:06	24°  06'43	-0.6m
evening rise	594 Nov 28 j 10:57	17°  25'52'54			595 Nov 30 j 09:30	0° 	
	594 Dec 06 j 01:24	0° 		evening max el	595 Dec 03 j 13:12	3°  37'16	19°48'00
evening max el	594 Dec 20 j 06:51	20° 09'24	18°58'01	asc. node	595 Dec 10 j 14:01	7° 57'49	
asc. node	594 Dec 23 j 16:57	22° 58'58		retrograde	595 Dec 11 j 00:42	7° 58'56	
retrograde	594 Dec 27 j 03:23	24° 02'39		evening set	595 Dec 14 j 13:00	6° 46'41	
evening set	594 Dec 30 j 08:08	23° 03'31		inferior conj	595 Dec 20 j 01:54	0°	2°50'35
inferior conj	595 Jan 05 j 01:24	17° 15'48	3°21'58				
minimum elong	595 Jan 04 j 22:58	17° 23'25	3°21'30				

minimum elong	595 Dec 19 j 23:10	0°☿53'48	2°49'49	retrograde	596 Nov 23 j 22:21	22°♂02'17	
	595 Dec 20 j 15:24	30°♂♂		asc. node	596 Nov 26 j 11:05	21°♂26'09	
min. Earth dist.	595 Dec 21 j 02:03	29°♂24'47	0.66659 AU	evening set	596 Nov 27 j 20:13	20°♂35'03	
morning rise	595 Dec 25 j 08:39	24°♂30'07		inferior conj	596 Dec 03 j 06:36	14°♂22'05	2°10'53
direct	595 Dec 31 j 08:11	21°♂51'30		minimum elong	596 Dec 03 j 04:05	14°♂30'41	2°10'01
morning max el	596 Jan 12 j 09:58	29°♂02'32	25°27'46	min. Earth dist.	596 Dec 03 j 18:21	13°♂41'49	0.67346 AU
	596 Jan 13 j 08:19	0°☿		morning rise	596 Dec 08 j 11:31	8°♂06'35	
desc. node	596 Jan 18 j 19:46	6°☿17'23		direct	596 Dec 13 j 20:11	5°♂46'35	
	596 Feb 04 j 13:05	0°♂		morning max el	596 Dec 24 j 18:18	12°♂17'35	24°02'37
morning set	596 Feb 17 j 15:15	22°♂07'47		desc. node	597 Jan 04 j 16:49	25°♂28'15	
max. Earth dist.	596 Feb 21 j 10:05	29°♂07'55	1.36268 AU		597 Jan 07 j 23:44	0°☿	
	596 Feb 21 j 21:06	0°♂			597 Jan 27 j 08:38	0°♂	
				morning set	597 Jan 29 j 09:43	3°♂29'25	
superior conj	596 Feb 27 j 06:30	10°♂29'41	-1°-25'-19	max. Earth dist.	597 Feb 02 j 05:41	10°♂12'40	1.38269 AU
minimum elong	596 Feb 27 j 10:20	10°♂48'46	1°24'47				
evening rise	596 Mar 06 j 10:24	27°♂02'31		superior conj	597 Feb 09 j 10:08	23°♂28'21	-1°-46'-23
asc. node	596 Mar 07 j 13:19	29°♂18'15		minimum elong	597 Feb 09 j 13:59	23°♂46'42	1°46'03
	596 Mar 07 j 21:39	0°♂			597 Feb 12 j 19:26	0°♂	
evening max el	596 Mar 23 j 23:15	25°♂25'31	19°50'37	evening rise	597 Feb 18 j 08:40	10°♂54'10	
	596 Mar 31 j 18:23	0°♂		asc. node	597 Feb 22 j 10:23	18°♂46'39	
retrograde	596 Apr 02 j 22:48	0°♂13'24			597 Feb 28 j 21:32	0°♂	
evening set	596 Apr 05 j 00:41	0°♂01'50		evening max el	597 Mar 06 j 20:22	7°♂31'11	18°56'27
	596 Apr 05 j 04:34	30°♂♂		retrograde	597 Mar 15 j 06:19	11°♂35'17	
inferior conj	596 Apr 13 j 19:36	26°♂00'39	0°33'44	evening set	597 Mar 17 j 11:58	11°♂19'15	
minimum elong	596 Apr 13 j 21:04	25°♂58'23	0°33'13	inferior conj	597 Mar 25 j 12:21	7°♂02'45	2°10'19
desc. node	596 Apr 15 j 18:55	24°♂47'47		minimum elong	597 Mar 25 j 16:31	6°♂55'20	2°09'06
min. Earth dist.	596 Apr 16 j 00:49	24°♂38'51	0.55603 AU	min. Earth dist.	597 Mar 28 j 16:54	4°♂47'43	0.57057 AU
morning rise	596 Apr 22 j 14:13	21°♂29'47		morning rise	597 Apr 02 j 16:51	1°♂58'47	
direct	596 Apr 26 j 18:55	20°♂50'48		desc. node	597 Apr 02 j 15:58	1°♂59'41	
morning max el	596 May 10 j 16:20	27°♂46'20	24°16'21	direct	597 Apr 08 j 00:09	0°♂51'32	
	596 May 12 j 21:09	0°♂		morning max el	597 Apr 22 j 07:13	8°♂17'07	25°50'46
	596 Jun 01 j 03:07	0°♂			597 May 08 j 12:13	0°♂	
asc. node	596 Jun 03 j 12:36	4°♂53'10		morning set	597 May 20 j 01:03	21°♂59'50	
morning set	596 Jun 04 j 13:27	7°♂03'05		asc. node	597 May 21 j 09:39	24°♂52'44	
					597 May 23 j 18:33	0°♂	
superior conj	596 Jun 11 j 14:50	22°♂15'38	1°16'12				
minimum elong	596 Jun 11 j 12:22	22°♂02'18	1°15'51	superior conj	597 May 27 j 01:46	7°♂13'27	0°56'46
max. Earth dist.	596 Jun 13 j 09:42	26°♂06'41	1.33164 AU	minimum elong	597 May 26 j 23:36	7°♂01'35	0°56'22
	596 Jun 15 j 05:30	0°♂		max. Earth dist.	597 May 27 j 19:23	8°♂49'58	1.32544 AU
evening rise	596 Jun 19 j 00:00	7°♂48'37		evening rise	597 Jun 03 j 03:38	22°♂25'02	
	596 Jun 30 j 23:46	0°♂			597 Jun 06 j 21:48	0°♂	
desc. node	596 Jul 12 j 18:16	17°♂37'21			597 Jun 25 j 00:11	0°♂	
evening max el	596 Jul 22 j 04:27	28°♂24'12	27°25'37	desc. node	597 Jun 29 j 15:17	5°♂49'14	
	596 Jul 23 j 22:37	0°♂		evening max el	597 Jul 04 j 11:11	10°♂56'41	27°08'37
retrograde	596 Aug 04 j 20:59	5°♂43'18		retrograde	597 Jul 18 j 08:34	18°♂12'40	
evening set	596 Aug 12 j 01:33	3°♂05'52		evening set	597 Jul 25 j 10:28	15°♂55'46	
min. Earth dist.	596 Aug 15 j 16:26	29°♂58'00	0.63399 AU	min. Earth dist.	597 Jul 29 j 01:26	13°♂11'22	0.61525 AU
	596 Aug 15 j 15:37	30°♂♂		inferior conj	597 Aug 01 j 04:24	10°♂24'52	-4°-19'-57
inferior conj	596 Aug 18 j 08:27	27°♂17'08	-3°-37'-14	minimum elong	597 Aug 01 j 08:52	10°♂14'55	4°19'10
minimum elong	596 Aug 18 j 13:23	27°♂04'43	3°35'54	morning rise	597 Aug 08 j 10:06	5°♂28'40	
morning rise	596 Aug 25 j 03:30	22°♂00'26		direct	597 Aug 10 j 19:58	5°♂04'22	
direct	596 Aug 27 j 14:56	21°♂30'56		asc. node	597 Aug 17 j 08:52	8°♂08'29	
asc. node	596 Aug 30 j 11:50	22°♂11'15		morning max el	597 Aug 17 j 19:36	8°♂33'52	17°57'54
morning max el	596 Sep 03 j 05:19	24°♂56'34	17°53'10		597 Aug 31 j 18:10	0°♂	
	596 Sep 07 j 09:09	0°♂		morning set	597 Sep 02 j 16:43	3°♂32'40	
morning set	596 Sep 19 j 18:02	20°♂28'16					
	596 Sep 25 j 05:51	0°♂		superior conj	597 Sep 13 j 03:38	22°♂20'54	1°17'14
				minimum elong	597 Sep 13 j 08:18	22°♂41'15	1°16'44
superior conj	596 Oct 01 j 21:06	11°♂12'00	0°44'49		597 Sep 17 j 14:40	0°♂	
minimum elong	596 Oct 02 j 01:22	11°♂29'41	0°44'16	max. Earth dist.	597 Sep 20 j 15:15	5°♂02'54	1.42395 AU
max. Earth dist.	596 Oct 08 j 03:09	21°♂23'30	1.43901 AU	desc. node	597 Sep 25 j 14:38	13°♂07'26	
desc. node	596 Oct 08 j 17:36	22°♂21'23		evening rise	597 Sep 27 j 03:14	15°♂32'48	
	596 Oct 13 j 13:31	0°♂			597 Oct 06 j 12:49	0°♂	
evening rise	596 Oct 17 j 14:01	6°♂15'02		greatest brilliancy	597 Oct 24 j 16:18	25°♂16'03	-0.3m
	596 Nov 02 j 09:56	0°♂			597 Oct 28 j 19:37	0°♂	
greatest brilliancy	596 Nov 10 j 00:10	10°♂30'29	-0.5m	evening max el	597 Oct 29 j 09:35	0°♂36'02	22°06'06
evening max el	596 Nov 15 j 14:13	17°♂05'59	20°51'54	retrograde	597 Nov 07 j 18:30	6°♂10'24	

evening set	597 Nov 12 j 03:59	4°♂26'16		evening set	598 Oct 27 j 10:40	18°♂17'44	
asc. node	597 Nov 13 j 08:07	3°♂22'43		asc. node	598 Oct 31 j 05:08	14°♂06'57	
	597 Nov 16 j 04:04	30°♂♂		inferior conj	598 Nov 01 j 20:33	11°♂53'32	0°33'50
inferior conj	597 Nov 17 j 13:25	28°♂05'51	1°24'48	minimum elong	598 Nov 01 j 19:45	11°♂56'16	0°33'30
minimum elong	597 Nov 17 j 11:35	28°♂12'11	1°24'05	min. Earth dist.	598 Nov 01 j 10:34	12°♂27'45	0.67685 AU
min. Earth dist.	597 Nov 17 j 14:00	28°♂03'52	0.67681 AU	morning rise	598 Nov 07 j 04:56	5°♂43'06	
morning rise	597 Nov 22 j 19:00	21°♂51'43		direct	598 Nov 11 j 07:58	4°♂08'11	
direct	597 Nov 27 j 12:26	19°♂54'03		morning max el	598 Nov 19 j 20:40	9°♂06'44	21°12'13
morning max el	597 Dec 07 j 04:40	25°♂37'47	22°34'43	greatest brilliancy	598 Nov 25 j 04:36	15°♂15'20	-0.4m
	597 Dec 11 j 03:32	0°♂			598 Dec 05 j 20:40	0°♂	
greatest brilliancy	597 Dec 11 j 19:02	0°♂46'28	-0.3m	desc. node	598 Dec 09 j 10:53	5°♂18'01	
desc. node	597 Dec 22 j 13:51	15°♂11'39		morning set	598 Dec 20 j 11:00	22°♂08'33	
	598 Jan 01 j 12:48	0°♂			598 Dec 25 j 09:32	0°♂	
morning set	598 Jan 10 j 00:28	13°♂28'28		max. Earth dist.	598 Dec 28 j 04:19	4°♂31'14	1.42386 AU
max. Earth dist.	598 Jan 15 j 01:45	21°♂54'13	1.40408 AU				
	598 Jan 19 j 17:55	0°♂		superior conj	599 Jan 04 j 09:49	16°♂37'29	-2°-1'-55
superior conj	598 Jan 22 j 21:03	5°♂35'33	-2°00'-2	minimum elong	599 Jan 04 j 08:07	16°♂30'12	2°01'54
minimum elong	598 Jan 22 j 23:16	5°♂45'32	1°59'58		599 Jan 12 j 01:03	0°♂	
evening rise	598 Feb 01 j 21:05	24°♂12'27		evening rise	599 Jan 15 j 19:56	6°♂48'36	
	598 Feb 04 j 23:05	0°♂		asc. node	599 Jan 27 j 04:27	26°♂21'47	
asc. node	598 Feb 09 j 07:25	7°♂50'38			599 Jan 29 j 18:34	0°♂	
evening max el	598 Feb 18 j 01:39	20°♂08'16	18°22'20	evening max el	599 Feb 01 j 11:55	3°♂07'22	18°08'04
retrograde	598 Feb 25 j 08:57	23°♂45'05		retrograde	599 Feb 08 j 04:19	6°♂32'48	
evening set	598 Feb 27 j 19:44	23°♂21'48		evening set	599 Feb 10 j 19:39	6°♂00'56	
inferior conj	598 Mar 07 j 02:15	18°♂44'22	3°12'20	inferior conj	599 Feb 17 j 11:34	1°♂01'54	3°42'21
minimum elong	598 Mar 07 j 05:47	18°♂37'00	3°11'40	minimum elong	599 Feb 17 j 13:01	0°♂58'24	3°42'16
min. Earth dist.	598 Mar 10 j 12:41	15°♂54'27	0.59018 AU		599 Feb 18 j 13:09	30°♂♂	
morning rise	598 Mar 14 j 12:06	13°♂12'52		min. Earth dist.	599 Feb 20 j 15:12	28°♂01'20	0.61132 AU
direct	598 Mar 20 j 18:20	11°♂29'08		morning rise	599 Feb 24 j 03:36	25°♂11'36	
desc. node	598 Mar 20 j 12:59	11°♂29'16		direct	599 Mar 02 j 23:25	22°♂53'11	
morning max el	598 Apr 04 j 02:22	19°♂11'12	27°03'11	desc. node	599 Mar 07 j 10:01	23°♂46'42	
	598 Apr 13 j 06:07	0°♂			599 Mar 16 j 09:39	0°♂	
	598 May 01 j 02:23	0°♂		morning max el	599 Mar 17 j 03:58	0°♂44'23	27°42'32
morning set	598 May 04 j 10:42	6°♂49'30			599 Apr 07 j 08:25	0°♂	
asc. node	598 May 08 j 06:41	15°♂00'01		morning set	599 Apr 18 j 16:33	21°♂25'23	
					599 Apr 22 j 18:23	0°♂	
superior conj	598 May 11 j 13:31	22°♂11'26	0°34'10	max. Earth dist.	599 Apr 24 j 19:38	4°♂26'21	1.32409 AU
minimum elong	598 May 11 j 12:04	22°♂03'26	0°33'51	asc. node	599 Apr 25 j 03:44	5°♂10'24	
max. Earth dist.	598 May 11 j 08:00	21°♂41'05	1.32295 AU	superior conj	599 Apr 26 j 00:28	7°♂03'34	0°09'09
	598 May 15 j 03:03	0°♂		minimum elong	599 Apr 26 j 00:02	7°♂01'17	0°09'03
evening rise	598 May 18 j 12:03	7°♂13'54		behind sun begin	599 Apr 25 j 19:51	6°♂38'21	
	598 May 30 j 11:01	0°♂		behind sun end	599 Apr 26 j 04:14	7°♂24'12	
evening max el	598 Jun 16 j 11:36	22°♂44'32	26°18'40	evening rise	599 May 02 j 23:06	22°♂07'34	
desc. node	598 Jun 16 j 12:17	22°♂46'10			599 May 06 j 18:47	0°♂	
retrograde	598 Jun 30 j 11:43	29°♂57'07			599 May 25 j 14:50	0°♂	
evening set	598 Jul 06 j 23:17	28°♂13'07		evening max el	599 May 29 j 05:04	3°♂47'50	25°01'09
min. Earth dist.	598 Jul 11 j 00:31	25°♂36'39	0.59477 AU	desc. node	599 Jun 03 j 09:16	7°♂58'22	
inferior conj	598 Jul 14 j 08:27	23°♂02'19	-4°-45'-57	retrograde	599 Jun 12 j 04:53	10°♂54'39	
minimum elong	598 Jul 14 j 10:26	22°♂58'27	4°45'51	evening set	599 Jun 17 j 12:56	9°♂49'21	
morning rise	598 Jul 22 j 00:58	18°♂29'06		min. Earth dist.	599 Jun 22 j 16:34	7°♂02'27	0.57488 AU
direct	598 Jul 24 j 11:49	18°♂07'57		inferior conj	599 Jun 25 j 17:25	5°♂00'28	-4°-43'-44
morning max el	598 Aug 01 j 05:11	21°♂50'59	18°22'21	minimum elong	599 Jun 25 j 14:50	5°♂04'49	4°43'33
asc. node	598 Aug 04 j 05:54	25°♂14'48		morning rise	599 Jul 03 j 20:35	0°♂49'38	
	598 Aug 07 j 13:44	0°♂		direct	599 Jul 06 j 10:03	0°♂30'31	
morning set	598 Aug 17 j 05:02	17°♂16'42		morning max el	599 Jul 15 j 07:08	4°♂39'25	19°07'35
	598 Aug 23 j 21:37	0°♂		asc. node	599 Jul 22 j 02:57	13°♂15'50	
					599 Jul 31 j 08:49	0°♂	
superior conj	598 Aug 26 j 10:14	4°♂41'15	1°37'03	morning set	599 Aug 01 j 03:02	1°♂29'53	
minimum elong	598 Aug 26 j 13:14	4°♂55'05	1°36'49	superior conj	599 Aug 09 j 11:18	17°♂57'34	1°45'49
max. Earth dist.	598 Sep 02 j 22:10	18°♂01'57	1.40499 AU	minimum elong	599 Aug 09 j 12:14	18°♂02'04	1°45'47
evening rise	598 Sep 07 j 12:19	25°♂46'16			599 Aug 15 j 21:25	0°♂	
	598 Sep 10 j 02:27	0°♂		max. Earth dist.	599 Aug 16 j 01:33	0°♂18'44	1.38466 AU
desc. node	598 Sep 12 j 11:38	3°♂48'40		evening rise	599 Aug 19 j 22:07	7°♂09'39	
	598 Sep 30 j 07:06	0°♂		desc. node	599 Aug 30 j 08:39	24°♂21'14	
evening max el	598 Oct 12 j 00:16	14°♂07'57	23°25'41		599 Sep 03 j 01:14	0°♂	
retrograde	598 Oct 22 j 11:50	20°♂19'46					

evening max el	599 Sep 24 j 12:21	27°♄43'27	24°44'24		600 Aug 27 j 02:46	0°♄	
	599 Sep 26 j 23:22	0°♄		evening max el	600 Sep 05 j 23:57	11°♄21'05	25°55'00
retrograde	599 Oct 06 j 01:24	4°♄27'10		retrograde	600 Sep 18 j 10:23	18°♄26'31	
evening set	599 Oct 11 j 14:39	2°♄07'44		evening set	600 Sep 24 j 14:05	15°♄52'37	
	599 Oct 13 j 17:35	30°♄		min. Earth dist.	600 Sep 28 j 21:21	11°♄12'50	0.66706 AU
min. Earth dist.	599 Oct 16 j 05:49	26°♄51'54	0.67362 AU	inferior conj	600 Sep 30 j 04:54	9°♄33'20	-1°-17'-1
inferior conj	599 Oct 17 j 02:19	25°♄43'51	0°-20'-34	minimum elong	600 Sep 30 j 06:53	9°♄27'06	1°16'12
minimum elong	599 Oct 17 j 02:49	25°♄42'09	0°20'22	asc. node	600 Oct 03 j 23:13	5°♄14'27	
asc. node	599 Oct 18 j 02:09	24°♄25'24		morning rise	600 Oct 06 j 00:32	3°♄38'06	
morning rise	599 Oct 22 j 15:27	19°♄39'36		direct	600 Oct 09 j 04:09	2°♄40'59	
direct	599 Oct 26 j 05:41	18°♄25'16		morning max el	600 Oct 16 j 03:15	6°♄35'18	19°03'46
morning max el	599 Nov 02 j 20:19	22°♄46'51	20°00'49		600 Nov 01 j 19:29	0°♄	
	599 Nov 08 j 21:10	0°♄		morning set	600 Nov 07 j 14:20	9°♄02'34	
greatest brilliancy	599 Nov 10 j 01:40	1°♄36'21	-0.6m	desc. node	600 Nov 12 j 05:00	16°♄15'49	
desc. node	599 Nov 26 j 07:56	25°♄41'15			600 Nov 20 j 23:12	0°♄	
morning set	599 Nov 29 j 07:21	0°♄16'13		max. Earth dist.	600 Nov 22 j 05:47	2°♄00'22	1.44852 AU
	599 Nov 29 j 03:09	0°♄					
max. Earth dist.	599 Dec 10 j 14:15	17°♄58'30	1.43931 AU	superior conj	600 Nov 24 j 06:38	5°♄13'02	-1°-14'-18
				minimum elong	600 Nov 23 j 22:22	4°♄40'21	1°13'24
superior conj	599 Dec 15 j 20:18	26°♄26'46	-1°-47'-23	evening rise	600 Dec 09 j 08:13	29°♄25'15	
minimum elong	599 Dec 15 j 13:35	25°♄59'27	1°46'56		600 Dec 09 j 16:43	0°♄	
	599 Dec 18 j 00:21	0°♄		evening max el	600 Dec 29 j 12:14	29°♄45'13	18°36'40
evening rise	599 Dec 29 j 01:02	18°♄35'19			600 Dec 29 j 18:06	0°♄	
	600 Jan 04 j 17:02	0°♄		asc. node	600 Dec 30 j 22:30	1°♄05'34	
asc. node	600 Jan 14 j 01:28	14°♄10'48					
evening max el	600 Jan 16 j 00:20	16°♄21'40	18°13'06				
retrograde	600 Jan 22 j 11:52	19°♄49'08					
evening set	600 Jan 25 j 07:42	19°♄07'42					
inferior conj	600 Jan 31 j 12:32	13°♄48'19	3°47'45				
minimum elong	600 Jan 31 j 11:58	13°♄49'52	3°47'44				
min. Earth dist.	600 Feb 03 j 02:50	10°♄59'56	0.63121 AU				
morning rise	600 Feb 06 j 14:19	7°♄46'31					
direct	600 Feb 13 j 13:36	5°♄04'13					
desc. node	600 Feb 22 j 07:05	8°♄30'04					
morning max el	600 Feb 27 j 10:48	12°♄57'58	27°44'34				
	600 Mar 12 j 02:30	0°♄					
	600 Mar 29 j 19:18	0°♄					
morning set	600 Apr 01 j 16:21	5°♄39'46					
max. Earth dist.	600 Apr 07 j 02:09	16°♄51'10	1.32918 AU				
superior conj	600 Apr 09 j 08:52	21°♄43'57	0°-17'-29				
minimum elong	600 Apr 09 j 09:42	21°♄48'29	0°17'19				
asc. node	600 Apr 11 j 00:46	25°♄19'33					
	600 Apr 13 j 04:35	0°♄					
evening rise	600 Apr 16 j 10:55	6°♄59'14					
	600 Apr 28 j 15:44	0°♄					
evening max el	600 May 09 j 19:15	14°♄23'10	23°27'53				
desc. node	600 May 20 j 06:17	20°♄48'59					
retrograde	600 May 23 j 10:01	21°♄11'39					
evening set	600 May 27 j 06:42	20°♄38'51					
min. Earth dist.	600 Jun 03 j 05:32	17°♄26'37	0.55895 AU				
inferior conj	600 Jun 05 j 06:19	16°♄14'04	-4°00'-13				
minimum elong	600 Jun 04 j 23:28	16°♄24'18	3°58'48				
morning rise	600 Jun 13 j 19:38	12°♄18'29					
direct	600 Jun 16 j 12:52	12°♄00'16					
morning max el	600 Jun 26 j 22:51	16°♄49'23	20°13'51				
	600 Jul 06 j 20:39	0°♄					
asc. node	600 Jul 08 j 00:01	1°♄58'17					
morning set	600 Jul 15 j 07:39	16°♄03'29					
	600 Jul 22 j 03:04	0°♄					
superior conj	600 Jul 23 j 01:36	1°♄53'59	1°45'40				
minimum elong	600 Jul 23 j 00:49	1°♄50'01	1°45'39				
max. Earth dist.	600 Jul 28 j 06:41	12°♄09'43	1.36553 AU				
evening rise	600 Aug 01 j 06:12	19°♄37'13					
	600 Aug 07 j 03:16	0°♄					
desc. node	600 Aug 16 j 05:40	14°♄39'28					

superior conj	600 Apr 09 j 08:52	21° Υ 43'57	0°-17'-29		601 Mar 21 j 14:23	0° Υ	
minimum elong	600 Apr 09 j 09:42	21° Υ 48'29	0°17'19				
asc. node	600 Apr 11 j 00:46	25° Υ 19'33		superior conj	601 Mar 24 j 12:48	6° Υ 06'36	0°-44'-42
	600 Apr 13 j 04:35	0° X		minimum elong	601 Mar 24 j 14:59	6° Υ 18'06	0°44'17
evening rise	600 Apr 16 j 10:55	6° X 59'14		asc. node	601 Mar 28 j 21:50	15° Υ 23'37	
	600 Apr 28 j 15:44	0° Π		evening rise	601 Mar 31 j 21:42	21° Υ 43'04	
evening max el	600 May 09 j 19:15	14° Π 23'10	23°27'53		601 Apr 04 j 23:17	0° X	
desc. node	600 May 20 j 06:17	20° Π 48'59		evening max el	601 Apr 21 j 13:18	25° X 00'55	21°53'41
retrograde	600 May 23 j 10:01	21° Π 11'39			601 Apr 28 j 15:32	0° Π	
evening set	600 May 27 j 06:42	20° Π 38'51		retrograde	601 May 04 j 03:07	1° Π 10'31	
min. Earth dist.	600 Jun 03 j 05:32	17° Π 26'37	0.55895 AU	evening set	601 May 06 j 18:50	0° Π 54'48	
inferior conj	600 Jun 05 j 06:19	16° Π 14'04	-4°00'-13	desc. node	601 May 07 j 03:19	0° Π 50'26	
minimum elong	600 Jun 04 j 23:28	16° Π 24'18	3°58'48		601 May 09 j 21:25	30° R X	
morning rise	600 Jun 13 j 19:38	12° Π 18'29		inferior conj	601 May 16 j 04:04	26° X 51'02	-2°-30'-57
direct	600 Jun 16 j 12:52	12° Π 00'16		minimum elong	601 May 15 j 21:29	27° X 00'16	2°28'51
morning max el	600 Jun 26 j 22:51	16° Π 49'23	20°13'51	min. Earth dist.	601 May 15 j 18:06	27° X 05'02	0.55043 AU
	600 Jul 06 j 20:39	0° S		morning rise	601 May 25 j 01:22	22° X 56'04	
asc. node	600 Jul 08 j 00:01	1° S 58'17		direct	601 May 28 j 01:59	22° X 35'46	
morning set	600 Jul 15 j 07:39	16° S 03'29		morning max el	601 Jun 09 j 03:16	28° X 15'39	21°39'19
	600 Jul 22 j 03:04	0° Ω			601 Jun 10 j 21:19	0° Π	
				asc. node	601 Jun 24 j 21:06	21° Π 12'03	
superior conj	600 Jul 23 j 01:36	1° Ω 53'59	1°45'40		601 Jun 29 j 06:43	0° S	
minimum elong	600 Jul 23 j 00:49	1° Ω 50'01	1°45'39	morning set	601 Jun 29 j 16:35	0° S 51'02	
max. Earth dist.	600 Jul 28 j 06:41	12° Ω 09'43	1.36553 AU				
evening rise	600 Aug 01 j 06:12	19° Ω 37'13		superior conj	601 Jul 07 j 01:11	16° S 18'40	1°38'27
	600 Aug 07 j 03:16	0° W		minimum elong	601 Jul 06 j 23:16	16° S 08'43	1°38'19
desc. node	600 Aug 16 j 05:40	14° W 39'28		max. Earth dist.	601 Jul 10 j 19:31	24° S 03'11	1.34938 AU
	600 Aug 27 j 02:46	0° A			601 Jul 13 j 19:20	0° Ω	
evening max el	600 Sep 05 j 23:57	11° A 21'05	25°55'00	evening rise	601 Jul 15 j 07:50	2° Ω 56'29	
retrograde	600 Sep 18 j 10:23	18° A 26'31			601 Jul 31 j 00:51	0° W	
evening set	600 Sep 24 j 14:05	15° A 52'37		desc. node	601 Aug 03 j 02:39	4° W 36'40	
min. Earth dist.	600 Sep 28 j 21:21	11° A 12'50	0.66706 AU	evening max el	601 Aug 19 j 12:06	24° W 55'44	26°49'36
inferior conj	600 Sep 30 j 04:54	9° A 33'20	-1°-17'-1		601 Aug 25 j 20:45	0° A	
minimum elong	600 Sep 30 j 06:53	9° A 27'06	1°16'12	retrograde	601 Sep 01 j 14:03	2° A 11'42	
asc. node	600 Oct 03 j 23:13	5° A 14'27			601 Sep 07 j 14:51	30° R W	
morning rise	600 Oct 06 j 00:32	3° A 38'06		evening set	601 Sep 08 j 06:48	29° W 28'57	
direct	600 Oct 09 j 04:09	2° A 40'59		min. Earth dist.	601 Sep 12 j 06:42	25° W 26'32	0.65706 AU
morning max el	600 Oct 16 j 03:15	6° A 35'18	19°03'46	inferior conj	601 Sep 14 j 02:18	23° W 18'41	-2°-13'-42
	600 Nov 01 j 19:29	0° M		minimum elong	601 Sep 14 j 05:44	23° W 08'36	2°12'25
morning set	600 Nov 07 j 14:20	9° M 02'34		morning rise	601 Sep 20 j 06:02	17° W 35'38	
desc. node	600 Nov 12 j 05:00	16° M 15'49		asc. node	601 Sep 20 j 20:18	17° W 19'09	
	600 Nov 20 j 23:12	0° J		direct	601 Sep 23 j 01:26	16° W 51'55	
max. Earth dist.	600 Nov 22 j 05:47	2° J 00'22	1.44852 AU	morning max el	601 Sep 29 j 15:44	20° W 28'16	18°22'47
					601 Oct 06 j 23:29	0° A	
superior conj	600 Nov 24 j 06:38	5° J 13'02	-1°-14'-18	morning set	601 Oct 19 j 00:13	19° A 10'56	
minimum elong	600 Nov 23 j 22:22	4° J 40'21	1°13'24		601 Oct 25 j 17:12	0° M	
evening rise	600 Dec 09 j 08:13	29° J 25'15		desc. node	601 Oct 30 j 02:00	6° M 57'39	
	600 Dec 09 j 16:43	0° Z					
evening max el	600 Dec 29 j 12:14	29° Z 45'13	18°36'40	superior conj	601 Nov 03 j 07:21	13° M 38'13	0°-27'-39
	600 Dec 29 j 18:06	0° \approx		minimum elong	601 Nov 03 j 03:44	13° M 23'56	0°27'11
asc. node	600 Dec 30 j 22:30	1° \approx 05'34		max. Earth dist.	601 Nov 05 j 00:33	16° M 20'22	1.45055 AU
retrograde	601 Jan 05 j 03:19	3° \approx 26'03			601 Nov 13 j 17:36	0° J	
evening set	601 Jan 08 j 04:28	2° \approx 33'49		evening rise	601 Nov 19 j 15:43	9° J 17'18	
	601 Jan 11 j 08:09	30° R Z			601 Dec 02 j 23:08	0° Z	
inferior conj	601 Jan 14 j 01:14	26° Z 56'01	3°35'17	greatest brilliancy	601 Dec 03 j 08:54	0° Z 36'41	-0.7m
minimum elong	601 Jan 13 j 23:16	27° Z 01'53	3°35'00	evening max el	601 Dec 12 j 21:15	13° Z 12'40	19°17'29
min. Earth dist.	601 Jan 16 j 00:09	24° Z 36'07	0.64803 AU	asc. node	601 Dec 17 j 19:34	16° Z 51'04	
morning rise	601 Jan 19 j 16:50	20° Z 47'20		retrograde	601 Dec 19 j 23:14	17° Z 16'38	
direct	601 Jan 26 j 11:10	17° Z 56'07		evening set	601 Dec 23 j 07:04	16° Z 12'05	
desc. node	601 Feb 08 j 04:10	25° Z 03'25		inferior conj	601 Dec 28 j 22:14	10° Z 18'09	3°09'48
morning max el	601 Feb 08 j 20:10	25° Z 42'53	27°11'56	minimum elong	601 Dec 28 j 19:36	10° Z 26'38	3°09'11
	601 Feb 12 j 19:09	0° \approx		min. Earth dist.	601 Dec 30 j 06:14	8° Z 35'32	0.66101 AU
	601 Mar 05 j 14:37	0° K		morning rise	602 Jan 03 j 07:19	4° Z 05'20	
morning set	601 Mar 16 j 07:10	19° K 23'32		direct	602 Jan 09 j 14:49	1° Z 19'08	
max. Earth dist.	601 Mar 20 j 23:47	28° K 45'09	1.33865 AU	morning max el	602 Jan 22 j 05:36	8° Z 46'27	26°11'30

desc. node	602 Jan 26 j 01:14	12°♄54'44		603 Jan 11 j 14:20	0°♄	
	602 Feb 07 j 22:01	0°♄		desc. node	603 Jan 12 j 22:16	1°♄41'27
	602 Feb 26 j 01:55	0°♄		603 Feb 01 j 04:56	0°♄	
morning set	602 Feb 27 j 09:01	2°♄23'48		morning set	603 Feb 09 j 16:43	14°♄26'10
max. Earth dist.	602 Mar 03 j 09:55	10°♄05'31	1.35272 AU	max. Earth dist.	603 Feb 13 j 09:42	21°♄08'38 1.37096 AU
				603 Feb 18 j 02:24	0°♄	
superior conj	602 Mar 08 j 09:48	20°♄03'26	-1°-11'-9	superior conj	603 Feb 19 j 20:50	3°♄26'01 -1°-34'-56
minimum elong	602 Mar 08 j 13:10	20°♄20'35	1°10'36	minimum elong	603 Feb 20 j 00:49	3°♄45'33 1°34'28
	602 Mar 13 j 05:29	0°♄		603 Feb 28 j 07:55	20°♄19'23	
asc. node	602 Mar 15 j 18:52	5°♄17'38		evening rise	603 Mar 02 j 15:55	24°♄56'59
evening rise	602 Mar 16 j 05:26	6°♄11'56		asc. node	603 Mar 05 j 06:59	0°♄
	602 Mar 29 j 12:46	0°♄		603 Mar 17 j 07:52	17°♄48'58	19°25'00
evening max el	602 Apr 03 j 16:55	6°♄05'51	20°30'32	evening max el	603 Mar 26 j 14:19	22°♄16'44
retrograde	602 Apr 14 j 16:04	11°♄23'22		retrograde	603 Mar 28 j 17:22	22°♄03'40
evening set	602 Apr 16 j 19:12	11°♄12'13		evening set	603 Apr 06 j 04:34	17°♄56'33 1°18'41
desc. node	602 Apr 24 j 00:23	8°♄20'45		inferior conj	603 Apr 06 j 07:39	17°♄51'31 1°17'39
inferior conj	602 Apr 25 j 22:41	7°♄14'42	0°-33'-24	minimum elong	603 Apr 08 j 21:42	16°♄10'49 0.56141 AU
minimum elong	602 Apr 25 j 21:07	7°♄16'59	0°32'50	min. Earth dist.	603 Apr 10 j 21:26	14°♄59'03
min. Earth dist.	602 Apr 27 j 07:09	6°♄27'41	0.55132 AU	desc. node	603 Apr 14 j 18:09	13°♄11'39
morning rise	602 May 04 j 21:20	3°♄01'48		morning rise	603 Apr 19 j 09:52	12°♄22'25
direct	602 May 08 j 13:15	2°♄32'48		direct	603 May 03 j 12:56	19°♄32'00 24°58'26
morning max el	602 May 21 j 22:13	9°♄02'56	23°18'03	morning max el	603 May 12 j 09:00	0°♄
	602 Jun 06 j 02:47	0°♄		603 May 29 j 07:22	0°♄	
asc. node	602 Jun 11 j 18:10	10°♄48'28		603 May 29 j 15:48	0°♄44'19	
morning set	602 Jun 14 j 03:52	15°♄46'31		morning set	603 May 29 j 15:11	0°♄41'05
	602 Jun 20 j 19:24	0°♄		asc. node		
superior conj	602 Jun 21 j 06:57	1°♄01'54	1°25'39	superior conj	603 Jun 05 j 16:31	15°♄56'10 1°08'23
minimum elong	602 Jun 21 j 04:31	0°♄48'57	1°25'22	minimum elong	603 Jun 05 j 14:08	15°♄43'08 1°07'59
max. Earth dist.	602 Jun 23 j 18:00	6°♄15'55	1.33698 AU	max. Earth dist.	603 Jun 07 j 00:26	18°♄49'35 1.32850 AU
evening rise	602 Jun 28 j 22:23	16°♄54'03		603 Jun 12 j 06:47	0°♄	
	602 Jul 05 j 20:19	0°♄		evening rise	603 Jun 12 j 22:05	1°♄18'37
desc. node	602 Jul 20 j 23:41	24°♄03'53		603 Jun 28 j 19:08	0°♄	
	602 Jul 25 j 12:16	0°♄		desc. node	603 Jul 07 j 20:43	12°♄48'07
evening max el	602 Aug 01 j 23:50	8°♄16'21	27°20'49	evening max el	603 Jul 15 j 08:55	21°♄09'02 27°22'29
retrograde	602 Aug 15 j 11:54	15°♄35'05		retrograde	603 Jul 29 j 03:28	28°♄26'52
evening set	602 Aug 22 j 14:04	12°♄52'19		evening set	603 Aug 05 j 08:21	25°♄56'11
min. Earth dist.	602 Aug 26 j 07:35	9°♄26'11	0.64343 AU	min. Earth dist.	603 Aug 08 j 22:17	23°♄00'16 0.62631 AU
inferior conj	602 Aug 28 j 16:09	6°♄55'03	-3°-8'-12	inferior conj	603 Aug 11 j 19:32	20°♄15'01 -3°-56'-52
minimum elong	602 Aug 28 j 20:45	6°♄42'45	3°06'46	minimum elong	603 Aug 12 j 00:27	20°♄03'13 3°55'43
morning rise	602 Sep 04 j 05:19	1°♄27'46		morning rise	603 Aug 18 j 19:05	15°♄06'57
direct	602 Sep 06 j 19:00	0°♄53'53		direct	603 Aug 21 j 05:36	14°♄39'54
asc. node	602 Sep 07 j 17:23	0°♄58'24		asc. node	603 Aug 25 j 14:25	16°♄08'36
morning max el	602 Sep 13 j 07:13	4°♄20'47	17°58'55	morning max el	603 Aug 27 j 22:50	18°♄05'47 17°52'57
	602 Sep 30 j 04:22	0°♄		603 Sep 05 j 12:30	0°♄	
morning set	602 Sep 30 j 14:10	0°♄41'39		morning set	603 Sep 13 j 02:36	13°♄16'23
				603 Sep 22 j 15:21	0°♄	
superior conj	602 Oct 13 j 20:28	22°♄44'15	0°20'36	superior conj	603 Sep 24 j 11:19	3°♄07'00 1°00'08
minimum elong	602 Oct 13 j 22:49	22°♄53'44	0°20'17	minimum elong	603 Sep 24 j 16:08	3°♄27'22 0°59'33
desc. node	602 Oct 16 j 23:01	27°♄43'49		max. Earth dist.	603 Oct 01 j 10:20	14°♄38'23 1.43319 AU
	602 Oct 18 j 09:12	0°♄		desc. node	603 Oct 03 j 20:01	18°♄30'40
max. Earth dist.	602 Oct 18 j 19:15	0°♄39'57	1.44520 AU	evening rise	603 Oct 09 j 12:14	27°♄27'34
evening rise	602 Oct 30 j 04:28	18°♄26'45		603 Oct 11 j 03:36	0°♄	
	602 Nov 06 j 17:49	0°♄		603 Oct 31 j 15:04	0°♄	
greatest brilliancy	602 Nov 19 j 11:53	18°♄39'41	-0.6m	greatest brilliancy	603 Nov 03 j 21:53	4°♄17'32 -0.4m
evening max el	602 Nov 26 j 01:31	26°♄41'30	20°13'36	evening max el	603 Nov 08 j 23:59	10°♄10'15 21°22'19
	602 Nov 29 j 23:36	0°♄		retrograde	603 Nov 17 j 18:16	15°♄22'49
retrograde	602 Dec 03 j 20:57	1°♄16'52		evening set	603 Nov 21 j 20:50	13°♄48'26
asc. node	602 Dec 04 j 16:37	1°♄13'04		asc. node	603 Nov 21 j 13:40	14°♄01'49
evening set	602 Dec 07 j 13:11	29°♄58'16		inferior conj	603 Nov 27 j 06:37	7°♄31'33 1°52'00
	602 Dec 07 j 12:12	30°♄		minimum elong	603 Nov 27 j 04:21	7°♄39'23 1°51'11
inferior conj	602 Dec 13 j 00:48	23°♄51'08	2°34'37	min. Earth dist.	603 Nov 27 j 13:25	7°♄08'06 0.67533 AU
minimum elong	602 Dec 12 j 22:05	24°♄00'15	2°33'47	morning rise	603 Dec 02 j 11:33	1°♄16'20
min. Earth dist.	602 Dec 13 j 19:24	22°♄48'28	0.67004 AU	603 Dec 04 j 06:13	30°♄	
morning rise	602 Dec 18 j 06:29	17°♄36'07		direct	603 Dec 07 j 13:35	29°♄05'53
direct	602 Dec 23 j 23:49	15°♄04'59		603 Dec 11 j 03:43	0°♄	
morning max el	603 Jan 04 j 14:13	21°♄59'35	24°52'30			

morning max el	603 Dec 17 j 23:12	5°♂17'18	23°25'00	min. Earth dist.	604 Nov 10 j 09:52	21°♂31'09	0.67721 AU
greatest brilliancy	603 Dec 23 j 13:46	11°♂37'13	-0.2m	morning rise	604 Nov 15 j 20:19	15°♂04'23	
desc. node	603 Dec 30 j 19:17	21°♂07'15		direct	604 Nov 20 j 07:24	13°♂16'32	
	604 Jan 06 j 00:06	0°♂		morning max el	604 Nov 29 j 11:36	18°♂40'58	21°58'28
morning set	604 Jan 22 j 00:01	25°♂14'04		greatest brilliancy	604 Dec 04 j 05:30	24°♂02'19	-0.4m
	604 Jan 24 j 19:06	0°♂			604 Dec 08 j 20:20	0°♂	
max. Earth dist.	604 Jan 26 j 04:42	2°♂25'51	1.39183 AU	desc. node	604 Dec 16 j 16:19	11°♂01'20	
					604 Dec 29 j 04:24	0°♂	
superior conj	604 Feb 02 j 17:55	16°♂03'52	-1°-53'-19	morning set	605 Jan 01 j 02:13	4°♂37'32	
minimum elong	604 Feb 02 j 21:19	16°♂19'46	1°53'06	max. Earth dist.	605 Jan 07 j 02:31	14°♂28'04	1.41285 AU
	604 Feb 10 j 01:16	0°♂					
evening rise	604 Feb 12 j 02:24	3°♂57'48		superior conj	605 Jan 14 j 20:05	27°♂44'57	-2°-2'-33
asc. node	604 Feb 17 j 12:57	14°♂15'54		minimum elong	605 Jan 14 j 20:55	27°♂48'36	2°02'34
	604 Feb 28 j 05:11	0°♂			605 Jan 16 j 02:33	0°♂	
evening max el	604 Feb 28 j 08:44	0°♂08'40	18°39'26	evening rise	605 Jan 25 j 09:34	16°♂59'15	
retrograde	604 Mar 07 j 06:08	3°♂59'31			605 Feb 01 j 13:36	0°♂	
evening set	604 Mar 09 j 13:48	3°♂40'46		asc. node	605 Feb 03 j 09:59	3°♂07'10	
	604 Mar 16 j 06:46	30°♂		evening max el	605 Feb 10 j 16:34	12°♂56'36	18°13'53
inferior conj	604 Mar 17 j 06:18	29°♂15'42	2°40'55	retrograde	605 Feb 17 j 16:14	16°♂26'37	
minimum elong	604 Mar 17 j 10:30	29°♂07'41	2°39'53	evening set	605 Feb 20 j 04:57	15°♂59'54	
min. Earth dist.	604 Mar 20 j 15:15	26°♂42'51	0.57845 AU	inferior conj	605 Feb 27 j 04:52	11°♂13'36	3°28'32
morning rise	604 Mar 25 j 02:58	23°♂58'30		minimum elong	605 Feb 27 j 07:35	11°♂07'34	3°28'10
desc. node	604 Mar 27 j 18:27	23°♂00'25		min. Earth dist.	605 Mar 02 j 13:47	8°♂15'44	0.59917 AU
direct	604 Mar 30 j 20:40	22°♂36'19		morning rise	605 Mar 06 j 06:48	5°♂32'59	
morning max el	604 Apr 14 j 05:24	0°♂10'57	26°25'10	direct	605 Mar 12 j 20:14	3°♂33'14	
	604 Apr 14 j 00:53	0°♂		desc. node	605 Mar 14 j 15:30	3°♂41'59	
	604 May 05 j 04:22	0°♂		morning max el	605 Mar 27 j 03:12	11°♂20'42	27°24'19
morning set	604 May 13 j 02:47	15°♂39'13			605 Apr 10 j 16:58	0°♂	
asc. node	604 May 15 j 12:12	20°♂44'47		morning set	605 Apr 27 j 11:03	0°♂23'51	
	604 May 19 j 17:59	0°♂			605 Apr 27 j 06:27	0°♂	
				asc. node	605 May 02 j 09:14	10°♂54'02	
superior conj	604 May 20 j 04:01	0°♂55'10	0°47'32	max. Earth dist.	605 May 04 j 00:13	14°♂27'02	1.32292 AU
minimum elong	604 May 20 j 02:07	0°♂44'41	0°47'09				
max. Earth dist.	604 May 20 j 11:45	1°♂37'37	1.32384 AU	superior conj	605 May 04 j 15:39	15°♂51'40	0°23'49
evening rise	604 May 27 j 04:01	16°♂01'23		minimum elong	605 May 04 j 14:36	15°♂45'54	0°23'34
	604 Jun 03 j 05:26	0°♂			605 May 11 j 03:44	0°♂	
	604 Jun 23 j 06:11	0°♂		evening rise	605 May 11 j 13:47	0°♂53'11	
desc. node	604 Jun 23 j 17:43	0°♂31'36			605 May 27 j 11:47	0°♂	
evening max el	604 Jun 26 j 12:57	3°♂22'46	26°51'16	evening max el	605 Jun 08 j 10:17	14°♂50'54	25°48'36
retrograde	604 Jul 10 j 11:56	10°♂38'19		desc. node	605 Jun 10 j 14:45	16°♂48'14	
evening set	604 Jul 17 j 09:20	8°♂33'47		retrograde	605 Jun 22 j 11:21	22°♂02'05	
min. Earth dist.	604 Jul 21 j 02:50	5°♂55'08	0.60657 AU	evening set	605 Jun 28 j 12:25	20°♂34'44	
inferior conj	604 Jul 24 j 09:08	3°♂10'59	-4°-33'-41	min. Earth dist.	605 Jul 02 j 22:47	17°♂55'37	0.58600 AU
minimum elong	604 Jul 24 j 12:50	3°♂03'11	4°33'12	inferior conj	605 Jul 06 j 05:22	15°♂32'41	-4°-49'-18
	604 Jul 28 j 12:49	30°♂		minimum elong	605 Jul 06 j 05:36	15°♂32'15	4°49'19
morning rise	604 Jul 31 j 19:29	28°♂24'44		morning rise	605 Jul 14 j 02:26	11°♂09'08	
direct	604 Aug 03 j 05:22	28°♂02'06		direct	605 Jul 16 j 14:04	10°♂49'05	
	604 Aug 08 j 14:17	0°♂		morning max el	605 Jul 24 j 18:15	14°♂41'58	18°38'59
morning max el	604 Aug 10 j 11:34	1°♂36'06	18°05'54	asc. node	605 Jul 29 j 08:28	20°♂08'17	
asc. node	604 Aug 11 j 11:26	2°♂37'13			605 Aug 04 j 09:51	0°♂	
morning set	604 Aug 26 j 07:39	26°♂38'57		morning set	605 Aug 10 j 00:29	10°♂36'08	
	604 Aug 28 j 02:44	0°♂					
				superior conj	605 Aug 18 j 19:50	27°♂33'52	1°41'59
superior conj	604 Sep 05 j 04:45	14°♂48'22	1°27'06	minimum elong	605 Aug 18 j 21:58	27°♂43'49	1°41'52
minimum elong	604 Sep 05 j 08:52	15°♂06'39	1°26'43		605 Aug 20 j 03:07	0°♂	
max. Earth dist.	604 Sep 12 j 19:42	27°♂59'45	1.41616 AU	max. Earth dist.	605 Aug 26 j 00:13	10°♂37'53	1.39634 AU
	604 Sep 14 j 00:30	0°♂		evening rise	605 Aug 30 j 04:11	17°♂48'20	
evening rise	604 Sep 18 j 08:38	7°♂05'27		desc. node	605 Sep 06 j 14:05	29°♂53'12	
desc. node	604 Sep 19 j 17:03	9°♂15'08			605 Sep 06 j 15:48	0°♂	
	604 Oct 03 j 08:40	0°♂			605 Sep 27 j 19:38	0°♂	
greatest brilliancy	604 Oct 16 j 19:42	18°♂11'42	-0.3m	evening max el	605 Oct 04 j 06:27	7°♂14'17	23°59'49
evening max el	604 Oct 21 j 17:03	23°♂40'29	22°39'35	retrograde	605 Oct 15 j 05:21	13°♂40'39	
retrograde	604 Oct 31 j 13:31	29°♂31'48		evening set	605 Oct 20 j 10:07	11°♂31'21	
evening set	604 Nov 05 j 04:22	27°♂40'14		asc. node	605 Oct 25 j 07:43	5°♂50'35	
asc. node	604 Nov 07 j 10:41	25°♂23'54		inferior conj	605 Oct 25 j 20:36	5°♂06'52	0°11'07
inferior conj	604 Nov 10 j 13:49	21°♂17'30	1°03'42	minimum elong	605 Oct 25 j 20:20	5°♂07'47	0°11'01
minimum elong	604 Nov 10 j 12:23	21°♂22'27	1°03'07	transit middle	605 Oct 25 j 20:20	5°♂07'47	0°11'01

transit begin	605 Oct 25 j 18:20	5°♄14'35		evening max el	606 Sep 16 j 18:17	20°♄51'24	25°16'03
transit end	605 Oct 25 j 22:20	5°♄00'59		retrograde	606 Sep 28 j 16:51	27°♄44'56	
min. Earth dist.	605 Oct 25 j 06:16	5°♄55'26	0.67582 AU	evening set	606 Oct 04 j 12:23	25°♄18'58	
	605 Oct 30 j 01:50	30°♄		min. Earth dist.	606 Oct 09 j 00:10	20°♄18'21	0.67123 AU
morning rise	605 Oct 31 j 06:45	28°♄58'30		inferior conj	606 Oct 10 j 01:14	18°♄56'49	0°-44'-21
direct	605 Nov 04 j 04:10	27°♄32'28		minimum elong	606 Oct 10 j 02:21	18°♄53'10	0°43'54
	605 Nov 09 j 19:33	0°♄		asc. node	606 Oct 12 j 04:46	16°♄14'46	
morning max el	605 Nov 12 j 06:37	2°♄14'12	20°40'14	morning rise	606 Oct 15 j 16:55	12°♄56'05	
greatest brilliancy	605 Nov 18 j 06:50	9°♄19'03	-0.5m	direct	606 Oct 19 j 02:29	11°♄49'21	
	605 Dec 02 j 17:15	0°♄		morning max el	606 Oct 26 j 09:27	15°♄57'44	19°34'44
desc. node	605 Dec 03 j 13:21	1°♄15'48		greatest brilliancy	606 Nov 03 j 21:22	20°♄42'08	-0.6m
morning set	605 Dec 11 j 04:05	12°♄55'57			606 Nov 06 j 03:57	0°♄	
max. Earth dist.	605 Dec 20 j 08:10	27°♄27'50	1.43109 AU	morning set	606 Nov 20 j 01:59	21°♄11'45	
	605 Dec 21 j 21:39	0°♄		desc. node	606 Nov 20 j 10:23	21°♄44'15	
					606 Nov 25 j 17:54	0°♄	
superior conj	605 Dec 26 j 22:09	8°♄17'39	-1°-58'-1	max. Earth dist.	606 Dec 02 j 21:24	11°♄14'11	1.44408 AU
minimum elong	605 Dec 26 j 18:16	8°♄01'24	1°57'52				
evening rise	606 Jan 08 j 01:26	29°♄15'51		superior conj	606 Dec 06 j 21:25	17°♄37'01	-1°-35'-33
	606 Jan 08 j 11:26	0°♄		minimum elong	606 Dec 06 j 13:18	17°♄04'29	1°34'50
asc. node	606 Jan 21 j 07:02	21°♄22'25			606 Dec 14 j 12:11	0°♄	
evening max el	606 Jan 25 j 04:16	26°♄04'18	18°07'54	evening rise	606 Dec 20 j 21:38	10°♄39'07	
retrograde	606 Jan 31 j 17:15	29°♄28'40			607 Jan 01 j 14:50	0°♄	
evening set	606 Feb 03 j 10:36	28°♄52'43		asc. node	607 Jan 08 j 04:06	8°♄50'11	
inferior conj	606 Feb 09 j 21:24	23°♄44'56	3°47'11	evening max el	607 Jan 08 j 16:48	9°♄23'22	18°20'54
minimum elong	606 Feb 09 j 21:56	23°♄43'34	3°47'10	retrograde	607 Jan 15 j 04:44	12°♄55'04	
min. Earth dist.	606 Feb 12 j 19:55	20°♄47'11	0.62014 AU	evening set	607 Jan 18 j 02:48	12°♄09'02	
morning rise	606 Feb 16 j 06:56	17°♄49'22		inferior conj	607 Jan 24 j 03:50	6°♄41'17	3°44'18
direct	606 Feb 23 j 05:36	15°♄19'01		minimum elong	607 Jan 24 j 02:35	6°♄44'50	3°44'12
desc. node	606 Mar 01 j 12:32	17°♄06'28		min. Earth dist.	607 Jan 26 j 11:30	4°♄03'53	0.63884 AU
morning max el	606 Mar 09 j 07:06	23°♄11'30	27°47'48	morning rise	607 Jan 30 j 00:49	0°♄36'16	
	606 Mar 15 j 09:04	0°♄			607 Jan 30 j 19:45	30°♄	
	606 Apr 03 j 21:43	0°♄		direct	607 Feb 05 j 22:51	27°♄48'43	
morning set	606 Apr 11 j 14:37	14°♄51'41			607 Feb 12 j 16:52	0°♄	
max. Earth dist.	606 Apr 17 j 10:10	27°♄05'23	1.32583 AU	desc. node	607 Feb 16 j 09:35	2°♄40'58	
	606 Apr 18 j 18:25	0°♄		morning max el	607 Feb 19 j 15:23	5°♄39'56	27°34'36
					607 Mar 10 j 03:54	0°♄	
superior conj	606 Apr 19 j 01:45	0°♄39'55	0°-2'00	morning set	607 Mar 26 j 11:01	28°♄54'16	
minimum elong	606 Apr 19 j 01:51	0°♄40'24	0°02'00		607 Mar 27 j 00:15	0°♄	
behind sun begin	606 Apr 18 j 20:45	0°♄12'39		max. Earth dist.	607 Mar 31 j 13:34	9°♄19'14	1.33276 AU
behind sun end	606 Apr 19 j 06:57	1°♄08'09					
asc. node	606 Apr 19 j 06:19	1°♄04'44		superior conj	607 Apr 03 j 08:31	15°♄13'31	0°-29'-1
evening rise	606 Apr 26 j 01:25	15°♄47'15		minimum elong	607 Apr 03 j 09:56	15°♄21'04	0°28'44
	606 May 03 j 03:48	0°♄		asc. node	607 Apr 06 j 03:23	21°♄12'20	
evening max el	606 May 21 j 01:53	25°♄39'51	24°22'29		607 Apr 10 j 06:06	0°♄	
	606 May 26 j 12:51	0°♄		evening rise	607 Apr 10 j 13:03	0°♄36'41	
desc. node	606 May 28 j 11:46	1°♄04'46			607 Apr 27 j 06:12	0°♄	
retrograde	606 Jun 03 j 23:10	2°♄40'04		evening max el	607 May 02 j 16:45	6°♄12'11	22°46'56
evening set	606 Jun 08 j 16:27	1°♄50'19		desc. node	607 May 15 j 08:48	12°♄45'43	
	606 Jun 12 j 16:27	30°♄		retrograde	607 May 15 j 22:34	12°♄46'28	
min. Earth dist.	606 Jun 14 j 13:04	28°♄54'09	0.56747 AU	evening set	607 May 19 j 05:36	12°♄22'40	
inferior conj	606 Jun 17 j 05:39	27°♄11'55	-4°-30'-55	min. Earth dist.	607 May 27 j 01:16	8°♄56'20	0.55432 AU
minimum elong	606 Jun 17 j 00:58	27°♄19'24	4°30'20	inferior conj	607 May 28 j 11:02	8°♄07'56	-3°-27'-28
morning rise	606 Jun 25 j 13:11	23°♄08'32		minimum elong	607 May 28 j 03:34	8°♄18'40	3°25'31
direct	606 Jun 28 j 04:15	22°♄49'50		morning rise	607 Jun 06 j 04:17	4°♄15'13	
morning max el	606 Jul 07 j 15:58	27°♄14'14	19°33'12	direct	607 Jun 09 j 00:10	3°♄56'34	
	606 Jul 10 j 06:51	0°♄		morning max el	607 Jun 20 j 02:49	9°♄05'47	20°48'10
asc. node	606 Jul 16 j 05:31	8°♄28'08		asc. node	607 Jul 03 j 02:36	27°♄25'19	
morning set	606 Jul 25 j 01:36	24°♄58'42			607 Jul 04 j 11:43	0°♄	
	606 Jul 27 j 13:27	0°♄		morning set	607 Jul 09 j 08:21	9°♄39'37	
superior conj	606 Aug 02 j 03:02	11°♄08'13	1°46'43	superior conj	607 Jul 16 j 21:45	25°♄18'31	1°43'22
minimum elong	606 Aug 02 j 03:10	11°♄08'54	1°46'43	minimum elong	607 Jul 16 j 20:25	25°♄11'40	1°43'19
max. Earth dist.	606 Aug 08 j 03:55	22°♄41'49	1.37629 AU		607 Jul 19 j 05:14	0°♄	
evening rise	606 Aug 11 j 23:56	29°♄39'54		max. Earth dist.	607 Jul 21 j 12:08	4°♄32'35	1.35821 AU
	606 Aug 12 j 04:27	0°♄		evening rise	607 Jul 25 j 16:05	12°♄31'18	
desc. node	606 Aug 24 j 11:06	20°♄20'19			607 Aug 04 j 15:20	0°♄	
	606 Aug 30 j 22:59	0°♄		desc. node	607 Aug 11 j 08:07	10°♄31'04	

	607 Aug 26 j 00:01	0°♄		evening max el	608 Aug 11 j 17:56	17°♄58'15	27°06'04
evening max el	607 Aug 30 j 06:02	4°♄28'46	26°20'37	retrograde	608 Aug 25 j 00:57	25°♄16'59	
retrograde	607 Sep 11 j 23:31	11°♄39'44		evening set	608 Aug 31 j 22:18	22°♄32'38	
evening set	607 Sep 18 j 09:15	9°♄00'55		min. Earth dist.	608 Sep 04 j 19:09	18°♄46'12	0.65169 AU
min. Earth dist.	607 Sep 22 j 13:14	4°♄37'19	0.66325 AU	inferior conj	608 Sep 06 j 20:20	16°♄27'15	-2°-37'-18
inferior conj	607 Sep 24 j 01:52	2°♄45'09	-1°-41'-9	minimum elong	608 Sep 07 j 00:19	16°♄15'58	2°35'53
minimum elong	607 Sep 24 j 04:28	2°♄37'09	1°40'07	morning rise	608 Sep 13 j 03:57	10°♄50'45	
	607 Sep 26 j 10:03	30°♄		asc. node	608 Sep 14 j 22:52	10°♄16'12	
asc. node	607 Sep 29 j 01:49	27°♄32'14		direct	608 Sep 15 j 20:31	10°♄11'47	
morning rise	607 Sep 30 j 00:47	26°♄54'59		morning max el	608 Sep 22 j 09:15	13°♄43'16	18°10'30
direct	607 Oct 03 j 00:37	26°♄04'03			608 Oct 03 j 21:39	0°♄	
	607 Oct 09 j 23:18	0°♄		morning set	608 Oct 10 j 17:36	11°♄15'29	
morning max el	607 Oct 09 j 19:07	29°♄49'22	18°44'24		608 Oct 22 j 05:39	0°♄	
	607 Oct 30 j 11:36	0°♄		desc. node	608 Oct 24 j 04:27	3°♄06'50	
morning set	607 Oct 30 j 19:26	0°♄31'01					
desc. node	607 Nov 07 j 07:26	12°♄22'39		superior conj	608 Oct 25 j 04:33	4°♄42'41	0°-6'-39
max. Earth dist.	607 Nov 15 j 14:59	25°♄27'09	1.45027 AU	minimum elong	608 Oct 25 j 03:42	4°♄39'18	0°06'33
				behind sun begin	608 Oct 24 j 17:38	3°♄59'18	
superior conj	607 Nov 16 j 01:04	26°♄06'46	0°-55'-32	behind sun end	608 Oct 25 j 13:46	5°♄19'16	
minimum elong	607 Nov 15 j 18:08	25°♄39'34	0°54'43	max. Earth dist.	608 Oct 28 j 09:33	9°♄47'12	1.44909 AU
	607 Nov 18 j 12:21	0°♄			608 Nov 10 j 08:07	0°♄	
evening rise	607 Dec 01 j 18:44	21°♄04'17		evening rise	608 Nov 10 j 17:02	0°♄34'39	
	607 Dec 07 j 08:11	0°♄		greatest brilliancy	608 Nov 27 j 11:55	26°♄08'25	-0.7m
evening max el	607 Dec 23 j 03:39	22°♄48'32	18°51'57		608 Nov 30 j 06:20	0°♄	
asc. node	607 Dec 26 j 01:08	25°♄17'19		evening max el	608 Dec 05 j 10:44	6°♄16'29	19°39'40
retrograde	607 Dec 29 j 22:37	26°♄38'27		asc. node	608 Dec 11 j 22:10	10°♄28'53	
evening set	608 Jan 02 j 02:21	25°♄41'11		retrograde	608 Dec 12 j 19:37	10°♄33'22	
inferior conj	608 Jan 07 j 20:27	19°♄55'55	3°25'50	evening set	608 Dec 16 j 06:40	9°♄23'16	
minimum elong	608 Jan 07 j 18:07	20°♄03'08	3°25'24	inferior conj	608 Dec 21 j 20:07	3°♄23'21	2°55'55
min. Earth dist.	608 Jan 09 j 12:47	17°♄51'20	0.65401 AU	minimum elong	608 Dec 21 j 17:22	3°♄32'21	2°55'11
morning rise	608 Jan 13 j 08:50	13°♄44'59		min. Earth dist.	608 Dec 22 j 22:17	1°♄57'22	0.66524 AU
direct	608 Jan 19 j 22:56	10°♄54'36			608 Dec 24 j 11:21	30°♄	
morning max el	608 Feb 02 j 01:16	18°♄35'06	26°49'10	morning rise	608 Dec 27 j 03:21	27°♄09'07	
desc. node	608 Feb 03 j 06:39	19°♄50'44		direct	609 Jan 02 j 05:03	24°♄28'09	
	608 Feb 11 j 17:32	0°♄			609 Jan 12 j 15:17	0°♄	
	608 Mar 02 j 03:02	0°♄		morning max el	609 Jan 14 j 10:26	1°♄44'08	25°39'36
morning set	608 Mar 08 j 20:54	12°♄21'30		desc. node	609 Jan 20 j 03:42	8°♄08'09	
max. Earth dist.	608 Mar 13 j 06:43	20°♄59'31	1.34409 AU		609 Feb 04 j 19:37	0°♄	
				morning set	609 Feb 19 j 15:50	25°♄00'08	
superior conj	608 Mar 17 j 09:49	29°♄26'05	0°-56'-7		609 Feb 22 j 08:33	0°♄	
minimum elong	608 Mar 17 j 12:33	29°♄40'15	0°55'37	max. Earth dist.	609 Feb 23 j 11:50	2°♄09'03	1.35993 AU
	608 Mar 17 j 16:20	0°♄					
asc. node	608 Mar 23 j 00:27	11°♄12'48		superior conj	609 Mar 01 j 03:02	13°♄10'07	-1°-21'-42
evening rise	608 Mar 24 j 22:49	15°♄15'08		minimum elong	609 Mar 01 j 06:46	13°♄28'51	1°21'10
	608 Apr 01 j 11:27	0°♄		evening rise	609 Mar 09 j 04:37	29°♄36'13	
evening max el	608 Apr 13 j 14:12	16°♄58'49	21°16'21		609 Mar 09 j 09:19	0°♄	
retrograde	608 Apr 25 j 13:00	22°♄47'47		asc. node	609 Mar 09 j 21:29	1°♄01'43	
evening set	608 Apr 27 j 21:08	22°♄35'10		evening max el	609 Mar 26 j 22:48	28°♄20'56	20°00'24
desc. node	608 May 01 j 05:51	21°♄36'50			609 Mar 28 j 20:01	0°♄	
inferior conj	608 May 07 j 05:40	18°♄35'48	-1°-42'-38	retrograde	609 Apr 06 j 04:25	3°♄16'08	
minimum elong	608 May 07 j 00:53	18°♄42'32	1°40'58	evening set	609 Apr 08 j 06:16	3°♄04'52	
min. Earth dist.	608 May 07 j 14:00	18°♄24'04	0.54958 AU		609 Apr 15 j 15:01	30°♄	
morning rise	608 May 16 j 04:41	14°♄35'32		inferior conj	609 Apr 17 j 03:41	29°♄05'13	0°16'37
direct	608 May 19 j 10:16	14°♄12'52		minimum elong	609 Apr 17 j 04:26	29°♄04'06	0°16'20
morning max el	608 Jun 01 j 02:57	20°♄14'58	22°20'21	desc. node	609 Apr 18 j 02:53	28°♄30'03	
	608 Jun 09 j 06:09	0°♄		min. Earth dist.	609 Apr 19 j 04:01	27°♄52'15	0.55453 AU
asc. node	608 Jun 18 j 23:40	16°♄49'47		morning rise	609 Apr 25 j 23:40	24°♄39'14	
morning set	608 Jun 22 j 18:29	24°♄31'35		direct	609 Apr 30 j 00:52	24°♄03'10	
	608 Jun 25 j 08:48	0°♄			609 May 12 j 20:33	0°♄	
				morning max el	609 May 13 j 19:29	0°♄52'44	24°01'16
superior conj	608 Jun 30 j 00:19	9°♄52'45	1°33'39		609 Jun 02 j 14:17	0°♄	
minimum elong	608 Jun 29 j 22:07	9°♄41'10	1°33'26	asc. node	609 Jun 05 j 20:44	6°♄34'19	
max. Earth dist.	608 Jul 03 j 04:51	16°♄32'20	1.34356 AU	morning set	609 Jun 07 j 06:15	9°♄29'06	
evening rise	608 Jul 07 j 23:43	26°♄08'36					
	608 Jul 09 j 23:52	0°♄		superior conj	609 Jun 14 j 07:59	24°♄42'14	1°18'51
desc. node	608 Jul 28 j 05:09	0°♄17'14		minimum elong	609 Jun 14 j 05:31	24°♄28'54	1°18'29
	608 Jul 28 j 00:20	0°♄		max. Earth dist.	609 Jun 16 j 06:51	28°♄54'01	1.33292 AU

	609 Jun 16 j 19:13	0°☿		max. Earth dist.	610 May 30 j 15:50	11°☿35'21	1.32615 AU
evening rise	609 Jun 21 j 18:37	10°☿19'39		evening rise	610 Jun 05 j 21:18	24°☿53'20	
	609 Jul 02 j 07:47	0°☿			610 Jun 08 j 09:42	0°☿	
desc. node	609 Jul 15 j 02:10	19°☿28'14			610 Jun 25 j 23:26	0°☿	
	609 Jul 24 j 00:40	0°☿		desc. node	610 Jul 01 j 23:11	7°☿49'21	
evening max el	609 Jul 25 j 04:51	1°☿08'54	27°25'23	evening max el	610 Jul 07 j 12:21	13°☿47'20	27°13'17
retrograde	609 Aug 07 j 20:23	8°☿27'58		retrograde	610 Jul 21 j 08:57	21°☿03'29	
evening set	609 Aug 15 j 00:31	5°☿48'51		evening set	610 Jul 28 j 12:00	18°☿42'42	
min. Earth dist.	609 Aug 18 j 16:01	2°☿36'22	0.63654 AU	min. Earth dist.	610 Aug 01 j 02:28	15°☿55'44	0.61819 AU
inferior conj	609 Aug 21 j 06:05	29°☿57'46	-3°-29'-54	inferior conj	610 Aug 04 j 04:04	13°☿09'09	-4°-14'-25
minimum elong	609 Aug 21 j 10:57	29°☿45'17	3°28'30	minimum elong	610 Aug 04 j 08:43	12°☿58'35	4°13'31
	609 Aug 21 j 05:13	30°☿☿		morning rise	610 Aug 11 j 08:10	8°☿09'44	
morning rise	609 Aug 27 j 23:35	24°☿38'06		direct	610 Aug 13 j 18:10	7°☿44'44	
direct	609 Aug 30 j 11:29	24°☿07'35		asc. node	610 Aug 19 j 16:57	10°☿20'31	
asc. node	609 Sep 01 j 19:55	24°☿35'05		morning max el	610 Aug 20 j 15:48	11°☿12'58	17°56'00
morning max el	609 Sep 06 j 01:06	27°☿33'22	17°54'02		610 Sep 02 j 03:38	0°☿	
	609 Sep 08 j 05:31	0°☿		morning set	610 Sep 05 j 14:05	6°☿13'11	
morning set	609 Sep 22 j 17:51	23°☿15'31					
	609 Sep 26 j 15:33	0°☿		superior conj	610 Sep 16 j 06:18	25°☿16'25	1°13'10
superior conj	609 Oct 05 j 03:44	14°☿18'55	0°38'49	minimum elong	610 Sep 16 j 11:05	25°☿37'07	1°12'37
minimum elong	609 Oct 05 j 07:38	14°☿34'57	0°38'18		610 Sep 19 j 00:30	0°☿	
max. Earth dist.	609 Oct 11 j 02:33	23°☿58'08	1.44083 AU	max. Earth dist.	610 Sep 23 j 15:44	7°☿44'11	1.42650 AU
desc. node	609 Oct 11 j 01:27	23°☿53'43		desc. node	610 Sep 27 j 22:29	14°☿40'21	
	609 Oct 14 j 21:47	0°☿		evening rise	610 Sep 30 j 12:44	18°☿47'07	
evening rise	609 Oct 21 j 01:23	9°☿34'29			610 Oct 07 j 19:21	0°☿	
	609 Nov 03 j 14:16	0°☿		greatest brilliancy	610 Oct 27 j 14:19	27°☿50'33	-0.4m
greatest brilliancy	609 Nov 12 j 17:19	12°☿50'59	-0.5m		610 Oct 29 j 09:28	0°☿	
evening max el	609 Nov 18 j 12:35	19°☿45'19	20°41'39	evening max el	610 Nov 01 j 08:47	3°☿15'27	21°54'29
retrograde	609 Nov 26 j 17:15	24°☿35'56		retrograde	610 Nov 10 j 13:44	8°☿43'58	
asc. node	609 Nov 28 j 19:11	24°☿11'27		evening set	610 Nov 14 j 21:24	7°☿02'20	
evening set	609 Nov 30 j 13:36	23°☿10'59		asc. node	610 Nov 15 j 16:12	6°☿21'43	
inferior conj	609 Dec 06 j 00:16	16°☿59'33	2°17'19	inferior conj	610 Nov 20 j 06:53	0°☿42'43	1°32'07
minimum elong	609 Dec 05 j 21:41	17°☿08'19	2°16'28	minimum elong	610 Nov 20 j 04:56	0°☿49'29	1°31'22
min. Earth dist.	609 Dec 06 j 13:46	16°☿13'27	0.67270 AU	min. Earth dist.	610 Nov 20 j 09:01	0°☿35'20	0.67658 AU
morning rise	609 Dec 11 j 05:19	10°☿44'10			610 Nov 20 j 19:15	30°☿☿	
direct	609 Dec 16 j 16:18	8°☿21'03		morning rise	610 Nov 25 j 12:14	24°☿28'20	
morning max el	609 Dec 27 j 18:38	14°☿58'18	24°15'42	direct	610 Nov 30 j 07:54	22°☿27'23	
desc. node	610 Jan 07 j 00:42	27°☿12'59		morning max el	610 Dec 10 j 04:32	28°☿18'01	22°47'36
	610 Jan 09 j 02:05	0°☿			610 Dec 11 j 19:20	0°☿	
	610 Jan 28 j 17:47	0°☿		greatest brilliancy	610 Dec 14 j 20:12	3°☿29'58	-0.3m
morning set	610 Feb 01 j 13:51	6°☿32'28		desc. node	610 Dec 24 j 21:43	16°☿52'11	
max. Earth dist.	610 Feb 05 j 08:09	13°☿11'37	1.37958 AU		611 Jan 02 j 19:33	0°☿	
				morning set	611 Jan 13 j 08:57	16°☿44'06	
superior conj	610 Feb 12 j 08:39	26°☿15'11	-1°-43'-35	max. Earth dist.	611 Jan 18 j 03:53	24°☿46'46	1.40098 AU
minimum elong	610 Feb 12 j 12:35	26°☿34'04	1°43'13		611 Jan 21 j 04:10	0°☿	
	610 Feb 14 j 07:13	0°☿		superior conj	611 Jan 25 j 22:20	8°☿30'29	-1°-58'-37
evening rise	610 Feb 21 j 04:00	13°☿31'56		minimum elong	611 Jan 26 j 00:56	8°☿42'20	1°58'31
asc. node	610 Feb 24 j 18:31	20°☿33'04		evening rise	611 Feb 04 j 18:06	26°☿55'32	
	610 Mar 02 j 00:33	0°☿			611 Feb 06 j 09:00	0°☿	
evening max el	610 Mar 09 j 18:22	10°☿20'52	19°03'16	asc. node	611 Feb 11 j 15:32	9°☿40'58	
retrograde	610 Mar 18 j 09:13	14°☿30'31		evening max el	611 Feb 20 j 22:32	22°☿53'08	18°26'06
evening set	610 Mar 20 j 14:12	14°☿15'17		retrograde	611 Feb 28 j 09:08	26°☿33'11	
inferior conj	610 Mar 28 j 17:24	10°☿01'25	1°57'48	evening set	611 Mar 02 j 19:07	26°☿11'07	
minimum elong	610 Mar 28 j 21:24	9°☿54'28	1°56'36	inferior conj	611 Mar 10 j 04:06	21°☿36'47	3°05'08
min. Earth dist.	610 Mar 31 j 19:33	7°☿53'34	0.56802 AU	minimum elong	611 Mar 10 j 07:52	21°☿29'06	3°04'22
desc. node	610 Apr 04 j 23:54	5°☿28'48		min. Earth dist.	611 Mar 13 j 14:33	18°☿50'35	0.58707 AU
morning rise	610 Apr 06 j 00:28	5°☿02'24		morning rise	611 Mar 17 j 16:46	16°☿08'40	
direct	610 Apr 11 j 03:50	4°☿00'11		desc. node	611 Mar 22 j 20:56	14°☿33'05	
morning max el	610 Apr 25 j 10:02	11°☿21'47	25°37'46	direct	611 Mar 23 j 19:57	14°☿30'41	
	610 May 09 j 17:22	0°☿		morning max el	611 Apr 07 j 04:24	22°☿10'58	26°54'24
morning set	610 May 22 j 17:58	24°☿26'15			611 Apr 14 j 01:47	0°☿	
asc. node	610 May 23 j 17:46	26°☿32'19			611 May 02 j 13:48	0°☿	
	610 May 25 j 08:28	0°☿		morning set	611 May 07 j 04:01	9°☿17'25	
				asc. node	611 May 10 j 14:49	16°☿38'48	
superior conj	610 May 29 j 18:36	9°☿39'15	0°59'57				
minimum elong	610 May 29 j 16:22	9°☿27'00	0°59'32	superior conj	611 May 14 j 06:20	24°☿37'32	0°37'46

minimum elong	611 May 14 j 04:45	24°♄28'48	0°37'26		612 Apr 23 j 07:59	0°♄	
max. Earth dist.	611 May 14 j 04:18	24°♄26'21	1.32305 AU	asc. node	612 Apr 26 j 11:53	6°♄49'25	
	611 May 16 j 17:06	0°♄		max. Earth dist.	612 Apr 26 j 16:18	7°♄13'28	1.32362 AU
evening rise	611 May 21 j 05:09	9°♄40'45					
	611 May 31 j 18:01	0°♄		superior conj	612 Apr 27 j 17:33	9°♄31'30	0°13'04
desc. node	611 Jun 18 j 20:13	24°♄59'31		minimum elong	612 Apr 27 j 16:57	9°♄28'15	0°12'57
evening max el	611 Jun 19 j 13:42	25°♄41'58	26°28'04	behind sun begin	612 Apr 27 j 14:01	9°♄12'11	
	611 Jun 24 j 22:02	0°♄		behind sun end	612 Apr 27 j 19:53	9°♄44'18	
retrograde	611 Jul 03 j 13:29	2°♄55'21		evening rise	612 May 04 j 15:57	24°♄34'32	
evening set	611 Jul 10 j 04:08	1°♄05'36			612 May 07 j 06:33	0°♄	
	611 Jul 11 j 23:47	30°♄			612 May 25 j 04:56	0°♄	
min. Earth dist.	611 Jul 14 j 02:48	28°♄29'19	0.59783 AU	evening max el	612 May 31 j 08:04	6°♄51'33	25°14'05
inferior conj	611 Jul 17 j 10:43	25°♄51'44	-4°-43'-35	desc. node	612 Jun 04 j 17:14	10°♄30'13	
minimum elong	611 Jul 17 j 13:13	25°♄46'46	4°43'24	retrograde	612 Jun 14 j 08:31	14°♄00'08	
morning rise	611 Jul 25 j 01:39	21°♄15'13		evening set	612 Jun 19 j 21:19	12°♄49'08	
direct	611 Jul 27 j 12:12	20°♄53'43		min. Earth dist.	612 Jun 24 j 19:48	10°♄04'46	0.57765 AU
morning max el	611 Aug 04 j 02:20	24°♄33'54	18°17'28	inferior conj	612 Jun 27 j 22:42	7°♄56'38	-4°-46'-30
asc. node	611 Aug 06 j 14:00	27°♄17'31		minimum elong	612 Jun 27 j 20:54	7°♄59'46	4°46'26
	611 Aug 08 j 14:54	0°♄		morning rise	612 Jul 06 j 00:19	3°♄42'46	
morning set	611 Aug 20 j 00:40	19°♄52'02		direct	612 Jul 08 j 13:13	3°♄23'29	
	611 Aug 25 j 09:03	0°♄		morning max el	612 Jul 17 j 05:40	7°♄27'48	18°59'29
				asc. node	612 Jul 23 j 11:05	15°♄11'33	
superior conj	611 Aug 29 j 09:42	7°♄27'20	1°34'47		612 Jul 31 j 20:02	0°♄	
minimum elong	611 Aug 29 j 13:01	7°♄42'27	1°34'32	morning set	612 Aug 02 j 21:27	4°♄01'36	
max. Earth dist.	611 Sep 05 j 23:20	20°♄49'30	1.40793 AU				
evening rise	611 Sep 10 j 18:18	28°♄50'39		superior conj	612 Aug 11 j 08:23	20°♄36'28	1°45'05
	611 Sep 11 j 11:16	0°♄		minimum elong	612 Aug 11 j 09:37	20°♄42'24	1°45'03
desc. node	611 Sep 14 j 19:31	5°♄22'39			612 Aug 16 j 08:35	0°♄	
	611 Oct 01 j 09:09	0°♄		max. Earth dist.	612 Aug 18 j 02:40	3°♄10'48	1.38769 AU
greatest brilliancy	611 Oct 08 j 12:14	9°♄23'58	-0.2m	evening rise	612 Aug 22 j 00:29	10°♄03'49	
evening max el	611 Oct 15 j 00:00	16°♄46'51	23°13'40	desc. node	612 Aug 31 j 16:33	25°♄56'55	
retrograde	611 Oct 25 j 07:39	22°♄53'39			612 Sep 03 j 07:33	0°♄	
evening set	611 Oct 30 j 04:23	20°♄54'15			612 Sep 26 j 03:37	0°♄	
asc. node	611 Nov 02 j 13:14	17°♄14'55		evening max el	612 Sep 26 j 12:18	0°♄21'37	24°33'03
min. Earth dist.	611 Nov 04 j 05:39	14°♄59'19	0.67705 AU	retrograde	612 Oct 07 j 21:55	7°♄01'25	
inferior conj	611 Nov 04 j 14:07	14°♄30'14	0°41'50	evening set	612 Oct 13 j 08:55	4°♄44'35	
minimum elong	611 Nov 04 j 13:08	14°♄33'34	0°41'25		612 Oct 17 j 14:17	30°♄	
morning rise	611 Nov 09 j 21:57	8°♄19'03		min. Earth dist.	612 Oct 18 j 01:20	29°♄23'23	0.67428 AU
direct	611 Nov 14 j 02:59	6°♄40'55		inferior conj	612 Oct 18 j 20:13	28°♄20'16	0°-12'-8
morning max el	611 Nov 22 j 19:36	11°♄46'01	21°23'53	minimum elong	612 Oct 18 j 20:31	28°♄19'17	0°12'02
greatest brilliancy	611 Nov 27 j 22:59	17°♄39'08	-0.4m	transit middle	612 Oct 18 j 20:31	28°♄19'17	0°12'02
	611 Dec 07 j 00:53	0°♄		transit begin	612 Oct 18 j 18:40	28°♄25'27	
desc. node	611 Dec 11 j 18:46	6°♄55'43		transit end	612 Oct 18 j 22:22	28°♄13'07	
morning set	611 Dec 23 j 23:19	25°♄34'58		asc. node	612 Oct 19 j 10:17	27°♄33'26	
	611 Dec 26 j 17:59	0°♄		morning rise	612 Oct 24 j 08:31	22°♄14'49	
max. Earth dist.	611 Dec 31 j 05:13	7°♄15'13	1.42114 AU	direct	612 Oct 28 j 00:31	20°♄57'36	
				morning max el	612 Nov 04 j 18:03	25°♄24'15	20°10'32
superior conj	612 Jan 07 j 14:47	19°♄43'14	-2°-2'-36		612 Nov 08 j 18:39	0°♄	
minimum elong	612 Jan 07 j 13:49	19°♄39'02	2°02'36	greatest brilliancy	612 Nov 11 j 15:01	3°♄43'03	-0.6m
	612 Jan 13 j 11:07	0°♄		desc. node	612 Nov 27 j 15:49	27°♄16'38	
evening rise	612 Jan 18 j 19:17	9°♄38'59			612 Nov 29 j 10:26	0°♄	
asc. node	612 Jan 29 j 12:34	28°♄17'58		morning set	612 Dec 01 j 20:16	3°♄42'48	
	612 Jan 30 j 15:42	0°♄		max. Earth dist.	612 Dec 12 j 13:51	20°♄34'53	1.43734 AU
evening max el	612 Feb 04 j 08:17	5°♄49'51	18°08'56				
retrograde	612 Feb 11 j 02:17	9°♄16'09		superior conj	612 Dec 18 j 05:19	29°♄43'44	-1°-50'-48
evening set	612 Feb 13 j 16:54	8°♄45'42		minimum elong	612 Dec 17 j 23:17	29°♄19'01	1°50'26
inferior conj	612 Feb 20 j 10:47	3°♄49'59	3°39'34		612 Dec 18 j 09:17	0°♄	
minimum elong	612 Feb 20 j 12:34	3°♄45'45	3°39'24	evening rise	612 Dec 31 j 03:19	21°♄33'42	
min. Earth dist.	612 Feb 23 j 16:03	0°♄49'15	0.60817 AU		613 Jan 05 j 00:27	0°♄	
	612 Feb 24 j 14:39	30°♄		asc. node	613 Jan 15 j 09:37	16°♄14'30	
morning rise	612 Feb 27 j 05:16	28°♄01'48		evening max el	613 Jan 17 j 20:38	19°♄02'58	18°11'11
direct	612 Mar 04 j 23:42	25°♄47'55		retrograde	613 Jan 24 j 08:17	22°♄29'14	
desc. node	612 Mar 08 j 17:58	26°♄26'16		evening set	613 Jan 27 j 03:26	21°♄49'17	
	612 Mar 15 j 01:56	0°♄		inferior conj	613 Feb 02 j 09:44	16°♄32'59	3°48'12
morning max el	612 Mar 19 j 05:09	3°♄38'43	27°39'03	minimum elong	613 Feb 02 j 09:26	16°♄33'47	3°48'11
	612 Apr 07 j 15:32	0°♄		min. Earth dist.	613 Feb 05 j 02:19	13°♄41'28	0.62842 AU
morning set	612 Apr 20 j 10:37	23°♄56'23		morning rise	613 Feb 08 j 13:23	10°♄32'39	

direct	613 Feb 15 j 12:50	7° \approx 52'49		morning rise	614 Jan 22 j 13:48	23° \approx 30'19	
desc. node	613 Feb 23 j 15:01	10° \approx 50'17		direct	614 Jan 29 j 09:21	20° \approx 39'34	
morning max el	613 Mar 01 j 11:17	15° \approx 46'45	27°46'33	desc. node	614 Feb 10 j 12:03	27° \approx 09'14	
	613 Mar 13 j 03:40	0° \approx		morning max el	614 Feb 11 j 20:22	28° \approx 27'39	27°18'44
	613 Mar 31 j 06:27	0° \approx			614 Feb 13 j 08:07	0° \approx	
morning set	613 Apr 04 j 11:28	8° \approx 14'38			614 Mar 06 j 22:21	0° \approx	
max. Earth dist.	613 Apr 09 j 23:45	19° \approx 41'57	1.32815 AU	morning set	614 Mar 19 j 03:49	22° \approx 03'30	
					614 Mar 23 j 03:12	0° \approx	
superior conj	613 Apr 12 j 02:28	24° \approx 14'16	0°-13'-23	max. Earth dist.	614 Mar 23 j 22:56	1° \approx 41'07	1.33700 AU
minimum elong	613 Apr 12 j 03:06	24° \approx 17'43	0°13'15				
behind sun begin	613 Apr 12 j 00:12	24° \approx 02'03		superior conj	614 Mar 27 j 07:11	8° \approx 40'02	0°-40'-35
behind sun end	613 Apr 12 j 06:00	24° \approx 33'24		minimum elong	614 Mar 27 j 09:10	8° \approx 50'31	0°40'11
asc. node	613 Apr 13 j 08:56	26° \approx 59'12		asc. node	614 Mar 31 j 05:59	17° \approx 04'25	
	613 Apr 14 j 18:15	0° \approx		evening rise	614 Apr 03 j 14:49	24° \approx 12'34	
evening rise	613 Apr 19 j 03:47	9° \approx 27'05			614 Apr 06 j 10:17	0° \approx	
	613 Apr 29 j 20:08	0° \approx		evening max el	614 Apr 24 j 15:27	28° \approx 04'59	22°07'09
evening max el	613 May 12 j 22:25	17° \approx 29'38	23°42'12		614 Apr 26 j 19:07	0° \approx	
desc. node	613 May 22 j 14:17	23° \approx 44'28		retrograde	614 May 07 j 09:48	4° \approx 21'16	
retrograde	613 May 26 j 15:29	24° \approx 21'47		desc. node	614 May 09 j 11:18	4° \approx 11'46	
evening set	613 May 30 j 17:20	23° \approx 45'10		evening set	614 May 10 j 05:01	4° \approx 03'54	
min. Earth dist.	613 Jun 06 j 09:08	20° \approx 37'25	0.56094 AU	min. Earth dist.	614 May 18 j 21:27	0° \approx 20'45	0.55118 AU
inferior conj	613 Jun 08 j 14:28	19° \approx 16'52	-4°-9'-54	inferior conj	614 May 19 j 13:47	29° \approx 57'48	-2°-46'-57
minimum elong	613 Jun 08 j 08:04	19° \approx 26'36	4°08'42	minimum elong	614 May 19 j 06:47	0° \approx 07'40	2°44'49
morning rise	613 Jun 17 j 02:18	15° \approx 19'34			614 May 19 j 12:13	30° \approx	
direct	613 Jun 19 j 18:53	15° \approx 01'17		morning rise	614 May 28 j 10:11	26° \approx 04'00	
morning max el	613 Jun 29 j 23:00	19° \approx 43'50	20°02'39	direct	614 May 31 j 09:27	25° \approx 44'14	
	613 Jul 08 j 01:11	0° \approx			614 Jun 10 j 18:09	0° \approx	
asc. node	613 Jul 10 j 08:10	3° \approx 48'31		morning max el	614 Jun 12 j 04:56	1° \approx 15'59	21°25'35
morning set	613 Jul 18 j 01:15	18° \approx 32'34		asc. node	614 Jun 27 j 05:13	22° \approx 15'01	
	613 Jul 23 j 15:59	0° \approx			614 Jun 30 j 18:57	0° \approx	
				morning set	614 Jul 02 j 09:39	3° \approx 18'26	
superior conj	613 Jul 25 j 20:59	4° \approx 27'36	1°46'10				
minimum elong	613 Jul 25 j 20:25	4° \approx 24'47	1°46'10	superior conj	614 Jul 09 j 19:21	18° \approx 48'34	1°39'57
max. Earth dist.	613 Jul 31 j 07:11	15° \approx 04'07	1.36825 AU	minimum elong	614 Jul 09 j 17:35	18° \approx 39'21	1°39'49
evening rise	613 Aug 04 j 05:32	22° \approx 22'39		max. Earth dist.	614 Jul 13 j 18:49	26° \approx 56'31	1.35155 AU
	613 Aug 08 j 12:51	0° \approx			614 Jul 15 j 07:42	0° \approx	
desc. node	613 Aug 18 j 13:36	16° \approx 17'54		evening rise	614 Jul 18 j 04:49	5° \approx 34'58	
	613 Aug 28 j 02:47	0° \approx			614 Aug 01 j 06:55	0° \approx	
evening max el	613 Sep 09 j 00:00	13° \approx 59'46	25°45'23	desc. node	614 Aug 05 j 10:38	6° \approx 19'06	
retrograde	613 Sep 21 j 07:36	21° \approx 02'24		evening max el	614 Aug 22 j 12:07	27° \approx 35'42	26°42'50
evening set	613 Sep 27 j 09:10	18° \approx 30'32			614 Aug 25 j 04:13	0° \approx	
min. Earth dist.	613 Oct 01 j 17:36	13° \approx 45'12	0.66825 AU	retrograde	614 Sep 04 j 11:58	4° \approx 50'23	
inferior conj	613 Oct 02 j 23:25	12° \approx 10'21	-1°-8'-23	evening set	614 Sep 11 j 03:00	2° \approx 08'28	
minimum elong	613 Oct 03 j 01:10	12° \approx 04'47	1°07'40		614 Sep 13 j 09:17	30° \approx	
asc. node	613 Oct 06 j 07:21	8° \approx 14'39		min. Earth dist.	614 Sep 15 j 03:59	28° \approx 00'35	0.65878 AU
morning rise	613 Oct 08 j 17:58	6° \approx 13'29		inferior conj	614 Sep 16 j 21:43	25° \approx 56'45	-2°-5'-12
direct	613 Oct 11 j 23:04	5° \approx 13'57		minimum elong	614 Sep 17 j 00:57	25° \approx 07'10	2°03'58
morning max el	613 Oct 18 j 23:58	9° \approx 11'38	19°11'14	morning rise	614 Sep 23 j 00:09	20° \approx 11'44	
	613 Nov 03 j 01:46	0° \approx		asc. node	614 Sep 23 j 04:25	20° \approx 06'16	
morning set	613 Nov 11 j 00:14	12° \approx 19'34		direct	614 Sep 25 j 20:40	19° \approx 26'12	
desc. node	613 Nov 14 j 12:51	17° \approx 49'52		morning max el	614 Oct 02 j 11:46	23° \approx 04'28	18°27'51
	613 Nov 22 j 07:22	0° \approx			614 Oct 08 j 01:20	0° \approx	
max. Earth dist.	613 Nov 25 j 04:52	4° \approx 33'29	1.44759 AU	morning set	614 Oct 22 j 05:46	22° \approx 15'25	
					614 Oct 27 j 01:27	0° \approx	
superior conj	613 Nov 27 j 18:40	8° \approx 37'45	-1°-20'-23	desc. node	614 Nov 01 j 09:52	8° \approx 31'04	
minimum elong	613 Nov 27 j 10:12	8° \approx 04'13	1°19'31				
	613 Dec 11 j 00:50	0° \approx		superior conj	614 Nov 06 j 19:24	17° \approx 02'10	0°-35'-8
evening rise	613 Dec 12 j 13:56	2° \approx 32'25		minimum elong	614 Nov 06 j 14:49	16° \approx 44'06	0°34'32
	613 Dec 30 j 05:12	0° \approx		max. Earth dist.	614 Nov 07 j 23:37	18° \approx 53'05	1.45073 AU
evening max el	614 Jan 01 j 08:49	2° \approx 25'53	18°32'03		614 Nov 15 j 01:31	0° \approx	
asc. node	614 Jan 02 j 06:40	3° \approx 18'39		evening rise	614 Nov 23 j 00:53	12° \approx 32'58	
retrograde	614 Jan 07 j 22:47	6° \approx 03'52			614 Dec 04 j 03:30	0° \approx	
evening set	614 Jan 10 j 23:08	5° \approx 13'15		greatest brilliancy	614 Dec 05 j 08:00	1° \approx 49'17	-0.7m
inferior conj	614 Jan 16 j 20:55	29° \approx 38'02	3°38'03	evening max el	614 Dec 15 j 18:21	15° \approx 52'50	19°10'21
minimum elong	614 Jan 16 j 19:07	29° \approx 43'21	3°37'50	asc. node	614 Dec 20 j 03:42	19° \approx 15'37	
	614 Jan 16 j 13:28	30° \approx		retrograde	614 Dec 22 j 18:15	19° \approx 52'49	
min. Earth dist.	614 Jan 18 j 22:07	27° \approx 13'19	0.64579 AU	evening set	614 Dec 26 j 01:00	18° \approx 50'08	

inferior conj	614 Dec 31 j 16:51	12°☿58'16	3°14'17	evening set	615 Dec 10 j 06:41	2°☿35'23	
minimum elong	614 Dec 31 j 14:16	13°☿06'29	3°13'44		615 Dec 13 j 00:37	30°☿☿	
min. Earth dist.	615 Jan 02 j 02:55	11°☿09'58	0.65934 AU	inferior conj	615 Dec 15 j 18:43	26°☿29'54	2°40'26
morning rise	615 Jan 06 j 02:41	6°☿45'57		minimum elong	615 Dec 15 j 15:59	26°☿39'03	2°39'38
direct	615 Jan 12 j 12:01	3°☿58'25		min. Earth dist.	615 Dec 16 j 15:13	25°☿21'15	0.66893 AU
morning max el	615 Jan 25 j 05:57	11°☿29'20	26°21'56	morning rise	615 Dec 21 j 00:43	20°☿14'57	
desc. node	615 Jan 28 j 09:04	14°☿50'16		direct	615 Dec 26 j 20:13	17°☿41'09	
	615 Feb 09 j 01:24	0°☿		morning max el	616 Jan 07 j 14:46	24°☿41'46	25°05'01
	615 Feb 27 j 12:25	0°☿			616 Jan 12 j 09:57	0°☿	
morning set	615 Mar 02 j 07:52	5°☿11'08		desc. node	616 Jan 15 j 06:06	3°☿29'44	
max. Earth dist.	615 Mar 06 j 10:58	13°☿06'43	1.35036 AU		616 Feb 02 j 12:37	0°☿	
				morning set	616 Feb 12 j 18:40	17°☿23'17	
superior conj	615 Mar 11 j 05:21	22°☿41'08	-1°-7'-16	max. Earth dist.	616 Feb 16 j 12:01	24°☿10'36	1.36798 AU
minimum elong	615 Mar 11 j 08:34	22°☿57'37	1°06'44		616 Feb 19 j 14:04	0°☿	
	615 Mar 14 j 18:13	0°☿					
asc. node	615 Mar 18 j 03:01	7°☿00'24		superior conj	616 Feb 22 j 18:04	6°☿09'19	-1°-31'-37
evening rise	615 Mar 18 j 23:08	8°☿44'14		minimum elong	616 Feb 22 j 22:02	6°☿28'49	1°31'07
	615 Mar 30 j 11:30	0°☿		evening rise	616 Mar 02 j 02:32	22°☿55'17	
evening max el	615 Apr 06 j 17:19	9°☿04'40	20°41'50	asc. node	616 Mar 04 j 00:03	26°☿42'18	
retrograde	615 Apr 17 j 22:42	14°☿30'30			616 Mar 05 j 16:28	0°☿	
evening set	615 Apr 20 j 02:43	14°☿19'10		evening max el	616 Mar 19 j 06:37	20°☿42'11	19°33'35
desc. node	615 Apr 26 j 08:18	12°☿01'01		retrograde	616 Mar 28 j 19:00	25°☿16'54	
inferior conj	615 Apr 29 j 07:54	10°☿21'38	0°-51'-37	evening set	616 Mar 30 j 21:27	25°☿04'28	
minimum elong	615 Apr 29 j 05:28	10°☿25'08	0°50'45	inferior conj	616 Apr 08 j 11:26	20°☿59'37	1°03'13
min. Earth dist.	615 Apr 30 j 10:17	9°☿43'50	0.55056 AU	minimum elong	616 Apr 08 j 14:01	20°☿55'28	1°02'21
morning rise	615 May 08 j 06:59	6°☿12'41		min. Earth dist.	616 Apr 11 j 00:42	19°☿22'05	0.55932 AU
direct	615 May 11 j 19:54	5°☿45'42		desc. node	616 Apr 12 j 05:19	18°☿38'44	
morning max el	615 May 25 j 01:03	12°☿08'39	23°02'59	morning rise	616 Apr 17 j 02:57	16°☿19'39	
	615 Jun 07 j 09:39	0°☿		direct	616 Apr 21 j 14:39	15°☿34'21	
asc. node	615 Jun 14 j 02:16	12°☿31'51		morning max el	616 May 05 j 16:08	22°☿39'26	24°44'00
morning set	615 Jun 16 j 20:41	18°☿13'34			616 May 12 j 04:24	0°☿	
	615 Jun 22 j 09:07	0°☿			616 May 29 j 19:52	0°☿	
				asc. node	616 May 30 j 23:18	2°☿22'42	
superior conj	615 Jun 24 j 00:21	3°☿30'04	1°27'56	morning set	616 May 31 j 08:37	3°☿11'36	
minimum elong	615 Jun 23 j 21:59	3°☿17'23	1°27'39				
max. Earth dist.	615 Jun 26 j 15:53	9°☿06'21	1.33854 AU	superior conj	616 Jun 07 j 09:30	18°☿23'27	1°11'17
evening rise	615 Jul 01 j 17:41	19°☿27'53		minimum elong	616 Jun 07 j 07:04	18°☿10'15	1°10'53
	615 Jul 07 j 06:25	0°☿		max. Earth dist.	616 Jun 08 j 21:13	21°☿37'05	1.32949 AU
desc. node	615 Jul 23 j 07:39	25°☿51'58			616 Jun 12 j 19:47	0°☿	
	615 Jul 26 j 09:07	0°☿		evening rise	616 Jun 14 j 16:13	3°☿49'16	
evening max el	615 Aug 04 j 23:54	10°☿59'11	27°17'52		616 Jun 29 j 00:16	0°☿	
retrograde	615 Aug 18 j 10:41	18°☿18'01		desc. node	616 Jul 09 j 04:40	14°☿43'51	
evening set	615 Aug 25 j 11:51	15°☿34'23		evening max el	616 Jul 17 j 09:27	23°☿56'42	27°24'15
min. Earth dist.	615 Aug 29 j 06:08	12°☿03'15	0.64569 AU		616 Jul 25 j 19:21	0°☿	
inferior conj	615 Aug 31 j 12:49	9°☿34'59	-3°00'-15	retrograde	616 Jul 31 j 03:22	1°☿15'12	
minimum elong	615 Aug 31 j 17:17	9°☿22'53	2°58'48		616 Aug 05 j 04:29	30°☿☿	
morning rise	615 Sep 07 j 00:31	4°☿05'18		evening set	616 Aug 07 j 08:20	28°☿41'46	
direct	615 Sep 09 j 14:54	3°☿30'12		min. Earth dist.	616 Aug 10 j 22:27	25°☿41'57	0.62906 AU
asc. node	615 Sep 10 j 01:26	3°☿31'13		inferior conj	616 Aug 13 j 17:56	22°☿57'53	-3°-50'-7
morning max el	615 Sep 16 j 03:00	6°☿57'54	18°01'24	minimum elong	616 Aug 13 j 22:54	22°☿45'48	3°48'54
	615 Oct 01 j 12:52	0°☿		morning rise	616 Aug 20 j 15:55	17°☿46'48	
morning set	615 Oct 03 j 15:49	3°☿35'00		direct	616 Aug 23 j 02:40	17°☿19'00	
				asc. node	616 Aug 26 j 22:29	18°☿28'17	
superior conj	615 Oct 17 j 05:32	25°☿59'16	0°13'41	morning max el	616 Aug 29 j 18:48	20°☿44'38	17°52'40
minimum elong	615 Oct 17 j 07:08	26°☿05'46	0°13'27		616 Sep 05 j 17:38	0°☿	
behind sun begin	615 Oct 17 j 01:14	25°☿42'01		morning set	616 Sep 15 j 01:17	16°☿01'12	
behind sun end	615 Oct 17 j 13:03	26°☿29'29			616 Sep 23 j 01:06	0°☿	
desc. node	615 Oct 19 j 06:56	29°☿17'10					
	615 Oct 19 j 17:40	0°☿		superior conj	616 Sep 26 j 16:14	6°☿09'55	0°54'56
max. Earth dist.	615 Oct 21 j 18:31	3°☿14'03	1.44645 AU	minimum elong	616 Sep 26 j 20:56	6°☿29'37	0°54'20
evening rise	615 Nov 02 j 15:48	21°☿47'13		max. Earth dist.	616 Oct 03 j 09:59	17°☿15'37	1.43534 AU
	615 Nov 08 j 00:07	0°☿		desc. node	616 Oct 05 j 03:58	20°☿04'18	
greatest brilliancy	615 Nov 22 j 02:02	20°☿50'50	-0.6m		616 Oct 11 j 11:11	0°☿	
evening max el	615 Nov 28 j 23:20	29°☿21'19	20°04'19	evening rise	616 Oct 11 j 23:06	0°☿46'15	
	615 Nov 29 j 14:45	0°☿			616 Oct 31 j 16:01	0°☿	
retrograde	615 Dec 06 j 15:51	3°☿51'46		greatest brilliancy	616 Nov 05 j 16:49	6°☿44'06	-0.4m
asc. node	615 Dec 07 j 00:42	3°☿51'00		evening max el	616 Nov 10 j 22:40	12°☿50'14	21°11'27

retrograde	616 Nov 19 j 13:24	17°♂57'13		617 Oct 28 j 21:34	0°♂	
asc. node	616 Nov 22 j 21:43	16°♂54'21		retrograde	617 Nov 03 j 08:59	2°♂05'50
evening set	616 Nov 23 j 14:15	16°♂25'23		evening set	617 Nov 07 j 21:54	0°♂16'58
inferior conj	616 Nov 29 j 00:12	10°♂09'46	1°58'54		617 Nov 08 j 05:58	30°♂
minimum elong	616 Nov 28 j 21:51	10°♂17'53	1°58'03	asc. node	617 Nov 09 j 18:46	28°♂28'13
min. Earth dist.	616 Nov 29 j 08:43	9°♂40'25	0.67474 AU	inferior conj	617 Nov 13 j 07:20	23°♂55'00 1°11'23
morning rise	616 Dec 04 j 05:05	3°♂54'20		minimum elong	617 Nov 13 j 05:45	24°♂00'28 1°10'44
direct	616 Dec 09 j 09:26	1°♂40'27		min. Earth dist.	617 Nov 13 j 04:58	24°♂03'09 0.67713 AU
morning max el	616 Dec 19 j 23:30	7°♂59'03	23°38'11	morning rise	617 Nov 18 j 13:27	17°♂41'26
desc. node	617 Jan 01 j 03:10	22°♂50'52		direct	617 Nov 23 j 02:45	15°♂50'05
	617 Jan 06 j 04:39	0°♂		morning max el	617 Dec 02 j 11:05	21°♂21'13 22°11'00
morning set	617 Jan 24 j 06:04	28°♂23'53		greatest brilliancy	617 Dec 07 j 02:53	26°♂35'27 -0.3m
	617 Jan 25 j 04:37	0°♂			617 Dec 09 j 19:49	0°♂
max. Earth dist.	617 Jan 28 j 07:01	5°♂22'51	1.38860 AU	desc. node	617 Dec 19 j 00:13	12°♂41'20
					617 Dec 30 j 11:55	0°♂
superior conj	617 Feb 04 j 17:35	18°♂55'04	-1°-51'-2	morning set	618 Jan 04 j 12:38	7°♂59'35
minimum elong	617 Feb 04 j 21:11	19°♂12'01	1°50'46	max. Earth dist.	618 Jan 10 j 04:04	17°♂17'18 1.40984 AU
	617 Feb 10 j 12:30	0°♂				
evening rise	617 Feb 13 j 22:27	6°♂38'53		superior conj	618 Jan 17 j 22:58	0°♂45'38 -2°-1'-57
asc. node	617 Feb 18 j 21:05	16°♂04'51		minimum elong	618 Jan 18 j 00:20	0°♂51'44 2°01'56
	617 Feb 27 j 14:21	0°♂			618 Jan 17 j 12:42	0°♂
evening max el	617 Mar 02 j 06:17	2°♂57'30	18°45'01	evening rise	618 Jan 28 j 07:33	19°♂46'19
retrograde	617 Mar 10 j 07:53	6°♂52'40			618 Feb 02 j 20:50	0°♂
evening set	617 Mar 12 j 14:47	6°♂34'57		asc. node	618 Feb 05 j 18:07	5°♂00'42
inferior conj	617 Mar 20 j 10:02	2°♂13'02	2°30'40	evening max el	618 Feb 13 j 13:19	15°♂41'49 18°16'25
minimum elong	617 Mar 20 j 14:17	2°♂05'08	2°29'34	retrograde	618 Feb 20 j 15:21	19°♂13'46
	617 Mar 23 j 09:56	30°♂		evening set	618 Feb 23 j 03:27	18°♂48'15
min. Earth dist.	617 Mar 23 j 17:49	29°♂45'57	0.57558 AU	inferior conj	618 Mar 02 j 05:36	14°♂05'06 3°23'20
morning rise	617 Mar 28 j 09:30	27°♂00'15		minimum elong	618 Mar 02 j 08:38	13°♂58'32 3°22'51
desc. node	617 Mar 30 j 02:20	26°♂20'54		min. Earth dist.	618 Mar 05 j 15:20	11°♂09'28 0.59603 AU
direct	617 Apr 02 j 23:40	25°♂43'24		morning rise	618 Mar 09 j 10:17	8°♂27'32
	617 Apr 13 j 14:04	0°♂		direct	618 Mar 15 j 21:28	6°♂33'16
morning max el	617 Apr 17 j 08:00	3°♂15'17	26°13'38	desc. node	618 Mar 16 j 23:23	6°♂36'23
	617 May 06 j 12:47	0°♂		morning max el	618 Mar 30 j 04:48	14°♂18'53 27°17'38
morning set	617 May 15 j 19:51	18°♂07'13			618 Apr 11 j 19:01	0°♂
asc. node	617 May 17 j 20:22	22°♂25'09			618 Apr 28 j 18:59	0°♂
	617 May 21 j 08:00	0°♂		morning set	618 Apr 30 j 04:40	2°♂53'33
				asc. node	618 May 04 j 17:26	12°♂33'38
superior conj	617 May 22 j 20:51	3°♂22'12	0°50'54			
minimum elong	617 May 22 j 18:50	3°♂11'10	0°50'31	superior conj	618 May 07 j 08:35	18°♂19'14 0°27'33
max. Earth dist.	617 May 23 j 07:59	4°♂23'17	1.32432 AU	minimum elong	618 May 07 j 07:23	18°♂12'37 0°27'19
evening rise	617 May 29 j 21:25	18°♂29'56		max. Earth dist.	618 May 06 j 20:35	17°♂13'20 1.32286 AU
	617 Jun 04 j 15:40	0°♂			618 May 12 j 17:03	0°♂
	617 Jun 23 j 19:26	0°♂		evening rise	618 May 14 j 06:47	3°♂20'48
desc. node	617 Jun 26 j 01:40	2°♂37'43			618 May 28 j 14:32	0°♂
evening max el	617 Jun 29 j 14:27	6°♂16'55	26°58'01	evening max el	618 Jun 11 j 12:58	17°♂52'11 25°59'42
retrograde	617 Jul 13 j 13:01	13°♂32'45		desc. node	618 Jun 12 j 22:41	19°♂09'21
evening set	617 Jul 20 j 12:12	11°♂23'39		retrograde	618 Jun 25 j 13:48	25°♂03'45
min. Earth dist.	617 Jul 24 j 04:35	8°♂43'16	0.60964 AU	evening set	618 Jul 01 j 18:48	23°♂30'34
inferior conj	617 Jul 27 j 09:50	5°♂57'53	-4°-29'-15	min. Earth dist.	618 Jul 06 j 01:38	20°♂52'44 0.58903 AU
minimum elong	617 Jul 27 j 13:51	5°♂49'14	4°28'40	inferior conj	618 Jul 09 j 08:55	18°♂25'27 -4°-48'-52
morning rise	617 Aug 03 j 18:35	1°♂08'06		minimum elong	618 Jul 09 j 09:50	18°♂23'46 4°48'52
direct	617 Aug 06 j 04:21	0°♂44'57		morning rise	618 Jul 17 j 04:23	13°♂58'28
morning max el	617 Aug 13 j 08:07	4°♂17'16	18°02'39	direct	618 Jul 19 j 15:43	13°♂38'02
asc. node	617 Aug 13 j 19:33	4°♂45'46		morning max el	618 Jul 27 j 15:54	17°♂27'17 18°32'43
morning set	617 Aug 29 j 04:10	29°♂17'18		asc. node	618 Jul 31 j 16:38	22°♂08'28
	617 Aug 29 j 13:22	0°♂			618 Aug 05 j 17:25	0°♂
				morning set	618 Aug 12 j 19:33	13°♂10'20
superior conj	617 Sep 08 j 05:54	17°♂39'44	1°23'50			
minimum elong	617 Sep 08 j 10:14	17°♂58'54	1°23'24	superior conj	618 Aug 21 j 18:10	0°♂16'52 1°40'25
	617 Sep 15 j 09:56	0°♂		minimum elong	618 Aug 21 j 20:37	0°♂28'14 1°40'17
max. Earth dist.	617 Sep 15 j 20:08	0°♂42'37	1.41895 AU		618 Aug 21 j 14:33	0°♂
evening rise	617 Sep 21 j 16:41	10°♂16'06		max. Earth dist.	618 Aug 29 j 01:36	13°♂28'43 1.39939 AU
desc. node	617 Sep 22 j 01:00	10°♂49'17		evening rise	618 Sep 02 j 08:35	20°♂48'48
	617 Oct 04 j 13:47	0°♂			618 Sep 07 j 23:39	0°♂
greatest brilliancy	617 Oct 19 j 22:08	20°♂59'16	-0.3m	desc. node	618 Sep 08 j 22:02	1°♂28'38
evening max el	617 Oct 24 j 16:33	26°♂20'22	22°27'49		618 Sep 28 j 17:16	0°♂

evening max el	618 Oct 07 j 06:27	9°♄53'46	23°47'56		619 Aug 13 j 15:05	0°♄	
retrograde	618 Oct 18 j 01:22	16°♄15'01		evening rise	619 Aug 15 j 00:55	2°♄30'28	
evening set	618 Oct 23 j 04:02	14°♄08'16		desc. node	619 Aug 26 j 19:03	21°♄57'41	
asc. node	618 Oct 27 j 15:50	9°♄00'08			619 Sep 01 j 03:15	0°♄	
min. Earth dist.	618 Oct 28 j 01:29	8°♄27'26	0.67626 AU	evening max el	619 Sep 19 j 18:17	23°♄30'02	25°05'10
inferior conj	618 Oct 28 j 14:18	7°♄43'52	0°19'21		619 Sep 29 j 06:00	0°♄	
minimum elong	618 Oct 28 j 13:50	7°♄45'27	0°19'09	retrograde	619 Oct 01 j 13:33	0°♄20'16	
morning rise	618 Nov 02 j 23:47	1°♄34'46			619 Oct 03 j 18:21	30°♄	
direct	618 Nov 06 j 23:10	0°♄05'36		evening set	619 Oct 07 j 06:56	27°♄56'29	
morning max el	618 Nov 15 j 05:01	4°♄52'56	20°51'10	min. Earth dist.	619 Oct 11 j 19:53	22°♄50'34	0.67215 AU
greatest brilliancy	618 Nov 20 j 22:56	11°♄35'50	-0.5m	inferior conj	619 Oct 12 j 19:21	21°♄33'39	0°-35'-49
	618 Dec 03 j 23:01	0°♄		minimum elong	619 Oct 12 j 20:15	21°♄30'42	0°35'27
desc. node	618 Dec 05 j 21:17	2°♄53'07		asc. node	619 Oct 14 j 12:54	19°♄20'36	
morning set	618 Dec 14 j 17:11	16°♄24'26		morning rise	619 Oct 18 j 10:06	15°♄31'42	
	618 Dec 23 j 06:22	0°♄		direct	619 Oct 21 j 21:16	14°♄22'25	
max. Earth dist.	618 Dec 23 j 08:47	0°♄09'50	1.42869 AU	morning max el	619 Oct 29 j 06:45	18°♄35'04	19°43'32
				greatest brilliancy	619 Nov 06 j 06:29	28°♄33'16	-0.6m
superior conj	618 Dec 30 j 04:53	11°♄28'52	-1°-59'-47		619 Nov 07 j 06:58	0°♄	
minimum elong	618 Dec 30 j 01:48	11°♄15'50	1°59'42	desc. node	619 Nov 22 j 18:18	23°♄19'32	
	619 Jan 09 j 20:46	0°♄		morning set	619 Nov 23 j 13:57	24°♄35'27	
evening rise	619 Jan 11 j 02:00	2°♄10'01			619 Nov 27 j 01:39	0°♄	
asc. node	619 Jan 23 j 15:09	23°♄21'44		max. Earth dist.	619 Dec 05 j 20:54	13°♄49'38	1.44255 AU
evening max el	619 Jan 28 j 00:36	28°♄46'40	18°07'30				
	619 Jan 29 j 09:01	0°♄		superior conj	619 Dec 10 j 07:56	20°♄57'55	-1°-40'-9
retrograde	619 Feb 03 j 14:32	2°♄11'03		minimum elong	619 Dec 10 j 00:13	20°♄26'47	1°39'32
evening set	619 Feb 06 j 07:11	1°♄36'31			619 Dec 15 j 20:56	0°♄	
	619 Feb 08 j 23:41	30°♄		evening rise	619 Dec 24 j 01:21	13°♄41'20	
inferior conj	619 Feb 12 j 19:42	26°♄31'41	3°45'53		620 Jan 02 j 18:56	0°♄	
minimum elong	619 Feb 12 j 20:33	26°♄29'33	3°45'50	asc. node	620 Jan 10 j 12:11	10°♄57'15	
min. Earth dist.	619 Feb 15 j 20:05	23°♄32'34	0.61713 AU	evening max el	620 Jan 11 j 13:07	12°♄04'00	18°17'47
morning rise	619 Feb 19 j 07:27	20°♄37'51		retrograde	620 Jan 18 j 00:46	15°♄34'05	
direct	619 Feb 26 j 05:20	18°♄11'29		evening set	620 Jan 20 j 22:01	14°♄49'41	
desc. node	619 Mar 03 j 20:26	19°♄37'34		inferior conj	620 Jan 27 j 00:19	9°♄24'46	3°45'50
morning max el	619 Mar 12 j 07:56	26°♄03'25	27°46'44	minimum elong	620 Jan 26 j 23:17	9°♄27'37	3°45'46
	619 Mar 16 j 00:18	0°♄		min. Earth dist.	620 Jan 29 j 10:19	6°♄43'15	0.63621 AU
	619 Apr 05 j 06:54	0°♄		morning rise	620 Feb 01 j 22:53	3°♄20'44	
morning set	619 Apr 14 j 09:06	17°♄24'11		direct	620 Feb 08 j 21:28	0°♄34'47	
	619 Apr 20 j 08:18	0°♄		desc. node	620 Feb 18 j 17:29	4°♄54'37	
max. Earth dist.	619 Apr 20 j 07:15	29°♄54'19	1.32515 AU	morning max el	620 Feb 22 j 15:50	8°♄27'11	27°38'52
					620 Mar 10 j 08:37	0°♄	
superior conj	619 Apr 21 j 19:02	3°♄08'47	0°02'01		620 Mar 27 j 12:17	0°♄	
minimum elong	619 Apr 21 j 18:57	3°♄08'16	0°02'00	morning set	620 Mar 28 j 06:46	1°♄31'30	
behind sun begin	619 Apr 21 j 13:52	2°♄40'36		max. Earth dist.	620 Apr 02 j 11:55	12°♄13'00	1.33140 AU
behind sun end	619 Apr 22 j 00:01	3°♄35'57					
asc. node	619 Apr 21 j 14:29	2°♄43'58		superior conj	620 Apr 05 j 02:26	17°♄45'11	0°-24'-52
evening rise	619 Apr 28 j 18:16	18°♄14'46		minimum elong	620 Apr 05 j 03:38	17°♄51'40	0°24'38
	619 May 04 j 13:26	0°♄		asc. node	620 Apr 07 j 11:31	22°♄52'19	
evening max el	619 May 24 j 05:08	28°♄45'32	24°36'15		620 Apr 10 j 19:05	0°♄	
	619 May 25 j 13:27	0°♄		evening rise	620 Apr 12 j 06:02	3°♄05'27	
desc. node	619 May 30 j 19:42	3°♄46'25			620 Apr 27 j 02:11	0°♄	
retrograde	619 Jun 07 j 03:24	5°♄48'14		evening max el	620 May 04 j 19:34	9°♄18'20	23°01'11
evening set	619 Jun 12 j 02:03	4°♄53'12		desc. node	620 May 16 j 16:43	15°♄53'04	
min. Earth dist.	619 Jun 17 j 16:23	2°♄00'38	0.56995 AU	retrograde	620 May 18 j 04:52	15°♄58'13	
inferior conj	619 Jun 20 j 12:14	0°♄11'14	-4°-36'-32	evening set	620 May 21 j 16:31	15°♄31'34	
minimum elong	619 Jun 20 j 08:16	0°♄17'40	4°36'06	min. Earth dist.	620 May 29 j 04:47	12°♄10'26	0.55577 AU
	619 Jun 20 j 19:10	30°♄		inferior conj	620 May 30 j 20:08	11°♄13'20	-3°-40'-9
morning rise	619 Jun 28 j 18:15	26°♄05'26		minimum elong	620 May 30 j 12:46	11°♄24'04	3°38'22
direct	619 Jul 01 j 08:47	25°♄46'35		morning rise	620 Jun 08 j 12:04	7°♄20'04	
morning max el	619 Jul 10 j 15:08	0°♄05'11	19°23'50	direct	620 Jun 11 j 06:56	7°♄01'40	
	619 Jul 10 j 12:54	0°♄		morning max el	620 Jun 22 j 03:45	12°♄03'33	20°35'47
asc. node	619 Jul 18 j 13:43	10°♄21'47		asc. node	620 Jul 04 j 10:46	29°♄13'54	
morning set	619 Jul 27 j 19:40	27°♄29'47			620 Jul 04 j 20:54	0°♄	
	619 Jul 29 j 01:41	0°♄		morning set	620 Jul 11 j 01:42	12°♄08'18	
superior conj	619 Aug 04 j 23:20	13°♄45'08	1°46'33	superior conj	620 Jul 18 j 16:36	27°♄50'56	1°44'20
minimum elong	619 Aug 04 j 23:45	13°♄47'08	1°46'33	minimum elong	620 Jul 18 j 15:26	27°♄45'04	1°44'17
max. Earth dist.	619 Aug 11 j 05:11	25°♄37'02	1.37918 AU		620 Jul 19 j 18:03	0°♄	

max. Earth dist.	620 Jul 23 j 12:09	7°Ω27'04	1.36070 AU	evening rise	621 Jul 10 j 19:57	28°Ω44'52	
evening rise	620 Jul 27 j 14:21	15°Ω13'47			621 Jul 11 j 11:32	0°Ω	
	620 Aug 04 j 23:44	0°Π			621 Jul 29 j 03:51	0°Π	
desc. node	620 Aug 12 j 16:04	12°Π11'12		desc. node	621 Jul 30 j 13:06	2°Π01'25	
	620 Aug 25 j 17:42	0°Ω		evening max el	621 Aug 14 j 17:54	20°Π38'43	27°00'49
evening max el	620 Sep 01 j 05:54	7°Ω07'18	26°11'58	retrograde	621 Aug 27 j 23:19	27°Π56'48	
retrograde	620 Sep 13 j 21:04	14°Ω16'40		evening set	621 Sep 03 j 19:06	25°Π12'50	
evening set	620 Sep 20 j 04:43	11°Ω39'22		min. Earth dist.	621 Sep 07 j 17:01	21°Π20'47	0.65363 AU
min. Earth dist.	620 Sep 24 j 09:48	7°Ω10'07	0.66469 AU	inferior conj	621 Sep 09 j 16:13	19°Π05'35	-2°-28'-58
inferior conj	620 Sep 25 j 20:41	5°Ω22'11	-1°-32'-34	minimum elong	621 Sep 09 j 20:01	18°Π54'41	2°27'35
minimum elong	620 Sep 25 j 23:04	5°Ω14'48	1°31'36	morning rise	621 Sep 15 j 22:27	13°Π26'41	
asc. node	620 Sep 30 j 09:57	0°Ω26'47		asc. node	621 Sep 17 j 07:00	12°Π56'28	
	620 Oct 01 j 00:00	30°RΠ		direct	621 Sep 18 j 15:55	12°Π46'10	
morning rise	620 Oct 01 j 18:26	29°Π30'15		morning max el	621 Sep 25 j 05:06	16°Π19'17	18°14'25
direct	620 Oct 04 j 19:31	28°Π37'17			621 Oct 05 j 03:46	0°Ω	
	620 Oct 08 j 18:43	0°Ω		morning set	621 Oct 13 j 21:20	14°Ω14'14	
morning max el	620 Oct 11 j 15:30	2°Ω25'33	18°50'46		621 Oct 23 j 14:15	0°Π	
	620 Oct 30 j 19:08	0°Π		desc. node	621 Oct 26 j 12:22	4°Π39'55	
morning set	620 Nov 02 j 03:22	3°Π41'56					
desc. node	620 Nov 08 j 15:19	13°Π56'18		superior conj	621 Oct 28 j 15:34	8°Π03'03	0°-14'-5
max. Earth dist.	620 Nov 17 j 13:42	27°Π58'22	1.44981 AU	minimum elong	621 Oct 28 j 13:45	7°Π55'50	0°13'51
				behind sun begin	621 Oct 28 j 07:55	7°Π32'45	
superior conj	620 Nov 18 j 13:26	29°Π31'42	-1°-2'-27	behind sun end	621 Oct 28 j 19:35	8°Π18'54	
minimum elong	620 Nov 18 j 05:54	29°Π02'03	1°01'33	max. Earth dist.	621 Oct 31 j 08:20	12°Π18'37	1.44975 AU
	620 Nov 18 j 20:37	0°♂			621 Nov 11 j 15:42	0°♂	
evening rise	620 Dec 04 j 01:53	24°♂14'29		evening rise	621 Nov 14 j 03:18	3°♂52'16	
	620 Dec 07 j 15:23	0°♂		greatest brilliancy	621 Nov 29 j 22:19	28°♂05'08	-0.7m
evening max el	620 Dec 25 j 00:19	25°♂28'09	18°46'18		621 Dec 01 j 06:15	0°♂	
asc. node	620 Dec 27 j 09:13	27°♂34'11		evening max el	621 Dec 08 j 08:06	8°♂56'00	19°31'37
retrograde	620 Dec 31 j 17:50	29°♂14'48		asc. node	621 Dec 14 j 06:15	12°♂58'08	
evening set	621 Jan 03 j 20:37	28°♂19'22		retrograde	621 Dec 15 j 14:28	13°♂08'10	
inferior conj	621 Jan 09 j 15:35	22°♂36'40	3°29'24	evening set	621 Dec 19 j 00:20	12°♂00'04	
minimum elong	621 Jan 09 j 13:22	22°♂43'27	3°29'03	inferior conj	621 Dec 24 j 14:21	6°♂02'16	3°01'00
min. Earth dist.	621 Jan 11 j 10:14	20°♂26'30	0.65196 AU	minimum elong	621 Dec 24 j 11:38	6°♂11'07	3°00'20
morning rise	621 Jan 15 j 05:00	16°♂26'25		min. Earth dist.	621 Dec 25 j 18:33	4°♂30'20	0.66386 AU
direct	621 Jan 21 j 20:40	13°♂35'26		morning rise	621 Dec 29 j 22:10	29°♂48'28	
morning max el	621 Feb 04 j 01:33	21°♂18'43	26°57'42		621 Dec 29 j 17:07	30°R♂	
desc. node	621 Feb 04 j 14:30	21°♂51'34		direct	622 Jan 05 j 01:59	27°♂05'23	
	621 Feb 11 j 15:24	0°≈			622 Jan 12 j 09:21	0°♂	
	621 Mar 03 j 12:12	0°♂		morning max el	622 Jan 17 j 10:45	4°♂25'41	25°51'04
morning set	621 Mar 11 j 18:25	15°♂04'30		desc. node	622 Jan 22 j 11:31	9°♂59'52	
max. Earth dist.	621 Mar 16 j 06:37	23°♂57'43	1.34206 AU		622 Feb 06 j 01:25	0°≈	
	621 Mar 19 j 05:22	0°Υ		morning set	622 Feb 22 j 15:50	27°≈50'35	
					622 Feb 23 j 19:47	0°♂	
superior conj	621 Mar 20 j 04:39	2°Υ01'07	0°-52'-3	max. Earth dist.	622 Feb 26 j 13:16	5°♂09'35	1.35731 AU
minimum elong	621 Mar 20 j 07:11	2°Υ14'22	0°51'35				
asc. node	621 Mar 25 j 08:32	12°Υ53'54		superior conj	622 Mar 03 j 23:13	15°♂49'26	-1°-18'-1
evening rise	621 Mar 27 j 16:08	17°Υ45'35		minimum elong	622 Mar 04 j 02:50	16°♂07'41	1°17'28
	621 Apr 02 j 19:34	0°♂			622 Mar 10 j 21:24	0°Υ	
evening max el	621 Apr 16 j 15:41	20°♂01'13	21°29'10	evening rise	622 Mar 11 j 22:37	2°Υ09'04	
retrograde	621 Apr 28 j 20:06	25°♂57'43		asc. node	622 Mar 12 j 05:34	2°Υ44'28	
evening set	621 May 01 j 06:27	25°♂44'17			622 Mar 28 j 16:20	0°♂	
desc. node	621 May 03 j 13:45	25°♂08'28		evening max el	622 Mar 29 j 22:31	1°♂16'56	20°10'36
inferior conj	621 May 10 j 15:34	21°♂43'41	-2°00'-18	retrograde	622 Apr 09 j 10:14	6°♂19'42	
minimum elong	621 May 10 j 10:03	21°♂51'25	1°58'28	evening set	622 Apr 11 j 12:19	6°♂08'36	
min. Earth dist.	621 May 10 j 17:28	21°♂41'00	0.54968 AU	desc. node	622 Apr 20 j 10:44	2°♂12'02	
morning rise	621 May 19 j 14:07	17°♂45'37		inferior conj	622 Apr 20 j 12:03	2°♂10'04	0°00'-56
direct	621 May 22 j 17:45	17°♂23'56		minimum elong	622 Apr 20 j 12:01	2°♂10'08	0°00'56
morning max el	621 Jun 04 j 05:19	23°♂18'25	22°05'43	transit middle	622 Apr 20 j 12:01	2°♂10'08	0°00'56
	621 Jun 10 j 03:17	0°Π		transit begin	622 Apr 20 j 08:00	2°♂16'06	
asc. node	621 Jun 21 j 07:48	18°Π34'22		transit end	622 Apr 20 j 16:01	2°♂04'10	
morning set	621 Jun 25 j 11:25	26°Π58'30		min. Earth dist.	622 Apr 22 j 07:08	1°♂06'05	0.55323 AU
	621 Jun 26 j 22:03	0°♂			622 Apr 24 j 05:43	30°RΥ	
				morning rise	622 Apr 29 j 09:10	27°Υ48'53	
superior conj	621 Jul 02 j 18:09	12°♂21'47	1°35'30	direct	622 May 03 j 07:01	27°Υ15'29	
minimum elong	621 Jul 02 j 16:02	12°♂10'44	1°35'17		622 May 11 j 21:31	0°♂	
max. Earth dist.	621 Jul 06 j 03:22	19°♂23'43	1.34553 AU	morning max el	622 May 16 j 22:29	3°♂58'32	23°46'09

	622 Jun 04 j 00:33	0°♊			623 May 10 j 20:44	0°♋	
asc. node	622 Jun 08 j 04:51	8°♊15'52		morning set	623 May 25 j 10:53	26°♋52'51	
morning set	622 Jun 09 j 23:01	11°♊55'06		asc. node	623 May 26 j 01:55	28°♋12'16	
					623 May 26 j 22:07	0°♊	
superior conj	622 Jun 17 j 01:10	27°♊08'57	1°21'23				
minimum elong	622 Jun 16 j 22:43	26°♊55'42	1°21'02	superior conj	623 Jun 01 j 11:29	12°♊05'18	1°03'02
	622 Jun 18 j 09:02	0°♋		minimum elong	623 Jun 01 j 09:11	11°♊52'43	1°02'39
max. Earth dist.	622 Jun 19 j 04:10	1°♋42'00	1.33428 AU	max. Earth dist.	623 Jun 02 j 12:27	14°♊21'33	1.32687 AU
evening rise	622 Jun 24 j 13:23	12°♋51'14		evening rise	623 Jun 08 j 15:07	27°♊22'10	
	622 Jul 03 j 16:29	0°♌			623 Jun 09 j 22:01	0°♋	
desc. node	622 Jul 17 j 10:07	21°♌18'17			623 Jun 27 j 00:46	0°♌	
	622 Jul 24 j 11:00	0°♍		desc. node	623 Jul 04 j 07:06	9°♌48'09	
evening max el	622 Jul 28 j 05:11	3°♍53'09	27°24'26	evening max el	623 Jul 10 j 13:23	16°♌37'21	27°17'12
retrograde	622 Aug 10 j 19:36	11°♍12'01		retrograde	623 Jul 24 j 09:12	23°♌53'52	
evening set	622 Aug 17 j 23:09	8°♍31'28		evening set	623 Jul 31 j 13:10	21°♌29'18	
min. Earth dist.	622 Aug 21 j 15:19	5°♍14'17	0.63900 AU	min. Earth dist.	623 Aug 04 j 03:18	18°♌39'32	0.62111 AU
inferior conj	622 Aug 24 j 03:27	2°♍38'10	-3°-22'-20	inferior conj	623 Aug 07 j 03:27	15°♌53'08	-4°-8'-27
minimum elong	622 Aug 24 j 08:15	2°♍25'41	3°20'56	minimum elong	623 Aug 07 j 08:14	15°♌42'03	4°07'29
	622 Aug 26 j 19:20	30°♌♌		morning rise	623 Aug 14 j 05:57	10°♌50'35	
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morning set	622 Sep 25 j 18:10	26°♍04'28					
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superior conj	622 Oct 08 j 11:03	17°♎28'07	0°32'33	minimum elong	623 Sep 19 j 14:26	28°♍34'32	1°08'12
minimum elong	622 Oct 08 j 14:29	17°♎42'08	0°32'05		623 Sep 20 j 10:26	0°♎	
desc. node	622 Oct 13 j 09:25	25°♎26'39		max. Earth dist.	623 Sep 26 j 16:07	10°♎24'32	1.42896 AU
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	622 Oct 16 j 06:10	0°♏		evening rise	623 Oct 03 j 22:42	22°♎02'32	
evening rise	622 Oct 24 j 12:55	12°♏54'45			623 Oct 09 j 02:19	0°♏	
	622 Nov 04 j 19:18	0°♐			623 Oct 30 j 04:16	0°♐	
greatest brilliancy	622 Nov 15 j 09:43	15°♐09'17	-0.5m	greatest brilliancy	623 Oct 30 j 11:23	0°♐22'10	-0.4m
evening max el	622 Nov 21 j 10:51	22°♐24'58	20°31'34	evening max el	623 Nov 04 j 07:53	5°♐54'43	21°43'03
retrograde	622 Nov 29 j 12:08	27°♐09'59		retrograde	623 Nov 13 j 08:59	11°♐17'33	
asc. node	622 Dec 01 j 03:17	26°♐54'55		evening set	623 Nov 17 j 14:52	9°♐38'26	
evening set	622 Dec 03 j 07:02	25°♐47'15		asc. node	623 Nov 18 j 00:19	9°♐18'56	
inferior conj	622 Dec 08 j 18:00	19°♐37'17	2°23'38	inferior conj	623 Nov 23 j 00:25	3°♐19'39	1°39'22
minimum elong	622 Dec 08 j 15:22	19°♐46'13	2°22'47	minimum elong	623 Nov 22 j 22:21	3°♐26'49	1°38'34
min. Earth dist.	622 Dec 09 j 09:16	18°♐45'26	0.67189 AU	min. Earth dist.	623 Nov 23 j 04:08	3°♐06'47	0.67625 AU
morning rise	622 Dec 13 j 23:13	13°♐22'04			623 Nov 25 j 12:03	30°♏♏	
direct	622 Dec 19 j 12:29	10°♐56'01		morning rise	623 Nov 28 j 05:35	27°♏04'59	
morning max el	622 Dec 30 j 19:02	17°♐39'17	24°28'39	direct	623 Dec 03 j 03:28	25°♏00'44	
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	623 Jan 10 j 03:09	0°♑		morning max el	623 Dec 13 j 04:36	0°♐58'32	23°00'36
	623 Jan 30 j 02:39	0°♒		greatest brilliancy	623 Dec 17 j 23:42	6°♐20'12	-0.3m
morning set	623 Feb 04 j 17:22	9°♒33'27		desc. node	623 Dec 27 j 05:40	18°♐33'15	
max. Earth dist.	623 Feb 08 j 10:40	16°♒11'25	1.37654 AU		624 Jan 04 j 01:55	0°♑	
				morning set	624 Jan 16 j 16:51	19°♑58'01	
superior conj	623 Feb 15 j 06:48	29°♒00'36	-1°-40'-40	max. Earth dist.	624 Jan 21 j 06:11	27°♑40'25	1.39782 AU
minimum elong	623 Feb 15 j 10:48	29°♒19'52	1°40'14		624 Jan 22 j 14:23	0°♒	
	623 Feb 15 j 19:05	0°♓		superior conj	624 Jan 28 j 23:13	11°♒24'06	-1°-56'-58
evening rise	623 Feb 23 j 23:08	16°♓08'44		minimum elong	624 Jan 29 j 02:10	11°♒37'35	1°56'49
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	623 Mar 03 j 06:18	0°♔			624 Feb 07 j 19:31	0°♓	
evening max el	623 Mar 12 j 16:31	13°♔10'42	19°10'28	asc. node	624 Feb 13 j 23:39	11°♓30'27	
retrograde	623 Mar 21 j 12:33	17°♔26'24		evening max el	624 Feb 23 j 19:36	25°♓38'36	18°30'19
evening set	623 Mar 23 j 16:51	17°♔11'58		retrograde	624 Mar 02 j 09:45	29°♓22'10	
inferior conj	623 Mar 31 j 22:51	13°♔00'35	1°44'32	evening set	624 Mar 04 j 18:54	29°♓01'20	
minimum elong	623 Apr 01 j 02:37	12°♔54'12	1°43'22	inferior conj	624 Mar 12 j 06:26	24°♓30'12	2°57'12
min. Earth dist.	623 Apr 03 j 22:13	11°♔00'13	0.56554 AU	minimum elong	624 Mar 12 j 10:24	24°♓22'18	2°56'20
desc. node	623 Apr 07 j 07:45	9°♔00'24		min. Earth dist.	624 Mar 15 j 16:38	21°♓48'11	0.58397 AU
morning rise	623 Apr 09 j 08:20	8°♔06'33		morning rise	624 Mar 19 j 21:55	19°♓05'40	
direct	623 Apr 14 j 07:39	7°♔09'10		desc. node	624 Mar 24 j 04:48	17°♓40'53	
morning max el	623 Apr 28 j 12:57	14°♔26'45	25°24'28	direct	624 Mar 25 j 21:54	17°♓33'19	




































































































































morning max el	624 Apr 09 j 06:39	25° Υ 11'53	26°44'56		625 Mar 02 j 20:55	30° \Re	
	624 Apr 13 j 17:20	0° Υ		direct	625 Mar 08 j 00:19	28° \approx 43'47	
	624 May 03 j 00:36	0° \Re		desc. node	625 Mar 11 j 01:52	29° \approx 09'13	
morning set	624 May 08 j 21:19	11° \Re 45'18			625 Mar 13 j 09:34	0° \Re	
asc. node	624 May 11 j 22:57	18° \Re 17'41		morning max el	625 Mar 22 j 06:27	6° \Re 33'45	27°34'39
					625 Apr 08 j 21:41	0° Υ	
superior conj	624 May 15 j 23:11	27° \Re 03'45	0°41'19	morning set	625 Apr 23 j 04:33	26° Υ 26'24	
minimum elong	624 May 15 j 21:28	26° \Re 54'22	0°40'58		625 Apr 24 j 21:27	0° \Re	
max. Earth dist.	624 May 16 j 00:36	27° \Re 11'34	1.32320 AU	asc. node	625 Apr 28 j 20:00	8° \Re 27'48	
	624 May 17 j 07:16	0° Π		max. Earth dist.	625 Apr 29 j 12:48	9° \Re 59'26	1.32328 AU
evening rise	624 May 22 j 22:19	12° Π 07'50					
	624 Jun 01 j 02:10	0° \Re		superior conj	625 Apr 30 j 10:35	11° \Re 58'42	0°16'57
desc. node	624 Jun 20 j 04:08	27° \Re 10'39		minimum elong	625 Apr 30 j 09:49	11° \Re 54'31	0°16'48
evening max el	624 Jun 21 j 15:40	28° \Re 38'31	26°36'53	evening rise	625 May 07 j 08:49	27° \Re 00'56	
	624 Jun 23 j 03:22	0° \Re			625 May 08 j 19:00	0° Π	
retrograde	624 Jul 05 j 15:11	5° \Re 52'49			625 May 26 j 00:13	0° \Re	
evening set	624 Jul 12 j 08:33	3° \Re 57'34		evening max el	625 Jun 03 j 10:58	9° \Re 53'52	25°26'35
min. Earth dist.	624 Jul 16 j 05:02	1° \Re 20'56	0.60090 AU	desc. node	625 Jun 07 j 01:07	12° \Re 58'03	
	624 Jul 17 j 21:42	30° \Re		retrograde	625 Jun 17 j 11:51	17° \Re 03'42	
inferior conj	624 Jul 19 j 12:38	28° \Re 40'34	-4°-40'-37	evening set	625 Jun 23 j 05:09	15° \Re 47'00	
minimum elong	624 Jul 19 j 15:38	28° \Re 34'31	4°40'21	min. Earth dist.	625 Jun 27 j 22:59	13° \Re 04'49	0.58050 AU
morning rise	624 Jul 27 j 02:00	24° \Re 00'43		inferior conj	625 Jul 01 j 03:30	10° \Re 51'03	-4°-48'-24
direct	624 Jul 29 j 12:16	23° \Re 38'52		minimum elong	625 Jul 01 j 02:27	10° \Re 52'55	4°48'22
morning max el	624 Aug 05 j 23:24	27° \Re 16'34	18°12'58	morning rise	625 Jul 09 j 03:32	6° \Re 33'55	
asc. node	624 Aug 07 j 22:12	29° \Re 21'55		direct	625 Jul 11 j 15:55	6° \Re 14'25	
	624 Aug 08 j 10:49	0° \Re		morning max el	625 Jul 20 j 03:57	10° \Re 14'33	18°51'53
morning set	624 Aug 21 j 20:34	22° \Re 28'03		asc. node	625 Jul 25 j 19:15	17° \Re 07'48	
	624 Aug 25 j 20:25	0° \Re			625 Aug 02 j 06:43	0° \Re	
				morning set	625 Aug 05 j 16:01	6° \Re 33'08	
superior conj	624 Aug 31 j 09:37	10° \Re 14'42	1°32'16				
minimum elong	624 Aug 31 j 13:14	10° \Re 31'01	1°31'58	superior conj	625 Aug 14 j 05:44	23° \Re 15'37	1°44'10
max. Earth dist.	624 Sep 08 j 00:17	23° \Re 35'25	1.41088 AU	minimum elong	625 Aug 14 j 07:17	23° \Re 22'59	1°44'06
	624 Sep 11 j 20:23	0° \Re			625 Aug 17 j 20:01	0° \Re	
evening rise	624 Sep 13 j 00:53	1° \Re 56'31		max. Earth dist.	625 Aug 21 j 03:48	6° \Re 01'38	1.39071 AU
desc. node	624 Sep 16 j 03:30	6° \Re 56'33		evening rise	625 Aug 25 j 03:20	12° \Re 58'56	
	624 Oct 01 j 12:22	0° \Re		desc. node	625 Sep 03 j 00:30	27° \Re 32'02	
greatest brilliancy	624 Oct 11 j 12:53	13° \Re 18'06	-0.2m		625 Sep 04 j 14:32	0° \Re	
evening max el	624 Oct 16 j 23:41	19° \Re 25'30	23°01'42		625 Sep 26 j 15:58	0° \Re	
retrograde	624 Oct 27 j 03:28	25° \Re 27'10		evening max el	625 Sep 29 j 12:18	2° \Re 59'46	24°21'33
evening set	624 Oct 31 j 22:07	23° \Re 30'28		retrograde	625 Oct 10 j 18:19	9° \Re 35'10	
asc. node	624 Nov 03 j 21:23	20° \Re 21'47		evening set	625 Oct 16 j 03:05	7° \Re 21'00	
inferior conj	624 Nov 06 j 07:42	17° \Re 06'44	0°49'47	min. Earth dist.	625 Oct 20 j 20:48	1° \Re 54'33	0.67489 AU
minimum elong	624 Nov 06 j 06:34	17° \Re 10'40	0°49'17	inferior conj	625 Oct 21 j 14:05	0° \Re 56'28	0°-3'-46
min. Earth dist.	624 Nov 06 j 00:48	17° \Re 30'31	0.67716 AU	minimum elong	625 Oct 21 j 14:10	0° \Re 56'10	0°03'44
morning rise	624 Nov 11 j 15:02	10° \Re 54'49		transit middle	625 Oct 21 j 14:10	0° \Re 56'10	0°03'44
direct	624 Nov 15 j 22:07	9° \Re 13'22		transit begin	625 Oct 21 j 11:30	1° \Re 05'07	
morning max el	624 Nov 24 j 18:45	14° \Re 25'12	21°35'46	transit end	625 Oct 21 j 16:50	0° \Re 47'13	
greatest brilliancy	624 Nov 29 j 18:12	20° \Re 05'07	-0.4m	asc. node	625 Oct 21 j 18:28	0° \Re 41'45	
	624 Dec 07 j 04:18	0° \Re			625 Oct 22 j 06:58	30° \Re	
desc. node	624 Dec 13 j 02:45	8° \Re 33'45		morning rise	625 Oct 27 j 01:34	24° \Re 49'53	
morning set	624 Dec 26 j 11:18	29° \Re 00'18		direct	625 Oct 30 j 19:25	23° \Re 29'39	
	624 Dec 27 j 02:19	0° \Re		morning max el	625 Nov 07 j 15:57	28° \Re 01'26	20°20'35
max. Earth dist.	625 Jan 02 j 06:14	9° \Re 59'54	1.41829 AU		625 Nov 09 j 12:04	0° \Re	
				greatest brilliancy	625 Nov 14 j 05:10	5° \Re 52'19	-0.5m
superior conj	625 Jan 09 j 19:15	22° \Re 47'26	-2°-2'-54	desc. node	625 Nov 29 j 23:47	28° \Re 52'19	
minimum elong	625 Jan 09 j 18:58	22° \Re 46'12	2°02'56		625 Nov 30 j 17:32	0° \Re	
	625 Jan 13 j 21:22	0° \Re		morning set	625 Dec 05 j 09:22	7° \Re 09'49	
evening rise	625 Jan 20 j 18:19	12° \Re 28'21		max. Earth dist.	625 Dec 15 j 13:40	23° \Re 12'05	1.43526 AU
asc. node	625 Jan 30 j 20:41	0° \Re 13'08			625 Dec 19 j 18:17	0° \Re	
	625 Jan 30 j 17:22	0° \Re					
evening max el	625 Feb 06 j 04:47	8° \Re 32'54	18°10'14	superior conj	625 Dec 21 j 13:48	2° \Re 58'56	-1°-53'-46
retrograde	625 Feb 13 j 00:36	12° \Re 00'15		minimum elong	625 Dec 21 j 08:30	2° \Re 37'03	1°53'30
evening set	625 Feb 15 j 14:30	11° \Re 31'10		evening rise	626 Jan 03 j 05:08	24° \Re 30'30	
inferior conj	625 Feb 22 j 10:26	6° \Re 38'46	3°36'08		626 Jan 06 j 08:42	0° \Re	
minimum elong	625 Feb 22 j 12:33	6° \Re 33'51	3°35'54	asc. node	626 Jan 17 j 17:44	18° \Re 16'31	
min. Earth dist.	625 Feb 25 j 17:11	3° \Re 38'26	0.60503 AU	evening max el	626 Jan 20 j 16:57	21° \Re 44'10	18°09'39
morning rise	625 Mar 01 j 07:27	0° \Re 52'58		retrograde	626 Jan 27 j 04:52	25° \Re 09'26	

evening set	626 Jan 29 j 23:23	24° \approx 30'54		retrograde	627 Jan 10 j 18:21	8° \approx 41'14	
inferior conj	626 Feb 05 j 07:11	19° \approx 17'39	3°48'10	evening set	627 Jan 13 j 17:54	7° \approx 52'12	
minimum elong	626 Feb 05 j 07:10	19° \approx 17'41	3°48'10	inferior conj	627 Jan 19 j 16:46	2° \approx 19'32	3°40'31
min. Earth dist.	626 Feb 08 j 01:57	16° \approx 23'29	0.62559 AU	minimum elong	627 Jan 19 j 15:09	2° \approx 24'15	3°40'21
morning rise	626 Feb 11 j 12:49	13° \approx 18'52			627 Jan 21 j 16:47	30° \approx 18'30	
direct	626 Feb 18 j 12:14	10° \approx 42'00		min. Earth dist.	627 Jan 21 j 20:13	29° \approx 50'13	0.64347 AU
desc. node	626 Feb 25 j 22:55	13° \approx 12'32		morning rise	627 Jan 25 j 11:01	26° \approx 12'46	
morning max el	626 Mar 04 j 11:47	18° \approx 35'38	27°47'42	direct	627 Feb 01 j 07:36	23° \approx 22'52	
	626 Mar 14 j 03:03	0° \approx 18'00		desc. node	627 Feb 12 j 19:58	29° \approx 16'15	
	626 Apr 01 j 17:16	0° \approx 17'00			627 Feb 13 j 14:55	0° \approx 17'00	
morning set	626 Apr 07 j 06:23	10° \approx 48'01		morning max el	627 Feb 14 j 20:34	1° \approx 12'02	27°24'54
max. Earth dist.	626 Apr 12 j 21:08	22° \approx 31'15	1.32726 AU		627 Mar 08 j 05:33	0° \approx 18'00	
				morning set	627 Mar 22 j 00:10	24° \approx 41'42	
superior conj	626 Apr 14 j 19:56	26° \approx 43'26	0°-9'-17		627 Mar 24 j 16:01	0° \approx 17'00	
minimum elong	626 Apr 14 j 20:23	26° \approx 45'50	0°09'12	max. Earth dist.	627 Mar 26 j 21:50	4° \approx 35'34	1.33544 AU
behind sun begin	626 Apr 14 j 16:07	26° \approx 22'47					
behind sun end	626 Apr 15 j 00:38	27° \approx 08'54		superior conj	627 Mar 30 j 01:23	11° \approx 11'59	0°-36'-26
asc. node	626 Apr 15 j 17:02	28° \approx 37'49		minimum elong	627 Mar 30 j 03:10	11° \approx 21'26	0°36'06
	626 Apr 16 j 08:10	0° \approx 18'00		asc. node	627 Apr 02 j 14:03	18° \approx 43'52	
evening rise	626 Apr 21 j 20:36	11° \approx 54'00		evening rise	627 Apr 06 j 07:52	26° \approx 40'58	
	626 May 01 j 02:36	0° \approx 18'00			627 Apr 07 j 22:08	0° \approx 18'00	
evening max el	626 May 16 j 01:37	20° \approx 35'04	23°56'23		627 Apr 26 j 14:24	0° \approx 18'00	
desc. node	626 May 24 j 22:07	26° \approx 35'01		evening max el	627 Apr 27 j 17:44	1° \approx 08'44	22°20'52
retrograde	626 May 29 j 20:29	27° \approx 30'18		retrograde	627 May 10 j 16:19	7° \approx 31'33	
evening set	626 Jun 03 j 03:40	26° \approx 49'28		desc. node	627 May 11 j 19:09	7° \approx 28'44	
min. Earth dist.	626 Jun 09 j 12:36	23° \approx 45'58	0.56308 AU	evening set	627 May 13 j 15:25	7° \approx 12'13	
inferior conj	626 Jun 11 j 22:08	22° \approx 17'42	-4°-18'-27	min. Earth dist.	627 May 22 j 00:46	3° \approx 35'17	0.55210 AU
minimum elong	626 Jun 11 j 16:16	22° \approx 26'46	4°17'29	inferior conj	627 May 22 j 23:21	3° \approx 03'24	-3°-2'-10
morning rise	626 Jun 20 j 08:28	18° \approx 18'26		minimum elong	627 May 22 j 16:03	3° \approx 13'44	3°00'04
direct	626 Jun 23 j 00:30	18° \approx 00'01			627 May 29 j 01:29	30° \approx 18'30	
morning max el	626 Jul 02 j 22:47	22° \approx 36'06	19°51'59	morning rise	627 May 31 j 18:44	29° \approx 10'24	
	626 Jul 09 j 02:50	0° \approx 18'00		direct	627 Jun 03 j 16:46	28° \approx 51'05	
asc. node	626 Jul 12 j 16:18	5° \approx 38'46			627 Jun 09 j 01:04	0° \approx 18'00	
morning set	626 Jul 20 j 18:55	21° \approx 01'19		morning max el	627 Jun 15 j 06:21	4° \approx 14'44	21°12'13
	626 Jul 25 j 04:55	0° \approx 18'00		asc. node	627 Jun 29 j 13:19	24° \approx 43'54	
superior conj	626 Jul 28 j 16:31	7° \approx 01'07	1°46'31		627 Jul 02 j 06:40	0° \approx 18'00	
minimum elong	626 Jul 28 j 16:12	6° \approx 59'30	1°46'31	morning set	627 Jul 05 j 02:44	5° \approx 45'25	
max. Earth dist.	626 Aug 03 j 07:55	17° \approx 05'82	1.37098 AU	superior conj	627 Jul 12 j 13:38	21° \approx 18'17	1°41'18
evening rise	626 Aug 07 j 05:13	25° \approx 08'37		minimum elong	627 Jul 12 j 12:00	21° \approx 09'51	1°41'12
	626 Aug 09 j 22:53	0° \approx 18'00			627 Jul 16 j 20:22	0° \approx 18'00	
desc. node	626 Aug 20 j 21:30	17° \approx 55'21		max. Earth dist.	627 Jul 16 j 18:18	29° \approx 49'44	1.35378 AU
	626 Aug 29 j 04:27	0° \approx 18'00		evening rise	627 Jul 21 j 02:04	8° \approx 13'36	
evening max el	626 Sep 12 j 00:03	16° \approx 38'03	25°35'25		627 Aug 02 j 13:53	0° \approx 18'00	
retrograde	626 Sep 24 j 04:36	23° \approx 37'38		desc. node	627 Aug 07 j 18:30	7° \approx 59'59	
evening set	626 Sep 30 j 04:03	21° \approx 07'49			627 Aug 25 j 06:02	0° \approx 18'00	
min. Earth dist.	626 Oct 04 j 13:41	16° \approx 17'04	0.66937 AU	evening max el	627 Aug 25 j 12:02	0° \approx 14'34	26°35'31
inferior conj	626 Oct 05 j 17:48	14° \approx 46'54	0°-59'-47	retrograde	627 Sep 07 j 09:42	7° \approx 27'59	
minimum elong	626 Oct 05 j 19:20	14° \approx 42'01	0°59'09	evening set	627 Sep 13 j 22:57	4° \approx 47'03	
asc. node	626 Oct 08 j 15:30	11° \approx 16'07		min. Earth dist.	627 Sep 18 j 00:59	0° \approx 33'42	0.66042 AU
morning rise	626 Oct 11 j 11:18	8° \approx 48'33			627 Sep 18 j 12:18	30° \approx 18'30	
direct	626 Oct 14 j 17:56	7° \approx 46'32		inferior conj	627 Sep 19 j 16:55	28° \approx 33'53	-1°-56'-39
morning max el	626 Oct 21 j 20:47	11° \approx 47'43	19°19'07	minimum elong	627 Sep 19 j 19:56	28° \approx 24'50	1°55'29
greatest brilliancy	626 Oct 31 j 16:46	24° \approx 35'04	-0.7m	morning rise	627 Sep 25 j 18:06	22° \approx 47'03	
	626 Nov 04 j 07:31	0° \approx 18'00		asc. node	627 Sep 25 j 12:32	22° \approx 54'51	
morning set	626 Nov 14 j 10:46	15° \approx 38'13		direct	627 Sep 28 j 15:45	21° \approx 59'40	
desc. node	626 Nov 16 j 20:48	19° \approx 24'03		morning max el	627 Oct 05 j 07:51	25° \approx 40'06	18°33'19
	626 Nov 23 j 15:37	0° \approx 18'00			627 Oct 09 j 00:19	0° \approx 18'00	
max. Earth dist.	626 Nov 28 j 04:08	7° \approx 06'58	1.44655 AU	morning set	627 Oct 25 j 11:58	25° \approx 21'11	
					627 Oct 28 j 09:41	0° \approx 18'00	
superior conj	626 Dec 01 j 06:25	12° \approx 01'21	-1°-26'-9	desc. node	627 Nov 03 j 17:49	10° \approx 04'19	
minimum elong	626 Nov 30 j 21:56	11° \approx 27'36	1°25'19				
	626 Dec 12 j 09:18	0° \approx 18'00		superior conj	627 Nov 10 j 07:41	20° \approx 26'17	0°-42'-31
evening rise	626 Dec 15 j 19:08	5° \approx 37'47		minimum elong	627 Nov 10 j 02:11	20° \approx 04'39	0°41'49
	626 Dec 31 j 00:56	0° \approx 18'00		max. Earth dist.	627 Nov 10 j 22:41	21° \approx 25'13	1.45076 AU
evening max el	627 Jan 04 j 05:18	5° \approx 05'46	18°27'46		627 Nov 16 j 09:43	0° \approx 18'00	
asc. node	627 Jan 04 j 14:46	5° \approx 29'19		evening rise	627 Nov 26 j 09:35	15° \approx 46'53	

	627 Dec 05 j 09:01	0°☿		greatest brilliancy	628 Nov 23 j 15:31	22°☿58'53	-0.6m
evening max el	627 Dec 18 j 15:19	18°☿32'09	19°03'34		628 Nov 29 j 01:18	0°☿	
asc. node	627 Dec 22 j 11:48	21°☿37'25		evening max el	628 Nov 30 j 21:02	2°☿00'24	19°55'25
retrograde	627 Dec 25 j 13:19	22°☿28'25		retrograde	628 Dec 08 j 10:49	6°☿26'07	
evening set	627 Dec 28 j 19:00	21°☿27'37		asc. node	628 Dec 08 j 08:51	6°☿26'05	
inferior conj	628 Jan 03 j 11:35	15°☿37'56	3°18'36	evening set	628 Dec 12 j 00:16	5°☿11'59	
minimum elong	628 Jan 03 j 09:05	15°☿45'50	3°18'06		628 Dec 16 j 21:09	30°☿☿	
min. Earth dist.	628 Jan 04 j 23:48	13°☿43'54	0.65757 AU	inferior conj	628 Dec 17 j 12:44	29°☿08'19	2°46'08
morning rise	628 Jan 08 j 22:15	9°☿26'03		minimum elong	628 Dec 17 j 10:00	29°☿17'27	2°45'21
direct	628 Jan 15 j 09:18	6°☿37'24		min. Earth dist.	628 Dec 18 j 11:11	27°☿53'36	0.66771 AU
morning max el	628 Jan 28 j 06:20	14°☿11'51	26°31'56	morning rise	628 Dec 22 j 19:07	22°☿53'31	
desc. node	628 Jan 30 j 17:00	16°☿46'45		direct	628 Dec 28 j 16:47	20°☿17'05	
	628 Feb 10 j 03:51	0°☿		morning max el	629 Jan 09 j 15:19	27°☿23'32	25°17'22
	628 Feb 28 j 22:44	0°☿			629 Jan 12 j 02:20	0°☿	
morning set	628 Mar 04 j 06:22	7°☿56'42		desc. node	629 Jan 16 j 14:03	5°☿18'50	
max. Earth dist.	628 Mar 08 j 11:48	16°☿07'00	1.34806 AU		629 Feb 02 j 19:59	0°☿	
				morning set	629 Feb 14 j 20:09	20°☿18'32	
superior conj	628 Mar 13 j 00:43	25°☿17'29	-1°-3'-20	max. Earth dist.	629 Feb 18 j 14:11	27°☿12'10	1.36508 AU
minimum elong	628 Mar 13 j 03:46	25°☿33'11	1°02'48		629 Feb 20 j 01:44	0°☿	
	628 Mar 15 j 07:13	0°☿					
asc. node	628 Mar 19 j 11:06	8°☿41'47		superior conj	629 Feb 24 j 15:05	8°☿51'20	-1°-28'-11
evening rise	628 Mar 20 j 16:44	11°☿15'30		minimum elong	629 Feb 24 j 18:59	9°☿10'40	1°27'40
	628 Mar 30 j 14:07	0°☿		evening rise	629 Mar 04 j 21:03	25°☿30'12	
evening max el	628 Apr 08 j 18:01	12°☿03'57	20°53'37	asc. node	629 Mar 06 j 08:09	28°☿26'21	
retrograde	628 Apr 20 j 05:39	17°☿38'08			629 Mar 07 j 03:01	0°☿	
evening set	628 Apr 22 j 10:48	17°☿26'29		evening max el	629 Mar 22 j 05:41	23°☿35'58	19°42'35
desc. node	628 Apr 27 j 16:11	15°☿39'25		retrograde	629 Apr 01 j 00:05	28°☿17'45	
inferior conj	628 May 01 j 17:26	13°☿28'34	-1°-9'-58	evening set	629 Apr 03 j 02:06	28°☿05'52	
minimum elong	628 May 01 j 14:07	13°☿33'17	1°08'47	inferior conj	629 Apr 11 j 18:48	24°☿03'06	0°47'07
min. Earth dist.	628 May 02 j 13:31	13°☿00'01	0.55001 AU	minimum elong	629 Apr 11 j 20:48	23°☿59'57	0°46'25
morning rise	628 May 10 j 16:41	9°☿23'07		min. Earth dist.	629 Apr 14 j 03:51	22°☿34'00	0.55745 AU
direct	628 May 14 j 02:49	8°☿57'53		desc. node	629 Apr 14 j 13:13	22°☿19'46	
morning max el	628 May 27 j 03:53	15°☿13'33	22°47'55	morning rise	629 Apr 20 j 12:03	19°☿28'04	
	628 Jun 07 j 14:55	0°☿		direct	629 Apr 24 j 19:56	18°☿46'17	
asc. node	628 Jun 15 j 10:21	14°☿14'46		morning max el	629 May 08 j 19:23	25°☿46'25	24°29'12
morning set	628 Jun 18 j 13:31	20°☿39'53			629 May 12 j 18:56	0°☿	
	628 Jun 22 j 22:55	0°☿			629 May 31 j 08:03	0°☿	
				asc. node	629 Jun 02 j 07:25	4°☿03'30	
superior conj	628 Jun 25 j 17:52	5°☿57'44	1°30'04	morning set	629 Jun 03 j 01:27	5°☿37'59	
minimum elong	628 Jun 25 j 15:32	5°☿45'23	1°29'49				
max. Earth dist.	628 Jun 28 j 13:55	11°☿56'18	1.34023 AU	superior conj	629 Jun 10 j 02:34	20°☿50'05	1°14'04
evening rise	628 Jul 03 j 13:12	22°☿01'28		minimum elong	629 Jun 10 j 00:07	20°☿36'47	1°13'42
	628 Jul 07 j 17:14	0°☿		max. Earth dist.	629 Jun 11 j 18:06	24°☿23'47	1.33061 AU
desc. node	628 Jul 24 j 15:31	27°☿37'52			629 Jun 14 j 09:13	0°☿	
	628 Jul 26 j 08:35	0°☿		evening rise	629 Jun 17 j 10:33	6°☿19'35	
evening max el	628 Aug 06 j 23:52	13°☿40'11	27°14'16		629 Jun 30 j 06:48	0°☿	
retrograde	628 Aug 20 j 09:21	20°☿59'08		desc. node	629 Jul 11 j 12:33	16°☿36'58	
evening set	628 Aug 27 j 09:20	18°☿14'54		evening max el	629 Jul 20 j 09:54	26°☿42'29	27°25'17
min. Earth dist.	628 Aug 31 j 04:27	14°☿38'35	0.64788 AU		629 Jul 24 j 06:23	0°☿	
inferior conj	628 Sep 02 j 09:14	12°☿13'22	-2°-52'-10	retrograde	629 Aug 03 j 03:07	4°☿01'26	
minimum elong	628 Sep 02 j 13:33	12°☿01'31	2°50'44	evening set	629 Aug 10 j 07:57	1°☿25'41	
morning rise	628 Sep 08 j 19:30	6°☿41'18			629 Aug 12 j 03:21	30°☿☿	
direct	628 Sep 11 j 10:35	6°☿04'56		min. Earth dist.	629 Aug 13 j 22:26	28°☿21'37	0.63173 AU
asc. node	628 Sep 11 j 09:35	6°☿04'57		inferior conj	629 Aug 16 j 16:04	25°☿39'09	-3°-43'-8
morning max el	628 Sep 17 j 22:46	9°☿33'46	18°04'14	minimum elong	629 Aug 16 j 21:02	25°☿26'50	3°41'52
	628 Oct 01 j 21:08	0°☿		morning rise	629 Aug 23 j 12:29	20°☿25'03	
morning set	628 Oct 05 j 17:55	6°☿28'30		direct	629 Aug 25 j 23:33	19°☿56'24	
				asc. node	629 Aug 29 j 06:38	20°☿48'43	
superior conj	628 Oct 19 j 15:05	29°☿14'48	0°06'36	morning max el	629 Sep 01 j 14:41	23°☿21'59	17°52'46
minimum elong	628 Oct 19 j 15:53	29°☿17'59	0°06'29		629 Sep 06 j 20:41	0°☿	
behind sun begin	628 Oct 19 j 06:03	28°☿38'37		morning set	629 Sep 18 j 00:19	18°☿46'03	
behind sun end	628 Oct 20 j 01:43	29°☿57'18			629 Sep 24 j 11:01	0°☿	
	628 Oct 20 j 02:23	0°☿					
desc. node	628 Oct 20 j 14:51	0°☿49'43		superior conj	629 Sep 29 j 21:44	9°☿13'29	0°49'26
max. Earth dist.	628 Oct 23 j 17:32	5°☿46'10	1.44751 AU	minimum elong	629 Sep 30 j 02:13	9°☿32'11	0°48'51
evening rise	628 Nov 05 j 02:50	25°☿06'06		max. Earth dist.	629 Oct 06 j 09:26	19°☿50'54	1.43734 AU
	628 Nov 08 j 07:03	0°☿		desc. node	629 Oct 07 j 11:54	21°☿37'03	

	629 Oct 12 j 19:11	0°♄		desc. node	630 Sep 24 j 08:55	12°♄22'38	
evening rise	629 Oct 15 j 10:11	4°♄04'43		evening rise	630 Sep 25 j 01:16	13°♄27'42	
	629 Nov 01 j 18:36	0°♄			630 Oct 05 j 19:37	0°♄	
greatest brilliancy	629 Nov 08 j 11:14	9°♄08'34	-0.5m	greatest brilliancy	630 Oct 22 j 22:49	23°♄41'17	-0.3m
evening max el	629 Nov 13 j 21:17	15°♄29'42	21°00'50	evening max el	630 Oct 27 j 15:59	28°♄59'50	22°16'06
retrograde	629 Nov 22 j 08:28	20°♄31'00			630 Oct 28 j 16:29	0°♄	
asc. node	629 Nov 25 j 05:53	19°♄43'53		retrograde	630 Nov 06 j 04:22	4°♄39'20	
evening set	629 Nov 26 j 07:40	19°♄01'40		evening set	630 Nov 10 j 15:25	2°♄53'03	
inferior conj	629 Dec 01 j 17:51	12°♄47'27	2°05'39	asc. node	630 Nov 12 j 02:57	1°♄30'06	
minimum elong	629 Dec 01 j 15:24	12°♄55'52	2°04'47		630 Nov 13 j 10:22	30°♄	
min. Earth dist.	629 Dec 02 j 04:06	12°♄12'13	0.67409 AU	inferior conj	630 Nov 16 j 00:49	26°♄31'55	1°18'54
morning rise	629 Dec 06 j 22:43	6°♄31'57		minimum elong	630 Nov 15 j 23:06	26°♄37'52	1°18'13
direct	629 Dec 12 j 05:24	4°♄14'42		min. Earth dist.	630 Nov 16 j 00:03	26°♄34'38	0.67700 AU
morning max el	629 Dec 22 j 23:50	10°♄40'06	23°51'21	morning rise	630 Nov 21 j 06:38	20°♄18'01	
desc. node	630 Jan 03 j 11:07	24°♄34'50		direct	630 Nov 25 j 22:10	18°♄23'14	
	630 Jan 07 j 08:33	0°♄		morning max el	630 Dec 05 j 10:41	24°♄01'05	22°23'40
	630 Jan 26 j 14:05	0°♄		greatest brilliancy	630 Dec 10 j 01:12	29°♄10'45	-0.3m
morning set	630 Jan 27 j 11:28	1°♄31'03			630 Dec 10 j 17:18	0°♄	
max. Earth dist.	630 Jan 31 j 09:24	8°♄20'11	1.38543 AU	desc. node	630 Dec 21 j 08:10	14°♄21'28	
					630 Dec 31 j 19:15	0°♄	
superior conj	630 Feb 07 j 16:53	21°♄44'27	-1°-48'-34	morning set	631 Jan 07 j 22:25	11°♄19'13	
minimum elong	630 Feb 07 j 20:39	22°♄02'16	1°48'15	max. Earth dist.	631 Jan 13 j 05:53	20°♄07'39	1.40679 AU
	630 Feb 12 j 00:06	0°♄			631 Jan 18 j 22:57	0°♄	
evening rise	630 Feb 16 j 18:17	9°♄18'27					
asc. node	630 Feb 21 j 05:13	17°♄52'24		superior conj	631 Jan 21 j 01:17	3°♄44'06	-2°-1'-2
	630 Feb 28 j 09:44	0°♄		minimum elong	631 Jan 21 j 03:09	3°♄52'27	2°01'00
evening max el	630 Mar 05 j 04:00	5°♄46'10	18°50'57	evening rise	631 Jan 31 j 05:12	22°♄31'45	
retrograde	630 Mar 13 j 09:59	9°♄45'58			631 Feb 04 j 05:23	0°♄	
evening set	630 Mar 15 j 16:11	9°♄29'11		asc. node	631 Feb 08 j 02:16	6°♄52'51	
inferior conj	630 Mar 23 j 14:12	5°♄10'15	2°19'40	evening max el	631 Feb 16 j 10:07	18°♄26'41	18°19'22
minimum elong	630 Mar 23 j 18:26	5°♄02'34	2°18'29	retrograde	631 Feb 23 j 14:49	22°♄01'02	
min. Earth dist.	630 Mar 26 j 20:27	2°♄49'26	0.57285 AU	evening set	631 Feb 26 j 02:14	21°♄36'43	
morning rise	630 Mar 31 j 16:25	0°♄02'08		inferior conj	631 Mar 05 j 06:43	16°♄56'39	3°17'26
	630 Mar 31 j 18:25	30°♄		minimum elong	631 Mar 05 j 10:02	16°♄49'37	3°16'51
desc. node	630 Apr 01 j 10:16	29°♄44'08		min. Earth dist.	631 Mar 08 j 16:57	14°♄03'50	0.59289 AU
direct	630 Apr 06 j 02:55	28°♄50'29		morning rise	631 Mar 12 j 14:11	11°♄22'15	
	630 Apr 11 j 12:41	0°♄		direct	631 Mar 18 j 22:49	9°♄33'39	
morning max el	630 Apr 20 j 10:40	6°♄19'08	26°01'34	desc. node	631 Mar 19 j 07:19	9°♄33'59	
	630 May 07 j 20:16	0°♄		morning max el	631 Apr 02 j 06:33	17°♄17'25	27°10'15
morning set	630 May 18 j 12:54	20°♄34'11			631 Apr 12 j 19:09	0°♄	
asc. node	630 May 20 j 04:29	24°♄04'24			631 Apr 30 j 07:11	0°♄	
	630 May 22 j 22:08	0°♄		morning set	631 May 02 j 22:12	5°♄22'35	
				asc. node	631 May 07 j 01:33	14°♄12'29	
superior conj	630 May 25 j 13:43	5°♄48'24	0°54'12	max. Earth dist.	631 May 09 j 16:58	19°♄59'21	1.32282 AU
minimum elong	630 May 25 j 11:37	5°♄36'53	0°53'49				
max. Earth dist.	630 May 26 j 04:17	7°♄08'15	1.32487 AU	superior conj	631 May 10 j 01:30	20°♄46'15	0°31'17
evening rise	630 Jun 01 j 14:56	20°♄58'00		minimum elong	631 May 10 j 00:09	20°♄38'51	0°30'59
	630 Jun 06 j 02:42	0°♄			631 May 14 j 06:42	0°♄	
	630 Jun 24 j 13:35	0°♄		evening rise	631 May 16 j 23:49	5°♄48'11	
desc. node	630 Jun 28 j 09:34	4°♄41'08			631 May 29 j 19:09	0°♄	
evening max el	630 Jul 02 j 15:54	9°♄09'37	27°04'04	evening max el	631 Jun 14 j 15:31	20°♄52'25	26°10'16
retrograde	630 Jul 16 j 13:54	16°♄25'30		desc. node	631 Jun 15 j 06:34	21°♄27'39	
evening set	630 Jul 23 j 14:37	14°♄12'06		retrograde	631 Jun 28 j 15:58	28°♄04'30	
min. Earth dist.	630 Jul 27 j 06:08	11°♄29'42	0.61265 AU	evening set	631 Jul 05 j 00:41	26°♄25'25	
inferior conj	630 Jul 30 j 10:12	8°♄43'34	-4°-24'-25	min. Earth dist.	631 Jul 09 j 04:19	23°♄48'33	0.59210 AU
minimum elong	630 Jul 30 j 14:30	8°♄34'09	4°23'43	inferior conj	631 Jul 12 j 12:04	21°♄17'18	-4°-47'-43
morning rise	630 Aug 06 j 17:19	3°♄50'16		minimum elong	631 Jul 12 j 13:36	21°♄14'23	4°47'39
direct	630 Aug 09 j 03:05	3°♄26'32		morning rise	631 Jul 20 j 05:57	16°♄46'56	
morning max el	630 Aug 16 j 04:35	6°♄57'21	17°59'53	direct	631 Jul 22 j 17:00	16°♄26'08	
asc. node	630 Aug 16 j 03:42	6°♄55'14		morning max el	631 Jul 30 j 13:24	20°♄11'54	18°26'54
	630 Aug 30 j 23:46	0°♄		asc. node	631 Aug 03 j 00:46	24°♄09'31	
morning set	630 Sep 01 j 01:00	1°♄56'04			631 Aug 06 j 23:10	0°♄	
				morning set	631 Aug 15 j 14:49	15°♄45'01	
superior conj	630 Sep 11 j 07:34	20°♄32'06	1°20'17		631 Aug 23 j 02:02	0°♄	
minimum elong	630 Sep 11 j 12:06	20°♄51'58	1°19'49				
	630 Sep 16 j 19:39	0°♄		superior conj	631 Aug 24 j 16:53	3°♄00'55	1°38'37
max. Earth dist.	630 Sep 18 j 20:38	3°♄24'45	1.42166 AU	minimum elong	631 Aug 24 j 19:39	3°♄13'40	1°38'26

max. Earth dist.	631 Sep 01 j 03:00	16° \mathbb{M} 18'41	1.40244 AU		632 Jul 29 j 13:34	0° Ω	
evening rise	631 Sep 05 j 13:32	23° \mathbb{M} 50'34					
	631 Sep 09 j 07:56	0° $\underline{\mathbb{A}}$		superior conj	632 Aug 06 j 19:53	16° Ω 23'01	1°46'12
desc. node	631 Sep 11 j 05:55	3° $\underline{\mathbb{A}}$ 03'20		minimum elong	632 Aug 06 j 20:35	16° Ω 26'24	1°46'11
	631 Sep 29 j 17:00	0° \mathbb{M}		max. Earth dist.	632 Aug 13 j 06:24	28° Ω 31'26	1.38215 AU
evening max el	631 Oct 10 j 06:19	12° \mathbb{M} 32'42	23°35'58		632 Aug 14 j 01:54	0° \mathbb{M}	
retrograde	631 Oct 20 j 21:15	18° \mathbb{M} 48'52		evening rise	632 Aug 17 j 02:23	5° \mathbb{M} 22'32	
evening set	631 Oct 25 j 21:52	16° \mathbb{M} 44'38		desc. node	632 Aug 28 j 02:56	23° \mathbb{M} 34'25	
asc. node	631 Oct 29 j 23:59	12° \mathbb{M} 08'37			632 Sep 01 j 08:20	0° $\underline{\mathbb{A}}$	
inferior conj	631 Oct 31 j 07:55	10° \mathbb{M} 20'19	0°27'27	evening max el	632 Sep 21 j 18:14	26° $\underline{\mathbb{A}}$ 08'29	24°54'03
minimum elong	631 Oct 31 j 07:16	10° \mathbb{M} 22'33	0°27'10		632 Sep 26 j 05:03	0° \mathbb{M}	
min. Earth dist.	631 Oct 30 j 20:37	10° \mathbb{M} 58'53	0.67664 AU	retrograde	632 Oct 03 j 10:11	2° \mathbb{M} 55'17	
morning rise	631 Nov 05 j 16:47	4° \mathbb{M} 10'31		evening set	632 Oct 09 j 01:21	0° \mathbb{M} 33'48	
direct	631 Nov 09 j 18:08	2° \mathbb{M} 38'14			632 Oct 09 j 16:23	30° \mathbb{R} $\underline{\mathbb{A}}$	
morning max el	631 Nov 18 j 03:34	7° \mathbb{M} 31'26	21°02'20	min. Earth dist.	632 Oct 13 j 15:28	25° $\underline{\mathbb{A}}$ 22'34	0.67300 AU
greatest brilliancy	631 Nov 23 j 15:46	13° \mathbb{M} 54'37	-0.5m	inferior conj	632 Oct 14 j 13:21	24° $\underline{\mathbb{A}}$ 10'19	0°-27'-19
	631 Dec 05 j 04:21	0° \mathbb{X}		minimum elong	632 Oct 14 j 14:02	24° $\underline{\mathbb{A}}$ 08'04	0°27'02
desc. node	631 Dec 08 j 05:12	4° \mathbb{X} 30'23		asc. node	632 Oct 15 j 21:02	22° $\underline{\mathbb{A}}$ 27'17	
morning set	631 Dec 18 j 06:00	19° \mathbb{X} 51'51		morning rise	632 Oct 20 j 03:13	18° $\underline{\mathbb{A}}$ 07'09	
	631 Dec 24 j 15:03	0° \mathbb{Z}		direct	632 Oct 23 j 16:01	16° $\underline{\mathbb{A}}$ 55'13	
max. Earth dist.	631 Dec 26 j 09:26	2° \mathbb{Z} 52'03	1.42614 AU	morning max el	632 Oct 31 j 04:11	21° $\underline{\mathbb{A}}$ 12'30	19°52'39
					632 Nov 07 j 08:22	0° \mathbb{M}	
superior conj	632 Jan 02 j 10:55	14° \mathbb{Z} 37'39	-2°-1'-9	greatest brilliancy	632 Nov 07 j 17:32	0° \mathbb{M} 31'39	-0.6m
minimum elong	632 Jan 02 j 08:36	14° \mathbb{Z} 27'48	2°01'07	desc. node	632 Nov 24 j 02:14	24° \mathbb{M} 55'04	
	632 Jan 11 j 06:26	0° \approx		morning set	632 Nov 26 j 02:16	28° \mathbb{M} 00'18	
evening rise	632 Jan 14 j 02:02	5° \approx 02'27			632 Nov 27 j 09:13	0° \mathbb{X}	
asc. node	632 Jan 25 j 23:18	25° \approx 19'52		max. Earth dist.	632 Dec 07 j 20:23	16° \mathbb{X} 25'16	1.44083 AU
	632 Jan 29 j 11:47	0° \mathbb{X}					
evening max el	632 Jan 30 j 20:54	1° \mathbb{X} 28'52	18°07'37	superior conj	632 Dec 12 j 17:55	24° \mathbb{X} 17'29	-1°-44'-22
retrograde	632 Feb 06 j 12:03	4° \mathbb{X} 53'42		minimum elong	632 Dec 12 j 10:42	23° \mathbb{X} 48'16	1°43'49
evening set	632 Feb 09 j 04:00	4° \mathbb{X} 20'36			632 Dec 16 j 05:45	0° \mathbb{Z}	
	632 Feb 15 j 01:19	30° \mathbb{R} \approx		evening rise	632 Dec 26 j 04:30	16° \mathbb{Z} 42'15	
inferior conj	632 Feb 15 j 18:17	29° \approx 18'50	3°44'03		633 Jan 03 j 00:31	0° \approx	
minimum elong	632 Feb 15 j 19:29	29° \approx 15'56	3°43'59	asc. node	633 Jan 11 j 20:19	13° \approx 03'17	
min. Earth dist.	632 Feb 18 j 20:28	26° \approx 18'45	0.61401 AU	evening max el	633 Jan 13 j 09:23	14° \approx 44'56	18°15'07
morning rise	632 Feb 22 j 08:19	23° \approx 26'50		retrograde	633 Jan 19 j 20:54	18° \approx 13'35	
direct	632 Feb 29 j 05:11	21° \approx 04'41		evening set	633 Jan 22 j 17:23	17° \approx 30'47	
desc. node	632 Mar 05 j 04:22	22° \approx 11'41		inferior conj	633 Jan 28 j 21:00	12° \approx 08'50	3°47'00
morning max el	632 Mar 14 j 08:51	28° \approx 56'14	27°44'53	minimum elong	633 Jan 28 j 20:13	12° \approx 10'59	3°46'58
	632 Mar 15 j 10:02	0° \mathbb{X}		min. Earth dist.	633 Jan 31 j 09:20	9° \approx 23'27	0.63350 AU
	632 Apr 05 j 15:17	0° \mathbb{Y}		morning rise	633 Feb 03 j 21:16	6° \approx 05'56	
morning set	632 Apr 16 j 03:25	19° \mathbb{Y} 56'23		direct	633 Feb 10 j 20:14	3° \approx 21'50	
	632 Apr 20 j 22:03	0° \mathbb{B}		desc. node	633 Feb 20 j 01:24	7° \approx 10'48	
max. Earth dist.	632 Apr 22 j 04:12	2° \mathbb{B} 43'07	1.32453 AU	morning max el	633 Feb 24 j 16:15	11° \approx 15'11	27°42'19
asc. node	632 Apr 22 j 22:35	4° \mathbb{B} 23'03			633 Mar 11 j 12:06	0° \mathbb{X}	
					633 Mar 28 j 23:55	0° \mathbb{Y}	
superior conj	632 Apr 23 j 12:14	5° \mathbb{B} 37'30	0°06'02	morning set	633 Mar 31 j 02:14	4° \mathbb{Y} 08'00	
minimum elong	632 Apr 23 j 11:57	5° \mathbb{B} 35'59	0°05'58	max. Earth dist.	633 Apr 05 j 09:58	15° \mathbb{Y} 05'54	1.33018 AU
behind sun begin	632 Apr 23 j 07:12	5° \mathbb{B} 10'05					
behind sun end	632 Apr 23 j 16:41	6° \mathbb{B} 01'54		superior conj	633 Apr 07 j 20:10	20° \mathbb{Y} 16'27	0°-20'-44
evening rise	632 Apr 30 j 11:06	20° \mathbb{B} 42'20		minimum elong	633 Apr 07 j 21:10	20° \mathbb{Y} 21'50	0°20'32
	632 May 04 j 23:56	0° \mathbb{I}		asc. node	633 Apr 09 j 19:36	24° \mathbb{Y} 32'14	
	632 May 24 j 12:26	0° \mathbb{S}			633 Apr 12 j 08:19	0° \mathbb{B}	
evening max el	632 May 26 j 08:18	1° \mathbb{S} 50'52	24°49'49	evening rise	633 Apr 14 j 22:54	5° \mathbb{B} 33'57	
desc. node	632 Jun 01 j 03:36	6° \mathbb{S} 24'43			633 Apr 28 j 02:06	0° \mathbb{I}	
retrograde	632 Jun 09 j 07:28	8° \mathbb{S} 55'57		evening max el	633 May 07 j 22:29	12° \mathbb{I} 24'43	23°15'29
evening set	632 Jun 14 j 11:18	7° \mathbb{S} 55'26		desc. node	633 May 19 j 00:36	18° \mathbb{I} 56'01	
min. Earth dist.	632 Jun 19 j 19:40	5° \mathbb{S} 06'06	0.57256 AU	retrograde	633 May 21 j 10:53	19° \mathbb{I} 09'26	
inferior conj	632 Jun 22 j 18:23	3° \mathbb{S} 09'46	-4°-41'-3	evening set	633 May 25 j 03:20	18° \mathbb{I} 39'37	
minimum elong	632 Jun 22 j 15:11	3° \mathbb{S} 15'05	4°40'47	min. Earth dist.	633 Jun 01 j 08:17	15° \mathbb{I} 23'22	0.55745 AU
	632 Jun 28 j 04:14	30° \mathbb{R} \mathbb{I}		inferior conj	633 Jun 03 j 04:53	14° \mathbb{I} 17'50	-3°-51'-46
morning rise	632 Jun 30 j 22:53	29° \mathbb{I} 01'23		minimum elong	633 Jun 02 j 21:44	14° \mathbb{I} 28'22	3°50'11
direct	632 Jul 03 j 12:51	28° \mathbb{I} 42'24		morning rise	633 Jun 11 j 19:25	10° \mathbb{I} 23'28	
	632 Jul 08 j 13:41	0° \mathbb{S}		direct	633 Jun 14 j 13:23	10° \mathbb{I} 05'11	
morning max el	632 Jul 12 j 14:06	2° \mathbb{S} 55'36	19°14'52	morning max el	633 Jun 25 j 04:22	15° \mathbb{I} 00'06	20°23'48
asc. node	632 Jul 19 j 21:48	12° \mathbb{S} 16'05			633 Jul 06 j 04:39	0° \mathbb{S}	
morning set	632 Jul 29 j 13:49	0° Ω 01'18		asc. node	633 Jul 06 j 18:51	1° \mathbb{S} 02'46	

morning set	633 Jul 13 j 19:05	14°  37'00			634 Jun 28 j 10:57	0° 		
superior conj	633 Jul 21 j 11:35	0°  23'43	1°45'07		superior conj	634 Jul 05 j 12:05	14°  51'24	1°37'11
minimum elong	633 Jul 21 j 10:38	0°  18'54	1°45'06		minimum elong	634 Jul 05 j 10:05	14°  40'56	1°37'02
	633 Jul 21 j 06:54	0° 			max. Earth dist.	634 Jul 09 j 02:09	22°  16'02	1.34756 AU
max. Earth dist.	633 Jul 26 j 12:15	10°  21'18	1.36328 AU			634 Jul 12 j 23:26	0° 	
evening rise	633 Jul 30 j 12:56	17°  57'18			evening rise	634 Jul 13 j 16:27	1°  22'16	
	633 Aug 06 j 08:38	0° 				634 Jul 30 j 08:24	0° 	
desc. node	633 Aug 14 j 23:56	13°  50'32			desc. node	634 Aug 01 j 20:57	3°  44'55	
	633 Aug 26 j 14:15	0° 			evening max el	634 Aug 17 j 17:55	23°  19'34	26°55'03
evening max el	633 Sep 04 j 05:48	9°  45'59	26°03'00			634 Aug 27 j 10:55	0° 	
retrograde	633 Sep 16 j 18:31	16°  53'25			retrograde	634 Aug 30 j 21:34	0°  36'41	
evening set	633 Sep 23 j 00:02	14°  17'53				634 Sep 03 j 03:30	30°  R 	
min. Earth dist.	633 Sep 27 j 06:16	9°  42'58	0.66600 AU		evening set	634 Sep 06 j 15:43	27°  53'21	
inferior conj	633 Sep 28 j 15:22	7°  59'29	-1°-23'-55		min. Earth dist.	634 Sep 10 j 14:42	23°  55'42	0.65549 AU
minimum elong	633 Sep 28 j 17:32	7°  52'44	1°23'03		inferior conj	634 Sep 12 j 11:57	21°  44'26	-2°-20'-32
asc. node	633 Oct 02 j 18:04	3°  23'39			minimum elong	634 Sep 12 j 15:33	21°  33'57	2°19'12
morning rise	633 Oct 04 j 11:58	2°  05'46			morning rise	634 Sep 18 j 16:49	16°  03'14	
direct	633 Oct 07 j 14:23	1°  10'37			asc. node	634 Sep 19 j 15:07	15°  39'45	
morning max el	633 Oct 14 j 11:59	5°  02'05	18°57'35		direct	634 Sep 21 j 11:17	15°  21'03	
	633 Nov 01 j 02:13	0° 			morning max el	634 Sep 28 j 01:02	18°  55'51	18°18'46
morning set	633 Nov 05 j 12:04	6°  55'34				634 Oct 06 j 08:31	0° 	
desc. node	633 Nov 10 j 23:15	15°  30'36			morning set	634 Oct 17 j 01:47	17°  15'42	
	633 Nov 20 j 04:46	0° 				634 Oct 24 j 22:40	0° 	
max. Earth dist.	633 Nov 20 j 12:30	0°  30'25	1.44918 AU		desc. node	634 Oct 28 j 20:17	6°  13'33	
superior conj	633 Nov 22 j 01:50	2°  37'26	-1°-9'-6		superior conj	634 Nov 01 j 03:06	11°  25'35	0°-21'-36
minimum elong	633 Nov 21 j 17:49	2°  25'51	1°08'12		minimum elong	634 Nov 01 j 00:16	11°  14'27	0°21'14
evening rise	633 Dec 07 j 08:35	27°  32'11			max. Earth dist.	634 Nov 03 j 07:15	14°  51'05	1.45028 AU
	633 Dec 08 j 22:55	0° 				634 Nov 12 j 23:19	0° 	
evening max el	633 Dec 27 j 20:57	28°  08'30	18°40'59		evening rise	634 Nov 17 j 13:18	7°  37'10'01	
asc. node	633 Dec 29 j 17:21	29°  05'04				634 Dec 02 j 08:11	0° 	
	633 Dec 29 j 22:26	0° 			greatest brilliancy	634 Dec 02 j 06:40	29°  37'54'26	-0.7m
retrograde	634 Jan 03 j 13:07	1°  51'56			evening max el	634 Dec 11 j 05:26	11°  36'23	19°23'50
evening set	634 Jan 06 j 14:59	0°  58'16			asc. node	634 Dec 16 j 14:24	15°  36'14	
	634 Jan 08 j 00:32	30°  R 			retrograde	634 Dec 18 j 09:22	15°  34'59	
inferior conj	634 Jan 12 j 10:54	25°  18'12	3°32'44		evening set	634 Dec 21 j 18:08	14°  37'47	
minimum elong	634 Jan 12 j 08:49	25°  24'29	3°32'26		inferior conj	634 Dec 27 j 08:45	8°  42'05	3°05'57
min. Earth dist.	634 Jan 14 j 07:51	23°  20'40	0.64986 AU		minimum elong	634 Dec 27 j 06:04	8°  50'45	3°05'18
morning rise	634 Jan 18 j 01:27	19°  08'45			min. Earth dist.	634 Dec 28 j 15:00	7°  04'20	0.66241 AU
direct	634 Jan 24 j 18:37	16°  17'29			morning rise	635 Jan 01 j 17:14	2°  28'47	
desc. node	634 Feb 06 j 22:27	23°  54'35				635 Jan 05 j 23:00	30°  R 	
morning max el	634 Feb 07 j 01:48	24°  02'57	27°05'39		direct	635 Jan 07 j 23:04	29°  37'43'54	
	634 Feb 12 j 10:35	0° 				635 Jan 10 j 01:18	0° 	
	634 Mar 04 j 20:49	0° 			morning max el	635 Jan 20 j 11:05	7°  08'00	26°02'10
morning set	634 Mar 14 j 15:36	17°  34'46'37			desc. node	635 Jan 24 j 19:30	11°  25'33'8	
max. Earth dist.	634 Mar 19 j 06:10	26°  35'00	1.34016 AU			635 Feb 07 j 06:20	0° 	
	634 Mar 20 j 18:17	0° 				635 Feb 25 j 06:44	0° 	
superior conj	634 Mar 22 j 23:18	4°  35'46	0°-47'-59		morning set	635 Feb 25 j 15:26	0°  40'11	
minimum elong	634 Mar 23 j 01:38	4°  48'03	0°47'32		max. Earth dist.	635 Mar 01 j 14:36	8°  10'42	1.35479 AU
asc. node	634 Mar 27 j 16:39	14°  35'08			superior conj	635 Mar 06 j 19:11	18°  38'30	-1°-14'-15
evening rise	634 Mar 30 j 09:21	20°  35'49			minimum elong	635 Mar 06 j 22:41	18°  46'11	1°13'42
	634 Apr 04 j 04:58	0° 				635 Mar 12 j 09:45	0° 	
evening max el	634 Apr 19 j 17:25	23°  04'31	21°42'15		evening rise	635 Mar 14 j 16:32	4°  34'15'9	
retrograde	634 May 02 j 03:03	29°  08'11			asc. node	635 Mar 14 j 13:42	4°  37'32	
evening set	634 May 04 j 16:05	28°  53'38				635 Mar 29 j 04:06	0° 	
desc. node	634 May 05 j 21:38	28°  36'41			evening max el	635 Apr 01 j 22:30	4°  14'14	20°21'11
inferior conj	634 May 14 j 01:26	24°  51'28	-2°-17'-34		retrograde	635 Apr 12 j 16:22	9°  24'55	
minimum elong	634 May 13 j 19:16	25°  00'06	2°15'32		evening set	635 Apr 14 j 18:54	9°  13'51	
min. Earth dist.	634 May 13 j 20:55	24°  57'47	0.55001 AU		desc. node	635 Apr 22 j 18:41	5°  54'02	
morning rise	634 May 22 j 23:20	20°  55'13			inferior conj	635 Apr 23 j 20:46	5°  16'04	0°-18'-48
direct	634 May 26 j 01:17	20°  34'20			minimum elong	635 Apr 23 j 19:54	5°  17'21	0°18'30
morning max el	634 Jun 07 j 07:25	26°  20'59	21°51'24		min. Earth dist.	635 Apr 25 j 10:16	4°  21'12	0.55208 AU
	634 Jun 10 j 18:42	0° 			morning rise	635 May 02 j 18:47	0° 	
asc. node	634 Jun 23 j 15:54	20°  19'34			direct	635 May 06 j 13:24	0° 	
morning set	634 Jun 28 j 04:23	29°  25'51			morning max el	635 May 20 j 01:28	7°  04'46	23°31'04

	635 Jun 05 j 09:38	0°♂			636 May 10 j 21:33	0°♂	
asc. node	635 Jun 10 j 12:57	9°♂58'28		morning set	636 May 27 j 03:48	29°♂20'22	
morning set	635 Jun 12 j 15:50	14°♂22'03		asc. node	636 May 27 j 10:01	29°♂53'10	
					636 May 27 j 11:19	0°♂	
superior conj	635 Jun 19 j 18:27	29°♂36'41	1°23'48				
minimum elong	635 Jun 19 j 16:01	29°♂23'34	1°23'30	superior conj	636 Jun 03 j 04:26	14°♂32'22	1°06'05
	635 Jun 19 j 22:48	0°♂		minimum elong	636 Jun 03 j 02:05	14°♂19'30	1°05'40
max. Earth dist.	635 Jun 22 j 01:45	4°♂31'44	1.33569 AU	max. Earth dist.	636 Jun 04 j 09:11	17°♂08'55	1.32770 AU
evening rise	635 Jun 27 j 08:21	15°♂24'10		evening rise	636 Jun 10 j 09:03	29°♂52'10	
	635 Jul 05 j 01:41	0°♂			636 Jun 10 j 10:35	0°♂	
desc. node	635 Jul 19 j 17:59	23°♂07'47			636 Jun 27 j 03:40	0°♂	
	635 Jul 25 j 02:21	0°♂		desc. node	636 Jul 05 j 15:01	11°♂46'04	
evening max el	635 Jul 31 j 05:31	6°♂37'39	27°22'46	evening max el	636 Jul 12 j 14:13	19°♂26'49	27°20'20
retrograde	635 Aug 13 j 18:41	13°♂56'20		retrograde	636 Jul 26 j 09:17	26°♂43'55	
evening set	635 Aug 20 j 21:32	11°♂14'32		evening set	636 Aug 02 j 13:55	24°♂15'53	
min. Earth dist.	635 Aug 24 j 14:25	7°♂52'33	0.64143 AU	min. Earth dist.	636 Aug 06 j 03:52	21°♂22'56	0.62400 AU
inferior conj	635 Aug 27 j 00:37	5°♂19'05	-3°-14'-37	inferior conj	636 Aug 09 j 02:30	18°♂37'02	-4°-2'-14
minimum elong	635 Aug 27 j 05:19	5°♂06'40	3°13'10	minimum elong	636 Aug 09 j 07:23	18°♂25'30	4°01'08
	635 Sep 02 j 09:35	30°♂♂		morning rise	636 Aug 16 j 03:26	13°♂31'28	
morning rise	635 Sep 02 j 15:04	29°♂53'56		direct	636 Aug 18 j 13:45	13°♂05'04	
direct	635 Sep 05 j 04:11	29°♂21'07		asc. node	636 Aug 23 j 09:14	14°♂51'03	
asc. node	635 Sep 06 j 12:11	29°♂30'14		morning max el	636 Aug 25 j 08:06	16°♂31'20	17°53'26
	635 Sep 07 j 22:32	0°♂			636 Sep 03 j 19:59	0°♂	
morning max el	635 Sep 11 j 16:40	2°♂47'33	17°57'05	morning set	636 Sep 10 j 09:50	11°♂37'24	
morning set	635 Sep 28 j 18:56	28°♂55'27			636 Sep 20 j 20:16	0°♂	
	635 Sep 29 j 10:03	0°♂					
superior conj	635 Oct 11 j 19:00	20°♂39'52	0°26'01	superior conj	636 Sep 21 j 13:23	1°♂13'04	1°04'06
minimum elong	635 Oct 11 j 21:52	20°♂51'31	0°25'38	minimum elong	636 Sep 21 j 18:15	1°♂33'44	1°03'31
desc. node	635 Oct 15 j 17:18	26°♂59'54		max. Earth dist.	636 Sep 28 j 16:12	13°♂03'47	1.43133 AU
max. Earth dist.	635 Oct 17 j 01:36	29°♂08'37	1.44405 AU	desc. node	636 Oct 01 j 14:20	17°♂46'39	
	635 Oct 17 j 14:32	0°♂		evening rise	636 Oct 06 j 08:58	25°♂19'12	
evening rise	635 Oct 28 j 00:27	16°♂15'48			636 Oct 09 j 09:31	0°♂	
	635 Nov 06 j 00:47	0°♂			636 Oct 30 j 02:03	0°♂	
greatest brilliancy	635 Nov 18 j 01:27	17°♂25'54	-0.5m	greatest brilliancy	636 Nov 01 j 07:38	2°♂52'01	-0.4m
evening max el	635 Nov 24 j 09:02	25°♂05'20	20°21'45	evening max el	636 Nov 06 j 06:48	8°♂34'19	21°31'49
retrograde	635 Dec 02 j 07:05	29°♂45'01		retrograde	636 Nov 15 j 04:13	13°♂51'42	
asc. node	635 Dec 03 j 11:27	29°♂37'06		evening set	636 Nov 19 j 08:19	12°♂15'05	
evening set	635 Dec 06 j 00:33	28°♂24'30		asc. node	636 Nov 19 j 08:30	12°♂14'43	
inferior conj	635 Dec 11 j 11:51	22°♂16'01	2°29'47	inferior conj	636 Nov 24 j 17:58	5°♂57'16	1°46'26
minimum elong	635 Dec 11 j 09:10	22°♂25'03	2°28'56	minimum elong	636 Nov 24 j 15:47	6°♂04'49	1°45'37
min. Earth dist.	635 Dec 12 j 04:54	21°♂18'22	0.67097 AU	min. Earth dist.	636 Nov 24 j 23:19	5°♂38'46	0.67580 AU
morning rise	635 Dec 16 j 17:18	16°♂00'55		morning rise	636 Nov 29 j 22:59	29°♂42'18	
direct	635 Dec 22 j 08:46	13°♂32'05			636 Nov 29 j 15:03	30°♂♂	
morning max el	636 Jan 02 j 19:33	20°♂21'27	24°41'30	direct	636 Dec 04 j 23:05	27°♂34'43	
	636 Jan 11 j 02:25	0°♂			636 Dec 11 j 00:40	0°♂	
desc. node	636 Jan 11 j 16:34	0°♂45'45		morning max el	636 Dec 15 j 04:48	3°♂39'53	23°13'41
	636 Jan 31 j 10:59	0°♂		greatest brilliancy	636 Dec 20 j 06:41	9°♂21'34	-0.3m
morning set	636 Feb 07 j 20:23	12°♂33'50		desc. node	636 Dec 28 j 13:36	20°♂15'36	
max. Earth dist.	636 Feb 11 j 13:17	19°♂13'11	1.37350 AU		637 Jan 04 j 07:33	0°♂	
	636 Feb 17 j 06:49	0°♂		morning set	637 Jan 19 j 00:08	23°♂11'11	
superior conj	636 Feb 18 j 04:43	1°♂46'07	-1°-37'-33		637 Jan 23 j 00:14	0°♂	
minimum elong	636 Feb 18 j 08:43	2°♂05'36	1°37'07	max. Earth dist.	637 Jan 23 j 08:30	0°♂35'50	1.39459 AU
evening rise	636 Feb 26 j 18:10	18°♂46'09		superior conj	637 Jan 30 j 23:42	14°♂17'29	-1°-55'-3
asc. node	636 Feb 29 j 10:46	24°♂04'46		minimum elong	637 Jan 31 j 02:56	14°♂32'24	1°54'53
	636 Mar 03 j 13:43	0°♂			637 Feb 08 j 06:16	0°♂	
evening max el	636 Mar 14 j 14:55	16°♂02'33	19°18'08	evening rise	637 Feb 09 j 11:27	2°♂20'29	
retrograde	636 Mar 23 j 16:29	20°♂24'40		asc. node	637 Feb 15 j 07:49	13°♂20'37	
evening set	636 Mar 25 j 20:03	20°♂11'01		evening max el	637 Feb 25 j 16:49	28°♂25'53	18°35'00
inferior conj	636 Apr 03 j 04:53	16°♂02'00	1°30'29		637 Feb 27 j 12:35	0°♂	
minimum elong	636 Apr 03 j 08:18	15°♂56'19	1°29'22	retrograde	637 Mar 05 j 10:48	2°♂13'16	
min. Earth dist.	636 Apr 06 j 01:01	14°♂09'27	0.56319 AU	evening set	637 Mar 07 j 19:06	1°♂53'36	
desc. node	636 Apr 08 j 15:44	12°♂35'56			637 Mar 11 j 19:52	30°♂♂	
morning rise	636 Apr 11 j 16:38	11°♂12'57		inferior conj	637 Mar 15 j 09:17	27°♂25'44	2°48'26
direct	636 Apr 16 j 11:51	10°♂20'07		minimum elong	637 Mar 15 j 13:24	27°♂17'43	2°47'28
morning max el	636 Apr 30 j 16:03	17°♂33'31	25°10'41	min. Earth dist.	637 Mar 18 j 18:57	24°♂48'25	0.58095 AU
				morning rise	637 Mar 23 j 03:34	22°♂05'01	

desc. node	637 Mar 26 j 12:47	20° Υ 53'49		min. Earth dist.	638 Feb 28 j 18:26	6° Υ 29'15	0.60190 AU
direct	637 Mar 29 j 00:12	20° Υ 38'11		morning rise	638 Mar 04 j 10:03	3° Υ 45'24	
morning max el	637 Apr 12 j 09:04	28° Υ 14'47	26°34'39	direct	638 Mar 11 j 01:09	1° Υ 41'12	
	637 Apr 14 j 02:30	0° Υ		desc. node	638 Mar 13 j 09:49	1° Υ 56'15	
	637 May 04 j 10:30	0° Υ		morning max el	638 Mar 25 j 07:48	9° Υ 29'58	27°29'26
morning set	637 May 11 j 14:33	14° Υ 13'46			638 Apr 10 j 02:25	0° Υ	
asc. node	637 May 14 j 07:04	19° Υ 57'23		morning set	638 Apr 25 j 22:19	28° Υ 56'26	
					638 Apr 26 j 10:33	0° Υ	
superior conj	637 May 18 j 16:02	29° Υ 30'46	0°44'50	asc. node	638 May 01 j 04:07	10° Υ 06'48	
minimum elong	637 May 18 j 14:12	29° Υ 20'44	0°44'27	max. Earth dist.	638 May 02 j 09:10	12° Υ 45'27	1.32304 AU
	637 May 18 j 21:21	0° Υ					
max. Earth dist.	637 May 18 j 20:50	29° Υ 57'13	1.32348 AU	superior conj	638 May 03 j 03:33	14° Υ 26'13	0°20'48
evening rise	637 May 25 j 15:35	14° Υ 35'50		minimum elong	638 May 03 j 02:37	14° Υ 21'08	0°20'36
	637 Jun 02 j 11:09	0° Υ		evening rise	638 May 10 j 01:41	29° Υ 27'54	
desc. node	637 Jun 22 j 12:02	29° Υ 20'08			638 May 10 j 07:46	0° Υ	
	637 Jun 23 j 03:19	0° Υ			638 May 26 j 22:54	0° Υ	
evening max el	637 Jun 24 j 17:24	1° Υ 34'17	26°44'55	evening max el	638 Jun 06 j 13:46	12° Υ 56'08	25°38'40
retrograde	637 Jul 08 j 16:39	8° Υ 49'20		desc. node	638 Jun 09 j 09:04	15° Υ 23'46	
evening set	637 Jul 15 j 12:20	6° Υ 48'56		retrograde	638 Jun 20 j 14:52	20° Υ 06'48	
min. Earth dist.	637 Jul 19 j 07:03	4° Υ 11'25	0.60397 AU	evening set	638 Jun 26 j 12:26	18° Υ 44'20	
inferior conj	637 Jul 22 j 14:04	1° Υ 28'47	-4°-37'-7	min. Earth dist.	638 Jul 01 j 02:03	16° Υ 03'59	0.58340 AU
minimum elong	637 Jul 22 j 17:28	1° Υ 21'44	4°36'44	inferior conj	638 Jul 04 j 07:49	13° Υ 45'07	-4°-49'-22
	637 Jul 24 j 10:04	30° Υ		minimum elong	638 Jul 04 j 07:29	13° Υ 45'42	4°49'24
morning rise	637 Jul 30 j 01:50	26° Υ 45'32		morning rise	638 Jul 12 j 06:15	9° Υ 24'33	
direct	637 Aug 01 j 11:51	26° Υ 23'17		direct	638 Jul 14 j 18:10	9° Υ 04'47	
	637 Aug 08 j 20:43	0° Υ		morning max el	638 Jul 23 j 01:57	13° Υ 00'59	18°44'45
morning max el	637 Aug 08 j 20:15	29° Υ 58'53	18°08'57	asc. node	638 Jul 28 j 03:19	19° Υ 05'26	
asc. node	637 Aug 10 j 06:17	1° Υ 27'51			638 Aug 03 j 16:19	0° Υ	
morning set	637 Aug 24 j 16:37	25° Υ 05'01		morning set	638 Aug 08 j 10:42	9° Υ 05'52	
	637 Aug 27 j 07:31	0° Υ					
superior conj	637 Sep 03 j 09:55	13° Υ 03'38	1°29'30	superior conj	638 Aug 17 j 03:23	25° Υ 56'22	1°43'01
minimum elong	637 Sep 03 j 13:49	13° Υ 21'05	1°29'09	minimum elong	638 Aug 17 j 05:14	26° Υ 05'10	1°42'56
max. Earth dist.	637 Sep 11 j 00:58	26° Υ 20'14	1.41376 AU		638 Aug 19 j 07:24	0° Υ	
	637 Sep 13 j 05:33	0° Υ		max. Earth dist.	638 Aug 24 j 05:00	8° Υ 52'56	1.39373 AU
evening rise	637 Sep 16 j 07:56	5° Υ 04'18		evening rise	638 Aug 28 j 06:40	15° Υ 56'15	
desc. node	637 Sep 18 j 11:21	8° Υ 30'28		desc. node	638 Sep 05 j 08:21	29° Υ 07'24	
	637 Oct 02 j 16:18	0° Υ			638 Sep 05 j 21:46	0° Υ	
greatest brilliancy	637 Oct 14 j 21:28	16° Υ 23'35	-0.3m		638 Sep 27 j 08:46	0° Υ	
evening max el	637 Oct 19 j 23:15	22° Υ 04'50	22°49'48	evening max el	638 Oct 02 j 12:16	5° Υ 38'48	24°09'55
retrograde	637 Oct 29 j 23:08	28° Υ 01'05		retrograde	638 Oct 13 j 14:31	12° Υ 09'26	
evening set	637 Nov 03 j 15:43	26° Υ 07'09		evening set	638 Oct 18 j 21:06	9° Υ 57'55	
asc. node	637 Nov 06 j 05:32	23° Υ 28'05		min. Earth dist.	638 Oct 23 j 16:08	4° Υ 26'20	0.67544 AU
inferior conj	637 Nov 09 j 01:13	19° Υ 43'53	0°57'34	inferior conj	638 Oct 24 j 07:49	3° Υ 33'20	0°04'33
minimum elong	637 Nov 08 j 23:55	19° Υ 48'23	0°57'02	minimum elong	638 Oct 24 j 07:43	3° Υ 33'43	0°04'30
min. Earth dist.	637 Nov 08 j 19:54	20° Υ 02'16	0.67721 AU	transit middle	638 Oct 24 j 07:43	3° Υ 33'43	0°04'30
morning rise	637 Nov 14 j 08:05	13° Υ 31'17		transit begin	638 Oct 24 j 05:05	3° Υ 42'35	
direct	637 Nov 18 j 17:18	11° Υ 46'24		transit end	638 Oct 24 j 10:20	3° Υ 24'52	
morning max el	637 Nov 27 j 17:59	17° Υ 05'01	21°47'52	asc. node	638 Oct 24 j 02:33	3° Υ 51'09	
greatest brilliancy	637 Dec 02 j 14:11	22° Υ 34'04	-0.4m		638 Oct 27 j 02:19	30° Υ	
	637 Dec 08 j 06:23	0° Υ		morning rise	638 Oct 29 j 18:34	27° Υ 25'44	
desc. node	637 Dec 15 j 10:37	10° Υ 12'32		direct	638 Nov 02 j 14:19	26° Υ 02'23	
	637 Dec 28 j 10:16	0° Υ			638 Nov 09 j 21:56	0° Υ	
morning set	637 Dec 29 j 22:42	2° Υ 24'43		morning max el	638 Nov 10 j 13:58	0° Υ 39'26	20°30'58
max. Earth dist.	638 Jan 05 j 07:19	12° Υ 46'02	1.41539 AU	greatest brilliancy	638 Nov 16 j 20:00	8° Υ 04'44	-0.5m
				desc. node	638 Dec 02 j 07:36	0° Υ 28'31	
superior conj	638 Jan 12 j 23:04	25° Υ 50'28	-2°-2'-53		638 Dec 02 j 00:05	0° Υ	
minimum elong	638 Jan 12 j 23:26	25° Υ 52'00	2°02'54	morning set	638 Dec 08 j 22:29	10° Υ 37'45	
	638 Jan 15 j 07:32	0° Υ		max. Earth dist.	638 Dec 18 j 13:41	25° Υ 51'00	1.43310 AU
evening rise	638 Jan 23 j 16:55	15° Υ 16'56			638 Dec 21 j 03:06	0° Υ	
	638 Jan 31 j 21:45	0° Υ					
asc. node	638 Feb 02 j 04:52	2° Υ 08'10		superior conj	638 Dec 24 j 21:36	6° Υ 12'51	-1°-56'-20
evening max el	638 Feb 09 j 01:19	11° Υ 16'49	18°11'59	minimum elong	638 Dec 24 j 17:04	5° Υ 54'01	1°56'06
retrograde	638 Feb 15 j 23:05	14° Υ 45'26		evening rise	639 Jan 06 j 06:25	27° Υ 26'20	
evening set	638 Feb 18 j 12:21	14° Υ 17'39			639 Jan 07 j 17:24	0° Υ	
inferior conj	638 Feb 25 j 10:24	9° Υ 28'33	3°32'04	asc. node	639 Jan 20 j 01:53	20° Υ 17'53	
minimum elong	638 Feb 25 j 12:51	9° Υ 23'00	3°31'46	evening max el	639 Jan 23 j 13:14	24° Υ 25'53	18°08'33
				retrograde	639 Jan 30 j 01:37	27° Υ 50'28	

evening set	639 Feb 01 j 19:31	27° \approx 13'19		asc. node	640 Jan 06 j 22:55	7° \approx 38'52	
inferior conj	639 Feb 08 j 04:53	22° \approx 03'01	3°47'43	evening max el	640 Jan 07 j 01:42	7° \approx 45'59	18°23'55
minimum elong	639 Feb 08 j 05:11	22° \approx 02'16	3°47'43	retrograde	640 Jan 13 j 14:03	11° \approx 19'18	
min. Earth dist.	639 Feb 11 j 01:43	19° \approx 06'44	0.62270 AU	evening set	640 Jan 16 j 12:48	10° \approx 31'51	
morning rise	639 Feb 14 j 12:36	16° \approx 05'55		inferior conj	640 Jan 22 j 12:48	5° \approx 01'47	3°42'41
direct	639 Feb 21 j 11:44	13° \approx 32'25		minimum elong	640 Jan 22 j 11:23	5° \approx 05'51	3°42'33
desc. node	639 Feb 28 j 06:50	15° \approx 38'00		min. Earth dist.	640 Jan 24 j 18:32	2° \approx 28'00	0.64102 AU
morning max el	639 Mar 07 j 12:19	21° \approx 25'30	27°48'07		640 Jan 27 j 03:30	30° \approx	
	639 Mar 14 j 23:56	0° \approx		morning rise	640 Jan 28 j 08:30	28° \approx 55'56	
	639 Apr 03 j 03:28	0° \approx		direct	640 Feb 04 j 05:55	26° \approx 07'12	
morning set	639 Apr 10 j 01:05	13° \approx 21'16			640 Feb 13 j 10:00	0° \approx	
max. Earth dist.	639 Apr 15 j 18:22	25° \approx 20'38	1.32642 AU	desc. node	640 Feb 15 j 03:52	1° \approx 25'39	
				morning max el	640 Feb 17 j 20:50	3° \approx 57'29	27°30'26
superior conj	639 Apr 17 j 13:19	29° \approx 12'50	0°-5'-13		640 Mar 08 j 11:51	0° \approx	
minimum elong	639 Apr 17 j 13:34	29° \approx 14'09	0°05'11	morning set	640 Mar 23 j 20:18	27° \approx 19'46	
behind sun begin	639 Apr 17 j 08:40	28° \approx 47'32			640 Mar 25 j 04:32	0° \approx	
behind sun end	639 Apr 17 j 18:28	29° \approx 40'47		max. Earth dist.	640 Mar 28 j 20:36	7° \approx 30'24	1.33393 AU
	639 Apr 17 j 22:00	0° \approx					
asc. node	639 Apr 18 j 01:10	0° \approx 17'11		superior conj	640 Mar 31 j 19:29	13° \approx 44'05	0°-32'-19
evening rise	639 Apr 24 j 13:24	14° \approx 21'29		minimum elong	640 Mar 31 j 21:04	13° \approx 52'29	0°32'00
	639 May 02 j 10:23	0° \approx		asc. node	640 Apr 03 j 22:13	20° \approx 24'08	
evening max el	639 May 19 j 04:55	23° \approx 14'29	24°10'34	evening rise	640 Apr 08 j 00:53	29° \approx 09'52	
desc. node	639 May 27 j 06:05	29° \approx 23'09			640 Apr 08 j 10:27	0° \approx	
	639 May 28 j 21:20	0° \approx			640 Apr 25 j 23:25	0° \approx	
retrograde	639 Jun 02 j 01:12	0° \approx 39'32		evening max el	640 Apr 29 j 20:17	4° \approx 13'57	22°34'51
	639 Jun 06 j 06:19	30° \approx		retrograde	640 May 12 j 22:53	10° \approx 43'10	
evening set	639 Jun 06 j 13:52	29° \approx 15'40		desc. node	640 May 13 j 03:07	10° \approx 43'05	
min. Earth dist.	639 Jun 12 j 16:03	26° \approx 15'43	0.56535 AU	evening set	640 May 16 j 02:11	10° \approx 21'33	
inferior conj	639 Jun 15 j 05:31	25° \approx 18'46	-4°-25'-57	min. Earth dist.	640 May 24 j 04:09	6° \approx 50'31	0.55320 AU
minimum elong	639 Jun 15 j 00:16	25° \approx 12'00	4°25'12	inferior conj	640 May 25 j 08:53	6° \approx 09'38	-3°-16'-39
morning rise	639 Jun 23 j 14:18	21° \approx 17'22		minimum elong	640 May 25 j 01:25	6° \approx 20'17	3°14'36
direct	639 Jun 26 j 05:50	20° \approx 15'48		morning rise	640 Jun 03 j 03:07	2° \approx 17'02	
morning max el	639 Jul 05 j 22:22	25° \approx 12'31	19°41'42	direct	640 Jun 06 j 00:02	1° \approx 15'05	
	639 Jul 09 j 23:44	0° \approx		morning max el	640 Jun 17 j 07:41	7° \approx 13'51	20°59'08
asc. node	639 Jul 15 j 00:21	7° \approx 30'27		asc. node	640 Jun 30 j 21:25	26° \approx 13'01	
morning set	639 Jul 23 j 12:43	23° \approx 31'25			640 Jul 02 j 17:30	0° \approx	
	639 Jul 26 j 17:33	0° \approx		morning set	640 Jul 06 j 19:58	8° \approx 13'35	
superior conj	639 Jul 31 j 12:19	9° \approx 36'15	1°46'41	superior conj	640 Jul 14 j 08:10	23° \approx 49'30	1°42'30
minimum elong	639 Jul 31 j 12:15	9° \approx 35'54	1°46'41	minimum elong	640 Jul 14 j 06:42	23° \approx 41'56	1°42'26
max. Earth dist.	639 Aug 06 j 08:54	20° \approx 53'42	1.37381 AU		640 Jul 17 j 09:06	0° \approx	
evening rise	639 Aug 10 j 05:22	27° \approx 05'42		max. Earth dist.	640 Jul 18 j 18:06	2° \approx 44'13	1.35613 AU
	639 Aug 11 j 09:06	0° \approx		evening rise	640 Jul 22 j 23:43	10° \approx 54'04	
desc. node	639 Aug 23 j 05:24	19° \approx 33'08			640 Aug 02 j 21:25	0° \approx	
	639 Aug 30 j 07:12	0° \approx		desc. node	640 Aug 09 j 02:26	9° \approx 41'01	
evening max el	639 Sep 15 j 00:06	19° \approx 16'49	25°25'03		640 Aug 24 j 16:16	0° \approx	
retrograde	639 Sep 27 j 01:27	26° \approx 13'07		evening max el	640 Aug 27 j 11:59	2° \approx 53'37	26°27'39
evening set	639 Oct 02 j 22:47	23° \approx 45'24		retrograde	640 Sep 09 j 07:24	10° \approx 05'42	
min. Earth dist.	639 Oct 07 j 09:36	18° \approx 49'18	0.67045 AU	evening set	640 Sep 15 j 18:46	7° \approx 25'50	
inferior conj	639 Oct 08 j 12:04	17° \approx 23'46	0°-51'-9	min. Earth dist.	640 Sep 19 j 21:51	3° \approx 07'00	0.66200 AU
minimum elong	639 Oct 08 j 13:22	17° \approx 19'34	0°50'37	inferior conj	640 Sep 21 j 12:01	1° \approx 11'14	-1°-48'-2
asc. node	639 Oct 10 j 23:34	14° \approx 19'42		minimum elong	640 Sep 21 j 14:48	1° \approx 02'45	1°46'57
morning rise	639 Oct 14 j 04:34	11° \approx 24'05			640 Sep 22 j 11:43	30° \approx	
direct	639 Oct 17 j 12:46	10° \approx 19'32		asc. node	640 Sep 26 j 20:37	25° \approx 46'00	
morning max el	639 Oct 24 j 17:44	14° \approx 24'23	19°27'19	morning rise	640 Sep 27 j 11:58	25° \approx 22'37	
greatest brilliancy	639 Nov 02 j 18:23	25° \approx 57'23	-0.7m	direct	640 Sep 30 j 10:47	24° \approx 33'20	
	639 Nov 05 j 12:22	0° \approx		morning max el	640 Oct 07 j 04:05	28° \approx 16'15	18°39'07
morning set	639 Nov 17 j 21:49	18° \approx 58'52			640 Oct 08 j 18:18	0° \approx	
desc. node	639 Nov 19 j 04:39	20° \approx 58'31		morning set	640 Oct 27 j 18:50	28° \approx 29'03	
	639 Nov 24 j 23:39	0° \approx			640 Oct 28 j 17:40	0° \approx	
max. Earth dist.	639 Dec 01 j 03:31	9° \approx 41'24	1.44534 AU	desc. node	640 Nov 05 j 01:43	11° \approx 37'46	
superior conj	639 Dec 04 j 17:44	15° \approx 24'09	-1°-31'-31	superior conj	640 Nov 12 j 20:08	23° \approx 51'18	0°-49'-47
minimum elong	639 Dec 04 j 09:23	14° \approx 25'49	1°30'44	minimum elong	640 Nov 12 j 13:48	23° \approx 26'25	0°49'01
	639 Dec 13 j 17:51	0° \approx		max. Earth dist.	640 Nov 12 j 21:42	23° \approx 57'27	1.45057 AU
evening rise	639 Dec 18 j 23:46	8° \approx 42'06			640 Nov 16 j 17:56	0° \approx	
	640 Jan 01 j 01:03	0° \approx		evening rise	640 Nov 28 j 17:50	19° \approx 00'04	

	640 Dec 05 j 15:13	0°☾		greatest brilliancy	641 Nov 26 j 04:17	25°☾04'31	-0.6m
evening max el	640 Dec 20 j 12:12	21°☾12'00	18°57'09		641 Nov 29 j 19:13	0°☾	
asc. node	640 Dec 23 j 19:56	23°☾57'51		evening max el	641 Dec 03 j 18:40	4°☾39'59	19°46'47
retrograde	640 Dec 27 j 08:29	25°☾04'45		asc. node	641 Dec 10 j 16:58	8°☾59'21	
evening set	640 Dec 30 j 13:08	24°☾05'51		retrograde	641 Dec 11 j 05:47	9°☾00'57	
inferior conj	641 Jan 05 j 06:29	18°☾18'30	3°22'41	evening set	641 Dec 14 j 17:55	7°☾49'00	
minimum elong	641 Jan 05 j 04:05	18°☾26'02	3°22'14	inferior conj	641 Dec 20 j 06:53	1°☾47'18	2°51'37
min. Earth dist.	641 Jan 06 j 20:55	16°☾18'44	0.65568 AU	minimum elong	641 Dec 20 j 04:08	1°☾56'23	2°50'53
morning rise	641 Jan 10 j 18:03	12°☾07'04		min. Earth dist.	641 Dec 21 j 07:19	0°☾26'30	0.66643 AU
direct	641 Jan 17 j 06:46	9°☾17'26			641 Dec 21 j 15:25	30°☾☿	
morning max el	641 Jan 30 j 06:46	16°☾55'20	26°41'28	morning rise	641 Dec 25 j 13:41	25°☾32'46	
desc. node	641 Feb 01 j 00:55	18°☾45'06		direct	641 Dec 31 j 13:33	22°☾53'46	
	641 Feb 10 j 04:47	0°☾		morning max el	642 Jan 12 j 15:51	0°☾05'34	25°29'27
	641 Mar 01 j 08:36	0°☾			642 Jan 12 j 13:38	0°☾	
morning set	641 Mar 07 j 04:34	10°☾41'38		desc. node	642 Jan 18 j 21:58	7°☾09'03	
max. Earth dist.	641 Mar 11 j 12:22	19°☾06'54	1.34588 AU		642 Feb 04 j 02:48	0°☾	
				morning set	642 Feb 17 j 21:09	23°☾12'21	
superior conj	641 Mar 15 j 19:56	27°☾53'34	0°-59'-20	max. Earth dist.	642 Feb 21 j 16:07	0°☾13'34	1.36229 AU
minimum elong	641 Mar 15 j 22:48	28°☾08'27	0°58'49		642 Feb 21 j 13:15	0°☾	
	641 Mar 16 j 20:17	0°☾					
asc. node	641 Mar 21 j 19:17	10°☾23'34		superior conj	642 Feb 27 j 11:50	11°☾32'32	-1°-24'-38
evening rise	641 Mar 23 j 10:17	13°☾46'41		minimum elong	642 Feb 27 j 15:39	11°☾51'35	1°24'07
	641 Mar 31 j 19:20	0°☾		evening rise	642 Mar 07 j 15:24	28°☾04'27	
evening max el	641 Apr 11 j 19:00	15°☾04'19	21°05'42	asc. node	642 Mar 08 j 16:19	0°☾10'11	
retrograde	641 Apr 23 j 12:46	20°☾46'35			642 Mar 08 j 14:18	0°☾	
evening set	641 Apr 25 j 19:20	20°☾34'31		evening max el	642 Mar 25 j 04:58	26°☾30'23	19°51'58
desc. node	641 Apr 30 j 00:08	19°☾15'42			642 Mar 29 j 22:46	0°☾	
inferior conj	641 May 05 j 03:08	16°☾35'53	-1°-28'-10	retrograde	642 Apr 04 j 05:24	1°☾19'20	
minimum elong	641 May 04 j 22:59	16°☾41'45	1°26'43	evening set	642 Apr 06 j 07:13	1°☾07'51	
min. Earth dist.	641 May 05 j 16:52	16°☾16'29	0.54970 AU		642 Apr 09 j 20:45	30°☾☿	
morning rise	641 May 14 j 02:19	12°☾33'26		inferior conj	642 Apr 15 j 02:32	27°☾06'54	0°30'26
direct	641 May 17 j 09:55	12°☾09'40		minimum elong	642 Apr 15 j 03:52	27°☾04'51	0°29'57
morning max el	641 May 30 j 06:36	18°☾18'00	22°32'59	desc. node	642 Apr 16 j 21:11	26°☾01'21	
	641 Jun 08 j 17:50	0°☾		min. Earth dist.	642 Apr 17 j 07:04	25°☾46'23	0.55581 AU
asc. node	641 Jun 17 j 18:31	15°☾58'19		morning rise	642 Apr 23 j 21:20	22°☾36'45	
morning set	641 Jun 21 j 06:25	23°☾06'24		direct	642 Apr 28 j 01:33	21°☾58'10	
	641 Jun 24 j 12:36	0°☾		morning max el	642 May 11 j 22:35	28°☾52'49	24°14'16
					642 May 13 j 01:56	0°☾	
superior conj	641 Jun 28 j 11:31	8°☾25'52	1°32'07		642 Jun 01 j 19:41	0°☾	
minimum elong	641 Jun 28 j 09:16	8°☾13'56	1°31'53	asc. node	642 Jun 04 j 15:36	5°☾44'34	
max. Earth dist.	641 Jul 01 j 12:07	14°☾46'31	1.34200 AU	morning set	642 Jun 05 j 18:16	8°☾03'58	
evening rise	641 Jul 06 j 09:00	24°☾35'56					
	641 Jul 09 j 04:27	0°☾		superior conj	642 Jun 12 j 19:41	23°☾16'34	1°16'46
desc. node	641 Jul 26 j 23:28	29°☾23'12		minimum elong	642 Jun 12 j 17:13	23°☾03'13	1°16'24
	641 Jul 27 j 09:51	0°☾		max. Earth dist.	642 Jun 14 j 15:05	27°☾10'25	1.33179 AU
evening max el	641 Aug 09 j 23:49	16°☾20'53	27°10'07		642 Jun 15 j 22:52	0°☾	
retrograde	641 Aug 23 j 08:01	23°☾39'52		evening rise	642 Jun 20 j 05:02	8°☾50'07	
evening set	641 Aug 30 j 06:38	20°☾55'27			642 Jul 01 j 14:19	0°☾	
min. Earth dist.	641 Sep 03 j 02:40	17°☾13'43	0.64994 AU	desc. node	642 Jul 13 j 20:29	18°☾29'01	
inferior conj	641 Sep 05 j 05:31	14°☾51'47	-2°-44'-1	evening max el	642 Jul 23 j 10:21	29°☾27'52	27°25'42
minimum elong	641 Sep 05 j 09:39	14°☾40'13	2°42'35		642 Jul 24 j 00:04	0°☾	
morning rise	641 Sep 11 j 14:21	9°☾17'21		retrograde	642 Aug 06 j 02:46	6°☾46'59	
asc. node	641 Sep 13 j 17:41	8°☾41'06		evening set	642 Aug 13 j 07:16	4°☾09'19	
direct	641 Sep 14 j 06:11	8°☾39'39		min. Earth dist.	642 Aug 16 j 22:14	1°☾00'49	0.63431 AU
morning max el	641 Sep 20 j 18:37	12°☾09'50	18°07'27		642 Aug 17 j 22:42	30°☾☿	
	641 Oct 03 j 04:47	0°☾		inferior conj	642 Aug 19 j 13:59	28°☾20'17	-3°-35'-59
morning set	641 Oct 08 j 20:38	9°☾23'58		minimum elong	642 Aug 19 j 18:55	28°☾07'50	3°34'37
	641 Oct 21 j 11:05	0°☾		morning rise	642 Aug 26 j 08:49	23°☾03'10	
desc. node	641 Oct 22 j 22:44	2°☾22'21		direct	642 Aug 28 j 20:17	22°☾33'33	
				asc. node	642 Aug 31 j 14:46	23°☾11'11	
superior conj	641 Oct 23 j 01:16	2°☾32'29	0°00'-41	morning max el	642 Sep 04 j 10:34	25°☾59'14	17°53'16
minimum elong	641 Oct 23 j 01:11	2°☾32'05	0°00'41		642 Sep 07 j 20:10	0°☾	
behind sun begin	641 Oct 22 j 14:25	1°☾49'10		morning set	642 Sep 20 j 23:48	21°☾32'19	
behind sun end	641 Oct 23 j 11:57	3°☾14'57			642 Sep 25 j 20:50	0°☾	
max. Earth dist.	641 Oct 26 j 16:25	8°☾17'53	1.44840 AU				
evening rise	641 Nov 08 j 13:44	28°☾24'59		superior conj	642 Oct 03 j 03:51	12°☾18'58	0°43'40
	641 Nov 09 j 14:17	0°☾		minimum elong	642 Oct 03 j 08:03	12°☾36'19	0°43'06

max. Earth dist.	642 Oct 09 j 08:54	22°♄25'59	1.43926 AU	desc. node	643 Sep 26 j 16:47	13°♄55'28	
desc. node	642 Oct 09 j 19:46	23°♄09'32		evening rise	643 Sep 28 j 10:21	16°♄40'32	
	642 Oct 14 j 03:23	0°♄			643 Oct 07 j 01:59	0°♄	
evening rise	642 Oct 18 j 21:28	7°♄23'54		greatest brilliancy	643 Oct 25 j 22:00	26°♄18'41	-0.3m
	642 Nov 02 j 22:20	0°♄			643 Oct 29 j 01:55	0°♄	
greatest brilliancy	642 Nov 11 j 05:05	11°♄31'11	-0.5m	evening max el	643 Oct 30 j 15:18	1°♄38'54	22°04'26
evening max el	642 Nov 16 j 19:49	18°♄09'10	20°50'23	retrograde	643 Nov 08 j 23:39	7°♄12'27	
retrograde	642 Nov 25 j 03:27	23°♄04'39		evening set	643 Nov 13 j 08:52	5°♄28'40	
asc. node	642 Nov 27 j 14:00	22°♄31'04		asc. node	643 Nov 14 j 11:03	4°♄30'01	
evening set	642 Nov 29 j 01:06	21°♄37'43			643 Nov 18 j 03:21	30°♄	
inferior conj	642 Dec 04 j 11:31	15°♄25'00	2°12'12	inferior conj	643 Nov 18 j 18:18	29°♄08'19	1°26'19
minimum elong	642 Dec 04 j 09:00	15°♄33'37	2°11'21	minimum elong	643 Nov 18 j 16:27	29°♄14'44	1°25'35
min. Earth dist.	642 Dec 04 j 23:31	14°♄43'53	0.67340 AU	min. Earth dist.	643 Nov 18 j 19:05	29°♄05'38	0.67683 AU
morning rise	642 Dec 09 j 16:27	9°♄09'30		morning rise	643 Nov 23 j 23:50	22°♄54'11	
direct	642 Dec 15 j 01:28	6°♄49'01		direct	643 Nov 28 j 17:37	20°♄56'01	
morning max el	642 Dec 26 j 00:10	13°♄20'50	24°04'26	morning max el	643 Dec 08 j 10:26	26°♄40'41	22°36'28
desc. node	643 Jan 05 j 19:00	26°♄18'58			643 Dec 11 j 11:51	0°♄	
	643 Jan 08 j 11:35	0°♄		greatest brilliancy	643 Dec 13 j 00:47	1°♄49'12	-0.3m
	643 Jan 27 j 23:24	0°♄		desc. node	643 Dec 23 j 16:01	16°♄01'15	
morning set	643 Jan 30 j 16:08	4°♄35'39			644 Jan 02 j 02:19	0°♄	
max. Earth dist.	643 Feb 03 j 11:50	11°♄18'10	1.38231 AU	morning set	644 Jan 11 j 07:30	14°♄36'24	
				max. Earth dist.	644 Jan 16 j 07:50	22°♄58'42	1.40366 AU
					644 Jan 20 j 09:15	0°♄	
superior conj	643 Feb 10 j 15:44	24°♄32'09	-1°-45'-53				
minimum elong	643 Feb 10 j 19:37	24°♄50'39	1°45'33				
	643 Feb 13 j 11:51	0°♄		superior conj	644 Jan 24 j 03:03	6°♄40'28	-1°-59'-50
evening rise	643 Feb 19 j 13:50	11°♄56'39		minimum elong	644 Jan 24 j 05:20	6°♄50'51	1°59'46
asc. node	643 Feb 23 j 13:21	19°♄38'59		evening rise	644 Feb 03 j 02:30	25°♄15'45	
	643 Mar 01 j 10:34	0°♄			644 Feb 05 j 14:52	0°♄	
evening max el	643 Mar 08 j 01:50	8°♄34'59	18°57'20	asc. node	644 Feb 10 j 10:22	8°♄43'47	
retrograde	643 Mar 16 j 12:26	12°♄39'51		evening max el	644 Feb 19 j 06:59	21°♄11'36	18°22'48
evening set	643 Mar 18 j 17:58	12°♄23'56		retrograde	644 Feb 26 j 14:43	24°♄48'51	
inferior conj	643 Mar 26 j 18:48	8°♄07'48	2°07'50	evening set	644 Feb 29 j 01:22	24°♄25'45	
minimum elong	643 Mar 26 j 22:56	8°♄00'28	2°06'39	inferior conj	644 Mar 07 j 08:14	19°♄48'46	3°10'50
min. Earth dist.	643 Mar 29 j 23:02	5°♄53'44	0.57021 AU	minimum elong	644 Mar 07 j 11:49	19°♄41'20	3°10'09
morning rise	643 Apr 03 j 23:39	3°♄04'31		min. Earth dist.	644 Mar 10 j 18:41	16°♄59'19	0.58971 AU
desc. node	643 Apr 03 j 18:13	3°♄10'13		morning rise	644 Mar 14 j 18:30	14°♄17'42	
direct	643 Apr 09 j 06:24	1°♄58'00		desc. node	644 Mar 20 j 15:14	12°♄35'12	
morning max el	643 Apr 23 j 13:22	9°♄23'00	25°49'02	direct	644 Mar 21 j 00:18	12°♄34'50	
	643 May 09 j 02:28	0°♄		morning max el	644 Apr 04 j 08:26	20°♄16'43	27°02'06
morning set	643 May 21 j 05:52	23°♄00'37			644 Apr 12 j 16:45	0°♄	
asc. node	643 May 22 j 12:38	25°♄43'46			644 Apr 30 j 18:53	0°♄	
	643 May 24 j 12:11	0°♄		morning set	644 May 04 j 15:36	7°♄50'59	
				asc. node	644 May 08 j 09:40	15°♄51'14	
superior conj	643 May 28 j 06:33	8°♄14'09	0°57'27				
minimum elong	643 May 28 j 04:22	8°♄02'12	0°57'02	superior conj	644 May 11 j 18:21	23°♄12'43	0°34'56
max. Earth dist.	643 May 29 j 00:40	9°♄53'21	1.32549 AU	minimum elong	644 May 11 j 16:52	23°♄04'33	0°34'38
evening rise	643 Jun 04 j 08:31	23°♄26'02		max. Earth dist.	644 May 11 j 13:19	22°♄45'02	1.32291 AU
	643 Jun 07 j 14:19	0°♄			644 May 14 j 20:37	0°♄	
	643 Jun 25 j 11:09	0°♄		evening rise	644 May 18 j 16:53	8°♄15'14	
desc. node	643 Jun 30 j 17:31	6°♄42'47			644 May 30 j 01:22	0°♄	
evening max el	643 Jul 05 j 17:13	12°♄01'15	27°09'24	evening max el	644 Jun 16 j 17:47	23°♄50'42	26°20'07
retrograde	643 Jul 19 j 14:29	19°♄17'13		desc. node	644 Jun 16 j 14:31	23°♄42'54	
evening set	643 Jul 26 j 16:34	16°♄59'43			644 Jun 25 j 14:49	0°♄	
min. Earth dist.	643 Jul 30 j 07:26	14°♄15'00	0.61565 AU	retrograde	644 Jun 30 j 17:49	1°♄03'23	
inferior conj	643 Aug 02 j 10:13	11°♄28'30	-4°-19'-9		644 Jul 05 j 18:39	30°♄	
minimum elong	643 Aug 02 j 14:44	11°♄18'24	4°18'20	evening set	644 Jul 07 j 05:56	29°♄18'28	
morning rise	643 Aug 09 j 15:43	6°♄31'50		min. Earth dist.	644 Jul 11 j 06:44	26°♄42'07	0.59521 AU
direct	643 Aug 12 j 01:33	6°♄07'27		inferior conj	644 Jul 14 j 14:41	24°♄07'18	-4°-45'-48
asc. node	643 Aug 18 j 11:50	9°♄06'02		minimum elong	644 Jul 14 j 16:47	24°♄03'13	4°45'41
morning max el	643 Aug 19 j 00:54	9°♄36'49	17°57'34	morning rise	644 Jul 22 j 07:00	19°♄33'36	
	643 Sep 01 j 09:40	0°♄		direct	644 Jul 24 j 17:46	19°♄12'26	
morning set	643 Sep 03 j 22:07	4°♄35'37		morning max el	644 Aug 01 j 10:40	22°♄55'01	18°21'35
				asc. node	644 Aug 04 j 08:52	26°♄10'58	
superior conj	643 Sep 14 j 09:46	23°♄25'55	1°16'26		644 Aug 07 j 02:30	0°♄	
minimum elong	643 Sep 14 j 14:27	23°♄46'19	1°15'55	morning set	644 Aug 17 j 10:15	18°♄19'26	
	643 Sep 18 j 05:32	0°♄			644 Aug 23 j 13:37	0°♄	
max. Earth dist.	643 Sep 21 j 21:10	6°♄06'17	1.42432 AU				

superior conj	644 Aug 26 j 15:58	5° \cap 45'24	1°36'34	morning set	645 Aug 01 j 08:05	2° Ω 31'56	
minimum elong	644 Aug 26 j 19:03	5° \cap 59'29	1°36'21				
max. Earth dist.	644 Sep 03 j 04:12	19° \cap 06'28	1.40547 AU	superior conj	645 Aug 09 j 16:42	19° Ω 00'31	1°45'39
evening rise	644 Sep 07 j 19:01	26° \cap 53'00		minimum elong	645 Aug 09 j 17:41	19° Ω 05'18	1°45'37
	644 Sep 09 j 16:43	0° $\underline{\Omega}$			645 Aug 15 j 13:07	0° \cap	
desc. node	644 Sep 12 j 13:49	4° $\underline{\Omega}$ 37'04		max. Earth dist.	645 Aug 16 j 07:31	1° \cap 23'33	1.38512 AU
	644 Sep 29 j 18:27	0° \cap		evening rise	645 Aug 20 j 04:16	8° \cap 14'46	
evening max el	644 Oct 12 j 06:03	15° \cap 10'43	23°23'58	desc. node	645 Aug 30 j 10:52	25° \cap 10'02	
retrograde	644 Oct 22 j 17:04	21° \cap 21'52			645 Sep 02 j 14:24	0° $\underline{\Omega}$	
evening set	644 Oct 27 j 15:36	19° \cap 20'12		evening max el	645 Sep 24 j 18:09	28° $\underline{\Omega}$ 46'07	24°42'50
asc. node	644 Oct 31 j 08:05	15° \cap 15'57			645 Sep 26 j 01:03	0° \cap	
min. Earth dist.	644 Nov 01 j 15:41	13° \cap 29'31	0.67692 AU	retrograde	645 Oct 06 j 06:45	5° \cap 29'19	
inferior conj	644 Nov 02 j 01:28	12° \cap 56'00	0°35'29	evening set	645 Oct 11 j 19:40	3° \cap 10'17	
minimum elong	644 Nov 02 j 00:38	12° \cap 58'51	0°35'08		645 Oct 14 j 19:41	30° \cap $\underline{\Omega}$	
morning rise	644 Nov 07 j 09:46	6° \cap 45'28		min. Earth dist.	645 Oct 16 j 11:00	27° $\underline{\Omega}$ 53'43	0.67372 AU
direct	644 Nov 11 j 13:04	5° \cap 10'04		inferior conj	645 Oct 17 j 07:18	26° $\underline{\Omega}$ 46'17	0°-18'-50
morning max el	644 Nov 20 j 02:18	10° \cap 09'29	21°13'47	minimum elong	645 Oct 17 j 07:46	26° $\underline{\Omega}$ 44'44	0°18'39
greatest brilliancy	644 Nov 25 j 09:31	16° \cap 15'36	-0.4m	asc. node	645 Oct 18 j 05:07	25° $\underline{\Omega}$ 34'19	
	644 Dec 05 j 09:15	0° \nearrow		morning rise	645 Oct 22 j 20:18	20° $\underline{\Omega}$ 41'54	
desc. node	644 Dec 09 j 13:02	6° \nearrow 06'59		direct	645 Oct 26 j 10:48	19° $\underline{\Omega}$ 27'10	
morning set	644 Dec 20 j 18:34	23° \nearrow 18'06		morning max el	645 Nov 03 j 01:48	23° $\underline{\Omega}$ 49'24	20°02'07
	644 Dec 24 j 23:44	0° \searrow			645 Nov 08 j 07:46	0° \cap	
max. Earth dist.	644 Dec 28 j 10:12	5° \searrow 34'30	1.42346 AU	greatest brilliancy	645 Nov 10 j 05:59	2° \cap 34'37	-0.6m
				desc. node	645 Nov 26 j 10:05	26° \cap 29'45	
superior conj	645 Jan 04 j 16:21	17° \searrow 44'07	-2°-2'-9		645 Nov 28 j 16:46	0° \nearrow	
minimum elong	645 Jan 04 j 14:47	17° \searrow 37'25	2°02'08	morning set	645 Nov 29 j 14:57	1° \nearrow 25'36	
	645 Jan 11 j 16:27	0° \approx		max. Earth dist.	645 Dec 10 j 19:57	19° \nearrow 00'50	1.43901 AU
evening rise	645 Jan 16 j 01:41	7° \approx 53'11					
asc. node	645 Jan 27 j 07:24	27° \approx 16'23		superior conj	645 Dec 16 j 03:23	27° \nearrow 34'59	-1°-48'-7
	645 Jan 29 j 04:46	0° \cap		minimum elong	645 Dec 15 j 20:47	27° \nearrow 08'05	1°47'40
evening max el	645 Feb 01 j 17:13	4° \cap 10'47	18°08'10		645 Dec 17 j 14:48	0° \searrow	
retrograde	645 Feb 08 j 09:50	7° \cap 36'20		evening rise	645 Dec 29 j 07:10	19° \searrow 41'02	
evening set	645 Feb 11 j 01:03	7° \cap 04'40			646 Jan 04 j 07:29	0° \approx	
inferior conj	645 Feb 17 j 17:14	2° \cap 06'08	3°41'43	asc. node	646 Jan 14 j 04:27	15° \approx 07'08	
minimum elong	645 Feb 17 j 18:45	2° \cap 02'29	3°41'36	evening max el	646 Jan 16 j 05:39	17° \approx 25'09	18°12'51
	645 Feb 19 j 21:42	30° \cap \approx		retrograde	646 Jan 22 j 17:11	20° \approx 52'26	
min. Earth dist.	645 Feb 20 j 21:07	29° \approx 05'28	0.61083 AU	evening set	646 Jan 25 j 12:56	20° \approx 11'12	
morning rise	645 Feb 24 j 09:38	26° \approx 16'05		inferior conj	646 Jan 31 j 17:57	14° \approx 52'18	3°47'45
direct	645 Mar 03 j 05:13	23° \approx 58'21		minimum elong	646 Jan 31 j 17:26	14° \approx 53'42	3°47'44
desc. node	645 Mar 07 j 12:15	24° \approx 48'23		min. Earth dist.	646 Feb 03 j 08:36	12° \approx 03'24	0.63077 AU
	645 Mar 15 j 11:19	0° \cap		morning rise	646 Feb 06 j 20:00	8° \approx 50'40	
morning max el	645 Mar 17 j 09:56	1° \cap 49'35	27°42'09	direct	646 Feb 13 j 19:18	6° \approx 08'45	
	645 Apr 06 j 22:59	0° \cap		desc. node	646 Feb 22 j 09:16	9° \approx 28'05	
morning set	645 Apr 18 j 21:34	22° \cap 27'28		morning max el	646 Feb 27 j 16:43	14° \approx 02'40	27°44'57
	645 Apr 22 j 11:46	0° \searrow			646 Mar 12 j 14:30	0° \cap	
max. Earth dist.	645 Apr 25 j 01:00	5° \searrow 30'44	1.32401 AU		646 Mar 30 j 11:26	0° \cap	
asc. node	645 Apr 25 j 06:42	6° \searrow 01'41		morning set	646 Apr 02 j 21:30	6° \cap 42'37	
				max. Earth dist.	646 Apr 08 j 07:41	17° \cap 56'23	1.32904 AU
superior conj	645 Apr 26 j 05:20	8° \searrow 05'16	0°09'59				
minimum elong	645 Apr 26 j 04:52	8° \searrow 02'45	0°09'53	superior conj	646 Apr 10 j 13:49	22° \cap 46'11	0°-16'-38
behind sun begin	645 Apr 26 j 00:53	7° \searrow 40'56		minimum elong	646 Apr 10 j 14:37	22° \cap 50'29	0°16'28
behind sun end	645 Apr 26 j 08:52	8° \searrow 24'35		asc. node	646 Apr 12 j 03:45	26° \cap 11'12	
evening rise	645 May 03 j 03:55	23° \searrow 09'02			646 Apr 13 j 22:00	0° \searrow	
	645 May 06 j 11:21	0° \cap		evening rise	646 Apr 17 j 15:45	8° \searrow 01'02	
	645 May 24 j 22:21	0° \searrow			646 Apr 29 j 05:12	0° \cap	
evening max el	645 May 29 j 11:19	4° \searrow 54'30	25°02'58	evening max el	646 May 11 j 01:32	15° \cap 30'21	23°29'52
desc. node	645 Jun 03 j 11:33	8° \searrow 58'36		desc. node	646 May 21 j 08:34	21° \cap 53'57	
retrograde	645 Jun 12 j 11:13	12° \searrow 01'33		retrograde	646 May 24 j 16:38	22° \cap 19'18	
evening set	645 Jun 17 j 20:01	10° \searrow 55'24		evening set	646 May 28 j 14:04	21° \cap 45'57	
min. Earth dist.	645 Jun 22 j 22:51	8° \searrow 08'54	0.57529 AU	min. Earth dist.	646 Jun 04 j 11:52	18° \cap 34'21	0.55927 AU
inferior conj	645 Jun 26 j 00:00	6° \searrow 06'02	-4°-44'-34	inferior conj	646 Jun 06 j 13:18	17° \cap 20'38	-4°-2'-21
minimum elong	645 Jun 25 j 21:34	6° \searrow 10'09	4°44'26	minimum elong	646 Jun 06 j 06:31	17° \cap 30'49	4°00'58
morning rise	645 Jul 04 j 02:57	1° \searrow 54'47		morning rise	646 Jun 15 j 02:23	13° \cap 24'47	
direct	645 Jul 06 j 16:21	1° \searrow 35'39		direct	646 Jun 17 j 19:33	13° \cap 06'33	
morning max el	645 Jul 15 j 12:47	5° \searrow 43'55	19°06'24	morning max el	646 Jun 28 j 04:42	17° \cap 54'42	20°12'14
asc. node	645 Jul 22 j 05:55	14° \searrow 10'18			646 Jul 07 j 10:44	0° \searrow	
	645 Jul 31 j 01:13	0° \searrow		asc. node	646 Jul 09 j 02:58	2° \searrow 51'42	

morning set	646 Jul 16 j 12:34	17° Ω 05'07		asc. node	647 Jun 26 j 00:04	22° Π 05'05	
	646 Jul 22 j 19:56	0° Ω			647 Jun 29 j 23:32	0° Ω	
				morning set	647 Jun 30 j 21:27	1° Ω 53'02	
superior conj	646 Jul 24 j 06:45	2° Ω 56'12	1°45'46	superior conj	647 Jul 08 j 06:11	17° Ω 20'58	1°38'47
minimum elong	646 Jul 24 j 06:01	2° Ω 52'29	1°45'45	minimum elong	647 Jul 08 j 04:18	17° Ω 11'11	1°38'38
max. Earth dist.	646 Jul 29 j 12:33	13° Ω 14'54	1.36592 AU	max. Earth dist.	647 Jul 12 j 01:17	25° Ω 09'00	1.34967 AU
evening rise	646 Aug 02 j 11:54	20° Ω 41'09			647 Jul 14 j 11:43	0° Ω	
	646 Aug 07 j 18:08	0° Π		evening rise	647 Jul 16 j 13:14	4° Ω 00'04	
desc. node	646 Aug 17 j 07:55	15° Π 29'02			647 Jul 31 j 14:03	0° Π	
	646 Aug 27 j 13:16	0° Ω		desc. node	647 Aug 04 j 04:56	5° Π 27'37	
evening max el	646 Sep 07 j 05:47	12° Ω 24'05	25°53'42	evening max el	647 Aug 20 j 17:58	25° Π 59'36	26°48'39
retrograde	646 Sep 19 j 15:50	19° Ω 29'10			647 Aug 25 j 11:53	0° Ω	
evening set	646 Sep 25 j 19:13	16° Ω 55'37		retrograde	647 Sep 02 j 19:38	3° Ω 15'23	
min. Earth dist.	646 Sep 30 j 02:39	12° Ω 15'03	0.66723 AU	evening set	647 Sep 09 j 12:06	0° Ω 32'49	
inferior conj	646 Oct 01 j 09:59	10° Ω 36'10	-1°-15'-17		647 Sep 10 j 03:27	30° Π	
minimum elong	646 Oct 01 j 11:54	10° Ω 30'04	1°14'30	min. Earth dist.	647 Sep 13 j 12:11	26° Π 29'37	0.65732 AU
asc. node	646 Oct 05 j 02:11	6° Ω 21'59		inferior conj	647 Sep 15 j 07:31	24° Π 22'19	-2°-12'-3
morning rise	646 Oct 07 j 05:27	4° Ω 40'42		minimum elong	647 Sep 15 j 10:55	24° Π 12'19	2°10'46
direct	646 Oct 10 j 09:16	3° Ω 43'16		morning rise	647 Sep 21 j 11:04	18° Π 38'59	
morning max el	646 Oct 17 j 08:36	7° Ω 38'01	19°04'46	asc. node	647 Sep 21 j 23:14	18° Π 24'39	
	646 Nov 02 j 09:00	0° Π		direct	647 Sep 24 j 06:37	17° Π 55'01	
morning set	646 Nov 08 j 21:28	10° Π 10'39		morning max el	647 Sep 30 j 21:00	21° Π 31'36	18°23'28
desc. node	646 Nov 13 j 07:09	17° Π 04'13			647 Oct 07 j 11:50	0° Ω	
	646 Nov 21 j 13:05	0° Ω		morning set	647 Oct 20 j 06:48	20° Ω 18'00	
max. Earth dist.	646 Nov 23 j 11:27	3° Ω 02'25	1.44843 AU		647 Oct 26 j 07:11	0° Π	
				desc. node	647 Oct 31 j 04:13	7° Π 46'33	
superior conj	646 Nov 25 j 14:07	6° Ω 22'18	-1°-15'-29	superior conj	647 Nov 04 j 14:55	14° Π 48'09	0°-29'-6
minimum elong	646 Nov 25 j 05:47	5° Ω 49'23	1°14'35	minimum elong	647 Nov 04 j 11:06	14° Π 33'08	0°28'36
	646 Dec 10 j 06:59	0° Ω		max. Earth dist.	647 Nov 06 j 06:16	17° Π 22'59	1.45064 AU
evening rise	646 Dec 10 j 14:49	0° Ω 32'01			647 Nov 14 j 07:18	0° Ω	
	646 Dec 29 j 23:23	0° \approx		evening rise	647 Nov 20 j 22:52	10° Ω 25'55	
evening max el	646 Dec 30 j 17:34	0° \approx 48'17	18°36'00		647 Dec 03 j 11:57	0° Ω	
asc. node	647 Jan 01 j 01:29	2° \approx 03'34		greatest brilliancy	647 Dec 04 j 11:48	1° Ω 30'03	-0.7m
retrograde	647 Jan 06 j 08:29	4° \approx 28'39		evening max el	647 Dec 14 j 02:40	14° Ω 15'57	19°16'23
evening set	647 Jan 09 j 09:31	3° \approx 36'38		asc. node	647 Dec 18 j 22:31	17° Ω 51'36	
	647 Jan 13 j 12:49	30° Π		retrograde	647 Dec 21 j 04:19	18° Ω 19'16	
inferior conj	647 Jan 15 j 06:25	27° Ω 59'11	3°35'43	evening set	647 Dec 24 j 12:00	17° Ω 14'57	
minimum elong	647 Jan 15 j 04:29	28° Ω 04'56	3°35'28	inferior conj	647 Dec 30 j 03:16	11° Ω 21'19	3°10'37
min. Earth dist.	647 Jan 17 j 05:40	25° Ω 38'34	0.64774 AU	minimum elong	647 Dec 30 j 00:38	11° Ω 29'44	3°10'02
morning rise	647 Jan 20 j 22:12	21° Ω 50'37		min. Earth dist.	647 Dec 31 j 11:34	9° Ω 37'50	0.66084 AU
direct	647 Jan 27 j 16:43	18° Ω 59'27		morning rise	648 Jan 04 j 12:27	5° Ω 08'32	
desc. node	647 Feb 09 j 06:19	25° Ω 58'07		direct	648 Jan 10 j 20:13	2° Ω 22'07	
morning max el	647 Feb 10 j 01:59	26° Ω 46'29	27°12'56	morning max el	648 Jan 23 j 11:27	9° Ω 49'56	26°12'56
	647 Feb 13 j 02:40	0° \approx		desc. node	648 Jan 27 j 03:23	13° Ω 47'33	
	647 Mar 06 j 05:08	0° Π			648 Feb 08 j 10:31	0° \approx	
morning set	647 Mar 17 j 12:30	20° Π 26'40			648 Feb 26 j 17:35	0° Π	
max. Earth dist.	647 Mar 22 j 05:26	29° Π 50'22	1.33838 AU	morning set	648 Feb 28 j 14:40	3° Π 27'59	
	647 Mar 22 j 07:19	0° Π		max. Earth dist.	648 Mar 03 j 15:50	11° Π 11'24	1.35235 AU
				superior conj	648 Mar 08 j 14:59	21° Π 06'19	-1°-10'-24
superior conj	647 Mar 25 j 17:49	7° Π 08'55	0°-43'-52	minimum elong	648 Mar 08 j 18:20	21° Π 23'23	1°09'52
minimum elong	647 Mar 25 j 19:58	7° Π 20'13	0°43'27		648 Mar 12 j 22:29	0° Π	
asc. node	647 Mar 30 j 00:49	16° Π 15'24		asc. node	648 Mar 15 j 21:52	6° Π 09'50	
evening rise	647 Apr 02 j 02:32	22° Π 44'48		evening rise	648 Mar 16 j 10:21	7° Π 14'05	
	647 Apr 05 j 15:37	0° Ω			648 Mar 28 j 23:53	0° Ω	
evening max el	647 Apr 22 j 19:25	26° Ω 07'46	21°55'38	evening max el	648 Apr 03 j 22:45	7° Ω 11'52	20°32'09
	647 Apr 27 j 17:36	0° Π		retrograde	648 Apr 14 j 22:50	12° Ω 30'44	
retrograde	647 May 05 j 09:55	2° Π 18'27		evening set	648 Apr 17 j 02:02	12° Ω 19'35	
evening set	647 May 08 j 02:07	2° Π 02'30		desc. node	648 Apr 24 j 02:35	9° Ω 34'51	
desc. node	647 May 08 j 05:33	2° Π 00'47		inferior conj	648 Apr 26 j 05:48	8° Ω 22'08	0°-36'-57
	647 May 13 j 17:17	30° Π		minimum elong	648 Apr 26 j 04:04	8° Ω 24'39	0°36'20
inferior conj	647 May 17 j 11:18	27° Ω 58'27	-2°-34'-11	min. Earth dist.	648 Apr 27 j 13:23	7° Ω 36'29	0.55112 AU
minimum elong	647 May 17 j 04:37	28° Ω 07'50	2°32'05	morning rise	648 May 05 j 04:27	4° Ω 09'56	
min. Earth dist.	647 May 17 j 00:23	28° Ω 13'46	0.55050 AU	direct	648 May 08 j 19:59	3° Ω 41'13	
morning rise	647 May 26 j 08:24	24° Ω 03'44		morning max el	648 May 22 j 04:25	10° Ω 10'23	23°15'59
direct	647 May 29 j 08:52	23° Ω 43'29					
morning max el	647 Jun 10 j 09:20	29° Ω 22'10	21°37'22				
	647 Jun 11 j 01:12	0° Π					

	648 Jun 05 j 17:33	0°♊			649 May 11 j 19:33	0°♋	
asc. node	648 Jun 11 j 21:08	11°♊41'18			649 May 29 j 00:15	0°♊	
morning set	648 Jun 14 j 08:42	16°♊48'46		morning set	649 May 29 j 20:39	1°♊46'55	
	648 Jun 20 j 12:40	0°♋		asc. node	649 May 29 j 18:11	1°♊33'56	
superior conj	648 Jun 21 j 11:50	2°♋04'16	1°26'09	superior conj	649 Jun 05 j 21:23	16°♊58'42	1°09'01
minimum elong	648 Jun 21 j 09:26	1°♋51'22	1°25'51	minimum elong	649 Jun 05 j 18:59	16°♊45'38	1°08'37
max. Earth dist.	648 Jun 23 j 23:35	7°♋21'46	1.33717 AU	max. Earth dist.	649 Jun 07 j 05:52	19°♊55'12	1.32862 AU
evening rise	648 Jun 29 j 03:32	17°♋57'13			649 Jun 11 j 23:36	0°♋	
	648 Jul 05 j 11:35	0°♌		evening rise	649 Jun 13 j 03:04	2°♋21'35	
desc. node	648 Jul 21 j 01:57	24°♌56'07			649 Jun 28 j 08:14	0°♌	
	648 Jul 24 j 21:35	0°♍		desc. node	649 Jul 07 j 22:56	13°♌41'56	
evening max el	648 Aug 02 j 05:42	9°♍20'46	27°20'23	evening max el	649 Jul 15 j 14:50	22°♌14'22	27°22'45
retrograde	648 Aug 15 j 17:33	16°♍39'25		retrograde	649 Jul 29 j 09:17	29°♌32'14	
evening set	648 Aug 22 j 19:35	13°♍56'32		evening set	649 Aug 05 j 14:13	27°♌01'07	
min. Earth dist.	648 Aug 26 j 13:14	10°♍29'39	0.64381 AU	min. Earth dist.	649 Aug 09 j 04:10	24°♌04'38	0.62676 AU
inferior conj	648 Aug 28 j 21:32	7°♍58'56	-3°-6'-44	inferior conj	649 Aug 12 j 01:10	21°♌19'34	-3°-55'-42
minimum elong	648 Aug 29 j 02:06	7°♍46'40	3°05'17	minimum elong	649 Aug 12 j 06:07	21°♌07'40	3°54'32
morning rise	648 Sep 04 j 10:30	2°♍31'17		morning rise	649 Aug 19 j 00:31	16°♌11'02	
direct	648 Sep 07 j 00:16	1°♍57'16		direct	649 Aug 21 j 11:02	15°♌43'55	
asc. node	648 Sep 07 j 20:18	2°♍00'53		asc. node	649 Aug 25 j 17:22	17°♌08'41	
morning max el	648 Sep 13 j 12:27	5°♍24'13	17°59'11	morning max el	649 Aug 28 j 04:06	19°♌09'43	17°52'48
	648 Sep 29 j 18:57	0°♎			649 Sep 05 j 02:20	0°♎	
morning set	648 Sep 30 j 20:08	1°♎46'55		morning set	649 Sep 13 j 08:09	14°♎20'37	
					649 Sep 22 j 06:09	0°♎	
superior conj	648 Oct 14 j 03:31	23°♎52'35	0°19'18	superior conj	649 Sep 24 j 17:44	4°♎13'45	0°59'08
minimum elong	648 Oct 14 j 05:43	24°♎01'31	0°18'58	minimum elong	649 Sep 24 j 22:32	4°♎33'59	0°58'32
desc. node	648 Oct 17 j 01:16	28°♎32'46		max. Earth dist.	649 Oct 01 j 16:00	15°♎41'24	1.43355 AU
	648 Oct 17 j 23:08	0°♏		desc. node	649 Oct 03 j 22:16	19°♎19'48	
max. Earth dist.	648 Oct 19 j 00:56	1°♏42'34	1.44543 AU	evening rise	649 Oct 09 j 19:31	28°♎36'26	
evening rise	648 Oct 30 j 11:51	19°♏35'48			649 Oct 10 j 17:04	0°♏	
	648 Nov 06 j 06:57	0°♐			649 Oct 31 j 02:03	0°♐	
greatest brilliancy	648 Nov 19 j 16:24	19°♐39'22	-0.6m	greatest brilliancy	649 Nov 04 j 03:02	5°♐19'24	-0.4m
evening max el	648 Nov 26 j 07:01	27°♐44'55	20°12'16	evening max el	649 Nov 09 j 05:34	11°♐13'43	21°20'48
	648 Nov 28 j 17:39	0°♑		retrograde	649 Nov 17 j 23:22	16°♐25'35	
retrograde	648 Dec 04 j 02:02	2°♑19'35		asc. node	649 Nov 21 j 16:34	15°♐08'24	
asc. node	648 Dec 04 j 19:32	2°♑16'35		evening set	649 Nov 22 j 01:43	14°♐51'32	
evening set	648 Dec 07 j 18:04	1°♑01'17		inferior conj	649 Nov 27 j 11:31	8°♐34'51	1°53'26
	648 Dec 08 j 23:43	30°♒♐		minimum elong	649 Nov 27 j 09:14	8°♐42'44	1°52'36
inferior conj	648 Dec 13 j 05:44	24°♐54'22	2°35'47	min. Earth dist.	649 Nov 27 j 18:33	8°♐10'33	0.67526 AU
minimum elong	648 Dec 13 j 03:02	25°♐03'29	2°34'57	morning rise	649 Dec 02 j 16:25	2°♐19'36	
min. Earth dist.	648 Dec 14 j 00:37	23°♐50'51	0.66990 AU	direct	649 Dec 07 j 18:46	0°♐08'37	
morning rise	648 Dec 18 j 11:27	18°♐39'22		morning max el	649 Dec 18 j 05:02	6°♐21'06	23°26'51
direct	648 Dec 24 j 05:06	16°♐07'50		greatest brilliancy	649 Dec 23 j 22:50	12°♐50'54	-0.2m
morning max el	649 Jan 04 j 20:07	23°♐03'23	24°54'17	desc. node	649 Dec 30 j 21:28	21°♐58'14	
	649 Jan 10 j 23:43	0°♓			650 Jan 05 j 12:37	0°♓	
desc. node	649 Jan 13 j 00:27	2°♓33'13		morning set	650 Jan 22 j 06:43	26°♓22'09	
	649 Jan 31 j 18:58	0°♔			650 Jan 24 j 09:55	0°♔	
morning set	649 Feb 09 j 22:52	15°♔32'23		max. Earth dist.	650 Jan 26 j 10:50	3°♔31'57	1.39137 AU
max. Earth dist.	649 Feb 13 j 15:51	22°♔15'17	1.37050 AU				
	649 Feb 17 j 18:33	0°♕		superior conj	650 Feb 02 j 23:42	17°♔09'13	-1°-52'-57
superior conj	649 Feb 20 j 02:18	4°♕30'16	-1°-34'-19	minimum elong	650 Feb 03 j 03:09	17°♔25'22	1°52'43
minimum elong	649 Feb 20 j 06:18	4°♕49'51	1°33'51		650 Feb 09 j 17:23	0°♕	
evening rise	649 Feb 28 j 13:01	21°♕22'38		evening rise	650 Feb 12 j 07:42	5°♕01'49	
asc. node	649 Mar 02 j 18:53	25°♕50'01		asc. node	650 Feb 17 j 15:54	15°♕09'35	
	649 Mar 04 j 22:36	0°♖			650 Feb 27 j 09:44	0°♖	
evening max el	649 Mar 17 j 13:30	18°♖54'40	19°26'13	evening max el	650 Feb 28 j 14:11	1°♖13'31	18°40'10
retrograde	649 Mar 26 j 20:51	23°♖23'30		retrograde	650 Mar 08 j 12:10	5°♖04'59	
evening set	649 Mar 28 j 23:43	23°♖10'34		evening set	650 Mar 10 j 19:41	4°♖46'24	
inferior conj	649 Apr 06 j 11:21	19°♖03'49	1°15'36	inferior conj	650 Mar 18 j 12:35	0°♖21'46	2°38'52
minimum elong	649 Apr 06 j 14:21	18°♖58'56	1°14'37	minimum elong	650 Mar 18 j 16:48	0°♖13'46	2°37'48
min. Earth dist.	649 Apr 09 j 03:56	17°♖19'17	0.56104 AU		650 Mar 19 j 00:01	30°♗♕	
desc. node	649 Apr 10 j 23:36	16°♖13'27		min. Earth dist.	650 Mar 21 j 21:24	27°♗49'42	0.57804 AU
morning rise	649 Apr 15 j 01:13	14°♖19'42		morning rise	650 Mar 26 j 09:41	25°♗05'09	
direct	649 Apr 19 j 16:21	13°♖31'03		desc. node	650 Mar 28 j 20:38	24°♗10'28	
morning max el	649 May 03 j 19:13	20°♖40'03	24°56'29	direct	650 Apr 01 j 02:52	23°♗43'45	

	650 Apr 14 j 02:11	0°♿		min. Earth dist.	651 Mar 03 j 19:48	9°♿21'14	0.59874 AU
morning max el	650 Apr 15 j 11:34	1°♿18'00	26°23'37	morning rise	651 Mar 07 j 13:05	6°♿38'34	
	650 May 05 j 19:37	0°♿		direct	651 Mar 14 j 02:12	4°♿39'38	
morning set	650 May 14 j 07:39	16°♿41'19		desc. node	651 Mar 15 j 17:40	4°♿46'54	
asc. node	650 May 16 j 15:13	21°♿36'59		morning max el	651 Mar 28 j 09:13	12°♿26'51	27°23'27
	650 May 20 j 11:30	0°♿			651 Apr 11 j 05:38	0°♿	
					651 Apr 27 j 23:19	0°♿	
superior conj	650 May 21 j 08:50	1°♿57'09	0°48'14	morning set	651 Apr 28 j 15:59	1°♿26'07	
minimum elong	650 May 21 j 06:54	1°♿46'32	0°47'52	asc. node	651 May 03 j 12:15	11°♿45'58	
max. Earth dist.	650 May 21 j 17:01	2°♿42'02	1.32387 AU	max. Earth dist.	651 May 05 j 05:30	15°♿31'26	1.32288 AU
evening rise	650 May 28 j 08:53	17°♿03'29					
	650 Jun 03 j 21:04	0°♿		superior conj	651 May 05 j 20:29	16°♿53'41	0°24'36
	650 Jun 23 j 12:47	0°♿		minimum elong	651 May 05 j 19:24	16°♿47'44	0°24'22
desc. node	650 Jun 24 j 19:57	1°♿27'16			651 May 11 j 20:55	0°♿	
evening max el	650 Jun 27 j 19:01	4°♿28'49	26°52'20	evening rise	651 May 12 j 18:37	1°♿55'08	
retrograde	650 Jul 11 j 17:58	11°♿44'25			651 May 28 j 00:18	0°♿	
evening set	650 Jul 18 j 15:38	9°♿39'11		evening max el	651 Jun 09 j 16:32	15°♿57'59	25°50'15
min. Earth dist.	650 Jul 22 j 08:55	7°♿00'21	0.60698 AU	desc. node	651 Jun 11 j 16:58	17°♿46'53	
inferior conj	650 Jul 25 j 15:05	4°♿16'02	-4°-33'-5	retrograde	651 Jun 23 j 17:33	23°♿09'12	
minimum elong	650 Jul 25 j 18:52	4°♿08'03	4°32'36	evening set	651 Jun 29 j 19:15	21°♿40'57	
	650 Jul 31 j 17:19	30°♿		min. Earth dist.	651 Jul 04 j 05:03	19°♿02'07	0.58639 AU
morning rise	650 Aug 02 j 01:14	29°♿29'17		inferior conj	651 Jul 07 j 11:44	16°♿38'36	-4°-49'-35
direct	650 Aug 04 j 11:04	29°♿06'37		minimum elong	651 Jul 07 j 12:06	16°♿37'55	4°49'36
	650 Aug 08 j 01:41	0°♿		morning rise	651 Jul 15 j 08:34	12°♿14'35	
morning max el	650 Aug 11 j 16:56	2°♿40'26	18°05'23	direct	651 Jul 17 j 20:08	11°♿54'29	
asc. node	650 Aug 12 j 14:25	3°♿35'11		morning max el	651 Jul 25 j 23:46	15°♿46'54	18°38'06
morning set	650 Aug 27 j 12:57	27°♿42'42		asc. node	651 Jul 30 j 11:28	21°♿04'41	
	650 Aug 28 j 18:23	0°♿			651 Aug 05 j 00:45	0°♿	
				morning set	651 Aug 11 j 05:38	11°♿39'35	
superior conj	650 Sep 06 j 10:42	15°♿53'56	1°26'26				
minimum elong	650 Sep 06 j 14:51	16°♿12'23	1°26'03	superior conj	651 Aug 20 j 01:26	28°♿38'30	1°41'38
max. Earth dist.	650 Sep 14 j 01:35	29°♿04'19	1.41657 AU	minimum elong	651 Aug 20 j 03:36	28°♿48'44	1°41'32
	650 Sep 14 j 14:54	0°♿			651 Aug 20 j 18:51	0°♿	
evening rise	650 Sep 19 j 15:34	8°♿13'48		max. Earth dist.	651 Aug 27 j 06:20	11°♿44'07	1.39678 AU
desc. node	650 Sep 20 j 19:17	10°♿04'38		evening rise	651 Aug 31 j 10:39	18°♿55'33	
	650 Oct 03 j 21:00	0°♿			651 Sep 07 j 05:24	0°♿	
greatest brilliancy	650 Oct 18 j 01:58	19°♿17'04	-0.3m	desc. node	651 Sep 07 j 16:19	0°♿43'04	
evening max el	650 Oct 22 j 22:48	24°♿44'26	22°37'54		651 Sep 28 j 04:50	0°♿	
	650 Oct 29 j 23:48	0°♿		evening max el	651 Oct 05 j 12:16	8°♿18'14	23°58'05
retrograde	650 Nov 01 j 18:42	0°♿34'56		retrograde	651 Oct 16 j 10:36	14°♿43'52	
	650 Nov 04 j 09:26	30°♿		evening set	651 Oct 21 j 15:04	12°♿34'56	
evening set	650 Nov 06 j 09:16	28°♿43'46		asc. node	651 Oct 26 j 10:40	7°♿00'53	
asc. node	650 Nov 08 j 13:37	26°♿33'17		min. Earth dist.	651 Oct 26 j 11:25	6°♿58'21	0.67596 AU
inferior conj	650 Nov 11 j 18:43	22°♿21'06	1°05'19	inferior conj	651 Oct 27 j 01:33	6°♿10'26	0°12'50
minimum elong	650 Nov 11 j 17:15	22°♿26'09	1°04'43	minimum elong	651 Oct 27 j 01:14	6°♿11'29	0°12'42
min. Earth dist.	650 Nov 11 j 14:59	22°♿34'02	0.67723 AU	transit middle	651 Oct 27 j 01:14	6°♿11'29	0°12'42
morning rise	650 Nov 17 j 01:09	16°♿07'56		transit begin	651 Oct 26 j 23:32	6°♿17'16	
direct	650 Nov 21 j 12:34	14°♿19'34		transit end	651 Oct 27 j 02:56	6°♿05'43	
morning max el	650 Nov 30 j 17:19	19°♿44'53	22°00'10	morning rise	651 Nov 01 j 11:35	0°♿01'58	
greatest brilliancy	650 Dec 05 j 10:53	25°♿05'06	-0.4m		651 Nov 01 j 12:39	30°♿	
	650 Dec 09 j 07:01	0°♿		direct	651 Nov 05 j 09:18	28°♿35'29	
desc. node	650 Dec 17 j 18:30	11°♿51'50			651 Nov 09 j 13:36	0°♿	
	650 Dec 29 j 18:01	0°♿		morning max el	651 Nov 13 j 12:11	3°♿17'52	20°41'39
morning set	651 Jan 02 j 09:31	5°♿47'23		greatest brilliancy	651 Nov 19 j 11:31	10°♿19'33	-0.5m
max. Earth dist.	651 Jan 08 j 08:33	15°♿33'12	1.41246 AU		651 Dec 03 j 06:10	0°♿	
				desc. node	651 Dec 04 j 15:33	2°♿05'37	
superior conj	651 Jan 16 j 02:18	28°♿51'40	-2°-2'-32	morning set	651 Dec 12 j 11:40	14°♿06'10	
minimum elong	651 Jan 16 j 03:15	28°♿55'49	2°02'32	max. Earth dist.	651 Dec 21 j 13:57	28°♿31'17	1.43080 AU
	651 Jan 16 j 17:44	0°♿			651 Dec 22 j 11:49	0°♿	
evening rise	651 Jan 26 j 15:07	18°♿04'08					
	651 Feb 02 j 04:08	0°♿		superior conj	651 Dec 28 j 04:51	9°♿25'24	-1°-58'-26
asc. node	651 Feb 04 j 12:56	4°♿01'47		minimum elong	651 Dec 28 j 01:06	9°♿09'44	1°58'18
evening max el	651 Feb 11 j 21:56	14°♿01'02	18°14'11	evening rise	652 Jan 09 j 07:18	0°♿21'17	
retrograde	651 Feb 18 j 21:53	17°♿31'14			652 Jan 09 j 02:29	0°♿	
evening set	651 Feb 21 j 10:30	17°♿04'42		asc. node	652 Jan 22 j 09:58	22°♿18'02	
inferior conj	651 Feb 28 j 10:44	12°♿18'50	3°27'26	evening max el	652 Jan 26 j 09:32	27°♿08'05	18°07'51
minimum elong	651 Feb 28 j 13:31	12°♿12'41	3°27'01		652 Jan 30 j 09:10	0°♿	

retrograde	652 Feb 01 j 22:39	0° Υ 32'26		evening rise	652 Dec 21 j 03:57	11° Υ 45'45	
evening set	652 Feb 04 j 15:53	29° \approx 56'40			653 Jan 01 j 03:50	0° \approx	
	652 Feb 04 j 12:44	30° \mathbb{R}		asc. node	653 Jan 08 j 07:01	9° \approx 47'24	
inferior conj	652 Feb 11 j 02:55	24° \approx 49'19	3°46'49	evening max el	653 Jan 08 j 22:04	10° \approx 26'55	18°20'26
minimum elong	652 Feb 11 j 03:31	24° \approx 47'47	3°46'48	retrograde	653 Jan 15 j 09:57	13° \approx 58'22	
min. Earth dist.	652 Feb 14 j 01:43	21° \approx 51'19	0.61968 AU	evening set	653 Jan 18 j 07:54	13° \approx 12'32	
morning rise	652 Feb 17 j 12:46	18° \approx 53'58		inferior conj	653 Jan 24 j 09:05	7° \approx 45'12	3°44'29
direct	652 Feb 24 j 11:19	16° \approx 24'12		minimum elong	653 Jan 24 j 07:53	7° \approx 48'36	3°44'25
desc. node	652 Mar 01 j 14:43	18° \approx 06'47		min. Earth dist.	653 Jan 26 j 17:08	5° \approx 07'07	0.63845 AU
morning max el	652 Mar 09 j 13:00	24° \approx 16'43	27°47'49	morning rise	653 Jan 30 j 06:19	1° \approx 40'16	
	652 Mar 14 j 17:35	0° Υ			653 Feb 01 j 18:36	30° \mathbb{R}	
	652 Apr 03 j 12:58	0° Υ		direct	653 Feb 06 j 04:23	28° Υ 52'57	
morning set	652 Apr 11 j 19:42	15° Υ 54'42			653 Feb 10 j 22:00	0° \approx	
max. Earth dist.	652 Apr 17 j 15:36	28° Υ 10'39	1.32567 AU	desc. node	653 Feb 16 j 11:46	3° \approx 37'52	
	652 Apr 18 j 11:48	0° \mathbb{R}		morning max el	653 Feb 19 j 21:15	6° \approx 44'29	27°35'19
					653 Mar 09 j 17:06	0° Υ	
superior conj	652 Apr 19 j 06:40	1° \mathbb{R} 42'30	0°-1'-9	morning set	653 Mar 26 j 16:14	29° Υ 57'49	
minimum elong	652 Apr 19 j 06:43	1° \mathbb{R} 42'48	0°01'09		653 Mar 26 j 16:41	0° Υ	
behind sun begin	652 Apr 19 j 01:36	1° \mathbb{R} 14'57		max. Earth dist.	653 Mar 31 j 19:11	10° Υ 25'17	1.33252 AU
behind sun end	652 Apr 19 j 11:51	2° \mathbb{R} 10'39					
asc. node	652 Apr 19 j 09:18	1° \mathbb{R} 56'48		superior conj	653 Apr 03 j 13:29	16° Υ 16'21	0°-28'-9
evening rise	652 Apr 26 j 06:15	16° \mathbb{R} 49'37		minimum elong	653 Apr 03 j 14:52	16° Υ 23'41	0°27'54
	652 May 02 j 19:18	0° \mathbb{I}		asc. node	653 Apr 06 j 06:20	22° Υ 04'25	
evening max el	652 May 21 j 08:14	26° \mathbb{I} 48'03	24°24'31		653 Apr 09 j 23:08	0° \mathbb{R}	
	652 May 25 j 02:46	0° \mathbb{S}		evening rise	653 Apr 10 j 17:53	1° \mathbb{R} 39'06	
desc. node	652 May 28 j 13:59	2° \mathbb{S} 08'04			653 Apr 26 j 16:01	0° \mathbb{I}	
retrograde	652 Jun 04 j 05:39	3° \mathbb{S} 48'41		evening max el	653 May 02 j 22:59	7° \mathbb{I} 20'05	22°49'00
evening set	652 Jun 08 j 23:48	2° \mathbb{S} 58'07		desc. node	653 May 15 j 11:01	13° \mathbb{I} 53'56	
	652 Jun 14 j 21:06	30° \mathbb{R} \mathbb{I}		retrograde	653 May 16 j 05:20	13° \mathbb{I} 55'15	
min. Earth dist.	652 Jun 14 j 19:26	0° \mathbb{S} 02'34	0.56780 AU	evening set	653 May 19 j 13:03	13° \mathbb{I} 31'02	
inferior conj	652 Jun 17 j 12:30	28° \mathbb{I} 19'17	-4°-32'-23	min. Earth dist.	653 May 27 j 07:35	10° \mathbb{I} 05'30	0.55453 AU
minimum elong	652 Jun 17 j 07:56	28° \mathbb{I} 26'34	4°31'49	inferior conj	653 May 28 j 18:13	9° \mathbb{I} 15'46	-3°-30'-7
morning rise	652 Jun 25 j 19:47	24° \mathbb{I} 15'35		minimum elong	653 May 28 j 10:44	9° \mathbb{I} 26'33	3°28'12
direct	652 Jun 28 j 10:49	23° \mathbb{I} 56'51		morning rise	653 Jun 06 j 11:13	5° \mathbb{I} 23'02	
morning max el	652 Jul 07 j 21:45	28° \mathbb{I} 20'25	19°31'51	direct	653 Jun 09 j 07:01	5° \mathbb{I} 04'23	
	652 Jul 09 j 13:12	0° \mathbb{S}		morning max el	653 Jun 20 j 08:49	10° \mathbb{I} 12'30	20°46'23
asc. node	652 Jul 16 j 08:33	9° \mathbb{S} 23'32		asc. node	653 Jul 03 j 05:36	28° \mathbb{I} 19'19	
morning set	652 Jul 25 j 06:40	26° \mathbb{S} 02'09			653 Jul 04 j 03:20	0° \mathbb{S}	
	652 Jul 27 j 05:58	0° \mathbb{Q}		morning set	653 Jul 09 j 13:15	10° \mathbb{S} 42'07	
superior conj	652 Aug 02 j 08:23	12° \mathbb{Q} 12'24	1°46'41	superior conj	653 Jul 17 j 02:51	26° \mathbb{S} 21'28	1°43'35
minimum elong	652 Aug 02 j 08:35	12° \mathbb{Q} 13'21	1°46'40	minimum elong	653 Jul 17 j 01:33	26° \mathbb{S} 14'50	1°43'30
max. Earth dist.	652 Aug 08 j 10:02	23° \mathbb{Q} 48'55	1.37671 AU		653 Jul 18 j 21:52	0° \mathbb{Q}	
	652 Aug 11 j 19:37	0° \mathbb{P}		max. Earth dist.	653 Jul 21 j 17:59	5° \mathbb{Q} 38'45	1.35856 AU
evening rise	652 Aug 12 j 05:58	0° \mathbb{P} 46'06		evening rise	653 Jul 25 j 21:40	13° \mathbb{Q} 35'40	
desc. node	652 Aug 24 j 13:21	21° \mathbb{P} 10'45			653 Aug 04 j 05:30	0° \mathbb{P}	
	652 Aug 30 j 10:59	0° \mathbb{Q}		desc. node	653 Aug 11 j 10:23	11° \mathbb{P} 21'44	
evening max el	652 Sep 17 j 00:09	21° \mathbb{Q} 55'31	25°14'25		653 Aug 25 j 07:36	0° \mathbb{Q}	
retrograde	652 Sep 28 j 22:14	28° \mathbb{Q} 48'31		evening max el	653 Aug 30 j 11:52	5° \mathbb{Q} 32'33	26°19'25
evening set	652 Oct 04 j 17:26	26° \mathbb{Q} 22'55		retrograde	653 Sep 12 j 05:02	12° \mathbb{Q} 43'20	
min. Earth dist.	652 Oct 09 j 05:24	21° \mathbb{Q} 21'32	0.67143 AU	evening set	653 Sep 18 j 14:26	10° \mathbb{Q} 04'46	
inferior conj	652 Oct 10 j 06:15	20° \mathbb{Q} 00'35	0°-42'-36	min. Earth dist.	653 Sep 22 j 18:35	5° \mathbb{Q} 40'22	0.66346 AU
minimum elong	652 Oct 10 j 07:20	19° \mathbb{Q} 57'05	0°42'09	inferior conj	653 Sep 24 j 06:59	3° \mathbb{Q} 48'45	-1°-39'-28
asc. node	652 Oct 12 j 07:44	17° \mathbb{Q} 24'28		minimum elong	653 Sep 24 j 09:33	3° \mathbb{Q} 40'52	1°38'26
morning rise	652 Oct 15 j 21:48	13° \mathbb{Q} 59'43			653 Sep 27 j 15:35	30° \mathbb{R} \mathbb{P}	
direct	652 Oct 19 j 07:36	12° \mathbb{Q} 52'38		asc. node	653 Sep 29 j 04:48	28° \mathbb{P} 39'22	
morning max el	652 Oct 26 j 14:53	17° \mathbb{Q} 01'28	19°35'52	morning rise	653 Sep 30 j 05:44	27° \mathbb{P} 58'22	
greatest brilliancy	652 Nov 04 j 01:03	27° \mathbb{Q} 39'07	-0.6m	direct	653 Oct 03 j 05:44	27° \mathbb{P} 07'10	
	652 Nov 05 j 16:10	0° \mathbb{M}			653 Oct 09 j 02:24	0° \mathbb{Q}	
morning set	652 Nov 20 j 09:25	22° \mathbb{M} 21'30		morning max el	653 Oct 10 j 00:26	0° \mathbb{Q} 52'52	18°45'15
desc. node	652 Nov 20 j 12:37	22° \mathbb{M} 33'51			653 Oct 30 j 01:18	0° \mathbb{M}	
	652 Nov 25 j 07:28	0° \mathbb{P}		morning set	653 Oct 31 j 02:19	1° \mathbb{M} 39'10	
max. Earth dist.	652 Dec 03 j 03:04	12° \mathbb{P} 16'58	1.44392 AU	desc. node	653 Nov 07 j 09:40	13° \mathbb{M} 12'04	
superior conj	652 Dec 07 j 04:41	18° \mathbb{P} 46'21	-1°-36'-29	superior conj	653 Nov 16 j 08:38	27° \mathbb{M} 17'06	0°-56'-53
minimum elong	652 Dec 06 j 20:37	18° \mathbb{P} 13'58	1°35'47	minimum elong	653 Nov 16 j 01:35	26° \mathbb{M} 49'23	0°56'02
	652 Dec 14 j 02:28	0° \mathbb{S}		max. Earth dist.	653 Nov 15 j 20:38	26° \mathbb{M} 29'54	1.45022 AU

	653 Nov 18 j 02:04	0°♄			654 Nov 10 j 21:36	0°♄	
evening rise	653 Dec 02 j 01:35	22°♄12'28		evening rise	654 Nov 12 j 00:19	1°♄43'49	
	653 Dec 06 j 21:55	0°♄		greatest brilliancy	654 Nov 28 j 15:59	27°♄06'46	-0.7m
evening max el	653 Dec 23 j 09:00	23°♄52'19	18°51'06		654 Nov 30 j 17:10	0°♄	
asc. node	653 Dec 26 j 04:04	26°♄16'53		evening max el	654 Dec 06 j 16:10	7°♄20'08	19°38'27
retrograde	653 Dec 30 j 03:44	27°♄41'43		asc. node	654 Dec 13 j 01:06	11°♄30'54	
evening set	654 Jan 02 j 07:21	26°♄44'42		retrograde	654 Dec 14 j 00:40	11°♄36'18	
inferior conj	654 Jan 08 j 01:32	20°♄59'49	3°26'28	evening set	654 Dec 17 j 11:34	10°♄26'27	
minimum elong	654 Jan 07 j 23:14	21°♄06'56	3°26'04	inferior conj	654 Dec 23 j 01:05	4°♄26'51	2°56'54
min. Earth dist.	654 Jan 09 j 18:13	18°♄54'22	0.65374 AU	minimum elong	654 Dec 22 j 22:21	4°♄35'49	2°56'12
morning rise	654 Jan 13 j 14:04	14°♄48'56		min. Earth dist.	654 Dec 24 j 03:32	2°♄59'59	0.66512 AU
direct	654 Jan 20 j 04:24	11°♄58'27			654 Dec 26 j 14:06	30°♄♄	
morning max el	654 Feb 02 j 07:08	19°♄39'26	26°50'25	morning rise	654 Dec 28 j 08:24	28°♄12'38	
desc. node	654 Feb 03 j 08:49	20°♄45'21		direct	655 Jan 03 j 10:25	25°♄31'20	
	654 Feb 11 j 03:50	0°♄			655 Jan 12 j 16:21	0°♄	
	654 Mar 02 j 17:57	0°♄		morning max el	655 Jan 15 j 16:15	2°♄47'53	25°41'10
morning set	654 Mar 10 j 02:22	13°♄25'44		desc. node	655 Jan 21 j 05:52	9°♄00'46	
max. Earth dist.	654 Mar 14 j 12:30	22°♄05'52	1.34379 AU		655 Feb 05 j 08:53	0°♄	
	654 Mar 18 j 09:17	0°♄		morning set	655 Feb 20 j 21:36	26°♄04'52	
					655 Feb 23 j 00:28	0°♄	
superior conj	654 Mar 18 j 14:54	0°♄29'13	0°-55'-18	max. Earth dist.	655 Feb 24 j 17:45	3°♄14'53	1.35959 AU
minimum elong	654 Mar 18 j 17:36	0°♄43'13	0°54'49				
asc. node	654 Mar 24 j 03:22	12°♄04'59		superior conj	655 Mar 02 j 08:16	14°♄13'16	-1°-21'-1
evening rise	654 Mar 26 j 03:40	16°♄17'36		minimum elong	655 Mar 02 j 11:59	14°♄31'55	1°20'28
	654 Apr 02 j 02:27	0°♄		evening rise	655 Mar 10 j 09:34	0°♄38'26	
evening max el	654 Apr 14 j 20:12	18°♄05'47	21°18'09		655 Mar 10 j 02:00	0°♄	
retrograde	654 Apr 26 j 19:51	23°♄55'53		asc. node	655 Mar 11 j 00:24	1°♄53'46	
evening set	654 Apr 29 j 04:14	23°♄43'11		evening max el	655 Mar 28 j 04:28	29°♄26'12	20°01'46
desc. node	654 May 02 j 08:01	22°♄49'32			655 Mar 28 j 18:55	0°♄	
inferior conj	654 May 08 j 12:53	19°♄43'37	-1°-46'-6	retrograde	655 Apr 07 j 10:57	4°♄22'30	
minimum elong	654 May 08 j 07:57	19°♄50'34	1°44'25	evening set	655 Apr 09 j 12:47	4°♄11'17	
min. Earth dist.	654 May 08 j 20:17	19°♄33'14	0.54959 AU	inferior conj	655 Apr 18 j 10:34	0°♄11'52	0°13'14
morning rise	654 May 17 j 11:47	15°♄43'43		minimum elong	655 Apr 18 j 11:10	0°♄10'58	0°13'02
direct	654 May 20 j 17:08	15°♄21'09		transit middle	655 Apr 18 j 11:10	0°♄10'58	0°13'02
morning max el	654 Jun 02 j 09:05	21°♄22'06	22°18'16	transit begin	655 Apr 18 j 08:52	0°♄14'26	
	654 Jun 09 j 17:28	0°♄		transit end	655 Apr 18 j 13:28	0°♄07'30	
asc. node	654 Jun 20 j 02:39	17°♄42'45			655 Apr 18 j 18:25	30°♄♄	
morning set	654 Jun 23 j 23:18	25°♄33'31		desc. node	655 Apr 19 j 05:01	29°♄43'58	
	654 Jun 26 j 01:57	0°♄		min. Earth dist.	655 Apr 20 j 10:12	29°♄00'08	0.55430 AU
				morning rise	655 Apr 27 j 06:41	25°♄46'38	
superior conj	654 Jul 01 j 05:14	10°♄54'54	1°34'02	direct	655 May 01 j 07:26	25°♄10'56	
minimum elong	654 Jul 01 j 03:04	10°♄43'26	1°33'50		655 May 12 j 19:15	0°♄	
max. Earth dist.	654 Jul 04 j 10:26	17°♄37'39	1.34384 AU	morning max el	655 May 15 j 01:39	1°♄59'38	23°59'17
evening rise	654 Jul 09 j 04:59	27°♄11'45			655 Jun 03 j 06:20	0°♄	
	654 Jul 10 j 15:53	0°♄		asc. node	655 Jun 06 j 23:41	7°♄26'33	
	654 Jul 28 j 12:27	0°♄		morning set	655 Jun 08 j 11:03	10°♄30'53	
desc. node	654 Jul 29 j 07:23	1°♄08'26					
evening max el	654 Aug 12 j 23:45	19°♄02'02	27°05'24	superior conj	655 Jun 15 j 12:50	25°♄44'07	1°19'23
retrograde	654 Aug 26 j 06:34	26°♄20'44		minimum elong	655 Jun 15 j 10:22	25°♄30'49	1°19'02
evening set	654 Sep 02 j 03:41	23°♄36'28		max. Earth dist.	655 Jun 17 j 12:17	29°♄58'59	1.33304 AU
min. Earth dist.	654 Sep 06 j 00:41	19°♄49'13	0.65194 AU		655 Jun 17 j 12:28	0°♄	
inferior conj	654 Sep 08 j 01:35	17°♄30'47	-2°-35'-44	evening rise	655 Jun 22 j 23:39	11°♄22'13	
minimum elong	654 Sep 08 j 05:33	17°♄19'34	2°34'20		655 Jul 02 j 22:24	0°♄	
morning rise	654 Sep 14 j 09:01	11°♄53'57		desc. node	655 Jul 16 j 04:23	20°♄20'46	
asc. node	654 Sep 16 j 01:51	11°♄20'09			655 Jul 24 j 05:23	0°♄	
direct	654 Sep 17 j 01:41	11°♄14'48		evening max el	655 Jul 26 j 10:46	2°♄13'40	27°25'21
morning max el	654 Sep 23 j 14:29	14°♄46'30	18°11'01	retrograde	655 Aug 09 j 02:10	9°♄32'40	
	654 Oct 04 j 11:26	0°♄		evening set	655 Aug 16 j 06:12	6°♄53'20	
morning set	654 Oct 11 j 23:53	12°♄21'44		min. Earth dist.	655 Aug 19 j 21:48	3°♄40'12	0.63688 AU
	654 Oct 22 j 19:36	0°♄		inferior conj	655 Aug 22 j 11:35	1°♄01'57	-3°-28'-32
desc. node	654 Oct 25 j 06:41	3°♄56'02		minimum elong	655 Aug 22 j 16:27	0°♄49'26	3°27'09
					655 Aug 23 j 11:58	30°♄♄	
superior conj	654 Oct 26 j 11:55	5°♄52'11	0°-8'-4	morning rise	655 Aug 29 j 04:53	25°♄41'50	
minimum elong	654 Oct 26 j 10:53	5°♄48'05	0°07'57	direct	655 Aug 31 j 16:50	25°♄11'11	
behind sun begin	654 Oct 26 j 01:15	5°♄09'52		asc. node	655 Sep 02 j 22:54	25°♄36'29	
behind sun end	654 Oct 26 j 20:30	6°♄26'16		morning max el	655 Sep 07 j 06:22	28°♄37'02	17°54'11
max. Earth dist.	654 Oct 29 j 15:12	10°♄49'48	1.44919 AU		655 Sep 08 j 13:21	0°♄	

morning set	655 Sep 23 j 23:42	24° \mathbb{M} 20'39		superior conj	656 Sep 16 j 12:33	26° \mathbb{M} 22'19	1°12'17
	655 Sep 27 j 06:19	0° \mathbb{A}		minimum elong	656 Sep 16 j 17:21	26° \mathbb{M} 43'01	1°11'45
					656 Sep 18 j 15:19	0° \mathbb{A}	
superior conj	655 Oct 06 j 10:36	15° \mathbb{A} 26'59	0°37'36	max. Earth dist.	656 Sep 23 j 21:35	8° \mathbb{A} 47'43	1.42690 AU
minimum elong	655 Oct 06 j 14:24	15° \mathbb{A} 42'38	0°37'05	desc. node	656 Sep 28 j 00:44	15° \mathbb{A} 29'13	
desc. node	655 Oct 12 j 03:43	24° \mathbb{A} 42'57		evening rise	656 Sep 30 j 19:55	19° \mathbb{A} 55'28	
max. Earth dist.	655 Oct 12 j 08:21	25° \mathbb{A} 01'27	1.44110 AU		656 Oct 07 j 08:34	0° \mathbb{M}	
	655 Oct 15 j 11:33	0° \mathbb{M}		greatest brilliancy	656 Oct 27 j 19:50	28° \mathbb{M} 53'03	-0.4m
evening rise	655 Oct 22 j 08:53	10° \mathbb{M} 44'08			656 Oct 28 j 17:50	0° \mathbb{A}	
	655 Nov 04 j 02:48	0° \mathbb{A}		evening max el	656 Nov 01 j 14:28	4° \mathbb{A} 18'41	21°52'54
greatest brilliancy	655 Nov 13 j 22:10	13° \mathbb{A} 52'02	-0.5m	retrograde	656 Nov 10 j 18:54	9° \mathbb{A} 46'27	
evening max el	655 Nov 19 j 18:11	20° \mathbb{A} 49'06	20°40'09	evening set	656 Nov 15 j 02:19	8° \mathbb{A} 05'09	
retrograde	655 Nov 27 j 22:21	25° \mathbb{A} 38'51		asc. node	656 Nov 15 j 19:11	7° \mathbb{A} 29'02	
asc. node	655 Nov 29 j 22:08	25° \mathbb{A} 16'26		inferior conj	656 Nov 20 j 11:48	1° \mathbb{A} 45'38	1°33'38
evening set	655 Dec 01 j 18:30	24° \mathbb{A} 14'12		minimum elong	656 Nov 20 j 09:50	1° \mathbb{A} 52'29	1°32'52
inferior conj	655 Dec 07 j 05:12	18° \mathbb{A} 02'57	2°18'38	min. Earth dist.	656 Nov 20 j 14:09	1° \mathbb{A} 37'30	0.67654 AU
minimum elong	655 Dec 07 j 02:37	18° \mathbb{A} 11'46	2°17'46		656 Nov 21 j 18:36	30° \mathbb{R} \mathbb{M}	
min. Earth dist.	655 Dec 07 j 18:57	17° \mathbb{A} 16'04	0.67265 AU	morning rise	656 Nov 25 j 17:07	25° \mathbb{M} 31'15	
morning rise	655 Dec 12 j 10:16	11° \mathbb{A} 47'36		direct	656 Nov 30 j 13:06	23° \mathbb{M} 29'47	
direct	655 Dec 17 j 21:35	9° \mathbb{A} 24'02		morning max el	656 Dec 10 j 10:22	29° \mathbb{M} 21'27	22°49'26
morning max el	655 Dec 29 j 00:31	16° \mathbb{A} 02'05	24°17'28		656 Dec 11 j 01:24	0° \mathbb{A}	
desc. node	656 Jan 08 j 02:55	28° \mathbb{A} 04'27		greatest brilliancy	656 Dec 15 j 02:14	4° \mathbb{A} 33'56	-0.3m
	656 Jan 09 j 13:19	0° \mathbb{A}		desc. node	656 Dec 24 j 23:58	17° \mathbb{A} 42'37	
	656 Jan 29 j 08:17	0° \mathbb{A}			657 Jan 02 j 08:46	0° \mathbb{A}	
morning set	656 Feb 02 j 20:11	7° \mathbb{A} 38'58		morning set	657 Jan 13 j 15:59	17° \mathbb{A} 52'44	
max. Earth dist.	656 Feb 06 j 14:18	14° \mathbb{A} 17'45	1.37918 AU	max. Earth dist.	657 Jan 18 j 10:03	25° \mathbb{A} 52'16	1.40049 AU
					657 Jan 20 j 19:18	0° \mathbb{A}	
superior conj	656 Feb 13 j 14:13	27° \mathbb{A} 19'24	-1°-43'-5				
minimum elong	656 Feb 13 j 18:11	27° \mathbb{A} 38'25	1°42'41	superior conj	657 Jan 26 j 04:20	9° \mathbb{A} 36'11	-1°-58'-23
	656 Feb 14 j 23:31	0° \mathbb{A}		minimum elong	657 Jan 26 j 07:01	9° \mathbb{A} 48'24	1°58'16
evening rise	656 Feb 22 j 09:09	14° \mathbb{A} 34'56		evening rise	657 Feb 04 j 23:31	27° \mathbb{A} 59'44	
asc. node	656 Feb 25 j 21:26	21° \mathbb{A} 25'41			657 Feb 06 j 00:51	0° \mathbb{A}	
	656 Mar 01 j 14:35	0° \mathbb{A}		asc. node	657 Feb 11 j 18:29	10° \mathbb{A} 34'44	
evening max el	656 Mar 09 j 23:52	11° \mathbb{A} 25'23	19°04'11	evening max el	657 Feb 21 j 03:58	23° \mathbb{A} 57'42	18°26'41
retrograde	656 Mar 18 j 15:25	15° \mathbb{A} 35'52		retrograde	657 Feb 28 j 15:04	27° \mathbb{A} 38'15	
evening set	656 Mar 20 j 20:15	15° \mathbb{A} 20'47		evening set	657 Mar 03 j 00:54	27° \mathbb{A} 16'24	
inferior conj	656 Mar 28 j 23:53	11° \mathbb{A} 07'16	1°55'14	inferior conj	657 Mar 10 j 10:15	22° \mathbb{A} 42'31	3°03'29
minimum elong	656 Mar 29 j 03:50	11° \mathbb{A} 00'25	1°54'01	minimum elong	657 Mar 10 j 14:04	22° \mathbb{A} 34'47	3°02'41
min. Earth dist.	656 Apr 01 j 01:40	9° \mathbb{A} 00'27	0.56763 AU	min. Earth dist.	657 Mar 13 j 20:40	19° \mathbb{A} 56'55	0.58659 AU
desc. node	656 Apr 05 j 02:04	6° \mathbb{A} 40'39		morning rise	657 Mar 17 j 23:21	17° \mathbb{A} 14'53	
morning rise	656 Apr 06 j 07:17	6° \mathbb{A} 08'58		desc. node	657 Mar 22 j 23:06	15° \mathbb{A} 41'02	
direct	656 Apr 11 j 10:06	5° \mathbb{A} 07'27		direct	657 Mar 24 j 02:03	15° \mathbb{A} 37'45	
morning max el	656 Apr 25 j 16:12	12° \mathbb{A} 28'31	25°36'03	morning max el	657 Apr 07 j 10:33	23° \mathbb{A} 17'48	26°53'07
	656 May 09 j 06:46	0° \mathbb{A}			657 Apr 13 j 10:48	0° \mathbb{A}	
morning set	656 May 22 j 22:48	25° \mathbb{A} 28'03			657 May 02 j 05:55	0° \mathbb{A}	
asc. node	656 May 23 j 20:43	27° \mathbb{A} 24'04		morning set	657 May 07 j 08:56	10° \mathbb{A} 19'35	
	656 May 25 j 01:50	0° \mathbb{A}		asc. node	657 May 10 j 17:46	17° \mathbb{A} 30'26	
superior conj	656 May 29 j 23:24	10° \mathbb{A} 40'57	1°00'36	superior conj	657 May 14 j 11:11	25° \mathbb{A} 39'28	0°38'32
minimum elong	656 May 29 j 21:09	10° \mathbb{A} 28'38	1°00'12	minimum elong	657 May 14 j 09:34	25° \mathbb{A} 30'35	0°38'12
max. Earth dist.	656 May 30 j 21:11	12° \mathbb{A} 39'59	1.32618 AU	max. Earth dist.	657 May 14 j 09:38	25° \mathbb{A} 30'56	1.32307 AU
evening rise	656 Jun 06 j 02:13	25° \mathbb{A} 55'24			657 May 16 j 10:38	0° \mathbb{A}	
	656 Jun 08 j 02:13	0° \mathbb{A}		evening rise	657 May 21 j 10:01	10° \mathbb{A} 42'42	
	656 Jun 25 j 11:00	0° \mathbb{A}			657 May 31 j 08:46	0° \mathbb{A}	
desc. node	656 Jul 02 j 01:23	8° \mathbb{A} 43'29		desc. node	657 Jun 18 j 22:23	25° \mathbb{A} 55'51	
evening max el	656 Jul 07 j 18:21	14° \mathbb{A} 52'47	27°13'57	evening max el	657 Jun 19 j 19:51	26° \mathbb{A} 48'09	26°29'21
retrograde	656 Jul 21 j 14:49	22° \mathbb{A} 08'56			657 Jun 23 j 14:05	0° \mathbb{A}	
evening set	656 Jul 28 j 18:04	19° \mathbb{A} 47'33		retrograde	657 Jul 03 j 19:34	4° \mathbb{A} 01'36	
min. Earth dist.	656 Aug 01 j 08:28	17° \mathbb{A} 00'13	0.61862 AU	evening set	657 Jul 10 j 10:40	2° \mathbb{A} 11'00	
inferior conj	656 Aug 04 j 09:51	14° \mathbb{A} 13'40	-4°-13'-27		657 Jul 13 j 19:28	30° \mathbb{R} \mathbb{A}	
minimum elong	656 Aug 04 j 14:33	14° \mathbb{A} 02'59	4°12'33	min. Earth dist.	657 Jul 14 j 08:59	29° \mathbb{A} 34'42	0.59829 AU
morning rise	656 Aug 11 j 13:45	9° \mathbb{A} 13'47		inferior conj	657 Jul 17 j 16:51	26° \mathbb{A} 56'44	-4°-43'-19
direct	656 Aug 13 j 23:45	8° \mathbb{A} 48'42		minimum elong	657 Jul 17 j 19:28	26° \mathbb{A} 51'31	4°43'07
asc. node	656 Aug 19 j 19:57	11° \mathbb{A} 19'21		morning rise	657 Jul 25 j 07:36	22° \mathbb{A} 19'43	
morning max el	656 Aug 20 j 21:08	12° \mathbb{A} 16'45	17°55'44	direct	657 Jul 27 j 18:05	21° \mathbb{A} 58'11	
	656 Sep 01 j 18:45	0° \mathbb{A}		morning max el	657 Aug 04 j 07:47	25° \mathbb{A} 38'01	18°16'46
morning set	656 Sep 05 j 19:34	7° \mathbb{A} 16'57		asc. node	657 Aug 06 j 17:00	28° \mathbb{A} 14'12	

	657 Aug 08 j 01:50	0°♌		morning rise	658 Jul 07 j 06:35	4°♌47'26	
morning set	657 Aug 20 j 05:54	20°♌55'00		direct	658 Jul 09 j 19:24	4°♌28'08	
	657 Aug 25 j 01:00	0°♍		morning max el	658 Jul 18 j 11:16	8°♌31'54	18°58'24
				asc. node	658 Jul 24 j 14:04	16°♌06'08	
superior conj	657 Aug 29 j 15:29	8°♍31'48	1°34'16		658 Aug 01 j 12:13	0°♌	
minimum elong	657 Aug 29 j 18:51	8°♍47'09	1°34'00	morning set	658 Aug 04 j 02:30	5°♌03'36	
max. Earth dist.	657 Sep 06 j 05:17	21°♍53'48	1.40839 AU				
evening rise	657 Sep 11 j 01:03	29°♍57'42		superior conj	658 Aug 12 j 13:48	21°♌39'30	1°44'54
	657 Sep 11 j 01:36	0°♎		minimum elong	658 Aug 12 j 15:06	21°♌45'43	1°44'51
desc. node	657 Sep 14 j 21:46	6°♎11'29			658 Aug 17 j 00:23	0°♍	
	657 Sep 30 j 20:52	0°♏		max. Earth dist.	658 Aug 19 j 08:40	4°♍15'41	1.38809 AU
greatest brilliancy	657 Oct 09 j 00:11	10°♏45'53	-0.2m	evening rise	658 Aug 23 j 06:42	11°♍09'12	
evening max el	657 Oct 15 j 05:46	17°♏49'51	23°12'00	desc. node	658 Sep 01 j 18:47	26°♍45'50	
retrograde	657 Oct 25 j 12:54	23°♏55'57			658 Sep 03 j 20:55	0°♎	
evening set	657 Oct 30 j 09:20	21°♏56'56			658 Sep 26 j 08:54	0°♏	
asc. node	657 Nov 02 j 16:14	18°♏23'51		evening max el	658 Sep 27 j 18:07	1°♏24'43	24°31'27
inferior conj	657 Nov 04 j 19:03	15°♏32'53	0°43'28	retrograde	658 Oct 09 j 03:16	8°♏03'58	
minimum elong	657 Nov 04 j 18:03	15°♏36'21	0°43'03	evening set	658 Oct 14 j 13:55	5°♏47'32	
min. Earth dist.	657 Nov 04 j 10:47	16°♏01'17	0.67708 AU	min. Earth dist.	658 Oct 19 j 06:31	0°♏25'37	0.67437 AU
morning rise	657 Nov 10 j 02:48	9°♏21'38			658 Oct 19 j 14:12	30°♏	
direct	657 Nov 14 j 08:08	7°♏43'01		inferior conj	658 Oct 20 j 01:12	29°♏23'09	0°-10'-25
morning max el	657 Nov 23 j 01:17	12°♏49'00	21°25'29	minimum elong	658 Oct 20 j 01:27	29°♏22'18	0°10'19
greatest brilliancy	657 Nov 28 j 04:08	18°♏40'16	-0.4m	transit middle	658 Oct 20 j 01:27	29°♏22'18	0°10'19
	657 Dec 06 j 13:08	0°♐		transit begin	658 Oct 19 j 23:20	29°♏29'24	
desc. node	657 Dec 11 j 21:01	7°♐45'14		transit end	658 Oct 20 j 03:35	29°♏15'13	
morning set	657 Dec 24 j 06:52	26°♐44'38		asc. node	658 Oct 20 j 13:17	28°♏42'53	
	657 Dec 26 j 08:04	0°♑		morning rise	658 Oct 25 j 13:22	23°♏17'32	
max. Earth dist.	657 Dec 31 j 11:10	8°♑19'00	1.42071 AU	direct	658 Oct 29 j 05:39	21°♏59'53	
				morning max el	658 Nov 05 j 23:35	26°♏27'13	20°11'56
superior conj	658 Jan 07 j 21:15	20°♑49'54	-2°-2'-45		658 Nov 09 j 03:45	0°♒	
minimum elong	658 Jan 07 j 20:24	20°♑46'16	2°02'46	greatest brilliancy	658 Nov 12 j 19:25	4°♒41'52	-0.6m
	658 Jan 13 j 02:30	0°♓		desc. node	658 Nov 28 j 18:05	28°♒05'49	
evening rise	658 Jan 19 j 01:00	10°♓43'42			658 Nov 29 j 23:55	0°♑	
asc. node	658 Jan 29 j 15:32	29°♓12'37		morning set	658 Dec 03 j 03:57	4°♑52'43	
	658 Jan 30 j 03:54	0°♒		max. Earth dist.	658 Dec 13 j 19:39	21°♑37'40	1.43708 AU
evening max el	658 Feb 04 j 13:38	6°♒53'40	18°09'07		658 Dec 18 j 23:43	0°♑	
retrograde	658 Feb 11 j 07:53	10°♒20'06					
evening set	658 Feb 13 j 22:24	9°♒49'51		superior conj	658 Dec 19 j 12:23	0°♑51'56	-1°-51'-27
inferior conj	658 Feb 20 j 16:33	4°♒54'37	3°38'44	minimum elong	658 Dec 19 j 06:28	0°♑27'41	1°51'06
minimum elong	658 Feb 20 j 18:25	4°♒50'15	3°38'34	evening rise	659 Jan 01 j 09:26	22°♑39'17	
min. Earth dist.	658 Feb 23 j 22:03	1°♒53'53	0.60770 AU		659 Jan 05 j 15:13	0°♓	
	658 Feb 26 j 05:04	30°♒		asc. node	659 Jan 16 j 12:35	17°♓10'16	
morning rise	658 Feb 27 j 11:25	29°♓06'42		evening max el	659 Jan 19 j 01:57	20°♓06'10	18°10'56
direct	658 Mar 06 j 05:36	26°♓53'33		retrograde	659 Jan 25 j 13:36	23°♓32'12	
desc. node	658 Mar 09 j 20:09	27°♓28'50		evening set	659 Jan 28 j 08:41	22°♓52'27	
	658 Mar 14 j 19:42	0°♒		inferior conj	659 Feb 03 j 15:10	17°♓36'35	3°48'03
morning max el	658 Mar 20 j 11:10	4°♒44'16	27°38'28	minimum elong	659 Feb 03 j 14:55	17°♓37'14	3°48'04
	658 Apr 08 j 05:42	0°♑		min. Earth dist.	659 Feb 06 j 08:05	14°♓44'37	0.62803 AU
morning set	658 Apr 21 j 15:36	24°♑58'18		morning rise	659 Feb 09 j 19:07	11°♓36'24	
	658 Apr 24 j 01:17	0°♒		direct	659 Feb 16 j 18:34	8°♓57'01	
asc. node	658 Apr 27 j 14:49	7°♒40'29		desc. node	659 Feb 24 j 17:14	11°♓48'21	
max. Earth dist.	658 Apr 27 j 21:38	8°♒17'38	1.32359 AU	morning max el	659 Mar 02 j 17:11	16°♓50'58	27°46'47
					659 Mar 13 j 15:09	0°♒	
superior conj	658 Apr 28 j 22:24	10°♒33'01	0°13'54		659 Mar 31 j 22:30	0°♑	
minimum elong	658 Apr 28 j 21:47	10°♒29'34	0°13'46	morning set	659 Apr 05 j 16:35	9°♑16'46	
behind sun begin	658 Apr 28 j 19:16	10°♒15'47		max. Earth dist.	659 Apr 11 j 05:12	20°♑46'10	1.32800 AU
behind sun end	658 Apr 29 j 00:18	10°♒43'21					
evening rise	658 May 05 j 20:46	25°♒35'51		superior conj	659 Apr 13 j 07:23	25°♑15'51	0°-12'-31
	658 May 07 j 23:24	0°♓		minimum elong	659 Apr 13 j 07:59	25°♑19'06	0°12'24
	658 May 25 j 14:33	0°♌		behind sun begin	659 Apr 13 j 04:42	25°♑01'22	
evening max el	658 Jun 01 j 14:18	7°♌57'53	25°15'50	behind sun end	659 Apr 13 j 11:16	25°♑36'50	
desc. node	658 Jun 05 j 19:24	11°♌29'21		asc. node	659 Apr 14 j 11:53	27°♑50'08	
retrograde	658 Jun 15 j 14:48	15°♌06'34			659 Apr 15 j 11:49	0°♒	
evening set	658 Jun 21 j 04:18	13°♌54'42		evening rise	659 Apr 20 j 08:35	10°♒28'16	
min. Earth dist.	658 Jun 26 j 02:04	11°♌10'41	0.57806 AU		659 Apr 30 j 10:29	0°♓	
inferior conj	658 Jun 29 j 05:12	9°♌01'47	-4°-47'-13	evening max el	659 May 14 j 04:42	18°♓36'21	23°44'13
minimum elong	658 Jun 29 j 03:31	9°♌04'41	4°47'09	desc. node	659 May 23 j 16:26	24°♓48'12	

retrograde	659 May 27 j 22:01	25° Π 28'57		desc. node	660 May 09 j 13:27	5° Π 21'23	
evening set	659 Jun 01 j 00:40	24° Π 51'43		evening set	660 May 10 j 12:25	5° Π 11'33	
min. Earth dist.	659 Jun 07 j 15:27	21° Π 44'37	0.56124 AU	min. Earth dist.	660 May 19 j 03:46	1° Π 29'27	0.55126 AU
inferior conj	659 Jun 09 j 21:24	20° Π 22'58	-4°-11'-50	inferior conj	660 May 19 j 21:04	1° Π 05'07	-2°-50'-7
minimum elong	659 Jun 09 j 15:04	20° Π 32'36	4°10'41	minimum elong	660 May 19 j 13:59	1° Π 15'06	2°47'59
morning rise	659 Jun 18 j 08:59	16° Π 25'24			660 May 21 j 19:58	30° \mathbb{R} 8	
direct	659 Jun 21 j 01:31	16° Π 07'05		morning rise	660 May 28 j 17:16	27° \mathbb{R} 11'33	
morning max el	659 Jul 01 j 04:48	20° Π 48'41	20°01'07	direct	660 May 31 j 16:24	26° \mathbb{R} 51'49	
	659 Jul 08 j 14:14	0° \mathfrak{S}			660 Jun 09 j 13:24	0° Π	
asc. node	659 Jul 11 j 11:07	4° \mathfrak{S} 41'53		morning max el	660 Jun 12 j 11:01	2° Π 22'22	21°23'38
morning set	659 Jul 19 j 06:10	19° \mathfrak{S} 34'07		asc. node	660 Jun 27 j 08:10	23° Π 50'52	
	659 Jul 24 j 08:52	0° \mathcal{Q}			660 Jun 30 j 11:35	0° \mathfrak{S}	
				morning set	660 Jul 02 j 14:31	4° \mathfrak{S} 20'13	
superior conj	659 Jul 27 j 02:08	5° \mathcal{Q} 29'43	1°46'14	superior conj	660 Jul 10 j 00:22	19° \mathfrak{S} 50'38	1°40'13
minimum elong	659 Jul 27 j 01:38	5° \mathcal{Q} 27'10	1°46'14	minimum elong	660 Jul 09 j 22:38	19° \mathfrak{S} 41'35	1°40'06
max. Earth dist.	659 Aug 01 j 13:06	16° \mathcal{Q} 09'21	1.36863 AU	max. Earth dist.	660 Jul 14 j 00:38	28° \mathfrak{S} 02'18	1.35189 AU
evening rise	659 Aug 05 j 11:17	23° \mathcal{Q} 26'37			660 Jul 15 j 00:15	0° \mathcal{Q}	
	659 Aug 09 j 03:55	0° \mathfrak{M}		evening rise	660 Jul 18 j 10:16	6° \mathcal{Q} 38'19	
desc. node	659 Aug 19 j 15:47	17° \mathfrak{M} 07'02			660 Jul 31 j 20:34	0° \mathfrak{M}	
	659 Aug 28 j 13:57	0° \mathfrak{A}		desc. node	660 Aug 05 j 12:47	7° \mathfrak{M} 08'56	
evening max el	659 Sep 10 j 05:49	15° \mathfrak{A} 02'37	25°43'59	evening max el	660 Aug 22 j 17:57	28° \mathfrak{M} 38'46	26°41'44
retrograde	659 Sep 22 j 13:00	22° \mathfrak{A} 04'52			660 Aug 24 j 04:53	0° \mathfrak{A}	
evening set	659 Sep 28 j 14:15	19° \mathfrak{A} 33'21		retrograde	660 Sep 04 j 17:28	5° \mathfrak{A} 53'09	
min. Earth dist.	659 Oct 02 j 22:52	14° \mathfrak{A} 47'15	0.66842 AU	evening set	660 Sep 11 j 08:14	3° \mathfrak{A} 11'24	
inferior conj	659 Oct 04 j 04:27	13° \mathfrak{A} 13'01	-1°-6'-40		660 Sep 14 j 13:28	30° \mathfrak{R} \mathfrak{M}	
minimum elong	659 Oct 04 j 06:10	13° \mathfrak{A} 07'35	1°05'57	min. Earth dist.	660 Sep 15 j 09:22	29° \mathfrak{M} 02'43	0.65908 AU
asc. node	659 Oct 07 j 10:20	9° \mathfrak{A} 22'17		inferior conj	660 Sep 17 j 02:52	26° \mathfrak{M} 59'26	-2°-3'-31
morning rise	659 Oct 09 j 22:51	7° \mathfrak{A} 15'57		minimum elong	660 Sep 17 j 06:03	26° \mathfrak{M} 49'56	2°02'18
direct	659 Oct 13 j 04:09	6° \mathfrak{A} 16'04		morning rise	660 Sep 23 j 05:08	21° \mathfrak{M} 14'09	
morning max el	659 Oct 20 j 05:19	10° \mathfrak{A} 14'10	19°12'18	asc. node	660 Sep 23 j 07:23	21° \mathfrak{M} 11'13	
	659 Nov 03 j 15:08	0° \mathfrak{M}		direct	660 Sep 26 j 01:48	20° \mathfrak{M} 28'22	
morning set	659 Nov 12 j 07:29	13° \mathfrak{M} 27'51		morning max el	660 Oct 02 j 17:00	24° \mathfrak{M} 06'51	18°28'30
desc. node	659 Nov 15 j 15:06	18° \mathfrak{M} 38'30			660 Oct 07 j 12:52	0° \mathfrak{A}	
	659 Nov 22 j 21:18	0° \mathfrak{X}		morning set	660 Oct 22 j 12:20	23° \mathfrak{A} 21'30	
max. Earth dist.	659 Nov 26 j 10:32	5° \mathfrak{X} 35'18	1.44750 AU		660 Oct 26 j 15:36	0° \mathfrak{M}	
superior conj	659 Nov 29 j 02:08	9° \mathfrak{X} 46'48	-1°-21'-32	desc. node	660 Nov 01 j 12:07	9° \mathfrak{M} 19'18	
minimum elong	659 Nov 28 j 17:39	9° \mathfrak{X} 13'10	1°20'39	superior conj	660 Nov 07 j 02:52	18° \mathfrak{M} 10'56	0°-36'-31
	659 Dec 11 j 15:14	0° \mathfrak{Z}		minimum elong	660 Nov 06 j 22:06	17° \mathfrak{M} 52'10	0°35'55
evening rise	659 Dec 13 j 20:29	3° \mathfrak{Z} 38'46		max. Earth dist.	660 Nov 08 j 05:14	19° \mathfrak{M} 54'32	1.45078 AU
	659 Dec 30 j 14:41	0° \approx			660 Nov 14 j 15:27	0° \mathfrak{X}	
evening max el	660 Jan 02 j 14:07	3° \approx 28'30	18°31'24	evening rise	660 Nov 23 j 07:52	13° \mathfrak{X} 40'16	
asc. node	660 Jan 03 j 09:37	4° \approx 15'51			660 Dec 03 j 16:53	0° \mathfrak{Z}	
retrograde	660 Jan 09 j 03:55	7° \approx 06'04		greatest brilliancy	660 Dec 05 j 09:12	2° \mathfrak{Z} 35'19	-0.7m
evening set	660 Jan 12 j 04:11	6° \approx 15'38		evening max el	660 Dec 15 j 23:43	16° \mathfrak{Z} 55'20	19°09'22
inferior conj	660 Jan 18 j 02:06	0° \approx 40'47	3°38'28	asc. node	660 Dec 20 j 06:39	20° \mathfrak{Z} 15'02	
minimum elong	660 Jan 18 j 00:20	0° \approx 45'58	3°38'15	retrograde	660 Dec 22 j 23:20	20° \mathfrak{Z} 54'45	
	660 Jan 18 j 15:54	30° \mathfrak{R} \mathfrak{Z}		evening set	660 Dec 26 j 05:56	19° \mathfrak{Z} 52'18	
min. Earth dist.	660 Jan 20 j 03:39	28° \mathfrak{Z} 15'19	0.64548 AU	inferior conj	660 Dec 31 j 21:52	14° \mathfrak{Z} 00'45	3°15'08
morning rise	660 Jan 23 j 19:11	24° \mathfrak{Z} 33'09		minimum elong	660 Dec 31 j 19:18	14° \mathfrak{Z} 08'53	3°14'35
direct	660 Jan 30 j 14:52	21° \mathfrak{Z} 42'30		min. Earth dist.	661 Jan 02 j 08:15	12° \mathfrak{Z} 11'35	0.65910 AU
desc. node	660 Feb 11 j 14:18	28° \mathfrak{Z} 04'04		morning rise	661 Jan 06 j 07:49	7° \mathfrak{Z} 48'27	
morning max el	660 Feb 13 j 02:11	29° \mathfrak{Z} 30'49	27°19'42	direct	661 Jan 12 j 17:24	5° \mathfrak{Z} 00'45	
	660 Feb 13 j 13:43	0° \approx		morning max el	661 Jan 25 j 11:48	12° \mathfrak{Z} 32'15	26°23'24
	660 Mar 06 j 12:42	0° \mathfrak{H}		desc. node	661 Jan 28 j 11:20	15° \mathfrak{Z} 43'06	
morning set	660 Mar 19 j 09:09	23° \mathfrak{H} 06'16			661 Feb 08 j 13:37	0° \approx	
	660 Mar 22 j 20:09	0° \mathfrak{Y}			661 Feb 27 j 04:02	0° \mathfrak{H}	
max. Earth dist.	660 Mar 24 j 04:35	2° \mathfrak{Y} 46'02	1.33671 AU	morning set	661 Mar 02 j 13:30	6° \mathfrak{H} 14'47	
superior conj	660 Mar 27 j 12:13	9° \mathfrak{Y} 41'59	0°-39'-44	max. Earth dist.	661 Mar 06 j 16:54	14° \mathfrak{H} 12'21	1.34999 AU
minimum elong	660 Mar 27 j 14:09	9° \mathfrak{Y} 52'16	0°39'22	superior conj	661 Mar 11 j 10:32	23° \mathfrak{H} 43'33	-1°-6'-30
asc. node	660 Mar 31 j 08:55	17° \mathfrak{Y} 55'29		minimum elong	661 Mar 11 j 13:44	23° \mathfrak{H} 59'54	1°05'58
evening rise	660 Apr 03 j 19:40	25° \mathfrak{Y} 13'59			661 Mar 14 j 11:21	0° \mathfrak{Y}	
	660 Apr 06 j 02:59	0° \mathfrak{R}		asc. node	661 Mar 18 j 05:57	7° \mathfrak{Y} 51'40	
evening max el	660 Apr 24 j 21:37	29° \mathfrak{R} 11'49	22°09'11	evening rise	661 Mar 19 j 04:03	9° \mathfrak{Y} 45'56	
	660 Apr 25 j 18:11	0° Π			661 Mar 30 j 00:21	0° \mathfrak{R}	
retrograde	660 May 07 j 16:38	5° Π 29'11					

evening max el	661 Apr 06 j 23:14	10°♄10'27	20°43'31	asc. node	662 Mar 05 j 02:59	27°♄34'17	
retrograde	661 Apr 18 j 05:34	15°♄37'35			662 Mar 06 j 08:38	0°♄	
evening set	661 Apr 20 j 09:40	15°♄26'14		evening max el	662 Mar 20 j 12:17	21°♄47'04	19°34'48
desc. node	661 Apr 26 j 10:30	13°♄14'23		retrograde	662 Mar 30 j 01:32	26°♄22'50	
inferior conj	661 Apr 29 j 15:06	11°♄28'39	0°-55'-14	evening set	662 Apr 01 j 03:52	26°♄10'31	
minimum elong	661 Apr 29 j 12:29	11°♄32'24	0°54'18	inferior conj	662 Apr 09 j 18:16	22°♄05'56	1°00'06
min. Earth dist.	661 Apr 30 j 16:32	10°♄52'16	0.55043 AU	minimum elong	662 Apr 09 j 20:45	22°♄01'59	0°59'15
morning rise	661 May 08 j 14:09	7°♄20'19		min. Earth dist.	662 Apr 12 j 06:57	20°♄29'36	0.55904 AU
direct	661 May 12 j 02:43	6°♄53'35		desc. node	662 Apr 13 j 07:32	19°♄52'17	
morning max el	661 May 25 j 07:18	13°♄15'27	23°00'52	morning rise	662 Apr 18 j 10:01	17°♄26'41	
	661 Jun 06 j 23:57	0°♄		direct	662 Apr 22 j 21:11	16°♄41'52	
asc. node	661 Jun 14 j 05:12	13°♄23'43		morning max el	662 May 06 j 22:24	23°♄46'14	24°41'58
morning set	661 Jun 17 j 01:31	19°♄14'56			662 May 12 j 13:41	0°♄	
	661 Jun 22 j 02:34	0°♄			662 May 30 j 12:49	0°♄	
				asc. node	662 Jun 01 j 02:15	3°♄13'55	
superior conj	661 Jun 24 j 05:16	4°♄31'32	1°28'22	morning set	662 Jun 01 j 13:28	4°♄12'49	
minimum elong	661 Jun 24 j 02:54	4°♄18'55	1°28'07				
max. Earth dist.	661 Jun 26 j 21:29	10°♄11'13	1.33879 AU	superior conj	662 Jun 08 j 14:22	19°♄24'40	1°11'52
evening rise	661 Jul 01 j 22:52	20°♄30'09		minimum elong	662 Jun 08 j 11:56	19°♄11'27	1°11'29
	661 Jul 06 j 22:08	0°♄		max. Earth dist.	662 Jun 10 j 02:37	22°♄41'01	1.32963 AU
desc. node	661 Jul 23 j 09:48	26°♄42'34			662 Jun 13 j 13:00	0°♄	
	661 Jul 25 j 19:44	0°♄		evening rise	662 Jun 15 j 21:15	4°♄50'56	
evening max el	661 Aug 05 j 05:43	12°♄02'16	27°17'21		662 Jun 29 j 14:10	0°♄	
retrograde	661 Aug 18 j 16:18	19°♄21'05		desc. node	662 Jul 10 j 06:50	15°♄35'54	
evening set	661 Aug 25 j 17:19	16°♄37'22		evening max el	662 Jul 18 j 15:21	25°♄00'35	27°24'27
min. Earth dist.	661 Aug 29 j 11:44	13°♄05'29	0.64605 AU		662 Jul 25 j 00:26	0°♄	
inferior conj	661 Aug 31 j 18:09	10°♄37'38	-2°-58'-44	retrograde	662 Aug 01 j 09:11	2°♄19'08	
minimum elong	661 Aug 31 j 22:35	10°♄25'34	2°57'17		662 Aug 08 j 05:38	30°♄	
morning rise	661 Sep 07 j 05:40	5°♄07'37		evening set	662 Aug 08 j 14:08	29°♄45'21	
direct	661 Sep 09 j 20:06	4°♄32'23		min. Earth dist.	662 Aug 12 j 04:17	26°♄44'57	0.62945 AU
asc. node	661 Sep 10 j 04:25	4°♄33'01		inferior conj	662 Aug 14 j 23:32	24°♄01'07	-3°-48'-56
morning max el	661 Sep 16 j 08:12	8°♄00'11	18°01'41	minimum elong	662 Aug 15 j 04:30	23°♄48'56	3°47'41
	661 Oct 01 j 03:32	0°♄		morning rise	662 Aug 21 j 21:19	18°♄49'36	
morning set	661 Oct 03 j 21:48	4°♄39'15		direct	662 Aug 24 j 08:05	18°♄21'42	
				asc. node	662 Aug 28 j 01:28	19°♄27'34	
superior conj	661 Oct 17 j 12:35	27°♄06'41	0°12'20	morning max el	662 Aug 31 j 00:03	21°♄47'20	17°52'36
minimum elong	661 Oct 17 j 14:03	27°♄12'34	0°12'08		662 Sep 06 j 06:56	0°♄	
behind sun begin	661 Oct 17 j 07:01	26°♄44'19		morning set	662 Sep 16 j 06:54	17°♄04'36	
behind sun end	661 Oct 17 j 21:04	27°♄40'47			662 Sep 23 j 16:09	0°♄	
desc. node	661 Oct 19 j 09:08	0°♄05'05					
	661 Oct 19 j 07:51	0°♄		superior conj	662 Sep 27 j 22:45	7°♄15'55	0°53'51
max. Earth dist.	661 Oct 22 j 00:06	4°♄15'22	1.44662 AU	minimum elong	662 Sep 28 j 03:25	7°♄35'25	0°53'16
evening rise	661 Nov 02 j 23:04	22°♄55'08		max. Earth dist.	662 Oct 04 j 15:41	18°♄17'45	1.43566 AU
	661 Nov 07 j 13:36	0°♄		desc. node	662 Oct 06 j 06:09	20°♄52'14	
greatest brilliancy	661 Nov 22 j 06:31	21°♄49'41	-0.6m		662 Oct 12 j 00:59	0°♄	
	661 Nov 28 j 19:40	0°♄		evening rise	662 Oct 13 j 06:25	1°♄54'19	
evening max el	661 Nov 29 j 04:48	0°♄23'55	20°03'04		662 Nov 01 j 03:51	0°♄	
retrograde	661 Dec 06 j 20:57	4°♄53'46		greatest brilliancy	662 Nov 06 j 21:52	7°♄44'43	-0.4m
asc. node	661 Dec 07 j 03:41	4°♄53'20		evening max el	662 Nov 12 j 04:16	13°♄52'47	21°09'56
evening set	661 Dec 10 j 11:36	3°♄37'41		retrograde	662 Nov 20 j 18:29	18°♄58'58	
	661 Dec 14 j 02:24	30°♄		asc. node	662 Nov 24 j 00:44	17°♄59'18	
inferior conj	661 Dec 15 j 23:39	27°♄32'28	2°41'36	evening set	662 Nov 24 j 19:07	17°♄27'29	
minimum elong	661 Dec 15 j 20:56	27°♄41'36	2°40'48	inferior conj	662 Nov 30 j 05:06	11°♄12'02	2°00'15
min. Earth dist.	661 Dec 16 j 20:26	26°♄22'57	0.66876 AU	minimum elong	662 Nov 30 j 02:44	11°♄20'14	1°59'25
morning rise	661 Dec 21 j 05:42	21°♄17'33		min. Earth dist.	662 Nov 30 j 13:51	10°♄41'54	0.67470 AU
direct	661 Dec 27 j 01:30	18°♄43'20		morning rise	662 Dec 05 j 09:58	4°♄56'37	
morning max el	662 Jan 07 j 20:39	25°♄44'53	25°06'49	direct	662 Dec 10 j 14:39	2°♄42'14	
	662 Jan 11 j 18:22	0°♄		morning max el	662 Dec 21 j 05:19	9°♄01'46	23°39'57
desc. node	662 Jan 15 j 08:21	4°♄21'20		desc. node	663 Jan 02 j 05:24	23°♄41'06	
	662 Feb 02 j 02:37	0°♄			663 Jan 06 j 17:10	0°♄	
morning set	662 Feb 13 j 00:44	18°♄28'37		morning set	663 Jan 25 j 12:36	29°♄30'16	
max. Earth dist.	662 Feb 16 j 18:11	25°♄16'48	1.36756 AU		663 Jan 25 j 19:36	0°♄	
	662 Feb 19 j 06:18	0°♄		max. Earth dist.	663 Jan 29 j 13:07	6°♄27'44	1.38817 AU
superior conj	662 Feb 22 j 23:30	7°♄12'44	-1°-30'-59	superior conj	663 Feb 05 j 23:15	19°♄58'53	-1°-50'-38
minimum elong	662 Feb 23 j 03:27	7°♄32'14	1°30'29	minimum elong	663 Feb 06 j 02:55	20°♄16'04	1°50'21
evening rise	662 Mar 03 j 07:37	23°♄57'45			663 Feb 11 j 04:55	0°♄	

evening rise	663 Feb 15 j 03:40	7° Υ 41'25		superior conj	664 Jan 19 j 05:03	1° \approx 50'48	-2°-1'-51
asc. node	663 Feb 20 j 00:02	16° Υ 57'17		minimum elong	664 Jan 19 j 06:32	1° \approx 57'21	2°01'51
	663 Feb 28 j 00:02	0° Υ		evening rise	664 Jan 29 j 13:01	20° \approx 49'43	
evening max el	663 Mar 03 j 11:43	4° Υ 01'07	18°45'48		664 Feb 03 j 12:06	0° Υ	
retrograde	663 Mar 11 j 13:55	7° Υ 56'55		asc. node	664 Feb 06 j 21:06	5° Υ 54'12	
evening set	663 Mar 13 j 20:41	7° Υ 39'21		evening max el	664 Feb 14 j 18:39	16° Υ 45'06	18°16'50
inferior conj	663 Mar 21 j 16:20	3° Υ 17'52	2°28'30	retrograde	664 Feb 21 j 21:03	20° Υ 17'22	
minimum elong	663 Mar 21 j 20:35	3° Υ 10'00	2°27'23	evening set	664 Feb 24 j 09:01	19° Υ 52'02	
min. Earth dist.	663 Mar 24 j 23:57	0° Υ 51'37	0.57517 AU	inferior conj	664 Mar 02 j 11:30	15° Υ 09'20	3°22'04
	663 Mar 26 j 06:16	30° Υ		minimum elong	664 Mar 02 j 14:35	15° Υ 02'40	3°21'35
morning rise	663 Mar 29 j 16:12	28° Υ 05'43		min. Earth dist.	664 Mar 05 j 21:20	12° Υ 14'03	0.59555 AU
desc. node	663 Mar 31 j 04:34	27° Υ 30'15		morning rise	664 Mar 09 j 16:36	9° Υ 32'10	
direct	663 Apr 04 j 05:51	26° Υ 49'36		direct	664 Mar 16 j 03:25	7° Υ 38'45	
	663 Apr 13 j 07:25	0° Υ		desc. node	664 Mar 17 j 01:37	7° Υ 41'02	
morning max el	663 Apr 18 j 14:08	4° Υ 21'08	26°12'07	morning max el	664 Mar 30 j 10:48	15° Υ 24'11	27°16'45
	663 May 07 j 03:51	0° Υ			664 Apr 11 j 07:10	0° Υ	
morning set	663 May 17 j 00:44	19° Υ 08'25			664 Apr 28 j 11:48	0° Υ	
asc. node	663 May 18 j 23:19	23° Υ 16'00		morning set	664 Apr 30 j 09:36	3° Υ 55'11	
	663 May 22 j 01:42	0° Υ		asc. node	664 May 04 j 20:22	13° Υ 24'36	
				max. Earth dist.	664 May 07 j 01:54	18° Υ 17'20	1.32279 AU
superior conj	663 May 24 j 01:42	4° Υ 23'19	0°51'37	superior conj	664 May 07 j 13:26	19° Υ 20'40	0°28'22
minimum elong	663 May 23 j 23:40	4° Υ 12'11	0°51'13	minimum elong	664 May 07 j 12:12	19° Υ 13'53	0°28'06
max. Earth dist.	663 May 24 j 13:17	5° Υ 26'55	1.32432 AU		664 May 12 j 10:27	0° Υ	
evening rise	663 May 31 j 02:19	19° Υ 31'16		evening rise	664 May 14 j 11:37	4° Υ 22'14	
	663 Jun 05 j 07:46	0° Υ			664 May 28 j 03:56	0° Υ	
	663 Jun 24 j 04:13	0° Υ		evening max el	664 Jun 11 j 19:14	18° Υ 58'48	26°01'20
desc. node	663 Jun 27 j 03:51	3° Υ 32'13		desc. node	664 Jun 13 j 00:54	20° Υ 07'04	
evening max el	663 Jun 30 j 20:34	7° Υ 22'22	26°59'02	retrograde	664 Jun 25 j 19:59	26° Υ 10'27	
retrograde	663 Jul 14 j 19:03	14° Υ 38'13		evening set	664 Jul 02 j 01:37	24° Υ 36'21	
evening set	663 Jul 21 j 18:30	12° Υ 28'27		min. Earth dist.	664 Jul 06 j 07:55	21° Υ 58'45	0.58945 AU
min. Earth dist.	663 Jul 25 j 10:42	9° Υ 47'51	0.61003 AU	inferior conj	664 Jul 09 j 15:17	19° Υ 30'53	-4°-48'-59
inferior conj	663 Jul 28 j 15:48	7° Υ 02'22	-4°-28'-36	minimum elong	664 Jul 09 j 16:18	19° Υ 28'57	4°48'58
minimum elong	663 Jul 28 j 19:53	6° Υ 53'33	4°27'59	morning rise	664 Jul 17 j 10:32	15° Υ 03'26	
morning rise	663 Aug 05 j 00:19	2° Υ 12'04		direct	664 Jul 19 j 21:49	14° Υ 42'56	
direct	663 Aug 07 j 10:03	1° Υ 48'52		morning max el	664 Jul 27 j 21:27	18° Υ 31'43	18°31'51
morning max el	663 Aug 14 j 13:32	5° Υ 21'02	18°02'15	asc. node	664 Jul 31 j 19:35	23° Υ 04'18	
asc. node	663 Aug 14 j 22:32	5° Υ 43'21			664 Aug 05 j 07:48	0° Υ	
morning set	663 Aug 30 j 09:35	0° Υ		morning set	664 Aug 13 j 00:45	14° Υ 13'18	
	663 Aug 30 j 05:06	0° Υ			664 Aug 21 j 06:29	0° Υ	
superior conj	663 Sep 09 j 12:00	18° Υ 45'07	1°23'07	superior conj	664 Aug 21 j 23:50	1° Υ 21'04	1°40'02
minimum elong	663 Sep 09 j 16:22	19° Υ 04'25	1°22'40	minimum elong	664 Aug 22 j 02:21	1° Υ 32'43	1°39'53
	663 Sep 16 j 00:37	0° Υ		max. Earth dist.	664 Aug 29 j 07:42	14° Υ 33'59	1.39986 AU
max. Earth dist.	663 Sep 17 j 02:09	1° Υ 46'51	1.41938 AU	evening rise	664 Sep 02 j 15:10	21° Υ 55'35	
evening rise	663 Sep 22 j 23:47	11° Υ 24'14			664 Sep 07 j 13:37	0° Υ	
desc. node	663 Sep 23 j 03:11	11° Υ 37'48		desc. node	664 Sep 09 j 00:13	2° Υ 17'29	
	663 Oct 05 j 02:35	0° Υ			664 Sep 28 j 03:34	0° Υ	
greatest brilliancy	663 Oct 21 j 04:06	22° Υ 02'51	-0.3m	evening max el	664 Oct 07 j 12:16	10° Υ 56'57	23°46'11
evening max el	663 Oct 25 j 22:18	27° Υ 23'28	22°26'04	retrograde	664 Oct 18 j 06:37	17° Υ 17'28	
	663 Oct 28 j 18:15	0° Υ		evening set	664 Oct 23 j 09:00	15° Υ 11'06	
retrograde	663 Nov 04 j 14:10	3° Υ 08'03		asc. node	664 Oct 27 j 18:49	10° Υ 09'34	
evening set	663 Nov 09 j 02:49	1° Υ 19'33		inferior conj	664 Oct 28 j 19:15	8° Υ 46'40	0°21'02
asc. node	663 Nov 10 j 21:47	29° Υ 36'08		minimum elong	664 Oct 28 j 18:44	8° Υ 48'23	0°20'49
	663 Nov 10 j 12:55	30° Υ		min. Earth dist.	664 Oct 28 j 06:38	9° Υ 29'34	0.67638 AU
inferior conj	663 Nov 14 j 12:14	24° Υ 57'40	1°12'55	morning rise	664 Nov 03 j 04:38	2° Υ 37'29	
minimum elong	663 Nov 14 j 10:38	25° Υ 03'14	1°12'17	direct	664 Nov 07 j 04:18	1° Υ 07'53	
min. Earth dist.	663 Nov 14 j 10:06	25° Υ 05'05	0.67720 AU	morning max el	664 Nov 15 j 10:37	5° Υ 55'54	20°52'39
morning rise	663 Nov 19 j 18:19	18° Υ 44'03		greatest brilliancy	664 Nov 21 j 03:43	12° Υ 35'56	-0.5m
direct	663 Nov 24 j 07:57	16° Υ 52'11			664 Dec 03 j 11:56	0° Υ	
morning max el	663 Dec 03 j 16:50	22° Υ 24'10	22°12'39	desc. node	664 Dec 05 j 23:30	3° Υ 42'23	
greatest brilliancy	663 Dec 08 j 08:26	27° Υ 37'41	-0.3m	morning set	664 Dec 15 j 00:48	17° Υ 34'08	
	663 Dec 10 j 06:04	0° Υ			664 Dec 22 j 20:38	0° Υ	
desc. node	663 Dec 20 j 02:27	13° Υ 30'59		max. Earth dist.	664 Dec 23 j 14:37	1° Υ 12'53	1.42835 AU
	663 Dec 31 j 01:41	0° Υ		superior conj	664 Dec 30 j 11:32	12° Υ 35'54	-2°00'-9
morning set	664 Jan 05 j 19:47	9° Υ 07'48		minimum elong	664 Dec 30 j 08:35	12° Υ 23'27	2°00'04
max. Earth dist.	664 Jan 11 j 10:01	18° Υ 21'04	1.40945 AU				
	664 Jan 18 j 04:06	0° Υ					

	665 Jan 09 j 12:02	0°♊		morning set	665 Nov 23 j 21:30	25°♍45'07	
evening rise	665 Jan 11 j 07:49	3°♊14'49			665 Nov 26 j 15:17	0°♊	
asc. node	665 Jan 23 j 18:08	24°♊16'50		max. Earth dist.	665 Dec 06 j 02:40	14°♊52'28	1.44233 AU
evening max el	665 Jan 28 j 05:53	29°♊50'01	18°07'31				
	665 Jan 28 j 09:57	0°♋		superior conj	665 Dec 10 j 15:11	22°♊06'57	-1°-41'-2
retrograde	665 Feb 03 j 19:58	3°♋14'29		minimum elong	665 Dec 10 j 07:33	21°♊36'06	1°40'25
evening set	665 Feb 06 j 12:31	2°♋40'09			665 Dec 15 j 11:19	0°♋	
	665 Feb 10 j 12:19	30°♌		evening rise	665 Dec 24 j 07:38	14°♋47'44	
inferior conj	665 Feb 13 j 01:16	27°♌35'46	3°45'24		666 Jan 02 j 08:38	0°♌	
minimum elong	665 Feb 13 j 02:12	27°♌33'28	3°45'21	asc. node	666 Jan 10 j 15:10	11°♌54'08	
min. Earth dist.	665 Feb 16 j 01:57	24°♌36'26	0.61664 AU	evening max el	666 Jan 11 j 18:24	13°♌07'22	18°17'20
morning rise	665 Feb 19 j 13:21	21°♌42'10		retrograde	666 Jan 18 j 06:00	16°♌37'11	
direct	665 Feb 26 j 11:04	19°♌16'27		evening set	666 Jan 21 j 03:09	15°♌53'00	
desc. node	665 Mar 03 j 22:40	20°♌38'12		inferior conj	666 Jan 27 j 05:36	10°♌28'31	3°45'58
morning max el	665 Mar 12 j 13:51	27°♌08'26	27°46'36	minimum elong	666 Jan 27 j 04:38	10°♌31'13	3°45'54
	665 Mar 15 j 07:10	0°♌		min. Earth dist.	666 Jan 29 j 15:57	7°♌46'22	0.63585 AU
	665 Apr 04 j 21:56	0°♍		morning rise	666 Feb 02 j 04:26	4°♌24'34	
morning set	665 Apr 14 j 14:08	18°♍26'41		direct	666 Feb 09 j 03:03	1°♌38'55	
	665 Apr 20 j 01:43	0°♎		desc. node	666 Feb 18 j 19:43	5°♌51'48	
max. Earth dist.	665 Apr 20 j 12:41	0°♎59'19	1.32503 AU	morning max el	666 Feb 22 j 21:41	9°♌31'33	27°39'23
					666 Mar 10 j 21:30	0°♎	
superior conj	665 Apr 21 j 23:55	4°♎10'49	0°02'53		666 Mar 28 j 04:40	0°♏	
minimum elong	665 Apr 21 j 23:47	4°♎10'06	0°02'51	morning set	666 Mar 29 j 11:55	2°♏34'12	
behind sun begin	665 Apr 21 j 18:44	3°♎42'38		max. Earth dist.	666 Apr 03 j 17:26	13°♏18'00	1.33123 AU
behind sun end	665 Apr 22 j 04:49	4°♎37'35					
asc. node	665 Apr 21 j 17:25	3°♎35'23		superior conj	666 Apr 06 j 07:21	18°♏47'13	0°-24'-2
evening rise	665 Apr 28 j 23:05	19°♎16'37		minimum elong	666 Apr 06 j 08:30	18°♏53'28	0°23'47
	665 May 04 j 05:25	0°♏		asc. node	666 Apr 08 j 14:28	23°♏43'50	
evening max el	665 May 24 j 11:27	29°♏52'59	24°38'14		666 Apr 11 j 12:21	0°♏	
	665 May 24 j 14:23	0°♐		evening rise	666 Apr 13 j 10:48	4°♏07'02	
desc. node	665 May 30 j 21:54	4°♐48'17			666 Apr 27 j 13:51	0°♐	
retrograde	665 Jun 07 j 09:51	6°♐56'01		evening max el	666 May 06 j 01:44	10°♐25'18	23°03'11
evening set	665 Jun 12 j 09:20	6°♐00'08		desc. node	666 May 17 j 18:54	16°♐59'25	
min. Earth dist.	665 Jun 17 j 22:42	3°♐08'05	0.57035 AU	retrograde	666 May 19 j 11:31	17°♐05'55	
inferior conj	665 Jun 20 j 19:00	1°♐17'39	-4°-37'-43	evening set	666 May 22 j 23:51	16°♐38'49	
minimum elong	665 Jun 20 j 15:10	1°♐23'53	4°37'20	min. Earth dist.	666 May 30 j 11:03	13°♐18'25	0.55601 AU
	665 Jun 22 j 19:52	30°♑		inferior conj	666 Jun 01 j 03:10	12°♐20'07	-3°-42'-38
morning rise	665 Jun 29 j 00:46	27°♑11'29		minimum elong	666 May 31 j 19:49	12°♐30'51	3°40'52
direct	665 Jul 01 j 15:15	26°♑52'36		morning rise	666 Jun 09 j 18:51	8°♑26'43	
	665 Jul 09 j 12:20	0°♑		direct	666 Jun 12 j 13:37	8°♑08'19	
morning max el	665 Jul 10 j 20:52	1°♑10'23	19°22'30	morning max el	666 Jun 23 j 09:38	13°♑09'13	20°34'05
asc. node	665 Jul 18 j 16:38	11°♑16'13		asc. node	666 Jul 05 j 13:41	0°♑07'08	
morning set	665 Jul 28 j 00:40	28°♑32'12			666 Jul 05 j 12:06	0°♑	
	665 Jul 28 j 18:15	0°♒		morning set	666 Jul 12 j 06:34	13°♑10'09	
superior conj	665 Aug 05 j 04:40	14°♒48'22	1°46'28	superior conj	666 Jul 19 j 21:40	28°♑53'16	1°44'29
minimum elong	665 Aug 05 j 05:08	14°♒50'40	1°46'28	minimum elong	666 Jul 19 j 20:33	28°♑47'38	1°44'27
max. Earth dist.	665 Aug 11 j 11:13	26°♒42'47	1.37962 AU		666 Jul 20 j 10:48	0°♒	
	665 Aug 13 j 06:33	0°♓		max. Earth dist.	666 Jul 24 j 17:57	8°♒32'34	1.36104 AU
evening rise	665 Aug 15 j 06:58	3°♓35'47		evening rise	666 Jul 28 j 19:56	16°♒17'41	
desc. node	665 Aug 26 j 21:14	22°♓46'57			666 Aug 05 j 14:14	0°♓	
	665 Aug 31 j 15:50	0°♔		desc. node	666 Aug 13 j 18:13	13°♓01'02	
evening max el	665 Sep 20 j 00:08	24°♔33'20	25°03'35		666 Aug 26 j 02:38	0°♔	
	665 Sep 26 j 22:47	0°♕		evening max el	666 Sep 02 j 11:43	8°♔10'48	26°10'47
retrograde	665 Oct 01 j 18:56	1°♕23'06		retrograde	666 Sep 15 j 02:34	15°♔20'02	
	665 Oct 06 j 03:54	30°♖		evening set	666 Sep 21 j 09:54	12°♔43'01	
evening set	665 Oct 07 j 11:59	28°♖59'39		min. Earth dist.	666 Sep 25 j 15:09	8°♔12'58	0.66483 AU
min. Earth dist.	665 Oct 12 j 01:05	23°♖53'01	0.67229 AU	inferior conj	666 Sep 27 j 01:47	6°♔25'39	-1°-30'-49
inferior conj	665 Oct 13 j 00:21	22°♖36'41	0°-34'-4	minimum elong	666 Sep 27 j 04:08	6°♔18'22	1°29'52
minimum elong	665 Oct 13 j 01:12	22°♖33'53	0°33'43	asc. node	666 Oct 01 j 12:54	1°♔34'13	
asc. node	665 Oct 14 j 15:52	20°♖29'48		morning rise	666 Oct 02 j 23:21	0°♔33'28	
morning rise	665 Oct 18 j 14:58	16°♖34'36			666 Oct 04 j 03:57	30°♗	
direct	665 Oct 22 j 02:22	15°♖24'56		direct	666 Oct 06 j 00:37	29°♗40'12	
morning max el	665 Oct 29 j 12:12	19°♖38'11	19°44'46		666 Oct 07 j 22:14	0°♖	
greatest brilliancy	665 Nov 06 j 10:19	29°♖30'14	-0.6m	morning max el	666 Oct 12 j 20:50	3°♖28'55	18°51'45
	665 Nov 06 j 18:47	0°♗			666 Oct 31 j 08:45	0°♗	
desc. node	665 Nov 22 j 20:31	24°♗08'42		morning set	666 Nov 03 j 10:27	4°♗50'36	

desc. node	666 Nov 09 j 17:32	14° \mathbb{M} 45'36		desc. node	667 Oct 27 j 14:32	5° \mathbb{M} 28'50	
max. Earth dist.	666 Nov 18 j 19:24	29° \mathbb{M} 01'15	1.44973 AU				
	666 Nov 19 j 10:21	0° \mathbb{A}		superior conj	667 Oct 29 j 23:00	9° \mathbb{M} 12'44	0°-15'-31
superior conj	666 Nov 19 j 21:07	0° \mathbb{A} 42'23	-1°-3'-45	minimum elong	667 Oct 29 j 20:59	9° \mathbb{M} 04'46	0°15'15
minimum elong	666 Nov 19 j 13:28	0° \mathbb{A} 12'17	1°02'52	behind sun begin	667 Oct 29 j 17:08	8° \mathbb{M} 49'34	
evening rise	666 Dec 05 j 08:45	25° \mathbb{A} 22'49		behind sun end	667 Oct 30 j 00:49	9° \mathbb{M} 19'58	
	666 Dec 08 j 05:17	0° \mathbb{B}		max. Earth dist.	667 Nov 01 j 13:59	13° \mathbb{M} 21'15	1.44985 AU
evening max el	666 Dec 26 j 05:41	26° \mathbb{B} 32'00	18°45'27		667 Nov 12 j 05:15	0° \mathbb{A}	
asc. node	666 Dec 28 j 12:12	28° \mathbb{B} 33'30		evening rise	667 Nov 15 j 10:31	5° \mathbb{A} 01'14	
	666 Dec 31 j 03:37	0° \mathbb{C}		greatest brilliancy	667 Dec 01 j 02:09	29° \mathbb{A} 02'35	-0.7m
retrograde	667 Jan 01 j 22:59	0° \mathbb{C} 18'08			667 Dec 01 j 17:59	0° \mathbb{B}	
	667 Jan 03 j 17:42	30° \mathbb{R} \mathbb{B}		evening max el	667 Dec 09 j 13:34	9° \mathbb{B} 59'48	19°30'29
evening set	667 Jan 05 j 01:38	29° \mathbb{B} 22'56		asc. node	667 Dec 15 j 09:14	13° \mathbb{B} 59'54	
inferior conj	667 Jan 10 j 20:43	23° \mathbb{B} 40'36	3°30'01	retrograde	667 Dec 16 j 19:33	14° \mathbb{B} 11'16	
minimum elong	667 Jan 10 j 18:32	23° \mathbb{B} 47'17	3°29'40	evening set	667 Dec 20 j 05:18	13° \mathbb{B} 03'25	
min. Earth dist.	667 Jan 12 j 15:43	21° \mathbb{B} 29'37	0.65172 AU	inferior conj	667 Dec 25 j 19:23	7° \mathbb{B} 05'56	3°01'59
morning rise	667 Jan 16 j 10:19	17° \mathbb{B} 30'25		minimum elong	667 Dec 25 j 16:40	7° \mathbb{B} 14'45	3°01'19
direct	667 Jan 23 j 02:12	14° \mathbb{B} 39'22		min. Earth dist.	667 Dec 26 j 23:53	5° \mathbb{B} 33'08	0.66368 AU
morning max el	667 Feb 05 j 07:25	22° \mathbb{B} 22'57	26°58'48	morning rise	667 Dec 31 j 03:17	0° \mathbb{B} 52'12	
desc. node	667 Feb 05 j 16:46	22° \mathbb{B} 46'36			668 Jan 01 j 04:45	30° \mathbb{R} \mathbb{A}	
	667 Feb 12 j 00:51	0° \mathbb{C}		direct	668 Jan 06 j 07:24	28° \mathbb{A} 08'50	
	667 Mar 04 j 03:00	0° \mathbb{H}			668 Jan 12 j 00:38	0° \mathbb{B}	
morning set	667 Mar 12 j 23:50	16° \mathbb{H} 08'11		morning max el	668 Jan 18 j 16:38	5° \mathbb{B} 29'43	25°52'39
max. Earth dist.	667 Mar 17 j 12:19	25° \mathbb{H} 03'18	1.34181 AU	desc. node	668 Jan 23 j 13:48	10° \mathbb{B} 53'08	
	667 Mar 19 j 22:21	0° \mathbb{Y}			668 Feb 06 j 14:20	0° \mathbb{C}	
superior conj	667 Mar 21 j 09:42	3° \mathbb{Y} 03'44	0°-51'-15	morning set	668 Feb 23 j 21:38	28° \mathbb{C} 55'51	
minimum elong	667 Mar 21 j 12:12	3° \mathbb{Y} 16'49	0°50'47		668 Feb 24 j 11:32	0° \mathbb{H}	
asc. node	667 Mar 26 j 11:30	13° \mathbb{Y} 45'48		max. Earth dist.	668 Feb 27 j 19:17	6° \mathbb{H} 16'18	1.35693 AU
evening rise	667 Mar 28 j 20:58	18° \mathbb{Y} 47'32					
	667 Apr 03 j 11:13	0° \mathbb{Z}		superior conj	668 Mar 04 j 04:30	16° \mathbb{H} 53'13	-1°-17'-17
evening max el	667 Apr 17 j 21:40	21° \mathbb{Z} 07'39	21°30'57	minimum elong	668 Mar 04 j 08:06	17° \mathbb{H} 11'23	1°16'45
retrograde	667 Apr 30 j 02:51	27° \mathbb{Z} 05'15			668 Mar 10 j 14:09	0° \mathbb{Y}	
evening set	667 May 02 j 13:32	26° \mathbb{Z} 51'41		evening rise	668 Mar 12 j 03:37	3° \mathbb{Y} 11'58	
desc. node	667 May 04 j 15:57	26° \mathbb{Z} 19'46		asc. node	668 Mar 12 j 08:33	3° \mathbb{Y} 37'09	
inferior conj	667 May 11 j 22:43	22° \mathbb{Z} 50'56	-2°-3'-44		668 Mar 27 j 22:25	0° \mathbb{Z}	
minimum elong	667 May 11 j 17:04	22° \mathbb{Z} 58'51	2°01'49	evening max el	668 Mar 30 j 04:19	2° \mathbb{Z} 23'14	20°12'04
min. Earth dist.	667 May 11 j 23:43	22° \mathbb{Z} 49'31	0.54969 AU	retrograde	668 Apr 09 j 16:57	7° \mathbb{Z} 27'12	
morning rise	667 May 20 j 21:07	18° \mathbb{Z} 53'12		evening set	668 Apr 11 j 19:01	7° \mathbb{Z} 16'08	
direct	667 May 24 j 00:34	18° \mathbb{Z} 31'37		inferior conj	668 Apr 20 j 19:07	3° \mathbb{Z} 17'46	0°-4'-23
morning max el	667 Jun 05 j 11:23	24° \mathbb{Z} 25'01	22°03'45	minimum elong	668 Apr 20 j 18:55	3° \mathbb{Z} 18'04	0°04'21
	667 Jun 10 j 12:48	0° \mathbb{I}		transit middle	668 Apr 20 j 18:55	3° \mathbb{Z} 18'04	0°04'21
asc. node	667 Jun 22 j 10:44	19° \mathbb{I} 27'08		transit begin	668 Apr 20 j 15:03	3° \mathbb{Z} 23'48	
morning set	667 Jun 26 j 16:14	28° \mathbb{I} 00'22		transit end	668 Apr 20 j 22:46	3° \mathbb{Z} 12'19	
	667 Jun 27 j 15:07	0° \mathbb{S}		desc. node	668 Apr 20 j 13:00	3° \mathbb{Z} 26'50	
superior conj	667 Jul 03 j 23:04	13° \mathbb{S} 23'54	1°35'50	min. Earth dist.	668 Apr 22 j 13:23	2° \mathbb{Z} 15'08	0.55301 AU
minimum elong	667 Jul 03 j 20:59	13° \mathbb{S} 12'58	1°35'39		668 Apr 26 j 19:39	30° \mathbb{R} \mathbb{Y}	
max. Earth dist.	667 Jul 07 j 08:59	20° \mathbb{S} 29'08	1.34577 AU	morning rise	668 Apr 29 j 16:19	28° \mathbb{Y} 57'21	
evening rise	667 Jul 12 j 01:13	29° \mathbb{S} 48'05		direct	668 May 03 j 13:45	28° \mathbb{Y} 24'18	
	667 Jul 12 j 03:41	0° \mathbb{Q}			668 May 10 j 02:39	0° \mathbb{Z}	
	667 Jul 29 j 16:24	0° \mathbb{P}		morning max el	668 May 17 j 04:44	5° \mathbb{Z} 06'23	23°44'05
desc. node	667 Jul 31 j 15:14	2° \mathbb{P} 52'15			668 Jun 03 j 16:05	0° \mathbb{I}	
evening max el	667 Aug 15 j 23:43	21° \mathbb{P} 42'38	27°00'05	asc. node	668 Jun 08 j 07:47	9° \mathbb{I} 08'38	
retrograde	667 Aug 29 j 04:56	29° \mathbb{P} 00'36		morning set	668 Jun 10 j 03:52	12° \mathbb{I} 57'38	
evening set	667 Sep 05 j 00:27	26° \mathbb{P} 16'47		superior conj	668 Jun 17 j 06:04	28° \mathbb{I} 11'33	1°21'54
min. Earth dist.	667 Sep 08 j 22:31	22° \mathbb{P} 23'56	0.65389 AU	minimum elong	668 Jun 17 j 03:37	27° \mathbb{I} 58'20	1°21'34
inferior conj	667 Sep 10 j 21:27	20° \mathbb{P} 09'15	-2°-27'-21		668 Jun 18 j 02:15	0° \mathbb{S}	
minimum elong	667 Sep 11 j 01:13	19° \mathbb{P} 58'25	2°25'59	max. Earth dist.	668 Jun 19 j 09:43	2° \mathbb{S} 47'59	1.33445 AU
morning rise	667 Sep 17 j 03:30	14° \mathbb{P} 30'01		evening rise	668 Jun 24 j 18:30	13° \mathbb{S} 54'34	
asc. node	667 Sep 18 j 09:57	14° \mathbb{P} 01'03			668 Jul 03 j 07:18	0° \mathbb{Q}	
direct	667 Sep 19 j 21:06	13° \mathbb{P} 49'17		desc. node	668 Jul 17 j 12:17	22° \mathbb{Q} 10'50	
morning max el	667 Sep 26 j 10:21	17° \mathbb{P} 22'38	18°14'59		668 Jul 23 j 17:52	0° \mathbb{P}	
	667 Oct 05 j 17:07	0° \mathbb{U}		evening max el	668 Jul 28 j 11:06	4° \mathbb{P} 58'12	27°24'12
morning set	667 Oct 15 j 03:43	15° \mathbb{U} 20'48		retrograde	668 Aug 11 j 01:19	12° \mathbb{P} 16'57	
	667 Oct 24 j 04:13	0° \mathbb{M}		evening set	668 Aug 18 j 04:47	9° \mathbb{P} 36'13	
				min. Earth dist.	668 Aug 21 j 21:05	6° \mathbb{P} 18'19	0.63940 AU
				inferior conj	668 Aug 24 j 08:55	3° \mathbb{P} 42'36	-3°-20'-56

minimum elong	668 Aug 24 j 13:43	3° \mathbb{M} 30'07	3°19'30	minimum elong	669 Aug 07 j 13:59	16° Ω 46'31	4°06'27
	668 Aug 28 j 06:56	30° \mathbb{R} Ω		morning rise	669 Aug 14 j 11:28	11° Ω 54'44	
morning rise	668 Aug 31 j 00:41	28° Ω 19'41		direct	669 Aug 16 j 21:37	11° Ω 28'58	
direct	668 Sep 02 j 13:14	27° Ω 47'54		asc. node	669 Aug 22 j 04:02	13° Ω 33'56	
asc. node	668 Sep 04 j 07:00	28° Ω 03'14		morning max el	669 Aug 23 j 17:17	14° Ω 55'58	17°54'19
	668 Sep 07 j 17:38	0° \mathbb{M}			669 Sep 03 j 03:04	0° \mathbb{M}	
morning max el	668 Sep 09 j 02:07	1° \mathbb{M} 13'58	17°55'31	morning set	669 Sep 08 j 17:19	9° \mathbb{M} 58'51	
morning set	668 Sep 26 j 00:01	27° \mathbb{M} 09'43					
	668 Sep 27 j 15:41	0° $\underline{\Omega}$		superior conj	669 Sep 19 j 15:53	29° \mathbb{M} 20'12	1°07'52
				minimum elong	669 Sep 19 j 20:45	29° \mathbb{M} 40'58	1°07'17
superior conj	668 Oct 08 j 17:56	18° $\underline{\Omega}$ 36'14	0°31'18		669 Sep 20 j 01:11	0° $\underline{\Omega}$	
minimum elong	668 Oct 08 j 21:15	18° $\underline{\Omega}$ 49'49	0°30'51	max. Earth dist.	669 Sep 26 j 21:55	11° $\underline{\Omega}$ 28'09	1.42933 AU
desc. node	668 Oct 13 j 11:34	26° $\underline{\Omega}$ 15'28		desc. node	669 Sep 30 j 08:37	17° $\underline{\Omega}$ 02'24	
max. Earth dist.	668 Oct 14 j 07:45	27° $\underline{\Omega}$ 36'04	1.44278 AU	evening rise	669 Oct 04 j 05:55	23° $\underline{\Omega}$ 11'24	
	668 Oct 15 j 19:58	0° \mathbb{M}			669 Oct 08 j 15:33	0° \mathbb{M}	
evening rise	668 Oct 24 j 20:18	14° \mathbb{M} 04'04			669 Oct 29 j 13:50	0° \mathbb{X}	
	668 Nov 04 j 08:04	0° \mathbb{X}		greatest brilliancy	669 Oct 30 j 16:41	1° \mathbb{X} 24'33	-0.4m
greatest brilliancy	668 Nov 15 j 14:30	16° \mathbb{X} 10'07	-0.5m	evening max el	669 Nov 04 j 13:32	6° \mathbb{X} 58'25	21°41'28
evening max el	668 Nov 21 j 16:25	23° \mathbb{X} 28'42	20°30'13	retrograde	669 Nov 13 j 14:08	12° \mathbb{X} 20'32	
retrograde	668 Nov 29 j 17:15	28° \mathbb{X} 12'59		evening set	669 Nov 17 j 19:46	10° \mathbb{X} 41'44	
asc. node	668 Dec 01 j 06:17	27° \mathbb{X} 59'31		asc. node	669 Nov 18 j 03:19	10° \mathbb{X} 26'20	
evening set	668 Dec 03 j 11:58	26° \mathbb{X} 50'32		inferior conj	669 Nov 23 j 05:20	4° \mathbb{X} 23'04	1°40'48
inferior conj	668 Dec 08 j 22:57	20° \mathbb{X} 40'46	2°24'52	minimum elong	669 Nov 23 j 03:14	4° \mathbb{X} 30'20	1°40'01
minimum elong	668 Dec 08 j 20:19	20° \mathbb{X} 49'43	2°24'02	min. Earth dist.	669 Nov 23 j 09:16	4° \mathbb{X} 09'26	0.67619 AU
min. Earth dist.	668 Dec 09 j 14:28	19° \mathbb{X} 48'07	0.67177 AU		669 Nov 26 j 14:07	30° \mathbb{M}	
morning rise	668 Dec 14 j 04:12	14° \mathbb{X} 25'36		morning rise	669 Nov 28 j 10:27	28° \mathbb{M} 08'23	
direct	668 Dec 19 j 17:46	11° \mathbb{X} 59'06		direct	669 Dec 03 j 08:39	26° \mathbb{M} 03'39	
morning max el	668 Dec 31 j 00:56	18° \mathbb{X} 43'19	24°30'29		669 Dec 11 j 06:37	0° \mathbb{X}	
desc. node	669 Jan 09 j 10:49	29° \mathbb{X} 50'24		morning max el	669 Dec 13 j 10:27	2° \mathbb{X} 02'31	23°02'27
	669 Jan 09 j 13:44	0° \mathbb{Z}		greatest brilliancy	669 Dec 18 j 06:13	7° \mathbb{X} 26'10	-0.3m
	669 Jan 29 j 16:54	0° \approx		desc. node	669 Dec 27 j 07:51	19° \mathbb{X} 24'09	
morning set	669 Feb 04 j 23:41	10° \approx 40'31			670 Jan 03 j 14:46	0° \mathbb{Z}	
max. Earth dist.	669 Feb 08 j 16:53	17° \approx 18'30	1.37607 AU	morning set	670 Jan 16 j 23:47	21° \mathbb{Z} 07'00	
	669 Feb 15 j 11:14	0° \mathbb{H}		max. Earth dist.	670 Jan 21 j 12:21	28° \mathbb{Z} 46'42	1.39732 AU
					670 Jan 22 j 05:18	0° \approx	
superior conj	669 Feb 15 j 12:23	0° \mathbb{H} 05'35	-1°-40'-5	superior conj	670 Jan 29 j 05:10	12° \approx 30'13	-1°-56'-40
minimum elong	669 Feb 15 j 16:24	0° \mathbb{H} 24'56	1°39'40	minimum elong	670 Jan 29 j 08:10	12° \approx 44'02	1°56'31
evening rise	669 Feb 24 j 04:19	17° \mathbb{H} 12'40			670 Feb 07 j 11:23	0° \mathbb{H}	
asc. node	669 Feb 27 j 05:37	23° \mathbb{H} 12'10		evening rise	670 Feb 07 j 20:17	0° \mathbb{H} 42'34	
	669 Mar 02 j 20:58	0° \mathbb{Y}		asc. node	670 Feb 14 j 02:40	12° \mathbb{H} 25'03	
evening max el	669 Mar 12 j 22:08	14° \mathbb{Y} 16'38	19°11'33	evening max el	670 Feb 24 j 01:03	26° \mathbb{H} 43'55	18°30'59
retrograde	669 Mar 21 j 18:59	18° \mathbb{Y} 33'17			670 Feb 28 j 22:59	0° \mathbb{Y}	
evening set	669 Mar 23 j 23:07	18° \mathbb{Y} 18'59		retrograde	670 Mar 03 j 15:46	0° \mathbb{Y} 28'05	
inferior conj	669 Apr 01 j 05:33	14° \mathbb{Y} 07'55	1°41'45	evening set	670 Mar 06 j 00:45	0° \mathbb{Y} 07'26	
minimum elong	669 Apr 01 j 09:15	14° \mathbb{Y} 01'40	1°40'35		670 Mar 06 j 10:26	30° \mathbb{H}	
min. Earth dist.	669 Apr 04 j 04:26	12° \mathbb{Y} 08'44	0.56518 AU	inferior conj	670 Mar 13 j 12:41	25° \mathbb{H} 36'46	2°55'21
desc. node	669 Apr 07 j 10:02	10° \mathbb{Y} 14'11		minimum elong	670 Mar 13 j 16:41	25° \mathbb{H} 28'50	2°54'28
morning rise	669 Apr 09 j 15:22	9° \mathbb{Y} 14'38		min. Earth dist.	670 Mar 16 j 22:49	22° \mathbb{H} 55'24	0.58351 AU
direct	669 Apr 14 j 14:05	8° \mathbb{Y} 17'55		morning rise	670 Mar 21 j 04:35	20° \mathbb{H} 12'44	
morning max el	669 Apr 28 j 19:13	15° \mathbb{Y} 34'50	25°22'32	desc. node	670 Mar 25 j 07:04	18° \mathbb{H} 50'17	
	669 May 10 j 09:06	0° \mathbb{Z}		direct	670 Mar 27 j 04:03	18° \mathbb{H} 41'14	
morning set	669 May 25 j 15:45	27° \mathbb{Z} 55'22		morning max el	670 Apr 10 j 12:51	26° \mathbb{H} 19'31	26°43'31
asc. node	669 May 26 j 04:51	29° \mathbb{Z} 04'36			670 Apr 14 j 00:13	0° \mathbb{Y}	
	669 May 26 j 15:16	0° \mathbb{H}			670 May 03 j 16:19	0° \mathbb{Z}	
superior conj	669 Jun 01 j 16:21	13° \mathbb{H} 07'43	1°03'43	morning set	670 May 10 j 02:14	12° \mathbb{Z} 47'59	
minimum elong	669 Jun 01 j 14:02	12° \mathbb{H} 55'04	1°03'17	asc. node	670 May 13 j 01:55	19° \mathbb{Z} 09'56	
max. Earth dist.	669 Jun 02 j 17:51	15° \mathbb{H} 26'51	1.32700 AU				
evening rise	669 Jun 08 j 20:06	28° \mathbb{H} 24'57		superior conj	670 May 17 j 04:02	28° \mathbb{Z} 06'13	0°42'05
	669 Jun 09 j 14:39	0° \mathbb{Z}		minimum elong	670 May 17 j 02:18	27° \mathbb{Z} 56'40	0°41'43
	669 Jun 26 j 12:59	0° Ω		max. Earth dist.	670 May 17 j 05:56	28° \mathbb{Z} 16'39	1.32325 AU
desc. node	669 Jul 04 j 09:20	10° Ω 42'17			670 May 18 j 00:44	0° \mathbb{H}	
evening max el	669 Jul 10 j 19:21	17° Ω 42'45	27°17'38	evening rise	670 May 24 j 03:13	13° \mathbb{H} 10'20	
retrograde	669 Jul 24 j 15:02	24° Ω 59'17			670 Jun 01 j 17:13	0° \mathbb{Z}	
evening set	669 Jul 31 j 19:08	22° Ω 34'13		desc. node	670 Jun 21 j 06:22	28° \mathbb{Z} 07'04	
min. Earth dist.	669 Aug 04 j 09:14	19° Ω 44'00	0.62155 AU	evening max el	670 Jun 22 j 21:45	29° \mathbb{Z} 44'48	26°38'00
inferior conj	669 Aug 07 j 09:09	16° Ω 57'42	-4°-7'-28		670 Jun 23 j 04:11	0° Ω	

retrograde	670 Jul 06 j 21:13	6°♂59'06			671 May 26 j 10:57	0°♂	
evening set	670 Jul 13 j 14:56	5°♂03'04		evening max el	671 Jun 04 j 17:15	11°♂01'35	25°28'26
min. Earth dist.	670 Jul 17 j 11:09	2°♂26'20	0.60135 AU	desc. node	671 Jun 08 j 03:22	13°♂58'09	
	670 Jul 20 j 11:38	30°♂		retrograde	671 Jun 18 j 18:10	18°♂11'33	
inferior conj	670 Jul 20 j 18:40	29°♂45'40	-4°-40'-14	evening set	671 Jun 24 j 12:11	16°♂53'57	
minimum elong	670 Jul 20 j 21:44	29°♂39'25	4°39'56	min. Earth dist.	671 Jun 29 j 05:19	14°♂12'07	0.58090 AU
morning rise	670 Jul 28 j 07:49	25°♂05'19		inferior conj	671 Jul 02 j 10:01	11°♂57'36	-4°-48'-55
direct	670 Jul 30 j 18:02	24°♂43'26		minimum elong	671 Jul 02 j 09:06	11°♂59'13	4°48'55
morning max el	670 Aug 07 j 04:47	28°♂20'52	18°12'22	morning rise	671 Jul 10 j 09:50	7°♂39'58	
	670 Aug 08 j 18:30	0°♂		direct	671 Jul 12 j 22:07	7°♂20'27	
asc. node	670 Aug 09 j 01:06	0°♂19'02		morning max el	671 Jul 21 j 09:33	11°♂20'01	18°50'48
morning set	670 Aug 23 j 01:47	23°♂31'28		asc. node	671 Jul 26 j 22:10	18°♂03'43	
	670 Aug 26 j 12:13	0°♂			671 Aug 02 j 22:18	0°♂	
				morning set	671 Aug 06 j 21:06	7°♂36'31	
superior conj	670 Sep 01 j 15:26	11°♂19'46	1°31'43	superior conj	671 Aug 15 j 11:13	24°♂20'04	1°43'54
minimum elong	670 Sep 01 j 19:06	11°♂36'19	1°31'24	minimum elong	671 Aug 15 j 12:50	24°♂27'44	1°43'51
max. Earth dist.	670 Sep 09 j 06:13	24°♂40'08	1.41129 AU		671 Aug 18 j 11:38	0°♂	
	670 Sep 12 j 10:41	0°♂		max. Earth dist.	671 Aug 22 j 09:51	7°♂07'53	1.39116 AU
evening rise	670 Sep 14 j 07:40	3°♂04'18		evening rise	671 Aug 26 j 09:39	14°♂05'50	
desc. node	670 Sep 17 j 05:39	7°♂45'43		desc. node	671 Sep 04 j 02:41	28°♂21'53	
	670 Oct 02 j 00:14	0°♂			671 Sep 05 j 03:49	0°♂	
greatest brilliancy	670 Oct 12 j 20:10	14°♂26'22	-0.2m		671 Sep 26 j 23:01	0°♂	
evening max el	670 Oct 18 j 05:24	20°♂29'13	23°00'00	evening max el	671 Sep 30 j 18:06	4°♂03'48	24°19'51
retrograde	670 Oct 28 j 08:40	26°♂30'09		retrograde	671 Oct 11 j 23:36	10°♂38'33	
evening set	670 Nov 02 j 03:00	24°♂33'51		evening set	671 Oct 17 j 08:03	8°♂24'47	
asc. node	670 Nov 05 j 00:20	21°♂31'17		min. Earth dist.	671 Oct 22 j 01:57	2°♂57'37	0.67502 AU
min. Earth dist.	670 Nov 07 j 05:53	18°♂33'14	0.67721 AU	inferior conj	671 Oct 22 j 19:01	2°♂00'13	0°-2'00
inferior conj	670 Nov 07 j 12:35	18°♂10'09	0°51'22	minimum elong	671 Oct 22 j 19:04	2°♂00'03	0°02'01
minimum elong	670 Nov 07 j 11:25	18°♂14'11	0°50'53	transit middle	671 Oct 22 j 19:04	2°♂00'03	0°02'01
morning rise	670 Nov 12 j 19:50	11°♂58'09		transit begin	671 Oct 22 j 16:21	2°♂09'11	
direct	670 Nov 17 j 03:14	10°♂16'11		transit end	671 Oct 22 j 21:47	1°♂50'56	
morning max el	670 Nov 26 j 00:25	15°♂28'55	21°37'24	asc. node	671 Oct 22 j 21:22	1°♂52'19	
greatest brilliancy	670 Nov 30 j 23:27	21°♂07'21	-0.4m		671 Oct 24 j 07:24	30°♂	
	670 Dec 07 j 15:56	0°♂		morning rise	671 Oct 28 j 06:24	25°♂53'28	
desc. node	670 Dec 14 j 04:53	9°♂23'42		direct	671 Nov 01 j 00:31	24°♂32'48	
morning set	670 Dec 27 j 18:41	0°♂10'09		morning max el	671 Nov 08 j 21:27	29°♂05'13	20°21'57
	670 Dec 27 j 16:08	0°♂			671 Nov 09 j 18:29	0°♂	
max. Earth dist.	671 Jan 03 j 12:08	11°♂04'12	1.41791 AU	greatest brilliancy	671 Nov 15 j 09:37	6°♂52'17	-0.5m
superior conj	671 Jan 11 j 01:33	23°♂54'08	-2°-3'-1	desc. node	671 Dec 01 j 01:56	29°♂41'59	
minimum elong	671 Jan 11 j 01:23	23°♂53'26	2°03'01		671 Dec 01 j 06:40	0°♂	
	671 Jan 14 j 12:37	0°♂		morning set	671 Dec 06 j 16:59	8°♂20'19	
evening rise	671 Jan 21 j 23:55	13°♂33'05		max. Earth dist.	671 Dec 16 j 19:23	24°♂15'21	1.43503 AU
	671 Jan 31 j 06:43	0°♂			671 Dec 20 j 08:29	0°♂	
asc. node	671 Jan 31 j 23:42	1°♂08'09		superior conj	671 Dec 22 j 20:41	4°♂07'22	-1°-54'-21
evening max el	671 Feb 07 j 10:05	9°♂36'54	18°10'28	minimum elong	671 Dec 22 j 15:31	3°♂46'01	1°54'04
retrograde	671 Feb 14 j 06:09	13°♂04'24		evening rise	672 Jan 04 j 11:07	25°♂36'20	
evening set	671 Feb 16 j 19:58	12°♂35'30			672 Jan 06 j 23:31	0°♂	
inferior conj	671 Feb 23 j 16:10	7°♂43'36	3°35'13	asc. node	672 Jan 18 j 20:42	19°♂12'41	
minimum elong	671 Feb 23 j 18:22	7°♂38'33	3°34'59	evening max el	672 Jan 21 j 22:12	22°♂47'47	18°09'27
min. Earth dist.	671 Feb 26 j 23:08	4°♂43'19	0.60455 AU	retrograde	672 Jan 28 j 10:09	26°♂12'53	
morning rise	671 Mar 02 j 13:35	1°♂58'07		evening set	672 Jan 31 j 04:35	25°♂34'32	
	671 Mar 07 j 08:25	30°♂		inferior conj	672 Feb 06 j 12:35	20°♂21'42	3°47'59
direct	671 Mar 09 j 06:12	29°♂49'40		minimum elong	672 Feb 06 j 12:38	20°♂21'34	3°47'59
	671 Mar 11 j 04:49	0°♂		min. Earth dist.	672 Feb 09 j 07:41	17°♂27'08	0.62518 AU
desc. node	671 Mar 12 j 04:05	0°♂12'39		morning rise	672 Feb 12 j 18:32	14°♂23'06	
morning max el	671 Mar 23 j 12:26	7°♂39'37	27°34'05	direct	672 Feb 19 j 17:54	11°♂46'42	
	671 Apr 09 j 11:16	0°♂		desc. node	672 Feb 27 j 01:07	14°♂11'39	
morning set	671 Apr 24 j 09:31	27°♂29'03		morning max el	672 Mar 04 j 17:37	19°♂40'21	27°47'54
	671 Apr 25 j 14:30	0°♂			672 Mar 13 j 13:30	0°♂	
asc. node	671 Apr 29 j 22:59	9°♂19'56			672 Apr 01 j 08:56	0°♂	
max. Earth dist.	671 Apr 30 j 18:06	11°♂04'16	1.32318 AU	morning set	672 Apr 07 j 11:28	11°♂50'56	
superior conj	671 May 01 j 15:26	13°♂01'02	0°17'46	max. Earth dist.	672 Apr 13 j 02:33	23°♂36'20	1.32706 AU
minimum elong	671 May 01 j 14:38	12°♂56'39	0°17'36				
evening rise	671 May 08 j 13:37	28°♂03'06		superior conj	672 Apr 15 j 00:50	27°♂45'54	0°-8'-26
	671 May 09 j 11:52	0°♂		minimum elong	672 Apr 15 j 01:14	27°♂48'04	0°08'21

behind sun begin	672 Apr 14 j 20:48	27° Υ 24'02		superior conj	673 Mar 30 j 06:24	12° Υ 14'59	0°-35'-36
behind sun end	672 Apr 15 j 05:40	28° Υ 12'08		minimum elong	673 Mar 30 j 08:09	12° Υ 24'13	0°35'15
asc. node	672 Apr 15 j 20:01	29° Υ 29'58		asc. node	673 Apr 02 j 17:03	19° Υ 36'18	
	672 Apr 16 j 01:33	0° B		evening rise	673 Apr 06 j 12:42	27° Υ 43'28	
evening rise	672 Apr 22 j 01:23	12° B 56'09			673 Apr 07 j 14:53	0° B	
	672 Apr 30 j 17:19	0° II			673 Apr 25 j 19:26	0° II	
evening max el	672 May 16 j 07:59	21° II 43'24	23°58'33	evening max el	673 Apr 27 j 23:57	2° II 16'39	22°22'54
desc. node	672 May 25 j 00:23	27° II 39'44		retrograde	673 May 10 j 23:09	8° II 40'29	
retrograde	672 May 30 j 03:05	28° II 39'07		desc. node	673 May 11 j 21:23	8° II 38'33	
evening set	672 Jun 03 j 11:07	27° II 57'35		evening set	673 May 13 j 22:52	8° II 20'50	
min. Earth dist.	672 Jun 09 j 18:58	24° II 54'48	0.56337 AU	min. Earth dist.	673 May 22 j 07:05	4° II 44'51	0.55223 AU
inferior conj	672 Jun 12 j 05:08	23° II 25'22	-4°-20'-16	inferior conj	673 May 23 j 06:37	4° II 11'35	-3°-5'-13
minimum elong	672 Jun 11 j 23:22	23° II 34'17	4°19'19	minimum elong	673 May 22 j 23:15	4° II 22'00	3°03'06
morning rise	672 Jun 20 j 15:12	19° II 25'50		morning rise	673 Jun 01 j 01:46	0° II 18'44	
direct	672 Jun 23 j 07:12	19° II 07'23			673 Jun 03 j 11:54	30° R B	
morning max el	672 Jul 03 j 04:38	23° II 42'32	19°50'26	direct	673 Jun 03 j 23:42	29° B 59'26	
	672 Jul 08 j 13:56	0° B			673 Jun 04 j 11:28	0° II	
asc. node	672 Jul 12 j 19:14	6° B 33'34		morning max el	673 Jun 15 j 12:26	5° II 21'53	21°10'19
morning set	672 Jul 20 j 23:53	22° B 04'23		asc. node	673 Jun 29 j 16:18	25° II 37'45	
	672 Jul 24 j 21:33	0° Q			673 Jul 01 j 22:52	0° B	
				morning set	673 Jul 05 j 07:39	6° B 48'09	
superior conj	672 Jul 28 j 21:45	8° Q 04'46	1°46'32	superior conj	673 Jul 12 j 18:43	22° B 21'20	1°41'32
minimum elong	672 Jul 28 j 21:29	8° Q 03'26	1°46'32	minimum elong	673 Jul 12 j 17:07	22° B 13'05	1°41'27
max. Earth dist.	672 Aug 03 j 13:57	19° Q 05'11	1.37143 AU		673 Jul 16 j 12:53	0° Q	
evening rise	672 Aug 07 j 11:05	26° Q 14'10		max. Earth dist.	673 Jul 17 j 00:12	0° Q 56'24	1.35414 AU
	672 Aug 09 j 13:51	0° P		evening rise	673 Jul 21 j 07:35	9° Q 17'58	
desc. node	672 Aug 20 j 23:43	18° P 45'35			673 Aug 02 j 03:38	0° P	
	672 Aug 28 j 15:52	0° A		desc. node	673 Aug 07 j 20:44	8° P 50'46	
evening max el	672 Sep 12 j 05:54	17° A 41'51	25°33'53		673 Aug 24 j 10:19	0° A	
retrograde	672 Sep 24 j 09:58	24° A 40'52		evening max el	673 Aug 25 j 17:52	1° A 18'23	26°34'22
evening set	672 Sep 30 j 09:06	22° A 11'25		retrograde	673 Sep 07 j 15:12	8° A 31'32	
min. Earth dist.	672 Oct 04 j 18:56	17° A 19'53	0.66958 AU	evening set	673 Sep 14 j 04:11	5° A 50'45	
inferior conj	672 Oct 05 j 22:49	15° A 50'20	0°-58'00	min. Earth dist.	673 Sep 18 j 06:23	1° A 36'36	0.66069 AU
minimum elong	672 Oct 06 j 00:18	15° A 45'35	0°57'24	inferior conj	673 Sep 19 j 22:05	29° P 37'21	-1°-54'-57
asc. node	672 Oct 08 j 18:24	12° A 25'03		minimum elong	673 Sep 20 j 01:03	29° P 28'24	1°53'47
morning rise	672 Oct 11 j 16:10	9° A 51'48			673 Sep 19 j 14:34	30° R P	
direct	672 Oct 14 j 23:01	8° A 49'25		morning rise	673 Sep 25 j 23:05	23° P 50'15	
morning max el	672 Oct 22 j 02:08	12° A 51'01	19°20'10	asc. node	673 Sep 25 j 15:28	24° P 01'06	
greatest brilliancy	672 Oct 31 j 18:48	25° A 25'35	-0.7m	direct	673 Sep 28 j 20:54	23° P 02'37	
	672 Nov 03 j 20:24	0° M		morning max el	673 Oct 05 j 13:08	26° P 43'19	18°34'02
morning set	672 Nov 14 j 18:02	16° M 47'21			673 Oct 08 j 10:00	0° A	
desc. node	672 Nov 16 j 22:58	20° M 13'15		morning set	673 Oct 25 j 18:38	26° A 28'19	
	672 Nov 23 j 05:17	0° J			673 Oct 27 j 23:35	0° M	
max. Earth dist.	672 Nov 28 j 09:47	8° J 09'38	1.44640 AU	desc. node	673 Nov 03 j 20:00	10° M 53'08	
superior conj	672 Dec 01 j 13:48	13° J 10'59	-1°-27'-12	superior conj	673 Nov 10 j 15:11	21° M 35'58	0°-43'-54
minimum elong	672 Dec 01 j 05:18	12° J 37'13	1°26'24	minimum elong	673 Nov 10 j 09:31	21° M 13'42	0°43'11
	672 Dec 11 j 23:31	0° Z		max. Earth dist.	673 Nov 11 j 04:18	22° M 27'29	1.45075 AU
evening rise	672 Dec 16 j 01:35	6° Z 44'51			673 Nov 15 j 23:29	0° J	
	672 Dec 30 j 12:09	0° \approx		evening rise	673 Nov 26 j 16:32	16° J 54'57	
evening max el	673 Jan 04 j 10:35	6° \approx 09'27	18°27'12		673 Dec 04 j 22:28	0° Z	
asc. node	673 Jan 04 j 17:43	6° \approx 27'15		evening max el	673 Dec 18 j 20:41	19° Z 35'39	19°02'38
retrograde	673 Jan 10 j 23:30	9° \approx 44'33		asc. node	673 Dec 22 j 14:45	22° Z 37'27	
evening set	673 Jan 13 j 22:57	8° \approx 55'43		retrograde	673 Dec 25 j 18:26	23° Z 31'24	
inferior conj	673 Jan 19 j 21:57	3° \approx 23'27	3°40'53	evening set	673 Dec 28 j 23:58	22° Z 30'51	
minimum elong	673 Jan 19 j 20:23	3° \approx 28'01	3°40'43	inferior conj	674 Jan 03 j 16:38	16° Z 41'30	3°19'22
min. Earth dist.	673 Jan 22 j 01:45	0° \approx 53'24	0.64311 AU	minimum elong	674 Jan 03 j 14:09	16° Z 49'19	3°18'53
	673 Jan 22 j 21:00	30° R Z		min. Earth dist.	674 Jan 05 j 05:10	14° Z 46'37	0.65731 AU
morning rise	673 Jan 25 j 16:25	27° Z 16'45		morning rise	674 Jan 09 j 03:26	10° Z 29'39	
direct	673 Feb 01 j 13:06	24° Z 27'01		direct	674 Jan 15 j 14:43	7° Z 40'51	
desc. node	673 Feb 12 j 22:09	0° \approx 12'30		morning max el	674 Jan 28 j 12:11	15° Z 15'52	26°33'19
	673 Feb 12 j 16:32	0° \approx		desc. node	674 Jan 30 j 19:12	17° Z 40'39	
morning max el	673 Feb 15 j 02:24	2° \approx 16'28	27°25'47		674 Feb 09 j 15:17	0° \approx	
	673 Mar 07 j 19:19	0° K			674 Feb 28 j 14:00	0° K	
morning set	673 Mar 22 j 05:28	25° K 45'27		morning set	674 Mar 05 j 11:56	9° K 00'57	
	673 Mar 24 j 08:39	0° Υ		max. Earth dist.	674 Mar 09 j 17:41	17° K 13'19	1.34776 AU
max. Earth dist.	673 Mar 27 j 03:30	5° Υ 41'42	1.33519 AU				

superior conj	674 Mar 14 j 05:52	26° ✕ 20'30	-1°-2'-32	max. Earth dist.	675 Feb 19 j 20:16	28° ≈ 18'31	1.36471 AU
minimum elong	674 Mar 14 j 08:53	26° ✕ 36'04	1°02'01		675 Feb 20 j 17:48	0° ✕	
	674 Mar 16 j 00:14	0° ∇					
asc. node	674 Mar 20 j 14:05	9° ∇ 34'03		superior conj	675 Feb 25 j 20:26	9° ✕ 54'49	-1°-27'-31
evening rise	674 Mar 21 j 21:38	12° ∇ 17'49		minimum elong	675 Feb 26 j 00:20	10° ✕ 14'09	1°27'00
	674 Mar 31 j 03:57	0° ✕		evening rise	675 Mar 06 j 02:05	26° ✕ 32'43	
evening max el	674 Apr 09 j 23:54	13° ✕ 10'07	20°55'14	asc. node	675 Mar 07 j 11:08	29° ✕ 18'45	
retrograde	674 Apr 21 j 12:26	18° ✕ 45'30			675 Mar 07 j 19:25	0° ∇	
evening set	674 Apr 23 j 17:44	18° ✕ 33'50		evening max el	675 Mar 23 j 11:20	24° ∇ 41'00	19°43'50
desc. node	674 Apr 28 j 18:25	16° ✕ 52'24		retrograde	675 Apr 02 j 06:34	29° ∇ 23'49	
inferior conj	674 May 03 j 00:34	14° ✕ 35'48	-1°-13'-28	evening set	675 Apr 04 j 08:31	29° ∇ 12'00	
minimum elong	674 May 02 j 21:05	14° ✕ 40'45	1°12'14	inferior conj	675 Apr 13 j 01:37	25° ∇ 09'30	0°43'54
min. Earth dist.	674 May 03 j 19:45	14° ✕ 08'33	0.54995 AU	minimum elong	675 Apr 13 j 03:30	25° ∇ 06'34	0°43'15
morning rise	674 May 11 j 23:45	10° ✕ 30'50		min. Earth dist.	675 Apr 15 j 10:04	23° ∇ 41'35	0.55721 AU
direct	674 May 15 j 09:33	10° ✕ 05'47		desc. node	675 Apr 15 j 15:28	23° ∇ 33'23	
morning max el	674 May 28 j 10:03	16° ✕ 20'24	22°45'55	morning rise	675 Apr 21 j 19:04	20° ∇ 35'10	
	674 Jun 08 j 04:18	0° ∏		direct	675 Apr 26 j 02:28	19° ∇ 53'48	
asc. node	674 Jun 16 j 13:22	15° ∏ 07'25		morning max el	675 May 10 j 01:36	26° ∇ 53'12	24°27'13
morning set	674 Jun 19 j 18:23	21° ∏ 41'46			675 May 13 j 01:47	0° ✕	
	674 Jun 23 j 16:15	0° ☾			675 Jun 01 j 00:41	0° ∏	
				asc. node	675 Jun 03 j 10:25	4° ∏ 55'23	
superior conj	674 Jun 26 j 22:48	6° ☾ 59'47	1°30'31	morning set	675 Jun 04 j 06:16	6° ∏ 39'25	
minimum elong	674 Jun 26 j 20:30	6° ☾ 47'31	1°30'15				
max. Earth dist.	674 Jun 29 j 19:29	13° ☾ 01'28	1.34042 AU	superior conj	675 Jun 11 j 07:25	21° ∏ 51'34	1°14'39
evening rise	674 Jul 04 j 18:26	23° ☾ 04'23		minimum elong	675 Jun 11 j 04:58	21° ∏ 38'16	1°14'16
	674 Jul 08 j 09:01	0° ♈		max. Earth dist.	675 Jun 12 j 23:29	25° ∏ 28'02	1.33072 AU
desc. node	674 Jul 25 j 17:45	28° ♈ 29'22			675 Jun 15 j 02:27	0° ☾	
	674 Jul 26 j 19:43	0° ♐		evening rise	675 Jun 18 j 15:34	7° ☾ 21'36	
evening max el	674 Aug 08 j 05:43	14° ♐ 44'16	27°13'46		675 Jun 30 j 21:00	0° ♈	
retrograde	674 Aug 21 j 15:03	22° ♐ 03'17		desc. node	675 Jul 12 j 14:48	17° ♈ 29'41	
evening set	674 Aug 28 j 14:50	19° ♐ 19'03		evening max el	675 Jul 21 j 15:50	27° ♈ 47'06	27°25'28
min. Earth dist.	674 Sep 01 j 10:05	15° ♐ 41'58	0.64815 AU		675 Jul 24 j 03:34	0° ♐	
inferior conj	674 Sep 03 j 14:36	13° ♐ 17'11	-2°-50'-39	retrograde	675 Aug 04 j 08:58	5° ♐ 06'05	
minimum elong	674 Sep 03 j 18:53	13° ♐ 05'21	2°49'12	evening set	675 Aug 11 j 13:45	2° ♐ 30'03	
morning rise	674 Sep 10 j 00:41	7° ♐ 44'48			675 Aug 14 j 13:41	30° ♈ ♈	
direct	674 Sep 12 j 15:50	7° ♐ 08'16		min. Earth dist.	675 Aug 15 j 04:17	29° ♈ 25'23	0.63207 AU
asc. node	674 Sep 12 j 12:32	7° ♐ 08'22		inferior conj	675 Aug 17 j 21:40	26° ♈ 43'11	-3°-41'-55
morning max el	674 Sep 19 j 04:03	10° ♐ 37'16	18°04'39	minimum elong	675 Aug 18 j 02:38	26° ♈ 30'49	3°40'37
	674 Oct 02 j 11:24	0° ♊		morning rise	675 Aug 24 j 17:52	21° ♈ 28'38	
morning set	674 Oct 07 j 00:06	7° ♊ 34'26		direct	675 Aug 27 j 04:57	20° ♈ 59'53	
				asc. node	675 Aug 30 j 09:37	21° ♈ 49'10	
superior conj	674 Oct 20 j 22:21	0° ♊ 23'55	0°05'12	morning max el	675 Sep 02 j 19:59	24° ♈ 25'31	17°52'48
minimum elong	674 Oct 20 j 22:59	0° ♊ 26'28	0°05'07		675 Sep 07 j 08:34	0° ♐	
behind sun begin	674 Oct 20 j 12:48	29° ♊ 45'42		morning set	675 Sep 19 j 06:04	19° ♐ 50'35	
behind sun end	674 Oct 21 j 09:10	1° ♊ 07'10			675 Sep 25 j 01:55	0° ♊	
	674 Oct 20 j 16:22	0° ♋					
desc. node	674 Oct 21 j 17:02	1° ♋ 38'30		superior conj	675 Oct 01 j 04:25	10° ♊ 20'42	0°48'19
max. Earth dist.	674 Oct 24 j 23:13	6° ♋ 48'49	1.44767 AU	minimum elong	675 Oct 01 j 08:51	10° ♊ 39'08	0°47'43
evening rise	674 Nov 06 j 10:13	26° ♋ 15'20		max. Earth dist.	675 Oct 07 j 15:15	20° ♊ 54'02	1.43767 AU
	674 Nov 08 j 20:26	0° ♌		desc. node	675 Oct 08 j 14:05	22° ♊ 25'37	
greatest brilliancy	674 Nov 24 j 19:50	23° ♌ 57'59	-0.6m		675 Oct 13 j 08:55	0° ♋	
	674 Nov 29 j 09:30	0° ♍		evening rise	675 Oct 16 j 17:36	5° ♋ 13'46	
evening max el	674 Dec 02 j 02:32	3° ♍ 03'58	19°54'08		675 Nov 02 j 06:43	0° ♌	
asc. node	674 Dec 09 j 11:48	7° ♍ 28'49		greatest brilliancy	675 Nov 09 j 16:13	10° ♌ 09'31	-0.5m
retrograde	674 Dec 09 j 15:55	7° ♍ 28'59		evening max el	675 Nov 15 j 02:54	16° ♌ 32'51	20°59'18
evening set	674 Dec 13 j 05:12	6° ♍ 15'08		retrograde	675 Nov 23 j 13:34	21° ♌ 33'16	
inferior conj	674 Dec 18 j 17:44	0° ♍ 11'44	2°47'13	asc. node	675 Nov 26 j 08:51	20° ♌ 49'01	
minimum elong	674 Dec 18 j 15:00	0° ♍ 20'52	2°46'27	evening set	675 Nov 27 j 12:34	20° ♌ 04'16	
	674 Dec 18 j 21:16	30° ♋ ♌		inferior conj	675 Dec 02 j 22:46	13° ♌ 50'14	2°06'58
min. Earth dist.	674 Dec 19 j 16:28	28° ♌ 56'08	0.66758 AU	minimum elong	675 Dec 02 j 20:19	13° ♌ 58'40	2°06'06
morning rise	674 Dec 24 j 00:09	23° ♌ 56'57		min. Earth dist.	675 Dec 03 j 09:16	13° ♌ 14'11	0.67407 AU
direct	674 Dec 29 j 22:09	21° ♌ 20'07		morning rise	675 Dec 08 j 03:39	7° ♌ 34'43	
morning max el	675 Jan 10 j 21:13	28° ♌ 27'20	25°19'01	direct	675 Dec 13 j 10:40	5° ♌ 16'58	
	675 Jan 12 j 08:50	0° ♍		morning max el	675 Dec 24 j 05:41	11° ♌ 43'14	23°53'05
desc. node	675 Jan 17 j 16:15	6° ♍ 11'00		desc. node	676 Jan 04 j 13:17	25° ♌ 25'18	
	675 Feb 03 j 09:40	0° ≈			676 Jan 07 j 20:39	0° ♍	
morning set	675 Feb 16 j 02:06	21° ≈ 23'50			676 Jan 27 j 04:53	0° ≈	

morning set	676 Jan 28 j 17:55	2° \approx 37'27		greatest brilliancy	676 Dec 10 j 06:52	0° \approx 13'19	-0.3m
max. Earth dist.	676 Feb 01 j 15:27	9° \approx 25'18	1.38498 AU	desc. node	676 Dec 21 j 10:20	15° \approx 11'02	
					676 Dec 31 j 08:51	0° \approx	
superior conj	676 Feb 08 j 22:30	22° \approx 48'28	-1°-48'-6	morning set	677 Jan 08 j 05:31	12° \approx 27'27	
minimum elong	676 Feb 09 j 02:18	23° \approx 06'28	1°47'48	max. Earth dist.	677 Jan 13 j 11:52	21° \approx 11'44	1.40635 AU
	676 Feb 12 j 16:27	0° \approx			677 Jan 18 j 14:16	0° \approx	
evening rise	676 Feb 17 j 23:27	10° \approx 21'14					
asc. node	676 Feb 22 j 08:11	18° \approx 45'09		superior conj	677 Jan 21 j 07:20	4° \approx 49'20	-2°00'-54
	676 Feb 28 j 21:40	0° \approx		minimum elong	677 Jan 21 j 09:17	4° \approx 58'06	2°00'51
evening max el	676 Mar 05 j 09:29	6° \approx 50'30	18°51'52	evening rise	677 Jan 31 j 10:38	23° \approx 35'18	
retrograde	676 Mar 13 j 16:07	10° \approx 51'02			677 Feb 03 j 20:57	0° \approx	
evening set	676 Mar 15 j 22:11	10° \approx 34'25		asc. node	677 Feb 08 j 05:13	7° \approx 46'19	
inferior conj	676 Mar 23 j 20:37	6° \approx 15'54	2°17'18	evening max el	677 Feb 16 j 15:28	19° \approx 30'19	18°19'51
minimum elong	676 Mar 24 j 00:50	6° \approx 08'17	2°16'08	retrograde	677 Feb 23 j 20:36	23° \approx 05'05	
min. Earth dist.	676 Mar 27 j 02:35	3° \approx 56'03	0.57241 AU	evening set	677 Feb 26 j 07:52	22° \approx 40'58	
morning rise	676 Mar 31 j 23:12	1° \approx 08'30		inferior conj	677 Mar 05 j 12:41	18° \approx 01'20	3°16'04
desc. node	676 Apr 01 j 12:29	0° \approx 54'59		minimum elong	677 Mar 05 j 16:03	17° \approx 54'13	3°15'28
	676 Apr 05 j 09:26	30° \approx		min. Earth dist.	677 Mar 08 j 22:59	15° \approx 08'57	0.59238 AU
direct	676 Apr 06 j 09:11	29° \approx 57'36		morning rise	677 Mar 12 j 20:34	12° \approx 27'24	
	676 Apr 07 j 09:00	0° \approx		direct	677 Mar 19 j 04:46	10° \approx 39'40	
morning max el	676 Apr 20 j 16:49	7° \approx 25'48	25°59'56	desc. node	677 Mar 19 j 09:31	10° \approx 39'46	
	676 May 07 j 10:41	0° \approx		morning max el	677 Apr 02 j 12:34	18° \approx 23'12	27°09'13
morning set	676 May 18 j 17:45	21° \approx 35'56			677 Apr 12 j 06:20	0° \approx	
asc. node	676 May 20 j 07:28	24° \approx 56'09			677 Apr 29 j 23:45	0° \approx	
	676 May 22 j 15:40	0° \approx		morning set	677 May 03 j 03:05	6° \approx 24'16	
				asc. node	677 May 07 j 04:30	15° \approx 03'48	
superior conj	676 May 25 j 18:33	6° \approx 50'05	0°54'55				
minimum elong	676 May 25 j 16:26	6° \approx 38'28	0°54'31	superior conj	677 May 10 j 06:18	21° \approx 47'41	0°32'03
max. Earth dist.	676 May 26 j 09:37	8° \approx 12'42	1.32492 AU	minimum elong	677 May 10 j 04:56	21° \approx 40'06	0°31'46
evening rise	676 Jun 01 j 19:51	21° \approx 59'58		max. Earth dist.	677 May 09 j 22:16	21° \approx 03'33	1.32282 AU
	676 Jun 05 j 18:56	0° \approx			677 May 14 j 00:11	0° \approx	
	676 Jun 23 j 23:37	0° \approx		evening rise	677 May 17 j 04:38	6° \approx 49'38	
desc. node	676 Jun 28 j 11:49	5° \approx 35'52			677 May 29 j 09:11	0° \approx	
evening max el	676 Jul 02 j 21:58	10° \approx 15'15	27°04'55	evening max el	677 Jun 14 j 21:40	21° \approx 58'18	26°11'40
retrograde	676 Jul 16 j 19:51	17° \approx 31'06		desc. node	677 Jun 15 j 08:49	22° \approx 24'32	
evening set	676 Jul 23 j 20:49	15° \approx 17'04		retrograde	677 Jun 28 j 22:01	29° \approx 10'21	
min. Earth dist.	676 Jul 27 j 12:13	12° \approx 34'20	0.61309 AU	evening set	677 Jul 05 j 07:17	27° \approx 30'21	
inferior conj	676 Jul 30 j 16:06	9° \approx 48'11	-4°-23'-37	min. Earth dist.	677 Jul 09 j 10:28	24° \approx 53'37	0.59257 AU
minimum elong	676 Jul 30 j 20:26	9° \approx 38'36	4°22'54	inferior conj	677 Jul 12 j 18:15	22° \approx 21'52	-4°-47'-38
morning rise	676 Aug 06 j 23:00	4° \approx 54'22		minimum elong	677 Jul 12 j 19:54	22° \approx 18'43	4°47'34
direct	676 Aug 09 j 08:45	4° \approx 30'34		morning rise	677 Jul 20 j 11:56	17° \approx 51'01	
asc. node	676 Aug 16 j 06:40	7° \approx 53'17		direct	677 Jul 22 j 22:56	17° \approx 30'09	
morning max el	676 Aug 16 j 09:56	8° \approx 01'10	17°59'31	morning max el	677 Jul 30 j 18:50	21° \approx 15'29	18°26'06
	676 Aug 30 j 15:17	0° \approx		asc. node	677 Aug 03 j 03:43	25° \approx 05'04	
morning set	676 Sep 01 j 06:26	2° \approx 59'43			677 Aug 06 j 12:44	0° \approx	
				morning set	677 Aug 15 j 19:58	16° \approx 47'17	
superior conj	676 Sep 11 j 13:44	21° \approx 37'44	1°19'30		677 Aug 22 j 18:04	0° \approx	
minimum elong	676 Sep 11 j 18:17	21° \approx 57'42	1°19'01				
	676 Sep 16 j 10:23	0° \approx		superior conj	677 Aug 24 j 22:32	4° \approx 04'32	1°38'11
max. Earth dist.	676 Sep 19 j 02:35	4° \approx 28'39	1.42210 AU	minimum elong	677 Aug 25 j 01:21	4° \approx 17'33	1°38'00
desc. node	676 Sep 24 j 11:08	13° \approx 11'17		max. Earth dist.	677 Sep 01 j 08:58	17° \approx 22'52	1.40288 AU
evening rise	676 Sep 25 j 08:26	14° \approx 36'03		evening rise	677 Sep 05 j 20:06	24° \approx 56'47	
	676 Oct 05 j 08:35	0° \approx			677 Sep 08 j 22:09	0° \approx	
greatest brilliancy	676 Oct 23 j 04:33	24° \approx 44'18	-0.3m	desc. node	677 Sep 11 j 08:09	3° \approx 51'55	
	676 Oct 27 j 20:33	0° \approx			677 Sep 29 j 04:00	0° \approx	
evening max el	676 Oct 27 j 21:43	0° \approx 02'59	22°14'23	evening max el	677 Oct 10 j 12:06	13° \approx 35'34	23°34'17
retrograde	676 Nov 06 j 09:31	5° \approx 41'36		retrograde	677 Oct 21 j 02:30	19° \approx 51'04	
evening set	676 Nov 10 j 20:19	3° \approx 55'39		evening set	677 Oct 26 j 02:48	17° \approx 47'13	
asc. node	676 Nov 12 j 05:53	2° \approx 37'54		asc. node	677 Oct 30 j 02:55	13° \approx 17'51	
	676 Nov 14 j 10:59	30° \approx		min. Earth dist.	677 Oct 31 j 01:44	12° \approx 00'48	0.67668 AU
inferior conj	676 Nov 16 j 05:44	27° \approx 34'36	1°20'27	inferior conj	677 Oct 31 j 12:50	11° \approx 22'53	0°29'09
minimum elong	676 Nov 16 j 03:59	27° \approx 40'39	1°19'45	minimum elong	677 Oct 31 j 12:08	11° \approx 25'13	0°28'50
min. Earth dist.	676 Nov 16 j 05:10	27° \approx 36'34	0.67704 AU	morning rise	677 Nov 05 j 21:36	5° \approx 13'00	
morning rise	676 Nov 21 j 11:29	21° \approx 20'41		direct	677 Nov 09 j 23:14	3° \approx 40'16	
direct	676 Nov 26 j 03:22	19° \approx 25'22		morning max el	677 Nov 18 j 09:12	8° \approx 34'17	21°03'56
morning max el	676 Dec 05 j 16:27	25° \approx 04'04	22°25'23	greatest brilliancy	677 Nov 23 j 20:39	14° \approx 54'53	-0.5m
	676 Dec 10 j 02:28	0° \approx			677 Dec 04 j 17:05	0° \approx	

desc. node	677 Dec 08 j 07:22	5°♄19'25		asc. node	678 Oct 16 j 23:58	23°♊36'03	
morning set	677 Dec 18 j 13:40	21°♄01'45		morning rise	678 Oct 21 j 08:03	19°♊09'24	
	677 Dec 24 j 05:17	0°♄		direct	678 Oct 24 j 21:05	17°♊57'04	
max. Earth dist.	677 Dec 26 j 15:25	3°♄55'39	1.42577 AU	morning max el	678 Nov 01 j 09:38	22°♊15'02	19°53'58
					678 Nov 07 j 19:35	0°♊	
superior conj	678 Jan 02 j 17:33	15°♄44'38	-2°-1'-27	greatest brilliancy	678 Nov 08 j 21:34	1°♊28'54	-0.6m
minimum elong	678 Jan 02 j 15:23	15°♄35'23	2°01'24	desc. node	678 Nov 25 j 04:23	25°♊43'33	
	678 Jan 10 j 21:47	0°♄		morning set	678 Nov 27 j 09:52	29°♊09'40	
evening rise	678 Jan 14 j 07:51	6°♄07'13			678 Nov 27 j 22:53	0°♄	
asc. node	678 Jan 26 j 02:14	26°♄14'28		max. Earth dist.	678 Dec 09 j 02:09	17°♄27'42	1.44060 AU
	678 Jan 28 j 20:00	0°♄					
evening max el	678 Jan 31 j 02:11	2°♄32'07	18°07'38	superior conj	678 Dec 14 j 01:05	25°♄25'48	-1°-45'-9
retrograde	678 Feb 06 j 17:31	5°♄56'59		minimum elong	678 Dec 13 j 17:58	24°♄56'56	1°44'38
evening set	678 Feb 09 j 09:21	5°♄24'06			678 Dec 16 j 20:15	0°♄	
inferior conj	678 Feb 15 j 23:54	0°♄22'48	3°43'29	evening rise	678 Dec 27 j 10:44	17°♄47'55	
minimum elong	678 Feb 16 j 01:10	0°♄19'44	3°43'24		679 Jan 03 j 14:50	0°♄	
	678 Feb 16 j 09:14	30°♄		asc. node	679 Jan 12 j 23:16	13°♄59'11	
min. Earth dist.	678 Feb 19 j 02:22	27°♄22'33	0.61355 AU	evening max el	679 Jan 14 j 14:40	15°♄47'42	18°14'44
morning rise	678 Feb 22 j 14:18	24°♄30'59		retrograde	679 Jan 21 j 02:10	19°♄16'05	
direct	678 Mar 01 j 10:58	22°♄09'31		evening set	679 Jan 23 j 22:33	18°♄33'29	
desc. node	678 Mar 06 j 06:32	23°♄12'33		inferior conj	679 Jan 30 j 02:20	13°♄11'58	3°47'01
morning max el	678 Mar 15 j 14:49	0°♄01'06	27°44'34	minimum elong	679 Jan 30 j 01:37	13°♄13'57	3°47'00
	678 Mar 15 j 14:22	0°♄		min. Earth dist.	679 Feb 01 j 15:02	10°♄25'59	0.63316 AU
	678 Apr 06 j 06:07	0°♄		morning rise	679 Feb 05 j 02:52	7°♄09'09	
morning set	678 Apr 17 j 08:24	20°♄58'07		direct	679 Feb 12 j 01:54	4°♄25'21	
	678 Apr 21 j 15:30	0°♄		desc. node	679 Feb 21 j 03:34	8°♄07'32	
max. Earth dist.	678 Apr 23 j 09:34	3°♄47'11	1.32444 AU	morning max el	679 Feb 25 j 22:07	12°♄18'50	27°42'43
asc. node	678 Apr 24 j 01:32	5°♄14'07			679 Mar 12 j 00:42	0°♄	
					679 Mar 29 j 16:19	0°♄	
superior conj	678 Apr 24 j 17:04	6°♄38'47	0°06'51	morning set	679 Apr 01 j 07:23	5°♄09'52	
minimum elong	678 Apr 24 j 16:45	6°♄37'03	0°06'47	max. Earth dist.	679 Apr 06 j 15:24	16°♄09'43	1.32998 AU
behind sun begin	678 Apr 24 j 12:07	6°♄11'48					
behind sun end	678 Apr 24 j 21:22	7°♄02'19		superior conj	679 Apr 09 j 01:05	21°♄17'40	0°-19'-54
evening rise	678 May 01 j 15:52	21°♄43'22		minimum elong	679 Apr 09 j 02:03	21°♄22'51	0°19'42
	678 May 05 j 16:23	0°♄		asc. node	679 Apr 10 j 22:35	25°♄23'06	
	678 May 24 j 18:16	0°♄			679 Apr 13 j 01:50	0°♄	
evening max el	678 May 27 j 14:31	2°♄57'12	24°51'41	evening rise	679 Apr 16 j 03:41	6°♄34'44	
desc. node	678 Jun 02 j 05:49	7°♄25'00			679 Apr 28 j 15:08	0°♄	
retrograde	678 Jun 10 j 13:46	10°♄02'31		evening max el	679 May 09 j 04:42	13°♄31'16	23°17'35
evening set	678 Jun 15 j 18:24	9°♄01'07		desc. node	679 May 20 j 02:49	20°♄01'12	
min. Earth dist.	678 Jun 21 j 01:54	6°♄12'15	0.57297 AU	retrograde	679 May 22 j 17:34	20°♄16'45	
inferior conj	678 Jun 24 j 00:59	4°♄14'59	-4°-42'-5	evening set	679 May 26 j 10:45	19°♄46'26	
minimum elong	678 Jun 23 j 21:55	4°♄20'05	4°41'50	min. Earth dist.	679 Jun 02 j 14:37	16°♄30'56	0.55764 AU
morning rise	678 Jul 02 j 05:16	0°♄06'12		inferior conj	679 Jun 04 j 11:56	15°♄24'13	-3°-54'-7
	678 Jul 02 j 16:31	30°♄		minimum elong	679 Jun 04 j 04:49	15°♄34'43	3°52'33
direct	678 Jul 04 j 19:09	29°♄47'11		morning rise	679 Jun 13 j 02:12	11°♄29'44	
	678 Jul 06 j 20:37	0°♄		direct	679 Jun 15 j 20:05	11°♄11'27	
morning max el	678 Jul 13 j 19:43	3°♄59'39	19°13'37	morning max el	679 Jun 26 j 10:16	16°♄05'25	20°22'09
asc. node	678 Jul 21 j 00:46	13°♄10'04			679 Jul 06 j 19:16	0°♄	
	678 Jul 30 j 06:07	0°♄		asc. node	679 Jul 07 j 21:50	1°♄56'04	
morning set	678 Jul 30 j 18:46	1°♄02'44		morning set	679 Jul 15 j 00:00	15°♄38'40	
					679 Jul 21 j 23:46	0°♄	
superior conj	678 Aug 08 j 01:11	17°♄25'19	1°46'04	superior conj	679 Jul 22 j 16:42	1°♄25'55	1°45'15
minimum elong	678 Aug 08 j 01:56	17°♄29'00	1°46'04	minimum elong	679 Jul 22 j 15:48	1°♄21'20	1°45'13
max. Earth dist.	678 Aug 14 j 12:20	29°♄35'59	1.38256 AU	max. Earth dist.	679 Jul 27 j 18:09	11°♄26'48	1.36364 AU
	678 Aug 14 j 17:37	0°♄		evening rise	679 Jul 31 j 18:36	19°♄01'10	
evening rise	678 Aug 18 j 08:23	6°♄26'57			679 Aug 06 j 23:25	0°♄	
desc. node	678 Aug 29 j 05:10	24°♄23'10		desc. node	679 Aug 16 j 02:11	14°♄40'13	
	678 Sep 01 j 21:23	0°♄			679 Aug 27 j 00:17	0°♄	
evening max el	678 Sep 23 j 00:00	27°♄11'00	24°52'32	evening max el	679 Sep 05 j 11:38	10°♄48'59	26°01'40
	678 Sep 26 j 02:34	0°♄		retrograde	679 Sep 17 j 23:59	17°♄56'06	
retrograde	678 Oct 04 j 15:31	3°♄57'26		evening set	679 Sep 24 j 05:11	15°♄20'54	
evening set	678 Oct 10 j 06:21	1°♄36'18		min. Earth dist.	679 Sep 28 j 11:36	10°♄45'10	0.66620 AU
	678 Oct 11 j 22:02	30°♄		inferior conj	679 Sep 29 j 20:27	9°♄02'17	-1°-22'-12
min. Earth dist.	678 Oct 14 j 20:38	26°♄24'21	0.67309 AU	minimum elong	679 Sep 29 j 22:34	8°♄55'39	1°21'19
inferior conj	678 Oct 15 j 18:19	25°♄12'43	0°-25'-35	asc. node	679 Oct 03 j 21:01	4°♄30'51	
minimum elong	678 Oct 15 j 18:57	25°♄10'37	0°25'19				

morning rise	679 Oct 05 j 16:54	3°♄08'19		inferior conj	680 Sep 12 j 17:10	22°♍47'15	-2°-18'-54
direct	679 Oct 08 j 19:30	2°♄12'51		minimum elong	680 Sep 12 j 20:44	22°♍36'51	2°17'34
morning max el	679 Oct 15 j 17:19	6°♄04'43	18°58'31	morning rise	680 Sep 18 j 21:52	17°♍05'43	
	679 Nov 01 j 15:53	0°♍		asc. node	680 Sep 19 j 18:05	16°♍43'58	
morning set	679 Nov 06 j 19:09	8°♍03'23		direct	680 Sep 21 j 16:28	16°♍23'18	
desc. node	679 Nov 12 j 01:27	16°♍18'59		morning max el	680 Sep 28 j 06:17	19°♍58'18	18°19'20
	679 Nov 20 j 18:42	0°♎			680 Oct 05 j 21:33	0°♄	
max. Earth dist.	679 Nov 21 j 18:08	1°♎32'09	1.44911 AU	morning set	680 Oct 17 j 08:11	18°♄21'19	
					680 Oct 24 j 12:53	0°♍	
superior conj	679 Nov 23 j 09:24	4°♎06'48	-1°-10'-22	desc. node	680 Oct 28 j 22:31	7°♍01'41	
minimum elong	679 Nov 23 j 01:18	3°♎34'54	1°09'27				
evening rise	679 Dec 03 j 15:18	28°♎31'05		superior conj	680 Nov 01 j 10:30	12°♍34'07	0°-23'-1
	679 Dec 09 j 13:09	0°♏		minimum elong	680 Nov 01 j 07:30	12°♍22'15	0°22'37
evening max el	679 Dec 29 j 02:19	29°♏11'23	18°40'14	max. Earth dist.	680 Nov 03 j 12:51	15°♍52'25	1.45036 AU
	679 Dec 29 j 22:14	0°♐			680 Nov 12 j 13:12	0°♎	
asc. node	679 Dec 30 j 20:18	0°♐48'02		evening rise	680 Nov 17 j 20:24	8°♎17'35	
retrograde	680 Jan 04 j 18:16	2°♐54'19			680 Dec 01 j 20:51	0°♏	
evening set	680 Jan 07 j 20:03	2°♐00'51		greatest brilliancy	680 Dec 02 j 10:13	0°♏49'42	-0.7m
	680 Jan 10 j 09:46	30°♑♏		evening max el	680 Dec 11 j 10:52	12°♏39'11	19°22'49
inferior conj	680 Jan 13 j 16:04	26°♏21'11	3°33'14	asc. node	680 Dec 16 j 17:20	16°♏26'37	
minimum elong	680 Jan 13 j 14:02	26°♏27'21	3°32'57	retrograde	680 Dec 18 j 14:28	16°♏46'11	
min. Earth dist.	680 Jan 15 j 13:22	24°♏04'51	0.64960 AU	evening set	680 Dec 21 j 23:06	15°♏40'14	
morning rise	680 Jan 19 j 06:48	20°♏11'48		inferior conj	680 Dec 27 j 13:47	9°♏44'50	3°06'51
direct	680 Jan 26 j 00:09	17°♏20'32		minimum elong	680 Dec 27 j 11:07	9°♏53'26	3°06'14
desc. node	680 Feb 08 j 00:37	24°♏48'45		min. Earth dist.	680 Dec 28 j 20:20	8°♏06'14	0.66216 AU
morning max el	680 Feb 08 j 07:39	25°♏06'15	27°06'41	morning rise	681 Jan 01 j 22:21	3°♏31'37	
	680 Feb 12 j 19:09	0°♐		direct	681 Jan 08 j 04:28	0°♏46'29	
	680 Mar 04 j 11:35	0°♑		morning max el	681 Jan 20 j 16:59	8°♏11'17	26°03'48
morning set	680 Mar 14 j 21:01	18°♑49'30		desc. node	681 Jan 24 j 21:41	12°♏46'02	
max. Earth dist.	680 Mar 19 j 11:52	27°♑59'52	1.33989 AU		681 Feb 06 j 19:06	0°♐	
	680 Mar 20 j 11:22	0°♒			681 Feb 24 j 22:30	0°♑	
				morning set	681 Feb 25 j 21:14	1°♑44'50	
superior conj	680 Mar 23 j 04:23	5°♒37'44	0°-47'-8	max. Earth dist.	681 Mar 01 j 20:41	9°♑17'09	1.35441 AU
minimum elong	680 Mar 23 j 06:41	5°♒49'50	0°46'43				
asc. node	680 Mar 27 j 19:38	15°♒26'17		superior conj	681 Mar 07 j 00:30	19°♑31'46	-1°-13'-29
evening rise	680 Mar 30 j 14:14	21°♒17'09		minimum elong	681 Mar 07 j 03:58	19°♑49'22	1°12'57
	680 Apr 03 j 21:13	0°♓			681 Mar 12 j 02:44	0°♒	
evening max el	680 Apr 19 j 23:30	24°♓10'45	21°44'07	evening rise	681 Mar 14 j 21:33	5°♒44'27	
	680 Apr 29 j 20:09	0°♔		asc. node	681 Mar 14 j 16:41	5°♒19'32	
retrograde	680 May 02 j 09:53	0°♔15'29			681 Mar 28 j 13:53	0°♓	
evening set	680 May 04 j 23:20	0°♔00'47		evening max el	681 Apr 02 j 04:24	5°♓20'17	20°22'43
	680 May 05 j 00:58	30°♑♓		retrograde	681 Apr 12 j 23:11	10°♓32'12	
desc. node	680 May 05 j 23:51	29°♓47'05		evening set	681 Apr 15 j 01:46	10°♓21'08	
inferior conj	680 May 14 j 08:40	25°♓58'25	-2°-20'-51	desc. node	681 Apr 22 j 20:52	7°♓08'26	
minimum elong	680 May 14 j 02:24	26°♓07'12	2°18'50	inferior conj	681 Apr 24 j 03:57	6°♓23'23	0°-22'-24
min. Earth dist.	680 May 14 j 03:14	26°♓06'02	0.55003 AU	minimum elong	681 Apr 24 j 02:54	6°♓24'55	0°22'02
morning rise	680 May 23 j 06:23	22°♓02'29		min. Earth dist.	681 Apr 25 j 16:33	5°♓29'54	0.55194 AU
direct	680 May 26 j 08:12	21°♓41'39		morning rise	681 May 03 j 02:00	2°♓07'32	
morning max el	680 Jun 07 j 13:32	27°♓27'12	21°49'27	direct	681 May 06 j 20:14	1°♓36'53	
	680 Jun 10 j 01:33	0°♔		morning max el	681 May 20 j 07:45	8°♓11'57	23°28'55
asc. node	680 Jun 23 j 18:53	21°♔12'09			681 Jun 05 j 00:54	0°♔	
morning set	680 Jun 28 j 09:16	0°♕27'28		asc. node	681 Jun 10 j 15:58	10°♔50'40	
	680 Jun 28 j 03:59	0°♕		morning set	681 Jun 12 j 20:43	15°♔23'43	
superior conj	680 Jul 05 j 17:05	15°♕53'17	1°37'32	superior conj	681 Jun 19 j 23:23	0°♕38'22	1°24'19
minimum elong	680 Jul 05 j 15:07	15°♕42'58	1°37'21	minimum elong	681 Jun 19 j 20:57	0°♕25'19	1°24'00
max. Earth dist.	680 Jul 09 j 07:55	23°♕21'33	1.34784 AU		681 Jun 19 j 16:15	0°♕	
	680 Jul 12 j 15:51	0°♖		max. Earth dist.	681 Jun 22 j 07:20	5°♕36'40	1.33591 AU
evening rise	680 Jul 13 j 21:50	2°♖25'20		evening rise	681 Jun 27 j 13:32	16°♕26'37	
	680 Jul 29 j 21:32	0°♗			681 Jul 04 j 17:01	0°♖	
desc. node	680 Aug 01 j 23:13	4°♗35'24		desc. node	681 Jul 19 j 20:14	23°♖59'16	
evening max el	680 Aug 17 j 23:46	24°♗22'48	26°54'07		681 Jul 24 j 11:10	0°♗	
	680 Aug 25 j 07:38	0°♘		evening max el	681 Jul 31 j 11:23	7°♗41'22	27°22'26
retrograde	680 Aug 31 j 03:07	1°♘39'38		retrograde	681 Aug 14 j 00:21	14°♗59'59	
	680 Sep 05 j 10:06	30°♑♗		evening set	681 Aug 21 j 03:06	12°♗18'03	
evening set	680 Sep 06 j 21:01	28°♗56'27		min. Earth dist.	681 Aug 24 j 20:06	8°♗55'21	0.64180 AU
min. Earth dist.	680 Sep 10 j 20:12	24°♗57'58	0.65580 AU	inferior conj	681 Aug 27 j 06:02	6°♗22'17	-3°-13'-10

minimum elong	681 Aug 27 j 10:43	6° \cap 09'53	3°11'43	minimum elong	682 Aug 10 j 13:04	19° Ω 29'01	4°00'03
morning rise	681 Sep 02 j 20:18	0° \cap 56'47		morning rise	682 Aug 17 j 08:53	14° Ω 34'39	
direct	681 Sep 05 j 09:29	0° \cap 23'48		direct	682 Aug 19 j 19:12	14° Ω 08'12	
asc. node	681 Sep 06 j 15:09	0° \cap 31'39		asc. node	682 Aug 24 j 12:13	15° Ω 49'59	
morning max el	681 Sep 11 j 21:54	3° \cap 50'16	17°57'19	morning max el	682 Aug 26 j 13:23	17° Ω 34'27	17°53'20
morning set	681 Sep 29 j 00:51	29° \cap 59'52			682 Sep 04 j 10:23	0° \cap	
	681 Sep 29 j 00:53	0° $\underline{\cap}$		morning set	682 Sep 11 j 15:24	12° \cap 41'08	
					682 Sep 21 j 11:12	0° $\underline{\cap}$	
superior conj	681 Oct 12 j 01:58	21° $\underline{\cap}$ 47'15	0°24'45	superior conj	682 Sep 22 j 19:49	2° $\underline{\cap}$ 19'19	1°03'07
minimum elong	681 Oct 12 j 04:42	21° $\underline{\cap}$ 58'23	0°24'21	minimum elong	682 Sep 23 j 00:39	2° $\underline{\cap}$ 39'54	1°02'32
desc. node	681 Oct 15 j 19:33	27° $\underline{\cap}$ 48'09		max. Earth dist.	682 Sep 29 j 22:04	14° $\underline{\cap}$ 07'04	1.43165 AU
	681 Oct 17 j 04:37	0° \cap		desc. node	682 Oct 02 j 16:35	18° $\underline{\cap}$ 35'21	
max. Earth dist.	681 Oct 17 j 07:15	0° \cap 10'29	1.44428 AU	evening rise	682 Oct 07 j 16:17	26° $\underline{\cap}$ 27'52	
evening rise	681 Oct 28 j 07:49	17° \cap 24'06			682 Oct 09 j 23:02	0° \cap	
	681 Nov 05 j 13:59	0° \nearrow			682 Oct 30 j 12:42	0° \nearrow	
greatest brilliancy	681 Nov 18 j 06:02	18° \nearrow 25'10	-0.6m	greatest brilliancy	682 Nov 02 j 12:47	3° \nearrow 53'29	-0.4m
evening max el	681 Nov 24 j 14:32	26° \nearrow 08'02	20°20'26	evening max el	682 Nov 07 j 12:27	9° \nearrow 37'32	21°30'12
	681 Nov 29 j 11:48	0° \searrow		retrograde	682 Nov 16 j 09:21	14° \nearrow 54'07	
retrograde	681 Dec 02 j 12:10	0° \searrow 47'02		asc. node	682 Nov 20 j 11:25	13° \nearrow 21'18	
asc. node	681 Dec 03 j 14:23	0° \searrow 40'17		evening set	682 Nov 20 j 13:12	13° \nearrow 17'52	
	681 Dec 05 j 08:40	30° \searrow		inferior conj	682 Nov 25 j 22:52	7° \nearrow 00'10	1°47'55
evening set	681 Dec 06 j 05:27	29° \nearrow 26'48		minimum elong	682 Nov 25 j 20:40	7° \nearrow 07'47	1°47'05
inferior conj	681 Dec 11 j 16:47	23° \nearrow 18'32	2°31'00	min. Earth dist.	682 Nov 26 j 04:27	6° \nearrow 40'53	0.67577 AU
minimum elong	681 Dec 11 j 14:06	23° \nearrow 27'35	2°30'10	morning rise	682 Dec 01 j 03:51	0° \nearrow 45'10	
min. Earth dist.	681 Dec 12 j 10:05	22° \nearrow 20'03	0.67082 AU		682 Dec 02 j 02:58	30° \cap	
morning rise	681 Dec 16 j 22:15	17° \nearrow 03'28		direct	682 Dec 06 j 04:17	28° \cap 37'04	
direct	681 Dec 22 j 14:02	14° \nearrow 34'13			682 Dec 10 j 15:49	0° \nearrow	
morning max el	682 Jan 03 j 01:26	21° \nearrow 24'30	24°43'20	morning max el	682 Dec 16 j 10:38	4° \nearrow 43'14	23°15'29
	682 Jan 10 j 12:33	0° \searrow		greatest brilliancy	682 Dec 21 j 14:07	10° \nearrow 29'40	-0.2m
desc. node	682 Jan 11 j 18:44	1° \searrow 36'43		desc. node	682 Dec 29 j 15:47	21° \nearrow 05'55	
	682 Jan 31 j 01:16	0° \approx			683 Jan 04 j 20:24	0° \searrow	
morning set	682 Feb 08 j 02:35	13° \approx 39'36		morning set	683 Jan 20 j 06:53	24° \searrow 18'36	
max. Earth dist.	682 Feb 11 j 19:30	20° \approx 19'29	1.37305 AU		683 Jan 23 j 15:16	0° \approx	
	682 Feb 16 j 23:06	0° \times		max. Earth dist.	683 Jan 24 j 14:37	1° \approx 41'01	1.39416 AU
superior conj	682 Feb 18 j 10:12	2° \times 49'49	-1°-36'-58	superior conj	683 Feb 01 j 05:29	15° \approx 22'03	-1°-54'-44
minimum elong	682 Feb 18 j 14:13	3° \times 09'22	1°36'31	minimum elong	683 Feb 01 j 08:46	15° \approx 37'15	1°54'32
evening rise	682 Feb 26 j 23:17	19° \times 48'51			683 Feb 08 j 22:28	0° \times	
asc. node	682 Mar 01 j 13:43	24° \times 57'06		evening rise	683 Feb 10 j 16:43	3° \times 23'39	
	682 Mar 04 j 05:11	0° γ		asc. node	683 Feb 16 j 10:44	14° \times 13'31	
evening max el	682 Mar 15 j 20:32	17° γ 07'21	19°19'16	evening max el	683 Feb 26 j 22:13	29° \times 29'48	18°35'43
retrograde	682 Mar 24 j 22:56	21° γ 30'31			683 Feb 27 j 11:07	0° γ	
evening set	682 Mar 27 j 02:21	21° γ 16'59		retrograde	683 Mar 06 j 16:45	3° γ 17'46	
inferior conj	682 Apr 04 j 11:37	17° γ 08'16	1°27'31	evening set	683 Mar 09 j 00:55	2° γ 58'17	
minimum elong	682 Apr 04 j 14:57	17° γ 02'44	1°26'27		683 Mar 14 j 16:08	30° \cap	
min. Earth dist.	682 Apr 07 j 07:14	15° γ 16'54	0.56288 AU	inferior conj	683 Mar 16 j 15:31	28° \times 30'53	2°46'30
desc. node	682 Apr 09 j 17:54	13° γ 49'06		minimum elong	683 Mar 16 j 19:38	28° \times 22'53	2°45'31
morning rise	682 Apr 12 j 23:40	12° γ 19'56		min. Earth dist.	683 Mar 20 j 01:04	25° \times 54'17	0.58050 AU
direct	682 Apr 17 j 18:17	11° γ 27'43		morning rise	683 Mar 24 j 10:12	23° \times 10'44	
morning max el	682 May 01 j 22:20	18° γ 40'26	25°08'42	desc. node	683 Mar 27 j 14:56	22° \times 02'29	
	682 May 11 j 09:13	0° \searrow		direct	683 Mar 30 j 06:21	21° \times 44'42	
morning set	682 May 28 j 08:38	0° \cap 21'36		morning max el	683 Apr 13 j 15:12	29° \times 21'04	26°33'12
	682 May 28 j 04:32	0° \cap			683 Apr 14 j 06:57	0° γ	
asc. node	682 May 28 j 13:01	0° \cap 44'42			683 May 05 j 02:06	0° \searrow	
superior conj	682 Jun 04 j 09:16	15° \cap 33'33	1°06'42	morning set	683 May 12 j 19:24	15° \searrow 15'15	
minimum elong	682 Jun 04 j 06:54	15° \cap 20'38	1°06'18	asc. node	683 May 15 j 10:03	20° \searrow 48'47	
max. Earth dist.	682 Jun 05 j 14:32	18° \cap 12'50	1.32782 AU	superior conj	683 May 19 j 20:50	0° \cap 32'06	0°45'33
	682 Jun 11 j 03:35	0° \searrow		minimum elong	683 May 19 j 18:59	0° \cap 21'56	0°45'11
evening rise	682 Jun 11 j 14:01	0° \searrow 53'43			683 May 19 j 15:00	0° \cap	
	682 Jun 27 j 16:46	0° Ω		max. Earth dist.	683 May 20 j 02:07	1° \cap 01'08	1.32350 AU
desc. node	682 Jul 06 j 17:14	12° Ω 38'52		evening rise	683 May 26 j 20:26	15° \cap 37'16	
evening max el	682 Jul 13 j 20:10	20° Ω 31'08	27°20'45		683 Jun 03 j 02:45	0° \searrow	
retrograde	682 Jul 27 j 15:09	27° Ω 48'19			683 Jun 23 j 08:29	0° Ω	
evening set	682 Aug 03 j 19:50	25° Ω 19'49		desc. node	683 Jun 23 j 14:14	0° Ω 15'25	
min. Earth dist.	682 Aug 07 j 09:46	22° Ω 26'24	0.62436 AU	evening max el	683 Jun 25 j 23:29	2° Ω 39'54	26°46'04
inferior conj	682 Aug 10 j 08:09	19° Ω 40'38	-4°-1'-9				

retrograde	683 Jul 09 j 22:42	9°♄55'00		desc. node	684 Jun 09 j 11:14	16°♄22'54	
evening set	683 Jul 16 j 18:44	7°♄53'51		retrograde	684 Jun 20 j 21:10	21°♄14'18	
min. Earth dist.	683 Jul 20 j 13:12	5°♄16'11	0.60439 AU	evening set	684 Jun 26 j 19:25	19°♄50'57	
inferior conj	683 Jul 23 j 20:05	2°♄33'19	-4°-36'-37	min. Earth dist.	684 Jul 01 j 08:23	17°♄10'54	0.58385 AU
minimum elong	683 Jul 23 j 23:34	2°♄26'04	4°36'13	inferior conj	684 Jul 04 j 14:18	14°♄51'19	-4°-49'-48
	683 Jul 27 j 02:47	30°♄		minimum elong	684 Jul 04 j 14:07	14°♄51'39	4°49'48
morning rise	683 Jul 31 j 07:38	27°♄49'34		morning rise	684 Jul 12 j 12:32	10°♄30'14	
direct	683 Aug 02 j 17:36	27°♄27'17		direct	684 Jul 15 j 00:23	10°♄10'25	
	683 Aug 08 j 21:33	0°♄		morning max el	684 Jul 23 j 07:33	14°♄06'05	18°43'42
morning max el	683 Aug 10 j 01:38	1°♄02'39	18°08'23	asc. node	684 Jul 28 j 06:19	20°♄01'31	
asc. node	683 Aug 11 j 09:16	2°♄24'57			684 Aug 03 j 07:36	0°♄	
morning set	683 Aug 25 j 21:54	26°♄08'03		morning set	684 Aug 08 j 15:50	10°♄08'56	
	683 Aug 27 j 23:23	0°♄					
superior conj	683 Sep 04 j 15:50	14°♄08'26	1°28'52	superior conj	684 Aug 17 j 08:56	27°♄00'31	1°42'43
minimum elong	683 Sep 04 j 19:46	14°♄26'04	1°28'31	minimum elong	684 Aug 17 j 10:52	27°♄09'36	1°42'37
max. Earth dist.	683 Sep 12 j 06:54	27°♄24'23	1.41418 AU		684 Aug 18 j 23:12	0°♄	
	683 Sep 13 j 20:05	0°♄		max. Earth dist.	684 Aug 24 j 11:03	9°♄58'26	1.39423 AU
evening rise	683 Sep 17 j 14:50	6°♄11'53		evening rise	684 Aug 28 j 13:06	17°♄02'54	
desc. node	683 Sep 19 j 13:36	9°♄19'23		desc. node	684 Sep 05 j 10:36	29°♄56'45	
	683 Oct 03 j 04:39	0°♄			684 Sep 05 j 11:25	0°♄	
greatest brilliancy	683 Oct 16 j 04:08	17°♄29'25	-0.3m		684 Sep 26 j 17:31	0°♄	
evening max el	683 Oct 21 j 04:59	23°♄08'00	22°48'04	evening max el	684 Oct 02 j 18:06	6°♄42'08	24°08'11
retrograde	683 Oct 31 j 04:19	29°♄03'28		retrograde	684 Oct 13 j 19:47	13°♄12'01	
evening set	683 Nov 04 j 20:37	27°♄09'56		evening set	684 Oct 19 j 02:04	11°♄00'55	
asc. node	683 Nov 07 j 08:28	24°♄36'50		min. Earth dist.	684 Oct 23 j 21:17	5°♄28'37	0.67557 AU
inferior conj	683 Nov 10 j 06:07	20°♄46'42	0°59'12	asc. node	684 Oct 24 j 05:31	5°♄00'47	
minimum elong	683 Nov 10 j 04:46	20°♄51'20	0°58'38	inferior conj	684 Oct 24 j 12:46	4°♄36'18	0°06'15
min. Earth dist.	683 Nov 10 j 01:00	21°♄04'22	0.67728 AU	minimum elong	684 Oct 24 j 12:37	4°♄36'49	0°06'11
morning rise	683 Nov 15 j 12:53	14°♄34'03		transit middle	684 Oct 24 j 12:37	4°♄36'49	0°06'11
direct	683 Nov 19 j 22:26	12°♄48'38		transit begin	684 Oct 24 j 10:05	4°♄45'21	
morning max el	683 Nov 28 j 23:40	18°♄08'07	21°49'31	transit end	684 Oct 24 j 15:08	4°♄28'18	
greatest brilliancy	683 Dec 03 j 19:25	23°♄35'41	-0.4m		684 Oct 28 j 06:08	30°♄	
	683 Dec 08 j 17:40	0°♄		morning rise	684 Oct 29 j 23:24	28°♄28'35	
desc. node	683 Dec 16 j 12:50	11°♄02'16		direct	684 Nov 02 j 19:26	27°♄04'47	
	683 Dec 29 j 00:08	0°♄			684 Nov 08 j 23:41	0°♄	
morning set	683 Dec 31 j 06:01	3°♄33'44		morning max el	684 Nov 10 j 19:29	1°♄42'28	20°32'22
max. Earth dist.	684 Jan 06 j 13:10	13°♄49'33	1.41501 AU	greatest brilliancy	684 Nov 17 j 00:33	9°♄04'16	-0.5m
					684 Dec 01 j 13:14	0°♄	
superior conj	684 Jan 14 j 05:18	26°♄56'20	-2°-2'-55	desc. node	684 Dec 02 j 09:52	1°♄18'03	
minimum elong	684 Jan 14 j 05:46	26°♄58'24	2°02'56	morning set	684 Dec 09 j 06:08	11°♄47'44	
	684 Jan 15 j 22:54	0°♄		max. Earth dist.	684 Dec 18 j 19:27	26°♄54'00	1.43279 AU
evening rise	684 Jan 24 j 22:27	16°♄20'54			684 Dec 20 j 17:22	0°♄	
	684 Feb 01 j 12:04	0°♄		superior conj	684 Dec 25 j 04:26	7°♄20'40	-1°-56'-48
asc. node	684 Feb 03 j 07:45	3°♄02'01		minimum elong	684 Dec 25 j 00:02	7°♄02'23	1°56'37
evening max el	684 Feb 10 j 06:36	12°♄20'16	18°12'17	evening rise	685 Jan 06 j 12:22	28°♄31'42	
retrograde	684 Feb 17 j 04:40	15°♄49'06			685 Jan 07 j 08:27	0°♄	
evening set	684 Feb 19 j 17:49	15°♄21'30		asc. node	685 Jan 20 j 04:48	21°♄13'20	
inferior conj	684 Feb 26 j 16:10	10°♄32'54	3°31'05	evening max el	685 Jan 23 j 18:30	25°♄29'22	18°08'25
minimum elong	684 Feb 26 j 18:41	10°♄27'13	3°30'45	retrograde	685 Jan 30 j 06:57	28°♄53'52	
min. Earth dist.	684 Mar 01 j 00:23	7°♄33'44	0.60139 AU	evening set	685 Feb 02 j 00:46	28°♄16'55	
morning rise	684 Mar 04 j 16:13	4°♄50'08		inferior conj	685 Feb 08 j 10:21	23°♄07'04	3°47'26
direct	684 Mar 11 j 07:01	2°♄46'42		minimum elong	685 Feb 08 j 10:42	23°♄06'09	3°47'26
desc. node	684 Mar 13 j 11:58	2°♄59'51		min. Earth dist.	685 Feb 11 j 07:30	20°♄10'25	0.62225 AU
morning max el	684 Mar 25 j 13:45	10°♄35'24	27°28'47	morning rise	685 Feb 14 j 18:22	17°♄10'09	
	684 Apr 09 j 15:33	0°♄		direct	685 Feb 21 j 17:24	14°♄37'12	
morning set	684 Apr 26 j 03:16	29°♄58'43		desc. node	685 Feb 28 j 09:01	16°♄37'35	
	684 Apr 26 j 03:31	0°♄		morning max el	685 Mar 07 j 18:11	22°♄30'19	27°48'13
asc. node	684 May 01 j 07:04	10°♄58'27			685 Mar 14 j 09:21	0°♄	
max. Earth dist.	684 May 02 j 14:29	13°♄50'03	1.32294 AU		685 Apr 02 j 18:55	0°♄	
				morning set	685 Apr 10 j 06:10	14°♄24'00	
superior conj	684 May 03 j 08:24	15°♄28'16	0°21'37	max. Earth dist.	685 Apr 15 j 23:48	26°♄25'44	1.32627 AU
minimum elong	684 May 03 j 07:26	15°♄22'59	0°21'25				
evening rise	684 May 10 j 06:30	0°♄		superior conj	685 Apr 17 j 18:13	0°♄15'05	0°-4'-21
	684 May 10 j 00:52	0°♄		minimum elong	685 Apr 17 j 18:25	0°♄16'12	0°04'20
	684 May 26 j 10:51	0°♄		behind sun begin	685 Apr 17 j 13:26	29°♄49'09	
evening max el	684 Jun 06 j 20:04	14°♄03'34	25°40'27	behind sun end	685 Apr 17 j 23:24	0°♄43'16	

	685 Apr 17 j 15:26	0°♄		superior conj	686 Apr 02 j 00:29	14°♄46'45	0°-31'-27
asc. node	685 Apr 18 j 04:05	1°♄08'45		minimum elong	686 Apr 02 j 02:01	14°♄54'57	0°31'09
evening rise	685 Apr 24 j 18:12	15°♄23'28		asc. node	686 Apr 05 j 01:09	21°♄15'52	
	685 May 02 j 01:42	0°♄		evening rise	686 Apr 09 j 05:43	0°♄12'03	
evening max el	685 May 19 j 11:14	24°♄49'12	24°12'36		686 Apr 09 j 03:26	0°♄	
	685 May 26 j 10:15	0°♄			686 Apr 26 j 07:57	0°♄	
desc. node	685 May 27 j 08:16	0°♄26'27		evening max el	686 May 01 j 02:27	5°♄21'17	22°36'49
retrograde	685 Jun 02 j 07:41	1°♄47'37		retrograde	686 May 14 j 05:36	11°♄51'23	
evening set	685 Jun 06 j 21:12	1°♄01'21		desc. node	686 May 14 j 05:18	11°♄51'23	
	685 Jun 09 j 09:27	30°♄		evening set	686 May 17 j 09:32	11°♄29'25	
min. Earth dist.	685 Jun 12 j 22:21	28°♄02'36	0.56571 AU	min. Earth dist.	686 May 25 j 10:26	7°♄59'11	0.55339 AU
inferior conj	685 Jun 15 j 12:23	26°♄25'38	-4°-27'-31	inferior conj	686 May 26 j 16:01	7°♄17'03	-3°-19'-24
minimum elong	685 Jun 15 j 07:15	26°♄33'43	4°26'48	minimum elong	686 May 26 j 08:32	7°♄27'44	3°17'23
morning rise	685 Jun 23 j 20:57	22°♄23'56		morning rise	686 Jun 04 j 10:02	3°♄24'29	
direct	685 Jun 26 j 12:26	22°♄05'19		direct	686 Jun 07 j 06:50	3°♄05'34	
morning max el	685 Jul 06 j 04:09	26°♄34'08	19°40'15	morning max el	686 Jun 18 j 13:40	8°♄20'11	20°57'21
	685 Jul 09 j 08:36	0°♄		asc. node	686 Jul 02 j 00:25	27°♄24'37	
asc. node	685 Jul 15 j 03:22	8°♄25'06			686 Jul 03 j 09:26	0°♄	
morning set	685 Jul 23 j 17:42	24°♄33'56		morning set	686 Jul 08 j 00:52	9°♄15'48	
	685 Jul 26 j 10:15	0°♄					
				superior conj	686 Jul 15 j 13:14	24°♄52'07	1°42'43
superior conj	685 Jul 31 j 17:35	10°♄39'24	1°46'40	minimum elong	686 Jul 15 j 11:48	24°♄44'45	1°42'39
minimum elong	685 Jul 31 j 17:34	10°♄39'20	1°46'40		686 Jul 18 j 01:44	0°♄	
max. Earth dist.	685 Aug 06 j 14:56	21°♄59'45	1.37426 AU	max. Earth dist.	686 Jul 19 j 23:55	3°♄50'10	1.35646 AU
evening rise	685 Aug 10 j 11:17	29°♄01'45		evening rise	686 Jul 24 j 05:14	11°♄58'04	
	685 Aug 11 j 00:21	0°♄			686 Aug 03 j 11:30	0°♄	
desc. node	685 Aug 23 j 07:37	20°♄22'49		desc. node	686 Aug 10 j 04:39	10°♄31'28	
	685 Aug 29 j 19:12	0°♄			686 Aug 24 j 22:54	0°♄	
evening max el	685 Sep 15 j 05:56	20°♄20'11	25°23'34	evening max el	686 Aug 28 j 17:47	3°♄57'15	26°26'32
retrograde	685 Sep 27 j 06:50	27°♄16'01		retrograde	686 Sep 10 j 12:55	11°♄09'13	
evening set	685 Oct 03 j 03:52	24°♄48'37		evening set	686 Sep 17 j 00:00	8°♄29'34	
min. Earth dist.	685 Oct 07 j 14:51	19°♄51'48	0.67060 AU	min. Earth dist.	686 Sep 21 j 03:14	4°♄09'58	0.66222 AU
inferior conj	685 Oct 08 j 17:06	18°♄26'52	0°-49'-26	inferior conj	686 Sep 22 j 17:10	2°♄14'43	-1°-46'-22
minimum elong	685 Oct 08 j 18:21	18°♄22'48	0°48'54	minimum elong	686 Sep 22 j 19:55	2°♄06'21	1°45'16
asc. node	685 Oct 11 j 02:35	15°♄28'24			686 Sep 24 j 14:48	30°♄	
morning rise	685 Oct 14 j 09:28	12°♄27'03		asc. node	686 Sep 27 j 23:39	26°♄52'38	
direct	685 Oct 17 j 17:53	11°♄22'08		morning rise	686 Sep 28 j 16:57	26°♄25'52	
morning max el	685 Oct 24 j 23:09	15°♄27'29	19°28'27	direct	686 Oct 01 j 15:56	25°♄36'22	
greatest brilliancy	685 Nov 02 j 21:30	26°♄51'41	-0.7m	morning max el	686 Oct 08 j 09:24	29°♄19'35	18°39'54
	685 Nov 05 j 00:59	0°♄			686 Oct 09 j 00:55	0°♄	
morning set	685 Nov 18 j 05:12	20°♄08'11		morning set	686 Oct 29 j 01:36	29°♄36'38	
desc. node	685 Nov 19 j 06:54	21°♄47'51			686 Oct 29 j 07:29	0°♄	
	685 Nov 24 j 13:19	0°♄		desc. node	686 Nov 06 j 03:56	12°♄26'55	
max. Earth dist.	685 Dec 01 j 09:16	10°♄44'17	1.44514 AU				
				superior conj	686 Nov 14 j 03:40	25°♄01'10	0°-51'-9
superior conj	685 Dec 05 j 01:06	16°♄33'38	-1°-32'-31	minimum elong	686 Nov 13 j 21:11	24°♄35'43	0°50'21
minimum elong	685 Dec 04 j 16:47	16°♄00'23	1°31'45	max. Earth dist.	686 Nov 14 j 03:21	24°♄59'54	1.45057 AU
	685 Dec 13 j 08:08	0°♄			686 Nov 17 j 07:41	0°♄	
evening rise	685 Dec 19 j 06:12	9°♄49'03		evening rise	686 Nov 30 j 00:43	20°♄08'02	
	685 Dec 31 j 13:30	0°♄			686 Dec 06 j 04:53	0°♄	
asc. node	686 Jan 07 j 01:51	8°♄36'31		evening max el	686 Dec 21 j 17:34	22°♄15'27	18°56'16
evening max el	686 Jan 07 j 07:01	8°♄49'47	18°23'24	asc. node	686 Dec 24 j 22:55	24°♄57'31	
retrograde	686 Jan 13 j 19:17	12°♄22'48		retrograde	686 Dec 28 j 13:37	26°♄07'42	
evening set	686 Jan 16 j 17:56	11°♄35'34		evening set	686 Dec 31 j 18:08	25°♄09'02	
inferior conj	686 Jan 22 j 18:04	6°♄05'53	3°42'56	inferior conj	687 Jan 06 j 11:35	19°♄22'02	3°23'21
minimum elong	686 Jan 22 j 16:42	6°♄09'49	3°42'50	minimum elong	687 Jan 06 j 09:12	19°♄29'28	3°22'55
min. Earth dist.	686 Jan 25 j 00:08	3°♄31'27	0.64065 AU	min. Earth dist.	687 Jan 08 j 02:20	17°♄21'25	0.65545 AU
morning rise	686 Jan 28 j 14:00	0°♄00'08		morning rise	687 Jan 11 j 23:17	13°♄10'38	
	686 Jan 28 j 14:03	30°♄		direct	687 Jan 18 j 12:12	10°♄20'52	
direct	686 Feb 04 j 11:30	27°♄11'36		morning max el	687 Jan 31 j 12:36	17°♄59'15	26°42'42
	686 Feb 12 j 04:01	0°♄		desc. node	687 Feb 02 j 03:07	19°♄39'14	
desc. node	686 Feb 15 j 06:04	2°♄22'26			687 Feb 10 j 15:38	0°♄	
morning max el	686 Feb 18 j 02:43	5°♄02'09	27°31'12		687 Mar 01 j 23:42	0°♄	
	686 Mar 09 j 01:17	0°♄		morning set	687 Mar 08 j 10:03	11°♄45'34	
morning set	686 Mar 25 j 01:33	28°♄23'12		max. Earth dist.	687 Mar 12 j 18:09	20°♄12'47	1.34557 AU
	686 Mar 25 j 21:05	0°♄					
max. Earth dist.	686 Mar 30 j 02:14	8°♄36'10	1.33373 AU	superior conj	687 Mar 17 j 01:01	28°♄56'21	0°-58'-33

minimum elong	687 Mar 17 j 03:52	29° X 11'05	0°58'02	max. Earth dist.	688 Feb 22 j 22:05	1° X 19'42	1.36189 AU
	687 Mar 17 j 13:18	0° Y					
asc. node	687 Mar 22 j 22:13	11° Y 15'27		superior conj	688 Feb 28 j 17:08	12° X 36'08	-1°-23'-59
evening rise	687 Mar 24 j 15:09	14° Y 48'49		minimum elong	688 Feb 28 j 20:56	12° X 55'09	1°23'26
	687 Apr 01 j 10:00	0° Z		evening rise	688 Mar 07 j 20:23	29° X 07'08	
evening max el	687 Apr 13 j 00:55	16° Z 10'43	21°07'26		688 Mar 08 j 06:50	0° Y	
retrograde	687 Apr 24 j 19:34	21° Z 54'14		asc. node	688 Mar 08 j 19:16	1° Y 02'40	
evening set	687 Apr 27 j 02:20	21° Z 42'06		evening max el	688 Mar 25 j 10:40	27° Y 36'10	19°53'20
desc. node	687 May 01 j 02:18	20° Z 28'28			688 Mar 28 j 08:17	0° Z	
inferior conj	687 May 06 j 10:17	17° Z 43'24	-1°-31'-41	retrograde	688 Apr 04 j 11:59	2° Z 26'13	
minimum elong	687 May 06 j 05:58	17° Z 49'29	1°30'10	evening set	688 Apr 06 j 13:43	2° Z 14'48	
min. Earth dist.	687 May 06 j 23:07	17° Z 25'16	0.54962 AU		688 Apr 12 j 09:28	30° R Y	
morning rise	687 May 15 j 09:22	13° Z 41'23		inferior conj	688 Apr 15 j 09:25	28° Y 14'07	0°27'06
direct	687 May 18 j 16:41	13° Z 17'47		minimum elong	688 Apr 15 j 10:37	28° Y 12'17	0°26'41
morning max el	687 May 31 j 12:44	19° Z 25'08	22°31'01	desc. node	688 Apr 16 j 23:20	27° Y 15'57	
	687 Jun 09 j 06:00	0° II		min. Earth dist.	688 Apr 17 j 13:15	26° Y 54'52	0.55552 AU
asc. node	687 Jun 18 j 21:28	16° II 51'17		morning rise	688 Apr 24 j 04:22	23° Y 44'45	
morning set	687 Jun 22 j 11:16	24° II 08'47		direct	688 Apr 28 j 08:08	23° Y 06'33	
	687 Jun 25 j 05:46	0° S		morning max el	688 May 12 j 04:47	0° Z 00'25	24°12'16
					688 May 12 j 04:36	0° Z	
superior conj	687 Jun 29 j 16:28	9° S 28'30	1°32'31		688 Jun 01 j 11:50	0° II	
minimum elong	687 Jun 29 j 14:14	9° S 16'40	1°32'18	asc. node	688 Jun 04 j 18:31	6° II 37'04	
max. Earth dist.	687 Jul 02 j 17:44	15° S 52'28	1.34219 AU	morning set	688 Jun 05 j 23:05	9° II 06'20	
evening rise	687 Jul 07 j 14:15	25° S 39'33					
	687 Jul 09 j 20:18	0° Q		superior conj	688 Jun 13 j 00:32	24° II 18'59	1°17'20
	687 Jul 27 j 21:27	0° P		minimum elong	688 Jun 12 j 22:04	24° II 05'39	1°16'58
desc. node	687 Jul 28 j 01:40	0° P 15'03		max. Earth dist.	688 Jun 14 j 20:32	28° II 15'58	1.33192 AU
evening max el	687 Aug 11 j 05:41	17° P 25'35	27°09'30		688 Jun 15 j 16:00	0° S	
retrograde	687 Aug 24 j 13:43	24° P 44'33		evening rise	688 Jun 20 j 10:04	9° S 53'10	
evening set	687 Aug 31 j 12:05	22° P 00'10			688 Jul 01 j 04:40	0° Q	
min. Earth dist.	687 Sep 04 j 08:16	18° P 17'40	0.65024 AU	desc. node	688 Jul 13 j 22:40	19° Q 22'05	
inferior conj	687 Sep 06 j 10:50	15° P 56'13	-2°-42'-24		688 Jul 23 j 02:33	0° P	
minimum elong	687 Sep 06 j 14:57	15° P 44'41	2°40'59	evening max el	688 Jul 23 j 16:15	0° P 33'03	27°25'42
morning rise	687 Sep 12 j 19:30	10° P 21'24		retrograde	688 Aug 06 j 08:31	7° P 52'09	
asc. node	687 Sep 14 j 20:41	9° P 45'33		evening set	688 Aug 13 j 12:58	5° P 14'15	
direct	687 Sep 15 j 11:26	9° P 43'31		min. Earth dist.	688 Aug 17 j 04:02	2° P 05'03	0.63470 AU
morning max el	687 Sep 21 j 23:55	13° P 13'56	18°07'54		688 Aug 19 j 05:41	30° R Q	
	687 Oct 03 j 18:40	0° A		inferior conj	688 Aug 19 j 19:29	29° Q 24'51	-3°-34'-37
morning set	687 Oct 10 j 02:54	10° A 30'38		minimum elong	688 Aug 20 j 00:25	29° Q 12'22	3°33'16
	687 Oct 22 j 00:59	0° M		morning rise	688 Aug 26 j 14:08	24° Q 07'17	
				direct	688 Aug 29 j 01:38	23° Q 37'34	
superior conj	687 Oct 24 j 08:37	3° M 42'13	0°-2'-6	asc. node	688 Aug 31 j 17:43	24° Q 12'37	
minimum elong	687 Oct 24 j 08:21	3° M 41'11	0°02'06	morning max el	688 Sep 04 j 15:48	27° Q 03'16	17°53'21
behind sun begin	687 Oct 23 j 21:37	2° M 58'24			688 Sep 07 j 05:51	0° P	
behind sun end	687 Oct 24 j 19:05	4° M 23'54		morning set	688 Sep 21 j 05:34	22° P 37'34	
desc. node	687 Oct 24 j 01:00	3° M 11'53			688 Sep 25 j 11:35	0° A	
max. Earth dist.	687 Oct 27 j 22:07	9° M 20'56	1.44860 AU				
evening rise	687 Nov 09 j 21:05	29° M 34'27		superior conj	688 Oct 03 j 10:37	13° A 27'00	0°42'29
	687 Nov 10 j 03:40	0° J		minimum elong	688 Oct 03 j 14:44	13° A 44'02	0°41'56
greatest brilliancy	687 Nov 27 j 08:25	26° J 03'10	-0.6m	max. Earth dist.	688 Oct 09 j 14:37	23° A 29'18	1.43958 AU
	687 Nov 30 j 05:15	0° Z		desc. node	688 Oct 09 j 22:02	23° A 59'00	
evening max el	687 Dec 05 j 00:08	5° Z 43'39	19°45'31		688 Oct 13 j 17:01	0° M	
asc. node	687 Dec 11 j 19:58	10° Z 01'42		evening rise	688 Oct 19 j 04:54	8° M 33'35	
retrograde	687 Dec 12 j 10:52	10° Z 03'52			688 Nov 02 j 10:37	0° J	
evening set	687 Dec 15 j 22:50	8° Z 52'12		greatest brilliancy	688 Nov 11 j 09:56	12° J 32'27	-0.5m
inferior conj	687 Dec 21 j 11:52	2° Z 50'47	2°52'39	evening max el	688 Nov 17 j 01:23	19° J 13'00	20°48'54
minimum elong	687 Dec 21 j 09:08	2° Z 59'50	2°51'55	retrograde	688 Nov 25 j 08:32	24° J 07'40	
min. Earth dist.	687 Dec 22 j 12:36	1° Z 29'05	0.66632 AU	asc. node	688 Nov 27 j 16:58	23° J 36'27	
	687 Dec 23 j 16:16	30° R J		evening set	688 Nov 29 j 05:59	22° J 41'02	
morning rise	687 Dec 26 j 18:45	26° J 36'15		inferior conj	688 Dec 04 j 16:26	16° J 28'30	2°13'32
direct	688 Jan 01 j 18:55	23° J 56'54		minimum elong	688 Dec 04 j 13:54	16° J 37'10	2°12'40
	688 Jan 12 j 17:24	0° Z		min. Earth dist.	688 Dec 05 j 04:41	15° J 46'35	0.67334 AU
morning max el	688 Jan 13 j 21:43	1° Z 09'24	25°31'01	morning rise	688 Dec 09 j 21:23	10° J 13'04	
desc. node	688 Jan 20 j 00:11	8° Z 01'38		direct	688 Dec 15 j 06:44	7° Z 52'06	
	688 Feb 04 j 16:12	0° A		morning max el	688 Dec 26 j 06:01	14° J 24'47	24°06'15
morning set	688 Feb 19 j 03:01	24° A 17'34		desc. node	689 Jan 05 j 21:15	27° J 10'41	
	688 Feb 22 j 05:10	0° X			689 Jan 07 j 23:02	0° Z	

	689 Jan 27 j 13:52	0°♊		desc. node	689 Dec 23 j 18:17	16°♊52'20	
morning set	689 Jan 30 j 22:34	5°♊42'56			690 Jan 01 j 15:28	0°♊	
max. Earth dist.	689 Feb 03 j 17:56	12°♊24'30	1.38184 AU	morning set	690 Jan 11 j 14:33	15°♊45'37	
				max. Earth dist.	690 Jan 16 j 13:59	24°♊04'39	1.40325 AU
superior conj	689 Feb 10 j 21:21	25°♊37'07	-1°-45'-25		690 Jan 20 j 00:17	0°♊	
minimum elong	689 Feb 11 j 01:16	25°♊55'46	1°45'03				
	689 Feb 13 j 04:01	0°♋		superior conj	690 Jan 24 j 09:03	7°♊46'37	-1°-59'-38
evening rise	689 Feb 19 j 19:00	13°♋00'25		minimum elong	690 Jan 24 j 11:26	7°♊57'24	1°59'34
asc. node	689 Feb 23 j 16:18	20°♋32'29		evening rise	690 Feb 03 j 07:55	26°♊20'16	
	689 Feb 28 j 23:46	0°♌			690 Feb 05 j 06:29	0°♋	
evening max el	689 Mar 08 j 07:22	9°♌40'27	18°58'18	asc. node	690 Feb 10 j 13:20	9°♋38'01	
retrograde	689 Mar 16 j 18:41	13°♌46'09		evening max el	690 Feb 19 j 12:21	22°♋16'06	18°23'17
evening set	689 Mar 19 j 00:04	13°♌30'23		retrograde	690 Feb 26 j 20:32	25°♋53'47	
inferior conj	689 Mar 27 j 01:19	9°♌14'39	2°05'20	evening set	690 Mar 01 j 07:02	25°♋30'53	
minimum elong	689 Mar 27 j 05:25	9°♌07'24	2°04'08	inferior conj	690 Mar 08 j 14:17	20°♋54'19	3°09'18
min. Earth dist.	689 Mar 30 j 05:13	7°♌01'39	0.56978 AU	minimum elong	690 Mar 08 j 17:54	20°♋46'49	3°08'36
desc. node	689 Apr 03 j 20:22	4°♌22'54		min. Earth dist.	690 Mar 12 j 00:45	18°♋05'22	0.58927 AU
morning rise	689 Apr 04 j 06:33	4°♌12'08		morning rise	690 Mar 16 j 00:58	15°♋23'40	
direct	689 Apr 09 j 12:43	3°♌06'21		desc. node	690 Mar 21 j 17:25	13°♋42'26	
morning max el	689 Apr 23 j 19:34	10°♌30'47	25°47'16	direct	690 Mar 22 j 06:18	13°♋41'41	
	689 May 08 j 16:04	0°♍		morning max el	690 Apr 05 j 14:31	21°♋23'19	27°00'54
morning set	689 May 21 j 10:42	24°♍03'09			690 Apr 13 j 02:39	0°♎	
asc. node	689 May 22 j 15:34	26°♍36'08			690 May 01 j 11:08	0°♍	
	689 May 24 j 05:29	0°♎		morning set	690 May 05 j 20:28	8°♍53'04	
				asc. node	690 May 09 j 12:36	16°♍42'58	
superior conj	689 May 28 j 11:22	9°♎16'35	0°58'07				
minimum elong	689 May 28 j 09:10	9°♎04'33	0°57'44	superior conj	690 May 12 j 23:08	24°♍14'31	0°35'42
max. Earth dist.	689 May 29 j 06:00	10°♎58'36	1.32557 AU	minimum elong	690 May 12 j 21:37	24°♍06'12	0°35'23
evening rise	689 Jun 04 j 13:26	24°♎28'45		max. Earth dist.	690 May 12 j 18:35	23°♍49'29	1.32290 AU
	689 Jun 07 j 06:37	0°♏			690 May 15 j 14:05	0°♎	
	689 Jun 24 j 22:03	0°♐		evening rise	690 May 19 j 21:42	9°♎17'05	
desc. node	689 Jun 30 j 19:39	7°♐37'26			690 May 30 j 15:48	0°♏	
evening max el	689 Jul 05 j 23:13	13°♐07'11	27°10'05	desc. node	690 Jun 17 j 16:40	24°♏39'41	
retrograde	689 Jul 19 j 20:21	20°♐23'03		evening max el	690 Jun 17 j 23:54	24°♏57'05	26°21'31
evening set	689 Jul 26 j 22:38	18°♐04'58			690 Jun 24 j 14:05	0°♐	
min. Earth dist.	689 Jul 30 j 13:26	15°♐19'53	0.61609 AU	retrograde	690 Jul 01 j 23:53	2°♐09'50	
inferior conj	689 Aug 02 j 16:00	12°♐33'24	-4°-18'-16	evening set	690 Jul 08 j 12:29	0°♐24'01	
minimum elong	689 Aug 02 j 20:34	12°♐23'10	4°17'26		690 Jul 09 j 05:53	30°♑♏	
morning rise	689 Aug 09 j 21:17	7°♐36'14		min. Earth dist.	690 Jul 12 j 12:53	27°♑47'46	0.59563 AU
direct	689 Aug 12 j 07:08	7°♐11'46		inferior conj	690 Jul 15 j 20:49	25°♑12'31	-4°-45'-41
asc. node	689 Aug 18 j 14:46	10°♐04'53		minimum elong	690 Jul 15 j 23:01	25°♑08'12	4°45'32
morning max el	689 Aug 19 j 06:11	10°♐40'58	17°57'15	morning rise	690 Jul 23 j 12:55	20°♑38'21	
	689 Sep 01 j 00:50	0°♒		direct	690 Jul 25 j 23:38	20°♑17'08	
morning set	689 Sep 04 j 03:32	5°♒39'46		morning max el	690 Aug 02 j 16:05	23°♑59'22	18°20'53
				asc. node	690 Aug 05 j 11:50	27°♑07'39	
superior conj	689 Sep 14 j 15:56	24°♒32'10	1°15'37		690 Aug 07 j 14:30	0°♓	
minimum elong	689 Sep 14 j 20:38	24°♒52'37	1°15'06	morning set	690 Aug 18 j 15:25	19°♓22'42	
	689 Sep 17 j 20:10	0°♓			690 Aug 24 j 05:26	0°♒	
max. Earth dist.	689 Sep 22 j 03:02	7°♓10'31	1.42471 AU				
desc. node	689 Sep 26 j 19:01	14°♓44'55		superior conj	690 Aug 27 j 21:40	6°♒50'10	1°36'06
evening rise	689 Sep 28 j 17:30	17°♓49'29		minimum elong	690 Aug 28 j 00:47	7°♒04'29	1°35'52
	689 Oct 06 j 14:55	0°♔		max. Earth dist.	690 Sep 04 j 10:12	20°♒11'47	1.40586 AU
greatest brilliancy	689 Oct 26 j 03:32	27°♔22'02	-0.3m	evening rise	690 Sep 09 j 01:38	28°♒00'28	
	689 Oct 28 j 08:48	0°♕			690 Sep 10 j 06:48	0°♓	
evening max el	689 Oct 30 j 21:00	2°♕42'55	22°02'48	desc. node	690 Sep 13 j 16:01	5°♓26'35	
retrograde	689 Nov 09 j 04:47	8°♕15'39			690 Sep 30 j 05:38	0°♔	
evening set	689 Nov 13 j 13:45	6°♕32'13		evening max el	690 Oct 13 j 11:50	16°♔14'50	23°22'17
asc. node	689 Nov 14 j 14:00	5°♕38'21		retrograde	690 Oct 23 j 22:19	22°♔25'22	
inferior conj	689 Nov 18 j 23:12	0°♕11'59	1°27'51	evening set	690 Oct 28 j 20:33	20°♔24'04	
minimum elong	689 Nov 18 j 21:19	0°♕18'29	1°27'06	asc. node	690 Nov 01 j 11:03	16°♔26'18	
min. Earth dist.	689 Nov 19 j 00:11	0°♕08'34	0.67681 AU	inferior conj	690 Nov 03 j 06:24	13°♔59'51	0°37'10
	689 Nov 19 j 02:40	30°♕♔		minimum elong	690 Nov 03 j 05:32	14°♔02'50	0°36'48
morning rise	689 Nov 24 j 04:41	23°♔57'50		min. Earth dist.	690 Nov 02 j 20:49	14°♔32'43	0.67694 AU
direct	689 Nov 28 j 22:47	21°♔59'11		morning rise	690 Nov 08 j 14:36	7°♔49'16	
morning max el	689 Dec 08 j 16:13	27°♔44'47	22°38'16	direct	690 Nov 12 j 18:12	6°♔13'23	
	689 Dec 10 j 19:04	0°♕		morning max el	690 Nov 21 j 07:59	11°♔13'42	21°15'26
greatest brilliancy	689 Dec 13 j 06:42	2°♕53'33	-0.3m	greatest brilliancy	690 Nov 26 j 14:26	17°♔17'14	-0.4m

	690 Dec 05 j 21:23	0°♊		morning rise	691 Oct 24 j 01:08	21°♊45'12	
desc. node	690 Dec 10 j 15:19	6°♊57'40		direct	691 Oct 27 j 15:53	20°♊30'03	
morning set	690 Dec 22 j 02:13	24°♊29'10		morning max el	691 Nov 04 j 07:17	24°♊52'56	20°03'26
	690 Dec 25 j 13:36	0°♋			691 Nov 08 j 17:36	0°♋	
max. Earth dist.	690 Dec 29 j 16:14	6°♋39'31	1.42311 AU	greatest brilliancy	691 Nov 11 j 10:13	3°♋33'32	-0.6m
				desc. node	691 Nov 27 j 12:21	27°♋19'33	
superior conj	691 Jan 05 j 22:55	18°♋52'02	-2°-2'-21		691 Nov 29 j 06:07	0°♌	
minimum elong	691 Jan 05 j 21:30	18°♋45'56	2°02'21	morning set	691 Nov 30 j 22:35	2°♌36'01	
	691 Jan 12 j 07:36	0°♍		max. Earth dist.	691 Dec 12 j 01:40	20°♌03'57	1.43875 AU
evening rise	691 Jan 17 j 07:29	8°♍58'57					
asc. node	691 Jan 28 j 10:22	28°♍11'47		superior conj	691 Dec 17 j 10:29	28°♌44'04	-1°-48'-50
	691 Jan 29 j 15:41	0°♎		minimum elong	691 Dec 17 j 04:00	28°♌17'35	1°48'24
evening max el	691 Feb 02 j 22:32	5°♎15'00	18°08'12		691 Dec 18 j 05:03	0°♏	
retrograde	691 Feb 09 j 15:20	8°♎40'35		evening rise	691 Dec 30 j 13:20	20°♏47'30	
evening set	691 Feb 12 j 06:27	8°♎09'08			692 Jan 04 j 21:53	0°♐	
inferior conj	691 Feb 18 j 22:54	3°♎11'02	3°40'59	asc. node	692 Jan 15 j 07:25	16°♐03'56	
minimum elong	691 Feb 19 j 00:29	3°♎07'14	3°40'51	evening max el	692 Jan 17 j 10:58	18°♐29'08	18°12'33
min. Earth dist.	691 Feb 22 j 03:03	0°♏10'18	0.61044 AU	retrograde	692 Jan 23 j 22:29	21°♐56'12	
	691 Feb 22 j 07:36	30°♑		evening set	692 Jan 26 j 18:09	21°♐15'09	
morning rise	691 Feb 25 j 15:41	27°♑21'11		inferior conj	692 Feb 01 j 23:21	15°♑56'43	3°47'42
direct	691 Mar 04 j 11:05	25°♑04'07		minimum elong	692 Feb 01 j 22:54	15°♑57'57	3°47'42
desc. node	691 Mar 08 j 14:29	25°♑50'44		min. Earth dist.	692 Feb 04 j 14:22	13°♑07'17	0.63038 AU
	691 Mar 15 j 10:37	0°♒		morning rise	692 Feb 08 j 01:41	9°♑55'15	
morning max el	691 Mar 18 j 15:55	2°♒55'18	27°41'40	direct	692 Feb 15 j 00:59	7°♑13'41	
	691 Apr 07 j 13:19	0°♓		desc. node	692 Feb 23 j 11:33	10°♑26'45	
morning set	691 Apr 20 j 02:33	23°♓29'46		morning max el	692 Feb 28 j 22:37	15°♑07'42	27°45'18
	691 Apr 23 j 05:03	0°♈			692 Mar 12 j 02:10	0°♈	
asc. node	691 Apr 26 j 09:39	6°♈53'15			692 Mar 30 j 03:25	0°♈	
max. Earth dist.	691 Apr 26 j 06:19	6°♈35'02	1.32393 AU	morning set	692 Apr 03 j 02:41	7°♈45'54	
				max. Earth dist.	692 Apr 08 j 13:12	19°♈01'49	1.32886 AU
superior conj	691 Apr 27 j 10:11	9°♈07'10	0°10'49				
minimum elong	691 Apr 27 j 09:41	9°♈04'28	0°10'42	superior conj	692 Apr 10 j 18:47	23°♈48'53	0°-15'-45
behind sun begin	691 Apr 27 j 05:55	8°♈43'53		minimum elong	692 Apr 10 j 19:33	23°♈52'59	0°15'37
behind sun end	691 Apr 27 j 13:27	9°♈25'05		behind sun begin	692 Apr 10 j 18:34	23°♈47'40	
evening rise	691 May 04 j 08:43	24°♈10'43		behind sun end	692 Apr 10 j 20:32	23°♈58'18	
	691 May 07 j 03:57	0°♉		asc. node	692 Apr 12 j 06:42	27°♈03'02	
	691 May 25 j 06:34	0°♊			692 Apr 13 j 15:22	0°♉	
evening max el	691 May 30 j 17:34	6°♊01'38	25°04'51	evening rise	692 Apr 17 j 20:36	9°♉03'20	
desc. node	691 Jun 04 j 13:42	9°♊58'59			692 Apr 28 j 18:53	0°♊	
retrograde	691 Jun 13 j 17:34	13°♊08'59		evening max el	692 May 11 j 07:51	16°♊38'17	23°31'55
evening set	691 Jun 19 j 03:06	12°♊01'58		desc. node	692 May 21 j 10:45	22°♊59'33	
min. Earth dist.	691 Jun 24 j 05:08	9°♊15'54	0.57564 AU	retrograde	692 May 24 j 23:19	23°♊27'49	
inferior conj	691 Jun 27 j 06:35	7°♊12'10	-4°-45'-27	evening set	692 May 28 j 21:31	22°♊53'55	
minimum elong	691 Jun 27 j 04:17	7°♊16'04	4°45'20	min. Earth dist.	692 Jun 04 j 18:15	19°♊43'02	0.55953 AU
morning rise	691 Jul 05 j 09:19	3°♊00'32		inferior conj	692 Jun 06 j 20:22	18°♊28'10	-4°-4'-28
direct	691 Jul 07 j 22:38	2°♊41'22		minimum elong	692 Jun 06 j 13:38	18°♊38'15	4°03'08
morning max el	691 Jul 16 j 18:25	6°♊49'02	19°05'15	morning rise	692 Jun 15 j 09:11	14°♊32'07	
asc. node	691 Jul 23 j 08:53	15°♊05'35		direct	692 Jun 18 j 02:19	14°♊13'50	
	691 Jul 31 j 17:22	0°♋		morning max el	692 Jun 28 j 10:38	19°♊01'05	20°10'37
morning set	691 Aug 02 j 13:07	3°♋34'45			692 Jul 07 j 00:14	0°♋	
				asc. node	692 Jul 09 j 05:57	3°♋46'03	
superior conj	691 Aug 10 j 22:04	20°♋04'16	1°45'29	morning set	692 Jul 16 j 17:33	18°♋07'55	
minimum elong	691 Aug 10 j 23:07	20°♋09'20	1°45'27		692 Jul 22 j 12:40	0°♌	
	691 Aug 16 j 04:42	0°♍					
max. Earth dist.	691 Aug 17 j 13:31	2°♍29'25	1.38553 AU	superior conj	692 Jul 24 j 11:57	3°♌59'32	1°45'50
evening rise	691 Aug 21 j 10:24	9°♍20'44		minimum elong	692 Jul 24 j 11:16	3°♌56'03	1°45'50
desc. node	691 Aug 31 j 13:02	25°♍59'34		max. Earth dist.	692 Jul 29 j 18:32	14°♌21'28	1.36632 AU
	691 Sep 03 j 03:25	0°♎		evening rise	692 Aug 02 j 17:41	21°♌46'11	
evening max el	691 Sep 25 j 23:57	29°♎49'47	24°41'14		692 Aug 07 j 08:55	0°♎	
	691 Sep 26 j 04:06	0°♏		desc. node	692 Aug 17 j 10:04	16°♎18'56	
retrograde	691 Oct 07 j 12:06	6°♏32'30			692 Aug 26 j 23:49	0°♏	
evening set	691 Oct 13 j 00:41	4°♏13'52		evening max el	692 Sep 07 j 11:37	13°♏27'44	25°52'16
	691 Oct 16 j 20:49	30°♑		retrograde	692 Sep 19 j 21:16	20°♏32'20	
min. Earth dist.	691 Oct 17 j 16:11	28°♑56'33	0.67383 AU	evening set	692 Sep 26 j 00:20	17°♑59'06	
inferior conj	691 Oct 18 j 12:16	27°♑49'46	0°-17'-8	min. Earth dist.	692 Sep 30 j 07:57	13°♑17'44	0.66745 AU
minimum elong	691 Oct 18 j 12:42	27°♑48'21	0°16'57	inferior conj	692 Oct 01 j 15:02	11°♑39'27	-1°-13'-33
asc. node	691 Oct 19 j 08:07	26°♑44'09		minimum elong	692 Oct 01 j 16:56	11°♑33'29	1°12'46

asc. node	692 Oct 05 j 05:11	7°♌29'55		min. Earth dist.	693 Sep 13 j 17:37	27°♍32'09	0.65758 AU
morning rise	692 Oct 07 j 10:22	5°♌43'45		inferior conj	693 Sep 15 j 12:42	25°♍25'25	-2°-10'-22
direct	692 Oct 10 j 14:23	4°♌45'58		minimum elong	693 Sep 15 j 16:04	25°♍15'31	2°09'07
morning max el	692 Oct 17 j 13:56	8°♌41'06	19°05'43	morning rise	693 Sep 21 j 16:04	19°♍41'49	
	692 Nov 01 j 22:21	0°♍		asc. node	693 Sep 22 j 02:13	19°♍29'38	
morning set	692 Nov 09 j 04:34	11°♍18'57		direct	693 Sep 24 j 11:46	18°♍57'37	
desc. node	692 Nov 13 j 09:22	17°♍53'13		morning max el	693 Oct 01 j 02:15	22°♍34'24	18°24'06
	692 Nov 21 j 02:52	0°♎			693 Oct 06 j 23:55	0°♌	
max. Earth dist.	692 Nov 23 j 17:02	4°♎04'30	1.44830 AU	morning set	693 Oct 20 j 13:17	21°♌24'25	
					693 Oct 25 j 21:13	0°♍	
superior conj	692 Nov 25 j 21:34	7°♎31'48	-1°-16'-40	desc. node	693 Oct 31 j 06:24	8°♍35'03	
minimum elong	692 Nov 25 j 13:11	6°♎58'40	1°15'46				
	692 Dec 09 j 21:10	0°♏		superior conj	693 Nov 04 j 22:21	15°♍57'22	0°-30'-30
evening rise	692 Dec 10 j 21:22	1°♏39'01		minimum elong	693 Nov 04 j 18:21	15°♍41'38	0°29'59
	692 Dec 29 j 06:31	0°♐		max. Earth dist.	693 Nov 06 j 11:51	18°♍24'54	1.45067 AU
evening max el	692 Dec 30 j 22:54	1°♐51'52	18°35'23		693 Nov 13 j 21:04	0°♎	
asc. node	693 Jan 01 j 04:28	3°♐02'00		evening rise	693 Nov 21 j 05:53	11°♎33'56	
retrograde	693 Jan 06 j 13:38	5°♐31'48			693 Dec 03 j 00:55	0°♏	
evening set	693 Jan 09 j 14:35	4°♐39'59		greatest brilliancy	693 Dec 04 j 14:42	2°♏23'27	-0.7m
	693 Jan 14 j 16:17	30°♑		evening max el	693 Dec 14 j 08:03	15°♏19'18	19°15'25
inferior conj	693 Jan 15 j 11:36	29°♏02'57	3°36'13	asc. node	693 Dec 19 j 01:30	18°♏52'14	
minimum elong	693 Jan 15 j 09:43	29°♏08'34	3°35'58	retrograde	693 Dec 21 j 09:25	19°♏22'04	
min. Earth dist.	693 Jan 17 j 11:11	26°♏41'34	0.64738 AU	evening set	693 Dec 24 j 16:58	18°♏17'58	
morning rise	693 Jan 21 j 03:34	22°♏54'29		inferior conj	693 Dec 30 j 08:18	12°♏24'37	3°11'30
direct	693 Jan 27 j 22:14	20°♏03'24		minimum elong	693 Dec 30 j 05:41	12°♏32'59	3°10'55
desc. node	693 Feb 09 j 08:35	26°♏53'47		min. Earth dist.	693 Dec 31 j 16:54	10°♏40'19	0.66058 AU
morning max el	693 Feb 10 j 07:50	27°♏50'45	27°14'01	morning rise	694 Jan 04 j 17:35	6°♏11'55	
	693 Feb 12 j 09:16	0°♐		direct	694 Jan 11 j 01:36	3°♏25'18	
	693 Mar 05 j 19:23	0°♑		morning max el	694 Jan 23 j 17:18	10°♏53'43	26°14'31
morning set	693 Mar 17 j 17:54	21°♑30'39		desc. node	694 Jan 27 j 05:37	14°♏40'57	
	693 Mar 22 j 00:06	0°♒			694 Feb 07 j 22:44	0°♐	
max. Earth dist.	693 Mar 22 j 11:12	0°♒56'44	1.33812 AU		694 Feb 26 j 09:04	0°♑	
				morning set	694 Feb 28 j 20:21	4°♑32'47	
superior conj	693 Mar 25 j 22:54	8°♒12'03	0°-43'-1	max. Earth dist.	694 Mar 04 j 21:51	12°♑18'21	1.35199 AU
minimum elong	693 Mar 26 j 01:00	8°♒23'09	0°42'37				
asc. node	693 Mar 30 j 03:45	17°♒07'21		superior conj	694 Mar 09 j 20:12	22°♑09'47	-1°-9'-39
evening rise	693 Apr 02 j 07:25	23°♒47'20		minimum elong	694 Mar 09 j 23:31	22°♑26'44	1°09'05
	693 Apr 05 j 07:58	0°♓			694 Mar 13 j 15:24	0°♒	
evening max el	693 Apr 23 j 01:34	27°♓15'13	21°57'31	asc. node	694 Mar 17 j 00:48	7°♒02'06	
	693 Apr 26 j 07:11	0°♔		evening rise	694 Mar 17 j 15:18	8°♒16'47	
retrograde	693 May 05 j 16:43	3°♔26'49			694 Mar 29 j 11:36	0°♓	
evening set	693 May 08 j 09:26	3°♔10'39		evening max el	694 Apr 05 j 04:38	8°♓18'19	20°33'46
desc. node	693 May 08 j 07:48	3°♔11'27		retrograde	694 Apr 16 j 05:37	13°♓38'26	
	693 May 16 j 04:01	30°♕		evening set	694 Apr 18 j 08:56	13°♓27'16	
inferior conj	693 May 17 j 18:34	29°♓06'15	-2°-37'-25	desc. node	694 Apr 25 j 04:49	10°♓49'08	
minimum elong	693 May 17 j 11:47	29°♓15'46	2°35'17	inferior conj	694 Apr 27 j 12:59	9°♓29'46	0°-40'-33
min. Earth dist.	693 May 17 j 06:42	29°♓22'53	0.55064 AU	minimum elong	694 Apr 27 j 11:04	9°♓32'32	0°39'52
morning rise	693 May 26 j 15:29	25°♓11'43		min. Earth dist.	694 Apr 28 j 19:38	8°♓45'31	0.55104 AU
direct	693 May 29 j 15:50	24°♓51'30		morning rise	694 May 06 j 11:39	5°♓18'09	
	693 Jun 10 j 02:43	0°♕		direct	694 May 10 j 02:47	4°♓49'42	
morning max el	693 Jun 10 j 15:26	0°♕28'54	21°35'22	morning max el	694 May 23 j 10:40	11°♓17'40	23°13'48
asc. node	693 Jun 26 j 03:00	22°♕57'58			694 Jun 06 j 08:10	0°♕	
	693 Jun 29 j 16:17	0°♖		asc. node	694 Jun 13 j 00:02	12°♕33'17	
morning set	693 Jul 01 j 02:19	2°♖54'59		morning set	694 Jun 15 j 13:31	17°♕50'21	
					694 Jun 21 j 06:04	0°♖	
superior conj	693 Jul 08 j 11:11	18°♖23'08	1°39'04				
minimum elong	693 Jul 08 j 09:20	18°♖13'31	1°38'56	superior conj	694 Jun 22 j 16:44	3°♖05'56	1°26'37
max. Earth dist.	693 Jul 12 j 07:01	26°♖14'33	1.35001 AU	minimum elong	694 Jun 22 j 14:20	2°♖53'06	1°26'20
	693 Jul 14 j 04:12	0°♗		max. Earth dist.	694 Jun 25 j 05:06	8°♖26'30	1.33743 AU
evening rise	693 Jul 16 j 18:39	5°♗03'28		evening rise	694 Jun 30 j 08:41	18°♖59'39	
	693 Jul 31 j 03:28	0°♘			694 Jul 06 j 03:08	0°♗	
desc. node	693 Aug 04 j 07:06	6°♘17'51		desc. node	694 Jul 22 j 04:07	25°♗47'13	
evening max el	693 Aug 20 j 23:47	27°♘02'59	26°47'42		694 Jul 25 j 07:33	0°♘	
	693 Aug 24 j 08:04	0°♙		evening max el	694 Aug 03 j 11:32	10°♘24'18	27°19'58
retrograde	693 Sep 03 j 01:09	4°♙18'33		retrograde	694 Aug 16 j 23:12	17°♘42'56	
evening set	693 Sep 09 j 17:22	1°♙36'09		evening set	694 Aug 24 j 01:05	14°♘59'57	
	693 Sep 11 j 11:24	30°♚		min. Earth dist.	694 Aug 27 j 18:50	11°♘32'22	0.64412 AU

inferior conj	694 Aug 30 j 02:53	9° \cap 02'03	-3°-5'-15	evening set	695 Aug 06 j 20:06	28° Ω 05'28	
minimum elong	694 Aug 30 j 07:26	8° \cap 49'48	3°03'48	min. Earth dist.	695 Aug 10 j 10:05	25° Ω 08'25	0.62716 AU
morning rise	694 Sep 05 j 15:40	3° \cap 34'05		inferior conj	695 Aug 13 j 06:48	22° Ω 23'32	-3°-54'-33
direct	694 Sep 08 j 05:30	2° \cap 59'55		minimum elong	695 Aug 13 j 11:47	22° Ω 11'34	3°53'22
asc. node	694 Sep 08 j 23:15	3° \cap 02'46		morning rise	695 Aug 20 j 05:58	17° Ω 14'33	
morning max el	694 Sep 14 j 17:40	6° \cap 26'59	17°59'30	direct	695 Aug 22 j 16:29	16° Ω 47'22	
	694 Sep 30 j 09:37	0° $\underline{\Delta}$		asc. node	695 Aug 26 j 20:18	18° Ω 08'13	
morning set	694 Oct 02 j 02:07	2° $\underline{\Delta}$ 51'46		morning max el	695 Aug 29 j 09:24	20° Ω 13'08	17°52'43
					695 Sep 05 j 16:03	0° \cap	
superior conj	694 Oct 15 j 10:33	25° $\underline{\Delta}$ 00'34	0°17'57	morning set	695 Sep 14 j 13:47	15° \cap 24'39	
minimum elong	694 Oct 15 j 12:38	25° $\underline{\Delta}$ 08'56	0°17'40		695 Sep 22 j 21:06	0° $\underline{\Delta}$	
desc. node	694 Oct 18 j 03:25	29° $\underline{\Delta}$ 21'00					
	694 Oct 18 j 13:11	0° \cap		superior conj	695 Sep 26 j 00:17	5° $\underline{\Delta}$ 20'23	0°58'06
max. Earth dist.	694 Oct 20 j 06:39	2° \cap 44'56	1.44562 AU	minimum elong	695 Sep 26 j 05:03	5° $\underline{\Delta}$ 40'28	0°57'30
evening rise	694 Oct 31 j 19:13	20° \cap 44'30		max. Earth dist.	695 Oct 02 j 21:50	16° $\underline{\Delta}$ 44'27	1.43390 AU
	694 Nov 06 j 20:13	0° \propto		desc. node	695 Oct 05 j 00:27	20° $\underline{\Delta}$ 08'09	
greatest brilliancy	694 Nov 20 j 20:49	20° \propto 38'23	-0.6m	evening rise	695 Oct 11 j 02:55	29° $\underline{\Delta}$ 45'16	
evening max el	694 Nov 27 j 12:29	28° \propto 47'48	20°10'55		695 Oct 11 j 06:42	0° \cap	
	694 Nov 28 j 18:00	0° \propto			695 Oct 31 j 13:26	0° \propto	
retrograde	694 Dec 05 j 07:05	3° \propto 21'45		greatest brilliancy	695 Nov 05 j 08:10	6° \propto 20'38	-0.4m
asc. node	694 Dec 05 j 22:32	3° \propto 19'24		evening max el	695 Nov 10 j 11:12	12° \propto 16'42	21°19'11
evening set	694 Dec 08 j 22:56	2° \propto 03'44		retrograde	695 Nov 19 j 04:29	17° \propto 27'45	
	694 Dec 11 j 05:12	30° \propto		asc. node	695 Nov 22 j 19:33	16° \propto 14'10	
inferior conj	694 Dec 14 j 10:39	25° \propto 57'01	2°36'55	evening set	695 Nov 23 j 06:35	15° \propto 54'04	
minimum elong	694 Dec 14 j 07:56	26° \propto 06'08	2°36'07	inferior conj	695 Nov 28 j 16:25	9° \propto 37'30	1°54'49
min. Earth dist.	694 Dec 15 j 05:47	24° \propto 52'39	0.66979 AU	minimum elong	695 Nov 28 j 14:07	9° \propto 45'27	1°53'59
morning rise	694 Dec 19 j 16:24	19° \propto 42'00		min. Earth dist.	695 Nov 28 j 23:41	9° \propto 12'24	0.67525 AU
direct	694 Dec 25 j 10:22	17° \propto 10'04		morning rise	695 Dec 03 j 21:18	3° \propto 22'13	
morning max el	695 Jan 06 j 01:58	24° \propto 06'27	24°56'00	direct	695 Dec 09 j 00:00	1° \propto 10'43	
	695 Jan 11 j 08:52	0° \propto		morning max el	695 Dec 19 j 10:52	7° \propto 24'09	23°28'36
desc. node	695 Jan 14 j 02:39	3° \propto 24'33		greatest brilliancy	695 Dec 25 j 09:15	14° \propto 07'58	-0.2m
	695 Feb 01 j 09:05	0° \approx		desc. node	695 Dec 31 j 23:42	22° \propto 48'32	
morning set	695 Feb 11 j 04:54	16° \approx 37'28			696 Jan 06 j 01:18	0° \propto	
max. Earth dist.	695 Feb 14 j 21:55	23° \approx 20'57	1.37008 AU	morning set	696 Jan 23 j 13:21	27° \propto 28'54	
	695 Feb 18 j 10:48	0° \propto			696 Jan 25 j 00:56	0° \approx	
				max. Earth dist.	696 Jan 27 j 16:51	4° \approx 36'26	1.39093 AU
superior conj	695 Feb 21 j 07:40	5° \propto 33'25	-1°-33'-44				
minimum elong	695 Feb 21 j 11:40	5° \propto 53'01	1°33'14	superior conj	696 Feb 04 j 05:25	18° \approx 13'16	-1°-52'-34
evening rise	695 Mar 01 j 18:01	22° \propto 24'47		minimum elong	696 Feb 04 j 08:56	18° \approx 29'40	1°52'20
asc. node	695 Mar 03 j 21:50	26° \propto 42'13			696 Feb 10 j 09:43	0° \propto	
	695 Mar 05 j 14:32	0° \propto		evening rise	696 Feb 13 j 12:55	6° \propto 04'31	
evening max el	695 Mar 18 j 19:04	19° \propto 59'16	19°27'26	asc. node	696 Feb 18 j 18:53	16° \propto 02'19	
retrograde	695 Mar 28 j 03:17	24° \propto 29'11			696 Feb 27 j 16:56	0° \propto	
evening set	695 Mar 30 j 06:01	24° \propto 16'22		evening max el	696 Feb 29 j 19:35	2° \propto 17'14	18°40'57
inferior conj	695 Apr 07 j 18:05	20° \propto 09'58	1°12'37	retrograde	696 Mar 08 j 18:10	6° \propto 09'19	
minimum elong	695 Apr 07 j 20:59	20° \propto 05'16	1°11'39	evening set	696 Mar 11 j 01:32	5° \propto 50'55	
min. Earth dist.	695 Apr 10 j 10:06	18° \propto 26'38	0.56068 AU	inferior conj	696 Mar 18 j 18:50	1° \propto 26'46	2°36'48
desc. node	695 Apr 12 j 01:49	17° \propto 26'36		minimum elong	696 Mar 18 j 23:03	1° \propto 18'47	2°35'44
morning rise	695 Apr 16 j 08:11	15° \propto 26'36			696 Mar 20 j 16:33	30° \propto	
direct	695 Apr 20 j 22:45	14° \propto 38'31		min. Earth dist.	696 Mar 22 j 03:32	28° \propto 55'28	0.57755 AU
morning max el	695 May 05 j 01:27	21° \propto 46'57	24°54'34	morning rise	696 Mar 26 j 16:19	26° \propto 10'48	
	695 May 12 j 05:50	0° \propto		desc. node	696 Mar 28 j 22:52	25° \propto 19'32	
	695 May 29 j 17:12	0° \propto		direct	696 Apr 01 j 09:00	24° \propto 50'08	
asc. node	695 May 30 j 21:05	2° \propto 25'27			696 Apr 13 j 01:39	0° \propto	
morning set	695 May 31 j 01:29	2° \propto 48'32		morning max el	696 Apr 15 j 17:41	2° \propto 24'09	26°22'13
					696 May 05 j 10:50	0° \propto	
superior conj	695 Jun 07 j 02:13	18° \propto 00'18	1°09'38	morning set	696 May 14 j 12:31	17° \propto 43'02	
minimum elong	695 Jun 06 j 23:49	17° \propto 47'12	1°09'15	asc. node	696 May 16 j 18:08	22° \propto 28'15	
max. Earth dist.	695 Jun 08 j 11:16	20° \propto 59'49	1.32871 AU		696 May 20 j 05:06	0° \propto	
	695 Jun 12 j 16:39	0° \propto					
evening rise	695 Jun 14 j 08:04	3° \propto 23'39		superior conj	696 May 21 j 13:39	2° \propto 58'44	0°48'59
	695 Jun 28 j 21:44	0° \propto		minimum elong	696 May 21 j 11:42	2° \propto 48'01	0°48'36
desc. node	695 Jul 09 j 01:07	14° \propto 34'51		max. Earth dist.	696 May 21 j 22:20	3° \propto 46'21	1.32386 AU
evening max el	695 Jul 16 j 20:47	23° \propto 19'04	27°23'03	evening rise	696 May 28 j 13:46	18° \propto 05'14	
	695 Jul 26 j 22:04	0° \cap			696 Jun 03 j 12:55	0° \propto	
retrograde	695 Jul 30 j 15:08	0° \cap 37'01			696 Jun 22 j 20:20	0° \propto	
	695 Aug 03 j 04:51	30° \propto		desc. node	696 Jun 24 j 22:09	2° \propto 22'26	

evening max el	696 Jun 28 j 01:06	5°♂34'36	26°53'23	evening max el	697 Jun 09 j 22:49	17°♂04'43	25°51'55
retrograde	696 Jul 11 j 23:59	12°♂50'11		desc. node	697 Jun 11 j 19:10	18°♂44'57	
evening set	696 Jul 18 j 21:59	10°♂44'14		retrograde	697 Jun 23 j 23:47	24°♂15'54	
min. Earth dist.	696 Jul 22 j 15:04	8°♂05'12	0.60746 AU	evening set	697 Jun 30 j 02:07	22°♂46'44	
inferior conj	696 Jul 25 j 21:05	5°♂20'40	-4°-32'-29	min. Earth dist.	697 Jul 04 j 11:20	20°♂08'09	0.58685 AU
minimum elong	696 Jul 26 j 00:56	5°♂12'31	4°31'58	inferior conj	697 Jul 07 j 18:08	17°♂43'59	-4°-49'-47
morning rise	696 Aug 02 j 07:03	0°♂33'23		minimum elong	697 Jul 07 j 18:38	17°♂43'03	4°49'48
direct	696 Aug 04 j 16:50	0°♂10'40		morning rise	697 Jul 15 j 14:46	13°♂19'26	
morning max el	696 Aug 11 j 22:20	3°♂44'13	18°04'50	direct	697 Jul 18 j 02:17	12°♂59'16	
asc. node	696 Aug 12 j 17:21	4°♂32'25		morning max el	697 Jul 26 j 05:20	16°♂51'11	18°37'07
morning set	696 Aug 27 j 18:16	28°♂45'43		asc. node	697 Jul 30 j 14:24	22°♂00'02	
	696 Aug 28 j 10:13	0°♂			697 Aug 04 j 15:38	0°♂	
				morning set	697 Aug 11 j 10:46	12°♂41'58	
superior conj	696 Sep 06 j 16:41	16°♂58'41	1°25'46	superior conj	697 Aug 20 j 07:00	29°♂42'01	1°41'18
minimum elong	696 Sep 06 j 20:52	17°♂17'17	1°25'21	minimum elong	697 Aug 20 j 09:15	29°♂52'32	1°41'10
	696 Sep 14 j 05:37	0°♂			697 Aug 20 j 10:51	0°♂	
max. Earth dist.	696 Sep 14 j 07:26	0°♂07'39	1.41705 AU	max. Earth dist.	697 Aug 27 j 12:23	12°♂48'49	1.39728 AU
evening rise	696 Sep 19 j 22:33	9°♂21'13		evening rise	697 Aug 31 j 17:07	20°♂01'34	
desc. node	696 Sep 20 j 21:28	10°♂52'51			697 Sep 06 j 19:24	0°♂	
	696 Oct 03 j 09:45	0°♂		desc. node	697 Sep 07 j 18:30	1°♂31'27	
greatest brilliancy	696 Oct 18 j 08:12	20°♂21'08	-0.3m		697 Sep 27 j 14:48	0°♂	
evening max el	696 Oct 23 j 04:32	25°♂47'10	22°36'13	evening max el	697 Oct 05 j 18:06	9°♂20'57	23°56'24
	696 Oct 28 j 05:15	0°♂		retrograde	697 Oct 16 j 15:53	15°♂45'50	
retrograde	696 Nov 01 j 23:53	1°♂36'51		evening set	697 Oct 21 j 20:03	13°♂37'17	
	696 Nov 06 j 07:08	30°♂		min. Earth dist.	697 Oct 26 j 16:34	8°♂00'01	0.67605 AU
evening set	696 Nov 06 j 14:11	29°♂46'05		asc. node	697 Oct 26 j 13:39	8°♂09'53	
asc. node	696 Nov 08 j 16:36	27°♂41'15		inferior conj	697 Oct 27 j 06:30	7°♂12'44	0°14'31
inferior conj	696 Nov 11 j 23:38	23°♂23'31	1°06'53	minimum elong	697 Oct 27 j 06:09	7°♂13'56	0°14'22
minimum elong	696 Nov 11 j 22:09	23°♂28'40	1°06'17	transit middle	697 Oct 27 j 06:09	7°♂13'56	0°14'22
min. Earth dist.	696 Nov 11 j 20:07	23°♂35'41	0.67726 AU	transit begin	697 Oct 27 j 04:52	7°♂18'17	
morning rise	696 Nov 17 j 06:00	17°♂10'18		transit end	697 Oct 27 j 07:26	7°♂09'36	
direct	696 Nov 21 j 17:44	15°♂21'24		morning rise	697 Nov 01 j 16:27	1°♂04'13	
morning max el	696 Nov 30 j 23:03	20°♂47'37	22°01'52		697 Nov 03 j 13:58	30°♂	
greatest brilliancy	696 Dec 05 j 16:15	26°♂06'37	-0.4m	direct	697 Nov 05 j 14:26	29°♂37'16	
	696 Dec 08 j 17:48	0°♂			697 Nov 07 j 17:01	0°♂	
desc. node	696 Dec 17 j 20:44	12°♂41'20		morning max el	697 Nov 13 j 17:46	4°♂20'22	20°43'06
	696 Dec 29 j 07:51	0°♂		greatest brilliancy	697 Nov 19 j 16:10	11°♂18'49	-0.5m
morning set	697 Jan 02 j 16:50	6°♂56'13			697 Dec 02 j 19:18	0°♂	
max. Earth dist.	697 Jan 08 j 14:31	16°♂37'02	1.41201 AU	desc. node	697 Dec 04 j 17:46	2°♂54'24	
				morning set	697 Dec 12 j 19:19	15°♂15'40	
superior conj	697 Jan 16 j 08:33	29°♂57'26	-2°-2'-29	max. Earth dist.	697 Dec 21 j 19:52	29°♂34'21	1.43047 AU
minimum elong	697 Jan 16 j 09:35	0°♂02'04	2°02'30		697 Dec 22 j 02:12	0°♂	
	697 Jan 16 j 09:07	0°♂		superior conj	697 Dec 28 j 11:37	10°♂32'31	-1°-58'-52
evening rise	697 Jan 26 j 20:41	19°♂08'02		minimum elong	697 Dec 28 j 08:01	10°♂17'25	1°58'43
	697 Feb 01 j 19:05	0°♂			698 Jan 08 j 17:46	0°♂	
asc. node	697 Feb 04 j 15:56	4°♂55'43		evening rise	698 Jan 09 j 13:13	1°♂26'06	
evening max el	697 Feb 12 j 03:17	15°♂04'38	18°14'33	asc. node	698 Jan 22 j 12:59	23°♂13'06	
retrograde	697 Feb 19 j 03:33	18°♂35'07		evening max el	698 Jan 26 j 14:51	28°♂11'11	18°07'46
evening set	697 Feb 21 j 16:05	18°♂08'45			698 Jan 28 j 17:50	0°♂	
inferior conj	697 Feb 28 j 16:37	13°♂23'22	3°26'14	retrograde	698 Feb 02 j 04:04	1°♂35'29	
minimum elong	697 Feb 28 j 19:28	13°♂17'06	3°25'50	evening set	698 Feb 04 j 21:13	0°♂59'55	
min. Earth dist.	697 Mar 04 j 01:50	10°♂26'00	0.59824 AU		698 Feb 06 j 16:27	30°♂	
morning rise	697 Mar 07 j 19:23	7°♂43'30		inferior conj	698 Feb 11 j 08:28	25°♂52'59	3°46'25
direct	697 Mar 14 j 08:09	5°♂45'23		minimum elong	698 Feb 11 j 09:08	25°♂51'17	3°46'23
desc. node	697 Mar 15 j 19:55	5°♂51'21		min. Earth dist.	698 Feb 14 j 07:32	22°♂54'44	0.61926 AU
morning max el	697 Mar 28 j 15:15	13°♂32'25	27°22'39	morning rise	698 Feb 17 j 18:39	19°♂57'48	
	697 Apr 10 j 18:12	0°♂		direct	698 Feb 24 j 17:04	17°♂28'39	
	697 Apr 27 j 16:13	0°♂		desc. node	698 Mar 02 j 16:58	19°♂06'30	
morning set	697 Apr 28 j 20:56	2°♂28'02		morning max el	698 Mar 10 j 18:55	25°♂21'07	27°47'42
asc. node	697 May 03 j 15:12	12°♂37'13			698 Mar 15 j 01:49	0°♂	
max. Earth dist.	697 May 05 j 10:51	16°♂35'47	1.32282 AU		698 Apr 04 j 04:20	0°♂	
				morning set	698 Apr 13 j 00:44	16°♂56'19	
superior conj	697 May 06 j 01:21	17°♂55'20	0°25'25	max. Earth dist.	698 Apr 18 j 20:58	29°♂14'27	1.32557 AU
minimum elong	697 May 06 j 00:14	17°♂49'12	0°25'10		698 Apr 19 j 05:24	0°♂	
	697 May 11 j 14:14	0°♂					
evening rise	697 May 12 j 23:27	2°♂56'43					
	697 May 27 j 13:15	0°♂					

superior conj	698 Apr 20 j 11:32	2°♄43'39	0°00'-18		699 Mar 27 j 09:18	0°♅	
minimum elong	698 Apr 20 j 11:33	2°♄43'45	0°00'19	morning set	699 Mar 27 j 21:27	0°♅59'58	
behind sun begin	698 Apr 20 j 06:26	2°♄15'53		max. Earth dist.	699 Apr 02 j 00:44	11°♅29'35	1.33233 AU
behind sun end	698 Apr 20 j 16:41	3°♄11'37					
asc. node	698 Apr 20 j 12:16	2°♄47'37		superior conj	699 Apr 04 j 18:27	17°♅17'48	0°-27'-20
evening rise	698 Apr 27 j 11:03	17°♄50'31		minimum elong	699 Apr 04 j 19:47	17°♅24'55	0°27'03
	698 May 03 j 11:16	0°♄		asc. node	699 Apr 07 j 09:19	22°♅55'22	
evening max el	698 May 22 j 14:31	27°♄54'30	24°26'30		699 Apr 10 j 16:28	0°♄	
	698 May 24 j 22:47	0°♄		evening rise	699 Apr 11 j 22:42	2°♄40'05	
desc. node	698 May 29 j 16:12	3°♄09'32			699 Apr 27 j 02:56	0°♄	
retrograde	698 Jun 05 j 12:04	4°♄55'29		evening max el	699 May 04 j 05:08	8°♄26'17	22°50'58
evening set	698 Jun 10 j 07:02	4°♄04'08		desc. node	699 May 16 j 13:14	15°♄00'17	
min. Earth dist.	698 Jun 16 j 01:43	1°♄09'09	0.56812 AU	retrograde	699 May 17 j 12:00	15°♄02'19	
	698 Jun 17 j 21:22	30°♄		evening set	699 May 20 j 20:23	14°♄37'43	
inferior conj	698 Jun 18 j 19:15	29°♄24'52	-4°-33'-44	min. Earth dist.	699 May 28 j 13:51	11°♄12'56	0.55468 AU
minimum elong	698 Jun 18 j 14:48	29°♄31'59	4°33'13	inferior conj	699 May 30 j 01:16	10°♄22'00	-3°-32'-47
morning rise	698 Jun 27 j 02:18	25°♄20'52		minimum elong	699 May 29 j 17:47	10°♄32'47	3°30'52
direct	698 Jun 29 j 17:16	25°♄02'06		morning rise	699 Jun 07 j 18:01	6°♄29'15	
morning max el	698 Jul 09 j 03:27	29°♄24'52	19°30'33	direct	699 Jun 10 j 13:44	6°♄10'37	
	698 Jul 09 j 18:05	0°♄		morning max el	699 Jun 21 j 14:44	11°♄17'45	20°44'43
asc. node	698 Jul 17 j 11:28	10°♄17'14		asc. node	699 Jul 04 j 08:32	29°♄11'58	
morning set	698 Jul 26 j 11:39	27°♄04'00			699 Jul 04 j 18:59	0°♄	
	698 Jul 27 j 22:43	0°♄		morning set	699 Jul 10 j 18:09	11°♄43'40	
superior conj	698 Aug 03 j 13:41	13°♄15'00	1°46'37	superior conj	699 Jul 18 j 07:56	27°♄23'28	1°43'45
minimum elong	698 Aug 03 j 13:56	13°♄16'14	1°46'37	minimum elong	699 Jul 18 j 06:40	27°♄17'03	1°43'42
max. Earth dist.	698 Aug 09 j 16:06	24°♄54'28	1.37711 AU		699 Jul 19 j 14:42	0°♄	
	698 Aug 12 j 11:07	0°♄		max. Earth dist.	699 Jul 22 j 23:50	6°♄44'08	1.35886 AU
evening rise	698 Aug 13 j 11:56	1°♄50'45		evening rise	699 Jul 27 j 03:14	14°♄39'10	
desc. node	698 Aug 25 j 15:31	21°♄59'40			699 Aug 04 j 19:57	0°♄	
	698 Aug 30 j 23:28	0°♄		desc. node	699 Aug 12 j 12:33	12°♄11'20	
evening max el	698 Sep 18 j 05:59	22°♄58'29	25°12'53		699 Aug 25 j 15:58	0°♄	
retrograde	698 Sep 30 j 03:37	29°♄51'05		evening max el	699 Aug 31 j 17:40	6°♄35'37	26°18'12
evening set	698 Oct 05 j 22:31	27°♄25'49		retrograde	699 Sep 13 j 10:32	13°♄46'13	
min. Earth dist.	698 Oct 10 j 10:38	22°♄23'43	0.67157 AU	evening set	699 Sep 19 j 19:37	11°♄07'54	
inferior conj	698 Oct 11 j 11:17	21°♄03'21	0°-40'-49	min. Earth dist.	699 Sep 23 j 23:55	6°♄42'43	0.66368 AU
minimum elong	698 Oct 11 j 12:19	21°♄00'00	0°40'24	inferior conj	699 Sep 25 j 12:05	4°♄51'39	-1°-37'-42
asc. node	698 Oct 13 j 10:41	18°♄33'17		minimum elong	699 Sep 25 j 14:37	4°♄43'53	1°36'42
morning rise	698 Oct 17 j 02:42	15°♄02'19		asc. node	699 Sep 30 j 07:43	29°♄45'56	
direct	698 Oct 20 j 12:43	13°♄54'53			699 Sep 30 j 00:34	30°♄	
morning max el	698 Oct 27 j 20:20	18°♄04'15	19°37'04	morning rise	699 Oct 01 j 10:41	29°♄01'01	
greatest brilliancy	698 Nov 05 j 04:43	28°♄35'00	-0.6m	direct	699 Oct 04 j 10:51	28°♄09'32	
	698 Nov 06 j 04:28	0°♄			699 Oct 09 j 01:38	0°♄	
morning set	698 Nov 21 j 16:55	23°♄30'37		morning max el	699 Oct 11 j 05:44	1°♄55'36	18°46'06
desc. node	698 Nov 21 j 14:48	23°♄22'25			699 Oct 30 j 15:12	0°♄	
	698 Nov 25 j 21:15	0°♄		morning set	699 Nov 01 j 09:12	2°♄46'23	
max. Earth dist.	698 Dec 04 j 08:50	13°♄19'18	1.44374 AU	desc. node	699 Nov 08 j 11:49	14°♄00'13	
				max. Earth dist.	699 Nov 17 j 02:14	27°♄31'27	1.45023 AU
superior conj	698 Dec 08 j 12:00	19°♄55'05	-1°-37'-24	superior conj	699 Nov 17 j 16:11	28°♄26'17	0°-58'-12
minimum elong	698 Dec 08 j 04:00	19°♄22'55	1°36'43	minimum elong	699 Nov 17 j 09:00	27°♄58'03	0°57'21
	698 Dec 14 j 16:56	0°♄			699 Nov 18 j 16:01	0°♄	
evening rise	698 Dec 22 j 10:19	12°♄51'51		evening rise	699 Dec 03 j 08:22	23°♄19'23	
	699 Jan 01 j 17:18	0°♄			699 Dec 07 j 11:58	0°♄	
asc. node	699 Jan 09 j 10:01	10°♄43'59		evening max el	699 Dec 24 j 14:19	24°♄54'49	18°50'16
evening max el	699 Jan 10 j 03:23	11°♄29'45	18°19'56	asc. node	699 Dec 27 j 07:02	27°♄15'14	
retrograde	699 Jan 16 j 15:12	15°♄00'56		retrograde	699 Dec 31 j 08:50	28°♄43'43	
evening set	699 Jan 19 j 13:03	14°♄15'20		evening set	700 Jan 03 j 12:20	27°♄46'56	
inferior conj	699 Jan 25 j 14:23	8°♄48'23	3°44'42	inferior conj	700 Jan 09 j 06:38	22°♄02'25	3°27'07
minimum elong	699 Jan 25 j 13:14	8°♄51'38	3°44'36	minimum elong	700 Jan 09 j 04:22	22°♄09'27	3°26'44
min. Earth dist.	699 Jan 27 j 22:46	6°♄09'39	0.63812 AU	min. Earth dist.	700 Jan 10 j 23:40	19°♄56'07	0.65347 AU
morning rise	699 Jan 31 j 11:51	2°♄43'32		morning rise	700 Jan 14 j 19:19	15°♄51'36	
	699 Feb 06 j 09:08	30°♄		direct	700 Jan 21 j 09:52	13°♄01'02	
direct	699 Feb 07 j 09:59	29°♄56'27		morning max el	700 Feb 03 j 12:59	20°♄42'33	26°51'38
	699 Feb 08 j 11:16	0°♄		desc. node	700 Feb 04 j 11:03	21°♄38'59	
desc. node	699 Feb 17 j 14:01	4°♄34'08			700 Feb 11 j 14:10	0°♄	
morning max el	699 Feb 21 j 03:07	7°♄48'10	27°35'55		700 Mar 02 j 09:02	0°♄	
	699 Mar 10 j 06:25	0°♄					

morning set	700 Mar 10 j 07:50	14° κ 29'02		desc. node	701 Jan 21 j 08:04	9° ϙ 52'46	
max. Earth dist.	700 Mar 14 j 18:18	23° κ 11'12	1.34345 AU		701 Feb 04 j 22:11	0° ≈	
	700 Mar 18 j 02:23	0° Υ		morning set	701 Feb 21 j 03:25	27° ≈ 09'23	
					701 Feb 22 j 16:24	0° κ	
superior conj	700 Mar 18 j 20:00	1° Υ 31'28	0°-54'-30	max. Earth dist.	701 Feb 24 j 23:44	4° κ 20'39	1.35918 AU
minimum elong	700 Mar 18 j 22:40	1° Υ 45'18	0°54'01				
asc. node	700 Mar 24 j 06:21	12° Υ 56'30		superior conj	701 Mar 02 j 13:33	15° κ 16'16	-1°-20'-18
evening rise	700 Mar 26 j 08:33	17° Υ 19'11		minimum elong	701 Mar 02 j 17:15	15° κ 34'52	1°19'46
	700 Apr 01 j 17:53	0° ϙ			701 Mar 09 j 18:49	0° Υ	
evening max el	700 Apr 15 j 02:13	19° ϙ 12'09	21°20'01	evening rise	701 Mar 10 j 14:32	1° Υ 40'34	
retrograde	700 Apr 27 j 02:45	25° ϙ 03'27		asc. node	701 Mar 11 j 03:23	2° Υ 45'49	
evening set	700 Apr 29 j 11:24	24° ϙ 50'39			701 Mar 27 j 21:23	0° ϙ	
desc. node	700 May 02 j 10:16	24° ϙ 01'34		evening max el	701 Mar 28 j 10:15	0° ϙ 31'47	20°03'15
inferior conj	700 May 08 j 20:10	20° ϙ 50'57	-1°-49'-38	retrograde	701 Apr 07 j 17:39	5° ϙ 29'16	
minimum elong	700 May 08 j 15:04	20° ϙ 58'07	1°47'54	evening set	701 Apr 09 j 19:27	5° ϙ 18'06	
min. Earth dist.	700 May 09 j 02:35	20° ϙ 41'55	0.54955 AU	inferior conj	701 Apr 18 j 17:37	1° ϙ 18'50	0°09'49
morning rise	700 May 17 j 18:55	16° ϙ 51'27		minimum elong	701 Apr 18 j 18:04	1° ϙ 18'10	0°09'39
direct	700 May 21 j 00:03	16° ϙ 29'00		transit middle	701 Apr 18 j 18:04	1° ϙ 18'10	0°09'39
morning max el	700 Jun 02 j 15:16	22° ϙ 28'52	22°16'13	transit begin	701 Apr 18 j 14:53	1° ϙ 22'58	
	700 Jun 09 j 04:17	0° Π		transit end	701 Apr 18 j 21:15	1° ϙ 13'23	
asc. node	700 Jun 20 j 05:35	18° Π 35'09		desc. node	701 Apr 19 j 07:17	0° ϙ 58'13	
morning set	700 Jun 24 j 04:09	26° Π 35'16		min. Earth dist.	701 Apr 20 j 16:28	0° ϙ 08'29	0.55408 AU
	700 Jun 25 j 19:09	0° ϙ			701 Apr 20 j 22:13	30° κ Υ	
				morning rise	701 Apr 27 j 13:51	26° Υ 54'23	
superior conj	700 Jul 01 j 10:12	11° ϙ 56'53	1°34'25	direct	701 May 01 j 14:09	26° Υ 19'03	
minimum elong	700 Jul 01 j 08:03	11° ϙ 45'32	1°34'13		701 May 11 j 14:18	0° ϙ	
max. Earth dist.	700 Jul 04 j 16:06	18° ϙ 43'05	1.34409 AU	morning max el	701 May 15 j 07:54	3° ϙ 06'44	23°57'07
evening rise	700 Jul 09 j 10:17	28° ϙ 14'48			701 Jun 02 j 22:18	0° Π	
	700 Jul 10 j 08:02	0° Ω		asc. node	701 Jun 07 j 02:38	8° Π 18'23	
	700 Jul 28 j 00:49	0° η		morning set	701 Jun 08 j 15:52	11° Π 32'18	
desc. node	700 Jul 29 j 09:34	1° η 59'07					
evening max el	700 Aug 13 j 05:35	20° η 05'38	27°04'38	superior conj	701 Jun 15 j 17:41	26° Π 45'35	1°19'55
retrograde	700 Aug 26 j 12:10	27° η 24'13		minimum elong	701 Jun 15 j 15:13	26° Π 32'17	1°19'34
evening set	700 Sep 02 j 09:03	24° η 40'02			701 Jun 17 j 05:51	0° ϙ	
min. Earth dist.	700 Sep 06 j 06:14	20° η 51'57	0.65225 AU	max. Earth dist.	701 Jun 17 j 17:43	1° ϙ 03'29	1.33326 AU
inferior conj	700 Sep 08 j 06:51	18° η 34'03	-2°-34'-7	evening rise	701 Jun 23 j 04:44	12° ϙ 24'19	
minimum elong	700 Sep 08 j 10:46	18° η 22'54	2°32'43		701 Jul 02 j 13:19	0° Ω	
morning rise	700 Sep 14 j 14:06	12° η 56'51		desc. node	701 Jul 16 j 06:36	21° Ω 12'29	
asc. node	700 Sep 16 j 04:46	12° η 23'56			701 Jul 23 j 11:24	0° η	
direct	700 Sep 17 j 06:52	12° η 17'30		evening max el	701 Jul 26 j 16:38	3° η 17'28	27°25'13
morning max el	700 Sep 23 j 19:43	15° η 49'25	18°11'31	retrograde	701 Aug 09 j 07:52	10° η 36'23	
	700 Oct 04 j 01:12	0° ♊		evening set	701 Aug 16 j 11:50	7° η 56'53	
morning set	700 Oct 12 j 06:10	13° ♊ 27'27		min. Earth dist.	701 Aug 20 j 03:32	4° η 43'03	0.63724 AU
	700 Oct 22 j 09:45	0° ♋		inferior conj	701 Aug 22 j 17:02	2° η 05'11	-3°-27'-12
desc. node	700 Oct 25 j 08:50	4° ♋ 44'11		minimum elong	701 Aug 22 j 21:54	1° η 52'39	3°25'48
					701 Aug 24 j 19:21	30° κ Ω	
superior conj	700 Oct 26 j 19:16	7° ♋ 01'00	0°-9'-30	morning rise	701 Aug 29 j 10:07	26° Ω 44'40	
minimum elong	700 Oct 26 j 18:03	6° ♋ 56'10	0°09'20	direct	701 Aug 31 j 22:08	26° Ω 13'52	
behind sun begin	700 Oct 26 j 09:01	6° ♋ 20'16		asc. node	701 Sep 03 j 01:49	26° Ω 37'03	
behind sun end	700 Oct 27 j 03:06	7° ♋ 32'03		morning max el	701 Sep 07 j 11:34	29° Ω 39'46	17°54'20
max. Earth dist.	700 Oct 29 j 20:48	11° ♋ 51'33	1.44935 AU		701 Sep 07 j 19:32	0° η	
	700 Nov 10 j 11:18	0° ♌		morning set	701 Sep 24 j 05:30	25° η 24'57	
evening rise	700 Nov 12 j 07:33	2° ♌ 52'01			701 Sep 26 j 21:14	0° ♊	
greatest brilliancy	700 Nov 28 j 19:55	28° ♌ 03'46	-0.7m				
	700 Nov 30 j 04:36	0° ϙ		superior conj	701 Oct 06 j 17:24	16° ♊ 34'14	0°36'24
evening max el	700 Dec 06 j 21:35	8° ϙ 22'53	19°37'17	minimum elong	701 Oct 06 j 21:07	16° ♊ 49'29	0°35'53
asc. node	700 Dec 13 j 04:03	12° ϙ 31'57		desc. node	701 Oct 12 j 05:52	25° ♊ 31'10	
retrograde	700 Dec 14 j 05:44	12° ϙ 38'21		max. Earth dist.	701 Oct 12 j 14:03	26° ♊ 03'50	1.44134 AU
evening set	700 Dec 17 j 16:29	11° ϙ 28'46			701 Oct 15 j 01:28	0° ♋	
inferior conj	700 Dec 23 j 06:03	5° ϙ 29'27	2°57'53	evening rise	701 Oct 22 j 16:17	11° ♋ 52'59	
minimum elong	700 Dec 23 j 03:20	5° ϙ 38'23	2°57'12		701 Nov 03 j 15:33	0° ♌	
min. Earth dist.	700 Dec 24 j 08:49	4° ϙ 01'43	0.66495 AU	greatest brilliancy	701 Nov 14 j 02:57	14° ♌ 52'27	-0.5m
	700 Dec 27 j 18:40	30° κ ♌		evening max el	701 Nov 19 j 23:45	21° ♌ 52'23	20°38'43
morning rise	700 Dec 28 j 13:27	29° ♌ 15'19		retrograde	701 Nov 28 j 03:25	26° ♌ 41'22	
direct	701 Jan 03 j 15:47	26° ♌ 33'40		asc. node	701 Nov 30 j 01:04	26° ♌ 20'55	
	701 Jan 11 j 15:15	0° ϙ		evening set	701 Dec 01 j 23:23	25° ♌ 17'00	
morning max el	701 Jan 15 j 22:06	3° ϙ 50'53	25°42'47	inferior conj	701 Dec 07 j 10:07	19° ♌ 05'58	2°19'53

minimum elong	701 Dec 07 j 07:31	19°♂14'49	2°19'03	min. Earth dist.	702 Nov 21 j 19:15	2°♂39'47	0.67652 AU
min. Earth dist.	701 Dec 08 j 00:07	18°♂18'16	0.67254 AU		702 Nov 23 j 18:34	30°♂♂	
morning rise	701 Dec 12 j 15:11	12°♂50'40		morning rise	702 Nov 26 j 21:58	26°♂34'14	
direct	701 Dec 18 j 02:51	10°♂26'38		direct	702 Dec 01 j 18:17	24°♂32'17	
morning max el	701 Dec 29 j 06:22	17°♂05'33	24°19'20		702 Dec 11 j 06:10	0°♂	
desc. node	702 Jan 08 j 05:06	28°♂55'35		morning max el	702 Dec 11 j 16:10	0°♂24'57	22°51'14
	702 Jan 09 j 00:24	0°♂		greatest brilliancy	702 Dec 16 j 08:20	5°♂38'11	-0.3m
	702 Jan 28 j 22:45	0°♂		desc. node	702 Dec 26 j 02:08	18°♂32'49	
morning set	702 Feb 03 j 02:32	8°♂45'26			703 Jan 02 j 21:54	0°♂	
max. Earth dist.	702 Feb 06 j 20:31	15°♂24'02	1.37876 AU	morning set	703 Jan 14 j 22:55	19°♂00'56	
				max. Earth dist.	703 Jan 19 j 16:12	26°♂57'34	1.40009 AU
					703 Jan 21 j 10:26	0°♂	
superior conj	702 Feb 13 j 19:48	28°♂23'37	-1°-42'-32				
minimum elong	702 Feb 13 j 23:47	28°♂42'44	1°42'09				
	702 Feb 14 j 15:48	0°♂		superior conj	703 Jan 27 j 10:16	10°♂41'22	-1°-58'-8
evening rise	702 Feb 22 j 14:19	15°♂37'58		minimum elong	703 Jan 27 j 13:01	10°♂53'56	1°58'01
asc. node	702 Feb 26 j 00:25	22°♂18'32		evening rise	703 Feb 06 j 04:54	29°♂03'22	
	702 Mar 02 j 04:59	0°♂			703 Feb 06 j 16:48	0°♂	
evening max el	702 Mar 11 j 05:25	12°♂30'05	19°05'10	asc. node	703 Feb 12 j 21:28	11°♂28'15	
retrograde	702 Mar 19 j 21:42	16°♂41'27		evening max el	703 Feb 22 j 09:19	25°♂01'27	18°27'12
evening set	702 Mar 22 j 02:24	16°♂26'31		retrograde	703 Mar 01 j 20:55	28°♂42'28	
inferior conj	702 Mar 30 j 06:28	12°♂13'21	1°52'33	evening set	703 Mar 04 j 06:35	28°♂20'49	
minimum elong	702 Mar 30 j 10:22	12°♂06'36	1°51'22	inferior conj	703 Mar 11 j 16:19	23°♂47'23	3°01'48
min. Earth dist.	702 Apr 02 j 07:51	10°♂07'37	0.56728 AU	minimum elong	703 Mar 11 j 20:10	23°♂39'36	3°01'00
desc. node	702 Apr 06 j 04:19	7°♂52'50		min. Earth dist.	703 Mar 15 j 02:43	21°♂02'19	0.58614 AU
morning rise	702 Apr 07 j 14:13	7°♂15'46		morning rise	703 Mar 19 j 05:49	18°♂20'13	
direct	702 Apr 12 j 16:27	6°♂14'59		desc. node	703 Mar 24 j 01:21	16°♂48'10	
morning max el	702 Apr 26 j 22:25	13°♂35'25	25°34'12	direct	703 Mar 25 j 08:04	16°♂43'54	
	702 May 09 j 19:54	0°♂		morning max el	703 Apr 08 j 16:39	24°♂23'48	26°51'56
morning set	702 May 24 j 03:38	26°♂29'33			703 Apr 13 j 19:23	0°♂	
asc. node	702 May 24 j 23:42	28°♂15'42			703 May 02 j 22:00	0°♂	
	702 May 25 j 19:14	0°♂		morning set	703 May 08 j 13:51	11°♂21'24	
				asc. node	703 May 11 j 20:46	18°♂22'03	
superior conj	702 May 31 j 04:14	11°♂42'21	1°01'16				
minimum elong	702 May 31 j 01:58	11°♂29'57	1°00'52	superior conj	703 May 15 j 16:01	26°♂41'04	0°39'18
max. Earth dist.	702 Jun 01 j 02:32	13°♂44'13	1.32629 AU	minimum elong	703 May 15 j 14:23	26°♂32'03	0°38'57
evening rise	702 Jun 07 j 07:10	26°♂57'08		max. Earth dist.	703 May 15 j 14:56	26°♂35'06	1.32302 AU
	702 Jun 08 j 18:56	0°♂			703 May 17 j 04:13	0°♂	
	702 Jun 25 j 23:02	0°♂		evening rise	703 May 22 j 14:52	11°♂44'23	
desc. node	702 Jul 03 j 03:38	9°♂37'01			703 May 31 j 23:42	0°♂	
evening max el	702 Jul 09 j 00:21	15°♂57'31	27°14'31	desc. node	703 Jun 20 j 00:39	26°♂52'29	
retrograde	702 Jul 22 j 20:40	23°♂13'36		evening max el	703 Jun 21 j 02:00	27°♂54'32	26°30'44
evening set	702 Jul 30 j 00:04	20°♂51'39			703 Jun 23 j 10:25	0°♂	
min. Earth dist.	702 Aug 02 j 14:25	18°♂03'56	0.61904 AU	retrograde	703 Jul 05 j 01:41	5°♂08'09	
inferior conj	702 Aug 05 j 15:35	15°♂17'28	-4°-12'-33	evening set	703 Jul 11 j 17:15	3°♂16'42	
minimum elong	702 Aug 05 j 20:19	15°♂06'39	4°11'36	min. Earth dist.	703 Jul 15 j 15:12	0°♂40'26	0.59871 AU
morning rise	702 Aug 12 j 19:17	10°♂17'07			703 Jul 16 j 12:05	30°♂♂	
direct	702 Aug 15 j 05:16	9°♂51'58		inferior conj	703 Jul 18 j 23:02	28°♂02'04	-4°-43'-1
asc. node	702 Aug 20 j 22:53	12°♂17'33		minimum elong	703 Jul 19 j 01:45	27°♂56'38	4°42'48
morning max el	702 Aug 22 j 02:24	13°♂19'53	17°55'29	morning rise	703 Jul 26 j 13:34	23°♂24'36	
	702 Sep 02 j 09:50	0°♂		direct	703 Jul 28 j 23:59	23°♂03'02	
morning set	702 Sep 07 j 01:00	8°♂20'18		morning max el	703 Aug 05 j 13:15	26°♂42'32	18°16'05
				asc. node	703 Aug 07 j 19:58	29°♂11'11	
superior conj	702 Sep 17 j 18:46	27°♂27'54	1°11'25		703 Aug 08 j 11:40	0°♂	
minimum elong	702 Sep 17 j 23:34	27°♂48'37	1°10'52	morning set	703 Aug 21 j 11:10	21°♂58'24	
	702 Sep 19 j 06:12	0°♂			703 Aug 25 j 16:52	0°♂	
max. Earth dist.	702 Sep 25 j 03:28	9°♂51'12	1.42724 AU				
desc. node	702 Sep 29 j 02:54	16°♂17'36		superior conj	703 Aug 30 j 21:18	9°♂36'46	1°33'44
evening rise	702 Oct 02 j 03:06	21°♂03'42		minimum elong	703 Aug 31 j 00:44	9°♂52'21	1°33'28
	702 Oct 07 j 21:51	0°♂		max. Earth dist.	703 Sep 07 j 11:18	22°♂58'47	1.40884 AU
greatest brilliancy	702 Oct 29 j 01:20	29°♂55'36	-0.4m		703 Sep 11 j 15:54	0°♂	
	702 Oct 29 j 02:46	0°♂		evening rise	703 Sep 12 j 07:50	1°♂05'20	
evening max el	702 Nov 02 j 20:09	5°♂22'01	21°51'17	desc. node	703 Sep 15 j 23:57	7°♂00'32	
retrograde	702 Nov 12 j 00:03	10°♂49'01			703 Oct 01 j 08:35	0°♂	
evening set	702 Nov 16 j 07:13	9°♂08'03		greatest brilliancy	703 Oct 10 j 11:06	12°♂05'07	-0.2m
asc. node	702 Nov 16 j 22:08	8°♂36'23		evening max el	703 Oct 16 j 11:33	18°♂53'22	23°10'16
inferior conj	702 Nov 21 j 16:42	2°♂48'37	1°35'06	retrograde	703 Oct 26 j 18:08	24°♂58'48	
minimum elong	702 Nov 21 j 14:42	2°♂55'34	1°34'21	evening set	703 Oct 31 j 14:17	23°♂00'10	

asc. node	703 Nov 03 j 19:11	19°♄33'30		evening max el	704 Sep 27 j 23:57	2°♄28'13	24°29'46
inferior conj	703 Nov 05 j 23:58	16°♄36'09	0°45'08	retrograde	704 Oct 09 j 08:36	9°♄06'48	
minimum elong	703 Nov 05 j 22:56	16°♄39'43	0°44'41	evening set	704 Oct 14 j 18:55	6°♄50'47	
min. Earth dist.	703 Nov 05 j 15:56	17°♄03'49	0.67715 AU	min. Earth dist.	704 Oct 19 j 11:42	1°♄28'07	0.67452 AU
morning rise	703 Nov 11 j 07:38	10°♄24'47		inferior conj	704 Oct 20 j 06:10	0°♄26'18	0°-8'-40
direct	703 Nov 15 j 13:15	8°♄45'40		minimum elong	704 Oct 20 j 06:23	0°♄25'36	0°08'36
morning max el	703 Nov 24 j 06:58	13°♄52'32	21°27'06	transit middle	704 Oct 20 j 06:23	0°♄25'36	0°08'36
greatest brilliancy	703 Nov 29 j 09:11	19°♄41'43	-0.4m	transit begin	704 Oct 20 j 04:03	0°♄33'24	
	703 Dec 07 j 01:05	0°♄		transit end	704 Oct 20 j 08:43	0°♄17'49	
desc. node	703 Dec 12 j 23:10	8°♄34'56		asc. node	704 Oct 20 j 16:13	29°♄52'45	
morning set	703 Dec 25 j 14:22	27°♄54'39			704 Oct 20 j 14:03	30°♄	
	703 Dec 26 j 21:59	0°♄		morning rise	704 Oct 25 j 18:13	24°♄20'33	
max. Earth dist.	704 Jan 01 j 17:04	9°♄22'59	1.42033 AU	direct	704 Oct 29 j 10:45	23°♄02'28	
				morning max el	704 Nov 06 j 05:04	27°♄30'26	20°13'13
superior conj	704 Jan 09 j 03:41	21°♄56'48	-2°-2'-54		704 Nov 08 j 11:57	0°♄	
minimum elong	704 Jan 09 j 02:58	21°♄53'44	2°02'54	greatest brilliancy	704 Nov 12 j 23:49	5°♄41'08	-0.6m
	704 Jan 13 j 17:46	0°♄		desc. node	704 Nov 28 j 20:14	28°♄55'02	
evening rise	704 Jan 20 j 06:42	11°♄48'36			704 Nov 29 j 13:14	0°♄	
asc. node	704 Jan 30 j 18:31	0°♄07'30		morning set	704 Dec 03 j 11:33	6°♄02'44	
	704 Jan 30 j 16:36	0°♄		max. Earth dist.	704 Dec 14 j 01:20	22°♄40'32	1.43677 AU
evening max el	704 Feb 05 j 18:56	7°♄57'30	18°09'16		704 Dec 18 j 13:57	0°♄	
retrograde	704 Feb 12 j 13:26	11°♄24'03					
evening set	704 Feb 15 j 03:50	10°♄54'01		superior conj	704 Dec 19 j 19:20	2°♄00'26	-1°-52'-5
inferior conj	704 Feb 21 j 22:16	5°♄59'15	3°37'57	minimum elong	704 Dec 19 j 13:33	1°♄36'40	1°51'45
minimum elong	704 Feb 22 j 00:11	5°♄54'44	3°37'45	evening rise	705 Jan 01 j 15:29	23°♄45'19	
min. Earth dist.	704 Feb 25 j 04:00	2°♄58'29	0.60724 AU		705 Jan 05 j 05:52	0°♄	
morning rise	704 Feb 28 j 17:31	0°♄11'37		asc. node	705 Jan 16 j 15:32	18°♄06'51	
	704 Feb 29 j 00:50	30°♄		evening max el	705 Jan 19 j 07:15	21°♄10'14	18°10'45
direct	704 Mar 06 j 11:26	27°♄59'08		retrograde	705 Jan 25 j 18:56	24°♄36'07	
desc. node	704 Mar 09 j 22:23	28°♄31'34		evening set	705 Jan 28 j 13:55	23°♄56'33	
	704 Mar 13 j 07:21	0°♄		inferior conj	705 Feb 03 j 20:36	18°♄41'10	3°47'58
morning max el	704 Mar 20 j 17:09	5°♄49'51	27°37'59	minimum elong	705 Feb 03 j 20:25	18°♄41'39	3°47'57
	704 Apr 07 j 19:38	0°♄		min. Earth dist.	705 Feb 06 j 13:51	15°♄48'45	0.62757 AU
morning set	704 Apr 21 j 20:35	26°♄00'45		morning rise	705 Feb 10 j 00:50	12°♄41'11	
	704 Apr 23 j 18:27	0°♄		direct	705 Feb 17 j 00:16	10°♄02'15	
asc. node	704 Apr 27 j 17:49	8°♄32'19		desc. node	705 Feb 24 j 19:24	12°♄47'31	
max. Earth dist.	704 Apr 28 j 02:58	9°♄22'15	1.32348 AU	morning max el	705 Mar 02 j 23:04	17°♄56'19	27°47'04
					705 Mar 13 j 01:59	0°♄	
superior conj	704 Apr 29 j 03:16	11°♄35'09	0°14'44		705 Mar 31 j 14:12	0°♄	
minimum elong	704 Apr 29 j 02:36	11°♄31'29	0°14'35	morning set	705 Apr 05 j 21:43	10°♄20'14	
behind sun begin	704 Apr 29 j 00:38	11°♄20'38		max. Earth dist.	705 Apr 11 j 10:42	21°♄52'01	1.32786 AU
behind sun end	704 Apr 29 j 04:35	11°♄42'19					
evening rise	704 May 06 j 01:35	26°♄37'47		superior conj	705 Apr 13 j 12:19	26°♄18'47	0°-11'-39
	704 May 07 j 16:12	0°♄		minimum elong	705 Apr 13 j 12:52	26°♄21'48	0°11'32
	704 May 25 j 00:30	0°♄		behind sun begin	705 Apr 13 j 09:16	26°♄02'18	
evening max el	704 Jun 01 j 20:36	9°♄05'25	25°17'43	behind sun end	705 Apr 13 j 16:29	26°♄41'18	
desc. node	704 Jun 05 j 21:42	12°♄29'43		asc. node	705 Apr 14 j 14:51	28°♄42'31	
retrograde	704 Jun 15 j 21:12	16°♄14'19			705 Apr 15 j 05:08	0°♄	
evening set	704 Jun 21 j 11:24	15°♄01'36		evening rise	705 Apr 20 j 13:24	11°♄30'49	
min. Earth dist.	704 Jun 26 j 08:25	12°♄17'59	0.57845 AU		705 Apr 30 j 00:49	0°♄	
inferior conj	704 Jun 29 j 11:48	10°♄08'15	-4°-47'-52	evening max el	705 May 14 j 11:02	19°♄44'34	23°46'15
minimum elong	704 Jun 29 j 10:16	10°♄10'54	4°47'50	desc. node	705 May 23 j 18:41	25°♄53'15	
morning rise	704 Jul 07 j 12:58	5°♄53'28		retrograde	705 May 28 j 04:36	26°♄37'33	
direct	704 Jul 10 j 01:42	5°♄34'08		evening set	705 Jun 01 j 08:05	25°♄59'40	
morning max el	704 Jul 18 j 16:56	9°♄37'21	18°57'16	min. Earth dist.	705 Jun 07 j 21:48	22°♄53'13	0.56158 AU
asc. node	704 Jul 24 j 17:02	17°♄01'46		inferior conj	705 Jun 10 j 04:22	21°♄30'26	-4°-13'-46
	704 Aug 01 j 04:06	0°♄		minimum elong	705 Jun 09 j 22:08	21°♄39'58	4°12'39
morning set	704 Aug 04 j 07:36	6°♄06'43		morning rise	705 Jun 18 j 15:43	17°♄32'34	
				direct	705 Jun 21 j 08:13	17°♄14'13	
superior conj	704 Aug 12 j 19:16	22°♄43'35	1°44'40	morning max el	705 Jul 01 j 10:38	21°♄54'51	19°59'33
minimum elong	704 Aug 12 j 20:38	22°♄50'06	1°44'37		705 Jul 08 j 02:27	0°♄	
	704 Aug 16 j 16:03	0°♄		asc. node	705 Jul 11 j 14:05	5°♄36'21	
max. Earth dist.	704 Aug 19 j 14:43	5°♄21'39	1.38857 AU	morning set	705 Jul 19 j 11:08	20°♄36'50	
evening rise	704 Aug 23 j 12:58	12°♄15'35			705 Jul 24 j 01:35	0°♄	
desc. node	704 Sep 01 j 21:00	27°♄35'26					
	704 Sep 03 j 10:12	0°♄		superior conj	705 Jul 27 j 07:21	6°♄33'02	1°46'17
	704 Sep 25 j 15:00	0°♄		minimum elong	705 Jul 27 j 06:53	6°♄30'44	1°46'16

max. Earth dist.	705 Aug 01 j 19:05	17°♌15'44	1.36905 AU	superior conj	706 Jul 11 j 05:22	20°♍53'13	1°40'30
evening rise	705 Aug 05 j 17:06	24°♌31'46		minimum elong	706 Jul 11 j 03:40	20°♍44'21	1°40'23
	705 Aug 08 j 18:51	0°♍		max. Earth dist.	706 Jul 15 j 06:23	29°♍08'14	1.35219 AU
desc. node	705 Aug 19 j 18:02	17°♍57'17			706 Jul 15 j 16:45	0°♌	
	705 Aug 28 j 01:06	0°♌		evening rise	706 Jul 19 j 15:41	7°♌42'13	
evening max el	705 Sep 10 j 11:39	16°♌06'20	25°42'33		706 Aug 01 j 10:09	0°♍	
retrograde	705 Sep 22 j 18:24	23°♌08'07		desc. node	706 Aug 06 j 15:02	7°♍59'59	
evening set	705 Sep 28 j 19:20	20°♌36'56		evening max el	706 Aug 23 j 23:47	29°♍42'53	26°40'45
min. Earth dist.	705 Oct 03 j 04:09	15°♌50'04	0.66862 AU		706 Aug 24 j 06:56	0°♌	
inferior conj	705 Oct 04 j 09:30	14°♌16'28	-1°-4'-54	retrograde	706 Sep 05 j 23:00	6°♌57'08	
minimum elong	705 Oct 04 j 11:10	14°♌11'10	1°04'13	evening set	706 Sep 12 j 13:30	4°♌15'35	
asc. node	705 Oct 07 j 13:15	10°♌30'57		min. Earth dist.	706 Sep 16 j 14:47	0°♌06'08	0.65929 AU
morning rise	705 Oct 10 j 03:45	8°♌19'11			706 Sep 16 j 16:53	30°♌	
direct	705 Oct 13 j 09:16	7°♌18'58		inferior conj	706 Sep 18 j 08:02	28°♍03'23	-2°-1'-50
morning max el	705 Oct 20 j 10:40	11°♌17'29	19°13'19	minimum elong	706 Sep 18 j 11:11	27°♍54'00	2°00'37
greatest brilliancy	705 Oct 31 j 09:22	25°♌47'04	-0.7m	morning rise	706 Sep 24 j 10:08	22°♍17'53	
	705 Nov 03 j 04:12	0°♍		asc. node	706 Sep 24 j 10:18	22°♍17'39	
morning set	705 Nov 12 j 14:41	14°♍36'45		direct	706 Sep 27 j 06:57	21°♍31'51	
desc. node	705 Nov 15 j 17:16	19°♍27'37		morning max el	706 Oct 03 j 22:17	25°♍10'38	18°29'17
	705 Nov 22 j 10:59	0°♎			706 Oct 07 j 23:29	0°♌	
max. Earth dist.	705 Nov 26 j 16:10	6°♎37'52	1.44737 AU	morning set	706 Oct 23 j 19:02	24°♌29'29	
					706 Oct 27 j 05:24	0°♍	
superior conj	705 Nov 29 j 09:33	10°♎56'32	-1°-22'-39	desc. node	706 Nov 02 j 14:19	10°♍08'47	
minimum elong	705 Nov 29 j 01:02	10°♎22'46	1°21'47				
	705 Dec 11 j 05:24	0°♏		superior conj	706 Nov 08 j 10:30	19°♍21'39	0°-37'-58
evening rise	705 Dec 14 j 02:59	4°♏45'57		minimum elong	706 Nov 08 j 05:33	19°♍02'12	0°37'19
	705 Dec 30 j 00:46	0°♏		max. Earth dist.	706 Nov 09 j 10:59	20°♍57'53	1.45082 AU
evening max el	706 Jan 02 j 19:26	4°♏32'14	18°30'48		706 Nov 15 j 05:03	0°♎	
asc. node	706 Jan 03 j 12:34	5°♏14'06		evening rise	706 Nov 24 j 14:58	14°♎49'24	
retrograde	706 Jan 09 j 09:05	8°♏09'25			706 Dec 04 j 06:01	0°♏	
evening set	706 Jan 12 j 09:14	7°♏19'11		greatest brilliancy	706 Dec 06 j 09:30	3°♏19'08	-0.7m
inferior conj	706 Jan 18 j 07:17	1°♏44'43	3°38'51	evening max el	706 Dec 17 j 05:06	17°♏59'18	19°08'19
minimum elong	706 Jan 18 j 05:34	1°♏49'46	3°38'39	asc. node	706 Dec 21 j 09:34	21°♏15'45	
	706 Jan 19 j 18:50	30°♏		retrograde	706 Dec 24 j 04:25	21°♏58'07	
min. Earth dist.	706 Jan 20 j 09:09	29°♏18'33	0.64514 AU	evening set	706 Dec 27 j 10:54	20°♏55'54	
morning rise	706 Jan 24 j 00:33	25°♏37'12		inferior conj	707 Jan 02 j 02:55	15°♏04'39	3°15'54
direct	706 Jan 30 j 20:23	22°♏46'41		minimum elong	707 Jan 02 j 00:23	15°♏12'44	3°15'23
desc. node	706 Feb 11 j 16:26	28°♏59'58		min. Earth dist.	707 Jan 03 j 13:37	13°♏14'38	0.65891 AU
	706 Feb 12 j 17:44	0°♏		morning rise	707 Jan 07 j 12:59	8°♏52'23	
morning max el	706 Feb 13 j 07:59	0°♏35'13	27°20'38	direct	707 Jan 13 j 22:48	6°♏04'31	
	706 Mar 07 j 02:37	0°♐		morning max el	707 Jan 26 j 17:39	13°♏36'31	26°24'46
morning set	706 Mar 20 j 14:26	24°♐09'59		desc. node	707 Jan 29 j 13:29	16°♏36'57	
	706 Mar 23 j 12:48	0°♑			707 Feb 09 j 01:19	0°♏	
max. Earth dist.	706 Mar 25 j 10:14	3°♑52'05	1.33648 AU		707 Feb 27 j 19:20	0°♐	
				morning set	707 Mar 03 j 19:04	7°♐19'17	
superior conj	706 Mar 28 j 17:12	10°♑44'53	0°-38'-54	max. Earth dist.	707 Mar 07 j 22:47	15°♐18'51	1.34967 AU
minimum elong	706 Mar 28 j 19:06	10°♑54'58	0°38'31				
asc. node	706 Apr 01 j 11:53	18°♑47'50		superior conj	707 Mar 12 j 15:41	24°♐46'47	-1°-5'-43
evening rise	706 Apr 05 j 00:29	26°♑16'21		minimum elong	707 Mar 12 j 18:50	25°♐03'00	1°05'12
	706 Apr 06 j 19:35	0°♒			707 Mar 15 j 04:17	0°♑	
	706 Apr 25 j 19:53	0°♒		asc. node	707 Mar 19 j 08:55	8°♑44'11	
evening max el	706 Apr 26 j 03:43	0°♒19'08	22°11'06	evening rise	707 Mar 20 j 08:56	10°♑48'27	
retrograde	706 May 08 j 23:20	6°♒37'29			707 Mar 30 j 13:27	0°♒	
desc. node	706 May 10 j 15:40	6°♒31'09		evening max el	707 Apr 08 j 05:04	11°♒16'50	20°45'10
evening set	706 May 11 j 19:41	6°♒19'33		retrograde	707 Apr 19 j 12:19	16°♒45'16	
min. Earth dist.	706 May 20 j 10:01	2°♒38'21	0.55140 AU	evening set	707 Apr 21 j 16:33	16°♒33'54	
inferior conj	706 May 21 j 04:13	2°♒12'44	-2°-53'-11	desc. node	707 Apr 27 j 12:41	14°♒28'12	
minimum elong	706 May 20 j 21:03	2°♒22'50	2°51'02	inferior conj	707 Apr 30 j 22:13	12°♒36'16	0°-58'-47
	706 May 25 j 07:50	30°♒		minimum elong	707 Apr 30 j 19:26	12°♒40'15	0°57'47
morning rise	706 May 30 j 00:12	28°♒19'19		min. Earth dist.	707 May 01 j 22:44	12°♒01'13	0.55031 AU
direct	706 Jun 01 j 23:15	27°♒59'37		morning rise	707 May 09 j 21:14	8°♒28'31	
	706 Jun 09 j 01:29	0°♒		direct	707 May 13 j 09:27	8°♒02'00	
morning max el	706 Jun 13 j 17:00	3°♒28'57	21°21'46	morning max el	707 May 26 j 13:28	14°♒22'50	22°58'49
asc. node	706 Jun 28 j 11:08	24°♒44'21			707 Jun 07 j 13:44	0°♒	
	706 Jul 01 j 04:00	0°♓		asc. node	707 Jun 15 j 08:11	14°♒16'48	
morning set	706 Jul 03 j 19:22	5°♓22'29		morning set	707 Jun 18 j 06:20	20°♒17'11	
					707 Jun 22 j 19:48	0°♓	

superior conj	707 Jun 25 j 10:08	5° \mathfrak{S} 33'54	1°28'50	morning set	708 Jun 01 j 18:19	5° \mathbb{I} 15'33	
minimum elong	707 Jun 25 j 07:48	5° \mathfrak{S} 21'23	1°28'34				
max. Earth dist.	707 Jun 28 j 03:02	11° \mathfrak{S} 16'56	1.33898 AU	superior conj	708 Jun 08 j 19:14	20° \mathbb{I} 27'24	1°12'28
evening rise	707 Jul 03 j 04:01	21° \mathfrak{S} 33'22		minimum elong	708 Jun 08 j 16:48	20° \mathbb{I} 14'10	1°12'06
	707 Jul 07 j 13:42	0° \mathcal{Q}		max. Earth dist.	708 Jun 10 j 08:03	23° \mathbb{I} 46'51	1.32974 AU
desc. node	707 Jul 24 j 12:03	27° \mathcal{Q} 34'42			708 Jun 13 j 05:57	0° \mathfrak{S}	
	707 Jul 26 j 06:16	0° \mathfrak{M}		evening rise	708 Jun 16 j 02:16	5° \mathfrak{S} 54'10	
evening max el	707 Aug 06 j 11:33	13° \mathfrak{M} 06'46	27°16'53		708 Jun 29 j 03:53	0° \mathcal{Q}	
retrograde	707 Aug 19 j 21:57	20° \mathfrak{M} 25'35		desc. node	708 Jul 10 j 09:04	16° \mathcal{Q} 29'41	
evening set	707 Aug 26 j 22:48	17° \mathfrak{M} 41'48		evening max el	708 Jul 18 j 21:17	26° \mathcal{Q} 06'07	27°24'37
min. Earth dist.	707 Aug 30 j 17:20	14° \mathfrak{M} 09'11	0.64635 AU		708 Jul 23 j 13:54	0° \mathfrak{M}	
inferior conj	707 Sep 01 j 23:29	11° \mathfrak{M} 41'46	-2°-57'-15	retrograde	708 Aug 01 j 15:00	3° \mathfrak{M} 24'41	
minimum elong	707 Sep 02 j 03:54	11° \mathfrak{M} 29'43	2°55'47	evening set	708 Aug 08 j 19:58	0° \mathfrak{M} 50'34	
morning rise	707 Sep 08 j 10:49	6° \mathfrak{M} 11'24			708 Aug 09 j 22:50	30° \mathcal{R} \mathcal{Q}	
direct	707 Sep 11 j 01:20	5° \mathfrak{M} 36'01		min. Earth dist.	708 Aug 12 j 10:11	27° \mathcal{Q} 49'31	0.62987 AU
asc. node	707 Sep 11 j 07:22	5° \mathfrak{M} 36'21		inferior conj	708 Aug 15 j 05:09	25° \mathcal{Q} 05'54	-3°-47'-43
morning max el	707 Sep 17 j 13:27	9° \mathfrak{M} 03'58	18°02'04	minimum elong	708 Aug 15 j 10:08	24° \mathcal{Q} 53'40	3°46'27
	707 Oct 01 j 17:51	0° \mathfrak{A}		morning rise	708 Aug 22 j 02:44	19° \mathcal{Q} 53'56	
morning set	707 Oct 05 j 03:53	5° \mathfrak{A} 45'16		direct	708 Aug 24 j 13:31	19° \mathcal{Q} 25'56	
				asc. node	708 Aug 28 j 04:27	20° \mathcal{Q} 28'24	
superior conj	707 Oct 18 j 19:45	28° \mathfrak{A} 15'52	0°10'59	morning max el	708 Aug 31 j 05:20	22° \mathcal{Q} 51'32	17°52'31
minimum elong	707 Oct 18 j 21:04	28° \mathfrak{A} 21'07	0°10'47		708 Sep 05 j 19:28	0° \mathfrak{M}	
behind sun begin	707 Oct 18 j 13:08	27° \mathfrak{A} 49'16		morning set	708 Sep 16 j 12:32	18° \mathfrak{M} 09'22	
behind sun end	707 Oct 19 j 04:59	28° \mathfrak{A} 52'56			708 Sep 23 j 06:57	0° \mathfrak{A}	
	707 Oct 19 j 21:44	0° \mathfrak{M}					
desc. node	707 Oct 20 j 11:20	0° \mathfrak{M} 54'22		superior conj	708 Sep 28 j 05:20	8° \mathfrak{A} 23'18	0°52'47
max. Earth dist.	707 Oct 23 j 05:49	5° \mathfrak{M} 18'31	1.44681 AU	minimum elong	708 Sep 28 j 09:56	8° \mathfrak{A} 42'36	0°52'12
evening rise	707 Nov 04 j 06:27	24° \mathfrak{M} 04'39		max. Earth dist.	708 Oct 04 j 21:22	19° \mathcal{Q} 20'54	1.43601 AU
	707 Nov 08 j 02:49	0° \mathfrak{A}		desc. node	708 Oct 06 j 08:22	21° \mathfrak{A} 41'30	
greatest brilliancy	707 Nov 23 j 10:53	22° \mathfrak{A} 49'16	-0.6m		708 Oct 11 j 14:32	0° \mathfrak{M}	
	707 Nov 29 j 01:55	0° \mathfrak{S}		evening rise	708 Oct 13 j 13:47	3° \mathfrak{M} 03'40	
evening max el	707 Nov 30 j 10:17	1° \mathfrak{S} 27'40	20°01'46		708 Oct 31 j 15:32	0° \mathfrak{A}	
retrograde	707 Dec 08 j 02:03	5° \mathfrak{S} 56'49		greatest brilliancy	708 Nov 07 j 02:58	8° \mathfrak{A} 46'38	-0.4m
asc. node	707 Dec 08 j 06:37	5° \mathfrak{S} 56'37		evening max el	708 Nov 12 j 09:53	14° \mathfrak{A} 56'32	21°08'26
evening set	707 Dec 11 j 16:30	4° \mathfrak{S} 41'02		retrograde	708 Nov 20 j 23:37	20° \mathfrak{A} 01'57	
	707 Dec 16 j 03:17	30° \mathcal{R} \mathfrak{A}		asc. node	708 Nov 24 j 03:41	19° \mathfrak{A} 05'33	
inferior conj	707 Dec 17 j 04:38	28° \mathfrak{A} 36'03	2°42'42	evening set	708 Nov 25 j 00:02	18° \mathfrak{A} 30'48	
minimum elong	707 Dec 17 j 01:54	28° \mathfrak{A} 45'10	2°41'55	inferior conj	708 Nov 30 j 10:02	12° \mathfrak{A} 15'33	2°01'38
min. Earth dist.	707 Dec 18 j 01:40	27° \mathfrak{A} 25'40	0.66864 AU	minimum elong	708 Nov 30 j 07:39	12° \mathfrak{A} 23'47	2°00'47
morning rise	707 Dec 22 j 10:42	22° \mathfrak{A} 21'08		min. Earth dist.	708 Nov 30 j 19:02	11° \mathfrak{A} 44'34	0.67463 AU
direct	707 Dec 28 j 06:50	19° \mathfrak{A} 46'31		morning rise	708 Dec 05 j 14:53	6° \mathfrak{A} 00'06	
morning max el	708 Jan 09 j 02:33	26° \mathfrak{A} 48'56	25°08'30	direct	708 Dec 10 j 19:54	3° \mathfrak{A} 45'13	
	708 Jan 12 j 01:54	0° \mathfrak{S}		morning max el	708 Dec 21 j 11:11	10° \mathfrak{A} 05'42	23°41'46
desc. node	708 Jan 16 j 10:33	5° \mathfrak{S} 13'35		desc. node	709 Jan 02 j 07:35	24° \mathfrak{A} 32'22	
	708 Feb 02 j 16:21	0° \approx			709 Jan 06 j 05:16	0° \mathfrak{S}	
morning set	708 Feb 14 j 06:45	19° \approx 34'32			709 Jan 25 j 10:15	0° \approx	
max. Earth dist.	708 Feb 18 j 00:13	26° \approx 23'16	1.36713 AU	morning set	709 Jan 25 j 19:14	0° \approx 38'08	
	708 Feb 19 j 22:19	0° \mathfrak{H}		max. Earth dist.	709 Jan 29 j 19:14	7° \approx 33'53	1.38771 AU
superior conj	708 Feb 24 j 04:53	8° \mathfrak{H} 16'47	-1°-30'-20	superior conj	709 Feb 06 j 05:00	21° \approx 04'13	-1°-50'-12
minimum elong	708 Feb 24 j 08:51	8° \mathfrak{H} 36'18	1°29'50	minimum elong	709 Feb 06 j 08:42	21° \approx 21'35	1°49'55
evening rise	708 Mar 03 j 12:39	25° \mathfrak{H} 00'51			709 Feb 10 j 21:04	0° \mathfrak{H}	
asc. node	708 Mar 05 j 05:57	28° \mathfrak{H} 27'15		evening rise	709 Feb 15 j 08:56	8° \mathfrak{H} 45'26	
	708 Mar 06 j 00:44	0° \mathfrak{Y}		asc. node	709 Feb 20 j 03:00	17° \mathfrak{H} 50'56	
evening max el	708 Mar 20 j 17:56	22° \mathfrak{Y} 52'56	19°36'06		709 Feb 27 j 10:23	0° \mathfrak{Y}	
retrograde	708 Mar 30 j 08:06	27° \mathfrak{Y} 29'48		evening max el	709 Mar 03 j 17:13	5° \mathfrak{Y} 06'20	18°46'37
evening set	708 Apr 01 j 10:17	27° \mathfrak{Y} 17'36		retrograde	709 Mar 11 j 20:02	9° \mathfrak{Y} 02'50	
inferior conj	708 Apr 10 j 01:07	23° \mathfrak{Y} 13'22	0°56'55	evening set	709 Mar 14 j 02:40	8° \mathfrak{Y} 45'25	
minimum elong	708 Apr 10 j 03:28	23° \mathfrak{Y} 09'37	0°56'07	inferior conj	709 Mar 21 j 22:44	4° \mathfrak{Y} 24'23	2°26'16
min. Earth dist.	708 Apr 12 j 13:12	21° \mathfrak{Y} 38'16	0.55869 AU	minimum elong	709 Mar 22 j 02:58	4° \mathfrak{Y} 16'33	2°25'07
desc. node	708 Apr 13 j 09:44	21° \mathfrak{Y} 07'04		min. Earth dist.	709 Mar 25 j 06:08	1° \mathfrak{Y} 59'00	0.57474 AU
morning rise	708 Apr 18 j 17:05	18° \mathfrak{Y} 34'55			709 Mar 28 j 09:12	30° \mathcal{R} \mathfrak{H}	
direct	708 Apr 23 j 03:43	17° \mathfrak{Y} 50'36		morning rise	709 Mar 29 j 22:59	29° \mathfrak{H} 12'54	
morning max el	708 May 07 j 04:41	24° \mathfrak{Y} 54'20	24°40'00	desc. node	709 Mar 31 j 06:46	28° \mathfrak{H} 41'32	
	708 May 11 j 21:45	0° \mathfrak{B}		direct	709 Apr 04 j 12:06	27° \mathfrak{H} 57'33	
	708 May 30 j 05:21	0° \mathbb{I}			709 Apr 11 j 17:09	0° \mathfrak{Y}	
asc. node	708 Jun 01 j 05:15	4° \mathbb{I} 06'59		morning max el	709 Apr 18 j 20:19	5° \mathfrak{Y} 28'38	26°10'29

	709 May 06 j 18:25	0°♄		morning max el	710 Mar 31 j 16:52	16°♄30'40	27°15'46
morning set	709 May 17 j 05:36	20°♄10'52			710 Apr 11 j 18:46	0°♄	
asc. node	709 May 19 j 02:18	24°♄08'24			710 Apr 29 j 04:25	0°♄	
	709 May 21 j 19:08	0°♄		morning set	710 May 01 j 14:31	4°♄57'28	
				asc. node	710 May 05 j 23:21	14°♄16'28	
superior conj	709 May 24 j 06:32	5°♄25'40	0°52'19				
minimum elong	709 May 24 j 04:29	5°♄14'26	0°51'56	superior conj	710 May 08 j 18:16	20°♄22'41	0°29'09
max. Earth dist.	709 May 24 j 18:36	6°♄31'55	1.32438 AU	minimum elong	710 May 08 j 17:00	20°♄15'44	0°28'53
evening rise	709 May 31 j 07:14	20°♄33'49		max. Earth dist.	710 May 08 j 07:12	19°♄21'53	1.32278 AU
	709 Jun 04 j 23:45	0°♄			710 May 13 j 03:48	0°♄	
	709 Jun 23 j 13:18	0°♄		evening rise	710 May 15 j 16:27	5°♄24'12	
desc. node	709 Jun 27 j 06:06	4°♄27'36			710 May 28 j 17:29	0°♄	
evening max el	709 Jul 01 j 02:37	8°♄28'24	26°59'54	evening max el	710 Jun 13 j 01:25	20°♄05'26	26°02'49
retrograde	709 Jul 15 j 01:01	15°♄44'09		desc. node	710 Jun 14 j 03:07	21°♄04'52	
evening set	709 Jul 22 j 00:42	13°♄33'44		retrograde	710 Jun 27 j 02:04	27°♄17'03	
min. Earth dist.	709 Jul 25 j 16:47	10°♄52'51	0.61049 AU	evening set	710 Jul 03 j 08:17	25°♄42'02	
inferior conj	709 Jul 28 j 21:41	8°♄07'18	-4°-27'-52	min. Earth dist.	710 Jul 07 j 14:07	23°♄04'37	0.58989 AU
minimum elong	709 Jul 29 j 01:51	7°♄58'18	4°27'15	inferior conj	710 Jul 10 j 21:31	20°♄36'15	-4°-49'-3
morning rise	709 Aug 05 j 06:01	3°♄16'27		minimum elong	710 Jul 10 j 22:40	20°♄34'05	4°49'02
direct	709 Aug 07 j 15:43	2°♄53'12		morning rise	710 Jul 18 j 16:34	16°♄08'18	
morning max el	709 Aug 14 j 18:52	6°♄25'10	18°01'47	direct	710 Jul 21 j 03:48	15°♄47'47	
asc. node	709 Aug 15 j 01:31	6°♄41'33		morning max el	710 Jul 29 j 02:54	19°♄36'05	18°31'01
	709 Aug 29 j 20:39	0°♄		asc. node	710 Aug 01 j 22:34	24°♄00'30	
morning set	709 Aug 30 j 14:55	1°♄24'26			710 Aug 05 j 21:47	0°♄	
				morning set	710 Aug 14 j 05:53	15°♄16'15	
superior conj	709 Sep 09 j 18:01	19°♄50'37	1°22'22		710 Aug 21 j 22:22	0°♄	
minimum elong	709 Sep 09 j 22:25	20°♄10'02	1°21'56				
	709 Sep 15 j 15:13	0°♄		superior conj	710 Aug 23 j 05:26	2°♄25'16	1°39'39
max. Earth dist.	709 Sep 17 j 08:00	2°♄50'54	1.41980 AU	minimum elong	710 Aug 23 j 07:59	2°♄37'10	1°39'29
evening rise	709 Sep 23 j 06:47	12°♄32'27		max. Earth dist.	710 Aug 30 j 13:44	15°♄39'15	1.40030 AU
desc. node	709 Sep 23 j 05:25	12°♄27'01		evening rise	710 Sep 03 j 21:39	23°♄02'20	
	709 Oct 04 j 15:18	0°♄			710 Sep 08 j 03:34	0°♄	
greatest brilliancy	709 Oct 21 j 10:06	23°♄07'11	-0.3m	desc. node	710 Sep 10 j 02:27	3°♄06'51	
evening max el	709 Oct 26 j 04:02	28°♄27'09	22°24'27		710 Sep 28 j 13:59	0°♄	
	709 Oct 27 j 18:35	0°♄		evening max el	710 Oct 08 j 18:01	12°♄00'23	23°44'31
retrograde	709 Nov 04 j 19:20	4°♄10'55		retrograde	710 Oct 19 j 11:50	18°♄20'13	
evening set	709 Nov 09 j 07:43	2°♄22'47		evening set	710 Oct 24 j 13:55	16°♄14'12	
asc. node	709 Nov 11 j 00:44	0°♄44'49		asc. node	710 Oct 28 j 21:46	11°♄19'15	
	709 Nov 11 j 16:29	30°♄		min. Earth dist.	710 Oct 29 j 11:44	10°♄32'01	0.67646 AU
inferior conj	709 Nov 14 j 17:09	26°♄00'59	1°14'30	inferior conj	710 Oct 30 j 00:09	9°♄49'46	0°22'42
minimum elong	709 Nov 14 j 15:31	26°♄06'39	1°13'50	minimum elong	710 Oct 29 j 23:36	9°♄51'36	0°22'28
min. Earth dist.	709 Nov 14 j 15:13	26°♄07'41	0.67719 AU	morning rise	710 Nov 04 j 09:27	3°♄40'29	
morning rise	709 Nov 19 j 23:09	19°♄47'22		direct	710 Nov 08 j 09:24	2°♄10'25	
direct	709 Nov 24 j 13:08	17°♄54'58		morning max el	710 Nov 16 j 16:11	6°♄59'11	20°54'09
morning max el	709 Dec 03 j 22:34	23°♄27'52	22°14'25	greatest brilliancy	710 Nov 22 j 08:29	13°♄36'22	-0.5m
greatest brilliancy	709 Dec 08 j 13:55	28°♄40'30	-0.3m		710 Dec 04 j 00:40	0°♄	
	709 Dec 09 j 15:41	0°♄		desc. node	710 Dec 07 j 01:40	4°♄31'53	
desc. node	709 Dec 20 j 04:38	14°♄21'25		morning set	710 Dec 16 j 08:21	18°♄44'04	
	709 Dec 30 j 15:08	0°♄			710 Dec 23 j 10:46	0°♄	
morning set	710 Jan 06 j 03:03	10°♄17'28		max. Earth dist.	710 Dec 24 j 20:28	2°♄16'27	1.42803 AU
max. Earth dist.	710 Jan 11 j 16:08	19°♄26'32	1.40901 AU				
	710 Jan 17 j 19:14	0°♄		superior conj	710 Dec 31 j 18:08	13°♄43'08	-2°00'-29
				minimum elong	710 Dec 31 j 15:19	13°♄31'16	2°00'24
superior conj	710 Jan 19 j 11:14	2°♄57'25	-2°-1'-46		711 Jan 10 j 03:14	0°♄	
minimum elong	710 Jan 19 j 12:49	3°♄04'26	2°01'44	evening rise	711 Jan 12 j 13:36	4°♄19'50	
evening rise	710 Jan 29 j 18:34	21°♄54'36		asc. node	711 Jan 24 j 21:05	25°♄11'58	
	710 Feb 03 j 03:17	0°♄			711 Jan 28 j 14:39	0°♄	
asc. node	710 Feb 07 j 00:03	6°♄48'42		evening max el	711 Jan 29 j 11:09	0°♄53'30	18°07'31
evening max el	710 Feb 15 j 00:02	17°♄49'43	18°17'12	retrograde	711 Feb 05 j 01:24	4°♄17'59	
retrograde	710 Feb 22 j 02:46	21°♄22'15		evening set	711 Feb 07 j 17:51	3°♄43'51	
evening set	710 Feb 24 j 14:38	20°♄57'07			711 Feb 12 j 21:52	30°♄	
inferior conj	710 Mar 03 j 17:27	16°♄14'50	3°20'48	inferior conj	711 Feb 14 j 06:49	28°♄39'53	3°44'54
minimum elong	710 Mar 03 j 20:35	16°♄08'04	3°20'16	minimum elong	711 Feb 14 j 07:49	28°♄37'26	3°44'51
min. Earth dist.	710 Mar 07 j 03:21	13°♄19'55	0.59510 AU	min. Earth dist.	711 Feb 17 j 07:46	25°♄40'22	0.61620 AU
morning rise	710 Mar 10 j 22:58	10°♄38'04		morning rise	711 Feb 20 j 19:15	22°♄46'28	
direct	710 Mar 17 j 09:25	8°♄45'30		direct	711 Feb 27 j 16:47	20°♄21'23	
desc. node	710 Mar 18 j 03:48	8°♄47'04		desc. node	711 Mar 05 j 00:50	21°♄38'50	

morning max el	711 Mar 13 j 19:45	28° \approx 13'23	27°46'26	minimum elong	712 Jan 28 j 09:58	11° \approx 34'31	3°46'00
	711 Mar 15 j 13:12	0° H		min. Earth dist.	712 Jan 30 j 21:36	8° \approx 49'09	0.63547 AU
	711 Apr 05 j 12:51	0° Y		morning rise	712 Feb 03 j 09:58	5° \approx 28'06	
morning set	711 Apr 15 j 19:09	19° Y 29'00		direct	712 Feb 10 j 08:37	2° \approx 42'42	
	711 Apr 20 j 19:07	0° B		desc. node	712 Feb 19 j 21:52	6° \approx 48'37	
max. Earth dist.	711 Apr 21 j 18:02	2° B 03'48	1.32489 AU	morning max el	712 Feb 24 j 03:31	10° \approx 35'35	27°39'57
asc. node	711 Apr 22 j 20:23	4° B 27'00			712 Mar 10 j 10:14	0° H	
					712 Mar 27 j 21:00	0° Y	
superior conj	711 Apr 23 j 04:47	5° B 12'44	0°03'43	morning set	712 Mar 29 j 17:05	3° Y 36'57	
minimum elong	711 Apr 23 j 04:36	5° B 11'47	0°03'41	max. Earth dist.	712 Apr 03 j 22:57	14° Y 23'01	1.33099 AU
behind sun begin	711 Apr 22 j 23:37	4° B 44'36					
behind sun end	711 Apr 23 j 09:35	5° B 38'59		superior conj	712 Apr 06 j 12:16	19° Y 49'18	0°-23'-10
evening rise	711 Apr 30 j 03:52	20° B 18'17		minimum elong	712 Apr 06 j 13:24	19° Y 55'21	0°22'57
	711 May 04 j 21:34	0° II		asc. node	712 Apr 08 j 17:25	24° Y 35'20	
	711 May 24 j 17:20	0° E			712 Apr 11 j 05:39	0° B	
evening max el	711 May 25 j 17:44	1° E 00'23	24°40'14	evening rise	712 Apr 13 j 15:36	5° B 08'43	
desc. node	711 Jun 01 j 00:06	5° E 50'05			712 Apr 27 j 01:58	0° II	
retrograde	711 Jun 08 j 16:16	8° E 03'50		evening max el	712 May 06 j 08:00	11° II 32'46	23°05'18
evening set	711 Jun 13 j 16:34	7° E 07'07		desc. node	712 May 17 j 21:07	18° II 06'08	
min. Earth dist.	711 Jun 19 j 05:00	4° E 15'37	0.57067 AU	retrograde	712 May 19 j 18:16	18° II 14'11	
inferior conj	711 Jun 22 j 01:43	2° E 24'11	-4°-38'-56	evening set	712 May 23 j 07:19	17° II 46'38	
minimum elong	711 Jun 21 j 22:01	2° E 30'13	4°38'34	min. Earth dist.	712 May 30 j 17:22	14° II 27'00	0.55621 AU
	711 Jun 26 j 00:32	30° R II		inferior conj	712 Jun 01 j 10:17	13° II 27'26	-3°-45'-6
morning rise	711 Jun 30 j 07:16	28° II 17'43		minimum elong	712 Jun 01 j 02:57	13° II 38'09	3°43'23
direct	711 Jul 02 j 21:41	27° II 58'48		morning rise	712 Jun 10 j 01:43	9° II 33'56	
	711 Jul 09 j 05:44	0° E		direct	712 Jun 12 j 20:24	9° II 15'31	
morning max el	711 Jul 12 j 02:34	2° E 15'52	19°21'14	morning max el	712 Jun 23 j 15:35	14° II 15'26	20°32'23
asc. node	711 Jul 19 j 19:37	12° E 11'14			712 Jul 05 j 03:00	0° E	
morning set	711 Jul 29 j 05:42	29° E 35'09		asc. node	712 Jul 05 j 16:39	1° E 00'53	
	711 Jul 29 j 10:41	0° Q		morning set	712 Jul 12 j 11:29	14° E 12'26	
superior conj	711 Aug 06 j 10:00	15° Q 52'09	1°46'23	superior conj	712 Jul 20 j 02:47	29° E 56'05	1°44'39
minimum elong	711 Aug 06 j 10:32	15° Q 54'44	1°46'22	minimum elong	712 Jul 20 j 01:43	29° E 50'40	1°44'36
max. Earth dist.	711 Aug 12 j 17:17	27° Q 49'17	1.38003 AU		712 Jul 20 j 03:33	0° Q	
	711 Aug 13 j 21:57	0° H		max. Earth dist.	712 Jul 24 j 23:52	9° Q 38'45	1.36141 AU
evening rise	711 Aug 16 j 13:01	4° H 41'41		evening rise	712 Jul 29 j 01:34	17° Q 22'05	
desc. node	711 Aug 27 j 23:29	23° H 37'00			712 Aug 05 j 04:47	0° H	
	711 Sep 01 j 04:24	0° A		desc. node	712 Aug 13 j 20:30	13° H 51'21	
evening max el	711 Sep 21 j 05:56	25° A 37'03	25°01'57		712 Aug 25 j 11:59	0° A	
	711 Sep 26 j 10:42	0° M		evening max el	712 Sep 02 j 17:32	9° A 14'13	26°09'27
retrograde	711 Oct 03 j 00:17	2° M 26'19		retrograde	712 Sep 15 j 08:02	16° A 23'08	
evening set	711 Oct 08 j 17:00	0° M 03'14		evening set	712 Sep 21 j 15:02	13° A 46'25	
	711 Oct 08 j 18:30	30° R A		min. Earth dist.	712 Sep 25 j 20:28	9° A 15'33	0.66507 AU
min. Earth dist.	711 Oct 13 j 06:16	24° A 55'51	0.67247 AU	inferior conj	712 Sep 27 j 06:51	7° A 28'49	-1°-29'-5
inferior conj	711 Oct 14 j 05:20	23° A 40'06	0°-32'-18	minimum elong	712 Sep 27 j 09:09	7° A 21'40	1°28'09
minimum elong	711 Oct 14 j 06:08	23° A 37'26	0°31'58	asc. node	712 Oct 01 j 15:50	2° A 41'26	
asc. node	711 Oct 15 j 18:48	21° A 39'26		morning rise	712 Oct 03 j 04:16	1° A 36'23	
morning rise	711 Oct 19 j 19:49	17° A 37'51		direct	712 Oct 06 j 05:43	0° A 42'49	
direct	711 Oct 23 j 07:27	16° A 27'49		morning max el	712 Oct 13 j 02:08	4° A 31'56	18°52'38
morning max el	711 Oct 30 j 17:38	20° A 41'36	19°45'57		712 Oct 30 j 22:26	0° M	
	711 Nov 07 j 06:16	0° M		morning set	712 Nov 03 j 17:24	5° M 58'25	
greatest brilliancy	711 Nov 07 j 14:20	0° M 28'09	-0.6m	desc. node	712 Nov 09 j 19:47	15° M 34'31	
desc. node	711 Nov 23 j 22:43	24° M 57'54		max. Earth dist.	712 Nov 19 j 00:59	0° A 03'09	1.44968 AU
morning set	711 Nov 25 j 04:58	26° M 54'40			712 Nov 19 j 00:11	0° A	
	711 Nov 27 j 04:50	0° A					
max. Earth dist.	711 Dec 07 j 08:20	15° A 54'57	1.44215 AU	superior conj	712 Nov 20 j 04:38	1° A 51'58	-1°-5'-3
				minimum elong	712 Nov 19 j 20:54	1° A 21'29	1°04'09
superior conj	711 Dec 11 j 22:20	23° A 15'36	-1°-41'-53	evening rise	712 Dec 05 j 15:28	26° A 30'02	
minimum elong	711 Dec 11 j 14:46	22° A 45'02	1°41'17		712 Dec 07 j 19:20	0° E	
	711 Dec 16 j 01:40	0° E		evening max el	712 Dec 26 j 11:00	27° E 35'06	18°44'41
evening rise	711 Dec 25 j 13:50	15° E 53'41		asc. node	712 Dec 28 j 15:06	29° E 31'59	
	712 Jan 02 j 22:33	0° \approx			712 Dec 29 j 06:50	0° \approx	
asc. node	712 Jan 11 j 18:06	12° \approx 50'34		retrograde	713 Jan 02 j 04:05	1° \approx 20'43	
evening max el	712 Jan 12 j 23:39	14° \approx 10'25	18°16'57	evening set	713 Jan 05 j 06:37	0° \approx 25'45	
retrograde	712 Jan 19 j 11:12	17° \approx 39'59			713 Jan 05 j 22:38	30° R E	
evening set	712 Jan 22 j 08:16	16° \approx 56'01		inferior conj	713 Jan 11 j 01:49	24° E 43'50	3°30'35
inferior conj	712 Jan 28 j 10:53	11° \approx 31'57	3°46'03	minimum elong	713 Jan 10 j 23:40	24° E 50'23	3°30'15

min. Earth dist.	713 Jan 12 j 21:10	22°☾31'59	0.65142 AU	minimum elong	713 Dec 25 j 21:41	8°☾17'45	3°02'17
morning rise	713 Jan 16 j 15:35	18°☾33'42		min. Earth dist.	713 Dec 27 j 05:10	6°☾35'19	0.66350 AU
direct	713 Jan 23 j 07:41	15°☾42'36		morning rise	713 Dec 31 j 08:22	1°☾55'18	
morning max el	713 Feb 05 j 13:15	23°☾26'38	27°00'00		714 Jan 03 j 02:56	30°☾	
desc. node	713 Feb 05 j 18:54	23°☾40'54		direct	714 Jan 06 j 12:47	29°☾11'39	
	713 Feb 11 j 10:01	0°☾			714 Jan 10 j 05:04	0°☾	
	713 Mar 03 j 17:44	0°☾		morning max el	714 Jan 18 j 22:28	6°☾33'03	25°54'13
morning set	713 Mar 13 j 05:15	17°☾11'51		desc. node	714 Jan 23 j 15:59	11°☾45'36	
max. Earth dist.	713 Mar 17 j 18:04	26°☾09'04	1.34150 AU		714 Feb 06 j 03:16	0°☾	
	713 Mar 19 j 15:18	0°☾		morning set	714 Feb 24 j 03:23	0°☾00'08	
					714 Feb 24 j 03:21	0°☾	
superior conj	713 Mar 21 j 14:47	4°☾06'26	0°-50'-25	max. Earth dist.	714 Feb 28 j 01:16	7°☾22'10	1.35660 AU
minimum elong	713 Mar 21 j 17:15	4°☾19'20	0°49'58				
asc. node	713 Mar 26 j 14:27	14°☾37'36		superior conj	714 Mar 05 j 09:44	17°☾56'00	-1°-16'-34
evening rise	713 Mar 29 j 01:50	19°☾49'36		minimum elong	714 Mar 05 j 13:19	18°☾14'06	1°16'01
	713 Apr 03 j 03:03	0°☾			714 Mar 11 j 07:05	0°☾	
evening max el	713 Apr 18 j 03:45	22°☾14'40	21°32'51	evening rise	714 Mar 13 j 08:33	4°☾13'52	
retrograde	713 Apr 30 j 09:44	28°☾13'22		asc. node	714 Mar 13 j 11:29	4°☾28'47	
evening set	713 May 02 j 20:47	27°☾59'39			714 Mar 28 j 06:25	0°☾	
desc. node	713 May 04 j 18:06	27°☾31'40		evening max el	714 Mar 31 j 10:04	3°☾28'22	20°13'30
inferior conj	713 May 12 j 06:01	23°☾58'40	-2°-7'-10	retrograde	714 Apr 10 j 23:33	8°☾33'30	
minimum elong	713 May 12 j 00:14	24°☾06'47	2°05'14	evening set	714 Apr 13 j 01:40	8°☾22'26	
min. Earth dist.	713 May 12 j 06:03	23°☾58'37	0.54973 AU	desc. node	714 Apr 21 j 15:08	4°☾40'24	
morning rise	713 May 21 j 04:15	20°☾01'14		inferior conj	714 Apr 22 j 02:06	4°☾24'11	0°-7'-53
direct	713 May 24 j 07:31	19°☾39'43		minimum elong	714 Apr 22 j 01:44	4°☾24'44	0°07'45
morning max el	713 Jun 05 j 17:32	25°☾31'55	22°01'41	transit middle	714 Apr 22 j 01:44	4°☾24'44	0°07'45
	713 Jun 09 j 21:24	0°☾		transit begin	714 Apr 21 j 22:14	4°☾29'56	
asc. node	713 Jun 22 j 13:43	20°☾19'59		transit end	714 Apr 22 j 05:15	4°☾19'31	
morning set	713 Jun 26 j 21:06	29°☾02'12		min. Earth dist.	714 Apr 23 j 19:36	3°☾22'51	0.55284 AU
	713 Jun 27 j 08:10	0°☾		morning rise	714 Apr 30 j 23:24	0°☾04'29	
					714 May 01 j 06:08	30°☾	
superior conj	713 Jul 04 j 04:03	14°☾25'59	1°36'11	direct	714 May 04 j 20:26	29°☾31'45	
minimum elong	713 Jul 04 j 02:00	14°☾15'12	1°36'01		714 May 08 j 09:28	0°☾	
max. Earth dist.	713 Jul 07 j 14:40	21°☾34'31	1.34608 AU	morning max el	714 May 18 j 10:56	6°☾12'49	23°42'02
	713 Jul 11 j 20:00	0°☾			714 Jun 04 j 07:43	0°☾	
evening rise	713 Jul 12 j 06:34	0°☾51'17		asc. node	714 Jun 09 j 10:48	10°☾00'29	
	713 Jul 29 j 05:16	0°☾		morning set	714 Jun 11 j 08:42	13°☾58'48	
desc. node	713 Jul 31 j 17:29	3°☾42'55					
evening max el	713 Aug 16 j 05:34	22°☾46'05	26°59'15	superior conj	714 Jun 18 j 10:56	29°☾12'46	1°22'24
	713 Aug 28 j 08:11	0°☾		minimum elong	714 Jun 18 j 08:29	28°☾59'35	1°22'05
retrograde	713 Aug 29 j 10:31	0°☾03'52			714 Jun 18 j 19:43	0°☾	
	713 Aug 30 j 12:21	30°☾		max. Earth dist.	714 Jun 20 j 15:11	3°☾52'18	1.33461 AU
evening set	713 Sep 05 j 05:48	27°☾20'11		evening rise	714 Jun 25 j 23:36	14°☾56'30	
min. Earth dist.	713 Sep 09 j 04:02	23°☾26'29	0.65417 AU		714 Jul 03 j 22:31	0°☾	
inferior conj	713 Sep 11 j 02:41	21°☾12'23	-2°-25'-44	desc. node	714 Jul 18 j 14:29	23°☾02'16	
minimum elong	713 Sep 11 j 06:25	21°☾01'37	2°24'22		714 Jul 24 j 01:50	0°☾	
morning rise	713 Sep 17 j 08:33	15°☾32'49		evening max el	714 Jul 29 j 17:01	6°☾02'03	27°24'04
asc. node	713 Sep 18 j 12:54	15°☾05'10		retrograde	714 Aug 12 j 07:04	13°☾20'46	
direct	713 Sep 20 j 02:16	14°☾51'52		evening set	714 Aug 19 j 10:25	10°☾39'52	
morning max el	713 Sep 26 j 15:35	18°☾25'24	18°15'33	min. Earth dist.	714 Aug 23 j 02:49	7°☾21'18	0.63971 AU
	713 Oct 05 j 06:25	0°☾		inferior conj	714 Aug 25 j 14:23	4°☾45'58	-3°-19'-32
morning set	713 Oct 15 j 10:06	16°☾26'51		minimum elong	714 Aug 25 j 19:10	4°☾33'28	3°18'06
	713 Oct 23 j 18:20	0°☾			714 Aug 31 j 00:34	30°☾	
desc. node	713 Oct 27 j 16:49	6°☾17'35		morning rise	714 Sep 01 j 05:57	29°☾22'41	
				direct	714 Sep 03 j 18:33	28°☾50'45	
superior conj	713 Oct 30 j 06:26	10°☾21'55	0°-16'-57	asc. node	714 Sep 05 j 10:00	29°☾04'28	
minimum elong	713 Oct 30 j 04:14	10°☾13'12	0°16'40		714 Sep 07 j 11:49	0°☾	
max. Earth dist.	713 Nov 01 j 19:36	14°☾23'09	1.44994 AU	morning max el	714 Sep 10 j 07:23	2°☾16'53	17°55'44
	713 Nov 11 j 18:58	0°☾		morning set	714 Sep 27 j 05:56	28°☾14'28	
evening rise	713 Nov 15 j 17:45	6°☾09'42			714 Sep 28 j 06:32	0°☾	
greatest brilliancy	713 Dec 01 j 05:56	29°☾59'16	-0.7m				
	713 Dec 01 j 06:08	0°☾		superior conj	714 Oct 10 j 00:54	19°☾44'04	0°30'02
evening max el	713 Dec 09 j 19:00	11°☾02'59	19°29'20	minimum elong	714 Oct 10 j 04:06	19°☾57'11	0°29'35
asc. node	713 Dec 15 j 12:10	15°☾00'57		desc. node	714 Oct 14 j 13:50	27°☾04'11	
retrograde	713 Dec 17 j 00:37	15°☾13'46		max. Earth dist.	714 Oct 15 j 13:35	28°☾38'58	1.44300 AU
evening set	713 Dec 20 j 10:13	14°☾06'09			714 Oct 16 j 09:57	0°☾	
inferior conj	713 Dec 26 j 00:22	8°☾08'59	3°02'56	evening rise	714 Oct 26 j 03:48	15°☾13'16	

	714 Nov 04 j 21:01	0°♊		greatest brilliancy	715 Oct 31 j 22:04	2°♊26'19	-0.4m
greatest brilliancy	714 Nov 16 j 19:14	17°♊10'22	-0.5m	evening max el	715 Nov 05 j 19:12	8°♊01'14	21°39'52
evening max el	714 Nov 22 j 22:01	24°♊32'09	20°28'45	retrograde	715 Nov 14 j 19:17	13°♊22'38	
retrograde	714 Nov 30 j 22:22	29°♊15'38		evening set	715 Nov 19 j 00:40	11°♊44'10	
asc. node	714 Dec 02 j 09:14	29°♊03'42		asc. node	715 Nov 19 j 06:18	11°♊32'49	
evening set	714 Dec 04 j 16:53	27°♊53'29		inferior conj	715 Nov 24 j 10:15	5°♊25'38	1°42'17
inferior conj	714 Dec 10 j 03:55	21°♊43'54	2°26'09	minimum elong	715 Nov 24 j 08:08	5°♊32'57	1°41'29
minimum elong	714 Dec 10 j 01:16	21°♊52'53	2°25'17	min. Earth dist.	715 Nov 24 j 14:25	5°♊11'13	0.67617 AU
min. Earth dist.	714 Dec 10 j 19:40	20°♊50'27	0.67168 AU		715 Nov 28 j 18:16	30°♊	
morning rise	714 Dec 15 j 09:10	15°♊28'45		morning rise	715 Nov 29 j 15:20	29°♊10'54	
direct	714 Dec 20 j 23:05	13°♊01'51		direct	715 Dec 04 j 13:51	27°♊05'40	
morning max el	715 Jan 01 j 06:51	19°♊46'53	24°32'16		715 Dec 11 j 06:06	0°♊	
	715 Jan 10 j 00:15	0°♊		morning max el	715 Dec 14 j 16:17	3°♊05'33	23°04'14
desc. node	715 Jan 10 j 13:03	0°♊41'45		greatest brilliancy	715 Dec 19 j 12:41	8°♊31'00	-0.3m
	715 Jan 30 j 07:15	0°♊		desc. node	715 Dec 28 j 10:06	20°♊14'17	
morning set	715 Feb 06 j 05:56	11°♊46'22			716 Jan 04 j 03:50	0°♊	
max. Earth dist.	715 Feb 09 j 23:06	18°♊24'34	1.37569 AU	morning set	716 Jan 18 j 06:39	22°♊14'38	
	715 Feb 16 j 03:34	0°♊			716 Jan 22 j 20:25	0°♊	
				max. Earth dist.	716 Jan 22 j 18:28	29°♊51'33	1.39686 AU
superior conj	715 Feb 16 j 17:55	1°♊09'14	-1°-39'-32				
minimum elong	715 Feb 16 j 21:56	1°♊28'41	1°39'06	superior conj	716 Jan 30 j 11:03	13°♊34'58	-1°-56'-22
evening rise	715 Feb 25 j 09:27	18°♊15'10		minimum elong	716 Jan 30 j 14:07	13°♊49'07	1°56'13
asc. node	715 Feb 28 j 08:32	24°♊04'11			716 Feb 08 j 03:32	0°♊	
	715 Mar 03 j 12:10	0°♊		evening rise	716 Feb 09 j 01:38	1°♊45'54	
evening max el	715 Mar 14 j 03:40	15°♊20'45	19°12'32	asc. node	716 Feb 15 j 05:35	13°♊17'56	
retrograde	715 Mar 23 j 01:16	19°♊38'17		evening max el	716 Feb 25 j 06:28	27°♊47'47	18°31'38
evening set	715 Mar 25 j 05:15	19°♊24'07			716 Feb 28 j 00:18	0°♊	
inferior conj	715 Apr 02 j 12:08	15°♊13'22	1°39'00	retrograde	716 Mar 03 j 21:43	1°♊32'30	
minimum elong	715 Apr 02 j 15:45	15°♊07'15	1°37'51	evening set	716 Mar 06 j 06:33	1°♊12'03	
min. Earth dist.	715 Apr 05 j 10:34	13°♊15'16	0.56484 AU		716 Mar 09 j 01:59	30°♊	
desc. node	715 Apr 08 j 12:12	11°♊26'07		inferior conj	716 Mar 13 j 18:52	26°♊41'51	2°53'34
morning rise	715 Apr 10 j 22:15	10°♊20'47		minimum elong	716 Mar 13 j 22:53	26°♊33'54	2°52'38
direct	715 Apr 15 j 20:26	9°♊24'43		min. Earth dist.	716 Mar 17 j 04:56	24°♊01'08	0.58304 AU
morning max el	715 Apr 30 j 01:25	16°♊41'02	25°20'44	morning rise	716 Mar 21 j 11:10	21°♊18'21	
	715 May 10 j 21:31	0°♊		desc. node	716 Mar 25 j 09:15	19°♊58'20	
morning set	715 May 26 j 20:35	28°♊56'25		direct	716 Mar 27 j 10:09	19°♊47'39	
asc. node	715 May 27 j 07:50	29°♊55'51		morning max el	716 Apr 10 j 18:59	27°♊25'44	26°42'10
	715 May 27 j 08:37	0°♊			716 Apr 13 j 06:38	0°♊	
					716 May 03 j 08:07	0°♊	
superior conj	715 Jun 02 j 21:09	14°♊08'40	1°04'20	morning set	716 May 10 j 07:07	13°♊49'37	
minimum elong	715 Jun 02 j 18:50	13°♊55'58	1°03'56	asc. node	716 May 13 j 04:52	20°♊01'06	
max. Earth dist.	715 Jun 03 j 23:11	16°♊30'40	1.32705 AU				
evening rise	715 Jun 10 j 01:01	29°♊26'17		superior conj	716 May 17 j 08:52	29°♊07'39	0°42'50
	715 Jun 10 j 07:35	0°♊		minimum elong	716 May 17 j 07:06	28°♊57'59	0°42'29
	715 Jun 27 j 01:44	0°♊		max. Earth dist.	716 May 17 j 11:14	29°♊20'40	1.32325 AU
desc. node	715 Jul 05 j 11:31	11°♊35'18			716 May 17 j 18:23	0°♊	
evening max el	715 Jul 12 j 01:20	18°♊47'22	27°18'13	evening rise	716 May 24 j 08:05	14°♊11'51	
retrograde	715 Jul 25 j 20:54	26°♊04'00			716 Jun 01 j 08:37	0°♊	
evening set	715 Aug 02 j 01:08	23°♊38'23		desc. node	716 Jun 21 j 08:32	29°♊02'36	
min. Earth dist.	715 Aug 05 j 15:11	20°♊47'46	0.62194 AU		716 Jun 22 j 07:05	0°♊	
inferior conj	715 Aug 08 j 14:54	18°♊01'32	-4°-6'-26	evening max el	716 Jun 23 j 03:53	0°♊50'37	26°39'14
minimum elong	715 Aug 08 j 19:46	17°♊50'14	4°05'25	retrograde	716 Jul 07 j 03:18	8°♊05'00	
morning rise	715 Aug 15 j 17:01	12°♊58'08		evening set	716 Jul 13 j 21:25	6°♊08'10	
direct	715 Aug 18 j 03:09	12°♊32'18		min. Earth dist.	716 Jul 17 j 17:19	3°♊31'21	0.60180 AU
asc. node	715 Aug 23 j 07:04	14°♊32'42		inferior conj	716 Jul 21 j 00:45	0°♊50'22	-4°-39'-50
morning max el	715 Aug 24 j 22:36	15°♊59'10	17°54'07	minimum elong	716 Jul 21 j 03:56	0°♊43'53	4°39'30
	715 Sep 03 j 17:49	0°♊			716 Jul 22 j 01:44	30°♊	
morning set	715 Sep 09 j 22:50	11°♊02'16		morning rise	716 Jul 28 j 13:43	26°♊09'31	
				direct	716 Jul 30 j 23:52	25°♊47'36	
superior conj	715 Sep 20 j 22:14	0°♊25'56	1°06'55	morning max el	716 Aug 07 j 10:14	29°♊24'45	18°11'44
minimum elong	715 Sep 21 j 03:04	0°♊46'40	1°06'21		716 Aug 08 j 00:23	0°♊	
	715 Sep 20 j 16:10	0°♊		asc. node	716 Aug 09 j 04:06	1°♊15'53	
max. Earth dist.	715 Sep 28 j 03:47	12°♊31'16	1.42970 AU	morning set	716 Aug 23 j 07:04	24°♊34'19	
desc. node	715 Oct 01 j 10:52	17°♊50'47			716 Aug 26 j 04:12	0°♊	
evening rise	715 Oct 05 j 13:11	24°♊19'33					
	715 Oct 09 j 05:05	0°♊		superior conj	716 Sep 01 j 21:19	12°♊24'15	1°31'07
	715 Oct 30 j 00:04	0°♊		minimum elong	716 Sep 02 j 01:02	12°♊41'00	1°30'48

max. Earth dist.	716 Sep 09 j 12:09	25° \cap 44'01	1.41177 AU	max. Earth dist.	717 Aug 22 j 15:50	8° \cap 12'18	1.39160 AU
	716 Sep 12 j 01:15	0° $\underline{\cap}$		evening rise	717 Aug 26 j 15:56	15° \cap 11'09	
evening rise	716 Sep 14 j 14:31	4° $\underline{\cap}$ 11'25		desc. node	717 Sep 04 j 04:54	29° \cap 10'22	
desc. node	716 Sep 17 j 07:53	8° $\underline{\cap}$ 34'09			717 Sep 04 j 17:34	0° $\underline{\cap}$	
	716 Oct 01 j 12:31	0° \cap			717 Sep 26 j 07:11	0° \cap	
greatest brilliancy	716 Oct 13 j 03:21	15° \cap 33'12	-0.2m	evening max el	717 Sep 30 j 23:54	5° \cap 06'27	24°18'14
evening max el	716 Oct 18 j 11:10	21° \cap 31'51	22°58'17	retrograde	717 Oct 12 j 04:53	11° \cap 40'33	
retrograde	716 Oct 28 j 13:52	27° \cap 32'01		evening set	717 Oct 17 j 13:01	9° \cap 27'12	
evening set	716 Nov 02 j 07:55	25° \cap 36'07		inferior conj	717 Oct 22 j 23:57	3° \cap 02'36	0°00'-19
asc. node	716 Nov 05 j 03:20	22° \cap 39'34		minimum elong	717 Oct 22 j 23:58	3° \cap 02'34	0°00'20
inferior conj	716 Nov 07 j 17:30	19° \cap 12'25	0°52'59	transit middle	717 Oct 22 j 23:58	3° \cap 02'34	0°00'20
minimum elong	716 Nov 07 j 16:18	19° \cap 16'35	0°52'29	transit begin	717 Oct 22 j 21:14	3° \cap 11'46	
min. Earth dist.	716 Nov 07 j 11:01	19° \cap 34'48	0.67726 AU	transit end	717 Oct 23 j 02:42	2° \cap 53'22	
morning rise	716 Nov 13 j 00:40	13° \cap 00'21		min. Earth dist.	717 Oct 22 j 07:06	3° \cap 59'19	0.67511 AU
direct	716 Nov 17 j 08:23	11° \cap 17'52		asc. node	717 Oct 23 j 00:21	3° \cap 01'16	
morning max el	716 Nov 26 j 06:06	16° \cap 31'30	21°39'01		717 Oct 25 j 08:20	30° \cap	
greatest brilliancy	716 Dec 01 j 04:39	22° \cap 08'20	-0.4m	morning rise	717 Oct 28 j 11:13	26° $\underline{\cap}$ 55'43	
	716 Dec 07 j 03:42	0° $\underline{\cap}$		direct	717 Nov 01 j 05:37	25° $\underline{\cap}$ 34'35	
desc. node	716 Dec 14 j 07:08	10° $\underline{\cap}$ 12'59			717 Nov 08 j 23:55	0° \cap	
	716 Dec 27 j 06:09	0° $\underline{\cap}$		morning max el	717 Nov 09 j 02:59	0° \cap 07'42	20°23'23
morning set	716 Dec 28 j 02:07	1° $\underline{\cap}$ 19'09		greatest brilliancy	717 Nov 15 j 14:08	7° \cap 51'07	-0.5m
max. Earth dist.	717 Jan 03 j 18:01	12° $\underline{\cap}$ 07'30	1.41747 AU		717 Nov 30 j 20:03	0° $\underline{\cap}$	
				desc. node	717 Dec 01 j 04:10	0° $\underline{\cap}$ 30'52	
superior conj	717 Jan 11 j 07:54	25° $\underline{\cap}$ 00'08	-2°-3'-5	morning set	717 Dec 07 j 00:40	9° $\underline{\cap}$ 29'54	
minimum elong	717 Jan 11 j 07:52	24° $\underline{\cap}$ 59'58	2°03'06	max. Earth dist.	717 Dec 17 j 01:10	25° $\underline{\cap}$ 17'54	1.43471 AU
	717 Jan 14 j 04:02	0° \approx			717 Dec 19 j 22:53	0° $\underline{\cap}$	
evening rise	717 Jan 22 j 05:33	14° \approx 37'12					
	717 Jan 30 j 20:35	0° \cap		superior conj	717 Dec 23 j 03:37	5° $\underline{\cap}$ 15'00	-1°-54'-54
asc. node	717 Feb 01 j 02:37	2° \cap 02'08		minimum elong	717 Dec 22 j 22:34	4° $\underline{\cap}$ 54'10	1°54'39
evening max el	717 Feb 07 j 15:25	10° \cap 40'25	18°10'44	evening rise	718 Jan 04 j 17:08	26° $\underline{\cap}$ 41'29	
retrograde	717 Feb 14 j 11:45	14° \cap 08'06			718 Jan 06 j 14:33	0° \approx	
evening set	717 Feb 17 j 01:27	13° \cap 39'24		asc. node	718 Jan 18 j 23:39	20° \approx 08'05	
inferior conj	717 Feb 23 j 21:58	8° \cap 48'00	3°34'17	evening max el	718 Jan 22 j 03:30	23° \approx 51'01	18°09'18
minimum elong	717 Feb 24 j 00:13	8° \cap 42'50	3°34'02	retrograde	718 Jan 28 j 15:30	27° \approx 15'58	
min. Earth dist.	717 Feb 27 j 05:08	5° \cap 47'50	0.60405 AU	evening set	718 Jan 31 j 09:51	26° \approx 37'49	
morning rise	717 Mar 02 j 19:46	3° \cap 02'52		inferior conj	718 Feb 06 j 18:04	21° \approx 25'26	3°47'44
direct	717 Mar 09 j 12:05	0° \cap 55'11		minimum elong	718 Feb 06 j 18:11	21° \approx 25'08	3°47'45
desc. node	717 Mar 12 j 06:17	1° \cap 15'48		min. Earth dist.	718 Feb 09 j 13:28	18° \approx 30'30	0.62474 AU
morning max el	717 Mar 23 j 18:26	8° \cap 45'03	27°33'25	morning rise	718 Feb 13 j 00:19	15° \approx 27'02	
	717 Apr 09 j 00:47	0° \cap		direct	718 Feb 19 j 23:38	12° \approx 51'10	
morning set	717 Apr 24 j 14:27	28° \cap 30'53		desc. node	718 Feb 27 j 03:19	15° \approx 10'31	
	717 Apr 25 j 07:37	0° \cap		morning max el	718 Mar 05 j 23:31	20° \approx 44'49	27°48'02
asc. node	717 Apr 30 j 01:53	10° \cap 10'48			718 Mar 13 j 23:43	0° \cap	
max. Earth dist.	717 Apr 30 j 23:26	12° \cap 08'26	1.32315 AU		718 Apr 02 j 00:38	0° \cap	
				morning set	718 Apr 08 j 16:32	12° \cap 53'06	
superior conj	717 May 01 j 20:16	14° \cap 02'32	0°18'37	max. Earth dist.	718 Apr 14 j 07:58	24° \cap 40'48	1.32694 AU
minimum elong	717 May 01 j 19:26	13° \cap 57'57	0°18'25				
evening rise	717 May 08 j 18:26	29° \cap 04'27		superior conj	718 Apr 16 j 05:44	28° \cap 47'35	0°-7'-34
	717 May 09 j 04:58	0° \cap		minimum elong	718 Apr 16 j 06:05	28° \cap 49'32	0°07'31
	717 May 25 j 22:28	0° \cap		behind sun begin	718 Apr 16 j 01:30	28° \cap 24'39	
evening max el	717 Jun 04 j 23:28	12° \cap 07'49	25°30'06	behind sun end	718 Apr 16 j 10:41	29° \cap 14'26	
desc. node	717 Jun 08 j 05:32	14° \cap 56'34		asc. node	718 Apr 16 j 22:55	0° \cap 20'52	
retrograde	717 Jun 19 j 00:23	19° \cap 17'46			718 Apr 16 j 19:05	0° \cap	
evening set	717 Jun 24 j 19:04	17° \cap 59'17		evening rise	718 Apr 23 j 06:11	13° \cap 57'28	
min. Earth dist.	717 Jun 29 j 11:34	15° \cap 17'42	0.58135 AU		718 May 01 j 08:29	0° \cap	
inferior conj	717 Jul 02 j 16:26	13° \cap 02'31	-4°-49'-26	evening max el	718 May 17 j 14:14	22° \cap 50'08	24°00'31
minimum elong	717 Jul 02 j 15:39	13° \cap 03'53	4°49'25	desc. node	718 May 26 j 02:33	28° \cap 42'34	
morning rise	717 Jul 10 j 16:02	8° \cap 44'21		retrograde	718 May 31 j 09:30	29° \cap 46'11	
direct	717 Jul 13 j 04:15	8° \cap 24'48		evening set	718 Jun 04 j 18:24	29° \cap 03'55	
morning max el	717 Jul 21 j 15:06	12° \cap 23'51	18°49'46	min. Earth dist.	718 Jun 11 j 01:15	26° \cap 01'44	0.56374 AU
asc. node	717 Jul 27 j 01:07	18° \cap 58'21		inferior conj	718 Jun 13 j 11:58	24° \cap 31'15	-4°-21'-56
	717 Aug 02 j 14:04	0° \cap		minimum elong	718 Jun 13 j 06:18	24° \cap 40'02	4°21'02
morning set	717 Aug 07 j 02:09	8° \cap 38'20		morning rise	718 Jun 21 j 21:48	20° \cap 31'23	
				direct	718 Jun 24 j 13:47	20° \cap 12'54	
superior conj	717 Aug 15 j 16:41	25° \cap 22'59	1°43'40	morning max el	718 Jul 04 j 10:22	24° \cap 47'06	19°48'56
minimum elong	717 Aug 15 j 18:21	25° \cap 30'55	1°43'35		718 Jul 09 j 00:40	0° \cap	
	717 Aug 18 j 03:36	0° \cap		asc. node	718 Jul 13 j 22:10	7° \cap 26'56	

morning set	718 Jul 22 j 04:48	23° $\overline{5}$ 05'45			719 Jul 02 j 15:06	0° $\overline{5}$	
	718 Jul 25 j 14:26	0° Ω		morning set	719 Jul 06 j 12:32	7° $\overline{5}$ 49'59	
superior conj	718 Jul 30 j 02:55	9° Ω 06'44	1°46'33	superior conj	719 Jul 13 j 23:45	23° $\overline{5}$ 23'31	1°41'47
minimum elong	718 Jul 30 j 02:42	9° Ω 05'39	1°46'33	minimum elong	719 Jul 13 j 22:12	23° $\overline{5}$ 15'29	1°41'42
max. Earth dist.	718 Aug 04 j 19:51	20° Ω 09'58	1.37183 AU		719 Jul 17 j 05:34	0° Ω	
evening rise	718 Aug 08 j 16:53	27° Ω 18'01		max. Earth dist.	719 Jul 18 j 06:03	2° Ω 02'15	1.35446 AU
	718 Aug 10 j 05:12	0° $\overline{\eta}$		evening rise	719 Jul 22 j 13:05	10° Ω 21'32	
desc. node	718 Aug 22 j 01:54	19° $\overline{\eta}$ 34'27			719 Aug 02 j 17:40	0° $\overline{\eta}$	
	718 Aug 29 j 03:48	0° $\underline{\Delta}$		desc. node	719 Aug 08 j 22:55	9° $\overline{\eta}$ 40'46	
evening max el	718 Sep 13 j 11:41	18° $\underline{\Delta}$ 44'29	25°32'29		719 Aug 24 j 15:51	0° $\underline{\Delta}$	
retrograde	718 Sep 25 j 15:21	25° $\underline{\Delta}$ 43'07		evening max el	719 Aug 26 j 23:43	2° $\underline{\Delta}$ 21'42	26°33'13
evening set	718 Oct 01 j 14:10	23° $\underline{\Delta}$ 14'00		retrograde	719 Sep 08 j 20:43	9° $\underline{\Delta}$ 34'39	
min. Earth dist.	718 Oct 06 j 00:09	18° $\underline{\Delta}$ 21'45	0.66972 AU	evening set	719 Sep 15 j 09:25	6° $\underline{\Delta}$ 54'03	
inferior conj	718 Oct 07 j 03:50	16° $\underline{\Delta}$ 52'47	0°-56'-18	min. Earth dist.	719 Sep 19 j 11:47	2° $\underline{\Delta}$ 39'08	0.66095 AU
minimum elong	718 Oct 07 j 05:16	16° $\underline{\Delta}$ 48'11	0°55'41	inferior conj	719 Sep 21 j 03:14	0° $\underline{\Delta}$ 40'24	-1°-53'-14
asc. node	718 Oct 09 j 21:24	13° $\underline{\Delta}$ 32'50		minimum elong	719 Sep 21 j 06:10	0° $\underline{\Delta}$ 31'34	1°52'05
morning rise	718 Oct 12 j 21:02	10° $\underline{\Delta}$ 54'06			719 Sep 21 j 16:42	30° $\overline{\mathcal{R}}$ $\overline{\eta}$	
direct	718 Oct 16 j 04:07	9° $\underline{\Delta}$ 51'22		asc. node	719 Sep 26 j 18:27	25° $\overline{\eta}$ 07'00	
morning max el	718 Oct 23 j 07:30	13° $\underline{\Delta}$ 53'25	19°21'18	morning rise	719 Sep 27 j 04:04	24° $\overline{\eta}$ 53'03	
greatest brilliancy	718 Nov 01 j 21:12	26° $\underline{\Delta}$ 16'33	-0.7m	direct	719 Sep 30 j 02:02	24° $\overline{\eta}$ 05'11	
	718 Nov 04 j 09:24	0° $\overline{\mathcal{M}}$		morning max el	719 Oct 06 j 18:25	27° $\overline{\eta}$ 46'10	18°34'47
morning set	718 Nov 16 j 01:22	17° $\overline{\mathcal{M}}$ 55'50			719 Oct 08 j 18:50	0° $\underline{\Delta}$	
desc. node	718 Nov 18 j 01:12	21° $\overline{\mathcal{M}}$ 01'47		morning set	719 Oct 27 j 01:22	27° $\underline{\Delta}$ 35'17	
	718 Nov 23 j 19:10	0° $\overline{\mathcal{X}}$			719 Oct 28 j 13:35	0° $\overline{\mathcal{M}}$	
max. Earth dist.	718 Nov 29 j 15:31	9° $\overline{\mathcal{X}}$ 11'42	1.44627 AU	desc. node	719 Nov 04 j 22:14	11° $\overline{\mathcal{M}}$ 41'46	
superior conj	718 Dec 02 j 21:11	14° $\overline{\mathcal{X}}$ 19'47	-1°-28'-17	superior conj	719 Nov 11 j 22:46	22° $\overline{\mathcal{M}}$ 45'25	0°-45'-17
minimum elong	718 Dec 02 j 12:42	13° $\overline{\mathcal{X}}$ 46'02	1°27'27	minimum elong	719 Nov 11 j 16:56	22° $\overline{\mathcal{M}}$ 22'31	0°44'34
	718 Dec 12 j 13:57	0° $\overline{\mathcal{Z}}$		max. Earth dist.	719 Nov 12 j 10:00	23° $\overline{\mathcal{M}}$ 29'35	1.45079 AU
evening rise	718 Dec 17 j 08:02	7° $\overline{\mathcal{Z}}$ 50'58			719 Nov 16 j 13:22	0° $\overline{\mathcal{X}}$	
	718 Dec 31 j 00:10	0° \approx		evening rise	719 Nov 27 j 23:30	18° $\overline{\mathcal{X}}$ 02'37	
evening max el	719 Jan 05 j 15:53	7° \approx 12'04	18°26'36		719 Dec 05 j 12:09	0° $\overline{\mathcal{Z}}$	
asc. node	719 Jan 05 j 20:41	7° \approx 24'09		evening max el	719 Dec 20 j 02:03	20° $\overline{\mathcal{Z}}$ 38'28	19°01'40
retrograde	719 Jan 12 j 04:40	10° \approx 46'49		asc. node	719 Dec 23 j 17:45	23° $\overline{\mathcal{Z}}$ 36'45	
evening set	719 Jan 15 j 04:02	9° \approx 58'10		retrograde	719 Dec 26 j 23:32	24° $\overline{\mathcal{Z}}$ 33'39	
inferior conj	719 Jan 21 j 03:10	4° \approx 26'15	3°41'11	evening set	719 Dec 30 j 04:57	23° $\overline{\mathcal{Z}}$ 33'20	
minimum elong	719 Jan 21 j 01:38	4° \approx 30'41	3°41'02	inferior conj	720 Jan 04 j 21:43	17° $\overline{\mathcal{Z}}$ 44'19	3°20'07
min. Earth dist.	719 Jan 23 j 07:19	1° \approx 55'30	0.64280 AU	minimum elong	720 Jan 04 j 19:15	17° $\overline{\mathcal{Z}}$ 52'03	3°19'38
	719 Jan 25 j 02:18	30° $\overline{\mathcal{R}}$ $\overline{\mathcal{Z}}$		min. Earth dist.	720 Jan 06 j 10:34	15° $\overline{\mathcal{Z}}$ 48'34	0.65709 AU
morning rise	719 Jan 26 j 21:51	28° $\overline{\mathcal{Z}}$ 19'39		morning rise	720 Jan 10 j 08:38	11° $\overline{\mathcal{Z}}$ 32'28	
direct	719 Feb 02 j 18:38	25° $\overline{\mathcal{Z}}$ 30'05		direct	720 Jan 16 j 20:09	8° $\overline{\mathcal{Z}}$ 43'31	
	719 Feb 12 j 16:35	0° \approx		morning max el	720 Jan 29 j 18:04	16° $\overline{\mathcal{Z}}$ 19'06	26°34'38
desc. node	719 Feb 14 j 00:22	1° \approx 07'44		desc. node	720 Jan 31 j 21:26	18° $\overline{\mathcal{Z}}$ 33'56	
morning max el	719 Feb 16 j 08:13	3° \approx 19'44	27°26'36		720 Feb 10 j 02:45	0° \approx	
	719 Mar 08 j 09:13	0° $\overline{\mathcal{H}}$			720 Feb 29 j 05:21	0° $\overline{\mathcal{H}}$	
morning set	719 Mar 23 j 10:43	26° $\overline{\mathcal{H}}$ 47'53		morning set	720 Mar 05 j 17:29	10° $\overline{\mathcal{H}}$ 04'27	
	719 Mar 25 j 01:27	0° $\overline{\mathcal{Y}}$		max. Earth dist.	720 Mar 09 j 23:31	18° $\overline{\mathcal{H}}$ 18'39	1.34741 AU
max. Earth dist.	719 Mar 28 j 09:06	6° $\overline{\mathcal{Y}}$ 46'23	1.33492 AU				
superior conj	719 Mar 31 j 11:23	13° $\overline{\mathcal{Y}}$ 16'38	0°-34'-46	superior conj	720 Mar 14 j 11:01	27° $\overline{\mathcal{H}}$ 22'51	-1°-1'-46
minimum elong	719 Mar 31 j 13:05	13° $\overline{\mathcal{Y}}$ 25'41	0°34'26	minimum elong	720 Mar 14 j 14:00	27° $\overline{\mathcal{H}}$ 38'17	1°01'14
asc. node	719 Apr 03 j 19:59	20° $\overline{\mathcal{Y}}$ 27'14			720 Mar 15 j 17:22	0° $\overline{\mathcal{Y}}$	
evening rise	719 Apr 07 j 17:31	28° $\overline{\mathcal{Y}}$ 44'40		asc. node	720 Mar 20 j 17:03	10° $\overline{\mathcal{Y}}$ 25'27	
	719 Apr 08 j 07:54	0° $\overline{\mathcal{B}}$		evening rise	720 Mar 22 j 02:33	13° $\overline{\mathcal{Y}}$ 19'30	
	719 Apr 26 j 02:20	0° $\overline{\Pi}$			720 Mar 30 j 18:16	0° $\overline{\mathcal{B}}$	
evening max el	719 Apr 29 j 06:07	3° $\overline{\Pi}$ 23'20	22°24'57	evening max el	720 Apr 10 j 05:51	14° $\overline{\mathcal{B}}$ 16'10	20°56'59
retrograde	719 May 12 j 05:58	9° $\overline{\Pi}$ 48'14		retrograde	720 Apr 21 j 19:21	19° $\overline{\mathcal{B}}$ 52'53	
desc. node	719 May 12 j 23:33	9° $\overline{\Pi}$ 47'02		evening set	720 Apr 24 j 00:45	19° $\overline{\mathcal{B}}$ 41'11	
evening set	719 May 15 j 06:16	9° $\overline{\Pi}$ 28'16		desc. node	720 Apr 28 j 20:37	18° $\overline{\mathcal{B}}$ 05'29	
min. Earth dist.	719 May 23 j 13:21	5° $\overline{\Pi}$ 53'14	0.55234 AU	inferior conj	720 May 03 j 07:47	15° $\overline{\mathcal{B}}$ 43'07	-1°-17'-5
inferior conj	719 May 24 j 13:50	5° $\overline{\Pi}$ 18'37	-3°-8'-11	minimum elong	720 May 03 j 04:08	15° $\overline{\mathcal{B}}$ 48'17	1°15'47
minimum elong	719 May 24 j 06:25	5° $\overline{\Pi}$ 29'07	3°06'04	min. Earth dist.	720 May 04 j 02:02	15° $\overline{\mathcal{B}}$ 17'13	0.54982 AU
morning rise	719 Jun 02 j 08:46	1° $\overline{\Pi}$ 25'56		morning rise	720 May 12 j 06:54	11° $\overline{\mathcal{B}}$ 38'41	
direct	719 Jun 05 j 06:35	1° $\overline{\Pi}$ 06'40		direct	720 May 15 j 16:22	11° $\overline{\mathcal{B}}$ 13'50	
morning max el	719 Jun 16 j 18:27	6° $\overline{\Pi}$ 28'00	21°08'28	morning max el	720 May 28 j 16:16	17° $\overline{\mathcal{B}}$ 27'27	22°43'51
asc. node	719 Jun 30 j 19:14	26° $\overline{\Pi}$ 30'40			720 Jun 07 j 17:16	0° $\overline{\Pi}$	
				asc. node	720 Jun 16 j 16:18	15° $\overline{\Pi}$ 59'48	

morning set	720 Jun 19 j 23:14	22° Π 43'42		direct	721 Apr 26 j 09:05	21° Υ 02'06	
	720 Jun 23 j 09:33	0° \mathfrak{E}		morning max el	721 May 10 j 07:54	28° Υ 00'43	24°25'10
					721 May 12 j 07:17	0° \mathfrak{E}	
superior conj	720 Jun 27 j 03:45	8° \mathfrak{E} 01'53	1°30'56		721 May 31 j 17:08	0° Π	
minimum elong	720 Jun 27 j 01:27	7° \mathfrak{E} 49'43	1°30'41	asc. node	721 Jun 03 j 13:22	5° Π 47'27	
max. Earth dist.	720 Jun 30 j 01:09	14° \mathfrak{E} 07'05	1.34066 AU	morning set	721 Jun 04 j 11:08	7° Π 41'25	
evening rise	720 Jul 04 j 23:40	24° \mathfrak{E} 07'24					
	720 Jul 08 j 00:54	0° \mathfrak{Q}		superior conj	721 Jun 11 j 12:18	22° Π 53'36	1°15'13
desc. node	720 Jul 25 j 19:56	29° \mathfrak{Q} 20'25		minimum elong	721 Jun 11 j 09:51	22° Π 40'18	1°14'51
	720 Jul 26 j 07:10	0° \mathfrak{M}		max. Earth dist.	721 Jun 13 j 04:55	26° Π 32'59	1.33087 AU
evening max el	720 Aug 08 j 11:32	15° \mathfrak{M} 47'54	27°13'07		721 Jun 14 j 19:39	0° \mathfrak{E}	
retrograde	720 Aug 21 j 20:41	23° \mathfrak{M} 06'53		evening rise	721 Jun 18 j 20:38	8° \mathfrak{E} 24'09	
evening set	720 Aug 28 j 20:17	20° \mathfrak{M} 22'38			721 Jun 30 j 11:17	0° \mathfrak{Q}	
min. Earth dist.	720 Sep 01 j 15:41	16° \mathfrak{M} 44'45	0.64851 AU	desc. node	721 Jul 12 j 16:57	18° \mathfrak{Q} 22'07	
inferior conj	720 Sep 03 j 19:55	14° \mathfrak{M} 20'26	-2°-49'-4	evening max el	721 Jul 21 j 21:45	28° \mathfrak{Q} 51'39	27°25'31
minimum elong	720 Sep 04 j 00:10	14° \mathfrak{M} 08'39	2°47'38		721 Jul 23 j 03:26	0° \mathfrak{M}	
morning rise	720 Sep 10 j 05:49	8° \mathfrak{M} 47'41		retrograde	721 Aug 04 j 14:45	6° \mathfrak{M} 10'35	
direct	720 Sep 12 j 21:03	8° \mathfrak{M} 11'00		evening set	721 Aug 11 j 19:30	3° \mathfrak{M} 34'17	
asc. node	720 Sep 12 j 15:31	8° \mathfrak{M} 11'18		min. Earth dist.	721 Aug 15 j 10:07	0° \mathfrak{M} 28'58	0.63248 AU
morning max el	720 Sep 19 j 09:17	11° \mathfrak{M} 40'09	18°04'59		721 Aug 15 j 22:01	30° \mathfrak{R} \mathfrak{Q}	
	720 Oct 02 j 01:43	0° \mathfrak{A}		inferior conj	721 Aug 18 j 03:12	27° \mathfrak{Q} 47'03	-3°-40'-38
morning set	720 Oct 07 j 06:12	8° \mathfrak{A} 39'29		minimum elong	721 Aug 18 j 08:11	27° \mathfrak{Q} 34'38	3°39'19
	720 Oct 20 j 06:31	0° \mathfrak{M}		morning rise	721 Aug 24 j 23:14	22° \mathfrak{Q} 32'03	
				direct	721 Aug 27 j 10:20	22° \mathfrak{Q} 03'11	
superior conj	720 Oct 21 j 05:32	1° \mathfrak{M} 32'10	0°03'50	asc. node	721 Aug 30 j 12:34	22° \mathfrak{Q} 49'33	
minimum elong	720 Oct 21 j 06:00	1° \mathfrak{M} 34'01	0°03'45	morning max el	721 Sep 03 j 01:14	25° \mathfrak{Q} 28'49	17°52'46
behind sun begin	720 Oct 20 j 19:34	0° \mathfrak{M} 52'16			721 Sep 06 j 19:49	0° \mathfrak{M}	
behind sun end	720 Oct 21 j 16:27	2° \mathfrak{M} 15'43		morning set	721 Sep 19 j 11:44	20° \mathfrak{M} 54'42	
desc. node	720 Oct 21 j 19:17	2° \mathfrak{M} 27'02			721 Sep 24 j 16:52	0° \mathfrak{A}	
max. Earth dist.	720 Oct 25 j 04:46	7° \mathfrak{M} 50'23	1.44784 AU				
evening rise	720 Nov 06 j 17:30	27° \mathfrak{M} 23'39		superior conj	721 Oct 01 j 11:01	11° \mathfrak{A} 27'30	0°47'11
	720 Nov 08 j 09:59	0° \mathfrak{A}		minimum elong	721 Oct 01 j 15:24	11° \mathfrak{A} 45'40	0°46'37
greatest brilliancy	720 Nov 25 j 00:13	24° \mathfrak{A} 56'46	-0.6m	max. Earth dist.	721 Oct 07 j 20:54	21° \mathfrak{A} 56'25	1.43798 AU
	720 Nov 28 j 18:42	0° \mathfrak{E}		desc. node	721 Oct 08 j 16:17	23° \mathfrak{A} 14'10	
evening max el	720 Dec 02 j 08:00	4° \mathfrak{E} 06'56	19°52'56		721 Oct 12 j 22:42	0° \mathfrak{M}	
retrograde	720 Dec 09 j 21:01	8° \mathfrak{E} 31'20		evening rise	721 Oct 17 j 00:56	6° \mathfrak{M} 22'23	
asc. node	720 Dec 09 j 14:47	8° \mathfrak{E} 30'57			721 Nov 01 j 18:58	0° \mathfrak{A}	
evening set	720 Dec 13 j 10:07	7° \mathfrak{E} 17'45		greatest brilliancy	721 Nov 09 j 21:12	11° \mathfrak{A} 10'31	-0.5m
inferior conj	720 Dec 18 j 22:42	1° \mathfrak{E} 14'39	2°48'19	evening max el	721 Nov 15 j 08:29	17° \mathfrak{A} 36'00	20°57'51
minimum elong	720 Dec 18 j 19:58	1° \mathfrak{E} 23'45	2°47'33	retrograde	721 Nov 23 j 18:40	22° \mathfrak{A} 35'37	
	720 Dec 19 j 21:10	30° \mathfrak{R} \mathfrak{A}		asc. node	721 Nov 26 j 11:50	21° \mathfrak{A} 54'06	
min. Earth dist.	720 Dec 19 j 21:43	29° \mathfrak{A} 58'09	0.66740 AU	evening set	721 Nov 27 j 17:27	21° \mathfrak{A} 06'57	
morning rise	720 Dec 24 j 05:10	24° \mathfrak{A} 59'54		inferior conj	721 Dec 03 j 03:40	14° \mathfrak{A} 53'08	2°08'18
direct	720 Dec 30 j 03:28	22° \mathfrak{A} 22'40		minimum elong	721 Dec 03 j 01:12	15° \mathfrak{A} 01'37	2°07'26
morning max el	721 Jan 11 j 03:06	29° \mathfrak{A} 30'45	25°20'46	min. Earth dist.	721 Dec 03 j 14:25	14° \mathfrak{A} 16'16	0.67398 AU
	721 Jan 11 j 14:35	0° \mathfrak{E}		morning rise	721 Dec 08 j 08:32	8° \mathfrak{A} 37'38	
desc. node	721 Jan 17 j 18:30	7° \mathfrak{E} 03'10		direct	721 Dec 13 j 15:54	6° \mathfrak{A} 19'25	
	721 Feb 02 j 23:17	0° \approx		morning max el	721 Dec 24 j 11:31	12° \mathfrak{A} 46'36	23°54'55
morning set	721 Feb 16 j 08:07	22° \approx 29'20		desc. node	722 Jan 04 j 15:32	26° \mathfrak{A} 16'25	
max. Earth dist.	721 Feb 20 j 02:22	29° \approx 24'51	1.36428 AU		722 Jan 07 j 08:29	0° \mathfrak{E}	
	721 Feb 20 j 09:50	0° \mathfrak{H}			722 Jan 26 j 19:31	0° \approx	
				morning set	722 Jan 29 j 00:24	3° \approx 44'24	
superior conj	721 Feb 26 j 01:51	10° \mathfrak{H} 58'32	-1°-26'-52	max. Earth dist.	722 Feb 01 j 21:38	10° \approx 31'21	1.38455 AU
minimum elong	721 Feb 26 j 05:44	11° \mathfrak{H} 17'51	1°26'20				
evening rise	721 Mar 06 j 07:09	27° \mathfrak{H} 35'30		superior conj	722 Feb 09 j 04:09	23° \approx 52'59	-1°-47'-39
	721 Mar 07 j 11:53	0° Υ		minimum elong	722 Feb 09 j 07:59	24° \approx 11'10	1°47'19
asc. node	721 Mar 07 j 14:07	0° Υ 11'08			722 Feb 12 j 08:43	0° \mathfrak{H}	
evening max el	721 Mar 23 j 17:03	25° Υ 46'36	19°45'08	evening rise	722 Feb 18 j 04:40	11° \mathfrak{H} 24'29	
	721 Mar 30 j 06:58	0° \mathfrak{E}		asc. node	722 Feb 22 j 11:09	19° \mathfrak{H} 38'09	
retrograde	721 Apr 02 j 13:11	0° \mathfrak{E} 30'31			722 Feb 28 j 10:12	0° Υ	
evening set	721 Apr 04 j 15:02	0° \mathfrak{E} 18'47		evening max el	722 Mar 06 j 14:57	7° Υ 55'01	18°52'42
	721 Apr 05 j 22:29	30° \mathfrak{R} Υ		retrograde	722 Mar 14 j 22:13	11° Υ 56'14	
inferior conj	721 Apr 13 j 08:33	26° Υ 16'35	0°40'38	evening set	722 Mar 17 j 04:10	11° Υ 39'45	
minimum elong	721 Apr 13 j 10:18	26° Υ 13'52	0°40'01	inferior conj	722 Mar 25 j 03:02	7° Υ 21'38	2°14'57
min. Earth dist.	721 Apr 15 j 16:21	24° Υ 49'54	0.55692 AU	minimum elong	722 Mar 25 j 07:13	7° Υ 14'05	2°13'46
desc. node	721 Apr 15 j 17:39	24° Υ 47'56		min. Earth dist.	722 Mar 28 j 08:43	5° Υ 02'43	0.57204 AU
morning rise	721 Apr 22 j 02:11	21° Υ 43'00		morning rise	722 Apr 02 j 05:59	2° Υ 14'54	

desc. node	722 Apr 02 j 14:42	2°♄05'55		morning rise	723 Mar 14 j 02:57	13°♄32'47	
direct	722 Apr 07 j 15:28	1°♄04'43		direct	723 Mar 20 j 10:44	11°♄45'53	
morning max el	722 Apr 21 j 22:59	8°♄32'23	25°58'15	desc. node	723 Mar 20 j 11:44	11°♄45'53	
	722 May 08 j 00:54	0°♄		morning max el	723 Apr 03 j 18:35	19°♄29'08	27°08'10
morning set	722 May 19 j 22:36	22°♄37'28			723 Apr 12 j 17:05	0°♄	
asc. node	722 May 21 j 10:25	25°♄47'34			723 Apr 30 j 16:11	0°♄	
	722 May 23 j 09:11	0°♄		morning set	723 May 04 j 07:58	7°♄26'04	
				asc. node	723 May 08 j 07:26	15°♄55'10	
superior conj	722 May 26 j 23:21	7°♄51'31	0°55'36	superior conj	723 May 11 j 11:06	22°♄49'16	0°32'51
minimum elong	722 May 26 j 21:13	7°♄39'49	0°55'12	minimum elong	723 May 11 j 09:42	22°♄41'32	0°32'32
max. Earth dist.	722 May 27 j 14:54	9°♄16'43	1.32496 AU	max. Earth dist.	723 May 11 j 03:31	22°♄07'36	1.32279 AU
evening rise	722 Jun 03 j 00:44	23°♄01'40			723 May 14 j 17:39	0°♄	
	722 Jun 06 j 11:18	0°♄		evening rise	723 May 18 j 09:27	7°♄51'15	
	722 Jun 24 j 10:08	0°♄			723 May 29 j 23:22	0°♄	
desc. node	722 Jun 29 j 13:58	6°♄30'08		evening max el	723 Jun 16 j 03:50	23°♄04'50	26°13'11
evening max el	722 Jul 04 j 04:00	11°♄20'42	27°05'47	desc. node	723 Jun 16 j 10:59	23°♄21'44	
retrograde	722 Jul 18 j 01:46	18°♄36'33			723 Jun 27 j 12:50	0°♄	
evening set	722 Jul 25 j 02:58	16°♄21'54		retrograde	723 Jun 30 j 04:07	0°♄16'59	
min. Earth dist.	722 Jul 28 j 18:16	13°♄38'54	0.61348 AU		723 Jul 02 j 18:49	30°♄	
inferior conj	722 Jul 31 j 21:56	10°♄52'44	-4°-22'-52	evening set	723 Jul 06 j 13:57	28°♄36'07	
minimum elong	722 Aug 01 j 02:21	10°♄43'00	4°22'06	min. Earth dist.	723 Jul 10 j 16:40	25°♄59'32	0.59296 AU
morning rise	722 Aug 08 j 04:38	5°♄58'27		inferior conj	723 Jul 14 j 00:28	23°♄27'18	-4°-47'-37
direct	722 Aug 10 j 14:22	5°♄34'35		minimum elong	723 Jul 14 j 02:14	23°♄23'55	4°47'32
asc. node	722 Aug 17 j 09:37	8°♄51'30		morning rise	723 Jul 21 j 17:56	18°♄56'00	
morning max el	722 Aug 17 j 15:16	9°♄05'02	17°59'10	direct	723 Jul 24 j 04:53	18°♄35'06	
	722 Aug 31 j 06:41	0°♄		morning max el	723 Aug 01 j 00:18	22°♄20'03	18°25'22
morning set	722 Sep 02 j 11:49	4°♄03'31		asc. node	723 Aug 04 j 06:39	26°♄01'34	
					723 Aug 07 j 01:37	0°♄	
superior conj	722 Sep 12 j 19:50	22°♄43'33	1°18'43	morning set	723 Aug 17 j 01:10	17°♄50'43	
minimum elong	722 Sep 13 j 00:25	23°♄03'36	1°18'14		723 Aug 23 j 09:55	0°♄	
	722 Sep 17 j 01:04	0°♄		superior conj	723 Aug 26 j 04:14	5°♄09'21	1°37'46
max. Earth dist.	722 Sep 20 j 08:32	5°♄33'04	1.42249 AU	minimum elong	723 Aug 26 j 07:06	5°♄22'37	1°37'33
desc. node	722 Sep 25 j 13:18	14°♄00'15		max. Earth dist.	723 Sep 02 j 15:03	18°♄28'33	1.40332 AU
evening rise	722 Sep 26 j 15:32	15°♄44'37		evening rise	723 Sep 07 j 02:44	26°♄04'16	
	722 Oct 05 j 21:30	0°♄			723 Sep 09 j 12:11	0°♄	
greatest brilliancy	722 Oct 24 j 10:17	25°♄47'52	-0.3m	desc. node	723 Sep 12 j 10:19	4°♄41'12	
	722 Oct 28 j 01:52	0°♄			723 Sep 29 j 14:57	0°♄	
evening max el	722 Oct 29 j 03:25	1°♄06'39	22°12'42	evening max el	723 Oct 11 j 17:52	14°♄39'18	23°32'31
retrograde	722 Nov 07 j 14:39	6°♄44'25		retrograde	723 Oct 22 j 07:43	20°♄54'05	
evening set	722 Nov 12 j 01:11	4°♄58'50		evening set	723 Oct 27 j 07:43	18°♄50'36	
asc. node	722 Nov 13 j 08:51	3°♄46'05		asc. node	723 Oct 31 j 05:53	14°♄27'42	
	722 Nov 16 j 10:46	30°♄		inferior conj	723 Nov 01 j 17:44	12°♄26'13	0°30'48
inferior conj	722 Nov 17 j 10:38	28°♄37'52	1°21'58	minimum elong	723 Nov 01 j 17:01	12°♄28'43	0°30'29
minimum elong	722 Nov 17 j 08:51	28°♄44'01	1°21'16	min. Earth dist.	723 Nov 01 j 06:50	13°♄03'30	0.67679 AU
min. Earth dist.	722 Nov 17 j 10:16	28°♄39'08	0.67707 AU	morning rise	723 Nov 07 j 02:25	6°♄16'16	
morning rise	722 Nov 22 j 16:20	22°♄23'56		direct	723 Nov 11 j 04:21	4°♄43'06	
direct	722 Nov 27 j 08:32	20°♄28'08		morning max el	723 Nov 19 j 14:48	9°♄37'52	21°05'26
morning max el	722 Dec 06 j 22:12	26°♄07'43	22°27'07	greatest brilliancy	723 Nov 25 j 01:34	15°♄56'03	-0.5m
	722 Dec 10 j 10:52	0°♄			723 Dec 05 j 05:31	0°♄	
greatest brilliancy	722 Dec 11 j 12:33	1°♄16'38	-0.3m	desc. node	723 Dec 09 j 09:36	6°♄09'23	
desc. node	722 Dec 22 j 12:34	16°♄01'35		morning set	723 Dec 19 j 21:12	22°♄11'47	
	722 Dec 31 j 22:11	0°♄			723 Dec 24 j 19:18	0°♄	
morning set	723 Jan 09 j 12:34	13°♄36'11		max. Earth dist.	723 Dec 27 j 21:13	4°♄59'15	1.42543 AU
max. Earth dist.	723 Jan 14 j 17:54	22°♄16'44	1.40596 AU				
	723 Jan 19 j 05:24	0°♄		superior conj	724 Jan 04 j 00:03	16°♄51'47	-2°-1'-42
superior conj	723 Jan 22 j 13:21	5°♄55'02	-2°00'-44	minimum elong	724 Jan 03 j 22:01	16°♄43'06	2°01'41
minimum elong	723 Jan 22 j 15:23	6°♄04'14	2°00'41		724 Jan 11 j 12:58	0°♄	
evening rise	723 Feb 01 j 16:03	24°♄39'21		evening rise	724 Jan 15 j 13:34	7°♄12'14	
	723 Feb 04 j 12:30	0°♄		asc. node	724 Jan 27 j 05:11	27°♄09'43	
asc. node	723 Feb 09 j 08:10	8°♄40'17			724 Jan 29 j 05:26	0°♄	
evening max el	723 Feb 17 j 20:48	20°♄34'19	18°20'18	evening max el	724 Feb 01 j 07:27	3°♄35'53	18°07'43
retrograde	723 Feb 25 j 02:20	24°♄09'27		retrograde	724 Feb 07 j 22:58	7°♄00'51	
evening set	723 Feb 27 j 13:29	23°♄45'31		evening set	724 Feb 10 j 14:42	6°♄28'10	
inferior conj	723 Mar 06 j 18:39	19°♄06'18	3°14'37	inferior conj	724 Feb 17 j 05:30	1°♄27'21	3°42'52
minimum elong	723 Mar 06 j 22:03	18°♄59'06	3°14'01	minimum elong	724 Feb 17 j 06:50	1°♄24'08	3°42'47
min. Earth dist.	723 Mar 10 j 04:58	16°♄14'23	0.59194 AU				

	724 Feb 18 j 17:14	30° \approx		retrograde	725 Jan 21 j 07:24	20° \approx 19'34	
min. Earth dist.	724 Feb 20 j 08:14	28° \approx 26'56	0.61307 AU	evening set	725 Jan 24 j 03:41	19° \approx 37'11	
morning rise	724 Feb 23 j 20:15	25° \approx 35'46		inferior conj	725 Jan 30 j 07:40	14° \approx 16'09	3°47'04
direct	724 Mar 01 j 16:41	23° \approx 14'58		minimum elong	725 Jan 30 j 07:00	14° \approx 17'58	3°47'02
desc. node	724 Mar 06 j 08:46	24° \approx 14'18		min. Earth dist.	725 Feb 01 j 20:43	11° \approx 29'34	0.63275 AU
	724 Mar 14 j 17:00	0° \approx		morning rise	725 Feb 05 j 08:28	8° \approx 13'28	
morning max el	724 Mar 15 j 20:45	1° \approx 06'39	27°44'19	direct	725 Feb 12 j 07:31	5° \approx 30'00	
	724 Apr 05 j 20:35	0° \approx		desc. node	725 Feb 21 j 05:50	9° \approx 05'43	
morning set	724 Apr 17 j 13:24	22° \approx 00'58		morning max el	725 Feb 26 j 03:59	13° \approx 23'44	27°43'11
	724 Apr 21 j 08:44	0° \approx			725 Mar 11 j 12:43	0° \approx	
max. Earth dist.	724 Apr 23 j 14:57	4° \approx 52'27	1.32432 AU		725 Mar 29 j 08:21	0° \approx	
asc. node	724 Apr 24 j 04:28	6° \approx 06'01		morning set	725 Apr 01 j 12:32	6° \approx 13'13	
				max. Earth dist.	725 Apr 06 j 20:54	17° \approx 15'22	1.32979 AU
superior conj	724 Apr 24 j 21:56	7° \approx 41'14	0°07'42				
minimum elong	724 Apr 24 j 21:34	7° \approx 39'18	0°07'37	superior conj	725 Apr 09 j 06:01	22° \approx 20'24	0°-19'-2
behind sun begin	724 Apr 24 j 17:05	7° \approx 14'47		minimum elong	725 Apr 09 j 06:56	22° \approx 25'21	0°18'51
behind sun end	724 Apr 25 j 02:04	8° \approx 03'49		asc. node	725 Apr 11 j 01:31	26° \approx 15'08	
evening rise	724 May 01 j 20:41	22° \approx 45'39			725 Apr 12 j 19:06	0° \approx	
	724 May 05 j 08:44	0° \approx		evening rise	725 Apr 16 j 08:29	7° \approx 37'02	
	724 May 24 j 00:45	0° \approx			725 Apr 28 j 04:13	0° \approx	
evening max el	724 May 27 j 20:50	4° \approx 05'07	24°53'38	evening max el	725 May 09 j 10:57	14° \approx 39'09	23°19'38
desc. node	724 Jun 02 j 08:00	8° \approx 26'33		desc. node	725 May 20 j 05:02	21° \approx 07'24	
retrograde	724 Jun 10 j 20:12	11° \approx 10'43		retrograde	725 May 23 j 00:12	21° \approx 25'14	
evening set	724 Jun 16 j 01:37	10° \approx 08'27		evening set	725 May 26 j 18:09	20° \approx 54'22	
min. Earth dist.	724 Jun 21 j 08:13	7° \approx 20'03	0.57335 AU	min. Earth dist.	725 Jun 02 j 20:57	17° \approx 39'33	0.55793 AU
inferior conj	724 Jun 24 j 07:40	5° \approx 21'49	-4°-43'-4	inferior conj	725 Jun 04 j 18:58	16° \approx 31'40	-3°-56'-22
minimum elong	724 Jun 24 j 04:45	5° \approx 26'42	4°42'51	minimum elong	725 Jun 04 j 11:55	16° \approx 42'07	3°54'51
morning rise	724 Jul 02 j 11:43	1° \approx 12'38		morning rise	725 Jun 13 j 09:00	12° \approx 36'56	
direct	724 Jul 05 j 01:32	0° \approx 53'35		direct	725 Jun 16 j 02:48	12° \approx 18'39	
morning max el	724 Jul 14 j 01:25	5° \approx 05'22	19°12'24	morning max el	725 Jun 26 j 16:09	17° \approx 11'36	20°20'29
asc. node	724 Jul 21 j 03:42	14° \approx 05'24			725 Jul 06 j 09:22	0° \approx	
	724 Jul 29 j 22:21	0° \approx		asc. node	725 Jul 08 j 00:46	2° \approx 49'59	
morning set	724 Jul 30 j 23:50	2° \approx 05'57		morning set	725 Jul 15 j 04:54	16° \approx 41'03	
					725 Jul 21 j 16:31	0° \approx	
superior conj	724 Aug 08 j 06:35	18° \approx 02'27	1°45'56				
minimum elong	724 Aug 08 j 07:24	18° \approx 03'25	1°45'55	superior conj	725 Jul 22 j 21:50	2° \approx 28'49	1°45'21
	724 Aug 14 j 09:06	0° \approx		minimum elong	725 Jul 22 j 20:58	2° \approx 24'28	1°45'20
max. Earth dist.	724 Aug 14 j 18:25	0° \approx 42'26	1.38301 AU	max. Earth dist.	725 Jul 28 j 00:00	12° \approx 32'39	1.36402 AU
evening rise	724 Aug 18 j 14:33	7° \approx 33'15		evening rise	725 Aug 01 j 00:16	20° \approx 05'41	
desc. node	724 Aug 29 j 07:19	25° \approx 12'53			725 Aug 06 j 14:08	0° \approx	
	724 Sep 01 j 10:13	0° \approx		desc. node	725 Aug 16 j 04:21	15° \approx 30'13	
evening max el	724 Sep 23 j 05:50	28° \approx 14'52	24°50'52		725 Aug 26 j 10:24	0° \approx	
	724 Sep 25 j 02:33	0° \approx		evening max el	725 Sep 05 j 17:27	11° \approx 52'41	26°00'25
retrograde	724 Oct 04 j 20:52	5° \approx 00'46		retrograde	725 Sep 18 j 05:28	18° \approx 59'33	
evening set	724 Oct 10 j 11:22	2° \approx 40'01		evening set	725 Sep 24 j 10:20	16° \approx 24'41	
	724 Oct 13 j 01:29	30° \approx		min. Earth dist.	725 Sep 28 j 16:55	11° \approx 48'09	0.66635 AU
min. Earth dist.	724 Oct 15 j 01:50	27° \approx 27'18	0.67324 AU	inferior conj	725 Sep 30 j 01:32	10° \approx 05'54	-1°-20'-27
inferior conj	724 Oct 15 j 23:18	26° \approx 16'18	0°-23'-50	minimum elong	725 Sep 30 j 03:37	9° \approx 59'23	1°19'36
minimum elong	724 Oct 15 j 23:53	26° \approx 14'20	0°23'35	asc. node	725 Oct 03 j 23:59	5° \approx 38'53	
asc. node	724 Oct 17 j 02:55	24° \approx 45'59		morning rise	725 Oct 05 j 21:49	4° \approx 11'42	
morning rise	724 Oct 21 j 12:54	20° \approx 12'49		direct	725 Oct 09 j 00:36	3° \approx 15'55	
direct	724 Oct 25 j 02:10	19° \approx 00'05		morning max el	725 Oct 15 j 22:40	7° \approx 08'14	18°59'31
morning max el	724 Nov 01 j 15:07	23° \approx 18'41	19°55'13		725 Nov 01 j 05:16	0° \approx	
	724 Nov 07 j 06:08	0° \approx		morning set	725 Nov 07 j 02:18	9° \approx 12'25	
greatest brilliancy	724 Nov 09 j 01:43	2° \approx 27'33	-0.6m	desc. node	725 Nov 12 j 03:39	17° \approx 08'27	
desc. node	724 Nov 25 j 06:37	26° \approx 33'13			725 Nov 20 j 08:21	0° \approx	
morning set	724 Nov 27 j 17:26	0° \approx 19'49		max. Earth dist.	725 Nov 21 j 23:48	2° \approx 35'08	1.44899 AU
	724 Nov 27 j 12:18	0° \approx					
max. Earth dist.	724 Dec 09 j 07:51	18° \approx 30'44	1.44037 AU	superior conj	725 Nov 23 j 17:00	5° \approx 17'28	-1°-11'-36
				minimum elong	725 Nov 23 j 08:50	4° \approx 45'15	1°10'42
superior conj	724 Dec 14 j 08:13	26° \approx 34'51	-1°-45'-56	evening rise	725 Dec 08 j 22:02	29° \approx 39'19	
minimum elong	724 Dec 14 j 01:12	26° \approx 06'21	1°45'25		725 Dec 09 j 03:07	0° \approx	
	724 Dec 16 j 10:30	0° \approx			725 Dec 29 j 01:39	0° \approx	
evening rise	724 Dec 27 j 16:54	18° \approx 54'19		evening max el	725 Dec 29 j 07:40	0° \approx 15'36	18°39'29
	725 Jan 03 j 05:01	0° \approx		asc. node	725 Dec 30 j 23:18	1° \approx 47'20	
asc. node	725 Jan 13 j 02:14	14° \approx 56'05		retrograde	726 Jan 04 j 23:25	3° \approx 58'03	
evening max el	725 Jan 14 j 19:56	16° \approx 51'25	18°14'23	evening set	726 Jan 08 j 01:05	3° \approx 04'48	

	276 Jan 11 j 15:50	30°R		evening max el	276 Dec 12 j 16:19	13°343'12	19°21'43
inferior conj	276 Jan 13 j 21:14	27°25'31	3°33'47	asc. node	276 Dec 17 j 20:22	17°28'09	
minimum elong	276 Jan 13 j 19:14	27°31'35	3°33'29	retrograde	276 Dec 19 j 19:34	17°49'31	
min. Earth dist.	276 Jan 15 j 18:53	25°08'24	0.64931 AU	evening set	276 Dec 23 j 04:04	16°43'48	
morning rise	276 Jan 19 j 12:09	21°16'15		inferior conj	276 Dec 28 j 18:49	10°48'42	3°07'44
direct	276 Jan 26 j 05:42	18°24'58		minimum elong	276 Dec 28 j 16:10	10°57'15	3°07'07
desc. node	276 Feb 08 j 02:53	25°44'36		min. Earth dist.	276 Dec 30 j 01:39	9°09'17	0.66199 AU
morning max el	276 Feb 08 j 13:29	26°10'57	27°07'45	morning rise	277 Jan 03 j 03:29	4°35'32	
	276 Feb 12 j 02:41	0°		direct	277 Jan 09 j 09:52	1°50'11	
	276 Mar 05 j 01:55	0°		morning max el	277 Jan 21 j 22:50	9°15'29	26°05'16
morning set	276 Mar 16 j 02:23	19°53'39		desc. node	277 Jan 25 j 23:54	13°39'38	
max. Earth dist.	276 Mar 20 j 17:35	29°06'09	1.33965 AU		277 Feb 07 j 07:28	0°	
	276 Mar 21 j 04:08	0°			277 Feb 25 j 14:02	0°	
				morning set	277 Feb 27 j 02:55	2°49'39	
superior conj	276 Mar 24 j 09:26	6°40'56	0°-46'-19	max. Earth dist.	277 Mar 03 j 02:37	10°23'40	1.35408 AU
minimum elong	276 Mar 24 j 11:42	6°52'50	0°45'53				
asc. node	276 Mar 28 j 22:35	16°18'38		superior conj	277 Mar 08 j 05:43	20°35'13	-1°-12'-45
evening rise	276 Mar 31 j 19:05	22°19'42		minimum elong	277 Mar 08 j 09:09	20°52'43	1°12'12
	276 Apr 04 j 13:20	0°			277 Mar 12 j 19:36	0°	
evening max el	276 Apr 21 j 05:34	25°18'02	21°45'59	asc. node	277 Mar 15 j 19:39	6°12'05	
	276 Apr 27 j 17:42	0°		evening rise	277 Mar 16 j 02:29	6°47'04	
retrograde	276 May 03 j 16:38	1°23'48			277 Mar 29 j 00:26	0°	
evening set	276 May 06 j 06:32	1°08'54		evening max el	277 Apr 03 j 10:11	6°26'22	20°24'13
desc. node	276 May 07 j 02:05	0°58'16		retrograde	277 Apr 14 j 05:52	11°39'30	
	276 May 09 j 23:57	30°R		evening set	277 Apr 16 j 08:28	11°28'27	
inferior conj	276 May 15 j 15:53	27°06'17	-2°-24'-11	desc. node	277 Apr 23 j 23:07	8°22'33	
minimum elong	276 May 15 j 09:29	27°15'14	2°22'07	inferior conj	277 Apr 25 j 10:58	7°30'47	0°-25'-52
min. Earth dist.	276 May 15 j 09:31	27°15'12	0.55011 AU	minimum elong	277 Apr 25 j 09:45	7°32'33	0°25'27
morning rise	276 May 24 j 13:26	23°10'36		min. Earth dist.	277 Apr 26 j 22:44	6°38'38	0.55176 AU
direct	276 May 27 j 15:06	22°49'49		morning rise	277 May 04 j 09:04	3°15'39	
morning max el	276 Jun 08 j 19:36	28°34'10	21°47'27	direct	277 May 08 j 02:54	2°45'18	
	276 Jun 10 j 06:34	0°		morning max el	277 May 21 j 13:56	9°19'24	23°26'54
asc. node	276 Jun 24 j 21:49	22°05'17			277 Jun 05 j 15:45	0°	
	276 Jun 28 j 20:47	0°		asc. node	277 Jun 11 j 18:53	11°43'21	
morning set	276 Jun 29 j 14:06	1°29'34		morning set	277 Jun 14 j 01:32	16°26'06	
					277 Jun 20 j 09:30	0°	
superior conj	276 Jul 06 j 22:03	16°55'39	1°37'50	superior conj	277 Jun 21 j 04:16	1°40'50	1°24'49
minimum elong	276 Jul 06 j 20:06	16°45'29	1°37'41	minimum elong	277 Jun 21 j 01:50	1°27'50	1°24'30
max. Earth dist.	276 Jul 10 j 13:34	24°27'11	1.34814 AU	max. Earth dist.	277 Jun 23 j 12:53	6°42'34	1.33607 AU
	276 Jul 13 j 08:11	0°		evening rise	277 Jun 28 j 18:39	17°29'52	
evening rise	276 Jul 15 j 03:09	3°28'51			277 Jul 05 j 08:12	0°	
	276 Jul 30 j 10:38	0°		desc. node	277 Jul 20 j 22:26	24°51'40	
desc. node	276 Aug 03 j 01:23	5°26'11			277 Jul 24 j 20:07	0°	
evening max el	276 Aug 19 j 05:36	25°26'46	26°53'18	evening max el	277 Aug 01 j 17:16	8°46'16	27°22'08
	276 Aug 24 j 18:48	0°		retrograde	277 Aug 15 j 06:02	16°04'51	
retrograde	276 Sep 01 j 08:42	2°43'24		evening set	277 Aug 22 j 08:41	13°22'46	
evening set	276 Sep 08 j 02:21	0°00'22		min. Earth dist.	277 Aug 26 j 01:49	9°59'21	0.64215 AU
	276 Sep 08 j 02:32	30°R		inferior conj	277 Aug 28 j 11:28	7°26'41	-3°-11'-43
min. Earth dist.	276 Sep 12 j 01:40	26°01'07	0.65603 AU	minimum elong	277 Aug 28 j 16:08	7°14'17	3°10'15
inferior conj	276 Sep 13 j 22:23	23°50'56	-2°-17'-15	morning rise	277 Sep 04 j 01:32	2°00'48	
minimum elong	276 Sep 14 j 01:56	23°40'37	2°15'56	direct	277 Sep 06 j 14:47	1°27'42	
morning rise	276 Sep 20 j 02:54	18°09'07		asc. node	277 Sep 07 j 18:06	1°34'21	
asc. node	276 Sep 20 j 21:04	17°49'09		morning max el	277 Sep 13 j 03:09	4°54'11	17°57'33
direct	276 Sep 22 j 21:39	17°26'28			277 Sep 29 j 15:27	0°	
morning max el	276 Sep 29 j 11:31	21°01'41	18°19'57	morning set	277 Sep 30 j 06:48	1°05'30	
	276 Oct 06 j 10:02	0°					
morning set	276 Oct 18 j 14:39	19°28'17		superior conj	277 Oct 13 j 08:58	22°55'54	0°23'26
	276 Oct 25 j 02:48	0°		minimum elong	277 Oct 13 j 11:35	23°06'31	0°23'05
desc. node	276 Oct 30 j 00:40	7°50'44		desc. node	277 Oct 16 j 21:42	28°37'08	
					277 Oct 17 j 18:28	0°	
superior conj	276 Nov 02 j 17:58	13°44'07	0°-24'-27	max. Earth dist.	277 Oct 18 j 13:00	1°13'44	1.44452 AU
minimum elong	276 Nov 02 j 14:46	13°31'31	0°24'01	evening rise	277 Oct 29 j 15:14	18°33'41	
max. Earth dist.	276 Nov 04 j 18:33	16°55'25	1.45041 AU		277 Nov 06 j 02:57	0°	
	276 Nov 13 j 02:45	0°		greatest brilliancy	277 Nov 19 j 10:41	19°25'45	-0.6m
evening rise	276 Nov 19 j 03:33	9°26'39		evening max el	277 Nov 25 j 20:05	27°11'51	20°19'03
	276 Dec 02 j 09:22	0°			277 Nov 28 j 23:53	0°	
greatest brilliancy	276 Dec 03 j 13:42	1°45'53	-0.7m				

retrograde	727 Dec 03 j 17:16	1°☾50'09		retrograde	728 Nov 16 j 14:28	15°♄56'48	
asc. node	727 Dec 04 j 17:23	1°☾44'26		evening set	728 Nov 20 j 18:04	14°♄20'54	
evening set	727 Dec 07 j 10:21	0°☾30'11		asc. node	728 Nov 20 j 14:23	14°♄27'57	
	727 Dec 08 j 01:49	30°♈♄		inferior conj	728 Nov 26 j 03:46	8°♄03'21	1°49'18
inferior conj	727 Dec 12 j 21:44	24°♄22'07	2°32'10	minimum elong	728 Nov 26 j 01:32	8°♄11'02	1°48'29
minimum elong	727 Dec 12 j 19:03	24°♄31'11	2°31'21	min. Earth dist.	728 Nov 26 j 09:35	7°♄43'15	0.67570 AU
min. Earth dist.	727 Dec 13 j 15:17	23°♄22'49	0.67071 AU	morning rise	728 Dec 01 j 08:43	1°♄48'19	
morning rise	727 Dec 18 j 03:13	18°♄07'03			728 Dec 04 j 08:32	30°♈♄	
direct	727 Dec 23 j 19:20	15°♄37'24		direct	728 Dec 06 j 09:28	29°♄39'43	
morning max el	728 Jan 04 j 07:19	22°♄28'35	24°45'06		728 Dec 08 j 12:56	0°♄	
	728 Jan 10 j 22:03	0°☾		morning max el	728 Dec 16 j 16:28	5°♄46'57	23°17'21
desc. node	728 Jan 12 j 20:56	2°☾28'48		greatest brilliancy	728 Dec 21 j 21:32	11°♄38'09	-0.2m
	728 Jan 31 j 15:15	0°♈		desc. node	728 Dec 29 j 17:58	21°♄56'44	
morning set	728 Feb 09 j 08:46	14°♈46'06			729 Jan 04 j 08:59	0°☾	
max. Earth dist.	728 Feb 13 j 01:38	21°♈26'14	1.37262 AU	morning set	729 Jan 20 j 13:41	25°☾27'03	
	728 Feb 17 j 15:12	0°♈			729 Jan 23 j 06:04	0°♈	
				max. Earth dist.	729 Jan 24 j 20:45	2°♈47'06	1.39364 AU
superior conj	728 Feb 19 j 15:41	3°♈54'17	-1°-36'-22	superior conj	729 Feb 01 j 11:20	16°♈27'44	-1°-54'-23
minimum elong	728 Feb 19 j 19:43	4°♈13'54	1°35'55	minimum elong	729 Feb 01 j 14:40	16°♈43'13	1°54'11
evening rise	728 Feb 28 j 04:23	20°♈52'18			729 Feb 08 j 14:30	0°♈	
asc. node	728 Mar 01 j 16:42	25°♈50'22		evening rise	729 Feb 10 j 22:03	4°♈27'59	
	728 Mar 03 j 20:41	0°♈		asc. node	729 Feb 16 j 13:44	15°♈07'47	
evening max el	728 Mar 16 j 02:06	18°♈12'52	19°20'22		729 Feb 26 j 13:41	0°♈	
retrograde	728 Mar 25 j 05:21	22°♈37'02		evening max el	729 Feb 27 j 03:42	0°♈35'06	18°36'29
evening set	728 Mar 27 j 08:36	22°♈23'38		retrograde	729 Mar 06 j 22:49	4°♈23'42	
inferior conj	728 Apr 04 j 18:18	18°♈15'15	1°24'38	evening set	729 Mar 09 j 06:50	4°♈04'23	
minimum elong	728 Apr 04 j 21:33	18°♈09'53	1°23'33		729 Mar 16 j 10:06	30°♈♄	
min. Earth dist.	728 Apr 07 j 13:25	16°♈25'02	0.56252 AU	inferior conj	729 Mar 16 j 21:49	29°♈37'29	2°44'28
desc. node	728 Apr 09 j 20:09	15°♈02'50		minimum elong	729 Mar 17 j 01:58	29°♈29'29	2°43'29
morning rise	728 Apr 13 j 06:38	13°♈27'40		min. Earth dist.	729 Mar 20 j 07:16	27°♈01'39	0.58003 AU
direct	728 Apr 18 j 00:40	12°♈36'03		morning rise	729 Mar 24 j 16:56	24°♈17'55	
morning max el	728 May 02 j 04:33	19°♈48'09	25°06'49	desc. node	729 Mar 27 j 17:10	23°♈12'44	
	728 May 10 j 20:08	0°♈		direct	729 Mar 30 j 12:33	22°♈52'43	
	728 May 27 j 21:27	0°♈			729 Apr 13 j 09:24	0°♈	
morning set	728 May 28 j 13:28	1°♈24'02		morning max el	729 Apr 13 j 21:24	0°♈28'47	26°31'41
asc. node	728 May 28 j 15:55	1°♈37'00			729 May 04 j 17:19	0°♈	
superior conj	728 Jun 04 j 14:06	16°♈35'55	1°07'21	morning set	729 May 13 j 00:16	16°♈17'52	
minimum elong	728 Jun 04 j 11:44	16°♈22'59	1°06'56	asc. node	729 May 15 j 12:59	21°♈41'01	
max. Earth dist.	728 Jun 05 j 19:54	19°♈18'07	1.32791 AU		729 May 19 j 08:27	0°♈	
	728 Jun 10 j 20:25	0°♈		superior conj	729 May 20 j 01:40	1°♈34'31	0°46'18
evening rise	728 Jun 11 j 18:59	1°♈56'29		minimum elong	729 May 19 j 23:47	1°♈24'15	0°45'55
	728 Jun 27 j 05:47	0°♈		max. Earth dist.	729 May 20 j 07:26	2°♈06'16	1.32356 AU
desc. node	728 Jul 06 j 19:27	13°♈32'52		evening rise	729 May 27 j 01:19	16°♈39'48	
evening max el	728 Jul 14 j 02:05	21°♈36'32	27°21'06		729 Jun 02 j 18:17	0°♈	
retrograde	728 Jul 27 j 20:58	28°♈53'48			729 Jun 22 j 14:28	0°♈	
evening set	728 Aug 04 j 01:43	26°♈24'50		desc. node	729 Jun 23 j 16:28	1°♈11'22	
min. Earth dist.	728 Aug 07 j 15:39	23°♈30'55	0.62480 AU	evening max el	729 Jun 26 j 05:34	3°♈46'05	26°47'06
inferior conj	728 Aug 10 j 13:48	20°♈45'16	-4°00'-3	retrograde	729 Jul 10 j 04:42	11°♈01'08	
minimum elong	728 Aug 10 j 18:45	20°♈33'33	3°58'55	evening set	729 Jul 17 j 01:02	8°♈59'14	
morning rise	728 Aug 17 j 14:21	15°♈38'51		min. Earth dist.	729 Jul 20 j 19:18	6°♈21'23	0.60487 AU
direct	728 Aug 20 j 00:40	15°♈12'19		inferior conj	729 Jul 24 j 02:02	3°♈38'19	-4°-36'-5
asc. node	728 Aug 24 j 15:07	16°♈49'48		minimum elong	729 Jul 24 j 05:37	3°♈30'52	4°35'39
morning max el	728 Aug 26 j 18:39	18°♈38'29	17°53'10		729 Jul 29 j 01:21	30°♈♄	
	728 Sep 04 j 00:23	0°♈		morning rise	729 Jul 31 j 13:24	28°♈54'01	
morning set	728 Sep 11 j 20:56	13°♈45'26		direct	729 Aug 02 j 23:18	28°♈31'42	
	728 Sep 21 j 02:01	0°♈			729 Aug 07 j 15:33	0°♈	
superior conj	728 Sep 23 j 02:12	3°♈26'02	1°02'08	morning max el	729 Aug 10 j 07:00	2°♈06'50	18°07'49
minimum elong	728 Sep 23 j 07:02	3°♈46'30	1°01'32	asc. node	729 Aug 11 j 12:09	3°♈22'18	
max. Earth dist.	728 Sep 30 j 03:47	15°♈10'17	1.43202 AU	morning set	729 Aug 26 j 03:09	27°♈11'25	
desc. node	728 Oct 02 j 18:45	19°♈24'10			729 Aug 27 j 15:09	0°♈	
evening rise	728 Oct 07 j 23:33	27°♈36'44		superior conj	729 Sep 04 j 21:43	15°♈13'33	1°28'15
	728 Oct 09 j 12:28	0°♈		minimum elong	729 Sep 05 j 01:41	15°♈31'21	1°27'52
	728 Oct 29 j 23:31	0°♈		max. Earth dist.	729 Sep 12 j 12:46	28°♈28'34	1.41462 AU
greatest brilliancy	728 Nov 02 j 17:56	4°♈55'18	-0.4m		729 Sep 13 j 10:35	0°♈	
evening max el	728 Nov 07 j 18:03	10°♈40'58	21°28'40				

evening rise	729 Sep 17 j 21:42	7°♌19'41		max. Earth dist.	730 Aug 25 j 17:04	11°♍03'47	1.39467 AU
desc. node	729 Sep 19 j 15:46	10°♌08'19		evening rise	730 Aug 29 j 19:29	18°♍09'22	
	729 Oct 02 j 17:01	0°♌			730 Sep 06 j 01:08	0°♌	
greatest brilliancy	729 Oct 16 j 10:35	18°♌34'53	-0.3m	desc. node	730 Sep 06 j 12:48	0°♌46'01	
evening max el	729 Oct 21 j 10:42	24°♌11'24	22°46'24		730 Sep 27 j 02:35	0°♌	
	729 Oct 30 j 06:06	0°♌		evening max el	730 Oct 03 j 23:55	7°♌45'48	24°06'30
retrograde	729 Oct 31 j 09:30	0°♌06'05		retrograde	730 Oct 15 j 01:03	14°♌15'01	
	729 Nov 01 j 12:10	30°♌		evening set	730 Oct 20 j 07:02	12°♌04'18	
evening set	729 Nov 05 j 01:30	28°♌12'56		min. Earth dist.	730 Oct 25 j 02:26	6°♌31'19	0.67567 AU
asc. node	729 Nov 07 j 11:24	25°♌45'45		asc. node	730 Oct 25 j 08:26	6°♌11'03	
inferior conj	729 Nov 10 j 11:00	21°♌49'46	1°00'47	inferior conj	730 Oct 25 j 17:42	5°♌39'40	0°08'00
minimum elong	729 Nov 10 j 09:38	21°♌54'30	1°00'13	minimum elong	730 Oct 25 j 17:31	5°♌40'20	0°07'55
min. Earth dist.	729 Nov 10 j 06:06	22°♌06'42	0.67730 AU	transit middle	730 Oct 25 j 17:31	5°♌40'20	0°07'55
morning rise	729 Nov 15 j 17:42	15°♌37'02		transit begin	730 Oct 25 j 15:08	5°♌48'23	
direct	729 Nov 20 j 03:34	13°♌51'06		transit end	730 Oct 25 j 19:54	5°♌32'16	
morning max el	729 Nov 29 j 05:21	19°♌11'30	21°51'12		730 Oct 30 j 13:58	30°♌	
greatest brilliancy	729 Dec 04 j 00:46	24°♌37'52	-0.4m	morning rise	730 Oct 31 j 04:14	29°♌31'51	
	729 Dec 08 j 04:40	0°♌		direct	730 Nov 04 j 00:33	28°♌07'35	
desc. node	729 Dec 16 j 15:00	11°♌52'06			730 Nov 08 j 21:01	0°♌	
	729 Dec 28 j 13:52	0°♌		morning max el	730 Nov 12 j 01:03	2°♌45'56	20°33'50
morning set	729 Dec 31 j 13:21	4°♌43'14		greatest brilliancy	730 Nov 18 j 05:07	10°♌04'13	-0.5m
max. Earth dist.	730 Jan 06 j 19:07	14°♌53'57	1.41458 AU		730 Dec 02 j 02:15	0°♌	
				desc. node	730 Dec 03 j 12:03	2°♌07'32	
superior conj	730 Jan 14 j 11:33	28°♌02'44	-2°-2'-56	morning set	730 Dec 10 j 13:49	12°♌58'09	
minimum elong	730 Jan 14 j 12:08	28°♌05'18	2°02'56	max. Earth dist.	730 Dec 20 j 01:18	27°♌57'28	1.43252 AU
	730 Jan 15 j 14:08	0°♌			730 Dec 21 j 07:35	0°♌	
evening rise	730 Jan 25 j 04:01	17°♌25'26		superior conj	730 Dec 26 j 11:16	8°♌28'42	-1°-57'-17
	730 Feb 01 j 02:31	0°♌		minimum elong	730 Dec 26 j 07:01	8°♌10'58	1°57'06
asc. node	730 Feb 03 j 10:45	3°♌56'45		evening rise	731 Jan 07 j 18:19	29°♌37'13	
evening max el	730 Feb 10 j 11:57	13°♌24'25	18°12'37		731 Jan 07 j 23:30	0°♌	
retrograde	730 Feb 17 j 10:18	16°♌53'26		asc. node	731 Jan 21 j 07:47	22°♌08'58	
evening set	730 Feb 19 j 23:22	16°♌26'02		evening max el	731 Jan 24 j 23:48	26°♌32'51	18°08'16
inferior conj	730 Feb 26 j 22:01	11°♌37'54	3°30'00	retrograde	731 Jan 31 j 12:19	29°♌57'15	
minimum elong	730 Feb 27 j 00:36	11°♌32'06	3°29'40	evening set	731 Feb 03 j 06:02	29°♌20'28	
min. Earth dist.	730 Mar 02 j 06:24	8°♌38'58	0.60092 AU	inferior conj	731 Feb 09 j 15:51	24°♌11'00	3°47'08
morning rise	730 Mar 05 j 22:28	5°♌55'30		minimum elong	731 Feb 09 j 16:16	24°♌09'56	3°47'06
direct	730 Mar 12 j 12:59	3°♌52'52		min. Earth dist.	731 Feb 12 j 13:18	21°♌14'02	0.62184 AU
desc. node	730 Mar 14 j 14:11	4°♌04'13		morning rise	731 Feb 16 j 00:12	18°♌14'17	
morning max el	730 Mar 26 j 19:46	11°♌41'23	27°28'00	direct	731 Feb 22 j 23:08	15°♌41'53	
	730 Apr 10 j 04:23	0°♌		desc. node	731 Mar 01 j 11:14	17°♌37'08	
	730 Apr 26 j 20:25	0°♌		morning max el	731 Mar 09 j 00:04	23°♌34'55	27°48'14
morning set	730 Apr 27 j 08:12	1°♌00'54			731 Mar 14 j 18:23	0°♌	
asc. node	730 May 02 j 10:03	11°♌50'14			731 Apr 03 j 10:21	0°♌	
max. Earth dist.	730 May 03 j 19:46	14°♌54'28	1.32290 AU	morning set	731 Apr 11 j 11:14	15°♌26'17	
				max. Earth dist.	731 Apr 17 j 05:13	27°♌30'13	1.32612 AU
superior conj	730 May 04 j 13:14	16°♌30'10	0°22'25		731 Apr 18 j 08:56	0°♌	
minimum elong	730 May 04 j 12:14	16°♌24'42	0°22'13	superior conj	731 Apr 18 j 23:06	1°♌16'54	0°-3'-32
	730 May 10 j 18:02	0°♌		minimum elong	731 Apr 18 j 23:16	1°♌17'49	0°03'29
evening rise	730 May 11 j 11:18	1°♌31'37		behind sun begin	731 Apr 18 j 18:14	0°♌50'25	
	730 May 26 j 23:13	0°♌		behind sun end	731 Apr 19 j 04:19	1°♌45'13	
evening max el	730 Jun 08 j 02:18	15°♌10'24	25°42'08	asc. node	731 Apr 19 j 07:08	2°♌00'29	
desc. node	730 Jun 10 j 13:28	17°♌21'36		evening rise	731 Apr 25 j 23:00	16°♌25'02	
retrograde	730 Jun 22 j 03:21	22°♌21'09			731 May 02 j 17:17	0°♌	
evening set	730 Jun 28 j 02:17	20°♌56'54		evening max el	731 May 20 j 17:34	25°♌56'35	24°14'39
min. Earth dist.	730 Jul 02 j 14:40	18°♌17'06	0.58428 AU		731 May 25 j 18:04	0°♌	
inferior conj	730 Jul 05 j 20:42	15°♌56'54	-4°-50'-7	desc. node	731 May 28 j 10:30	1°♌29'22	
minimum elong	730 Jul 05 j 20:38	15°♌57'00	4°50'08	retrograde	731 Jun 03 j 14:11	2°♌55'25	
morning rise	730 Jul 13 j 18:42	11°♌35'19		evening set	731 Jun 08 j 04:33	2°♌08'23	
direct	730 Jul 16 j 06:30	11°♌15'27			731 Jun 12 j 19:08	30°♌	
morning max el	730 Jul 24 j 13:05	15°♌10'36	18°42'44	min. Earth dist.	731 Jun 14 j 04:41	29°♌10'16	0.56602 AU
asc. node	730 Jul 29 j 09:13	20°♌56'59		inferior conj	731 Jun 16 j 19:15	27°♌32'13	-4°-29'-5
	730 Aug 03 j 22:43	0°♌		minimum elong	731 Jun 16 j 14:14	27°♌40'08	4°28'23
morning set	730 Aug 09 j 20:55	11°♌11'42		morning rise	731 Jun 25 j 03:34	23°♌30'13	
				direct	731 Jun 27 j 19:01	23°♌11'34	
superior conj	730 Aug 18 j 14:27	28°♌04'25	1°42'25	morning max el	731 Jul 07 j 09:55	27°♌39'32	19°38'49
minimum elong	730 Aug 18 j 16:26	28°♌13'48	1°42'19				
	730 Aug 19 j 15:03	0°♌					

	731 Jul 09 j 16:10	0°☿		morning max el	732 Jun 18 j 19:44	9°♊26'51	20°55'30
asc. node	731 Jul 16 j 06:19	9°☿19'24		asc. node	732 Jul 02 j 03:24	28°♊18'14	
morning set	731 Jul 24 j 22:41	25°☿36'21			732 Jul 03 j 01:12	0°☿	
	731 Jul 27 j 02:56	0°♊		morning set	732 Jul 08 j 05:48	10°☿18'12	
superior conj	731 Aug 01 j 22:50	11°♊42'30	1°46'38	superior conj	732 Jul 15 j 18:20	25°☿54'53	1°42'55
minimum elong	731 Aug 01 j 22:52	11°♊42'42	1°46'39	minimum elong	732 Jul 15 j 16:57	25°☿47'43	1°42'51
max. Earth dist.	731 Aug 07 j 20:59	23°♊05'56	1.37468 AU		732 Jul 17 j 18:26	0°♊	
evening rise	731 Aug 11 j 17:12	0°♊06'48		max. Earth dist.	732 Jul 20 j 05:51	4°♊56'35	1.35683 AU
	731 Aug 11 j 15:41	0°♊		evening rise	732 Jul 24 j 10:49	13°♊02'14	
desc. node	731 Aug 24 j 09:49	21°♊12'21			732 Aug 03 j 01:44	0°♊	
	731 Aug 30 j 07:21	0°♊		desc. node	732 Aug 10 j 06:51	11°♊21'34	
evening max el	731 Sep 16 j 11:47	21°♊23'30	25°22'00		732 Aug 24 j 06:20	0°♊	
retrograde	731 Sep 28 j 12:12	28°♊18'50		evening max el	732 Aug 28 j 23:37	5°♊00'32	26°25'16
evening set	731 Oct 04 j 08:55	25°♊51'46		retrograde	732 Sep 10 j 18:24	12°♊12'15	
min. Earth dist.	731 Oct 08 j 20:04	20°♊54'12	0.67080 AU	evening set	732 Sep 17 j 05:12	9°♊32'48	
inferior conj	731 Oct 09 j 22:06	19°♊29'51	0°-47'-39	min. Earth dist.	732 Sep 21 j 08:36	5°♊12'22	0.66250 AU
minimum elong	731 Oct 09 j 23:19	19°♊25'56	0°47'10	inferior conj	732 Sep 22 j 22:18	3°♊17'42	-1°-44'-38
asc. node	731 Oct 12 j 05:30	16°♊37'15		minimum elong	732 Sep 23 j 01:00	3°♊09'26	1°43'33
morning rise	731 Oct 15 j 14:20	13°♊29'53			732 Sep 25 j 19:11	30°♊	
direct	731 Oct 18 j 22:59	12°♊24'37		asc. node	732 Sep 28 j 02:35	27°♊58'56	
morning max el	731 Oct 26 j 04:32	16°♊30'26	19°29'34	morning rise	732 Sep 28 j 21:56	27°♊28'35	
greatest brilliancy	731 Nov 04 j 00:42	27°♊46'09	-0.7m	direct	732 Oct 01 j 21:03	26°♊38'49	
	731 Nov 05 j 13:30	0°♊			732 Oct 08 j 05:39	0°♊	
morning set	731 Nov 19 j 12:36	21°♊17'13		morning max el	732 Oct 08 j 14:41	0°♊22'20	18°40'38
desc. node	731 Nov 20 j 09:06	22°♊36'39			732 Oct 28 j 21:25	0°♊	
	731 Nov 25 j 03:04	0°♊		morning set	732 Oct 29 j 08:21	0°♊43'29	
max. Earth dist.	731 Dec 02 j 14:59	11°♊46'39	1.44498 AU	desc. node	732 Nov 06 j 06:07	13°♊15'12	
superior conj	731 Dec 06 j 08:26	17°♊42'37	-1°-33'-29	superior conj	732 Nov 14 j 11:10	26°♊10'19	0°-52'-30
minimum elong	731 Dec 06 j 00:09	17°♊09'28	1°32'45	minimum elong	732 Nov 14 j 04:33	25°♊44'18	0°51'41
	731 Dec 13 j 22:31	0°♊		max. Earth dist.	732 Nov 14 j 08:54	26°♊01'23	1.45056 AU
evening rise	731 Dec 20 j 12:35	10°♊55'23			732 Nov 16 j 21:37	0°♊	
	732 Jan 01 j 02:27	0°♊		evening rise	732 Nov 30 j 07:33	21°♊15'14	
asc. node	732 Jan 08 j 04:49	9°♊33'28			732 Dec 05 j 18:46	0°♊	
evening max el	732 Jan 08 j 12:19	9°♊52'48	18°22'52	evening max el	732 Dec 21 j 22:54	23°♊18'14	18°55'24
retrograde	732 Jan 15 j 00:28	13°♊25'29		asc. node	732 Dec 25 j 01:52	25°♊56'23	
evening set	732 Jan 17 j 23:02	12°♊38'28		retrograde	732 Dec 28 j 18:44	27°♊10'01	
inferior conj	732 Jan 23 j 23:19	7°♊09'11	3°43'14	evening set	732 Dec 31 j 23:06	26°♊11'35	
minimum elong	732 Jan 23 j 21:59	7°♊12'58	3°43'06	inferior conj	733 Jan 06 j 16:39	20°♊24'57	3°24'03
min. Earth dist.	732 Jan 26 j 05:44	4°♊34'02	0.64029 AU	minimum elong	733 Jan 06 j 14:17	20°♊32'18	3°23'38
morning rise	732 Jan 29 j 19:27	1°♊03'29		min. Earth dist.	733 Jan 08 j 07:44	18°♊23'28	0.65517 AU
	732 Jan 31 j 06:02	30°♊		morning rise	733 Jan 12 j 04:29	14°♊13'36	
direct	732 Feb 05 j 17:02	28°♊15'11		direct	733 Jan 18 j 17:38	11°♊23'41	
	732 Feb 11 j 16:14	0°♊		morning max el	733 Jan 31 j 18:28	19°♊02'39	26°44'03
desc. node	732 Feb 16 j 08:18	3°♊18'32		desc. node	733 Feb 02 j 05:20	20°♊32'55	
morning max el	732 Feb 19 j 08:35	6°♊06'02	27°32'00		733 Feb 10 j 02:21	0°♊	
	732 Mar 08 j 14:44	0°♊			733 Mar 01 j 14:49	0°♊	
morning set	732 Mar 25 j 06:51	29°♊26'15		morning set	733 Mar 08 j 15:34	12°♊49'16	
	732 Mar 25 j 13:40	0°♊		max. Earth dist.	733 Mar 13 j 00:00	21°♊18'32	1.34524 AU
max. Earth dist.	732 Mar 30 j 07:52	9°♊41'29	1.33346 AU	superior conj	733 Mar 17 j 06:09	29°♊58'54	0°-57'-44
superior conj	732 Apr 02 j 05:30	15°♊49'05	0°-30'-37	minimum elong	733 Mar 17 j 08:58	0°♊13'29	0°57'14
minimum elong	732 Apr 02 j 07:00	15°♊57'03	0°30'18		733 Mar 17 j 06:22	0°♊	
asc. node	732 Apr 05 j 04:10	22°♊07'39		asc. node	733 Mar 23 j 01:11	12°♊07'08	
	732 Apr 08 j 20:34	0°♊		evening rise	733 Mar 24 j 20:03	15°♊50'42	
evening rise	732 Apr 09 j 10:34	1°♊13'54			733 Apr 01 j 01:02	0°♊	
	732 Apr 25 j 17:24	0°♊		evening max el	733 Apr 13 j 06:54	17°♊16'58	21°09'12
evening max el	732 May 01 j 08:43	6°♊28'49	22°38'55	retrograde	733 Apr 25 j 02:25	23°♊01'42	
desc. node	732 May 14 j 07:32	12°♊59'49		evening set	733 Apr 27 j 09:25	22°♊49'29	
retrograde	732 May 14 j 12:28	12°♊59'55		desc. node	733 May 01 j 04:34	21°♊40'53	
evening set	732 May 17 j 17:03	12°♊37'34		inferior conj	733 May 06 j 17:31	18°♊50'40	-1°-35'-12
min. Earth dist.	732 May 25 j 16:46	9°♊08'15	0.55352 AU	minimum elong	733 May 06 j 13:03	18°♊56'58	1°33'39
inferior conj	732 May 26 j 23:17	8°♊24'45	-3°-22'-18	min. Earth dist.	733 May 07 j 05:26	18°♊33'51	0.54958 AU
minimum elong	732 May 26 j 15:46	8°♊35'29	3°20'17	morning rise	733 May 15 j 16:30	14°♊49'04	
morning rise	732 Jun 04 j 17:03	4°♊32'15		direct	733 May 18 j 23:32	14°♊25'36	
direct	732 Jun 07 j 13:44	4°♊13'21		morning max el	733 May 31 j 18:56	20°♊31'52	22°28'57

	733 Jun 08 j 17:51	0°♊		min. Earth dist.	734 Apr 18 j 19:29	28°♊02'28	0.55531 AU
asc. node	733 Jun 19 j 00:27	17°♊43'38		morning rise	734 Apr 25 j 11:26	24°♊51'48	
morning set	733 Jun 22 j 16:07	25°♊10'18		direct	734 Apr 29 j 14:47	24°♊13'58	
	733 Jun 24 j 23:04	0°♋			734 May 12 j 05:40	0°♋	
				morning max el	734 May 13 j 11:00	1°♋06'56	24°10'13
superior conj	733 Jun 29 j 21:24	10°♋30'12	1°32'55		734 Jun 02 j 04:07	0°♊	
minimum elong	733 Jun 29 j 19:12	10°♋18'29	1°32'42	asc. node	734 Jun 05 j 21:29	7°♊28'32	
max. Earth dist.	733 Jul 02 j 23:20	16°♋57'20	1.34245 AU	morning set	734 Jun 07 j 03:54	10°♊07'21	
evening rise	733 Jul 07 j 19:30	26°♋42'10					
	733 Jul 09 j 12:27	0°♌		superior conj	734 Jun 14 j 05:23	25°♊20'04	1°17'54
	733 Jul 27 j 09:37	0°♌		minimum elong	734 Jun 14 j 02:55	25°♊06'45	1°17'31
desc. node	733 Jul 28 j 03:53	1°♌05'42		max. Earth dist.	734 Jun 16 j 01:56	29°♊19'56	1.33208 AU
evening max el	733 Aug 11 j 11:30	18°♌28'48	27°08'50		734 Jun 16 j 09:25	0°♋	
retrograde	733 Aug 24 j 19:21	25°♌47'44		evening rise	734 Jun 21 j 15:07	10°♋54'51	
evening set	733 Aug 31 j 17:30	23°♌03'24			734 Jul 01 j 19:28	0°♌	
min. Earth dist.	733 Sep 04 j 13:49	19°♌20'06	0.65054 AU	desc. node	734 Jul 15 j 00:55	20°♌13'53	
inferior conj	733 Sep 06 j 16:08	16°♌59'07	-2°-40'-51		734 Jul 23 j 06:57	0°♌	
minimum elong	733 Sep 06 j 20:13	16°♌47'39	2°39'25	evening max el	734 Jul 24 j 22:09	1°♌36'52	27°25'44
morning rise	733 Sep 13 j 00:36	11°♌23'59		retrograde	734 Aug 07 j 14:17	8°♌55'54	
asc. node	733 Sep 14 j 23:38	10°♌48'37		evening set	734 Aug 14 j 18:40	6°♌17'46	
direct	733 Sep 15 j 16:38	10°♌45'55		min. Earth dist.	734 Aug 18 j 09:49	3°♌07'55	0.63504 AU
morning max el	733 Sep 22 j 05:08	14°♌16'30	18°08'19	inferior conj	734 Aug 21 j 00:59	0°♌28'05	-3°-33'-21
	733 Oct 03 j 08:44	0°♍		minimum elong	734 Aug 21 j 05:55	0°♌15'33	3°31'58
morning set	733 Oct 10 j 09:04	11°♍35'43			734 Aug 21 j 12:05	30°♌♌	
	733 Oct 21 j 15:10	0°♍		morning rise	734 Aug 27 j 19:26	25°♌10'03	
desc. node	733 Oct 24 j 03:08	3°♍59'51		direct	734 Aug 30 j 06:58	24°♌40'13	
				asc. node	734 Sep 01 j 20:40	25°♌12'47	
superior conj	733 Oct 24 j 15:52	4°♍50'32	0°-3'-32	morning max el	734 Sep 05 j 21:03	28°♌05'58	17°53'26
minimum elong	733 Oct 24 j 15:25	4°♍48'44	0°03'28		734 Sep 07 j 14:43	0°♌	
behind sun begin	733 Oct 24 j 04:47	4°♍06'25		morning set	734 Sep 22 j 11:20	23°♌41'30	
behind sun end	733 Oct 25 j 02:03	5°♍31'00			734 Sep 26 j 02:36	0°♍	
max. Earth dist.	733 Oct 28 j 03:40	10°♍22'23	1.44873 AU				
	733 Nov 09 j 17:20	0°♎		superior conj	734 Oct 04 j 17:20	14°♍33'44	0°41'18
evening rise	733 Nov 10 j 04:18	0°♎42'31		minimum elong	734 Oct 04 j 21:23	14°♍50'25	0°40'46
greatest brilliancy	733 Nov 27 j 12:37	27°♎01'10	-0.6m	max. Earth dist.	734 Oct 10 j 20:22	24°♍31'39	1.43987 AU
	733 Nov 29 j 16:01	0°♏		desc. node	734 Oct 11 j 00:11	24°♍46'54	
evening max el	733 Dec 05 j 05:34	6°♏46'29	19°44'21		734 Oct 14 j 06:59	0°♍	
asc. node	733 Dec 11 j 22:53	11°♏03'12		evening rise	734 Oct 20 j 12:17	9°♍41'58	
retrograde	733 Dec 12 j 15:55	11°♏06'01			734 Nov 02 j 23:19	0°♎	
evening set	733 Dec 16 j 03:44	9°♏54'37		greatest brilliancy	734 Nov 12 j 14:48	13°♎32'34	-0.5m
inferior conj	733 Dec 21 j 16:50	3°♏53'32	2°53'40	evening max el	734 Nov 18 j 06:56	20°♎15'34	20°47'25
minimum elong	733 Dec 21 j 14:06	4°♏02'33	2°52'57	retrograde	734 Nov 26 j 13:35	25°♎09'23	
min. Earth dist.	733 Dec 22 j 17:51	2°♏30'56	0.66614 AU	asc. node	734 Nov 28 j 19:55	24°♎40'28	
	733 Dec 24 j 17:54	30°♎♎		evening set	734 Nov 30 j 10:50	23°♎43'04	
morning rise	733 Dec 26 j 23:46	27°♎39'02		inferior conj	734 Dec 05 j 21:19	17°♎30'43	2°14'47
direct	734 Jan 02 j 00:15	24°♎59'20		minimum elong	734 Dec 05 j 18:47	17°♎39'25	2°13'56
	734 Jan 11 j 19:51	0°♏		min. Earth dist.	734 Dec 06 j 09:49	16°♎48'01	0.67330 AU
morning max el	734 Jan 14 j 03:34	2°♏12'34	25°32'41	morning rise	734 Dec 11 j 02:16	11°♎15'18	
desc. node	734 Jan 20 j 02:21	8°♏53'32		direct	734 Dec 16 j 11:58	8°♎53'52	
	734 Feb 04 j 05:38	0°♐		morning max el	734 Dec 27 j 11:50	15°♎27'23	24°07'59
morning set	734 Feb 19 j 08:53	25°♐22'18		desc. node	735 Jan 06 j 23:22	28°♎00'48	
	734 Feb 21 j 21:09	0°♑			735 Jan 08 j 10:38	0°♏	
max. Earth dist.	734 Feb 23 j 04:08	2°♑25'46	1.36152 AU		735 Jan 28 j 04:34	0°♐	
				morning set	735 Feb 01 j 04:52	6°♐48'23	
superior conj	734 Feb 28 j 22:27	13°♑39'12	-1°-23'-16	max. Earth dist.	735 Feb 04 j 23:58	13°♐29'15	1.38143 AU
minimum elong	734 Mar 01 j 02:14	13°♑58'11	1°22'44				
	734 Mar 08 j 23:33	0°♒		superior conj	735 Feb 12 j 02:53	26°♐40'20	-1°-44'-55
evening rise	734 Mar 09 j 01:23	0°♒09'16		minimum elong	735 Feb 12 j 06:49	26°♐59'08	1°44'33
asc. node	734 Mar 09 j 22:13	1°♒54'34			735 Feb 13 j 20:26	0°♑	
evening max el	734 Mar 26 j 16:22	28°♒41'12	19°54'40	evening rise	735 Feb 21 j 00:07	14°♑02'28	
	734 Mar 28 j 03:36	0°♓		asc. node	735 Feb 24 j 19:15	21°♑24'33	
retrograde	734 Apr 05 j 18:32	3°♓32'18			735 Mar 01 j 13:45	0°♒	
evening set	734 Apr 07 j 20:15	3°♓20'56		evening max el	735 Mar 09 j 12:49	10°♒44'07	18°59'15
	734 Apr 15 j 14:17	30°♓♓		retrograde	735 Mar 18 j 00:50	14°♒50'38	
inferior conj	734 Apr 16 j 16:21	29°♒20'27	0°23'47	evening set	735 Mar 20 j 06:05	14°♒35'01	
minimum elong	734 Apr 16 j 17:24	29°♒18'51	0°23'24	inferior conj	735 Mar 28 j 07:45	10°♒19'38	2°02'49
desc. node	734 Apr 18 j 01:35	28°♒29'33		minimum elong	735 Mar 28 j 11:48	10°♒12'29	2°01'38

min. Earth dist.	735 Mar 31 j 11:18	8°♊07'39	0.56938 AU	minimum elong	736 Mar 08 j 23:57	21°♋50'59	3°07'03
desc. node	735 Apr 04 j 22:34	5°♊33'35		min. Earth dist.	736 Mar 12 j 06:47	19°♋10'05	0.58877 AU
morning rise	735 Apr 05 j 13:19	5°♊17'51		morning rise	736 Mar 16 j 07:23	16°♋28'22	
direct	735 Apr 10 j 18:57	4°♊12'47		desc. node	736 Mar 21 j 19:36	14°♋48'29	
morning max el	735 Apr 25 j 01:41	11°♊36'41	25°45'37	direct	736 Mar 22 j 12:14	14°♋47'13	
	735 May 09 j 05:46	0°♋		morning max el	736 Apr 05 j 20:33	22°♋28'43	26°59'49
morning set	735 May 22 j 15:32	25°♋04'15			736 Apr 12 j 12:21	0°♊	
asc. node	735 May 23 j 18:32	27°♋27'17			736 May 01 j 03:25	0°♋	
	735 May 24 j 23:00	0°♌		morning set	736 May 06 j 01:21	9°♋54'28	
				asc. node	736 May 09 j 15:34	17°♋34'04	
superior conj	735 May 29 j 16:11	10°♌17'38	0°58'48	superior conj	736 May 13 j 03:57	25°♋15'42	0°36'28
minimum elong	735 May 29 j 13:58	10°♌05'31	0°58'24	minimum elong	736 May 13 j 02:24	25°♋07'14	0°36'09
max. Earth dist.	735 May 30 j 11:20	12°♌02'24	1.32561 AU	max. Earth dist.	736 May 12 j 23:53	24°♋53'24	1.32286 AU
evening rise	735 Jun 05 j 18:21	25°♌30'09			736 May 15 j 07:43	0°♌	
	735 Jun 07 j 23:16	0°♍		evening rise	736 May 20 j 02:31	10°♌18'19	
	735 Jun 25 j 09:38	0°♎			736 May 30 j 06:34	0°♍	
desc. node	735 Jul 01 j 21:55	8°♎31'23		desc. node	736 Jun 17 j 18:56	25°♍36'09	
evening max el	735 Jul 07 j 05:16	14°♎12'14	27°10'51	evening max el	736 Jun 18 j 06:04	26°♍02'59	26°22'55
retrograde	735 Jul 21 j 02:16	21°♎28'08			736 Jun 23 j 01:47	0°♎	
evening set	735 Jul 28 j 04:45	19°♎09'28		retrograde	736 Jul 02 j 05:59	3°♎15'49	
min. Earth dist.	735 Jul 31 j 19:28	16°♎24'02	0.61649 AU	evening set	736 Jul 08 j 19:05	1°♎29'06	
inferior conj	735 Aug 03 j 21:49	13°♎37'34	-4°-17'-22		736 Jul 11 j 05:35	30°♏♍	
minimum elong	735 Aug 04 j 02:26	13°♎27'12	4°16'32	min. Earth dist.	736 Jul 12 j 19:04	28°♍52'55	0.59607 AU
morning rise	735 Aug 11 j 02:54	8°♎39'57		inferior conj	736 Jul 16 j 03:00	26°♍17'13	-4°-45'-27
direct	735 Aug 13 j 12:45	8°♎15'24		minimum elong	736 Jul 16 j 05:19	26°♍12'40	4°45'18
asc. node	735 Aug 19 j 17:43	11°♎03'00		morning rise	736 Jul 23 j 18:54	21°♍42'34	
morning max el	735 Aug 20 j 11:32	11°♎44'26	17°56'59	direct	736 Jul 26 j 05:33	21°♍21'19	
	735 Sep 01 j 16:07	0°♐		morning max el	736 Aug 02 j 21:33	25°♍03'11	18°20'10
morning set	735 Sep 05 j 09:01	6°♐43'24		asc. node	736 Aug 05 j 14:47	28°♍03'40	
					736 Aug 07 j 01:59	0°♎	
superior conj	735 Sep 15 j 22:12	25°♐37'56	1°14'46	morning set	736 Aug 18 j 20:39	20°♎25'21	
minimum elong	735 Sep 16 j 02:55	25°♐58'26	1°14'14		736 Aug 23 j 21:30	0°♐	
	735 Sep 18 j 11:04	0°♑		superior conj	736 Aug 28 j 03:26	7°♐54'18	1°35'36
max. Earth dist.	735 Sep 23 j 09:00	8°♑14'16	1.42512 AU	minimum elong	736 Aug 28 j 06:37	8°♐08'52	1°35'22
desc. node	735 Sep 27 j 21:14	15°♑33'19		max. Earth dist.	736 Sep 04 j 16:14	21°♐16'09	1.40631 AU
evening rise	735 Sep 30 j 00:45	18°♑57'53		evening rise	736 Sep 09 j 08:22	29°♐07'13	
	735 Oct 07 j 04:11	0°♒			736 Sep 09 j 21:13	0°♑	
greatest brilliancy	735 Oct 27 j 09:01	28°♒24'03	-0.3m	desc. node	736 Sep 13 j 18:16	6°♑15'11	
	735 Oct 28 j 16:53	0°♓			736 Sep 29 j 17:19	0°♒	
evening max el	735 Nov 01 j 02:42	3°♓45'48	22°01'04	evening max el	736 Oct 13 j 17:38	17°♒17'42	23°20'34
retrograde	735 Nov 10 j 09:55	9°♓17'39		retrograde	736 Oct 24 j 03:34	23°♒27'31	
evening set	735 Nov 14 j 18:38	7°♓34'34		evening set	736 Oct 29 j 01:30	21°♒26'37	
asc. node	735 Nov 15 j 16:56	6°♓45'27		asc. node	736 Nov 01 j 13:59	17°♒35'25	
inferior conj	735 Nov 20 j 04:06	1°♓14'24	1°29'21	inferior conj	736 Nov 03 j 11:20	15°♒02'23	0°38'51
minimum elong	735 Nov 20 j 02:12	1°♓21'00	1°28'36	minimum elong	736 Nov 03 j 10:25	15°♒05'29	0°38'27
min. Earth dist.	735 Nov 20 j 05:18	1°♓10'15	0.67686 AU	min. Earth dist.	736 Nov 03 j 01:56	15°♒34'35	0.67700 AU
	735 Nov 21 j 01:41	30°♓♒		morning rise	736 Nov 08 j 19:26	8°♒51'42	
morning rise	735 Nov 25 j 09:33	25°♒00'13		direct	736 Nov 12 j 23:21	7°♒15'21	
direct	735 Nov 30 j 03:59	23°♒01'04		morning max el	736 Nov 21 j 13:40	12°♒16'33	21°17'01
morning max el	735 Dec 09 j 22:00	28°♒47'31	22°39'58	greatest brilliancy	736 Nov 26 j 19:30	18°♒17'59	-0.4m
	735 Dec 11 j 01:52	0°♓			736 Dec 05 j 09:46	0°♓	
greatest brilliancy	735 Dec 14 j 12:40	3°♓56'46	-0.3m	desc. node	736 Dec 10 j 17:29	7°♓46'38	
desc. node	735 Dec 24 j 20:25	17°♓41'40		morning set	736 Dec 22 j 09:47	25°♓38'36	
	736 Jan 02 j 04:54	0°♔			736 Dec 25 j 03:45	0°♔	
morning set	736 Jan 12 j 21:30	16°♔53'01		max. Earth dist.	736 Dec 29 j 22:09	7°♔42'52	1.42273 AU
max. Earth dist.	736 Jan 17 j 19:59	25°♔08'31	1.40283 AU				
	736 Jan 20 j 15:35	0°♕		superior conj	737 Jan 06 j 05:25	19°♔58'27	-2°-2'-33
superior conj	736 Jan 25 j 14:59	8°♕51'01	-1°-59'-26	minimum elong	737 Jan 06 j 04:08	19°♔52'55	2°02'33
minimum elong	736 Jan 25 j 17:27	9°♕02'11	1°59'21		737 Jan 11 j 23:01	0°♕	
evening rise	736 Feb 04 j 13:16	27°♕23'07		evening rise	737 Jan 17 j 13:12	10°♕03'17	
	736 Feb 05 j 22:27	0°♖		asc. node	737 Jan 28 j 13:19	29°♕06'04	
asc. node	736 Feb 11 j 16:16	10°♖30'53			737 Jan 29 j 03:38	0°♖	
evening max el	736 Feb 20 j 17:40	23°♖19'11	18°23'49	evening max el	737 Feb 03 j 03:50	6°♖18'10	18°08'19
retrograde	736 Feb 28 j 02:20	26°♖57'22		retrograde	737 Feb 09 j 20:51	9°♖43'51	
evening set	736 Mar 01 j 12:42	26°♖34'40		evening set	737 Feb 12 j 11:51	9°♖12'37	
inferior conj	736 Mar 08 j 20:17	21°♖58'33	3°07'46				

inferior conj	737 Feb 19 j 04:35	4° H 15'02	3°40'17		737 Dec 17 j 19:28	0° Z	
minimum elong	737 Feb 19 j 06:14	4° H 11'05	3°40'08	evening rise	737 Dec 30 j 19:31	21° Z 53'15	
min. Earth dist.	737 Feb 22 j 08:59	1° H 14'12	0.60995 AU		738 Jan 04 j 12:34	0° \approx	
	737 Feb 23 j 19:09	30° $\text{R}\approx$		asc. node	738 Jan 15 j 10:22	16° \approx 59'47	
morning rise	737 Feb 25 j 21:44	28° \approx 25'26		evening max el	738 Jan 17 j 16:15	19° \approx 32'12	18°12'12
direct	737 Mar 04 j 16:54	26° \approx 09'04		retrograde	738 Jan 24 j 03:46	22° \approx 59'02	
desc. node	737 Mar 08 j 16:39	26° \approx 52'21		evening set	738 Jan 26 j 23:20	22° \approx 18'12	
	737 Mar 14 j 07:23	0° H		inferior conj	738 Feb 02 j 04:44	17° \approx 00'11	3°47'37
morning max el	737 Mar 18 j 21:55	4° H 00'20	27°41'15	minimum elong	738 Feb 02 j 04:20	17° \approx 01'16	3°47'37
	737 Apr 07 j 03:37	0° Y		min. Earth dist.	738 Feb 04 j 20:05	14° \approx 10'15	0.63002 AU
morning set	737 Apr 20 j 07:32	24° Y 31'41		morning rise	738 Feb 08 j 07:22	10° \approx 58'51	
	737 Apr 22 j 22:21	0° Z		direct	738 Feb 15 j 06:40	8° \approx 17'39	
max. Earth dist.	737 Apr 26 j 11:40	7° Z 39'19	1.32384 AU	desc. node	738 Feb 23 j 13:42	11° \approx 24'20	
asc. node	737 Apr 26 j 12:38	7° Z 44'34		morning max el	738 Mar 01 j 04:28	16° \approx 11'43	27°45'34
					738 Mar 12 j 13:49	0° H	
superior conj	737 Apr 27 j 15:02	10° Z 08'42	0°11'38		738 Mar 30 j 19:30	0° Y	
minimum elong	737 Apr 27 j 14:30	10° Z 05'46	0°11'32	morning set	738 Apr 04 j 07:47	8° Y 47'47	
behind sun begin	737 Apr 27 j 11:00	9° Z 46'38		max. Earth dist.	738 Apr 09 j 18:36	20° Y 05'41	1.32872 AU
behind sun end	737 Apr 27 j 18:00	10° Z 24'55					
evening rise	737 May 04 j 13:30	25° Z 12'01		superior conj	738 Apr 11 j 23:40	24° Y 50'11	0°-14'-55
	737 May 06 j 20:45	0° II		minimum elong	738 Apr 12 j 00:23	24° Y 54'03	0°14'46
	737 May 24 j 15:40	0° Z		behind sun begin	738 Apr 11 j 22:27	24° Y 43'34	
evening max el	737 May 30 j 23:50	7° Z 08'21	25°06'44	behind sun end	738 Apr 12 j 02:20	25° Y 04'32	
desc. node	737 Jun 04 j 15:56	10° Z 58'52		asc. node	738 Apr 13 j 09:42	27° Y 54'07	
retrograde	737 Jun 13 j 23:55	14° Z 15'53			738 Apr 14 j 08:56	0° Z	
evening set	737 Jun 19 j 10:13	13° Z 07'58		evening rise	738 Apr 19 j 01:22	10° Z 04'12	
min. Earth dist.	737 Jun 24 j 11:27	10° Z 22'18	0.57607 AU		738 Apr 29 j 09:07	0° II	
inferior conj	737 Jun 27 j 13:11	8° Z 17'42	-4°-46'-16	evening max el	738 May 12 j 14:03	17° II 44'44	23°33'57
minimum elong	737 Jun 27 j 11:01	8° Z 21'22	4°46'09	desc. node	738 May 22 j 12:57	24° II 03'36	
morning rise	737 Jul 05 j 15:41	4° Z 05'35		retrograde	738 May 26 j 05:51	24° II 34'50	
direct	737 Jul 08 j 04:55	3° Z 46'25		evening set	738 May 30 j 04:51	24° II 00'22	
morning max el	737 Jul 17 j 00:03	7° Z 53'24	19°04'03	min. Earth dist.	738 Jun 06 j 00:32	20° II 50'11	0.55979 AU
asc. node	737 Jul 23 j 11:51	16° Z 00'06		inferior conj	738 Jun 08 j 03:17	19° II 34'13	-4°-6'-35
	737 Jul 31 j 09:37	0° Z		minimum elong	738 Jun 07 j 20:38	19° II 44'14	4°05'15
morning set	737 Aug 02 j 18:08	4° Z 36'37		morning rise	738 Jun 16 j 15:52	15° II 37'58	
				direct	738 Jun 19 j 08:56	15° II 19'40	
superior conj	737 Aug 11 j 03:27	21° Z 07'06	1°45'18	morning max el	738 Jun 29 j 16:26	20° II 06'01	20°09'04
minimum elong	737 Aug 11 j 04:34	21° Z 12'28	1°45'16		738 Jul 07 j 13:32	0° Z	
	737 Aug 15 j 20:32	0° H		asc. node	738 Jul 10 j 08:56	4° Z 39'29	
max. Earth dist.	737 Aug 17 j 19:30	3° H 34'10	1.38597 AU	morning set	738 Jul 17 j 22:27	19° Z 09'28	
evening rise	737 Aug 21 j 16:34	10° H 25'48			738 Jul 23 j 05:34	0° Z	
desc. node	737 Aug 31 j 15:18	26° H 48'29					
	737 Sep 02 j 16:48	0° Z		superior conj	738 Jul 25 j 17:05	5° Z 01'39	1°45'56
	737 Sep 25 j 08:54	0° H		minimum elong	738 Jul 25 j 16:26	4° Z 58'25	1°45'55
evening max el	737 Sep 26 j 05:46	0° H 52'34	24°39'40	max. Earth dist.	738 Jul 31 j 00:24	15° Z 26'39	1.36668 AU
retrograde	737 Oct 07 j 17:27	7° H 34'49		evening rise	738 Aug 03 j 23:23	22° Z 50'05	
evening set	737 Oct 13 j 05:42	5° H 16'34			738 Aug 07 j 23:57	0° H	
	737 Oct 17 j 20:57	30° RZ		desc. node	738 Aug 18 j 12:19	17° H 08'32	
min. Earth dist.	737 Oct 17 j 21:24	29° Z 58'30	0.67392 AU		738 Aug 27 j 10:49	0° Z	
inferior conj	737 Oct 18 j 17:16	28° Z 52'22	0°-15'-22	evening max el	738 Sep 08 j 17:28	14° Z 30'55	25°50'58
minimum elong	737 Oct 18 j 17:38	28° Z 51'06	0°15'13	retrograde	738 Sep 21 j 02:45	21° Z 35'12	
transit middle	737 Oct 18 j 17:38	28° Z 51'06	0°15'13	evening set	738 Sep 27 j 05:28	19° Z 02'18	
transit begin	737 Oct 18 j 16:40	28° Z 54'19		min. Earth dist.	738 Oct 01 j 13:15	14° Z 20'10	0.66760 AU
transit end	737 Oct 18 j 18:36	28° Z 47'54		inferior conj	738 Oct 02 j 20:07	12° Z 42'30	-1°-11'-48
asc. node	737 Oct 19 j 11:04	27° Z 53'25		minimum elong	738 Oct 02 j 21:57	12° Z 36'40	1°11'02
morning rise	737 Oct 24 j 06:00	22° Z 47'39		asc. node	738 Oct 06 j 08:07	8° Z 37'53	
direct	737 Oct 27 j 20:59	21° Z 32'06		morning rise	738 Oct 08 j 15:16	6° Z 46'36	
morning max el	737 Nov 04 j 12:47	25° Z 55'40	20°04'47	direct	738 Oct 11 j 19:31	5° Z 48'28	
	737 Nov 08 j 03:08	0° H		morning max el	738 Oct 18 j 19:18	9° Z 44'03	19°06'46
greatest brilliancy	737 Nov 11 j 14:27	4° H 31'36	-0.6m		738 Nov 02 j 11:42	0° H	
desc. node	737 Nov 27 j 14:32	28° H 08'20		morning set	738 Nov 10 j 11:50	12° H 27'45	
	737 Nov 28 j 19:39	0° Z		desc. node	738 Nov 14 j 11:35	18° H 42'10	
morning set	737 Dec 01 j 06:15	3° Z 45'46			738 Nov 21 j 16:40	0° Z	
max. Earth dist.	737 Dec 12 j 07:27	21° Z 06'35	1.43848 AU	max. Earth dist.	738 Nov 24 j 22:47	5° Z 07'09	1.44819 AU
superior conj	737 Dec 17 j 17:36	29° Z 52'25	-1°-49'-32	superior conj	738 Nov 27 j 05:10	8° Z 41'50	-1°-17'-52
minimum elong	737 Dec 17 j 11:14	29° Z 26'23	1°49'08	minimum elong	738 Nov 26 j 20:44	8° Z 08'30	1°16'58

	738 Dec 10 j 11:22	0°☿		superior conj	739 Nov 06 j 05:48	17°♌06'33	0°-31'-55
evening rise	738 Dec 12 j 04:04	2°☿46'29		minimum elong	739 Nov 06 j 01:38	16°♌50'06	0°31'22
	738 Dec 29 j 15:10	0°≈		max. Earth dist.	739 Nov 07 j 17:29	19°♌26'54	1.45072 AU
evening max el	739 Jan 01 j 04:16	2°≈55'20	18°34'38		739 Nov 14 j 10:52	0°♏	
asc. node	739 Jan 02 j 07:24	4°≈00'05		evening rise	739 Nov 22 j 12:55	12°♏41'50	
retrograde	739 Jan 07 j 18:48	6°≈34'46			739 Dec 03 j 14:03	0°☿	
evening set	739 Jan 10 j 19:39	5°≈43'08		greatest brilliancy	739 Dec 05 j 17:26	3°☿15'57	-0.7m
inferior conj	739 Jan 16 j 16:48	0°≈06'29	3°36'38	evening max el	739 Dec 15 j 13:27	16°☿22'27	19°14'26
minimum elong	739 Jan 16 j 14:57	0°≈12'00	3°36'25	asc. node	739 Dec 20 j 04:26	19°☿52'30	
	739 Jan 16 j 18:59	30°☿		retrograde	739 Dec 22 j 14:31	20°☿24'40	
min. Earth dist.	739 Jan 18 j 16:44	27°☿44'21	0.64712 AU	evening set	739 Dec 25 j 21:56	19°☿20'48	
morning rise	739 Jan 22 j 08:57	23°☿58'06		inferior conj	739 Dec 31 j 13:20	13°☿27'46	3°12'20
direct	739 Jan 29 j 03:48	21°☿07'05		minimum elong	739 Dec 31 j 10:44	13°☿36'03	3°11'47
desc. node	739 Feb 10 j 10:45	27°☿48'51		min. Earth dist.	740 Jan 01 j 22:14	11°☿42'37	0.66033 AU
morning max el	739 Feb 11 j 13:41	28°☿54'35	27°14'56	morning rise	740 Jan 05 j 22:43	7°☿15'07	
	739 Feb 12 j 15:12	0°≈		direct	740 Jan 12 j 07:00	4°☿28'18	
	739 Mar 06 j 09:41	0°♈		morning max el	740 Jan 24 j 23:10	11°☿57'21	26°16'02
morning set	739 Mar 18 j 23:13	22°♈33'31		desc. node	740 Jan 28 j 07:48	15°☿34'02	
	739 Mar 22 j 17:00	0°♐			740 Feb 08 j 10:51	0°≈	
max. Earth dist.	739 Mar 23 j 16:51	2°♐01'39	1.33791 AU		740 Feb 27 j 00:32	0°♈	
				morning set	740 Mar 01 j 02:02	5°♈37'21	
superior conj	739 Mar 27 j 03:55	9°♐14'02	0°-42'-11	max. Earth dist.	740 Mar 05 j 03:50	13°♈24'47	1.35162 AU
minimum elong	739 Mar 27 j 05:59	9°♐24'57	0°41'48				
asc. node	739 Mar 31 j 06:44	17°♐58'43		superior conj	740 Mar 10 j 01:26	23°♈13'03	-1°-8'-52
evening rise	739 Apr 03 j 12:15	24°♐48'41		minimum elong	740 Mar 10 j 04:43	23°♈29'53	1°08'20
	739 Apr 06 j 00:38	0°♉			740 Mar 13 j 08:23	0°♐	
evening max el	739 Apr 24 j 07:37	28°♉21'19	21°59'21	asc. node	740 Mar 17 j 03:45	7°♐54'13	
	739 Apr 26 j 03:24	0°♊		evening rise	740 Mar 17 j 20:16	9°♐19'18	
retrograde	739 May 06 j 23:25	4°♊33'56			740 Mar 28 j 23:59	0°♉	
desc. node	739 May 09 j 09:58	4°♊20'40		evening max el	740 Apr 05 j 10:31	9°♉24'37	20°35'21
evening set	739 May 09 j 16:36	4°♊17'33		retrograde	740 Apr 16 j 12:26	14°♉46'01	
min. Earth dist.	739 May 18 j 12:55	0°♊30'46	0.55071 AU	evening set	740 Apr 18 j 15:49	14°♉34'50	
inferior conj	739 May 19 j 01:41	0°♊12'52	-2°-40'-32	desc. node	740 Apr 25 j 06:59	12°♉03'18	
minimum elong	739 May 18 j 18:48	0°♊22'31	2°38'25	inferior conj	740 Apr 27 j 20:08	10°♉37'19	0°-44'-8
	739 May 19 j 10:51	30°♊		minimum elong	740 Apr 27 j 18:03	10°♉40'20	0°43'24
morning rise	739 May 27 j 22:24	26°♊18'36		min. Earth dist.	740 Apr 29 j 01:53	9°♊54'27	0.55091 AU
direct	739 May 30 j 22:38	25°♊58'26		morning rise	740 May 06 j 18:49	6°♊26'21	
	739 Jun 10 j 01:24	0°♋		direct	740 May 10 j 09:34	5°♊58'10	
morning max el	739 Jun 11 j 21:25	1°♋34'44	21°33'32	morning max el	740 May 23 j 16:53	12°♊25'03	23°11'41
asc. node	739 Jun 27 j 05:59	23°♋50'49			740 Jun 05 j 22:27	0°♌	
	739 Jun 30 j 08:59	0°♍		asc. node	740 Jun 13 j 03:01	13°♌26'02	
morning set	739 Jul 02 j 07:09	3°♍56'34		morning set	740 Jun 15 j 18:21	18°♌52'26	
					740 Jun 20 j 23:24	0°♎	
superior conj	739 Jul 09 j 16:09	19°♍25'02	1°39'22				
minimum elong	739 Jul 09 j 14:20	19°♍15'34	1°39'14	superior conj	740 Jun 22 j 21:37	4°♎08'05	1°27'06
max. Earth dist.	739 Jul 13 j 12:46	27°♍20'06	1.35027 AU	minimum elong	740 Jun 22 j 19:14	3°♎55'20	1°26'48
	739 Jul 14 j 20:45	0°♏		max. Earth dist.	740 Jun 25 j 10:40	9°♎32'01	1.33764 AU
evening rise	739 Jul 18 j 00:00	6°♏06'36		evening rise	740 Jun 30 j 13:51	20°♎02'37	
	739 Jul 31 j 17:01	0°♐			740 Jul 05 j 18:39	0°♏	
desc. node	739 Aug 05 j 09:20	7°♐08'19		desc. node	740 Jul 22 j 06:20	26°♏38'59	
evening max el	739 Aug 22 j 05:36	28°♐06'25	26°46'45		740 Jul 24 j 17:42	0°♐	
	739 Aug 24 j 07:18	0°♑		evening max el	740 Aug 03 j 17:22	11°♐28'25	27°19'31
retrograde	739 Sep 04 j 06:40	5°♑21'46		retrograde	740 Aug 17 j 04:50	18°♐47'02	
evening set	739 Sep 10 j 22:38	2°♑39'30		evening set	740 Aug 24 j 06:35	16°♐03'58	
	739 Sep 13 j 16:47	30°♑		min. Earth dist.	740 Aug 28 j 00:27	12°♐35'39	0.64448 AU
min. Earth dist.	739 Sep 14 j 23:03	28°♐34'43	0.65785 AU	inferior conj	740 Aug 30 j 08:14	10°♐05'44	-3°-3'-47
inferior conj	739 Sep 16 j 17:52	26°♐28'32	-2°-8'-44	minimum elong	740 Aug 30 j 12:46	9°♐53'30	3°02'18
minimum elong	739 Sep 16 j 21:12	26°♐18'43	2°07'28	morning rise	740 Sep 05 j 20:50	4°♐37'25	
morning rise	739 Sep 22 j 21:04	20°♐44'39		direct	740 Sep 08 j 10:45	4°♐03'07	
asc. node	739 Sep 23 j 05:10	20°♐34'44		asc. node	740 Sep 09 j 02:13	4°♐05'17	
direct	739 Sep 25 j 16:55	20°♐00'13		morning max el	740 Sep 14 j 22:53	7°♐30'15	17°59'46
morning max el	739 Oct 02 j 07:29	23°♐37'13	18°24'45		740 Sep 30 j 00:10	0°♑	
	739 Oct 07 j 11:36	0°♒		morning set	740 Oct 02 j 08:05	3°♑56'50	
morning set	739 Oct 21 j 19:48	22°♑30'50					
	739 Oct 26 j 11:17	0°♓		superior conj	740 Oct 15 j 17:35	26°♑08'40	0°16'38
desc. node	739 Nov 01 j 08:37	9°♓23'40		minimum elong	740 Oct 15 j 19:30	26°♑16'27	0°16'22
				desc. node	740 Oct 18 j 05:38	0°♓09'44	

	740 Oct 18 j 03:12	0°♄		superior conj	741 Sep 26 j 06:45	6°♄27'05	0°57'03
max. Earth dist.	740 Oct 20 j 12:15	3°♄47'02	1.44584 AU	minimum elong	741 Sep 26 j 11:29	6°♄47'01	0°56'28
evening rise	740 Nov 01 j 02:31	21°♄53'08		max. Earth dist.	741 Oct 03 j 03:34	17°♄47'35	1.43421 AU
	740 Nov 06 j 09:28	0°♄		desc. node	741 Oct 05 j 02:41	20°♄57'10	
greatest brilliancy	740 Nov 21 j 01:16	21°♄37'42	-0.6m		741 Oct 10 j 20:17	0°♄	
evening max el	740 Nov 27 j 17:57	29°♄50'55	20°09'40	evening rise	741 Oct 11 j 10:13	0°♄54'10	
	740 Nov 27 j 21:30	0°♄			741 Oct 31 j 00:51	0°♄	
retrograde	740 Dec 05 j 12:09	4°♄24'14		greatest brilliancy	741 Nov 05 j 13:14	7°♄22'16	-0.4m
asc. node	740 Dec 06 j 01:27	4°♄22'30		evening max el	741 Nov 10 j 16:48	13°♄20'13	21°17'39
evening set	740 Dec 09 j 03:50	3°♄06'29		retrograde	741 Nov 19 j 09:36	18°♄30'29	
	740 Dec 12 j 07:58	30°♄		asc. node	741 Nov 22 j 22:29	17°♄20'32	
inferior conj	740 Dec 14 j 15:35	27°♄00'01	2°38'05	evening set	741 Nov 23 j 11:28	16°♄57'09	
minimum elong	740 Dec 14 j 12:52	27°♄09'08	2°37'17	inferior conj	741 Nov 28 j 21:18	10°♄40'45	1°56'15
min. Earth dist.	740 Dec 15 j 11:00	25°♄54'47	0.66962 AU	minimum elong	741 Nov 28 j 18:59	10°♄48'46	1°55'23
morning rise	740 Dec 19 j 21:22	20°♄45'02		min. Earth dist.	741 Nov 29 j 04:49	10°♄14'51	0.67518 AU
direct	740 Dec 25 j 15:38	18°♄12'41		morning rise	741 Dec 04 j 02:10	4°♄25'28	
morning max el	741 Jan 06 j 07:50	25°♄10'02	24°57'48	direct	741 Dec 09 j 05:13	2°♄13'27	
	741 Jan 10 j 17:25	0°♄		morning max el	741 Dec 19 j 16:43	8°♄27'55	23°30'27
desc. node	741 Jan 14 j 04:49	4°♄16'18		greatest brilliancy	741 Dec 25 j 22:34	15°♄34'51	-0.2m
	741 Jan 31 j 22:57	0°♄		desc. node	742 Jan 01 j 01:53	23°♄39'30	
morning set	741 Feb 11 j 11:01	17°♄43'39			742 Jan 05 j 13:37	0°♄	
max. Earth dist.	741 Feb 15 j 04:06	24°♄27'56	1.36960 AU	morning set	742 Jan 23 j 20:02	28°♄36'48	
	741 Feb 18 j 02:52	0°♄			742 Jan 24 j 15:39	0°♄	
				max. Earth dist.	742 Jan 27 j 22:59	5°♄42'32	1.39046 AU
superior conj	741 Feb 21 j 13:07	6°♄37'41	-1°-33'-6				
minimum elong	741 Feb 21 j 17:07	6°♄57'19	1°32'37	superior conj	742 Feb 04 j 11:11	19°♄18'29	-1°-52'-11
evening rise	741 Mar 01 j 23:07	23°♄28'07		minimum elong	742 Feb 04 j 14:44	19°♄35'07	1°51'56
asc. node	741 Mar 04 j 00:46	27°♄35'03			742 Feb 10 j 01:51	0°♄	
	741 Mar 05 j 06:26	0°♄		evening rise	742 Feb 13 j 18:12	7°♄08'26	
evening max el	741 Mar 19 j 00:45	21°♄05'08	19°28'41	asc. node	742 Feb 18 j 21:48	16°♄55'52	
retrograde	741 Mar 28 j 09:50	25°♄36'08			742 Feb 27 j 01:26	0°♄	
evening set	741 Mar 30 j 12:27	25°♄23'26		evening max el	742 Mar 02 j 01:04	3°♄22'16	18°41'45
inferior conj	741 Apr 08 j 00:57	21°♄17'20	1°09'30	retrograde	742 Mar 10 j 00:15	7°♄14'58	
minimum elong	741 Apr 08 j 03:44	21°♄12'49	1°08'33	evening set	742 Mar 12 j 07:29	6°♄56'45	
min. Earth dist.	741 Apr 10 j 16:23	19°♄35'14	0.56037 AU	inferior conj	742 Mar 20 j 01:12	2°♄33'03	2°34'40
desc. node	741 Apr 12 j 04:00	18°♄41'13		minimum elong	742 Mar 20 j 05:25	2°♄25'06	2°33'35
morning rise	741 Apr 16 j 15:18	16°♄34'41			742 Mar 23 j 11:10	30°♄	
direct	741 Apr 21 j 05:17	15°♄47'10		min. Earth dist.	742 Mar 23 j 09:42	0°♄02'36	0.57712 AU
morning max el	741 May 05 j 07:45	22°♄54'52	24°52'28	morning rise	742 Mar 27 j 23:05	27°♄17'43	
	741 May 11 j 15:17	0°♄		desc. node	742 Mar 30 j 01:02	26°♄30'09	
	741 May 29 j 10:00	0°♄		direct	742 Apr 02 j 15:16	25°♄57'50	
morning set	741 May 31 j 06:18	3°♄50'31			742 Apr 12 j 21:34	0°♄	
asc. node	741 May 31 j 00:03	3°♄17'41		morning max el	742 Apr 16 j 23:52	3°♄31'28	26°20'36
					742 May 06 j 01:44	0°♄	
superior conj	741 Jun 07 j 07:03	19°♄02'15	1°10'15	morning set	742 May 15 j 17:23	18°♄45'11	
minimum elong	741 Jun 07 j 04:39	18°♄49'08	1°09'51	asc. node	742 May 17 j 21:07	23°♄20'18	
max. Earth dist.	741 Jun 08 j 16:38	22°♄04'33	1.32889 AU		742 May 20 j 22:38	0°♄	
	741 Jun 12 j 09:43	0°♄					
evening rise	741 Jun 14 j 13:04	4°♄26'00		superior conj	742 May 22 j 18:29	4°♄00'45	0°49'41
	741 Jun 28 j 11:24	0°♄		minimum elong	742 May 22 j 16:31	3°♄49'55	0°49'19
desc. node	741 Jul 09 j 03:21	15°♄27'56		max. Earth dist.	742 May 23 j 03:38	4°♄50'57	1.32394 AU
evening max el	741 Jul 17 j 02:40	24°♄23'37	27°23'16	evening rise	742 May 29 j 18:40	19°♄07'24	
	741 Jul 24 j 14:43	0°♄			742 Jun 04 j 04:50	0°♄	
retrograde	741 Jul 30 j 20:56	1°♄41'35			742 Jun 23 j 04:33	0°♄	
	741 Aug 05 j 18:15	30°♄		desc. node	742 Jun 26 j 00:22	3°♄17'38	
evening set	741 Aug 07 j 01:53	29°♄09'41		evening max el	742 Jun 29 j 07:09	6°♄40'18	26°54'19
min. Earth dist.	741 Aug 10 j 15:55	26°♄12'03	0.62756 AU	retrograde	742 Jul 13 j 05:56	13°♄55'49	
inferior conj	741 Aug 13 j 12:23	23°♄27'24	-3°-53'-23	evening set	742 Jul 20 j 04:13	11°♄49'12	
minimum elong	741 Aug 13 j 17:22	23°♄15'21	3°52'11	min. Earth dist.	742 Jul 23 j 21:10	9°♄09'53	0.60790 AU
morning rise	741 Aug 20 j 11:21	18°♄17'59		inferior conj	742 Jul 27 j 03:00	6°♄25'16	-4°-31'-51
direct	741 Aug 22 j 21:51	17°♄50'43		minimum elong	742 Jul 27 j 06:55	6°♄16'56	4°31'19
asc. node	741 Aug 26 j 23:15	19°♄07'56		morning rise	742 Aug 03 j 12:44	1°♄37'28	
morning max el	741 Aug 29 j 14:38	21°♄16'31	17°52'39	direct	742 Aug 05 j 22:29	1°♄14'41	
	741 Sep 05 j 05:22	0°♄		morning max el	742 Aug 13 j 03:40	4°♄48'03	18°04'21
morning set	741 Sep 14 j 19:22	16°♄28'44		asc. node	742 Aug 13 j 20:20	5°♄30'05	
	741 Sep 22 j 12:00	0°♄		morning set	742 Aug 28 j 23:34	29°♄49'05	
					742 Aug 29 j 01:55	0°♄	

superior conj	742 Sep 07 j 22:38	18° \mathbb{M} 03'54	1°25'05		743 Aug 21 j 02:38	0° \mathbb{M}	
minimum elong	742 Sep 08 j 02:51	18° \mathbb{M} 22'39	1°24'41				
	742 Sep 14 j 20:12	0° $\underline{\mathbb{A}}$		superior conj	743 Aug 21 j 12:37	0° \mathbb{M} 46'47	1°40'57
max. Earth dist.	742 Sep 15 j 13:19	1° $\underline{\mathbb{A}}$ 11'48	1.41744 AU	minimum elong	743 Aug 21 j 14:55	0° \mathbb{M} 57'35	1°40'49
evening rise	742 Sep 21 j 05:29	10° $\underline{\mathbb{A}}$ 29'14		max. Earth dist.	743 Aug 28 j 18:28	13° \mathbb{M} 54'50	1.39776 AU
desc. node	742 Sep 21 j 23:43	11° $\underline{\mathbb{A}}$ 42'06		evening rise	743 Sep 01 j 23:37	21° \mathbb{M} 08'54	
	742 Oct 03 j 22:21	0° \mathbb{M}			743 Sep 07 j 09:09	0° $\underline{\mathbb{A}}$	
greatest brilliancy	742 Oct 19 j 14:23	21° \mathbb{M} 25'58	-0.3m	desc. node	743 Sep 08 j 20:44	2° $\underline{\mathbb{A}}$ 21'19	
evening max el	742 Oct 24 j 10:15	26° \mathbb{M} 50'46	22°34'32		743 Sep 28 j 00:40	0° \mathbb{M}	
	742 Oct 27 j 22:36	0° \mathbb{X}		evening max el	743 Oct 06 j 23:55	10° \mathbb{M} 24'53	23°54'39
retrograde	742 Nov 03 j 05:02	2° \mathbb{X} 39'40		retrograde	743 Oct 17 j 21:07	16° \mathbb{M} 49'01	
evening set	742 Nov 07 j 19:04	0° \mathbb{X} 49'16		evening set	743 Oct 23 j 00:59	14° \mathbb{M} 40'51	
	742 Nov 08 j 17:05	30° \mathbb{R} \mathbb{M}		asc. node	743 Oct 27 j 16:37	9° \mathbb{M} 20'05	
asc. node	742 Nov 09 j 19:33	28° \mathbb{M} 50'02		inferior conj	743 Oct 28 j 11:26	8° \mathbb{M} 16'17	0°16'13
inferior conj	742 Nov 13 j 04:31	24° \mathbb{M} 26'48	1°08'28	minimum elong	743 Oct 28 j 11:02	8° \mathbb{M} 17'36	0°16'03
minimum elong	742 Nov 13 j 03:00	24° \mathbb{M} 32'04	1°07'50	transit middle	743 Oct 28 j 11:02	8° \mathbb{M} 17'36	0°16'03
min. Earth dist.	742 Nov 13 j 01:13	24° \mathbb{M} 38'14	0.67729 AU	transit begin	743 Oct 28 j 10:35	8° \mathbb{M} 19'10	
morning rise	742 Nov 18 j 10:49	18° \mathbb{M} 13'32		transit end	743 Oct 28 j 11:30	8° \mathbb{M} 16'03	
direct	742 Nov 22 j 22:53	16° \mathbb{M} 24'07		min. Earth dist.	743 Oct 27 j 21:42	9° \mathbb{M} 02'54	0.67618 AU
morning max el	742 Dec 02 j 04:45	21° \mathbb{M} 51'11	22°03'33	morning rise	743 Nov 02 j 21:16	2° \mathbb{M} 07'39	
greatest brilliancy	742 Dec 06 j 21:38	27° \mathbb{M} 09'04	-0.4m	direct	743 Nov 06 j 19:33	0° \mathbb{M} 40'15	
	742 Dec 09 j 04:00	0° \mathbb{X}		morning max el	743 Nov 14 j 23:19	5° \mathbb{M} 24'02	20°44'33
desc. node	742 Dec 18 j 22:56	13° \mathbb{X} 31'35		greatest brilliancy	743 Nov 20 j 20:49	12° \mathbb{M} 19'17	-0.5m
	742 Dec 29 j 21:26	0° \mathbb{Z}			743 Dec 03 j 08:04	0° \mathbb{X}	
morning set	743 Jan 04 j 00:04	8° \mathbb{Z} 05'25		desc. node	743 Dec 05 j 20:00	3° \mathbb{X} 44'27	
max. Earth dist.	743 Jan 09 j 20:26	17° \mathbb{Z} 41'22	1.41164 AU	morning set	743 Dec 14 j 02:56	16° \mathbb{X} 26'06	
	743 Jan 17 j 00:19	0° \approx			743 Dec 22 j 16:17	0° \mathbb{Z}	
				max. Earth dist.	743 Dec 23 j 01:42	0° \mathbb{Z} 38'07	1.43017 AU
superior conj	743 Jan 17 j 14:41	1° \approx 03'30	-2°-2'-27				
minimum elong	743 Jan 17 j 15:51	1° \approx 08'38	2°02'26	superior conj	743 Dec 29 j 18:19	11° \mathbb{Z} 40'24	-1°-59'-15
evening rise	743 Jan 28 j 02:10	20° \approx 12'17		minimum elong	743 Dec 29 j 14:52	11° \mathbb{Z} 25'52	1°59'08
	743 Feb 02 j 10:05	0° \mathbb{H}			744 Jan 09 j 08:50	0° \approx	
asc. node	743 Feb 05 j 18:51	5° \mathbb{H} 49'51		evening rise	744 Jan 10 j 19:05	2° \approx 31'37	
evening max el	743 Feb 13 j 08:35	16° \mathbb{H} 08'31	18°14'53	asc. node	744 Jan 23 j 15:54	24° \approx 08'35	
retrograde	743 Feb 20 j 09:11	19° \mathbb{H} 39'16		evening max el	744 Jan 27 j 20:06	29° \approx 14'54	18°07'40
evening set	743 Feb 22 j 21:36	19° \mathbb{H} 13'05			744 Jan 28 j 15:14	0° \mathbb{H}	
inferior conj	743 Mar 01 j 22:28	14° \mathbb{H} 28'09	3°25'06	retrograde	744 Feb 03 j 09:25	2° \mathbb{H} 39'10	
minimum elong	743 Mar 02 j 01:21	14° \mathbb{H} 21'48	3°24'40	evening set	744 Feb 06 j 02:29	2° \mathbb{H} 03'47	
min. Earth dist.	743 Mar 05 j 07:49	11° \mathbb{H} 31'03	0.59776 AU		744 Feb 09 j 07:54	30° \mathbb{R} \approx	
morning rise	743 Mar 09 j 01:37	8° \mathbb{H} 48'43		inferior conj	744 Feb 12 j 13:57	26° \approx 57'17	3°46'00
direct	743 Mar 15 j 14:03	6° \mathbb{H} 51'24		minimum elong	744 Feb 12 j 14:41	26° \approx 55'26	3°45'58
desc. node	743 Mar 16 j 22:05	6° \mathbb{H} 56'11		min. Earth dist.	744 Feb 15 j 13:20	23° \approx 58'44	0.61882 AU
morning max el	743 Mar 29 j 21:14	14° \mathbb{H} 38'17	27°21'53	morning rise	744 Feb 19 j 00:28	21° \approx 02'16	
	743 Apr 11 j 06:20	0° \mathbb{Y}		direct	744 Feb 25 j 22:44	18° \approx 33'43	
	743 Apr 28 j 08:54	0° \mathbb{Z}		desc. node	744 Mar 02 j 19:09	20° \approx 06'57	
morning set	743 Apr 30 j 01:54	3° \mathbb{Z} 30'33		morning max el	744 Mar 11 j 00:48	26° \approx 26'15	27°47'41
asc. node	743 May 04 j 18:11	13° \mathbb{Z} 29'15			744 Mar 14 j 09:06	0° \mathbb{H}	
max. Earth dist.	743 May 06 j 16:10	17° \mathbb{Z} 40'37	1.32273 AU		744 Apr 03 j 19:21	0° \mathbb{Y}	
				morning set	744 Apr 13 j 05:47	17° \mathbb{Y} 59'14	
superior conj	743 May 07 j 06:12	18° \mathbb{Z} 57'38	0°26'13		744 Apr 18 j 22:44	0° \mathbb{Z}	
minimum elong	743 May 07 j 05:03	18° \mathbb{Z} 51'19	0°25'58	max. Earth dist.	744 Apr 19 j 02:23	0° \mathbb{Z} 19'44	1.32539 AU
	743 May 12 j 07:28	0° \mathbb{H}					
evening rise	743 May 14 j 04:17	3° \mathbb{H} 58'58		superior conj	744 Apr 20 j 16:26	3° \mathbb{Z} 46'10	0°00'33
	743 May 28 j 02:18	0° \mathbb{Z}		minimum elong	744 Apr 20 j 16:24	3° \mathbb{Z} 46'01	0°00'32
evening max el	743 Jun 11 j 05:06	18° \mathbb{Z} 12'19	25°53'38	behind sun begin	744 Apr 20 j 11:17	3° \mathbb{Z} 18'10	
desc. node	743 Jun 12 j 21:22	19° \mathbb{Z} 43'47		behind sun end	744 Apr 20 j 21:31	4° \mathbb{Z} 13'53	
retrograde	743 Jun 25 j 06:02	25° \mathbb{Z} 23'33		asc. node	744 Apr 20 j 15:13	3° \mathbb{Z} 39'32	
evening set	743 Jul 01 j 09:00	23° \mathbb{Z} 53'28		evening rise	744 Apr 27 j 15:50	18° \mathbb{Z} 52'47	
min. Earth dist.	743 Jul 05 j 17:38	21° \mathbb{Z} 15'10	0.58728 AU		744 May 03 j 03:05	0° \mathbb{H}	
inferior conj	743 Jul 09 j 00:33	18° \mathbb{Z} 50'21	-4°-50'-1	evening max el	744 May 22 j 20:51	29° \mathbb{H} 02'46	24°28'35
minimum elong	743 Jul 09 j 01:11	18° \mathbb{Z} 49'10	4°50'01		744 May 23 j 21:26	0° \mathbb{Z}	
morning rise	743 Jul 16 j 20:58	14° \mathbb{Z} 25'18		desc. node	744 May 29 j 18:24	4° \mathbb{Z} 12'35	
direct	743 Jul 19 j 08:26	14° \mathbb{Z} 05'06		retrograde	744 Jun 05 j 18:34	6° \mathbb{Z} 04'10	
morning max el	743 Jul 27 j 10:54	17° \mathbb{Z} 56'31	18°36'10	evening set	744 Jun 10 j 14:23	5° \mathbb{Z} 11'58	
asc. node	743 Jul 31 j 17:25	22° \mathbb{Z} 56'45		min. Earth dist.	744 Jun 16 j 08:03	2° \mathbb{Z} 17'38	0.56847 AU
	743 Aug 05 j 05:59	0° \mathbb{Q}		inferior conj	744 Jun 19 j 02:06	0° \mathbb{Z} 32'15	-4°-35'-7
morning set	743 Aug 12 j 15:55	13° \mathbb{Q} 45'35		minimum elong	744 Jun 18 j 21:47	0° \mathbb{Z} 39'11	4°34'37

	744 Jun 19 j 22:19	30° RII		inferior conj	745 May 30 j 08:24	11° $\text{II}29'59$	-3°-35'-22
morning rise	744 Jun 27 j 08:55	26° $\text{II}27'56$		minimum elong	745 May 30 j 00:56	11° $\text{II}40'47$	3°33'30
direct	744 Jun 29 j 23:49	26° $\text{II}09'08$		morning rise	745 Jun 08 j 00:56	7° $\text{II}37'10$	
	744 Jul 08 j 19:30	0° S		direct	745 Jun 10 j 20:32	7° $\text{II}18'33$	
morning max el	744 Jul 09 j 09:14	0° $\text{S}31'03$	19°29'09	morning max el	745 Jun 21 j 20:42	12° $\text{II}24'37$	20°42'57
asc. node	744 Jul 17 j 14:28	11° $\text{S}12'38$		asc. node	745 Jul 04 j 11:30	0° $\text{S}06'11$	
morning set	744 Jul 26 j 16:39	28° $\text{S}07'10$			745 Jul 04 j 10:09	0° S	
	744 Jul 27 j 15:10	0° Q		morning set	745 Jul 10 j 23:03	12° $\text{S}46'25$	
superior conj	744 Aug 03 j 18:59	14° $\text{Q}18'53$	1°46'33	superior conj	745 Jul 18 j 13:01	28° $\text{S}26'40$	1°43'56
minimum elong	744 Aug 03 j 19:17	14° $\text{Q}20'24$	1°46'32	minimum elong	745 Jul 18 j 11:49	28° $\text{S}20'28$	1°43'52
max. Earth dist.	744 Aug 09 j 22:11	26° $\text{Q}01'15$	1.37757 AU		745 Jul 19 j 07:21	0° Q	
	744 Aug 12 j 02:27	0° P		max. Earth dist.	745 Jul 23 j 05:41	7° $\text{Q}50'36$	1.35924 AU
evening rise	744 Aug 13 j 17:56	2° $\text{P}56'36$		evening rise	745 Jul 27 j 08:50	15° $\text{Q}43'50$	
desc. node	744 Aug 25 j 17:46	22° $\text{P}49'49$			745 Aug 04 j 10:18	0° P	
	744 Aug 30 j 11:50	0° A		desc. node	745 Aug 12 j 14:46	13° $\text{P}01'58$	
evening max el	744 Sep 18 j 11:48	24° $\text{A}02'10$	25°11'18		745 Aug 25 j 00:33	0° A	
	744 Sep 26 j 11:47	0° M		evening max el	745 Aug 31 j 23:28	7° $\text{A}39'24$	26°16'58
retrograde	744 Sep 30 j 08:58	0° $\text{M}54'16$		retrograde	745 Sep 13 j 16:00	14° $\text{A}49'46$	
	744 Oct 03 j 22:46	30° RA		evening set	745 Sep 20 j 00:47	12° $\text{A}11'42$	
evening set	744 Oct 06 j 03:32	28° $\text{A}29'19$		min. Earth dist.	745 Sep 24 j 05:15	7° $\text{A}45'43$	0.66391 AU
min. Earth dist.	744 Oct 10 j 15:50	23° $\text{A}26'28$	0.67175 AU	inferior conj	745 Sep 25 j 17:12	5° $\text{A}55'11$	-1°-36'00
inferior conj	744 Oct 11 j 16:17	22° $\text{A}06'43$	0°-39'-6	minimum elong	745 Sep 25 j 19:41	5° $\text{A}47'32$	1°35'00
minimum elong	744 Oct 11 j 17:16	22° $\text{A}03'30$	0°38'42	asc. node	745 Sep 30 j 10:43	0° $\text{A}53'08$	
asc. node	744 Oct 13 j 13:40	19° $\text{A}42'34$		morning rise	745 Oct 01 j 15:37	0° $\text{A}04'19$	
morning rise	744 Oct 17 j 07:33	16° $\text{A}05'32$			745 Oct 01 j 18:43	30° RP	
direct	744 Oct 20 j 17:47	14° $\text{A}57'43$		direct	745 Oct 04 j 15:58	29° $\text{P}12'34$	
morning max el	744 Oct 28 j 01:44	19° $\text{A}07'37$	19°38'11		745 Oct 07 j 15:16	0° A	
greatest brilliancy	744 Nov 05 j 08:17	29° $\text{A}31'26$	-0.6m	morning max el	745 Oct 11 j 11:01	2° $\text{A}58'58$	18°46'55
	744 Nov 05 j 16:20	0° M			745 Oct 30 j 04:51	0° M	
desc. node	744 Nov 21 j 17:02	24° $\text{M}12'05$		morning set	745 Nov 01 j 16:02	3° $\text{M}54'17$	
morning set	744 Nov 22 j 00:19	24° $\text{M}40'14$		desc. node	745 Nov 08 j 14:04	14° $\text{M}49'38$	
	744 Nov 25 j 10:46	0° X					
max. Earth dist.	744 Dec 04 j 14:30	14° $\text{X}22'12$	1.44352 AU	superior conj	745 Nov 17 j 23:41	29° $\text{M}36'15$	0°-59'-31
				minimum elong	745 Nov 17 j 16:23	29° $\text{M}07'33$	0°58'39
superior conj	744 Dec 08 j 19:14	21° $\text{X}04'25$	-1°-38'-19	max. Earth dist.	745 Nov 17 j 07:47	28° $\text{M}33'43$	1.45017 AU
minimum elong	744 Dec 08 j 11:17	20° $\text{X}32'27$	1°37'39		745 Nov 18 j 05:43	0° X	
	744 Dec 14 j 07:09	0° Z		evening rise	745 Dec 03 j 15:08	24° $\text{X}27'15$	
evening rise	744 Dec 22 j 16:36	13° $\text{Z}58'39$			745 Dec 07 j 01:47	0° Z	
	745 Jan 01 j 06:43	0° \approx		evening max el	745 Dec 24 j 19:38	25° $\text{Z}58'29$	18°49'27
asc. node	745 Jan 09 j 12:56	11° $\approx41'25$		asc. node	745 Dec 27 j 09:59	28° $\text{Z}14'39$	
evening max el	745 Jan 10 j 08:39	12° $\approx33'39$	18°19'30	retrograde	745 Dec 31 j 13:56	29° $\text{Z}46'54$	
retrograde	745 Jan 16 j 20:25	16° $\approx04'34$		evening set	746 Jan 03 j 17:19	28° $\text{Z}50'21$	
evening set	745 Jan 19 j 18:09	15° $\approx19'11$		inferior conj	746 Jan 09 j 11:43	23° $\text{Z}06'14$	3°27'44
inferior conj	745 Jan 25 j 19:39	9° $\approx52'40$	3°44'51	minimum elong	746 Jan 09 j 09:28	23° $\text{Z}13'09$	3°27'21
minimum elong	745 Jan 25 j 18:33	9° $\approx55'46$	3°44'47	min. Earth dist.	746 Jan 11 j 05:05	20° $\text{Z}59'04$	0.65321 AU
min. Earth dist.	745 Jan 28 j 04:22	7° $\approx13'17$	0.63773 AU	morning rise	746 Jan 15 j 00:33	14° $\text{Z}55'27$	
morning rise	745 Jan 31 j 17:21	3° $\approx47'54$		direct	746 Jan 21 j 15:18	14° $\text{Z}04'48$	
direct	745 Feb 07 j 15:33	1° $\approx01'04$		morning max el	746 Feb 03 j 18:47	21° $\text{Z}46'43$	26°52'50
desc. node	745 Feb 17 j 16:11	5° $\approx31'33$		desc. node	746 Feb 04 j 13:13	22° $\text{Z}33'45$	
morning max el	745 Feb 21 j 08:58	8° $\approx53'05$	27°36'36		746 Feb 10 j 23:46	0° \approx	
	745 Mar 09 j 19:12	0° H			746 Mar 02 j 23:45	0° H	
	745 Mar 27 j 01:33	0° Y		morning set	746 Mar 11 j 13:15	15° $\text{H}33'01$	
morning set	745 Mar 28 j 02:40	2° $\text{Y}03'41$		max. Earth dist.	746 Mar 16 j 00:02	24° $\text{H}17'18$	1.34319 AU
max. Earth dist.	745 Apr 02 j 06:18	12° $\text{Y}35'35$	1.33211 AU		746 Mar 18 j 19:16	0° Y	
superior conj	745 Apr 04 j 23:25	18° $\text{Y}20'47$	0°-26'-27	superior conj	746 Mar 20 j 01:03	2° $\text{Y}34'23$	0°-53'-41
minimum elong	745 Apr 05 j 00:42	18° $\text{Y}27'41$	0°26'12	minimum elong	746 Mar 20 j 03:41	2° $\text{Y}48'03$	0°53'13
asc. node	745 Apr 07 j 12:15	23° $\text{Y}47'32$		asc. node	746 Mar 25 j 09:16	13° $\text{Y}48'31$	
	745 Apr 10 j 09:34	0° B		evening rise	746 Mar 27 j 13:23	18° $\text{Y}21'26$	
evening rise	745 Apr 12 j 03:31	3° $\text{B}42'37$			746 Apr 02 j 09:22	0° B	
	745 Apr 26 j 14:01	0° II		evening max el	746 Apr 16 j 08:09	20° $\text{B}18'41$	21°21'44
evening max el	745 May 04 j 11:22	9° $\text{II}34'19$	22°53'01	retrograde	746 Apr 28 j 09:28	26° $\text{B}11'04$	
desc. node	745 May 16 j 15:23	16° $\text{II}08'16$		evening set	746 Apr 30 j 18:25	25° $\text{B}58'10$	
retrograde	745 May 17 j 18:44	16° $\text{II}11'13$		desc. node	746 May 03 j 12:24	25° $\text{B}13'28$	
evening set	745 May 21 j 03:49	15° $\text{II}46'11$		inferior conj	746 May 10 j 03:16	21° $\text{B}58'21$	-1°-53'-4
min. Earth dist.	745 May 28 j 20:11	12° $\text{II}22'11$	0.55489 AU	minimum elong	746 May 09 j 22:02	22° $\text{B}05'42$	1°51'16

min. Earth dist.	746 May 10 j 08:48	21°♄50'33	0.54955 AU	inferior conj	747 Apr 20 j 00:32	2°♄25'47	0°06'24
morning rise	746 May 19 j 01:53	17°♄59'11		minimum elong	747 Apr 20 j 00:49	2°♄25'21	0°06'18
direct	746 May 22 j 06:50	17°♄36'50		transit middle	747 Apr 20 j 00:49	2°♄25'21	0°06'18
morning max el	746 Jun 03 j 21:21	23°♄35'41	22°14'17	transit begin	747 Apr 19 j 21:09	2°♄30'52	
	746 Jun 09 j 14:17	0°♄		transit end	747 Apr 20 j 04:30	2°♄19'49	
asc. node	746 Jun 21 j 08:32	19°♄28'08		desc. node	747 Apr 20 j 09:26	2°♄12'24	
morning set	746 Jun 25 j 09:00	27°♄37'24		min. Earth dist.	747 Apr 21 j 22:38	1°♄16'42	0.55387 AU
	746 Jun 26 j 12:12	0°♄			747 Apr 24 j 04:50	30°♄	
				morning rise	747 Apr 28 j 20:53	28°♄02'03	
superior conj	746 Jul 02 j 15:08	12°♄59'18	1°34'47	direct	747 May 02 j 20:46	27°♄27'03	
minimum elong	746 Jul 02 j 13:01	12°♄48'05	1°34'36		747 May 11 j 03:44	0°♄	
max. Earth dist.	746 Jul 05 j 21:42	19°♄48'41	1.34431 AU	morning max el	747 May 16 j 14:03	4°♄13'48	23°55'07
evening rise	746 Jul 10 j 15:33	29°♄18'17			747 Jun 03 j 14:01	0°♄	
	746 Jul 11 j 00:09	0°♄		asc. node	747 Jun 08 j 05:34	9°♄10'41	
	746 Jul 28 j 13:13	0°♄		morning set	747 Jun 09 j 20:40	12°♄34'14	
desc. node	746 Jul 30 j 11:46	2°♄50'31					
evening max el	746 Aug 14 j 11:26	21°♄10'02	27°03'58	superior conj	747 Jun 16 j 22:32	27°♄47'35	1°20'26
retrograde	746 Aug 27 j 17:49	28°♄28'33		minimum elong	747 Jun 16 j 20:04	27°♄34'19	1°20'07
evening set	746 Sep 03 j 14:27	25°♄44'28			747 Jun 17 j 23:08	0°♄	
min. Earth dist.	746 Sep 07 j 11:47	21°♄55'36	0.65250 AU	max. Earth dist.	747 Jun 18 j 23:10	2°♄08'36	1.33338 AU
inferior conj	746 Sep 09 j 12:07	19°♄38'13	-2°-32'-29	evening rise	747 Jun 24 j 09:47	13°♄27'02	
minimum elong	746 Sep 09 j 16:01	19°♄27'07	2°31'06		747 Jul 03 j 04:10	0°♄	
morning rise	746 Sep 15 j 19:11	14°♄00'39		desc. node	747 Jul 17 j 08:46	22°♄04'58	
asc. node	746 Sep 17 j 07:45	13°♄28'42			747 Jul 23 j 17:53	0°♄	
direct	746 Sep 18 j 12:04	13°♄21'06		evening max el	747 Jul 27 j 22:32	4°♄22'21	27°25'10
morning max el	746 Sep 25 j 00:59	16°♄53'15	18°12'04	retrograde	747 Aug 10 j 13:36	11°♄41'16	
	746 Oct 04 j 14:35	0°♄		evening set	747 Aug 17 j 17:29	9°♄01'35	
morning set	746 Oct 13 j 12:31	14°♄34'18		min. Earth dist.	747 Aug 21 j 09:18	5°♄47'04	0.63757 AU
	746 Oct 22 j 23:40	0°♄		inferior conj	747 Aug 23 j 22:31	3°♄09'35	-3°-25'-48
desc. node	746 Oct 26 j 11:06	5°♄33'44		minimum elong	747 Aug 24 j 03:23	2°♄57'02	3°24'24
					747 Aug 27 j 05:27	30°♄	
superior conj	746 Oct 28 j 02:41	8°♄10'59	0°-10'-55	morning rise	747 Aug 30 j 15:25	27°♄48'39	
minimum elong	746 Oct 28 j 01:17	8°♄05'25	0°10'45	direct	747 Sep 02 j 03:29	27°♄17'44	
behind sun begin	746 Oct 27 j 16:59	7°♄32'29		asc. node	747 Sep 04 j 04:48	27°♄38'52	
behind sun end	746 Oct 28 j 09:35	8°♄38'19			747 Sep 07 j 22:24	0°♄	
max. Earth dist.	746 Oct 31 j 02:29	12°♄54'37	1.44948 AU	morning max el	747 Sep 08 j 16:50	0°♄43'39	17°54'30
	746 Nov 11 j 00:46	0°♄		morning set	747 Sep 25 j 11:22	26°♄30'22	
evening rise	746 Nov 13 j 14:49	4°♄01'23			747 Sep 27 j 11:58	0°♄	
greatest brilliancy	746 Nov 29 j 23:51	29°♄01'47	-0.7m				
	746 Nov 30 j 16:05	0°♄		superior conj	747 Oct 08 j 00:17	17°♄42'31	0°35'09
evening max el	746 Dec 08 j 03:02	9°♄26'43	19°36'06	minimum elong	747 Oct 08 j 03:55	17°♄57'21	0°34'40
asc. node	746 Dec 14 j 07:00	13°♄33'57		desc. node	747 Oct 13 j 08:08	26°♄20'27	
retrograde	746 Dec 15 j 10:48	13°♄41'26		max. Earth dist.	747 Oct 13 j 19:49	27°♄07'13	1.44164 AU
evening set	746 Dec 18 j 21:24	12°♄32'07			747 Oct 15 j 15:15	0°♄	
inferior conj	746 Dec 24 j 11:03	6°♄33'06	2°58'53	evening rise	747 Oct 23 j 23:45	13°♄02'38	
minimum elong	746 Dec 24 j 08:20	6°♄41'59	2°58'11		747 Nov 04 j 04:14	0°♄	
min. Earth dist.	746 Dec 25 j 14:06	5°♄04'29	0.66481 AU	greatest brilliancy	747 Nov 15 j 07:41	15°♄53'06	-0.5m
morning rise	746 Dec 29 j 18:32	0°♄18'59		evening max el	747 Nov 21 j 05:19	22°♄56'00	20°37'16
	746 Dec 30 j 03:15	30°♄		retrograde	747 Nov 29 j 08:30	27°♄44'09	
direct	747 Jan 04 j 21:10	27°♄37'02		asc. node	747 Dec 01 j 04:03	27°♄25'33	
	747 Jan 11 j 09:42	0°♄		evening set	747 Dec 03 j 04:17	26°♄20'04	
morning max el	747 Jan 17 j 03:58	4°♄54'51	25°44'20	inferior conj	747 Dec 08 j 15:03	20°♄09'14	2°21'11
desc. node	747 Jan 22 j 10:17	10°♄45'46		minimum elong	747 Dec 08 j 12:27	20°♄18'06	2°20'19
	747 Feb 05 j 11:09	0°♄		min. Earth dist.	747 Dec 09 j 05:18	19°♄20'43	0.67249 AU
morning set	747 Feb 22 j 09:11	28°♄14'21		morning rise	747 Dec 13 j 20:09	13°♄53'57	
	747 Feb 23 j 08:08	0°♄		direct	747 Dec 19 j 08:08	11°♄29'29	
max. Earth dist.	747 Feb 26 j 05:41	5°♄26'56	1.35883 AU	morning max el	747 Dec 30 j 12:14	18°♄09'12	24°21'05
				desc. node	748 Jan 09 j 07:21	29°♄47'11	
superior conj	747 Mar 03 j 18:48	16°♄19'42	-1°-19'-37		748 Jan 09 j 11:13	0°♄	
minimum elong	747 Mar 03 j 22:29	16°♄38'14	1°19'03		748 Jan 29 j 13:05	0°♄	
	747 Mar 10 j 11:33	0°♄		morning set	748 Feb 04 j 08:50	9°♄51'54	
evening rise	747 Mar 11 j 19:29	2°♄43'06		max. Earth dist.	748 Feb 08 j 02:36	16°♄30'03	1.37830 AU
asc. node	747 Mar 12 j 06:18	3°♄38'06					
	747 Mar 28 j 02:17	0°♄		superior conj	748 Feb 15 j 01:20	29°♄27'55	-1°-42'-1
evening max el	747 Mar 29 j 15:58	1°♄37'26	20°04'39	minimum elong	748 Feb 15 j 05:20	29°♄47'09	1°41'37
retrograde	747 Apr 09 j 00:13	6°♄36'01			748 Feb 15 j 08:00	0°♄	
evening set	747 Apr 11 j 02:01	6°♄24'53		evening rise	748 Feb 23 j 19:26	16°♄41'09	

asc. node	748 Feb 27 j 03:21	23° Υ 11'26		evening rise	749 Feb 06 j 10:17	0° Υ 07'20	
	748 Mar 01 j 19:35	0° Υ			749 Feb 06 j 08:45	0° Υ	
evening max el	748 Mar 11 j 10:57	13° Υ 35'15	19°06'14	asc. node	749 Feb 13 j 00:25	12° Υ 21'54	
retrograde	748 Mar 20 j 04:01	17° Υ 47'35		evening max el	749 Feb 22 j 14:43	26° Υ 05'46	18°27'48
evening set	748 Mar 22 j 08:34	17° Υ 32'46		retrograde	749 Mar 02 j 02:48	29° Υ 47'19	
inferior conj	748 Mar 30 j 13:04	13° Υ 19'58	1°49'53	evening set	749 Mar 04 j 12:20	29° Υ 25'51	
minimum elong	748 Mar 30 j 16:55	13° Υ 13'20	1°48'42	inferior conj	749 Mar 11 j 22:27	24° Υ 52'53	3°00'07
min. Earth dist.	748 Apr 02 j 14:02	11° Υ 15'21	0.56686 AU	minimum elong	749 Mar 12 j 02:19	24° Υ 45'04	2°59'17
desc. node	748 Apr 06 j 06:29	9° Υ 05'46		min. Earth dist.	749 Mar 15 j 08:49	22° Υ 08'24	0.58566 AU
morning rise	748 Apr 07 j 21:09	8° Υ 23'09		morning rise	749 Mar 19 j 12:22	19° Υ 26'12	
direct	748 Apr 12 j 22:46	7° Υ 23'04		desc. node	749 Mar 24 j 03:33	17° Υ 56'07	
morning max el	748 Apr 27 j 04:38	14° Υ 42'56	25°32'23	direct	749 Mar 25 j 14:07	17° Υ 50'44	
	748 May 09 j 08:33	0° Υ		morning max el	749 Apr 08 j 22:47	25° Υ 30'26	26°50'39
morning set	748 May 24 j 08:29	27° Υ 31'51			749 Apr 13 j 03:07	0° Υ	
asc. node	748 May 25 j 02:38	29° Υ 07'51			749 May 02 j 13:53	0° Υ	
	748 May 25 j 12:25	0° Υ		morning set	749 May 08 j 18:43	12° Υ 23'23	
				asc. node	749 May 11 j 23:41	19° Υ 13'32	
superior conj	748 May 31 j 09:04	12° Υ 44'33	1°01'56	superior conj	749 May 15 j 20:49	27° Υ 42'48	0°40'03
minimum elong	748 May 31 j 06:47	12° Υ 32'06	1°01'32	minimum elong	749 May 15 j 19:09	27° Υ 33'39	0°39'43
max. Earth dist.	748 Jun 01 j 07:55	14° Υ 49'24	1.32637 AU	max. Earth dist.	749 May 15 j 20:14	27° Υ 39'36	1.32304 AU
evening rise	748 Jun 07 j 12:06	27° Υ 59'42			749 May 16 j 21:47	0° Υ	
	748 Jun 08 j 11:34	0° Υ		evening rise	749 May 22 j 19:42	12° Υ 46'10	
	748 Jun 25 j 11:08	0° Υ			749 May 31 j 14:48	0° Υ	
desc. node	748 Jul 03 j 05:47	10° Υ 31'08		desc. node	749 Jun 20 j 02:48	27° Υ 48'25	
evening max el	748 Jul 09 j 06:22	17° Υ 03'12	27°15'06	evening max el	749 Jun 21 j 08:06	29° Υ 00'22	26°31'57
retrograde	748 Jul 23 j 02:34	24° Υ 19'17			749 Jun 22 j 09:55	0° Υ	
evening set	748 Jul 30 j 06:06	21° Υ 56'45		retrograde	749 Jul 05 j 07:42	6° Υ 14'01	
min. Earth dist.	748 Aug 02 j 20:24	19° Υ 08'39	0.61948 AU	evening set	749 Jul 11 j 23:42	4° Υ 21'43	
inferior conj	748 Aug 05 j 21:22	16° Υ 22'13	-4°-11'-33	min. Earth dist.	749 Jul 15 j 21:19	1° Υ 45'24	0.59917 AU
minimum elong	748 Aug 06 j 02:08	16° Υ 11'17	4°10'36		749 Jul 18 j 02:38	30° Υ	
morning rise	748 Aug 13 j 00:51	11° Υ 21'24		inferior conj	749 Jul 19 j 05:05	29° Υ 06'41	-4°-42'-44
direct	748 Aug 15 j 10:50	10° Υ 56'11		minimum elong	749 Jul 19 j 07:54	29° Υ 01'02	4°42'29
asc. node	748 Aug 21 j 01:52	13° Υ 16'45		morning rise	749 Jul 26 j 19:26	24° Υ 28'43	
morning max el	748 Aug 22 j 07:43	14° Υ 23'57	17°55'14	direct	749 Jul 29 j 05:47	24° Υ 07'08	
	748 Sep 02 j 00:39	0° Υ		morning max el	749 Aug 05 j 18:39	27° Υ 46'18	18°15'25
morning set	748 Sep 07 j 06:30	9° Υ 24'30		asc. node	749 Aug 07 j 22:56	0° Υ 07'43	
					749 Aug 07 j 20:21	0° Υ	
superior conj	748 Sep 18 j 01:04	28° Υ 34'22	1°10'31	morning set	749 Aug 21 j 16:21	23° Υ 01'08	
minimum elong	748 Sep 18 j 05:53	28° Υ 55'04	1°09'58		749 Aug 25 j 08:50	0° Υ	
	748 Sep 18 j 21:00	0° Υ		superior conj	749 Aug 31 j 03:03	10° Υ 41'06	1°33'12
max. Earth dist.	748 Sep 25 j 09:22	10° Υ 55'11	1.42763 AU	minimum elong	749 Aug 31 j 06:32	10° Υ 56'54	1°32'55
desc. node	748 Sep 29 j 05:09	17° Υ 06'43		max. Earth dist.	749 Sep 07 j 17:13	24° Υ 02'59	1.40925 AU
evening rise	748 Oct 02 j 10:22	22° Υ 12'42			749 Sep 11 j 06:20	0° Υ	
	748 Oct 07 j 11:06	0° Υ		evening rise	749 Sep 12 j 14:32	2° Υ 12'22	
	748 Oct 28 j 12:06	0° Υ		desc. node	749 Sep 16 j 02:09	7° Υ 49'19	
greatest brilliancy	748 Oct 29 j 06:43	0° Υ 58'03	-0.4m		749 Sep 30 j 20:31	0° Υ	
evening max el	748 Nov 03 j 01:51	6° Υ 25'38	21°49'37	greatest brilliancy	749 Oct 10 j 20:49	13° Υ 20'26	-0.2m
retrograde	748 Nov 12 j 05:12	11° Υ 51'49		evening max el	749 Oct 16 j 17:18	19° Υ 56'45	23°08'36
evening set	748 Nov 16 j 12:07	10° Υ 11'12		retrograde	749 Oct 26 j 23:23	26° Υ 01'33	
asc. node	748 Nov 17 j 01:07	9° Υ 43'52		evening set	749 Oct 31 j 19:13	24° Υ 03'18	
inferior conj	748 Nov 21 j 21:37	3° Υ 51'51	1°36'36	asc. node	749 Nov 03 j 22:10	20° Υ 42'52	
minimum elong	748 Nov 21 j 19:36	3° Υ 58'52	1°35'49	inferior conj	749 Nov 06 j 04:54	17° Υ 39'18	0°46'45
min. Earth dist.	748 Nov 22 j 00:24	3° Υ 42'16	0.67652 AU	minimum elong	749 Nov 06 j 03:49	17° Υ 43'00	0°46'19
	748 Nov 24 j 19:47	30° Υ		min. Earth dist.	749 Nov 05 j 21:03	18° Υ 06'17	0.67715 AU
morning rise	748 Nov 27 j 02:51	27° Υ 37'25		morning rise	749 Nov 11 j 12:28	11° Υ 27'52	
direct	748 Dec 01 j 23:29	25° Υ 34'59		direct	749 Nov 15 j 18:23	9° Υ 48'15	
	748 Dec 10 j 09:15	0° Υ		morning max el	749 Nov 24 j 12:41	14° Υ 56'06	21°28'47
morning max el	748 Dec 11 j 22:00	1° Υ 28'37	22°53'00	greatest brilliancy	749 Nov 29 j 14:15	20° Υ 43'07	-0.4m
greatest brilliancy	748 Dec 16 j 14:37	6° Υ 43'07	-0.3m		749 Dec 06 j 12:54	0° Υ	
desc. node	748 Dec 26 j 04:24	19° Υ 23'31		desc. node	749 Dec 13 j 01:27	9° Υ 25'03	
	749 Jan 02 j 10:56	0° Υ		morning set	749 Dec 25 j 21:58	29° Υ 05'00	
morning set	749 Jan 15 j 05:52	20° Υ 09'19			749 Dec 26 j 11:51	0° Υ	
max. Earth dist.	749 Jan 19 j 22:20	28° Υ 02'59	1.39964 AU	max. Earth dist.	750 Jan 01 j 23:05	10° Υ 27'28	1.41994 AU
	749 Jan 21 j 01:28	0° Υ		superior conj	750 Jan 09 j 10:11	23° Υ 03'59	-2°-3'-1
superior conj	749 Jan 27 j 16:13	11° Υ 46'49	-1°-57'-52				
minimum elong	749 Jan 27 j 19:02	11° Υ 59'44	1°57'45				

minimum elong	750 Jan 09 j 09:36	23°☾01'28	2°03'03	greatest brilliancy	750 Nov 14 j 04:10	6°♄39'52	-0.6m
	750 Jan 13 j 09:03	0°☾		desc. node	750 Nov 29 j 22:27	29°♄44'11	
evening rise	750 Jan 20 j 12:26	12°☾53'42			750 Nov 30 j 02:35	0°♄	
	750 Jan 30 j 05:45	0°☾		morning set	750 Dec 04 j 19:11	7°♄12'36	
asc. node	750 Jan 30 j 21:28	1°☾02'14		max. Earth dist.	750 Dec 15 j 07:05	23°♄43'19	1.43650 AU
evening max el	750 Feb 06 j 00:16	9°☾01'22	18°09'23		750 Dec 19 j 04:17	0°☾	
retrograde	750 Feb 12 j 18:59	12°☾28'00					
evening set	750 Feb 15 j 09:16	11°☾58'10		superior conj	750 Dec 21 j 02:20	3°☾08'35	-1°-52'-43
inferior conj	750 Feb 22 j 04:00	7°☾03'52	3°37'05	minimum elong	750 Dec 20 j 20:40	2°☾45'18	1°52'23
minimum elong	750 Feb 22 j 05:59	6°☾59'13	3°36'53	evening rise	751 Jan 02 j 21:33	24°☾50'52	
min. Earth dist.	750 Feb 25 j 09:58	4°☾03'07	0.60681 AU		751 Jan 05 j 20:44	0°☾	
morning rise	750 Feb 28 j 23:38	1°☾16'31		asc. node	751 Jan 17 j 18:31	19°☾02'38	
	750 Mar 03 j 08:38	30°☾		evening max el	751 Jan 20 j 12:31	22°☾13'24	18°10'29
direct	750 Mar 07 j 17:20	29°☾04'43		retrograde	751 Jan 27 j 00:12	25°☾39'04	
desc. node	750 Mar 11 j 00:37	29°☾34'22		evening set	751 Jan 29 j 19:07	24°☾59'42	
	750 Mar 12 j 06:29	0°☾		inferior conj	751 Feb 05 j 02:00	19°☾44'45	3°47'47
morning max el	750 Mar 21 j 23:08	6°☾55'20	27°37'23	minimum elong	751 Feb 05 j 01:53	19°☾45'04	3°47'47
	750 Apr 08 j 09:26	0°☾		min. Earth dist.	751 Feb 07 j 19:35	16°☾51'52	0.62720 AU
morning set	750 Apr 23 j 01:33	27°☾02'38		morning rise	751 Feb 11 j 06:33	13°☾44'54	
	750 Apr 24 j 11:38	0°☾		direct	751 Feb 18 j 05:57	11°☾06'25	
asc. node	750 Apr 28 j 20:44	9°☾23'25		desc. node	751 Feb 25 j 21:39	13°☾45'52	
max. Earth dist.	750 Apr 29 j 08:15	10°☾26'10	1.32342 AU	morning max el	751 Mar 04 j 04:55	19°☾00'27	27°47'16
					751 Mar 13 j 12:49	0°☾	
superior conj	750 Apr 30 j 08:06	12°☾36'39	0°15'33		751 Apr 01 j 06:04	0°☾	
minimum elong	750 Apr 30 j 07:24	12°☾32'47	0°15'23	morning set	751 Apr 07 j 02:49	11°☾22'19	
behind sun begin	750 Apr 30 j 06:13	12°☾26'16		max. Earth dist.	751 Apr 12 j 16:06	22°☾56'08	1.32769 AU
behind sun end	750 Apr 30 j 08:36	12°☾39'19					
evening rise	750 May 07 j 06:22	27°☾39'04		superior conj	751 Apr 14 j 17:13	27°☾20'22	0°-10'-48
	750 May 08 j 09:12	0°☾		minimum elong	751 Apr 14 j 17:44	27°☾23'09	0°10'42
	750 May 25 j 11:12	0°☾		behind sun begin	751 Apr 14 j 13:52	27°☾02'13	
evening max el	750 Jun 03 j 02:47	10°☾11'47	25°19'30	behind sun end	751 Apr 14 j 21:37	27°☾44'07	
desc. node	750 Jun 06 j 23:50	13°☾28'43		asc. node	751 Apr 15 j 17:47	29°☾33'26	
retrograde	750 Jun 17 j 03:26	17°☾20'50			751 Apr 15 j 22:41	0°☾	
evening set	750 Jun 22 j 18:21	16°☾07'15		evening rise	751 Apr 21 j 18:12	12°☾32'00	
min. Earth dist.	750 Jun 27 j 14:39	13°☾23'59	0.57886 AU		751 Apr 30 j 15:40	0°☾	
inferior conj	750 Jun 30 j 18:15	11°☾13'28	-4°-48'-32	evening max el	751 May 15 j 17:19	20°☾51'35	23°48'20
minimum elong	750 Jun 30 j 16:52	11°☾15'53	4°48'30	desc. node	751 May 24 j 20:51	26°☾57'02	
morning rise	750 Jul 08 j 19:12	6°☾58'13		retrograde	751 May 29 j 11:11	27°☾45'04	
direct	750 Jul 11 j 07:52	6°☾38'51		evening set	751 Jun 02 j 15:27	27°☾06'34	
morning max el	750 Jul 19 j 22:29	10°☾41'30	18°56'09	min. Earth dist.	751 Jun 09 j 04:07	24°☾00'50	0.56183 AU
asc. node	750 Jul 25 j 19:59	17°☾56'33		inferior conj	751 Jun 11 j 11:19	22°☾36'56	-4°-15'-39
	750 Aug 01 j 20:00	0°☾		minimum elong	751 Jun 11 j 05:09	22°☾46'20	4°14'35
morning set	750 Aug 05 j 12:35	7°☾08'38		morning rise	751 Jun 19 j 22:23	18°☾38'51	
				direct	751 Jun 22 j 14:51	18°☾20'27	
superior conj	750 Aug 14 j 00:38	23°☾46'30	1°44'27	morning max el	751 Jul 02 j 16:28	23°☾00'14	19°58'02
minimum elong	750 Aug 14 j 02:03	23°☾53'18	1°44'24		751 Jul 08 j 14:12	0°☾	
	750 Aug 17 j 07:54	0°☾		asc. node	751 Jul 12 j 17:01	6°☾30'08	
max. Earth dist.	750 Aug 20 j 20:37	6°☾26'13	1.38899 AU	morning set	751 Jul 20 j 16:04	21°☾38'58	
evening rise	750 Aug 24 j 19:06	13°☾20'48			751 Jul 24 j 18:24	0°☾	
desc. node	750 Sep 02 j 23:09	28°☾24'06					
	750 Sep 03 j 23:44	0°☾		superior conj	751 Jul 28 j 12:31	7°☾35'45	1°46'19
	750 Sep 25 j 22:02	0°☾		minimum elong	751 Jul 28 j 12:07	7°☾33'42	1°46'19
evening max el	750 Sep 29 j 05:43	3°☾31'07	24°28'12	max. Earth dist.	751 Aug 03 j 01:05	18°☾21'48	1.36944 AU
retrograde	750 Oct 10 j 13:53	10°☾09'10		evening rise	751 Aug 06 j 22:53	25°☾36'18	
evening set	750 Oct 15 j 23:53	7°☾53'34			751 Aug 09 j 09:59	0°☾	
min. Earth dist.	750 Oct 20 j 16:51	2°☾30'11	0.67459 AU	desc. node	751 Aug 20 j 20:10	18°☾46'36	
inferior conj	750 Oct 21 j 11:06	1°☾29'02	0°-6'-59		751 Aug 28 j 12:36	0°☾	
minimum elong	750 Oct 21 j 11:16	1°☾28'27	0°06'55	evening max el	751 Sep 11 j 17:29	17°☾09'30	25°41'06
transit middle	750 Oct 21 j 11:16	1°☾28'27	0°06'55	retrograde	751 Sep 23 j 23:47	24°☾10'46	
transit begin	750 Oct 21 j 08:48	1°☾36'46		evening set	751 Sep 30 j 00:24	21°☾39'54	
transit end	750 Oct 21 j 13:45	1°☾20'09		min. Earth dist.	751 Oct 04 j 09:24	16°☾52'16	0.66883 AU
asc. node	750 Oct 21 j 19:13	1°☾01'53		inferior conj	751 Oct 05 j 14:31	15°☾19'17	-1°-3'-9
	750 Oct 22 j 13:58	30°☾		minimum elong	751 Oct 05 j 16:08	15°☾14'07	1°02'29
morning rise	750 Oct 26 j 23:01	25°☾23'08		asc. node	751 Oct 08 j 16:14	11°☾38'52	
direct	750 Oct 30 j 15:50	24°☾04'36		morning rise	751 Oct 11 j 08:37	9°☾21'47	
morning max el	750 Nov 07 j 10:33	28°☾33'14	20°14'37	direct	751 Oct 14 j 14:21	8°☾21'13	
	750 Nov 08 j 19:18	0°☾		morning max el	751 Oct 21 j 16:00	12°☾20'07	19°14'20

greatest brilliancy	751 Nov 01 j 06:20	26°♄17'46	-0.7m	morning rise	752 Sep 24 j 15:06	23°♎20'15	
	751 Nov 03 j 17:21	0°♌		asc. node	752 Sep 24 j 13:15	23°♎22'45	
morning set	751 Nov 13 j 21:52	15°♌44'57		direct	752 Sep 27 j 12:05	22°♎33'59	
desc. node	751 Nov 16 j 19:28	20°♌16'10		morning max el	752 Oct 04 j 03:31	26°♎12'58	18°29'58
	751 Nov 23 j 00:51	0°♌			752 Oct 07 j 09:48	0°♄	
max. Earth dist.	751 Nov 27 j 21:48	7°♌39'47	1.44725 AU	morning set	752 Oct 24 j 01:36	25°♄35'33	
					752 Oct 26 j 19:31	0°♌	
superior conj	751 Nov 30 j 16:57	12°♌05'26	-1°-23'-46	desc. node	752 Nov 02 j 16:31	10°♌56'52	
minimum elong	751 Nov 30 j 08:25	11°♌31'36	1°22'54				
	751 Dec 11 j 19:45	0°♄		superior conj	752 Nov 08 j 17:56	20°♌30'18	0°-39'-20
evening rise	751 Dec 15 j 09:27	5°♄52'17		minimum elong	752 Nov 08 j 12:49	20°♌10'11	0°38'41
	751 Dec 30 j 11:50	0°♌		max. Earth dist.	752 Nov 09 j 16:32	21°♌59'07	1.45084 AU
evening max el	752 Jan 04 j 00:44	5°♌35'09	18°30'13		752 Nov 14 j 19:00	0°♌	
asc. node	752 Jan 04 j 15:32	6°♌11'32		evening rise	752 Nov 24 j 21:53	15°♌56'33	
retrograde	752 Jan 10 j 14:14	9°♌11'56			752 Dec 03 j 19:34	0°♄	
evening set	752 Jan 13 j 14:18	8°♌21'54		greatest brilliancy	752 Dec 06 j 09:05	3°♄58'54	-0.8m
inferior conj	752 Jan 19 j 12:28	2°♌47'48	3°39'14	evening max el	752 Dec 17 j 10:28	19°♄01'57	19°07'25
minimum elong	752 Jan 19 j 10:48	2°♌52'43	3°39'03	asc. node	752 Dec 21 j 12:33	22°♄15'16	
min. Earth dist.	752 Jan 21 j 14:41	0°♌20'56	0.64480 AU	retrograde	752 Dec 24 j 09:31	23°♄00'16	
	752 Jan 21 j 22:03	30°♌		evening set	752 Dec 27 j 15:52	21°♄58'17	
morning rise	752 Jan 25 j 05:57	26°♄40'23		inferior conj	753 Jan 02 j 07:58	16°♄07'23	3°16'44
direct	752 Feb 01 j 01:55	23°♄50'00		minimum elong	753 Jan 02 j 05:26	16°♄15'23	3°16'12
desc. node	752 Feb 12 j 18:41	29°♄55'18		min. Earth dist.	753 Jan 03 j 18:59	14°♄16'29	0.65862 AU
	752 Feb 12 j 20:43	0°♌		morning rise	753 Jan 07 j 18:08	9°♄55'10	
morning max el	752 Feb 14 j 13:49	1°♌38'48	27°21'33	direct	753 Jan 14 j 04:11	7°♄07'08	
	752 Mar 06 j 16:38	0°♌		morning max el	753 Jan 26 j 23:30	14°♄39'46	26°26'17
morning set	752 Mar 20 j 19:44	25°♌12'52		desc. node	753 Jan 29 j 15:43	17°♄30'05	
	752 Mar 23 j 05:36	0°♌			753 Feb 08 j 13:02	0°♌	
max. Earth dist.	752 Mar 25 j 15:54	4°♌57'13	1.33623 AU		753 Feb 27 j 10:42	0°♌	
				morning set	753 Mar 04 j 00:42	8°♌23'27	
superior conj	752 Mar 28 j 22:13	11°♌47'00	0°-38'-3	max. Earth dist.	753 Mar 08 j 04:47	16°♌25'16	1.34931 AU
minimum elong	752 Mar 29 j 00:05	11°♌56'53	0°37'41				
asc. node	752 Apr 01 j 14:49	19°♌39'00		superior conj	753 Mar 12 j 20:53	25°♌49'43	-1°-4'-57
evening rise	752 Apr 05 j 05:20	27°♌17'57		minimum elong	753 Mar 13 j 00:00	26°♌05'48	1°04'24
	752 Apr 06 j 12:27	0°♌			753 Mar 14 j 21:20	0°♌	
	752 Apr 25 j 00:03	0°♌		asc. node	753 Mar 19 j 11:52	9°♌36'01	
evening max el	752 Apr 26 j 09:53	1°♌25'56	22°13'04	evening rise	753 Mar 20 j 13:54	11°♌50'42	
retrograde	752 May 09 j 06:07	7°♌45'16			753 Mar 30 j 03:07	0°♌	
desc. node	752 May 10 j 17:54	7°♌40'17		evening max el	753 Apr 08 j 11:01	12°♌23'07	20°46'51
evening set	752 May 12 j 03:02	7°♌27'03		retrograde	753 Apr 19 j 19:11	17°♌52'50	
min. Earth dist.	752 May 20 j 16:19	3°♌46'47	0.55152 AU	evening set	753 Apr 21 j 23:33	17°♌41'25	
inferior conj	752 May 21 j 11:26	3°♌19'51	-2°-56'-15	desc. node	753 Apr 27 j 14:54	15°♌41'52	
minimum elong	752 May 21 j 04:12	3°♌30'03	2°54'06	inferior conj	753 May 01 j 05:28	13°♌43'42	-1°-2'-25
	752 May 28 j 07:51	30°♌		minimum elong	753 May 01 j 02:30	13°♌47'56	1°01'22
morning rise	752 May 30 j 07:13	29°♌26'36		min. Earth dist.	753 May 02 j 05:02	13°♌10'02	0.55025 AU
direct	752 Jun 02 j 06:09	29°♌06'56		morning rise	753 May 10 j 04:27	9°♌36'27	
	752 Jun 06 j 23:19	0°♌		direct	753 May 13 j 16:18	9°♌10'10	
morning max el	752 Jun 13 j 23:03	4°♌35'02	21°19'52	morning max el	753 May 26 j 19:43	15°♌29'50	22°56'39
asc. node	752 Jun 28 j 14:02	25°♌36'55			753 Jun 07 j 03:23	0°♌	
	752 Jun 30 j 20:27	0°♌		asc. node	753 Jun 15 j 11:06	15°♌08'38	
morning set	752 Jul 04 j 00:15	6°♌24'11		morning set	753 Jun 18 j 11:11	21°♌18'37	
					753 Jun 22 j 13:14	0°♌	
superior conj	752 Jul 11 j 10:24	21°♌55'12	1°40'45				
minimum elong	752 Jul 11 j 08:43	21°♌46'31	1°40'39	superior conj	753 Jun 25 j 15:05	6°♌35'29	1°29'16
	752 Jul 15 j 09:26	0°♌		minimum elong	753 Jun 25 j 12:45	6°♌23'02	1°29'01
max. Earth dist.	752 Jul 15 j 12:12	0°♌13'50	1.35252 AU	max. Earth dist.	753 Jun 28 j 08:36	12°♌21'36	1.33925 AU
evening rise	752 Jul 19 j 21:09	8°♌45'31		evening rise	753 Jul 03 j 09:15	22°♌35'45	
	752 Aug 01 j 00:04	0°♌			753 Jul 07 j 05:37	0°♌	
desc. node	752 Aug 06 j 17:12	8°♌49'49		desc. node	753 Jul 24 j 14:14	28°♌25'20	
	752 Aug 23 j 10:53	0°♌			753 Jul 25 j 17:30	0°♌	
evening max el	752 Aug 24 j 05:34	0°♌45'49	26°39'39	evening max el	753 Aug 06 j 17:23	14°♌09'57	27°16'21
retrograde	752 Sep 06 j 04:29	7°♌59'51		retrograde	753 Aug 20 j 03:36	21°♌28'45	
evening set	752 Sep 12 j 18:43	5°♌18'28		evening set	753 Aug 27 j 04:15	18°♌44'54	
min. Earth dist.	752 Sep 16 j 20:11	1°♌08'13	0.65957 AU	min. Earth dist.	753 Aug 30 j 22:55	15°♌11'31	0.64667 AU
	752 Sep 17 j 19:09	30°♌		inferior conj	753 Sep 02 j 04:49	12°♌44'33	-2°-55'-42
inferior conj	752 Sep 18 j 13:11	29°♌06'02	-2°00'-8	minimum elong	753 Sep 02 j 09:12	12°♌32'32	2°54'15
minimum elong	752 Sep 18 j 16:18	28°♌56'44	1°58'56	morning rise	753 Sep 08 j 15:58	7°♌13'51	

direct	753 Sep 11 j 06:33	6° \cap 38'18		min. Earth dist.	754 Aug 13 j 16:03	28° Ω 52'34	0.63022 AU
asc. node	753 Sep 11 j 10:19	6° \cap 38'26		inferior conj	754 Aug 16 j 10:44	26° Ω 09'13	-3°-46'-31
morning max el	753 Sep 17 j 18:40	10° \cap 06'25	18°02'26	minimum elong	754 Aug 16 j 15:44	25° Ω 56'55	3°45'13
	753 Oct 01 j 08:24	0° $\underline{\Delta}$		morning rise	754 Aug 23 j 08:07	20° Ω 56'48	
morning set	753 Oct 05 j 09:57	6° $\underline{\Delta}$ 49'57		direct	754 Aug 25 j 18:54	20° Ω 28'44	
				asc. node	754 Aug 29 j 07:23	21° Ω 27'53	
superior conj	753 Oct 19 j 02:54	29° $\underline{\Delta}$ 23'45	0°09'37	morning max el	754 Sep 01 j 10:36	23° Ω 54'22	17°52'32
minimum elong	753 Oct 19 j 04:03	29° $\underline{\Delta}$ 28'22	0°09'27		754 Sep 06 j 07:49	0° \cap	
behind sun begin	753 Oct 18 j 19:24	28° $\underline{\Delta}$ 53'39		morning set	754 Sep 17 j 18:14	19° \cap 13'10	
behind sun end	753 Oct 19 j 12:42	0° \cap 03'02			754 Sep 23 j 22:00	0° $\underline{\Delta}$	
	753 Oct 19 j 11:56	0° \cap					
desc. node	753 Oct 20 j 13:32	1° \cap 42'22		superior conj	754 Sep 29 j 11:57	9° $\underline{\Delta}$ 29'51	0°51'41
max. Earth dist.	753 Oct 23 j 11:28	6° \cap 20'12	1.44698 AU	minimum elong	754 Sep 29 j 16:30	9° $\underline{\Delta}$ 48'56	0°51'06
evening rise	753 Nov 04 j 13:47	25° \cap 12'50		max. Earth dist.	754 Oct 06 j 03:10	20° $\underline{\Delta}$ 23'34	1.43630 AU
	753 Nov 07 j 16:21	0° \nearrow		desc. node	754 Oct 07 j 10:34	22° $\underline{\Delta}$ 29'42	
greatest brilliancy	753 Nov 23 j 15:12	23° \nearrow 47'33	-0.6m		754 Oct 12 j 04:22	0° \cap	
	753 Nov 28 j 09:49	0° $\overline{\Sigma}$		evening rise	754 Oct 14 j 21:12	4° \cap 12'18	
evening max el	753 Nov 30 j 15:45	2° $\overline{\Sigma}$ 30'16	20°00'29		754 Nov 01 j 03:36	0° \nearrow	
retrograde	753 Dec 08 j 07:07	6° $\overline{\Sigma}$ 58'43		greatest brilliancy	754 Nov 08 j 08:01	9° \nearrow 47'35	-0.5m
asc. node	753 Dec 08 j 09:36	6° $\overline{\Sigma}$ 58'40		evening max el	754 Nov 13 j 15:30	15° \nearrow 59'30	21°06'53
evening set	753 Dec 11 j 21:24	5° $\overline{\Sigma}$ 43'13		retrograde	754 Nov 22 j 04:44	21° \nearrow 04'05	
inferior conj	753 Dec 17 j 09:34	29° \nearrow 38'30	2°43'49	asc. node	754 Nov 25 j 06:39	20° \nearrow 10'48	
minimum elong	753 Dec 17 j 06:50	29° \nearrow 47'37	2°43'02	evening set	754 Nov 26 j 04:54	19° \nearrow 33'16	
	753 Dec 17 j 03:08	30° \cap \nearrow		inferior conj	754 Dec 01 j 14:57	13° \nearrow 18'12	2°03'00
min. Earth dist.	753 Dec 18 j 06:53	28° \nearrow 27'14	0.66849 AU	minimum elong	754 Dec 01 j 12:32	13° \nearrow 26'30	2°02'09
morning rise	753 Dec 22 j 15:41	23° \nearrow 23'35		min. Earth dist.	754 Dec 02 j 00:11	12° \nearrow 46'24	0.67460 AU
direct	753 Dec 28 j 12:08	20° \nearrow 48'34		morning rise	754 Dec 06 j 19:47	7° \nearrow 02'45	
morning max el	754 Jan 09 j 08:25	27° \nearrow 51'51	25°10'13	direct	754 Dec 12 j 01:09	4° \nearrow 47'20	
	754 Jan 11 j 09:08	0° $\overline{\Sigma}$		morning max el	754 Dec 22 j 17:02	11° \nearrow 08'44	23°43'33
desc. node	754 Jan 16 j 12:46	6° $\overline{\Sigma}$ 04'59		desc. node	755 Jan 03 j 09:50	25° \nearrow 22'50	
	754 Feb 02 j 06:13	0° \approx			755 Jan 06 j 17:29	0° $\overline{\Sigma}$	
morning set	754 Feb 14 j 12:45	20° \approx 39'20			755 Jan 26 j 01:06	0° \approx	
max. Earth dist.	754 Feb 18 j 06:20	27° \approx 29'02	1.36673 AU	morning set	755 Jan 27 j 01:45	1° \approx 44'29	
	754 Feb 19 j 14:29	0° H		max. Earth dist.	755 Jan 31 j 01:17	8° \approx 38'35	1.38729 AU
superior conj	754 Feb 24 j 10:15	9° H 19'44	-1°-29'-42	superior conj	755 Feb 07 j 10:40	22° \approx 07'59	-1°-49'-46
minimum elong	754 Feb 24 j 14:12	9° H 39'16	1°29'11	minimum elong	755 Feb 07 j 14:24	22° \approx 25'34	1°49'29
evening rise	754 Mar 04 j 17:41	26° H 02'51			755 Feb 11 j 13:28	0° H	
asc. node	754 Mar 06 j 08:55	29° H 19'09		evening rise	755 Feb 16 j 14:08	9° H 47'53	
	754 Mar 06 j 17:10	0° \cap		asc. node	755 Feb 21 j 05:58	18° H 43'21	
evening max el	754 Mar 21 j 23:35	23° \cap 57'31	19°37'21		755 Feb 27 j 22:02	0° \cap	
retrograde	754 Mar 31 j 14:36	28° \cap 35'25		evening max el	755 Mar 04 j 22:39	6° \cap 09'57	18°47'26
evening set	754 Apr 02 j 16:41	28° \cap 23'19		retrograde	755 Mar 13 j 02:05	10° \cap 07'06	
inferior conj	754 Apr 11 j 07:56	24° \cap 19'24	0°53'46	evening set	755 Mar 15 j 08:34	9° \cap 49'51	
minimum elong	754 Apr 11 j 10:11	24° \cap 15'51	0°53'00	inferior conj	755 Mar 23 j 05:04	5° \cap 29'14	2°24'01
min. Earth dist.	754 Apr 13 j 19:24	22° \cap 45'32	0.55841 AU	minimum elong	755 Mar 23 j 09:17	5° \cap 21'27	2°22'53
desc. node	754 Apr 14 j 11:56	22° \cap 20'21		min. Earth dist.	755 Mar 26 j 12:16	3° \cap 04'44	0.57432 AU
morning rise	754 Apr 20 j 00:07	19° \cap 41'40		morning rise	755 Mar 31 j 05:42	0° \cap 18'26	
direct	754 Apr 24 j 10:15	18° \cap 57'50			755 Mar 31 j 23:31	30° \cap H	
morning max el	754 May 08 j 10:56	26° \cap 00'53	24°37'59	desc. node	755 Apr 01 j 09:00	29° H 51'11	
	754 May 12 j 05:29	0° B		direct	755 Apr 05 j 18:18	29° H 03'49	
	754 May 30 j 22:07	0° \cap			755 Apr 10 j 14:25	0° \cap	
asc. node	754 Jun 02 j 08:11	4° \cap 58'09		morning max el	755 Apr 20 j 02:26	6° \cap 34'28	26°08'55
morning set	754 Jun 02 j 23:08	6° \cap 16'34			755 May 07 j 09:04	0° B	
				morning set	755 May 18 j 10:27	21° B 11'58	
superior conj	754 Jun 10 j 00:05	21° \cap 28'26	1°13'04	asc. node	755 May 20 j 05:15	24° B 59'23	
minimum elong	754 Jun 09 j 21:39	21° \cap 15'11	1°12'41		755 May 22 j 12:46	0° \cap	
max. Earth dist.	754 Jun 11 j 13:26	24° \cap 50'41	1.32987 AU				
	754 Jun 13 j 23:17	0° $\overline{\Sigma}$		superior conj	755 May 25 j 11:20	6° \cap 26'42	0°53'02
evening rise	754 Jun 17 j 07:17	6° $\overline{\Sigma}$ 55'41		minimum elong	755 May 25 j 09:16	6° \cap 15'21	0°52'38
	754 Jun 29 j 18:09	0° Ω		max. Earth dist.	755 May 25 j 23:53	7° \cap 35'33	1.32440 AU
desc. node	754 Jul 11 j 11:14	17° Ω 21'39		evening rise	755 Jun 01 j 12:06	21° \cap 35'03	
evening max el	754 Jul 20 j 03:12	27° Ω 10'02	27°24'50		755 Jun 05 j 16:04	0° $\overline{\Sigma}$	
	754 Jul 23 j 09:23	0° \cap			755 Jun 23 j 23:12	0° Ω	
retrograde	754 Aug 02 j 20:50	4° \cap 28'40		desc. node	755 Jun 28 j 08:16	5° Ω 21'50	
evening set	754 Aug 10 j 01:46	1° \cap 54'13		evening max el	755 Jul 02 j 08:41	9° Ω 33'35	27°00'52
	754 Aug 12 j 10:43	30° \cap Ω		retrograde	755 Jul 16 j 07:00	16° Ω 49'19	

evening set	755 Jul 23 j 06:57	14°♂38'16		retrograde	756 Jun 27 j 08:14	28°♂23'44	
min. Earth dist.	755 Jul 26 j 22:53	11°♂57'08	0.61092 AU	evening set	756 Jul 03 j 15:04	26°♂47'48	
inferior conj	755 Jul 30 j 03:37	9°♂11'28	-4°-27'-10	min. Earth dist.	756 Jul 07 j 20:22	24°♂10'36	0.59036 AU
minimum elong	755 Jul 30 j 07:50	9°♂02'19	4°26'30	inferior conj	756 Jul 11 j 03:51	21°♂41'39	-4°-49'-6
morning rise	755 Aug 06 j 11:44	4°♂20'07		minimum elong	756 Jul 11 j 05:08	21°♂39'14	4°49'04
direct	755 Aug 08 j 21:25	3°♂56'48		morning rise	756 Jul 18 j 22:41	17°♂13'11	
morning max el	755 Aug 16 j 00:14	7°♂28'34	18°01'19	direct	756 Jul 21 j 09:52	16°♂52'37	
asc. node	755 Aug 16 j 04:28	7°♂38'56		morning max el	756 Jul 29 j 08:25	20°♂40'25	18°30'06
	755 Aug 30 j 12:20	0°♂		asc. node	756 Aug 02 j 01:30	24°♂56'22	
morning set	755 Aug 31 j 20:16	2°♂27'24			756 Aug 05 j 11:29	0°♂	
				morning set	756 Aug 14 j 11:02	16°♂18'54	
superior conj	755 Sep 11 j 00:03	20°♂55'28	1°21'39		756 Aug 21 j 14:23	0°♂	
minimum elong	755 Sep 11 j 04:29	21°♂14'59	1°21'11				
	755 Sep 16 j 06:04	0°♂		superior conj	756 Aug 23 j 11:04	3°♂29'10	1°39'14
max. Earth dist.	755 Sep 18 j 13:54	3°♂54'19	1.42023 AU	minimum elong	756 Aug 23 j 13:41	3°♂41'20	1°39'05
desc. node	755 Sep 24 j 07:35	13°♂15'09		max. Earth dist.	756 Aug 30 j 19:47	16°♂44'06	1.40080 AU
evening rise	755 Sep 24 j 13:49	13°♂40'01		evening rise	756 Sep 04 j 04:12	24°♂08'46	
	755 Oct 05 j 04:20	0°♂			756 Sep 07 j 17:44	0°♂	
greatest brilliancy	755 Oct 22 j 16:04	24°♂10'32	-0.3m	desc. node	756 Sep 10 j 04:36	3°♂55'14	
evening max el	755 Oct 27 j 09:45	29°♂29'56	22°22'46		756 Sep 28 j 00:53	0°♂	
	755 Oct 27 j 21:49	0°♂		evening max el	756 Oct 08 j 23:49	13°♂03'07	23°42'47
retrograde	755 Nov 06 j 00:29	5°♂12'50		retrograde	756 Oct 19 j 17:03	19°♂22'12	
evening set	755 Nov 10 j 12:36	3°♂25'04		evening set	756 Oct 24 j 18:51	17°♂16'33	
asc. node	755 Nov 12 j 03:42	1°♂52'22		asc. node	756 Oct 29 j 00:44	12°♂28'08	
	755 Nov 13 j 17:39	30°♂		min. Earth dist.	756 Oct 29 j 16:51	11°♂33'41	0.67656 AU
inferior conj	755 Nov 15 j 22:02	27°♂03'22	1°16'01	inferior conj	756 Oct 30 j 05:04	10°♂52'04	0°24'22
minimum elong	755 Nov 15 j 20:22	27°♂09'09	1°15'22	minimum elong	756 Oct 30 j 04:29	10°♂54'02	0°24'07
min. Earth dist.	755 Nov 15 j 20:19	27°♂09'20	0.67722 AU	morning rise	756 Nov 04 j 14:15	4°♂42'44	
morning rise	755 Nov 21 j 03:59	20°♂49'43		direct	756 Nov 08 j 14:30	3°♂12'13	
direct	755 Nov 25 j 18:17	18°♂56'49		morning max el	756 Nov 16 j 21:45	8°♂01'44	20°55'37
morning max el	755 Dec 05 j 04:17	24°♂30'34	22°16'07	greatest brilliancy	756 Nov 22 j 13:12	14°♂35'58	-0.5m
greatest brilliancy	755 Dec 09 j 19:22	29°♂42'18	-0.3m		756 Dec 03 j 13:30	0°♂	
	755 Dec 10 j 01:10	0°♂		desc. node	756 Dec 07 j 03:52	5°♂20'53	
desc. node	755 Dec 21 j 06:52	15°♂11'02		morning set	756 Dec 16 j 15:56	19°♂53'30	
	755 Dec 31 j 04:47	0°♂			756 Dec 23 j 01:01	0°♂	
morning set	756 Jan 07 j 10:13	11°♂25'47		max. Earth dist.	756 Dec 25 j 02:19	3°♂19'28	1.42766 AU
max. Earth dist.	756 Jan 12 j 22:06	20°♂30'27	1.40858 AU				
	756 Jan 18 j 10:32	0°♂		superior conj	757 Jan 01 j 00:46	14°♂49'57	-2°00'-49
superior conj	756 Jan 20 j 17:20	4°♂02'41	-2°-1'-39	minimum elong	756 Dec 31 j 22:05	14°♂38'39	2°00'45
minimum elong	756 Jan 20 j 19:01	4°♂10'09	2°01'38		757 Jan 09 j 18:32	0°♂	
evening rise	756 Jan 31 j 00:01	22°♂58'07		evening rise	757 Jan 12 j 19:25	5°♂24'30	
	756 Feb 03 j 18:46	0°♂		asc. node	757 Jan 25 j 00:03	26°♂06'48	
asc. node	756 Feb 08 j 03:01	7°♂42'12			757 Jan 27 j 21:53	0°♂	
evening max el	756 Feb 16 j 05:22	18°♂53'07	18°17'37	evening max el	757 Jan 29 j 16:25	1°♂56'42	18°07'31
retrograde	756 Feb 23 j 08:28	22°♂26'02		retrograde	757 Feb 05 j 06:49	5°♂21'13	
evening set	756 Feb 25 j 20:13	22°♂01'04		evening set	757 Feb 07 j 23:09	4°♂47'17	
inferior conj	756 Mar 03 j 23:22	17°♂19'15	3°19'29		757 Feb 14 j 05:48	30°♂	
minimum elong	756 Mar 04 j 02:33	17°♂12'24	3°18'57	inferior conj	757 Feb 14 j 12:22	29°♂43'47	3°44'24
min. Earth dist.	756 Mar 07 j 09:22	14°♂24'41	0.59460 AU	minimum elong	757 Feb 14 j 13:26	29°♂41'10	3°44'20
morning rise	756 Mar 11 j 05:17	11°♂42'55		min. Earth dist.	757 Feb 17 j 13:35	26°♂44'04	0.61573 AU
direct	756 Mar 17 j 15:19	9°♂51'12		morning rise	757 Feb 21 j 01:08	23°♂50'33	
desc. node	756 Mar 18 j 06:03	9°♂52'12		direct	757 Feb 27 j 22:31	21°♂26'07	
morning max el	756 Mar 31 j 22:53	17°♂36'12	27°14'52	desc. node	757 Mar 05 j 03:05	22°♂39'30	
	756 Apr 11 j 06:14	0°♂		morning max el	757 Mar 14 j 01:40	29°♂18'10	27°46'16
	756 Apr 28 j 21:01	0°♂			757 Mar 14 j 18:18	0°♂	
morning set	756 May 01 j 19:27	5°♂59'20		morning set	757 Apr 05 j 03:41	0°♂	
asc. node	756 May 06 j 02:17	15°♂07'43			757 Apr 16 j 00:09	20°♂31'01	
				max. Earth dist.	757 Apr 20 j 12:32	0°♂	
superior conj	756 May 08 j 23:06	21°♂24'17	0°29'57	asc. node	757 Apr 21 j 23:24	3°♂08'09	1.32479 AU
minimum elong	756 May 08 j 21:48	21°♂17'10	0°29'40		757 Apr 22 j 23:19	5°♂18'06	
max. Earth dist.	756 May 08 j 12:32	20°♂26'16	1.32273 AU	superior conj	757 Apr 23 j 09:37	6°♂14'18	0°04'34
	756 May 12 j 21:15	0°♂		minimum elong	757 Apr 23 j 09:25	6°♂13'09	0°04'31
evening rise	756 May 15 j 21:16	6°♂25'50		behind sun begin	757 Apr 23 j 04:30	5°♂46'21	
	756 May 28 j 07:21	0°♂		behind sun end	757 Apr 23 j 14:20	6°♂39'59	
evening max el	756 Jun 13 j 07:40	21°♂12'08	26°04'24	evening rise	757 Apr 30 j 08:39	21°♂19'38	
desc. node	756 Jun 14 j 05:18	22°♂02'23			757 May 04 j 13:54	0°♂	

	757 May 23 j 22:05	0°☿			758 Apr 11 j 23:01	0°♄	
evening max el	757 May 25 j 23:58	2°☿07'06	24°42'08	evening rise	758 Apr 14 j 20:24	6°♄10'14	
desc. node	757 Jun 01 j 02:19	6°☿51'06			758 Apr 27 j 14:37	0°♄	
retrograde	757 Jun 08 j 22:36	9°☿10'51		evening max el	758 May 07 j 14:10	12°♄39'32	23°07'17
evening set	757 Jun 13 j 23:42	8°☿13'17		desc. node	758 May 18 j 23:21	19°♄11'59	
min. Earth dist.	757 Jun 19 j 11:15	5°☿22'17	0.57106 AU	retrograde	758 May 21 j 00:53	19°♄21'40	
inferior conj	757 Jun 22 j 08:22	3°☿29'54	-4°-40'-2	evening set	758 May 24 j 14:39	18°♄53'39	
minimum elong	757 Jun 22 j 04:48	3°☿35'44	4°39'43	min. Earth dist.	758 May 31 j 23:38	15°♄34'43	0.55644 AU
	757 Jun 28 j 15:04	30°♄		inferior conj	758 Jun 02 j 17:17	14°♄33'58	-3°-47'-30
morning rise	757 Jun 30 j 13:42	29°♄23'04		minimum elong	758 Jun 02 j 09:59	14°♄44'40	3°45'49
direct	757 Jul 03 j 04:03	29°♄04'08		morning rise	758 Jun 11 j 08:29	10°♄40'21	
	757 Jul 07 j 11:31	0°☿		direct	758 Jun 14 j 03:05	10°♄21'56	
morning max el	757 Jul 12 j 08:14	3°☿20'26	19°19'58	morning max el	758 Jun 24 j 21:27	15°♄20'52	20°30'44
asc. node	757 Jul 19 j 22:32	13°☿05'21			758 Jul 05 j 17:44	0°☿	
morning set	757 Jul 29 j 10:40	0°♄37'05		asc. node	758 Jul 06 j 19:34	1°☿54'00	
	757 Jul 29 j 03:13	0°♄		morning set	758 Jul 13 j 16:22	15°☿14'09	
					758 Jul 20 j 20:25	0°♄	
superior conj	757 Aug 06 j 15:18	16°♄54'55	1°46'16	superior conj	758 Jul 21 j 07:52	0°♄58'18	1°44'46
minimum elong	757 Aug 06 j 15:54	16°♄57'47	1°46'16	minimum elong	758 Jul 21 j 06:51	0°♄53'07	1°44'45
max. Earth dist.	757 Aug 12 j 23:16	28°♄54'25	1.38047 AU	max. Earth dist.	758 Jul 26 j 05:41	10°♄44'04	1.36175 AU
	757 Aug 13 j 13:37	0°♄		evening rise	758 Jul 30 j 07:10	18°♄25'52	
evening rise	757 Aug 16 j 19:02	5°♄46'30			758 Aug 05 j 19:30	0°♄	
desc. node	757 Aug 28 j 01:37	24°♄25'44		desc. node	758 Aug 14 j 22:39	14°♄40'57	
	757 Aug 31 j 17:19	0°♄			758 Aug 25 j 21:45	0°♄	
evening max el	757 Sep 21 j 11:43	26°♄39'47	25°00'24	evening max el	758 Sep 03 j 23:19	10°♄17'24	26°08'13
	757 Sep 25 j 06:00	0°♄		retrograde	758 Sep 16 j 13:31	17°♄26'05	
retrograde	757 Oct 03 j 05:36	3°♄28'40		evening set	758 Sep 22 j 20:11	14°♄49'40	
evening set	757 Oct 08 j 22:00	1°♄05'57		min. Earth dist.	758 Sep 27 j 01:47	10°♄18'01	0.66526 AU
	757 Oct 10 j 02:10	30°♄		inferior conj	758 Sep 28 j 11:56	8°♄31'51	-1°-27'-21
min. Earth dist.	757 Oct 13 j 11:27	25°♄57'50	0.67259 AU	minimum elong	758 Sep 28 j 14:12	8°♄24'50	1°26'26
inferior conj	757 Oct 14 j 10:18	24°♄42'41	0°-30'-34	asc. node	758 Oct 02 j 18:47	3°♄48'36	
minimum elong	757 Oct 14 j 11:04	24°♄40'11	0°30'15	morning rise	758 Oct 04 j 09:12	2°♄39'11	
asc. node	757 Oct 15 j 21:45	22°♄48'12		direct	758 Oct 07 j 10:50	1°♄45'19	
morning rise	757 Oct 20 j 00:40	18°♄40'18		morning max el	758 Oct 14 j 07:27	5°♄34'51	18°53'32
direct	757 Oct 23 j 12:31	17°♄29'53			758 Oct 31 j 12:06	0°♄	
morning max el	757 Oct 30 j 23:04	21°♄44'17	19°47'12	morning set	758 Nov 05 j 00:22	7°♄06'10	
	757 Nov 06 j 17:39	0°♄		desc. node	758 Nov 10 j 21:54	16°♄22'56	
greatest brilliancy	757 Nov 07 j 18:19	1°♄25'19	-0.6m		758 Nov 19 j 14:02	0°♄	
desc. node	757 Nov 24 j 00:53	25°♄46'37		max. Earth dist.	758 Nov 20 j 06:36	1°♄05'09	1.44964 AU
morning set	757 Nov 25 j 12:29	28°♄03'59					
	757 Nov 26 j 18:28	0°♄		superior conj	758 Nov 21 j 12:08	3°♄01'23	-1°-6'-18
max. Earth dist.	757 Dec 07 j 14:02	16°♄57'18	1.44190 AU	minimum elong	758 Nov 21 j 04:18	2°♄30'30	1°05'24
superior conj	757 Dec 12 j 05:32	24°♄24'13	-1°-42'-43	evening rise	758 Dec 06 j 22:09	27°♄37'03	
minimum elong	757 Dec 11 j 22:03	23°♄53'58	1°42'08		758 Dec 08 j 09:27	0°♄	
	757 Dec 15 j 16:03	0°♄		evening max el	758 Dec 27 j 16:19	28°♄38'03	18°43'55
evening rise	757 Dec 25 j 20:05	16°♄59'46			758 Dec 29 j 03:09	0°♄	
	758 Jan 02 j 12:37	0°♄		asc. node	758 Dec 29 j 18:07	0°♄30'25	
asc. node	758 Jan 11 j 21:04	13°♄47'13		retrograde	759 Jan 03 j 09:12	2°♄23'09	
evening max el	758 Jan 13 j 04:56	15°♄13'43	18°16'34	evening set	759 Jan 06 j 11:38	1°♄28'24	
retrograde	758 Jan 19 j 16:28	18°♄43'04			759 Jan 08 j 10:53	30°♄	
evening set	758 Jan 22 j 13:25	17°♄59'18		inferior conj	759 Jan 12 j 06:57	25°♄46'52	3°31'08
inferior conj	758 Jan 28 j 16:13	12°♄35'41	3°46'10	minimum elong	759 Jan 12 j 04:50	25°♄53'19	3°30'49
minimum elong	758 Jan 28 j 15:21	12°♄38'05	3°46'07	min. Earth dist.	759 Jan 14 j 02:38	23°♄34'13	0.65117 AU
min. Earth dist.	758 Jan 31 j 03:16	9°♄52'16	0.63509 AU	morning rise	759 Jan 17 j 20:52	19°♄36'49	
morning rise	758 Feb 03 j 15:33	6°♄31'56		direct	759 Jan 24 j 13:11	16°♄45'41	
direct	758 Feb 10 j 14:13	3°♄46'49		desc. node	759 Feb 06 j 21:08	24°♄35'16	
desc. node	758 Feb 20 j 00:07	7°♄45'57		morning max el	759 Feb 06 j 19:04	24°♄30'05	27°01'05
morning max el	758 Feb 24 j 09:23	11°♄39'54	27°40'28		759 Feb 11 j 18:47	0°♄	
	758 Mar 10 j 22:44	0°♄			759 Mar 04 j 08:25	0°♄	
	758 Mar 28 j 13:16	0°♄		morning set	759 Mar 14 j 10:38	18°♄15'06	
morning set	758 Mar 30 j 22:15	4°♄39'37		max. Earth dist.	759 Mar 18 j 23:45	27°♄14'17	1.34119 AU
max. Earth dist.	758 Apr 05 j 04:28	15°♄27'55	1.33082 AU		759 Mar 20 j 08:15	0°♄	
				superior conj	759 Mar 22 j 19:50	5°♄08'45	0°-49'-37
superior conj	758 Apr 07 j 17:12	20°♄51'17	0°-22'-20	minimum elong	759 Mar 22 j 22:16	5°♄21'28	0°49'09
minimum elong	758 Apr 07 j 18:17	20°♄57'06	0°22'06	asc. node	759 Mar 27 j 17:26	15°♄29'20	
asc. node	758 Apr 09 j 20:21	25°♄26'42					

evening rise	759 Mar 30 j 06:41	20° Υ 51'17		evening rise	760 Mar 13 j 13:31	5° Υ 16'13	
	759 Apr 03 j 19:06	0° ♄		asc. node	760 Mar 13 j 14:29	5° Υ 21'13	
evening max el	759 Apr 19 j 09:47	23° ♄ 21'16	21°34'44		760 Mar 27 j 15:26	0° ♄	
retrograde	759 May 01 j 16:34	29° ♄ 21'05		evening max el	760 Mar 31 j 15:53	4° ♄ 34'24	20°15'03
evening set	759 May 04 j 03:58	29° ♄ 07'13		retrograde	760 Apr 11 j 06:17	9° ♄ 40'47	
desc. node	759 May 05 j 20:22	28° ♄ 42'53		evening set	760 Apr 13 j 08:25	9° ♄ 29'46	
inferior conj	759 May 13 j 13:13	25° ♄ 06'04	-2°-10'-34	desc. node	760 Apr 21 j 17:24	5° ♄ 54'51	
minimum elong	759 May 13 j 07:18	25° ♄ 14'22	2°08'36	inferior conj	760 Apr 22 j 09:10	5° ♄ 31'38	0°-11'-21
min. Earth dist.	759 May 13 j 12:19	25° ♄ 07'19	0.54972 AU	minimum elong	760 Apr 22 j 08:39	5° ♄ 32'25	0°11'11
morning rise	759 May 22 j 11:17	21° ♄ 08'58		transit middle	760 Apr 22 j 08:39	5° ♄ 32'25	0°11'11
direct	759 May 25 j 14:23	20° ♄ 47'31		transit begin	760 Apr 22 j 05:47	5° ♄ 36'38	
morning max el	759 Jun 06 j 23:38	26° ♄ 38'39	21°59'44	transit end	760 Apr 22 j 11:30	5° ♄ 28'11	
	759 Jun 10 j 04:55	0° ♄		min. Earth dist.	760 Apr 24 j 01:50	4° ♄ 31'39	0.55262 AU
asc. node	759 Jun 23 j 16:38	21° ♄ 12'45		morning rise	760 May 01 j 06:32	1° ♄ 12'41	
morning set	759 Jun 28 j 01:57	0° ♄ 04'19		direct	760 May 05 j 03:07	0° ♄ 40'17	
	759 Jun 28 j 01:07	0° ♄		morning max el	760 May 18 j 17:09	7° ♄ 20'20	23°39'57
					760 Jun 03 j 22:55	0° ♄	
superior conj	759 Jul 05 j 09:01	15° ♄ 28'24	1°36'32	asc. node	760 Jun 09 j 13:43	10° ♄ 52'58	
minimum elong	759 Jul 05 j 07:00	15° ♄ 17'44	1°36'22	morning set	760 Jun 11 j 13:31	15° ♄ 00'59	
max. Earth dist.	759 Jul 08 j 20:24	22° ♄ 40'29	1.34633 AU				
	759 Jul 12 j 12:17	0° ♄		superior conj	760 Jun 18 j 15:49	0° ♄ 15'02	1°22'56
evening rise	759 Jul 13 j 11:55	1° ♄ 54'52		minimum elong	760 Jun 18 j 13:22	0° ♄ 01'53	1°22'36
	759 Jul 29 j 18:08	0° ♄			760 Jun 18 j 13:01	0° ♄	
desc. node	759 Aug 01 j 19:42	4° ♄ 34'02		max. Earth dist.	760 Jun 20 j 20:42	4° ♄ 57'50	1.33480 AU
evening max el	759 Aug 17 j 11:25	23° ♄ 50'14	26°58'25	evening rise	760 Jun 26 j 04:42	15° ♄ 59'30	
	759 Aug 25 j 21:46	0° ♄			760 Jul 03 j 13:39	0° ♄	
retrograde	759 Aug 30 j 16:07	1° ♄ 07'53		desc. node	760 Jul 18 j 16:44	23° ♄ 54'37	
	759 Sep 04 j 01:56	30° ♄			760 Jul 23 j 10:06	0° ♄	
evening set	759 Sep 06 j 11:09	28° ♄ 24'20		evening max el	760 Jul 29 j 22:54	7° ♄ 06'35	27°23'48
min. Earth dist.	759 Sep 10 j 09:34	24° ♄ 29'49	0.65446 AU	retrograde	760 Aug 12 j 12:45	14° ♄ 25'13	
inferior conj	759 Sep 12 j 07:56	22° ♄ 16'15	-2°-24'-4	evening set	760 Aug 19 j 16:00	11° ♄ 44'10	
minimum elong	759 Sep 12 j 11:38	22° ♄ 05'35	2°22'42	min. Earth dist.	760 Aug 23 j 08:31	8° ♄ 24'53	0.64009 AU
morning rise	759 Sep 18 j 13:37	16° ♄ 36'22		inferior conj	760 Aug 25 j 19:48	5° ♄ 49'57	-3°-18'-7
asc. node	759 Sep 19 j 15:50	16° ♄ 10'11		minimum elong	760 Aug 26 j 00:35	5° ♄ 37'27	3°16'40
direct	759 Sep 21 j 07:28	15° ♄ 55'12		morning rise	760 Sep 01 j 11:11	0° ♄ 26'17	
morning max el	759 Sep 27 j 20:51	19° ♄ 28'55	18°16'07		760 Sep 02 j 22:13	30° ♄	
	759 Oct 05 j 19:22	0° ♄		direct	760 Sep 03 j 23:52	29° ♄ 54'12	
morning set	759 Oct 16 j 16:31	17° ♄ 33'30			760 Sep 05 j 01:28	0° ♄	
	759 Oct 24 j 08:22	0° ♄		asc. node	760 Sep 05 j 12:53	0° ♄ 06'19	
desc. node	759 Oct 28 j 18:58	7° ♄ 06'17		morning max el	760 Sep 10 j 12:36	3° ♄ 20'22	17°55'57
				morning set	760 Sep 27 j 11:49	29° ♄ 19'38	
					760 Sep 27 j 21:14	0° ♄	
superior conj	759 Oct 31 j 13:53	11° ♄ 31'32	0°-18'-24				
minimum elong	759 Oct 31 j 11:30	11° ♄ 22'05	0°18'04	superior conj	760 Oct 10 j 07:49	20° ♄ 52'14	0°28'46
max. Earth dist.	759 Nov 03 j 01:15	15° ♄ 25'37	1.45009 AU	minimum elong	760 Oct 10 j 10:55	21° ♄ 04'52	0°28'20
	759 Nov 12 j 08:36	0° ♄		desc. node	760 Oct 14 j 16:02	27° ♄ 53'03	
evening rise	759 Nov 17 j 00:57	7° ♄ 18'22			760 Oct 15 j 23:51	0° ♄	
	759 Dec 01 j 18:28	0° ♄		max. Earth dist.	760 Oct 15 j 19:18	29° ♄ 41'52	1.44325 AU
greatest brilliancy	759 Dec 02 j 09:37	0° ♄ 55'44	-0.7m	evening rise	760 Oct 26 j 11:13	16° ♄ 22'39	
evening max el	759 Dec 11 j 00:25	12° ♄ 06'14	19°28'12		760 Nov 04 j 09:55	0° ♄	
asc. node	759 Dec 16 j 15:09	16° ♄ 02'01		greatest brilliancy	760 Nov 16 j 23:52	18° ♄ 10'39	-0.5m
retrograde	759 Dec 18 j 05:41	16° ♄ 16'19		evening max el	760 Nov 23 j 03:33	25° ♄ 35'46	20°27'21
evening set	759 Dec 21 j 15:09	15° ♄ 08'56			760 Nov 29 j 06:35	0° ♄	
inferior conj	759 Dec 27 j 05:23	9° ♄ 12'03	3°03'50	retrograde	760 Dec 01 j 03:26	0° ♄ 18'30	
minimum elong	759 Dec 27 j 02:42	9° ♄ 20'46	3°03'12	asc. node	760 Dec 02 j 12:10	0° ♄ 07'59	
min. Earth dist.	759 Dec 28 j 10:28	7° ♄ 37'33	0.66336 AU		760 Dec 02 j 22:43	30° ♄	
morning rise	760 Jan 01 j 13:28	2° ♄ 58'25		evening set	760 Dec 04 j 21:46	28° ♄ 56'38	
direct	760 Jan 07 j 18:10	0° ♄ 14'30		inferior conj	760 Dec 10 j 08:50	22° ♄ 47'17	2°27'21
morning max el	760 Jan 20 j 04:19	7° ♄ 36'27	25°55'44	minimum elong	760 Dec 10 j 06:11	22° ♄ 56'17	2°26'31
desc. node	760 Jan 24 j 18:11	12° ♄ 38'14		min. Earth dist.	760 Dec 11 j 00:51	21° ♄ 52'59	0.67157 AU
	760 Feb 06 j 16:02	0° ♄		morning rise	760 Dec 15 j 14:07	16° ♄ 32'09	
	760 Feb 24 j 19:03	0° ♄		direct	760 Dec 21 j 04:21	14° ♄ 04'50	
morning set	760 Feb 25 j 09:07	1° ♄ 04'39		morning max el	761 Jan 01 j 12:43	20° ♄ 50'45	24°34'05
max. Earth dist.	760 Feb 29 j 07:11	8° ♄ 28'02	1.35621 AU		761 Jan 09 j 10:19	0° ♄	
				desc. node	761 Jan 10 j 15:14	1° ♄ 33'27	
superior conj	760 Mar 05 j 14:59	18° ♄ 59'10	-1°-15'-51		761 Jan 29 j 21:23	0° ♄	
minimum elong	760 Mar 05 j 18:33	19° ♄ 17'10	1°15'18	morning set	761 Feb 06 j 12:12	12° ♄ 53'02	
	760 Mar 10 j 23:59	0° ♄					

max. Earth dist.	761 Feb 10 j 05:18	19° \approx 31'22	1.37525 AU	morning set	762 Jan 18 j 13:30	23° \approx 23'09	
	761 Feb 15 j 19:42	0° \approx			762 Jan 22 j 11:15	0° \approx	
				max. Earth dist.	762 Jan 23 j 00:37	0° \approx 57'37	1.39645 AU
superior conj	761 Feb 16 j 23:27	2° \approx 13'47	-1°-38'-57	superior conj	762 Jan 30 j 16:54	14° \approx 40'33	-1°-56'-4
minimum elong	761 Feb 17 j 03:29	2° \approx 33'18	1°38'31	minimum elong	762 Jan 30 j 20:02	14° \approx 55'00	1°55'54
evening rise	761 Feb 25 j 14:35	19° \approx 18'37			762 Feb 07 j 19:32	0° \approx	
asc. node	761 Feb 28 j 11:33	24° \approx 57'35		evening rise	762 Feb 09 j 06:58	2° \approx 50'02	
	761 Mar 03 j 03:22	0° \approx		asc. node	762 Feb 15 j 08:34	14° \approx 11'56	
evening max el	761 Mar 14 j 09:15	16° \approx 26'12	19°13'36	evening max el	762 Feb 25 j 11:50	28° \approx 52'14	18°32'13
retrograde	761 Mar 23 j 07:39	20° \approx 44'45			762 Feb 26 j 18:09	0° \approx	
evening set	761 Mar 25 j 11:29	20° \approx 30'44		retrograde	762 Mar 05 j 03:36	2° \approx 37'26	
inferior conj	761 Apr 02 j 18:48	16° \approx 20'20	1°36'08	evening set	762 Mar 07 j 12:17	2° \approx 17'11	
minimum elong	761 Apr 02 j 22:21	16° \approx 14'21	1°35'01		762 Mar 12 j 01:54	30° \approx	
min. Earth dist.	761 Apr 05 j 16:46	14° \approx 23'23	0.56447 AU	inferior conj	762 Mar 15 j 01:01	27° \approx 47'27	2°51'41
desc. node	761 Apr 08 j 14:25	12° \approx 39'42		minimum elong	762 Mar 15 j 05:03	27° \approx 39'29	2°50'46
morning rise	761 Apr 11 j 05:14	11° \approx 28'30		min. Earth dist.	762 Mar 18 j 11:01	25° \approx 07'22	0.58262 AU
direct	761 Apr 16 j 02:48	10° \approx 33'07		morning rise	762 Mar 22 j 17:44	22° \approx 24'27	
morning max el	761 Apr 30 j 07:41	17° \approx 48'50	25°18'50	desc. node	762 Mar 26 j 11:27	21° \approx 06'57	
	761 May 10 j 09:11	0° \approx		direct	762 Mar 28 j 16:14	20° \approx 54'32	
morning set	761 May 27 j 01:25	29° \approx 58'45		morning max el	762 Apr 12 j 01:06	28° \approx 32'23	26°40'48
asc. node	761 May 27 j 10:48	0° \approx 48'19			762 Apr 13 j 11:49	0° \approx	
	761 May 27 j 01:39	0° \approx			762 May 03 j 23:40	0° \approx	
superior conj	761 Jun 03 j 01:59	15° \approx 10'53	1°04'59	morning set	762 May 11 j 11:58	14° \approx 51'36	
minimum elong	761 Jun 02 j 23:39	14° \approx 58'08	1°04'35	asc. node	762 May 14 j 07:52	20° \approx 53'10	
max. Earth dist.	761 Jun 04 j 04:34	17° \approx 35'52	1.32716 AU		762 May 18 j 11:56	0° \approx	
evening rise	761 Jun 10 j 05:58	0° \approx 28'51		superior conj	762 May 18 j 13:39	0° \approx 09'27	0°43'34
	761 Jun 10 j 00:22	0° \approx		minimum elong	762 May 18 j 11:52	29° \approx 59'39	0°43'12
	761 Jun 26 j 14:28	0° \approx		max. Earth dist.	762 May 18 j 16:28	0° \approx 24'56	1.32324 AU
desc. node	761 Jul 05 j 13:45	12° \approx 29'12		evening rise	762 May 25 j 12:54	15° \approx 13'42	
evening max el	761 Jul 12 j 07:16	19° \approx 52'36	27°18'39		762 Jun 02 j 00:01	0° \approx	
retrograde	761 Jul 26 j 02:42	27° \approx 09'13		desc. node	762 Jun 22 j 10:45	29° \approx 58'49	
evening set	761 Aug 02 j 07:03	24° \approx 43'04			762 Jun 22 j 11:12	0° \approx	
min. Earth dist.	761 Aug 05 j 21:05	21° \approx 51'59	0.62236 AU	evening max el	762 Jun 24 j 09:57	1° \approx 56'49	26°40'29
inferior conj	761 Aug 08 j 20:34	19° \approx 05'52	-4°-5'-25	retrograde	762 Jul 08 j 09:21	9° \approx 11'22	
minimum elong	761 Aug 09 j 01:28	18° \approx 54'28	4°04'21	evening set	762 Jul 15 j 03:50	7° \approx 13'44	
morning rise	761 Aug 15 j 22:29	14° \approx 02'01		min. Earth dist.	762 Jul 18 j 23:27	4° \approx 36'51	0.60220 AU
direct	761 Aug 18 j 08:37	13° \approx 36'07		inferior conj	762 Jul 22 j 06:47	1° \approx 55'33	-4°-39'-24
asc. node	761 Aug 23 j 09:58	15° \approx 31'54		minimum elong	762 Jul 22 j 10:03	1° \approx 48'52	4°39'04
morning max el	761 Aug 25 j 03:51	17° \approx 02'53	17°53'55		762 Jul 24 j 17:34	30° \approx	
	761 Sep 03 j 08:11	0° \approx		morning rise	762 Jul 29 j 19:33	27° \approx 14'15	
morning set	761 Sep 10 j 04:18	12° \approx 06'16		direct	762 Aug 01 j 05:37	26° \approx 52'18	
	761 Sep 20 j 07:00	0° \approx			762 Aug 08 j 03:04	0° \approx	
superior conj	761 Sep 21 j 04:31	1° \approx 32'19	1°06'00	morning max el	762 Aug 08 j 15:37	0° \approx 29'12	18°11'08
minimum elong	761 Sep 21 j 09:21	1° \approx 52'59	1°05'24	asc. node	762 Aug 10 j 07:02	2° \approx 13'19	
max. Earth dist.	761 Sep 28 j 09:34	13° \approx 34'53	1.43003 AU	morning set	762 Aug 24 j 12:17	25° \approx 37'54	
desc. node	761 Oct 01 j 13:02	18° \approx 39'46			762 Aug 26 j 19:57	0° \approx	
evening rise	761 Oct 05 j 20:23	25° \approx 28'23		superior conj	762 Sep 03 j 03:08	13° \approx 29'30	1°30'32
	761 Oct 08 j 18:25	0° \approx		minimum elong	762 Sep 03 j 06:53	13° \approx 46'28	1°30'12
	761 Oct 29 j 10:20	0° \approx		max. Earth dist.	762 Sep 10 j 18:03	26° \approx 48'49	1.41217 AU
greatest brilliancy	761 Nov 01 j 03:23	3° \approx 28'52	-0.4m		762 Sep 12 j 15:36	0° \approx	
evening max el	761 Nov 06 j 00:50	9° \approx 05'00	21°38'17	evening rise	762 Sep 15 j 21:18	5° \approx 19'26	
retrograde	761 Nov 15 j 00:25	14° \approx 25'41		desc. node	762 Sep 18 j 10:04	9° \approx 23'35	
evening set	761 Nov 19 j 05:33	12° \approx 47'34			762 Oct 02 j 00:34	0° \approx	
asc. node	761 Nov 19 j 09:13	12° \approx 40'14		greatest brilliancy	762 Oct 14 j 10:35	16° \approx 41'37	-0.2m
inferior conj	761 Nov 24 j 15:08	6° \approx 29'08	1°43'44	evening max el	762 Oct 19 j 16:54	22° \approx 35'54	22°56'36
minimum elong	761 Nov 24 j 12:59	6° \approx 36'32	1°42'56	retrograde	762 Oct 29 j 19:05	28° \approx 35'23	
min. Earth dist.	761 Nov 24 j 19:31	6° \approx 13'59	0.67611 AU	evening set	762 Nov 03 j 12:50	26° \approx 39'52	
morning rise	761 Nov 29 j 20:11	0° \approx 14'24		asc. node	762 Nov 06 j 06:14	23° \approx 49'34	
	761 Nov 30 j 03:05	30° \approx		inferior conj	762 Nov 08 j 22:24	20° \approx 16'13	0°54'38
direct	761 Dec 04 j 19:01	28° \approx 08'39		minimum elong	762 Nov 08 j 21:10	20° \approx 20'30	0°54'06
	761 Dec 10 j 00:26	0° \approx		min. Earth dist.	762 Nov 08 j 16:08	20° \approx 37'52	0.67729 AU
morning max el	761 Dec 14 j 22:07	4° \approx 09'36	23°06'05	morning rise	762 Nov 14 j 05:29	14° \approx 04'03	
greatest brilliancy	761 Dec 19 j 19:17	9° \approx 37'18	-0.3m	direct	762 Nov 18 j 13:30	12° \approx 21'04	
desc. node	761 Dec 28 j 12:15	21° \approx 05'11		morning max el	762 Nov 27 j 11:47	17° \approx 35'37	21°40'42
	762 Jan 03 j 16:31	0° \approx					

greatest brilliancy	762 Dec 02 j 09:46	23° \mathbb{M} 10'35	-0.4m	morning rise	763 Oct 29 j 16:02	27° \mathbb{A} 59'03	
	762 Dec 07 j 14:51	0° \mathbb{A}		direct	763 Nov 02 j 10:43	26° \mathbb{A} 37'27	
desc. node	762 Dec 15 j 09:17	11° \mathbb{A} 03'25			763 Nov 09 j 02:47	0° \mathbb{M}	
	762 Dec 27 j 19:46	0° \mathbb{B}		morning max el	763 Nov 10 j 08:28	1° \mathbb{M} 11'13	20°24'45
morning set	762 Dec 29 j 09:34	2° \mathbb{B} 29'37		greatest brilliancy	763 Nov 16 j 18:36	8° \mathbb{M} 50'58	-0.5m
max. Earth dist.	763 Jan 04 j 23:58	13° \mathbb{B} 12'24	1.41710 AU		763 Dec 01 j 09:06	0° \mathbb{A}	
				desc. node	763 Dec 02 j 06:19	1° \mathbb{A} 20'29	
superior conj	763 Jan 12 j 14:15	26° \mathbb{B} 07'23	-2°-3'-9	morning set	763 Dec 08 j 08:15	10° \mathbb{A} 40'17	
minimum elong	763 Jan 12 j 14:20	26° \mathbb{B} 07'46	2°03'09	max. Earth dist.	763 Dec 18 j 06:54	26° \mathbb{A} 21'18	1.43440 AU
	763 Jan 14 j 19:09	0° \mathbb{A}			763 Dec 20 j 13:00	0° \mathbb{B}	
evening rise	763 Jan 23 j 11:11	15° \mathbb{A} 42'27					
	763 Jan 31 j 10:31	0° \mathbb{H}		superior conj	763 Dec 24 j 10:28	6° \mathbb{B} 23'27	-1°-55'-27
asc. node	763 Feb 02 j 05:34	2° \mathbb{H} 57'14		minimum elong	763 Dec 24 j 05:34	6° \mathbb{B} 03'10	1°55'12
evening max el	763 Feb 08 j 20:42	11° \mathbb{H} 44'43	18°10'55	evening rise	764 Jan 05 j 23:05	27° \mathbb{B} 47'30	
retrograde	763 Feb 15 j 17:17	15° \mathbb{H} 12'32			764 Jan 07 j 05:22	0° \mathbb{A}	
evening set	763 Feb 18 j 06:54	14° \mathbb{H} 44'01		asc. node	764 Jan 20 j 02:35	21° \mathbb{A} 04'28	
inferior conj	763 Feb 25 j 03:43	9° \mathbb{H} 53'04	3°33'20	evening max el	764 Jan 23 j 08:47	24° \mathbb{A} 55'13	18°09'10
minimum elong	763 Feb 25 j 06:02	9° \mathbb{H} 47'46	3°33'03	retrograde	764 Jan 29 j 20:50	28° \mathbb{A} 20'03	
min. Earth dist.	763 Feb 28 j 11:06	6° \mathbb{H} 52'59	0.60364 AU	evening set	764 Feb 01 j 15:06	27° \mathbb{A} 42'05	
morning rise	763 Mar 04 j 01:55	4° \mathbb{H} 08'15		inferior conj	764 Feb 07 j 23:31	22° \mathbb{A} 30'09	3°47'33
direct	763 Mar 10 j 17:58	2° \mathbb{H} 01'18		minimum elong	764 Feb 07 j 23:42	22° \mathbb{A} 29'42	3°47'32
desc. node	763 Mar 13 j 08:29	2° \mathbb{H} 19'41		min. Earth dist.	764 Feb 10 j 19:14	19° \mathbb{A} 34'52	0.62429 AU
morning max el	763 Mar 25 j 00:23	9° \mathbb{H} 50'59	27°32'43	morning rise	764 Feb 14 j 06:05	16° \mathbb{A} 31'57	
	763 Apr 09 j 13:56	0° \mathbb{Y}		direct	764 Feb 21 j 05:20	13° \mathbb{A} 56'37	
morning set	763 Apr 25 j 19:23	29° \mathbb{Y} 33'13		desc. node	764 Feb 28 j 05:31	16° \mathbb{A} 10'28	
	763 Apr 26 j 00:34	0° \mathbb{B}		morning max el	764 Mar 06 j 05:23	21° \mathbb{A} 50'18	27°48'12
asc. node	763 May 01 j 04:53	11° \mathbb{B} 02'51			764 Mar 13 j 09:12	0° \mathbb{H}	
max. Earth dist.	763 May 02 j 04:41	13° \mathbb{B} 12'48	1.32308 AU		764 Apr 01 j 15:59	0° \mathbb{Y}	
				morning set	764 Apr 08 j 21:38	13° \mathbb{Y} 56'34	
superior conj	763 May 03 j 01:06	15° \mathbb{B} 04'35	0°19'25	max. Earth dist.	764 Apr 14 j 13:27	25° \mathbb{Y} 46'35	1.32680 AU
minimum elong	763 May 03 j 00:14	14° \mathbb{B} 59'49	0°19'14				
evening rise	763 May 09 j 23:13	0° \mathbb{I} 06'21		superior conj	764 Apr 16 j 10:39	29° \mathbb{Y} 50'34	0°-6'-43
	763 May 09 j 22:01	0° \mathbb{I}		minimum elong	764 Apr 16 j 10:59	29° \mathbb{Y} 52'19	0°06'39
	763 May 26 j 10:09	0° \mathbb{B}		behind sun begin	764 Apr 16 j 06:15	29° \mathbb{Y} 26'41	
evening max el	763 Jun 06 j 05:43	13° \mathbb{B} 15'10	25°31'55	behind sun end	764 Apr 16 j 15:42	0° \mathbb{B} 17'58	
desc. node	763 Jun 09 j 07:47	15° \mathbb{B} 56'10			764 Apr 16 j 12:24	0° \mathbb{B}	
retrograde	763 Jun 20 j 06:42	20° \mathbb{B} 25'17		asc. node	764 Apr 17 j 01:55	1° \mathbb{B} 13'21	
evening set	763 Jun 26 j 02:01	19° \mathbb{B} 05'56		evening rise	764 Apr 23 j 11:01	15° \mathbb{B} 00'09	
min. Earth dist.	763 Jun 30 j 17:51	16° \mathbb{B} 24'43	0.58173 AU		764 Apr 30 j 23:36	0° \mathbb{I}	
inferior conj	763 Jul 03 j 22:54	14° \mathbb{B} 08'48	-4°-49'-55	evening max el	764 May 17 j 20:36	23° \mathbb{I} 58'33	24°02'33
minimum elong	763 Jul 03 j 22:16	14° \mathbb{B} 09'56	4°49'55	desc. node	764 May 26 j 04:47	29° \mathbb{I} 46'59	
morning rise	763 Jul 11 j 22:16	9° \mathbb{B} 50'10			764 May 26 j 18:06	0° \mathbb{B}	
direct	763 Jul 14 j 10:24	9° \mathbb{B} 30'35		retrograde	764 May 31 j 16:02	0° \mathbb{B} 54'58	
morning max el	763 Jul 22 j 20:40	13° \mathbb{B} 29'09	18°48'44	evening set	764 Jun 05 j 01:48	0° \mathbb{B} 11'59	
asc. node	763 Jul 28 j 04:05	19° \mathbb{B} 54'26			764 Jun 05 j 16:01	30° \mathbb{R} \mathbb{I}	
	763 Aug 03 j 05:22	0° \mathbb{Q}		min. Earth dist.	764 Jun 11 j 07:37	27° \mathbb{I} 10'26	0.56408 AU
morning set	763 Aug 08 j 07:14	9° \mathbb{Q} 41'42		inferior conj	764 Jun 13 j 18:54	25° \mathbb{I} 38'51	-4°-23'-40
				minimum elong	764 Jun 13 j 13:20	25° \mathbb{I} 47'30	4°22'48
superior conj	763 Aug 16 j 22:10	26° \mathbb{Q} 27'22	1°43'23	morning rise	764 Jun 22 j 04:29	21° \mathbb{I} 38'42	
minimum elong	763 Aug 16 j 23:54	26° \mathbb{Q} 35'36	1°43'18	direct	764 Jun 24 j 20:25	21° \mathbb{I} 20'10	
	763 Aug 18 j 19:19	0° \mathbb{P}		morning max el	764 Jul 04 j 16:11	25° \mathbb{I} 53'26	19°47'28
max. Earth dist.	763 Aug 23 j 21:53	9° \mathbb{P} 18'30	1.39205 AU		764 Jul 08 j 09:59	0° \mathbb{B}	
evening rise	763 Aug 27 j 22:15	16° \mathbb{P} 17'58		asc. node	764 Jul 14 j 01:09	8° \mathbb{B} 21'58	
desc. node	763 Sep 05 j 07:06	0° \mathbb{A} 00'10		morning set	764 Jul 22 j 09:48	24° \mathbb{B} 08'58	
	763 Sep 05 j 07:03	0° \mathbb{A}			764 Jul 25 j 07:03	0° \mathbb{Q}	
	763 Sep 26 j 15:27	0° \mathbb{M}					
evening max el	763 Oct 02 j 05:43	6° \mathbb{M} 10'18	24°16'32	superior conj	764 Jul 30 j 08:12	10° \mathbb{Q} 10'35	1°46'33
retrograde	763 Oct 13 j 10:10	12° \mathbb{M} 43'41		minimum elong	764 Jul 30 j 08:02	10° \mathbb{Q} 09'47	1°46'33
evening set	763 Oct 18 j 17:58	10° \mathbb{M} 30'43		max. Earth dist.	764 Aug 05 j 01:55	21° \mathbb{Q} 16'58	1.37227 AU
min. Earth dist.	763 Oct 23 j 12:14	5° \mathbb{M} 02'07	0.67524 AU	evening rise	764 Aug 08 j 22:48	28° \mathbb{Q} 23'47	
inferior conj	763 Oct 24 j 04:53	4° \mathbb{M} 06'03	0°01'24		764 Aug 09 j 20:19	0° \mathbb{P}	
minimum elong	763 Oct 24 j 04:51	4° \mathbb{M} 06'10	0°01'22	desc. node	764 Aug 22 j 04:07	20° \mathbb{P} 24'48	
transit middle	763 Oct 24 j 04:51	4° \mathbb{M} 06'10	0°01'22		764 Aug 28 j 15:33	0° \mathbb{A}	
transit begin	763 Oct 24 j 02:08	4° \mathbb{M} 15'20		evening max el	764 Sep 13 j 17:32	1° \mathbb{A} 48'25	25°30'57
transit end	763 Oct 24 j 07:35	3° \mathbb{M} 57'00		retrograde	764 Sep 25 j 20:43	26° \mathbb{A} 46'31	
asc. node	763 Oct 24 j 03:16	4° \mathbb{M} 11'30		evening set	764 Oct 01 j 19:14	24° \mathbb{A} 17'44	
	763 Oct 27 j 11:15	30° \mathbb{R} \mathbb{A}		min. Earth dist.	764 Oct 06 j 05:24	19° \mathbb{A} 24'43	0.66993 AU

inferior conj	764 Oct 07 j 08:51	17°♂56'22	0°-54'-31	min. Earth dist.	765 Sep 19 j 17:09	3°♂42'10	0.66116 AU
minimum elong	764 Oct 07 j 10:14	17°♂51'54	0°53'57	inferior conj	765 Sep 21 j 08:23	1°♂43'57	-1°-51'-33
asc. node	764 Oct 10 j 00:19	14°♂42'01		minimum elong	765 Sep 21 j 11:16	1°♂35'14	1°50'25
morning rise	764 Oct 13 j 01:55	11°♂57'30			765 Sep 22 j 19:31	30°♂	
direct	764 Oct 16 j 09:13	10°♂54'25		asc. node	765 Sep 26 j 21:23	26°♂13'33	
morning max el	764 Oct 23 j 12:52	14°♂56'52	19°22'21	morning rise	765 Sep 27 j 09:03	25°♂56'24	
greatest brilliancy	764 Nov 01 j 23:54	27°♂09'36	-0.7m	direct	765 Sep 30 j 07:10	25°♂08'17	
	764 Nov 03 j 22:03	0°♂		morning max el	765 Oct 06 j 23:43	28°♂49'35	18°35'35
morning set	764 Nov 16 j 08:39	19°♂05'01			765 Oct 08 j 02:11	0°♂	
desc. node	764 Nov 18 j 03:22	21°♂51'02		morning set	765 Oct 27 j 08:07	28°♂43'00	
	764 Nov 23 j 08:48	0°♂			765 Oct 28 j 03:23	0°♂	
max. Earth dist.	764 Nov 29 j 21:07	10°♂14'13	1.44610 AU	desc. node	765 Nov 05 j 00:25	12°♂30'53	
superior conj	764 Dec 03 j 04:31	15°♂29'16	-1°-29'-18	superior conj	765 Nov 12 j 06:20	23°♂55'38	0°-46'-41
minimum elong	764 Dec 02 j 20:03	14°♂55'32	1°28'30	minimum elong	765 Nov 12 j 00:20	23°♂32'07	0°45'55
	764 Dec 12 j 04:08	0°♂		max. Earth dist.	765 Nov 12 j 15:40	24°♂32'20	1.45077 AU
evening rise	764 Dec 17 j 14:26	8°♂57'53			765 Nov 16 j 03:04	0°♂	
	764 Dec 30 j 12:20	0°♂		evening rise	765 Nov 28 j 06:27	19°♂11'02	
asc. node	765 Jan 05 j 23:37	8°♂22'03			765 Dec 05 j 01:39	0°♂	
evening max el	765 Jan 05 j 21:10	8°♂15'52	18°26'07	evening max el	765 Dec 20 j 07:25	21°♂42'14	19°00'45
retrograde	765 Jan 12 j 09:52	11°♂50'19		asc. node	765 Dec 23 j 20:40	24°♂36'51	
evening set	765 Jan 15 j 09:08	11°♂01'53		retrograde	765 Dec 27 j 04:39	25°♂36'54	
inferior conj	765 Jan 21 j 08:24	5°♂30'21	3°41'31	evening set	765 Dec 30 j 09:56	24°♂36'49	
minimum elong	765 Jan 21 j 06:54	5°♂34'39	3°41'22	inferior conj	766 Jan 05 j 02:47	18°♂48'08	3°20'50
min. Earth dist.	765 Jan 23 j 12:52	2°♂58'56	0.64240 AU	minimum elong	766 Jan 05 j 00:21	18°♂55'47	3°20'23
	765 Jan 26 j 10:33	30°♂		min. Earth dist.	766 Jan 06 j 15:58	16°♂51'30	0.65683 AU
morning rise	765 Jan 27 j 03:17	29°♂23'52		morning rise	766 Jan 10 j 13:49	12°♂36'19	
direct	765 Feb 03 j 00:10	26°♂34'29		direct	766 Jan 17 j 01:34	9°♂47'13	
	765 Feb 11 j 13:01	0°♂		morning max el	766 Jan 29 j 23:56	17°♂23'22	26°36'01
desc. node	765 Feb 14 j 02:33	2°♂04'22		desc. node	766 Jan 31 j 23:36	19°♂28'06	
morning max el	765 Feb 16 j 14:04	4°♂24'26	27°27'30		766 Feb 09 j 13:39	0°♂	
	765 Mar 07 j 22:38	0°♂			766 Feb 28 j 20:23	0°♂	
morning set	765 Mar 23 j 16:00	27°♂51'53		morning set	766 Mar 06 j 23:02	11°♂08'59	
	765 Mar 24 j 17:54	0°♂		max. Earth dist.	766 Mar 11 j 05:26	19°♂25'25	1.34709 AU
max. Earth dist.	765 Mar 28 j 14:48	7°♂52'55	1.33469 AU	superior conj	766 Mar 15 j 16:09	28°♂26'10	-1°00'-58
superior conj	765 Mar 31 j 16:23	14°♂19'52	0°-33'-54	minimum elong	766 Mar 15 j 19:06	28°♂41'26	1°00'27
minimum elong	765 Mar 31 j 18:03	14°♂28'42	0°33'34		766 Mar 16 j 10:17	0°♂	
asc. node	765 Apr 03 j 22:57	21°♂19'43		asc. node	766 Mar 21 j 20:00	11°♂17'54	
evening rise	765 Apr 07 j 22:22	29°♂47'25		evening rise	766 Mar 23 j 07:26	14°♂22'07	
	765 Apr 08 j 00:46	0°♂			766 Mar 31 j 08:41	0°♂	
	765 Apr 25 j 10:00	0°♂		evening max el	766 Apr 11 j 11:47	15°♂22'56	20°58'43
evening max el	765 Apr 29 j 12:18	4°♂31'10	22°26'54	retrograde	766 Apr 23 j 02:10	21°♂00'52	
retrograde	765 May 12 j 12:41	10°♂56'59		evening set	766 Apr 25 j 07:46	20°♂49'07	
desc. node	765 May 13 j 01:49	10°♂56'19		desc. node	766 Apr 29 j 22:50	19°♂18'57	
evening set	765 May 15 j 13:39	10°♂36'40		inferior conj	766 May 04 j 14:59	16°♂50'56	-1°-20'-37
min. Earth dist.	765 May 23 j 19:39	7°♂02'28	0.55255 AU	minimum elong	766 May 04 j 11:10	16°♂56'20	1°19'17
inferior conj	765 May 24 j 21:01	6°♂26'33	-3°-11'-5	min. Earth dist.	766 May 05 j 08:17	16°♂26'24	0.54977 AU
minimum elong	765 May 24 j 13:34	6°♂37'07	3°08'59	morning rise	766 May 13 j 14:02	12°♂46'58	
morning rise	765 Jun 02 j 15:44	2°♂33'55		direct	766 May 16 j 23:13	12°♂22'17	
direct	765 Jun 05 j 13:29	2°♂14'40		morning max el	766 May 29 j 22:27	18°♂34'47	22°41'44
morning max el	765 Jun 17 j 00:29	7°♂34'46	21°06'35		766 Jun 08 j 05:44	0°♂	
asc. node	765 Jun 30 j 22:13	27°♂24'22		asc. node	766 Jun 17 j 19:17	16°♂52'42	
	765 Jul 02 j 07:04	0°♂		morning set	766 Jun 21 j 04:03	23°♂45'39	
morning set	765 Jul 06 j 17:25	8°♂52'19			766 Jun 24 j 02:47	0°♂	
superior conj	765 Jul 14 j 04:48	24°♂26'12	1°42'01	superior conj	766 Jun 28 j 08:39	9°♂04'00	1°31'21
minimum elong	765 Jul 14 j 03:17	24°♂18'21	1°41'55	minimum elong	766 Jun 28 j 06:23	8°♂51'56	1°31'06
	765 Jul 16 j 22:13	0°♂		max. Earth dist.	766 Jul 01 j 06:42	15°♂12'24	1.34092 AU
max. Earth dist.	765 Jul 18 j 11:49	3°♂08'05	1.35481 AU	evening rise	766 Jul 06 j 04:53	25°♂10'25	
evening rise	765 Jul 22 j 18:35	11°♂25'32			766 Jul 08 j 16:51	0°♂	
	765 Aug 02 j 07:42	0°♂		desc. node	766 Jul 26 j 22:11	0°♂11'55	
desc. node	765 Aug 09 j 01:10	10°♂31'27			766 Jul 26 j 18:50	0°♂	
	765 Aug 23 j 22:03	0°♂		evening max el	766 Aug 09 j 17:22	16°♂51'49	27°12'34
evening max el	765 Aug 27 j 05:32	3°♂25'26	26°32'09	retrograde	766 Aug 23 j 02:20	24°♂10'48	
retrograde	765 Sep 09 j 02:15	10°♂38'14		evening set	766 Aug 30 j 01:43	21°♂26'33	
evening set	765 Sep 15 j 14:39	7°♂57'51		min. Earth dist.	766 Sep 02 j 21:15	17°♂47'53	0.64880 AU

inferior conj	766 Sep 05 j 01:13	15° $\mathring{\text{M}}$ 24'02	-2°-47'-34	evening max el	767 Jul 23 j 03:40	29° $\mathring{\text{O}}$ 56'39	27°25'36
minimum elong	766 Sep 05 j 05:27	15° $\mathring{\text{M}}$ 12'18	2°46'06		767 Jul 23 j 05:04	0° $\mathring{\text{M}}$	
morning rise	766 Sep 11 j 10:56	9° $\mathring{\text{M}}$ 50'57		retrograde	767 Aug 05 j 20:33	7° $\mathring{\text{M}}$ 15'35	
asc. node	766 Sep 13 j 18:29	9° $\mathring{\text{M}}$ 14'40		evening set	767 Aug 13 j 01:16	4° $\mathring{\text{M}}$ 39'01	
direct	766 Sep 14 j 02:15	9° $\mathring{\text{M}}$ 14'07		min. Earth dist.	767 Aug 16 j 15:57	1° $\mathring{\text{M}}$ 33'02	0.63288 AU
morning max el	766 Sep 20 j 14:31	12° $\mathring{\text{M}}$ 43'27	18°05'24		767 Aug 18 j 05:31	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$	
	766 Oct 02 j 15:50	0° $\mathring{\text{A}}$		inferior conj	767 Aug 19 j 08:46	28° $\mathring{\text{O}}$ 51'24	-3°-39'-21
morning set	766 Oct 08 j 12:21	9° $\mathring{\text{A}}$ 45'16		minimum elong	767 Aug 19 j 13:45	28° $\mathring{\text{O}}$ 38'57	3°38'00
	766 Oct 20 j 20:31	0° $\mathring{\text{M}}$		morning rise	767 Aug 26 j 04:36	23° $\mathring{\text{O}}$ 35'57	
				direct	767 Aug 28 j 15:44	23° $\mathring{\text{O}}$ 06'58	
superior conj	766 Oct 22 j 12:46	2° $\mathring{\text{M}}$ 41'11	0°02'26	asc. node	767 Aug 31 j 15:32	23° $\mathring{\text{O}}$ 50'26	
minimum elong	766 Oct 22 j 13:04	2° $\mathring{\text{M}}$ 42'21	0°02'23	morning max el	767 Sep 04 j 06:30	26° $\mathring{\text{O}}$ 32'35	17°52'46
behind sun begin	766 Oct 22 j 02:27	1° $\mathring{\text{M}}$ 59'57			767 Sep 07 j 06:05	0° $\mathring{\text{M}}$	
behind sun end	766 Oct 22 j 23:40	3° $\mathring{\text{M}}$ 24'41		morning set	767 Sep 20 j 17:27	21° $\mathring{\text{M}}$ 59'23	
desc. node	766 Oct 22 j 21:29	3° $\mathring{\text{M}}$ 15'58			767 Sep 25 j 07:45	0° $\mathring{\text{A}}$	
max. Earth dist.	766 Oct 26 j 10:27	8° $\mathring{\text{M}}$ 53'04	1.44800 AU				
evening rise	766 Nov 08 j 00:49	28° $\mathring{\text{M}}$ 32'41		superior conj	767 Oct 02 j 17:43	12° $\mathring{\text{A}}$ 34'55	0°46'03
	766 Nov 08 j 23:24	0° $\mathring{\text{A}}$		minimum elong	767 Oct 02 j 22:01	12° $\mathring{\text{A}}$ 52'47	0°45'28
greatest brilliancy	766 Nov 26 j 04:29	25° $\mathring{\text{A}}$ 55'40	-0.6m	max. Earth dist.	767 Oct 09 j 02:36	22° $\mathring{\text{A}}$ 59'17	1.43833 AU
	766 Nov 29 j 04:27	0° $\mathring{\text{A}}$		desc. node	767 Oct 09 j 18:30	24° $\mathring{\text{A}}$ 03'04	
evening max el	766 Dec 03 j 13:27	5° $\mathring{\text{A}}$ 10'18	19°51'39		767 Oct 13 j 12:28	0° $\mathring{\text{M}}$	
asc. node	766 Dec 10 j 17:44	9° $\mathring{\text{A}}$ 33'17		evening rise	767 Oct 18 j 08:21	7° $\mathring{\text{M}}$ 31'36	
retrograde	766 Dec 11 j 02:05	9° $\mathring{\text{A}}$ 33'58			767 Nov 02 j 07:17	0° $\mathring{\text{A}}$	
evening set	766 Dec 14 j 15:01	8° $\mathring{\text{A}}$ 20'40		greatest brilliancy	767 Nov 11 j 02:11	12° $\mathring{\text{A}}$ 11'39	-0.5m
inferior conj	766 Dec 20 j 03:39	2° $\mathring{\text{A}}$ 17'50	2°49'20	evening max el	767 Nov 16 j 14:04	18° $\mathring{\text{A}}$ 39'18	20°56'19
minimum elong	766 Dec 20 j 00:55	2° $\mathring{\text{A}}$ 26'55	2°48'36	retrograde	767 Nov 24 j 23:44	23° $\mathring{\text{A}}$ 38'04	
min. Earth dist.	766 Dec 21 j 02:57	1° $\mathring{\text{A}}$ 00'28	0.66730 AU	asc. node	767 Nov 27 j 14:46	22° $\mathring{\text{A}}$ 59'13	
	766 Dec 21 j 21:28	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		evening set	767 Nov 28 j 22:19	22° $\mathring{\text{A}}$ 09'42	
morning rise	766 Dec 25 j 10:11	26° $\mathring{\text{A}}$ 03'05		inferior conj	767 Dec 04 j 08:34	15° $\mathring{\text{A}}$ 56'05	2°09'37
direct	766 Dec 31 j 08:48	23° $\mathring{\text{A}}$ 25'27		minimum elong	767 Dec 04 j 06:05	16° $\mathring{\text{A}}$ 04'37	2°08'45
	767 Jan 11 j 19:10	0° $\mathring{\text{A}}$		min. Earth dist.	767 Dec 04 j 19:34	15° $\mathring{\text{A}}$ 18'23	0.67395 AU
morning max el	767 Jan 12 j 08:57	0° $\mathring{\text{A}}$ 34'17	25°22'22	morning rise	767 Dec 09 j 13:26	9° $\mathring{\text{A}}$ 40'36	
desc. node	767 Jan 18 j 20:39	7° $\mathring{\text{A}}$ 55'10		direct	767 Dec 14 j 21:08	7° $\mathring{\text{A}}$ 21'52	
	767 Feb 03 j 12:47	0° $\mathring{\text{A}}$		morning max el	767 Dec 25 j 17:19	13° $\mathring{\text{A}}$ 49'54	23°56'40
morning set	767 Feb 17 j 14:00	23° $\mathring{\text{A}}$ 34'17		desc. node	768 Jan 05 j 17:41	27° $\mathring{\text{A}}$ 07'12	
	767 Feb 21 j 01:48	0° $\mathring{\text{A}}$			768 Jan 07 j 20:12	0° $\mathring{\text{A}}$	
max. Earth dist.	767 Feb 21 j 08:17	0° $\mathring{\text{A}}$ 30'27	1.36388 AU		768 Jan 27 j 10:08	0° $\mathring{\text{A}}$	
				morning set	768 Jan 30 j 06:49	4° $\mathring{\text{A}}$ 50'57	
superior conj	767 Feb 27 j 07:08	12° $\mathring{\text{A}}$ 01'46	-1°-26'-11	max. Earth dist.	768 Feb 03 j 03:39	11° $\mathring{\text{A}}$ 36'35	1.38411 AU
minimum elong	767 Feb 27 j 11:01	12° $\mathring{\text{A}}$ 21'02	1°25'40				
evening rise	767 Mar 07 j 12:07	28° $\mathring{\text{A}}$ 37'48		superior conj	768 Feb 10 j 09:46	24° $\mathring{\text{A}}$ 57'09	-1°-47'-11
	767 Mar 08 j 04:25	0° $\mathring{\text{Y}}$		minimum elong	768 Feb 10 j 13:38	25° $\mathring{\text{A}}$ 15'30	1°46'51
asc. node	767 Mar 08 j 17:03	1° $\mathring{\text{Y}}$ 03'27			768 Feb 13 j 01:00	0° $\mathring{\text{A}}$	
evening max el	767 Mar 24 j 22:42	26° $\mathring{\text{Y}}$ 51'53	19°46'30	evening rise	768 Feb 19 j 09:50	12° $\mathring{\text{A}}$ 27'22	
	767 Mar 29 j 00:58	0° $\mathring{\text{B}}$		asc. node	768 Feb 23 j 14:05	20° $\mathring{\text{A}}$ 30'53	
retrograde	767 Apr 03 j 19:44	1° $\mathring{\text{B}}$ 36'54			768 Feb 28 j 23:19	0° $\mathring{\text{Y}}$	
evening set	767 Apr 05 j 21:28	1° $\mathring{\text{B}}$ 25'16		evening max el	768 Mar 06 j 20:24	8° $\mathring{\text{Y}}$ 59'19	18°53'35
	767 Apr 10 j 01:16	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$		retrograde	768 Mar 15 j 04:19	13° $\mathring{\text{Y}}$ 01'19	
inferior conj	767 Apr 14 j 15:24	27° $\mathring{\text{Y}}$ 23'21	0°37'22	evening set	768 Mar 17 j 10:07	12° $\mathring{\text{Y}}$ 44'58	
minimum elong	767 Apr 14 j 17:01	27° $\mathring{\text{Y}}$ 20'51	0°36'48	inferior conj	768 Mar 25 j 09:24	8° $\mathring{\text{Y}}$ 27'16	2°12'34
desc. node	767 Apr 16 j 19:50	26° $\mathring{\text{Y}}$ 02'04		minimum elong	768 Mar 25 j 13:33	8° $\mathring{\text{Y}}$ 19'47	2°11'23
min. Earth dist.	767 Apr 16 j 22:33	25° $\mathring{\text{Y}}$ 57'56	0.55660 AU	min. Earth dist.	768 Mar 28 j 14:50	6° $\mathring{\text{Y}}$ 09'17	0.57159 AU
morning rise	767 Apr 23 j 09:12	22° $\mathring{\text{Y}}$ 50'34		morning rise	768 Apr 02 j 12:43	3° $\mathring{\text{Y}}$ 21'15	
direct	767 Apr 27 j 15:36	22° $\mathring{\text{Y}}$ 10'05		desc. node	768 Apr 02 j 16:52	3° $\mathring{\text{Y}}$ 16'56	
morning max el	767 May 11 j 14:05	29° $\mathring{\text{Y}}$ 08'00	24°23'13	direct	768 Apr 07 j 21:39	2° $\mathring{\text{Y}}$ 11'49	
	767 May 12 j 11:24	0° $\mathring{\text{B}}$		morning max el	768 Apr 22 j 05:06	9° $\mathring{\text{Y}}$ 39'02	25°56'40
	767 Jun 01 j 09:24	0° $\mathring{\text{II}}$			768 May 07 j 14:49	0° $\mathring{\text{B}}$	
asc. node	767 Jun 04 j 16:20	6° $\mathring{\text{II}}$ 39'56		morning set	768 May 20 j 03:26	23° $\mathring{\text{B}}$ 39'25	
morning set	767 Jun 05 j 15:57	8° $\mathring{\text{II}}$ 43'32		asc. node	768 May 21 j 13:22	26° $\mathring{\text{B}}$ 39'28	
					768 May 23 j 02:36	0° $\mathring{\text{II}}$	
superior conj	767 Jun 12 j 17:09	23° $\mathring{\text{II}}$ 55'47	1°15'48				
minimum elong	767 Jun 12 j 14:42	23° $\mathring{\text{II}}$ 42'28	1°15'26	superior conj	768 May 27 j 04:09	8° $\mathring{\text{II}}$ 53'22	0°56'17
max. Earth dist.	767 Jun 14 j 10:21	27° $\mathring{\text{II}}$ 38'14	1.33098 AU	minimum elong	768 May 27 j 02:00	8° $\mathring{\text{II}}$ 41'35	0°55'53
	767 Jun 15 j 12:50	0° $\mathring{\text{B}}$		max. Earth dist.	768 May 27 j 20:14	10° $\mathring{\text{II}}$ 21'26	1.32499 AU
evening rise	767 Jun 20 j 01:39	9° $\mathring{\text{B}}$ 26'54		evening rise	768 Jun 03 j 05:38	24° $\mathring{\text{II}}$ 03'48	
	767 Jul 01 j 01:39	0° $\mathring{\text{O}}$			768 Jun 06 j 03:40	0° $\mathring{\text{B}}$	
desc. node	767 Jul 13 j 19:12	19° $\mathring{\text{O}}$ 15'14			768 Jun 23 j 20:57	0° $\mathring{\text{O}}$	

desc. node	768 Jun 29 j 16:12	7°Ω24'53			769 May 29 j 13:46	0°☿	
evening max el	768 Jul 04 j 10:02	12°Ω26'23	27°06'35	evening max el	769 Jun 16 j 09:59	24°☿11'00	26°14'37
retrograde	768 Jul 18 j 07:41	19°Ω42'07		desc. node	769 Jun 16 j 13:12	24°☿18'39	
evening set	768 Jul 25 j 09:06	17°Ω26'51			769 Jun 24 j 12:28	0°Ω	
min. Earth dist.	768 Jul 29 j 00:17	14°Ω43'32	0.61395 AU	retrograde	769 Jun 30 j 10:10	1°Ω23'11	
inferior conj	768 Aug 01 j 03:47	11°Ω57'19	-4°-22'00		769 Jul 06 j 05:25	30°☿☿	
minimum elong	768 Aug 01 j 08:14	11°Ω47'26	4°21'14	evening set	769 Jul 06 j 20:33	29°☿41'23	
morning rise	768 Aug 08 j 10:17	7°Ω02'30		min. Earth dist.	769 Jul 10 j 22:50	27°☿04'55	0.59342 AU
direct	768 Aug 10 j 20:00	6°Ω38'34		inferior conj	769 Jul 14 j 06:39	24°☿32'12	-4°-47'-30
asc. node	768 Aug 17 j 12:34	9°Ω49'43		minimum elong	769 Jul 14 j 08:32	24°☿28'35	4°47'25
morning max el	768 Aug 17 j 20:35	10°Ω08'48	17°58'46	morning rise	769 Jul 21 j 23:55	20°☿00'25	
	768 Aug 30 j 22:04	0°☿		direct	769 Jul 24 j 10:49	19°☿39'29	
morning set	768 Sep 02 j 17:12	5°☿06'57		morning max el	769 Aug 01 j 05:44	23°☿23'58	18°24'34
				asc. node	769 Aug 04 j 09:37	26°☿57'36	
superior conj	768 Sep 13 j 01:56	23°☿48'55	1°17'55		769 Aug 06 j 14:05	0°Ω	
minimum elong	768 Sep 13 j 06:32	24°☿09'03	1°17'26	morning set	769 Aug 17 j 06:18	18°Ω53'15	
	768 Sep 16 j 15:54	0°☿			769 Aug 23 j 01:56	0°☿	
max. Earth dist.	768 Sep 20 j 14:23	6°☿36'36	1.42293 AU	superior conj	769 Aug 26 j 09:52	6°☿13'15	1°37'18
desc. node	768 Sep 25 j 15:32	14°☿49'00		minimum elong	769 Aug 26 j 12:48	6°☿26'46	1°37'06
evening rise	768 Sep 26 j 22:36	16°☿52'35		max. Earth dist.	769 Sep 02 j 21:02	19°☿33'00	1.40377 AU
	768 Oct 05 j 10:36	0°☿		evening rise	769 Sep 07 j 09:18	27°☿10'42	
greatest brilliancy	768 Oct 24 j 15:59	26°☿50'46	-0.3m		769 Sep 09 j 02:29	0°☿	
	768 Oct 27 j 08:33	0°☿		desc. node	769 Sep 12 j 12:33	5°☿30'00	
evening max el	768 Oct 29 j 09:07	2°☿09'41	22°11'04		769 Sep 29 j 02:19	0°☿	
retrograde	768 Nov 07 j 19:47	7°☿46'37		evening max el	769 Oct 11 j 23:36	15°☿42'04	23°30'51
evening set	768 Nov 12 j 06:04	6°☿01'22		retrograde	769 Oct 22 j 12:55	21°☿56'12	
asc. node	768 Nov 13 j 11:47	4°☿53'39		evening set	769 Oct 27 j 12:38	19°☿53'05	
	768 Nov 17 j 09:53	30°☿☿		asc. node	769 Oct 31 j 08:50	15°☿36'42	
inferior conj	768 Nov 17 j 15:31	29°☿40'29	1°23'30	inferior conj	769 Nov 01 j 22:39	13°☿28'41	0°32'28
minimum elong	768 Nov 17 j 13:42	29°☿46'44	1°22'47	minimum elong	769 Nov 01 j 21:53	13°☿31'18	0°32'08
min. Earth dist.	768 Nov 17 j 15:21	29°☿41'02	0.67707 AU	min. Earth dist.	769 Nov 01 j 11:56	14°☿05'19	0.67685 AU
morning rise	768 Nov 22 j 21:10	23°☿26'34		morning rise	769 Nov 07 j 07:14	7°☿18'39	
direct	768 Nov 27 j 13:42	21°☿30'15		direct	769 Nov 11 j 09:26	5°☿45'01	
morning max el	768 Dec 07 j 03:57	27°☿10'47	22°28'52	morning max el	769 Nov 19 j 20:24	10°☿40'36	21°06'59
	768 Dec 09 j 18:49	0°☿		greatest brilliancy	769 Nov 25 j 06:29	16°☿56'22	-0.5m
greatest brilliancy	768 Dec 11 j 18:13	2°☿19'22	-0.3m		769 Dec 04 j 18:04	0°☿	
desc. node	768 Dec 22 j 14:44	16°☿51'28		desc. node	769 Dec 09 j 11:46	6°☿58'26	
	768 Dec 31 j 11:35	0°☿		morning set	769 Dec 20 j 04:44	23°☿21'11	
morning set	769 Jan 09 j 19:41	14°☿44'47			769 Dec 24 j 09:26	0°☿	
max. Earth dist.	769 Jan 15 j 00:00	23°☿21'39	1.40550 AU	max. Earth dist.	769 Dec 28 j 03:06	6°☿02'34	1.42507 AU
	769 Jan 18 j 20:34	0°☿					
superior conj	769 Jan 22 j 19:24	7°☿00'38	-2°00'-35	superior conj	770 Jan 04 j 06:35	17°☿58'18	-2°-1'-58
minimum elong	769 Jan 22 j 21:32	7°☿10'15	2°00'31	minimum elong	770 Jan 04 j 04:41	17°☿50'13	2°01'56
evening rise	769 Feb 01 j 21:30	25°☿43'19			770 Jan 11 j 04:19	0°☿	
	769 Feb 04 j 04:10	0°☿		evening rise	770 Jan 15 j 19:20	8°☿16'43	
asc. node	769 Feb 09 j 11:06	9°☿33'58		asc. node	770 Jan 27 j 08:08	28°☿04'12	
evening max el	769 Feb 18 j 02:10	21°☿38'18	18°20'45		770 Jan 28 j 16:09	0°☿	
retrograde	769 Feb 25 j 08:07	25°☿13'50		evening max el	770 Feb 01 j 12:44	4°☿38'59	18°07'46
evening set	769 Feb 27 j 19:08	24°☿50'05		retrograde	770 Feb 08 j 04:27	8°☿04'02	
inferior conj	769 Mar 07 j 00:38	20°☿11'18	3°13'12	evening set	770 Feb 10 j 20:04	7°☿31'34	
minimum elong	769 Mar 07 j 04:06	20°☿04'02	3°12'33	inferior conj	770 Feb 17 j 11:08	2°☿31'11	3°42'14
min. Earth dist.	769 Mar 10 j 11:00	17°☿19'50	0.59146 AU	minimum elong	770 Feb 17 j 12:31	2°☿27'49	3°42'08
morning rise	769 Mar 14 j 09:21	14°☿38'13			770 Feb 20 j 01:32	30°☿☿	
direct	769 Mar 20 j 16:42	12°☿52'10		min. Earth dist.	770 Feb 20 j 14:06	29°☿30'39	0.61264 AU
desc. node	769 Mar 20 j 13:53	12°☿52'13		morning rise	770 Feb 24 j 02:14	26°☿39'48	
morning max el	769 Apr 04 j 00:39	20°☿35'13	27°07'06	direct	770 Mar 02 j 22:28	24°☿19'39	
	769 Apr 12 j 03:26	0°☿		desc. node	770 Mar 07 j 10:55	25°☿15'15	
	769 Apr 30 j 08:32	0°☿			770 Mar 14 j 18:15	0°☿	
morning set	769 May 04 j 12:52	8°☿27'56		morning max el	770 Mar 17 j 02:40	2°☿11'17	27°43'56
asc. node	769 May 08 j 10:24	16°☿46'40			770 Apr 06 j 11:10	0°☿	
				morning set	770 Apr 18 j 18:22	23°☿02'24	
superior conj	769 May 11 j 15:55	23°☿50'52	0°33'37		770 Apr 22 j 02:10	0°☿	
minimum elong	769 May 11 j 14:29	23°☿42'58	0°33'19	max. Earth dist.	770 Apr 24 j 20:15	5°☿55'57	1.32423 AU
max. Earth dist.	769 May 11 j 08:50	23°☿11'52	1.32277 AU	asc. node	770 Apr 25 j 07:27	6°☿56'54	
	769 May 14 j 11:11	0°☿					
evening rise	769 May 18 j 14:16	8°☿52'51		superior conj	770 Apr 26 j 02:46	8°☿42'16	0°08'31

minimum elong	770 Apr 26 j 02:22	8°♄40'07	0°08'26	superior conj	771 Apr 10 j 10:56	23°♄21'41	0°-18'-11
behind sun begin	770 Apr 25 j 22:02	8°♄16'27		minimum elong	771 Apr 10 j 11:49	23°♄26'25	0°18'01
behind sun end	770 Apr 26 j 06:42	9°♄03'47		asc. node	771 Apr 12 j 04:30	27°♄05'58	
evening rise	770 May 03 j 01:27	23°♄46'27			771 Apr 13 j 12:40	0°♄	
	770 May 06 j 01:27	0°♄		evening rise	771 Apr 17 j 13:17	8°♄37'54	
	770 May 24 j 08:39	0°♄			771 Apr 28 j 18:00	0°♄	
evening max el	770 May 29 j 03:03	5°♄11'21	24°55'32	evening max el	771 May 10 j 17:11	15°♄45'34	23°21'40
desc. node	770 Jun 03 j 10:12	9°♄26'32		desc. node	771 May 21 j 07:14	22°♄12'00	
retrograde	770 Jun 12 j 02:32	12°♄17'18		retrograde	771 May 24 j 06:51	22°♄32'16	
evening set	770 Jun 17 j 08:42	11°♄14'11		evening set	771 May 28 j 01:30	22°♄00'55	
min. Earth dist.	770 Jun 22 j 14:28	8°♄26'15	0.57368 AU	min. Earth dist.	771 Jun 04 j 03:15	18°♄46'48	0.55815 AU
inferior conj	770 Jun 25 j 14:15	6°♄27'07	-4°-44'-4	inferior conj	771 Jun 06 j 01:57	17°♄37'46	-3°-58'-36
minimum elong	770 Jun 25 j 11:28	6°♄31'47	4°43'51	minimum elong	771 Jun 05 j 18:56	17°♄48'10	3°57'07
morning rise	770 Jul 03 j 18:03	2°♄17'35		morning rise	771 Jun 14 j 15:43	13°♄42'52	
direct	770 Jul 06 j 07:49	1°♄58'30		direct	771 Jun 17 j 09:27	13°♄24'33	
morning max el	770 Jul 15 j 07:03	6°♄09'41	19°11'16	morning max el	771 Jun 27 j 22:00	18°♄16'38	20°18'55
asc. node	770 Jul 22 j 06:40	14°♄59'47			771 Jul 06 j 23:20	0°♄	
	770 Jul 30 j 14:43	0°♄		asc. node	771 Jul 09 j 03:44	3°♄43'13	
morning set	770 Aug 01 j 04:51	3°♄08'03		morning set	771 Jul 16 j 09:50	17°♄42'39	
					771 Jul 22 j 09:27	0°♄	
superior conj	770 Aug 09 j 11:57	19°♄32'29	1°45'48	superior conj	771 Jul 24 j 02:58	3°♄31'00	1°45'29
minimum elong	770 Aug 09 j 12:49	19°♄36'44	1°45'46	minimum elong	771 Jul 24 j 02:09	3°♄26'53	1°45'27
	770 Aug 15 j 00:50	0°♄		max. Earth dist.	771 Jul 29 j 05:56	13°♄38'11	1.36436 AU
max. Earth dist.	770 Aug 16 j 00:26	1°♄47'48	1.38339 AU	evening rise	771 Aug 02 j 05:58	21°♄09'36	
evening rise	770 Aug 19 j 20:39	8°♄38'30			771 Aug 07 j 05:05	0°♄	
desc. node	770 Aug 30 j 09:35	26°♄02'13		desc. node	771 Aug 17 j 06:37	16°♄19'53	
	770 Sep 01 j 23:22	0°♄			771 Aug 26 j 21:01	0°♄	
evening max el	770 Sep 24 j 11:39	29°♄18'02	24°49'16	evening max el	771 Sep 06 j 23:16	12°♄55'42	25°59'05
	770 Sep 25 j 04:58	0°♄		retrograde	771 Sep 19 j 10:55	20°♄02'14	
retrograde	770 Oct 06 j 02:14	6°♄03'28		evening set	771 Sep 25 j 15:27	17°♄27'41	
evening set	770 Oct 11 j 16:24	3°♄43'06		min. Earth dist.	771 Sep 29 j 22:14	12°♄50'21	0.66656 AU
	770 Oct 15 j 03:05	30°♄		inferior conj	771 Oct 01 j 06:36	11°♄08'42	-1°-18'-42
min. Earth dist.	770 Oct 16 j 07:01	28°♄29'39	0.67337 AU	minimum elong	771 Oct 01 j 08:38	11°♄02'20	1°17'52
inferior conj	770 Oct 17 j 04:17	27°♄19'15	0°-22'-4	asc. node	771 Oct 05 j 02:56	6°♄46'12	
minimum elong	770 Oct 17 j 04:50	27°♄17'26	0°21'51	morning rise	771 Oct 07 j 02:43	5°♄14'14	
asc. node	770 Oct 18 j 05:52	25°♄55'26		direct	771 Oct 10 j 05:43	4°♄18'08	
morning rise	770 Oct 22 j 17:46	21°♄15'36		morning max el	771 Oct 17 j 04:00	8°♄10'51	19°00'29
direct	770 Oct 26 j 07:17	20°♄02'28			771 Nov 01 j 18:51	0°♄	
morning max el	770 Nov 02 j 20:36	24°♄21'41	19°56'30	morning set	771 Nov 08 j 09:23	10°♄20'09	
	770 Nov 07 j 16:27	0°♄		desc. node	771 Nov 13 j 05:54	17°♄56'59	
greatest brilliancy	770 Nov 10 j 05:57	3°♄25'47	-0.6m		771 Nov 20 j 22:17	0°♄	
desc. node	770 Nov 26 j 08:50	27°♄22'08		max. Earth dist.	771 Nov 23 j 05:24	3°♄36'41	1.44894 AU
	770 Nov 28 j 01:52	0°♄					
morning set	770 Nov 29 j 01:01	1°♄29'22		superior conj	771 Nov 25 j 00:30	6°♄26'31	-1°-12'-50
max. Earth dist.	770 Dec 10 j 13:36	19°♄33'12	1.44017 AU	minimum elong	771 Nov 24 j 16:16	5°♄54'01	1°11'55
					771 Dec 09 j 17:25	0°♄	
superior conj	770 Dec 15 j 15:21	27°♄43'08	-1°-46'-41	evening rise	771 Dec 10 j 04:40	0°♄45'47	
minimum elong	770 Dec 15 j 08:26	27°♄15'01	1°46'12		771 Dec 29 j 08:10	0°♄	
	770 Dec 17 j 00:55	0°♄		evening max el	771 Dec 30 j 12:59	1°♄18'08	18°38'46
evening rise	770 Dec 28 j 23:05	19°♄59'56		asc. node	772 Jan 01 j 02:12	2°♄44'50	
	771 Jan 03 j 19:32	0°♄		retrograde	772 Jan 06 j 04:32	5°♄00'06	
asc. node	771 Jan 14 j 05:10	15°♄51'54		evening set	772 Jan 09 j 06:06	4°♄07'03	
evening max el	771 Jan 16 j 01:13	17°♄54'15	18°14'02		772 Jan 13 j 19:18	30°♄	
retrograde	771 Jan 22 j 12:40	21°♄22'08		inferior conj	772 Jan 15 j 02:22	28°♄28'10	3°34'16
evening set	771 Jan 25 j 08:52	20°♄39'58		minimum elong	772 Jan 15 j 00:24	28°♄34'06	3°34'00
inferior conj	771 Jan 31 j 13:01	15°♄19'22	3°47'02	min. Earth dist.	772 Jan 17 j 00:22	26°♄10'15	0.64902 AU
minimum elong	771 Jan 31 j 12:25	15°♄21'02	3°47'01	morning rise	772 Jan 20 j 17:28	22°♄18'58	
min. Earth dist.	771 Feb 03 j 02:25	12°♄32'13	0.63240 AU	direct	772 Jan 27 j 11:12	19°♄27'44	
morning rise	771 Feb 06 j 14:06	9°♄16'47		desc. node	772 Feb 09 j 05:03	26°♄38'46	
direct	771 Feb 13 j 13:10	6°♄33'39		morning max el	772 Feb 09 j 19:19	27°♄14'02	27°08'50
desc. node	771 Feb 22 j 07:59	10°♄02'43			772 Feb 12 j 10:06	0°♄	
morning max el	771 Feb 27 j 09:51	14°♄27'30	27°43'32		772 Mar 04 j 16:27	0°♄	
	771 Mar 12 j 00:50	0°♄		morning set	772 Mar 16 j 07:47	20°♄56'35	
	771 Mar 30 j 00:34	0°♄			772 Mar 20 j 21:06	0°♄	
morning set	771 Apr 02 j 17:40	7°♄15'06		max. Earth dist.	772 Mar 20 j 23:17	0°♄11'07	1.33935 AU
max. Earth dist.	771 Apr 08 j 02:21	18°♄19'20	1.32962 AU				

superior conj	772 Mar 24 j 14:30	7°Υ43'00	0°-45'-29	max. Earth dist.	773 Mar 03 j 08:37	11°✠29'33	1.35372 AU
minimum elong	772 Mar 24 j 16:44	7°Υ54'43	0°45'04				
asc. node	772 Mar 29 j 01:33	17°Υ09'52		superior conj	773 Mar 08 j 10:55	21°✠37'50	-1°-12'00
evening rise	772 Mar 31 j 23:57	23°Υ21'09		minimum elong	773 Mar 08 j 14:21	21°✠55'13	1°11'27
	772 Apr 04 j 05:49	0°♄			773 Mar 12 j 12:38	0°Υ	
evening max el	772 Apr 21 j 11:41	26°♄24'36	21°47'55	asc. node	773 Mar 15 j 22:34	7°Υ03'30	
	772 Apr 25 j 23:20	0°♄		evening rise	773 Mar 16 j 07:25	7°Υ48'53	
retrograde	772 May 03 j 23:28	2°♄31'27			773 Mar 28 j 11:59	0°♄	
evening set	772 May 06 j 13:50	2°♄16'20		evening max el	773 Apr 03 j 16:00	7°♄31'48	20°25'46
desc. node	772 May 07 j 04:15	2°♄08'44		retrograde	773 Apr 14 j 12:35	12°♄46'11	
	772 May 12 j 16:51	30°♄		evening set	773 Apr 16 j 15:16	12°♄35'09	
inferior conj	772 May 15 j 23:09	28°♄13'29	-2°-27'-30	desc. node	773 Apr 24 j 01:17	9°♄36'10	
minimum elong	772 May 15 j 16:39	28°♄22'35	2°25'25	inferior conj	773 Apr 25 j 18:05	8°♄37'31	0°-29'-27
min. Earth dist.	772 May 15 j 15:50	28°♄23'44	0.55017 AU	minimum elong	773 Apr 25 j 16:42	8°♄39'32	0°28'57
morning rise	772 May 24 j 20:32	24°♄18'04		min. Earth dist.	773 Apr 27 j 04:57	7°♄46'45	0.55162 AU
direct	772 May 27 j 22:02	23°♄57'21		morning rise	773 May 04 j 16:14	4°♄23'03	
morning max el	772 Jun 09 j 01:43	29°♄40'29	21°45'27	direct	773 May 08 j 09:40	3°♄53'01	
	772 Jun 09 j 10:00	0°♄		morning max el	773 May 21 j 20:10	10°♄26'01	23°24'44
asc. node	772 Jun 25 j 00:49	22°♄57'59			773 Jun 05 j 06:38	0°♄	
	772 Jun 28 j 13:39	0°♄		asc. node	773 Jun 11 j 21:52	12°♄35'09	
morning set	772 Jun 29 j 18:58	2°♄31'07		morning set	773 Jun 14 j 06:20	17°♄27'05	
					773 Jun 20 j 03:01	0°♄	
superior conj	772 Jul 07 j 03:02	17°♄57'26	1°38'09	superior conj	773 Jun 21 j 09:07	2°♄41'52	1°25'17
minimum elong	772 Jul 07 j 01:07	17°♄47'25	1°38'00	minimum elong	773 Jun 21 j 06:42	2°♄28'55	1°24'59
max. Earth dist.	772 Jul 10 j 19:18	25°♄32'27	1.34845 AU	max. Earth dist.	773 Jun 23 j 18:21	7°♄46'45	1.33629 AU
	772 Jul 13 j 00:45	0°♄		evening rise	773 Jun 28 j 23:45	18°♄31'37	
evening rise	772 Jul 15 j 08:32	4°♄31'50			773 Jul 04 j 23:50	0°♄	
	772 Jul 30 j 00:06	0°♄		desc. node	773 Jul 21 j 00:37	25°♄42'26	
desc. node	772 Aug 03 j 03:36	6°♄16'20			773 Jul 24 j 06:01	0°♄	
evening max el	772 Aug 19 j 11:26	26°♄29'52	26°52'22	evening max el	773 Aug 01 j 23:07	9°♄49'24	27°21'50
	772 Aug 23 j 12:57	0°♄		retrograde	773 Aug 15 j 11:41	17°♄07'57	
retrograde	772 Sep 01 j 14:15	3°♄46'17		evening set	773 Aug 22 j 14:12	14°♄25'43	
evening set	772 Sep 08 j 07:38	1°♄03'25		min. Earth dist.	773 Aug 26 j 07:26	11°♄01'38	0.64247 AU
	772 Sep 09 j 12:25	30°♄		inferior conj	773 Aug 28 j 16:50	8°♄29'21	-3°-10'-16
min. Earth dist.	772 Sep 12 j 07:08	27°♄03'21	0.65631 AU	minimum elong	773 Aug 28 j 21:29	8°♄16'59	3°08'49
inferior conj	772 Sep 14 j 03:35	24°♄53'43	-2°-15'-37	morning rise	773 Sep 04 j 06:42	3°♄03'08	
minimum elong	772 Sep 14 j 07:05	24°♄43'30	2°14'17	direct	773 Sep 06 j 20:01	2°♄29'53	
morning rise	772 Sep 20 j 07:55	19°♄11'36		asc. node	773 Sep 07 j 21:04	2°♄35'31	
asc. node	772 Sep 21 j 00:00	18°♄53'32		morning max el	773 Sep 13 j 08:21	5°♄56'28	17°57'49
direct	772 Sep 23 j 02:48	18°♄28'42			773 Sep 29 j 06:15	0°♄	
morning max el	772 Sep 29 j 16:45	22°♄04'07	18°20'34	morning set	773 Sep 30 j 12:42	2°♄09'45	
	772 Oct 05 j 22:26	0°♄					
morning set	772 Oct 18 j 21:07	20°♄34'14		superior conj	773 Oct 13 j 15:56	24°♄03'20	0°22'08
	772 Oct 24 j 16:59	0°♄		minimum elong	773 Oct 13 j 18:25	24°♄13'25	0°21'48
desc. node	772 Oct 30 j 02:55	8°♄39'07		desc. node	773 Oct 16 j 23:56	29°♄25'24	
					773 Oct 17 j 08:36	0°♄	
superior conj	772 Nov 03 j 01:26	14°♄53'00	0°-25'-52	max. Earth dist.	773 Oct 18 j 18:43	2°♄15'52	1.44469 AU
minimum elong	772 Nov 02 j 22:03	14°♄39'40	0°25'26	evening rise	773 Oct 29 j 22:36	19°♄42'11	
max. Earth dist.	772 Nov 05 j 00:09	17°♄56'56	1.45048 AU		773 Nov 05 j 16:12	0°♄	
	772 Nov 12 j 16:37	0°♄		greatest brilliancy	773 Nov 19 j 15:16	20°♄25'17	-0.6m
evening rise	772 Nov 19 j 10:40	10°♄34'26		evening max el	773 Nov 26 j 01:35	28°♄14'54	20°17'42
	772 Dec 01 j 22:21	0°♄			773 Nov 27 j 21:46	0°♄	
greatest brilliancy	772 Dec 03 j 16:59	2°♄40'16	-0.7m	retrograde	773 Dec 03 j 22:21	2°♄52'29	
evening max el	772 Dec 12 j 21:42	14°♄45'53	19°20'39	asc. node	773 Dec 04 j 20:18	2°♄47'45	
asc. node	772 Dec 17 j 23:15	18°♄28'15		evening set	773 Dec 07 j 15:15	1°♄32'48	
retrograde	772 Dec 20 j 00:37	18°♄51'35			773 Dec 09 j 09:31	30°♄	
evening set	772 Dec 23 j 08:59	17°♄46'05		inferior conj	773 Dec 13 j 02:39	25°♄24'57	2°33'24
inferior conj	772 Dec 28 j 23:49	11°♄51'18	3°08'38	minimum elong	773 Dec 12 j 23:58	25°♄34'02	2°32'34
minimum elong	772 Dec 28 j 21:11	11°♄59'47	3°08'02	min. Earth dist.	773 Dec 13 j 20:28	24°♄24'50	0.67057 AU
min. Earth dist.	772 Dec 30 j 06:57	10°♄11'00	0.66178 AU	morning rise	773 Dec 18 j 08:10	19°♄09'55	
morning rise	773 Jan 03 j 08:34	5°♄38'11		direct	773 Dec 24 j 00:36	16°♄39'51	
direct	773 Jan 09 j 15:14	2°♄52'36		morning max el	774 Jan 04 j 13:13	23°♄31'57	24°46'55
morning max el	773 Jan 22 j 04:40	10°♄18'27	26°06'50		774 Jan 10 j 07:24	0°♄	
desc. node	773 Jan 26 j 02:07	14°♄32'04		desc. node	774 Jan 12 j 23:09	3°♄20'12	
	773 Feb 06 j 19:59	0°♄			774 Jan 31 j 05:21	0°♄	
	773 Feb 25 j 05:41	0°♄		morning set	774 Feb 09 j 14:54	15°♄51'42	
morning set	773 Feb 27 j 08:36	3°♄53'38					

max. Earth dist.	774 Feb 13 j 07:50	22° \approx 32'28	1.37223 AU	max. Earth dist.	775 Jan 26 j 02:49	3° \approx 51'53	1.39321 AU
	774 Feb 17 j 07:25	0° H					
superior conj	774 Feb 19 j 21:09	4° H 57'48	-1°-35'-47	superior conj	775 Feb 02 j 17:06	17° \approx 32'03	-1°-54'-2
minimum elong	774 Feb 20 j 01:10	5° H 17'27	1°35'18	minimum elong	775 Feb 02 j 20:30	17° \approx 47'49	1°53'49
evening rise	774 Feb 28 j 09:28	21° H 54'44		evening rise	775 Feb 09 j 06:45	0° H	
asc. node	774 Mar 02 j 19:36	26° H 42'16		asc. node	775 Feb 12 j 03:19	5° H 30'56	
	774 Mar 04 j 12:32	0° Y			775 Feb 17 j 16:38	16° H 00'22	
evening max el	774 Mar 17 j 07:40	19° Y 17'14	19°21'27	evening max el	775 Feb 26 j 19:40	0° Y	
retrograde	774 Mar 26 j 11:44	23° Y 42'21		retrograde	775 Feb 28 j 09:04	1° Y 38'44	18°37'10
evening set	774 Mar 28 j 14:50	23° Y 29'05		evening set	775 Mar 08 j 04:45	5° Y 27'54	
inferior conj	774 Apr 06 j 00:58	19° Y 21'00	1°21'42	inferior conj	775 Mar 10 j 12:37	5° Y 08'47	
minimum elong	774 Apr 06 j 04:08	19° Y 15'47	1°20'39	minimum elong	775 Mar 18 j 04:01	0° Y 42'20	2°42'32
min. Earth dist.	774 Apr 08 j 19:34	17° Y 31'56	0.56222 AU		775 Mar 18 j 08:10	0° Y 34'20	2°41'30
desc. node	774 Apr 10 j 22:18	16° Y 15'29		min. Earth dist.	775 Mar 19 j 01:55	30° R H	
morning rise	774 Apr 14 j 13:35	14° Y 34'07		morning rise	775 Mar 21 j 13:22	28° H 07'12	0.57959 AU
direct	774 Apr 19 j 07:04	13° Y 43'04		desc. node	775 Mar 25 j 23:31	25° H 23'20	
morning max el	774 May 03 j 10:45	20° Y 54'32	25°04'52	direct	775 Mar 28 j 19:19	24° H 21'17	
	774 May 11 j 06:56	0° B			775 Mar 31 j 18:38	23° H 58'54	
	774 May 28 j 14:33	0° II		morning max el	775 Apr 13 j 10:41	0° Y	
morning set	774 May 29 j 18:16	2° II 24'55			775 Apr 15 j 03:30	1° Y 34'42	26°30'16
asc. node	774 May 29 j 18:53	2° II 28'13		morning set	775 May 05 j 08:39	0° B	
				asc. node	775 May 14 j 05:08	17° B 19'17	
superior conj	774 Jun 05 j 18:54	17° II 36'44	1°07'57		775 May 16 j 15:55	22° B 32'06	
minimum elong	774 Jun 05 j 16:31	17° II 23'45	1°07'33		775 May 20 j 02:07	0° II	
max. Earth dist.	774 Jun 07 j 01:13	20° II 21'43	1.32803 AU	superior conj	775 May 21 j 06:29	2° II 35'49	0°47'02
	774 Jun 11 j 13:35	0° B		minimum elong	775 May 21 j 04:35	2° II 25'24	0°46'39
evening rise	774 Jun 12 j 23:55	2° B 57'41		max. Earth dist.	775 May 21 j 12:42	3° II 10'01	1.32355 AU
	774 Jun 27 j 19:22	0° Q		evening rise	775 May 28 j 06:11	17° II 41'13	
desc. node	774 Jul 07 j 21:37	14° Q 25'09			775 Jun 03 j 10:09	0° B	
evening max el	774 Jul 15 j 07:58	22° Q 40'23	27°21'29		775 Jun 22 j 21:34	0° Q	
retrograde	774 Jul 29 j 02:45	29° Q 57'45		desc. node	775 Jun 24 j 18:38	2° Q 06'30	
evening set	774 Aug 05 j 07:34	27° Q 28'20		evening max el	775 Jun 27 j 11:39	4° Q 51'45	26°48'14
min. Earth dist.	774 Aug 08 j 21:31	24° Q 33'54	0.62518 AU	retrograde	775 Jun 27 j 11:39	12° Q 06'53	
inferior conj	774 Aug 11 j 19:26	21° Q 48'24	-3°-58'-57	evening set	775 Jul 11 j 10:46	10° Q 04'16	
minimum elong	774 Aug 12 j 00:24	21° Q 36'36	3°57'49	min. Earth dist.	775 Jul 18 j 07:25	7° Q 26'17	0.60529 AU
morning rise	774 Aug 18 j 19:47	16° Q 41'35		inferior conj	775 Jul 22 j 01:26	4° Q 42'58	-4°-35'-33
direct	774 Aug 21 j 06:05	16° Q 14'59		minimum elong	775 Jul 25 j 08:04	4° Q 35'19	4°35'06
asc. node	774 Aug 25 j 18:07	17° Q 48'31		morning rise	775 Jul 25 j 11:43	29° B 58'10	
morning max el	774 Aug 27 j 23:54	19° Q 41'05	17°53'02		775 Aug 01 j 19:13	30° R B	
	774 Sep 04 j 14:23	0° M		direct	775 Aug 01 j 16:51	29° B 35'49	
morning set	774 Sep 13 j 02:26	14° M 48'30			775 Aug 04 j 05:04	0° Q	
	774 Sep 21 j 17:06	0° A		morning max el	775 Aug 06 j 15:51	3° Q 10'45	18°07'16
superior conj	774 Sep 24 j 08:34	4° A 31'35	1°01'08	asc. node	775 Aug 11 j 12:25	4° Q 19'38	
minimum elong	774 Sep 24 j 13:22	4° A 51'57	1°00'34	morning set	775 Aug 12 j 15:09	28° Q 14'35	
max. Earth dist.	774 Oct 01 j 09:31	16° A 12'43	1.43234 AU		775 Aug 27 j 08:29	0° M	
desc. node	774 Oct 03 j 20:57	20° A 12'18		superior conj	775 Aug 28 j 07:00		
evening rise	774 Oct 09 j 06:46	28° A 44'36		minimum elong	775 Sep 06 j 03:40	16° M 18'25	1°27'35
	774 Oct 10 j 02:11	0° M		max. Earth dist.	775 Sep 06 j 07:41	16° M 36'24	1°27'13
	774 Oct 30 j 10:48	0° A			775 Sep 13 j 18:42	29° M 32'32	1.41508 AU
greatest brilliancy	774 Nov 03 j 23:11	5° A 56'40	-0.4m		775 Sep 14 j 01:15	0° A	
evening max el	774 Nov 08 j 23:39	11° A 43'39	21°27'07	evening rise	775 Sep 19 j 04:38	8° A 27'15	
retrograde	774 Nov 17 j 19:34	16° A 58'48		desc. node	775 Sep 20 j 17:59	10° A 56'55	
evening set	774 Nov 21 j 22:56	15° A 23'14			775 Oct 03 j 05:38	0° M	
asc. node	774 Nov 21 j 17:21	15° A 33'48		greatest brilliancy	775 Oct 17 j 17:01	19° M 39'46	-0.3m
inferior conj	774 Nov 27 j 08:38	9° A 05'49	1°50'44	evening max el	775 Oct 22 j 16:26	25° M 14'18	22°44'41
minimum elong	774 Nov 27 j 06:24	9° A 13'35	1°49'54		775 Oct 28 j 15:13	0° A	
min. Earth dist.	774 Nov 27 j 14:41	8° A 44'57	0.67565 AU	retrograde	775 Oct 28 j 15:13	1° A 08'08	
morning rise	774 Dec 02 j 13:34	2° A 50'46			775 Nov 01 j 14:41	30° R M	
direct	774 Dec 07 j 14:38	0° A 41'39		evening set	775 Nov 05 j 05:58	29° M 15'25	
morning max el	774 Dec 17 j 22:16	6° A 49'54	23°19'09	asc. node	775 Nov 06 j 06:24	26° M 53'57	
greatest brilliancy	774 Dec 23 j 04:55	12° A 45'52	-0.2m	inferior conj	775 Nov 08 j 14:23	22° M 52'18	1°02'21
desc. node	774 Dec 30 j 20:11	22° A 46'57		minimum elong	775 Nov 11 j 15:54	22° M 57'08	1°01'47
	775 Jan 04 j 21:41	0° B		min. Earth dist.	775 Nov 11 j 14:30	23° M 08'29	0.67735 AU
morning set	775 Jan 21 j 20:24	26° B 34'10		morning rise	775 Nov 11 j 11:13	16° M 39'30	
	775 Jan 23 j 21:01	0° \approx		direct	775 Nov 16 j 22:32	14° M 53'02	
				morning max el	775 Nov 21 j 08:43	20° M 14'19	21°52'50

greatest brilliancy	775 Dec 05 j 06:05	25° \mathbb{M} 39'24	-0.4m		776 Nov 01 j 06:06	30° \mathbb{R} \mathbb{L}	
	775 Dec 08 j 15:34	0° \mathbb{Z}		direct	776 Nov 04 j 05:40	29° \mathbb{L} 09'38	
desc. node	775 Dec 17 j 17:13	12° \mathbb{Z} 41'41			776 Nov 07 j 09:47	0° \mathbb{M}	
	775 Dec 29 j 03:40	0° \mathbb{Z}		morning max el	776 Nov 12 j 06:35	3° \mathbb{M} 48'40	20°35'15
morning set	776 Jan 01 j 20:40	5° \mathbb{Z} 52'06		greatest brilliancy	776 Nov 18 j 09:44	11° \mathbb{M} 03'39	-0.5m
max. Earth dist.	776 Jan 08 j 01:02	15° \mathbb{Z} 57'36	1.41415 AU		776 Dec 01 j 15:22	0° \mathbb{Z}	
				desc. node	776 Dec 03 j 14:17	2° \mathbb{Z} 56'45	
superior conj	776 Jan 15 j 17:47	29° \mathbb{Z} 08'33	-2°-2'-56	morning set	776 Dec 10 j 21:27	14° \mathbb{Z} 07'49	
minimum elong	776 Jan 15 j 18:29	29° \mathbb{Z} 11'38	2°02'56	max. Earth dist.	776 Dec 20 j 07:04	29° \mathbb{Z} 00'17	1.43217 AU
	776 Jan 16 j 05:28	0° \mathbb{Z}			776 Dec 20 j 21:51	0° \mathbb{Z}	
evening rise	776 Jan 26 j 09:34	18° \mathbb{Z} 29'24					
	776 Feb 01 j 17:18	0° \mathbb{K}		superior conj	776 Dec 26 j 18:03	9° \mathbb{Z} 36'11	-1°-57'-45
asc. node	776 Feb 04 j 13:41	4° \mathbb{K} 50'36		minimum elong	776 Dec 26 j 13:56	9° \mathbb{Z} 19'01	1°57'35
evening max el	776 Feb 11 j 17:16	14° \mathbb{K} 28'01	18°12'56		777 Jan 07 j 14:37	0° \mathbb{Z}	
retrograde	776 Feb 18 j 15:55	17° \mathbb{K} 57'15		evening rise	777 Jan 08 j 00:14	0° \mathbb{Z} 42'22	
evening set	776 Feb 21 j 04:53	17° \mathbb{K} 30'02		asc. node	777 Jan 21 j 10:44	23° \mathbb{Z} 04'29	
inferior conj	776 Feb 28 j 03:50	12° \mathbb{K} 42'23	3°28'56	evening max el	777 Jan 25 j 05:06	27° \mathbb{Z} 36'28	18°08'13
minimum elong	776 Feb 28 j 06:28	12° \mathbb{K} 36'28	3°28'35		777 Jan 28 j 05:39	0° \mathbb{K}	
min. Earth dist.	776 Mar 02 j 12:23	9° \mathbb{K} 43'39	0.60042 AU	retrograde	777 Jan 31 j 17:43	1° \mathbb{K} 00'50	
morning rise	776 Mar 06 j 04:41	7° \mathbb{K} 00'22		evening set	777 Feb 03 j 11:21	0° \mathbb{K} 24'15	
direct	776 Mar 12 j 18:54	4° \mathbb{K} 58'31			777 Feb 04 j 06:52	30° \mathbb{R} \mathbb{Z}	
desc. node	776 Mar 14 j 16:23	5° \mathbb{K} 08'13		inferior conj	777 Feb 09 j 21:22	25° \mathbb{Z} 15'14	3°46'46
morning max el	776 Mar 27 j 01:46	12° \mathbb{K} 46'56	27°27'17	minimum elong	777 Feb 09 j 21:51	25° \mathbb{Z} 14'00	3°46'46
	776 Apr 09 j 17:03	0° \mathbb{Y}		min. Earth dist.	777 Feb 12 j 19:06	22° \mathbb{Z} 18'00	0.62135 AU
	776 Apr 26 j 13:17	0° \mathbb{B}		morning rise	777 Feb 16 j 06:02	19° \mathbb{Z} 18'44	
morning set	776 Apr 27 j 13:09	2° \mathbb{B} 02'55		direct	777 Feb 23 j 04:51	16° \mathbb{Z} 46'56	
asc. node	776 May 02 j 12:57	12° \mathbb{B} 41'21		desc. node	777 Mar 01 j 13:25	18° \mathbb{Z} 37'08	
max. Earth dist.	776 May 04 j 01:06	15° \mathbb{B} 58'52	1.32285 AU	morning max el	777 Mar 09 j 05:59	24° \mathbb{Z} 40'00	27°48'18
					777 Mar 14 j 02:45	0° \mathbb{K}	
superior conj	776 May 04 j 18:04	17° \mathbb{B} 31'55	0°23'15		777 Apr 03 j 01:33	0° \mathbb{Y}	
minimum elong	776 May 04 j 17:02	17° \mathbb{B} 26'16	0°23'01	morning set	777 Apr 11 j 16:18	16° \mathbb{Y} 29'05	
	776 May 10 j 11:19	0° \mathbb{I}		max. Earth dist.	777 Apr 17 j 10:40	28° \mathbb{Y} 35'28	1.32600 AU
evening rise	776 May 11 j 16:08	2° \mathbb{I} 33'17			777 Apr 18 j 02:20	0° \mathbb{B}	
	776 May 26 j 11:58	0° \mathbb{Z}					
evening max el	776 Jun 08 j 08:33	16° \mathbb{Z} 17'11	25°43'48	superior conj	777 Apr 19 j 04:01	2° \mathbb{B} 19'16	0°-2'-39
desc. node	776 Jun 10 j 15:40	18° \mathbb{Z} 20'01		minimum elong	777 Apr 19 j 04:08	2° \mathbb{B} 19'56	0°02'38
retrograde	776 Jun 22 j 09:34	23° \mathbb{Z} 27'55		behind sun begin	777 Apr 18 j 23:03	1° \mathbb{B} 52'17	
evening set	776 Jun 28 j 09:09	22° \mathbb{Z} 02'46		behind sun end	777 Apr 19 j 09:13	2° \mathbb{B} 47'36	
min. Earth dist.	776 Jul 02 j 20:57	19° \mathbb{Z} 23'14	0.58473 AU	asc. node	777 Apr 19 j 10:01	2° \mathbb{B} 51'55	
inferior conj	776 Jul 06 j 03:06	17° \mathbb{Z} 02'24	-4°-50'-26	evening rise	777 Apr 26 j 03:49	17° \mathbb{B} 27'05	
minimum elong	776 Jul 06 j 03:11	17° \mathbb{Z} 02'15	4°50'27		777 May 02 j 08:57	0° \mathbb{I}	
morning rise	776 Jul 14 j 00:53	12° \mathbb{Z} 40'17		evening max el	777 May 20 j 23:53	27° \mathbb{I} 04'09	24°16'38
direct	776 Jul 16 j 12:38	12° \mathbb{Z} 20'24			777 May 24 j 09:46	0° \mathbb{Z}	
morning max el	776 Jul 24 j 18:38	16° \mathbb{Z} 15'02	18°41'45	desc. node	777 May 28 j 12:40	2° \mathbb{Z} 32'12	
asc. node	776 Jul 29 j 12:12	21° \mathbb{Z} 52'30		retrograde	777 Jun 03 j 20:36	4° \mathbb{Z} 03'17	
	776 Aug 03 j 13:41	0° \mathbb{Q}		evening set	777 Jun 08 j 11:52	3° \mathbb{Z} 15'27	
morning set	776 Aug 10 j 02:03	12° \mathbb{Q} 14'17		min. Earth dist.	777 Jun 14 j 11:00	0° \mathbb{Z} 17'55	0.56642 AU
					777 Jun 14 j 22:37	30° \mathbb{R} \mathbb{I}	
superior conj	776 Aug 18 j 20:00	29° \mathbb{Q} 08'07	1°42'06	inferior conj	777 Jun 17 j 02:05	28° \mathbb{I} 38'48	-4°-30'-32
minimum elong	776 Aug 18 j 22:03	29° \mathbb{Q} 17'46	1°41'59	minimum elong	777 Jun 16 j 21:11	28° \mathbb{I} 46'33	4°29'53
	776 Aug 19 j 07:02	0° \mathbb{P}		morning rise	777 Jun 25 j 10:10	24° \mathbb{I} 36'28	
max. Earth dist.	776 Aug 25 j 23:07	12° \mathbb{P} 08'51	1.39515 AU	direct	777 Jun 28 j 01:35	24° \mathbb{I} 17'46	
evening rise	776 Aug 30 j 01:54	19° \mathbb{P} 15'31		morning max el	777 Jul 07 j 15:40	28° \mathbb{I} 44'47	19°37'23
	776 Sep 05 j 15:02	0° \mathbb{L}			777 Jul 08 j 22:03	0° \mathbb{Z}	
desc. node	776 Sep 06 j 15:02	1° \mathbb{L} 34'58		asc. node	777 Jul 16 j 09:15	10° \mathbb{Z} 13'37	
	776 Sep 26 j 12:14	0° \mathbb{M}		morning set	777 Jul 25 j 03:38	26° \mathbb{Z} 38'31	
evening max el	776 Oct 04 j 05:43	8° \mathbb{M} 48'45	24°04'49		777 Jul 26 j 19:38	0° \mathbb{Q}	
retrograde	776 Oct 15 j 06:19	15° \mathbb{M} 17'16					
evening set	776 Oct 20 j 11:59	13° \mathbb{M} 06'55		superior conj	777 Aug 02 j 04:05	12° \mathbb{Q} 45'20	1°46'37
asc. node	776 Oct 25 j 11:26	7° \mathbb{M} 20'16		minimum elong	777 Aug 02 j 04:11	12° \mathbb{Q} 45'49	1°46'36
inferior conj	776 Oct 25 j 22:39	6° \mathbb{M} 42'17	0°09'41	max. Earth dist.	777 Aug 08 j 02:57	24° \mathbb{Q} 11'27	1.37512 AU
minimum elong	776 Oct 25 j 22:25	6° \mathbb{M} 43'05	0°09'35		777 Aug 11 j 07:07	0° \mathbb{P}	
transit middle	776 Oct 25 j 22:25	6° \mathbb{M} 43'05	0°09'35	evening rise	777 Aug 11 j 23:07	1° \mathbb{P} 11'36	
transit begin	776 Oct 25 j 20:13	6° \mathbb{M} 50'32		desc. node	777 Aug 24 j 12:03	22° \mathbb{P} 01'48	
transit end	776 Oct 26 j 00:37	6° \mathbb{M} 35'37			777 Aug 29 j 19:42	0° \mathbb{L}	
min. Earth dist.	776 Oct 25 j 07:35	7° \mathbb{M} 33'16	0.67578 AU	evening max el	777 Sep 16 j 17:36	22° \mathbb{L} 26'38	25°20'31
morning rise	776 Oct 31 j 09:04	0° \mathbb{M} 34'22		retrograde	777 Sep 28 j 17:35	29° \mathbb{L} 21'33	

evening set	777 Oct 04 j 13:58	26°♄54'50		retrograde	778 Sep 11 j 23:54	13°♄15'47	
min. Earth dist.	777 Oct 09 j 01:17	21°♄56'32	0.67094 AU	evening set	778 Sep 18 j 10:24	10°♄36'34	
inferior conj	777 Oct 10 j 03:07	20°♄32'46	0°-45'-56	min. Earth dist.	778 Sep 22 j 13:58	6°♄15'21	0.66270 AU
minimum elong	777 Oct 10 j 04:17	20°♄29'00	0°45'27	inferior conj	778 Sep 24 j 03:25	4°♄21'13	-1°-42'-54
asc. node	777 Oct 12 j 08:30	17°♄45'52		minimum elong	778 Sep 24 j 06:05	4°♄13'05	1°41'51
morning rise	777 Oct 15 j 19:12	14°♄32'40			778 Sep 28 j 02:34	30°♄	
direct	777 Oct 19 j 04:05	13°♄27'04		asc. node	778 Sep 29 j 05:32	29°♄05'50	
morning max el	777 Oct 26 j 09:56	17°♄33'21	19°30'43	morning rise	778 Sep 30 j 02:52	28°♄31'53	
greatest brilliancy	777 Nov 04 j 04:01	28°♄41'05	-0.7m	direct	778 Oct 03 j 02:09	27°♄41'51	
	777 Nov 05 j 01:51	0°♄			778 Oct 08 j 06:49	0°♄	
morning set	777 Nov 19 j 20:00	22°♄26'22		morning max el	778 Oct 09 j 19:59	1°♄25'46	18°41'30
desc. node	777 Nov 20 j 11:20	23°♄25'48			778 Oct 29 j 11:10	0°♄	
	777 Nov 24 j 16:45	0°♄		morning set	778 Oct 30 j 15:14	1°♄51'32	
max. Earth dist.	777 Dec 02 j 20:42	12°♄49'14	1.44481 AU	desc. node	778 Nov 07 j 08:23	14°♄04'37	
superior conj	777 Dec 06 j 15:45	18°♄51'41	-1°-34'-29	superior conj	778 Nov 15 j 18:48	27°♄20'41	0°-53'-51
minimum elong	777 Dec 06 j 07:30	18°♄18'40	1°33'44	minimum elong	778 Nov 15 j 12:02	26°♄54'06	0°53'02
	777 Dec 13 j 12:50	0°♄		max. Earth dist.	778 Nov 15 j 14:37	27°♄04'16	1.45055 AU
evening rise	777 Dec 20 j 18:57	12°♄01'51			778 Nov 17 j 11:20	0°♄	
	777 Dec 31 j 15:37	0°♄		evening rise	778 Dec 01 j 14:29	22°♄23'33	
asc. node	778 Jan 08 j 07:47	10°♄30'35			778 Dec 06 j 08:31	0°♄	
evening max el	778 Jan 08 j 17:35	10°♄56'01	18°22'20	evening max el	778 Dec 23 j 04:15	24°♄21'44	18°54'27
retrograde	778 Jan 15 j 05:40	14°♄28'25		asc. node	778 Dec 26 j 04:49	26°♄55'52	
evening set	778 Jan 18 j 04:07	13°♄41'36		retrograde	778 Dec 29 j 23:50	28°♄12'57	
inferior conj	778 Jan 24 j 04:33	8°♄12'42	3°43'25	evening set	779 Jan 02 j 04:04	27°♄14'46	
minimum elong	778 Jan 24 j 03:16	8°♄16'21	3°43'20	inferior conj	779 Jan 07 j 21:44	21°♄28'29	3°24'44
min. Earth dist.	778 Jan 26 j 11:19	5°♄36'53	0.63995 AU	minimum elong	779 Jan 07 j 19:24	21°♄35'44	3°24'18
morning rise	778 Jan 30 j 00:55	2°♄07'05		min. Earth dist.	779 Jan 09 j 13:09	19°♄26'08	0.65496 AU
	778 Feb 02 j 11:50	30°♄		morning rise	779 Jan 13 j 09:42	15°♄17'09	
direct	778 Feb 05 j 22:34	29°♄19'00		direct	779 Jan 19 j 23:05	12°♄27'07	
	778 Feb 09 j 14:11	0°♄		morning max el	779 Feb 02 j 00:19	20°♄06'34	26°45'15
desc. node	778 Feb 16 j 10:29	4°♄14'55		desc. node	779 Feb 03 j 07:34	21°♄27'12	
morning max el	778 Feb 19 j 14:24	7°♄10'06	27°32'42		779 Feb 10 j 12:38	0°♄	
	778 Mar 09 j 03:57	0°♄			779 Mar 02 j 05:45	0°♄	
	778 Mar 26 j 06:09	0°♄		morning set	779 Mar 09 j 21:02	13°♄53'01	
morning set	778 Mar 26 j 12:03	0°♄29'05		max. Earth dist.	779 Mar 14 j 05:44	22°♄24'05	1.34493 AU
max. Earth dist.	778 Mar 31 j 13:26	10°♄46'40	1.33324 AU		779 Mar 17 j 23:21	0°♄	
superior conj	778 Apr 03 j 10:26	16°♄51'11	0°-29'-46	superior conj	779 Mar 18 j 11:14	1°♄01'32	0°-56'-57
minimum elong	778 Apr 03 j 11:54	16°♄58'56	0°29'28	minimum elong	779 Mar 18 j 14:01	1°♄15'57	0°56'27
asc. node	778 Apr 06 j 07:05	22°♄59'06		asc. node	779 Mar 24 j 04:07	12°♄58'56	
	778 Apr 09 j 13:43	0°♄		evening rise	779 Mar 26 j 00:54	16°♄52'38	
evening rise	778 Apr 10 j 15:21	2°♄15'33			779 Apr 01 j 16:13	0°♄	
	778 Apr 26 j 03:39	0°♄		evening max el	779 Apr 14 j 12:49	18°♄23'19	21°10'58
evening max el	778 May 02 j 14:51	7°♄35'49	22°40'56	retrograde	779 Apr 26 j 09:15	24°♄09'16	
desc. node	778 May 15 j 09:40	14°♄07'30		evening set	779 Apr 28 j 16:26	23°♄57'00	
retrograde	778 May 15 j 19:11	14°♄07'52		desc. node	779 May 02 j 06:42	22°♄53'21	
evening set	778 May 19 j 00:24	13°♄45'08		inferior conj	779 May 08 j 00:40	19°♄58'06	-1°-38'-44
min. Earth dist.	778 May 26 j 23:01	10°♄16'38	0.55369 AU	minimum elong	779 May 07 j 20:02	20°♄04'37	1°37'07
inferior conj	778 May 28 j 06:23	9°♄31'51	-3°-25'-2	min. Earth dist.	779 May 08 j 11:39	19°♄42'36	0.54950 AU
minimum elong	778 May 27 j 22:51	9°♄42'38	3°23'02	morning rise	779 May 16 j 23:31	15°♄56'57	
morning rise	778 Jun 05 j 23:56	5°♄39'24		direct	779 May 20 j 06:17	15°♄33'37	
direct	778 Jun 08 j 20:30	5°♄20'31		morning max el	779 Jun 02 j 01:03	21°♄38'53	22°26'57
morning max el	778 Jun 20 j 01:41	10°♄32'58	20°53'44		779 Jun 09 j 04:56	0°♄	
asc. node	778 Jul 03 j 06:20	29°♄11'36		asc. node	779 Jun 20 j 03:22	18°♄36'32	
	778 Jul 03 j 16:47	0°♄		morning set	779 Jun 23 j 20:56	26°♄12'30	
morning set	778 Jul 09 j 10:39	11°♄20'15			779 Jun 25 j 16:09	0°♄	
superior conj	778 Jul 16 j 23:23	26°♄57'22	1°43'07	superior conj	779 Jul 01 j 02:19	11°♄32'37	1°33'18
minimum elong	778 Jul 16 j 22:01	26°♄50'25	1°43'04	minimum elong	779 Jul 01 j 00:07	11°♄21'00	1°33'06
	778 Jul 18 j 11:10	0°♄		max. Earth dist.	779 Jul 04 j 04:57	18°♄03'11	1.34267 AU
max. Earth dist.	778 Jul 21 j 11:40	6°♄02'28	1.35715 AU	evening rise	779 Jul 09 j 00:44	27°♄45'35	
evening rise	778 Jul 25 j 16:20	14°♄06'09			779 Jul 10 j 04:28	0°♄	
	778 Aug 03 j 16:02	0°♄			779 Jul 27 j 21:43	0°♄	
desc. node	778 Aug 11 j 09:02	12°♄11'52		desc. node	779 Jul 29 j 06:02	1°♄57'01	
	778 Aug 24 j 14:14	0°♄		evening max el	779 Aug 12 j 17:17	19°♄32'57	27°08'10
evening max el	778 Aug 30 j 05:26	6°♄04'13	26°24'08	retrograde	779 Aug 26 j 00:57	26°♄51'51	

evening set	779 Sep 01 j 22:53	24° $\mathring{\text{M}}$ 07'35			780 Jul 01 j 10:04	0° $\mathring{\text{O}}$	
min. Earth dist.	779 Sep 05 j 19:22	20° $\mathring{\text{M}}$ 23'27	0.65086 AU	desc. node	780 Jul 15 j 03:02	21° $\mathring{\text{O}}$ 06'38	
inferior conj	779 Sep 07 j 21:24	18° $\mathring{\text{M}}$ 02'57	-2°-39'-14		780 Jul 22 j 11:56	0° $\mathring{\text{M}}$	
minimum elong	779 Sep 08 j 01:27	17° $\mathring{\text{M}}$ 51'33	2°37'49	evening max el	780 Jul 25 j 04:03	2° $\mathring{\text{M}}$ 42'01	27°25'40
morning rise	779 Sep 14 j 05:41	12° $\mathring{\text{M}}$ 27'28		retrograde	780 Aug 07 j 20:01	10° $\mathring{\text{M}}$ 00'57	
asc. node	779 Sep 16 j 02:35	11° $\mathring{\text{M}}$ 52'41		evening set	780 Aug 15 j 00:20	7° $\mathring{\text{M}}$ 22'35	
direct	779 Sep 16 j 21:48	11° $\mathring{\text{M}}$ 49'14		min. Earth dist.	780 Aug 18 j 15:36	4° $\mathring{\text{M}}$ 12'04	0.63546 AU
morning max el	779 Sep 23 j 10:21	15° $\mathring{\text{M}}$ 19'58	18°08'45	inferior conj	780 Aug 21 j 06:29	1° $\mathring{\text{M}}$ 32'33	-3°-31'-59
	779 Oct 03 j 22:28	0° $\mathring{\text{A}}$		minimum elong	780 Aug 21 j 11:25	1° $\mathring{\text{M}}$ 20'00	3°30'36
morning set	779 Oct 11 j 15:16	12° $\mathring{\text{A}}$ 41'46			780 Aug 22 j 19:39	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$	
	779 Oct 22 j 05:10	0° $\mathring{\text{M}}$		morning rise	780 Aug 28 j 00:44	26° $\mathring{\text{O}}$ 14'04	
desc. node	779 Oct 25 j 05:22	4° $\mathring{\text{M}}$ 49'00		direct	780 Aug 30 j 12:19	25° $\mathring{\text{O}}$ 44'07	
				asc. node	780 Sep 01 j 23:38	26° $\mathring{\text{O}}$ 14'17	
superior conj	779 Oct 25 j 23:08	5° $\mathring{\text{M}}$ 59'41	0°-4'-55	morning max el	780 Sep 06 j 02:16	29° $\mathring{\text{O}}$ 09'51	17°53'28
minimum elong	779 Oct 25 j 22:31	5° $\mathring{\text{M}}$ 57'13	0°04'51		780 Sep 06 j 21:32	0° $\mathring{\text{M}}$	
behind sun begin	779 Oct 25 j 12:05	5° $\mathring{\text{M}}$ 15'45		morning set	780 Sep 22 j 17:03	24° $\mathring{\text{M}}$ 46'24	
behind sun end	779 Oct 26 j 08:56	6° $\mathring{\text{M}}$ 38'39			780 Sep 25 j 17:22	0° $\mathring{\text{A}}$	
max. Earth dist.	779 Oct 29 j 09:13	11° $\mathring{\text{M}}$ 24'36	1.44889 AU				
	779 Nov 10 j 06:50	0° $\mathring{\text{A}}$		superior conj	780 Oct 05 j 00:03	15° $\mathring{\text{A}}$ 41'23	0°40'07
evening rise	779 Nov 11 j 11:33	1° $\mathring{\text{A}}$ 51'23		minimum elong	780 Oct 05 j 04:00	15° $\mathring{\text{A}}$ 57'43	0°39'36
greatest brilliancy	779 Nov 28 j 16:47	27° $\mathring{\text{A}}$ 59'49	-0.6m	max. Earth dist.	780 Oct 11 j 02:01	25° $\mathring{\text{A}}$ 34'34	1.44018 AU
	779 Nov 30 j 02:59	0° $\mathring{\text{Z}}$		desc. node	780 Oct 11 j 02:22	25° $\mathring{\text{A}}$ 35'57	
evening max el	779 Dec 06 j 11:00	7° $\mathring{\text{Z}}$ 49'59	19°43'10		780 Oct 13 j 20:44	0° $\mathring{\text{M}}$	
asc. node	779 Dec 13 j 01:51	12° $\mathring{\text{Z}}$ 05'17		evening rise	780 Oct 20 j 19:38	10° $\mathring{\text{M}}$ 51'10	
retrograde	779 Dec 13 j 20:59	12° $\mathring{\text{Z}}$ 08'50			780 Nov 02 j 11:50	0° $\mathring{\text{A}}$	
evening set	779 Dec 17 j 08:39	10° $\mathring{\text{Z}}$ 57'42		greatest brilliancy	780 Nov 12 j 19:39	14° $\mathring{\text{A}}$ 33'40	-0.5m
inferior conj	779 Dec 22 j 21:48	4° $\mathring{\text{Z}}$ 56'55	2°54'44	evening max el	780 Nov 18 j 12:30	21° $\mathring{\text{A}}$ 19'12	20°46'00
minimum elong	779 Dec 22 j 19:04	5° $\mathring{\text{Z}}$ 05'55	2°54'00	retrograde	780 Nov 26 j 18:39	26° $\mathring{\text{A}}$ 12'12	
min. Earth dist.	779 Dec 23 j 23:07	3° $\mathring{\text{Z}}$ 33'25	0.66598 AU	asc. node	780 Nov 28 j 22:53	25° $\mathring{\text{A}}$ 45'29	
	779 Dec 26 j 21:25	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		evening set	780 Nov 30 j 15:43	24° $\mathring{\text{A}}$ 46'10	
morning rise	779 Dec 28 j 04:48	28° $\mathring{\text{A}}$ 42'29		inferior conj	780 Dec 06 j 02:14	18° $\mathring{\text{A}}$ 34'03	2°16'06
direct	780 Jan 03 j 05:35	26° $\mathring{\text{A}}$ 02'25		minimum elong	780 Dec 05 j 23:40	18° $\mathring{\text{A}}$ 42'47	2°15'14
	780 Jan 11 j 19:52	0° $\mathring{\text{Z}}$		min. Earth dist.	780 Dec 06 j 14:58	17° $\mathring{\text{A}}$ 50'32	0.67320 AU
morning max el	780 Jan 15 j 09:25	3° $\mathring{\text{Z}}$ 16'22	25°34'20	morning rise	780 Dec 11 j 07:11	12° $\mathring{\text{A}}$ 18'40	
desc. node	780 Jan 21 j 04:37	9° $\mathring{\text{Z}}$ 46'25		direct	780 Dec 16 j 17:13	9° $\mathring{\text{A}}$ 56'46	
	780 Feb 04 j 18:47	0° $\mathring{\text{A}}$		morning max el	780 Dec 27 j 17:40	16° $\mathring{\text{A}}$ 31'12	24°09'49
morning set	780 Feb 20 j 14:46	26° $\mathring{\text{A}}$ 27'48		desc. node	781 Jan 07 j 01:38	28° $\mathring{\text{A}}$ 52'37	
	780 Feb 22 j 12:55	0° $\mathring{\text{H}}$			781 Jan 07 j 21:42	0° $\mathring{\text{Z}}$	
max. Earth dist.	780 Feb 24 j 10:08	3° $\mathring{\text{H}}$ 32'14	1.36110 AU		781 Jan 27 j 18:52	0° $\mathring{\text{A}}$	
				morning set	781 Feb 01 j 11:15	7° $\mathring{\text{A}}$ 55'36	
superior conj	780 Mar 01 j 03:46	14° $\mathring{\text{H}}$ 43'04	-1°-22'-35	max. Earth dist.	781 Feb 05 j 06:10	14° $\mathring{\text{A}}$ 36'03	1.38098 AU
minimum elong	780 Mar 01 j 07:33	15° $\mathring{\text{H}}$ 01'59	1°22'02				
	780 Mar 08 j 16:10	0° $\mathring{\text{Y}}$		superior conj	781 Feb 12 j 08:29	27° $\mathring{\text{A}}$ 45'18	-1°-44'-24
evening rise	780 Mar 09 j 06:23	1° $\mathring{\text{Y}}$ 12'13		minimum elong	781 Feb 12 j 12:27	28° $\mathring{\text{A}}$ 04'14	1°44'02
asc. node	780 Mar 10 j 01:09	2° $\mathring{\text{Y}}$ 47'11			781 Feb 13 j 12:33	0° $\mathring{\text{H}}$	
evening max el	780 Mar 26 j 22:06	29° $\mathring{\text{Y}}$ 47'19	19°56'05	evening rise	781 Feb 21 j 05:18	15° $\mathring{\text{H}}$ 06'15	
	780 Mar 27 j 03:25	0° $\mathring{\text{Z}}$		asc. node	781 Feb 24 j 22:11	22° $\mathring{\text{H}}$ 17'58	
retrograde	780 Apr 06 j 01:10	4° $\mathring{\text{Z}}$ 39'35			781 Mar 01 j 03:47	0° $\mathring{\text{Y}}$	
evening set	780 Apr 08 j 02:49	4° $\mathring{\text{Z}}$ 28'18		evening max el	781 Mar 09 j 18:22	11° $\mathring{\text{Y}}$ 49'32	19°00'11
inferior conj	780 Apr 16 j 23:18	0° $\mathring{\text{Z}}$ 28'05	0°20'23	retrograde	781 Mar 18 j 07:04	15° $\mathring{\text{Y}}$ 56'51	
minimum elong	780 Apr 17 j 00:13	0° $\mathring{\text{Z}}$ 26'42	0°20'04	evening set	781 Mar 20 j 12:10	15° $\mathring{\text{Y}}$ 41'22	
	780 Apr 17 j 17:41	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$		inferior conj	781 Mar 28 j 14:16	11° $\mathring{\text{Y}}$ 26'22	2°00'18
desc. node	780 Apr 18 j 03:45	29° $\mathring{\text{Y}}$ 44'38		minimum elong	781 Mar 28 j 18:17	11° $\mathring{\text{Y}}$ 19'18	1°59'05
min. Earth dist.	780 Apr 19 j 01:44	29° $\mathring{\text{Y}}$ 11'23	0.55504 AU	min. Earth dist.	781 Mar 31 j 17:28	9° $\mathring{\text{Y}}$ 15'26	0.56901 AU
morning rise	780 Apr 25 j 18:33	26° $\mathring{\text{Y}}$ 00'13		desc. node	781 Apr 05 j 00:48	6° $\mathring{\text{Y}}$ 46'11	
direct	780 Apr 29 j 21:24	25° $\mathring{\text{Y}}$ 22'48		morning rise	781 Apr 05 j 20:12	6° $\mathring{\text{Y}}$ 25'17	
	780 May 11 j 03:21	0° $\mathring{\text{Z}}$		direct	781 Apr 11 j 01:18	5° $\mathring{\text{Y}}$ 20'57	
morning max el	780 May 13 j 17:15	2° $\mathring{\text{Z}}$ 14'56	24°08'09	morning max el	781 Apr 25 j 07:54	12° $\mathring{\text{Y}}$ 44'16	25°43'49
	780 Jun 01 j 19:56	0° $\mathring{\text{H}}$			781 May 08 j 18:54	0° $\mathring{\text{Z}}$	
asc. node	780 Jun 06 j 00:25	8° $\mathring{\text{H}}$ 21'18		morning set	781 May 22 j 20:22	26° $\mathring{\text{Z}}$ 06'29	
morning set	780 Jun 07 j 08:43	11° $\mathring{\text{H}}$ 09'56		asc. node	781 May 23 j 21:27	28° $\mathring{\text{Z}}$ 19'20	
					781 May 24 j 16:16	0° $\mathring{\text{H}}$	
superior conj	780 Jun 14 j 10:15	26° $\mathring{\text{H}}$ 22'43	1°18'26				
minimum elong	780 Jun 14 j 07:47	26° $\mathring{\text{H}}$ 09'24	1°18'05	superior conj	781 May 29 j 21:00	11° $\mathring{\text{H}}$ 19'45	0°59'29
	780 Jun 16 j 02:36	0° $\mathring{\text{Z}}$		minimum elong	781 May 29 j 18:46	11° $\mathring{\text{H}}$ 07'33	0°59'04
max. Earth dist.	780 Jun 16 j 07:24	0° $\mathring{\text{Z}}$ 25'44	1.33223 AU	max. Earth dist.	781 May 30 j 16:39	13° $\mathring{\text{H}}$ 07'20	1.32570 AU
evening rise	780 Jun 21 j 20:10	11° $\mathring{\text{Z}}$ 58'07		evening rise	781 Jun 05 j 23:16	26° $\mathring{\text{H}}$ 32'35	

	781 Jun 07 j 15:49	0°☿			782 May 16 j 01:14	0°♊	
	781 Jun 24 j 21:18	0°♊		evening rise	782 May 21 j 07:22	11°♊20'21	
desc. node	781 Jul 02 j 00:04	9°♊25'38			782 May 30 j 21:22	0°☿	
evening max el	781 Jul 07 j 11:15	15°♊17'50	27°11'31	desc. node	782 Jun 18 j 21:07	26°☿32'50	
retrograde	781 Jul 21 j 08:07	22°♊33'41		evening max el	782 Jun 19 j 12:11	27°☿09'19	26°24'14
evening set	781 Jul 28 j 10:48	20°♊14'27			782 Jun 22 j 19:16	0°♊	
min. Earth dist.	781 Aug 01 j 01:27	17°♊28'40	0.61691 AU	retrograde	782 Jul 03 j 12:02	4°♊22'14	
inferior conj	781 Aug 04 j 03:35	14°♊42'15	-4°-16'-30	evening set	782 Jul 10 j 01:36	2°♊34'42	
minimum elong	781 Aug 04 j 08:15	14°♊31'44	4°15'37	min. Earth dist.	782 Jul 14 j 01:12	29°☿58'32	0.59648 AU
morning rise	781 Aug 11 j 08:28	9°♊44'09			782 Jul 14 j 00:25	30°☿☿	
direct	781 Aug 13 j 18:18	9°♊19'33		inferior conj	782 Jul 17 j 09:06	27°☿22'26	-4°-45'-16
asc. node	781 Aug 19 j 20:40	12°♊01'51		minimum elong	782 Jul 17 j 11:31	27°☿17'40	4°45'06
morning max el	781 Aug 20 j 16:49	12°♊48'24	17°56'42	morning rise	782 Jul 25 j 00:48	22°☿47'21	
	781 Sep 01 j 07:08	0°♎		direct	782 Jul 27 j 11:24	22°☿26'04	
morning set	781 Sep 05 j 14:26	7°♎47'24		morning max el	782 Aug 04 j 02:58	26°☿07'36	18°19'30
				asc. node	782 Aug 06 j 17:44	29°☿00'31	
superior conj	781 Sep 16 j 04:21	26°♎44'04	1°13'55		782 Aug 07 j 12:19	0°♊	
minimum elong	781 Sep 16 j 09:05	27°♎04'35	1°13'24	morning set	782 Aug 20 j 01:51	21°♊28'47	
	781 Sep 18 j 01:49	0°♎			782 Aug 24 j 13:21	0°♎	
max. Earth dist.	781 Sep 23 j 14:52	9°♎18'25	1.42550 AU				
desc. node	781 Sep 27 j 23:24	16°♎22'25		superior conj	782 Aug 29 j 09:10	8°♎59'13	1°35'07
evening rise	781 Sep 30 j 07:53	20°♎06'37		minimum elong	782 Aug 29 j 12:24	9°♎14'02	1°34'52
	781 Oct 06 j 17:16	0°♎		max. Earth dist.	782 Sep 05 j 22:14	22°♎21'22	1.40672 AU
greatest brilliancy	781 Oct 27 j 14:33	29°♎27'18	-0.4m		782 Sep 10 j 11:26	0°♎	
	781 Oct 28 j 01:16	0°♎		evening rise	782 Sep 10 j 15:02	0°♎14'48	
evening max el	781 Nov 01 j 08:22	4°♎49'38	21°59'27	desc. node	782 Sep 14 j 20:25	7°♎04'26	
retrograde	781 Nov 10 j 15:03	10°♎20'44			782 Sep 30 j 04:51	0°♎	
evening set	781 Nov 14 j 23:31	8°♎37'58		evening max el	782 Oct 14 j 23:22	18°♎21'27	23°18'51
asc. node	781 Nov 15 j 19:56	7°♎53'25		retrograde	782 Oct 25 j 08:46	24°♎30'35	
inferior conj	781 Nov 20 j 08:59	2°♎17'54	1°30'50	evening set	782 Oct 30 j 06:24	22°♎30'04	
minimum elong	781 Nov 20 j 07:03	2°♎24'35	1°30'05	asc. node	782 Nov 02 j 16:59	18°♎45'05	
min. Earth dist.	781 Nov 20 j 10:24	2°♎13'02	0.67684 AU	inferior conj	782 Nov 04 j 16:14	16°♎05'48	0°40'27
	781 Nov 22 j 01:27	30°♎		minimum elong	782 Nov 04 j 15:17	16°♎09'02	0°40'04
morning rise	781 Nov 25 j 14:23	26°♎03'43		min. Earth dist.	782 Nov 04 j 07:02	16°♎37'21	0.67708 AU
direct	781 Nov 30 j 09:09	24°♎04'04		morning rise	782 Nov 10 j 00:15	9°♎55'02	
morning max el	781 Dec 10 j 03:47	29°♎51'30	22°41'46	direct	782 Nov 14 j 04:27	8°♎18'13	
	781 Dec 10 j 07:09	0°♎		morning max el	782 Nov 22 j 19:17	13°♎20'14	21°18'34
greatest brilliancy	781 Dec 14 j 18:33	5°♎00'57	-0.3m	greatest brilliancy	782 Nov 28 j 00:34	19°♎19'42	-0.4m
desc. node	781 Dec 24 j 22:40	18°♎32'43			782 Dec 05 j 21:46	0°♎	
	782 Jan 01 j 17:54	0°♎		desc. node	782 Dec 11 j 19:42	8°♎36'44	
morning set	782 Jan 13 j 04:31	18°♎02'07		morning set	782 Dec 23 j 17:15	26°♎48'33	
max. Earth dist.	782 Jan 18 j 02:07	26°♎14'27	1.40239 AU		782 Dec 25 j 17:37	0°♎	
	782 Jan 20 j 06:31	0°♎		max. Earth dist.	782 Dec 31 j 04:00	8°♎46'46	1.42238 AU
superior conj	782 Jan 25 j 20:58	9°♎57'10	-1°-59'-12	superior conj	783 Jan 07 j 11:50	21°♎05'20	-2°-2'-44
minimum elong	782 Jan 25 j 23:31	10°♎08'42	1°59'07	minimum elong	783 Jan 07 j 10:40	21°♎00'22	2°02'44
evening rise	782 Feb 04 j 18:42	28°♎27'45			783 Jan 12 j 14:12	0°♎	
	782 Feb 05 j 14:11	0°♎		evening rise	783 Jan 18 j 18:52	11°♎08'08	
asc. node	782 Feb 11 j 19:15	11°♎25'14		asc. node	783 Jan 29 j 16:18	0°♎01'09	
evening max el	782 Feb 20 j 23:04	24°♎23'56	18°24'20		783 Jan 29 j 16:00	0°♎	
retrograde	782 Feb 28 j 08:12	28°♎02'34		evening max el	783 Feb 04 j 09:06	7°♎21'55	18°08'28
evening set	782 Mar 02 j 18:25	27°♎40'04		retrograde	783 Feb 11 j 02:21	10°♎47'44	
inferior conj	782 Mar 10 j 02:22	23°♎04'21	3°06'09	evening set	783 Feb 13 j 17:14	10°♎16'42	
minimum elong	782 Mar 10 j 06:04	22°♎56'45	3°05'25	inferior conj	783 Feb 20 j 10:14	5°♎19'35	3°39'31
min. Earth dist.	782 Mar 13 j 12:51	20°♎16'27	0.58834 AU	minimum elong	783 Feb 20 j 11:57	5°♎15'30	3°39'23
morning rise	782 Mar 17 j 13:53	17°♎34'38		min. Earth dist.	783 Feb 23 j 14:53	2°♎18'40	0.60948 AU
desc. node	782 Mar 22 j 21:51	15°♎56'12			783 Feb 26 j 10:30	30°♎	
direct	782 Mar 23 j 18:17	15°♎54'18		morning rise	783 Feb 27 j 03:45	29°♎30'14	
morning max el	782 Apr 07 j 02:39	23°♎35'30	26°58'35	direct	783 Mar 05 j 22:40	27°♎14'33	
	782 Apr 12 j 21:09	0°♎		desc. node	783 Mar 09 j 18:54	27°♎54'44	
	782 May 01 j 19:26	0°♎			783 Mar 13 j 23:34	0°♎	
morning set	782 May 07 j 06:15	10°♎56'42		morning max el	783 Mar 20 j 03:51	5°♎05'52	27°40'52
asc. node	782 May 10 j 18:30	18°♎25'48			783 Apr 07 j 17:35	0°♎	
				morning set	783 Apr 21 j 12:31	25°♎34'19	
superior conj	782 May 14 j 08:46	26°♎17'43	0°37'15		783 Apr 23 j 15:29	0°♎	
minimum elong	782 May 14 j 07:12	26°♎09'05	0°36'54	max. Earth dist.	783 Apr 27 j 17:01	8°♎44'10	1.32371 AU
max. Earth dist.	782 May 14 j 05:10	25°♎57'52	1.32288 AU	asc. node	783 Apr 27 j 15:35	8°♎36'19	

superior conj	783 Apr 28 j 19:54	11°♄10'58	0°12'28		784 Mar 30 j 11:18	0°♄	
minimum elong	783 Apr 28 j 19:20	11°♄07'51	0°12'21	morning set	784 Apr 04 j 12:53	9°♄50'47	
behind sun begin	783 Apr 28 j 16:08	10°♄50'21		max. Earth dist.	784 Apr 10 j 00:02	21°♄10'53	1.32850 AU
behind sun end	783 Apr 28 j 22:31	11°♄25'20					
evening rise	783 May 05 j 18:19	26°♄14'07		superior conj	784 Apr 12 j 04:34	25°♄52'40	0°-14'-4
	783 May 07 j 13:29	0°♄		minimum elong	784 Apr 12 j 05:15	25°♄56'19	0°13'56
	783 May 25 j 01:10	0°♄		behind sun begin	784 Apr 12 j 02:43	25°♄42'37	
evening max el	783 Jun 01 j 06:08	8°♄16'03	25°08'39	behind sun end	784 Apr 12 j 07:47	26°♄10'01	
desc. node	783 Jun 05 j 18:08	11°♄59'35		asc. node	784 Apr 13 j 12:37	28°♄45'57	
retrograde	783 Jun 15 j 06:19	15°♄23'51			784 Apr 14 j 02:17	0°♄	
evening set	783 Jun 20 j 17:20	14°♄15'03		evening rise	784 Apr 19 j 06:08	11°♄06'18	
min. Earth dist.	783 Jun 25 j 17:46	11°♄29'50	0.57643 AU		784 Apr 28 j 23:20	0°♄	
inferior conj	783 Jun 28 j 19:47	9°♄24'22	-4°-47'-3	evening max el	784 May 12 j 20:21	18°♄52'45	23°36'05
minimum elong	783 Jun 28 j 17:46	9°♄27'48	4°46'58	desc. node	784 May 22 j 15:11	25°♄09'00	
morning rise	783 Jul 06 j 22:03	5°♄11'50		retrograde	784 May 26 j 12:28	25°♄43'23	
direct	783 Jul 09 j 11:12	4°♄52'38		evening set	784 May 30 j 12:17	25°♄08'19	
morning max el	783 Jul 18 j 05:43	8°♄59'03	19°02'55	min. Earth dist.	784 Jun 06 j 06:53	21°♄58'50	0.56007 AU
asc. node	783 Jul 24 j 14:47	16°♄55'43		inferior conj	784 Jun 08 j 10:19	20°♄41'42	-4°-8'-36
	783 Aug 01 j 01:30	0°♄		minimum elong	784 Jun 08 j 03:44	20°♄51'37	4°07'20
morning set	783 Aug 03 j 23:12	5°♄40'01		morning rise	784 Jun 16 j 22:38	16°♄45'12	
				direct	784 Jun 19 j 15:39	16°♄26'52	
superior conj	783 Aug 12 j 08:54	22°♄11'29	1°45'07	morning max el	784 Jun 29 j 22:18	21°♄12'14	20°07'26
minimum elong	783 Aug 12 j 10:05	22°♄17'09	1°45'04		784 Jul 07 j 02:03	0°♄	
	783 Aug 16 j 12:08	0°♄		asc. node	784 Jul 10 j 11:51	5°♄33'38	
max. Earth dist.	783 Aug 19 j 01:35	4°♄40'46	1.38641 AU	morning set	784 Jul 18 j 03:22	20°♄12'04	
evening rise	783 Aug 22 j 22:47	11°♄32'30			784 Jul 22 j 22:19	0°♄	
desc. node	783 Sep 01 j 17:28	27°♄38'18		superior conj	784 Jul 25 j 22:14	6°♄04'46	1°45'59
	783 Sep 03 j 05:57	0°♄		minimum elong	784 Jul 25 j 21:38	6°♄01'48	1°45'59
	783 Sep 25 j 14:17	0°♄		max. Earth dist.	784 Jul 31 j 06:19	16°♄32'54	1.36709 AU
evening max el	783 Sep 27 j 11:35	1°♄56'36	24°37'58	evening rise	784 Aug 04 j 05:07	23°♄54'58	
retrograde	783 Oct 08 j 22:47	8°♄38'14			784 Aug 07 j 14:54	0°♄	
evening set	783 Oct 14 j 10:41	6°♄20'24		desc. node	784 Aug 18 j 14:29	17°♄58'32	
min. Earth dist.	783 Oct 19 j 02:34	1°♄01'34	0.67408 AU		784 Aug 26 j 21:52	0°♄	
inferior conj	783 Oct 19 j 22:13	29°♄56'05	0°-13'-38	evening max el	784 Sep 08 j 23:16	15°♄34'32	25°49'35
minimum elong	783 Oct 19 j 22:33	29°♄54'58	0°13'30	retrograde	784 Sep 21 j 08:09	22°♄38'25	
transit middle	783 Oct 19 j 22:33	29°♄54'58	0°13'30	evening set	784 Sep 27 j 10:33	20°♄05'52	
transit begin	783 Oct 19 j 21:01	0°♄00'04		min. Earth dist.	784 Oct 01 j 18:32	15°♄22'56	0.66779 AU
transit end	783 Oct 20 j 00:05	29°♄49'52		inferior conj	784 Oct 03 j 01:09	13°♄45'55	-1°-10'-2
	783 Oct 19 j 21:03	30°♄		minimum elong	784 Oct 03 j 02:57	13°♄40'12	1°09'18
asc. node	783 Oct 20 j 14:01	29°♄03'40		asc. node	784 Oct 06 j 11:03	9°♄46'11	
morning rise	783 Oct 25 j 10:50	23°♄51'12		morning rise	784 Oct 08 j 20:09	7°♄49'47	
direct	783 Oct 29 j 02:05	22°♄35'12		direct	784 Oct 12 j 00:35	6°♄51'19	
morning max el	783 Nov 05 j 18:16	26°♄59'24	20°06'03	morning max el	784 Oct 19 j 00:36	10°♄47'17	19°07'46
	783 Nov 08 j 11:37	0°♄			784 Nov 02 j 00:50	0°♄	
greatest brilliancy	783 Nov 12 j 18:48	5°♄31'05	-0.6m	morning set	784 Nov 10 j 18:59	13°♄36'34	
desc. node	783 Nov 28 j 16:44	28°♄57'59		desc. node	784 Nov 14 j 13:46	19°♄31'23	
	783 Nov 29 j 08:56	0°♄			784 Nov 21 j 06:21	0°♄	
morning set	783 Dec 02 j 13:49	4°♄55'55		max. Earth dist.	784 Nov 25 j 04:22	6°♄09'38	1.44807 AU
max. Earth dist.	783 Dec 13 j 13:07	22°♄09'32	1.43827 AU				
	783 Dec 18 j 09:40	0°♄		superior conj	784 Nov 27 j 12:38	9°♄51'46	-1°-19'-1
superior conj	783 Dec 19 j 00:36	1°♄01'00	-1°-50'-13	minimum elong	784 Nov 27 j 04:09	9°♄18'15	1°18'08
minimum elong	783 Dec 18 j 18:20	0°♄35'25	1°49'49		784 Dec 10 j 01:29	0°♄	
evening rise	784 Jan 01 j 01:34	22°♄59'10		evening rise	784 Dec 12 j 10:38	3°♄53'52	
	784 Jan 05 j 03:10	0°♄			784 Dec 29 j 00:45	0°♄	
asc. node	784 Jan 16 j 13:20	17°♄56'12		evening max el	785 Jan 01 j 09:34	3°♄59'00	18°33'58
evening max el	784 Jan 18 j 21:30	20°♄35'41	18°11'57	asc. node	785 Jan 02 j 10:22	4°♄58'32	
retrograde	784 Jan 25 j 09:00	24°♄02'16		retrograde	785 Jan 07 j 23:54	7°♄38'00	
evening set	784 Jan 28 j 04:29	23°♄21'38		evening set	785 Jan 11 j 00:40	6°♄46'34	
inferior conj	784 Feb 03 j 10:04	18°♄04'05	3°47'33	inferior conj	785 Jan 16 j 21:56	1°♄10'18	3°37'06
minimum elong	784 Feb 03 j 09:44	18°♄05'00	3°47'33	minimum elong	785 Jan 16 j 20:07	1°♄15'41	3°36'52
min. Earth dist.	784 Feb 06 j 01:46	15°♄13'37	0.62962 AU		785 Jan 17 j 21:33	30°♄	
morning rise	784 Feb 09 j 12:59	12°♄02'53		min. Earth dist.	785 Jan 18 j 22:13	28°♄47'25	0.64680 AU
direct	784 Feb 16 j 12:19	9°♄22'04		morning rise	785 Jan 22 j 14:17	25°♄02'01	
desc. node	784 Feb 24 j 15:56	12°♄22'44		direct	785 Jan 29 j 09:17	22°♄11'05	
morning max el	784 Mar 01 j 10:18	17°♄16'17	27°45'56	desc. node	785 Feb 10 j 12:58	28°♄44'36	
	784 Mar 12 j 00:59	0°♄			785 Feb 11 j 19:57	0°♄	

morning max el	785 Feb 11 j 19:28	29°☿58'48	27°15'56	direct	786 Jan 12 j 12:22	5°☿31'41	
	785 Mar 05 j 23:41	0°☿		morning max el	786 Jan 25 j 05:00	13°☿01'15	26°17'28
morning set	785 Mar 19 j 04:32	23°☿37'15		desc. node	786 Jan 28 j 10:00	16°☿27'36	
	785 Mar 22 j 09:40	0°☿			786 Feb 07 j 22:42	0°☿	
max. Earth dist.	785 Mar 23 j 22:31	3°☿07'39	1.33765 AU		786 Feb 26 j 15:54	0°☿	
				morning set	786 Mar 02 j 07:37	6°☿41'30	
superior conj	785 Mar 27 j 08:56	10°☿16'54	0°-41'-22	max. Earth dist.	786 Mar 06 j 09:44	14°☿30'53	1.35134 AU
minimum elong	785 Mar 27 j 10:57	10°☿27'37	0°40'57				
asc. node	785 Mar 31 j 09:40	18°☿50'52		superior conj	786 Mar 11 j 06:34	24°☿15'53	-1°-8'-7
evening rise	785 Apr 03 j 17:04	25°☿51'00		minimum elong	786 Mar 11 j 09:50	24°☿32'35	1°07'34
	785 Apr 05 j 17:11	0°☿			786 Mar 14 j 01:21	0°☿	
evening max el	785 Apr 24 j 13:43	29°☿28'42	22°01'18	asc. node	786 Mar 18 j 06:42	8°☿46'16	
	785 Apr 25 j 02:56	0°☿		evening rise	786 Mar 19 j 01:09	10°☿21'20	
retrograde	785 May 07 j 06:11	5°☿42'21			786 Mar 29 j 12:58	0°☿	
evening set	785 May 09 j 23:55	5°☿25'42		evening max el	786 Apr 06 j 16:17	10°☿30'08	20°36'52
desc. node	785 May 09 j 12:11	5°☿31'03		retrograde	786 Apr 17 j 19:06	15°☿52'44	
inferior conj	785 May 19 j 08:54	1°☿20'41	-2°-43'-46	evening set	786 Apr 19 j 22:33	15°☿41'33	
minimum elong	785 May 19 j 01:56	1°☿30'28	2°41'36	desc. node	786 Apr 26 j 09:12	13°☿16'17	
min. Earth dist.	785 May 18 j 19:11	1°☿39'56	0.55082 AU	inferior conj	786 Apr 29 j 03:08	11°☿44'01	0°-47'-37
	785 May 21 j 19:29	30°☿		minimum elong	786 Apr 29 j 00:53	11°☿47'15	0°46'49
morning rise	785 May 28 j 05:27	27°☿26'37		min. Earth dist.	786 Apr 30 j 08:01	11°☿02'27	0.55078 AU
direct	785 May 31 j 05:34	27°☿06'29		morning rise	786 May 08 j 01:49	7°☿33'40	
	785 Jun 08 j 18:59	0°☿		direct	786 May 11 j 16:13	7°☿05'43	
morning max el	785 Jun 12 j 03:28	2°☿41'32	21°31'33	morning max el	786 May 24 j 23:01	13°☿31'35	23°09'43
asc. node	785 Jun 27 j 08:54	24°☿43'56			786 Jun 06 j 12:33	0°☿	
	785 Jun 30 j 01:29	0°☿		asc. node	786 Jun 14 j 05:57	14°☿18'11	
morning set	785 Jul 02 j 11:59	4°☿58'38		morning set	786 Jun 16 j 23:09	19°☿54'00	
					786 Jun 21 j 16:46	0°☿	
superior conj	785 Jul 09 j 21:08	20°☿27'21	1°39'38				
minimum elong	785 Jul 09 j 19:20	20°☿18'03	1°39'31	superior conj	786 Jun 24 j 02:29	5°☿09'46	1°27'33
max. Earth dist.	785 Jul 13 j 18:29	28°☿25'49	1.35061 AU	minimum elong	786 Jun 24 j 00:07	4°☿57'05	1°27'16
	785 Jul 14 j 13:17	0°☿		max. Earth dist.	786 Jun 26 j 16:11	10°☿36'59	1.33781 AU
evening rise	785 Jul 18 j 05:23	7°☿10'09		evening rise	786 Jul 01 j 18:58	21°☿05'06	
	785 Jul 31 j 06:39	0°☿			786 Jul 06 j 10:20	0°☿	
desc. node	785 Aug 05 j 11:30	7°☿58'44		desc. node	786 Jul 23 j 08:30	27°☿30'24	
evening max el	785 Aug 22 j 11:25	29°☿09'58	26°45'47		786 Jul 25 j 04:15	0°☿	
	785 Aug 23 j 08:39	0°☿		evening max el	786 Aug 04 j 23:11	12°☿32'25	27°19'10
retrograde	785 Sep 04 j 12:10	6°☿25'05		retrograde	786 Aug 18 j 10:29	19°☿51'05	
evening set	785 Sep 11 j 03:53	3°☿42'59		evening set	786 Aug 25 j 12:05	17°☿07'53	
	785 Sep 14 j 20:38	30°☿		min. Earth dist.	786 Aug 29 j 06:05	13°☿38'52	0.64477 AU
min. Earth dist.	785 Sep 15 j 04:27	29°☿37'26	0.65809 AU	inferior conj	786 Aug 31 j 13:36	11°☿09'21	-3°-2'-17
inferior conj	785 Sep 16 j 23:02	27°☿31'47	-2°-7'-3	minimum elong	786 Aug 31 j 18:07	10°☿57'09	3°00'49
minimum elong	785 Sep 17 j 02:19	27°☿22'04	2°05'48	morning rise	786 Sep 07 j 02:01	5°☿40'42	
morning rise	785 Sep 23 j 02:03	21°☿47'39		direct	786 Sep 09 j 16:00	5°☿06'15	
asc. node	785 Sep 23 j 08:06	21°☿40'06		asc. node	786 Sep 10 j 05:09	5°☿07'50	
direct	785 Sep 25 j 22:02	21°☿02'58		morning max el	786 Sep 16 j 04:07	8°☿33'30	18°00'06
morning max el	785 Oct 02 j 12:42	24°☿40'13	18°25'26		786 Sep 30 j 14:40	0°☿	
	785 Oct 06 j 22:43	0°☿		morning set	786 Oct 03 j 14:07	5°☿02'13	
morning set	785 Oct 22 j 02:20	23°☿37'41					
	785 Oct 26 j 01:15	0°☿		superior conj	786 Oct 17 j 00:41	27°☿17'14	0°15'17
desc. node	785 Nov 01 j 10:46	10°☿12'29		minimum elong	786 Oct 17 j 02:28	27°☿24'25	0°15'03
				behind sun begin	786 Oct 16 j 22:34	27°☿08'42	
superior conj	785 Nov 06 j 13:18	18°☿16'20	0°-33'-20	behind sun end	786 Oct 17 j 06:22	27°☿40'07	
minimum elong	785 Nov 06 j 08:56	17°☿59'10	0°32'46		786 Oct 18 j 17:12	0°☿	
max. Earth dist.	785 Nov 07 j 23:10	20°☿29'33	1.45074 AU	desc. node	786 Oct 19 j 07:48	0°☿58'23	
	785 Nov 14 j 00:33	0°☿		max. Earth dist.	786 Oct 21 j 17:58	4°☿49'49	1.44602 AU
evening rise	785 Nov 22 j 19:59	13°☿50'25		evening rise	786 Nov 02 j 09:55	23°☿02'21	
	785 Dec 03 j 03:10	0°☿			786 Nov 06 j 22:43	0°☿	
greatest brilliancy	785 Dec 05 j 19:58	4°☿08'12	-0.7m	greatest brilliancy	786 Nov 22 j 05:47	22°☿37'30	-0.6m
evening max el	785 Dec 15 j 18:50	17°☿26'05	19°13'22		786 Nov 28 j 03:00	0°☿	
asc. node	785 Dec 20 j 07:24	20°☿53'12		evening max el	786 Nov 28 j 23:28	0°☿54'26	20°08'19
retrograde	785 Dec 22 j 19:35	21°☿27'40		retrograde	786 Dec 06 j 17:15	5°☿27'04	
evening set	785 Dec 26 j 02:52	20°☿24'02		asc. node	786 Dec 07 j 04:26	5°☿25'51	
inferior conj	785 Dec 31 j 18:20	14°☿31'18	3°13'11	evening set	786 Dec 10 j 08:45	4°☿09'37	
minimum elong	785 Dec 31 j 15:46	14°☿39'32	3°12'37		786 Dec 14 j 09:14	30°☿	
min. Earth dist.	786 Jan 02 j 03:33	12°☿45'18	0.66014 AU	inferior conj	786 Dec 15 j 20:33	28°☿03'23	2°39'14
morning rise	786 Jan 06 j 03:50	8°☿18'41		minimum elong	786 Dec 15 j 17:50	28°☿12'30	2°38'26

min. Earth dist.	786 Dec 16 j 16:13	26°♂57'17	0.66950 AU	minimum elong	787 Nov 29 j 23:53	11°♂51'35	1°56'46
morning rise	786 Dec 21 j 02:21	21°♂48'24		min. Earth dist.	787 Nov 30 j 09:59	11°♂16'47	0.67512 AU
direct	786 Dec 26 j 20:56	19°♂15'38		morning rise	787 Dec 05 j 07:04	5°♂28'12	
morning max el	787 Jan 07 j 13:44	26°♂13'50	24°59'32	direct	787 Dec 10 j 10:27	3°♂15'41	
	787 Jan 11 j 01:23	0°♂		morning max el	787 Dec 20 j 22:34	9°♂31'09	23°32'16
desc. node	787 Jan 15 j 07:02	5°♂08'18		desc. node	788 Jan 02 j 04:05	24°♂30'03	
	787 Feb 01 j 12:46	0°♂			788 Jan 06 j 01:58	0°♂	
morning set	787 Feb 12 j 17:05	18°♂49'18		morning set	788 Jan 25 j 02:42	29°♂44'14	
max. Earth dist.	787 Feb 16 j 10:12	25°♂34'09	1.36922 AU		788 Jan 25 j 06:26	0°♂	
	787 Feb 18 j 18:57	0°♂		max. Earth dist.	788 Jan 29 j 05:07	6°♂48'05	1.38996 AU
superior conj	787 Feb 22 j 18:32	7°♂41'19	-1°-32'-28	superior conj	788 Feb 05 j 16:57	20°♂23'19	-1°-51'-46
minimum elong	787 Feb 22 j 22:32	8°♂00'59	1°31'59	minimum elong	788 Feb 05 j 20:33	20°♂40'12	1°51'32
evening rise	787 Mar 03 j 04:10	24°♂30'45			788 Feb 10 j 18:04	0°♂	
asc. node	787 Mar 05 j 03:45	28°♂27'34		evening rise	788 Feb 14 j 23:28	8°♂11'56	
	787 Mar 05 j 22:35	0°♂		asc. node	788 Feb 20 j 00:48	17°♂49'15	
evening max el	787 Mar 20 j 06:19	22°♂09'52	19°29'49		788 Feb 27 j 11:20	0°♂	
retrograde	787 Mar 29 j 16:14	26°♂41'51		evening max el	788 Mar 02 j 06:33	4°♂26'59	18°42'35
evening set	787 Mar 31 j 18:43	26°♂29'15		retrograde	788 Mar 10 j 06:21	8°♂20'22	
inferior conj	787 Apr 09 j 07:38	22°♂23'27	1°06'29	evening set	788 Mar 12 j 13:26	8°♂02'18	
minimum elong	787 Apr 09 j 10:20	22°♂19'07	1°05'34	inferior conj	788 Mar 20 j 07:35	3°♂39'05	2°32'29
min. Earth dist.	787 Apr 11 j 22:33	20°♂42'29	0.56007 AU	minimum elong	788 Mar 20 j 11:47	3°♂31'09	2°31'23
desc. node	787 Apr 13 j 06:15	19°♂54'19		min. Earth dist.	788 Mar 23 j 15:54	1°♂09'29	0.57666 AU
morning rise	787 Apr 17 j 22:14	17°♂41'30			788 Mar 25 j 08:50	30°♂	
direct	787 Apr 22 j 11:42	16°♂54'29		morning rise	788 Mar 28 j 05:52	28°♂24'23	
morning max el	787 May 06 j 13:56	24°♂01'33	24°50'34	desc. node	788 Mar 30 j 03:17	27°♂40'36	
	787 May 12 j 00:18	0°♂		direct	788 Apr 02 j 21:31	27°♂05'18	
	787 May 30 j 02:48	0°♂			788 Apr 11 j 13:05	0°♂	
morning set	787 Jun 01 j 11:06	4°♂51'59		morning max el	788 Apr 17 j 06:05	4°♂38'33	26°19'00
asc. node	787 Jun 01 j 02:59	4°♂09'18			788 May 05 j 16:30	0°♂	
superior conj	787 Jun 08 j 11:52	20°♂03'43	1°10'51	morning set	788 May 15 j 22:15	19°♂47'11	
minimum elong	787 Jun 08 j 09:27	19°♂50'34	1°10'27	asc. node	788 May 18 j 00:03	24°♂11'58	
max. Earth dist.	787 Jun 09 j 21:58	23°♂08'45	1.32896 AU		788 May 20 j 16:10	0°♂	
	787 Jun 13 j 02:52	0°♂		superior conj	788 May 22 j 23:20	5°♂02'37	0°50'26
evening rise	787 Jun 15 j 18:01	5°♂27'54		minimum elong	788 May 22 j 21:20	4°♂51'41	0°50'02
	787 Jun 29 j 01:16	0°♂		max. Earth dist.	788 May 23 j 08:58	5°♂55'31	1.32400 AU
desc. node	787 Jul 10 j 05:33	16°♂20'52		evening rise	788 May 29 j 23:34	20°♂09'27	
evening max el	787 Jul 18 j 08:34	25°♂28'16	27°23'36		788 Jun 03 j 20:54	0°♂	
	787 Jul 23 j 23:55	0°♂			788 Jun 22 j 13:27	0°♂	
retrograde	787 Aug 01 j 02:46	2°♂46'22		desc. node	788 Jun 26 j 02:35	4°♂12'41	
evening set	787 Aug 08 j 07:44	0°♂14'04		evening max el	788 Jun 29 j 13:15	7°♂46'02	26°55'17
	787 Aug 08 j 15:39	30°♂		retrograde	788 Jul 13 j 11:56	15°♂01'28	
min. Earth dist.	787 Aug 11 j 21:46	27°♂15'54	0.62793 AU	evening set	788 Jul 20 j 10:30	12°♂54'09	
inferior conj	787 Aug 14 j 18:00	24°♂31'24	-3°-52'-15	min. Earth dist.	788 Jul 24 j 03:18	10°♂14'34	0.60836 AU
minimum elong	787 Aug 14 j 23:01	24°♂19'17	3°51'01	inferior conj	788 Jul 27 j 08:56	7°♂29'51	-4°-31'-12
morning rise	787 Aug 21 j 16:47	19°♂21'34		minimum elong	788 Jul 27 j 12:56	7°♂21'20	4°30'38
direct	787 Aug 24 j 03:18	18°♂54'13		morning rise	788 Aug 03 j 18:29	2°♂41'29	
asc. node	787 Aug 28 j 02:12	20°♂07'42		direct	788 Aug 06 j 04:11	2°♂18'40	
morning max el	787 Aug 30 j 19:55	22°♂19'59	17°52'34	morning max el	788 Aug 13 j 09:03	5°♂51'49	18°03'52
	787 Sep 05 j 18:20	0°♂		asc. node	788 Aug 13 j 23:15	6°♂27'27	
morning set	787 Sep 16 j 00:59	17°♂32'46			788 Aug 28 j 17:40	0°♂	
	787 Sep 23 j 03:00	0°♂		morning set	788 Aug 29 j 04:55	0°♂52'15	
superior conj	787 Sep 27 j 13:16	7°♂33'38	0°56'01	superior conj	788 Sep 08 j 04:38	19°♂08'54	1°24'23
minimum elong	787 Sep 27 j 17:57	7°♂53'23	0°55'25	minimum elong	788 Sep 08 j 08:54	19°♂27'47	1°23'58
max. Earth dist.	787 Oct 04 j 09:18	18°♂50'20	1.43456 AU		788 Sep 14 j 10:58	0°♂	
desc. node	787 Oct 06 j 04:50	21°♂45'28		max. Earth dist.	788 Sep 15 j 19:14	2°♂15'34	1.41789 AU
	787 Oct 11 j 09:59	0°♂		evening rise	788 Sep 21 j 12:29	11°♂36'55	
evening rise	787 Oct 12 j 17:32	2°♂02'43		desc. node	788 Sep 22 j 01:53	12°♂30'28	
	787 Oct 31 j 12:35	0°♂			788 Oct 03 j 11:12	0°♂	
greatest brilliancy	787 Nov 06 j 18:21	8°♂23'29	-0.4m	greatest brilliancy	788 Oct 19 j 20:30	22°♂29'54	-0.3m
evening max el	787 Nov 11 j 22:25	14°♂23'14	21°16'09	evening max el	788 Oct 24 j 15:59	27°♂53'40	22°32'52
retrograde	787 Nov 20 j 14:44	19°♂32'44			788 Oct 26 j 21:37	0°♂	
asc. node	787 Nov 24 j 01:28	18°♂26'14		retrograde	788 Nov 03 j 10:12	3°♂41'42	
evening set	787 Nov 24 j 16:22	17°♂59'44		evening set	788 Nov 07 j 23:58	1°♂51'40	
inferior conj	787 Nov 30 j 02:14	11°♂43'31	1°57'36	asc. node	788 Nov 09 j 22:30	29°♂58'00	

	788 Nov 09 j 21:48	30° \mathbb{M}		min. Earth dist.	789 Oct 28 j 02:49	10° \mathbb{M} 04'45	0.67623 AU
inferior conj	788 Nov 13 j 09:25	25° \mathbb{M} 29'16	1°10'01	inferior conj	789 Oct 28 j 16:21	9° \mathbb{M} 18'47	0°17'55
minimum elong	788 Nov 13 j 07:52	25° \mathbb{M} 34'38	1°09'23	minimum elong	789 Oct 28 j 15:55	9° \mathbb{M} 20'15	0°17'44
min. Earth dist.	788 Nov 13 j 06:20	25° \mathbb{M} 39'58	0.67733 AU	morning rise	789 Nov 03 j 02:05	3° \mathbb{M} 10'05	
morning rise	788 Nov 18 j 15:40	19° \mathbb{M} 15'57		direct	789 Nov 07 j 00:39	1° \mathbb{M} 42'14	
direct	788 Nov 23 j 04:03	17° \mathbb{M} 26'00		morning max el	789 Nov 15 j 04:53	6° \mathbb{M} 26'44	20°46'06
morning max el	788 Dec 02 j 10:28	22° \mathbb{M} 53'58	22°05'14	greatest brilliancy	789 Nov 21 j 01:29	13° \mathbb{M} 18'50	-0.5m
greatest brilliancy	788 Dec 07 j 03:04	28° \mathbb{M} 10'52	-0.4m		789 Dec 02 j 21:01	0° \mathbb{Z}	
	788 Dec 08 j 14:08	0° \mathbb{Z}		desc. node	789 Dec 05 j 22:10	4° \mathbb{Z} 33'23	
desc. node	788 Dec 19 j 01:08	14° \mathbb{Z} 21'02		morning set	789 Dec 14 j 10:37	17° \mathbb{Z} 35'57	
	788 Dec 29 j 11:08	0° \mathbb{Z}			789 Dec 22 j 06:32	0° \mathbb{Z}	
morning set	789 Jan 04 j 07:19	9° \mathbb{Z} 14'05		max. Earth dist.	789 Dec 23 j 07:35	1° \mathbb{Z} 41'15	1.42983 AU
max. Earth dist.	789 Jan 10 j 02:24	18° \mathbb{Z} 45'18	1.41118 AU				
	789 Jan 16 j 15:37	0° \mathbb{Z}		superior conj	789 Dec 30 j 01:04	12° \mathbb{Z} 47'40	-1°-59'-39
				minimum elong	789 Dec 29 j 21:45	12° \mathbb{Z} 33'43	1°59'32
superior conj	789 Jan 17 j 20:52	2° \mathbb{Z} 09'11	-2°-2'-23		790 Jan 09 j 00:05	0° \mathbb{Z}	
minimum elong	789 Jan 17 j 22:08	2° \mathbb{Z} 14'47	2°02'23	evening rise	790 Jan 11 j 00:58	3° \mathbb{Z} 36'32	
evening rise	789 Jan 28 j 07:42	21° \mathbb{Z} 16'13		asc. node	790 Jan 23 j 18:53	25° \mathbb{Z} 03'34	
	789 Feb 02 j 01:18	0° \mathbb{H}			790 Jan 27 j 18:16	0° \mathbb{H}	
asc. node	789 Feb 05 j 21:51	6° \mathbb{H} 43'52		evening max el	790 Jan 28 j 01:24	0° \mathbb{H} 18'03	18°07'36
evening max el	789 Feb 13 j 13:57	17° \mathbb{H} 12'22	18°15'18	retrograde	790 Feb 03 j 14:50	3° \mathbb{H} 42'19	
retrograde	789 Feb 20 j 14:54	20° \mathbb{H} 43'24		evening set	790 Feb 06 j 07:48	3° \mathbb{H} 07'08	
evening set	789 Feb 23 j 03:12	20° \mathbb{H} 17'25			790 Feb 10 j 18:27	30° \mathbb{R}	
inferior conj	789 Mar 02 j 04:23	15° \mathbb{H} 32'56	3°23'52	inferior conj	790 Feb 12 j 19:30	28° \mathbb{R} 01'03	3°45'35
minimum elong	789 Mar 02 j 07:20	15° \mathbb{H} 26'29	3°23'26	minimum elong	790 Feb 12 j 20:17	27° \mathbb{R} 59'03	3°45'32
min. Earth dist.	789 Mar 05 j 13:50	12° \mathbb{H} 36'12	0.59726 AU	min. Earth dist.	790 Feb 15 j 19:10	25° \mathbb{R} 02'16	0.61838 AU
morning rise	789 Mar 09 j 07:57	9° \mathbb{H} 53'56		morning rise	790 Feb 19 j 06:21	22° \mathbb{R} 06'14	
direct	789 Mar 15 j 20:02	7° \mathbb{H} 57'28		direct	790 Feb 26 j 04:28	19° \mathbb{R} 38'18	
desc. node	789 Mar 17 j 00:19	8° \mathbb{H} 01'12		desc. node	790 Mar 03 j 21:22	21° \mathbb{R} 07'00	
morning max el	789 Mar 30 j 03:16	15° \mathbb{H} 44'08	27°20'58	morning max el	790 Mar 12 j 06:42	27° \mathbb{R} 30'49	27°47'35
	789 Apr 10 j 18:15	0° \mathbb{Y}			790 Mar 14 j 15:52	0° \mathbb{H}	
	789 Apr 28 j 01:37	0° \mathbb{Y}			790 Apr 04 j 10:25	0° \mathbb{Y}	
morning set	789 Apr 30 j 06:48	4° \mathbb{Y} 32'20		morning set	790 Apr 14 j 10:49	19° \mathbb{Y} 01'08	
asc. node	789 May 04 j 21:07	14° \mathbb{Y} 20'28			790 Apr 19 j 16:13	0° \mathbb{Y}	
				max. Earth dist.	790 Apr 20 j 07:46	1° \mathbb{Y} 23'58	1.32528 AU
superior conj	789 May 07 j 11:01	19° \mathbb{Y} 59'09	0°27'01				
minimum elong	789 May 07 j 09:50	19° \mathbb{Y} 52'39	0°26'46	superior conj	790 Apr 21 j 21:17	4° \mathbb{Y} 47'33	0°01'23
max. Earth dist.	789 May 06 j 21:29	18° \mathbb{Y} 44'48	1.32274 AU	minimum elong	790 Apr 21 j 21:13	4° \mathbb{Y} 47'12	0°01'23
	789 May 12 j 00:54	0° \mathbb{I}		behind sun begin	790 Apr 21 j 16:07	4° \mathbb{Y} 19'25	
evening rise	789 May 14 j 09:06	5° \mathbb{I} 00'25		behind sun end	790 Apr 22 j 02:19	5° \mathbb{Y} 15'01	
	789 May 27 j 15:52	0° \mathbb{E}		asc. node	790 Apr 21 j 18:10	4° \mathbb{Y} 30'37	
evening max el	789 Jun 11 j 11:17	19° \mathbb{E} 18'18	25°55'07	evening rise	790 Apr 28 j 20:37	19° \mathbb{Y} 53'56	
desc. node	789 Jun 12 j 23:36	20° \mathbb{E} 41'12			790 May 03 j 19:17	0° \mathbb{I}	
retrograde	789 Jun 25 j 12:06	26° \mathbb{E} 29'26			790 May 23 j 23:15	0° \mathbb{E}	
evening set	789 Jul 01 j 15:43	24° \mathbb{E} 58'29		evening max el	790 May 24 j 03:06	0° \mathbb{E} 09'18	24°30'30
min. Earth dist.	789 Jul 05 j 23:51	22° \mathbb{E} 20'20	0.58775 AU	desc. node	790 May 30 j 20:37	5° \mathbb{E} 13'55	
inferior conj	789 Jul 09 j 06:49	19° \mathbb{E} 54'59	-4°-50'-8	retrograde	790 Jun 07 j 00:56	7° \mathbb{E} 11'00	
minimum elong	789 Jul 09 j 07:35	19° \mathbb{E} 53'34	4°50'08	evening set	790 Jun 11 j 21:35	6° \mathbb{E} 18'00	
morning rise	789 Jul 17 j 03:01	15° \mathbb{E} 29'26		min. Earth dist.	790 Jun 17 j 14:17	3° \mathbb{E} 24'12	0.56885 AU
direct	789 Jul 19 j 14:27	15° \mathbb{E} 09'10		inferior conj	790 Jun 20 j 08:48	1° \mathbb{E} 37'48	-4°-36'-23
morning max el	789 Jul 27 j 16:21	19° \mathbb{E} 00'04	18°35'16	minimum elong	790 Jun 20 j 04:37	1° \mathbb{E} 44'32	4°35'55
asc. node	789 Jul 31 j 20:19	23° \mathbb{E} 51'44			790 Jun 22 j 23:44	30° \mathbb{R} \mathbb{I}	
	789 Aug 04 j 20:21	0° \mathbb{Q}		morning rise	790 Jun 28 j 15:24	27° \mathbb{I} 33'08	
morning set	789 Aug 12 j 21:00	14° \mathbb{Q} 47'34		direct	790 Jul 01 j 06:15	27° \mathbb{I} 14'18	
	789 Aug 20 j 18:44	0° \mathbb{P}			790 Jul 08 j 17:26	0° \mathbb{E}	
				morning max el	790 Jul 10 j 14:54	1° \mathbb{E} 35'24	19°27'47
superior conj	789 Aug 21 j 18:09	1° \mathbb{P} 49'59	1°40'35	asc. node	790 Jul 18 j 17:23	12° \mathbb{E} 06'19	
minimum elong	789 Aug 21 j 20:31	2° \mathbb{P} 01'03	1°40'27	morning set	790 Jul 27 j 21:35	29° \mathbb{E} 08'39	
max. Earth dist.	789 Aug 29 j 00:25	14° \mathbb{P} 59'00	1.39819 AU		790 Jul 28 j 07:51	0° \mathbb{Q}	
evening rise	789 Sep 02 j 06:02	22° \mathbb{P} 14'38					
	789 Sep 06 j 23:18	0° \mathbb{L}		superior conj	790 Aug 05 j 00:12	15° \mathbb{Q} 21'07	1°46'28
desc. node	789 Sep 08 j 22:55	3° \mathbb{L} 09'42		minimum elong	790 Aug 05 j 00:34	15° \mathbb{Q} 22'55	1°46'29
	789 Sep 27 j 11:10	0° \mathbb{M}		max. Earth dist.	790 Aug 11 j 04:07	27° \mathbb{Q} 06'06	1.37798 AU
evening max el	789 Oct 07 j 05:42	11° \mathbb{M} 27'41	23°53'00		790 Aug 12 j 18:06	0° \mathbb{P}	
retrograde	789 Oct 18 j 02:22	17° \mathbb{M} 51'09		evening rise	790 Aug 14 j 23:50	4° \mathbb{P} 00'50	
evening set	789 Oct 23 j 05:56	15° \mathbb{M} 43'22		desc. node	790 Aug 26 j 19:55	23° \mathbb{P} 38'29	
asc. node	789 Oct 27 j 19:32	10° \mathbb{M} 29'21			790 Aug 31 j 00:39	0° \mathbb{L}	

evening max el	790 Sep 19 j 17:34	25°♄04'40	25°09'47		791 Aug 25 j 09:50	0°♄	
	790 Sep 25 j 18:27	0°♄		evening max el	791 Sep 02 j 05:15	8°♄42'16	26°15'40
retrograde	790 Oct 01 j 14:17	1°♄56'20		retrograde	791 Sep 14 j 21:28	15°♄52'23	
	790 Oct 06 j 18:34	30°♄		evening set	791 Sep 21 j 05:56	13°♄14'35	
evening set	790 Oct 07 j 08:32	29°♄31'44		min. Earth dist.	791 Sep 25 j 10:35	8°♄47'45	0.66417 AU
min. Earth dist.	790 Oct 11 j 20:59	24°♄28'11	0.67188 AU	inferior conj	791 Sep 26 j 22:16	6°♄57'49	-1°-34'-16
inferior conj	790 Oct 12 j 21:14	23°♄08'59	0°-37'-21	minimum elong	791 Sep 27 j 00:43	6°♄50'17	1°33'17
minimum elong	790 Oct 12 j 22:10	23°♄05'55	0°36'58	asc. node	791 Oct 01 j 13:37	1°♄59'35	
asc. node	790 Oct 14 j 16:35	20°♄50'53		morning rise	791 Oct 02 j 20:32	1°♄06'40	
morning rise	790 Oct 18 j 12:22	17°♄07'40		direct	791 Oct 05 j 21:03	0°♄14'39	
direct	790 Oct 21 j 22:50	15°♄59'30		morning max el	791 Oct 12 j 16:18	4°♄01'24	18°47'43
morning max el	790 Oct 29 j 07:07	20°♄09'58	19°39'25		791 Oct 30 j 18:43	0°♄	
	790 Nov 06 j 04:15	0°♄		morning set	791 Nov 02 j 22:53	5°♄01'09	
greatest brilliancy	790 Nov 06 j 11:56	0°♄27'08	-0.6m	desc. node	791 Nov 09 j 16:12	15°♄37'36	
desc. node	790 Nov 22 j 19:11	25°♄00'20		max. Earth dist.	791 Nov 18 j 13:18	29°♄34'52	1.45015 AU
morning set	790 Nov 23 j 07:46	25°♄49'00			791 Nov 18 j 19:42	0°♄	
	790 Nov 26 j 00:32	0°♄		superior conj	791 Nov 19 j 07:10	0°♄45'06	-1°00'-49
max. Earth dist.	790 Dec 05 j 20:15	15°♄24'20	1.44334 AU	minimum elong	791 Nov 18 j 23:45	0°♄15'56	0°59'56
				evening rise	791 Dec 04 j 21:52	25°♄33'54	
superior conj	790 Dec 10 j 02:28	22°♄12'40	-1°-39'-13		791 Dec 07 j 15:55	0°♄	
minimum elong	790 Dec 09 j 18:34	21°♄40'56	1°38'34	evening max el	791 Dec 26 j 00:56	27°♄00'52	18°48'39
	790 Dec 14 j 21:37	0°♄		asc. node	791 Dec 28 j 12:55	29°♄12'43	
evening rise	790 Dec 23 j 22:53	15°♄04'14			791 Dec 29 j 19:11	0°♄	
	791 Jan 01 j 20:38	0°♄		retrograde	792 Jan 01 j 19:02	0°♄48'48	
asc. node	791 Jan 10 j 15:54	12°♄37'30		evening set	792 Jan 04 j 22:17	29°♄52'28	
evening max el	791 Jan 11 j 13:54	13°♄36'04	18°19'02		792 Jan 04 j 17:03	30°♄	
retrograde	791 Jan 18 j 01:36	17°♄06'41		inferior conj	792 Jan 10 j 16:48	24°♄08'43	3°28'20
evening set	791 Jan 20 j 23:14	16°♄21'31		minimum elong	792 Jan 10 j 14:34	24°♄15'32	3°27'59
inferior conj	791 Jan 27 j 00:54	10°♄55'25	3°45'02	min. Earth dist.	792 Jan 12 j 10:30	22°♄00'43	0.65294 AU
minimum elong	791 Jan 26 j 23:51	10°♄58'22	3°44'57	morning rise	792 Jan 16 j 05:46	17°♄58'01	
min. Earth dist.	791 Jan 29 j 09:59	8°♄15'21	0.63738 AU	direct	792 Jan 22 j 20:45	15°♄07'14	
morning rise	791 Feb 01 j 22:50	4°♄50'42		morning max el	792 Feb 05 j 00:36	22°♄49'37	26°54'02
direct	791 Feb 08 j 21:05	2°♄04'07		desc. node	792 Feb 05 j 15:25	23°♄27'18	
desc. node	791 Feb 18 j 18:23	6°♄27'33			792 Feb 11 j 09:23	0°♄	
morning max el	791 Feb 22 j 14:48	9°♄56'26	27°37'14		792 Mar 02 j 14:40	0°♄	
	791 Mar 10 j 08:13	0°♄		morning set	792 Mar 11 j 18:41	16°♄36'03	
	791 Mar 27 j 18:02	0°♄		max. Earth dist.	792 Mar 16 j 05:46	25°♄22'11	1.34286 AU
morning set	791 Mar 29 j 07:51	3°♄05'50			792 Mar 18 j 12:21	0°♄	
max. Earth dist.	791 Apr 03 j 11:49	13°♄39'53	1.33185 AU				
				superior conj	792 Mar 20 j 06:08	3°♄36'23	0°-52'-53
superior conj	791 Apr 06 j 04:21	19°♄22'16	0°-25'-37	minimum elong	792 Mar 20 j 08:44	3°♄49'53	0°52'24
minimum elong	791 Apr 06 j 05:36	19°♄28'56	0°25'22	asc. node	792 Mar 25 j 12:15	14°♄39'50	
asc. node	791 Apr 08 j 15:13	24°♄38'36		evening rise	792 Mar 27 j 18:15	19°♄22'49	
	791 Apr 11 j 02:58	0°♄			792 Apr 02 j 01:14	0°♄	
evening rise	791 Apr 13 j 08:18	4°♄43'38		evening max el	792 Apr 16 j 14:11	21°♄24'54	21°23'37
	791 Apr 27 j 01:59	0°♄		retrograde	792 Apr 28 j 16:20	27°♄18'31	
evening max el	791 May 05 j 17:35	10°♄41'08	22°55'09	evening set	792 May 01 j 01:35	27°♄05'30	
desc. node	791 May 17 j 17:38	17°♄14'58		desc. node	792 May 03 j 14:40	26°♄25'03	
retrograde	791 May 19 j 01:31	17°♄18'58		inferior conj	792 May 10 j 10:32	23°♄05'33	-1°-56'-32
evening set	791 May 22 j 11:17	16°♄53'30		minimum elong	792 May 10 j 05:09	23°♄13'06	1°54'43
min. Earth dist.	791 May 30 j 02:29	13°♄30'22	0.55505 AU	min. Earth dist.	792 May 10 j 15:07	22°♄59'05	0.54951 AU
inferior conj	791 May 31 j 15:33	12°♄36'53	-3°-38'-2	morning rise	792 May 19 j 09:00	19°♄06'47	
minimum elong	791 May 31 j 08:05	12°♄47'41	3°36'10	direct	792 May 22 j 13:43	18°♄44'33	
morning rise	791 Jun 09 j 07:50	8°♄44'02		morning max el	792 Jun 04 j 03:30	24°♄42'18	22°12'14
direct	791 Jun 12 j 03:18	8°♄25'27			792 Jun 08 j 23:36	0°♄	
morning max el	791 Jun 23 j 02:40	13°♄30'29	20°41'10	asc. node	792 Jun 21 j 11:29	20°♄20'32	
	791 Jul 05 j 01:15	0°♄		morning set	792 Jun 25 j 13:51	28°♄39'01	
asc. node	791 Jul 05 j 14:26	0°♄59'21			792 Jun 26 j 05:20	0°♄	
morning set	791 Jul 12 j 03:56	13°♄48'15					
				superior conj	792 Jul 02 j 20:06	14°♄01'10	1°35'10
superior conj	791 Jul 19 j 18:06	29°♄28'57	1°44'06	minimum elong	792 Jul 02 j 18:00	13°♄50'04	1°34'58
minimum elong	791 Jul 19 j 16:56	29°♄22'58	1°44'03	max. Earth dist.	792 Jul 06 j 03:23	20°♄53'57	1.34460 AU
	791 Jul 20 j 00:11	0°♄		evening rise	792 Jul 10 j 20:52	0°♄21'11	
max. Earth dist.	791 Jul 24 j 11:35	8°♄56'27	1.35961 AU		792 Jul 10 j 16:30	0°♄	
evening rise	791 Jul 28 j 14:25	16°♄47'38			792 Jul 28 j 02:03	0°♄	
	791 Aug 05 j 00:56	0°♄		desc. node	792 Jul 30 j 13:59	3°♄41'02	
desc. node	791 Aug 13 j 16:57	13°♄51'36					

evening max el	792 Aug 14 j 17:15	22° \mathbb{M} 13'09	27°03'08	superior conj	793 Jun 17 j 03:26	28° \mathbb{H} 49'06	1°20'59
retrograde	792 Aug 27 j 23:24	29° \mathbb{M} 31'28		minimum elong	793 Jun 17 j 00:58	28° \mathbb{H} 35'51	1°20'38
evening set	792 Sep 03 j 19:47	26° \mathbb{M} 47'31			793 Jun 17 j 16:35	0° \mathfrak{E}	
min. Earth dist.	792 Sep 07 j 17:17	22° \mathbb{M} 57'48	0.65284 AU	max. Earth dist.	793 Jun 19 j 04:40	3° \mathfrak{E} 13'15	1.33357 AU
inferior conj	792 Sep 09 j 17:21	20° \mathbb{M} 40'56	-2°-30'-53	evening rise	793 Jun 24 j 14:54	14° \mathfrak{E} 29'14	
minimum elong	792 Sep 09 j 21:13	20° \mathbb{M} 29'55	2°29'29		793 Jul 02 j 19:20	0° \mathcal{O}	
morning rise	792 Sep 16 j 00:15	15° \mathbb{M} 03'03		desc. node	793 Jul 17 j 11:01	22° \mathcal{O} 56'41	
asc. node	792 Sep 17 j 10:40	14° \mathbb{M} 32'09			793 Jul 23 j 01:29	0° \mathbb{M}	
direct	792 Sep 18 j 17:15	14° \mathbb{M} 23'18		evening max el	793 Jul 28 j 04:26	5° \mathbb{M} 26'12	27°25'00
morning max el	792 Sep 25 j 06:11	17° \mathbb{M} 55'36	18°12'30	retrograde	793 Aug 10 j 19:19	12° \mathbb{M} 44'59	
	792 Oct 04 j 04:08	0° \mathfrak{A}		evening set	793 Aug 17 j 23:06	10° \mathbb{M} 05'06	
morning set	792 Oct 13 j 18:45	15° \mathfrak{A} 39'21		min. Earth dist.	793 Aug 21 j 15:03	6° \mathbb{M} 49'54	0.63795 AU
	792 Oct 22 j 13:56	0° \mathbb{M}		inferior conj	793 Aug 24 j 03:58	4° \mathbb{M} 12'48	-3°-24'-26
desc. node	792 Oct 26 j 13:15	6° \mathbb{M} 21'31		minimum elong	793 Aug 24 j 08:50	4° \mathbb{M} 00'15	3°23'01
					793 Aug 28 j 19:24	30° \mathcal{R} \mathcal{O}	
superior conj	792 Oct 28 j 09:58	9° \mathbb{M} 19'05	0°-12'-20	morning rise	793 Aug 30 j 20:41	28° \mathcal{O} 51'28	
minimum elong	792 Oct 28 j 08:23	9° \mathbb{M} 12'48	0°12'07	direct	793 Sep 02 j 08:48	28° \mathcal{O} 20'24	
behind sun begin	792 Oct 28 j 00:59	8° \mathbb{M} 43'31		asc. node	793 Sep 04 j 07:44	28° \mathcal{O} 39'36	
behind sun end	792 Oct 28 j 15:46	9° \mathbb{M} 42'04			793 Sep 06 j 20:43	0° \mathbb{M}	
max. Earth dist.	792 Oct 31 j 07:59	13° \mathbb{M} 55'38	1.44960 AU	morning max el	793 Sep 08 j 22:03	1° \mathbb{M} 46'20	17°54'38
	792 Nov 10 j 14:34	0° \mathfrak{A}		morning set	793 Sep 25 j 17:10	27° \mathbb{M} 34'25	
evening rise	792 Nov 13 j 21:57	5° \mathfrak{A} 08'56			793 Sep 27 j 02:56	0° \mathfrak{A}	
greatest brilliancy	792 Nov 30 j 03:52	29° \mathfrak{A} 58'53	-0.7m				
	792 Nov 30 j 04:11	0° \mathfrak{B}		superior conj	793 Oct 08 j 07:05	18° \mathfrak{A} 49'25	0°33'56
evening max el	792 Dec 08 j 08:27	10° \mathfrak{B} 29'18	19°35'00	minimum elong	793 Oct 08 j 10:36	19° \mathfrak{A} 03'50	0°33'27
asc. node	792 Dec 14 j 09:56	14° \mathfrak{B} 34'42		desc. node	793 Oct 13 j 10:18	27° \mathfrak{A} 08'26	
retrograde	792 Dec 15 j 15:51	14° \mathfrak{B} 43'21		max. Earth dist.	793 Oct 14 j 01:32	28° \mathfrak{A} 09'19	1.44191 AU
evening set	792 Dec 19 j 02:19	13° \mathfrak{B} 34'16			793 Oct 15 j 05:20	0° \mathbb{M}	
inferior conj	792 Dec 24 j 16:01	7° \mathfrak{B} 35'36	2°59'50	evening rise	793 Oct 24 j 07:06	14° \mathbb{M} 10'54	
minimum elong	792 Dec 24 j 13:19	7° \mathfrak{B} 44'27	2°59'10		793 Nov 03 j 17:14	0° \mathfrak{A}	
min. Earth dist.	792 Dec 25 j 19:22	6° \mathfrak{B} 06'06	0.66460 AU	greatest brilliancy	793 Nov 15 j 12:27	16° \mathfrak{A} 52'57	-0.5m
morning rise	792 Dec 29 j 23:34	1° \mathfrak{B} 21'33		evening max el	793 Nov 21 j 10:51	23° \mathfrak{A} 58'39	20°35'51
	792 Dec 31 j 18:04	30° \mathcal{R} \mathfrak{A}		retrograde	793 Nov 29 j 13:34	28° \mathfrak{A} 46'02	
direct	793 Jan 05 j 02:30	28° \mathfrak{A} 39'17		asc. node	793 Dec 01 j 06:59	28° \mathfrak{A} 29'12	
	793 Jan 09 j 21:38	0° \mathfrak{B}		evening set	793 Dec 03 j 09:09	27° \mathfrak{A} 22'14	
morning max el	793 Jan 17 j 09:47	5° \mathfrak{B} 57'47	25°46'00	inferior conj	793 Dec 08 j 19:58	21° \mathfrak{A} 11'35	2°22'23
desc. node	793 Jan 22 j 12:27	11° \mathfrak{B} 37'43		minimum elong	793 Dec 08 j 17:21	21° \mathfrak{A} 20'29	2°21'33
	793 Feb 05 j 00:12	0° \approx		min. Earth dist.	793 Dec 09 j 10:27	20° \mathfrak{A} 22'17	0.67240 AU
morning set	793 Feb 22 j 15:01	29° \approx 18'55		morning rise	793 Dec 14 j 01:04	14° \mathfrak{A} 56'21	
	793 Feb 22 j 23:58	0° \mathfrak{H}		direct	793 Dec 19 j 13:23	12° \mathfrak{A} 31'27	
max. Earth dist.	793 Feb 26 j 11:45	6° \mathfrak{H} 33'03	1.35844 AU	morning max el	793 Dec 30 j 18:04	19° \mathfrak{A} 12'02	24°22'52
					794 Jan 08 j 22:00	0° \mathfrak{B}	
superior conj	793 Mar 04 j 00:06	17° \mathfrak{H} 22'46	-1°-18'-53	desc. node	794 Jan 09 j 09:29	0° \mathfrak{B} 37'44	
minimum elong	793 Mar 04 j 03:47	17° \mathfrak{H} 41'14	1°18'20		794 Jan 29 j 03:30	0° \approx	
	793 Mar 10 j 04:27	0° \mathbb{Y}		morning set	794 Feb 04 j 15:04	10° \approx 57'29	
evening rise	793 Mar 12 j 00:29	3° \mathbb{Y} 45'17		max. Earth dist.	794 Feb 08 j 08:43	17° \approx 35'33	1.37789 AU
asc. node	793 Mar 12 j 09:18	4° \mathbb{Y} 30'07					
	793 Mar 27 j 09:13	0° \mathfrak{B}		superior conj	794 Feb 15 j 06:51	0° \mathfrak{H} 31'22	-1°-41'-29
evening max el	793 Mar 29 j 21:45	2° \mathfrak{B} 42'54	20°06'05	minimum elong	794 Feb 15 j 10:52	0° \mathfrak{H} 50'42	1°41'04
retrograde	793 Apr 09 j 06:53	7° \mathfrak{B} 42'37			794 Feb 15 j 00:19	0° \mathfrak{H}	
evening set	793 Apr 11 j 08:41	7° \mathfrak{B} 31'32		evening rise	794 Feb 24 j 00:33	17° \mathfrak{H} 43'29	
inferior conj	793 Apr 20 j 07:34	3° \mathfrak{B} 32'35	0°02'57	asc. node	794 Feb 27 j 06:20	24° \mathfrak{H} 03'45	
minimum elong	793 Apr 20 j 07:42	3° \mathfrak{B} 32'23	0°02'54		794 Mar 02 j 10:40	0° \mathbb{Y}	
transit middle	793 Apr 20 j 07:42	3° \mathfrak{B} 32'23	0°02'54	evening max el	794 Mar 12 j 16:28	14° \mathbb{Y} 39'17	19°07'13
transit begin	793 Apr 20 j 03:45	3° \mathfrak{B} 38'17		retrograde	794 Mar 21 j 10:16	18° \mathbb{Y} 52'29	
transit end	793 Apr 20 j 11:38	3° \mathfrak{B} 26'28		evening set	794 Mar 23 j 14:40	18° \mathbb{Y} 37'49	
desc. node	793 Apr 20 j 11:40	3° \mathfrak{B} 26'25		inferior conj	794 Mar 31 j 19:35	14° \mathbb{Y} 25'19	1°47'11
min. Earth dist.	793 Apr 22 j 04:52	2° \mathfrak{B} 24'50	0.55367 AU	minimum elong	794 Mar 31 j 23:23	14° \mathbb{Y} 18'48	1°46'02
	793 Apr 26 j 19:37	30° \mathcal{R} \mathbb{Y}		min. Earth dist.	794 Apr 03 j 20:08	12° \mathbb{Y} 21'47	0.56651 AU
morning rise	793 Apr 29 j 04:01	29° \mathbb{Y} 09'35		desc. node	794 Apr 07 j 08:42	10° \mathbb{Y} 17'19	
direct	793 May 03 j 03:30	28° \mathbb{Y} 34'56		morning rise	794 Apr 09 j 03:59	9° \mathbb{Y} 29'13	
	793 May 09 j 07:17	0° \mathfrak{B}		direct	794 Apr 14 j 05:04	8° \mathbb{Y} 29'47	
morning max el	793 May 16 j 20:18	5° \mathfrak{B} 20'42	23°53'03	morning max el	794 Apr 28 j 10:48	15° \mathbb{Y} 49'03	25°30'39
	793 Jun 03 j 05:41	0° \mathbb{H}			794 May 09 j 21:10	0° \mathfrak{B}	
asc. node	793 Jun 08 j 08:33	10° \mathbb{H} 02'34		morning set	794 May 25 j 13:20	28° \mathfrak{B} 33'00	
morning set	793 Jun 10 j 01:31	13° \mathbb{H} 35'41		asc. node	794 May 26 j 05:38	29° \mathfrak{B} 59'14	
					794 May 26 j 05:47	0° \mathbb{H}	

superior conj	794 Jun 01 j 13:54	13°II45'37	1°02'35	morning set	795 May 09 j 23:34	13°824'48	
minimum elong	794 Jun 01 j 11:36	13°II33'06	1°02'11	asc. node	795 May 13 j 02:40	20°804'55	
max. Earth dist.	794 Jun 02 j 13:14	15°II53'10	1.32641 AU				
evening rise	794 Jun 08 j 17:03	29°II01'08		superior conj	795 May 17 j 01:37	28°844'02	0°40'48
	794 Jun 09 j 04:29	0°☾		minimum elong	795 May 16 j 23:55	28°834'43	0°40'28
	794 Jun 25 j 23:44	0°♂		max. Earth dist.	795 May 17 j 01:30	28°843'23	1.32300 AU
desc. node	794 Jul 04 j 08:02	11°♂24'41			795 May 17 j 15:26	0°♂	
evening max el	794 Jul 10 j 12:21	18°♂08'03	27°15'45	evening rise	795 May 24 j 00:31	13°II47'28	
retrograde	794 Jul 24 j 08:27	25°♂24'15			795 Jun 01 j 06:07	0°☾	
evening set	794 Jul 31 j 12:08	23°♂01'11		desc. node	795 Jun 21 j 05:04	28°☾44'33	
min. Earth dist.	794 Aug 04 j 02:22	20°♂12'43	0.61984 AU		795 Jun 22 j 11:34	0°♂	
inferior conj	794 Aug 07 j 03:07	17°♂26'20	-4°-10'-35	evening max el	795 Jun 22 j 14:14	0°♂06'22	26°33'18
minimum elong	794 Aug 07 j 07:56	17°♂15'17	4°09'36	retrograde	795 Jul 06 j 13:49	7°♂20'09	
morning rise	794 Aug 14 j 06:25	12°♂25'06		evening set	795 Jul 13 j 06:13	5°♂27'00	
direct	794 Aug 16 j 16:24	11°♂59'49		min. Earth dist.	795 Jul 17 j 03:29	2°♂50'43	0.59956 AU
asc. node	794 Aug 22 j 04:48	14°♂15'25		inferior conj	795 Jul 20 j 11:12	0°♂11'37	-4°-42'-23
morning max el	794 Aug 23 j 13:03	15°♂27'28	17°55'02	minimum elong	795 Jul 20 j 14:07	0°♂05'45	4°42'08
	794 Sep 02 j 15:26	0°♂			795 Jul 20 j 16:59	30°R☾	
morning set	794 Sep 08 j 12:01	10°♂28'22		morning rise	795 Jul 28 j 01:20	25°☾33'11	
				direct	795 Jul 30 j 11:37	25°☾11'34	
superior conj	794 Sep 19 j 07:24	29°♂40'32	1°09'37	morning max el	795 Aug 07 j 00:05	28°☾50'29	18°14'48
minimum elong	794 Sep 19 j 12:12	0°♂01'13	1°09'03		795 Aug 08 j 03:14	0°♂	
	794 Sep 19 j 11:55	0°♂		asc. node	795 Aug 09 j 01:52	1°♂04'32	
max. Earth dist.	794 Sep 26 j 15:18	11°♂59'02	1.42801 AU	morning set	795 Aug 22 j 21:36	24°♂04'24	
desc. node	794 Sep 30 j 07:21	17°♂55'24			795 Aug 26 j 00:45	0°♂	
evening rise	794 Oct 03 j 17:39	23°♂21'24					
	794 Oct 08 j 00:28	0°♂		superior conj	795 Sep 01 j 08:53	11°♂45'59	1°32'39
	794 Oct 28 j 21:58	0°♂		minimum elong	795 Sep 01 j 12:25	12°♂02'01	1°32'22
greatest brilliancy	794 Oct 30 j 12:01	1°♂59'55	-0.4m	max. Earth dist.	795 Sep 08 j 23:16	25°♂07'54	1.40969 AU
evening max el	794 Nov 04 j 07:31	7°♂28'50	21°47'55		795 Sep 11 j 20:46	0°♂	
retrograde	794 Nov 13 j 10:19	12°♂54'13		evening rise	795 Sep 13 j 21:21	3°♂19'58	
evening set	794 Nov 17 j 17:00	11°♂13'57		desc. node	795 Sep 17 j 04:23	8°♂38'24	
asc. node	794 Nov 18 j 04:01	10°♂50'59			795 Oct 01 j 08:33	0°♂	
inferior conj	794 Nov 23 j 02:31	4°♂54'42	1°38'05	greatest brilliancy	795 Oct 12 j 05:18	14°♂31'55	-0.2m
minimum elong	794 Nov 23 j 00:28	5°♂01'48	1°37'18	evening max el	795 Oct 17 j 23:04	21°♂00'03	23°06'50
min. Earth dist.	794 Nov 23 j 05:30	4°♂44'22	0.67654 AU	retrograde	795 Oct 28 j 04:35	27°♂04'06	
	794 Nov 26 j 22:44	30°R♂		evening set	795 Nov 02 j 00:07	25°♂06'15	
morning rise	794 Nov 28 j 07:43	28°♂40'13		asc. node	795 Nov 05 j 01:04	21°♂52'11	
direct	794 Dec 03 j 04:40	26°♂37'18		inferior conj	795 Nov 07 j 09:48	18°♂42'14	0°48'25
	794 Dec 10 j 10:09	0°♂		minimum elong	795 Nov 07 j 08:41	18°♂46'04	0°47'56
morning max el	794 Dec 13 j 03:48	2°♂31'50	22°54'44	min. Earth dist.	795 Nov 07 j 02:09	19°♂08'33	0.67725 AU
greatest brilliancy	794 Dec 17 j 20:59	7°♂47'55	-0.3m	morning rise	795 Nov 12 j 17:17	12°♂30'43	
desc. node	794 Dec 27 j 06:33	20°♂13'26		direct	795 Nov 16 j 23:31	10°♂50'36	
	795 Jan 02 j 23:59	0°♂		morning max el	795 Nov 25 j 18:20	15°♂59'20	21°30'21
morning set	795 Jan 16 j 12:42	21°♂16'49		greatest brilliancy	795 Nov 30 j 19:24	21°♂44'35	-0.4m
max. Earth dist.	795 Jan 21 j 04:21	29°♂07'32	1.39923 AU		795 Dec 07 j 00:37	0°♂	
	795 Jan 21 j 16:32	0°♂		desc. node	795 Dec 14 j 03:36	10°♂14'32	
				morning set	795 Dec 27 j 05:23	0°♂14'20	
superior conj	795 Jan 28 j 22:04	12°♂51'22	-1°-57'-36		795 Dec 27 j 01:45	0°♂	
minimum elong	795 Jan 29 j 00:57	13°♂04'37	1°57'28	max. Earth dist.	796 Jan 03 j 04:55	11°♂30'57	1.41957 AU
	795 Feb 07 j 00:50	0°♂					
evening rise	795 Feb 07 j 15:36	1°♂10'25		superior conj	796 Jan 10 j 16:31	24°♂10'13	-2°-3'-9
asc. node	795 Feb 14 j 03:22	13°♂14'58		minimum elong	796 Jan 10 j 16:04	24°♂08'16	2°03'09
evening max el	795 Feb 23 j 20:03	27°♂09'12	18°28'23		796 Jan 14 j 00:20	0°♂	
	795 Feb 27 j 17:57	0°♂		evening rise	796 Jan 21 j 18:02	13°♂57'58	
retrograde	795 Mar 03 j 08:39	0°♂51'17			796 Jan 30 j 19:21	0°♂	
evening set	795 Mar 05 j 18:02	0°♂30'00		asc. node	796 Feb 01 j 00:23	1°♂56'31	
	795 Mar 07 j 02:50	30°R♂		evening max el	796 Feb 07 j 05:31	10°♂04'47	18°09'35
inferior conj	795 Mar 13 j 04:31	25°♂57'30	2°58'24	retrograde	796 Feb 14 j 00:29	13°♂31'33	
minimum elong	795 Mar 13 j 08:25	25°♂49'39	2°57'34	evening set	796 Feb 16 j 14:40	13°♂01'56	
min. Earth dist.	795 Mar 16 j 14:53	23°♂13'33	0.58521 AU	inferior conj	796 Feb 23 j 09:41	8°♂08'09	3°36'16
morning rise	795 Mar 20 j 18:50	20°♂31'17		minimum elong	796 Feb 23 j 11:44	8°♂03'23	3°36'02
desc. node	795 Mar 25 j 05:44	19°♂03'16		min. Earth dist.	796 Feb 26 j 15:53	5°♂07'24	0.60632 AU
direct	795 Mar 26 j 20:06	18°♂56'38		morning rise	796 Mar 01 j 05:42	2°♂21'06	
morning max el	795 Apr 10 j 04:50	26°♂36'09	26°49'25	direct	796 Mar 07 j 23:09	0°♂10'02	
	795 Apr 13 j 10:17	0°♂		desc. node	796 Mar 11 j 02:45	0°♂37'02	
	795 May 03 j 05:45	0°♂		morning max el	796 Mar 22 j 05:05	8°♂00'43	27°36'53

	796 Apr 07 j 22:59	0°♿		direct	797 Feb 18 j 11:36	12°≈11'04	
morning set	796 Apr 23 j 06:29	28°♿04'55		desc. node	797 Feb 25 j 23:48	14°≈44'42	
	796 Apr 24 j 04:40	0°♿		morning max el	797 Mar 04 j 10:44	20°≈05'06	27°47'28
asc. node	796 Apr 28 j 23:42	10°♿15'14			797 Mar 12 j 23:08	0°♿	
max. Earth dist.	796 Apr 29 j 13:34	11°♿30'47	1.32332 AU		797 Mar 31 j 21:40	0°♿	
				morning set	797 Apr 07 j 07:52	12°♿24'55	
superior conj	796 Apr 30 j 12:56	13°♿38'37	0°16'22	max. Earth dist.	797 Apr 12 j 21:29	24°♿00'56	1.32755 AU
minimum elong	796 Apr 30 j 12:11	13°♿34'34	0°16'13				
evening rise	796 May 07 j 11:09	28°♿40'53		superior conj	797 Apr 14 j 22:05	28°♿22'26	0°-9'-57
	796 May 08 j 02:10	0°♿		minimum elong	797 Apr 14 j 22:33	28°♿25'01	0°09'52
	796 May 24 j 22:12	0°♿		behind sun begin	797 Apr 14 j 18:27	28°♿02'48	
evening max el	796 Jun 03 j 09:04	11°♿19'08	25°21'21	behind sun end	797 Apr 15 j 02:40	28°♿47'14	
desc. node	796 Jun 07 j 02:03	14°♿28'33		asc. node	797 Apr 15 j 20:44	0°♿25'10	
retrograde	796 Jun 17 j 09:44	18°♿28'19			797 Apr 15 j 16:05	0°♿	
evening set	796 Jun 23 j 01:23	17°♿13'49		evening rise	797 Apr 21 j 22:57	13°♿33'42	
min. Earth dist.	796 Jun 27 j 20:59	14°♿30'53	0.57928 AU		797 Apr 30 j 06:35	0°♿	
inferior conj	796 Jul 01 j 00:47	12°♿19'36	-4°-49'-10	evening max el	797 May 15 j 23:32	21°♿58'50	23°50'20
minimum elong	796 Jun 30 j 23:33	12°♿21'46	4°49'08	desc. node	797 May 24 j 23:03	28°♿00'55	
morning rise	796 Jul 09 j 01:31	8°♿03'50		retrograde	797 May 29 j 17:38	28°♿52'43	
direct	796 Jul 11 j 14:05	7°♿44'27		evening set	797 Jun 02 j 22:44	28°♿13'35	
morning max el	796 Jul 20 j 04:05	11°♿46'30	18°55'03	min. Earth dist.	797 Jun 09 j 10:23	25°♿08'29	0.56216 AU
asc. node	796 Jul 25 j 22:56	18°♿52'02		inferior conj	797 Jun 11 j 18:10	23°♿43'30	-4°-17'-31
	796 Aug 01 j 11:40	0°♿		minimum elong	797 Jun 11 j 12:06	23°♿52'47	4°16'27
morning set	796 Aug 05 j 17:39	8°♿11'26		morning rise	797 Jun 20 j 05:01	19°♿45'08	
				direct	797 Jun 22 j 21:27	19°♿26'42	
superior conj	796 Aug 14 j 06:05	24°♿50'20	1°44'12	morning max el	797 Jul 02 j 22:13	24°♿05'33	19°56'31
minimum elong	796 Aug 14 j 07:34	24°♿57'25	1°44'10		797 Jul 08 j 01:12	0°♿	
	796 Aug 16 j 23:42	0°♿		asc. node	797 Jul 12 j 19:59	7°♿24'17	
max. Earth dist.	796 Aug 21 j 02:38	7°♿31'49	1.38945 AU	morning set	797 Jul 20 j 20:58	22°♿41'00	
evening rise	796 Aug 25 j 01:23	14°♿27'01			797 Jul 24 j 11:12	0°♿	
desc. node	796 Sep 03 j 01:24	29°♿13'36					
	796 Sep 03 j 13:15	0°♿		superior conj	797 Jul 28 j 17:40	8°♿38'22	1°46'21
	796 Sep 25 j 05:35	0°♿		minimum elong	797 Jul 28 j 17:19	8°♿36'35	1°46'21
evening max el	796 Sep 29 j 11:32	4°♿34'34	24°26'32	max. Earth dist.	797 Aug 03 j 06:57	19°♿27'17	1.36983 AU
retrograde	796 Oct 10 j 19:11	11°♿12'00		evening rise	797 Aug 07 j 04:37	26°♿40'45	
evening set	796 Oct 16 j 04:51	8°♿56'48			797 Aug 09 j 01:10	0°♿	
min. Earth dist.	796 Oct 20 j 22:01	3°♿32'41	0.67472 AU	desc. node	797 Aug 20 j 22:24	19°♿36'26	
inferior conj	796 Oct 21 j 16:03	2°♿32'12	0°-5'-13		797 Aug 28 j 00:14	0°♿	
minimum elong	796 Oct 21 j 16:11	2°♿31'47	0°05'11	evening max el	797 Sep 11 j 23:18	18°♿12'59	25°39'45
transit middle	796 Oct 21 j 16:11	2°♿31'47	0°05'11	retrograde	797 Sep 24 j 05:12	25°♿13'52	
transit begin	796 Oct 21 j 13:35	2°♿40'30		evening set	797 Sep 30 j 05:30	22°♿43'21	
transit end	796 Oct 21 j 18:46	2°♿23'05		min. Earth dist.	797 Oct 04 j 14:39	17°♿54'58	0.66895 AU
asc. node	796 Oct 21 j 22:07	2°♿11'53		inferior conj	797 Oct 05 j 19:33	16°♿22'35	-1°-1'-25
	796 Oct 23 j 14:43	30°♿		minimum elong	797 Oct 05 j 21:07	16°♿17'34	1°00'46
morning rise	796 Oct 27 j 03:51	26°♿26'10		asc. node	797 Oct 08 j 19:11	12°♿47'28	
direct	796 Oct 30 j 20:55	25°♿07'12		morning rise	797 Oct 11 j 13:29	10°♿24'56	
morning max el	796 Nov 07 j 16:02	29°♿36'29	20°15'58	direct	797 Oct 14 j 19:27	9°♿24'00	
	796 Nov 08 j 01:13	0°♿		morning max el	797 Oct 21 j 21:21	13°♿23'23	19°15'27
greatest brilliancy	796 Nov 14 j 08:31	7°♿38'59	-0.6m	greatest brilliancy	797 Nov 01 j 05:37	26°♿57'51	-0.7m
	796 Nov 29 j 15:49	0°♿			797 Nov 03 j 06:13	0°♿	
desc. node	796 Nov 30 j 00:38	0°♿33'35		morning set	797 Nov 14 j 05:13	16°♿54'28	
morning set	796 Dec 05 j 02:50	8°♿22'47		desc. node	797 Nov 16 j 21:40	21°♿05'34	
max. Earth dist.	796 Dec 15 j 12:48	24°♿46'13	1.43623 AU		797 Nov 22 j 14:29	0°♿	
	796 Dec 18 j 18:30	0°♿		max. Earth dist.	797 Nov 28 j 03:34	8°♿43'03	1.44708 AU
superior conj	796 Dec 21 j 09:18	4°♿17'00	-1°-53'-19	superior conj	797 Dec 01 j 00:28	13°♿15'46	-1°-24'-53
minimum elong	796 Dec 21 j 03:46	3°♿54'14	1°53'01	minimum elong	797 Nov 30 j 15:55	12°♿41'50	1°24'01
evening rise	797 Jan 03 j 03:35	25°♿56'43			797 Dec 11 j 09:52	0°♿	
	797 Jan 05 j 11:33	0°≈		evening rise	797 Dec 15 j 16:02	7°♿00'01	
asc. node	797 Jan 17 j 21:25	19°≈58'35			797 Dec 29 j 23:11	0°≈	
evening max el	797 Jan 20 j 17:47	23°≈16'57	18°10'14	evening max el	798 Jan 04 j 06:04	6°≈39'12	18°29'33
retrograde	797 Jan 27 j 05:29	26°≈42'26		asc. node	798 Jan 04 j 18:27	7°≈09'47	
evening set	797 Jan 30 j 00:18	26°≈03'16		retrograde	798 Jan 10 j 19:24	10°≈15'34	
inferior conj	797 Feb 05 j 07:23	20°≈48'45	3°47'38	evening set	798 Jan 13 j 19:22	9°≈25'44	
minimum elong	797 Feb 05 j 07:19	20°≈48'55	3°47'38	inferior conj	798 Jan 19 j 17:41	3°≈52'01	3°39'35
min. Earth dist.	797 Feb 08 j 01:18	17°≈55'27	0.62680 AU	minimum elong	798 Jan 19 j 16:03	3°≈56'48	3°39'25
morning rise	797 Feb 11 j 12:14	14°≈49'06		min. Earth dist.	798 Jan 21 j 20:13	1°≈24'27	0.64450 AU

	798 Jan 23 j 02:47	30° $\text{R}\overline{\text{Z}}$		minimum elong	799 Jan 03 j 10:32	17° $\overline{\text{Z}}$ 19'02	3°16'59
morning rise	798 Jan 25 j 11:23	27° $\overline{\text{Z}}$ 44'40		min. Earth dist.	799 Jan 05 j 00:21	15° $\overline{\text{Z}}$ 19'24	0.65840 AU
direct	798 Feb 01 j 07:28	24° $\overline{\text{Z}}$ 54'27		morning rise	799 Jan 08 j 23:19	10° $\overline{\text{Z}}$ 58'56	
	798 Feb 11 j 21:29	0° \approx		direct	799 Jan 15 j 09:37	8° $\overline{\text{Z}}$ 10'44	
desc. node	798 Feb 12 j 20:51	0° \approx 51'33		morning max el	799 Jan 28 j 05:23	15° $\overline{\text{Z}}$ 43'56	26°27'39
morning max el	798 Feb 14 j 19:40	2° \approx 43'24	27°22'23	desc. node	799 Jan 30 j 17:53	18° $\overline{\text{Z}}$ 23'57	
	798 Mar 07 j 06:18	0° H			799 Feb 09 j 00:20	0° \approx	
morning set	798 Mar 22 j 01:00	26° H 16'17			799 Feb 28 j 01:51	0° H	
	798 Mar 23 j 22:12	0° Y		morning set	799 Mar 05 j 06:17	9° H 27'57	
max. Earth dist.	798 Mar 26 j 21:31	6° Y 02'53	1.33605 AU	max. Earth dist.	799 Mar 09 j 10:39	17° H 31'39	1.34899 AU
superior conj	798 Mar 30 j 03:12	12° Y 49'35	0°-37'-12	superior conj	799 Mar 14 j 02:02	26° H 52'58	-1°-4'-9
minimum elong	798 Mar 30 j 05:02	12° Y 59'15	0°36'51	minimum elong	799 Mar 14 j 05:08	27° H 08'55	1°03'38
asc. node	798 Apr 02 j 17:46	20° Y 30'55			799 Mar 15 j 14:16	0° Y	
evening rise	798 Apr 06 j 10:08	28° Y 19'57		asc. node	799 Mar 20 j 14:49	10° Y 28'18	
	798 Apr 07 j 05:18	0° B		evening rise	799 Mar 21 j 18:48	12° Y 53'15	
	798 Apr 25 j 05:46	0° II			799 Mar 30 j 17:03	0° B	
evening max el	798 Apr 27 j 15:57	2° II 32'46	22°14'55	evening max el	799 Apr 09 j 16:53	13° B 29'34	20°48'29
retrograde	798 May 10 j 12:48	8° II 53'02		retrograde	799 Apr 21 j 01:59	19° B 00'33	
desc. node	798 May 11 j 20:05	8° II 49'13		evening set	799 Apr 23 j 06:28	18° B 49'07	
evening set	798 May 13 j 10:16	8° II 34'33		desc. node	799 Apr 28 j 17:06	16° B 55'31	
min. Earth dist.	798 May 21 j 22:30	4° II 55'10	0.55165 AU	inferior conj	799 May 02 j 12:35	14° B 51'23	-1°-5'-57
inferior conj	798 May 22 j 18:32	4° II 26'58	-2°-59'-13	minimum elong	799 May 02 j 09:28	14° B 55'50	1°04'51
minimum elong	798 May 22 j 11:14	4° II 37'15	2°57'05	min. Earth dist.	799 May 03 j 11:16	14° B 19'02	0.55014 AU
morning rise	798 May 31 j 14:07	0° II 33'54		morning rise	799 May 11 j 11:32	10° B 44'41	
direct	798 Jun 03 j 12:56	0° II 14'15		direct	799 May 14 j 23:01	10° B 18'37	
morning max el	798 Jun 15 j 05:00	5° II 41'13	21°18'02	morning max el	799 May 28 j 01:54	16° B 37'16	22°54'37
asc. node	798 Jun 29 j 17:02	26° II 30'21			799 Jun 07 j 16:27	0° II	
	798 Jul 01 j 12:41	0° S		asc. node	799 Jun 16 j 14:05	16° II 01'47	
morning set	798 Jul 05 j 05:05	7° S 26'08		morning set	799 Jun 19 j 16:01	22° II 21'04	
					799 Jun 23 j 06:26	0° S	
superior conj	798 Jul 12 j 15:22	22° S 57'26	1°41'01	superior conj	799 Jun 26 j 20:00	7° S 38'04	1°29'43
minimum elong	798 Jul 12 j 13:44	22° S 48'56	1°40'54	minimum elong	799 Jun 26 j 17:41	7° S 25'43	1°29'27
	798 Jul 16 j 02:04	0° Q			799 Jun 26 j 17:41	7° S 25'43	1°29'27
max. Earth dist.	798 Jul 16 j 17:56	1° Q 19'35	1.35281 AU	max. Earth dist.	799 Jun 29 j 14:11	13° S 27'32	1.33944 AU
evening rise	798 Jul 21 j 02:32	9° Q 49'02		evening rise	799 Jul 04 j 14:27	23° S 39'14	
	798 Aug 01 j 13:58	0° P			799 Jul 07 j 21:22	0° Q	
desc. node	798 Aug 07 j 19:25	9° P 40'28		desc. node	799 Jul 25 j 16:28	29° Q 17'31	
	798 Aug 23 j 15:42	0° A			799 Jul 26 j 04:36	0° P	
evening max el	798 Aug 25 j 11:22	1° A 49'30	26°38'40	evening max el	799 Aug 07 j 23:13	15° P 14'33	27°15'50
retrograde	798 Sep 07 j 09:58	9° A 03'22		retrograde	799 Aug 21 j 09:16	22° P 33'23	
evening set	798 Sep 13 j 23:57	6° A 22'09		evening set	799 Aug 28 j 09:44	19° P 49'30	
min. Earth dist.	798 Sep 18 j 01:34	2° A 11'09	0.65978 AU	min. Earth dist.	799 Sep 01 j 04:32	16° P 15'22	0.64700 AU
inferior conj	798 Sep 19 j 18:20	0° A 09'29	-1°-58'-30	inferior conj	799 Sep 03 j 10:09	13° P 48'47	-2°-54'-11
minimum elong	798 Sep 19 j 21:24	0° A 00'18	1°57'17	minimum elong	799 Sep 03 j 14:32	13° P 36'49	2°52'43
	798 Sep 19 j 21:31	30° RP		morning rise	799 Sep 09 j 21:08	8° P 17'45	
morning rise	798 Sep 25 j 20:05	24° P 23'29		direct	799 Sep 12 j 11:48	7° P 42'04	
asc. node	798 Sep 25 j 16:14	24° P 28'45		asc. node	799 Sep 12 j 13:17	7° P 42'05	
direct	798 Sep 28 j 17:12	23° P 36'58		morning max el	799 Sep 18 j 23:55	11° P 10'17	18°02'46
morning max el	798 Oct 05 j 08:47	27° P 16'14	18°30'42		799 Oct 01 j 22:36	0° A	
	798 Oct 07 j 19:01	0° A		morning set	799 Oct 06 j 16:02	7° A 55'53	
morning set	798 Oct 25 j 08:14	26° A 42'50					
	798 Oct 27 j 09:24	0° M		superior conj	799 Oct 20 j 10:03	0° M 32'44	0°08'15
desc. node	798 Nov 03 j 18:41	11° M 45'56		minimum elong	799 Oct 20 j 11:03	0° M 36'44	0°08'07
				behind sun begin	799 Oct 20 j 01:49	29° A 59'41	
superior conj	798 Nov 10 j 01:26	21° M 40'14	0°-40'-45	behind sun end	799 Oct 20 j 20:16	1° M 13'42	
minimum elong	798 Nov 09 j 20:09	21° M 19'27	0°40'03		799 Oct 20 j 01:53	0° M	
max. Earth dist.	798 Nov 10 j 22:14	23° M 01'56	1.45085 AU	desc. node	799 Oct 21 j 15:45	2° M 31'35	
	798 Nov 15 j 08:41	0° J		max. Earth dist.	799 Oct 24 j 17:04	7° M 22'49	1.44719 AU
evening rise	798 Nov 26 j 04:52	17° J 04'58		evening rise	799 Nov 05 j 21:05	26° M 22'01	
	798 Dec 04 j 08:56	0° $\overline{\text{Z}}$			799 Nov 08 j 05:39	0° J	
greatest brilliancy	798 Dec 07 j 07:18	4° $\overline{\text{Z}}$ 34'22	-0.8m	greatest brilliancy	799 Nov 24 j 19:36	24° J 47'06	-0.6m
evening max el	798 Dec 18 j 15:51	20° $\overline{\text{Z}}$ 05'42	19°06'27		799 Nov 28 j 18:21	0° $\overline{\text{Z}}$	
asc. node	798 Dec 22 j 15:30	23° $\overline{\text{Z}}$ 15'40		evening max el	799 Dec 01 j 21:13	3° $\overline{\text{Z}}$ 33'52	19°59'15
retrograde	798 Dec 25 j 14:38	24° $\overline{\text{Z}}$ 03'29		retrograde	799 Dec 09 j 12:12	8° $\overline{\text{Z}}$ 01'40	
evening set	798 Dec 28 j 20:51	23° $\overline{\text{Z}}$ 01'44		asc. node	799 Dec 09 j 12:33	8° $\overline{\text{Z}}$ 01'40	
inferior conj	799 Jan 03 j 13:02	17° $\overline{\text{Z}}$ 11'08	3°17'28	evening set	799 Dec 13 j 02:19	6° $\overline{\text{Z}}$ 46'26	

inferior conj	799 Dec 18 j 14:32	0°☿41'59	2°44'54	asc. node	800 Nov 25 j 09:34	21°♊16'42	
minimum elong	799 Dec 18 j 11:49	0°☿51'05	2°44'08	evening set	800 Nov 26 j 09:46	20°♊36'27	
	799 Dec 19 j 03:06	30°♊♊		inferior conj	800 Dec 01 j 19:50	14°♊21'34	2°04'22
min. Earth dist.	799 Dec 19 j 12:09	29°♊29'48	0.66834 AU	minimum elong	800 Dec 01 j 17:25	14°♊29'54	2°03'30
morning rise	799 Dec 23 j 20:42	24°♊27'04		min. Earth dist.	800 Dec 02 j 05:19	13°♊48'56	0.67453 AU
direct	799 Dec 29 j 17:26	21°♊51'39		morning rise	800 Dec 07 j 00:40	8°♊06'08	
morning max el	800 Jan 10 j 14:18	28°♊55'47	25°11'55	direct	800 Dec 12 j 06:23	5°♊50'11	
	800 Jan 11 j 15:12	0°☿		morning max el	800 Dec 22 j 22:52	12°♊12'35	23°45'24
desc. node	800 Jan 17 j 14:56	6°☿57'16		desc. node	801 Jan 03 j 12:00	26°♊14'06	
	800 Feb 02 j 19:43	0°♊			801 Jan 06 j 05:17	0°☿	
morning set	800 Feb 15 j 18:46	21°♊45'24			801 Jan 25 j 15:36	0°♊	
max. Earth dist.	800 Feb 19 j 12:25	28°♊35'53	1.36628 AU	morning set	801 Jan 27 j 08:20	2°♊52'19	
	800 Feb 20 j 06:22	0°♋		max. Earth dist.	801 Jan 31 j 07:25	9°♊44'59	1.38680 AU
superior conj	800 Feb 25 j 15:39	10°♋24'00	-1°-29'-3	superior conj	801 Feb 07 j 16:23	23°♊13'20	-1°-49'-21
minimum elong	800 Feb 25 j 19:36	10°♋43'31	1°28'32	minimum elong	801 Feb 07 j 20:09	23°♊31'07	1°49'02
evening rise	800 Mar 04 j 22:44	27°♋06'11			801 Feb 11 j 05:34	0°♋	
asc. node	800 Mar 06 j 11:52	0°♌12'07		evening rise	801 Feb 16 j 19:22	10°♋51'58	
	800 Mar 06 j 09:26	0°♌		asc. node	801 Feb 21 j 08:55	19°♋37'07	
evening max el	800 Mar 22 j 05:16	25°♌03'36	19°38'39		801 Feb 27 j 09:59	0°♌	
retrograde	800 Mar 31 j 21:09	29°♌42'36		evening max el	801 Mar 05 j 04:09	7°♌15'28	18°48'19
evening set	800 Apr 02 j 23:08	29°♌30'35		retrograde	801 Mar 13 j 08:14	11°♌13'19	
inferior conj	800 Apr 11 j 14:49	25°♌27'00	0°50'32	evening set	801 Mar 15 j 14:35	10°♌56'14	
minimum elong	800 Apr 11 j 16:56	25°♌23'38	0°49'48	inferior conj	801 Mar 23 j 11:29	6°♌36'03	2°21'42
min. Earth dist.	800 Apr 14 j 01:39	23°♌54'22	0.55811 AU	minimum elong	801 Mar 23 j 15:42	6°♌28'19	2°20'33
desc. node	800 Apr 14 j 14:08	23°♌35'20		min. Earth dist.	801 Mar 26 j 18:26	4°♌12'31	0.57388 AU
morning rise	800 Apr 20 j 07:12	20°♌50'00		morning rise	801 Mar 31 j 12:31	1°♌25'58	
direct	800 Apr 24 j 16:49	20°♌06'39		desc. node	801 Apr 01 j 11:09	1°♌03'08	
morning max el	800 May 08 j 17:11	27°♌08'59	24°35'55	direct	801 Apr 06 j 00:36	0°♌12'06	
	800 May 11 j 11:39	0°♍		morning max el	801 Apr 20 j 08:38	7°♌42'17	26°07'14
	800 May 30 j 14:29	0°♎			801 May 06 j 23:10	0°♍	
asc. node	800 Jun 02 j 11:08	5°♎50'48		morning set	801 May 18 j 15:17	22°♍14'30	
morning set	800 Jun 03 j 03:57	7°♎19'02		asc. node	801 May 20 j 08:12	25°♍51'49	
					801 May 22 j 06:08	0°♎	
superior conj	800 Jun 10 j 04:56	22°♎30'55	1°13'39	superior conj	801 May 25 j 16:09	7°♎29'06	0°53'44
minimum elong	800 Jun 10 j 02:29	22°♎17'40	1°13'16	minimum elong	801 May 25 j 14:04	7°♎17'39	0°53'21
max. Earth dist.	800 Jun 11 j 18:50	25°♎56'05	1.33003 AU	max. Earth dist.	801 May 26 j 05:12	8°♎40'41	1.32450 AU
	800 Jun 13 j 16:23	0°☿		evening rise	801 Jun 01 j 17:00	22°♎37'40	
evening rise	800 Jun 17 j 12:18	7°☿58'40			801 Jun 05 j 08:15	0°☿	
	800 Jun 29 j 08:16	0°♏			801 Jun 23 j 09:18	0°♏	
desc. node	800 Jul 11 j 13:30	18°♏15'06		desc. node	801 Jun 28 j 10:29	6°♏16'57	
evening max el	800 Jul 20 j 09:05	28°♏15'06	27°24'55	evening max el	801 Jul 02 j 14:41	10°♏39'23	27°01'39
	800 Jul 22 j 07:32	0°♐		retrograde	801 Jul 16 j 12:52	17°♏54'59	
retrograde	800 Aug 03 j 02:37	5°♐33'41		evening set	801 Jul 23 j 13:04	15°♏43'18	
evening set	800 Aug 10 j 07:31	2°♐58'57		min. Earth dist.	801 Jul 27 j 04:55	13°♏01'49	0.61138 AU
	800 Aug 13 j 20:27	30°♊♊		inferior conj	801 Jul 30 j 09:26	10°♏16'09	-4°-26'-23
min. Earth dist.	800 Aug 13 j 21:52	29°♏56'39	0.63063 AU	minimum elong	801 Jul 30 j 13:43	10°♏06'50	4°25'43
inferior conj	800 Aug 16 j 16:16	27°♏13'34	-3°-45'-14	morning rise	801 Aug 06 j 17:22	5°♏24'17	
minimum elong	800 Aug 16 j 21:17	27°♏01'14	3°43'58	direct	801 Aug 09 j 03:01	5°♏00'54	
morning rise	800 Aug 23 j 13:28	22°♏00'43		morning max el	801 Aug 16 j 05:30	8°♏32'26	18°00'54
direct	800 Aug 26 j 00:16	21°♏32'33		asc. node	801 Aug 16 j 07:24	8°♏37'03	
asc. node	800 Aug 29 j 10:20	22°♏28'30			801 Aug 30 j 03:46	0°♐	
morning max el	800 Sep 01 j 15:51	24°♏58'12	17°52'30	morning set	801 Sep 01 j 01:34	3°♐30'57	
	800 Sep 05 j 19:16	0°♐					
morning set	800 Sep 17 j 23:52	20°♐17'49		superior conj	801 Sep 11 j 06:02	22°♐00'56	1°20'54
	800 Sep 23 j 12:52	0°♑		minimum elong	801 Sep 11 j 10:30	22°♐20'34	1°20'27
superior conj	800 Sep 29 j 18:31	10°♑37'10	0°50'36		801 Sep 15 j 20:45	0°♑	
minimum elong	800 Sep 29 j 23:02	10°♑56'00	0°50'00	max. Earth dist.	801 Sep 18 j 19:42	4°♑58'13	1.42062 AU
max. Earth dist.	800 Oct 06 j 08:51	21°♑26'43	1.43663 AU	desc. node	801 Sep 24 j 09:50	14°♑04'33	
desc. node	800 Oct 07 j 12:49	23°♑19'02		evening rise	801 Sep 24 j 20:47	14°♑48'13	
	800 Oct 11 j 18:00	0°♒			801 Oct 04 j 17:10	0°♒	
evening rise	800 Oct 15 j 04:32	5°♒21'31		greatest brilliancy	801 Oct 22 j 21:53	25°♒14'28	-0.3m
	800 Oct 31 j 15:34	0°♓			801 Oct 27 j 02:21	0°♓	
greatest brilliancy	800 Nov 08 j 13:01	10°♓49'09	-0.5m	evening max el	801 Oct 27 j 15:25	0°♓33'34	22°21'07
evening max el	800 Nov 13 j 21:04	17°♓03'09	21°05'24	retrograde	801 Nov 06 j 05:35	6°♓15'40	
retrograde	800 Nov 22 j 09:49	22°♓06'55		evening set	801 Nov 10 j 17:27	4°♓28'14	

asc. node	801 Nov 12 j 06:37	3°♄00'48		asc. node	802 Oct 30 j 03:39	13°♍38'21	
	801 Nov 14 j 17:49	30°♌		inferior conj	802 Oct 31 j 09:57	11°♍55'37	0°26'04
inferior conj	801 Nov 16 j 02:54	28°♍06'39	1°17'35	minimum elong	802 Oct 31 j 09:20	11°♍57'44	0°25'47
minimum elong	801 Nov 16 j 01:12	28°♍12'31	1°16'54	min. Earth dist.	802 Oct 30 j 21:56	12°♍36'37	0.67664 AU
min. Earth dist.	801 Nov 16 j 01:23	28°♍11'53	0.67723 AU	morning rise	802 Nov 05 j 19:03	5°♍46'13	
morning rise	801 Nov 21 j 08:47	21°♍52'58		direct	802 Nov 09 j 19:35	4°♍15'15	
direct	801 Nov 25 j 23:25	19°♍59'34		morning max el	802 Nov 18 j 03:20	9°♍05'31	20°57'09
morning max el	801 Dec 05 j 09:59	25°♍34'11	22°17'52	greatest brilliancy	802 Nov 23 j 17:58	15°♍36'54	-0.5m
	801 Dec 09 j 09:52	0°♄			802 Dec 04 j 01:56	0°♄	
greatest brilliancy	801 Dec 10 j 00:53	0°♄45'14	-0.3m	desc. node	802 Dec 08 j 06:05	6°♄11'06	
desc. node	801 Dec 21 j 09:03	16°♄01'30		morning set	802 Dec 17 j 23:32	21°♄04'03	
	801 Dec 30 j 18:06	0°♄			802 Dec 23 j 14:58	0°♄	
morning set	802 Jan 07 j 17:20	12°♄34'50		max. Earth dist.	802 Dec 26 j 08:13	4°♄23'41	1.42735 AU
max. Earth dist.	802 Jan 13 j 04:05	21°♄35'20	1.40817 AU				
	802 Jan 18 j 01:36	0°♌		superior conj	803 Jan 02 j 07:22	15°♄57'38	-2°-1'-7
superior conj	802 Jan 20 j 23:23	5°♌08'40	-2°-1'-32	minimum elong	803 Jan 02 j 04:50	15°♄46'55	2°01'04
minimum elong	802 Jan 21 j 01:10	5°♌16'35	2°01'30		803 Jan 10 j 09:38	0°♌	
evening rise	802 Jan 31 j 05:27	24°♌02'22		evening rise	803 Jan 14 j 01:12	6°♌29'53	
	802 Feb 03 j 10:11	0°♌		asc. node	803 Jan 26 j 02:57	27°♌02'00	
asc. node	802 Feb 08 j 05:56	8°♌36'21			803 Jan 28 j 06:35	0°♌	
evening max el	802 Feb 16 j 10:40	19°♌57'13	18°18'01	evening max el	803 Jan 30 j 21:40	3°♌00'23	18°07'29
retrograde	802 Feb 23 j 14:09	23°♌30'28		retrograde	803 Feb 06 j 12:12	6°♌24'53	
evening set	802 Feb 26 j 01:47	23°♌05'41		evening set	803 Feb 09 j 04:27	5°♌51'09	
inferior conj	802 Mar 05 j 05:16	18°♌24'16	3°18'10	inferior conj	803 Feb 15 j 17:55	0°♌48'05	3°43'51
minimum elong	802 Mar 05 j 08:30	18°♌17'20	3°17'37	minimum elong	803 Feb 15 j 19:02	0°♌45'19	3°43'47
min. Earth dist.	802 Mar 08 j 15:21	15°♌30'06	0.59414 AU		803 Feb 16 j 13:19	30°♌	
morning rise	802 Mar 12 j 11:36	12°♌48'23		min. Earth dist.	803 Feb 18 j 19:24	27°♌48'08	0.61531 AU
direct	802 Mar 18 j 21:14	10°♌57'29		morning rise	803 Feb 22 j 07:02	24°♌55'01	
desc. node	802 Mar 19 j 08:11	10°♌58'02		direct	803 Mar 01 j 04:13	22°♌31'12	
morning max el	802 Apr 02 j 04:52	18°♌42'13	27°13'55	desc. node	803 Mar 06 j 05:14	23°♌40'29	
	802 Apr 11 j 17:10	0°♍			803 Mar 14 j 22:03	0°♌	
	802 Apr 29 j 13:25	0°♌		morning max el	803 Mar 15 j 07:34	0°♌23'17	27°46'03
morning set	802 May 03 j 00:19	7°♌01'28			803 Apr 05 j 18:18	0°♍	
asc. node	802 May 07 j 05:15	15°♌59'38		morning set	803 Apr 17 j 05:09	21°♍33'23	
max. Earth dist.	802 May 09 j 17:47	21°♌30'43	1.32267 AU		803 Apr 21 j 05:50	0°♌	
				max. Earth dist.	803 Apr 23 j 04:44	4°♌12'44	1.32464 AU
superior conj	802 May 10 j 03:53	22°♌26'11	0°30'43	asc. node	803 Apr 24 j 02:16	6°♌09'46	
minimum elong	802 May 10 j 02:33	22°♌18'54	0°30'27				
	802 May 13 j 14:39	0°♎		superior conj	803 Apr 24 j 14:28	7°♌16'17	0°05'24
evening rise	802 May 17 j 02:03	7°♎27'43		minimum elong	803 Apr 24 j 14:13	7°♌14'54	0°05'20
	802 May 28 j 21:20	0°♎		behind sun begin	803 Apr 24 j 09:23	6°♌48'33	
evening max el	802 Jun 14 j 13:50	22°♎18'58	26°05'58	behind sun end	803 Apr 24 j 19:03	7°♌41'15	
desc. node	802 Jun 15 j 07:28	23°♎00'07		evening rise	803 May 01 j 13:25	22°♌21'22	
retrograde	802 Jun 28 j 14:21	29°♎30'37			803 May 05 j 06:16	0°♎	
evening set	802 Jul 04 j 21:45	27°♎53'47			803 May 24 j 03:51	0°♎	
min. Earth dist.	802 Jul 09 j 02:33	25°♎16'47	0.59078 AU	evening max el	803 May 27 j 06:15	3°♎14'42	24°44'10
inferior conj	802 Jul 12 j 10:06	22°♎47'17	-4°-49'-9	desc. node	803 Jun 02 j 04:28	7°♎52'43	
minimum elong	802 Jul 12 j 11:30	22°♎44'37	4°49'06	retrograde	803 Jun 10 j 05:02	10°♎18'50	
morning rise	802 Jul 20 j 04:44	18°♎18'21		evening set	803 Jun 15 j 06:56	9°♎20'24	
direct	802 Jul 22 j 15:51	17°♎57'44		min. Earth dist.	803 Jun 20 j 17:32	6°♎29'59	0.57139 AU
morning max el	802 Jul 30 j 13:53	21°♎45'06	18°29'16	inferior conj	803 Jun 23 j 15:05	4°♎36'34	-4°-41'-13
asc. node	802 Aug 03 j 04:28	25°♎52'54		minimum elong	803 Jun 23 j 11:39	4°♎42'11	4°40'54
	802 Aug 06 j 00:34	0°♏		morning rise	803 Jul 01 j 20:10	0°♎29'24	
morning set	802 Aug 15 j 16:08	17°♏22'10		direct	803 Jul 04 j 10:26	0°♎10'27	
	802 Aug 22 j 06:14	0°♏		morning max el	803 Jul 13 j 13:55	4°♎26'00	19°18'41
superior conj	802 Aug 24 j 16:40	4°♏33'43	1°38'50	asc. node	803 Jul 21 j 01:31	14°♎00'38	
minimum elong	802 Aug 24 j 19:20	4°♏46'09	1°38'40		803 Jul 29 j 19:31	0°♏	
max. Earth dist.	802 Sep 01 j 01:48	17°♏49'39	1.40123 AU	morning set	803 Jul 30 j 15:40	1°♏39'59	
evening rise	802 Sep 05 j 10:42	25°♏15'57					
	802 Sep 08 j 07:45	0°♐		superior conj	803 Aug 07 j 20:37	17°♏58'38	1°46'10
desc. node	802 Sep 11 j 06:50	4°♐45'01		minimum elong	803 Aug 07 j 21:16	18°♏01'48	1°46'08
	802 Sep 28 j 11:39	0°♐		max. Earth dist.	803 Aug 14 j 05:20	0°♏00'52	1.38091 AU
evening max el	802 Oct 10 j 05:35	14°♐07'02	23°41'04		803 Aug 14 j 05:08	0°♏	
retrograde	802 Oct 20 j 22:16	20°♐25'25		evening rise	803 Aug 18 j 01:04	6°♏52'19	
evening set	802 Oct 25 j 23:46	18°♐20'08		desc. node	803 Aug 29 j 03:51	25°♏15'39	
					803 Sep 01 j 06:08	0°♐	
				evening max el	803 Sep 22 j 17:29	27°♐43'15	24°58'47

	803 Sep 25 j 04:45	0°♄		evening max el	804 Sep 04 j 05:08	11°♄20'53	26°06'52
retrograde	803 Oct 04 j 10:55	4°♄31'39		retrograde	804 Sep 16 j 18:58	18°♄29'14	
evening set	803 Oct 10 j 03:00	2°♄09'16		evening set	804 Sep 23 j 01:19	15°♄53'07	
	803 Oct 12 j 06:38	30°♄		min. Earth dist.	804 Sep 27 j 07:06	11°♄20'39	0.66550 AU
min. Earth dist.	803 Oct 14 j 16:37	27°♄00'23	0.67277 AU	inferior conj	804 Sep 28 j 17:01	9°♄35'03	-1°-25'-38
inferior conj	803 Oct 15 j 15:16	25°♄45'52	0°-28'-51	minimum elong	804 Sep 28 j 19:14	9°♄28'10	1°24'44
minimum elong	803 Oct 15 j 15:59	25°♄43'30	0°28'33	asc. node	804 Oct 02 j 21:47	4°♄55'56	
asc. node	803 Oct 17 j 00:42	23°♄57'34		morning rise	804 Oct 04 j 14:07	3°♄42'08	
morning rise	803 Oct 21 j 05:30	19°♄43'18		direct	804 Oct 07 j 15:56	2°♄47'59	
direct	803 Oct 24 j 17:34	18°♄32'31		morning max el	804 Oct 14 j 12:45	6°♄37'50	18°54'23
morning max el	803 Nov 01 j 04:29	22°♄47'30	19°48'23		804 Oct 31 j 01:41	0°♄	
	803 Nov 07 j 04:31	0°♄		morning set	804 Nov 05 j 07:19	8°♄13'54	
greatest brilliancy	803 Nov 08 j 22:14	2°♄22'54	-0.6m	desc. node	804 Nov 11 j 00:10	17°♄12'00	
desc. node	803 Nov 25 j 03:08	26°♄36'09			804 Nov 19 j 03:50	0°♄	
morning set	803 Nov 26 j 19:56	29°♄13'33		max. Earth dist.	804 Nov 20 j 12:06	2°♄06'51	1.44956 AU
	803 Nov 27 j 07:57	0°♄					
max. Earth dist.	803 Dec 08 j 19:40	17°♄59'53	1.44169 AU	superior conj	804 Nov 21 j 19:37	4°♄10'50	-1°-7'-34
				minimum elong	804 Nov 21 j 11:40	3°♄39'36	1°06'39
superior conj	803 Dec 13 j 12:40	25°♄33'00	-1°-43'-32	evening rise	804 Dec 07 j 04:49	28°♄44'12	
minimum elong	803 Dec 13 j 05:15	25°♄03'03	1°42'58		804 Dec 07 j 23:31	0°♄	
	803 Dec 16 j 06:19	0°♄		evening max el	804 Dec 27 j 21:38	29°♄41'21	18°43'12
evening rise	803 Dec 27 j 02:17	18°♄05'59			804 Dec 28 j 05:03	0°♄	
	804 Jan 03 j 02:44	0°♄		asc. node	804 Dec 29 j 21:02	1°♄29'00	
asc. node	804 Jan 12 j 23:59	14°♄43'53		retrograde	805 Jan 03 j 14:18	3°♄26'00	
evening max el	804 Jan 14 j 10:11	16°♄17'09	18°16'11	evening set	805 Jan 06 j 16:39	2°♄31'27	
retrograde	804 Jan 20 j 21:41	19°♄46'16			805 Jan 09 j 17:58	30°♄	
evening set	804 Jan 23 j 18:32	19°♄02'43		inferior conj	805 Jan 12 j 12:04	26°♄50'21	3°31'42
inferior conj	804 Jan 29 j 21:30	13°♄39'32	3°46'14	minimum elong	805 Jan 12 j 09:59	26°♄56'41	3°31'23
minimum elong	804 Jan 29 j 20:41	13°♄41'47	3°46'12	min. Earth dist.	805 Jan 14 j 08:06	24°♄36'51	0.65085 AU
min. Earth dist.	804 Feb 01 j 08:54	10°♄55'30	0.63469 AU	morning rise	805 Jan 18 j 02:09	20°♄40'23	
morning rise	804 Feb 04 j 21:05	7°♄35'54		direct	805 Jan 24 j 18:38	17°♄49'12	
direct	804 Feb 11 j 19:48	4°♄51'03		desc. node	805 Feb 06 j 23:21	25°♄30'08	
desc. node	804 Feb 21 j 02:17	8°♄43'26		morning max el	805 Feb 07 j 00:53	25°♄33'59	27°02'15
morning max el	804 Feb 25 j 15:13	12°♄44'24	27°41'02		805 Feb 11 j 02:52	0°♄	
	804 Mar 10 j 10:57	0°♄			805 Mar 03 j 22:53	0°♄	
	804 Mar 28 j 05:22	0°♄		morning set	805 Mar 14 j 16:03	19°♄18'53	
morning set	804 Mar 31 j 03:27	5°♄42'50		max. Earth dist.	805 Mar 19 j 05:31	28°♄20'16	1.34093 AU
max. Earth dist.	804 Apr 05 j 09:59	16°♄33'16	1.33059 AU		805 Mar 20 j 01:06	0°♄	
superior conj	804 Apr 07 j 22:10	21°♄53'51	0°-21'-27	superior conj	805 Mar 23 j 00:54	6°♄11'33	0°-48'-46
minimum elong	804 Apr 07 j 23:13	21°♄59'27	0°21'16	minimum elong	805 Mar 23 j 03:18	6°♄24'04	0°48'20
asc. node	804 Apr 09 j 23:18	26°♄18'31		asc. node	805 Mar 27 j 20:20	16°♄21'00	
	804 Apr 11 j 16:20	0°♄		evening rise	805 Mar 30 j 11:33	21°♄53'24	
evening rise	804 Apr 15 j 01:13	7°♄12'22			805 Apr 03 j 11:15	0°♄	
	804 Apr 27 j 03:31	0°♄		evening max el	805 Apr 19 j 15:50	24°♄27'59	21°36'33
evening max el	804 May 07 j 20:26	13°♄47'25	23°09'23		805 Apr 28 j 11:35	0°♄	
desc. node	804 May 19 j 01:29	20°♄18'44		retrograde	805 May 01 j 23:19	0°♄28'49	
retrograde	804 May 21 j 07:37	20°♄30'19		evening set	805 May 04 j 11:07	0°♄14'48	
evening set	804 May 24 j 22:07	20°♄01'48		desc. node	805 May 05 j 22:32	29°♄54'00	
min. Earth dist.	804 Jun 01 j 06:00	16°♄43'38	0.55665 AU		805 May 05 j 13:42	30°♄	
inferior conj	804 Jun 03 j 00:25	15°♄41'40	-3°-49'-56	inferior conj	805 May 13 j 20:25	26°♄13'25	-2°-13'-54
minimum elong	804 Jun 02 j 17:08	15°♄52'20	3°48'16	minimum elong	805 May 13 j 14:22	26°♄21'53	2°11'55
morning rise	804 Jun 11 j 15:21	11°♄47'55		min. Earth dist.	805 May 13 j 18:36	26°♄15'57	0.54978 AU
direct	804 Jun 14 j 09:52	11°♄29'30		morning rise	805 May 22 j 18:20	22°♄16'36	
morning max el	804 Jun 25 j 03:25	16°♄27'26	20°29'01	direct	805 May 25 j 21:17	21°♄55'12	
	804 Jul 05 j 07:59	0°♄		morning max el	805 Jun 07 j 05:44	27°♄45'11	21°57'46
asc. node	804 Jul 06 j 22:35	2°♄48'16			805 Jun 09 j 11:13	0°♄	
morning set	804 Jul 13 j 21:18	16°♄16'50		asc. node	805 Jun 23 j 19:38	22°♄05'33	
	804 Jul 20 j 13:11	0°♄			805 Jun 27 j 18:04	0°♄	
				morning set	805 Jun 28 j 06:49	1°♄06'04	
superior conj	804 Jul 21 j 13:01	2°♄01'28	1°44'55				
minimum elong	804 Jul 21 j 12:03	1°♄56'31	1°44'52	superior conj	805 Jul 05 j 14:00	16°♄30'23	1°36'52
max. Earth dist.	804 Jul 26 j 11:36	11°♄50'27	1.36215 AU	minimum elong	805 Jul 05 j 12:00	16°♄19'53	1°36'42
evening rise	804 Jul 30 j 12:51	19°♄30'36		max. Earth dist.	805 Jul 09 j 02:03	23°♄45'44	1.34660 AU
	804 Aug 05 j 10:12	0°♄			805 Jul 12 j 04:44	0°♄	
desc. node	804 Aug 15 j 00:51	15°♄31'08		evening rise	805 Jul 13 j 17:15	2°♄57'59	
	804 Aug 25 j 07:44	0°♄			805 Jul 29 j 07:19	0°♄	

desc. node	805 Aug 01 j 21:53	5° \cap 24'33		max. Earth dist.	806 Jun 22 j 02:09	6° \ominus 02'10	1.33497 AU
evening max el	805 Aug 17 j 17:16	24° \cap 53'51	26°57'38	evening rise	806 Jun 27 j 09:47	17° \ominus 01'29	
	805 Aug 24 j 03:28	0° $\underline{\cap}$			806 Jul 04 j 05:04	0° Ω	
retrograde	805 Aug 30 j 21:43	2° $\underline{\cap}$ 11'18		desc. node	806 Jul 19 j 18:55	24° Ω 45'59	
	805 Sep 05 j 23:48	30° \cap			806 Jul 23 j 19:08	0° \cap	
evening set	805 Sep 06 j 16:30	29° \cap 27'53		evening max el	806 Jul 31 j 04:45	8° \cap 10'25	27°23'39
min. Earth dist.	805 Sep 10 j 15:04	25° \cap 32'36	0.65471 AU	retrograde	806 Aug 13 j 18:26	15° \cap 29'03	
inferior conj	805 Sep 12 j 13:11	23° \cap 19'34	-2°-22'-26	evening set	806 Aug 20 j 21:36	12° \cap 47'52	
minimum elong	805 Sep 12 j 16:51	23° \cap 08'58	2°21'05	min. Earth dist.	806 Aug 24 j 14:13	9° \cap 27'55	0.64039 AU
morning rise	805 Sep 18 j 18:41	17° \cap 39'20		inferior conj	806 Aug 27 j 01:14	6° \cap 53'21	-3°-16'-41
asc. node	805 Sep 19 j 18:51	17° \cap 14'39		minimum elong	806 Aug 27 j 06:00	6° \cap 40'51	3°15'15
direct	805 Sep 21 j 12:39	16° \cap 57'57		morning rise	806 Sep 02 j 16:25	1° \cap 29'19	
morning max el	805 Sep 28 j 02:06	20° \cap 31'54	18°16'41	direct	806 Sep 05 j 05:10	0° \cap 57'06	
	805 Oct 05 j 08:09	0° $\underline{\cap}$		asc. node	806 Sep 06 j 15:54	1° \cap 07'47	
morning set	805 Oct 16 j 22:55	18° $\underline{\cap}$ 39'43		morning max el	806 Sep 11 j 17:49	4° \cap 23'19	17°56'11
	805 Oct 23 j 22:27	0° \cap		morning set	806 Sep 28 j 17:43	0° $\underline{\cap}$ 24'20	
desc. node	805 Oct 28 j 21:12	7° \cap 55'06			806 Sep 28 j 12:02	0° $\underline{\cap}$	
superior conj	805 Oct 31 j 21:17	12° \cap 40'46	0°-19'-48	superior conj	806 Oct 11 j 14:45	21° $\underline{\cap}$ 59'53	0°27'29
minimum elong	805 Oct 31 j 18:43	12° \cap 30'34	0°19'29	minimum elong	806 Oct 11 j 17:44	22° $\underline{\cap}$ 12'02	0°27'05
max. Earth dist.	805 Nov 03 j 06:55	16° \cap 27'54	1.45017 AU	desc. node	806 Oct 15 j 18:14	28° $\underline{\cap}$ 41'30	
	805 Nov 11 j 22:18	0° \nearrow			806 Oct 16 j 13:53	0° \cap	
evening rise	805 Nov 17 j 08:06	8° \nearrow 26'47		max. Earth dist.	806 Oct 17 j 01:03	0° \cap 44'28	1.44349 AU
	805 Dec 01 j 06:59	0° \ominus		evening rise	806 Oct 27 j 18:37	17° \cap 31'25	
greatest brilliancy	805 Dec 02 j 13:18	1° \ominus 52'11	-0.7m		806 Nov 04 j 23:02	0° \nearrow	
evening max el	805 Dec 11 j 05:51	13° \ominus 09'33	19°27'06	greatest brilliancy	806 Nov 18 j 04:29	19° \nearrow 10'17	-0.5m
asc. node	805 Dec 16 j 18:06	17° \ominus 03'04		evening max el	806 Nov 24 j 09:04	26° \nearrow 38'37	20°25'55
retrograde	805 Dec 18 j 10:46	17° \ominus 18'59			806 Nov 28 j 08:10	0° \ominus	
evening set	805 Dec 21 j 20:06	16° \ominus 11'50		retrograde	806 Dec 02 j 08:29	1° \ominus 20'35	
inferior conj	805 Dec 27 j 10:23	10° \ominus 15'15	3°04'47	asc. node	806 Dec 03 j 15:09	1° \ominus 11'22	
minimum elong	805 Dec 27 j 07:43	10° \ominus 23'54	3°04'08	evening set	806 Dec 06 j 02:38	29° \nearrow 58'59	
min. Earth dist.	805 Dec 28 j 15:46	8° \ominus 39'54	0.66317 AU		806 Dec 06 j 02:05	30° \cap \nearrow	
morning rise	806 Jan 01 j 18:34	4° \ominus 01'41		inferior conj	806 Dec 11 j 13:45	23° \nearrow 49'50	2°28'34
direct	806 Jan 07 j 23:33	1° \ominus 17'30		minimum elong	806 Dec 11 j 11:05	23° \nearrow 58'50	2°27'43
morning max el	806 Jan 20 j 10:10	8° \ominus 40'03	25°57'17	min. Earth dist.	806 Dec 12 j 06:01	22° \nearrow 54'43	0.67151 AU
desc. node	806 Jan 24 j 20:24	13° \ominus 31'08		morning rise	806 Dec 16 j 19:03	17° \nearrow 34'41	
	806 Feb 06 j 04:37	0° \approx		direct	806 Dec 22 j 09:36	15° \nearrow 06'58	
	806 Feb 24 j 10:40	0° \times		morning max el	807 Jan 02 j 18:33	21° \nearrow 53'40	24°35'47
morning set	806 Feb 25 j 14:50	2° \times 09'08			807 Jan 09 j 20:20	0° \ominus	
max. Earth dist.	806 Mar 01 j 13:10	9° \times 34'14	1.35588 AU	desc. node	807 Jan 11 j 17:27	2° \ominus 24'28	
					807 Jan 30 j 11:37	0° \approx	
superior conj	806 Mar 06 j 20:13	20° \times 02'14	-1°-15'-7	morning set	807 Feb 07 j 18:19	13° \approx 58'15	
minimum elong	806 Mar 06 j 23:45	20° \times 20'09	1°14'33	max. Earth dist.	807 Feb 11 j 11:20	20° \approx 36'38	1.37482 AU
	806 Mar 11 j 16:54	0° Υ			807 Feb 16 j 11:57	0° \times	
evening rise	806 Mar 14 j 18:27	6° Υ 18'26		superior conj	807 Feb 18 j 04:52	3° \times 16'58	-1°-38'-24
asc. node	806 Mar 14 j 17:23	6° Υ 12'58		minimum elong	807 Feb 18 j 08:55	3° \times 36'33	1°37'57
	806 Mar 28 j 01:36	0° \oslash		evening rise	807 Feb 26 j 19:38	20° \times 20'47	
evening max el	806 Apr 01 j 21:39	5° \oslash 39'51	20°16'29	asc. node	807 Mar 01 j 14:26	25° \times 49'32	
retrograde	806 Apr 12 j 12:55	10° \oslash 47'21			807 Mar 03 j 18:57	0° Υ	
evening set	806 Apr 14 j 15:04	10° \oslash 36'20		evening max el	807 Mar 15 j 14:45	17° Υ 30'26	19°14'42
desc. node	806 Apr 22 j 19:35	7° \oslash 08'28		retrograde	807 Mar 24 j 13:59	21° Υ 50'00	
inferior conj	806 Apr 23 j 16:10	6° \oslash 38'15	0°-14'-51	evening set	807 Mar 26 j 17:39	21° Υ 36'07	
minimum elong	806 Apr 23 j 15:28	6° \oslash 39'16	0°14'36	inferior conj	807 Apr 04 j 01:24	17° Υ 26'04	1°33'22
transit middle	806 Apr 23 j 15:28	6° \oslash 39'16	0°14'36	minimum elong	807 Apr 04 j 04:52	17° Υ 20'13	1°32'14
transit begin	806 Apr 23 j 13:52	6° \oslash 41'37		min. Earth dist.	807 Apr 06 j 22:54	15° Υ 30'13	0.56408 AU
transit end	806 Apr 23 j 17:04	6° \oslash 36'55		desc. node	807 Apr 09 j 16:36	13° Υ 52'03	
min. Earth dist.	806 Apr 25 j 08:00	5° \oslash 39'36	0.55248 AU	morning rise	807 Apr 12 j 12:07	12° Υ 34'58	
morning rise	806 May 02 j 13:36	2° \oslash 19'59		direct	807 Apr 17 j 09:05	11° Υ 40'13	
direct	806 May 06 j 09:48	1° \oslash 47'52		morning max el	807 May 01 j 13:51	18° Υ 55'23	25°17'00
morning max el	806 May 19 j 23:19	8° \oslash 26'51	23°37'54		807 May 10 j 20:41	0° \oslash	
	806 Jun 04 j 14:07	0° Π			807 May 27 j 18:46	0° Π	
asc. node	806 Jun 10 j 16:40	11° Π 44'43		morning set	807 May 28 j 06:13	1° Π 00'11	
morning set	806 Jun 12 j 18:19	16° Π 02'12		asc. node	807 May 28 j 13:42	1° Π 39'40	
	806 Jun 19 j 06:30	0° \ominus					
superior conj	806 Jun 19 j 20:40	1° \ominus 16'17	1°23'25	superior conj	807 Jun 04 j 06:47	16° Π 12'17	1°05'37
minimum elong	806 Jun 19 j 18:14	1° \ominus 03'11	1°23'06	minimum elong	807 Jun 04 j 04:27	15° Π 59'28	1°05'14

max. Earth dist.	807 Jun 05 j 09:55	18° Π 40'09	1.32723 AU		808 May 18 j 05:34	0° Π	
	807 Jun 10 j 17:22	0° \mathfrak{G}					
evening rise	807 Jun 11 j 10:54	1° \mathfrak{G} 30'38		superior conj	808 May 18 j 18:26	1° Π 10'44	0°44'19
	807 Jun 27 j 03:36	0° Ω		minimum elong	808 May 18 j 16:37	1° Π 00'47	0°43'57
desc. node	807 Jul 06 j 15:55	13° Ω 22'23		max. Earth dist.	808 May 18 j 21:45	1° Π 28'58	1.32324 AU
evening max el	807 Jul 13 j 13:14	20° Ω 57'28	27°19'09	evening rise	808 May 25 j 17:43	16° Π 15'04	
retrograde	807 Jul 27 j 08:34	28° Ω 14'09			808 Jun 01 j 15:41	0° \mathfrak{G}	
evening set	807 Aug 03 j 13:00	25° Ω 47'29			808 Jun 21 j 16:48	0° Ω	
min. Earth dist.	807 Aug 07 j 03:01	22° Ω 55'57	0.62276 AU	desc. node	808 Jun 22 j 12:55	0° Ω 54'00	
inferior conj	807 Aug 10 j 02:16	20° Ω 09'56	-4°-4'-20	evening max el	808 Jun 24 j 16:00	3° Ω 02'12	26°41'37
minimum elong	807 Aug 10 j 07:11	19° Ω 58'25	4°03'16	retrograde	808 Jul 08 j 15:20	10° Ω 16'45	
morning rise	807 Aug 17 j 03:59	15° Ω 05'38		evening set	808 Jul 15 j 10:12	8° Ω 18'20	
direct	807 Aug 19 j 14:07	14° Ω 39'39		min. Earth dist.	808 Jul 19 j 05:33	5° Ω 41'18	0.60267 AU
asc. node	807 Aug 24 j 12:56	16° Ω 30'59		inferior conj	808 Jul 22 j 12:47	2° Ω 59'45	-4°-38'-57
morning max el	807 Aug 26 j 09:09	18° Ω 06'21	17°53'46	minimum elong	808 Jul 22 j 16:08	2° Ω 52'51	4°38'35
	807 Sep 03 j 22:28	0° \mathfrak{M}			808 Jul 26 j 12:24	30° \mathfrak{R} \mathfrak{G}	
morning set	807 Sep 11 j 09:51	13° \mathfrak{M} 10'07		morning rise	808 Jul 30 j 01:20	28° \mathfrak{G} 17'54	
	807 Sep 20 j 21:59	0° \mathfrak{A}		direct	808 Aug 01 j 11:21	27° \mathfrak{G} 55'55	
					808 Aug 07 j 01:30	0° Ω	
superior conj	807 Sep 22 j 10:55	2° \mathfrak{A} 38'36	1°05'01	morning max el	808 Aug 08 j 20:58	1° Ω 32'33	18°10'31
minimum elong	807 Sep 22 j 15:45	2° \mathfrak{A} 59'12	1°04'27	asc. node	808 Aug 10 j 09:58	3° Ω 09'46	
max. Earth dist.	807 Sep 29 j 15:27	14° \mathfrak{A} 38'17	1.43041 AU	morning set	808 Aug 24 j 17:31	26° Ω 40'20	
desc. node	807 Oct 02 j 15:16	19° \mathfrak{A} 28'17			808 Aug 26 j 11:57	0° \mathfrak{M}	
evening rise	807 Oct 07 j 03:43	26° \mathfrak{A} 37'03					
	807 Oct 09 j 07:59	0° \mathfrak{M}		superior conj	808 Sep 03 j 08:57	14° \mathfrak{M} 33'38	1°29'57
	807 Oct 29 j 21:08	0° \mathfrak{A}		minimum elong	808 Sep 03 j 12:46	14° \mathfrak{M} 50'46	1°29'36
greatest brilliancy	807 Nov 02 j 08:35	4° \mathfrak{A} 30'14	-0.4m	max. Earth dist.	808 Sep 10 j 23:54	27° \mathfrak{M} 52'14	1.41260 AU
evening max el	807 Nov 07 j 06:28	10° \mathfrak{A} 07'56	21°36'37		808 Sep 12 j 06:18	0° \mathfrak{A}	
retrograde	807 Nov 16 j 05:31	15° \mathfrak{A} 27'46		evening rise	808 Sep 16 j 04:06	6° \mathfrak{A} 26'14	
evening set	807 Nov 20 j 10:25	13° \mathfrak{A} 50'00		desc. node	808 Sep 18 j 12:16	10° \mathfrak{A} 11'52	
asc. node	807 Nov 20 j 12:11	13° \mathfrak{A} 46'30			808 Oct 01 j 13:05	0° \mathfrak{M}	
inferior conj	807 Nov 25 j 20:01	7° \mathfrak{A} 31'40	1°45'11	greatest brilliancy	808 Oct 14 j 17:38	17° \mathfrak{M} 48'08	-0.3m
minimum elong	807 Nov 25 j 17:51	7° \mathfrak{A} 39'09	1°44'22	evening max el	808 Oct 19 j 22:37	23° \mathfrak{M} 38'35	22°54'57
min. Earth dist.	807 Nov 26 j 00:37	7° \mathfrak{A} 15'44	0.67612 AU	retrograde	808 Oct 30 j 00:16	29° \mathfrak{M} 37'22	
morning rise	807 Dec 01 j 01:02	1° \mathfrak{A} 16'52		evening set	808 Nov 03 j 17:44	27° \mathfrak{M} 42'16	
	807 Dec 02 j 20:55	30° \mathfrak{R} \mathfrak{M}		asc. node	808 Nov 06 j 09:12	24° \mathfrak{M} 57'55	
direct	807 Dec 06 j 00:12	29° \mathfrak{M} 10'37		inferior conj	808 Nov 09 j 03:18	21° \mathfrak{M} 18'40	0°56'14
	807 Dec 09 j 09:34	0° \mathfrak{A}		minimum elong	808 Nov 09 j 02:01	21° \mathfrak{M} 23'04	0°55'42
morning max el	807 Dec 16 j 03:55	5° \mathfrak{A} 12'32	23°07'49	min. Earth dist.	808 Nov 08 j 21:14	21° \mathfrak{M} 39'34	0.67730 AU
greatest brilliancy	807 Dec 21 j 02:08	10° \mathfrak{A} 43'20	-0.3m	morning rise	808 Nov 14 j 10:17	15° \mathfrak{M} 06'26	
desc. node	807 Dec 29 j 14:30	21° \mathfrak{A} 55'16		direct	808 Nov 18 j 18:38	13° \mathfrak{M} 22'54	
	808 Jan 04 j 05:24	0° \mathfrak{Z}		morning max el	808 Nov 27 j 17:29	18° \mathfrak{M} 38'25	21°42'24
morning set	808 Jan 19 j 20:15	24° \mathfrak{Z} 30'14		greatest brilliancy	808 Dec 02 j 14:57	24° \mathfrak{M} 11'40	-0.4m
	808 Jan 23 j 02:18	0° \approx			808 Dec 07 j 02:10	0° \mathfrak{A}	
max. Earth dist.	808 Jan 24 j 06:38	2° \approx 02'01	1.39600 AU	desc. node	808 Dec 15 j 11:32	11° \mathfrak{A} 52'56	
					808 Dec 27 j 09:39	0° \mathfrak{Z}	
superior conj	808 Jan 31 j 22:42	15° \approx 44'47	-1°-55'-45	morning set	808 Dec 29 j 17:01	3° \mathfrak{Z} 38'53	
minimum elong	808 Feb 01 j 01:54	15° \approx 59'32	1°55'34	max. Earth dist.	809 Jan 05 j 05:55	14° \mathfrak{Z} 16'02	1.41668 AU
	808 Feb 08 j 11:45	0° \mathfrak{H}					
evening rise	808 Feb 10 j 12:14	3° \mathfrak{H} 52'50		superior conj	809 Jan 12 j 20:35	27° \mathfrak{Z} 13'30	-2°-3'-11
asc. node	808 Feb 16 j 11:28	15° \mathfrak{H} 04'36		minimum elong	809 Jan 12 j 20:48	27° \mathfrak{Z} 14'25	2°03'13
evening max el	808 Feb 26 j 17:11	29° \mathfrak{H} 55'42	18°32'53		809 Jan 14 j 10:30	0° \approx	
	808 Feb 26 j 18:58	0° \mathfrak{Y}		evening rise	809 Jan 23 j 16:48	16° \approx 46'37	
retrograde	808 Mar 05 j 09:30	3° \mathfrak{Y} 41'29			809 Jan 31 j 00:57	0° \mathfrak{H}	
evening set	808 Mar 07 j 18:02	3° \mathfrak{Y} 21'25		asc. node	809 Feb 02 j 08:31	3° \mathfrak{H} 51'13	
	808 Mar 13 j 19:55	30° \mathfrak{R} \mathfrak{H}		evening max el	809 Feb 09 j 02:01	12° \mathfrak{H} 48'07	18°11'09
inferior conj	808 Mar 15 j 07:08	28° \mathfrak{H} 52'11	2°49'52	retrograde	809 Feb 15 j 22:52	16° \mathfrak{H} 16'04	
minimum elong	808 Mar 15 j 11:12	28° \mathfrak{H} 44'12	2°48'55	evening set	809 Feb 18 j 12:22	15° \mathfrak{H} 47'46	
min. Earth dist.	808 Mar 18 j 17:05	26° \mathfrak{H} 12'46	0.58213 AU	inferior conj	809 Feb 25 j 09:29	10° \mathfrak{H} 57'18	3°32'20
morning rise	808 Mar 23 j 00:16	23° \mathfrak{H} 29'44		minimum elong	809 Feb 25 j 11:52	10° \mathfrak{H} 51'52	3°32'03
desc. node	808 Mar 26 j 13:38	22° \mathfrak{H} 14'55		min. Earth dist.	809 Feb 28 j 17:03	7° \mathfrak{H} 57'20	0.60317 AU
direct	808 Mar 28 j 22:16	22° \mathfrak{H} 00'38		morning rise	809 Mar 04 j 08:06	5° \mathfrak{H} 12'50	
morning max el	808 Apr 12 j 07:11	29° \mathfrak{H} 38'21	26°39'28	direct	809 Mar 10 j 23:52	3° \mathfrak{H} 06'37	
	808 Apr 12 j 16:00	0° \mathfrak{Y}		desc. node	809 Mar 13 j 10:41	3° \mathfrak{H} 22'54	
	808 May 03 j 15:10	0° \mathfrak{B}		morning max el	809 Mar 25 j 06:22	10° \mathfrak{H} 56'11	27°32'02
morning set	808 May 11 j 16:48	15° \mathfrak{B} 53'04			809 Apr 09 j 03:04	0° \mathfrak{Y}	
asc. node	808 May 14 j 10:44	21° \mathfrak{B} 44'08			809 Apr 25 j 17:34	0° \mathfrak{B}	

morning set	809 Apr 26 j 00:19	0°♄34'50		morning max el	810 Mar 07 j 11:15	22°≈54'19	27°48'14
asc. node	809 May 01 j 07:47	11°♄53'43			810 Mar 13 j 18:43	0°♄	
max. Earth dist.	809 May 02 j 09:58	14°♄16'39	1.32303 AU		810 Apr 02 j 07:35	0°♄	
				morning set	810 Apr 10 j 02:41	14°♄58'05	
superior conj	809 May 03 j 05:55	16°♄05'54	0°20'14	max. Earth dist.	810 Apr 15 j 18:48	26°♄50'11	1.32668 AU
minimum elong	809 May 03 j 05:00	16°♄00'56	0°20'02		810 Apr 17 j 06:00	0°♄	
	809 May 09 j 15:16	0°♄					
evening rise	809 May 10 j 04:00	1°♄07'30		superior conj	810 Apr 17 j 15:32	0°♄51'37	0°-5'-52
	809 May 25 j 22:28	0°♄		minimum elong	810 Apr 17 j 15:48	0°♄53'07	0°05'50
evening max el	809 Jun 06 j 11:55	14°♄21'22	25°33'38	behind sun begin	810 Apr 17 j 10:58	0°♄26'53	
desc. node	809 Jun 09 j 09:55	16°♄54'23		behind sun end	810 Apr 17 j 20:39	1°♄19'22	
retrograde	809 Jun 20 j 12:54	21°♄31'30		asc. node	810 Apr 18 j 04:51	2°♄03'55	
evening set	809 Jun 26 j 08:54	20°♄11'17		evening rise	810 Apr 24 j 15:47	16°♄00'51	
min. Earth dist.	809 Jul 01 j 00:06	17°♄30'21	0.58218 AU		810 May 01 j 15:15	0°♄	
inferior conj	809 Jul 04 j 05:19	15°♄13'43	-4°-50'-22	evening max el	810 May 19 j 02:51	25°♄04'55	24°04'34
minimum elong	809 Jul 04 j 04:49	15°♄14'36	4°50'22		810 May 25 j 14:18	0°♄	
morning rise	809 Jul 12 j 04:28	10°♄54'35		desc. node	810 May 27 j 06:56	0°♄49'15	
direct	809 Jul 14 j 16:33	10°♄34'57		retrograde	810 Jun 01 j 22:30	2°♄01'45	
morning max el	809 Jul 23 j 02:12	14°♄32'57	18°47'40	evening set	810 Jun 06 j 09:05	1°♄18'05	
asc. node	809 Jul 28 j 07:01	20°♄49'07			810 Jun 09 j 12:21	30°♄	
	809 Aug 02 j 20:46	0°♄		min. Earth dist.	810 Jun 12 j 13:52	28°♄17'12	0.56436 AU
morning set	809 Aug 08 j 12:15	10°♄43'21		inferior conj	810 Jun 15 j 01:43	26°♄44'34	-4°-25'-17
				minimum elong	810 Jun 14 j 20:16	26°♄53'04	4°24'28
superior conj	809 Aug 17 j 03:35	27°♄30'04	1°43'07	morning rise	810 Jun 23 j 11:04	22°♄44'10	
minimum elong	809 Aug 17 j 05:22	27°♄38'34	1°43'01	direct	810 Jun 26 j 02:57	22°♄25'35	
	809 Aug 18 j 11:23	0°♄		morning max el	810 Jul 05 j 21:56	26°♄58'02	19°46'03
max. Earth dist.	809 Aug 24 j 03:46	10°♄22'29	1.39251 AU		810 Jul 08 j 18:36	0°♄	
evening rise	809 Aug 28 j 04:29	17°♄23'03		asc. node	810 Jul 15 j 04:05	9°♄15'28	
	809 Sep 04 j 20:58	0°♄		morning set	810 Jul 23 j 14:44	25°♄10'37	
desc. node	809 Sep 05 j 09:16	0°♄48'27			810 Jul 25 j 23:54	0°♄	
	809 Sep 26 j 00:36	0°♄					
evening max el	809 Oct 02 j 11:30	7°♄12'50	24°14'58	superior conj	810 Jul 31 j 13:24	11°♄12'53	1°46'33
retrograde	809 Oct 13 j 15:26	13°♄45'36		minimum elong	810 Jul 31 j 13:17	11°♄12'21	1°46'33
evening set	809 Oct 18 j 22:55	11°♄33'03		max. Earth dist.	810 Aug 06 j 07:56	22°♄22'30	1.37265 AU
min. Earth dist.	809 Oct 23 j 17:23	6°♄03'46	0.67530 AU	evening rise	810 Aug 10 j 04:38	29°♄28'00	
inferior conj	809 Oct 24 j 09:49	5°♄08'21	0°03'05		810 Aug 10 j 11:46	0°♄	
minimum elong	809 Oct 24 j 09:45	5°♄08'37	0°03'03	desc. node	810 Aug 23 j 06:17	21°♄13'46	
transit middle	809 Oct 24 j 09:45	5°♄08'37	0°03'03		810 Aug 29 j 03:46	0°♄	
transit begin	809 Oct 24 j 07:04	5°♄17'40		evening max el	810 Sep 14 j 23:22	20°♄51'21	25°29'29
transit end	809 Oct 24 j 12:26	4°♄59'34		retrograde	810 Sep 27 j 02:06	27°♄49'00	
asc. node	809 Oct 24 j 06:16	5°♄20'21		evening set	810 Oct 03 j 00:18	25°♄20'31	
	809 Oct 28 j 16:38	30°♄		min. Earth dist.	810 Oct 07 j 10:38	20°♄26'46	0.67009 AU
morning rise	809 Oct 29 j 20:51	29°♄01'16		inferior conj	810 Oct 08 j 13:53	18°♄59'02	0°-52'-47
direct	809 Nov 02 j 15:49	27°♄39'12		minimum elong	810 Oct 08 j 15:13	18°♄54'42	0°52'13
	809 Nov 08 j 02:53	0°♄		asc. node	810 Oct 11 j 03:18	15°♄50'12	
morning max el	809 Nov 10 j 13:58	2°♄13'39	20°26'12	morning rise	810 Oct 14 j 06:48	13°♄00'00	
greatest brilliancy	809 Nov 16 j 23:03	9°♄49'40	-0.5m	direct	810 Oct 17 j 14:20	11°♄56'33	
	809 Nov 30 j 22:21	0°♄		morning max el	810 Oct 24 j 18:15	15°♄59'28	19°23'28
desc. node	809 Dec 02 j 08:33	2°♄09'25		greatest brilliancy	810 Nov 03 j 02:28	28°♄01'20	-0.7m
morning set	809 Dec 08 j 15:56	11°♄49'58			810 Nov 04 j 10:46	0°♄	
max. Earth dist.	809 Dec 18 j 12:45	27°♄24'11	1.43409 AU	morning set	810 Nov 17 j 16:00	20°♄13'43	
	809 Dec 20 j 03:20	0°♄		desc. node	810 Nov 19 j 05:36	22°♄39'42	
					810 Nov 23 j 22:37	0°♄	
superior conj	809 Dec 24 j 17:22	7°♄31'06	-1°-55'-59	max. Earth dist.	810 Dec 01 j 02:54	11°♄16'36	1.44595 AU
minimum elong	809 Dec 24 j 12:36	7°♄11'21	1°55'45				
evening rise	810 Jan 06 j 05:06	28°♄52'39		superior conj	810 Dec 04 j 11:56	16°♄38'17	-1°-30'-21
	810 Jan 06 j 20:29	0°≈		minimum elong	810 Dec 04 j 03:28	16°♄04'36	1°29'33
asc. node	810 Jan 20 j 05:34	21°≈59'47			810 Dec 12 j 18:32	0°♄	
evening max el	810 Jan 23 j 14:05	25°≈58'14	18°08'58	evening rise	810 Dec 18 j 20:54	10°♄04'18	
retrograde	810 Jan 30 j 02:09	29°≈22'55			810 Dec 31 j 01:06	0°≈	
evening set	810 Feb 01 j 20:22	28°≈45'07		evening max el	811 Jan 07 j 02:30	9°≈18'52	18°25'32
inferior conj	810 Feb 08 j 04:59	23°≈33'36	3°47'14	asc. node	811 Jan 07 j 02:37	9°≈19'10	
minimum elong	810 Feb 08 j 05:13	23°≈32'59	3°47'14	retrograde	811 Jan 13 j 15:05	12°≈52'57	
min. Earth dist.	810 Feb 11 j 01:00	20°≈37'58	0.62391 AU	evening set	811 Jan 16 j 14:15	12°≈04'43	
morning rise	810 Feb 14 j 11:52	17°≈35'34		inferior conj	811 Jan 22 j 13:39	6°≈33'33	3°41'48
direct	810 Feb 21 j 11:02	15°≈00'45		minimum elong	811 Jan 22 j 12:13	6°≈37'43	3°41'40
desc. node	810 Feb 28 j 07:44	17°≈09'13		min. Earth dist.	811 Jan 24 j 18:27	4°≈01'28	0.64208 AU

morning rise	811 Jan 28 j 08:45	0°≈27'07		min. Earth dist.	812 Jan 07 j 21:23	17°☾53'24	0.65654 AU
	811 Jan 28 j 22:27	30°☿☾		morning rise	812 Jan 11 j 19:01	13°☾39'09	
direct	811 Feb 04 j 05:45	27°☾37'57		direct	812 Jan 18 j 06:58	10°☾49'54	
	811 Feb 11 j 05:30	0°≈		morning max el	812 Jan 31 j 05:48	18°☾26'41	26°37'26
desc. node	811 Feb 15 j 04:48	3°≈00'07		desc. node	812 Feb 02 j 01:51	20°☾21'39	
morning max el	811 Feb 17 j 19:55	5°≈28'06	27°28'16		812 Feb 10 j 00:33	0°≈	
	811 Mar 08 j 12:13	0°☿			812 Feb 29 j 11:30	0°☿	
morning set	811 Mar 24 j 21:17	28°☿54'19		morning set	812 Mar 07 j 04:38	12°☿13'01	
	811 Mar 25 j 10:35	0°☿		max. Earth dist.	812 Mar 11 j 11:22	20°☿31'36	1.34672 AU
max. Earth dist.	811 Mar 29 j 20:24	8°☿57'29	1.33448 AU				
				superior conj	812 Mar 15 j 21:20	29°☿29'02	-1°00'-10
superior conj	811 Apr 01 j 21:24	15°☿21'34	0°-33'-3	minimum elong	812 Mar 16 j 00:15	29°☿44'09	0°59'39
minimum elong	811 Apr 01 j 23:01	15°☿30'11	0°32'44		812 Mar 16 j 03:19	0°☿	
asc. node	811 Apr 05 j 01:54	22°☿10'37		asc. node	812 Mar 21 j 22:58	12°☿09'39	
	811 Apr 08 j 17:58	0°☿		evening rise	812 Mar 23 j 12:23	15°☿24'18	
evening rise	811 Apr 09 j 03:12	0°☿48'36			812 Mar 30 j 23:31	0°☿	
	811 Apr 25 j 19:08	0°☿		evening max el	812 Apr 11 j 17:46	16°☿29'25	21°00'28
evening max el	811 Apr 30 j 18:27	5°☿37'28	22°28'51	retrograde	812 Apr 23 j 09:03	22°☿08'38	
retrograde	811 May 13 j 19:25	12°☿04'15		evening set	812 Apr 25 j 14:51	21°☿56'49	
desc. node	811 May 14 j 04:00	12°☿03'58		desc. node	812 Apr 30 j 01:02	20°☿32'11	
evening set	811 May 16 j 20:58	11°☿43'35		inferior conj	812 May 04 j 22:15	17°☿58'32	-1°-24'-16
min. Earth dist.	811 May 25 j 01:55	8°☿10'15	0.55266 AU	minimum elong	812 May 04 j 18:16	18°☿04'11	1°22'51
inferior conj	811 May 26 j 04:09	7°☿33'05	-3°-13'-57	min. Earth dist.	812 May 05 j 14:36	17°☿35'22	0.54971 AU
minimum elong	811 May 25 j 20:39	7°☿43'43	3°11'52	morning rise	812 May 13 j 21:13	13°☿55'02	
morning rise	811 Jun 03 j 22:38	3°☿40'33		direct	812 May 17 j 06:05	13°☿30'33	
direct	811 Jun 06 j 20:16	3°☿21'20		morning max el	812 May 30 j 04:42	19°☿41'57	22°39'36
morning max el	811 Jun 18 j 06:27	8°☿40'21	21°04'49		812 Jun 07 j 17:50	0°☿	
asc. node	811 Jul 02 j 01:08	28°☿16'58		asc. node	812 Jun 17 j 22:12	17°☿44'57	
	811 Jul 02 j 23:03	0°☿		morning set	812 Jun 21 j 08:54	27°☿47'26	
morning set	811 Jul 07 j 22:18	9°☿53'57			812 Jun 23 j 20:03	0°☿	
superior conj	811 Jul 15 j 09:51	25°☿28'12	1°42'14	superior conj	812 Jun 28 j 13:36	10°☿05'57	1°31'46
minimum elong	811 Jul 15 j 08:22	25°☿20'32	1°42'09	minimum elong	812 Jun 28 j 11:20	9°☿53'59	1°31'32
	811 Jul 17 j 15:02	0°☿		max. Earth dist.	812 Jul 01 j 12:18	16°☿17'33	1.34117 AU
max. Earth dist.	811 Jul 19 j 17:40	4°☿13'43	1.35511 AU	evening rise	812 Jul 06 j 10:08	26°☿13'15	
evening rise	811 Jul 24 j 00:05	12°☿28'55			812 Jul 08 j 08:56	0°☿	
	811 Aug 02 j 22:00	0°☿			812 Jul 26 j 06:50	0°☿	
desc. node	811 Aug 10 j 03:19	11°☿21'12		desc. node	812 Jul 27 j 00:20	1°☿02'37	
	811 Aug 24 j 05:14	0°☿		evening max el	812 Aug 09 j 23:11	17°☿55'17	27°11'55
evening max el	811 Aug 28 j 11:19	4°☿28'25	26°30'59	retrograde	812 Aug 23 j 07:58	25°☿14'12	
retrograde	811 Sep 10 j 07:43	11°☿41'04		evening set	812 Aug 30 j 07:07	22°☿29'59	
evening set	811 Sep 16 j 19:51	9°☿00'52		min. Earth dist.	812 Sep 03 j 02:48	18°☿50'32	0.64912 AU
min. Earth dist.	811 Sep 20 j 22:31	4°☿44'24	0.66143 AU	inferior conj	812 Sep 05 j 06:30	16°☿27'08	-2°-45'-57
inferior conj	811 Sep 22 j 13:30	2°☿46'44	-1°-49'-49	minimum elong	812 Sep 05 j 10:42	16°☿15'27	2°44'31
minimum elong	811 Sep 22 j 16:21	2°☿38'07	1°48'42	morning rise	812 Sep 11 j 16:02	10°☿53'42	
	811 Sep 24 j 23:09	30°☿☿		asc. node	812 Sep 13 j 21:24	10°☿17'38	
asc. node	811 Sep 28 j 00:21	27°☿19'20		direct	812 Sep 14 j 07:26	10°☿16'42	
morning rise	811 Sep 28 j 14:01	26°☿58'55		morning max el	812 Sep 20 j 19:44	13°☿46'13	18°05'48
direct	811 Oct 01 j 12:17	26°☿10'34			812 Oct 02 j 05:58	0°☿	
morning max el	811 Oct 08 j 04:59	29°☿52'07	18°36'18	morning set	812 Oct 08 j 18:28	10°☿50'22	
	811 Oct 08 j 08:05	0°☿			812 Oct 20 j 10:42	0°☿	
morning set	811 Oct 28 j 14:48	29°☿49'30					
	811 Oct 28 j 17:26	0°☿		superior conj	812 Oct 22 j 19:58	3°☿49'23	0°01'02
desc. node	811 Nov 06 j 02:38	13°☿19'08		minimum elong	812 Oct 22 j 20:06	3°☿49'54	0°01'01
				behind sun begin	812 Oct 22 j 09:24	3°☿07'12	
superior conj	811 Nov 13 j 13:49	25°☿04'30	0°-48'-2	behind sun end	812 Oct 23 j 06:47	4°☿32'33	
minimum elong	811 Nov 13 j 07:40	24°☿40'22	0°47'17	desc. node	812 Oct 22 j 23:39	4°☿04'07	
max. Earth dist.	811 Nov 13 j 21:13	25°☿33'33	1.45078 AU	max. Earth dist.	812 Oct 26 j 16:01	9°☿54'40	1.44817 AU
	811 Nov 16 j 17:02	0°☿		evening rise	812 Nov 08 j 08:04	29°☿40'47	
evening rise	811 Nov 29 j 13:19	20°☿18'05			812 Nov 08 j 13:02	0°☿	
	811 Dec 05 j 15:30	0°☿		greatest brilliancy	812 Nov 26 j 08:40	26°☿53'38	-0.6m
evening max el	811 Dec 21 j 12:46	22°☿44'52	18°59'53		812 Nov 28 j 14:55	0°☿	
asc. node	811 Dec 24 j 23:39	25°☿35'53		evening max el	812 Dec 03 j 18:52	6°☿12'59	19°50'27
retrograde	811 Dec 28 j 09:46	26°☿39'05		asc. node	812 Dec 10 j 20:41	10°☿34'53	
evening set	811 Dec 31 j 14:55	25°☿39'14		retrograde	812 Dec 11 j 07:08	10°☿35'57	
inferior conj	812 Jan 06 j 07:51	19°☿50'55	3°21'36	evening set	812 Dec 14 j 19:54	9°☿22'57	
minimum elong	812 Jan 06 j 05:27	19°☿58'29	3°21'08	inferior conj	812 Dec 20 j 08:35	3°☿20'25	2°50'25

minimum elong	812 Dec 20 j 05:52	3°☿29'28	2°49'40	retrograde	813 Nov 25 j 04:47	24°♄40'29	
min. Earth dist.	812 Dec 21 j 08:11	2°☿02'08	0.66711 AU	asc. node	813 Nov 27 j 17:42	24°♄04'12	
	812 Dec 22 j 22:21	30°♄12'26		evening set	813 Nov 29 j 03:10	23°♄12'26	
morning rise	812 Dec 25 j 15:10	27°♄05'42		inferior conj	813 Dec 04 j 13:27	16°♄59'02	2°10'56
direct	812 Dec 31 j 14:07	24°♄27'42		minimum elong	813 Dec 04 j 10:57	17°♄07'36	2°10'05
	813 Jan 10 j 22:34	0°☿		min. Earth dist.	813 Dec 05 j 00:41	16°♄20'31	0.67389 AU
morning max el	813 Jan 12 j 14:48	1°☿37'22	25°24'06	morning rise	813 Dec 09 j 18:19	10°♄43'34	
desc. node	813 Jan 18 j 22:53	8°☿47'07		direct	813 Dec 15 j 02:22	8°♄24'20	
	813 Feb 03 j 02:15	0°♄		morning max el	813 Dec 25 j 23:09	14°♄53'15	23°58'30
morning set	813 Feb 17 j 19:56	24°♄39'23		desc. node	814 Jan 05 j 19:55	27°♄58'18	
	813 Feb 20 j 17:43	0°♄			814 Jan 07 j 07:43	0°☿	
max. Earth dist.	813 Feb 21 j 14:22	1°♄36'43	1.36344 AU		814 Jan 27 j 00:39	0°♄	
				morning set	814 Jan 30 j 13:15	5°♄57'36	
superior conj	813 Feb 27 j 12:29	13°♄05'09	-1°-25'-31	max. Earth dist.	814 Feb 03 j 09:44	12°♄42'12	1.38369 AU
minimum elong	813 Feb 27 j 16:21	13°♄24'24	1°24'59				
evening rise	813 Mar 07 j 17:07	29°♄40'16		superior conj	814 Feb 10 j 15:22	26°♄01'24	-1°-46'-42
	813 Mar 07 j 21:01	0°♄		minimum elong	814 Feb 10 j 19:16	26°♄19'54	1°46'22
asc. node	813 Mar 08 j 20:00	1°♄55'38			814 Feb 12 j 17:14	0°♄	
evening max el	813 Mar 25 j 04:25	27°♄57'24	19°47'52	evening rise	814 Feb 19 j 14:59	13°♄30'21	
	813 Mar 27 j 14:12	0°♄		asc. node	814 Feb 23 j 17:01	21°♄23'41	
retrograde	813 Apr 04 j 02:20	2°♄43'30			814 Feb 28 j 12:54	0°♄	
evening set	813 Apr 06 j 04:01	2°♄31'57		evening max el	814 Mar 08 j 01:52	10°♄03'46	18°54'30
	813 Apr 12 j 10:40	30°♄1'00		retrograde	814 Mar 16 j 10:28	14°♄06'31	
inferior conj	813 Apr 14 j 22:21	28°♄30'18	0°34'03	evening set	814 Mar 18 j 16:08	13°♄50'20	
minimum elong	813 Apr 14 j 23:50	28°♄28'00	0°33'31	inferior conj	814 Mar 26 j 15:50	9°♄33'00	2°10'09
desc. node	813 Apr 16 j 22:04	27°♄16'26		minimum elong	814 Mar 26 j 19:58	9°♄25'36	2°08'57
min. Earth dist.	813 Apr 17 j 04:48	27°♄06'12	0.55636 AU	min. Earth dist.	814 Mar 29 j 20:58	7°♄16'01	0.57120 AU
morning rise	813 Apr 23 j 16:20	23°♄58'15		morning rise	814 Apr 03 j 19:32	4°♄27'43	
direct	813 Apr 27 j 22:16	23°♄18'13		desc. node	814 Apr 03 j 19:06	4°♄28'10	
	813 May 11 j 13:53	0°♄		direct	814 Apr 09 j 03:55	3°♄19'01	
morning max el	813 May 11 j 20:21	0°♄15'15	24°21'04	morning max el	814 Apr 23 j 11:14	10°♄45'39	25°54'57
	813 Jun 01 j 01:38	0°♄			814 May 08 j 04:32	0°♄	
asc. node	813 Jun 04 j 19:15	7°♄31'32		morning set	814 May 21 j 08:15	24°♄40'53	
morning set	813 Jun 05 j 20:45	9°♄44'55		asc. node	814 May 22 j 16:17	27°♄30'52	
					814 May 23 j 20:03	0°♄	
superior conj	813 Jun 12 j 21:59	24°♄57'11	1°16'22				
minimum elong	813 Jun 12 j 19:32	24°♄43'52	1°16'00	superior conj	814 May 28 j 08:57	9°♄54'46	0°56'59
max. Earth dist.	813 Jun 14 j 15:44	28°♄42'33	1.33117 AU	minimum elong	814 May 28 j 06:47	9°♄42'53	0°56'34
	813 Jun 15 j 06:11	0°♄		max. Earth dist.	814 May 29 j 01:30	11°♄25'29	1.32506 AU
evening rise	813 Jun 20 j 06:40	10°♄28'51		evening rise	814 Jun 04 j 10:31	25°♄05'27	
	813 Jun 30 j 16:21	0°♄			814 Jun 06 j 20:14	0°♄	
desc. node	813 Jul 13 j 21:21	20°♄07'05			814 Jun 24 j 08:17	0°♄	
	813 Jul 22 j 08:41	0°♄		desc. node	814 Jun 30 j 18:22	8°♄18'48	
evening max el	813 Jul 23 j 09:32	1°♄00'33	27°25'39	evening max el	814 Jul 05 j 16:02	13°♄31'27	27°07'21
retrograde	813 Aug 06 j 02:17	8°♄19'27		retrograde	814 Jul 19 j 13:34	20°♄47'08	
evening set	813 Aug 13 j 06:56	5°♄42'39		evening set	814 Jul 26 j 15:12	18°♄31'16	
min. Earth dist.	813 Aug 16 j 21:44	2°♄35'59	0.63324 AU	min. Earth dist.	814 Jul 30 j 06:17	15°♄47'38	0.61437 AU
inferior conj	813 Aug 19 j 14:15	29°♄54'42	-3°-38'-4	inferior conj	814 Aug 02 j 09:35	13°♄01'24	-4°-21'-13
minimum elong	813 Aug 19 j 19:15	29°♄42'12	3°36'43	minimum elong	814 Aug 02 j 14:06	12°♄51'23	4°20'24
	813 Aug 19 j 12:09	30°♄1'00		morning rise	814 Aug 09 j 15:53	8°♄06'07	
morning rise	813 Aug 26 j 09:53	24°♄38'48		direct	814 Aug 12 j 01:35	7°♄42'06	
direct	813 Aug 28 j 21:02	24°♄09'44		asc. node	814 Aug 18 j 15:30	10°♄47'37	
asc. node	813 Aug 31 j 18:27	24°♄50'28		morning max el	814 Aug 19 j 01:52	11°♄12'10	17°58'24
morning max el	813 Sep 04 j 11:42	27°♄35'24	17°52'50		814 Aug 31 j 13:23	0°♄	
	813 Sep 06 j 15:31	0°♄		morning set	814 Sep 03 j 22:33	6°♄10'13	
morning set	813 Sep 20 j 23:07	23°♄03'23					
	813 Sep 24 j 22:44	0°♄		superior conj	814 Sep 14 j 08:01	24°♄54'12	1°17'08
superior conj	813 Oct 03 j 00:21	13°♄41'44	0°44'54	minimum elong	814 Sep 14 j 12:38	25°♄14'24	1°16'38
minimum elong	813 Oct 03 j 04:35	13°♄59'19	0°44'20		814 Sep 17 j 06:46	0°♄	
max. Earth dist.	813 Oct 09 j 08:18	24°♄01'50	1.43859 AU	max. Earth dist.	814 Sep 21 j 20:14	7°♄40'11	1.42331 AU
desc. node	813 Oct 09 j 20:39	24°♄51'24		desc. node	814 Sep 26 j 17:40	15°♄37'24	
	813 Oct 13 j 02:19	0°♄		evening rise	814 Sep 28 j 05:40	18°♄00'36	
evening rise	813 Oct 18 j 15:43	8°♄40'21			814 Oct 05 j 23:45	0°♄	
	813 Nov 01 j 19:44	0°♄		greatest brilliancy	814 Oct 25 j 21:39	27°♄53'45	-0.3m
greatest brilliancy	813 Nov 11 j 07:06	13°♄12'34	-0.5m		814 Oct 27 j 16:03	0°♄	
evening max el	813 Nov 16 j 19:37	19°♄42'31	20°54'49	evening max el	814 Oct 30 j 14:47	3°♄12'52	22°09'24
				retrograde	814 Nov 09 j 00:54	8°♄48'59	

evening set	814 Nov 13 j 10:55	7°♂04'05		evening max el	815 Oct 13 j 05:23	16°♂45'30	23°29'05
asc. node	814 Nov 14 j 14:45	6°♂01'11		retrograde	815 Oct 23 j 18:08	22°♂58'53	
inferior conj	814 Nov 18 j 20:22	0°♂43'18	1°24'59	evening set	815 Oct 28 j 17:33	20°♂56'08	
minimum elong	814 Nov 18 j 18:32	0°♂49'38	1°24'17	asc. node	815 Nov 01 j 11:47	16°♂46'11	
min. Earth dist.	814 Nov 18 j 20:25	0°♂43'08	0.67709 AU	min. Earth dist.	815 Nov 02 j 17:02	15°♂07'41	0.67696 AU
	814 Nov 19 j 08:54	30°♂♂		inferior conj	815 Nov 03 j 03:33	14°♂31'43	0°34'06
morning rise	814 Nov 24 j 01:58	24°♂29'21		minimum elong	815 Nov 03 j 02:45	14°♂34'27	0°33'46
direct	814 Nov 28 j 18:50	22°♂32'33		morning rise	815 Nov 08 j 12:03	8°♂21'36	
morning max el	814 Dec 08 j 09:40	28°♂13'58	22°30'36	direct	815 Nov 12 j 14:33	6°♂47'30	
	814 Dec 10 j 01:55	0°♂		morning max el	815 Nov 21 j 02:01	11°♂43'54	21°08'29
greatest brilliancy	814 Dec 12 j 23:53	3°♂22'17	-0.3m	greatest brilliancy	815 Nov 26 j 11:21	17°♂57'08	-0.5m
desc. node	814 Dec 23 j 16:56	17°♂41'37			815 Dec 05 j 06:22	0°♂	
	815 Jan 01 j 00:52	0°♂		desc. node	815 Dec 10 j 13:58	7°♂48'05	
morning set	815 Jan 11 j 02:42	15°♂53'01		morning set	815 Dec 21 j 12:15	24°♂31'01	
max. Earth dist.	815 Jan 16 j 06:01	24°♂26'12	1.40510 AU		815 Dec 24 j 23:26	0°♂	
	815 Jan 19 j 11:42	0°♂		max. Earth dist.	815 Dec 29 j 08:57	7°♂06'10	1.42472 AU
superior conj	815 Jan 24 j 01:23	8°♂05'51	-2°00'-23	superior conj	816 Jan 05 j 13:05	19°♂05'16	-2°-2'-12
minimum elong	815 Jan 24 j 03:36	8°♂15'52	2°00'20	minimum elong	816 Jan 05 j 11:20	18°♂57'45	2°02'11
evening rise	815 Feb 03 j 02:53	26°♂46'54			816 Jan 11 j 19:32	0°♂	
	815 Feb 04 j 19:56	0°♂		evening rise	816 Jan 17 j 01:03	9°♂21'34	
asc. node	815 Feb 10 j 14:04	10°♂27'34		asc. node	816 Jan 28 j 11:07	28°♂59'12	
evening max el	815 Feb 19 j 07:27	22°♂41'52	18°21'13		816 Jan 29 j 03:33	0°♂	
retrograde	815 Feb 26 j 13:50	26°♂17'51		evening max el	816 Feb 02 j 17:59	5°♂42'31	18°07'50
evening set	815 Mar 01 j 00:43	25°♂54'17		retrograde	816 Feb 09 j 09:54	9°♂07'38	
inferior conj	815 Mar 08 j 06:34	21°♂15'57	3°11'44	evening set	816 Feb 12 j 01:24	8°♂35'23	
minimum elong	815 Mar 08 j 10:04	21°♂08'36	3°11'05	inferior conj	816 Feb 18 j 16:43	3°♂35'28	3°41'36
min. Earth dist.	815 Mar 11 j 16:59	18°♂24'54	0.59098 AU	minimum elong	816 Feb 18 j 18:10	3°♂31'57	3°41'29
morning rise	815 Mar 15 j 15:41	15°♂43'18		min. Earth dist.	816 Feb 21 j 19:57	0°♂34'48	0.61217 AU
direct	815 Mar 21 j 22:35	13°♂58'07			816 Feb 22 j 11:21	30°♂♂	
desc. node	815 Mar 21 j 16:08	13°♂58'19		morning rise	816 Feb 25 j 08:10	27°♂44'18	
morning max el	815 Apr 05 j 06:40	21°♂41'03	27°06'07	direct	816 Mar 03 j 04:13	25°♂24'48	
	815 Apr 12 j 13:19	0°♂		desc. node	816 Mar 07 j 13:11	26°♂16'56	
	815 May 01 j 00:45	0°♂			816 Mar 13 j 16:56	0°♂	
morning set	815 May 05 j 17:46	9°♂30'02		morning max el	816 Mar 17 j 08:36	3°♂16'34	27°43'41
asc. node	815 May 09 j 13:20	17°♂38'15			816 Apr 06 j 01:24	0°♂	
superior conj	815 May 12 j 20:44	24°♂52'45	0°34'24	morning set	816 Apr 18 j 23:22	24°♂04'59	
minimum elong	815 May 12 j 19:17	24°♂44'41	0°34'05		816 Apr 21 j 19:21	0°♂	
max. Earth dist.	815 May 12 j 14:09	24°♂16'29	1.32270 AU	max. Earth dist.	816 Apr 25 j 01:36	7°♂00'47	1.32409 AU
	815 May 15 j 04:41	0°♂		asc. node	816 Apr 25 j 10:23	7°♂48'36	
evening rise	815 May 19 j 19:06	9°♂54'48		superior conj	816 Apr 26 j 07:37	9°♂44'27	0°09'22
	815 May 30 j 04:17	0°♂		minimum elong	816 Apr 26 j 07:11	9°♂42'06	0°09'16
evening max el	815 Jun 17 j 16:12	25°♂17'58	26°16'08	behind sun begin	816 Apr 26 j 03:02	9°♂19'25	
desc. node	815 Jun 17 j 15:23	25°♂16'02		behind sun end	816 Apr 26 j 11:20	10°♂04'47	
	815 Jun 23 j 16:10	0°♂		evening rise	816 May 03 j 06:14	24°♂48'26	
retrograde	815 Jul 01 j 16:19	2°♂30'13			816 May 05 j 18:04	0°♂	
evening set	815 Jul 08 j 03:15	0°♂47'30			816 May 23 j 17:00	0°♂	
	815 Jul 09 j 12:55	30°♂♂		evening max el	816 May 29 j 09:19	6°♂18'57	24°57'29
min. Earth dist.	815 Jul 12 j 05:04	28°♂11'12	0.59386 AU	desc. node	816 Jun 03 j 12:27	10°♂27'41	
inferior conj	815 Jul 15 j 12:55	25°♂37'59	-4°-47'-24	retrograde	816 Jun 12 j 08:55	13°♂25'13	
minimum elong	815 Jul 15 j 14:55	25°♂34'07	4°47'18	evening set	816 Jun 17 j 15:52	12°♂21'14	
morning rise	815 Jul 23 j 05:59	21°♂05'42		min. Earth dist.	816 Jun 22 j 20:47	9°♂33'46	0.57407 AU
direct	815 Jul 25 j 16:48	20°♂44'44		inferior conj	816 Jun 25 j 20:55	7°♂33'42	-4°-44'-57
morning max el	815 Aug 02 j 11:14	24°♂28'47	18°23'47	minimum elong	816 Jun 25 j 18:16	7°♂38'08	4°44'48
asc. node	815 Aug 05 j 12:33	27°♂54'20		morning rise	816 Jul 04 j 00:30	3°♂23'47	
	815 Aug 07 j 01:42	0°♂		direct	816 Jul 06 j 14:11	3°♂04'41	
morning set	815 Aug 18 j 11:30	19°♂56'41		morning max el	816 Jul 15 j 12:44	7°♂15'11	19°10'01
	815 Aug 23 j 17:51	0°♂		asc. node	816 Jul 22 j 09:37	15°♂54'58	
superior conj	815 Aug 27 j 15:36	7°♂18'04	1°36'50		816 Jul 30 j 06:51	0°♂	
minimum elong	815 Aug 27 j 18:36	7°♂31'50	1°36'38	morning set	816 Aug 01 j 09:53	4°♂10'55	
max. Earth dist.	815 Sep 04 j 03:07	20°♂38'30	1.40426 AU	superior conj	816 Aug 09 j 17:20	20°♂36'13	1°45'38
evening rise	815 Sep 08 j 15:58	28°♂18'06		minimum elong	816 Aug 09 j 18:16	20°♂40'46	1°45'36
	815 Sep 09 j 16:42	0°♂			816 Aug 14 j 16:31	0°♂	
desc. node	815 Sep 13 j 14:41	6°♂18'58		max. Earth dist.	816 Aug 16 j 06:26	2°♂53'36	1.38386 AU
	815 Sep 29 j 13:42	0°♂		evening rise	816 Aug 20 j 02:46	9°♂44'21	

desc. node	816 Aug 30 j 11:44	26°♎51'33		817 Aug 06 j 19:58	0°♎	
	816 Sep 01 j 12:31	0°♏		desc. node	817 Aug 17 j 08:48	17°♎09'57
	816 Sep 24 j 08:51	0°♎			817 Aug 26 j 07:42	0°♏
evening max el	816 Sep 24 j 17:26	0°♎21'21	24°47'40	evening max el	817 Sep 07 j 05:06	13°♏59'24 25°57'46
retrograde	816 Oct 06 j 07:34	7°♎06'17		retrograde	817 Sep 19 j 16:22	21°♏05'33
evening set	816 Oct 11 j 21:24	4°♎46'19		evening set	817 Sep 25 j 20:35	18°♏31'20
	816 Oct 16 j 03:43	30°♎♏		min. Earth dist.	817 Sep 30 j 03:32	13°♏53'13 0.66675 AU
min. Earth dist.	816 Oct 16 j 12:12	29°♏32'07	0.67350 AU	inferior conj	817 Oct 01 j 11:40	12°♏12'10 -1°-16'-57
inferior conj	816 Oct 17 j 09:16	28°♏22'20	0°-20'-20	minimum elong	817 Oct 01 j 13:40	12°♏05'55 1°16'09
minimum elong	816 Oct 17 j 09:46	28°♏20'40	0°20'08	asc. node	817 Oct 05 j 05:53	7°♏54'17
asc. node	816 Oct 18 j 08:50	27°♏04'54		morning rise	817 Oct 07 j 07:38	6°♏17'28
morning rise	816 Oct 22 j 22:37	22°♏18'32		direct	817 Oct 10 j 10:49	5°♏21'03
direct	816 Oct 26 j 12:22	21°♏05'01		morning max el	817 Oct 17 j 09:19	9°♏14'10 19°01'25
morning max el	816 Nov 03 j 02:03	25°♏24'50	19°57'44		817 Nov 01 j 08:09	0°♎
	816 Nov 07 j 02:08	0°♎		morning set	817 Nov 08 j 16:26	11°♎28'38
greatest brilliancy	816 Nov 10 j 10:09	4°♎24'19	-0.6m	desc. node	817 Nov 13 j 08:02	18°♎45'59
desc. node	816 Nov 26 j 11:00	28°♎11'21			817 Nov 20 j 11:59	0°♏
	816 Nov 27 j 15:16	0°♏		max. Earth dist.	817 Nov 23 j 11:02	4°♏39'17 1.44885 AU
morning set	816 Nov 29 j 08:33	2°♏39'08		superior conj	817 Nov 25 j 07:58	7°♏36'23 -1°-14'-2
max. Earth dist.	816 Dec 10 j 19:14	20°♏35'49	1.43990 AU	minimum elong	817 Nov 24 j 23:40	7°♏03'37 1°13'07
					817 Dec 09 j 07:29	0°♏
superior conj	816 Dec 15 j 22:25	28°♏51'51	-1°-47'-26	evening rise	817 Dec 10 j 11:17	1°♏53'13
minimum elong	816 Dec 15 j 15:36	28°♏24'08	1°46'57		817 Dec 28 j 15:59	0°♏
	816 Dec 16 j 15:09	0°♏		evening max el	817 Dec 30 j 18:17	2°♏21'45 18°38'04
evening rise	816 Dec 29 j 05:14	21°♏06'09		asc. node	818 Jan 01 j 05:13	3°♏43'32
	817 Jan 03 j 09:56	0°♏		retrograde	818 Jan 06 j 09:39	6°♏03'13
asc. node	817 Jan 14 j 08:10	16°♏48'49		evening set	818 Jan 09 j 11:07	5°♏10'23
evening max el	817 Jan 16 j 06:30	18°♏58'04	18°13'44		818 Jan 14 j 22:06	30°♎♏
retrograde	817 Jan 22 j 17:56	22°♏25'46		inferior conj	818 Jan 15 j 07:30	29°♏31'52 3°34'44
evening set	817 Jan 25 j 14:02	21°♏43'48		minimum elong	818 Jan 15 j 05:34	29°♏37'41 3°34'29
inferior conj	817 Jan 31 j 18:23	16°♏23'39	3°47'03	min. Earth dist.	818 Jan 17 j 05:50	27°♏13'13 0.64874 AU
minimum elong	817 Jan 31 j 17:49	16°♏25'10	3°47'02	morning rise	818 Jan 20 j 22:47	23°♏22'46
min. Earth dist.	817 Feb 03 j 08:08	13°♏35'57	0.63199 AU	direct	818 Jan 27 j 16:41	20°♏31'34
morning rise	817 Feb 06 j 19:43	10°♏21'13		desc. node	818 Feb 09 j 07:14	27°♏34'07
direct	817 Feb 13 j 18:48	7°♏38'26		morning max el	818 Feb 10 j 01:06	28°♏18'08 27°09'49
desc. node	817 Feb 22 j 10:13	11°♏01'07			818 Feb 11 j 16:22	0°♏
morning max el	817 Feb 27 j 15:42	15°♏32'26	27°43'58		818 Mar 05 j 06:38	0°♏
	817 Mar 11 j 12:21	0°♏		morning set	818 Mar 17 j 13:05	22°♏00'02
	817 Mar 29 j 16:26	0°♏			818 Mar 21 j 13:50	0°♏
morning set	817 Apr 02 j 22:49	8°♏18'24		max. Earth dist.	818 Mar 22 j 04:54	1°♏16'40 1.33912 AU
max. Earth dist.	817 Apr 08 j 07:51	19°♏24'54	1.32945 AU			
				superior conj	818 Mar 25 j 19:29	8°♏45'35 0°-44'-40
superior conj	817 Apr 10 j 15:52	24°♏24'22	0°-17'-20	minimum elong	818 Mar 25 j 21:41	8°♏57'07 0°44'14
minimum elong	817 Apr 10 j 16:42	24°♏28'52	0°17'10	asc. node	818 Mar 30 j 04:31	18°♏01'58
asc. node	817 Apr 12 j 07:27	27°♏58'02		evening rise	818 Apr 02 j 04:45	24°♏23'08
	817 Apr 13 j 05:59	0°♏			818 Apr 04 j 22:15	0°♏
evening rise	817 Apr 17 j 18:05	9°♏40'09		evening max el	818 Apr 22 j 17:42	27°♏31'21 21°49'45
	817 Apr 28 j 07:47	0°♏			818 Apr 25 j 14:43	0°♏
evening max el	817 May 10 j 23:26	16°♏53'19	23°23'41	retrograde	818 May 05 j 06:10	3°♏39'12
desc. node	817 May 21 j 09:28	23°♏17'47		evening set	818 May 07 j 20:58	3°♏23'54
retrograde	817 May 24 j 13:28	23°♏40'36		desc. node	818 May 08 j 06:28	3°♏19'02
evening set	817 May 28 j 08:53	23°♏08'44			818 May 16 j 02:10	30°♎♏
min. Earth dist.	817 Jun 04 j 09:34	19°♏55'18	0.55842 AU	inferior conj	818 May 17 j 06:15	29°♏20'47 -2°-30'-44
inferior conj	817 Jun 06 j 08:57	18°♏45'06	-4°00'-47	minimum elong	818 May 16 j 23:39	29°♏30'02 2°28'37
minimum elong	817 Jun 06 j 02:00	18°♏55'26	3°59'20	min. Earth dist.	818 May 16 j 22:02	29°♏32'18 0.55022 AU
morning rise	817 Jun 14 j 22:29	14°♏50'01		morning rise	818 May 26 j 03:27	25°♏25'38
direct	817 Jun 17 j 16:10	14°♏31'39		direct	818 May 29 j 04:49	25°♏04'58
morning max el	817 Jun 28 j 03:52	19°♏22'48	20°17'17		818 Jun 09 j 10:46	0°♏
	817 Jul 06 j 12:38	0°♏		morning max el	818 Jun 10 j 07:42	0°♏46'59 21°43'35
asc. node	817 Jul 09 j 06:40	4°♏37'11		asc. node	818 Jun 26 j 03:43	23°♏51'02
morning set	817 Jul 16 j 14:44	18°♏45'08			818 Jun 29 j 06:17	0°♏
	817 Jul 22 j 02:14	0°♏		morning set	818 Jun 30 j 23:48	3°♏33'20
superior conj	817 Jul 24 j 08:06	4°♏34'01	1°45'34	superior conj	818 Jul 08 j 07:59	18°♏59'57 1°38'28
minimum elong	817 Jul 24 j 07:20	4°♏30'08	1°45'33	minimum elong	818 Jul 08 j 06:06	18°♏50'06 1°38'19
max. Earth dist.	817 Jul 29 j 11:48	14°♏44'13	1.36475 AU	max. Earth dist.	818 Jul 12 j 01:01	26°♏38'30 1.34869 AU
evening rise	817 Aug 02 j 11:39	22°♏14'16				

	818 Jul 13 j 17:10	0°♌		max. Earth dist.	819 Jun 24 j 23:51	8°♊52'20	1.33645 AU
evening rise	818 Jul 16 j 13:53	5°♌35'37		evening rise	819 Jun 30 j 04:50	19°♊34'42	
	818 Jul 30 j 13:26	0°♍			819 Jul 05 j 15:15	0°♌	
desc. node	818 Aug 04 j 05:49	7°♍07'33		desc. node	819 Jul 22 j 02:49	26°♌34'49	
evening max el	818 Aug 20 j 17:16	27°♍34'13	26°51'30		819 Jul 24 j 15:50	0°♍	
	818 Aug 23 j 10:15	0°♎		evening max el	819 Aug 03 j 04:56	10°♍54'06	27°21'31
retrograde	818 Sep 02 j 19:48	4°♎50'30		retrograde	819 Aug 16 j 17:20	18°♍12'40	
evening set	818 Sep 09 j 12:56	2°♎07'47		evening set	819 Aug 23 j 19:43	15°♍30'19	
	818 Sep 11 j 19:33	30°♎		min. Earth dist.	819 Aug 27 j 13:04	12°♍05'32	0.64280 AU
min. Earth dist.	818 Sep 13 j 12:36	28°♎06'56	0.65656 AU	inferior conj	819 Aug 29 j 22:11	9°♍33'38	-3°-8'-48
inferior conj	818 Sep 15 j 08:47	25°♎57'51	-2°-13'-55	minimum elong	819 Aug 30 j 02:50	9°♍21'16	3°07'20
minimum elong	818 Sep 15 j 12:15	25°♎47'44	2°12'37	morning rise	819 Sep 05 j 11:53	4°♍07'05	
morning rise	818 Sep 21 j 12:56	20°♎15'27		direct	819 Sep 08 j 01:17	3°♍33'40	
asc. node	818 Sep 22 j 02:54	19°♎59'26		asc. node	819 Sep 08 j 23:57	3°♍38'17	
direct	818 Sep 24 j 07:58	19°♎32'20		morning max el	819 Sep 14 j 13:33	7°♍00'20	17°58'06
morning max el	818 Sep 30 j 22:00	23°♎07'58	18°21'14		819 Sep 29 j 20:44	0°♏	
	818 Oct 06 j 10:07	0°♏		morning set	819 Oct 01 j 18:40	3°♏15'33	
morning set	818 Oct 20 j 03:38	21°♏41'39					
	818 Oct 25 j 06:52	0°♐		superior conj	819 Oct 14 j 22:58	25°♏12'11	0°20'49
desc. node	818 Oct 31 j 05:05	9°♐28'23		minimum elong	819 Oct 15 j 01:19	25°♏21'43	0°20'29
					819 Oct 17 j 22:28	0°♐	
superior conj	818 Nov 04 j 08:56	16°♐03'18	0°-27'-18	desc. node	819 Oct 18 j 02:07	0°♐14'35	
minimum elong	818 Nov 04 j 05:22	15°♐49'13	0°26'50	max. Earth dist.	819 Oct 20 j 00:25	3°♐19'03	1.44493 AU
max. Earth dist.	818 Nov 06 j 05:50	19°♐00'02	1.45059 AU	evening rise	819 Oct 31 j 06:00	20°♐51'50	
	818 Nov 13 j 06:11	0°♑			819 Nov 06 j 05:14	0°♑	
evening rise	818 Nov 20 j 17:49	11°♑43'32		greatest brilliancy	819 Nov 20 j 19:43	21°♑25'12	-0.6m
	818 Dec 02 j 11:10	0°♒		evening max el	819 Nov 27 j 07:05	29°♑18'39	20°16'20
greatest brilliancy	818 Dec 04 j 20:09	3°♒35'14	-0.7m		819 Nov 27 j 23:35	0°♒	
evening max el	818 Dec 14 j 03:06	15°♒49'35	19°19'32	retrograde	819 Dec 05 j 03:24	3°♒55'30	
asc. node	818 Dec 19 j 02:13	19°♒29'18		asc. node	819 Dec 05 j 23:13	3°♒51'38	
retrograde	818 Dec 21 j 05:40	19°♒54'38		evening set	819 Dec 08 j 20:07	2°♒36'06	
evening set	818 Dec 24 j 13:54	18°♒49'21			819 Dec 11 j 13:33	30°♒	
inferior conj	818 Dec 30 j 04:49	12°♒54'50	3°09'29	inferior conj	819 Dec 14 j 07:34	26°♒28'28	2°34'33
minimum elong	818 Dec 30 j 02:11	13°♒03'16	3°08'53	minimum elong	819 Dec 14 j 04:53	26°♒37'33	2°33'44
min. Earth dist.	818 Dec 31 j 12:15	11°♒13'42	0.66162 AU	min. Earth dist.	819 Dec 15 j 01:39	25°♒27'29	0.67046 AU
morning rise	819 Jan 04 j 13:40	6°♒41'46		morning rise	819 Dec 19 j 13:07	20°♒13'26	
direct	819 Jan 10 j 20:37	3°♒55'57		direct	819 Dec 25 j 05:52	17°♒42'58	
morning max el	819 Jan 23 j 10:29	11°♒22'17	26°08'16	morning max el	820 Jan 05 j 19:05	24°♒35'57	24°48'41
desc. node	819 Jan 27 j 04:17	15°♒25'23			820 Jan 10 j 16:05	0°♓	
	819 Feb 07 j 08:05	0°♓		desc. node	820 Jan 14 j 01:20	4°♓12'15	
	819 Feb 25 j 21:06	0°♔			820 Jan 31 j 19:10	0°♓	
morning set	819 Feb 28 j 14:13	4°♔58'05		morning set	820 Feb 10 j 21:02	16°♓58'04	
max. Earth dist.	819 Mar 04 j 14:28	12°♔35'36	1.35337 AU	max. Earth dist.	820 Feb 14 j 13:57	23°♓39'15	1.37177 AU
					820 Feb 17 j 23:24	0°♕	
superior conj	819 Mar 09 j 16:05	22°♕40'58	-1°-11'-16				
minimum elong	819 Mar 09 j 19:28	22°♕58'16	1°10'43	superior conj	820 Feb 21 j 02:35	6°♕02'10	-1°-35'-10
	819 Mar 13 j 05:31	0°♖		minimum elong	820 Feb 21 j 06:37	6°♕21'53	1°34'42
asc. node	819 Mar 17 j 01:33	7°♖56'03		evening rise	820 Feb 29 j 14:32	22°♕58'06	
evening rise	819 Mar 17 j 12:18	8°♖51'15		asc. node	820 Mar 02 j 22:34	27°♕35'38	
	819 Mar 28 j 23:59	0°♗			820 Mar 04 j 04:18	0°♖	
evening max el	819 Apr 04 j 21:45	8°♗37'47	20°27'19	evening max el	820 Mar 17 j 13:15	20°♖22'58	19°22'39
retrograde	819 Apr 15 j 19:14	13°♗53'26		retrograde	820 Mar 26 j 18:11	24°♖49'10	
evening set	819 Apr 17 j 21:59	13°♗42'23		evening set	820 Mar 28 j 21:09	24°♖36'02	
desc. node	819 Apr 25 j 03:30	10°♗50'02		inferior conj	820 Apr 06 j 07:43	20°♖28'19	1°18'41
inferior conj	819 Apr 27 j 01:04	9°♗44'47	0°-32'-55	minimum elong	820 Apr 06 j 10:47	20°♖23'16	1°17'41
minimum elong	819 Apr 26 j 23:31	9°♗47'02	0°32'23	min. Earth dist.	820 Apr 09 j 01:47	18°♖40'27	0.56184 AU
min. Earth dist.	819 Apr 28 j 11:07	8°♗55'21	0.55144 AU	desc. node	820 Apr 11 j 00:31	17°♖29'48	
morning rise	819 May 05 j 23:15	5°♗31'00		morning rise	820 Apr 14 j 20:35	15°♖42'12	
direct	819 May 09 j 16:17	5°♗01'14		direct	820 Apr 19 j 13:29	14°♖51'46	
morning max el	819 May 23 j 02:17	11°♗33'14	23°22'44	morning max el	820 May 03 j 17:01	22°♖02'39	25°02'54
	819 Jun 05 j 21:00	0°♘			820 May 10 j 16:42	0°♗	
asc. node	819 Jun 13 j 00:46	13°♘27'48			820 May 28 j 07:15	0°♘	
morning set	819 Jun 15 j 11:07	18°♘29'16		morning set	820 May 29 j 23:05	3°♘27'30	
	819 Jun 20 j 20:17	0°♙		asc. node	820 May 29 j 21:50	3°♘20'59	
superior conj	819 Jun 22 j 13:57	3°♙44'09	1°25'46	superior conj	820 Jun 05 j 23:43	18°♘39'15	1°08'35
minimum elong	819 Jun 22 j 11:33	3°♙31'16	1°25'28	minimum elong	820 Jun 05 j 21:19	18°♘26'14	1°08'11

max. Earth dist.	820 Jun 07 j 06:36	21° Π 27'19	1.32814 AU		821 May 19 j 19:37	0° Π	
	820 Jun 11 j 06:30	0° \mathfrak{S}					
evening rise	820 Jun 13 j 04:53	4° \mathfrak{S} 00'37		superior conj	821 May 21 j 11:16	3° Π 37'46	0°47'45
	820 Jun 27 j 08:45	0° Ω		minimum elong	821 May 21 j 09:21	3° Π 27'15	0°47'23
desc. node	820 Jul 07 j 23:49	15° Ω 19'02		max. Earth dist.	821 May 21 j 17:57	4° Π 14'30	1.32360 AU
evening max el	820 Jul 15 j 13:53	23° Ω 45'49	27°21'48	evening rise	821 May 28 j 11:01	18° Π 43'16	
	820 Jul 24 j 10:51	0° \mathfrak{M}			821 Jun 03 j 02:00	0° \mathfrak{S}	
retrograde	820 Jul 29 j 08:34	1° \mathfrak{M} 03'13			821 Jun 22 j 05:18	0° Ω	
	820 Aug 03 j 00:49	30° \mathfrak{R} Ω		desc. node	821 Jun 24 j 20:51	3° Ω 02'05	
evening set	820 Aug 05 j 13:26	28° Ω 33'20		evening max el	821 Jun 27 j 17:40	5° Ω 57'35	26°49'18
min. Earth dist.	820 Aug 09 j 03:24	25° Ω 38'22	0.62560 AU	retrograde	821 Jul 11 j 16:44	13° Ω 12'44	
inferior conj	820 Aug 12 j 01:03	22° Ω 53'02	-3°-57'-51	evening set	821 Jul 18 j 13:42	11° Ω 09'24	
minimum elong	820 Aug 12 j 06:02	22° Ω 41'09	3°56'40	min. Earth dist.	821 Jul 22 j 07:31	8° Ω 31'12	0.60573 AU
morning rise	820 Aug 19 j 01:12	17° Ω 45'45		inferior conj	821 Jul 25 j 14:00	5° Ω 47'43	-4°-35'00
direct	820 Aug 21 j 11:30	17° Ω 19'04		minimum elong	821 Jul 25 j 17:44	5° Ω 39'53	4°34'31
asc. node	820 Aug 25 j 21:01	18° Ω 48'31		morning rise	821 Aug 02 j 00:57	1° Ω 02'24	
morning max el	820 Aug 28 j 05:09	20° Ω 45'07	17°52'54	direct	821 Aug 04 j 10:45	0° Ω 40'00	
	820 Sep 04 j 03:46	0° \mathfrak{M}		morning max el	821 Aug 11 j 17:45	4° Ω 14'42	18°06'44
morning set	820 Sep 13 j 07:58	15° \mathfrak{M} 52'58		asc. node	821 Aug 12 j 18:05	5° Ω 17'06	
	820 Sep 21 j 07:55	0° \mathfrak{A}		morning set	821 Aug 27 j 13:43	29° Ω 17'52	
					821 Aug 27 j 22:44	0° \mathfrak{M}	
superior conj	820 Sep 24 j 14:58	5° \mathfrak{A} 38'35	1°00'09				
minimum elong	820 Sep 24 j 19:45	5° \mathfrak{A} 58'49	0°59'33	superior conj	821 Sep 06 j 09:31	17° \mathfrak{M} 23'28	1°26'57
max. Earth dist.	820 Oct 01 j 15:16	17° \mathfrak{A} 16'20	1.43268 AU	minimum elong	821 Sep 06 j 13:35	17° \mathfrak{M} 41'37	1°26'34
desc. node	820 Oct 03 j 23:07	21° \mathfrak{A} 01'27			821 Sep 13 j 15:49	0° \mathfrak{A}	
evening rise	820 Oct 09 j 14:04	29° \mathfrak{A} 53'51		max. Earth dist.	821 Sep 14 j 00:31	0° \mathfrak{A} 36'34	1.41547 AU
	820 Oct 09 j 15:38	0° \mathfrak{M}		evening rise	821 Sep 19 j 11:29	9° \mathfrak{A} 35'04	
	820 Oct 29 j 21:58	0° \mathfrak{A}		desc. node	821 Sep 20 j 20:09	11° \mathfrak{A} 45'59	
greatest brilliancy	820 Nov 04 j 04:21	6° \mathfrak{A} 58'55	-0.4m		821 Oct 02 j 18:09	0° \mathfrak{M}	
evening max el	820 Nov 09 j 05:16	12° \mathfrak{A} 47'30	21°25'34	greatest brilliancy	821 Oct 17 j 23:35	20° \mathfrak{M} 45'55	-0.3m
retrograde	820 Nov 18 j 00:41	18° \mathfrak{A} 01'53		evening max el	821 Oct 22 j 22:11	26° \mathfrak{M} 18'10	22°43'03
asc. node	820 Nov 21 j 20:15	16° \mathfrak{A} 40'48			821 Oct 27 j 04:06	0° \mathfrak{A}	
evening set	820 Nov 22 j 03:49	16° \mathfrak{A} 26'40		retrograde	821 Nov 01 j 19:52	2° \mathfrak{A} 11'17	
inferior conj	820 Nov 27 j 13:32	10° \mathfrak{A} 09'24	1°52'09	evening set	821 Nov 06 j 11:18	0° \mathfrak{A} 18'57	
minimum elong	820 Nov 27 j 11:16	10° \mathfrak{A} 17'13	1°51'20		821 Nov 06 j 20:12	30° \mathfrak{R} \mathfrak{M}	
min. Earth dist.	820 Nov 27 j 19:49	9° \mathfrak{A} 47'43	0.67560 AU	asc. node	821 Nov 08 j 17:18	28° \mathfrak{M} 03'25	
morning rise	820 Dec 02 j 18:26	3° \mathfrak{A} 54'19		inferior conj	821 Nov 11 j 20:48	23° \mathfrak{M} 55'55	1°03'58
direct	820 Dec 07 j 19:51	1° \mathfrak{A} 44'40		minimum elong	821 Nov 11 j 19:22	24° \mathfrak{M} 00'52	1°03'23
morning max el	820 Dec 18 j 04:07	7° \mathfrak{A} 53'59	23°20'59	min. Earth dist.	821 Nov 11 j 16:20	24° \mathfrak{M} 11'22	0.67734 AU
greatest brilliancy	820 Dec 23 j 12:45	13° \mathfrak{A} 55'56	-0.2m	morning rise	821 Nov 17 j 03:21	17° \mathfrak{M} 43'04	
desc. node	820 Dec 30 j 22:21	23° \mathfrak{A} 38'06		direct	821 Nov 21 j 13:52	15° \mathfrak{M} 56'05	
	821 Jan 04 j 10:00	0° \mathfrak{S}		morning max el	821 Nov 30 j 16:46	21° \mathfrak{M} 18'17	21°54'36
morning set	821 Jan 22 j 03:08	27° \mathfrak{S} 42'28		greatest brilliancy	821 Dec 05 j 11:18	26° \mathfrak{M} 41'46	-0.4m
	821 Jan 23 j 11:41	0° \approx			821 Dec 08 j 01:52	0° \mathfrak{A}	
max. Earth dist.	821 Jan 26 j 08:56	4° \approx 58'02	1.39276 AU	desc. node	821 Dec 17 j 19:24	13° \mathfrak{A} 32'11	
					821 Dec 28 j 17:09	0° \mathfrak{S}	
superior conj	821 Feb 02 j 22:54	18° \approx 37'34	-1°-53'-40	morning set	822 Jan 02 j 04:05	7° \mathfrak{S} 02'27	
minimum elong	821 Feb 03 j 02:21	18° \approx 53'36	1°53'27	max. Earth dist.	822 Jan 08 j 07:05	17° \mathfrak{S} 02'53	1.41375 AU
	821 Feb 08 j 22:48	0° \mathfrak{H}			822 Jan 15 j 20:32	0° \approx	
evening rise	821 Feb 12 j 08:37	6° \mathfrak{H} 35'05					
asc. node	821 Feb 17 j 19:37	16° \mathfrak{H} 54'20		superior conj	822 Jan 16 j 00:06	0° \approx 15'43	-2°-2'-55
	821 Feb 26 j 03:15	0° \mathfrak{Y}		minimum elong	822 Jan 16 j 00:55	0° \approx 19'18	2°02'55
evening max el	821 Feb 28 j 14:30	2° \mathfrak{Y} 43'37	18°37'53	evening rise	822 Jan 26 j 15:12	19° \approx 34'39	
retrograde	821 Mar 08 j 10:45	6° \mathfrak{Y} 33'22			822 Feb 01 j 08:04	0° \mathfrak{H}	
evening set	821 Mar 10 j 18:28	6° \mathfrak{Y} 14'26		asc. node	822 Feb 04 j 16:39	5° \mathfrak{H} 45'31	
inferior conj	821 Mar 18 j 10:16	1° \mathfrak{Y} 48'26	2°40'28	evening max el	822 Feb 11 j 22:37	15° \mathfrak{H} 32'30	18°13'10
minimum elong	821 Mar 18 j 14:26	1° \mathfrak{Y} 40'27	2°39'27	retrograde	822 Feb 18 j 21:33	19° \mathfrak{H} 01'55	
	821 Mar 20 j 18:45	30° \mathfrak{R} \mathfrak{H}		evening set	822 Feb 21 j 10:25	18° \mathfrak{H} 34'53	
min. Earth dist.	821 Mar 21 j 19:30	29° \mathfrak{H} 14'04	0.57916 AU	inferior conj	822 Feb 28 j 09:41	13° \mathfrak{H} 47'40	3°27'49
morning rise	821 Mar 26 j 06:12	26° \mathfrak{H} 30'01		minimum elong	822 Feb 28 j 12:23	13° \mathfrak{H} 41'38	3°27'26
desc. node	821 Mar 28 j 21:33	25° \mathfrak{H} 31'14		min. Earth dist.	822 Mar 03 j 18:23	10° \mathfrak{H} 49'08	0.60001 AU
direct	821 Apr 01 j 00:49	25° \mathfrak{H} 06'21		morning rise	822 Mar 07 j 10:57	8° \mathfrak{H} 06'00	
	821 Apr 12 j 09:05	0° \mathfrak{Y}		direct	822 Mar 14 j 00:51	6° \mathfrak{H} 04'56	
morning max el	821 Apr 15 j 09:38	2° \mathfrak{Y} 41'49	26°28'45	desc. node	822 Mar 15 j 18:36	6° \mathfrak{H} 13'06	
	821 May 04 j 23:36	0° \mathfrak{S}		morning max el	822 Mar 28 j 07:46	13° \mathfrak{H} 53'03	27°26'25
morning set	821 May 14 j 09:58	18° \mathfrak{S} 21'24			822 Apr 10 j 05:21	0° \mathfrak{Y}	
asc. node	821 May 16 j 18:54	23° \mathfrak{S} 24'17			822 Apr 27 j 06:02	0° \mathfrak{S}	

morning set	822 Apr 28 j 18:05	3°♄05'05		morning max el	823 Mar 10 j 11:53	25°♄45'03	27°48'19
asc. node	822 May 03 j 15:57	13°♄33'14			823 Mar 14 j 10:31	0°♄	
					823 Apr 03 j 16:40	0°♄	
superior conj	822 May 05 j 22:54	18°♄33'47	0°24'03	morning set	823 Apr 12 j 21:23	17°♄31'47	
minimum elong	822 May 05 j 21:51	18°♄27'58	0°23'49	max. Earth dist.	823 Apr 18 j 16:05	29°♄40'21	1.32586 AU
max. Earth dist.	822 May 05 j 06:22	17°♄03'07	1.32282 AU		823 Apr 18 j 19:44	0°♄	
	822 May 11 j 04:37	0°♄					
evening rise	822 May 12 j 20:56	3°♄35'03		superior conj	823 Apr 20 j 08:55	3°♄21'29	0°-1'-48
	822 May 27 j 00:59	0°♄		minimum elong	823 Apr 20 j 09:00	3°♄21'57	0°01'48
evening max el	822 Jun 09 j 14:46	17°♄23'56	25°45'27	behind sun begin	823 Apr 20 j 03:53	2°♄54'09	
desc. node	822 Jun 11 j 17:53	19°♄18'28		behind sun end	823 Apr 20 j 14:07	3°♄49'47	
retrograde	822 Jun 23 j 15:46	24°♄34'39		asc. node	823 Apr 20 j 13:01	3°♄43'46	
evening set	822 Jun 29 j 15:57	23°♄08'38		evening rise	823 Apr 27 j 08:38	18°♄29'03	
min. Earth dist.	822 Jul 04 j 03:10	20°♄29'23	0.58513 AU		823 May 03 j 00:48	0°♄	
inferior conj	822 Jul 07 j 09:27	18°♄07'55	-4°-50'-43	evening max el	823 May 22 j 06:12	28°♄11'50	24°18'39
minimum elong	822 Jul 07 j 09:40	18°♄07'31	4°50'44		823 May 24 j 06:08	0°♄	
morning rise	822 Jul 15 j 07:01	13°♄45'19		desc. node	823 May 29 j 14:55	3°♄35'08	
direct	822 Jul 17 j 18:42	13°♄25'23		retrograde	823 Jun 05 j 03:05	5°♄11'21	
morning max el	822 Jul 26 j 00:08	17°♄19'33	18°40'48	evening set	823 Jun 09 j 19:11	4°♄22'44	
asc. node	822 Jul 30 j 15:10	22°♄48'19		min. Earth dist.	823 Jun 15 j 17:20	1°♄25'48	0.56674 AU
	822 Aug 04 j 04:19	0°♄			823 Jun 17 j 23:53	30°♄	
morning set	822 Aug 11 j 07:07	13°♄17'05		inferior conj	823 Jun 18 j 08:55	29°♄45'40	-4°-32'-1
	822 Aug 19 j 22:57	0°♄		minimum elong	823 Jun 18 j 04:08	29°♄53'14	4°31'24
				morning rise	823 Jun 26 j 16:46	25°♄43'02	
superior conj	822 Aug 20 j 01:30	0°♄12'00	1°41'46	direct	823 Jun 29 j 08:07	25°♄24'19	
minimum elong	822 Aug 20 j 03:37	0°♄21'56	1°41'40	morning max el	823 Jul 08 j 21:26	29°♄50'28	19°36'00
max. Earth dist.	822 Aug 27 j 05:08	13°♄14'15	1.39558 AU		823 Jul 09 j 01:29	0°♄	
evening rise	822 Aug 31 j 08:15	20°♄21'53		asc. node	823 Jul 17 j 12:13	11°♄08'23	
	822 Sep 06 j 04:53	0°♄		morning set	823 Jul 26 j 08:38	27°♄41'21	
desc. node	822 Sep 07 j 17:11	2°♄24'10			823 Jul 27 j 12:12	0°♄	
	822 Sep 26 j 22:02	0°♄					
evening max el	822 Oct 05 j 11:30	9°♄52'14	24°03'10	superior conj	823 Aug 03 j 09:22	13°♄48'52	1°46'34
retrograde	822 Oct 16 j 11:34	16°♄20'02		minimum elong	823 Aug 03 j 09:31	13°♄49'37	1°46'34
evening set	822 Oct 21 j 16:56	14°♄10'04		max. Earth dist.	823 Aug 09 j 09:03	25°♄18'07	1.37553 AU
min. Earth dist.	822 Oct 26 j 12:42	8°♄35'44	0.67587 AU		823 Aug 11 j 22:31	0°♄	
asc. node	822 Oct 26 j 14:22	8°♄30'06		evening rise	823 Aug 13 j 05:04	2°♄17'06	
inferior conj	822 Oct 27 j 03:34	7°♄45'24	0°11'23	desc. node	823 Aug 25 j 14:15	22°♄51'39	
minimum elong	822 Oct 27 j 03:18	7°♄46'20	0°11'16		823 Aug 30 j 08:04	0°♄	
transit middle	822 Oct 27 j 03:18	7°♄46'20	0°11'16	evening max el	823 Sep 17 j 23:24	23°♄30'07	25°18'56
transit begin	822 Oct 27 j 01:20	7°♄53'00			823 Sep 27 j 08:59	0°♄	
transit end	822 Oct 27 j 05:16	7°♄39'40		retrograde	823 Sep 29 j 22:54	0°♄24'30	
morning rise	822 Nov 01 j 13:53	1°♄37'24			823 Oct 02 j 09:28	30°♄	
direct	822 Nov 05 j 10:46	0°♄12'13		evening set	823 Oct 05 j 19:00	27°♄58'06	
morning max el	822 Nov 13 j 12:07	4°♄51'56	20°36'42	min. Earth dist.	823 Oct 10 j 06:29	22°♄59'04	0.67115 AU
greatest brilliancy	822 Nov 19 j 14:17	12°♄03'28	-0.5m	inferior conj	823 Oct 11 j 08:06	21°♄35'54	0°-44'-10
	822 Dec 02 j 04:15	0°♄		minimum elong	823 Oct 11 j 09:13	21°♄32'16	0°43'42
desc. node	822 Dec 04 j 16:25	3°♄46'08		asc. node	823 Oct 13 j 11:24	18°♄54'54	
morning set	822 Dec 12 j 05:04	15°♄18'04		morning rise	823 Oct 17 j 00:03	15°♄35'37	
	822 Dec 21 j 11:58	0°♄		direct	823 Oct 20 j 09:09	14°♄29'39	
max. Earth dist.	822 Dec 21 j 12:55	0°♄03'53	1.43186 AU	morning max el	823 Oct 27 j 15:18	18°♄36'23	19°31'49
				greatest brilliancy	823 Nov 05 j 07:30	29°♄36'42	-0.7m
superior conj	822 Dec 28 j 00:50	10°♄44'07	-1°-58'-12		823 Nov 05 j 13:59	0°♄	
minimum elong	822 Dec 27 j 20:52	10°♄27'31	1°58'03	morning set	823 Nov 21 j 03:19	23°♄35'16	
	823 Jan 08 j 05:39	0°♄		desc. node	823 Nov 21 j 13:28	24°♄14'33	
evening rise	823 Jan 09 j 06:09	1°♄47'56			823 Nov 25 j 06:25	0°♄	
asc. node	823 Jan 22 j 13:41	24°♄00'11		max. Earth dist.	823 Dec 04 j 02:18	13°♄51'21	1.44464 AU
evening max el	823 Jan 26 j 10:23	28°♄40'12	18°08'06				
	823 Jan 27 j 21:52	0°♄		superior conj	823 Dec 07 j 22:58	20°♄00'25	-1°-35'-25
retrograde	823 Feb 01 j 23:05	2°♄04'30		minimum elong	823 Dec 07 j 14:46	19°♄27'32	1°34'42
evening set	823 Feb 04 j 16:38	1°♄28'06			823 Dec 14 j 03:08	0°♄	
	823 Feb 07 j 02:59	30°♄		evening rise	823 Dec 22 j 01:14	13°♄07'59	
inferior conj	823 Feb 11 j 02:52	26°♄19'31	3°46'27		824 Jan 01 j 05:01	0°♄	
minimum elong	823 Feb 11 j 03:25	26°♄18'07	3°46'25	asc. node	824 Jan 09 j 10:43	11°♄27'33	
min. Earth dist.	823 Feb 14 j 00:54	23°♄22'00	0.62092 AU	evening max el	824 Jan 09 j 22:51	11°♄59'10	18°21'54
morning rise	823 Feb 17 j 11:52	20°♄23'11		retrograde	824 Jan 16 j 10:52	15°♄31'19	
direct	823 Feb 24 j 10:34	17°♄51'58		evening set	824 Jan 19 j 09:13	14°♄44'43	
desc. node	823 Mar 02 j 15:38	19°♄37'16		inferior conj	824 Jan 25 j 09:47	9°♄16'13	3°43'40

minimum elong	824 Jan 25 j 08:34	9° \approx 19'43	3°43'34	min. Earth dist.	825 Jan 09 j 18:33	20° \approx 28'20	0.65465 AU
min. Earth dist.	824 Jan 27 j 16:54	6° \approx 39'43	0.63955 AU	morning rise	825 Jan 13 j 14:53	16° \approx 20'18	
morning rise	824 Jan 31 j 06:23	3° \approx 10'42		direct	825 Jan 20 j 04:29	13° \approx 30'09	
direct	824 Feb 07 j 04:05	0° \approx 22'49		morning max el	825 Feb 02 j 06:08	21° \approx 10'10	26°46'35
desc. node	824 Feb 17 j 12:40	5° \approx 11'24		desc. node	825 Feb 03 j 09:41	22° \approx 21'01	
morning max el	824 Feb 20 j 20:14	8° \approx 14'14	27°33'29		825 Feb 09 j 22:38	0° \approx	
	824 Mar 08 j 16:58	0° \approx			825 Mar 01 j 20:35	0° \approx	
	824 Mar 25 j 22:30	0° \approx		morning set	825 Mar 10 j 02:31	14° \approx 57'00	
morning set	824 Mar 26 j 17:17	1° \approx 32'23		max. Earth dist.	825 Mar 14 j 11:35	23° \approx 30'21	1.34460 AU
max. Earth dist.	824 Mar 31 j 19:03	11° \approx 52'24	1.33300 AU		825 Mar 17 j 16:16	0° \approx	
superior conj	824 Apr 03 j 15:25	17° \approx 53'45	0°-28'-54	superior conj	825 Mar 18 j 16:20	2° \approx 04'25	0°-56'-8
minimum elong	824 Apr 03 j 16:50	18° \approx 01'17	0°28'37	minimum elong	825 Mar 18 j 19:04	2° \approx 18'39	0°55'38
asc. node	824 Apr 06 j 10:02	23° \approx 50'57		asc. node	825 Mar 24 j 07:04	13° \approx 50'57	
	824 Apr 09 j 06:52	0° \approx		evening rise	825 Mar 26 j 05:46	17° \approx 54'51	
evening rise	824 Apr 10 j 20:11	3° \approx 17'41			825 Apr 01 j 07:37	0° \approx	
	824 Apr 25 j 14:28	0° \approx		evening max el	825 Apr 14 j 18:49	19° \approx 30'05	21°12'47
evening max el	824 May 02 j 21:04	8° \approx 43'22	22°42'58	retrograde	825 Apr 26 j 16:06	25° \approx 17'12	
desc. node	824 May 15 j 11:56	15° \approx 15'33		evening set	825 Apr 28 j 23:33	25° \approx 04'51	
retrograde	824 May 16 j 01:56	15° \approx 16'19		desc. node	825 May 02 j 08:55	24° \approx 06'03	
evening set	824 May 19 j 07:51	14° \approx 53'11		inferior conj	825 May 08 j 07:55	21° \approx 05'47	-1°-42'-15
min. Earth dist.	824 May 27 j 05:20	11° \approx 25'31	0.55389 AU	minimum elong	825 May 08 j 03:09	21° \approx 12'31	1°40'36
inferior conj	824 May 28 j 13:34	10° \approx 39'25	-3°-27'-45	min. Earth dist.	825 May 08 j 17:56	20° \approx 51'40	0.54950 AU
minimum elong	824 May 28 j 06:01	10° \approx 50'14	3°25'47	morning rise	825 May 17 j 06:41	17° \approx 05'01	
morning rise	824 Jun 06 j 06:53	6° \approx 46'57		direct	825 May 20 j 13:13	16° \approx 41'49	
direct	824 Jun 09 j 03:22	6° \approx 28'05		morning max el	825 Jun 02 j 07:14	22° \approx 45'55	22°24'49
morning max el	824 Jun 20 j 07:41	11° \approx 39'23	20°51'53		825 Jun 08 j 15:28	0° \approx	
asc. node	824 Jul 03 j 09:16	0° \approx 04'59		asc. node	825 Jun 20 j 06:19	19° \approx 29'02	
	824 Jul 03 j 08:11	0° \approx		morning set	825 Jun 24 j 01:45	27° \approx 14'06	
morning set	824 Jul 09 j 15:32	12° \approx 22'19			825 Jun 25 j 09:20	0° \approx	
superior conj	824 Jul 17 j 04:26	27° \approx 59'50	1°43'20	superior conj	825 Jul 01 j 07:14	12° \approx 34'25	1°33'42
minimum elong	824 Jul 17 j 03:08	27° \approx 53'06	1°43'15	minimum elong	825 Jul 01 j 05:04	12° \approx 22'55	1°33'29
	824 Jul 18 j 03:58	0° \approx		max. Earth dist.	825 Jul 04 j 10:32	19° \approx 08'10	1.34298 AU
max. Earth dist.	824 Jul 21 j 17:28	7° \approx 08'09	1.35752 AU	evening rise	825 Jul 09 j 05:59	28° \approx 48'22	
evening rise	824 Jul 25 j 21:53	15° \approx 01'00			825 Jul 09 j 20:44	0° \approx	
	824 Aug 03 j 06:30	0° \approx			825 Jul 27 j 10:18	0° \approx	
desc. node	824 Aug 11 j 11:17	13° \approx 02'03		desc. node	825 Jul 29 j 08:18	2° \approx 47'49	
	824 Aug 23 j 22:46	0° \approx		evening max el	825 Aug 12 j 23:05	20° \approx 36'08	27°07'27
evening max el	824 Aug 30 j 11:12	7° \approx 07'20	26°22'55	retrograde	825 Aug 26 j 06:32	27° \approx 54'55	
retrograde	824 Sep 12 j 05:22	14° \approx 18'41		evening set	825 Sep 02 j 04:14	25° \approx 10'43	
evening set	824 Sep 18 j 15:34	11° \approx 39'41		min. Earth dist.	825 Sep 06 j 00:53	21° \approx 25'46	0.65114 AU
min. Earth dist.	824 Sep 22 j 19:16	7° \approx 17'42	0.66293 AU	inferior conj	825 Sep 08 j 02:38	19° \approx 05'47	-2°-37'-41
inferior conj	824 Sep 24 j 08:30	5° \approx 24'06	-1°-41'-11	minimum elong	825 Sep 08 j 06:39	18° \approx 54'26	2°36'15
minimum elong	824 Sep 24 j 11:08	5° \approx 16'05	1°40'09	morning rise	825 Sep 14 j 10:44	13° \approx 29'57	
asc. node	824 Sep 29 j 08:26	0° \approx 12'13		asc. node	825 Sep 16 j 05:30	12° \approx 55'51	
	824 Sep 29 j 15:23	30° \approx 17		direct	825 Sep 17 j 02:57	12° \approx 51'32	
morning rise	824 Sep 30 j 07:48	29° \approx 34'31		morning max el	825 Sep 23 j 15:33	16° \approx 22'29	18°09'14
direct	824 Oct 03 j 07:14	28° \approx 44'14			825 Oct 03 j 12:15	0° \approx	
	824 Oct 07 j 02:06	0° \approx		morning set	825 Oct 11 j 21:27	13° \approx 47'03	
morning max el	824 Oct 10 j 01:14	2° \approx 28'29	18°42'17		825 Oct 21 j 19:21	0° \approx	
	824 Oct 29 j 01:02	0° \approx		desc. node	825 Oct 25 j 07:34	5° \approx 37'17	
morning set	824 Oct 30 j 21:59	2° \approx 58'34		superior conj	825 Oct 26 j 06:24	7° \approx 08'12	0°-6'-19
desc. node	824 Nov 07 j 10:32	14° \approx 53'03		minimum elong	825 Oct 26 j 05:36	7° \approx 05'00	0°06'14
superior conj	824 Nov 16 j 02:16	28° \approx 29'54	0°-55'-11	behind sun begin	825 Oct 25 j 19:29	6° \approx 24'46	
minimum elong	824 Nov 15 j 19:22	28° \approx 02'48	0°54'21	behind sun end	825 Oct 26 j 15:43	7° \approx 45'12	
max. Earth dist.	824 Nov 15 j 20:09	28° \approx 05'53	1.45051 AU	max. Earth dist.	825 Oct 29 j 14:49	12° \approx 26'23	1.44900 AU
	824 Nov 17 j 01:12	0° \approx			825 Nov 09 j 20:30	0° \approx	
evening rise	824 Dec 01 j 21:15	23° \approx 30'45		evening rise	825 Nov 11 j 18:46	2° \approx 59'36	
	824 Dec 05 j 22:24	0° \approx		greatest brilliancy	825 Nov 28 j 20:53	28° \approx 57'32	-0.6m
evening max el	824 Dec 23 j 09:33	25° \approx 24'41	18°53'39		825 Nov 29 j 14:30	0° \approx	
asc. node	824 Dec 26 j 07:44	27° \approx 54'47		evening max el	825 Dec 06 j 16:24	8° \approx 52'45	19°41'58
retrograde	824 Dec 30 j 04:54	29° \approx 15'25		asc. node	825 Dec 13 j 04:46	13° \approx 06'30	
evening set	825 Jan 02 j 09:02	28° \approx 17'29		retrograde	825 Dec 14 j 02:01	13° \approx 10'53	
inferior conj	825 Jan 08 j 02:47	22° \approx 31'35	3°25'23	evening set	825 Dec 17 j 13:31	12° \approx 00'01	
minimum elong	825 Jan 08 j 00:28	22° \approx 38'44	3°24'59	inferior conj	825 Dec 23 j 02:43	5° \approx 59'32	2°55'41

minimum elong	825 Dec 23 j 00:00	6°☾08'29	2°54'59	retrograde	826 Nov 27 j 23:43	27°♂14'21	
min. Earth dist.	825 Dec 24 j 04:20	4°☾35'10	0.66584 AU	asc. node	826 Nov 30 j 01:48	26°♂49'48	
morning rise	825 Dec 28 j 09:48	29°♂45'07		evening set	826 Dec 01 j 20:35	25°♂48'37	
	825 Dec 28 j 03:19	30°♂♂		inferior conj	826 Dec 07 j 07:08	19°♂36'42	2°17'22
direct	826 Jan 03 j 10:54	27°♂04'42		minimum elong	826 Dec 07 j 04:34	19°♂45'28	2°16'31
	826 Jan 10 j 17:10	0°☾		min. Earth dist.	826 Dec 07 j 20:07	18°♂52'21	0.67316 AU
morning max el	826 Jan 15 j 15:13	4°☾19'18	25°35'57	morning rise	826 Dec 12 j 12:06	13°♂21'19	
desc. node	826 Jan 21 j 06:43	10°☾38'06		direct	826 Dec 17 j 22:28	10°♂58'58	
	826 Feb 04 j 08:00	0°♂		morning max el	826 Dec 28 j 23:29	17°♂34'09	24°11'34
morning set	826 Feb 20 j 20:33	27°♂32'00		desc. node	827 Jan 08 j 03:47	29°♂43'10	
	826 Feb 22 j 04:48	0°♂			827 Jan 08 j 08:50	0°☾	
max. Earth dist.	826 Feb 24 j 16:02	4°♂37'28	1.36073 AU		827 Jan 28 j 09:24	0°♂	
				morning set	827 Feb 02 j 17:34	9°♂01'20	
superior conj	826 Mar 02 j 09:00	15°♂45'40	-1°-21'-53	max. Earth dist.	827 Feb 06 j 12:14	15°♂41'06	1.38057 AU
minimum elong	826 Mar 02 j 12:46	16°♂04'32	1°21'21				
	826 Mar 09 j 09:00	0°♂		superior conj	827 Feb 13 j 14:02	28°♂48'44	-1°-43'-54
evening rise	826 Mar 10 j 11:18	2°♂13'54		minimum elong	827 Feb 13 j 18:01	29°♂07'47	1°43'31
asc. node	826 Mar 11 j 04:06	3°♂38'56			827 Feb 14 j 04:54	0°♂	
	826 Mar 27 j 06:59	0°♂		evening rise	827 Feb 22 j 10:25	16°♂08'27	
evening max el	826 Mar 28 j 03:46	0°♂52'07	19°57'28	asc. node	827 Feb 26 j 01:08	23°♂10'02	
retrograde	826 Apr 07 j 07:43	5°♂45'30			827 Mar 01 j 18:27	0°♂	
evening set	826 Apr 09 j 09:19	5°♂34'15		evening max el	827 Mar 10 j 23:49	12°♂53'16	19°01'08
inferior conj	826 Apr 18 j 06:11	1°♂34'15	0°17'01	retrograde	827 Mar 19 j 13:13	17°♂01'27	
minimum elong	826 Apr 18 j 06:57	1°♂33'06	0°16'46	evening set	827 Mar 21 j 18:12	16°♂46'06	
desc. node	826 Apr 19 j 05:55	0°♂58'06		inferior conj	827 Mar 29 j 20:42	12°♂31'27	1°57'44
min. Earth dist.	826 Apr 20 j 07:55	0°♂18'50	0.55479 AU	minimum elong	827 Mar 30 j 00:41	12°♂24'29	1°56'33
	826 Apr 20 j 20:38	30°♂♂		min. Earth dist.	827 Apr 01 j 23:34	10°♂21'31	0.56860 AU
morning rise	826 Apr 27 j 01:33	27°♂07'09		desc. node	827 Apr 06 j 02:58	7°♂57'11	
direct	826 May 01 j 03:58	26°♂30'07		morning rise	827 Apr 07 j 02:58	7°♂31'06	
	826 May 10 j 21:51	0°♂		direct	827 Apr 12 j 07:30	6°♂27'28	
morning max el	826 May 14 j 23:24	3°♂21'23	24°06'09	morning max el	827 Apr 26 j 14:01	13°♂50'17	25°42'10
	826 Jun 02 j 11:52	0°♂			827 May 09 j 08:01	0°♂	
asc. node	826 Jun 07 j 03:23	9°♂13'08		morning set	827 May 24 j 01:12	27°♂07'46	
morning set	826 Jun 08 j 13:32	12°♂11'13		asc. node	827 May 25 j 00:26	29°♂10'47	
					827 May 25 j 09:39	0°♂	
superior conj	826 Jun 15 j 15:05	27°♂24'04	1°18'59				
minimum elong	826 Jun 15 j 12:38	27°♂10'47	1°18'38	superior conj	827 May 31 j 01:48	12°♂20'56	1°00'08
	826 Jun 16 j 20:01	0°♂		minimum elong	827 May 30 j 23:34	12°♂08'40	0°59'45
max. Earth dist.	826 Jun 17 j 12:49	1°♂30'08	1.33237 AU	max. Earth dist.	827 May 31 j 22:00	14°♂11'26	1.32572 AU
evening rise	826 Jun 23 j 01:13	13°♂00'08		evening rise	827 Jun 07 j 04:10	27°♂34'07	
	826 Jul 02 j 01:03	0°♂			827 Jun 08 j 08:35	0°♂	
desc. node	826 Jul 16 j 05:17	21°♂58'44			827 Jun 25 j 09:27	0°♂	
	826 Jul 22 j 18:15	0°♂		desc. node	827 Jul 03 j 02:18	10°♂19'29	
evening max el	826 Jul 26 j 09:57	3°♂46'10	27°25'39	evening max el	827 Jul 08 j 17:17	16°♂22'58	27°12'14
retrograde	826 Aug 09 j 01:47	11°♂05'03		retrograde	827 Jul 22 j 14:02	23°♂38'49	
evening set	826 Aug 16 j 06:01	8°♂26'29		evening set	827 Jul 29 j 16:54	21°♂18'58	
min. Earth dist.	826 Aug 19 j 21:23	5°♂15'17	0.63581 AU	min. Earth dist.	827 Aug 02 j 07:27	18°♂32'52	0.61735 AU
inferior conj	826 Aug 22 j 11:59	2°♂36'07	-3°-30'-39	inferior conj	827 Aug 05 j 09:24	15°♂46'26	-4°-15'-33
minimum elong	826 Aug 22 j 16:55	2°♂23'33	3°29'14	minimum elong	827 Aug 05 j 14:07	15°♂35'48	4°14'39
	826 Aug 25 j 04:25	30°♂♂		morning rise	827 Aug 12 j 14:06	10°♂47'52	
morning rise	826 Aug 29 j 06:03	27°♂17'13		direct	827 Aug 14 j 23:55	10°♂23'12	
direct	826 Aug 31 j 17:41	26°♂47'08		asc. node	827 Aug 20 j 23:39	13°♂00'12	
asc. node	826 Sep 03 j 02:34	27°♂14'57		morning max el	827 Aug 21 j 22:09	13°♂51'52	17°56'22
	826 Sep 07 j 02:16	0°♂			827 Sep 01 j 22:12	0°♂	
morning max el	826 Sep 07 j 07:31	0°♂12'53	17°53'35	morning set	827 Sep 06 j 19:53	8°♂50'46	
morning set	826 Sep 23 j 22:51	25°♂50'48					
	826 Sep 26 j 08:20	0°♂		superior conj	827 Sep 17 j 10:34	27°♂49'30	1°13'03
				minimum elong	827 Sep 17 j 15:19	28°♂10'03	1°12'32
superior conj	826 Oct 06 j 06:51	16°♂48'38	0°38'56		827 Sep 18 j 16:49	0°♂	
minimum elong	826 Oct 06 j 10:43	17°♂04'36	0°38'24	max. Earth dist.	827 Sep 24 j 20:47	10°♂21'48	1.42593 AU
desc. node	826 Oct 12 j 04:36	26°♂24'26		desc. node	827 Sep 29 j 01:38	17°♂10'47	
max. Earth dist.	826 Oct 12 j 07:46	26°♂37'07	1.44047 AU	evening rise	827 Oct 01 j 15:04	21°♂14'34	
	826 Oct 14 j 10:43	0°♂			827 Oct 07 j 06:41	0°♂	
evening rise	826 Oct 22 j 03:05	12°♂00'04			827 Oct 28 j 10:35	0°♂	
	826 Nov 03 j 00:37	0°♂		greatest brilliancy	827 Oct 28 j 20:05	0°♂29'21	-0.4m
greatest brilliancy	826 Nov 14 j 00:30	15°♂34'02	-0.5m	evening max el	827 Nov 02 j 14:03	5°♂52'18	21°57'48
evening max el	826 Nov 19 j 18:04	22°♂22'12	20°44'30	retrograde	827 Nov 11 j 20:12	11°♂22'35	

evening set	827 Nov 16 j 04:25	9°♂40'10		evening max el	828 Oct 15 j 05:08	19°♂24'01	23°17'07
asc. node	827 Nov 16 j 22:52	9°♂00'16		retrograde	828 Oct 25 j 14:00	25°♂32'28	
inferior conj	827 Nov 21 j 13:54	3°♂20'10	1°32'21	evening set	828 Oct 30 j 11:20	23°♂32'20	
minimum elong	827 Nov 21 j 11:56	3°♂26'57	1°31'35	asc. node	828 Nov 02 j 19:55	19°♂53'46	
min. Earth dist.	827 Nov 21 j 15:30	3°♂14'35	0.67685 AU	inferior conj	828 Nov 04 j 21:09	17°♂08'03	0°42'07
	827 Nov 24 j 01:43	30°♂		minimum elong	828 Nov 04 j 20:10	17°♂11'25	0°41'42
morning rise	827 Nov 26 j 19:15	27°♂05'59		min. Earth dist.	828 Nov 04 j 12:10	17°♂38'55	0.67715 AU
direct	827 Dec 01 j 14:19	25°♂05'51		morning rise	828 Nov 10 j 05:05	10°♂57'11	
	827 Dec 10 j 11:29	0°♂		direct	828 Nov 14 j 09:34	9°♂19'54	
morning max el	827 Dec 11 j 09:35	0°♂54'15	22°43'31	morning max el	828 Nov 23 j 00:56	14°♂22'47	21°20'06
greatest brilliancy	827 Dec 16 j 00:30	6°♂04'04	-0.3m	greatest brilliancy	828 Nov 28 j 05:35	20°♂20'06	-0.4m
desc. node	827 Dec 26 j 00:51	19°♂22'18			828 Dec 05 j 09:56	0°♂	
	828 Jan 02 j 07:09	0°♂		desc. node	828 Dec 11 j 21:54	9°♂25'40	
morning set	828 Jan 14 j 11:30	19°♂09'51		morning set	828 Dec 24 j 00:44	27°♂57'37	
max. Earth dist.	828 Jan 19 j 08:13	27°♂18'57	1.40194 AU		828 Dec 25 j 07:42	0°♂	
	828 Jan 20 j 21:41	0°♂		max. Earth dist.	828 Dec 31 j 09:51	9°♂49'46	1.42198 AU
superior conj	828 Jan 27 j 02:56	11°♂01'58	-1°-58'-59	superior conj	829 Jan 07 j 18:17	22°♂11'29	-2°-2'-54
minimum elong	828 Jan 27 j 05:33	11°♂13'53	1°58'53	minimum elong	829 Jan 07 j 17:16	22°♂07'06	2°02'55
evening rise	828 Feb 06 j 00:05	29°♂31'02			829 Jan 12 j 05:35	0°♂	
	828 Feb 06 j 06:12	0°♂		evening rise	829 Jan 19 j 00:35	12°♂12'20	
asc. node	828 Feb 12 j 22:10	12°♂18'15			829 Jan 29 j 05:03	0°♂	
evening max el	828 Feb 22 j 04:26	25°♂27'30	18°24'54	asc. node	829 Jan 29 j 19:13	0°♂55'14	
retrograde	828 Feb 29 j 14:02	29°♂06'37		evening max el	829 Feb 04 j 14:23	8°♂25'02	18°08'35
evening set	828 Mar 03 j 00:06	28°♂44'19		retrograde	829 Feb 11 j 07:52	11°♂50'58	
inferior conj	828 Mar 10 j 08:25	24°♂09'04	3°04'34	evening set	829 Feb 13 j 22:38	11°♂20'09	
minimum elong	828 Mar 10 j 12:09	24°♂01'24	3°03'48	inferior conj	829 Feb 20 j 15:54	6°♂23'31	3°38'47
min. Earth dist.	828 Mar 13 j 18:54	21°♂21'41	0.58784 AU	minimum elong	829 Feb 20 j 17:41	6°♂19'17	3°38'36
morning rise	828 Mar 17 j 20:21	18°♂39'48		min. Earth dist.	829 Feb 23 j 20:48	3°♂22'33	0.60902 AU
desc. node	828 Mar 23 j 00:00	17°♂03'00		morning rise	829 Feb 27 j 09:47	0°♂34'25	
direct	828 Mar 24 j 00:17	17°♂00'20			829 Feb 28 j 08:10	30°♂	
morning max el	828 Apr 07 j 08:45	24°♂41'23	26°57'28	direct	829 Mar 06 j 04:28	28°♂19'24	
	828 Apr 12 j 05:35	0°♂		desc. node	829 Mar 09 j 21:03	28°♂56'30	
	828 May 01 j 11:27	0°♂			829 Mar 12 j 08:55	0°♂	
morning set	828 May 07 j 11:09	11°♂58'24		morning max el	829 Mar 20 j 09:47	6°♂10'41	27°40'23
asc. node	828 May 10 j 21:29	19°♂17'12			829 Apr 07 j 07:34	0°♂	
				morning set	829 Apr 21 j 17:28	26°♂35'49	
superior conj	828 May 14 j 13:36	27°♂19'10	0°38'00		829 Apr 23 j 08:44	0°♂	
minimum elong	828 May 14 j 12:00	27°♂10'24	0°37'41	asc. node	829 Apr 27 j 18:32	9°♂27'12	
max. Earth dist.	828 May 14 j 10:30	27°♂02'06	1.32284 AU	max. Earth dist.	829 Apr 27 j 22:18	9°♂47'48	1.32365 AU
	828 May 15 j 18:51	0°♂		superior conj	829 Apr 29 j 00:43	12°♂12'04	0°13'17
evening rise	828 May 21 j 12:13	12°♂21'52		minimum elong	829 Apr 29 j 00:07	12°♂08'45	0°13'10
	828 May 30 j 12:27	0°♂		behind sun begin	829 Apr 28 j 21:17	11°♂53'14	
desc. node	828 Jun 18 j 23:19	27°♂29'10		behind sun end	829 Apr 29 j 02:57	12°♂24'16	
evening max el	828 Jun 19 j 18:21	28°♂15'26	26°25'37	evening rise	829 May 05 j 23:05	27°♂15'00	
	828 Jun 21 j 16:47	0°♂			829 May 07 j 06:31	0°♂	
retrograde	828 Jul 03 j 18:08	5°♂28'27			829 May 24 j 11:38	0°♂	
evening set	828 Jul 10 j 08:12	3°♂40'00		evening max el	829 Jun 01 j 12:19	9°♂22'08	25°10'27
min. Earth dist.	828 Jul 14 j 07:24	1°♂03'54	0.59695 AU	desc. node	829 Jun 05 j 20:20	12°♂58'41	
	828 Jul 15 j 16:33	30°♂		retrograde	829 Jun 15 j 12:35	16°♂30'07	
inferior conj	828 Jul 17 j 15:17	28°♂27'21	-4°-45'00	evening set	829 Jun 21 j 00:19	15°♂20'29	
minimum elong	828 Jul 17 j 17:49	28°♂22'21	4°44'49	min. Earth dist.	829 Jun 26 j 00:00	12°♂35'38	0.57682 AU
morning rise	828 Jul 25 j 06:48	23°♂51'47		inferior conj	829 Jun 29 j 02:16	10°♂29'21	-4°-47'-50
direct	828 Jul 27 j 17:19	23°♂30'28		minimum elong	829 Jun 29 j 00:24	10°♂32'33	4°47'45
morning max el	828 Aug 04 j 08:26	27°♂11'36	18°18'45	morning rise	829 Jul 07 j 04:20	6°♂16'23	
asc. node	828 Aug 06 j 20:43	29°♂56'56		direct	829 Jul 09 j 17:24	5°♂57'10	
	828 Aug 06 j 21:42	0°♂		morning max el	829 Jul 18 j 11:18	10°♂03'02	19°01'49
morning set	828 Aug 20 j 07:04	22°♂31'27		asc. node	829 Jul 24 j 17:46	17°♂50'10	
	828 Aug 24 j 05:25	0°♂			829 Jul 31 j 17:33	0°♂	
superior conj	828 Aug 29 j 14:56	10°♂03'23	1°34'35	morning set	829 Aug 04 j 04:13	6°♂41'50	
minimum elong	828 Aug 29 j 18:14	10°♂18'25	1°34'21	superior conj	829 Aug 12 j 14:17	23°♂14'17	1°44'55
max. Earth dist.	828 Sep 06 j 04:13	23°♂25'35	1.40721 AU	minimum elong	829 Aug 12 j 15:31	23°♂20'14	1°44'52
	828 Sep 10 j 01:58	0°♂			829 Aug 16 j 04:04	0°♂	
evening rise	828 Sep 10 j 21:45	1°♂21'32		max. Earth dist.	829 Aug 19 j 07:33	5°♂45'28	1.38683 AU
desc. node	828 Sep 14 j 22:40	7°♂52'59		evening rise	829 Aug 23 j 04:57	12°♂37'35	
	828 Sep 29 j 16:51	0°♂					

desc. node	829 Sep 01 j 19:42	28° \mathbb{M} 27'08		superior conj	830 Jul 27 j 03:21	7° Ω 06'46	1°46'04
	829 Sep 02 j 19:31	0° $\underline{\mathbf{A}}$		minimum elong	830 Jul 27 j 02:48	7° Ω 04'02	1°46'03
	829 Sep 24 j 20:59	0° \mathbb{M}		max. Earth dist.	830 Aug 01 j 12:13	17° Ω 38'06	1.36743 AU
evening max el	829 Sep 27 j 17:23	2° \mathbb{M} 59'23	24°36'22	evening rise	830 Aug 05 j 10:48	24° Ω 58'45	
retrograde	829 Oct 09 j 04:07	9° \mathbb{M} 40'29			830 Aug 08 j 06:07	0° \mathbb{M}	
evening set	829 Oct 14 j 15:41	7° \mathbb{M} 23'04		desc. node	830 Aug 19 j 16:42	18° \mathbb{M} 47'53	
min. Earth dist.	829 Oct 19 j 07:43	2° \mathbb{M} 03'31	0.67419 AU		830 Aug 27 j 09:20	0° $\underline{\mathbf{A}}$	
inferior conj	829 Oct 20 j 03:10	0° \mathbb{M} 58'39	0°-11'-53	evening max el	830 Sep 10 j 05:04	16° $\underline{\mathbf{A}}$ 37'27	25°48'13
minimum elong	829 Oct 20 j 03:28	0° \mathbb{M} 57'41	0°11'47	retrograde	830 Sep 22 j 13:32	23° $\underline{\mathbf{A}}$ 40'58	
transit middle	829 Oct 20 j 03:28	0° \mathbb{M} 57'41	0°11'47	evening set	830 Sep 28 j 15:38	21° $\underline{\mathbf{A}}$ 08'45	
transit begin	829 Oct 20 j 01:34	1° \mathbb{M} 04'00		min. Earth dist.	830 Oct 02 j 23:47	16° $\underline{\mathbf{A}}$ 25'03	0.66797 AU
transit end	829 Oct 20 j 05:22	0° \mathbb{M} 51'22		inferior conj	830 Oct 04 j 06:10	14° $\underline{\mathbf{A}}$ 48'39	-1°-8'-19
asc. node	829 Oct 20 j 16:57	0° \mathbb{M} 12'51		minimum elong	830 Oct 04 j 07:55	14° $\underline{\mathbf{A}}$ 43'05	1°07'35
	829 Oct 20 j 20:52	30° \mathbb{R} $\underline{\mathbf{A}}$		asc. node	830 Oct 07 j 13:59	10° $\underline{\mathbf{A}}$ 53'52	
morning rise	829 Oct 25 j 15:40	24° $\underline{\mathbf{A}}$ 53'38		morning rise	830 Oct 10 j 01:01	8° $\underline{\mathbf{A}}$ 52'18	
direct	829 Oct 29 j 07:11	23° $\underline{\mathbf{A}}$ 37'12		direct	830 Oct 13 j 05:40	7° $\underline{\mathbf{A}}$ 53'30	
morning max el	829 Nov 05 j 23:45	28° $\underline{\mathbf{A}}$ 02'04	20°07'24	morning max el	830 Oct 20 j 05:56	11° $\underline{\mathbf{A}}$ 49'53	19°08'48
	829 Nov 07 j 19:35	0° \mathbb{M}			830 Nov 02 j 14:06	0° \mathbb{M}	
greatest brilliancy	829 Nov 12 j 23:10	6° \mathbb{M} 29'36	-0.6m	morning set	830 Nov 12 j 02:09	14° \mathbb{M} 44'41	
desc. node	829 Nov 28 j 18:57	29° \mathbb{M} 46'47		desc. node	830 Nov 15 j 15:58	20° \mathbb{M} 19'54	
	829 Nov 28 j 22:24	0° \mathbb{A}			830 Nov 21 j 20:14	0° \mathbb{A}	
morning set	829 Dec 02 j 21:26	6° \mathbb{A} 05'26		max. Earth dist.	830 Nov 26 j 10:02	7° \mathbb{A} 11'30	1.44801 AU
max. Earth dist.	829 Dec 13 j 18:52	23° \mathbb{A} 11'57	1.43801 AU				
	829 Dec 18 j 00:02	0° \mathbb{B}		superior conj	830 Nov 28 j 20:04	11° \mathbb{A} 00'45	-1°-20'-11
				minimum elong	830 Nov 28 j 11:33	10° \mathbb{A} 27'04	1°19'17
superior conj	829 Dec 19 j 07:38	2° \mathbb{B} 09'00	-1°-50'-53		830 Dec 10 j 15:48	0° \mathbb{B}	
minimum elong	829 Dec 19 j 01:30	1° \mathbb{B} 43'53	1°50'30	evening rise	830 Dec 13 j 17:09	5° \mathbb{B} 00'10	
evening rise	830 Jan 01 j 07:41	24° \mathbb{B} 04'35			830 Dec 29 j 11:30	0° \approx	
	830 Jan 04 j 17:59	0° \approx		evening max el	831 Jan 02 j 14:50	5° \approx 01'29	18°33'18
asc. node	830 Jan 16 j 16:15	18° \approx 51'44		asc. node	831 Jan 03 j 13:16	5° \approx 55'38	
evening max el	830 Jan 19 j 02:47	21° \approx 38'38	18°11'39	retrograde	831 Jan 09 j 05:01	8° \approx 40'02	
retrograde	830 Jan 25 j 14:17	25° \approx 04'59		evening set	831 Jan 12 j 05:41	7° \approx 48'48	
evening set	830 Jan 28 j 09:41	24° \approx 24'33		inferior conj	831 Jan 18 j 03:04	2° \approx 12'54	3°37'29
inferior conj	830 Feb 03 j 15:27	19° \approx 07'27	3°47'26	minimum elong	831 Jan 18 j 01:18	2° \approx 18'09	3°37'17
minimum elong	830 Feb 03 j 15:10	19° \approx 08'13	3°47'26		831 Jan 20 j 00:00	30° \mathbb{R} \mathbb{B}	
min. Earth dist.	830 Feb 06 j 07:29	16° \approx 16'30	0.62924 AU	min. Earth dist.	831 Jan 20 j 03:41	29° \mathbb{B} 49'17	0.64652 AU
morning rise	830 Feb 09 j 18:40	13° \approx 06'24		morning rise	831 Jan 23 j 19:38	26° \mathbb{B} 04'42	
direct	830 Feb 16 j 17:59	10° \approx 26'00		direct	831 Jan 30 j 14:47	23° \mathbb{B} 13'52	
desc. node	830 Feb 24 j 18:06	13° \approx 20'29		desc. node	831 Feb 11 j 15:08	29° \mathbb{B} 39'09	
morning max el	830 Mar 02 j 16:08	18° \approx 20'15	27°46'10		831 Feb 11 j 23:58	0° \approx	
	830 Mar 12 j 12:03	0° \mathbb{H}		morning max el	831 Feb 13 j 01:15	1° \approx 01'50	27°16'52
	830 Mar 31 j 03:12	0° \mathbb{Y}			831 Mar 06 j 13:49	0° \mathbb{H}	
morning set	830 Apr 05 j 17:58	10° \mathbb{Y} 52'37		morning set	831 Mar 20 j 09:49	24° \mathbb{H} 39'46	
max. Earth dist.	830 Apr 11 j 05:26	22° \mathbb{Y} 14'49	1.32837 AU		831 Mar 23 j 02:30	0° \mathbb{Y}	
				max. Earth dist.	831 Mar 25 j 04:07	4° \mathbb{Y} 12'15	1.33737 AU
superior conj	830 Apr 13 j 09:27	26° \mathbb{Y} 53'56	0°-13'-13				
minimum elong	830 Apr 13 j 10:05	26° \mathbb{Y} 57'22	0°13'06	superior conj	831 Mar 28 j 13:55	11° \mathbb{Y} 18'38	0°-40'-31
behind sun begin	830 Apr 13 j 07:06	26° \mathbb{Y} 41'15		minimum elong	831 Mar 28 j 15:54	11° \mathbb{Y} 29'09	0°40'08
behind sun end	830 Apr 13 j 13:05	27° \mathbb{Y} 13'29		asc. node	831 Apr 01 j 12:35	19° \mathbb{Y} 41'54	
asc. node	830 Apr 14 j 15:33	29° \mathbb{Y} 36'45		evening rise	831 Apr 04 j 21:52	26° \mathbb{Y} 52'11	
	830 Apr 14 j 19:51	0° \mathbb{B}			831 Apr 06 j 10:02	0° \mathbb{B}	
evening rise	830 Apr 20 j 10:54	12° \mathbb{B} 07'08			831 Apr 25 j 05:35	0° \mathbb{H}	
	830 Apr 29 j 14:08	0° \mathbb{H}		evening max el	831 Apr 25 j 19:49	0° \mathbb{H} 35'10	22°03'17
evening max el	830 May 14 j 02:33	19° \mathbb{H} 59'03	23°38'03	retrograde	831 May 08 j 12:56	6° \mathbb{H} 49'53	
desc. node	830 May 23 j 17:20	26° \mathbb{H} 12'28		desc. node	831 May 10 j 14:20	6° \mathbb{H} 40'25	
retrograde	830 May 27 j 18:58	26° \mathbb{H} 50'07		evening set	831 May 11 j 07:12	6° \mathbb{H} 32'59	
evening set	830 May 31 j 19:32	26° \mathbb{H} 14'28		min. Earth dist.	831 May 20 j 01:27	2° \mathbb{H} 48'13	0.55088 AU
min. Earth dist.	830 Jun 07 j 13:08	23° \mathbb{H} 05'38	0.56034 AU	inferior conj	831 May 20 j 16:05	2° \mathbb{H} 27'40	-2°-46'-53
inferior conj	830 Jun 09 j 17:10	21° \mathbb{H} 47'24	-4°-10'-36	minimum elong	831 May 20 j 09:02	2° \mathbb{H} 37'34	2°44'44
minimum elong	830 Jun 09 j 10:39	21° \mathbb{H} 57'15	4°09'22		831 May 25 j 08:38	30° \mathbb{R} \mathbb{B}	
morning rise	830 Jun 18 j 05:14	17° \mathbb{H} 50'40		morning rise	831 May 29 j 12:25	28° \mathbb{B} 33'50	
direct	830 Jun 20 j 22:12	17° \mathbb{H} 32'18		direct	831 Jun 01 j 12:25	28° \mathbb{B} 13'44	
morning max el	830 Jul 01 j 04:03	22° \mathbb{H} 16'48	20°05'57		831 Jun 08 j 05:05	0° \mathbb{H}	
	830 Jul 07 j 14:19	0° \mathbb{B}		morning max el	831 Jun 13 j 09:29	3° \mathbb{H} 47'36	21°29'40
asc. node	830 Jul 11 j 14:48	6° \mathbb{B} 26'54		asc. node	831 Jun 28 j 11:50	25° \mathbb{H} 36'46	
morning set	830 Jul 19 j 08:15	21° \mathbb{B} 13'27			831 Jun 30 j 17:58	0° \mathbb{B}	
	830 Jul 23 j 15:15	0° Ω		morning set	831 Jul 03 j 16:50	6° \mathbb{B} 00'21	

superior conj	831 Jul 11 j 02:06	21°☿29'20	1°39'56	superior conj	832 Jun 24 j 07:22	6°☿11'28	1°28'00
minimum elong	831 Jul 11 j 00:21	21°☿20'13	1°39'48	minimum elong	832 Jun 24 j 05:00	5°☿58'51	1°27'44
max. Earth dist.	831 Jul 15 j 00:15	29°☿31'26	1.35089 AU	max. Earth dist.	832 Jun 26 j 21:44	11°☿42'02	1.33804 AU
	831 Jul 15 j 05:56	0°♊		evening rise	832 Jul 02 j 00:07	22°☿07'35	
evening rise	831 Jul 19 j 10:47	8°♊13'27			832 Jul 06 j 02:09	0°♊	
	831 Jul 31 j 20:28	0°♊		desc. node	832 Jul 23 j 10:43	28°♊21'39	
desc. node	831 Aug 06 j 13:43	8°♊49'07			832 Jul 24 j 15:13	0°♊	
	831 Aug 23 j 11:42	0°♊		evening max el	832 Aug 05 j 05:01	13°♊35'58	27°18'43
evening max el	831 Aug 23 j 17:14	0°♊13'25	26°44'47	retrograde	832 Aug 18 j 16:07	20°♊54'37	
retrograde	831 Sep 05 j 17:41	7°♊28'20		evening set	832 Aug 25 j 17:33	18°♊11'19	
evening set	831 Sep 12 j 09:08	4°♊46'24		min. Earth dist.	832 Aug 29 j 11:41	14°♊41'33	0.64510 AU
min. Earth dist.	831 Sep 16 j 09:51	0°♊40'04	0.65836 AU	inferior conj	832 Aug 31 j 18:55	12°♊12'29	-3°00'-47
	831 Sep 16 j 23:31	30°♋		minimum elong	832 Aug 31 j 23:25	12°♊00'18	2°59'19
inferior conj	831 Sep 18 j 04:11	28°♋34'57	-2°-5'-23	morning rise	832 Sep 07 j 07:09	6°♋43'29	
minimum elong	831 Sep 18 j 07:26	28°♋25'20	2°04'08	direct	832 Sep 09 j 21:12	6°♋08'54	
morning rise	831 Sep 24 j 07:02	22°♋50'34		asc. node	832 Sep 10 j 08:06	6°♋09'59	
asc. node	831 Sep 24 j 11:02	22°♋45'28		morning max el	832 Sep 16 j 09:18	9°♋36'16	18°00'26
direct	831 Sep 27 j 03:11	22°♋05'37			832 Sep 30 j 05:12	0°♊	
morning max el	831 Oct 03 j 17:56	25°♋43'06	18°26'07	morning set	832 Oct 03 j 20:06	6°♊07'07	
	831 Oct 07 j 09:16	0°♊					
morning set	831 Oct 23 j 08:54	24°♊44'19		superior conj	832 Oct 17 j 07:46	28°♊25'22	0°13'57
	831 Oct 26 j 15:18	0°♋		minimum elong	832 Oct 17 j 09:24	28°♊31'57	0°13'43
desc. node	831 Nov 02 j 13:00	11°♋01'10		behind sun begin	832 Oct 17 j 03:48	28°♊09'23	
				behind sun end	832 Oct 17 j 15:00	28°♊54'31	
superior conj	831 Nov 07 j 20:48	19°♋25'41	0°-34'-45		832 Oct 18 j 07:18	0°♋	
minimum elong	831 Nov 07 j 16:16	19°♋07'49	0°34'10	desc. node	832 Oct 19 j 10:03	1°♋47'06	
max. Earth dist.	831 Nov 09 j 04:49	21°♋31'34	1.45082 AU	max. Earth dist.	832 Oct 21 j 23:38	5°♋52'06	1.44619 AU
	831 Nov 14 j 14:22	0°♌		evening rise	832 Nov 02 j 17:16	24°♋11'09	
evening rise	831 Nov 24 j 03:02	14°♌58'18			832 Nov 06 j 12:03	0°♌	
	831 Dec 03 j 16:32	0°♌		greatest brilliancy	832 Nov 22 j 10:14	23°♌36'54	-0.6m
greatest brilliancy	831 Dec 06 j 22:07	4°♌58'19	-0.7m		832 Nov 27 j 10:02	0°♌	
evening max el	831 Dec 17 j 00:11	18°♌28'51	19°12'20	evening max el	832 Nov 29 j 04:57	1°♌57'43	20°07'00
asc. node	831 Dec 21 j 10:18	21°♌52'55		retrograde	832 Dec 06 j 22:20	6°♌29'41	
retrograde	831 Dec 24 j 00:38	22°♌29'50		asc. node	832 Dec 07 j 07:21	6°♌28'54	
evening set	831 Dec 27 j 07:47	21°♌26'26		evening set	832 Dec 10 j 13:39	5°♌12'32	
inferior conj	832 Jan 01 j 23:21	15°♌34'00	3°13'59		832 Dec 15 j 09:29	30°♋	
minimum elong	832 Jan 01 j 20:47	15°♌42'10	3°13'27	inferior conj	832 Dec 16 j 01:29	29°♌06'33	2°40'24
min. Earth dist.	832 Jan 03 j 08:52	13°♌47'09	0.65994 AU	minimum elong	832 Dec 15 j 22:46	29°♌15'40	2°39'36
morning rise	832 Jan 07 j 08:57	9°♌21'25		min. Earth dist.	832 Dec 16 j 21:26	27°♌59'36	0.66935 AU
direct	832 Jan 13 j 17:44	6°♌34'14		morning rise	832 Dec 21 j 07:20	22°♌51'34	
morning max el	832 Jan 26 j 10:49	14°♌04'20	26°18'53	direct	832 Dec 27 j 02:14	20°♌18'24	
desc. node	832 Jan 29 j 12:11	17°♌20'23		morning max el	833 Jan 07 j 19:38	27°♌17'33	25°01'19
	832 Feb 08 j 10:34	0°♍			833 Jan 10 j 08:45	0°♌	
	832 Feb 27 j 07:19	0°♋		desc. node	833 Jan 15 j 09:14	6°♌00'12	
morning set	832 Mar 02 j 13:13	7°♋45'14			833 Feb 01 j 02:29	0°♍	
max. Earth dist.	832 Mar 06 j 15:38	15°♋36'34	1.35097 AU	morning set	833 Feb 12 j 23:10	19°♍55'06	
				max. Earth dist.	833 Feb 16 j 16:21	26°♍40'43	1.36882 AU
superior conj	832 Mar 11 j 11:43	25°♋18'23	-1°-7'-21		833 Feb 18 j 10:58	0°♋	
minimum elong	832 Mar 11 j 14:58	25°♋34'58	1°06'49				
	832 Mar 13 j 18:24	0°♎		superior conj	833 Feb 22 j 23:58	8°♋45'12	-1°-31'-50
asc. node	832 Mar 18 j 09:37	9°♎37'48		minimum elong	833 Feb 23 j 03:58	9°♋04'52	1°31'20
evening rise	832 Mar 19 j 06:02	11°♎23'10		evening rise	833 Mar 03 j 09:15	25°♋33'38	
	832 Mar 29 j 02:25	0°♏		asc. node	833 Mar 05 j 06:41	29°♋19'58	
evening max el	832 Apr 06 j 22:08	11°♏35'58	20°38'32		833 Mar 05 j 14:48	0°♎	
retrograde	832 Apr 18 j 01:54	16°♏59'55		evening max el	833 Mar 20 j 11:57	23°♎15'03	19°30'59
evening set	832 Apr 20 j 05:26	16°♏48'43		retrograde	833 Mar 29 j 22:44	27°♎48'02	
desc. node	832 Apr 26 j 11:22	14°♏29'55		evening set	833 Apr 01 j 01:04	27°♎35'34	
inferior conj	832 Apr 29 j 10:17	12°♏51'11	0°-51'-13	inferior conj	833 Apr 09 j 14:26	23°♎30'06	1°03'22
minimum elong	832 Apr 29 j 07:52	12°♏54'41	0°50'21	minimum elong	833 Apr 09 j 17:00	23°♎25'56	1°02'29
min. Earth dist.	832 Apr 30 j 14:15	12°♏11'01	0.55064 AU	min. Earth dist.	833 Apr 12 j 04:45	21°♎50'20	0.55979 AU
morning rise	832 May 08 j 08:57	8°♏41'28		desc. node	833 Apr 13 j 08:24	21°♎08'15	
direct	832 May 11 j 22:59	8°♏13'47		morning rise	833 Apr 18 j 05:15	18°♎48'53	
morning max el	832 May 25 j 05:13	14°♏38'36	23°07'35	direct	833 Apr 22 j 18:12	18°♎02'23	
	832 Jun 06 j 02:19	0°♐		morning max el	833 May 06 j 20:11	25°♎08'46	24°48'33
asc. node	832 Jun 14 j 08:54	15°♐10'28			833 May 11 j 08:28	0°♏	
morning set	832 Jun 17 j 03:57	20°♐55'36			833 May 29 j 19:28	0°♐	
	832 Jun 21 j 10:09	0°♑		asc. node	833 Jun 01 j 05:58	5°♐01'16	

morning set	833 Jun 01 j 15:56	5°II53'37			834 May 06 j 07:09	0°8	
				morning set	834 May 17 j 03:06	20°848'44	
superior conj	833 Jun 08 j 16:42	21°II05'19	1°11'26	asc. node	834 May 19 j 03:02	25°803'31	
minimum elong	833 Jun 08 j 14:17	20°II52'08	1°11'04		834 May 21 j 09:44	0°II	
max. Earth dist.	833 Jun 10 j 03:20	24°II13'10	1.32910 AU				
	833 Jun 12 j 20:05	0°8		superior conj	834 May 24 j 04:08	6°II04'05	0°51'07
evening rise	833 Jun 15 j 23:00	6°829'55		minimum elong	834 May 24 j 02:07	5°II53'02	0°50'45
	833 Jun 28 j 15:21	0°8		max. Earth dist.	834 May 24 j 14:12	6°II59'21	1.32401 AU
desc. node	833 Jul 10 j 07:44	17°813'27		evening rise	834 May 31 j 04:25	21°II11'04	
evening max el	833 Jul 18 j 14:26	26°832'28	27°23'49		834 Jun 04 j 13:06	0°8	
	833 Jul 22 j 16:29	0°8			834 Jun 22 j 22:53	0°8	
retrograde	833 Aug 01 j 08:32	3°850'37		desc. node	834 Jun 27 j 04:45	5°807'36	
evening set	833 Aug 08 j 13:31	1°817'57		evening max el	834 Jun 30 j 19:18	8°851'44	26°56'19
	833 Aug 10 j 06:10	30°88		retrograde	834 Jul 14 j 17:57	16°807'13	
min. Earth dist.	833 Aug 12 j 03:36	28°819'11	0.62832 AU	evening set	834 Jul 21 j 16:46	13°859'15	
inferior conj	833 Aug 14 j 23:34	25°834'54	-3°-51'-3	min. Earth dist.	834 Jul 25 j 09:23	11°819'29	0.60875 AU
minimum elong	833 Aug 15 j 04:35	25°822'43	3°49'49	inferior conj	834 Jul 28 j 14:52	8°834'37	-4°-30'-33
morning rise	833 Aug 21 j 22:09	20°824'39		minimum elong	834 Jul 28 j 18:57	8°825'55	4°29'58
direct	833 Aug 24 j 08:40	19°857'13		morning rise	834 Aug 05 j 00:13	3°845'45	
asc. node	833 Aug 28 j 05:11	21°807'14		direct	834 Aug 07 j 09:52	3°822'53	
morning max el	833 Aug 31 j 01:08	23°822'58	17°52'30	morning max el	834 Aug 14 j 14:24	6°855'52	18°03'24
	833 Sep 05 j 06:53	0°8		asc. node	834 Aug 15 j 02:15	7°825'26	
morning set	833 Sep 16 j 06:32	18°836'24			834 Aug 29 j 09:15	0°8	
	833 Sep 22 j 18:01	0°8		morning set	834 Aug 30 j 10:14	1°855'52	
superior conj	833 Sep 27 j 19:42	8°839'52	0°54'58	superior conj	834 Sep 09 j 10:37	20°814'19	1°23'41
minimum elong	833 Sep 28 j 00:21	8°859'27	0°54'23	minimum elong	834 Sep 09 j 14:54	20°833'20	1°23'15
max. Earth dist.	833 Oct 04 j 14:57	19°852'48	1.43484 AU		834 Sep 15 j 01:38	0°8	
desc. node	833 Oct 06 j 07:04	22°834'11		max. Earth dist.	834 Sep 17 j 01:09	3°819'57	1.41829 AU
	833 Oct 10 j 23:43	0°8		evening rise	834 Sep 22 j 19:26	12°845'05	
evening rise	833 Oct 13 j 00:47	3°811'07		desc. node	834 Sep 23 j 04:06	13°819'41	
	833 Oct 31 j 00:25	0°8			834 Oct 03 j 23:57	0°8	
greatest brilliancy	833 Nov 06 j 23:30	9°825'10	-0.4m	greatest brilliancy	834 Oct 21 j 02:39	23°834'42	-0.3m
evening max el	833 Nov 12 j 04:00	15°826'32	21°14'39	evening max el	834 Oct 25 j 21:42	28°857'22	22°31'12
retrograde	833 Nov 20 j 19:50	20°835'19			834 Oct 26 j 23:17	0°8	
asc. node	833 Nov 24 j 04:25	19°832'12		retrograde	834 Nov 04 j 15:22	4°844'34	
evening set	833 Nov 24 j 21:14	19°802'40		evening set	834 Nov 09 j 04:51	2°854'55	
inferior conj	833 Nov 30 j 07:07	12°846'37	1°59'00	asc. node	834 Nov 11 j 01:28	1°806'44	
minimum elong	833 Nov 30 j 04:46	12°854'45	1°58'09		834 Nov 12 j 00:08	30°88	
min. Earth dist.	833 Nov 30 j 15:06	12°819'05	0.67504 AU	inferior conj	834 Nov 14 j 14:19	26°832'36	1°11'36
morning rise	833 Dec 05 j 11:56	6°831'19		minimum elong	834 Nov 14 j 12:44	26°838'05	1°10'57
direct	833 Dec 10 j 15:39	4°818'16		min. Earth dist.	834 Nov 14 j 11:26	26°842'35	0.67735 AU
morning max el	833 Dec 21 j 04:23	10°834'44	23°34'06	morning rise	834 Nov 19 j 20:29	20°819'15	
desc. node	834 Jan 02 j 06:17	25°821'01		direct	834 Nov 24 j 09:13	18°828'47	
	834 Jan 05 j 14:04	0°8		morning max el	834 Dec 03 j 16:11	23°857'37	22°06'57
	834 Jan 24 j 21:05	0°8		greatest brilliancy	834 Dec 08 j 08:27	29°813'26	-0.4m
morning set	834 Jan 25 j 09:20	0°851'44			834 Dec 08 j 23:35	0°8	
max. Earth dist.	834 Jan 29 j 11:15	7°853'52	1.38955 AU	desc. node	834 Dec 20 j 03:20	15°811'31	
					834 Dec 30 j 00:33	0°8	
superior conj	834 Feb 05 j 22:41	21°828'08	-1°-51'-23	morning set	835 Jan 05 j 14:33	10°823'35	
minimum elong	834 Feb 06 j 02:20	21°845'14	1°51'06	max. Earth dist.	835 Jan 11 j 08:26	19°850'18	1.41077 AU
	834 Feb 10 j 10:16	0°8			835 Jan 17 j 06:41	0°8	
evening rise	834 Feb 15 j 04:44	9°815'23					
asc. node	834 Feb 20 j 03:44	18°842'17		superior conj	835 Jan 19 j 03:02	3°815'35	-2°-2'-19
	834 Feb 26 j 22:18	0°8		minimum elong	835 Jan 19 j 04:24	3°821'39	2°02'18
evening max el	834 Mar 03 j 11:58	5°831'11	18°43'17	evening rise	835 Jan 29 j 13:12	22°820'48	
retrograde	834 Mar 11 j 12:20	9°825'09			835 Feb 02 j 16:30	0°8	
evening set	834 Mar 13 j 19:17	9°807'15		asc. node	835 Feb 07 j 00:46	7°838'08	
inferior conj	834 Mar 21 j 13:50	4°844'27	2°30'21	evening max el	835 Feb 14 j 19:17	18°816'35	18°15'38
minimum elong	834 Mar 21 j 18:03	4°836'33	2°29'15	retrograde	835 Feb 21 j 20:33	21°847'53	
min. Earth dist.	834 Mar 24 j 22:01	2°815'39	0.57629 AU	evening set	835 Feb 24 j 08:45	21°822'04	
	834 Mar 28 j 12:22	30°88		inferior conj	835 Mar 03 j 10:15	16°838'02	3°22'39
morning rise	834 Mar 29 j 12:31	29°830'22		minimum elong	835 Mar 03 j 13:15	16°831'28	3°22'11
desc. node	834 Mar 31 j 05:26	28°850'26		min. Earth dist.	835 Mar 06 j 19:49	13°841'36	0.59681 AU
direct	834 Apr 04 j 03:40	28°812'02		morning rise	835 Mar 10 j 14:14	10°859'24	
	834 Apr 10 j 21:28	0°8		direct	835 Mar 17 j 01:58	9°803'46	
morning max el	834 Apr 18 j 12:11	5°844'52	26°17'29	desc. node	835 Mar 18 j 02:29	9°806'34	

morning max el	835 Mar 31 j 09:16	16° ✕ 50'11	27°20'04	morning max el	836 Mar 12 j 12:36	28° ≈ 36'29	27°47'32
	835 Apr 11 j 05:46	0° Υ			836 Mar 13 j 21:18	0° ✕	
	835 Apr 28 j 18:09	0° ♄			836 Apr 04 j 01:03	0° Υ	
morning set	835 May 01 j 11:42	5° ♄ 34'30		morning set	836 Apr 14 j 15:50	20° Υ 04'23	
asc. node	835 May 06 j 00:03	15° ♄ 12'03			836 Apr 19 j 09:25	0° ♄	
max. Earth dist.	835 May 08 j 02:45	19° ♄ 49'14	1.32270 AU	max. Earth dist.	836 Apr 20 j 13:12	2° ♄ 29'42	1.32517 AU
				asc. node	836 Apr 21 j 21:04	5° ♄ 22'42	
superior conj	835 May 08 j 15:50	21° ♄ 01'04	0°27'49	superior conj	836 Apr 22 j 02:10	5° ♄ 50'24	0°02'15
minimum elong	835 May 08 j 14:37	20° ♄ 54'24	0°27'33	minimum elong	836 Apr 22 j 02:03	5° ♄ 49'49	0°02'14
	835 May 12 j 18:16	0° ♄		behind sun begin	836 Apr 21 j 20:59	5° ♄ 22'10	
evening rise	835 May 15 j 13:54	6° ♄ 02'19		behind sun end	836 Apr 22 j 07:08	6° ♄ 17'29	
	835 May 28 j 05:32	0° ♄		evening rise	836 Apr 29 j 01:25	20° ♄ 56'31	
evening max el	835 Jun 12 j 17:30	20° ♄ 25'19	25°56'45		836 May 03 j 11:21	0° ♄	
desc. node	835 Jun 14 j 01:46	21° ♄ 39'21			836 May 23 j 02:23	0° ♄	
retrograde	835 Jun 26 j 18:16	27° ♄ 36'30		evening max el	836 May 24 j 09:24	1° ♄ 17'25	24°32'28
evening set	835 Jul 02 j 22:29	26° ♄ 04'39		desc. node	836 May 30 j 22:45	6° ♄ 16'30	
min. Earth dist.	835 Jul 07 j 06:06	23° ♄ 26'45	0.58817 AU	retrograde	836 Jun 07 j 07:20	8° ♄ 19'26	
inferior conj	835 Jul 10 j 13:09	21° ♄ 00'50	-4°-50'-18	evening set	836 Jun 12 j 04:51	7° ♄ 25'36	
minimum elong	835 Jul 10 j 14:02	20° ♄ 59'10	4°50'18	min. Earth dist.	836 Jun 17 j 20:35	4° ♄ 32'19	0.56926 AU
morning rise	835 Jul 18 j 09:08	16° ♄ 34'48		inferior conj	836 Jun 20 j 15:34	2° ♄ 44'53	-4°-37'-38
direct	835 Jul 20 j 20:30	16° ♄ 14'31		minimum elong	836 Jun 20 j 11:31	2° ♄ 51'26	4°37'12
morning max el	835 Jul 28 j 21:52	20° ♄ 04'56	18°34'23		836 Jun 25 j 07:42	30° ♄	
asc. node	835 Aug 01 j 23:17	24° ♄ 48'09		morning rise	836 Jun 28 j 21:56	28° ♄ 39'53	
	835 Aug 05 j 10:05	0° ♄		direct	836 Jul 01 j 12:44	28° ♄ 21'01	
morning set	835 Aug 14 j 02:08	15° ♄ 50'53			836 Jul 07 j 07:18	0° ♄	
	835 Aug 21 j 10:37	0° ♄		morning max el	836 Jul 10 j 20:37	2° ♄ 41'16	19°26'25
superior conj	835 Aug 22 j 23:44	2° ♄ 54'29	1°40'13	asc. node	836 Jul 18 j 20:19	13° ♄ 01'27	
minimum elong	835 Aug 23 j 02:10	3° ♄ 05'49	1°40'04	morning set	836 Jul 28 j 02:34	0° ♄ 11'37	
max. Earth dist.	835 Aug 30 j 06:30	16° ♄ 04'54	1.39866 AU		836 Jul 28 j 00:14	0° ♄	
evening rise	835 Sep 03 j 12:31	23° ♄ 21'41		superior conj	836 Aug 05 j 05:30	16° ♄ 24'52	1°46'24
	835 Sep 07 j 13:15	0° ♄		minimum elong	836 Aug 05 j 05:56	16° ♄ 26'57	1°46'23
desc. node	835 Sep 10 j 01:08	3° ♄ 59'16		max. Earth dist.	836 Aug 11 j 10:07	28° ♄ 12'19	1.37844 AU
	835 Sep 27 j 21:39	0° ♄			836 Aug 12 j 09:35	0° ♄	
evening max el	835 Oct 08 j 11:28	12° ♄ 31'14	23°51'17	evening rise	836 Aug 15 j 05:51	5° ♄ 06'36	
retrograde	835 Oct 19 j 07:34	18° ♄ 53'57		desc. node	836 Aug 26 j 22:08	24° ♄ 28'26	
evening set	835 Oct 24 j 10:51	16° ♄ 46'31			836 Aug 30 j 13:17	0° ♄	
asc. node	835 Oct 28 j 22:30	11° ♄ 39'04		evening max el	836 Sep 19 j 23:21	26° ♄ 08'18	25°08'12
inferior conj	835 Oct 29 j 21:15	10° ♄ 21'55	0°19'35		836 Sep 24 j 10:27	0° ♄	
minimum elong	835 Oct 29 j 20:47	10° ♄ 23'31	0°19'23	retrograde	836 Oct 01 j 19:37	2° ♄ 59'30	
min. Earth dist.	835 Oct 29 j 07:55	11° ♄ 07'13	0.67635 AU	evening set	836 Oct 07 j 13:33	0° ♄ 35'15	
morning rise	835 Nov 04 j 06:53	4° ♄ 13'08			836 Oct 08 j 05:13	30° ♄	
direct	835 Nov 08 j 05:44	2° ♄ 44'49		min. Earth dist.	836 Oct 12 j 02:09	25° ♄ 30'57	0.67205 AU
morning max el	835 Nov 16 j 10:25	7° ♄ 30'01	20°47'32	inferior conj	836 Oct 13 j 02:11	24° ♄ 12'21	0°-35'-38
greatest brilliancy	835 Nov 22 j 06:09	14° ♄ 19'02	-0.5m	minimum elong	836 Oct 13 j 03:05	24° ♄ 09'25	0°35'15
	835 Dec 03 j 09:41	0° ♄		asc. node	836 Oct 14 j 19:32	22° ♄ 00'15	
desc. node	835 Dec 07 j 00:24	5° ♄ 23'15		morning rise	836 Oct 18 j 17:12	18° ♄ 10'53	
morning set	835 Dec 15 j 18:10	18° ♄ 46'01		direct	836 Oct 22 j 03:54	17° ♄ 02'21	
	835 Dec 22 j 20:34	0° ♄		morning max el	836 Oct 29 j 12:31	21° ♄ 13'21	19°40'35
max. Earth dist.	835 Dec 24 j 13:20	2° ♄ 44'38	1.42947 AU		836 Nov 05 j 15:36	0° ♄	
superior conj	835 Dec 31 j 07:42	13° ♄ 55'16	-2°00'00	greatest brilliancy	836 Nov 06 j 15:44	1° ♄ 24'22	-0.6m
minimum elong	835 Dec 31 j 04:31	13° ♄ 41'53	1°59'55	desc. node	836 Nov 22 j 21:26	25° ♄ 50'02	
	836 Jan 09 j 15:08	0° ♄		morning set	836 Nov 23 j 15:12	26° ♄ 58'41	
evening rise	836 Jan 12 j 06:46	4° ♄ 41'56			836 Nov 25 j 14:01	0° ♄	
asc. node	836 Jan 24 j 21:47	25° ♄ 59'13		max. Earth dist.	836 Dec 06 j 01:52	16° ♄ 27'02	1.44311 AU
	836 Jan 27 j 23:59	0° ♄		superior conj	836 Dec 10 j 09:39	23° ♄ 21'50	-1°-40'-6
evening max el	836 Jan 29 j 06:39	1° ♄ 22'07	18°07'38	minimum elong	836 Dec 10 j 01:50	22° ♄ 50'21	1°39'27
retrograde	836 Feb 04 j 20:15	4° ♄ 46'25			836 Dec 14 j 11:49	0° ♄	
evening set	836 Feb 07 j 13:06	4° ♄ 11'27		evening rise	836 Dec 24 j 05:08	16° ♄ 10'51	
	836 Feb 13 j 03:09	30° ♄			837 Jan 01 j 10:25	0° ♄	
inferior conj	836 Feb 14 j 01:02	29° ♄ 05'49	3°45'07	asc. node	837 Jan 10 j 18:49	14° ♄ 33'45	
minimum elong	836 Feb 14 j 01:53	29° ♄ 03'39	3°45'05	evening max el	837 Jan 11 j 19:09	14° ♄ 39'51	18°18'37
min. Earth dist.	836 Feb 17 j 00:58	26° ♄ 06'49	0.61787 AU	retrograde	837 Jan 18 j 06:48	18° ♄ 10'14	
morning rise	836 Feb 20 j 12:13	23° ♄ 11'13		evening set	837 Jan 21 j 04:20	17° ♄ 25'16	
direct	836 Feb 27 j 10:10	20° ♄ 43'55		inferior conj	837 Jan 27 j 06:09	11° ♄ 59'36	3°45'10
desc. node	836 Mar 03 j 23:32	22° ♄ 08'11					

minimum elong	837 Jan 27 j 05:09	12° 22 02'25	3°45'07	min. Earth dist.	838 Jan 12 j 15:57	23° 30 03'57	0.65268 AU
min. Earth dist.	837 Jan 29 j 15:36	9° 22 18'53	0.63696 AU	morning rise	838 Jan 16 j 11:02	19° 30 02'09	
morning rise	837 Feb 02 j 04:19	5° 22 55'00		direct	838 Jan 23 j 02:14	16° 30 11'17	
direct	837 Feb 09 j 02:37	3° 22 08'41		morning max el	838 Feb 05 j 06:26	23° 30 54'05	26°55'13
desc. node	837 Feb 18 j 20:35	7° 22 25'09		desc. node	838 Feb 05 j 17:39	24° 30 22'30	
morning max el	837 Feb 22 j 20:38	11° 22 01'17	27°37'54		838 Feb 10 j 18:07	0° 22	
	837 Mar 09 j 20:36	0° 22 ✠			838 Mar 03 j 05:10	0° 22 ✠	
	837 Mar 27 j 10:07	0° 22 Υ		morning set	838 Mar 13 j 00:07	17° 22 ✠40'13	
morning set	837 Mar 29 j 13:02	4° 22 Υ09'28		max. Earth dist.	838 Mar 17 j 11:29	26° 22 ✠28'18	1.34257 AU
max. Earth dist.	837 Apr 03 j 17:23	14° 22 Υ46'01	1.33165 AU		838 Mar 19 j 05:08	0° 22 Υ	
superior conj	837 Apr 06 j 09:17	20° 22 Υ25'10	0°-24'-45	superior conj	838 Mar 21 j 11:12	4° 22 Υ39'30	0°-52'-4
minimum elong	837 Apr 06 j 10:29	20° 22 Υ31'38	0°24'31	minimum elong	838 Mar 21 j 13:45	4° 22 Υ52'49	0°51'36
asc. node	837 Apr 08 j 18:06	25° 22 Υ30'40		asc. node	838 Mar 26 j 15:09	15° 22 Υ31'57	
	837 Apr 10 j 20:08	0° 22 ♄		evening rise	838 Mar 28 j 23:05	20° 22 Υ25'14	
evening rise	837 Apr 13 j 13:05	5° 22 ♄46'06			838 Apr 02 j 17:02	0° 22 ♄	
	837 Apr 26 j 14:06	0° 22 ♄		evening max el	838 Apr 17 j 20:09	22° 22 ♄31'54	21°25'26
evening max el	837 May 05 j 23:45	11° 22 ♄48'57	22°57'09	retrograde	838 Apr 29 j 23:07	28° 22 ♄26'36	
desc. node	837 May 17 j 19:46	18° 22 ♄22'17		evening set	838 May 02 j 08:41	28° 22 ♄13'28	
retrograde	837 May 19 j 08:11	18° 22 ♄27'32		desc. node	838 May 04 j 16:48	27° 22 ♄37'09	
evening set	837 May 22 j 18:39	18° 22 ♄01'37		inferior conj	838 May 11 j 17:42	24° 22 ♄13'21	-1°-59'-59
min. Earth dist.	837 May 30 j 08:45	14° 22 ♄39'14	0.55530 AU	minimum elong	838 May 11 j 12:11	24° 22 ♄21'05	1°58'07
inferior conj	837 May 31 j 22:37	13° 22 ♄44'28	-3°-40'-32	min. Earth dist.	838 May 11 j 21:22	24° 22 ♄08'11	0.54951 AU
minimum elong	837 May 31 j 15:10	13° 22 ♄55'17	3°38'43	morning rise	838 May 20 j 16:02	20° 22 ♄14'55	
morning rise	837 Jun 09 j 14:40	9° 22 ♄51'32		direct	838 May 23 j 20:33	19° 22 ♄52'46	
direct	837 Jun 12 j 10:04	9° 22 ♄32'56		morning max el	838 Jun 05 j 09:36	25° 22 ♄49'25	22°10'13
morning max el	837 Jun 23 j 08:35	14° 22 ♄36'54	20°39'25		838 Jun 09 j 07:45	0° 22 ♄	
	837 Jul 04 j 15:57	0° 22 ♄		asc. node	838 Jun 22 j 14:25	21° 22 ♄13'40	
asc. node	837 Jul 05 j 17:22	1° 22 ♄53'13		morning set	838 Jun 26 j 18:39	29° 22 ♄41'12	
morning set	837 Jul 12 j 08:48	14° 22 ♄50'35			838 Jun 26 j 22:15	0° 22 ♄	
superior conj	837 Jul 19 j 23:10	0° 22 ♄31'46	1°44'15	superior conj	838 Jul 04 j 01:01	15° 22 ♄03'34	1°35'30
minimum elong	837 Jul 19 j 22:02	0° 22 ♄26'00	1°44'13	minimum elong	838 Jul 03 j 22:56	14° 22 ♄52'36	1°35'20
	837 Jul 19 j 16:56	0° 22 ♄		max. Earth dist.	838 Jul 07 j 08:59	21° 22 ♄59'40	1.34487 AU
max. Earth dist.	837 Jul 24 j 17:23	10° 22 ♄02'20	1.35998 AU		838 Jul 11 j 08:45	0° 22 ♄	
evening rise	837 Jul 28 j 19:58	17° 22 ♄51'57		evening rise	838 Jul 12 j 02:07	1° 22 ♄24'40	
	837 Aug 04 j 15:31	0° 22 ♄			838 Jul 28 j 14:50	0° 22 ♄	
desc. node	837 Aug 13 j 19:07	14° 22 ♄41'52		desc. node	838 Jul 31 j 16:08	4° 22 ♄32'06	
	837 Aug 24 j 19:15	0° 22 ♄		evening max el	838 Aug 15 j 23:03	23° 22 ♄17'15	27°02'25
evening max el	837 Sep 02 j 11:02	9° 22 ♄46'00	26°14'28		838 Aug 25 j 19:07	0° 22 ♄	
retrograde	837 Sep 15 j 02:56	16° 22 ♄55'56		retrograde	838 Aug 29 j 04:59	0° 22 ♄35'28	
evening set	837 Sep 21 j 11:05	14° 22 ♄18'25			838 Sep 01 j 10:25	30° 22 ♄	
min. Earth dist.	837 Sep 25 j 15:54	9° 22 ♄50'48	0.66434 AU	evening set	838 Sep 05 j 01:08	27° 22 ♄51'38	
inferior conj	837 Sep 27 j 03:21	8° 22 ♄01'26	-1°-32'-33	min. Earth dist.	838 Sep 08 j 22:48	24° 22 ♄01'07	0.65311 AU
minimum elong	837 Sep 27 j 05:45	7° 22 ♄54'02	1°31'35	inferior conj	838 Sep 10 j 22:36	21° 22 ♄44'46	-2°-29'-16
asc. node	837 Oct 01 j 16:35	3° 22 ♄07'01		minimum elong	838 Sep 11 j 02:26	21° 22 ♄33'49	2°27'53
morning rise	837 Oct 03 j 01:27	2° 22 ♄10'04		morning rise	838 Sep 17 j 05:18	16° 22 ♄06'33	
direct	837 Oct 06 j 02:07	1° 22 ♄17'45		asc. node	838 Sep 18 j 13:40	15° 22 ♄36'46	
morning max el	837 Oct 12 j 21:36	5° 22 ♄04'58	18°48'39	direct	838 Sep 19 j 22:25	15° 22 ♄26'36	
	837 Oct 30 j 08:16	0° 22 ♄		morning max el	838 Sep 26 j 11:25	18° 22 ♄59'05	18°13'01
morning set	837 Nov 03 j 05:51	6° 22 ♄09'43			838 Oct 04 j 17:12	0° 22 ♄	
desc. node	837 Nov 09 j 18:27	16° 22 ♄27'19		morning set	838 Oct 15 j 01:03	16° 22 ♄45'51	
	837 Nov 18 j 09:20	0° 22 ♄			838 Oct 23 j 03:55	0° 22 ♄	
max. Earth dist.	837 Nov 18 j 18:59	0° 22 ♄37'56	1.45008 AU	desc. node	838 Oct 27 j 15:28	7° 22 ♄10'46	
superior conj	837 Nov 19 j 14:46	1° 22 ♄55'44	-1°-2'-8	superior conj	838 Oct 29 j 17:19	10° 22 ♄28'41	0°-13'-45
minimum elong	837 Nov 19 j 07:14	1° 22 ♄26'07	1°01'15	minimum elong	838 Oct 29 j 15:32	10° 22 ♄21'39	0°13'31
evening rise	837 Dec 05 j 04:41	26° 22 ♄42'18		behind sun begin	838 Oct 29 j 09:23	9° 22 ♄57'14	
	837 Dec 07 j 05:44	0° 22 ♄		behind sun end	838 Oct 29 j 21:42	10° 22 ♄46'03	
evening max el	837 Dec 26 j 06:17	28° 22 ♄04'53	18°47'49	max. Earth dist.	838 Nov 01 j 13:35	14° 22 ♄58'14	1.44972 AU
	837 Dec 28 j 09:19	0° 22 ♄			838 Nov 11 j 04:05	0° 22 ♄	
asc. node	837 Dec 28 j 15:51	0° 22 ♄12'16		evening rise	838 Nov 15 j 05:09	6° 22 ♄17'56	
retrograde	838 Jan 02 j 00:08	1° 22 ♄52'16			838 Nov 30 j 16:13	0° 22 ♄	
evening set	838 Jan 05 j 03:16	0° 22 ♄56'10		greatest brilliancy	838 Dec 01 j 07:51	0° 22 ♄56'54	-0.7m
	838 Jan 06 j 11:04	30° 22 ♄		evening max el	838 Dec 09 j 13:53	11° 22 ♄32'59	19°33'51
inferior conj	838 Jan 10 j 21:54	25° 22 ♄12'48	3°28'58	asc. node	838 Dec 15 j 12:56	15° 22 ♄36'28	
minimum elong	838 Jan 10 j 19:42	25° 22 ♄19'31	3°28'36	retrograde	838 Dec 16 j 20:55	15° 22 ♄46'21	

evening set	838 Dec 20 j 07:14	14°☿37'30			839 Oct 15 j 19:10	0°♍	
inferior conj	838 Dec 25 j 21:00	8°☿39'08	3°00'49	evening rise	839 Oct 25 j 14:30	15°♍20'20	
minimum elong	838 Dec 25 j 18:18	8°☿47'56	3°00'08		839 Nov 04 j 06:02	0°♌	
min. Earth dist.	838 Dec 27 j 00:39	7°☿08'47	0.66446 AU	greatest brilliancy	839 Nov 16 j 17:14	17°♌53'45	-0.5m
morning rise	838 Dec 31 j 04:38	2°☿25'08		evening max el	839 Nov 22 j 16:24	25°♌02'17	20°34'25
	839 Jan 04 j 06:23	30°♊♌		retrograde	839 Nov 30 j 18:39	29°♌48'51	
direct	839 Jan 06 j 07:52	29°♌42'34		asc. node	839 Dec 02 j 10:00	29°♌33'40	
	839 Jan 08 j 11:41	0°☿		evening set	839 Dec 04 j 14:03	28°♌25'20	
morning max el	839 Jan 18 j 15:37	7°☿01'37	25°47'33	inferior conj	839 Dec 10 j 00:53	22°♌14'54	2°23'38
desc. node	839 Jan 23 j 14:42	12°☿30'53		minimum elong	839 Dec 09 j 22:16	22°♌23'48	2°22'47
	839 Feb 05 j 12:54	0°♊		min. Earth dist.	839 Dec 10 j 15:37	21°♌24'46	0.67232 AU
morning set	839 Feb 23 j 20:47	0°♊23'57		morning rise	839 Dec 15 j 06:00	15°♌59'40	
	839 Feb 23 j 15:34	0°♊		direct	839 Dec 20 j 18:39	13°♌34'21	
max. Earth dist.	839 Feb 27 j 17:40	7°♊39'16	1.35805 AU	morning max el	839 Dec 31 j 23:55	20°♌15'48	24°24'37
					840 Jan 09 j 08:15	0°☿	
superior conj	839 Mar 05 j 05:21	18°♊26'20	-1°-18'-11	desc. node	840 Jan 10 j 11:44	1°☿29'32	
minimum elong	839 Mar 05 j 09:01	18°♊44'43	1°17'37		840 Jan 29 j 17:38	0°♊	
	839 Mar 10 j 21:13	0°♊		morning set	840 Feb 05 j 21:21	12°♊04'06	
evening rise	839 Mar 13 j 05:26	4°♊47'58		max. Earth dist.	840 Feb 09 j 14:52	18°♊42'00	1.37745 AU
asc. node	839 Mar 13 j 12:13	5°♊22'33			840 Feb 15 j 16:25	0°♊	
	839 Mar 27 j 17:22	0°♊					
evening max el	839 Mar 31 j 03:30	3°♊49'01	20°07'33	superior conj	840 Feb 16 j 12:23	1°♊35'52	-1°-40'-56
retrograde	839 Apr 10 j 13:31	8°♊49'57		minimum elong	840 Feb 16 j 16:25	1°♊55'19	1°40'31
evening set	839 Apr 12 j 15:19	8°♊38'54		evening rise	840 Feb 25 j 05:41	18°♊46'53	
inferior conj	839 Apr 21 j 14:33	4°♊40'09	0°00'-29	asc. node	840 Feb 28 j 09:17	24°♊56'51	
minimum elong	839 Apr 21 j 14:32	4°♊40'11	0°00'30		840 Mar 02 j 01:45	0°♊	
transit middle	839 Apr 21 j 14:32	4°♊40'11	0°00'30	evening max el	840 Mar 12 j 22:00	15°♊44'31	19°08'14
transit begin	839 Apr 21 j 10:31	4°♊46'10		retrograde	840 Mar 21 j 16:34	19°♊58'39	
transit end	839 Apr 21 j 18:32	4°♊34'11		evening set	840 Mar 23 j 20:49	19°♊44'07	
desc. node	839 Apr 21 j 13:51	4°♊41'12		inferior conj	840 Apr 01 j 02:09	15°♊31'59	1°44'32
min. Earth dist.	839 Apr 23 j 11:06	3°♊33'43	0.55341 AU	minimum elong	840 Apr 01 j 05:53	15°♊25'36	1°43'21
morning rise	839 Apr 30 j 11:06	0°♊17'56		min. Earth dist.	840 Apr 04 j 02:16	13°♊29'33	0.56610 AU
	839 May 01 j 16:52	30°♊♌		desc. node	840 Apr 07 j 10:55	11°♊30'20	
direct	839 May 04 j 10:08	29°♊43'38		morning rise	840 Apr 09 j 10:52	10°♊36'38	
	839 May 07 j 02:48	0°♊		direct	840 Apr 14 j 11:23	9°♊37'53	
morning max el	839 May 18 j 02:31	6°♊28'31	23°51'01	morning max el	840 Apr 28 j 17:00	16°♊56'36	25°28'52
	839 Jun 03 j 20:55	0°♊			840 May 09 j 09:06	0°♊	
asc. node	839 Jun 09 j 11:29	10°♊55'22		morning set	840 May 25 j 18:10	29°♊35'24	
morning set	839 Jun 11 j 06:21	14°♊38'19			840 May 25 j 22:50	0°♊	
				asc. node	840 May 26 j 08:32	0°♊51'20	
superior conj	839 Jun 18 j 08:18	29°♊51'48	1°21'30				
minimum elong	839 Jun 18 j 05:51	29°♊38'35	1°21'11	superior conj	840 Jun 01 j 18:43	14°♊47'55	1°03'15
	839 Jun 18 j 09:49	0°♊		minimum elong	840 Jun 01 j 16:25	14°♊35'20	1°02'50
max. Earth dist.	839 Jun 20 j 10:11	4°♊19'17	1.33372 AU	max. Earth dist.	840 Jun 02 j 18:37	16°♊58'29	1.32649 AU
evening rise	839 Jun 25 j 19:59	15°♊32'38		evening rise	840 Jun 08 j 21:59	0°♊03'47	
	839 Jul 03 j 10:20	0°♊			840 Jun 08 j 21:15	0°♊	
desc. node	839 Jul 18 j 13:10	23°♊49'20			840 Jun 25 j 12:19	0°♊	
	839 Jul 23 j 09:15	0°♊		desc. node	840 Jul 04 j 10:12	12°♊18'45	
evening max el	839 Jul 29 j 10:21	6°♊31'27	27°24'50	evening max el	840 Jul 10 j 18:19	19°♊13'35	27°16'16
retrograde	839 Aug 12 j 01:03	13°♊50'07		retrograde	840 Jul 24 j 14:15	26°♊29'46	
evening set	839 Aug 19 j 04:46	11°♊10'03		evening set	840 Jul 31 j 18:06	24°♊06'09	
min. Earth dist.	839 Aug 22 j 20:48	7°♊54'10	0.63835 AU	min. Earth dist.	840 Aug 04 j 08:19	21°♊17'15	0.62030 AU
inferior conj	839 Aug 25 j 09:28	5°♊17'24	-3°-23'00	inferior conj	840 Aug 07 j 08:50	18°♊30'57	-4°-9'-34
minimum elong	839 Aug 25 j 14:19	5°♊04'51	3°21'34	minimum elong	840 Aug 07 j 13:41	18°♊19'47	4°08'34
	839 Aug 31 j 21:51	30°♊♌		morning rise	840 Aug 14 j 11:57	13°♊29'15	
morning rise	839 Sep 01 j 01:58	29°♊55'39		direct	840 Aug 16 j 21:54	13°♊03'54	
direct	839 Sep 03 j 14:10	29°♊24'27		asc. node	840 Aug 22 j 07:45	15°♊14'39	
asc. node	839 Sep 05 j 10:43	29°♊41'48		morning max el	840 Aug 23 j 18:19	16°♊31'23	17°54'46
	839 Sep 06 j 06:05	0°♊			840 Sep 02 j 05:56	0°♊	
morning max el	839 Sep 10 j 03:18	2°♊50'23	17°54'44	morning set	840 Sep 08 j 17:28	11°♊32'19	
morning set	839 Sep 26 j 22:59	28°♊39'43			840 Sep 19 j 02:48	0°♊	
	839 Sep 27 j 17:37	0°♊					
superior conj	839 Oct 09 j 13:56	19°♊57'34	0°32'41	superior conj	840 Sep 19 j 13:38	0°♊46'42	1°08'43
minimum elong	839 Oct 09 j 17:21	20°♊11'33	0°32'14	minimum elong	840 Sep 19 j 18:27	1°♊07'21	1°08'09
desc. node	839 Oct 14 j 12:30	27°♊57'31		max. Earth dist.	840 Sep 26 j 21:06	13°♊02'36	1.42840 AU
max. Earth dist.	839 Oct 15 j 07:15	29°♊12'30	1.44222 AU	desc. node	840 Sep 30 j 09:32	18°♊44'15	
				evening rise	840 Oct 04 j 00:49	24°♊29'58	

	840 Oct 07 j 13:50	0°♄		superior conj	841 Sep 01 j 14:39	12°♄50'38	1°32'06
	840 Oct 28 j 08:06	0°♂		minimum elong	841 Sep 01 j 18:14	13°♄06'52	1°31'48
greatest brilliancy	840 Oct 30 j 17:22	3°♂02'15	-0.4m	max. Earth dist.	841 Sep 09 j 05:08	26°♄12'10	1.41011 AU
evening max el	840 Nov 04 j 13:08	8°♂32'12	21°46'21		841 Sep 11 j 11:15	0°♄	
retrograde	840 Nov 13 j 15:26	13°♂56'52		evening rise	841 Sep 14 j 04:03	4°♄27'14	
evening set	840 Nov 17 j 21:52	12°♂16'55		desc. node	841 Sep 17 j 06:32	9°♄27'15	
asc. node	840 Nov 18 j 07:01	11°♂58'02			841 Sep 30 j 20:41	0°♄	
inferior conj	840 Nov 23 j 07:24	5°♂57'46	1°39'32	greatest brilliancy	841 Oct 12 j 13:14	15°♄41'52	-0.2m
minimum elong	840 Nov 23 j 05:19	6°♂04'57	1°38'44	evening max el	841 Oct 18 j 04:45	22°♄03'18	23°05'09
min. Earth dist.	840 Nov 23 j 10:36	5°♂46'41	0.67651 AU	retrograde	841 Oct 28 j 09:45	28°♄06'38	
	840 Nov 28 j 04:58	30°♄		evening set	841 Nov 02 j 04:59	26°♄09'11	
morning rise	840 Nov 28 j 12:33	29°♄43'17		asc. node	841 Nov 05 j 04:02	23°♄01'09	
direct	840 Dec 03 j 09:49	27°♄39'52		inferior conj	841 Nov 07 j 14:40	19°♄45'11	0°50'00
	840 Dec 09 j 07:18	0°♂		minimum elong	841 Nov 07 j 13:31	19°♄49'08	0°49'32
morning max el	840 Dec 13 j 09:36	3°♂35'27	22°56'32	min. Earth dist.	841 Nov 07 j 07:13	20°♄10'48	0.67729 AU
greatest brilliancy	840 Dec 18 j 03:12	8°♂52'45	-0.3m	morning rise	841 Nov 12 j 22:04	13°♄33'34	
desc. node	840 Dec 27 j 08:47	21°♂04'13		direct	841 Nov 17 j 04:37	11°♄52'58	
	841 Jan 02 j 12:46	0°♂		morning max el	841 Nov 25 j 23:58	17°♄02'33	21°31'57
morning set	841 Jan 16 j 19:37	22°♂25'22		greatest brilliancy	841 Dec 01 j 00:34	22°♄46'14	-0.4m
	841 Jan 21 j 07:24	0°♂			841 Dec 06 j 12:07	0°♂	
max. Earth dist.	841 Jan 21 j 10:28	0°♂13'11	1.39876 AU	desc. node	841 Dec 14 j 05:47	11°♂04'18	
					841 Dec 26 j 15:33	0°♂	
superior conj	841 Jan 29 j 03:59	13°♂57'03	-1°-57'-19	morning set	841 Dec 27 j 12:46	1°♂23'47	
minimum elong	841 Jan 29 j 06:57	14°♂10'39	1°57'11	max. Earth dist.	842 Jan 03 j 10:48	12°♂34'49	1.41920 AU
	841 Feb 06 j 16:46	0°♂					
evening rise	841 Feb 07 j 20:58	2°♂14'41		superior conj	842 Jan 10 j 22:49	25°♂16'35	-2°-3'-15
asc. node	841 Feb 14 j 06:20	14°♂09'00		minimum elong	842 Jan 10 j 22:30	25°♂15'11	2°03'15
evening max el	841 Feb 24 j 01:27	28°♂13'53	18°28'59		842 Jan 13 j 15:34	0°♂	
	841 Feb 26 j 03:49	0°♂		evening rise	842 Jan 21 j 23:38	15°♂02'23	
retrograde	841 Mar 03 j 14:35	1°♂56'29			842 Jan 30 j 09:15	0°♂	
evening set	841 Mar 05 j 23:47	1°♂35'24		asc. node	842 Feb 01 j 03:22	2°♂51'08	
	841 Mar 09 j 09:58	30°♄		evening max el	842 Feb 07 j 10:47	11°♂08'19	18°09'46
inferior conj	841 Mar 13 j 10:40	27°♂03'21	2°56'38	retrograde	842 Feb 14 j 06:00	14°♂35'13	
minimum elong	841 Mar 13 j 14:35	26°♂55'28	2°55'46	evening set	842 Feb 16 j 20:04	14°♂05'46	
min. Earth dist.	841 Mar 16 j 20:58	24°♂20'02	0.58475 AU	inferior conj	842 Feb 23 j 15:23	9°♂12'29	3°35'20
morning rise	841 Mar 21 j 01:23	21°♂37'38		minimum elong	842 Feb 23 j 17:29	9°♂07'34	3°35'07
desc. node	841 Mar 25 j 07:57	20°♂11'48		min. Earth dist.	842 Feb 26 j 21:48	6°♂11'45	0.60588 AU
direct	841 Mar 27 j 02:11	20°♂03'47		morning rise	842 Mar 02 j 11:47	3°♂25'43	
morning max el	841 Apr 10 j 10:57	27°♂43'04	26°48'06	direct	842 Mar 09 j 04:58	1°♂15'21	
	841 Apr 12 j 16:11	0°♂		desc. node	842 Mar 12 j 04:59	1°♂39'50	
	841 May 02 j 21:19	0°♂		morning max el	842 Mar 23 j 11:01	9°♂05'57	27°36'17
morning set	841 May 10 j 04:27	14°♂27'01			842 Apr 08 j 12:23	0°♂	
asc. node	841 May 13 j 05:35	20°♂56'35		morning set	842 Apr 24 j 11:25	29°♂06'46	
					842 Apr 24 j 21:42	0°♂	
superior conj	841 May 17 j 06:25	29°♂46'01	0°41'34	asc. node	842 Apr 30 j 02:38	11°♂06'25	
minimum elong	841 May 17 j 04:42	29°♂36'35	0°41'12	max. Earth dist.	842 Apr 30 j 18:49	12°♂34'44	1.32323 AU
	841 May 17 j 08:58	0°♂					
max. Earth dist.	841 May 17 j 06:46	29°♂47'55	1.32302 AU	superior conj	842 May 01 j 17:44	14°♂40'08	0°17'11
evening rise	841 May 24 j 05:21	14°♂49'29		minimum elong	842 May 01 j 16:58	14°♂35'53	0°17'01
	841 May 31 j 21:28	0°♂		evening rise	842 May 08 j 15:54	29°♂42'13	
desc. node	841 Jun 21 j 07:13	29°♂40'39			842 May 08 j 19:16	0°♂	
	841 Jun 21 j 14:48	0°♂			842 May 25 j 09:46	0°♂	
evening max el	841 Jun 22 j 20:17	1°♂12'25	26°34'31	evening max el	842 Jun 04 j 15:17	12°♂25'55	25°23'12
retrograde	841 Jul 06 j 19:49	8°♂26'16		desc. node	842 Jun 08 j 04:13	15°♂27'47	
evening set	841 Jul 13 j 12:37	6°♂32'19		retrograde	842 Jun 18 j 16:02	19°♂35'16	
min. Earth dist.	841 Jul 17 j 09:34	3°♂55'58	0.60000 AU	evening set	842 Jun 24 j 08:21	18°♂19'53	
inferior conj	841 Jul 20 j 17:13	1°♂16'31	-4°-42'-2	min. Earth dist.	842 Jun 29 j 03:14	15°♂37'20	0.57964 AU
minimum elong	841 Jul 20 j 20:14	1°♂10'26	4°41'45	inferior conj	842 Jul 02 j 07:15	13°♂25'17	-4°-49'-45
	841 Jul 22 j 08:00	30°♄		minimum elong	842 Jul 02 j 06:09	13°♂27'13	4°49'44
morning rise	841 Jul 28 j 07:10	26°♂37'37		morning rise	842 Jul 10 j 07:44	9°♂09'04	
direct	841 Jul 30 j 17:23	26°♂15'57		direct	842 Jul 12 j 20:14	8°♂49'39	
morning max el	841 Aug 07 j 05:27	29°♂54'34	18°14'09	morning max el	842 Jul 21 j 09:39	12°♂51'12	18°54'01
	841 Aug 07 j 07:43	0°♂		asc. node	842 Jul 27 j 01:49	19°♂47'12	
asc. node	841 Aug 09 j 04:47	2°♂01'24			842 Aug 02 j 03:10	0°♂	
morning set	841 Aug 23 j 02:48	25°♂07'29		morning set	842 Aug 06 j 22:42	9°♂14'13	
	841 Aug 25 j 16:38	0°♂					
				superior conj	842 Aug 15 j 11:32	25°♂54'11	1°43'59

minimum elong	842 Aug 15 j 13:05	26°♌01'34	1°43'55	direct	843 Jun 24 j 04:04	20°♐33'02	
	842 Aug 17 j 15:32	0°♍		morning max el	843 Jul 04 j 04:00	25°♐10'58	19°55'01
max. Earth dist.	842 Aug 22 j 08:41	8°♍37'40	1.38987 AU		843 Jul 08 j 11:19	0°♑	
evening rise	842 Aug 26 j 07:39	15°♍33'19		asc. node	843 Jul 13 j 22:53	8°♑18'06	
desc. node	842 Sep 04 j 03:33	0°♑02'57		morning set	843 Jul 22 j 01:54	23°♑43'16	
	842 Sep 04 j 02:48	0°♒			843 Jul 25 j 03:58	0°♒	
	842 Sep 25 j 13:38	0°♓					
evening max el	842 Sep 30 j 17:20	5°♓38'13	24°24'51	superior conj	843 Jul 29 j 22:52	9°♒41'14	1°46'23
retrograde	842 Oct 12 j 00:28	12°♓15'00		minimum elong	843 Jul 29 j 22:33	9°♒39'43	1°46'23
evening set	842 Oct 17 j 09:49	10°♓00'12		max. Earth dist.	843 Aug 04 j 12:57	20°♒33'25	1.37023 AU
min. Earth dist.	842 Oct 22 j 03:09	4°♓35'21	0.67485 AU	evening rise	843 Aug 08 j 10:26	27°♒45'32	
inferior conj	842 Oct 22 j 20:59	3°♓35'32	0°-3'-29		843 Aug 09 j 16:25	0°♑	
minimum elong	842 Oct 22 j 21:04	3°♓35'16	0°03'28	desc. node	843 Aug 22 j 00:34	20°♑26'01	
transit middle	842 Oct 22 j 21:04	3°♓35'16	0°03'28		843 Aug 28 j 12:04	0°♒	
transit begin	842 Oct 22 j 18:24	3°♓44'15		evening max el	843 Sep 13 j 05:07	19°♒16'21	25°38'16
transit end	842 Oct 22 j 23:44	3°♓26'17		retrograde	843 Sep 25 j 10:34	26°♒16'45	
asc. node	842 Oct 23 j 01:02	3°♓21'56		evening set	843 Oct 01 j 10:33	23°♒46'34	
	842 Oct 25 j 16:48	30°♒♑		min. Earth dist.	843 Oct 05 j 19:53	18°♒57'25	0.66915 AU
morning rise	842 Oct 28 j 08:40	27°♒29'20		inferior conj	843 Oct 07 j 00:34	17°♒25'40	0°-59'-38
direct	842 Nov 01 j 02:01	26°♒09'55		minimum elong	843 Oct 07 j 02:05	17°♒20'47	0°59'01
	842 Nov 08 j 05:19	0°♓		asc. node	843 Oct 09 j 22:05	13°♒55'55	
morning max el	842 Nov 08 j 21:32	0°♓39'51	20°17'20	morning rise	843 Oct 12 j 18:21	11°♒27'49	
greatest brilliancy	842 Nov 15 j 12:58	8°♓38'28	-0.6m	direct	843 Oct 16 j 00:33	10°♒26'31	
	842 Nov 30 j 05:01	0°♑		morning max el	843 Oct 23 j 02:41	14°♒26'17	19°16'31
desc. node	842 Dec 01 j 02:50	1°♑22'57		greatest brilliancy	843 Nov 02 j 06:29	27°♒43'26	-0.7m
morning set	842 Dec 06 j 10:26	9°♑32'45			843 Nov 03 j 19:05	0°♓	
max. Earth dist.	842 Dec 16 j 18:32	25°♑49'09	1.43600 AU	morning set	843 Nov 15 j 12:28	18°♓03'09	
	842 Dec 19 j 08:43	0°♑		desc. node	843 Nov 17 j 23:52	21°♓54'26	
					843 Nov 23 j 04:15	0°♑	
superior conj	842 Dec 22 j 16:12	5°♑25'00	-1°-53'-54	max. Earth dist.	843 Nov 29 j 09:12	9°♑45'07	1.44696 AU
minimum elong	842 Dec 22 j 10:47	5°♑02'44	1°53'36				
evening rise	843 Jan 04 j 09:34	27°♑02'06		superior conj	843 Dec 02 j 07:53	14°♑25'00	-1°-25'-58
	843 Jan 06 j 02:27	0°♒		minimum elong	843 Dec 01 j 23:20	13°♑51'03	1°25'07
asc. node	843 Jan 19 j 00:23	20°♒54'18			843 Dec 12 j 00:09	0°♑	
evening max el	843 Jan 21 j 23:01	24°♒20'03	18°10'01	evening rise	843 Dec 16 j 22:31	8°♑06'35	
retrograde	843 Jan 28 j 10:45	27°♒45'20			843 Dec 30 j 11:15	0°♒	
evening set	843 Jan 31 j 05:29	27°♒06'20		evening max el	844 Jan 05 j 11:20	7°♒42'12	18°28'56
inferior conj	843 Feb 06 j 12:46	21°♒52'15	3°47'25	asc. node	844 Jan 05 j 21:24	8°♒07'11	
minimum elong	843 Feb 06 j 12:46	21°♒52'15	3°47'26	retrograde	844 Jan 12 j 00:33	11°♒18'11	
min. Earth dist.	843 Feb 09 j 07:00	18°♒58'32	0.62641 AU	evening set	844 Jan 15 j 00:25	10°♒28'33	
morning rise	843 Feb 12 j 17:56	15°♒52'46		inferior conj	844 Jan 20 j 22:51	4°♒55'13	3°39'58
direct	843 Feb 19 j 17:16	13°♒15'11		minimum elong	844 Jan 20 j 21:16	4°♒59'52	3°39'48
desc. node	843 Feb 27 j 02:01	15°♒43'12		min. Earth dist.	844 Jan 23 j 01:45	2°♒26'54	0.64416 AU
morning max el	843 Mar 05 j 16:33	21°♒09'14	27°47'39		844 Jan 25 j 08:54	30°♒♑	
	843 Mar 13 j 09:13	0°♒		morning rise	844 Jan 26 j 16:45	28°♑47'57	
	843 Apr 01 j 13:17	0°♑		direct	844 Feb 02 j 12:58	25°♑57'53	
morning set	843 Apr 08 j 12:55	13°♑27'02			844 Feb 11 j 20:16	0°♒	
max. Earth dist.	843 Apr 14 j 02:51	25°♑05'08	1.32738 AU	desc. node	844 Feb 13 j 23:05	1°♒47'09	
				morning max el	844 Feb 16 j 01:28	3°♒47'04	27°23'19
superior conj	843 Apr 16 j 02:57	29°♑24'07	0°-9'-7		844 Mar 06 j 20:00	0°♒	
minimum elong	843 Apr 16 j 03:23	29°♑26'28	0°09'02	morning set	844 Mar 22 j 06:18	27°♒19'23	
behind sun begin	843 Apr 15 j 23:05	29°♑03'10			844 Mar 23 j 14:50	0°♑	
behind sun end	843 Apr 16 j 07:42	29°♑49'47		max. Earth dist.	844 Mar 27 j 03:11	7°♑08'20	1.33578 AU
	843 Apr 16 j 09:35	0°♒					
asc. node	843 Apr 16 j 23:40	1°♒16'23		superior conj	844 Mar 30 j 08:13	13°♑51'55	0°-36'-22
evening rise	843 Apr 23 j 03:43	14°♒35'02		minimum elong	844 Mar 30 j 10:00	14°♑01'23	0°36'00
	843 Apr 30 j 21:49	0°♐		asc. node	844 Apr 02 j 20:44	21°♑22'34	
evening max el	843 May 17 j 05:49	23°♐06'05	23°52'26	evening rise	844 Apr 06 j 14:58	29°♑21'48	
desc. node	843 May 26 j 01:15	29°♐04'40			844 Apr 06 j 22:16	0°♒	
	843 May 30 j 13:26	0°♑			844 Apr 24 j 12:51	0°♐	
retrograde	843 May 31 j 00:09	0°♑00'27		evening max el	844 Apr 27 j 22:08	3°♐39'58	22°16'57
	843 May 31 j 10:53	30°♒♐		retrograde	844 May 10 j 19:37	10°♐01'17	
evening set	843 Jun 04 j 06:07	29°♐20'38		desc. node	844 May 11 j 22:16	9°♐58'30	
min. Earth dist.	843 Jun 10 j 16:42	26°♐16'13	0.56243 AU	evening set	844 May 13 j 17:40	9°♐42'29	
inferior conj	843 Jun 13 j 01:05	24°♐50'08	-4°-19'-18	min. Earth dist.	844 May 22 j 04:48	6°♐04'04	0.55178 AU
minimum elong	843 Jun 12 j 19:07	24°♐59'17	4°18'19	inferior conj	844 May 23 j 01:47	5°♐34'30	-3°-2'-19
morning rise	843 Jun 21 j 11:40	20°♐51'31		minimum elong	844 May 22 j 18:26	5°♐44'53	3°00'09

morning rise	844 May 31 j 21:09	1°II41'35		direct	845 May 15 j 05:48	11°826'08	
direct	844 Jun 03 j 19:53	1°II21'58		morning max el	845 May 28 j 08:05	17°843'43	22°52'33
morning max el	844 Jun 15 j 11:05	6°II47'44	21°16'07		845 Jun 07 j 05:24	0°II	
asc. node	844 Jun 29 j 19:58	27°II23'22		asc. node	845 Jun 16 j 17:02	16°II53'41	
	844 Jul 01 j 04:49	0°8		morning set	845 Jun 19 j 20:50	23°II22'14	
morning set	844 Jul 05 j 09:58	8°828'05			845 Jun 22 j 23:51	0°8	
superior conj	844 Jul 12 j 20:25	23°859'42	1°41'15	superior conj	845 Jun 27 j 00:53	8°839'22	1°30'08
minimum elong	844 Jul 12 j 18:48	23°851'23	1°41'10	minimum elong	845 Jun 26 j 22:35	8°827'06	1°29'53
	844 Jul 15 j 18:49	0°8		max. Earth dist.	845 Jun 29 j 19:43	14°832'01	1.33966 AU
max. Earth dist.	844 Jul 16 j 23:45	2°825'20	1.35316 AU	evening rise	845 Jul 04 j 19:37	24°841'21	
evening rise	844 Jul 21 j 08:01	10°852'36			845 Jul 07 j 13:27	0°8	
	844 Aug 01 j 04:06	0°8		desc. node	845 Jul 25 j 18:37	0°807'59	
desc. node	844 Aug 07 j 21:35	10°830'23			845 Jul 25 j 16:21	0°8	
	844 Aug 22 j 21:40	0°8		evening max el	845 Aug 08 j 05:02	16°817'43	27°15'22
evening max el	844 Aug 25 j 17:12	2°852'43	26°37'35	retrograde	845 Aug 21 j 14:55	23°836'37	
retrograde	844 Sep 07 j 15:29	10°806'21		evening set	845 Aug 28 j 15:12	20°852'41	
evening set	844 Sep 14 j 05:11	7°825'18		min. Earth dist.	845 Sep 01 j 10:08	17°817'48	0.64729 AU
min. Earth dist.	844 Sep 18 j 06:58	3°813'31	0.66004 AU	inferior conj	845 Sep 03 j 15:29	14°851'40	-2°-52'-39
inferior conj	844 Sep 19 j 23:29	1°812'24	-1°-56'-46	minimum elong	845 Sep 03 j 19:50	14°839'44	2°51'11
minimum elong	844 Sep 20 j 02:31	1°803'19	1°55'35	morning rise	845 Sep 10 j 02:16	9°820'18	
	844 Sep 20 j 23:56	30°8		direct	845 Sep 12 j 17:00	8°844'28	
asc. node	844 Sep 25 j 19:10	25°834'21		asc. node	845 Sep 12 j 16:15	8°844'28	
morning rise	844 Sep 26 j 01:03	25°826'08		morning max el	845 Sep 19 j 05:09	12°812'52	18°03'09
direct	844 Sep 28 j 22:20	24°839'22			845 Oct 01 j 12:58	0°8	
morning max el	844 Oct 05 j 14:02	28°818'55	18°31'26	morning set	845 Oct 06 j 22:07	9°800'48	
	844 Oct 07 j 03:17	0°8			845 Oct 19 j 16:04	0°8	
morning set	844 Oct 25 j 14:53	27°849'34		superior conj	845 Oct 20 j 17:13	1°840'58	0°06'52
	844 Oct 26 j 23:26	0°8		minimum elong	845 Oct 20 j 18:03	1°844'18	0°06'46
desc. node	844 Nov 03 j 20:53	12°834'23		behind sun begin	845 Oct 20 j 08:21	1°805'23	
superior conj	844 Nov 10 j 08:59	22°849'39	0°-42'-8	behind sun end	845 Oct 21 j 03:45	2°823'08	
minimum elong	844 Nov 10 j 03:31	22°828'11	0°41'27	desc. node	845 Oct 21 j 17:54	3°819'41	
max. Earth dist.	844 Nov 11 j 03:53	24°803'56	1.45084 AU	max. Earth dist.	845 Oct 24 j 22:43	8°824'50	1.44731 AU
	844 Nov 14 j 22:33	0°8		evening rise	845 Nov 06 j 04:26	27°830'37	
evening rise	844 Nov 26 j 11:52	18°812'50			845 Nov 07 j 19:10	0°8	
	844 Dec 03 j 22:32	0°8		greatest brilliancy	845 Nov 25 j 00:02	25°846'13	-0.6m
evening max el	844 Dec 18 j 21:13	21°808'47	19°05'29		845 Nov 28 j 03:47	0°8	
asc. node	844 Dec 22 j 18:27	24°815'21		evening max el	845 Dec 02 j 02:43	4°837'03	19°57'58
retrograde	844 Dec 25 j 19:44	25°806'00		retrograde	845 Dec 09 j 17:18	9°804'12	
evening set	844 Dec 29 j 01:48	24°804'30		asc. node	845 Dec 09 j 15:31	9°804'10	
inferior conj	845 Jan 03 j 18:04	18°814'13	3°18'17	evening set	845 Dec 13 j 07:14	7°849'15	
minimum elong	845 Jan 03 j 15:35	18°822'04	3°17'47	inferior conj	845 Dec 18 j 19:30	1°845'04	2°46'01
min. Earth dist.	845 Jan 05 j 05:43	16°821'38	0.65815 AU	minimum elong	845 Dec 18 j 16:47	1°854'10	2°45'15
morning rise	845 Jan 09 j 04:29	12°802'03		min. Earth dist.	845 Dec 19 j 17:24	0°832'01	0.66819 AU
direct	845 Jan 15 j 15:01	9°813'42			845 Dec 20 j 03:05	30°8	
morning max el	845 Jan 28 j 11:15	16°847'30	26°29'05	morning rise	845 Dec 24 j 01:43	25°830'11	
desc. node	845 Jan 30 j 20:08	19°817'30		direct	845 Dec 29 j 22:46	22°854'21	
	845 Feb 08 j 11:34	0°8			846 Jan 10 j 20:28	0°8	
	845 Feb 27 j 17:03	0°8		morning max el	846 Jan 10 j 20:11	29°859'19	25°13'40
morning set	845 Mar 05 j 11:52	10°831'47		desc. node	846 Jan 17 j 17:09	7°849'17	
max. Earth dist.	845 Mar 09 j 16:35	18°837'38	1.34868 AU		846 Feb 02 j 09:17	0°8	
				morning set	846 Feb 16 j 00:46	22°850'37	
superior conj	845 Mar 14 j 07:11	27°855'33	-1°-3'-23		846 Feb 19 j 22:22	0°8	
minimum elong	845 Mar 14 j 10:16	28°811'21	1°02'51	max. Earth dist.	846 Feb 19 j 18:31	29°842'00	1.36591 AU
	845 Mar 15 j 07:19	0°8		superior conj	846 Feb 25 j 21:02	11°827'18	-1°-28'-23
asc. node	845 Mar 20 j 17:47	11°819'57		minimum elong	846 Feb 26 j 00:58	11°846'48	1°27'52
evening rise	845 Mar 21 j 23:43	13°855'05		evening rise	846 Mar 06 j 03:47	28°808'29	
	845 Mar 30 j 07:30	0°8			846 Mar 07 j 01:59	0°8	
evening max el	845 Apr 09 j 22:46	14°835'15	20°50'06	asc. node	846 Mar 07 j 14:49	1°804'08	
retrograde	845 Apr 21 j 08:47	20°807'28		evening max el	846 Mar 23 j 10:53	26°808'14	19°39'50
evening set	845 Apr 23 j 13:22	19°856'00			846 Mar 29 j 02:17	0°8	
desc. node	845 Apr 28 j 19:20	18°808'12		retrograde	846 Apr 02 j 03:37	0°848'14	
inferior conj	845 May 02 j 19:44	15°858'10	-1°-9'-30	evening set	846 Apr 04 j 05:30	0°836'18	
minimum elong	845 May 02 j 16:26	16°802'52	1°08'20		846 Apr 06 j 09:54	30°8	
min. Earth dist.	845 May 03 j 17:30	15°827'10	0.55007 AU	inferior conj	846 Apr 12 j 21:36	26°832'58	0°47'24
morning rise	845 May 11 j 18:38	11°852'00					

minimum elong	846 Apr 12 j 23:36	26° Υ 29'49	0°46'41	inferior conj	847 Mar 24 j 17:51	7° Υ 41'21	2°19'23
min. Earth dist.	846 Apr 15 j 07:51	25° Υ 01'31	0.55787 AU	minimum elong	847 Mar 24 j 22:03	7° Υ 33'41	2°18'14
desc. node	846 Apr 15 j 16:22	24° Υ 48'31		min. Earth dist.	847 Mar 28 j 00:33	5° Υ 18'45	0.57345 AU
morning rise	846 Apr 21 j 14:12	21° Υ 56'40		morning rise	847 Apr 01 j 19:16	2° Υ 31'57	
direct	846 Apr 25 j 23:19	21° Υ 13'46		desc. node	847 Apr 02 j 13:23	2° Υ 13'28	
morning max el	846 May 09 j 23:23	28° Υ 15'19	24°33'55	direct	847 Apr 07 j 06:50	1° Υ 18'51	
	846 May 11 j 17:13	0° ♄		morning max el	847 Apr 21 j 14:46	8° Υ 48'35	26°05'37
	846 May 31 j 07:01	0° ♅			847 May 07 j 13:19	0° ♄	
asc. node	846 Jun 03 j 14:05	6° ♅ 42'00		morning set	847 May 19 j 20:07	23° ♄ 15'54	
morning set	846 Jun 04 j 08:45	8° ♅ 19'54		asc. node	847 May 21 j 11:07	26° ♄ 42'55	
					847 May 22 j 23:39	0° ♅	
superior conj	846 Jun 11 j 09:45	23° ♅ 31'49	1°14'14	superior conj	847 May 26 j 20:57	8° ♅ 30'24	0°54'27
minimum elong	846 Jun 11 j 07:18	23° ♅ 18'33	1°13'51	minimum elong	847 May 26 j 18:51	8° ♅ 18'52	0°54'02
max. Earth dist.	846 Jun 13 j 00:09	26° ♅ 59'40	1.33015 AU	max. Earth dist.	847 May 27 j 10:30	9° ♅ 44'42	1.32454 AU
	846 Jun 14 j 09:47	0° ♄		evening rise	847 Jun 02 j 21:53	23° ♅ 39'14	
evening rise	846 Jun 18 j 17:17	9° ♄ 00'03			847 Jun 06 j 00:44	0° ♄	
	846 Jun 29 j 22:51	0° ♅			847 Jun 23 j 20:03	0° ♅	
desc. node	846 Jul 12 j 15:40	19° ♅ 07'00		desc. node	847 Jun 29 j 12:41	7° ♅ 11'17	
evening max el	846 Jul 21 j 14:58	29° ♅ 18'58	27°25'08	evening max el	847 Jul 03 j 20:45	11° ♅ 44'44	27°02'33
	846 Jul 22 j 08:34	0° ♄		retrograde	847 Jul 17 j 18:49	19° ♅ 00'17	
retrograde	846 Aug 04 j 08:25	6° ♄ 37'37		evening set	847 Jul 24 j 19:16	16° ♅ 47'57	
evening set	846 Aug 11 j 13:17	4° ♄ 02'35		min. Earth dist.	847 Jul 28 j 10:59	14° ♅ 06'11	0.61182 AU
min. Earth dist.	846 Aug 15 j 03:41	0° ♄ 59'43	0.63098 AU	inferior conj	847 Jul 31 j 15:19	11° ♅ 20'28	-4°-25'-38
	846 Aug 16 j 04:16	30° ♄		minimum elong	847 Jul 31 j 19:40	11° ♅ 11'00	4°24'56
inferior conj	846 Aug 17 j 21:50	28° ♅ 16'51	-3°-44'-3	morning rise	847 Aug 07 j 23:02	6° ♅ 28'04	
minimum elong	846 Aug 18 j 02:51	28° ♅ 04'28	3°42'43	direct	847 Aug 10 j 08:40	6° ♅ 04'38	
morning rise	846 Aug 24 j 18:50	23° ♅ 03'34		asc. node	847 Aug 17 j 10:19	9° ♅ 34'40	
direct	846 Aug 27 j 05:39	22° ♅ 35'18		morning max el	847 Aug 17 j 10:51	9° ♅ 35'59	18°00'30
asc. node	846 Aug 30 j 13:17	23° ♅ 28'09			847 Aug 30 j 19:18	0° ♄	
morning max el	846 Sep 02 j 21:06	26° ♅ 00'58	17°52'29	morning set	847 Sep 02 j 06:58	4° ♄ 34'13	
	846 Sep 06 j 06:16	0° ♄					
morning set	846 Sep 19 j 05:30	21° ♄ 21'24		superior conj	847 Sep 12 j 12:08	23° ♄ 06'07	1°20'09
	846 Sep 24 j 03:58	0° ♅		minimum elong	847 Sep 12 j 16:38	23° ♄ 25'51	1°19'40
superior conj	846 Oct 01 j 01:05	11° ♅ 43'23	0°49'29		847 Sep 16 j 11:39	0° ♅	
minimum elong	846 Oct 01 j 05:32	12° ♅ 01'58	0°48'55	max. Earth dist.	847 Sep 20 j 01:39	6° ♅ 01'57	1.42108 AU
max. Earth dist.	846 Oct 07 j 14:33	22° ♅ 28'55	1.43693 AU	desc. node	847 Sep 25 j 11:58	14° ♅ 52'39	
desc. node	846 Oct 08 j 14:56	24° ♅ 06'47		evening rise	847 Sep 26 j 03:53	15° ♅ 56'05	
	846 Oct 12 j 07:55	0° ♄			847 Oct 05 j 06:20	0° ♄	
evening rise	846 Oct 16 j 11:51	6° ♄ 29'41		greatest brilliancy	847 Oct 24 j 03:42	26° ♄ 17'21	-0.3m
	846 Nov 01 j 03:57	0° ♄			847 Oct 27 j 08:35	0° ♄	
greatest brilliancy	846 Nov 09 j 18:04	11° ♄ 49'53	-0.5m	evening max el	847 Oct 28 j 21:07	1° ♄ 36'14	22°19'24
evening max el	846 Nov 15 j 02:39	18° ♄ 05'48	21°03'54	retrograde	847 Nov 07 j 10:42	7° ♄ 17'27	
retrograde	846 Nov 23 j 14:54	23° ♄ 08'45		evening set	847 Nov 11 j 22:19	5° ♄ 30'22	
asc. node	846 Nov 26 j 12:33	22° ♄ 21'26		asc. node	847 Nov 13 j 09:34	4° ♄ 08'03	
evening set	846 Nov 27 j 14:39	21° ♄ 38'37			847 Nov 16 j 16:58	30° ♄	
inferior conj	846 Dec 03 j 00:43	15° ♄ 23'56	2°05'40	inferior conj	847 Nov 17 j 07:46	29° ♄ 08'51	1°19'05
minimum elong	846 Dec 02 j 22:17	15° ♄ 32'19	2°04'50	minimum elong	847 Nov 17 j 06:03	29° ♄ 14'49	1°18'24
min. Earth dist.	846 Dec 03 j 10:27	14° ♄ 50'29	0.67447 AU	min. Earth dist.	847 Nov 17 j 06:28	29° ♄ 13'22	0.67728 AU
morning rise	846 Dec 08 j 05:32	9° ♄ 08'29		morning rise	847 Nov 22 j 13:36	22° ♄ 55'10	
direct	846 Dec 13 j 11:36	6° ♄ 52'03		direct	847 Nov 27 j 04:34	21° ♄ 01'14	
morning max el	846 Dec 24 j 04:41	13° ♄ 15'21	23°47'11	morning max el	847 Dec 06 j 15:42	26° ♄ 36'44	22°19'33
desc. node	847 Jan 04 j 14:10	27° ♄ 04'23			847 Dec 09 j 18:21	0° ♄	
	847 Jan 06 j 17:13	0° ♄		greatest brilliancy	847 Dec 11 j 06:27	1° ♄ 47'12	-0.3m
	847 Jan 26 j 06:17	0° ♄		desc. node	847 Dec 22 j 11:12	16° ♄ 50'46	
morning set	847 Jan 28 j 14:50	3° ♄ 58'45			847 Dec 31 j 07:39	0° ♄	
max. Earth dist.	847 Feb 01 j 13:29	10° ♄ 50'01	1.38634 AU	morning set	848 Jan 09 j 00:26	13° ♄ 42'48	
				max. Earth dist.	848 Jan 14 j 10:02	22° ♄ 39'02	1.40772 AU
superior conj	847 Feb 08 j 22:02	24° ♄ 17'18	-1°-48'-53		848 Jan 18 j 16:51	0° ♄	
minimum elong	847 Feb 09 j 01:50	24° ♄ 35'17	1°48'35	superior conj	848 Jan 22 j 05:26	6° ♄ 13'40	-2°-1'-25
	847 Feb 11 j 21:52	0° ♄		minimum elong	848 Jan 22 j 07:18	6° ♄ 22'01	2°01'22
evening rise	847 Feb 18 j 00:33	11° ♄ 54'38		evening rise	848 Feb 01 j 10:52	25° ♄ 05'42	
asc. node	847 Feb 22 j 11:52	20° ♄ 29'42			848 Feb 04 j 01:52	0° ♄	
	847 Feb 27 j 22:52	0° ♄		asc. node	848 Feb 09 j 08:54	9° ♄ 29'46	
evening max el	847 Mar 06 j 09:36	8° ♄ 19'29	18°49'11	evening max el	848 Feb 17 j 15:59	21° ♄ 00'40	18°18'30
retrograde	847 Mar 14 j 14:18	12° ♄ 18'02		retrograde	848 Feb 24 j 19:53	24° ♄ 34'20	
evening set	847 Mar 16 j 20:32	12° ♄ 01'06					

evening set	848 Feb 27 j 07:23	24° ✕ 09'44		retrograde	849 Feb 06 j 17:40	7° ✕ 28'09	
inferior conj	848 Mar 05 j 11:11	19° ✕ 28'47	3°16'48	evening set	849 Feb 09 j 09:48	6° ✕ 54'39	
minimum elong	848 Mar 05 j 14:29	19° ✕ 21'45	3°16'14	inferior conj	849 Feb 15 j 23:30	1° ✕ 52'02	3°43'18
min. Earth dist.	848 Mar 08 j 21:20	16° ✕ 35'02	0.59361 AU	minimum elong	849 Feb 16 j 00:42	1° ✕ 49'07	3°43'14
morning rise	848 Mar 12 j 17:56	13° ✕ 53'20			849 Feb 17 j 20:53	30° ℞	
direct	848 Mar 19 j 03:10	12° ✕ 03'18		min. Earth dist.	849 Feb 19 j 01:16	28° ≈ 51'55	0.61482 AU
desc. node	848 Mar 19 j 10:25	12° ✕ 03'33		morning rise	849 Feb 22 j 12:58	25° ≈ 59'12	
morning max el	848 Apr 02 j 10:52	19° ✕ 47'52	27°12'57	direct	849 Mar 01 j 09:57	23° ≈ 36'03	
	848 Apr 11 j 03:51	0° Υ		desc. node	849 Mar 06 j 07:26	24° ≈ 41'25	
	848 Apr 29 j 05:49	0° ♄			849 Mar 14 j 00:27	0° ✕	
morning set	848 May 03 j 05:12	8° ♄ 03'10		morning max el	849 Mar 15 j 13:30	1° ✕ 28'12	27°45'51
asc. node	848 May 07 j 08:09	16° ♄ 50'40			849 Apr 05 j 08:50	0° Υ	
				morning set	849 Apr 17 j 10:09	22° Υ 35'30	
superior conj	848 May 10 j 08:41	23° ♄ 27'39	0°31'32		849 Apr 20 j 23:09	0° ♄	
minimum elong	848 May 10 j 07:20	23° ♄ 20'11	0°31'14	max. Earth dist.	849 Apr 23 j 10:08	5° ♄ 17'19	1.32454 AU
max. Earth dist.	848 May 09 j 23:06	22° ♄ 34'56	1.32266 AU	asc. node	849 Apr 24 j 05:13	7° ♄ 01'03	
	848 May 13 j 08:11	0° ♄					
evening rise	848 May 17 j 06:52	8° ♄ 29'11		superior conj	849 Apr 24 j 19:19	8° ♄ 17'55	0°06'14
	848 May 28 j 11:42	0° ♄		minimum elong	849 Apr 24 j 19:01	8° ♄ 16'20	0°06'11
evening max el	848 Jun 14 j 19:59	23° ♄ 24'57	26°07'24	behind sun begin	849 Apr 24 j 14:18	7° ♄ 50'34	
desc. node	848 Jun 15 j 09:42	23° ♄ 57'08		behind sun end	849 Apr 24 j 23:45	8° ♄ 42'07	
	848 Jun 24 j 22:54	0° ♄		evening rise	849 May 01 j 18:11	23° ♄ 22'48	
retrograde	848 Jun 28 j 20:23	0° ♄ 36'34			849 May 04 j 22:50	0° ♄	
	848 Jul 02 j 16:47	30° ℞			849 May 23 j 10:58	0° ♄	
evening set	848 Jul 05 j 04:23	28° ♄ 58'49		evening max el	849 May 27 j 12:30	4° ♄ 21'29	24°46'04
min. Earth dist.	848 Jul 09 j 08:43	26° ♄ 21'56	0.59126 AU	desc. node	849 Jun 02 j 06:43	8° ♄ 53'33	
inferior conj	848 Jul 12 j 16:18	23° ♄ 51'56	-4°-49'-5	retrograde	849 Jun 10 j 11:23	11° ♄ 25'52	
minimum elong	848 Jul 12 j 17:50	23° ♄ 49'02	4°49'02	evening set	849 Jun 15 j 14:06	10° ♄ 26'35	
morning rise	848 Jul 20 j 10:44	19° ♄ 22'30		min. Earth dist.	849 Jun 20 j 23:47	7° ♄ 36'37	0.57181 AU
direct	848 Jul 22 j 21:49	19° ♄ 01'50		inferior conj	849 Jun 23 j 21:44	5° ♄ 42'13	-4°-42'-14
morning max el	848 Jul 30 j 19:19	22° ♄ 48'42	18°28'26	minimum elong	849 Jun 23 j 18:27	5° ♄ 47'38	4°41'58
asc. node	848 Aug 03 j 07:20	26° ♄ 48'13		morning rise	849 Jul 02 j 02:37	1° ♄ 34'39	
	848 Aug 05 j 13:25	0° ♄		direct	849 Jul 04 j 16:49	1° ♄ 15'40	
morning set	848 Aug 15 j 21:16	18° ♄ 24'20		morning max el	849 Jul 13 j 19:34	5° ♄ 30'28	19°17'22
	848 Aug 21 j 22:23	0° ♄		asc. node	849 Jul 21 j 04:24	14° ♄ 54'36	
					849 Jul 29 j 11:57	0° ♄	
superior conj	848 Aug 24 j 22:17	5° ♄ 37'11	1°38'25	morning set	849 Jul 30 j 20:37	2° ♄ 41'39	
minimum elong	848 Aug 25 j 01:01	5° ♄ 49'53	1°38'14				
max. Earth dist.	848 Sep 01 j 07:45	18° ♄ 53'44	1.40169 AU	superior conj	849 Aug 08 j 01:54	19° ♄ 01'08	1°46'02
evening rise	848 Sep 05 j 17:14	26° ♄ 21'58		minimum elong	849 Aug 08 j 02:37	19° ♄ 04'34	1°46'01
	848 Sep 07 j 22:07	0° ♄			849 Aug 13 j 20:57	0° ♄	
desc. node	848 Sep 11 j 09:01	5° ♄ 33'17		max. Earth dist.	849 Aug 14 j 11:15	1° ♄ 05'33	1.38135 AU
	848 Sep 27 j 22:59	0° ♄		evening rise	849 Aug 18 j 07:04	7° ♄ 56'51	
evening max el	848 Oct 10 j 11:20	15° ♄ 09'36	23°39'23	desc. node	849 Aug 29 j 06:02	26° ♄ 04'21	
retrograde	848 Oct 21 j 03:29	21° ♄ 27'19			849 Aug 31 j 19:21	0° ♄	
evening set	848 Oct 26 j 04:40	19° ♄ 22'25		evening max el	849 Sep 22 j 23:16	28° ♄ 45'52	24°57'15
asc. node	848 Oct 30 j 06:34	14° ♄ 47'14			849 Sep 24 j 06:22	0° ♄	
min. Earth dist.	848 Oct 31 j 03:01	13° ♄ 38'13	0.67671 AU	retrograde	849 Oct 04 j 16:16	5° ♄ 33'51	
inferior conj	848 Oct 31 j 14:51	12° ♄ 57'53	0°27'44	evening set	849 Oct 10 j 08:00	3° ♄ 11'50	
minimum elong	848 Oct 31 j 14:12	13° ♄ 00'07	0°27'27		849 Oct 13 j 08:48	30° ℞	
morning rise	848 Nov 05 j 23:51	6° ♄ 48'24		min. Earth dist.	849 Oct 14 j 21:46	28° ♄ 02'15	0.67286 AU
direct	848 Nov 10 j 00:40	5° ♄ 17'00		inferior conj	849 Oct 15 j 20:13	26° ♄ 48'18	0°-27'-5
morning max el	848 Nov 18 j 08:55	10° ♄ 08'03	20°58'42	minimum elong	849 Oct 15 j 20:54	26° ♄ 46'05	0°26'49
greatest brilliancy	848 Nov 23 j 22:48	16° ♄ 36'51	-0.5m	asc. node	849 Oct 17 j 03:38	25° ♄ 06'21	
	848 Dec 03 j 14:36	0° ♄		morning rise	849 Oct 21 j 10:19	20° ♄ 45'36	
desc. node	848 Dec 08 j 08:15	6° ♄ 59'52		direct	849 Oct 24 j 22:38	19° ♄ 34'26	
morning set	848 Dec 18 j 07:08	22° ♄ 13'30		morning max el	849 Nov 01 j 09:55	23° ♄ 50'04	19°49'39
	848 Dec 23 j 05:08	0° ♄			849 Nov 06 j 15:11	0° ♄	
max. Earth dist.	848 Dec 26 j 14:04	5° ♄ 26'37	1.42697 AU	greatest brilliancy	849 Nov 09 j 02:12	3° ♄ 19'59	-0.6m
				desc. node	849 Nov 25 j 05:16	27° ♄ 24'38	
superior conj	849 Jan 02 j 13:58	17° ♄ 04'20	-2°-1'-26		849 Nov 26 j 21:34	0° ♄	
minimum elong	849 Jan 02 j 11:35	16° ♄ 54'12	2°01'22	morning set	849 Nov 27 j 03:29	0° ♄ 22'49	
	849 Jan 10 j 00:56	0° ≈		max. Earth dist.	849 Dec 09 j 01:27	19° ♄ 02'24	1.44147 AU
evening rise	849 Jan 14 j 06:59	7° ≈ 34'25					
asc. node	849 Jan 26 j 05:55	27° ≈ 56'44		superior conj	849 Dec 13 j 19:50	26° ♄ 41'23	-1°-44'-21
	849 Jan 27 j 16:43	0° ✕		minimum elong	849 Dec 13 j 12:31	26° ♄ 11'47	1°43'48
evening max el	849 Jan 31 j 02:56	4° ✕ 03'33	18°07'32		849 Dec 15 j 20:42	0° ♄	

evening rise	849 Dec 27 j 08:31	19°☾11'45		evening max el	850 Dec 29 j 02:58	0°≈44'20	18°42'24
	850 Jan 02 j 17:07	0°≈		asc. node	850 Dec 31 j 00:00	2°≈27'14	
asc. node	850 Jan 13 j 02:58	15°≈40'03		retrograde	851 Jan 04 j 19:25	4°≈28'28	
evening max el	850 Jan 14 j 15:27	17°≈19'59	18°15'46	evening set	851 Jan 07 j 21:39	3°≈34'08	
retrograde	850 Jan 21 j 02:55	20°≈48'48			851 Jan 11 j 22:15	30°☿☾	
evening set	850 Jan 23 j 23:40	20°≈05'29		inferior conj	851 Jan 13 j 17:11	27°☾53'23	3°32'13
inferior conj	850 Jan 30 j 02:48	14°≈42'45	3°46'18	minimum elong	851 Jan 13 j 15:08	27°☾59'37	3°31'55
minimum elong	850 Jan 30 j 02:03	14°≈44'51	3°46'15	min. Earth dist.	851 Jan 15 j 13:33	25°☾39'06	0.65062 AU
min. Earth dist.	850 Feb 01 j 14:34	11°≈58'06	0.63435 AU	morning rise	851 Jan 19 j 07:27	21°☾43'30	
morning rise	850 Feb 05 j 02:39	8°≈39'11		direct	851 Jan 26 j 00:08	18°☾52'17	
direct	850 Feb 12 j 01:25	5°≈54'39		desc. node	851 Feb 08 j 01:32	26°☾24'28	
desc. node	850 Feb 21 j 04:29	9°≈40'18		morning max el	851 Feb 08 j 06:41	26°☾37'21	27°03'19
morning max el	850 Feb 25 j 21:04	13°≈48'11	27°41'29		851 Feb 11 j 10:33	0°≈	
	850 Mar 10 j 23:10	0°☿			851 Mar 04 j 13:24	0°☿	
	850 Mar 28 j 21:33	0°☿		morning set	851 Mar 15 j 21:26	20°☿21'54	
morning set	850 Apr 01 j 08:35	6°☿44'57		max. Earth dist.	851 Mar 20 j 11:09	29°☿25'04	1.34064 AU
max. Earth dist.	850 Apr 06 j 15:26	17°☿37'26	1.33039 AU		851 Mar 20 j 18:02	0°☿	
superior conj	850 Apr 09 j 03:04	22°☿55'19	0°-20'-38	superior conj	851 Mar 24 j 05:57	7°☿13'38	0°-47'-58
minimum elong	850 Apr 09 j 04:04	23°☿00'42	0°20'25	minimum elong	851 Mar 24 j 08:19	7°☿25'59	0°47'31
asc. node	850 Apr 11 j 02:17	27°☿09'44		asc. node	851 Mar 28 j 23:21	17°☿12'37	
	850 Apr 12 j 09:48	0°☿		evening rise	851 Mar 31 j 16:23	22°☿54'52	
evening rise	850 Apr 16 j 05:58	8°☿13'23			851 Apr 04 j 03:38	0°☿	
	850 Apr 27 j 17:00	0°☿		evening max el	851 Apr 20 j 21:51	25°☿34'19	21°38'25
evening max el	850 May 09 j 02:39	14°☿54'11	23°11'29		851 Apr 26 j 21:29	0°☿	
desc. node	850 May 20 j 03:43	21°☿24'17		retrograde	851 May 03 j 06:06	1°☿36'17	
retrograde	850 May 22 j 14:18	21°☿37'51		evening set	851 May 05 j 18:17	1°☿22'07	
evening set	850 May 26 j 05:31	21°☿08'51		desc. node	851 May 07 j 00:45	1°☿04'41	
min. Earth dist.	850 Jun 02 j 12:18	17°☿51'28	0.55685 AU		851 May 10 j 00:47	30°☿☿	
inferior conj	850 Jun 04 j 07:27	16°☿48'17	-3°-52'-20	inferior conj	851 May 15 j 03:36	27°☿20'36	-2°-17'-16
minimum elong	850 Jun 04 j 00:13	16°☿58'55	3°50'42	minimum elong	851 May 14 j 21:26	27°☿29'14	2°15'15
morning rise	850 Jun 12 j 22:08	12°☿54'25		min. Earth dist.	851 May 15 j 00:52	27°☿24'25	0.54976 AU
direct	850 Jun 15 j 16:33	12°☿36'00		morning rise	851 May 24 j 01:20	23°☿24'08	
morning max el	850 Jun 26 j 09:18	17°☿33'00	20°27'22	direct	851 May 27 j 04:07	23°☿02'49	
	850 Jul 05 j 22:03	0°☿		morning max el	851 Jun 08 j 11:49	28°☿51'45	21°55'50
asc. node	850 Jul 08 j 01:30	3°☿41'33			851 Jun 09 j 15:55	0°☿	
morning set	850 Jul 15 j 02:11	17°☿18'40		asc. node	851 Jun 24 j 22:34	22°☿58'26	
	850 Jul 21 j 06:04	0°☿			851 Jun 28 j 10:54	0°☿	
superior conj	850 Jul 22 j 18:07	3°☿03'50	1°45'02	morning set	851 Jun 29 j 11:39	2°☿08'03	
minimum elong	850 Jul 22 j 17:11	2°☿59'06	1°45'01	superior conj	851 Jul 06 j 18:58	17°☿32'38	1°37'13
max. Earth dist.	850 Jul 27 j 17:29	12°☿56'11	1.36250 AU	minimum elong	851 Jul 06 j 16:59	17°☿22'16	1°37'02
evening rise	850 Jul 31 j 18:29	20°☿34'37		max. Earth dist.	851 Jul 10 j 07:46	24°☿51'34	1.34687 AU
	850 Aug 06 j 01:06	0°☿			851 Jul 12 j 21:11	0°☿	
desc. node	850 Aug 16 j 03:04	16°☿20'56		evening rise	851 Jul 14 j 22:34	4°☿01'23	
	850 Aug 25 j 18:08	0°☿			851 Jul 29 j 20:34	0°☿	
evening max el	850 Sep 05 j 10:56	12°☿24'06	26°05'35	desc. node	851 Aug 03 j 00:06	6°☿15'23	
retrograde	850 Sep 18 j 00:26	19°☿32'11		evening max el	851 Aug 18 j 23:05	25°☿57'34	26°56'45
evening set	850 Sep 24 j 06:28	16°☿56'23			851 Aug 23 j 18:25	0°☿	
min. Earth dist.	850 Sep 28 j 12:25	12°☿23'05	0.66570 AU	retrograde	851 Sep 01 j 03:16	3°☿14'47	
inferior conj	850 Sep 29 j 22:06	10°☿38'06	-1°-23'-52	evening set	851 Sep 07 j 21:48	0°☿31'30	
minimum elong	850 Sep 30 j 00:16	10°☿31'21	1°22'59		851 Sep 08 j 12:43	30°☿☿	
asc. node	850 Oct 04 j 00:41	6°☿03'21		min. Earth dist.	851 Sep 11 j 20:33	26°☿35'24	0.65503 AU
morning rise	850 Oct 05 j 19:02	4°☿44'56		inferior conj	851 Sep 13 j 18:23	24°☿22'54	-2°-20'-47
direct	850 Oct 08 j 21:02	3°☿50'28		minimum elong	851 Sep 13 j 22:01	24°☿12'23	2°19'26
morning max el	850 Oct 15 j 18:04	7°☿40'44	18°55'18	morning rise	851 Sep 19 j 23:43	18°☿42'21	
	850 Oct 31 j 15:15	0°☿		asc. node	851 Sep 20 j 21:45	18°☿19'19	
morning set	850 Nov 06 j 14:20	9°☿21'50		direct	851 Sep 22 j 17:49	18°☿00'44	
desc. node	850 Nov 12 j 02:20	18°☿00'34		morning max el	851 Sep 29 j 07:19	21°☿34'51	18°17'12
	850 Nov 19 j 17:40	0°☿			851 Oct 05 j 20:39	0°☿	
max. Earth dist.	850 Nov 21 j 17:44	3°☿08'51	1.44952 AU	morning set	851 Oct 18 j 05:16	19°☿45'42	
					851 Oct 24 j 12:34	0°☿	
superior conj	850 Nov 23 j 03:10	5°☿20'27	-1°-8'-49	desc. node	851 Oct 29 j 23:22	8°☿43'31	
minimum elong	850 Nov 22 j 19:08	4°☿48'51	1°07'55				
evening rise	850 Dec 08 j 11:33	29°☿51'26		superior conj	851 Nov 02 j 04:39	13°☿49'42	0°-21'-14
	850 Dec 08 j 13:40	0°☿		minimum elong	851 Nov 02 j 01:53	13°☿38'46	0°20'52
	850 Dec 28 j 10:14	0°≈		max. Earth dist.	851 Nov 04 j 12:27	17°☿29'37	1.45028 AU

	851 Nov 12 j 12:02	0°♄			852 Nov 04 j 12:06	0°♄	
evening rise	851 Nov 18 j 15:12	9°♄34'49		greatest brilliancy	852 Nov 18 j 09:07	20°♄10'19	-0.5m
	851 Dec 01 j 19:43	0°♄		evening max el	852 Nov 24 j 14:32	27°♄41'49	20°24'35
greatest brilliancy	851 Dec 03 j 17:00	2°♄48'30	-0.7m		852 Nov 27 j 02:31	0°♄	
evening max el	851 Dec 12 j 11:15	14°♄12'39	19°26'03	retrograde	852 Dec 02 j 13:32	2°♄23'05	
asc. node	851 Dec 17 j 21:02	18°♄03'51		asc. node	852 Dec 03 j 18:03	2°♄15'06	
retrograde	851 Dec 19 j 15:49	18°♄21'26		evening set	852 Dec 06 j 07:30	1°♄01'45	
evening set	851 Dec 23 j 01:01	17°♄14'31			852 Dec 07 j 12:57	30°♄	
inferior conj	851 Dec 28 j 15:22	11°♄18'15	3°05'41	inferior conj	852 Dec 11 j 18:39	24°♄52'47	2°29'45
minimum elong	851 Dec 28 j 12:43	11°♄26'52	3°05'03	minimum elong	852 Dec 11 j 15:59	25°♄01'49	2°28'56
min. Earth dist.	851 Dec 29 j 21:03	9°♄42'03	0.66295 AU	min. Earth dist.	852 Dec 12 j 11:09	23°♄56'52	0.67138 AU
morning rise	852 Jan 02 j 23:38	5°♄04'46		morning rise	852 Dec 16 j 23:58	18°♄37'42	
direct	852 Jan 09 j 04:54	2°♄20'20		direct	852 Dec 22 j 14:50	16°♄09'33	
morning max el	852 Jan 21 j 16:00	9°♄43'31	25°58'53	morning max el	853 Jan 03 j 00:23	22°♄57'13	24°37'36
desc. node	852 Jan 25 j 22:35	14°♄23'53			853 Jan 09 j 05:47	0°♄	
	852 Feb 06 j 17:02	0°♄		desc. node	853 Jan 11 j 19:36	3°♄15'58	
	852 Feb 25 j 02:12	0°♄			853 Jan 30 j 01:36	0°♄	
morning set	852 Feb 26 j 20:36	3°♄14'01		morning set	853 Feb 08 j 00:30	15°♄04'32	
max. Earth dist.	852 Mar 01 j 19:12	10°♄40'46	1.35549 AU	max. Earth dist.	853 Feb 11 j 17:30	21°♄43'18	1.37438 AU
					853 Feb 16 j 04:01	0°♄	
superior conj	852 Mar 07 j 01:29	21°♄05'43	-1°-14'-21				
minimum elong	852 Mar 07 j 05:00	21°♄23'32	1°13'49	superior conj	853 Feb 18 j 10:21	4°♄21'11	-1°-37'-49
	852 Mar 11 j 09:47	0°♄		minimum elong	853 Feb 18 j 14:24	4°♄40'51	1°37'22
evening rise	852 Mar 14 j 23:26	7°♄21'04		evening rise	853 Feb 27 j 00:43	21°♄23'59	
asc. node	852 Mar 14 j 20:23	7°♄05'29		asc. node	853 Mar 01 j 17:24	26°♄42'32	
	852 Mar 27 j 12:29	0°♄			853 Mar 03 j 10:33	0°♄	
evening max el	852 Apr 02 j 03:28	6°♄46'03	20°18'00	evening max el	853 Mar 15 j 20:18	18°♄35'37	19°15'47
retrograde	852 Apr 12 j 19:39	11°♄54'48		retrograde	853 Mar 24 j 20:21	22°♄56'08	
evening set	852 Apr 14 j 21:50	11°♄43'49		evening set	853 Mar 26 j 23:52	22°♄42'23	
desc. node	852 Apr 22 j 21:47	8°♄23'04		inferior conj	853 Apr 04 j 08:03	18°♄32'38	1°30'28
inferior conj	852 Apr 23 j 23:15	7°♄45'50	0°-18'-23	minimum elong	853 Apr 04 j 11:26	18°♄26'57	1°29'23
minimum elong	852 Apr 23 j 22:24	7°♄47'05	0°18'05	min. Earth dist.	853 Apr 07 j 05:03	16°♄37'58	0.56376 AU
min. Earth dist.	852 Apr 25 j 14:14	6°♄48'33	0.55228 AU	desc. node	853 Apr 09 j 18:48	15°♄05'20	
morning rise	852 May 02 j 20:45	3°♄28'19		morning rise	853 Apr 12 j 19:04	13°♄42'16	
direct	852 May 06 j 16:34	2°♄56'32		direct	853 Apr 17 j 15:28	12°♄48'07	
morning max el	852 May 20 j 05:34	9°♄34'30	23°35'48	morning max el	853 May 01 j 20:03	20°♄02'38	25°15'05
	852 Jun 04 j 04:53	0°♄			853 May 10 j 07:35	0°♄	
asc. node	852 Jun 10 j 19:38	12°♄37'30			853 May 27 j 11:44	0°♄	
morning set	852 Jun 12 j 23:10	17°♄04'28		morning set	853 May 28 j 11:02	2°♄01'57	
	852 Jun 18 j 23:49	0°♄		asc. node	853 May 28 j 16:41	2°♄31'46	
superior conj	852 Jun 20 j 01:33	2°♄18'36	1°23'56	superior conj	853 Jun 04 j 11:36	17°♄13'58	1°06'15
minimum elong	852 Jun 19 j 23:08	2°♄05'33	1°23'37	minimum elong	853 Jun 04 j 09:14	17°♄01'07	1°05'51
max. Earth dist.	852 Jun 22 j 07:42	7°♄07'53	1.33516 AU	max. Earth dist.	853 Jun 05 j 15:13	19°♄44'33	1.32733 AU
evening rise	852 Jun 27 j 14:54	18°♄04'33			853 Jun 10 j 10:22	0°♄	
	852 Jul 03 j 20:25	0°♄		evening rise	853 Jun 11 j 15:50	2°♄32'41	
desc. node	852 Jul 19 j 21:07	25°♄38'08			853 Jun 26 j 16:52	0°♄	
	852 Jul 23 j 04:25	0°♄		desc. node	853 Jul 06 j 18:08	14°♄15'57	
evening max el	852 Jul 31 j 10:37	9°♄14'54	27°23'20	evening max el	853 Jul 13 j 19:08	22°♄02'22	27°19'37
retrograde	852 Aug 14 j 00:05	16°♄33'25		retrograde	853 Jul 27 j 14:23	29°♄19'11	
evening set	852 Aug 21 j 03:09	13°♄52'04		evening set	853 Aug 03 j 18:54	26°♄52'04	
min. Earth dist.	852 Aug 24 j 19:54	10°♄31'24	0.64078 AU	min. Earth dist.	853 Aug 07 j 08:53	24°♄00'05	0.62314 AU
inferior conj	852 Aug 27 j 06:38	7°♄57'14	-3°-15'-16	inferior conj	853 Aug 10 j 07:55	21°♄14'10	-4°-3'-18
minimum elong	852 Aug 27 j 11:23	7°♄44'45	3°13'47	minimum elong	853 Aug 10 j 12:52	21°♄02'33	4°02'12
morning rise	852 Sep 02 j 21:38	2°♄32'50		morning rise	853 Aug 17 j 09:26	16°♄09'28	
direct	852 Sep 05 j 10:27	2°♄00'28		direct	853 Aug 19 j 19:33	15°♄43'25	
asc. node	852 Sep 06 j 18:48	2°♄09'46		asc. node	853 Aug 24 j 15:51	17°♄30'22	
morning max el	852 Sep 11 j 23:02	5°♄26'41	17°56'21	morning max el	853 Aug 26 j 14:24	19°♄10'03	17°53'37
	852 Sep 28 j 02:44	0°♄			853 Sep 03 j 12:23	0°♄	
morning set	852 Sep 28 j 23:33	1°♄29'11		morning set	853 Sep 11 j 15:21	14°♄14'15	
					853 Sep 20 j 12:51	0°♄	
superior conj	852 Oct 11 j 21:37	23°♄07'39	0°26'13				
minimum elong	852 Oct 12 j 00:29	23°♄19'19	0°25'49	superior conj	853 Sep 22 j 17:15	3°♄45'10	1°04'04
desc. node	852 Oct 15 j 20:24	29°♄30'06		minimum elong	853 Sep 22 j 22:04	4°♄05'41	1°03'29
	852 Oct 16 j 03:52	0°♄		max. Earth dist.	853 Sep 29 j 21:14	15°♄41'56	1.43075 AU
max. Earth dist.	852 Oct 17 j 06:42	1°♄46'58	1.44375 AU	desc. node	853 Oct 02 j 17:26	20°♄17'18	
evening rise	852 Oct 28 j 01:56	18°♄40'13		evening rise	853 Oct 07 j 10:57	27°♄46'01	

	853 Oct 08 j 21:24	0°♄		max. Earth dist.	854 Sep 12 j 05:53	28°♄57'14	1.41301 AU
	853 Oct 29 j 07:57	0°♄			854 Sep 12 j 20:47	0°♄	
greatest brilliancy	853 Nov 02 j 13:45	5°♄32'20	-0.4m	evening rise	854 Sep 17 j 10:58	7°♄34'25	
evening max el	853 Nov 07 j 12:05	11°♄11'35	21°35'02	desc. node	854 Sep 19 j 14:28	11°♄01'17	
retrograde	853 Nov 16 j 10:37	16°♄30'40			854 Oct 02 j 01:24	0°♄	
evening set	853 Nov 20 j 15:16	14°♄53'16		greatest brilliancy	854 Oct 16 j 00:24	18°♄54'57	-0.3m
asc. node	853 Nov 20 j 15:04	14°♄53'39		evening max el	854 Oct 21 j 04:20	24°♄42'24	22°53'12
inferior conj	853 Nov 26 j 00:53	8°♄35'03	1°46'37		854 Oct 28 j 04:38	0°♄	
minimum elong	853 Nov 25 j 22:42	8°♄42'36	1°45'48	retrograde	854 Oct 31 j 05:27	0°♄40'23	
min. Earth dist.	853 Nov 26 j 05:43	8°♄18'20	0.67609 AU		854 Nov 03 j 01:20	30°♄	
morning rise	853 Dec 01 j 05:52	2°♄20'13		evening set	854 Nov 04 j 22:36	28°♄45'41	
direct	853 Dec 06 j 05:22	0°♄13'28		asc. node	854 Nov 07 j 12:06	26°♄07'24	
morning max el	853 Dec 16 j 09:43	6°♄16'23	23°09'37	inferior conj	854 Nov 10 j 08:10	22°♄22'06	0°57'51
greatest brilliancy	853 Dec 21 j 09:04	11°♄50'30	-0.3m	minimum elong	854 Nov 10 j 06:51	22°♄26'37	0°57'18
desc. node	853 Dec 29 j 16:38	22°♄46'02		min. Earth dist.	854 Nov 10 j 02:19	22°♄42'19	0.67738 AU
	854 Jan 03 j 17:55	0°♄		morning rise	854 Nov 15 j 15:05	16°♄09'47	
morning set	854 Jan 20 j 03:00	25°♄38'22		direct	854 Nov 19 j 23:45	14°♄25'45	
	854 Jan 22 j 17:02	0°♄		morning max el	854 Nov 28 j 23:08	19°♄42'07	21°44'00
max. Earth dist.	854 Jan 24 j 12:44	3°♄07'47	1.39557 AU	greatest brilliancy	854 Dec 03 j 20:13	25°♄14'00	-0.4m
					854 Dec 07 j 12:58	0°♄	
superior conj	854 Feb 01 j 04:30	16°♄50'04	-1°-55'-25	desc. node	854 Dec 16 j 13:40	12°♄42'58	
minimum elong	854 Feb 01 j 07:45	17°♄05'07	1°55'14		854 Dec 27 j 23:16	0°♄	
	854 Feb 08 j 03:46	0°♄		morning set	854 Dec 31 j 00:19	4°♄48'24	
evening rise	854 Feb 10 j 17:31	4°♄56'44		max. Earth dist.	855 Jan 06 j 11:45	15°♄20'04	1.41631 AU
asc. node	854 Feb 16 j 14:24	15°♄58'18					
	854 Feb 25 j 23:04	0°♄		superior conj	855 Jan 14 j 02:49	28°♄19'52	-2°-3'-14
evening max el	854 Feb 26 j 22:34	1°♄00'13	18°33'34	minimum elong	855 Jan 14 j 03:08	28°♄21'18	2°03'15
retrograde	854 Mar 06 j 15:26	4°♄46'34			855 Jan 15 j 01:38	0°♄	
evening set	854 Mar 08 j 23:49	4°♄26'40		evening rise	855 Jan 24 j 22:20	17°♄55'104	
inferior conj	854 Mar 16 j 13:19	29°♄57'54	2°47'57		855 Jan 31 j 15:27	0°♄	
minimum elong	854 Mar 16 j 17:24	29°♄49'55	2°46'59	asc. node	855 Feb 03 j 11:26	4°♄45'42	
	854 Mar 16 j 12:15	30°♄		evening max el	855 Feb 10 j 07:17	13°♄51'59	18°11'26
min. Earth dist.	854 Mar 19 j 23:11	27°♄19'09	0.58170 AU	retrograde	855 Feb 17 j 04:25	17°♄20'06	
morning rise	854 Mar 24 j 06:51	24°♄35'57		evening set	855 Feb 19 j 17:48	16°♄51'59	
desc. node	854 Mar 27 j 15:49	23°♄23'57		inferior conj	855 Feb 26 j 15:13	12°♄02'01	3°31'23
direct	854 Mar 30 j 04:21	23°♄07'40		minimum elong	855 Feb 26 j 17:39	11°♄56'28	3°31'04
	854 Apr 12 j 18:22	0°♄		min. Earth dist.	855 Mar 01 j 22:59	9°♄02'10	0.60268 AU
morning max el	854 Apr 13 j 13:17	0°♄45'04	26°38'02	morning rise	855 Mar 05 j 14:13	6°♄17'54	
	854 May 04 j 06:25	0°♄		direct	855 Mar 12 j 05:43	4°♄12'26	
morning set	854 May 12 j 21:38	16°♄54'59		desc. node	855 Mar 14 j 12:51	4°♄26'45	
asc. node	854 May 15 j 13:43	22°♄36'04		morning max el	855 Mar 26 j 12:18	12°♄01'58	27°31'26
	854 May 18 j 23:07	0°♄			855 Apr 09 j 15:44	0°♄	
					855 Apr 26 j 10:20	0°♄	
superior conj	854 May 19 j 23:13	2°♄12'29	0°45'02	morning set	855 Apr 27 j 05:16	1°♄37'27	
minimum elong	854 May 19 j 21:23	2°♄02'25	0°44'41	asc. node	855 May 02 j 10:45	12°♄45'52	
max. Earth dist.	854 May 20 j 02:59	2°♄33'12	1.32327 AU	max. Earth dist.	855 May 03 j 15:16	15°♄21'32	1.32293 AU
evening rise	854 May 26 j 22:33	17°♄16'56					
	854 Jun 02 j 07:24	0°♄		superior conj	855 May 04 j 10:45	17°♄08'15	0°21'02
	854 Jun 21 j 23:12	0°♄		minimum elong	855 May 04 j 09:48	17°♄03'06	0°20'51
desc. node	854 Jun 23 j 15:09	1°♄49'55			855 May 10 j 08:24	0°♄	
evening max el	854 Jun 25 j 22:04	4°♄08'14	26°42'48	evening rise	855 May 11 j 08:48	2°♄09'45	
retrograde	854 Jul 09 j 21:22	11°♄22'52			855 May 26 j 10:49	0°♄	
evening set	854 Jul 16 j 16:34	9°♄23'41		evening max el	855 Jun 07 j 18:11	15°♄29'06	25°35'26
min. Earth dist.	854 Jul 20 j 11:39	6°♄04'34	0.60307 AU	desc. node	855 Jun 10 j 12:09	17°♄54'04	
inferior conj	854 Jul 23 j 18:46	4°♄04'45	-4°-38'-29	retrograde	855 Jun 21 j 19:10	22°♄39'18	
minimum elong	854 Jul 23 j 22:13	3°♄57'40	4°38'06	evening set	855 Jun 27 j 15:52	21°♄18'11	
	854 Jul 29 j 16:21	30°♄		min. Earth dist.	855 Jul 02 j 06:26	18°♄37'33	0.58259 AU
morning rise	854 Jul 31 j 07:07	29°♄22'25		inferior conj	855 Jul 05 j 11:47	16°♄20'15	-4°-50'-47
direct	854 Aug 02 j 17:04	29°♄00'24		minimum elong	855 Jul 05 j 11:26	16°♄20'53	4°50'48
	854 Aug 06 j 13:55	0°♄		morning rise	855 Jul 13 j 10:43	12°♄00'36	
morning max el	854 Aug 10 j 02:21	2°♄36'51	18°09'59	direct	855 Jul 15 j 22:44	11°♄40'56	
asc. node	854 Aug 11 j 12:54	4°♄07'14		morning max el	855 Jul 24 j 07:47	15°♄38'24	18°46'39
morning set	854 Aug 25 j 22:46	27°♄44'00		asc. node	855 Jul 29 j 09:59	21°♄45'26	
	854 Aug 27 j 03:42	0°♄			855 Aug 03 j 11:39	0°♄	
				morning set	855 Aug 09 j 17:22	11°♄46'56	
superior conj	854 Sep 04 j 14:50	15°♄39'02	1°29'19				
minimum elong	854 Sep 04 j 18:41	15°♄56'22	1°28'59	superior conj	855 Aug 18 j 09:07	28°♄34'45	1°42'49

minimum elong	855 Aug 18 j 10:59	28° Ω 43'32	1°42'44	minimum elong	856 Jun 15 j 03:16	28° Π 00'15	4°26'09
	855 Aug 19 j 03:10	0° η		morning rise	856 Jun 23 j 17:44	23° Π 51'12	
max. Earth dist.	855 Aug 25 j 09:51	11° η 28'47	1.39297 AU	direct	856 Jun 26 j 09:35	23° Π 32'35	
evening rise	855 Aug 29 j 10:53	18° η 30'15		morning max el	856 Jul 06 j 03:43	28° Π 04'06	19°44'33
	855 Sep 05 j 10:37	0° $\underline{\Delta}$			856 Jul 08 j 01:17	0° $\underline{\Theta}$	
desc. node	855 Sep 06 j 11:30	1° $\underline{\Delta}$ 38'27		asc. node	856 Jul 15 j 07:04	10° $\underline{\Theta}$ 10'25	
	855 Sep 26 j 09:41	0° \mathbb{M}		morning set	856 Jul 23 j 19:42	26° $\underline{\Theta}$ 13'25	
evening max el	855 Oct 03 j 17:19	8° \mathbb{M} 16'54	24°13'13		856 Jul 25 j 16:30	0° Ω	
retrograde	855 Oct 14 j 20:42	14° \mathbb{M} 48'58					
evening set	855 Oct 20 j 03:53	12° \mathbb{M} 36'49		superior conj	856 Jul 31 j 18:37	12° Ω 16'18	1°46'32
min. Earth dist.	855 Oct 24 j 22:32	7° \mathbb{M} 06'48	0.67544 AU	minimum elong	856 Jul 31 j 18:33	12° Ω 16'01	1°46'32
asc. node	855 Oct 25 j 09:10	6° \mathbb{M} 30'57		max. Earth dist.	856 Aug 06 j 13:53	23° Ω 28'45	1.37309 AU
inferior conj	855 Oct 25 j 14:46	6° \mathbb{M} 12'05	0°04'50	evening rise	856 Aug 10 j 10:29	0° η 33'17	
minimum elong	855 Oct 25 j 14:39	6° \mathbb{M} 12'29	0°04'46		856 Aug 10 j 03:04	0° η	
transit middle	855 Oct 25 j 14:39	6° \mathbb{M} 12'29	0°04'46	desc. node	856 Aug 23 j 08:32	22° η 03'59	
transit begin	855 Oct 25 j 12:02	6° \mathbb{M} 21'17			856 Aug 28 j 15:53	0° $\underline{\Delta}$	
transit end	855 Oct 25 j 17:15	6° \mathbb{M} 03'41		evening max el	856 Sep 15 j 05:12	21° $\underline{\Delta}$ 55'09	25°28'02
morning rise	855 Oct 31 j 01:40	0° \mathbb{M} 04'51		retrograde	856 Sep 27 j 07:29	28° $\underline{\Delta}$ 52'21	
	855 Oct 31 j 04:23	30° \mathbb{R} $\underline{\Delta}$		evening set	856 Oct 03 j 05:22	26° $\underline{\Delta}$ 24'12	
direct	855 Nov 03 j 20:55	28° $\underline{\Delta}$ 42'20		min. Earth dist.	856 Oct 07 j 15:52	21° $\underline{\Delta}$ 29'44	0.67024 AU
	855 Nov 07 j 20:12	0° \mathbb{M}		inferior conj	856 Oct 08 j 18:54	20° $\underline{\Delta}$ 02'34	0°-51'-2
morning max el	855 Nov 11 j 19:30	3° \mathbb{M} 17'25	20°27'35	minimum elong	856 Oct 08 j 20:12	19° $\underline{\Delta}$ 58'23	0°50'29
greatest brilliancy	855 Nov 18 j 03:34	10° \mathbb{M} 49'48	-0.5m	asc. node	856 Oct 11 j 06:15	16° $\underline{\Delta}$ 59'26	
	855 Dec 01 j 11:17	0° \mathbb{X}		morning rise	856 Oct 14 j 11:40	14° $\underline{\Delta}$ 03'25	
desc. node	855 Dec 03 j 10:43	2° \mathbb{X} 59'14		direct	856 Oct 17 j 19:25	12° $\underline{\Delta}$ 59'36	
morning set	855 Dec 09 j 23:34	13° \mathbb{X} 00'29		morning max el	856 Oct 24 j 23:37	17° $\underline{\Delta}$ 03'01	19°24'36
max. Earth dist.	855 Dec 19 j 18:28	28° \mathbb{X} 27'32	1.43382 AU	greatest brilliancy	856 Nov 03 j 05:07	28° $\underline{\Delta}$ 54'26	-0.7m
	855 Dec 20 j 17:23	0° $\underline{\Theta}$			856 Nov 03 j 23:05	0° \mathbb{M}	
				morning set	856 Nov 17 j 23:23	21° \mathbb{M} 23'32	
superior conj	855 Dec 26 j 00:13	8° $\underline{\Theta}$ 39'27	-1°-56'-29	desc. node	856 Nov 19 j 07:46	23° \mathbb{M} 29'17	
minimum elong	855 Dec 25 j 19:35	8° $\underline{\Theta}$ 20'15	1°56'16		856 Nov 23 j 12:08	0° \mathbb{X}	
evening rise	856 Jan 07 j 11:02	29° $\underline{\Theta}$ 58'28		max. Earth dist.	856 Dec 01 j 08:38	12° \mathbb{X} 19'58	1.44576 AU
	856 Jan 07 j 11:23	0° \approx					
asc. node	856 Jan 21 j 08:29	22° \approx 55'41		superior conj	856 Dec 04 j 19:20	17° \mathbb{X} 48'24	-1°-31'-23
evening max el	856 Jan 24 j 19:19	27° \approx 02'00	18°08'48	minimum elong	856 Dec 04 j 10:54	17° \mathbb{X} 14'46	1°30'35
	856 Jan 29 j 00:22	0° \mathbb{X}			856 Dec 12 j 08:37	0° $\underline{\Theta}$	
retrograde	856 Jan 31 j 07:27	0° \mathbb{X} 26'34		evening rise	856 Dec 19 j 03:22	11° $\underline{\Theta}$ 11'51	
	856 Feb 02 j 14:53	30° \mathbb{R} \approx			856 Dec 30 j 13:51	0° \approx	
evening set	856 Feb 03 j 01:34	29° \approx 48'58		asc. node	857 Jan 07 j 05:32	10° \approx 17'13	
inferior conj	856 Feb 09 j 10:24	24° \approx 37'52	3°46'59	evening max el	857 Jan 07 j 07:49	10° \approx 23'02	18°24'57
minimum elong	856 Feb 09 j 10:42	24° \approx 37'06	3°46'59	retrograde	857 Jan 13 j 20:16	13° \approx 56'47	
min. Earth dist.	856 Feb 12 j 06:45	21° \approx 41'52	0.62348 AU	evening set	857 Jan 16 j 19:19	13° \approx 08'45	
morning rise	856 Feb 15 j 17:36	18° \approx 40'02		inferior conj	857 Jan 22 j 18:52	7° \approx 37'59	3°42'04
direct	856 Feb 22 j 16:42	16° \approx 05'44		minimum elong	857 Jan 22 j 17:29	7° \approx 42'00	3°41'57
desc. node	856 Feb 29 j 09:54	18° \approx 08'57		min. Earth dist.	857 Jan 25 j 00:02	5° \approx 05'11	0.64173 AU
morning max el	856 Mar 07 j 17:05	23° \approx 59'19	27°48'23	morning rise	857 Jan 28 j 14:12	1° \approx 31'37	
	856 Mar 13 j 03:21	0° \mathbb{X}			857 Jan 30 j 18:59	30° \mathbb{R} $\underline{\Theta}$	
	856 Apr 01 j 22:45	0° \mathbb{Y}		direct	857 Feb 04 j 11:17	28° $\underline{\Theta}$ 42'39	
morning set	856 Apr 10 j 07:45	16° \mathbb{Y} 01'10			857 Feb 09 j 12:46	0° \approx	
max. Earth dist.	856 Apr 16 j 00:13	27° \mathbb{Y} 55'36	1.32651 AU	desc. node	857 Feb 15 j 06:56	3° \approx 57'02	
	856 Apr 16 j 23:18	0° \mathbb{B}		morning max el	857 Feb 18 j 01:47	6° \approx 33'02	27°29'04
					857 Mar 08 j 01:18	0° \mathbb{X}	
superior conj	856 Apr 17 j 20:24	1° \mathbb{B} 54'13	0°-5'-1	morning set	857 Mar 25 j 02:31	29° \mathbb{X} 58'06	
minimum elong	856 Apr 17 j 20:38	1° \mathbb{B} 55'31	0°04'59		857 Mar 25 j 02:55	0° \mathbb{Y}	
behind sun begin	856 Apr 17 j 15:42	1° \mathbb{B} 28'46		max. Earth dist.	857 Mar 30 j 02:01	10° \mathbb{Y} 03'39	1.33427 AU
behind sun end	856 Apr 18 j 01:34	2° \mathbb{B} 22'17					
asc. node	856 Apr 18 j 07:48	2° \mathbb{B} 56'08		superior conj	857 Apr 02 j 02:22	16° \mathbb{Y} 24'33	0°-32'-12
evening rise	856 Apr 24 j 20:33	17° \mathbb{B} 03'10		minimum elong	857 Apr 02 j 03:57	16° \mathbb{Y} 32'57	0°31'54
	856 May 01 j 06:45	0° \mathbb{I}		asc. node	857 Apr 05 j 04:51	23° \mathbb{Y} 02'57	
evening max el	856 May 19 j 09:09	26° \mathbb{I} 13'05	24°06'38		857 Apr 08 j 10:57	0° \mathbb{B}	
	856 May 23 j 23:47	0° $\underline{\Theta}$		evening rise	857 Apr 09 j 08:01	1° \mathbb{B} 51'05	
desc. node	856 May 27 j 09:11	1° $\underline{\Theta}$ 53'14			857 Apr 25 j 04:41	0° \mathbb{I}	
retrograde	856 Jun 02 j 04:59	3° $\underline{\Theta}$ 10'19		evening max el	857 May 01 j 00:36	6° \mathbb{I} 45'08	22°30'49
evening set	856 Jun 06 j 16:26	2° $\underline{\Theta}$ 25'54		retrograde	857 May 14 j 02:09	13° \mathbb{I} 12'50	
	856 Jun 11 j 21:06	30° \mathbb{R} \mathbb{I}		desc. node	857 May 14 j 06:12	13° \mathbb{I} 12'46	
min. Earth dist.	856 Jun 12 j 20:11	29° \mathbb{I} 25'40	0.56471 AU	evening set	857 May 17 j 04:20	12° \mathbb{I} 51'50	
inferior conj	856 Jun 15 j 08:37	27° \mathbb{I} 51'54	-4°-26'-56	min. Earth dist.	857 May 25 j 08:10	9° \mathbb{I} 19'20	0.55284 AU

inferior conj	857 May 26 j 11:17	8°II40'51	-3°-16'-47	min. Earth dist.	858 May 06 j 20:49	18°843'58	0.54964 AU
minimum elong	857 May 26 j 03:46	8°II51'33	3°14'43	morning rise	858 May 15 j 04:12	15°802'50	
morning rise	857 Jun 04 j 05:34	4°II48'24		direct	858 May 18 j 12:46	14°838'30	
direct	857 Jun 07 j 03:05	4°II29'12		morning max el	858 May 31 j 10:47	20°848'55	22°37'39
morning max el	857 Jun 18 j 12:26	9°II47'04	21°02'58		858 Jun 08 j 05:17	0°II	
asc. node	857 Jul 02 j 04:07	29°II10'52		asc. node	858 Jun 19 j 01:09	18°II37'59	
	857 Jul 02 j 14:39	0°☾		morning set	858 Jun 22 j 13:42	25°II49'37	
morning set	857 Jul 08 j 03:09	10°☾56'19			858 Jun 24 j 13:11	0°☾	
superior conj	857 Jul 15 j 14:52	26°☾30'54	1°42'28	superior conj	858 Jun 29 j 18:29	11°☾08'21	1°32'11
minimum elong	857 Jul 15 j 13:25	26°☾23'26	1°42'22	minimum elong	858 Jun 29 j 16:15	10°☾56'30	1°31'57
	857 Jul 17 j 07:43	0°♂		max. Earth dist.	858 Jul 02 j 17:51	17°☾23'11	1.34136 AU
max. Earth dist.	857 Jul 19 j 23:27	5°♂19'50	1.35546 AU	evening rise	858 Jul 07 j 15:19	27°☾16'36	
evening rise	857 Jul 24 j 05:32	13°♂32'57			858 Jul 09 j 00:57	0°♂	
	857 Aug 02 j 12:14	0°♍			858 Jul 26 j 18:48	0°♍	
desc. node	857 Aug 10 j 05:34	12°♍11'57		desc. node	858 Jul 28 j 02:34	1°♍54'32	
	857 Aug 23 j 12:47	0°♎		evening max el	858 Aug 11 j 04:59	18°♍59'44	27°11'21
evening max el	857 Aug 28 j 17:06	5°♎32'07	26°29'54	retrograde	858 Aug 24 j 13:37	26°♍18'41	
retrograde	857 Sep 10 j 13:12	12°♎44'35		evening set	858 Aug 31 j 12:33	23°♍34'29	
evening set	857 Sep 17 j 01:04	10°♎04'35		min. Earth dist.	858 Sep 04 j 08:22	19°♍54'16	0.64941 AU
min. Earth dist.	857 Sep 21 j 03:53	5°♎47'20	0.66164 AU	inferior conj	858 Sep 06 j 11:48	17°♍31'18	-2°-44'-24
inferior conj	857 Sep 22 j 18:38	3°♎50'12	-1°-48'-9	minimum elong	858 Sep 06 j 15:59	17°♍19'40	2°42'56
minimum elong	857 Sep 22 j 21:26	3°♎41'42	1°47'02	morning rise	858 Sep 12 j 21:09	11°♍57'32	
	857 Sep 26 j 05:09	30°♏♍		asc. node	858 Sep 15 j 00:21	11°♍21'46	
asc. node	857 Sep 28 j 03:19	28°♍25'54		direct	858 Sep 15 j 12:39	11°♍20'21	
morning rise	857 Sep 28 j 18:58	28°♍02'10		morning max el	858 Sep 22 j 00:59	14°♍50'02	18°06'14
direct	857 Oct 01 j 17:23	27°♍13'34			858 Oct 02 j 19:46	0°♎	
	857 Oct 07 j 11:01	0°♎		morning set	858 Oct 10 j 00:39	11°♎56'40	
morning max el	857 Oct 08 j 10:14	0°♎55'27	18°37'05		858 Oct 21 j 00:39	0°♏	
	857 Oct 28 j 07:12	0°♐		superior conj	858 Oct 24 j 03:14	4°♏58'55	0°00'-22
morning set	857 Oct 28 j 21:31	0°♐57'07		minimum elong	858 Oct 24 j 03:11	4°♏58'41	0°00'23
desc. node	857 Nov 06 j 04:48	14°♐08'22		behind sun begin	858 Oct 23 j 16:28	4°♏15'56	
superior conj	857 Nov 13 j 21:20	26°♐14'40	0°-49'-25	behind sun end	858 Oct 24 j 13:54	5°♏41'22	
minimum elong	857 Nov 13 j 15:02	25°♐49'56	0°48'37	desc. node	858 Oct 24 j 01:52	4°♏53'26	
max. Earth dist.	857 Nov 14 j 02:52	26°♐36'23	1.45074 AU	max. Earth dist.	858 Oct 27 j 21:38	10°♏57'25	1.44834 AU
	857 Nov 16 j 06:41	0°♑			858 Nov 09 j 02:25	0°♑	
evening rise	857 Nov 29 j 20:14	21°♑26'33		evening rise	858 Nov 09 j 15:22	0°♑50'08	
	857 Dec 05 j 05:04	0°♒		greatest brilliancy	858 Nov 27 j 12:55	27°♑52'50	-0.6m
evening max el	857 Dec 21 j 18:07	23°♒48'45	18°58'57		858 Nov 29 j 01:33	0°♒	
asc. node	857 Dec 25 j 02:35	26°♒35'58		evening max el	858 Dec 05 j 00:19	7°♒16'44	19°49'13
retrograde	857 Dec 28 j 14:52	27°♒42'26		asc. node	858 Dec 11 j 23:36	11°♒37'27	
evening set	857 Dec 31 j 19:53	26°♒42'50		retrograde	858 Dec 12 j 12:12	11°♒38'59	
inferior conj	858 Jan 06 j 12:55	20°♒54'51	3°22'15	evening set	858 Dec 16 j 00:48	10°♒26'16	
minimum elong	858 Jan 06 j 10:31	21°♒02'20	3°21'49	inferior conj	858 Dec 21 j 13:33	4°♒24'02	2°51'27
min. Earth dist.	858 Jan 08 j 02:45	18°♒56'31	0.65632 AU	minimum elong	858 Dec 21 j 10:50	4°♒33'04	2°50'43
morning rise	858 Jan 12 j 00:12	14°♒43'07		min. Earth dist.	858 Dec 22 j 13:26	3°♒04'50	0.66698 AU
direct	858 Jan 18 j 12:24	11°♒53'43			858 Dec 25 j 00:53	30°♏♑	
morning max el	858 Jan 31 j 11:38	19°♒31'01	26°38'43	morning rise	858 Dec 26 j 20:11	28°♑09'20	
desc. node	858 Feb 02 j 03:58	21°♒15'57		direct	859 Jan 01 j 19:26	25°♑30'57	
	858 Feb 09 j 10:51	0°♓			859 Jan 10 j 23:46	0°♒	
	858 Mar 01 j 02:20	0°♔		morning max el	859 Jan 13 j 20:39	2°♒41'21	25°25'44
morning set	858 Mar 08 j 10:06	13°♔17'13		desc. node	859 Jan 20 j 01:01	9°♒39'38	
max. Earth dist.	858 Mar 12 j 17:08	21°♔37'42	1.34645 AU		859 Feb 03 j 15:24	0°♓	
	858 Mar 16 j 20:12	0°♕		morning set	859 Feb 19 j 01:49	25°♓44'55	
superior conj	858 Mar 17 j 02:24	0°♕32'02	0°-59'-22		859 Feb 21 j 09:28	0°♔	
minimum elong	858 Mar 17 j 05:18	0°♕47'00	0°58'52	max. Earth dist.	859 Feb 22 j 20:23	2°♔43'16	1.36305 AU
asc. node	858 Mar 23 j 01:54	13°♕01'51		superior conj	859 Feb 28 j 17:47	14°♔08'59	-1°-24'-50
evening rise	858 Mar 24 j 17:14	16°♕26'36		minimum elong	859 Feb 28 j 21:39	14°♔28'11	1°24'18
	858 Mar 31 j 14:32	0°♖		evening rise	859 Mar 08 j 22:06	0°♕43'08	
evening max el	858 Apr 12 j 23:37	17°♖35'42	21°02'07		859 Mar 08 j 13:35	0°♕	
retrograde	858 Apr 24 j 15:47	23°♖16'06		asc. node	859 Mar 09 j 22:55	2°♕48'14	
evening set	858 Apr 26 j 21:45	23°♖04'14		evening max el	859 Mar 26 j 10:04	29°♕03'05	19°49'11
desc. node	858 May 01 j 03:11	21°♖44'51			859 Mar 27 j 10:57	0°♖	
inferior conj	858 May 06 j 05:19	19°♖05'53	-1°-27'-43	retrograde	859 Apr 05 j 08:50	3°♖50'15	
minimum elong	858 May 06 j 01:11	19°♖11'44	1°26'16	evening set	859 Apr 07 j 10:27	3°♖38'45	

	859 Apr 15 j 14:30	30° \mathbb{R} Υ		retrograde	860 Mar 16 j 16:42	15° Υ 12'45	
inferior conj	859 Apr 16 j 05:12	29° Υ 37'22	0°30'44	evening set	860 Mar 18 j 22:13	14° Υ 56'42	
minimum elong	859 Apr 16 j 06:32	29° Υ 35'18	0°30'16	inferior conj	860 Mar 26 j 22:21	10° Υ 39'47	2°07'38
desc. node	859 Apr 18 j 00:12	28° Υ 30'54		minimum elong	860 Mar 27 j 02:27	10° Υ 32'27	2°06'27
min. Earth dist.	859 Apr 18 j 10:59	28° Υ 14'30	0.55610 AU	min. Earth dist.	860 Mar 30 j 03:08	8° Υ 23'52	0.57077 AU
morning rise	859 Apr 24 j 23:20	25° Υ 06'04		desc. node	860 Apr 03 j 21:13	5° Υ 40'46	
direct	859 Apr 29 j 04:49	24° Υ 26'26		morning rise	860 Apr 04 j 02:25	5° Υ 35'15	
	859 May 11 j 14:02	0° \mathcal{B}		direct	860 Apr 09 j 10:15	4° Υ 27'19	
morning max el	859 May 13 j 02:32	1° \mathcal{B} 22'41	24°19'04	morning max el	860 Apr 23 j 17:27	11° Υ 53'24	25°53'11
	859 Jun 01 j 17:36	0° \mathbb{I}			860 May 07 j 17:47	0° \mathcal{B}	
asc. node	859 Jun 05 j 22:11	8° \mathbb{I} 23'59		morning set	860 May 21 j 13:05	25° \mathcal{B} 43'19	
morning set	859 Jun 07 j 01:32	10° \mathbb{I} 47'02		asc. node	860 May 22 j 19:14	28° \mathcal{B} 23'11	
					860 May 23 j 13:18	0° \mathbb{I}	
superior conj	859 Jun 14 j 02:48	25° \mathbb{I} 59'21	1°16'56				
minimum elong	859 Jun 14 j 00:21	25° \mathbb{I} 46'03	1°16'34	superior conj	860 May 28 j 13:46	10° \mathbb{I} 57'04	0°57'39
	859 Jun 15 j 23:25	0° \mathcal{B}		minimum elong	860 May 28 j 11:35	10° \mathbb{I} 45'06	0°57'16
max. Earth dist.	859 Jun 15 j 21:08	29° \mathbb{I} 47'41	1.33129 AU	max. Earth dist.	860 May 29 j 06:51	12° \mathbb{I} 30'42	1.32516 AU
evening rise	859 Jun 21 j 11:41	11° \mathcal{B} 31'37		evening rise	860 Jun 04 j 15:26	26° \mathbb{I} 08'04	
	859 Jul 01 j 06:58	0° \mathcal{Q}			860 Jun 06 j 12:44	0° \mathcal{B}	
desc. node	859 Jul 14 j 23:35	21° \mathcal{Q} 00'10			860 Jun 23 j 19:46	0° \mathcal{Q}	
	859 Jul 22 j 13:05	0° \mathbb{P}		desc. node	860 Jun 30 j 20:34	9° \mathcal{Q} 13'29	
evening max el	859 Jul 24 j 15:25	2° \mathbb{P} 05'35	27°25'43	evening max el	860 Jul 05 j 22:03	14° \mathcal{Q} 37'13	27°08'02
retrograde	859 Aug 07 j 08:02	9° \mathbb{P} 24'26		retrograde	860 Jul 19 j 19:25	21° \mathcal{Q} 52'46	
evening set	859 Aug 14 j 12:38	6° \mathbb{P} 47'23		evening set	860 Jul 26 j 21:17	19° \mathcal{Q} 36'19	
min. Earth dist.	859 Aug 18 j 03:31	3° \mathbb{P} 40'04	0.63362 AU	min. Earth dist.	860 Jul 30 j 12:18	16° \mathcal{Q} 52'17	0.61484 AU
inferior conj	859 Aug 20 j 19:46	0° \mathbb{P} 59'06	-3°-36'-44	inferior conj	860 Aug 02 j 15:23	14° \mathcal{Q} 06'05	-4°-20'-18
minimum elong	859 Aug 21 j 00:45	0° \mathbb{P} 46'34	3°35'23	minimum elong	860 Aug 02 j 19:57	13° \mathcal{Q} 55'55	4°19'30
	859 Aug 21 j 19:32	30° \mathcal{R} \mathcal{Q}		morning rise	860 Aug 09 j 21:29	9° \mathcal{Q} 10'17	
morning rise	859 Aug 27 j 15:11	25° \mathcal{Q} 42'44		direct	860 Aug 12 j 07:11	8° \mathcal{Q} 46'11	
direct	859 Aug 30 j 02:23	25° \mathcal{Q} 13'33		asc. node	860 Aug 18 j 18:26	11° \mathcal{Q} 46'05	
asc. node	859 Sep 01 j 21:23	25° \mathcal{Q} 51'36		morning max el	860 Aug 19 j 07:09	12° \mathcal{Q} 16'02	17°58'03
morning max el	859 Sep 05 j 16:56	28° \mathcal{Q} 39'15	17°52'53		860 Aug 31 j 04:32	0° \mathbb{P}	
	859 Sep 06 j 23:12	0° \mathbb{P}		morning set	860 Sep 04 j 03:56	7° \mathbb{P} 13'58	
morning set	859 Sep 22 j 04:51	24° \mathbb{P} 08'17					
	859 Sep 25 j 13:35	0° \mathcal{A}		superior conj	860 Sep 14 j 14:08	25° \mathbb{P} 59'59	1°16'19
superior conj	859 Oct 04 j 07:03	14° \mathcal{A} 49'21	0°43'44	minimum elong	860 Sep 14 j 18:47	26° \mathbb{P} 20'14	1°15'49
minimum elong	859 Oct 04 j 11:13	15° \mathcal{A} 06'37	0°43'11		860 Sep 16 j 21:36	0° \mathcal{A}	
max. Earth dist.	859 Oct 10 j 14:00	25° \mathcal{A} 04'57	1.43892 AU	max. Earth dist.	860 Sep 22 j 02:05	8° \mathcal{A} 43'59	1.42372 AU
desc. node	859 Oct 10 j 22:54	25° \mathcal{A} 40'36		desc. node	860 Sep 26 j 19:56	16° \mathcal{A} 26'35	
	859 Oct 13 j 16:05	0° \mathbb{M}		evening rise	860 Sep 28 j 12:46	19° \mathcal{A} 09'01	
evening rise	859 Oct 19 j 23:05	9° \mathbb{M} 49'35			860 Oct 05 j 12:53	0° \mathbb{M}	
	859 Nov 02 j 08:11	0° \mathcal{J}		greatest brilliancy	860 Oct 26 j 03:13	28° \mathbb{M} 56'40	-0.3m
greatest brilliancy	859 Nov 12 j 11:59	14° \mathcal{J} 13'37	-0.5m		860 Oct 27 j 00:11	0° \mathcal{J}	
evening max el	859 Nov 18 j 01:10	20° \mathcal{J} 45'58	20°53'22	evening max el	860 Oct 30 j 20:27	4° \mathcal{J} 16'17	22°07'45
retrograde	859 Nov 26 j 09:51	25° \mathcal{J} 43'05		retrograde	860 Nov 09 j 06:00	9° \mathcal{J} 51'34	
asc. node	859 Nov 28 j 20:37	25° \mathcal{J} 09'20		evening set	860 Nov 13 j 15:48	8° \mathcal{J} 07'00	
evening set	859 Nov 30 j 08:02	24° \mathcal{J} 15'21		asc. node	860 Nov 14 j 17:39	7° \mathcal{J} 09'02	
inferior conj	859 Dec 05 j 18:21	18° \mathcal{J} 02'08	2°12'16	inferior conj	860 Nov 19 j 01:15	1° \mathcal{J} 46'19	1°26'33
minimum elong	859 Dec 05 j 15:50	18° \mathcal{J} 10'45	2°11'24	minimum elong	860 Nov 18 j 23:24	1° \mathcal{J} 52'44	1°25'48
min. Earth dist.	859 Dec 06 j 05:50	17° \mathcal{J} 22'48	0.67381 AU	min. Earth dist.	860 Nov 19 j 01:31	1° \mathcal{J} 45'25	0.67709 AU
morning rise	859 Dec 10 j 23:13	11° \mathcal{J} 46'42			860 Nov 20 j 08:15	30° \mathcal{R} \mathbb{M}	
direct	859 Dec 16 j 07:37	9° \mathcal{J} 27'00		morning rise	860 Nov 24 j 06:48	25° \mathbb{M} 32'21	
morning max el	859 Dec 27 j 04:59	15° \mathcal{J} 56'50	24°00'19	direct	860 Nov 28 j 23:59	23° \mathbb{M} 35'03	
desc. node	860 Jan 06 j 22:05	28° \mathcal{J} 49'28		morning max el	860 Dec 08 j 15:26	29° \mathbb{M} 17'21	22°32'22
	860 Jan 07 j 18:58	0° \mathcal{Z}			860 Dec 09 j 08:01	0° \mathcal{J}	
	860 Jan 27 j 15:02	0° \approx		greatest brilliancy	860 Dec 13 j 05:40	4° \mathcal{J} 25'39	-0.3m
morning set	860 Jan 31 j 19:42	7° \approx 04'47		desc. node	860 Dec 23 j 19:08	18° \mathcal{J} 31'55	
max. Earth dist.	860 Feb 04 j 15:51	13° \approx 48'23	1.38319 AU		860 Dec 31 j 14:02	0° \mathcal{Z}	
				morning set	861 Jan 11 j 09:45	17° \mathcal{Z} 01'42	
superior conj	860 Feb 11 j 21:00	27° \approx 06'15	-1°-46'-14	max. Earth dist.	861 Jan 16 j 12:04	25° \mathcal{Z} 31'13	1.40465 AU
minimum elong	860 Feb 12 j 00:55	27° \approx 24'55	1°45'52		861 Jan 19 j 02:43	0° \approx	
	860 Feb 13 j 09:21	0° \mathcal{H}		superior conj	861 Jan 24 j 07:24	9° \approx 11'32	-2°00'-13
evening rise	860 Feb 20 j 20:09	14° \mathcal{H} 33'59		minimum elong	861 Jan 24 j 09:42	9° \approx 21'57	2°00'08
asc. node	860 Feb 24 j 19:57	22° \mathcal{H} 17'01		evening rise	861 Feb 03 j 08:18	27° \approx 50'59	
	860 Feb 29 j 02:43	0° Υ			861 Feb 04 j 11:41	0° \mathcal{H}	
evening max el	860 Mar 08 j 07:24	11° Υ 09'10	18°55'29	asc. node	861 Feb 10 j 16:59	11° \mathcal{H} 21'21	

evening max el	861 Feb 19 j 12:49	23° K 46'06	18°21'44			862 Jan 28 j 15:39	0° K	
retrograde	861 Feb 26 j 19:39	27° K 22'33		evening max el	862 Feb 02 j 23:17	6° K 46'04	18°07'51	
evening set	861 Mar 01 j 06:24	26° K 59'11		retrograde	862 Feb 09 j 15:22	10° K 11'13		
inferior conj	861 Mar 08 j 12:36	22° K 21'17	3°10'15	evening set	862 Feb 12 j 06:46	9° K 39'10		
minimum elong	861 Mar 08 j 16:09	22° K 13'52	3°09'34	inferior conj	862 Feb 18 j 22:21	4° K 39'44	3°40'55	
min. Earth dist.	861 Mar 11 j 23:03	19° K 30'44	0.59050 AU	minimum elong	862 Feb 18 j 23:52	4° K 36'04	3°40'48	
morning rise	861 Mar 15 j 22:08	16° K 49'05		min. Earth dist.	862 Feb 22 j 01:51	1° K 38'55	0.61174 AU	
desc. node	861 Mar 21 j 18:16	15° K 05'15			862 Feb 23 j 23:38	30° R \approx		
direct	861 Mar 22 j 04:35	15° K 04'46		morning rise	862 Feb 25 j 14:11	28° \approx 48'45		
morning max el	861 Apr 05 j 12:44	22° K 47'26	27°04'58	direct	862 Mar 04 j 10:00	26° \approx 29'55		
	861 Apr 11 j 22:36	0° Y		desc. node	862 Mar 08 j 15:21	27° \approx 18'32		
	861 Apr 30 j 16:50	0° B			862 Mar 13 j 12:30	0° K		
morning set	861 May 05 j 22:39	10° B 32'01		morning max el	862 Mar 18 j 14:34	4° K 21'41	27°43'18	
asc. node	861 May 09 j 16:17	18° B 29'53			862 Apr 06 j 15:35	0° Y		
				morning set	862 Apr 20 j 04:22	25° Y 06'55		
superior conj	861 May 13 j 01:32	25° B 54'27	0°35'10		862 Apr 22 j 12:37	0° B		
minimum elong	861 May 13 j 00:03	25° B 46'14	0°34'52	max. Earth dist.	862 Apr 26 j 06:56	8° B 04'53	1.32400 AU	
max. Earth dist.	861 May 12 j 19:26	25° B 20'54	1.32272 AU	asc. node	862 Apr 26 j 13:21	8° B 39'49		
	861 May 14 j 22:13	0° II						
evening rise	861 May 19 j 23:55	10° II 56'30		superior conj	862 Apr 27 j 12:28	10° B 45'58	0°10'11	
	861 May 29 j 19:04	0° S		minimum elong	862 Apr 27 j 12:00	10° B 43'25	0°10'05	
desc. node	861 Jun 17 j 17:34	26° S 12'40		behind sun begin	862 Apr 27 j 08:03	10° B 21'51		
evening max el	861 Jun 17 j 22:20	26° S 24'04	26°17'30	behind sun end	862 Apr 27 j 15:56	11° B 04'59		
	861 Jun 22 j 05:56	0° Q		evening rise	862 May 04 j 11:01	25° B 49'42		
retrograde	861 Jul 01 j 22:23	3° Q 36'21			862 May 06 j 10:54	0° II		
evening set	861 Jul 08 j 09:49	1° Q 52'44			862 May 24 j 02:19	0° S		
	861 Jul 11 j 11:02	30° R S		evening max el	862 May 30 j 15:34	7° S 25'41	24°59'22	
min. Earth dist.	861 Jul 12 j 11:12	29° S 16'30	0.59431 AU	desc. node	862 Jun 04 j 14:35	11° S 27'42		
inferior conj	861 Jul 15 j 19:04	26° S 42'50	-4°-47'-16	retrograde	862 Jun 13 j 15:16	14° S 32'13		
minimum elong	861 Jul 15 j 21:11	26° S 38'44	4°47'08	evening set	862 Jun 18 j 22:58	13° S 27'21		
morning rise	861 Jul 23 j 11:56	22° S 10'04		min. Earth dist.	862 Jun 24 j 03:03	10° S 40'21	0.57444 AU	
direct	861 Jul 25 j 22:42	21° S 49'04		inferior conj	862 Jun 27 j 03:31	8° S 39'23	-4°-45'-54	
morning max el	861 Aug 02 j 16:39	25° S 32'43	18°23'01	minimum elong	862 Jun 27 j 01:00	8° S 43'36	4°45'44	
asc. node	861 Aug 05 j 15:31	28° S 50'33		morning rise	862 Jul 05 j 06:52	4° S 29'02		
	861 Aug 06 j 12:40	0° Q		direct	862 Jul 07 j 20:27	4° S 09'56		
morning set	861 Aug 18 j 16:39	20° Q 59'22		morning max el	862 Jul 16 j 18:22	8° S 19'47	19°08'49	
	861 Aug 23 j 09:52	0° M		asc. node	862 Jul 23 j 12:36	16° S 49'46		
					862 Jul 30 j 22:59	0° Q		
superior conj	861 Aug 27 j 21:16	8° M 22'10	1°36'23	morning set	862 Aug 02 j 14:53	5° Q 13'03		
minimum elong	861 Aug 28 j 00:18	8° M 36'11	1°36'10					
max. Earth dist.	861 Sep 04 j 09:04	21° M 43'02	1.40467 AU	superior conj	862 Aug 10 j 22:40	21° Q 39'17	1°45'28	
evening rise	861 Sep 08 j 22:33	29° M 24'51		minimum elong	862 Aug 10 j 23:40	21° Q 44'07	1°45'26	
	861 Sep 09 j 07:04	0° A			862 Aug 15 j 08:20	0° M		
desc. node	861 Sep 13 j 16:57	7° A 08'05		max. Earth dist.	862 Aug 17 j 12:26	3° M 58'59	1.38429 AU	
	861 Sep 29 j 01:18	0° M		evening rise	862 Aug 21 j 08:51	10° M 49'37		
evening max el	861 Oct 13 j 11:09	17° M 48'53	23°27'24	desc. node	862 Aug 31 j 13:57	27° M 40'41		
retrograde	861 Oct 23 j 23:22	24° M 01'38			862 Sep 02 j 01:52	0° A		
evening set	861 Oct 28 j 22:29	21° M 59'16			862 Sep 24 j 14:03	0° M		
asc. node	861 Nov 01 j 14:43	17° M 55'51		evening max el	862 Sep 25 j 23:12	1° M 24'18	24°46'04	
inferior conj	861 Nov 03 j 08:27	15° M 34'49	0°35'48	retrograde	862 Oct 07 j 12:53	8° M 08'46		
minimum elong	861 Nov 03 j 07:37	15° M 37'41	0°35'26	evening set	862 Oct 13 j 02:23	5° M 49'10		
min. Earth dist.	861 Nov 02 j 22:08	16° M 10'09	0.67699 AU	min. Earth dist.	862 Oct 17 j 17:22	0° M 34'12	0.67363 AU	
morning rise	861 Nov 08 j 16:52	9° M 24'38			862 Oct 18 j 03:42	30° R A		
direct	861 Nov 12 j 19:39	7° M 50'04		inferior conj	862 Oct 18 j 14:12	29° A 25'04	0°-18'-38	
morning max el	861 Nov 21 j 07:40	12° M 47'21	21°10'07	minimum elong	862 Oct 18 j 14:40	29° A 23'32	0°18'26	
greatest brilliancy	861 Nov 26 j 16:16	18° M 58'04	-0.5m	asc. node	862 Oct 19 j 11:48	28° A 14'01		
	861 Dec 04 j 18:32	0° A		morning rise	862 Oct 24 j 03:25	23° A 21'06		
desc. node	861 Dec 10 j 16:12	8° A 37'59		direct	862 Oct 27 j 17:26	22° A 07'10		
morning set	861 Dec 21 j 19:53	25° A 41'21		morning max el	862 Nov 04 j 07:29	26° A 27'38	19°59'00	
	861 Dec 24 j 13:22	0° B			862 Nov 07 j 11:19	0° M		
max. Earth dist.	861 Dec 29 j 14:57	8° B 10'23	1.42437 AU	greatest brilliancy	862 Nov 11 j 14:18	5° M 22'16	-0.6m	
				desc. node	862 Nov 27 j 13:14	29° M 00'23		
superior conj	862 Jan 05 j 19:40	20° B 12'32	-2°-2'-25		862 Nov 28 j 04:46	0° A		
minimum elong	862 Jan 05 j 18:03	20° B 05'37	2°02'25	morning set	862 Nov 30 j 16:06	3° A 48'34		
	862 Jan 11 j 10:45	0° A		max. Earth dist.	862 Dec 12 j 00:55	21° A 38'05	1.43967 AU	
evening rise	862 Jan 17 j 06:51	10° \approx 26'40						
asc. node	862 Jan 28 j 14:02	29° \approx 53'52		superior conj	862 Dec 17 j 05:30	0° B 00'02	-1°-48'-9	

minimum elong	862 Dec 16 j 22:47	29° Z 32'43	1°47'42	evening rise	863 Dec 11 j 17:50	2° Z 59'34	
	862 Dec 17 j 05:29	0° Z			863 Dec 29 j 01:19	0° \approx	
evening rise	862 Dec 30 j 11:22	22° Z 11'42		evening max el	863 Dec 31 j 23:34	3° \approx 24'23	18°37'23
	863 Jan 04 j 00:35	0° \approx		asc. node	864 Jan 02 j 08:07	4° \approx 41'04	
asc. node	863 Jan 15 j 11:04	17° \approx 44'33		retrograde	864 Jan 07 j 14:44	7° \approx 05'23	
evening max el	863 Jan 17 j 11:45	20° \approx 00'55	18°13'23	evening set	864 Jan 10 j 16:07	6° \approx 12'44	
retrograde	863 Jan 23 j 23:10	23° \approx 28'21		inferior conj	864 Jan 16 j 12:37	0° \approx 34'38	3°35'12
evening set	863 Jan 26 j 19:11	22° \approx 46'36		minimum elong	864 Jan 16 j 10:43	0° \approx 40'20	3°34'57
inferior conj	863 Feb 01 j 23:42	17° \approx 26'53	3°47'00		864 Jan 17 j 00:09	30° R Z	
minimum elong	863 Feb 01 j 23:12	17° \approx 28'15	3°47'00	min. Earth dist.	864 Jan 18 j 11:17	28° Z 15'11	0.64842 AU
min. Earth dist.	863 Feb 04 j 13:48	14° \approx 38'38	0.63161 AU	morning rise	864 Jan 22 j 04:04	24° Z 25'37	
morning rise	863 Feb 08 j 01:19	11° \approx 24'36		direct	864 Jan 28 j 22:09	21° Z 34'27	
direct	863 Feb 15 j 00:26	8° \approx 42'06		desc. node	864 Feb 10 j 09:26	28° Z 28'39	
desc. node	863 Feb 23 j 12:24	11° \approx 58'28		morning max el	864 Feb 11 j 06:52	29° Z 21'18	27°10'54
morning max el	863 Feb 28 j 21:32	16° \approx 36'17	27°44'24		864 Feb 11 j 22:06	0° \approx	
	863 Mar 11 j 23:53	0° X			864 Mar 04 j 20:53	0° X	
	863 Mar 30 j 08:25	0° Y		morning set	864 Mar 17 j 18:26	23° X 03'02	
morning set	863 Apr 04 j 03:58	9° Y 20'46			864 Mar 21 j 06:40	0° Y	
max. Earth dist.	863 Apr 09 j 13:18	20° Y 29'14	1.32922 AU	max. Earth dist.	864 Mar 22 j 10:36	2° Y 21'51	1.33883 AU
superior conj	863 Apr 11 j 20:48	25° Y 26'08	0°-16'-28	superior conj	864 Mar 26 j 00:31	9° Y 47'43	0°-43'-49
minimum elong	863 Apr 11 j 21:36	25° Y 30'25	0°16'19	minimum elong	864 Mar 26 j 02:41	9° Y 59'03	0°43'25
asc. node	863 Apr 13 j 10:23	28° Y 49'07		asc. node	864 Mar 30 j 07:24	18° Y 53'03	
	863 Apr 13 j 23:29	0° X		evening rise	864 Apr 02 j 09:35	25° Y 24'39	
evening rise	863 Apr 18 j 22:53	10° X 41'29			864 Apr 04 j 14:55	0° X	
	863 Apr 28 j 22:02	0° II		evening max el	864 Apr 22 j 23:47	28° X 37'56	21°51'40
evening max el	863 May 12 j 05:43	18° II 00'36	23°25'49		864 Apr 24 j 11:45	0° II	
desc. node	863 May 22 j 11:37	24° II 22'56		retrograde	864 May 05 j 12:58	4° II 46'50	
retrograde	863 May 25 j 20:09	24° II 48'34		evening set	864 May 08 j 04:14	4° II 31'19	
evening set	863 May 29 j 16:20	24° II 16'09		desc. node	864 May 08 j 08:39	4° II 29'07	
min. Earth dist.	863 Jun 05 j 15:55	21° II 03'30	0.55864 AU	min. Earth dist.	864 May 17 j 04:18	0° II 40'47	0.55029 AU
inferior conj	863 Jun 07 j 16:01	19° II 52'06	-4°-3'00	inferior conj	864 May 17 j 13:29	0° II 27'55	-2°-33'-58
minimum elong	863 Jun 07 j 09:08	20° II 02'22	4°01'36	minimum elong	864 May 17 j 06:46	0° II 37'20	2°31'51
morning rise	863 Jun 16 j 05:17	15° II 56'51			864 May 18 j 09:27	30° R X	
direct	863 Jun 18 j 22:54	15° II 38'29		morning rise	864 May 26 j 10:29	26° X 33'03	
morning max el	863 Jun 29 j 09:47	20° II 28'42	20°15'38	direct	864 May 29 j 11:44	26° X 12'25	
	863 Jul 07 j 01:33	0° S			864 Jun 08 j 08:21	0° II	
asc. node	863 Jul 10 j 09:39	5° S 31'09		morning max el	864 Jun 10 j 13:47	1° II 53'15	21°41'37
morning set	863 Jul 17 j 19:40	19° S 47'20		asc. node	864 Jun 26 j 06:40	24° II 43'39	
	863 Jul 22 j 19:05	0° Q			864 Jun 28 j 22:58	0° S	
superior conj	863 Jul 25 j 13:15	5° Q 36'44	1°45'39	morning set	864 Jul 01 j 04:39	4° S 34'54	
minimum elong	863 Jul 25 j 12:32	5° Q 33'07	1°45'38	superior conj	864 Jul 08 j 12:58	20° S 01'44	1°38'46
max. Earth dist.	863 Jul 30 j 17:44	15° Q 50'15	1.36515 AU	minimum elong	864 Jul 08 j 11:07	19° S 52'03	1°38'38
evening rise	863 Aug 03 j 17:22	23° Q 18'42		max. Earth dist.	864 Jul 12 j 06:45	27° S 43'50	1.34901 AU
	863 Aug 07 j 11:00	0° np			864 Jul 13 j 09:50	0° Q	
desc. node	863 Aug 18 j 10:58	17° np 59'32		evening rise	864 Jul 16 j 19:15	6° Q 38'37	
	863 Aug 26 j 18:46	0° u			864 Jul 30 j 03:10	0° np	
evening max el	863 Sep 08 j 10:54	15° u 02'29	25°56'21	desc. node	864 Aug 04 j 07:59	7° np 57'33	
retrograde	863 Sep 20 j 21:47	22° u 08'12		evening max el	864 Aug 20 j 23:05	28° np 37'15	26°50'33
evening set	863 Sep 27 j 01:41	19° u 34'19			864 Aug 22 j 10:47	0° u	
min. Earth dist.	863 Oct 01 j 08:48	14° u 55'23	0.66699 AU	retrograde	864 Sep 03 j 01:18	5° u 53'16	
inferior conj	863 Oct 02 j 16:43	13° u 14'56	-1°-15'-14	evening set	864 Sep 09 j 18:12	3° u 10'41	
minimum elong	863 Oct 02 j 18:39	13° u 08'49	1°14'25		864 Sep 13 j 00:03	30° R np	
asc. node	863 Oct 06 j 08:51	9° u 01'38		min. Earth dist.	864 Sep 13 j 18:02	29° np 09'03	0.65685 AU
morning rise	863 Oct 08 j 12:31	7° u 20'00		inferior conj	864 Sep 15 j 13:57	27° np 00'32	-2°-12'-15
direct	863 Oct 11 j 15:55	6° u 23'15		minimum elong	864 Sep 15 j 17:23	26° np 50'29	2°10'58
morning max el	863 Oct 18 j 14:36	10° u 16'42	19°02'19	morning rise	864 Sep 21 j 17:56	21° np 17'50	
	863 Nov 01 j 21:35	0° ml		asc. node	864 Sep 22 j 05:53	21° np 03'51	
morning set	863 Nov 09 j 23:27	12° ml 36'11		direct	864 Sep 24 j 13:06	20° np 34'28	
desc. node	863 Nov 14 j 10:15	19° ml 34'30		morning max el	864 Oct 01 j 03:13	24° np 10'18	18°21'49
	863 Nov 21 j 01:53	0° Z			864 Oct 05 j 21:43	0° u	
max. Earth dist.	863 Nov 24 j 16:33	5° Z 40'36	1.44878 AU	morning set	864 Oct 20 j 10:03	22° u 47'21	
					864 Oct 24 j 21:03	0° ml	
superior conj	863 Nov 26 j 15:23	8° Z 45'12	-1°-15'-14	desc. node	864 Oct 31 j 07:17	10° ml 16'34	
minimum elong	863 Nov 26 j 07:01	8° Z 12'12	1°14'18				
	863 Dec 09 j 21:46	0° Z		superior conj	864 Nov 04 j 16:19	17° ml 11'51	0°-28'-42

minimum elong	864 Nov 04 j 12:34	16° \mathbb{M} 57'03	0°28'13	max. Earth dist.	865 Oct 20 j 06:05	4° \mathbb{M} 20'54	1.44514 AU
max. Earth dist.	864 Nov 06 j 11:26	20° \mathbb{M} 01'32	1.45065 AU	evening rise	865 Oct 31 j 13:20	22° \mathbb{M} 00'00	
	864 Nov 12 j 20:03	0° \mathbb{M}			865 Nov 05 j 18:37	0° \mathbb{M}	
evening rise	864 Nov 21 j 00:50	12° \mathbb{M} 51'00		greatest brilliancy	865 Nov 21 j 00:11	22° \mathbb{M} 24'00	-0.6m
	864 Dec 02 j 00:23	0° \mathbb{M}			865 Nov 27 j 04:27	0° \mathbb{M}	
greatest brilliancy	864 Dec 04 j 23:20	4° \mathbb{M} 29'11	-0.7m	evening max el	865 Nov 27 j 12:32	0° \mathbb{M} 21'04	20°14'58
evening max el	864 Dec 14 j 08:27	16° \mathbb{M} 52'17	19°18'31	retrograde	865 Dec 05 j 08:26	4° \mathbb{M} 57'14	
asc. node	864 Dec 19 j 05:09	20° \mathbb{M} 29'19		asc. node	865 Dec 06 j 02:11	4° \mathbb{M} 54'08	
retrograde	864 Dec 21 j 10:43	20° \mathbb{M} 56'43		evening set	865 Dec 09 j 00:58	3° \mathbb{M} 38'07	
evening set	864 Dec 24 j 18:49	19° \mathbb{M} 51'41			865 Dec 12 j 15:00	30° \mathbb{R} \mathbb{M}	
inferior conj	864 Dec 30 j 09:48	13° \mathbb{M} 57'27	3°10'21	inferior conj	865 Dec 14 j 12:28	27° \mathbb{M} 30'43	2°35'43
minimum elong	864 Dec 30 j 07:11	14° \mathbb{M} 05'50	3°09'46	minimum elong	865 Dec 14 j 09:46	27° \mathbb{M} 39'48	2°34'54
min. Earth dist.	864 Dec 31 j 17:32	12° \mathbb{M} 15'30	0.66139 AU	min. Earth dist.	865 Dec 15 j 06:48	26° \mathbb{M} 28'53	0.67036 AU
morning rise	865 Jan 04 j 18:45	7° \mathbb{M} 44'28		morning rise	865 Dec 19 j 18:03	21° \mathbb{M} 15'39	
direct	865 Jan 11 j 01:57	4° \mathbb{M} 58'27		direct	865 Dec 25 j 11:05	18° \mathbb{M} 44'48	
morning max el	865 Jan 23 j 16:18	12° \mathbb{M} 25'24	26°09'49	morning max el	866 Jan 06 j 00:54	25° \mathbb{M} 38'37	24°50'23
desc. node	865 Jan 27 j 06:28	16° \mathbb{M} 18'02			866 Jan 10 j 00:40	0° \mathbb{M}	
	865 Feb 06 j 20:11	0° \mathbb{M}		desc. node	866 Jan 14 j 03:31	5° \mathbb{M} 03'11	
	865 Feb 25 j 12:34	0° \mathbb{M}			866 Jan 31 j 09:11	0° \mathbb{M}	
morning set	865 Feb 28 j 19:52	6° \mathbb{M} 02'07		morning set	866 Feb 11 j 03:04	18° \mathbb{M} 02'46	
max. Earth dist.	865 Mar 04 j 20:26	13° \mathbb{M} 41'36	1.35303 AU	max. Earth dist.	866 Feb 14 j 20:00	24° \mathbb{M} 44'28	1.37138 AU
					866 Feb 17 j 15:37	0° \mathbb{M}	
superior conj	865 Mar 09 j 21:16	23° \mathbb{M} 43'40	-1°-10'-30				
minimum elong	865 Mar 10 j 00:38	24° \mathbb{M} 00'51	1°09'57	superior conj	866 Feb 21 j 07:57	7° \mathbb{M} 04'54	-1°-34'-35
	865 Mar 12 j 22:32	0° \mathbb{M}		minimum elong	866 Feb 21 j 11:59	7° \mathbb{M} 24'39	1°34'05
asc. node	865 Mar 17 j 04:26	8° \mathbb{M} 47'29		evening rise	866 Mar 01 j 19:32	23° \mathbb{M} 59'51	
evening rise	865 Mar 17 j 17:13	9° \mathbb{M} 53'11		asc. node	866 Mar 04 j 01:29	28° \mathbb{M} 27'12	
	865 Mar 28 j 12:44	0° \mathbb{M}			866 Mar 04 j 20:30	0° \mathbb{M}	
evening max el	865 Apr 05 j 03:35	9° \mathbb{M} 43'16	20°28'51	evening max el	866 Mar 18 j 18:46	21° \mathbb{M} 26'52	19°23'47
retrograde	865 Apr 16 j 01:57	15° \mathbb{M} 00'07		retrograde	866 Mar 28 j 00:32	25° \mathbb{M} 54'05	
evening set	865 Apr 18 j 04:46	14° \mathbb{M} 49'04		evening set	866 Mar 30 j 03:21	25° \mathbb{M} 41'04	
desc. node	865 Apr 25 j 05:39	12° \mathbb{M} 03'24		inferior conj	866 Apr 07 j 14:20	21° \mathbb{M} 33'40	1°15'45
inferior conj	865 Apr 27 j 08:09	10° \mathbb{M} 51'27	0°-36'-29	minimum elong	866 Apr 07 j 17:19	21° \mathbb{M} 28'47	1°14'46
minimum elong	865 Apr 27 j 06:25	10° \mathbb{M} 53'56	0°35'52	min. Earth dist.	866 Apr 10 j 07:54	19° \mathbb{M} 46'55	0.56151 AU
min. Earth dist.	865 Apr 28 j 17:18	10° \mathbb{M} 03'22	0.55133 AU	desc. node	866 Apr 12 j 02:40	18° \mathbb{M} 42'05	
morning rise	865 May 06 j 06:21	6° \mathbb{M} 38'17		morning rise	866 Apr 16 j 03:28	16° \mathbb{M} 48'14	
direct	865 May 09 j 23:01	6° \mathbb{M} 08'47		direct	866 Apr 20 j 19:49	15° \mathbb{M} 58'22	
morning max el	865 May 23 j 08:28	12° \mathbb{M} 39'38	23°20'39	morning max el	866 May 04 j 23:10	23° \mathbb{M} 08'40	25°01'03
	865 Jun 05 j 11:21	0° \mathbb{M}			866 May 11 j 02:25	0° \mathbb{M}	
asc. node	865 Jun 13 j 03:42	14° \mathbb{M} 19'24			866 May 29 j 00:12	0° \mathbb{M}	
morning set	865 Jun 15 j 15:56	19° \mathbb{M} 30'21		morning set	866 May 31 j 03:53	4° \mathbb{M} 28'24	
	865 Jun 20 j 13:47	0° \mathbb{M}		asc. node	866 May 31 j 00:45	4° \mathbb{M} 11'57	
superior conj	865 Jun 22 j 18:50	4° \mathbb{M} 45'18	1°26'14	superior conj	866 Jun 07 j 04:31	19° \mathbb{M} 40'09	1°09'11
minimum elong	865 Jun 22 j 16:26	4° \mathbb{M} 32'28	1°25'57	minimum elong	866 Jun 07 j 02:08	19° \mathbb{M} 27'05	1°08'48
max. Earth dist.	865 Jun 25 j 05:21	9° \mathbb{M} 56'38	1.33666 AU	max. Earth dist.	866 Jun 08 j 11:56	22° \mathbb{M} 30'55	1.32820 AU
evening rise	865 Jun 30 j 09:58	20° \mathbb{M} 36'37			866 Jun 11 j 23:46	0° \mathbb{M}	
	865 Jul 05 j 07:04	0° \mathbb{M}		evening rise	866 Jun 14 j 09:50	5° \mathbb{M} 01'55	
desc. node	865 Jul 22 j 05:00	27° \mathbb{M} 25'37			866 Jun 27 j 22:41	0° \mathbb{M}	
	865 Jul 24 j 02:27	0° \mathbb{M}		desc. node	866 Jul 09 j 02:00	16° \mathbb{M} 11'31	
evening max el	865 Aug 03 j 10:45	11° \mathbb{M} 57'19	27°21'10	evening max el	866 Jul 16 j 19:49	24° \mathbb{M} 50'07	27°22'13
retrograde	865 Aug 16 j 22:58	19° \mathbb{M} 15'53			866 Jul 23 j 12:37	0° \mathbb{M}	
evening set	865 Aug 24 j 01:13	16° \mathbb{M} 33'25		retrograde	866 Jul 30 j 14:26	2° \mathbb{M} 07'39	
min. Earth dist.	865 Aug 27 j 18:41	13° \mathbb{M} 07'56	0.64312 AU		866 Aug 06 j 05:39	30° \mathbb{R} \mathbb{M}	
inferior conj	865 Aug 30 j 03:32	10° \mathbb{M} 36'25	-3°-7'-19	evening set	866 Aug 06 j 19:19	29° \mathbb{M} 37'21	
minimum elong	865 Aug 30 j 08:10	10° \mathbb{M} 24'05	3°05'51	min. Earth dist.	866 Aug 10 j 09:16	26° \mathbb{M} 41'53	0.62595 AU
morning rise	865 Sep 05 j 17:03	5° \mathbb{M} 09'32		inferior conj	866 Aug 13 j 06:42	23° \mathbb{M} 56'42	-3°-56'-41
direct	865 Sep 08 j 06:31	4° \mathbb{M} 36'00		minimum elong	866 Aug 13 j 11:42	23° \mathbb{M} 44'44	3°55'31
asc. node	865 Sep 09 j 02:55	4° \mathbb{M} 39'44		morning rise	866 Aug 20 j 06:39	18° \mathbb{M} 49'00	
morning max el	865 Sep 14 j 18:45	8° \mathbb{M} 02'43	17°58'23	direct	866 Aug 22 j 16:56	18° \mathbb{M} 22'14	
	865 Sep 29 j 11:29	0° \mathbb{M}		asc. node	866 Aug 26 j 23:58	19° \mathbb{M} 47'46	
morning set	865 Oct 02 j 00:36	4° \mathbb{M} 19'51		morning max el	866 Aug 29 j 10:26	21° \mathbb{M} 48'19	17°52'51
					866 Sep 04 j 17:01	0° \mathbb{M}	
superior conj	865 Oct 15 j 05:56	26° \mathbb{M} 19'33	0°19'31	morning set	866 Sep 14 j 13:36	16° \mathbb{M} 56'53	
minimum elong	865 Oct 15 j 08:09	26° \mathbb{M} 28'32	0°19'12		866 Sep 21 j 22:59	0° \mathbb{M}	
	865 Oct 17 j 12:40	0° \mathbb{M}					
desc. node	865 Oct 18 j 04:19	1° \mathbb{M} 02'40		superior conj	866 Sep 25 j 21:30	6° \mathbb{M} 45'05	0°59'07

minimum elong	866 Sep 26 j 02:15	7°♄05'11	0°58'31	superior conj	867 Sep 07 j 15:29	18°♄28'15	1°26'17
max. Earth dist.	866 Oct 02 j 21:09	18°♄19'34	1.43302 AU	minimum elong	867 Sep 07 j 19:35	18°♄46'34	1°25'53
desc. node	866 Oct 05 j 01:22	21°♄49'58			867 Sep 14 j 06:37	0°♄	
	866 Oct 10 j 05:22	0°♄		max. Earth dist.	867 Sep 15 j 06:27	1°♄40'27	1.41590 AU
evening rise	866 Oct 10 j 21:27	1°♄02'38		evening rise	867 Sep 20 j 18:26	10°♄42'36	
	866 Oct 30 j 09:35	0°♄		desc. node	867 Sep 21 j 22:23	12°♄34'33	
greatest brilliancy	866 Nov 05 j 09:27	8°♄00'02	-0.4m		867 Oct 03 j 06:57	0°♄	
evening max el	866 Nov 10 j 10:54	13°♄50'28	21°23'55	greatest brilliancy	867 Oct 19 j 05:59	21°♄50'46	-0.3m
retrograde	866 Nov 19 j 05:49	19°♄04'01		evening max el	867 Oct 24 j 03:55	27°♄21'08	22°41'21
asc. node	866 Nov 22 j 23:13	17°♄46'39			867 Oct 27 j 00:57	0°♄	
evening set	866 Nov 23 j 08:41	17°♄29'10		retrograde	867 Nov 03 j 01:04	3°♄13'27	
inferior conj	866 Nov 28 j 18:26	11°♄12'01	1°53'35	evening set	867 Nov 07 j 16:13	1°♄21'30	
minimum elong	866 Nov 28 j 16:09	11°♄19'55	1°52'44		867 Nov 09 j 02:52	30°♄	
min. Earth dist.	866 Nov 29 j 00:56	10°♄49'33	0.67560 AU	asc. node	867 Nov 09 j 20:17	29°♄11'42	
morning rise	866 Dec 03 j 23:18	4°♄56'54		inferior conj	867 Nov 13 j 01:42	24°♄58'34	1°05'34
direct	866 Dec 09 j 01:04	2°♄46'45		minimum elong	867 Nov 13 j 00:15	25°♄03'38	1°04'58
morning max el	866 Dec 19 j 09:57	8°♄57'01	23°22'43	min. Earth dist.	867 Nov 12 j 21:27	25°♄13'16	0.67739 AU
greatest brilliancy	866 Dec 24 j 21:12	15°♄06'49	-0.2m	morning rise	867 Nov 18 j 08:12	18°♄45'39	
desc. node	867 Jan 01 j 00:35	24°♄28'20		direct	867 Nov 22 j 19:02	16°♄58'08	
	867 Jan 04 j 22:31	0°♄		morning max el	867 Dec 01 j 22:29	22°♄21'13	21°56'16
morning set	867 Jan 23 j 09:47	28°♄49'10		greatest brilliancy	867 Dec 06 j 16:37	27°♄43'21	-0.4m
	867 Jan 24 j 02:34	0°♄			867 Dec 08 j 12:10	0°♄	
max. Earth dist.	867 Jan 27 j 14:59	6°♄02'34	1.39234 AU	desc. node	867 Dec 18 j 21:39	14°♄21'56	
					867 Dec 29 j 06:52	0°♄	
superior conj	867 Feb 04 j 04:38	19°♄41'31	-1°-53'-18	morning set	868 Jan 03 j 11:24	8°♄11'21	
minimum elong	867 Feb 04 j 08:08	19°♄57'48	1°53'04	max. Earth dist.	868 Jan 09 j 12:59	18°♄06'32	1.41334 AU
	867 Feb 09 j 15:07	0°♄			868 Jan 16 j 11:47	0°♄	
evening rise	867 Feb 13 j 13:50	7°♄37'38					
asc. node	867 Feb 18 j 22:32	17°♄46'43		superior conj	868 Jan 17 j 06:19	1°♄21'29	-2°-2'-53
	867 Feb 26 j 12:44	0°♄		minimum elong	868 Jan 17 j 07:15	1°♄25'35	2°02'54
evening max el	867 Mar 01 j 19:53	3°♄47'03	18°38'37	evening rise	868 Jan 27 j 20:44	20°♄38'33	
retrograde	867 Mar 09 j 16:42	7°♄37'23			868 Feb 01 j 23:12	0°♄	
evening set	867 Mar 12 j 00:16	7°♄18'37		asc. node	868 Feb 05 j 19:35	6°♄39'15	
inferior conj	867 Mar 19 j 16:29	2°♄53'07	2°38'29	evening max el	868 Feb 13 j 03:56	16°♄35'58	18°13'30
minimum elong	867 Mar 19 j 20:39	2°♄45'08	2°37'26	retrograde	868 Feb 20 j 03:11	20°♄05'37	
min. Earth dist.	867 Mar 23 j 01:35	0°♄19'28	0.57871 AU	evening set	868 Feb 22 j 15:55	19°♄38'46	
	867 Mar 23 j 12:28	30°♄		inferior conj	868 Feb 29 j 15:31	14°♄52'01	3°26'41
morning rise	867 Mar 27 j 12:48	27°♄35'18		minimum elong	868 Feb 29 j 18:16	14°♄45'53	3°26'18
desc. node	867 Mar 29 j 23:44	26°♄39'54		min. Earth dist.	868 Mar 04 j 00:22	11°♄53'44	0.59952 AU
direct	867 Apr 02 j 06:55	26°♄12'24		morning rise	868 Mar 07 j 17:12	9°♄10'47	
	867 Apr 12 j 04:51	0°♄		direct	868 Mar 14 j 06:46	7°♄10'31	
morning max el	867 Apr 16 j 15:44	3°♄47'36	26°27'20	desc. node	868 Mar 15 j 20:47	7°♄17'18	
	867 May 05 j 14:37	0°♄		morning max el	868 Mar 28 j 13:45	14°♄58'28	27°25'40
morning set	867 May 15 j 14:48	19°♄22'37			868 Apr 09 j 17:30	0°♄	
asc. node	867 May 17 j 21:48	24°♄15'10			868 Apr 26 j 22:46	0°♄	
	867 May 20 j 13:15	0°♄		morning set	868 Apr 28 j 23:00	4°♄06'57	
				asc. node	868 May 03 j 18:52	14°♄24'25	
superior conj	867 May 22 j 16:03	4°♄38'52	0°48'29	max. Earth dist.	868 May 05 j 11:41	18°♄07'22	1.32277 AU
minimum elong	867 May 22 j 14:07	4°♄28'13	0°48'06				
max. Earth dist.	867 May 22 j 23:13	5°♄18'13	1.32359 AU	superior conj	868 May 06 j 03:43	19°♄35'25	0°24'51
evening rise	867 May 29 j 15:51	19°♄44'31		minimum elong	868 May 06 j 02:38	19°♄29'24	0°24'37
	867 Jun 03 j 18:08	0°♄			868 May 10 j 21:59	0°♄	
	867 Jun 22 j 13:55	0°♄		evening rise	868 May 13 j 01:44	4°♄36'34	
desc. node	867 Jun 25 j 23:01	3°♄56'53			868 May 26 j 14:21	0°♄	
evening max el	867 Jun 28 j 23:45	7°♄03'01	26°50'25	evening max el	868 Jun 09 j 21:01	18°♄30'36	25°47'08
retrograde	867 Jul 12 j 22:45	14°♄18'12		desc. node	868 Jun 11 j 20:01	20°♄16'29	
evening set	867 Jul 19 j 20:03	12°♄14'08		retrograde	868 Jun 23 j 21:58	25°♄41'19	
min. Earth dist.	867 Jul 23 j 13:40	9°♄35'45	0.60615 AU	evening set	868 Jun 29 j 22:49	24°♄14'24	
inferior conj	867 Jul 26 j 19:59	6°♄52'05	-4°-34'-25	min. Earth dist.	868 Jul 04 j 09:27	21°♄35'24	0.58560 AU
minimum elong	867 Jul 26 j 23:48	6°♄44'03	4°33'55	inferior conj	868 Jul 07 j 15:50	19°♄13'16	-4°-51'00
morning rise	867 Aug 03 j 06:44	2°♄06'15		minimum elong	868 Jul 07 j 16:11	19°♄12'37	4°51'00
direct	867 Aug 05 j 16:28	1°♄43'49		morning rise	868 Jul 15 j 13:12	14°♄50'09	
morning max el	867 Aug 12 j 23:08	5°♄18'18	18°06'13	direct	868 Jul 18 j 00:51	14°♄30'09	
asc. node	867 Aug 13 j 21:03	6°♄14'10		morning max el	868 Jul 26 j 05:40	18°♄23'47	18°39'48
morning set	867 Aug 28 j 19:02	0°♄20'52		asc. node	868 Jul 30 j 18:07	23°♄43'45	
	867 Aug 28 j 14:34	0°♄			868 Aug 03 j 18:45	0°♄	
				morning set	868 Aug 11 j 12:12	14°♄19'24	

	868 Aug 19 j 15:01	0°♍			869 Jun 20 j 00:28	30°♊	
				morning rise	869 Jun 26 j 23:16	26°♊48'33	
superior conj	868 Aug 20 j 07:01	1°♍15'27	1°41'27	direct	869 Jun 29 j 14:34	26°♊29'48	
minimum elong	868 Aug 20 j 09:12	1°♍25'39	1°41'19		869 Jul 08 j 02:05	0°♋	
max. Earth dist.	868 Aug 27 j 11:06	14°♍18'51	1.39605 AU	morning max el	869 Jul 09 j 03:06	0°♋55'08	19°34'38
evening rise	868 Aug 31 j 14:38	21°♍27'49		asc. node	869 Jul 17 j 15:09	12°♋02'22	
	868 Sep 05 j 18:58	0°♌		morning set	869 Jul 26 j 13:34	28°♋43'09	
desc. node	868 Sep 07 j 19:23	3°♌12'50			869 Jul 27 j 04:52	0°♍	
	868 Sep 26 j 08:19	0°♍					
evening max el	868 Oct 05 j 17:19	10°♍55'14	24°01'31	superior conj	869 Aug 03 j 14:34	14°♍51'22	1°46'31
retrograde	868 Oct 16 j 16:50	17°♍22'21		minimum elong	869 Aug 03 j 14:47	14°♍52'24	1°46'31
evening set	868 Oct 21 j 21:54	15°♍12'46		max. Earth dist.	869 Aug 09 j 15:00	26°♍23'28	1.37593 AU
min. Earth dist.	868 Oct 26 j 17:50	9°♍37'46	0.67594 AU		869 Aug 11 j 14:07	0°♎	
asc. node	868 Oct 26 j 17:21	9°♍39'25		evening rise	869 Aug 13 j 10:55	3°♎21'33	
inferior conj	868 Oct 27 j 08:30	8°♍48'04	0°13'04	desc. node	869 Aug 25 j 16:23	23°♎40'38	
minimum elong	868 Oct 27 j 08:11	8°♍49'09	0°12'56		869 Aug 29 j 20:43	0°♏	
transit middle	868 Oct 27 j 08:11	8°♍49'09	0°12'56	evening max el	869 Sep 18 j 05:12	24°♏33'10	25°17'29
transit begin	868 Oct 27 j 06:32	8°♍54'45			869 Sep 25 j 03:53	0°♐	
transit end	868 Oct 27 j 09:51	8°♍43'33		retrograde	869 Sep 30 j 04:16	1°♐27'11	
morning rise	868 Nov 01 j 18:42	2°♐39'59			869 Oct 04 j 16:53	30°♑	
direct	868 Nov 05 j 15:53	1°♐14'20		evening set	869 Oct 06 j 00:02	29°♑01'07	
morning max el	868 Nov 13 j 17:39	5°♐54'46	20°38'11	min. Earth dist.	869 Oct 10 j 11:41	24°♑01'21	0.67125 AU
greatest brilliancy	868 Nov 19 j 18:48	13°♐02'45	-0.5m	inferior conj	869 Oct 11 j 13:05	22°♑38'47	0°-42'-26
	868 Dec 01 j 17:12	0°♒		minimum elong	869 Oct 11 j 14:10	22°♑35'18	0°41'59
desc. node	868 Dec 04 j 18:41	4°♒35'34		asc. node	869 Oct 13 j 14:23	20°♑03'35	
morning set	868 Dec 12 j 12:46	16°♒28'11		morning rise	869 Oct 17 j 04:54	16°♑38'22	
	868 Dec 21 j 02:08	0°♓		direct	869 Oct 20 j 14:13	15°♑32'02	
max. Earth dist.	868 Dec 21 j 18:48	1°♓07'16	1.43152 AU	morning max el	869 Oct 27 j 20:42	19°♑39'21	19°33'03
					869 Nov 05 j 01:54	0°♒	
superior conj	868 Dec 28 j 07:40	11°♓51'55	-1°-58'-39	greatest brilliancy	869 Nov 05 j 10:45	0°♒31'33	-0.7m
minimum elong	868 Dec 28 j 03:50	11°♓35'54	1°58'30	morning set	869 Nov 21 j 10:49	24°♒44'55	
	869 Jan 07 j 20:46	0°♈		desc. node	869 Nov 21 j 15:42	25°♒03'48	
evening rise	869 Jan 09 j 12:06	2°♈53'21			869 Nov 24 j 20:01	0°♉	
asc. node	869 Jan 22 j 16:38	24°♈55'32		max. Earth dist.	869 Dec 04 j 08:07	14°♉54'29	1.44441 AU
evening max el	869 Jan 26 j 15:40	29°♈43'41	18°07'57				
	869 Jan 26 j 22:21	0°♊		superior conj	869 Dec 08 j 06:22	21°♉10'00	-1°-36'-23
retrograde	869 Feb 02 j 04:27	3°♊07'54		minimum elong	869 Dec 07 j 22:12	20°♉37'18	1°35'40
evening set	869 Feb 04 j 21:54	2°♊31'43			869 Dec 13 j 17:22	0°♋	
	869 Feb 08 j 15:27	30°♊		evening rise	869 Dec 22 j 07:40	14°♋15'00	
inferior conj	869 Feb 11 j 08:22	27°♊23'33	3°46'02		869 Dec 31 j 18:33	0°♌	
minimum elong	869 Feb 11 j 08:58	27°♊22'00	3°46'01	asc. node	870 Jan 09 j 13:41	12°♌24'55	
min. Earth dist.	869 Feb 14 j 06:41	24°♊25'45	0.62051 AU	evening max el	870 Jan 10 j 04:10	13°♌02'53	18°21'22
morning rise	869 Feb 17 j 17:42	21°♊27'23		retrograde	870 Jan 16 j 16:06	16°♌34'42	
direct	869 Feb 24 j 16:16	18°♊56'47		evening set	870 Jan 19 j 14:20	15°♌48'19	
desc. node	869 Mar 02 j 17:51	20°♊37'16		inferior conj	870 Jan 25 j 15:04	10°♌20'14	3°43'52
morning max el	869 Mar 10 j 17:46	26°♊49'48	27°48'15	minimum elong	870 Jan 25 j 13:53	10°♌23'35	3°43'46
	869 Mar 13 j 17:40	0°♋		min. Earth dist.	870 Jan 27 j 22:31	7°♌43'05	0.63922 AU
	869 Apr 03 j 07:43	0°♌		morning rise	870 Jan 31 j 11:54	4°♌14'46	
morning set	869 Apr 13 j 02:23	18°♌33'49		direct	870 Feb 07 j 09:41	1°♌27'09	
	869 Apr 18 j 13:10	0°♍		desc. node	870 Feb 17 j 14:54	6°♌08'25	
max. Earth dist.	869 Apr 18 j 21:27	0°♍44'41	1.32577 AU	morning max el	870 Feb 21 j 02:06	9°♌18'45	27°34'07
					870 Mar 09 j 05:49	0°♎	
superior conj	869 Apr 20 j 13:46	4°♎23'04	0°00'-56		870 Mar 26 j 14:50	0°♏	
minimum elong	869 Apr 20 j 13:48	4°♎23'16	0°00'57	morning set	870 Mar 27 j 22:29	2°♏35'15	
behind sun begin	869 Apr 20 j 08:41	3°♎55'24		max. Earth dist.	870 Apr 02 j 00:36	12°♏57'26	1.33283 AU
behind sun end	869 Apr 20 j 18:56	4°♎51'10					
asc. node	869 Apr 20 j 15:55	4°♎34'49		superior conj	870 Apr 04 j 20:22	18°♏55'50	0°-28'-3
evening rise	869 Apr 27 j 13:23	19°♎30'18		minimum elong	870 Apr 04 j 21:44	19°♏03'10	0°27'47
	869 May 02 j 16:54	0°♐		asc. node	870 Apr 07 j 12:57	24°♏42'14	
evening max el	869 May 22 j 12:25	29°♐18'31	24°20'35		870 Apr 10 j 00:09	0°♑	
	869 May 23 j 06:04	0°♑		evening rise	870 Apr 12 j 00:59	4°♑19'16	
desc. node	869 May 29 j 17:03	4°♑36'53			870 Apr 26 j 02:02	0°♒	
retrograde	869 Jun 05 j 09:28	6°♑18'22		evening max el	870 May 04 j 03:11	9°♒49'56	22°44'53
evening set	869 Jun 10 j 02:23	5°♑28'59		desc. node	870 May 16 j 14:05	16°♒22'23	
min. Earth dist.	869 Jun 15 j 23:33	2°♑32'39	0.56709 AU	retrograde	870 May 17 j 08:33	16°♒23'44	
inferior conj	869 Jun 18 j 15:38	0°♑51'29	-4°-33'-25	evening set	870 May 20 j 15:06	16°♒00'13	
minimum elong	869 Jun 18 j 10:59	0°♑58'53	4°32'50	min. Earth dist.	870 May 28 j 11:34	12°♒33'18	0.55407 AU

inferior conj	870 May 29 j 20:35	11° Π 46'00	-3°-30'-24	inferior conj	871 May 09 j 15:10	22° \mathcal{B} 13'43	-1°-45'-49
minimum elong	870 May 29 j 13:01	11° Π 56'51	3°28'27	minimum elong	871 May 09 j 10:14	22° \mathcal{B} 20'40	1°44'06
morning rise	870 Jun 07 j 13:40	7° Π 53'33		min. Earth dist.	871 May 10 j 00:14	22° \mathcal{B} 00'57	0.54947 AU
direct	870 Jun 10 j 10:02	7° Π 34'42		morning rise	871 May 18 j 13:48	18° \mathcal{B} 13'22	
morning max el	870 Jun 21 j 13:34	12° Π 44'58	20°50'11	direct	871 May 21 j 20:06	17° \mathcal{B} 50'18	
	870 Jul 03 j 23:24	0° \mathfrak{E}		morning max el	871 Jun 03 j 13:24	23° \mathcal{B} 53'21	22°22'44
asc. node	870 Jul 04 j 12:11	0° \mathfrak{E} 58'02			871 Jun 09 j 01:06	0° Π	
morning set	870 Jul 10 j 20:22	13° \mathfrak{E} 24'03		asc. node	871 Jun 21 j 09:13	20° Π 21'52	
				morning set	871 Jun 25 j 06:35	28° Π 16'24	
					871 Jun 26 j 02:21	0° \mathfrak{E}	
superior conj	870 Jul 18 j 09:27	29° \mathfrak{E} 02'00	1°43'30	superior conj	871 Jul 02 j 12:10	13° \mathfrak{E} 36'58	1°34'05
minimum elong	870 Jul 18 j 08:11	28° \mathfrak{E} 55'28	1°43'27	minimum elong	871 Jul 02 j 10:01	13° \mathfrak{E} 25'35	1°33'53
	870 Jul 18 j 20:48	0° \mathcal{Q}		max. Earth dist.	871 Jul 05 j 16:09	20° \mathfrak{E} 14'02	1.34323 AU
max. Earth dist.	870 Jul 22 j 23:15	8° \mathcal{Q} 13'40	1.35783 AU	evening rise	871 Jul 10 j 11:15	29° \mathfrak{E} 51'56	
evening rise	870 Jul 27 j 03:21	16° \mathcal{Q} 13'37			871 Jul 10 j 12:55	0° \mathcal{Q}	
	870 Aug 03 j 21:04	0° \mathfrak{P}			871 Jul 27 j 22:49	0° \mathfrak{P}	
desc. node	870 Aug 12 j 13:23	13° \mathfrak{P} 51'50		desc. node	871 Jul 30 j 10:25	3° \mathfrak{P} 38'58	
	870 Aug 24 j 07:42	0° \mathfrak{A}		evening max el	871 Aug 14 j 04:54	21° \mathfrak{P} 40'18	27°06'43
evening max el	870 Aug 31 j 16:57	8° \mathfrak{A} 10'33	26°21'46	retrograde	871 Aug 27 j 12:09	28° \mathfrak{P} 58'58	
retrograde	870 Sep 13 j 10:49	15° \mathfrak{A} 21'46		evening set	871 Sep 03 j 09:36	26° \mathfrak{P} 14'52	
evening set	870 Sep 19 j 20:43	12° \mathfrak{A} 43'01		min. Earth dist.	871 Sep 07 j 06:24	22° \mathfrak{P} 29'06	0.65147 AU
min. Earth dist.	870 Sep 24 j 00:35	8° \mathfrak{A} 20'14	0.66314 AU	inferior conj	871 Sep 09 j 07:53	20° \mathfrak{P} 09'37	-2°-36'-2
inferior conj	870 Sep 25 j 13:35	6° \mathfrak{A} 27'10	-1°-39'-29	minimum elong	871 Sep 09 j 11:53	19° \mathfrak{P} 58'20	2°34'37
minimum elong	870 Sep 25 j 16:10	6° \mathfrak{A} 19'16	1°38'27	morning rise	871 Sep 15 j 15:48	14° \mathfrak{P} 33'25	
asc. node	870 Sep 30 j 11:25	1° \mathfrak{A} 18'45		asc. node	871 Sep 17 j 08:26	14° \mathfrak{P} 00'05	
morning rise	870 Oct 01 j 12:43	0° \mathfrak{A} 37'21		direct	871 Sep 18 j 08:08	13° \mathfrak{P} 54'49	
	870 Oct 02 j 23:45	30° \mathfrak{R} \mathfrak{P}		morning max el	871 Sep 24 j 20:46	17° \mathfrak{P} 25'57	18°09'41
direct	870 Oct 04 j 12:19	29° \mathfrak{P} 46'49			871 Oct 04 j 01:41	0° \mathfrak{A}	
	870 Oct 06 j 01:27	0° \mathfrak{A}		morning set	871 Oct 13 j 03:41	14° \mathfrak{A} 53'06	
morning max el	870 Oct 11 j 06:30	3° \mathfrak{A} 31'24	18°43'07		871 Oct 22 j 09:24	0° \mathfrak{M}	
	870 Oct 29 j 14:49	0° \mathfrak{M}		desc. node	871 Oct 26 j 09:43	6° \mathfrak{M} 26'04	
morning set	870 Nov 01 j 04:47	4° \mathfrak{M} 05'56					
desc. node	870 Nov 08 j 12:42	15° \mathfrak{M} 41'46					
superior conj	870 Nov 17 j 09:45	29° \mathfrak{M} 39'25	0°-56'-31	superior conj	871 Oct 27 j 13:41	8° \mathfrak{M} 17'18	0°-7'-44
minimum elong	870 Nov 17 j 02:44	29° \mathfrak{M} 11'48	0°55'40	minimum elong	871 Oct 27 j 12:42	8° \mathfrak{M} 13'23	0°07'37
max. Earth dist.	870 Nov 17 j 01:42	29° \mathfrak{M} 07'45	1.45048 AU	behind sun begin	871 Oct 27 j 03:00	7° \mathfrak{M} 34'49	
	870 Nov 17 j 15:00	0° \mathfrak{X}		behind sun end	871 Oct 27 j 22:24	8° \mathfrak{M} 51'54	
evening rise	870 Dec 03 j 04:02	24° \mathfrak{X} 38'13		max. Earth dist.	871 Oct 30 j 20:22	13° \mathfrak{M} 28'31	1.44918 AU
	870 Dec 06 j 12:17	0° \mathfrak{Z}			871 Nov 10 j 10:03	0° \mathfrak{X}	
evening max el	870 Dec 24 j 14:52	26° \mathfrak{Z} 27'55	18°52'50	evening rise	871 Nov 13 j 01:57	4° \mathfrak{X} 08'10	
asc. node	870 Dec 27 j 10:42	28° \mathfrak{Z} 53'58		greatest brilliancy	871 Nov 30 j 00:55	29° \mathfrak{X} 55'31	-0.6m
	870 Dec 29 j 14:39	0° \mathfrak{A}			871 Nov 30 j 02:10	0° \mathfrak{Z}	
retrograde	870 Dec 31 j 10:01	0° \mathfrak{A} 18'11		evening max el	871 Dec 07 j 21:49	9° \mathfrak{Z} 56'01	19°40'50
	871 Jan 02 j 04:39	30° \mathfrak{R} \mathfrak{Z}		asc. node	871 Dec 14 j 07:44	14° \mathfrak{Z} 08'10	
evening set	871 Jan 03 j 14:01	29° \mathfrak{Z} 20'28		retrograde	871 Dec 15 j 07:04	14° \mathfrak{Z} 13'27	
inferior conj	871 Jan 09 j 07:52	23° \mathfrak{Z} 34'56	3°26'03	evening set	871 Dec 18 j 18:25	13° \mathfrak{Z} 02'51	
minimum elong	871 Jan 09 j 05:35	23° \mathfrak{Z} 42'00	3°25'39	inferior conj	871 Dec 24 j 07:41	7° \mathfrak{Z} 02'40	2°56'42
min. Earth dist.	871 Jan 10 j 23:58	21° \mathfrak{Z} 30'50	0.65437 AU	minimum elong	871 Dec 24 j 04:58	7° \mathfrak{Z} 11'35	2°56'00
morning rise	871 Jan 14 j 20:07	17° \mathfrak{Z} 23'43		min. Earth dist.	871 Dec 25 j 09:35	5° \mathfrak{Z} 37'25	0.66565 AU
direct	871 Jan 21 j 09:55	14° \mathfrak{Z} 33'27		morning rise	871 Dec 29 j 14:50	0° \mathfrak{Z} 48'18	
morning max el	871 Feb 03 j 11:58	22° \mathfrak{Z} 14'01	26°47'53		871 Dec 30 j 14:11	30° \mathfrak{R} \mathfrak{X}	
desc. node	871 Feb 04 j 11:55	23° \mathfrak{Z} 15'26		direct	872 Jan 04 j 16:15	28° \mathfrak{X} 07'32	
	871 Feb 10 j 08:12	0° \mathfrak{A}			872 Jan 10 j 09:06	0° \mathfrak{Z}	
	871 Mar 02 j 11:18	0° \mathfrak{X}		morning max el	872 Jan 16 j 21:04	5° \mathfrak{Z} 22'54	25°37'37
morning set	871 Mar 11 j 08:01	16° \mathfrak{X} 01'09		desc. node	872 Jan 22 j 08:58	11° \mathfrak{Z} 30'48	
max. Earth dist.	871 Mar 15 j 17:24	24° \mathfrak{X} 36'35	1.34426 AU		872 Feb 04 j 20:56	0° \mathfrak{A}	
	871 Mar 18 j 09:09	0° \mathfrak{Y}		morning set	872 Feb 22 j 02:25	28° \mathfrak{A} 37'25	
					872 Feb 22 j 20:27	0° \mathfrak{X}	
superior conj	871 Mar 19 j 21:26	3° \mathfrak{Y} 07'28	0°-55'-20	max. Earth dist.	872 Feb 25 j 22:04	5° \mathfrak{X} 44'10	1.36028 AU
minimum elong	871 Mar 20 j 00:09	3° \mathfrak{Y} 21'32	0°54'50	superior conj	872 Mar 02 j 14:19	16° \mathfrak{X} 49'34	-1°-21'-12
asc. node	871 Mar 25 j 09:59	14° \mathfrak{Y} 42'55		minimum elong	872 Mar 02 j 18:04	17° \mathfrak{X} 08'23	1°20'38
evening rise	871 Mar 27 j 10:38	18° \mathfrak{Y} 57'13			872 Mar 09 j 01:41	0° \mathfrak{Y}	
	871 Apr 01 j 23:11	0° \mathcal{B}		evening rise	872 Mar 10 j 16:18	3° \mathfrak{Y} 16'56	
evening max el	871 Apr 16 j 00:48	20° \mathcal{B} 37'01	21°14'35	asc. node	872 Mar 11 j 07:02	4° \mathfrak{Y} 31'38	
retrograde	871 Apr 27 j 22:57	26° \mathcal{B} 25'21			872 Mar 26 j 12:21	0° \mathcal{B}	
evening set	871 Apr 30 j 06:40	26° \mathcal{B} 12'54		evening max el	872 Mar 28 j 09:33	1° \mathcal{B} 58'38	19°58'57
desc. node	871 May 03 j 11:07	25° \mathcal{B} 18'50					

































































































































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inferior conj	872 Apr 18 j 13:14	2°♄42'12	0°13'35	asc. node	873 Feb 26 j 04:06	24°♄03'35
minimum elong	872 Apr 18 j 13:51	2°♄41'16	0°13'22		873 Mar 01 j 09:05	0°♄
transit middle	872 Apr 18 j 13:51	2°♄41'16	0°13'22	evening max el	873 Mar 11 j 05:22	13°♄58'51 19°02'09
transit begin	872 Apr 18 j 11:41	2°♄44'34		retrograde	873 Mar 19 j 19:31	18°♄07'56
transit end	872 Apr 18 j 16:01	2°♄37'59		evening set	873 Mar 22 j 00:21	17°♄52'43
desc. node	872 Apr 19 j 08:09	2°♄13'27		inferior conj	873 Mar 30 j 03:17	13°♄38'26 1°55'06
min. Earth dist.	872 Apr 20 j 14:11	1°♄28'10	0.55455 AU	minimum elong	873 Mar 30 j 07:13	13°♄31'35 1°53'55
	872 Apr 23 j 04:43	30°♄		min. Earth dist.	873 Apr 02 j 05:46	11°♄29'36 0.56820 AU
morning rise	872 Apr 27 j 08:45	28°♄15'53		desc. node	873 Apr 06 j 05:11	9°♄10'19
direct	872 May 01 j 10:42	27°♄39'13		morning rise	873 Apr 07 j 09:55	8°♄38'50
	872 May 09 j 09:23	0°♄		direct	873 Apr 12 j 13:51	7°♄35'56
morning max el	872 May 15 j 05:41	4°♄29'31	24°03'59	morning max el	873 Apr 26 j 20:15	14°♄58'07 25°40'21
	872 Jun 02 j 03:23	0°♄			873 May 08 j 20:29	0°♄
asc. node	872 Jun 07 j 06:16	10°♄05'30		morning set	873 May 24 j 06:03	28°♄10'14
morning set	872 Jun 08 j 18:21	13°♄13'34		asc. node	873 May 25 j 03:21	0°♄03'00
					873 May 25 j 02:48	0°♄
superior conj	872 Jun 15 j 19:57	28°♄26'27	1°19'32	superior conj	873 May 31 j 06:38	13°♄23'18 1°00'49
minimum elong	872 Jun 15 j 17:30	28°♄13'10	1°19'11	minimum elong	873 May 31 j 04:23	13°♄10'57 1°00'25
	872 Jun 16 j 13:17	0°♄		max. Earth dist.	873 Jun 01 j 03:22	15°♄16'40 1.32583 AU
max. Earth dist.	872 Jun 17 j 18:17	2°♄35'40	1.33260 AU	evening rise	873 Jun 07 j 09:07	28°♄36'47
evening rise	872 Jun 23 j 06:18	14°♄03'09			873 Jun 08 j 01:17	0°♄
	872 Jul 01 j 16:00	0°♄			873 Jun 24 j 21:41	0°♄
desc. node	872 Jul 16 j 07:27	22°♄51'06		desc. node	873 Jul 03 j 04:29	11°♄13'43
	872 Jul 22 j 01:10	0°♄		evening max el	873 Jul 08 j 23:16	17°♄28'30 27°12'48
evening max el	872 Jul 26 j 15:49	4°♄50'41	27°25'30	retrograde	873 Jul 22 j 19:52	24°♄44'15
retrograde	872 Aug 09 j 07:28	12°♄09'27		evening set	873 Jul 29 j 22:54	22°♄23'50
evening set	872 Aug 16 j 11:38	9°♄30'43		min. Earth dist.	873 Aug 02 j 13:24	19°♄37'20 0.61780 AU
min. Earth dist.	872 Aug 20 j 03:08	6°♄18'47	0.63621 AU	inferior conj	873 Aug 05 j 15:09	16°♄50'57 -4°-14'-38
inferior conj	872 Aug 22 j 17:26	3°♄40'02	-3°-29'-16	minimum elong	873 Aug 05 j 19:54	16°♄40'11 4°13'42
minimum elong	872 Aug 22 j 22:22	3°♄27'26	3°27'52	morning rise	873 Aug 12 j 19:39	11°♄51'55
	872 Aug 26 j 16:24	30°♄		direct	873 Aug 15 j 05:27	11°♄27'10
morning rise	872 Aug 29 j 11:18	28°♄20'42		asc. node	873 Aug 21 j 02:33	13°♄58'58
direct	872 Aug 31 j 22:59	27°♄50'29		morning max el	873 Aug 22 j 03:25	14°♄55'40 17°56'04
asc. node	872 Sep 03 j 05:28	28°♄16'05			873 Sep 01 j 12:59	0°♄
	872 Sep 06 j 02:59	0°♄		morning set	873 Sep 07 j 01:17	9°♄54'34
morning max el	872 Sep 07 j 12:42	1°♄16'16	17°53'41	superior conj	873 Sep 17 j 16:44	28°♄55'28 1°12'13
morning set	872 Sep 24 j 04:36	26°♄55'31		minimum elong	873 Sep 17 j 21:29	29°♄16'02 1°11'40
	872 Sep 25 j 23:10	0°♄			873 Sep 18 j 07:40	0°♄
superior conj	872 Oct 06 j 13:35	17°♄56'14	0°37'43	max. Earth dist.	873 Sep 25 j 02:35	11°♄25'34 1.42629 AU
minimum elong	872 Oct 06 j 17:22	18°♄11'49	0°37'13	desc. node	873 Sep 29 j 03:47	17°♄59'42
desc. node	872 Oct 12 j 06:46	27°♄13'16		evening rise	873 Oct 01 j 22:11	22°♄23'09
max. Earth dist.	872 Oct 12 j 13:26	27°♄39'56	1.44074 AU		873 Oct 06 j 19:55	0°♄
	872 Oct 14 j 00:34	0°♄			873 Oct 27 j 20:01	0°♄
evening rise	872 Oct 22 j 10:26	13°♄09'15		greatest brilliancy	873 Oct 29 j 01:32	1°♄32'13 -0.4m
	872 Nov 02 j 13:18	0°♄		evening max el	873 Nov 02 j 19:42	6°♄55'59 21°56'10
greatest brilliancy	872 Nov 14 j 05:19	16°♄35'00	-0.5m	retrograde	873 Nov 12 j 01:18	12°♄25'30
evening max el	872 Nov 19 j 23:36	23°♄25'48	20°43'04	evening set	873 Nov 16 j 09:16	10°♄43'24
retrograde	872 Nov 28 j 04:46	28°♄17'11		asc. node	873 Nov 17 j 01:49	10°♄07'56
asc. node	872 Nov 30 j 04:46	27°♄54'38		inferior conj	873 Nov 21 j 18:45	4°♄23'31 1°33'48
evening set	872 Dec 02 j 01:27	26°♄51'44		minimum elong	873 Nov 21 j 16:46	4°♄30'22 1°33'03
inferior conj	872 Dec 07 j 12:01	20°♄40'02	2°18'38	min. Earth dist.	873 Nov 21 j 20:34	4°♄17'12 0.67683 AU
minimum elong	872 Dec 07 j 09:27	20°♄48'49	2°17'48		873 Nov 25 j 03:46	30°♄
min. Earth dist.	872 Dec 08 j 01:15	19°♄54'52	0.67306 AU	morning rise	873 Nov 27 j 00:04	28°♄09'18
morning rise	872 Dec 12 j 17:00	14°♄24'41		direct	873 Dec 01 j 19:28	26°♄08'42
direct	872 Dec 18 j 03:42	12°♄01'52			873 Dec 09 j 13:24	0°♄
morning max el	872 Dec 29 j 05:20	18°♄37'57	24°13'26	morning max el	873 Dec 11 j 15:20	1°♄58'03 22°45'18
	873 Jan 07 j 19:28	0°♄		greatest brilliancy	873 Dec 16 j 06:29	7°♄08'28 -0.3m
desc. node	873 Jan 08 j 06:01	0°♄34'53		desc. node	873 Dec 26 j 03:03	20°♄13'05
	873 Jan 27 j 23:34	0°♄			874 Jan 01 j 20:02	0°♄
morning set	873 Feb 02 j 23:57	10°♄08'29		morning set	874 Jan 14 j 18:26	20°♄18'28
max. Earth dist.	873 Feb 06 j 18:23	16°♄47'42	1.38010 AU	max. Earth dist.	874 Jan 19 j 14:18	28°♄24'28 1.40153 AU
					874 Jan 20 j 12:33	0°♄
superior conj	873 Feb 13 j 19:38	29°♄53'39	-1°-43'-23			
minimum elong	873 Feb 13 j 23:38	0°♄12'50	1°42'59			

superior conj	874 Jan 27 j 08:51	12° ≈ 07'35	-1°-58'-45	max. Earth dist.	875 Jan 01 j 15:43	10° ≈ 54'03	1.42164 AU
minimum elong	874 Jan 27 j 11:33	12° ≈ 19'51	1°58'39				
	874 Feb 05 j 22:03	0° ≈		superior conj	875 Jan 09 j 00:41	23° ≈ 18'39	-2°-3'-4
evening rise	874 Feb 06 j 05:26	0° ≈ 35'05		minimum elong	875 Jan 08 j 23:48	23° ≈ 14'49	2°03'04
asc. node	874 Feb 13 j 01:09	13° ≈ 12'18			875 Jan 12 j 20:42	0° ≈	
evening max el	874 Feb 22 j 09:45	26° ≈ 31'41	18°25'25	evening rise	875 Jan 20 j 06:14	13° ≈ 17'26	
	874 Feb 28 j 03:23	0° ≈			875 Jan 29 j 18:17	0° ≈	
retrograde	874 Mar 01 j 19:50	0° ≈ 11'16		asc. node	875 Jan 30 j 22:11	1° ≈ 50'24	
	874 Mar 03 j 12:59	30° ≈		evening max el	875 Feb 05 j 19:38	9° ≈ 28'54	18°08'42
evening set	874 Mar 04 j 05:45	29° ≈ 49'10		retrograde	875 Feb 12 j 13:19	12° ≈ 54'55	
inferior conj	874 Mar 11 j 14:26	25° ≈ 14'22	3°02'55	evening set	875 Feb 15 j 03:59	12° ≈ 24'18	
minimum elong	874 Mar 11 j 18:12	25° ≈ 06'39	3°02'09	inferior conj	875 Feb 21 j 21:32	7° ≈ 28'08	3°37'59
min. Earth dist.	874 Mar 15 j 00:56	22° ≈ 27'28	0.58737 AU	minimum elong	875 Feb 21 j 23:23	7° ≈ 23'46	3°37'49
morning rise	874 Mar 19 j 02:46	19° ≈ 45'33		min. Earth dist.	875 Feb 25 j 02:41	4° ≈ 27'06	0.60857 AU
desc. node	874 Mar 24 j 02:14	18° ≈ 10'28		morning rise	875 Feb 28 j 15:47	1° ≈ 39'17	
direct	874 Mar 25 j 06:15	18° ≈ 06'54			875 Mar 03 j 23:05	30° ≈	
morning max el	874 Apr 08 j 14:49	25° ≈ 47'51	26°56'21	direct	875 Mar 07 j 10:15	29° ≈ 24'56	
	874 Apr 12 j 13:06	0° ≈		desc. node	875 Mar 10 j 23:16	29° ≈ 59'08	
	874 May 02 j 03:12	0° ≈			875 Mar 11 j 00:23	0° ≈	
morning set	874 May 08 j 16:03	13° ≈ 00'47		morning max el	875 Mar 21 j 15:42	7° ≈ 16'15	27°39'58
asc. node	874 May 12 j 00:26	20° ≈ 09'10			875 Apr 07 j 21:09	0° ≈	
				morning set	875 Apr 22 j 22:26	27° ≈ 38'27	
superior conj	874 May 15 j 18:25	28° ≈ 21'19	0°38'46		875 Apr 24 j 01:43	0° ≈	
minimum elong	874 May 15 j 16:47	28° ≈ 12'24	0°38'26	asc. node	875 Apr 28 j 21:28	10° ≈ 19'10	
max. Earth dist.	874 May 15 j 15:47	28° ≈ 06'54	1.32278 AU	max. Earth dist.	875 Apr 29 j 03:35	10° ≈ 52'32	1.32350 AU
	874 May 16 j 12:21	0° ≈					
evening rise	874 May 22 j 17:02	13° ≈ 24'04		superior conj	875 Apr 30 j 05:33	13° ≈ 14'22	0°14'07
	874 May 31 j 03:31	0° ≈		minimum elong	875 Apr 30 j 04:54	13° ≈ 10'51	0°13'59
desc. node	874 Jun 20 j 01:30	28° ≈ 26'16		behind sun begin	875 Apr 30 j 02:30	12° ≈ 05'44	
evening max el	874 Jun 21 j 00:30	29° ≈ 22'26	26°27'03	behind sun end	875 Apr 30 j 07:18	13° ≈ 23'58	
	874 Jun 21 j 16:35	0° ≈		evening rise	875 May 07 j 03:51	28° ≈ 17'07	
retrograde	874 Jul 05 j 00:15	6° ≈ 35'35			875 May 07 j 23:23	0° ≈	
evening set	874 Jul 11 j 14:47	4° ≈ 46'15			875 May 24 j 22:10	0° ≈	
min. Earth dist.	874 Jul 15 j 13:35	2° ≈ 10'14	0.59736 AU	evening max el	875 Jun 02 j 18:36	10° ≈ 30'05	25°12'26
	874 Jul 18 j 08:00	30° ≈		desc. node	875 Jun 06 j 22:32	13° ≈ 59'28	
inferior conj	874 Jul 18 j 21:28	29° ≈ 33'15	-4°-44'-45	retrograde	875 Jun 16 j 18:58	17° ≈ 38'22	
minimum elong	874 Jul 19 j 00:06	29° ≈ 28'01	4°44'33	evening set	875 Jun 22 j 07:27	16° ≈ 27'51	
morning rise	874 Jul 26 j 12:46	24° ≈ 57'12		min. Earth dist.	875 Jun 27 j 06:20	13° ≈ 43'27	0.57719 AU
direct	874 Jul 28 j 23:13	24° ≈ 35'52		inferior conj	875 Jun 30 j 08:53	11° ≈ 36'17	-4°-48'-33
morning max el	874 Aug 05 j 13:53	28° ≈ 16'38	18°18'01	minimum elong	875 Jun 30 j 07:10	11° ≈ 39'15	4°48'29
	874 Aug 07 j 05:15	0° ≈		morning rise	875 Jul 08 j 10:43	7° ≈ 22'54	
asc. node	874 Aug 07 j 23:38	0° ≈ 54'17		direct	875 Jul 10 j 23:42	7° ≈ 03'39	
morning set	874 Aug 21 j 12:16	23° ≈ 03'51		morning max el	875 Jul 19 j 16:57	11° ≈ 08'55	19°00'38
	874 Aug 24 j 21:13	0° ≈		asc. node	875 Jul 25 j 20:40	18° ≈ 46'04	
					875 Aug 01 j 09:09	0° ≈	
superior conj	874 Aug 30 j 20:41	11° ≈ 08'45	1°34'05	morning set	875 Aug 05 j 09:16	7° ≈ 45'19	
minimum elong	874 Aug 31 j 00:02	11° ≈ 24'01	1°33'48				
max. Earth dist.	874 Sep 07 j 10:15	24° ≈ 31'14	1.40766 AU	superior conj	875 Aug 13 j 19:42	24° ≈ 18'44	1°44'42
	874 Sep 10 j 16:15	0° ≈		minimum elong	875 Aug 13 j 21:00	24° ≈ 12'45	1°44'39
evening rise	874 Sep 12 j 04:28	2° ≈ 29'34			875 Aug 16 j 19:45	0° ≈	
desc. node	874 Sep 16 j 00:49	8° ≈ 42'27		max. Earth dist.	875 Aug 20 j 13:35	6° ≈ 51'56	1.38731 AU
	874 Sep 30 j 04:37	0° ≈		evening rise	875 Aug 24 j 11:10	13° ≈ 44'19	
evening max el	874 Oct 16 j 10:52	20° ≈ 27'58	23°15'22	desc. node	875 Sep 02 j 21:50	29° ≈ 16'55	
retrograde	874 Oct 26 j 19:12	26° ≈ 35'44			875 Sep 03 j 08:51	0° ≈	
evening set	874 Oct 31 j 16:14	24° ≈ 35'58			875 Sep 25 j 04:01	0° ≈	
asc. node	874 Nov 03 j 22:52	21° ≈ 03'43		evening max el	875 Sep 28 j 23:10	4° ≈ 03'11	24°34'40
min. Earth dist.	874 Nov 05 j 17:15	18° ≈ 41'52	0.67724 AU	retrograde	875 Oct 10 j 09:24	10° ≈ 43'39	
inferior conj	874 Nov 06 j 02:02	18° ≈ 11'41	0°43'45	evening set	875 Oct 15 j 20:38	8° ≈ 26'38	
minimum elong	874 Nov 06 j 01:01	18° ≈ 15'10	0°43'19	min. Earth dist.	875 Oct 20 j 12:53	3° ≈ 06'19	0.67435 AU
morning rise	874 Nov 11 j 09:53	12° ≈ 00'43		inferior conj	875 Oct 21 j 08:07	2° ≈ 02'07	0°-10'-9
direct	874 Nov 15 j 14:40	10° ≈ 22'57		minimum elong	875 Oct 21 j 08:21	2° ≈ 01'17	0°10'04
morning max el	874 Nov 24 j 06:34	15° ≈ 26'43	21°21'40	transit middle	875 Oct 21 j 08:21	2° ≈ 01'17	0°10'04
greatest brilliancy	874 Nov 29 j 10:35	21° ≈ 21'51	-0.4m	transit begin	875 Oct 21 j 06:12	2° ≈ 08'29	
	874 Dec 05 j 21:33	0° ≈		transit end	875 Oct 21 j 10:31	1° ≈ 54'06	
desc. node	874 Dec 13 j 00:04	10° ≈ 15'55		asc. node	875 Oct 21 j 19:53	1° ≈ 22'54	
morning set	874 Dec 25 j 08:13	29° ≈ 07'53			875 Oct 22 j 21:23	30° ≈	
	874 Dec 25 j 21:24	0° ≈		morning rise	875 Oct 26 j 20:29	25° ≈ 56'56	

direct	875 Oct 30 j 12:15	24°♄40'06		morning rise	876 Oct 10 j 05:54	9°♄55'43	
morning max el	875 Nov 07 j 05:11	29°♄05'33	20°08'39	direct	876 Oct 13 j 10:46	8°♄56'33	
	875 Nov 08 j 02:05	0°♄		morning max el	876 Oct 20 j 11:15	12°♄53'20	19°09'46
greatest brilliancy	875 Nov 14 j 03:29	7°♄28'56	-0.6m		876 Nov 02 j 03:02	0°♄	
	875 Nov 29 j 11:35	0°♄		morning set	876 Nov 12 j 09:17	15°♄53'31	
desc. node	875 Nov 29 j 21:06	0°♄36'23		desc. node	876 Nov 15 j 18:07	21°♄09'07	
morning set	875 Dec 04 j 04:57	7°♄15'31			876 Nov 21 j 09:52	0°♄	
max. Earth dist.	875 Dec 15 j 00:28	24°♄14'45	1.43774 AU	max. Earth dist.	876 Nov 26 j 15:38	8°♄14'06	1.44789 AU
	875 Dec 18 j 14:08	0°♄					
superior conj	875 Dec 20 j 14:35	3°♄17'38	-1°-51'-32	superior conj	876 Nov 29 j 03:28	12°♄10'32	-1°-21'-18
minimum elong	875 Dec 20 j 08:34	2°♄52'59	1°51'10	minimum elong	876 Nov 28 j 18:56	11°♄36'43	1°20'26
evening rise	876 Jan 02 j 13:43	25°♄10'43			876 Dec 10 j 05:53	0°♄	
	876 Jan 05 j 08:37	0°♄		evening rise	876 Dec 13 j 23:40	6°♄07'27	
asc. node	876 Jan 17 j 19:12	19°♄48'26			876 Dec 28 j 22:32	0°♄	
evening max el	876 Jan 20 j 08:01	22°♄42'34	18°11'25	evening max el	877 Jan 02 j 20:07	6°♄05'15	18°32'40
retrograde	876 Jan 26 j 19:32	26°♄08'45		asc. node	877 Jan 03 j 16:14	6°♄54'03	
evening set	876 Jan 29 j 14:50	25°♄28'30		retrograde	877 Jan 09 j 10:08	9°♄43'23	
inferior conj	876 Feb 04 j 20:48	20°♄11'51	3°47'21	evening set	877 Jan 12 j 10:42	8°♄52'22	
minimum elong	876 Feb 04 j 20:35	20°♄12'27	3°47'20	inferior conj	877 Jan 18 j 08:13	3°♄16'50	3°37'55
min. Earth dist.	876 Feb 07 j 13:11	17°♄20'25	0.62881 AU	minimum elong	877 Jan 18 j 06:29	3°♄21'57	3°37'42
morning rise	876 Feb 11 j 00:18	14°♄11'00		min. Earth dist.	877 Jan 20 j 09:10	0°♄52'30	0.64619 AU
direct	876 Feb 17 j 23:36	11°♄31'00			877 Jan 21 j 03:41	30°♄	
desc. node	876 Feb 25 j 20:18	14°♄19'33		morning rise	877 Jan 24 j 00:58	27°♄08'45	
morning max el	876 Mar 02 j 21:57	19°♄25'20	27°46'31	direct	877 Jan 30 j 20:16	24°♄18'02	
	876 Mar 11 j 22:25	0°♄			877 Feb 11 j 01:54	0°♄	
	876 Mar 30 j 18:42	0°♄		desc. node	877 Feb 11 j 17:20	0°♄35'12	
morning set	876 Apr 05 j 23:04	11°♄56'04		morning max el	877 Feb 13 j 07:03	2°♄06'15	27°17'50
max. Earth dist.	876 Apr 11 j 10:53	23°♄20'30	1.32819 AU		877 Mar 06 j 03:29	0°♄	
				morning set	877 Mar 20 j 15:05	25°♄43'28	
superior conj	876 Apr 13 j 14:22	27°♄56'51	0°-12'-21		877 Mar 22 j 19:02	0°♄	
minimum elong	876 Apr 13 j 14:57	28°♄00'03	0°12'14	max. Earth dist.	877 Mar 25 j 09:45	5°♄18'15	1.33715 AU
behind sun begin	876 Apr 13 j 11:36	27°♄41'55					
behind sun end	876 Apr 13 j 18:19	28°♄18'12		superior conj	877 Mar 28 j 18:54	12°♄21'31	0°-39'-41
asc. node	876 Apr 14 j 18:30	0°♄29'06		minimum elong	877 Mar 28 j 20:51	12°♄31'50	0°39'18
	876 Apr 14 j 13:08	0°♄		asc. node	877 Apr 01 j 15:32	20°♄34'08	
evening rise	876 Apr 20 j 15:41	13°♄09'40		evening rise	877 Apr 05 j 02:40	27°♄54'30	
	876 Apr 29 j 04:47	0°♄			877 Apr 06 j 02:46	0°♄	
evening max el	876 May 14 j 08:51	21°♄07'26	23°40'09		877 Apr 24 j 09:58	0°♄	
desc. node	876 May 23 j 19:32	27°♄17'54		evening max el	877 Apr 26 j 01:53	1°♄42'18	22°05'09
retrograde	876 May 28 j 01:35	27°♄59'00		retrograde	877 May 08 j 19:37	7°♄57'57	
evening set	876 Jun 01 j 02:58	27°♄22'45		desc. node	877 May 10 j 16:34	7°♄50'06	
min. Earth dist.	876 Jun 07 j 19:28	24°♄14'36	0.56063 AU	evening set	877 May 11 j 14:25	7°♄40'47	
inferior conj	876 Jun 10 j 00:10	22°♄55'14	-4°-12'-36	inferior conj	877 May 20 j 23:12	3°♄35'06	-2°-50'00
minimum elong	876 Jun 09 j 17:44	23°♄04'57	4°11'24	minimum elong	877 May 20 j 16:04	3°♄45'07	2°47'50
morning rise	876 Jun 18 j 11:58	18°♄58'15		min. Earth dist.	877 May 20 j 07:40	3°♄56'56	0.55101 AU
direct	876 Jun 21 j 04:55	18°♄39'49			877 May 28 j 14:38	30°♄	
morning max el	876 Jul 01 j 09:54	23°♄23'23	20°04'22	morning rise	877 May 29 j 19:20	29°♄41'27	
	876 Jul 07 j 01:28	0°♄		direct	877 Jun 01 j 19:14	29°♄21'23	
asc. node	876 Jul 11 j 17:43	7°♄21'33			877 Jun 05 j 20:15	0°♄	
morning set	876 Jul 19 j 13:12	22°♄16'32		morning max el	877 Jun 13 j 15:28	4°♄54'04	21°27'49
	876 Jul 23 j 07:56	0°♄		asc. node	877 Jun 28 j 14:46	26°♄29'59	
superior conj	876 Jul 27 j 08:33	8°♄10'26	1°46'06		877 Jun 30 j 10:13	0°♄	
minimum elong	876 Jul 27 j 08:03	8°♄07'58	1°46'06	morning set	877 Jul 03 j 21:41	7°♄02'35	
max. Earth dist.	876 Aug 01 j 18:12	18°♄44'57	1.36785 AU	superior conj	877 Jul 11 j 07:06	22°♄31'52	1°40'12
evening rise	876 Aug 05 j 16:36	26°♄04'13		minimum elong	877 Jul 11 j 05:23	22°♄22'55	1°40'05
	876 Aug 07 j 21:09	0°♄			877 Jul 14 j 22:33	0°♄	
desc. node	876 Aug 19 j 18:52	19°♄38'08		max. Earth dist.	877 Jul 15 j 05:59	0°♄37'24	1.35117 AU
	876 Aug 26 j 20:43	0°♄		evening rise	877 Jul 19 j 16:11	9°♄17'17	
evening max el	876 Sep 10 j 10:54	17°♄41'27	25°46'46		877 Jul 31 j 10:17	0°♄	
retrograde	876 Sep 22 j 18:56	24°♄44'26		desc. node	877 Aug 06 j 15:53	9°♄39'54	
evening set	876 Sep 28 j 20:43	22°♄12'33			877 Aug 22 j 15:47	0°♄	
min. Earth dist.	876 Oct 03 j 05:02	17°♄28'05	0.66818 AU	evening max el	877 Aug 23 j 23:03	1°♄17'30	26°43'50
inferior conj	876 Oct 04 j 11:12	15°♄52'17	-1°-6'-32	retrograde	877 Sep 05 j 23:13	8°♄32'18	
minimum elong	876 Oct 04 j 12:54	15°♄46'51	1°05'50	evening set	877 Sep 12 j 14:24	5°♄50'32	
asc. node	876 Oct 07 j 16:55	12°♄02'36		min. Earth dist.	877 Sep 16 j 15:17	1°♄43'26	0.65857 AU
				inferior conj	877 Sep 18 j 09:22	29°♄38'52	-2°-3'-40

minimum elong	877 Sep 18 j 12:35	29° \mathbb{M} 29'21	2°02'26	minimum elong	878 Sep 02 j 04:45	13° \mathbb{M} 04'18	2°57'48
	877 Sep 18 j 02:15	30° \mathbb{R} \mathbb{M}		morning rise	878 Sep 08 j 12:18	7° \mathbb{M} 47'08	
morning rise	877 Sep 24 j 12:02	23° \mathbb{M} 54'13		direct	878 Sep 11 j 02:26	7° \mathbb{M} 12'23	
asc. node	877 Sep 24 j 13:57	23° \mathbb{M} 51'44		asc. node	878 Sep 11 j 11:01	7° \mathbb{M} 13'03	
direct	877 Sep 27 j 08:20	23° \mathbb{M} 09'02		morning max el	878 Sep 17 j 14:33	10° \mathbb{M} 39'54	18°00'48
morning max el	877 Oct 03 j 23:13	26° \mathbb{M} 46'45	18°26'52		878 Sep 30 j 19:31	0° \mathbb{L}	
	877 Oct 06 j 18:51	0° \mathbb{L}		morning set	878 Oct 05 j 02:10	7° \mathbb{L} 12'59	
morning set	877 Oct 23 j 15:32	25° \mathbb{L} 51'57					
	877 Oct 26 j 05:10	0° \mathbb{M}		superior conj	878 Oct 18 j 14:55	29° \mathbb{L} 34'23	0°12'35
desc. node	877 Nov 02 j 15:10	11° \mathbb{M} 50'18		minimum elong	878 Oct 18 j 16:24	29° \mathbb{L} 40'21	0°12'23
				behind sun begin	878 Oct 18 j 09:35	29° \mathbb{L} 12'56	
superior conj	877 Nov 08 j 04:22	20° \mathbb{M} 36'03	0°-36'-11	behind sun end	878 Oct 18 j 23:13	0° \mathbb{M} 07'44	
minimum elong	877 Nov 07 j 23:38	20° \mathbb{M} 17'29	0°35'34		878 Oct 18 j 21:17	0° \mathbb{M}	
max. Earth dist.	877 Nov 09 j 10:31	22° \mathbb{M} 34'39	1.45086 AU	desc. node	878 Oct 20 j 12:12	2° \mathbb{M} 35'56	
	877 Nov 14 j 03:59	0° \mathbb{J}		max. Earth dist.	878 Oct 23 j 05:23	6° \mathbb{M} 55'14	1.44639 AU
evening rise	877 Nov 24 j 10:06	16° \mathbb{J} 07'13		evening rise	878 Nov 04 j 00:40	25° \mathbb{M} 20'35	
	877 Dec 03 j 05:45	0° \mathbb{Z}			878 Nov 07 j 01:19	0° \mathbb{J}	
greatest brilliancy	877 Dec 07 j 00:04	5° \mathbb{Z} 48'32	-0.7m	greatest brilliancy	878 Nov 23 j 14:35	24° \mathbb{J} 36'11	-0.6m
evening max el	877 Dec 17 j 05:35	19° \mathbb{Z} 32'40	19°11'18		878 Nov 27 j 18:05	0° \mathbb{Z}	
asc. node	877 Dec 21 j 13:15	22° \mathbb{Z} 53'38		evening max el	878 Nov 30 j 10:26	3° \mathbb{Z} 01'13	20°05'39
retrograde	877 Dec 24 j 05:43	23° \mathbb{Z} 33'04		retrograde	878 Dec 08 j 03:25	7° \mathbb{Z} 32'26	
evening set	877 Dec 27 j 12:44	22° \mathbb{Z} 29'54		asc. node	878 Dec 08 j 10:18	7° \mathbb{Z} 31'58	
inferior conj	878 Jan 02 j 04:23	16° \mathbb{Z} 37'46	3°14'48	evening set	878 Dec 11 j 18:32	6° \mathbb{Z} 15'34	
minimum elong	878 Jan 02 j 01:51	16° \mathbb{Z} 45'51	3°14'16	inferior conj	878 Dec 17 j 06:26	0° \mathbb{Z} 09'49	2°41'29
min. Earth dist.	878 Jan 03 j 14:12	14° \mathbb{Z} 50'04	0.65974 AU	minimum elong	878 Dec 17 j 03:43	0° \mathbb{Z} 18'55	2°40'42
morning rise	878 Jan 07 j 14:06	10° \mathbb{Z} 25'12			878 Dec 17 j 09:21	30° \mathbb{R} \mathbb{J}	
direct	878 Jan 13 j 23:08	7° \mathbb{Z} 37'51		min. Earth dist.	878 Dec 18 j 02:39	29° \mathbb{J} 01'59	0.66926 AU
morning max el	878 Jan 26 j 16:40	15° \mathbb{Z} 08'26	26°20'18	morning rise	878 Dec 22 j 12:19	23° \mathbb{J} 54'49	
desc. node	878 Jan 29 j 14:23	18° \mathbb{Z} 14'14		direct	878 Dec 28 j 07:32	21° \mathbb{J} 21'15	
	878 Feb 07 j 21:58	0° \mathbb{X}		morning max el	879 Jan 09 j 01:31	28° \mathbb{J} 21'12	25°02'58
	878 Feb 26 j 22:28	0° \mathbb{X}			879 Jan 10 j 15:24	0° \mathbb{Z}	
morning set	878 Mar 03 j 18:47	8° \mathbb{X} 49'40		desc. node	879 Jan 16 j 11:25	6° \mathbb{Z} 52'07	
max. Earth dist.	878 Mar 07 j 21:31	16° \mathbb{X} 42'59	1.35066 AU		879 Feb 01 j 16:07	0° \mathbb{X}	
				morning set	879 Feb 14 j 05:10	21° \mathbb{X} 00'34	
superior conj	878 Mar 12 j 16:52	26° \mathbb{X} 21'31	-1°-6'-35	max. Earth dist.	879 Feb 17 j 22:23	27° \mathbb{X} 46'44	1.36840 AU
minimum elong	878 Mar 12 j 20:04	26° \mathbb{X} 37'58	1°06'02		879 Feb 19 j 02:56	0° \mathbb{X}	
	878 Mar 14 j 11:19	0° \mathbb{Y}					
asc. node	878 Mar 19 j 12:35	10° \mathbb{Y} 30'09		superior conj	879 Feb 24 j 05:19	9° \mathbb{X} 48'46	-1°-31'-12
evening rise	878 Mar 20 j 10:55	12° \mathbb{Y} 25'33		minimum elong	879 Feb 24 j 09:19	10° \mathbb{X} 08'27	1°30'42
	878 Mar 29 j 16:11	0° \mathbb{X}		evening rise	879 Mar 04 j 14:15	26° \mathbb{X} 36'14	
evening max el	878 Apr 08 j 03:57	12° \mathbb{X} 42'00	20°40'06	asc. node	879 Mar 06 j 09:38	0° \mathbb{Y} 12'36	
retrograde	878 Apr 19 j 08:36	18° \mathbb{X} 07'11			879 Mar 06 j 07:06	0° \mathbb{Y}	
evening set	878 Apr 21 j 12:15	17° \mathbb{X} 55'58		evening max el	879 Mar 21 j 17:33	24° \mathbb{Y} 20'18	19°32'16
desc. node	878 Apr 27 j 13:36	15° \mathbb{X} 43'17		retrograde	879 Mar 31 j 05:13	28° \mathbb{Y} 54'23	
inferior conj	878 Apr 30 j 17:21	13° \mathbb{X} 58'24	0°-54'-43	evening set	879 Apr 02 j 07:25	28° \mathbb{Y} 42'02	
minimum elong	878 Apr 30 j 14:45	14° \mathbb{X} 02'07	0°53'48	inferior conj	879 Apr 10 j 21:13	24° \mathbb{Y} 36'55	1°00'16
min. Earth dist.	878 May 01 j 20:26	13° \mathbb{X} 19'31	0.55054 AU	minimum elong	879 Apr 10 j 23:41	24° \mathbb{Y} 32'57	0°59'25
morning rise	878 May 09 j 16:00	9° \mathbb{X} 49'13		min. Earth dist.	879 Apr 13 j 10:57	22° \mathbb{Y} 58'22	0.55944 AU
direct	878 May 13 j 05:39	9° \mathbb{X} 21'46		desc. node	879 Apr 14 j 10:38	22° \mathbb{Y} 22'14	
morning max el	878 May 26 j 11:21	15° \mathbb{X} 45'31	23°05'33	morning rise	879 Apr 19 j 12:16	19° \mathbb{Y} 56'28	
	878 Jun 06 j 15:42	0° \mathbb{I}		direct	879 Apr 24 j 00:40	19° \mathbb{Y} 10'29	
asc. node	878 Jun 15 j 11:49	16° \mathbb{I} 02'53		morning max el	879 May 08 j 02:25	26° \mathbb{Y} 16'17	24°46'35
morning set	878 Jun 18 j 08:45	21° \mathbb{I} 57'23			879 May 11 j 15:36	0° \mathbb{X}	
	878 Jun 22 j 03:27	0° \mathbb{S}			879 May 30 j 11:56	0° \mathbb{I}	
superior conj	878 Jun 25 j 12:13	7° \mathbb{S} 13'22	1°28'28	asc. node	879 Jun 02 j 08:54	5° \mathbb{I} 53'32	
minimum elong	878 Jun 25 j 09:53	7° \mathbb{S} 00'50	1°28'11	morning set	879 Jun 02 j 20:44	6° \mathbb{I} 55'43	
max. Earth dist.	878 Jun 28 j 03:12	12° \mathbb{S} 47'02	1.33821 AU				
evening rise	878 Jul 03 j 05:14	23° \mathbb{S} 10'18		superior conj	879 Jun 09 j 21:32	22° \mathbb{I} 07'25	1°12'03
	878 Jul 06 j 17:59	0° \mathbb{Q}		minimum elong	879 Jun 09 j 19:06	21° \mathbb{I} 54'13	1°11'40
desc. node	878 Jul 24 j 12:55	29° \mathbb{Q} 13'22		max. Earth dist.	879 Jun 11 j 08:44	25° \mathbb{I} 18'19	1.32921 AU
	878 Jul 25 j 02:19	0° \mathbb{M}			879 Jun 13 j 13:14	0° \mathbb{S}	
evening max el	878 Aug 06 j 10:51	14° \mathbb{M} 40'14	27°18'21	evening rise	879 Jun 17 j 03:59	7° \mathbb{S} 32'31	
retrograde	878 Aug 19 j 21:48	21° \mathbb{M} 58'58			879 Jun 29 j 05:27	0° \mathbb{Q}	
evening set	878 Aug 26 j 23:04	19° \mathbb{M} 15'35		desc. node	879 Jul 11 j 09:57	18° \mathbb{Q} 06'46	
min. Earth dist.	878 Aug 30 j 17:17	15° \mathbb{M} 45'08	0.64538 AU	evening max el	879 Jul 19 j 20:22	27° \mathbb{Q} 37'36	27°24'04
inferior conj	878 Sep 02 j 00:16	13° \mathbb{M} 16'27	-2°-59'-17	retrograde	879 Jul 22 j 12:49	0° \mathbb{M}	
					879 Aug 02 j 14:22	4° \mathbb{M} 55'47	

evening set	879 Aug 09 j 19:22	2° $\mathring{\text{M}}$ 22'45		evening max el	880 Jul 01 j 01:18	9° $\mathring{\text{O}}$ 57'07	26°57'14
	879 Aug 12 j 17:38	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$		retrograde	880 Jul 14 j 23:51	17° $\mathring{\text{O}}$ 12'31	
min. Earth dist.	879 Aug 13 j 09:29	29° $\mathring{\text{O}}$ 23'23	0.62871 AU	evening set	880 Jul 21 j 22:57	15° $\mathring{\text{O}}$ 03'54	
inferior conj	879 Aug 16 j 05:11	26° $\mathring{\text{O}}$ 39'19	-3°-49'-52	min. Earth dist.	880 Jul 25 j 15:26	12° $\mathring{\text{O}}$ 23'50	0.60923 AU
minimum elong	879 Aug 16 j 10:13	26° $\mathring{\text{O}}$ 27'04	3°48'36	inferior conj	880 Jul 28 j 20:44	9° $\mathring{\text{O}}$ 38'52	-4°-29'-51
morning rise	879 Aug 23 j 03:34	21° $\mathring{\text{O}}$ 28'35		minimum elong	880 Jul 29 j 00:53	9° $\mathring{\text{O}}$ 30'00	4°29'15
direct	879 Aug 25 j 14:05	21° $\mathring{\text{O}}$ 01'05		morning rise	880 Aug 05 j 05:53	4° $\mathring{\text{O}}$ 49'28	
asc. node	879 Aug 29 j 08:05	22° $\mathring{\text{O}}$ 07'32		direct	880 Aug 07 j 15:30	4° $\mathring{\text{O}}$ 26'32	
morning max el	879 Sep 01 j 06:24	24° $\mathring{\text{O}}$ 26'49	17°52'27	morning max el	880 Aug 14 j 19:42	7° $\mathring{\text{O}}$ 59'18	18°02'54
	879 Sep 05 j 18:42	0° $\mathring{\text{M}}$		asc. node	880 Aug 15 j 05:09	8° $\mathring{\text{O}}$ 22'44	
morning set	879 Sep 17 j 12:10	19° $\mathring{\text{M}}$ 40'57			880 Aug 29 j 00:53	0° $\mathring{\text{M}}$	
	879 Sep 23 j 08:57	0° $\mathring{\text{A}}$		morning set	880 Aug 30 j 15:30	2° $\mathring{\text{M}}$ 58'45	
superior conj	879 Sep 29 j 02:17	9° $\mathring{\text{A}}$ 47'06	0°53'54	superior conj	880 Sep 09 j 16:33	21° $\mathring{\text{M}}$ 19'02	1°22'59
minimum elong	879 Sep 29 j 06:54	10° $\mathring{\text{A}}$ 06'29	0°53'18	minimum elong	880 Sep 09 j 20:52	21° $\mathring{\text{M}}$ 38'11	1°22'32
max. Earth dist.	879 Oct 05 j 20:44	20° $\mathring{\text{A}}$ 56'10	1.43518 AU		880 Sep 14 j 16:29	0° $\mathring{\text{A}}$	
desc. node	879 Oct 07 j 09:14	23° $\mathring{\text{A}}$ 22'59		max. Earth dist.	880 Sep 17 j 06:55	4° $\mathring{\text{A}}$ 23'11	1.41870 AU
	879 Oct 11 j 13:24	0° $\mathring{\text{M}}$		evening rise	880 Sep 23 j 02:22	13° $\mathring{\text{A}}$ 52'32	
evening rise	879 Oct 14 j 08:12	4° $\mathring{\text{M}}$ 20'28		desc. node	880 Sep 23 j 06:16	14° $\mathring{\text{A}}$ 08'09	
	879 Oct 31 j 12:20	0° $\mathring{\text{A}}$			880 Oct 03 j 12:55	0° $\mathring{\text{M}}$	
greatest brilliancy	879 Nov 08 j 04:37	10° $\mathring{\text{A}}$ 26'52	-0.4m	greatest brilliancy	880 Oct 21 j 08:47	24° $\mathring{\text{M}}$ 38'58	-0.3m
evening max el	879 Nov 13 j 09:38	16° $\mathring{\text{A}}$ 30'03	21°13'04	evening max el	880 Oct 26 j 03:25	0° $\mathring{\text{A}}$ 00'33	22°29'35
retrograde	879 Nov 22 j 00:57	21° $\mathring{\text{A}}$ 38'00			880 Oct 26 j 03:12	0° $\mathring{\text{A}}$	
asc. node	879 Nov 25 j 07:21	20° $\mathring{\text{A}}$ 38'14		retrograde	880 Nov 04 j 20:31	5° $\mathring{\text{A}}$ 46'58	
evening set	879 Nov 26 j 02:07	20° $\mathring{\text{A}}$ 05'41		evening set	880 Nov 09 j 09:44	3° $\mathring{\text{A}}$ 57'41	
inferior conj	879 Dec 01 j 12:01	13° $\mathring{\text{A}}$ 49'49	2°00'22	asc. node	880 Nov 11 j 04:23	2° $\mathring{\text{A}}$ 15'01	
minimum elong	879 Dec 01 j 09:39	13° $\mathring{\text{A}}$ 58'00	1°59'32		880 Nov 13 j 00:43	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
min. Earth dist.	879 Dec 01 j 20:15	13° $\mathring{\text{A}}$ 21'27	0.67502 AU	inferior conj	880 Nov 14 j 19:12	27° $\mathring{\text{M}}$ 35'29	1°13'10
morning rise	879 Dec 06 j 16:50	7° $\mathring{\text{A}}$ 34'28		minimum elong	880 Nov 14 j 17:35	27° $\mathring{\text{M}}$ 41'04	1°12'31
direct	879 Dec 11 j 20:54	5° $\mathring{\text{A}}$ 20'53		min. Earth dist.	880 Nov 14 j 16:31	27° $\mathring{\text{M}}$ 44'43	0.67732 AU
morning max el	879 Dec 22 j 10:14	11° $\mathring{\text{A}}$ 38'19	23°35'53	morning rise	880 Nov 20 j 01:17	21° $\mathring{\text{M}}$ 22'07	
desc. node	880 Jan 03 j 08:28	26° $\mathring{\text{A}}$ 11'47		direct	880 Nov 24 j 14:21	19° $\mathring{\text{M}}$ 31'06	
	880 Jan 06 j 02:04	0° $\mathring{\text{B}}$		morning max el	880 Dec 03 j 21:54	25° $\mathring{\text{M}}$ 00'52	22°08'45
	880 Jan 25 j 11:43	0° $\mathring{\text{A}}$			880 Dec 08 j 08:43	0° $\mathring{\text{A}}$	
morning set	880 Jan 26 j 15:56	1° $\mathring{\text{A}}$ 59'00		greatest brilliancy	880 Dec 08 j 13:48	0° $\mathring{\text{A}}$ 15'28	-0.4m
max. Earth dist.	880 Jan 30 j 17:17	8° $\mathring{\text{A}}$ 59'06	1.38911 AU	desc. node	880 Dec 20 j 05:29	16° $\mathring{\text{A}}$ 01'25	
					880 Dec 29 j 14:00	0° $\mathring{\text{B}}$	
superior conj	880 Feb 07 j 04:24	22° $\mathring{\text{A}}$ 32'46	-1°-50'-57	morning set	881 Jan 05 j 21:52	11° $\mathring{\text{B}}$ 33'01	
minimum elong	880 Feb 07 j 08:06	22° $\mathring{\text{A}}$ 50'05	1°50'42	max. Earth dist.	881 Jan 11 j 14:30	20° $\mathring{\text{B}}$ 55'10	1.41033 AU
	880 Feb 11 j 02:28	0° $\mathring{\text{H}}$			881 Jan 16 j 21:48	0° $\mathring{\text{A}}$	
evening rise	880 Feb 16 j 09:58	10° $\mathring{\text{H}}$ 18'41		superior conj	881 Jan 19 j 09:15	4° $\mathring{\text{A}}$ 21'53	-2°-2'-14
asc. node	880 Feb 21 j 06:42	19° $\mathring{\text{H}}$ 35'28		minimum elong	881 Jan 19 j 10:43	4° $\mathring{\text{A}}$ 28'26	2°02'12
	880 Feb 27 j 10:04	0° $\mathring{\text{Y}}$		evening rise	881 Jan 29 j 18:45	23° $\mathring{\text{A}}$ 25'15	
evening max el	880 Mar 03 j 17:24	6° $\mathring{\text{Y}}$ 35'35	18°44'04		881 Feb 02 j 07:53	0° $\mathring{\text{H}}$	
retrograde	880 Mar 11 j 18:22	10° $\mathring{\text{Y}}$ 30'11		asc. node	881 Feb 07 j 03:44	8° $\mathring{\text{H}}$ 32'19	
evening set	880 Mar 14 j 01:10	10° $\mathring{\text{Y}}$ 12'27		evening max el	881 Feb 15 j 00:37	19° $\mathring{\text{H}}$ 20'35	18°15'58
inferior conj	880 Mar 21 j 20:08	5° $\mathring{\text{Y}}$ 50'06	2°28'09	retrograde	881 Feb 22 j 02:13	22° $\mathring{\text{H}}$ 52'10	
minimum elong	880 Mar 22 j 00:20	5° $\mathring{\text{Y}}$ 42'15	2°27'02	evening set	881 Feb 24 j 14:18	22° $\mathring{\text{H}}$ 26'32	
min. Earth dist.	880 Mar 25 j 04:08	3° $\mathring{\text{Y}}$ 22'09	0.57584 AU	inferior conj	881 Mar 03 j 16:08	17° $\mathring{\text{H}}$ 42'55	3°21'23
morning rise	880 Mar 29 j 19:13	0° $\mathring{\text{Y}}$ 36'43		minimum elong	881 Mar 03 j 19:12	17° $\mathring{\text{H}}$ 36'16	3°20'53
desc. node	880 Mar 31 j 07:40	0° $\mathring{\text{Y}}$ 00'42		min. Earth dist.	881 Mar 07 j 01:49	14° $\mathring{\text{H}}$ 46'49	0.59636 AU
	880 Mar 31 j 08:31	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$		morning rise	881 Mar 10 j 20:33	12° $\mathring{\text{H}}$ 04'41	
direct	880 Apr 04 j 09:51	29° $\mathring{\text{H}}$ 19'07		direct	881 Mar 17 j 07:54	10° $\mathring{\text{H}}$ 09'53	
	880 Apr 08 j 12:21	0° $\mathring{\text{Y}}$		desc. node	881 Mar 18 j 04:41	10° $\mathring{\text{H}}$ 11'54	
morning max el	880 Apr 18 j 18:18	6° $\mathring{\text{Y}}$ 51'34	26°15'55	morning max el	881 Mar 31 j 15:16	17° $\mathring{\text{H}}$ 56'01	27°19'08
	880 May 05 j 21:31	0° $\mathring{\text{B}}$			881 Apr 10 j 17:02	0° $\mathring{\text{Y}}$	
morning set	880 May 17 j 07:55	21° $\mathring{\text{B}}$ 50'34			881 Apr 28 j 10:40	0° $\mathring{\text{B}}$	
asc. node	880 May 19 j 05:58	25° $\mathring{\text{B}}$ 55'15		morning set	881 May 01 j 16:36	6° $\mathring{\text{B}}$ 36'14	
	880 May 21 j 03:12	0° $\mathring{\text{H}}$		asc. node	881 May 06 j 03:00	16° $\mathring{\text{B}}$ 03'27	
superior conj	880 May 24 j 08:55	7° $\mathring{\text{H}}$ 05'48	0°51'51	superior conj	881 May 08 j 20:38	22° $\mathring{\text{B}}$ 02'31	0°28'36
minimum elong	880 May 24 j 06:53	6° $\mathring{\text{H}}$ 54'38	0°51'27	minimum elong	881 May 08 j 19:23	21° $\mathring{\text{B}}$ 55'40	0°28'20
max. Earth dist.	880 May 24 j 19:28	8° $\mathring{\text{H}}$ 03'46	1.32406 AU	max. Earth dist.	881 May 08 j 08:01	20° $\mathring{\text{B}}$ 53'16	1.32269 AU
evening rise	880 May 31 j 09:16	22° $\mathring{\text{H}}$ 12'57			881 May 12 j 11:45	0° $\mathring{\text{H}}$	
	880 Jun 04 j 05:22	0° $\mathring{\text{B}}$		evening rise	881 May 15 j 18:41	7° $\mathring{\text{H}}$ 03'41	
	880 Jun 22 j 08:51	0° $\mathring{\text{O}}$			881 May 27 j 19:33	0° $\mathring{\text{B}}$	
desc. node	880 Jun 27 j 06:58	6° $\mathring{\text{O}}$ 02'29					

evening max el	881 Jun 12 j 23:39	21°  31'25	25°58'17	evening rise	882 Apr 30 j 06:11	21°  57'31	
desc. node	881 Jun 14 j 03:59	22°  36'43			882 May 04 j 03:49	0°  II	
retrograde	881 Jun 27 j 00:20	28°  42'32			882 May 23 j 07:34	0°  ☿	
evening set	881 Jul 03 j 05:10	27°  09'47		evening max el	882 May 25 j 15:38	2°  24'01	24°34'27
min. Earth dist.	881 Jul 07 j 12:15	24°  32'06	0.58862 AU	desc. node	882 Jun 01 j 00:59	7°  21'40	
inferior conj	881 Jul 10 j 19:23	22°  05'37	-4°-50'-22	retrograde	882 Jun 08 j 13:43	9°  26'25	
minimum elong	881 Jul 10 j 20:24	22°  03'42	4°50'22	evening set	882 Jun 13 j 12:02	8°  31'45	
morning rise	881 Jul 18 j 15:11	17°  39'04		min. Earth dist.	882 Jun 19 j 02:51	5°  39'02	0.56957 AU
direct	881 Jul 21 j 02:29	17°  18'44		inferior conj	882 Jun 21 j 22:15	3°  50'38	-4°-38'-53
morning max el	881 Jul 29 j 03:18	21°  08'40	18°33'28	minimum elong	882 Jun 21 j 18:21	3°  56'58	4°38'29
asc. node	881 Aug 02 j 02:12	25°  04'31			882 Jun 29 j 06:52	30°  R II	
	881 Aug 04 j 23:38	0°  Ω		morning rise	882 Jun 30 j 04:24	29°  II 45'19	
morning set	881 Aug 14 j 07:11	16°  Ω 52'57		direct	882 Jul 02 j 19:08	29°  II 26'26	
	881 Aug 21 j 02:43	0°  ♊			882 Jul 06 j 04:09	0°  ☿	
superior conj	881 Aug 23 j 05:14	3°  ♊ 57'43	1°39'50	morning max el	882 Jul 12 j 02:17	3°  24'56	19°25'09
minimum elong	881 Aug 23 j 07:43	4°  ♊ 09'19	1°39'41	asc. node	882 Jul 19 j 23:15	13°  25'36	
max. Earth dist.	881 Aug 30 j 12:26	17°  ♊ 09'12	1.39910 AU		882 Jul 28 j 16:44	0°  Ω	
evening rise	881 Sep 03 j 18:53	24°  ♊ 27'23		morning set	882 Jul 29 j 07:32	1°  Ω 13'43	
	881 Sep 07 j 03:30	0°  ♋		superior conj	882 Aug 06 j 10:47	17°  Ω 27'45	1°46'18
desc. node	881 Sep 10 j 03:17	4°  ♋ 47'43		minimum elong	882 Aug 06 j 11:16	17°  Ω 30'07	1°46'18
	881 Sep 27 j 08:36	0°  ♌		max. Earth dist.	882 Aug 12 j 16:09	29°  Ω 18'05	1.37884 AU
evening max el	881 Oct 08 j 17:13	13°  ♌ 34'00	23°49'40		882 Aug 13 j 01:16	0°  ♊	
retrograde	881 Oct 19 j 12:47	19°  ♌ 56'04		evening rise	882 Aug 16 j 11:49	6°  ♊ 11'33	
evening set	881 Oct 24 j 15:45	17°  ♌ 49'00		desc. node	882 Aug 28 j 00:20	25°  ♊ 17'40	
asc. node	881 Oct 29 j 01:25	12°  ♌ 48'09			882 Aug 31 j 02:13	0°  ♋	
min. Earth dist.	881 Oct 29 j 12:59	12°  ♌ 09'03	0.67639 AU	evening max el	882 Sep 21 j 05:07	27°  ♋ 11'13	25°06'37
inferior conj	881 Oct 30 j 02:08	11°  ♌ 24'22	0°21'16		882 Sep 24 j 07:45	0°  ♌	
minimum elong	881 Oct 30 j 01:37	11°  ♌ 26'06	0°21'03	retrograde	882 Oct 03 j 00:55	4°  ♌ 02'00	
morning rise	881 Nov 04 j 11:39	5°  ♌ 15'32		evening set	882 Oct 08 j 18:33	1°  ♌ 38'04	
direct	881 Nov 08 j 10:48	3°  ♌ 46'46			882 Oct 10 j 11:01	30°  R ♋	
morning max el	881 Nov 16 j 15:57	8°  ♌ 32'45	20°49'04	min. Earth dist.	882 Oct 13 j 07:20	26°  ♋ 33'02	0.67221 AU
greatest brilliancy	881 Nov 22 j 10:47	15°  ♌ 18'37	-0.5m	inferior conj	882 Oct 14 j 07:09	25°  ♋ 15'02	0°-33'-51
	881 Dec 02 j 22:25	0°  ♌		minimum elong	882 Oct 14 j 08:00	25°  ♋ 12'15	0°33'31
desc. node	881 Dec 07 j 02:30	6°  ♌ 12'09		asc. node	882 Oct 15 j 22:26	23°  ♋ 09'09	
morning set	881 Dec 16 j 01:48	19°  ♌ 55'55		morning rise	882 Oct 19 j 22:02	19°  ♋ 13'23	
	881 Dec 22 j 10:41	0°  ♍		direct	882 Oct 23 j 08:57	18°  ♋ 04'30	
max. Earth dist.	881 Dec 24 j 19:16	3°  ♍ 48'14	1.42912 AU	morning max el	882 Oct 30 j 17:55	22°  ♋ 16'02	19°41'45
superior conj	881 Dec 31 j 14:23	15°  ♍ 02'34	-2°00'-23		882 Nov 06 j 02:52	0°  ♌	
minimum elong	881 Dec 31 j 11:21	14°  ♍ 49'47	2°00'17	greatest brilliancy	882 Nov 07 j 19:34	2°  ♌ 21'02	-0.6m
	882 Jan 09 j 06:19	0°  ♎		desc. node	882 Nov 23 j 23:33	26°  ♌ 38'27	
evening rise	882 Jan 12 j 12:37	5°  ♎ 46'58		morning set	882 Nov 24 j 22:37	28°  ♌ 07'35	
asc. node	882 Jan 25 j 00:45	26°  ♎ 54'16			882 Nov 26 j 03:40	0°  ♏	
	882 Jan 27 j 08:00	0°  ♏		max. Earth dist.	882 Dec 07 j 07:30	17°  ♏ 29'00	1.44292 AU
evening max el	882 Jan 29 j 11:56	2°  ♏ 25'25	18°07'34	superior conj	882 Dec 11 j 16:50	24°  ♏ 30'08	-1°-40'-58
retrograde	882 Feb 05 j 01:39	5°  ♏ 49'41		minimum elong	882 Dec 11 j 09:04	23°  ♏ 58'54	1°40'20
evening set	882 Feb 07 j 18:24	5°  ♏ 14'55			882 Dec 15 j 02:12	0°  ♏	
inferior conj	882 Feb 14 j 06:34	0°  ♏ 09'41	3°44'39	evening rise	882 Dec 25 j 11:22	17°  ♏ 16'33	
minimum elong	882 Feb 14 j 07:30	0°  ♏ 07'22	3°44'36		883 Jan 02 j 00:34	0°  ♎	
	882 Feb 14 j 10:26	30°  R ♏		asc. node	883 Jan 11 j 21:46	14°  ♎ 31'02	
min. Earth dist.	882 Feb 17 j 06:46	27°  ♎ 10'28	0.61746 AU	evening max el	883 Jan 13 j 00:25	15°  ♎ 42'39	18°18'13
morning rise	882 Feb 20 j 18:06	24°  ♎ 15'15		retrograde	883 Jan 19 j 12:02	19°  ♎ 12'48	
direct	882 Feb 27 j 15:55	21°  ♎ 48'35		evening set	883 Jan 22 j 09:28	18°  ♎ 28'03	
desc. node	882 Mar 05 j 01:42	23°  ♎ 08'28		inferior conj	883 Jan 28 j 11:26	13°  ♎ 02'49	3°45'17
morning max el	882 Mar 13 j 18:31	29°  ♎ 41'06	27°47'21	minimum elong	883 Jan 28 j 10:30	13°  ♎ 05'28	3°45'14
	882 Mar 14 j 02:05	0°  ♏		min. Earth dist.	883 Jan 30 j 21:14	10°  ♎ 21'27	0.63659 AU
	882 Apr 04 j 15:51	0°  ♏		morning rise	883 Feb 03 j 09:51	6°  ♎ 58'17	
morning set	882 Apr 15 j 20:50	21°  ♏ 06'05		direct	883 Feb 10 j 08:11	4°  ♎ 12'13	
	882 Apr 20 j 02:51	0°  ♏		desc. node	883 Feb 19 j 22:44	8°  ♎ 21'39	
max. Earth dist.	882 Apr 21 j 18:32	3°  ♏ 33'31	1.32506 AU	morning max el	883 Feb 24 j 02:28	12°  ♎ 05'04	27°38'29
superior conj	882 Apr 23 j 07:00	6°  ♏ 51'39	0°03'05		883 Mar 10 j 09:07	0°  ♏	
minimum elong	882 Apr 23 j 06:51	6°  ♏ 50'51	0°03'04		883 Mar 28 j 02:22	0°  ♏	
behind sun begin	882 Apr 23 j 01:49	6°  ♏ 23'26		morning set	883 Mar 30 j 18:13	5°  ♏ 11'53	
behind sun end	882 Apr 23 j 11:53	7°  ♏ 18'18		max. Earth dist.	883 Apr 04 j 22:55	15°  ♏ 50'39	1.33143 AU
asc. node	882 Apr 23 j 00:03	6°  ♏ 13'47		superior conj	883 Apr 07 j 14:14	21°  ♏ 26'54	0°-23'-54

minimum elong	883 Apr 07 j 15:24	21° Υ 33'09	0°23'40	minimum elong	884 Mar 21 j 18:50	5° Υ 55'19	0°50'46
asc. node	883 Apr 09 j 21:05	26° Υ 21'53		asc. node	884 Mar 26 j 18:08	16° Υ 23'46	
	883 Apr 11 j 13:33	0° \mathcal{B}		evening rise	884 Mar 29 j 03:59	21° Υ 27'16	
evening rise	883 Apr 14 j 17:53	6° \mathcal{B} 47'25			884 Apr 02 j 09:08	0° \mathcal{B}	
	883 Apr 27 j 02:58	0° Π		evening max el	884 Apr 18 j 02:15	23° \mathcal{B} 38'52	21°27'20
evening max el	883 May 07 j 05:59	12° Π 55'47	22°59'13	retrograde	884 Apr 30 j 06:02	29° \mathcal{B} 34'42	
desc. node	883 May 18 j 22:01	19° Π 28'36		evening set	884 May 02 j 15:57	29° \mathcal{B} 21'26	
retrograde	883 May 20 j 14:54	19° Π 35'12		desc. node	884 May 04 j 19:01	28° \mathcal{B} 49'10	
evening set	883 May 24 j 02:04	19° Π 08'51		inferior conj	884 May 12 j 01:02	25° \mathcal{B} 21'06	-2°-3'-29
min. Earth dist.	883 May 31 j 15:04	15° Π 47'13	0.55549 AU	minimum elong	884 May 11 j 19:23	25° \mathcal{B} 29'03	2°01'35
inferior conj	883 Jun 02 j 05:43	14° Π 51'14	-3°-43'-4	min. Earth dist.	884 May 12 j 03:43	25° \mathcal{B} 17'20	0.54954 AU
minimum elong	883 Jun 01 j 22:17	15° Π 02'02	3°41'17	morning rise	884 May 20 j 23:13	21° \mathcal{B} 23'00	
morning rise	883 Jun 10 j 21:31	10° Π 58'13		direct	884 May 24 j 03:33	21° \mathcal{B} 00'56	
direct	883 Jun 13 j 16:50	10° Π 39'37		morning max el	884 Jun 05 j 15:47	26° \mathcal{B} 56'23	22°08'06
morning max el	883 Jun 24 j 14:32	15° Π 42'36	20°37'42		884 Jun 08 j 14:55	0° Π	
	883 Jul 05 j 06:33	0° \mathfrak{S}		asc. node	884 Jun 22 j 17:24	22° Π 06'18	
asc. node	883 Jul 06 j 20:18	2° \mathfrak{S} 46'19		morning set	884 Jun 26 j 23:31	0° \mathfrak{S} 42'56	
morning set	883 Jul 13 j 13:42	15° \mathfrak{S} 52'22			884 Jun 26 j 15:16	0° \mathfrak{S}	
	883 Jul 20 j 09:52	0° Ω					
superior conj	883 Jul 21 j 04:16	1° Ω 34'02	1°44'25	superior conj	884 Jul 04 j 06:00	16° \mathfrak{S} 05'32	1°35'52
minimum elong	883 Jul 21 j 03:10	1° Ω 28'30	1°44'22	minimum elong	884 Jul 04 j 03:57	15° \mathfrak{S} 54'42	1°35'41
max. Earth dist.	883 Jul 25 j 23:15	11° Ω 07'54	1.36033 AU	max. Earth dist.	884 Jul 07 j 14:41	23° \mathfrak{S} 05'00	1.34519 AU
evening rise	883 Jul 30 j 01:35	18° Ω 55'45			884 Jul 11 j 01:14	0° Ω	
	883 Aug 05 j 06:21	0° \mathfrak{M}		evening rise	884 Jul 12 j 07:28	2° Ω 27'43	
desc. node	883 Aug 14 j 21:22	15° \mathfrak{M} 31'42			884 Jul 28 j 04:02	0° \mathfrak{M}	
	883 Aug 25 j 05:15	0° \mathfrak{A}		desc. node	884 Jul 31 j 18:23	5° \mathfrak{M} 22'38	
evening max el	883 Sep 03 j 16:50	10° \mathfrak{A} 48'55	26°13'10	evening max el	884 Aug 16 j 04:53	24° \mathfrak{M} 20'27	27°01'34
retrograde	883 Sep 16 j 08:24	17° \mathfrak{A} 58'34			884 Aug 23 j 14:54	0° \mathfrak{A}	
evening set	883 Sep 22 j 16:13	15° \mathfrak{A} 21'19		retrograde	884 Aug 29 j 10:34	1° \mathfrak{A} 38'28	
min. Earth dist.	883 Sep 26 j 21:12	10° \mathfrak{A} 52'54	0.66458 AU		884 Sep 03 j 18:07	30° \mathfrak{R} \mathfrak{M}	
inferior conj	883 Sep 28 j 08:25	9° \mathfrak{A} 04'06	-1°-30'-48	evening set	884 Sep 05 j 06:28	28° \mathfrak{M} 54'45	
minimum elong	883 Sep 28 j 10:46	8° \mathfrak{A} 56'49	1°29'51	min. Earth dist.	884 Sep 09 j 04:19	25° \mathfrak{M} 03'23	0.65341 AU
asc. node	883 Oct 02 j 19:28	4° \mathfrak{A} 13'43		inferior conj	884 Sep 11 j 03:49	22° \mathfrak{M} 47'36	-2°-27'-39
morning rise	883 Oct 04 j 06:22	3° \mathfrak{A} 12'28		minimum elong	884 Sep 11 j 07:37	22° \mathfrak{M} 36'43	2°26'15
direct	883 Oct 07 j 07:13	2° \mathfrak{A} 19'52		morning rise	884 Sep 17 j 10:21	17° \mathfrak{M} 09'02	
morning max el	883 Oct 14 j 02:53	6° \mathfrak{A} 07'26	18°49'29	asc. node	884 Sep 18 j 16:33	16° \mathfrak{M} 40'31	
	883 Oct 30 j 22:04	0° \mathfrak{M}		direct	884 Sep 20 j 03:35	16° \mathfrak{M} 28'52	
morning set	883 Nov 04 j 12:43	7° \mathfrak{M} 16'44		morning max el	884 Sep 26 j 16:38	20° \mathfrak{M} 01'33	18°13'33
desc. node	883 Nov 10 j 20:37	17° \mathfrak{M} 15'27			884 Oct 04 j 06:17	0° \mathfrak{A}	
	883 Nov 18 j 23:17	0° \mathfrak{J}		morning set	884 Oct 15 j 07:22	17° \mathfrak{A} 51'20	
max. Earth dist.	883 Nov 20 j 00:30	1° \mathfrak{J} 39'05	1.45004 AU		884 Oct 22 j 18:09	0° \mathfrak{M}	
				desc. node	884 Oct 27 j 17:40	7° \mathfrak{M} 58'56	
superior conj	883 Nov 20 j 22:15	3° \mathfrak{J} 04'35	-1°-3'-25	superior conj	884 Oct 30 j 00:41	11° \mathfrak{M} 37'16	0°-15'-10
minimum elong	883 Nov 20 j 14:36	2° \mathfrak{J} 34'32	1°02'32	minimum elong	884 Oct 29 j 22:43	11° \mathfrak{M} 29'30	0°14'55
evening rise	883 Dec 06 j 11:23	27° \mathfrak{J} 48'53		behind sun begin	884 Oct 29 j 18:19	11° \mathfrak{M} 12'03	
	883 Dec 07 j 19:53	0° \mathfrak{Z}		behind sun end	884 Oct 30 j 03:07	11° \mathfrak{M} 46'57	
evening max el	883 Dec 27 j 11:35	29° \mathfrak{Z} 07'29	18°47'04	max. Earth dist.	884 Nov 01 j 19:11	15° \mathfrak{M} 59'44	1.44984 AU
	883 Dec 28 j 09:07	0° \approx			884 Nov 10 j 17:53	0° \mathfrak{J}	
asc. node	883 Dec 29 j 18:46	1° \approx 10'21		evening rise	884 Nov 15 j 12:20	7° \mathfrak{J} 25'52	
retrograde	884 Jan 03 j 05:14	2° \approx 54'23			884 Nov 30 j 04:43	0° \mathfrak{Z}	
evening set	884 Jan 06 j 08:16	1° \approx 58'31		greatest brilliancy	884 Dec 01 j 11:43	1° \mathfrak{Z} 53'33	-0.7m
	884 Jan 08 j 19:50	30° \mathfrak{R} \mathfrak{Z}		evening max el	884 Dec 09 j 19:17	12° \mathfrak{Z} 35'40	19°32'43
inferior conj	884 Jan 12 j 02:59	26° \mathfrak{Z} 15'34	3°29'32	asc. node	884 Dec 15 j 15:49	16° \mathfrak{Z} 37'06	
minimum elong	884 Jan 12 j 00:50	26° \mathfrak{Z} 22'10	3°29'12	retrograde	884 Dec 17 j 01:57	16° \mathfrak{Z} 48'21	
min. Earth dist.	884 Jan 13 j 21:24	24° \mathfrak{Z} 05'50	0.65236 AU	evening set	884 Dec 20 j 12:08	15° \mathfrak{Z} 39'45	
morning rise	884 Jan 17 j 16:17	20° \mathfrak{Z} 05'00		inferior conj	884 Dec 26 j 01:58	9° \mathfrak{Z} 41'41	3°01'44
direct	884 Jan 24 j 07:41	17° \mathfrak{Z} 14'04		minimum elong	884 Dec 25 j 23:17	9° \mathfrak{Z} 50'26	3°01'05
morning max el	884 Feb 06 j 12:17	24° \mathfrak{Z} 57'24	26°56'29	min. Earth dist.	884 Dec 27 j 05:54	8° \mathfrak{Z} 10'28	0.66427 AU
desc. node	884 Feb 06 j 19:47	25° \mathfrak{Z} 16'22		morning rise	884 Dec 31 j 09:41	3° \mathfrak{Z} 27'45	
	884 Feb 11 j 02:43	0° \approx		direct	885 Jan 06 j 13:13	0° \mathfrak{Z} 44'53	
	884 Mar 02 j 19:47	0° \mathfrak{H}		morning max el	885 Jan 18 j 21:27	8° \mathfrak{Z} 04'35	25°49'10
morning set	884 Mar 13 j 05:35	18° \mathfrak{H} 43'55		desc. node	885 Jan 23 j 16:51	13° \mathfrak{Z} 22'53	
max. Earth dist.	884 Mar 17 j 17:18	27° \mathfrak{H} 34'12	1.34223 AU		885 Feb 05 j 01:40	0° \approx	
	884 Mar 18 j 22:02	0° Υ			885 Feb 23 j 07:16	0° \mathfrak{H}	
superior conj	884 Mar 21 j 16:19	5° Υ 42'11	0°-51'-14	morning set	885 Feb 24 j 02:34	1° \mathfrak{H} 28'15	
				max. Earth dist.	885 Feb 27 j 23:39	8° \mathfrak{H} 45'00	1.35767 AU

superior conj	885 Mar 05 j 10:37	19° ✕ 29'08	-1°-17'-26	morning set	886 Feb 06 j 03:35	13° ≈ 09'52	
minimum elong	885 Mar 05 j 14:15	19° ✕ 47'27	1°16'54	max. Earth dist.	886 Feb 09 j 21:01	19° ≈ 47'46	1.37705 AU
	885 Mar 10 j 14:10	0° ∇			886 Feb 15 j 08:39	0° ✕	
evening rise	885 Mar 13 j 10:23	5° ∇ 49'54					
asc. node	885 Mar 13 j 15:10	6° ∇ 14'18		superior conj	886 Feb 16 j 17:53	2° ✕ 39'25	-1°-40'-22
	885 Mar 27 j 02:58	0° ✕		minimum elong	886 Feb 16 j 21:56	2° ✕ 58'57	1°39'57
evening max el	885 Mar 31 j 09:16	4° ✕ 54'20	20°09'02	evening rise	886 Feb 25 j 10:47	19° ✕ 49'17	
retrograde	885 Apr 10 j 20:12	9° ✕ 56'26		asc. node	886 Feb 28 j 12:12	25° ✕ 48'56	
evening set	885 Apr 12 j 21:59	9° ✕ 45'25			886 Mar 02 j 17:13	0° ∇	
inferior conj	885 Apr 21 j 21:35	5° ✕ 46'47	0°-3'-59	evening max el	886 Mar 14 j 03:30	16° ∇ 48'37	19°09'14
minimum elong	885 Apr 21 j 21:24	5° ✕ 47'03	0°03'55	retrograde	886 Mar 22 j 22:49	21° ∇ 03'42	
transit middle	885 Apr 21 j 21:24	5° ✕ 47'03	0°03'55	evening set	886 Mar 25 j 02:56	20° ∇ 49'18	
transit begin	885 Apr 21 j 17:31	5° ✕ 52'51		inferior conj	886 Apr 02 j 08:42	16° ∇ 37'30	1°41'46
transit end	885 Apr 22 j 01:17	5° ✕ 41'15		minimum elong	886 Apr 02 j 12:22	16° ∇ 31'14	1°40'37
desc. node	885 Apr 21 j 16:03	5° ✕ 55'02		min. Earth dist.	886 Apr 05 j 08:24	14° ∇ 36'08	0.56574 AU
min. Earth dist.	885 Apr 23 j 17:20	4° ✕ 41'42	0.55323 AU	desc. node	886 Apr 08 j 13:05	12° ∇ 42'16	
morning rise	885 Apr 30 j 18:14	1° ✕ 25'18		morning rise	886 Apr 10 j 17:44	11° ∇ 42'51	
direct	885 May 04 j 16:51	0° ✕ 51'21		direct	886 Apr 15 j 17:40	10° ∇ 44'47	
morning max el	885 May 18 j 08:44	7° ✕ 35'11	23°48'54	morning max el	886 Apr 29 j 23:10	18° ∇ 02'56	25°27'03
	885 Jun 03 j 12:13	0° ∏			886 May 09 j 20:57	0° ✕	
asc. node	885 Jun 09 j 14:29	11° ∏ 47'14		morning set	886 May 26 j 22:58	0° ∏ 36'33	
morning set	885 Jun 11 j 11:10	15° ∏ 39'29			886 May 26 j 16:01	0° ∏	
	885 Jun 18 j 03:20	0° ☾		asc. node	886 May 27 j 11:31	1° ∏ 42'49	
superior conj	885 Jun 18 j 13:09	0° ☾ 53'00	1°22'01	superior conj	886 Jun 02 j 23:30	15° ∏ 48'58	1°03'53
minimum elong	885 Jun 18 j 10:43	0° ☾ 39'50	1°21'42	minimum elong	886 Jun 02 j 21:12	15° ∏ 36'20	1°03'29
max. Earth dist.	885 Jun 20 j 15:38	5° ☾ 23'32	1.33391 AU	max. Earth dist.	886 Jun 03 j 23:56	18° ∏ 02'25	1.32655 AU
evening rise	885 Jun 26 j 01:04	16° ☾ 34'31			886 Jun 09 j 14:17	0° ☾	
	885 Jul 03 j 01:46	0° ♈		evening rise	886 Jun 10 j 02:53	1° ☾ 05'13	
desc. node	885 Jul 18 j 15:23	24° ♈ 40'47			886 Jun 26 j 01:24	0° ♈	
	885 Jul 22 j 18:05	0° ♐		desc. node	886 Jul 05 j 12:24	13° ♈ 11'58	
evening max el	885 Jul 29 j 16:14	7° ♐ 35'06	27°24'41	evening max el	886 Jul 12 j 00:17	20° ♈ 18'16	27°16'52
retrograde	885 Aug 12 j 06:46	14° ♐ 53'42		retrograde	886 Jul 25 j 20:07	27° ♈ 34'31	
evening set	885 Aug 19 j 10:22	12° ♐ 13'29		evening set	886 Aug 02 j 00:06	25° ♈ 10'20	
min. Earth dist.	885 Aug 23 j 02:31	8° ♐ 56'54	0.63869 AU	min. Earth dist.	886 Aug 05 j 14:15	22° ♈ 21'03	0.62070 AU
inferior conj	885 Aug 25 j 14:54	6° ♐ 20'32	-3°-21'-38	inferior conj	886 Aug 08 j 14:34	19° ♈ 34'48	-4°-8'-34
minimum elong	885 Aug 25 j 19:45	6° ♐ 07'58	3°20'11	minimum elong	886 Aug 08 j 19:27	19° ♈ 23'31	4°07'32
morning rise	885 Sep 01 j 07:13	0° ♐ 58'23		morning rise	886 Aug 15 j 17:29	14° ♈ 32'40	
direct	885 Sep 03 j 19:28	0° ♐ 27'03		direct	886 Aug 18 j 03:25	14° ♈ 07'15	
asc. node	885 Sep 05 j 13:39	0° ♐ 42'38		asc. node	886 Aug 23 j 10:43	16° ♈ 13'18	
morning max el	885 Sep 10 j 08:31	3° ♐ 53'01	17°54'55	morning max el	886 Aug 24 j 23:36	17° ♈ 34'36	17°54'32
morning set	885 Sep 27 j 04:49	29° ♐ 44'01			886 Sep 02 j 20:23	0° ♐	
	885 Sep 27 j 08:32	0° ♑		morning set	886 Sep 09 j 22:56	12° ♐ 35'41	
					886 Sep 19 j 17:50	0° ♑	
superior conj	885 Oct 09 j 20:47	21° ♑ 04'50	0°31'27	superior conj	886 Sep 20 j 19:54	1° ♑ 52'21	1°07'47
minimum elong	885 Oct 10 j 00:06	21° ♑ 18'23	0°30'59	minimum elong	886 Sep 21 j 00:43	2° ♑ 12'59	1°07'14
desc. node	885 Oct 14 j 14:42	28° ♑ 45'49		max. Earth dist.	886 Sep 28 j 02:58	14° ♑ 05'54	1.42877 AU
	885 Oct 15 j 09:15	0° ♒		desc. node	886 Oct 01 j 11:43	19° ♑ 32'35	
max. Earth dist.	885 Oct 15 j 12:59	0° ♒ 14'52	1.44244 AU	evening rise	886 Oct 05 j 08:01	25° ♑ 38'06	
evening rise	885 Oct 25 j 21:55	16° ♒ 29'05			886 Oct 08 j 03:24	0° ♒	
	885 Nov 03 j 19:05	0° ♊			886 Oct 28 j 18:44	0° ♊	
greatest brilliancy	885 Nov 16 j 21:57	18° ♊ 53'47	-0.5m	greatest brilliancy	886 Oct 31 j 22:44	4° ♊ 04'05	-0.4m
evening max el	885 Nov 22 j 21:56	26° ♊ 05'21	20°32'58	evening max el	886 Nov 05 j 18:46	9° ♊ 35'00	21°44'42
	885 Nov 27 j 19:37	0° ☾		retrograde	886 Nov 14 j 20:32	14° ♊ 58'52	
retrograde	885 Nov 30 j 23:42	0° ☾ 51'09		evening set	886 Nov 19 j 02:43	13° ♊ 19'16	
asc. node	885 Dec 02 j 12:52	0° ☾ 37'36		asc. node	886 Nov 19 j 09:55	13° ♊ 04'34	
	885 Dec 03 j 23:22	30° ♋		inferior conj	886 Nov 24 j 12:15	7° ♊ 00'14	1°40'59
evening set	885 Dec 04 j 18:55	29° ♊ 27'55		minimum elong	886 Nov 24 j 10:10	7° ♊ 07'29	1°40'11
inferior conj	885 Dec 10 j 05:47	23° ♊ 17'40	2°24'53	min. Earth dist.	886 Nov 24 j 15:41	6° ♊ 48'24	0.67651 AU
minimum elong	885 Dec 10 j 03:09	23° ♊ 26'36	2°24'02	morning rise	886 Nov 29 j 17:22	0° ♊ 45'42	
min. Earth dist.	885 Dec 10 j 20:46	22° ♊ 26'44	0.67224 AU		886 Nov 30 j 17:07	30° ♋	
morning rise	885 Dec 15 j 10:55	17° ♊ 02'28		direct	886 Dec 04 j 14:58	28° ♋ 41'47	
direct	885 Dec 20 j 23:54	14° ♊ 36'43			886 Dec 08 j 22:16	0° ♊	
morning max el	886 Jan 01 j 05:46	21° ♊ 19'00	24°26'25	morning max el	886 Dec 14 j 15:22	4° ♊ 38'22	22°58'17
	886 Jan 08 j 18:23	0° ☾		greatest brilliancy	886 Dec 19 j 09:29	9° ♊ 57'06	-0.3m
desc. node	886 Jan 10 j 13:54	2° ☾ 20'29		desc. node	886 Dec 28 j 10:56	21° ♊ 54'04	
	886 Jan 29 j 07:52	0° ≈					

	887 Jan 03 j 01:40	0°☿		morning max el	887 Nov 27 j 05:36	18°☿05'22	21°33'31
morning set	887 Jan 18 j 02:26	23°☿32'46		greatest brilliancy	887 Dec 02 j 05:41	23°☿47'15	-0.4m
	887 Jan 21 j 22:23	0°☿			887 Dec 06 j 23:33	0°☿	
max. Earth dist.	887 Jan 22 j 16:30	1°☿17'44	1.39832 AU	desc. node	887 Dec 15 j 07:58	11°☿53'36	
					887 Dec 27 j 05:24	0°☿	
superior conj	887 Jan 30 j 09:49	15°☿01'35	-1°-57'-2	morning set	887 Dec 28 j 20:09	2°☿32'52	
minimum elong	887 Jan 30 j 12:51	15°☿15'30	1°56'53	max. Earth dist.	888 Jan 04 j 16:35	13°☿37'56	1.41879 AU
	887 Feb 07 j 08:54	0°☿					
evening rise	887 Feb 09 j 02:16	3°☿17'46		superior conj	888 Jan 12 j 05:09	26°☿22'38	-2°-3'-20
asc. node	887 Feb 15 j 09:14	15°☿01'50		minimum elong	888 Jan 12 j 04:57	26°☿21'47	2°03'21
evening max el	887 Feb 25 j 06:47	29°☿17'25	18°29'36		888 Jan 14 j 06:50	0°☿	
	887 Feb 26 j 01:13	0°☿		evening rise	888 Jan 23 j 05:15	16°☿06'32	
retrograde	887 Mar 04 j 20:26	3°☿00'32			888 Jan 30 j 23:28	0°☿	
evening set	887 Mar 07 j 05:29	2°☿39'40		asc. node	888 Feb 02 j 06:15	3°☿45'11	
	887 Mar 12 j 06:20	30°☿		evening max el	888 Feb 08 j 16:03	12°☿11'42	18°10'00
inferior conj	887 Mar 14 j 16:44	28°☿08'05	2°54'53	retrograde	888 Feb 15 j 11:31	15°☿38'46	
minimum elong	887 Mar 14 j 20:41	28°☿00'11	2°54'00	evening set	888 Feb 18 j 01:29	15°☿09'31	
min. Earth dist.	887 Mar 18 j 03:00	25°☿25'22	0.58426 AU	inferior conj	888 Feb 24 j 21:04	10°☿16'43	3°34'29
morning rise	887 Mar 22 j 07:52	22°☿42'53		minimum elong	888 Feb 24 j 23:15	10°☿11'40	3°34'14
desc. node	887 Mar 26 j 10:06	21°☿19'24		min. Earth dist.	888 Feb 28 j 03:43	7°☿16'02	0.60538 AU
direct	887 Mar 28 j 08:11	21°☿09'51		morning rise	888 Mar 02 j 17:51	4°☿30'17	
morning max el	887 Apr 11 j 17:01	28°☿49'01	26°46'53	direct	888 Mar 09 j 10:46	2°☿20'38	
	887 Apr 12 j 21:18	0°☿		desc. node	888 Mar 12 j 07:08	2°☿42'43	
	887 May 03 j 12:51	0°☿		morning max el	888 Mar 23 j 16:56	10°☿11'12	27°35'45
morning set	887 May 11 j 09:19	15°☿28'47			888 Apr 08 j 01:33	0°☿	
asc. node	887 May 14 j 08:32	21°☿48'06		morning set	888 Apr 24 j 16:21	0°☿08'51	
					888 Apr 24 j 14:38	0°☿	
superior conj	887 May 18 j 11:13	0°☿47'37	0°42'18	asc. node	888 Apr 30 j 05:33	11°☿57'48	
minimum elong	887 May 18 j 09:29	0°☿38'02	0°41'58	max. Earth dist.	888 May 01 j 00:07	13°☿39'04	1.32315 AU
	887 May 18 j 02:34	0°☿					
max. Earth dist.	887 May 18 j 12:03	0°☿52'10	1.32298 AU	superior conj	888 May 01 j 22:33	15°☿41'54	0°18'01
evening rise	887 May 25 j 10:11	15°☿51'09		minimum elong	888 May 01 j 21:44	15°☿37'27	0°17'50
	887 Jun 01 j 13:01	0°☿		evening rise	888 May 08 j 20:41	0°☿43'50	
	887 Jun 21 j 19:25	0°☿			888 May 08 j 12:25	0°☿	
desc. node	887 Jun 22 j 09:25	0°☿36'44			888 May 24 j 21:42	0°☿	
evening max el	887 Jun 24 j 02:24	2°☿18'38	26°35'50	evening max el	888 Jun 04 j 21:30	13°☿32'48	25°24'58
retrograde	887 Jul 08 j 01:55	9°☿32'38		desc. node	888 Jun 08 j 06:25	16°☿27'02	
evening set	887 Jul 14 j 19:08	7°☿37'51		retrograde	888 Jun 18 j 22:18	20°☿42'14	
min. Earth dist.	887 Jul 18 j 15:45	5°☿01'27	0.60045 AU	evening set	888 Jun 24 j 15:18	19°☿26'00	
inferior conj	887 Jul 21 j 23:20	2°☿21'38	-4°-41'-38	min. Earth dist.	888 Jun 29 j 09:30	16°☿43'47	0.58007 AU
minimum elong	887 Jul 22 j 02:27	2°☿15'20	4°41'20	inferior conj	888 Jul 02 j 13:43	14°☿30'59	-4°-50'-17
	887 Jul 25 j 01:32	30°☿		minimum elong	888 Jul 02 j 12:45	14°☿32'40	4°50'17
morning rise	887 Jul 29 j 13:04	27°☿42'15		morning rise	888 Jul 10 j 13:59	10°☿14'16	
direct	887 Jul 31 j 23:14	27°☿20'34		direct	888 Jul 13 j 02:25	9°☿54'49	
	887 Aug 07 j 08:34	0°☿		morning max el	888 Jul 21 j 15:13	13°☿55'50	18°52'56
morning max el	887 Aug 08 j 10:54	0°☿58'51	18°13'29	asc. node	888 Jul 27 j 04:47	20°☿42'31	
asc. node	887 Aug 10 j 07:45	2°☿58'31			888 Aug 01 j 18:33	0°☿	
morning set	887 Aug 24 j 08:02	26°☿10'39		morning set	888 Aug 07 j 03:45	10°☿16'41	
	887 Aug 26 j 08:34	0°☿					
				superior conj	888 Aug 15 j 16:59	26°☿57'41	1°43'43
superior conj	887 Sep 02 j 20:29	13°☿55'25	1°31'30	minimum elong	888 Aug 15 j 18:35	27°☿05'21	1°43'39
minimum elong	887 Sep 03 j 00:07	14°☿11'52	1°31'13		888 Aug 17 j 07:30	0°☿	
max. Earth dist.	887 Sep 10 j 11:05	27°☿16'33	1.41060 AU	max. Earth dist.	888 Aug 22 j 14:39	9°☿42'42	1.39034 AU
	887 Sep 12 j 01:51	0°☿		evening rise	888 Aug 26 j 13:54	16°☿39'10	
evening rise	887 Sep 15 j 10:52	5°☿34'39			888 Sep 03 j 16:34	0°☿	
desc. node	887 Sep 18 j 08:45	10°☿16'01		desc. node	888 Sep 04 j 05:47	0°☿52'05	
	887 Oct 01 j 09:01	0°☿			888 Sep 24 j 22:21	0°☿	
greatest brilliancy	887 Oct 13 j 21:04	16°☿51'03	-0.2m	evening max el	888 Sep 30 j 23:07	6°☿41'18	24°23'13
evening max el	887 Oct 19 j 10:29	23°☿06'11	23°03'24	retrograde	888 Oct 12 j 05:45	13°☿17'26	
retrograde	887 Oct 29 j 14:56	29°☿08'47		evening set	888 Oct 17 j 14:46	11°☿03'03	
evening set	887 Nov 03 j 09:53	27°☿11'44		min. Earth dist.	888 Oct 22 j 08:18	5°☿37'29	0.67496 AU
asc. node	887 Nov 06 j 06:58	24°☿09'51		inferior conj	888 Oct 23 j 01:55	4°☿38'20	0°-1'-46
inferior conj	887 Nov 08 j 19:33	20°☿47'44	0°51'38	minimum elong	888 Oct 23 j 01:58	4°☿38'11	0°01'46
minimum elong	887 Nov 08 j 18:22	20°☿51'48	0°51'08	transit middle	888 Oct 23 j 01:58	4°☿38'11	0°01'46
min. Earth dist.	887 Nov 08 j 12:19	21°☿12'37	0.67737 AU	transit begin	888 Oct 22 j 23:15	4°☿47'20	
morning rise	887 Nov 14 j 02:52	14°☿36'01		transit end	888 Oct 23 j 04:41	4°☿29'03	
direct	887 Nov 18 j 09:43	12°☿54'55		asc. node	888 Oct 23 j 04:00	4°☿31'23	

	888 Oct 26 j 20:56	30°♄		min. Earth dist.	889 Oct 06 j 01:08	19°♄59'59	0.66931 AU
morning rise	888 Oct 28 j 13:29	28°♄32'00		inferior conj	889 Oct 07 j 05:36	18°♄28'50	0°-57'-54
direct	888 Nov 01 j 07:07	27°♄12'08		minimum elong	889 Oct 07 j 07:04	18°♄24'05	0°57'17
	888 Nov 07 j 06:56	0°♄		asc. node	889 Oct 10 j 01:03	15°♄04'28	
morning max el	888 Nov 09 j 03:02	1°♄42'43	20°18'42	morning rise	889 Oct 12 j 23:14	12°♄30'49	
greatest brilliancy	888 Nov 15 j 17:26	9°♄37'40	-0.5m	direct	889 Oct 16 j 05:38	11°♄29'10	
	888 Nov 29 j 18:13	0°♄		morning max el	889 Oct 23 j 08:03	15°♄29'23	19°17'36
desc. node	888 Dec 01 j 05:01	2°♄12'04		greatest brilliancy	889 Nov 02 j 08:00	28°♄31'43	-0.7m
morning set	888 Dec 06 j 18:02	10°♄42'35			889 Nov 03 j 07:48	0°♄	
max. Earth dist.	888 Dec 17 j 00:17	26°♄51'59	1.43570 AU	morning set	889 Nov 15 j 19:44	19°♄12'03	
	888 Dec 18 j 22:55	0°♄		desc. node	889 Nov 18 j 02:04	22°♄43'28	
					889 Nov 22 j 17:57	0°♄	
superior conj	888 Dec 22 j 23:07	6°♄33'02	-1°-54'-28	max. Earth dist.	889 Nov 29 j 14:54	10°♄47'43	1.44685 AU
minimum elong	888 Dec 22 j 17:50	6°♄11'18	1°54'12				
evening rise	889 Jan 04 j 15:35	28°♄07'40		superior conj	889 Dec 02 j 15:16	15°♄34'22	-1°-27'-3
	889 Jan 05 j 17:22	0°♄		minimum elong	889 Dec 02 j 06:42	15°♄00'23	1°26'12
asc. node	889 Jan 19 j 03:17	21°♄50'08			889 Dec 11 j 14:22	0°♄	
evening max el	889 Jan 22 j 04:18	25°♄23'38	18°09'50	evening rise	889 Dec 17 j 04:58	9°♄13'21	
retrograde	889 Jan 28 j 16:03	28°♄48'46			889 Dec 29 j 23:40	0°♄	
evening set	889 Jan 31 j 10:43	28°♄09'58		evening max el	890 Jan 05 j 16:38	8°♄45'25	18°28'20
inferior conj	889 Feb 06 j 18:12	22°♄56'20	3°47'13	asc. node	890 Jan 06 j 00:21	9°♄04'41	
minimum elong	889 Feb 06 j 18:16	22°♄56'10	3°47'13	retrograde	890 Jan 12 j 05:42	12°♄21'02	
min. Earth dist.	889 Feb 09 j 12:45	20°♄02'14	0.62598 AU	evening set	890 Jan 15 j 05:28	11°♄31'35	
morning rise	889 Feb 12 j 23:40	16°♄57'02		inferior conj	890 Jan 21 j 04:03	5°♄58'35	3°40'15
direct	889 Feb 19 j 22:57	14°♄19'58		minimum elong	890 Jan 21 j 02:30	6°♄03'06	3°40'06
desc. node	889 Feb 27 j 04:09	16°♄42'16		min. Earth dist.	890 Jan 23 j 07:16	3°♄29'37	0.64386 AU
morning max el	889 Mar 05 j 22:25	22°♄14'01	27°47'50	morning rise	890 Jan 26 j 22:10	29°♄51'25	
	889 Mar 12 j 18:44	0°♄			890 Jan 26 j 18:05	30°♄	
	889 Apr 01 j 04:41	0°♄		direct	890 Feb 02 j 18:29	27°♄01'31	
morning set	889 Apr 08 j 17:59	14°♄29'39			890 Feb 10 j 15:31	0°♄	
max. Earth dist.	889 Apr 14 j 08:17	26°♄10'03	1.32725 AU	desc. node	890 Feb 14 j 01:12	2°♄42'46	
				morning max el	890 Feb 16 j 07:16	4°♄50'53	27°24'08
superior conj	889 Apr 16 j 07:50	0°♄26'13	0°-8'-15		890 Mar 07 j 09:31	0°♄	
minimum elong	889 Apr 16 j 08:14	0°♄28'22	0°08'11	morning set	890 Mar 23 j 11:32	28°♄22'15	
behind sun begin	889 Apr 16 j 03:45	0°♄04'06			890 Mar 24 j 07:22	0°♄	
behind sun end	889 Apr 16 j 12:43	0°♄52'38		max. Earth dist.	890 Mar 28 j 08:45	8°♄13'22	1.33554 AU
	889 Apr 16 j 02:59	0°♄					
asc. node	889 Apr 17 j 02:35	2°♄07'53		superior conj	890 Mar 31 j 13:10	14°♄54'02	0°-35'-32
evening rise	889 Apr 23 j 08:29	15°♄36'47		minimum elong	890 Mar 31 j 14:55	15°♄03'17	0°35'11
	889 Apr 30 j 13:11	0°♄		asc. node	890 Apr 03 j 23:39	22°♄14'05	
evening max el	889 May 17 j 12:05	24°♄13'21	23°54'26	evening rise	890 Apr 07 j 19:45	0°♄23'26	
	889 May 25 j 19:12	0°♄			890 Apr 07 j 15:18	0°♄	
desc. node	889 May 26 j 03:26	0°♄08'13			890 Apr 24 j 21:05	0°♄	
retrograde	889 May 31 j 06:36	1°♄08'05		evening max el	890 Apr 29 j 04:14	4°♄46'50	22°18'55
evening set	889 Jun 04 j 13:24	0°♄27'35		retrograde	890 May 12 j 02:19	11°♄09'11	
	889 Jun 05 j 20:56	30°♄		desc. node	890 May 13 j 00:26	11°♄07'16	
min. Earth dist.	889 Jun 10 j 22:59	27°♄23'47	0.56276 AU	evening set	890 May 15 j 00:58	10°♄50'04	
inferior conj	889 Jun 13 j 07:57	25°♄56'38	-4°-21'-4	min. Earth dist.	890 May 23 j 11:03	7°♄12'34	0.55188 AU
minimum elong	889 Jun 13 j 02:04	26°♄05'40	4°20'07	inferior conj	890 May 24 j 08:55	6°♄41'43	-3°-5'-15
morning rise	889 Jun 21 j 18:17	21°♄57'43		minimum elong	890 May 24 j 01:30	6°♄52'11	3°03'07
direct	889 Jun 24 j 10:38	21°♄39'12		morning rise	890 Jun 02 j 04:04	2°♄48'58	
morning max el	889 Jul 04 j 09:45	26°♄16'13	19°53'32	direct	890 Jun 05 j 02:40	2°♄29'23	
	889 Jul 07 j 20:26	0°♄		morning max el	890 Jun 16 j 17:03	7°♄54'02	21°14'19
asc. node	889 Jul 14 j 01:50	9°♄12'11		asc. node	890 Jun 30 j 22:54	28°♄16'45	
morning set	889 Jul 22 j 06:50	24°♄45'22			890 Jul 01 j 20:43	0°♄	
	889 Jul 24 j 20:45	0°♄		morning set	890 Jul 06 j 14:49	9°♄30'20	
superior conj	889 Jul 30 j 04:02	10°♄43'57	1°46'25	superior conj	890 Jul 14 j 01:25	25°♄02'19	1°41'31
minimum elong	889 Jul 30 j 03:47	10°♄42'41	1°46'24	minimum elong	890 Jul 13 j 23:51	24°♄54'11	1°41'25
max. Earth dist.	889 Aug 04 j 18:53	21°♄39'12	1.37063 AU		890 Jul 16 j 11:30	0°♄	
evening rise	889 Aug 08 j 16:14	28°♄50'07		max. Earth dist.	890 Jul 18 j 05:33	3°♄31'31	1.35344 AU
	889 Aug 09 j 07:46	0°♄		evening rise	890 Jul 22 j 13:28	11°♄56'36	
desc. node	889 Aug 22 j 02:49	21°♄15'49			890 Aug 01 j 18:11	0°♄	
	889 Aug 28 j 00:04	0°♄		desc. node	890 Aug 08 j 23:50	11°♄21'23	
evening max el	889 Sep 13 j 10:56	20°♄19'43	25°36'51		890 Aug 23 j 04:07	0°♄	
retrograde	889 Sep 25 j 15:57	27°♄19'43		evening max el	890 Aug 26 j 23:02	3°♄56'50	26°36'31
evening set	889 Oct 01 j 15:38	24°♄49'52		retrograde	890 Sep 08 j 21:01	11°♄10'22	

evening set	890 Sep 15 j 10:26	8°♂29'30		min. Earth dist.	891 Sep 02 j 15:42	18°♂21'24	0.64761 AU
min. Earth dist.	890 Sep 19 j 12:21	4°♂16'57	0.66028 AU	inferior conj	891 Sep 04 j 20:47	15°♂55'43	-2°-51'-5
inferior conj	890 Sep 21 j 04:38	2°♂16'20	-1°-55'-3	minimum elong	891 Sep 05 j 01:07	15°♂43'50	2°49'37
minimum elong	890 Sep 21 j 07:38	2°♂07'23	1°53'53	morning rise	891 Sep 11 j 07:22	10°♂24'00	
	890 Sep 23 j 03:33	30°♂		direct	891 Sep 13 j 22:12	9°♂48'00	
asc. node	890 Sep 26 j 22:06	26°♂41'07		asc. node	891 Sep 13 j 19:10	9°♂48'05	
morning rise	890 Sep 27 j 06:03	26°♂29'52		morning max el	891 Sep 20 j 10:22	13°♂16'34	18°03'32
direct	890 Sep 30 j 03:29	25°♂42'51			891 Oct 02 j 02:59	0°♂	
morning max el	890 Oct 06 j 19:19	29°♂22'40	18°32'12	morning set	891 Oct 08 j 04:13	10°♂06'50	
	890 Oct 07 j 09:42	0°♂			891 Oct 20 j 06:02	0°♂	
morning set	890 Oct 26 j 21:37	28°♂57'27					
	890 Oct 27 j 13:14	0°♂		superior conj	891 Oct 22 j 00:26	2°♂50'15	0°05'30
desc. node	890 Nov 04 j 23:08	13°♂23'52		minimum elong	891 Oct 22 j 01:05	2°♂52'55	0°05'23
				behind sun begin	891 Oct 21 j 15:01	2°♂12'32	
superior conj	890 Nov 11 j 16:35	24°♂00'04	0°-43'-33	behind sun end	891 Oct 22 j 11:10	3°♂33'14	
minimum elong	890 Nov 11 j 10:58	23°♂37'58	0°42'50	desc. node	891 Oct 22 j 20:10	4°♂09'11	
max. Earth dist.	890 Nov 12 j 09:36	25°♂06'53	1.45091 AU	max. Earth dist.	891 Oct 26 j 04:22	9°♂27'41	1.44750 AU
	890 Nov 15 j 12:14	0°♂		evening rise	891 Nov 07 j 11:47	28°♂40'05	
evening rise	890 Nov 27 j 18:54	19°♂21'28			891 Nov 08 j 08:29	0°♂	
	890 Dec 04 j 12:02	0°♂		greatest brilliancy	891 Nov 26 j 04:20	26°♂45'38	-0.6m
evening max el	890 Dec 20 j 02:35	22°♂12'16	19°04'28		891 Nov 28 j 13:37	0°♂	
asc. node	890 Dec 23 j 21:23	25°♂15'19		evening max el	891 Dec 03 j 08:10	5°♂40'50	19°56'41
retrograde	890 Dec 27 j 00:49	26°♂08'54		retrograde	891 Dec 10 j 22:22	10°♂07'16	
evening set	890 Dec 30 j 06:46	25°♂07'38		asc. node	891 Dec 10 j 18:25	10°♂07'07	
inferior conj	891 Jan 04 j 23:07	19°♂17'41	3°18'59	evening set	891 Dec 14 j 12:07	8°♂52'38	
minimum elong	891 Jan 04 j 20:39	19°♂25'26	3°18'31	inferior conj	891 Dec 20 j 00:26	2°♂48'44	2°47'08
min. Earth dist.	891 Jan 06 j 11:05	17°♂24'12	0.65796 AU	minimum elong	891 Dec 19 j 21:43	2°♂57'49	2°46'21
morning rise	891 Jan 10 j 09:39	13°♂05'30		min. Earth dist.	891 Dec 20 j 22:37	1°♂34'47	0.66805 AU
direct	891 Jan 16 j 20:25	10°♂17'00			891 Dec 22 j 03:47	30°♂	
morning max el	891 Jan 29 j 17:05	17°♂51'18	26°30'24	morning rise	891 Dec 25 j 06:42	26°♂33'52	
desc. node	891 Jan 31 j 22:17	20°♂11'10		direct	891 Dec 31 j 04:06	23°♂57'38	
	891 Feb 08 j 22:28	0°♂			892 Jan 11 j 00:15	0°♂	
	891 Feb 28 j 08:05	0°♂		morning max el	892 Jan 12 j 02:05	1°♂03'28	25°15'23
morning set	891 Mar 06 j 17:24	11°♂35'48		desc. node	892 Jan 18 j 19:21	8°♂41'55	
max. Earth dist.	891 Mar 10 j 22:24	19°♂43'32	1.34834 AU		892 Feb 02 j 22:34	0°♂	
				morning set	892 Feb 17 j 06:46	23°♂56'39	
superior conj	891 Mar 15 j 12:18	28°♂58'23	-1°-2'-36		892 Feb 20 j 14:08	0°♂	
minimum elong	891 Mar 15 j 15:21	29°♂14'03	1°02'04	max. Earth dist.	892 Feb 21 j 00:34	0°♂48'45	1.36548 AU
	891 Mar 16 j 00:15	0°♂					
asc. node	891 Mar 21 j 20:43	12°♂11'57		superior conj	892 Feb 27 j 02:25	12°♂31'32	-1°-27'-43
evening rise	891 Mar 23 j 04:35	14°♂57'14		minimum elong	892 Feb 27 j 06:21	12°♂51'01	1°27'12
	891 Mar 30 j 22:08	0°♂		evening rise	892 Mar 06 j 08:48	29°♂11'44	
evening max el	891 Apr 11 j 04:38	15°♂41'34	20°51'48		892 Mar 06 j 18:24	0°♂	
retrograde	891 Apr 22 j 15:35	21°♂15'06		asc. node	892 Mar 07 j 17:45	1°♂57'00	
evening set	891 Apr 24 j 20:18	21°♂03'37		evening max el	892 Mar 23 j 16:33	27°♂14'16	19°41'09
desc. node	891 Apr 29 j 21:28	19°♂21'40			892 Mar 27 j 04:04	0°♂	
inferior conj	891 May 04 j 02:51	17°♂05'46	-1°-13'-5	retrograde	892 Apr 02 j 10:12	1°♂55'21	
minimum elong	891 May 03 j 23:24	17°♂10'41	1°11'51	evening set	892 Apr 04 j 11:57	1°♂43'32	
min. Earth dist.	891 May 04 j 23:42	16°♂36'06	0.54993 AU		892 Apr 09 j 05:20	30°♂	
morning rise	891 May 13 j 01:42	13°♂00'09		inferior conj	892 Apr 13 j 04:28	27°♂40'31	0°44'06
direct	891 May 16 j 12:32	12°♂34'29		minimum elong	892 Apr 13 j 06:21	27°♂37'34	0°43'27
morning max el	891 May 29 j 14:15	18°♂51'06	22°50'31	min. Earth dist.	892 Apr 15 j 14:05	26°♂10'19	0.55756 AU
	891 Jun 07 j 17:37	0°♂		desc. node	892 Apr 15 j 18:29	26°♂03'37	
asc. node	891 Jun 17 j 19:58	17°♂46'39		morning rise	892 Apr 21 j 21:16	23°♂05'00	
morning set	891 Jun 21 j 01:38	24°♂24'32		direct	892 Apr 26 j 05:52	22°♂22'34	
	891 Jun 23 j 17:01	0°♂		morning max el	892 May 10 j 05:38	29°♂23'24	24°31'52
					892 May 10 j 20:44	0°♂	
superior conj	891 Jun 28 j 05:46	9°♂41'50	1°30'34		892 May 30 j 23:06	0°♂	
minimum elong	891 Jun 28 j 03:29	9°♂29'39	1°30'20	asc. node	892 Jun 03 j 17:02	7°♂34'53	
max. Earth dist.	891 Jul 01 j 01:18	15°♂37'55	1.33987 AU	morning set	892 Jun 04 j 13:34	9°♂22'25	
evening rise	891 Jul 06 j 00:47	25°♂44'42					
	891 Jul 08 j 05:23	0°♂		superior conj	892 Jun 11 j 14:34	24°♂34'20	1°14'48
	891 Jul 26 j 04:00	0°♂		minimum elong	892 Jun 11 j 12:07	24°♂21'03	1°14'26
desc. node	891 Jul 26 j 20:50	0°♂59'57		max. Earth dist.	892 Jun 13 j 05:33	28°♂05'12	1.33029 AU
evening max el	891 Aug 09 j 10:50	17°♂22'07	27°14'49		892 Jun 14 j 02:56	0°♂	
retrograde	891 Aug 22 j 20:33	24°♂41'02		evening rise	892 Jun 18 j 22:16	10°♂03'04	
evening set	891 Aug 29 j 20:38	21°♂57'04			892 Jun 29 j 13:14	0°♂	

desc. node	892 Jul 12 j 17:49	20°Ω00'09			893 Jun 23 j 06:59	0°Ω	
	892 Jul 21 j 10:49	0°ྐ			893 Jun 29 j 14:49	8°Ω06'00	
evening max el	892 Jul 21 j 20:50	0°ྐ24'02	27°25'15		893 Jul 04 j 02:45	12°Ω50'33	27°03'26
retrograde	892 Aug 04 j 14:10	7°ྐ42'41			893 Jul 18 j 00:44	20°Ω06'03	
evening set	892 Aug 11 j 19:01	5°ྐ07'20			893 Jul 25 j 01:24	17°Ω53'06	
min. Earth dist.	892 Aug 15 j 09:29	2°ྐ03'48	0.63139 AU		893 Jul 28 j 17:00	15°Ω11'04	0.61223 AU
	892 Aug 17 j 11:46	30°℞Ω			893 Jul 31 j 21:09	12°Ω25'18	-4°-24'-52
inferior conj	892 Aug 18 j 03:21	29°Ω21'14	-3°-42'-45		893 Aug 01 j 01:33	12°Ω15'39	4°24'09
minimum elong	892 Aug 18 j 08:23	29°Ω08'47	3°41'26		893 Aug 08 j 04:40	7°Ω32'24	
morning rise	892 Aug 25 j 00:09	24°Ω07'29			893 Aug 10 j 14:15	7°Ω08'53	
direct	892 Aug 27 j 10:59	23°Ω39'07			893 Aug 17 j 16:08	10°Ω40'05	18°00'06
asc. node	892 Aug 30 j 16:14	24°Ω28'57			893 Aug 17 j 13:17	10°Ω33'11	
morning max el	892 Sep 03 j 02:18	27°Ω04'46	17°52'27		893 Aug 30 j 10:32	0°ྐ	
	892 Sep 05 j 15:57	0°ྐ			893 Sep 02 j 12:16	5°ྐ38'04	
morning set	892 Sep 19 j 11:07	22°ྐ26'02					
	892 Sep 23 j 18:49	0°Ω			superior conj	893 Sep 12 j 18:08	24°ྐ11'55 1°19'22
superior conj	892 Oct 01 j 07:38	12°Ω50'44	0°48'23		minimum elong	893 Sep 12 j 22:39	24°ྐ31'44 1°18'54
minimum elong	892 Oct 01 j 12:02	13°Ω09'04	0°47'49			893 Sep 16 j 02:22	0°Ω
max. Earth dist.	892 Oct 07 j 20:10	23°Ω31'56	1.43723 AU		max. Earth dist.	893 Sep 20 j 07:29	7°Ω06'21 1.42145 AU
desc. node	892 Oct 08 j 17:10	24°Ω56'13			desc. node	893 Sep 25 j 14:10	15°Ω42'07
	892 Oct 11 j 21:35	0°℞			evening rise	893 Sep 26 j 10:53	17°Ω04'38
evening rise	892 Oct 16 j 19:10	7°℞39'01				893 Oct 04 j 19:13	0°℞
	892 Oct 31 j 16:06	0°♂			greatest brilliancy	893 Oct 24 j 09:36	27°℞21'55 -0.3m
greatest brilliancy	892 Nov 09 j 23:05	12°♂51'50	-0.5m			893 Oct 26 j 15:16	0°♂
evening max el	892 Nov 15 j 08:14	19°♂09'46	21°02'25		evening max el	893 Oct 29 j 02:49	2°♂40'25 22°17'47
retrograde	892 Nov 23 j 19:58	24°♂11'56			retrograde	893 Nov 07 j 15:51	8°♂20'49
asc. node	892 Nov 26 j 15:27	23°♂27'31			evening set	893 Nov 12 j 03:12	6°♂34'06
evening set	892 Nov 27 j 19:30	22°♂42'07			asc. node	893 Nov 13 j 12:30	5°♂16'57
inferior conj	892 Dec 03 j 05:37	16°♂27'40	2°07'04		inferior conj	893 Nov 17 j 12:39	0°♂12'42 1°20'39
minimum elong	892 Dec 03 j 03:09	16°♂36'06	2°06'12		minimum elong	893 Nov 17 j 10:54	0°♂18'45 1°19'57
min. Earth dist.	892 Dec 03 j 15:35	15°♂53'22	0.67439 AU		min. Earth dist.	893 Nov 17 j 11:33	0°♂16'30 0.67726 AU
morning rise	892 Dec 08 j 10:24	10°♂12'14				893 Nov 17 j 16:19	30°℞℞
direct	892 Dec 13 j 16:48	7°♂55'18			morning rise	893 Nov 22 j 18:25	23°℞59'00
morning max el	892 Dec 24 j 10:30	14°♂19'33	23°49'03		direct	893 Nov 27 j 09:43	22°℞04'33
desc. node	893 Jan 04 j 16:23	27°♂56'12			morning max el	893 Dec 06 j 21:27	27°℞41'00 22°21'21
	893 Jan 06 j 04:35	0°☾				893 Dec 09 j 01:34	0°♂
	893 Jan 25 j 20:36	0°≈			greatest brilliancy	893 Dec 11 j 11:57	2°♂50'39 -0.3m
morning set	893 Jan 28 j 21:22	5°≈06'41			desc. node	893 Dec 22 j 13:25	17°♂41'58
max. Earth dist.	893 Feb 01 j 19:39	11°≈56'44	1.38592 AU			893 Dec 30 j 20:41	0°☾
					morning set	894 Jan 09 j 07:37	14°☾52'47
superior conj	893 Feb 09 j 03:43	25°≈22'41	-1°-48'-26		max. Earth dist.	894 Jan 14 j 16:11	23°☾45'14 1.40731 AU
minimum elong	893 Feb 09 j 07:33	25°≈40'51	1°48'07			894 Jan 18 j 07:42	0°≈
	893 Feb 11 j 13:54	0°✠			superior conj	894 Jan 22 j 11:33	7°≈20'31 -2°-1'-15
evening rise	893 Feb 18 j 05:46	12°✠58'42			minimum elong	894 Jan 22 j 13:31	7°≈29'19 2°01'13
asc. node	893 Feb 22 j 14:46	21°✠23'13			evening rise	894 Feb 01 j 16:22	26°≈10'50
	893 Feb 27 j 11:59	0°♀				894 Feb 03 j 17:19	0°✠
evening max el	893 Mar 06 j 15:03	9°♀24'38	18°49'59		asc. node	894 Feb 09 j 11:48	10°✠24'18
retrograde	893 Mar 14 j 20:23	13°♀23'52			evening max el	894 Feb 17 j 21:20	22°✠05'29 18°18'53
evening set	893 Mar 17 j 02:28	13°♀07'04			retrograde	894 Feb 25 j 01:36	25°✠39'28
inferior conj	893 Mar 25 j 00:13	8°♀47'43	2°17'04		evening set	894 Feb 27 j 13:00	25°✠15'04
minimum elong	893 Mar 25 j 04:24	8°♀40'07	2°15'53		inferior conj	894 Mar 06 j 17:09	20°✠34'31 3°15'24
min. Earth dist.	893 Mar 28 j 06:41	6°♀26'02	0.57309 AU		minimum elong	894 Mar 06 j 20:29	20°✠27'24 3°14'48
morning rise	893 Apr 02 j 02:02	3°♀38'59			min. Earth dist.	894 Mar 10 j 03:20	17°✠41'12 0.59320 AU
desc. node	893 Apr 02 j 15:32	3°♀25'04			morning rise	894 Mar 14 j 00:19	14°✠59'27
direct	893 Apr 07 j 13:04	2°♀26'38			direct	894 Mar 20 j 09:09	13°✠10'17
morning max el	893 Apr 21 j 20:55	9°♀55'48	26°03'55		desc. node	894 Mar 20 j 12:34	13°✠10'20
	893 May 07 j 03:02	0°♄			morning max el	894 Apr 03 j 16:55	20°✠54'32 27°11'52
morning set	893 May 20 j 00:56	24°♄17'55				894 Apr 11 j 13:51	0°♀
asc. node	893 May 21 j 14:04	27°♄35'04				894 Apr 29 j 21:59	0°♄
	893 May 22 j 17:00	0°♅			morning set	894 May 04 j 10:05	9°♄05'26
					asc. node	894 May 08 j 11:05	17°♄42'30
superior conj	893 May 27 j 01:44	9°♅32'19	0°55'07		max. Earth dist.	894 May 11 j 04:21	23°♄39'24 1.32266 AU
minimum elong	893 May 26 j 23:36	9°♅20'41	0°54'44				
max. Earth dist.	893 May 27 j 15:44	10°♅49'10	1.32460 AU		superior conj	894 May 11 j 13:29	24°♄29'39 0°32'18
evening rise	893 Jun 03 j 02:44	24°♅41'21			minimum elong	894 May 11 j 12:06	24°♄22'01 0°32'00
	893 Jun 05 j 17:08	0°♆				894 May 14 j 01:39	0°♅

evening rise	894 May 18 j 11:40	9°II31'10		superior conj	895 Apr 26 j 00:12	9°820'40	0°07'06
	894 May 29 j 02:07	0°☿		minimum elong	895 Apr 25 j 23:52	9°818'52	0°07'01
evening max el	894 Jun 16 j 02:09	24°☿31'42	26°08'55	behind sun begin	895 Apr 25 j 19:16	8°853'46	
desc. node	894 Jun 16 j 11:50	24°☿54'33		behind sun end	895 Apr 26 j 04:28	9°843'59	
	894 Jun 23 j 11:41	0°♊		evening rise	895 May 02 j 23:01	24°825'20	
retrograde	894 Jun 30 j 02:28	1°♊43'23			895 May 05 j 15:20	0°♊	
evening set	894 Jul 06 j 11:02	0°♊04'45			895 May 23 j 18:38	0°☿	
	894 Jul 06 j 14:46	30°☿		evening max el	895 May 28 j 18:48	5°☿29'32	24°48'00
min. Earth dist.	894 Jul 10 j 14:54	27°☿28'02	0.59166 AU	desc. node	895 Jun 03 j 08:52	9°☿55'19	
inferior conj	894 Jul 13 j 22:31	24°☿57'33	-4°-49'-6	retrograde	895 Jun 11 j 17:48	12°☿34'14	
minimum elong	894 Jul 14 j 00:10	24°☿54'25	4°49'02	evening set	895 Jun 16 j 21:19	11°☿34'05	
morning rise	894 Jul 21 j 16:44	20°☿27'40		min. Earth dist.	895 Jun 22 j 06:06	8°☿44'36	0.57219 AU
direct	894 Jul 24 j 03:45	20°☿06'58		inferior conj	895 Jun 25 j 04:26	6°☿49'14	-4°-43'-18
morning max el	894 Aug 01 j 00:46	23°☿53'25	18°27'40	minimum elong	895 Jun 25 j 01:18	6°☿54'26	4°43'03
asc. node	894 Aug 04 j 10:19	27°☿45'00		morning rise	895 Jul 03 j 09:05	2°☿41'18	
	894 Aug 06 j 01:20	0°♊		direct	895 Jul 05 j 23:13	2°☿22'17	
morning set	894 Aug 17 j 02:25	19°♊27'50		morning max el	895 Jul 15 j 01:17	6°☿36'23	19°16'07
	894 Aug 22 j 14:15	0°♊		asc. node	895 Jul 22 j 07:22	15°☿50'09	
					895 Jul 30 j 04:04	0°♊	
superior conj	894 Aug 26 j 03:55	6°♊42'00	1°38'00	morning set	895 Aug 01 j 01:39	3°♊44'58	
minimum elong	894 Aug 26 j 06:43	6°♊54'58	1°37'48				
max. Earth dist.	894 Sep 02 j 13:49	19°♊59'37	1.40212 AU	superior conj	895 Aug 09 j 07:17	20°♊05'19	1°45'54
evening rise	894 Sep 06 j 23:46	27°♊29'23		minimum elong	895 Aug 09 j 08:03	20°♊09'03	1°45'53
	894 Sep 08 j 12:14	0°♋			895 Aug 14 j 12:33	0°♊	
desc. node	894 Sep 12 j 11:12	6°♋22'53		max. Earth dist.	895 Aug 15 j 17:17	2°♊12'04	1.38179 AU
	894 Sep 28 j 10:07	0°♌		evening rise	895 Aug 19 j 13:11	9°♊03'10	
evening max el	894 Oct 11 j 17:05	16°♌13'27	23°37'39	desc. node	895 Aug 30 j 08:13	26°♊54'21	
retrograde	894 Oct 22 j 08:41	22°♌30'29			895 Sep 01 j 08:20	0°♋	
evening set	894 Oct 27 j 09:35	20°♌25'55		evening max el	895 Sep 24 j 05:04	29°♋49'44	24°55'36
asc. node	894 Oct 31 j 09:32	15°♌57'11			895 Sep 24 j 09:15	0°♌	
inferior conj	894 Nov 01 j 19:45	14°♌01'21	0°29'23	retrograde	895 Oct 05 j 21:35	6°♌37'11	
minimum elong	894 Nov 01 j 19:03	14°♌03'44	0°29'05	evening set	895 Oct 11 j 13:00	4°♌15'32	
min. Earth dist.	894 Nov 01 j 08:07	14°♌41'03	0.67680 AU		895 Oct 15 j 10:04	30°☿	
morning rise	894 Nov 07 j 04:39	7°♌51'48		min. Earth dist.	895 Oct 16 j 02:57	29°♋05'11	0.67303 AU
direct	894 Nov 11 j 05:45	6°♌19'56		inferior conj	895 Oct 17 j 01:11	27°♋51'52	0°-25'-22
morning max el	894 Nov 19 j 14:30	11°♌11'45	21°00'13	minimum elong	895 Oct 17 j 01:49	27°♋49'46	0°25'06
greatest brilliancy	894 Nov 25 j 03:36	17°♌37'51	-0.5m	asc. node	895 Oct 18 j 06:36	26°♋16'07	
	894 Dec 04 j 02:51	0°♌		morning rise	895 Oct 22 j 15:09	21°♋48'59	
desc. node	894 Dec 09 j 10:28	7°♌50'04		direct	895 Oct 26 j 03:43	20°♋37'26	
morning set	894 Dec 19 j 14:41	23°♌23'53		morning max el	895 Nov 02 j 15:21	24°♋53'37	19°50'52
	894 Dec 23 j 19:00	0°♍			895 Nov 07 j 01:05	0°♌	
max. Earth dist.	894 Dec 27 j 19:53	6°♍30'33	1.42662 AU	greatest brilliancy	895 Nov 10 j 06:20	4°♌18'33	-0.6m
				desc. node	895 Nov 26 j 07:31	28°♌14'20	
superior conj	895 Jan 03 j 20:32	18°♍11'56	-2°-1'-42		895 Nov 27 j 10:57	0°♌	
minimum elong	895 Jan 03 j 18:17	18°♍02'24	2°01'40	morning set	895 Nov 28 j 10:58	1°♌32'41	
	895 Jan 10 j 15:59	0°♎		max. Earth dist.	895 Dec 10 j 07:03	20°♌05'03	1.44124 AU
evening rise	895 Jan 15 j 12:45	8°♎39'54					
asc. node	895 Jan 27 j 08:50	28°♎52'14		superior conj	895 Dec 15 j 02:56	27°♌50'16	-1°-45'-8
	895 Jan 28 j 03:30	0°♏		minimum elong	895 Dec 14 j 19:43	27°♌21'00	1°44'36
evening max el	895 Feb 01 j 08:12	5°♏07'43	18°07'35		895 Dec 16 j 10:53	0°♍	
retrograde	895 Feb 07 j 23:07	8°♏32'24		evening rise	895 Dec 28 j 14:40	20°♍18'01	
evening set	895 Feb 10 j 15:08	7°♏59'06			896 Jan 03 j 07:24	0°♎	
inferior conj	895 Feb 17 j 05:06	2°♏56'57	3°42'42	asc. node	896 Jan 14 j 05:53	16°♎36'53	
minimum elong	895 Feb 17 j 06:21	2°♏53'53	3°42'38	evening max el	896 Jan 15 j 20:42	18°♎23'41	18°15'27
	895 Feb 20 j 05:43	30°☿		retrograde	896 Jan 22 j 08:09	21°♎52'17	
min. Earth dist.	895 Feb 20 j 07:08	29°♎56'41	0.61434 AU	evening set	896 Jan 25 j 04:48	21°♎09'10	
morning rise	895 Feb 23 j 18:55	27°♎04'20		inferior conj	896 Jan 31 j 08:06	15°♎46'54	3°46'20
direct	895 Mar 02 j 15:42	24°♎41'51		minimum elong	896 Jan 31 j 07:24	15°♎48'51	3°46'19
desc. node	895 Mar 07 j 09:37	25°♎43'22		min. Earth dist.	896 Feb 02 j 20:14	13°♎01'38	0.63391 AU
	895 Mar 14 j 00:30	0°♏		morning rise	896 Feb 06 j 08:12	9°♎43'29	
morning max el	895 Mar 16 j 19:25	2°♏34'04	27°45'38	direct	896 Feb 13 j 07:00	6°♎59'14	
	895 Apr 05 j 23:00	0°♐		desc. node	896 Feb 22 j 06:41	10°♎38'21	
morning set	895 Apr 18 j 15:10	23°♐38'39		morning max el	896 Feb 27 j 02:55	14°♎53'05	27°42'03
	895 Apr 21 j 16:16	0°♑			896 Mar 10 j 10:48	0°♏	
max. Earth dist.	895 Apr 24 j 15:31	6°♑22'46	1.32443 AU		896 Mar 28 j 13:23	0°♐	
asc. node	895 Apr 25 j 08:08	7°♑53'03		morning set	896 Apr 01 j 13:45	7°♐48'36	
				max. Earth dist.	896 Apr 06 j 20:59	18°♐43'33	1.33018 AU

superior conj	896 Apr 09 j 08:01	23° Υ 58'19	0°-19'-45	superior conj	897 Mar 24 j 11:00	8° Υ 16'45	0°-47'-8
minimum elong	896 Apr 09 j 08:58	24° Υ 03'28	0°19'34	minimum elong	897 Mar 24 j 13:19	8° Υ 28'54	0°46'41
asc. node	896 Apr 11 j 05:10	28° Υ 01'43		asc. node	897 Mar 29 j 02:14	18° Υ 04'36	
	896 Apr 12 j 03:03	0° B		evening rise	897 Mar 31 j 21:13	23° Υ 57'20	
evening rise	896 Apr 16 j 10:47	9° B 15'57			897 Apr 03 j 19:56	0° B	
	896 Apr 27 j 06:32	0° II		evening max el	897 Apr 21 j 03:55	26° B 41'38	21°40'18
evening max el	896 May 09 j 08:55	16° II 02'23	23°13'33		897 Apr 25 j 05:17	0° II	
desc. node	896 May 20 j 05:54	22° II 30'56		retrograde	897 May 03 j 12:54	2° II 44'39	
retrograde	896 May 22 j 21:00	22° II 46'41		evening set	897 May 06 j 01:30	2° II 30'17	
evening set	896 May 26 j 12:58	22° II 17'11		desc. node	897 May 07 j 02:55	2° II 16'08	
min. Earth dist.	896 Jun 02 j 18:38	19° II 00'31	0.55714 AU		897 May 12 j 16:05	30° R B	
inferior conj	896 Jun 04 j 14:33	17° II 56'06	-3°-54'-37	inferior conj	897 May 15 j 10:50	28° B 28'31	-2°-20'-38
minimum elong	896 Jun 04 j 07:22	18° II 06'41	3°53'02	minimum elong	897 May 15 j 04:33	28° B 37'19	2°18'35
morning rise	896 Jun 13 j 05:00	14° II 02'01		min. Earth dist.	897 May 15 j 07:10	28° B 33'40	0.54984 AU
direct	896 Jun 15 j 23:21	13° II 43'35		morning rise	897 May 24 j 08:25	24° B 32'19	
morning max el	896 Jun 26 j 15:14	18° II 39'33	20°25'36	direct	897 May 27 j 11:02	24° B 11'04	
	896 Jul 05 j 11:33	0° B		morning max el	897 Jun 08 j 17:54	29° B 58'44	21°53'45
asc. node	896 Jul 08 j 04:26	4° B 35'36			897 Jun 08 j 18:27	0° II	
morning set	896 Jul 15 j 07:05	18° B 21'06		asc. node	897 Jun 25 j 01:29	23° II 51'23	
	896 Jul 20 j 22:52	0° Ω			897 Jun 28 j 03:36	0° B	
				morning set	897 Jun 29 j 16:28	3° B 10'00	
superior conj	896 Jul 22 j 23:13	4° Ω 06'46	1°45'09	superior conj	897 Jul 06 j 23:54	18° B 34'48	1°37'31
minimum elong	896 Jul 22 j 22:20	4° Ω 02'17	1°45'07	minimum elong	897 Jul 06 j 21:57	18° B 24'35	1°37'22
max. Earth dist.	896 Jul 27 j 23:19	14° Ω 02'05	1.36291 AU	max. Earth dist.	897 Jul 10 j 13:25	25° B 57'03	1.34720 AU
evening rise	896 Aug 01 j 00:08	21° Ω 39'08			897 Jul 12 j 13:41	0° Ω	
	896 Aug 05 j 16:00	0° B		evening rise	897 Jul 15 j 03:53	5° Ω 04'43	
desc. node	896 Aug 16 j 05:15	17° B 11'00			897 Jul 29 j 10:00	0° B	
	896 Aug 25 j 04:43	0° Ω		desc. node	897 Aug 03 j 02:16	7° B 05'55	
evening max el	896 Sep 05 j 16:44	13° Ω 27'38	26°04'19	evening max el	897 Aug 19 j 04:53	27° B 01'04	26°55'54
retrograde	896 Sep 18 j 05:53	20° Ω 35'25			897 Aug 22 j 14:20	0° Ω	
evening set	896 Sep 24 j 11:36	17° Ω 59'56		retrograde	897 Sep 01 j 08:48	4° Ω 18'05	
min. Earth dist.	896 Sep 28 j 17:43	13° Ω 25'50	0.66588 AU	evening set	897 Sep 08 j 03:05	1° Ω 34'57	
inferior conj	896 Sep 30 j 03:10	11° Ω 41'28	-1°-22'-8		897 Sep 09 j 21:05	30° R B	
minimum elong	896 Sep 30 j 05:17	11° Ω 34'50	1°21'16	min. Earth dist.	897 Sep 12 j 02:00	27° B 38'03	0.65529 AU
asc. node	896 Oct 04 j 03:39	7° Ω 10'59		inferior conj	897 Sep 13 j 23:35	25° B 26'06	-2°-19'-8
morning rise	896 Oct 05 j 23:56	5° Ω 48'03		minimum elong	897 Sep 14 j 03:11	25° B 15'40	2°17'48
direct	896 Oct 09 j 02:06	4° Ω 53'17		morning rise	897 Sep 20 j 04:43	19° B 45'14	
morning max el	896 Oct 15 j 23:22	8° Ω 43'58	18°56'14	asc. node	897 Sep 21 j 00:43	19° B 23'52	
	896 Oct 31 j 04:39	0° B		direct	897 Sep 22 j 22:58	19° B 03'24	
morning set	896 Nov 06 j 21:21	10° B 30'16		morning max el	897 Sep 29 j 12:30	22° B 37'42	18°17'47
desc. node	896 Nov 12 j 04:33	18° B 49'56			897 Oct 05 j 08:46	0° Ω	
	896 Nov 19 j 07:21	0° B		morning set	897 Oct 18 j 11:37	20° Ω 51'55	
max. Earth dist.	896 Nov 21 j 23:20	4° B 11'25	1.44942 AU		897 Oct 24 j 02:38	0° B	
				desc. node	897 Oct 30 j 01:34	9° B 32'20	
superior conj	896 Nov 23 j 10:41	6° B 30'35	-1°-10'-4	superior conj	897 Nov 02 j 12:02	14° B 58'57	0°-22'-38
minimum elong	896 Nov 23 j 02:35	5° B 58'39	1°09'10	minimum elong	897 Nov 02 j 09:05	14° B 47'18	0°22'15
	896 Dec 08 j 03:38	0° B		max. Earth dist.	897 Nov 04 j 18:04	18° B 31'51	1.45035 AU
evening rise	896 Dec 08 j 18:14	0° B 59'11			897 Nov 12 j 01:42	0° B	
	896 Dec 27 j 17:09	0° \approx		evening rise	897 Nov 18 j 22:19	10° B 43'16	
evening max el	896 Dec 29 j 08:17	1° \approx 48'07	18°41'39		897 Dec 01 j 08:31	0° B	
asc. node	896 Dec 31 j 02:56	3° \approx 26'10		greatest brilliancy	897 Dec 03 j 20:38	3° B 44'55	-0.7m
retrograde	897 Jan 05 j 00:32	5° \approx 31'44		evening max el	897 Dec 12 j 16:38	15° B 15'57	19°24'55
evening set	897 Jan 08 j 02:39	4° \approx 37'38		asc. node	897 Dec 18 j 00:00	19° B 04'46	
	897 Jan 13 j 01:24	30° R B		retrograde	897 Dec 19 j 20:51	19° B 24'04	
inferior conj	897 Jan 13 j 22:18	28° B 57'17	3°32'45	evening set	897 Dec 23 j 05:55	18° B 17'22	
minimum elong	897 Jan 13 j 20:17	29° B 03'23	3°32'28	inferior conj	897 Dec 28 j 20:20	12° B 21'24	3°06'35
min. Earth dist.	897 Jan 15 j 19:01	26° B 42'11	0.65031 AU	minimum elong	897 Dec 28 j 17:41	12° B 29'57	3°05'57
morning rise	897 Jan 19 j 12:44	22° B 47'29		min. Earth dist.	897 Dec 30 j 02:18	10° B 44'21	0.66279 AU
direct	897 Jan 26 j 05:38	19° B 56'15		morning rise	898 Jan 03 j 04:41	6° B 07'57	
desc. node	897 Feb 08 j 03:44	27° B 19'50		direct	898 Jan 09 j 10:14	3° B 23'15	
morning max el	897 Feb 08 j 12:30	27° B 41'40	27°04'28	morning max el	898 Jan 21 j 21:46	10° B 46'55	26°00'23
	897 Feb 10 j 17:14	0° \approx		desc. node	898 Jan 26 j 00:47	15° B 16'49	
morning set	897 Mar 04 j 03:34	0° B			898 Feb 06 j 05:18	0° \approx	
	897 Mar 16 j 02:49	21° B 25'59			898 Feb 24 j 17:41	0° B	
	897 Mar 20 j 10:42	0° Υ		morning set	898 Feb 27 j 02:15	4° B 18'13	
max. Earth dist.	897 Mar 20 j 16:52	0° Υ 31'18	1.34036 AU				

max. Earth dist.	898 Mar 03 j 01:04	11° ✕ 46'29	1.35514 AU	max. Earth dist.	899 Feb 12 j 23:35	22° ≈ 49'11	1.37396 AU
					899 Feb 16 j 20:07	0° ✕	
superior conj	898 Mar 08 j 06:39	22° ✕ 08'32	-1°-13'-38	superior conj	899 Feb 19 j 15:48	5° ✕ 24'51	-1°-37'-14
minimum elong	898 Mar 08 j 10:09	22° ✕ 26'15	1°13'04	minimum elong	899 Feb 19 j 19:51	5° ✕ 44'35	1°36'47
	898 Mar 12 j 02:42	0° ∇		evening rise	899 Feb 28 j 05:47	22° ✕ 26'34	
asc. node	898 Mar 15 j 23:17	7° ∇ 57'17		asc. node	899 Mar 02 j 20:19	27° ✕ 34'53	
evening rise	898 Mar 16 j 04:19	8° ∇ 23'03			899 Mar 04 j 02:23	0° ∇	
	898 Mar 28 j 00:12	0° ✕		evening max el	899 Mar 17 j 01:49	19° ∇ 40'10	19°16'52
evening max el	898 Apr 03 j 09:11	7° ✕ 51'30	20°19'30	retrograde	899 Mar 26 j 02:40	24° ∇ 01'40	
retrograde	898 Apr 14 j 02:16	13° ✕ 01'30		evening set	899 Mar 28 j 06:02	23° ∇ 48'04	
evening set	898 Apr 16 j 04:28	12° ✕ 50'31		inferior conj	899 Apr 05 j 14:38	19° ∇ 38'39	1°27'39
desc. node	898 Apr 23 j 23:56	9° ✕ 36'44		minimum elong	899 Apr 05 j 17:57	19° ∇ 33'07	1°26'34
inferior conj	898 Apr 25 j 06:13	8° ✕ 52'39	0°-21'-53	min. Earth dist.	899 Apr 08 j 11:10	17° ∇ 45'05	0.56337 AU
minimum elong	898 Apr 25 j 05:11	8° ✕ 54'09	0°21'31	desc. node	899 Apr 10 j 20:59	16° ∇ 18'03	
min. Earth dist.	898 Apr 26 j 20:23	7° ✕ 56'41	0.55208 AU	morning rise	899 Apr 14 j 01:55	14° ∇ 49'01	
morning rise	898 May 04 j 03:46	4° ✕ 35'51		direct	899 Apr 18 j 21:46	13° ∇ 55'29	
direct	898 May 07 j 23:10	4° ✕ 04'23		morning max el	899 May 03 j 02:13	21° ∇ 09'29	25°13'18
morning max el	898 May 21 j 11:42	10° ✕ 41'24	23°33'48		899 May 10 j 18:02	0° ✕	
	898 Jun 04 j 19:28	0° ∏			899 May 28 j 04:37	0° ∏	
asc. node	898 Jun 11 j 22:32	13° ∏ 29'40		morning set	899 May 29 j 15:51	3° ∏ 03'48	
morning set	898 Jun 14 j 03:58	18° ∏ 06'20		asc. node	899 May 29 j 19:34	3° ∏ 23'25	
	898 Jun 19 j 17:11	0° ☾					
superior conj	898 Jun 21 j 06:24	3° ☾ 20'33	1°24'25	superior conj	899 Jun 05 j 16:24	18° ∏ 15'45	1°06'54
minimum elong	898 Jun 21 j 03:59	3° ☾ 07'32	1°24'07	minimum elong	899 Jun 05 j 14:02	18° ∏ 02'51	1°06'30
max. Earth dist.	898 Jun 23 j 13:12	8° ☾ 13'10	1.33532 AU	max. Earth dist.	899 Jun 06 j 20:35	20° ∏ 49'21	1.32738 AU
evening rise	898 Jun 28 j 19:59	19° ☾ 07'15			899 Jun 11 j 03:24	0° ☾	
	898 Jul 04 j 11:54	0° ∩		evening rise	899 Jun 12 j 20:46	3° ☾ 34'52	
desc. node	898 Jul 20 j 23:15	26° ∩ 29'58			899 Jun 27 j 06:18	0° ∩	
	898 Jul 23 j 14:10	0° ☾		desc. node	899 Jul 07 j 20:16	15° ∩ 09'19	
evening max el	898 Aug 01 j 16:29	10° ☾ 19'21	27°23'05	evening max el	899 Jul 15 j 01:03	23° ∩ 07'26	27°20'04
retrograde	898 Aug 15 j 05:46	17° ☾ 37'49			899 Jul 25 j 19:48	0° ☾	
evening set	898 Aug 22 j 08:43	14° ☾ 56'18		retrograde	899 Jul 28 j 20:12	0° ☾ 24'21	
min. Earth dist.	898 Aug 26 j 01:34	11° ☾ 34'58	0.64114 AU		899 Jul 31 j 18:32	30° ☾	
inferior conj	898 Aug 28 j 12:03	9° ☾ 01'10	-3°-13'-46	evening set	899 Aug 05 j 00:49	27° ∩ 56'43	
minimum elong	898 Aug 28 j 16:47	8° ☾ 48'41	3°12'19	min. Earth dist.	899 Aug 08 j 14:47	25° ∩ 04'16	0.62357 AU
morning rise	898 Sep 04 j 02:51	3° ☾ 36'23		inferior conj	899 Aug 11 j 13:35	22° ∩ 18'26	-4°-2'-11
direct	898 Sep 06 j 15:44	3° ☾ 03'53		minimum elong	899 Aug 11 j 18:34	22° ∩ 06'44	4°01'04
asc. node	898 Sep 07 j 21:45	3° ☾ 11'53		morning rise	899 Aug 18 j 14:56	17° ∩ 13'18	
morning max el	898 Sep 13 j 04:15	6° ☾ 30'08	17°56'33	direct	899 Aug 21 j 01:02	16° ∩ 47'11	
	898 Sep 28 j 17:23	0° ☾		asc. node	899 Aug 25 j 18:47	18° ∩ 29'47	
morning set	898 Sep 30 j 05:27	2° ☾ 34'17		morning max el	899 Aug 27 j 19:40	20° ∩ 13'41	17°53'25
					899 Sep 04 j 02:05	0° ☾	
superior conj	898 Oct 13 j 04:34	24° ☾ 15'45	0°24'55	morning set	899 Sep 12 j 20:52	15° ☾ 18'04	
minimum elong	898 Oct 13 j 07:19	24° ☾ 26'54	0°24'33		899 Sep 21 j 03:52	0° ☾	
desc. node	898 Oct 16 j 22:35	0° ☾ 18'50		superior conj	899 Sep 23 j 23:37	4° ☾ 51'21	1°03'05
	898 Oct 16 j 17:53	0° ☾		minimum elong	899 Sep 24 j 04:25	5° ☾ 11'46	1°02'30
max. Earth dist.	898 Oct 18 j 12:26	2° ☾ 49'49	1.44401 AU	max. Earth dist.	899 Oct 01 j 03:00	16° ☾ 44'54	1.43115 AU
evening rise	898 Oct 29 j 09:20	19° ☾ 49'21		desc. node	899 Oct 03 j 19:36	21° ☾ 05'44	
	898 Nov 05 j 01:13	0° ☾		evening rise	899 Oct 08 j 18:12	28° ☾ 54'24	
greatest brilliancy	898 Nov 19 j 13:45	21° ☾ 10'19	-0.5m		899 Oct 09 j 11:03	0° ☾	
evening max el	898 Nov 25 j 20:03	28° ☾ 45'04	20°23'10		899 Oct 29 j 19:13	0° ☾	
	898 Nov 27 j 02:44	0° ☾		greatest brilliancy	899 Nov 03 j 18:58	6° ☾ 33'47	-0.4m
retrograde	898 Dec 03 j 18:36	3° ☾ 25'33		evening max el	899 Nov 08 j 17:41	12° ☾ 14'26	21°33'27
asc. node	898 Dec 04 j 21:01	3° ☾ 18'42		retrograde	899 Nov 17 j 15:43	17° ☾ 32'47	
evening set	898 Dec 07 j 12:22	2° ☾ 04'31		evening set	899 Nov 21 j 20:08	15° ☾ 55'43	
	898 Dec 09 j 18:17	30° ☾		asc. node	899 Nov 21 j 18:03	15° ☾ 59'46	
inferior conj	898 Dec 12 j 23:33	25° ☾ 55'45	2°30'57	inferior conj	899 Nov 27 j 05:46	9° ☾ 37'38	1°48'02
minimum elong	898 Dec 12 j 20:53	26° ☾ 04'46	2°30'07	minimum elong	899 Nov 27 j 03:34	9° ☾ 45'15	1°47'13
min. Earth dist.	898 Dec 13 j 16:19	24° ☾ 59'00	0.67129 AU	min. Earth dist.	899 Nov 27 j 10:50	9° ☾ 20'08	0.67606 AU
morning rise	898 Dec 18 j 04:54	19° ☾ 40'39		morning rise	899 Dec 02 j 10:43	3° ☾ 22'46	
direct	898 Dec 23 j 20:05	17° ☾ 12'06		direct	899 Dec 07 j 10:32	1° ☾ 15'31	
morning max el	899 Jan 04 j 06:14	24° ☾ 00'37	24°39'21	morning max el	899 Dec 17 j 15:31	7° ☾ 19'29	23°11'24
	899 Jan 09 j 14:55	0° ☾		greatest brilliancy	899 Dec 22 j 15:58	12° ☾ 56'52	-0.3m
desc. node	899 Jan 12 j 21:49	4° ☾ 07'29		desc. node	899 Dec 30 j 18:52	23° ☾ 36'25	
	899 Jan 30 j 15:34	0° ☾			900 Jan 04 j 06:31	0° ☾	
morning set	899 Feb 09 j 06:39	16° ☾ 10'15					

morning set	900 Jan 21 j 09:48	26°☾46'01		greatest brilliancy	900 Dec 04 j 01:31	26°♄15'31	-0.4m
	900 Jan 23 j 07:51	0°♊			900 Dec 06 j 23:47	0°♊	
max. Earth dist.	900 Jan 25 j 18:47	4°♊12'49	1.39508 AU	desc. node	900 Dec 16 j 15:54	13°♊32'30	
					900 Dec 27 j 13:02	0°♊	
superior conj	900 Feb 02 j 10:19	17°♊54'56	-1°-55'-5	morning set	900 Dec 31 j 07:40	5°♊57'24	
minimum elong	900 Feb 02 j 13:39	18°♊10'16	1°54'54	max. Earth dist.	901 Jan 06 j 17:41	16°♊23'48	1.41590 AU
	900 Feb 08 j 19:54	0°♋					
evening rise	900 Feb 11 j 22:49	6°♋00'14		superior conj	901 Jan 14 j 09:05	29°♊25'50	-2°-3'-15
asc. node	900 Feb 17 j 17:21	16°♋51'37		minimum elong	901 Jan 14 j 09:32	29°♊27'48	2°03'16
	900 Feb 26 j 05:46	0°♌			901 Jan 14 j 16:53	0°♊	
evening max el	900 Feb 28 j 03:58	2°♌04'29	18°34'17	evening rise	901 Jan 25 j 03:55	18°♊55'10	
retrograde	900 Mar 06 j 21:24	5°♌51'26			901 Jan 31 j 06:17	0°♋	
evening set	900 Mar 09 j 05:38	5°♌31'44		asc. node	901 Feb 03 j 14:24	5°♋39'50	
inferior conj	900 Mar 16 j 19:32	1°♌03'25	2°46'00	evening max el	901 Feb 10 j 12:37	14°♋55'32	18°11'43
minimum elong	900 Mar 16 j 23:38	0°♌55'26	2°45'02	retrograde	901 Feb 17 j 10:01	18°♋23'50	
	900 Mar 18 j 03:54	30°♌		evening set	901 Feb 19 j 23:19	17°♋55'55	
min. Earth dist.	900 Mar 20 j 05:19	28°♋25'22	0.58122 AU	inferior conj	901 Feb 26 j 21:02	13°♋06'24	3°30'18
morning rise	900 Mar 24 j 13:28	25°♋42'03		minimum elong	901 Feb 26 j 23:32	13°♋00'44	3°29'59
desc. node	900 Mar 27 j 18:01	24°♋32'59		min. Earth dist.	901 Mar 02 j 04:58	10°♋06'45	0.60222 AU
direct	900 Mar 30 j 10:28	24°♋14'32		morning rise	901 Mar 05 j 20:26	7°♋22'38	
	900 Apr 11 j 18:53	0°♍		direct	901 Mar 12 j 11:39	5°♋17'57	
morning max el	900 Apr 13 j 19:24	1°♍51'42	26°36'39	desc. node	901 Mar 14 j 15:04	5°♋30'25	
	900 May 03 j 21:32	0°♎		morning max el	901 Mar 26 j 18:17	13°♋07'18	27°30'40
morning set	900 May 13 j 02:30	17°♎56'56			901 Apr 09 j 04:22	0°♏	
asc. node	900 May 15 j 16:37	23°♎27'29			901 Apr 26 j 03:13	0°♎	
	900 May 18 j 16:40	0°♏		morning set	901 Apr 27 j 10:10	2°♎38'58	
				asc. node	901 May 02 j 13:40	13°♎36'42	
superior conj	900 May 20 j 04:02	3°♏14'14	0°45'48	max. Earth dist.	901 May 03 j 20:32	16°♎25'14	1.32290 AU
minimum elong	900 May 20 j 02:10	3°♏04'03	0°45'25				
max. Earth dist.	900 May 20 j 08:16	3°♏37'33	1.32328 AU	superior conj	901 May 04 j 15:33	18°♎09'28	0°21'52
evening rise	900 May 27 j 03:24	18°♏18'46		minimum elong	901 May 04 j 14:35	18°♎04'08	0°21'39
	900 Jun 01 j 23:16	0°♐			901 May 10 j 01:47	0°♏	
	900 Jun 21 j 06:30	0°♑		evening rise	901 May 11 j 13:35	3°♏10'49	
desc. node	900 Jun 23 j 17:17	2°♑45'19			901 May 25 j 23:49	0°♐	
evening max el	900 Jun 26 j 04:09	5°♑14'07	26°43'56	evening max el	901 Jun 08 j 00:24	16°♐35'16	25°37'08
retrograde	900 Jul 10 j 03:24	12°♑28'46		desc. node	901 Jun 10 j 14:19	18°♐52'03	
evening set	900 Jul 16 j 22:56	10°♑28'50		retrograde	901 Jun 22 j 01:22	23°♐45'30	
min. Earth dist.	900 Jul 20 j 17:47	7°♑51'34	0.60353 AU	evening set	901 Jun 27 j 22:43	22°♐23'30	
inferior conj	900 Jul 24 j 00:47	5°♑09'28	-4°-37'-59	min. Earth dist.	901 Jul 02 j 12:40	19°♐43'09	0.58299 AU
minimum elong	900 Jul 24 j 04:19	5°♑02'11	4°37'34	inferior conj	901 Jul 05 j 18:09	17°♐25'12	-4°-51'-11
morning rise	900 Jul 31 j 12:56	0°♑26'38		minimum elong	901 Jul 05 j 17:56	17°♐25'35	4°51'11
direct	900 Aug 02 j 22:50	0°♑04'34		morning rise	901 Jul 13 j 16:52	13°♐05'03	
morning max el	900 Aug 10 j 07:44	3°♑40'45	18°09'23	direct	901 Jul 16 j 04:49	12°♐45'20	
asc. node	900 Aug 11 j 15:49	5°♑04'16		morning max el	901 Jul 24 j 13:18	16°♐42'21	18°45'42
morning set	900 Aug 26 j 04:02	28°♑46'57		asc. node	901 Jul 29 j 12:53	22°♐40'18	
	900 Aug 26 j 19:35	0°♒			901 Aug 03 j 02:33	0°♑	
				morning set	901 Aug 09 j 22:27	12°♑49'10	
superior conj	900 Sep 04 j 20:42	16°♒43'39	1°28'43				
minimum elong	900 Sep 05 j 00:36	17°♒01'10	1°28'21	superior conj	901 Aug 18 j 14:37	29°♑38'07	1°42'32
	900 Sep 12 j 11:30	0°♓		minimum elong	901 Aug 18 j 16:32	29°♑47'12	1°42'26
max. Earth dist.	900 Sep 12 j 11:45	0°♓01'00	1.41347 AU		901 Aug 18 j 19:14	0°♒	
evening rise	900 Sep 17 j 17:48	8°♓41'42		max. Earth dist.	901 Aug 25 j 15:53	12°♒33'49	1.39339 AU
desc. node	900 Sep 19 j 16:37	11°♓49'41		evening rise	901 Aug 29 j 17:14	19°♒36'08	
	900 Oct 01 j 14:03	0°♈			901 Sep 05 j 00:35	0°♓	
greatest brilliancy	900 Oct 16 j 07:02	20°♈00'27	-0.3m	desc. node	901 Sep 06 j 13:39	2°♓27'06	
evening max el	900 Oct 21 j 10:04	25°♈45'16	22°51'31		901 Sep 25 j 19:25	0°♈	
	900 Oct 26 j 11:22	0°♉		evening max el	901 Oct 03 j 23:08	9°♈20'05	24°11'33
retrograde	900 Oct 31 j 10:38	1°♉42'26		retrograde	901 Oct 15 j 01:59	15°♈51'29	
	900 Nov 04 j 21:36	30°♈		evening set	901 Oct 20 j 08:51	13°♈39'43	
evening set	900 Nov 05 j 03:30	29°♈48'09		min. Earth dist.	901 Oct 25 j 03:41	8°♈09'02	0.67554 AU
asc. node	900 Nov 07 j 15:05	27°♈15'44		inferior conj	901 Oct 25 j 19:42	7°♈14'58	0°06'33
inferior conj	900 Nov 10 j 13:04	23°♈24'37	0°59'26	minimum elong	901 Oct 25 j 19:33	7°♈15'31	0°06'29
minimum elong	900 Nov 10 j 11:43	23°♈29'15	0°58'53	transit middle	901 Oct 25 j 19:33	7°♈15'31	0°06'29
min. Earth dist.	900 Nov 10 j 07:26	23°♈44'06	0.67741 AU	transit begin	901 Oct 25 j 17:03	7°♈23'58	
morning rise	900 Nov 15 j 19:55	17°♈12'14		transit end	901 Oct 25 j 22:03	7°♈07'04	
direct	900 Nov 20 j 04:54	15°♈27'41		asc. node	901 Oct 25 j 12:07	7°♈40'37	
morning max el	900 Nov 29 j 04:49	20°♈44'55	21°45'38	morning rise	901 Oct 31 j 06:30	1°♈07'38	

	901 Nov 02 j 10:17	30° $\text{R}\Omega$		evening set	902 Oct 04 j 10:25	27° Ω 27'06	
direct	901 Nov 04 j 02:02	29° Ω 44'39		min. Earth dist.	902 Oct 08 j 21:04	22° Ω 31'54	0.67041 AU
	901 Nov 05 j 19:10	0° M		inferior conj	902 Oct 09 j 23:53	21° Ω 05'20	0°-49'-15
morning max el	901 Nov 12 j 01:03	4° M 20'25	20°29'02	minimum elong	902 Oct 10 j 01:08	21° Ω 01'17	0°48'44
greatest brilliancy	901 Nov 18 j 08:06	11° M 49'09	-0.5m	asc. node	902 Oct 12 j 09:10	18° Ω 07'54	
	901 Dec 01 j 00:21	0° J		morning rise	902 Oct 15 j 16:31	15° Ω 06'00	
desc. node	901 Dec 03 j 12:57	3° J 48'25		direct	902 Oct 19 j 00:30	14° Ω 01'51	
morning set	901 Dec 10 j 07:15	14° J 10'27		morning max el	902 Oct 26 j 05:00	18° Ω 05'42	19°25'44
max. Earth dist.	901 Dec 20 j 00:20	29° J 30'38	1.43355 AU		902 Nov 04 j 11:27	0° M	
	901 Dec 20 j 07:37	0° C		greatest brilliancy	902 Nov 04 j 08:05	29° Ω 47'46	-0.7m
				morning set	902 Nov 19 j 06:45	22° M 32'17	
superior conj	901 Dec 26 j 07:05	9° C 47'10	-1°-56'-59	desc. node	902 Nov 20 j 09:58	24° M 17'53	
minimum elong	901 Dec 26 j 02:36	9° C 28'31	1°56'47		902 Nov 24 j 01:55	0° J	
	902 Jan 07 j 02:30	0° \approx		max. Earth dist.	902 Dec 02 j 14:20	13° J 22'00	1.44564 AU
evening rise	902 Jan 07 j 17:02	1° \approx 03'41					
asc. node	902 Jan 21 j 11:27	23° \approx 50'57		superior conj	902 Dec 06 j 02:41	18° J 57'10	-1°-32'-23
evening max el	902 Jan 25 j 00:37	28° \approx 05'05	18°08'37	minimum elong	902 Dec 05 j 18:17	18° J 23'38	1°31'37
	902 Jan 27 j 06:52	0° H			902 Dec 12 j 22:59	0° C	
retrograde	902 Jan 31 j 12:48	1° H 29'31		evening rise	902 Dec 20 j 09:46	12° C 17'53	
evening set	902 Feb 03 j 06:50	0° H 52'07			902 Dec 31 j 03:13	0° \approx	
	902 Feb 04 j 20:12	30° $\text{R}\approx$		asc. node	903 Jan 08 j 08:29	11° \approx 13'50	
inferior conj	902 Feb 09 j 15:53	25° \approx 41'25	3°46'40	evening max el	903 Jan 08 j 13:04	11° \approx 25'35	18°24'24
minimum elong	902 Feb 09 j 16:14	25° \approx 40'29	3°46'39	retrograde	903 Jan 15 j 01:25	14° \approx 59'00	
min. Earth dist.	902 Feb 12 j 12:31	22° \approx 45'06	0.62309 AU	evening set	903 Jan 18 j 00:23	14° \approx 11'11	
morning rise	902 Feb 15 j 23:24	19° \approx 43'45		inferior conj	903 Jan 24 j 00:04	8° \approx 40'48	3°42'21
direct	902 Feb 22 j 22:25	17° \approx 10'00		minimum elong	903 Jan 23 j 22:44	8° \approx 44'41	3°42'14
desc. node	902 Mar 01 j 12:08	19° \approx 08'05		min. Earth dist.	903 Jan 26 j 05:35	6° \approx 07'17	0.64140 AU
morning max el	902 Mar 08 j 22:57	25° \approx 03'31	27°48'24	morning rise	903 Jan 29 j 19:38	2° \approx 34'30	
	902 Mar 13 j 11:46	0° H			903 Feb 03 j 15:47	30° RC	
	902 Apr 02 j 14:04	0° Y		direct	903 Feb 05 j 16:47	29° C 45'44	
morning set	902 Apr 11 j 12:47	17° Y 02'53			903 Feb 07 j 19:31	0° \approx	
max. Earth dist.	902 Apr 17 j 05:36	28° Y 59'27	1.32639 AU	desc. node	903 Feb 16 j 09:11	4° \approx 52'44	
	902 Apr 17 j 16:50	0° B		morning max el	903 Feb 19 j 07:36	7° \approx 36'24	27°29'51
					903 Mar 08 j 14:35	0° H	
superior conj	902 Apr 19 j 01:17	2° B 55'30	0°-4'-10		903 Mar 25 j 19:26	0° Y	
minimum elong	902 Apr 19 j 01:28	2° B 56'33	0°04'09	morning set	903 Mar 26 j 07:46	1° Y 00'38	
behind sun begin	902 Apr 18 j 20:28	2° B 29'23		max. Earth dist.	903 Mar 31 j 07:37	11° Y 08'29	1.33400 AU
behind sun end	902 Apr 19 j 06:29	3° B 23'44					
asc. node	902 Apr 19 j 10:44	3° B 46'54		superior conj	903 Apr 03 j 07:20	17° Y 26'20	0°-31'-22
evening rise	902 Apr 26 j 01:20	18° B 04'06		minimum elong	903 Apr 03 j 08:53	17° Y 34'31	0°31'03
	902 May 01 j 22:43	0° II		asc. node	903 Apr 06 j 07:47	23° Y 54'02	
evening max el	902 May 20 j 15:24	27° II 19'33	24°08'38		903 Apr 09 j 04:13	0° B	
	902 May 23 j 17:15	0° C		evening rise	903 Apr 10 j 12:49	2° B 52'24	
desc. node	902 May 28 j 11:21	2° C 55'19			903 Apr 25 j 15:16	0° II	
retrograde	902 Jun 03 j 11:23	4° C 17'09		evening max el	903 May 02 j 06:47	7° II 52'01	22°32'53
evening set	902 Jun 07 j 23:41	3° C 31'59		retrograde	903 May 15 j 08:57	14° II 20'45	
min. Earth dist.	902 Jun 14 j 02:28	0° C 32'22	0.56502 AU	desc. node	903 May 15 j 08:23	14° II 20'45	
	902 Jun 14 j 23:31	30° RII		evening set	903 May 18 j 11:46	13° II 59'23	
inferior conj	902 Jun 16 j 15:24	28° II 57'35	-4°-28'-29	min. Earth dist.	903 May 26 j 14:27	10° II 27'49	0.55297 AU
minimum elong	902 Jun 16 j 10:10	29° II 05'46	4°27'45	inferior conj	903 May 27 j 18:30	9° II 47'58	-3°-19'-42
morning rise	902 Jun 25 j 00:16	24° II 56'36		minimum elong	903 May 27 j 10:56	9° II 58'44	3°17'37
direct	902 Jun 27 j 16:05	24° II 37'56		morning rise	903 Jun 05 j 12:33	5° II 55'38	
morning max el	902 Jul 07 j 09:25	29° II 08'35	19°43'10	direct	903 Jun 08 j 09:57	5° II 36'27	
	902 Jul 08 j 06:36	0° C		morning max el	903 Jun 19 j 18:27	10° II 53'11	21°01'07
asc. node	902 Jul 16 j 09:57	11° C 03'51		asc. node	903 Jul 03 j 07:01	0° C 03'46	
morning set	902 Jul 25 j 00:38	27° C 15'07			903 Jul 03 j 06:12	0° C	
	902 Jul 26 j 09:17	0° Ω		morning set	903 Jul 09 j 08:01	11° C 58'06	
superior conj	902 Aug 01 j 23:49	13° Ω 18'40	1°46'31	superior conj	903 Jul 16 j 19:54	27° C 33'04	1°42'39
minimum elong	902 Aug 01 j 23:49	13° Ω 18'40	1°46'31	minimum elong	903 Jul 16 j 18:29	27° C 25'49	1°42'36
max. Earth dist.	902 Aug 07 j 19:53	24° Ω 34'14	1.37345 AU		903 Jul 18 j 00:34	0° Ω	
	902 Aug 10 j 18:39	0° M		max. Earth dist.	903 Jul 21 j 05:18	6° Ω 25'34	1.35579 AU
evening rise	902 Aug 11 j 16:20	1° M 37'38		evening rise	903 Jul 25 j 11:02	14° Ω 36'30	
desc. node	902 Aug 24 j 10:40	22° M 52'57			903 Aug 03 j 02:44	0° M	
	902 Aug 29 j 04:22	0° Ω		desc. node	903 Aug 11 j 07:41	13° M 01'36	
evening max el	902 Sep 16 j 11:00	22° Ω 58'07	25°26'32		903 Aug 23 j 21:07	0° Ω	
retrograde	902 Sep 28 j 12:51	29° Ω 54'55		evening max el	903 Aug 29 j 22:54	6° Ω 35'13	26°28'44

retrograde	903 Sep 11 j 18:41	13°♄47'29		evening set	904 Aug 31 j 17:55	24°♄37'28	
evening set	903 Sep 18 j 06:14	11°♄07'40		min. Earth dist.	904 Sep 04 j 13:54	20°♄56'24	0.64971 AU
min. Earth dist.	903 Sep 22 j 09:13	6°♄49'38	0.66188 AU	inferior conj	904 Sep 06 j 17:03	18°♄33'56	-2°-42'-49
inferior conj	903 Sep 23 j 23:44	4°♄53'03	-1°-46'-24	minimum elong	904 Sep 06 j 21:12	18°♄22'22	2°41'22
minimum elong	903 Sep 24 j 02:30	4°♄44'39	1°45'19	morning rise	904 Sep 13 j 02:12	12°♄59'50	
	903 Sep 28 j 14:54	30°♄		asc. node	904 Sep 15 j 03:16	12°♄24'28	
asc. node	903 Sep 29 j 06:13	29°♄31'57		direct	904 Sep 15 j 17:48	12°♄22'30	
morning rise	903 Sep 29 j 23:54	29°♄04'45		morning max el	904 Sep 22 j 06:09	15°♄52'22	18°06'39
direct	903 Oct 02 j 22:28	28°♄15'53			904 Oct 02 j 09:42	0°♄	
	903 Oct 07 j 09:45	0°♄		morning set	904 Oct 10 j 06:45	13°♄01'34	
morning max el	903 Oct 09 j 15:30	1°♄58'06	18°37'52		904 Oct 20 j 14:53	0°♄	
	903 Oct 28 j 21:09	0°♄					
morning set	903 Oct 30 j 04:15	2°♄04'03		superior conj	904 Oct 24 j 10:25	6°♄07'01	0°-1'-47
desc. node	903 Nov 07 j 06:58	14°♄56'40		minimum elong	904 Oct 24 j 10:12	6°♄06'10	0°01'46
				behind sun begin	904 Oct 23 j 23:29	5°♄23'27	
superior conj	903 Nov 15 j 04:52	27°♄24'00	0°-50'-47	behind sun end	904 Oct 24 j 20:55	6°♄48'51	
minimum elong	903 Nov 14 j 22:26	26°♄58'40	0°49'59	desc. node	904 Oct 24 j 03:58	5°♄41'20	
max. Earth dist.	903 Nov 15 j 08:29	27°♄38'09	1.45074 AU	max. Earth dist.	904 Oct 28 j 03:09	11°♄58'51	1.44844 AU
	903 Nov 16 j 20:35	0°♄			904 Nov 08 j 16:03	0°♄	
evening rise	903 Dec 01 j 03:07	22°♄33'58		evening rise	904 Nov 09 j 22:36	1°♄58'22	
	903 Dec 05 j 18:57	0°♄		greatest brilliancy	904 Nov 27 j 17:13	28°♄51'26	-0.6m
evening max el	903 Dec 22 j 23:26	24°♄51'27	18°58'03		904 Nov 28 j 12:47	0°♄	
asc. node	903 Dec 26 j 05:31	27°♄34'51		evening max el	904 Dec 05 j 05:45	8°♄19'48	19°48'01
retrograde	903 Dec 29 j 19:56	28°♄44'37		asc. node	904 Dec 12 j 02:33	12°♄39'18	
evening set	904 Jan 02 j 00:50	27°♄45'16		retrograde	904 Dec 12 j 17:15	12°♄41'25	
inferior conj	904 Jan 07 j 17:57	21°♄57'38	3°22'59	evening set	904 Dec 16 j 05:42	11°♄28'57	
minimum elong	904 Jan 07 j 15:35	22°♄05'01	3°22'33	inferior conj	904 Dec 21 j 18:30	5°♄27'02	2°52'30
min. Earth dist.	904 Jan 09 j 08:07	19°♄58'25	0.65606 AU	minimum elong	904 Dec 21 j 15:46	5°♄36'02	2°51'46
morning rise	904 Jan 13 j 05:23	15°♄45'56		min. Earth dist.	904 Dec 22 j 18:40	4°♄06'57	0.66678 AU
direct	904 Jan 19 j 17:48	12°♄56'23			904 Dec 26 j 05:18	30°♄	
morning max el	904 Feb 01 j 17:28	20°♄34'16	26°40'03	morning rise	904 Dec 27 j 01:11	29°♄12'23	
desc. node	904 Feb 03 j 06:13	22°♄09'33		direct	905 Jan 02 j 00:45	26°♄33'37	
	904 Feb 09 j 21:10	0°♄			905 Jan 09 j 22:40	0°♄	
	904 Feb 29 j 17:18	0°♄		morning max el	905 Jan 14 j 02:30	3°♄44'49	25°27'28
morning set	904 Mar 08 j 15:37	14°♄20'45		desc. node	905 Jan 20 j 03:13	10°♄31'52	
max. Earth dist.	904 Mar 12 j 22:58	22°♄43'16	1.34611 AU		905 Feb 03 j 04:34	0°♄	
	904 Mar 16 j 13:13	0°♄		morning set	905 Feb 19 j 07:44	26°♄50'07	
					905 Feb 21 j 01:15	0°♄	
superior conj	904 Mar 17 j 07:31	1°♄34'25	0°-58'-34	max. Earth dist.	905 Feb 23 j 02:27	3°♄49'38	1.36267 AU
minimum elong	904 Mar 17 j 10:23	1°♄49'13	0°58'04				
asc. node	904 Mar 23 j 04:49	13°♄53'17		superior conj	905 Feb 28 j 23:08	15°♄12'25	-1°-24'-8
evening rise	904 Mar 24 j 22:06	17°♄28'17		minimum elong	905 Mar 01 j 02:58	15°♄31'35	1°23'36
	904 Mar 31 j 05:55	0°♄			905 Mar 08 j 06:18	0°♄	
evening max el	904 Apr 13 j 05:34	18°♄41'49	21°03'53	evening rise	905 Mar 09 j 03:07	1°♄45'37	
retrograde	904 Apr 24 j 22:40	24°♄23'27		asc. node	905 Mar 10 j 01:52	3°♄40'23	
evening set	904 Apr 27 j 04:48	24°♄11'32		evening max el	905 Mar 26 j 15:45	0°♄08'20	19°50'29
desc. node	904 May 01 j 05:25	22°♄57'21			905 Mar 26 j 12:19	0°♄	
inferior conj	904 May 06 j 12:33	20°♄13'06	-1°-31'-18	retrograde	905 Apr 05 j 15:23	4°♄56'33	
minimum elong	904 May 06 j 08:15	20°♄19'10	1°29'48	evening set	905 Apr 07 j 16:57	4°♄45'08	
min. Earth dist.	904 May 07 j 03:04	19°♄52'33	0.54959 AU	inferior conj	905 Apr 16 j 12:06	0°♄43'59	0°27'26
morning rise	904 May 15 j 11:20	16°♄10'31		minimum elong	905 Apr 16 j 13:18	0°♄42'08	0°27'00
direct	904 May 18 j 19:37	15°♄46'21			905 Apr 17 j 16:35	30°♄	
morning max el	904 May 31 j 16:59	21°♄55'41	22°35'30	desc. node	905 Apr 18 j 02:27	29°♄44'51	
	904 Jun 07 j 16:18	0°♄		min. Earth dist.	905 Apr 18 j 17:13	29°♄22'22	0.55589 AU
asc. node	904 Jun 19 j 04:04	19°♄30'01		morning rise	905 Apr 25 j 06:25	26°♄13'25	
morning set	904 Jun 22 j 18:30	26°♄50'59		direct	905 Apr 29 j 11:25	25°♄34'11	
	904 Jun 24 j 06:25	0°♄			905 May 10 j 11:35	0°♄	
				morning max el	905 May 13 j 08:46	2°♄29'33	24°16'58
superior conj	904 Jun 29 j 23:23	12°♄09'52	1°32'34		905 Jun 01 j 09:35	0°♄	
minimum elong	904 Jun 29 j 21:10	11°♄58'06	1°32'21	asc. node	905 Jun 06 j 01:06	9°♄15'29	
max. Earth dist.	904 Jul 02 j 23:25	18°♄27'58	1.34164 AU	morning set	905 Jun 07 j 06:20	11°♄48'16	
evening rise	904 Jul 07 j 20:31	28°♄19'01					
	904 Jul 08 j 17:15	0°♄		superior conj	905 Jun 14 j 07:38	27°♄00'38	1°17'29
	904 Jul 26 j 07:20	0°♄		minimum elong	905 Jun 14 j 05:11	26°♄47'21	1°17'07
desc. node	904 Jul 28 j 04:42	2°♄44'51			905 Jun 15 j 16:52	0°♄	
evening max el	904 Aug 11 j 10:45	20°♄02'42	27°10'43	max. Earth dist.	905 Jun 16 j 02:30	0°♄51'48	1.33147 AU
retrograde	904 Aug 24 j 19:12	27°♄21'38		evening rise	905 Jun 21 j 16:42	12°♄33'28	

	905 Jun 30 j 21:58	0°♌			906 Jun 07 j 05:29	0°♍	
desc. node	905 Jul 15 j 01:44	21°♌51'53			906 Jun 24 j 07:43	0°♌	
	905 Jul 21 j 18:59	0°♍		desc. node	906 Jul 01 j 22:46	10°♌07'35	
evening max el	905 Jul 24 j 21:17	3°♍09'23	27°25'44	evening max el	906 Jul 07 j 04:06	15°♌42'36	27°08'50
retrograde	905 Aug 07 j 13:46	10°♍28'10		retrograde	906 Jul 21 j 01:21	22°♌58'10	
evening set	905 Aug 14 j 18:18	7°♍50'53		evening set	906 Jul 28 j 03:24	20°♌41'07	
min. Earth dist.	905 Aug 18 j 09:17	4°♍42'55	0.63399 AU	min. Earth dist.	906 Jul 31 j 18:21	17°♌56'48	0.61524 AU
inferior conj	905 Aug 21 j 01:15	2°♍02'16	-3°-35'-27	inferior conj	906 Aug 03 j 21:13	15°♌10'36	-4°-19'-27
minimum elong	905 Aug 21 j 06:14	1°♍49'41	3°34'04	minimum elong	906 Aug 04 j 01:50	15°♌00'17	4°18'37
	905 Aug 23 j 03:27	30°♌♌		morning rise	906 Aug 11 j 03:07	10°♌14'19	
morning rise	905 Aug 27 j 20:29	26°♌45'28		direct	906 Aug 13 j 12:48	9°♌50'10	
direct	905 Aug 30 j 07:42	26°♌16'10		asc. node	906 Aug 19 j 21:21	12°♌44'26	
asc. node	905 Sep 02 j 00:18	26°♌51'38		morning max el	906 Aug 20 j 12:30	13°♌19'51	17°57'45
morning max el	905 Sep 05 j 22:08	29°♌41'52	17°52'55		906 Aug 31 j 19:37	0°♍	
	905 Sep 06 j 05:18	0°♍		morning set	906 Sep 05 j 09:23	8°♍17'47	
morning set	905 Sep 22 j 10:31	25°♍11'59					
	905 Sep 25 j 04:39	0°♎		superior conj	906 Sep 15 j 20:20	27°♍05'51	1°15'30
				minimum elong	906 Sep 16 j 00:59	27°♍26'09	1°14'58
superior conj	905 Oct 04 j 13:40	15°♎55'49	0°42'35		906 Sep 17 j 12:31	0°♎	
minimum elong	905 Oct 04 j 17:45	16°♎12'46	0°42'02	max. Earth dist.	906 Sep 23 j 08:03	9°♎48'08	1.42414 AU
max. Earth dist.	905 Oct 10 j 19:40	26°♎07'03	1.43919 AU	desc. node	906 Sep 27 j 22:04	17°♎15'05	
desc. node	905 Oct 11 j 01:00	26°♎28'27		evening rise	906 Sep 29 j 19:57	20°♎17'31	
	905 Oct 13 j 06:05	0°♏			906 Oct 06 j 02:09	0°♏	
evening rise	905 Oct 20 j 06:23	10°♏57'51			906 Oct 27 j 09:00	0°♏	
	905 Nov 01 j 20:53	0°♏		greatest brilliancy	906 Oct 27 j 08:49	29°♏59'27	-0.3m
greatest brilliancy	905 Nov 12 j 16:57	15°♏14'19	-0.5m	evening max el	906 Nov 01 j 02:09	5°♏19'30	22°06'03
evening max el	905 Nov 18 j 06:44	21°♏48'54	20°51'55	retrograde	906 Nov 10 j 11:08	10°♏53'57	
retrograde	905 Nov 26 j 14:55	26°♏45'13		evening set	906 Nov 14 j 20:40	9°♏09'43	
asc. node	905 Nov 28 j 23:35	26°♏13'49		asc. node	906 Nov 15 j 20:37	8°♏16'30	
evening set	905 Nov 30 j 12:53	25°♏17'47		inferior conj	906 Nov 20 j 06:08	2°♏49'06	1°28'01
inferior conj	905 Dec 05 j 23:14	19°♏04'48	2°13'31	minimum elong	906 Nov 20 j 04:15	2°♏55'37	1°27'17
minimum elong	905 Dec 05 j 20:42	19°♏13'26	2°12'41	min. Earth dist.	906 Nov 20 j 06:36	2°♏47'28	0.67712 AU
min. Earth dist.	905 Dec 06 j 10:57	18°♏24'39	0.67372 AU		906 Nov 22 j 08:11	30°♏♏	
morning rise	905 Dec 11 j 04:05	12°♏49'23		morning rise	906 Nov 25 j 11:38	26°♏35'07	
direct	905 Dec 16 j 12:49	10°♏29'12		direct	906 Nov 30 j 05:09	24°♏37'19	
morning max el	905 Dec 27 j 10:48	16°♏59'55	24°02'09		906 Dec 09 j 12:58	0°♏	
desc. node	906 Jan 07 j 00:14	29°♏40'12		morning max el	906 Dec 09 j 21:12	0°♏20'33	22°34'06
	906 Jan 07 j 06:08	0°♐		greatest brilliancy	906 Dec 14 j 11:28	5°♏28'48	-0.3m
	906 Jan 27 j 05:27	0°♐		desc. node	906 Dec 24 j 21:17	19°♏21'49	
morning set	906 Feb 01 j 02:06	8°♐11'15			907 Jan 01 j 03:12	0°♐	
max. Earth dist.	906 Feb 04 j 22:00	14°♐54'09	1.38277 AU	morning set	907 Jan 12 j 16:46	18°♐09'57	
				max. Earth dist.	907 Jan 17 j 18:05	26°♐35'49	1.40421 AU
					907 Jan 19 j 17:45	0°♐	
superior conj	906 Feb 12 j 02:36	28°♐10'21	-1°-45'-43				
minimum elong	906 Feb 12 j 06:33	28°♐29'11	1°45'22	superior conj	907 Jan 25 j 13:22	10°♐16'48	-2°00'-1
	906 Feb 13 j 01:33	0°♑		minimum elong	907 Jan 25 j 15:46	10°♐27'37	1°59'56
evening rise	906 Feb 21 j 01:19	15°♑36'50		evening rise	907 Feb 04 j 13:41	28°♐54'41	
asc. node	906 Feb 24 j 22:54	23°♑09'44			907 Feb 05 j 03:32	0°♑	
	906 Feb 28 j 17:05	0°♑		asc. node	907 Feb 11 j 19:57	12°♑15'05	
evening max el	906 Mar 09 j 12:52	12°♑13'24	18°56'21	evening max el	907 Feb 20 j 18:10	24°♑50'01	18°22'16
retrograde	906 Mar 17 j 22:49	16°♑17'44		retrograde	907 Feb 28 j 01:28	28°♑26'55	
evening set	906 Mar 20 j 04:12	16°♑01'50		evening set	907 Mar 02 j 12:04	28°♑03'45	
inferior conj	906 Mar 28 j 04:46	11°♑45'17	2°05'09	inferior conj	907 Mar 09 j 18:37	23°♑26'17	3°08'42
minimum elong	906 Mar 28 j 08:49	11°♑38'03	2°03'58	minimum elong	907 Mar 09 j 22:12	23°♑18'49	3°08'01
min. Earth dist.	906 Mar 31 j 09:15	9°♑30'22	0.57039 AU	min. Earth dist.	907 Mar 13 j 05:04	20°♑36'15	0.59000 AU
desc. node	906 Apr 04 j 23:27	6°♑51'53		morning rise	907 Mar 17 j 04:33	17°♑54'34	
morning rise	906 Apr 05 j 09:12	6°♑41'28		desc. node	907 Mar 22 j 20:30	16°♑12'00	
direct	906 Apr 10 j 16:30	5°♑34'15		direct	907 Mar 23 j 10:34	16°♑11'05	
morning max el	906 Apr 24 j 23:36	12°♑59'49	25°51'30	morning max el	907 Apr 06 j 18:48	23°♑53'35	27°03'54
	906 May 08 j 07:00	0°♒			907 Apr 12 j 07:22	0°♑	
morning set	906 May 22 j 17:55	26°♒44'47			907 May 01 j 08:48	0°♒	
asc. node	906 May 23 j 22:10	29°♒14'30		morning set	907 May 07 j 03:32	11°♒34'06	
	906 May 24 j 06:41	0°♓		asc. node	907 May 10 j 19:13	19°♒21'25	
superior conj	906 May 29 j 18:35	11°♓58'27	0°58'21	superior conj	907 May 14 j 06:21	26°♒56'18	0°35'57
minimum elong	906 May 29 j 16:23	11°♓46'24	0°57'56	minimum elong	907 May 14 j 04:50	26°♒47'56	0°35'38
max. Earth dist.	906 May 30 j 12:10	13°♓34'48	1.32521 AU	max. Earth dist.	907 May 14 j 00:45	26°♒25'28	1.32268 AU
evening rise	906 Jun 05 j 20:20	27°♓09'46					

	907 May 15 j 15:46	0°♊		superior conj	908 Apr 27 j 17:19	11°♌48'29	0°11'02
evening rise	907 May 21 j 04:45	11°♊58'25		minimum elong	908 Apr 27 j 16:48	11°♌45'43	0°10'56
	907 May 30 j 09:59	0°♌		behind sun begin	908 Apr 27 j 13:06	11°♌25'29	
desc. node	907 Jun 18 j 19:49	27°♌09'46		behind sun end	908 Apr 27 j 20:30	12°♌05'57	
evening max el	907 Jun 19 j 04:30	27°♌30'39	26°18'56	evening rise	908 May 04 j 15:49	26°♌52'02	
	907 Jun 22 j 00:43	0°♍			908 May 06 j 03:39	0°♊	
retrograde	907 Jul 03 j 04:29	4°♍43'02			908 May 23 j 11:59	0°♌	
evening set	907 Jul 09 j 16:27	2°♍58'32		evening max el	908 May 30 j 21:53	8°♌33'31	25°01'17
min. Earth dist.	907 Jul 13 j 17:25	0°♍22'24	0.59476 AU	desc. node	908 Jun 04 j 16:49	12°♌28'46	
	907 Jul 14 j 05:23	30°♌☾		retrograde	908 Jun 13 j 21:39	15°♌40'15	
inferior conj	907 Jul 17 j 01:17	27°♌48'15	-4°-47'-3	evening set	908 Jun 19 j 06:08	14°♌34'29	
minimum elong	907 Jul 17 j 03:30	27°♌43'56	4°46'56	min. Earth dist.	908 Jun 24 j 09:22	11°♌47'55	0.57489 AU
morning rise	907 Jul 24 j 17:57	23°♌15'01		inferior conj	908 Jun 27 j 10:10	9°♌46'00	-4°-46'-43
direct	907 Jul 27 j 04:39	22°♌53'59		minimum elong	908 Jun 27 j 07:48	9°♌49'59	4°46'35
morning max el	907 Aug 03 j 22:08	26°♌37'14	18°22'15	morning rise	908 Jul 05 j 13:19	5°♌35'12	
asc. node	907 Aug 06 j 18:25	29°♌47'02		direct	908 Jul 08 j 02:48	5°♌16'05	
	907 Aug 06 j 22:30	0°♎		morning max el	908 Jul 17 j 00:02	9°♌25'14	19°07'33
morning set	907 Aug 19 j 21:51	22°♎02'36		asc. node	908 Jul 23 j 15:29	17°♌44'52	
	907 Aug 24 j 01:51	0°♏			908 Jul 30 j 14:54	0°♎	
				morning set	908 Aug 02 j 19:53	6°♎15'48	
superior conj	907 Aug 29 j 03:00	9°♏26'50	1°35'54				
minimum elong	907 Aug 29 j 06:06	9°♏41'06	1°35'40	superior conj	908 Aug 11 j 04:02	22°♎42'59	1°45'17
max. Earth dist.	907 Sep 05 j 15:06	22°♏48'03	1.40515 AU	minimum elong	908 Aug 11 j 05:06	22°♎48'06	1°45'16
	907 Sep 09 j 21:28	0°♐			908 Aug 15 j 00:07	0°♏	
evening rise	907 Sep 10 j 05:14	0°♐32'07		max. Earth dist.	908 Aug 17 j 18:25	5°♏04'39	1.38477 AU
desc. node	907 Sep 14 j 19:07	7°♐57'00		evening rise	908 Aug 21 j 15:00	11°♏55'30	
	907 Sep 29 j 13:02	0°♑		desc. node	908 Aug 31 j 16:09	28°♏30'07	
evening max el	907 Oct 14 j 16:55	18°♑52'08	23°25'39		908 Sep 01 j 15:14	0°♐	
retrograde	907 Oct 25 j 04:35	25°♑04'11			908 Sep 23 j 20:04	0°♑	
evening set	907 Oct 30 j 03:24	23°♑02'12		evening max el	908 Sep 26 j 05:00	2°♑27'43	24°44'26
asc. node	907 Nov 02 j 17:38	19°♑05'19		retrograde	908 Oct 07 j 18:13	9°♑11'39	
min. Earth dist.	907 Nov 04 j 03:15	17°♑12'23	0.67708 AU	evening set	908 Oct 13 j 07:22	6°♑52'27	
inferior conj	907 Nov 04 j 13:22	16°♑37'44	0°37'27	min. Earth dist.	908 Oct 17 j 22:32	1°♑36'45	0.67376 AU
minimum elong	907 Nov 04 j 12:29	16°♑40'43	0°37'04	inferior conj	908 Oct 18 j 19:10	0°♑28'15	0°-16'-51
morning rise	907 Nov 09 j 21:41	10°♑27'27		minimum elong	908 Oct 18 j 19:35	0°♑26'52	0°16'42
direct	907 Nov 14 j 00:45	8°♑52'26			908 Oct 19 j 03:41	30°♑♌	
morning max el	907 Nov 22 j 13:17	13°♑50'31	21°11'39	asc. node	908 Oct 19 j 14:41	29°♑23'50	
greatest brilliancy	907 Nov 27 j 21:16	19°♑59'03	-0.4m	morning rise	908 Oct 24 j 08:15	24°♑24'08	
	907 Dec 05 j 06:38	0°♒		direct	908 Oct 27 j 22:30	23°♑09'46	
desc. node	907 Dec 11 j 18:22	9°♒27'24		morning max el	908 Nov 04 j 12:57	27°♑30'54	20°00'18
morning set	907 Dec 23 j 03:24	26°♒51'05			908 Nov 06 j 19:33	0°♑	
	907 Dec 25 j 03:17	0°♓		greatest brilliancy	908 Nov 11 j 18:28	6°♑20'46	-0.6m
max. Earth dist.	907 Dec 30 j 20:45	9°♓13'44	1.42397 AU	desc. node	908 Nov 27 j 15:24	29°♑49'40	
					908 Nov 27 j 18:06	0°♒	
superior conj	908 Jan 07 j 02:09	21°♓19'22	-2°-2'-39	morning set	908 Nov 30 j 23:41	4°♒58'37	
minimum elong	908 Jan 07 j 00:40	21°♓13'01	2°02'38	max. Earth dist.	908 Dec 12 j 06:38	22°♒41'03	1.43942 AU
	908 Jan 12 j 01:56	0°♈			908 Dec 16 j 19:40	0°♓	
evening rise	908 Jan 18 j 12:33	11°♈31'28					
	908 Jan 29 j 04:14	0°♉		superior conj	908 Dec 17 j 12:35	1°♓08'51	-1°-48'-53
asc. node	908 Jan 29 j 16:59	0°♉48'56		minimum elong	908 Dec 17 j 05:59	0°♓41'58	1°48'27
evening max el	908 Feb 04 j 04:33	7°♉49'52	18°08'00	evening rise	908 Dec 30 j 17:31	23°♓17'56	
retrograde	908 Feb 10 j 20:52	11°♉15'11			909 Jan 03 j 15:09	0°♈	
evening set	908 Feb 13 j 12:09	10°♉43'20		asc. node	909 Jan 15 j 14:01	18°♈41'06	
inferior conj	908 Feb 20 j 04:00	5°♉44'24	3°40'14	evening max el	909 Jan 17 j 17:00	21°♈04'32	18°13'03
minimum elong	908 Feb 20 j 05:35	5°♉40'36	3°40'06	retrograde	909 Jan 24 j 04:25	24°♈31'43	
min. Earth dist.	908 Feb 23 j 07:47	2°♉43'28	0.61121 AU	evening set	909 Jan 27 j 00:19	23°♈50'10	
morning rise	908 Feb 26 j 20:11	29°♈53'41		inferior conj	909 Feb 02 j 05:01	18°♈30'55	3°46'59
	908 Feb 26 j 16:27	30°♈♈		minimum elong	909 Feb 02 j 04:35	18°♈32'07	3°46'58
direct	908 Mar 04 j 15:46	27°♈35'33		min. Earth dist.	909 Feb 04 j 19:28	15°♈42'07	0.63121 AU
desc. node	908 Mar 08 j 17:32	28°♈20'50		morning rise	909 Feb 08 j 06:55	12°♈28'46	
	908 Mar 12 j 02:47	0°♉		direct	909 Feb 15 j 06:03	9°♈46'38	
morning max el	908 Mar 18 j 20:31	5°♉27'26	27°43'00	desc. node	909 Feb 23 j 14:34	12°♈56'44	
	908 Apr 06 j 05:23	0°♊		morning max el	909 Mar 01 j 03:21	17°♈40'58	27°44'47
morning set	908 Apr 20 j 09:21	26°♊09'51			909 Mar 11 j 10:53	0°♉	
	908 Apr 22 j 05:39	0°♊			909 Mar 30 j 00:08	0°♊	
max. Earth dist.	908 Apr 26 j 12:20	9°♊10'19	1.32388 AU	morning set	909 Apr 04 j 09:03	10°♊23'40	
asc. node	908 Apr 26 j 16:17	9°♊31'54		max. Earth dist.	909 Apr 09 j 18:43	21°♊34'18	1.32904 AU

superior conj	909 Apr 12 j 01:41	26° Υ 28'27	0°-15'-38	max. Earth dist.	910 Mar 23 j 16:12	3° Υ 27'22	1.33858 AU
minimum elong	909 Apr 12 j 02:26	26° Υ 32'31	0°15'28				
behind sun begin	909 Apr 12 j 01:13	26° Υ 25'57		superior conj	910 Mar 27 j 05:31	10° Υ 50'21	0°-43'00
behind sun end	909 Apr 12 j 03:39	26° Υ 39'05		minimum elong	910 Mar 27 j 07:38	11° Υ 01'30	0°42'35
asc. node	909 Apr 13 j 13:20	29° Υ 41'05		asc. node	910 Mar 31 j 10:22	19° Υ 45'11	
	909 Apr 13 j 16:50	0° X		evening rise	910 Apr 03 j 14:22	26° Υ 26'40	
evening rise	909 Apr 19 j 03:37	11° X 43'22			910 Apr 05 j 07:33	0° X	
	909 Apr 28 j 12:25	0° II		evening max el	910 Apr 24 j 05:48	29° X 44'49	21°53'33
evening max el	909 May 12 j 11:56	19° II 08'09	23°27'53		910 Apr 24 j 12:08	0° II	
desc. node	909 May 22 j 13:49	25° II 28'11		retrograde	910 May 06 j 19:39	5° II 54'47	
retrograde	909 May 26 j 02:43	25° II 56'41		evening set	910 May 09 j 11:24	5° II 39'04	
evening set	909 May 29 j 23:42	25° II 23'42		desc. node	910 May 09 j 10:50	5° II 39'20	
min. Earth dist.	909 Jun 05 j 22:13	22° II 11'45	0.55891 AU	inferior conj	910 May 18 j 20:36	1° II 35'25	-2°-37'-12
inferior conj	909 Jun 07 j 22:59	20° II 59'12	-4°-5'-10	minimum elong	910 May 18 j 13:48	1° II 44'58	2°35'04
minimum elong	909 Jun 07 j 16:10	21° II 09'24	4°03'47	min. Earth dist.	910 May 18 j 10:31	1° II 49'33	0.55033 AU
morning rise	909 Jun 16 j 12:00	17° II 03'44			910 May 21 j 18:27	30° R X	
direct	909 Jun 19 j 05:33	16° II 45'21		morning rise	910 May 27 j 17:26	27° X 40'49	
morning max el	909 Jun 29 j 15:36	21° II 34'37	20°14'00	direct	910 May 30 j 18:33	27° X 20'14	
	909 Jul 06 j 13:51	0° S			910 Jun 08 j 00:29	0° II	
asc. node	909 Jul 10 j 12:33	6° S 25'07		morning max el	910 Jun 11 j 19:47	2° II 59'57	21°39'44
morning set	909 Jul 18 j 00:33	20° S 49'40		asc. node	910 Jun 27 j 09:36	25° II 37'04	
	909 Jul 22 j 11:52	0° Q			910 Jun 29 j 15:21	0° S	
				morning set	910 Jul 02 j 09:27	5° S 37'12	
superior conj	909 Jul 25 j 18:21	6° Q 39'37	1°45'44				
minimum elong	909 Jul 25 j 17:41	6° Q 36'15	1°45'44	superior conj	910 Jul 09 j 17:54	21° S 04'19	1°39'04
max. Earth dist.	909 Jul 30 j 23:36	16° Q 56'17	1.36553 AU	minimum elong	910 Jul 09 j 16:05	20° S 54'47	1°38'56
evening rise	909 Aug 03 j 23:02	24° Q 23'21		max. Earth dist.	910 Jul 13 j 12:27	28° S 49'59	1.34927 AU
	909 Aug 07 j 02:02	0° P			910 Jul 14 j 02:21	0° Q	
desc. node	909 Aug 18 j 13:09	18° P 49'38		evening rise	910 Jul 18 j 00:34	7° Q 42'25	
	909 Aug 26 j 05:54	0° A			910 Jul 30 j 16:46	0° P	
evening max el	909 Sep 08 j 16:42	16° A 06'14	25°55'01	desc. node	910 Aug 05 j 10:09	8° P 48'35	
retrograde	909 Sep 21 j 03:12	23° A 11'38		evening max el	910 Aug 22 j 04:53	29° P 41'25	26°49'38
evening set	909 Sep 27 j 06:47	20° A 38'06			910 Aug 22 j 12:40	0° A	
min. Earth dist.	909 Oct 01 j 14:06	15° A 58'22	0.66716 AU	retrograde	910 Sep 04 j 06:49	6° A 57'14	
inferior conj	909 Oct 02 j 21:46	14° A 18'33	-1°-13'-27	evening set	910 Sep 10 j 23:27	4° A 14'48	
minimum elong	909 Oct 02 j 23:39	14° A 12'34	1°12'40	min. Earth dist.	910 Sep 14 j 23:27	0° A 12'24	0.65712 AU
asc. node	909 Oct 06 j 11:44	10° A 10'08			910 Sep 15 j 03:44	30° R P	
morning rise	909 Oct 08 j 17:24	8° A 23'24		inferior conj	910 Sep 16 j 19:08	28° P 04'23	-2°-10'-35
direct	909 Oct 11 j 21:00	7° A 26'19		minimum elong	910 Sep 16 j 22:31	27° P 54'27	2°09'18
morning max el	909 Oct 18 j 19:55	11° A 20'11	19°03'20	morning rise	910 Sep 22 j 22:56	22° P 21'25	
	909 Nov 01 j 10:42	0° M		asc. node	910 Sep 23 j 08:47	22° P 09'39	
morning set	909 Nov 10 j 06:37	13° M 45'21		direct	910 Sep 25 j 18:15	21° P 37'49	
desc. node	909 Nov 14 j 12:25	20° M 23'52		morning max el	910 Oct 02 j 08:26	25° P 13'51	18°22'27
	909 Nov 20 j 15:30	0° J			910 Oct 06 j 08:25	0° A	
max. Earth dist.	909 Nov 24 j 22:13	6° J 43'34	1.44869 AU	morning set	910 Oct 21 j 16:31	23° A 54'24	
					910 Oct 25 j 10:58	0° M	
superior conj	909 Nov 26 j 22:57	9° J 55'44	-1°-16'-25	desc. node	910 Nov 01 j 09:26	11° M 05'35	
minimum elong	909 Nov 26 j 14:32	9° J 22'29	1°15'31				
	909 Dec 09 j 11:46	0° Z		superior conj	910 Nov 05 j 23:45	18° M 21'43	0°-30'-8
evening rise	909 Dec 12 j 00:31	4° Z 07'33		minimum elong	910 Nov 05 j 19:49	18° M 06'12	0°29'37
	909 Dec 28 j 11:13	0° \approx		max. Earth dist.	910 Nov 07 j 17:04	21° M 04'17	1.45074 AU
evening max el	910 Jan 01 j 04:53	4° \approx 28'16	18°36'37		910 Nov 13 j 09:39	0° J	
asc. node	910 Jan 02 j 11:02	5° \approx 39'43		evening rise	910 Nov 22 j 07:53	13° J 59'39	
retrograde	910 Jan 07 j 19:51	8° \approx 08'46			910 Dec 02 j 13:26	0° Z	
evening set	910 Jan 10 j 21:08	7° \approx 16'19		greatest brilliancy	910 Dec 06 j 02:22	5° Z 23'32	-0.7m
inferior conj	910 Jan 16 j 17:45	1° \approx 38'35	3°35'40	evening max el	910 Dec 15 j 13:50	17° Z 55'56	19°17'28
minimum elong	910 Jan 16 j 15:53	1° \approx 44'09	3°35'25	asc. node	910 Dec 20 j 08:04	21° Z 30'09	
	910 Jan 18 j 02:39	30° R Z		retrograde	910 Dec 22 j 15:47	21° Z 59'45	
min. Earth dist.	910 Jan 18 j 16:46	29° Z 18'22	0.64817 AU	evening set	910 Dec 25 j 23:45	20° Z 54'57	
morning rise	910 Jan 22 j 09:24	25° Z 29'39		inferior conj	910 Dec 31 j 14:48	15° Z 01'01	3°11'11
direct	910 Jan 29 j 03:39	22° Z 38'32		minimum elong	910 Dec 31 j 12:12	15° Z 09'20	3°10'37
desc. node	910 Feb 10 j 11:37	29° Z 24'15		min. Earth dist.	911 Jan 01 j 22:50	13° Z 18'13	0.66119 AU
	910 Feb 11 j 02:22	0° \approx		morning rise	911 Jan 05 j 23:51	8° Z 48'04	
morning max el	910 Feb 11 j 12:40	0° \approx 25'33	27°11'52	direct	911 Jan 12 j 07:19	6° Z 01'51	
	910 Mar 05 j 10:48	0° H		morning max el	911 Jan 24 j 22:08	13° Z 29'23	26°11'18
morning set	910 Mar 18 j 23:44	24° H 06'34		desc. node	911 Jan 28 j 08:39	17° Z 11'34	
	910 Mar 21 j 23:18	0° Y			911 Feb 07 j 07:53	0° \approx	

	911 Feb 26 j 03:47	0°♄			912 Jan 31 j 22:48	0°♁		
morning set	911 Mar 02 j 01:32	7°♄06'56		morning set	912 Feb 12 j 09:10	19°♁09'10		
max. Earth dist.	911 Mar 06 j 02:21	14°♄48'11	1.35267 AU	max. Earth dist.	912 Feb 16 j 02:07	25°♁51'20	1.37093 AU	
					912 Feb 18 j 07:29	0°♄		
superior conj	911 Mar 11 j 02:27	24°♄47'12	-1°-9'-44	superior conj	912 Feb 22 j 13:24	8°♄09'22	-1°-33'-57	
minimum elong	911 Mar 11 j 05:48	25°♄04'16	1°09'12	minimum elong	912 Feb 22 j 17:26	8°♄29'09	1°33'29	
	911 Mar 13 j 15:23	0°♄		evening rise	912 Mar 02 j 00:37	25°♄03'22		
asc. node	911 Mar 18 j 07:24	9°♄40'09		asc. node	912 Mar 04 j 04:26	29°♄20'29		
evening rise	911 Mar 18 j 22:08	10°♄55'56			912 Mar 04 j 12:30	0°♄		
	911 Mar 29 j 01:43	0°♄		evening max el	912 Mar 19 j 00:23	22°♄32'42	19°24'57	
evening max el	911 Apr 06 j 09:24	10°♄49'50	20°30'26	retrograde	912 Mar 28 j 07:00	27°♄00'57		
retrograde	911 Apr 17 j 08:43	16°♄07'59		evening set	912 Mar 30 j 09:40	26°♄48'03		
evening set	911 Apr 19 j 11:35	15°♄56'57		inferior conj	912 Apr 07 j 21:05	22°♄40'58	1°12'43	
desc. node	911 Apr 26 j 07:52	13°♄17'54		minimum elong	912 Apr 07 j 23:58	22°♄36'16	1°11'45	
inferior conj	911 Apr 28 j 15:14	11°♄59'22	0°-40'-2	min. Earth dist.	912 Apr 10 j 14:06	20°♄55'25	0.56119 AU	
minimum elong	911 Apr 28 j 13:21	12°♄02'07	0°39'22	desc. node	912 Apr 12 j 04:54	19°♄56'26		
min. Earth dist.	911 Apr 29 j 23:30	11°♄12'40	0.55114 AU	morning rise	912 Apr 16 j 10:28	17°♄56'17		
morning rise	911 May 07 j 13:27	7°♄46'55		direct	912 Apr 21 j 02:15	17°♄06'58		
direct	911 May 11 j 05:44	7°♄17'41		morning max el	912 May 05 j 05:24	24°♄16'37	24°59'05	
morning max el	911 May 24 j 14:40	13°♄47'34	23°18'36		912 May 10 j 10:54	0°♄		
	911 Jun 06 j 01:03	0°♄			912 May 28 j 16:45	0°♄		
asc. node	911 Jun 14 j 06:39	15°♄12'42		morning set	912 May 31 j 08:42	5°♄30'51		
morning set	911 Jun 16 j 20:46	20°♄33'08		asc. node	912 May 31 j 03:42	5°♄04'34		
	911 Jun 21 j 06:58	0°♄						
superior conj	911 Jun 23 j 23:43	5°♄48'09	1°26'44	superior conj	912 Jun 07 j 09:21	20°♄42'33	1°09'49	
minimum elong	911 Jun 23 j 21:20	5°♄35'24	1°26'26	minimum elong	912 Jun 07 j 06:57	20°♄29'28	1°09'25	
max. Earth dist.	911 Jun 26 j 10:56	11°♄03'03	1.33684 AU	max. Earth dist.	912 Jun 08 j 17:17	23°♄36'09	1.32833 AU	
evening rise	911 Jul 01 j 15:06	21°♄40'18			912 Jun 11 j 16:50	0°♄		
	911 Jul 05 j 22:36	0°♄		evening rise	912 Jun 14 j 14:48	6°♄04'43		
desc. node	911 Jul 23 j 07:11	28°♄18'09			912 Jun 27 j 12:30	0°♄		
	911 Jul 24 j 12:53	0°♄		desc. node	912 Jul 09 j 04:14	17°♄05'19		
evening max el	911 Aug 04 j 16:36	13°♄02'22	27°20'47	evening max el	912 Jul 17 j 01:42	25°♄55'19	27°22'31	
retrograde	911 Aug 18 j 04:37	20°♄20'53			912 Jul 22 j 00:50	0°♄		
evening set	911 Aug 25 j 06:44	17°♄38'17		retrograde	912 Jul 30 j 20:14	3°♄12'56		
min. Earth dist.	911 Aug 29 j 00:20	14°♄12'04	0.64350 AU	evening set	912 Aug 07 j 01:09	0°♄42'13		
inferior conj	911 Aug 31 j 08:56	11°♄40'58	-3°-5'-50		912 Aug 08 j 00:20	30°♄		
minimum elong	911 Aug 31 j 13:32	11°♄28'39	3°04'21	min. Earth dist.	912 Aug 10 j 15:07	27°♄46'13	0.62635 AU	
morning rise	911 Sep 06 j 22:15	6°♄13'43		inferior conj	912 Aug 13 j 12:17	25°♄01'11	-3°-55'-33	
direct	911 Sep 09 j 11:47	5°♄40'02		minimum elong	912 Aug 13 j 17:19	24°♄49'08	3°54'21	
asc. node	911 Sep 10 j 05:50	5°♄42'58		morning rise	912 Aug 20 j 12:03	19°♄53'04		
morning max el	911 Sep 15 j 23:59	9°♄06'48	17°58'37	direct	912 Aug 22 j 22:21	19°♄26'14		
	911 Sep 30 j 01:51	0°♄		asc. node	912 Aug 27 j 02:53	20°♄47'53		
morning set	911 Oct 03 j 06:32	5°♄25'36		morning max el	912 Aug 29 j 15:41	22°♄52'15	17°52'44	
					912 Sep 04 j 05:37	0°♄		
superior conj	911 Oct 16 j 12:57	27°♄28'20	0°18'11	morning set	912 Sep 14 j 19:08	18°♄01'20		
minimum elong	911 Oct 16 j 15:01	27°♄36'45	0°17'54		912 Sep 21 j 13:53	0°♄		
	911 Oct 18 j 02:35	0°♄		superior conj	912 Sep 26 j 03:55	7°♄52'03	0°58'06	
desc. node	911 Oct 19 j 06:27	1°♄51'44		minimum elong	912 Sep 26 j 08:38	8°♄12'00	0°57'30	
max. Earth dist.	911 Oct 21 j 11:44	5°♄23'57	1.44540 AU	max. Earth dist.	912 Oct 03 j 02:50	19°♄22'54	1.43335 AU	
evening rise	911 Nov 01 j 20:40	23°♄09'26		desc. node	912 Oct 05 j 03:31	22°♄39'04		
	911 Nov 06 j 07:44	0°♄			912 Oct 09 j 18:55	0°♄		
greatest brilliancy	911 Nov 22 j 04:42	23°♄24'06	-0.6m	evening rise	912 Oct 11 j 04:43	2°♄11'46		
	911 Nov 27 j 10:35	0°♄			912 Oct 29 j 21:07	0°♄		
evening max el	911 Nov 28 j 18:01	1°♄24'45	20°13'39	greatest brilliancy	912 Nov 05 j 14:33	9°♄02'02	-0.4m	
retrograde	911 Dec 06 j 13:31	6°♄00'14		evening max el	912 Nov 10 j 16:30	14°♄54'14	21°22'23	
asc. node	911 Dec 07 j 05:06	5°♄57'51		retrograde	912 Nov 19 j 10:54	20°♄07'02		
evening set	911 Dec 10 j 05:52	4°♄41'24		asc. node	912 Nov 23 j 02:08	18°♄53'22		
	911 Dec 14 j 15:41	30°♄		evening set	912 Nov 23 j 13:33	18°♄32'31		
inferior conj	911 Dec 15 j 17:24	28°♄34'13	2°36'51	inferior conj	912 Nov 28 j 23:19	12°♄15'34	1°54'58	
minimum elong	911 Dec 15 j 14:42	28°♄43'18	2°36'03	minimum elong	912 Nov 28 j 21:01	12°♄23'30	1°54'08	
min. Earth dist.	911 Dec 16 j 12:00	27°♄31'32	0.67024 AU	min. Earth dist.	912 Nov 29 j 06:04	11°♄52'15	0.67554 AU	
morning rise	911 Dec 20 j 23:01	22°♄19'10		morning rise	912 Dec 04 j 04:10	6°♄00'24		
direct	911 Dec 26 j 16:22	19°♄47'54		direct	912 Dec 09 j 06:15	3°♄49'44		
morning max el	912 Jan 07 j 06:46	26°♄42'39	24°52'08					
	912 Jan 10 j 08:16	0°♄		morning max el	912 Dec 19 j 15:46	10°♄01'01	23°24'33	
desc. node	912 Jan 15 j 05:40	5°♄55'17		greatest brilliancy	912 Dec 25 j 05:50	16°♄19'23	-0.2m	

desc. node	913 Jan 01 j 02:43	25°♌19'25		direct	913 Nov 23 j 00:10	18°♍01'01	
	913 Jan 04 j 10:34	0°♌		morning max el	913 Dec 02 j 04:10	23°♍24'59	21°57'57
morning set	913 Jan 23 j 16:29	29°♌57'27		greatest brilliancy	913 Dec 06 j 21:59	28°♍46'00	-0.4m
	913 Jan 23 j 17:05	0°♌			913 Dec 07 j 21:49	0°♌	
max. Earth dist.	913 Jan 27 j 21:07	7°♌08'54	1.39188 AU	desc. node	913 Dec 18 j 23:46	15°♌12'05	
					913 Dec 28 j 20:16	0°♌	
superior conj	913 Feb 04 j 10:25	20°♌47'07	-1°-52'-55	morning set	914 Jan 03 j 18:39	9°♌20'50	
minimum elong	913 Feb 04 j 13:58	21°♌03'39	1°52'40	max. Earth dist.	914 Jan 09 j 18:56	19°♌11'14	1.41296 AU
	913 Feb 09 j 07:08	0°♌			914 Jan 16 j 02:49	0°♌	
evening rise	913 Feb 13 j 19:08	8°♌41'54					
asc. node	913 Feb 19 j 01:30	18°♌40'44		superior conj	914 Jan 17 j 12:29	2°♌27'50	-2°-2'-52
	913 Feb 25 j 22:55	0°♌		minimum elong	914 Jan 17 j 13:31	2°♌32'26	2°02'51
evening max el	913 Mar 02 j 01:19	4°♌52'13	18°39'21	evening rise	914 Jan 28 j 02:14	21°♌43'02	
retrograde	913 Mar 09 j 22:43	8°♌43'09			914 Feb 01 j 14:17	0°♌	
evening set	913 Mar 12 j 06:09	8°♌24'33		asc. node	914 Feb 05 j 22:31	7°♌33'42	
inferior conj	913 Mar 19 j 22:46	3°♌59'30	2°36'21	evening max el	914 Feb 13 j 09:13	17°♌40'00	18°13'49
minimum elong	913 Mar 20 j 02:57	3°♌51'33	2°35'18	retrograde	914 Feb 20 j 08:46	21°♌09'52	
min. Earth dist.	913 Mar 23 j 07:44	1°♌26'39	0.57829 AU	evening set	914 Feb 22 j 21:25	20°♌43'12	
	913 Mar 25 j 10:55	30°♌		inferior conj	914 Mar 01 j 21:19	15°♌56'54	3°25'33
morning rise	913 Mar 27 j 19:29	28°♌42'16		minimum elong	914 Mar 02 j 00:08	15°♌50'39	3°25'08
desc. node	913 Mar 30 j 01:55	27°♌50'25		min. Earth dist.	914 Mar 05 j 06:19	12°♌58'51	0.59906 AU
direct	913 Apr 02 j 13:07	27°♌20'09		morning rise	914 Mar 08 j 23:24	10°♌16'02	
	913 Apr 10 j 18:53	0°♌		direct	914 Mar 15 j 12:39	8°♌16'34	
morning max el	913 Apr 16 j 21:53	4°♌54'59	26°25'46	desc. node	914 Mar 16 j 22:57	8°♌22'05	
	913 May 05 j 05:11	0°♌		morning max el	914 Mar 29 j 19:42	16°♌04'20	27°24'52
morning set	913 May 15 j 19:39	20°♌24'56			914 Apr 10 j 05:12	0°♌	
asc. node	913 May 18 j 00:46	25°♌07'25			914 Apr 27 j 15:18	0°♌	
	913 May 20 j 06:42	0°♌		morning set	914 Apr 30 j 03:54	5°♌09'13	
				asc. node	914 May 04 j 21:50	15°♌16'23	
superior conj	913 May 22 j 20:52	5°♌41'01	0°49'12	max. Earth dist.	914 May 06 j 16:56	19°♌11'50	1.32270 AU
minimum elong	913 May 22 j 18:55	5°♌30'16	0°48'49				
max. Earth dist.	913 May 23 j 04:29	6°♌22'52	1.32365 AU	superior conj	914 May 07 j 08:32	20°♌37'26	0°25'39
evening rise	913 May 29 j 20:44	20°♌46'48		minimum elong	914 May 07 j 07:24	20°♌31'15	0°25'25
	913 Jun 03 j 10:11	0°♌			914 May 11 j 15:19	0°♌	
	913 Jun 21 j 22:54	0°♌		evening rise	914 May 14 j 06:31	5°♌38'32	
desc. node	913 Jun 26 j 01:16	4°♌52'31			914 May 27 j 03:50	0°♌	
evening max el	913 Jun 29 j 05:47	8°♌09'00	26°51'25	evening max el	914 Jun 11 j 03:14	19°♌37'49	25°48'50
retrograde	913 Jul 13 j 04:42	15°♌24'08		desc. node	914 Jun 12 j 22:16	21°♌15'14	
evening set	913 Jul 20 j 02:17	13°♌19'23		retrograde	914 Jun 25 j 04:08	26°♌48'35	
min. Earth dist.	913 Jul 23 j 19:44	10°♌40'47	0.60657 AU	evening set	914 Jul 01 j 05:39	25°♌20'46	
inferior conj	913 Jul 27 j 01:53	7°♌56'58	-4°-33'-48	min. Earth dist.	914 Jul 05 j 15:42	22°♌42'02	0.58599 AU
minimum elong	913 Jul 27 j 05:47	7°♌48'46	4°33'17	inferior conj	914 Jul 08 j 22:12	20°♌19'19	-4°-51'-13
morning rise	913 Aug 03 j 12:26	3°♌10'37		minimum elong	914 Jul 08 j 22:41	20°♌18'25	4°51'14
direct	913 Aug 05 j 22:07	2°♌48'08		morning rise	914 Jul 16 j 19:20	15°♌55'43	
morning max el	913 Aug 13 j 04:27	6°♌22'26	18°05'45	direct	914 Jul 19 j 06:55	15°♌35'40	
asc. node	913 Aug 13 j 23:58	7°♌11'55		morning max el	914 Jul 27 j 11:11	19°♌28'49	18°38'53
	913 Aug 28 j 06:11	0°♌		asc. node	914 Jul 31 j 21:02	24°♌40'03	
morning set	913 Aug 29 j 00:18	1°♌24'29			914 Aug 04 j 08:38	0°♌	
				morning set	914 Aug 12 j 17:19	15°♌22'52	
superior conj	913 Sep 07 j 21:23	19°♌33'41	1°25'37		914 Aug 20 j 06:53	0°♌	
minimum elong	913 Sep 08 j 01:32	19°♌52'09	1°25'13				
	913 Sep 13 j 21:15	0°♌		superior conj	914 Aug 21 j 12:34	2°♌20'06	1°41'06
max. Earth dist.	913 Sep 15 j 12:20	2°♌44'59	1.41629 AU	minimum elong	914 Aug 21 j 14:48	2°♌30'35	1°40'59
evening rise	913 Sep 21 j 01:19	11°♌50'47		max. Earth dist.	914 Aug 28 j 17:10	15°♌25'01	1.39648 AU
desc. node	913 Sep 22 j 00:34	13°♌23'54		evening rise	914 Sep 01 j 21:04	22°♌35'04	
	913 Oct 02 j 19:35	0°♌			914 Sep 06 j 08:50	0°♌	
greatest brilliancy	913 Oct 19 j 12:16	22°♌56'09	-0.3m	desc. node	914 Sep 08 j 21:36	4°♌02'48	
evening max el	913 Oct 24 j 09:37	28°♌24'58	22°39'40		914 Sep 26 j 18:31	0°♌	
	913 Oct 26 j 01:10	0°♌		evening max el	914 Oct 06 j 23:07	11°♌59'20	23°59'47
retrograde	913 Nov 03 j 06:12	4°♌16'28		retrograde	914 Oct 17 j 22:03	18°♌25'43	
evening set	913 Nov 07 j 21:05	2°♌24'54		evening set	914 Oct 23 j 02:49	16°♌16'30	
asc. node	913 Nov 09 j 23:11	0°♌20'49		asc. node	914 Oct 27 j 20:13	10°♌50'01	
	913 Nov 10 j 06:19	30°♌		min. Earth dist.	914 Oct 27 j 22:57	10°♌40'49	0.67607 AU
inferior conj	913 Nov 13 j 06:35	26°♌02'01	1°07'09	inferior conj	914 Oct 28 j 13:25	9°♌51'47	0°14'49
minimum elong	913 Nov 13 j 05:05	26°♌07'12	1°06'32	minimum elong	914 Oct 28 j 13:03	9°♌53'00	0°14'39
min. Earth dist.	913 Nov 13 j 02:32	26°♌16'01	0.67742 AU	transit middle	914 Oct 28 j 13:03	9°♌53'00	0°14'39
morning rise	913 Nov 18 j 12:59	19°♌49'04		transit begin	914 Oct 28 j 11:52	9°♌57'01	

transit end	914 Oct 28 j 14:14	9° \mathbb{M} 48'58		retrograde	915 Oct 01 j 09:36	2° \mathbb{M} 30'20	
morning rise	914 Nov 02 j 23:30	3° \mathbb{M} 43'36		evening set	915 Oct 07 j 05:03	0° \mathbb{M} 04'35	
direct	914 Nov 06 j 20:58	2° \mathbb{M} 17'29			915 Oct 07 j 07:11	30° \mathbb{R} \mathbb{A}	
morning max el	914 Nov 14 j 23:11	6° \mathbb{M} 58'33	20°39'38	min. Earth dist.	915 Oct 11 j 16:51	25° \mathbb{A} 04'06	0.67142 AU
greatest brilliancy	914 Nov 20 j 23:25	14° \mathbb{M} 03'15	-0.5m	inferior conj	915 Oct 12 j 18:03	23° \mathbb{A} 42'06	0°-40'-40
	914 Dec 02 j 05:51	0° \mathbb{A}		minimum elong	915 Oct 12 j 19:05	23° \mathbb{A} 38'46	0°40'15
desc. node	914 Dec 05 j 20:49	5° \mathbb{A} 25'21		asc. node	915 Oct 14 j 17:16	21° \mathbb{A} 12'59	
morning set	914 Dec 13 j 20:22	17° \mathbb{A} 38'38		morning rise	915 Oct 18 j 09:43	17° \mathbb{A} 41'33	
	914 Dec 21 j 16:07	0° \mathbb{B}		direct	915 Oct 21 j 19:16	16° \mathbb{A} 34'51	
max. Earth dist.	914 Dec 23 j 00:34	2° \mathbb{B} 10'50	1.43125 AU	morning max el	915 Oct 29 j 02:04	20° \mathbb{A} 42'41	19°34'12
					915 Nov 05 j 13:28	0° \mathbb{M}	
superior conj	914 Dec 29 j 14:22	12° \mathbb{B} 59'49	-1°-59'-4	greatest brilliancy	915 Nov 06 j 14:07	1° \mathbb{M} 27'13	-0.6m
minimum elong	914 Dec 29 j 10:41	12° \mathbb{B} 44'23	1°58'56	morning set	915 Nov 22 j 18:14	25° \mathbb{M} 54'35	
	915 Jan 08 j 11:46	0° \mathbb{M}		desc. node	915 Nov 22 j 17:52	25° \mathbb{M} 53'11	
evening rise	915 Jan 10 j 17:57	3° \mathbb{M} 58'48			915 Nov 25 j 09:31	0° \mathbb{A}	
asc. node	915 Jan 23 j 19:32	25° \mathbb{M} 50'59		max. Earth dist.	915 Dec 05 j 13:48	15° \mathbb{A} 57'24	1.44421 AU
	915 Jan 27 j 02:45	0° \mathbb{H}					
evening max el	915 Jan 27 j 20:53	0° \mathbb{H} 47'12	18°07'51	superior conj	915 Dec 09 j 13:38	22° \mathbb{A} 19'27	-1°-37'-19
retrograde	915 Feb 03 j 09:46	4° \mathbb{H} 11'22		minimum elong	915 Dec 09 j 05:32	21° \mathbb{A} 46'56	1°36'38
evening set	915 Feb 06 j 03:07	3° \mathbb{H} 35'22			915 Dec 14 j 07:32	0° \mathbb{B}	
	915 Feb 11 j 00:33	30° \mathbb{R} \mathbb{M}		evening rise	915 Dec 23 j 13:59	15° \mathbb{B} 21'50	
inferior conj	915 Feb 12 j 13:48	28° \mathbb{M} 27'36	3°45'39		916 Jan 01 j 08:12	0° \mathbb{M}	
minimum elong	915 Feb 12 j 14:29	28° \mathbb{M} 25'54	3°45'38	asc. node	916 Jan 10 j 16:33	13° \mathbb{M} 22'09	
min. Earth dist.	915 Feb 15 j 12:26	25° \mathbb{M} 29'30	0.62008 AU	evening max el	916 Jan 11 j 09:25	14° \mathbb{M} 06'33	18°20'52
morning rise	915 Feb 18 j 23:28	22° \mathbb{M} 31'38		retrograde	916 Jan 17 j 21:16	17° \mathbb{M} 38'05	
direct	915 Feb 25 j 21:55	20° \mathbb{M} 01'35		evening set	916 Jan 20 j 19:24	16° \mathbb{M} 51'55	
desc. node	915 Mar 03 j 19:59	21° \mathbb{M} 37'22		inferior conj	916 Jan 26 j 20:17	11° \mathbb{M} 24'15	3°44'03
morning max el	915 Mar 11 j 23:36	27° \mathbb{M} 54'36	27°48'15	minimum elong	916 Jan 26 j 19:09	11° \mathbb{M} 27'27	3°43'58
	915 Mar 13 j 23:58	0° \mathbb{H}		min. Earth dist.	916 Jan 29 j 04:05	8° \mathbb{M} 46'24	0.63883 AU
	915 Apr 03 j 22:32	0° \mathbb{Y}		morning rise	916 Feb 01 j 17:21	5° \mathbb{M} 18'50	
morning set	915 Apr 14 j 07:23	19° \mathbb{Y} 36'22		direct	916 Feb 08 j 15:12	2° \mathbb{M} 31'27	
	915 Apr 19 j 06:27	0° \mathbb{B}		desc. node	916 Feb 18 j 17:01	7° \mathbb{M} 05'24	
max. Earth dist.	915 Apr 20 j 02:49	1° \mathbb{B} 49'32	1.32560 AU	morning max el	916 Feb 22 j 07:57	10° \mathbb{M} 23'22	27°34'50
					916 Mar 08 j 18:22	0° \mathbb{H}	
superior conj	915 Apr 21 j 18:36	5° \mathbb{B} 25'09	0°00'-6		916 Mar 26 j 06:59	0° \mathbb{Y}	
minimum elong	915 Apr 21 j 18:36	5° \mathbb{B} 25'10	0°00'07	morning set	916 Mar 28 j 03:42	3° \mathbb{Y} 38'43	
behind sun begin	915 Apr 21 j 13:30	4° \mathbb{B} 57'28		max. Earth dist.	916 Apr 02 j 06:11	14° \mathbb{Y} 03'17	1.33260 AU
behind sun end	915 Apr 21 j 23:41	5° \mathbb{B} 52'53					
asc. node	915 Apr 21 j 18:52	5° \mathbb{B} 26'38		superior conj	916 Apr 05 j 01:19	19° \mathbb{Y} 58'34	0°-27'-11
evening rise	915 Apr 28 j 18:08	20° \mathbb{B} 32'11		minimum elong	916 Apr 05 j 02:38	20° \mathbb{Y} 05'40	0°26'55
	915 May 03 j 08:59	0° \mathbb{H}		asc. node	916 Apr 07 j 15:54	25° \mathbb{Y} 34'22	
	915 May 23 j 07:54	0° \mathbb{B}			916 Apr 09 j 17:19	0° \mathbb{B}	
evening max el	915 May 23 j 18:43	0° \mathbb{B} 26'21	24°22'40	evening rise	916 Apr 12 j 05:46	5° \mathbb{B} 21'32	
desc. node	915 May 30 j 19:16	5° \mathbb{B} 39'45			916 Apr 25 j 13:54	0° \mathbb{H}	
retrograde	915 Jun 06 j 15:55	7° \mathbb{B} 26'37		evening max el	916 May 04 j 09:23	10° \mathbb{H} 57'46	22°46'57
evening set	915 Jun 11 j 09:42	6° \mathbb{B} 36'26		desc. node	916 May 16 j 16:15	17° \mathbb{H} 30'21	
min. Earth dist.	915 Jun 17 j 05:50	3° \mathbb{B} 40'44	0.56743 AU	retrograde	916 May 17 j 15:19	17° \mathbb{H} 32'27	
inferior conj	915 Jun 19 j 22:27	1° \mathbb{B} 58'27	-4°-34'-50	evening set	916 May 20 j 22:33	17° \mathbb{H} 08'32	
minimum elong	915 Jun 19 j 17:55	2° \mathbb{B} 05'40	4°34'17	min. Earth dist.	916 May 28 j 17:52	13° \mathbb{H} 42'26	0.55427 AU
	915 Jun 23 j 04:36	30° \mathbb{R} \mathbb{H}		inferior conj	916 May 30 j 03:45	12° \mathbb{H} 53'50	-3°-33'-6
morning rise	915 Jun 28 j 05:51	27° \mathbb{H} 55'14		minimum elong	916 May 29 j 20:11	13° \mathbb{H} 04'42	3°31'10
direct	915 Jun 30 j 21:06	27° \mathbb{H} 36'26		morning rise	916 Jun 07 j 20:36	9° \mathbb{H} 01'21	
	915 Jul 07 j 21:12	0° \mathbb{B}		direct	916 Jun 10 j 16:51	8° \mathbb{H} 42'31	
morning max el	915 Jul 10 j 08:50	2° \mathbb{B} 00'55	19°33'13	morning max el	916 Jun 21 j 19:33	13° \mathbb{H} 51'40	20°48'21
asc. node	915 Jul 18 j 18:05	12° \mathbb{B} 57'16			916 Jul 03 j 14:14	0° \mathbb{B}	
morning set	915 Jul 27 j 18:31	29° \mathbb{B} 45'57		asc. node	916 Jul 04 j 15:09	1° \mathbb{B} 51'59	
	915 Jul 27 j 21:19	0° \mathbb{Q}		morning set	916 Jul 11 j 01:15	14° \mathbb{B} 26'27	
superior conj	915 Aug 04 j 19:49	15° \mathbb{Q} 54'52	1°46'27	superior conj	916 Jul 18 j 14:31	0° \mathbb{Q} 04'48	1°43'41
minimum elong	915 Aug 04 j 20:05	15° \mathbb{Q} 56'11	1°46'27	minimum elong	916 Jul 18 j 13:17	29° \mathbb{B} 58'29	1°43'38
max. Earth dist.	915 Aug 10 j 21:00	27° \mathbb{Q} 29'51	1.37637 AU		916 Jul 18 j 13:35	0° \mathbb{Q}	
	915 Aug 12 j 05:36	0° \mathbb{H}		max. Earth dist.	916 Jul 23 j 05:05	9° \mathbb{Q} 19'49	1.35822 AU
evening rise	915 Aug 14 j 16:51	4° \mathbb{H} 27'02		evening rise	916 Jul 27 j 08:55	17° \mathbb{Q} 17'51	
desc. node	915 Aug 26 j 18:37	24° \mathbb{H} 30'45			916 Aug 03 j 11:40	0° \mathbb{H}	
	915 Aug 30 j 09:19	0° \mathbb{A}		desc. node	916 Aug 12 j 15:37	14° \mathbb{H} 42'13	
evening max el	915 Sep 19 j 10:59	25° \mathbb{A} 36'47	25°15'56		916 Aug 23 j 17:01	0° \mathbb{A}	
	915 Sep 24 j 16:05	0° \mathbb{M}		evening max el	916 Aug 31 j 22:43	9° \mathbb{A} 13'57	26°20'32

retrograde	916 Sep 13 j 16:17	16° Ω 24'57		retrograde	917 Aug 27 j 17:46	0° Ω 02'36	
evening set	916 Sep 20 j 01:52	13° Ω 46'26			917 Aug 28 j 15:11	30° \mathbb{R} \mathbb{M}	
min. Earth dist.	916 Sep 24 j 05:55	9° Ω 22'50	0.66336 AU	evening set	917 Sep 03 j 14:59	27° \mathbb{M} 18'35	
inferior conj	916 Sep 25 j 18:40	7° Ω 30'21	-1°-37'-46	min. Earth dist.	917 Sep 07 j 11:57	23° \mathbb{M} 32'02	0.65173 AU
minimum elong	916 Sep 25 j 21:12	7° Ω 22'34	1°36'45	inferior conj	917 Sep 09 j 13:09	21° \mathbb{M} 13'02	-2°-34'-28
asc. node	916 Sep 30 j 14:20	2° Ω 25'33		minimum elong	917 Sep 09 j 17:07	21° \mathbb{M} 01'49	2°33'02
morning rise	916 Oct 01 j 17:37	1° Ω 40'17		morning rise	917 Sep 15 j 20:53	15° \mathbb{M} 36'30	
direct	916 Oct 04 j 17:23	0° Ω 49'28		asc. node	917 Sep 17 j 11:24	15° \mathbb{M} 04'02	
morning max el	916 Oct 11 j 11:46	4° Ω 34'26	18°43'57	direct	917 Sep 18 j 13:19	14° \mathbb{M} 57'42	
	916 Oct 29 j 04:32	0° \mathbb{M}		morning max el	917 Sep 25 j 02:00	18° \mathbb{M} 29'03	18°10'11
morning set	916 Nov 01 j 11:36	5° \mathbb{M} 13'34			917 Oct 03 j 15:01	0° Ω	
desc. node	916 Nov 08 j 14:53	16° \mathbb{M} 30'46		morning set	917 Oct 13 j 09:57	15° Ω 59'06	
	916 Nov 17 j 04:44	0° \mathbb{X}			917 Oct 21 j 23:31	0° \mathbb{M}	
				desc. node	917 Oct 26 j 11:56	7° \mathbb{M} 14'53	
superior conj	916 Nov 17 j 17:18	0° \mathbb{X} 49'21	0°-57'-51	superior conj	917 Oct 27 j 21:01	9° \mathbb{M} 26'30	0°-9'-9
minimum elong	916 Nov 17 j 10:08	0° \mathbb{X} 21'13	0°56'59	minimum elong	917 Oct 27 j 19:51	9° \mathbb{M} 21'52	0°09'01
max. Earth dist.	916 Nov 17 j 07:16	0° \mathbb{X} 09'58	1.45041 AU	behind sun begin	917 Oct 27 j 10:42	8° \mathbb{M} 45'28	
evening rise	916 Dec 03 j 10:52	25° \mathbb{X} 46'10		behind sun end	917 Oct 28 j 05:01	9° \mathbb{M} 58'13	
	916 Dec 06 j 02:07	0° \mathbb{Z}		max. Earth dist.	917 Oct 31 j 01:59	14° \mathbb{M} 30'48	1.44928 AU
evening max el	916 Dec 24 j 20:12	27° \mathbb{Z} 31'32	18°51'59		917 Nov 09 j 23:38	0° \mathbb{X}	
asc. node	916 Dec 27 j 13:36	29° \mathbb{Z} 53'17		evening rise	917 Nov 13 j 09:13	5° \mathbb{X} 17'02	
	916 Dec 27 j 17:33	0° \approx			917 Nov 29 j 14:05	0° \mathbb{Z}	
retrograde	916 Dec 31 j 15:07	1° \approx 21'18		greatest brilliancy	917 Nov 30 j 05:02	0° \mathbb{Z} 53'52	-0.7m
evening set	917 Jan 03 j 19:00	0° \approx 23'50		evening max el	917 Dec 08 j 03:17	10° \mathbb{Z} 59'37	19°39'39
	917 Jan 04 j 09:33	30° \mathbb{R} \mathbb{Z}		asc. node	917 Dec 14 j 10:38	15° \mathbb{Z} 10'03	
inferior conj	917 Jan 09 j 12:56	24° \mathbb{Z} 38'41	3°26'40	retrograde	917 Dec 15 j 12:09	15° \mathbb{Z} 16'21	
minimum elong	917 Jan 09 j 10:41	24° \mathbb{Z} 45'39	3°26'18	evening set	917 Dec 18 j 23:21	14° \mathbb{Z} 06'00	
min. Earth dist.	917 Jan 11 j 05:23	22° \mathbb{Z} 33'43	0.65409 AU	inferior conj	917 Dec 24 j 12:41	8° \mathbb{Z} 06'09	2°57'41
morning rise	917 Jan 15 j 01:20	18° \mathbb{Z} 27'31		minimum elong	917 Dec 24 j 09:59	8° \mathbb{Z} 15'01	2°57'00
direct	917 Jan 21 j 15:22	15° \mathbb{Z} 37'07		min. Earth dist.	917 Dec 25 j 14:53	6° \mathbb{Z} 40'00	0.66548 AU
morning max el	917 Feb 03 j 17:48	23° \mathbb{Z} 18'08	26°49'08	morning rise	917 Dec 29 j 19:53	1° \mathbb{Z} 51'49	
desc. node	917 Feb 04 j 14:03	24° \mathbb{Z} 09'54			918 Jan 01 j 11:53	30° \mathbb{R} \mathbb{X}	
	917 Feb 09 j 17:16	0° \approx		direct	918 Jan 04 j 21:37	29° \mathbb{X} 10'43	
	917 Mar 02 j 01:53	0° \mathbb{X}			918 Jan 08 j 13:58	0° \mathbb{Z}	
morning set	917 Mar 11 j 13:28	17° \mathbb{X} 05'06		morning max el	918 Jan 17 j 02:56	6° \mathbb{Z} 26'44	25°39'15
max. Earth dist.	917 Mar 15 j 23:10	25° \mathbb{X} 42'33	1.34400 AU	desc. node	918 Jan 22 j 11:07	12° \mathbb{Z} 23'24	
	917 Mar 18 j 01:59	0° \mathbb{Y}			918 Feb 04 j 09:43	0° \approx	
superior conj	917 Mar 20 j 02:31	4° \mathbb{Y} 10'15	0°-54'-30	morning set	918 Feb 22 j 08:15	29° \approx 42'30	
minimum elong	917 Mar 20 j 05:11	4° \mathbb{Y} 24'09	0°54'01		918 Feb 22 j 12:05	0° \mathbb{X}	
asc. node	917 Mar 25 j 12:55	15° \mathbb{Y} 34'48		max. Earth dist.	918 Feb 26 j 04:07	6° \mathbb{X} 50'39	1.35993 AU
evening rise	917 Mar 27 j 15:30	19° \mathbb{Y} 59'19					
	917 Apr 01 j 15:00	0° \mathbb{X}		superior conj	918 Mar 03 j 19:36	17° \mathbb{X} 53'01	-1°-20'-28
evening max el	917 Apr 16 j 06:43	21° \mathbb{X} 43'15	21°16'17	minimum elong	918 Mar 03 j 23:21	18° \mathbb{X} 11'46	1°19'55
retrograde	917 Apr 28 j 05:41	27° \mathbb{X} 32'40			918 Mar 09 j 18:29	0° \mathbb{Y}	
evening set	917 Apr 30 j 13:40	27° \mathbb{X} 20'07		evening rise	918 Mar 11 j 21:17	4° \mathbb{Y} 19'24	
desc. node	917 May 03 j 13:16	26° \mathbb{X} 30'33		asc. node	918 Mar 12 j 09:57	5° \mathbb{Y} 23'42	
inferior conj	917 May 09 j 22:17	23° \mathbb{X} 20'49	-1°-49'-14		918 Mar 26 j 19:47	0° \mathbb{X}	
minimum elong	917 May 09 j 17:12	23° \mathbb{X} 27'58	1°47'30	evening max el	918 Mar 29 j 15:15	3° \mathbb{X} 04'01	20°00'18
min. Earth dist.	917 May 10 j 06:29	23° \mathbb{X} 09'16	0.54947 AU	retrograde	918 Apr 08 j 20:57	7° \mathbb{X} 59'36	
morning rise	917 May 18 j 20:48	19° \mathbb{X} 20'49		evening set	918 Apr 10 j 22:32	7° \mathbb{X} 48'28	
direct	917 May 22 j 02:52	18° \mathbb{X} 57'51		inferior conj	918 Apr 19 j 20:09	3° \mathbb{X} 48'50	0°10'10
morning max el	917 Jun 03 j 19:30	24° \mathbb{X} 59'49	22°20'45	minimum elong	918 Apr 19 j 20:37	3° \mathbb{X} 48'08	0°10'01
	917 Jun 08 j 10:06	0° \mathbb{I}		transit middle	918 Apr 19 j 20:37	3° \mathbb{X} 48'08	0°10'01
asc. node	917 Jun 21 j 12:12	21° \mathbb{I} 14'34		transit begin	918 Apr 19 j 17:31	3° \mathbb{X} 52'50	
morning set	917 Jun 25 j 11:24	29° \mathbb{I} 18'01		transit end	918 Apr 19 j 23:43	3° \mathbb{X} 43'27	
	917 Jun 25 j 19:26	0° \mathbb{O}		desc. node	918 Apr 20 j 10:18	3° \mathbb{X} 27'23	
				min. Earth dist.	918 Apr 21 j 20:22	2° \mathbb{X} 36'04	0.55436 AU
superior conj	917 Jul 02 j 17:06	14° \mathbb{O} 38'49	1°34'27		918 Apr 26 j 21:29	30° \mathbb{R} \mathbb{Y}	
minimum elong	917 Jul 02 j 14:58	14° \mathbb{O} 27'34	1°34'15	morning rise	918 Apr 28 j 15:48	29° \mathbb{Y} 23'14	
max. Earth dist.	917 Jul 05 j 21:43	21° \mathbb{O} 19'00	1.34347 AU	direct	918 May 02 j 17:21	28° \mathbb{Y} 46'55	
	917 Jul 10 j 05:17	0° \mathbb{O}			918 May 08 j 10:09	0° \mathbb{X}	
evening rise	917 Jul 10 j 16:30	0° \mathbb{O} 54'48		morning max el	918 May 16 j 11:52	5° \mathbb{X} 36'15	24°01'56
	917 Jul 27 j 11:40	0° \mathbb{M}			918 Jun 02 j 18:56	0° \mathbb{I}	
desc. node	917 Jul 30 j 12:38	4° \mathbb{M} 29'54		asc. node	918 Jun 08 j 09:14	10° \mathbb{I} 57'27	
evening max el	917 Aug 14 j 10:43	22° \mathbb{M} 43'59	27°06'04	morning set	918 Jun 09 j 23:08	14° \mathbb{I} 14'55	
	917 Aug 26 j 20:02	0° Ω					

superior conj	918 Jun 17 j 00:47	29° Π 27'51	1°20'03	superior conj	919 Jun 01 j 11:27	14° Π 25'03	1°01'29
minimum elong	918 Jun 16 j 22:20	29° Π 14'37	1°19'43	minimum elong	919 Jun 01 j 09:11	14° Π 12'39	1°01'05
	918 Jun 17 j 06:44	0° \mathfrak{S}		max. Earth dist.	919 Jun 02 j 08:43	16° Π 21'23	1.32592 AU
max. Earth dist.	918 Jun 18 j 23:42	3° \mathfrak{S} 40'03	1.33273 AU	evening rise	919 Jun 08 j 14:03	29° Π 38'54	
evening rise	918 Jun 24 j 11:20	15° \mathfrak{S} 05'14			919 Jun 08 j 18:08	0° \mathfrak{S}	
	918 Jul 02 j 07:12	0° Ω			919 Jun 25 j 10:18	0° Ω	
desc. node	918 Jul 17 j 09:40	23° Ω 43'09		desc. node	919 Jul 04 j 06:41	12° Ω 07'36	
	918 Jul 22 j 08:55	0° \mathfrak{M}		evening max el	919 Jul 10 j 05:16	18° Ω 33'45	27°13'25
evening max el	918 Jul 27 j 21:43	5° \mathfrak{M} 55'00	27°25'30	retrograde	919 Jul 24 j 01:44	25° Ω 49'29	
retrograde	918 Aug 10 j 13:13	13° \mathfrak{M} 13'44		evening set	919 Jul 31 j 04:57	23° Ω 28'30	
evening set	918 Aug 17 j 17:18	10° \mathfrak{M} 34'48		min. Earth dist.	919 Aug 03 j 19:24	20° Ω 41'35	0.61825 AU
min. Earth dist.	918 Aug 21 j 08:54	7° \mathfrak{M} 22'13	0.63654 AU	inferior conj	919 Aug 06 j 20:55	17° Ω 55'15	-4°-13'-37
inferior conj	918 Aug 23 j 22:56	4° \mathfrak{M} 43'49	-3°-27'-54	minimum elong	919 Aug 07 j 01:42	17° Ω 44'22	4°12'41
minimum elong	918 Aug 24 j 03:51	4° \mathfrak{M} 31'12	3°26'29	morning rise	919 Aug 14 j 01:13	12° Ω 55'45	
	918 Aug 29 j 11:17	30° \mathfrak{R} Ω		direct	919 Aug 16 j 11:02	12° Ω 30'55	
morning rise	918 Aug 30 j 16:36	29° Ω 24'04		asc. node	919 Aug 22 j 05:31	14° Ω 57'35	
direct	918 Sep 02 j 04:19	28° Ω 53'43		morning max el	919 Aug 23 j 08:44	15° Ω 59'15	17°55'48
asc. node	918 Sep 04 j 08:28	29° Ω 17'13			919 Sep 02 j 03:42	0° \mathfrak{M}	
	918 Sep 05 j 20:19	0° \mathfrak{M}		morning set	919 Sep 08 j 06:45	10° \mathfrak{M} 58'12	
morning max el	918 Sep 08 j 17:58	2° \mathfrak{M} 19'32	17°53'49				
morning set	918 Sep 25 j 10:24	28° \mathfrak{M} 00'08		superior conj	919 Sep 18 j 23:00	0° \mathfrak{A} 01'19	1°11'19
	918 Sep 26 j 14:05	0° \mathfrak{A}		minimum elong	919 Sep 19 j 03:45	0° \mathfrak{A} 21'52	1°10'47
					919 Sep 18 j 22:41	0° \mathfrak{A}	
superior conj	918 Oct 07 j 20:23	19° \mathfrak{A} 03'38	0°36'30	max. Earth dist.	919 Sep 26 j 08:28	12° \mathfrak{A} 29'05	1.42671 AU
minimum elong	918 Oct 08 j 00:05	19° \mathfrak{A} 18'49	0°36'00	desc. node	919 Sep 30 j 06:02	18° \mathfrak{A} 48'20	
desc. node	918 Oct 13 j 08:59	28° \mathfrak{A} 01'49		evening rise	919 Oct 03 j 05:24	23° \mathfrak{A} 31'31	
max. Earth dist.	918 Oct 13 j 19:13	28° \mathfrak{A} 42'45	1.44104 AU		919 Oct 07 j 09:23	0° \mathfrak{M}	
	918 Oct 14 j 14:34	0° \mathfrak{M}			919 Oct 28 j 06:05	0° \mathfrak{A}	
evening rise	918 Oct 23 j 17:50	14° \mathfrak{M} 18'06		greatest brilliancy	919 Oct 30 j 06:56	2° \mathfrak{A} 34'05	-0.4m
	918 Nov 03 j 02:11	0° \mathfrak{A}		evening max el	919 Nov 04 j 01:21	7° \mathfrak{A} 58'52	21°54'29
greatest brilliancy	918 Nov 15 j 10:08	17° \mathfrak{A} 35'22	-0.5m	retrograde	919 Nov 13 j 06:24	13° \mathfrak{A} 27'33	
evening max el	918 Nov 21 j 05:10	24° \mathfrak{A} 28'49	20°41'37	evening set	919 Nov 17 j 14:08	11° \mathfrak{A} 45'48	
retrograde	918 Nov 29 j 09:51	29° \mathfrak{A} 19'22		asc. node	919 Nov 18 j 04:44	11° \mathfrak{A} 14'46	
asc. node	918 Dec 01 j 07:42	28° \mathfrak{A} 58'47		inferior conj	919 Nov 22 j 23:38	5° \mathfrak{A} 25'59	1°35'18
evening set	918 Dec 03 j 06:20	27° \mathfrak{A} 54'12		minimum elong	919 Nov 22 j 21:38	5° \mathfrak{A} 32'56	1°34'31
inferior conj	918 Dec 08 j 16:57	21° \mathfrak{A} 42'41	2°19'55	min. Earth dist.	919 Nov 23 j 01:40	5° \mathfrak{A} 18'55	0.67685 AU
minimum elong	918 Dec 08 j 14:21	21° \mathfrak{A} 51'30	2°19'03		919 Nov 27 j 08:00	30° \mathfrak{R} \mathfrak{M}	
min. Earth dist.	918 Dec 09 j 06:25	20° \mathfrak{A} 56'43	0.67300 AU	morning rise	919 Nov 28 j 04:54	29° \mathfrak{M} 11'43	
morning rise	918 Dec 13 j 21:56	15° \mathfrak{A} 27'23		direct	919 Dec 03 j 00:37	27° \mathfrak{M} 10'38	
direct	918 Dec 19 j 08:58	13° \mathfrak{A} 04'06			919 Dec 09 j 12:54	0° \mathfrak{A}	
morning max el	918 Dec 30 j 11:11	19° \mathfrak{A} 41'05	24°15'12	morning max el	919 Dec 12 j 21:06	3° \mathfrak{A} 00'55	22°47'02
	919 Jan 08 j 06:04	0° \mathfrak{B}		greatest brilliancy	919 Dec 17 j 12:34	8° \mathfrak{A} 12'10	-0.3m
desc. node	919 Jan 09 j 08:10	1° \mathfrak{B} 25'40		desc. node	919 Dec 27 j 05:14	21° \mathfrak{A} 02'52	
	919 Jan 28 j 13:51	0° \mathfrak{A}			920 Jan 02 j 09:05	0° \mathfrak{B}	
morning set	919 Feb 04 j 06:17	11° \mathfrak{A} 14'40		morning set	920 Jan 16 j 01:22	21° \mathfrak{B} 26'11	
max. Earth dist.	919 Feb 08 j 00:29	17° \mathfrak{A} 53'24	1.37963 AU	max. Earth dist.	920 Jan 20 j 20:18	29° \mathfrak{B} 28'46	1.40105 AU
	919 Feb 14 j 13:08	0° \mathfrak{K}			920 Jan 21 j 03:35	0° \mathfrak{A}	
superior conj	919 Feb 15 j 01:11	0° \mathfrak{K} 57'39	-1°-42'-51	superior conj	920 Jan 28 j 14:46	13° \mathfrak{A} 12'23	-1°-58'-30
minimum elong	919 Feb 15 j 05:12	1° \mathfrak{K} 16'57	1°42'27	minimum elong	920 Jan 28 j 17:33	13° \mathfrak{A} 25'01	1°58'23
evening rise	919 Feb 23 j 20:42	18° \mathfrak{K} 15'04			920 Feb 06 j 14:05	0° \mathfrak{K}	
asc. node	919 Feb 27 j 07:00	24° \mathfrak{K} 56'04		evening rise	920 Feb 07 j 10:47	1° \mathfrak{K} 38'25	
	919 Mar 02 j 00:08	0° \mathfrak{Y}		asc. node	920 Feb 14 j 04:03	14° \mathfrak{K} 05'20	
evening max el	919 Mar 12 j 10:54	15° \mathfrak{Y} 03'38	19°03'11	evening max el	920 Feb 23 j 15:07	27° \mathfrak{K} 35'29	18°26'02
retrograde	919 Mar 21 j 01:49	19° \mathfrak{Y} 13'38			920 Feb 26 j 17:16	0° \mathfrak{Y}	
evening set	919 Mar 23 j 06:29	18° \mathfrak{Y} 58'34		retrograde	920 Mar 02 j 01:43	1° \mathfrak{Y} 15'38	
inferior conj	919 Mar 31 j 09:51	14° \mathfrak{Y} 44'38	1°52'27	evening set	920 Mar 04 j 11:28	0° \mathfrak{Y} 53'43	
minimum elong	919 Mar 31 j 13:44	14° \mathfrak{Y} 37'54	1°51'16		920 Mar 06 j 15:15	30° \mathfrak{R} \mathfrak{K}	
min. Earth dist.	919 Apr 03 j 11:55	12° \mathfrak{Y} 36'57	0.56778 AU	inferior conj	920 Mar 11 j 20:31	26° \mathfrak{K} 19'24	3°01'18
desc. node	919 Apr 07 j 07:20	10° \mathfrak{Y} 22'49		minimum elong	920 Mar 12 j 00:19	26° \mathfrak{K} 11'39	3°00'29
morning rise	919 Apr 08 j 16:49	9° \mathfrak{Y} 45'49		min. Earth dist.	920 Mar 15 j 07:00	23° \mathfrak{K} 33'05	0.58685 AU
direct	919 Apr 13 j 20:11	8° \mathfrak{Y} 43'38		morning rise	920 Mar 19 j 09:16	20° \mathfrak{K} 51'06	
morning max el	919 Apr 28 j 02:27	16° \mathfrak{Y} 05'14	25°38'32	desc. node	920 Mar 24 j 04:23	19° \mathfrak{K} 17'55	
	919 May 09 j 08:45	0° \mathfrak{B}		direct	920 Mar 25 j 12:15	19° \mathfrak{K} 13'19	
morning set	919 May 25 j 10:53	29° \mathfrak{B} 12'06		morning max el	920 Apr 08 j 20:54	26° \mathfrak{K} 54'05	26°55'08
	919 May 25 j 19:58	0° \mathfrak{I}			920 Apr 11 j 19:54	0° \mathfrak{Y}	
asc. node	919 May 26 j 06:17	0° \mathfrak{I} 54'46			920 May 01 j 18:54	0° \mathfrak{B}	

morning set	920 May 08 j 20:54	14°♄02'35		morning set	921 Apr 23 j 03:23	28°♄40'14	
asc. node	920 May 12 j 03:20	21°♄00'27			921 Apr 23 j 18:48	0°♄	
				asc. node	921 Apr 29 j 00:22	11°♄10'08	
superior conj	920 May 15 j 23:12	29°♄22'52	0°39'32	max. Earth dist.	921 Apr 29 j 08:53	11°♄56'34	1.32342 AU
minimum elong	920 May 15 j 21:33	29°♄13'48	0°39'12				
max. Earth dist.	920 May 15 j 21:06	29°♄11'18	1.32279 AU	superior conj	921 Apr 30 j 10:21	14°♄15'45	0°14'57
	920 May 16 j 05:57	0°♄		minimum elong	921 Apr 30 j 09:41	14°♄12'02	0°14'48
evening rise	920 May 22 j 21:51	14°♄25'39		behind sun begin	921 Apr 30 j 07:52	14°♄02'07	
	920 May 30 j 18:54	0°♄		behind sun end	921 Apr 30 j 11:29	14°♄21'58	
desc. node	920 Jun 20 j 03:41	29°♄22'09		evening rise	921 May 07 j 08:37	29°♄18'17	
	920 Jun 20 j 18:56	0°♄			921 May 07 j 16:30	0°♄	
evening max el	920 Jun 21 j 06:35	0°♄28'07	26°28'17		921 May 24 j 09:33	0°♄	
retrograde	920 Jul 05 j 06:16	7°♄41'15		evening max el	921 Jun 03 j 00:49	11°♄36'30	25°14'15
evening set	920 Jul 11 j 21:15	5°♄51'03		desc. node	921 Jun 07 j 00:40	14°♄58'32	
min. Earth dist.	920 Jul 15 j 19:42	3°♄15'00	0.59786 AU	retrograde	921 Jun 17 j 01:13	18°♄44'54	
inferior conj	920 Jul 19 j 03:32	0°♄37'37	-4°-44'-25	evening set	921 Jun 22 j 14:26	17°♄33'29	
minimum elong	920 Jul 19 j 06:16	0°♄32'10	4°44'12	min. Earth dist.	921 Jun 27 j 12:35	14°♄49'27	0.57762 AU
	920 Jul 19 j 22:38	30°♄		inferior conj	921 Jun 30 j 15:23	12°♄41'28	-4°-49'-15
morning rise	920 Jul 26 j 18:39	26°♄01'03		minimum elong	921 Jun 30 j 13:48	12°♄44'12	4°49'11
direct	920 Jul 29 j 05:02	25°♄39'41		morning rise	921 Jul 08 j 17:00	8°♄27'36	
morning max el	920 Aug 05 j 19:16	29°♄20'06	18°17'18	direct	921 Jul 11 j 05:53	8°♄08'20	
	920 Aug 06 j 11:17	0°♄		morning max el	921 Jul 19 j 22:30	12°♄12'58	18°59'28
asc. node	920 Aug 08 j 02:33	1°♄50'23		asc. node	921 Jul 25 j 23:37	19°♄40'38	
morning set	920 Aug 21 j 17:25	24°♄37'33			921 Aug 01 j 00:54	0°♄	
	920 Aug 24 j 13:18	0°♄		morning set	921 Aug 05 j 14:14	8°♄46'56	
superior conj	920 Aug 31 j 02:24	12°♄12'33	1°33'33	superior conj	921 Aug 14 j 01:02	25°♄21'20	1°44'29
minimum elong	920 Aug 31 j 05:48	12°♄28'02	1°33'17	minimum elong	921 Aug 14 j 02:24	25°♄27'51	1°44'26
max. Earth dist.	920 Sep 07 j 16:07	25°♄34'52	1.40810 AU		921 Aug 16 j 11:46	0°♄	
	920 Sep 10 j 06:55	0°♄		max. Earth dist.	921 Aug 20 j 19:29	7°♄56'19	1.38775 AU
evening rise	920 Sep 12 j 11:08	3°♄36'00		evening rise	921 Aug 24 j 17:17	14°♄49'11	
desc. node	920 Sep 16 j 03:03	9°♄30'57			921 Sep 02 j 22:38	0°♄	
	920 Sep 29 j 16:51	0°♄		desc. node	921 Sep 03 j 00:02	0°♄05'31	
evening max el	920 Oct 16 j 16:35	21°♄30'40	23°13'42		921 Sep 24 j 12:06	0°♄	
retrograde	920 Oct 27 j 00:24	27°♄37'46		evening max el	921 Sep 29 j 04:54	5°♄05'39	24°33'05
evening set	920 Oct 31 j 21:07	25°♄38'24		retrograde	921 Oct 10 j 14:40	11°♄45'36	
asc. node	920 Nov 04 j 01:46	22°♄12'29		evening set	921 Oct 16 j 01:35	9°♄28'59	
inferior conj	920 Nov 06 j 06:55	19°♄14'07	0°45'24	min. Earth dist.	921 Oct 20 j 18:00	4°♄07'56	0.67444 AU
minimum elong	920 Nov 06 j 05:52	19°♄17'43	0°44'57	inferior conj	921 Oct 21 j 13:01	3°♄04'25	0°-8'-27
min. Earth dist.	920 Nov 05 j 22:19	19°♄43'37	0.67726 AU	minimum elong	921 Oct 21 j 13:13	3°♄03'43	0°08'22
morning rise	920 Nov 11 j 14:40	13°♄03'05		transit middle	921 Oct 21 j 13:13	3°♄03'43	0°08'22
direct	920 Nov 15 j 19:45	11°♄24'49		transit begin	921 Oct 21 j 10:52	3°♄11'35	
morning max el	920 Nov 24 j 12:13	16°♄29'31	21°23'20	transit end	921 Oct 21 j 15:34	2°♄55'51	
greatest brilliancy	920 Nov 29 j 15:37	22°♄22'36	-0.4m	asc. node	921 Oct 21 j 22:49	2°♄31'42	
	920 Dec 05 j 09:20	0°♄			921 Oct 23 j 22:29	30°♄	
desc. node	920 Dec 13 j 02:17	11°♄05'15		morning rise	921 Oct 27 j 01:15	26°♄59'04	
	920 Dec 25 j 11:19	0°♄		direct	921 Oct 30 j 17:18	25°♄41'48	
morning set	920 Dec 25 j 15:45	0°♄17'29			921 Nov 07 j 07:28	0°♄	
max. Earth dist.	921 Jan 01 j 21:40	11°♄57'39	1.42124 AU	morning max el	921 Nov 07 j 10:38	0°♄07'55	20°10'01
				greatest brilliancy	921 Nov 14 j 07:44	8°♄27'02	-0.6m
superior conj	921 Jan 09 j 07:09	24°♄25'08	-2°-3'-12		921 Nov 29 j 00:59	0°♄	
minimum elong	921 Jan 09 j 06:24	24°♄21'54	2°03'13	desc. node	921 Nov 29 j 23:18	1°♄25'06	
	921 Jan 12 j 11:58	0°♄		morning set	921 Dec 04 j 12:33	8°♄24'51	
evening rise	921 Jan 20 j 11:56	14°♄21'52		max. Earth dist.	921 Dec 15 j 06:11	25°♄17'03	1.43749 AU
	921 Jan 29 j 08:03	0°♄			921 Dec 18 j 04:28	0°♄	
asc. node	921 Jan 31 j 01:05	2°♄44'30					
evening max el	921 Feb 06 j 00:55	10°♄32'13	18°08'50	superior conj	921 Dec 20 j 21:34	4°♄25'21	-1°-52'-10
retrograde	921 Feb 12 j 18:49	13°♄58'19		minimum elong	921 Dec 20 j 15:40	4°♄01'11	1°51'50
evening set	921 Feb 15 j 09:23	13°♄27'55		evening rise	922 Jan 02 j 19:46	26°♄15'51	
inferior conj	921 Feb 22 j 03:13	8°♄32'16	3°37'11		922 Jan 04 j 23:33	0°♄	
minimum elong	921 Feb 22 j 05:07	8°♄27'45	3°36'59	asc. node	922 Jan 17 j 22:07	20°♄43'41	
min. Earth dist.	921 Feb 25 j 08:36	5°♄31'11	0.60810 AU	evening max el	922 Jan 20 j 13:15	23°♄45'13	18°11'07
morning rise	921 Feb 28 j 21:51	2°♄43'41		retrograde	922 Jan 27 j 00:46	27°♄11'10	
direct	921 Mar 07 j 16:05	0°♄30'02		evening set	922 Jan 29 j 20:00	26°♄31'06	
desc. node	921 Mar 11 j 01:25	1°♄01'21		inferior conj	922 Feb 05 j 02:09	21°♄14'53	3°47'11
morning max el	921 Mar 21 j 21:40	8°♄21'22	27°39'29	minimum elong	922 Feb 05 j 01:59	21°♄15'20	3°47'11
	921 Apr 07 j 10:42	0°♄		min. Earth dist.	922 Feb 07 j 18:52	18°♄22'58	0.62845 AU

morning rise	922 Feb 11 j 05:57	15° \approx 14'10			923 Jan 23 j 08:20	30° \mathbb{R} \mathbb{Z}	
direct	922 Feb 18 j 05:14	12° \approx 34'35		morning rise	923 Jan 25 j 06:19	28° \mathbb{Z} 11'36	
desc. node	922 Feb 25 j 22:27	15° \approx 17'12		direct	923 Feb 01 j 01:45	25° \mathbb{Z} 21'01	
morning max el	922 Mar 04 j 03:46	20° \approx 28'56	27°46'46		923 Feb 11 j 02:24	0° \approx	
	922 Mar 12 j 08:53	0° \mathbb{X}		desc. node	923 Feb 12 j 19:30	1° \approx 30'02	
	922 Mar 31 j 10:27	0° \mathbb{Y}		morning max el	923 Feb 14 j 12:50	3° \approx 09'26	27°18'45
morning set	922 Apr 07 j 04:08	12° \mathbb{Y} 57'48			923 Mar 06 j 17:21	0° \mathbb{X}	
max. Earth dist.	922 Apr 12 j 16:15	24° \mathbb{Y} 24'12	1.32799 AU	morning set	923 Mar 21 j 20:23	26° \mathbb{X} 46'02	
					923 Mar 23 j 11:45	0° \mathbb{Y}	
superior conj	922 Apr 14 j 19:14	28° \mathbb{Y} 58'04	0°-11'-30	max. Earth dist.	923 Mar 26 j 15:22	6° \mathbb{Y} 22'56	1.33689 AU
minimum elong	922 Apr 14 j 19:47	29° \mathbb{Y} 01'03	0°11'24				
behind sun begin	922 Apr 14 j 16:07	28° \mathbb{Y} 41'15		superior conj	923 Mar 29 j 23:54	13° \mathbb{Y} 23'19	0°-38'-50
behind sun end	922 Apr 14 j 23:27	29° \mathbb{Y} 20'51		minimum elong	923 Mar 30 j 01:49	13° \mathbb{Y} 33'25	0°38'28
	922 Apr 15 j 06:41	0° \mathbb{X}		asc. node	923 Apr 02 j 18:27	21° \mathbb{Y} 25'05	
asc. node	922 Apr 15 j 21:25	1° \mathbb{X} 19'47		evening rise	923 Apr 06 j 07:30	28° \mathbb{Y} 55'45	
evening rise	922 Apr 21 j 20:26	14° \mathbb{X} 10'30			923 Apr 06 j 19:48	0° \mathbb{X}	
	922 Apr 29 j 19:59	0° \mathbb{II}			923 Apr 24 j 16:17	0° \mathbb{II}	
evening max el	922 May 15 j 15:07	22° \mathbb{II} 14'14	23°42'17	evening max el	923 Apr 27 j 08:00	2° \mathbb{II} 48'51	22°07'07
desc. node	922 May 24 j 21:40	28° \mathbb{II} 21'39		retrograde	923 May 10 j 02:26	9° \mathbb{II} 05'35	
retrograde	922 May 29 j 08:09	29° \mathbb{II} 06'23		desc. node	923 May 11 j 18:42	8° \mathbb{II} 59'16	
evening set	922 Jun 02 j 10:21	28° \mathbb{II} 29'32		evening set	923 May 12 j 21:44	8° \mathbb{II} 48'10	
min. Earth dist.	922 Jun 09 j 01:47	25° \mathbb{II} 22'08	0.56087 AU	min. Earth dist.	923 May 21 j 13:55	5° \mathbb{II} 05'19	0.55106 AU
inferior conj	922 Jun 11 j 07:07	24° \mathbb{II} 01'37	-4°-14'-34	inferior conj	923 May 22 j 06:24	4° \mathbb{II} 42'09	-2°-53'-6
minimum elong	922 Jun 11 j 00:46	24° \mathbb{II} 11'14	4°13'25	minimum elong	923 May 21 j 23:12	4° \mathbb{II} 52'17	2°50'57
morning rise	922 Jun 19 j 18:41	20° \mathbb{II} 04'26		morning rise	923 May 31 j 02:20	0° \mathbb{II} 48'45	
direct	922 Jun 22 j 11:34	19° \mathbb{II} 45'59		direct	923 Jun 03 j 02:06	0° \mathbb{II} 28'44	
morning max el	922 Jul 02 j 15:43	24° \mathbb{II} 28'40	20°02'49	morning max el	923 Jun 14 j 21:31	6° \mathbb{II} 00'17	21°25'56
	922 Jul 07 j 12:10	0° \mathbb{S}		asc. node	923 Jun 29 j 17:42	27° \mathbb{II} 22'53	
asc. node	922 Jul 12 j 20:40	8° \mathbb{S} 15'17			923 Jul 01 j 02:27	0° \mathbb{S}	
morning set	922 Jul 20 j 18:07	23° \mathbb{S} 18'29		morning set	923 Jul 05 j 02:33	8° \mathbb{S} 04'28	
	922 Jul 24 j 00:47	0° \mathbb{Q}					
superior conj	922 Jul 28 j 13:41	9° \mathbb{Q} 12'56	1°46'10	superior conj	923 Jul 12 j 12:07	23° \mathbb{S} 34'02	1°40'28
minimum elong	922 Jul 28 j 13:15	9° \mathbb{Q} 10'44	1°46'09	minimum elong	923 Jul 12 j 10:25	23° \mathbb{S} 25'16	1°40'22
max. Earth dist.	922 Aug 03 j 00:10	19° \mathbb{Q} 50'48	1.36824 AU	max. Earth dist.	923 Jul 15 j 15:19	0° \mathbb{Q}	
evening rise	922 Aug 06 j 22:21	27° \mathbb{Q} 08'34		evening rise	923 Jul 16 j 11:50	1° \mathbb{Q} 43'23	1.35148 AU
	922 Aug 08 j 12:27	0° \mathbb{P}			923 Jul 20 j 21:37	10° \mathbb{Q} 20'45	
desc. node	922 Aug 20 j 21:03	20° \mathbb{P} 27'34		desc. node	923 Aug 01 j 00:22	0° \mathbb{P}	
	922 Aug 27 j 08:32	0° \mathbb{A}			923 Aug 07 j 18:04	10° \mathbb{P} 30'05	
evening max el	922 Sep 11 j 16:43	18° \mathbb{A} 44'32	25°45'20	evening max el	923 Aug 22 j 21:14	0° \mathbb{A}	
retrograde	922 Sep 24 j 00:20	25° \mathbb{A} 47'04		retrograde	923 Aug 25 j 04:53	2° \mathbb{A} 20'47	26°42'45
evening set	922 Sep 30 j 01:47	23° \mathbb{A} 15'31		evening set	923 Sep 07 j 04:42	9° \mathbb{A} 35'19	
min. Earth dist.	922 Oct 04 j 10:17	18° \mathbb{A} 30'16	0.66840 AU	min. Earth dist.	923 Sep 13 j 19:38	6° \mathbb{A} 53'42	
inferior conj	922 Oct 05 j 16:13	16° \mathbb{A} 55'04	-1°-4'-47	inferior conj	923 Sep 17 j 20:42	2° \mathbb{A} 45'48	0.65888 AU
minimum elong	922 Oct 05 j 17:53	16° \mathbb{A} 49'46	1°04'06	minimum elong	923 Sep 19 j 14:32	0° \mathbb{A} 41'47	-2°-1'-58
asc. node	922 Oct 08 j 19:52	13° \mathbb{A} 10'29			923 Sep 19 j 17:42	0° \mathbb{A} 32'22	2°00'45
morning rise	922 Oct 11 j 10:46	10° \mathbb{A} 58'17		morning rise	923 Sep 20 j 04:40	30° \mathbb{R} \mathbb{P}	
direct	922 Oct 14 j 15:52	9° \mathbb{A} 58'47		asc. node	923 Sep 25 j 17:02	24° \mathbb{P} 56'51	
morning max el	922 Oct 21 j 16:34	13° \mathbb{A} 55'56	19°10'46	direct	923 Sep 25 j 16:55	24° \mathbb{P} 57'00	
	922 Nov 02 j 16:05	0° \mathbb{M}			923 Sep 28 j 13:28	24° \mathbb{P} 11'27	
morning set	922 Nov 13 j 16:27	17° \mathbb{M} 01'36		morning max el	923 Oct 05 j 04:27	27° \mathbb{P} 49'21	18°27'30
desc. node	922 Nov 16 j 20:20	21° \mathbb{M} 57'43			923 Oct 07 j 03:44	0° \mathbb{A}	
	922 Nov 21 j 23:43	0° \mathbb{X}		morning set	923 Oct 24 j 22:04	26° \mathbb{A} 58'08	
max. Earth dist.	922 Nov 27 j 21:15	9° \mathbb{X} 15'51	1.44780 AU		923 Oct 26 j 19:16	0° \mathbb{M}	
				desc. node	923 Nov 03 j 17:24	12° \mathbb{M} 38'45	
superior conj	922 Nov 30 j 10:53	13° \mathbb{X} 19'27	-1°-22'-27	superior conj	923 Nov 09 j 11:48	21° \mathbb{M} 44'53	0°-37'-34
minimum elong	922 Nov 30 j 02:19	12° \mathbb{X} 45'32	1°21'33	minimum elong	923 Nov 09 j 06:54	21° \mathbb{M} 25'38	0°36'57
	922 Dec 10 j 20:12	0° \mathbb{Z}		max. Earth dist.	923 Nov 10 j 16:07	23° \mathbb{M} 36'11	1.45091 AU
evening rise	922 Dec 15 j 06:11	7° \mathbb{Z} 13'47			923 Nov 14 j 17:53	0° \mathbb{X}	
	922 Dec 29 j 10:25	0° \approx		evening rise	923 Nov 25 j 17:04	17° \mathbb{X} 14'38	
evening max el	923 Jan 04 j 01:24	7° \approx 07'55	18°32'01		923 Dec 03 j 19:19	0° \mathbb{Z}	
asc. node	923 Jan 04 j 19:09	7° \approx 51'13		greatest brilliancy	923 Dec 08 j 01:57	6° \mathbb{Z} 37'24	-0.7m
retrograde	923 Jan 10 j 15:15	10° \approx 45'38		evening max el	923 Dec 18 j 10:56	20° \mathbb{Z} 35'24	19°10'21
evening set	923 Jan 13 j 15:44	9° \approx 54'47		asc. node	923 Dec 22 j 16:11	23° \mathbb{Z} 53'14	
inferior conj	923 Jan 19 j 13:23	4° \approx 19'38	3°38'16	retrograde	923 Dec 25 j 10:48	24° \mathbb{Z} 35'16	
minimum elong	923 Jan 19 j 11:41	4° \approx 24'37	3°38'05	evening set	923 Dec 28 j 17:41	23° \mathbb{Z} 32'21	
min. Earth dist.	923 Jan 21 j 14:40	1° \approx 54'34	0.64589 AU	inferior conj	924 Jan 03 j 09:24	17° \mathbb{Z} 40'31	3°15'36

minimum elong	924 Jan 03 j 06:53	17°☿48'32	3°15'05	inferior conj	924 Dec 17 j 11:21	1°☿12'34	2°42'38
min. Earth dist.	924 Jan 04 j 19:32	15°☿51'58	0.65948 AU	minimum elong	924 Dec 17 j 08:38	1°☿21'39	2°41'50
morning rise	924 Jan 08 j 19:14	11°☿28'00			924 Dec 18 j 09:01	30°☿☿	
direct	924 Jan 15 j 04:30	8°☿40'29		min. Earth dist.	924 Dec 18 j 07:51	0°☿03'50	0.66911 AU
morning max el	924 Jan 27 j 22:31	16°☿11'44	26°21'48	morning rise	924 Dec 22 j 17:17	24°☿57'34	
desc. node	924 Jan 30 j 16:34	19°☿07'17		direct	924 Dec 28 j 12:48	22°☿23'36	
	924 Feb 08 j 09:21	0°☿		morning max el	925 Jan 09 j 07:21	29°☿24'25	25°04'43
	924 Feb 27 j 13:40	0°☿			925 Jan 09 j 21:17	0°☿	
morning set	924 Mar 04 j 00:26	9°☿53'50		desc. node	925 Jan 16 j 13:38	7°☿43'50	
max. Earth dist.	924 Mar 08 j 03:29	17°☿49'10	1.35030 AU		925 Feb 01 j 05:42	0°☿	
				morning set	925 Feb 14 j 11:11	22°☿05'52	
superior conj	924 Mar 12 j 22:04	27°☿24'27	-1°-5'-48	max. Earth dist.	925 Feb 18 j 04:30	28°☿52'55	1.36799 AU
minimum elong	924 Mar 13 j 01:15	27°☿40'46	1°05'15		925 Feb 18 j 18:53	0°☿	
	924 Mar 14 j 04:19	0°☿					
asc. node	924 Mar 19 j 15:31	11°☿21'53		superior conj	925 Feb 24 j 10:42	10°☿52'11	-1°-30'-34
evening rise	924 Mar 20 j 15:52	13°☿27'46		minimum elong	925 Feb 24 j 14:42	11°☿11'52	1°30'03
	924 Mar 29 j 06:23	0°☿		evening rise	925 Mar 04 j 19:17	27°☿38'41	
evening max el	924 Apr 08 j 09:51	13°☿48'08	20°41'44		925 Mar 05 j 23:32	0°☿	
retrograde	924 Apr 19 j 15:26	19°☿14'37		asc. node	925 Mar 06 j 12:33	1°☿04'40	
evening set	924 Apr 21 j 19:11	19°☿03'23		evening max el	925 Mar 21 j 23:09	25°☿25'10	19°33'28
desc. node	924 Apr 27 j 15:44	16°☿57'00		retrograde	925 Mar 31 j 11:40	0°☿00'16	
inferior conj	924 May 01 j 00:32	15°☿05'46	0°-58'-22		925 Mar 31 j 04:21	0°☿	
minimum elong	924 Apr 30 j 21:46	15°☿09'44	0°57'22		925 Mar 31 j 19:01	30°☿☿	
min. Earth dist.	924 May 02 j 02:42	14°☿28'15	0.55043 AU	evening set	925 Apr 02 j 13:46	29°☿48'01	
morning rise	924 May 09 j 23:09	10°☿57'09		inferior conj	925 Apr 11 j 03:59	25°☿43'11	0°57'08
direct	924 May 13 j 12:26	10°☿29'57		minimum elong	925 Apr 11 j 06:20	25°☿39'25	0°56'19
morning max el	924 May 26 j 17:35	16°☿52'38	23°03'27	min. Earth dist.	925 Apr 13 j 17:09	24°☿05'49	0.55917 AU
	924 Jun 06 j 04:46	0°☿		desc. node	925 Apr 14 j 12:47	23°☿35'49	
asc. node	924 Jun 15 j 14:47	16°☿55'13		morning rise	925 Apr 19 j 19:15	21°☿03'26	
morning set	924 Jun 18 j 13:36	22°☿59'13		direct	925 Apr 24 j 07:09	20°☿17'57	
	924 Jun 21 j 20:48	0°☿		morning max el	925 May 08 j 08:38	27°☿23'03	24°44'36
					925 May 10 j 21:57	0°☿	
superior conj	924 Jun 25 j 17:09	8°☿15'19	1°28'54		925 May 30 j 04:27	0°☿	
minimum elong	924 Jun 25 j 14:49	8°☿02'52	1°28'39	asc. node	925 Jun 02 j 11:50	6°☿45'02	
max. Earth dist.	924 Jun 28 j 08:48	13°☿52'16	1.33844 AU	morning set	925 Jun 03 j 01:32	7°☿56'59	
evening rise	924 Jul 03 j 10:27	24°☿13'05					
	924 Jul 06 j 09:58	0°☿		superior conj	925 Jun 10 j 02:21	23°☿08'42	1°12'38
desc. node	924 Jul 24 j 15:05	0°☿04'29		minimum elong	925 Jun 09 j 23:55	22°☿55'29	1°12'15
	924 Jul 24 j 13:49	0°☿		max. Earth dist.	925 Jun 11 j 14:03	26°☿22'17	1.32932 AU
evening max el	924 Aug 06 j 16:40	15°☿43'57	27°17'51		925 Jun 13 j 06:35	0°☿	
retrograde	924 Aug 20 j 03:26	23°☿02'41		evening rise	925 Jun 17 j 08:57	8°☿34'15	
evening set	924 Aug 27 j 04:32	20°☿19'15			925 Jun 28 j 19:53	0°☿	
min. Earth dist.	924 Aug 30 j 22:54	16°☿48'03	0.64573 AU	desc. node	925 Jul 11 j 12:06	18°☿59'09	
inferior conj	924 Sep 02 j 05:37	14°☿19'45	-2°-57'-43	evening max el	925 Jul 20 j 02:16	28°☿42'00	27°24'22
minimum elong	924 Sep 02 j 10:04	14°☿07'39	2°56'15		925 Jul 21 j 12:20	0°☿	
morning rise	924 Sep 08 j 17:28	8°☿50'07		retrograde	925 Aug 02 j 20:12	6°☿00'18	
direct	924 Sep 11 j 07:40	8°☿15'13		evening set	925 Aug 10 j 01:10	3°☿26'55	
asc. node	924 Sep 11 j 13:59	8°☿15'35		min. Earth dist.	925 Aug 13 j 15:20	0°☿27'00	0.62905 AU
morning max el	924 Sep 17 j 19:46	11°☿42'51	18°01'07		925 Aug 14 j 02:43	30°☿☿	
	924 Sep 30 j 09:55	0°☿		inferior conj	925 Aug 16 j 10:45	27°☿43'09	-3°-48'-38
morning set	924 Oct 05 j 08:11	8°☿17'54		minimum elong	925 Aug 16 j 15:49	27°☿30'50	3°47'22
	924 Oct 18 j 11:27	0°☿		morning rise	925 Aug 23 j 08:56	22°☿32'01	
				direct	925 Aug 25 j 19:28	22°☿04'25	
superior conj	924 Oct 18 j 22:00	0°☿42'26	0°11'14	asc. node	925 Aug 29 j 11:03	23°☿07'31	
minimum elong	924 Oct 18 j 23:20	0°☿47'47	0°11'02	morning max el	925 Sep 01 j 11:40	25°☿30'13	17°52'26
behind sun begin	924 Oct 18 j 15:36	0°☿16'39			925 Sep 05 j 05:55	0°☿	
behind sun end	924 Oct 19 j 07:04	1°☿18'53		morning set	925 Sep 17 j 17:49	20°☿45'16	
desc. node	924 Oct 20 j 14:26	3°☿24'28			925 Sep 22 j 23:57	0°☿	
max. Earth dist.	924 Oct 23 j 10:59	7°☿57'05	1.44659 AU				
evening rise	924 Nov 04 j 07:59	26°☿29'03		superior conj	925 Sep 29 j 08:50	10°☿54'08	0°52'48
	924 Nov 06 j 14:47	0°☿		minimum elong	925 Sep 29 j 13:25	11°☿13'18	0°52'13
greatest brilliancy	924 Nov 23 j 18:58	25°☿35'03	-0.6m	max. Earth dist.	925 Oct 06 j 02:32	21°☿59'30	1.43549 AU
	924 Nov 27 j 03:10	0°☿		desc. node	925 Oct 07 j 11:27	24°☿11'53	
evening max el	924 Nov 30 j 15:53	4°☿04'04	20°04'22		925 Oct 11 j 03:08	0°☿	
retrograde	924 Dec 08 j 08:28	8°☿34'38		evening rise	925 Oct 14 j 15:34	5°☿29'38	
asc. node	924 Dec 08 j 13:14	8°☿34'25			925 Oct 31 j 00:22	0°☿	
evening set	924 Dec 11 j 23:25	7°☿18'03		greatest brilliancy	925 Nov 08 j 09:37	11°☿28'18	-0.4m

evening max el	925 Nov 13 j 15:14	17°♂33'34	21°11'30	retrograde	926 Nov 06 j 01:38	6°♂49'43	
retrograde	925 Nov 22 j 06:03	22°♂40'40		evening set	926 Nov 10 j 14:36	5°♂00'48	
asc. node	925 Nov 25 j 10:17	21°♂44'09		asc. node	926 Nov 12 j 07:19	3°♂23'29	
evening set	925 Nov 26 j 06:59	21°♂08'43			926 Nov 15 j 00:27	30°♂	
inferior conj	925 Dec 01 j 16:54	14°♂53'01	2°01'46	inferior conj	926 Nov 16 j 00:03	28°♂38'42	1°14'43
minimum elong	925 Dec 01 j 14:31	15°♂01'15	2°00'55	minimum elong	926 Nov 15 j 22:25	28°♂44'23	1°14'04
min. Earth dist.	925 Dec 02 j 01:23	14°♂23'50	0.67500 AU	min. Earth dist.	926 Nov 15 j 21:36	28°♂47'11	0.67739 AU
morning rise	925 Dec 06 j 21:42	8°♂37'40		morning rise	926 Nov 21 j 06:06	22°♂25'17	
direct	925 Dec 12 j 02:07	6°♂23'33		direct	926 Nov 25 j 19:29	20°♂33'45	
morning max el	925 Dec 22 j 16:04	12°♂41'55	23°37'40	morning max el	926 Dec 05 j 03:36	26°♂04'22	22°10'26
desc. node	926 Jan 03 j 10:41	27°♂02'50			926 Dec 08 j 17:13	0°♂	
	926 Jan 05 j 13:54	0°♂		greatest brilliancy	926 Dec 09 j 19:13	1°♂17'59	-0.3m
	926 Jan 25 j 02:16	0°♂		desc. node	926 Dec 21 j 07:43	16°♂51'48	
morning set	926 Jan 26 j 22:29	3°♂06'04			926 Dec 30 j 03:20	0°♂	
max. Earth dist.	926 Jan 30 j 23:21	10°♂04'35	1.38870 AU	morning set	927 Jan 07 j 05:01	12°♂41'55	
				max. Earth dist.	927 Jan 12 j 20:24	21°♂59'25	1.40994 AU
					927 Jan 17 j 12:50	0°♂	
superior conj	926 Feb 07 j 10:03	23°♂37'12	-1°-50'-32				
minimum elong	926 Feb 07 j 13:47	23°♂54'45	1°50'15				
	926 Feb 10 j 18:38	0°♂		superior conj	927 Jan 20 j 15:19	5°♂27'41	-2°-2'-7
evening rise	926 Feb 16 j 15:09	11°♂21'47		minimum elong	927 Jan 20 j 16:54	5°♂34'42	2°02'07
asc. node	926 Feb 21 j 09:35	20°♂28'14		evening rise	927 Jan 31 j 00:11	24°♂29'15	
	926 Feb 26 j 22:32	0°♂			927 Feb 02 j 23:20	0°♂	
evening max el	926 Mar 04 j 22:48	7°♂39'45	18°44'52	asc. node	927 Feb 08 j 06:36	9°♂26'07	
retrograde	926 Mar 13 j 00:22	11°♂34'59		evening max el	927 Feb 16 j 05:53	20°♂24'21	18°16'21
evening set	926 Mar 15 j 07:02	11°♂17'24		retrograde	927 Feb 23 j 07:51	23°♂56'15	
inferior conj	926 Mar 23 j 02:25	6°♂55'29	2°25'58	evening set	927 Feb 25 j 19:49	23°♂30'49	
minimum elong	926 Mar 23 j 06:37	6°♂47'41	2°24'50	inferior conj	927 Mar 04 j 21:58	18°♂47'39	3°20'07
min. Earth dist.	926 Mar 26 j 10:13	4°♂28'24	0.57543 AU	minimum elong	927 Mar 05 j 01:05	18°♂40'54	3°19'36
morning rise	926 Mar 31 j 01:54	1°♂42'45		min. Earth dist.	927 Mar 08 j 07:46	13°♂51'52	0.59587 AU
desc. node	926 Apr 01 j 09:50	1°♂10'50		morning rise	927 Mar 12 j 02:48	13°♂09'51	
direct	926 Apr 05 j 16:02	0°♂25'54		direct	927 Mar 18 j 13:46	11°♂15'53	
morning max el	926 Apr 20 j 00:24	7°♂57'55	26°14'20	desc. node	927 Mar 19 j 06:52	11°♂17'15	
	926 May 06 j 11:45	0°♂		morning max el	927 Apr 01 j 21:13	19°♂01'49	27°18'17
morning set	926 May 18 j 12:43	22°♂51'58			927 Apr 11 j 03:50	0°♂	
asc. node	926 May 20 j 08:52	26°♂46'33			927 Apr 29 j 02:59	0°♂	
	926 May 21 j 20:41	0°♂		morning set	927 May 02 j 21:29	7°♂38'29	
				asc. node	927 May 07 j 05:53	16°♂55'03	
superior conj	926 May 25 j 13:41	8°♂07'06	0°52'32	max. Earth dist.	927 May 09 j 13:18	21°♂57'57	1.32262 AU
minimum elong	926 May 25 j 11:37	7°♂55'51	0°52'09				
max. Earth dist.	926 May 26 j 00:42	9°♂07'37	1.32409 AU	superior conj	927 May 10 j 01:25	23°♂04'32	0°29'24
evening rise	926 Jun 01 j 14:06	23°♂14'28		minimum elong	927 May 10 j 00:08	22°♂57'31	0°29'08
	926 Jun 04 j 21:46	0°♂			927 May 13 j 05:09	0°♂	
	926 Jun 22 j 19:17	0°♂		evening rise	927 May 16 j 23:28	8°♂05'42	
desc. node	926 Jun 28 j 09:06	6°♂57'03			927 May 28 j 09:38	0°♂	
evening max el	926 Jul 02 j 07:20	11°♂02'39	26°58'15	evening max el	927 Jun 14 j 05:52	22°♂38'33	25°59'54
retrograde	926 Jul 16 j 05:49	18°♂18'05		desc. node	927 Jun 15 j 06:06	23°♂34'42	
evening set	926 Jul 23 j 05:11	16°♂08'48		retrograde	927 Jun 28 j 06:29	29°♂49'42	
min. Earth dist.	926 Jul 26 j 21:30	13°♂28'30	0.60961 AU	evening set	927 Jul 04 j 11:56	28°♂16'02	
inferior conj	926 Jul 30 j 02:38	10°♂43'27	-4°-29'-11	min. Earth dist.	927 Jul 08 j 18:29	25°♂38'33	0.58907 AU
minimum elong	926 Jul 30 j 06:50	10°♂34'24	4°28'32	inferior conj	927 Jul 12 j 01:42	23°♂11'29	-4°-50'-30
morning rise	926 Aug 06 j 11:34	5°♂53'33		minimum elong	927 Jul 12 j 02:51	23°♂09'20	4°50'27
direct	926 Aug 08 j 21:09	5°♂30'34		morning rise	927 Jul 19 j 21:17	18°♂44'26	
morning max el	926 Aug 16 j 01:01	9°♂03'09	18°02'29	direct	927 Jul 22 j 08:32	18°♂24'03	
asc. node	926 Aug 16 j 08:06	9°♂20'37		morning max el	927 Jul 30 j 08:47	22°♂13'29	18°32'34
	926 Aug 29 j 16:22	0°♂		asc. node	927 Aug 03 j 05:08	26°♂39'56	
morning set	926 Aug 31 j 20:50	4°♂02'22			927 Aug 05 j 12:28	0°♂	
				morning set	927 Aug 15 j 12:18	17°♂56'11	
					927 Aug 21 j 18:40	0°♂	
superior conj	926 Sep 10 j 22:33	22°♂24'35	1°22'15				
minimum elong	926 Sep 11 j 02:55	22°♂43'51	1°21'48				
	926 Sep 15 j 07:15	0°♂		superior conj	927 Aug 24 j 10:50	5°♂02'13	1°39'27
max. Earth dist.	926 Sep 18 j 12:51	5°♂27'39	1.41911 AU	minimum elong	927 Aug 24 j 13:23	5°♂14'05	1°39'17
evening rise	926 Sep 24 j 09:23	15°♂00'56		max. Earth dist.	927 Aug 31 j 18:28	18°♂14'44	1.39956 AU
desc. node	926 Sep 24 j 08:27	14°♂57'13		evening rise	927 Sep 05 j 01:24	25°♂34'27	
	926 Oct 04 j 01:49	0°♂			927 Sep 07 j 17:37	0°♂	
greatest brilliancy	926 Oct 22 j 14:47	25°♂43'19	-0.3m	desc. node	927 Sep 11 j 05:27	5°♂37'00	
	926 Oct 26 j 08:25	0°♂			927 Sep 27 j 19:31	0°♂	
evening max el	926 Oct 27 j 09:07	1°♂04'09	22°27'50	evening max el	927 Oct 09 j 23:01	14°♂37'42	23°47'56

retrograde	927 Oct 20 j 18:00	20°♄59'03			928 Aug 30 j 15:10	0°♄	
evening set	927 Oct 25 j 20:40	18°♄52'20		evening max el	928 Sep 21 j 10:54	28°♄14'41	25°05'08
asc. node	927 Oct 30 j 04:22	13°♄58'03			928 Sep 23 j 07:50	0°♄	
inferior conj	927 Oct 31 j 07:02	12°♄27'41	0°22'56	retrograde	928 Oct 03 j 06:16	5°♄05'05	
minimum elong	927 Oct 31 j 06:29	12°♄29'33	0°22'43	evening set	928 Oct 08 j 23:34	2°♄41'30	
min. Earth dist.	927 Oct 30 j 18:05	13°♄11'43	0.67649 AU		928 Oct 11 j 14:26	30°♄	
morning rise	927 Nov 05 j 16:27	6°♄18'47		min. Earth dist.	928 Oct 13 j 12:31	27°♄35'44	0.67231 AU
direct	927 Nov 09 j 15:53	4°♄49'33		inferior conj	928 Oct 14 j 12:08	26°♄18'21	0°-32'-9
morning max el	927 Nov 17 j 21:31	9°♄36'17	20°50'35	minimum elong	928 Oct 14 j 12:56	26°♄15'42	0°31'48
greatest brilliancy	927 Nov 23 j 15:27	16°♄19'03	-0.5m	asc. node	928 Oct 16 j 01:25	24°♄18'30	
	927 Dec 03 j 10:54	0°♄		morning rise	928 Oct 20 j 02:52	20°♄16'34	
desc. node	927 Dec 08 j 04:44	7°♄02'13		direct	928 Oct 23 j 14:00	19°♄07'18	
morning set	927 Dec 17 j 09:26	21°♄06'25		morning max el	928 Oct 30 j 23:20	23°♄19'29	19°43'02
	927 Dec 23 j 00:38	0°♄			928 Nov 05 j 13:32	0°♄	
max. Earth dist.	927 Dec 26 j 01:08	4°♄52'06	1.42878 AU	greatest brilliancy	928 Nov 07 j 23:17	3°♄18'05	-0.6m
				desc. node	928 Nov 24 j 01:45	27°♄28'11	
superior conj	928 Jan 01 j 21:04	16°♄10'25	-2°00'-43	morning set	928 Nov 25 j 06:11	29°♄17'57	
minimum elong	928 Jan 01 j 18:11	15°♄58'13	2°00'39		928 Nov 25 j 17:03	0°♄	
	928 Jan 09 j 21:22	0°♄		max. Earth dist.	928 Dec 07 j 13:17	18°♄32'34	1.44265 AU
evening rise	928 Jan 13 j 18:28	6°♄52'31					
asc. node	928 Jan 26 j 03:39	27°♄49'40		superior conj	928 Dec 12 j 00:07	25°♄40'03	-1°-41'-51
	928 Jan 27 j 17:16	0°♄		minimum elong	928 Dec 11 j 16:27	25°♄09'06	1°41'14
evening max el	928 Jan 30 j 17:10	3°♄29'14	18°07'30		928 Dec 14 j 16:16	0°♄	
retrograde	928 Feb 06 j 07:01	6°♄53'31		evening rise	928 Dec 25 j 17:42	18°♄23'54	
evening set	928 Feb 08 j 23:40	6°♄18'58			929 Jan 01 j 14:31	0°♄	
inferior conj	928 Feb 15 j 12:04	1°♄14'11	3°44'08	asc. node	929 Jan 12 j 00:43	15°♄28'43	
minimum elong	928 Feb 15 j 13:04	1°♄11'43	3°44'05	evening max el	929 Jan 13 j 05:43	16°♄47'01	18°17'47
	928 Feb 16 j 17:40	30°♄		retrograde	929 Jan 19 j 17:17	20°♄16'54	
min. Earth dist.	928 Feb 18 j 12:34	28°♄14'44	0.61700 AU	evening set	929 Jan 22 j 14:37	19°♄32'23	
morning rise	928 Feb 21 j 23:57	25°♄19'57		inferior conj	929 Jan 28 j 16:46	14°♄07'35	3°45'24
direct	928 Feb 28 j 21:35	22°♄53'55		minimum elong	929 Jan 28 j 15:52	14°♄10'05	3°45'21
desc. node	928 Mar 05 j 03:55	24°♄09'38		min. Earth dist.	929 Jan 31 j 02:53	11°♄25'37	0.63621 AU
	928 Mar 13 j 05:15	0°♄		morning rise	929 Feb 03 j 15:26	8°♄03'09	
morning max el	928 Mar 14 j 00:24	0°♄46'30	27°47'13	direct	929 Feb 10 j 13:50	5°♄17'22	
	928 Apr 04 j 06:17	0°♄		desc. node	929 Feb 20 j 00:58	9°♄19'55	
morning set	928 Apr 16 j 01:50	22°♄08'50		morning max el	929 Feb 24 j 08:21	13°♄10'25	27°39'01
	928 Apr 19 j 20:02	0°♄			929 Mar 09 j 21:03	0°♄	
max. Earth dist.	928 Apr 21 j 23:54	4°♄38'39	1.32494 AU		929 Mar 27 j 18:18	0°♄	
				morning set	929 Mar 30 j 23:24	6°♄15'27	
superior conj	928 Apr 23 j 11:50	7°♄53'54	0°03'57	max. Earth dist.	929 Apr 05 j 04:27	16°♄56'25	1.33128 AU
minimum elong	928 Apr 23 j 11:39	7°♄52'55	0°03'53				
behind sun begin	928 Apr 23 j 06:40	7°♄25'48		superior conj	929 Apr 07 j 19:10	22°♄29'44	0°-23'-2
behind sun end	928 Apr 23 j 16:37	8°♄20'03		minimum elong	929 Apr 07 j 20:18	22°♄35'45	0°22'49
asc. node	928 Apr 23 j 02:55	7°♄05'22		asc. node	929 Apr 09 j 23:59	27°♄13'47	
evening rise	928 Apr 30 j 10:56	22°♄59'33			929 Apr 11 j 06:48	0°♄	
	928 May 03 j 20:11	0°♄		evening rise	929 Apr 14 j 22:41	7°♄49'45	
	928 May 22 j 13:39	0°♄			929 Apr 26 j 16:00	0°♄	
evening max el	928 May 25 j 21:53	3°♄31'34	24°36'23	evening max el	929 May 07 j 12:08	14°♄03'16	23°01'10
desc. node	928 Jun 01 j 03:08	8°♄19'30		desc. node	929 May 19 j 00:10	20°♄35'16	
retrograde	928 Jun 08 j 20:05	10°♄34'16		retrograde	929 May 20 j 21:31	20°♄43'23	
evening set	928 Jun 13 j 19:13	9°♄38'46		evening set	929 May 24 j 09:23	20°♄16'36	
min. Earth dist.	928 Jun 19 j 09:05	6°♄46'35	0.56997 AU	min. Earth dist.	929 May 31 j 21:20	16°♄55'40	0.55574 AU
inferior conj	928 Jun 22 j 04:56	4°♄57'10	-4°-40'-3	inferior conj	929 Jun 02 j 12:44	15°♄58'30	-3°-45'-29
minimum elong	928 Jun 22 j 01:10	5°♄03'18	4°39'41	minimum elong	929 Jun 02 j 05:19	16°♄09'18	3°43'45
morning rise	928 Jun 30 j 10:52	0°♄51'29		morning rise	929 Jun 11 j 04:18	12°♄05'23	
direct	928 Jul 03 j 01:32	0°♄32'34		direct	929 Jun 13 j 23:31	11°♄46'48	
morning max el	928 Jul 12 j 07:58	4°♄51'16	19°23'49	morning max el	929 Jun 24 j 20:25	16°♄48'45	20°35'59
asc. node	928 Jul 20 j 02:11	14°♄50'26			929 Jul 04 j 20:39	0°♄	
	928 Jul 28 j 09:04	0°♄		asc. node	929 Jul 06 j 23:13	3°♄40'03	
morning set	928 Jul 29 j 12:29	2°♄16'12		morning set	929 Jul 13 j 18:33	16°♄54'35	
					929 Jul 20 j 02:40	0°♄	
superior conj	928 Aug 06 j 16:02	18°♄31'01	1°46'12				
minimum elong	928 Aug 06 j 16:35	18°♄33'39	1°46'12	superior conj	929 Jul 21 j 09:18	2°♄36'43	1°44'33
	928 Aug 12 j 16:56	0°♄		minimum elong	929 Jul 21 j 08:16	2°♄31'24	1°44'31
max. Earth dist.	928 Aug 12 j 22:06	0°♄23'48	1.37928 AU	max. Earth dist.	929 Jul 26 j 05:01	12°♄13'39	1.36069 AU
evening rise	928 Aug 16 j 17:46	7°♄16'48		evening rise	929 Jul 30 j 07:08	19°♄59'56	
desc. node	928 Aug 28 j 02:27	26°♄07'03			929 Aug 04 j 21:08	0°♄	

desc. node	929 Aug 14 j 23:30	16° \mathbb{M} 21'44		evening rise	930 Jul 13 j 12:45	3° Ω 31'36	
	929 Aug 24 j 15:21	0° $\underline{\mathbf{A}}$			930 Jul 28 j 17:04	0° \mathbb{M}	
evening max el	929 Sep 03 j 22:35	11° $\underline{\mathbf{A}}$ 52'27	26°11'59	desc. node	930 Aug 01 j 20:32	6° \mathbb{M} 14'02	
retrograde	929 Sep 16 j 13:51	19° $\underline{\mathbf{A}}$ 01'55		evening max el	930 Aug 17 j 10:43	25° \mathbb{M} 25'01	27°00'48
evening set	929 Sep 22 j 21:22	16° $\underline{\mathbf{A}}$ 24'57			930 Aug 23 j 01:17	0° $\underline{\mathbf{A}}$	
min. Earth dist.	929 Sep 27 j 02:30	11° $\underline{\mathbf{A}}$ 55'44	0.66476 AU	retrograde	930 Aug 30 j 16:10	2° $\underline{\mathbf{A}}$ 42'53	
inferior conj	929 Sep 28 j 13:29	10° $\underline{\mathbf{A}}$ 07'30	-1°-29'-5	evening set	930 Sep 06 j 11:48	29° \mathbb{M} 59'17	
minimum elong	929 Sep 28 j 15:48	10° $\underline{\mathbf{A}}$ 00'20	1°28'09		930 Sep 06 j 11:27	30° \mathbb{R} \mathbb{M}	
asc. node	929 Oct 02 j 22:29	5° $\underline{\mathbf{A}}$ 21'02		min. Earth dist.	930 Sep 10 j 09:50	26° \mathbb{M} 07'08	0.65370 AU
morning rise	929 Oct 04 j 11:16	4° $\underline{\mathbf{A}}$ 15'38		inferior conj	930 Sep 12 j 09:04	23° \mathbb{M} 51'52	-2°-25'-58
direct	929 Oct 07 j 12:18	3° $\underline{\mathbf{A}}$ 22'46		minimum elong	930 Sep 12 j 12:50	23° \mathbb{M} 41'04	2°24'36
morning max el	929 Oct 14 j 08:10	7° $\underline{\mathbf{A}}$ 10'42	18°50'22	morning rise	930 Sep 18 j 15:24	18° \mathbb{M} 12'57	
	929 Oct 30 j 11:34	0° \mathbb{M}		asc. node	930 Sep 19 j 19:30	17° \mathbb{M} 45'46	
morning set	929 Nov 04 j 19:37	8° \mathbb{M} 24'51		direct	930 Sep 21 j 08:46	17° \mathbb{M} 32'34	
desc. node	929 Nov 10 j 22:47	18° \mathbb{M} 04'35		morning max el	930 Sep 27 j 21:52	21° \mathbb{M} 05'27	18°14'05
	929 Nov 18 j 12:57	0° \mathbb{X}			930 Oct 04 j 18:45	0° $\underline{\mathbf{A}}$	
max. Earth dist.	929 Nov 20 j 06:04	2° \mathbb{X} 41'35	1.44996 AU	morning set	930 Oct 16 j 13:43	18° $\underline{\mathbf{A}}$ 58'13	
					930 Oct 23 j 08:06	0° \mathbb{M}	
superior conj	929 Nov 21 j 05:44	4° \mathbb{X} 14'38	-1°-4'-42	desc. node	930 Oct 28 j 19:51	8° \mathbb{M} 48'12	
minimum elong	929 Nov 20 j 21:59	3° \mathbb{X} 44'11	1°03'48	superior conj	930 Oct 31 j 08:04	12° \mathbb{M} 47'08	0°-16'-36
evening rise	929 Dec 06 j 18:06	28° \mathbb{X} 56'47		minimum elong	930 Oct 31 j 05:55	12° \mathbb{M} 38'38	0°16'19
	929 Dec 07 j 09:46	0° \mathbb{Z}		max. Earth dist.	930 Nov 03 j 00:48	17° \mathbb{M} 02'36	1.44998 AU
evening max el	929 Dec 27 j 16:56	0° \approx 11'23	18°46'18		930 Nov 11 j 07:23	0° \mathbb{X}	
	929 Dec 27 j 12:32	0° \approx		evening rise	930 Nov 16 j 19:31	8° \mathbb{X} 34'56	
asc. node	929 Dec 29 j 21:47	2° \approx 09'48			930 Nov 30 j 17:06	0° \mathbb{Z}	
retrograde	930 Jan 03 j 10:22	3° \approx 57'48		greatest brilliancy	930 Dec 02 j 15:34	2° \mathbb{Z} 51'14	-0.7m
evening set	930 Jan 06 j 13:17	3° \approx 02'09		evening max el	930 Dec 11 j 00:42	13° \mathbb{Z} 39'28	19°31'35
	930 Jan 10 j 01:28	30° \mathbb{R} \mathbb{Z}		asc. node	930 Dec 16 j 18:49	17° \mathbb{Z} 38'50	
inferior conj	930 Jan 12 j 08:07	27° \mathbb{Z} 19'35	3°30'07	retrograde	930 Dec 18 j 07:01	17° \mathbb{Z} 51'27	
minimum elong	930 Jan 12 j 05:59	27° \mathbb{Z} 26'05	3°29'47	evening set	930 Dec 21 j 17:03	16° \mathbb{Z} 43'06	
min. Earth dist.	930 Jan 14 j 02:52	25° \mathbb{Z} 09'02	0.65209 AU	inferior conj	930 Dec 27 j 06:57	10° \mathbb{Z} 45'19	3°02'41
morning rise	930 Jan 17 j 21:34	21° \mathbb{Z} 09'05		minimum elong	930 Dec 27 j 04:17	10° \mathbb{Z} 54'02	3°02'02
direct	930 Jan 24 j 13:10	18° \mathbb{Z} 18'06		min. Earth dist.	930 Dec 28 j 11:11	9° \mathbb{Z} 13'15	0.66409 AU
desc. node	930 Feb 06 j 22:00	26° \mathbb{Z} 11'37		morning rise	931 Jan 01 j 14:45	4° \mathbb{Z} 31'27	
morning max el	930 Feb 06 j 18:06	26° \mathbb{Z} 01'47	26°57'37	direct	931 Jan 07 j 18:34	1° \mathbb{Z} 48'17	
	930 Feb 10 j 10:25	0° \approx		morning max el	931 Jan 20 j 03:17	9° \mathbb{Z} 08'37	25°50'46
	930 Mar 03 j 10:04	0° \mathbb{X}		desc. node	931 Jan 24 j 19:03	14° \mathbb{Z} 16'09	
morning set	930 Mar 14 j 11:00	19° \mathbb{X} 48'03			931 Feb 05 j 14:01	0° \approx	
max. Earth dist.	930 Mar 18 j 23:02	28° \mathbb{X} 40'24	1.34196 AU		931 Feb 23 j 22:40	0° \mathbb{X}	
	930 Mar 19 j 14:45	0° \mathbb{Y}		morning set	931 Feb 25 j 08:20	2° \mathbb{X} 33'39	
superior conj	930 Mar 22 j 21:22	6° \mathbb{Y} 45'19	0°-50'-25	max. Earth dist.	931 Mar 01 j 05:37	9° \mathbb{X} 51'49	1.35727 AU
minimum elong	930 Mar 22 j 23:51	6° \mathbb{Y} 58'16	0°49'57	superior conj	931 Mar 06 j 15:52	20° \mathbb{X} 33'07	-1°-16'-43
asc. node	930 Mar 27 j 21:03	17° \mathbb{Y} 15'58		minimum elong	931 Mar 06 j 19:29	20° \mathbb{X} 51'21	1°16'09
evening rise	930 Mar 30 j 08:50	22° \mathbb{Y} 29'44			931 Mar 11 j 06:54	0° \mathbb{Y}	
	930 Apr 03 j 01:15	0° \mathbb{Z}		evening rise	931 Mar 14 j 15:20	6° \mathbb{Y} 53'01	
evening max el	930 Apr 19 j 08:14	24° \mathbb{Z} 45'53	21°29'07	asc. node	931 Mar 14 j 18:07	7° \mathbb{Y} 07'11	
	930 Apr 27 j 07:15	0° \mathbb{I}			931 Mar 27 j 13:10	0° \mathbb{Z}	
retrograde	930 May 01 j 12:48	0° \mathbb{I} 42'48		evening max el	931 Apr 01 j 15:03	6° \mathbb{Z} 00'58	20°10'32
evening set	930 May 03 j 23:03	0° \mathbb{I} 29'24		retrograde	931 Apr 12 j 02:53	11° \mathbb{Z} 04'17	
desc. node	930 May 05 j 21:12	0° \mathbb{I} 00'58		evening set	931 Apr 14 j 04:41	10° \mathbb{Z} 53'18	
	930 May 05 j 22:26	30° \mathbb{R} \mathbb{Z}		desc. node	931 Apr 22 j 18:14	7° \mathbb{Z} 10'11	
inferior conj	930 May 13 j 08:12	26° \mathbb{Z} 28'56	-2°-6'-54	inferior conj	931 Apr 23 j 04:37	6° \mathbb{Z} 54'47	0°-7'-28
minimum elong	930 May 13 j 02:24	26° \mathbb{Z} 37'03	2°04'57	minimum elong	931 Apr 23 j 04:16	6° \mathbb{Z} 55'18	0°07'22
min. Earth dist.	930 May 13 j 09:58	26° \mathbb{Z} 26'26	0.54955 AU	transit middle	931 Apr 23 j 04:16	6° \mathbb{Z} 55'18	0°07'22
morning rise	930 May 22 j 06:14	22° \mathbb{Z} 31'10		transit begin	931 Apr 23 j 00:43	7° \mathbb{Z} 00'36	
direct	930 May 25 j 10:23	22° \mathbb{Z} 09'11		transit end	931 Apr 23 j 07:50	6° \mathbb{Z} 50'00	
morning max el	930 Jun 06 j 21:52	28° \mathbb{Z} 03'34	22°06'08	min. Earth dist.	931 Apr 24 j 23:32	5° \mathbb{Z} 51'05	0.55301 AU
	930 Jun 08 j 20:32	0° \mathbb{I}		morning rise	931 May 02 j 01:21	2° \mathbb{Z} 34'05	
asc. node	930 Jun 23 j 20:17	22° \mathbb{I} 59'23		direct	931 May 05 j 23:32	2° \mathbb{Z} 00'29	
	930 Jun 27 j 08:01	0° \mathbb{Z}		morning max el	931 May 19 j 14:57	8° \mathbb{Z} 43'17	23°46'48
morning set	930 Jun 28 j 04:21	1° \mathbb{Z} 45'24			931 Jun 04 j 02:59	0° \mathbb{I}	
superior conj	930 Jul 05 j 10:56	17° \mathbb{Z} 08'17	1°36'13	asc. node	931 Jun 10 j 17:20	12° \mathbb{I} 39'56	
minimum elong	930 Jul 05 j 08:54	16° \mathbb{Z} 57'35	1°36'02	morning set	931 Jun 12 j 15:58	16° \mathbb{I} 42'08	
max. Earth dist.	930 Jul 08 j 20:20	24° \mathbb{Z} 11'08	1.34543 AU		931 Jun 18 j 20:34	0° \mathbb{Z}	
	930 Jul 11 j 17:34	0° Ω					

superior conj	931 Jun 19 j 18:00	1° \mathfrak{S} 55'41	1°22'32	superior conj	932 Jun 03 j 04:19	16° \mathbb{I} 51'41	1°04'33
minimum elong	931 Jun 19 j 15:34	1° \mathfrak{S} 42'33	1°22'13	minimum elong	932 Jun 03 j 01:59	16° \mathbb{I} 38'59	1°04'09
max. Earth dist.	931 Jun 21 j 21:08	6° \mathfrak{S} 29'33	1.33411 AU	max. Earth dist.	932 Jun 04 j 05:18	19° \mathbb{I} 08'08	1.32668 AU
evening rise	931 Jun 27 j 06:09	17° \mathfrak{S} 37'57			932 Jun 09 j 07:06	0° \mathfrak{S}	
	931 Jul 03 j 16:59	0° \mathcal{Q}		evening rise	932 Jun 10 j 07:49	2° \mathfrak{S} 08'16	
desc. node	931 Jul 19 j 17:34	25° \mathcal{Q} 33'24			932 Jun 25 j 14:23	0° \mathcal{Q}	
	931 Jul 23 j 02:59	0° \mathfrak{M}		desc. node	932 Jul 05 j 14:33	14° \mathcal{Q} 06'07	
evening max el	931 Jul 30 j 22:05	8° \mathfrak{M} 40'03	27°24'27	evening max el	932 Jul 12 j 06:13	21° \mathcal{Q} 23'55	27°17'17
retrograde	931 Aug 13 j 12:24	15° \mathfrak{M} 58'33		retrograde	932 Jul 26 j 01:55	28° \mathcal{Q} 40'06	
evening set	931 Aug 20 j 15:56	13° \mathfrak{M} 18'10		evening set	932 Aug 02 j 06:01	26° \mathcal{Q} 15'24	
min. Earth dist.	931 Aug 24 j 08:13	10° \mathfrak{M} 00'53	0.63908 AU	min. Earth dist.	932 Aug 05 j 20:08	23° \mathcal{Q} 25'39	0.62116 AU
inferior conj	931 Aug 26 j 20:18	7° \mathfrak{M} 24'54	-3°-20'-10	inferior conj	932 Aug 08 j 20:14	20° \mathcal{Q} 39'28	-4°-7'-31
minimum elong	931 Aug 27 j 01:08	7° \mathfrak{M} 12'20	3°18'43	minimum elong	932 Aug 09 j 01:09	20° \mathcal{Q} 28'05	4°06'28
morning rise	931 Sep 02 j 12:26	2° \mathfrak{M} 02'22		morning rise	932 Aug 15 j 22:57	15° \mathcal{Q} 36'53	
direct	931 Sep 05 j 00:45	1° \mathfrak{M} 30'53		direct	932 Aug 18 j 08:54	15° \mathcal{Q} 11'23	
asc. node	931 Sep 06 j 16:32	1° \mathfrak{M} 44'46		asc. node	932 Aug 23 j 13:35	17° \mathcal{Q} 12'41	
morning max el	931 Sep 11 j 13:42	4° \mathfrak{M} 56'51	17°55'05	morning max el	932 Aug 25 j 04:50	18° \mathcal{Q} 38'36	17°54'17
	931 Sep 27 j 23:10	0° \mathfrak{A}			932 Sep 02 j 10:23	0° \mathfrak{M}	
morning set	931 Sep 28 j 10:39	0° \mathfrak{A} 49'23		morning set	932 Sep 10 j 04:21	13° \mathfrak{M} 39'47	
					932 Sep 19 j 08:43	0° \mathfrak{A}	
superior conj	931 Oct 11 j 03:39	22° \mathfrak{A} 13'07	0°30'11	superior conj	932 Sep 21 j 02:09	2° \mathfrak{A} 58'46	1°06'52
minimum elong	931 Oct 11 j 06:51	22° \mathfrak{A} 26'13	0°29'45	minimum elong	932 Sep 21 j 06:57	3° \mathfrak{A} 19'20	1°06'18
desc. node	931 Oct 15 j 16:53	29° \mathfrak{A} 35'02		max. Earth dist.	932 Sep 28 j 08:43	15° \mathfrak{A} 09'30	1.42914 AU
	931 Oct 15 j 23:07	0° \mathfrak{M}		desc. node	932 Oct 01 j 13:53	20° \mathfrak{A} 21'39	
max. Earth dist.	931 Oct 16 j 18:39	1° \mathfrak{M} 17'57	1.44272 AU	evening rise	932 Oct 05 j 15:11	26° \mathfrak{A} 46'56	
evening rise	931 Oct 27 j 05:17	17° \mathfrak{M} 38'35			932 Oct 07 j 16:47	0° \mathfrak{M}	
	931 Nov 04 j 07:57	0° \mathfrak{A}			932 Oct 28 j 05:20	0° \mathfrak{A}	
greatest brilliancy	931 Nov 18 j 02:36	19° \mathfrak{A} 54'24	-0.5m	greatest brilliancy	932 Nov 01 j 04:00	5° \mathfrak{A} 06'31	-0.4m
evening max el	931 Nov 24 j 03:26	27° \mathfrak{A} 09'03	20°31'34	evening max el	932 Nov 06 j 00:23	10° \mathfrak{A} 38'42	21°43'07
	931 Nov 27 j 08:23	0° \mathfrak{S}		retrograde	932 Nov 15 j 01:37	16° \mathfrak{A} 01'49	
retrograde	931 Dec 02 j 04:45	1° \mathfrak{S} 54'06		evening set	932 Nov 19 j 07:33	14° \mathfrak{A} 22'34	
asc. node	931 Dec 03 j 15:49	1° \mathfrak{S} 42'03		asc. node	932 Nov 19 j 12:50	14° \mathfrak{A} 11'53	
evening set	931 Dec 05 j 23:46	0° \mathfrak{S} 31'09		inferior conj	932 Nov 24 j 17:06	8° \mathfrak{A} 03'37	1°42'26
	931 Dec 06 j 15:28	30° \mathfrak{R} \mathfrak{A}		minimum elong	932 Nov 24 j 14:59	8° \mathfrak{A} 10'57	1°41'38
inferior conj	931 Dec 11 j 10:40	24° \mathfrak{A} 21'07	2°26'07	min. Earth dist.	932 Nov 24 j 20:44	7° \mathfrak{A} 51'02	0.67646 AU
minimum elong	931 Dec 11 j 08:02	24° \mathfrak{A} 30'03	2°25'16	morning rise	932 Nov 29 j 22:11	1° \mathfrak{A} 49'04	
min. Earth dist.	931 Dec 12 j 01:54	23° \mathfrak{A} 29'21	0.67213 AU		932 Dec 03 j 01:47	30° \mathfrak{R} \mathfrak{M}	
morning rise	931 Dec 16 j 15:50	18° \mathfrak{A} 05'56		direct	932 Dec 04 j 20:06	29° \mathfrak{M} 44'39	
direct	931 Dec 22 j 05:07	15° \mathfrak{A} 39'45			932 Dec 06 j 16:19	0° \mathfrak{A}	
morning max el	932 Jan 02 j 11:37	22° \mathfrak{A} 22'56	24°28'16	morning max el	932 Dec 14 j 21:09	5° \mathfrak{A} 42'17	23°00'07
	932 Jan 09 j 03:56	0° \mathfrak{S}		greatest brilliancy	932 Dec 19 j 15:56	11° \mathfrak{A} 02'58	-0.3m
desc. node	932 Jan 11 j 16:07	3° \mathfrak{S} 12'29		desc. node	932 Dec 28 j 13:08	22° \mathfrak{A} 45'06	
	932 Jan 29 j 21:45	0° \mathfrak{A}			933 Jan 02 j 14:12	0° \mathfrak{S}	
morning set	932 Feb 07 j 09:52	14° \mathfrak{A} 16'54		morning set	933 Jan 18 j 09:17	24° \mathfrak{S} 41'23	
max. Earth dist.	932 Feb 11 j 03:09	20° \mathfrak{A} 54'40	1.37655 AU		933 Jan 21 j 13:04	0° \mathfrak{A}	
	932 Feb 16 j 00:34	0° \mathfrak{H}		max. Earth dist.	933 Jan 22 j 22:37	2° \mathfrak{A} 23'42	1.39787 AU
superior conj	932 Feb 17 j 23:25	3° \mathfrak{H} 44'20	-1°-39'-49	superior conj	933 Jan 30 j 15:40	16° \mathfrak{A} 07'15	-1°-56'-44
minimum elong	932 Feb 18 j 03:29	4° \mathfrak{H} 03'58	1°39'23	minimum elong	933 Jan 30 j 18:46	16° \mathfrak{A} 21'29	1°56'35
evening rise	932 Feb 26 j 15:54	20° \mathfrak{H} 53'07			933 Feb 07 j 00:49	0° \mathfrak{H}	
asc. node	932 Feb 29 j 15:09	26° \mathfrak{H} 42'35		evening rise	933 Feb 09 j 07:35	4° \mathfrak{H} 21'59	
	932 Mar 02 j 08:34	0° \mathfrak{Y}		asc. node	933 Feb 15 j 12:11	15° \mathfrak{H} 55'55	
evening max el	932 Mar 14 j 09:03	17° \mathfrak{Y} 54'35	19°10'22		933 Feb 25 j 03:15	0° \mathfrak{Y}	
retrograde	932 Mar 23 j 05:13	22° \mathfrak{Y} 10'41		evening max el	933 Feb 25 j 12:09	0° \mathfrak{Y} 22'05	18°30'14
evening set	932 Mar 25 j 09:10	21° \mathfrak{Y} 56'26		retrograde	933 Mar 05 j 02:19	4° \mathfrak{Y} 05'45	
inferior conj	932 Apr 02 j 15:22	17° \mathfrak{Y} 45'00	1°38'57	evening set	933 Mar 07 j 11:14	3° \mathfrak{Y} 45'04	
minimum elong	932 Apr 02 j 18:58	17° \mathfrak{Y} 38'53	1°37'49		933 Mar 13 j 23:28	30° \mathfrak{R} \mathfrak{H}	
min. Earth dist.	932 Apr 05 j 14:36	15° \mathfrak{Y} 44'49	0.56533 AU	inferior conj	933 Mar 14 j 22:52	29° \mathfrak{H} 13'58	2°53'03
desc. node	932 Apr 08 j 15:16	13° \mathfrak{Y} 56'27		minimum elong	933 Mar 15 j 02:51	29° \mathfrak{H} 06'03	2°52'10
morning rise	932 Apr 11 j 00:43	12° \mathfrak{Y} 51'09		min. Earth dist.	933 Mar 18 j 09:05	26° \mathfrak{H} 31'52	0.58380 AU
direct	932 Apr 16 j 00:02	11° \mathfrak{Y} 53'46		morning rise	933 Mar 22 j 14:25	23° \mathfrak{H} 49'16	
morning max el	932 Apr 30 j 05:25	19° \mathfrak{Y} 11'19	25°25'08	desc. node	933 Mar 26 j 12:18	22° \mathfrak{H} 28'14	
	932 May 09 j 07:52	0° \mathfrak{S}		direct	933 Mar 28 j 14:14	22° \mathfrak{H} 17'04	
	932 May 26 j 08:50	0° \mathbb{I}		morning max el	933 Apr 11 j 23:08	29° \mathfrak{H} 56'01	26°45'33
morning set	932 May 27 j 03:47	1° \mathbb{I} 39'23			933 Apr 12 j 00:46	0° \mathfrak{Y}	
asc. node	932 May 27 j 14:24	2° \mathbb{I} 35'25			933 May 03 j 04:05	0° \mathfrak{S}	

morning set	933 May 11 j 14:09	16°♄31'05		desc. node	934 Mar 13 j 09:21	3°♄46'15	
asc. node	933 May 14 j 11:27	22°♄40'05		morning max el	934 Mar 24 j 22:53	11°♄16'54	27°35'08
	933 May 17 j 20:03	0°♄			934 Apr 08 j 14:25	0°♄	
					934 Apr 25 j 07:28	0°♄	
superior conj	933 May 18 j 16:00	1°♄49'41	0°43'04	morning set	934 Apr 25 j 21:17	1°♄11'07	
minimum elong	933 May 18 j 14:14	1°♄39'58	0°42'42	asc. node	934 May 01 j 08:30	12°♄49'31	
max. Earth dist.	933 May 18 j 17:19	1°♄56'54	1.32298 AU	max. Earth dist.	934 May 02 j 05:22	14°♄43'22	1.32306 AU
evening rise	933 May 25 j 15:00	16°♄53'17					
	933 Jun 01 j 04:37	0°♄		superior conj	934 May 03 j 03:22	16°♄43'52	0°18'50
	933 Jun 21 j 01:03	0°♄		minimum elong	934 May 03 j 02:32	16°♄39'14	0°18'38
desc. node	933 Jun 22 j 11:33	1°♄32'58			934 May 09 j 05:35	0°♄	
evening max el	933 Jun 24 j 08:29	3°♄25'03	26°37'04	evening rise	934 May 10 j 01:28	1°♄45'37	
retrograde	933 Jul 08 j 07:56	10°♄39'07			934 May 25 j 09:57	0°♄	
evening set	933 Jul 15 j 01:33	8°♄43'30		evening max el	934 Jun 06 j 03:45	14°♄40'05	25°26'49
min. Earth dist.	933 Jul 18 j 21:53	6°♄07'03	0.60089 AU	desc. node	934 Jun 09 j 08:36	17°♄26'30	
inferior conj	933 Jul 22 j 05:22	3°♄26'55	-4°-41'-14	retrograde	934 Jun 20 j 04:36	21°♄49'40	
minimum elong	933 Jul 22 j 08:35	3°♄20'25	4°40'54	evening set	934 Jun 25 j 22:17	20°♄32'34	
	933 Jul 27 j 00:21	30°♄		min. Earth dist.	934 Jun 30 j 15:47	17°♄50'42	0.58045 AU
morning rise	933 Jul 29 j 18:55	28°♄47'01		inferior conj	934 Jul 03 j 20:12	15°♄37'09	-4°-50'-49
direct	933 Aug 01 j 04:59	28°♄25'19		minimum elong	934 Jul 03 j 19:23	15°♄38'35	4°50'49
	933 Aug 06 j 02:55	0°♄		morning rise	934 Jul 11 j 20:15	11°♄19'58	
morning max el	933 Aug 08 j 16:16	2°♄03'19	18°12'50	direct	934 Jul 14 j 08:36	11°♄00'29	
asc. node	933 Aug 10 j 10:39	3°♄55'49		morning max el	934 Jul 22 j 20:48	15°♄00'59	18°51'52
morning set	933 Aug 24 j 13:13	27°♄14'06		asc. node	934 Jul 28 j 07:42	21°♄38'15	
	933 Aug 26 j 00:21	0°♄			934 Aug 02 j 09:36	0°♄	
				morning set	934 Aug 08 j 08:48	11°♄19'46	
superior conj	933 Sep 03 j 02:15	15°♄00'32	1°30'57				
minimum elong	933 Sep 03 j 05:56	15°♄17'11	1°30'37	superior conj	934 Aug 16 j 22:26	28°♄01'47	1°43'27
max. Earth dist.	933 Sep 10 j 16:59	28°♄21'21	1.41102 AU	minimum elong	934 Aug 17 j 00:06	28°♄09'44	1°43'23
	933 Sep 11 j 16:20	0°♄			934 Aug 17 j 23:22	0°♄	
evening rise	933 Sep 15 j 17:37	6°♄42'29		max. Earth dist.	934 Aug 23 j 20:40	10°♄48'35	1.39080 AU
desc. node	933 Sep 18 j 10:53	11°♄05'13		evening rise	934 Aug 27 j 20:11	17°♄45'41	
	933 Sep 30 j 21:15	0°♄			934 Sep 04 j 06:16	0°♄	
greatest brilliancy	933 Oct 14 j 04:54	18°♄01'09	-0.2m	desc. node	934 Sep 05 j 07:54	1°♄41'23	
evening max el	933 Oct 19 j 16:12	24°♄10'02	23°01'42		934 Sep 25 j 07:19	0°♄	
	933 Oct 28 j 05:07	0°♄		evening max el	934 Oct 02 j 04:54	7°♄44'53	24°21'31
retrograde	933 Oct 29 j 20:07	0°♄11'56		retrograde	934 Oct 13 j 11:01	14°♄20'19	
	933 Oct 31 j 09:39	30°♄		evening set	934 Oct 18 j 19:43	12°♄06'21	
evening set	933 Nov 03 j 14:46	28°♄15'17		min. Earth dist.	934 Oct 23 j 13:26	6°♄40'03	0.67511 AU
asc. node	933 Nov 06 j 09:52	25°♄19'35		inferior conj	934 Oct 24 j 06:51	5°♄41'34	0°00'-3
min. Earth dist.	933 Nov 08 j 17:24	22°♄15'29	0.67740 AU	minimum elong	934 Oct 24 j 06:51	5°♄41'34	0°00'04
inferior conj	933 Nov 09 j 00:25	21°♄51'19	0°53'15	transit middle	934 Oct 24 j 06:51	5°♄41'34	0°00'04
minimum elong	933 Nov 08 j 23:12	21°♄55'30	0°52'45	transit begin	934 Oct 24 j 04:06	5°♄50'46	
morning rise	933 Nov 14 j 07:40	15°♄39'31		transit end	934 Oct 24 j 09:35	5°♄32'22	
direct	933 Nov 18 j 14:49	13°♄57'54		asc. node	934 Oct 24 j 06:56	5°♄41'17	
morning max el	933 Nov 27 j 11:16	19°♄09'17	21°35'12		934 Oct 29 j 05:20	30°♄	
greatest brilliancy	933 Dec 02 j 10:45	24°♄49'13	-0.4m	morning rise	934 Oct 29 j 18:17	29°♄35'06	
	933 Dec 06 j 10:27	0°♄		direct	934 Nov 02 j 12:12	28°♄14'46	
desc. node	933 Dec 15 j 10:09	12°♄44'00			934 Nov 07 j 03:52	0°♄	
	933 Dec 26 j 18:58	0°♄		morning max el	934 Nov 10 j 08:30	2°♄45'58	20°20'02
morning set	933 Dec 29 j 03:36	3°♄43'12		greatest brilliancy	934 Nov 16 j 21:53	10°♄37'09	-0.5m
max. Earth dist.	934 Jan 04 j 22:31	14°♄42'36	1.41842 AU		934 Nov 30 j 07:17	0°♄	
				desc. node	934 Dec 02 j 07:10	3°♄01'27	
superior conj	934 Jan 12 j 11:30	27°♄29'46	-2°-3'-24	morning set	934 Dec 08 j 01:37	11°♄52'32	
minimum elong	934 Jan 12 j 11:26	27°♄29'28	2°03'26	max. Earth dist.	934 Dec 18 j 05:57	27°♄54'49	1.43542 AU
	934 Jan 13 j 21:53	0°♄			934 Dec 19 j 13:03	0°♄	
evening rise	934 Jan 23 j 10:53	17°♄11'38					
	934 Jan 30 j 13:46	0°♄		superior conj	934 Dec 24 j 05:59	7°♄41'08	-1°-55'-2
asc. node	934 Feb 02 j 09:12	4°♄40'08		minimum elong	934 Dec 24 j 00:51	7°♄19'55	1°54'46
evening max el	934 Feb 08 j 21:20	13°♄15'47	18°10'10	evening rise	935 Jan 05 j 21:33	29°♄13'15	
retrograde	934 Feb 15 j 17:02	16°♄42'56			935 Jan 06 j 08:17	0°♄	
evening set	934 Feb 18 j 06:54	16°♄13'54		asc. node	935 Jan 20 j 06:15	22°♄46'06	
inferior conj	934 Feb 25 j 02:47	11°♄21'32	3°33'32	evening max el	935 Jan 23 j 09:33	26°♄27'11	18°09'39
minimum elong	934 Feb 25 j 05:01	11°♄16'22	3°33'16	retrograde	935 Jan 29 j 21:20	29°♄52'10	
min. Earth dist.	934 Feb 28 j 09:39	8°♄20'55	0.60495 AU	evening set	935 Feb 01 j 15:55	29°♄13'32	
morning rise	934 Mar 03 j 23:58	5°♄35'25		inferior conj	935 Feb 07 j 23:36	24°♄00'21	3°47'01
direct	934 Mar 10 j 16:39	3°♄26'27		minimum elong	935 Feb 07 j 23:43	24°♄00'01	3°47'01





































































































































min. Earth dist.	935 Feb 10 j 18:29	21° \approx 05'49	0.62554 AU	evening set	936 Jan 16 j 10:31	12° \approx 34'39	
morning rise	935 Feb 14 j 05:22	18° \approx 01'13		inferior conj	936 Jan 22 j 09:14	7° \approx 02'02	3°40'37
direct	935 Feb 21 j 04:36	15° \approx 24'38		minimum elong	936 Jan 22 j 07:44	7° \approx 06'25	3°40'28
desc. node	935 Feb 28 j 06:24	17° \approx 41'31		min. Earth dist.	936 Jan 24 j 12:47	4° \approx 32'20	0.64349 AU
morning max el	935 Mar 07 j 04:15	23° \approx 18'43	27°48'04	morning rise	936 Jan 28 j 03:33	0° \approx 54'57	
	935 Mar 13 j 03:47	0° \mathbb{H}			936 Jan 29 j 08:28	30° $\mathbb{R}\mathbb{Z}$	
	935 Apr 01 j 19:58	0° \mathbb{Y}		direct	936 Feb 03 j 23:59	28° \mathbb{Z} 05'13	
morning set	935 Apr 09 j 23:06	15° \mathbb{Y} 32'36			936 Feb 10 j 05:05	0° \approx	
max. Earth dist.	935 Apr 15 j 13:43	27° \mathbb{Y} 15'12	1.32706 AU	desc. node	936 Feb 15 j 03:26	3° \approx 38'49	
	935 Apr 16 j 20:21	0° \mathbb{B}		morning max el	936 Feb 17 j 13:05	5° \approx 54'54	27°25'03
					936 Mar 06 j 22:50	0° \mathbb{H}	
superior conj	935 Apr 17 j 12:45	1° \mathbb{B} 28'41	0°-7'-23	morning set	936 Mar 23 j 16:49	29° \mathbb{H} 25'37	
minimum elong	935 Apr 17 j 13:06	1° \mathbb{B} 30'36	0°07'20		936 Mar 23 j 23:48	0° \mathbb{Y}	
behind sun begin	935 Apr 17 j 08:28	1° \mathbb{B} 05'30		max. Earth dist.	936 Mar 28 j 14:24	9° \mathbb{Y} 19'07	1.33529 AU
behind sun end	935 Apr 17 j 17:44	1° \mathbb{B} 55'42					
asc. node	935 Apr 18 j 05:33	2° \mathbb{B} 59'44		superior conj	936 Mar 31 j 18:10	15° \mathbb{Y} 56'37	0°-34'-41
evening rise	935 Apr 24 j 13:18	16° \mathbb{B} 38'54		minimum elong	936 Mar 31 j 19:52	16° \mathbb{Y} 05'40	0°34'20
	935 May 01 j 04:40	0° \mathbb{H}		asc. node	936 Apr 04 j 02:36	23° \mathbb{Y} 05'52	
evening max el	935 May 18 j 18:26	25° \mathbb{H} 21'29	23°56'33		936 Apr 07 j 08:20	0° \mathbb{B}	
	935 May 24 j 18:19	0° \mathbb{B}		evening rise	936 Apr 08 j 00:35	1° \mathbb{B} 25'30	
desc. node	935 May 27 j 05:38	1° \mathbb{B} 12'29			936 Apr 24 j 06:13	0° \mathbb{H}	
retrograde	935 Jun 01 j 13:12	2° \mathbb{B} 16'40		evening max el	936 Apr 29 j 10:24	5° \mathbb{H} 54'07	22°20'54
evening set	935 Jun 05 j 20:51	1° \mathbb{B} 35'28		retrograde	936 May 12 j 09:04	12° \mathbb{H} 17'25	
	935 Jun 09 j 15:17	30° $\mathbb{R}\mathbb{H}$		desc. node	936 May 13 j 02:41	12° \mathbb{H} 16'12	
min. Earth dist.	935 Jun 12 j 05:20	28° \mathbb{H} 32'23	0.56305 AU	evening set	936 May 15 j 08:20	11° \mathbb{H} 57'59	
inferior conj	935 Jun 14 j 14:55	27° \mathbb{H} 04'05	-4°-22'-51	min. Earth dist.	936 May 23 j 17:20	8° \mathbb{H} 21'22	0.55203 AU
minimum elong	935 Jun 14 j 09:09	27° \mathbb{H} 12'59	4°21'56	inferior conj	936 May 24 j 16:07	7° \mathbb{H} 49'12	-3°-8'-14
morning rise	935 Jun 23 j 01:01	23° \mathbb{H} 04'55		minimum elong	936 May 24 j 08:39	7° \mathbb{H} 59'45	3°06'06
direct	935 Jun 25 j 17:19	22° \mathbb{H} 46'21		morning rise	936 Jun 02 j 11:03	3° \mathbb{H} 56'33	
morning max el	935 Jul 05 j 15:36	27° \mathbb{H} 22'28	19°52'01	direct	936 Jun 05 j 09:33	3° \mathbb{H} 37'00	
	935 Jul 08 j 04:03	0° \mathbb{B}		morning max el	936 Jun 16 j 23:04	9° \mathbb{H} 00'26	21°12'26
asc. node	935 Jul 15 j 04:46	10° \mathbb{B} 06'50		asc. node	936 Jul 01 j 01:50	29° \mathbb{H} 09'50	
morning set	935 Jul 23 j 11:49	25° \mathbb{B} 48'22			936 Jul 01 j 12:31	0° \mathbb{B}	
	935 Jul 25 j 13:25	0° \mathbb{B}		morning set	936 Jul 06 j 19:42	10° \mathbb{B} 32'22	
superior conj	935 Jul 31 j 09:17	11° \mathbb{B} 47'33	1°46'24	superior conj	936 Jul 14 j 06:27	26° \mathbb{B} 04'39	1°41'44
minimum elong	935 Jul 31 j 09:05	11° \mathbb{B} 46'34	1°46'25	minimum elong	936 Jul 14 j 04:55	25° \mathbb{B} 56'42	1°41'39
max. Earth dist.	935 Aug 06 j 00:58	22° \mathbb{B} 46'06	1.37106 AU		936 Jul 16 j 04:18	0° \mathbb{B}	
evening rise	935 Aug 09 j 22:07	29° \mathbb{B} 55'36		max. Earth dist.	936 Jul 18 j 11:21	4° \mathbb{B} 37'18	1.35377 AU
	935 Aug 09 j 23:05	0° \mathbb{H}		evening rise	936 Jul 22 j 18:56	13° \mathbb{B} 00'14	
desc. node	935 Aug 23 j 04:56	22° \mathbb{H} 05'33			936 Aug 01 j 08:30	0° \mathbb{H}	
	935 Aug 28 j 12:09	0° \mathbb{B}		desc. node	936 Aug 09 j 02:00	12° \mathbb{H} 11'28	
evening max el	935 Sep 14 j 16:46	21° \mathbb{B} 23'24	25°35'19		936 Aug 22 j 11:30	0° \mathbb{B}	
retrograde	935 Sep 26 j 21:19	28° \mathbb{B} 22'49		evening max el	936 Aug 27 j 04:49	5° \mathbb{B} 00'10	26°35'26
evening set	935 Oct 02 j 20:41	25° \mathbb{B} 53'17		retrograde	936 Sep 09 j 02:30	12° \mathbb{B} 13'31	
min. Earth dist.	935 Oct 07 j 06:22	21° \mathbb{B} 02'38	0.66955 AU	evening set	936 Sep 15 j 15:39	9° \mathbb{B} 32'51	
inferior conj	935 Oct 08 j 10:37	19° \mathbb{B} 32'06	0°-56'-7	min. Earth dist.	936 Sep 19 j 17:44	5° \mathbb{B} 19'32	0.66052 AU
minimum elong	935 Oct 08 j 12:03	19° \mathbb{B} 27'29	0°55'32	inferior conj	936 Sep 21 j 09:47	3° \mathbb{B} 19'27	-1°-53'-19
asc. node	935 Oct 11 j 03:59	16° \mathbb{B} 13'13		minimum elong	936 Sep 21 j 12:44	3° \mathbb{B} 10'35	1°52'10
morning rise	935 Oct 14 j 04:07	13° \mathbb{B} 33'53			936 Sep 24 j 08:28	30° $\mathbb{R}\mathbb{H}$	
direct	935 Oct 17 j 10:45	12° \mathbb{B} 31'53		morning rise	936 Sep 27 j 11:01	27° \mathbb{H} 32'44	
morning max el	935 Oct 24 j 13:24	16° \mathbb{B} 32'29	19°18'36	asc. node	936 Sep 27 j 01:01	27° \mathbb{H} 47'07	
greatest brilliancy	935 Nov 03 j 09:51	29° \mathbb{B} 21'13	-0.7m	direct	936 Sep 30 j 08:36	26° \mathbb{H} 45'29	
	935 Nov 03 j 20:22	0° \mathbb{H}			936 Oct 06 j 14:12	0° \mathbb{B}	
morning set	935 Nov 17 j 02:58	20° \mathbb{H} 20'42		morning max el	936 Oct 07 j 00:35	0° \mathbb{B} 25'33	18°32'56
desc. node	935 Nov 19 j 04:12	23° \mathbb{H} 32'14		morning set	936 Oct 27 j 04:16	0° \mathbb{H} 04'20	
	935 Nov 23 j 07:39	0° \mathbb{B}			936 Oct 27 j 03:11	0° \mathbb{H}	
max. Earth dist.	935 Nov 30 j 20:31	11° \mathbb{B} 49'54	1.44672 AU	desc. node	936 Nov 05 j 01:15	14° \mathbb{H} 12'13	
superior conj	935 Dec 03 j 22:36	16° \mathbb{B} 43'27	-1°-28'-6	superior conj	936 Nov 12 j 00:04	25° \mathbb{H} 09'30	0°-44'-56
minimum elong	935 Dec 03 j 14:03	16° \mathbb{B} 09'28	1°27'16	minimum elong	936 Nov 11 j 18:17	24° \mathbb{H} 46'45	0°44'12
	935 Dec 12 j 04:35	0° \mathbb{B}		max. Earth dist.	936 Nov 12 j 15:11	26° \mathbb{H} 08'50	1.45091 AU
evening rise	935 Dec 18 j 11:23	10° \mathbb{B} 19'51			936 Nov 15 j 02:02	0° \mathbb{B}	
	935 Dec 30 j 12:26	0° \approx		evening rise	936 Nov 28 j 01:49	20° \mathbb{B} 29'15	
evening max el	936 Jan 06 j 21:54	9° \approx 48'37	18°27'47		936 Dec 04 j 01:42	0° \mathbb{B}	
asc. node	936 Jan 07 j 03:18	10° \approx 02'10		evening max el	936 Dec 20 j 07:55	23° \mathbb{B} 15'22	19°03'32
retrograde	936 Jan 13 j 10:51	13° \approx 23'53		asc. node	936 Dec 24 j 00:20	26° \mathbb{B} 14'56	

retrograde	936 Dec 27 j 05:53	27°☾11'30		asc. node	937 Dec 10 j 21:21	11°☾08'58	
evening set	936 Dec 30 j 11:42	26°☾10'29		retrograde	937 Dec 11 j 03:24	11°☾09'19	
inferior conj	937 Jan 05 j 04:08	20°☾20'51	3°19'44	evening set	937 Dec 14 j 16:58	9°☾54'59	
minimum elong	937 Jan 05 j 01:42	20°☾28'31	3°19'16	inferior conj	937 Dec 20 j 05:21	3°☾51'20	2°48'09
min. Earth dist.	937 Jan 06 j 16:26	18°☾26'31	0.65771 AU	minimum elong	937 Dec 20 j 02:38	4°☾00'24	2°47'24
morning rise	937 Jan 10 j 14:48	14°☾08'43		min. Earth dist.	937 Dec 21 j 03:49	2°☾36'30	0.66794 AU
direct	937 Jan 17 j 01:47	11°☾20'03			937 Dec 23 j 05:08	30°☾☿	
morning max el	937 Jan 29 j 22:55	18°☾54'56	26°31'48	morning rise	937 Dec 25 j 11:40	27°☾36'28	
desc. node	937 Feb 01 j 00:28	21°☾04'49		direct	937 Dec 31 j 09:23	24°☾59'51	
	937 Feb 08 j 09:07	0°☾			938 Jan 10 j 02:53	0°☾	
	937 Feb 27 j 23:03	0°☾		morning max el	938 Jan 12 j 07:53	2°☾06'26	25°17'00
morning set	937 Mar 06 j 22:55	12°☾39'48		desc. node	938 Jan 18 j 21:29	9°☾33'23	
max. Earth dist.	937 Mar 11 j 04:17	20°☾49'43	1.34802 AU		938 Feb 02 j 11:59	0°☾	
				morning set	938 Feb 17 j 12:37	25°☾01'04	
superior conj	937 Mar 15 j 17:25	0°☾01'09	-1°-1'-49		938 Feb 20 j 06:03	0°☾	
minimum elong	937 Mar 15 j 20:25	0°☾16'40	1°01'17	max. Earth dist.	938 Feb 21 j 06:31	1°☾53'58	1.36510 AU
	937 Mar 15 j 17:11	0°☾					
asc. node	937 Mar 21 j 23:38	13°☾03'50		superior conj	938 Feb 27 j 07:40	13°☾34'11	-1°-27'-4
evening rise	937 Mar 23 j 09:27	15°☾59'18		minimum elong	938 Feb 27 j 11:36	13°☾53'39	1°26'32
	937 Mar 30 j 13:04	0°☾			938 Mar 07 j 11:04	0°☾	
evening max el	937 Apr 11 j 10:30	16°☾47'37	20°53'29	evening rise	938 Mar 07 j 13:44	0°☾13'27	
retrograde	937 Apr 22 j 22:20	22°☾22'23		asc. node	938 Mar 08 j 20:41	2°☾48'51	
evening set	937 Apr 25 j 03:14	22°☾10'50		evening max el	938 Mar 24 j 22:08	28°☾18'47	19°42'27
desc. node	937 Apr 29 j 23:42	20°☾34'28			938 Mar 26 j 20:38	0°☾	
inferior conj	937 May 04 j 10:00	18°☾12'53	-1°-16'-36	retrograde	938 Apr 03 j 16:38	3°☾00'56	
minimum elong	937 May 04 j 06:22	18°☾18'02	1°15'20	evening set	938 Apr 05 j 18:19	2°☾49'13	
min. Earth dist.	937 May 05 j 05:56	17°☾44'32	0.54988 AU		938 Apr 12 j 11:18	30°☾☿	
morning rise	937 May 13 j 08:47	14°☾07'43		inferior conj	938 Apr 14 j 11:15	28°☾46'31	0°40'55
direct	937 May 16 j 19:19	13°☾42'15		minimum elong	938 Apr 14 j 13:00	28°☾43'46	0°40'18
morning max el	937 May 29 j 20:24	19°☾57'45	22°48'25	desc. node	938 Apr 16 j 20:42	27°☾16'50	
	937 Jun 07 j 05:35	0°☾		min. Earth dist.	938 Apr 16 j 20:14	27°☾17'32	0.55726 AU
asc. node	937 Jun 17 j 22:52	18°☾38'38		morning rise	938 Apr 23 j 04:13	24°☾11'45	
morning set	937 Jun 21 j 06:26	25°☾25'53		direct	938 Apr 27 j 12:21	23°☾29'45	
	937 Jun 23 j 10:18	0°☾			938 May 10 j 23:01	0°☾	
superior conj	937 Jun 28 j 10:39	10°☾43'21	1°31'00	morning max el	938 May 11 j 11:47	0°☾29'54	24°29'54
minimum elong	937 Jun 28 j 08:23	10°☾31'16	1°30'45		938 May 31 j 15:17	0°☾	
max. Earth dist.	937 Jul 01 j 06:48	16°☾42'29	1.34009 AU	asc. node	938 Jun 04 j 19:56	8°☾26'20	
evening rise	937 Jul 06 j 05:58	26°☾47'05		morning set	938 Jun 05 j 18:20	10°☾23'42	
	937 Jul 07 j 21:35	0°☾		superior conj	938 Jun 12 j 19:22	25°☾35'39	1°15'23
	937 Jul 25 j 16:09	0°☾		minimum elong	938 Jun 12 j 16:55	25°☾22'22	1°15'01
desc. node	937 Jul 26 j 23:02	1°☾50'49		max. Earth dist.	938 Jun 14 j 10:55	29°☾09'29	1.33040 AU
evening max el	937 Aug 09 j 16:38	18°☾25'34	27°14'19		938 Jun 14 j 20:19	0°☾	
retrograde	937 Aug 23 j 02:12	25°☾44'30		evening rise	938 Jun 20 j 03:15	11°☾04'58	
evening set	937 Aug 30 j 02:04	23°☾00'31			938 Jun 30 j 03:59	0°☾	
min. Earth dist.	937 Sep 02 j 21:16	19°☾24'07	0.64789 AU	desc. node	938 Jul 13 j 20:02	20°☾52'37	
inferior conj	937 Sep 05 j 02:05	16°☾58'51	-2°-49'-32		938 Jul 21 j 14:48	0°☾	
minimum elong	937 Sep 05 j 06:23	16°☾47'01	2°48'04	evening max el	938 Jul 23 j 02:44	1°☾28'28	27°25'26
morning rise	937 Sep 11 j 12:28	11°☾26'48		retrograde	938 Aug 05 j 19:57	8°☾47'10	
asc. node	937 Sep 13 j 22:04	10°☾50'54		evening set	938 Aug 13 j 00:46	6°☾11'32	
direct	937 Sep 14 j 03:23	10°☾50'39		min. Earth dist.	938 Aug 16 j 15:19	3°☾07'21	0.63174 AU
morning max el	937 Sep 20 j 15:34	14°☾19'24	18°03'56	inferior conj	938 Aug 19 j 08:54	0°☾25'04	-3°-41'-29
	937 Oct 01 j 17:06	0°☾		minimum elong	938 Aug 19 j 13:56	0°☾12'34	3°40'09
morning set	937 Oct 08 j 10:19	11°☾12'04			938 Aug 19 j 19:02	30°☾☿	
	937 Oct 19 j 20:12	0°☾		morning rise	938 Aug 26 j 05:30	25°☾10'51	
				direct	938 Aug 28 j 16:21	24°☾42'24	
superior conj	937 Oct 22 j 07:37	3°☾58'41	0°04'06	asc. node	938 Aug 31 j 19:06	25°☾29'11	
minimum elong	937 Oct 22 j 08:07	4°☾00'42	0°04'02	morning max el	938 Sep 04 j 07:32	28°☾08'05	17°52'30
behind sun begin	937 Oct 21 j 21:45	3°☾19'15			938 Sep 06 j 00:35	0°☾	
behind sun end	937 Oct 22 j 18:28	4°☾42'05		morning set	938 Sep 20 j 16:50	23°☾30'27	
desc. node	937 Oct 22 j 22:17	4°☾57'21			938 Sep 24 j 09:50	0°☾	
max. Earth dist.	937 Oct 26 j 10:02	10°☾29'53	1.44766 AU				
evening rise	937 Nov 07 j 19:06	29°☾48'39		superior conj	938 Oct 02 j 14:19	13°☾57'57	0°47'15
	937 Nov 07 j 22:02	0°☾		minimum elong	938 Oct 02 j 18:40	14°☾16'00	0°46'40
greatest brilliancy	937 Nov 26 j 08:34	27°☾43'58	-0.6m	max. Earth dist.	938 Oct 09 j 01:58	24°☾34'58	1.43756 AU
	937 Nov 28 j 00:13	0°☾		desc. node	938 Oct 09 j 19:19	25°☾44'38	
evening max el	937 Dec 03 j 13:36	6°☾43'38	19°55'23		938 Oct 12 j 11:29	0°☾	

evening rise	938 Oct 18 j 02:37	8° \mathbb{M} 48'10		greatest brilliancy	939 Oct 25 j 15:23	28° \mathbb{M} 24'56	-0.3m
	938 Nov 01 j 04:34	0° \mathbb{Z}			939 Oct 26 j 23:11	0° \mathbb{Z}	
greatest brilliancy	938 Nov 11 j 04:02	13° \mathbb{Z} 52'42	-0.5m	evening max el	939 Oct 30 j 08:32	3° \mathbb{Z} 43'22	22°16'07
evening max el	938 Nov 16 j 13:49	20° \mathbb{Z} 12'50	21°00'49	retrograde	939 Nov 08 j 20:59	9° \mathbb{Z} 22'57	
retrograde	938 Nov 25 j 01:02	25° \mathbb{Z} 14'08		evening set	939 Nov 13 j 08:05	7° \mathbb{Z} 36'35	
asc. node	938 Nov 27 j 18:22	24° \mathbb{Z} 32'30		asc. node	939 Nov 14 j 15:24	6° \mathbb{Z} 24'36	
evening set	938 Nov 29 j 00:21	23° \mathbb{Z} 44'38		inferior conj	939 Nov 18 j 17:32	1° \mathbb{Z} 15'16	1°22'12
inferior conj	938 Dec 04 j 10:29	17° \mathbb{Z} 30'22	2°08'22	minimum elong	939 Nov 18 j 15:45	1° \mathbb{Z} 21'26	1°21'29
minimum elong	938 Dec 04 j 08:01	17° \mathbb{Z} 38'51	2°07'31	min. Earth dist.	939 Nov 18 j 16:39	1° \mathbb{Z} 18'20	0.67726 AU
min. Earth dist.	938 Dec 04 j 20:43	16° \mathbb{Z} 55'15	0.67438 AU		939 Nov 19 j 15:23	30° \mathbb{R} \mathbb{M}	
morning rise	938 Dec 09 j 15:17	11° \mathbb{Z} 14'56		morning rise	939 Nov 23 j 23:15	25° \mathbb{M} 01'34	
direct	938 Dec 14 j 22:02	8° \mathbb{Z} 57'28		direct	939 Nov 28 j 14:52	23° \mathbb{M} 06'36	
morning max el	938 Dec 25 j 16:19	15° \mathbb{Z} 22'34	23°50'48	morning max el	939 Dec 08 j 03:12	28° \mathbb{M} 43'58	22°23'08
desc. node	939 Jan 05 j 18:31	28° \mathbb{Z} 46'34			939 Dec 09 j 08:22	0° \mathbb{Z}	
	939 Jan 06 j 16:08	0° \mathbb{Z}		greatest brilliancy	939 Dec 12 j 17:32	3° \mathbb{Z} 53'00	-0.3m
	939 Jan 26 j 11:10	0° \approx		desc. node	939 Dec 23 j 15:34	18° \mathbb{Z} 31'36	
morning set	939 Jan 30 j 03:48	6° \approx 12'50			939 Dec 31 j 10:00	0° \mathbb{Z}	
max. Earth dist.	939 Feb 03 j 01:37	13° \approx 01'19	1.38550 AU	morning set	940 Jan 10 j 14:47	16° \mathbb{Z} 01'24	
				max. Earth dist.	940 Jan 15 j 22:16	24° \mathbb{Z} 49'49	1.40687 AU
superior conj	939 Feb 10 j 09:18	26° \approx 26'22	-1°-47'-58		940 Jan 18 j 22:48	0° \approx	
minimum elong	939 Feb 10 j 13:11	26° \approx 44'43	1°47'39				
	939 Feb 12 j 06:11	0° \mathbb{X}		superior conj	940 Jan 23 j 17:39	8° \approx 26'04	-2°-1'-6
evening rise	939 Feb 19 j 10:55	14° \mathbb{X} 01'04		minimum elong	940 Jan 23 j 19:42	8° \approx 35'17	2°01'03
asc. node	939 Feb 23 j 17:43	22° \mathbb{X} 15'35		evening rise	940 Feb 02 j 21:50	27° \approx 14'38	
	939 Feb 28 j 01:52	0° \mathbb{Y}			940 Feb 04 j 09:05	0° \mathbb{X}	
evening max el	939 Mar 07 j 20:27	10° \mathbb{Y} 28'20	18°50'51	asc. node	940 Feb 10 j 14:45	11° \mathbb{X} 17'53	
retrograde	939 Mar 16 j 02:26	14° \mathbb{Y} 28'17		evening max el	940 Feb 19 j 02:41	23° \mathbb{X} 09'10	18°19'18
evening set	939 Mar 18 j 08:22	14° \mathbb{Y} 11'39		retrograde	940 Feb 26 j 07:21	26° \mathbb{X} 43'33	
inferior conj	939 Mar 26 j 06:33	9° \mathbb{Y} 52'43	2°14'42	evening set	940 Feb 28 j 18:36	26° \mathbb{X} 19'20	
minimum elong	939 Mar 26 j 10:42	9° \mathbb{Y} 45'10	2°13'32	inferior conj	940 Mar 06 j 23:06	21° \mathbb{X} 39'14	3°13'58
min. Earth dist.	939 Mar 29 j 12:46	7° \mathbb{Y} 31'57	0.57264 AU	minimum elong	940 Mar 07 j 02:29	21° \mathbb{X} 32'03	3°13'22
morning rise	939 Apr 03 j 08:43	4° \mathbb{Y} 44'44		min. Earth dist.	940 Mar 10 j 09:22	18° \mathbb{X} 46'19	0.59272 AU
desc. node	939 Apr 03 j 17:43	4° \mathbb{Y} 35'21		morning rise	940 Mar 14 j 06:42	16° \mathbb{X} 04'36	
direct	939 Apr 08 j 19:14	3° \mathbb{Y} 33'06		direct	940 Mar 20 j 15:05	14° \mathbb{X} 16'19	
morning max el	939 Apr 23 j 02:59	11° \mathbb{Y} 01'50	26°02'21	desc. node	940 Mar 20 j 14:45	14° \mathbb{X} 16'19	
	939 May 07 j 16:42	0° \mathbb{B}		morning max el	940 Apr 03 j 22:58	22° \mathbb{X} 00'21	27°10'50
morning set	939 May 21 j 05:44	25° \mathbb{B} 19'17			940 Apr 10 j 23:38	0° \mathbb{Y}	
asc. node	939 May 22 j 16:58	28° \mathbb{B} 26'19			940 Apr 29 j 14:11	0° \mathbb{B}	
	939 May 23 j 10:25	0° \mathbb{H}		morning set	940 May 04 j 14:59	10° \mathbb{B} 07'08	
				asc. node	940 May 08 j 14:02	18° \mathbb{B} 33'52	
superior conj	939 May 28 j 06:30	10° \mathbb{H} 33'35	0°55'50				
minimum elong	939 May 28 j 04:21	10° \mathbb{H} 21'52	0°55'25	superior conj	940 May 11 j 18:17	25° \mathbb{B} 31'04	0°33'05
max. Earth dist.	939 May 28 j 21:01	11° \mathbb{H} 53'15	1.32462 AU	minimum elong	940 May 11 j 16:52	25° \mathbb{B} 23'17	0°32'47
evening rise	939 Jun 04 j 07:35	25° \mathbb{H} 42'54		max. Earth dist.	940 May 11 j 09:39	24° \mathbb{B} 43'38	1.32264 AU
	939 Jun 06 j 09:46	0° \mathbb{G}			940 May 13 j 19:14	0° \mathbb{H}	
	939 Jun 23 j 18:28	0° \mathbb{O}		evening rise	940 May 18 j 16:28	10° \mathbb{H} 32'37	
desc. node	939 Jun 30 j 17:03	9° \mathbb{O} 00'20			940 May 28 j 16:52	0° \mathbb{G}	
evening max el	939 Jul 05 j 08:46	13° \mathbb{O} 55'46	27°04'18	evening max el	940 Jun 16 j 08:19	25° \mathbb{G} 37'54	26°10'24
retrograde	939 Jul 19 j 06:38	21° \mathbb{O} 11'12		desc. node	940 Jun 16 j 14:03	25° \mathbb{G} 51'28	
evening set	939 Jul 26 j 07:33	18° \mathbb{O} 57'37			940 Jun 21 j 19:31	0° \mathbb{O}	
min. Earth dist.	939 Jul 29 j 23:01	16° \mathbb{O} 15'17	0.61268 AU	retrograde	940 Jun 30 j 08:34	2° \mathbb{O} 49'34	
inferior conj	939 Aug 02 j 02:59	13° \mathbb{O} 29'27	-4°-24'-3	evening set	940 Jul 06 j 17:42	1° \mathbb{O} 10'00	
minimum elong	939 Aug 02 j 07:27	13° \mathbb{O} 19'39	4°23'18		940 Jul 08 j 18:32	30° \mathbb{R} \mathbb{G}	
morning rise	939 Aug 09 j 10:18	8° \mathbb{O} 36'02		min. Earth dist.	940 Jul 10 j 21:05	28° \mathbb{G} 33'26	0.59214 AU
direct	939 Aug 11 j 19:53	8° \mathbb{O} 12'26		inferior conj	940 Jul 14 j 04:45	26° \mathbb{G} 02'25	-4°-49'00
asc. node	939 Aug 18 j 16:10	11° \mathbb{O} 30'46		minimum elong	940 Jul 14 j 06:31	25° \mathbb{G} 59'03	4°48'56
morning max el	939 Aug 18 j 21:27	11° \mathbb{O} 43'26	17°59'42	morning rise	940 Jul 21 j 22:47	21° \mathbb{G} 32'02	
	939 Aug 31 j 01:54	0° \mathbb{P}		direct	940 Jul 24 j 09:44	21° \mathbb{G} 11'18	
morning set	939 Sep 03 j 17:38	6° \mathbb{P} 41'09		morning max el	940 Aug 01 j 06:13	24° \mathbb{G} 57'15	18°26'48
				asc. node	940 Aug 04 j 13:14	28° \mathbb{G} 40'41	
superior conj	939 Sep 14 j 00:13	25° \mathbb{P} 16'57	1°18'36		940 Aug 05 j 12:48	0° \mathbb{O}	
minimum elong	939 Sep 14 j 04:45	25° \mathbb{P} 36'51	1°18'07	morning set	940 Aug 17 j 07:31	20° \mathbb{O} 30'04	
	939 Sep 16 j 17:22	0° \mathbb{A}			940 Aug 22 j 06:24	0° \mathbb{P}	
max. Earth dist.	939 Sep 21 j 13:20	8° \mathbb{A} 09'37	1.42187 AU				
desc. node	939 Sep 26 j 16:21	16° \mathbb{A} 30'24		superior conj	940 Aug 26 j 09:31	7° \mathbb{P} 45'33	1°37'33
evening rise	939 Sep 27 j 17:56	18° \mathbb{A} 12'22		minimum elong	940 Aug 26 j 12:23	7° \mathbb{P} 58'46	1°37'22
	939 Oct 05 j 08:29	0° \mathbb{M}		max. Earth dist.	940 Sep 02 j 19:47	21° \mathbb{P} 03'51	1.40258 AU

evening rise	940 Sep 07 j 06:18	28° \mathbb{M} 35'27		minimum elong	941 Aug 09 j 13:25	21° Ω 12'06	1°45'44
	940 Sep 08 j 02:43	0° \mathbb{A}			941 Aug 14 j 04:27	0° \mathbb{M}	
desc. node	940 Sep 12 j 13:22	7° \mathbb{A} 11'14		max. Earth dist.	941 Aug 15 j 23:17	3° \mathbb{M} 17'16	1.38219 AU
	940 Sep 27 j 21:47	0° \mathbb{M}		evening rise	941 Aug 19 j 19:13	10° \mathbb{M} 08'05	
evening max el	940 Oct 11 j 22:51	17° \mathbb{M} 16'11	23°36'01	desc. node	941 Aug 30 j 10:24	27° \mathbb{M} 43'15	
retrograde	940 Oct 22 j 13:55	23° \mathbb{M} 32'34			941 Aug 31 j 21:42	0° \mathbb{A}	
evening set	940 Oct 27 j 14:31	21° \mathbb{M} 28'22			941 Sep 23 j 13:53	0° \mathbb{M}	
asc. node	940 Oct 31 j 12:27	17° \mathbb{M} 06'18		evening max el	941 Sep 24 j 10:51	0° \mathbb{M} 52'39	24°54'03
min. Earth dist.	940 Nov 01 j 13:13	15° \mathbb{M} 42'51	0.67683 AU	retrograde	941 Oct 06 j 02:56	7° \mathbb{M} 39'42	
inferior conj	940 Nov 02 j 00:40	15° \mathbb{M} 03'48	0°31'04	evening set	941 Oct 11 j 18:01	5° \mathbb{M} 18'25	
minimum elong	940 Nov 01 j 23:56	15° \mathbb{M} 06'18	0°30'45		941 Oct 16 j 10:22	30° \mathbb{R} \mathbb{A}	
morning rise	940 Nov 07 j 09:28	8° \mathbb{M} 54'11		min. Earth dist.	941 Oct 16 j 08:08	0° \mathbb{M} 07'19	0.67314 AU
direct	940 Nov 11 j 10:51	7° \mathbb{M} 21'50		inferior conj	941 Oct 17 j 06:10	28° \mathbb{A} 54'37	0°-23'-35
morning max el	940 Nov 19 j 20:07	12° \mathbb{M} 14'31	21°01'48	minimum elong	941 Oct 17 j 06:45	28° \mathbb{A} 52'40	0°23'21
greatest brilliancy	940 Nov 25 j 08:23	18° \mathbb{M} 37'45	-0.5m	asc. node	941 Oct 18 j 09:30	27° \mathbb{A} 25'23	
	940 Dec 03 j 15:15	0° \mathbb{A}		morning rise	941 Oct 22 j 20:00	22° \mathbb{A} 51'35	
desc. node	940 Dec 09 j 12:36	8° \mathbb{A} 39'03		direct	941 Oct 26 j 08:48	21° \mathbb{A} 39'38	
morning set	940 Dec 19 j 22:20	24° \mathbb{A} 33'51		morning max el	941 Nov 02 j 20:48	25° \mathbb{A} 56'27	19°52'09
	940 Dec 23 j 09:02	0° \mathbb{A}			941 Nov 06 j 10:39	0° \mathbb{M}	
max. Earth dist.	940 Dec 28 j 01:52	7° \mathbb{A} 34'22	1.42623 AU	greatest brilliancy	941 Nov 10 j 10:24	5° \mathbb{M} 16'10	-0.6m
				desc. node	941 Nov 26 j 09:39	29° \mathbb{M} 03'02	
superior conj	941 Jan 04 j 03:10	19° \mathbb{A} 19'06	-2°-1'-59		941 Nov 27 j 00:28	0° \mathbb{A}	
minimum elong	941 Jan 04 j 01:04	19° \mathbb{A} 10'09	2°01'57	morning set	941 Nov 28 j 18:34	2° \mathbb{A} 42'21	
	941 Jan 10 j 07:13	0° \mathbb{A}		max. Earth dist.	941 Dec 10 j 12:47	21° \mathbb{A} 07'34	1.44099 AU
evening rise	941 Jan 15 j 18:35	9° \mathbb{A} 44'55					
asc. node	941 Jan 27 j 11:48	29° \mathbb{A} 47'03		superior conj	941 Dec 15 j 10:08	28° \mathbb{A} 58'59	-1°-45'-55
	941 Jan 27 j 15:18	0° \mathbb{A}		minimum elong	941 Dec 15 j 03:01	28° \mathbb{A} 30'05	1°45'25
evening max el	941 Feb 01 j 13:30	6° \mathbb{A} 11'09	18°07'35		941 Dec 16 j 01:10	0° \mathbb{A}	
retrograde	941 Feb 08 j 04:36	9° \mathbb{A} 35'51		evening rise	941 Dec 28 j 20:55	21° \mathbb{A} 24'08	
evening set	941 Feb 10 j 20:30	9° \mathbb{A} 02'47			942 Jan 02 j 21:54	0° \mathbb{A}	
inferior conj	941 Feb 17 j 10:43	4° \mathbb{A} 01'05	3°42'06	asc. node	942 Jan 14 j 08:50	17° \mathbb{A} 33'11	
minimum elong	941 Feb 17 j 12:02	3° \mathbb{A} 57'51	3°42'00	evening max el	942 Jan 16 j 02:00	19° \mathbb{A} 26'58	18°15'04
min. Earth dist.	941 Feb 20 j 13:00	1° \mathbb{A} 00'40	0.61392 AU	retrograde	942 Jan 22 j 13:25	22° \mathbb{A} 55'20	
	941 Feb 21 j 15:54	30° \mathbb{R} \mathbb{A}		evening set	942 Jan 25 j 09:59	22° \mathbb{A} 12'25	
morning rise	941 Feb 24 j 00:54	28° \mathbb{A} 08'39		inferior conj	942 Jan 31 j 13:28	16° \mathbb{A} 50'36	3°46'21
direct	941 Mar 02 j 21:30	25° \mathbb{A} 46'48		minimum elong	942 Jan 31 j 12:49	16° \mathbb{A} 52'23	3°46'20
desc. node	941 Mar 07 j 11:48	26° \mathbb{A} 44'31		min. Earth dist.	942 Feb 03 j 01:57	14° \mathbb{A} 04'44	0.63355 AU
	941 Mar 12 j 22:26	0° \mathbb{A}		morning rise	942 Feb 06 j 13:50	10° \mathbb{A} 47'17	
morning max el	941 Mar 17 j 01:23	3° \mathbb{A} 38'59	27°45'17	direct	942 Feb 13 j 12:39	8° \mathbb{A} 03'20	
	941 Apr 05 j 13:18	0° \mathbb{A}		desc. node	942 Feb 22 j 08:51	11° \mathbb{A} 35'46	
morning set	941 Apr 18 j 20:09	24° \mathbb{A} 40'15		morning max el	942 Feb 27 j 08:47	15° \mathbb{A} 57'17	27°42'28
	941 Apr 21 j 09:35	0° \mathbb{A}			942 Mar 10 j 22:26	0° \mathbb{A}	
max. Earth dist.	941 Apr 24 j 20:50	7° \mathbb{A} 26'28	1.32436 AU		942 Mar 29 j 05:22	0° \mathbb{A}	
asc. node	941 Apr 25 j 11:06	8° \mathbb{A} 44'05		morning set	942 Apr 02 j 18:54	8° \mathbb{A} 50'56	
				max. Earth dist.	942 Apr 08 j 02:28	19° \mathbb{A} 47'58	1.33002 AU
superior conj	941 Apr 26 j 05:01	10° \mathbb{A} 21'49	0°07'55				
minimum elong	941 Apr 26 j 04:39	10° \mathbb{A} 19'49	0°07'50	superior conj	942 Apr 10 j 12:57	24° \mathbb{A} 59'59	0°-18'-54
behind sun begin	941 Apr 26 j 00:12	9° \mathbb{A} 55'29		minimum elong	942 Apr 10 j 13:52	25° \mathbb{A} 04'55	0°18'43
behind sun end	941 Apr 26 j 09:07	10° \mathbb{A} 44'09		asc. node	942 Apr 12 j 08:09	28° \mathbb{A} 52'57	
evening rise	941 May 03 j 03:46	25° \mathbb{A} 26'13			942 Apr 12 j 20:33	0° \mathbb{A}	
	941 May 05 j 08:13	0° \mathbb{A}		evening rise	942 Apr 17 j 15:35	10° \mathbb{A} 17'10	
	941 May 23 j 03:35	0° \mathbb{A}			942 Apr 27 j 20:42	0° \mathbb{A}	
evening max el	941 May 29 j 01:01	6° \mathbb{A} 35'46	24°49'53	evening max el	942 May 10 j 15:06	17° \mathbb{A} 08'54	23°15'31
desc. node	941 Jun 03 j 11:05	10° \mathbb{A} 55'23		desc. node	942 May 21 j 08:06	23° \mathbb{A} 35'49	
retrograde	941 Jun 12 j 00:08	13° \mathbb{A} 40'48		retrograde	942 May 24 j 03:36	23° \mathbb{A} 53'50	
evening set	941 Jun 17 j 04:25	12° \mathbb{A} 39'49		evening set	942 May 27 j 20:17	23° \mathbb{A} 23'51	
min. Earth dist.	941 Jun 22 j 12:22	9° \mathbb{A} 50'49	0.57255 AU	min. Earth dist.	942 Jun 04 j 00:55	20° \mathbb{A} 07'53	0.55737 AU
inferior conj	941 Jun 25 j 11:02	7° \mathbb{A} 54'33	-4°-44'-19	inferior conj	942 Jun 05 j 21:31	19° \mathbb{A} 02'19	-3°-56'-56
minimum elong	941 Jun 25 j 08:02	7° \mathbb{A} 59'32	4°44'05	minimum elong	942 Jun 05 j 14:22	19° \mathbb{A} 12'52	3°55'22
morning rise	941 Jul 03 j 15:28	3° \mathbb{A} 46'16		morning rise	942 Jun 14 j 11:43	15° \mathbb{A} 08'06	
direct	941 Jul 06 j 05:31	3° \mathbb{A} 27'15		direct	942 Jun 17 j 06:00	14° \mathbb{A} 49'39	
morning max el	941 Jul 15 j 06:54	7° \mathbb{A} 40'41	19°14'55	morning max el	942 Jun 27 j 21:05	19° \mathbb{A} 44'43	20°24'00
asc. node	941 Jul 22 j 10:19	16° \mathbb{A} 44'21			942 Jul 06 j 00:51	0° \mathbb{A}	
	941 Jul 29 j 20:20	0° \mathbb{A}		asc. node	942 Jul 09 j 07:22	5° \mathbb{A} 28'49	
morning set	941 Aug 01 j 06:38	4° \mathbb{A} 46'51		morning set	942 Jul 16 j 11:58	19° \mathbb{A} 22'44	
					942 Jul 21 j 15:48	0° \mathbb{A}	
superior conj	941 Aug 09 j 12:36	21° \mathbb{A} 08'05	1°45'45				

superior conj	942 Jul 24 j 04:19	5°♌08'57	1°45'16	superior conj	943 Jul 08 j 04:51	19°♊37'03	1°37'51
minimum elong	942 Jul 24 j 03:29	5°♌04'42	1°45'14	minimum elong	943 Jul 08 j 02:56	19°♊26'59	1°37'42
max. Earth dist.	942 Jul 29 j 05:10	15°♌07'31	1.36325 AU	max. Earth dist.	943 Jul 11 j 19:08	27°♊02'52	1.34751 AU
evening rise	942 Aug 02 j 05:45	22°♌43'00			943 Jul 13 j 06:15	0°♌	
	942 Aug 06 j 07:05	0°♍		evening rise	943 Jul 16 j 09:14	6°♌08'10	
desc. node	942 Aug 17 j 07:27	18°♍00'37			943 Jul 29 j 23:34	0°♍	
	942 Aug 25 j 15:40	0°♎		desc. node	943 Aug 04 j 04:28	7°♍56'35	
evening max el	942 Sep 06 j 22:31	14°♎30'43	26°03'00	evening max el	943 Aug 20 j 10:41	28°♍04'39	26°54'58
retrograde	942 Sep 19 j 11:19	21°♎38'11			943 Aug 22 j 13:20	0°♎	
evening set	942 Sep 25 j 16:42	19°♎03'01		retrograde	943 Sep 02 j 14:19	5°♎21'27	
min. Earth dist.	942 Sep 29 j 23:00	14°♎28'07	0.66610 AU	evening set	943 Sep 09 j 08:21	2°♎38'28	
inferior conj	942 Oct 01 j 08:12	12°♎44'20	-1°-20'-23		943 Sep 12 j 02:53	30°♎♍	
minimum elong	942 Oct 01 j 10:17	12°♎37'50	1°19'32	min. Earth dist.	943 Sep 13 j 07:27	28°♎40'44	0.65560 AU
asc. node	942 Oct 05 j 06:33	8°♎18'22		inferior conj	943 Sep 15 j 04:45	26°♎29'22	-2°-17'-29
morning rise	942 Oct 07 j 04:49	6°♎50'40		minimum elong	943 Sep 15 j 08:19	26°♎19'01	2°16'09
direct	942 Oct 10 j 07:12	5°♎55'35		morning rise	943 Sep 21 j 09:43	20°♎48'11	
morning max el	942 Oct 17 j 04:39	9°♎46'40	18°57'09	asc. node	943 Sep 22 j 03:36	20°♎28'39	
	942 Oct 31 j 18:08	0°♏		direct	943 Sep 24 j 04:05	20°♎06'07	
morning set	942 Nov 08 j 04:21	11°♏37'54		morning max el	943 Sep 30 j 17:42	23°♎40'37	18°18'22
desc. node	942 Nov 13 j 06:42	19°♏38'14			943 Oct 05 j 20:28	0°♏	
	942 Nov 19 j 21:14	0°♐		morning set	943 Oct 19 j 18:01	21°♏58'07	
max. Earth dist.	942 Nov 23 j 04:53	5°♐12'55	1.44937 AU		943 Oct 24 j 16:45	0°♐	
				desc. node	943 Oct 31 j 03:44	10°♐20'47	
superior conj	942 Nov 24 j 18:09	7°♐39'40	-1°-11'-18	superior conj	943 Nov 03 j 19:26	16°♐08'03	0°-24'-4
minimum elong	942 Nov 24 j 09:58	7°♐07'24	1°10'23	minimum elong	943 Nov 03 j 16:17	15°♐55'40	0°23'39
	942 Dec 08 j 17:50	0°♑		max. Earth dist.	943 Nov 05 j 23:38	19°♐33'44	1.45046 AU
evening rise	942 Dec 10 j 00:51	2°♑05'48			943 Nov 12 j 15:26	0°♑	
	942 Dec 28 j 01:49	0°♒		evening rise	943 Nov 20 j 05:24	11°♑51'20	
evening max el	942 Dec 30 j 13:35	2°♒50'55	18°40'58		943 Dec 01 j 21:31	0°♒	
asc. node	943 Jan 01 j 05:51	4°♒24'01		greatest brilliancy	943 Dec 05 j 00:04	4°♒40'13	-0.7m
retrograde	943 Jan 06 j 05:38	6°♒34'03		evening max el	943 Dec 13 j 21:59	16°♒18'51	19°23'51
evening set	943 Jan 09 j 07:39	5°♒40'09		asc. node	943 Dec 19 j 02:51	20°♒05'09	
inferior conj	943 Jan 15 j 03:25	0°♒00'13	3°33'15	retrograde	943 Dec 21 j 01:52	20°♒26'19	
minimum elong	943 Jan 15 j 01:26	0°♒06'12	3°32'59	evening set	943 Dec 24 j 10:48	19°♒19'51	
	943 Jan 15 j 03:29	30°♒♑		inferior conj	943 Dec 30 j 01:17	13°♒24'11	3°07'27
min. Earth dist.	943 Jan 17 j 00:28	27°♒44'18	0.64998 AU	minimum elong	943 Dec 29 j 22:39	13°♒32'40	3°06'51
morning rise	943 Jan 20 j 18:01	23°♒50'31		min. Earth dist.	943 Dec 31 j 07:34	11°♒46'16	0.66258 AU
direct	943 Jan 27 j 11:06	20°♒59'17		morning rise	944 Jan 04 j 09:44	7°♒10'48	
desc. node	943 Feb 09 j 05:53	28°♒14'17		direct	944 Jan 10 j 15:33	4°♒25'52	
morning max el	943 Feb 09 j 18:20	28°♒45'07	27°05'37	morning max el	944 Jan 23 j 03:35	11°♒50'08	26°01'59
	943 Feb 10 j 23:25	0°♓		desc. node	944 Jan 27 j 02:55	16°♒09'23	
	943 Mar 04 j 17:47	0°♈			944 Feb 06 j 17:26	0°♓	
morning set	943 Mar 17 j 08:13	22°♈29'31			944 Feb 25 j 09:04	0°♈	
	943 Mar 21 j 03:27	0°♉		morning set	944 Feb 28 j 07:57	5°♈22'45	
max. Earth dist.	943 Mar 21 j 22:37	1°♉37'00	1.34004 AU	max. Earth dist.	944 Mar 03 j 07:01	12°♈52'45	1.35473 AU
superior conj	943 Mar 25 j 16:04	9°♉19'23	0°-46'-17	superior conj	944 Mar 08 j 11:51	23°♈11'42	-1°-12'-52
minimum elong	943 Mar 25 j 18:20	9°♉31'20	0°45'51	minimum elong	944 Mar 08 j 15:20	23°♈29'20	1°12'20
asc. node	943 Mar 30 j 05:11	18°♉56'24			944 Mar 11 j 19:36	0°♉	
evening rise	943 Apr 02 j 02:04	24°♉59'19		evening rise	944 Mar 16 j 09:14	9°♉25'27	
	943 Apr 04 j 12:28	0°♊		asc. node	944 Mar 16 j 02:12	8°♉49'25	
evening max el	943 Apr 22 j 10:01	27°♊48'44	21°42'14		944 Mar 27 j 12:28	0°♊	
	943 Apr 24 j 22:04	0°♋		evening max el	944 Apr 03 j 15:00	8°♊57'41	20°21'06
retrograde	943 May 04 j 19:45	3°♋52'50		retrograde	944 Apr 14 j 09:01	14°♊08'58	
evening set	943 May 07 j 08:47	3°♋38'18		evening set	944 Apr 16 j 11:17	13°♊58'00	
desc. node	943 May 08 j 05:07	3°♋27'18		desc. node	944 Apr 24 j 02:08	10°♊51'12	
	943 May 16 j 01:10	30°♋♌		inferior conj	944 Apr 25 j 13:20	10°♋00'11	0°-25'-26
inferior conj	943 May 16 j 18:07	29°♋36'17	-2°-24'00	minimum elong	944 Apr 25 j 12:09	10°♋01'56	0°25'01
minimum elong	943 May 16 j 11:43	29°♋45'15	2°21'56	min. Earth dist.	944 Apr 27 j 02:38	9°♋05'38	0.55191 AU
min. Earth dist.	943 May 16 j 13:28	29°♋42'49	0.54989 AU	morning rise	944 May 04 j 10:57	5°♋44'06	
morning rise	943 May 25 j 15:32	25°♋40'23		direct	944 May 08 j 05:55	5°♋12'57	
direct	943 May 28 j 17:59	25°♋19'13		morning max el	944 May 21 j 17:56	11°♋48'51	23°31'36
	943 Jun 08 j 18:22	0°♌			944 Jun 04 j 09:47	0°♌	
morning max el	943 Jun 10 j 00:01	1°♌05'40	21°51'42	asc. node	944 Jun 12 j 01:28	14°♌22'04	
asc. node	943 Jun 26 j 04:26	24°♌44'24		morning set	944 Jun 14 j 08:45	19°♌08'05	
	943 Jun 28 j 20:14	0°♍			944 Jun 19 j 10:34	0°♍	
morning set	943 Jun 30 j 21:18	4°♍12'01					

superior conj	944 Jun 21 j 11:14	4°  22'19	1°24'55	superior conj	945 Jun 05 j 21:12	19°  17'27	1°07'31
minimum elong	944 Jun 21 j 08:50	4°  09'22	1°24'36	minimum elong	945 Jun 05 j 18:50	19°  04'31	1°07'07
max. Earth dist.	944 Jun 23 j 18:41	9°  18'11	1.33556 AU	max. Earth dist.	945 Jun 07 j 01:56	21°  53'58	1.32750 AU
evening rise	944 Jun 29 j 01:05	20°  09'46			945 Jun 10 j 20:31	0° 	
	944 Jul 04 j 03:33	0° 		evening rise	945 Jun 13 j 01:42	4°  36'57	
desc. node	944 Jul 21 j 01:29	27°  21'35			945 Jun 26 j 20:00	0° 	
	944 Jul 23 j 00:26	0° 		desc. node	945 Jul 07 j 22:29	16°  22'36	
evening max el	944 Aug 01 j 22:18	11°  23'04	27°22'45	evening max el	945 Jul 15 j 06:58	24°  22'09	27°20'27
retrograde	944 Aug 15 j 11:23	18°  41'28			945 Jul 23 j 04:55	0° 	
evening set	944 Aug 22 j 14:13	15°  59'49		retrograde	945 Jul 29 j 02:00	1°  29'05	
min. Earth dist.	944 Aug 26 j 07:11	12°  37'46	0.64150 AU		945 Aug 03 j 15:46	30°  R 	
inferior conj	944 Aug 28 j 17:24	10°  04'22	-3°-12'-21	evening set	945 Aug 05 j 06:41	29°  00'59	
minimum elong	944 Aug 28 j 22:07	9°  51'54	3°10'52	min. Earth dist.	945 Aug 08 j 20:39	26°  22'02	0.62398 AU
morning rise	944 Sep 04 j 08:01	4°  39'14		inferior conj	945 Aug 11 j 19:13	23°  22'20	-4°-1'-5
direct	944 Sep 06 j 20:58	4°  06'36		minimum elong	945 Aug 12 j 00:13	23°  21'32	3°59'57
asc. node	944 Sep 08 j 00:39	4°  13'25		morning rise	945 Aug 18 j 20:22	18°  21'45	
morning max el	944 Sep 13 j 09:25	7°  32'54	17°56'47	direct	945 Aug 21 j 06:27	17°  20'35	
	944 Sep 28 j 08:05	0° 		asc. node	945 Aug 25 j 21:44	19°  29'02	
morning set	944 Sep 30 j 11:17	3°  38'50		morning max el	945 Aug 28 j 00:54	21°  21'01	17°53'15
					945 Sep 03 j 15:28	0° 	
superior conj	944 Oct 13 j 11:27	25°  23'24	0°23'39	morning set	945 Sep 13 j 02:20	16°  21'44	
minimum elong	944 Oct 13 j 14:05	25°  34'02	0°23'16		945 Sep 20 j 18:53	0° 	
	944 Oct 16 j 07:57	0° 					
desc. node	944 Oct 17 j 00:46	1°  07'22		superior conj	945 Sep 24 j 05:56	5°  57'28	1°02'07
max. Earth dist.	944 Oct 18 j 18:04	3°  52'07	1.44421 AU	minimum elong	945 Sep 24 j 10:43	6°  17'48	1°01'32
evening rise	944 Oct 29 j 16:40	20°  58'07		max. Earth dist.	945 Oct 01 j 08:45	17°  48'04	1.43148 AU
	944 Nov 04 j 14:23	0° 		desc. node	945 Oct 03 j 21:47	21°  54'27	
greatest brilliancy	944 Nov 19 j 18:17	22°  21'07	-0.5m	evening rise	945 Oct 09 j 01:24	0°  02'52	
evening max el	944 Nov 26 j 01:32	29°  48'19	20°21'48		945 Oct 09 j 00:40	0° 	
	944 Nov 26 j 06:06	0° 			945 Oct 29 j 06:34	0° 	
retrograde	944 Dec 03 j 23:38	4°  28'07		greatest brilliancy	945 Nov 04 j 00:12	7°  21'46	-0.4m
asc. node	944 Dec 04 j 23:53	4°  22'21		evening max el	945 Nov 08 j 23:16	13°  21'41	21°31'52
evening set	944 Dec 07 j 17:13	3°  07'22		retrograde	945 Nov 17 j 20:49	18°  21'59	
	944 Dec 10 j 20:50	30°  R 		asc. node	945 Nov 21 j 20:57	17°  20'18	
inferior conj	944 Dec 13 j 04:26	26°  58'49	2°32'09	evening set	945 Nov 22 j 00:58	16°  58'36	
minimum elong	944 Dec 13 j 01:45	27°  07'51	2°31'19	inferior conj	945 Nov 27 j 10:37	10°  24'39	1°49'27
min. Earth dist.	944 Dec 13 j 21:27	26°  01'13	0.67116 AU	minimum elong	945 Nov 27 j 08:24	10°  24'20	1°48'38
morning rise	944 Dec 18 j 09:48	20°  43'43		min. Earth dist.	945 Nov 27 j 15:54	10°  22'22	0.67602 AU
direct	944 Dec 24 j 01:18	18°  14'46		morning rise	945 Dec 02 j 15:32	4°  25'45	
morning max el	945 Jan 04 j 12:04	25°  04'12	24°41'10	direct	945 Dec 07 j 15:41	2°  17'59	
	945 Jan 08 j 23:30	0° 		morning max el	945 Dec 17 j 21:19	8°  23'00	23°13'12
desc. node	945 Jan 12 j 23:57	4°  59'00		greatest brilliancy	945 Dec 22 j 22:55	14°  23'51	-0.3m
	945 Jan 30 j 05:23	0° 		desc. node	945 Dec 30 j 20:59	24°  26'57	
morning set	945 Feb 09 j 12:48	17°  16'21			946 Jan 03 j 18:53	0° 	
max. Earth dist.	945 Feb 13 j 05:45	23°  55'45	1.37354 AU	morning set	946 Jan 21 j 16:30	27°  53'43	
	945 Feb 16 j 12:06	0° 			946 Jan 22 j 22:33	0° 	
				max. Earth dist.	946 Jan 26 j 00:50	5°  18'08	1.39466 AU
superior conj	945 Feb 19 j 21:15	6°  28'53	-1°-36'-38				
minimum elong	945 Feb 20 j 01:19	6°  48'40	1°36'11	superior conj	946 Feb 02 j 16:05	18°  59'48	-1°-54'-45
evening rise	945 Feb 28 j 10:51	23°  29'33		minimum elong	946 Feb 02 j 19:28	19°  15'25	1°54'32
asc. node	945 Mar 02 j 23:14	28°  27'33			946 Feb 08 j 12:00	0° 	
	945 Mar 03 j 18:17	0° 		evening rise	946 Feb 12 j 04:05	7°  03'42	
evening max el	945 Mar 17 j 07:22	20°  45'15	19°17'59	asc. node	946 Feb 17 j 20:16	17°  44'51	
retrograde	945 Mar 26 j 09:03	25°  07'46			946 Feb 25 j 14:13	0° 	
evening set	945 Mar 28 j 12:16	24°  54'17		evening max el	946 Feb 28 j 09:19	3°  08'33	18°34'56
inferior conj	945 Apr 05 j 21:18	20°  45'12	1°24'42	retrograde	946 Mar 08 j 03:18	6°  56'02	
minimum elong	945 Apr 06 j 00:32	20°  39'49	1°23'39	evening set	946 Mar 10 j 11:22	6°  36'31	
min. Earth dist.	945 Apr 08 j 17:20	18°  52'48	0.56303 AU	inferior conj	946 Mar 18 j 01:40	2°  08'42	2°44'05
desc. node	945 Apr 10 j 23:09	17°  31'30		minimum elong	946 Mar 18 j 05:47	2°  00'42	2°43'06
morning rise	945 Apr 14 j 08:53	15°  56'17			946 Mar 20 j 20:00	30°  R 	
direct	945 Apr 19 j 04:09	15°  03'23		min. Earth dist.	946 Mar 21 j 11:22	29°  31'18	0.58077 AU
morning max el	945 May 03 j 08:27	22°  16'46	25°11'22	morning rise	946 Mar 25 j 20:00	26°  47'53	
	945 May 10 j 03:52	0° 		desc. node	946 Mar 28 j 20:10	25°  41'50	
	945 May 27 j 21:25	0° 		direct	946 Mar 31 j 16:32	25°  42'08	
morning set	945 May 29 j 20:39	4°  05'35			946 Apr 11 j 16:55	0° 	
asc. node	945 May 29 j 22:31	4°  15'30		morning max el	946 Apr 15 j 01:29	2°  58'06	26°35'19
					946 May 04 j 12:28	0° 	

morning set	946 May 14 j 07:22	18°♄59'02		947 Apr 09 j 16:33	0°♄	
asc. node	946 May 16 j 19:35	24°♄19'27		947 Apr 26 j 19:50	0°♄	
	946 May 19 j 10:11	0°♄		morning set	947 Apr 28 j 15:06	3°♄41'26
				asc. node	947 May 03 j 16:37	14°♄28'40
superior conj	946 May 21 j 08:50	4°♄16'12	0°46'31	max. Earth dist.	947 May 05 j 01:49	17°♄29'57 1.32280 AU
minimum elong	946 May 21 j 06:58	4°♄05'53	0°46'09			
max. Earth dist.	946 May 21 j 13:32	4°♄42'01	1.32324 AU	superior conj	947 May 05 j 20:23	19°♄11'41 0°22'40
evening rise	946 May 28 j 08:15	19°♄20'50		minimum elong	947 May 05 j 19:22	19°♄06'10 0°22'27
	946 Jun 02 j 15:12	0°♄			947 May 10 j 19:02	0°♄
	946 Jun 21 j 14:23	0°♄		evening rise	947 May 12 j 18:22	4°♄12'56
desc. node	946 Jun 24 j 19:30	3°♄41'25			947 May 26 j 12:50	0°♄
evening max el	946 Jun 27 j 10:14	6°♄20'35	26°45'10	evening max el	947 Jun 09 j 06:41	17°♄42'56 25°38'56
retrograde	946 Jul 11 j 09:28	13°♄35'23		desc. node	947 Jun 11 j 16:32	19°♄51'27
evening set	946 Jul 18 j 05:22	11°♄34'42		retrograde	947 Jun 23 j 07:40	24°♄53'14
min. Earth dist.	946 Jul 21 j 23:57	8°♄57'19	0.60394 AU	evening set	947 Jun 29 j 05:40	23°♄30'20
inferior conj	946 Jul 25 j 06:50	6°♄14'57	-4°-37'-26	min. Earth dist.	947 Jul 03 j 18:58	20°♄50'20 0.58340 AU
minimum elong	946 Jul 25 j 10:27	6°♄07'27	4°37'01	inferior conj	947 Jul 07 j 00:37	18°♄31'40 -4°-51'-32
morning rise	946 Aug 01 j 18:47	1°♄31'37		minimum elong	947 Jul 07 j 00:32	18°♄31'48 4°51'33
direct	946 Aug 04 j 04:37	1°♄09'32		morning rise	947 Jul 14 j 23:06	14°♄11'01
morning max el	946 Aug 11 j 13:09	4°♄45'28	18°08'48	direct	947 Jul 17 j 10:59	13°♄51'16
asc. node	946 Aug 12 j 18:48	6°♄02'14		morning max el	947 Jul 25 j 18:53	17°♄47'46 18°44'40
morning set	946 Aug 27 j 09:19	29°♄50'51		asc. node	947 Jul 30 j 15:51	23°♄36'43
	946 Aug 27 j 11:16	0°♄			947 Aug 03 j 16:55	0°♄
				morning set	947 Aug 11 j 03:33	13°♄52'37
superior conj	946 Sep 06 j 02:37	17°♄49'16	1°28'03		947 Aug 19 j 11:08	0°♄
minimum elong	946 Sep 06 j 06:33	18°♄06'57	1°27'42			
	946 Sep 13 j 02:06	0°♄		superior conj	947 Aug 19 j 20:08	0°♄42'38 1°42'13
max. Earth dist.	946 Sep 13 j 17:41	1°♄05'53	1.41393 AU	minimum elong	947 Aug 19 j 22:07	0°♄52'00 1°42'06
evening rise	946 Sep 19 j 00:43	9°♄50'00		max. Earth dist.	947 Aug 26 j 21:57	13°♄39'54 1.39388 AU
desc. node	946 Sep 20 j 18:50	12°♄39'07		evening rise	947 Aug 30 j 23:36	20°♄43'05
	946 Oct 02 j 02:34	0°♄			947 Sep 05 j 14:25	0°♄
greatest brilliancy	946 Oct 17 j 13:42	21°♄06'49	-0.3m	desc. node	947 Sep 07 j 15:53	3°♄16'57
evening max el	946 Oct 22 j 15:48	26°♄48'56	22°49'46		947 Sep 26 j 05:16	0°♄
	946 Oct 26 j 04:59	0°♄		evening max el	947 Oct 05 j 04:56	10°♄23'50 24°09'51
retrograde	946 Nov 01 j 15:48	2°♄45'18		retrograde	947 Oct 16 j 07:14	16°♄54'28
evening set	946 Nov 06 j 08:23	0°♄51'24		evening set	947 Oct 21 j 13:48	14°♄43'06
	946 Nov 07 j 07:08	30°♄		min. Earth dist.	947 Oct 26 j 08:49	9°♄11'43 0.67567 AU
asc. node	946 Nov 08 j 18:00	28°♄24'55		asc. node	947 Oct 26 j 15:03	8°♄50'41
inferior conj	946 Nov 11 j 17:57	24°♄27'55	1°01'03	inferior conj	947 Oct 27 j 00:38	8°♄18'19 0°08'16
minimum elong	946 Nov 11 j 16:34	24°♄32'40	1°00'28	minimum elong	947 Oct 27 j 00:26	8°♄18'59 0°08'10
min. Earth dist.	946 Nov 11 j 12:32	24°♄46'39	0.67749 AU	transit middle	947 Oct 27 j 00:26	8°♄18'59 0°08'10
morning rise	946 Nov 17 j 00:44	18°♄15'27		transit begin	947 Oct 26 j 22:04	8°♄26'57
direct	946 Nov 21 j 10:01	16°♄30'24		transit end	947 Oct 27 j 02:48	8°♄11'01
morning max el	946 Nov 30 j 10:29	21°♄48'28	21°47'14	morning rise	947 Nov 01 j 11:20	2°♄10'52
greatest brilliancy	946 Dec 05 j 06:45	27°♄17'36	-0.4m	direct	947 Nov 05 j 07:08	0°♄47'26
	946 Dec 07 j 10:04	0°♄		morning max el	947 Nov 13 j 06:33	5°♄23'50 20°30'24
desc. node	946 Dec 17 j 18:02	14°♄22'31		greatest brilliancy	947 Nov 19 j 12:39	12°♄49'08 -0.5m
	946 Dec 28 j 02:33	0°♄			947 Dec 01 j 13:12	0°♄
morning set	947 Jan 01 j 14:58	7°♄06'52		desc. node	947 Dec 04 j 15:07	4°♄38'06
max. Earth dist.	947 Jan 07 j 23:31	17°♄27'49	1.41551 AU	morning set	947 Dec 11 j 14:49	15°♄20'40
	947 Jan 15 j 07:58	0°♄			947 Dec 20 j 21:37	0°♄
				max. Earth dist.	947 Dec 21 j 06:04	0°♄34'00 1.43323 AU
superior conj	947 Jan 15 j 15:19	0°♄32'13	-2°-3'-17			
minimum elong	947 Jan 15 j 15:53	0°♄34'42	2°03'17	superior conj	947 Dec 27 j 13:52	10°♄55'18 -1°-57'-28
evening rise	947 Jan 26 j 09:28	19°♄59'39		minimum elong	947 Dec 27 j 09:31	10°♄37'13 1°57'17
	947 Jan 31 j 21:09	0°♄			948 Jan 07 j 17:25	0°♄
asc. node	947 Feb 04 j 17:19	6°♄34'11		evening rise	948 Jan 08 j 22:56	2°♄09'27
evening max el	947 Feb 11 j 17:53	15°♄59'23	18°11'58	asc. node	948 Jan 22 j 14:21	24°♄46'57
retrograde	947 Feb 18 j 15:33	19°♄27'53		evening max el	948 Jan 26 j 05:53	29°♄09'09 18°08'31
evening set	947 Feb 21 j 04:45	19°♄00'08			948 Jan 27 j 03:31	0°♄
inferior conj	947 Feb 28 j 02:46	14°♄11'05	3°29'18	retrograde	948 Feb 01 j 18:08	2°♄33'31
minimum elong	947 Feb 28 j 05:19	14°♄05'18	3°28'57	evening set	948 Feb 04 j 12:04	1°♄56'18
min. Earth dist.	947 Mar 03 j 10:54	11°♄11'33	0.60175 AU		948 Feb 07 j 11:53	30°♄
morning rise	947 Mar 07 j 02:33	8°♄27'42		inferior conj	948 Feb 10 j 21:20	26°♄46'03 3°46'21
direct	947 Mar 13 j 17:29	6°♄23'45		minimum elong	948 Feb 10 j 21:45	26°♄44'57 3°46'20
desc. node	947 Mar 15 j 17:13	6°♄34'29		min. Earth dist.	948 Feb 13 j 18:16	23°♄49'25 0.62262 AU
morning max el	947 Mar 28 j 00:13	14°♄12'58	27°30'02	morning rise	948 Feb 17 j 05:10	20°♄48'35

direct	948 Feb 24 j 04:05	18° \approx 15'25		evening set	949 Jan 18 j 05:26	15° \approx 14'53	
desc. node	948 Mar 01 j 14:15	20° \approx 08'20		inferior conj	949 Jan 24 j 05:16	9° \approx 44'53	3°42'33
morning max el	948 Mar 09 j 04:49	26° \approx 08'59	27°48'30	minimum elong	949 Jan 24 j 03:58	9° \approx 48'37	3°42'28
	948 Mar 12 j 19:06	0° X		min. Earth dist.	949 Jan 26 j 11:07	7° \approx 10'42	0.64105 AU
	948 Apr 02 j 04:56	0° Y		morning rise	949 Jan 30 j 01:03	3° \approx 38'41	
morning set	948 Apr 11 j 17:50	18° Y 06'08		direct	949 Feb 05 j 22:17	0° \approx 50'07	
	948 Apr 17 j 10:04	0° Z		desc. node	949 Feb 16 j 11:17	5° \approx 49'31	
max. Earth dist.	948 Apr 17 j 11:01	0° Z 05'06	1.32625 AU	morning max el	949 Feb 19 j 13:23	8° \approx 40'59	27°30'35
					949 Mar 08 j 03:22	0° X	
superior conj	948 Apr 19 j 06:09	3° Z 58'17	0°-3'-19		949 Mar 25 j 11:37	0° Y	
minimum elong	948 Apr 19 j 06:18	3° Z 59'08	0°03'17	morning set	949 Mar 26 j 12:56	2° Y 04'00	
behind sun begin	948 Apr 19 j 01:14	3° Z 31'39		max. Earth dist.	949 Mar 31 j 13:10	12° Y 14'12	1.33381 AU
behind sun end	948 Apr 19 j 11:22	4° Z 26'38					
asc. node	948 Apr 19 j 13:40	4° Z 39'08		superior conj	949 Apr 03 j 12:15	18° Y 28'56	0°-30'-30
evening rise	948 Apr 26 j 06:07	19° Z 06'37		minimum elong	949 Apr 03 j 13:45	18° Y 36'55	0°30'13
	948 May 01 j 14:30	0° II		asc. node	949 Apr 06 j 10:42	24° Y 46'02	
evening max el	948 May 20 j 21:42	28° II 27'47	24°10'39		949 Apr 08 j 21:19	0° Z	
	948 May 22 j 14:09	0° III		evening rise	949 Apr 10 j 17:34	3° Z 54'33	
desc. node	948 May 28 j 13:31	3° III 58'58			949 Apr 25 j 02:16	0° II	
retrograde	948 Jun 03 j 17:51	5° III 25'44		evening max el	949 May 02 j 12:51	8° II 59'12	22°34'49
evening set	948 Jun 08 j 07:01	4° III 39'48		desc. node	949 May 15 j 10:30	15° II 28'45	
min. Earth dist.	948 Jun 14 j 08:46	1° III 40'48	0.56537 AU	retrograde	949 May 15 j 15:34	15° II 28'51	
inferior conj	948 Jun 16 j 22:15	0° III 04'56	-4°-30'-3	evening set	949 May 18 j 19:01	15° II 07'08	
minimum elong	948 Jun 16 j 17:08	0° III 12'57	4°29'20	min. Earth dist.	949 May 26 j 20:39	11° II 36'21	0.55314 AU
	948 Jun 17 j 01:24	30° R II		inferior conj	949 May 28 j 01:32	10° II 55'17	-3°-22'-26
morning rise	948 Jun 25 j 06:53	26° II 03'38		minimum elong	949 May 27 j 17:57	11° II 06'05	3°20'23
direct	948 Jun 27 j 22:39	25° II 44'56		morning rise	949 Jun 05 j 19:21	7° II 02'59	
	948 Jul 07 j 08:47	0° III		direct	949 Jun 08 j 16:40	6° II 43'50	
morning max el	948 Jul 07 j 15:10	0° III 14'39	19°41'44	morning max el	949 Jun 20 j 00:21	11° II 59'29	20°59'22
asc. node	948 Jul 16 j 12:54	11° III 58'55			949 Jul 02 j 21:23	0° III	
morning set	948 Jul 25 j 05:35	28° III 18'10		asc. node	949 Jul 03 j 09:57	0° III 57'31	
	948 Jul 26 j 01:48	0° IV		morning set	949 Jul 09 j 12:51	13° III 00'28	
superior conj	948 Aug 02 j 05:03	14° IV 22'22	1°46'30	superior conj	949 Jul 17 j 00:54	28° III 35'51	1°42'53
minimum elong	948 Aug 02 j 05:07	14° IV 22'38	1°46'29	minimum elong	949 Jul 16 j 23:32	28° III 28'48	1°42'48
max. Earth dist.	948 Aug 08 j 01:53	25° IV 40'55	1.37389 AU		949 Jul 17 j 17:18	0° IV	
	948 Aug 10 j 10:03	0° V		max. Earth dist.	949 Jul 21 j 11:02	7° IV 31'38	1.35609 AU
evening rise	948 Aug 11 j 22:14	2° V 43'17		evening rise	949 Jul 25 j 16:30	15° IV 40'42	
desc. node	948 Aug 24 j 12:55	23° V 43'20			949 Aug 02 j 17:07	0° V	
	948 Aug 28 j 16:44	0° VI		desc. node	949 Aug 11 j 09:54	13° V 52'34	
evening max el	948 Sep 16 j 16:48	24° VI 02'01	25°25'02		949 Aug 23 j 05:34	0° VI	
	948 Sep 24 j 16:24	0° VII		evening max el	949 Aug 30 j 04:42	7° VI 39'25	26°27'38
retrograde	948 Sep 28 j 18:12	0° VII 58'21		retrograde	949 Sep 12 j 00:11	14° VI 51'36	
	948 Oct 02 j 12:03	30° R VI		evening set	949 Sep 18 j 11:26	12° VI 12'00	
evening set	948 Oct 04 j 15:27	28° VI 30'51		min. Earth dist.	949 Sep 22 j 14:33	7° VI 53'12	0.66207 AU
min. Earth dist.	948 Oct 09 j 02:17	23° VI 34'55	0.67059 AU	inferior conj	949 Sep 24 j 04:50	5° VI 57'07	-1°-44'-41
inferior conj	948 Oct 10 j 04:53	22° VI 08'57	0°-47'-30	minimum elong	949 Sep 24 j 07:34	5° VI 48'51	1°43'36
minimum elong	948 Oct 10 j 06:06	22° VI 05'03	0°47'00	asc. node	949 Sep 29 j 09:08	0° VI 39'23	
asc. node	948 Oct 12 j 12:06	19° VI 17'19		morning rise	949 Sep 30 j 04:50	0° VI 08'37	
morning rise	948 Oct 15 j 21:23	16° VI 09'27			949 Sep 30 j 11:22	30° R VI	
direct	948 Oct 19 j 05:35	15° VI 04'57		direct	949 Oct 03 j 03:35	29° VI 19'29	
morning max el	948 Oct 26 j 10:22	19° VI 09'15	19°26'51		949 Oct 05 j 21:20	0° VII	
	948 Nov 03 j 23:22	0° VII		morning max el	949 Oct 09 j 20:47	3° VII 02'04	18°38'44
greatest brilliancy	948 Nov 04 j 11:08	0° VII 42'23	-0.7m		949 Oct 28 j 10:46	0° VII	
morning set	948 Nov 19 j 14:05	23° VII 41'52		morning set	949 Oct 30 j 11:06	3° VII 12'36	
desc. node	948 Nov 20 j 12:10	25° VII 07'29		desc. node	949 Nov 07 j 09:12	15° VII 46'33	
	948 Nov 23 j 15:24	0° VIII					
max. Earth dist.	948 Dec 02 j 20:00	14° VIII 25'03	1.44547 AU	superior conj	949 Nov 15 j 12:30	28° VII 34'54	0°-52'-10
				minimum elong	949 Nov 15 j 05:54	28° VII 09'00	0°51'21
superior conj	948 Dec 06 j 09:59	20° VIII 06'51	-1°-33'-23	max. Earth dist.	949 Nov 15 j 14:10	28° VII 41'28	1.45074 AU
minimum elong	948 Dec 06 j 01:37	19° VIII 33'25	1°32'37		949 Nov 16 j 10:09	0° VIII	
	948 Dec 12 j 13:05	0° IX		evening rise	949 Dec 01 j 10:04	23° VIII 42'51	
evening rise	948 Dec 20 j 16:08	13° IX 25'00			949 Dec 05 j 08:32	0° IX	
	948 Dec 30 j 16:30	0° \approx		evening max el	949 Dec 23 j 04:46	25° IX 55'26	18°57'05
asc. node	949 Jan 08 j 11:23	12° \approx 11'29		asc. node	949 Dec 26 j 08:24	28° IX 34'49	
evening max el	949 Jan 08 j 18:19	12° \approx 29'23	18°23'51	retrograde	949 Dec 30 j 01:01	29° IX 48'01	
retrograde	949 Jan 15 j 06:35	16° \approx 02'29		evening set	950 Jan 02 j 05:46	28° IX 48'55	

inferior conj	950 Jan 07 j 23:00	23°☾01'38	3°23'39	evening set	950 Dec 17 j 10:35	12°☾32'24	
minimum elong	950 Jan 07 j 20:40	23°☾08'55	3°23'14	inferior conj	950 Dec 22 j 23:27	6°☾30'46	2°53'33
min. Earth dist.	950 Jan 09 j 13:30	21°☾01'31	0.65585 AU	minimum elong	950 Dec 22 j 20:44	6°☾39'44	2°52'49
morning rise	950 Jan 13 j 10:34	16°☾49'56		min. Earth dist.	950 Dec 23 j 23:55	5°☾09'47	0.66665 AU
direct	950 Jan 19 j 23:13	14°☾00'16		morning rise	950 Dec 28 j 06:13	0°☾16'08	
morning max el	950 Feb 01 j 23:18	21°☾38'36	26°41'17		950 Dec 28 j 13:34	30°☾36'59	
desc. node	950 Feb 03 j 08:21	23°☾04'04		direct	951 Jan 03 j 06:06	27°☾36'59	
	950 Feb 09 j 06:47	0°☾			951 Jan 09 j 17:18	0°☾	
	950 Mar 01 j 07:56	0°☾		morning max el	951 Jan 15 j 08:22	4°☾48'55	25°29'07
morning set	950 Mar 09 j 21:03	15°☾24'55		desc. node	951 Jan 21 j 05:25	11°☾24'45	
max. Earth dist.	950 Mar 14 j 04:43	23°☾49'26	1.34581 AU		951 Feb 03 j 17:27	0°☾	
	950 Mar 17 j 06:00	0°☾		morning set	951 Feb 20 j 13:37	27°☾55'42	
					951 Feb 21 j 16:51	0°☾	
superior conj	950 Mar 18 j 12:34	2°☾37'25	0°-57'-46	max. Earth dist.	951 Feb 24 j 08:24	4°☾56'03	1.36226 AU
minimum elong	950 Mar 18 j 15:24	2°☾52'04	0°57'16				
asc. node	950 Mar 24 j 07:43	14°☾45'26		superior conj	951 Mar 02 j 04:25	16°☾16'20	-1°-23'-27
evening rise	950 Mar 26 j 02:55	18°☾30'36		minimum elong	951 Mar 02 j 08:15	16°☾35'28	1°22'54
	950 Mar 31 j 21:20	0°☾			951 Mar 08 j 22:54	0°☾	
evening max el	950 Apr 14 j 11:25	19°☾48'20	21°05'36	evening rise	951 Mar 10 j 08:05	2°☾48'36	
retrograde	950 Apr 26 j 05:24	25°☾31'10		asc. node	951 Mar 11 j 04:45	4°☾33'01	
evening set	950 Apr 28 j 11:44	25°☾19'12			951 Mar 26 j 16:16	0°☾	
desc. node	950 May 02 j 07:32	24°☾10'05		evening max el	951 Mar 27 j 21:26	1°☾14'28	19°51'53
inferior conj	950 May 07 j 19:38	21°☾20'39	-1°-34'-48	retrograde	951 Apr 06 j 21:59	6°☾03'50	
minimum elong	950 May 07 j 15:11	21°☾26'57	1°33'14	evening set	951 Apr 08 j 23:29	5°☾52'29	
min. Earth dist.	950 May 08 j 09:15	21°☾01'25	0.54953 AU	inferior conj	951 Apr 17 j 19:01	1°☾51'37	0°24'02
morning rise	950 May 16 j 18:20	17°☾18'31		minimum elong	951 Apr 17 j 20:05	1°☾49'59	0°23'40
direct	950 May 20 j 02:21	16°☾54'29		desc. node	951 Apr 19 j 04:34	1°☾00'00	
morning max el	950 Jun 01 j 23:04	23°☾02'48	22°33'30	min. Earth dist.	951 Apr 19 j 23:27	0°☾31'18	0.55560 AU
	950 Jun 08 j 02:27	0°☾			951 Apr 20 j 20:34	30°☾	
asc. node	950 Jun 20 j 06:59	20°☾23'06		morning rise	951 Apr 26 j 13:30	27°☾21'51	
morning set	950 Jun 23 j 23:16	27°☾53'08		direct	951 Apr 30 j 18:01	26°☾43'03	
	950 Jun 24 j 23:26	0°☾			951 May 10 j 04:21	0°☾	
				morning max el	951 May 14 j 14:59	3°☾37'34	24°14'54
superior conj	950 Jul 01 j 04:14	13°☾12'14	1°32'58		951 Jun 02 j 01:08	0°☾	
minimum elong	950 Jul 01 j 02:02	13°☾00'36	1°32'45	asc. node	951 Jun 07 j 04:02	10°☾08'26	
max. Earth dist.	950 Jul 04 j 04:57	19°☾33'38	1.34185 AU	morning set	951 Jun 08 j 11:08	12°☾50'50	
evening rise	950 Jul 09 j 01:41	29°☾22'22					
	950 Jul 09 j 09:23	0°☾		superior conj	951 Jun 15 j 12:28	28°☾03'14	1°18'01
	950 Jul 26 j 19:42	0°☾		minimum elong	951 Jun 15 j 10:00	27°☾49'57	1°17'41
desc. node	950 Jul 29 j 06:54	3°☾36'36			951 Jun 16 j 10:04	0°☾	
evening max el	950 Aug 12 j 16:32	21°☾07'09	27°10'09	max. Earth dist.	951 Jun 17 j 07:55	1°☾57'33	1.33163 AU
retrograde	950 Aug 26 j 00:49	28°☾26'06		evening rise	951 Jun 22 j 21:43	13°☾36'41	
evening set	950 Sep 01 j 23:18	25°☾41'58			951 Jul 01 j 12:46	0°☾	
min. Earth dist.	950 Sep 05 j 19:26	22°☾00'08	0.64998 AU	desc. node	951 Jul 16 j 03:54	22°☾44'52	
inferior conj	950 Sep 07 j 22:19	19°☾38'09	-2°-41'-14		951 Jul 22 j 01:15	0°☾	
minimum elong	950 Sep 08 j 02:26	19°☾26'37	2°39'47	evening max el	951 Jul 26 j 03:09	4°☾14'35	27°25'43
morning rise	950 Sep 14 j 07:16	14°☾03'41		retrograde	951 Aug 08 j 19:31	11°☾33'18	
asc. node	950 Sep 16 j 06:11	13°☾28'47		evening set	951 Aug 15 j 23:59	8°☾55'47	
direct	950 Sep 16 j 22:57	13°☾26'10		min. Earth dist.	951 Aug 19 j 15:04	5°☾47'07	0.63439 AU
morning max el	950 Sep 23 j 11:22	16°☾56'15	18°07'08	inferior conj	951 Aug 22 j 06:45	3°☾06'47	-3°-34'-6
	950 Oct 02 j 23:09	0°☾		minimum elong	951 Aug 22 j 11:44	2°☾54'12	3°32'42
morning set	950 Oct 11 j 12:58	14°☾08'11			951 Aug 25 j 14:14	30°☾	
	950 Oct 21 j 04:49	0°☾		morning rise	951 Aug 29 j 01:46	27°☾49'33	
desc. node	950 Oct 25 j 06:13	6°☾31'01		direct	951 Aug 31 j 13:03	27°☾20'07	
				asc. node	951 Sep 03 j 03:15	27°☾53'06	
superior conj	950 Oct 25 j 17:44	7°☾16'55	0°-3'-12		951 Sep 06 j 07:53	0°☾	
minimum elong	950 Oct 25 j 17:20	7°☾15'18	0°03'10	morning max el	951 Sep 07 j 03:20	0°☾45'49	17°52'58
behind sun begin	950 Oct 25 j 06:43	6°☾32'58		morning set	951 Sep 23 j 16:14	26°☾17'03	
behind sun end	950 Oct 26 j 03:57	7°☾57'35			951 Sep 25 j 19:26	0°☾	
max. Earth dist.	950 Oct 29 j 08:49	13°☾01'59	1.44860 AU				
	950 Nov 09 j 05:25	0°☾		superior conj	951 Oct 05 j 20:22	17°☾03'41	0°41'24
evening rise	950 Nov 11 j 05:55	3°☾07'58		minimum elong	951 Oct 06 j 00:23	17°☾20'18	0°40'52
greatest brilliancy	950 Nov 28 j 21:21	29°☾50'24	-0.6m	max. Earth dist.	951 Oct 12 j 01:20	27°☾10'15	1.43949 AU
	950 Nov 29 j 00:04	0°☾		desc. node	951 Oct 12 j 03:14	27°☾17'54	
evening max el	950 Dec 06 j 11:11	9°☾23'42	19°46'47		951 Oct 13 j 19:51	0°☾	
asc. node	950 Dec 13 j 05:26	13°☾41'48		evening rise	951 Oct 21 j 13:47	12°☾07'28	
retrograde	950 Dec 13 j 22:19	13°☾44'34			951 Nov 02 j 09:25	0°☾	

greatest brilliancy	951 Nov 13 j 21:52	16°♂15'55	-0.5m	evening max el	952 Nov 01 j 07:50	6°♂23'15	22°04'28
evening max el	951 Nov 19 j 12:19	22°♂52'52	20°50'27	retrograde	952 Nov 10 j 16:16	11°♂56'57	
retrograde	951 Nov 27 j 19:59	27°♂48'22		evening set	952 Nov 15 j 01:33	10°♂13'03	
asc. node	951 Nov 30 j 02:30	27°♂19'19		asc. node	952 Nov 15 j 23:34	9°♂24'33	
evening set	951 Dec 01 j 17:46	26°♂21'13		inferior conj	952 Nov 20 j 11:01	3°♂52'32	1°29'33
inferior conj	951 Dec 07 j 04:08	20°♂08'27	2°14'52	minimum elong	952 Nov 20 j 09:06	3°♂59'09	1°28'48
minimum elong	951 Dec 07 j 01:36	20°♂17'08	2°14'00	min. Earth dist.	952 Nov 20 j 11:41	3°♂50'11	0.67706 AU
min. Earth dist.	951 Dec 07 j 16:06	19°♂27'28	0.67364 AU		952 Nov 23 j 09:28	30°♂	
morning rise	951 Dec 12 j 09:00	13°♂53'03		morning rise	952 Nov 25 j 16:28	27°♂38'34	
direct	951 Dec 17 j 18:05	11°♂32'23		direct	952 Nov 30 j 10:18	25°♂40'15	
morning max el	951 Dec 28 j 16:38	18°♂03'58	24°03'59		952 Dec 08 j 15:56	0°♂	
	952 Jan 07 j 16:51	0°♂		morning max el	952 Dec 10 j 02:59	1°♂24'31	22°35'58
desc. node	952 Jan 08 j 02:28	0°♂32'02		greatest brilliancy	952 Dec 14 j 17:11	6°♂32'30	-0.3m
	952 Jan 27 j 19:36	0°♂		desc. node	952 Dec 24 j 23:30	20°♂12'46	
morning set	952 Feb 02 j 08:33	9°♂18'41			952 Dec 31 j 16:04	0°♂	
max. Earth dist.	952 Feb 06 j 04:09	16°♂00'47	1.38232 AU	morning set	953 Jan 12 j 23:54	19°♂19'33	
				max. Earth dist.	953 Jan 18 j 00:19	27°♂42'05	1.40375 AU
superior conj	952 Feb 13 j 08:14	29°♂15'27	-1°-45'-13		953 Jan 19 j 08:33	0°♂	
minimum elong	952 Feb 13 j 12:13	29°♂34'25	1°44'51				
	952 Feb 13 j 17:34	0°♂		superior conj	953 Jan 25 j 19:27	11°♂23'21	-1°-59'-48
evening rise	952 Feb 22 j 06:30	16°♂40'40		minimum elong	953 Jan 25 j 21:56	11°♂34'35	1°59'43
asc. node	952 Feb 26 j 01:48	24°♂02'59		evening rise	953 Feb 04 j 19:10	29°♂59'36	
	952 Feb 29 j 07:34	0°♂			953 Feb 04 j 19:15	0°♂	
evening max el	952 Mar 09 j 18:22	13°♂18'43	18°57'16	asc. node	953 Feb 11 j 22:52	13°♂09'19	
retrograde	952 Mar 18 j 05:00	17°♂23'52		evening max el	953 Feb 20 j 23:34	25°♂54'50	18°22'43
evening set	952 Mar 20 j 10:15	17°♂08'06		retrograde	953 Feb 28 j 07:17	29°♂32'08	
inferior conj	952 Mar 28 j 11:14	12°♂51'56	2°02'39	evening set	953 Mar 02 j 17:44	29°♂09'10	
minimum elong	952 Mar 28 j 15:16	12°♂44'47	2°01'27	inferior conj	953 Mar 10 j 00:40	24°♂32'08	3°07'09
min. Earth dist.	952 Mar 31 j 15:24	10°♂38'02	0.56999 AU	minimum elong	953 Mar 10 j 04:17	24°♂24'36	3°06'25
desc. node	952 Apr 05 j 01:37	8°♂04'24		min. Earth dist.	953 Mar 13 j 11:07	21°♂42'36	0.58957 AU
morning rise	952 Apr 05 j 16:03	7°♂48'50		morning rise	953 Mar 17 j 11:02	19°♂00'49	
direct	952 Apr 10 j 22:47	6°♂42'21		desc. node	953 Mar 22 j 22:40	17°♂19'40	
morning max el	952 Apr 25 j 05:46	14°♂07'20	25°49'44	direct	953 Mar 23 j 16:37	17°♂18'12	
	952 May 07 j 19:41	0°♂		morning max el	953 Apr 07 j 00:54	25°♂00'24	27°02'42
morning set	952 May 22 j 22:44	27°♂47'02			953 Apr 11 j 15:20	0°♂	
	952 May 23 j 23:50	0°♂			953 May 01 j 00:37	0°♂	
asc. node	952 May 24 j 01:06	0°♂06'41		morning set	953 May 07 j 08:25	12°♂36'15	
				asc. node	953 May 10 j 22:09	20°♂13'03	
superior conj	952 May 29 j 23:22	13°♂00'34	0°59'01				
minimum elong	952 May 29 j 21:09	12°♂48'27	0°58'37	superior conj	953 May 14 j 11:10	27°♂58'10	0°36'43
max. Earth dist.	952 May 30 j 17:29	14°♂39'46	1.32530 AU	minimum elong	953 May 14 j 09:37	27°♂49'39	0°36'24
evening rise	952 Jun 06 j 01:13	28°♂12'10		max. Earth dist.	953 May 14 j 06:01	27°♂29'54	1.32270 AU
	952 Jun 06 j 22:09	0°♂			953 May 15 j 09:19	0°♂	
	952 Jun 23 j 19:50	0°♂		evening rise	953 May 21 j 09:34	13°♂00'17	
desc. node	952 Jul 02 j 00:55	11°♂01'53			953 May 30 j 01:05	0°♂	
evening max el	952 Jul 07 j 10:05	16°♂48'09	27°09'31	desc. node	953 Jun 18 j 21:57	28°♂06'16	
retrograde	952 Jul 21 j 07:11	24°♂03'37		evening max el	953 Jun 19 j 10:36	28°♂36'49	26°20'17
evening set	952 Jul 28 j 09:27	21°♂45'58			953 Jun 20 j 23:05	0°♂	
min. Earth dist.	952 Aug 01 j 00:19	19°♂01'17	0.61570 AU	retrograde	953 Jul 03 j 10:30	5°♂49'13	
inferior conj	952 Aug 04 j 02:59	16°♂15'06	-4°-18'-33	evening set	953 Jul 09 j 22:58	4°♂03'52	
minimum elong	952 Aug 04 j 07:39	16°♂04'39	4°17'41	min. Earth dist.	953 Jul 13 j 23:32	1°♂27'47	0.59519 AU
morning rise	952 Aug 11 j 08:41	11°♂18'20			953 Jul 15 j 21:19	30°♂	
direct	952 Aug 13 j 18:21	10°♂54'07		inferior conj	953 Jul 17 j 07:23	28°♂53'12	-4°-46'-53
asc. node	952 Aug 20 j 00:19	13°♂43'03		minimum elong	953 Jul 17 j 09:43	28°♂48'39	4°46'44
morning max el	952 Aug 20 j 17:45	14°♂23'36	17°57'23	morning rise	953 Jul 24 j 23:52	24°♂19'31	
	952 Aug 31 j 10:31	0°♂		direct	953 Jul 27 j 10:30	23°♂58'27	
morning set	952 Sep 05 j 14:44	9°♂21'22		morning max el	953 Aug 04 j 03:32	27°♂41'19	18°21'31
					953 Aug 06 j 07:07	0°♂	
superior conj	952 Sep 16 j 02:24	28°♂11'30	1°14'40	asc. node	953 Aug 06 j 21:23	0°♂43'36	
minimum elong	952 Sep 16 j 07:05	28°♂31'50	1°14'09	morning set	953 Aug 20 j 02:59	23°♂05'26	
	952 Sep 17 j 03:25	0°♂			953 Aug 23 j 17:50	0°♂	
max. Earth dist.	952 Sep 23 j 13:52	10°♂51'53	1.42451 AU				
desc. node	952 Sep 28 j 00:16	18°♂04'08		superior conj	953 Aug 29 j 08:38	10°♂31'06	1°35'25
evening rise	952 Sep 30 j 03:00	21°♂25'48		minimum elong	953 Aug 29 j 11:48	10°♂45'36	1°35'10
	952 Oct 05 j 15:22	0°♂		max. Earth dist.	953 Sep 05 j 21:01	23°♂52'43	1.40557 AU
	952 Oct 26 j 18:09	0°♂			953 Sep 09 j 11:54	0°♂	
greatest brilliancy	952 Oct 27 j 14:31	1°♂03'02	-0.3m	evening rise	953 Sep 10 j 11:47	1°♂38'56	

desc. node	953 Sep 14 j 21:17	8°♄45'58		max. Earth dist.	954 Aug 19 j 00:26	6°♎10'38	1.38519 AU
	953 Sep 29 j 00:52	0°♌		evening rise	954 Aug 22 j 21:08	13°♎01'31	
evening max el	953 Oct 14 j 22:36	19°♌55'20	23°23'59	desc. node	954 Sep 01 j 18:19	29°♎19'38	
retrograde	953 Oct 25 j 09:45	26°♌06'46			954 Sep 02 j 04:39	0°♄	
evening set	953 Oct 30 j 08:17	24°♌05'09			954 Sep 24 j 02:50	0°♌	
asc. node	953 Nov 02 j 20:37	20°♌14'28		evening max el	954 Sep 27 j 10:47	3°♌31'10	24°42'46
inferior conj	953 Nov 04 j 18:14	17°♌40'39	0°39'04	retrograde	954 Oct 08 j 23:30	10°♌14'30	
minimum elong	953 Nov 04 j 17:19	17°♌43'47	0°38'41	evening set	954 Oct 14 j 12:20	7°♌55'43	
min. Earth dist.	953 Nov 04 j 08:19	18°♌14'39	0.67713 AU	min. Earth dist.	954 Oct 19 j 03:40	2°♌39'15	0.67393 AU
morning rise	953 Nov 10 j 02:27	11°♌30'17		inferior conj	954 Oct 20 j 00:05	1°♌31'23	0°-15'-8
direct	953 Nov 14 j 05:49	9°♌54'48		minimum elong	954 Oct 20 j 00:28	1°♌30'08	0°14'59
morning max el	953 Nov 22 j 18:53	14°♌53'46	21°13'14	transit middle	954 Oct 20 j 00:28	1°♌30'08	0°14'59
greatest brilliancy	953 Nov 28 j 02:10	20°♌59'57	-0.4m	transit begin	954 Oct 19 j 23:24	1°♌33'40	
	953 Dec 04 j 18:32	0°♊		transit end	954 Oct 20 j 01:32	1°♌26'36	
desc. node	953 Dec 11 j 20:32	10°♊17'07		asc. node	954 Oct 20 j 17:38	0°♌33'23	
morning set	953 Dec 23 j 10:55	28°♊01'03			954 Oct 21 j 03:55	30°♎♄	
	953 Dec 24 j 17:06	0°♊		morning rise	954 Oct 25 j 13:03	25°♄27'05	
max. Earth dist.	953 Dec 31 j 02:37	10°♊17'34	1.42359 AU	direct	954 Oct 29 j 03:34	24°♄12'19	
				morning max el	954 Nov 05 j 18:22	28°♄34'01	20°01'32
superior conj	954 Jan 07 j 08:37	22°♊26'22	-2°-2'-51		954 Nov 07 j 02:49	0°♌	
minimum elong	954 Jan 07 j 07:16	22°♊20'36	2°02'50	greatest brilliancy	954 Nov 12 j 22:46	7°♌19'37	-0.6m
	954 Jan 11 j 17:04	0°♐			954 Nov 28 j 07:26	0°♊	
evening rise	954 Jan 18 j 18:15	12°♐36'25		desc. node	954 Nov 28 j 17:35	0°♊38'51	
	954 Jan 28 j 17:17	0°♏		morning set	954 Dec 02 j 07:10	6°♊08'06	
asc. node	954 Jan 29 j 19:55	1°♏43'48		max. Earth dist.	954 Dec 13 j 12:14	23°♊43'19	1.43919 AU
evening max el	954 Feb 04 j 09:49	8°♏53'35	18°08'06		954 Dec 17 j 09:53	0°♊	
retrograde	954 Feb 11 j 02:21	12°♏18'59					
evening set	954 Feb 13 j 17:31	11°♏47'21		superior conj	954 Dec 18 j 19:33	2°♊16'56	-1°-49'-35
inferior conj	954 Feb 20 j 09:38	6°♏48'53	3°39'30	minimum elong	954 Dec 18 j 13:04	1°♊50'30	1°49'09
minimum elong	954 Feb 20 j 11:17	6°♏44'56	3°39'22	evening rise	954 Dec 31 j 23:34	24°♊23'25	
min. Earth dist.	954 Feb 23 j 13:40	3°♏47'51	0.61075 AU		955 Jan 04 j 05:50	0°♐	
morning rise	954 Feb 27 j 02:11	0°♏58'24		asc. node	955 Jan 16 j 16:56	19°♐37'04	
	954 Feb 28 j 17:42	30°♎♐		evening max el	955 Jan 18 j 22:13	22°♐07'38	18°12'48
direct	954 Mar 05 j 21:33	28°♐40'55		retrograde	955 Jan 25 j 09:37	25°♐34'36	
desc. node	954 Mar 09 j 19:42	29°♐22'57		evening set	955 Jan 28 j 05:27	24°♐53'15	
	954 Mar 11 j 08:06	0°♏		inferior conj	955 Feb 03 j 10:20	19°♐34'28	3°46'54
morning max el	954 Mar 20 j 02:27	6°♏32'48	27°42'37	minimum elong	955 Feb 03 j 09:57	19°♐35'31	3°46'54
	954 Apr 06 j 19:08	0°♑		min. Earth dist.	955 Feb 06 j 01:09	16°♐45'06	0.63079 AU
morning set	954 Apr 21 j 14:20	27°♑12'09		morning rise	955 Feb 09 j 12:30	13°♐32'28	
	954 Apr 22 j 22:43	0°♏		direct	955 Feb 16 j 11:39	10°♐50'42	
max. Earth dist.	954 Apr 27 j 17:38	10°♏14'44	1.32377 AU	desc. node	955 Feb 24 j 16:45	13°♐54'37	
asc. node	954 Apr 27 j 19:12	10°♏23'12		morning max el	955 Mar 02 j 09:10	18°♐45'12	27°45'12
					955 Mar 11 j 21:41	0°♏	
superior conj	954 Apr 28 j 22:09	12°♏50'23	0°11'53		955 Mar 30 j 15:49	0°♑	
minimum elong	954 Apr 28 j 21:37	12°♏47'24	0°11'45	morning set	955 Apr 05 j 14:10	11°♑26'24	
behind sun begin	954 Apr 28 j 18:11	12°♏28'40		max. Earth dist.	955 Apr 11 j 00:10	22°♑39'18	1.32883 AU
behind sun end	954 Apr 29 j 01:02	13°♏06'09					
evening rise	954 May 05 j 20:36	27°♏53'42		superior conj	955 Apr 13 j 06:34	27°♑30'38	0°-14'-45
	954 May 06 j 20:36	0°♐		minimum elong	955 Apr 13 j 07:17	27°♑34'28	0°14'37
	954 May 23 j 22:23	0°♑		behind sun begin	955 Apr 13 j 05:13	27°♑23'17	
evening max el	954 Jun 01 j 04:07	9°♑40'41	25°03'12	behind sun end	955 Apr 13 j 09:22	27°♑45'40	
desc. node	954 Jun 05 j 18:57	13°♑29'02			955 Apr 14 j 10:14	0°♏	
retrograde	954 Jun 15 j 04:01	16°♑47'42		asc. node	955 Apr 14 j 16:13	0°♏32'24	
evening set	954 Jun 20 j 13:14	15°♑41'05		evening rise	955 Apr 20 j 08:24	12°♏45'09	
min. Earth dist.	954 Jun 25 j 15:39	12°♑54'57	0.57524 AU		955 Apr 29 j 03:06	0°♐	
inferior conj	954 Jun 28 j 16:45	10°♑52'10	-4°-47'-35	evening max el	955 May 13 j 18:14	20°♐15'52	23°30'01
minimum elong	954 Jun 28 j 14:32	10°♑55'54	4°47'28	desc. node	955 May 23 j 15:58	26°♐33'22	
morning rise	954 Jul 06 j 19:40	6°♑40'58		retrograde	955 May 27 j 09:23	27°♐04'57	
direct	954 Jul 09 j 09:05	6°♑21'49		evening set	955 May 31 j 07:09	26°♐31'23	
morning max el	954 Jul 18 j 05:40	10°♑30'22	19°06'23	min. Earth dist.	955 Jun 07 j 04:33	23°♐20'09	0.55919 AU
asc. node	954 Jul 24 j 18:25	18°♑40'05		inferior conj	955 Jun 09 j 06:01	22°♐06'25	-4°-7'-15
	954 Jul 31 j 06:42	0°♑		minimum elong	955 Jun 08 j 23:16	22°♐16'32	4°05'55
morning set	954 Aug 04 j 00:54	7°♑18'36		morning rise	955 Jun 17 j 18:47	18°♐10'42	
				direct	955 Jun 20 j 12:16	17°♐52'16	
superior conj	954 Aug 12 j 09:25	23°♑46'44	1°45'07	morning max el	955 Jun 30 j 21:28	22°♐40'34	20°12'21
minimum elong	954 Aug 12 j 10:32	23°♑52'09	1°45'04		955 Jul 07 j 01:35	0°♑	
	954 Aug 15 j 15:55	0°♑		asc. node	955 Jul 11 j 15:27	7°♑18'55	

morning set	955 Jul 19 j 05:26	21° $\overline{5}$ 51'52		asc. node	956 Jun 27 j 12:31	26° $\overline{\text{II}}$ 29'55	
	955 Jul 23 j 04:42	0° Ω			956 Jun 29 j 07:44	0° $\overline{5}$	
				morning set	956 Jul 02 j 14:18	6° $\overline{5}$ 39'04	
superior conj	955 Jul 26 j 23:29	7° Ω 42'22	1°45'49				
minimum elong	955 Jul 26 j 22:52	7° Ω 39'14	1°45'48	superior conj	956 Jul 09 j 22:53	22° $\overline{5}$ 06'25	1°39'21
max. Earth dist.	955 Aug 01 j 05:31	18° Ω 02'16	1.36595 AU	minimum elong	956 Jul 09 j 21:06	21° $\overline{5}$ 57'03	1°39'14
evening rise	955 Aug 05 j 04:45	25° Ω 27'49			956 Jul 13 j 19:04	0° Ω	
	955 Aug 07 j 17:13	0° $\overline{\text{II}}$		max. Earth dist.	956 Jul 13 j 18:11	29° $\overline{5}$ 55'32	1.34963 AU
desc. node	955 Aug 19 j 15:20	19° $\overline{\text{II}}$ 39'20		evening rise	956 Jul 18 j 05:58	8° Ω 45'46	
	955 Aug 26 j 17:23	0° $\underline{\text{A}}$			956 Jul 30 j 06:43	0° $\overline{\text{II}}$	
evening max el	955 Sep 09 j 22:29	17° $\underline{\text{A}}$ 09'23	25°53'37	desc. node	956 Aug 05 j 12:19	9° $\overline{\text{II}}$ 38'39	
retrograde	955 Sep 22 j 08:35	24° $\underline{\text{A}}$ 14'21			956 Aug 21 j 16:28	0° $\underline{\text{A}}$	
evening set	955 Sep 28 j 11:50	21° $\underline{\text{A}}$ 41'08		evening max el	956 Aug 22 j 10:41	0° $\underline{\text{A}}$ 44'33	26°48'38
min. Earth dist.	955 Oct 02 j 19:20	17° $\underline{\text{A}}$ 00'36	0.66738 AU	retrograde	956 Sep 04 j 12:19	8° $\underline{\text{A}}$ 00'07	
inferior conj	955 Oct 04 j 02:46	15° $\underline{\text{A}}$ 21'25	-1°-11'-42	evening set	956 Sep 11 j 04:42	5° $\underline{\text{A}}$ 17'51	
minimum elong	955 Oct 04 j 04:37	15° $\underline{\text{A}}$ 15'35	1°10'56	min. Earth dist.	956 Sep 15 j 04:52	1° $\underline{\text{A}}$ 14'38	0.65740 AU
asc. node	955 Oct 07 j 14:39	11° $\underline{\text{A}}$ 17'47			956 Sep 16 j 06:23	30° $\overline{\text{R}}$ $\overline{\text{II}}$	
morning rise	955 Oct 09 j 22:15	9° $\underline{\text{A}}$ 26'02		inferior conj	956 Sep 17 j 00:16	29° $\overline{\text{II}}$ 07'11	-2°-8'-54
direct	955 Oct 13 j 02:03	8° $\underline{\text{A}}$ 28'37		minimum elong	956 Sep 17 j 03:38	28° $\overline{\text{II}}$ 57'20	2°07'37
morning max el	955 Oct 20 j 01:12	12° $\underline{\text{A}}$ 22'53	19°04'18	morning rise	956 Sep 23 j 03:54	23° $\overline{\text{II}}$ 23'56	
	955 Nov 01 j 23:54	0° $\overline{\text{II}}$		asc. node	956 Sep 23 j 11:43	23° $\overline{\text{II}}$ 14'25	
morning set	955 Nov 11 j 13:41	14° $\overline{\text{II}}$ 53'20		direct	956 Sep 25 j 23:22	22° $\overline{\text{II}}$ 40'05	
desc. node	955 Nov 15 j 14:38	21° $\overline{\text{II}}$ 12'41		morning max el	956 Oct 02 j 13:38	26° $\overline{\text{II}}$ 16'19	18°23'05
	955 Nov 21 j 05:18	0° $\overline{\text{A}}$			956 Oct 05 j 18:43	0° $\underline{\text{A}}$	
max. Earth dist.	955 Nov 26 j 03:47	7° $\overline{\text{A}}$ 45'20	1.44859 AU	morning set	956 Oct 21 j 23:00	25° $\underline{\text{A}}$ 00'32	
					956 Oct 25 j 01:06	0° $\overline{\text{II}}$	
superior conj	955 Nov 28 j 06:23	11° $\overline{\text{A}}$ 04'55	-1°-17'-36	desc. node	956 Nov 01 j 11:39	11° $\overline{\text{II}}$ 54'06	
minimum elong	955 Nov 27 j 21:55	10° $\overline{\text{A}}$ 31'29	1°16'42				
	955 Dec 10 j 01:57	0° $\overline{5}$		superior conj	956 Nov 06 j 07:12	19° $\overline{\text{II}}$ 30'46	0°-31'-32
evening rise	955 Dec 13 j 07:03	5° $\overline{5}$ 14'13		minimum elong	956 Nov 06 j 03:05	19° $\overline{\text{II}}$ 14'31	0°31'01
	955 Dec 28 j 22:05	0° \approx		max. Earth dist.	956 Nov 07 j 22:40	22° $\overline{\text{II}}$ 06'02	1.45078 AU
evening max el	956 Jan 02 j 10:09	5° \approx 31'14	18°35'57		956 Nov 12 j 23:29	0° $\overline{\text{A}}$	
asc. node	956 Jan 03 j 13:56	6° \approx 37'28		evening rise	956 Nov 22 j 14:57	15° $\overline{\text{A}}$ 07'34	
retrograde	956 Jan 09 j 00:56	9° \approx 11'18			956 Dec 02 j 02:47	0° $\overline{5}$	
evening set	956 Jan 12 j 02:07	8° \approx 19'03		greatest brilliancy	956 Dec 06 j 05:20	6° $\overline{5}$ 16'56	-0.7m
inferior conj	956 Jan 17 j 22:51	2° \approx 41'42	3°36'07	evening max el	956 Dec 15 j 19:12	18° $\overline{5}$ 58'50	19°16'24
minimum elong	956 Jan 17 j 21:02	2° \approx 47'09	3°35'53	asc. node	956 Dec 20 j 10:59	22° $\overline{5}$ 30'12	
min. Earth dist.	956 Jan 19 j 22:12	0° \approx 20'43	0.64783 AU	retrograde	956 Dec 22 j 20:49	23° $\overline{5}$ 02'03	
	956 Jan 20 j 05:22	30° $\overline{\text{R}}$ $\overline{5}$		evening set	956 Dec 26 j 04:39	21° $\overline{5}$ 57'28	
morning rise	956 Jan 23 j 14:41	26° $\overline{5}$ 32'53		inferior conj	956 Dec 31 j 19:46	16° $\overline{5}$ 03'50	3°12'03
direct	956 Jan 30 j 09:07	23° $\overline{5}$ 41'49		minimum elong	956 Dec 31 j 17:12	16° $\overline{5}$ 12'05	3°11'29
	956 Feb 11 j 05:34	0° \approx		min. Earth dist.	957 Jan 02 j 04:06	14° $\overline{5}$ 20'11	0.66098 AU
desc. node	956 Feb 11 j 13:48	0° \approx 19'18		morning rise	957 Jan 06 j 04:56	9° $\overline{5}$ 50'55	
morning max el	956 Feb 12 j 18:27	1° \approx 29'10	27°12'58	direct	957 Jan 12 j 12:39	7° $\overline{5}$ 04'31	
	956 Mar 05 j 00:41	0° $\overline{\text{H}}$		morning max el	957 Jan 25 j 03:56	14° $\overline{5}$ 32'34	26°12'47
morning set	956 Mar 19 j 05:04	25° $\overline{\text{H}}$ 10'02		desc. node	957 Jan 28 j 10:51	18° $\overline{5}$ 04'29	
	956 Mar 21 j 15:54	0° $\overline{\text{Y}}$			957 Feb 06 j 19:36	0° \approx	
max. Earth dist.	956 Mar 23 j 21:53	4° $\overline{\text{Y}}$ 33'06	1.33829 AU		957 Feb 25 j 19:06	0° $\overline{\text{H}}$	
				morning set	957 Mar 02 j 07:08	8° $\overline{\text{H}}$ 10'45	
superior conj	956 Mar 27 j 10:32	11° $\overline{\text{Y}}$ 52'59	0°-42'-9	max. Earth dist.	957 Mar 06 j 08:16	15° $\overline{\text{H}}$ 53'58	1.35234 AU
minimum elong	956 Mar 27 j 12:36	12° $\overline{\text{Y}}$ 03'55	0°41'45				
asc. node	956 Mar 31 j 13:15	20° $\overline{\text{Y}}$ 36'46		superior conj	957 Mar 11 j 07:36	25° $\overline{\text{H}}$ 49'40	-1°-8'-59
evening rise	956 Apr 03 j 19:12	27° $\overline{\text{Y}}$ 28'44		minimum elong	957 Mar 11 j 10:56	26° $\overline{\text{H}}$ 06'37	1°08'26
	956 Apr 05 j 00:18	0° $\overline{\text{B}}$			957 Mar 13 j 08:24	0° $\overline{\text{Y}}$	
	956 Apr 23 j 15:04	0° $\overline{\text{II}}$		asc. node	957 Mar 18 j 10:18	10° $\overline{\text{Y}}$ 31'34	
evening max el	956 Apr 24 j 11:56	0° $\overline{\text{II}}$ 52'07	21°55'33	evening rise	957 Mar 19 j 03:01	11° $\overline{\text{Y}}$ 57'38	
retrograde	956 May 07 j 02:28	7° $\overline{\text{II}}$ 03'08			957 Mar 28 j 15:24	0° $\overline{\text{B}}$	
evening set	956 May 09 j 18:45	6° $\overline{\text{II}}$ 47'10		evening max el	957 Apr 06 j 15:10	11° $\overline{\text{B}}$ 55'06	20°31'59
desc. node	956 May 09 j 12:58	6° $\overline{\text{II}}$ 49'52		retrograde	957 Apr 17 j 15:24	17° $\overline{\text{B}}$ 14'32	
min. Earth dist.	956 May 18 j 16:50	2° $\overline{\text{II}}$ 58'41	0.55043 AU	evening set	957 Apr 19 j 18:20	17° $\overline{\text{B}}$ 03'29	
inferior conj	956 May 19 j 03:53	2° $\overline{\text{II}}$ 43'12	-2°-40'-29	desc. node	957 Apr 26 j 10:00	14° $\overline{\text{B}}$ 30'59	
minimum elong	956 May 18 j 20:59	2° $\overline{\text{II}}$ 52'53	2°38'19	inferior conj	957 Apr 28 j 22:17	13° $\overline{\text{B}}$ 05'56	0°-43'-36
	956 May 24 j 10:29	30° $\overline{\text{R}}$ $\overline{\text{B}}$		minimum elong	957 Apr 28 j 20:13	13° $\overline{\text{B}}$ 08'54	0°42'51
morning rise	956 May 28 j 00:31	28° $\overline{\text{B}}$ 48'48		min. Earth dist.	957 Apr 30 j 05:41	12° $\overline{\text{B}}$ 20'32	0.55101 AU
direct	956 May 31 j 01:31	28° $\overline{\text{B}}$ 28'16		morning rise	957 May 07 j 20:30	8° $\overline{\text{B}}$ 54'06	
	956 Jun 06 j 07:25	0° $\overline{\text{II}}$		direct	957 May 11 j 12:25	8° $\overline{\text{B}}$ 25'09	
morning max el	956 Jun 12 j 01:52	4° $\overline{\text{II}}$ 06'41	21°37'42	morning max el	957 May 24 j 20:50	14° $\overline{\text{B}}$ 54'00	23°16'33

	957 Jun 05 j 14:46	0°♂			958 May 10 j 19:04	0°♂	
asc. node	957 Jun 14 j 09:35	16°♂04'29			958 May 29 j 09:26	0°♂	
morning set	957 Jun 17 j 01:34	21°♂34'23		asc. node	958 Jun 01 j 06:37	5°♂55'47	
	957 Jun 21 j 00:25	0°♂		morning set	958 Jun 01 j 13:30	6°♂31'58	
superior conj	957 Jun 24 j 04:35	6°♂49'31	1°27'10	superior conj	958 Jun 08 j 14:09	21°♂43'39	1°10'25
minimum elong	957 Jun 24 j 02:13	6°♂36'49	1°26'54	minimum elong	958 Jun 08 j 11:45	21°♂30'32	1°10'02
max. Earth dist.	957 Jun 26 j 16:26	12°♂07'37	1.33702 AU	max. Earth dist.	958 Jun 09 j 22:37	24°♂40'06	1.32839 AU
evening rise	957 Jul 01 j 20:13	22°♂42'25			958 Jun 12 j 10:09	0°♂	
	957 Jul 05 j 14:33	0°♂		evening rise	958 Jun 15 j 19:44	7°♂06'16	
desc. node	957 Jul 23 j 09:19	29°♂09'02			958 Jun 28 j 02:44	0°♂	
	957 Jul 24 j 00:02	0°♂		desc. node	958 Jul 10 j 06:21	17°♂57'44	
evening max el	957 Aug 04 j 22:27	14°♂06'00	27°20'27	evening max el	958 Jul 18 j 07:37	26°♂59'45	27°22'54
retrograde	957 Aug 18 j 10:17	21°♂24'33			958 Jul 21 j 19:14	0°♂	
evening set	957 Aug 25 j 12:16	18°♂41'49		retrograde	958 Aug 01 j 02:05	4°♂17'31	
min. Earth dist.	957 Aug 29 j 05:58	15°♂14'54	0.64381 AU	evening set	958 Aug 08 j 07:02	1°♂46'23	
inferior conj	957 Aug 31 j 14:18	12°♂44'12	-3°-4'-19		958 Aug 10 j 13:38	30°♂♂	
minimum elong	957 Aug 31 j 18:54	12°♂31'54	3°02'50	min. Earth dist.	958 Aug 11 j 21:01	28°♂49'51	0.62673 AU
morning rise	957 Sep 07 j 03:26	7°♂16'35		inferior conj	958 Aug 14 j 17:57	26°♂04'58	-3°-54'-23
direct	957 Sep 09 j 17:02	6°♂42'46		minimum elong	958 Aug 14 j 23:00	25°♂52'51	3°53'09
asc. node	957 Sep 10 j 08:48	6°♂45'01		morning rise	958 Aug 21 j 17:31	20°♂56'25	
morning max el	957 Sep 16 j 05:12	10°♂09'39	17°58'56	direct	958 Aug 24 j 03:48	20°♂29'31	
	957 Sep 29 j 16:25	0°♂		asc. node	958 Aug 28 j 05:52	21°♂47'25	
morning set	957 Oct 03 j 12:31	6°♂30'28		morning max el	958 Aug 30 j 20:58	23°♂55'30	17°52'37
					958 Sep 04 j 17:55	0°♂	
superior conj	957 Oct 16 j 20:00	28°♂36'21	0°16'50	morning set	958 Sep 16 j 00:43	19°♂05'02	
minimum elong	957 Oct 16 j 21:57	28°♂44'11	0°16'35		958 Sep 22 j 05:00	0°♂	
	957 Oct 17 j 16:45	0°♂		superior conj	958 Sep 27 j 10:23	8°♂58'17	0°57'03
desc. node	957 Oct 19 j 08:40	2°♂40'08		minimum elong	958 Sep 27 j 15:04	9°♂18'05	0°56'28
max. Earth dist.	957 Oct 21 j 17:29	6°♂26'25	1.44558 AU	max. Earth dist.	958 Oct 04 j 08:36	20°♂25'38	1.43371 AU
evening rise	957 Nov 02 j 04:05	24°♂18'14		desc. node	958 Oct 06 j 05:41	23°♂27'12	
	957 Nov 05 j 21:07	0°♂			958 Oct 10 j 08:45	0°♂	
greatest brilliancy	957 Nov 22 j 09:13	24°♂23'28	-0.6m	evening rise	958 Oct 12 j 12:01	3°♂20'07	
	957 Nov 26 j 18:13	0°♂			958 Oct 30 j 09:06	0°♂	
evening max el	957 Nov 28 j 23:31	2°♂27'50	20°12'16	greatest brilliancy	958 Nov 06 j 19:42	10°♂03'09	-0.4m
retrograde	957 Dec 06 j 18:35	7°♂02'35		evening max el	958 Nov 11 j 22:06	15°♂56'56	21°20'49
asc. node	957 Dec 07 j 08:03	7°♂00'48		retrograde	958 Nov 20 j 16:01	21°♂08'57	
evening set	957 Dec 10 j 10:45	5°♂44'03		asc. node	958 Nov 24 j 05:07	19°♂58'47	
inferior conj	957 Dec 15 j 22:20	29°♂37'05	2°38'02	evening set	958 Nov 24 j 18:26	19°♂34'47	
minimum elong	957 Dec 15 j 19:38	29°♂46'09	2°37'13	inferior conj	958 Nov 30 j 04:12	13°♂17'58	1°56'21
	957 Dec 15 j 15:31	30°♂♂		minimum elong	958 Nov 30 j 01:53	13°♂25'58	1°55'31
min. Earth dist.	957 Dec 16 j 17:11	28°♂33'33	0.67013 AU	min. Earth dist.	958 Nov 30 j 11:12	12°♂53'51	0.67552 AU
morning rise	957 Dec 21 j 03:59	23°♂22'02		morning rise	958 Dec 05 j 09:02	7°♂02'47	
direct	957 Dec 26 j 21:39	20°♂50'21		direct	958 Dec 10 j 11:27	4°♂51'35	
morning max el	958 Jan 07 j 12:39	27°♂45'58	24°53'52	morning max el	958 Dec 20 j 21:35	11°♂03'52	23°26'19
	958 Jan 09 j 15:28	0°♂		greatest brilliancy	958 Dec 26 j 14:48	17°♂31'54	-0.2m
desc. node	958 Jan 15 j 07:55	6°♂46'54		desc. node	959 Jan 02 j 04:57	26°♂09'44	
	958 Jan 31 j 12:33	0°♂			959 Jan 04 j 22:49	0°♂	
morning set	958 Feb 12 j 15:14	20°♂14'22		morning set	959 Jan 24 j 07:50	0°♂	
max. Earth dist.	958 Feb 16 j 08:12	26°♂57'04	1.37055 AU	max. Earth dist.	959 Jan 24 j 23:07	1°♂04'18	
	958 Feb 17 j 23:33	0°♂			959 Jan 29 j 03:08	8°♂13'30	1.39142 AU
superior conj	958 Feb 22 j 18:48	9°♂12'33	-1°-33'-20	superior conj	959 Feb 05 j 16:09	21°♂51'18	-1°-52'-31
minimum elong	958 Feb 22 j 22:50	9°♂32'21	1°32'51	minimum elong	959 Feb 05 j 19:45	22°♂08'05	1°52'17
evening rise	958 Mar 03 j 05:40	26°♂05'30			959 Feb 09 j 23:22	0°♂	
asc. node	958 Mar 05 j 07:21	0°♂		evening rise	959 Feb 15 j 00:22	9°♂44'45	
	958 Mar 05 j 04:51	0°♂		asc. node	959 Feb 20 j 04:25	19°♂33'21	
evening max el	958 Mar 20 j 05:55	23°♂36'55	19°26'04		959 Feb 26 j 10:22	0°♂	
retrograde	958 Mar 29 j 13:23	28°♂06'08		evening max el	959 Mar 03 j 06:43	5°♂56'03	18°40'07
evening set	958 Mar 31 j 15:54	27°♂53'22		retrograde	959 Mar 11 j 04:42	9°♂47'37	
inferior conj	958 Apr 09 j 03:45	23°♂46'37	1°09'45	evening set	959 Mar 13 j 11:59	9°♂29'11	
minimum elong	958 Apr 09 j 06:32	23°♂42'05	1°08'48	inferior conj	959 Mar 21 j 05:01	5°♂04'36	2°34'17
min. Earth dist.	958 Apr 11 j 20:15	22°♂02'12	0.56087 AU	minimum elong	959 Mar 21 j 09:12	4°♂56'40	2°33'12
desc. node	958 Apr 13 j 07:04	21°♂09'08		min. Earth dist.	959 Mar 24 j 13:51	2°♂32'32	0.57783 AU
morning rise	958 Apr 17 j 17:23	19°♂02'39			959 Mar 28 j 16:09	30°♂♂	
direct	958 Apr 22 j 08:39	18°♂13'52		morning rise	959 Mar 29 j 02:08	29°♂48'01	
morning max el	958 May 06 j 11:35	25°♂22'56	24°57'12				

desc. node	959 Mar 31 j 04:07	28° K 59'47		min. Earth dist.	960 Mar 05 j 12:16	14° K 03'28	0.59857 AU
direct	959 Apr 03 j 19:14	28° K 26'39		morning rise	960 Mar 09 j 05:37	11° K 20'46	
	959 Apr 10 j 00:59	0° Y		direct	960 Mar 15 j 18:32	9° K 22'07	
morning max el	959 Apr 18 j 04:00	6° Y 01'10	26°24'18	desc. node	960 Mar 17 j 01:10	9° K 26'31	
	959 May 05 j 19:46	0° X		morning max el	960 Mar 30 j 01:39	17° K 09'42	27°24'03
morning set	959 May 17 j 00:30	21° X 26'29			960 Apr 09 j 16:44	0° Y	
asc. node	959 May 19 j 03:40	25° X 58'32			960 Apr 27 j 07:52	0° X	
	959 May 21 j 00:15	0° II		morning set	960 Apr 30 j 08:47	6° X 10'47	
				asc. node	960 May 05 j 00:42	16° X 07'09	
superior conj	959 May 24 j 01:40	6° II 42'28	0°49'56	max. Earth dist.	960 May 06 j 22:12	20° X 15'46	1.32268 AU
minimum elong	959 May 23 j 23:41	6° II 31'36	0°49'33				
max. Earth dist.	959 May 24 j 09:46	7° II 26'56	1.32366 AU	superior conj	960 May 07 j 13:19	21° X 38'44	0°26'28
evening rise	959 May 31 j 01:35	21° II 48'25		minimum elong	960 May 07 j 12:09	21° X 32'21	0°26'12
	959 Jun 04 j 02:29	0° S			960 May 11 j 08:49	0° II	
	959 Jun 22 j 08:35	0° Q		evening rise	960 May 14 j 11:18	6° II 39'45	
desc. node	959 Jun 27 j 03:23	5° Q 47'18			960 May 26 j 17:47	0° S	
evening max el	959 Jun 30 j 11:52	9° Q 14'40	26°52'29	evening max el	960 Jun 11 j 09:24	20° S 43'51	25°50'25
retrograde	959 Jul 14 j 10:44	16° Q 29'48		desc. node	960 Jun 13 j 00:24	22° S 12'36	
evening set	959 Jul 21 j 08:36	14° Q 24'21		retrograde	960 Jun 25 j 10:13	27° S 54'34	
min. Earth dist.	959 Jul 25 j 01:50	11° Q 45'33	0.60702 AU	evening set	960 Jul 01 j 12:21	26° S 25'52	
inferior conj	959 Jul 28 j 07:51	9° Q 01'33	-4°-33'-12	min. Earth dist.	960 Jul 05 j 21:54	23° S 47'20	0.58644 AU
minimum elong	959 Jul 28 j 11:50	8° Q 53'10	4°32'38	inferior conj	960 Jul 09 j 04:28	21° S 24'03	-4°-51'-24
morning rise	959 Aug 04 j 18:12	4° Q 14'39		minimum elong	960 Jul 09 j 05:05	21° S 22'55	4°51'25
direct	959 Aug 07 j 03:50	3° Q 52'08		morning rise	960 Jul 17 j 01:24	16° S 59'57	
morning max el	959 Aug 14 j 09:50	7° Q 26'13	18°05'12	direct	960 Jul 19 j 12:55	16° S 39'52	
asc. node	959 Aug 15 j 02:54	8° Q 09'18		morning max el	960 Jul 27 j 16:38	20° S 32'30	18°37'58
	959 Aug 28 j 21:54	0° P		asc. node	960 Jul 31 j 23:55	25° S 35'06	
morning set	959 Aug 30 j 05:37	2° P 27'33			960 Aug 03 j 22:25	0° Q	
				morning set	960 Aug 12 j 22:23	16° Q 24'57	
superior conj	959 Sep 09 j 03:21	20° P 38'30	1°24'55		960 Aug 19 j 23:03	0° P	
minimum elong	959 Sep 09 j 07:32	20° P 57'07	1°24'31				
	959 Sep 14 j 12:08	0° A		superior conj	960 Aug 21 j 18:05	3° P 23'21	1°40'45
max. Earth dist.	959 Sep 16 j 18:14	3° A 48'40	1.41676 AU	minimum elong	960 Aug 21 j 20:23	3° P 34'07	1°40'37
evening rise	959 Sep 22 j 08:17	12° A 58'18		max. Earth dist.	960 Aug 28 j 23:09	16° P 29'33	1.39693 AU
desc. node	959 Sep 23 j 02:42	14° A 12'05		evening rise	960 Sep 02 j 03:27	23° P 40'51	
	959 Oct 03 j 08:35	0° M			960 Sep 05 j 23:05	0° A	
greatest brilliancy	959 Oct 20 j 18:29	24° M 00'15	-0.3m	desc. node	960 Sep 08 j 23:44	4° A 51'07	
evening max el	959 Oct 25 j 15:20	29° M 27'41	22°37'58		960 Sep 26 j 05:20	0° M	
	959 Oct 26 j 04:20	0° J		evening max el	960 Oct 07 j 04:53	13° M 02'08	23°58'07
retrograde	959 Nov 04 j 11:21	5° J 18'18		retrograde	960 Oct 18 j 03:16	19° M 27'50	
evening set	959 Nov 09 j 01:57	3° J 27'08		evening set	960 Oct 23 j 07:44	17° M 19'00	
asc. node	959 Nov 11 j 02:10	1° J 28'32		asc. node	960 Oct 27 j 23:10	11° M 59'06	
	959 Nov 12 j 07:22	30° R M		min. Earth dist.	960 Oct 28 j 04:02	11° M 42'38	0.67614 AU
inferior conj	959 Nov 14 j 11:27	27° M 04'19	1°08'41	inferior conj	960 Oct 28 j 18:19	10° M 54'16	0°16'29
minimum elong	959 Nov 14 j 09:56	27° M 09'35	1°08'04	minimum elong	960 Oct 28 j 17:55	10° M 55'37	0°16'19
min. Earth dist.	959 Nov 14 j 07:37	27° M 17'34	0.67747 AU	morning rise	960 Nov 03 j 04:17	4° M 46'01	
morning rise	959 Nov 19 j 17:48	20° M 51'18		direct	960 Nov 07 j 02:03	3° M 19'26	
direct	959 Nov 24 j 05:18	19° M 02'44		morning max el	960 Nov 15 j 04:43	8° M 01'15	20°41'09
morning max el	959 Dec 03 j 09:50	24° M 27'32	21°59'35	greatest brilliancy	960 Nov 21 j 04:02	15° M 02'41	-0.5m
greatest brilliancy	959 Dec 08 j 03:19	29° M 47'27	-0.4m		960 Dec 01 j 18:40	0° J	
	959 Dec 08 j 07:25	0° J		desc. node	960 Dec 05 j 23:00	6° J 14'25	
desc. node	959 Dec 20 j 01:59	16° J 01'31		morning set	960 Dec 14 j 04:01	18° J 48'28	
	959 Dec 29 j 09:54	0° Z			960 Dec 21 j 06:15	0° Z	
morning set	960 Jan 05 j 01:53	10° Z 29'17		max. Earth dist.	960 Dec 23 j 06:25	3° Z 13'57	1.43091 AU
max. Earth dist.	960 Jan 11 j 00:50	20° Z 14'45	1.41253 AU				
	960 Jan 16 j 18:02	0° \approx		superior conj	960 Dec 29 j 21:07	14° Z 07'11	-1°-59'-29
superior conj	960 Jan 18 j 18:39	3° \approx 33'18	-2°-2'-48	minimum elong	960 Dec 29 j 17:34	13° Z 52'20	1°59'21
minimum elong	960 Jan 18 j 19:48	3° \approx 38'22	2°02'48		961 Jan 08 j 02:55	0° \approx	
evening rise	960 Jan 29 j 07:44	22° \approx 46'42		evening rise	961 Jan 10 j 23:50	5° \approx 03'50	
	960 Feb 02 j 05:41	0° K		asc. node	961 Jan 23 j 22:29	26° \approx 46'07	
asc. node	960 Feb 07 j 01:27	8° K 27'21			961 Jan 26 j 09:46	0° K	
evening max el	960 Feb 14 j 14:31	18° K 43'25	18°14'10	evening max el	961 Jan 28 j 02:09	1° K 50'30	18°07'46
retrograde	960 Feb 21 j 14:23	22° K 13'32		retrograde	961 Feb 03 j 15:09	5° K 14'38	
evening set	960 Feb 24 j 02:55	21° K 47'03		evening set	961 Feb 06 j 08:24	4° K 38'50	
inferior conj	960 Mar 02 j 03:08	17° K 01'14	3°24'22		961 Feb 12 j 08:00	30° R \approx	
minimum elong	960 Mar 02 j 06:00	16° K 54'53	3°23'56	inferior conj	961 Feb 12 j 19:19	29° \approx 31'29	3°45'13
				minimum elong	961 Feb 12 j 20:03	29° \approx 29'37	3°45'12

min. Earth dist.	961 Feb 15 j 18:12	26° \approx 33'10	0.61964 AU	evening max el	962 Jan 11 j 14:38	15° \approx 09'13	18°20'23
morning rise	961 Feb 19 j 05:19	23° \approx 35'43		retrograde	962 Jan 18 j 02:26	18° \approx 40'28	
direct	961 Feb 26 j 03:37	21° \approx 06'17		evening set	962 Jan 21 j 00:28	17° \approx 54'30	
desc. node	961 Mar 03 j 22:12	22° \approx 37'31		inferior conj	962 Jan 27 j 01:31	12° \approx 27'15	3°44'13
morning max el	961 Mar 12 j 05:28	28° \approx 59'15	27°48'10	minimum elong	962 Jan 27 j 00:26	12° \approx 30'18	3°44'09
	961 Mar 13 j 05:25	0° \mathbb{H}		min. Earth dist.	962 Jan 29 j 09:40	9° \approx 48'43	0.63850 AU
	961 Apr 03 j 13:19	0° \mathbb{Y}		morning rise	962 Feb 01 j 22:49	6° \approx 21'54	
morning set	961 Apr 14 j 12:23	20° \mathbb{Y} 38'18		direct	962 Feb 08 j 20:43	3° \approx 34'45	
	961 Apr 18 j 23:50	0° \mathbb{B}		desc. node	962 Feb 18 j 19:14	8° \approx 01'40	
max. Earth dist.	961 Apr 20 j 08:10	2° \mathbb{B} 53'46	1.32551 AU	morning max el	962 Feb 22 j 13:45	11° \approx 26'55	27°35'28
					962 Mar 09 j 07:00	0° \mathbb{H}	
superior conj	961 Apr 21 j 23:25	6° \mathbb{B} 26'36	0°00'45		962 Mar 26 j 23:14	0° \mathbb{Y}	
minimum elong	961 Apr 21 j 23:23	6° \mathbb{B} 26'26	0°00'44	morning set	962 Mar 29 j 08:51	4° \mathbb{Y} 41'00	
behind sun begin	961 Apr 21 j 18:16	5° \mathbb{B} 58'34		max. Earth dist.	962 Apr 03 j 11:41	15° \mathbb{Y} 07'49	1.33236 AU
behind sun end	961 Apr 22 j 04:31	6° \mathbb{B} 54'19					
asc. node	961 Apr 21 j 21:44	6° \mathbb{B} 17'23		superior conj	962 Apr 06 j 06:13	21° \mathbb{Y} 00'09	0°-26'-21
evening rise	961 Apr 28 j 22:53	21° \mathbb{B} 33'22		minimum elong	962 Apr 06 j 07:30	21° \mathbb{Y} 07'03	0°26'05
	961 May 03 j 01:22	0° \mathbb{II}		asc. node	962 Apr 08 j 18:48	26° \mathbb{Y} 25'24	
	961 May 22 j 12:01	0° \mathbb{S}			962 Apr 10 j 10:42	0° \mathbb{B}	
evening max el	961 May 24 j 00:54	1° \mathbb{S} 32'48	24°24'35	evening rise	962 Apr 13 j 10:31	6° \mathbb{B} 22'41	
desc. node	961 May 30 j 21:26	6° \mathbb{S} 41'05			962 Apr 26 j 02:29	0° \mathbb{II}	
retrograde	961 Jun 06 j 22:13	8° \mathbb{S} 33'22		evening max el	962 May 05 j 15:32	12° \mathbb{II} 04'32	22°49'02
evening set	961 Jun 11 j 16:50	7° \mathbb{S} 42'24		desc. node	962 May 17 j 18:27	18° \mathbb{II} 37'09	
min. Earth dist.	961 Jun 17 j 12:02	4° \mathbb{S} 47'13	0.56779 AU	retrograde	962 May 18 j 22:02	18° \mathbb{II} 40'09	
inferior conj	961 Jun 20 j 05:07	3° \mathbb{S} 03'57	-4°-36'-7	evening set	962 May 22 j 05:56	18° \mathbb{II} 15'50	
minimum elong	961 Jun 20 j 00:43	3° \mathbb{S} 10'59	4°35'37	min. Earth dist.	962 May 30 j 00:06	14° \mathbb{II} 50'34	0.55443 AU
	961 Jun 25 j 14:57	30° \mathbb{R} \mathbb{II}		inferior conj	962 May 31 j 10:50	14° \mathbb{II} 00'41	-3°-35'-45
morning rise	961 Jun 28 j 12:17	29° \mathbb{II} 00'24		minimum elong	962 May 31 j 03:17	14° \mathbb{II} 11'34	3°33'50
direct	961 Jul 01 j 03:29	28° \mathbb{II} 41'35		morning rise	962 Jun 09 j 03:27	10° \mathbb{II} 08'12	
	961 Jul 06 j 07:53	0° \mathbb{S}		direct	962 Jun 11 j 23:36	9° \mathbb{II} 49'23	
morning max el	961 Jul 10 j 14:28	3° \mathbb{S} 05'14	19°31'53	morning max el	962 Jun 23 j 01:28	14° \mathbb{II} 57'31	20°46'36
asc. node	961 Jul 18 j 20:57	13° \mathbb{S} 50'51			962 Jul 04 j 04:54	0° \mathbb{S}	
morning set	961 Jul 27 j 23:25	0° \mathbb{Q} 47'32		asc. node	962 Jul 05 j 18:01	2° \mathbb{S} 45'01	
	961 Jul 27 j 13:54	0° \mathbb{Q}		morning set	962 Jul 12 j 06:05	15° \mathbb{S} 28'20	
					962 Jul 19 j 06:27	0° \mathbb{Q}	
superior conj	961 Aug 05 j 01:00	16° \mathbb{Q} 57'11	1°46'23	superior conj	962 Jul 19 j 19:33	1° \mathbb{Q} 07'10	1°43'51
minimum elong	961 Aug 05 j 01:20	16° \mathbb{Q} 58'46	1°46'23	minimum elong	962 Jul 19 j 18:21	1° \mathbb{Q} 01'04	1°43'49
max. Earth dist.	961 Aug 11 j 02:54	28° \mathbb{Q} 34'50	1.37676 AU	max. Earth dist.	962 Jul 24 j 10:55	10° \mathbb{Q} 25'40	1.35854 AU
	961 Aug 11 j 21:22	0° \mathbb{H}		evening rise	962 Jul 28 j 14:26	18° \mathbb{Q} 21'43	
evening rise	961 Aug 14 j 22:42	5° \mathbb{H} 31'21			962 Aug 04 j 02:25	0° \mathbb{H}	
desc. node	961 Aug 26 j 20:44	25° \mathbb{H} 19'33		desc. node	962 Aug 13 j 17:46	15° \mathbb{H} 32'08	
	961 Aug 29 j 22:16	0° \mathbb{A}			962 Aug 24 j 02:42	0° \mathbb{A}	
evening max el	961 Sep 19 j 16:44	26° \mathbb{A} 39'34	25°14'26	evening max el	962 Sep 02 j 04:31	10° \mathbb{A} 17'23	26°19'20
	961 Sep 23 j 11:19	0° \mathbb{M}		retrograde	962 Sep 14 j 21:46	17° \mathbb{A} 28'13	
retrograde	961 Oct 01 j 14:54	3° \mathbb{M} 32'45		evening set	962 Sep 21 j 07:02	14° \mathbb{A} 49'57	
evening set	961 Oct 07 j 10:02	1° \mathbb{M} 07'21		min. Earth dist.	962 Sep 25 j 11:14	10° \mathbb{A} 25'33	0.66359 AU
	961 Oct 08 j 14:50	30° \mathbb{R} \mathbb{A}		inferior conj	962 Sep 26 j 23:44	8° \mathbb{A} 33'38	-1°-36'00
min. Earth dist.	961 Oct 11 j 22:00	26° \mathbb{A} 06'09	0.67155 AU	minimum elong	962 Sep 27 j 02:14	8° \mathbb{A} 25'58	1°35'00
inferior conj	961 Oct 12 j 23:00	24° \mathbb{A} 44'44	0°-38'-55	asc. node	962 Oct 01 j 17:13	3° \mathbb{A} 32'34	
minimum elong	961 Oct 12 j 23:59	24° \mathbb{A} 41'31	0°38'31	morning rise	962 Oct 02 j 22:32	2° \mathbb{A} 43'18	
asc. node	961 Oct 14 j 20:11	22° \mathbb{A} 21'31		direct	962 Oct 05 j 22:28	1° \mathbb{A} 52'13	
morning rise	961 Oct 18 j 14:32	18° \mathbb{A} 44'02		morning max el	962 Oct 12 j 17:02	5° \mathbb{A} 37'34	18°44'48
direct	961 Oct 22 j 00:19	17° \mathbb{A} 36'59			962 Oct 29 j 18:14	0° \mathbb{M}	
morning max el	961 Oct 29 j 07:26	21° \mathbb{A} 45'20	19°35'24	morning set	962 Nov 02 j 18:28	6° \mathbb{M} 21'18	
	961 Nov 05 j 00:55	0° \mathbb{M}		desc. node	962 Nov 09 j 17:03	17° \mathbb{M} 19'32	
greatest brilliancy	961 Nov 06 j 17:43	2° \mathbb{M} 23'04	-0.6m		962 Nov 17 j 18:31	0° \mathbb{J}	
desc. node	961 Nov 22 j 20:01	26° \mathbb{M} 41'49		max. Earth dist.	962 Nov 18 j 12:54	1° \mathbb{J} 12'13	1.45041 AU
morning set	961 Nov 23 j 01:38	27° \mathbb{M} 03'34					
	961 Nov 24 j 23:10	0° \mathbb{J}		superior conj	962 Nov 19 j 00:52	1° \mathbb{J} 59'12	0°-59'-11
max. Earth dist.	961 Dec 05 j 19:30	16° \mathbb{J} 59'41	1.44405 AU	minimum elong	962 Nov 18 j 17:34	1° \mathbb{J} 30'34	0°58'19
superior conj	961 Dec 09 j 20:52	23° \mathbb{J} 28'01	-1°-38'-15	evening rise	962 Dec 04 j 17:42	26° \mathbb{J} 53'48	
minimum elong	961 Dec 09 j 12:49	22° \mathbb{J} 55'44	1°37'33		962 Dec 06 j 16:04	0° \mathbb{S}	
	961 Dec 13 j 21:51	0° \mathbb{S}		evening max el	962 Dec 26 j 01:31	28° \mathbb{S} 34'35	18°51'07
evening rise	961 Dec 23 j 20:16	16° \mathbb{S} 27'44			962 Dec 27 j 13:48	0° \approx	
	961 Dec 31 j 22:12	0° \approx		asc. node	962 Dec 28 j 16:33	0° \approx 52'06	
asc. node	962 Jan 10 j 19:31	14° \approx 18'37		retrograde	963 Jan 01 j 20:12	2° \approx 23'48	

evening set	963 Jan 04 j 23:57	1°≈26'35		greatest brilliancy	963 Dec 01 j 09:08	1°☾52'10	-0.7m
	963 Jan 06 j 21:27	30°☾		evening max el	963 Dec 09 j 08:42	12°☾03'08	19°38'30
inferior conj	963 Jan 10 j 18:00	25°☾41'48	3°27'19	asc. node	963 Dec 15 j 13:35	16°☾11'48	
minimum elong	963 Jan 10 j 15:47	25°☾48'40	3°26'56	retrograde	963 Dec 16 j 17:12	16°☾19'11	
min. Earth dist.	963 Jan 12 j 10:47	23°☾35'59	0.65386 AU	evening set	963 Dec 20 j 04:15	15°☾09'05	
morning rise	963 Jan 16 j 06:33	19°☾30'40		inferior conj	963 Dec 25 j 17:39	9°☾09'33	2°58'42
direct	963 Jan 22 j 20:49	16°☾40'10		minimum elong	963 Dec 25 j 14:57	9°☾18'24	2°58'01
morning max el	963 Feb 04 j 23:38	24°☾21'39	26°50'20	min. Earth dist.	963 Dec 26 j 20:09	7°☾42'31	0.66529 AU
desc. node	963 Feb 05 j 16:16	25°☾04'05		morning rise	963 Dec 31 j 00:55	2°☾55'18	
	963 Feb 10 j 02:05	0°≈		direct	964 Jan 06 j 02:58	0°☾13'52	
	963 Mar 02 j 16:30	0°☾		morning max el	964 Jan 18 j 08:46	7°☾30'34	25°40'56
morning set	963 Mar 12 j 18:54	18°☾08'36		desc. node	964 Jan 23 j 13:19	13°☾16'19	
max. Earth dist.	963 Mar 17 j 04:53	26°☾47'52	1.34367 AU		964 Feb 04 j 22:20	0°≈	
	963 Mar 18 j 18:52	0°☾			964 Feb 23 j 03:36	0°☾	
				morning set	964 Feb 23 j 14:08	0°☾47'58	
superior conj	963 Mar 21 j 07:35	5°☾12'43	0°-53'-42	max. Earth dist.	964 Feb 27 j 10:10	7°☾57'24	1.35954 AU
minimum elong	963 Mar 21 j 10:13	5°☾26'26	0°53'13				
asc. node	963 Mar 26 j 15:52	16°☾26'30		superior conj	964 Mar 04 j 00:56	18°☾56'55	-1°-19'-45
evening rise	963 Mar 28 j 20:20	21°☾01'07		minimum elong	964 Mar 04 j 04:39	19°☾15'36	1°19'11
	963 Apr 02 j 07:01	0°☾			964 Mar 09 j 11:14	0°☾	
evening max el	963 Apr 17 j 12:43	22°☾49'51	21°18'09	evening rise	964 Mar 12 j 02:17	5°☾22'23	
retrograde	963 Apr 29 j 12:34	28°☾40'30		asc. node	964 Mar 12 j 12:56	6°☾16'25	
evening set	963 May 01 j 20:48	28°☾27'52			964 Mar 26 j 04:24	0°☾	
desc. node	963 May 04 j 15:29	27°☾42'42		evening max el	964 Mar 29 j 21:01	4°☾10'08	20°01'42
inferior conj	963 May 11 j 05:31	24°☾28'26	-1°-52'-46	retrograde	964 Apr 09 j 03:36	9°☾06'53	
minimum elong	963 May 11 j 00:17	24°☾35'48	1°50'59	evening set	964 Apr 11 j 05:09	8°☾55'47	
min. Earth dist.	963 May 11 j 12:45	24°☾18'15	0.54942 AU	inferior conj	964 Apr 20 j 03:10	4°☾56'21	0°06'44
morning rise	963 May 20 j 03:53	20°☾28'51		minimum elong	964 Apr 20 j 03:28	4°☾55'54	0°06'37
direct	963 May 23 j 09:43	20°☾06'01		transit middle	964 Apr 20 j 03:28	4°☾55'54	0°06'37
morning max el	963 Jun 05 j 01:38	26°☾06'55	22°18'41	transit begin	964 Apr 19 j 23:50	5°☾01'23	
	963 Jun 08 j 17:59	0°☾		transit end	964 Apr 20 j 07:06	4°☾50'25	
asc. node	963 Jun 22 j 15:05	22°☾07'11		desc. node	964 Apr 20 j 12:31	4°☾42'13	
morning set	963 Jun 26 j 16:13	0°☾20'04		min. Earth dist.	964 Apr 22 j 02:37	3°☾44'54	0.55414 AU
	963 Jun 26 j 12:22	0°☾		morning rise	964 Apr 28 j 22:55	0°☾31'31	
					964 May 01 j 14:19	30°☾☾	
superior conj	963 Jul 03 j 22:01	15°☾41'04	1°34'49	direct	964 May 03 j 00:01	29°☾55'35	
minimum elong	963 Jul 03 j 19:54	15°☾29'56	1°34'38		964 May 04 j 09:35	0°☾	
max. Earth dist.	963 Jul 07 j 03:22	22°☾24'44	1.34375 AU	morning max el	964 May 16 j 18:07	6°☾43'58	23°59'50
	963 Jul 10 j 21:39	0°☾			964 Jun 02 j 10:08	0°☾	
evening rise	963 Jul 11 j 21:45	1°☾58'05		asc. node	964 Jun 08 j 12:10	11°☾49'53	
	963 Jul 28 j 00:39	0°☾		morning set	964 Jun 10 j 03:58	15°☾17'05	
desc. node	963 Jul 31 j 14:48	5°☾20'48					
evening max el	963 Aug 15 j 16:30	23°☾47'41	27°05'19	superior conj	964 Jun 17 j 05:39	0°☾30'04	1°20'35
	963 Aug 24 j 05:38	0°☾		minimum elong	964 Jun 17 j 03:12	0°☾16'51	1°20'15
retrograde	963 Aug 28 j 23:21	1°☾06'10			964 Jun 17 j 00:05	0°☾	
	963 Sep 02 j 08:55	30°☾☾		max. Earth dist.	964 Jun 19 j 05:09	4°☾45'22	1.33292 AU
evening set	963 Sep 04 j 20:20	28°☾22'15		evening rise	964 Jun 24 j 16:24	16°☾08'04	
min. Earth dist.	963 Sep 08 j 17:28	24°☾34'51	0.65204 AU		964 Jul 01 j 22:25	0°☾	
inferior conj	963 Sep 10 j 18:23	22°☾16'23	-2°-32'-49	desc. node	964 Jul 17 j 11:49	24°☾35'19	
minimum elong	963 Sep 10 j 22:19	22°☾05'15	2°31'24		964 Jul 21 j 17:10	0°☾	
morning rise	963 Sep 17 j 01:56	16°☾39'31		evening max el	964 Jul 28 j 03:35	6°☾59'30	27°25'21
asc. node	963 Sep 18 j 14:17	16°☾08'00		retrograde	964 Aug 10 j 18:54	14°☾18'05	
direct	963 Sep 19 j 18:28	16°☾00'31		evening set	964 Aug 17 j 22:55	11°☾38'56	
morning max el	963 Sep 26 j 07:12	19°☾32'02	18°10'39	min. Earth dist.	964 Aug 21 j 14:37	8°☾25'41	0.63694 AU
	963 Oct 04 j 04:07	0°☾		inferior conj	964 Aug 24 j 04:22	5°☾47'37	-3°-26'-32
morning set	963 Oct 14 j 16:11	17°☾04'57		minimum elong	964 Aug 24 j 09:17	5°☾35'00	3°25'06
	963 Oct 22 j 13:38	0°☾		morning rise	964 Aug 30 j 21:51	0°☾27'26	
desc. node	963 Oct 27 j 14:06	8°☾03'32			964 Sep 01 j 14:54	30°☾☾	
				direct	964 Sep 02 j 09:37	29°☾56'58	
superior conj	963 Oct 29 j 04:20	10°☾35'34	0°-10'-34		964 Sep 03 j 04:19	0°☾	
minimum elong	963 Oct 29 j 02:59	10°☾30'12	0°10'24	asc. node	964 Sep 04 j 11:22	0°☾18'23	
behind sun begin	963 Oct 28 j 18:30	9°☾56'33		morning max el	964 Sep 08 j 23:09	3°☾22'47	17°53'54
behind sun end	963 Oct 29 j 11:27	11°☾03'49		morning set	964 Sep 25 j 16:07	29°☾04'37	
max. Earth dist.	963 Nov 01 j 07:31	15°☾32'44	1.44939 AU		964 Sep 26 j 04:55	0°☾	
	963 Nov 10 j 13:14	0°☾					
evening rise	963 Nov 14 j 16:27	6°☾25'44		superior conj	964 Oct 08 j 03:06	20°☾10'58	0°35'18
	963 Nov 30 j 02:12	0°☾		minimum elong	964 Oct 08 j 06:42	20°☾25'46	0°34'49

desc. node	964 Oct 13 j 11:07	28°♄50'23		minimum elong	965 Sep 19 j 09:57	1°♄28'14	1°09'53
max. Earth dist.	964 Oct 14 j 00:50	29°♄45'18	1.44129 AU	max. Earth dist.	965 Sep 26 j 14:21	13°♄33'22	1.42707 AU
	964 Oct 14 j 04:31	0°♄		desc. node	965 Sep 30 j 08:08	19°♄37'19	
evening rise	964 Oct 24 j 01:09	15°♄26'59		evening rise	965 Oct 03 j 12:33	24°♄40'27	
	964 Nov 02 j 15:02	0°♄			965 Oct 06 j 22:40	0°♄	
greatest brilliancy	964 Nov 15 j 14:59	18°♄36'23	-0.5m		965 Oct 27 j 16:11	0°♄	
evening max el	964 Nov 21 j 10:42	25°♄32'25	20°40'14	greatest brilliancy	965 Oct 30 j 12:22	3°♄37'08	-0.4m
	964 Nov 27 j 13:19	0°♄		evening max el	965 Nov 04 j 07:00	9°♄02'43	21°52'52
retrograde	964 Nov 29 j 14:54	0°♄22'14		retrograde	965 Nov 13 j 11:31	14°♄30'39	
asc. node	964 Dec 01 j 10:38	0°♄03'30		evening set	965 Nov 17 j 19:00	12°♄49'14	
	964 Dec 01 j 14:30	30°♄		asc. node	965 Nov 18 j 07:40	12°♄22'35	
evening set	964 Dec 03 j 11:12	28°♄57'20		inferior conj	965 Nov 23 j 04:30	6°♄29'31	1°36'46
inferior conj	964 Dec 08 j 21:50	22°♄46'03	2°21'09	minimum elong	965 Nov 23 j 02:28	6°♄36'32	1°36'00
minimum elong	964 Dec 08 j 19:14	22°♄54'53	2°20'19	min. Earth dist.	965 Nov 23 j 06:45	6°♄21'43	0.67683 AU
min. Earth dist.	964 Dec 09 j 11:33	21°♄59'17	0.67287 AU	morning rise	965 Nov 28 j 09:43	0°♄15'15	
morning rise	964 Dec 14 j 02:49	16°♄30'47			965 Nov 28 j 17:07	30°♄	
direct	964 Dec 19 j 14:12	14°♄07'04		direct	965 Dec 03 j 05:46	28°♄13'39	
morning max el	964 Dec 30 j 17:01	20°♄44'59	24°17'05		965 Dec 08 j 07:00	0°♄	
	965 Jan 07 j 16:08	0°♄		morning max el	965 Dec 13 j 02:53	4°♄04'57	22°48'50
desc. node	965 Jan 09 j 10:21	2°♄17'24		greatest brilliancy	965 Dec 17 j 18:36	9°♄16'53	-0.3m
	965 Jan 28 j 03:52	0°♄		desc. node	965 Dec 27 j 07:23	21°♄53'44	
morning set	965 Feb 04 j 12:37	12°♄21'45			966 Jan 01 j 21:43	0°♄	
max. Earth dist.	965 Feb 08 j 06:44	19°♄00'27	1.37921 AU	morning set	966 Jan 16 j 08:17	22°♄35'06	
	965 Feb 14 j 05:07	0°♄			966 Jan 20 j 18:17	0°♄	
				max. Earth dist.	966 Jan 21 j 02:23	0°♄34'39	1.40061 AU
superior conj	965 Feb 15 j 06:45	2°♄02'29	-1°-42'-18	superior conj	966 Jan 28 j 20:41	14°♄18'19	-1°-58'-14
minimum elong	965 Feb 15 j 10:48	2°♄21'54	1°41'54	minimum elong	966 Jan 28 j 23:32	14°♄31'18	1°58'07
evening rise	965 Feb 24 j 01:51	19°♄18'41			966 Feb 06 j 05:55	0°♄	
asc. node	965 Feb 27 j 09:58	25°♄49'26		evening rise	966 Feb 07 j 16:08	2°♄42'51	
	965 Mar 01 j 15:16	0°♄		asc. node	966 Feb 14 j 07:00	14°♄59'36	
evening max el	965 Mar 12 j 16:24	16°♄08'45	19°04'07	evening max el	966 Feb 23 j 20:27	28°♄40'09	18°26'35
retrograde	965 Mar 21 j 08:02	20°♄19'35			966 Feb 25 j 08:47	0°♄	
evening set	965 Mar 23 j 12:34	20°♄04'39		retrograde	966 Mar 03 j 07:34	2°♄20'48	
inferior conj	965 Mar 31 j 16:22	15°♄51'03	1°49'46	evening set	966 Mar 05 j 17:10	1°♄59'05	
minimum elong	965 Mar 31 j 20:12	15°♄44'26	1°48'36		966 Mar 09 j 16:45	30°♄	
min. Earth dist.	965 Apr 03 j 18:02	13°♄44'26	0.56745 AU	inferior conj	966 Mar 13 j 02:36	27°♄25'12	2°59'33
desc. node	965 Apr 07 j 09:34	11°♄35'24		minimum elong	966 Mar 13 j 06:26	27°♄17'25	2°58'45
morning rise	965 Apr 08 j 23:41	10°♄52'56		min. Earth dist.	966 Mar 16 j 13:03	24°♄39'28	0.58641 AU
direct	965 Apr 14 j 02:30	9°♄51'26		morning rise	966 Mar 20 j 15:45	21°♄57'22	
morning max el	965 Apr 28 j 08:38	17°♄12'25	25°36'43	desc. node	966 Mar 25 j 06:35	20°♄26'10	
	965 May 08 j 20:38	0°♄		direct	966 Mar 26 j 18:16	20°♄20'24	
morning set	965 May 25 j 15:42	0°♄13'58		morning max el	966 Apr 10 j 02:58	28°♄00'55	26°53'51
	965 May 25 j 13:03	0°♄			966 Apr 12 j 01:31	0°♄	
asc. node	965 May 26 j 09:14	1°♄46'44			966 May 02 j 10:20	0°♄	
superior conj	965 Jun 01 j 16:15	15°♄26'48	1°02'09	morning set	966 May 10 j 01:45	15°♄04'49	
minimum elong	965 Jun 01 j 13:58	15°♄14'20	1°01'44	asc. node	966 May 13 j 06:16	21°♄52'24	
max. Earth dist.	965 Jun 02 j 14:01	17°♄25'51	1.32598 AU		966 May 16 j 23:27	0°♄	
	965 Jun 08 j 11:02	0°♄		superior conj	966 May 17 j 03:59	0°♄24'53	0°40'18
evening rise	965 Jun 08 j 18:56	0°♄41'00		minimum elong	966 May 17 j 02:18	0°♄15'41	0°39'57
	965 Jun 24 j 23:06	0°♄		max. Earth dist.	966 May 17 j 02:20	0°♄15'48	1.32280 AU
desc. node	965 Jul 04 j 08:51	13°♄01'34		evening rise	966 May 24 j 02:40	15°♄27'43	
evening max el	965 Jul 10 j 11:14	19°♄39'11	27°14'05		966 May 31 j 10:19	0°♄	
retrograde	965 Jul 24 j 07:34	26°♄55'00			966 Jun 20 j 22:31	0°♄	
evening set	965 Jul 31 j 10:57	24°♄33'27		desc. node	966 Jun 21 j 05:53	0°♄18'50	
min. Earth dist.	965 Aug 04 j 01:21	21°♄46'11	0.61863 AU	evening max el	966 Jun 22 j 12:41	1°♄34'39	26°29'37
inferior conj	965 Aug 07 j 02:39	18°♄59'54	-4°-12'-42	retrograde	966 Jul 06 j 12:20	8°♄47'56	
minimum elong	965 Aug 07 j 07:29	18°♄48'53	4°11'43	evening set	966 Jul 13 j 03:44	6°♄56'54	
morning rise	965 Aug 14 j 06:46	13°♄59'58		min. Earth dist.	966 Jul 17 j 01:50	4°♄20'52	0.59826 AU
direct	965 Aug 16 j 16:33	13°♄35'05		inferior conj	966 Jul 20 j 09:37	1°♄43'06	-4°-44'-7
asc. node	965 Aug 22 j 08:25	15°♄56'40		minimum elong	966 Jul 20 j 12:28	1°♄37'26	4°43'53
morning max el	965 Aug 23 j 14:00	17°♄03'15	17°55'32		966 Jul 22 j 15:11	30°♄	
	965 Sep 01 j 18:05	0°♄		morning rise	966 Jul 28 j 00:32	27°♄06'05	
morning set	965 Sep 08 j 12:10	12°♄02'22		direct	966 Jul 30 j 10:51	26°♄44'41	
	965 Sep 18 j 13:33	0°♄			966 Aug 06 j 14:01	0°♄	
superior conj	965 Sep 19 j 05:12	1°♄07'41	1°10'26	morning max el	966 Aug 07 j 00:41	0°♄24'49	18°16'39

asc. node	966 Aug 09 j 05:27	2°♌47'36		morning max el	967 Jul 21 j 04:08	13°♊18'50	18°58'18
morning set	966 Aug 22 j 22:37	25°♌41'16		asc. node	967 Jul 27 j 02:30	20°♊36'35	
	966 Aug 25 j 05:07	0°♍			967 Aug 01 j 16:10	0°♌	
				morning set	967 Aug 06 j 19:17	9°♌50'23	
superior conj	966 Sep 01 j 08:10	13°♍17'51	1°33'01				
minimum elong	966 Sep 01 j 11:37	13°♍33'34	1°32'43	superior conj	967 Aug 15 j 06:29	26°♌25'48	1°44'15
max. Earth dist.	966 Sep 08 j 22:06	26°♍40'14	1.40854 AU	minimum elong	967 Aug 15 j 07:54	26°♌32'37	1°44'12
	966 Sep 10 j 21:19	0°♎			967 Aug 17 j 03:33	0°♍	
evening rise	966 Sep 13 j 17:51	4°♎43'58		max. Earth dist.	967 Aug 22 j 01:30	9°♍02'34	1.38824 AU
desc. node	966 Sep 17 j 05:11	10°♎20'18		evening rise	967 Aug 25 j 23:32	15°♍56'00	
	966 Sep 30 j 04:52	0°♏			967 Sep 03 j 12:09	0°♎	
greatest brilliancy	966 Oct 11 j 14:40	15°♏24'14	-0.2m	desc. node	967 Sep 04 j 02:12	0°♎55'20	
evening max el	966 Oct 17 j 22:18	22°♏34'26	23°11'56		967 Sep 24 j 20:15	0°♏	
retrograde	966 Oct 28 j 05:33	28°♏40'47		evening max el	967 Sep 30 j 10:42	6°♏09'35	24°31'24
evening set	966 Nov 02 j 01:59	26°♏41'49		retrograde	967 Oct 11 j 19:56	12°♏48'53	
asc. node	966 Nov 05 j 04:40	23°♏22'10		evening set	967 Oct 17 j 06:31	10°♏32'41	
inferior conj	966 Nov 07 j 11:46	20°♏17'31	0°47'02	min. Earth dist.	967 Oct 21 j 23:08	5°♏10'53	0.67459 AU
minimum elong	966 Nov 07 j 10:41	20°♏21'14	0°46'34	inferior conj	967 Oct 22 j 17:56	4°♏08'01	0°-6'-41
min. Earth dist.	966 Nov 07 j 03:23	20°♏46'19	0.67735 AU	minimum elong	967 Oct 22 j 18:06	4°♏07'28	0°06'39
morning rise	966 Nov 12 j 19:27	14°♏06'22		transit middle	967 Oct 22 j 18:06	4°♏07'28	0°06'39
direct	966 Nov 17 j 00:49	12°♏27'37		transit begin	967 Oct 22 j 15:36	4°♏15'51	
morning max el	966 Nov 25 j 17:49	17°♏33'09	21°24'53	transit end	967 Oct 22 j 20:36	3°♏59'06	
greatest brilliancy	966 Nov 30 j 20:43	23°♏24'27	-0.4m	asc. node	967 Oct 23 j 01:42	3°♏42'05	
	966 Dec 05 j 20:39	0°♐			967 Oct 26 j 01:46	30°♏	
desc. node	966 Dec 14 j 04:25	11°♐55'14		morning rise	967 Oct 28 j 06:03	28°♐02'31	
	966 Dec 26 j 00:58	0°♑		direct	967 Oct 31 j 22:22	26°♐44'48	
morning set	966 Dec 26 j 23:09	1°♑27'24			967 Nov 07 j 10:10	0°♒	
max. Earth dist.	967 Jan 03 j 03:25	13°♑01'28	1.42085 AU	morning max el	967 Nov 08 j 16:05	1°♒11'34	20°11'20
				greatest brilliancy	967 Nov 15 j 12:04	9°♒26'33	-0.6m
superior conj	967 Jan 10 j 13:29	25°♑32'03	-2°-3'-21		967 Nov 29 j 14:03	0°♓	
minimum elong	967 Jan 10 j 12:51	25°♑29'22	2°03'21	desc. node	967 Dec 01 j 01:27	2°♓14'47	
	967 Jan 13 j 03:00	0°♒		morning set	967 Dec 05 j 20:07	9°♓35'13	
evening rise	967 Jan 21 j 17:32	15°♒26'50		max. Earth dist.	967 Dec 16 j 11:51	26°♓20'11	1.43722 AU
	967 Jan 29 j 21:53	0°♔			967 Dec 18 j 18:29	0°♑	
asc. node	967 Feb 01 j 04:00	3°♔39'42		superior conj	967 Dec 22 j 04:30	5°♑34'04	-1°-52'-48
evening max el	967 Feb 07 j 06:09	11°♔36'25	18°09'03	minimum elong	967 Dec 21 j 22:44	5°♑10'24	1°52'28
retrograde	967 Feb 14 j 00:19	15°♔02'42		evening rise	968 Jan 04 j 01:47	27°♑21'59	
evening set	967 Feb 16 j 14:46	14°♔32'29			968 Jan 05 j 14:15	0°♒	
inferior conj	967 Feb 23 j 08:53	9°♔37'22	3°36'22	asc. node	968 Jan 19 j 01:01	21°♒40'12	
minimum elong	967 Feb 23 j 10:51	9°♔32'43	3°36'10	evening max el	968 Jan 21 j 18:29	24°♒49'09	18°10'54
min. Earth dist.	967 Feb 26 j 14:31	6°♔36'16	0.60757 AU	retrograde	968 Jan 28 j 06:01	28°♒14'55	
morning rise	967 Mar 02 j 03:53	3°♔49'06		evening set	968 Jan 31 j 01:09	27°♒35'04	
direct	967 Mar 08 j 21:51	1°♔36'10		inferior conj	968 Feb 06 j 07:30	22°♒19'18	3°47'05
desc. node	967 Mar 12 j 03:36	2°♔04'48		minimum elong	968 Feb 06 j 07:24	22°♒19'35	3°47'04
morning max el	967 Mar 23 j 03:36	9°♔27'34	27°39'02	min. Earth dist.	968 Feb 09 j 00:33	19°♒26'56	0.62799 AU
	967 Apr 07 j 23:43	0°♕		morning rise	968 Feb 12 j 11:35	16°♒18'47	
morning set	967 Apr 24 j 08:20	29°♕43'28		direct	968 Feb 19 j 10:52	13°♒39'38	
	967 Apr 24 j 11:32	0°♖		desc. node	968 Feb 27 j 00:39	16°♒16'30	
asc. node	967 Apr 30 j 03:18	12°♖02'35		morning max el	968 Mar 04 j 09:35	21°♒34'06	27°47'06
max. Earth dist.	967 Apr 30 j 14:14	13°♖02'14	1.32333 AU		968 Mar 11 j 18:28	0°♗	
superior conj	967 May 01 j 15:11	15°♖18'39	0°15'47		968 Mar 31 j 01:42	0°♕	
minimum elong	967 May 01 j 14:28	15°♖14'44	0°15'38	morning set	968 Apr 07 j 09:13	14°♕01'19	
behind sun begin	967 May 01 j 13:40	15°♖10'19		max. Earth dist.	968 Apr 12 j 21:41	25°♕30'02	1.32782 AU
behind sun end	967 May 01 j 15:17	15°♖19'08			968 Apr 14 j 23:55	0°♘	
	967 May 08 j 09:26	0°♗		superior conj	968 Apr 15 j 00:07	0°♘01'03	0°-10'-39
evening rise	967 May 08 j 13:24	0°♗21'01		minimum elong	968 Apr 15 j 00:37	0°♘03'49	0°10'32
	967 May 24 j 20:56	0°♘		behind sun begin	968 Apr 14 j 20:41	29°♕42'34	
evening max el	967 Jun 04 j 07:06	12°♘44'45	25°16'07	behind sun end	968 Apr 15 j 04:33	0°♘25'04	
desc. node	967 Jun 08 j 02:53	15°♘59'19		asc. node	968 Apr 16 j 00:20	2°♘12'12	
retrograde	967 Jun 18 j 07:34	19°♘53'16		evening rise	968 Apr 22 j 01:12	15°♘13'06	
evening set	967 Jun 23 j 21:31	18°♘40'57			968 Apr 29 j 11:03	0°♗	
min. Earth dist.	967 Jun 28 j 18:54	15°♘57'16	0.57806 AU	evening max el	968 May 15 j 21:23	23°♗22'35	23°44'21
inferior conj	967 Jul 01 j 21:57	13°♘48'28	-4°-49'-52	desc. node	968 May 24 j 23:54	29°♗26'44	
minimum elong	967 Jul 01 j 20:31	13°♘50'57	4°49'50		968 May 27 j 00:44	0°♘	
morning rise	967 Jul 09 j 23:20	9°♘34'05		retrograde	968 May 29 j 14:40	0°♘15'09	
direct	967 Jul 12 j 12:08	9°♘14'47					

	968 Jun 01 j 05:11	30°♊		desc. node	969 May 11 j 20:56	10°♊09'09	
evening set	968 Jun 02 j 17:44	29°♊37'38		evening set	969 May 13 j 05:02	9°♊56'27	
min. Earth dist.	968 Jun 09 j 08:06	26°♊30'54	0.56121 AU	min. Earth dist.	969 May 21 j 20:09	6°♊14'34	0.55119 AU
inferior conj	968 Jun 11 j 14:04	25°♊09'15	-4°-16'-28	inferior conj	969 May 22 j 13:35	5°♊50'05	-2°-56'-12
minimum elong	968 Jun 11 j 07:49	25°♊18'46	4°15'22	minimum elong	969 May 22 j 06:18	6°♊00'19	2°54'02
morning rise	968 Jun 20 j 01:24	21°♊11'47		morning rise	969 May 31 j 09:19	1°♊56'52	
direct	968 Jun 22 j 18:15	20°♊53'17		direct	969 Jun 03 j 08:58	1°♊36'53	
morning max el	968 Jul 02 j 21:32	25°♊34'58	20°01'11	morning max el	969 Jun 15 j 03:32	7°♊07'14	21°24'01
	968 Jul 06 j 21:38	0°♊		asc. node	969 Jun 29 j 20:38	28°♊16'33	
asc. node	968 Jul 12 j 23:34	9°♊09'49			969 Jun 30 j 18:21	0°♊	
morning set	968 Jul 20 j 23:01	24°♊21'11		morning set	969 Jul 05 j 07:22	9°♊06'51	
	968 Jul 23 j 17:29	0°♊					
				superior conj	969 Jul 12 j 17:05	24°♊36'43	1°40'44
superior conj	968 Jul 28 j 18:50	10°♊16'12	1°46'11	minimum elong	969 Jul 12 j 15:25	24°♊28'08	1°40'37
minimum elong	968 Jul 28 j 18:27	10°♊14'15	1°46'12		969 Jul 15 j 07:58	0°♊	
max. Earth dist.	968 Aug 03 j 06:02	20°♊56'58	1.36868 AU	max. Earth dist.	969 Jul 16 j 17:33	2°♊49'31	1.35180 AU
evening rise	968 Aug 07 j 04:06	28°♊13'38		evening rise	969 Jul 21 j 03:00	11°♊24'42	
	968 Aug 08 j 03:41	0°♊			969 Jul 31 j 14:24	0°♊	
desc. node	968 Aug 20 j 23:13	21°♊17'41		desc. node	969 Aug 07 j 20:15	11°♊20'55	
	968 Aug 26 j 20:20	0°♊			969 Aug 22 j 03:19	0°♊	
evening max el	968 Sep 11 j 22:31	19°♊48'18	25°43'57	evening max el	969 Aug 25 j 10:41	3°♊24'44	26°41'45
retrograde	968 Sep 24 j 05:43	26°♊50'25		retrograde	969 Sep 07 j 10:13	10°♊39'04	
evening set	968 Sep 30 j 06:51	24°♊19'12		evening set	969 Sep 14 j 00:53	7°♊57'36	
min. Earth dist.	968 Oct 04 j 15:32	19°♊33'12	0.66856 AU	min. Earth dist.	969 Sep 18 j 02:05	3°♊48'58	0.65913 AU
inferior conj	968 Oct 05 j 21:14	17°♊58'38	-1°-3'-1	inferior conj	969 Sep 19 j 19:41	1°♊45'27	-2°00'-17
minimum elong	968 Oct 05 j 22:51	17°♊53'28	1°02'21	minimum elong	969 Sep 19 j 22:49	1°♊36'08	1°59'04
asc. node	968 Oct 08 j 22:46	14°♊19'18			969 Sep 21 j 07:53	30°♊	
morning rise	968 Oct 11 j 15:38	12°♊01'40		morning rise	969 Sep 25 j 22:01	26°♊00'17	
direct	968 Oct 14 j 20:56	11°♊01'49		asc. node	969 Sep 25 j 19:51	26°♊03'11	
morning max el	968 Oct 21 j 21:53	14°♊59'23	19°11'50	direct	969 Sep 28 j 18:36	25°♊14'38	
	968 Nov 02 j 04:46	0°♊		morning max el	969 Oct 05 j 09:42	28°♊52'48	18°28'11
morning set	968 Nov 13 j 23:41	18°♊11'01			969 Oct 06 j 11:01	0°♊	
desc. node	968 Nov 16 j 22:29	22°♊47'07		morning set	969 Oct 25 j 04:38	28°♊05'21	
	968 Nov 21 j 13:16	0°♊			969 Oct 26 j 09:08	0°♊	
max. Earth dist.	968 Nov 28 j 02:55	10°♊18'58	1.44765 AU	desc. node	969 Nov 03 j 19:30	13°♊27'42	
superior conj	968 Nov 30 j 18:22	14°♊29'48	-1°-23'-34	superior conj	969 Nov 09 j 19:15	22°♊54'48	0°-38'-59
minimum elong	968 Nov 30 j 09:46	13°♊55'46	1°22'42	minimum elong	969 Nov 09 j 14:11	22°♊34'52	0°38'19
	968 Dec 10 j 10:12	0°♊		max. Earth dist.	969 Nov 10 j 21:46	24°♊39'02	1.45095 AU
evening rise	968 Dec 15 j 12:44	8°♊21'36			969 Nov 14 j 07:32	0°♊	
	968 Dec 28 j 22:20	0°♊		evening rise	969 Nov 26 j 00:04	18°♊23'10	
evening max el	969 Jan 04 j 06:42	8°♊12'03	18°31'22		969 Dec 03 j 08:42	0°♊	
asc. node	969 Jan 04 j 22:04	8°♊49'45		greatest brilliancy	969 Dec 08 j 03:27	7°♊25'45	-0.7m
retrograde	969 Jan 10 j 20:23	11°♊49'20		evening max el	969 Dec 18 j 16:18	21°♊39'04	19°09'20
evening set	969 Jan 13 j 20:46	10°♊58'41		asc. node	969 Dec 22 j 19:08	24°♊53'40	
inferior conj	969 Jan 19 j 18:32	5°♊23'54	3°38'40	retrograde	969 Dec 25 j 15:52	25°♊38'21	
minimum elong	969 Jan 19 j 16:53	5°♊28'46	3°38'29	evening set	969 Dec 28 j 22:37	24°♊35'40	
min. Earth dist.	969 Jan 21 j 20:10	2°♊58'06	0.64557 AU	inferior conj	970 Jan 03 j 14:25	18°♊44'08	3°16'21
	969 Jan 24 j 15:48	30°♊		minimum elong	970 Jan 03 j 11:55	18°♊52'04	3°15'51
morning rise	969 Jan 25 j 11:41	29°♊15'59		min. Earth dist.	970 Jan 05 j 00:51	16°♊54'44	0.65928 AU
direct	969 Feb 01 j 07:15	26°♊25'30		morning rise	970 Jan 09 j 00:21	12°♊31'38	
	969 Feb 09 j 23:27	0°♊		direct	970 Jan 15 j 09:52	9°♊43'56	
desc. node	969 Feb 12 j 21:41	2°♊26'25		morning max el	970 Jan 28 j 04:20	17°♊15'44	26°23'11
morning max el	969 Feb 14 j 18:38	4°♊14'06	27°19'42	desc. node	970 Jan 30 j 18:43	20°♊01'02	
	969 Mar 06 j 06:43	0°♊			970 Feb 07 j 20:18	0°♊	
morning set	969 Mar 22 j 01:40	27°♊49'57			970 Feb 27 j 04:39	0°♊	
	969 Mar 23 j 04:08	0°♊		morning set	970 Mar 05 j 05:59	10°♊58'08	
max. Earth dist.	969 Mar 26 j 21:01	7°♊29'08	1.33665 AU	max. Earth dist.	970 Mar 09 j 09:19	18°♊55'17	1.34997 AU
superior conj	969 Mar 30 j 04:53	14°♊26'23	0°-38'00	superior conj	970 Mar 14 j 03:11	28°♊27'31	-1°-5'-1
minimum elong	969 Mar 30 j 06:45	14°♊36'17	0°37'38	minimum elong	970 Mar 14 j 06:20	28°♊43'42	1°04'29
asc. node	969 Apr 02 j 21:24	22°♊17'30			970 Mar 14 j 21:11	0°♊	
evening rise	969 Apr 06 j 12:17	29°♊58'15		asc. node	970 Mar 20 j 18:28	12°♊14'16	
	969 Apr 06 j 12:38	0°♊		evening rise	970 Mar 21 j 20:44	14°♊30'06	
	969 Apr 23 j 23:30	0°♊			970 Mar 29 j 20:47	0°♊	
evening max el	969 Apr 27 j 14:06	3°♊56'24	22°09'04	evening max el	970 Apr 09 j 15:40	14°♊54'26	20°43'23
retrograde	969 May 10 j 09:09	10°♊14'09		retrograde	970 Apr 20 j 22:12	20°♊22'13	

evening set	970 Apr 23 j 02:02	20°♄10'58		evening max el	971 Mar 23 j 04:44	26°♄30'33	19°34'42
desc. node	970 Apr 28 j 17:57	18°♄10'36			971 Mar 28 j 00:44	0°♄	
inferior conj	970 May 02 j 07:36	16°♄13'21	-1°-1'-53	retrograde	971 Apr 01 j 18:07	1°♄06'43	
minimum elong	970 May 02 j 04:40	16°♄17'33	1°00'50	evening set	971 Apr 03 j 20:05	0°♄54'34	
min. Earth dist.	970 May 03 j 08:53	15°♄37'10	0.55027 AU		971 Apr 06 j 18:25	30°♄♂	
morning rise	970 May 11 j 06:11	12°♄05'22		inferior conj	971 Apr 12 j 10:43	26°♄50'04	0°54'00
direct	970 May 14 j 19:07	11°♄38'23		minimum elong	971 Apr 12 j 12:57	26°♄46'30	0°53'13
morning max el	970 May 27 j 23:45	18°♄00'06	23°01'28	min. Earth dist.	971 Apr 14 j 23:19	25°♄13'52	0.55882 AU
	970 Jun 06 j 17:13	0°♄		desc. node	971 Apr 15 j 14:58	24°♄49'55	
asc. node	970 Jun 16 j 17:42	17°♄48'19		morning rise	971 Apr 21 j 02:12	22°♄11'04	
morning set	970 Jun 19 j 18:25	24°♄01'47		direct	971 Apr 25 j 13:34	21°♄26'04	
	970 Jun 22 j 13:57	0°♄		morning max el	971 May 09 j 14:49	28°♄30'32	24°42'41
					971 May 11 j 02:47	0°♄	
superior conj	970 Jun 26 j 22:02	9°♄18'01	1°29'22		971 May 30 j 20:37	0°♄	
minimum elong	970 Jun 26 j 19:43	9°♄05'38	1°29'06	asc. node	971 Jun 03 j 14:45	7°♄37'31	
max. Earth dist.	970 Jun 29 j 14:23	14°♄58'27	1.33861 AU	morning set	971 Jun 04 j 06:20	8°♄59'19	
evening rise	970 Jul 04 j 15:36	25°♄16'39					
	970 Jul 07 j 01:50	0°♄		superior conj	971 Jun 11 j 07:10	24°♄11'03	1°13'14
	970 Jul 25 j 01:16	0°♄		minimum elong	971 Jun 11 j 04:44	23°♄57'49	1°12'51
desc. node	970 Jul 25 j 17:18	0°♄56'46		max. Earth dist.	971 Jun 12 j 19:25	27°♄27'34	1.32941 AU
evening max el	970 Aug 07 j 22:30	16°♄48'45	27°17'23		971 Jun 13 j 23:45	0°♄	
retrograde	970 Aug 21 j 09:06	24°♄07'32		evening rise	971 Jun 18 j 13:56	9°♄37'04	
evening set	970 Aug 28 j 10:02	21°♄24'01			971 Jun 29 j 10:14	0°♄	
min. Earth dist.	970 Sep 01 j 04:31	17°♄52'04	0.64608 AU	desc. node	971 Jul 12 j 14:19	19°♄52'42	
inferior conj	970 Sep 03 j 10:58	15°♄24'11	-2°-56'-12	evening max el	971 Jul 21 j 08:09	29°♄47'13	27°24'33
minimum elong	970 Sep 03 j 15:25	15°♄12'07	2°54'42		971 Jul 21 j 13:33	0°♄	
morning rise	970 Sep 09 j 22:38	9°♄54'11		retrograde	971 Aug 04 j 01:59	7°♄05'33	
direct	970 Sep 12 j 12:55	9°♄19'09		evening set	971 Aug 11 j 06:56	4°♄31'50	
asc. node	970 Sep 12 j 16:54	9°♄19'17		min. Earth dist.	971 Aug 14 j 21:09	1°♄31'18	0.62947 AU
morning max el	970 Sep 19 j 01:00	12°♄46'52	18°01'25		971 Aug 16 j 10:55	30°♄♂	
	970 Oct 01 j 00:00	0°♄		inferior conj	971 Aug 17 j 16:19	28°♄47'40	-3°-47'-24
morning set	970 Oct 06 j 14:13	9°♄23'51		minimum elong	971 Aug 17 j 21:23	28°♄35'17	3°46'06
	970 Oct 19 j 01:26	0°♄		morning rise	971 Aug 24 j 14:18	23°♄36'03	
				direct	971 Aug 27 j 00:51	23°♄08'22	
superior conj	970 Oct 20 j 05:08	1°♄51'30	0°09'52	asc. node	971 Aug 30 j 13:56	24°♄08'05	
minimum elong	970 Oct 20 j 06:18	1°♄56'13	0°09'42	morning max el	971 Sep 02 j 16:54	26°♄34'09	17°52'22
behind sun begin	970 Oct 19 j 21:49	1°♄22'06			971 Sep 05 j 16:07	0°♄	
behind sun end	970 Oct 20 j 14:47	2°♄30'16		morning set	971 Sep 18 j 23:25	21°♄49'47	
desc. node	970 Oct 21 j 16:34	4°♄13'28			971 Sep 23 j 14:52	0°♄	
max. Earth dist.	970 Oct 24 j 16:38	9°♄00'00	1.44682 AU				
evening rise	970 Nov 05 j 15:20	27°♄38'25		superior conj	971 Sep 30 j 15:22	12°♄01'13	0°51'44
	970 Nov 07 j 04:05	0°♄		minimum elong	971 Sep 30 j 19:53	12°♄20'10	0°51'08
greatest brilliancy	970 Nov 24 j 23:24	26°♄34'46	-0.6m	max. Earth dist.	971 Oct 07 j 08:11	23°♄02'27	1.43585 AU
	970 Nov 27 j 12:43	0°♄		desc. node	971 Oct 08 j 13:37	25°♄00'46	
evening max el	970 Dec 01 j 21:20	5°♄07'34	20°03'03		971 Oct 11 j 16:52	0°♄	
retrograde	970 Dec 09 j 13:31	9°♄37'26		evening rise	971 Oct 15 j 22:53	6°♄38'40	
asc. node	970 Dec 09 j 16:10	9°♄37'22			971 Oct 31 j 12:31	0°♄	
evening set	970 Dec 13 j 04:18	8°♄21'08		greatest brilliancy	971 Nov 09 j 14:36	12°♄29'38	-0.4m
inferior conj	970 Dec 18 j 16:16	2°♄15'53	2°43'41	evening max el	971 Nov 14 j 20:47	18°♄36'55	21°09'59
minimum elong	970 Dec 18 j 13:34	2°♄24'58	2°42'55	retrograde	971 Nov 23 j 11:06	23°♄43'11	
min. Earth dist.	970 Dec 19 j 13:03	1°♄06'17	0.66901 AU	asc. node	971 Nov 26 j 13:10	22°♄49'50	
	970 Dec 20 j 09:11	30°♄♂		evening set	971 Nov 27 j 11:49	22°♄11'35	
morning rise	970 Dec 23 j 22:15	26°♄00'53		inferior conj	971 Dec 02 j 21:46	15°♄56'04	2°03'06
direct	970 Dec 29 j 18:05	23°♄26'30		minimum elong	971 Dec 02 j 19:22	16°♄04'21	2°02'15
	971 Jan 10 j 01:54	0°♄		min. Earth dist.	971 Dec 03 j 06:30	15°♄26'03	0.67494 AU
morning max el	971 Jan 10 j 13:12	0°♄28'11	25°06'23	morning rise	971 Dec 08 j 02:33	9°♄40'42	
desc. node	971 Jan 17 j 15:45	8°♄35'52		direct	971 Dec 13 j 07:19	7°♄26'06	
	971 Feb 01 j 19:04	0°♄		morning max el	971 Dec 23 j 21:51	13°♄45'25	23°39'29
morning set	971 Feb 15 j 17:10	23°♄11'31		desc. node	972 Jan 04 j 12:48	27°♄53'39	
	971 Feb 19 j 10:41	0°♄			972 Jan 06 j 01:32	0°♄	
max. Earth dist.	971 Feb 19 j 10:29	29°♄59'02	1.36756 AU		972 Jan 25 j 16:42	0°♄	
				morning set	972 Jan 28 j 05:03	4°♄13'33	
superior conj	971 Feb 25 j 16:03	11°♄55'59	-1°-29'-55	max. Earth dist.	972 Feb 01 j 05:25	11°♄10'24	1.38822 AU
minimum elong	971 Feb 25 j 20:03	12°♄15'41	1°29'24				
evening rise	971 Mar 06 j 00:18	28°♄41'32		superior conj	972 Feb 08 j 15:45	24°♄42'10	-1°-50'-6
	971 Mar 06 j 15:56	0°♄		minimum elong	972 Feb 08 j 19:31	24°♄59'55	1°49'49
asc. node	971 Mar 07 j 15:30	1°♄57'28			972 Feb 11 j 10:43	0°♄	

evening rise	972 Feb 17 j 20:21	12° Υ 25'27		minimum elong	973 Jan 20 j 23:04	6° \approx 40'55	2°01'59
asc. node	972 Feb 22 j 12:32	21° Υ 21'47		evening rise	973 Jan 31 j 05:37	25° \approx 33'18	
	972 Feb 27 j 11:25	0° Υ			973 Feb 02 j 14:53	0° Υ	
evening max el	972 Mar 05 j 04:15	8° Υ 44'41	18°45'42	asc. node	973 Feb 08 j 09:33	10° Υ 20'04	
retrograde	972 Mar 13 j 06:26	12° Υ 40'36		evening max el	973 Feb 16 j 11:11	21° Υ 28'11	18°16'44
evening set	972 Mar 15 j 12:58	12° Υ 23'10		retrograde	973 Feb 23 j 13:30	25° Υ 00'23	
inferior conj	972 Mar 23 j 08:46	8° Υ 01'42	2°23'40	evening set	973 Feb 26 j 01:22	24° Υ 35'07	
minimum elong	972 Mar 23 j 12:57	7° Υ 53'57	2°22'32	inferior conj	973 Mar 05 j 03:51	19° Υ 52'22	3°18'49
min. Earth dist.	972 Mar 26 j 16:21	5° Υ 35'31	0.57499 AU	minimum elong	973 Mar 05 j 07:01	19° Υ 45'32	3°18'17
morning rise	972 Mar 31 j 08:37	2° Υ 49'38		min. Earth dist.	973 Mar 08 j 13:43	16° Υ 56'59	0.59543 AU
desc. node	972 Apr 01 j 11:59	2° Υ 21'59		morning rise	973 Mar 12 j 09:06	14° Υ 14'59	
direct	972 Apr 05 j 22:15	1° Υ 33'33		direct	973 Mar 18 j 19:42	12° Υ 21'51	
morning max el	972 Apr 20 j 06:32	9° Υ 05'08	26°12'44	desc. node	973 Mar 19 j 09:00	12° Υ 22'41	
	972 May 06 j 01:35	0° Υ		morning max el	973 Apr 02 j 03:12	20° Υ 07'31	27°17'18
morning set	972 May 18 j 17:32	23° Υ 54'09			973 Apr 10 j 14:21	0° Υ	
asc. node	972 May 20 j 11:48	27° Υ 38'39			973 Apr 28 j 19:18	0° Υ	
	972 May 21 j 14:02	0° Υ		morning set	973 May 03 j 02:20	8° Υ 40'03	
				asc. node	973 May 07 j 08:51	17° Υ 46'28	
superior conj	972 May 25 j 18:28	9° Υ 09'09	0°53'15	superior conj	973 May 10 j 06:11	24° Υ 05'51	0°30'10
minimum elong	972 May 25 j 16:23	8° Υ 57'47	0°52'52	minimum elong	973 May 10 j 04:52	23° Υ 58'40	0°29'54
max. Earth dist.	972 May 26 j 05:59	10° Υ 12'21	1.32414 AU	max. Earth dist.	973 May 09 j 18:31	23° Υ 01'44	1.32260 AU
evening rise	972 Jun 01 j 18:57	24° Υ 16'42			973 May 12 j 22:41	0° Υ	
	972 Jun 04 j 14:10	0° Υ		evening rise	973 May 17 j 04:13	9° Υ 07'00	
	972 Jun 22 j 06:01	0° Υ			973 May 28 j 00:05	0° Υ	
desc. node	972 Jun 28 j 11:19	7° Υ 52'09		evening max el	973 Jun 14 j 12:00	23° Υ 44'45	26°01'29
evening max el	972 Jul 02 j 13:21	12° Υ 08'31	26°59'10	desc. node	973 Jun 15 j 08:19	24° Υ 32'01	
retrograde	972 Jul 16 j 11:43	19° Υ 23'50			973 Jun 23 j 16:15	0° Υ	
evening set	972 Jul 23 j 11:20	17° Υ 13'53		retrograde	973 Jun 28 j 12:33	0° Υ 55'58	
min. Earth dist.	972 Jul 27 j 03:32	14° Υ 33'18	0.61006 AU		973 Jul 03 j 07:27	30° Υ	
inferior conj	972 Jul 30 j 08:29	11° Υ 48'11	-4°-28'-25	evening set	973 Jul 04 j 18:36	29° Υ 21'24	
minimum elong	972 Jul 30 j 12:45	11° Υ 38'58	4°27'46	min. Earth dist.	973 Jul 09 j 00:39	26° Υ 44'07	0.58946 AU
morning rise	972 Aug 06 j 17:13	6° Υ 57'44		inferior conj	973 Jul 12 j 07:55	24° Υ 16'31	-4°-50'-32
direct	972 Aug 09 j 02:45	6° Υ 34'42		minimum elong	973 Jul 12 j 09:12	24° Υ 14'07	4°50'31
asc. node	972 Aug 16 j 10:58	10° Υ 18'31		morning rise	973 Jul 20 j 03:17	19° Υ 49'01	
morning max el	972 Aug 16 j 06:19	10° Υ 07'05	18°02'03	direct	973 Jul 22 j 14:30	19° Υ 28'35	
	972 Aug 29 j 07:46	0° Υ		morning max el	973 Jul 30 j 14:13	23° Υ 17'35	18°31'46
morning set	972 Sep 01 j 02:08	5° Υ 05'52		asc. node	973 Aug 03 j 08:02	27° Υ 35'45	
					973 Aug 05 j 00:52	0° Υ	
superior conj	972 Sep 11 j 04:32	23° Υ 29'57	1°21'31	morning set	973 Aug 15 j 17:25	18° Υ 59'03	
minimum elong	972 Sep 11 j 08:55	23° Υ 49'21	1°21'04		973 Aug 21 j 10:42	0° Υ	
	972 Sep 14 j 22:05	0° Υ		superior conj	973 Aug 24 j 16:25	6° Υ 06'22	1°39'03
max. Earth dist.	972 Sep 18 j 18:42	6° Υ 31'41	1.41953 AU	minimum elong	973 Aug 24 j 19:02	6° Υ 18'30	1°38'53
desc. node	972 Sep 24 j 10:38	15° Υ 46'11		max. Earth dist.	973 Sep 01 j 00:30	19° Υ 20'05	1.39997 AU
evening rise	972 Sep 24 j 16:21	16° Υ 09'00		evening rise	973 Sep 05 j 07:53	26° Υ 41'17	
	972 Oct 03 j 14:49	0° Υ			973 Sep 07 j 07:51	0° Υ	
greatest brilliancy	972 Oct 22 j 20:40	26° Υ 47'11	-0.3m	desc. node	973 Sep 11 j 07:40	6° Υ 26'21	
	972 Oct 25 j 14:50	0° Υ			973 Sep 27 j 06:39	0° Υ	
evening max el	972 Oct 27 j 14:47	2° Υ 07'31	22°26'10	evening max el	973 Oct 10 j 04:47	15° Υ 41'21	23°46'12
retrograde	972 Nov 06 j 06:45	7° Υ 52'14		retrograde	973 Oct 20 j 23:13	22° Υ 02'01	
evening set	972 Nov 10 j 19:27	6° Υ 03'40		evening set	973 Oct 26 j 01:36	19° Υ 55'42	
asc. node	972 Nov 12 j 10:12	4° Υ 31'46		asc. node	973 Oct 30 j 07:13	15° Υ 08'16	
	972 Nov 15 j 23:37	30° Υ		inferior conj	973 Oct 31 j 11:56	13° Υ 31'01	0°24'41
inferior conj	972 Nov 16 j 04:55	29° Υ 41'39	1°16'17	minimum elong	973 Oct 31 j 11:21	13° Υ 33'01	0°24'25
minimum elong	972 Nov 16 j 03:14	29° Υ 47'26	1°15'36	min. Earth dist.	973 Oct 30 j 23:11	14° Υ 14'24	0.67658 AU
min. Earth dist.	972 Nov 16 j 02:40	29° Υ 49'26	0.67741 AU	morning rise	973 Nov 05 j 21:15	7° Υ 22'01	
morning rise	972 Nov 21 j 10:53	23° Υ 28'14		direct	973 Nov 09 j 20:59	5° Υ 52'20	
direct	972 Nov 26 j 00:37	21° Υ 36'11		morning max el	973 Nov 18 j 03:06	10° Υ 39'47	20°52'07
morning max el	972 Dec 05 j 09:17	27° Υ 07'41	22°12'09	greatest brilliancy	973 Nov 23 j 20:12	17° Υ 19'39	-0.5m
	972 Dec 08 j 01:08	0° Υ			973 Dec 02 j 23:19	0° Υ	
greatest brilliancy	972 Dec 10 j 00:43	2° Υ 20'34	-0.3m	desc. node	973 Dec 08 j 06:53	7° Υ 51'47	
desc. node	972 Dec 21 j 09:50	17° Υ 41'41		morning set	973 Dec 17 j 17:03	22° Υ 16'40	
	972 Dec 29 j 16:38	0° Υ			973 Dec 22 j 14:35	0° Υ	
morning set	973 Jan 07 j 12:09	13° Υ 50'46		max. Earth dist.	973 Dec 26 j 07:01	5° Υ 55'50	1.42850 AU
max. Earth dist.	973 Jan 13 j 02:24	23° Υ 04'04	1.40954 AU				
	973 Jan 17 j 03:51	0° Υ		superior conj	974 Jan 02 j 03:43	17° Υ 17'48	-2°-1'-3

minimum elong	974 Jan 02 j 00:58	17°☿06'13	2°00'59	morning set	974 Nov 26 j 13:41	0°♄27'26	
	974 Jan 09 j 12:30	0°♄		max. Earth dist.	974 Dec 08 j 18:59	19°♄35'02	1.44246 AU
evening rise	974 Jan 14 j 00:16	7°♄57'34					
asc. node	974 Jan 26 j 06:33	28°♄44'30		superior conj	974 Dec 13 j 07:20	26°♄48'46	-1°-42'-41
	974 Jan 27 j 03:48	0°♄		minimum elong	974 Dec 12 j 23:44	26°♄18'07	1°42'06
evening max el	974 Jan 30 j 22:24	4°♄32'27	18°07'26		974 Dec 15 j 06:33	0°♄	
retrograde	974 Feb 06 j 12:24	7°♄56'44		evening rise	974 Dec 26 j 23:57	19°♄29'56	
evening set	974 Feb 09 j 04:57	7°♄22'23			975 Jan 02 j 04:50	0°♄	
inferior conj	974 Feb 15 j 17:36	2°♄18'01	3°43'37	asc. node	975 Jan 13 j 03:35	16°♄24'53	
minimum elong	974 Feb 15 j 18:39	2°♄15'23	3°43'33	evening max el	975 Jan 14 j 10:58	17°♄49'58	18°17'20
	974 Feb 18 j 01:04	30°♄		retrograde	975 Jan 20 j 22:29	21°♄19'34	
min. Earth dist.	974 Feb 18 j 18:23	29°♄18'20	0.61660 AU	evening set	975 Jan 23 j 19:42	20°♄35'16	
morning rise	974 Feb 22 j 05:50	26°♄23'56		inferior conj	975 Jan 29 j 22:01	15°♄10'54	3°45'30
direct	974 Mar 01 j 03:18	23°♄58'32		minimum elong	975 Jan 29 j 21:11	15°♄13'16	3°45'27
desc. node	974 Mar 06 j 06:03	25°♄10'05		min. Earth dist.	975 Feb 01 j 08:31	12°♄28'17	0.63584 AU
	974 Mar 13 j 07:10	0°♄		morning rise	975 Feb 04 j 20:57	9°♄06'34	
morning max el	974 Mar 15 j 06:16	1°♄51'04	27°47'00	direct	975 Feb 11 j 19:24	6°♄21'03	
	974 Apr 04 j 20:46	0°♄		desc. node	975 Feb 21 j 03:07	10°♄16'44	
morning set	974 Apr 17 j 06:48	23°♄10'33		morning max el	975 Feb 25 j 14:12	14°♄14'23	27°39'36
	974 Apr 20 j 13:22	0°♄			975 Mar 10 j 09:05	0°♄	
max. Earth dist.	974 Apr 23 j 05:13	5°♄42'35	1.32482 AU		975 Mar 28 j 10:21	0°♄	
asc. node	974 Apr 24 j 05:53	7°♄56'36		morning set	975 Apr 01 j 04:35	7°♄18'05	
				max. Earth dist.	975 Apr 06 j 09:58	18°♄01'14	1.33105 AU
superior conj	974 Apr 24 j 16:39	8°♄55'13	0°04'46				
minimum elong	974 Apr 24 j 16:25	8°♄54'00	0°04'43	superior conj	975 Apr 09 j 00:07	23°♄31'42	0°-22'-11
behind sun begin	974 Apr 24 j 11:31	8°♄27'16		minimum elong	975 Apr 09 j 01:12	23°♄37'30	0°21'58
behind sun end	974 Apr 24 j 21:20	9°♄20'45		asc. node	975 Apr 11 j 02:56	28°♄05'12	
evening rise	974 May 01 j 15:41	24°♄00'38			975 Apr 12 j 00:13	0°♄	
	974 May 04 j 12:51	0°♄		evening rise	975 Apr 16 j 03:29	8°♄51'15	
	974 May 22 j 21:04	0°♄			975 Apr 27 j 05:33	0°♄	
evening max el	974 May 27 j 04:07	4°♄38'17	24°38'22	evening max el	975 May 08 j 18:23	15°♄10'32	23°03'16
desc. node	974 Jun 02 j 05:20	9°♄20'29		desc. node	975 May 20 j 02:21	21°♄41'37	
retrograde	974 Jun 10 j 02:28	11°♄41'20		retrograde	975 May 22 j 04:17	21°♄51'28	
evening set	974 Jun 15 j 02:24	10°♄45'01		evening set	975 May 25 j 16:51	21°♄24'13	
min. Earth dist.	974 Jun 20 j 15:19	7°♄53'22	0.57029 AU	min. Earth dist.	975 Jun 02 j 03:40	18°♄04'05	0.55594 AU
inferior conj	974 Jun 23 j 11:36	6°♄02'57	-4°-41'-15	inferior conj	975 Jun 03 j 19:52	17°♄05'39	-3°-48'00
minimum elong	974 Jun 23 j 07:58	6°♄08'53	4°40'54	minimum elong	975 Jun 03 j 12:28	17°♄16'26	3°46'16
morning rise	974 Jul 01 j 17:18	1°♄56'56		morning rise	975 Jun 12 j 11:11	13°♄12'25	
direct	974 Jul 04 j 07:54	1°♄38'00		direct	975 Jun 15 j 06:17	12°♄53'51	
morning max el	974 Jul 13 j 13:37	5°♄55'59	19°22'34	morning max el	975 Jun 26 j 02:22	17°♄54'47	20°34'14
asc. node	974 Jul 21 j 05:07	15°♄44'48			975 Jul 05 j 10:30	0°♄	
	974 Jul 29 j 01:25	0°♄		asc. node	975 Jul 08 j 02:12	4°♄33'42	
morning set	974 Jul 30 j 17:27	3°♄18'22		morning set	975 Jul 14 j 23:27	17°♄56'34	
					975 Jul 20 j 19:35	0°♄	
superior conj	974 Aug 07 j 21:19	19°♄34'01	1°46'06				
minimum elong	974 Aug 07 j 21:55	19°♄36'56	1°46'05	superior conj	975 Jul 22 j 14:24	3°♄39'10	1°44'41
	974 Aug 13 j 08:43	0°♄		minimum elong	975 Jul 22 j 13:24	3°♄34'05	1°44'39
max. Earth dist.	974 Aug 14 j 04:07	1°♄29'31	1.37966 AU	max. Earth dist.	975 Jul 27 j 10:53	13°♄19'24	1.36106 AU
evening rise	974 Aug 17 j 23:44	8°♄21'53		evening rise	975 Jul 31 j 12:45	21°♄03'56	
desc. node	974 Aug 29 j 04:41	26°♄56'31			975 Aug 05 j 12:08	0°♄	
	974 Aug 31 j 04:18	0°♄		desc. node	975 Aug 16 j 01:42	17°♄11'29	
evening max el	974 Sep 22 j 16:42	29°♄17'55	25°03'33		975 Aug 25 j 01:56	0°♄	
	974 Sep 23 j 10:07	0°♄		evening max el	975 Sep 05 j 04:22	12°♄55'28	26°10'42
retrograde	974 Oct 04 j 11:36	6°♄07'52		retrograde	975 Sep 17 j 19:18	20°♄04'41	
evening set	974 Oct 10 j 04:34	3°♄44'38		evening set	975 Sep 24 j 02:30	17°♄28'01	
	974 Oct 13 j 16:08	30°♄		min. Earth dist.	975 Sep 28 j 07:49	12°♄57'57	0.66497 AU
min. Earth dist.	974 Oct 14 j 17:40	28°♄38'08	0.67246 AU	inferior conj	975 Sep 29 j 18:33	11°♄10'19	-1°-27'-22
inferior conj	974 Oct 15 j 17:05	27°♄21'19	0°-30'-22	minimum elong	975 Sep 29 j 20:49	11°♄03'17	1°26'26
minimum elong	974 Oct 15 j 17:51	27°♄18'49	0°30'03	asc. node	975 Oct 04 j 01:23	6°♄27'58	
asc. node	974 Oct 17 j 04:18	25°♄27'50		morning rise	975 Oct 05 j 16:10	5°♄18'11	
morning rise	974 Oct 21 j 07:41	21°♄19'23		direct	975 Oct 08 j 17:22	4°♄25'01	
direct	974 Oct 24 j 19:04	20°♄09'44		morning max el	975 Oct 15 j 13:26	8°♄13'21	18°51'15
morning max el	974 Nov 01 j 04:45	24°♄22'30	19°44'15		975 Oct 31 j 01:11	0°♄	
	974 Nov 05 j 23:53	0°♄		morning set	975 Nov 06 j 02:34	9°♄32'26	
greatest brilliancy	974 Nov 09 j 03:06	4°♄15'00	-0.6m	desc. node	975 Nov 12 j 00:58	18°♄53'09	
desc. node	974 Nov 25 j 03:56	28°♄17'10			975 Nov 19 j 02:48	0°♄	
	974 Nov 26 j 06:35	0°♄		max. Earth dist.	975 Nov 21 j 11:37	3°♄43'15	1.44988 AU

superior conj	975 Nov 22 j 13:17	5°♂24'09	-1°-6'00	desc. node	976 Oct 28 j 22:00	9°♂36'17	
minimum elong	975 Nov 22 j 05:26	4°♂53'17	1°05'05				
	975 Dec 07 j 23:51	0°♂		superior conj	976 Oct 31 j 15:22	13°♂55'36	0°-18'-1
evening rise	975 Dec 08 j 00:51	0°♂04'01		minimum elong	976 Oct 31 j 13:02	13°♂46'23	0°17'42
	975 Dec 27 j 18:44	0°♂		max. Earth dist.	976 Nov 03 j 06:21	18°♂04'06	1.45002 AU
evening max el	975 Dec 28 j 22:15	1°♂14'27	18°45'31		976 Nov 10 j 21:10	0°♂	
asc. node	975 Dec 31 j 00:39	3°♂08'07		evening rise	976 Nov 17 j 02:38	9°♂42'51	
retrograde	976 Jan 04 j 15:28	5°♂00'22			976 Nov 30 j 05:51	0°♂	
evening set	976 Jan 07 j 18:16	4°♂04'57		greatest brilliancy	976 Dec 02 j 19:27	3°♂48'14	-0.7m
	976 Jan 12 j 04:48	30°♂♂		evening max el	976 Dec 11 j 06:07	14°♂42'34	19°30'31
inferior conj	976 Jan 13 j 13:12	28°♂22'47	3°30'40	asc. node	976 Dec 16 j 21:42	18°♂39'44	
minimum elong	976 Jan 13 j 11:07	28°♂29'10	3°30'22	retrograde	976 Dec 18 j 12:04	18°♂53'53	
min. Earth dist.	976 Jan 15 j 08:18	26°♂11'24	0.65179 AU	evening set	976 Dec 21 j 21:58	17°♂45'45	
morning rise	976 Jan 19 j 02:49	22°♂12'22		inferior conj	976 Dec 27 j 11:55	11°♂48'20	3°03'36
direct	976 Jan 25 j 18:38	19°♂21'19		minimum elong	976 Dec 27 j 09:16	11°♂56'59	3°02'59
morning max el	976 Feb 07 j 23:55	27°♂05'23	26°58'49	min. Earth dist.	976 Dec 28 j 16:27	10°♂15'23	0.66386 AU
desc. node	976 Feb 08 j 00:09	27°♂06'00		morning rise	977 Jan 01 j 19:48	5°♂34'30	
	976 Feb 10 j 17:45	0°♂		direct	977 Jan 07 j 23:55	2°♂51'04	
	976 Mar 03 j 00:26	0°♂		morning max el	977 Jan 20 j 09:07	10°♂12'01	25°52'24
morning set	976 Mar 14 j 16:25	20°♂51'29		desc. node	977 Jan 24 j 21:11	15°♂08'39	
max. Earth dist.	976 Mar 19 j 04:47	29°♂45'56	1.34169 AU		977 Feb 05 j 02:22	0°♂	
	976 Mar 19 j 07:33	0°♂			977 Feb 23 j 14:09	0°♂	
				morning set	977 Feb 25 j 14:06	3°♂38'15	
superior conj	976 Mar 23 j 02:26	7°♂47'43	0°-49'-34	max. Earth dist.	977 Mar 01 j 11:40	10°♂58'13	1.35693 AU
minimum elong	976 Mar 23 j 04:53	8°♂00'29	0°49'08				
asc. node	976 Mar 27 j 23:58	18°♂07'20		superior conj	977 Mar 06 j 21:07	21°♂36'13	-1°-15'-58
evening rise	976 Mar 30 j 13:41	23°♂31'27		minimum elong	977 Mar 07 j 00:42	21°♂54'21	1°15'25
	976 Apr 02 j 17:40	0°♂			977 Mar 10 j 23:49	0°♂	
evening max el	976 Apr 19 j 14:14	25°♂52'08	21°30'55	evening rise	977 Mar 14 j 20:17	7°♂55'12	
	976 Apr 25 j 01:01	0°♂		asc. node	977 Mar 14 j 21:00	7°♂58'51	
retrograde	976 May 01 j 19:33	1°♂50'07			977 Mar 27 j 00:31	0°♂	
evening set	976 May 04 j 06:10	1°♂36'35		evening max el	977 Apr 01 j 20:47	7°♂06'14	20°11'55
desc. node	976 May 05 j 23:23	1°♂11'48		retrograde	977 Apr 12 j 09:29	12°♂10'39	
	976 May 09 j 02:05	30°♂♂		evening set	977 Apr 14 j 11:18	11°♂59'41	
inferior conj	976 May 13 j 15:23	27°♂35'56	-2°-10'-15	desc. node	977 Apr 22 j 20:24	8°♂23'43	
minimum elong	976 May 13 j 09:28	27°♂44'14	2°08'17	inferior conj	977 Apr 23 j 11:35	8°♂01'15	0°-10'-57
min. Earth dist.	976 May 13 j 16:15	27°♂34'43	0.54960 AU	minimum elong	977 Apr 23 j 11:05	8°♂02'01	0°10'47
morning rise	976 May 22 j 13:17	23°♂38'29		transit middle	977 Apr 23 j 11:05	8°♂02'01	0°10'47
direct	976 May 25 j 17:16	23°♂16'36		transit begin	977 Apr 23 j 08:07	8°♂06'24	
morning max el	976 Jun 07 j 03:59	29°♂09'48	22°04'05	transit end	977 Apr 23 j 14:02	7°♂57'37	
	976 Jun 08 j 00:52	0°♂		min. Earth dist.	977 Apr 25 j 05:42	6°♂58'53	0.55289 AU
asc. node	976 Jun 23 j 23:16	23°♂51'50		morning rise	977 May 02 j 08:25	3°♂41'15	
	976 Jun 27 j 00:55	0°♂		direct	977 May 06 j 06:14	3°♂07'57	
morning set	976 Jun 28 j 09:09	2°♂46'35		morning max el	977 May 19 j 21:07	9°♂49'40	23°44'41
					977 Jun 03 j 17:52	0°♂	
superior conj	976 Jul 05 j 15:51	18°♂09'41	1°36'33	asc. node	977 Jun 10 j 20:17	13°♂31'32	
minimum elong	976 Jul 05 j 13:51	17°♂59'07	1°36'23	morning set	977 Jun 12 j 20:44	17°♂43'00	
max. Earth dist.	976 Jul 09 j 01:55	25°♂15'43	1.34572 AU		977 Jun 18 j 14:07	0°♂	
	976 Jul 11 j 10:13	0°♂					
evening rise	976 Jul 13 j 18:01	4°♂34'04		superior conj	977 Jun 19 j 22:49	2°♂56'36	1°23'02
	976 Jul 28 j 06:38	0°♂		minimum elong	977 Jun 19 j 20:24	2°♂43'30	1°22'43
desc. node	976 Aug 01 j 22:44	7°♂04'07		max. Earth dist.	977 Jun 22 j 02:33	7°♂33'31	1.33430 AU
evening max el	976 Aug 17 j 16:30	26°♂27'52	27°00'02	evening rise	977 Jun 27 j 11:12	18°♂39'34	
	976 Aug 21 j 19:19	0°♂			977 Jul 03 j 08:40	0°♂	
retrograde	976 Aug 30 j 21:42	3°♂45'34		desc. node	977 Jul 19 j 19:45	26°♂24'31	
evening set	976 Sep 06 j 17:07	1°♂02'05			977 Jul 22 j 12:48	0°♂	
	976 Sep 07 j 21:39	30°♂♂		evening max el	977 Jul 31 j 03:54	9°♂43'24	27°24'17
min. Earth dist.	976 Sep 10 j 15:17	27°♂09'08	0.65397 AU	retrograde	977 Aug 13 j 18:03	17°♂01'51	
inferior conj	976 Sep 12 j 14:16	24°♂54'24	-2°-24'-23	evening set	977 Aug 20 j 21:29	14°♂21'19	
minimum elong	976 Sep 12 j 18:00	24°♂43'40	2°23'00	min. Earth dist.	977 Aug 24 j 13:52	11°♂03'21	0.63941 AU
morning rise	976 Sep 18 j 20:25	19°♂15'09		inferior conj	977 Aug 27 j 01:42	8°♂27'45	-3°-18'-47
asc. node	976 Sep 19 j 22:27	18°♂49'22		minimum elong	977 Aug 27 j 06:31	8°♂15'11	3°17'19
direct	976 Sep 21 j 13:54	18°♂34'34		morning rise	977 Sep 02 j 17:38	3°♂04'50	
morning max el	976 Sep 28 j 03:03	22°♂07'39	18°14'37	direct	977 Sep 05 j 06:01	2°♂33'14	
	976 Oct 04 j 07:16	0°♂		asc. node	977 Sep 06 j 19:30	2°♂45'35	
morning set	976 Oct 16 j 19:59	20°♂03'34		morning max el	977 Sep 11 j 18:53	5°♂59'14	17°55'16
	976 Oct 22 j 22:21	0°♂			977 Sep 27 j 14:04	0°♂	

morning set	977 Sep 28 j 16:26	1°♄53'19		morning set	978 Sep 11 j 09:51	14°♄43'26	
					978 Sep 19 j 23:48	0°♄	
superior conj	977 Oct 11 j 10:26	23°♄19'58	0°28'56	superior conj	978 Sep 22 j 08:29	4°♄04'47	1°05'55
minimum elong	977 Oct 11 j 13:32	23°♄32'36	0°28'31	minimum elong	978 Sep 22 j 13:17	4°♄25'18	1°05'20
desc. node	977 Oct 15 j 19:02	0°♄22'56		max. Earth dist.	978 Sep 29 j 14:33	16°♄12'44	1.42953 AU
	977 Oct 15 j 13:19	0°♄		desc. node	978 Oct 02 j 16:06	21°♄10'08	
max. Earth dist.	977 Oct 17 j 00:20	2°♄19'57	1.44295 AU	evening rise	978 Oct 06 j 22:28	27°♄55'20	
evening rise	977 Oct 27 j 12:35	18°♄46'40			978 Oct 08 j 06:27	0°♄	
	977 Nov 03 j 21:10	0°♄			978 Oct 28 j 16:29	0°♄	
greatest brilliancy	977 Nov 18 j 07:18	20°♄54'04	-0.5m	greatest brilliancy	978 Nov 02 j 09:11	6°♄07'45	-0.4m
evening max el	977 Nov 24 j 08:55	28°♄11'36	20°30'12	evening max el	978 Nov 07 j 05:59	11°♄41'24	21°41'26
	977 Nov 26 j 06:33	0°♄		retrograde	978 Nov 16 j 06:41	17°♄03'42	
retrograde	977 Dec 02 j 09:46	2°♄55'55		evening set	978 Nov 20 j 12:23	15°♄24'47	
asc. node	977 Dec 03 j 18:44	2°♄45'16		asc. node	978 Nov 20 j 15:45	15°♄18'04	
evening set	977 Dec 06 j 04:37	1°♄33'13		inferior conj	978 Nov 25 j 21:57	9°♄05'57	1°43'54
	977 Dec 07 j 22:33	30°♄		minimum elong	978 Nov 25 j 19:49	9°♄13'21	1°43'05
inferior conj	977 Dec 11 j 15:32	25°♄23'23	2°27'19	min. Earth dist.	978 Nov 26 j 01:49	8°♄52'34	0.67647 AU
minimum elong	977 Dec 11 j 12:54	25°♄32'20	2°26'29	morning rise	978 Dec 01 j 03:00	2°♄51'19	
min. Earth dist.	977 Dec 12 j 07:01	24°♄30'49	0.67202 AU	direct	978 Dec 06 j 01:14	0°♄46'26	
morning rise	977 Dec 16 j 20:43	19°♄08'14		morning max el	978 Dec 16 j 02:55	6°♄45'00	23°01'51
direct	977 Dec 22 j 10:20	16°♄41'37		greatest brilliancy	978 Dec 20 j 22:30	12°♄08'03	-0.3m
morning max el	978 Jan 02 j 17:25	23°♄25'43	24°30'03	desc. node	978 Dec 29 j 15:17	23°♄34'49	
	978 Jan 08 j 13:27	0°♄			979 Jan 03 j 02:56	0°♄	
desc. node	978 Jan 11 j 18:13	4°♄03'06		morning set	979 Jan 19 j 16:03	25°♄48'29	
	978 Jan 29 j 11:49	0°♄			979 Jan 22 j 03:58	0°♄	
morning set	978 Feb 07 j 16:02	15°♄22'23		max. Earth dist.	979 Jan 24 j 04:35	3°♄27'52	1.39740 AU
max. Earth dist.	978 Feb 11 j 09:14	22°♄00'11	1.37611 AU				
	978 Feb 15 j 16:42	0°♄		superior conj	979 Jan 31 j 21:28	17°♄11'31	-1°-56'-27
superior conj	978 Feb 18 j 04:52	4°♄47'44	-1°-39'-15	minimum elong	979 Feb 01 j 00:38	17°♄26'04	1°56'16
minimum elong	978 Feb 18 j 08:56	5°♄07'26	1°38'48		979 Feb 07 j 16:59	0°♄	
evening rise	978 Feb 26 j 20:57	21°♄55'27		evening rise	979 Feb 10 j 12:50	5°♄24'50	
asc. node	978 Mar 01 j 18:02	27°♄34'37		asc. node	979 Feb 16 j 15:03	16°♄48'37	
	978 Mar 03 j 00:22	0°♄			979 Feb 25 j 08:48	0°♄	
evening max el	978 Mar 15 j 14:33	18°♄58'53	19°11'26	evening max el	979 Feb 26 j 17:29	1°♄25'39	18°30'55
retrograde	978 Mar 24 j 11:31	23°♄15'57		retrograde	979 Mar 06 j 08:12	5°♄09'56	
evening set	978 Mar 26 j 15:18	23°♄01'50		evening set	979 Mar 08 j 16:58	4°♄49'26	
inferior conj	978 Apr 03 j 21:56	18°♄50'43	1°36'09	inferior conj	979 Mar 16 j 04:59	0°♄18'50	2°51'15
minimum elong	978 Apr 04 j 01:27	18°♄44'44	1°35'02	minimum elong	979 Mar 16 j 08:59	0°♄10'54	2°50'20
min. Earth dist.	978 Apr 06 j 20:42	16°♄51'40	0.56496 AU		979 Mar 16 j 14:27	30°♄	
desc. node	978 Apr 09 j 17:23	15°♄08'49		min. Earth dist.	979 Mar 19 j 15:09	27°♄37'21	0.58328 AU
morning rise	978 Apr 12 j 07:35	13°♄57'36		morning rise	979 Mar 23 j 20:55	24°♄54'40	
direct	978 Apr 17 j 06:20	13°♄00'52		desc. node	979 Mar 27 j 14:25	23°♄36'16	
morning max el	978 May 01 j 11:34	20°♄17'50	25°23'18	direct	979 Mar 29 j 20:14	23°♄23'17	
	978 May 09 j 18:46	0°♄			979 Apr 12 j 02:57	0°♄	
	978 May 27 j 01:50	0°♄		morning max el	979 Apr 13 j 05:12	1°♄02'06	26°44'16
morning set	978 May 28 j 08:35	2°♄40'41			979 May 03 j 19:18	0°♄	
asc. node	978 May 28 j 17:19	3°♄26'46		morning set	979 May 12 j 19:00	17°♄32'49	
				asc. node	979 May 15 j 14:20	23°♄31'22	
superior conj	978 Jun 04 j 09:06	17°♄52'56	1°05'11		979 May 18 j 13:37	0°♄	
minimum elong	978 Jun 04 j 06:46	17°♄40'11	1°04'47	superior conj	979 May 19 j 20:47	2°♄51'13	0°43'49
max. Earth dist.	978 Jun 05 j 10:38	20°♄12'13	1.32676 AU	minimum elong	979 May 19 j 18:59	2°♄41'22	0°43'27
	978 Jun 10 j 00:14	0°♄		max. Earth dist.	979 May 19 j 22:36	3°♄01'13	1.32297 AU
evening rise	978 Jun 11 j 12:44	3°♄09'54		evening rise	979 May 26 j 19:49	17°♄54'54	
	978 Jun 26 j 03:52	0°♄			979 Jun 01 j 20:27	0°♄	
desc. node	978 Jul 06 j 16:45	14°♄59'20			979 Jun 21 j 07:52	0°♄	
evening max el	978 Jul 13 j 12:09	22°♄28'34	27°17'48	desc. node	979 Jun 23 j 13:45	2°♄28'36	
retrograde	978 Jul 27 j 07:45	29°♄44'52		evening max el	979 Jun 25 j 14:33	4°♄30'48	26°38'16
evening set	978 Aug 03 j 11:58	27°♄19'39		retrograde	979 Jul 09 j 13:58	11°♄44'54	
min. Earth dist.	978 Aug 07 j 02:03	24°♄29'28	0.62156 AU	evening set	979 Jul 16 j 07:57	9°♄48'29	
inferior conj	978 Aug 10 j 01:55	21°♄43'23	-4°-6'-26	min. Earth dist.	979 Jul 20 j 04:00	7°♄11'55	0.60137 AU
minimum elong	978 Aug 10 j 06:52	21°♄31'53	4°05'23	inferior conj	979 Jul 23 j 11:24	4°♄31'28	-4°-40'-45
morning rise	978 Aug 17 j 04:27	16°♄40'22		minimum elong	979 Jul 23 j 14:42	4°♄24'45	4°40'25
direct	978 Aug 19 j 14:23	16°♄14'48			979 Jul 30 j 13:34	30°♄	
asc. node	978 Aug 24 j 16:31	18°♄11'31		morning rise	979 Jul 31 j 00:45	29°♄51'03	
morning max el	978 Aug 26 j 10:07	19°♄41'55	17°54'07	direct	979 Aug 02 j 10:45	29°♄29'19	
	978 Sep 03 j 00:20	0°♄					

	979 Aug 05 j 05:57	0°♌		morning rise	980 Jul 12 j 02:32	12°♊25'09	
morning max el	979 Aug 09 j 21:39	3°♌07'02	18°12'11	direct	980 Jul 14 j 14:48	12°♊05'38	
asc. node	979 Aug 11 j 13:34	4°♌52'29		morning max el	980 Jul 23 j 02:21	16°♊05'31	18°50'43
morning set	979 Aug 25 j 18:26	28°♌16'46		asc. node	980 Jul 28 j 10:38	22°♊33'30	
	979 Aug 26 j 16:19	0°♍			980 Aug 02 j 00:34	0°♌	
				morning set	980 Aug 08 j 13:49	12°♌21'58	
superior conj	979 Sep 04 j 08:04	16°♍04'51	1°30'21				
minimum elong	979 Sep 04 j 11:48	16°♍21'41	1°30'01	superior conj	980 Aug 17 j 03:51	29°♌05'02	1°43'11
max. Earth dist.	979 Sep 11 j 22:52	29°♍25'05	1.41148 AU	minimum elong	980 Aug 17 j 05:35	29°♌13'16	1°43'06
	979 Sep 12 j 07:07	0°♎			980 Aug 17 j 15:26	0°♍	
evening rise	979 Sep 17 j 00:24	7°♎49'27		max. Earth dist.	980 Aug 24 j 02:36	11°♍53'18	1.39129 AU
desc. node	979 Sep 19 j 13:08	11°♎53'52		evening rise	980 Aug 28 j 02:26	18°♍51'19	
	979 Oct 01 j 09:53	0°♏			980 Sep 03 j 20:14	0°♎	
greatest brilliancy	979 Oct 15 j 12:14	19°♏08'41	-0.2m	desc. node	980 Sep 05 j 10:08	2°♎30'23	
evening max el	979 Oct 20 j 21:54	25°♏12'47	23°00'01		980 Sep 24 j 16:54	0°♏	
	979 Oct 26 j 20:40	0°♐		evening max el	980 Oct 02 j 10:41	8°♏47'45	24°19'53
retrograde	979 Oct 31 j 01:19	1°♐13'57		retrograde	980 Oct 13 j 16:17	15°♏22'34	
	979 Nov 03 j 20:55	30°♑		evening set	980 Oct 19 j 00:40	13°♏09'00	
evening set	979 Nov 04 j 19:38	29°♑17'42		inferior conj	980 Oct 24 j 11:46	6°♑44'12	0°01'39
asc. node	979 Nov 07 j 12:47	26°♑28'08		minimum elong	980 Oct 24 j 11:44	6°♑44'20	0°01'38
inferior conj	979 Nov 10 j 05:18	22°♑53'46	0°54'54	transit middle	980 Oct 24 j 11:44	6°♑44'20	0°01'38
minimum elong	979 Nov 10 j 04:03	22°♑58'04	0°54'22	transit begin	980 Oct 24 j 09:00	6°♑53'29	
min. Earth dist.	979 Nov 09 j 22:29	23°♑17'13	0.67744 AU	transit end	980 Oct 24 j 14:27	6°♑35'11	
morning rise	979 Nov 15 j 12:27	16°♑41'54		min. Earth dist.	980 Oct 23 j 18:35	7°♑42'00	0.67520 AU
direct	979 Nov 19 j 19:56	14°♑59'46		asc. node	980 Oct 24 j 09:52	6°♑50'37	
morning max el	979 Nov 28 j 16:55	20°♑12'05	21°36'50	morning rise	980 Oct 29 j 23:05	0°♑37'36	
greatest brilliancy	979 Dec 03 j 15:57	25°♑50'27	-0.4m		980 Oct 30 j 23:09	30°♑	
	979 Dec 06 j 21:27	0°♒		direct	980 Nov 02 j 17:16	29°♒16'50	
desc. node	979 Dec 16 j 12:21	13°♒33'25			980 Nov 05 j 15:05	0°♒	
	979 Dec 27 j 08:44	0°♓		morning max el	980 Nov 10 j 13:59	3°♒48'42	20°21'26
morning set	979 Dec 30 j 11:01	4°♓52'22		greatest brilliancy	980 Nov 17 j 02:15	11°♒35'58	-0.5m
max. Earth dist.	980 Jan 06 j 04:23	15°♓46'00	1.41800 AU		980 Nov 29 j 20:24	0°♓	
				desc. node	980 Dec 02 j 09:24	3°♓50'42	
superior conj	980 Jan 13 j 17:49	28°♓35'51	-2°-3'-28	morning set	980 Dec 08 j 09:15	13°♓02'25	
minimum elong	980 Jan 13 j 17:53	28°♓36'06	2°03'30	max. Earth dist.	980 Dec 18 j 11:44	28°♓57'42	1.43514 AU
	980 Jan 14 j 13:06	0°♔			980 Dec 19 j 03:13	0°♓	
evening rise	980 Jan 24 j 16:28	18°♔15'47					
	980 Jan 31 j 04:26	0°♕		superior conj	980 Dec 24 j 12:54	8°♓49'06	-1°-55'-35
asc. node	980 Feb 03 j 12:06	5°♕34'09		minimum elong	980 Dec 24 j 07:54	8°♓28'25	1°55'20
evening max el	980 Feb 10 j 02:38	14°♕19'18	18°10'26		981 Jan 05 j 23:16	0°♔	
retrograde	980 Feb 16 j 22:36	17°♕46'38		evening rise	981 Jan 06 j 03:34	0°♔18'44	
evening set	980 Feb 19 j 12:21	17°♕17'47		asc. node	981 Jan 20 j 09:09	23°♔41'33	
inferior conj	980 Feb 26 j 08:32	12°♕25'57	3°32'36	evening max el	981 Jan 23 j 14:49	27°♔30'25	18°09'25
minimum elong	980 Feb 26 j 10:50	12°♕20'40	3°32'19		981 Jan 26 j 19:14	0°♕	
min. Earth dist.	980 Feb 29 j 15:36	9°♕25'25	0.60443 AU	retrograde	981 Jan 30 j 02:37	0°♕55'14	
morning rise	980 Mar 04 j 06:06	6°♕40'11		evening set	981 Feb 01 j 21:07	0°♕16'47	
direct	980 Mar 10 j 22:31	4°♕31'59			981 Feb 02 j 10:38	30°♕	
desc. node	980 Mar 13 j 11:28	4°♕49'33		inferior conj	981 Feb 08 j 05:00	25°♕04'01	3°46'44
morning max el	980 Mar 25 j 04:51	12°♕22'25	27°34'34	minimum elong	981 Feb 08 j 05:11	25°♕03'32	3°46'45
	980 Apr 08 j 03:05	0°♖		min. Earth dist.	981 Feb 11 j 00:12	22°♕09'07	0.62516 AU
	980 Apr 25 j 00:15	0°♗		morning rise	981 Feb 14 j 11:05	19°♕05'04	
morning set	980 Apr 26 j 02:13	2°♗13'21		direct	981 Feb 21 j 10:16	16°♕28'58	
asc. node	980 May 01 j 11:24	13°♗40'58		desc. node	981 Feb 28 j 08:32	18°♕40'23	
max. Earth dist.	980 May 02 j 10:41	15°♗47'59	1.32298 AU	morning max el	981 Mar 07 j 10:04	24°♕22'59	27°48'11
					981 Mar 12 j 12:27	0°♘	
superior conj	980 May 03 j 08:12	17°♗45'46	0°19'39		981 Apr 01 j 11:15	0°♖	
minimum elong	980 May 03 j 07:19	17°♗40'56	0°19'28	morning set	981 Apr 10 j 04:08	16°♖34'38	
	980 May 08 j 22:50	0°♙		max. Earth dist.	981 Apr 15 j 19:04	28°♖19'21	1.32692 AU
evening rise	980 May 10 j 06:14	2°♙47'22			981 Apr 16 j 13:48	0°♗	
	980 May 24 j 22:35	0°♚					
evening max el	980 Jun 06 j 10:00	15°♚47'08	25°28'37	superior conj	981 Apr 17 j 17:36	2°♗30'15	0°-6'-32
desc. node	980 Jun 09 j 10:45	18°♚25'31		minimum elong	981 Apr 17 j 17:55	2°♗31'56	0°06'29
retrograde	980 Jun 20 j 10:50	22°♚56'44		behind sun begin	981 Apr 17 j 13:09	2°♗06'08	
evening set	980 Jun 26 j 05:16	21°♚38'43		behind sun end	981 Apr 17 j 22:40	2°♗57'44	
min. Earth dist.	980 Jun 30 j 22:06	18°♚57'10	0.58092 AU	asc. node	981 Apr 18 j 08:28	3°♗50'53	
inferior conj	980 Jul 04 j 02:41	16°♚42'52	-4°-51'-19	evening rise	981 Apr 24 j 18:02	17°♗40'07	
minimum elong	980 Jul 04 j 02:01	16°♚44'03	4°51'18		981 Apr 30 j 20:27	0°♙	

evening max el	981 May 19 j 00:40	26° Π 28'26	23°58'36		982 Apr 08 j 01:30	0° \mathcal{B}	
	981 May 23 j 06:24	0° \mathfrak{G}		evening rise	982 Apr 09 j 05:22	2° \mathcal{B} 27'01	
desc. node	981 May 27 j 07:45	2° \mathfrak{G} 15'28			982 Apr 24 j 16:17	0° Π	
retrograde	981 Jun 01 j 19:39	3° \mathfrak{G} 24'04		evening max el	982 Apr 30 j 16:29	7° Π 00'47	22°22'51
evening set	981 Jun 06 j 04:09	2° \mathfrak{G} 42'12		retrograde	982 May 13 j 15:47	13° Π 25'05	
	981 Jun 11 j 22:02	30° $\mathcal{R}\Pi$		desc. node	982 May 14 j 04:47	13° Π 24'26	
min. Earth dist.	981 Jun 12 j 11:36	29° Π 39'48	0.56334 AU	evening set	982 May 16 j 15:37	13° Π 05'22	
inferior conj	981 Jun 14 j 21:46	28° Π 10'25	-4°-24'-35	min. Earth dist.	982 May 24 j 23:31	9° Π 29'38	0.55211 AU
minimum elong	981 Jun 14 j 16:06	28° Π 19'10	4°23'42	inferior conj	982 May 25 j 23:12	8° Π 56'12	-3°-11'-9
morning rise	981 Jun 23 j 07:37	24° Π 11'00		minimum elong	982 May 25 j 15:41	9° Π 06'50	3°09'01
direct	981 Jun 25 j 23:54	23° Π 52'24		morning rise	982 Jun 03 j 17:55	5° Π 03'43	
morning max el	981 Jul 05 j 21:21	28° Π 27'39	19°50'33	direct	982 Jun 06 j 16:17	4° Π 44'12	
	981 Jul 07 j 10:18	0° \mathfrak{G}		morning max el	982 Jun 18 j 05:01	10° Π 06'34	21°10'40
asc. node	981 Jul 15 j 07:43	11° \mathfrak{G} 00'57		asc. node	982 Jul 02 j 04:46	0° \mathfrak{G} 03'14	
morning set	981 Jul 23 j 16:44	26° \mathfrak{G} 50'28			982 Jul 02 j 04:04	0° \mathfrak{G}	
	981 Jul 25 j 06:08	0° \mathcal{Q}		morning set	982 Jul 08 j 00:32	11° \mathfrak{G} 34'30	
superior conj	981 Jul 31 j 14:27	12° \mathcal{Q} 50'16	1°46'25	superior conj	982 Jul 15 j 11:27	27° \mathfrak{G} 07'08	1°41'58
minimum elong	981 Jul 31 j 14:18	12° \mathcal{Q} 49'33	1°46'25	minimum elong	982 Jul 15 j 09:57	26° \mathfrak{G} 59'24	1°41'53
max. Earth dist.	981 Aug 06 j 06:55	23° \mathcal{Q} 51'58	1.37145 AU		982 Jul 16 j 21:04	0° \mathcal{Q}	
	981 Aug 09 j 14:34	0° \mathfrak{M}		max. Earth dist.	982 Jul 19 j 17:10	5° \mathcal{Q} 43'33	1.35405 AU
evening rise	981 Aug 10 j 03:54	1° \mathfrak{M} 00'13		evening rise	982 Jul 24 j 00:21	14° \mathcal{Q} 04'06	
desc. node	981 Aug 23 j 07:08	22° \mathfrak{M} 55'14			982 Aug 01 j 22:50	0° \mathfrak{M}	
	981 Aug 28 j 00:28	0° \mathfrak{A}		desc. node	982 Aug 10 j 04:09	13° \mathfrak{M} 01'55	
evening max el	981 Sep 14 j 22:36	22° \mathfrak{A} 26'49	25°33'52		982 Aug 22 j 19:19	0° \mathfrak{A}	
retrograde	981 Sep 27 j 02:42	29° \mathfrak{A} 25'48		evening max el	982 Aug 28 j 10:36	6° \mathfrak{A} 03'52	26°34'20
evening set	981 Oct 03 j 01:45	26° \mathfrak{A} 56'36		retrograde	982 Sep 10 j 07:58	13° \mathfrak{A} 17'03	
min. Earth dist.	981 Oct 07 j 11:36	22° \mathfrak{A} 05'13	0.66972 AU	evening set	982 Sep 16 j 20:50	10° \mathfrak{A} 36'33	
inferior conj	981 Oct 08 j 15:37	20° \mathfrak{A} 35'16	0°-54'-22	min. Earth dist.	982 Sep 20 j 23:05	6° \mathfrak{A} 22'28	0.66078 AU
minimum elong	981 Oct 08 j 17:01	20° \mathfrak{A} 30'48	0°53'47	inferior conj	982 Sep 22 j 14:53	4° \mathfrak{A} 22'54	-1°-51'-37
asc. node	981 Oct 11 j 06:55	17° \mathfrak{A} 21'55		minimum elong	982 Sep 22 j 17:48	4° \mathfrak{A} 14'09	1°50'28
morning rise	981 Oct 14 j 08:59	14° \mathfrak{A} 36'54			982 Sep 26 j 16:28	30° $\mathcal{R}\mathfrak{M}$	
direct	981 Oct 17 j 15:50	13° \mathfrak{A} 34'32		asc. node	982 Sep 28 j 03:58	28° \mathfrak{M} 53'28	
morning max el	981 Oct 24 j 18:45	17° \mathfrak{A} 35'36	19°19'42	morning rise	982 Sep 28 j 15:58	28° \mathfrak{M} 35'55	
	981 Nov 03 j 08:45	0° \mathfrak{M}		direct	982 Oct 01 j 13:41	27° \mathfrak{M} 48'26	
greatest brilliancy	981 Nov 03 j 11:45	0° \mathfrak{M} 11'01	-0.7m		982 Oct 06 j 15:02	0° \mathfrak{A}	
morning set	981 Nov 17 j 10:17	21° \mathfrak{M} 29'51		morning max el	982 Oct 08 j 05:49	1° \mathfrak{A} 28'46	18°33'39
desc. node	981 Nov 19 j 06:27	24° \mathfrak{M} 21'34			982 Oct 27 j 17:03	0° \mathfrak{M}	
	981 Nov 22 j 21:18	0° \mathfrak{A}		morning set	982 Oct 28 j 10:54	1° \mathfrak{M} 11'26	
max. Earth dist.	981 Dec 01 j 02:16	12° \mathfrak{A} 52'45	1.44659 AU	desc. node	982 Nov 06 j 03:28	15° \mathfrak{M} 01'17	
superior conj	981 Dec 04 j 06:02	17° \mathfrak{A} 53'05	-1°-29'-10	superior conj	982 Nov 13 j 07:32	26° \mathfrak{M} 19'03	0°-46'-19
minimum elong	981 Dec 03 j 21:29	17° \mathfrak{A} 19'06	1°28'20	minimum elong	982 Nov 13 j 01:36	25° \mathfrak{M} 55'42	0°45'34
	981 Dec 11 j 18:46	0° \mathfrak{B}		max. Earth dist.	982 Nov 13 j 20:45	27° \mathfrak{M} 10'58	1.45095 AU
evening rise	981 Dec 18 j 17:54	11° \mathfrak{B} 26'53			982 Nov 15 j 15:48	0° \mathfrak{A}	
	981 Dec 30 j 01:26	0° \approx		evening rise	982 Nov 29 j 08:43	21° \mathfrak{A} 37'04	
evening max el	982 Jan 07 j 03:12	10° \approx 51'59	18°27'08		982 Dec 04 j 15:22	0° \mathfrak{B}	
asc. node	982 Jan 07 j 06:12	10° \approx 59'35		evening max el	982 Dec 21 j 13:14	24° \mathfrak{B} 18'32	19°02'36
retrograde	982 Jan 13 j 16:00	14° \approx 26'51		asc. node	982 Dec 25 j 03:14	27° \mathfrak{B} 14'31	
evening set	982 Jan 16 j 15:34	13° \approx 37'49		retrograde	982 Dec 28 j 10:58	28° \mathfrak{B} 14'10	
inferior conj	982 Jan 22 j 14:25	8° \approx 05'34	3°40'52	evening set	982 Dec 31 j 16:38	27° \mathfrak{B} 13'24	
minimum elong	982 Jan 22 j 12:58	8° \approx 09'49	3°40'44	inferior conj	983 Jan 06 j 09:10	21° \mathfrak{B} 24'06	3°20'29
min. Earth dist.	982 Jan 24 j 18:19	5° \approx 35'10	0.64320 AU	minimum elong	983 Jan 06 j 06:45	21° \mathfrak{B} 31'42	3°20'01
morning rise	982 Jan 28 j 08:57	1° \approx 58'32		min. Earth dist.	983 Jan 07 j 21:47	19° \mathfrak{B} 28'54	0.65746 AU
	982 Jan 31 j 10:20	30° $\mathcal{R}\mathfrak{B}$		morning rise	983 Jan 11 j 19:57	15° \mathfrak{B} 12'01	
direct	982 Feb 04 j 05:29	29° \mathfrak{B} 08'59		direct	983 Jan 18 j 07:10	12° \mathfrak{B} 23'12	
	982 Feb 08 j 06:49	0° \approx		morning max el	983 Jan 31 j 04:45	19° \mathfrak{B} 58'43	26°33'11
desc. node	982 Feb 15 j 05:36	4° \approx 34'46		desc. node	983 Feb 02 j 02:39	21° \mathfrak{B} 58'43	
morning max el	982 Feb 17 j 18:54	6° \approx 58'51	27°25'50		983 Feb 08 j 19:25	0° \approx	
	982 Mar 07 j 12:03	0° \mathfrak{H}			983 Feb 28 j 13:52	0° \mathfrak{H}	
morning set	982 Mar 24 j 22:03	0° \mathfrak{Y} 28'26		morning set	983 Mar 08 j 04:29	13° \mathfrak{H} 44'08	
	982 Mar 24 j 16:15	0° \mathfrak{Y}		max. Earth dist.	983 Mar 12 j 10:08	21° \mathfrak{H} 55'57	1.34766 AU
max. Earth dist.	982 Mar 29 j 19:58	10° \mathfrak{Y} 24'02	1.33507 AU		983 Mar 16 j 10:03	0° \mathfrak{Y}	
superior conj	982 Apr 01 j 23:08	16° \mathfrak{Y} 58'39	0°-33'-49	superior conj	983 Mar 16 j 22:33	1° \mathfrak{Y} 04'17	-1°-1'00
minimum elong	982 Apr 02 j 00:47	17° \mathfrak{Y} 07'29	0°33'30	minimum elong	983 Mar 17 j 01:32	1° \mathfrak{Y} 19'39	1°00'29
asc. node	982 Apr 05 j 05:31	23° \mathfrak{Y} 57'11		asc. node	983 Mar 23 j 02:32	13° \mathfrak{Y} 55'49	

evening rise	983 Mar 24 j 14:20	17° Υ 01'45		minimum elong	984 Feb 28 j 16:55	14° Υ 57'37	1°25'51
	983 Mar 31 j 04:10	0° Υ			984 Mar 07 j 03:36	0° Υ	
evening max el	983 Apr 12 j 16:24	17° Υ 54'17	20°55'12	evening rise	984 Mar 07 j 18:44	1° Υ 16'31	
retrograde	983 Apr 24 j 05:11	23° Υ 30'20		asc. node	984 Mar 08 j 23:34	3° Υ 41'24	
evening set	983 Apr 26 j 10:13	23° Υ 18'46		evening max el	984 Mar 25 j 03:47	29° Υ 24'43	19°43'46
desc. node	983 May 01 j 01:49	21° Υ 48'03			984 Mar 25 j 18:54	0° Υ	
inferior conj	983 May 05 j 17:10	19° Υ 20'46	-1°-20'-14	retrograde	984 Apr 03 j 23:10	4° Υ 07'56	
minimum elong	983 May 05 j 13:23	19° Υ 26'09	1°18'53	evening set	984 Apr 06 j 00:46	3° Υ 56'17	
min. Earth dist.	983 May 06 j 12:11	18° Υ 53'45	0.54978 AU	inferior conj	984 Apr 14 j 18:07	29° Υ 53'52	0°37'37
morning rise	983 May 14 j 15:53	15° Υ 16'07		minimum elong	984 Apr 14 j 19:44	29° Υ 51'21	0°37'03
direct	983 May 18 j 02:04	14° Υ 50'51			984 Apr 14 j 14:12	30° Υ	
morning max el	983 May 31 j 02:35	21° Υ 05'20	22°46'21	desc. node	984 Apr 16 j 22:51	28° Υ 31'40	
	983 Jun 07 j 16:44	0° Υ		min. Earth dist.	984 Apr 17 j 02:27	28° Υ 26'10	0.55701 AU
asc. node	983 Jun 19 j 01:48	19° Υ 31'44		morning rise	984 Apr 23 j 11:17	25° Υ 19'51	
morning set	983 Jun 22 j 11:15	26° Υ 28'21		direct	984 Apr 27 j 18:55	24° Υ 38'18	
	983 Jun 24 j 03:23	0° Υ			984 May 09 j 22:34	0° Υ	
				morning max el	984 May 11 j 18:01	1° Υ 37'38	24°27'49
superior conj	983 Jun 29 j 15:33	11° Υ 45'58	1°31'24		984 May 31 j 07:09	0° Υ	
minimum elong	983 Jun 29 j 13:18	11° Υ 33'59	1°31'11	asc. node	984 Jun 04 j 22:50	9° Υ 18'36	
max. Earth dist.	983 Jul 02 j 12:23	17° Υ 48'27	1.34031 AU	morning set	984 Jun 05 j 23:07	11° Υ 25'42	
evening rise	983 Jul 07 j 11:09	27° Υ 50'35					
	983 Jul 08 j 13:39	0° Υ		superior conj	984 Jun 13 j 00:10	26° Υ 37'42	1°15'57
	983 Jul 26 j 04:15	0° Υ		minimum elong	984 Jun 12 j 21:44	26° Υ 24'25	1°15'35
desc. node	983 Jul 28 j 01:09	2° Υ 42'22		max. Earth dist.	984 Jun 14 j 16:15	0° Υ 14'21	1.33056 AU
evening max el	983 Aug 10 j 22:25	19° Υ 29'53	27°13'43		984 Jun 14 j 13:35	0° Υ	
retrograde	983 Aug 24 j 07:48	26° Υ 48'49		evening rise	984 Jun 20 j 08:14	12° Υ 07'32	
evening set	983 Aug 31 j 07:28	24° Υ 04'50			984 Jun 29 j 18:45	0° Υ	
min. Earth dist.	983 Sep 04 j 02:48	20° Υ 27'38	0.64823 AU	desc. node	984 Jul 13 j 22:10	21° Υ 45'14	
inferior conj	983 Sep 06 j 07:22	18° Υ 02'48	-2°-47'-57		984 Jul 20 j 19:47	0° Υ	
minimum elong	983 Sep 06 j 11:38	17° Υ 51'01	2°46'29	evening max el	984 Jul 23 j 08:35	2° Υ 33'11	27°25'32
morning rise	983 Sep 12 j 17:34	12° Υ 30'25		retrograde	984 Aug 06 j 01:41	9° Υ 51'51	
direct	983 Sep 15 j 08:34	11° Υ 54'05		evening set	984 Aug 13 j 06:27	7° Υ 15'57	
asc. node	983 Sep 15 j 01:01	11° Υ 54'37		min. Earth dist.	984 Aug 16 j 21:05	4° Υ 11'08	0.63210 AU
morning max el	983 Sep 21 j 20:46	15° Υ 22'59	18°04'17	inferior conj	984 Aug 19 j 14:23	1° Υ 29'09	-3°-40'-11
	983 Oct 02 j 06:54	0° Υ		minimum elong	984 Aug 19 j 19:25	1° Υ 16'37	3°38'50
morning set	983 Oct 09 j 16:22	12° Υ 17'48			984 Aug 21 j 02:58	30° Υ	
	983 Oct 20 j 10:14	0° Υ		morning rise	984 Aug 26 j 10:47	26° Υ 14'30	
				direct	984 Aug 28 j 21:39	25° Υ 45'57	
superior conj	983 Oct 23 j 14:45	5° Υ 07'34	0°02'43	asc. node	984 Aug 31 j 22:03	26° Υ 29'56	
minimum elong	983 Oct 23 j 15:05	5° Υ 08'51	0°02'40	morning max el	984 Sep 04 j 12:44	29° Υ 11'40	17°52'32
behind sun begin	983 Oct 23 j 04:32	4° Υ 26'41			984 Sep 05 j 07:21	0° Υ	
behind sun end	983 Oct 24 j 01:37	5° Υ 50'57		morning set	984 Sep 20 j 22:28	24° Υ 35'05	
desc. node	983 Oct 24 j 00:28	5° Υ 46'24			984 Sep 24 j 00:43	0° Υ	
max. Earth dist.	983 Oct 27 j 15:32	11° Υ 32'03	1.44786 AU				
	983 Nov 08 j 11:27	0° Υ		superior conj	984 Oct 02 j 20:55	15° Υ 05'21	0°46'06
evening rise	983 Nov 09 j 02:19	0° Υ 57'28		minimum elong	984 Oct 03 j 01:11	15° Υ 23'08	0°45'32
greatest brilliancy	983 Nov 27 j 12:48	28° Υ 42'53	-0.6m	max. Earth dist.	984 Oct 09 j 07:39	25° Υ 38'12	1.43784 AU
	983 Nov 28 j 11:03	0° Υ		desc. node	984 Oct 09 j 21:30	26° Υ 33'47	
evening max el	983 Dec 04 j 19:00	7° Υ 46'57	19°54'10		984 Oct 12 j 01:14	0° Υ	
retrograde	983 Dec 12 j 08:25	12° Υ 11'58		evening rise	984 Oct 18 j 09:56	9° Υ 57'28	
asc. node	983 Dec 12 j 00:16	12° Υ 11'19			984 Oct 31 j 16:56	0° Υ	
evening set	983 Dec 15 j 21:50	10° Υ 57'54		greatest brilliancy	984 Nov 11 j 08:58	14° Υ 54'18	-0.5m
inferior conj	983 Dec 21 j 10:16	4° Υ 54'33	2°49'14	evening max el	984 Nov 16 j 19:22	21° Υ 16'40	20°59'20
minimum elong	983 Dec 21 j 07:33	5° Υ 03'35	2°48'29	retrograde	984 Nov 25 j 06:05	26° Υ 17'07	
min. Earth dist.	983 Dec 22 j 09:01	3° Υ 38'48	0.66778 AU	asc. node	984 Nov 27 j 21:17	25° Υ 38'10	
	983 Dec 25 j 08:19	30° Υ		evening set	984 Nov 29 j 05:11	24° Υ 47'58	
morning rise	983 Dec 26 j 16:38	28° Υ 39'42		inferior conj	984 Dec 04 j 15:21	18° Υ 33'53	2°09'43
direct	984 Jan 01 j 14:39	26° Υ 02'42		minimum elong	984 Dec 04 j 12:52	18° Υ 42'24	2°08'51
	984 Jan 10 j 03:06	0° Υ		min. Earth dist.	984 Dec 05 j 01:49	17° Υ 57'58	0.67431 AU
morning max el	984 Jan 13 j 13:42	3° Υ 10'07	25°18'42	morning rise	984 Dec 09 j 20:09	12° Υ 18'28	
desc. node	984 Jan 19 j 23:41	10° Υ 25'54		direct	984 Dec 15 j 03:15	10° Υ 00'31	
	984 Feb 03 j 01:04	0° Υ		morning max el	984 Dec 25 j 22:07	16° Υ 26'32	23°52'38
morning set	984 Feb 18 j 18:32	26° Υ 06'47		desc. node	985 Jan 05 j 20:44	29° Υ 38'15	
	984 Feb 20 j 21:42	0° Υ			985 Jan 06 j 03:10	0° Υ	
max. Earth dist.	984 Feb 22 j 12:34	3° Υ 00'47	1.36467 AU		985 Jan 26 j 01:22	0° Υ	
				morning set	985 Jan 30 j 10:15	7° Υ 20'19	
superior conj	984 Feb 28 j 13:00	14° Υ 38'10	-1°-26'-23	max. Earth dist.	985 Feb 03 j 07:44	14° Υ 07'49	1.38507 AU

superior conj	985 Feb 10 j 14:55	27° \approx 31'25	-1°-47'-30		986 Jan 18 j 13:39	0° \approx	
minimum elong	985 Feb 10 j 18:50	27° \approx 49'56	1°47'10				
	985 Feb 11 j 22:10	0° H		superior conj	986 Jan 23 j 23:38	9° \approx 31'55	-2°00'-56
evening rise	985 Feb 19 j 16:05	15° H 04'51		minimum elong	986 Jan 24 j 01:47	9° \approx 41'33	2°00'53
asc. node	985 Feb 23 j 20:36	23° H 08'57		evening rise	986 Feb 03 j 03:12	28° \approx 18'48	
	985 Feb 27 j 15:49	0° Y			986 Feb 04 j 00:45	0° H	
evening max el	985 Mar 08 j 01:55	11° Y 33'32	18°51'43	asc. node	986 Feb 10 j 17:39	12° H 11'53	
retrograde	985 Mar 16 j 08:33	15° Y 34'12		evening max el	986 Feb 19 j 07:57	24° H 13'13	18°19'45
evening set	985 Mar 18 j 14:21	15° Y 17'43		retrograde	986 Feb 26 j 13:02	27° H 48'00	
inferior conj	985 Mar 26 j 12:57	10° Y 59'09	2°12'20	evening set	986 Mar 01 j 00:09	27° H 23'59	
minimum elong	985 Mar 26 j 17:05	10° Y 51'41	2°11'08	inferior conj	986 Mar 08 j 05:00	22° H 44'18	3°12'33
min. Earth dist.	985 Mar 29 j 18:53	8° Y 39'23	0.57227 AU	minimum elong	986 Mar 08 j 08:26	22° H 37'03	3°11'56
morning rise	985 Apr 03 j 15:30	5° Y 51'52		min. Earth dist.	986 Mar 11 j 15:20	19° H 51'48	0.59225 AU
desc. node	985 Apr 03 j 19:53	5° Y 47'15		morning rise	986 Mar 15 j 13:00	17° H 10'08	
direct	985 Apr 09 j 01:30	4° Y 40'58		direct	986 Mar 21 j 20:58	15° H 22'40	
morning max el	985 Apr 23 j 09:07	12° Y 09'08	26°00'37	desc. node	986 Mar 21 j 16:56	15° H 22'44	
	985 May 07 j 05:53	0° B		morning max el	986 Apr 05 j 04:57	23° H 06'32	27°09'52
morning set	985 May 21 j 10:32	26° B 21'18			986 Apr 11 j 08:42	0° Y	
asc. node	985 May 22 j 19:52	29° B 18'12			986 Apr 30 j 06:07	0° B	
	985 May 23 j 03:41	0° II		morning set	986 May 05 j 19:51	11° B 09'33	
				asc. node	986 May 09 j 16:56	19° B 25'41	
superior conj	985 May 28 j 11:16	11° II 35'30	0°56'30				
minimum elong	985 May 28 j 09:07	11° II 23'42	0°56'06	superior conj	986 May 12 j 23:05	26° B 33'15	0°33'52
max. Earth dist.	985 May 29 j 02:17	12° II 57'46	1.32472 AU	minimum elong	986 May 12 j 21:38	26° B 25'18	0°33'34
evening rise	985 Jun 04 j 12:27	26° II 45'04		max. Earth dist.	986 May 12 j 14:56	25° B 48'28	1.32258 AU
	985 Jun 06 j 02:23	0° E			986 May 14 j 12:41	0° II	
	985 Jun 23 j 06:08	0° O		evening rise	986 May 19 j 21:16	11° II 34'50	
desc. node	985 Jun 30 j 19:11	9° O 54'46			986 May 29 j 07:36	0° E	
evening max el	985 Jul 05 j 14:45	15° O 01'20	27°05'05	evening max el	986 Jun 17 j 14:30	26° E 45'04	26°11'56
retrograde	985 Jul 19 j 12:29	22° O 16'43		desc. node	986 Jun 17 j 16:12	26° E 49'06	
evening set	985 Jul 26 j 13:38	20° O 02'33			986 Jun 21 j 10:31	0° O	
min. Earth dist.	985 Jul 30 j 05:01	17° O 19'53	0.61308 AU	retrograde	986 Jul 01 j 14:41	3° O 56'50	
inferior conj	985 Aug 02 j 08:46	14° O 34'04	-4°-23'-15	evening set	986 Jul 08 j 00:22	2° O 16'22	
minimum elong	985 Aug 02 j 13:17	14° O 24'07	4°22'29		986 Jul 11 j 16:11	30° R E	
morning rise	985 Aug 09 j 15:53	9° O 40'10		min. Earth dist.	986 Jul 12 j 03:17	29° E 39'58	0.59255 AU
direct	985 Aug 12 j 01:27	9° O 16'30		inferior conj	986 Jul 15 j 10:59	27° E 08'26	-4°-48'-57
asc. node	985 Aug 18 j 19:06	12° O 29'11		minimum elong	986 Jul 15 j 12:52	27° E 04'49	4°48'51
morning max el	985 Aug 19 j 02:42	12° O 47'19	17°59'22	morning rise	986 Jul 23 j 04:48	22° E 37'35	
	985 Aug 30 j 16:58	0° P		direct	986 Jul 25 j 15:42	22° E 16'48	
morning set	985 Sep 03 j 22:58	7° P 45'03		morning max el	986 Aug 02 j 11:42	26° E 02'21	18°26'01
				asc. node	986 Aug 05 j 16:10	29° E 37'44	
superior conj	985 Sep 14 j 06:16	26° P 22'52	1°17'49		986 Aug 05 j 23:00	0° O	
minimum elong	985 Sep 14 j 10:50	26° P 42'51	1°17'20	morning set	986 Aug 18 j 12:41	21° O 33'52	
	985 Sep 16 j 08:11	0° A			986 Aug 22 j 22:16	0° P	
max. Earth dist.	985 Sep 21 j 19:13	9° A 14'03	1.42224 AU				
desc. node	985 Sep 26 j 18:31	17° A 19'42		superior conj	986 Aug 27 j 15:12	8° P 50'44	1°37'07
evening rise	985 Sep 28 j 00:59	19° A 21'04		minimum elong	986 Aug 27 j 18:06	9° P 04'12	1°36'54
	985 Oct 04 j 21:32	0° M		max. Earth dist.	986 Sep 04 j 01:50	22° P 09'49	1.40303 AU
greatest brilliancy	985 Oct 25 j 21:04	29° M 28'44	-0.3m	evening rise	986 Sep 08 j 12:54	29° P 43'16	
	985 Oct 26 j 07:24	0° J			986 Sep 08 j 16:56	0° A	
evening max el	985 Oct 30 j 14:12	4° J 47'17	22°14'26	desc. node	986 Sep 13 j 15:33	8° A 00'59	
retrograde	985 Nov 09 j 02:04	10° J 26'02			986 Sep 28 j 09:12	0° M	
evening set	985 Nov 13 j 12:56	8° J 40'00		evening max el	986 Oct 13 j 04:38	18° M 20'20	23°34'15
asc. node	985 Nov 14 j 18:21	7° J 32'55		retrograde	986 Oct 23 j 19:08	24° M 36'01	
inferior conj	985 Nov 18 j 22:23	2° J 18'48	1°23'43	evening set	986 Oct 28 j 19:26	22° M 32'12	
minimum elong	985 Nov 18 j 20:34	2° J 25'03	1°23'00	asc. node	986 Nov 01 j 15:24	18° M 16'34	
min. Earth dist.	985 Nov 18 j 21:42	2° J 21'08	0.67729 AU	inferior conj	986 Nov 03 j 05:33	16° M 07'34	0°32'44
	985 Nov 20 j 15:08	30° R M		minimum elong	986 Nov 03 j 04:47	16° M 10'12	0°32'24
morning rise	985 Nov 24 j 04:03	26° M 05'03		min. Earth dist.	986 Nov 02 j 18:19	16° M 45'59	0.67693 AU
direct	985 Nov 28 j 20:00	24° M 09'35		morning rise	986 Nov 08 j 14:16	9° M 57'53	
morning max el	985 Dec 08 j 08:55	29° M 47'49	22°24'52	direct	986 Nov 12 j 15:56	8° M 25'04	
	985 Dec 08 j 13:43	0° J		morning max el	986 Nov 21 j 01:42	13° M 18'33	21°03'20
greatest brilliancy	985 Dec 12 j 23:08	4° J 56'25	-0.3m	greatest brilliancy	986 Nov 26 j 13:13	19° M 39'09	-0.5m
desc. node	985 Dec 23 j 17:47	19° J 22'25			986 Dec 04 j 03:13	0° J	
	985 Dec 30 j 23:00	0° B		desc. node	986 Dec 10 j 14:49	9° J 29'30	
morning set	986 Jan 10 j 21:49	17° B 10'20		morning set	986 Dec 21 j 05:54	25° J 44'28	
max. Earth dist.	986 Jan 16 j 04:14	25° B 54'48	1.40648 AU		986 Dec 23 j 22:46	0° B	

max. Earth dist.	1986 Dec 29 j 07:44	8°♄38'36	1.42591 AU	greatest brilliancy	1987 Nov 11 j 14:21	6°♄14'20	-0.6m
				desc. node	1987 Nov 27 j 11:52	29°♄52'57	
superior conj	1987 Jan 05 j 09:43	20°♄26'45	-2°-2'-14		1987 Nov 27 j 13:42	0°♄	
minimum elong	1987 Jan 05 j 07:45	20°♄18'24	2°02'13	morning set	1987 Nov 30 j 02:06	3°♄52'44	
	1987 Jan 10 j 22:13	0°♄		max. Earth dist.	1987 Dec 11 j 18:27	22°♄10'52	1.44072 AU
evening rise	1987 Jan 17 j 00:20	10°♄50'21					
	1987 Jan 28 j 03:29	0°♄		superior conj	1987 Dec 16 j 17:17	0°♄08'28	-1°-46'-43
asc. node	1987 Jan 28 j 14:42	0°♄42'21		minimum elong	1987 Dec 16 j 10:15	29°♄39'57	1°46'12
evening max el	1987 Feb 02 j 18:44	7°♄15'02	18°07'36		1987 Dec 16 j 15:12	0°♄	
retrograde	1987 Feb 09 j 09:59	10°♄39'47		evening rise	1987 Dec 30 j 03:06	22°♄31'04	
evening set	1987 Feb 12 j 01:47	10°♄06'55			1988 Jan 03 j 12:14	0°♄	
inferior conj	1987 Feb 18 j 16:16	5°♄05'40	3°41'27	asc. node	1988 Jan 15 j 11:46	18°♄30'28	
minimum elong	1987 Feb 18 j 17:38	5°♄02'18	3°41'22	evening max el	1988 Jan 17 j 07:16	20°♄31'11	18°14'43
min. Earth dist.	1987 Feb 21 j 18:49	2°♄05'03	0.61345 AU	retrograde	1988 Jan 23 j 18:39	23°♄59'19	
	1987 Feb 24 j 05:11	30°♄		evening set	1988 Jan 26 j 15:06	23°♄16'38	
morning rise	1987 Feb 25 j 06:47	29°♄13'25		inferior conj	1988 Feb 01 j 18:46	17°♄55'15	3°46'21
direct	1987 Mar 04 j 03:12	26°♄52'14		minimum elong	1988 Feb 01 j 18:11	17°♄56'53	3°46'20
desc. node	1987 Mar 08 j 14:00	27°♄46'23		min. Earth dist.	1988 Feb 04 j 07:36	15°♄08'49	0.63314 AU
	1987 Mar 12 j 16:23	0°♄		morning rise	1988 Feb 07 j 19:24	11°♄52'04	
morning max el	1987 Mar 18 j 07:17	4°♄44'31	27°45'03	direct	1988 Feb 14 j 18:16	9°♄08'26	
	1987 Apr 06 j 03:10	0°♄		desc. node	1988 Feb 23 j 11:02	12°♄34'25	
morning set	1987 Apr 20 j 01:07	25°♄43'07		morning max el	1988 Feb 28 j 14:37	17°♄02'34	27°42'57
	1987 Apr 22 j 02:36	0°♄			1988 Mar 10 j 09:26	0°♄	
max. Earth dist.	1987 Apr 26 j 02:10	8°♄31'39	1.32421 AU		1988 Mar 28 j 20:58	0°♄	
asc. node	1987 Apr 26 j 13:59	9°♄35'55		morning set	1988 Apr 03 j 00:02	9°♄54'33	
				max. Earth dist.	1988 Apr 08 j 07:56	20°♄53'45	1.32984 AU
superior conj	1987 Apr 27 j 09:51	11°♄24'15	0°08'46				
minimum elong	1987 Apr 27 j 09:26	11°♄22'03	0°08'40	superior conj	1988 Apr 10 j 17:51	26°♄02'57	0°-18'-1
behind sun begin	1987 Apr 27 j 05:09	10°♄58'37		minimum elong	1988 Apr 10 j 18:44	26°♄07'39	0°17'51
behind sun end	1987 Apr 27 j 13:44	11°♄45'30		asc. node	1988 Apr 12 j 11:02	29°♄45'04	
evening rise	1987 May 04 j 08:31	26°♄28'28			1988 Apr 12 j 13:48	0°♄	
	1987 May 06 j 00:54	0°♄		evening rise	1988 Apr 17 j 20:21	11°♄19'41	
	1987 May 23 j 12:46	0°♄			1988 Apr 27 j 10:49	0°♄	
evening max el	1987 May 30 j 07:17	7°♄43'48	24°51'53	evening max el	1988 May 10 j 21:20	18°♄16'59	23°17'35
desc. node	1987 Jun 04 j 13:14	11°♄56'57		desc. node	1988 May 21 j 10:15	24°♄42'03	
retrograde	1987 Jun 13 j 06:32	14°♄49'09		retrograde	1988 May 24 j 10:14	25°♄02'32	
evening set	1987 Jun 18 j 11:36	13°♄47'18		evening set	1988 May 28 j 03:41	24°♄32'03	
min. Earth dist.	1987 Jun 23 j 18:39	10°♄58'49	0.57293 AU	min. Earth dist.	1988 Jun 04 j 07:14	21°♄16'47	0.55763 AU
inferior conj	1987 Jun 26 j 17:43	9°♄01'34	-4°-45'-17	inferior conj	1988 Jun 06 j 04:33	20°♄10'03	-3°-59'-10
minimum elong	1987 Jun 26 j 14:52	9°♄06'19	4°45'05	minimum elong	1988 Jun 05 j 21:27	20°♄20'32	3°57'39
morning rise	1987 Jul 04 j 21:56	4°♄52'52		morning rise	1988 Jun 14 j 18:30	16°♄15'39	
direct	1987 Jul 07 j 11:53	4°♄33'50		direct	1988 Jun 17 j 12:43	15°♄57'11	
morning max el	1987 Jul 16 j 12:35	8°♄46'32	19°13'37	morning max el	1988 Jun 28 j 02:57	20°♄51'16	20°22'18
asc. node	1987 Jul 23 j 13:14	17°♄39'51			1988 Jul 05 j 13:21	0°♄	
	1987 Jul 30 j 12:15	0°♄		asc. node	1988 Jul 09 j 10:17	6°♄23'04	
morning set	1987 Aug 02 j 11:37	5°♄49'54		morning set	1988 Jul 16 j 16:50	20°♄25'23	
					1988 Jul 21 j 08:34	0°♄	
superior conj	1987 Aug 10 j 17:55	22°♄12'00	1°45'37				
minimum elong	1987 Aug 10 j 18:48	22°♄16'18	1°45'35	superior conj	1988 Jul 24 j 09:24	6°♄12'06	1°45'21
	1987 Aug 14 j 20:09	0°♄		minimum elong	1988 Jul 24 j 08:37	6°♄08'05	1°45'20
max. Earth dist.	1987 Aug 17 j 05:16	4°♄23'29	1.38266 AU	max. Earth dist.	1988 Jul 29 j 11:00	16°♄13'43	1.36365 AU
evening rise	1987 Aug 21 j 01:16	11°♄14'05		evening rise	1988 Aug 02 j 11:23	23°♄47'45	
desc. node	1987 Aug 31 j 12:34	28°♄33'01			1988 Aug 05 j 22:04	0°♄	
	1987 Sep 01 j 10:56	0°♄		desc. node	1988 Aug 17 j 09:35	18°♄50'44	
	1987 Sep 23 j 19:17	0°♄			1988 Aug 25 j 02:41	0°♄	
evening max el	1987 Sep 25 j 16:37	1°♄56'20	24°52'28	evening max el	1988 Sep 07 j 04:18	15°♄34'22	26°01'41
retrograde	1987 Oct 07 j 08:16	8°♄42'56		retrograde	1988 Sep 19 j 16:44	22°♄41'29	
evening set	1987 Oct 12 j 23:00	6°♄22'02		evening set	1988 Sep 25 j 21:48	20°♄06'38	
min. Earth dist.	1987 Oct 17 j 13:18	1°♄10'11	0.67327 AU	min. Earth dist.	1988 Sep 30 j 04:16	15°♄30'56	0.66629 AU
inferior conj	1987 Oct 18 j 11:07	29°♄58'07	0°-21'-52	inferior conj	1988 Oct 01 j 13:14	13°♄47'45	-1°-18'-39
minimum elong	1987 Oct 18 j 11:39	29°♄56'19	0°21'39	minimum elong	1988 Oct 01 j 15:16	13°♄41'22	1°17'49
	1987 Oct 18 j 10:33	30°♄		asc. node	1988 Oct 05 j 09:31	9°♄26'11	
asc. node	1987 Oct 19 j 12:27	28°♄35'12		morning rise	1988 Oct 07 j 09:41	7°♄53'51	
morning rise	1987 Oct 24 j 00:48	23°♄54'55		direct	1988 Oct 10 j 12:16	6°♄58'27	
direct	1987 Oct 27 j 13:50	22°♄42'34		morning max el	1988 Oct 17 j 09:55	10°♄49'54	18°58'04
morning max el	1987 Nov 04 j 02:13	27°♄00'03	19°53'24		1988 Oct 31 j 07:21	0°♄	
	1987 Nov 06 j 19:13	0°♄		morning set	1988 Nov 08 j 11:20	12°♄46'20	

desc. node	988 Nov 13 j 08:52	20°♄27'33		morning max el	989 Sep 30 j 22:56	24°♄44'11	18°19'00
	988 Nov 19 j 10:51	0°♄			989 Oct 05 j 07:30	0°♄	
max. Earth dist.	988 Nov 23 j 10:26	6°♄15'26	1.44925 AU	morning set	989 Oct 20 j 00:27	23°♄05'08	
					989 Oct 24 j 06:42	0°♄	
superior conj	988 Nov 25 j 01:37	8°♄49'45	-1°-12'-32	desc. node	989 Oct 31 j 05:54	11°♄09'58	
minimum elong	988 Nov 24 j 17:21	8°♄17'12	1°11'37				
	988 Dec 08 j 07:47	0°♄		superior conj	989 Nov 04 j 02:52	17°♄18'00	0°-25'-30
evening rise	988 Dec 10 j 07:29	3°♄13'36		minimum elong	989 Nov 03 j 23:32	17°♄04'52	0°25'04
	988 Dec 27 j 11:11	0°♄		max. Earth dist.	989 Nov 06 j 05:18	20°♄36'39	1.45055 AU
evening max el	988 Dec 30 j 18:53	3°♄54'54	18°40'14		989 Nov 12 j 05:00	0°♄	
asc. node	989 Jan 01 j 08:48	5°♄23'06		evening rise	989 Nov 20 j 12:31	13°♄00'16	
retrograde	989 Jan 06 j 10:43	7°♄37'33			989 Dec 01 j 10:26	0°♄	
evening set	989 Jan 09 j 12:39	6°♄43'52		greatest brilliancy	989 Dec 05 j 03:29	5°♄36'13	-0.7m
inferior conj	989 Jan 15 j 08:31	1°♄04'19	3°33'45	evening max el	989 Dec 14 j 03:23	17°♄22'39	19°22'46
minimum elong	989 Jan 15 j 06:34	1°♄10'11	3°33'29	asc. node	989 Dec 19 j 05:49	21°♄06'23	
	989 Jan 16 j 05:46	30°♄		retrograde	989 Dec 21 j 06:55	21°♄29'27	
min. Earth dist.	989 Jan 17 j 05:55	28°♄47'37	0.64969 AU	evening set	989 Dec 24 j 15:43	20°♄23'14	
morning rise	989 Jan 20 j 23:17	24°♄54'42		inferior conj	989 Dec 30 j 06:16	14°♄27'50	3°08'21
direct	989 Jan 27 j 16:34	22°♄03'29		minimum elong	989 Dec 30 j 03:39	14°♄36'16	3°07'45
desc. node	989 Feb 09 j 08:04	29°♄09'58		min. Earth dist.	989 Dec 31 j 12:51	12°♄49'05	0.66239 AU
morning max el	989 Feb 10 j 00:06	29°♄49'34	27°06'41	morning rise	990 Jan 04 j 14:49	8°♄14'30	
	989 Feb 10 j 04:14	0°♄		direct	990 Jan 10 j 20:55	5°♄29'20	
	989 Mar 04 j 07:40	0°♄		morning max el	990 Jan 23 j 09:24	12°♄54'11	26°03'30
morning set	989 Mar 17 j 13:32	23°♄33'24		desc. node	990 Jan 27 j 05:07	17°♄02'54	
	989 Mar 20 j 20:00	0°♄			990 Feb 06 j 05:12	0°♄	
max. Earth dist.	989 Mar 22 j 04:16	2°♄43'03	1.33982 AU		990 Feb 25 j 00:17	0°♄	
				morning set	990 Feb 28 j 13:36	6°♄27'35	
superior conj	989 Mar 25 j 21:03	10°♄22'19	0°-45'-27	max. Earth dist.	990 Mar 04 j 12:57	13°♄59'20	1.35439 AU
minimum elong	989 Mar 25 j 23:18	10°♄34'05	0°45'01				
asc. node	989 Mar 30 j 08:04	19°♄48'27		superior conj	990 Mar 09 j 17:02	24°♄15'09	-1°-12'-8
evening rise	989 Apr 02 j 06:52	26°♄01'36		minimum elong	990 Mar 09 j 20:29	24°♄32'40	1°11'34
	989 Apr 04 j 05:01	0°♄			990 Mar 12 j 12:25	0°♄	
evening max el	989 Apr 22 j 15:59	28°♄55'31	21°44'01	asc. node	990 Mar 17 j 05:06	9°♄41'48	
	989 Apr 23 j 19:53	0°♄		evening rise	990 Mar 17 j 14:08	10°♄28'04	
retrograde	989 May 05 j 02:24	5°♄00'35			990 Mar 28 j 01:13	0°♄	
evening set	989 May 07 j 15:52	4°♄45'52		evening max el	990 Apr 04 j 20:45	10°♄03'44	20°22'35
desc. node	989 May 08 j 07:15	4°♄37'46		retrograde	990 Apr 15 j 15:39	15°♄16'13	
inferior conj	989 May 17 j 01:12	0°♄43'36	-2°-27'-17	evening set	990 Apr 17 j 17:58	15°♄05'15	
minimum elong	989 May 16 j 18:41	0°♄52'44	2°25'10	desc. node	990 Apr 25 j 04:18	12°♄05'14	
min. Earth dist.	989 May 16 j 19:39	0°♄51'23	0.54995 AU	inferior conj	990 Apr 26 j 20:20	11°♄07'27	0°-28'-57
	989 May 18 j 08:29	30°♄		minimum elong	990 Apr 26 j 18:58	11°♄09'26	0°28'29
morning rise	989 May 25 j 22:26	26°♄47'59		min. Earth dist.	990 Apr 28 j 08:46	10°♄14'14	0.55176 AU
direct	989 May 29 j 00:47	26°♄26'51		morning rise	990 May 05 j 17:59	6°♄52'02	
	989 Jun 07 j 14:38	0°♄		direct	990 May 09 j 12:34	6°♄21'10	
morning max el	989 Jun 10 j 06:01	2°♄12'11	21°49'49	morning max el	990 May 23 j 00:04	12°♄55'59	23°29'33
asc. node	989 Jun 26 j 07:18	25°♄37'20			990 Jun 04 j 23:47	0°♄	
	989 Jun 28 j 12:43	0°♄		asc. node	990 Jun 13 j 04:20	15°♄14'20	
morning set	989 Jul 01 j 02:06	5°♄14'04		morning set	990 Jun 15 j 13:31	20°♄10'01	
					990 Jun 20 j 03:53	0°♄	
superior conj	989 Jul 08 j 09:47	20°♄39'24	1°38'09				
minimum elong	989 Jul 08 j 07:53	20°♄29'29	1°38'01	superior conj	990 Jun 22 j 16:04	5°♄24'19	1°25'24
max. Earth dist.	989 Jul 12 j 00:46	28°♄08'35	1.34776 AU	minimum elong	990 Jun 22 j 13:40	5°♄11'25	1°25'06
	989 Jul 12 j 22:49	0°♄		max. Earth dist.	990 Jun 25 j 00:08	10°♄23'25	1.33573 AU
evening rise	989 Jul 16 j 14:32	7°♄11'42		evening rise	990 Jun 30 j 06:09	21°♄12'33	
	989 Jul 29 j 13:10	0°♄			990 Jul 04 j 19:13	0°♄	
desc. node	989 Aug 04 j 06:35	8°♄47'25		desc. node	990 Jul 22 j 03:36	28°♄13'27	
evening max el	989 Aug 20 j 16:30	29°♄08'49	26°54'09		990 Jul 23 j 10:52	0°♄	
	989 Aug 21 j 14:17	0°♄		evening max el	990 Aug 03 j 04:07	12°♄27'31	27°22'29
retrograde	989 Sep 02 j 19:51	6°♄25'27		retrograde	990 Aug 16 j 17:01	19°♄45'57	
evening set	989 Sep 09 j 13:38	3°♄42'36		evening set	990 Aug 23 j 19:44	17°♄04'10	
	989 Sep 13 j 07:19	30°♄		min. Earth dist.	990 Aug 27 j 12:49	13°♄41'26	0.64182 AU
min. Earth dist.	989 Sep 13 j 12:54	29°♄44'06	0.65584 AU	inferior conj	990 Aug 29 j 22:46	11°♄08'25	-3°-10'-51
inferior conj	989 Sep 15 j 09:56	27°♄33'16	-2°-15'-47	minimum elong	990 Aug 30 j 03:28	10°♄55'57	3°09'23
minimum elong	989 Sep 15 j 13:28	27°♄23'00	2°14'28	morning rise	990 Sep 05 j 13:11	5°♄42'56	
morning rise	989 Sep 21 j 14:43	21°♄51'47		direct	990 Sep 08 j 02:13	5°♄10'09	
asc. node	989 Sep 22 j 06:32	21°♄34'09		asc. node	990 Sep 09 j 03:33	5°♄15'53	
direct	989 Sep 24 j 09:14	21°♄09'29		morning max el	990 Sep 14 j 14:37	8°♄36'31	17°57'04

	990 Sep 28 j 22:36	0°♄		asc. node	991 Aug 27 j 00:37	20°♄28'35	
morning set	990 Oct 01 j 17:13	4°♄44'18		morning max el	991 Aug 29 j 06:09	22°♄20'42	17°53'05
					991 Sep 04 j 04:23	0°♄	
superior conj	990 Oct 14 j 18:26	26°♄31'52	0°22'19	morning set	991 Sep 14 j 07:50	17°♄25'44	
minimum elong	990 Oct 14 j 20:56	26°♄41'58	0°21'59		991 Sep 21 j 09:54	0°♄	
	990 Oct 16 j 21:57	0°♄					
desc. node	990 Oct 18 j 02:55	1°♄56'14		superior conj	991 Sep 25 j 12:19	7°♄03'56	1°01'07
max. Earth dist.	990 Oct 19 j 23:47	4°♄55'09	1.44447 AU	minimum elong	991 Sep 25 j 17:04	7°♄24'08	1°00'32
evening rise	990 Oct 31 j 00:03	22°♄07'26		max. Earth dist.	991 Oct 02 j 14:30	18°♄51'14	1.43184 AU
	990 Nov 05 j 03:30	0°♄		desc. node	991 Oct 04 j 23:57	22°♄43'04	
greatest brilliancy	990 Nov 20 j 22:47	23°♄09'53	-0.6m		991 Oct 09 j 14:19	0°♄	
	990 Nov 26 j 11:30	0°♄		evening rise	991 Oct 10 j 08:40	1°♄11'35	
evening max el	990 Nov 27 j 07:00	0°♄51'40	20°20'25		991 Oct 29 j 18:06	0°♄	
retrograde	990 Dec 05 j 04:40	5°♄30'44		greatest brilliancy	991 Nov 05 j 05:21	8°♄37'23	-0.4m
asc. node	990 Dec 06 j 02:50	5°♄25'55		evening max el	991 Nov 10 j 04:52	14°♄20'55	21°30'18
evening set	990 Dec 08 j 22:05	4°♄10'16		retrograde	991 Nov 19 j 01:55	19°♄37'46	
	990 Dec 12 j 21:49	30°♄		asc. node	991 Nov 22 j 23:53	18°♄12'39	
inferior conj	990 Dec 14 j 09:20	28°♄01'55	2°33'20	evening set	991 Nov 23 j 05:50	18°♄01'23	
minimum elong	990 Dec 14 j 06:40	28°♄10'58	2°32'30	inferior conj	991 Nov 28 j 15:29	11°♄43'34	1°50'52
min. Earth dist.	990 Dec 15 j 02:37	27°♄03'28	0.67106 AU	minimum elong	991 Nov 28 j 13:15	11°♄51'19	1°50'03
morning rise	990 Dec 19 j 14:44	21°♄46'50		min. Earth dist.	991 Nov 28 j 21:00	11°♄24'30	0.67599 AU
direct	990 Dec 25 j 06:33	19°♄17'28		morning rise	991 Dec 03 j 20:23	5°♄28'38	
morning max el	991 Jan 05 j 17:55	26°♄07'46	24°42'56	direct	991 Dec 08 j 20:52	3°♄20'21	
	991 Jan 09 j 07:35	0°♄		morning max el	991 Dec 19 j 03:07	9°♄26'23	23°14'59
desc. node	991 Jan 14 j 02:10	5°♄50'49		greatest brilliancy	991 Dec 24 j 06:14	15°♄11'41	-0.3m
	991 Jan 30 j 19:07	0°♄		desc. node	991 Dec 31 j 23:13	25°♄17'37	
morning set	991 Feb 10 j 18:57	18°♄22'29			992 Jan 04 j 07:11	0°♄	
max. Earth dist.	991 Feb 14 j 11:50	25°♄02'04	1.37306 AU	morning set	992 Jan 22 j 23:15	29°♄01'24	
	991 Feb 17 j 04:02	0°♄			992 Jan 23 j 13:13	0°♄	
				max. Earth dist.	992 Jan 27 j 06:55	6°♄23'26	1.39419 AU
superior conj	991 Feb 21 j 02:41	7°♄33'00	-1°-36'-2				
minimum elong	991 Feb 21 j 06:46	7°♄52'51	1°35'34	superior conj	992 Feb 03 j 21:53	20°♄04'43	-1°-54'-23
evening rise	991 Mar 01 j 15:54	24°♄32'40		minimum elong	992 Feb 04 j 01:19	20°♄20'37	1°54'11
asc. node	991 Mar 04 j 02:09	29°♄20'27			992 Feb 09 j 04:06	0°♄	
	991 Mar 04 j 10:16	0°♄		evening rise	992 Feb 13 j 09:22	8°♄07'16	
evening max el	991 Mar 18 j 12:56	21°♄50'43	19°19'11	asc. node	992 Feb 18 j 23:13	18°♄38'15	
retrograde	991 Mar 27 j 15:30	26°♄14'20			992 Feb 25 j 23:57	0°♄	
evening set	991 Mar 29 j 18:33	26°♄00'59		evening max el	992 Feb 29 j 14:44	4°♄12'59	18°35'40
inferior conj	991 Apr 07 j 04:01	21°♄52'16	1°21'46	retrograde	992 Mar 08 j 09:16	8°♄01'03	
minimum elong	991 Apr 07 j 07:10	21°♄47'03	1°20'43	evening set	992 Mar 10 j 17:12	7°♄41'43	
min. Earth dist.	991 Apr 09 j 23:32	20°♄01'04	0.56264 AU	inferior conj	992 Mar 18 j 07:54	3°♄14'24	2°42'05
desc. node	991 Apr 12 j 01:20	18°♄45'34		minimum elong	992 Mar 18 j 12:01	3°♄06'25	2°41'05
morning rise	991 Apr 15 j 15:53	17°♄04'07		min. Earth dist.	992 Mar 21 j 17:29	0°♄37'45	0.58030 AU
direct	991 Apr 20 j 10:33	16°♄11'51			992 Mar 22 j 14:33	30°♄	
morning max el	991 May 04 j 14:41	23°♄24'38	25°09'24	morning rise	992 Mar 26 j 02:38	27°♄54'10	
	991 May 10 j 12:54	0°♄		desc. node	992 Mar 28 j 22:24	26°♄51'19	
	991 May 28 j 14:01	0°♄		direct	992 Mar 31 j 22:40	26°♄28'14	
morning set	991 May 31 j 01:27	5°♄07'54			992 Apr 10 j 11:16	0°♄	
asc. node	991 May 31 j 01:24	5°♄07'39		morning max el	992 Apr 15 j 07:37	4°♄04'56	26°33'51
					992 May 04 j 03:12	0°♄	
superior conj	991 Jun 07 j 02:00	20°♄19'42	1°08'09	morning set	992 May 14 j 12:12	20°♄00'57	
minimum elong	991 Jun 06 j 23:38	20°♄06'44	1°07'45	asc. node	992 May 16 j 22:28	25°♄10'58	
max. Earth dist.	991 Jun 08 j 07:18	22°♄59'14	1.32762 AU		992 May 19 j 03:41	0°♄	
	991 Jun 11 j 13:36	0°♄					
evening rise	991 Jun 14 j 06:39	5°♄39'35		superior conj	992 May 21 j 13:37	5°♄17'56	0°47'16
	991 Jun 27 j 09:47	0°♄		minimum elong	992 May 21 j 11:43	5°♄07'30	0°46'53
desc. node	991 Jul 09 j 00:37	16°♄56'01		max. Earth dist.	992 May 21 j 18:49	5°♄46'28	1.32329 AU
evening max el	991 Jul 16 j 12:53	25°♄17'19	27°20'47	evening rise	992 May 28 j 13:05	20°♄22'40	
	991 Jul 22 j 11:38	0°♄			992 Jun 02 j 07:18	0°♄	
retrograde	991 Jul 30 j 07:49	2°♄34'15			992 Jun 20 j 23:09	0°♄	
evening set	991 Aug 06 j 12:33	0°♄05'40		desc. node	992 Jun 24 j 21:39	4°♄36'35	
	991 Aug 06 j 15:52	30°♄		evening max el	992 Jun 27 j 16:16	7°♄26'08	26°46'13
min. Earth dist.	991 Aug 10 j 02:31	27°♄12'12	0.62442 AU	retrograde	992 Jul 11 j 15:25	14°♄40'53	
inferior conj	991 Aug 13 j 00:51	24°♄26'38	-3°-59'-58	evening set	992 Jul 18 j 11:39	12°♄39'27	
minimum elong	991 Aug 13 j 05:53	24°♄14'44	3°58'48	min. Earth dist.	992 Jul 22 j 06:02	10°♄01'52	0.60442 AU
morning rise	991 Aug 20 j 01:48	19°♄20'35		inferior conj	992 Jul 25 j 12:46	7°♄19'18	-4°-36'-55
direct	991 Aug 22 j 11:54	18°♄54'20		minimum elong	992 Jul 25 j 16:29	7°♄11'37	4°36'27

morning rise	992 Aug 02 j 00:32	2°♌35'25		minimum elong	993 Jul 07 j 07:01	19°♍36'36	4°51'52
direct	992 Aug 04 j 10:18	2°♌13'18		morning rise	993 Jul 15 j 05:14	15°♍15'34	
morning max el	992 Aug 11 j 18:28	5°♌48'58	18°08'13	direct	993 Jul 17 j 17:04	14°♍55'46	
asc. node	992 Aug 12 j 21:41	6°♌59'05		morning max el	993 Jul 26 j 00:21	18°♍51'44	18°43'40
	992 Aug 27 j 03:06	0°♍		asc. node	993 Jul 30 j 18:45	24°♍31'46	
morning set	992 Aug 27 j 14:31	0°♍53'29			993 Aug 03 j 07:13	0°♌	
				morning set	993 Aug 11 j 08:34	14°♌54'40	
superior conj	992 Sep 06 j 08:26	18°♍53'38	1°27'26		993 Aug 19 j 03:15	0°♍	
minimum elong	992 Sep 06 j 12:25	19°♍11'30	1°27'03				
	992 Sep 12 j 16:56	0°♎		superior conj	993 Aug 20 j 01:34	1°♍45'44	1°41'54
max. Earth dist.	992 Sep 13 j 23:29	2°♎09'20	1.41434 AU	minimum elong	993 Aug 20 j 03:36	1°♍55'23	1°41'48
evening rise	992 Sep 19 j 07:30	10°♎57'05		max. Earth dist.	993 Aug 27 j 03:52	14°♍44'25	1.39432 AU
desc. node	992 Sep 20 j 20:58	13°♎27'27		evening rise	993 Aug 31 j 05:52	21°♍48'38	
	992 Oct 01 j 15:22	0°♏			993 Sep 05 j 04:33	0°♎	
greatest brilliancy	992 Oct 17 j 20:29	22°♏12'59	-0.3m	desc. node	993 Sep 07 j 17:59	4°♎05'19	
evening max el	992 Oct 22 j 21:29	27°♏52'00	22°48'09		993 Sep 25 j 15:39	0°♏	
	992 Oct 25 j 03:54	0°♐		evening max el	993 Oct 05 j 10:40	11°♏26'34	24°08'13
retrograde	992 Nov 01 j 20:58	3°♐47'40		retrograde	993 Oct 16 j 12:26	17°♏56'31	
evening set	992 Nov 06 j 13:16	1°♐54'10		evening set	993 Oct 21 j 18:41	15°♏45'32	
	992 Nov 08 j 11:46	30°♑		min. Earth dist.	993 Oct 26 j 13:53	10°♏13'28	0.67577 AU
asc. node	992 Nov 08 j 20:56	29°♑33'31		asc. node	993 Oct 26 j 17:59	9°♏59'39	
inferior conj	992 Nov 11 j 22:49	25°♑30'46	1°02'37	inferior conj	993 Oct 27 j 05:31	9°♏20'41	0°09'56
minimum elong	992 Nov 11 j 21:25	25°♑35'37	1°02'03	minimum elong	993 Oct 27 j 05:16	9°♏21'31	0°09'50
min. Earth dist.	992 Nov 11 j 17:36	25°♑48'45	0.67748 AU	transit middle	993 Oct 27 j 05:16	9°♏21'31	0°09'50
morning rise	992 Nov 17 j 05:30	19°♑18'14		transit begin	993 Oct 27 j 03:06	9°♏28'51	
direct	992 Nov 21 j 15:08	17°♑32'38		transit end	993 Oct 27 j 07:26	9°♏14'10	
morning max el	992 Nov 30 j 16:10	22°♑51'40	21°48'59	morning rise	993 Nov 01 j 16:05	3°♏13'09	
greatest brilliancy	992 Dec 05 j 11:54	28°♑19'06	-0.4m	direct	993 Nov 05 j 12:11	1°♏49'16	
	992 Dec 06 j 20:07	0°♒		morning max el	993 Nov 13 j 12:00	6°♏26'19	20°31'50
desc. node	992 Dec 17 j 20:15	15°♒12'28		greatest brilliancy	993 Nov 19 j 17:08	13°♏48'08	-0.5m
	992 Dec 27 j 16:06	0°♓			993 Dec 01 j 02:10	0°♒	
morning set	993 Jan 01 j 22:23	8°♓16'33		desc. node	993 Dec 04 j 17:15	5°♒26'54	
max. Earth dist.	993 Jan 08 j 05:30	18°♓32'12	1.41510 AU	morning set	993 Dec 11 j 22:24	16°♒30'05	
	993 Jan 14 j 23:03	0°♈			993 Dec 20 j 11:48	0°♓	
				max. Earth dist.	993 Dec 21 j 11:50	1°♓36'42	1.43294 AU
superior conj	993 Jan 15 j 21:38	1°♈38'44	-2°-3'-16				
minimum elong	993 Jan 15 j 22:19	1°♈41'44	2°03'17	superior conj	993 Dec 27 j 20:38	12°♓02'30	-1°-57'-56
evening rise	993 Jan 26 j 15:04	21°♈04'14		minimum elong	993 Dec 27 j 16:25	11°♓44'59	1°57'45
	993 Jan 31 j 12:13	0°♉			994 Jan 07 j 08:32	0°♈	
asc. node	993 Feb 04 j 20:16	7°♉28'31		evening rise	994 Jan 09 j 04:49	3°♈14'14	
evening max el	993 Feb 11 j 23:12	17°♉03'13	18°12'12	asc. node	994 Jan 22 j 17:18	25°♈41'59	
retrograde	993 Feb 18 j 21:09	20°♉31'52			994 Jan 26 j 06:22	0°♉	
evening set	993 Feb 21 j 10:14	20°♉04'19		evening max el	994 Jan 26 j 11:06	0°♉11'57	18°08'22
inferior conj	993 Feb 28 j 08:33	15°♉15'43	3°28'11	retrograde	994 Feb 01 j 23:25	3°♉36'13	
minimum elong	993 Feb 28 j 11:10	15°♉09'49	3°27'50	evening set	994 Feb 04 j 17:16	2°♉59'11	
min. Earth dist.	993 Mar 03 j 16:52	12°♉16'22	0.60130 AU		994 Feb 08 j 21:53	30°♑	
morning rise	993 Mar 07 j 08:46	9°♉32'41		inferior conj	994 Feb 11 j 02:45	27°♈49'21	3°46'01
direct	993 Mar 13 j 23:24	7°♉29'30		minimum elong	994 Feb 11 j 03:14	27°♈48'05	3°46'00
desc. node	993 Mar 15 j 19:27	7°♉38'39		min. Earth dist.	994 Feb 13 j 23:59	24°♈52'22	0.62221 AU
morning max el	993 Mar 28 j 06:11	15°♉18'30	27°29'16	morning rise	994 Feb 17 j 10:54	21°♈52'02	
	993 Apr 09 j 04:34	0°♊		direct	994 Feb 24 j 09:43	19°♈19'25	
	993 Apr 26 j 12:30	0°♋		desc. node	994 Mar 02 j 16:28	21°♈07'29	
morning set	993 Apr 28 j 20:01	4°♋43'13		morning max el	994 Mar 10 j 10:38	27°♈12'58	27°48'35
asc. node	993 May 03 j 19:32	15°♋19'49			994 Mar 13 j 02:11	0°♋	
max. Earth dist.	993 May 05 j 07:04	18°♋33'52	1.32276 AU		994 Apr 02 j 19:59	0°♊	
				morning set	994 Apr 12 j 22:52	19°♊07'59	
superior conj	993 May 06 j 01:11	20°♋13'11	0°23'29		994 Apr 18 j 03:31	0°♋	
minimum elong	993 May 06 j 00:09	20°♋07'28	0°23'15	max. Earth dist.	994 Apr 18 j 16:22	1°♋09'07	1.32608 AU
	993 May 10 j 12:27	0°♌					
evening rise	993 May 12 j 23:09	5°♌14'17		superior conj	994 Apr 20 j 11:00	4°♋59'38	0°-2'-28
	993 May 26 j 02:21	0°♍		minimum elong	994 Apr 20 j 11:07	5°♋00'18	0°02'27
evening max el	993 Jun 09 j 12:51	18°♍49'13	25°40'36	behind sun begin	994 Apr 20 j 06:01	4°♋32'34	
desc. node	993 Jun 11 j 18:41	20°♍49'26		behind sun end	994 Apr 20 j 16:13	5°♋28'02	
retrograde	993 Jun 23 j 13:48	25°♍59'31		asc. node	994 Apr 20 j 16:37	5°♋30'11	
evening set	993 Jun 29 j 12:28	24°♍35'45		evening rise	994 Apr 27 j 10:52	20°♋07'43	
min. Earth dist.	993 Jul 04 j 01:10	21°♍56'01	0.58383 AU		994 May 02 j 06:42	0°♌	
inferior conj	993 Jul 07 j 06:57	19°♍36'42	-4°-51'-51	evening max el	994 May 22 j 03:59	29°♌34'49	24°12'44

	994 May 22 j 14:36	0°☿		evening rise	995 Apr 11 j 22:21	4°♄55'52	
desc. node	994 May 29 j 15:43	5°♄01'23			995 Apr 25 j 14:02	0°♄	
retrograde	994 Jun 05 j 00:20	6°♄33'13		evening max el	995 May 03 j 19:02	10°♄06'05	22°36'53
evening set	994 Jun 09 j 14:20	5°♄46'32		retrograde	995 May 16 j 22:19	16°♄36'43	
min. Earth dist.	994 Jun 15 j 15:02	2°♄48'13	0.56566 AU	desc. node	995 May 16 j 12:45	16°♄36'21	
inferior conj	994 Jun 18 j 05:05	1°♄11'15	-4°-31'-34	evening set	995 May 20 j 02:26	16°♄14'37	
minimum elong	994 Jun 18 j 00:05	1°♄19'06	4°30'54	min. Earth dist.	995 May 28 j 02:56	12°♄44'42	0.55328 AU
	994 Jun 20 j 03:22	30°♄		inferior conj	995 May 29 j 08:41	12°♄02'20	-3°-25'-15
morning rise	994 Jun 26 j 13:28	27°♄09'42		minimum elong	995 May 29 j 01:05	12°♄13'11	3°23'13
direct	994 Jun 29 j 05:10	26°♄50'58		morning rise	995 Jun 07 j 02:17	8°♄10'05	
	994 Jul 07 j 07:38	0°♄		direct	995 Jun 09 j 23:27	7°♄50'58	
morning max el	994 Jul 08 j 20:55	1°♄19'51	19°40'18	morning max el	995 Jun 21 j 06:19	13°♄05'30	20°57'33
asc. node	994 Jul 17 j 15:47	12°♄52'57			995 Jul 03 j 12:29	0°♄	
morning set	994 Jul 26 j 10:32	29°♄20'23		asc. node	995 Jul 04 j 12:49	1°♄50'23	
	994 Jul 26 j 18:24	0°♄		morning set	995 Jul 10 j 17:43	14°♄02'18	
superior conj	994 Aug 03 j 10:16	15°♄25'15	1°46'27	superior conj	995 Jul 18 j 05:57	29°♄38'04	1°43'04
minimum elong	994 Aug 03 j 10:23	15°♄25'48	1°46'27	minimum elong	995 Jul 18 j 04:37	29°♄31'14	1°43'00
max. Earth dist.	994 Aug 09 j 07:56	26°♄47'04	1.37431 AU		995 Jul 18 j 10:13	0°♄	
	994 Aug 11 j 01:40	0°♄		max. Earth dist.	995 Jul 22 j 16:53	8°♄37'23	1.35644 AU
evening rise	994 Aug 13 j 04:06	3°♄48'07		evening rise	995 Jul 26 j 22:01	16°♄44'20	
desc. node	994 Aug 25 j 15:01	24°♄32'25			995 Aug 03 j 07:50	0°♄	
	994 Aug 29 j 05:26	0°♄		desc. node	995 Aug 12 j 12:03	14°♄42'15	
evening max el	994 Sep 17 j 22:35	25°♄05'00	25°23'28		995 Aug 23 j 14:49	0°♄	
	994 Sep 23 j 23:22	0°♄		evening max el	995 Aug 31 j 10:27	8°♄42'14	26°26'24
retrograde	994 Sep 29 j 23:30	2°♄00'48		retrograde	995 Sep 13 j 05:37	15°♄54'13	
	994 Oct 05 j 07:28	30°♄		evening set	995 Sep 19 j 16:35	13°♄14'51	
evening set	994 Oct 05 j 20:27	29°♄33'38		min. Earth dist.	995 Sep 23 j 19:52	8°♄55'15	0.66234 AU
min. Earth dist.	994 Oct 10 j 07:27	24°♄36'56	0.67080 AU	inferior conj	995 Sep 25 j 09:55	6°♄59'42	-1°-42'-56
inferior conj	994 Oct 11 j 09:51	23°♄11'34	0°-45'-44	minimum elong	995 Sep 25 j 12:36	6°♄51'33	1°41'52
minimum elong	994 Oct 11 j 11:01	23°♄07'48	0°45'15	asc. node	995 Sep 30 j 12:01	1°♄45'23	
asc. node	994 Oct 13 j 15:00	20°♄25'43		morning rise	995 Oct 01 j 09:45	1°♄10'57	
morning rise	994 Oct 17 j 02:12	17°♄11'54		direct	995 Oct 04 j 08:38	0°♄21'34	
direct	994 Oct 20 j 10:38	16°♄07'02		morning max el	995 Oct 11 j 02:00	4°♄04'27	18°39'28
morning max el	994 Oct 27 j 15:42	20°♄11'47	19°27'55		995 Oct 29 j 00:42	0°♄	
	994 Nov 04 j 11:20	0°♄		morning set	995 Oct 31 j 17:47	4°♄19'04	
greatest brilliancy	994 Nov 05 j 14:16	1°♄36'20	-0.7m	desc. node	995 Nov 08 j 11:19	16°♄34'29	
morning set	994 Nov 20 j 21:21	24°♄50'09		superior conj	995 Nov 16 j 19:55	29°♄43'39	0°-53'-30
desc. node	994 Nov 21 j 14:16	25°♄55'45		minimum elong	995 Nov 16 j 13:11	29°♄17'11	0°52'41
	994 Nov 24 j 05:09	0°♄		max. Earth dist.	995 Nov 16 j 19:38	29°♄42'32	1.45073 AU
max. Earth dist.	994 Dec 04 j 01:37	15°♄26'47	1.44532 AU		995 Nov 17 j 00:05	0°♄	
superior conj	994 Dec 07 j 17:12	21°♄15'07	-1°-34'-21	evening rise	995 Dec 02 j 16:50	24°♄49'41	
minimum elong	994 Dec 07 j 08:52	20°♄41'48	1°33'36		995 Dec 05 j 22:31	0°♄	
	994 Dec 13 j 03:25	0°♄		evening max el	995 Dec 24 j 10:03	26°♄57'56	18°56'15
evening rise	994 Dec 21 j 22:25	14°♄30'40		asc. node	995 Dec 27 j 11:20	29°♄33'26	
	994 Dec 31 j 06:15	0°♄			995 Dec 28 j 05:19	0°♄	
asc. node	995 Jan 09 j 14:19	13°♄08'00		retrograde	995 Dec 31 j 06:04	0°♄50'03	
evening max el	995 Jan 09 j 23:33	13°♄31'53	18°23'22	evening set	996 Jan 03 j 10:42	29°♄51'11	
retrograde	995 Jan 16 j 11:43	17°♄04'41			996 Jan 03 j 04:42	30°♄	
evening set	995 Jan 19 j 10:28	16°♄17'18		inferior conj	996 Jan 09 j 04:01	24°♄04'16	3°24'20
inferior conj	995 Jan 25 j 10:27	10°♄47'41	3°42'49	minimum elong	996 Jan 09 j 01:42	24°♄11'28	3°23'55
minimum elong	995 Jan 25 j 09:12	10°♄51'16	3°42'43	min. Earth dist.	996 Jan 10 j 18:52	22°♄03'16	0.65556 AU
min. Earth dist.	995 Jan 27 j 16:38	8°♄12'49	0.64068 AU	morning rise	996 Jan 14 j 15:43	17°♄52'38	
morning rise	995 Jan 31 j 06:26	4°♄41'32		direct	996 Jan 21 j 04:35	15°♄02'49	
direct	995 Feb 07 j 03:46	1°♄53'11		morning max el	996 Feb 03 j 05:05	22°♄41'44	26°42'39
desc. node	995 Feb 17 j 13:29	6°♄45'20		desc. node	996 Feb 04 j 10:30	23°♄57'34	
morning max el	995 Feb 20 j 19:10	9°♄44'22	27°31'23		996 Feb 09 j 16:21	0°♄	
	995 Mar 08 j 16:16	0°♄			996 Feb 29 j 22:40	0°♄	
	995 Mar 26 j 03:58	0°♄		morning set	996 Mar 10 j 02:32	16°♄28'32	
morning set	995 Mar 27 j 18:09	3°♄06'30		max. Earth dist.	996 Mar 14 j 10:34	24°♄55'15	1.34548 AU
max. Earth dist.	995 Apr 01 j 18:43	13°♄18'57	1.33355 AU		996 Mar 16 j 22:55	0°♄	
superior conj	995 Apr 04 j 17:11	19°♄30'43	0°-29'-40	superior conj	996 Mar 18 j 17:39	3°♄39'54	0°-56'-58
minimum elong	995 Apr 04 j 18:39	19°♄38'29	0°29'22	minimum elong	996 Mar 18 j 20:27	3°♄54'23	0°56'27
asc. node	995 Apr 07 j 13:37	25°♄37'10		asc. node	996 Mar 24 j 10:40	15°♄37'06	
	995 Apr 09 j 14:38	0°♄		evening rise	996 Mar 26 j 07:47	19°♄32'25	

	1996 Mar 31 j 13:06	0°♄				1997 Mar 08 j 15:46	0°♅	
evening max el	1996 Apr 14 j 17:22	20°♄54'34	21°07'23		evening rise	1997 Mar 10 j 13:00	3°♅50'17	
retrograde	1996 Apr 26 j 12:13	26°♄38'36			asc. node	1997 Mar 11 j 07:42	5°♅24'47	
evening set	1996 Apr 28 j 18:48	26°♄26'32				1997 Mar 25 j 22:48	0°♄	
desc. node	1996 May 02 j 09:44	25°♄22'23			evening max el	1997 Mar 28 j 03:05	2°♄19'09	19°53'14
inferior conj	1996 May 08 j 02:51	22°♄27'52	-1°-38'-21		retrograde	1997 Apr 07 j 04:30	7°♄09'34	
minimum elong	1996 May 07 j 22:14	22°♄34'23	1°36'44		evening set	1997 Apr 09 j 05:56	6°♄58'17	
min. Earth dist.	1996 May 08 j 15:31	22°♄09'58	0.54951 AU		inferior conj	1997 Apr 18 j 01:52	2°♄57'38	0°20'44
morning rise	1996 May 17 j 01:26	18°♄26'08			minimum elong	1997 Apr 18 j 02:47	2°♄56'14	0°20'24
direct	1996 May 20 j 09:13	18°♄02'15			desc. node	1997 Apr 19 j 06:46	2°♄13'16	
morning max el	1996 Jun 02 j 05:14	24°♄09'28	22°31'25		min. Earth dist.	1997 Apr 20 j 05:36	1°♄38'36	0.55536 AU
	1996 Jun 07 j 12:04	0°♂				1997 Apr 23 j 03:48	30°♄♅	
asc. node	1996 Jun 20 j 09:53	21°♂15'08			morning rise	1997 Apr 26 j 20:30	28°♅28'37	
morning set	1996 Jun 24 j 04:05	28°♂54'34			direct	1997 May 01 j 00:35	27°♅50'10	
	1996 Jun 24 j 16:35	0°♄				1997 May 08 j 15:29	0°♄	
					morning max el	1997 May 14 j 21:08	4°♄43'51	24°12'53
superior conj	1996 Jul 01 j 09:10	14°♄13'53	1°33'22			1997 Jun 01 j 16:50	0°♂	
minimum elong	1996 Jul 01 j 06:59	14°♄02'21	1°33'09		asc. node	1997 Jun 07 j 06:58	10°♂59'49	
max. Earth dist.	1996 Jul 04 j 10:32	20°♄38'26	1.34211 AU		morning set	1997 Jun 08 j 15:55	13°♂51'49	
evening rise	1996 Jul 09 j 06:56	0°♂24'58						
	1996 Jul 09 j 01:50	0°♂			superior conj	1997 Jun 15 j 17:17	29°♂04'18	1°18'35
	1996 Jul 26 j 08:36	0°♄			minimum elong	1997 Jun 15 j 14:50	28°♂51'01	1°18'14
desc. node	1996 Jul 29 j 09:05	4°♄27'07				1997 Jun 16 j 03:35	0°♄	
evening max el	1996 Aug 12 j 22:21	22°♄10'21	27°09'28		max. Earth dist.	1997 Jun 17 j 13:18	3°♄01'32	1.33176 AU
retrograde	1996 Aug 26 j 06:26	29°♄29'12			evening rise	1997 Jun 23 j 02:44	14°♄38'22	
evening set	1996 Sep 02 j 04:40	26°♄45'08				1997 Jul 01 j 04:01	0°♂	
min. Earth dist.	1996 Sep 06 j 00:57	23°♄02'30	0.65029 AU		desc. node	1997 Jul 16 j 06:06	23°♄36'41	
inferior conj	1996 Sep 08 j 03:33	20°♄41'00	-2°-39'-37			1997 Jul 21 j 08:43	0°♄	
minimum elong	1996 Sep 08 j 07:39	20°♄29'32	2°38'11		evening max el	1997 Jul 26 j 09:03	5°♄18'37	27°25'48
morning rise	1996 Sep 14 j 12:20	15°♄06'11			retrograde	1997 Aug 09 j 01:16	12°♄37'22	
asc. node	1996 Sep 16 j 09:04	14°♄31'53			evening set	1997 Aug 16 j 05:41	9°♄59'38	
direct	1996 Sep 17 j 04:07	14°♄28'29			min. Earth dist.	1997 Aug 19 j 20:52	6°♄50'18	0.63470 AU
morning max el	1996 Sep 23 j 16:33	17°♄58'46	18°07'34		inferior conj	1997 Aug 22 j 12:15	4°♄10'20	-3°-32'-47
	1996 Oct 02 j 12:46	0°♂			minimum elong	1997 Aug 22 j 17:14	3°♄57'42	3°31'22
morning set	1996 Oct 11 j 19:07	15°♂13'17				1997 Aug 27 j 05:10	30°♄♂	
	1996 Oct 20 j 19:05	0°♄			morning rise	1997 Aug 29 j 07:04	28°♄52'40	
desc. node	1996 Oct 25 j 08:21	7°♄18'58			direct	1997 Aug 31 j 18:23	28°♄23'08	
					asc. node	1997 Sep 03 j 06:09	28°♄53'38	
superior conj	1996 Oct 26 j 00:58	8°♄25'11	0°-4'-37			1997 Sep 05 j 05:36	0°♄	
minimum elong	1996 Oct 26 j 00:23	8°♄22'52	0°04'33		morning max el	1997 Sep 07 j 08:34	1°♄48'52	17°53'06
behind sun begin	1996 Oct 25 j 13:57	7°♄41'17			morning set	1997 Sep 23 j 22:01	27°♄21'33	
behind sun end	1996 Oct 26 j 10:49	9°♄04'24				1997 Sep 25 j 10:25	0°♂	
max. Earth dist.	1996 Oct 29 j 14:23	14°♄03'31	1.44875 AU					
	1996 Nov 08 j 19:08	0°♄			superior conj	1997 Oct 06 j 03:09	18°♄11'05	0°40'13
evening rise	1996 Nov 11 j 13:08	4°♄16'01			minimum elong	1997 Oct 06 j 07:05	18°♄27'21	0°39'40
	1996 Nov 28 j 11:59	0°♄			desc. node	1997 Oct 12 j 05:24	28°♄06'17	
greatest brilliancy	1996 Nov 29 j 01:27	0°♄48'02	-0.6m		max. Earth dist.	1997 Oct 12 j 07:08	28°♄13'13	1.43977 AU
evening max el	1996 Dec 06 j 16:35	10°♄26'18	19°45'34			1997 Oct 13 j 09:51	0°♄	
asc. node	1996 Dec 13 j 08:21	14°♄42'57			evening rise	1997 Oct 21 j 21:15	13°♄16'38	
retrograde	1996 Dec 14 j 03:20	14°♄46'26				1997 Nov 01 j 22:13	0°♄	
evening set	1996 Dec 17 j 15:26	13°♄34'33			greatest brilliancy	1997 Nov 14 j 02:43	17°♄16'32	-0.5m
inferior conj	1996 Dec 23 j 04:22	7°♄33'12	2°54'31		evening max el	1997 Nov 19 j 17:53	23°♄56'04	20°48'54
minimum elong	1996 Dec 23 j 01:39	7°♄42'09	2°53'49		retrograde	1997 Nov 28 j 01:03	28°♄50'43	
min. Earth dist.	1996 Dec 24 j 05:07	6°♄11'21	0.66650 AU		asc. node	1997 Nov 30 j 05:24	28°♄23'55	
morning rise	1996 Dec 28 j 11:12	1°♄18'37			evening set	1997 Dec 01 j 22:37	27°♄23'52	
	1996 Dec 30 j 03:55	30°♄♄			inferior conj	1997 Dec 07 j 09:02	21°♄11'18	2°16'09
direct	1997 Jan 03 j 11:24	28°♄39'07			minimum elong	1997 Dec 07 j 06:29	21°♄20'00	2°15'18
	1997 Jan 08 j 05:38	0°♄			min. Earth dist.	1997 Dec 07 j 21:14	20°♄29'30	0.67362 AU
morning max el	1997 Jan 15 j 14:10	5°♄51'46	25°30'45		morning rise	1997 Dec 12 j 13:54	14°♄55'55	
desc. node	1997 Jan 21 j 07:33	12°♄16'25			direct	1997 Dec 17 j 23:19	12°♄34'47	
	1997 Feb 03 j 06:29	0°♄			morning max el	1997 Dec 28 j 22:28	19°♄07'10	24°05'45
morning set	1997 Feb 20 j 19:25	28°♄59'58				1998 Jan 07 j 03:35	0°♄	
	1997 Feb 21 j 08:36	0°♄			desc. node	1998 Jan 08 j 04:37	1°♄22'46	
max. Earth dist.	1997 Feb 24 j 14:22	6°♄01'30	1.36188 AU			1998 Jan 27 j 09:55	0°♄	
					morning set	1998 Feb 02 j 14:52	10°♄24'38	
superior conj	1997 Mar 02 j 09:40	17°♄18'58	-1°-22'-45		max. Earth dist.	1998 Feb 06 j 10:11	17°♄05'53	1.38193 AU
minimum elong	1997 Mar 02 j 13:29	17°♄38'03	1°22'13			1998 Feb 13 j 09:46	0°♄	

superior conj	998 Feb 13 j 13:46	0° Υ 19'02	-1°-44'-42	superior conj	999 Jan 27 j 01:24	12° \approx 28'29	-1°-59'-35
minimum elong	998 Feb 13 j 17:46	0° Υ 38'09	1°44'20	minimum elong	999 Jan 27 j 03:58	12° \approx 40'05	1°59'29
evening rise	998 Feb 22 j 11:36	17° Υ 43'00			999 Feb 05 j 11:12	0° Υ	
asc. node	998 Feb 26 j 04:45	24° Υ 55'18		evening rise	999 Feb 06 j 00:32	1° Υ 03'08	
	998 Feb 28 j 22:35	0° Υ		asc. node	999 Feb 13 j 01:47	14° Υ 02'39	
evening max el	998 Mar 10 j 23:48	14° Υ 22'32	18°58'11	evening max el	999 Feb 22 j 04:52	26° Υ 58'28	18°23'13
retrograde	998 Mar 19 j 11:08	18° Υ 28'29			999 Feb 26 j 13:17	0° Υ	
evening set	998 Mar 21 j 16:14	18° Υ 12'52		retrograde	999 Mar 01 j 13:03	0° Υ 36'15	
inferior conj	998 Mar 29 j 17:39	13° Υ 57'03	2°00'07	evening set	999 Mar 03 j 23:21	0° Υ 13'29	
minimum elong	998 Mar 29 j 21:38	13° Υ 50'00	1°58'56		999 Mar 04 j 15:02	30° Υ	
min. Earth dist.	998 Apr 01 j 21:29	11° Υ 44'09	0.56960 AU	inferior conj	999 Mar 11 j 06:38	25° Υ 36'54	3°05'34
desc. node	998 Apr 06 j 03:49	9° Υ 15'21		minimum elong	999 Mar 11 j 10:18	25° Υ 29'19	3°04'50
morning rise	998 Apr 06 j 22:48	8° Υ 54'41		min. Earth dist.	999 Mar 14 j 17:08	22° Υ 47'50	0.58907 AU
direct	998 Apr 12 j 04:59	7° Υ 48'55		morning rise	999 Mar 18 j 17:25	20° Υ 06'03	
morning max el	998 Apr 26 j 11:52	15° Υ 13'20	25°48'04	desc. node	999 Mar 24 j 00:51	18° Υ 26'26	
	998 May 08 j 08:21	0° Υ		direct	999 Mar 24 j 22:32	18° Υ 24'18	
morning set	998 May 24 j 03:32	28° Υ 48'09		morning max el	999 Apr 08 j 06:56	26° Υ 06'22	27°01'37
	998 May 24 j 17:08	0° Υ			999 Apr 11 j 22:45	0° Υ	
asc. node	998 May 25 j 04:02	0° Υ 57'58			999 May 01 j 16:21	0° Υ	
				morning set	999 May 08 j 13:17	13° Υ 38'09	
superior conj	998 May 31 j 04:08	14° Υ 01'37	0°59'42	asc. node	999 May 12 j 01:05	21° Υ 04'41	
minimum elong	998 May 31 j 01:54	13° Υ 49'25	0°59'17				
max. Earth dist.	998 May 31 j 22:45	15° Υ 43'35	1.32533 AU	superior conj	999 May 15 j 15:57	28° Υ 59'50	0°37'29
evening rise	998 Jun 07 j 06:05	29° Υ 13'32		minimum elong	999 May 15 j 14:22	28° Υ 51'09	0°37'10
	998 Jun 07 j 15:04	0° Υ		max. Earth dist.	999 May 15 j 11:19	28° Υ 34'24	1.32266 AU
	998 Jun 24 j 08:24	0° Υ			999 May 16 j 02:53	0° Υ	
desc. node	998 Jul 03 j 03:08	11° Υ 55'42		evening rise	999 May 22 j 14:22	14° Υ 02'00	
evening max el	998 Jul 08 j 16:05	17° Υ 53'11	27°10'18		999 May 30 j 16:21	0° Υ	
retrograde	998 Jul 22 j 13:05	25° Υ 08'41		desc. node	999 Jun 20 j 00:08	29° Υ 03'00	
evening set	998 Jul 29 j 15:32	22° Υ 50'27		evening max el	999 Jun 20 j 16:45	29° Υ 43'17	26°21'43
min. Earth dist.	998 Aug 02 j 06:18	20° Υ 05'27	0.61609 AU		999 Jun 20 j 23:50	0° Υ	
inferior conj	998 Aug 05 j 08:47	17° Υ 19'14	-4°-17'-39	retrograde	999 Jul 04 j 16:35	6° Υ 55'45	
minimum elong	998 Aug 05 j 13:30	17° Υ 08'40	4°16'46	evening set	999 Jul 11 j 05:33	5° Υ 09'28	
morning rise	998 Aug 12 j 14:17	12° Υ 22'01		min. Earth dist.	999 Jul 15 j 05:42	2° Υ 33'29	0.59566 AU
direct	998 Aug 14 j 23:56	11° Υ 57'43		inferior conj	999 Jul 18 j 13:34	29° Υ 58'25	-4°-46'-39
asc. node	998 Aug 21 j 03:14	14° Υ 41'13		minimum elong	999 Jul 18 j 16:01	29° Υ 53'38	4°46'29
morning max el	998 Aug 21 j 23:04	15° Υ 27'03	17°57'05		999 Jul 18 j 12:46	30° Υ	
	998 Sep 01 j 01:21	0° Υ		morning rise	999 Jul 26 j 05:51	25° Υ 24'14	
morning set	998 Sep 06 j 20:09	10° Υ 24'51		direct	999 Jul 28 j 16:25	25° Υ 03'08	
				morning max el	999 Aug 05 j 08:58	28° Υ 45'34	18°20'44
superior conj	998 Sep 17 j 08:35	29° Υ 17'06	1°13'50		999 Aug 06 j 14:02	0° Υ	
minimum elong	998 Sep 17 j 13:16	29° Υ 37'29	1°13'17	asc. node	999 Aug 08 j 00:18	1° Υ 40'05	
	998 Sep 17 j 18:27	0° Υ		morning set	999 Aug 21 j 08:08	24° Υ 08'17	
max. Earth dist.	998 Sep 24 j 19:47	11° Υ 55'41	1.42491 AU		999 Aug 24 j 09:52	0° Υ	
desc. node	998 Sep 29 j 02:26	18° Υ 52'36					
evening rise	998 Oct 01 j 10:09	22° Υ 34'05		superior conj	999 Aug 30 j 14:20	11° Υ 35'25	1°34'54
	998 Oct 06 j 04:47	0° Υ		minimum elong	999 Aug 30 j 17:33	11° Υ 50'09	1°34'40
	998 Oct 27 j 03:55	0° Υ		max. Earth dist.	999 Sep 07 j 02:59	24° Υ 57'19	1.40604 AU
greatest brilliancy	998 Oct 28 j 20:05	2° Υ 05'39	-0.3m		999 Sep 10 j 02:27	0° Υ	
evening max el	998 Nov 02 j 13:31	7° Υ 26'26	22°02'46	evening rise	999 Sep 11 j 18:25	2° Υ 45'51	
retrograde	998 Nov 11 j 21:24	12° Υ 59'17		desc. node	999 Sep 15 j 23:27	9° Υ 34'39	
evening set	998 Nov 16 j 06:25	11° Υ 15'44			999 Sep 29 j 12:56	0° Υ	
asc. node	998 Nov 17 j 02:27	10° Υ 31'59		evening max el	999 Oct 16 j 04:21	20° Υ 58'25	23°22'17
inferior conj	998 Nov 21 j 15:53	4° Υ 55'18	1°31'03	retrograde	999 Oct 26 j 14:58	27° Υ 09'12	
minimum elong	998 Nov 21 j 13:57	5° Υ 02'00	1°30'18	evening set	999 Oct 31 j 13:11	25° Υ 07'56	
min. Earth dist.	998 Nov 21 j 16:47	4° Υ 52'14	0.67709 AU	asc. node	999 Nov 03 j 23:30	21° Υ 23'48	
	998 Nov 25 j 12:29	30° Υ		inferior conj	999 Nov 05 j 23:07	18° Υ 43'27	0°40'44
morning rise	998 Nov 26 j 21:17	28° Υ 41'18		minimum elong	999 Nov 05 j 22:10	18° Υ 46'42	0°40'20
direct	998 Dec 01 j 15:27	26° Υ 42'31		min. Earth dist.	999 Nov 05 j 13:24	19° Υ 16'46	0.67718 AU
	998 Dec 08 j 16:51	0° Υ		morning rise	999 Nov 11 j 07:15	12° Υ 32'59	
morning max el	998 Dec 11 j 08:44	2° Υ 27'42	22°37'42	direct	999 Nov 15 j 10:53	10° Υ 57'01	
greatest brilliancy	998 Dec 15 j 23:00	7° Υ 35'46	-0.3m	morning max el	999 Nov 24 j 00:30	15° Υ 56'54	21°14'49
desc. node	998 Dec 26 j 01:40	21° Υ 02'42		greatest brilliancy	999 Nov 29 j 07:01	22° Υ 00'31	-0.4m
	999 Jan 01 j 05:04	0° Υ			999 Dec 05 j 06:18	0° Υ	
morning set	999 Jan 14 j 06:54	20° Υ 27'42		desc. node	999 Dec 12 j 22:41	11° Υ 06'34	
max. Earth dist.	999 Jan 19 j 06:21	28° Υ 46'43	1.40333 AU	morning set	999 Dec 24 j 18:29	29° Υ 11'03	
	999 Jan 19 j 23:30	0° Υ			999 Dec 25 j 06:55	0° Υ	

max. Earth dist.	1000 Jan 01 j 08:30	11°☾21'22	1.42320 AU	direct	1000 Oct 29 j 08:37	25°♄14'37	
				morning max el	1000 Nov 05 j 23:48	29°♄37'00	20°02'53
superior conj	1000 Jan 08 j 15:07	23°☾33'25	-2°-3'-2		1000 Nov 06 j 08:48	0°♄	
minimum elong	1000 Jan 08 j 13:55	23°☾28'15	2°03'02	greatest brilliancy	1000 Nov 13 j 02:58	8°♄18'04	-0.6m
	1000 Jan 12 j 08:12	0°☾			1000 Nov 27 j 20:42	0°☾	
evening rise	1000 Jan 19 j 23:59	13°☾41'25		desc. node	1000 Nov 28 j 19:42	1°☾27'56	
	1000 Jan 29 j 06:44	0°☾		morning set	1000 Dec 02 j 14:47	7°☾18'15	
asc. node	1000 Jan 30 j 22:49	2°☾38'35		max. Earth dist.	1000 Dec 13 j 17:56	24°☾46'18	1.43889 AU
evening max el	1000 Feb 05 j 15:04	9°☾57'17	18°08'10		1000 Dec 16 j 23:59	0°☾	
retrograde	1000 Feb 12 j 07:49	13°☾22'45					
evening set	1000 Feb 14 j 22:52	12°☾51'21		superior conj	1000 Dec 19 j 02:39	3°☾25'52	-1°-50'-17
inferior conj	1000 Feb 21 j 15:15	7°☾53'22	3°38'47	minimum elong	1000 Dec 18 j 20:16	2°☾59'52	1°49'52
minimum elong	1000 Feb 21 j 16:58	7°☾49'16	3°38'37	evening rise	1001 Jan 01 j 05:43	25°☾29'48	
min. Earth dist.	1000 Feb 24 j 19:31	4°☾52'16	0.61030 AU		1001 Jan 03 j 20:28	0°☾	
morning rise	1000 Feb 28 j 08:10	2°☾03'08		asc. node	1001 Jan 16 j 19:51	20°☾33'39	
	1000 Mar 03 j 23:23	30°☾		evening max el	1001 Jan 19 j 03:30	23°☾11'33	18°12'29
direct	1000 Mar 06 j 03:19	29°☾46'19		retrograde	1001 Jan 25 j 14:54	26°☾38'19	
	1000 Mar 08 j 08:28	0°☾		evening set	1001 Jan 28 j 10:38	25°☾57'10	
desc. node	1000 Mar 09 j 21:53	0°☾25'14		inferior conj	1001 Feb 03 j 15:42	20°☾38'50	3°46'50
morning max el	1000 Mar 20 j 08:22	7°☾38'13	27°42'11	minimum elong	1001 Feb 03 j 15:23	20°☾39'43	3°46'50
	1000 Apr 06 j 08:40	0°☾		min. Earth dist.	1001 Feb 06 j 06:51	17°☾48'58	0.63040 AU
morning set	1000 Apr 21 j 19:16	28°☾14'17		morning rise	1001 Feb 09 j 18:10	14°☾36'59	
	1000 Apr 22 j 15:43	0°☾		direct	1001 Feb 16 j 17:18	11°☾55'37	
asc. node	1000 Apr 27 j 22:07	11°☾14'43		desc. node	1001 Feb 24 j 18:54	14°☾53'19	
max. Earth dist.	1000 Apr 27 j 22:55	11°☾19'03	1.32371 AU	morning max el	1001 Mar 02 j 15:00	19°☾50'08	27°45'30
					1001 Mar 11 j 07:59	0°☾	
superior conj	1000 Apr 29 j 02:57	13°☾52'07	0°12'42		1001 Mar 30 j 07:20	0°☾	
minimum elong	1000 Apr 29 j 02:22	13°☾48'56	0°12'34	morning set	1001 Apr 05 j 19:15	12°☾29'15	
behind sun begin	1000 Apr 28 j 23:16	13°☾31'57		max. Earth dist.	1001 Apr 11 j 05:36	23°☾44'17	1.32871 AU
behind sun end	1000 Apr 29 j 05:29	14°☾05'56					
evening rise	1000 May 06 j 01:20	28°☾55'11		superior conj	1001 Apr 13 j 11:27	28°☾32'51	0°-13'-54
	1000 May 06 j 13:37	0°☾		minimum elong	1001 Apr 13 j 12:08	28°☾36'28	0°13'46
	1000 May 23 j 09:20	0°☾		behind sun begin	1001 Apr 13 j 09:29	28°☾22'14	
evening max el	1000 Jun 01 j 10:17	10°☾47'23	25°05'01	behind sun end	1001 Apr 13 j 14:46	28°☾50'43	
desc. node	1000 Jun 05 j 21:09	14°☾28'53			1001 Apr 14 j 03:36	0°☾	
retrograde	1000 Jun 15 j 10:16	17°☾54'36		asc. node	1001 Apr 14 j 19:09	1°☾24'07	
evening set	1000 Jun 20 j 20:14	16°☾47'09		evening rise	1001 Apr 20 j 13:09	13°☾46'55	
min. Earth dist.	1000 Jun 25 j 21:53	14°☾01'24	0.57565 AU		1001 Apr 28 j 18:03	0°☾	
inferior conj	1000 Jun 28 j 23:15	11°☾57'46	-4°-48'-21	evening max el	1001 May 14 j 00:24	21°☾22'53	23°31'57
minimum elong	1000 Jun 28 j 21:11	12°☾01'17	4°48'15	desc. node	1001 May 23 j 18:10	27°☾37'45	
morning rise	1000 Jul 07 j 01:58	7°☾46'09		retrograde	1001 May 27 j 15:52	28°☾12'25	
direct	1000 Jul 09 j 15:18	7°☾26'59		evening set	1001 May 31 j 14:23	27°☾38'19	
morning max el	1000 Jul 18 j 11:14	11°☾34'55	19°05'12	min. Earth dist.	1001 Jun 07 j 10:47	24°☾27'44	0.55948 AU
asc. node	1000 Jul 24 j 21:20	19°☾34'52		inferior conj	1001 Jun 09 j 12:53	23°☾12'54	-4°-9'-18
	1000 Jul 30 j 22:27	0°☾		minimum elong	1001 Jun 09 j 06:12	23°☾22'55	4°08'00
morning set	1000 Aug 04 j 05:52	8°☾20'45		morning rise	1001 Jun 18 j 01:25	19°☾16'57	
				direct	1001 Jun 20 j 18:52	18°☾58'29	
superior conj	1000 Aug 12 j 14:44	24°☾49'48	1°44'54	morning max el	1001 Jul 01 j 03:14	23°☾45'53	20°10'47
minimum elong	1000 Aug 12 j 15:54	24°☾55'29	1°44'53		1001 Jul 06 j 12:40	0°☾	
	1000 Aug 15 j 07:52	0°☾		asc. node	1001 Jul 11 j 18:22	8°☾12'41	
max. Earth dist.	1000 Aug 19 j 06:19	7°☾15'32	1.38563 AU	morning set	1001 Jul 19 j 10:18	22°☾53'46	
evening rise	1000 Aug 23 j 03:13	14°☾06'46			1001 Jul 22 j 21:33	0°☾	
desc. node	1000 Sep 01 j 20:28	0°☾08'36					
	1000 Sep 01 j 18:16	0°☾		superior conj	1001 Jul 27 j 04:33	8°☾44'50	1°45'53
	1000 Sep 23 j 10:24	0°☾		minimum elong	1001 Jul 27 j 03:59	8°☾41'57	1°45'52
evening max el	1000 Sep 27 j 16:31	4°☾34'11	24°41'13	max. Earth dist.	1001 Aug 01 j 11:20	19°☾07'48	1.36630 AU
retrograde	1000 Oct 09 j 04:48	11°☾17'03		evening rise	1001 Aug 05 j 10:23	26°☾32'02	
evening set	1000 Oct 14 j 17:17	8°☾58'39			1001 Aug 07 j 08:28	0°☾	
min. Earth dist.	1000 Oct 19 j 08:48	3°☾41'27	0.67400 AU	desc. node	1001 Aug 19 j 17:30	20°☾29'06	
inferior conj	1000 Oct 20 j 05:01	2°☾34'14	0°-13'-23		1001 Aug 26 j 05:01	0°☾	
minimum elong	1000 Oct 20 j 05:21	2°☾33'08	0°13'16	evening max el	1001 Sep 10 j 04:15	18°☾12'44	25°52'18
transit middle	1000 Oct 20 j 05:21	2°☾33'08	0°13'16	retrograde	1001 Sep 22 j 13:58	25°☾17'19	
transit begin	1000 Oct 20 j 03:45	2°☾38'25		evening set	1001 Sep 28 j 16:54	22°☾44'26	
transit end	1000 Oct 20 j 06:56	2°☾27'51		min. Earth dist.	1001 Oct 03 j 00:34	18°☾03'09	0.66755 AU
asc. node	1000 Oct 20 j 20:32	1°☾42'49		inferior conj	1001 Oct 04 j 07:46	16°☾24'33	-1°-9'-58
	1000 Oct 22 j 04:46	30°☾		minimum elong	1001 Oct 04 j 09:34	16°☾18'51	1°09'13
morning rise	1000 Oct 25 j 17:50	26°☾29'48		asc. node	1001 Oct 07 j 17:34	12°☾25'48	

morning rise	1001 Oct 10 j 03:06	10°♄28'57		minimum elong	1002 Sep 18 j 08:45	0°♄01'20	2°05'56
direct	1001 Oct 13 j 07:06	9°♄31'11			1002 Sep 18 j 09:12	30°♄	
morning max el	1001 Oct 20 j 06:29	13°♄25'52	19°05'17	morning rise	1002 Sep 24 j 08:53	24°♄27'33	
	1001 Nov 01 j 12:55	0°♄		asc. node	1002 Sep 24 j 14:36	24°♄20'28	
morning set	1001 Nov 11 j 20:45	16°♄01'41		direct	1002 Sep 27 j 04:30	23°♄43'28	
desc. node	1001 Nov 15 j 16:44	22°♄01'21		morning max el	1002 Oct 03 j 18:51	27°♄19'54	18°23'45
	1001 Nov 20 j 19:01	0°♄			1002 Oct 06 j 03:49	0°♄	
max. Earth dist.	1001 Nov 26 j 09:23	8°♄47'39	1.44849 AU	morning set	1002 Oct 23 j 05:30	26°♄07'41	
					1002 Oct 25 j 15:01	0°♄	
superior conj	1001 Nov 28 j 13:46	12°♄14'21	-1°-18'-46	desc. node	1002 Nov 02 j 13:48	12°♄43'07	
minimum elong	1001 Nov 28 j 05:15	11°♄40'43	1°17'52				
	1001 Dec 09 j 16:03	0°♄		superior conj	1002 Nov 07 j 14:39	20°♄40'37	0°-32'-58
evening rise	1001 Dec 13 j 13:34	6°♄21'10		minimum elong	1002 Nov 07 j 10:21	20°♄23'40	0°32'24
	1001 Dec 28 j 09:26	0°♄		max. Earth dist.	1002 Nov 09 j 04:17	23°♄08'36	1.45088 AU
evening max el	1002 Jan 02 j 15:26	6°♄34'36	18°35'19		1002 Nov 13 j 13:07	0°♄	
asc. node	1002 Jan 03 j 16:52	7°♄35'34		evening rise	1002 Nov 23 j 21:58	16°♄16'02	
retrograde	1002 Jan 09 j 06:02	10°♄14'13			1002 Dec 02 j 16:03	0°♄	
evening set	1002 Jan 12 j 07:08	9°♄22'10		greatest brilliancy	1002 Dec 07 j 08:06	7°♄10'05	-0.7m
inferior conj	1002 Jan 18 j 03:59	3°♄45'12	3°36'31	evening max el	1002 Dec 17 j 00:32	20°♄02'12	19°15'23
minimum elong	1002 Jan 18 j 02:12	3°♄50'31	3°36'19	asc. node	1002 Dec 21 j 13:54	23°♄30'38	
min. Earth dist.	1002 Jan 20 j 03:41	1°♄23'29	0.64752 AU	retrograde	1002 Dec 24 j 01:51	24°♄04'49	
	1002 Jan 21 j 09:14	30°♄		evening set	1002 Dec 27 j 09:34	23°♄00'28	
morning rise	1002 Jan 23 j 20:01	27°♄36'28		inferior conj	1003 Jan 02 j 00:45	17°♄07'08	3°12'50
direct	1002 Jan 30 j 14:36	24°♄45'30		minimum elong	1003 Jan 01 j 22:12	17°♄15'18	3°12'17
	1002 Feb 10 j 06:58	0°♄		min. Earth dist.	1003 Jan 03 j 09:24	15°♄22'37	0.66078 AU
desc. node	1002 Feb 11 j 15:55	1°♄14'37		morning rise	1003 Jan 07 j 10:02	10°♄54'15	
morning max el	1002 Feb 13 j 00:14	2°♄33'08	27°13'58	direct	1003 Jan 13 j 18:00	8°♄07'38	
	1002 Mar 05 j 14:22	0°♄		morning max el	1003 Jan 26 j 09:44	15°♄36'16	26°14'16
morning set	1002 Mar 20 j 10:22	26°♄13'34		desc. node	1003 Jan 29 j 12:58	18°♄57'44	
	1002 Mar 22 j 08:25	0°♄			1003 Feb 07 j 06:56	0°♄	
max. Earth dist.	1002 Mar 25 j 03:31	5°♄38'49	1.33801 AU		1003 Feb 26 j 10:10	0°♄	
				morning set	1003 Mar 03 j 12:46	9°♄15'24	
superior conj	1002 Mar 28 j 15:31	12°♄55'43	0°-41'-18	max. Earth dist.	1003 Mar 07 j 14:10	17°♄00'24	1.35194 AU
minimum elong	1002 Mar 28 j 17:34	13°♄06'27	0°40'55				
asc. node	1002 Apr 01 j 16:12	21°♄28'50		superior conj	1003 Mar 12 j 12:46	26°♄53'05	-1°-8'-12
evening rise	1002 Apr 05 j 00:00	28°♄30'52		minimum elong	1003 Mar 12 j 16:04	27°♄09'54	1°07'40
	1002 Apr 05 j 17:06	0°♄			1003 Mar 14 j 01:14	0°♄	
	1002 Apr 23 j 19:55	0°♄		asc. node	1003 Mar 19 j 13:14	11°♄24'08	
evening max el	1002 Apr 25 j 18:01	1°♄59'25	21°57'29	evening rise	1003 Mar 20 j 07:55	13°♄00'20	
retrograde	1002 May 08 j 09:15	8°♄11'28			1003 Mar 29 j 05:14	0°♄	
desc. node	1002 May 10 j 15:10	8°♄00'11		evening max el	1003 Apr 07 j 21:01	13°♄01'51	20°33'39
evening set	1002 May 11 j 02:01	7°♄55'16		retrograde	1003 Apr 18 j 22:12	18°♄22'39	
inferior conj	1002 May 20 j 11:04	3°♄50'59	-2°-43'-40	evening set	1003 Apr 21 j 01:14	18°♄11'36	
minimum elong	1002 May 20 j 04:05	4°♄00'48	2°41'30	desc. node	1003 Apr 27 j 12:12	15°♄45'38	
min. Earth dist.	1002 May 19 j 23:04	4°♄07'49	0.55051 AU	inferior conj	1003 Apr 30 j 05:26	14°♄14'04	0°-47'-11
morning rise	1002 May 29 j 07:31	29°♄56'51		minimum elong	1003 Apr 30 j 03:12	14°♄17'17	0°46'24
	1002 May 29 j 02:00	30°♄		min. Earth dist.	1003 May 01 j 11:55	13°♄30'04	0.55084 AU
direct	1002 Jun 01 j 08:22	29°♄36'22		morning rise	1003 May 09 j 03:40	10°♄02'53	
	1002 Jun 04 j 12:41	0°♄		direct	1003 May 12 j 19:09	9°♄34'14	
morning max el	1002 Jun 13 j 07:54	5°♄13'36	21°35'46	morning max el	1003 May 26 j 03:03	16°♄02'01	23°14'25
asc. node	1002 Jun 28 j 15:25	27°♄23'21			1003 Jun 06 j 03:48	0°♄	
	1002 Jun 29 j 23:52	0°♄		asc. node	1003 Jun 15 j 12:30	16°♄57'35	
morning set	1002 Jul 03 j 19:07	7°♄41'29		morning set	1003 Jun 18 j 06:22	22°♄36'58	
					1003 Jun 21 j 17:36	0°♄	
superior conj	1002 Jul 11 j 03:51	23°♄09'07	1°39'39				
minimum elong	1002 Jul 11 j 02:05	22°♄59'56	1°39'31	superior conj	1003 Jun 25 j 09:27	7°♄52'10	1°27'39
	1002 Jul 14 j 11:41	0°♄		minimum elong	1003 Jun 25 j 07:06	7°♄39'33	1°27'22
max. Earth dist.	1002 Jul 14 j 23:56	1°♄01'54	1.34992 AU	max. Earth dist.	1003 Jun 27 j 21:59	13°♄13'39	1.33726 AU
evening rise	1002 Jul 19 j 11:20	9°♄49'46		evening rise	1003 Jul 03 j 01:22	23°♄45'53	
	1002 Jul 30 j 20:35	0°♄			1003 Jul 06 j 06:21	0°♄	
desc. node	1002 Aug 06 j 14:32	10°♄29'50		desc. node	1003 Jul 24 j 11:34	0°♄01'20	
	1002 Aug 21 j 21:02	0°♄			1003 Jul 24 j 11:11	0°♄	
evening max el	1002 Aug 23 j 16:29	1°♄48'43	26°47'39	evening max el	1003 Aug 06 j 04:16	15°♄10'25	27°19'57
retrograde	1002 Sep 05 j 17:49	9°♄04'06		retrograde	1003 Aug 19 j 15:54	22°♄28'54	
evening set	1002 Sep 12 j 09:56	6°♄22'00		evening set	1003 Aug 26 j 17:43	19°♄46'05	
min. Earth dist.	1002 Sep 16 j 10:16	2°♄17'59	0.65767 AU	min. Earth dist.	1003 Aug 30 j 11:33	16°♄18'26	0.64418 AU
inferior conj	1002 Sep 18 j 05:26	0°♄11'05	-2°-7'-12	inferior conj	1003 Sep 01 j 19:37	13°♄48'07	-3°-2'-49

minimum elong	1003 Sep 02 j 00:11	13° $\mathring{\text{M}}$ 35'51	3°01'19	evening set	1004 Aug 08 j 12:49	2° $\mathring{\text{M}}$ 51'11	
morning rise	1003 Sep 08 j 08:34	8° $\mathring{\text{M}}$ 20'11		min. Earth dist.	1004 Aug 12 j 02:51	29° $\mathring{\text{L}}$ 54'04	0.62716 AU
direct	1003 Sep 10 j 22:14	7° $\mathring{\text{M}}$ 46'13			1004 Aug 12 j 00:17	30° $\mathring{\text{R}}$ $\mathring{\text{L}}$	
asc. node	1003 Sep 11 j 11:40	7° $\mathring{\text{M}}$ 47'50		inferior conj	1004 Aug 14 j 23:31	27° $\mathring{\text{L}}$ 09'23	-3°-53'-11
morning max el	1003 Sep 17 j 10:23	11° $\mathring{\text{M}}$ 13'11	17°59'12	minimum elong	1004 Aug 15 j 04:35	26° $\mathring{\text{L}}$ 57'11	3°51'57
	1003 Sep 30 j 06:44	0° $\mathring{\text{L}}$		morning rise	1004 Aug 21 j 22:53	22° $\mathring{\text{L}}$ 00'22	
morning set	1003 Oct 04 j 18:28	7° $\mathring{\text{L}}$ 35'55		direct	1004 Aug 24 j 09:10	21° $\mathring{\text{L}}$ 33'23	
				asc. node	1004 Aug 28 j 08:46	22° $\mathring{\text{L}}$ 47'36	
superior conj	1003 Oct 18 j 03:01	29° $\mathring{\text{L}}$ 44'57	0°15'31	morning max el	1004 Aug 31 j 02:10	24° $\mathring{\text{L}}$ 59'20	17°52'29
minimum elong	1003 Oct 18 j 04:49	29° $\mathring{\text{L}}$ 52'12	0°15'15		1004 Sep 04 j 05:21	0° $\mathring{\text{M}}$	
behind sun begin	1003 Oct 18 j 01:19	29° $\mathring{\text{L}}$ 38'05		morning set	1004 Sep 16 j 06:13	20° $\mathring{\text{M}}$ 09'17	
behind sun end	1003 Oct 18 j 08:19	0° $\mathring{\text{M}}$ 06'18			1004 Sep 21 j 19:56	0° $\mathring{\text{L}}$	
	1003 Oct 18 j 06:45	0° $\mathring{\text{M}}$					
desc. node	1003 Oct 20 j 10:52	3° $\mathring{\text{M}}$ 29'19		superior conj	1004 Sep 27 j 16:46	10° $\mathring{\text{L}}$ 05'06	0°56'02
max. Earth dist.	1003 Oct 22 j 23:06	7° $\mathring{\text{M}}$ 29'08	1.44579 AU	minimum elong	1004 Sep 27 j 21:25	10° $\mathring{\text{L}}$ 24'43	0°55'26
evening rise	1003 Nov 03 j 11:24	25° $\mathring{\text{M}}$ 27'31		max. Earth dist.	1004 Oct 04 j 14:15	21° $\mathring{\text{L}}$ 28'47	1.43404 AU
	1003 Nov 06 j 10:20	0° $\mathring{\text{J}}$		desc. node	1004 Oct 06 j 07:53	24° $\mathring{\text{L}}$ 16'28	
greatest brilliancy	1003 Nov 23 j 13:37	25° $\mathring{\text{J}}$ 23'15	-0.6m		1004 Oct 09 j 22:24	0° $\mathring{\text{M}}$	
	1003 Nov 27 j 02:35	0° $\mathring{\text{Z}}$		evening rise	1004 Oct 12 j 19:15	4° $\mathring{\text{M}}$ 29'05	
evening max el	1003 Nov 30 j 04:58	3° $\mathring{\text{Z}}$ 31'28	20°10'57		1004 Oct 29 j 20:56	0° $\mathring{\text{J}}$	
retrograde	1003 Dec 07 j 23:38	8° $\mathring{\text{Z}}$ 05'31		greatest brilliancy	1004 Nov 07 j 00:50	11° $\mathring{\text{J}}$ 05'17	-0.4m
asc. node	1003 Dec 08 j 10:56	8° $\mathring{\text{Z}}$ 04'16		evening max el	1004 Nov 12 j 03:39	17° $\mathring{\text{J}}$ 00'37	21°19'18
evening set	1003 Dec 11 j 15:36	6° $\mathring{\text{Z}}$ 47'17		retrograde	1004 Nov 20 j 21:05	22° $\mathring{\text{J}}$ 11'54	
inferior conj	1003 Dec 17 j 03:13	0° $\mathring{\text{Z}}$ 40'33	2°39'10	asc. node	1004 Nov 24 j 07:59	21° $\mathring{\text{J}}$ 05'17	
minimum elong	1003 Dec 17 j 00:31	0° $\mathring{\text{Z}}$ 49'37	2°38'22	evening set	1004 Nov 24 j 23:15	20° $\mathring{\text{J}}$ 38'04	
	1003 Dec 17 j 15:16	30° $\mathring{\text{R}}$ $\mathring{\text{J}}$		inferior conj	1004 Nov 30 j 09:03	14° $\mathring{\text{J}}$ 21'26	1°57'45
min. Earth dist.	1003 Dec 17 j 22:22	29° $\mathring{\text{J}}$ 36'08	0.66999 AU	minimum elong	1004 Nov 30 j 06:43	14° $\mathring{\text{J}}$ 29'30	1°56'54
morning rise	1003 Dec 22 j 08:54	24° $\mathring{\text{J}}$ 25'29		min. Earth dist.	1004 Nov 30 j 16:16	13° $\mathring{\text{J}}$ 56'30	0.67546 AU
direct	1003 Dec 28 j 02:53	21° $\mathring{\text{J}}$ 53'24		morning rise	1004 Dec 05 j 13:51	8° $\mathring{\text{J}}$ 06'14	
morning max el	1004 Jan 08 j 18:30	28° $\mathring{\text{J}}$ 49'57	24°55'39	direct	1004 Dec 10 j 16:37	5° $\mathring{\text{J}}$ 54'31	
	1004 Jan 09 j 21:36	0° $\mathring{\text{Z}}$		morning max el	1004 Dec 21 j 03:22	12° $\mathring{\text{J}}$ 07'49	23°28'08
desc. node	1004 Jan 16 j 10:02	7° $\mathring{\text{Z}}$ 39'00		greatest brilliancy	1004 Dec 27 j 00:37	18° $\mathring{\text{J}}$ 48'10	-0.2m
	1004 Feb 01 j 01:59	0° $\mathring{\text{M}}$		desc. node	1005 Jan 02 j 07:05	27° $\mathring{\text{J}}$ 00'54	
morning set	1004 Feb 13 j 21:20	21° $\mathring{\text{M}}$ 20'47			1005 Jan 04 j 10:35	0° $\mathring{\text{Z}}$	
max. Earth dist.	1004 Feb 17 j 14:20	28° $\mathring{\text{M}}$ 04'03	1.37009 AU		1005 Jan 23 j 22:14	0° $\mathring{\text{M}}$	
	1004 Feb 18 j 15:18	0° $\mathring{\text{H}}$		morning set	1005 Jan 25 j 05:44	2° $\mathring{\text{M}}$ 12'13	
				max. Earth dist.	1005 Jan 29 j 09:11	9° $\mathring{\text{M}}$ 19'28	1.39099 AU
superior conj	1004 Feb 24 j 00:13	10° $\mathring{\text{H}}$ 17'02	-1°-32'-42				
minimum elong	1004 Feb 24 j 04:16	10° $\mathring{\text{H}}$ 36'51	1°32'13	superior conj	1005 Feb 05 j 21:51	22° $\mathring{\text{M}}$ 56'30	-1°-52'-8
evening rise	1004 Mar 03 j 10:43	27° $\mathring{\text{H}}$ 08'59		minimum elong	1005 Feb 06 j 01:30	23° $\mathring{\text{M}}$ 13'31	1°51'52
	1004 Mar 04 j 21:02	0° $\mathring{\text{Y}}$			1005 Feb 09 j 15:23	0° $\mathring{\text{H}}$	
asc. node	1004 Mar 05 j 10:18	1° $\mathring{\text{Y}}$ 05'31		evening rise	1005 Feb 15 j 05:35	10° $\mathring{\text{H}}$ 48'35	
evening max el	1004 Mar 20 j 11:32	24° $\mathring{\text{Y}}$ 42'53	19°27'18	asc. node	1005 Feb 20 j 07:19	20° $\mathring{\text{H}}$ 26'56	
retrograde	1004 Mar 29 j 19:52	29° $\mathring{\text{Y}}$ 13'11			1005 Feb 25 j 22:18	0° $\mathring{\text{Y}}$	
evening set	1004 Mar 31 j 22:14	29° $\mathring{\text{Y}}$ 00'33		evening max el	1005 Mar 03 j 12:06	7° $\mathring{\text{Y}}$ 00'42	18°40'50
inferior conj	1004 Apr 09 j 10:32	24° $\mathring{\text{Y}}$ 54'09	1°06'36	retrograde	1005 Mar 11 j 10:39	10° $\mathring{\text{Y}}$ 52'50	
minimum elong	1004 Apr 09 j 13:12	24° $\mathring{\text{Y}}$ 49'48	1°05'43	evening set	1005 Mar 13 j 17:47	10° $\mathring{\text{Y}}$ 34'35	
min. Earth dist.	1004 Apr 12 j 02:27	23° $\mathring{\text{Y}}$ 10'57	0.56052 AU	inferior conj	1005 Mar 21 j 11:14	6° $\mathring{\text{Y}}$ 10'26	2°32'10
desc. node	1004 Apr 13 j 09:13	22° $\mathring{\text{Y}}$ 23'57		minimum elong	1005 Mar 21 j 15:24	6° $\mathring{\text{Y}}$ 02'32	2°31'05
morning rise	1004 Apr 18 j 00:24	20° $\mathring{\text{Y}}$ 10'56		min. Earth dist.	1005 Mar 24 j 19:55	3° $\mathring{\text{Y}}$ 39'09	0.57742 AU
direct	1004 Apr 22 j 15:07	19° $\mathring{\text{Y}}$ 22'43		morning rise	1005 Mar 29 j 08:44	0° $\mathring{\text{Y}}$ 54'27	
morning max el	1004 May 06 j 17:51	26° $\mathring{\text{Y}}$ 31'10	24°55'12	desc. node	1005 Mar 31 j 06:15	0° $\mathring{\text{Y}}$ 10'00	
	1004 May 10 j 01:46	0° $\mathring{\text{B}}$			1005 Mar 31 j 19:54	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$	
	1004 May 29 j 01:44	0° $\mathring{\text{H}}$		direct	1005 Apr 04 j 01:22	29° $\mathring{\text{H}}$ 33'50	
asc. node	1004 Jun 01 j 09:35	6° $\mathring{\text{H}}$ 48'42			1005 Apr 07 j 07:43	0° $\mathring{\text{Y}}$	
morning set	1004 Jun 01 j 18:19	7° $\mathring{\text{H}}$ 34'36		morning max el	1005 Apr 18 j 10:04	7° $\mathring{\text{Y}}$ 08'00	26°22'50
					1005 May 05 j 09:58	0° $\mathring{\text{B}}$	
superior conj	1004 Jun 08 j 18:58	22° $\mathring{\text{H}}$ 46'14	1°11'01	morning set	1005 May 17 j 05:19	22° $\mathring{\text{B}}$ 28'38	
minimum elong	1004 Jun 08 j 16:34	22° $\mathring{\text{H}}$ 33'05	1°10'38	asc. node	1005 May 19 j 06:38	26° $\mathring{\text{B}}$ 50'50	
max. Earth dist.	1004 Jun 10 j 04:00	25° $\mathring{\text{H}}$ 45'41	1.32853 AU		1005 May 20 j 17:38	0° $\mathring{\text{H}}$	
	1004 Jun 12 j 03:16	0° $\mathring{\text{S}}$					
evening rise	1004 Jun 16 j 00:42	8° $\mathring{\text{S}}$ 09'15		superior conj	1005 May 24 j 06:26	7° $\mathring{\text{H}}$ 44'30	0°50'38
	1004 Jun 27 j 16:51	0° $\mathring{\text{L}}$		minimum elong	1005 May 24 j 04:26	7° $\mathring{\text{H}}$ 33'31	0°50'15
desc. node	1004 Jul 10 j 08:34	18° $\mathring{\text{L}}$ 51'25		max. Earth dist.	1005 May 24 j 14:59	8° $\mathring{\text{H}}$ 31'25	1.32366 AU
evening max el	1004 Jul 18 j 13:30	28° $\mathring{\text{L}}$ 04'57	27°23'08	evening rise	1005 May 31 j 06:24	22° $\mathring{\text{H}}$ 50'35	
	1004 Jul 20 j 16:47	0° $\mathring{\text{M}}$			1005 Jun 03 j 18:43	0° $\mathring{\text{S}}$	
retrograde	1004 Aug 01 j 07:51	5° $\mathring{\text{M}}$ 22'43			1005 Jun 21 j 18:32	0° $\mathring{\text{L}}$	

desc. node	1005 Jun 27 j 05:34	6°♌42'57			1006 May 27 j 07:44	0°♏	
evening max el	1005 Jun 30 j 17:53	10°♌20'58	26°53'35	evening max el	1006 Jun 12 j 15:36	21°♏51'09	25°52'08
retrograde	1005 Jul 14 j 16:43	17°♌36'10		desc. node	1006 Jun 14 j 02:35	23°♏11'09	
evening set	1005 Jul 21 j 14:53	15°♌30'02		retrograde	1006 Jun 26 j 16:24	29°♏01'57	
min. Earth dist.	1005 Jul 25 j 07:55	12°♌51'03	0.60743 AU	evening set	1006 Jul 02 j 19:09	27°♏32'21	
inferior conj	1005 Jul 28 j 13:47	10°♌06'53	-4°-32'-32	min. Earth dist.	1006 Jul 07 j 04:06	24°♏54'07	0.58683 AU
minimum elong	1005 Jul 28 j 17:50	9°♌58'18	4°31'58	inferior conj	1006 Jul 10 j 10:47	22°♏30'12	-4°-51'-36
morning rise	1005 Aug 04 j 23:56	5°♌19'29		minimum elong	1006 Jul 10 j 11:33	22°♏28'49	4°51'36
direct	1005 Aug 07 j 09:31	4°♌56'55		morning rise	1006 Jul 18 j 07:30	18°♏05'37	
morning max el	1005 Aug 14 j 15:09	8°♌30'48	18°04'41	direct	1006 Jul 20 j 18:58	17°♏45'30	
asc. node	1005 Aug 15 j 05:50	9°♌07'38		morning max el	1006 Jul 28 j 22:07	21°♏37'41	18°37'04
	1005 Aug 28 j 13:19	0°♐		asc. node	1006 Aug 02 j 02:52	26°♏31'46	
morning set	1005 Aug 30 j 10:52	3°♐31'33			1006 Aug 04 j 11:25	0°♑	
				morning set	1006 Aug 14 j 03:28	17°♑28'31	
superior conj	1005 Sep 09 j 09:16	21°♐44'19	1°24'13		1006 Aug 20 j 14:56	0°♐	
minimum elong	1005 Sep 09 j 13:29	22°♐03'04	1°23'49	superior conj	1006 Aug 22 j 23:37	4°♐28'05	1°40'23
	1005 Sep 14 j 02:47	0°♑		minimum elong	1006 Aug 23 j 01:58	4°♐39'07	1°40'15
max. Earth dist.	1005 Sep 17 j 00:05	4°♑53'27	1.41718 AU	max. Earth dist.	1006 Aug 30 j 05:14	17°♐35'49	1.39739 AU
evening rise	1005 Sep 22 j 15:11	14°♑06'54		evening rise	1006 Sep 03 j 09:52	24°♐48'06	
desc. node	1005 Sep 23 j 04:54	15°♑01'47			1006 Sep 06 j 13:05	0°♑	
	1005 Oct 02 j 21:18	0°♒		desc. node	1006 Sep 10 j 01:56	5°♑41'01	
greatest brilliancy	1005 Oct 21 j 00:41	25°♒05'42	-0.3m		1006 Sep 26 j 16:02	0°♒	
	1005 Oct 25 j 08:37	0°♑		evening max el	1006 Oct 08 j 10:38	14°♒05'59	23°56'22
evening max el	1005 Oct 25 j 21:02	0°♑31'46	22°36'15	retrograde	1006 Oct 19 j 08:28	20°♒30'55	
retrograde	1005 Nov 04 j 16:28	6°♑21'33		evening set	1006 Oct 24 j 12:37	18°♒22'27	
evening set	1005 Nov 09 j 06:48	4°♑30'45		asc. node	1006 Oct 29 j 02:03	13°♒09'13	
asc. node	1005 Nov 11 j 05:01	2°♑37'51		inferior conj	1006 Oct 29 j 23:11	11°♒57'40	0°18'11
	1005 Nov 13 j 07:38	30°♒♒		minimum elong	1006 Oct 29 j 22:45	11°♒59'09	0°18'00
inferior conj	1005 Nov 14 j 16:18	28°♒08'01	1°10'18	min. Earth dist.	1006 Oct 29 j 09:07	12°♒45'24	0.67629 AU
minimum elong	1005 Nov 14 j 14:45	28°♒13'25	1°09'39	morning rise	1006 Nov 04 j 09:04	5°♒49'19	
min. Earth dist.	1005 Nov 14 j 12:41	28°♒20'32	0.67752 AU	direct	1006 Nov 08 j 07:07	4°♒22'18	
morning rise	1005 Nov 19 j 22:35	21°♒54'57		morning max el	1006 Nov 16 j 10:13	9°♒04'46	20°42'32
direct	1005 Nov 24 j 10:25	20°♒05'52		greatest brilliancy	1006 Nov 22 j 08:39	16°♒03'04	-0.5m
morning max el	1005 Dec 03 j 15:30	25°♒31'31	22°01'16		1006 Dec 02 j 07:11	0°♑	
	1005 Dec 07 j 16:03	0°♑		desc. node	1006 Dec 07 j 01:09	7°♑04'17	
greatest brilliancy	1005 Dec 08 j 08:37	0°♑50'12	-0.4m	morning set	1006 Dec 15 j 11:32	19°♑58'36	
desc. node	1005 Dec 20 j 04:07	16°♑52'09			1006 Dec 21 j 20:08	0°♑	
	1005 Dec 28 j 23:06	0°♑		max. Earth dist.	1006 Dec 24 j 12:10	4°♑17'29	1.43060 AU
morning set	1006 Jan 05 j 09:05	11°♑38'59		superior conj	1006 Dec 31 j 03:45	15°♑14'54	-1°-59'-51
max. Earth dist.	1006 Jan 11 j 06:46	21°♑19'42	1.41216 AU	minimum elong	1006 Dec 31 j 00:21	15°♑00'37	1°59'45
	1006 Jan 16 j 08:54	0°♒			1007 Jan 08 j 17:53	0°♒	
superior conj	1006 Jan 19 j 00:47	4°♒39'51	-2°-2'-45	evening rise	1007 Jan 12 j 05:37	6°♒09'17	
minimum elong	1006 Jan 19 j 02:02	4°♒45'25	2°02'44	asc. node	1007 Jan 25 j 01:21	27°♒41'39	
evening rise	1006 Jan 29 j 13:12	23°♒51'23			1007 Jan 26 j 18:16	0°♑	
	1006 Feb 01 j 20:56	0°♑		evening max el	1007 Jan 29 j 07:21	2°♑54'20	18°07'43
asc. node	1006 Feb 07 j 04:20	9°♑21'45		retrograde	1007 Feb 04 j 20:28	6°♑18'28	
evening max el	1006 Feb 14 j 19:47	19°♑47'32	18°14'27	evening set	1007 Feb 07 j 13:38	5°♑42'52	
retrograde	1006 Feb 21 j 19:56	23°♑17'53		inferior conj	1007 Feb 14 j 00:46	0°♑35'57	3°44'48
evening set	1006 Feb 24 j 08:23	22°♑51'35		minimum elong	1007 Feb 14 j 01:34	0°♑33'56	3°44'46
inferior conj	1006 Mar 03 j 08:55	18°♑06'10	3°23'12		1007 Feb 14 j 14:56	30°♒♒	
minimum elong	1006 Mar 03 j 11:50	17°♑59'43	3°22'44	min. Earth dist.	1007 Feb 16 j 23:56	27°♒37'22	0.61917 AU
min. Earth dist.	1006 Mar 06 j 18:11	15°♑08'39	0.59814 AU	morning rise	1007 Feb 20 j 11:05	24°♒40'22	
morning rise	1006 Mar 10 j 11:48	12°♑26'04		direct	1007 Feb 27 j 09:16	22°♒11'33	
direct	1006 Mar 17 j 00:23	10°♑28'13		desc. node	1007 Mar 05 j 00:18	23°♒38'16	
desc. node	1006 Mar 18 j 03:17	10°♑31'36			1007 Mar 13 j 09:27	0°♑	
morning max el	1006 Mar 31 j 07:34	18°♑15'31	27°23'14	morning max el	1007 Mar 13 j 11:18	0°♑04'35	27°48'09
	1006 Apr 10 j 03:46	0°♑			1007 Apr 04 j 03:46	0°♑	
	1006 Apr 28 j 00:12	0°♑		morning set	1007 Apr 15 j 17:23	21°♑41'18	
morning set	1006 May 01 j 13:39	7°♑12'59			1007 Apr 19 j 16:59	0°♑	
asc. node	1006 May 06 j 03:39	16°♑59'08		max. Earth dist.	1007 Apr 21 j 13:32	3°♑59'05	1.32537 AU
max. Earth dist.	1006 May 08 j 03:25	21°♑20'09	1.32260 AU	superior conj	1007 Apr 23 j 04:16	7°♑29'13	0°01'36
				minimum elong	1007 Apr 23 j 04:12	7°♑28'47	0°01'35
superior conj	1006 May 08 j 18:05	22°♑40'42	0°27'14	behind sun begin	1007 Apr 22 j 23:05	7°♑01'00	
minimum elong	1006 May 08 j 16:53	22°♑34'08	0°26'59	behind sun end	1007 Apr 23 j 09:18	7°♑56'36	
	1006 May 12 j 02:12	0°♒					
evening rise	1006 May 15 j 16:03	7°♒41'40					

asc. node	1007 Apr 23 j 00:40	7°♄09'36		superior conj	1008 Apr 06 j 11:07	22°♄02'49	0°-25'-29
evening rise	1007 Apr 30 j 03:39	22°♄35'42		minimum elong	1008 Apr 06 j 12:22	22°♄09'29	0°25'14
	1007 May 03 j 17:38	0°♄		asc. node	1008 Apr 08 j 21:42	27°♄17'18	
	1007 May 22 j 17:02	0°♄			1008 Apr 10 j 03:55	0°♄	
evening max el	1007 May 25 j 07:12	2°♄40'56	24°26'37	evening rise	1008 Apr 13 j 15:17	7°♄24'53	
desc. node	1007 May 31 j 23:34	7°♄43'49			1008 Apr 25 j 15:17	0°♄	
retrograde	1007 Jun 08 j 04:38	9°♄41'52		evening max el	1008 May 05 j 21:40	13°♄11'54	22°51'00
evening set	1007 Jun 13 j 00:07	8°♄50'03		desc. node	1008 May 17 j 20:36	19°♄44'15	
min. Earth dist.	1007 Jun 18 j 18:19	5°♄55'28	0.56814 AU	retrograde	1008 May 19 j 04:39	19°♄48'19	
inferior conj	1007 Jun 21 j 11:53	4°♄11'10	-4°-37'-30	evening set	1008 May 22 j 13:15	19°♄23'34	
minimum elong	1007 Jun 21 j 07:37	4°♄18'00	4°37'00	min. Earth dist.	1008 May 30 j 06:21	15°♄59'01	0.55465 AU
morning rise	1007 Jun 29 j 18:49	0°♄07'17		inferior conj	1008 May 31 j 17:52	15°♄07'55	-3°-38'-17
	1007 Jun 30 j 08:43	30°♄		minimum elong	1008 May 31 j 10:19	15°♄18'49	3°36'25
direct	1007 Jul 02 j 09:58	29°♄48'26		morning rise	1008 Jun 09 j 10:15	11°♄15'21	
	1007 Jul 04 j 10:07	0°♄		direct	1008 Jun 12 j 06:19	10°♄56'32	
morning max el	1007 Jul 11 j 20:11	4°♄11'15	19°30'33	morning max el	1008 Jun 23 j 07:22	16°♄03'38	20°44'53
asc. node	1007 Jul 19 j 23:55	14°♄46'14			1008 Jul 03 j 19:13	0°♄	
	1007 Jul 28 j 06:12	0°♄		asc. node	1008 Jul 05 j 20:58	3°♄38'44	
morning set	1007 Jul 29 j 04:24	1°♄50'46		morning set	1008 Jul 12 j 10:57	16°♄30'28	
					1008 Jul 18 j 23:18	0°♄	
superior conj	1007 Aug 06 j 06:18	18°♄01'10	1°46'19	superior conj	1008 Jul 20 j 00:36	2°♄09'45	1°44'02
minimum elong	1007 Aug 06 j 06:41	18°♄03'02	1°46'18	minimum elong	1008 Jul 19 j 23:27	2°♄03'52	1°43'58
max. Earth dist.	1007 Aug 12 j 08:57	29°♄41'39	1.37720 AU	max. Earth dist.	1008 Jul 24 j 16:40	11°♄31'15	1.35887 AU
	1007 Aug 12 j 12:56	0°♄		evening rise	1008 Jul 28 j 19:58	19°♄25'45	
evening rise	1007 Aug 16 j 04:41	6°♄37'20			1008 Aug 03 j 17:13	0°♄	
desc. node	1007 Aug 27 j 22:57	26°♄09'44		desc. node	1008 Aug 13 j 19:58	16°♄22'28	
	1007 Aug 30 j 11:03	0°♄			1008 Aug 23 j 12:40	0°♄	
evening max el	1007 Sep 20 j 22:31	27°♄43'23	25°12'50	evening max el	1008 Sep 02 j 10:17	11°♄20'58	26°18'10
	1007 Sep 23 j 09:51	0°♄		retrograde	1008 Sep 15 j 03:14	18°♄31'38	
retrograde	1007 Oct 02 j 20:13	4°♄36'05		evening set	1008 Sep 21 j 12:11	15°♄53'38	
evening set	1007 Oct 08 j 15:02	2°♄11'01		min. Earth dist.	1008 Sep 25 j 16:32	11°♄28'28	0.66376 AU
	1007 Oct 10 j 19:31	30°♄		inferior conj	1008 Sep 27 j 04:49	9°♄37'04	-1°-34'-18
min. Earth dist.	1007 Oct 13 j 03:10	27°♄09'04	0.67174 AU	minimum elong	1008 Sep 27 j 07:16	9°♄29'32	1°33'18
inferior conj	1007 Oct 14 j 03:58	25°♄48'15	0°-37'-11	asc. node	1008 Oct 01 j 20:10	4°♄39'48	
minimum elong	1007 Oct 14 j 04:54	25°♄45'11	0°36'47	morning rise	1008 Oct 03 j 03:27	3°♄46'31	
asc. node	1007 Oct 15 j 23:06	23°♄31'06		direct	1008 Oct 06 j 03:33	2°♄55'09	
morning rise	1007 Oct 19 j 19:22	19°♄47'23		morning max el	1008 Oct 12 j 22:19	6°♄40'54	18°45'41
direct	1007 Oct 23 j 05:22	18°♄39'58			1008 Oct 29 j 07:49	0°♄	
morning max el	1007 Oct 30 j 12:49	22°♄48'50	19°36'32	morning set	1008 Nov 03 j 01:21	7°♄29'25	
	1007 Nov 05 j 11:48	0°♄		desc. node	1008 Nov 09 j 19:16	18°♄08'51	
greatest brilliancy	1007 Nov 07 j 21:23	3°♄19'54	-0.6m		1008 Nov 17 j 08:12	0°♄	
desc. node	1007 Nov 23 j 22:12	27°♄31'21		superior conj	1008 Nov 19 j 08:24	3°♄09'24	-1°00'-31
morning set	1007 Nov 24 j 09:01	28°♄13'10		minimum elong	1008 Nov 19 j 01:00	2°♄40'18	0°59'37
	1007 Nov 25 j 12:36	0°♄		max. Earth dist.	1008 Nov 18 j 18:32	2°♄14'51	1.45035 AU
max. Earth dist.	1007 Dec 07 j 01:06	18°♄02'20	1.44386 AU	evening rise	1008 Dec 05 j 00:30	28°♄01'50	
					1008 Dec 06 j 05:54	0°♄	
superior conj	1007 Dec 11 j 04:04	24°♄37'14	-1°-39'-8	evening max el	1008 Dec 26 j 06:50	29°♄38'14	18°50'16
minimum elong	1007 Dec 10 j 20:04	24°♄05'09	1°38'28		1008 Dec 26 j 15:29	0°♄	
	1007 Dec 14 j 11:58	0°♄		asc. node	1008 Dec 28 j 19:26	1°♄51'19	
evening rise	1007 Dec 25 j 02:32	17°♄34'22		retrograde	1009 Jan 02 j 01:17	3°♄26'55	
	1008 Jan 01 j 12:08	0°♄		evening set	1009 Jan 05 j 04:55	2°♄29'55	
asc. node	1008 Jan 11 j 22:23	15°♄15'43			1009 Jan 08 j 04:18	30°♄	
evening max el	1008 Jan 12 j 19:52	16°♄12'51	18°19'57	inferior conj	1009 Jan 10 j 23:04	26°♄45'32	3°27'54
retrograde	1008 Jan 19 j 07:37	19°♄43'51		minimum elong	1009 Jan 10 j 20:53	26°♄52'17	3°27'33
evening set	1008 Jan 22 j 05:32	18°♄58'07		min. Earth dist.	1009 Jan 12 j 16:12	24°♄38'51	0.65360 AU
inferior conj	1008 Jan 28 j 06:44	13°♄31'16	3°44'22	morning rise	1009 Jan 16 j 11:47	20°♄34'27	
minimum elong	1008 Jan 28 j 05:42	13°♄34'11	3°44'18	direct	1009 Jan 23 j 02:16	17°♄43'52	
min. Earth dist.	1008 Jan 30 j 15:14	10°♄52'06	0.63810 AU	morning max el	1009 Feb 05 j 05:27	25°♄25'47	26°51'32
morning rise	1008 Feb 03 j 04:16	7°♄26'02		desc. node	1009 Feb 05 j 18:25	25°♄58'45	
direct	1008 Feb 10 j 02:14	4°♄39'08			1009 Feb 09 j 10:11	0°♄	
desc. node	1008 Feb 19 j 21:21	8°♄58'58			1009 Mar 02 j 06:51	0°♄	
morning max el	1008 Feb 23 j 19:33	12°♄31'34	27°36'08	morning set	1009 Mar 13 j 00:18	19°♄12'28	
	1008 Mar 08 j 19:06	0°♄		max. Earth dist.	1009 Mar 17 j 10:37	27°♄53'54	1.34340 AU
morning set	1008 Mar 26 j 15:11	0°♄			1009 Mar 18 j 11:36	0°♄	
max. Earth dist.	1008 Mar 29 j 14:00	5°♄44'24					
	1008 Apr 03 j 17:13	16°♄13'36	1.33217 AU				

superior conj	1009 Mar 21 j 12:37	6°♈15'31	0°-52'-52	max. Earth dist.	1010 Feb 27 j 16:01	9°♋02'54	1.35917 AU
minimum elong	1009 Mar 21 j 15:13	6°♈29'04	0°52'24				
asc. node	1009 Mar 26 j 18:45	17°♈18'18		superior conj	1010 Mar 05 j 06:08	19°♋59'52	-1°-19'-2
evening rise	1009 Mar 29 j 01:09	22°♈03'12		minimum elong	1010 Mar 05 j 09:50	20°♋18'28	1°18'29
	1009 Apr 01 j 23:06	0°♌			1010 Mar 10 j 04:05	0°♈	
evening max el	1009 Apr 17 j 18:38	23°♌56'20	21°19'54	evening rise	1010 Mar 13 j 07:11	6°♈24'26	
retrograde	1009 Apr 29 j 19:17	29°♌48'02		asc. node	1010 Mar 13 j 15:48	7°♈08'15	
evening set	1009 May 02 j 03:49	29°♌35'17			1010 Mar 26 j 14:18	0°♌	
desc. node	1009 May 04 j 17:37	28°♌54'22		evening max el	1010 Mar 31 j 02:41	5°♌15'29	20°03'08
inferior conj	1009 May 11 j 12:38	25°♌35'41	-1°-56'-10	retrograde	1010 Apr 10 j 10:10	10°♌13'25	
minimum elong	1009 May 11 j 07:16	25°♌43'14	1°54'21	evening set	1010 Apr 12 j 11:41	10°♌02'22	
min. Earth dist.	1009 May 11 j 18:58	25°♌26'48	0.54944 AU	inferior conj	1010 Apr 21 j 10:04	6°♌03'07	0°03'18
morning rise	1009 May 20 j 10:53	21°♌36'26		minimum elong	1010 Apr 21 j 10:13	6°♌02'54	0°03'15
direct	1009 May 23 j 16:32	21°♌13'41		transit middle	1010 Apr 21 j 10:13	6°♌02'54	0°03'15
morning max el	1009 Jun 05 j 07:42	27°♌13'27	22°16'40	transit begin	1010 Apr 21 j 06:18	6°♌08'47	
	1009 Jun 08 j 00:48	0°♍		transit end	1010 Apr 21 j 14:08	5°♌57'00	
asc. node	1009 Jun 22 j 18:01	22°♍59'50		desc. node	1010 Apr 21 j 14:38	5°♌56'14	
	1009 Jun 26 j 05:17	0°♎		min. Earth dist.	1010 Apr 23 j 08:47	4°♌52'59	0.55389 AU
morning set	1009 Jun 26 j 20:59	1°♎21'35		morning rise	1010 Apr 30 j 05:57	1°♌39'04	
				direct	1010 May 04 j 06:36	1°♌03'30	
superior conj	1009 Jul 04 j 02:53	16°♎42'49	1°35'11	morning max el	1010 May 18 j 00:15	7°♌50'58	23°57'48
minimum elong	1009 Jul 04 j 00:48	16°♎31'49	1°34'59		1010 Jun 03 j 01:11	0°♍	
max. Earth dist.	1009 Jul 07 j 08:54	23°♎29'39	1.34399 AU	asc. node	1010 Jun 09 j 15:05	12°♍42'05	
	1009 Jul 10 j 14:08	0°♏		morning set	1010 Jun 11 j 08:44	16°♍18'51	
evening rise	1009 Jul 12 j 02:57	3°♏00'52			1010 Jun 17 j 17:27	0°♎	
	1009 Jul 27 j 13:50	0°♐					
desc. node	1009 Jul 31 j 17:00	6°♐11'41		superior conj	1010 Jun 18 j 10:27	1°♎31'53	1°21'06
evening max el	1009 Aug 15 j 22:18	24°♐51'21	27°04'41	minimum elong	1010 Jun 18 j 08:00	1°♎18'42	1°20'47
	1009 Aug 22 j 10:32	0°♑		max. Earth dist.	1010 Jun 20 j 10:35	5°♎50'24	1.33307 AU
retrograde	1009 Aug 29 j 04:56	2°♑09'48		evening rise	1010 Jun 25 j 21:25	17°♎10'36	
	1009 Sep 04 j 07:44	30°♑♐			1010 Jul 02 j 13:45	0°♏	
evening set	1009 Sep 05 j 01:40	29°♑25'58		desc. node	1010 Jul 18 j 14:00	25°♏27'33	
min. Earth dist.	1009 Sep 08 j 22:58	25°♑37'47	0.65227 AU		1010 Jul 22 j 01:57	0°♐	
inferior conj	1009 Sep 10 j 23:36	23°♑19'50	-2°-31'-14	evening max el	1010 Jul 29 j 09:27	8°♐04'01	27°25'17
minimum elong	1009 Sep 11 j 03:30	23°♑08'45	2°29'49	retrograde	1010 Aug 12 j 00:37	15°♐22'33	
morning rise	1009 Sep 17 j 06:58	17°♑42'37		evening set	1010 Aug 19 j 04:33	12°♑43'13	
asc. node	1009 Sep 18 j 17:15	17°♑12'07		min. Earth dist.	1010 Aug 22 j 20:21	9°♑29'16	0.63729 AU
direct	1009 Sep 19 j 23:36	17°♑03'25		inferior conj	1010 Aug 25 j 09:49	6°♑51'33	-3°-25'-7
morning max el	1009 Sep 26 j 12:24	20°♑35'10	18°11'12	minimum elong	1010 Aug 25 j 14:44	6°♑38'55	3°23'41
	1009 Oct 03 j 16:55	0°♒		morning rise	1010 Sep 01 j 03:05	1°♑30'58	
morning set	1009 Oct 14 j 22:27	18°♒11'07		direct	1010 Sep 03 j 14:56	1°♑00'21	
	1009 Oct 22 j 03:43	0°♓		asc. node	1010 Sep 05 j 14:18	1°♑19'49	
desc. node	1009 Oct 27 j 16:18	8°♓52'31		morning max el	1010 Sep 10 j 04:21	4°♑26'10	17°54'02
				morning set	1010 Sep 26 j 21:55	0°♒09'30	
superior conj	1009 Oct 29 j 11:40	11°♓44'53	0°-11'-59		1010 Sep 26 j 19:43	0°♒	
minimum elong	1009 Oct 29 j 10:08	11°♓38'47	0°11'48				
behind sun begin	1009 Oct 29 j 02:32	11°♓08'39		superior conj	1010 Oct 09 j 09:55	21°♒18'45	0°34'04
behind sun end	1009 Oct 29 j 17:43	12°♓08'54		minimum elong	1010 Oct 09 j 13:25	21°♒33'09	0°33'35
max. Earth dist.	1009 Nov 01 j 13:10	16°♓35'21	1.44951 AU	desc. node	1010 Oct 14 j 13:20	29°♒39'20	
	1009 Nov 10 j 02:48	0°♈			1010 Oct 14 j 18:30	0°♓	
evening rise	1009 Nov 14 j 23:40	7°♈34'35		max. Earth dist.	1010 Oct 15 j 06:34	0°♓48'14	1.44157 AU
	1009 Nov 29 j 14:32	0°♉		evening rise	1010 Oct 25 j 08:35	16°♓36'18	
greatest brilliancy	1009 Dec 01 j 13:07	2°♉49'59	-0.7m		1010 Nov 03 j 03:57	0°♈	
evening max el	1009 Dec 09 j 14:07	13°♉06'28	19°37'17	greatest brilliancy	1010 Nov 16 j 19:45	19°♈36'59	-0.5m
asc. node	1009 Dec 15 j 16:30	17°♉13'15		evening max el	1010 Nov 22 j 16:15	26°♈35'47	20°38'44
retrograde	1009 Dec 16 j 22:14	17°♉21'47			1010 Nov 26 j 16:20	0°♉	
evening set	1009 Dec 20 j 09:08	16°♉11'56		retrograde	1010 Nov 30 j 19:57	1°♉24'45	
inferior conj	1009 Dec 25 j 22:35	10°♉12'42	2°59'38	asc. node	1010 Dec 02 j 13:33	1°♉07'49	
minimum elong	1009 Dec 25 j 19:54	10°♉21'29	2°58'58	evening set	1010 Dec 04 j 16:03	0°♉00'09	
min. Earth dist.	1009 Dec 27 j 01:23	8°♉44'48	0.66517 AU		1010 Dec 04 j 16:08	30°♑♈	
morning rise	1009 Dec 31 j 05:57	3°♉58'28		inferior conj	1010 Dec 10 j 02:43	23°♈49'03	2°22'26
direct	1010 Jan 06 j 08:18	1°♉16'43		minimum elong	1010 Dec 10 j 00:07	23°♈57'55	2°21'35
morning max el	1010 Jan 18 j 14:34	8°♉33'59	25°42'29	min. Earth dist.	1010 Dec 10 j 16:41	23°♈01'27	0.67281 AU
desc. node	1010 Jan 23 j 15:29	14°♉08'47		morning rise	1010 Dec 15 j 07:43	17°♈33'48	
	1010 Feb 04 j 10:54	0°♊		direct	1010 Dec 20 j 19:25	15°♈09'38	
	1010 Feb 22 j 19:08	0°♋		morning max el	1010 Dec 31 j 22:50	21°♈48'21	24°18'51
morning set	1010 Feb 23 j 19:51	1°♋52'26			1011 Jan 08 j 02:03	0°♌	

desc. node	1011 Jan 10 j 12:32	3°☾08'38		greatest brilliancy	1011 Dec 19 j 00:37	10°☿20'45	-0.3m
	1011 Jan 28 j 17:57	0°☾		desc. node	1011 Dec 28 j 09:34	22°☿44'04	
morning set	1011 Feb 05 j 18:53	13°☾27'52			1012 Jan 02 j 10:28	0°☾	
max. Earth dist.	1011 Feb 09 j 12:48	20°☾06'07	1.37879 AU	morning set	1012 Jan 17 j 15:16	23°☾43'35	
	1011 Feb 14 j 21:12	0°☿			1012 Jan 21 j 09:06	0°☾	
				max. Earth dist.	1012 Jan 22 j 08:33	1°☾40'09	1.40014 AU
superior conj	1011 Feb 16 j 12:16	3°☿06'22	-1°-41'-46				
minimum elong	1011 Feb 16 j 16:20	3°☿25'53	1°41'21	superior conj	1012 Jan 30 j 02:38	15°☾23'49	-1°-57'-58
evening rise	1011 Feb 25 j 06:57	20°☿21'24		minimum elong	1012 Jan 30 j 05:33	15°☾37'10	1°57'50
asc. node	1011 Feb 28 j 12:51	26°☿41'44			1012 Feb 06 j 21:54	0°☿	
	1011 Mar 02 j 06:45	0°☿		evening rise	1012 Feb 08 j 21:31	3°☿46'50	
evening max el	1011 Mar 13 j 21:51	17°☿13'05	19°05'05	asc. node	1012 Feb 15 j 09:53	15°☿53'01	
retrograde	1011 Mar 22 j 14:13	21°☿24'51		evening max el	1012 Feb 25 j 01:49	29°☿44'21	18°27'08
evening set	1011 Mar 24 j 18:36	21°☿10'04			1012 Feb 25 j 08:22	0°☿	
inferior conj	1011 Apr 01 j 22:50	16°☿56'51	1°47'08	retrograde	1012 Mar 03 j 13:25	3°☿25'29	
minimum elong	1011 Apr 02 j 02:36	16°☿50'20	1°45'58	evening set	1012 Mar 05 j 22:52	3°☿03'59	
min. Earth dist.	1011 Apr 05 j 00:07	14°☿51'16	0.56704 AU		1012 Mar 11 j 11:11	30°☿☿	
desc. node	1011 Apr 08 j 11:41	12°☿47'30		inferior conj	1012 Mar 13 j 08:41	28°☿30'34	2°57'51
morning rise	1011 Apr 10 j 06:28	11°☿59'27		minimum elong	1012 Mar 13 j 12:33	28°☿22'44	2°57'00
direct	1011 Apr 15 j 08:42	10°☿58'40		min. Earth dist.	1012 Mar 16 j 19:06	25°☿45'25	0.58595 AU
morning max el	1011 Apr 29 j 14:46	18°☿19'09	25°34'59	morning rise	1012 Mar 20 j 22:16	23°☿03'12	
	1011 May 09 j 08:11	0°☿		desc. node	1012 Mar 25 j 08:42	21°☿34'10	
	1011 May 26 j 06:04	0°☿		direct	1012 Mar 27 j 00:19	21°☿27'05	
morning set	1011 May 26 j 20:29	1°☿15'39		morning max el	1012 Apr 10 j 09:04	29°☿07'22	26°52'33
asc. node	1011 May 27 j 12:07	2°☿38'21			1012 Apr 11 j 06:10	0°☿	
					1012 May 02 j 01:45	0°☿	
superior conj	1011 Jun 02 j 21:00	16°☿28'22	1°02'48	morning set	1012 May 10 j 06:36	16°☿06'34	
minimum elong	1011 Jun 02 j 18:43	16°☿15'50	1°02'24	asc. node	1012 May 13 j 09:10	22°☿43'43	
max. Earth dist.	1011 Jun 03 j 19:20	18°☿30'27	1.32605 AU		1012 May 16 j 17:02	0°☿	
	1011 Jun 09 j 04:00	0°☿					
evening rise	1011 Jun 09 j 23:48	1°☿42'54		superior conj	1012 May 17 j 08:45	1°☿26'23	0°41'03
	1011 Jun 25 j 12:11	0°☿		minimum elong	1012 May 17 j 07:03	1°☿17'02	0°40'42
desc. node	1011 Jul 05 j 11:00	13°☿55'08		max. Earth dist.	1012 May 17 j 07:35	1°☿19'56	1.32281 AU
evening max el	1011 Jul 11 j 17:09	20°☿44'07	27°14'39	evening rise	1012 May 24 j 07:27	16°☿29'14	
retrograde	1011 Jul 25 j 13:21	27°☿59'52			1012 May 31 j 01:58	0°☿	
evening set	1011 Aug 01 j 16:54	25°☿37'44			1012 Jun 20 j 03:41	0°☿	
min. Earth dist.	1011 Aug 05 j 07:14	22°☿50'04	0.61909 AU	desc. node	1012 Jun 21 j 08:00	1°☿14'29	
inferior conj	1011 Aug 08 j 08:21	20°☿03'50	-4°-11'-40	evening max el	1012 Jun 22 j 18:43	2°☿40'16	26°30'52
minimum elong	1011 Aug 08 j 13:13	19°☿52'42	4°10'41	retrograde	1012 Jul 06 j 18:19	9°☿53'37	
morning rise	1011 Aug 15 j 12:15	15°☿03'25		evening set	1012 Jul 13 j 10:10	8°☿01'46	
direct	1011 Aug 17 j 22:02	14°☿38'27		min. Earth dist.	1012 Jul 17 j 07:56	5°☿25'41	0.59873 AU
asc. node	1011 Aug 23 j 11:21	16°☿55'10		inferior conj	1012 Jul 20 j 15:39	2°☿47'33	-4°-43'-46
morning max el	1011 Aug 24 j 19:14	18°☿06'27	17°55'15	minimum elong	1012 Jul 20 j 18:36	2°☿41'39	4°43'30
	1011 Sep 02 j 08:26	0°☿			1012 Jul 24 j 10:26	30°☿☿	
morning set	1011 Sep 09 j 17:32	13°☿05'31		morning rise	1012 Jul 28 j 06:23	28°☿10'03	
	1011 Sep 19 j 04:39	0°☿		direct	1012 Jul 30 j 16:37	27°☿48'37	
					1012 Aug 05 j 12:41	0°☿	
superior conj	1011 Sep 20 j 11:21	2°☿13'02	1°09'33	morning max el	1012 Aug 07 j 06:02	1°☿28'24	18°15'56
minimum elong	1011 Sep 20 j 16:07	2°☿33'34	1°09'00	asc. node	1012 Aug 09 j 08:23	3°☿44'00	
max. Earth dist.	1011 Sep 27 j 20:06	14°☿36'18	1.42745 AU	morning set	1012 Aug 23 j 03:44	26°☿43'35	
desc. node	1011 Oct 01 j 10:21	20°☿25'50			1012 Aug 24 j 21:09	0°☿	
evening rise	1011 Oct 04 j 19:39	25°☿48'16					
	1011 Oct 07 j 12:14	0°☿		superior conj	1012 Sep 01 j 13:50	14°☿21'40	1°32'28
	1011 Oct 28 j 02:51	0°☿		minimum elong	1012 Sep 01 j 17:21	14°☿37'36	1°32'10
greatest brilliancy	1011 Oct 31 j 17:50	4°☿39'24	-0.4m	max. Earth dist.	1012 Sep 09 j 03:54	27°☿43'47	1.40898 AU
evening max el	1011 Nov 05 j 12:37	10°☿05'41	21°51'18		1012 Sep 10 j 12:03	0°☿	
retrograde	1011 Nov 14 j 16:37	15°☿32'53		evening rise	1012 Sep 14 j 00:27	5°☿50'19	
evening set	1011 Nov 18 j 23:51	13°☿51'48		desc. node	1012 Sep 17 j 07:21	11°☿08'40	
asc. node	1011 Nov 19 j 10:35	13°☿29'25			1012 Sep 29 j 17:19	0°☿	
inferior conj	1011 Nov 24 j 09:21	7°☿32'11	1°38'16	greatest brilliancy	1012 Oct 12 j 02:09	16°☿44'33	-0.2m
minimum elong	1011 Nov 24 j 07:18	7°☿39'17	1°37'28	evening max el	1012 Oct 18 j 03:58	23°☿37'00	23°10'19
min. Earth dist.	1011 Nov 24 j 11:49	7°☿23'39	0.67677 AU	retrograde	1012 Oct 28 j 10:43	29°☿42'44	
morning rise	1011 Nov 29 j 14:31	1°☿17'54		evening set	1012 Nov 02 j 06:51	27°☿44'08	
	1011 Dec 01 j 12:08	30°☿☿		asc. node	1012 Nov 05 j 07:37	24°☿30'36	
direct	1011 Dec 04 j 10:53	29°☿15'48		inferior conj	1012 Nov 07 j 16:37	21°☿19'51	0°48'38
	1011 Dec 07 j 14:58	0°☿		minimum elong	1012 Nov 07 j 15:30	21°☿23'42	0°48'11
morning max el	1011 Dec 14 j 08:40	5°☿08'11	22°50'42	min. Earth dist.	1012 Nov 07 j 08:27	21°☿47'57	0.67735 AU

morning rise	1012 Nov 13 j 00:12	15° \mathbb{M} 08'37		transit end	1013 Oct 23 j 01:35	5° \mathbb{M} 01'33	
direct	1012 Nov 17 j 05:53	13° \mathbb{M} 29'23		asc. node	1013 Oct 23 j 04:38	4° \mathbb{M} 51'22	
morning max el	1012 Nov 25 j 23:25	18° \mathbb{M} 35'51	21°26'32		1013 Oct 27 j 07:47	30° \mathbb{R} \mathbb{A}	
greatest brilliancy	1012 Dec 01 j 01:43	24° \mathbb{M} 25'07	-0.4m	morning rise	1013 Oct 28 j 10:51	29° \mathbb{A} 05'03	
	1012 Dec 05 j 08:00	0° \mathbb{A}		direct	1013 Nov 01 j 03:26	27° \mathbb{A} 46'53	
desc. node	1012 Dec 14 j 06:35	12° \mathbb{A} 44'37			1013 Nov 06 j 09:48	0° \mathbb{M}	
	1012 Dec 25 j 14:44	0° \mathbb{B}		morning max el	1013 Nov 08 j 21:32	2° \mathbb{M} 14'17	20°12'41
morning set	1012 Dec 27 j 06:37	2° \mathbb{B} 36'53		greatest brilliancy	1013 Nov 15 j 16:28	10° \mathbb{M} 25'21	-0.6m
max. Earth dist.	1013 Jan 03 j 09:18	14° \mathbb{B} 05'07	1.42043 AU		1013 Nov 29 j 03:18	0° \mathbb{A}	
				desc. node	1013 Dec 01 j 03:39	3° \mathbb{A} 03'46	
superior conj	1013 Jan 10 j 19:52	26° \mathbb{B} 38'30	-2°-3'-28	morning set	1013 Dec 06 j 03:42	10° \mathbb{A} 44'42	
minimum elong	1013 Jan 10 j 19:23	26° \mathbb{B} 36'23	2°03'29	max. Earth dist.	1013 Dec 16 j 17:33	27° \mathbb{A} 22'36	1.43696 AU
	1013 Jan 12 j 18:11	0° \mathbb{A}			1013 Dec 18 j 08:43	0° \mathbb{B}	
evening rise	1013 Jan 21 j 23:11	16° \mathbb{A} 31'19					
	1013 Jan 29 j 12:10	0° \mathbb{H}		superior conj	1013 Dec 22 j 11:26	6° \mathbb{B} 41'50	-1°-53'-25
asc. node	1013 Feb 01 j 06:55	4° \mathbb{H} 34'01		minimum elong	1013 Dec 22 j 05:48	6° \mathbb{B} 18'39	1°53'06
evening max el	1013 Feb 07 j 11:26	12° \mathbb{H} 39'55	18°09'13	evening rise	1014 Jan 04 j 07:48	28° \mathbb{B} 27'12	
retrograde	1013 Feb 14 j 05:51	16° \mathbb{H} 06'19			1014 Jan 05 j 05:12	0° \mathbb{A}	
evening set	1013 Feb 16 j 20:11	15° \mathbb{H} 36'18		asc. node	1014 Jan 19 j 03:57	22° \mathbb{A} 35'40	
inferior conj	1013 Feb 23 j 14:35	10° \mathbb{H} 41'38	3°35'28	evening max el	1014 Jan 21 j 23:45	25° \mathbb{A} 52'11	18°10'41
minimum elong	1013 Feb 23 j 16:37	10° \mathbb{H} 36'51	3°35'16	retrograde	1014 Jan 28 j 11:17	29° \mathbb{A} 17'44	
min. Earth dist.	1013 Feb 26 j 20:26	7° \mathbb{H} 40'34	0.60714 AU	evening set	1014 Jan 31 j 06:21	28° \mathbb{A} 38'04	
morning rise	1013 Mar 02 j 09:58	4° \mathbb{H} 53'39		inferior conj	1014 Feb 06 j 12:54	23° \mathbb{A} 22'45	3°46'52
direct	1013 Mar 09 j 03:42	2° \mathbb{H} 41'24		minimum elong	1014 Feb 06 j 12:51	23° \mathbb{A} 22'52	3°46'53
desc. node	1013 Mar 12 j 05:45	3° \mathbb{H} 07'23		min. Earth dist.	1014 Feb 09 j 06:17	20° \mathbb{A} 29'56	0.62759 AU
morning max el	1013 Mar 23 j 09:32	10° \mathbb{H} 32'40	27°38'26	morning rise	1014 Feb 12 j 17:16	17° \mathbb{A} 22'23	
	1013 Apr 07 j 12:52	0° \mathbb{Y}		direct	1014 Feb 19 j 16:32	14° \mathbb{A} 43'41	
	1013 Apr 24 j 04:31	0° \mathbb{B}		desc. node	1014 Feb 27 j 02:48	17° \mathbb{A} 14'44	
morning set	1013 Apr 24 j 13:15	0° \mathbb{B} 44'58		morning max el	1014 Mar 05 j 15:25	22° \mathbb{A} 38'11	27°47'20
asc. node	1013 Apr 30 j 06:12	12° \mathbb{B} 53'21			1014 Mar 12 j 04:00	0° \mathbb{H}	
max. Earth dist.	1013 Apr 30 j 19:29	14° \mathbb{B} 05'47	1.32327 AU		1014 Mar 31 j 17:10	0° \mathbb{Y}	
				morning set	1014 Apr 08 j 14:18	15° \mathbb{Y} 03'21	
superior conj	1013 May 01 j 19:59	16° \mathbb{B} 19'47	0°16'36	max. Earth dist.	1014 Apr 14 j 03:06	26° \mathbb{Y} 34'16	1.32766 AU
minimum elong	1013 May 01 j 19:14	16° \mathbb{B} 15'40	0°16'26		1014 Apr 15 j 17:25	0° \mathbb{B}	
	1013 May 08 j 02:44	0° \mathbb{H}					
evening rise	1013 May 08 j 18:09	1° \mathbb{H} 21'57		superior conj	1014 Apr 16 j 05:00	1° \mathbb{B} 02'36	0°-9'-46
	1013 May 24 j 09:11	0° \mathbb{B}		minimum elong	1014 Apr 16 j 05:28	1° \mathbb{B} 05'08	0°09'42
evening max el	1013 Jun 04 j 13:17	13° \mathbb{B} 50'53	25°17'54	behind sun begin	1014 Apr 16 j 01:19	0° \mathbb{B} 42'39	
desc. node	1013 Jun 08 j 05:00	16° \mathbb{B} 57'56		behind sun end	1014 Apr 16 j 09:38	1° \mathbb{B} 27'38	
retrograde	1013 Jun 18 j 13:50	20° \mathbb{B} 59'34		asc. node	1014 Apr 17 j 03:15	3° \mathbb{B} 03'03	
evening set	1013 Jun 24 j 04:27	19° \mathbb{B} 46'25		evening rise	1014 Apr 23 j 05:59	16° \mathbb{B} 14'16	
min. Earth dist.	1013 Jun 29 j 01:07	17° \mathbb{B} 03'07	0.57843 AU		1014 Apr 30 j 02:38	0° \mathbb{H}	
inferior conj	1013 Jul 02 j 04:23	14° \mathbb{B} 53'33	-4°-50'-31	evening max el	1014 May 17 j 03:40	24° \mathbb{H} 29'27	23°46'24
minimum elong	1013 Jul 02 j 03:06	14° \mathbb{B} 55'47	4°50'29		1014 May 24 j 20:26	0° \mathbb{B}	
morning rise	1013 Jul 10 j 05:34	10° \mathbb{B} 38'43		desc. node	1014 May 26 j 02:01	0° \mathbb{B} 30'07	
direct	1013 Jul 12 j 18:17	10° \mathbb{B} 19'24		retrograde	1014 May 30 j 21:11	1° \mathbb{B} 22'27	
morning max el	1013 Jul 21 j 09:40	14° \mathbb{B} 22'56	18°57'14	evening set	1014 Jun 04 j 01:04	0° \mathbb{B} 44'18	
asc. node	1013 Jul 27 j 05:25	21° \mathbb{B} 31'18			1014 Jun 06 j 01:56	30° \mathbb{R} \mathbb{H}	
	1013 Aug 01 j 07:32	0° \mathbb{Q}		min. Earth dist.	1014 Jun 10 j 14:24	27° \mathbb{H} 38'14	0.56150 AU
morning set	1013 Aug 07 j 00:17	10° \mathbb{Q} 52'27		inferior conj	1014 Jun 12 j 20:59	26° \mathbb{H} 15'29	-4°-18'-19
				minimum elong	1014 Jun 12 j 14:49	26° \mathbb{H} 24'52	4°17'16
superior conj	1013 Aug 15 j 11:52	27° \mathbb{Q} 28'54	1°44'02	morning rise	1014 Jun 21 j 08:03	22° \mathbb{H} 17'45	
minimum elong	1013 Aug 15 j 13:21	27° \mathbb{Q} 36'00	1°43'57	direct	1014 Jun 24 j 00:51	21° \mathbb{H} 59'13	
	1013 Aug 16 j 19:37	0° \mathbb{H}		morning max el	1014 Jul 04 j 03:18	26° \mathbb{H} 40'00	19°59'41
max. Earth dist.	1013 Aug 22 j 07:28	10° \mathbb{H} 07'35	1.38865 AU		1014 Jul 07 j 06:21	0° \mathbb{B}	
evening rise	1013 Aug 26 j 05:43	17° \mathbb{H} 01'28		asc. node	1014 Jul 14 j 02:29	10° \mathbb{B} 03'21	
	1013 Sep 03 j 02:00	0° \mathbb{A}		morning set	1014 Jul 22 j 03:55	25° \mathbb{B} 22'59	
desc. node	1013 Sep 04 j 04:22	1° \mathbb{A} 44'12			1014 Jul 24 j 10:20	0° \mathbb{Q}	
	1013 Sep 24 j 05:10	0° \mathbb{M}					
evening max el	1013 Sep 30 j 16:28	7° \mathbb{M} 12'34	24°29'45	superior conj	1014 Jul 30 j 00:00	11° \mathbb{Q} 18'36	1°46'14
retrograde	1013 Oct 12 j 01:13	13° \mathbb{M} 51'15		minimum elong	1014 Jul 29 j 23:40	11° \mathbb{Q} 16'54	1°46'13
evening set	1013 Oct 17 j 11:28	11° \mathbb{M} 35'27		max. Earth dist.	1014 Aug 04 j 12:01	22° \mathbb{Q} 02'40	1.36907 AU
min. Earth dist.	1013 Oct 22 j 04:16	6° \mathbb{M} 12'55	0.67471 AU	evening rise	1014 Aug 08 j 09:52	29° \mathbb{Q} 17'54	
inferior conj	1013 Oct 22 j 22:51	5° \mathbb{M} 10'42	0°-4'-58		1014 Aug 08 j 19:11	0° \mathbb{H}	
minimum elong	1013 Oct 22 j 22:58	5° \mathbb{M} 10'18	0°04'56	desc. node	1014 Aug 22 j 01:24	22° \mathbb{H} 06'57	
transit middle	1013 Oct 22 j 22:58	5° \mathbb{M} 10'18	0°04'56		1014 Aug 27 j 08:32	0° \mathbb{A}	
transit begin	1013 Oct 22 j 20:22	5° \mathbb{M} 19'03		evening max el	1014 Sep 13 j 04:18	20° \mathbb{A} 51'15	25°42'29

retrograde	1014 Sep 25 j 11:04	27° Ω 52'55		evening max el	1015 Aug 26 j 16:28	4° Ω 27'45	26°40'38
evening set	1014 Oct 01 j 11:54	25° Ω 22'02		retrograde	1015 Sep 08 j 15:41	11° Ω 41'51	
min. Earth dist.	1014 Oct 05 j 20:46	20° Ω 35'15	0.66877 AU	evening set	1015 Sep 15 j 06:04	9° Ω 00'35	
inferior conj	1014 Oct 07 j 02:14	19° Ω 01'19	-1°-1'-16	min. Earth dist.	1015 Sep 19 j 07:27	4° Ω 51'08	0.65941 AU
minimum elong	1014 Oct 07 j 03:48	18° Ω 56'18	1°00'37	inferior conj	1015 Sep 21 j 00:48	2° Ω 48'10	-1°-58'-34
asc. node	1014 Oct 10 j 01:41	15° Ω 27'12		minimum elong	1015 Sep 21 j 03:53	2° Ω 38'57	1°57'22
morning rise	1014 Oct 12 j 20:29	13° Ω 04'08			1015 Sep 23 j 11:54	30° \mathbb{R} \mathbb{M}	
direct	1014 Oct 16 j 02:00	12° Ω 03'56		asc. node	1015 Sep 26 j 22:46	27° \mathbb{M} 08'28	
morning max el	1014 Oct 23 j 03:12	16° Ω 01'54	19°12'51	morning rise	1015 Sep 27 j 02:57	27° \mathbb{M} 02'45	
	1014 Nov 02 j 17:35	0° \mathbb{M}		direct	1015 Sep 29 j 23:42	26° \mathbb{M} 16'52	
greatest brilliancy	1014 Nov 03 j 03:40	0° \mathbb{M} 37'41	-0.7m	morning max el	1015 Oct 06 j 14:54	29° \mathbb{M} 55'15	18°28'52
morning set	1014 Nov 15 j 06:52	19° \mathbb{M} 19'04			1015 Oct 06 j 16:47	0° Ω	
desc. node	1014 Nov 18 j 00:43	23° \mathbb{M} 35'44		morning set	1015 Oct 26 j 11:11	29° Ω 11'38	
	1014 Nov 22 j 03:07	0° \mathbb{M}			1015 Oct 26 j 23:13	0° \mathbb{M}	
max. Earth dist.	1014 Nov 29 j 08:30	11° \mathbb{M} 20'32	1.44755 AU	desc. node	1015 Nov 04 j 21:44	14° \mathbb{M} 16'08	
superior conj	1014 Dec 02 j 01:44	15° \mathbb{M} 38'31	-1°-24'-40	superior conj	1015 Nov 11 j 02:43	24° \mathbb{M} 03'46	0°-40'-22
minimum elong	1014 Dec 01 j 17:08	15° \mathbb{M} 04'25	1°23'48	minimum elong	1015 Nov 10 j 21:29	23° \mathbb{M} 43'10	0°39'42
	1014 Dec 11 j 00:30	0° \mathbb{Z}		max. Earth dist.	1015 Nov 12 j 03:21	25° \mathbb{M} 40'32	1.45098 AU
evening rise	1014 Dec 16 j 19:11	9° \mathbb{Z} 27'41			1015 Nov 14 j 21:26	0° \mathbb{M}	
	1014 Dec 29 j 11:01	0° \approx		evening rise	1015 Nov 27 j 07:01	19° \mathbb{M} 30'38	
evening max el	1015 Jan 05 j 11:58	9° \approx 14'37	18°30'46		1015 Dec 03 j 22:23	0° \mathbb{Z}	
asc. node	1015 Jan 06 j 00:59	9° \approx 46'43		greatest brilliancy	1015 Dec 09 j 04:22	8° \mathbb{Z} 10'53	-0.7m
retrograde	1015 Jan 12 j 01:30	12° \approx 51'32		evening max el	1015 Dec 19 j 21:37	22° \mathbb{Z} 41'41	19°08'21
evening set	1015 Jan 15 j 01:48	12° \approx 01'06		asc. node	1015 Dec 23 j 22:02	25° \mathbb{Z} 52'58	
inferior conj	1015 Jan 20 j 23:41	6° \approx 26'40	3°39'02	retrograde	1015 Dec 26 j 20:54	26° \mathbb{Z} 40'25	
minimum elong	1015 Jan 20 j 22:05	6° \approx 31'24	3°38'51	evening set	1015 Dec 30 j 03:31	25° \mathbb{Z} 37'58	
min. Earth dist.	1015 Jan 23 j 01:39	4° \approx 00'09	0.64521 AU	inferior conj	1016 Jan 04 j 19:24	19° \mathbb{Z} 46'45	3°17'10
morning rise	1015 Jan 26 j 17:02	0° \approx 18'51		minimum elong	1016 Jan 04 j 16:55	19° \mathbb{Z} 54'37	3°16'39
	1015 Jan 27 j 02:17	30° \mathbb{R} \mathbb{Z}		min. Earth dist.	1016 Jan 06 j 06:09	17° \mathbb{Z} 56'28	0.65904 AU
direct	1015 Feb 02 j 12:44	27° \mathbb{Z} 28'30		morning rise	1016 Jan 10 j 05:27	13° \mathbb{Z} 34'16	
	1015 Feb 09 j 17:04	0° \approx		direct	1016 Jan 16 j 15:12	10° \mathbb{Z} 46'25	
desc. node	1015 Feb 13 j 23:53	3° \approx 21'35		morning max el	1016 Jan 29 j 10:09	18° \mathbb{Z} 18'50	26°24'39
morning max el	1015 Feb 16 j 00:26	5° \approx 17'26	27°20'43	desc. node	1016 Jan 31 j 20:57	20° \mathbb{Z} 54'13	
	1015 Mar 06 j 20:13	0° \mathbb{H}			1016 Feb 08 j 07:14	0° \approx	
morning set	1015 Mar 23 j 07:00	28° \mathbb{H} 53'02			1016 Feb 27 j 19:42	0° \mathbb{H}	
	1015 Mar 23 j 20:39	0° \mathbb{Y}		morning set	1016 Mar 05 j 11:34	12° \mathbb{H} 01'57	
max. Earth dist.	1015 Mar 28 j 02:41	8° \mathbb{Y} 34'31	1.33634 AU	max. Earth dist.	1016 Mar 09 j 15:14	20° \mathbb{H} 01'14	1.34960 AU
superior conj	1015 Mar 31 j 09:54	15° \mathbb{Y} 28'41	0°-37'-8	superior conj	1016 Mar 14 j 08:19	29° \mathbb{H} 30'05	-1°-4'-14
minimum elong	1015 Mar 31 j 11:44	15° \mathbb{Y} 38'23	0°36'47	minimum elong	1016 Mar 14 j 11:27	29° \mathbb{H} 46'07	1°03'42
asc. node	1015 Apr 04 j 00:18	23° \mathbb{Y} 08'48			1016 Mar 14 j 14:09	0° \mathbb{Y}	
	1015 Apr 07 j 05:42	0° \mathbb{B}		asc. node	1016 Mar 20 j 21:20	13° \mathbb{Y} 05'38	
evening rise	1015 Apr 07 j 17:08	1° \mathbb{B} 00'03		evening rise	1016 Mar 22 j 01:37	15° \mathbb{Y} 31'57	
	1015 Apr 24 j 08:01	0° \mathbb{I}			1016 Mar 29 j 11:37	0° \mathbb{B}	
evening max el	1015 Apr 28 j 20:17	5° \mathbb{I} 03'37	22°11'06	evening max el	1016 Apr 09 j 21:31	16° \mathbb{B} 00'19	20°45'04
retrograde	1015 May 11 j 15:58	11° \mathbb{I} 22'25		retrograde	1016 Apr 21 j 04:59	21° \mathbb{B} 29'24	
desc. node	1015 May 12 j 23:03	11° \mathbb{I} 18'39		evening set	1016 Apr 23 j 08:57	21° \mathbb{B} 18'08	
evening set	1015 May 14 j 12:27	11° \mathbb{I} 04'26		desc. node	1016 Apr 28 j 20:06	19° \mathbb{B} 23'50	
min. Earth dist.	1015 May 23 j 02:29	7° \mathbb{I} 23'32	0.55130 AU	inferior conj	1016 May 02 j 14:46	17° \mathbb{B} 20'28	-1°-5'-30
inferior conj	1015 May 23 j 20:52	6° \mathbb{I} 57'41	-2°-59'-20	minimum elong	1016 May 02 j 11:39	17° \mathbb{B} 24'55	1°04'23
minimum elong	1015 May 23 j 13:31	7° \mathbb{I} 08'01	2°57'09	min. Earth dist.	1016 May 03 j 15:06	16° \mathbb{B} 45'41	0.55017 AU
morning rise	1015 Jun 01 j 16:23	3° \mathbb{I} 04'39		morning rise	1016 May 11 j 13:19	13° \mathbb{B} 13'03	
direct	1015 Jun 04 j 15:55	2° \mathbb{I} 44'42		direct	1016 May 15 j 01:54	12° \mathbb{B} 46'18	
morning max el	1015 Jun 16 j 09:36	8° \mathbb{I} 13'48	21°22'02	morning max el	1016 May 28 j 05:57	19° \mathbb{B} 06'57	22°59'19
asc. node	1015 Jun 30 j 23:34	29° \mathbb{I} 09'31			1016 Jun 06 j 05:28	0° \mathbb{I}	
	1015 Jul 01 j 10:14	0° \mathbb{S}		asc. node	1016 Jun 16 j 20:37	18° \mathbb{I} 40'18	
morning set	1015 Jul 06 j 12:14	10° \mathbb{S} 08'45		morning set	1016 Jun 19 j 23:13	25° \mathbb{I} 03'07	
					1016 Jun 22 j 07:17	0° \mathbb{S}	
superior conj	1015 Jul 13 j 22:05	25° \mathbb{S} 38'54	1°40'58	superior conj	1016 Jun 27 j 02:54	10° \mathbb{S} 19'27	1°29'47
minimum elong	1015 Jul 13 j 20:28	25° \mathbb{S} 30'30	1°40'53	minimum elong	1016 Jun 27 j 00:36	10° \mathbb{S} 07'10	1°29'32
	1015 Jul 16 j 00:49	0° \mathbb{Q}		max. Earth dist.	1016 Jun 29 j 19:54	16° \mathbb{S} 03'08	1.33885 AU
max. Earth dist.	1015 Jul 17 j 23:21	3° \mathbb{Q} 55'16	1.35216 AU	evening rise	1016 Jul 04 j 20:44	26° \mathbb{S} 18'53	
evening rise	1015 Jul 22 j 08:27	12° \mathbb{Q} 28'10			1016 Jul 06 j 18:03	0° \mathbb{Q}	
	1015 Aug 01 j 04:45	0° \mathbb{M}			1016 Jul 24 j 13:22	0° \mathbb{M}	
desc. node	1015 Aug 08 j 22:24	12° \mathbb{M} 10'44		desc. node	1016 Jul 25 j 19:24	1° \mathbb{M} 47'18	
	1015 Aug 22 j 10:26	0° Ω					

evening max el	1016 Aug 08 j 04:17	17° $\mathring{\text{M}}$ 51'57	27°16'53		1017 Jun 13 j 17:09	0° $\mathring{\text{E}}$	
retrograde	1016 Aug 21 j 14:42	25° $\mathring{\text{M}}$ 10'44		evening rise	1017 Jun 18 j 18:52	10° $\mathring{\text{E}}$ 38'44	
evening set	1016 Aug 28 j 15:27	22° $\mathring{\text{M}}$ 27'09			1017 Jun 29 j 00:58	0° $\mathring{\text{O}}$	
min. Earth dist.	1016 Sep 01 j 10:04	18° $\mathring{\text{M}}$ 54'27	0.64639 AU	desc. node	1017 Jul 12 j 16:25	20° $\mathring{\text{O}}$ 44'43	
inferior conj	1016 Sep 03 j 16:16	16° $\mathring{\text{M}}$ 26'59	-2°-54'-38		1017 Jul 20 j 16:52	0° $\mathring{\text{M}}$	
minimum elong	1016 Sep 03 j 20:41	16° $\mathring{\text{M}}$ 14'58	2°53'10	evening max el	1017 Jul 21 j 14:00	0° $\mathring{\text{M}}$ 51'15	27°24'47
morning rise	1016 Sep 10 j 03:44	10° $\mathring{\text{M}}$ 56'39		retrograde	1017 Aug 04 j 07:44	8° $\mathring{\text{M}}$ 09'40	
direct	1016 Sep 12 j 18:05	10° $\mathring{\text{M}}$ 21'28		evening set	1017 Aug 11 j 12:41	5° $\mathring{\text{M}}$ 35'38	
asc. node	1016 Sep 12 j 19:50	10° $\mathring{\text{M}}$ 21'30		min. Earth dist.	1017 Aug 15 j 02:57	2° $\mathring{\text{M}}$ 34'30	0.62983 AU
morning max el	1016 Sep 19 j 06:11	13° $\mathring{\text{M}}$ 49'21	18°01'44	inferior conj	1017 Aug 17 j 21:51	29° $\mathring{\text{O}}$ 51'05	-3°-46'-10
	1016 Sep 30 j 14:16	0° $\mathring{\text{E}}$		minimum elong	1017 Aug 18 j 02:56	29° $\mathring{\text{O}}$ 38'39	3°44'51
morning set	1016 Oct 06 j 20:11	10° $\mathring{\text{E}}$ 28'27			1017 Aug 17 j 18:14	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$	
	1016 Oct 18 j 15:39	0° $\mathring{\text{M}}$		morning rise	1017 Aug 24 j 19:39	24° $\mathring{\text{O}}$ 39'04	
				direct	1017 Aug 27 j 06:12	24° $\mathring{\text{O}}$ 11'17	
superior conj	1016 Oct 20 j 12:11	2° $\mathring{\text{M}}$ 59'21	0°08'30	asc. node	1017 Aug 30 j 16:53	25° $\mathring{\text{O}}$ 07'50	
minimum elong	1016 Oct 20 j 13:12	3° $\mathring{\text{M}}$ 03'26	0°08'22	morning max el	1017 Sep 02 j 22:06	27° $\mathring{\text{O}}$ 37'03	17°52'18
behind sun begin	1016 Oct 20 j 04:07	2° $\mathring{\text{M}}$ 26'55			1017 Sep 05 j 01:28	0° $\mathring{\text{M}}$	
behind sun end	1016 Oct 20 j 22:17	3° $\mathring{\text{M}}$ 39'53		morning set	1017 Sep 19 j 04:59	22° $\mathring{\text{M}}$ 53'25	
desc. node	1016 Oct 21 j 18:44	5° $\mathring{\text{M}}$ 01'43			1017 Sep 23 j 05:58	0° $\mathring{\text{E}}$	
max. Earth dist.	1016 Oct 24 j 22:13	10° $\mathring{\text{M}}$ 01'49	1.44698 AU				
evening rise	1016 Nov 05 j 22:36	28° $\mathring{\text{M}}$ 46'44		superior conj	1017 Sep 30 j 21:50	13° $\mathring{\text{E}}$ 07'29	0°50'37
	1016 Nov 06 j 17:36	0° $\mathring{\text{E}}$		minimum elong	1017 Oct 01 j 02:19	13° $\mathring{\text{E}}$ 26'13	0°50'03
greatest brilliancy	1016 Nov 25 j 03:48	27° $\mathring{\text{E}}$ 33'45	-0.6m	max. Earth dist.	1017 Oct 07 j 13:50	24° $\mathring{\text{E}}$ 04'49	1.43617 AU
	1016 Nov 26 j 22:58	0° $\mathring{\text{E}}$		desc. node	1017 Oct 08 j 15:44	25° $\mathring{\text{E}}$ 48'54	
evening max el	1016 Dec 02 j 02:46	6° $\mathring{\text{E}}$ 10'30	20°01'46		1017 Oct 11 j 06:47	0° $\mathring{\text{M}}$	
retrograde	1016 Dec 09 j 18:34	10° $\mathring{\text{E}}$ 39'42		evening rise	1017 Oct 16 j 06:08	7° $\mathring{\text{M}}$ 46'57	
asc. node	1016 Dec 09 j 19:05	10° $\mathring{\text{E}}$ 39'41			1017 Oct 31 j 00:56	0° $\mathring{\text{E}}$	
evening set	1016 Dec 13 j 09:09	9° $\mathring{\text{E}}$ 23'42		greatest brilliancy	1017 Nov 09 j 19:38	13° $\mathring{\text{E}}$ 30'36	-0.4m
inferior conj	1016 Dec 18 j 21:10	3° $\mathring{\text{E}}$ 18'43	2°44'49	evening max el	1017 Nov 15 j 02:19	19° $\mathring{\text{E}}$ 39'41	21°08'27
minimum elong	1016 Dec 18 j 18:27	3° $\mathring{\text{E}}$ 27'47	2°44'03	retrograde	1017 Nov 23 j 16:08	24° $\mathring{\text{E}}$ 45'09	
min. Earth dist.	1016 Dec 19 j 18:14	2° $\mathring{\text{E}}$ 08'15	0.66886 AU	asc. node	1017 Nov 26 j 16:08	23° $\mathring{\text{E}}$ 54'44	
	1016 Dec 21 j 09:56	30° $\mathring{\text{R}}$ $\mathring{\text{E}}$		evening set	1017 Nov 27 j 16:38	23° $\mathring{\text{E}}$ 13'52	
morning rise	1016 Dec 24 j 03:11	27° $\mathring{\text{E}}$ 03'44		inferior conj	1017 Dec 03 j 02:37	16° $\mathring{\text{E}}$ 58'34	2°04'26
direct	1016 Dec 29 j 23:20	24° $\mathring{\text{E}}$ 28'56		minimum elong	1017 Dec 03 j 00:11	17° $\mathring{\text{E}}$ 06'53	2°03'35
	1017 Jan 09 j 05:19	0° $\mathring{\text{E}}$		min. Earth dist.	1017 Dec 03 j 11:34	16° $\mathring{\text{E}}$ 27'42	0.67491 AU
morning max el	1017 Jan 10 j 19:02	1° $\mathring{\text{E}}$ 31'31	25°08'07	morning rise	1017 Dec 08 j 07:22	10° $\mathring{\text{E}}$ 43'11	
desc. node	1017 Jan 17 j 17:59	9° $\mathring{\text{E}}$ 27'49		direct	1017 Dec 13 j 12:28	8° $\mathring{\text{E}}$ 28'05	
	1017 Feb 01 j 08:27	0° $\mathring{\text{E}}$		morning max el	1017 Dec 24 j 03:36	14° $\mathring{\text{E}}$ 48'18	23°41'14
morning set	1017 Feb 15 j 23:08	24° $\mathring{\text{E}}$ 16'42		desc. node	1018 Jan 04 j 14:59	28° $\mathring{\text{E}}$ 44'15	
	1017 Feb 19 j 02:31	0° $\mathring{\text{E}}$			1018 Jan 05 j 13:09	0° $\mathring{\text{E}}$	
max. Earth dist.	1017 Feb 19 j 16:32	1° $\mathring{\text{E}}$ 05'02	1.36717 AU		1018 Jan 25 j 07:11	0° $\mathring{\text{E}}$	
				morning set	1018 Jan 28 j 11:30	5° $\mathring{\text{E}}$ 20'00	
superior conj	1017 Feb 25 j 21:24	12° $\mathring{\text{E}}$ 59'16	-1°-29'-16	max. Earth dist.	1018 Feb 01 j 11:23	12° $\mathring{\text{E}}$ 15'10	1.38779 AU
minimum elong	1017 Feb 26 j 01:23	13° $\mathring{\text{E}}$ 18'57	1°28'44				
evening rise	1017 Mar 06 j 05:17	29° $\mathring{\text{E}}$ 43'50		superior conj	1018 Feb 08 j 21:21	25° $\mathring{\text{E}}$ 46'07	-1°-49'-40
	1017 Mar 06 j 08:30	0° $\mathring{\text{E}}$		minimum elong	1018 Feb 09 j 01:10	26° $\mathring{\text{E}}$ 04'04	1°49'22
asc. node	1017 Mar 07 j 18:22	2° $\mathring{\text{E}}$ 49'17			1018 Feb 11 j 02:54	0° $\mathring{\text{E}}$	
evening max el	1017 Mar 23 j 10:19	27° $\mathring{\text{E}}$ 35'17	19°35'55	evening rise	1018 Feb 18 j 01:30	13° $\mathring{\text{E}}$ 28'05	
	1017 Mar 26 j 09:02	0° $\mathring{\text{E}}$		asc. node	1018 Feb 22 j 15:25	22° $\mathring{\text{E}}$ 14'14	
retrograde	1017 Apr 02 j 00:34	2° $\mathring{\text{E}}$ 12'27			1018 Feb 27 j 00:59	0° $\mathring{\text{E}}$	
evening set	1017 Apr 04 j 02:24	2° $\mathring{\text{E}}$ 00'25		evening max el	1018 Mar 06 j 09:37	9° $\mathring{\text{E}}$ 48'29	18°46'30
	1017 Apr 09 j 07:13	30° $\mathring{\text{R}}$ $\mathring{\text{E}}$		retrograde	1018 Mar 14 j 12:24	13° $\mathring{\text{E}}$ 45'04	
inferior conj	1017 Apr 12 j 17:28	27° $\mathring{\text{E}}$ 56'13	0°50'52	evening set	1018 Mar 16 j 18:48	13° $\mathring{\text{E}}$ 27'48	
minimum elong	1017 Apr 12 j 19:35	27° $\mathring{\text{E}}$ 52'50	0°50'07	inferior conj	1018 Mar 24 j 15:00	9° $\mathring{\text{E}}$ 06'46	2°21'27
min. Earth dist.	1017 Apr 15 j 05:29	26° $\mathring{\text{E}}$ 21'13	0.55855 AU	minimum elong	1018 Mar 24 j 19:10	8° $\mathring{\text{E}}$ 59'03	2°20'19
desc. node	1017 Apr 15 j 17:09	26° $\mathring{\text{E}}$ 03'21		min. Earth dist.	1018 Mar 27 j 22:24	6° $\mathring{\text{E}}$ 41'25	0.57456 AU
morning rise	1017 Apr 21 j 09:10	23° $\mathring{\text{E}}$ 17'57		morning rise	1018 Apr 01 j 15:14	3° $\mathring{\text{E}}$ 55'22	
direct	1017 Apr 25 j 20:02	22° $\mathring{\text{E}}$ 33'25		desc. node	1018 Apr 02 j 14:09	3° $\mathring{\text{E}}$ 31'57	
morning max el	1017 May 09 j 20:59	29° $\mathring{\text{E}}$ 37'10	24°40'41	direct	1018 Apr 07 j 04:21	2° $\mathring{\text{E}}$ 40'01	
	1017 May 10 j 06:28	0° $\mathring{\text{E}}$		morning max el	1018 Apr 21 j 12:35	10° $\mathring{\text{E}}$ 11'13	26°11'13
	1017 May 30 j 12:52	0° $\mathring{\text{E}}$			1018 May 06 j 15:21	0° $\mathring{\text{E}}$	
asc. node	1017 Jun 03 j 17:39	8° $\mathring{\text{E}}$ 28'53		morning set	1018 May 19 j 22:21	24° $\mathring{\text{E}}$ 55'44	
morning set	1017 Jun 04 j 11:07	10° $\mathring{\text{E}}$ 00'30		asc. node	1018 May 21 j 14:40	28° $\mathring{\text{E}}$ 29'52	
					1018 May 22 j 07:26	0° $\mathring{\text{E}}$	
superior conj	1017 Jun 11 j 11:57	25° $\mathring{\text{E}}$ 12'13	1°13'48				
minimum elong	1017 Jun 11 j 09:31	24° $\mathring{\text{E}}$ 58'58	1°13'26	superior conj	1018 May 26 j 23:14	10° $\mathring{\text{E}}$ 10'40	0°53'58
max. Earth dist.	1017 Jun 13 j 00:44	28° $\mathring{\text{E}}$ 31'31	1.32954 AU	minimum elong	1018 May 26 j 21:09	9° $\mathring{\text{E}}$ 59'12	0°53'34

max. Earth dist.	1018 May 27 j 11:14	11° Π 16'30	1.32414 AU	minimum elong	1019 May 11 j 09:37	25° 8 00'16	0°30'41
evening rise	1018 Jun 02 j 23:48	25° Π 18'28		max. Earth dist.	1019 May 10 j 23:47	24° 8 06'13	1.32255 AU
	1018 Jun 05 j 06:43	0° 5			1019 May 13 j 16:11	0° Π	
	1018 Jun 22 j 17:11	0° Ω		evening rise	1019 May 18 j 09:00	10° Π 08'46	
desc. node	1018 Jun 29 j 13:26	8° Ω 46'48			1019 May 28 j 14:38	0° 5	
evening max el	1018 Jul 03 j 19:24	13° Ω 14'21	27°00'09	evening max el	1019 Jun 15 j 18:11	24° 5 51'31	26°03'03
retrograde	1018 Jul 17 j 17:42	20° Ω 29'39		desc. node	1019 Jun 16 j 10:28	25° 5 29'37	
evening set	1018 Jul 24 j 17:34	18° Ω 19'03			1019 Jun 22 j 12:50	0° Ω	
min. Earth dist.	1018 Jul 28 j 09:36	15° Ω 38'14	0.61048 AU	retrograde	1019 Jun 29 j 18:38	2° Ω 02'44	
inferior conj	1018 Jul 31 j 14:23	12° Ω 53'00	-4°-27'-41	evening set	1019 Jul 06 j 01:18	0° Ω 27'15	
minimum elong	1018 Jul 31 j 18:43	12° Ω 43'38	4°27'00		1019 Jul 06 j 22:07	30° R 5	
morning rise	1018 Aug 07 j 22:54	8° Ω 02'02		min. Earth dist.	1019 Jul 10 j 06:51	27° 5 50'10	0.58991 AU
direct	1018 Aug 10 j 08:25	7° Ω 38'56		inferior conj	1019 Jul 13 j 14:10	25° 5 22'02	-4°-50'-34
morning max el	1018 Aug 17 j 11:39	11° Ω 11'08	18°01'37	minimum elong	1019 Jul 13 j 15:34	25° 5 19'23	4°50'31
asc. node	1018 Aug 17 j 13:54	11° Ω 16'37		morning rise	1019 Jul 21 j 09:20	20° 5 54'02	
	1018 Aug 29 j 23:05	0° 7		direct	1019 Jul 23 j 20:30	20° 5 33'34	
morning set	1018 Sep 02 j 07:29	6° 7 09'33		morning max el	1019 Jul 31 j 19:41	24° 5 22'04	18°30'55
				asc. node	1019 Aug 04 j 10:56	28° 5 31'52	
superior conj	1018 Sep 12 j 10:34	24° 7 35'30	1°20'45		1019 Aug 05 j 12:32	0° Ω	
minimum elong	1018 Sep 12 j 15:00	24° 7 55'00	1°20'18	morning set	1019 Aug 16 j 22:33	20° Ω 02'03	
	1018 Sep 15 j 12:59	0° 5			1019 Aug 22 j 02:45	0° 7	
max. Earth dist.	1018 Sep 20 j 00:38	7° 5 35'54	1.41999 AU				
evening rise	1018 Sep 25 j 23:24	17° 5 17'14		superior conj	1019 Aug 25 j 22:02	7° 7 10'37	1°38'39
desc. node	1018 Sep 25 j 12:46	16° 5 34'47		minimum elong	1019 Aug 26 j 00:42	7° 7 23'01	1°38'27
	1018 Oct 04 j 03:56	0° 7		max. Earth dist.	1019 Sep 02 j 06:31	20° 7 25'16	1.40044 AU
greatest brilliancy	1018 Oct 24 j 02:32	27° 7 50'42	-0.3m	evening rise	1019 Sep 06 j 14:23	27° 7 48'03	
	1018 Oct 25 j 22:12	0° 7			1019 Sep 07 j 22:10	0° 5	
evening max el	1018 Oct 28 j 20:29	3° 7 10'41	22°24'26	desc. node	1019 Sep 12 j 09:48	7° 5 15'14	
retrograde	1018 Nov 07 j 11:51	8° 7 54'29			1019 Sep 27 j 18:01	0° 7	
evening set	1018 Nov 12 j 00:17	7° 7 06'17		evening max el	1019 Oct 11 j 10:32	16° 7 44'35	23°44'31
asc. node	1018 Nov 13 j 13:09	5° 7 39'28		retrograde	1019 Oct 22 j 04:25	23° 7 04'34	
inferior conj	1018 Nov 17 j 09:46	0° 7 44'20	1°17'47	evening set	1019 Oct 27 j 06:30	20° 7 58'36	
minimum elong	1018 Nov 17 j 08:04	0° 7 50'13	1°17'07	asc. node	1019 Oct 31 j 10:11	16° 7 17'40	
min. Earth dist.	1018 Nov 17 j 07:43	0° 7 51'23	0.67748 AU	min. Earth dist.	1019 Nov 01 j 04:17	15° 7 16'38	0.67667 AU
	1018 Nov 17 j 22:35	30° R 7		inferior conj	1019 Nov 01 j 16:50	14° 7 33'53	0°26'20
morning rise	1018 Nov 22 j 15:41	24° 7 30'52		minimum elong	1019 Nov 01 j 16:12	14° 7 36'02	0°26'04
direct	1018 Nov 27 j 05:44	22° 7 38'19		morning rise	1019 Nov 07 j 02:03	8° 7 24'50	
morning max el	1018 Dec 06 j 14:58	28° 7 10'39	22°13'48	direct	1019 Nov 11 j 02:04	6° 7 54'42	
	1018 Dec 08 j 08:23	0° 7		morning max el	1019 Nov 19 j 08:39	11° 7 42'54	20°53'36
greatest brilliancy	1018 Dec 11 j 06:12	3° 7 22'50	-0.3m	greatest brilliancy	1019 Nov 25 j 00:58	18° 7 19'58	-0.5m
desc. node	1018 Dec 22 j 12:01	18° 7 31'35			1019 Dec 03 j 11:41	0° 7	
	1018 Dec 30 j 05:56	0° 8		desc. node	1019 Dec 09 j 09:04	8° 7 41'18	
morning set	1019 Jan 08 j 19:14	14° 8 59'07		morning set	1019 Dec 19 j 00:37	23° 7 26'37	
max. Earth dist.	1019 Jan 14 j 08:19	24° 8 08'07	1.40912 AU		1019 Dec 23 j 04:31	0° 8	
	1019 Jan 17 j 18:53	0° \approx		max. Earth dist.	1019 Dec 27 j 12:49	6° 8 59'16	1.42813 AU
superior conj	1019 Jan 22 j 03:26	7° \approx 38'50	-2°-1'-54	superior conj	1020 Jan 03 j 10:19	18° 8 25'06	-2°-1'-22
minimum elong	1019 Jan 22 j 05:12	7° \approx 46'45	2°01'52	minimum elong	1020 Jan 03 j 07:42	18° 8 14'06	2°01'19
evening rise	1019 Feb 01 j 11:02	26° \approx 36'58			1020 Jan 10 j 03:34	0° \approx	
	1019 Feb 03 j 06:32	0° 9		evening rise	1020 Jan 15 j 06:03	9° \approx 02'43	
asc. node	1019 Feb 09 j 12:27	11° 9 13'43		asc. node	1020 Jan 27 j 09:30	29° \approx 39'51	
evening max el	1019 Feb 17 j 16:28	22° 9 31'45	18°17'09		1020 Jan 27 j 15:03	0° 9	
retrograde	1019 Feb 24 j 19:08	26° 9 04'18		evening max el	1020 Feb 01 j 03:40	5° 9 36'12	18°07'28
evening set	1019 Feb 27 j 06:53	25° 9 39'13		retrograde	1020 Feb 07 j 17:50	9° 9 00'32	
inferior conj	1019 Mar 06 j 09:42	20° 9 56'55	3°17'29	evening set	1020 Feb 10 j 10:16	8° 9 26'24	
minimum elong	1019 Mar 06 j 12:54	20° 9 50'00	3°16'56	inferior conj	1020 Feb 16 j 23:09	3° 9 22'30	3°43'03
min. Earth dist.	1019 Mar 09 j 19:38	18° 9 01'54	0.59493 AU	minimum elong	1020 Feb 17 j 00:16	3° 9 19'42	3°43'00
morning rise	1019 Mar 13 j 15:20	15° 9 19'57		min. Earth dist.	1020 Feb 20 j 00:12	0° 9 22'38	0.61612 AU
direct	1019 Mar 20 j 01:33	13° 9 27'41			1020 Feb 20 j 09:53	30° R \approx	
desc. node	1019 Mar 20 j 11:12	13° 9 28'07		morning rise	1020 Feb 23 j 11:43	27° \approx 28'39	
morning max el	1019 Apr 03 j 09:09	21° 9 13'11	27°16'26	direct	1020 Mar 01 j 09:00	25° \approx 03'53	
	1019 Apr 11 j 00:23	0° 9		desc. node	1020 Mar 06 j 08:15	26° \approx 11'28	
	1019 Apr 29 j 11:27	0° 8			1020 Mar 12 j 06:38	0° 9	
morning set	1019 May 04 j 07:12	9° 8 42'04		morning max el	1020 Mar 15 j 12:10	2° 9 56'28	27°46'50
asc. node	1019 May 08 j 11:42	18° 8 37'42			1020 Apr 04 j 10:55	0° 9	
				morning set	1020 Apr 17 j 11:47	24° 9 13'14	
superior conj	1019 May 11 j 10:58	25° 8 07'37	0°30'59		1020 Apr 20 j 06:28	0° 8	

max. Earth dist.	1020 Apr 23 j 10:34	6°♄47'38	1.32473 AU		1021 Mar 28 j 02:13	0°♄	
asc. node	1020 Apr 24 j 08:46	8°♄48'13		morning set	1021 Apr 01 j 09:40	8°♄20'48	
				max. Earth dist.	1021 Apr 06 j 15:24	19°♄06'08	1.33087 AU
superior conj	1020 Apr 24 j 21:28	9°♄57'25	0°05'37				
minimum elong	1020 Apr 24 j 21:13	9°♄56'00	0°05'33	superior conj	1021 Apr 09 j 04:59	24°♄33'45	0°-21'-20
behind sun begin	1020 Apr 24 j 16:24	9°♄29'47		minimum elong	1021 Apr 09 j 06:01	24°♄39'20	0°21'07
behind sun end	1020 Apr 25 j 02:02	10°♄22'15		asc. node	1021 Apr 11 j 05:51	28°♄56'48	
evening rise	1020 May 01 j 20:27	25°♄02'37			1021 Apr 11 j 17:33	0°♄	
	1020 May 04 j 05:28	0°♄		evening rise	1021 Apr 16 j 08:13	9°♄52'51	
	1020 May 22 j 05:08	0°♄			1021 Apr 26 j 19:23	0°♄	
evening max el	1020 May 27 j 10:21	5°♄45'39	24°40'17	evening max el	1021 May 09 j 00:31	16°♄17'37	23°05'17
desc. node	1020 Jun 02 j 07:30	10°♄21'56		desc. node	1021 May 20 j 04:31	22°♄47'35	
retrograde	1020 Jun 10 j 08:48	12°♄49'02		retrograde	1021 May 22 j 10:54	22°♄59'16	
evening set	1020 Jun 15 j 09:34	11°♄51'52		evening set	1021 May 26 j 00:09	22°♄31'34	
min. Earth dist.	1020 Jun 20 j 21:35	9°♄00'42	0.57068 AU	min. Earth dist.	1021 Jun 02 j 09:53	19°♄12'11	0.55615 AU
inferior conj	1020 Jun 23 j 18:16	7°♄09'19	-4°-42'-19	inferior conj	1021 Jun 04 j 02:50	18°♄12'34	-3°-50'-24
minimum elong	1020 Jun 23 j 14:46	7°♄15'02	4°42'01	minimum elong	1021 Jun 03 j 19:28	18°♄23'19	3°48'42
morning rise	1020 Jul 01 j 23:45	3°♄02'57		morning rise	1021 Jun 12 j 17:55	14°♄19'14	
direct	1020 Jul 04 j 14:16	2°♄43'59		direct	1021 Jun 15 j 12:55	14°♄00'38	
morning max el	1020 Jul 13 j 19:16	7°♄01'12	19°21'16	morning max el	1021 Jun 26 j 08:12	19°♄00'40	20°32'35
asc. node	1020 Jul 21 j 07:59	16°♄39'25			1021 Jul 04 j 23:51	0°♄	
	1020 Jul 28 j 17:35	0°♄		asc. node	1021 Jul 08 j 05:04	5°♄27'14	
morning set	1020 Jul 30 j 22:24	4°♄20'53		morning set	1021 Jul 15 j 04:17	18°♄58'47	
					1021 Jul 20 j 12:24	0°♄	
superior conj	1020 Aug 08 j 02:36	20°♄37'22	1°45'59				
minimum elong	1020 Aug 08 j 03:15	20°♄40'34	1°45'58	superior conj	1021 Jul 22 j 19:27	4°♄41'55	1°44'49
	1020 Aug 13 j 00:29	0°♄		minimum elong	1021 Jul 22 j 18:29	4°♄37'04	1°44'47
max. Earth dist.	1020 Aug 14 j 10:03	2°♄35'13	1.38009 AU	max. Earth dist.	1021 Jul 27 j 16:41	14°♄25'26	1.36138 AU
evening rise	1020 Aug 18 j 05:44	9°♄27'18		evening rise	1021 Jul 31 j 18:18	22°♄08'18	
desc. node	1020 Aug 29 j 06:50	27°♄45'57			1021 Aug 05 j 03:03	0°♄	
	1020 Aug 30 j 17:29	0°♄		desc. node	1021 Aug 16 j 03:51	18°♄01'46	
	1020 Sep 22 j 13:51	0°♄			1021 Aug 24 j 12:31	0°♄	
evening max el	1020 Sep 22 j 22:28	0°♄21'22	25°02'00	evening max el	1021 Sep 05 j 10:10	13°♄59'28	26°09'29
retrograde	1020 Oct 04 j 16:56	7°♄10'54		retrograde	1021 Sep 18 j 00:47	21°♄08'29	
evening set	1020 Oct 10 j 09:34	4°♄48'01		evening set	1021 Sep 24 j 07:38	18°♄32'06	
	1020 Oct 14 j 16:57	30°♄		min. Earth dist.	1021 Sep 28 j 13:07	14°♄01'15	0.66515 AU
min. Earth dist.	1020 Oct 14 j 22:50	29°♄40'48	0.67258 AU	inferior conj	1021 Sep 29 j 23:37	12°♄14'13	-1°-25'-34
inferior conj	1020 Oct 15 j 22:03	28°♄24'34	0°-28'-37	minimum elong	1021 Sep 30 j 01:50	12°♄07'18	1°24'40
minimum elong	1020 Oct 15 j 22:46	28°♄22'13	0°28'19	asc. node	1021 Oct 04 j 04:16	7°♄36'09	
asc. node	1020 Oct 17 j 07:14	26°♄37'19		morning rise	1021 Oct 05 j 21:03	6°♄21'50	
morning rise	1020 Oct 21 j 12:31	22°♄22'30		direct	1021 Oct 08 j 22:27	5°♄28'21	
direct	1020 Oct 25 j 00:08	21°♄12'28		morning max el	1021 Oct 15 j 18:44	9°♄17'07	18°52'12
morning max el	1020 Nov 01 j 10:10	25°♄25'50	19°45'29		1021 Oct 30 j 14:30	0°♄	
	1020 Nov 05 j 09:37	0°♄		morning set	1021 Nov 06 j 09:35	10°♄41'20	
greatest brilliancy	1020 Nov 09 j 07:02	5°♄12'43	-0.6m	desc. node	1021 Nov 12 j 03:09	19°♄42'44	
desc. node	1020 Nov 25 j 06:06	29°♄06'30			1021 Nov 18 j 16:23	0°♄	
	1020 Nov 25 j 19:59	0°♄		max. Earth dist.	1021 Nov 21 j 17:18	4°♄46'22	1.44985 AU
morning set	1020 Nov 26 j 21:10	1°♄37'14					
max. Earth dist.	1020 Dec 09 j 00:41	20°♄37'59	1.44225 AU	superior conj	1021 Nov 22 j 20:53	6°♄34'52	-1°-7'-16
				minimum elong	1021 Nov 22 j 12:56	6°♄03'37	1°06'22
superior conj	1020 Dec 13 j 14:30	27°♄57'48	-1°-43'-32		1021 Dec 07 j 13:44	0°♄	
minimum elong	1020 Dec 13 j 06:59	27°♄27'30	1°42'56	evening rise	1021 Dec 08 j 07:38	1°♄12'19	
	1020 Dec 14 j 20:41	0°♄			1021 Dec 27 j 02:22	0°♄	
evening rise	1020 Dec 27 j 06:11	20°♄36'22		evening max el	1021 Dec 29 j 03:33	2°♄18'13	18°44'39
	1021 Jan 01 j 19:07	0°♄		asc. node	1021 Dec 31 j 03:36	4°♄07'12	
asc. node	1021 Jan 13 j 06:34	17°♄21'47		retrograde	1022 Jan 04 j 20:33	6°♄03'34	
evening max el	1021 Jan 14 j 16:12	18°♄53'25	18°16'55	evening set	1022 Jan 07 j 23:14	5°♄08'23	
retrograde	1021 Jan 21 j 03:40	22°♄22'45			1022 Jan 13 j 07:17	30°♄	
evening set	1021 Jan 24 j 00:48	21°♄38'40		inferior conj	1022 Jan 13 j 18:17	29°♄26'34	3°31'13
inferior conj	1021 Jan 30 j 03:17	16°♄14'45	3°45'33	minimum elong	1022 Jan 13 j 16:13	29°♄32'51	3°30'54
minimum elong	1021 Jan 30 j 02:30	16°♄16'57	3°45'30	min. Earth dist.	1022 Jan 15 j 13:43	27°♄14'22	0.65157 AU
min. Earth dist.	1021 Feb 01 j 14:08	13°♄31'29	0.63550 AU	morning rise	1022 Jan 19 j 08:04	23°♄16'12	
morning rise	1021 Feb 05 j 02:28	10°♄10'29		direct	1022 Jan 26 j 00:07	20°♄25'07	
direct	1021 Feb 12 j 00:57	7°♄25'15		morning max el	1022 Feb 08 j 05:42	28°♄09'30	26°59'54
desc. node	1021 Feb 21 j 05:18	11°♄14'15		desc. node	1022 Feb 08 j 02:22	28°♄01'08	
morning max el	1021 Feb 25 j 20:00	15°♄18'46	27°40'05		1022 Feb 10 j 00:09	0°♄	
	1021 Mar 09 j 20:43	0°♄			1022 Mar 03 j 14:34	0°♄	

morning set	1022 Mar 15 j 21:45	21° Υ 55'07		desc. node	1023 Jan 25 j 23:24	16° C 02'14	
	1022 Mar 20 j 00:13	0° Υ			1023 Feb 05 j 14:21	0° \approx	
max. Earth dist.	1022 Mar 20 j 10:23	0° Υ 51'20	1.34141 AU		1023 Feb 24 j 05:23	0° Υ	
superior conj	1022 Mar 24 j 07:26	8° Υ 50'22	0°-48'-46	morning set	1023 Feb 26 j 19:50	4° Υ 43'37	
minimum elong	1022 Mar 24 j 09:50	9° Υ 02'57	0°48'19	max. Earth dist.	1023 Mar 02 j 17:37	12° Υ 05'03	1.35655 AU
asc. node	1022 Mar 29 j 02:54	18° Υ 59'22		superior conj	1023 Mar 08 j 02:21	22° Υ 40'07	-1°-15'-14
evening rise	1022 Mar 31 j 18:28	24° Υ 33'26		minimum elong	1023 Mar 08 j 05:55	22° Υ 58'10	1°14'40
	1022 Apr 03 j 10:05	0° B			1023 Mar 11 j 16:33	0° Υ	
evening max el	1022 Apr 20 j 20:11	26° B 58'51	21°32'45	asc. node	1023 Mar 15 j 23:56	8° Υ 51'42	
	1022 Apr 24 j 11:34	0° II		evening rise	1023 Mar 16 j 01:13	8° Υ 58'13	
retrograde	1022 May 03 j 02:17	2° II 57'57			1023 Mar 27 j 12:16	0° B	
evening set	1022 May 05 j 13:15	2° II 44'16		evening max el	1023 Apr 03 j 02:31	8° B 12'42	20°13'24
desc. node	1022 May 07 j 01:33	2° II 23'00		retrograde	1023 Apr 13 j 16:08	13° B 18'22	
	1022 May 12 j 15:01	30° R B		evening set	1023 Apr 15 j 17:58	13° B 07'25	
inferior conj	1022 May 14 j 22:30	28° B 43'28	-2°-13'-39	desc. node	1023 Apr 23 j 22:35	9° B 38'38	
minimum elong	1022 May 14 j 16:27	28° B 51'57	2°11'38	inferior conj	1023 Apr 24 j 18:36	9° B 09'08	0°-14'-27
min. Earth dist.	1022 May 14 j 22:27	28° B 43'32	0.54959 AU	minimum elong	1023 Apr 24 j 17:56	9° B 10'08	0°14'14
morning rise	1022 May 23 j 20:15	24° B 46'22		transit middle	1023 Apr 24 j 17:56	9° B 10'08	0°14'14
direct	1022 May 27 j 00:01	24° B 24'33		transit begin	1023 Apr 24 j 16:08	9° B 12'48	
	1022 Jun 08 j 02:45	0° II		transit end	1023 Apr 24 j 19:43	9° B 07'28	
morning max el	1022 Jun 08 j 09:59	0° II 16'41	22°02'07	min. Earth dist.	1023 Apr 26 j 11:54	8° B 08'07	0.55267 AU
asc. node	1022 Jun 25 j 02:07	24° II 44'52		morning rise	1023 May 03 j 15:31	4° B 49'53	
	1022 Jun 27 j 17:30	0° B		direct	1023 May 07 j 12:53	4° B 16'56	
morning set	1022 Jun 29 j 13:55	3° B 48'49		morning max el	1023 May 21 j 03:19	10° B 57'41	23°42'35
					1023 Jun 04 j 08:08	0° II	
superior conj	1022 Jul 06 j 20:44	19° B 12'09	1°36'53	asc. node	1023 Jun 11 j 23:10	14° II 24'30	
minimum elong	1022 Jul 06 j 18:45	19° B 01'44	1°36'43	morning set	1023 Jun 14 j 01:31	18° II 45'35	
max. Earth dist.	1022 Jul 10 j 07:32	26° B 21'41	1.34597 AU		1023 Jun 19 j 07:20	0° B	
	1022 Jul 12 j 02:40	0° B		superior conj	1023 Jun 21 j 03:39	3° B 59'13	1°23'32
evening rise	1022 Jul 14 j 23:16	5° B 37'41		minimum elong	1023 Jun 21 j 01:13	3° B 46'10	1°23'13
	1022 Jul 28 j 19:59	0° B		max. Earth dist.	1023 Jun 23 j 08:01	8° B 39'30	1.33449 AU
desc. node	1022 Aug 03 j 00:51	7° B 55'16		evening rise	1023 Jun 28 j 16:14	19° B 42'54	
evening max el	1022 Aug 18 j 22:16	27° B 32'05	26°59'15		1023 Jul 04 j 00:05	0° B	
	1022 Aug 21 j 16:26	0° B		desc. node	1023 Jul 20 j 21:52	27° B 16'53	
retrograde	1022 Sep 01 j 03:14	4° B 49'40			1023 Jul 22 j 22:34	0° B	
evening set	1022 Sep 07 j 22:24	2° B 06'20		evening max el	1023 Aug 01 j 09:44	10° B 48'14	27°24'02
	1022 Sep 10 j 05:05	30° R B		retrograde	1023 Aug 14 j 23:40	18° B 06'34	
min. Earth dist.	1022 Sep 11 j 20:45	28° B 12'34	0.65424 AU	evening set	1023 Aug 22 j 03:01	15° B 25'50	
inferior conj	1022 Sep 13 j 19:26	25° B 58'22	-2°-22'-42	min. Earth dist.	1023 Aug 25 j 19:31	12° B 07'11	0.63980 AU
minimum elong	1022 Sep 13 j 23:08	25° B 47'44	2°21'20	inferior conj	1023 Aug 28 j 07:04	9° B 31'57	-3°-17'-21
morning rise	1022 Sep 20 j 01:24	20° B 18'49		minimum elong	1023 Aug 28 j 11:53	9° B 19'23	3°15'52
asc. node	1022 Sep 21 j 01:19	19° B 54'33		morning rise	1023 Sep 03 j 22:49	4° B 08'39	
direct	1022 Sep 22 j 19:01	19° B 38'00		direct	1023 Sep 06 j 11:15	3° B 36'54	
morning max el	1022 Sep 29 j 08:14	23° B 11'16	18°15'11	asc. node	1023 Sep 07 j 22:22	3° B 47'46	
	1022 Oct 04 j 19:00	0° B		morning max el	1023 Sep 13 j 00:02	7° B 02'55	17°55'25
morning set	1022 Oct 18 j 02:20	21° B 10'27			1023 Sep 28 j 04:39	0° B	
	1022 Oct 23 j 12:18	0° B		morning set	1023 Sep 29 j 22:12	2° B 58'27	
desc. node	1022 Oct 30 j 00:10	10° B 25'35					
superior conj	1022 Nov 01 j 22:45	15° B 05'35	0°-19'-27	superior conj	1023 Oct 12 j 17:14	24° B 28'02	0°27'41
minimum elong	1022 Nov 01 j 20:14	14° B 55'37	0°19'07	minimum elong	1023 Oct 12 j 20:13	24° B 40'11	0°27'17
max. Earth dist.	1022 Nov 04 j 11:56	19° B 06'51	1.45013 AU		1023 Oct 16 j 03:13	0° B	
	1022 Nov 11 j 10:40	0° B		desc. node	1023 Oct 16 j 21:09	1° B 11'55	
evening rise	1022 Nov 18 j 09:49	10° B 52'05		max. Earth dist.	1023 Oct 18 j 05:57	3° B 22'56	1.44320 AU
	1022 Nov 30 j 18:29	0° B		evening rise	1023 Oct 28 j 19:53	19° B 55'58	
greatest brilliancy	1022 Dec 03 j 23:11	4° B 45'41	-0.7m		1023 Nov 04 j 10:07	0° B	
evening max el	1022 Dec 12 j 11:30	15° B 46'30	19°29'22	greatest brilliancy	1023 Nov 19 j 11:58	21° B 54'53	-0.5m
asc. node	1022 Dec 18 j 00:37	19° B 41'24		evening max el	1023 Nov 25 j 14:24	29° B 15'29	20°28'51
retrograde	1022 Dec 19 j 17:05	19° B 57'08			1023 Nov 26 j 08:13	0° B	
evening set	1022 Dec 23 j 02:51	18° B 49'14		retrograde	1023 Dec 03 j 14:49	3° B 59'04	
inferior conj	1022 Dec 28 j 16:52	12° B 52'07	3°04'33	asc. node	1023 Dec 04 j 21:39	3° B 49'45	
minimum elong	1022 Dec 28 j 14:14	13° B 00'44	3°03'55	evening set	1023 Dec 07 j 09:28	2° B 36'40	
min. Earth dist.	1022 Dec 29 j 21:43	11° B 18'18	0.66369 AU		1023 Dec 10 j 02:24	30° R B	
morning rise	1023 Jan 03 j 00:50	6° B 38'22		inferior conj	1023 Dec 12 j 20:25	26° B 27'01	2°28'32
direct	1023 Jan 09 j 05:15	3° B 54'39		minimum elong	1023 Dec 12 j 17:46	26° B 36'00	2°27'42
morning max el	1023 Jan 21 j 14:55	11° B 16'10	25°54'00	min. Earth dist.	1023 Dec 13 j 12:09	25° B 33'38	0.67188 AU

morning rise	1023 Dec 18 j 01:36	20°♌11'55		min. Earth dist.	1024 Nov 26 j 06:54	9°♌55'25	0.67639 AU
direct	1023 Dec 23 j 15:32	17°♌44'53		morning rise	1024 Dec 01 j 07:48	3°♌54'56	
morning max el	1024 Jan 03 j 23:15	24°♌29'55	24°31'55	direct	1024 Dec 06 j 06:22	1°♌49'31	
	1024 Jan 08 j 22:06	0°♌		morning max el	1024 Dec 16 j 08:42	7°♌49'13	23°03'44
desc. node	1024 Jan 12 j 20:24	4°♌55'22		greatest brilliancy	1024 Dec 21 j 04:55	13°♌14'03	-0.3m
	1024 Jan 30 j 01:29	0°♌		desc. node	1024 Dec 29 j 17:25	24°♌26'03	
morning set	1024 Feb 08 j 22:17	16°♌29'30			1025 Jan 02 j 15:10	0°♌	
max. Earth dist.	1024 Feb 12 j 15:26	23°♌07'37	1.37567 AU	morning set	1025 Jan 19 j 22:55	26°♌57'36	
	1024 Feb 16 j 08:30	0°♌			1025 Jan 21 j 18:27	0°♌	
				max. Earth dist.	1025 Jan 24 j 10:44	4°♌34'27	1.39693 AU
superior conj	1024 Feb 19 j 10:22	5°♌52'43	-1°-38'-39				
minimum elong	1024 Feb 19 j 14:27	6°♌12'30	1°38'13	superior conj	1025 Feb 01 j 03:20	18°♌17'44	-1°-56'-6
evening rise	1024 Feb 28 j 02:03	22°♌59'20		minimum elong	1025 Feb 01 j 06:34	18°♌32'35	1°55'56
asc. node	1024 Mar 01 j 20:58	28°♌28'10			1025 Feb 07 j 08:50	0°♌	
	1024 Mar 02 j 16:01	0°♌		evening rise	1025 Feb 10 j 18:11	6°♌29'38	
evening max el	1024 Mar 15 j 20:05	20°♌04'35	19°12'27	asc. node	1025 Feb 16 j 18:00	17°♌43'05	
retrograde	1024 Mar 24 j 17:49	24°♌22'34			1025 Feb 24 j 15:58	0°♌	
evening set	1024 Mar 26 j 21:28	24°♌08'36		evening max el	1025 Feb 26 j 22:53	2°♌30'55	18°31'33
inferior conj	1024 Apr 04 j 04:32	19°♌57'48	1°33'20	retrograde	1025 Mar 06 j 14:09	6°♌15'43	
minimum elong	1024 Apr 04 j 07:59	19°♌51'57	1°32'13	evening set	1025 Mar 08 j 22:45	5°♌55'25	
min. Earth dist.	1024 Apr 07 j 02:50	17°♌59'54	0.56464 AU	inferior conj	1025 Mar 16 j 11:10	1°♌25'15	2°49'20
desc. node	1024 Apr 09 j 19:37	16°♌22'30		minimum elong	1025 Mar 16 j 15:11	1°♌17'18	2°48'24
morning rise	1024 Apr 12 j 14:31	15°♌05'24			1025 Mar 18 j 06:06	30°♌	
direct	1024 Apr 17 j 12:42	14°♌09'19		min. Earth dist.	1025 Mar 19 j 21:15	28°♌44'28	0.58287 AU
morning max el	1024 May 01 j 17:46	21°♌25'37	25°21'22	morning rise	1025 Mar 24 j 03:31	26°♌01'36	
	1024 May 09 j 04:50	0°♌		desc. node	1025 Mar 27 j 16:39	24°♌45'54	
	1024 May 26 j 18:33	0°♌		direct	1025 Mar 30 j 02:21	24°♌31'00	
morning set	1024 May 28 j 13:22	3°♌42'53			1025 Apr 11 j 02:35	0°♌	
asc. node	1024 May 28 j 20:13	4°♌19'03		morning max el	1025 Apr 13 j 11:19	2°♌09'28	26°42'49
					1025 May 03 j 10:11	0°♌	
superior conj	1024 Jun 04 j 13:52	18°♌55'00	1°05'50	morning set	1025 May 12 j 23:50	18°♌35'08	
minimum elong	1024 Jun 04 j 11:32	18°♌42'12	1°05'25	asc. node	1025 May 15 j 17:16	24°♌23'25	
max. Earth dist.	1024 Jun 05 j 15:55	21°♌17'08	1.32688 AU		1025 May 18 j 07:05	0°♌	
	1024 Jun 09 j 17:14	0°♌					
evening rise	1024 Jun 11 j 17:38	4°♌12'19		superior conj	1025 May 20 j 01:34	3°♌53'20	0°44'34
	1024 Jun 25 j 17:22	0°♌		minimum elong	1025 May 19 j 23:45	3°♌43'22	0°44'11
desc. node	1024 Jul 06 j 18:54	15°♌53'03		max. Earth dist.	1025 May 20 j 03:49	4°♌05'44	1.32303 AU
evening max el	1024 Jul 13 j 18:01	23°♌33'44	27°18'16	evening rise	1025 May 27 j 00:39	18°♌57'05	
	1024 Jul 23 j 04:24	0°♌			1025 Jun 01 j 12:20	0°♌	
retrograde	1024 Jul 27 j 13:30	0°♌50'05			1025 Jun 20 j 15:22	0°♌	
	1024 Jul 31 j 18:31	30°♌		desc. node	1025 Jun 23 j 15:57	3°♌24'34	
evening set	1024 Aug 03 j 17:50	28°♌24'22		evening max el	1025 Jun 25 j 20:34	5°♌36'52	26°39'24
min. Earth dist.	1024 Aug 07 j 07:54	25°♌33'45	0.62197 AU	retrograde	1025 Jul 09 j 19:57	12°♌51'00	
inferior conj	1024 Aug 10 j 07:33	22°♌47'45	-4°-5'-25	evening set	1025 Jul 16 j 14:17	10°♌53'51	
minimum elong	1024 Aug 10 j 12:32	22°♌36'09	4°04'19	min. Earth dist.	1025 Jul 20 j 10:04	8°♌17'10	0.60178 AU
morning rise	1024 Aug 17 j 09:53	17°♌44'19		inferior conj	1025 Jul 23 j 17:22	5°♌36'27	-4°-40'-19
direct	1024 Aug 19 j 19:48	17°♌18'41		minimum elong	1025 Jul 23 j 20:46	5°♌29'32	4°39'57
asc. node	1024 Aug 24 j 19:25	19°♌10'56		morning rise	1025 Jul 31 j 06:31	0°♌55'33	
morning max el	1024 Aug 26 j 15:19	20°♌45'41	17°53'54	direct	1025 Aug 02 j 16:28	0°♌33'47	
	1024 Sep 02 j 13:46	0°♌		morning max el	1025 Aug 10 j 03:00	4°♌11'17	18°11'37
morning set	1024 Sep 11 j 15:16	15°♌47'25		asc. node	1025 Aug 11 j 16:28	5°♌49'48	
	1024 Sep 19 j 14:44	0°♌		morning set	1025 Aug 25 j 23:38	29°♌20'14	
					1025 Aug 26 j 08:05	0°♌	
superior conj	1024 Sep 22 j 14:42	5°♌11'07	1°04'59				
minimum elong	1024 Sep 22 j 19:29	5°♌31'33	1°04'24	superior conj	1025 Sep 04 j 13:52	17°♌09'58	1°29'45
max. Earth dist.	1024 Sep 29 j 20:16	17°♌16'16	1.42986 AU	minimum elong	1025 Sep 04 j 17:38	17°♌27'00	1°29'25
desc. node	1024 Oct 02 j 18:11	21°♌59'00			1025 Sep 11 j 21:43	0°♌	
evening rise	1024 Oct 07 j 05:34	29°♌04'03		max. Earth dist.	1025 Sep 12 j 04:44	0°♌29'47	1.41189 AU
	1024 Oct 07 j 19:54	0°♌		evening rise	1025 Sep 17 j 07:09	8°♌57'15	
	1024 Oct 28 j 03:30	0°♌		desc. node	1025 Sep 19 j 15:13	12°♌42'55	
greatest brilliancy	1024 Nov 02 j 14:30	7°♌10'31	-0.4m		1025 Sep 30 j 22:19	0°♌	
evening max el	1024 Nov 07 j 11:34	12°♌45'13	21°39'55	greatest brilliancy	1025 Oct 15 j 19:19	20°♌16'25	-0.2m
retrograde	1024 Nov 16 j 11:47	18°♌06'52		evening max el	1025 Oct 21 j 03:35	26°♌16'25	22°58'19
evening set	1024 Nov 20 j 17:14	16°♌28'17			1025 Oct 25 j 10:14	0°♌	
asc. node	1024 Nov 20 j 18:40	16°♌25'26		retrograde	1025 Oct 31 j 06:27	2°♌16'48	
inferior conj	1024 Nov 26 j 02:48	10°♌09'34	1°45'18	evening set	1025 Nov 05 j 00:29	0°♌20'57	
minimum elong	1024 Nov 26 j 00:39	10°♌17'03	1°44'31		1025 Nov 05 j 10:13	30°♌	

asc. node	1025 Nov 07 j 15:42	27° \mathbb{M} 37'19		inferior conj	1026 Oct 25 j 16:40	7° \mathbb{M} 47'39	0°03'23
inferior conj	1025 Nov 10 j 10:08	23° \mathbb{M} 57'03	0°56'28	minimum elong	1026 Oct 25 j 16:35	7° \mathbb{M} 47'56	0°03'20
minimum elong	1025 Nov 10 j 08:51	24° \mathbb{M} 01'28	0°55'57	transit middle	1026 Oct 25 j 16:35	7° \mathbb{M} 47'56	0°03'20
min. Earth dist.	1025 Nov 10 j 03:32	24° \mathbb{M} 19'48	0.67750 AU	transit begin	1026 Oct 25 j 13:54	7° \mathbb{M} 56'56	
morning rise	1025 Nov 15 j 17:13	17° \mathbb{M} 45'05		transit end	1026 Oct 25 j 19:15	7° \mathbb{M} 38'56	
direct	1025 Nov 20 j 01:00	16° \mathbb{M} 02'27		asc. node	1026 Oct 25 j 12:44	8° \mathbb{M} 00'52	
morning max el	1025 Nov 28 j 22:32	21° \mathbb{M} 15'37	21°38'26	morning rise	1026 Oct 31 j 03:53	1° \mathbb{M} 40'55	
greatest brilliancy	1025 Dec 03 j 21:09	26° \mathbb{M} 52'33	-0.4m	direct	1026 Nov 03 j 22:20	0° \mathbb{M} 19'41	
	1025 Dec 06 j 07:53	0° \mathbb{M}		morning max el	1026 Nov 11 j 19:26	4° \mathbb{M} 52'10	20°22'47
desc. node	1025 Dec 16 j 14:28	14° \mathbb{M} 23'23		greatest brilliancy	1026 Nov 18 j 06:43	12° \mathbb{M} 35'46	-0.5m
	1025 Dec 26 j 22:14	0° \mathbb{M}			1026 Nov 30 j 09:18	0° \mathbb{M}	
morning set	1025 Dec 30 j 18:20	6° \mathbb{M} 02'01		desc. node	1026 Dec 03 j 11:31	4° \mathbb{M} 40'08	
max. Earth dist.	1026 Jan 06 j 10:12	16° \mathbb{M} 50'05	1.41761 AU	morning set	1026 Dec 09 j 16:48	14° \mathbb{M} 12'27	
				max. Earth dist.	1026 Dec 19 j 17:23	0° \mathbb{M} 00'39	1.43488 AU
					1026 Dec 19 j 17:14	0° \mathbb{M}	
superior conj	1026 Jan 14 j 00:04	29° \mathbb{M} 42'27	-2°-3'-32	superior conj	1026 Dec 25 j 19:42	9° \mathbb{M} 57'05	-1°-56'-7
minimum elong	1026 Jan 14 j 00:15	29° \mathbb{M} 43'14	2°03'33	minimum elong	1026 Dec 25 j 14:50	9° \mathbb{M} 36'57	1°55'52
	1026 Jan 14 j 04:06	0° \mathbb{M}			1027 Jan 06 j 14:10	0° \mathbb{M}	
evening rise	1026 Jan 24 j 22:01	19° \mathbb{M} 20'28		evening rise	1027 Jan 07 j 09:28	1° \mathbb{M} 24'12	
	1026 Jan 30 j 19:07	0° \mathbb{M}		asc. node	1027 Jan 21 j 12:05	24° \mathbb{M} 37'24	
asc. node	1026 Feb 03 j 15:03	6° \mathbb{M} 29'03		evening max el	1027 Jan 24 j 20:01	28° \mathbb{M} 33'55	18°09'16
evening max el	1026 Feb 10 j 07:53	15° \mathbb{M} 23'23	18°10'42		1027 Jan 26 j 10:31	0° \mathbb{M}	
retrograde	1026 Feb 17 j 04:07	18° \mathbb{M} 50'53		retrograde	1027 Jan 31 j 07:53	1° \mathbb{M} 58'37	
evening set	1026 Feb 19 j 17:47	18° \mathbb{M} 22'14		evening set	1027 Feb 03 j 02:18	1° \mathbb{M} 20'22	
inferior conj	1026 Feb 26 j 14:15	13° \mathbb{M} 30'54	3°31'37		1027 Feb 05 j 07:02	30° \mathbb{R}	
minimum elong	1026 Feb 26 j 16:36	13° \mathbb{M} 25'29	3°31'20	inferior conj	1027 Feb 09 j 10:23	26° \mathbb{M} 08'01	3°46'31
min. Earth dist.	1026 Mar 01 j 21:32	10° \mathbb{M} 30'27	0.60393 AU	minimum elong	1027 Feb 09 j 10:38	26° \mathbb{M} 07'23	3°46'31
morning rise	1026 Mar 05 j 12:12	7° \mathbb{M} 45'28		min. Earth dist.	1027 Feb 12 j 05:54	23° \mathbb{M} 12'44	0.62470 AU
direct	1026 Mar 12 j 04:20	5° \mathbb{M} 38'01		morning rise	1027 Feb 15 j 16:46	20° \mathbb{M} 09'16	
desc. node	1026 Mar 14 j 13:40	5° \mathbb{M} 53'33		direct	1027 Feb 22 j 15:53	17° \mathbb{M} 33'41	
morning max el	1026 Mar 26 j 10:47	13° \mathbb{M} 28'24	27°33'59	desc. node	1027 Mar 01 j 10:43	19° \mathbb{M} 39'52	
	1026 Apr 08 j 15:21	0° \mathbb{M}		morning max el	1027 Mar 08 j 15:53	25° \mathbb{M} 27'47	27°48'26
	1026 Apr 25 j 16:50	0° \mathbb{M}			1027 Mar 12 j 20:21	0° \mathbb{M}	
morning set	1026 Apr 27 j 07:10	3° \mathbb{M} 16'07			1027 Apr 02 j 02:13	0° \mathbb{M}	
asc. node	1026 May 02 j 14:21	14° \mathbb{M} 33'04		morning set	1027 Apr 11 j 09:11	17° \mathbb{M} 37'44	
max. Earth dist.	1026 May 03 j 15:59	16° \mathbb{M} 53'01	1.32290 AU	max. Earth dist.	1027 Apr 17 j 00:29	29° \mathbb{M} 24'48	1.32672 AU
					1027 Apr 17 j 07:02	0° \mathbb{M}	
superior conj	1026 May 04 j 13:01	18° \mathbb{M} 48'15	0°20'29	superior conj	1027 Apr 18 j 22:28	3° \mathbb{M} 32'52	0°-5'-41
minimum elong	1026 May 04 j 12:07	18° \mathbb{M} 43'14	0°20'17	minimum elong	1027 Apr 18 j 22:44	3° \mathbb{M} 34'20	0°05'38
	1026 May 09 j 16:02	0° \mathbb{M}		behind sun begin	1027 Apr 18 j 17:52	3° \mathbb{M} 07'56	
evening rise	1026 May 11 j 11:02	3° \mathbb{M} 49'42		behind sun end	1027 Apr 19 j 03:36	4° \mathbb{M} 00'45	
	1026 May 25 j 11:24	0° \mathbb{M}		asc. node	1027 Apr 19 j 11:23	4° \mathbb{M} 42'59	
evening max el	1026 Jun 07 j 16:16	16° \mathbb{M} 54'51	25°30'24	evening rise	1027 Apr 25 j 22:48	18° \mathbb{M} 42'26	
desc. node	1026 Jun 10 j 12:58	19° \mathbb{M} 25'16			1027 May 01 j 12:12	0° \mathbb{M}	
retrograde	1026 Jun 21 j 17:07	24° \mathbb{M} 04'30		evening max el	1027 May 20 j 06:59	27° \mathbb{M} 36'45	24°00'43
evening set	1026 Jun 27 j 12:13	22° \mathbb{M} 45'35			1027 May 23 j 00:04	0° \mathbb{M}	
min. Earth dist.	1026 Jul 02 j 04:23	20° \mathbb{M} 04'22	0.58133 AU	desc. node	1027 May 28 j 10:00	3° \mathbb{M} 19'41	
inferior conj	1026 Jul 05 j 09:09	17° \mathbb{M} 49'21	-4°-51'-44	retrograde	1027 Jun 03 j 02:10	4° \mathbb{M} 32'48	
minimum elong	1026 Jul 05 j 08:37	17° \mathbb{M} 50'17	4°51'45	evening set	1027 Jun 07 j 11:33	3° \mathbb{M} 50'10	
morning rise	1026 Jul 13 j 08:46	13° \mathbb{M} 31'06		min. Earth dist.	1027 Jun 13 j 17:56	0° \mathbb{M} 48'27	0.56369 AU
direct	1026 Jul 15 j 20:58	13° \mathbb{M} 11'34			1027 Jun 15 j 01:34	30° \mathbb{R}	
morning max el	1026 Jul 24 j 07:56	17° \mathbb{M} 10'55	18°49'41	inferior conj	1027 Jun 16 j 04:42	29° \mathbb{M} 17'55	-4°-26'-15
asc. node	1026 Jul 29 j 13:32	23° \mathbb{M} 29'29		minimum elong	1027 Jun 15 j 23:09	29° \mathbb{M} 26'31	4°25'25
	1026 Aug 02 j 15:05	0° \mathbb{M}		morning rise	1027 Jun 24 j 14:19	25° \mathbb{M} 18'12	
morning set	1026 Aug 09 j 18:54	13° \mathbb{M} 25'21		direct	1027 Jun 27 j 06:33	24° \mathbb{M} 59'34	
				morning max el	1027 Jul 07 j 03:08	29° \mathbb{M} 33'49	19°48'59
superior conj	1026 Aug 18 j 09:20	0° \mathbb{M} 09'29	1°42'54		1027 Jul 07 j 14:09	0° \mathbb{M}	
minimum elong	1026 Aug 18 j 11:07	0° \mathbb{M} 18'00	1°42'49	asc. node	1027 Jul 16 j 10:36	11° \mathbb{M} 55'31	
	1026 Aug 18 j 07:20	0° \mathbb{M}		morning set	1027 Jul 24 j 21:39	27° \mathbb{M} 53'11	
max. Earth dist.	1026 Aug 25 j 08:39	12° \mathbb{M} 59'31	1.39175 AU		1027 Jul 25 j 22:43	0° \mathbb{M}	
evening rise	1026 Aug 29 j 08:45	19° \mathbb{M} 58'12		superior conj	1027 Aug 01 j 19:38	13° \mathbb{M} 53'32	1°46'24
	1026 Sep 04 j 10:02	0° \mathbb{M}		minimum elong	1027 Aug 01 j 19:32	13° \mathbb{M} 53'05	1°46'24
desc. node	1026 Sep 06 j 12:17	3° \mathbb{M} 20'00		max. Earth dist.	1027 Aug 07 j 12:52	24° \mathbb{M} 58'11	1.37191 AU
	1026 Sep 25 j 02:30	0° \mathbb{M}			1027 Aug 10 j 06:02	0° \mathbb{M}	
evening max el	1026 Oct 03 j 16:28	9° \mathbb{M} 51'35	24°18'10				
retrograde	1026 Oct 14 j 21:31	16° \mathbb{M} 25'41					
evening set	1026 Oct 20 j 05:35	14° \mathbb{M} 12'31					
min. Earth dist.	1026 Oct 24 j 23:41	8° \mathbb{M} 44'47	0.67535 AU				

evening rise	1027 Aug 11 j 09:43	2° \mathbb{M} 05'22		evening rise	1028 Jul 24 j 05:48	15° Ω 07'55	
desc. node	1027 Aug 24 j 09:19	23° \mathbb{M} 45'06			1028 Aug 01 j 13:19	0° \mathbb{M}	
	1027 Aug 28 j 12:53	0° $\underline{\mathbb{A}}$		desc. node	1028 Aug 10 j 06:20	13° \mathbb{M} 52'15	
evening max el	1027 Sep 16 j 04:22	23° $\underline{\mathbb{A}}$ 30'12	25°32'23		1028 Aug 22 j 03:47	0° $\underline{\mathbb{A}}$	
	1027 Sep 25 j 12:07	0° \mathbb{M}		evening max el	1028 Aug 28 j 16:22	7° $\underline{\mathbb{A}}$ 07'09	26°33'12
retrograde	1027 Sep 28 j 08:02	0° \mathbb{M} 28'43		retrograde	1028 Sep 10 j 13:24	14° $\underline{\mathbb{A}}$ 20'07	
	1027 Sep 30 j 23:59	30° \mathbb{R} $\underline{\mathbb{A}}$		evening set	1028 Sep 17 j 02:00	11° $\underline{\mathbb{A}}$ 39'47	
evening set	1027 Oct 04 j 06:46	27° $\underline{\mathbb{A}}$ 59'51		min. Earth dist.	1028 Sep 21 j 04:24	7° $\underline{\mathbb{A}}$ 24'55	0.66103 AU
min. Earth dist.	1027 Oct 08 j 16:47	23° $\underline{\mathbb{A}}$ 07'43	0.66990 AU	inferior conj	1028 Sep 22 j 19:59	5° $\underline{\mathbb{A}}$ 25'53	-1°-49'-54
inferior conj	1027 Oct 09 j 20:36	21° $\underline{\mathbb{A}}$ 38'22	0°-52'-35	minimum elong	1028 Sep 22 j 22:51	5° $\underline{\mathbb{A}}$ 17'15	1°48'47
minimum elong	1027 Oct 09 j 21:56	21° $\underline{\mathbb{A}}$ 34'03	0°52'03	asc. node	1028 Sep 28 j 06:51	29° \mathbb{M} 59'30	
asc. node	1027 Oct 12 j 09:47	18° $\underline{\mathbb{A}}$ 30'41			1028 Sep 28 j 06:33	30° \mathbb{R} \mathbb{M}	
morning rise	1027 Oct 15 j 13:48	15° $\underline{\mathbb{A}}$ 39'51		morning rise	1028 Sep 28 j 20:53	29° \mathbb{M} 38'40	
direct	1027 Oct 18 j 20:52	14° $\underline{\mathbb{A}}$ 37'08		direct	1028 Oct 01 j 18:45	28° \mathbb{M} 50'55	
morning max el	1027 Oct 26 j 00:03	18° $\underline{\mathbb{A}}$ 38'36	19°20'47		1028 Oct 05 j 09:20	0° $\underline{\mathbb{A}}$	
	1027 Nov 03 j 20:55	0° \mathbb{M}		morning max el	1028 Oct 08 j 11:02	2° $\underline{\mathbb{A}}$ 31'34	18°34'22
greatest brilliancy	1027 Nov 04 j 13:57	1° \mathbb{M} 02'05	-0.7m		1028 Oct 27 j 06:56	0° \mathbb{M}	
morning set	1027 Nov 18 j 17:32	22° \mathbb{M} 38'52		morning set	1028 Oct 28 j 17:31	2° \mathbb{M} 18'18	
desc. node	1027 Nov 20 j 08:34	25° \mathbb{M} 10'33		desc. node	1028 Nov 06 j 05:35	15° \mathbb{M} 49'50	
	1027 Nov 23 j 10:54	0° \mathbb{A}					
max. Earth dist.	1027 Dec 02 j 07:53	13° \mathbb{A} 55'15	1.44642 AU	superior conj	1028 Nov 13 j 14:59	27° \mathbb{M} 28'29	0°-47'-41
				minimum elong	1028 Nov 13 j 08:53	27° \mathbb{M} 04'30	0°46'55
superior conj	1027 Dec 05 j 13:21	19° \mathbb{A} 02'30	-1°-30'-11	max. Earth dist.	1028 Nov 14 j 02:21	28° \mathbb{M} 13'08	1.45093 AU
minimum elong	1027 Dec 05 j 04:49	18° \mathbb{A} 28'33	1°29'23		1028 Nov 15 j 05:34	0° \mathbb{A}	
	1027 Dec 12 j 08:53	0° \mathbb{A}		evening rise	1028 Nov 29 j 15:35	22° \mathbb{A} 44'53	
evening rise	1027 Dec 20 j 00:17	12° \mathbb{A} 33'45			1028 Dec 04 j 05:04	0° \mathbb{A}	
	1027 Dec 30 j 14:36	0° \mathbb{A}		evening max el	1028 Dec 21 j 18:32	25° \mathbb{A} 21'41	19°01'39
asc. node	1028 Jan 08 j 09:06	11° \mathbb{A} 57'10		asc. node	1028 Dec 25 j 06:08	28° \mathbb{A} 13'59	
evening max el	1028 Jan 08 j 08:26	11° \mathbb{A} 55'27	18°26'34	retrograde	1028 Dec 28 j 16:00	29° \mathbb{A} 16'46	
retrograde	1028 Jan 14 j 21:07	15° \mathbb{A} 29'59		evening set	1028 Dec 31 j 21:32	28° \mathbb{A} 16'14	
evening set	1028 Jan 17 j 20:35	14° \mathbb{A} 41'09		inferior conj	1029 Jan 06 j 14:09	22° \mathbb{A} 27'17	3°21'10
inferior conj	1028 Jan 23 j 19:34	9° \mathbb{A} 09'18	3°41'12	minimum elong	1029 Jan 06 j 11:46	22° \mathbb{A} 34'47	3°20'43
minimum elong	1028 Jan 23 j 18:09	9° \mathbb{A} 13'24	3°41'03	min. Earth dist.	1029 Jan 08 j 03:05	20° \mathbb{A} 31'13	0.65723 AU
min. Earth dist.	1028 Jan 25 j 23:49	6° \mathbb{A} 38'10	0.64284 AU	morning rise	1029 Jan 12 j 01:03	16° \mathbb{A} 15'12	
morning rise	1028 Jan 29 j 14:19	3° \mathbb{A} 02'20		direct	1029 Jan 18 j 12:30	13° \mathbb{A} 26'14	
direct	1028 Feb 05 j 10:57	0° \mathbb{A} 12'58		morning max el	1029 Jan 31 j 10:31	21° \mathbb{A} 02'17	26°34'31
desc. node	1028 Feb 16 j 07:45	5° \mathbb{A} 31'07		desc. node	1029 Feb 02 j 04:46	22° \mathbb{A} 52'23	
morning max el	1028 Feb 19 j 00:40	8° \mathbb{A} 03'06	27°26'44		1029 Feb 08 j 05:26	0° \mathbb{A}	
	1028 Mar 07 j 00:57	0° \mathbb{A}			1029 Feb 28 j 04:39	0° \mathbb{A}	
	1028 Mar 24 j 08:28	0° \mathbb{Y}		morning set	1029 Mar 08 j 09:56	14° \mathbb{A} 47'45	
morning set	1028 Mar 25 j 03:17	1° \mathbb{Y} 31'58		max. Earth dist.	1029 Mar 12 j 15:53	23° \mathbb{A} 01'29	1.34736 AU
max. Earth dist.	1028 Mar 30 j 01:35	11° \mathbb{Y} 30'02	1.33481 AU		1029 Mar 16 j 02:56	0° \mathbb{Y}	
superior conj	1028 Apr 02 j 04:04	18° \mathbb{Y} 01'24	0°-32'-59	superior conj	1029 Mar 17 j 03:36	2° \mathbb{Y} 06'43	-1°00'-13
minimum elong	1028 Apr 02 j 05:42	18° \mathbb{Y} 10'01	0°32'39	minimum elong	1029 Mar 17 j 06:33	2° \mathbb{Y} 21'55	0°59'42
asc. node	1028 Apr 05 j 08:26	24° \mathbb{Y} 49'20		asc. node	1029 Mar 23 j 05:28	14° \mathbb{Y} 47'38	
	1028 Apr 07 j 18:34	0° \mathbb{A}		evening rise	1029 Mar 24 j 19:09	18° \mathbb{Y} 03'28	
evening rise	1028 Apr 09 j 10:09	3° \mathbb{A} 29'16			1029 Mar 30 j 19:36	0° \mathbb{A}	
	1028 Apr 24 j 02:49	0° \mathbb{II}		evening max el	1029 Apr 12 j 22:13	19° \mathbb{A} 00'01	20°56'51
evening max el	1028 Apr 30 j 22:37	8° \mathbb{II} 08'23	22°24'53	retrograde	1029 Apr 24 j 11:54	24° \mathbb{A} 37'16	
retrograde	1028 May 13 j 22:31	14° \mathbb{II} 33'42		evening set	1029 Apr 26 j 17:04	24° \mathbb{A} 25'40	
desc. node	1028 May 14 j 07:00	14° \mathbb{II} 33'25		desc. node	1029 May 01 j 03:59	23° \mathbb{A} 00'18	
evening set	1028 May 16 j 22:59	14° \mathbb{II} 13'38		inferior conj	1029 May 06 j 00:13	20° \mathbb{A} 27'37	-1°-23'-43
min. Earth dist.	1028 May 25 j 05:46	10° \mathbb{II} 38'49	0.55228 AU	minimum elong	1029 May 05 j 20:15	20° \mathbb{A} 33'14	1°22'19
inferior conj	1028 May 26 j 06:23	10° \mathbb{II} 04'01	-3°-14'-6	min. Earth dist.	1029 May 06 j 18:20	20° \mathbb{A} 01'54	0.54968 AU
minimum elong	1028 May 25 j 22:49	10° \mathbb{II} 14'43	3°11'58	morning rise	1029 May 14 j 22:50	16° \mathbb{A} 23'28	
morning rise	1028 Jun 04 j 00:53	6° \mathbb{II} 11'39		direct	1029 May 18 j 08:44	15° \mathbb{A} 58'22	
direct	1028 Jun 06 j 23:09	5° \mathbb{II} 52'09		morning max el	1029 May 31 j 08:40	22° \mathbb{A} 11'53	22°44'23
morning max el	1028 Jun 18 j 11:01	11° \mathbb{II} 13'19	21°08'45		1029 Jun 07 j 03:29	0° \mathbb{II}	
	1028 Jul 01 j 19:23	0° \mathbb{A}		asc. node	1029 Jun 19 j 04:43	20° \mathbb{II} 24'10	
asc. node	1028 Jul 02 j 07:40	0° \mathbb{A} 56'41		morning set	1029 Jun 22 j 16:02	27° \mathbb{II} 30'02	
morning set	1028 Jul 08 j 05:22	12° \mathbb{A} 36'41			1029 Jun 23 j 20:32	0° \mathbb{A}	
superior conj	1028 Jul 15 j 16:26	28° \mathbb{A} 09'39	1°42'11	superior conj	1029 Jun 29 j 20:25	12° \mathbb{A} 47'51	1°31'50
minimum elong	1028 Jul 15 j 14:58	28° \mathbb{A} 02'06	1°42'07	minimum elong	1029 Jun 29 j 18:11	12° \mathbb{A} 35'58	1°31'36
	1028 Jul 16 j 13:53	0° Ω		max. Earth dist.	1029 Jul 02 j 17:55	18° \mathbb{A} 53'38	1.34051 AU
max. Earth dist.	1028 Jul 19 j 22:56	6° Ω 49'28	1.35442 AU	evening rise	1029 Jul 07 j 16:18	28° \mathbb{A} 53'23	

	1029 Jul 08 j 05:54	0°♌		superior conj	1030 Jun 14 j 04:58	27°♊39'14	1°16'31
	1029 Jul 25 j 16:42	0°♍		minimum elong	1030 Jun 14 j 02:31	27°♊25'57	1°16'09
desc. node	1029 Jul 28 j 03:20	3°♍33'39			1030 Jun 15 j 06:59	0°♎	
evening max el	1029 Aug 11 j 04:12	20°♍33'46	27°13'11	max. Earth dist.	1030 Jun 15 j 21:36	1°♎18'47	1.33065 AU
retrograde	1029 Aug 24 j 13:25	27°♍52'45		evening rise	1030 Jun 21 j 13:12	13°♎09'37	
evening set	1029 Aug 31 j 12:53	25°♍08'46			1030 Jun 30 j 09:42	0°♌	
min. Earth dist.	1029 Sep 04 j 08:22	21°♍30'47	0.64852 AU	desc. node	1030 Jul 15 j 00:22	22°♌37'48	
inferior conj	1029 Sep 06 j 12:39	19°♍06'24	-2°-46'-23		1030 Jul 21 j 01:48	0°♍	
minimum elong	1029 Sep 06 j 16:54	18°♍54'39	2°44'55	evening max el	1030 Jul 24 j 14:28	3°♍37'45	27°25'40
morning rise	1029 Sep 12 j 22:40	13°♍33'40		retrograde	1030 Aug 07 j 07:28	10°♍56'26	
asc. node	1029 Sep 15 j 03:54	12°♍58'05		evening set	1030 Aug 14 j 12:11	8°♍20'16	
direct	1029 Sep 15 j 13:45	12°♍57'11		min. Earth dist.	1030 Aug 18 j 02:53	5°♍14'50	0.63248 AU
morning max el	1029 Sep 22 j 01:58	16°♍26'14	18°04'41	inferior conj	1030 Aug 20 j 19:55	2°♍33'06	-3°-38'-54
	1029 Oct 01 j 20:39	0°♎		minimum elong	1030 Aug 21 j 00:57	2°♍20'32	3°37'31
morning set	1029 Oct 09 j 22:29	13°♎23'25			1030 Aug 23 j 12:29	30°♎♌	
	1029 Oct 20 j 00:22	0°♎		morning rise	1030 Aug 27 j 16:07	27°♌18'00	
				direct	1030 Aug 30 j 03:01	26°♌49'20	
superior conj	1029 Oct 23 j 21:57	6°♎16'19	0°01'19	asc. node	1030 Sep 02 j 00:57	27°♌30'30	
minimum elong	1029 Oct 23 j 22:07	6°♎16'59	0°01'17		1030 Sep 05 j 11:47	0°♍	
behind sun begin	1029 Oct 23 j 11:28	5°♎34'27		morning max el	1030 Sep 05 j 17:58	0°♍15'04	17°52'33
behind sun end	1029 Oct 24 j 08:45	6°♎59'28		morning set	1030 Sep 22 j 04:09	25°♍39'24	
desc. node	1029 Oct 24 j 02:38	6°♎35'03			1030 Sep 24 j 15:43	0°♎	
max. Earth dist.	1029 Oct 27 j 21:08	12°♎34'19	1.44804 AU				
	1029 Nov 08 j 00:58	0°♏		superior conj	1030 Oct 04 j 03:33	16°♎12'18	0°44'58
evening rise	1029 Nov 09 j 09:37	2°♏06'18		minimum elong	1030 Oct 04 j 07:45	16°♎29'47	0°44'23
greatest brilliancy	1029 Nov 27 j 17:06	29°♏41'47	-0.6m	max. Earth dist.	1030 Oct 10 j 13:21	26°♎40'48	1.43819 AU
	1029 Nov 27 j 22:19	0°♏		desc. node	1030 Oct 10 j 23:39	27°♎22'07	
evening max el	1029 Dec 05 j 00:25	8°♏50'05	19°52'53		1030 Oct 12 j 15:11	0°♎	
asc. node	1029 Dec 12 j 03:10	13°♏13'21		evening rise	1030 Oct 19 j 17:17	11°♎06'08	
retrograde	1029 Dec 12 j 13:27	13°♏14'23			1030 Nov 01 j 05:37	0°♏	
evening set	1029 Dec 16 j 02:42	12°♏00'36		greatest brilliancy	1030 Nov 12 j 13:53	15°♏54'53	-0.5m
inferior conj	1029 Dec 21 j 15:11	5°♏57'32	2°50'15	evening max el	1030 Nov 18 j 00:55	22°♏19'30	20°57'51
minimum elong	1029 Dec 21 j 12:28	6°♏06'32	2°49'31	retrograde	1030 Nov 26 j 11:08	27°♏19'06	
min. Earth dist.	1029 Dec 22 j 14:14	4°♏40'53	0.66766 AU	asc. node	1030 Nov 29 j 00:11	26°♏42'45	
morning rise	1029 Dec 26 j 21:36	29°♏42'41		evening set	1030 Nov 30 j 10:02	25°♏50'15	
	1029 Dec 26 j 14:06	30°♏♏		inferior conj	1030 Dec 05 j 20:14	19°♏36'23	2°11'00
direct	1030 Jan 01 j 19:56	27°♏05'17		minimum elong	1030 Dec 05 j 17:44	19°♏44'57	2°10'09
	1030 Jan 09 j 00:24	0°♏		min. Earth dist.	1030 Dec 06 j 06:56	18°♏59'38	0.67426 AU
morning max el	1030 Jan 13 j 19:31	4°♏13'27	25°20'21	morning rise	1030 Dec 11 j 01:02	13°♏20'58	
desc. node	1030 Jan 20 j 01:49	11°♏17'47		direct	1030 Dec 16 j 08:28	11°♏02'32	
	1030 Feb 02 j 14:11	0°♏		morning max el	1030 Dec 27 j 03:55	17°♏29'26	23°54'25
morning set	1030 Feb 19 j 00:24	27°♏11'34		desc. node	1031 Jan 06 j 22:52	0°♏28'41	
	1030 Feb 20 j 13:26	0°♏			1031 Jan 06 j 14:18	0°♏	
max. Earth dist.	1030 Feb 22 j 18:30	4°♏06'19	1.36429 AU		1031 Jan 26 j 15:45	0°♏	
				morning set	1031 Jan 31 j 16:41	8°♏26'44	
superior conj	1030 Feb 28 j 18:17	15°♏41'12	-1°-25'-42	max. Earth dist.	1031 Feb 04 j 13:48	15°♏13'05	1.38460 AU
minimum elong	1030 Feb 28 j 22:11	16°♏00'36	1°25'11				
	1030 Mar 07 j 20:19	0°♐		superior conj	1031 Feb 11 j 20:32	28°♏35'29	-1°-47'-1
evening rise	1030 Mar 08 j 23:41	2°♐18'34		minimum elong	1031 Feb 12 j 00:28	28°♏54'10	1°46'41
asc. node	1030 Mar 10 j 02:30	4°♐33'26			1031 Feb 12 j 14:19	0°♏	
	1030 Mar 25 j 21:28	0°♐		evening rise	1031 Feb 20 j 21:14	16°♏07'40	
evening max el	1030 Mar 26 j 09:22	0°♐29'25	19°45'02	asc. node	1031 Feb 24 j 23:32	24°♏01'38	
retrograde	1030 Apr 05 j 05:36	5°♐13'41			1031 Feb 28 j 06:18	0°♐	
evening set	1030 Apr 07 j 07:07	5°♐02'07		evening max el	1031 Mar 09 j 07:23	12°♐37'54	18°52'38
inferior conj	1030 Apr 16 j 00:52	0°♐59'58	0°34'24	retrograde	1031 Mar 17 j 14:40	16°♐39'20	
minimum elong	1030 Apr 16 j 02:21	0°♐57'39	0°33'52	evening set	1031 Mar 19 j 20:20	16°♐23'00	
	1030 Apr 17 j 15:19	30°♐♐		inferior conj	1031 Mar 27 j 19:21	12°♐04'51	2°09'52
desc. node	1030 Apr 18 j 01:01	29°♐45'01		minimum elong	1031 Mar 27 j 23:27	11°♐57'28	2°08'42
min. Earth dist.	1030 Apr 18 j 08:36	29°♐33'26	0.55673 AU	min. Earth dist.	1031 Mar 31 j 01:00	9°♐46'04	0.57183 AU
morning rise	1030 Apr 24 j 18:11	26°♐26'41		morning rise	1031 Apr 04 j 22:17	6°♐58'17	
direct	1030 Apr 29 j 01:22	25°♐45'33		desc. node	1031 Apr 04 j 22:03	6°♐58'32	
	1030 May 09 j 19:34	0°♐		direct	1031 Apr 10 j 07:45	5°♐48'09	
morning max el	1030 May 13 j 00:08	2°♐44'09	24°25'53	morning max el	1031 Apr 24 j 15:16	13°♐15'49	25°58'58
	1030 May 31 j 23:00	0°♐			1031 May 07 j 18:55	0°♐	
asc. node	1030 Jun 06 j 01:45	10°♐10'26		morning set	1031 May 22 j 15:21	27°♐23'02	
morning set	1030 Jun 07 j 03:53	12°♐27'10		asc. node	1031 May 23 j 22:49	0°♐09'54	
					1031 May 23 j 20:58	0°♐	

superior conj	1031 May 29 j 16:04	12° Π 37'08	0°57'12	superior conj	1032 May 13 j 03:51	27° 8 34'22	0°34'38
minimum elong	1031 May 29 j 13:54	12° Π 25'14	0°56'48	minimum elong	1032 May 13 j 02:22	27° 8 26'16	0°34'20
max. Earth dist.	1031 May 30 j 07:36	14° Π 02'16	1.32476 AU	max. Earth dist.	1032 May 12 j 20:11	26° 8 52'13	1.32259 AU
evening rise	1031 Jun 05 j 17:20	27° Π 47'00			1032 May 14 j 06:20	0° Π	
	1031 Jun 06 j 19:08	0° 6		evening rise	1032 May 20 j 02:03	12° Π 35'57	
	1031 Jun 23 j 18:12	0° 9			1032 May 28 j 22:46	0° 6	
desc. node	1031 Jul 01 j 21:23	10° 9 49'07		desc. node	1032 Jun 17 j 18:24	27° 6 45'24	
evening max el	1031 Jul 06 j 20:47	16° 9 06'50	27°05'54	evening max el	1032 Jun 17 j 20:35	27° 6 50'37	26°13'20
retrograde	1031 Jul 20 j 18:23	23° 9 22'08			1032 Jun 20 j 06:56	0° 9	
evening set	1031 Jul 27 j 19:45	21° 9 07'20		retrograde	1032 Jul 01 j 20:42	5° 9 02'25	
min. Earth dist.	1031 Jul 31 j 11:03	18° 9 24'20	0.61353 AU	evening set	1032 Jul 08 j 06:55	3° 9 21'04	
inferior conj	1031 Aug 03 j 14:36	15° 9 38'30	-4°-22'-23	min. Earth dist.	1032 Jul 12 j 09:24	0° 9 44'46	0.59299 AU
minimum elong	1031 Aug 03 j 19:11	15° 9 28'25	4°21'35		1032 Jul 13 j 09:24	30° R 6	
morning rise	1031 Aug 10 j 21:31	10° 9 44'05		inferior conj	1032 Jul 15 j 17:07	28° 6 12'46	-4°-48'-48
direct	1031 Aug 13 j 07:04	10° 9 20'22		minimum elong	1032 Jul 15 j 19:07	28° 6 08'55	4°48'42
asc. node	1031 Aug 19 j 22:00	13° 9 27'14		morning rise	1032 Jul 23 j 10:44	23° 6 41'27	
morning max el	1031 Aug 20 j 08:01	13° 9 50'58	17°58'58	direct	1032 Jul 25 j 21:34	23° 6 20'38	
	1031 Aug 31 j 08:03	0° 9		morning max el	1032 Aug 02 j 17:05	27° 6 05'47	18°25'16
morning set	1031 Sep 05 j 04:21	8° 9 48'26			1032 Aug 05 j 08:30	0° 9	
				asc. node	1032 Aug 05 j 19:04	0° 9 33'19	
superior conj	1031 Sep 15 j 12:22	27° 9 28'14	1°17'00	morning set	1032 Aug 18 j 17:49	22° 9 36'07	
minimum elong	1031 Sep 15 j 16:57	27° 9 48'16	1°16'31		1032 Aug 22 j 14:25	0° 9	
	1031 Sep 16 j 23:13	0° 9					
max. Earth dist.	1031 Sep 23 j 01:06	10° 9 17'43	1.42268 AU	superior conj	1032 Aug 27 j 20:49	9° 9 54'23	1°36'38
desc. node	1031 Sep 27 j 20:42	18° 9 08'08		minimum elong	1032 Aug 27 j 23:47	10° 9 08'06	1°36'26
evening rise	1031 Sep 29 j 08:04	20° 9 29'02		max. Earth dist.	1032 Sep 04 j 07:47	23° 9 14'03	1.40344 AU
	1031 Oct 05 j 10:54	0° 9			1032 Sep 08 j 07:31	0° 9	
	1031 Oct 26 j 16:30	0° 9		evening rise	1032 Sep 08 j 19:27	0° 9 49'33	
greatest brilliancy	1031 Oct 27 j 02:44	0° 9 31'23	-0.3m	desc. node	1032 Sep 13 j 17:44	8° 9 49'32	
evening max el	1031 Oct 31 j 19:52	5° 9 50'08	22°12'46		1032 Sep 27 j 21:06	0° 9	
retrograde	1031 Nov 10 j 07:11	11° 9 28'02		evening max el	1032 Oct 13 j 10:22	19° 9 23'13	23°32'33
evening set	1031 Nov 14 j 17:47	9° 9 42'19		retrograde	1032 Oct 24 j 00:20	25° 9 38'16	
asc. node	1031 Nov 15 j 21:14	8° 9 40'14		evening set	1032 Oct 29 j 00:20	23° 9 34'50	
inferior conj	1031 Nov 20 j 03:15	3° 9 21'12	1°25'14	asc. node	1032 Nov 01 j 18:17	19° 9 25'51	
minimum elong	1031 Nov 20 j 01:25	3° 9 27'32	1°24'31	inferior conj	1032 Nov 03 j 10:26	17° 9 10'11	0°34'26
min. Earth dist.	1031 Nov 20 j 02:47	3° 9 22'49	0.67731 AU	minimum elong	1032 Nov 03 j 09:37	17° 9 12'57	0°34'05
	1031 Nov 22 j 15:28	30° R 9		min. Earth dist.	1032 Nov 02 j 23:23	17° 9 47'56	0.67698 AU
morning rise	1031 Nov 25 j 08:52	27° 9 07'26		morning rise	1032 Nov 08 j 19:03	11° 9 00'24	
direct	1031 Nov 30 j 01:09	25° 9 11'29		direct	1032 Nov 12 j 21:01	9° 9 27'09	
	1031 Dec 08 j 18:03	0° 9		morning max el	1032 Nov 21 j 07:18	14° 9 21'27	21°04'55
morning max el	1031 Dec 09 j 14:38	0° 9 50'36	22°26'34	greatest brilliancy	1032 Nov 26 j 18:06	20° 9 39'34	-0.5m
greatest brilliancy	1031 Dec 14 j 04:49	5° 9 58'55	-0.3m		1032 Dec 03 j 15:20	0° 9	
desc. node	1031 Dec 24 j 19:54	20° 9 11'54		desc. node	1032 Dec 10 j 16:58	10° 9 18'35	
	1031 Dec 31 j 12:12	0° 9		morning set	1032 Dec 21 j 13:30	26° 9 54'13	
morning set	1032 Jan 12 j 04:52	18° 9 18'23			1032 Dec 23 j 12:43	0° 9	
max. Earth dist.	1032 Jan 17 j 10:14	26° 9 59'01	1.40603 AU	max. Earth dist.	1032 Dec 29 j 13:38	9° 9 42'01	1.42556 AU
	1032 Jan 19 j 04:41	0° 9					
				superior conj	1033 Jan 05 j 16:17	21° 9 33'32	-2°-2'-29
superior conj	1032 Jan 25 j 05:38	10° 9 37'01	-2°00'-46	minimum elong	1033 Jan 05 j 14:28	21° 9 25'47	2°02'27
minimum elong	1032 Jan 25 j 07:53	10° 9 47'04	2°00'42		1033 Jan 10 j 13:26	0° 9	
evening rise	1032 Feb 04 j 08:37	29° 9 22'19		evening rise	1033 Jan 17 j 06:06	11° 9 54'57	
	1032 Feb 04 j 16:38	0° 9			1033 Jan 27 j 16:26	0° 9	
asc. node	1032 Feb 11 j 20:35	13° 9 05'13		asc. node	1033 Jan 28 j 17:37	1° 9 36'41	
evening max el	1032 Feb 20 j 13:17	25° 9 16'50	18°20'14	evening max el	1033 Feb 02 j 23:59	8° 9 18'05	18°07'36
retrograde	1032 Feb 27 j 18:48	28° 9 52'02		retrograde	1033 Feb 09 j 15:25	11° 9 42'54	
evening set	1032 Mar 01 j 05:47	28° 9 28'13		evening set	1033 Feb 12 j 07:06	11° 9 10'14	
inferior conj	1032 Mar 08 j 10:58	23° 9 48'57	3°11'06	inferior conj	1033 Feb 18 j 21:51	6° 9 09'27	3°40'50
minimum elong	1032 Mar 08 j 14:26	23° 9 41'38	3°10'26	minimum elong	1033 Feb 18 j 23:17	6° 9 05'56	3°40'42
min. Earth dist.	1032 Mar 11 j 21:19	20° 9 56'57	0.59177 AU	min. Earth dist.	1033 Feb 22 j 00:41	3° 9 08'40	0.61302 AU
morning rise	1032 Mar 15 j 19:23	18° 9 15'13		morning rise	1033 Feb 25 j 12:44	0° 9 17'24	
desc. node	1032 Mar 21 j 19:05	16° 9 28'53			1033 Feb 25 j 23:18	30° R 9	
direct	1032 Mar 22 j 02:56	16° 9 28'36		direct	1033 Mar 04 j 08:56	27° 9 56'52	
morning max el	1032 Apr 05 j 10:58	24° 9 12'13	27°08'47	desc. node	1033 Mar 08 j 16:08	28° 9 47'28	
	1032 Apr 10 j 17:23	0° 9			1033 Mar 11 j 05:00	0° 9	
	1032 Apr 29 j 22:05	0° 8		morning max el	1033 Mar 18 j 13:11	5° 9 49'08	27°44'42
morning set	1032 May 06 j 00:42	12° 8 10'56			1033 Apr 05 j 17:09	0° 9	
asc. node	1032 May 09 j 19:52	20° 8 16'48		morning set	1033 Apr 20 j 06:04	26° 9 44'35	

	1033 Apr 21 j 19:47	0°♄			1034 Mar 10 j 20:37	0°♄		
max. Earth dist.	1033 Apr 26 j 07:28	9°♄35'22	1.32412 AU		1034 Mar 29 j 12:50	0°♄		
asc. node	1033 Apr 26 j 16:55	10°♄26'49		morning set	1034 Apr 04 j 05:08	10°♄56'27		
				max. Earth dist.	1034 Apr 09 j 13:19	21°♄57'39	1.32961 AU	
superior conj	1033 Apr 27 j 14:39	12°♄25'18	0°09'35					
minimum elong	1033 Apr 27 j 14:12	12°♄22'52	0°09'29	superior conj	1034 Apr 11 j 22:43	27°♄04'15	0°-17'-11	
behind sun begin	1033 Apr 27 j 10:06	12°♄00'27		minimum elong	1034 Apr 11 j 23:33	27°♄08'44	0°17'01	
behind sun end	1033 Apr 27 j 18:18	12°♄45'18			1034 Apr 13 j 07:18	0°♄		
evening rise	1033 May 04 j 13:15	27°♄29'15		asc. node	1034 Apr 13 j 13:58	0°♄35'58		
	1033 May 05 j 17:56	0°♄		evening rise	1034 Apr 19 j 01:05	12°♄20'32		
	1033 May 22 j 23:03	0°♄			1034 Apr 28 j 01:31	0°♄		
evening max el	1033 May 30 j 13:27	8°♄49'51	24°53'45	evening max el	1034 May 12 j 03:32	19°♄23'47	23°19'43	
desc. node	1033 Jun 04 j 15:25	12°♄56'35		desc. node	1034 May 22 j 12:25	25°♄46'56		
retrograde	1033 Jun 13 j 12:48	15°♄55'26		retrograde	1034 May 25 j 16:52	26°♄10'02		
evening set	1033 Jun 18 j 18:38	14°♄52'44		evening set	1034 May 29 j 11:04	25°♄39'01		
min. Earth dist.	1033 Jun 24 j 00:50	12°♄04'41	0.57330 AU	min. Earth dist.	1034 Jun 05 j 13:31	22°♄24'32	0.55784 AU	
inferior conj	1033 Jun 27 j 00:14	10°♄06'32	-4°-46'-14	inferior conj	1034 Jun 07 j 11:34	21°♄16'36	-4°-1'-27	
minimum elong	1033 Jun 26 j 21:31	10°♄11'04	4°46'03	minimum elong	1034 Jun 07 j 04:31	21°♄27'02	3°59'57	
morning rise	1033 Jul 05 j 04:14	5°♄57'27		morning rise	1034 Jun 16 j 01:15	17°♄22'02		
direct	1033 Jul 07 j 18:06	5°♄38'24		direct	1034 Jun 18 j 19:22	17°♄03'33		
morning max el	1033 Jul 16 j 18:09	9°♄50'28	19°12'26	morning max el	1034 Jun 29 j 08:48	21°♄56'42	20°20'38	
asc. node	1033 Jul 23 j 16:09	18°♄33'53			1034 Jul 06 j 01:31	0°♄		
	1033 Jul 30 j 04:19	0°♄		asc. node	1034 Jul 10 j 13:12	7°♄16'32		
morning set	1033 Aug 02 j 16:33	6°♄51'26		morning set	1034 Jul 17 j 21:42	21°♄27'07		
					1034 Jul 22 j 01:29	0°♄		
superior conj	1033 Aug 10 j 23:11	23°♄14'28	1°45'27					
minimum elong	1033 Aug 11 j 00:07	23°♄19'02	1°45'26	superior conj	1034 Jul 25 j 14:28	7°♄14'21	1°45'28	
	1033 Aug 14 j 12:09	0°♄		minimum elong	1034 Jul 25 j 13:43	7°♄10'34	1°45'26	
max. Earth dist.	1033 Aug 17 j 11:11	5°♄28'15	1.38304 AU	max. Earth dist.	1034 Jul 30 j 16:52	17°♄19'20	1.36402 AU	
evening rise	1033 Aug 21 j 07:15	12°♄18'43		evening rise	1034 Aug 03 j 17:00	24°♄51'42		
desc. node	1033 Aug 31 j 14:45	29°♄21'51			1034 Aug 06 j 13:18	0°♄		
	1033 Sep 01 j 00:31	0°♄		desc. node	1034 Aug 18 j 11:46	19°♄40'20		
	1033 Sep 23 j 01:52	0°♄			1034 Aug 25 j 14:06	0°♄		
evening max el	1033 Sep 25 j 22:21	2°♄59'03	24°50'54	evening max el	1034 Sep 08 j 10:03	16°♄37'21	26°00'21	
retrograde	1033 Oct 07 j 13:33	9°♄45'13		retrograde	1034 Sep 20 j 22:08	23°♄44'08		
evening set	1033 Oct 13 j 03:57	7°♄24'41		evening set	1034 Sep 27 j 02:52	21°♄09'37		
min. Earth dist.	1033 Oct 17 j 18:24	2°♄12'07	0.67339 AU	min. Earth dist.	1034 Oct 01 j 09:32	16°♄33'06	0.66650 AU	
inferior conj	1033 Oct 18 j 16:01	1°♄00'38	0°-20'-6	inferior conj	1034 Oct 02 j 18:15	14°♄50'32	-1°-16'-54	
minimum elong	1033 Oct 18 j 16:31	0°♄58'59	0°19'55	minimum elong	1034 Oct 02 j 20:14	14°♄44'17	1°16'05	
	1033 Oct 19 j 10:28	30°♄		asc. node	1034 Oct 06 j 12:22	10°♄33'37		
asc. node	1033 Oct 19 j 15:20	29°♄44'13		morning rise	1034 Oct 08 j 14:32	8°♄56'23		
morning rise	1033 Oct 24 j 05:35	24°♄57'17		direct	1034 Oct 11 j 17:18	8°♄00'40		
direct	1033 Oct 27 j 18:52	23°♄44'32		morning max el	1034 Oct 18 j 15:11	11°♄52'30	18°59'01	
morning max el	1033 Nov 04 j 07:38	28°♄02'41	19°54'42		1034 Oct 31 j 20:40	0°♄		
	1033 Nov 06 j 03:11	0°♄		morning set	1034 Nov 09 j 18:21	13°♄54'09		
greatest brilliancy	1033 Nov 11 j 18:25	7°♄11'54	-0.6m	desc. node	1034 Nov 14 j 11:01	21°♄16'01		
	1033 Nov 27 j 03:11	0°♄			1034 Nov 20 j 00:41	0°♄		
desc. node	1033 Nov 27 j 14:00	0°♄41'30		max. Earth dist.	1034 Nov 24 j 15:58	7°♄17'04	1.44919 AU	
morning set	1033 Nov 30 j 09:37	5°♄01'59						
max. Earth dist.	1033 Dec 12 j 00:09	23°♄13'06	1.44053 AU	superior conj	1034 Nov 26 j 09:05	9°♄59'02	-1°-13'-45	
	1033 Dec 16 j 05:29	0°♄		minimum elong	1034 Nov 26 j 00:46	9°♄26'12	1°12'50	
					1034 Dec 08 j 21:57	0°♄		
superior conj	1033 Dec 17 j 00:22	1°♄16'31	-1°-47'-27	evening rise	1034 Dec 11 j 14:06	4°♄20'23		
minimum elong	1033 Dec 16 j 17:26	0°♄48'24	1°46'58		1034 Dec 27 j 21:42	0°♄		
evening rise	1033 Dec 30 j 09:15	23°♄36'25		evening max el	1035 Jan 01 j 00:08	4°♄57'37	18°39'29	
	1034 Jan 03 j 02:56	0°♄		asc. node	1035 Jan 02 j 11:39	6°♄20'43		
asc. node	1034 Jan 15 j 14:38	19°♄25'55		retrograde	1035 Jan 07 j 15:47	8°♄39'46		
evening max el	1034 Jan 17 j 12:28	21°♄33'39	18°14'20	evening set	1035 Jan 10 j 17:36	7°♄46'17		
retrograde	1034 Jan 23 j 23:50	25°♄01'30		inferior conj	1035 Jan 16 j 13:36	2°♄07'07	3°34'13	
evening set	1034 Jan 26 j 20:11	24°♄19'01		minimum elong	1035 Jan 16 j 11:41	2°♄12'52	3°33'58	
inferior conj	1034 Feb 02 j 00:02	18°♄58'06	3°46'20		1035 Jan 18 j 07:50	30°♄		
minimum elong	1034 Feb 01 j 23:29	18°♄59'34	3°46'19	min. Earth dist.	1035 Jan 18 j 11:20	29°♄49'38	0.64942 AU	
min. Earth dist.	1034 Feb 04 j 13:13	16°♄11'04	0.63279 AU	morning rise	1035 Jan 22 j 04:33	25°♄57'35		
morning rise	1034 Feb 08 j 00:56	12°♄55'01		direct	1035 Jan 28 j 22:01	23°♄06'24		
direct	1034 Feb 14 j 23:51	10°♄11'42		desc. node	1035 Feb 10 j 10:12	0°♄		
desc. node	1034 Feb 23 j 13:10	13°♄31'16			1035 Feb 10 j 08:24	0°♄		
morning max el	1034 Feb 28 j 20:25	18°♄06'01	27°43'22	morning max el	1035 Feb 11 j 05:51	0°♄52'44	27°07'45	

	1035 Mar 04 j 21:42	0° H		morning max el	1036 Jan 24 j 15:13	13° Z 57'41	26°05'06
morning set	1035 Mar 18 j 18:52	24° H 36'15		desc. node	1036 Jan 28 j 07:13	17° Z 55'43	
	1035 Mar 21 j 12:43	0° Y			1036 Feb 06 j 16:55	0° \approx	
max. Earth dist.	1035 Mar 23 j 09:54	3° Y 47'55	1.33953 AU		1036 Feb 25 j 15:30	0° H	
				morning set	1036 Feb 29 j 19:18	7° H 32'08	
superior conj	1035 Mar 27 j 02:03	11° Y 24'18	0°-44'-37	max. Earth dist.	1036 Mar 04 j 18:58	15° H 05'53	1.35406 AU
minimum elong	1035 Mar 27 j 04:15	11° Y 35'52	0°44'12				
asc. node	1035 Mar 31 j 10:59	20° Y 39'38		superior conj	1036 Mar 09 j 22:15	25° H 18'21	-1°-11'-21
evening rise	1035 Apr 03 j 11:40	27° Y 02'57		minimum elong	1036 Mar 10 j 01:40	25° H 35'45	1°10'48
	1035 Apr 04 j 21:49	0° B			1036 Mar 12 j 05:19	0° Y	
	1035 Apr 23 j 21:14	0° II		asc. node	1036 Mar 17 j 08:01	10° Y 33'45	
evening max el	1035 Apr 23 j 22:01	0° II 01'56	21°45'56	evening rise	1036 Mar 17 j 19:04	11° Y 30'26	
retrograde	1035 May 06 j 09:10	6° II 08'07			1036 Mar 27 j 14:34	0° B	
evening set	1035 May 08 j 23:05	5° II 53'12		evening max el	1036 Apr 05 j 02:33	11° B 09'32	20°24'04
desc. node	1035 May 09 j 09:26	5° II 47'55		retrograde	1036 Apr 15 j 22:21	16° B 23'13	
inferior conj	1035 May 18 j 08:24	1° II 50'44	-2°-30'-32	evening set	1036 Apr 18 j 00:42	16° B 12'16	
minimum elong	1035 May 18 j 01:46	2° II 00'01	2°28'26	desc. node	1036 Apr 25 j 06:26	13° B 19'04	
min. Earth dist.	1035 May 18 j 01:54	1° II 59'50	0.54999 AU	inferior conj	1036 Apr 27 j 03:23	12° B 14'29	0°-32'-31
	1035 May 21 j 18:12	30° R B		minimum elong	1036 Apr 27 j 01:51	12° B 16'43	0°31'58
morning rise	1035 May 27 j 05:28	27° B 55'25		min. Earth dist.	1036 Apr 28 j 14:57	11° B 22'38	0.55164 AU
direct	1035 May 30 j 07:39	27° B 34'21		morning rise	1036 May 06 j 01:05	7° B 59'44	
	1035 Jun 07 j 05:21	0° II		direct	1036 May 09 j 19:18	7° B 29'09	
morning max el	1035 Jun 11 j 12:04	3° II 18'32	21°47'49	morning max el	1036 May 23 j 06:15	14° B 02'53	23°27'27
asc. node	1035 Jun 27 j 10:14	26° II 30'04			1036 Jun 04 j 13:36	0° II	
	1035 Jun 29 j 05:11	0° B		asc. node	1036 Jun 13 j 07:18	16° II 06'30	
morning set	1035 Jul 02 j 06:54	6° B 15'38		morning set	1036 Jun 15 j 18:19	21° II 11'30	
					1036 Jun 19 j 21:18	0° B	
superior conj	1035 Jul 09 j 14:42	21° B 41'11	1°38'28				
minimum elong	1035 Jul 09 j 12:50	21° B 31'26	1°38'19	superior conj	1036 Jun 22 j 20:55	6° B 25'51	1°25'52
max. Earth dist.	1035 Jul 13 j 06:27	29° B 13'55	1.34807 AU	minimum elong	1036 Jun 22 j 18:32	6° B 13'01	1°25'34
	1035 Jul 13 j 15:33	0° Q		max. Earth dist.	1036 Jun 25 j 05:38	11° B 28'10	1.33594 AU
evening rise	1035 Jul 17 j 19:50	8° Q 14'40		evening rise	1036 Jun 30 j 11:15	22° B 14'50	
	1035 Jul 30 j 03:06	0° B			1036 Jul 04 j 11:07	0° Q	
desc. node	1035 Aug 05 j 08:47	9° B 37'42		desc. node	1036 Jul 22 j 05:48	29° Q 04'46	
	1035 Aug 21 j 17:22	0° B			1036 Jul 22 j 21:51	0° B	
evening max el	1035 Aug 21 j 22:16	0° B 11'50	26°53'14	evening max el	1036 Aug 03 j 09:55	13° B 31'06	27°22'09
retrograde	1035 Sep 04 j 01:20	7° B 28'13		retrograde	1036 Aug 16 j 22:37	20° B 49'28	
evening set	1035 Sep 10 j 18:52	4° B 45'31		evening set	1036 Aug 24 j 01:13	18° B 07'34	
min. Earth dist.	1035 Sep 14 j 18:18	0° B 46'13	0.65613 AU	min. Earth dist.	1036 Aug 27 j 18:26	14° B 44'07	0.64217 AU
	1035 Sep 15 j 10:19	30° R B		inferior conj	1036 Aug 30 j 04:07	12° B 11'29	-3°-9'-24
inferior conj	1035 Sep 16 j 15:05	28° B 35'55	-2°-14'-9	minimum elong	1036 Aug 30 j 08:48	11° B 59'03	3°07'54
minimum elong	1035 Sep 16 j 18:34	28° B 25'45	2°12'50	morning rise	1036 Sep 05 j 18:21	6° B 45'39	
morning rise	1035 Sep 22 j 19:41	22° B 54'08		direct	1036 Sep 08 j 07:26	6° B 12'44	
asc. node	1035 Sep 23 j 09:25	22° B 38'29		asc. node	1036 Sep 09 j 06:29	6° B 17'29	
direct	1035 Sep 25 j 14:20	22° B 11'36		morning max el	1036 Sep 14 j 19:47	9° B 39'08	17°57'17
morning max el	1035 Oct 02 j 04:05	25° B 46'30	18°19'34		1036 Sep 28 j 13:15	0° B	
	1035 Oct 05 j 18:11	0° B		morning set	1036 Oct 01 j 23:04	5° B 48'38	
morning set	1035 Oct 21 j 06:48	24° B 10'50					
	1035 Oct 24 j 20:52	0° B		superior conj	1036 Oct 15 j 01:19	27° B 39'12	0°21'03
desc. node	1035 Nov 01 j 08:04	11° B 58'14		minimum elong	1036 Oct 15 j 03:41	27° B 48'46	0°20'42
					1036 Oct 16 j 12:08	0° B	
superior conj	1035 Nov 05 j 10:12	18° B 26'42	0°-26'-55	desc. node	1036 Oct 18 j 05:06	2° B 44'33	
minimum elong	1035 Nov 05 j 06:42	18° B 12'50	0°26'27	max. Earth dist.	1036 Oct 20 j 05:24	5° B 57'09	1.44467 AU
max. Earth dist.	1035 Nov 07 j 10:51	21° B 38'12	1.45059 AU	evening rise	1036 Oct 31 j 07:19	23° B 15'44	
	1035 Nov 12 j 18:48	0° Z			1036 Nov 04 j 16:49	0° Z	
evening rise	1035 Nov 21 j 19:34	14° Z 08'04		greatest brilliancy	1036 Nov 21 j 03:22	24° Z 09'32	-0.6m
	1035 Dec 01 j 23:39	0° Z			1036 Nov 25 j 18:29	0° Z	
greatest brilliancy	1035 Dec 06 j 06:56	6° Z 31'35	-0.7m	evening max el	1036 Nov 27 j 12:28	1° Z 54'36	20°19'06
evening max el	1035 Dec 15 j 08:45	18° Z 25'43	19°21'44	retrograde	1036 Dec 05 j 09:43	6° Z 33'00	
asc. node	1035 Dec 20 j 08:41	22° Z 06'47		asc. node	1036 Dec 06 j 05:44	6° Z 29'04	
retrograde	1035 Dec 22 j 11:57	22° Z 31'55		evening set	1036 Dec 09 j 02:56	5° Z 12'48	
evening set	1035 Dec 25 j 20:37	21° Z 25'55			1036 Dec 13 j 21:47	30° R Z	
inferior conj	1035 Dec 31 j 11:14	15° Z 30'50	3°09'12	inferior conj	1036 Dec 14 j 14:13	29° Z 04'41	2°34'29
minimum elong	1035 Dec 31 j 08:38	15° Z 39'13	3°08'38	minimum elong	1036 Dec 14 j 11:32	29° Z 13'44	2°33'41
min. Earth dist.	1036 Jan 01 j 18:06	13° Z 51'14	0.66215 AU	min. Earth dist.	1036 Dec 15 j 07:46	28° Z 05'25	0.67092 AU
morning rise	1036 Jan 05 j 19:52	9° Z 17'34		morning rise	1036 Dec 19 j 19:39	22° Z 49'37	
direct	1036 Jan 12 j 02:14	6° Z 32'11		direct	1036 Dec 25 j 11:46	20° Z 19'50	

morning max el	1037 Jan 05 j 23:45	27°♌11'06	24°44'44	direct	1037 Dec 09 j 02:02	4°♌22'51	
	1037 Jan 08 j 15:07	0°♌		morning max el	1037 Dec 19 j 08:54	10°♌29'51	23°16'45
desc. node	1037 Jan 14 j 04:16	6°♌42'07		greatest brilliancy	1037 Dec 24 j 13:45	16°♌20'20	-0.2m
	1037 Jan 30 j 08:48	0°♌		desc. node	1038 Jan 01 j 01:21	26°♌08'09	
morning set	1037 Feb 11 j 01:04	19°♌28'16			1038 Jan 03 j 19:20	0°♌	
max. Earth dist.	1037 Feb 14 j 17:57	26°♌08'23	1.37265 AU	morning set	1038 Jan 23 j 05:55	0°♌08'54	
	1037 Feb 16 j 19:57	0°♌			1038 Jan 23 j 03:48	0°♌	
				max. Earth dist.	1038 Jan 27 j 12:56	7°♌28'37	1.39375 AU
superior conj	1037 Feb 21 j 08:06	8°♌36'44	-1°-35'-26				
minimum elong	1037 Feb 21 j 12:11	8°♌56'37	1°34'57	superior conj	1038 Feb 04 j 03:37	21°♌09'27	-1°-54'-2
evening rise	1037 Mar 01 j 20:57	25°♌35'23		minimum elong	1038 Feb 04 j 07:06	21°♌25'36	1°53'48
asc. node	1037 Mar 04 j 05:03	0°♌12'50			1038 Feb 08 j 20:11	0°♌	
	1037 Mar 04 j 02:26	0°♌		evening rise	1038 Feb 13 j 14:35	9°♌10'36	
evening max el	1037 Mar 18 j 18:28	22°♌55'24	19°20'15	asc. node	1038 Feb 19 j 02:06	19°♌31'20	
retrograde	1037 Mar 27 j 21:51	27°♌19'58			1038 Feb 25 j 10:46	0°♌	
evening set	1037 Mar 30 j 00:44	27°♌06'45		evening max el	1038 Mar 01 j 20:05	5°♌17'07	18°36'23
inferior conj	1037 Apr 07 j 10:39	22°♌58'20	1°18'47	retrograde	1038 Mar 09 j 15:11	9°♌05'47	
minimum elong	1037 Apr 07 j 13:42	22°♌53'16	1°17'47	evening set	1038 Mar 11 j 22:59	8°♌46'38	
min. Earth dist.	1037 Apr 10 j 05:39	21°♌08'16	0.56235 AU	inferior conj	1038 Mar 19 j 14:05	4°♌19'47	2°40'06
desc. node	1037 Apr 12 j 03:27	19°♌58'38		minimum elong	1038 Mar 19 j 18:12	4°♌11'48	2°39'04
morning rise	1037 Apr 15 j 22:46	18°♌10'53		min. Earth dist.	1038 Mar 22 j 23:34	1°♌43'51	0.57985 AU
direct	1037 Apr 20 j 16:54	17°♌19'10			1038 Mar 25 j 13:12	30°♌	
morning max el	1037 May 04 j 20:52	24°♌31'20	25°07'30	morning rise	1038 Mar 27 j 09:13	29°♌00'08	
	1037 May 09 j 21:32	0°♌		desc. node	1038 Mar 30 j 00:30	28°♌00'37	
	1037 May 28 j 06:42	0°♌		direct	1038 Apr 02 j 04:45	27°♌34'58	
morning set	1037 May 31 j 06:15	6°♌09'16			1038 Apr 10 j 00:19	0°♌	
asc. node	1037 May 31 j 04:22	5°♌59'20		morning max el	1038 Apr 16 j 13:42	5°♌11'24	26°32'25
					1038 May 04 j 17:47	0°♌	
superior conj	1037 Jun 07 j 06:48	21°♌21'02	1°08'45	morning set	1038 May 15 j 17:01	21°♌02'44	
minimum elong	1037 Jun 07 j 04:25	21°♌08'02	1°08'22	asc. node	1038 May 18 j 01:24	26°♌02'38	
max. Earth dist.	1037 Jun 08 j 12:35	24°♌03'12	1.32771 AU		1038 May 19 j 21:10	0°♌	
	1037 Jun 11 j 06:53	0°♌					
evening rise	1037 Jun 14 j 11:35	6°♌41'18		superior conj	1038 May 22 j 18:23	6°♌19'35	0°47'59
	1037 Jun 26 j 23:53	0°♌		minimum elong	1038 May 22 j 16:28	6°♌09'01	0°47'37
desc. node	1037 Jul 09 j 02:49	17°♌49'02		max. Earth dist.	1038 May 23 j 00:03	6°♌50'41	1.32330 AU
evening max el	1037 Jul 16 j 18:47	26°♌21'58	27°21'14	evening rise	1038 May 29 j 17:54	21°♌24'27	
	1037 Jul 21 j 02:50	0°♌			1038 Jun 02 j 23:30	0°♌	
retrograde	1037 Jul 30 j 13:39	3°♌39'05			1038 Jun 21 j 08:25	0°♌	
evening set	1037 Aug 06 j 18:26	1°♌10'04		desc. node	1038 Jun 25 j 23:50	5°♌32'02	
	1037 Aug 08 j 08:09	30°♌		evening max el	1038 Jun 28 j 22:19	8°♌32'05	26°47'21
min. Earth dist.	1037 Aug 10 j 08:23	28°♌16'08	0.62476 AU	retrograde	1038 Jul 12 j 21:26	15°♌46'52	
inferior conj	1037 Aug 13 j 06:29	25°♌30'41	-3°-58'-49	evening set	1038 Jul 19 j 17:59	13°♌44'42	
minimum elong	1037 Aug 13 j 11:32	25°♌18'43	3°57'39	min. Earth dist.	1038 Jul 23 j 12:08	11°♌06'58	0.60484 AU
morning rise	1037 Aug 20 j 07:14	20°♌24'15		inferior conj	1038 Jul 26 j 18:45	8°♌24'11	-4°-36'-19
direct	1037 Aug 22 j 17:19	19°♌57'56		minimum elong	1038 Jul 26 j 22:32	8°♌16'18	4°35'51
asc. node	1037 Aug 27 j 03:33	21°♌28'11		morning rise	1038 Aug 03 j 06:18	3°♌39'47	
morning max el	1037 Aug 29 j 11:25	23°♌24'17	17°53'00	direct	1038 Aug 05 j 15:59	3°♌17'38	
	1037 Sep 03 j 16:51	0°♌		morning max el	1038 Aug 12 j 23:50	6°♌53'06	18°07'40
morning set	1037 Sep 14 j 13:24	18°♌29'56		asc. node	1038 Aug 14 j 00:37	7°♌56'40	
	1037 Sep 21 j 00:56	0°♌			1038 Aug 27 j 18:46	0°♌	
				morning set	1038 Aug 28 j 19:47	1°♌56'55	
superior conj	1037 Sep 25 j 18:44	8°♌10'39	1°00'06				
minimum elong	1037 Sep 25 j 23:28	8°♌30'44	0°59'31	superior conj	1038 Sep 07 j 14:19	19°♌58'49	1°26'46
max. Earth dist.	1037 Oct 02 j 20:19	19°♌54'46	1.43218 AU	minimum elong	1038 Sep 07 j 18:20	20°♌16'51	1°26'24
desc. node	1037 Oct 05 j 02:10	23°♌32'05			1038 Sep 13 j 07:41	0°♌	
	1037 Oct 09 j 04:00	0°♌		max. Earth dist.	1038 Sep 15 j 05:24	3°♌13'50	1.41478 AU
evening rise	1037 Oct 10 j 15:58	2°♌20'35		evening rise	1038 Sep 20 j 14:22	12°♌05'01	
	1037 Oct 29 j 05:46	0°♌		desc. node	1038 Sep 21 j 23:12	14°♌16'44	
greatest brilliancy	1037 Nov 05 j 10:27	9°♌39'01	-0.4m		1038 Oct 02 j 04:08	0°♌	
evening max el	1037 Nov 10 j 10:28	15°♌24'18	21°28'40	greatest brilliancy	1038 Oct 19 j 02:59	23°♌18'40	-0.3m
retrograde	1037 Nov 19 j 07:00	20°♌40'21		evening max el	1038 Oct 24 j 03:11	28°♌55'25	22°46'25
evening set	1037 Nov 23 j 10:40	19°♌04'19			1038 Oct 25 j 05:38	0°♌	
asc. node	1037 Nov 23 j 02:47	19°♌19'06		retrograde	1038 Nov 03 j 02:06	4°♌50'14	
inferior conj	1037 Nov 28 j 20:21	12°♌46'38	1°52'18	evening set	1038 Nov 07 j 18:07	2°♌57'07	
minimum elong	1037 Nov 28 j 18:05	12°♌54'27	1°51'28	asc. node	1038 Nov 09 j 23:49	0°♌42'19	
min. Earth dist.	1037 Nov 29 j 02:06	12°♌26'45	0.67598 AU		1038 Nov 10 j 13:52	30°♌	
morning rise	1037 Dec 04 j 01:13	6°♌31'39		inferior conj	1038 Nov 13 j 03:40	26°♌33'46	1°04'14

minimum elong	1038 Nov 13 j 02:14	26° \mathbb{M} 38'45	1°03'38	transit middle	1039 Oct 28 j 10:07	10° \mathbb{M} 24'49	0°11'32
min. Earth dist.	1038 Nov 12 j 22:40	26° \mathbb{M} 51'03	0.67755 AU	transit begin	1039 Oct 28 j 08:11	10° \mathbb{M} 31'19	
morning rise	1038 Nov 18 j 10:17	20° \mathbb{M} 21'10		transit end	1039 Oct 28 j 12:02	10° \mathbb{M} 18'18	
direct	1038 Nov 22 j 20:14	18° \mathbb{M} 35'03		min. Earth dist.	1039 Oct 27 j 18:59	11° \mathbb{M} 15'57	0.67587 AU
morning max el	1038 Dec 01 j 21:48	23° \mathbb{M} 54'58	21°50'36	morning rise	1039 Nov 02 j 20:51	4° \mathbb{M} 16'13	
greatest brilliancy	1038 Dec 06 j 17:09	29° \mathbb{M} 21'03	-0.4m	direct	1039 Nov 06 j 17:14	2° \mathbb{M} 51'52	
	1038 Dec 07 j 05:44	0° \mathbb{A}		morning max el	1039 Nov 14 j 17:29	7° \mathbb{M} 29'36	20°33'16
desc. node	1038 Dec 18 j 22:26	16° \mathbb{A} 02'29		greatest brilliancy	1039 Nov 20 j 21:35	14° \mathbb{M} 47'48	-0.5m
	1038 Dec 28 j 05:33	0° \mathbb{C}			1039 Dec 01 j 14:52	0° \mathbb{A}	
morning set	1039 Jan 03 j 05:38	9° \mathbb{C} 25'44		desc. node	1039 Dec 05 j 19:28	6° \mathbb{A} 16'49	
max. Earth dist.	1039 Jan 09 j 11:20	19° \mathbb{C} 36'04	1.41469 AU	morning set	1039 Dec 13 j 06:00	17° \mathbb{A} 40'28	
	1039 Jan 15 j 14:04	0° \mathbb{B}			1039 Dec 21 j 01:44	0° \mathbb{C}	
				max. Earth dist.	1039 Dec 22 j 17:34	2° \mathbb{C} 40'06	1.43262 AU
superior conj	1039 Jan 17 j 03:48	2° \mathbb{B} 44'51	-2°-3'-16	superior conj	1039 Dec 29 j 03:24	13° \mathbb{C} 10'39	-1°-58'-23
minimum elong	1039 Jan 17 j 04:36	2° \mathbb{B} 48'22	2°03'16	minimum elong	1039 Dec 28 j 23:20	12° \mathbb{C} 53'42	1°58'14
evening rise	1039 Jan 27 j 20:33	22° \mathbb{B} 08'29			1040 Jan 07 j 23:28	0° \mathbb{B}	
	1039 Feb 01 j 03:21	0° \mathbb{H}		evening rise	1040 Jan 10 j 10:43	4° \mathbb{B} 19'59	
asc. node	1039 Feb 05 j 23:07	8° \mathbb{H} 22'38		asc. node	1040 Jan 23 j 20:09	26° \mathbb{B} 37'38	
evening max el	1039 Feb 13 j 04:27	18° \mathbb{H} 07'08	18°12'33		1040 Jan 26 j 11:55	0° \mathbb{H}	
retrograde	1039 Feb 20 j 02:42	21° \mathbb{H} 36'01		evening max el	1040 Jan 27 j 16:19	1° \mathbb{H} 15'47	18°08'13
evening set	1039 Feb 22 j 15:41	21° \mathbb{H} 08'40		retrograde	1040 Feb 03 j 04:43	4° \mathbb{H} 39'59	
inferior conj	1039 Mar 01 j 14:19	16° \mathbb{H} 20'34	3°27'08	evening set	1040 Feb 05 j 22:28	4° \mathbb{H} 03'08	
minimum elong	1039 Mar 01 j 16:59	16° \mathbb{H} 14'33	3°26'45		1040 Feb 11 j 05:57	30° \mathbb{R} \mathbb{B}	
min. Earth dist.	1039 Mar 04 j 22:47	13° \mathbb{H} 21'25	0.60078 AU	inferior conj	1040 Feb 12 j 08:09	28° \mathbb{B} 53'43	3°45'39
morning rise	1039 Mar 08 j 14:55	10° \mathbb{H} 37'56		minimum elong	1040 Feb 12 j 08:42	28° \mathbb{B} 52'18	3°45'39
direct	1039 Mar 15 j 05:14	8° \mathbb{H} 35'33		min. Earth dist.	1040 Feb 15 j 05:42	25° \mathbb{B} 56'26	0.62176 AU
desc. node	1039 Mar 16 j 21:33	8° \mathbb{H} 43'12		morning rise	1040 Feb 18 j 16:38	22° \mathbb{B} 56'37	
morning max el	1039 Mar 29 j 12:07	16° \mathbb{H} 24'28	27°28'36	direct	1040 Feb 25 j 15:20	20° \mathbb{B} 24'33	
	1039 Apr 09 j 16:04	0° \mathbb{Y}		desc. node	1040 Mar 02 j 18:36	22° \mathbb{B} 07'46	
	1039 Apr 27 j 04:54	0° \mathbb{B}		morning max el	1040 Mar 10 j 16:27	28° \mathbb{B} 18'05	27°48'38
morning set	1039 Apr 30 j 00:55	5° \mathbb{B} 45'51			1040 Mar 12 j 08:02	0° \mathbb{H}	
asc. node	1039 May 04 j 22:26	16° \mathbb{B} 11'50			1040 Apr 02 j 10:38	0° \mathbb{Y}	
max. Earth dist.	1039 May 06 j 12:22	19° \mathbb{B} 38'57	1.32269 AU	morning set	1040 Apr 13 j 03:51	20° \mathbb{Y} 10'48	
					1040 Apr 17 j 20:42	0° \mathbb{B}	
superior conj	1039 May 07 j 05:58	21° \mathbb{B} 15'33	0°24'17	max. Earth dist.	1040 Apr 18 j 21:44	2° \mathbb{B} 14'17	1.32596 AU
minimum elong	1039 May 07 j 04:54	21° \mathbb{B} 09'40	0°24'04				
	1039 May 11 j 05:44	0° \mathbb{I}		superior conj	1040 Apr 20 j 15:49	6° \mathbb{B} 02'01	0°-1'-36
evening rise	1039 May 14 j 03:55	6° \mathbb{I} 16'34		minimum elong	1040 Apr 20 j 15:53	6° \mathbb{B} 02'25	0°01'37
	1039 May 26 j 15:53	0° \mathbb{G}		behind sun begin	1040 Apr 20 j 10:45	5° \mathbb{B} 34'33	
evening max el	1039 Jun 10 j 19:05	19° \mathbb{G} 56'45	25°42'19	behind sun end	1040 Apr 20 j 21:01	6° \mathbb{B} 30'17	
desc. node	1039 Jun 12 j 20:49	21° \mathbb{G} 48'23		asc. node	1040 Apr 20 j 19:28	6° \mathbb{B} 21'53	
retrograde	1039 Jun 24 j 19:59	27° \mathbb{G} 07'02		evening rise	1040 Apr 27 j 15:35	21° \mathbb{B} 09'46	
evening set	1039 Jun 30 j 19:20	25° \mathbb{G} 42'21			1040 May 01 j 22:49	0° \mathbb{I}	
min. Earth dist.	1039 Jul 05 j 07:27	23° \mathbb{G} 02'53	0.58431 AU		1040 May 21 j 16:58	0° \mathbb{G}	
inferior conj	1039 Jul 08 j 13:21	20° \mathbb{G} 42'54	-4°-52'-9	evening max el	1040 May 22 j 10:11	0° \mathbb{G} 42'22	24°14'42
minimum elong	1039 Jul 08 j 13:33	20° \mathbb{G} 42'33	4°52'09	desc. node	1040 May 29 j 17:49	6° \mathbb{G} 04'07	
morning rise	1039 Jul 16 j 11:26	16° \mathbb{G} 21'14		retrograde	1040 Jun 05 j 06:41	7° \mathbb{G} 41'06	
direct	1039 Jul 18 j 23:12	16° \mathbb{G} 01'23		evening set	1040 Jun 09 j 21:32	6° \mathbb{G} 53'40	
morning max el	1039 Jul 27 j 05:52	19° \mathbb{G} 56'47	18°42'37	min. Earth dist.	1040 Jun 15 j 21:14	3° \mathbb{G} 55'57	0.56603 AU
asc. node	1039 Jul 31 j 21:41	25° \mathbb{G} 27'58		inferior conj	1040 Jun 18 j 11:49	2° \mathbb{G} 17'55	-4°-33'-3
	1039 Aug 03 j 20:56	0° \mathbb{Q}		minimum elong	1040 Jun 18 j 06:56	2° \mathbb{G} 25'36	4°32'24
morning set	1039 Aug 12 j 13:36	15° \mathbb{Q} 57'41			1040 Jun 22 j 09:17	30° \mathbb{R} \mathbb{I}	
	1039 Aug 19 j 19:15	0° \mathbb{P}		morning rise	1040 Jun 26 j 19:59	28° \mathbb{I} 16'03	
superior conj	1039 Aug 21 j 07:02	2° \mathbb{P} 49'51	1°41'34	direct	1040 Jun 29 j 11:39	27° \mathbb{I} 57'17	
minimum elong	1039 Aug 21 j 09:09	2° \mathbb{P} 59'46	1°41'28		1040 Jul 06 j 00:19	0° \mathbb{G}	
max. Earth dist.	1039 Aug 28 j 09:49	15° \mathbb{P} 49'48	1.39482 AU	morning max el	1040 Jul 09 j 02:35	2° \mathbb{G} 25'18	19°38'52
evening rise	1039 Sep 01 j 12:13	22° \mathbb{P} 55'14		asc. node	1040 Jul 17 j 18:43	13° \mathbb{G} 47'40	
	1039 Sep 05 j 18:36	0° \mathbb{A}			1040 Jul 26 j 10:52	0° \mathbb{Q}	
desc. node	1039 Sep 08 j 20:12	4° \mathbb{A} 54'52		morning set	1040 Jul 26 j 15:24	0° \mathbb{Q} 22'46	
	1039 Sep 26 j 02:06	0° \mathbb{M}					
evening max el	1039 Oct 06 j 16:26	12° \mathbb{M} 30'03	24°06'32	superior conj	1040 Aug 03 j 15:26	16° \mathbb{Q} 28'18	1°46'25
retrograde	1039 Oct 17 j 17:39	18° \mathbb{M} 59'18		minimum elong	1040 Aug 03 j 15:36	16° \mathbb{Q} 29'08	1°46'24
evening set	1039 Oct 22 j 23:36	16° \mathbb{M} 48'42		max. Earth dist.	1040 Aug 09 j 13:50	27° \mathbb{Q} 52'52	1.37473 AU
asc. node	1039 Oct 27 j 20:53	11° \mathbb{M} 09'33			1040 Aug 10 j 17:16	0° \mathbb{P}	
inferior conj	1039 Oct 28 j 10:24	10° \mathbb{M} 23'51	0°11'39	evening rise	1040 Aug 13 j 09:55	4° \mathbb{P} 53'05	
minimum elong	1039 Oct 28 j 10:07	10° \mathbb{M} 24'49	0°11'32	desc. node	1040 Aug 25 j 17:11	25° \mathbb{P} 22'13	




































































































































	1040 Aug 28 j 18:08	0°♊		desc. node	1041 Aug 12 j 14:11	15°♍32'42	
evening max el	1040 Sep 18 j 04:20	26°♊08'28	25°22'00		1041 Aug 23 j 00:11	0°♊	
	1040 Sep 22 j 15:33	0°♌		evening max el	1041 Aug 31 j 16:10	9°♊45'55	26°25'17
retrograde	1040 Sep 30 j 04:49	3°♌03'52		retrograde	1041 Sep 13 j 11:02	16°♊57'46	
evening set	1040 Oct 06 j 01:27	0°♌37'01		evening set	1041 Sep 19 j 21:43	14°♊18'37	
	1040 Oct 06 j 17:56	30°♌♊		min. Earth dist.	1041 Sep 24 j 01:10	9°♊58'14	0.66256 AU
min. Earth dist.	1040 Oct 10 j 12:36	25°♊39'37	0.67093 AU	inferior conj	1041 Sep 25 j 14:59	8°♊03'14	-1°-41'-15
inferior conj	1040 Oct 11 j 14:48	24°♊14'49	0°-44'-1	minimum elong	1041 Sep 25 j 17:37	7°♊55'12	1°40'11
minimum elong	1040 Oct 11 j 15:55	24°♊11'12	0°43'32	asc. node	1041 Sep 30 j 14:59	2°♊52'14	
asc. node	1040 Oct 13 j 17:56	21°♊34'44		morning rise	1041 Oct 01 j 14:39	2°♊14'14	
morning rise	1040 Oct 17 j 07:00	18°♊15'02		direct	1041 Oct 04 j 13:41	1°♊24'36	
direct	1040 Oct 20 j 15:39	17°♊09'49		morning max el	1041 Oct 11 j 07:14	5°♊07'50	18°40'16
morning max el	1040 Oct 27 j 21:02	21°♊15'05	19°29'05		1041 Oct 28 j 14:21	0°♌	
	1040 Nov 03 j 22:46	0°♌		morning set	1041 Nov 01 j 00:29	5°♌26'43	
greatest brilliancy	1040 Nov 05 j 17:20	2°♌31'00	-0.7m	desc. node	1041 Nov 08 j 13:30	17°♌23'49	
morning set	1040 Nov 21 j 04:43	25°♌59'56			1041 Nov 16 j 13:44	0°♍	
desc. node	1040 Nov 21 j 16:29	26°♌45'30					
	1040 Nov 23 j 18:36	0°♍		superior conj	1041 Nov 17 j 03:22	0°♍53'33	0°-54'-50
max. Earth dist.	1040 Dec 04 j 07:20	16°♍30'06	1.44512 AU	minimum elong	1041 Nov 16 j 20:30	0°♍26'33	0°54'00
				max. Earth dist.	1041 Nov 17 j 01:12	0°♍45'03	1.45072 AU
superior conj	1040 Dec 08 j 00:32	22°♍24'58	-1°-35'-19	evening rise	1041 Dec 02 j 23:37	25°♍57'39	
minimum elong	1040 Dec 07 j 16:14	21°♍51'46	1°34'35		1041 Dec 05 j 12:14	0°♎	
	1040 Dec 12 j 17:28	0°♎		evening max el	1041 Dec 24 j 15:21	28°♎01'28	18°55'23
evening rise	1040 Dec 22 j 04:48	15°♎37'58			1041 Dec 26 j 19:50	0°♏	
	1040 Dec 30 j 19:51	0°♏		asc. node	1041 Dec 27 j 14:15	0°♏32'57	
asc. node	1041 Jan 09 j 17:12	14°♏05'36		retrograde	1041 Dec 31 j 11:08	1°♏53'05	
evening max el	1041 Jan 10 j 04:48	14°♏35'50	18°22'49	evening set	1042 Jan 03 j 15:39	0°♏54'27	
retrograde	1041 Jan 16 j 16:53	18°♏08'18			1042 Jan 04 j 21:55	30°♏♎	
evening set	1041 Jan 19 j 15:31	17°♏21'08		inferior conj	1042 Jan 09 j 09:03	25°♏07'54	3°24'58
inferior conj	1041 Jan 25 j 15:39	11°♏51'55	3°43'00	minimum elong	1042 Jan 09 j 06:46	25°♏15'00	3°24'34
minimum elong	1041 Jan 25 j 14:27	11°♏55'21	3°42'55	min. Earth dist.	1042 Jan 11 j 00:14	23°♏06'03	0.65531 AU
min. Earth dist.	1041 Jan 27 j 22:10	9°♏16'22	0.64035 AU	morning rise	1042 Jan 14 j 20:54	18°♏56'18	
morning rise	1041 Jan 31 j 11:52	5°♏45'48		direct	1042 Jan 21 j 09:59	16°♏06'21	
direct	1041 Feb 07 j 09:17	2°♏57'41		morning max el	1042 Feb 03 j 10:53	23°♏45'48	26°43'54
desc. node	1041 Feb 17 j 15:39	7°♏42'29		desc. node	1042 Feb 04 j 12:41	24°♏52'06	
morning max el	1041 Feb 21 j 00:59	10°♏49'06	27°32'05		1042 Feb 09 j 01:14	0°♐	
	1041 Mar 08 j 04:41	0°♐			1042 Mar 01 j 13:08	0°♐	
	1041 Mar 25 j 20:01	0°♑		morning set	1042 Mar 11 j 07:59	17°♐32'43	
morning set	1041 Mar 27 j 23:19	4°♑09'49		max. Earth dist.	1042 Mar 15 j 16:17	26°♐01'14	1.34515 AU
max. Earth dist.	1041 Apr 02 j 00:14	14°♑24'30	1.33336 AU		1042 Mar 17 j 15:38	0°♑	
superior conj	1041 Apr 04 j 22:06	20°♑33'16	0°-28'-48	superior conj	1042 Mar 19 j 22:43	4°♑42'59	0°-56'-10
minimum elong	1041 Apr 04 j 23:31	20°♑40'48	0°28'32	minimum elong	1042 Mar 20 j 01:29	4°♑57'17	0°55'40
asc. node	1041 Apr 07 j 16:29	26°♑28'57		asc. node	1042 Mar 25 j 13:33	16°♑29'09	
	1041 Apr 09 j 07:48	0°♒		evening rise	1042 Mar 27 j 12:36	20°♑34'49	
evening rise	1041 Apr 12 j 03:06	5°♒57'54			1042 Apr 01 j 04:53	0°♒	
	1041 Apr 25 j 02:08	0°♒		evening max el	1042 Apr 15 j 23:17	22°♒01'25	21°09'09
evening max el	1041 May 04 j 01:06	11°♒13'15	22°38'50	retrograde	1042 Apr 27 j 19:01	27°♒46'42	
desc. node	1041 May 16 j 14:50	17°♒43'59		evening set	1042 Apr 30 j 01:48	27°♒34'34	
retrograde	1041 May 17 j 04:57	17°♒44'46		desc. node	1042 May 03 j 11:52	26°♒35'15	
evening set	1041 May 20 j 09:41	17°♒22'18		inferior conj	1042 May 09 j 09:59	23°♒35'50	-1°-41'-52
min. Earth dist.	1041 May 28 j 09:07	13°♒53'12	0.55345 AU	minimum elong	1042 May 09 j 05:13	23°♒42'33	1°40'13
inferior conj	1041 May 29 j 15:42	13°♒09'34	-3°-27'-55	min. Earth dist.	1042 May 09 j 21:46	23°♒19'13	0.54942 AU
minimum elong	1041 May 29 j 08:05	13°♒20'28	3°25'56	morning rise	1042 May 18 j 08:27	19°♒34'32	
morning rise	1041 Jun 07 j 09:04	9°♒17'21		direct	1042 May 21 j 15:57	19°♒10'48	
direct	1041 Jun 10 j 06:08	8°♒58'16		morning max el	1042 Jun 03 j 11:21	25°♒17'00	22°29'25
morning max el	1041 Jun 21 j 12:12	14°♒11'45	20°55'48		1042 Jun 07 j 20:27	0°♓	
	1041 Jul 03 j 03:10	0°♓		asc. node	1042 Jun 21 j 12:48	22°♓08'31	
asc. node	1041 Jul 04 j 15:45	2°♓44'11		morning set	1042 Jun 25 j 08:54	29°♓57'16	
morning set	1041 Jul 10 j 22:31	15°♓04'31			1042 Jun 25 j 09:26	0°♔	
superior conj	1041 Jul 18 j 10:55	0°♔40'41	1°43'15	superior conj	1042 Jul 02 j 14:04	15°♔16'48	1°33'45
minimum elong	1041 Jul 18 j 09:37	0°♔34'03	1°43'12	minimum elong	1042 Jul 02 j 11:55	15°♔05'24	1°33'32
	1041 Jul 18 j 03:00	0°♕		max. Earth dist.	1042 Jul 05 j 16:08	21°♔44'44	1.34233 AU
max. Earth dist.	1041 Jul 22 j 22:37	9°♕43'24	1.35676 AU		1042 Jul 09 j 18:03	0°♕	
evening rise	1041 Jul 27 j 03:26	17°♕48'20		evening rise	1042 Jul 10 j 12:09	1°♕28'54	
	1041 Aug 02 j 22:26	0°♖			1042 Jul 26 j 21:17	0°♖	

desc. node	1042 Jul 30 j 11:13	5° \mathbb{M} 18'53		superior conj	1043 Jun 16 j 22:06	0° \mathfrak{S} 06'49	1°19'07
evening max el	1042 Aug 14 j 04:08	23° \mathbb{M} 15'02	27°08'48	minimum elong	1043 Jun 16 j 19:39	29° \mathbb{I} 53'34	1°18'46
	1042 Aug 24 j 03:30	0° $\underline{\mathfrak{A}}$			1043 Jun 16 j 20:51	0° \mathfrak{S}	
retrograde	1042 Aug 27 j 12:02	0° $\underline{\mathfrak{A}}$ 33'49		max. Earth dist.	1043 Jun 18 j 18:44	4° \mathfrak{S} 07'11	1.33191 AU
	1042 Aug 30 j 16:25	30° \mathbb{R} \mathbb{M}		evening rise	1043 Jun 24 j 07:46	15° \mathfrak{S} 41'31	
evening set	1042 Sep 03 j 10:03	27° \mathbb{M} 49'49			1043 Jul 01 j 19:06	0° \mathcal{Q}	
min. Earth dist.	1042 Sep 07 j 06:29	24° \mathbb{M} 06'23	0.65061 AU	desc. node	1043 Jul 17 j 08:15	24° \mathcal{Q} 29'31	
inferior conj	1042 Sep 09 j 08:49	21° \mathbb{M} 45'20	-2°-38'00		1043 Jul 21 j 16:27	0° \mathbb{M}	
minimum elong	1042 Sep 09 j 12:53	21° \mathbb{M} 33'57	2°36'34	evening max el	1043 Jul 27 j 14:54	6° \mathbb{M} 23'39	27°25'45
morning rise	1042 Sep 15 j 17:25	16° \mathbb{M} 10'10		retrograde	1043 Aug 10 j 06:58	13° \mathbb{M} 42'17	
asc. node	1042 Sep 17 j 12:01	15° \mathbb{M} 36'32		evening set	1043 Aug 17 j 11:19	11° \mathbb{M} 04'20	
direct	1042 Sep 18 j 09:18	15° \mathbb{M} 32'17		min. Earth dist.	1043 Aug 21 j 02:36	7° \mathbb{M} 54'19	0.63510 AU
morning max el	1042 Sep 24 j 21:46	19° \mathbb{M} 02'43	18°07'58	inferior conj	1043 Aug 23 j 17:42	5° \mathbb{M} 14'42	-3°-31'-23
	1042 Oct 03 j 01:49	0° $\underline{\mathfrak{A}}$		minimum elong	1043 Aug 23 j 22:41	5° \mathbb{M} 02'03	3°29'58
morning set	1042 Oct 13 j 01:17	16° $\underline{\mathfrak{A}}$ 19'39			1043 Aug 30 j 08:57	30° \mathbb{R} \mathcal{Q}	
	1042 Oct 21 j 09:04	0° \mathbb{M}		morning rise	1043 Aug 30 j 12:19	29° \mathcal{Q} 56'35	
desc. node	1042 Oct 26 j 10:33	8° \mathbb{M} 08'21		direct	1043 Sep 01 j 23:41	29° \mathcal{Q} 26'56	
				asc. node	1043 Sep 04 j 09:04	29° \mathcal{Q} 55'07	
superior conj	1042 Oct 27 j 08:12	9° \mathbb{M} 34'37	0°-6'-1		1043 Sep 04 j 13:52	0° \mathbb{M}	
minimum elong	1042 Oct 27 j 07:26	9° \mathbb{M} 31'36	0°05'56	morning max el	1043 Sep 08 j 13:46	2° \mathbb{M} 52'41	17°53'10
behind sun begin	1042 Oct 26 j 21:17	8° \mathbb{M} 51'10		morning set	1043 Sep 25 j 03:43	28° \mathbb{M} 26'30	
behind sun end	1042 Oct 27 j 17:36	10° \mathbb{M} 11'59			1043 Sep 26 j 01:13	0° $\underline{\mathfrak{A}}$	
max. Earth dist.	1042 Oct 30 j 19:55	15° \mathbb{M} 06'04	1.44894 AU				
	1042 Nov 09 j 08:34	0° \mathfrak{A}		superior conj	1043 Oct 07 j 09:49	19° $\underline{\mathfrak{A}}$ 18'49	0°39'01
evening rise	1042 Nov 12 j 20:21	5° \mathfrak{A} 25'05		minimum elong	1043 Oct 07 j 13:41	19° $\underline{\mathfrak{A}}$ 34'43	0°38'30
	1042 Nov 28 j 23:50	0° \mathfrak{B}		desc. node	1043 Oct 13 j 07:36	28° $\underline{\mathfrak{A}}$ 55'33	
greatest brilliancy	1042 Nov 30 j 05:36	1° \mathfrak{B} 46'48	-0.6m	max. Earth dist.	1043 Oct 13 j 12:47	29° $\underline{\mathfrak{A}}$ 16'21	1.44007 AU
evening max el	1042 Dec 07 j 22:00	11° \mathfrak{B} 29'54	19°44'23		1043 Oct 13 j 23:42	0° \mathbb{M}	
asc. node	1042 Dec 14 j 11:18	15° \mathfrak{B} 45'01		evening rise	1043 Oct 23 j 04:34	14° \mathbb{M} 25'57	
retrograde	1042 Dec 15 j 08:21	15° \mathfrak{B} 49'19			1043 Nov 02 j 10:54	0° \mathfrak{A}	
evening set	1042 Dec 18 j 20:19	14° \mathfrak{B} 37'41		greatest brilliancy	1043 Nov 15 j 07:32	18° \mathfrak{A} 17'43	-0.5m
inferior conj	1042 Dec 24 j 09:18	8° \mathfrak{B} 36'39	2°55'32	evening max el	1043 Nov 20 j 23:24	24° \mathfrak{A} 59'46	20°47'28
minimum elong	1042 Dec 24 j 06:36	8° \mathfrak{B} 45'33	2°54'49	retrograde	1043 Nov 29 j 06:05	29° \mathfrak{A} 53'36	
min. Earth dist.	1042 Dec 25 j 10:22	7° \mathfrak{B} 13'53	0.66636 AU	asc. node	1043 Dec 01 j 08:20	29° \mathfrak{A} 28'55	
morning rise	1042 Dec 29 j 16:12	2° \mathfrak{B} 22'05		evening set	1043 Dec 03 j 03:27	28° \mathfrak{A} 27'03	
	1043 Jan 02 j 15:18	30° \mathbb{R} \mathfrak{A}		inferior conj	1043 Dec 08 j 13:53	22° \mathfrak{A} 14'41	2°17'26
direct	1043 Jan 04 j 16:43	29° \mathfrak{A} 42'14		minimum elong	1043 Dec 08 j 11:20	22° \mathfrak{A} 23'25	2°16'35
	1043 Jan 06 j 20:32	0° \mathfrak{B}		min. Earth dist.	1043 Dec 09 j 02:21	21° \mathfrak{A} 32'05	0.67353 AU
morning max el	1043 Jan 16 j 19:58	6° \mathfrak{B} 55'34	25°32'21	morning rise	1043 Dec 13 j 18:46	15° \mathfrak{A} 59'20	
desc. node	1043 Jan 22 j 09:44	13° \mathfrak{B} 09'16		direct	1043 Dec 19 j 04:32	13° \mathfrak{A} 37'44	
	1043 Feb 03 j 19:07	0° \approx		morning max el	1043 Dec 30 j 04:17	20° \mathfrak{A} 11'03	24°07'35
morning set	1043 Feb 22 j 01:15	0° \mathfrak{H} 05'25			1044 Jan 07 j 13:47	0° \mathfrak{B}	
	1043 Feb 22 j 00:03	0° \mathfrak{H}		desc. node	1044 Jan 09 j 06:48	2° \mathfrak{B} 14'32	
max. Earth dist.	1043 Feb 25 j 20:20	7° \mathfrak{H} 08'01	1.36147 AU		1044 Jan 27 j 23:54	0° \approx	
				morning set	1044 Feb 03 j 21:14	11° \approx 31'53	
superior conj	1043 Mar 03 j 14:57	18° \mathfrak{H} 22'52	-1°-22'-4	max. Earth dist.	1044 Feb 07 j 16:19	18° \approx 12'31	1.38147 AU
minimum elong	1043 Mar 03 j 18:46	18° \mathfrak{H} 41'53	1°21'30		1044 Feb 14 j 01:41	0° \mathfrak{H}	
	1043 Mar 09 j 08:26	0° \mathbb{Y}					
evening rise	1043 Mar 11 j 17:58	4° \mathbb{Y} 53'18		superior conj	1044 Feb 14 j 19:21	1° \mathfrak{H} 24'03	-1°-44'-12
asc. node	1043 Mar 12 j 10:36	6° \mathbb{Y} 17'24		minimum elong	1044 Feb 14 j 23:23	1° \mathfrak{H} 43'17	1°43'48
	1043 Mar 26 j 06:30	0° \mathfrak{B}		evening rise	1044 Feb 23 j 16:45	18° \mathfrak{H} 46'50	
evening max el	1043 Mar 29 j 08:47	3° \mathfrak{B} 25'18	19°54'37	asc. node	1044 Feb 27 j 07:40	25° \mathfrak{H} 48'45	
retrograde	1043 Apr 08 j 11:03	8° \mathfrak{B} 16'51			1044 Feb 29 j 13:31	0° \mathbb{Y}	
evening set	1043 Apr 10 j 12:28	8° \mathfrak{B} 05'37		evening max el	1044 Mar 11 j 05:18	15° \mathbb{Y} 28'01	18°59'08
inferior conj	1043 Apr 19 j 08:47	4° \mathfrak{B} 05'13	0°17'20	retrograde	1044 Mar 19 j 17:20	19° \mathbb{Y} 34'49	
minimum elong	1043 Apr 19 j 09:33	4° \mathfrak{B} 04'02	0°17'04	evening set	1044 Mar 21 j 22:18	19° \mathbb{Y} 19'20	
desc. node	1043 Apr 20 j 08:55	3° \mathfrak{B} 28'15		inferior conj	1044 Mar 30 j 00:08	15° \mathbb{Y} 03'53	1°57'33
min. Earth dist.	1043 Apr 21 j 11:47	2° \mathfrak{B} 47'28	0.55510 AU	minimum elong	1044 Mar 30 j 04:05	14° \mathbb{Y} 56'56	1°56'22
	1043 Apr 27 j 00:07	30° \mathbb{R} \mathbb{Y}		min. Earth dist.	1044 Apr 02 j 03:36	12° \mathbb{Y} 52'04	0.56921 AU
morning rise	1043 Apr 28 j 03:32	29° \mathbb{Y} 36'57		desc. node	1044 Apr 06 j 05:57	10° \mathbb{Y} 28'18	
direct	1043 May 02 j 07:11	28° \mathbb{Y} 58'55		morning rise	1044 Apr 07 j 05:39	10° \mathbb{Y} 02'15	
	1043 May 07 j 12:05	0° \mathfrak{B}		direct	1044 Apr 12 j 11:17	8° \mathbb{Y} 57'13	
morning max el	1043 May 16 j 03:20	5° \mathfrak{B} 51'44	24°10'51	morning max el	1044 Apr 26 j 18:02	16° \mathbb{Y} 21'01	25°46'17
	1043 Jun 02 j 08:03	0° \mathbb{I}			1044 May 07 j 20:19	0° \mathfrak{B}	
asc. node	1043 Jun 08 j 09:51	11° \mathbb{I} 52'26		morning set	1044 May 24 j 08:20	29° \mathfrak{B} 50'31	
morning set	1043 Jun 09 j 20:43	14° \mathbb{I} 54'18			1044 May 24 j 10:08	0° \mathbb{I}	
				asc. node	1044 May 25 j 06:55	1° \mathbb{I} 50'08	

superior conj	1044 May 31 j 08:55	15°II03'51	1°00'21	morning set	1045 May 08 j 18:06	14°840'06	
minimum elong	1044 May 31 j 06:41	14°II51'34	0°59'57	asc. node	1045 May 12 j 03:58	21°856'15	
max. Earth dist.	1044 Jun 01 j 04:03	16°II48'35	1.32542 AU				
evening rise	1044 Jun 07 j 10:58	0°816'04		superior conj	1045 May 15 j 20:41	0°II01'31	0°38'15
	1044 Jun 07 j 07:52	0°8		minimum elong	1045 May 15 j 19:05	29°852'42	0°37'55
	1044 Jun 23 j 21:00	0°8		max. Earth dist.	1045 May 15 j 16:31	29°838'38	1.32263 AU
desc. node	1044 Jul 03 j 05:15	12°849'57			1045 May 15 j 20:25	0°II	
evening max el	1044 Jul 08 j 22:01	18°858'46	27°10'57	evening rise	1045 May 22 j 19:07	15°II03'42	
retrograde	1044 Jul 22 j 18:52	26°814'12			1045 May 30 j 07:43	0°8	
evening set	1044 Jul 29 j 21:31	23°855'23		desc. node	1045 Jun 20 j 02:15	29°859'32	
min. Earth dist.	1044 Aug 02 j 12:14	21°810'00	0.61652 AU		1045 Jun 20 j 02:26	0°8	
inferior conj	1044 Aug 05 j 14:29	18°823'50	-4°-16'-43	evening max el	1045 Jun 20 j 22:49	0°849'39	26°23'08
minimum elong	1044 Aug 05 j 19:15	18°813'08	4°15'48	retrograde	1045 Jul 04 j 22:38	8°802'14	
morning rise	1044 Aug 12 j 19:48	13°826'09		evening set	1045 Jul 11 j 12:04	6°815'05	
direct	1044 Aug 15 j 05:27	13°801'46		min. Earth dist.	1045 Jul 15 j 11:48	3°839'10	0.59605 AU
asc. node	1044 Aug 21 j 06:08	15°840'01		inferior conj	1045 Jul 18 j 19:39	1°803'40	-4°-46'-27
morning max el	1044 Aug 22 j 04:17	16°830'55	17°56'47	minimum elong	1045 Jul 18 j 22:13	0°858'40	4°46'15
	1044 Aug 31 j 15:52	0°8			1045 Jul 20 j 04:40	30°88	
morning set	1044 Sep 07 j 01:30	11°828'46		morning rise	1045 Jul 26 j 11:44	26°829'02	
	1044 Sep 17 j 09:21	0°8		direct	1045 Jul 28 j 22:13	26°807'54	
				morning max el	1045 Aug 05 j 14:21	29°850'01	18°20'02
superior conj	1044 Sep 17 j 14:41	0°823'09	1°12'58		1045 Aug 05 j 18:29	0°8	
minimum elong	1044 Sep 17 j 19:23	0°843'32	1°12'26	asc. node	1045 Aug 08 j 03:11	2°836'56	
max. Earth dist.	1044 Sep 25 j 01:34	12°859'41	1.42528 AU	morning set	1045 Aug 21 j 13:16	25°811'41	
desc. node	1044 Sep 29 j 04:37	19°841'51			1045 Aug 24 j 01:44	0°8	
evening rise	1044 Oct 01 j 17:13	23°842'44					
	1044 Oct 05 j 18:03	0°8		superior conj	1045 Aug 30 j 20:00	12°840'21	1°34'25
	1044 Oct 26 j 13:48	0°8		minimum elong	1045 Aug 30 j 23:16	12°855'18	1°34'09
greatest brilliancy	1044 Oct 29 j 01:31	3°808'37	-0.3m	max. Earth dist.	1045 Sep 07 j 08:58	26°802'43	1.40644 AU
evening max el	1044 Nov 02 j 19:08	8°830'07	22°01'08		1045 Sep 09 j 16:53	0°8	
retrograde	1044 Nov 12 j 02:27	14°802'12		evening rise	1045 Sep 12 j 01:03	3°853'28	
evening set	1044 Nov 16 j 11:15	12°818'59		desc. node	1045 Sep 16 j 01:37	10°824'11	
asc. node	1044 Nov 17 j 05:22	11°839'44			1045 Sep 29 j 00:51	0°8	
inferior conj	1044 Nov 21 j 20:43	5°858'39	1°32'32	evening max el	1045 Oct 16 j 10:05	22°802'24	23°20'33
minimum elong	1044 Nov 21 j 18:45	6°805'26	1°31'47	retrograde	1045 Oct 26 j 20:09	28°812'29	
min. Earth dist.	1044 Nov 21 j 21:49	5°854'51	0.67708 AU	evening set	1045 Oct 31 j 18:04	26°811'36	
	1044 Nov 26 j 19:01	30°88		asc. node	1045 Nov 04 j 02:24	22°833'49	
morning rise	1044 Nov 27 j 02:04	29°844'38		inferior conj	1045 Nov 06 j 03:58	19°847'05	0°42'24
direct	1044 Dec 01 j 20:34	27°845'21		minimum elong	1045 Nov 06 j 02:59	19°850'28	0°41'59
	1044 Dec 07 j 13:43	0°8		min. Earth dist.	1045 Nov 05 j 18:27	20°819'45	0.67725 AU
morning max el	1044 Dec 11 j 14:27	3°831'28	22°39'29	morning rise	1045 Nov 11 j 12:00	13°836'32	
greatest brilliancy	1044 Dec 16 j 04:53	8°839'54	-0.3m	direct	1045 Nov 15 j 15:57	12°800'05	
desc. node	1044 Dec 26 j 03:51	21°853'31		morning max el	1045 Nov 24 j 06:06	17°800'49	21°16'24
	1044 Dec 31 j 17:47	0°8		greatest brilliancy	1045 Nov 29 j 11:59	23°802'13	-0.4m
morning set	1045 Jan 14 j 13:49	21°836'21			1045 Dec 04 j 17:42	0°8	
max. Earth dist.	1045 Jan 19 j 12:22	29°852'04	1.40292 AU	desc. node	1045 Dec 13 j 00:53	11°856'57	
	1045 Jan 19 j 14:14	0°8			1045 Dec 24 j 20:32	0°8	
				morning set	1045 Dec 25 j 01:58	0°821'23	
superior conj	1045 Jan 27 j 07:18	13°834'06	-1°-59'-21	max. Earth dist.	1046 Jan 01 j 14:23	12°825'39	1.42288 AU
minimum elong	1045 Jan 27 j 09:57	13°846'05	1°59'15				
	1045 Feb 05 j 03:01	0°8		superior conj	1046 Jan 08 j 21:32	24°840'35	-2°-3'-12
evening rise	1045 Feb 06 j 05:52	2°807'11		minimum elong	1046 Jan 08 j 20:28	24°836'00	2°03'13
asc. node	1045 Feb 13 j 04:41	14°856'31			1046 Jan 11 j 23:13	0°8	
evening max el	1045 Feb 22 j 10:09	28°802'33	18°23'43	evening rise	1046 Jan 20 j 05:38	14°846'26	
	1045 Feb 24 j 19:05	0°8			1046 Jan 28 j 20:27	0°8	
retrograde	1045 Mar 01 j 18:48	1°840'48		asc. node	1046 Jan 31 j 01:42	3°833'22	
evening set	1045 Mar 04 j 04:58	1°818'14		evening max el	1046 Feb 05 j 20:17	11°800'53	18°08'15
	1045 Mar 07 j 01:17	30°88		retrograde	1046 Feb 12 j 13:13	14°826'24	
inferior conj	1045 Mar 11 j 12:36	26°842'05	3°03'58	evening set	1046 Feb 15 j 04:10	13°855'12	
minimum elong	1045 Mar 11 j 16:18	26°834'26	3°03'13	inferior conj	1046 Feb 21 j 20:50	8°857'41	3°37'59
min. Earth dist.	1045 Mar 14 j 23:07	23°853'30	0.58863 AU	minimum elong	1046 Feb 21 j 22:36	8°853'27	3°37'50
morning rise	1045 Mar 18 j 23:48	21°811'40		min. Earth dist.	1046 Feb 25 j 01:21	5°856'29	0.60987 AU
desc. node	1045 Mar 24 j 02:59	19°833'41		morning rise	1046 Feb 28 j 14:07	3°807'40	
direct	1045 Mar 25 j 04:27	19°830'44		direct	1046 Mar 07 j 09:04	0°851'32	
morning max el	1045 Apr 08 j 12:56	27°812'35	27°00'27	desc. node	1046 Mar 11 j 00:02	1°827'27	
	1045 Apr 11 j 05:14	0°8		morning max el	1046 Mar 21 j 14:15	8°843'27	27°41'45
	1045 May 01 j 07:54	0°8			1046 Apr 06 j 22:00	0°8	

morning set	1046 Apr 23 j 00:10	29° Υ 16'24		morning rise	1047 Feb 10 j 23:45	15° \approx 41'11	
	1046 Apr 23 j 08:38	0° \mathcal{B}		direct	1047 Feb 17 j 22:55	13° \approx 00'11	
max. Earth dist.	1046 Apr 29 j 04:09	12° \mathcal{B} 23'18	1.32359 AU	desc. node	1047 Feb 25 j 21:05	15° \approx 51'55	
asc. node	1046 Apr 29 j 01:00	12° \mathcal{B} 06'05		morning max el	1047 Mar 03 j 20:48	20° \approx 54'48	27°45'52
					1047 Mar 11 j 17:57	0° \mathcal{H}	
superior conj	1046 Apr 30 j 07:43	14° \mathcal{B} 53'52	0°13'32		1047 Mar 30 j 22:44	0° Υ	
minimum elong	1046 Apr 30 j 07:06	14° \mathcal{B} 50'29	0°13'23	morning set	1047 Apr 07 j 00:21	13° Υ 32'13	
behind sun begin	1046 Apr 30 j 04:23	14° \mathcal{B} 35'33		max. Earth dist.	1047 Apr 12 j 11:01	24° Υ 49'24	1.32853 AU
behind sun end	1046 Apr 30 j 09:50	15° \mathcal{B} 05'26					
evening rise	1046 May 07 j 06:03	29° \mathcal{B} 56'45		superior conj	1047 Apr 14 j 16:21	29° Υ 35'17	0°-13'-2
	1046 May 07 j 06:40	0° Π		minimum elong	1047 Apr 14 j 16:58	29° Υ 38'40	0°12'55
	1046 May 23 j 20:41	0° \mathcal{E}		behind sun begin	1047 Apr 14 j 13:54	29° Υ 22'04	
evening max el	1046 Jun 02 j 16:31	11° \mathcal{E} 54'40	25°06'59	behind sun end	1047 Apr 14 j 20:03	29° Υ 55'17	
desc. node	1046 Jun 06 j 23:16	15° \mathcal{E} 29'00			1047 Apr 14 j 20:56	0° \mathcal{B}	
retrograde	1046 Jun 16 j 16:35	19° \mathcal{E} 02'09		asc. node	1047 Apr 15 j 22:02	2° \mathcal{B} 15'46	
evening set	1046 Jun 22 j 03:18	17° \mathcal{E} 53'48		evening rise	1047 Apr 21 j 17:55	14° \mathcal{B} 48'57	
min. Earth dist.	1046 Jun 27 j 04:08	15° \mathcal{E} 08'31	0.57601 AU		1047 Apr 29 j 09:08	0° Π	
inferior conj	1046 Jun 30 j 05:48	13° \mathcal{E} 04'00	-4°-49'-8	evening max el	1047 May 15 j 06:39	22° Π 30'43	23°34'03
minimum elong	1046 Jun 30 j 03:53	13° \mathcal{E} 07'17	4°49'03	desc. node	1047 May 24 j 20:17	28° Π 42'45	
morning rise	1046 Jul 08 j 08:17	8° \mathcal{E} 51'56		retrograde	1047 May 28 j 22:27	29° Π 20'48	
direct	1046 Jul 10 j 21:31	8° \mathcal{E} 32'46		evening set	1047 Jun 01 j 21:48	28° Π 46'06	
morning max el	1046 Jul 19 j 16:49	12° \mathcal{E} 40'05	19°04'02	min. Earth dist.	1047 Jun 08 j 17:07	25° Π 36'15	0.55976 AU
asc. node	1046 Jul 26 j 00:14	20° \mathcal{E} 30'11		inferior conj	1047 Jun 10 j 19:53	24° Π 20'15	-4°-11'-20
	1046 Jul 31 j 13:55	0° \mathcal{Q}		minimum elong	1047 Jun 10 j 13:17	24° Π 30'11	4°10'05
morning set	1046 Aug 05 j 10:50	9° \mathcal{Q} 23'29		morning rise	1047 Jun 19 j 08:10	20° Π 24'06	
				direct	1047 Jun 22 j 01:34	20° Π 05'36	
superior conj	1046 Aug 13 j 20:04	25° \mathcal{Q} 53'30	1°44'43	morning max el	1047 Jul 02 j 09:05	24° Π 52'02	20°09'09
minimum elong	1046 Aug 13 j 21:18	25° \mathcal{Q} 59'29	1°44'40		1047 Jul 06 j 22:46	0° \mathcal{E}	
	1046 Aug 15 j 23:44	0° \mathcal{H}		asc. node	1047 Jul 12 j 21:17	9° \mathcal{E} 06'53	
max. Earth dist.	1046 Aug 20 j 12:17	8° \mathcal{H} 21'24	1.38607 AU	morning set	1047 Jul 20 j 15:12	23° \mathcal{E} 56'15	
evening rise	1046 Aug 24 j 09:19	15° \mathcal{H} 12'44			1047 Jul 23 j 14:19	0° \mathcal{Q}	
	1046 Sep 02 j 07:51	0° \mathcal{A}					
desc. node	1046 Sep 02 j 22:36	0° \mathcal{A} 58'04		superior conj	1047 Jul 28 j 09:42	9° \mathcal{Q} 47'50	1°45'56
	1046 Sep 23 j 18:22	0° \mathcal{M}		minimum elong	1047 Jul 28 j 09:10	9° \mathcal{Q} 45'12	1°45'56
evening max el	1046 Sep 28 j 22:16	5° \mathcal{M} 37'39	24°39'35	max. Earth dist.	1047 Aug 02 j 17:14	20° \mathcal{Q} 13'54	1.36673 AU
retrograde	1046 Oct 10 j 10:04	12° \mathcal{M} 20'00		evening rise	1047 Aug 06 j 16:06	27° \mathcal{Q} 36'46	
evening set	1046 Oct 15 j 22:14	10° \mathcal{M} 01'59			1047 Aug 07 j 23:46	0° \mathcal{H}	
min. Earth dist.	1046 Oct 20 j 13:56	4° \mathcal{M} 44'01	0.67414 AU	desc. node	1047 Aug 20 j 19:36	21° \mathcal{H} 18'40	
inferior conj	1046 Oct 21 j 09:55	3° \mathcal{M} 37'28	0°-11'-40		1047 Aug 26 j 16:50	0° \mathcal{A}	
minimum elong	1046 Oct 21 j 10:12	3° \mathcal{M} 36'31	0°11'33	evening max el	1047 Sep 11 j 10:02	19° \mathcal{A} 16'02	25°50'54
transit middle	1046 Oct 21 j 10:12	3° \mathcal{M} 36'31	0°11'33	retrograde	1047 Sep 23 j 19:20	26° \mathcal{A} 20'09	
transit begin	1046 Oct 21 j 08:16	3° \mathcal{M} 42'57		evening set	1047 Sep 29 j 21:58	23° \mathcal{A} 47'36	
transit end	1046 Oct 21 j 12:08	3° \mathcal{M} 30'04		min. Earth dist.	1047 Oct 04 j 05:48	19° \mathcal{A} 05'31	0.66775 AU
asc. node	1046 Oct 21 j 23:27	2° \mathcal{M} 52'35		inferior conj	1047 Oct 05 j 12:47	17° \mathcal{A} 27'32	-1°-8'-13
	1046 Oct 24 j 07:03	30° \mathcal{R} \mathcal{A}		minimum elong	1047 Oct 05 j 14:32	17° \mathcal{A} 21'58	1°07'29
morning rise	1046 Oct 26 j 22:37	27° \mathcal{A} 32'51		asc. node	1047 Oct 08 j 20:30	13° \mathcal{A} 33'41	
direct	1046 Oct 30 j 13:38	26° \mathcal{A} 17'14		morning rise	1047 Oct 11 j 07:57	11° \mathcal{A} 31'42	
	1046 Nov 06 j 12:47	0° \mathcal{M}		direct	1047 Oct 14 j 12:10	10° \mathcal{A} 33'36	
morning max el	1046 Nov 07 j 05:13	0° \mathcal{M} 40'16	20°04'12	morning max el	1047 Oct 21 j 11:46	14° \mathcal{A} 28'39	19°06'16
greatest brilliancy	1046 Nov 14 j 07:06	9° \mathcal{M} 16'39	-0.6m		1047 Nov 02 j 01:52	0° \mathcal{M}	
	1046 Nov 28 j 09:52	0° \mathcal{A}		morning set	1047 Nov 13 j 03:51	17° \mathcal{M} 09'59	
desc. node	1046 Nov 29 j 21:55	2° \mathcal{A} 17'36		desc. node	1047 Nov 16 j 18:55	22° \mathcal{M} 50'19	
morning set	1046 Dec 03 j 22:21	8° \mathcal{A} 28'22			1047 Nov 21 j 08:44	0° \mathcal{A}	
max. Earth dist.	1046 Dec 14 j 23:34	25° \mathcal{A} 49'08	1.43864 AU	max. Earth dist.	1047 Nov 27 j 14:57	9° \mathcal{A} 49'44	1.44835 AU
	1046 Dec 17 j 14:03	0° \mathcal{E}					
superior conj	1046 Dec 20 j 09:40	4° \mathcal{E} 34'35	-1°-50'-57	superior conj	1047 Nov 29 j 21:12	13° \mathcal{A} 23'52	-1°-19'-56
minimum elong	1046 Dec 20 j 03:24	4° \mathcal{E} 09'03	1°50'34	minimum elong	1047 Nov 29 j 12:39	12° \mathcal{A} 50'03	1°19'01
evening rise	1047 Jan 02 j 11:47	26° \mathcal{E} 35'55			1047 Dec 10 j 06:10	0° \mathcal{E}	
	1047 Jan 04 j 11:08	0° \approx		evening rise	1047 Dec 14 j 20:07	7° \mathcal{E} 28'14	
asc. node	1047 Jan 17 j 22:44	21° \approx 29'57			1047 Dec 28 j 21:15	0° \approx	
evening max el	1047 Jan 20 j 08:43	24° \approx 15'10	18°12'12	evening max el	1048 Jan 03 j 20:43	7° \approx 38'08	18°34'40
retrograde	1047 Jan 26 j 20:06	27° \approx 41'42		asc. node	1048 Jan 04 j 19:47	8° \approx 33'45	
evening set	1047 Jan 29 j 15:45	27° \approx 00'45		retrograde	1048 Jan 10 j 11:09	11° \approx 17'19	
inferior conj	1047 Feb 04 j 21:01	21° \approx 42'52	3°46'44	evening set	1048 Jan 13 j 12:09	10° \approx 25'28	
minimum elong	1047 Feb 04 j 20:45	21° \approx 43'36	3°46'44	inferior conj	1048 Jan 19 j 09:07	4° \approx 48'54	3°36'58
min. Earth dist.	1047 Feb 07 j 12:31	18° \approx 52'30	0.63000 AU	minimum elong	1048 Jan 19 j 07:23	4° \approx 54'05	3°36'45
				min. Earth dist.	1048 Jan 21 j 09:09	2° \approx 26'26	0.64717 AU

	1048 Jan 23 j 14:52	30° $\text{R}\overline{\text{Z}}$		minimum elong	1049 Jan 02 j 03:14	18° $\overline{\text{Z}}$ 18'32	3°13'08
morning rise	1048 Jan 25 j 01:20	28° $\overline{\text{Z}}$ 40'16		min. Earth dist.	1049 Jan 03 j 14:42	16° $\overline{\text{Z}}$ 25'05	0.66053 AU
direct	1048 Jan 31 j 20:04	25° $\overline{\text{Z}}$ 49'23		morning rise	1049 Jan 07 j 15:09	11° $\overline{\text{Z}}$ 57'36	
	1048 Feb 10 j 06:01	0° \approx		direct	1049 Jan 13 j 23:22	9° $\overline{\text{Z}}$ 10'48	
desc. node	1048 Feb 12 j 18:08	2° \approx 10'24		morning max el	1049 Jan 26 j 15:35	16° $\overline{\text{Z}}$ 40'03	26°15'47
morning max el	1048 Feb 14 j 06:01	3° \approx 37'16	27°15'00	desc. node	1049 Jan 29 j 15:11	19° $\overline{\text{Z}}$ 51'15	
	1048 Mar 05 j 03:53	0° H			1049 Feb 06 j 18:05	0° \approx	
morning set	1048 Mar 20 j 15:41	27° H 17'07			1049 Feb 26 j 01:12	0° H	
	1048 Mar 22 j 00:53	0° Y		morning set	1049 Mar 03 j 18:23	10° H 19'48	
max. Earth dist.	1048 Mar 25 j 09:13	6° Y 44'44	1.33780 AU	max. Earth dist.	1049 Mar 07 j 20:08	18° H 06'54	1.35162 AU
superior conj	1048 Mar 28 j 20:32	13° Y 58'23	0°-40'-27	superior conj	1049 Mar 12 j 17:56	27° H 56'09	-1°-7'-26
minimum elong	1048 Mar 28 j 22:32	14° Y 08'55	0°40'04	minimum elong	1049 Mar 12 j 21:12	28° H 12'50	1°06'53
asc. node	1048 Apr 01 j 19:04	22° Y 20'26			1049 Mar 13 j 18:07	0° Y	
evening rise	1048 Apr 05 j 04:49	29° Y 32'56		asc. node	1049 Mar 19 j 16:08	12° Y 15'57	
	1048 Apr 05 j 10:00	0° B		evening rise	1049 Mar 20 j 12:49	14° Y 02'37	
	1048 Apr 23 j 02:28	0° II			1049 Mar 28 j 19:33	0° B	
evening max el	1048 Apr 26 j 00:04	3° II 06'09	21°59'19	evening max el	1049 Apr 08 j 02:50	14° B 07'39	20°35'11
retrograde	1048 May 08 j 15:56	9° II 19'09		retrograde	1049 Apr 19 j 04:54	19° B 29'38	
desc. node	1048 May 10 j 17:20	9° II 09'39		evening set	1049 Apr 21 j 08:01	19° B 18'34	
evening set	1048 May 11 j 09:13	9° II 02'42		desc. node	1049 Apr 27 j 14:23	16° B 58'53	
min. Earth dist.	1048 May 20 j 05:17	5° II 16'11	0.55064 AU	inferior conj	1049 Apr 30 j 12:30	15° B 20'58	0°-50'-44
inferior conj	1048 May 20 j 18:12	4° II 58'04	-2°-46'-48	minimum elong	1049 Apr 30 j 10:06	15° B 24'26	0°49'53
minimum elong	1048 May 20 j 11:07	5° II 08'00	2°44'37	min. Earth dist.	1049 May 01 j 18:05	14° B 38'19	0.55077 AU
morning rise	1048 May 29 j 14:28	1° II 04'09		morning rise	1049 May 09 j 10:43	11° B 10'21	
direct	1048 Jun 01 j 15:13	0° II 43'41		direct	1049 May 13 j 01:51	10° B 41'56	
morning max el	1048 Jun 13 j 13:54	6° II 19'43	21°33'51	morning max el	1049 May 26 j 09:12	17° B 08'35	23°12'19
asc. node	1048 Jun 28 j 18:20	28° II 16'02			1049 Jun 05 j 16:45	0° II	
	1048 Jun 29 j 16:01	0° S		asc. node	1049 Jun 15 j 15:22	17° II 49'18	
morning set	1048 Jul 03 j 23:57	8° S 43'05		morning set	1049 Jun 18 j 11:08	23° II 38'09	
					1049 Jun 21 j 11:00	0° S	
superior conj	1048 Jul 11 j 08:48	24° S 10'59	1°39'54	superior conj	1049 Jun 25 j 14:17	8° S 53'27	1°28'06
minimum elong	1048 Jul 11 j 07:05	24° S 01'58	1°39'48	minimum elong	1049 Jun 25 j 11:57	8° S 40'54	1°27'49
	1048 Jul 14 j 04:31	0° Q			1049 Jun 28 j 03:26	14° S 17'59	1.33747 AU
max. Earth dist.	1048 Jul 15 j 05:38	2° Q 07'09	1.35022 AU	max. Earth dist.	1049 Jul 03 j 06:28	24° S 47'57	
evening rise	1048 Jul 19 j 16:41	10° Q 52'51		evening rise	1049 Jul 05 j 22:29	0° Q	
	1048 Jul 30 j 10:46	0° np			1049 Jul 23 j 22:54	0° np	
desc. node	1048 Aug 06 j 16:38	11° np 19'42		desc. node	1049 Jul 24 j 13:41	0° np 52'07	
	1048 Aug 21 j 02:54	0° A		evening max el	1049 Aug 06 j 10:03	16° np 13'52	27°19'36
evening max el	1048 Aug 23 j 22:16	2° A 51'58	26°46'43	retrograde	1049 Aug 19 j 21:31	23° np 32'26	
retrograde	1048 Sep 05 j 23:19	10° A 07'09		evening set	1049 Aug 26 j 23:12	20° np 49'32	
evening set	1048 Sep 12 j 15:11	7° A 25'12		min. Earth dist.	1049 Aug 30 j 17:09	17° np 21'12	0.64447 AU
min. Earth dist.	1048 Sep 16 j 15:40	3° A 20'26	0.65791 AU	inferior conj	1049 Sep 02 j 00:57	14° np 51'16	-3°-1'-18
inferior conj	1048 Sep 18 j 10:35	1° A 14'03	-2°-5'-31	minimum elong	1049 Sep 02 j 05:30	14° np 39'01	2°59'49
minimum elong	1048 Sep 18 j 13:52	1° A 04'24	2°04'16	morning rise	1049 Sep 08 j 13:42	9° np 23'00	
morning rise	1048 Sep 19 j 12:00	30° Rnp		direct	1049 Sep 11 j 03:27	8° np 48'54	
asc. node	1048 Sep 24 j 13:52	25° np 30'16		asc. node	1049 Sep 11 j 14:37	8° np 50'02	
direct	1048 Sep 27 j 09:37	24° np 45'57		morning max el	1049 Sep 17 j 15:35	12° np 15'58	17°59'31
morning max el	1048 Oct 04 j 00:05	28° np 22'36	18°24'25		1049 Sep 29 j 21:09	0° A	
	1048 Oct 05 j 12:02	0° A		morning set	1049 Oct 05 j 00:25	8° A 40'42	
morning set	1048 Oct 23 j 12:00	27° A 14'05			1049 Oct 17 j 20:57	0° M	
	1048 Oct 25 j 05:05	0° M					
desc. node	1048 Nov 02 j 15:57	13° M 31'33		superior conj	1049 Oct 18 j 10:02	0° M 52'49	0°14'10
				minimum elong	1049 Oct 18 j 11:41	0° M 59'28	0°13'57
superior conj	1048 Nov 07 j 22:05	21° M 49'50	0°-34'-22	behind sun begin	1049 Oct 18 j 06:22	0° M 38'00	
minimum elong	1048 Nov 07 j 17:36	21° M 32'10	0°33'48	behind sun end	1049 Oct 18 j 17:01	1° M 20'55	
max. Earth dist.	1048 Nov 09 j 09:54	24° M 10'44	1.45089 AU	desc. node	1049 Oct 20 j 12:59	4° M 17'23	
	1048 Nov 13 j 02:54	0° J		max. Earth dist.	1049 Oct 23 j 04:45	8° M 31'15	1.44600 AU
evening rise	1048 Nov 24 j 04:59	17° J 24'04		evening rise	1049 Nov 03 j 18:43	26° M 35'56	
	1048 Dec 02 j 05:27	0° $\overline{\text{Z}}$			1049 Nov 05 j 23:47	0° J	
greatest brilliancy	1048 Dec 07 j 10:52	8° $\overline{\text{Z}}$ 02'59	-0.7m	greatest brilliancy	1049 Nov 23 j 18:03	26° J 22'09	-0.6m
evening max el	1048 Dec 17 j 05:55	21° $\overline{\text{Z}}$ 05'32	19°14'24		1049 Nov 26 j 11:59	0° $\overline{\text{Z}}$	
asc. node	1048 Dec 21 j 16:51	24° $\overline{\text{Z}}$ 30'59		evening max el	1049 Nov 30 j 10:24	4° $\overline{\text{Z}}$ 34'06	20°09'37
retrograde	1048 Dec 24 j 06:56	25° $\overline{\text{Z}}$ 07'35		retrograde	1049 Dec 08 j 04:39	9° $\overline{\text{Z}}$ 07'27	
evening set	1048 Dec 27 j 14:30	24° $\overline{\text{Z}}$ 03'28		asc. node	1049 Dec 08 j 13:54	9° $\overline{\text{Z}}$ 06'37	
inferior conj	1049 Jan 02 j 05:46	18° $\overline{\text{Z}}$ 10'26	3°13'41	evening set	1049 Dec 11 j 20:27	7° $\overline{\text{Z}}$ 49'30	

inferior conj	1049 Dec 17 j 08:07	1°  42'59	2°40'16	evening max el	1050 Nov 13 j 09:13	18°  03'20	21°17'41
minimum elong	1049 Dec 17 j 05:25	1°  52'04	2°39'29	retrograde	1050 Nov 22 j 02:08	23°  13'44	
min. Earth dist.	1049 Dec 18 j 03:32	0°  37'43	0.66988 AU	asc. node	1050 Nov 25 j 10:55	22°  10'27	
	1049 Dec 18 j 14:51	30°  R 		evening set	1050 Nov 26 j 04:04	21°  14'01'16	
morning rise	1049 Dec 22 j 13:50	25°  127'55		inferior conj	1050 Dec 01 j 13:53	15°  123'47	1°59'05
direct	1049 Dec 28 j 08:07	22°  155'26		minimum elong	1050 Dec 01 j 11:32	15°  131'53	1°58'15
morning max el	1050 Jan 09 j 00:18	29°  152'50	24°57'21	min. Earth dist.	1050 Dec 01 j 21:21	14°  158'02	0.67546 AU
	1050 Jan 09 j 03:09	0° 		morning rise	1050 Dec 06 j 18:40	9°  108'32	
desc. node	1050 Jan 16 j 12:13	8°  30'19		direct	1050 Dec 11 j 21:48	6°  156'18	
	1050 Jan 31 j 15:33	0° 		morning max el	1050 Dec 22 j 09:08	13°  110'33	23°29'53
morning set	1050 Feb 14 j 03:20	22°  25'48		greatest brilliancy	1050 Dec 28 j 13:05	20°  111'33	-0.2m
max. Earth dist.	1050 Feb 17 j 20:20	29°  09'33	1.36964 AU	desc. node	1051 Jan 03 j 09:16	27°  151'05	
	1050 Feb 18 j 07:13	0° 			1051 Jan 04 j 22:32	0° 	
					1051 Jan 24 j 12:51	0° 	
superior conj	1050 Feb 24 j 05:34	11°  120'08	-1°-32'-5	morning set	1051 Jan 26 j 12:18	3°  18'42	
minimum elong	1050 Feb 24 j 09:37	11°  139'59	1°31'34	max. Earth dist.	1051 Jan 30 j 15:08	10°  23'46	1.39053 AU
evening rise	1050 Mar 04 j 15:42	28°  111'08					
	1050 Mar 05 j 13:29	0° 		superior conj	1051 Feb 07 j 03:31	24°  00'23	-1°-51'-43
asc. node	1050 Mar 06 j 13:12	1°  157'34		minimum elong	1051 Feb 07 j 07:12	24°  17'39	1°51'28
evening max el	1050 Mar 21 j 17:05	25°  147'37	19°28'33		1051 Feb 10 j 07:36	0° 	
	1050 Mar 28 j 13:57	0° 		evening rise	1051 Feb 16 j 10:45	11°  111'09	
retrograde	1050 Mar 31 j 02:18	0°  119'02		asc. node	1051 Feb 21 j 10:14	21°  119'29	
evening set	1050 Apr 02 j 04:33	0°  106'30			1051 Feb 26 j 11:06	0° 	
	1050 Apr 02 j 16:28	30°  R 		evening max el	1051 Mar 04 j 17:28	8°  104'29	18°41'39
inferior conj	1050 Apr 10 j 17:16	26°  100'27	1°03'33	retrograde	1051 Mar 12 j 16:38	11°  157'16	
minimum elong	1050 Apr 10 j 19:50	25°  156'17	1°02'40	evening set	1051 Mar 14 j 23:37	11°  139'11	
min. Earth dist.	1050 Apr 13 j 08:38	24°  118'26	0.56016 AU	inferior conj	1051 Mar 22 j 17:27	7°  115'33	2°30'02
desc. node	1050 Apr 14 j 11:24	23°  107'27		minimum elong	1051 Mar 22 j 21:38	7°  107'40	2°28'56
morning rise	1050 Apr 19 j 07:22	21°  117'59		min. Earth dist.	1051 Mar 26 j 01:59	4°  145'05	0.57692 AU
direct	1050 Apr 23 j 21:31	20°  130'19		morning rise	1051 Mar 30 j 15:21	2°  100'15	
morning max el	1050 May 08 j 00:03	27°  138'09	24°53'15	desc. node	1051 Apr 01 j 08:27	1°  19'38	
	1050 May 10 j 07:46	0° 		direct	1051 Apr 05 j 07:29	0°  140'23	
	1050 May 29 j 18:05	0° 		morning max el	1051 Apr 19 j 16:09	8°  141'17	26°21'21
morning set	1050 Jun 02 j 23:06	8°  136'11			1051 May 06 j 00:04	0° 	
asc. node	1050 Jun 02 j 12:26	7°  140'08		morning set	1051 May 18 j 10:07	23°  130'15	
				asc. node	1051 May 20 j 09:28	27°  141'56	
superior conj	1050 Jun 09 j 23:46	23°  147'48	1°11'38		1051 May 21 j 11:04	0° 	
minimum elong	1050 Jun 09 j 21:21	23°  134'39	1°11'15	superior conj	1051 May 25 j 11:11	8°  145'58	0°51'22
max. Earth dist.	1050 Jun 11 j 09:21	26°  150'13	1.32865 AU	minimum elong	1051 May 25 j 09:10	8°  134'53	0°50'58
	1050 Jun 12 j 20:34	0° 		max. Earth dist.	1051 May 25 j 20:15	9°  135'43	1.32369 AU
evening rise	1050 Jun 17 j 05:40	9°  111'18		evening rise	1051 Jun 01 j 11:13	23°  152'13	
	1050 Jun 28 j 07:19	0° 			1051 Jun 04 j 11:11	0° 	
desc. node	1050 Jul 11 j 10:43	19°  144'03			1051 Jun 22 j 05:10	0° 	
evening max el	1050 Jul 19 j 19:23	29°  109'30	27°23'24	desc. node	1051 Jun 28 j 07:43	7°  137'35	
	1050 Jul 20 j 17:09	0° 		evening max el	1051 Jul 01 j 23:53	11°  126'17	26°54'32
retrograde	1050 Aug 02 j 13:39	6°  127'18		retrograde	1051 Jul 15 j 22:36	18°  141'22	
evening set	1050 Aug 09 j 18:37	3°  155'23		evening set	1051 Jul 22 j 21:04	16°  134'32	
min. Earth dist.	1050 Aug 13 j 08:41	0°  157'41	0.62757 AU	min. Earth dist.	1051 Jul 26 j 13:58	13°  155'17	0.60792 AU
	1050 Aug 14 j 09:03	30°  R 		inferior conj	1051 Jul 29 j 19:40	11°  110'59	-4°-31'-51
inferior conj	1050 Aug 16 j 05:06	28°  113'12	-3°-51'-58	minimum elong	1051 Jul 29 j 23:47	11°  102'14	4°31'15
minimum elong	1050 Aug 16 j 10:11	28°  100'56	3°50'43	morning rise	1051 Aug 06 j 05:37	6°  123'02	
morning rise	1050 Aug 23 j 04:16	23°  103'43		direct	1051 Aug 08 j 15:09	6°  100'24	
direct	1050 Aug 25 j 14:33	22°  103'40		morning max el	1051 Aug 15 j 20:27	9°  134'02	18°04'09
asc. node	1050 Aug 29 j 11:38	23°  1047'14		asc. node	1051 Aug 16 j 08:41	10°  104'34	
morning max el	1050 Sep 01 j 07:24	26°  102'36	17°52'24		1051 Aug 29 j 04:56	0° 	
	1050 Sep 04 j 16:12	0° 		morning set	1051 Aug 31 j 16:06	4°  134'05	
morning set	1050 Sep 17 j 11:48	21°  113'09					
	1050 Sep 22 j 11:03	0° 		superior conj	1051 Sep 10 j 15:09	22°  148'39	1°23'33
superior conj	1050 Sep 28 j 23:16	11°  111'35	0°54'57	minimum elong	1051 Sep 10 j 19:24	23°  107'32	1°23'06
minimum elong	1050 Sep 29 j 03:53	11°  131'01	0°54'22		1051 Sep 14 j 17:49	0° 	
max. Earth dist.	1050 Oct 05 j 20:01	22°  131'36	1.43441 AU	max. Earth dist.	1051 Sep 18 j 05:51	5°  156'24	1.41763 AU
desc. node	1050 Oct 07 j 10:01	25°  1404'39		evening rise	1051 Sep 23 j 22:04	15°  113'55	
	1050 Oct 10 j 12:17	0° 		desc. node	1051 Sep 24 j 07:02	15°  149'49	
evening rise	1050 Oct 14 j 02:35	5°  137'41			1051 Oct 03 j 10:28	0° 	
	1050 Oct 30 j 09:08	0° 		greatest brilliancy	1051 Oct 22 j 06:50	26°  109'37	-0.3m
greatest brilliancy	1050 Nov 08 j 05:52	12°  106'08	-0.4m		1051 Oct 25 j 14:44	0° 	

evening max el	1051 Oct 27 j 02:41	1°♂34'19	22°34'36	desc. node	1052 Sep 10 j 04:02	6°♂29'13	
retrograde	1051 Nov 05 j 21:34	7°♂23'20			1052 Sep 26 j 03:18	0°♂	
evening set	1051 Nov 10 j 11:38	5°♂32'54		evening max el	1052 Oct 08 j 16:21	15°♂08'30	23°54'44
asc. node	1051 Nov 12 j 07:56	3°♂45'28		retrograde	1052 Oct 19 j 13:39	21°♂32'46	
	1051 Nov 15 j 06:45	30°♂		evening set	1052 Oct 24 j 17:30	19°♂24'40	
inferior conj	1051 Nov 15 j 21:08	29°♂10'17	1°11'50	asc. node	1052 Oct 29 j 04:58	14°♂18'01	
minimum elong	1051 Nov 15 j 19:33	29°♂15'46	1°11'12	min. Earth dist.	1052 Oct 29 j 14:10	13°♂46'58	0.67635 AU
min. Earth dist.	1051 Nov 15 j 17:44	29°♂22'03	0.67753 AU	inferior conj	1052 Oct 30 j 04:03	12°♂59'51	0°19'51
morning rise	1051 Nov 21 j 03:21	22°♂57'11		minimum elong	1052 Oct 30 j 03:34	13°♂01'29	0°19'39
direct	1051 Nov 25 j 15:30	21°♂07'34		morning rise	1052 Nov 04 j 13:49	6°♂51'28	
morning max el	1051 Dec 04 j 21:09	26°♂34'08	22°03'00	direct	1052 Nov 08 j 12:09	5°♂23'59	
	1051 Dec 08 j 00:33	0°♂		morning max el	1052 Nov 16 j 15:43	10°♂07'11	20°44'02
greatest brilliancy	1051 Dec 09 j 13:54	1°♂51'32	-0.4m	greatest brilliancy	1052 Nov 22 j 13:14	17°♂02'20	-0.5m
desc. node	1051 Dec 21 j 06:18	17°♂41'40			1052 Dec 01 j 19:52	0°♂	
	1051 Dec 29 j 12:33	0°♂		desc. node	1052 Dec 07 j 03:18	7°♂53'06	
morning set	1052 Jan 06 j 16:20	12°♂47'41		morning set	1052 Dec 15 j 19:06	21°♂08'04	
max. Earth dist.	1052 Jan 12 j 12:42	22°♂23'31	1.41172 AU		1052 Dec 21 j 10:14	0°♂	
	1052 Jan 17 j 00:00	0°♂		max. Earth dist.	1052 Dec 24 j 18:02	5°♂20'35	1.43028 AU
superior conj	1052 Jan 20 j 06:57	5°♂45'29	-2°-2'-40	superior conj	1052 Dec 31 j 10:25	16°♂21'52	-2°00'-15
minimum elong	1052 Jan 20 j 08:19	5°♂51'31	2°02'40	minimum elong	1052 Dec 31 j 07:10	16°♂08'10	2°00'08
evening rise	1052 Jan 30 j 18:42	24°♂55'11			1053 Jan 08 j 09:03	0°♂	
	1052 Feb 02 j 12:29	0°♂		evening rise	1053 Jan 12 j 11:28	7°♂13'57	
asc. node	1052 Feb 08 j 07:16	10°♂15'27		asc. node	1053 Jan 25 j 04:18	28°♂36'25	
evening max el	1052 Feb 16 j 01:04	20°♂50'59	18°14'48		1053 Jan 26 j 04:21	0°♂	
retrograde	1052 Feb 23 j 01:33	24°♂21'37		evening max el	1053 Jan 29 j 12:35	3°♂57'09	18°07'37
evening set	1052 Feb 25 j 13:53	23°♂55'30		retrograde	1053 Feb 05 j 01:48	7°♂21'14	
inferior conj	1052 Mar 03 j 14:44	19°♂10'32	3°21'56	evening set	1053 Feb 07 j 18:52	6°♂45'50	
minimum elong	1052 Mar 03 j 17:42	19°♂03'59	3°21'29	inferior conj	1053 Feb 14 j 06:14	1°♂39'20	3°44'20
min. Earth dist.	1052 Mar 07 j 00:08	16°♂13'18	0.59765 AU	minimum elong	1053 Feb 14 j 07:06	1°♂37'09	3°44'17
morning rise	1052 Mar 10 j 18:02	13°♂30'51			1053 Feb 15 j 21:29	30°♂	
direct	1052 Mar 17 j 06:16	11°♂33'49		min. Earth dist.	1053 Feb 17 j 05:42	28°♂40'29	0.61877 AU
desc. node	1052 Mar 18 j 05:28	11°♂36'21		morning rise	1053 Feb 20 j 16:54	25°♂43'54	
morning max el	1052 Mar 31 j 13:31	19°♂20'55	27°22'24	direct	1053 Feb 27 j 14:55	23°♂15'41	
	1052 Apr 09 j 14:34	0°♂		desc. node	1053 Mar 05 j 02:30	24°♂38'04	
	1052 Apr 27 j 16:33	0°♂			1053 Mar 12 j 12:38	0°♂	
morning set	1052 May 01 j 18:31	8°♂14'39		morning max el	1053 Mar 13 j 17:09	1°♂08'41	27°48'01
asc. node	1052 May 06 j 06:32	17°♂50'09		morning set	1053 Apr 03 j 18:23	0°♂	
superior conj	1052 May 08 j 22:51	23°♂42'05	0°28'03		1053 Apr 15 j 22:21	22°♂42'43	
minimum elong	1052 May 08 j 21:38	23°♂35'21	0°27'47	max. Earth dist.	1053 Apr 19 j 10:21	0°♂	
max. Earth dist.	1052 May 08 j 08:40	22°♂24'13	1.32256 AU		1053 Apr 21 j 18:50	5°♂02'40	1.32524 AU
	1052 May 11 j 19:43	0°♂		superior conj	1053 Apr 23 j 09:04	8°♂30'09	0°02'26
evening rise	1052 May 15 j 20:48	8°♂42'59		minimum elong	1053 Apr 23 j 08:57	8°♂29'32	0°02'25
	1052 May 26 j 22:04	0°♂		behind sun begin	1053 Apr 23 j 03:53	8°♂01'54	
evening max el	1052 Jun 12 j 21:45	22°♂57'23	25°53'44	behind sun end	1053 Apr 23 j 14:02	8°♂57'12	
desc. node	1052 Jun 14 j 04:44	24°♂08'34		asc. node	1053 Apr 23 j 03:35	8°♂00'18	
	1052 Jun 25 j 02:26	0°♂		evening rise	1053 Apr 30 j 08:22	23°♂36'25	
retrograde	1052 Jun 26 j 22:29	0°♂08'08			1053 May 03 j 10:18	0°♂	
	1052 Jun 28 j 18:19	30°♂			1053 May 21 j 23:48	0°♂	
evening set	1052 Jul 03 j 01:53	28°♂37'38		evening max el	1053 May 25 j 13:25	3°♂47'25	24°28'38
min. Earth dist.	1052 Jul 07 j 10:17	25°♂59'38	0.58729 AU	desc. node	1053 Jun 01 j 01:45	8°♂44'57	
inferior conj	1052 Jul 10 j 17:04	23°♂35'06	-4°-51'-43	retrograde	1053 Jun 08 j 11:02	10°♂48'46	
minimum elong	1052 Jul 10 j 17:57	23°♂33'28	4°51'43	evening set	1053 Jun 13 j 07:19	9°♂56'09	
morning rise	1052 Jul 18 j 13:35	19°♂10'01		min. Earth dist.	1053 Jun 19 j 00:32	7°♂02'10	0.56844 AU
direct	1052 Jul 21 j 01:00	18°♂49'50		inferior conj	1053 Jun 21 j 18:35	5°♂16'51	-4°-38'-46
morning max el	1052 Jul 29 j 03:34	22°♂41'29	18°36'06	minimum elong	1053 Jun 21 j 14:26	5°♂23'30	4°38'19
asc. node	1052 Aug 02 j 05:44	27°♂26'56		morning rise	1053 Jun 30 j 01:17	1°♂12'41	
	1052 Aug 04 j 00:13	0°♂		direct	1053 Jul 02 j 16:20	0°♂53'48	
morning set	1052 Aug 14 j 08:29	18°♂30'30		morning max el	1053 Jul 12 j 01:51	5°♂15'52	19°29'15
	1052 Aug 20 j 07:08	0°♂		asc. node	1053 Jul 20 j 02:47	15°♂40'09	
superior conj	1052 Aug 23 j 05:05	5°♂31'12	1°40'01	morning set	1053 Jul 27 j 22:37	0°♂	
minimum elong	1052 Aug 23 j 07:30	5°♂42'30	1°39'52		1053 Jul 29 j 09:20	2°♂52'44	
max. Earth dist.	1052 Aug 30 j 11:07	18°♂39'58	1.39786 AU	superior conj	1053 Aug 06 j 11:32	19°♂03'55	1°46'13
evening rise	1052 Sep 03 j 16:13	25°♂53'41		minimum elong	1053 Aug 06 j 11:58	19°♂06'03	1°46'14
	1052 Sep 06 j 03:30	0°♂			1053 Aug 12 j 04:45	0°♂	

max. Earth dist.	1053 Aug 12 j 14:59	0° $\overline{\text{M}}$ 47'24	1.37759 AU	max. Earth dist.	1054 Jul 25 j 22:31	12° $\overline{\text{O}}$ 37'06	1.35920 AU
evening rise	1053 Aug 16 j 10:36	7° $\overline{\text{M}}$ 42'07		evening rise	1054 Jul 30 j 01:31	20° $\overline{\text{O}}$ 29'39	
desc. node	1053 Aug 28 j 01:04	26° $\overline{\text{M}}$ 58'44			1054 Aug 04 j 08:10	0° $\overline{\text{M}}$	
	1053 Aug 30 j 00:11	0° $\overline{\text{O}}$		desc. node	1054 Aug 14 j 22:07	17° $\overline{\text{M}}$ 12'14	
evening max el	1053 Sep 21 j 04:17	28° $\overline{\text{O}}$ 46'23	25°11'17		1054 Aug 23 j 23:02	0° $\overline{\text{O}}$	
	1053 Sep 22 j 11:15	0° $\overline{\text{M}}$		evening max el	1054 Sep 03 j 16:02	12° $\overline{\text{O}}$ 24'08	26°16'55
retrograde	1053 Oct 03 j 01:32	5° $\overline{\text{M}}$ 38'39		retrograde	1054 Sep 16 j 08:41	19° $\overline{\text{O}}$ 34'36	
evening set	1053 Oct 08 j 20:02	3° $\overline{\text{M}}$ 13'54		evening set	1054 Sep 22 j 17:19	16° $\overline{\text{O}}$ 56'52	
	1053 Oct 11 j 21:53	30° $\overline{\text{R}}$ $\overline{\text{O}}$		min. Earth dist.	1054 Sep 26 j 21:50	12° $\overline{\text{O}}$ 30'53	0.66401 AU
min. Earth dist.	1053 Oct 13 j 08:20	28° $\overline{\text{O}}$ 11'14	0.67190 AU	inferior conj	1054 Sep 28 j 09:53	10° $\overline{\text{O}}$ 40'03	-1°-32'-31
inferior conj	1053 Oct 14 j 08:55	26° $\overline{\text{O}}$ 50'59	0°-35'-24	minimum elong	1054 Sep 28 j 12:18	10° $\overline{\text{O}}$ 32'38	1°31'33
minimum elong	1053 Oct 14 j 09:49	26° $\overline{\text{O}}$ 48'04	0°35'02	asc. node	1054 Oct 02 j 23:03	5° $\overline{\text{O}}$ 46'42	
asc. node	1053 Oct 16 j 02:00	24° $\overline{\text{O}}$ 40'00		morning rise	1054 Oct 04 j 08:21	4° $\overline{\text{O}}$ 49'14	
morning rise	1053 Oct 20 j 00:11	20° $\overline{\text{O}}$ 49'58		direct	1054 Oct 07 j 08:38	3° $\overline{\text{O}}$ 57'36	
direct	1053 Oct 23 j 10:25	19° $\overline{\text{O}}$ 42'11		morning max el	1054 Oct 14 j 03:35	7° $\overline{\text{O}}$ 43'40	18°46'30
morning max el	1053 Oct 30 j 18:12	23° $\overline{\text{O}}$ 51'35	19°37'42		1054 Oct 29 j 21:30	0° $\overline{\text{M}}$	
	1053 Nov 04 j 22:30	0° $\overline{\text{M}}$		morning set	1054 Nov 04 j 08:11	8° $\overline{\text{M}}$ 36'37	
greatest brilliancy	1053 Nov 08 j 00:59	4° $\overline{\text{M}}$ 15'51	-0.6m	desc. node	1054 Nov 10 j 21:23	18° $\overline{\text{M}}$ 57'10	
desc. node	1053 Nov 24 j 00:20	28° $\overline{\text{M}}$ 19'57			1054 Nov 17 j 22:03	0° $\overline{\text{O}}$	
morning set	1053 Nov 24 j 16:25	29° $\overline{\text{M}}$ 22'08		max. Earth dist.	1054 Nov 20 j 00:00	3° $\overline{\text{O}}$ 16'12	1.45033 AU
	1053 Nov 25 j 02:12	0° $\overline{\text{O}}$					
max. Earth dist.	1053 Dec 07 j 06:47	19° $\overline{\text{O}}$ 04'36	1.44369 AU	superior conj	1054 Nov 20 j 15:52	4° $\overline{\text{O}}$ 18'34	-1°-1'-48
				minimum elong	1054 Nov 20 j 08:21	3° $\overline{\text{O}}$ 49'00	1°00'55
superior conj	1053 Dec 11 j 11:17	25° $\overline{\text{O}}$ 45'45	-1°-40'-2	evening rise	1054 Dec 06 j 07:13	29° $\overline{\text{O}}$ 08'49	
minimum elong	1053 Dec 11 j 03:21	25° $\overline{\text{O}}$ 13'55	1°39'23		1054 Dec 06 j 19:57	0° $\overline{\text{O}}$	
	1053 Dec 14 j 02:15	0° $\overline{\text{O}}$			1054 Dec 26 j 20:38	0° \approx	
evening rise	1053 Dec 25 j 08:49	18° $\overline{\text{O}}$ 40'17		evening max el	1054 Dec 27 j 12:07	0° \approx 41'00	18°49'28
	1054 Jan 01 j 02:22	0° \approx		asc. node	1054 Dec 29 j 22:22	2° \approx 49'44	
asc. node	1054 Jan 12 j 01:21	16° \approx 12'06		retrograde	1055 Jan 03 j 06:22	4° \approx 29'13	
evening max el	1054 Jan 13 j 01:07	17° \approx 15'36	18°19'28	evening set	1055 Jan 06 j 09:52	3° \approx 32'27	
retrograde	1054 Jan 19 j 12:48	20° \approx 46'18			1055 Jan 10 j 08:11	30° $\overline{\text{R}}$ $\overline{\text{O}}$	
evening set	1054 Jan 22 j 10:37	20° \approx 00'48		inferior conj	1055 Jan 12 j 04:08	27° $\overline{\text{O}}$ 48'27	3°28'31
inferior conj	1054 Jan 28 j 11:58	14° \approx 34'22	3°44'30	minimum elong	1055 Jan 12 j 01:58	27° $\overline{\text{O}}$ 55'06	3°28'10
minimum elong	1054 Jan 28 j 11:00	14° \approx 37'07	3°44'26	min. Earth dist.	1055 Jan 13 j 21:37	25° $\overline{\text{O}}$ 40'54	0.65331 AU
min. Earth dist.	1054 Jan 30 j 20:49	11° \approx 54'32	0.63778 AU	morning rise	1055 Jan 17 j 16:59	21° $\overline{\text{O}}$ 37'27	
morning rise	1054 Feb 03 j 09:45	8° \approx 29'10		direct	1055 Jan 24 j 07:41	18° $\overline{\text{O}}$ 46'46	
direct	1054 Feb 10 j 07:47	5° \approx 42'31		morning max el	1055 Feb 06 j 11:14	26° $\overline{\text{O}}$ 29'11	26°52'47
desc. node	1054 Feb 19 j 23:33	9° \approx 55'24		desc. node	1055 Feb 06 j 20:36	26° $\overline{\text{O}}$ 52'54	
morning max el	1054 Feb 24 j 01:21	13° \approx 35'11	27°36'43		1055 Feb 09 j 17:55	0° \approx	
	1054 Mar 09 j 07:19	0° $\overline{\text{H}}$			1055 Mar 02 j 21:14	0° $\overline{\text{H}}$	
	1054 Mar 27 j 07:19	0° $\overline{\text{Y}}$		morning set	1055 Mar 14 j 05:45	20° $\overline{\text{H}}$ 16'10	
morning set	1054 Mar 30 j 19:10	6° $\overline{\text{Y}}$ 46'34		max. Earth dist.	1055 Mar 18 j 16:24	28° $\overline{\text{H}}$ 59'41	1.34308 AU
max. Earth dist.	1054 Apr 04 j 22:41	17° $\overline{\text{Y}}$ 17'46	1.33196 AU		1055 Mar 19 j 04:22	0° $\overline{\text{Y}}$	
superior conj	1054 Apr 07 j 16:03	23° $\overline{\text{Y}}$ 04'19	0°-24'-39	superior conj	1055 Mar 22 j 17:42	7° $\overline{\text{Y}}$ 18'10	0°-52'-4
minimum elong	1054 Apr 07 j 17:15	23° $\overline{\text{Y}}$ 10'45	0°24'24	minimum elong	1055 Mar 22 j 20:16	7° $\overline{\text{Y}}$ 31'32	0°51'35
asc. node	1054 Apr 10 j 00:39	28° $\overline{\text{Y}}$ 08'21		asc. node	1055 Mar 27 j 21:42	18° $\overline{\text{Y}}$ 10'09	
	1054 Apr 10 j 21:23	0° $\overline{\text{O}}$		evening rise	1055 Mar 30 j 06:01	23° $\overline{\text{Y}}$ 05'13	
evening rise	1054 Apr 14 j 20:04	8° $\overline{\text{O}}$ 25'55			1055 Apr 02 j 15:24	0° $\overline{\text{O}}$	
	1054 Apr 26 j 04:44	0° $\overline{\text{II}}$		evening max el	1055 Apr 19 j 00:38	25° $\overline{\text{O}}$ 02'58	21°21'43
evening max el	1054 May 07 j 03:49	14° $\overline{\text{II}}$ 18'26	22°53'02		1055 Apr 26 j 06:45	0° $\overline{\text{II}}$	
desc. node	1054 May 18 j 22:47	20° $\overline{\text{II}}$ 50'27		retrograde	1055 May 01 j 02:06	0° $\overline{\text{II}}$ 55'49	
retrograde	1054 May 20 j 11:20	20° $\overline{\text{II}}$ 55'44		evening set	1055 May 03 j 10:56	0° $\overline{\text{II}}$ 42'57	
evening set	1054 May 23 j 20:35	20° $\overline{\text{II}}$ 30'34		desc. node	1055 May 05 j 19:49	0° $\overline{\text{II}}$ 06'11	
min. Earth dist.	1054 May 31 j 12:36	17° $\overline{\text{II}}$ 06'50	0.55479 AU		1055 May 06 j 03:02	30° $\overline{\text{R}}$ $\overline{\text{O}}$	
inferior conj	1054 Jun 02 j 00:54	16° $\overline{\text{II}}$ 14'31	-3°-40'-53	inferior conj	1055 May 12 j 19:51	26° $\overline{\text{O}}$ 43'14	-1°-59'-41
minimum elong	1054 Jun 01 j 17:22	16° $\overline{\text{II}}$ 25'25	3°39'02	minimum elong	1055 May 12 j 14:20	26° $\overline{\text{O}}$ 50'59	1°57'48
morning rise	1054 Jun 10 j 17:03	12° $\overline{\text{II}}$ 21'56		min. Earth dist.	1055 May 13 j 01:15	26° $\overline{\text{O}}$ 35'39	0.54943 AU
direct	1054 Jun 13 j 13:00	12° $\overline{\text{II}}$ 03'09		morning rise	1055 May 21 j 17:58	22° $\overline{\text{O}}$ 44'22	
morning max el	1054 Jun 24 j 13:16	17° $\overline{\text{II}}$ 09'17	20°43'12	direct	1055 May 24 j 23:25	22° $\overline{\text{O}}$ 21'43	
	1054 Jul 04 j 09:17	0° $\overline{\text{O}}$		morning max el	1055 Jun 06 j 13:50	28° $\overline{\text{O}}$ 20'24	22°14'37
asc. node	1054 Jul 06 j 23:51	4° $\overline{\text{O}}$ 31'47			1055 Jun 08 j 06:08	0° $\overline{\text{II}}$	
morning set	1054 Jul 13 j 15:49	17° $\overline{\text{O}}$ 32'23		asc. node	1055 Jun 23 j 20:56	23° $\overline{\text{II}}$ 52'30	
	1054 Jul 19 j 16:14	0° $\overline{\text{O}}$			1055 Jun 26 j 22:06	0° $\overline{\text{O}}$	
				morning set	1055 Jun 28 j 01:48	2° $\overline{\text{O}}$ 23'30	
superior conj	1054 Jul 21 j 05:39	3° $\overline{\text{O}}$ 12'08	1°44'10				
minimum elong	1054 Jul 21 j 04:32	3° $\overline{\text{O}}$ 06'28	1°44'08	superior conj	1055 Jul 05 j 07:49	17° $\overline{\text{O}}$ 44'59	1°35'32

minimum elong	1055 Jul 05 j 05:45	17° \mathfrak{S} 34'06	1°35'21			1056 Jun 02 j 16:03	0° Π	
max. Earth dist.	1055 Jul 08 j 14:31	24° \mathfrak{S} 35'08	1.34426 AU	asc. node		1056 Jun 09 j 17:59	13° Π 34'01	
	1055 Jul 11 j 06:40	0° Ω		morning set		1056 Jun 11 j 13:29	17° Π 20'13	
evening rise	1055 Jul 13 j 08:14	4° Ω 04'06				1056 Jun 17 j 10:54	0° \mathfrak{S}	
	1055 Jul 28 j 03:10	0° \mathfrak{M}						
desc. node	1055 Aug 01 j 19:08	7° \mathfrak{M} 02'21		superior conj		1056 Jun 18 j 15:15	2° \mathfrak{S} 33'17	1°21'38
evening max el	1055 Aug 17 j 04:05	25° \mathfrak{M} 54'59	27°03'54	minimum elong		1056 Jun 18 j 12:48	2° \mathfrak{S} 20'08	1°21'18
	1055 Aug 22 j 01:08	0° \mathfrak{A}		max. Earth dist.		1056 Jun 20 j 15:57	6° \mathfrak{S} 54'49	1.33326 AU
retrograde	1055 Aug 30 j 10:29	3° \mathfrak{A} 13'16		evening rise		1056 Jun 26 j 02:26	18° \mathfrak{S} 12'40	
evening set	1055 Sep 06 j 06:59	0° \mathfrak{A} 29'33				1056 Jul 02 j 05:17	0° Ω	
	1055 Sep 06 j 21:10	30° \mathfrak{R} \mathfrak{M}		desc. node		1056 Jul 18 j 16:10	26° Ω 19'15	
min. Earth dist.	1055 Sep 10 j 04:26	26° \mathfrak{M} 40'32	0.65259 AU			1056 Jul 21 j 11:22	0° \mathfrak{M}	
inferior conj	1055 Sep 12 j 04:49	24° \mathfrak{M} 23'06	-2°-29'-34	evening max el		1056 Jul 29 j 15:16	9° \mathfrak{M} 07'58	27°25'11
minimum elong	1055 Sep 12 j 08:41	24° \mathfrak{M} 12'06	2°28'10	retrograde		1056 Aug 12 j 06:16	16° \mathfrak{M} 26'28	
morning rise	1055 Sep 18 j 11:59	18° \mathfrak{M} 45'32		evening set		1056 Aug 19 j 10:06	13° \mathfrak{M} 46'58	
asc. node	1055 Sep 19 j 20:06	18° \mathfrak{M} 16'12		min. Earth dist.		1056 Aug 23 j 02:02	10° \mathfrak{M} 32'21	0.63762 AU
direct	1055 Sep 21 j 04:45	18° \mathfrak{M} 06'08		inferior conj		1056 Aug 25 j 15:13	7° \mathfrak{M} 55'02	-3°-23'-45
morning max el	1055 Sep 27 j 17:35	21° \mathfrak{M} 38'04	18°11'41	minimum elong		1056 Aug 25 j 20:07	7° \mathfrak{M} 42'23	3°22'17
	1055 Oct 04 j 05:29	0° \mathfrak{A}		morning rise		1056 Sep 01 j 08:17	2° \mathfrak{M} 34'04	
morning set	1055 Oct 16 j 04:40	19° \mathfrak{A} 16'48		direct		1056 Sep 03 j 20:11	2° \mathfrak{M} 03'19	
	1055 Oct 22 j 17:54	0° \mathfrak{M}		asc. node		1056 Sep 05 j 17:10	2° \mathfrak{M} 20'55	
desc. node	1055 Oct 28 j 18:25	9° \mathfrak{M} 40'49		morning max el		1056 Sep 10 j 09:30	5° \mathfrak{M} 29'10	17°54'13
						1056 Sep 26 j 10:31	0° \mathfrak{A}	
superior conj	1055 Oct 30 j 18:56	12° \mathfrak{M} 53'37	0°-13'-25	morning set		1056 Sep 27 j 03:40	1° \mathfrak{A} 14'08	
minimum elong	1055 Oct 30 j 17:13	12° \mathfrak{M} 46'48	0°13'11					
behind sun begin	1055 Oct 30 j 10:45	12° \mathfrak{M} 21'09		superior conj		1056 Oct 09 j 16:41	22° \mathfrak{A} 26'21	0°32'50
behind sun end	1055 Oct 30 j 23:41	13° \mathfrak{M} 12'25		minimum elong		1056 Oct 09 j 20:05	22° \mathfrak{A} 40'19	0°32'22
max. Earth dist.	1055 Nov 02 j 18:42	17° \mathfrak{M} 37'07	1.44965 AU			1056 Oct 14 j 08:30	0° \mathfrak{M}	
	1055 Nov 10 j 16:29	0° \mathfrak{A}		desc. node		1056 Oct 14 j 15:27	0° \mathfrak{M} 27'52	
evening rise	1055 Nov 16 j 06:48	8° \mathfrak{A} 42'42		max. Earth dist.		1056 Oct 15 j 12:15	1° \mathfrak{M} 51'04	1.44180 AU
	1055 Nov 30 j 03:06	0° \mathfrak{S}		evening rise		1056 Oct 25 j 15:56	17° \mathfrak{M} 45'25	
greatest brilliancy	1055 Dec 02 j 17:00	3° \mathfrak{S} 47'10	-0.7m			1056 Nov 02 j 16:53	0° \mathfrak{A}	
evening max el	1055 Dec 10 j 19:29	14° \mathfrak{S} 09'23	19°36'10	greatest brilliancy		1056 Nov 17 j 00:27	20° \mathfrak{A} 37'33	-0.5m
asc. node	1055 Dec 16 j 19:23	18° \mathfrak{S} 14'13		evening max el		1056 Nov 22 j 21:44	27° \mathfrak{A} 39'17	20°37'17
retrograde	1055 Dec 18 j 03:14	18° \mathfrak{S} 24'00				1056 Nov 25 j 10:47	0° \mathfrak{S}	
evening set	1055 Dec 21 j 13:59	17° \mathfrak{S} 14'24		retrograde		1056 Dec 01 j 00:58	2° \mathfrak{S} 27'29	
inferior conj	1055 Dec 27 j 03:30	11° \mathfrak{S} 15'28	3°00'35	asc. node		1056 Dec 02 j 16:25	2° \mathfrak{S} 12'15	
minimum elong	1055 Dec 27 j 00:50	11° \mathfrak{S} 24'14	2°59'56	evening set		1056 Dec 04 j 20:52	1° \mathfrak{S} 03'09	
min. Earth dist.	1055 Dec 28 j 06:36	9° \mathfrak{S} 46'43	0.66497 AU			1056 Dec 06 j 02:32	30° \mathfrak{R} \mathfrak{A}	
morning rise	1056 Jan 01 j 10:57	5° \mathfrak{S} 01'19		inferior conj		1056 Dec 10 j 07:34	24° \mathfrak{A} 52'16	2°23'40
direct	1056 Jan 07 j 13:36	2° \mathfrak{S} 19'15		minimum elong		1056 Dec 10 j 04:58	25° \mathfrak{A} 01'09	2°22'49
morning max el	1056 Jan 19 j 20:22	9° \mathfrak{S} 37'12	25°44'07	min. Earth dist.		1056 Dec 10 j 21:47	24° \mathfrak{A} 03'51	0.67272 AU
desc. node	1056 Jan 24 j 17:38	15° \mathfrak{S} 01'12		morning rise		1056 Dec 15 j 12:35	18° \mathfrak{A} 37'03	
	1056 Feb 04 j 23:19	0° \mathfrak{A}		direct		1056 Dec 21 j 00:37	16° \mathfrak{A} 12'26	
	1056 Feb 23 j 10:34	0° \mathfrak{H}		morning max el		1057 Jan 01 j 04:38	22° \mathfrak{A} 52'00	24°20'40
morning set	1056 Feb 25 j 01:36	2° \mathfrak{H} 57'08				1057 Jan 07 j 11:30	0° \mathfrak{S}	
max. Earth dist.	1056 Feb 28 j 21:59	10° \mathfrak{H} 09'08	1.35879 AU	desc. node		1057 Jan 10 j 14:40	4° \mathfrak{S} 00'07	
						1057 Jan 28 j 07:51	0° \mathfrak{A}	
superior conj	1056 Mar 05 j 11:22	21° \mathfrak{H} 03'04	-1°-18'-19	morning set		1057 Feb 06 j 01:07	14° \mathfrak{A} 34'16	
minimum elong	1056 Mar 05 j 15:03	21° \mathfrak{H} 21'36	1°17'45	max. Earth dist.		1057 Feb 09 j 18:53	21° \mathfrak{A} 12'22	1.37837 AU
	1056 Mar 09 j 20:54	0° \mathfrak{Y}				1057 Feb 14 j 13:09	0° \mathfrak{H}	
evening rise	1056 Mar 13 j 12:06	7° \mathfrak{Y} 26'46						
asc. node	1056 Mar 13 j 18:44	8° \mathfrak{Y} 00'29		superior conj		1057 Feb 16 j 17:44	4° \mathfrak{H} 10'33	-1°-41'-12
	1056 Mar 26 j 01:04	0° \mathfrak{S}		minimum elong		1057 Feb 16 j 21:49	4° \mathfrak{H} 30'10	1°40'48
evening max el	1056 Mar 31 j 08:24	6° \mathfrak{S} 21'06	20°04'33	evening rise		1057 Feb 25 j 12:01	21° \mathfrak{H} 24'25	
retrograde	1056 Apr 10 j 16:46	11° \mathfrak{S} 20'08		asc. node		1057 Feb 28 j 15:45	27° \mathfrak{H} 34'37	
evening set	1056 Apr 12 j 18:16	11° \mathfrak{S} 09'08				1057 Mar 01 j 22:17	0° \mathfrak{Y}	
inferior conj	1056 Apr 21 j 17:01	7° \mathfrak{S} 10'01	0°00'-6	evening max el		1057 Mar 14 j 03:19	18° \mathfrak{Y} 17'50	19°06'04
minimum elong	1056 Apr 21 j 17:00	7° \mathfrak{S} 10'02	0°00'07	retrograde		1057 Mar 22 j 20:26	22° \mathfrak{Y} 30'30	
transit middle	1056 Apr 21 j 17:00	7° \mathfrak{S} 10'02	0°00'07	evening set		1057 Mar 25 j 00:40	22° \mathfrak{Y} 15'51	
transit begin	1056 Apr 21 j 13:00	7° \mathfrak{S} 16'02		inferior conj		1057 Apr 02 j 05:20	18° \mathfrak{Y} 02'57	1°44'25
transit end	1056 Apr 21 j 21:00	7° \mathfrak{S} 04'01		minimum elong		1057 Apr 02 j 09:03	17° \mathfrak{Y} 56'34	1°43'16
desc. node	1056 Apr 21 j 16:51	7° \mathfrak{S} 10'15		min. Earth dist.		1057 Apr 05 j 06:13	15° \mathfrak{Y} 58'28	0.56669 AU
min. Earth dist.	1056 Apr 23 j 14:56	6° \mathfrak{S} 01'14	0.55372 AU	desc. node		1057 Apr 08 j 13:52	13° \mathfrak{Y} 59'57	
morning rise	1056 Apr 30 j 13:00	2° \mathfrak{S} 46'43		morning rise		1057 Apr 10 j 13:18	13° \mathfrak{Y} 06'17	
direct	1056 May 04 j 13:15	2° \mathfrak{S} 11'29		direct		1057 Apr 15 j 14:57	12° \mathfrak{Y} 06'11	
morning max el	1056 May 18 j 06:25	8° \mathfrak{S} 57'55	23°55'40	morning max el		1057 Apr 29 j 20:53	19° \mathfrak{Y} 26'01	25°33'08

	1057 May 08 j 19:16	0°♄			1058 Apr 11 j 09:26	0°♅		
	1057 May 25 j 23:01	0°♄		morning max el	1058 Apr 11 j 15:04	0°♅13°40	26°51'23	
morning set	1057 May 27 j 01:14	2°♄17°10			1058 May 02 j 16:55	0°♄		
asc. node	1057 May 27 j 15:02	3°♄30°06		morning set	1058 May 11 j 11:25	17°♄08°45		
				asc. node	1058 May 14 j 12:04	23°♄35°40		
superior conj	1057 Jun 03 j 01:45	17°♄29°47	1°03'27		1058 May 17 j 10:31	0°♄		
minimum elong	1057 Jun 02 j 23:27	17°♄17°12	1°03'02					
max. Earth dist.	1057 Jun 04 j 00:35	19°♄34°36	1.32615 AU	superior conj	1058 May 18 j 13:30	2°♄28°22	0°41'48	
	1057 Jun 08 j 21:03	0°♄		minimum elong	1058 May 18 j 11:47	2°♄18°53	0°41'27	
evening rise	1057 Jun 10 j 04:40	2°♄44°39		max. Earth dist.	1058 May 18 j 12:50	2°♄24°38	1.32277 AU	
	1057 Jun 25 j 01:30	0°♄		evening rise	1058 May 25 j 12:14	17°♄31°18		
desc. node	1057 Jul 05 j 13:11	14°♄48°42			1058 May 31 j 17:38	0°♄		
evening max el	1057 Jul 11 j 23:04	21°♄48°59	27°15'15		1058 Jun 20 j 09:37	0°♄		
retrograde	1057 Jul 25 j 19:09	29°♄04°47		desc. node	1058 Jun 22 j 10:11	2°♄11°09		
evening set	1057 Aug 01 j 22:50	26°♄42°08		evening max el	1058 Jun 24 j 00:49	3°♄46°56	26°32'12	
min. Earth dist.	1057 Aug 05 j 13:07	23°♄54°05	0.61947 AU	retrograde	1058 Jul 08 j 00:22	11°♄00°24		
inferior conj	1057 Aug 08 j 14:01	21°♄07°54	-4°-10'-42	evening set	1058 Jul 14 j 16:38	9°♄07°41		
minimum elong	1057 Aug 08 j 18:55	20°♄56°39	4°09'41	min. Earth dist.	1058 Jul 18 j 14:04	6°♄31°35	0.59917 AU	
morning rise	1057 Aug 15 j 17:43	16°♄07°04		inferior conj	1058 Jul 21 j 21:44	3°♄53°04	-4°-43'-24	
direct	1057 Aug 18 j 03:30	15°♄42°02		minimum elong	1058 Jul 22 j 00:47	3°♄46°58	4°43'07	
asc. node	1057 Aug 23 j 14:13	17°♄53°54			1058 Jul 27 j 14:17	30°♄		
morning max el	1057 Aug 25 j 00:27	19°♄09°56	17°55'02	morning rise	1058 Jul 29 j 12:16	29°♄15°04		
	1057 Sep 01 j 22:25	0°♄		direct	1058 Jul 31 j 22:26	28°♄53°38		
morning set	1057 Sep 09 j 22:56	14°♄09°18			1058 Aug 05 j 01:54	0°♄		
	1057 Sep 18 j 19:38	0°♄		morning max el	1058 Aug 08 j 11:26	2°♄33°05	18°15'16	
				asc. node	1058 Aug 10 j 11:16	4°♄41°19		
superior conj	1057 Sep 20 j 17:32	3°♄19°07	1°08'39	morning set	1058 Aug 24 j 08:56	27°♄47°09		
minimum elong	1057 Sep 20 j 22:18	3°♄39°37	1°08'05		1058 Aug 25 j 12:58	0°♄		
max. Earth dist.	1057 Sep 28 j 01:56	15°♄40°10	1.42779 AU					
desc. node	1057 Oct 01 j 12:28	21°♄14°35		superior conj	1058 Sep 02 j 19:36	15°♄26°50	1°31'54	
evening rise	1057 Oct 05 j 02:48	26°♄56°56		minimum elong	1058 Sep 02 j 23:10	15°♄42°59	1°31'36	
	1057 Oct 07 j 01:42	0°♄		max. Earth dist.	1058 Sep 10 j 09:51	28°♄48°50	1.40944 AU	
	1057 Oct 27 j 13:35	0°♄			1058 Sep 11 j 02:37	0°♄		
greatest brilliancy	1057 Oct 31 j 23:10	5°♄41°53	-0.4m	evening rise	1058 Sep 15 j 07:11	6°♄58°10		
evening max el	1057 Nov 05 j 18:13	11°♄09°13	21°49'38	desc. node	1058 Sep 18 j 09:30	11°♄57°55		
retrograde	1057 Nov 14 j 21:40	16°♄35°37			1058 Sep 30 j 05:37	0°♄		
evening set	1057 Nov 19 j 04:40	14°♄54°53		greatest brilliancy	1058 Oct 13 j 12:00	18°♄00°47	-0.2m	
asc. node	1057 Nov 19 j 13:27	14°♄36°44		evening max el	1058 Oct 19 j 09:41	24°♄40°41	23°08'35	
inferior conj	1057 Nov 24 j 14:10	8°♄35°22	1°39'42		1058 Oct 26 j 09:26	0°♄		
minimum elong	1057 Nov 24 j 12:05	8°♄42°32	1°38'55	retrograde	1058 Oct 29 j 15:54	0°♄45°43		
min. Earth dist.	1057 Nov 24 j 16:51	8°♄26°05	0.67677 AU		1058 Nov 01 j 16:40	30°♄		
morning rise	1057 Nov 29 j 19:18	2°♄21°02		evening set	1058 Nov 03 j 11:43	28°♄47°30		
direct	1057 Dec 04 j 16:00	0°♄18°27		asc. node	1058 Nov 06 j 10:29	25°♄40°16		
morning max el	1057 Dec 14 j 14:24	6°♄11°48	22°52'27	inferior conj	1058 Nov 08 j 21:29	22°♄23°14	0°50'17	
greatest brilliancy	1057 Dec 19 j 06:47	11°♄25°34	-0.3m	minimum elong	1058 Nov 08 j 20:20	22°♄27°12	0°49'48	
desc. node	1057 Dec 28 j 11:41	23°♄34°33		min. Earth dist.	1058 Nov 08 j 13:31	22°♄50°37	0.67742 AU	
	1058 Jan 01 j 23:00	0°♄		morning rise	1058 Nov 14 j 04:59	16°♄11°55		
morning set	1058 Jan 17 j 22:05	24°♄51°39		direct	1058 Nov 18 j 10:57	14°♄32°10		
	1058 Jan 20 j 23:47	0°♄		morning max el	1058 Nov 27 j 05:03	19°♄39°32	21°28'08	
max. Earth dist.	1058 Jan 22 j 14:33	2°♄45°14	1.39972 AU	greatest brilliancy	1058 Dec 02 j 06:43	25°♄26°44	-0.4m	
					1058 Dec 05 j 18:53	0°♄		
superior conj	1058 Jan 30 j 08:27	16°♄28°56	-1°-57'-41	desc. node	1058 Dec 15 j 08:43	13°♄34°38		
minimum elong	1058 Jan 30 j 11:26	16°♄42°36	1°57'33		1058 Dec 26 j 04:17	0°♄		
	1058 Feb 06 j 13:50	0°♄		morning set	1058 Dec 28 j 14:04	3°♄47°01		
evening rise	1058 Feb 09 j 02:47	4°♄50°26		max. Earth dist.	1059 Jan 04 j 15:08	15°♄09°14	1.42005 AU	
asc. node	1058 Feb 15 j 12:47	16°♄46°34						
	1058 Feb 24 j 12:07	0°♄		superior conj	1059 Jan 12 j 02:14	27°♄45°32	-2°-3'-35	
evening max el	1058 Feb 25 j 07:05	0°♄48°15	18°27'43	minimum elong	1059 Jan 12 j 01:52	27°♄43°58	2°03'35	
retrograde	1058 Mar 04 j 19:11	4°♄29°54			1059 Jan 13 j 09:10	0°♄		
evening set	1058 Mar 07 j 04:29	4°♄08°35		evening rise	1059 Jan 23 j 04:48	17°♄36°20		
	1058 Mar 14 j 02:32	30°♄			1059 Jan 30 j 02:31	0°♄		
inferior conj	1058 Mar 14 j 14:40	29°♄35°39	2°56'07	asc. node	1059 Feb 02 j 09:49	5°♄28°54		
minimum elong	1058 Mar 14 j 18:34	29°♄27°48	2°55'16	evening max el	1059 Feb 08 j 16:40	13°♄43°54	18°09'23	
min. Earth dist.	1058 Mar 18 j 01:05	26°♄51°02	0.58547 AU	retrograde	1059 Feb 15 j 11:19	17°♄10°24		
morning rise	1058 Mar 22 j 04:39	24°♄08°47		evening set	1059 Feb 18 j 01:32	16°♄40°36		
desc. node	1058 Mar 26 j 10:53	22°♄41°58		inferior conj	1059 Feb 24 j 20:13	11°♄46°25	3°34'38	
direct	1058 Mar 28 j 06:14	22°♄33°28		minimum elong	1059 Feb 24 j 22:19	11°♄41°31	3°34'24	

min. Earth dist.	1059 Feb 28 j 02:19	8° ✕ 45'21	0.60666 AU	retrograde	1060 Jan 29 j 16:34	0° ✕ 21'59	
morning rise	1059 Mar 03 j 15:59	5° ✕ 58'45			1060 Jan 31 j 18:23	30° ℞	
direct	1059 Mar 10 j 09:29	3° ✕ 47'11		evening set	1060 Feb 01 j 11:33	29° ≈ 42'30	
desc. node	1059 Mar 13 j 07:55	4° ✕ 10'43		inferior conj	1060 Feb 07 j 18:18	24° ≈ 27'39	3°46'42
morning max el	1059 Mar 24 j 15:26	11° ✕ 38'27	27°37'58	minimum elong	1060 Feb 07 j 18:19	24° ≈ 27'37	3°46'42
	1059 Apr 08 j 01:32	0° Υ		min. Earth dist.	1060 Feb 10 j 12:01	21° ≈ 34'24	0.62716 AU
	1059 Apr 24 j 21:11	0° ♁		morning rise	1060 Feb 13 j 22:59	18° ≈ 27'28	
morning set	1059 Apr 25 j 18:11	1° ♁ 47'41		direct	1060 Feb 20 j 22:12	15° ≈ 49'14	
asc. node	1059 May 01 j 09:07	13° ♁ 45'26		desc. node	1060 Feb 28 j 04:57	18° ≈ 14'33	
max. Earth dist.	1059 May 02 j 00:45	15° ♁ 10'40	1.32317 AU	morning max el	1060 Mar 05 j 21:15	23° ≈ 43'44	27°47'34
					1060 Mar 11 j 12:35	0° ✕	
superior conj	1059 May 03 j 00:47	17° ♁ 22'10	0°17'26		1060 Mar 31 j 08:12	0° Υ	
minimum elong	1059 May 03 j 00:00	17° ♁ 17'51	0°17'15	morning set	1060 Apr 08 j 19:22	16° Υ 06'48	
	1059 May 08 j 19:50	0° ♁		max. Earth dist.	1060 Apr 14 j 08:32	27° Υ 40'00	1.32754 AU
evening rise	1059 May 09 j 22:54	2° ♁ 24'08			1060 Apr 15 j 10:37	0° ♁	
	1059 May 24 j 21:27	0° ♁					
evening max el	1059 Jun 05 j 19:30	14° ♁ 58'32	25°19'45	superior conj	1060 Apr 16 j 09:53	2° ♁ 05'29	0°-8'-55
desc. node	1059 Jun 09 j 07:13	17° ♁ 58'06		minimum elong	1060 Apr 16 j 10:18	2° ♁ 07'48	0°08'50
retrograde	1059 Jun 19 j 20:06	22° ♁ 07'22		behind sun begin	1060 Apr 16 j 05:57	1° ♁ 44'14	
evening set	1059 Jun 25 j 11:26	20° ♁ 53'20		behind sun end	1060 Apr 16 j 14:40	2° ♁ 31'23	
min. Earth dist.	1059 Jun 30 j 07:24	18° ♁ 10'24	0.57886 AU	asc. node	1060 Apr 17 j 06:10	3° ♁ 55'25	
inferior conj	1059 Jul 03 j 10:53	16° ♁ 00'02	-4°-51'-4	evening rise	1060 Apr 23 j 10:45	17° ♁ 16'46	
minimum elong	1059 Jul 03 j 09:45	16° ♁ 02'01	4°51'04		1060 Apr 29 j 18:08	0° ♁	
morning rise	1059 Jul 11 j 11:51	11° ♁ 44'44		evening max el	1060 May 17 j 09:54	25° ♁ 37'26	23°48'23
direct	1059 Jul 14 j 00:30	11° ♁ 25'23			1060 May 22 j 23:12	0° ♁	
morning max el	1059 Jul 22 j 15:15	15° ♁ 28'20	18°56'05	desc. node	1060 May 26 j 04:14	1° ♁ 34'33	
asc. node	1059 Jul 28 j 08:20	22° ♁ 27'07		retrograde	1060 May 31 j 03:41	2° ♁ 30'48	
	1059 Aug 01 j 22:27	0° ♁		evening set	1060 Jun 04 j 08:23	1° ♁ 52'00	
morning set	1059 Aug 08 j 05:18	11° ♁ 55'27			1060 Jun 08 j 17:02	30° ℞ ♁	
				min. Earth dist.	1060 Jun 10 j 20:40	28° ♁ 46'36	0.56183 AU
superior conj	1059 Aug 16 j 17:15	28° ♁ 32'51	1°43'46	inferior conj	1060 Jun 13 j 03:51	27° ♁ 22'44	-4°-20'-9
minimum elong	1059 Aug 16 j 18:48	28° ♁ 40'14	1°43'42	minimum elong	1060 Jun 12 j 21:47	27° ♁ 32'00	4°19'07
	1059 Aug 17 j 11:32	0° ♁		morning rise	1060 Jun 21 j 14:41	23° ♁ 24'44	
max. Earth dist.	1059 Aug 23 j 13:22	11° ♁ 13'05	1.38914 AU	direct	1060 Jun 24 j 07:28	23° ♁ 06'10	
evening rise	1059 Aug 27 j 11:53	18° ♁ 07'41		morning max el	1060 Jul 04 j 09:04	27° ♁ 46'01	19°58'08
	1059 Sep 03 j 15:46	0° ♁			1060 Jul 06 j 13:21	0° ♁	
desc. node	1059 Sep 05 j 06:32	2° ♁ 33'44		asc. node	1060 Jul 14 j 05:24	10° ♁ 57'56	
	1059 Sep 24 j 14:17	0° ♁		morning set	1060 Jul 22 j 08:49	26° ♁ 25'38	
evening max el	1059 Oct 01 j 22:14	8° ♁ 16'06	24°28'09		1060 Jul 24 j 02:59	0° ♁	
retrograde	1059 Oct 13 j 06:29	14° ♁ 54'11					
evening set	1059 Oct 18 j 16:25	12° ♁ 38'48		superior conj	1060 Jul 30 j 05:08	12° ♁ 21'49	1°46'15
min. Earth dist.	1059 Oct 23 j 09:24	7° ♁ 15'33	0.67481 AU	minimum elong	1060 Jul 30 j 04:51	12° ♁ 20'23	1°46'15
inferior conj	1059 Oct 24 j 03:47	6° ♁ 13'59	0°-3'-14	max. Earth dist.	1060 Aug 04 j 17:54	23° ♁ 08'56	1.36949 AU
minimum elong	1059 Oct 24 j 03:51	6° ♁ 13'44	0°03'14		1060 Aug 08 j 10:33	0° ♁	
transit middle	1059 Oct 24 j 03:51	6° ♁ 13'44	0°03'14	evening rise	1060 Aug 08 j 15:36	0° ♁ 22'55	
transit begin	1059 Oct 24 j 01:10	6° ♁ 22'44		desc. node	1060 Aug 22 j 03:35	22° ♁ 57'08	
transit end	1059 Oct 24 j 06:32	6° ♁ 04'44			1060 Aug 26 j 20:40	0° ♁	
asc. node	1059 Oct 24 j 07:33	6° ♁ 01'22		evening max el	1060 Sep 13 j 10:05	21° ♁ 54'59	25°41'05
morning rise	1059 Oct 29 j 15:39	0° ♁ 08'13		retrograde	1060 Sep 25 j 16:25	28° ♁ 56'11	
	1059 Oct 29 j 20:24	30° ℞ ♁		evening set	1060 Oct 01 j 16:57	26° ♁ 25'36	
direct	1059 Nov 02 j 08:30	28° ♁ 49'37		min. Earth dist.	1060 Oct 06 j 01:59	21° ♁ 38'06	0.66895 AU
	1059 Nov 06 j 02:25	0° ♁		inferior conj	1060 Oct 07 j 07:14	20° ♁ 04'45	0°-59'-31
morning max el	1059 Nov 10 j 02:59	3° ♁ 17'40	20°14'02	minimum elong	1060 Oct 07 j 08:46	19° ♁ 59'52	0°58'53
greatest brilliancy	1059 Nov 16 j 20:48	11° ♁ 24'43	-0.6m	asc. node	1060 Oct 10 j 04:36	16° ♁ 35'59	
	1059 Nov 29 j 16:16	0° ♁		morning rise	1060 Oct 13 j 01:20	14° ♁ 07'24	
desc. node	1059 Dec 02 j 05:46	3° ♁ 53'19		direct	1060 Oct 16 j 07:04	13° ♁ 06'51	
morning set	1059 Dec 07 j 11:19	11° ♁ 55'15		morning max el	1060 Oct 23 j 08:31	17° ♁ 05'14	19°13'52
max. Earth dist.	1059 Dec 17 j 23:15	28° ♁ 26'01	1.43664 AU		1060 Nov 02 j 06:00	0° ♁	
	1059 Dec 18 j 22:39	0° ♁		greatest brilliancy	1060 Nov 02 j 23:40	1° ♁ 05'31	-0.7m
				morning set	1060 Nov 15 j 14:01	20° ♁ 28'03	
superior conj	1059 Dec 23 j 18:24	7° ♁ 50'49	-1°-54'-1	desc. node	1060 Nov 18 j 02:48	24° ♁ 24'53	
minimum elong	1059 Dec 23 j 12:53	7° ♁ 28'09	1°53'43		1060 Nov 21 j 16:40	0° ♁	
evening rise	1060 Jan 05 j 13:51	29° ♁ 33'43		max. Earth dist.	1060 Nov 29 j 14:09	12° ♁ 23'29	1.44741 AU
	1060 Jan 05 j 19:54	0° ♁					
asc. node	1060 Jan 20 j 06:52	23° ≈ 32'27		superior conj	1060 Dec 02 j 09:05	16° ♁ 48'16	-1°-25'-45
evening max el	1060 Jan 23 j 05:01	26° ≈ 56'36	18°10'28	minimum elong	1060 Dec 02 j 00:28	16° ♁ 14'06	1°24'54
	1060 Jan 27 j 14:55	0° ♁			1060 Dec 10 j 14:31	0° ♁	

evening rise	1060 Dec 17 j 01:39	10°♊35'00		1061 Nov 14 j 11:00	0°♊	
	1060 Dec 28 j 23:40	0°♊		evening rise	1061 Nov 27 j 14:00	20°♊39'25
evening max el	1061 Jan 05 j 17:15	10°♊18'32	18°30'10		1061 Dec 03 j 11:48	0°♊
asc. node	1061 Jan 06 j 03:55	10°♊45'01		greatest brilliancy	1061 Dec 09 j 04:14	8°♊53'05 -0.7m
retrograde	1061 Jan 12 j 06:38	13°♊55'04		evening max el	1061 Dec 20 j 02:56	23°♊45'24 19°07'20
evening set	1061 Jan 15 j 06:50	13°♊04'49		asc. node	1061 Dec 24 j 00:56	26°♊53'17
inferior conj	1061 Jan 21 j 04:51	7°♊30'46	3°39'21	retrograde	1061 Dec 27 j 01:57	27°♊43'34
minimum elong	1061 Jan 21 j 03:17	7°♊35'22	3°39'12	evening set	1061 Dec 30 j 08:26	26°♊41'21
min. Earth dist.	1061 Jan 23 j 07:08	5°♊03'34	0.64489 AU	inferior conj	1062 Jan 05 j 00:23	20°♊50'27 3°17'52
morning rise	1061 Jan 26 j 22:23	1°♊23'02		minimum elong	1062 Jan 04 j 21:56	20°♊58'14 3°17'23
	1061 Jan 28 j 20:24	30°♊♊		min. Earth dist.	1062 Jan 06 j 11:28	18°♊59'18 0.65883 AU
direct	1061 Feb 02 j 18:13	28°♊32'51		morning rise	1062 Jan 10 j 10:34	14°♊38'00
	1061 Feb 08 j 02:33	0°♊		direct	1062 Jan 16 j 20:33	11°♊49'57
desc. node	1061 Feb 14 j 01:59	4°♊17'51		morning max el	1062 Jan 29 j 15:57	19°♊22'55 26°26'02
morning max el	1061 Feb 16 j 06:13	6°♊22'00	27°21'36	desc. node	1062 Jan 31 j 23:02	21°♊48'04
	1061 Mar 06 j 09:17	0°♊			1062 Feb 07 j 17:34	0°♊
morning set	1061 Mar 23 j 12:13	29°♊56'41			1062 Feb 27 j 10:27	0°♊
	1061 Mar 23 j 12:54	0°♊		morning set	1062 Mar 06 j 17:05	13°♊06'30
max. Earth dist.	1061 Mar 28 j 08:16	9°♊40'25	1.33613 AU	max. Earth dist.	1062 Mar 10 j 21:03	21°♊07'38 1.34925 AU
					1062 Mar 15 j 06:54	0°♊
superior conj	1061 Mar 31 j 14:51	16°♊31'33	0°-36'-18	superior conj	1062 Mar 15 j 13:25	0°♊33'23 -1°-3'-27
minimum elong	1061 Mar 31 j 16:38	16°♊41'02	0°35'56	minimum elong	1062 Mar 15 j 16:30	0°♊49'17 1°02'55
asc. node	1061 Apr 04 j 03:14	24°♊01'08		asc. node	1062 Mar 22 j 00:16	13°♊58'14
	1061 Apr 06 j 22:40	0°♊		evening rise	1062 Mar 23 j 06:27	16°♊34'33
evening rise	1061 Apr 07 j 21:54	2°♊02'22			1062 Mar 30 j 02:31	0°♊
	1061 Apr 23 j 17:20	0°♊		evening max el	1062 Apr 11 j 03:20	17°♊06'56 20°46'44
evening max el	1061 Apr 29 j 02:20	6°♊10'54	22°13'01	retrograde	1062 Apr 22 j 11:43	22°♊37'19
retrograde	1061 May 11 j 22:38	12°♊30'41		evening set	1062 Apr 24 j 15:49	22°♊26'01
desc. node	1061 May 13 j 01:14	12°♊27'55		desc. node	1062 Apr 29 j 22:15	20°♊37'37
evening set	1061 May 14 j 19:40	12°♊12'24		inferior conj	1062 May 03 j 21:51	18°♊28'20 -1°-9'-3
min. Earth dist.	1061 May 23 j 08:40	8°♊32'23	0.55142 AU	minimum elong	1062 May 03 j 18:34	18°♊33'01 1°07'53
inferior conj	1061 May 24 j 03:56	8°♊05'16	-3°-2'-19	min. Earth dist.	1062 May 04 j 21:17	17°♊54'52 0.55004 AU
minimum elong	1061 May 23 j 20:32	8°♊15'42	3°00'09	morning rise	1062 May 12 j 20:21	14°♊21'27
morning rise	1061 Jun 01 j 23:16	4°♊12'23		direct	1062 May 16 j 08:35	13°♊54'57
direct	1061 Jun 04 j 22:40	3°♊52'28		morning max el	1062 May 29 j 12:04	20°♊14'34 22°57'16
morning max el	1061 Jun 16 j 15:32	9°♊20'25	21°20'13		1062 Jun 06 j 16:55	0°♊
asc. node	1061 Jul 01 j 02:28	0°♊03'09		asc. node	1062 Jun 17 j 23:31	19°♊33'28
	1061 Jul 01 j 01:47	0°♊		morning set	1062 Jun 21 j 03:58	26°♊05'35
morning set	1061 Jul 06 j 17:03	11°♊11'15			1062 Jun 23 j 00:20	0°♊
superior conj	1061 Jul 14 j 03:03	26°♊41'43	1°41'14	superior conj	1062 Jun 28 j 07:44	11°♊22'04 1°30'14
minimum elong	1061 Jul 14 j 01:28	26°♊33'30	1°41'08	minimum elong	1062 Jun 28 j 05:27	11°♊09'53 1°29'58
	1061 Jul 15 j 17:31	0°♊		max. Earth dist.	1062 Jul 01 j 01:24	17°♊09'03 1.33906 AU
max. Earth dist.	1061 Jul 18 j 05:05	5°♊01'38	1.35244 AU	evening rise	1062 Jul 06 j 01:52	27°♊22'21
evening rise	1061 Jul 22 j 13:50	13°♊32'20			1062 Jul 07 j 10:04	0°♊
	1061 Jul 31 j 18:57	0°♊			1062 Jul 25 j 01:19	0°♊
desc. node	1061 Aug 09 j 00:37	13°♊02'01		desc. node	1062 Jul 26 j 21:37	2°♊39'31
	1061 Aug 21 j 17:45	0°♊		evening max el	1062 Aug 09 j 10:03	18°♊56'30 27°16'22
evening max el	1061 Aug 26 j 22:15	5°♊32'05	26°39'38	retrograde	1062 Aug 22 j 20:18	26°♊15'17
retrograde	1061 Sep 08 j 21:10	12°♊46'04		evening set	1062 Aug 29 j 20:51	23°♊31'39
evening set	1061 Sep 15 j 11:17	10°♊04'58		min. Earth dist.	1062 Sep 02 j 15:36	19°♊58'12 0.64672 AU
min. Earth dist.	1061 Sep 19 j 12:49	5°♊54'46	0.65964 AU	inferior conj	1062 Sep 04 j 21:32	17°♊31'09 -2°-53'-6
inferior conj	1061 Sep 21 j 05:55	3°♊52'19	-1°-56'-51	minimum elong	1062 Sep 05 j 01:55	17°♊19'10 2°51'36
minimum elong	1061 Sep 21 j 08:58	3°♊43'13	1°55'40	morning rise	1062 Sep 11 j 08:49	12°♊00'28
	1061 Sep 24 j 18:45	30°♊♊		direct	1062 Sep 13 j 23:14	11°♊25'08
morning rise	1061 Sep 27 j 07:55	28°♊06'40		asc. node	1062 Sep 13 j 22:41	11°♊25'08
asc. node	1061 Sep 27 j 01:38	28°♊15'22		morning max el	1062 Sep 20 j 11:21	14°♊53'09 18°02'06
direct	1061 Sep 30 j 04:48	27°♊20'31			1062 Oct 01 j 04:07	0°♊
	1061 Oct 05 j 19:12	0°♊		morning set	1062 Oct 08 j 02:13	11°♊34'28
morning max el	1061 Oct 06 j 20:08	0°♊59'09	18°29'36		1062 Oct 19 j 05:38	0°♊
morning set	1061 Oct 26 j 17:49	0°♊19'30				
	1061 Oct 26 j 12:58	0°♊		superior conj	1062 Oct 21 j 19:18	4°♊08'30 0°07'08
desc. node	1061 Nov 04 j 23:53	15°♊05'33		minimum elong	1062 Oct 21 j 20:10	4°♊11'57 0°07'01
superior conj	1061 Nov 11 j 10:14	25°♊14'12	0°-41'-47	behind sun begin	1062 Oct 21 j 10:35	3°♊33'29
minimum elong	1061 Nov 11 j 04:49	24°♊52'56	0°41'05	behind sun end	1062 Oct 22 j 05:44	4°♊50'21
max. Earth dist.	1061 Nov 12 j 08:59	26°♊43'36	1.45105 AU	desc. node	1062 Oct 22 j 20:55	5°♊51'02

max. Earth dist.	1062 Oct 26 j 03:49	11° \mathbb{M} 04'41	1.44718 AU	superior conj	1063 Oct 02 j 04:20	14° \mathbb{A} 14'39	0°49'32
evening rise	1062 Nov 07 j 05:54	29° \mathbb{M} 56'07		minimum elong	1063 Oct 02 j 08:45	14° \mathbb{A} 33'08	0°48'57
	1062 Nov 07 j 06:54	0° \mathbb{A}		max. Earth dist.	1063 Oct 08 j 19:27	25° \mathbb{A} 07'49	1.43650 AU
greatest brilliancy	1062 Nov 26 j 08:03	28° \mathbb{A} 33'02	-0.6m	desc. node	1063 Oct 09 j 17:55	26° \mathbb{A} 38'08	
	1062 Nov 27 j 09:26	0° \mathbb{B}			1063 Oct 11 j 20:32	0° \mathbb{M}	
evening max el	1062 Dec 03 j 08:10	7° \mathbb{B} 14'06	20°00'29	evening rise	1063 Oct 17 j 13:24	8° \mathbb{M} 56'04	
retrograde	1062 Dec 10 j 23:35	11° \mathbb{B} 42'34			1063 Oct 31 j 13:13	0° \mathbb{A}	
asc. node	1062 Dec 10 j 21:56	11° \mathbb{B} 42'33		greatest brilliancy	1063 Nov 11 j 00:39	14° \mathbb{A} 32'19	-0.5m
evening set	1062 Dec 14 j 13:59	10° \mathbb{B} 26'52		evening max el	1063 Nov 16 j 07:51	20° \mathbb{A} 43'17	21°06'57
inferior conj	1062 Dec 20 j 02:03	4° \mathbb{B} 22'09	2°45'54	retrograde	1063 Nov 24 j 21:10	25° \mathbb{A} 47'58	
minimum elong	1062 Dec 19 j 23:21	4° \mathbb{B} 31'12	2°45'08	asc. node	1063 Nov 27 j 18:58	25° \mathbb{A} 00'34	
min. Earth dist.	1062 Dec 20 j 23:24	3° \mathbb{B} 10'46	0.66872 AU	evening set	1063 Nov 28 j 21:27	24° \mathbb{A} 17'01	
	1062 Dec 23 j 12:10	30° \mathbb{R} \mathbb{A}		inferior conj	1063 Dec 04 j 07:27	18° \mathbb{A} 01'53	2°05'48
morning rise	1062 Dec 25 j 08:08	28° \mathbb{A} 07'10		minimum elong	1063 Dec 04 j 05:01	18° \mathbb{A} 10'16	2°04'56
direct	1062 Dec 31 j 04:36	25° \mathbb{A} 31'59		min. Earth dist.	1063 Dec 04 j 16:39	17° \mathbb{A} 30'13	0.67484 AU
	1063 Jan 09 j 06:40	0° \mathbb{B}		morning rise	1063 Dec 09 j 12:12	11° \mathbb{A} 46'32	
morning max el	1063 Jan 12 j 00:52	2° \mathbb{B} 35'26	25°09'50	direct	1063 Dec 14 j 17:39	9° \mathbb{A} 30'53	
desc. node	1063 Jan 18 j 20:06	10° \mathbb{B} 20'08		morning max el	1063 Dec 25 j 09:23	15° \mathbb{A} 52'05	23°43'04
	1063 Feb 01 j 21:32	0° \mathbb{A}		desc. node	1064 Jan 05 j 17:08	29° \mathbb{A} 35'31	
morning set	1063 Feb 17 j 05:06	25° \mathbb{A} 22'41			1064 Jan 06 j 00:20	0° \mathbb{B}	
	1063 Feb 19 j 18:08	0° \mathbb{H}			1064 Jan 25 j 21:25	0° \mathbb{A}	
max. Earth dist.	1063 Feb 20 j 22:33	2° \mathbb{H} 11'41	1.36671 AU	morning set	1064 Jan 29 j 18:01	6° \mathbb{A} 27'34	
				max. Earth dist.	1064 Feb 02 j 17:27	13° \mathbb{A} 21'12	1.38734 AU
superior conj	1063 Feb 27 j 02:44	14° \mathbb{H} 03'27	-1°-28'-36				
minimum elong	1063 Feb 27 j 06:43	14° \mathbb{H} 23'07	1°28'05	superior conj	1064 Feb 10 j 03:00	26° \mathbb{A} 51'10	-1°-49'-13
evening rise	1063 Mar 07 j 10:16	0° \mathbb{Y} 47'02		minimum elong	1064 Feb 10 j 06:51	27° \mathbb{A} 09'18	1°48'55
	1063 Mar 07 j 00:56	0° \mathbb{Y}			1064 Feb 11 j 18:52	0° \mathbb{H}	
asc. node	1063 Mar 08 j 21:17	3° \mathbb{Y} 42'21		evening rise	1064 Feb 19 j 06:41	14° \mathbb{H} 31'50	
evening max el	1063 Mar 24 j 15:56	28° \mathbb{Y} 41'23	19°37'15	asc. node	1064 Feb 23 j 18:18	23° \mathbb{H} 07'37	
	1063 Mar 26 j 03:09	0° \mathbb{B}			1064 Feb 27 j 14:44	0° \mathbb{Y}	
retrograde	1063 Apr 03 j 07:05	3° \mathbb{B} 19'41		evening max el	1064 Mar 06 j 15:02	10° \mathbb{Y} 53'27	18°47'20
evening set	1063 Apr 05 j 08:49	3° \mathbb{B} 07'45		retrograde	1064 Mar 14 j 18:27	14° \mathbb{Y} 50'43	
	1063 Apr 12 j 12:24	30° \mathbb{R} \mathbb{Y}		evening set	1064 Mar 17 j 00:42	14° \mathbb{Y} 33'37	
inferior conj	1063 Apr 14 j 00:18	29° \mathbb{Y} 03'55	0°47'35	inferior conj	1064 Mar 24 j 21:20	10° \mathbb{Y} 12'59	2°19'08
minimum elong	1063 Apr 14 j 02:18	29° \mathbb{Y} 00'44	0°46'54	minimum elong	1064 Mar 25 j 01:29	10° \mathbb{Y} 05'19	2°17'59
min. Earth dist.	1063 Apr 16 j 11:41	27° \mathbb{Y} 30'11	0.55821 AU	min. Earth dist.	1064 Mar 28 j 04:31	7° \mathbb{Y} 48'34	0.57415 AU
desc. node	1063 Apr 16 j 19:16	27° \mathbb{Y} 18'33		morning rise	1064 Apr 01 j 21:58	5° \mathbb{Y} 02'17	
morning rise	1063 Apr 22 j 16:12	24° \mathbb{Y} 26'26		desc. node	1064 Apr 02 j 16:18	4° \mathbb{Y} 43'21	
direct	1063 Apr 27 j 02:33	23° \mathbb{Y} 42'24		direct	1064 Apr 07 j 10:33	3° \mathbb{Y} 47'42	
	1063 May 10 j 07:39	0° \mathbb{B}		morning max el	1064 Apr 21 j 18:41	11° \mathbb{Y} 18'23	26°09'35
morning max el	1063 May 11 j 03:13	0° \mathbb{B} 45'29	24°38'38		1064 May 06 j 04:41	0° \mathbb{B}	
	1063 May 31 j 04:40	0° \mathbb{H}		morning set	1064 May 20 j 03:08	25° \mathbb{B} 57'48	
asc. node	1063 Jun 04 j 20:34	9° \mathbb{H} 21'56		asc. node	1064 May 21 j 17:37	29° \mathbb{B} 22'05	
morning set	1063 Jun 05 j 15:53	11° \mathbb{H} 03'12			1064 May 22 j 00:41	0° \mathbb{H}	
superior conj	1063 Jun 12 j 16:44	26° \mathbb{H} 14'54	1°14'24	superior conj	1064 May 27 j 03:59	11° \mathbb{H} 12'37	0°54'39
minimum elong	1063 Jun 12 j 14:18	26° \mathbb{H} 01'40	1°14'01	minimum elong	1064 May 27 j 01:53	11° \mathbb{H} 01'04	0°54'15
	1063 Jun 14 j 10:19	0° \mathbb{B}		max. Earth dist.	1064 May 27 j 16:28	12° \mathbb{H} 21'04	1.32421 AU
max. Earth dist.	1063 Jun 14 j 06:07	29° \mathbb{H} 37'20	1.32968 AU	evening rise	1064 Jun 03 j 04:38	26° \mathbb{H} 20'37	
evening rise	1063 Jun 19 j 23:50	11° \mathbb{B} 41'55			1064 Jun 04 j 23:17	0° \mathbb{B}	
	1063 Jun 29 j 15:33	0° \mathbb{B}			1064 Jun 22 j 04:39	0° \mathbb{B}	
desc. node	1063 Jul 13 j 18:36	21° \mathbb{B} 38'11		desc. node	1064 Jun 29 j 15:37	9° \mathbb{B} 41'40	
	1063 Jul 20 j 21:00	0° \mathbb{B}		evening max el	1064 Jul 04 j 01:23	14° \mathbb{B} 20'03	27°01'01
evening max el	1063 Jul 22 j 19:51	1° \mathbb{B} 56'31	27°24'54	retrograde	1064 Jul 17 j 23:34	21° \mathbb{B} 35'17	
retrograde	1063 Aug 05 j 13:28	9° \mathbb{B} 14'52		evening set	1064 Jul 24 j 23:41	19° \mathbb{B} 24'04	
evening set	1063 Aug 12 j 18:24	6° \mathbb{B} 40'31		min. Earth dist.	1064 Jul 28 j 15:36	16° \mathbb{B} 42'58	0.61092 AU
min. Earth dist.	1063 Aug 16 j 08:45	3° \mathbb{B} 38'43	0.63026 AU	inferior conj	1064 Jul 31 j 20:12	13° \mathbb{B} 57'40	-4°-26'-54
inferior conj	1063 Aug 19 j 03:22	0° \mathbb{B} 55'34	-3°-44'-53	minimum elong	1064 Aug 01 j 00:36	13° \mathbb{B} 48'07	4°26'12
minimum elong	1063 Aug 19 j 08:27	0° \mathbb{B} 43'05	3°43'33	morning rise	1064 Aug 08 j 04:31	9° \mathbb{B} 06'11	
	1063 Aug 20 j 02:13	30° \mathbb{R} \mathbb{B}		direct	1064 Aug 10 j 14:01	8° \mathbb{B} 43'01	
morning rise	1063 Aug 26 j 00:57	25° \mathbb{B} 43'03		morning max el	1064 Aug 17 j 16:55	12° \mathbb{B} 15'01	18°01'10
direct	1063 Aug 28 j 11:31	25° \mathbb{B} 15'12		asc. node	1064 Aug 17 j 16:49	12° \mathbb{B} 14'46	
asc. node	1063 Aug 31 j 19:45	26° \mathbb{B} 08'33			1064 Aug 29 j 14:16	0° \mathbb{B}	
morning max el	1063 Sep 04 j 03:17	28° \mathbb{B} 40'55	17°52'14	morning set	1064 Sep 02 j 12:45	7° \mathbb{B} 13'02	
	1063 Sep 05 j 09:02	0° \mathbb{B}					
morning set	1063 Sep 20 j 10:32	23° \mathbb{B} 57'55		superior conj	1064 Sep 12 j 16:31	25° \mathbb{B} 40'53	1°20'00
	1063 Sep 23 j 20:53	0° \mathbb{B}		minimum elong	1064 Sep 12 j 20:58	26° \mathbb{B} 00'28	1°19'33

	1064 Sep 15 j 03:51	0°♄			1065 Aug 21 j 18:47	0°♍		
max. Earth dist.	1064 Sep 20 j 06:25	8°♄39'48	1.42038 AU					
desc. node	1064 Sep 25 j 14:57	17°♄23'56		superior conj	1065 Aug 26 j 03:35	8°♍14'49	1°38'13	
evening rise	1064 Sep 26 j 06:20	18°♄25'21		minimum elong	1065 Aug 26 j 06:19	8°♍27'28	1°38'02	
	1064 Oct 03 j 17:01	0°♍		max. Earth dist.	1065 Sep 02 j 12:32	21°♍30'37	1.40088 AU	
greatest brilliancy	1064 Oct 24 j 08:27	28°♍54'57	-0.3m	evening rise	1065 Sep 06 j 20:51	28°♍54'47		
	1064 Oct 25 j 06:07	0°♎			1065 Sep 07 j 12:32	0°♄		
evening max el	1064 Oct 29 j 02:09	4°♎14'21	22°22'48	desc. node	1065 Sep 12 j 11:58	8°♄04'26		
retrograde	1064 Nov 07 j 16:57	9°♎57'20			1065 Sep 27 j 05:32	0°♍		
evening set	1064 Nov 12 j 05:08	8°♎09'30		evening max el	1065 Oct 11 j 16:15	17°♍47'53	23°42'48	
asc. node	1064 Nov 13 j 16:01	6°♎47'59		retrograde	1065 Oct 22 j 09:36	24°♍07'10		
inferior conj	1064 Nov 17 j 14:36	1°♎47'39	1°19'22	evening set	1065 Oct 27 j 11:23	22°♍01'33		
minimum elong	1064 Nov 17 j 12:52	1°♎53'38	1°18'40	asc. node	1065 Oct 31 j 13:05	17°♍27'10		
min. Earth dist.	1064 Nov 17 j 12:47	1°♎53'58	0.67747 AU	inferior conj	1065 Nov 01 j 21:42	15°♍36'48	0°28'00	
	1064 Nov 18 j 22:01	30°♏♍		minimum elong	1065 Nov 01 j 21:02	15°♍39'04	0°27'43	
morning rise	1064 Nov 22 j 20:28	25°♍34'10		min. Earth dist.	1065 Nov 01 j 09:20	16°♍18'56	0.67677 AU	
direct	1064 Nov 27 j 10:51	23°♍41'06		morning rise	1065 Nov 07 j 06:49	9°♍27'40		
morning max el	1064 Dec 06 j 20:39	29°♍14'20	22°15'34	direct	1065 Nov 11 j 07:07	7°♍57'05		
	1064 Dec 07 j 14:23	0°♎		morning max el	1065 Nov 19 j 14:11	12°♍46'02	20°55'05	
greatest brilliancy	1064 Dec 11 j 11:36	4°♎25'34	-0.3m	greatest brilliancy	1065 Nov 25 j 05:42	19°♍20'16	-0.5m	
desc. node	1064 Dec 22 j 14:10	19°♎22'06			1065 Dec 02 j 23:55	0°♎		
	1064 Dec 29 j 18:58	0°♏		desc. node	1065 Dec 09 j 11:12	9°♎30'44		
morning set	1065 Jan 09 j 02:24	16°♏08'34		morning set	1065 Dec 19 j 08:07	24°♎36'20		
max. Earth dist.	1065 Jan 14 j 14:22	25°♏13'28	1.40872 AU		1065 Dec 22 j 18:24	0°♏		
	1065 Jan 17 j 09:42	0°♐		max. Earth dist.	1065 Dec 27 j 18:38	8°♏02'40	1.42781 AU	
superior conj	1065 Jan 22 j 09:32	8°♐45'10	-2°-1'-46	superior conj	1066 Jan 03 j 16:51	19°♏32'05	-2°-1'-40	
minimum elong	1065 Jan 22 j 11:24	8°♐53'32	2°01'44	minimum elong	1066 Jan 03 j 14:24	19°♏21'41	2°01'37	
evening rise	1065 Feb 01 j 16:30	27°♐41'32			1066 Jan 09 j 18:40	0°♐		
	1065 Feb 02 j 22:08	0°♑		evening rise	1066 Jan 15 j 11:48	10°♐07'31		
asc. node	1065 Feb 09 j 15:21	12°♑07'48			1066 Jan 27 j 03:04	0°♑		
evening max el	1065 Feb 17 j 21:46	23°♑35'57	18°17'30	asc. node	1066 Jan 27 j 12:23	0°♑34'35		
retrograde	1065 Feb 25 j 00:48	27°♑08'49		evening max el	1066 Feb 01 j 08:53	6°♑39'27	18°07'28	
evening set	1065 Feb 27 j 12:26	26°♑43'55		retrograde	1066 Feb 07 j 23:12	10°♑03'49		
inferior conj	1065 Mar 06 j 15:35	22°♑02'01	3°16'09	evening set	1066 Feb 10 j 15:31	9°♑29'54		
minimum elong	1065 Mar 06 j 18:50	21°♑55'01	3°15'34	inferior conj	1066 Feb 17 j 04:39	4°♑26'25	3°42'31	
min. Earth dist.	1065 Mar 10 j 01:36	19°♑07'21	0.59451 AU	minimum elong	1066 Feb 17 j 05:50	4°♑23'29	3°42'26	
morning rise	1065 Mar 13 j 21:38	16°♑25'26		min. Earth dist.	1066 Feb 20 j 05:58	1°♑26'21	0.61566 AU	
direct	1065 Mar 20 j 07:28	14°♑33'59			1066 Feb 21 j 20:26	30°♒♐		
desc. node	1065 Mar 20 j 13:20	14°♑34'08		morning rise	1066 Feb 23 j 17:34	28°♒32'45		
morning max el	1065 Apr 03 j 15:08	22°♑19'12	27°15'26	direct	1066 Mar 02 j 14:41	26°♒08'36		
	1065 Apr 10 j 09:53	0°♓		desc. node	1066 Mar 07 j 10:23	27°♒12'17		
	1065 Apr 29 j 03:30	0°♔			1066 Mar 12 j 03:33	0°♑		
morning set	1065 May 04 j 12:04	10°♔43'59		morning max el	1066 Mar 16 j 18:02	4°♑01'17	27°46'41	
asc. node	1065 May 08 j 14:39	19°♔29'22			1066 Apr 05 j 01:01	0°♓		
max. Earth dist.	1065 May 11 j 05:02	25°♔10'23	1.32252 AU	morning set	1066 Apr 18 j 16:47	25°♓15'30		
					1066 Apr 20 j 23:37	0°♔		
superior conj	1065 May 11 j 15:45	26°♔09'16	0°31'45	max. Earth dist.	1066 Apr 24 j 15:54	7°♔52'04	1.32457 AU	
minimum elong	1065 May 11 j 14:23	26°♔01'45	0°31'28	asc. node	1066 Apr 25 j 11:43	9°♔39'40		
	1065 May 13 j 09:43	0°♕						
evening rise	1065 May 18 j 13:47	11°♕10'25		superior conj	1066 Apr 26 j 02:19	10°♔59'18	0°06'27	
	1065 May 28 j 05:25	0°♖		minimum elong	1066 Apr 26 j 02:01	10°♔57'39	0°06'23	
evening max el	1065 Jun 16 j 00:19	25°♖57'59	26°04'35	behind sun begin	1066 Apr 25 j 21:19	10°♔32'01		
desc. node	1065 Jun 16 j 12:38	26°♖26'54		behind sun end	1066 Apr 26 j 06:43	11°♔23'19		
	1065 Jun 20 j 23:14	0°♗		evening rise	1066 May 03 j 01:13	26°♔04'14		
retrograde	1065 Jun 30 j 00:43	3°♗09'13			1066 May 04 j 22:15	0°♕		
evening set	1065 Jul 06 j 07:57	1°♗32'50			1066 May 22 j 14:02	0°♖		
	1065 Jul 08 j 23:51	30°♗♖		evening max el	1066 May 28 j 16:37	6°♖53'04	24°42'18	
min. Earth dist.	1065 Jul 10 j 13:00	28°♖55'58	0.59032 AU	desc. node	1066 Jun 03 j 09:39	11°♖23'16		
inferior conj	1065 Jul 13 j 20:23	26°♖27'17	-4°-50'-34	retrograde	1066 Jun 11 j 15:12	13°♖56'51		
minimum elong	1065 Jul 13 j 21:54	26°♖24'24	4°50'31	evening set	1066 Jun 16 j 16:47	12°♖58'50		
morning rise	1065 Jul 21 j 15:20	21°♖58'50		min. Earth dist.	1066 Jun 22 j 03:52	10°♖08'13	0.57101 AU	
direct	1065 Jul 24 j 02:26	21°♖38'19		inferior conj	1066 Jun 25 j 00:58	8°♖15'50	-4°-43'-28	
morning max el	1065 Aug 01 j 01:07	25°♖26'23	18°30'06	minimum elong	1066 Jun 24 j 21:36	8°♖21'21	4°43'11	
asc. node	1065 Aug 04 j 13:53	29°♖28'09		morning rise	1066 Jul 03 j 06:13	4°♖09'08		
	1065 Aug 04 j 23:24	0°♗		direct	1066 Jul 05 j 20:40	3°♖50'09		
morning set	1065 Aug 17 j 03:38	21°♗04'57		morning max el	1066 Jul 15 j 00:57	8°♖06'39	19°20'00	

asc. node	1066 Jul 22 j 10:57	17° ☿ 34'32			1067 Jul 05 j 12:48	0° ☿	
	1066 Jul 29 j 09:39	0° ♊		asc. node	1067 Jul 09 j 08:00	6° ☿ 20'49	
morning set	1066 Aug 01 j 03:24	5° ♊ 23'44		morning set	1067 Jul 16 j 09:09	20° ☿ 00'45	
					1067 Jul 21 j 05:19	0° ♊	
superior conj	1066 Aug 09 j 07:55	21° ♊ 41'02	1°45'51	superior conj	1067 Jul 24 j 00:31	5° ♊ 44'22	1°44'57
minimum elong	1066 Aug 09 j 08:38	21° ♊ 44'32	1°45'50	minimum elong	1067 Jul 23 j 23:37	5° ♊ 39'45	1°44'54
	1066 Aug 13 j 16:17	0° ♊		max. Earth dist.	1067 Jul 28 j 22:30	15° ♊ 31'01	1.36176 AU
max. Earth dist.	1066 Aug 15 j 16:06	3° ♊ 41'33	1.38053 AU	evening rise	1067 Aug 01 j 23:54	23° ♊ 12'20	
evening rise	1066 Aug 19 j 11:46	10° ♊ 33'04			1067 Aug 05 j 18:11	0° ♊	
desc. node	1066 Aug 30 j 09:01	28° ♊ 35'36		desc. node	1067 Aug 17 j 06:03	18° ♊ 51'36	
	1066 Aug 31 j 06:45	0° ♋			1067 Aug 24 j 23:35	0° ♋	
	1066 Sep 22 j 18:50	0° ♋		evening max el	1067 Sep 06 j 15:55	15° ♋ 02'31	26°08'11
evening max el	1066 Sep 24 j 04:13	1° ♋ 24'40	25°00'21	retrograde	1067 Sep 19 j 06:12	22° ♋ 11'13	
retrograde	1066 Oct 05 j 22:14	8° ♋ 13'43		evening set	1067 Sep 25 j 12:43	19° ♋ 35'09	
evening set	1066 Oct 11 j 14:33	5° ♋ 51'12		min. Earth dist.	1067 Sep 29 j 18:23	15° ♋ 03'30	0.66537 AU
min. Earth dist.	1066 Oct 16 j 03:59	0° ♋ 43'12	0.67277 AU	inferior conj	1067 Oct 01 j 04:39	13° ♋ 17'01	-1°-23'-50
	1066 Oct 16 j 17:09	30° ♋		minimum elong	1067 Oct 01 j 06:49	13° ♋ 10'15	1°22'57
inferior conj	1066 Oct 17 j 02:59	29° ♋ 27'35	0°-26'-52	asc. node	1067 Oct 05 j 07:11	8° ♋ 43'13	
minimum elong	1066 Oct 17 j 03:40	29° ♋ 25'22	0°26'35	morning rise	1067 Oct 07 j 01:55	7° ♋ 24'25	
asc. node	1066 Oct 18 j 10:09	27° ♋ 46'37		direct	1067 Oct 10 j 03:30	6° ♋ 30'38	
morning rise	1066 Oct 22 j 17:19	23° ♋ 25'19		morning max el	1067 Oct 16 j 23:59	10° ♋ 19'46	18°53'04
direct	1066 Oct 26 j 05:10	22° ♋ 14'56			1067 Oct 31 j 03:58	0° ♋	
morning max el	1066 Nov 02 j 15:33	26° ♋ 28'49	19°46'39	morning set	1067 Nov 07 j 16:29	11° ♋ 48'48	
	1066 Nov 05 j 18:47	0° ♋		desc. node	1067 Nov 13 j 05:19	20° ♋ 31'18	
greatest brilliancy	1066 Nov 10 j 11:01	6° ♋ 10'21	-0.6m		1067 Nov 19 j 06:12	0° ♌	
desc. node	1066 Nov 26 j 08:15	29° ♋ 55'25		max. Earth dist.	1067 Nov 22 j 22:48	5° ♌ 47'58	1.44978 AU
	1066 Nov 26 j 09:27	0° ♌					
morning set	1066 Nov 28 j 04:34	2° ♌ 46'19		superior conj	1067 Nov 24 j 04:19	7° ♌ 44'03	-1°-8'-32
max. Earth dist.	1066 Dec 10 j 06:14	21° ♌ 39'54	1.44206 AU	minimum elong	1067 Nov 23 j 20:17	7° ♌ 12'26	1°07'37
					1067 Dec 08 j 03:49	0° ♌	
superior conj	1066 Dec 14 j 21:34	29° ♌ 06'02	-1°-44'-19	evening rise	1067 Dec 09 j 14:16	2° ♌ 19'10	
minimum elong	1066 Dec 14 j 14:08	28° ♌ 36'02	1°43'46		1067 Dec 27 j 11:28	0° ♌	
	1066 Dec 15 j 10:55	0° ♌		evening max el	1067 Dec 30 j 08:48	3° ♌ 21'05	18°43'54
evening rise	1066 Dec 28 j 12:19	21° ♌ 41'59		asc. node	1068 Jan 01 j 06:27	5° ♌ 05'17	
	1067 Jan 02 j 09:35	0° ♌		retrograde	1068 Jan 06 j 01:35	7° ♌ 05'55	
asc. node	1067 Jan 14 j 09:26	18° ♌ 17'50		evening set	1068 Jan 09 j 04:10	6° ♌ 10'57	
evening max el	1067 Jan 15 j 21:24	19° ♌ 56'15	18°16'33	inferior conj	1068 Jan 14 j 23:20	0° ♌ 29'33	3°31'43
retrograde	1067 Jan 22 j 08:50	23° ♌ 25'22		minimum elong	1068 Jan 14 j 21:18	0° ♌ 35'43	3°31'26
evening set	1067 Jan 25 j 05:52	22° ♌ 41'30			1068 Jan 15 j 09:01	30° ♌	
inferior conj	1067 Jan 31 j 08:31	17° ♌ 18'00	3°45'35	min. Earth dist.	1068 Jan 16 j 19:07	28° ♌ 16'31	0.65127 AU
minimum elong	1067 Jan 31 j 07:47	17° ♌ 20'03	3°45'34	morning rise	1068 Jan 20 j 13:17	24° ♌ 19'16	
min. Earth dist.	1067 Feb 02 j 19:44	14° ♌ 34'07	0.63509 AU	direct	1068 Jan 27 j 05:32	21° ♌ 28'09	
morning rise	1067 Feb 06 j 07:57	11° ♌ 13'51		desc. node	1068 Feb 09 j 04:27	28° ♌ 55'26	
direct	1067 Feb 13 j 06:28	8° ♌ 28'53		morning max el	1068 Feb 09 j 11:28	29° ♌ 12'55	27°01'03
desc. node	1067 Feb 22 j 07:25	12° ♌ 11'15			1068 Feb 10 j 05:55	0° ♌	
morning max el	1067 Feb 27 j 01:47	16° ♌ 22'39	27°40'40		1068 Mar 03 j 04:40	0° ♍	
	1067 Mar 10 j 08:11	0° ♍		morning set	1068 Mar 16 j 03:06	22° ♍ 58'24	
	1067 Mar 28 j 18:02	0° ♍			1068 Mar 19 j 16:53	0° ♍	
morning set	1067 Apr 02 j 14:48	9° ♍ 23'29		max. Earth dist.	1068 Mar 20 j 16:04	1° ♍ 56'51	1.34113 AU
max. Earth dist.	1067 Apr 07 j 20:53	20° ♍ 11'05	1.33064 AU				
				superior conj	1068 Mar 24 j 12:26	9° ♍ 52'43	0°-47'-56
superior conj	1067 Apr 10 j 09:52	25° ♍ 35'47	0°-20'-28	minimum elong	1068 Mar 24 j 14:48	10° ♍ 05'06	0°47'29
minimum elong	1067 Apr 10 j 10:52	25° ♍ 41'08	0°20'17	asc. node	1068 Mar 29 j 05:46	19° ♍ 50'45	
asc. node	1067 Apr 12 j 08:44	29° ♍ 48'06		evening rise	1068 Mar 31 j 23:15	25° ♍ 35'07	
	1067 Apr 12 j 10:56	0° ♍			1068 Apr 03 j 02:40	0° ♍	
evening rise	1067 Apr 17 j 12:58	10° ♍ 54'27		evening max el	1068 Apr 21 j 02:11	28° ♍ 05'19	21°34'37
	1067 Apr 27 j 09:32	0° ♍			1068 Apr 23 j 05:56	0° ♍	
evening max el	1067 May 10 j 06:43	17° ♍ 24'52	23°07'22	retrograde	1068 May 03 j 09:01	4° ♍ 05'26	
desc. node	1067 May 21 j 06:41	23° ♍ 53'33		evening set	1068 May 05 j 20:23	3° ♍ 51'36	
retrograde	1067 May 23 j 17:33	24° ♍ 07'15		desc. node	1068 May 07 j 03:40	3° ♍ 33'44	
evening set	1067 May 27 j 07:33	23° ♍ 39'05			1068 May 14 j 22:55	30° ♍	
min. Earth dist.	1067 Jun 03 j 16:11	20° ♍ 20'27	0.55637 AU	inferior conj	1068 May 15 j 05:40	29° ♍ 50'32	-2°-17'00
inferior conj	1067 Jun 05 j 09:53	19° ♍ 19'36	-3°-52'-46	minimum elong	1068 May 14 j 23:29	29° ♍ 59'12	2°14'58
minimum elong	1067 Jun 05 j 02:34	19° ♍ 30'19	3°51'07	min. Earth dist.	1068 May 15 j 04:40	29° ♍ 51'57	0.54965 AU
morning rise	1067 Jun 14 j 00:43	15° ♍ 26'08		morning rise	1068 May 24 j 03:15	25° ♍ 53'43	
direct	1067 Jun 16 j 19:40	15° ♍ 07'32		direct	1068 May 27 j 06:53	25° ♍ 31'58	
morning max el	1067 Jun 27 j 14:06	20° ♍ 06'35	20°30'53				

	1068 Jun 07 j 02:07	0°♂		direct	1069 May 07 j 19:26	5°♂23'57	
morning max el	1068 Jun 08 j 16:02	1°♂22'53	22°00'06	morning max el	1069 May 21 j 09:23	12°♂03'41	23°40'35
asc. node	1068 Jun 25 j 05:02	25°♂37'16			1069 Jun 03 j 22:30	0°♂	
	1068 Jun 27 j 10:10	0°♂		asc. node	1069 Jun 12 j 02:05	15°♂16'05	
morning set	1068 Jun 29 j 18:42	4°♂50'06		morning set	1069 Jun 14 j 06:16	19°♂46'32	
					1069 Jun 19 j 00:49	0°♂	
superior conj	1068 Jul 07 j 01:38	20°♂13'40	1°37'13				
minimum elong	1068 Jul 06 j 23:41	20°♂03'24	1°37'03	superior conj	1069 Jun 21 j 08:26	5°♂00'14	1°24'02
max. Earth dist.	1068 Jul 10 j 13:08	27°♂26'31	1.34627 AU	minimum elong	1069 Jun 21 j 06:01	4°♂47'14	1°23'44
	1068 Jul 11 j 19:24	0°♂		max. Earth dist.	1069 Jun 23 j 13:25	9°♂43'39	1.33463 AU
evening rise	1068 Jul 15 j 04:31	6°♂40'20		evening rise	1069 Jun 28 j 21:15	20°♂44'40	
	1068 Jul 28 j 09:47	0°♂			1069 Jul 03 j 15:54	0°♂	
desc. node	1068 Aug 03 j 03:03	8°♂45'32		desc. node	1069 Jul 21 j 00:02	28°♂08'13	
evening max el	1068 Aug 19 j 04:02	28°♂35'09	26°58'27		1069 Jul 22 j 09:03	0°♂	
	1068 Aug 20 j 16:45	0°♂		evening max el	1069 Aug 01 j 15:33	11°♂52'00	27°23'53
retrograde	1068 Sep 01 j 08:44	5°♂52'34		retrograde	1069 Aug 15 j 05:21	19°♂10'22	
evening set	1068 Sep 08 j 03:40	3°♂09'22		evening set	1069 Aug 22 j 08:34	16°♂29'29	
	1068 Sep 11 j 09:58	30°♂		min. Earth dist.	1069 Aug 26 j 01:10	13°♂10'09	0.64010 AU
min. Earth dist.	1068 Sep 12 j 02:11	29°♂14'48	0.65450 AU	inferior conj	1069 Aug 28 j 12:28	10°♂35'18	-3°-15'-53
inferior conj	1068 Sep 14 j 00:36	27°♂01'10	-2°-21'-4	minimum elong	1069 Aug 28 j 17:16	10°♂22'44	3°14'24
minimum elong	1068 Sep 14 j 04:16	26°♂50'36	2°19'42	morning rise	1069 Sep 04 j 04:00	5°♂11'38	
morning rise	1068 Sep 20 j 06:23	21°♂21'16		direct	1069 Sep 06 j 16:31	4°♂39'44	
asc. node	1068 Sep 21 j 04:14	20°♂58'37		asc. node	1069 Sep 08 j 01:17	4°♂49'13	
direct	1068 Sep 23 j 00:07	20°♂40'15		morning max el	1069 Sep 13 j 05:14	8°♂05'49	17°55'41
morning max el	1068 Sep 29 j 13:24	24°♂13'43	18°15'46		1069 Sep 27 j 19:23	0°♂	
	1068 Oct 04 j 06:35	0°♂		morning set	1069 Sep 30 j 04:06	4°♂03'17	
morning set	1068 Oct 18 j 08:39	22°♂16'13					
	1068 Oct 23 j 02:30	0°♂		superior conj	1069 Oct 13 j 00:11	25°♂35'58	0°26'24
desc. node	1068 Oct 30 j 02:21	11°♂14'01		minimum elong	1069 Oct 13 j 03:03	25°♂47'38	0°25'59
					1069 Oct 15 j 17:21	0°♂	
superior conj	1068 Nov 02 j 06:07	16°♂14'25	0°-20'-52	desc. node	1069 Oct 16 j 23:23	2°♂00'37	
minimum elong	1068 Nov 02 j 03:24	16°♂03'42	0°20'31	max. Earth dist.	1069 Oct 18 j 11:44	4°♂25'46	1.44343 AU
max. Earth dist.	1068 Nov 04 j 17:33	20°♂08'44	1.45023 AU	evening rise	1069 Oct 29 j 03:20	21°♂05'09	
	1068 Nov 11 j 00:25	0°♂			1069 Nov 03 j 23:18	0°♂	
evening rise	1068 Nov 18 j 16:56	12°♂00'08		greatest brilliancy	1069 Nov 19 j 16:32	22°♂54'37	-0.5m
	1068 Nov 30 j 07:30	0°♂			1069 Nov 25 j 12:46	0°♂	
greatest brilliancy	1068 Dec 04 j 02:50	5°♂41'44	-0.7m	evening max el	1069 Nov 25 j 19:55	0°♂18'37	20°27'21
evening max el	1068 Dec 12 j 16:51	16°♂49'13	19°28'13	retrograde	1069 Dec 03 j 19:51	5°♂01'23	
asc. node	1068 Dec 18 j 03:29	20°♂41'45		asc. node	1069 Dec 05 j 00:31	4°♂53'20	
retrograde	1068 Dec 19 j 22:04	20°♂59'09		evening set	1069 Dec 07 j 14:18	3°♂39'16	
evening set	1068 Dec 23 j 07:42	19°♂51'30			1069 Dec 11 j 03:53	30°♂	
inferior conj	1068 Dec 28 j 21:47	13°♂54'39	3°05'26	inferior conj	1069 Dec 13 j 01:18	27°♂29'50	2°29'46
minimum elong	1068 Dec 28 j 19:09	14°♂03'13	3°04'49	minimum elong	1069 Dec 12 j 22:39	27°♂38'49	2°28'55
min. Earth dist.	1068 Dec 30 j 02:55	12°♂20'00	0.66354 AU	min. Earth dist.	1069 Dec 13 j 17:17	26°♂35'37	0.67183 AU
morning rise	1069 Jan 03 j 05:51	7°♂40'57		morning rise	1069 Dec 18 j 06:31	21°♂14'42	
direct	1069 Jan 09 j 10:32	4°♂56'58		direct	1069 Dec 23 j 20:46	18°♂47'16	
morning max el	1069 Jan 21 j 20:40	12°♂19'00	25°55'30	morning max el	1070 Jan 04 j 05:05	25°♂33'06	24°33'38
desc. node	1069 Jan 26 j 01:30	16°♂54'22			1070 Jan 08 j 06:37	0°♂	
	1069 Feb 05 j 02:28	0°♂		desc. node	1070 Jan 12 j 22:34	5°♂46'29	
	1069 Feb 23 j 20:48	0°♂			1070 Jan 29 j 15:22	0°♂	
morning set	1069 Feb 27 j 01:27	5°♂47'13		morning set	1070 Feb 09 j 04:25	17°♂34'46	
max. Earth dist.	1069 Mar 02 j 23:26	13°♂10'06	1.35622 AU	max. Earth dist.	1070 Feb 12 j 21:30	24°♂12'59	1.37530 AU
					1070 Feb 16 j 00:34	0°♂	
superior conj	1069 Mar 08 j 07:28	23°♂42'18	-1°-14'-30				
minimum elong	1069 Mar 08 j 11:01	24°♂00'15	1°13'56	superior conj	1070 Feb 19 j 15:47	6°♂55'51	-1°-38'-5
	1069 Mar 11 j 09:31	0°♂		minimum elong	1070 Feb 19 j 19:53	7°♂15'41	1°37'38
evening rise	1069 Mar 16 j 06:03	9°♂59'34		evening rise	1070 Feb 28 j 07:05	24°♂01'20	
asc. node	1069 Mar 16 j 02:48	9°♂42'55		asc. node	1070 Mar 02 j 23:50	29°♂19'50	
	1069 Mar 27 j 00:59	0°♂			1070 Mar 03 j 08:07	0°♂	
evening max el	1069 Apr 03 j 08:10	9°♂17'22	20°14'52	evening max el	1070 Mar 17 j 01:31	21°♂08'19	19°13'28
retrograde	1069 Apr 13 j 22:40	14°♂24'14		retrograde	1070 Mar 26 j 00:03	25°♂27'16	
evening set	1069 Apr 16 j 00:31	14°♂13'18		evening set	1070 Mar 28 j 03:31	25°♂13'26	
desc. node	1069 Apr 24 j 00:40	10°♂51'32		inferior conj	1070 Apr 05 j 11:02	21°♂02'59	1°30'32
inferior conj	1069 Apr 25 j 01:29	10°♂15'07	0°-17'-56	minimum elong	1070 Apr 05 j 14:25	20°♂57'17	1°29'26
minimum elong	1069 Apr 25 j 00:39	10°♂16'21	0°17'38	min. Earth dist.	1070 Apr 08 j 08:54	19°♂06'09	0.56427 AU
min. Earth dist.	1069 Apr 26 j 18:00	9°♂15'23	0.55248 AU	desc. node	1070 Apr 10 j 21:43	17°♂34'22	
morning rise	1069 May 03 j 22:28	5°♂56'35		morning rise	1070 Apr 13 j 21:18	16°♂11'18	

direct	1070 Apr 18 j 18:55	15° Υ 15'51		min. Earth dist.	1071 Mar 21 j 03:20	29° X 50'10	0.58241 AU
morning max el	1070 May 02 j 23:53	22° Υ 31'38	25°19'36	morning rise	1071 Mar 25 j 10:04	27° X 07'12	
	1070 May 09 j 14:45	0° X		desc. node	1071 Mar 28 j 18:46	25° X 54'22	
	1070 May 27 j 11:24	0° Π		direct	1071 Mar 31 j 08:26	25° X 37'24	
morning set	1070 May 29 j 18:07	4° Π 43'54			1071 Apr 11 j 00:01	0° Υ	
asc. node	1070 May 29 j 23:07	5° Π 10'15		morning max el	1071 Apr 14 j 17:25	3° Υ 15'39	26°41'27
					1071 May 04 j 01:07	0° X	
superior conj	1070 Jun 05 j 18:37	19° Π 55'57	1°06'26	morning set	1071 May 14 j 04:40	19° X 36'42	
minimum elong	1070 Jun 05 j 16:16	19° Π 43'06	1°06'03	asc. node	1071 May 16 j 20:10	25° X 14'40	
max. Earth dist.	1070 Jun 06 j 21:13	22° Π 21'02	1.32692 AU		1071 May 19 j 00:40	0° Π	
	1070 Jun 10 j 10:29	0° X					
evening rise	1070 Jun 12 j 22:29	5° X 13'38		superior conj	1071 May 21 j 06:20	4° Π 54'42	0°45'17
	1070 Jun 26 j 07:15	0° Ω		minimum elong	1071 May 21 j 04:30	4° Π 44'35	0°44'56
desc. node	1070 Jul 07 j 21:02	16° Ω 45'53		max. Earth dist.	1071 May 21 j 09:04	5° Π 09'43	1.32303 AU
evening max el	1070 Jul 14 j 23:55	24° Ω 38'12	27°18'48	evening rise	1071 May 28 j 05:27	19° Π 58'30	
	1070 Jul 22 j 01:54	0° X			1071 Jun 02 j 04:27	0° X	
retrograde	1070 Jul 28 j 19:19	1° X 54'38			1071 Jun 20 j 23:45	0° Ω	
	1070 Aug 04 j 03:47	30° R Ω		desc. node	1071 Jun 24 j 18:03	4° Ω 19'44	
evening set	1070 Aug 04 j 23:44	29° Ω 28'23		evening max el	1071 Jun 27 j 02:37	6° Ω 42'26	26°40'36
min. Earth dist.	1070 Aug 08 j 13:46	26° Ω 37'19	0.62237 AU	retrograde	1071 Jul 11 j 01:57	13° Ω 56'39	
inferior conj	1070 Aug 11 j 13:12	23° Ω 51'24	-4°-4'-19	evening set	1071 Jul 17 j 20:41	11° Ω 58'43	
minimum elong	1070 Aug 11 j 18:13	23° Ω 39'43	4°03'13	min. Earth dist.	1071 Jul 21 j 16:11	9° Ω 21'55	0.60224 AU
morning rise	1070 Aug 18 j 15:21	18° Ω 47'31		inferior conj	1071 Jul 24 j 23:23	6° Ω 40'53	-4°-39'-50
direct	1070 Aug 21 j 01:15	18° Ω 21'50		minimum elong	1071 Jul 25 j 02:52	6° Ω 33'46	4°39'26
asc. node	1070 Aug 25 j 22:21	20° Ω 09'43		morning rise	1071 Aug 01 j 12:20	1° Ω 59'29	
morning max el	1070 Aug 27 j 20:34	21° Ω 48'44	17°53'43	direct	1071 Aug 03 j 22:13	1° Ω 37'41	
	1070 Sep 03 j 03:04	0° X		morning max el	1071 Aug 11 j 08:21	5° Ω 14'53	18°10'58
morning set	1070 Sep 12 j 20:44	16° X 50'44		asc. node	1071 Aug 12 j 19:25	6° Ω 46'37	
	1070 Sep 20 j 05:54	0° X			1071 Aug 27 j 00:00	0° X	
				morning set	1071 Aug 27 j 04:50	0° X 22'44	
superior conj	1070 Sep 23 j 21:00	6° X 16'47	1°04'01				
minimum elong	1070 Sep 24 j 01:46	6° X 37'09	1°03'27	superior conj	1071 Sep 05 j 19:38	18° X 14'05	1°29'09
max. Earth dist.	1070 Oct 01 j 02:03	18° X 19'10	1.43022 AU	minimum elong	1071 Sep 05 j 23:28	18° X 31'18	1°28'48
desc. node	1070 Oct 03 j 20:24	22° X 47'24			1071 Sep 12 j 12:36	0° X	
	1070 Oct 08 j 09:41	0° X		max. Earth dist.	1071 Sep 13 j 10:32	1° X 33'08	1.41234 AU
evening rise	1070 Oct 08 j 12:46	0° X 12'05		evening rise	1071 Sep 18 j 13:53	10° X 03'58	
	1070 Oct 28 j 15:03	0° X		desc. node	1071 Sep 20 j 17:25	13° X 31'16	
greatest brilliancy	1070 Nov 03 j 19:49	8° X 12'10	-0.4m		1071 Oct 01 j 11:09	0° X	
evening max el	1070 Nov 08 j 17:11	13° X 48'02	21°38'20	greatest brilliancy	1071 Oct 17 j 02:34	21° X 23'36	-0.2m
retrograde	1070 Nov 17 j 16:54	19° X 08'56		evening max el	1071 Oct 22 j 09:17	27° X 19'04	22°56'41
evening set	1070 Nov 21 j 22:06	17° X 30'42			1071 Oct 25 j 07:18	0° X	
asc. node	1070 Nov 21 j 21:35	17° X 31'43		retrograde	1071 Nov 01 j 11:37	3° X 18'46	
inferior conj	1070 Nov 27 j 07:41	11° X 12'06	1°46'47	evening set	1071 Nov 06 j 05:23	1° X 23'18	
minimum elong	1070 Nov 27 j 05:30	11° X 19'39	1°45'58		1071 Nov 07 j 16:32	30° R X	
min. Earth dist.	1070 Nov 27 j 11:59	10° X 57'12	0.67636 AU	asc. node	1071 Nov 08 j 18:39	28° X 45'37	
morning rise	1070 Dec 02 j 12:38	4° X 57'27		inferior conj	1071 Nov 11 j 15:01	24° X 59'26	0°58'05
direct	1070 Dec 07 j 11:32	2° X 51'31		minimum elong	1071 Nov 11 j 13:42	25° X 03'58	0°57'32
morning max el	1070 Dec 17 j 14:31	8° X 52'17	23°05'32	min. Earth dist.	1071 Nov 11 j 08:38	25° X 21'27	0.67750 AU
greatest brilliancy	1070 Dec 22 j 11:27	14° X 19'17	-0.3m	morning rise	1071 Nov 16 j 22:01	18° X 47'25	
desc. node	1070 Dec 30 j 19:38	25° X 16'19		direct	1071 Nov 21 j 06:06	17° X 04'15	
	1071 Jan 03 j 03:37	0° X		morning max el	1071 Nov 30 j 04:11	22° X 18'22	21°40'07
morning set	1071 Jan 21 j 05:45	28° X 05'15		greatest brilliancy	1071 Dec 05 j 02:13	27° X 53'25	-0.4m
	1071 Jan 22 j 09:10	0° X			1071 Dec 06 j 18:16	0° X	
max. Earth dist.	1071 Jan 25 j 16:49	5° X 39'25	1.39648 AU	desc. node	1071 Dec 17 j 16:40	15° X 12'59	
					1071 Dec 27 j 11:51	0° X	
superior conj	1071 Feb 02 j 09:11	19° X 22'30	-1°-55'-47	morning set	1072 Jan 01 j 01:46	7° X 11'29	
minimum elong	1071 Feb 02 j 12:28	19° X 37'40	1°55'36	max. Earth dist.	1072 Jan 07 j 16:07	17° X 53'57	1.41717 AU
	1071 Feb 08 j 00:57	0° X			1072 Jan 14 j 19:12	0° X	
evening rise	1071 Feb 11 j 23:29	7° X 32'57					
asc. node	1071 Feb 17 j 20:53	18° X 35'53		superior conj	1072 Jan 15 j 06:25	0° X 48'53	-2°-3'-34
	1071 Feb 25 j 01:08	0° Υ		minimum elong	1072 Jan 15 j 06:44	0° X 50'13	2°03'36
evening max el	1071 Feb 28 j 04:14	3° Υ 34'45	18°32'11	evening rise	1072 Jan 26 j 03:39	20° X 25'00	
retrograde	1071 Mar 07 j 20:02	7° Υ 20'05			1072 Jan 31 j 10:05	0° X	
evening set	1071 Mar 10 j 04:29	6° Υ 59'59		asc. node	1072 Feb 04 j 17:57	7° X 23'11	
inferior conj	1071 Mar 17 j 17:18	2° Υ 30'18	2°47'28	evening max el	1072 Feb 11 j 13:12	16° X 27'10	18°10'55
minimum elong	1071 Mar 17 j 21:20	2° Υ 22'20	2°46'30	retrograde	1072 Feb 18 j 09:42	19° X 54'50	
	1071 Mar 20 j 22:05	30° R X		evening set	1072 Feb 20 j 23:14	19° X 26'23	

inferior conj	1072 Feb 27 j 20:01	14° ✕ 35'30	3°30'36	retrograde	1073 Jan 31 j 13:12	3° ✕ 01'58	
minimum elong	1072 Feb 27 j 22:26	14° ✕ 29'58	3°30'17	evening set	1073 Feb 03 j 07:32	2° ✕ 23'54	
min. Earth dist.	1072 Mar 02 j 03:29	11° ✕ 35'12	0.60349 AU		1073 Feb 06 j 19:20	30° ℞	
morning rise	1072 Mar 05 j 18:22	8° ✕ 50'26		inferior conj	1073 Feb 09 j 15:49	27° ≈ 12'00	3°46'12
direct	1072 Mar 12 j 10:13	6° ✕ 43'44		minimum elong	1073 Feb 09 j 16:08	27° ≈ 11'11	3°46'12
desc. node	1072 Mar 14 j 15:49	6° ✕ 57'19		min. Earth dist.	1073 Feb 12 j 11:38	24° ≈ 16'23	0.62429 AU
morning max el	1072 Mar 26 j 16:44	14° ✕ 33'53	27°33'14	morning rise	1073 Feb 15 j 22:31	21° ≈ 13'24	
	1072 Apr 08 j 03:32	0° Υ		direct	1073 Feb 22 j 21:34	18° ≈ 38'23	
	1072 Apr 25 j 09:31	0° ♄		desc. node	1073 Mar 01 j 12:52	20° ≈ 39'16	
morning set	1072 Apr 27 j 12:04	4° ♄ 17'44		morning max el	1073 Mar 08 j 21:44	26° ≈ 32'26	27°48'30
asc. node	1072 May 02 j 17:13	15° ♄ 23'55			1073 Mar 12 j 03:43	0° ✕	
max. Earth dist.	1072 May 03 j 21:14	17° ♄ 56'47	1.32289 AU		1073 Apr 01 j 17:12	0° Υ	
				morning set	1073 Apr 11 j 14:12	18° Υ 39'53	
superior conj	1072 May 04 j 17:49	19° ♄ 49'32	0°21'18	max. Earth dist.	1073 Apr 17 j 05:52	0° ♄ 29'11	1.32663 AU
minimum elong	1072 May 04 j 16:52	19° ♄ 44'19	0°21'05		1073 Apr 17 j 00:25	0° ♄	
	1072 May 09 j 09:28	0° ♄					
evening rise	1072 May 11 j 15:47	4° ♄ 50'49		superior conj	1073 Apr 19 j 03:19	4° ♄ 34'32	0°-4'-49
	1072 May 25 j 00:50	0° ♄		minimum elong	1073 Apr 19 j 03:33	4° ♄ 35'46	0°04'48
evening max el	1072 Jun 07 j 22:25	18° ♄ 00'48	25°32'03	behind sun begin	1073 Apr 18 j 22:35	4° ♄ 08'53	
desc. node	1072 Jun 10 j 15:04	20° ♄ 23'07		behind sun end	1073 Apr 19 j 08:30	5° ♄ 02'40	
retrograde	1072 Jun 21 j 23:17	25° ♄ 10'28		asc. node	1073 Apr 19 j 14:15	5° ♄ 33'54	
evening set	1072 Jun 27 j 19:01	23° ♄ 50'43		evening rise	1073 Apr 26 j 03:33	19° ♄ 43'44	
min. Earth dist.	1072 Jul 02 j 10:34	21° ♄ 09'46	0.58175 AU		1073 May 01 j 04:18	0° ♄	
inferior conj	1072 Jul 05 j 15:29	18° ♄ 54'06	-4°-52'-11	evening max el	1073 May 20 j 13:11	28° ♄ 43'18	24°02'38
minimum elong	1072 Jul 05 j 15:06	18° ♄ 54'48	4°52'11		1073 May 21 j 22:29	0° ♄	
morning rise	1072 Jul 13 j 14:54	14° ♄ 35'23		desc. node	1073 May 28 j 12:05	4° ♄ 21'55	
direct	1072 Jul 16 j 03:01	14° ♄ 15'48		retrograde	1073 Jun 03 j 08:30	5° ♄ 39'39	
morning max el	1072 Jul 24 j 13:24	18° ♄ 14'40	18°48'40	evening set	1073 Jun 07 j 18:43	4° ♄ 56'19	
asc. node	1072 Jul 29 j 16:28	24° ♄ 24'21		min. Earth dist.	1073 Jun 14 j 00:08	1° ♄ 55'11	0.56403 AU
	1072 Aug 02 j 05:35	0° ♄		inferior conj	1073 Jun 16 j 11:25	0° ♄ 23'38	-4°-27'-51
morning set	1072 Aug 09 j 23:54	14° ♄ 27'12		minimum elong	1073 Jun 16 j 05:59	0° ♄ 32'05	4°27'03
	1072 Aug 17 j 23:31	0° ♄			1073 Jun 17 j 02:43	30° ℞ ♄	
superior conj	1072 Aug 18 j 14:44	1° ♄ 12'24	1°42'37	morning rise	1073 Jun 24 j 20:49	26° ♄ 23'38	
minimum elong	1072 Aug 18 j 16:35	1° ♄ 21'12	1°42'32	direct	1073 Jun 27 j 13:00	26° ♄ 04'57	
max. Earth dist.	1072 Aug 25 j 14:34	14° ♄ 04'01	1.39217 AU		1073 Jul 06 j 15:42	0° ♄	
evening rise	1072 Aug 29 j 14:58	21° ♄ 03'32		morning max el	1073 Jul 07 j 08:48	0° ♄ 38'19	19°47'34
	1072 Sep 04 j 00:11	0° ♄		asc. node	1073 Jul 16 j 13:30	12° ♄ 49'08	
desc. node	1072 Sep 06 j 14:26	4° ♄ 08'34		morning set	1073 Jul 25 j 02:30	28° ♄ 54'44	
	1072 Sep 24 j 12:43	0° ♄			1073 Jul 25 j 15:26	0° ♄	
evening max el	1072 Oct 03 j 22:13	10° ♄ 54'25	24°16'34	superior conj	1073 Aug 02 j 00:45	14° ♄ 55'44	1°46'24
retrograde	1072 Oct 15 j 02:45	17° ♄ 27'51		minimum elong	1073 Aug 02 j 00:43	14° ♄ 55'33	1°46'23
evening set	1072 Oct 20 j 10:31	15° ♄ 15'04		max. Earth dist.	1073 Aug 07 j 18:45	26° ♄ 03'26	1.37228 AU
min. Earth dist.	1072 Oct 25 j 04:47	9° ♄ 46'40	0.67542 AU		1073 Aug 09 j 21:44	0° ♄	
inferior conj	1072 Oct 25 j 21:34	8° ♄ 50'10	0°05'04	evening rise	1073 Aug 11 j 15:28	3° ♄ 09'28	
minimum elong	1072 Oct 25 j 21:26	8° ♄ 50'35	0°05'02	desc. node	1073 Aug 24 j 11:26	24° ♄ 34'09	
transit middle	1072 Oct 25 j 21:26	8° ♄ 50'35	0°05'02		1073 Aug 28 j 01:34	0° ♄	
transit begin	1072 Oct 25 j 18:50	8° ♄ 59'21		evening max el	1073 Sep 16 j 10:05	24° ♄ 33'04	25°30'56
transit end	1072 Oct 26 j 00:02	8° ♄ 41'50			1073 Sep 23 j 08:48	0° ♄	
asc. node	1072 Oct 25 j 15:41	9° ♄ 09'58		retrograde	1073 Sep 28 j 13:19	1° ♄ 31'11	
morning rise	1072 Oct 31 j 08:39	2° ♄ 43'20			1073 Oct 03 j 05:31	30° ℞ ♄	
direct	1072 Nov 04 j 03:24	1° ♄ 21'38		evening set	1073 Oct 04 j 11:45	29° ♄ 02'38	
morning max el	1072 Nov 12 j 00:55	5° ♄ 54'48	20°24'13	min. Earth dist.	1073 Oct 08 j 21:56	24° ♄ 09'47	0.67006 AU
greatest brilliancy	1072 Nov 18 j 11:10	13° ♄ 34'43	-0.5m	inferior conj	1073 Oct 10 j 01:32	22° ♄ 41'02	0°-50'-52
	1072 Nov 29 j 22:18	0° ♄		minimum elong	1073 Oct 10 j 02:50	22° ♄ 36'51	0°50'19
desc. node	1072 Dec 03 j 13:43	5° ♄ 29'19		asc. node	1073 Oct 12 j 12:43	19° ♄ 38'49	
morning set	1072 Dec 10 j 00:26	15° ♄ 22'19		morning rise	1073 Oct 15 j 18:36	16° ♄ 42'20	
	1072 Dec 19 j 07:20	0° ♄		direct	1073 Oct 19 j 01:53	15° ♄ 39'16	
max. Earth dist.	1072 Dec 19 j 23:11	1° ♄ 03'40	1.43455 AU	morning max el	1073 Oct 26 j 05:21	19° ♄ 41'11	19°21'53
					1073 Nov 03 j 09:00	0° ♄	
superior conj	1072 Dec 26 j 02:35	11° ♄ 05'00	-1°-56'-38	greatest brilliancy	1073 Nov 04 j 16:32	1° ♄ 54'07	-0.7m
minimum elong	1072 Dec 25 j 21:51	10° ♄ 45'24	1°56'25	morning set	1073 Nov 19 j 00:46	23° ♄ 47'20	
	1073 Jan 06 j 05:10	0° ≈		desc. node	1073 Nov 20 j 10:45	25° ♄ 59'18	
evening rise	1073 Jan 07 j 15:27	2° ≈ 29'41			1073 Nov 23 j 00:36	0° ♄	
asc. node	1073 Jan 21 j 14:59	25° ≈ 32'55		max. Earth dist.	1073 Dec 02 j 13:29	14° ♄ 57'13	1.44629 AU
evening max el	1073 Jan 25 j 01:18	29° ≈ 37'24	18°09'06				
	1073 Jan 25 j 10:35	0° ✕		superior conj	1073 Dec 05 j 20:37	20° ♄ 11'11	-1°-31'-13

minimum elong	1073 Dec 05 j 12:07	19° ♄ 37'18	1°30'24		1074 Nov 15 j 19:21	0° ♄	
	1073 Dec 11 j 23:08	0° ♄		evening rise	1074 Nov 30 j 22:26	23° ♄ 52'27	
evening rise	1073 Dec 20 j 06:38	13° ♄ 39'48			1074 Dec 04 j 18:50	0° ♄	
	1073 Dec 30 j 04:08	0° ♄		evening max el	1074 Dec 22 j 23:48	26° ♄ 24'33	19°00'45
evening max el	1074 Jan 08 j 13:39	12° ♄ 58'12	18°26'02	asc. node	1074 Dec 26 j 09:02	29° ♄ 13'07	
asc. node	1074 Jan 08 j 12:00	12° ♄ 54'00			1074 Dec 28 j 00:33	0° ♄	
retrograde	1074 Jan 15 j 02:14	16° ♄ 32'24		retrograde	1074 Dec 29 j 21:01	0° ♄ 19'06	
evening set	1074 Jan 18 j 01:36	15° ♄ 43'48			1074 Dec 31 j 16:34	30° ♄	
inferior conj	1074 Jan 24 j 00:43	10° ♄ 12'18	3°41'27	evening set	1075 Jan 02 j 02:26	29° ♄ 18'48	
minimum elong	1074 Jan 23 j 23:21	10° ♄ 16'16	3°41'20	inferior conj	1075 Jan 07 j 19:08	23° ♄ 30'11	3°21'53
min. Earth dist.	1074 Jan 26 j 05:18	7° ♄ 40'29	0.64248 AU	minimum elong	1075 Jan 07 j 16:46	23° ♄ 37'36	3°21'27
morning rise	1074 Jan 29 j 19:41	4° ♄ 05'26		min. Earth dist.	1075 Jan 09 j 08:24	21° ♄ 33'14	0.65697 AU
direct	1074 Feb 05 j 16:25	1° ♄ 16'15		morning rise	1075 Jan 13 j 06:10	17° ♄ 18'07	
desc. node	1074 Feb 16 j 09:55	6° ♄ 26'56		direct	1075 Jan 19 j 17:50	14° ♄ 29'00	
morning max el	1074 Feb 19 j 06:27	9° ♄ 06'42	27°27'36	morning max el	1075 Feb 01 j 16:18	22° ♄ 05'39	26°35'53
	1074 Mar 07 j 13:50	0° ♄		desc. node	1075 Feb 03 j 06:58	23° ♄ 46'08	
	1074 Mar 25 j 00:43	0° ♄			1075 Feb 08 j 15:08	0° ♄	
morning set	1074 Mar 26 j 08:30	2° ♄ 34'58			1075 Feb 28 j 19:19	0° ♄	
max. Earth dist.	1074 Mar 31 j 07:10	12° ♄ 35'21	1.33453 AU	morning set	1075 Mar 09 j 15:25	15° ♄ 51'43	
				max. Earth dist.	1075 Mar 13 j 21:42	24° ♄ 07'30	1.34698 AU
					1075 Mar 16 j 19:44	0° ♄	
superior conj	1074 Apr 03 j 09:01	19° ♄ 03'38	0°-32'-7				
minimum elong	1074 Apr 03 j 10:36	19° ♄ 12'03	0°31'48	superior conj	1075 Mar 18 j 08:41	3° ♄ 09'32	0°-59'-25
asc. node	1074 Apr 06 j 11:18	25° ♄ 40'39		minimum elong	1075 Mar 18 j 11:36	3° ♄ 24'35	0°58'54
	1074 Apr 08 j 11:46	0° ♄		asc. node	1075 Mar 24 j 08:20	15° ♄ 39'22	
evening rise	1074 Apr 10 j 14:55	4° ♄ 31'03		evening rise	1075 Mar 25 j 23:59	19° ♄ 05'37	
	1074 Apr 24 j 14:06	0° ♄			1075 Mar 31 j 11:09	0° ♄	
evening max el	1074 May 02 j 04:45	9° ♄ 15'39	22°26'56	evening max el	1075 Apr 14 j 04:08	20° ♄ 06'44	20°58'40
retrograde	1074 May 15 j 05:17	15° ♄ 42'01		retrograde	1075 Apr 25 j 18:46	25° ♄ 45'18	
desc. node	1074 May 15 j 09:06	15° ♄ 41'58		evening set	1075 Apr 28 j 00:06	25° ♄ 33'39	
evening set	1074 May 18 j 06:23	15° ♄ 21'36		desc. node	1075 May 02 j 06:08	24° ♄ 13'43	
min. Earth dist.	1074 May 26 j 12:02	11° ♄ 47'43	0.55242 AU	inferior conj	1075 May 07 j 07:26	21° ♄ 35'32	-1°-27'-21
inferior conj	1074 May 27 j 13:34	11° ♄ 11'35	-3°-17'00	minimum elong	1075 May 07 j 03:19	21° ♄ 41'23	1°25'53
minimum elong	1074 May 27 j 05:58	11° ♄ 22'20	3°14'54	min. Earth dist.	1075 May 08 j 00:35	21° ♄ 11'14	0.54959 AU
morning rise	1074 Jun 05 j 07:51	7° ♄ 19'19		morning rise	1075 May 16 j 05:59	17° ♄ 31'54	
direct	1074 Jun 08 j 06:00	6° ♄ 59'52		direct	1075 May 19 j 15:34	17° ♄ 06'59	
morning max el	1074 Jun 19 j 17:00	12° ♄ 19'52	21°06'51	morning max el	1075 Jun 01 j 14:51	23° ♄ 19'27	22°42'13
	1074 Jul 02 j 10:29	0° ♄			1075 Jun 07 j 13:22	0° ♄	
asc. node	1074 Jul 03 j 10:32	1° ♄ 49'59		asc. node	1075 Jun 20 j 07:35	21° ♄ 16'50	
morning set	1074 Jul 09 j 10:11	13° ♄ 38'49		morning set	1075 Jun 23 j 20:49	28° ♄ 32'08	
					1075 Jun 24 j 13:33	0° ♄	
superior conj	1074 Jul 16 j 21:25	29° ♄ 12'08	1°42'24				
minimum elong	1074 Jul 16 j 20:00	29° ♄ 04'47	1°42'20	superior conj	1075 Jul 01 j 01:17	13° ♄ 50'06	1°32'13
	1074 Jul 17 j 06:43	0° ♄		minimum elong	1075 Jun 30 j 23:04	13° ♄ 38'19	1°32'00
max. Earth dist.	1074 Jul 21 j 04:42	7° ♄ 55'27	1.35477 AU	max. Earth dist.	1075 Jul 03 j 23:29	19° ♄ 59'18	1.34080 AU
evening rise	1074 Jul 25 j 11:15	16° ♄ 11'46		evening rise	1075 Jul 08 j 21:29	29° ♄ 56'33	
	1074 Aug 02 j 03:53	0° ♄			1075 Jul 08 j 22:12	0° ♄	
desc. node	1074 Aug 11 j 08:27	14° ♄ 42'22			1075 Jul 26 j 05:21	0° ♄	
	1074 Aug 22 j 12:39	0° ♄		desc. node	1075 Jul 29 j 05:28	4° ♄ 24'41	
evening max el	1074 Aug 29 j 22:06	8° ♄ 10'31	26°32'02	evening max el	1075 Aug 12 j 09:58	21° ♄ 37'23	27°12'31
retrograde	1074 Sep 11 j 18:50	15° ♄ 23'18		retrograde	1075 Aug 25 j 18:59	28° ♄ 56'17	
evening set	1074 Sep 18 j 07:08	12° ♄ 43'11		evening set	1075 Sep 01 j 18:14	26° ♄ 12'19	
min. Earth dist.	1074 Sep 22 j 09:42	8° ♄ 27'31	0.66129 AU	min. Earth dist.	1075 Sep 05 j 13:52	22° ♄ 33'31	0.64887 AU
inferior conj	1074 Sep 24 j 01:02	6° ♄ 29'01	-1°-48'-11	inferior conj	1075 Sep 07 j 17:52	20° ♄ 09'37	-2°-44'-46
minimum elong	1074 Sep 24 j 03:52	6° ♄ 20'29	1°47'04	minimum elong	1075 Sep 07 j 22:05	19° ♄ 57'56	2°43'19
asc. node	1074 Sep 29 j 09:45	1° ♄ 05'43		morning rise	1075 Sep 14 j 03:43	14° ♄ 36'31	
morning rise	1074 Sep 30 j 01:46	0° ♄ 41'34		asc. node	1075 Sep 16 j 06:48	14° ♄ 01'14	
	1074 Oct 01 j 22:11	30° ♄		direct	1075 Sep 16 j 18:52	13° ♄ 59'53	
direct	1074 Oct 02 j 23:48	29° ♄ 53'34		morning max el	1075 Sep 23 j 07:07	17° ♄ 29'06	18°05'03
	1074 Oct 04 j 01:40	0° ♄			1075 Oct 02 j 10:16	0° ♄	
morning max el	1074 Oct 09 j 16:14	3° ♄ 34'30	18°35'07	morning set	1075 Oct 11 j 04:31	14° ♄ 28'36	
	1074 Oct 27 j 20:47	0° ♄			1075 Oct 20 j 14:31	0° ♄	
morning set	1074 Oct 30 j 00:09	3° ♄ 25'19					
desc. node	1074 Nov 07 j 07:46	16° ♄ 38'40		superior conj	1075 Oct 25 j 05:04	7° ♄ 24'47	0°00'-4
				minimum elong	1075 Oct 25 j 05:03	7° ♄ 24'44	0°00'05
superior conj	1074 Nov 14 j 22:27	28° ♄ 37'54	0°-49'-2	behind sun begin	1075 Oct 24 j 18:34	6° ♄ 42'50	
minimum elong	1074 Nov 14 j 16:11	28° ♄ 13'20	0°48'16	behind sun end	1075 Oct 25 j 15:32	8° ♄ 06'34	
max. Earth dist.	1074 Nov 15 j 07:54	29° ♄ 15'02	1.45096 AU				

desc. node	1075 Oct 25 j 04:48	7°♄23'43		1076 Sep 24 j 06:40	0°♄		
max. Earth dist.	1075 Oct 29 j 02:38	13°♄36'10	1.44818 AU				
	1075 Nov 08 j 14:30	0°♄		superior conj	1076 Oct 04 j 10:06	17°♄19'14	0°43'49
evening rise	1075 Nov 10 j 16:49	3°♄14'48		minimum elong	1076 Oct 04 j 14:14	17°♄36'25	0°43'16
	1075 Nov 28 j 09:49	0°♄		max. Earth dist.	1076 Oct 10 j 18:56	27°♄43'19	1.43849 AU
greatest brilliancy	1075 Nov 28 j 21:23	0°♄40'44	-0.6m	desc. node	1076 Oct 11 j 01:48	28°♄10'53	
evening max el	1075 Dec 06 j 05:49	9°♄53'21	19°51'41		1076 Oct 12 j 05:06	0°♄	
asc. node	1075 Dec 13 j 06:04	14°♄15'29		evening rise	1076 Oct 20 j 00:33	12°♄14'55	
retrograde	1075 Dec 13 j 18:29	14°♄16'59			1076 Oct 31 j 18:14	0°♄	
evening set	1075 Dec 17 j 07:32	13°♄03'29		greatest brilliancy	1076 Nov 12 j 18:50	16°♄56'10	-0.5m
inferior conj	1075 Dec 22 j 20:04	7°♄00'42	2°51'20	evening max el	1076 Nov 18 j 06:26	23°♄22'53	20°56'23
minimum elong	1075 Dec 22 j 17:22	7°♄09'42	2°50'35	retrograde	1076 Nov 26 j 16:09	28°♄21'42	
min. Earth dist.	1075 Dec 23 j 19:24	5°♄43'11	0.66748 AU	asc. node	1076 Nov 29 j 03:08	27°♄47'46	
morning rise	1075 Dec 28 j 02:33	0°♄45'54		evening set	1076 Nov 30 j 14:51	26°♄53'09	
	1075 Dec 29 j 00:39	30°♄		inferior conj	1076 Dec 06 j 01:04	20°♄39'31	2°12'18
direct	1076 Jan 03 j 01:13	28°♄08'06		minimum elong	1076 Dec 05 j 22:34	20°♄48'06	2°11'27
	1076 Jan 08 j 16:30	0°♄		min. Earth dist.	1076 Dec 06 j 12:01	20°♄01'56	0.67419 AU
morning max el	1076 Jan 15 j 01:20	5°♄17'07	25°22'05	morning rise	1076 Dec 11 j 05:52	14°♄24'07	
desc. node	1076 Jan 21 j 04:01	12°♄10'22		direct	1076 Dec 16 j 13:38	12°♄05'12	
	1076 Feb 03 j 03:02	0°♄		morning max el	1076 Dec 27 j 09:41	18°♄32'58	23°56'13
morning set	1076 Feb 20 j 06:19	28°♄17'12			1077 Jan 06 j 00:59	0°♄	
	1076 Feb 21 j 04:58	0°♄		desc. node	1077 Jan 07 j 01:03	1°♄20'07	
max. Earth dist.	1076 Feb 24 j 00:31	5°♄12'50	1.36387 AU		1077 Jan 26 j 05:53	0°♄	
				morning set	1077 Jan 31 j 23:04	9°♄33'40	
superior conj	1076 Feb 29 j 23:36	16°♄45'05	-1°-25'-2	max. Earth dist.	1077 Feb 04 j 19:52	16°♄19'04	1.38418 AU
minimum elong	1076 Mar 01 j 03:30	17°♄04'27	1°24'29				
	1076 Mar 07 j 12:57	0°♄		superior conj	1077 Feb 12 j 02:07	29°♄40'02	-1°-46'-32
evening rise	1076 Mar 09 j 04:40	3°♄21'31		minimum elong	1077 Feb 12 j 06:05	29°♄58'52	1°46'11
asc. node	1076 Mar 10 j 05:23	5°♄25'57			1077 Feb 12 j 06:19	0°♄	
	1076 Mar 25 j 02:16	0°♄		evening rise	1077 Feb 21 j 02:22	17°♄10'55	
evening max el	1076 Mar 26 j 15:02	1°♄35'18	19°46'22	asc. node	1077 Feb 25 j 02:26	24°♄54'40	
retrograde	1076 Apr 05 j 12:09	6°♄20'39			1077 Feb 27 j 20:58	0°♄	
evening set	1076 Apr 07 j 13:35	6°♄09'09		evening max el	1077 Mar 09 j 12:47	13°♄42'25	18°53'29
inferior conj	1076 Apr 16 j 07:45	2°♄07'17	0°31'05	retrograde	1077 Mar 17 j 20:42	17°♄44'36	
minimum elong	1076 Apr 16 j 09:06	2°♄05'11	0°30'36	evening set	1077 Mar 20 j 02:15	17°♄28'24	
desc. node	1076 Apr 18 j 03:10	0°♄59'49		inferior conj	1077 Mar 28 j 01:41	13°♄10'37	2°07'29
min. Earth dist.	1076 Apr 18 j 14:48	0°♄42'03	0.55646 AU	minimum elong	1077 Mar 28 j 05:45	13°♄03'19	2°06'18
	1076 Apr 19 j 19:07	30°♄		min. Earth dist.	1077 Mar 31 j 07:04	10°♄52'46	0.57144 AU
morning rise	1076 Apr 25 j 01:15	27°♄34'47		morning rise	1077 Apr 05 j 04:58	8°♄04'45	
direct	1076 Apr 29 j 07:57	26°♄54'04		desc. node	1077 Apr 05 j 00:13	8°♄09'50	
	1076 May 08 j 11:35	0°♄		direct	1077 Apr 10 j 13:54	6°♄55'20	
morning max el	1076 May 13 j 06:21	3°♄51'50	24°23'49	morning max el	1077 Apr 24 j 21:21	14°♄22'30	25°57'22
	1076 May 31 j 14:33	0°♄			1077 May 07 j 07:36	0°♄	
asc. node	1076 Jun 06 j 04:39	11°♄02'41		morning set	1077 May 22 j 20:10	28°♄25'01	
morning set	1076 Jun 07 j 08:41	13°♄29'18			1077 May 23 j 14:08	0°♄	
				asc. node	1077 May 24 j 01:43	1°♄01'42	
superior conj	1076 Jun 14 j 09:48	28°♄41'23	1°17'04				
minimum elong	1076 Jun 14 j 07:21	28°♄28'07	1°16'43	superior conj	1077 May 29 j 20:51	13°♄39'03	0°57'53
	1076 Jun 15 j 00:19	0°♄		minimum elong	1077 May 29 j 18:40	13°♄27'04	0°57'29
max. Earth dist.	1076 Jun 16 j 03:00	2°♄23'54	1.33082 AU	max. Earth dist.	1077 May 30 j 12:52	15°♄06'49	1.32477 AU
evening rise	1076 Jun 21 j 18:13	14°♄12'20		evening rise	1077 Jun 05 j 22:12	28°♄49'11	
	1076 Jun 30 j 00:44	0°♄			1077 Jun 06 j 11:53	0°♄	
desc. node	1076 Jul 15 j 02:29	23°♄30'13			1077 Jun 23 j 06:24	0°♄	
	1076 Jul 20 j 08:36	0°♄		desc. node	1077 Jul 01 j 23:30	11°♄43'43	
evening max el	1076 Jul 24 j 20:18	4°♄42'19	27°25'41	evening max el	1077 Jul 07 j 02:48	17°♄12'53	27°06'47
retrograde	1076 Aug 07 j 13:10	12°♄00'56		retrograde	1077 Jul 21 j 00:19	24°♄28'12	
evening set	1076 Aug 14 j 17:51	9°♄24'32		evening set	1077 Jul 28 j 01:54	22°♄12'47	
min. Earth dist.	1076 Aug 18 j 08:38	6°♄18'25	0.63288 AU	min. Earth dist.	1077 Jul 31 j 17:04	19°♄29'32	0.61393 AU
inferior conj	1076 Aug 21 j 01:23	3°♄37'01	-3°-37'-34	inferior conj	1077 Aug 03 j 20:27	16°♄43'38	-4°-21'-33
minimum elong	1076 Aug 21 j 06:26	3°♄24'24	3°36'11	minimum elong	1077 Aug 04 j 01:04	16°♄33'24	4°20'43
	1076 Aug 25 j 01:11	30°♄		morning rise	1077 Aug 11 j 03:09	11°♄48'45	
morning rise	1076 Aug 27 j 21:24	28°♄21'28		direct	1077 Aug 13 j 12:40	11°♄24'58	
direct	1076 Aug 30 j 08:20	27°♄52'42		asc. node	1077 Aug 20 j 00:56	14°♄26'11	
asc. node	1076 Sep 02 j 03:52	28°♄31'11		morning max el	1077 Aug 20 j 13:20	14°♄55'24	17°58'37
	1076 Sep 04 j 12:13	0°♄			1077 Aug 30 j 22:48	0°♄	
morning max el	1076 Sep 05 j 23:08	1°♄18'24	17°52'32	morning set	1077 Sep 05 j 09:44	9°♄52'43	
morning set	1076 Sep 22 j 09:46	26°♄43'37					

superior conj	1077 Sep 15 j 18:28	28° \mathring{M} 34'31	1°16'11	asc. node	1078 Aug 06 j 21:58	1° Ω 30'26	
minimum elong	1077 Sep 15 j 23:04	28° \mathring{M} 54'37	1°15'41	morning set	1078 Aug 19 j 22:58	23° Ω 39'56	
	1077 Sep 16 j 14:04	0° $\underline{\Omega}$			1078 Aug 23 j 06:18	0° \mathring{M}	
max. Earth dist.	1077 Sep 23 j 07:03	11° $\underline{\Omega}$ 22'31	1.42310 AU				
desc. node	1077 Sep 27 j 22:50	18° $\underline{\Omega}$ 57'23		superior conj	1078 Aug 29 j 02:29	10° \mathring{M} 59'35	1°36'11
evening rise	1077 Sep 29 j 15:10	21° $\underline{\Omega}$ 38'00		minimum elong	1078 Aug 29 j 05:31	11° \mathring{M} 13'33	1°35'57
	1077 Oct 05 j 00:03	0° \mathring{M}		max. Earth dist.	1078 Sep 05 j 13:50	24° \mathring{M} 20'00	1.40392 AU
	1077 Oct 26 j 01:44	0° \mathring{M}			1078 Sep 08 j 21:52	0° $\underline{\Omega}$	
greatest brilliancy	1077 Oct 27 j 08:23	1° \mathring{M} 35'02	-0.3m	evening rise	1078 Sep 10 j 02:03	1° $\underline{\Omega}$ 57'20	
evening max el	1077 Nov 01 j 01:32	6° \mathring{M} 54'00	22°11'03	desc. node	1078 Sep 14 j 19:52	9° $\underline{\Omega}$ 39'01	
retrograde	1077 Nov 10 j 12:17	12° \mathring{M} 31'01			1078 Sep 28 j 08:50	0° \mathring{M}	
evening set	1077 Nov 14 j 22:38	10° \mathring{M} 45'40		evening max el	1078 Oct 14 j 16:05	20° \mathring{M} 26'59	23°30'47
asc. node	1077 Nov 16 j 00:11	9° \mathring{M} 48'22		retrograde	1078 Oct 25 j 05:30	26° \mathring{M} 41'20	
inferior conj	1077 Nov 20 j 08:06	4° \mathring{M} 24'36	1°26'44	evening set	1078 Oct 30 j 05:12	24° \mathring{M} 38'16	
minimum elong	1077 Nov 20 j 06:14	4° \mathring{M} 31'03	1°26'01	asc. node	1078 Nov 02 j 21:13	20° \mathring{M} 35'40	
min. Earth dist.	1077 Nov 20 j 07:50	4° \mathring{M} 25'31	0.67736 AU	min. Earth dist.	1078 Nov 04 j 04:27	18° \mathring{M} 50'41	0.67710 AU
	1077 Nov 23 j 17:38	30° \mathring{M}		inferior conj	1078 Nov 04 j 15:18	18° \mathring{M} 13'35	0°36'04
morning rise	1077 Nov 25 j 13:40	28° \mathring{M} 10'51		minimum elong	1078 Nov 04 j 14:27	18° \mathring{M} 16'29	0°35'42
direct	1077 Nov 30 j 06:17	26° \mathring{M} 14'23		morning rise	1078 Nov 09 j 23:49	12° \mathring{M} 03'42	
	1077 Dec 07 j 19:57	0° \mathring{M}		direct	1078 Nov 14 j 02:04	10° \mathring{M} 30'00	
morning max el	1077 Dec 09 j 20:21	1° \mathring{M} 54'24	22°28'16	morning max el	1078 Nov 22 j 12:52	15° \mathring{M} 25'05	21°06'23
greatest brilliancy	1077 Dec 14 j 10:30	7° \mathring{M} 02'31	-0.3m	greatest brilliancy	1078 Nov 27 j 22:58	21° \mathring{M} 40'46	-0.5m
desc. node	1077 Dec 24 j 22:06	21° \mathring{M} 02'40			1078 Dec 04 j 03:04	0° \mathring{M}	
	1077 Dec 31 j 01:02	0° \mathring{M}		desc. node	1078 Dec 11 j 19:08	11° \mathring{M} 08'42	
morning set	1078 Jan 12 j 11:51	19° \mathring{M} 27'10		morning set	1078 Dec 22 j 20:57	28° \mathring{M} 04'18	
max. Earth dist.	1078 Jan 17 j 16:14	28° \mathring{M} 04'11	1.40563 AU		1078 Dec 24 j 02:23	0° \mathring{M}	
	1078 Jan 18 j 19:26	0° \approx		max. Earth dist.	1078 Dec 30 j 19:22	10° \mathring{M} 45'41	1.42519 AU
superior conj	1078 Jan 25 j 11:36	11° \approx 42'48	-2°00'-34	superior conj	1079 Jan 06 j 22:43	22° \mathring{M} 40'47	-2°-2'-43
minimum elong	1078 Jan 25 j 13:55	11° \approx 53'16	2°00'31	minimum elong	1079 Jan 06 j 21:02	22° \mathring{M} 33'37	2°02'42
	1078 Feb 04 j 08:21	0° \mathring{M}			1079 Jan 11 j 04:23	0° \approx	
evening rise	1078 Feb 04 j 13:59	0° \mathring{M} 26'28		evening rise	1079 Jan 18 j 11:46	13° \approx 00'10	
asc. node	1078 Feb 11 j 23:29	13° \mathring{M} 59'16			1079 Jan 28 j 05:30	0° \mathring{M}	
evening max el	1078 Feb 20 j 18:34	26° \mathring{M} 20'56	18°20'41	asc. node	1079 Jan 29 j 20:31	2° \mathring{M} 32'06	
retrograde	1078 Feb 28 j 00:29	29° \mathring{M} 56'32		evening max el	1079 Feb 04 j 05:11	9° \mathring{M} 22'08	18°07'43
evening set	1078 Mar 02 j 11:20	29° \mathring{M} 32'54		retrograde	1079 Feb 10 j 20:50	12° \mathring{M} 47'03	
inferior conj	1078 Mar 09 j 16:52	24° \mathring{M} 54'04	3°09'36	evening set	1079 Feb 13 j 12:24	12° \mathring{M} 14'37	
minimum elong	1078 Mar 09 j 20:23	24° \mathring{M} 46'40	3°08'56	inferior conj	1079 Feb 20 j 03:24	7° \mathring{M} 14'19	3°40'08
min. Earth dist.	1078 Mar 13 j 03:15	22° \mathring{M} 02'29	0.59130 AU	minimum elong	1079 Feb 20 j 04:55	7° \mathring{M} 10'38	3°40'01
morning rise	1078 Mar 17 j 01:41	19° \mathring{M} 20'44		min. Earth dist.	1079 Feb 23 j 06:30	4° \mathring{M} 13'24	0.61252 AU
desc. node	1078 Mar 22 j 21:16	17° \mathring{M} 35'34		morning rise	1079 Feb 26 j 18:38	1° \mathring{M} 22'31	
direct	1078 Mar 23 j 08:49	17° \mathring{M} 34'57			1079 Mar 01 j 05:30	30° \mathring{M}	
morning max el	1078 Apr 06 j 16:56	25° \mathring{M} 18'23	27°07'48	direct	1079 Mar 05 j 14:38	29° \approx 02'38	
	1078 Apr 11 j 01:13	0° \mathring{M}		desc. node	1079 Mar 09 j 18:18	29° \approx 49'53	
	1078 Apr 30 j 13:47	0° \mathring{M}			1079 Mar 10 j 04:49	0° \mathring{M}	
morning set	1078 May 07 j 05:33	13° \mathring{M} 13'13		morning max el	1079 Mar 19 j 19:03	6° \mathring{M} 55'00	27°44'26
asc. node	1078 May 10 j 22:45	21° \mathring{M} 08'31			1079 Apr 06 j 06:35	0° \mathring{M}	
superior conj	1078 May 14 j 08:37	28° \mathring{M} 36'25	0°35'25	morning set	1079 Apr 21 j 11:00	27° \mathring{M} 47'41	
minimum elong	1078 May 14 j 07:07	28° \mathring{M} 28'09	0°35'06		1079 Apr 22 j 12:37	0° \mathring{M}	
max. Earth dist.	1078 May 14 j 01:25	27° \mathring{M} 56'52	1.32252 AU	max. Earth dist.	1079 Apr 27 j 12:47	10° \mathring{M} 40'46	1.32401 AU
	1078 May 14 j 23:49	0° \mathring{M}		asc. node	1079 Apr 27 j 19:48	11° \mathring{M} 18'56	
evening rise	1078 May 21 j 06:49	13° \mathring{M} 38'03		superior conj	1079 Apr 28 j 19:27	13° \mathring{M} 27'58	0°10'26
	1078 May 29 j 13:50	0° \mathring{M}		minimum elong	1079 Apr 28 j 18:58	13° \mathring{M} 25'21	0°10'19
desc. node	1078 Jun 18 j 20:32	28° \mathring{M} 42'54		behind sun begin	1079 Apr 28 j 15:05	13° \mathring{M} 04'07	
evening max el	1078 Jun 19 j 02:45	28° \mathring{M} 57'47	26°14'53	behind sun end	1079 Apr 28 j 22:51	13° \mathring{M} 46'36	
	1078 Jun 20 j 05:43	0° Ω		evening rise	1079 May 05 j 18:00	28° \mathring{M} 31'44	
retrograde	1078 Jul 03 j 02:48	6° Ω 09'43			1079 May 06 j 10:44	0° \mathring{M}	
evening set	1078 Jul 09 j 13:34	4° Ω 27'27			1079 May 23 j 09:22	0° \mathring{M}	
min. Earth dist.	1078 Jul 13 j 15:35	1° Ω 51'19	0.59339 AU	evening max el	1079 May 31 j 19:42	9° \mathring{M} 57'54	24°55'42
	1078 Jul 16 j 02:03	30° \mathring{M}		desc. node	1079 Jun 05 j 17:32	13° \mathring{M} 57'55	
inferior conj	1078 Jul 16 j 23:19	29° \mathring{M} 18'49	-4°-48'-42	retrograde	1079 Jun 14 j 19:09	17° \mathring{M} 03'46	
minimum elong	1078 Jul 17 j 01:27	29° \mathring{M} 14'44	4°48'34	evening set	1079 Jun 20 j 01:46	16° \mathring{M} 00'12	
morning rise	1078 Jul 24 j 16:44	24° \mathring{M} 47'02		min. Earth dist.	1079 Jun 25 j 07:06	13° \mathring{M} 12'36	0.57369 AU
direct	1078 Jul 27 j 03:30	24° \mathring{M} 26'12		inferior conj	1079 Jun 28 j 06:51	11° \mathring{M} 13'31	-4°-47'-7
morning max el	1078 Aug 03 j 22:32	28° \mathring{M} 10'56	18°24'29	minimum elong	1079 Jun 28 j 04:17	11° \mathring{M} 17'49	4°46'58
	1078 Aug 05 j 16:04	0° Ω		morning rise	1079 Jul 06 j 10:38	7° \mathring{M} 04'01	

direct	1079 Jul 09 j 00:25	6°☿44'56		direct	1080 Jun 19 j 01:58	18°♄10'25	
morning max el	1079 Jul 17 j 23:47	10°☿56'20	19°11'12	morning max el	1080 Jun 29 j 14:34	23°♄02'37	20°19'02
asc. node	1079 Jul 24 j 19:01	19°☿29'26			1080 Jul 05 j 12:52	0°☿	
	1079 Jul 30 j 19:55	0°♄		asc. node	1080 Jul 10 j 16:03	8°☿10'27	
morning set	1079 Aug 03 j 21:32	7°♄54'46		morning set	1080 Jul 18 j 02:32	22°☿29'29	
					1080 Jul 21 j 18:15	0°♄	
superior conj	1079 Aug 12 j 04:31	24°♄18'42	1°45'17	superior conj	1080 Jul 25 j 19:32	8°♄17'17	1°45'32
minimum elong	1079 Aug 12 j 05:32	24°♄23'34	1°45'15	minimum elong	1080 Jul 25 j 18:50	8°♄13'45	1°45'32
	1079 Aug 15 j 03:55	0°♄		max. Earth dist.	1080 Jul 30 j 22:39	18°♄25'21	1.36437 AU
max. Earth dist.	1079 Aug 18 j 17:09	6°♄34'36	1.38350 AU	evening rise	1080 Aug 03 j 22:37	25°♄56'20	
evening rise	1079 Aug 22 j 13:21	13°♄25'08			1080 Aug 06 j 04:26	0°♄	
desc. node	1079 Sep 01 j 16:52	0°♄11'42		desc. node	1080 Aug 18 j 13:53	20°♄30'28	
	1079 Sep 01 j 13:53	0°♄			1080 Aug 25 j 01:29	0°♄	
	1079 Sep 23 j 08:47	0°♄		evening max el	1080 Sep 08 j 15:49	17°♄41'21	25°59'05
evening max el	1079 Sep 27 j 04:07	4°♄02'57	24°49'16	retrograde	1080 Sep 21 j 03:32	24°♄47'51	
retrograde	1079 Oct 08 j 18:51	10°♄48'35		evening set	1080 Sep 27 j 07:57	22°♄13'39	
evening set	1079 Oct 14 j 08:55	8°♄28'26		min. Earth dist.	1080 Oct 01 j 14:47	17°♄36'21	0.66665 AU
min. Earth dist.	1079 Oct 18 j 23:32	3°♄15'07	0.67354 AU	inferior conj	1080 Oct 02 j 23:16	15°♄54'24	-1°-15'-7
inferior conj	1079 Oct 19 j 20:57	2°♄04'15	0°-18'-22	minimum elong	1080 Oct 03 j 01:13	15°♄48'17	1°14'20
minimum elong	1079 Oct 19 j 21:24	2°♄02'45	0°18'11	asc. node	1080 Oct 06 j 15:16	11°♄42'10	
asc. node	1079 Oct 20 j 18:14	0°♄54'17		morning rise	1080 Oct 08 j 19:23	10°♄00'01	
	1079 Oct 21 j 11:14	30°♄		direct	1080 Oct 11 j 22:21	9°♄03'58	
morning rise	1079 Oct 25 j 10:22	26°♄00'45		morning max el	1080 Oct 18 j 20:28	12°♄56'15	19°00'02
direct	1079 Oct 28 j 23:54	24°♄47'35			1080 Oct 31 j 09:36	0°♄	
morning max el	1079 Nov 05 j 13:02	29°♄06'19	19°55'56	morning set	1080 Nov 10 j 01:28	15°♄03'27	
	1079 Nov 06 j 09:38	0°♄		desc. node	1080 Nov 14 j 13:11	22°♄05'42	
greatest brilliancy	1079 Nov 12 j 22:34	8°♄10'50	-0.6m		1080 Nov 19 j 14:12	0°♄	
	1079 Nov 27 j 16:20	0°♄		max. Earth dist.	1080 Nov 24 j 21:38	8°♄20'23	1.44910 AU
desc. node	1079 Nov 28 j 16:09	1°♄31'17					
morning set	1079 Dec 01 j 17:06	6°♄12'09		superior conj	1080 Nov 26 j 16:38	11°♄09'47	-1°-14'-58
max. Earth dist.	1079 Dec 13 j 05:45	24°♄16'08	1.44029 AU	minimum elong	1080 Nov 26 j 08:15	10°♄36'41	1°14'04
	1079 Dec 16 j 19:28	0°♄			1080 Dec 08 j 11:49	0°♄	
superior conj	1079 Dec 18 j 07:24	2°♄25'34	-1°-48'-12	evening rise	1080 Dec 11 j 20:46	5°♄28'37	
minimum elong	1079 Dec 18 j 00:35	1°♄57'52	1°47'43		1080 Dec 27 j 08:30	0°♄	
evening rise	1079 Dec 31 j 15:21	24°♄42'53		evening max el	1081 Jan 01 j 05:25	6°♄01'41	18°38'43
	1080 Jan 03 j 17:24	0°♄		asc. node	1081 Jan 02 j 14:34	7°♄19'41	
asc. node	1080 Jan 16 j 17:33	20°♄22'50		retrograde	1081 Jan 07 j 20:51	9°♄43'19	
evening max el	1080 Jan 18 j 17:40	22°♄37'31	18°14'00	evening set	1081 Jan 10 j 22:34	8°♄50'03	
retrograde	1080 Jan 25 j 05:00	26°♄05'07		inferior conj	1081 Jan 16 j 18:41	3°♄11'15	3°34'42
evening set	1080 Jan 28 j 01:16	25°♄22'51		minimum elong	1081 Jan 16 j 16:49	3°♄16'53	3°34'27
inferior conj	1080 Feb 03 j 05:18	20°♄02'23	3°46'19	min. Earth dist.	1081 Jan 18 j 16:46	0°♄53'00	0.64916 AU
minimum elong	1080 Feb 03 j 04:49	20°♄03'42	3°46'18		1081 Jan 19 j 11:06	30°♄	
min. Earth dist.	1080 Feb 05 j 18:51	17°♄14'47	0.63239 AU	morning rise	1081 Jan 22 j 09:50	27°♄01'48	
morning rise	1080 Feb 09 j 06:29	13°♄59'27		direct	1081 Jan 29 j 03:30	24°♄10'38	
direct	1080 Feb 16 j 05:23	11°♄16'29			1081 Feb 09 j 10:34	0°♄	
desc. node	1080 Feb 24 j 15:21	14°♄29'51		desc. node	1081 Feb 10 j 12:24	1°♄00'13	
morning max el	1080 Mar 01 j 02:11	19°♄10'58	27°43'47	morning max el	1081 Feb 11 j 11:37	1°♄57'12	27°08'45
	1080 Mar 10 j 07:02	0°♄			1081 Mar 04 j 11:19	0°♄	
	1080 Mar 29 j 04:15	0°♄		morning set	1081 Mar 19 j 00:08	25°♄40'00	
morning set	1080 Apr 04 j 10:11	11°♄59'41			1081 Mar 21 j 05:09	0°♄	
max. Earth dist.	1080 Apr 09 j 18:44	23°♄03'11	1.32945 AU	max. Earth dist.	1081 Mar 23 j 15:29	4°♄53'41	1.33929 AU
superior conj	1080 Apr 12 j 03:33	28°♄06'52	0°-16'-19	superior conj	1081 Mar 27 j 07:01	12°♄27'08	0°-43'-48
minimum elong	1080 Apr 12 j 04:21	28°♄11'07	0°16'10	minimum elong	1081 Mar 27 j 09:11	12°♄38'30	0°43'22
	1080 Apr 13 j 00:33	0°♄		asc. node	1081 Mar 31 j 13:52	21°♄31'44	
asc. node	1080 Apr 13 j 16:49	1°♄27'58		evening rise	1081 Apr 03 j 16:25	28°♄05'10	
evening rise	1080 Apr 19 j 05:48	13°♄22'43			1081 Apr 04 j 14:30	0°♄	
	1080 Apr 27 j 16:12	0°♄			1081 Apr 23 j 00:41	0°♄	
evening max el	1080 May 12 j 09:41	20°♄31'22	23°21'42	evening max el	1081 Apr 24 j 04:00	1°♄08'53	21°47'47
desc. node	1080 May 22 j 14:33	26°♄52'19		retrograde	1081 May 06 j 15:49	7°♄16'05	
retrograde	1080 May 25 j 23:23	27°♄18'09		evening set	1081 May 09 j 06:12	7°♄00'58	
evening set	1080 May 29 j 18:20	26°♄46'36		desc. node	1081 May 09 j 11:36	6°♄58'17	
min. Earth dist.	1080 Jun 05 j 19:44	23°♄32'47	0.55812 AU	inferior conj	1081 May 18 j 15:29	2°♄58'13	-2°-33'-48
inferior conj	1080 Jun 07 j 18:27	22°♄23'43	-4°-3'-35	minimum elong	1081 May 18 j 08:45	3°♄07'39	2°31'39
minimum elong	1080 Jun 07 j 11:28	22°♄34'05	4°02'09	min. Earth dist.	1081 May 18 j 08:04	3°♄08'36	0.55006 AU
morning rise	1080 Jun 16 j 07:55	18°♄28'56			1081 May 24 j 12:25	30°♄	

morning rise	1081 May 27 j 12:23	29°♄03'09		min. Earth dist.	1082 Apr 29 j 21:07	12°♄31'36	0.55144 AU
direct	1081 May 30 j 14:26	28°♄42'09		morning rise	1082 May 07 j 08:08	9°♄08'04	
	1081 Jun 05 j 09:05	0°♄		direct	1082 May 11 j 01:56	8°♄37'48	
morning max el	1081 Jun 11 j 18:02	4°♄25'07	21°45'53	morning max el	1082 May 24 j 12:25	15°♄10'34	23°25'23
asc. node	1081 Jun 27 j 13:06	27°♄23'07			1082 Jun 05 j 02:51	0°♄	
	1081 Jun 28 j 21:24	0°♄		asc. node	1082 Jun 14 j 10:10	16°♄59'18	
morning set	1081 Jul 02 j 11:39	7°♄17'39		morning set	1082 Jun 16 j 23:05	22°♄13'57	
					1082 Jun 20 j 14:30	0°♄	
superior conj	1081 Jul 09 j 19:35	22°♄43'27	1°38'45	superior conj	1082 Jun 24 j 01:45	7°♄28'22	1°26'21
minimum elong	1081 Jul 09 j 17:45	22°♄33'51	1°38'37	minimum elong	1082 Jun 23 j 23:22	7°♄15'36	1°26'03
	1081 Jul 13 j 08:11	0°♄		max. Earth dist.	1082 Jun 26 j 11:08	12°♄34'08	1.33612 AU
max. Earth dist.	1081 Jul 13 j 12:02	0°♄19'32	1.34834 AU	evening rise	1082 Jul 01 j 16:20	23°♄18'08	
evening rise	1081 Jul 18 j 01:05	9°♄18'08			1082 Jul 05 j 02:52	0°♄	
	1081 Jul 29 j 16:57	0°♄		desc. node	1082 Jul 23 j 07:56	29°♄56'56	
desc. node	1081 Aug 05 j 10:54	10°♄28'28			1082 Jul 23 j 08:49	0°♄	
	1081 Aug 20 j 21:19	0°♄		evening max el	1082 Aug 04 j 15:45	14°♄35'52	27°21'49
evening max el	1081 Aug 22 j 04:02	1°♄15'53	26°52'24	retrograde	1082 Aug 18 j 04:16	21°♄54'11	
retrograde	1081 Sep 04 j 06:50	8°♄32'08		evening set	1082 Aug 25 j 06:44	19°♄12'07	
evening set	1081 Sep 11 j 00:07	5°♄49'35		min. Earth dist.	1082 Aug 29 j 00:04	15°♄47'58	0.64253 AU
min. Earth dist.	1081 Sep 14 j 23:42	1°♄49'31	0.65636 AU	inferior conj	1082 Aug 31 j 09:29	13°♄15'43	-3°-7'-53
inferior conj	1081 Sep 16 j 20:14	29°♄39'45	-2°-12'-28	minimum elong	1082 Aug 31 j 14:09	13°♄03'18	3°06'24
minimum elong	1081 Sep 16 j 23:41	29°♄29'40	2°11'10	morning rise	1082 Sep 06 j 23:31	7°♄49'31	
	1081 Sep 16 j 13:18	30°♄		direct	1082 Sep 09 j 12:40	7°♄16'27	
morning rise	1081 Sep 23 j 00:39	23°♄57'42		asc. node	1082 Sep 10 j 09:23	7°♄20'17	
asc. node	1081 Sep 23 j 12:19	23°♄44'07		morning max el	1082 Sep 16 j 00:59	10°♄42'54	17°57'32
direct	1081 Sep 25 j 19:27	23°♄14'55			1082 Sep 29 j 03:37	0°♄	
morning max el	1081 Oct 02 j 09:17	26°♄50'02	18°20'14	morning set	1082 Oct 03 j 04:57	6°♄54'08	
	1081 Oct 05 j 03:45	0°♄					
morning set	1081 Oct 21 j 13:16	25°♄18'03		superior conj	1082 Oct 16 j 08:17	28°♄47'47	0°19'43
	1081 Oct 24 j 10:47	0°♄		minimum elong	1082 Oct 16 j 10:30	28°♄56'48	0°19'25
desc. node	1081 Nov 01 j 10:11	12°♄47'26			1082 Oct 17 j 02:08	0°♄	
				desc. node	1082 Oct 19 j 07:13	3°♄33'28	
superior conj	1081 Nov 05 j 17:39	19°♄36'52	0°-28'-21	max. Earth dist.	1082 Oct 21 j 11:05	7°♄00'16	1.44490 AU
minimum elong	1081 Nov 05 j 13:57	19°♄22'17	0°27'52	evening rise	1082 Nov 01 j 14:40	24°♄25'11	
max. Earth dist.	1081 Nov 07 j 16:30	22°♄41'16	1.45067 AU		1082 Nov 05 j 05:58	0°♄	
	1081 Nov 12 j 08:21	0°♄		greatest brilliancy	1082 Nov 22 j 07:56	25°♄09'53	-0.6m
evening rise	1081 Nov 22 j 02:40	15°♄17'10			1082 Nov 26 j 02:19	0°♄	
	1081 Dec 01 j 12:43	0°♄		evening max el	1082 Nov 28 j 17:57	2°♄58'22	20°17'44
greatest brilliancy	1081 Dec 06 j 10:11	7°♄27'05	-0.7m	retrograde	1082 Dec 06 j 14:47	7°♄36'02	
evening max el	1081 Dec 15 j 14:07	19°♄29'32	19°20'37	asc. node	1082 Dec 07 j 08:41	7°♄32'54	
asc. node	1081 Dec 20 j 11:37	23°♄07'54		evening set	1082 Dec 10 j 07:48	6°♄16'08	
retrograde	1081 Dec 22 j 16:59	23°♄35'05		inferior conj	1082 Dec 15 j 19:08	0°♄08'12	2°35'39
evening set	1081 Dec 26 j 01:31	22°♄29'19		minimum elong	1082 Dec 15 j 16:27	0°♄17'16	2°34'51
inferior conj	1081 Dec 31 j 16:12	16°♄34'31	3°10'04		1082 Dec 15 j 21:34	30°♄	
minimum elong	1081 Dec 31 j 13:38	16°♄42'50	3°09'30	min. Earth dist.	1082 Dec 16 j 12:55	29°♄08'06	0.67080 AU
min. Earth dist.	1082 Jan 01 j 23:23	14°♄54'04	0.66198 AU	morning rise	1082 Dec 21 j 00:35	23°♄53'08	
morning rise	1082 Jan 06 j 00:57	10°♄21'17		direct	1082 Dec 26 j 17:01	21°♄22'57	
direct	1082 Jan 12 j 07:35	7°♄35'41		morning max el	1083 Jan 07 j 05:36	28°♄15'07	24°46'30
morning max el	1082 Jan 24 j 21:01	15°♄01'40	26°06'34		1083 Jan 08 j 21:43	0°♄	
desc. node	1082 Jan 28 j 09:26	18°♄49'22		desc. node	1083 Jan 15 j 06:28	7°♄34'17	
	1082 Feb 06 j 04:18	0°♄			1083 Jan 30 j 22:15	0°♄	
	1082 Feb 25 j 06:33	0°♄		morning set	1083 Feb 12 j 07:12	20°♄34'38	
morning set	1082 Mar 02 j 00:55	8°♄36'50		max. Earth dist.	1083 Feb 16 j 00:04	27°♄15'06	1.37222 AU
max. Earth dist.	1082 Mar 06 j 00:50	16°♄12'14	1.35370 AU		1083 Feb 17 j 11:44	0°♄	
				superior conj	1083 Feb 22 j 13:33	9°♄41'06	-1°-34'-49
superior conj	1082 Mar 11 j 03:24	26°♄21'41	-1°-10'-36	minimum elong	1083 Feb 22 j 17:38	10°♄01'01	1°34'20
minimum elong	1082 Mar 11 j 06:48	26°♄38'58	1°10'03	evening rise	1083 Mar 03 j 02:02	26°♄38'42	
	1082 Mar 12 j 22:07	0°♄			1083 Mar 04 j 18:35	0°♄	
asc. node	1082 Mar 18 j 10:56	11°♄26'10		asc. node	1083 Mar 05 j 08:00	1°♄05'53	
evening rise	1082 Mar 18 j 23:56	12°♄32'58		evening max el	1083 Mar 20 j 00:01	24°♄00'50	19°21'22
	1082 Mar 28 j 04:12	0°♄		retrograde	1083 Mar 29 j 04:14	28°♄26'24	
evening max el	1082 Apr 06 j 08:18	12°♄15'44	20°25'38	evening set	1083 Mar 31 j 06:58	28°♄13'19	
retrograde	1082 Apr 17 j 05:02	17°♄30'44		inferior conj	1083 Apr 08 j 17:18	24°♄05'15	1°15'51
evening set	1082 Apr 19 j 07:26	17°♄19'48		minimum elong	1083 Apr 08 j 20:16	24°♄00'21	1°14'50
desc. node	1082 Apr 26 j 08:38	14°♄33'17		min. Earth dist.	1083 Apr 11 j 11:48	22°♄16'20	0.56200 AU
inferior conj	1082 Apr 28 j 10:25	13°♄22'07	0°-36'-2				
minimum elong	1082 Apr 28 j 08:43	13°♄24'35	0°35'27				

desc. node	1083 Apr 13 j 05:41	21°♿12'29		minimum elong	1084 Mar 20 j 00:28	5°♿18'03	2°36'58
morning rise	1083 Apr 17 j 05:42	19°♿18'33		min. Earth dist.	1084 Mar 23 j 05:42	2°♿50'51	0.57943 AU
direct	1083 Apr 21 j 23:17	18°♿27'25		morning rise	1084 Mar 27 j 15:52	0°♿06'57	
morning max el	1083 May 06 j 03:03	25°♿38'58	25°05'35		1084 Mar 27 j 21:49	30°♿	
	1083 May 10 j 05:04	0°♿		desc. node	1084 Mar 30 j 02:42	29°♿10'53	
	1083 May 28 j 23:05	0°♿		direct	1084 Apr 02 j 10:54	28°♿42'34	
morning set	1083 Jun 01 j 11:02	7°♿11'29			1084 Apr 08 j 02:36	0°♿	
asc. node	1083 Jun 01 j 07:14	6°♿51'30		morning max el	1084 Apr 16 j 19:49	6°♿18'36	26°30'53
					1084 May 04 j 08:05	0°♿	
superior conj	1083 Jun 08 j 11:35	22°♿23'11	1°09'23	morning set	1084 May 15 j 21:50	22°♿04'49	
minimum elong	1083 Jun 08 j 09:12	22°♿10'08	1°08'59	asc. node	1084 May 18 j 04:18	26°♿54'26	
max. Earth dist.	1083 Jun 09 j 17:55	25°♿08'19	1.32782 AU		1084 May 19 j 14:35	0°♿	
	1083 Jun 12 j 00:02	0°♿					
evening rise	1083 Jun 15 j 16:30	7°♿43'51		superior conj	1084 May 22 j 23:10	7°♿21'29	0°48'43
	1083 Jun 27 j 14:00	0°♿		minimum elong	1084 May 22 j 21:13	7°♿10'49	0°48'20
desc. node	1083 Jul 10 j 04:59	18°♿42'28		max. Earth dist.	1084 May 23 j 05:16	7°♿55'04	1.32336 AU
evening max el	1083 Jul 18 j 00:38	27°♿26'55	27°21'33	evening rise	1084 May 29 j 22:43	22°♿26'26	
	1083 Jul 20 j 22:29	0°♿			1084 Jun 02 j 15:46	0°♿	
retrograde	1083 Jul 31 j 19:24	4°♿44'05			1084 Jun 20 j 18:13	0°♿	
evening set	1083 Aug 08 j 00:15	2°♿14'37		desc. node	1084 Jun 26 j 02:00	6°♿27'16	
	1083 Aug 10 j 20:28	30°♿		evening max el	1084 Jun 29 j 04:19	9°♿37'43	26°48'22
min. Earth dist.	1083 Aug 11 j 14:13	29°♿20'08	0.62520 AU	retrograde	1084 Jul 13 j 03:21	16°♿52'27	
inferior conj	1083 Aug 14 j 12:04	26°♿34'50	-3°-57'-41	evening set	1084 Jul 20 j 00:12	14°♿49'36	
minimum elong	1083 Aug 14 j 17:09	26°♿22'47	3°56'29	min. Earth dist.	1084 Jul 23 j 18:09	12°♿11'41	0.60528 AU
morning rise	1083 Aug 21 j 12:38	21°♿27'58		inferior conj	1084 Jul 27 j 00:38	9°♿28'42	-4°-35'-44
direct	1083 Aug 23 j 22:43	21°♿01'34		minimum elong	1084 Jul 27 j 04:29	9°♿20'38	4°35'14
asc. node	1083 Aug 28 j 06:26	22°♿27'49		morning rise	1084 Aug 03 j 11:59	4°♿43'47	
morning max el	1083 Aug 30 j 16:37	24°♿27'50	17°52'49	direct	1084 Aug 05 j 21:38	4°♿21'36	
	1083 Sep 04 j 04:43	0°♿		morning max el	1084 Aug 13 j 05:07	7°♿56'51	18°07'08
morning set	1083 Sep 15 j 18:51	19°♿33'44		asc. node	1084 Aug 14 j 03:28	8°♿53'51	
	1083 Sep 21 j 15:58	0°♿			1084 Aug 27 j 10:25	0°♿	
				morning set	1084 Aug 29 j 00:58	2°♿59'55	
superior conj	1083 Sep 27 j 01:03	9°♿16'53	0°59'07				
minimum elong	1083 Sep 27 j 05:45	9°♿36'50	0°58'31	superior conj	1084 Sep 07 j 20:07	21°♿03'31	1°26'08
max. Earth dist.	1083 Oct 04 j 01:56	20°♿57'32	1.43252 AU	minimum elong	1084 Sep 08 j 00:11	21°♿21'42	1°25'44
desc. node	1083 Oct 06 j 04:16	24°♿20'36			1084 Sep 12 j 22:32	0°♿	
	1083 Oct 09 j 17:43	0°♿		max. Earth dist.	1084 Sep 15 j 11:10	4°♿17'33	1.41520 AU
evening rise	1083 Oct 11 j 23:08	3°♿29'00		evening rise	1084 Sep 20 j 21:09	13°♿12'22	
	1083 Oct 29 j 17:34	0°♿		desc. node	1084 Sep 22 j 01:17	15°♿05'15	
greatest brilliancy	1083 Nov 06 j 15:40	10°♿41'03	-0.4m		1084 Oct 01 j 17:01	0°♿	
evening max el	1083 Nov 11 j 16:02	16°♿27'39	21°27'11	greatest brilliancy	1084 Oct 19 j 09:20	24°♿23'47	-0.3m
retrograde	1083 Nov 20 j 12:05	21°♿43'00			1084 Oct 24 j 09:26	0°♿	
asc. node	1083 Nov 24 j 05:42	20°♿25'28		evening max el	1084 Oct 24 j 08:50	29°♿58'30	22°44'46
evening set	1083 Nov 24 j 15:31	20°♿07'19		retrograde	1084 Nov 03 j 07:12	5°♿52'31	
inferior conj	1083 Nov 30 j 01:12	13°♿49'48	1°53'40	evening set	1084 Nov 07 j 22:56	3°♿59'48	
minimum elong	1083 Nov 29 j 22:56	13°♿57'40	1°52'52	asc. node	1084 Nov 10 j 02:44	1°♿50'38	
min. Earth dist.	1083 Nov 30 j 07:12	13°♿29'05	0.67588 AU		1084 Nov 11 j 14:19	30°♿	
morning rise	1083 Dec 05 j 06:02	7°♿34'47		inferior conj	1084 Nov 13 j 08:29	27°♿36'31	1°05'47
direct	1083 Dec 10 j 07:11	5°♿25'27		minimum elong	1084 Nov 13 j 07:01	27°♿41'36	1°05'11
morning max el	1083 Dec 20 j 14:42	11°♿33'34	23°18'39	min. Earth dist.	1084 Nov 13 j 03:42	27°♿53'04	0.67757 AU
greatest brilliancy	1083 Dec 25 j 21:02	17°♿28'34	-0.2m	morning rise	1084 Nov 18 j 15:02	21°♿23'52	
desc. node	1084 Jan 02 j 03:30	26°♿59'05		direct	1084 Nov 23 j 01:19	19°♿37'13	
	1084 Jan 04 j 07:15	0°♿		morning max el	1084 Dec 02 j 03:25	24°♿58'00	21°52'17
	1084 Jan 23 j 18:12	0°♿			1084 Dec 06 j 14:56	0°♿	
morning set	1084 Jan 24 j 12:42	1°♿17'20		greatest brilliancy	1084 Dec 06 j 22:24	0°♿22'52	-0.4m
max. Earth dist.	1084 Jan 28 j 19:03	8°♿34'44	1.39326 AU	desc. node	1084 Dec 19 j 00:30	16°♿52'06	
					1084 Dec 27 j 18:57	0°♿	
superior conj	1084 Feb 05 j 09:27	22°♿15'07	-1°-53'-39	morning set	1085 Jan 03 j 12:53	10°♿34'53	
minimum elong	1084 Feb 05 j 12:59	22°♿31'33	1°53'25	max. Earth dist.	1085 Jan 09 j 17:14	20°♿40'17	1.41427 AU
	1084 Feb 09 j 12:08	0°♿			1085 Jan 15 j 05:03	0°♿	
evening rise	1084 Feb 14 j 19:54	10°♿14'54					
asc. node	1084 Feb 20 j 05:03	20°♿25'20		superior conj	1085 Jan 17 j 09:58	3°♿50'56	-2°-3'-15
	1084 Feb 25 j 22:14	0°♿		minimum elong	1085 Jan 17 j 10:53	3°♿54'57	2°03'14
evening max el	1084 Mar 02 j 01:30	6°♿22'08	18°37'05	evening rise	1085 Jan 28 j 02:03	23°♿12'43	
retrograde	1084 Mar 09 j 21:11	10°♿11'23			1085 Jan 31 j 18:36	0°♿	
evening set	1084 Mar 12 j 04:49	9°♿52'25		asc. node	1085 Feb 06 j 02:05	9°♿17'00	
inferior conj	1084 Mar 19 j 20:20	5°♿26'00	2°38'00	evening max el	1085 Feb 13 j 09:43	19°♿10'55	18°12'51

retrograde	1085 Feb 20 j 08:15	22° K 40'00			1086 Jan 25 j 19:49	0° K	
evening set	1085 Feb 22 j 21:09	22° K 12'49		evening max el	1086 Jan 27 j 21:30	2° K 18'45	18°08'08
inferior conj	1085 Mar 01 j 20:05	17° K 25'10	3°25'58	retrograde	1086 Feb 03 j 10:00	5° K 42'54	
minimum elong	1085 Mar 01 j 22:49	17° K 19'03	3°25'35	evening set	1086 Feb 06 j 03:40	5° K 06'15	
min. Earth dist.	1085 Mar 05 j 04:42	14° K 26'14	0.60032 AU	inferior conj	1086 Feb 12 j 13:34	29° \approx 57'14	3°45'18
morning rise	1085 Mar 08 j 21:05	11° K 42'53		minimum elong	1086 Feb 12 j 14:11	29° \approx 55'39	3°45'16
direct	1085 Mar 15 j 11:06	9° K 41'18			1086 Feb 12 j 12:29	30° R \approx	
desc. node	1085 Mar 16 j 23:43	9° K 47'37		min. Earth dist.	1086 Feb 15 j 11:24	26° \approx 59'39	0.62132 AU
morning max el	1085 Mar 29 j 18:03	17° K 30'00	27°27'49	morning rise	1086 Feb 18 j 22:22	24° \approx 00'18	
	1085 Apr 09 j 03:25	0° Y		direct	1086 Feb 25 j 20:58	21° \approx 28'49	
	1085 Apr 26 j 21:20	0° B		desc. node	1086 Mar 03 j 20:45	23° \approx 07'18	
morning set	1085 Apr 30 j 05:47	6° B 47'40		morning max el	1086 Mar 11 j 22:15	29° \approx 22'20	27°48'41
asc. node	1085 May 05 j 01:21	17° B 03'11			1086 Mar 12 j 13:12	0° K	
max. Earth dist.	1085 May 06 j 17:35	20° B 42'58	1.32264 AU		1086 Apr 03 j 01:19	0° Y	
				morning set	1086 Apr 14 j 08:50	21° Y 12'53	
superior conj	1085 May 07 j 10:45	22° B 17'04	0°25'05		1086 Apr 18 j 14:00	0° B	
minimum elong	1085 May 07 j 09:38	22° B 11'00	0°24'51	max. Earth dist.	1086 Apr 20 j 03:04	3° B 18'38	1.32579 AU
	1085 May 10 j 23:12	0° II					
evening rise	1085 May 14 j 08:39	7° II 17'59		superior conj	1086 Apr 21 j 20:38	7° B 03'39	0°00'-46
	1085 May 26 j 05:52	0° B		minimum elong	1086 Apr 21 j 20:40	7° B 03'50	0°00'46
evening max el	1085 Jun 11 j 01:15	21° B 03'19	25°44'01	behind sun begin	1086 Apr 21 j 15:31	6° B 35'55	
desc. node	1085 Jun 12 j 23:00	22° B 46'32		behind sun end	1086 Apr 22 j 01:48	7° B 31'47	
retrograde	1085 Jun 25 j 02:07	28° B 13'37		asc. node	1086 Apr 21 j 22:23	7° B 13'12	
evening set	1085 Jul 01 j 02:07	26° B 48'02		evening rise	1086 Apr 28 j 20:19	22° B 11'09	
min. Earth dist.	1085 Jul 05 j 13:39	24° B 08'50	0.58471 AU		1086 May 02 j 15:12	0° II	
inferior conj	1085 Jul 08 j 19:40	21° B 48'15	-4°-52'-23		1086 May 21 j 21:14	0° B	
minimum elong	1085 Jul 08 j 20:00	21° B 47'38	4°52'25	evening max el	1086 May 23 j 16:27	1° B 49'40	24°16'48
morning rise	1085 Jul 16 j 17:32	17° B 26'05		desc. node	1086 May 30 j 20:01	7° B 06'33	
direct	1085 Jul 19 j 05:14	17° B 06'13		retrograde	1086 Jun 06 j 13:06	8° B 48'49	
morning max el	1085 Jul 27 j 11:20	21° B 01'07	18°41'40	evening set	1086 Jun 11 j 04:50	8° B 00'35	
asc. node	1085 Aug 01 j 00:31	26° B 23'23		min. Earth dist.	1086 Jun 17 j 03:30	5° B 03'29	0.56636 AU
	1085 Aug 03 j 10:20	0° Q		inferior conj	1086 Jun 19 j 18:37	3° B 24'22	-4°-34'-29
morning set	1085 Aug 12 j 18:39	17° Q 00'22		minimum elong	1086 Jun 19 j 13:52	3° B 31'52	4°33'53
	1085 Aug 19 j 11:19	0° M			1086 Jun 26 j 01:48	30° R II	
superior conj	1085 Aug 21 j 12:31	3° M 53'41	1°41'14	morning rise	1086 Jun 28 j 02:33	29° II 22'12	
minimum elong	1085 Aug 21 j 14:40	4° M 03'53	1°41'07	direct	1086 Jun 30 j 18:10	29° II 03'24	
max. Earth dist.	1085 Aug 28 j 15:50	16° M 55'19	1.39525 AU		1086 Jul 05 j 04:48	0° B	
evening rise	1085 Sep 01 j 18:34	24° M 01'37		morning max el	1086 Jul 10 j 08:18	3° B 30'32	19°37'27
	1085 Sep 05 j 08:45	0° A		asc. node	1086 Jul 18 j 21:35	14° B 41'46	
desc. node	1085 Sep 08 j 22:19	5° A 43'56		morning set	1086 Jul 27 j 03:21	0° Q	
	1085 Sep 25 j 12:49	0° M			1086 Jul 27 j 20:19	1° Q 24'59	
evening max el	1085 Oct 06 j 22:10	13° M 33'24	24°04'49	superior conj	1086 Aug 04 j 20:38	17° Q 31'12	1°46'21
retrograde	1085 Oct 17 j 22:50	20° M 01'56		minimum elong	1086 Aug 04 j 20:51	17° Q 32'18	1°46'21
evening set	1085 Oct 23 j 04:28	17° M 51'42		max. Earth dist.	1086 Aug 10 j 19:48	28° Q 58'44	1.37517 AU
asc. node	1085 Oct 27 j 23:43	12° M 19'21			1086 Aug 11 j 09:00	0° M	
min. Earth dist.	1085 Oct 28 j 00:03	12° M 18'16	0.67600 AU	evening rise	1086 Aug 14 j 15:47	5° M 57'58	
inferior conj	1085 Oct 28 j 15:15	11° M 26'49	0°13'23	desc. node	1086 Aug 26 j 19:21	26° M 11'34	
minimum elong	1085 Oct 28 j 14:56	11° M 27'55	0°13'14		1086 Aug 29 j 07:05	0° A	
transit middle	1085 Oct 28 j 14:56	11° M 27'55	0°13'14	evening max el	1086 Sep 19 j 10:05	27° A 11'27	25°20'26
transit begin	1085 Oct 28 j 13:21	11° M 33'17			1086 Sep 22 j 12:48	0° M	
transit end	1085 Oct 28 j 16:31	11° M 22'33		retrograde	1086 Oct 01 j 10:07	4° M 06'23	
morning rise	1085 Nov 03 j 01:37	5° M 19'05		evening set	1086 Oct 07 j 06:25	1° M 39'52	
direct	1085 Nov 06 j 22:17	3° M 54'16			1086 Oct 08 j 23:43	30° R A	
morning max el	1085 Nov 14 j 22:57	8° M 32'39	20°34'41	min. Earth dist.	1086 Oct 11 j 17:45	26° A 41'44	0.67112 AU
greatest brilliancy	1085 Nov 21 j 02:07	15° M 47'28	-0.5m	inferior conj	1086 Oct 12 j 19:44	25° A 17'31	0°-42'-13
	1085 Dec 01 j 03:34	0° A		minimum elong	1086 Oct 12 j 20:48	25° A 14'02	0°41'47
desc. node	1085 Dec 05 j 21:33	7° A 05'52		asc. node	1086 Oct 14 j 20:46	22° A 43'28	
morning set	1085 Dec 13 j 13:32	18° A 50'08		morning rise	1086 Oct 18 j 11:48	19° A 17'35	
	1085 Dec 20 j 15:46	0° B		direct	1086 Oct 21 j 20:40	18° A 12'00	
max. Earth dist.	1085 Dec 22 j 23:18	3° B 42'56	1.43235 AU	morning max el	1086 Oct 29 j 02:21	22° A 17'45	19°30'13
					1086 Nov 04 j 10:04	0° M	
superior conj	1085 Dec 29 j 10:05	14° B 17'54	-1°-58'-50	greatest brilliancy	1086 Nov 06 j 20:36	3° M 25'40	-0.7m
minimum elong	1085 Dec 29 j 06:09	14° B 01'31	1°58'40	morning set	1086 Nov 22 j 12:03	27° M 08'43	
	1086 Jan 07 j 14:31	0° \approx		desc. node	1086 Nov 22 j 18:37	27° M 34'07	
evening rise	1086 Jan 10 j 16:32	5° \approx 24'49			1086 Nov 24 j 08:14	0° A	
asc. node	1086 Jan 23 j 23:04	27° \approx 32'44		max. Earth dist.	1086 Dec 05 j 12:56	17° A 32'04	1.44495 AU

superior conj	1086 Dec 09 j 07:46	23° ♄ 33'37	-1°-36'-16	evening rise	1087 Dec 04 j 06:25	27° ♄ 04'47	
minimum elong	1086 Dec 08 j 23:31	23° ♄ 00'36	1°35'33		1087 Dec 06 j 02:13	0° ♄	
	1086 Dec 13 j 07:42	0° ♄		evening max el	1087 Dec 25 j 20:38	29° ♄ 04'12	18°54'31
evening rise	1086 Dec 23 j 11:06	16° ♄ 44'00			1087 Dec 26 j 19:31	0° ♄	
	1086 Dec 31 j 09:49	0° ♄		asc. node	1087 Dec 28 j 17:07	1° ♄ 31'31	
asc. node	1087 Jan 10 j 20:05	15° ♄ 02'11		retrograde	1088 Jan 01 j 16:11	2° ♄ 55'17	
evening max el	1087 Jan 11 j 10:00	15° ♄ 38'38	18°22'19	evening set	1088 Jan 04 j 20:34	1° ♄ 56'55	
retrograde	1087 Jan 17 j 22:00	19° ♄ 10'49			1088 Jan 07 j 06:21	30° ♄	
evening set	1087 Jan 20 j 20:33	18° ♄ 23'52		inferior conj	1088 Jan 10 j 14:04	26° ♄ 10'44	3°25'37
inferior conj	1087 Jan 26 j 20:49	12° ♄ 55'03	3°43'15	minimum elong	1088 Jan 10 j 11:49	26° ♄ 17'44	3°25'14
minimum elong	1087 Jan 26 j 19:40	12° ♄ 58'21	3°43'09	min. Earth dist.	1088 Jan 12 j 05:35	24° ♄ 08'01	0.65504 AU
min. Earth dist.	1087 Jan 29 j 03:42	10° ♄ 18'47	0.63997 AU	morning rise	1088 Jan 16 j 02:03	19° ♄ 59'10	
morning rise	1087 Feb 01 j 17:16	6° ♄ 49'02		direct	1088 Jan 22 j 15:22	17° ♄ 09'06	
direct	1087 Feb 08 j 14:45	4° ♄ 01'07		morning max el	1088 Feb 04 j 16:41	24° ♄ 49'05	26°45'12
desc. node	1087 Feb 18 j 17:48	8° ♄ 38'44		desc. node	1088 Feb 05 j 14:51	25° ♄ 45'52	
morning max el	1087 Feb 22 j 06:46	11° ♄ 52'52	27°32'53		1088 Feb 09 j 09:53	0° ♄	
	1087 Mar 08 j 17:06	0° ♄			1088 Mar 01 j 03:40	0° ♄	
	1087 Mar 26 j 12:07	0° ♄		morning set	1088 Mar 11 j 13:26	18° ♄ 36'06	
morning set	1087 Mar 29 j 04:32	5° ♄ 12'46		max. Earth dist.	1088 Mar 15 j 22:03	27° ♄ 06'39	1.34484 AU
max. Earth dist.	1087 Apr 03 j 05:50	15° ♄ 29'54	1.33309 AU		1088 Mar 17 j 08:29	0° ♄	
superior conj	1087 Apr 06 j 03:02	21° ♄ 35'29	0°-27'-57	superior conj	1088 Mar 20 j 03:47	5° ♄ 45'13	0°-55'-21
minimum elong	1087 Apr 06 j 04:25	21° ♄ 42'48	0°27'40	minimum elong	1088 Mar 20 j 06:30	5° ♄ 59'22	0°54'51
asc. node	1087 Apr 08 j 19:26	27° ♄ 20'36		asc. node	1088 Mar 25 j 16:28	17° ♄ 20'37	
	1087 Apr 10 j 01:06	0° ♄		evening rise	1088 Mar 27 j 17:26	21° ♄ 36'22	
evening rise	1087 Apr 13 j 07:53	6° ♄ 59'41			1088 Mar 31 j 21:01	0° ♄	
	1087 Apr 25 j 14:46	0° ♄		evening max el	1088 Apr 16 j 05:11	23° ♄ 07'17	21°10'53
evening max el	1087 May 05 j 07:18	12° ♄ 20'39	22°40'56	retrograde	1088 Apr 28 j 01:47	28° ♄ 53'42	
desc. node	1087 May 17 j 17:01	18° ♄ 51'45		evening set	1088 Apr 30 j 08:48	28° ♄ 41'30	
retrograde	1087 May 18 j 11:43	18° ♄ 53'08		desc. node	1088 May 03 j 14:04	27° ♄ 46'48	
evening set	1087 May 21 j 17:08	18° ♄ 30'16		inferior conj	1088 May 09 j 17:07	24° ♄ 42'38	-1°-45'-21
min. Earth dist.	1087 May 29 j 15:24	15° ♄ 02'02	0.55363 AU	minimum elong	1088 May 09 j 12:12	24° ♄ 49'34	1°43'39
inferior conj	1087 May 30 j 22:53	14° ♄ 17'03	-3°-30'-44	min. Earth dist.	1088 May 10 j 03:59	24° ♄ 27'19	0.54940 AU
minimum elong	1087 May 30 j 15:15	14° ♄ 27'58	3°28'44	morning rise	1088 May 18 j 15:29	20° ♄ 41'44	
morning rise	1087 Jun 08 j 16:02	10° ♄ 24'51		direct	1088 May 21 j 22:44	20° ♄ 18'07	
direct	1087 Jun 11 j 12:59	10° ♄ 05'46		morning max el	1088 Jun 03 j 17:27	26° ♄ 23'16	22°27'23
morning max el	1087 Jun 22 j 18:12	15° ♄ 18'08	20°53'56		1088 Jun 07 j 04:15	0° ♄	
	1087 Jul 03 j 17:40	0° ♄		asc. node	1088 Jun 21 j 15:45	23° ♄ 00'41	
asc. node	1087 Jul 05 j 18:40	3° ♄ 37'29			1088 Jun 25 j 02:28	0° ♄	
morning set	1087 Jul 12 j 03:23	16° ♄ 06'30		morning set	1088 Jun 25 j 13:42	0° ♄ 58'29	
	1087 Jul 18 j 19:56	0° ♄		superior conj	1088 Jul 02 j 18:57	16° ♄ 18'12	1°34'07
superior conj	1087 Jul 19 j 15:58	1° ♄ 43'04	1°43'26	minimum elong	1088 Jul 02 j 16:49	16° ♄ 06'55	1°33'55
minimum elong	1087 Jul 19 j 14:42	1° ♄ 36'38	1°43'23	max. Earth dist.	1088 Jul 05 j 21:41	22° ♄ 49'20	1.34258 AU
max. Earth dist.	1087 Jul 24 j 04:27	10° ♄ 49'10	1.35715 AU		1088 Jul 09 j 10:38	0° ♄	
evening rise	1087 Jul 28 j 08:58	18° ♄ 52'07		evening rise	1088 Jul 10 j 17:21	2° ♄ 31'16	
	1087 Aug 03 j 13:20	0° ♄			1088 Jul 26 j 10:32	0° ♄	
desc. node	1087 Aug 13 j 16:22	16° ♄ 22'27		desc. node	1088 Jul 30 j 13:23	6° ♄ 09'15	
	1087 Aug 23 j 10:11	0° ♄		evening max el	1088 Aug 14 j 09:54	24° ♄ 18'07	27°08'10
evening max el	1087 Sep 01 j 21:55	10° ♄ 48'48	26°24'03		1088 Aug 21 j 22:07	0° ♄	
retrograde	1087 Sep 14 j 16:29	18° ♄ 00'24		retrograde	1088 Aug 27 j 17:37	1° ♄ 36'53	
evening set	1087 Sep 21 j 02:51	15° ♄ 21'28			1088 Sep 02 j 01:30	30° ♄	
min. Earth dist.	1087 Sep 25 j 06:28	11° ♄ 00'16	0.66281 AU	evening set	1088 Sep 03 j 15:25	28° ♄ 52'58	
inferior conj	1087 Sep 26 j 20:02	9° ♄ 05'49	-1°-39'-30	min. Earth dist.	1088 Sep 07 j 12:00	25° ♄ 08'43	0.65089 AU
minimum elong	1087 Sep 26 j 22:38	8° ♄ 57'54	1°38'28	inferior conj	1088 Sep 09 j 14:04	22° ♄ 48'10	-2°-36'-25
asc. node	1087 Oct 01 j 17:50	3° ♄ 58'25		minimum elong	1088 Sep 09 j 18:06	22° ♄ 36'49	2°34'58
morning rise	1087 Oct 02 j 19:33	3° ♄ 16'34		morning rise	1088 Sep 15 j 22:28	17° ♄ 12'40	
direct	1087 Oct 05 j 18:45	2° ♄ 26'40		asc. node	1088 Sep 17 j 14:55	16° ♄ 39'47	
morning max el	1087 Oct 12 j 12:28	6° ♄ 10'14	18°41'03	direct	1088 Sep 18 j 14:27	16° ♄ 34'36	
	1087 Oct 29 j 04:12	0° ♄		morning max el	1088 Sep 25 j 02:57	20° ♄ 05'12	18°08'26
morning set	1087 Nov 02 j 07:13	6° ♄ 33'27			1088 Oct 02 j 14:58	0° ♄	
desc. node	1087 Nov 09 j 15:38	18° ♄ 12'02		morning set	1088 Oct 13 j 07:27	17° ♄ 24'51	
	1087 Nov 17 j 03:38	0° ♄			1088 Oct 20 j 23:20	0° ♄	
superior conj	1087 Nov 18 j 10:51	2° ♄ 02'36	0°-56'-10	desc. node	1088 Oct 26 j 12:40	8° ♄ 56'24	
minimum elong	1087 Nov 18 j 03:50	1° ♄ 35'04	0°55'19	superior conj	1088 Oct 27 j 15:26	10° ♄ 43'01	0°-7'-26
max. Earth dist.	1087 Nov 18 j 06:45	1° ♄ 46'31	1.45068 AU	minimum elong	1088 Oct 27 j 14:30	10° ♄ 39'16	0°07'18

behind sun begin	1088 Oct 27 j 04:44	10° \mathbb{M} 00'24		superior conj	1089 Oct 07 j 16:31	20° \mathbb{A} 25'35	0°37'50
behind sun end	1088 Oct 28 j 00:16	11° \mathbb{M} 18'06		minimum elong	1089 Oct 07 j 20:16	20° \mathbb{A} 41'07	0°37'19
max. Earth dist.	1088 Oct 31 j 01:28	16° \mathbb{M} 07'40	1.44905 AU	desc. node	1089 Oct 13 j 09:42	29° \mathbb{A} 43'28	
	1088 Nov 08 j 22:16	0° \mathbb{A}			1089 Oct 13 j 13:49	0° \mathbb{M}	
evening rise	1088 Nov 13 j 03:34	6° \mathbb{A} 33'17		max. Earth dist.	1089 Oct 13 j 18:30	0° \mathbb{M} 18'43	1.44037 AU
	1088 Nov 28 j 12:07	0° \mathbb{B}		evening rise	1089 Oct 23 j 11:54	15° \mathbb{M} 34'19	
greatest brilliancy	1088 Nov 30 j 09:47	2° \mathbb{B} 44'57	-0.6m		1089 Nov 01 j 23:54	0° \mathbb{A}	
evening max el	1088 Dec 08 j 03:24	12° \mathbb{B} 32'50	19°43'11	greatest brilliancy	1089 Nov 15 j 12:22	19° \mathbb{A} 17'51	-0.5m
asc. node	1088 Dec 14 j 14:11	16° \mathbb{B} 46'21		evening max el	1089 Nov 21 j 04:55	26° \mathbb{A} 02'23	20°45'59
retrograde	1088 Dec 15 j 13:23	16° \mathbb{B} 51'34			1089 Nov 26 j 03:14	0° \mathbb{B}	
evening set	1088 Dec 19 j 01:11	15° \mathbb{B} 40'11		retrograde	1089 Nov 29 j 11:06	0° \mathbb{B} 55'22	
inferior conj	1088 Dec 24 j 14:14	9° \mathbb{B} 39'28	2°56'31	asc. node	1089 Dec 01 j 11:14	0° \mathbb{B} 32'43	
minimum elong	1088 Dec 24 j 11:33	9° \mathbb{B} 48'20	2°55'49		1089 Dec 02 j 13:55	30° \mathbb{R} \mathbb{A}	
min. Earth dist.	1088 Dec 25 j 15:35	8° \mathbb{B} 15'49	0.66620 AU	evening set	1089 Dec 03 j 08:17	29° \mathbb{A} 29'06	
morning rise	1088 Dec 29 j 21:12	3° \mathbb{B} 24'57		inferior conj	1089 Dec 08 j 18:45	23° \mathbb{A} 16'55	2°18'39
direct	1089 Jan 04 j 22:01	0° \mathbb{B} 44'45		minimum elong	1089 Dec 08 j 16:11	23° \mathbb{A} 25'41	2°17'49
morning max el	1089 Jan 17 j 01:46	7° \mathbb{B} 58'45	25°34'00	min. Earth dist.	1089 Dec 09 j 07:26	22° \mathbb{A} 33'31	0.67349 AU
desc. node	1089 Jan 22 j 11:53	14° \mathbb{B} 01'20		morning rise	1089 Dec 13 j 23:38	17° \mathbb{A} 01'36	
	1089 Feb 03 j 07:48	0° \mathbb{A}		direct	1089 Dec 19 j 09:44	14° \mathbb{A} 39'33	
	1089 Feb 21 j 15:38	0° \mathbb{H}		morning max el	1089 Dec 30 j 10:03	21° \mathbb{A} 13'42	24°09'19
morning set	1089 Feb 22 j 07:04	1° \mathbb{H} 09'58			1090 Jan 07 j 00:03	0° \mathbb{B}	
max. Earth dist.	1089 Feb 26 j 02:18	8° \mathbb{H} 13'44	1.36112 AU	desc. node	1090 Jan 09 j 08:54	3° \mathbb{B} 04'52	
					1090 Jan 27 j 14:06	0° \mathbb{A}	
superior conj	1089 Mar 03 j 20:13	19° \mathbb{H} 25'45	-1°-21'-20	morning set	1090 Feb 04 j 03:30	12° \mathbb{A} 37'31	
minimum elong	1089 Mar 04 j 00:00	19° \mathbb{H} 44'43	1°20'48	max. Earth dist.	1090 Feb 07 j 22:21	19° \mathbb{A} 17'35	1.38103 AU
	1089 Mar 09 j 01:17	0° \mathbb{Y}			1090 Feb 13 j 17:49	0° \mathbb{H}	
evening rise	1089 Mar 11 j 22:55	5° \mathbb{Y} 55'13					
asc. node	1089 Mar 12 j 13:31	7° \mathbb{Y} 09'06		superior conj	1090 Feb 15 j 00:51	2° \mathbb{H} 27'29	-1°-43'-40
	1089 Mar 25 j 15:51	0° \mathbb{B}		minimum elong	1090 Feb 15 j 04:54	2° \mathbb{H} 46'51	1°43'17
evening max el	1089 Mar 29 j 14:25	4° \mathbb{B} 30'04	19°55'56	evening rise	1090 Feb 23 j 21:50	19° \mathbb{H} 49'06	
retrograde	1089 Apr 08 j 17:32	9° \mathbb{B} 22'41		asc. node	1090 Feb 27 j 10:33	26° \mathbb{H} 40'54	
evening set	1089 Apr 10 j 18:55	9° \mathbb{B} 11'31			1090 Mar 01 j 04:57	0° \mathbb{Y}	
inferior conj	1089 Apr 19 j 15:37	5° \mathbb{B} 11'18	0°14'01	evening max el	1090 Mar 12 j 10:43	16° \mathbb{Y} 31'57	19°00'05
minimum elong	1089 Apr 19 j 16:15	5° \mathbb{B} 10'21	0°13'47	retrograde	1090 Mar 20 j 23:28	20° \mathbb{Y} 39'36	
transit middle	1089 Apr 19 j 16:15	5° \mathbb{B} 10'21	0°13'47	evening set	1090 Mar 23 j 04:17	20° \mathbb{Y} 24'16	
transit begin	1089 Apr 19 j 14:15	5° \mathbb{B} 13'23		inferior conj	1090 Mar 31 j 06:32	16° \mathbb{Y} 09'11	1°54'58
transit end	1089 Apr 19 j 18:15	5° \mathbb{B} 07'18		minimum elong	1090 Mar 31 j 10:26	16° \mathbb{Y} 02'21	1°53'47
desc. node	1089 Apr 20 j 11:06	4° \mathbb{B} 41'32		min. Earth dist.	1090 Apr 03 j 09:39	13° \mathbb{Y} 58'24	0.56879 AU
min. Earth dist.	1089 Apr 21 j 17:57	3° \mathbb{B} 54'47	0.55489 AU	desc. node	1090 Apr 07 j 08:07	11° \mathbb{Y} 39'37	
morning rise	1089 Apr 28 j 10:31	0° \mathbb{B} 43'46		morning rise	1090 Apr 08 j 12:23	11° \mathbb{Y} 08'17	
direct	1089 May 02 j 13:44	0° \mathbb{B} 06'06		direct	1090 Apr 13 j 17:29	10° \mathbb{Y} 03'59	
morning max el	1089 May 16 j 09:28	6° \mathbb{B} 58'01	24°08'49	morning max el	1090 Apr 28 j 00:08	17° \mathbb{Y} 27'17	25°44'36
	1089 Jun 01 j 23:21	0° \mathbb{H}			1090 May 08 j 08:13	0° \mathbb{B}	
asc. node	1089 Jun 08 j 12:47	12° \mathbb{H} 43'58			1090 May 25 j 03:14	0° \mathbb{H}	
morning set	1089 Jun 10 j 01:29	15° \mathbb{H} 55'16		morning set	1090 May 25 j 13:07	0° \mathbb{H} 51'56	
	1089 Jun 16 j 14:22	0° \mathbb{B}		asc. node	1090 May 26 j 09:50	2° \mathbb{H} 41'33	
superior conj	1089 Jun 17 j 02:54	1° \mathbb{B} 07'51	1°19'40	superior conj	1090 Jun 01 j 13:41	16° \mathbb{H} 05'10	1°01'02
minimum elong	1089 Jun 17 j 00:27	0° \mathbb{B} 54'38	1°19'18	minimum elong	1090 Jun 01 j 11:26	15° \mathbb{H} 52'49	1°00'37
max. Earth dist.	1089 Jun 19 j 00:05	5° \mathbb{B} 11'08	1.33205 AU	max. Earth dist.	1090 Jun 02 j 09:21	17° \mathbb{H} 52'50	1.32546 AU
evening rise	1089 Jun 24 j 12:45	16° \mathbb{B} 43'11			1090 Jun 08 j 00:53	0° \mathbb{B}	
	1089 Jul 01 j 10:34	0° \mathbb{B}		evening rise	1090 Jun 08 j 15:50	1° \mathbb{B} 17'45	
desc. node	1089 Jul 17 j 10:26	25° \mathbb{B} 21'12			1090 Jun 24 j 10:01	0° \mathbb{B}	
	1089 Jul 21 j 01:09	0° \mathbb{H}		desc. node	1090 Jul 04 j 07:27	13° \mathbb{B} 43'49	
evening max el	1089 Jul 27 j 20:46	7° \mathbb{H} 27'34	27°25'47	evening max el	1090 Jul 10 j 04:00	20° \mathbb{B} 03'58	27°11'40
retrograde	1089 Aug 10 j 12:42	14° \mathbb{H} 46'10		retrograde	1090 Jul 24 j 00:43	27° \mathbb{B} 19'25	
evening set	1089 Aug 17 j 16:58	12° \mathbb{H} 08'00		evening set	1090 Jul 31 j 03:34	25° \mathbb{B} 00'00	
min. Earth dist.	1089 Aug 21 j 08:20	8° \mathbb{H} 57'23	0.63544 AU	min. Earth dist.	1090 Aug 03 j 18:12	22° \mathbb{B} 14'16	0.61695 AU
inferior conj	1089 Aug 23 j 23:10	6° \mathbb{H} 18'03	-3°-30'-3	inferior conj	1090 Aug 06 j 20:15	19° \mathbb{B} 28'07	-4°-15'-46
minimum elong	1089 Aug 24 j 04:09	6° \mathbb{H} 05'23	3°28'37	minimum elong	1090 Aug 07 j 01:04	19° \mathbb{B} 17'17	4°14'49
morning rise	1089 Aug 30 j 17:36	0° \mathbb{H} 59'31		morning rise	1090 Aug 14 j 01:22	14° \mathbb{B} 29'57	
direct	1089 Sep 02 j 05:00	0° \mathbb{H} 29'44		direct	1090 Aug 16 j 11:00	14° \mathbb{B} 05'31	
asc. node	1089 Sep 04 j 11:59	0° \mathbb{H} 55'41		asc. node	1090 Aug 22 j 09:01	16° \mathbb{B} 38'28	
morning max el	1089 Sep 08 j 18:58	3° \mathbb{H} 55'30	17°53'15	morning max el	1090 Aug 23 j 09:34	17° \mathbb{B} 34'28	17°56'29
morning set	1089 Sep 25 j 09:26	29° \mathbb{H} 30'31			1090 Sep 01 j 06:18	0° \mathbb{H}	
	1089 Sep 25 j 16:12	0° \mathbb{A}		morning set	1090 Sep 08 j 06:55	12° \mathbb{H} 32'17	
					1090 Sep 18 j 00:28	0° \mathbb{A}	

superior conj	1090 Sep 18 j 20:52	1°♄28'48	1°12'06	morning max el	1091 Aug 06 j 19:43	0°♄53'43	18°19'20
minimum elong	1090 Sep 19 j 01:35	1°♄49'12	1°11'34	asc. node	1091 Aug 09 j 06:03	3°♄33'05	
max. Earth dist.	1090 Sep 26 j 07:28	14°♄03'17	1.42571 AU	morning set	1091 Aug 22 j 18:24	26°♄14'14	
desc. node	1090 Sep 30 j 06:45	20°♄30'08			1091 Aug 24 j 17:48	0°♄	
evening rise	1090 Oct 03 j 00:23	24°♄50'54					
	1090 Oct 06 j 07:36	0°♄		superior conj	1091 Sep 01 j 01:41	13°♄44'23	1°33'53
	1090 Oct 27 j 00:19	0°♄		minimum elong	1091 Sep 01 j 05:01	13°♄59'35	1°33'37
greatest brilliancy	1090 Oct 30 j 06:58	4°♄10'36	-0.3m	max. Earth dist.	1091 Sep 08 j 14:50	27°♄06'43	1.40689 AU
evening max el	1090 Nov 04 j 00:45	9°♄32'50	21°59'26		1091 Sep 10 j 07:36	0°♄	
retrograde	1090 Nov 13 j 07:31	15°♄04'04		evening rise	1091 Sep 13 j 07:40	5°♄00'06	
evening set	1090 Nov 17 j 16:04	13°♄21'11		desc. node	1091 Sep 17 j 03:47	11°♄12'44	
asc. node	1090 Nov 18 j 08:15	12°♄46'26			1091 Sep 29 j 13:12	0°♄	
inferior conj	1090 Nov 23 j 01:33	7°♄00'55	1°34'00	evening max el	1091 Oct 17 j 15:46	23°♄05'10	23°18'51
minimum elong	1090 Nov 22 j 23:34	7°♄07'47	1°33'15	retrograde	1091 Oct 28 j 01:18	29°♄14'35	
min. Earth dist.	1090 Nov 23 j 02:51	6°♄56'23	0.67712 AU	evening set	1091 Nov 01 j 22:55	27°♄14'06	
morning rise	1090 Nov 28 j 06:52	0°♄46'52		asc. node	1091 Nov 05 j 05:16	23°♄42'45	
	1090 Nov 29 j 07:41	30°♄		inferior conj	1091 Nov 07 j 08:49	20°♄49'35	0°44'03
direct	1090 Dec 03 j 01:40	28°♄47'06		minimum elong	1091 Nov 07 j 07:48	20°♄53'05	0°43'37
	1090 Dec 07 j 04:17	0°♄		min. Earth dist.	1091 Nov 06 j 23:30	21°♄21'34	0.67730 AU
morning max el	1090 Dec 12 j 20:10	4°♄34'08	22°41'11	morning rise	1091 Nov 12 j 16:46	14°♄38'57	
greatest brilliancy	1090 Dec 17 j 10:45	9°♄42'57	-0.3m	direct	1091 Nov 16 j 21:01	13°♄02'02	
desc. node	1090 Dec 27 j 05:56	22°♄42'58		morning max el	1091 Nov 25 j 11:41	18°♄03'38	21°18'00
	1091 Jan 01 j 06:42	0°♄		greatest brilliancy	1091 Nov 30 j 17:01	24°♄03'05	-0.4m
morning set	1091 Jan 15 j 20:42	22°♄43'49			1091 Dec 05 j 05:12	0°♄	
	1091 Jan 20 j 05:08	0°♄		desc. node	1091 Dec 14 j 02:59	12°♄46'03	
max. Earth dist.	1091 Jan 20 j 18:19	0°♄56'05	1.40247 AU		1091 Dec 25 j 10:19	0°♄	
				morning set	1091 Dec 26 j 09:27	1°♄30'53	
superior conj	1091 Jan 28 j 13:11	14°♄38'41	-1°-59'-7	max. Earth dist.	1092 Jan 02 j 20:12	13°♄29'00	1.42248 AU
minimum elong	1091 Jan 28 j 15:54	14°♄51'02	1°59'00				
	1091 Feb 05 j 19:02	0°♄		superior conj	1092 Jan 10 j 03:58	25°♄47'05	-2°-3'-23
evening rise	1091 Feb 07 j 11:10	3°♄10'17		minimum elong	1092 Jan 10 j 03:02	25°♄43'04	2°03'22
asc. node	1091 Feb 14 j 07:35	15°♄49'32			1092 Jan 12 j 14:20	0°♄	
evening max el	1091 Feb 23 j 15:26	29°♄06'00	18°24'17	evening rise	1092 Jan 21 j 11:18	15°♄50'54	
	1091 Feb 24 j 15:06	0°♄			1092 Jan 29 j 10:33	0°♄	
retrograde	1091 Mar 03 j 00:35	2°♄44'45		asc. node	1092 Feb 01 j 04:36	4°♄27'47	
evening set	1091 Mar 05 j 10:35	2°♄22'23		evening max el	1092 Feb 07 j 01:31	12°♄04'16	18°08'23
	1091 Mar 09 j 22:11	30°♄		retrograde	1092 Feb 13 j 18:41	15°♄29'55	
inferior conj	1091 Mar 12 j 18:35	27°♄46'41	3°02'22	evening set	1092 Feb 16 j 09:31	14°♄58'56	
minimum elong	1091 Mar 12 j 22:19	27°♄39'00	3°01'35	inferior conj	1092 Feb 23 j 02:28	10°♄01'55	3°37'14
min. Earth dist.	1091 Mar 16 j 05:05	24°♄58'40	0.58812 AU	minimum elong	1092 Feb 23 j 04:18	9°♄57'32	3°37'03
morning rise	1091 Mar 20 j 06:10	22°♄16'47		min. Earth dist.	1092 Feb 26 j 07:14	7°♄00'39	0.60939 AU
desc. node	1091 Mar 25 j 05:08	20°♄40'34		morning rise	1092 Feb 29 j 20:07	4°♄12'10	
direct	1091 Mar 26 j 10:22	20°♄36'40		direct	1092 Mar 07 j 14:49	1°♄56'43	
morning max el	1091 Apr 09 j 18:56	28°♄18'23	26°59'20	desc. node	1092 Mar 11 j 02:09	2°♄29'43	
	1091 Apr 11 j 10:52	0°♄		morning max el	1092 Mar 21 j 20:10	9°♄48'39	27°41'18
	1091 May 01 j 23:22	0°♄			1092 Apr 06 j 11:10	0°♄	
morning set	1091 May 09 j 22:56	15°♄41'42		morning set	1092 Apr 23 j 05:05	0°♄18'23	
asc. node	1091 May 13 j 06:51	22°♄47'31			1092 Apr 23 j 01:30	0°♄	
	1091 May 16 j 14:00	0°♄		asc. node	1092 Apr 29 j 03:54	12°♄57'27	
				max. Earth dist.	1092 Apr 29 j 09:26	13°♄27'36	1.32352 AU
superior conj	1091 May 17 j 01:26	1°♄02'54	0°39'01				
minimum elong	1091 May 16 j 23:48	0°♄53'56	0°38'41	superior conj	1092 Apr 30 j 12:30	15°♄55'26	0°14'20
max. Earth dist.	1091 May 16 j 21:46	0°♄42'42	1.32262 AU	minimum elong	1092 Apr 30 j 11:51	15°♄51'51	0°14'13
evening rise	1091 May 23 j 23:53	16°♄05'07		behind sun begin	1092 Apr 30 j 09:36	15°♄39'31	
	1091 May 30 j 23:20	0°♄		behind sun end	1092 Apr 30 j 14:06	16°♄04'12	
	1091 Jun 20 j 06:45	0°♄			1092 May 06 j 23:50	0°♄	
desc. node	1091 Jun 21 j 04:27	0°♄55'42		evening rise	1092 May 07 j 10:47	0°♄58'06	
evening max el	1091 Jun 22 j 04:52	1°♄55'24	26°24'27		1092 May 23 j 08:34	0°♄	
retrograde	1091 Jul 06 j 04:37	9°♄08'05		evening max el	1092 Jun 02 j 22:41	13°♄01'14	25°08'47
evening set	1091 Jul 12 j 18:32	7°♄20'04		desc. node	1092 Jun 07 j 01:27	16°♄28'27	
min. Earth dist.	1091 Jul 16 j 17:54	4°♄44'09	0.59651 AU	retrograde	1092 Jun 16 j 22:50	20°♄08'51	
inferior conj	1091 Jul 20 j 01:43	2°♄08'15	-4°-46'-7	evening set	1092 Jun 22 j 10:16	18°♄59'38	
minimum elong	1091 Jul 20 j 04:23	2°♄03'01	4°45'56	min. Earth dist.	1092 Jun 27 j 10:20	16°♄14'43	0.57643 AU
	1091 Jul 22 j 12:12	30°♄		inferior conj	1092 Jun 30 j 12:16	14°♄09'23	-4°-49'-51
morning rise	1091 Jul 27 j 17:36	27°♄33'08		minimum elong	1092 Jun 30 j 10:29	14°♄12'25	4°49'47
direct	1091 Jul 30 j 04:02	27°♄11'58		morning rise	1092 Jul 08 j 14:33	9°♄56'50	
	1091 Aug 05 j 19:47	0°♄		direct	1092 Jul 11 j 03:41	9°♄37'38	

morning max el	1092 Jul 19 j 22:21	13° $\overline{54}$ '22	19°02'53		1093 Jun 01 j 18:55	30° \overline{R} II	
asc. node	1092 Jul 26 j 03:06	21° $\overline{52}$ '47		evening set	1093 Jun 02 j 05:07	29° \overline{II} 53'02	
	1092 Jul 31 j 05:21	0° \overline{Q}		min. Earth dist.	1093 Jun 08 j 23:22	26° \overline{II} 43'53	0.56001 AU
morning set	1092 Aug 05 j 15:47	10° \overline{Q} 25'25		inferior conj	1093 Jun 11 j 02:47	25° \overline{II} 26'46	-4°-13'-22
				minimum elong	1093 Jun 10 j 20:16	25° \overline{II} 36'37	4°12'08
superior conj	1092 Aug 14 j 01:22	26° \overline{Q} 56'25	1°44'31	morning rise	1093 Jun 19 j 14:49	21° \overline{II} 30'24	
minimum elong	1092 Aug 14 j 02:40	27° \overline{Q} 02'41	1°44'28	direct	1093 Jun 22 j 08:09	21° \overline{II} 11'53	
	1092 Aug 15 j 15:48	0° \overline{M}		morning max el	1093 Jul 02 j 14:50	25° \overline{II} 57'25	20°07'36
max. Earth dist.	1092 Aug 20 j 18:10	9° \overline{M} 26'12	1.38649 AU		1093 Jul 06 j 08:01	0° \overline{S}	
evening rise	1092 Aug 24 j 15:24	16° \overline{M} 17'55		asc. node	1093 Jul 13 j 00:11	10° \overline{S} 00'44	
	1092 Sep 01 j 21:41	0° \overline{L}		morning set	1093 Jul 20 j 20:03	24° \overline{S} 58'18	
desc. node	1092 Sep 03 j 00:48	1° \overline{L} 47'07			1093 Jul 23 j 07:07	0° \overline{Q}	
	1092 Sep 23 j 03:01	0° \overline{M}					
evening max el	1092 Sep 29 j 04:00	6° \overline{M} 40'38	24°38'01	superior conj	1093 Jul 28 j 14:47	10° \overline{Q} 50'28	1°46'00
retrograde	1092 Oct 10 j 15:20	13° \overline{M} 22'27		minimum elong	1093 Jul 28 j 14:19	10° \overline{Q} 48'05	1°45'59
evening set	1092 Oct 16 j 03:10	11° \overline{M} 04'51		max. Earth dist.	1093 Aug 02 j 23:07	21° \overline{Q} 19'50	1.36710 AU
min. Earth dist.	1092 Oct 20 j 19:02	5° \overline{M} 46'10	0.67423 AU	evening rise	1093 Aug 06 j 21:47	28° \overline{Q} 41'14	
inferior conj	1092 Oct 21 j 14:49	4° \overline{M} 40'15	0°-9'-54		1093 Aug 07 j 15:09	0° \overline{M}	
minimum elong	1092 Oct 21 j 15:04	4° \overline{M} 39'26	0°09'49	desc. node	1093 Aug 20 j 21:50	22° \overline{M} 08'44	
transit middle	1092 Oct 21 j 15:04	4° \overline{M} 39'26	0°09'49		1093 Aug 26 j 04:48	0° \overline{L}	
transit begin	1092 Oct 21 j 12:52	4° \overline{M} 46'44		evening max el	1093 Sep 11 j 15:50	20° \overline{L} 19'39	25°49'32
transit end	1092 Oct 21 j 17:15	4° \overline{M} 32'08		retrograde	1093 Sep 24 j 00:44	27° \overline{L} 23'25	
asc. node	1092 Oct 22 j 02:19	4° \overline{M} 02'03		evening set	1093 Sep 30 j 03:02	24° \overline{L} 51'12	
	1092 Oct 25 j 11:33	30° \overline{R} \overline{L}		min. Earth dist.	1093 Oct 04 j 11:03	20° \overline{L} 08'21	0.66793 AU
morning rise	1092 Oct 27 j 03:23	28° \overline{L} 35'29		inferior conj	1093 Oct 05 j 17:47	18° \overline{L} 30'59	-1°-6'-26
direct	1092 Oct 30 j 18:40	27° \overline{L} 19'26		minimum elong	1093 Oct 05 j 19:30	18° \overline{L} 25'33	1°05'43
	1092 Nov 05 j 14:10	0° \overline{M}		asc. node	1093 Oct 08 j 23:22	14° \overline{L} 42'19	
morning max el	1092 Nov 07 j 10:39	1° \overline{M} 43'09	20°05'33	morning rise	1093 Oct 11 j 12:48	12° \overline{L} 34'57	
greatest brilliancy	1092 Nov 14 j 11:21	10° \overline{M} 15'12	-0.6m	direct	1093 Oct 14 j 17:14	11° \overline{L} 36'31	
	1092 Nov 27 j 23:06	0° \overline{J}		morning max el	1093 Oct 21 j 17:04	15° \overline{L} 31'57	19°07'18
desc. node	1092 Nov 30 j 00:02	3° \overline{J} 06'30			1093 Nov 01 j 14:35	0° \overline{M}	
morning set	1092 Dec 04 j 05:55	9° \overline{J} 38'06		morning set	1093 Nov 13 j 11:03	18° \overline{M} 19'00	
max. Earth dist.	1092 Dec 15 j 05:18	26° \overline{J} 51'53	1.43840 AU	desc. node	1093 Nov 16 j 21:06	23° \overline{M} 39'33	
	1092 Dec 17 j 04:11	0° \overline{Z}			1093 Nov 20 j 22:23	0° \overline{J}	
				max. Earth dist.	1093 Nov 27 j 20:36	10° \overline{J} 52'28	1.44828 AU
superior conj	1092 Dec 20 j 16:39	5° \overline{Z} 42'47	-1°-51'-37				
minimum elong	1092 Dec 20 j 10:31	5° \overline{Z} 17'43	1°51'15	superior conj	1093 Nov 30 j 04:42	14° \overline{J} 33'54	-1°-21'-5
evening rise	1093 Jan 02 j 17:50	27° \overline{Z} 41'30		minimum elong	1093 Nov 29 j 20:07	13° \overline{J} 59'56	1°20'12
	1093 Jan 04 j 01:57	0° \approx			1093 Dec 09 j 20:13	0° \overline{Z}	
asc. node	1093 Jan 18 j 01:38	22° \approx 25'41		evening rise	1093 Dec 15 j 02:43	8° \overline{Z} 35'39	
evening max el	1093 Jan 20 j 13:56	25° \approx 18'11	18°11'53		1093 Dec 28 j 09:28	0° \approx	
retrograde	1093 Jan 27 j 01:19	28° \approx 44'27		evening max el	1094 Jan 04 j 02:00	8° \approx 41'30	18°33'56
evening set	1093 Jan 29 j 20:52	28° \approx 03'43		asc. node	1094 Jan 04 j 22:40	9° \approx 31'37	
inferior conj	1093 Feb 05 j 02:20	22° \approx 46'16	3°46'36	retrograde	1094 Jan 10 j 16:14	12° \approx 20'13	
minimum elong	1093 Feb 05 j 02:07	22° \approx 46'50	3°46'36	evening set	1094 Jan 13 j 17:09	11° \approx 28'34	
min. Earth dist.	1093 Feb 07 j 18:09	19° \approx 55'25	0.62964 AU	inferior conj	1094 Jan 19 j 14:15	5° \approx 52'21	3°37'19
morning rise	1093 Feb 11 j 05:22	16° \approx 44'43		minimum elong	1094 Jan 19 j 12:33	5° \approx 57'25	3°37'08
direct	1093 Feb 18 j 04:32	14° \approx 04'07		min. Earth dist.	1094 Jan 21 j 14:37	3° \approx 29'08	0.64692 AU
desc. node	1093 Feb 25 j 23:11	16° \approx 49'48			1094 Jan 24 j 23:09	30° \overline{R} \overline{Z}	
morning max el	1093 Mar 04 j 02:36	21° \approx 58'47	27°46'08	morning rise	1094 Jan 25 j 06:40	29° \overline{Z} 43'47	
	1093 Mar 11 j 03:43	0° \overline{H}		direct	1094 Feb 01 j 01:33	26° \overline{Z} 53'00	
	1093 Mar 30 j 14:11	0° \overline{Y}			1094 Feb 09 j 01:59	0° \approx	
morning set	1093 Apr 07 j 05:22	14° \overline{Y} 34'15		desc. node	1094 Feb 12 j 20:15	3° \approx 05'41	
max. Earth dist.	1093 Apr 12 j 16:21	25° \overline{Y} 53'27	1.32835 AU	morning max el	1094 Feb 14 j 11:47	4° \approx 41'01	27°15'55
					1094 Mar 05 j 17:21	0° \overline{H}	
superior conj	1093 Apr 14 j 21:10	0° \overline{H} 36'47	0°-12'-12	morning set	1094 Mar 21 j 20:57	28° \overline{H} 20'09	
minimum elong	1093 Apr 14 j 21:46	0° \overline{H} 39'57	0°12'04		1094 Mar 22 j 17:22	0° \overline{Y}	
behind sun begin	1093 Apr 14 j 18:20	0° \overline{H} 21'26		max. Earth dist.	1094 Mar 26 j 14:47	7° \overline{Y} 49'45	1.33754 AU
behind sun end	1093 Apr 15 j 01:11	0° \overline{H} 58'28					
	1093 Apr 14 j 14:21	0° \overline{H}		superior conj	1094 Mar 30 j 01:30	15° \overline{Y} 00'35	0°-39'-37
asc. node	1093 Apr 16 j 00:57	3° \overline{H} 07'02		minimum elong	1094 Mar 30 j 03:28	15° \overline{Y} 10'55	0°39'14
evening rise	1093 Apr 21 j 22:37	15° \overline{H} 50'02		asc. node	1094 Apr 02 j 22:01	23° \overline{Y} 12'05	
	1093 Apr 29 j 00:33	0° \overline{II}		evening rise	1094 Apr 06 j 09:36	0° \overline{H} 34'34	
evening max el	1093 May 15 j 12:51	23° \overline{II} 37'40	23°36'09		1094 Apr 06 j 03:00	0° \overline{H}	
desc. node	1093 May 24 j 22:27	29° \overline{II} 46'50			1094 Apr 23 j 10:16	0° \overline{II}	
	1093 May 25 j 16:18	0° \overline{S}		evening max el	1094 Apr 27 j 06:07	4° \overline{II} 12'56	22°01'16
retrograde	1093 May 29 j 04:58	0° \overline{S} 28'19		retrograde	1094 May 09 j 22:39	10° \overline{II} 27'02	

desc. node	1094 May 11 j 19:29	10°II19'12		evening set	1095 Apr 22 j 14:52	20°826'28	
evening set	1094 May 12 j 16:27	10°II10'21		desc. node	1095 Apr 28 j 16:30	18°813'11	
min. Earth dist.	1094 May 21 j 11:30	6°II24'52	0.55068 AU	inferior conj	1095 May 01 j 19:36	16°828'52	0°-54'-21
inferior conj	1094 May 22 j 01:21	6°II05'27	-2°-49'-56	minimum elong	1095 May 01 j 17:02	16°832'34	0°53'25
minimum elong	1094 May 21 j 18:11	6°II15'30	2°47'45	min. Earth dist.	1095 May 03 j 00:18	15°847'35	0.55063 AU
morning rise	1094 May 30 j 21:25	2°II11'47		morning rise	1095 May 10 j 17:50	12°818'53	
direct	1094 Jun 02 j 22:02	1°II51'23		direct	1095 May 14 j 08:36	11°850'43	
morning max el	1094 Jun 14 j 19:54	7°II26'18	21°31'58	morning max el	1095 May 27 j 15:24	18°816'21	23°10'13
asc. node	1094 Jun 29 j 21:16	29°II09'26			1095 Jun 06 j 05:02	0°II	
	1094 Jun 30 j 07:53	0°☿		asc. node	1095 Jun 16 j 18:20	18°II42'29	
morning set	1094 Jul 05 j 04:46	9°☿45'18		morning set	1095 Jun 19 j 15:56	24°II40'36	
					1095 Jun 22 j 04:09	0°☿	
superior conj	1094 Jul 12 j 13:45	25°☿13'28	1°40'11	superior conj	1095 Jun 26 j 19:09	9°☿55'57	1°28'33
minimum elong	1094 Jul 12 j 12:03	25°☿04'37	1°40'04	minimum elong	1095 Jun 26 j 16:49	9°☿43'29	1°28'17
	1094 Jul 14 j 21:16	0°♊		max. Earth dist.	1095 Jun 29 j 08:58	15°☿23'55	1.33768 AU
max. Earth dist.	1094 Jul 16 j 11:22	3°♊13'21	1.35052 AU	evening rise	1095 Jul 04 j 11:35	25°☿51'15	
evening rise	1094 Jul 20 j 22:02	11°♊56'36			1095 Jul 06 j 14:27	0°♊	
	1094 Jul 31 j 00:55	0°♊			1095 Jul 24 j 10:34	0°♊	
desc. node	1094 Aug 07 j 18:51	12°♊10'36		desc. node	1095 Jul 25 j 15:51	1°♊44'04	
	1094 Aug 21 j 09:22	0°♊		evening max el	1095 Aug 07 j 15:49	17°♊18'11	27°19'08
evening max el	1094 Aug 25 j 04:04	3°♊55'46	26°45'43	retrograde	1095 Aug 21 j 03:06	24°♊36'44	
retrograde	1094 Sep 07 j 04:47	11°♊10'43		evening set	1095 Aug 28 j 04:38	21°♊53'44	
evening set	1094 Sep 13 j 20:24	8°♊28'55		min. Earth dist.	1095 Aug 31 j 22:43	18°♊24'39	0.64483 AU
min. Earth dist.	1094 Sep 17 j 21:03	4°♊23'22	0.65820 AU	inferior conj	1095 Sep 03 j 06:15	15°♊55'07	-2°-59'-47
inferior conj	1094 Sep 19 j 15:43	2°♊17'32	-2°-3'-50	minimum elong	1095 Sep 03 j 10:47	15°♊42'55	2°58'17
minimum elong	1094 Sep 19 j 18:57	2°♊07'59	2°02'35	morning rise	1095 Sep 09 j 18:50	10°♊26'30	
	1094 Sep 21 j 15:49	30°♊		direct	1095 Sep 12 j 08:38	9°♊52'16	
morning rise	1094 Sep 25 j 18:49	26°♊33'29		asc. node	1095 Sep 12 j 17:31	9°♊52'59	
asc. node	1094 Sep 25 j 20:27	26°♊31'23		morning max el	1095 Sep 18 j 20:44	13°♊19'24	17°59'47
direct	1094 Sep 28 j 14:44	25°♊48'55			1095 Sep 30 j 11:18	0°♊	
morning max el	1094 Oct 05 j 05:16	29°♊25'48	18°25'03	morning set	1095 Oct 06 j 06:19	9°♊45'56	
	1094 Oct 05 j 18:29	0°♊			1095 Oct 18 j 11:01	0°♊	
morning set	1094 Oct 24 j 18:29	28°♊20'57		superior conj	1095 Oct 19 j 17:00	2°♊01'09	0°12'51
	1094 Oct 25 j 19:02	0°♊		minimum elong	1095 Oct 19 j 18:30	2°♊07'12	0°12'38
desc. node	1094 Nov 03 j 18:08	14°♊20'40		behind sun begin	1095 Oct 19 j 11:56	1°♊40'43	
superior conj	1094 Nov 09 j 05:31	22°♊59'31	0°-35'-47	behind sun end	1095 Oct 20 j 01:05	2°♊33'39	
minimum elong	1094 Nov 09 j 00:52	22°♊41'10	0°35'11	desc. node	1095 Oct 21 j 15:10	5°♊06'26	
max. Earth dist.	1094 Nov 10 j 15:30	25°♊13'09	1.45094 AU	max. Earth dist.	1095 Oct 24 j 10:17	9°♊33'36	1.44620 AU
	1094 Nov 13 j 16:35	0°♊		evening rise	1095 Nov 05 j 01:57	27°♊44'50	
evening rise	1094 Nov 25 j 12:00	18°♊32'30			1095 Nov 06 j 13:04	0°♊	
	1094 Dec 02 j 18:50	0°♊		greatest brilliancy	1095 Nov 24 j 22:31	27°♊22'07	-0.6m
greatest brilliancy	1094 Dec 08 j 13:28	8°♊55'36	-0.7m		1095 Nov 26 j 21:42	0°♊	
evening max el	1094 Dec 18 j 11:16	22°♊09'09	19°13'23	evening max el	1095 Dec 01 j 15:49	5°♊37'40	20°08'22
asc. node	1094 Dec 22 j 19:42	25°♊31'27		retrograde	1095 Dec 09 j 09:41	10°♊10'24	
retrograde	1094 Dec 25 j 11:59	26°♊10'37		asc. node	1095 Dec 09 j 16:45	10°♊09'54	
evening set	1094 Dec 28 j 19:25	25°♊06'45		evening set	1095 Dec 13 j 01:18	8°♊52'43	
inferior conj	1095 Jan 03 j 10:45	19°♊14'01	3°14'29	inferior conj	1095 Dec 18 j 13:00	2°♊46'29	2°41'24
minimum elong	1095 Jan 03 j 08:15	19°♊22'03	3°13'57	minimum elong	1095 Dec 18 j 10:18	2°♊55'32	2°40'38
min. Earth dist.	1095 Jan 04 j 20:01	17°♊27'49	0.66029 AU	min. Earth dist.	1095 Dec 19 j 08:41	1°♊40'19	0.66970 AU
morning rise	1095 Jan 08 j 20:14	13°♊01'14			1095 Dec 20 j 15:17	30°♊	
direct	1095 Jan 15 j 04:43	10°♊14'15		morning rise	1095 Dec 23 j 18:45	26°♊31'26	
morning max el	1095 Jan 27 j 21:25	17°♊44'08	26°17'19	direct	1095 Dec 29 j 13:20	23°♊58'31	
desc. node	1095 Jan 30 j 17:19	20°♊44'56			1096 Jan 09 j 07:03	0°♊	
	1095 Feb 07 j 04:52	0°♊		morning max el	1096 Jan 10 j 06:09	0°♊56'55	24°59'10
	1095 Feb 26 j 16:04	0°♊		desc. node	1096 Jan 17 j 14:21	9°♊22'40	
morning set	1095 Mar 05 j 00:02	11°♊24'43			1096 Feb 01 j 04:43	0°♊	
max. Earth dist.	1095 Mar 09 j 02:05	19°♊13'46	1.35127 AU	morning set	1096 Feb 15 j 09:23	23°♊32'16	
					1096 Feb 18 j 22:50	0°♊	
superior conj	1095 Mar 13 j 23:08	28°♊59'46	-1°-6'-38	max. Earth dist.	1096 Feb 19 j 02:28	0°♊16'49	1.36922 AU
minimum elong	1095 Mar 14 j 02:22	29°♊16'19	1°06'06	superior conj	1096 Feb 25 j 10:58	12°♊24'39	-1°-31'-26
	1095 Mar 14 j 10:54	0°♊		minimum elong	1096 Feb 25 j 15:00	12°♊44'30	1°30'55
asc. node	1095 Mar 20 j 19:03	13°♊08'26		evening rise	1096 Mar 04 j 20:44	29°♊14'40	
evening rise	1095 Mar 21 j 17:45	15°♊05'28			1096 Mar 05 j 05:47	0°♊	
	1095 Mar 29 j 10:03	0°♊		asc. node	1096 Mar 06 j 16:05	2°♊50'34	
evening max el	1095 Apr 09 j 08:40	15°♊14'17	20°36'47				
retrograde	1095 Apr 20 j 11:41	20°♊37'32					

evening max el	1096 Mar 21 j 22:40	26° Υ 53'25	19°29'43	evening rise	1097 Feb 16 j 15:57	12° Υ 55'14	
	1096 Mar 26 j 01:19	0° Υ		asc. node	1097 Feb 21 j 13:05	22° Υ 13'07	
retrograde	1096 Mar 31 j 08:44	1° Υ 25'49			1097 Feb 26 j 00:05	0° Υ	
evening set	1096 Apr 02 j 10:51	1° Υ 13'24		evening max el	1097 Mar 04 j 22:52	9° Υ 09'36	18°42'26
	1096 Apr 06 j 01:09	30° Υ		retrograde	1097 Mar 12 j 22:37	13° Υ 03'02	
inferior conj	1096 Apr 11 j 00:00	27° Υ 07'39	1°00'24	evening set	1097 Mar 15 j 05:28	12° Υ 45'06	
minimum elong	1096 Apr 11 j 02:28	27° Υ 03'40	0°59'34	inferior conj	1097 Mar 22 j 23:44	8° Υ 21'54	2°27'50
min. Earth dist.	1096 Apr 13 j 14:48	25° Υ 26'50	0.55990 AU	minimum elong	1097 Mar 23 j 03:54	8° Υ 14'03	2°26'43
desc. node	1096 Apr 14 j 13:31	24° Υ 51'59		min. Earth dist.	1097 Mar 26 j 08:05	5° Υ 52'17	0.57652 AU
morning rise	1096 Apr 19 j 14:21	22° Υ 25'53		morning rise	1097 Mar 30 j 22:02	3° Υ 07'13	
direct	1096 Apr 24 j 03:58	21° Υ 38'43		desc. node	1097 Apr 01 j 10:33	2° Υ 30'42	
morning max el	1096 May 08 j 06:15	28° Υ 45'48	24°51'12	direct	1097 Apr 05 j 13:39	1° Υ 48'08	
	1096 May 09 j 12:15	0° Υ		morning max el	1097 Apr 19 j 22:14	9° Υ 21'33	26°19'44
	1096 May 29 j 10:13	0° Υ			1097 May 05 j 13:45	0° Υ	
asc. node	1096 Jun 02 j 15:22	8° Υ 32'33		morning set	1097 May 18 j 14:54	24° Υ 32'22	
morning set	1096 Jun 03 j 03:51	9° Υ 38'08		asc. node	1097 May 20 j 12:23	28° Υ 34'05	
					1097 May 21 j 04:21	0° Υ	
superior conj	1096 Jun 10 j 04:32	24° Υ 49'43	1°12'13	superior conj	1097 May 25 j 15:56	9° Υ 47'58	0°52'04
minimum elong	1096 Jun 10 j 02:07	24° Υ 36'33	1°11'50	minimum elong	1097 May 25 j 13:54	9° Υ 36'47	0°51'41
max. Earth dist.	1096 Jun 11 j 14:37	27° Υ 54'44	1.32878 AU	max. Earth dist.	1097 May 26 j 01:27	10° Υ 40'14	1.32376 AU
	1096 Jun 12 j 13:50	0° Υ		evening rise	1097 Jun 01 j 16:02	24° Υ 54'24	
evening rise	1096 Jun 17 j 10:35	10° Υ 13'38			1097 Jun 04 j 03:37	0° Υ	
	1096 Jun 27 j 21:50	0° Υ			1097 Jun 21 j 16:02	0° Υ	
desc. node	1096 Jul 11 j 12:52	20° Υ 37'10		desc. node	1097 Jun 28 j 09:52	8° Υ 32'46	
	1096 Jul 19 j 19:13	0° Υ		evening max el	1097 Jul 02 j 05:54	12° Υ 32'14	26°55'31
evening max el	1096 Jul 20 j 01:13	0° Υ 14'20	27°23'42	retrograde	1097 Jul 16 j 04:31	19° Υ 47'17	
retrograde	1096 Aug 02 j 19:25	7° Υ 32'15		evening set	1097 Jul 23 j 03:15	17° Υ 39'48	
evening set	1096 Aug 10 j 00:23	5° Υ 00'00		min. Earth dist.	1097 Jul 26 j 20:00	15° Υ 00'18	0.60832 AU
min. Earth dist.	1096 Aug 13 j 14:28	2° Υ 01'45	0.62792 AU	inferior conj	1097 Jul 30 j 01:30	12° Υ 15'55	-4°-31'-9
	1096 Aug 15 j 17:08	30° Υ		minimum elong	1097 Jul 30 j 05:42	12° Υ 06'59	4°30'32
inferior conj	1096 Aug 16 j 10:38	29° Υ 17'27	-3°-50'-46	morning rise	1097 Aug 06 j 11:15	7° Υ 27'26	
minimum elong	1096 Aug 16 j 15:44	29° Υ 05'07	3°49'30	direct	1097 Aug 08 j 20:44	7° Υ 04'46	
morning rise	1096 Aug 23 j 09:36	24° Υ 07'34		morning max el	1097 Aug 16 j 01:43	10° Υ 38'14	18°03'44
direct	1096 Aug 25 j 19:53	23° Υ 40'26		asc. node	1097 Aug 16 j 11:36	11° Υ 02'46	
asc. node	1096 Aug 29 j 14:34	24° Υ 47'34			1097 Aug 28 j 20:14	0° Υ	
morning max el	1096 Sep 01 j 12:36	27° Υ 06'23	17°52'21	morning set	1097 Aug 31 j 21:22	5° Υ 37'57	
	1096 Sep 04 j 01:51	0° Υ					
morning set	1096 Sep 17 j 17:20	22° Υ 17'39		superior conj	1097 Sep 10 j 21:05	23° Υ 54'23	1°22'49
	1096 Sep 22 j 01:58	0° Υ		minimum elong	1097 Sep 11 j 01:22	24° Υ 13'24	1°22'23
superior conj	1096 Sep 29 j 05:41	12° Υ 18'40	0°53'54		1097 Sep 14 j 08:35	0° Υ	
minimum elong	1096 Sep 29 j 10:16	12° Υ 37'55	0°53'19	max. Earth dist.	1097 Sep 18 j 11:45	7° Υ 01'16	1.41803 AU
max. Earth dist.	1096 Oct 06 j 01:41	23° Υ 35'01	1.43471 AU	evening rise	1097 Sep 24 j 04:59	16° Υ 22'27	
desc. node	1096 Oct 07 j 12:11	25° Υ 53'58		desc. node	1097 Sep 24 j 09:13	16° Υ 39'23	
	1096 Oct 10 j 01:57	0° Υ			1097 Oct 02 j 23:21	0° Υ	
evening rise	1096 Oct 14 j 09:50	6° Υ 46'55		greatest brilliancy	1097 Oct 22 j 12:53	27° Υ 14'30	-0.3m
	1096 Oct 29 j 21:09	0° Υ			1097 Oct 24 j 21:20	0° Υ	
greatest brilliancy	1096 Nov 08 j 10:54	13° Υ 08'09	-0.4m	evening max el	1097 Oct 27 j 08:20	2° Υ 38'12	22°32'53
evening max el	1096 Nov 13 j 14:46	19° Υ 07'12	21°16'09	retrograde	1097 Nov 06 j 02:39	8° Υ 26'21	
retrograde	1096 Nov 22 j 07:11	24° Υ 16'48		evening set	1097 Nov 10 j 16:27	6° Υ 36'17	
asc. node	1096 Nov 25 j 13:46	23° Υ 16'54		asc. node	1097 Nov 12 j 10:48	4° Υ 54'17	
evening set	1096 Nov 26 j 08:53	22° Υ 43'42		inferior conj	1097 Nov 16 j 01:57	0° Υ 13'44	1°13'24
inferior conj	1096 Dec 01 j 18:44	16° Υ 27'23	2°00'29	minimum elong	1097 Nov 16 j 00:20	0° Υ 19'20	1°12'45
minimum elong	1096 Dec 01 j 16:21	16° Υ 35'33	1°59'38	min. Earth dist.	1097 Nov 15 j 22:45	0° Υ 24'47	0.67760 AU
min. Earth dist.	1096 Dec 02 j 02:26	16° Υ 00'48	0.67539 AU		1097 Nov 16 j 05:56	30° Υ	
morning rise	1096 Dec 06 j 23:29	10° Υ 12'08		morning rise	1097 Nov 21 j 08:06	24° Υ 00'35	
direct	1096 Dec 12 j 02:57	7° Υ 59'23		direct	1097 Nov 25 j 20:35	22° Υ 10'27	
morning max el	1096 Dec 22 j 14:54	14° Υ 14'37	23°31'43	morning max el	1097 Dec 05 j 02:47	27° Υ 37'52	22°04'39
desc. node	1097 Jan 03 j 11:23	28° Υ 42'28			1097 Dec 07 j 07:57	0° Υ	
	1097 Jan 04 j 09:56	0° Υ		greatest brilliancy	1097 Dec 09 j 19:16	2° Υ 54'19	-0.4m
	1097 Jan 24 j 03:03	0° Υ		desc. node	1097 Dec 21 j 08:26	18° Υ 32'09	
morning set	1097 Jan 26 j 18:53	4° Υ 26'48			1097 Dec 29 j 01:41	0° Υ	
max. Earth dist.	1097 Jan 30 j 21:13	11° Υ 30'11	1.39008 AU	morning set	1098 Jan 06 j 23:27	13° Υ 56'52	
				max. Earth dist.	1098 Jan 12 j 18:32	23° Υ 27'59	1.41133 AU
superior conj	1097 Feb 07 j 09:12	25° Υ 05'50	-1°-51'-19		1098 Jan 16 j 14:49	0° Υ	
minimum elong	1097 Feb 07 j 12:56	25° Υ 23'18	1°51'02	superior conj	1098 Jan 20 j 13:00	6° Υ 51'37	-2°-2'-35
	1097 Feb 09 j 23:29	0° Υ					

minimum elong	1098 Jan 20 j 14:28	6° \approx 58'08	2°02'34	minimum elong	1099 Jan 01 j 13:57	17° \approx 16'39	2°00'31
evening rise	1098 Jan 31 j 00:06	25° \approx 59'32			1099 Jan 08 j 23:58	0° \approx	
	1098 Feb 02 j 03:53	0° \approx		evening rise	1099 Jan 13 j 17:15	8° \approx 19'32	
asc. node	1098 Feb 08 j 10:06	11° \approx 09'39		asc. node	1099 Jan 26 j 07:09	29° \approx 31'52	
evening max el	1098 Feb 16 j 06:18	21° \approx 55'11	18°15'12		1099 Jan 26 j 15:03	0° \approx	
retrograde	1098 Feb 23 j 07:09	25° \approx 26'08		evening max el	1099 Jan 30 j 17:47	5° \approx 01'00	18°07'34
evening set	1098 Feb 25 j 19:21	25° \approx 00'12		retrograde	1099 Feb 06 j 07:08	8° \approx 25'06	
inferior conj	1098 Mar 04 j 20:31	20° \approx 15'41	3°20'44	evening set	1099 Feb 09 j 00:05	7° \approx 49'55	
minimum elong	1098 Mar 04 j 23:33	20° \approx 09'03	3°20'15	inferior conj	1099 Feb 15 j 11:41	2° \approx 43'51	3°43'52
min. Earth dist.	1098 Mar 08 j 06:02	17° \approx 18'47	0.59713 AU	minimum elong	1099 Feb 15 j 12:37	2° \approx 41'31	3°43'49
morning rise	1098 Mar 12 j 00:14	14° \approx 36'27			1099 Feb 18 j 05:07	30° \approx	
direct	1098 Mar 18 j 12:07	12° \approx 40'16		min. Earth dist.	1099 Feb 18 j 11:27	29° \approx 44'43	0.61829 AU
desc. node	1098 Mar 19 j 07:34	12° \approx 42'02		morning rise	1099 Feb 21 j 22:40	26° \approx 48'37	
morning max el	1098 Apr 01 j 19:27	20° \approx 27'14	27°21'37	direct	1099 Feb 28 j 20:32	24° \approx 21'00	
	1098 Apr 10 j 00:40	0° \approx		desc. node	1099 Mar 06 j 04:38	25° \approx 39'09	
	1098 Apr 28 j 08:34	0° \approx			1099 Mar 12 j 13:31	0° \approx	
morning set	1098 May 02 j 23:24	9° \approx 17'29		morning max el	1099 Mar 14 j 22:59	2° \approx 14'05	27°48'01
asc. node	1098 May 07 j 09:25	18° \approx 42'24			1099 Apr 04 j 08:30	0° \approx	
max. Earth dist.	1098 May 09 j 13:57	23° \approx 29'29	1.32249 AU	morning set	1099 Apr 17 j 03:21	23° \approx 45'54	
					1099 Apr 20 j 03:22	0° \approx	
superior conj	1098 May 10 j 03:38	24° \approx 44'42	0°28'51	max. Earth dist.	1099 Apr 23 j 00:13	6° \approx 08'18	1.32508 AU
minimum elong	1098 May 10 j 02:23	24° \approx 37'48	0°28'35	asc. node	1099 Apr 24 j 06:27	8° \approx 52'22	
	1098 May 12 j 13:03	0° \approx					
evening rise	1098 May 17 j 01:34	9° \approx 45'35		superior conj	1099 Apr 24 j 13:54	9° \approx 32'54	0°03'18
	1098 May 27 j 12:21	0° \approx		minimum elong	1099 Apr 24 j 13:44	9° \approx 32'02	0°03'15
evening max el	1098 Jun 14 j 03:58	24° \approx 05'08	25°55'23	behind sun begin	1099 Apr 24 j 08:42	9° \approx 04'38	
desc. node	1098 Jun 15 j 06:52	25° \approx 07'15		behind sun end	1099 Apr 24 j 18:46	9° \approx 59'27	
	1098 Jun 22 j 12:31	0° \approx		evening rise	1099 May 01 j 13:06	24° \approx 38'55	
retrograde	1098 Jun 28 j 04:37	1° \approx 15'53			1099 May 04 j 02:45	0° \approx	
	1098 Jul 03 j 19:13	30° \approx			1099 May 22 j 07:01	0° \approx	
evening set	1098 Jul 04 j 08:40	29° \approx 44'27		evening max el	1099 May 26 j 19:40	4° \approx 55'38	24°30'39
min. Earth dist.	1098 Jul 08 j 16:31	27° \approx 06'41	0.58775 AU	desc. node	1099 Jun 02 j 03:53	9° \approx 47'33	
inferior conj	1098 Jul 11 j 23:23	24° \approx 41'33	-4°-51'-50	retrograde	1099 Jun 09 j 17:26	11° \approx 57'21	
minimum elong	1098 Jul 12 j 00:25	24° \approx 39'40	4°51'49	evening set	1099 Jun 14 j 14:34	11° \approx 03'54	
morning rise	1098 Jul 19 j 19:42	20° \approx 15'57		min. Earth dist.	1099 Jun 20 j 06:48	8° \approx 10'29	0.56883 AU
direct	1098 Jul 22 j 07:04	19° \approx 55'44		inferior conj	1099 Jun 23 j 01:20	6° \approx 24'05	-4°-40'-1
morning max el	1098 Jul 30 j 09:03	23° \approx 46'51	18°35'10	minimum elong	1099 Jun 22 j 21:20	6° \approx 30'32	4°39'36
asc. node	1098 Aug 03 j 08:40	28° \approx 23'49		morning rise	1099 Jul 01 j 07:49	2° \approx 19'34	
	1098 Aug 04 j 12:01	0° \approx		direct	1099 Jul 03 j 22:49	2° \approx 00'40	
morning set	1098 Aug 15 j 13:35	19° \approx 34'11		morning max el	1099 Jul 13 j 07:33	6° \approx 21'53	19°27'50
	1098 Aug 20 j 23:03	0° \approx		asc. node	1099 Jul 21 j 05:44	16° \approx 35'30	
					1099 Jul 28 j 14:45	0° \approx	
superior conj	1098 Aug 24 j 10:39	6° \approx 36'06	1°39'38	morning set	1099 Jul 30 j 14:16	3° \approx 55'41	
minimum elong	1098 Aug 24 j 13:08	6° \approx 47'40	1°39'29				
max. Earth dist.	1098 Aug 31 j 17:08	19° \approx 45'57	1.39834 AU	superior conj	1099 Aug 07 j 16:46	20° \approx 07'36	1°46'08
evening rise	1098 Sep 04 j 22:41	27° \approx 01'09		minimum elong	1099 Aug 07 j 17:16	20° \approx 10'01	1°46'07
	1098 Sep 06 j 17:39	0° \approx			1099 Aug 12 j 20:27	0° \approx	
desc. node	1098 Sep 11 j 06:14	7° \approx 19'08		max. Earth dist.	1099 Aug 13 j 20:55	1° \approx 53'34	1.37805 AU
	1098 Sep 26 j 14:22	0° \approx		evening rise	1099 Aug 17 j 16:32	8° \approx 47'45	
evening max el	1098 Oct 09 j 22:06	16° \approx 12'28	23°52'59	desc. node	1099 Aug 29 j 03:16	27° \approx 48'44	
retrograde	1098 Oct 20 j 18:50	22° \approx 36'01			1099 Aug 30 j 13:14	0° \approx	
evening set	1098 Oct 25 j 22:23	20° \approx 28'17		evening max el	1099 Sep 22 j 10:03	29° \approx 50'01	25°09'45
asc. node	1098 Oct 30 j 07:52	15° \approx 28'17			1099 Sep 22 j 14:08	0° \approx	
inferior conj	1098 Oct 31 j 08:55	14° \approx 03'27	0°21'33	retrograde	1099 Oct 04 j 06:51	6° \approx 41'51	
minimum elong	1098 Oct 31 j 08:24	14° \approx 05'12	0°21'20	evening set	1099 Oct 10 j 01:02	4° \approx 17'26	
min. Earth dist.	1098 Oct 30 j 19:14	14° \approx 49'54	0.67647 AU		1099 Oct 13 j 23:12	30° \approx	
morning rise	1098 Nov 05 j 18:35	7° \approx 54'57		min. Earth dist.	1099 Oct 14 j 13:29	29° \approx 14'02	0.67204 AU
direct	1098 Nov 09 j 17:12	6° \approx 27'02		inferior conj	1099 Oct 15 j 13:52	27° \approx 54'22	0°-33'-40
morning max el	1098 Nov 17 j 21:13	11° \approx 10'55	20°45'30	minimum elong	1099 Oct 15 j 14:43	27° \approx 51'36	0°33'19
greatest brilliancy	1098 Nov 23 j 17:52	18° \approx 02'55	-0.5m	asc. node	1099 Oct 17 j 04:56	25° \approx 49'27	
	1098 Dec 02 j 08:08	0° \approx		morning rise	1099 Oct 21 j 04:59	21° \approx 53'13	
desc. node	1098 Dec 08 j 05:30	8° \approx 43'19		direct	1099 Oct 24 j 15:27	20° \approx 45'04	
morning set	1098 Dec 17 j 02:40	22° \approx 18'33		morning max el	1099 Oct 31 j 23:34	24° \approx 55'03	19°38'54
	1098 Dec 22 j 00:01	0° \approx			1099 Nov 05 j 08:28	0° \approx	
max. Earth dist.	1098 Dec 25 j 23:47	6° \approx 24'16	1.42996 AU	greatest brilliancy	1099 Nov 09 j 04:34	5° \approx 12'34	-0.6m
				desc. node	1099 Nov 25 j 02:32	29° \approx 09'46	
superior conj	1099 Jan 01 j 17:04	17° \approx 29'45	-2°00'-35	morning set	1099 Nov 25 j 23:51	0° \approx	

	1099 Nov 25 j 15:33	0°♄		superior conj	1100 Nov 20 j 23:19	5°♄28'28	-1°-3'-6
max. Earth dist.	1099 Dec 08 j 12:29	20°♄07'54	1.44345 AU	minimum elong	1100 Nov 20 j 15:41	4°♄58'28	1°02'12
					1100 Dec 06 j 09:48	0°♄	
superior conj	1099 Dec 12 j 18:30	26°♄55'23	-1°-40'-55	evening rise	1100 Dec 06 j 13:56	0°♄16'38	
minimum elong	1099 Dec 12 j 10:39	26°♄23'48	1°40'17		1100 Dec 26 j 03:28	0°♄	
	1099 Dec 14 j 16:15	0°♄		evening max el	1100 Dec 27 j 17:24	1°♄44'35	18°48'39
evening rise	1099 Dec 26 j 15:05	19°♄47'22		asc. node	1100 Dec 30 j 01:17	3°♄48'52	
	1100 Jan 01 j 16:25	0°♄					
asc. node	1100 Jan 13 j 04:13	17°♄09'28					
evening max el	1100 Jan 14 j 06:21	18°♄19'38	18°19'00				
retrograde	1100 Jan 20 j 17:58	21°♄50'03					
evening set	1100 Jan 23 j 15:41	21°♄04'46					
inferior conj	1100 Jan 29 j 17:12	15°♄38'46	3°44'36				
minimum elong	1100 Jan 29 j 16:17	15°♄41'22	3°44'33				
min. Earth dist.	1100 Feb 01 j 02:24	12°♄58'17	0.63739 AU				
morning rise	1100 Feb 04 j 15:14	9°♄33'39					
direct	1100 Feb 11 j 13:19	6°♄47'15					
desc. node	1100 Feb 21 j 01:41	10°♄53'11					
morning max el	1100 Feb 25 j 07:11	14°♄40'11	27°37'22				
	1100 Mar 08 j 18:55	0°♄					
	1100 Mar 26 j 23:03	0°♄					
morning set	1100 Mar 31 j 00:19	7°♄50'09					
max. Earth dist.	1100 Apr 05 j 04:12	18°♄23'38	1.33175 AU				
superior conj	1100 Apr 07 j 20:57	24°♄07'10	0°-23'-46				
minimum elong	1100 Apr 07 j 22:07	24°♄13'24	0°23'33				
asc. node	1100 Apr 10 j 03:31	29°♄00'21					
	1100 Apr 10 j 14:35	0°♄					
evening rise	1100 Apr 15 j 00:49	9°♄28'17					
	1100 Apr 25 j 18:12	0°♄					
evening max el	1100 May 07 j 09:59	15°♄26'14	22°55'04				
desc. node	1100 May 19 j 00:54	21°♄57'39					
retrograde	1100 May 20 j 18:00	22°♄04'19					
evening set	1100 May 24 j 03:57	21°♄38'44					
min. Earth dist.	1100 May 31 j 18:52	18°♄15'46	0.55502 AU				
inferior conj	1100 Jun 02 j 07:58	17°♄22'12	-3°-43'-23				
minimum elong	1100 Jun 02 j 00:26	17°♄33'06	3°41'34				
morning rise	1100 Jun 10 j 23:52	13°♄29'32					
direct	1100 Jun 13 j 19:43	13°♄10'45					
morning max el	1100 Jun 24 j 19:10	18°♄15'51	20°41'25				
	1100 Jul 03 j 22:46	0°♄					
asc. node	1100 Jul 07 j 02:47	5°♄25'51					
morning set	1100 Jul 13 j 20:39	18°♄34'48					
	1100 Jul 19 j 09:03	0°♄					
superior conj	1100 Jul 21 j 10:40	4°♄14'59	1°44'20				
minimum elong	1100 Jul 21 j 09:36	4°♄09'33	1°44'17				
max. Earth dist.	1100 Jul 26 j 04:17	13°♄43'11	1.35957 AU				
evening rise	1100 Jul 30 j 07:02	21°♄33'59					
	1100 Aug 03 j 23:04	0°♄					
desc. node	1100 Aug 15 j 00:17	18°♄02'36					
	1100 Aug 23 j 09:32	0°♄					
evening max el	1100 Sep 03 j 21:46	13°♄27'43	26°15'43				
retrograde	1100 Sep 16 j 14:06	20°♄37'58					
evening set	1100 Sep 22 j 22:26	18°♄00'30					
min. Earth dist.	1100 Sep 27 j 03:08	13°♄33'42	0.66421 AU				
inferior conj	1100 Sep 28 j 14:56	11°♄43'26	-1°-30'-49				
minimum elong	1100 Sep 28 j 17:18	11°♄36'08	1°29'51				
asc. node	1100 Oct 03 j 02:01	6°♄53'56					
morning rise	1100 Oct 04 j 13:14	5°♄52'23					
direct	1100 Oct 07 j 13:41	5°♄00'28					
morning max el	1100 Oct 14 j 08:49	8°♄46'54	18°47'19				
	1100 Oct 29 j 10:57	0°♄					
morning set	1100 Nov 04 j 14:59	9°♄44'27					
desc. node	1100 Nov 10 j 23:34	19°♄46'28					
	1100 Nov 17 j 11:42	0°♄					
max. Earth dist.	1100 Nov 20 j 05:33	4°♄18'35	1.45028 AU				

superior conj	1100 Apr 07 j 20:57	24° Υ 07'10	0°-23'-46	max. Earth dist.	1101 Mar 18 j 22:02	0° Υ 05'10	1.34280 AU
minimum elong	1100 Apr 07 j 22:07	24° Υ 13'24	0°23'33				
asc. node	1100 Apr 10 j 03:31	29° Υ 00'21		superior conj	1101 Mar 22 j 22:42	8° Υ 20'49	0°-51'-14
	1100 Apr 10 j 14:35	0° X		minimum elong	1101 Mar 23 j 01:14	8° Υ 34'00	0°50'46
evening rise	1100 Apr 15 j 00:49	9° X 28'17		asc. node	1101 Mar 28 j 00:34	19° Υ 01'55	
	1100 Apr 25 j 18:12	0° Π		evening rise	1101 Mar 30 j 10:48	24° Υ 07'10	
evening max el	1100 May 07 j 09:59	15° Π 26'14	22°55'04		1101 Apr 02 j 07:44	0° X	
desc. node	1100 May 19 j 00:54	21° Π 57'39		evening max el	1101 Apr 19 j 06:31	26° X 09'24	21°23'29
retrograde	1100 May 20 j 18:00	22° Π 04'19			1101 Apr 24 j 05:31	0° Π	
evening set	1100 May 24 j 03:57	21° Π 38'44		retrograde	1101 May 01 j 08:47	2° Π 03'22	
min. Earth dist.	1100 May 31 j 18:52	18° Π 15'46	0.55502 AU	evening set	1101 May 03 j 17:55	1° Π 50'24	
inferior conj	1100 Jun 02 j 07:58	17° Π 22'12	-3°-43'-23	desc. node	1101 May 05 j 21:55	1° Π 17'36	
minimum elong	1100 Jun 02 j 00:26	17° Π 33'06	3°41'34		1101 May 09 j 02:01	30° R X	
morning rise	1100 Jun 10 j 23:52	13° Π 29'32		inferior conj	1101 May 13 j 02:55	27° X 50'34	-2°-3'-5
direct	1100 Jun 13 j 19:43	13° Π 10'45		minimum elong	1101 May 12 j 21:16	27° X 58'31	2°01'10
morning max el	1100 Jun 24 j 19:10	18° Π 15'51	20°41'25	min. Earth dist.	1101 May 13 j 07:26	27° X 44'14	0.54940 AU
	1100 Jul 03 j 22:46	0° S		morning rise	1101 May 22 j 00:53	23° X 52'04	
asc. node	1100 Jul 07 j 02:47	5° S 25'51		direct	1101 May 25 j 06:08	23° X 29'32	
morning set	1100 Jul 13 j 20:39	18° S 34'48		morning max el	1101 Jun 06 j 19:52	29° X 27'11	22°12'41
	1100 Jul 19 j 09:03	0° Ω			1101 Jun 07 j 09:39	0° Π	
				asc. node	1101 Jun 23 j 23:50	24° Π 45'32	
superior conj	1100 Jul 21 j 10:40	4° Ω 14'59	1°44'20		1101 Jun 26 j 14:45	0° S	
minimum elong	1100 Jul 21 j 09:36	4° Ω 09'33	1°44'17	morning set	1101 Jun 28 j 06:35	3° S 25'43	
max. Earth dist.	1100 Jul 26 j 04:17	13° Ω 43'11	1.35957 AU				
evening rise	1100 Jul 30 j 07:02	21° Ω 33'59		superior conj	1101 Jul 05 j 12:42	18° S 47'27	1°35'53
	1100 Aug 03 j 23:04	0° W		minimum elong	1101 Jul 05 j 10:40	18° S 36'42	1°35'43
desc. node	1100 Aug 15 j 00:17	18° W 02'36		max. Earth dist.	1101 Jul 08 j 20:06	25° S 40'57	1.34449 AU
	1100 Aug 23 j 09:32	0° A			1101 Jul 10 j 23:08	0° Ω	
evening max el	1100 Sep 03 j 21:46	13° A 27'43	26°15'43	evening rise	1101 Jul 13 j 13:28	5° Ω 07'40	
retrograde	1100 Sep 16 j 14:06	20° A 37'58			1101 Jul 27 j 16:29	0° W	
evening set	1100 Sep 22 j 22:26	18° A 00'30		desc. node	1101 Aug 01 j 21:17	7° W 53'41	
min. Earth dist.	1100 Sep 27 j 03:08	13° A 33'42	0.66421 AU	evening max el	1101 Aug 17 j 09:53	26° W 59'22	27°03'11
inferior conj	1100 Sep 28 j 14:56	11° A 43'26	-1°-30'-49		1101 Aug 20 j 20:22	0° A	
minimum elong	1100 Sep 28 j 17:18	11° A 36'08	1°29'51	retrograde	1101 Aug 30 j 16:04	4° A 17'32	
asc. node	1100 Oct 03 j 02:01	6° A 53'56		evening set	1101 Sep 06 j 12:19	1° A 33'56	
morning rise	1100 Oct 04 j 13:14	5° A 52'23			1101 Sep 08 j 06:24	30° R W	
direct	1100 Oct 07 j 13:41	5° A 00'28		min. Earth dist.	1101 Sep 10 j 09:56	27° W 44'08	0.65287 AU
morning max el	1100 Oct 14 j 08:49	8° A 46'54	18°47'19	inferior conj	1101 Sep 12 j 10:02	25° W 27'12	-2°-27'-55
	1100 Oct 29 j 10:57	0° M		minimum elong	1101 Sep 12 j 13:52	25° W 16'16	2°26'31
morning set	1100 Nov 04 j 14:59	9° M 44'27		morning rise	1101 Sep 18 j 17:01	19° W 49'17	
desc. node	1100 Nov 10 j 23:34	19° M 46'28		asc. node	1101 Sep 19 j 23:02	19° W 21'11	
	1100 Nov 17 j 11:42	0° J		direct	1101 Sep 21 j 09:54	19° W 09'41	
max. Earth dist.	1100 Nov 20 j 05:33	4° J 18'35	1.45028 AU	morning max el	1101 Sep 27 j 22:47	22° W 41'47	18°12'11
					1101 Oct 03 j 17:29	0° A	
superior conj	1100 Nov 20 j 23:19	5° J 28'28	-1°-3'-6	morning set	1101 Oct 16 j 10:57	20° A 23'26	
minimum elong	1100 Nov 20 j 15:41	4° J 58'28	1°02'12		1101 Oct 22 j 07:54	0° M	
	1100 Dec 06 j 09:48	0° Z		desc. node	1101 Oct 28 j 20:37	10° M 30'08	
evening rise	1100 Dec 06 j 13:56	0° Z 16'38					
	1100 Dec 26 j 03:28	0° \approx		superior conj	1101 Oct 31 j 02:16	14° M 03'18	0°-14'-50
evening max el	1100 Dec 27 j 17:24	1° \approx 44'35	18°48'39	minimum elong	1101 Oct 31 j 00:22	13° M 55'44	0°14'36
asc. node	1100 Dec 30 j 01:17	3° \approx 48'52		behind sun begin	1101 Oct 30 j 19:30	13° M 36'27	
retrograde	1101 Jan 03 j 11:25	5° \approx 32'16		behind sun end	1101 Oct 31 j 05:14	14° M 15'01	
evening set	1101 Jan 06 j 14:49	4° \approx 35'45		max. Earth dist.	1101 Nov 03 j 00:18	18° M 39'49	1.44980 AU
	1101 Jan 11 j 10:53	30° R Z			1101 Nov 10 j 06:00	0° J	
inferior conj	1101 Jan 12 j 09:10	28° Z 52'06	3°29'03	evening rise	1101 Nov 16 j 13:59	9° J 51'45	
minimum elong	1101 Jan 12 j 07:03	28° Z 58'39	3°28'44		1101 Nov 29 j 15:40	0° Z	
min. Earth dist.	1101 Jan 14 j 02:59	26° Z 43'44	0.65307 AU	greatest brilliancy	1101 Dec 02 j 20:56	4° Z 45'05	-0.7m
morning rise	1101 Jan 17 j 22:11	22° Z 41'10		evening max el	1101 Dec 11 j 00:52	15° Z 12'57	19°34'59
direct	1101 Jan 24 j 13:06	19° Z 50'23		asc. node	1101 Dec 16 j 22:19	19° Z 15'44	
morning max el	1101 Feb 06 j 16:59	27° Z 33'10	26°53'56	retrograde	1101 Dec 18 j 08:14	19° Z 26'49	
desc. node	1101 Feb 06 j 22:44	27° Z 47'41		evening set	1101 Dec 21 j 18:51	18° Z 17'28	
	1101 Feb 09 j 00:45	0° \approx		inferior conj	1101 Dec 27 j 08:26	12° Z 18'50	3°01'32
	1101 Mar 02 j 11:22	0° H		minimum elong	1101 Dec 27 j 05:47	12° Z 27'32	3°00'52
morning set	1101 Mar 14 j 11:06	21° H 19'51		min. Earth dist.	1101 Dec 28 j 11:49	10° Z 49'11	0.66483 AU
	1101 Mar 18 j 21:00	0° Υ		morning rise	1102 Jan 01 j 15:58	6° Z 04'42	

direct	1102 Jan 07 j 18:54	3°☾22'21		minimum elong	1102 Dec 11 j 09:48	26°☿04'03	2°24'04
morning max el	1102 Jan 20 j 02:08	10°☾40'51	25°45'40	min. Earth dist.	1102 Dec 12 j 02:53	25°☿05'56	0.67263 AU
desc. node	1102 Jan 24 j 19:47	15°☾54'05		morning rise	1102 Dec 16 j 17:28	19°☿39'57	
	1102 Feb 04 j 11:29	0°≈		direct	1102 Dec 22 j 05:49	17°☿14'55	
	1102 Feb 23 j 01:53	0°☿		morning max el	1103 Jan 02 j 10:26	23°☿55'23	24°22'28
morning set	1102 Feb 25 j 07:19	4°☿01'54			1103 Jan 07 j 20:39	0°☾	
max. Earth dist.	1102 Mar 01 j 03:53	11°☿15'13	1.35842 AU	desc. node	1103 Jan 11 j 16:51	4°☾51'33	
					1103 Jan 28 j 21:41	0°≈	
superior conj	1102 Mar 06 j 16:34	22°☿06'21	-1°-17'-36	morning set	1103 Feb 07 j 07:21	15°≈40'37	
minimum elong	1102 Mar 06 j 20:14	22°☿24'48	1°17'02	max. Earth dist.	1103 Feb 11 j 00:58	22°≈18'27	1.37790 AU
	1102 Mar 10 j 13:42	0°☿			1103 Feb 15 j 05:03	0°☿	
evening rise	1102 Mar 14 j 17:00	8°☿29'07					
asc. node	1102 Mar 14 j 21:36	8°☿52'32		superior conj	1103 Feb 17 j 23:13	5°☿14'47	-1°-40'-40
	1102 Mar 26 j 12:34	0°☿		minimum elong	1103 Feb 18 j 03:19	5°☿34'30	1°40'13
evening max el	1102 Apr 01 j 14:03	7°☿26'36	20°05'57	evening rise	1103 Feb 26 j 17:05	22°☿27'34	
retrograde	1102 Apr 11 j 23:16	12°☿26'47		asc. node	1103 Mar 01 j 18:38	28°☿27'24	
evening set	1102 Apr 14 j 00:47	12°☿15'48			1103 Mar 02 j 13:58	0°☿	
inferior conj	1102 Apr 22 j 23:52	8°☿16'52	0°-3'-32	evening max el	1103 Mar 15 j 08:48	19°☿22'55	19°07'08
minimum elong	1102 Apr 22 j 23:42	8°☿17'06	0°03'29	retrograde	1103 Mar 24 j 02:43	23°☿36'32	
transit middle	1102 Apr 22 j 23:42	8°☿17'06	0°03'29	evening set	1103 Mar 26 j 06:47	23°☿22'01	
transit begin	1102 Apr 22 j 19:48	8°☿22'57		inferior conj	1103 Apr 03 j 11:53	19°☿09'28	1°41'41
transit end	1102 Apr 23 j 03:37	8°☿11'15		minimum elong	1103 Apr 03 j 15:32	19°☿03'13	1°40'32
desc. node	1102 Apr 22 j 18:57	8°☿24'14		min. Earth dist.	1103 Apr 06 j 12:19	17°☿06'08	0.56629 AU
min. Earth dist.	1102 Apr 24 j 21:03	7°☿09'21	0.55349 AU	desc. node	1103 Apr 09 j 15:58	15°☿13'04	
morning rise	1102 May 01 j 19:57	3°☿54'18		morning rise	1103 Apr 11 j 20:10	14°☿13'34	
direct	1102 May 05 j 19:48	3°☿19'25		direct	1103 Apr 16 j 21:15	13°☿14'08	
morning max el	1102 May 19 j 12:31	10°☿04'56	23°53'42	morning max el	1103 May 01 j 03:03	20°☿33'22	25°31'18
	1102 Jun 03 j 06:35	0°☿			1103 May 09 j 05:46	0°☿	
asc. node	1102 Jun 10 j 20:51	14°☿26'16			1103 May 26 j 15:48	0°☿	
morning set	1102 Jun 12 j 18:15	18°☿22'12		morning set	1103 May 28 j 06:00	3°☿19'12	
	1102 Jun 18 j 04:13	0°☿		asc. node	1103 May 28 j 17:54	4°☿22'01	
superior conj	1102 Jun 19 j 20:02	3°☿35'19	1°22'08	superior conj	1103 Jun 04 j 06:30	18°☿31'42	1°04'05
minimum elong	1102 Jun 19 j 17:36	3°☿22'11	1°21'49	minimum elong	1103 Jun 04 j 04:12	18°☿19'03	1°03'42
max. Earth dist.	1102 Jun 21 j 21:23	8°☿00'07	1.33339 AU	max. Earth dist.	1103 Jun 05 j 05:53	20°☿39'27	1.32624 AU
evening rise	1102 Jun 27 j 07:26	19°☿15'25			1103 Jun 09 j 14:05	0°☿	
	1102 Jul 02 j 20:46	0°☿		evening rise	1103 Jun 11 j 09:32	3°☿46'55	
desc. node	1102 Jul 19 j 18:17	27°☿11'30			1103 Jun 25 j 14:56	0°☿	
	1102 Jul 21 j 20:59	0°☿		desc. node	1103 Jul 06 j 15:16	15°☿42'18	
evening max el	1102 Jul 30 j 21:06	10°☿12'40	27°25'04	evening max el	1103 Jul 13 j 04:58	22°☿54'10	27°15'47
retrograde	1102 Aug 13 j 11:54	17°☿31'06			1103 Jul 25 j 02:31	0°☿	
evening set	1102 Aug 20 j 15:40	14°☿51'24		retrograde	1103 Jul 27 j 00:56	0°☿09'59	
min. Earth dist.	1102 Aug 24 j 07:42	11°☿36'06	0.63799 AU		1103 Jul 28 j 22:32	30°☿46'47	
inferior conj	1102 Aug 26 j 20:37	8°☿59'09	-3°-22'-17	evening set	1103 Aug 03 j 04:45	27°☿46'47	
minimum elong	1102 Aug 27 j 01:30	8°☿46'30	3°20'50	min. Earth dist.	1103 Aug 06 j 18:59	24°☿58'19	0.61990 AU
morning rise	1102 Sep 02 j 13:29	3°☿37'46		inferior conj	1103 Aug 09 j 19:40	22°☿12'10	-4°-9'-39
direct	1102 Sep 05 j 01:27	3°☿06'53		minimum elong	1103 Aug 10 j 00:37	22°☿00'49	4°08'37
asc. node	1102 Sep 06 j 20:04	3°☿22'43		morning rise	1103 Aug 16 j 23:11	17°☿10'54	
morning max el	1102 Sep 11 j 14:40	6°☿32'45	17°54'22	direct	1103 Aug 19 j 08:58	16°☿45'48	
	1102 Sep 27 j 01:13	0°☿		asc. node	1103 Aug 24 j 17:06	18°☿52'54	
morning set	1102 Sep 28 j 09:27	2°☿19'04		morning max el	1103 Aug 26 j 05:40	20°☿13'32	17°54'48
					1103 Sep 02 j 12:07	0°☿	
superior conj	1102 Oct 10 j 23:28	23°☿34'07	0°31'35	morning set	1103 Sep 11 j 04:21	15°☿13'02	
minimum elong	1102 Oct 11 j 02:46	23°☿47'39	0°31'08		1103 Sep 19 j 10:41	0°☿	
	1102 Oct 14 j 22:30	0°☿					
desc. node	1102 Oct 15 j 17:38	1°☿16'49		superior conj	1103 Sep 21 j 23:45	4°☿25'07	1°07'44
max. Earth dist.	1102 Oct 16 j 17:55	2°☿53'56	1.44211 AU	minimum elong	1103 Sep 22 j 04:30	4°☿45'34	1°07'10
evening rise	1102 Oct 26 j 23:15	18°☿54'26		max. Earth dist.	1103 Sep 29 j 07:41	16°☿43'31	1.42818 AU
	1102 Nov 03 j 05:53	0°☿		desc. node	1103 Oct 02 j 14:38	22°☿03'22	
greatest brilliancy	1102 Nov 18 j 05:07	21°☿37'50	-0.5m	evening rise	1103 Oct 06 j 09:56	28°☿05'21	
evening max el	1102 Nov 24 j 03:13	28°☿42'29	20°35'53		1103 Oct 07 j 15:16	0°☿	
	1102 Nov 25 j 11:00	0°☿			1103 Oct 28 j 00:37	0°☿	
retrograde	1102 Dec 02 j 05:58	3°☿29'54		greatest brilliancy	1103 Nov 02 j 04:24	6°☿43'46	-0.4m
asc. node	1102 Dec 03 j 19:19	3°☿16'15		evening max el	1103 Nov 06 j 23:48	12°☿12'22	21°48'01
evening set	1102 Dec 06 j 01:41	2°☿05'51		retrograde	1103 Nov 16 j 02:44	17°☿38'02	
	1102 Dec 08 j 07:32	30°☿		evening set	1103 Nov 20 j 09:29	15°☿57'38	
inferior conj	1102 Dec 11 j 12:25	25°☿55'09	2°24'54	asc. node	1103 Nov 20 j 16:21	15°☿43'35	

inferior conj	1103 Nov 25 j 19:00	9°♂38'12	1°41'11		1104 Oct 24 j 16:57	0°♂	
minimum elong	1103 Nov 25 j 16:54	9°♂45'28	1°40'23	retrograde	1104 Oct 29 j 21:05	1°♂48'23	
min. Earth dist.	1103 Nov 25 j 21:54	9°♂28'10	0.67674 AU		1104 Nov 03 j 11:57	30°♂♂	
morning rise	1103 Dec 01 j 00:06	3°♂23'51		evening set	1104 Nov 03 j 16:36	29°♂50'34	
direct	1103 Dec 05 j 21:06	1°♂20'46		asc. node	1104 Nov 06 j 13:24	26°♂49'30	
morning max el	1103 Dec 15 j 20:09	7°♂15'07	22°54'15	inferior conj	1104 Nov 09 j 02:20	23°♂26'19	0°51'55
greatest brilliancy	1103 Dec 20 j 13:03	12°♂30'22	-0.3m	minimum elong	1104 Nov 09 j 01:09	23°♂30'24	0°51'25
desc. node	1103 Dec 29 j 13:53	24°♂25'03		min. Earth dist.	1104 Nov 08 j 18:35	23°♂53'01	0.67745 AU
	1104 Jan 02 j 11:31	0°♂		morning rise	1104 Nov 14 j 09:45	17°♂14'55	
morning set	1104 Jan 19 j 04:56	25°♂59'44		direct	1104 Nov 18 j 16:03	15°♂34'39	
	1104 Jan 21 j 14:27	0°♂		morning max el	1104 Nov 27 j 10:41	20°♂42'58	21°29'48
max. Earth dist.	1104 Jan 23 j 20:36	3°♂50'26	1.39927 AU	greatest brilliancy	1104 Dec 02 j 11:48	26°♂28'17	-0.4m
					1104 Dec 05 j 05:36	0°♂	
superior conj	1104 Jan 31 j 14:18	17°♂34'05	-1°-57'-24	desc. node	1104 Dec 15 j 10:56	14°♂24'39	
minimum elong	1104 Jan 31 j 17:22	17°♂48'06	1°57'15		1104 Dec 25 j 17:52	0°♂	
	1104 Feb 07 j 05:49	0°♂		morning set	1104 Dec 28 j 21:32	4°♂56'54	
evening rise	1104 Feb 10 j 08:05	5°♂54'08		max. Earth dist.	1105 Jan 04 j 21:05	16°♂13'25	1.41969 AU
asc. node	1104 Feb 16 j 15:40	17°♂39'58					
	1104 Feb 24 j 18:29	0°♂		superior conj	1105 Jan 12 j 08:37	28°♂52'13	-2°-3'-39
evening max el	1104 Feb 26 j 12:26	1°♂52'23	18°28'20	minimum elong	1105 Jan 12 j 08:23	28°♂51'14	2°03'41
retrograde	1104 Mar 05 j 01:03	5°♂34'35			1105 Jan 13 j 00:14	0°♂	
evening set	1104 Mar 07 j 10:12	5°♂13'28		evening rise	1105 Jan 23 j 10:27	18°♂40'58	
inferior conj	1104 Mar 14 j 20:46	0°♂40'59	2°54'20		1105 Jan 29 j 17:11	0°♂	
minimum elong	1104 Mar 15 j 00:41	0°♂33'06	2°53'28	asc. node	1105 Feb 02 j 12:43	6°♂23'09	
	1104 Mar 15 j 17:04	30°♂♂		evening max el	1105 Feb 08 j 21:56	14°♂47'22	18°09'31
min. Earth dist.	1104 Mar 18 j 07:08	27°♂56'59	0.58502 AU	retrograde	1105 Feb 15 j 16:48	18°♂13'56	
morning rise	1104 Mar 22 j 11:10	25°♂14'36		evening set	1105 Feb 18 j 06:55	17°♂44'21	
desc. node	1104 Mar 26 j 13:02	23°♂50'10		inferior conj	1105 Feb 25 j 01:54	12°♂50'38	3°33'41
direct	1104 Mar 28 j 12:15	23°♂40'07		minimum elong	1105 Feb 25 j 04:03	12°♂45'36	3°33'27
	1104 Apr 10 j 11:03	0°♂		min. Earth dist.	1105 Feb 28 j 08:13	9°♂49'35	0.60624 AU
morning max el	1104 Apr 11 j 21:08	1°♂20'03	26°50'02	morning rise	1105 Mar 03 j 22:04	7°♂03'14	
	1104 May 02 j 08:01	0°♂		direct	1105 Mar 10 j 15:20	4°♂52'23	
morning set	1104 May 11 j 16:13	18°♂10'19		desc. node	1105 Mar 13 j 10:06	5°♂13'32	
asc. node	1104 May 14 j 14:57	24°♂26'51		morning max el	1105 Mar 24 j 21:22	12°♂43'32	27°37'22
	1104 May 17 j 04:05	0°♂			1105 Apr 07 j 14:11	0°♂	
					1105 Apr 24 j 13:59	0°♂	
superior conj	1104 May 18 j 18:15	3°♂29'41	0°42'33	morning set	1105 Apr 25 j 23:05	2°♂49'14	
minimum elong	1104 May 18 j 16:30	3°♂20'03	0°42'12	asc. node	1105 May 01 j 12:00	14°♂36'17	
max. Earth dist.	1104 May 18 j 18:02	3°♂28'33	1.32280 AU	max. Earth dist.	1105 May 02 j 05:59	16°♂14'18	1.32310 AU
evening rise	1104 May 25 j 17:01	18°♂32'39					
	1104 May 31 j 09:35	0°♂		superior conj	1105 May 03 j 05:34	18°♂23'22	0°18'15
	1104 Jun 19 j 16:48	0°♂		minimum elong	1105 May 03 j 04:45	18°♂18'52	0°18'04
desc. node	1104 Jun 22 j 12:17	3°♂06'29			1105 May 08 j 13:13	0°♂	
evening max el	1104 Jun 24 j 06:50	4°♂52'24	26°33'26	evening rise	1105 May 10 j 03:38	3°♂25'09	
retrograde	1104 Jul 08 j 06:21	12°♂05'55			1105 May 24 j 10:23	0°♂	
evening set	1104 Jul 14 j 23:01	10°♂12'24		evening max el	1105 Jun 06 j 01:41	16°♂04'48	25°21'33
min. Earth dist.	1104 Jul 18 j 20:07	7°♂36'15	0.59959 AU	desc. node	1105 Jun 09 j 09:19	18°♂56'34	
inferior conj	1104 Jul 22 j 03:43	4°♂57'24	-4°-43'-3	retrograde	1105 Jun 20 j 02:18	23°♂13'43	
minimum elong	1104 Jul 22 j 06:52	4°♂51'05	4°42'43	evening set	1105 Jun 25 j 18:21	21°♂58'48	
morning rise	1104 Jul 29 j 18:03	0°♂18'55		min. Earth dist.	1105 Jun 30 j 13:37	19°♂16'12	0.57924 AU
	1104 Jul 31 j 08:21	30°♂♂		inferior conj	1105 Jul 03 j 17:18	17°♂05'07	-4°-51'-40
direct	1104 Aug 01 j 04:09	29°♂57'27		minimum elong	1105 Jul 03 j 16:18	17°♂06'52	4°51'39
	1104 Aug 01 j 23:47	0°♂		morning rise	1105 Jul 11 j 18:03	12°♂49'19	
morning max el	1104 Aug 08 j 16:46	3°♂36'38	18°14'39	direct	1105 Jul 14 j 06:36	12°♂29'57	
asc. node	1104 Aug 10 j 14:10	5°♂37'49		morning max el	1105 Jul 22 j 20:46	16°♂32'21	18°55'01
morning set	1104 Aug 24 j 14:05	28°♂49'50		asc. node	1105 Jul 28 j 11:14	23°♂21'53	
	1104 Aug 25 j 04:54	0°♂			1105 Aug 01 j 13:21	0°♂	
				morning set	1105 Aug 08 j 10:16	12°♂57'25	
superior conj	1104 Sep 03 j 01:20	16°♂31'11	1°31'21				
minimum elong	1104 Sep 03 j 04:56	16°♂47'31	1°31'02	superior conj	1105 Aug 16 j 22:36	29°♂35'51	1°43'32
max. Earth dist.	1104 Sep 10 j 15:44	29°♂53'04	1.40983 AU	minimum elong	1105 Aug 17 j 00:13	29°♂43'31	1°43'27
	1104 Sep 10 j 17:22	0°♂			1105 Aug 17 j 03:40	0°♂	
evening rise	1104 Sep 15 j 13:53	8°♂05'14		max. Earth dist.	1105 Aug 23 j 19:19	12°♂17'59	1.38955 AU
desc. node	1104 Sep 18 j 11:39	12°♂46'40		evening rise	1105 Aug 27 j 18:03	19°♂13'04	
	1104 Sep 29 j 18:08	0°♂			1105 Sep 03 j 05:47	0°♂	
greatest brilliancy	1104 Oct 13 j 20:52	19°♂13'38	-0.2m	desc. node	1105 Sep 05 j 08:39	3°♂22'25	
evening max el	1104 Oct 19 j 15:23	25°♂44'02	23°06'53		1105 Sep 23 j 23:56	0°♂	

evening max el	1105 Oct 02 j 03:58	9° \mathbb{M} 19'05	24°26'32		1106 Jul 24 j 19:43	0° Ω	
retrograde	1105 Oct 13 j 11:44	15° \mathbb{M} 56'35					
evening set	1105 Oct 18 j 21:21	13° \mathbb{M} 41'36		superior conj	1106 Jul 31 j 10:17	13° Ω 24'28	1°46'16
min. Earth dist.	1105 Oct 23 j 14:30	8° \mathbb{M} 17'38	0.67491 AU	minimum elong	1106 Jul 31 j 10:03	13° Ω 23'18	1°46'16
inferior conj	1105 Oct 24 j 08:40	7° \mathbb{M} 16'45	0°-1'-32	max. Earth dist.	1106 Aug 05 j 23:51	24° Ω 14'47	1.36990 AU
minimum elong	1105 Oct 24 j 08:42	7° \mathbb{M} 16'38	0°01'31		1106 Aug 09 j 02:08	0° \mathbb{M}	
transit middle	1105 Oct 24 j 08:42	7° \mathbb{M} 16'38	0°01'31	evening rise	1106 Aug 09 j 21:22	1° \mathbb{M} 27'24	
transit begin	1105 Oct 24 j 05:59	7° \mathbb{M} 25'47		desc. node	1106 Aug 23 j 05:40	23° \mathbb{M} 46'12	
transit end	1105 Oct 24 j 11:26	7° \mathbb{M} 07'29			1106 Aug 27 j 09:08	0° Ω	
asc. node	1105 Oct 24 j 10:28	7° \mathbb{M} 10'43		evening max el	1106 Sep 14 j 15:52	22° Ω 57'57	25°39'37
morning rise	1105 Oct 29 j 20:25	1° \mathbb{M} 10'50		retrograde	1106 Sep 26 j 21:46	29° Ω 58'39	
	1105 Nov 01 j 08:27	30° \mathbb{R} Ω		evening set	1106 Oct 02 j 21:58	27° Ω 28'25	
direct	1105 Nov 02 j 13:32	29° Ω 51'47		min. Earth dist.	1106 Oct 07 j 07:10	22° Ω 40'08	0.66915 AU
	1105 Nov 03 j 19:19	0° \mathbb{M}		inferior conj	1106 Oct 08 j 12:13	21° Ω 07'23	0°-57'-46
morning max el	1105 Nov 10 j 08:26	4° \mathbb{M} 20'29	20°15'25	minimum elong	1106 Oct 08 j 13:42	21° Ω 02'39	0°57'09
greatest brilliancy	1105 Nov 17 j 01:05	12° \mathbb{M} 23'20	-0.6m	asc. node	1106 Oct 11 j 07:32	17° Ω 43'56	
	1105 Nov 29 j 05:21	0° \mathbb{X}		morning rise	1106 Oct 14 j 06:09	15° Ω 09'51	
desc. node	1105 Dec 02 j 07:58	4° \mathbb{X} 42'32		direct	1106 Oct 17 j 12:07	14° Ω 08'56	
morning set	1105 Dec 07 j 18:55	13° \mathbb{X} 05'01		morning max el	1106 Oct 24 j 13:48	18° Ω 07'43	19°14'55
max. Earth dist.	1105 Dec 18 j 04:57	29° \mathbb{X} 28'34	1.43639 AU		1106 Nov 02 j 18:28	0° \mathbb{M}	
	1105 Dec 18 j 12:47	0° \mathbb{Z}		greatest brilliancy	1106 Nov 03 j 22:53	1° \mathbb{M} 44'49	-0.7m
				morning set	1106 Nov 16 j 21:12	21° \mathbb{M} 36'19	
superior conj	1105 Dec 24 j 01:20	8° \mathbb{Z} 58'45	-1°-54'-36	desc. node	1106 Nov 19 j 04:58	25° \mathbb{M} 13'30	
minimum elong	1105 Dec 23 j 19:57	8° \mathbb{Z} 36'36	1°54'19		1106 Nov 22 j 06:25	0° \mathbb{X}	
	1106 Jan 05 j 10:52	0° \approx		max. Earth dist.	1106 Nov 30 j 19:46	13° \mathbb{X} 25'23	1.44727 AU
evening rise	1106 Jan 05 j 19:51	0° \approx 39'02					
asc. node	1106 Jan 20 j 09:46	24° \approx 27'48		superior conj	1106 Dec 03 j 16:27	17° \mathbb{X} 57'13	-1°-26'-51
evening max el	1106 Jan 23 j 10:14	27° \approx 59'32	18°10'13	minimum elong	1106 Dec 03 j 07:50	17° \mathbb{X} 23'01	1°25'59
	1106 Jan 25 j 19:26	0° \mathbb{X}			1106 Dec 11 j 04:44	0° \mathbb{Z}	
retrograde	1106 Jan 29 j 21:48	1° \mathbb{X} 24'45		evening rise	1106 Dec 18 j 08:06	11° \mathbb{Z} 41'25	
evening set	1106 Feb 01 j 16:42	0° \mathbb{X} 45'27			1106 Dec 29 j 12:48	0° \approx	
	1106 Feb 03 j 01:02	30° \mathbb{R} \approx		evening max el	1107 Jan 06 j 22:30	11° \approx 21'28	18°29'34
inferior conj	1106 Feb 07 j 23:39	25° \approx 31'01	3°46'29	asc. node	1107 Jan 07 j 06:49	11° \approx 42'13	
minimum elong	1106 Feb 07 j 23:44	25° \approx 30'49	3°46'29	retrograde	1107 Jan 13 j 11:45	14° \approx 57'37	
min. Earth dist.	1106 Feb 10 j 17:41	22° \approx 37'21	0.62677 AU	evening set	1107 Jan 16 j 11:50	14° \approx 07'34	
morning rise	1106 Feb 14 j 04:38	19° \approx 31'01		inferior conj	1107 Jan 22 j 09:59	8° \approx 33'54	3°39'42
direct	1106 Feb 21 j 03:49	16° \approx 53'14		minimum elong	1107 Jan 22 j 08:28	8° \approx 38'22	3°39'33
desc. node	1106 Feb 28 j 07:09	19° \approx 13'06		min. Earth dist.	1107 Jan 24 j 12:37	6° \approx 05'58	0.64454 AU
morning max el	1106 Mar 07 j 03:03	24° \approx 47'44	27°47'48	morning rise	1107 Jan 28 j 03:44	2° \approx 26'14	
	1106 Mar 11 j 21:07	0° \mathbb{X}			1107 Feb 01 j 09:15	30° \mathbb{R} \mathbb{Z}	
	1106 Mar 31 j 23:25	0° \mathbb{Y}		direct	1107 Feb 03 j 23:40	29° \mathbb{Z} 36'12	
morning set	1106 Apr 10 j 00:27	17° \mathbb{Y} 08'59			1107 Feb 06 j 17:02	0° \approx	
max. Earth dist.	1106 Apr 15 j 13:54	28° \mathbb{Y} 44'16	1.32735 AU	desc. node	1107 Feb 15 j 04:12	5° \approx 13'32	
	1106 Apr 16 j 04:02	0° \mathbb{Z}		morning max el	1107 Feb 17 j 12:00	7° \approx 25'38	27°22'32
					1107 Mar 06 j 22:25	0° \mathbb{X}	
superior conj	1106 Apr 17 j 14:45	3° \mathbb{Z} 07'11	0°-8'-3		1107 Mar 24 j 05:16	0° \mathbb{Y}	
minimum elong	1106 Apr 17 j 15:08	3° \mathbb{Z} 09'16	0°08'00	morning set	1107 Mar 24 j 17:29	0° \mathbb{Y} 59'39	
behind sun begin	1106 Apr 17 j 10:37	2° \mathbb{Z} 44'47		max. Earth dist.	1107 Mar 29 j 13:55	10° \mathbb{Y} 45'46	1.33589 AU
behind sun end	1106 Apr 17 j 19:40	3° \mathbb{Z} 33'46					
asc. node	1106 Apr 18 j 09:04	4° \mathbb{Z} 46'22		superior conj	1107 Apr 01 j 19:49	17° \mathbb{Y} 33'42	0°-35'-26
evening rise	1106 Apr 24 j 15:30	18° \mathbb{Z} 18'05		minimum elong	1107 Apr 01 j 21:34	17° \mathbb{Y} 42'58	0°35'05
	1106 Apr 30 j 10:00	0° \mathbb{II}		asc. node	1107 Apr 05 j 06:06	24° \mathbb{Y} 52'13	
evening max el	1106 May 18 j 16:11	26° \mathbb{II} 44'42	23°50'30		1107 Apr 07 j 15:50	0° \mathbb{Z}	
	1106 May 22 j 12:47	0° \mathbb{Z}		evening rise	1107 Apr 09 j 02:42	3° \mathbb{Z} 03'59	
desc. node	1106 May 27 j 06:22	2° \mathbb{Z} 38'07			1107 Apr 24 j 03:38	0° \mathbb{II}	
retrograde	1106 Jun 01 j 10:12	3° \mathbb{Z} 38'35		evening max el	1107 Apr 30 j 08:26	7° \mathbb{II} 17'39	22°14'58
evening set	1106 Jun 05 j 15:46	2° \mathbb{Z} 59'07		retrograde	1107 May 13 j 05:22	13° \mathbb{II} 38'25	
	1106 Jun 11 j 23:14	30° \mathbb{R} \mathbb{II}		desc. node	1107 May 14 j 03:24	13° \mathbb{II} 36'31	
min. Earth dist.	1106 Jun 12 j 02:58	29° \mathbb{II} 54'26	0.56210 AU	evening set	1107 May 16 j 02:59	13° \mathbb{II} 19'51	
inferior conj	1106 Jun 14 j 10:47	28° \mathbb{II} 29'26	-4°-21'-58	min. Earth dist.	1107 May 24 j 14:53	9° \mathbb{II} 40'47	0.55156 AU
minimum elong	1106 Jun 14 j 04:49	28° \mathbb{II} 38'34	4°20'59	inferior conj	1107 May 25 j 11:06	9° \mathbb{II} 12'19	-3°-5'-19
morning rise	1106 Jun 22 j 21:23	24° \mathbb{II} 31'12		minimum elong	1107 May 25 j 03:38	9° \mathbb{II} 22'50	3°03'10
direct	1106 Jun 25 j 14:07	24° \mathbb{II} 51'32		morning rise	1107 Jun 03 j 06:14	5° \mathbb{II} 19'37	
morning max el	1106 Jul 05 j 14:53	28° \mathbb{II} 51'32	19°56'35	direct	1107 Jun 06 j 05:31	4° \mathbb{II} 59'44	
	1106 Jul 06 j 18:48	0° \mathbb{Z}		morning max el	1107 Jun 17 j 21:32	10° \mathbb{II} 26'29	21°18'18
asc. node	1106 Jul 15 j 08:18	11° \mathbb{Z} 51'52			1107 Jul 01 j 17:21	0° \mathbb{Z}	
morning set	1106 Jul 23 j 13:43	27° \mathbb{Z} 27'44		asc. node	1107 Jul 02 j 05:20	0° \mathbb{Z} 55'46	

morning set	1107 Jul 07 j 21:52	12°☿12'47		morning set	1108 Jun 21 j 08:44	27°♄06'47	
					1108 Jun 22 j 17:36	0°☿	
superior conj	1107 Jul 15 j 08:01	27°☿43'31	1°41'28	superior conj	1108 Jun 28 j 12:36	12°☿23'24	1°30'38
minimum elong	1107 Jul 15 j 06:28	27°☿35'29	1°41'22	minimum elong	1108 Jun 28 j 10:19	12°☿11'18	1°30'24
	1107 Jul 16 j 10:28	0°♄		max. Earth dist.	1108 Jul 01 j 06:52	18°☿13'26	1.33931 AU
max. Earth dist.	1107 Jul 19 j 10:51	6°♄06'59	1.35278 AU	evening rise	1108 Jul 06 j 07:00	28°☿24'31	
evening rise	1107 Jul 23 j 19:14	14°♄35'24			1108 Jul 07 j 02:27	0°♄	
	1107 Aug 01 j 09:33	0°♄			1108 Jul 24 j 13:52	0°♄	
desc. node	1107 Aug 10 j 02:42	13°♄51'30		desc. node	1108 Jul 26 j 23:44	3°♄29'56	
	1107 Aug 22 j 02:08	0°♄		evening max el	1108 Aug 09 j 15:47	19°♄59'32	27°15'52
evening max el	1107 Aug 28 j 03:59	6°♄34'46	26°38'34	retrograde	1108 Aug 23 j 01:53	27°♄18'21	
retrograde	1107 Sep 10 j 02:35	13°♄48'33		evening set	1108 Aug 30 j 02:14	24°♄34'42	
evening set	1107 Sep 16 j 16:27	11°♄07'37		min. Earth dist.	1108 Sep 02 j 21:07	21°♄00'30	0.64702 AU
min. Earth dist.	1107 Sep 20 j 18:08	6°♄56'38	0.65991 AU	inferior conj	1108 Sep 05 j 02:47	18°♄33'52	-2°-51'-32
inferior conj	1107 Sep 22 j 11:00	4°♄54'43	-1°-55'-9	minimum elong	1108 Sep 05 j 07:09	18°♄21'55	2°50'03
minimum elong	1107 Sep 22 j 14:01	4°♄45'43	1°53'58	morning rise	1108 Sep 11 j 13:53	13°♄02'52	
	1107 Sep 27 j 05:10	30°♄		direct	1108 Sep 14 j 04:23	12°♄27'23	
asc. node	1107 Sep 28 j 04:34	29°♄20'27		asc. node	1108 Sep 14 j 01:35	12°♄27'27	
morning rise	1107 Sep 28 j 12:49	29°♄08'48		morning max el	1108 Sep 20 j 16:30	15°♄55'32	18°02'28
direct	1107 Oct 01 j 09:51	28°♄22'26			1108 Sep 30 j 18:09	0°♄	
	1107 Oct 05 j 17:31	0°♄		morning set	1108 Oct 08 j 08:12	12°♄39'02	
morning max el	1107 Oct 08 j 01:19	2°♄01'19	18°30'17		1108 Oct 18 j 19:55	0°♄	
	1107 Oct 27 j 03:02	0°♄					
morning set	1107 Oct 28 j 00:19	1°♄25'29		superior conj	1108 Oct 22 j 02:22	5°♄16'15	0°05'46
desc. node	1107 Nov 06 j 02:00	15°♄53'34		minimum elong	1108 Oct 22 j 03:03	5°♄19'01	0°05'41
				behind sun begin	1108 Oct 21 j 17:05	4°♄39'03	
superior conj	1107 Nov 12 j 17:37	26°♄22'52	0°-43'-9	behind sun end	1108 Oct 22 j 13:01	5°♄58'56	
minimum elong	1107 Nov 12 j 12:02	26°♄00'57	0°42'27	desc. node	1108 Oct 22 j 23:01	6°♄38'55	
max. Earth dist.	1107 Nov 13 j 14:30	27°♄44'58	1.45102 AU	max. Earth dist.	1108 Oct 26 j 09:21	12°♄06'07	1.44734 AU
	1107 Nov 15 j 00:54	0°♄			1108 Nov 06 j 20:31	0°♄	
evening rise	1107 Nov 28 j 20:52	21°♄46'40		evening rise	1108 Nov 07 j 13:07	1°♄04'06	
	1107 Dec 04 j 01:32	0°♄		greatest brilliancy	1108 Nov 26 j 12:22	29°♄31'30	-0.6m
greatest brilliancy	1107 Dec 10 j 02:47	9°♄29'12	-0.8m		1108 Nov 26 j 20:36	0°♄	
evening max el	1107 Dec 21 j 08:15	24°♄48'16	19°06'26	evening max el	1108 Dec 03 j 13:33	8°♄16'36	19°59'14
asc. node	1107 Dec 25 j 03:51	27°♄52'47		retrograde	1108 Dec 11 j 04:34	12°♄44'24	
retrograde	1107 Dec 28 j 07:00	28°♄45'57		asc. node	1108 Dec 11 j 00:52	12°♄44'16	
evening set	1107 Dec 31 j 13:21	27°♄43'59		evening set	1108 Dec 14 j 18:48	11°♄28'59	
inferior conj	1108 Jan 06 j 05:23	21°♄53'25	3°18'39	inferior conj	1108 Dec 20 j 06:56	5°♄24'32	2°46'57
minimum elong	1108 Jan 06 j 02:57	22°♄01'07	3°18'11	minimum elong	1108 Dec 20 j 04:13	5°♄33'34	2°46'12
min. Earth dist.	1108 Jan 07 j 16:46	20°♄01'25	0.65854 AU	min. Earth dist.	1108 Dec 21 j 04:34	4°♄12'15	0.66857 AU
morning rise	1108 Jan 11 j 15:40	15°♄41'01			1108 Dec 24 j 16:04	30°♄	
direct	1108 Jan 18 j 01:53	12°♄52'48		morning rise	1108 Dec 25 j 13:02	29°♄09'34	
morning max el	1108 Jan 30 j 21:45	20°♄26'26	26°27'32	direct	1108 Dec 31 j 09:49	26°♄33'58	
desc. node	1108 Feb 02 j 01:12	22°♄41'37			1109 Jan 08 j 05:58	0°♄	
	1108 Feb 08 j 03:47	0°♄		morning max el	1109 Jan 12 j 06:38	3°♄38'15	25°11'33
	1108 Feb 28 j 01:13	0°♄		desc. node	1109 Jan 18 j 22:14	11°♄11'37	
morning set	1108 Mar 06 j 22:38	14°♄10'39			1109 Feb 01 j 10:44	0°♄	
max. Earth dist.	1108 Mar 11 j 02:58	22°♄14'01	1.34893 AU	morning set	1109 Feb 17 j 11:00	26°♄27'28	
	1108 Mar 14 j 23:45	0°♄			1109 Feb 19 j 09:52	0°♄	
				max. Earth dist.	1109 Feb 21 j 04:33	3°♄17'21	1.36630 AU
superior conj	1108 Mar 15 j 18:32	1°♄36'16	-1°-2'-39	superior conj	1109 Feb 27 j 08:01	15°♄06'25	-1°-27'-57
minimum elong	1108 Mar 15 j 21:36	1°♄52'01	1°02'07	minimum elong	1109 Feb 27 j 11:59	15°♄26'04	1°27'24
asc. node	1108 Mar 22 j 03:08	14°♄49'52			1109 Mar 06 j 17:36	0°♄	
evening rise	1108 Mar 23 j 11:20	17°♄36'43		evening rise	1109 Mar 07 j 15:13	1°♄49'03	
	1108 Mar 29 j 17:48	0°♄		asc. node	1109 Mar 09 j 00:10	4°♄34'13	
evening max el	1108 Apr 11 j 09:11	18°♄12'58	20°48'22	evening max el	1109 Mar 24 j 21:30	29°♄46'04	19°38'31
retrograde	1108 Apr 22 j 18:30	23°♄44'33			1109 Mar 25 j 03:21	0°♄	
evening set	1108 Apr 24 j 22:43	23°♄33'14		retrograde	1109 Apr 03 j 13:30	4°♄25'26	
desc. node	1108 Apr 30 j 00:25	21°♄50'35		evening set	1109 Apr 05 j 15:09	4°♄13'35	
inferior conj	1108 May 04 j 04:58	19°♄35'26	-1°-12'-39	inferior conj	1109 Apr 14 j 07:03	0°♄10'04	0°44'24
minimum elong	1108 May 04 j 01:32	19°♄40'21	1°11'25	minimum elong	1109 Apr 14 j 08:56	0°♄07'06	0°43'44
min. Earth dist.	1108 May 05 j 03:29	19°♄03'19	0.55001 AU		1109 Apr 14 j 13:25	30°♄	
morning rise	1108 May 13 j 03:26	15°♄29'02		min. Earth dist.	1109 Apr 16 j 17:50	28°♄37'33	0.55792 AU
direct	1108 May 16 j 15:20	15°♄02'43		desc. node	1109 Apr 16 j 21:25	28°♄32'03	
morning max el	1108 May 29 j 18:13	21°♄21'13	22°55'07	morning rise	1109 Apr 22 j 23:09	25°♄33'20	
	1108 Jun 06 j 04:08	0°♄					
asc. node	1108 Jun 18 j 02:22	20°♄25'09					

direct	1109 Apr 27 j 09:01	24° Υ 49'47		desc. node	1110 Apr 03 j 18:28	5° Υ 53'51	
	1109 May 09 j 07:07	0° \mathcal{B}		direct	1110 Apr 08 j 16:43	4° Υ 54'26	
morning max el	1109 May 11 j 09:23	1° \mathcal{B} 52'08	24°36'38	morning max el	1110 Apr 23 j 00:46	12° Υ 24'43	26°08'01
	1109 May 30 j 20:37	0° Π			1110 May 06 j 17:54	0° \mathcal{B}	
asc. node	1109 Jun 04 j 23:25	10° Π 13'10		morning set	1110 May 21 j 07:56	26° \mathcal{B} 59'27	
morning set	1109 Jun 05 j 20:39	12° Π 04'27		asc. node	1110 May 22 j 20:28	0° Π 13'22	
					1110 May 22 j 17:58	0° Π	
superior conj	1109 Jun 12 j 21:32	27° Π 16'12	1°14'58	superior conj	1110 May 28 j 08:45	12° Π 14'11	0°55'22
minimum elong	1109 Jun 12 j 19:05	27° Π 02'57	1°14'36	minimum elong	1110 May 28 j 06:38	12° Π 02'31	0°54'57
	1109 Jun 14 j 03:45	0° \mathcal{E}		max. Earth dist.	1110 May 28 j 21:45	13° Π 25'28	1.32423 AU
max. Earth dist.	1109 Jun 14 j 11:26	0° \mathcal{E} 41'27	1.32981 AU	evening rise	1110 Jun 04 j 09:28	27° Π 22'26	
evening rise	1109 Jun 20 j 04:48	12° \mathcal{E} 43'45			1110 Jun 05 j 16:00	0° \mathcal{E}	
	1109 Jun 29 j 06:33	0° Ω			1110 Jun 22 j 16:31	0° Ω	
desc. node	1109 Jul 13 j 20:44	22° Ω 30'21		desc. node	1110 Jun 30 j 17:46	10° Ω 36'08	
	1109 Jul 20 j 02:36	0° \mathcal{M}		evening max el	1110 Jul 05 j 07:24	15° Ω 25'37	27°01'55
evening max el	1109 Jul 23 j 01:43	3° \mathcal{M} 00'49	27°25'05	retrograde	1110 Jul 19 j 05:28	22° Ω 40'48	
retrograde	1109 Aug 05 j 19:15	10° \mathcal{M} 19'12		evening set	1110 Jul 26 j 05:51	20° Ω 28'56	
evening set	1109 Aug 13 j 00:08	7° \mathcal{M} 44'33		min. Earth dist.	1110 Jul 29 j 21:40	17° Ω 47'32	0.61138 AU
min. Earth dist.	1109 Aug 16 j 14:33	4° \mathcal{M} 42'08	0.63062 AU	inferior conj	1110 Aug 02 j 02:04	15° Ω 02'11	-4°-26'-7
inferior conj	1109 Aug 19 j 08:54	1° \mathcal{M} 59'15	-3°-43'-36	minimum elong	1110 Aug 02 j 06:31	14° Ω 52'28	4°25'22
minimum elong	1109 Aug 19 j 13:59	1° \mathcal{M} 46'43	3°42'16	morning rise	1110 Aug 09 j 10:11	10° Ω 10'10	
	1109 Aug 21 j 10:58	30° \mathcal{R} Ω		direct	1110 Aug 11 j 19:39	9° Ω 46'56	
morning rise	1109 Aug 26 j 06:17	26° Ω 46'18		asc. node	1110 Aug 18 j 19:41	13° Ω 12'34	
direct	1109 Aug 28 j 16:51	26° Ω 18'21		morning max el	1110 Aug 18 j 22:14	13° Ω 18'42	18°00'44
asc. node	1109 Aug 31 j 22:37	27° Ω 08'37			1110 Aug 30 j 05:26	0° \mathcal{M}	
morning max el	1109 Sep 04 j 08:30	29° Ω 44'07	17°52'16	morning set	1110 Sep 03 j 18:04	8° \mathcal{M} 16'19	
	1109 Sep 04 j 14:49	0° \mathcal{M}					
morning set	1109 Sep 20 j 16:12	25° \mathcal{M} 02'09		superior conj	1110 Sep 13 j 22:33	26° \mathcal{M} 46'05	1°19'15
	1109 Sep 23 j 11:57	0° \mathcal{A}		minimum elong	1110 Sep 14 j 03:01	27° \mathcal{M} 05'46	1°18'45
superior conj	1109 Oct 02 j 10:57	15° \mathcal{A} 21'37	0°48'24		1110 Sep 15 j 18:54	0° \mathcal{A}	
minimum elong	1109 Oct 02 j 15:18	15° \mathcal{A} 39'50	0°47'50	max. Earth dist.	1110 Sep 21 j 12:16	9° \mathcal{A} 43'26	1.42083 AU
max. Earth dist.	1109 Oct 09 j 01:13	26° \mathcal{A} 10'47	1.43683 AU	desc. node	1110 Sep 26 j 17:05	18° \mathcal{A} 12'22	
desc. node	1109 Oct 09 j 20:04	27° \mathcal{A} 26'30		evening rise	1110 Sep 27 j 13:21	19° \mathcal{A} 33'14	
	1109 Oct 11 j 10:29	0° \mathcal{M}			1110 Oct 04 j 06:19	0° \mathcal{M}	
evening rise	1109 Oct 17 j 20:48	10° \mathcal{M} 05'00		greatest brilliancy	1110 Oct 25 j 14:17	29° \mathcal{M} 58'18	-0.3m
	1109 Oct 31 j 01:47	0° \mathcal{A}			1110 Oct 25 j 14:51	0° \mathcal{A}	
greatest brilliancy	1109 Nov 11 j 05:35	15° \mathcal{A} 33'08	-0.5m	evening max el	1110 Oct 30 j 07:49	5° \mathcal{A} 17'21	22°21'07
evening max el	1109 Nov 16 j 13:24	21° \mathcal{A} 46'16	21°05'22	retrograde	1110 Nov 08 j 22:03	10° \mathcal{A} 59'31	
retrograde	1109 Nov 25 j 02:13	26° \mathcal{A} 50'03		evening set	1110 Nov 13 j 09:59	9° \mathcal{A} 12'01	
asc. node	1109 Nov 27 j 21:53	26° \mathcal{A} 05'28		asc. node	1110 Nov 14 j 18:56	7° \mathcal{A} 55'38	
evening set	1109 Nov 29 j 02:16	25° \mathcal{A} 19'25		inferior conj	1110 Nov 18 j 19:27	2° \mathcal{A} 50'17	1°20'53
inferior conj	1109 Dec 04 j 12:18	19° \mathcal{A} 04'29	2°07'06	minimum elong	1110 Nov 18 j 17:42	2° \mathcal{A} 56'21	1°20'11
minimum elong	1109 Dec 04 j 09:51	19° \mathcal{A} 12'54	2°06'16	min. Earth dist.	1110 Nov 18 j 17:50	2° \mathcal{A} 55'52	0.67750 AU
min. Earth dist.	1109 Dec 04 j 21:44	18° \mathcal{A} 31'59	0.67483 AU		1110 Nov 20 j 21:54	30° \mathcal{R} \mathcal{M}	
morning rise	1109 Dec 09 j 17:03	12° \mathcal{A} 49'06		morning rise	1110 Nov 24 j 01:16	26° \mathcal{M} 36'47	
direct	1109 Dec 14 j 22:51	10° \mathcal{A} 32'57		direct	1110 Nov 28 j 15:58	24° \mathcal{M} 43'12	
morning max el	1109 Dec 25 j 15:10	16° \mathcal{A} 55'02	23°44'50		1110 Dec 07 j 19:26	0° \mathcal{A}	
	1110 Jan 05 j 11:35	0° \mathcal{B}		morning max el	1110 Dec 08 j 02:21	0° \mathcal{A} 17'19	22°17'18
desc. node	1110 Jan 05 j 19:18	0° \mathcal{B} 26'01		greatest brilliancy	1110 Dec 12 j 17:05	5° \mathcal{A} 27'46	-0.3m
	1110 Jan 25 j 11:48	0° \approx		desc. node	1110 Dec 23 j 16:21	20° \mathcal{A} 12'02	
morning set	1110 Jan 30 j 00:27	7° \approx 33'53			1110 Dec 30 j 08:07	0° \mathcal{B}	
max. Earth dist.	1110 Feb 02 j 23:25	14° \approx 25'56	1.38690 AU	morning set	1111 Jan 10 j 09:32	17° \mathcal{B} 17'07	
				max. Earth dist.	1111 Jan 15 j 20:18	26° \mathcal{B} 17'36	1.40827 AU
superior conj	1110 Feb 10 j 08:36	27° \approx 55'00	-1°-48'-46		1111 Jan 18 j 00:38	0° \approx	
minimum elong	1110 Feb 10 j 12:29	28° \approx 13'20	1°48'27	superior conj	1111 Jan 23 j 15:35	9° \approx 50'41	-2°-1'-37
	1110 Feb 11 j 11:01	0° \mathcal{H}		minimum elong	1111 Jan 23 j 17:33	9° \approx 59'30	2°01'35
evening rise	1110 Feb 19 j 11:48	15° \mathcal{H} 34'21		evening rise	1111 Feb 02 j 21:55	28° \approx 45'20	
asc. node	1110 Feb 23 j 21:13	24° \mathcal{H} 00'09			1111 Feb 03 j 13:52	0° \mathcal{H}	
	1110 Feb 27 j 05:04	0° Υ		asc. node	1111 Feb 10 j 18:16	13° \mathcal{H} 01'33	
evening max el	1110 Mar 07 j 20:25	11° Υ 57'24	18°48'13	evening max el	1111 Feb 19 j 03:04	24° \mathcal{H} 39'44	18°17'57
retrograde	1110 Mar 16 j 00:29	15° Υ 55'23		retrograde	1111 Feb 26 j 06:30	28° \mathcal{H} 13'00	
evening set	1110 Mar 18 j 06:36	15° Υ 38'26		evening set	1111 Feb 28 j 18:00	27° \mathcal{H} 48'19	
inferior conj	1110 Mar 26 j 03:38	11° Υ 18'14	2°16'50	inferior conj	1111 Mar 07 j 21:29	23° \mathcal{H} 06'52	3°14'44
minimum elong	1110 Mar 26 j 07:46	11° Υ 10'39	2°15'41	minimum elong	1111 Mar 08 j 00:47	22° \mathcal{H} 59'47	3°14'10
min. Earth dist.	1110 Mar 29 j 10:34	8° Υ 54'45	0.57369 AU	min. Earth dist.	1111 Mar 11 j 07:35	20° \mathcal{H} 12'35	0.59398 AU
morning rise	1110 Apr 03 j 04:38	6° Υ 08'17					

morning rise	1111 Mar 15 j 03:56	17° K 30'45		min. Earth dist.	1112 Feb 21 j 11:46	2° K 30'23	0.61522 AU
direct	1111 Mar 21 j 13:21	15° K 40'09			1112 Feb 24 j 10:39	30° R \approx	
desc. node	1111 Mar 21 j 15:32	15° K 40'10		morning rise	1112 Feb 24 j 23:26	29° \approx 37'10	
morning max el	1111 Apr 04 j 21:07	23° K 25'12	27°14'32	direct	1112 Mar 02 j 20:22	27° \approx 13'40	
	1111 Apr 10 j 18:50	0° Y		desc. node	1112 Mar 07 j 12:35	28° \approx 13'36	
	1111 Apr 29 j 19:23	0° X			1112 Mar 10 j 20:09	0° K	
morning set	1111 May 05 j 16:57	11° X 46'16		morning max el	1112 Mar 16 j 23:55	5° K 06'23	27°46'28
asc. node	1111 May 09 j 17:33	20° X 20'59			1112 Apr 04 j 14:54	0° Y	
				morning set	1112 Apr 18 j 21:44	26° Y 17'41	
superior conj	1111 May 12 j 20:32	27° X 11'17	0°32'33		1112 Apr 20 j 16:41	0° X	
minimum elong	1111 May 12 j 19:08	27° X 03'36	0°32'15	max. Earth dist.	1112 Apr 24 j 21:13	8° X 56'33	1.32447 AU
max. Earth dist.	1111 May 12 j 10:20	26° X 15'15	1.32247 AU	asc. node	1112 Apr 25 j 14:36	10° X 31'02	
	1111 May 14 j 03:13	0° II					
evening rise	1111 May 19 j 18:34	12° II 12'26		superior conj	1112 Apr 26 j 07:07	12° X 01'01	0°07'17
	1111 May 28 j 20:18	0° X		minimum elong	1112 Apr 26 j 06:46	11° X 59'10	0°07'13
evening max el	1111 Jun 17 j 06:31	27° X 04'54	26°06'08	behind sun begin	1112 Apr 26 j 02:12	11° X 34'13	
desc. node	1111 Jun 17 j 14:47	27° X 24'25		behind sun end	1112 Apr 26 j 11:21	12° X 24'08	
	1111 Jun 20 j 15:59	0° Q		evening rise	1112 May 03 j 05:56	27° X 05'44	
retrograde	1111 Jul 01 j 06:50	4° Q 16'10			1112 May 04 j 15:07	0° II	
evening set	1111 Jul 07 j 14:39	2° Q 38'51			1112 May 21 j 23:40	0° X	
	1111 Jul 11 j 20:23	30° R X		evening max el	1112 May 28 j 22:49	8° X 00'03	24°44'14
min. Earth dist.	1111 Jul 11 j 19:12	0° Q 02'09	0.59081 AU	desc. node	1112 Jun 03 j 11:48	12° X 24'06	
inferior conj	1111 Jul 15 j 02:39	27° X 32'54	-4°-50'-31	retrograde	1112 Jun 11 j 21:32	15° X 04'09	
minimum elong	1111 Jul 15 j 04:18	27° X 29'46	4°50'27	evening set	1112 Jun 16 j 23:53	14° X 05'18	
morning rise	1111 Jul 22 j 21:25	23° X 03'56		min. Earth dist.	1112 Jun 22 j 10:04	11° X 15'11	0.57138 AU
direct	1111 Jul 25 j 08:27	22° X 43'23		inferior conj	1112 Jun 25 j 07:35	9° X 21'51	-4°-44'-30
morning max el	1111 Aug 02 j 06:35	26° X 30'56	18°29'10	minimum elong	1112 Jun 25 j 04:21	9° X 27'09	4°44'15
	1111 Aug 05 j 09:15	0° Q		morning rise	1112 Jul 03 j 12:37	5° X 14'48	
asc. node	1111 Aug 05 j 16:45	0° Q 24'19		direct	1112 Jul 06 j 02:57	4° X 55'48	
morning set	1111 Aug 18 j 08:43	22° Q 07'46		morning max el	1112 Jul 15 j 06:34	9° X 11'35	19°18'44
	1111 Aug 22 j 10:51	0° M		asc. node	1112 Jul 22 j 13:49	18° X 29'07	
					1112 Jul 29 j 01:38	0° Q	
superior conj	1111 Aug 27 j 09:11	9° M 18'53	1°37'47	morning set	1112 Aug 01 j 08:20	6° Q 26'03	
minimum elong	1111 Aug 27 j 11:58	9° M 31'48	1°37'36				
max. Earth dist.	1111 Sep 03 j 18:29	22° M 35'23	1.40138 AU	superior conj	1112 Aug 09 j 13:10	22° Q 44'13	1°45'43
evening rise	1111 Sep 08 j 03:21	0° X 01'23		minimum elong	1112 Aug 09 j 13:57	22° Q 48'00	1°45'42
	1111 Sep 08 j 03:01	0° X			1112 Aug 13 j 08:10	0° M	
desc. node	1111 Sep 13 j 14:06	8° X 53'08		max. Earth dist.	1112 Aug 15 j 22:03	4° M 47'15	1.38095 AU
	1111 Sep 27 j 17:16	0° M		evening rise	1112 Aug 19 j 17:45	11° M 38'21	
evening max el	1111 Oct 12 j 22:00	18° M 50'58	23°41'06	desc. node	1112 Aug 30 j 11:07	29° M 24'46	
retrograde	1111 Oct 23 j 14:48	25° M 09'33			1112 Aug 30 j 20:09	0° X	
evening set	1111 Oct 28 j 16:17	23° M 04'18			1112 Sep 22 j 00:46	0° M	
asc. node	1111 Nov 01 j 16:00	18° M 36'28		evening max el	1112 Sep 24 j 09:58	2° M 27'59	24°58'48
min. Earth dist.	1111 Nov 02 j 14:24	17° M 21'00	0.67685 AU	retrograde	1112 Oct 06 j 03:32	9° M 16'38	
inferior conj	1111 Nov 03 j 02:34	16° M 39'31	0°29'40	evening set	1112 Oct 11 j 19:31	6° M 54'28	
minimum elong	1111 Nov 03 j 01:52	16° M 41'55	0°29'22	min. Earth dist.	1112 Oct 16 j 09:07	1° M 45'45	0.67290 AU
morning rise	1111 Nov 08 j 11:36	10° M 30'19		inferior conj	1112 Oct 17 j 07:55	0° M 30'44	0°-25'-6
direct	1111 Nov 12 j 12:10	8° M 59'17		minimum elong	1112 Oct 17 j 08:33	0° M 28'40	0°24'51
morning max el	1111 Nov 20 j 19:44	13° M 49'02	20°56'36		1112 Oct 17 j 17:17	30° R X	
greatest brilliancy	1111 Nov 26 j 10:25	20° M 20'24	-0.5m	asc. node	1112 Oct 18 j 13:02	28° X 56'10	
	1111 Dec 03 j 12:04	0° X		morning rise	1112 Oct 22 j 22:07	24° X 28'19	
desc. node	1111 Dec 10 j 13:23	10° X 20'15		direct	1112 Oct 26 j 10:12	23° X 17'32	
morning set	1111 Dec 20 j 15:42	25° X 46'22		morning max el	1112 Nov 02 j 20:57	27° X 32'04	19°47'54
	1111 Dec 23 j 08:16	0° X			1112 Nov 05 j 03:04	0° M	
max. Earth dist.	1111 Dec 29 j 00:31	9° X 06'22	1.42744 AU	greatest brilliancy	1112 Nov 10 j 14:55	7° M 07'54	-0.6m
					1112 Nov 25 j 22:47	0° X	
superior conj	1112 Jan 04 j 23:28	20° X 39'25	-2°-1'-58	desc. node	1112 Nov 26 j 10:24	0° X 44'43	
minimum elong	1112 Jan 04 j 21:09	20° X 29'36	2°01'55	morning set	1112 Nov 28 j 12:05	3° X 56'16	
	1112 Jan 10 j 09:43	0° \approx		max. Earth dist.	1112 Dec 10 j 11:56	22° X 42'55	1.44184 AU
evening rise	1112 Jan 16 j 17:36	11° \approx 12'41					
	1112 Jan 27 j 15:35	0° K		superior conj	1112 Dec 15 j 04:45	0° X 15'12	-1°-45'-8
asc. node	1112 Jan 28 j 15:19	1° K 29'41		minimum elong	1112 Dec 14 j 21:25	29° X 45'34	1°44'35
evening max el	1112 Feb 02 j 14:07	7° K 43'00	18°07'26		1112 Dec 15 j 00:59	0° X	
retrograde	1112 Feb 09 j 04:35	11° K 07'23		evening rise	1112 Dec 28 j 18:33	22° X 48'35	
evening set	1112 Feb 11 j 20:48	10° K 33'41			1113 Jan 02 j 00:00	0° \approx	
inferior conj	1112 Feb 18 j 10:11	5° K 30'39	3°41'55	asc. node	1113 Jan 14 j 12:21	19° \approx 14'38	
minimum elong	1112 Feb 18 j 11:26	5° K 27'34	3°41'50	evening max el	1113 Jan 16 j 02:39	20° \approx 59'51	18°16'07

retrograde	1113 Jan 22 j 14:02	24° \approx 28'41		inferior conj	1114 Jan 15 j 04:23	1° \approx 32'56	3°32'15
evening set	1113 Jan 25 j 10:58	23° \approx 45'02		minimum elong	1114 Jan 15 j 02:24	1° \approx 38'59	3°31'58
inferior conj	1113 Jan 31 j 13:47	18° \approx 21'58	3°45'38		1114 Jan 16 j 10:54	30° \approx 30	
minimum elong	1113 Jan 31 j 13:06	18° \approx 23'52	3°45'36	min. Earth dist.	1114 Jan 17 j 00:31	29° \approx 19'05	0.65100 AU
min. Earth dist.	1113 Feb 03 j 01:20	15° \approx 37'29	0.63475 AU	morning rise	1114 Jan 20 j 18:30	25° \approx 22'44	
morning rise	1113 Feb 06 j 13:29	12° \approx 17'55		direct	1114 Jan 27 j 10:56	22° \approx 31'36	
direct	1113 Feb 13 j 12:03	9° \approx 33'14		desc. node	1114 Feb 09 j 06:38	29° \approx 50'26	
desc. node	1113 Feb 22 j 09:37	13° \approx 09'04			1114 Feb 09 j 10:30	0° \approx	
morning max el	1113 Feb 27 j 07:35	17° \approx 27'09	27°41'08	morning max el	1114 Feb 09 j 17:12	0° \approx 16'43	27°02'11
	1113 Mar 09 j 19:16	0° \approx			1114 Mar 03 j 18:33	0° \approx	
	1113 Mar 28 j 09:43	0° \approx		morning set	1114 Mar 17 j 08:26	24° \approx 02'11	
morning set	1113 Apr 02 j 19:54	10° \approx 26'13			1114 Mar 20 j 09:25	0° \approx	
max. Earth dist.	1113 Apr 08 j 02:17	21° \approx 15'47	1.33046 AU	max. Earth dist.	1114 Mar 21 j 21:43	3° \approx 02'37	1.34082 AU
superior conj	1113 Apr 10 j 14:45	26° \approx 37'50	0°-19'-38	superior conj	1114 Mar 25 j 17:26	10° \approx 55'33	0°-47'-7
minimum elong	1113 Apr 10 j 15:42	26° \approx 42'58	0°19'26	minimum elong	1114 Mar 25 j 19:46	11° \approx 07'45	0°46'40
asc. node	1113 Apr 12 j 11:39	0° \approx 39'40		asc. node	1114 Mar 30 j 08:41	20° \approx 42'53	
	1113 Apr 12 j 04:18	0° \approx		evening rise	1114 Apr 02 j 04:03	26° \approx 37'19	
evening rise	1113 Apr 17 j 17:42	11° \approx 56'02			1114 Apr 03 j 19:15	0° \approx	
	1113 Apr 26 j 23:57	0° \approx		evening max el	1114 Apr 22 j 08:11	29° \approx 12'28	21°36'30
evening max el	1113 May 10 j 12:50	18° \approx 31'50	23°09'22		1114 Apr 23 j 04:29	0° \approx	
desc. node	1113 May 21 j 08:50	24° \approx 59'07		retrograde	1114 May 04 j 15:47	5° \approx 13'43	
retrograde	1113 May 24 j 00:06	25° \approx 14'57		evening set	1114 May 07 j 03:32	4° \approx 59'43	
evening set	1113 May 27 j 14:49	24° \approx 46'18		desc. node	1114 May 08 j 05:52	4° \approx 45'06	
min. Earth dist.	1113 Jun 03 j 22:24	21° \approx 28'23	0.55657 AU	inferior conj	1114 May 16 j 12:50	0° \approx 58'29	-2°-20'-23
inferior conj	1113 Jun 05 j 16:49	20° \approx 26'24	-3°-55'-7	minimum elong	1114 May 16 j 06:32	1° \approx 07'19	2°18'19
minimum elong	1113 Jun 05 j 09:32	20° \approx 37'05	3°53'29	min. Earth dist.	1114 May 16 j 10:54	1° \approx 01'13	0.54965 AU
morning rise	1113 Jun 14 j 07:24	16° \approx 32'49			1114 May 18 j 06:56	30° \approx 30	
direct	1113 Jun 17 j 02:15	16° \approx 14'13		morning rise	1114 May 25 j 10:15	27° \approx 02'01	
morning max el	1113 Jun 27 j 19:54	21° \approx 12'20	20°29'16	direct	1114 May 28 j 13:44	26° \approx 40'20	
	1113 Jul 05 j 01:11	0° \approx			1114 Jun 06 j 20:58	0° \approx	
asc. node	1113 Jul 09 j 10:51	7° \approx 14'26		morning max el	1114 Jun 09 j 22:06	2° \approx 30'11	21°58'08
morning set	1113 Jul 16 j 13:59	21° \approx 02'56		asc. node	1114 Jun 26 j 07:54	26° \approx 30'36	
	1113 Jul 20 j 22:09	0° \approx			1114 Jun 28 j 02:29	0° \approx	
				morning set	1114 Jun 30 j 23:30	5° \approx 52'42	
superior conj	1113 Jul 24 j 05:33	6° \approx 47'04	1°45'03	superior conj	1114 Jul 08 j 06:33	21° \approx 16'33	1°37'32
minimum elong	1113 Jul 24 j 04:41	6° \approx 42'41	1°45'02	minimum elong	1114 Jul 08 j 04:38	21° \approx 06'26	1°37'23
max. Earth dist.	1113 Jul 29 j 04:18	16° \approx 37'00	1.36209 AU	max. Earth dist.	1114 Jul 11 j 18:48	28° \approx 33'00	1.34653 AU
evening rise	1113 Aug 02 j 05:27	24° \approx 16'39			1114 Jul 12 j 11:56	0° \approx	
	1113 Aug 05 j 09:16	0° \approx		evening rise	1114 Jul 16 j 09:49	7° \approx 44'24	
desc. node	1113 Aug 17 j 08:08	19° \approx 41'34			1114 Jul 28 j 23:23	0° \approx	
	1113 Aug 24 j 10:42	0° \approx		desc. node	1114 Aug 04 j 05:10	9° \approx 36'48	
evening max el	1113 Sep 06 j 21:39	16° \approx 06'09	26°06'54	evening max el	1114 Aug 20 j 09:50	29° \approx 39'37	26°57'35
retrograde	1113 Sep 19 j 11:36	23° \approx 14'34			1114 Aug 20 j 18:24	0° \approx	
evening set	1113 Sep 25 j 17:48	20° \approx 38'49		retrograde	1114 Sep 02 j 14:16	6° \approx 56'48	
min. Earth dist.	1113 Sep 29 j 23:38	16° \approx 06'23	0.66558 AU	evening set	1114 Sep 09 j 08:56	4° \approx 13'44	
inferior conj	1113 Oct 01 j 09:40	14° \approx 20'28	-1°-22'-4	min. Earth dist.	1114 Sep 13 j 07:37	0° \approx 18'22	0.65481 AU
minimum elong	1113 Oct 01 j 11:48	14° \approx 13'50	1°21'12		1114 Sep 13 j 14:05	30° \approx 30	
asc. node	1113 Oct 05 j 10:04	9° \approx 51'03		inferior conj	1114 Sep 15 j 05:47	28° \approx 05'15	-2°-19'-22
morning rise	1113 Oct 07 j 06:47	8° \approx 27'37		minimum elong	1114 Sep 15 j 09:24	27° \approx 54'47	2°18'01
direct	1113 Oct 10 j 08:33	7° \approx 33'32		morning rise	1114 Sep 21 j 11:22	22° \approx 25'02	
morning max el	1113 Oct 17 j 05:14	11° \approx 23'02	18°53'58	asc. node	1114 Sep 22 j 07:05	22° \approx 04'07	
	1113 Oct 30 j 17:12	0° \approx		direct	1114 Sep 24 j 05:14	21° \approx 43'47	
morning set	1113 Nov 07 j 23:24	12° \approx 56'54		morning max el	1114 Sep 30 j 18:35	25° \approx 17'25	18°16'18
desc. node	1113 Nov 13 j 07:24	21° \approx 20'09			1114 Oct 04 j 17:16	0° \approx	
	1113 Nov 18 j 19:52	0° \approx		morning set	1114 Oct 19 j 14:58	23° \approx 22'57	
max. Earth dist.	1113 Nov 23 j 04:18	6° \approx 50'03	1.44975 AU		1114 Oct 23 j 16:27	0° \approx	
				desc. node	1114 Oct 31 j 04:26	12° \approx 02'55	
superior conj	1113 Nov 24 j 11:44	8° \approx 53'45	-1°-9'-46	superior conj	1114 Nov 03 j 13:27	17° \approx 24'02	0°-22'-18
minimum elong	1113 Nov 24 j 03:37	8° \approx 21'48	1°08'51	minimum elong	1114 Nov 03 j 10:33	17° \approx 12'36	0°21'54
	1113 Dec 07 j 17:47	0° \approx		max. Earth dist.	1114 Nov 05 j 23:06	21° \approx 11'18	1.45037 AU
evening rise	1113 Dec 09 j 20:53	3° \approx 26'29			1114 Nov 11 j 13:59	0° \approx	
	1113 Dec 26 j 21:22	0° \approx		evening rise	1114 Nov 20 j 00:00	13° \approx 08'48	
evening max el	1113 Dec 30 j 14:04	4° \approx 24'21	18°43'09		1114 Nov 30 j 20:26	0° \approx	
asc. node	1114 Jan 01 j 09:22	6° \approx 03'48		greatest brilliancy	1114 Dec 05 j 06:22	6° \approx 38'07	-0.7m
retrograde	1114 Jan 06 j 06:38	8° \approx 08'42					
evening set	1114 Jan 09 j 09:06	7° \approx 13'57					

evening max el	1114 Dec 13 j 22:11	17°☿52'39	19°27'08	retrograde	1115 Dec 05 j 00:51	6°☿04'28	
asc. node	1114 Dec 19 j 06:23	21°☿42'48		asc. node	1115 Dec 06 j 03:24	5°☿57'34	
retrograde	1114 Dec 21 j 03:04	22°☿01'55		evening set	1115 Dec 08 j 19:08	4°☿42'38	
evening set	1114 Dec 24 j 12:33	20°☿54'30			1115 Dec 13 j 04:23	30°☿☿	
inferior conj	1114 Dec 30 j 02:43	14°☿57'56	3°06'18	inferior conj	1115 Dec 14 j 06:10	28°☿33'24	2°30'56
minimum elong	1114 Dec 30 j 00:06	15°☿06'27	3°05'42	minimum elong	1115 Dec 14 j 03:30	28°☿42'24	2°30'07
min. Earth dist.	1114 Dec 31 j 08:08	13°☿22'27	0.66335 AU	min. Earth dist.	1115 Dec 14 j 22:24	27°☿38'21	0.67171 AU
morning rise	1115 Jan 04 j 10:52	8°☿44'18		morning rise	1115 Dec 19 j 11:24	22°☿18'17	
direct	1115 Jan 10 j 15:51	6°☿00'05		direct	1115 Dec 25 j 01:58	19°☿50'26	
morning max el	1115 Jan 23 j 02:27	13°☿22'44	25°57'03	morning max el	1116 Jan 05 j 10:53	26°☿37'11	24°35'27
desc. node	1115 Jan 27 j 03:39	17°☿47'31			1116 Jan 08 j 14:14	0°☿	
	1115 Feb 05 j 14:10	0°☿		desc. node	1116 Jan 14 j 00:41	6°☿38'31	
	1115 Feb 24 j 11:54	0°☿			1116 Jan 30 j 04:52	0°☿	
morning set	1115 Feb 28 j 07:07	6°☿52'10		morning set	1116 Feb 10 j 10:34	18°☿41'32	
max. Earth dist.	1115 Mar 04 j 05:21	14°☿16'41	1.35583 AU	max. Earth dist.	1116 Feb 14 j 03:37	25°☿19'58	1.37486 AU
					1116 Feb 16 j 16:18	0°☿	
superior conj	1115 Mar 09 j 12:39	24°☿45'55	-1°-13'-45				
minimum elong	1115 Mar 09 j 16:11	25°☿03'47	1°13'11	superior conj	1116 Feb 20 j 21:14	8°☿00'31	-1°-37'-29
	1115 Mar 12 j 02:16	0°☿		minimum elong	1116 Feb 21 j 01:21	8°☿20'25	1°37'02
evening rise	1115 Mar 17 j 10:57	11°☿02'23		evening rise	1116 Feb 29 j 12:09	25°☿04'58	
asc. node	1115 Mar 17 j 05:43	10°☿35'38		asc. node	1116 Mar 03 j 02:46	0°☿13'19	
	1115 Mar 27 j 13:52	0°☿			1116 Mar 03 j 00:02	0°☿	
evening max el	1115 Apr 04 j 13:56	10°☿23'52	20°16'24	evening max el	1116 Mar 17 j 07:03	22°☿13'58	19°14'34
retrograde	1115 Apr 15 j 05:21	15°☿31'57		retrograde	1116 Mar 26 j 06:24	26°☿33'55	
evening set	1115 Apr 17 j 07:14	15°☿21'03		evening set	1116 Mar 28 j 09:43	26°☿20'13	
desc. node	1115 Apr 25 j 02:53	12°☿06'14		inferior conj	1116 Apr 05 j 17:40	22°☿10'05	1°27'38
inferior conj	1115 Apr 26 j 08:31	11°☿22'56	0°-21'-26	minimum elong	1116 Apr 05 j 20:58	22°☿04'33	1°26'33
minimum elong	1115 Apr 26 j 07:31	11°☿24'25	0°21'05	min. Earth dist.	1116 Apr 08 j 15:03	20°☿14'25	0.56393 AU
min. Earth dist.	1115 Apr 28 j 00:10	10°☿24'35	0.55230 AU	desc. node	1116 Apr 10 j 23:54	18°☿48'18	
morning rise	1115 May 05 j 05:33	7°☿05'08		morning rise	1116 Apr 14 j 04:13	17°☿19'08	
direct	1115 May 09 j 02:07	6°☿32'49		direct	1116 Apr 19 j 01:15	16°☿24'19	
morning max el	1115 May 22 j 15:33	13°☿11'29	23°38'28	morning max el	1116 May 03 j 06:04	23°☿39'28	25°17'40
	1115 Jun 04 j 12:15	0°☿			1116 May 08 j 23:34	0°☿	
asc. node	1115 Jun 13 j 04:57	16°☿08'47			1116 May 27 j 03:55	0°☿	
morning set	1115 Jun 15 j 11:01	20°☿48'52		morning set	1116 May 29 j 22:54	5°☿46'10	
	1115 Jun 19 j 18:05	0°☿		asc. node	1116 May 30 j 02:02	6°☿02'40	
superior conj	1115 Jun 22 j 13:15	6°☿02'36	1°24'32	superior conj	1116 Jun 05 j 23:24	20°☿58'08	1°07'05
minimum elong	1115 Jun 22 j 10:51	5°☿49'39	1°24'13	minimum elong	1116 Jun 05 j 21:02	20°☿45'15	1°06'41
max. Earth dist.	1115 Jun 24 j 18:52	10°☿49'18	1.33484 AU	max. Earth dist.	1116 Jun 07 j 02:30	23°☿26'00	1.32704 AU
evening rise	1115 Jun 30 j 02:19	21°☿47'47			1116 Jun 10 j 03:36	0°☿	
	1115 Jul 04 j 07:35	0°☿		evening rise	1116 Jun 13 j 03:24	6°☿16'11	
desc. node	1115 Jul 22 j 02:13	29°☿00'30			1116 Jun 25 j 21:07	0°☿	
	1115 Jul 22 j 19:36	0°☿		desc. node	1116 Jul 07 j 23:14	17°☿39'41	
evening max el	1115 Aug 02 j 21:21	12°☿56'34	27°23'37	evening max el	1116 Jul 15 j 05:49	25°☿43'25	27°19'14
retrograde	1115 Aug 16 j 10:57	20°☿14'52			1116 Jul 20 j 12:23	0°☿	
evening set	1115 Aug 23 j 14:04	17°☿33'51		retrograde	1116 Jul 29 j 01:05	2°☿59'53	
min. Earth dist.	1115 Aug 27 j 06:48	14°☿13'49	0.64045 AU	evening set	1116 Aug 05 j 05:35	0°☿33'08	
inferior conj	1115 Aug 29 j 17:48	11°☿39'21	-3°-14'-26		1116 Aug 06 j 00:27	30°☿☿	
minimum elong	1115 Aug 29 j 22:35	11°☿26'48	3°12'57	min. Earth dist.	1116 Aug 08 j 19:36	27°☿41'37	0.62276 AU
morning rise	1115 Sep 05 j 09:09	6°☿15'20		inferior conj	1116 Aug 11 j 18:49	24°☿55'48	-4°-3'-15
direct	1115 Sep 07 j 21:44	5°☿43'18		minimum elong	1116 Aug 11 j 23:51	24°☿44'01	4°02'07
asc. node	1115 Sep 09 j 04:07	5°☿51'28		morning rise	1116 Aug 18 j 20:45	19°☿51'30	
morning max el	1115 Sep 14 j 10:23	9°☿09'24	17°55'54	direct	1116 Aug 21 j 06:39	19°☿25'44	
	1115 Sep 28 j 09:52	0°☿		asc. node	1116 Aug 26 j 01:12	21°☿09'16	
morning set	1115 Oct 01 j 09:54	5°☿08'35		morning max el	1116 Aug 28 j 01:46	22°☿52'35	17°53'34
					1116 Sep 02 j 15:41	0°☿	
superior conj	1115 Oct 14 j 07:03	26°☿44'17	0°25'06	morning set	1116 Sep 13 j 02:11	17°☿55'01	
minimum elong	1115 Oct 14 j 09:47	26°☿55'27	0°24'44		1116 Sep 19 j 20:51	0°☿	
	1115 Oct 16 j 07:19	0°☿					
desc. node	1115 Oct 18 j 01:29	2°☿49'36		superior conj	1116 Sep 24 j 03:17	7°☿23'32	1°03'04
max. Earth dist.	1115 Oct 19 j 17:22	5°☿28'50	1.44366 AU	minimum elong	1116 Sep 24 j 08:02	7°☿43'49	1°02'28
evening rise	1115 Oct 30 j 10:40	22°☿14'37		max. Earth dist.	1116 Oct 01 j 07:49	19°☿23'06	1.43054 AU
	1115 Nov 04 j 12:19	0°☿		desc. node	1116 Oct 03 j 22:31	23°☿36'34	
greatest brilliancy	1115 Nov 20 j 21:06	23°☿55'06	-0.5m		1116 Oct 07 j 23:12	0°☿	
	1115 Nov 25 j 18:42	0°☿		evening rise	1116 Oct 08 j 19:58	1°☿21'17	
evening max el	1115 Nov 27 j 01:23	1°☿22'24	20°25'58		1116 Oct 28 j 02:24	0°☿	

greatest brilliancy	1116 Nov 04 j 01:00	9°♂14'41	-0.4m			1117 Sep 30 j 23:40	0°♂	
evening max el	1116 Nov 08 j 22:46	14°♂52'00	21°36'43	greatest brilliancy	1117 Oct 17 j 09:42	22°♂31'56	-0.3m	
retrograde	1116 Nov 17 j 21:58	20°♂12'08		evening max el	1117 Oct 22 j 14:59	28°♂23'15	22°54'58	
evening set	1116 Nov 22 j 02:55	18°♂34'15			1117 Oct 24 j 07:21	0°♂		
asc. node	1116 Nov 22 j 00:27	18°♂39'02		retrograde	1117 Nov 01 j 16:46	4°♂22'12		
inferior conj	1116 Nov 27 j 12:30	12°♂15'48	1°48'11	evening set	1117 Nov 06 j 10:14	2°♂27'07		
minimum elong	1116 Nov 27 j 10:18	12°♂23'24	1°47'23	asc. node	1117 Nov 08 j 21:30	29°♂55'32		
min. Earth dist.	1116 Nov 27 j 17:02	12°♂00'06	0.67633 AU		1117 Nov 08 j 20:01	30°♂♂		
morning rise	1116 Dec 02 j 17:26	6°♂01'05		inferior conj	1117 Nov 11 j 19:52	26°♂03'18	0°59'42	
direct	1116 Dec 07 j 16:40	3°♂54'39		minimum elong	1117 Nov 11 j 18:31	26°♂07'58	0°59'09	
morning max el	1116 Dec 17 j 20:17	9°♂56'25	23°07'20	min. Earth dist.	1117 Nov 11 j 13:42	26°♂24'35	0.67756 AU	
greatest brilliancy	1116 Dec 22 j 18:14	15°♂26'23	-0.3m	morning rise	1117 Nov 17 j 02:47	19°♂51'11		
desc. node	1116 Dec 30 j 21:44	26°♂07'20		direct	1117 Nov 21 j 11:12	18°♂07'30		
	1117 Jan 02 j 15:38	0°♂		morning max el	1117 Nov 30 j 09:50	23°♂22'30	21°41'46	
morning set	1117 Jan 21 j 12:28	29°♂13'32		greatest brilliancy	1117 Dec 05 j 07:20	28°♂55'46	-0.4m	
	1117 Jan 21 j 23:36	0°♂			1117 Dec 06 j 03:53	0°♂		
max. Earth dist.	1117 Jan 25 j 22:52	6°♂45'16	1.39608 AU	desc. node	1117 Dec 17 j 18:47	16°♂03'26		
					1117 Dec 27 j 01:08	0°♂		
superior conj	1117 Feb 02 j 14:57	20°♂27'52	-1°-55'-26	morning set	1118 Jan 01 j 09:07	8°♂21'41		
minimum elong	1117 Feb 02 j 18:18	20°♂43'19	1°55'15	max. Earth dist.	1118 Jan 07 j 21:59	18°♂58'35	1.41681 AU	
	1117 Feb 07 j 16:52	0°♂			1118 Jan 14 j 10:03	0°♂		
evening rise	1117 Feb 12 j 04:44	8°♂36'52						
asc. node	1117 Feb 17 j 23:48	19°♂29'44		superior conj	1118 Jan 15 j 12:41	1°♂55'52	-2°-3'-36	
	1117 Feb 24 j 11:16	0°♂		minimum elong	1118 Jan 15 j 13:06	1°♂57'44	2°03'37	
evening max el	1117 Feb 28 j 09:33	4°♂39'04	18°32'48	evening rise	1118 Jan 26 j 09:12	21°♂29'59		
retrograde	1117 Mar 08 j 01:52	8°♂24'55			1118 Jan 31 j 01:00	0°♂		
evening set	1117 Mar 10 j 10:09	8°♂05'00		asc. node	1118 Feb 04 j 20:50	8°♂17'59		
inferior conj	1117 Mar 17 j 23:23	3°♂35'48	2°45'32	evening max el	1118 Feb 11 j 18:25	17°♂31'13	18°11'07	
minimum elong	1117 Mar 18 j 03:26	3°♂27'50	2°44'35	retrograde	1118 Feb 18 j 15:10	20°♂59'01		
min. Earth dist.	1117 Mar 21 j 09:21	0°♂56'18	0.58198 AU	evening set	1118 Feb 21 j 04:36	20°♂30'45		
	1117 Mar 22 j 16:48	30°♂♂		inferior conj	1118 Feb 28 j 01:41	15°♂40'19	3°29'36	
morning rise	1117 Mar 25 j 16:33	28°♂13'13		minimum elong	1118 Feb 28 j 04:10	15°♂34'40	3°29'16	
desc. node	1117 Mar 28 j 20:56	27°♂03'19		min. Earth dist.	1118 Mar 03 j 09:22	12°♂40'07	0.60305 AU	
direct	1117 Mar 31 j 14:26	26°♂44'12		morning rise	1118 Mar 07 j 00:26	9°♂55'35		
	1117 Apr 09 j 17:21	0°♂		direct	1118 Mar 13 j 16:02	7°♂49'36		
morning max el	1117 Apr 14 j 23:28	4°♂22'16	26°40'08	desc. node	1118 Mar 15 j 17:59	8°♂01'24		
	1117 May 03 j 15:42	0°♂		morning max el	1118 Mar 27 j 22:37	15°♂39'37	27°32'37	
morning set	1117 May 14 j 09:29	20°♂38'53			1118 Apr 08 j 15:16	0°♂		
asc. node	1117 May 16 j 23:07	26°♂06'48			1118 Apr 26 j 01:57	0°♂		
	1117 May 18 j 18:04	0°♂		morning set	1118 Apr 28 j 16:56	5°♂20'10		
				asc. node	1118 May 03 j 20:09	16°♂16'01		
superior conj	1117 May 21 j 11:06	5°♂56'42	0°46'01	max. Earth dist.	1118 May 05 j 02:26	19°♂01'20	1.32279 AU	
minimum elong	1117 May 21 j 09:14	5°♂46'29	0°45'39					
max. Earth dist.	1117 May 21 j 14:17	6°♂14'15	1.32301 AU	superior conj	1118 May 05 j 22:34	20°♂51'42	0°22'05	
evening rise	1117 May 28 j 10:14	21°♂00'36		minimum elong	1118 May 05 j 21:35	20°♂46'18	0°21'53	
	1117 Jun 01 j 20:31	0°♂			1118 May 10 j 02:45	0°♂		
	1117 Jun 20 j 08:29	0°♂		evening rise	1118 May 12 j 20:31	5°♂52'51		
desc. node	1117 Jun 24 j 20:15	5°♂15'59			1118 May 25 j 14:13	0°♂		
evening max el	1117 Jun 27 j 08:40	7°♂48'56	26°41'51	evening max el	1118 Jun 09 j 04:38	19°♂08'25	25°33'53	
retrograde	1117 Jul 11 j 07:58	15°♂03'15		desc. node	1118 Jun 11 j 17:17	21°♂22'39		
evening set	1117 Jul 18 j 03:03	13°♂04'32		retrograde	1118 Jun 23 j 05:31	26°♂18'13		
min. Earth dist.	1117 Jul 21 j 22:17	10°♂27'39	0.60264 AU	evening set	1118 Jun 29 j 01:56	24°♂57'34		
inferior conj	1117 Jul 25 j 05:23	7°♂46'21	-4°-39'-20	min. Earth dist.	1118 Jul 03 j 16:50	22°♂16'59	0.58215 AU	
minimum elong	1117 Jul 25 j 08:57	7°♂39'01	4°38'55	inferior conj	1118 Jul 06 j 21:55	20°♂00'35	-4°-52'-33	
morning rise	1117 Aug 01 j 18:08	3°♂04'27		minimum elong	1118 Jul 06 j 21:40	20°♂01'01	4°52'35	
direct	1117 Aug 04 j 03:56	2°♂42'37		morning rise	1118 Jul 14 j 21:08	15°♂41'23		
morning max el	1117 Aug 11 j 13:43	6°♂19'35	18°10'23	direct	1118 Jul 17 j 09:11	15°♂21'46		
asc. node	1117 Aug 12 j 22:17	7°♂44'24		morning max el	1118 Jul 25 j 18:56	19°♂20'05	18°47'36	
	1117 Aug 26 j 15:36	0°♂		asc. node	1118 Jul 30 j 19:21	25°♂20'35		
morning set	1117 Aug 27 j 10:03	1°♂26'38		morning set	1118 Aug 02 j 19:25	0°♂		
					1118 Aug 11 j 04:55	15°♂30'31		
superior conj	1117 Sep 06 j 01:27	19°♂19'41	1°28'32		1118 Aug 18 j 15:27	0°♂		
minimum elong	1117 Sep 06 j 05:19	19°♂37'06	1°28'10					
	1117 Sep 12 j 03:14	0°♂		superior conj	1118 Aug 19 j 20:09	2°♂16'43	1°42'19	
max. Earth dist.	1117 Sep 13 j 16:27	2°♂38'20	1.41275 AU	minimum elong	1118 Aug 19 j 22:04	2°♂25'48	1°42'13	
evening rise	1117 Sep 18 j 20:41	11°♂12'21		max. Earth dist.	1118 Aug 26 j 20:32	15°♂09'55	1.39264 AU	
desc. node	1117 Sep 20 j 19:34	14°♂20'54		evening rise	1118 Aug 30 j 21:13	22°♂10'14		

	1118 Sep 04 j 14:07	0°♄		morning set	1119 Jul 26 j 07:25	29°♄57'38	
desc. node	1118 Sep 07 j 16:35	4°♄58'18			1119 Jul 26 j 07:53	0°♄	
	1118 Sep 24 j 22:54	0°♄					
evening max el	1118 Oct 05 j 03:58	11°♄58'12	24°14'55	superior conj	1119 Aug 03 j 05:56	15°♄59'16	1°46'22
retrograde	1118 Oct 16 j 07:58	18°♄30'57		minimum elong	1119 Aug 03 j 05:57	15°♄59'21	1°46'22
evening set	1118 Oct 21 j 15:25	16°♄18'33		max. Earth dist.	1119 Aug 09 j 00:43	27°♄10'01	1.37273 AU
min. Earth dist.	1118 Oct 26 j 09:52	10°♄49'27	0.67553 AU		1119 Aug 10 j 13:16	0°♄	
asc. node	1118 Oct 26 j 18:33	10°♄20'15		evening rise	1119 Aug 12 j 21:17	4°♄14'52	
inferior conj	1118 Oct 27 j 02:27	9°♄53'37	0°06'49	desc. node	1119 Aug 25 j 13:36	25°♄24'13	
minimum elong	1118 Oct 27 j 02:17	9°♄54'11	0°06'44		1119 Aug 28 j 14:10	0°♄	
transit middle	1118 Oct 27 j 02:17	9°♄54'11	0°06'44	evening max el	1119 Sep 17 j 15:51	25°♄36'40	25°29'26
transit begin	1118 Oct 26 j 23:47	10°♄02'34			1119 Sep 22 j 21:12	0°♄	
transit end	1118 Oct 27 j 04:46	9°♄45'48		retrograde	1119 Sep 29 j 18:37	2°♄34'17	
morning rise	1118 Nov 01 j 13:25	3°♄46'40		evening set	1119 Oct 05 j 16:45	0°♄06'02	
direct	1118 Nov 05 j 08:26	2°♄24'31			1119 Oct 05 j 19:34	30°♄	
morning max el	1118 Nov 13 j 06:21	6°♄58'20	20°25'37	min. Earth dist.	1119 Oct 10 j 03:06	25°♄12'26	0.67025 AU
greatest brilliancy	1118 Nov 19 j 15:31	14°♄34'24	-0.5m	inferior conj	1119 Oct 11 j 06:29	23°♄44'16	0°-49'-6
	1118 Nov 30 j 10:58	0°♄		minimum elong	1119 Oct 11 j 07:44	23°♄40'14	0°48'35
desc. node	1118 Dec 04 j 15:49	6°♄19'06		asc. node	1119 Oct 13 j 15:35	20°♄47'49	
morning set	1118 Dec 11 j 08:02	16°♄32'59		morning rise	1119 Oct 16 j 23:24	17°♄45'25	
	1118 Dec 19 j 21:10	0°♄		direct	1119 Oct 20 j 06:55	16°♄42'00	
max. Earth dist.	1118 Dec 21 j 04:54	2°♄07'19	1.43422 AU	morning max el	1119 Oct 27 j 10:39	20°♄44'21	19°22'57
					1119 Nov 03 j 20:39	0°♄	
superior conj	1118 Dec 27 j 09:25	12°♄13'42	-1°-57'-9	greatest brilliancy	1119 Nov 05 j 19:06	2°♄46'45	-0.7m
minimum elong	1118 Dec 27 j 04:49	11°♄54'41	1°56'56	morning set	1119 Nov 20 j 08:00	24°♄56'28	
	1119 Jan 06 j 19:56	0°♄		desc. node	1119 Nov 21 j 12:51	26°♄48'28	
evening rise	1119 Jan 08 j 21:23	3°♄35'57			1119 Nov 23 j 14:06	0°♄	
asc. node	1119 Jan 22 j 17:52	26°♄29'17		max. Earth dist.	1119 Dec 03 j 19:06	15°♄59'58	1.44609 AU
	1119 Jan 25 j 14:28	0°♄					
evening max el	1119 Jan 26 j 06:32	0°♄41'44	18°08'56	superior conj	1119 Dec 07 j 03:54	21°♄20'41	-1°-32'-13
retrograde	1119 Feb 01 j 18:28	4°♄06'11		minimum elong	1119 Dec 06 j 19:24	20°♄46'51	1°31'26
evening set	1119 Feb 04 j 12:43	3°♄28'19			1119 Dec 12 j 13:09	0°♄	
	1119 Feb 09 j 04:26	30°♄		evening rise	1119 Dec 21 j 12:59	14°♄46'51	
inferior conj	1119 Feb 10 j 21:13	28°♄16'50	3°45'56		1119 Dec 30 j 17:36	0°♄	
minimum elong	1119 Feb 10 j 21:36	28°♄15'52	3°45'55	asc. node	1120 Jan 09 j 14:53	13°♄51'50	
min. Earth dist.	1119 Feb 13 j 17:21	25°♄20'52	0.62384 AU	evening max el	1120 Jan 09 j 18:54	14°♄02'06	18°25'31
morning rise	1119 Feb 17 j 04:14	22°♄18'27		retrograde	1120 Jan 16 j 07:23	17°♄36'00	
direct	1119 Feb 24 j 03:12	19°♄43'57		evening set	1120 Jan 19 j 06:38	16°♄47'36	
desc. node	1119 Mar 02 j 15:00	21°♄39'40		inferior conj	1120 Jan 25 j 05:53	11°♄16'30	3°41'43
morning max el	1119 Mar 10 j 03:33	27°♄37'59	27°48'38	minimum elong	1120 Jan 25 j 04:34	11°♄20'19	3°41'37
	1119 Mar 12 j 09:57	0°♄		min. Earth dist.	1120 Jan 27 j 10:48	8°♄44'00	0.64210 AU
	1119 Apr 02 j 07:49	0°♄		morning rise	1120 Jan 31 j 01:03	5°♄09'43	
morning set	1119 Apr 12 j 19:14	19°♄43'14		direct	1120 Feb 06 j 21:53	2°♄20'43	
	1119 Apr 17 j 17:32	0°♄		desc. node	1120 Feb 17 j 12:01	7°♄23'48	
max. Earth dist.	1119 Apr 18 j 11:15	1°♄34'53	1.32650 AU	morning max el	1120 Feb 20 j 12:14	10°♄11'27	27°28'26
					1120 Mar 07 j 02:17	0°♄	
superior conj	1119 Apr 20 j 08:10	5°♄37'22	0°-3'-58		1120 Mar 24 j 16:44	0°♄	
minimum elong	1119 Apr 20 j 08:21	5°♄38'24	0°03'56	morning set	1120 Mar 26 j 13:42	3°♄38'35	
behind sun begin	1119 Apr 20 j 03:19	5°♄11'06		max. Earth dist.	1120 Mar 31 j 12:45	13°♄41'24	1.33435 AU
behind sun end	1119 Apr 20 j 13:23	6°♄05'42					
asc. node	1119 Apr 20 j 17:11	6°♄26'20		superior conj	1120 Apr 03 j 13:56	20°♄06'28	0°-31'-16
evening rise	1119 Apr 27 j 08:18	20°♄46'16		minimum elong	1120 Apr 03 j 15:29	20°♄14'40	0°30'57
	1119 May 01 j 20:18	0°♄		asc. node	1120 Apr 06 j 14:12	26°♄32'50	
	1119 May 21 j 22:59	0°♄			1120 Apr 08 j 04:52	0°♄	
evening max el	1119 May 21 j 19:26	29°♄51'30	24°04'39	evening rise	1120 Apr 10 j 19:41	5°♄33'21	
desc. node	1119 May 29 j 14:16	5°♄25'42			1120 Apr 24 j 01:52	0°♄	
retrograde	1119 Jun 04 j 14:58	6°♄48'12		evening max el	1120 May 02 j 10:49	10°♄22'50	22°28'49
evening set	1119 Jun 09 j 02:02	6°♄04'09		retrograde	1120 May 15 j 11:52	16°♄50'03	
min. Earth dist.	1119 Jun 15 j 06:23	3°♄03'39	0.56438 AU	desc. node	1120 May 15 j 11:16	16°♄50'03	
inferior conj	1119 Jun 17 j 18:16	1°♄31'00	-4°-29'-28	evening set	1120 May 18 j 13:36	16°♄29'17	
minimum elong	1119 Jun 17 j 12:56	1°♄39'17	4°28'41	min. Earth dist.	1120 May 26 j 18:13	12°♄56'11	0.55261 AU
	1119 Jun 20 j 06:35	30°♄		inferior conj	1120 May 27 j 20:35	12°♄18'48	-3°-19'-48
morning rise	1119 Jun 26 j 03:25	27°♄30'42		minimum elong	1120 May 27 j 12:57	12°♄29'37	3°17'43
direct	1119 Jun 28 j 19:34	27°♄11'59		morning rise	1120 Jun 05 j 14:40	8°♄26'35	
	1119 Jul 06 j 12:19	0°♄		direct	1120 Jun 08 j 12:42	8°♄07'09	
morning max el	1119 Jul 08 j 14:32	1°♄44'27	19°46'05	morning max el	1120 Jun 19 j 22:54	13°♄26'01	21°05'04
asc. node	1119 Jul 17 j 16:24	13°♄44'04			1120 Jul 02 j 01:21	0°♄	

asc. node	1120 Jul 03 j 13:27	2°♄43'25		morning set	1121 Jun 24 j 01:34	29°♂33'54	
morning set	1120 Jul 09 j 14:59	14°♄40'51			1121 Jun 24 j 06:33	0°♄	
	1120 Jul 16 j 23:34	0°♄					
superior conj	1120 Jul 17 j 02:23	0°♄14'33	1°42'37	superior conj	1121 Jul 01 j 06:08	14°♄52'04	1°32'38
minimum elong	1120 Jul 17 j 01:00	0°♄07'24	1°42'32	minimum elong	1121 Jul 01 j 03:56	14°♄40'24	1°32'24
max. Earth dist.	1120 Jul 21 j 10:24	9°♄01'06	1.35508 AU	max. Earth dist.	1121 Jul 04 j 04:57	21°♄04'21	1.34103 AU
evening rise	1120 Jul 25 j 16:40	17°♄15'33		evening rise	1121 Jul 08 j 14:34	0°♄	
	1120 Aug 01 j 18:33	0°♄			1121 Jul 09 j 02:38	0°♄59'26	
desc. node	1120 Aug 11 j 10:37	15°♄32'52		desc. node	1121 Jul 25 j 18:10	0°♄	
	1120 Aug 21 j 21:52	0°♄		evening max el	1121 Jul 29 j 07:39	5°♄16'00	
evening max el	1120 Aug 30 j 03:50	9°♄14'09	26°30'57		1121 Aug 12 j 15:43	22°♄41'17	27°11'58
retrograde	1120 Sep 12 j 00:17	16°♄26'51		retrograde	1121 Aug 25 j 18:43	0°♄	
evening set	1120 Sep 18 j 12:18	13°♄46'56			1121 Aug 26 j 00:36	0°♄00'11	
min. Earth dist.	1120 Sep 22 j 15:01	9°♄30'30	0.66149 AU	evening set	1121 Aug 26 j 06:27	30°♄	
inferior conj	1120 Sep 24 j 06:07	7°♄32'31	-1°-46'-28	min. Earth dist.	1121 Sep 01 j 23:36	27°♄16'15	
minimum elong	1120 Sep 24 j 08:54	7°♄24'07	1°45'22	inferior conj	1121 Sep 05 j 19:23	23°♄36'42	0.64914 AU
asc. node	1120 Sep 29 j 12:37	2°♄12'29		minimum elong	1121 Sep 07 j 23:07	21°♄13'15	-2°-43'-13
morning rise	1120 Sep 30 j 06:41	1°♄44'50		morning rise	1121 Sep 08 j 03:18	21°♄01'37	2°41'45
direct	1120 Oct 03 j 04:52	0°♄56'37		asc. node	1121 Sep 14 j 08:46	15°♄39'49	
morning max el	1120 Oct 09 j 21:28	4°♄37'51	18°35'56	direct	1121 Sep 16 j 09:41	15°♄04'55	
	1120 Oct 27 j 10:31	0°♄		morning max el	1121 Sep 17 j 00:01	15°♄03'00	
morning set	1120 Oct 30 j 06:52	4°♄32'59			1121 Sep 23 j 12:18	18°♄32'26	18°05'30
desc. node	1120 Nov 07 j 09:53	17°♄27'41		morning set	1121 Sep 23 j 23:37	0°♄	
					1121 Oct 01 j 23:37	0°♄	
superior conj	1120 Nov 15 j 05:57	29°♄48'00	0°-50'-26	desc. node	1121 Oct 11 j 10:39	15°♄34'29	
minimum elong	1120 Nov 14 j 23:33	29°♄22'50	0°49'37		1121 Oct 20 j 04:38	0°♄	
	1120 Nov 15 j 09:00	0°♄			1121 Oct 25 j 06:55	8°♄12'22	
max. Earth dist.	1120 Nov 15 j 13:29	0°♄17'33	1.45094 AU	superior conj	1121 Oct 25 j 12:17	8°♄33'49	0°-1'-29
evening rise	1120 Dec 01 j 05:19	25°♄00'43		minimum elong	1121 Oct 25 j 12:06	8°♄33'04	0°01'29
	1120 Dec 04 j 08:30	0°♄		behind sun begin	1121 Oct 25 j 01:25	7°♄50'27	
evening max el	1120 Dec 23 j 05:07	27°♄28'10	18°59'50	behind sun end	1121 Oct 25 j 22:46	9°♄15'39	
asc. node	1120 Dec 26 j 11:54	0°♄12'53		max. Earth dist.	1121 Oct 29 j 08:16	14°♄38'45	1.44835 AU
	1120 Dec 26 j 03:53	0°♄			1121 Nov 08 j 04:00	0°♄	
retrograde	1120 Dec 30 j 02:04	1°♄22'13		evening rise	1121 Nov 11 j 00:05	4°♄23'42	
evening set	1121 Jan 02 j 07:22	0°♄22'10			1121 Nov 27 j 21:36	0°♄	
	1121 Jan 02 j 20:39	30°♄		greatest brilliancy	1121 Nov 29 j 01:31	1°♄39'10	-0.6m
inferior conj	1121 Jan 08 j 00:09	24°♄33'54	3°22'34	evening max el	1121 Dec 06 j 11:13	10°♄56'33	19°50'26
minimum elong	1121 Jan 07 j 21:49	24°♄41'14	3°22'09	asc. node	1121 Dec 13 j 08:57	15°♄17'22	
min. Earth dist.	1121 Jan 09 j 13:45	22°♄36'04	0.65671 AU	retrograde	1121 Dec 13 j 23:29	15°♄19'25	
morning rise	1121 Jan 13 j 11:19	18°♄21'52		evening set	1121 Dec 17 j 12:23	14°♄06'12	
direct	1121 Jan 19 j 23:13	15°♄32'36		inferior conj	1121 Dec 23 j 00:59	8°♄03'43	2°52'19
morning max el	1121 Feb 01 j 22:07	23°♄09'47	26°37'14	minimum elong	1121 Dec 22 j 22:17	8°♄12'40	2°51'36
desc. node	1121 Feb 03 j 09:04	24°♄40'20		min. Earth dist.	1121 Dec 24 j 00:37	6°♄45'16	0.66736 AU
	1121 Feb 08 j 00:14	0°♄		morning rise	1121 Dec 28 j 07:32	1°♄48'54	
	1121 Feb 28 j 09:47	0°♄			1121 Dec 30 j 21:35	30°♄	
morning set	1121 Mar 09 j 20:54	16°♄56'03		direct	1122 Jan 03 j 06:30	29°♄10'44	
max. Earth dist.	1121 Mar 14 j 03:31	25°♄13'58	1.34666 AU		1122 Jan 06 j 22:01	0°♄	
	1121 Mar 16 j 12:26	0°♄		morning max el	1122 Jan 15 j 07:09	6°♄20'30	25°23'43
				desc. node	1122 Jan 21 j 06:07	13°♄02'23	
superior conj	1121 Mar 18 j 13:45	4°♄12'39	0°-58'-37		1122 Feb 02 j 15:51	0°♄	
minimum elong	1121 Mar 18 j 16:38	4°♄27'32	0°58'06	morning set	1122 Feb 20 j 12:11	29°♄22'14	
asc. node	1121 Mar 24 j 11:14	16°♄31'37			1122 Feb 20 j 20:31	0°♄	
evening rise	1121 Mar 26 j 04:49	20°♄08'01		max. Earth dist.	1122 Feb 24 j 06:27	6°♄18'42	1.36343 AU
	1121 Mar 31 j 02:51	0°♄					
evening max el	1121 Apr 14 j 09:59	21°♄13'13	21°00'22	superior conj	1122 Mar 02 j 04:52	17°♄48'28	-1°-24'-20
retrograde	1121 Apr 26 j 01:29	26°♄52'59		minimum elong	1122 Mar 02 j 08:45	18°♄07'47	1°23'48
evening set	1121 Apr 28 j 07:02	26°♄41'16			1122 Mar 08 j 05:38	0°♄	
desc. node	1121 May 02 j 08:17	25°♄26'31		evening rise	1122 Mar 10 j 09:36	4°♄23'57	
inferior conj	1121 May 07 j 14:33	22°♄43'02	-1°-30'-51	asc. node	1122 Mar 11 j 08:17	6°♄18'17	
minimum elong	1121 May 07 j 10:16	22°♄49'06	1°29'21		1122 Mar 25 j 09:06	0°♄	
min. Earth dist.	1121 May 08 j 06:47	22°♄20'02	0.54955 AU	evening max el	1122 Mar 27 j 20:42	2°♄40'57	19°47'47
morning rise	1121 May 16 j 13:00	18°♄39'50		retrograde	1122 Apr 06 j 18:43	7°♄27'27	
direct	1121 May 19 j 22:19	18°♄15'04		evening set	1122 Apr 08 j 20:05	7°♄16'02	
morning max el	1121 Jun 01 j 20:57	24°♄26'26	22°40'09	inferior conj	1122 Apr 17 j 14:38	3°♄14'28	0°27'43
	1121 Jun 06 j 22:33	0°♄		minimum elong	1122 Apr 17 j 15:51	3°♄12'35	0°27'17
asc. node	1121 Jun 20 j 10:29	22°♄09'32		desc. node	1122 Apr 19 j 05:19	2°♄14'30	
				min. Earth dist.	1122 Apr 19 j 21:00	1°♄50'32	0.55614 AU

	1122 Apr 23 j 04:14	30° Υ		min. Earth dist.	1123 Apr 01 j 13:10	11° Υ 59'40	0.57099 AU
morning rise	1122 Apr 26 j 08:18	28° Υ 42'46		morning rise	1123 Apr 06 j 11:44	9° Υ 11'24	
direct	1122 Apr 30 j 14:32	28° Υ 02'29		desc. node	1123 Apr 06 j 02:22	9° Υ 21'33	
	1122 May 07 j 20:15	0° ♄		direct	1123 Apr 11 j 20:07	8° Υ 02'45	
morning max el	1122 May 14 j 12:34	4° ♄ 59'29	24°21'46	morning max el	1123 Apr 26 j 03:28	15° Υ 29'23	25°55'42
	1122 Jun 01 j 05:54	0° Π			1123 May 07 j 19:56	0° ♄	
asc. node	1122 Jun 07 j 07:34	11° Π 55'11		morning set	1123 May 24 j 00:58	29° ♄ 26'55	
morning set	1122 Jun 08 j 13:28	14° Π 31'28			1123 May 24 j 07:14	0° Π	
				asc. node	1123 May 25 j 04:37	1° Π 53'31	
superior conj	1122 Jun 15 j 14:36	29° Π 43'35	1°17'38				
minimum elong	1122 Jun 15 j 12:09	29° Π 30'19	1°17'17	superior conj	1123 May 31 j 01:37	14° Π 40'49	0°58'34
	1122 Jun 15 j 17:38	0° ♄		minimum elong	1123 May 30 j 23:25	14° Π 28'45	0°58'10
max. Earth dist.	1122 Jun 17 j 08:25	3° ♄ 29'20	1.33097 AU	max. Earth dist.	1123 May 31 j 18:09	16° Π 11'31	1.32484 AU
evening rise	1122 Jun 22 j 23:13	15° ♄ 15'09		evening rise	1123 Jun 07 j 03:03	29° Π 51'14	
	1122 Jun 30 j 15:51	0° Ω			1123 Jun 07 j 04:44	0° ♄	
desc. node	1122 Jul 16 j 04:40	24° Ω 23'00			1123 Jun 23 j 19:00	0° Ω	
	1122 Jul 20 j 16:04	0° ♄		desc. node	1123 Jul 03 j 01:41	12° Ω 37'57	
evening max el	1122 Jul 26 j 02:11	5° ♄ 47'09	27°25'43	evening max el	1123 Jul 08 j 08:46	18° Ω 18'08	27°07'29
retrograde	1122 Aug 08 j 18:54	13° ♄ 05'41		retrograde	1123 Jul 22 j 06:08	25° Ω 33'20	
evening set	1122 Aug 15 j 23:32	10° ♄ 29'01		evening set	1123 Jul 29 j 07:56	23° Ω 17'18	
min. Earth dist.	1122 Aug 19 j 14:26	7° ♄ 22'12	0.63330 AU	min. Earth dist.	1123 Aug 01 j 23:01	20° Ω 33'42	0.61441 AU
inferior conj	1122 Aug 22 j 06:53	4° ♄ 41'07	-3°-36'-13	inferior conj	1123 Aug 05 j 02:12	17° Ω 47'47	-4°-20'-37
minimum elong	1122 Aug 22 j 11:56	4° ♄ 28'28	3°34'49	minimum elong	1123 Aug 05 j 06:53	17° Ω 37'24	4°19'47
	1122 Aug 27 j 21:15	30° ♄		morning rise	1123 Aug 12 j 08:43	12° Ω 52'23	
morning rise	1122 Aug 29 j 02:42	29° Ω 25'06		direct	1123 Aug 14 j 18:14	12° Ω 28'31	
direct	1122 Aug 31 j 13:40	28° Ω 56'13		asc. node	1123 Aug 21 j 03:49	15° Ω 24'11	
asc. node	1122 Sep 03 j 06:45	29° Ω 32'03		morning max el	1123 Aug 21 j 18:34	15° Ω 58'44	17°58'13
	1122 Sep 04 j 04:43	0° ♄			1123 Aug 31 j 13:34	0° ♄	
morning max el	1122 Sep 07 j 04:20	2° ♄ 21'54	17°52'33	morning set	1123 Sep 06 j 15:01	10° ♄ 55'44	
morning set	1122 Sep 23 j 15:26	27° ♄ 48'04					
	1122 Sep 24 j 21:37	0° ♄		superior conj	1123 Sep 17 j 00:30	29° ♄ 39'32	1°15'23
				minimum elong	1123 Sep 17 j 05:07	29° ♄ 59'41	1°14'52
superior conj	1122 Oct 05 j 16:45	18° ♄ 26'26	0°42'39		1123 Sep 17 j 05:11	0° ♄	
minimum elong	1122 Oct 05 j 20:49	18° ♄ 43'18	0°42'06	max. Earth dist.	1123 Sep 24 j 12:47	12° ♄ 25'34	1.42351 AU
max. Earth dist.	1122 Oct 12 j 00:36	28° ♄ 46'02	1.43882 AU	desc. node	1123 Sep 29 j 01:01	19° ♄ 45'52	
desc. node	1122 Oct 12 j 03:59	28° ♄ 59'36		evening rise	1123 Sep 30 j 22:10	22° ♄ 45'37	
	1122 Oct 12 j 19:04	0° ♄			1123 Oct 05 j 13:31	0° ♄	
evening rise	1122 Oct 21 j 07:55	13° ♄ 23'54			1123 Oct 26 j 11:40	0° ♄	
	1122 Nov 01 j 06:59	0° ♄		greatest brilliancy	1123 Oct 28 j 14:02	2° ♄ 37'48	-0.3m
greatest brilliancy	1122 Nov 13 j 23:45	17° ♄ 57'07	-0.5m	evening max el	1123 Nov 02 j 07:10	7° ♄ 56'55	22°09'26
evening max el	1122 Nov 19 j 11:58	24° ♄ 26'02	20°54'52	retrograde	1123 Nov 11 j 17:22	13° ♄ 33'09	
retrograde	1122 Nov 27 j 21:11	29° ♄ 24'00		evening set	1123 Nov 16 j 03:28	11° ♄ 48'08	
asc. node	1122 Nov 30 j 06:00	28° ♄ 52'31		asc. node	1123 Nov 17 j 03:03	10° ♄ 55'41	
evening set	1122 Dec 01 j 19:41	27° ♄ 55'45		inferior conj	1123 Nov 21 j 12:55	5° ♄ 27'11	1°28'16
inferior conj	1122 Dec 07 j 05:56	21° ♄ 42'18	2°13'36	minimum elong	1123 Nov 21 j 11:03	5° ♄ 33'42	1°27'31
minimum elong	1122 Dec 07 j 03:25	21° ♄ 50'56	2°12'45	min. Earth dist.	1123 Nov 21 j 12:52	5° ♄ 27'22	0.67733 AU
min. Earth dist.	1122 Dec 07 j 17:08	21° ♄ 03'54	0.67415 AU		1123 Nov 25 j 22:02	30° ♄	
morning rise	1122 Dec 12 j 10:43	15° ♄ 26'55		morning rise	1123 Nov 26 j 18:27	29° ♄ 13'24	
direct	1122 Dec 17 j 18:51	13° ♄ 07'31		direct	1123 Dec 01 j 11:23	27° ♄ 16'28	
morning max el	1122 Dec 28 j 15:28	19° ♄ 36'09	23°58'00		1123 Dec 07 j 19:16	0° ♄	
	1123 Jan 06 j 11:34	0° ♄		morning max el	1123 Dec 11 j 02:03	2° ♄ 57'27	22°30'05
desc. node	1123 Jan 08 j 03:11	2° ♄ 10'53		greatest brilliancy	1123 Dec 15 j 16:06	8° ♄ 05'10	-0.3m
	1123 Jan 26 j 20:04	0° ♄		desc. node	1123 Dec 26 j 00:13	21° ♄ 52'35	
morning set	1123 Feb 02 j 05:28	10° ♄ 40'10			1123 Dec 31 j 13:58	0° ♄	
max. Earth dist.	1123 Feb 06 j 01:52	17° ♄ 24'17	1.38372 AU	morning set	1124 Jan 13 j 18:56	20° ♄ 35'50	
	1123 Feb 12 j 22:22	0° ♄		max. Earth dist.	1124 Jan 18 j 22:20	29° ♄ 09'13	1.40519 AU
					1124 Jan 19 j 10:17	0° ♄	
superior conj	1123 Feb 13 j 07:42	0° ♄ 44'13	-1°-46'-2				
minimum elong	1123 Feb 13 j 11:42	1° ♄ 03'12	1°45'41	superior conj	1124 Jan 26 j 17:38	12° ♄ 48'25	-2°00'-23
evening rise	1123 Feb 22 j 07:30	18° ♄ 13'52		minimum elong	1124 Jan 26 j 20:02	12° ♄ 59'18	2°00'18
asc. node	1123 Feb 26 j 05:20	25° ♄ 47'19			1124 Feb 05 j 00:13	0° ♄	
	1123 Feb 28 j 11:57	0° ♄		evening rise	1124 Feb 05 j 19:24	1° ♄ 30'26	
evening max el	1123 Mar 10 j 18:14	14° ♄ 46'57	18°54'25	asc. node	1124 Feb 13 j 02:22	14° ♄ 52'44	
retrograde	1123 Mar 19 j 02:50	18° ♄ 49'56		evening max el	1124 Feb 21 j 23:52	27° ♄ 24'47	18°21'07
evening set	1123 Mar 21 j 08:14	18° ♄ 33'53			1124 Feb 25 j 10:02	0° ♄	
inferior conj	1123 Mar 29 j 08:05	14° ♄ 16'31	2°05'00	retrograde	1124 Feb 29 j 06:13	1° ♄ 00'48	
minimum elong	1123 Mar 29 j 12:07	14° ♄ 09'18	2°03'49	evening set	1124 Mar 02 j 16:56	0° ♄ 37'22	

	1124 Mar 04 j 06:07	30° RH		retrograde	1125 Feb 11 j 02:14	13° $\text{H}49'56$	
inferior conj	1124 Mar 09 j 22:49	25° $\text{H}58'58$	3°08'06	evening set	1125 Feb 13 j 17:41	13° $\text{H}17'42$	
minimum elong	1124 Mar 10 j 02:22	25° $\text{H}51'30$	3°07'24	inferior conj	1125 Feb 20 j 08:57	8° $\text{H}17'51$	3°39'27
min. Earth dist.	1124 Mar 13 j 09:15	23° $\text{H}07'49$	0.59084 AU	minimum elong	1125 Feb 20 j 10:31	8° $\text{H}14'03$	3°39'19
morning rise	1124 Mar 17 j 08:03	20° $\text{H}26'04$		min. Earth dist.	1125 Feb 23 j 12:17	5° $\text{H}16'50$	0.61210 AU
desc. node	1124 Mar 22 j 23:23	18° $\text{H}42'13$		morning rise	1125 Feb 27 j 00:32	2° $\text{H}26'16$	
direct	1124 Mar 23 j 14:44	18° $\text{H}41'08$		direct	1125 Mar 05 j 20:20	0° $\text{H}07'01$	
morning max el	1124 Apr 06 j 22:58	26° $\text{H}24'21$	27°06'42	desc. node	1125 Mar 09 j 20:24	0° $\text{H}50'56$	
	1124 Apr 10 j 08:26	0° Y		morning max el	1125 Mar 20 j 00:55	7° $\text{H}59'24$	27°44'06
	1124 Apr 30 j 05:27	0° B			1125 Apr 05 j 20:12	0° Y	
morning set	1124 May 07 j 10:24	14° $\text{B}14'54$		morning set	1125 Apr 21 j 15:56	28° $\text{Y}49'06$	
asc. node	1124 May 11 j 01:40	21° $\text{B}59'50$			1125 Apr 22 j 05:41	0° B	
				asc. node	1125 Apr 27 j 22:42	12° $\text{B}09'45$	
superior conj	1124 May 14 j 13:22	29° $\text{B}37'48$	0°36'11	max. Earth dist.	1125 Apr 27 j 18:01	11° $\text{B}44'14$	1.32388 AU
minimum elong	1124 May 14 j 11:51	29° $\text{B}29'23$	0°35'52				
max. Earth dist.	1124 May 14 j 06:41	29° $\text{B}00'57$	1.32250 AU	superior conj	1125 Apr 29 j 00:14	14° $\text{B}29'00$	0°11'14
	1124 May 14 j 17:25	0° II		minimum elong	1125 Apr 28 j 23:43	14° $\text{B}26'11$	0°11'08
evening rise	1124 May 21 j 11:35	14° $\text{II}39'25$		behind sun begin	1125 Apr 28 j 20:04	14° $\text{B}06'17$	
	1124 May 29 j 05:15	0° S		behind sun end	1125 Apr 29 j 03:21	14° $\text{B}46'05$	
desc. node	1124 Jun 18 j 22:42	29° $\text{S}39'16$		evening rise	1125 May 05 j 22:43	29° $\text{B}32'32$	
	1124 Jun 19 j 07:18	0° Q			1125 May 06 j 03:54	0° II	
evening max el	1124 Jun 19 j 08:50	0° $\text{Q}03'39$	26°16'17		1125 May 22 j 20:37	0° S	
retrograde	1124 Jul 03 j 08:48	7° $\text{Q}15'36$		evening max el	1125 Jun 01 j 01:54	11° $\text{S}04'26$	24°57'40
evening set	1124 Jul 09 j 20:05	5° $\text{Q}32'25$		desc. node	1125 Jun 05 j 19:41	14° $\text{S}57'44$	
min. Earth dist.	1124 Jul 13 j 21:40	2° $\text{Q}56'24$	0.59385 AU	retrograde	1125 Jun 15 j 01:28	18° $\text{S}10'40$	
inferior conj	1124 Jul 17 j 05:26	0° $\text{Q}23'25$	-4°-48'-30	evening set	1125 Jun 20 j 08:51	17° $\text{S}06'14$	
minimum elong	1124 Jul 17 j 07:40	0° $\text{Q}19'06$	4°48'22	min. Earth dist.	1125 Jun 25 j 13:21	14° $\text{S}19'07$	0.57401 AU
	1124 Jul 17 j 17:36	30° RS		inferior conj	1125 Jun 28 j 13:25	12° $\text{S}19'08$	-4°-48'-3
morning rise	1124 Jul 24 j 22:40	25° $\text{S}51'09$		minimum elong	1125 Jun 28 j 11:00	12° $\text{S}23'12$	4°47'54
direct	1124 Jul 27 j 09:21	25° $\text{S}30'17$		morning rise	1125 Jul 06 j 16:58	8° $\text{S}09'16$	
morning max el	1124 Aug 04 j 03:54	29° $\text{S}14'35$	18°23'42	direct	1125 Jul 09 j 06:40	7° $\text{S}50'10$	
	1124 Aug 04 j 22:07	0° Q		morning max el	1125 Jul 18 j 05:23	12° $\text{S}00'58$	19°10'02
asc. node	1124 Aug 07 j 00:53	2° $\text{Q}26'23$		asc. node	1125 Jul 24 j 21:55	20° $\text{S}24'08$	
morning set	1124 Aug 20 j 04:02	24° $\text{Q}42'10$			1125 Jul 30 j 11:36	0° Q	
	1124 Aug 22 j 22:25	0° np		morning set	1125 Aug 04 j 02:30	8° $\text{Q}57'01$	
superior conj	1124 Aug 29 j 08:04	12° $\text{np}03'13$	1°35'42	superior conj	1125 Aug 12 j 09:50	25° $\text{Q}21'53$	1°45'07
minimum elong	1124 Aug 29 j 11:09	12° $\text{np}17'24$	1°35'28	minimum elong	1125 Aug 12 j 10:54	25° $\text{Q}27'03$	1°45'04
max. Earth dist.	1124 Sep 05 j 19:44	25° $\text{np}24'11$	1.40436 AU		1125 Aug 14 j 19:55	0° np	
	1124 Sep 08 j 12:32	0° A		max. Earth dist.	1125 Aug 18 j 23:09	7° $\text{np}40'10$	1.38392 AU
evening rise	1124 Sep 10 j 08:32	3° $\text{A}03'28$		evening rise	1125 Aug 22 j 19:25	14° $\text{np}30'33$	
desc. node	1124 Sep 14 j 22:02	10° $\text{A}27'33$			1125 Sep 01 j 03:34	0° A	
	1124 Sep 27 j 21:00	0° M		desc. node	1125 Sep 01 j 19:03	1° $\text{A}00'55$	
evening max el	1124 Oct 14 j 21:45	21° $\text{M}29'35$	23°29'07		1125 Sep 22 j 16:36	0° M	
retrograde	1124 Oct 25 j 10:38	27° $\text{M}43'17$		evening max el	1125 Sep 27 j 09:51	5° $\text{M}05'56$	24°47'37
evening set	1124 Oct 30 j 10:03	25° $\text{M}40'34$		retrograde	1125 Oct 09 j 00:07	11° $\text{M}51'03$	
asc. node	1124 Nov 03 j 00:05	21° $\text{M}44'23$		evening set	1125 Oct 14 j 13:51	9° $\text{M}31'18$	
inferior conj	1124 Nov 04 j 20:08	19° $\text{M}15'52$	0°37'43	min. Earth dist.	1125 Oct 19 j 04:39	4° $\text{M}17'12$	0.67370 AU
minimum elong	1124 Nov 04 j 19:15	19° $\text{M}18'54$	0°37'20	inferior conj	1125 Oct 20 j 01:51	3° $\text{M}06'59$	0°-16'-37
min. Earth dist.	1124 Nov 04 j 09:28	19° $\text{M}52'19$	0.67716 AU	minimum elong	1125 Oct 20 j 02:16	3° $\text{M}05'37$	0°16'27
morning rise	1124 Nov 10 j 04:33	13° $\text{M}05'55$		asc. node	1125 Oct 20 j 21:06	2° $\text{M}03'34$	
direct	1124 Nov 14 j 07:05	11° $\text{M}31'44$			1125 Oct 22 j 12:44	30° RA	
morning max el	1124 Nov 22 j 18:24	16° $\text{M}27'41$	21°07'57	morning rise	1125 Oct 25 j 15:09	27° $\text{A}03'17$	
greatest brilliancy	1124 Nov 28 j 03:47	22° $\text{M}40'54$	-0.5m	direct	1125 Oct 29 j 04:56	25° $\text{A}49'44$	
	1124 Dec 03 j 14:54	0° A			1125 Nov 05 j 14:49	0° M	
desc. node	1124 Dec 11 j 21:14	11° $\text{A}57'39$		morning max el	1125 Nov 05 j 18:25	0° $\text{M}09'02$	19°57'10
morning set	1124 Dec 23 j 04:25	29° $\text{A}13'34$		greatest brilliancy	1125 Nov 13 j 02:45	9° $\text{M}08'56$	-0.6m
	1124 Dec 23 j 16:15	0° B			1125 Nov 27 j 05:43	0° A	
max. Earth dist.	1124 Dec 31 j 01:12	11° $\text{B}48'55$	1.42485 AU	desc. node	1125 Nov 28 j 18:17	2° $\text{A}19'57$	
				morning set	1125 Dec 02 j 00:34	7° $\text{A}21'13$	
superior conj	1125 Jan 07 j 05:10	23° $\text{B}47'08$	-2°-2'-56	max. Earth dist.	1125 Dec 13 j 11:19	25° $\text{A}17'57$	1.44009 AU
minimum elong	1125 Jan 07 j 03:38	23° $\text{B}40'34$	2°02'55		1125 Dec 16 j 09:41	0° B	
	1125 Jan 10 j 19:33	0° A					
evening rise	1125 Jan 18 j 17:27	14° $\text{A}04'27$		superior conj	1125 Dec 18 j 14:23	3° $\text{B}33'22$	-1°-48'-54
	1125 Jan 27 j 19:13	0° H		minimum elong	1125 Dec 18 j 07:40	3° $\text{B}06'05$	1°48'28
asc. node	1125 Jan 29 j 23:24	3° $\text{H}26'13$		evening rise	1125 Dec 31 j 21:24	25° $\text{B}48'05$	
evening max el	1125 Feb 04 j 10:23	10° $\text{H}24'58$	18°07'45		1126 Jan 03 j 08:11	0° A	

asc. node	1126 Jan 16 j 20:24	21° \approx 18'17		evening max el	1127 Jan 02 j 10:40	7° \approx 04'18	18°38'02
evening max el	1126 Jan 18 j 22:52	23° \approx 40'05	18°13'41	asc. node	1127 Jan 03 j 17:25	8° \approx 17'06	
retrograde	1126 Jan 25 j 10:11	27° \approx 07'28		retrograde	1127 Jan 09 j 01:55	10° \approx 45'28	
evening set	1126 Jan 28 j 06:22	26° \approx 25'24		evening set	1127 Jan 12 j 03:32	9° \approx 52'24	
inferior conj	1126 Feb 03 j 10:34	21° \approx 05'22	3°46'14	inferior conj	1127 Jan 17 j 23:46	4° \approx 14'00	3°35'08
minimum elong	1126 Feb 03 j 10:09	21° \approx 06'31	3°46'14	minimum elong	1127 Jan 17 j 21:56	4° \approx 19'31	3°34'54
min. Earth dist.	1126 Feb 06 j 00:28	18° \approx 17'12	0.63201 AU	min. Earth dist.	1127 Jan 19 j 22:12	1° \approx 54'59	0.64883 AU
morning rise	1126 Feb 09 j 12:01	15° \approx 02'34			1127 Jan 21 j 15:07	30° \approx 00'00	
direct	1126 Feb 16 j 10:57	12° \approx 19'55		morning rise	1127 Jan 23 j 15:06	28° \approx 04'39	
desc. node	1126 Feb 24 j 17:26	15° \approx 26'59		direct	1127 Jan 30 j 08:55	25° \approx 13'33	
morning max el	1126 Mar 02 j 07:57	20° \approx 14'30	27°44'11		1127 Feb 09 j 11:24	0° \approx 00'00	
	1126 Mar 10 j 17:30	0° \approx 00'00		desc. node	1127 Feb 11 j 14:30	1° \approx 54'44	
	1126 Mar 29 j 19:52	0° \approx 00'00		morning max el	1127 Feb 12 j 17:22	3° \approx 00'27	27°09'51
morning set	1126 Apr 05 j 15:15	13° \approx 01'38			1127 Mar 05 j 01:02	0° \approx 00'00	
max. Earth dist.	1126 Apr 11 j 00:07	24° \approx 07'13	1.32925 AU	morning set	1127 Mar 20 j 05:28	26° \approx 43'08	
					1127 Mar 21 j 21:42	0° \approx 00'00	
superior conj	1126 Apr 13 j 08:25	29° \approx 08'15	0°-15'-28	max. Earth dist.	1127 Mar 24 j 21:10	5° \approx 59'05	1.33901 AU
minimum elong	1126 Apr 13 j 09:10	29° \approx 12'18	0°15'19				
behind sun begin	1126 Apr 13 j 07:45	29° \approx 04'40		superior conj	1127 Mar 28 j 12:01	13° \approx 29'26	0°-42'-56
behind sun end	1126 Apr 13 j 10:35	29° \approx 19'56		minimum elong	1127 Mar 28 j 14:09	13° \approx 40'36	0°42'32
	1126 Apr 13 j 18:01	0° \approx 00'00		asc. node	1127 Apr 01 j 16:46	22° \approx 23'08	
asc. node	1126 Apr 14 j 19:44	2° \approx 18'51		evening rise	1127 Apr 04 j 21:14	29° \approx 06'51	
evening rise	1126 Apr 20 j 10:32	14° \approx 23'42			1127 Apr 05 j 07:25	0° \approx 00'00	
	1126 Apr 28 j 07:22	0° \approx 00'00			1127 Apr 23 j 06:10	0° \approx 00'00	
evening max el	1126 May 13 j 15:54	21° \approx 38'13	23°23'49	evening max el	1127 Apr 25 j 10:05	2° \approx 15'42	21°49'43
desc. node	1126 May 23 j 16:42	27° \approx 56'54		retrograde	1127 May 07 j 22:36	8° \approx 23'55	
retrograde	1126 May 27 j 06:00	28° \approx 25'39		evening set	1127 May 10 j 13:28	8° \approx 08'35	
evening set	1126 May 31 j 01:43	27° \approx 53'35		desc. node	1127 May 10 j 13:42	8° \approx 08'29	
min. Earth dist.	1126 Jun 07 j 02:01	24° \approx 40'30	0.55833 AU	inferior conj	1127 May 19 j 22:42	4° \approx 05'33	-2°-37'-4
inferior conj	1126 Jun 09 j 01:26	23° \approx 30'16	-4°-5'-46	minimum elong	1127 May 19 j 15:52	4° \approx 15'07	2°34'54
minimum elong	1126 Jun 08 j 18:31	23° \approx 40'34	4°04'22	min. Earth dist.	1127 May 19 j 14:20	4° \approx 17'16	0.55015 AU
morning rise	1126 Jun 17 j 14:38	19° \approx 35'19		morning rise	1127 May 28 j 19:25	0° \approx 10'44	
direct	1126 Jun 20 j 08:38	19° \approx 16'47			1127 May 29 j 17:59	30° \approx 00'00	
morning max el	1126 Jun 30 j 20:25	24° \approx 08'06	20°17'26	direct	1127 May 31 j 21:19	29° \approx 49'46	
	1126 Jul 05 j 23:39	0° \approx 00'00			1127 Jun 02 j 23:49	0° \approx 00'00	
asc. node	1126 Jul 11 j 18:58	9° \approx 04'00		morning max el	1127 Jun 13 j 00:05	5° \approx 31'31	21°43'54
morning set	1126 Jul 19 j 07:25	23° \approx 31'25		asc. node	1127 Jun 28 j 16:02	28° \approx 15'55	
	1126 Jul 22 j 11:09	0° \approx 00'00			1127 Jun 29 j 13:37	0° \approx 00'00	
				morning set	1127 Jul 03 j 16:29	8° \approx 19'21	
superior conj	1126 Jul 27 j 00:38	9° \approx 19'45	1°45'38				
minimum elong	1126 Jul 26 j 23:59	9° \approx 16'29	1°45'37	superior conj	1127 Jul 11 j 00:33	23° \approx 45'24	1°39'03
max. Earth dist.	1126 Aug 01 j 04:34	19° \approx 31'10	1.36475 AU	minimum elong	1127 Jul 10 j 22:44	23° \approx 35'58	1°38'55
evening rise	1126 Aug 05 j 04:17	27° \approx 00'33			1127 Jul 14 j 01:02	0° \approx 00'00	
	1126 Aug 06 j 19:49	0° \approx 00'00		max. Earth dist.	1127 Jul 14 j 17:46	1° \approx 25'03	1.34866 AU
desc. node	1126 Aug 19 j 16:05	21° \approx 20'09		evening rise	1127 Jul 19 j 06:27	10° \approx 21'20	
	1126 Aug 25 j 13:18	0° \approx 00'00			1127 Jul 30 j 07:07	0° \approx 00'00	
evening max el	1126 Sep 09 j 21:36	18° \approx 44'23	25°57'41	desc. node	1127 Aug 06 j 13:05	11° \approx 18'41	
retrograde	1126 Sep 22 j 08:55	25° \approx 50'27			1127 Aug 21 j 02:42	0° \approx 00'00	
evening set	1126 Sep 28 j 13:00	23° \approx 16'35		evening max el	1127 Aug 23 j 09:49	2° \approx 19'08	26°51'27
min. Earth dist.	1126 Oct 02 j 20:01	18° \approx 38'29	0.66689 AU	retrograde	1127 Sep 05 j 12:20	9° \approx 35'10	
inferior conj	1126 Oct 04 j 04:16	16° \approx 57'07	-1°-13'-22	evening set	1127 Sep 12 j 05:22	6° \approx 52'46	
minimum elong	1126 Oct 04 j 06:10	16° \approx 51'09	1°12'35	min. Earth dist.	1127 Sep 16 j 05:07	2° \approx 51'54	0.65664 AU
asc. node	1126 Oct 07 j 18:09	12° \approx 49'41		inferior conj	1127 Sep 18 j 01:23	0° \approx 42'41	-2°-10'-47
morning rise	1126 Oct 10 j 00:14	11° \approx 02'30		minimum elong	1127 Sep 18 j 04:47	0° \approx 32'42	2°09'29
direct	1126 Oct 13 j 03:24	10° \approx 06'07			1127 Sep 18 j 16:03	30° \approx 00'00	
morning max el	1126 Oct 20 j 01:44	13° \approx 58'46	19°00'57	morning rise	1127 Sep 24 j 05:37	25° \approx 00'20	
	1126 Oct 31 j 22:45	0° \approx 00'00		asc. node	1127 Sep 24 j 15:13	24° \approx 48'57	
morning set	1126 Nov 11 j 08:28	16° \approx 11'02		direct	1127 Sep 27 j 00:34	24° \approx 17'19	
desc. node	1126 Nov 15 j 15:21	22° \approx 54'09		morning max el	1127 Oct 03 j 14:28	27° \approx 52'37	18°20'52
	1126 Nov 20 j 04:03	0° \approx 00'00			1127 Oct 05 j 12:36	0° \approx 00'00	
max. Earth dist.	1126 Nov 26 j 03:10	9° \approx 21'48	1.44903 AU	morning set	1127 Oct 22 j 19:42	26° \approx 24'09	
					1127 Oct 25 j 00:56	0° \approx 00'00	
superior conj	1126 Nov 28 j 00:02	12° \approx 18'39	-1°-16'-10	desc. node	1127 Nov 02 j 12:24	13° \approx 35'57	
minimum elong	1126 Nov 27 j 15:35	11° \approx 45'18	1°15'15				
	1126 Dec 09 j 02:01	0° \approx 00'00		superior conj	1127 Nov 07 j 01:05	20° \approx 45'52	0°-29'-46
evening rise	1126 Dec 13 j 03:18	6° \approx 34'59		minimum elong	1127 Nov 06 j 21:12	20° \approx 30'33	0°29'16
	1126 Dec 27 j 20:13	0° \approx 00'00		max. Earth dist.	1127 Nov 08 j 22:05	23° \approx 42'58	1.45074 AU

	1127 Nov 12 j 22:10	0°♊			1128 Nov 04 j 19:17	0°♊	
evening rise	1127 Nov 23 j 09:44	16°♊25'03		greatest brilliancy	1128 Nov 22 j 12:23	26°♊09'26	-0.6m
	1127 Dec 02 j 02:07	0°♋			1128 Nov 25 j 11:07	0°♋	
greatest brilliancy	1127 Dec 07 j 13:22	8°♋21'19	-0.7m	evening max el	1128 Nov 28 j 23:26	4°♋01'43	20°16'19
evening max el	1127 Dec 16 j 19:27	20°♋32'19	19°19'33	retrograde	1128 Dec 06 j 19:49	8°♋38'38	
asc. node	1127 Dec 21 j 14:28	24°♋07'52		asc. node	1128 Dec 07 j 11:32	8°♋36'13	
retrograde	1127 Dec 23 j 22:00	24°♋37'15		evening set	1128 Dec 10 j 12:39	7°♋19'01	
evening set	1127 Dec 27 j 06:23	23°♋31'42		inferior conj	1128 Dec 16 j 00:01	1°♋11'20	2°36'51
inferior conj	1128 Jan 01 j 21:09	17°♋37'12	3°10'55	minimum elong	1128 Dec 15 j 21:20	1°♋20'23	2°36'02
minimum elong	1128 Jan 01 j 18:35	17°♋45'27	3°10'21		1128 Dec 16 j 21:10	30°♌♊	
min. Earth dist.	1128 Jan 03 j 04:38	15°♋55'55	0.66177 AU	min. Earth dist.	1128 Dec 16 j 18:05	0°♋10'21	0.67070 AU
morning rise	1128 Jan 07 j 06:00	11°♋24'02		morning rise	1128 Dec 21 j 05:30	24°♊56'14	
direct	1128 Jan 13 j 12:54	8°♋38'12		direct	1128 Dec 26 j 22:16	22°♊25'39	
morning max el	1128 Jan 26 j 02:48	16°♋04'45	26°08'06	morning max el	1129 Jan 07 j 11:27	29°♊18'40	24°48'15
desc. node	1128 Jan 29 j 11:34	19°♋42'01			1129 Jan 08 j 03:36	0°♋	
	1128 Feb 06 j 15:41	0°♌		desc. node	1129 Jan 15 j 08:38	8°♋25'59	
	1128 Feb 25 j 21:41	0°♍			1129 Jan 30 j 11:45	0°♌	
morning set	1128 Mar 02 j 06:32	9°♍40'44		morning set	1129 Feb 12 j 13:15	21°♌40'06	
max. Earth dist.	1128 Mar 06 j 06:45	17°♍18'01	1.35336 AU	max. Earth dist.	1129 Feb 16 j 06:10	28°♌21'08	1.37184 AU
					1129 Feb 17 j 03:35	0°♍	
superior conj	1128 Mar 11 j 08:32	27°♍24'14	-1°-9'-50				
minimum elong	1128 Mar 11 j 11:55	27°♍41'25	1°09'17	superior conj	1129 Feb 22 j 18:56	10°♍44'30	-1°-34'-12
	1128 Mar 12 j 15:02	0°♎		minimum elong	1129 Feb 22 j 23:01	11°♍04'27	1°33'42
asc. node	1128 Mar 18 j 13:48	12°♎17'38		evening rise	1129 Mar 03 j 07:02	27°♍41'02	
evening rise	1128 Mar 19 j 04:49	13°♎34'45			1129 Mar 04 j 10:58	0°♎	
	1128 Mar 27 j 18:24	0°♏		asc. node	1129 Mar 05 j 10:50	1°♎57'46	
evening max el	1128 Apr 06 j 14:03	13°♏21'04	20°27'10	evening max el	1129 Mar 20 j 05:30	25°♎05'10	19°22'28
retrograde	1128 Apr 17 j 11:41	18°♏37'19		retrograde	1129 Mar 29 j 10:32	29°♎31'43	
evening set	1128 Apr 19 j 14:10	18°♏26'22		evening set	1129 Mar 31 j 13:08	29°♎18'46	
desc. node	1128 Apr 26 j 10:44	15°♏46'32		inferior conj	1129 Apr 08 j 23:55	25°♎11'02	1°12'51
inferior conj	1128 Apr 28 j 17:26	14°♏28'41	0°-39'-36	minimum elong	1129 Apr 09 j 02:47	25°♎06'19	1°11'53
minimum elong	1128 Apr 28 j 15:34	14°♏31'24	0°38'56	min. Earth dist.	1129 Apr 11 j 17:54	23°♎23'15	0.56168 AU
min. Earth dist.	1128 Apr 30 j 03:17	13°♏39'31	0.55132 AU	desc. node	1129 Apr 13 j 07:47	22°♎25'21	
morning rise	1128 May 07 j 15:11	10°♏15'17		morning rise	1129 Apr 17 j 12:34	20°♎25'03	
direct	1128 May 11 j 08:36	9°♏45'18		direct	1129 Apr 22 j 05:37	19°♎34'29	
morning max el	1128 May 24 j 18:34	16°♏16'59	23°23'18	morning max el	1129 May 06 j 09:12	26°♎45'27	25°03'40
	1128 Jun 04 j 16:04	0°♐			1129 May 09 j 12:01	0°♏	
asc. node	1128 Jun 14 j 13:06	17°♐51'11			1129 May 28 j 15:33	0°♐	
morning set	1128 Jun 17 j 03:51	23°♐15'01		asc. node	1129 Jun 01 j 10:09	7°♐42'59	
	1128 Jun 20 j 07:56	0°♑		morning set	1129 Jun 01 j 15:46	8°♐12'36	
superior conj	1128 Jun 24 j 06:34	8°♑29'31	1°26'48	superior conj	1129 Jun 08 j 16:20	23°♐24'15	1°09'58
minimum elong	1128 Jun 24 j 04:12	8°♑16'49	1°26'31	minimum elong	1129 Jun 08 j 13:56	23°♐11'10	1°09'36
max. Earth dist.	1128 Jun 26 j 16:34	13°♑38'21	1.33631 AU	max. Earth dist.	1129 Jun 09 j 23:12	26°♐12'13	1.32790 AU
evening rise	1128 Jul 01 j 21:24	24°♑20'01			1129 Jun 11 j 17:24	0°♑	
	1128 Jul 04 j 19:00	0°♒		evening rise	1129 Jun 15 j 21:23	8°♑45'19	
	1128 Jul 22 j 20:25	0°♓			1129 Jun 27 j 04:28	0°♒	
desc. node	1128 Jul 23 j 10:05	0°♓47'54		desc. node	1129 Jul 10 j 07:06	19°♒35'02	
evening max el	1128 Aug 04 j 21:33	15°♓39'23	27°21'33	evening max el	1129 Jul 18 j 06:30	28°♒31'18	27°21'59
retrograde	1128 Aug 18 j 09:55	22°♓57'48			1129 Jul 19 j 21:30	0°♓	
evening set	1128 Aug 25 j 12:15	20°♓15'37		retrograde	1129 Aug 01 j 01:12	5°♓48'36	
min. Earth dist.	1128 Aug 29 j 05:40	16°♓50'47	0.64281 AU	evening set	1129 Aug 08 j 06:05	3°♓18'42	
inferior conj	1128 Aug 31 j 14:49	14°♓18'55	-3°-6'-24	min. Earth dist.	1129 Aug 11 j 20:04	0°♓23'43	0.62557 AU
minimum elong	1128 Aug 31 j 19:29	14°♓06'31	3°04'54		1129 Aug 12 j 06:19	30°♓♒	
morning rise	1128 Sep 07 j 04:40	8°♓52'24		inferior conj	1129 Aug 14 j 17:40	27°♓38'33	-3°-56'-31
direct	1128 Sep 09 j 17:54	8°♓19'12		minimum elong	1129 Aug 14 j 22:46	27°♓26'26	3°55'18
asc. node	1128 Sep 10 j 12:18	8°♓22'14		morning rise	1129 Aug 21 j 18:02	22°♓31'15	
morning max el	1128 Sep 16 j 06:10	11°♓45'46	17°57'50	direct	1129 Aug 24 j 04:06	22°♓04'48	
	1128 Sep 28 j 18:05	0°♔		asc. node	1129 Aug 28 j 09:23	23°♓27'16	
morning set	1128 Oct 03 j 10:54	7°♔59'06		morning max el	1129 Aug 30 j 21:50	25°♓31'03	17°52'42
					1129 Sep 03 j 15:58	0°♓	
superior conj	1128 Oct 16 j 15:18	29°♔55'59	0°18'24	morning set	1129 Sep 16 j 00:21	20°♓37'28	
minimum elong	1128 Oct 16 j 17:23	0°♕04'26	0°18'06		1129 Sep 21 j 07:05	0°♔	
	1128 Oct 16 j 16:18	0°♕					
desc. node	1128 Oct 19 j 09:26	4°♕22'14		superior conj	1129 Sep 27 j 07:25	10°♔23'12	0°58'05
max. Earth dist.	1128 Oct 21 j 16:49	8°♕02'59	1.44508 AU	minimum elong	1129 Sep 27 j 12:06	10°♔43'01	0°57'30
evening rise	1128 Nov 01 j 22:05	25°♕34'21		max. Earth dist.	1129 Oct 04 j 07:43	22°♔00'45	1.43284 AU

desc. node	1129 Oct 06 j 06:27	25°♄09'17		1130 Sep 13 j 13:25	0°♄	
	1129 Oct 09 j 07:31	0°♄	max. Earth dist.	1130 Sep 16 j 16:59	5°♄21'31	1.41566 AU
evening rise	1129 Oct 12 j 06:23	4°♄37'39	evening rise	1130 Sep 22 j 04:01	14°♄20'06	
	1129 Oct 29 j 05:33	0°♄	desc. node	1130 Sep 23 j 03:27	15°♄54'07	
greatest brilliancy	1129 Nov 06 j 20:52	11°♄42'53 -0.4m		1130 Oct 02 j 05:58	0°♄	
evening max el	1129 Nov 11 j 21:37	17°♄30'52 21°25'34	greatest brilliancy	1130 Oct 20 j 15:48	25°♄29'14 -0.3m	
retrograde	1129 Nov 20 j 17:09	22°♄45'26		1130 Oct 24 j 14:39	0°♄	
asc. node	1129 Nov 24 j 08:36	21°♄31'36	evening max el	1130 Oct 25 j 14:31	1°♄01'45 22°43'05	
evening set	1129 Nov 24 j 20:21	21°♄10'06	retrograde	1130 Nov 04 j 12:19	6°♄54'58	
inferior conj	1129 Nov 30 j 06:03	14°♄52'43 1°55'06	evening set	1130 Nov 09 j 03:47	5°♄02'38	
minimum elong	1129 Nov 30 j 03:45	15°♄00'40 1°54'16	asc. node	1130 Nov 11 j 05:39	2°♄59'06	
min. Earth dist.	1129 Nov 30 j 12:16	14°♄31'13 0.67587 AU		1130 Nov 13 j 13:56	30°♄♄	
morning rise	1129 Dec 05 j 10:51	8°♄37'41	inferior conj	1130 Nov 14 j 13:20	28°♄39'26 1°07'21	
direct	1129 Dec 10 j 12:20	6°♄27'50	minimum elong	1130 Nov 14 j 11:50	28°♄44'37 1°06'45	
morning max el	1129 Dec 20 j 20:29	12°♄36'57 23°20'25	min. Earth dist.	1130 Nov 14 j 08:46	28°♄55'13 0.67761 AU	
greatest brilliancy	1129 Dec 26 j 04:40	18°♄37'32 -0.2m	morning rise	1130 Nov 19 j 19:48	22°♄26'43	
desc. node	1130 Jan 02 j 05:40	27°♄49'48	direct	1130 Nov 24 j 06:24	20°♄39'33	
	1130 Jan 03 j 19:07	0°♄	morning max el	1130 Dec 03 j 09:03	26°♄01'13 21°53'58	
	1130 Jan 23 j 08:41	0°♄		1130 Dec 06 j 23:34	0°♄	
morning set	1130 Jan 24 j 19:20	2°♄24'42	greatest brilliancy	1130 Dec 08 j 03:34	1°♄24'31 -0.4m	
max. Earth dist.	1130 Jan 29 j 01:02	9°♄39'44 1.39283 AU	desc. node	1130 Dec 20 j 02:42	17°♄42'14	
				1130 Dec 28 j 08:16	0°♄	
superior conj	1130 Feb 05 j 15:09	23°♄19'42 -1°-53'-16	morning set	1131 Jan 04 j 20:11	11°♄44'20	
minimum elong	1130 Feb 05 j 18:45	23°♄36'23 1°53'01	max. Earth dist.	1131 Jan 10 j 23:07	21°♄44'28 1.41385 AU	
	1130 Feb 09 j 04:12	0°♄		1131 Jan 15 j 19:58	0°♄	
evening rise	1130 Feb 15 j 01:06	11°♄18'05				
asc. node	1130 Feb 20 j 07:53	21°♄18'03	superior conj	1131 Jan 18 j 16:11	4°♄57'20 -2°-3'-12	
	1130 Feb 25 j 10:36	0°♄	minimum elong	1131 Jan 18 j 17:12	5°♄01'52 2°03'13	
evening max el	1130 Mar 03 j 06:50	7°♄26'06 18°37'47	evening rise	1131 Jan 29 j 07:34	24°♄17'15	
retrograde	1130 Mar 11 j 03:04	11°♄15'55		1131 Feb 01 j 09:55	0°♄	
evening set	1130 Mar 13 j 10:33	10°♄57'08	asc. node	1131 Feb 07 j 04:55	10°♄11'06	
inferior conj	1130 Mar 21 j 02:28	6°♄31'12 2°36'00	evening max el	1131 Feb 14 j 14:59	20°♄14'56 18°13'09	
minimum elong	1130 Mar 21 j 06:36	6°♄23'16 2°34'56	retrograde	1131 Feb 21 j 13:49	23°♄44'15	
min. Earth dist.	1130 Mar 24 j 11:44	3°♄56'47 0.57897 AU	evening set	1131 Feb 24 j 02:36	23°♄17'16	
morning rise	1130 Mar 28 j 22:25	1°♄12'46	inferior conj	1131 Mar 03 j 01:51	18°♄30'05 3°24'51	
desc. node	1130 Mar 31 j 04:49	0°♄20'15	minimum elong	1131 Mar 03 j 04:38	18°♄23'51 3°24'26	
	1130 Apr 01 j 15:15	30°♄♄	min. Earth dist.	1131 Mar 06 j 10:37	15°♄31'23 0.59984 AU	
direct	1130 Apr 03 j 16:58	29°♄49'08	morning rise	1131 Mar 10 j 03:15	12°♄48'12	
	1130 Apr 05 j 19:06	0°♄	direct	1131 Mar 16 j 16:57	10°♄47'25	
morning max el	1130 Apr 18 j 01:52	7°♄24'55 26°29'28	desc. node	1131 Mar 18 j 01:51	10°♄52'31	
	1130 May 04 j 22:15	0°♄	morning max el	1131 Mar 30 j 23:57	18°♄35'55 27°27'02	
morning set	1130 May 17 j 02:38	23°♄06'38		1131 Apr 09 j 14:16	0°♄	
asc. node	1130 May 19 j 07:10	27°♄45'58		1131 Apr 27 j 13:35	0°♄	
	1130 May 20 j 07:59	0°♄	morning set	1131 May 01 j 10:39	7°♄49'54	
			asc. node	1131 May 06 j 04:11	17°♄54'36	
superior conj	1130 May 24 j 03:54	8°♄23'11 0°49'26	max. Earth dist.	1131 May 07 j 22:50	21°♄47'32 1.32261 AU	
minimum elong	1130 May 24 j 01:57	8°♄12'23 0°49'04				
max. Earth dist.	1130 May 24 j 10:29	8°♄59'22 1.32335 AU	superior conj	1131 May 08 j 15:30	23°♄19'01 0°25'54	
evening rise	1130 May 31 j 03:31	23°♄28'16	minimum elong	1131 May 08 j 14:22	23°♄12'46 0°25'39	
	1130 Jun 03 j 08:08	0°♄		1131 May 11 j 16:36	0°♄	
	1130 Jun 21 j 04:26	0°♄	evening rise	1131 May 15 j 13:24	8°♄19'50	
desc. node	1130 Jun 27 j 04:06	7°♄22'31		1131 May 26 j 19:58	0°♄	
evening max el	1130 Jun 30 j 10:21	10°♄43'45 26°49'30	evening max el	1131 Jun 12 j 07:24	22°♄10'07 25°45'38	
retrograde	1130 Jul 14 j 09:20	17°♄58'32	desc. node	1131 Jun 14 j 01:07	23°♄44'41	
evening set	1130 Jul 21 j 06:31	15°♄54'57	retrograde	1131 Jun 26 j 08:14	29°♄20'23	
min. Earth dist.	1130 Jul 25 j 00:15	13°♄16'51 0.60574 AU	evening set	1131 Jul 02 j 08:51	27°♄53'56	
inferior conj	1130 Jul 28 j 06:35	10°♄33'39 -4°-35'-7	min. Earth dist.	1131 Jul 06 j 19:48	25°♄14'59 0.58516 AU	
minimum elong	1130 Jul 28 j 10:32	10°♄25'24 4°34'35	inferior conj	1131 Jul 10 j 01:57	22°♄53'46 -4°-52'-38	
morning rise	1130 Aug 04 j 17:45	5°♄48'13	minimum elong	1131 Jul 10 j 02:26	22°♄52'55 4°52'38	
direct	1130 Aug 07 j 03:20	5°♄25'59	morning rise	1131 Jul 17 j 23:37	18°♄31'06	
morning max el	1130 Aug 14 j 10:28	9°♄00'58 18°06'33	direct	1131 Jul 20 j 11:16	18°♄11'11	
asc. node	1130 Aug 15 j 06:25	9°♄51'37	morning max el	1131 Jul 28 j 16:47	22°♄05'35 18°40'42	
	1130 Aug 28 j 01:58	0°♄	asc. node	1131 Aug 02 j 03:26	27°♄19'13	
morning set	1130 Aug 30 j 06:12	4°♄03'13		1131 Aug 03 j 23:15	0°♄	
			morning set	1131 Aug 13 j 23:40	18°♄03'01	
superior conj	1130 Sep 09 j 02:00	22°♄08'33 1°25'26		1131 Aug 20 j 03:24	0°♄	
minimum elong	1130 Sep 09 j 06:06	22°♄26'53 1°25'03				

superior conj	1131 Aug 22 j 17:58	4°♎57'27	1°40'54	morning max el	1132 Jul 10 j 13:56	4°♎35'39	19°36'04
minimum elong	1131 Aug 22 j 20:11	5°♎07'55	1°40'46	asc. node	1132 Jul 19 j 00:28	15°♎36'12	
max. Earth dist.	1131 Aug 29 j 21:46	18°♎00'20	1.39572 AU		1132 Jul 26 j 19:43	0°♎	
evening rise	1131 Sep 03 j 00:52	25°♎07'48		morning set	1132 Jul 28 j 01:12	2°♎27'13	
	1131 Sep 05 j 22:59	0°♎					
desc. node	1131 Sep 10 j 00:28	6°♎32'59		superior conj	1132 Aug 05 j 01:48	18°♎34'09	1°46'18
	1131 Sep 25 j 23:46	0°♎		minimum elong	1132 Aug 05 j 02:04	18°♎35'31	1°46'17
evening max el	1131 Oct 08 j 03:55	14°♎36'39	24°03'11	max. Earth dist.	1132 Aug 11 j 01:42	0°♎04'26	1.37557 AU
retrograde	1131 Oct 19 j 04:02	21°♎04'30			1132 Aug 11 j 00:45	0°♎	
evening set	1131 Oct 24 j 09:22	18°♎54'38		evening rise	1132 Aug 14 j 21:36	7°♎02'51	
min. Earth dist.	1131 Oct 29 j 05:07	13°♎20'32	0.67607 AU	desc. node	1132 Aug 26 j 21:29	27°♎01'07	
asc. node	1131 Oct 29 j 02:40	13°♎28'47			1132 Aug 28 j 20:03	0°♎	
inferior conj	1131 Oct 29 j 20:08	12°♎29'44	0°15'02	evening max el	1132 Sep 19 j 15:48	28°♎14'48	25°18'58
minimum elong	1131 Oct 29 j 19:46	12°♎30'58	0°14'54		1132 Sep 21 j 12:48	0°♎	
transit middle	1131 Oct 29 j 19:46	12°♎30'58	0°14'54	retrograde	1132 Oct 01 j 15:24	5°♎09'22	
transit begin	1131 Oct 29 j 18:40	12°♎34'41		evening set	1132 Oct 07 j 11:24	2°♎43'10	
transit end	1131 Oct 29 j 20:52	12°♎27'15			1132 Oct 10 j 03:10	30°♎	
morning rise	1131 Nov 04 j 06:23	6°♎21'56		min. Earth dist.	1132 Oct 11 j 22:53	27°♎44'19	0.67125 AU
direct	1131 Nov 08 j 03:20	4°♎56'39		inferior conj	1132 Oct 13 j 00:40	26°♎20'41	0°-40'-31
morning max el	1131 Nov 16 j 04:26	9°♎35'46	20°36'10	minimum elong	1132 Oct 13 j 01:41	26°♎17'21	0°40'04
greatest brilliancy	1131 Nov 22 j 06:39	16°♎47'14	-0.5m	asc. node	1132 Oct 14 j 23:42	23°♎52'25	
	1131 Dec 01 j 16:08	0°♎		morning rise	1132 Oct 18 j 16:36	20°♎20'36	
desc. node	1131 Dec 06 j 23:44	7°♎55'33		direct	1132 Oct 22 j 01:42	19°♎14'40	
morning set	1131 Dec 14 j 21:10	20°♎00'33		morning max el	1132 Oct 29 j 07:41	23°♎20'55	19°31'22
	1131 Dec 21 j 05:38	0°♎			1132 Nov 03 j 20:52	0°♎	
max. Earth dist.	1131 Dec 24 j 05:07	4°♎46'43	1.43198 AU	greatest brilliancy	1132 Nov 07 j 00:00	4°♎21'26	-0.7m
				morning set	1132 Nov 22 j 19:23	28°♎18'04	
superior conj	1131 Dec 30 j 16:51	15°♎26'06	-1°-59'-15	desc. node	1132 Nov 22 j 20:46	28°♎23'26	
minimum elong	1131 Dec 30 j 13:04	15°♎10'18	1°59'07		1132 Nov 23 j 21:41	0°♎	
	1132 Jan 08 j 05:24	0°♎		max. Earth dist.	1132 Dec 05 j 18:34	18°♎34'50	1.44477 AU
evening rise	1132 Jan 11 j 22:26	6°♎30'42					
asc. node	1132 Jan 25 j 01:57	28°♎28'37		superior conj	1132 Dec 09 j 14:59	24°♎42'47	-1°-37'-13
	1132 Jan 26 j 04:52	0°♎		minimum elong	1132 Dec 09 j 06:47	24°♎09'57	1°36'30
evening max el	1132 Jan 29 j 02:46	3°♎22'57	18°08'03		1132 Dec 12 j 21:46	0°♎	
retrograde	1132 Feb 04 j 15:21	6°♎47'03		evening rise	1132 Dec 23 j 17:23	17°♎50'37	
evening set	1132 Feb 07 j 08:56	6°♎10'36			1132 Dec 30 j 23:45	0°♎	
inferior conj	1132 Feb 13 j 19:03	1°♎02'02	3°44'52	asc. node	1133 Jan 10 j 23:00	15°♎59'27	
minimum elong	1132 Feb 13 j 19:44	1°♎00'18	3°44'51	evening max el	1133 Jan 11 j 15:14	16°♎42'09	18°21'50
	1132 Feb 14 j 19:14	30°♎		retrograde	1133 Jan 18 j 03:10	20°♎14'04	
min. Earth dist.	1132 Feb 16 j 17:10	28°♎04'12	0.62087 AU	evening set	1133 Jan 21 j 01:36	19°♎27'20	
morning rise	1132 Feb 20 j 04:11	25°♎05'18		inferior conj	1133 Jan 27 j 02:02	13°♎58'55	3°43'23
direct	1132 Feb 27 j 02:39	22°♎34'26		minimum elong	1133 Jan 27 j 00:56	14°♎02'04	3°43'19
desc. node	1132 Mar 03 j 22:53	24°♎08'12		min. Earth dist.	1133 Jan 29 j 09:15	11°♎22'00	0.63961 AU
	1132 Mar 11 j 16:44	0°♎		morning rise	1133 Feb 01 j 22:43	7°♎52'58	
morning max el	1132 Mar 12 j 04:07	0°♎27'56	27°48'40	direct	1133 Feb 08 j 20:15	5°♎05'17	
	1132 Apr 02 j 15:40	0°♎		desc. node	1133 Feb 18 j 19:56	9°♎35'43	
morning set	1132 Apr 14 j 13:50	22°♎15'47		morning max el	1133 Feb 22 j 12:33	12°♎57'17	27°33'34
	1132 Apr 18 j 07:07	0°♎			1133 Mar 08 j 05:10	0°♎	
max. Earth dist.	1132 Apr 20 j 08:26	4°♎23'53	1.32571 AU		1133 Mar 26 j 04:01	0°♎	
				morning set	1133 Mar 29 j 09:41	6°♎16'00	
superior conj	1132 Apr 22 j 01:28	8°♎06'05	0°00'06	max. Earth dist.	1133 Apr 03 j 11:20	16°♎35'23	1.33287 AU
minimum elong	1132 Apr 22 j 01:27	8°♎06'01	0°00'05				
behind sun begin	1132 Apr 21 j 20:22	7°♎38'24		superior conj	1133 Apr 06 j 07:56	22°♎37'59	0°-27'-5
behind sun end	1132 Apr 22 j 06:32	8°♎33'40		minimum elong	1133 Apr 06 j 09:16	22°♎45'05	0°26'49
asc. node	1132 Apr 22 j 01:14	8°♎04'49		asc. node	1133 Apr 08 j 22:18	28°♎12'19	
evening rise	1132 Apr 29 j 01:03	23°♎13'15			1133 Apr 09 j 18:19	0°♎	
	1132 May 02 j 07:35	0°♎		evening rise	1133 Apr 13 j 12:38	8°♎01'44	
	1132 May 21 j 02:48	0°♎			1133 Apr 25 j 03:43	0°♎	
evening max el	1132 May 23 j 22:39	2°♎57'00	24°18'41	evening max el	1133 May 05 j 13:25	13°♎28'07	22°42'58
desc. node	1132 May 30 j 22:08	8°♎08'46		desc. node	1133 May 17 j 19:08	19°♎59'23	
retrograde	1132 Jun 06 j 19:25	9°♎56'25		retrograde	1133 May 18 j 18:24	20°♎01'31	
evening set	1132 Jun 11 j 11:59	9°♎07'24		evening set	1133 May 22 j 00:29	19°♎38'16	
min. Earth dist.	1132 Jun 17 j 09:43	6°♎10'50	0.56674 AU	min. Earth dist.	1133 May 29 j 21:38	16°♎10'50	0.55379 AU
inferior conj	1132 Jun 20 j 01:18	4°♎30'44	-4°-35'-50	inferior conj	1133 May 31 j 05:58	15°♎24'36	-3°-33'-23
minimum elong	1132 Jun 19 j 20:40	4°♎38'03	4°35'17	minimum elong	1133 May 30 j 22:19	15°♎35'33	3°31'25
morning rise	1132 Jun 28 j 09:01	0°♎28'14		morning rise	1133 Jun 08 j 22:52	11°♎32'25	
direct	1132 Jul 01 j 00:34	0°♎09'24		direct	1133 Jun 11 j 19:44	11°♎13'21	

morning max el	1133 Jun 23 j 00:07	16° Π 24'41	20°52'10	direct	1134 May 23 j 05:33	21° \mathcal{B} 26'53	
	1133 Jul 03 j 07:43	0° \mathfrak{G}		morning max el	1134 Jun 04 j 23:34	27° \mathcal{B} 30'59	22°25'19
asc. node	1133 Jul 05 j 21:32	4° \mathfrak{G} 31'12			1134 Jun 07 j 10:20	0° Π	
morning set	1133 Jul 12 j 08:12	17° \mathfrak{G} 09'00		asc. node	1134 Jun 22 j 18:36	23° Π 53'55	
	1133 Jul 18 j 12:44	0° \mathcal{Q}			1134 Jun 25 j 19:10	0° \mathfrak{G}	
				morning set	1134 Jun 26 j 18:29	2° \mathfrak{G} 01'06	
superior conj	1133 Jul 19 j 20:58	2° \mathcal{Q} 46'01	1°43'37	superior conj	1134 Jul 03 j 23:50	17° \mathfrak{G} 21'02	1°34'29
minimum elong	1133 Jul 19 j 19:45	2° \mathcal{Q} 39'48	1°43'34	minimum elong	1134 Jul 03 j 21:43	17° \mathfrak{G} 09'52	1°34'18
max. Earth dist.	1133 Jul 24 j 10:12	11° \mathcal{Q} 55'25	1.35747 AU	max. Earth dist.	1134 Jul 07 j 03:16	23° \mathfrak{G} 55'38	1.34285 AU
evening rise	1133 Jul 28 j 14:28	19° \mathcal{Q} 56'31			1134 Jul 10 j 03:00	0° \mathcal{Q}	
	1133 Aug 03 j 04:06	0° \mathfrak{M}		evening rise	1134 Jul 11 j 22:34	3° \mathcal{Q} 35'08	
desc. node	1133 Aug 13 j 18:31	17° \mathfrak{M} 13'06			1134 Jul 26 j 23:36	0° \mathfrak{M}	
	1133 Aug 22 j 20:09	0° \mathfrak{A}		desc. node	1134 Jul 31 j 15:31	7° \mathfrak{M} 00'47	
evening max el	1133 Sep 02 j 03:41	11° \mathfrak{A} 52'53	26°22'53	evening max el	1134 Aug 15 j 15:40	25° \mathfrak{M} 22'27	27°07'26
retrograde	1133 Sep 14 j 21:57	19° \mathfrak{A} 04'20			1134 Aug 21 j 08:08	0° \mathfrak{A}	
evening set	1133 Sep 21 j 08:00	16° \mathfrak{A} 25'39		retrograde	1134 Aug 28 j 23:10	2° \mathfrak{A} 41'05	
min. Earth dist.	1133 Sep 25 j 11:46	12° \mathfrak{A} 03'40	0.66302 AU	evening set	1134 Sep 04 j 20:44	29° \mathfrak{M} 57'14	
inferior conj	1133 Sep 27 j 01:06	10° \mathfrak{A} 09'45	-1°-37'-45		1134 Sep 04 j 19:20	30° \mathfrak{R} \mathfrak{M}	
minimum elong	1133 Sep 27 j 03:39	10° \mathfrak{A} 01'58	1°36'44	min. Earth dist.	1134 Sep 08 j 17:29	26° \mathfrak{M} 12'08	0.65122 AU
asc. node	1133 Oct 01 j 20:45	5° \mathfrak{A} 05'59		inferior conj	1134 Sep 10 j 19:16	23° \mathfrak{M} 52'06	-2°-34'-45
morning rise	1133 Oct 03 j 00:26	4° \mathfrak{A} 20'16		minimum elong	1134 Sep 10 j 23:16	23° \mathfrak{M} 40'50	2°33'20
direct	1133 Oct 05 j 23:49	3° \mathfrak{A} 30'06		morning rise	1134 Sep 17 j 03:29	18° \mathfrak{M} 16'14	
morning max el	1133 Oct 12 j 17:43	7° \mathfrak{A} 14'01	18°41'53	asc. node	1134 Sep 18 j 17:48	17° \mathfrak{M} 44'13	
	1133 Oct 28 j 17:42	0° \mathfrak{M}		direct	1134 Sep 19 j 19:34	17° \mathfrak{M} 37'59	
morning set	1133 Nov 02 j 14:02	7° \mathfrak{M} 41'47		morning max el	1134 Sep 26 j 08:07	21° \mathfrak{M} 08'46	18°08'52
desc. node	1133 Nov 09 j 17:50	19° \mathfrak{M} 01'39			1134 Oct 03 j 03:32	0° \mathfrak{A}	
	1133 Nov 16 j 17:13	0° \mathfrak{A}		morning set	1134 Oct 14 j 13:36	18° \mathfrak{A} 31'03	
superior conj	1133 Nov 18 j 18:23	3° \mathfrak{A} 13'06	0°-57'-30		1134 Oct 21 j 13:22	0° \mathfrak{M}	
minimum elong	1133 Nov 18 j 11:15	2° \mathfrak{A} 45'03	0°56'39	desc. node	1134 Oct 27 j 14:52	9° \mathfrak{M} 45'48	
max. Earth dist.	1133 Nov 18 j 12:22	2° \mathfrak{A} 49'25	1.45069 AU	superior conj	1134 Oct 28 j 22:40	11° \mathfrak{M} 52'23	0°-8'-49
evening rise	1133 Dec 04 j 13:15	28° \mathfrak{A} 13'08		minimum elong	1134 Oct 28 j 21:33	11° \mathfrak{M} 47'56	0°08'41
	1133 Dec 05 j 15:57	0° \mathfrak{B}		behind sun begin	1134 Oct 28 j 12:17	11° \mathfrak{M} 11'06	
	1133 Dec 25 j 22:53	0° \approx		behind sun end	1134 Oct 29 j 06:48	12° \mathfrak{M} 24'43	
evening max el	1133 Dec 26 j 01:56	0° \approx 07'52	18°53'37	max. Earth dist.	1134 Nov 01 j 06:59	17° \mathfrak{M} 10'10	1.44920 AU
asc. node	1133 Dec 28 j 20:03	2° \approx 31'00			1134 Nov 09 j 11:43	0° \mathfrak{A}	
retrograde	1134 Jan 01 j 21:15	3° \approx 58'24		evening rise	1134 Nov 14 j 10:44	7° \mathfrak{A} 42'21	
evening set	1134 Jan 05 j 01:30	3° \approx 00'15			1134 Nov 29 j 00:20	0° \mathfrak{B}	
	1134 Jan 08 j 11:30	30° \mathfrak{R} \mathfrak{B}		greatest brilliancy	1134 Dec 01 j 13:52	3° \mathfrak{B} 43'43	-0.6m
inferior conj	1134 Jan 10 j 19:06	27° \mathfrak{B} 14'27	3°26'14	evening max el	1134 Dec 09 j 08:47	13° \mathfrak{B} 36'35	19°42'01
minimum elong	1134 Jan 10 j 16:53	27° \mathfrak{B} 21'21	3°25'52	asc. node	1134 Dec 15 j 17:05	17° \mathfrak{B} 48'25	
min. Earth dist.	1134 Jan 12 j 10:58	25° \mathfrak{B} 10'50	0.65481 AU	retrograde	1134 Dec 16 j 18:24	17° \mathfrak{B} 54'37	
morning rise	1134 Jan 16 j 07:14	21° \mathfrak{B} 02'54		evening set	1134 Dec 20 j 06:02	16° \mathfrak{B} 43'30	
direct	1134 Jan 22 j 20:46	18° \mathfrak{B} 12'44		inferior conj	1134 Dec 25 j 19:08	10° \mathfrak{B} 43'05	2°57'32
morning max el	1134 Feb 04 j 22:29	25° \mathfrak{B} 53'12	26°46'26	minimum elong	1134 Dec 25 j 16:28	10° \mathfrak{B} 51'55	2°56'50
desc. node	1134 Feb 05 j 17:01	26° \mathfrak{B} 40'32		min. Earth dist.	1134 Dec 26 j 20:47	9° \mathfrak{B} 18'34	0.66602 AU
	1134 Feb 08 j 17:43	0° \approx		morning rise	1134 Dec 31 j 02:11	4° \mathfrak{B} 28'37	
	1134 Mar 01 j 17:55	0° \mathfrak{H}		direct	1135 Jan 06 j 03:19	1° \mathfrak{B} 48'04	
morning set	1134 Mar 12 j 18:52	19° \mathfrak{H} 40'19		morning max el	1135 Jan 18 j 07:35	9° \mathfrak{B} 02'48	25°35'41
max. Earth dist.	1134 Mar 17 j 03:46	28° \mathfrak{H} 12'46	1.34451 AU	desc. node	1135 Jan 23 j 14:05	14° \mathfrak{B} 54'34	
	1134 Mar 18 j 01:07	0° \mathfrak{Y}			1135 Feb 03 j 20:05	0° \approx	
superior conj	1134 Mar 21 j 08:50	6° \mathfrak{Y} 48'22	0°-54'-32		1135 Feb 22 j 06:54	0° \mathfrak{H}	
minimum elong	1134 Mar 21 j 11:31	7° \mathfrak{Y} 02'20	0°54'03	morning set	1135 Feb 23 j 12:54	2° \mathfrak{H} 15'46	
asc. node	1134 Mar 26 j 19:21	18° \mathfrak{Y} 12'47		max. Earth dist.	1135 Feb 27 j 08:16	9° \mathfrak{H} 20'33	1.36069 AU
evening rise	1134 Mar 28 j 22:15	22° \mathfrak{Y} 38'49		superior conj	1135 Mar 05 j 01:30	20° \mathfrak{H} 29'59	-1°-20'-38
	1134 Apr 01 j 13:05	0° \mathcal{B}		minimum elong	1135 Mar 05 j 05:16	20° \mathfrak{H} 48'52	1°20'05
evening max el	1134 Apr 17 j 11:07	24° \mathcal{B} 14'24	21°12'43		1135 Mar 09 j 17:55	0° \mathfrak{Y}	
	1134 Apr 28 j 10:29	0° Π		evening rise	1135 Mar 13 j 03:52	6° \mathfrak{Y} 58'31	
retrograde	1134 Apr 29 j 08:36	0° Π 02'02		asc. node	1135 Mar 13 j 16:24	8° \mathfrak{Y} 02'02	
	1134 Apr 30 j 06:56	30° \mathfrak{R} \mathcal{B}			1135 Mar 26 j 01:48	0° \mathcal{B}	
evening set	1134 May 01 j 15:52	29° \mathcal{B} 49'46		evening max el	1135 Mar 30 j 20:07	5° \mathcal{B} 36'38	19°57'22
desc. node	1134 May 04 j 16:11	28° \mathcal{B} 59'42		retrograde	1135 Apr 10 j 00:10	10° \mathcal{B} 30'25	
inferior conj	1134 May 11 j 00:18	25° \mathcal{B} 50'49	-1°-48'-54	evening set	1135 Apr 12 j 01:29	10° \mathcal{B} 19'19	
minimum elong	1134 May 10 j 19:14	25° \mathcal{B} 57'58	1°47'08	inferior conj	1135 Apr 20 j 22:34	6° \mathcal{B} 19'19	0°10'33
min. Earth dist.	1134 May 11 j 10:13	25° \mathcal{B} 36'51	0.54933 AU	minimum elong	1135 Apr 20 j 23:03	6° \mathcal{B} 18'36	0°10'23
morning rise	1134 May 19 j 22:33	21° \mathcal{B} 50'22					

transit middle	1135 Apr 20 j 23:03	6°♄18'36	0°10'23	evening set	1136 Mar 23 j 10:18	21°♃30'37	
transit begin	1135 Apr 20 j 20:02	6°♄23'12		inferior conj	1136 Mar 31 j 13:00	17°♃15'53	1°52'22
transit end	1135 Apr 21 j 02:04	6°♄14'00		minimum elong	1136 Mar 31 j 16:51	17°♃09'09	1°51'11
desc. node	1135 Apr 21 j 13:13	5°♄57'02		min. Earth dist.	1136 Apr 03 j 15:45	15°♃06'09	0.56843 AU
min. Earth dist.	1135 Apr 23 j 00:09	5°♄04'10	0.55463 AU	desc. node	1136 Apr 07 j 10:16	12°♃52'28	
morning rise	1135 Apr 29 j 17:37	1°♄52'37		morning rise	1136 Apr 08 j 19:11	12°♃15'42	
direct	1135 May 03 j 20:21	1°♄15'20		direct	1136 Apr 13 j 23:43	11°♃12'06	
morning max el	1135 May 17 j 15:41	8°♄06'19	24°06'43	morning max el	1136 Apr 28 j 06:16	18°♃34'49	25°42'49
	1135 Jun 02 j 14:04	0°♄			1136 May 07 j 19:25	0°♄	
asc. node	1135 Jun 09 j 15:40	13°♄36'57			1136 May 24 j 20:05	0°♄	
morning set	1135 Jun 11 j 06:16	16°♄58'03		morning set	1136 May 25 j 17:54	1°♄54'11	
	1135 Jun 17 j 07:36	0°♄		asc. node	1136 May 26 j 12:42	3°♄33'43	
superior conj	1135 Jun 18 j 07:43	2°♄10'38	1°20'11	superior conj	1136 Jun 01 j 18:26	17°♄07'17	1°01'41
minimum elong	1135 Jun 18 j 05:16	1°♄57'26	1°19'51	minimum elong	1136 Jun 01 j 16:10	16°♄54'52	1°01'17
max. Earth dist.	1135 Jun 20 j 05:30	6°♄17'07	1.33224 AU	max. Earth dist.	1136 Jun 02 j 14:37	18°♄57'45	1.32554 AU
evening rise	1135 Jun 25 j 17:46	17°♄46'36			1136 Jun 07 j 17:47	0°♄	
	1135 Jul 02 j 01:49	0°♄		evening rise	1136 Jun 08 j 20:41	2°♄20'11	
desc. node	1135 Jul 18 j 12:31	26°♄13'52			1136 Jun 23 j 23:03	0°♄	
	1135 Jul 21 j 09:57	0°♄		desc. node	1136 Jul 04 j 09:32	14°♄37'58	
evening max el	1135 Jul 29 j 02:35	8°♄32'37	27°25'40	evening max el	1136 Jul 10 j 09:56	21°♄09'43	27°12'21
retrograde	1135 Aug 11 j 18:21	15°♄51'04		retrograde	1136 Jul 24 j 06:32	28°♄25'10	
evening set	1135 Aug 18 j 22:33	13°♄12'42		evening set	1136 Jul 31 j 09:33	26°♄05'10	
min. Earth dist.	1135 Aug 22 j 14:02	10°♄01'22	0.63586 AU	min. Earth dist.	1136 Aug 04 j 00:06	23°♄19'06	0.61736 AU
inferior conj	1135 Aug 25 j 04:35	7°♄22'24	-3°-28'-38	inferior conj	1136 Aug 07 j 01:58	20°♄32'58	-4°-14'-49
minimum elong	1135 Aug 25 j 09:34	7°♄09'42	3°27'12	minimum elong	1136 Aug 07 j 06:49	20°♄22'00	4°13'51
morning rise	1135 Aug 31 j 22:49	2°♄03'25		morning rise	1136 Aug 14 j 06:53	15°♄34'21	
direct	1135 Sep 03 j 10:17	1°♄33'30		direct	1136 Aug 16 j 16:30	15°♄09'51	
asc. node	1135 Sep 05 j 14:52	1°♄57'18		asc. node	1136 Aug 22 j 11:55	17°♄37'42	
morning max el	1135 Sep 10 j 00:06	4°♄59'14	17°53'17	morning max el	1136 Aug 23 j 14:48	18°♄38'39	17°56'11
	1135 Sep 26 j 06:56	0°♄			1136 Aug 31 j 20:18	0°♄	
morning set	1135 Sep 26 j 15:04	0°♄35'20		morning set	1136 Sep 08 j 12:15	13°♄36'27	
					1136 Sep 17 j 15:22	0°♄	
superior conj	1135 Oct 08 j 23:08	21°♄33'11	0°36'38	superior conj	1136 Sep 19 j 02:58	2°♄35'07	1°11'14
minimum elong	1135 Oct 09 j 02:49	21°♄48'20	0°36'08	minimum elong	1136 Sep 19 j 07:41	2°♄55'31	1°10'41
desc. node	1135 Oct 14 j 11:52	0°♄32'41		max. Earth dist.	1136 Sep 26 j 13:17	15°♄07'40	1.42608 AU
	1135 Oct 14 j 03:43	0°♄		desc. node	1136 Sep 30 j 08:51	21°♄19'24	
max. Earth dist.	1135 Oct 15 j 00:03	1°♄21'30	1.44065 AU	evening rise	1136 Oct 03 j 07:26	25°♄59'49	
evening rise	1135 Oct 24 j 19:09	16°♄43'30			1136 Oct 05 j 20:54	0°♄	
	1135 Nov 02 j 12:40	0°♄			1136 Oct 26 j 10:43	0°♄	
greatest brilliancy	1135 Nov 16 j 17:10	20°♄19'09	-0.5m	greatest brilliancy	1136 Oct 30 j 12:26	5°♄13'59	-0.4m
evening max el	1135 Nov 22 j 10:24	27°♄06'10	20°44'35	evening max el	1136 Nov 04 j 06:21	10°♄36'49	21°57'49
	1135 Nov 25 j 16:31	0°♄		retrograde	1136 Nov 13 j 12:35	16°♄07'17	
retrograde	1135 Nov 30 j 16:05	1°♄58'23		evening set	1136 Nov 17 j 20:53	14°♄24'44	
asc. node	1135 Dec 02 j 14:07	1°♄37'41		asc. node	1136 Nov 18 j 11:09	13°♄54'23	
evening set	1135 Dec 04 j 13:05	0°♄32'24		inferior conj	1136 Nov 23 j 06:22	8°♄04'33	1°35'29
	1135 Dec 05 j 05:09	30°♄♂		minimum elong	1136 Nov 23 j 04:22	8°♄11'30	1°34'43
inferior conj	1135 Dec 09 j 23:35	24°♄20'27	2°19'57	min. Earth dist.	1136 Nov 23 j 07:53	7°♄59'18	0.67710 AU
minimum elong	1135 Dec 09 j 21:00	24°♄29'15	2°19'06	morning rise	1136 Nov 28 j 11:38	1°♄50'29	
min. Earth dist.	1135 Dec 10 j 12:31	23°♄36'14	0.67337 AU		1136 Dec 01 j 21:08	30°♄♄	
morning rise	1135 Dec 15 j 04:28	18°♄05'10		direct	1136 Dec 03 j 06:46	29°♄50'13	
direct	1135 Dec 20 j 14:53	15°♄42'39			1136 Dec 04 j 17:36	0°♄	
morning max el	1135 Dec 31 j 15:49	22°♄17'42	24°11'11	morning max el	1136 Dec 13 j 01:54	5°♄38'16	22°42'58
	1136 Jan 07 j 09:34	0°♄		greatest brilliancy	1136 Dec 17 j 16:38	10°♄47'27	-0.3m
desc. node	1136 Jan 10 j 11:07	3°♄57'00		desc. node	1136 Dec 27 j 08:08	23°♄34'13	
	1136 Jan 28 j 03:52	0°♄			1136 Dec 31 j 19:08	0°♄	
morning set	1136 Feb 05 j 09:50	13°♄44'52		morning set	1137 Jan 16 j 03:37	23°♄52'54	
max. Earth dist.	1136 Feb 09 j 04:29	20°♄24'34	1.38059 AU		1137 Jan 19 j 19:40	0°♄	
	1136 Feb 14 j 09:36	0°♄		max. Earth dist.	1137 Jan 21 j 00:24	2°♄02'08	1.40205 AU
superior conj	1136 Feb 16 j 06:23	3°♄32'33	-1°-43'-9	superior conj	1137 Jan 28 j 19:05	15°♄44'46	-1°-58'-51
minimum elong	1136 Feb 16 j 10:28	3°♄52'02	1°42'44	minimum elong	1137 Jan 28 j 21:53	15°♄57'29	1°58'45
evening rise	1136 Feb 25 j 02:56	20°♄52'57			1137 Feb 05 j 10:47	0°♄	
asc. node	1136 Feb 28 j 13:26	27°♄34'19		evening rise	1137 Feb 07 j 16:30	4°♄14'49	
	1136 Feb 29 j 20:15	0°♄		asc. node	1137 Feb 14 j 10:27	16°♄43'42	
evening max el	1136 Mar 12 j 16:10	17°♄37'19	19°01'01		1137 Feb 23 j 16:25	0°♄	
retrograde	1136 Mar 21 j 05:37	21°♄45'49					

evening max el	1137 Feb 23 j 20:44	0°Υ10'35	18°24'47			1138 Jan 12 j 05:17	0°≈	
retrograde	1137 Mar 03 j 06:20	3°Υ49'47		evening rise		1138 Jan 21 j 16:53	16°≈55'47	
evening set	1137 Mar 05 j 16:12	3°Υ27'37				1138 Jan 29 j 00:43	0°✠	
	1137 Mar 11 j 14:56	30°✠✠		asc. node		1138 Feb 01 j 07:30	5°✠22'47	
inferior conj	1137 Mar 13 j 00:34	28°✠52'21	3°00'42	evening max el		1138 Feb 07 j 06:43	13°✠08'10	18°08'33
minimum elong	1137 Mar 13 j 04:20	28°✠44'37	2°59'54	retrograde		1138 Feb 14 j 00:07	16°✠33'58	
min. Earth dist.	1137 Mar 16 j 11:04	26°✠04'51	0.58769 AU	evening set		1138 Feb 16 j 14:50	16°✠03'11	
morning rise	1137 Mar 20 j 12:34	23°✠22'51		inferior conj		1138 Feb 23 j 08:03	11°✠06'39	3°36'24
desc. node	1137 Mar 25 j 07:18	21°✠48'32		minimum elong		1138 Feb 23 j 09:57	11°✠02'08	3°36'14
direct	1137 Mar 26 j 16:19	21°✠43'34		min. Earth dist.		1138 Feb 26 j 13:05	8°✠05'20	0.60889 AU
morning max el	1137 Apr 10 j 00:57	29°✠25'02	26°58'07	morning rise		1138 Mar 02 j 02:05	5°✠17'12	
	1137 Apr 10 j 15:03	0°Υ		direct		1138 Mar 08 j 20:33	3°✠02'24	
	1137 May 01 j 14:34	0°♁		desc. node		1138 Mar 12 j 04:20	3°✠32'40	
morning set	1137 May 10 j 03:45	16°♁43'54		morning max el		1138 Mar 23 j 02:02	10°✠54'22	27°40'55
asc. node	1137 May 13 j 09:44	23°♁39'15				1138 Apr 06 j 23:56	0°Υ	
	1137 May 16 j 07:28	0°♁				1138 Apr 23 j 18:10	0°♁	
				morning set		1138 Apr 24 j 10:01	1°♁21'15	
superior conj	1137 May 17 j 06:11	2°♁04'52	0°39'46	asc. node		1138 Apr 30 j 06:46	13°♁49'19	
minimum elong	1137 May 17 j 04:31	1°♁55'45	0°39'25	max. Earth dist.		1138 Apr 30 j 14:43	14°♁32'40	1.32340 AU
max. Earth dist.	1137 May 17 j 02:58	1°♁47'10	1.32260 AU					
evening rise	1137 May 24 j 04:39	17°♁07'08		superior conj		1138 May 01 j 17:19	16°♁57'58	0°15'12
	1137 May 30 j 14:57	0°♁		minimum elong		1138 May 01 j 16:37	16°♁54'11	0°15'02
	1137 Jun 19 j 11:59	0°♁		behind sun begin		1138 May 01 j 15:01	16°♁45'23	
desc. node	1137 Jun 21 j 06:33	1°♁52'18		behind sun end		1138 May 01 j 18:14	17°♁02'58	
evening max el	1137 Jun 22 j 10:56	3°♁01'59	26°25'50			1138 May 07 j 16:55	0°♁	
retrograde	1137 Jul 06 j 10:38	10°♁14'49		evening rise		1138 May 08 j 15:33	2°♁00'27	
evening set	1137 Jul 13 j 01:01	8°♁25'57				1138 May 23 j 20:35	0°♁	
min. Earth dist.	1137 Jul 17 j 00:00	5°♁50'06	0.59691 AU	evening max el		1138 Jun 04 j 04:56	14°♁09'12	25°10'42
inferior conj	1137 Jul 20 j 07:48	3°♁13'46	-4°-45'-53	desc. node		1138 Jun 08 j 03:35	17°♁29'00	
minimum elong	1137 Jul 20 j 10:34	3°♁08'19	4°45'39	retrograde		1138 Jun 18 j 05:11	21°♁17'02	
	1137 Jul 24 j 21:05	30°♁♁		evening set		1138 Jun 23 j 17:20	20°♁06'56	
morning rise	1137 Jul 27 j 23:28	28°♁38'12		min. Earth dist.		1138 Jun 28 j 16:38	17°♁22'26	0.57682 AU
direct	1137 Jul 30 j 09:50	28°♁17'02		inferior conj		1138 Jul 01 j 18:50	15°♁16'14	-4°-50'-33
	1137 Aug 04 j 14:41	0°♁		minimum elong		1138 Jul 01 j 17:12	15°♁19'02	4°50'30
morning max el	1137 Aug 07 j 01:05	1°♁58'27	18°18'39	morning rise		1138 Jul 09 j 20:53	11°♁03'15	
asc. node	1137 Aug 09 j 08:57	4°♁30'21		direct		1138 Jul 12 j 09:56	10°♁44'01	
morning set	1137 Aug 22 j 23:33	27°♁17'52		morning max el		1138 Jul 21 j 03:59	14°♁50'11	19°01'44
	1137 Aug 24 j 09:37	0°♁		asc. node		1138 Jul 27 j 06:00	22°♁20'40	
						1138 Jul 31 j 20:20	0°♁	
superior conj	1137 Sep 01 j 07:23	14°♁49'33	1°33'22	morning set		1138 Aug 06 j 20:49	11°♁28'54	
minimum elong	1137 Sep 01 j 10:45	15°♁04'58	1°33'05					
max. Earth dist.	1137 Sep 08 j 20:48	28°♁12'10	1.40733 AU	superior conj		1138 Aug 15 j 06:47	28°♁00'53	1°44'17
	1137 Sep 09 j 22:07	0°♁		minimum elong		1138 Aug 15 j 08:09	28°♁07'27	1°44'14
evening rise	1137 Sep 13 j 14:19	6°♁07'54				1138 Aug 16 j 07:41	0°♁	
desc. node	1137 Sep 17 j 05:52	12°♁02'02		max. Earth dist.		1138 Aug 22 j 00:12	10°♁32'37	1.38697 AU
	1137 Sep 29 j 01:21	0°♁		evening rise		1138 Aug 25 j 21:37	17°♁24'42	
evening max el	1137 Oct 17 j 21:26	24°♁08'53	23°17'06			1138 Sep 02 j 11:21	0°♁	
	1137 Oct 26 j 06:23	0°♁		desc. node		1138 Sep 04 j 02:54	2°♁36'45	
retrograde	1137 Oct 28 j 06:27	0°♁17'36				1138 Sep 23 j 11:48	0°♁	
	1137 Oct 30 j 04:18	30°♁♁		evening max el		1138 Sep 30 j 09:47	7°♁44'30	24°36'18
evening set	1137 Nov 02 j 03:46	28°♁17'30		retrograde		1138 Oct 11 j 20:36	14°♁25'39	
asc. node	1137 Nov 05 j 08:11	24°♁52'17		evening set		1138 Oct 17 j 08:06	12°♁08'28	
min. Earth dist.	1137 Nov 07 j 04:33	22°♁24'14	0.67739 AU	min. Earth dist.		1138 Oct 22 j 00:09	6°♁49'01	0.67440 AU
inferior conj	1137 Nov 07 j 13:39	21°♁52'57	0°45'39	inferior conj		1138 Oct 22 j 19:44	5°♁43'45	0°-8'-11
minimum elong	1137 Nov 07 j 12:36	21°♁56'34	0°45'13	minimum elong		1138 Oct 22 j 19:56	5°♁43'05	0°08'06
morning rise	1137 Nov 12 j 21:31	15°♁42'12		transit middle		1138 Oct 22 j 19:56	5°♁43'05	0°08'06
direct	1137 Nov 17 j 02:03	14°♁04'48		transit begin		1138 Oct 22 j 17:33	5°♁51'02	
morning max el	1137 Nov 25 j 17:15	19°♁07'14	21°19'32	transit end		1138 Oct 22 j 22:18	5°♁35'09	
greatest brilliancy	1137 Nov 30 j 21:59	25°♁04'40	-0.4m	asc. node		1138 Oct 23 j 05:14	5°♁12'07	
	1137 Dec 04 j 16:13	0°♁				1138 Oct 27 j 20:49	30°♁♁	
desc. node	1137 Dec 14 j 05:09	13°♁36'11		morning rise		1138 Oct 28 j 08:10	29°♁38'50	
	1137 Dec 24 j 23:51	0°♁		direct		1138 Oct 31 j 23:44	28°♁22'21	
morning set	1137 Dec 26 j 16:50	2°♁40'44				1138 Nov 05 j 10:25	0°♁	
max. Earth dist.	1138 Jan 03 j 01:55	14°♁32'39	1.42211 AU	morning max el		1138 Nov 08 j 16:04	2°♁46'39	20°06'49
				greatest brilliancy		1138 Nov 15 j 15:42	11°♁14'39	-0.6m
superior conj	1138 Jan 10 j 10:17	26°♁53'56	-2°-3'-31			1138 Nov 28 j 12:09	0°♁	
minimum elong	1138 Jan 10 j 09:29	26°♁50'29	2°03'31	desc. node		1138 Dec 01 j 02:11	3°♁56'02	

morning set	1138 Dec 05 j 13:25	10°♄48'04		morning set	1139 Nov 14 j 18:12	19°♄27'52	
max. Earth dist.	1138 Dec 16 j 10:53	27°♄54'35	1.43815 AU	desc. node	1139 Nov 17 j 23:13	24°♄28'39	
	1138 Dec 17 j 18:10	0°♄			1139 Nov 21 j 11:59	0°♄	
				max. Earth dist.	1139 Nov 29 j 02:14	11°♄55'06	1.44815 AU
superior conj	1138 Dec 21 j 23:34	6°♄51'12	-1°-52'-16	superior conj	1139 Dec 01 j 12:08	15°♄43'46	-1°-22'-14
minimum elong	1138 Dec 21 j 17:34	6°♄26'37	1°51'54	minimum elong	1139 Dec 01 j 03:31	15°♄09'41	1°21'20
evening rise	1139 Jan 03 j 23:50	28°♄47'20			1139 Dec 10 j 10:14	0°♄	
	1139 Jan 04 j 16:40	0°♄		evening rise	1139 Dec 16 j 09:14	9°♄42'59	
asc. node	1139 Jan 19 j 04:32	23°♄21'58			1139 Dec 28 j 21:58	0°♄	
evening max el	1139 Jan 21 j 19:09	26°♄21'46	18°11'39	evening max el	1140 Jan 05 j 07:16	9°♄45'06	18°33'16
retrograde	1139 Jan 28 j 06:31	29°♄47'50		asc. node	1140 Jan 06 j 01:36	10°♄29'47	
evening set	1139 Jan 31 j 02:00	29°♄07'18		retrograde	1140 Jan 11 j 21:20	13°♄23'23	
inferior conj	1139 Feb 06 j 07:39	23°♄50'19	3°46'29	evening set	1140 Jan 14 j 22:08	12°♄31'57	
minimum elong	1139 Feb 06 j 07:30	23°♄50'43	3°46'29	inferior conj	1140 Jan 20 j 19:22	6°♄56'05	3°37'44
min. Earth dist.	1139 Feb 08 j 23:49	20°♄58'57	0.62919 AU	minimum elong	1140 Jan 20 j 17:42	7°♄01'01	3°37'33
morning rise	1139 Feb 12 j 10:58	17°♄48'56		min. Earth dist.	1140 Jan 22 j 20:04	4°♄32'09	0.64660 AU
direct	1139 Feb 19 j 10:07	15°♄08'45		morning rise	1140 Jan 26 j 11:59	0°♄47'37	
desc. node	1139 Feb 27 j 01:23	17°♄48'41			1140 Jan 27 j 12:18	30°♄	
morning max el	1139 Mar 05 j 08:23	23°♄03'32	27°46'30	direct	1140 Feb 02 j 07:01	27°♄56'56	
	1139 Mar 11 j 12:47	0°♄			1140 Feb 08 j 16:33	0°♄	
	1139 Mar 31 j 05:19	0°♄		desc. node	1140 Feb 13 j 22:26	4°♄01'37	
morning set	1139 Apr 08 j 10:27	15°♄37'25		morning max el	1140 Feb 15 j 17:33	5°♄45'12	27°16'55
max. Earth dist.	1139 Apr 13 j 21:47	26°♄58'57	1.32817 AU		1140 Mar 05 j 06:33	0°♄	
	1139 Apr 15 j 07:35	0°♄		morning set	1140 Mar 22 j 02:13	29°♄23'41	
					1140 Mar 22 j 09:39	0°♄	
superior conj	1139 Apr 16 j 02:02	1°♄39'24	0°-11'-19	max. Earth dist.	1140 Mar 26 j 20:24	8°♄55'35	1.33729 AU
minimum elong	1139 Apr 16 j 02:35	1°♄42'20	0°11'13				
behind sun begin	1139 Apr 15 j 22:51	1°♄22'12		superior conj	1140 Mar 30 j 06:27	16°♄03'17	0°-38'-47
behind sun end	1139 Apr 16 j 06:19	2°♄02'30		minimum elong	1140 Mar 30 j 08:22	16°♄13'24	0°38'24
asc. node	1139 Apr 17 j 03:49	3°♄58'50		asc. node	1140 Apr 03 j 00:53	24°♄03'56	
evening rise	1139 Apr 23 j 03:22	16°♄52'15			1140 Apr 05 j 19:57	0°♄	
	1139 Apr 29 j 15:59	0°♄		evening rise	1140 Apr 06 j 14:22	1°♄36'41	
evening max el	1139 May 16 j 19:07	24°♄45'38	23°38'13		1140 Apr 22 j 19:00	0°♄	
	1139 May 23 j 22:39	0°♄		evening max el	1140 Apr 27 j 12:11	5°♄20'04	22°03'12
desc. node	1139 May 26 j 00:38	0°♄51'37		retrograde	1140 May 10 j 05:20	11°♄35'10	
retrograde	1139 May 30 j 11:30	1°♄36'42		desc. node	1140 May 11 j 21:40	11°♄28'50	
evening set	1139 Jun 03 j 12:29	1°♄00'47		evening set	1140 May 12 j 23:42	11°♄18'12	
	1139 Jun 06 j 05:36	30°♄		min. Earth dist.	1140 May 21 j 17:43	7°♄33'40	0.55081 AU
min. Earth dist.	1139 Jun 10 j 05:39	27°♄52'19	0.56032 AU	inferior conj	1140 May 22 j 08:30	7°♄12'56	-2°-53'-5
inferior conj	1139 Jun 12 j 09:44	26°♄34'03	-4°-15'-17	minimum elong	1140 May 22 j 01:15	7°♄23'06	2°50'53
minimum elong	1139 Jun 12 j 03:17	26°♄43'47	4°14'07	morning rise	1140 May 31 j 04:23	3°♄19'27	
morning rise	1139 Jun 20 j 21:31	22°♄37'25		direct	1140 Jun 03 j 04:53	2°♄59'05	
direct	1139 Jun 23 j 14:49	22°♄18'51		morning max el	1140 Jun 15 j 01:52	8°♄32'43	21°30'00
morning max el	1139 Jul 03 j 20:39	27°♄03'25	20°06'00		1140 Jun 29 j 23:38	0°♄	
	1139 Jul 06 j 15:56	0°♄		asc. node	1140 Jun 30 j 00:07	0°♄02'16	
asc. node	1139 Jul 14 j 03:03	10°♄54'49		morning set	1140 Jul 05 j 09:32	10°♄47'04	
morning set	1139 Jul 22 j 00:57	26°♄00'44					
	1139 Jul 23 j 23:51	0°♄		superior conj	1140 Jul 12 j 18:40	26°♄15'30	1°40'26
				minimum elong	1140 Jul 12 j 17:00	26°♄06'50	1°40'20
superior conj	1139 Jul 29 j 19:55	11°♄53'28	1°46'02		1140 Jul 14 j 14:06	0°♄	
minimum elong	1139 Jul 29 j 19:29	11°♄51'21	1°46'02	max. Earth dist.	1140 Jul 16 j 17:02	4°♄18'45	1.35084 AU
max. Earth dist.	1139 Aug 04 j 05:01	22°♄25'54	1.36750 AU	evening rise	1140 Jul 21 j 03:22	12°♄59'54	
evening rise	1139 Aug 08 j 03:30	29°♄46'00			1140 Jul 30 j 15:17	0°♄	
	1139 Aug 08 j 06:34	0°♄		desc. node	1140 Aug 07 j 20:58	13°♄00'47	
desc. node	1139 Aug 21 j 23:57	22°♄58'28			1140 Aug 20 j 16:39	0°♄	
	1139 Aug 26 j 16:56	0°♄		evening max el	1140 Aug 25 j 09:49	4°♄59'12	26°44'46
evening max el	1139 Sep 12 j 21:36	21°♄23'13	25°48'09	retrograde	1140 Sep 07 j 10:16	12°♄14'01	
retrograde	1139 Sep 25 j 06:06	28°♄26'36		evening set	1140 Sep 14 j 01:37	9°♄32'23	
evening set	1139 Oct 01 j 08:05	25°♄54'42		min. Earth dist.	1140 Sep 18 j 02:25	5°♄26'04	0.65842 AU
min. Earth dist.	1139 Oct 05 j 16:18	21°♄11'04	0.66811 AU	inferior conj	1140 Sep 19 j 20:50	3°♄20'45	-2°-2'-7
inferior conj	1139 Oct 06 j 22:48	19°♄34'21	-1°-4'-39	minimum elong	1140 Sep 20 j 00:02	3°♄11'18	2°00'53
minimum elong	1139 Oct 07 j 00:28	19°♄29'03	1°03'58		1140 Sep 22 j 21:13	30°♄	
asc. node	1139 Oct 10 j 02:17	15°♄50'47		morning rise	1140 Sep 25 j 23:45	27°♄36'28	
morning rise	1139 Oct 12 j 17:39	13°♄38'06		asc. node	1140 Sep 25 j 23:20	27°♄37'01	
direct	1139 Oct 15 j 22:18	12°♄39'19		direct	1140 Sep 28 j 19:49	26°♄51'39	
morning max el	1139 Oct 22 j 22:22	16°♄35'11	19°08'19		1140 Oct 04 j 22:43	0°♄	
	1139 Nov 02 j 03:10	0°♄					

morning max el	1140 Oct 05 j 10:28	0° Ω 28'46	18°25'46	morning set	1141 Oct 06 j 12:19	10° Ω 51'22	
morning set	1140 Oct 25 j 01:01	29° Ω 27'50			1141 Oct 18 j 01:08	0° \mathbb{M}	
	1140 Oct 25 j 08:59	0° \mathbb{M}					
desc. node	1140 Nov 03 j 20:15	15° \mathbb{M} 09'20		superior conj	1141 Oct 20 j 00:06	3° \mathbb{M} 09'49	0°11'28
				minimum elong	1141 Oct 20 j 01:27	3° \mathbb{M} 15'15	0°11'17
superior conj	1140 Nov 09 j 13:00	24° \mathbb{M} 09'15	0°-37'-12	behind sun begin	1141 Oct 19 j 17:55	2° \mathbb{M} 44'51	
minimum elong	1140 Nov 09 j 08:09	23° \mathbb{M} 50'11	0°36'35	behind sun end	1141 Oct 20 j 09:00	3° \mathbb{M} 45'36	
max. Earth dist.	1140 Nov 10 j 21:09	26° \mathbb{M} 15'42	1.45098 AU	desc. node	1141 Oct 21 j 17:17	5° \mathbb{M} 55'02	
	1140 Nov 13 j 06:17	0° \mathcal{A}		max. Earth dist.	1141 Oct 24 j 15:59	10° \mathbb{M} 36'23	1.44640 AU
evening rise	1140 Nov 25 j 19:02	19° \mathcal{A} 40'55		evening rise	1141 Nov 05 j 09:20	28° \mathbb{M} 54'04	
	1140 Dec 02 j 08:18	0° \mathcal{B}			1141 Nov 06 j 02:27	0° \mathcal{A}	
greatest brilliancy	1140 Dec 08 j 15:49	9° \mathcal{B} 47'05	-0.7m	greatest brilliancy	1141 Nov 25 j 02:57	28° \mathcal{A} 21'37	-0.6m
evening max el	1140 Dec 18 j 16:36	23° \mathcal{B} 12'24	19°12'18		1141 Nov 26 j 08:01	0° \mathcal{B}	
asc. node	1140 Dec 22 j 22:39	26° \mathcal{B} 31'34		evening max el	1141 Dec 01 j 21:16	6° \mathcal{B} 40'58	20°06'59
retrograde	1140 Dec 25 j 17:00	27° \mathcal{B} 13'16		retrograde	1141 Dec 09 j 14:43	11° \mathcal{B} 12'58	
evening set	1140 Dec 29 j 00:17	26° \mathcal{B} 09'37		asc. node	1141 Dec 09 j 19:40	11° \mathcal{B} 12'43	
inferior conj	1141 Jan 03 j 15:43	20° \mathcal{B} 17'12	3°15'15	evening set	1141 Dec 13 j 06:08	9° \mathcal{B} 55'35	
minimum elong	1141 Jan 03 j 13:13	20° \mathcal{B} 25'09	3°14'45	inferior conj	1141 Dec 18 j 17:53	3° \mathcal{B} 49'34	2°42'30
min. Earth dist.	1141 Jan 05 j 01:17	18° \mathcal{B} 30'07	0.66011 AU	minimum elong	1141 Dec 18 j 15:11	3° \mathcal{B} 58'38	2°41'44
morning rise	1141 Jan 09 j 01:19	14° \mathcal{B} 04'25		min. Earth dist.	1141 Dec 19 j 13:51	2° \mathcal{B} 42'33	0.66961 AU
direct	1141 Jan 15 j 10:02	11° \mathcal{B} 17'15			1141 Dec 21 j 16:37	30° \mathcal{R} \mathcal{A}	
morning max el	1141 Jan 28 j 03:11	18° \mathcal{B} 47'37	26°18'42	morning rise	1141 Dec 23 j 23:41	27° \mathcal{A} 34'31	
desc. node	1141 Jan 30 j 19:28	21° \mathcal{B} 38'18		direct	1141 Dec 29 j 18:36	25° \mathcal{A} 01'11	
	1141 Feb 06 j 15:32	0° \approx			1142 Jan 08 j 09:36	0° \mathcal{B}	
	1141 Feb 26 j 06:58	0° \mathcal{H}		morning max el	1142 Jan 10 j 11:59	2° \mathcal{B} 00'26	25°00'52
morning set	1141 Mar 05 j 05:32	12° \mathcal{H} 28'28		desc. node	1142 Jan 17 j 16:30	10° \mathcal{B} 14'31	
max. Earth dist.	1141 Mar 09 j 07:53	20° \mathcal{H} 19'21	1.35095 AU		1142 Jan 31 j 17:59	0° \approx	
				morning set	1142 Feb 15 j 15:22	24° \approx 37'32	
superior conj	1141 Mar 14 j 04:12	0° \mathcal{Y} 02'13	-1°-5'-53		1142 Feb 18 j 14:34	0° \mathcal{H}	
minimum elong	1141 Mar 14 j 07:25	0° \mathcal{Y} 18'39	1°05'20	max. Earth dist.	1142 Feb 19 j 08:27	1° \mathcal{H} 22'32	1.36882 AU
	1141 Mar 14 j 03:46	0° \mathcal{Y}					
asc. node	1141 Mar 20 j 21:57	14° \mathcal{Y} 00'10		superior conj	1142 Feb 25 j 16:18	13° \mathcal{H} 27'59	-1°-30'-47
evening rise	1141 Mar 21 j 22:33	16° \mathcal{Y} 07'10		minimum elong	1142 Feb 25 j 20:20	13° \mathcal{H} 47'50	1°30'16
	1141 Mar 29 j 00:59	0° \mathcal{B}			1142 Mar 05 j 22:20	0° \mathcal{Y}	
evening max el	1141 Apr 09 j 14:24	16° \mathcal{B} 19'46	20°38'23	evening rise	1142 Mar 06 j 01:43	0° \mathcal{Y} 16'57	
retrograde	1141 Apr 20 j 18:21	21° \mathcal{B} 44'20		asc. node	1142 Mar 07 j 18:59	3° \mathcal{Y} 42'44	
evening set	1141 Apr 22 j 21:37	21° \mathcal{B} 33'15		evening max el	1142 Mar 23 j 04:11	27° \mathcal{Y} 58'01	19°30'53
desc. node	1141 Apr 28 j 18:40	19° \mathcal{B} 26'05			1142 Mar 25 j 13:58	0° \mathcal{B}	
inferior conj	1141 May 02 j 02:36	17° \mathcal{B} 35'41	0°-57'-52	retrograde	1142 Apr 01 j 15:06	2° \mathcal{B} 31'25	
minimum elong	1141 May 01 j 23:52	17° \mathcal{B} 39'37	0°56'54	evening set	1142 Apr 03 j 17:04	2° \mathcal{B} 19'07	
min. Earth dist.	1141 May 03 j 06:25	16° \mathcal{B} 55'43	0.55047 AU		1142 Apr 09 j 09:46	30° \mathcal{R} \mathcal{Y}	
morning rise	1141 May 11 j 00:49	13° \mathcal{B} 26'19		inferior conj	1142 Apr 12 j 06:39	28° \mathcal{Y} 13'43	0°57'21
direct	1141 May 14 j 15:13	12° \mathcal{B} 58'24		minimum elong	1142 Apr 12 j 09:00	28° \mathcal{Y} 09'55	0°56'32
morning max el	1141 May 27 j 21:30	19° \mathcal{B} 23'04	23°08'12	min. Earth dist.	1142 Apr 14 j 20:55	26° \mathcal{Y} 34'03	0.55956 AU
	1141 Jun 05 j 17:00	0° \mathbb{I}		desc. node	1142 Apr 15 j 15:42	26° \mathcal{Y} 05'11	
asc. node	1141 Jun 16 j 21:10	19° \mathbb{I} 34'35		morning rise	1142 Apr 20 j 21:13	23° \mathcal{Y} 32'43	
morning set	1141 Jun 19 j 20:41	25° \mathbb{I} 42'16		direct	1142 Apr 25 j 10:20	22° \mathcal{Y} 46'03	
	1141 Jun 21 j 21:22	0° \mathcal{E}		morning max el	1142 May 09 j 12:22	29° \mathcal{Y} 52'33	24°49'18
					1142 May 09 j 15:29	0° \mathcal{B}	
superior conj	1141 Jun 26 j 23:58	10° \mathcal{E} 57'44	1°29'00		1142 May 30 j 02:17	0° \mathbb{I}	
minimum elong	1141 Jun 26 j 21:39	10° \mathcal{E} 45'21	1°28'44	asc. node	1142 Jun 03 j 18:13	9° \mathbb{I} 24'09	
max. Earth dist.	1141 Jun 29 j 14:27	16° \mathcal{E} 29'05	1.33785 AU	morning set	1142 Jun 04 j 08:36	10° \mathbb{I} 39'44	
evening rise	1141 Jul 04 j 16:40	26° \mathcal{E} 53'52					
	1141 Jul 06 j 06:37	0° \mathcal{Q}		superior conj	1142 Jun 11 j 09:17	25° \mathbb{I} 51'19	1°12'49
	1141 Jul 23 j 22:36	0° \mathbb{M}		minimum elong	1142 Jun 11 j 06:52	25° \mathbb{I} 38'07	1°12'26
desc. node	1141 Jul 25 j 17:59	2° \mathbb{M} 35'27		max. Earth dist.	1142 Jun 12 j 19:56	28° \mathbb{I} 59'19	1.32886 AU
evening max el	1141 Aug 07 j 21:37	18° \mathbb{M} 22'15	27°18'45		1142 Jun 13 j 07:10	0° \mathcal{E}	
retrograde	1141 Aug 21 j 08:44	25° \mathbb{M} 40'51		evening rise	1142 Jun 18 j 15:29	11° \mathcal{E} 15'41	
evening set	1141 Aug 28 j 10:06	22° \mathbb{M} 57'44			1142 Jun 28 j 12:33	0° \mathcal{Q}	
min. Earth dist.	1141 Sep 01 j 04:17	19° \mathbb{M} 27'55	0.64514 AU	desc. node	1142 Jul 12 j 15:00	21° \mathcal{Q} 29'57	
inferior conj	1141 Sep 03 j 11:34	16° \mathbb{M} 58'48	-2°-58'-13		1142 Jul 19 j 22:52	0° \mathbb{M}	
minimum elong	1141 Sep 03 j 16:05	16° \mathbb{M} 46'37	2°56'44	evening max el	1142 Jul 21 j 07:03	1° \mathbb{M} 18'54	27°23'58
morning rise	1141 Sep 09 j 23:56	11° \mathbb{M} 29'50		retrograde	1142 Aug 04 j 01:09	8° \mathbb{M} 36'53	
direct	1141 Sep 12 j 13:49	10° \mathbb{M} 55'26		evening set	1142 Aug 11 j 06:08	6° \mathbb{M} 04'15	
asc. node	1141 Sep 12 j 20:22	10° \mathbb{M} 55'49		min. Earth dist.	1142 Aug 14 j 20:16	3° \mathbb{M} 05'24	0.62833 AU
morning max el	1141 Sep 19 j 01:56	14° \mathbb{M} 22'42	18°00'08	inferior conj	1142 Aug 17 j 16:10	0° \mathbb{M} 21'17	-3°-49'-33
	1141 Sep 30 j 01:23	0° \mathcal{Q}		minimum elong	1142 Aug 17 j 21:17	0° \mathbb{M} 08'53	3°48'14

	1142 Aug 18 j 00:58	30° \mathbb{R} Ω		morning rise	1143 Aug 07 j 16:55	8° Ω 31'15	
morning rise	1142 Aug 24 j 14:57	25° Ω 10'57		direct	1143 Aug 10 j 02:22	8° Ω 08'31	
direct	1142 Aug 27 j 01:15	24° Ω 43'44		morning max el	1143 Aug 17 j 07:01	11° Ω 41'46	18°03'13
asc. node	1142 Aug 30 j 17:24	25° Ω 47'21		asc. node	1143 Aug 17 j 14:27	12° Ω 00'07	
morning max el	1142 Sep 02 j 17:48	28° Ω 09'37	17°52'15		1143 Aug 29 j 11:37	0° \mathbb{M}	
	1142 Sep 04 j 10:25	0° \mathbb{M}		morning set	1143 Sep 02 j 02:37	6° \mathbb{M} 40'51	
morning set	1142 Sep 18 j 22:52	23° \mathbb{M} 21'23					
	1142 Sep 22 j 17:05	0° $\underline{\Omega}$		superior conj	1143 Sep 12 j 02:59	24° \mathbb{M} 59'04	1°22'06
				minimum elong	1143 Sep 12 j 07:18	25° \mathbb{M} 18'11	1°21'39
superior conj	1142 Sep 30 j 12:08	13° $\underline{\Omega}$ 24'57	0°52'50		1143 Sep 14 j 23:38	0° $\underline{\Omega}$	
minimum elong	1142 Sep 30 j 16:39	13° $\underline{\Omega}$ 44'00	0°52'14	max. Earth dist.	1143 Sep 19 j 17:32	8° $\underline{\Omega}$ 04'35	1.41847 AU
max. Earth dist.	1142 Oct 07 j 07:17	24° $\underline{\Omega}$ 37'17	1.43506 AU	evening rise	1143 Sep 25 j 11:52	17° $\underline{\Omega}$ 29'45	
desc. node	1142 Oct 08 j 14:17	26° $\underline{\Omega}$ 42'09		desc. node	1143 Sep 25 j 11:19	17° $\underline{\Omega}$ 27'31	
	1142 Oct 10 j 15:53	0° \mathbb{M}			1143 Oct 03 j 12:36	0° \mathbb{M}	
evening rise	1142 Oct 15 j 17:04	7° \mathbb{M} 55'14		greatest brilliancy	1143 Oct 23 j 18:54	28° \mathbb{M} 18'12	-0.3m
	1142 Oct 30 j 09:33	0° \mathbb{M}			1143 Oct 25 j 05:08	0° \mathbb{M}	
greatest brilliancy	1142 Nov 09 j 15:59	14° \mathbb{M} 09'24	-0.4m	evening max el	1143 Oct 28 j 14:00	3° \mathbb{M} 40'59	22°31'15
evening max el	1142 Nov 14 j 20:19	20° \mathbb{M} 10'08	21°14'40	retrograde	1143 Nov 07 j 07:45	9° \mathbb{M} 28'16	
retrograde	1142 Nov 23 j 12:14	25° \mathbb{M} 18'59		evening set	1143 Nov 11 j 21:17	7° \mathbb{M} 38'34	
asc. node	1142 Nov 26 j 16:41	24° \mathbb{M} 22'18		asc. node	1143 Nov 13 j 13:42	6° \mathbb{M} 01'57	
evening set	1142 Nov 27 j 13:43	23° \mathbb{M} 46'12		inferior conj	1143 Nov 17 j 06:48	1° \mathbb{M} 16'07	1°14'56
inferior conj	1142 Dec 02 j 23:34	17° \mathbb{M} 30'05	2°01'50	minimum elong	1143 Nov 17 j 05:09	1° \mathbb{M} 21'49	1°14'17
minimum elong	1142 Dec 02 j 21:12	17° \mathbb{M} 38'18	2°01'00	min. Earth dist.	1143 Nov 17 j 03:49	1° \mathbb{M} 26'26	0.67759 AU
min. Earth dist.	1142 Dec 03 j 07:32	17° \mathbb{M} 02'39	0.67532 AU		1143 Nov 18 j 04:54	30° \mathbb{M}	
morning rise	1142 Dec 08 j 04:19	11° \mathbb{M} 14'49		morning rise	1143 Nov 22 j 12:53	25° \mathbb{M} 02'57	
direct	1142 Dec 13 j 08:07	9° \mathbb{M} 01'33		direct	1143 Nov 27 j 01:42	23° \mathbb{M} 12'17	
morning max el	1142 Dec 23 j 20:42	15° \mathbb{M} 17'48	23°33'35	morning max el	1143 Dec 06 j 08:27	28° \mathbb{M} 40'37	22°06'24
desc. node	1143 Jan 04 j 13:32	29° \mathbb{M} 33'06			1143 Dec 07 j 14:51	0° \mathbb{M}	
	1143 Jan 04 j 21:24	0° \mathbb{M}		greatest brilliancy	1143 Dec 11 j 00:38	3° \mathbb{M} 56'05	-0.4m
	1143 Jan 24 j 17:25	0° \mathbb{M}		desc. node	1143 Dec 22 j 10:33	19° \mathbb{M} 21'39	
morning set	1143 Jan 28 j 01:31	5° \mathbb{M} 34'16			1143 Dec 29 j 14:57	0° \mathbb{M}	
max. Earth dist.	1143 Feb 01 j 03:17	12° \mathbb{M} 35'43	1.38959 AU	morning set	1144 Jan 08 j 06:40	15° \mathbb{M} 05'45	
				max. Earth dist.	1144 Jan 14 j 00:33	24° \mathbb{M} 32'28	1.41087 AU
					1144 Jan 17 j 05:46	0° \mathbb{M}	
superior conj	1143 Feb 08 j 14:55	26° \mathbb{M} 10'41	-1°-50'-52				
minimum elong	1143 Feb 08 j 18:42	26° \mathbb{M} 28'23	1°50'36	superior conj	1144 Jan 21 j 19:08	7° \mathbb{M} 57'28	-2°-2'-30
	1143 Feb 10 j 15:32	0° \mathbb{M}		minimum elong	1144 Jan 21 j 20:42	8° \mathbb{M} 04'27	2°02'28
evening rise	1143 Feb 17 j 21:11	13° \mathbb{M} 58'44		evening rise	1144 Feb 01 j 05:35	27° \mathbb{M} 03'38	
asc. node	1143 Feb 22 j 16:01	23° \mathbb{M} 06'20			1144 Feb 02 j 19:30	0° \mathbb{M}	
	1143 Feb 26 j 13:42	0° \mathbb{M}		asc. node	1144 Feb 09 j 13:03	12° \mathbb{M} 03'39	
evening max el	1143 Mar 06 j 04:17	10° \mathbb{M} 14'10	18°43'13	evening max el	1144 Feb 17 j 11:38	22° \mathbb{M} 59'05	18°15'35
retrograde	1143 Mar 14 j 04:38	14° \mathbb{M} 08'16		retrograde	1144 Feb 24 j 12:49	26° \mathbb{M} 30'20	
evening set	1143 Mar 16 j 11:21	13° \mathbb{M} 50'30		evening set	1144 Feb 27 j 00:55	26° \mathbb{M} 04'35	
inferior conj	1143 Mar 24 j 06:02	9° \mathbb{M} 27'44	2°25'34	inferior conj	1144 Mar 05 j 02:25	21° \mathbb{M} 20'31	3°19'25
minimum elong	1143 Mar 24 j 10:12	9° \mathbb{M} 19'56	2°24'28	minimum elong	1144 Mar 05 j 05:30	21° \mathbb{M} 13'47	3°18'55
min. Earth dist.	1143 Mar 27 j 14:13	6° \mathbb{M} 58'59	0.57609 AU	min. Earth dist.	1144 Mar 08 j 12:00	18° \mathbb{M} 23'59	0.59668 AU
morning rise	1143 Apr 01 j 04:44	4° \mathbb{M} 13'44		morning rise	1144 Mar 12 j 06:33	15° \mathbb{M} 41'40	
desc. node	1143 Apr 02 j 12:43	3° \mathbb{M} 41'22		direct	1144 Mar 18 j 18:03	13° \mathbb{M} 46'20	
direct	1143 Apr 06 j 19:50	2° \mathbb{M} 55'25		desc. node	1144 Mar 19 j 09:45	13° \mathbb{M} 47'29	
morning max el	1143 Apr 21 j 04:21	10° \mathbb{M} 28'23	26°18'08	morning max el	1144 Apr 02 j 01:27	21° \mathbb{M} 33'01	27°20'38
	1143 May 06 j 03:19	0° \mathbb{M}			1144 Apr 09 j 10:34	0° \mathbb{M}	
morning set	1143 May 19 j 19:42	25° \mathbb{M} 34'08			1144 Apr 28 j 00:43	0° \mathbb{M}	
asc. node	1143 May 21 j 15:16	29° \mathbb{M} 25'34		morning set	1144 May 03 j 04:15	10° \mathbb{M} 19'00	
	1143 May 21 j 21:41	0° \mathbb{M}		asc. node	1144 May 07 j 12:19	19° \mathbb{M} 33'26	
superior conj	1143 May 26 j 20:42	10° \mathbb{M} 49'37	0°52'47				
minimum elong	1143 May 26 j 18:39	10° \mathbb{M} 38'19	0°52'23	superior conj	1144 May 10 j 08:24	25° \mathbb{M} 45'55	0°29'38
max. Earth dist.	1143 May 27 j 06:42	11° \mathbb{M} 44'31	1.32381 AU	minimum elong	1144 May 10 j 07:07	25° \mathbb{M} 38'50	0°29'22
evening rise	1143 Jun 02 j 20:52	25° \mathbb{M} 56'12		max. Earth dist.	1144 May 09 j 19:11	24° \mathbb{M} 33'19	1.32251 AU
	1143 Jun 04 j 20:14	0° \mathbb{M}			1144 May 12 j 06:39	0° \mathbb{M}	
	1143 Jun 22 j 03:24	0° Ω		evening rise	1144 May 17 j 06:20	10° \mathbb{M} 46'45	
desc. node	1143 Jun 29 j 12:01	9° Ω 27'22			1144 May 27 j 03:10	0° \mathbb{M}	
evening max el	1143 Jul 03 j 11:54	13° Ω 37'43	26°56'28	evening max el	1144 Jun 14 j 10:06	25° \mathbb{M} 11'00	25°56'55
retrograde	1143 Jul 17 j 10:26	20° Ω 52'41		desc. node	1144 Jun 15 j 09:02	26° \mathbb{M} 04'13	
evening set	1143 Jul 24 j 09:26	18° Ω 44'32			1144 Jun 20 j 15:08	0° Ω	
min. Earth dist.	1143 Jul 28 j 02:02	16° Ω 04'47	0.60878 AU	retrograde	1144 Jun 28 j 10:40	2° Ω 21'44	
inferior conj	1143 Jul 31 j 07:22	13° Ω 20'16	-4°-30'-26	evening set	1144 Jul 04 j 15:19	0° Ω 49'25	
minimum elong	1143 Jul 31 j 11:38	13° Ω 11'10	4°29'47		1144 Jul 06 j 04:17	30° \mathbb{R} \mathbb{M}	

min. Earth dist.	1144 Jul 08 j 22:41	28°☿11'49	0.58817 AU	desc. node	1145 Jun 02 j 06:04	10°☿48'31	
inferior conj	1144 Jul 12 j 05:36	25°☿46'11	-4°-51'-54	retrograde	1145 Jun 09 j 23:46	13°☿04'17	
minimum elong	1144 Jul 12 j 06:45	25°☿44'03	4°51'53	evening set	1145 Jun 14 j 21:44	12°☿10'01	
morning rise	1144 Jul 20 j 01:43	21°☿20'06		min. Earth dist.	1145 Jun 20 j 13:02	9°☿17'07	0.56919 AU
direct	1144 Jul 22 j 13:01	20°☿59'51		inferior conj	1145 Jun 23 j 08:00	7°☿29'44	-4°-41'-13
morning max el	1144 Jul 30 j 14:28	24°☿50'30	18°34'19	minimum elong	1145 Jun 23 j 04:08	7°☿35'58	4°40'50
asc. node	1144 Aug 03 j 11:31	29°☿19'01		morning rise	1145 Jul 01 j 14:16	3°☿24'54	
	1144 Aug 03 j 23:29	0°♌		direct	1145 Jul 04 j 05:12	3°☿05'58	
morning set	1144 Aug 15 j 18:39	20°♌36'26		morning max el	1145 Jul 13 j 13:12	7°☿26'25	19°26'31
	1144 Aug 20 j 15:15	0°♍		asc. node	1145 Jul 21 j 08:35	17°☿29'24	
					1145 Jul 28 j 07:00	0°♌	
superior conj	1144 Aug 24 j 16:11	7°♍39'36	1°39'14	morning set	1145 Jul 30 j 19:11	4°♌57'30	
minimum elong	1144 Aug 24 j 18:43	7°♍51'26	1°39'05				
max. Earth dist.	1144 Aug 31 j 23:08	20°♍50'45	1.39876 AU	superior conj	1145 Aug 07 j 22:00	21°♌10'13	1°46'02
evening rise	1144 Sep 05 j 05:06	28°♍07'15		minimum elong	1145 Aug 07 j 22:33	21°♌12'55	1°46'02
	1144 Sep 06 j 08:08	0°♎			1145 Aug 12 j 12:24	0°♍	
desc. node	1144 Sep 11 j 08:21	8°♎07'38		max. Earth dist.	1145 Aug 14 j 02:52	2°♍58'51	1.37846 AU
	1144 Sep 26 j 01:53	0°♏		evening rise	1145 Aug 17 j 22:27	9°♍52'26	
evening max el	1144 Oct 10 j 03:51	17°♏15'30	23°51'17	desc. node	1145 Aug 29 j 05:23	28°♍37'37	
retrograde	1144 Oct 21 j 00:01	23°♏38'22			1145 Aug 30 j 02:37	0°♎	
evening set	1144 Oct 26 j 03:17	21°♏31'00			1145 Sep 21 j 18:41	0°♏	
asc. node	1144 Oct 30 j 10:44	16°♏37'45		evening max el	1145 Sep 22 j 15:47	0°♏52'51	25°08'11
min. Earth dist.	1144 Oct 31 j 00:19	15°♏51'57	0.67655 AU	retrograde	1145 Oct 04 j 12:09	7°♏44'17	
inferior conj	1144 Oct 31 j 13:47	15°♏06'09	0°23'16	evening set	1145 Oct 10 j 06:00	5°♏20'13	
minimum elong	1144 Oct 31 j 13:14	15°♏08'02	0°23'01		1145 Oct 14 j 23:33	30°♏♎	
morning rise	1144 Nov 05 j 23:22	8°♏57'34		min. Earth dist.	1145 Oct 14 j 18:36	0°♏16'05	0.67219 AU
direct	1144 Nov 09 j 22:16	7°♏29'10		inferior conj	1145 Oct 15 j 18:48	28°♎57'00	0°-31'-53
morning max el	1144 Nov 18 j 02:46	12°♏13'48	20°47'01	minimum elong	1145 Oct 15 j 19:36	28°♎54'22	0°31'34
greatest brilliancy	1144 Nov 23 j 22:31	19°♏02'42	-0.5m	asc. node	1145 Oct 17 j 07:47	26°♎58'21	
	1144 Dec 01 j 20:33	0°♐		morning rise	1145 Oct 21 j 09:46	22°♎55'41	
desc. node	1144 Dec 08 j 07:36	9°♐32'19		direct	1145 Oct 24 j 20:28	21°♎47'11	
morning set	1144 Dec 17 j 10:17	23°♐28'24		morning max el	1145 Nov 01 j 04:56	25°♎57'42	19°40'06
	1144 Dec 21 j 13:59	0°♑			1145 Nov 04 j 18:07	0°♏	
max. Earth dist.	1144 Dec 26 j 05:37	7°♑27'31	1.42964 AU	greatest brilliancy	1145 Nov 09 j 08:19	6°♏09'00	-0.6m
				desc. node	1145 Nov 25 j 04:39	29°♏58'15	
superior conj	1145 Jan 01 j 23:44	18°♑36'56	-2°00'-57		1145 Nov 25 j 05:06	0°♐	
minimum elong	1145 Jan 01 j 20:45	18°♑24'26	2°00'52	morning set	1145 Nov 26 j 07:16	1°♐41'05	
	1145 Jan 08 j 15:04	0°♒		max. Earth dist.	1145 Dec 08 j 18:06	21°♐09'49	1.44328 AU
evening rise	1145 Jan 13 j 23:05	9°♒24'25					
asc. node	1145 Jan 26 j 10:05	0°♓		superior conj	1145 Dec 13 j 01:41	28°♐03'42	-1°-41'-46
	1145 Jan 26 j 02:44	0°♓		minimum elong	1145 Dec 12 j 17:54	27°♐32'24	1°41'10
evening max el	1145 Jan 30 j 23:02	6°♓04'12	18°07'31		1145 Dec 14 j 06:31	0°♑	
retrograde	1145 Feb 06 j 12:32	9°♓28'19		evening rise	1145 Dec 26 j 21:19	20°♑53'01	
evening set	1145 Feb 09 j 05:22	8°♓53'20			1146 Jan 01 j 06:51	0°♒	
inferior conj	1145 Feb 15 j 17:12	3°♓47'40	3°43'22	asc. node	1146 Jan 13 j 07:06	18°♒05'29	
minimum elong	1145 Feb 15 j 18:12	3°♓45'11	3°43'18	evening max el	1146 Jan 14 j 11:34	19°♒22'12	18°18'34
min. Earth dist.	1145 Feb 18 j 17:14	0°♓48'20	0.61785 AU	retrograde	1146 Jan 20 j 23:07	22°♒52'22	
	1145 Feb 19 j 13:56	30°♒♏		evening set	1146 Jan 23 j 20:44	22°♒07'17	
morning rise	1145 Feb 22 j 04:32	27°♒52'38		inferior conj	1146 Jan 29 j 22:25	16°♒41'44	3°44'44
direct	1145 Mar 01 j 02:15	25°♒25'38		minimum elong	1146 Jan 29 j 21:33	16°♒44'11	3°44'41
desc. node	1145 Mar 06 j 06:48	26°♒39'35		min. Earth dist.	1146 Feb 01 j 07:59	14°♒00'33	0.63701 AU
	1145 Mar 11 j 12:31	0°♓		morning rise	1146 Feb 04 j 20:41	10°♒36'42	
morning max el	1145 Mar 15 j 04:52	3°♓18'43	27°47'53	direct	1146 Feb 11 j 18:48	7°♒50'32	
	1145 Apr 03 j 22:43	0°♔		desc. node	1146 Feb 21 j 03:51	11°♒49'43	
morning set	1145 Apr 17 j 08:20	24°♔47'46		morning max el	1146 Feb 25 j 12:59	15°♒43'48	27°38'02
	1145 Apr 19 j 20:34	0°♕			1146 Mar 09 j 06:37	0°♓	
max. Earth dist.	1145 Apr 23 j 05:33	7°♕12'26	1.32497 AU	morning set	1146 Mar 27 j 14:56	0°♔	
asc. node	1145 Apr 24 j 09:23	9°♕43'29		max. Earth dist.	1146 Apr 06 j 09:43	19°♔28'35	1.33148 AU
superior conj	1145 Apr 24 j 18:43	10°♕34'18	0°04'08	superior conj	1146 Apr 09 j 01:52	25°♔09'09	0°-22'-55
minimum elong	1145 Apr 24 j 18:32	10°♕33'14	0°04'06	minimum elong	1146 Apr 09 j 03:00	25°♔15'09	0°22'41
behind sun begin	1145 Apr 24 j 13:34	10°♕06'11		asc. node	1146 Apr 11 j 06:27	29°♔51'46	
behind sun end	1145 Apr 24 j 23:30	11°♕00'19			1146 Apr 11 j 07:59	0°♕	
evening rise	1145 May 01 j 17:52	25°♕40'05		evening rise	1146 Apr 16 j 05:35	10°♕29'49	
	1145 May 03 j 19:35	0°♖			1146 Apr 26 j 08:12	0°♖	
	1145 May 21 j 15:35	0°☿		evening max el	1146 May 08 j 16:12	16°♖33'39	22°57'13
evening max el	1145 May 27 j 01:54	6°☿02'14	24°32'35				

desc. node	1146 May 20 j 03:06	23°II04'21		retrograde	1147 May 02 j 15:36	3°II11'08	
retrograde	1146 May 22 j 00:47	23°II12'37		evening set	1147 May 05 j 01:04	2°II58'03	
evening set	1146 May 25 j 11:26	22°II46'35		desc. node	1147 May 07 j 00:08	2°II29'04	
min. Earth dist.	1146 Jun 02 j 01:10	19°II24'28	0.55520 AU		1147 May 12 j 13:31	30°R8	
inferior conj	1146 Jun 03 j 15:07	18°II29'36	-3°-46'00	inferior conj	1147 May 14 j 10:08	28°858'03	-2°-6'-32
minimum elong	1146 Jun 03 j 07:37	18°II40'29	3°44'11	minimum elong	1147 May 14 j 04:21	29°806'11	2°04'35
morning rise	1146 Jun 12 j 06:47	14°II36'52		min. Earth dist.	1147 May 14 j 13:41	28°853'04	0.54940 AU
direct	1146 Jun 15 j 02:31	14°II18'05		morning rise	1147 May 23 j 07:58	24°859'56	
morning max el	1146 Jun 26 j 01:08	19°II22'09	20°39'37	direct	1147 May 26 j 13:00	24°837'29	
	1146 Jul 04 j 11:55	0°☾			1147 Jun 07 j 11:01	0°II	
asc. node	1146 Jul 08 j 05:40	6°☾19'21		morning max el	1147 Jun 08 j 01:58	0°II34'00	22°10'35
morning set	1146 Jul 15 j 01:30	19°☾36'53		asc. node	1147 Jun 25 j 02:43	25°II38'08	
	1146 Jul 20 j 01:57	0°♌			1147 Jun 27 j 07:24	0°☾	
				morning set	1147 Jun 29 j 11:22	4°☾27'21	
superior conj	1146 Jul 22 j 15:43	5°♌17'32	1°44'28	superior conj	1147 Jul 06 j 17:36	19°☾49'17	1°36'14
minimum elong	1146 Jul 22 j 14:42	5°♌12'20	1°44'26	minimum elong	1147 Jul 06 j 15:35	19°☾38'41	1°36'03
max. Earth dist.	1146 Jul 27 j 10:09	14°♌49'11	1.35996 AU	max. Earth dist.	1147 Jul 10 j 01:42	26°☾46'12	1.34479 AU
evening rise	1146 Jul 31 j 12:36	22°♌38'04			1147 Jul 11 j 15:49	0°♌	
	1146 Aug 04 j 14:11	0°♍		evening rise	1147 Jul 14 j 18:42	6°♌10'34	
desc. node	1146 Aug 16 j 02:25	18°♍52'16			1147 Jul 28 j 06:10	0°♍	
	1146 Aug 23 j 20:28	0°♎		desc. node	1147 Aug 02 j 23:26	8°♍44'06	
evening max el	1146 Sep 05 j 03:32	14°♎30'46	26°14'24	evening max el	1147 Aug 18 j 15:37	28°♍02'30	27°02'23
retrograde	1146 Sep 17 j 19:32	21°♎40'44			1147 Aug 20 j 19:22	0°♎	
evening set	1146 Sep 24 j 03:32	19°♎03'32		retrograde	1147 Aug 31 j 21:34	5°♎20'30	
min. Earth dist.	1146 Sep 28 j 08:24	14°♎35'54	0.66447 AU	evening set	1147 Sep 07 j 17:35	2°♎37'02	
inferior conj	1146 Sep 29 j 19:58	12°♎46'13	-1°-29'-3		1147 Sep 10 j 12:23	30°R♍	
minimum elong	1146 Sep 29 j 22:17	12°♎39'04	1°28'06	min. Earth dist.	1147 Sep 11 j 15:22	28°♍46'24	0.65318 AU
asc. node	1146 Oct 04 j 04:51	8°♎00'50		inferior conj	1147 Sep 13 j 15:12	26°♍30'00	-2°-26'-17
morning rise	1146 Oct 05 j 18:06	6°♎54'54		minimum elong	1147 Sep 13 j 19:00	26°♍19'09	2°24'53
direct	1146 Oct 08 j 18:43	6°♎02'42		morning rise	1147 Sep 19 j 22:00	20°♍51'46	
morning max el	1146 Oct 15 j 14:03	9°♎49'31	18°48'09	asc. node	1147 Sep 21 j 01:54	20°♍25'00	
	1146 Oct 30 j 00:32	0°♏		direct	1147 Sep 22 j 15:00	20°♍11'57	
morning set	1146 Nov 05 j 21:49	10°♏51'41		morning max el	1147 Sep 29 j 03:55	23°♍44'13	18°12'39
desc. node	1146 Nov 12 j 01:40	20°♏34'44			1147 Oct 04 j 05:19	0°♎	
	1146 Nov 18 j 01:33	0°♐		morning set	1147 Oct 17 j 17:08	21°♎28'45	
max. Earth dist.	1146 Nov 21 j 11:03	5°♐20'04	1.45025 AU		1147 Oct 22 j 22:08	0°♏	
superior conj	1146 Nov 22 j 06:47	6°♐37'39	-1°-4'-23	desc. node	1147 Oct 29 j 22:42	11°♏18'12	
minimum elong	1146 Nov 21 j 23:03	6°♐07'13	1°03'29	superior conj	1147 Nov 01 j 09:30	15°♏11'45	0°-16'-15
	1146 Dec 06 j 23:52	0°♑		minimum elong	1147 Nov 01 j 07:24	15°♏03'28	0°15'58
evening rise	1146 Dec 07 j 20:38	1°♑23'35		behind sun begin	1147 Nov 01 j 05:24	14°♏55'29	
	1146 Dec 26 j 12:00	0°♒		behind sun end	1147 Nov 01 j 09:25	15°♏11'27	
evening max el	1146 Dec 28 j 22:39	2°♒47'15	18°47'50	max. Earth dist.	1147 Nov 04 j 05:45	19°♏41'12	1.44989 AU
asc. node	1146 Dec 31 j 04:08	4°♒46'57			1147 Nov 10 j 19:43	0°♐	
retrograde	1147 Jan 04 j 16:27	6°♒34'25		evening rise	1147 Nov 17 j 21:05	10°♐59'44	
evening set	1147 Jan 07 j 19:43	5°♒38'07			1147 Nov 30 j 04:31	0°♑	
inferior conj	1147 Jan 13 j 14:11	29°♑54'52	3°29'38	greatest brilliancy	1147 Dec 04 j 00:53	5°♑42'33	-0.7m
minimum elong	1147 Jan 13 j 12:05	0°♑01'18	3°29'19	evening max el	1147 Dec 12 j 06:13	16°♑15'56	19°33'52
	1147 Jan 13 j 12:31	30°R♑		asc. node	1147 Dec 18 j 01:10	20°♑16'38	
min. Earth dist.	1147 Jan 15 j 08:21	27°♑45'39	0.65278 AU	retrograde	1147 Dec 19 j 13:13	20°♑29'09	
morning rise	1147 Jan 19 j 03:21	23°♑43'59		evening set	1147 Dec 22 j 23:42	19°♑20'02	
direct	1147 Jan 25 j 18:30	20°♑53'07		inferior conj	1147 Dec 28 j 13:20	13°♑21'44	3°02'27
morning max el	1147 Feb 07 j 22:45	28°♑36'23	26°55'10	minimum elong	1147 Dec 28 j 10:41	13°♑30'24	3°01'49
desc. node	1147 Feb 08 j 00:53	28°♑41'46		min. Earth dist.	1147 Dec 29 j 17:01	11°♑51'14	0.66463 AU
	1147 Feb 09 j 07:07	0°♒		morning rise	1148 Jan 02 j 20:57	7°♑07'40	
	1147 Mar 03 j 01:32	0°♓		direct	1148 Jan 09 j 00:11	4°♑25'01	
morning set	1147 Mar 15 j 16:29	22°♓23'14		morning max el	1148 Jan 21 j 07:53	11°♑44'09	25°47'18
	1147 Mar 19 j 13:41	0°♈		desc. node	1148 Jan 25 j 21:54	16°♑46'35	
max. Earth dist.	1147 Mar 20 j 03:43	1°♈10'31	1.34247 AU		1148 Feb 04 j 23:33	0°♒	
superior conj	1147 Mar 24 j 03:43	9°♈23'11	0°-50'-25		1148 Feb 23 j 17:10	0°♓	
minimum elong	1147 Mar 24 j 06:13	9°♈36'11	0°49'57	morning set	1148 Feb 26 j 13:03	5°♓06'35	
asc. node	1147 Mar 29 j 03:28	19°♈53'28		max. Earth dist.	1148 Mar 01 j 09:51	12°♓21'27	1.35806 AU
evening rise	1147 Mar 31 j 15:36	25°♈08'53		superior conj	1148 Mar 06 j 21:46	23°♓09'32	-1°-16'-51
	1147 Apr 03 j 00:16	0°♉		minimum elong	1148 Mar 07 j 01:25	23°♓27'54	1°16'18
evening max el	1147 Apr 20 j 12:31	27°♉16'00	21°25'23		1148 Mar 10 j 06:31	0°♈	
	1147 Apr 23 j 18:18	0°♊					

evening rise	1148 Mar 14 j 21:54	9°Υ31'24		superior conj	1149 Feb 18 j 04:39	6°✠18'25	-1°-40'-5
asc. node	1148 Mar 15 j 00:30	9°Υ44'35		minimum elong	1149 Feb 18 j 08:46	6°✠38'13	1°39'40
	1148 Mar 26 j 00:46	0°Ϡ		evening rise	1149 Feb 26 j 22:07	23°✠30'04	
evening max el	1148 Apr 01 j 19:44	8°Ϡ32'07	20°07'22	asc. node	1149 Mar 01 j 21:32	29°✠19'50	
retrograde	1148 Apr 12 j 05:50	13°Ϡ33'27			1149 Mar 02 j 05:53	0°Υ	
evening set	1148 Apr 14 j 07:22	13°Ϡ22'30		evening max el	1149 Mar 15 j 14:13	20°Υ27'07	19°08'06
desc. node	1148 Apr 22 j 21:08	9°Ϡ38'07		retrograde	1149 Mar 24 j 08:53	24°Υ41'37	
inferior conj	1148 Apr 23 j 06:48	9°Ϡ23'42	0°-6'-59	evening set	1149 Mar 26 j 12:48	24°Υ27'15	
minimum elong	1148 Apr 23 j 06:29	9°Ϡ24'10	0°06'53	inferior conj	1149 Apr 03 j 18:19	20°Υ15'02	1°38'57
transit middle	1148 Apr 23 j 06:29	9°Ϡ24'10	0°06'53	minimum elong	1149 Apr 03 j 21:54	20°Υ08'54	1°37'49
transit begin	1148 Apr 23 j 02:52	9°Ϡ29'34		min. Earth dist.	1149 Apr 06 j 18:20	18°Υ12'45	0.56592 AU
transit end	1148 Apr 23 j 10:06	9°Ϡ18'46		desc. node	1149 Apr 09 j 18:07	16°Υ25'01	
min. Earth dist.	1148 Apr 25 j 03:12	8°Ϡ17'30	0.55330 AU	morning rise	1149 Apr 12 j 02:54	15°Υ19'50	
morning rise	1148 May 02 j 02:59	5°Ϡ01'52		direct	1149 Apr 17 j 03:27	14°Υ21'04	
direct	1148 May 06 j 02:25	4°Ϡ27'19		morning max el	1149 May 01 j 09:08	21°Υ39'47	25°29'35
morning max el	1148 May 19 j 18:40	11°Ϡ11'50	23°51'37		1149 May 08 j 15:57	0°Ϡ	
	1148 Jun 02 j 20:58	0°Π			1149 May 26 j 08:35	0°Π	
asc. node	1148 Jun 10 j 23:46	15°Π18'16		morning set	1149 May 28 j 10:47	4°Π20'46	
morning set	1148 Jun 12 j 23:00	19°Π23'40		asc. node	1149 May 28 j 20:49	5°Π13'43	
	1148 Jun 17 j 21:39	0°ϣ					
superior conj	1148 Jun 20 j 00:50	4°ϣ36'50	1°22'39	superior conj	1149 Jun 04 j 11:16	19°Π33'12	1°04'44
minimum elong	1148 Jun 19 j 22:25	4°ϣ23'45	1°22'19	minimum elong	1149 Jun 04 j 08:57	19°Π20'30	1°04'20
max. Earth dist.	1148 Jun 22 j 02:47	9°ϣ04'43	1.33357 AU	max. Earth dist.	1149 Jun 05 j 11:10	21°Π43'48	1.32627 AU
evening rise	1148 Jun 27 j 12:27	20°ϣ17'37			1149 Jun 09 j 07:14	0°ϣ	
	1148 Jul 02 j 12:30	0°ϡ		evening rise	1149 Jun 11 j 14:25	4°ϣ48'49	
desc. node	1148 Jul 19 j 20:28	28°ϡ03'13			1149 Jun 25 j 04:37	0°ϡ	
	1148 Jul 21 j 07:13	0°൬		desc. node	1149 Jul 06 j 17:28	16°ϡ36'08	
evening max el	1148 Jul 31 j 02:55	11°൬16'38	27°24'55	evening max el	1149 Jul 13 j 10:54	23°ϡ59'29	27°16'25
retrograde	1148 Aug 13 j 17:33	18°൬34'58			1149 Jul 21 j 20:33	0°൬	
evening set	1148 Aug 20 j 21:13	15°൬55'06		retrograde	1149 Jul 27 j 06:45	1°൬15'26	
min. Earth dist.	1148 Aug 24 j 13:21	12°൬39'09	0.63835 AU		1149 Aug 01 j 11:08	30°℞ϡ	
inferior conj	1148 Aug 27 j 02:00	10°൬02'32	-3°-20'-54	evening set	1149 Aug 03 j 10:43	28°ϡ51'41	
minimum elong	1148 Aug 27 j 06:53	9°൬49'53	3°19'25	min. Earth dist.	1149 Aug 07 j 00:54	26°ϡ02'50	0.62028 AU
morning rise	1148 Sep 02 j 18:41	4°൬40'46		inferior conj	1149 Aug 10 j 01:23	23°ϡ16'45	-4°-8'-37
direct	1148 Sep 05 j 06:42	4°൬09'45		minimum elong	1149 Aug 10 j 06:21	23°ϡ05'17	4°07'33
asc. node	1148 Sep 06 j 22:57	4°൬23'54		morning rise	1149 Aug 17 j 04:42	18°ϡ15'02	
morning max el	1148 Sep 11 j 19:50	7°൬35'38	17°54'30	direct	1149 Aug 19 j 14:27	17°ϡ49'53	
	1148 Sep 26 j 16:00	0°♄		asc. node	1149 Aug 24 j 20:00	19°ϡ52'12	
morning set	1148 Sep 28 j 15:11	3°♄23'23		morning max el	1149 Aug 26 j 10:57	21°ϡ17'30	17°54'36
					1149 Sep 02 j 01:25	0°൬	
superior conj	1148 Oct 11 j 06:12	24°♄41'21	0°30'21	morning set	1149 Sep 11 j 09:49	16°൬17'15	
minimum elong	1148 Oct 11 j 09:24	24°♄54'25	0°29'54		1149 Sep 19 j 01:43	0°♄	
	1148 Oct 14 j 12:38	0°♌					
desc. node	1148 Oct 15 j 19:43	2°♌05'00		superior conj	1149 Sep 22 j 06:02	5°♄31'38	1°06'48
max. Earth dist.	1148 Oct 16 j 23:35	3°♌56'26	1.44236 AU	minimum elong	1149 Sep 22 j 10:48	5°♄52'03	1°06'13
evening rise	1148 Oct 27 j 06:33	20°♌03'03		max. Earth dist.	1149 Sep 29 j 13:33	17°♄47'35	1.42857 AU
	1148 Nov 02 j 19:00	0°♐		desc. node	1149 Oct 02 j 16:47	22°♄52'15	
greatest brilliancy	1148 Nov 18 j 09:48	22°♐37'56	-0.5m	evening rise	1149 Oct 06 j 17:10	29°♄14'18	
evening max el	1148 Nov 24 j 08:41	29°♐45'28	20°34'27		1149 Oct 07 j 04:50	0°♌	
	1148 Nov 24 j 14:23	0°♄			1149 Oct 27 j 11:49	0°♐	
retrograde	1148 Dec 02 j 10:58	4°♄32'06		greatest brilliancy	1149 Nov 02 j 09:39	7°♐45'53	-0.4m
asc. node	1148 Dec 03 j 22:12	4°♄19'57		evening max el	1149 Nov 07 j 05:24	13°♐15'42	21°46'20
evening set	1148 Dec 06 j 06:29	3°♄08'20		retrograde	1149 Nov 16 j 07:48	18°♐40'34	
	1148 Dec 09 j 09:44	30°℞♐		evening set	1149 Nov 20 j 14:18	17°♐00'30	
inferior conj	1148 Dec 11 j 17:15	26°♐57'49	2°26'05	asc. node	1149 Nov 20 j 19:14	16°♐50'32	
minimum elong	1148 Dec 11 j 14:38	27°♐06'44	2°25'16	inferior conj	1149 Nov 25 j 23:50	10°♐41'11	1°42'37
min. Earth dist.	1148 Dec 12 j 07:57	26°♐07'49	0.67256 AU	minimum elong	1149 Nov 25 j 21:43	10°♐48'30	1°41'49
morning rise	1148 Dec 16 j 22:18	20°♐42'39		min. Earth dist.	1149 Nov 26 j 02:58	10°♐30'22	0.67678 AU
direct	1148 Dec 22 j 10:59	18°♐17'12		morning rise	1149 Dec 01 j 04:54	4°♐26'45	
morning max el	1149 Jan 02 j 16:12	24°♐58'33	24°24'13	direct	1149 Dec 06 j 02:14	2°♐23'11	
	1149 Jan 07 j 05:23	0°♄		morning max el	1149 Dec 16 j 01:53	8°♐18'30	22°55'58
desc. node	1149 Jan 11 j 18:55	5°♄42'30		greatest brilliancy	1149 Dec 20 j 19:21	13°♐35'19	-0.3m
	1149 Jan 28 j 11:30	0°♌		desc. node	1149 Dec 29 j 15:58	25°♐15'13	
morning set	1149 Feb 07 j 13:30	16°♌46'23			1150 Jan 01 j 23:55	0°♄	
max. Earth dist.	1149 Feb 11 j 07:01	23°♌24'14	1.37750 AU	morning set	1150 Jan 19 j 11:42	27°♄07'25	
	1149 Feb 14 j 20:59	0°✠			1150 Jan 21 j 05:05	0°♌	
				max. Earth dist.	1150 Jan 24 j 02:32	4°♌55'07	1.39884 AU

superior conj	1150 Jan 31 j 20:05	18° \approx 38'54	-1°-57'-6	morning set	1150 Dec 30 j 04:56	6° \approx 06'41	
minimum elong	1150 Jan 31 j 23:13	18° \approx 53'14	1°56'56	max. Earth dist.	1151 Jan 06 j 02:53	17° \approx 17'19	1.41928 AU
	1150 Feb 06 j 21:48	0° \approx					
evening rise	1150 Feb 10 j 13:20	6° \approx 57'32		superior conj	1151 Jan 13 j 14:55	29° \approx 58'57	-2°-3'-45
asc. node	1150 Feb 16 j 18:34	18° \approx 33'18		minimum elong	1151 Jan 13 j 14:49	29° \approx 58'32	2°03'45
	1150 Feb 24 j 02:44	0° \approx			1151 Jan 13 j 15:10	0° \approx	
evening max el	1150 Feb 26 j 17:43	2° \approx 56'13	18°28'56	evening rise	1151 Jan 24 j 16:02	19° \approx 45'45	
retrograde	1150 Mar 06 j 06:52	6° \approx 38'56			1151 Jan 30 j 07:53	0° \approx	
evening set	1150 Mar 08 j 15:51	6° \approx 18'01		asc. node	1151 Feb 03 j 15:36	7° \approx 17'57	
inferior conj	1150 Mar 16 j 02:48	1° \approx 46'00	2°52'33	evening max el	1151 Feb 10 j 03:11	15° \approx 51'27	18°09'45
minimum elong	1150 Mar 16 j 06:44	1° \approx 38'06	2°51'40	retrograde	1151 Feb 16 j 22:18	19° \approx 18'12	
	1150 Mar 18 j 07:35	30° \approx		evening set	1151 Feb 19 j 12:19	18° \approx 48'49	
min. Earth dist.	1150 Mar 19 j 13:08	29° \approx 02'35	0.58454 AU	inferior conj	1151 Feb 26 j 07:35	13° \approx 55'37	3°32'47
morning rise	1150 Mar 23 j 17:35	26° \approx 20'08		minimum elong	1151 Feb 26 j 09:48	13° \approx 50'27	3°32'31
desc. node	1150 Mar 27 j 15:09	24° \approx 58'10		min. Earth dist.	1151 Mar 01 j 14:08	10° \approx 54'37	0.60573 AU
direct	1150 Mar 29 j 18:12	24° \approx 46'26		morning rise	1151 Mar 05 j 04:08	8° \approx 08'34	
	1150 Apr 10 j 10:33	0° \approx		direct	1151 Mar 11 j 21:07	5° \approx 58'27	
morning max el	1150 Apr 13 j 03:08	2° \approx 26'12	26°48'49	desc. node	1151 Mar 14 j 12:12	6° \approx 17'20	
	1150 May 02 j 22:55	0° \approx		morning max el	1151 Mar 26 j 03:17	13° \approx 49'35	27°36'48
morning set	1150 May 12 j 21:02	19° \approx 12'16			1151 Apr 08 j 02:18	0° \approx	
asc. node	1150 May 15 j 17:51	25° \approx 18'37			1151 Apr 25 j 06:29	0° \approx	
	1150 May 17 j 21:34	0° \approx		morning set	1151 Apr 27 j 03:59	3° \approx 51'59	
				asc. node	1151 May 02 j 14:55	15° \approx 28'28	
superior conj	1150 May 19 j 23:00	4° \approx 31'28	0°43'18	max. Earth dist.	1151 May 03 j 11:16	17° \approx 19'25	1.32303 AU
minimum elong	1150 May 19 j 21:13	4° \approx 21'43	0°42'56				
max. Earth dist.	1150 May 19 j 23:15	4° \approx 32'53	1.32276 AU	superior conj	1151 May 04 j 10:21	19° \approx 25'47	0°19'04
evening rise	1150 May 26 j 21:47	19° \approx 34'31		minimum elong	1151 May 04 j 09:30	19° \approx 21'05	0°18'53
	1150 Jun 01 j 01:32	0° \approx			1151 May 09 j 06:25	0° \approx	
	1150 Jun 20 j 00:30	0° \approx		evening rise	1151 May 11 j 08:23	4° \approx 27'24	
desc. node	1150 Jun 23 j 14:30	4° \approx 02'52			1151 May 24 j 23:19	0° \approx	
evening max el	1150 Jun 25 j 12:54	5° \approx 58'48	26°34'46	evening max el	1151 Jun 07 j 07:54	17° \approx 12'23	25°23'21
retrograde	1150 Jul 09 j 12:24	13° \approx 12'28		desc. node	1151 Jun 10 j 11:30	19° \approx 56'20	
evening set	1150 Jul 16 j 05:27	11° \approx 18'08		retrograde	1151 Jun 21 j 08:33	24° \approx 21'21	
min. Earth dist.	1150 Jul 20 j 02:14	8° \approx 41'57	0.60000 AU	evening set	1151 Jun 27 j 01:18	23° \approx 05'33	
inferior conj	1150 Jul 23 j 09:46	6° \approx 02'45	-4°-42'-35	min. Earth dist.	1151 Jul 01 j 19:53	20° \approx 23'16	0.57968 AU
minimum elong	1150 Jul 23 j 13:01	5° \approx 56'13	4°42'16	inferior conj	1151 Jul 04 j 23:46	18° \approx 11'26	-4°-52'-10
morning rise	1150 Jul 30 j 23:54	1° \approx 23'47		minimum elong	1151 Jul 04 j 22:55	18° \approx 12'55	4°52'10
direct	1150 Aug 02 j 09:56	1° \approx 02'17		morning rise	1151 Jul 13 j 00:18	13° \approx 55'06	
morning max el	1150 Aug 09 j 22:09	4° \approx 41'12	18°14'01	direct	1151 Jul 15 j 12:46	13° \approx 35'42	
asc. node	1150 Aug 11 j 17:04	6° \approx 23'50		morning max el	1151 Jul 24 j 02:18	17° \approx 37'33	18°53'55
morning set	1150 Aug 25 j 19:18	29° \approx 53'25		asc. node	1151 Jul 29 j 14:08	24° \approx 17'39	
	1150 Aug 25 j 20:42	0° \approx			1151 Aug 02 j 03:45	0° \approx	
				morning set	1151 Aug 09 j 15:17	14° \approx 00'26	
superior conj	1150 Sep 04 j 07:08	17° \approx 36'21	1°30'45		1151 Aug 17 j 19:40	0° \approx	
minimum elong	1150 Sep 04 j 10:47	17° \approx 52'54	1°30'26				
	1150 Sep 11 j 08:04	0° \approx		superior conj	1151 Aug 18 j 04:01	0° \approx 39'54	1°43'15
max. Earth dist.	1150 Sep 11 j 21:39	0° \approx 57'52	1.41028 AU	minimum elong	1151 Aug 18 j 05:41	0° \approx 47'52	1°43'11
evening rise	1150 Sep 16 j 20:38	9° \approx 13'03		max. Earth dist.	1151 Aug 25 j 01:16	13° \approx 23'46	1.39001 AU
desc. node	1150 Sep 19 j 13:50	13° \approx 35'57		evening rise	1151 Aug 29 j 00:17	20° \approx 19'31	
	1150 Sep 30 j 06:40	0° \approx			1151 Sep 03 j 19:42	0° \approx	
greatest brilliancy	1150 Oct 15 j 04:55	20° \approx 24'08	-0.2m	desc. node	1151 Sep 06 j 10:52	4° \approx 12'13	
evening max el	1150 Oct 20 j 21:06	26° \approx 47'33	23°05'10		1151 Sep 24 j 09:42	0° \approx	
	1150 Oct 24 j 10:54	0° \approx		evening max el	1151 Oct 03 j 09:45	10° \approx 22'52	24°24'53
retrograde	1150 Oct 31 j 02:15	2° \approx 51'09		retrograde	1151 Oct 14 j 17:00	16° \approx 59'43	
evening set	1150 Nov 04 j 21:28	0° \approx 53'45		evening set	1151 Oct 20 j 02:17	14° \approx 45'07	
	1150 Nov 05 j 21:03	30° \approx		min. Earth dist.	1151 Oct 24 j 19:37	9° \approx 20'27	0.67503 AU
asc. node	1150 Nov 07 j 16:16	27° \approx 58'55		inferior conj	1151 Oct 25 j 13:34	8° \approx 20'13	0°00'13
inferior conj	1150 Nov 10 j 07:12	24° \approx 29'30	0°53'34	minimum elong	1151 Oct 25 j 13:34	8° \approx 20'14	0°00'12
minimum elong	1150 Nov 10 j 05:59	24° \approx 33'43	0°53'02	transit middle	1151 Oct 25 j 13:34	8° \approx 20'14	0°00'12
min. Earth dist.	1150 Nov 09 j 23:40	24° \approx 55'30	0.67752 AU	transit begin	1151 Oct 25 j 10:50	8° \approx 29'26	
morning rise	1150 Nov 15 j 14:32	18° \approx 18'01		transit end	1151 Oct 25 j 16:18	8° \approx 11'03	
direct	1150 Nov 19 j 21:08	16° \approx 37'15		asc. node	1151 Oct 25 j 13:19	8° \approx 21'04	
morning max el	1150 Nov 28 j 16:19	21° \approx 46'26	21°31'23	morning rise	1151 Oct 31 j 01:12	2° \approx 14'10	
greatest brilliancy	1150 Dec 03 j 16:57	27° \approx 30'08	-0.4m	direct	1151 Nov 03 j 18:36	0° \approx 54'39	
	1150 Dec 05 j 15:58	0° \approx		morning max el	1151 Nov 11 j 13:53	5° \approx 24'01	20°16'47
desc. node	1150 Dec 16 j 13:02	15° \approx 14'26		greatest brilliancy	1151 Nov 18 j 05:26	13° \approx 22'51	-0.6m
	1150 Dec 26 j 07:21	0° \approx			1151 Nov 29 j 18:12	0° \approx	

desc. node	1151 Dec 03 j 10:06	5°♄32'11		asc. node	1152 Oct 11 j 10:22	18°♄53'23	
morning set	1151 Dec 09 j 02:31	14°♄15'30		morning rise	1152 Oct 14 j 10:58	16°♄13'32	
	1151 Dec 19 j 02:41	0°♄		direct	1152 Oct 17 j 17:09	15°♄12'16	
max. Earth dist.	1151 Dec 19 j 10:41	0°♄32'04	1.43611 AU	morning max el	1152 Oct 24 j 19:06	19°♄11'30	19°16'04
					1152 Nov 02 j 06:23	0°♄	
superior conj	1151 Dec 25 j 08:14	10°♄07'25	-1°-55'-10	greatest brilliancy	1152 Nov 03 j 23:15	2°♄29'35	-0.7m
minimum elong	1151 Dec 25 j 03:00	9°♄45'49	1°54'54	morning set	1152 Nov 17 j 04:32	22°♄46'22	
	1152 Jan 06 j 01:38	0°♄		desc. node	1152 Nov 19 j 07:08	26°♄03'22	
evening rise	1152 Jan 07 j 01:51	1°♄45'11			1152 Nov 21 j 19:51	0°♄	
asc. node	1152 Jan 21 j 12:38	25°♄23'58		max. Earth dist.	1152 Dec 01 j 01:29	14°♄29'00	1.44713 AU
evening max el	1152 Jan 24 j 15:28	29°♄03'24	18°09'58				
	1152 Jan 25 j 15:39	0°♄		superior conj	1152 Dec 03 j 23:56	19°♄07'54	-1°-27'-56
retrograde	1152 Jan 31 j 03:03	2°♄28'25		minimum elong	1152 Dec 03 j 15:18	18°♄33'40	1°27'06
evening set	1152 Feb 02 j 21:51	1°♄49'19			1152 Dec 10 j 18:38	0°♄	
	1152 Feb 05 j 16:30	30°♄		evening rise	1152 Dec 18 j 14:38	12°♄49'26	
inferior conj	1152 Feb 09 j 05:00	26°♄35'19	3°46'15		1152 Dec 29 j 01:52	0°♄	
minimum elong	1152 Feb 09 j 05:08	26°♄34'57	3°46'15	evening max el	1153 Jan 07 j 03:45	12°♄25'34	18°28'52
min. Earth dist.	1152 Feb 11 j 23:21	23°♄41'15	0.62638 AU	asc. node	1153 Jan 07 j 09:40	12°♄40'23	
morning rise	1152 Feb 15 j 10:18	20°♄35'29		retrograde	1153 Jan 13 j 16:51	16°♄01'18	
direct	1152 Feb 22 j 09:27	17°♄58'12		evening set	1153 Jan 16 j 16:50	15°♄11'28	
desc. node	1152 Feb 29 j 09:14	20°♄12'30		inferior conj	1153 Jan 22 j 15:07	9°♄38'09	3°39'59
morning max el	1152 Mar 07 j 08:50	25°♄52'40	27°47'58	minimum elong	1153 Jan 22 j 13:39	9°♄42'29	3°39'51
	1152 Mar 11 j 04:42	0°♄		min. Earth dist.	1153 Jan 24 j 18:06	7°♄09'30	0.64426 AU
	1152 Mar 31 j 14:17	0°♄		morning rise	1153 Jan 28 j 09:06	3°♄30'33	
morning set	1152 Apr 10 j 05:26	18°♄11'41		direct	1153 Feb 04 j 05:09	0°♄40'40	
	1152 Apr 15 j 21:15	0°♄		desc. node	1153 Feb 15 j 06:18	6°♄10'03	
max. Earth dist.	1152 Apr 15 j 19:13	29°♄49'08	1.32722 AU	morning max el	1153 Feb 17 j 17:46	8°♄30'15	27°23'21
					1153 Mar 06 j 11:09	0°♄	
superior conj	1152 Apr 17 j 19:33	4°♄09'23	0°-7'-13		1153 Mar 23 j 21:23	0°♄	
minimum elong	1152 Apr 17 j 19:54	4°♄11'15	0°07'09	morning set	1153 Mar 24 j 22:41	2°♄03'06	
behind sun begin	1152 Apr 17 j 15:14	3°♄45'58		max. Earth dist.	1153 Mar 29 j 19:27	11°♄51'24	1.33567 AU
behind sun end	1152 Apr 18 j 00:34	4°♄36'34					
asc. node	1152 Apr 18 j 11:58	5°♄38'19		superior conj	1153 Apr 02 j 00:44	18°♄36'20	0°-34'-35
evening rise	1152 Apr 24 j 20:12	19°♄19'56		minimum elong	1153 Apr 02 j 02:26	18°♄45'23	0°34'15
	1152 Apr 30 j 01:52	0°♄		asc. node	1153 Apr 05 j 08:59	25°♄44'18	
evening max el	1152 May 18 j 22:21	27°♄52'05	23°52'30		1153 Apr 07 j 08:53	0°♄	
	1152 May 21 j 07:50	0°♄		evening rise	1153 Apr 09 j 07:25	4°♄06'04	
desc. node	1152 May 27 j 08:30	3°♄41'41			1153 Apr 23 j 14:27	0°♄	
retrograde	1152 Jun 01 j 16:35	4°♄46'22		evening max el	1153 Apr 30 j 14:27	8°♄24'44	22°16'53
evening set	1152 Jun 05 j 22:59	4°♄06'13		retrograde	1153 May 13 j 12:00	14°♄46'32	
min. Earth dist.	1152 Jun 12 j 09:11	1°♄02'11	0.56242 AU	desc. node	1153 May 14 j 05:31	14°♄45'20	
	1152 Jun 14 j 02:02	30°♄		evening set	1153 May 16 j 10:11	14°♄27'40	
inferior conj	1152 Jun 14 j 17:34	29°♄36'07	-4°-23'-44	min. Earth dist.	1153 May 24 j 21:02	10°♄49'30	0.55166 AU
minimum elong	1152 Jun 14 j 11:42	29°♄45'07	4°22'47	inferior conj	1153 May 25 j 18:09	10°♄19'46	-3°-8'-16
morning rise	1152 Jun 23 j 03:56	25°♄37'37		minimum elong	1153 May 25 j 10:38	10°♄30'22	3°06'07
direct	1152 Jun 25 j 20:37	25°♄18'58		morning rise	1153 Jun 03 j 13:04	6°♄27'14	
	1152 Jul 05 j 21:51	0°♄		direct	1153 Jun 06 j 12:15	6°♄07'23	
morning max el	1152 Jul 05 j 20:33	29°♄57'00	19°55'06	morning max el	1153 Jun 18 j 03:27	11°♄33'02	21°16'28
asc. node	1152 Jul 15 j 11:12	12°♄46'16			1153 Jul 01 j 08:28	0°♄	
morning set	1152 Jul 23 j 18:34	28°♄30'07		asc. node	1153 Jul 02 j 08:15	1°♄49'34	
	1152 Jul 24 j 12:19	0°♄		morning set	1153 Jul 08 j 02:38	13°♄15'05	
superior conj	1152 Jul 31 j 15:23	14°♄27'27	1°46'16	superior conj	1153 Jul 15 j 12:55	28°♄46'09	1°41'42
minimum elong	1152 Jul 31 j 15:12	14°♄26'33	1°46'16	minimum elong	1153 Jul 15 j 11:25	28°♄38'18	1°41'36
max. Earth dist.	1152 Aug 06 j 05:42	25°♄20'48	1.37027 AU		1153 Jul 16 j 03:13	0°♄	
	1152 Aug 08 j 17:38	0°♄		max. Earth dist.	1153 Jul 19 j 16:31	7°♄13'07	1.35307 AU
evening rise	1152 Aug 10 j 03:04	2°♄32'17		evening rise	1153 Jul 24 j 00:33	15°♄39'20	
desc. node	1152 Aug 23 j 07:52	24°♄36'30			1153 Jul 31 j 23:58	0°♄	
	1152 Aug 26 j 21:32	0°♄		desc. node	1153 Aug 10 j 04:52	14°♄42'29	
evening max el	1152 Sep 14 j 21:38	24°♄01'57	25°38'15		1153 Aug 21 j 10:34	0°♄	
	1152 Sep 22 j 20:53	0°♄		evening max el	1153 Aug 28 j 09:43	7°♄38'49	26°37'33
retrograde	1152 Sep 27 j 03:07	1°♄02'18		retrograde	1153 Sep 10 j 08:01	14°♄52'28	
	1152 Oct 01 j 00:51	30°♄		evening set	1153 Sep 16 j 21:37	12°♄11'41	
evening set	1152 Oct 03 j 03:00	28°♄32'23		min. Earth dist.	1153 Sep 20 j 23:27	7°♄59'57	0.66013 AU
min. Earth dist.	1152 Oct 07 j 12:22	23°♄43'23	0.66928 AU	inferior conj	1153 Sep 22 j 16:05	5°♄58'33	-1°-53'-27
inferior conj	1152 Oct 08 j 17:11	22°♄11'14	0°-55'-59	minimum elong	1153 Sep 22 j 19:03	5°♄49'40	1°52'17
minimum elong	1152 Oct 08 j 18:37	22°♄06'38	0°55'23	asc. node	1153 Sep 28 j 07:26	0°♄27'09	

morning rise	1153 Sep 28 j 17:43	0°♌12'25		asc. node	1154 Sep 15 j 04:29	13°♍31'20	
	1153 Sep 29 j 03:42	30°♍		morning max el	1154 Sep 21 j 21:39	16°♍59'22	18°02'47
direct	1153 Oct 01 j 14:54	29°♍25'47			1154 Oct 01 j 07:41	0°♌	
	1153 Oct 04 j 03:16	0°♌		morning set	1154 Oct 09 j 14:11	13°♌44'55	
morning max el	1153 Oct 08 j 06:31	3°♌04'58	18°31'03		1154 Oct 19 j 09:55	0°♍	
	1153 Oct 26 j 16:44	0°♍					
morning set	1153 Oct 28 j 06:56	2°♍33'16		superior conj	1154 Oct 23 j 09:25	6°♍25'14	0°04'24
desc. node	1153 Nov 06 j 04:09	16°♍43'08		minimum elong	1154 Oct 23 j 09:57	6°♍27'24	0°04'20
				behind sun begin	1154 Oct 22 j 23:42	5°♍46'17	
superior conj	1153 Nov 13 j 01:06	27°♍33'18	0°-44'-34	behind sun end	1154 Oct 23 j 20:12	7°♍08'26	
minimum elong	1153 Nov 12 j 19:22	27°♍10'44	0°43'49	desc. node	1154 Oct 24 j 01:10	7°♍28'15	
max. Earth dist.	1153 Nov 13 j 20:09	28°♍48'07	1.45104 AU	max. Earth dist.	1154 Oct 27 j 14:51	13°♍08'42	1.44753 AU
	1153 Nov 14 j 14:27	0°♌			1154 Nov 07 j 09:50	0°♌	
evening rise	1153 Nov 29 j 03:49	22°♌55'30		evening rise	1154 Nov 08 j 20:20	2°♌13'20	
	1153 Dec 03 j 14:59	0°♍			1154 Nov 27 j 07:43	0°♍	
evening max el	1153 Dec 21 j 13:34	25°♍52'15	19°05'27	greatest brilliancy	1154 Nov 27 j 16:43	0°♍31'24	-0.6m
asc. node	1153 Dec 25 j 06:41	28°♍53'08		evening max el	1154 Dec 04 j 18:58	9°♍20'28	19°58'01
retrograde	1153 Dec 28 j 12:03	29°♍49'22		retrograde	1154 Dec 12 j 09:36	13°♍47'38	
evening set	1153 Dec 31 j 18:15	28°♍47'39		asc. node	1154 Dec 12 j 03:44	13°♍47'17	
inferior conj	1154 Jan 06 j 10:22	22°♍57'24	3°19'22	evening set	1154 Dec 15 j 23:39	12°♍32'28	
minimum elong	1154 Jan 06 j 07:58	23°♍05'01	3°18'55	inferior conj	1154 Dec 21 j 11:50	6°♍28'19	2°48'02
min. Earth dist.	1154 Jan 07 j 22:05	21°♍04'31	0.65831 AU	minimum elong	1154 Dec 21 j 09:08	6°♍37'20	2°47'17
morning rise	1154 Jan 11 j 20:47	16°♍45'00		min. Earth dist.	1154 Dec 22 j 09:45	5°♍15'08	0.66840 AU
direct	1154 Jan 18 j 07:15	13°♍56'39		morning rise	1154 Dec 26 j 17:59	0°♍13'21	
morning max el	1154 Jan 31 j 03:34	21°♍30'53	26°28'56		1154 Dec 27 j 00:03	30°♍	
desc. node	1154 Feb 02 j 03:20	23°♍35'59		direct	1155 Jan 01 j 15:04	27°♌37'21	
	1154 Feb 07 j 13:25	0°♌			1155 Jan 08 j 00:44	0°♍	
	1154 Feb 27 j 15:43	0°♌		morning max el	1155 Jan 13 j 12:28	4°♍42'31	25°13'19
morning set	1154 Mar 08 j 04:10	15°♌15'28		desc. node	1155 Jan 20 j 00:22	12°♍04'25	
max. Earth dist.	1154 Mar 12 j 08:47	23°♌20'44	1.34859 AU		1155 Feb 01 j 23:28	0°♌	
	1154 Mar 15 j 16:24	0°♍		morning set	1155 Feb 18 j 16:58	27°♌33'54	
					1155 Feb 20 j 01:15	0°♌	
superior conj	1154 Mar 16 j 23:38	2°♍39'51	-1°-1'-50	max. Earth dist.	1155 Feb 22 j 10:36	4°♌24'36	1.36586 AU
minimum elong	1154 Mar 17 j 02:40	2°♍55'27	1°01'20				
asc. node	1154 Mar 23 j 06:01	15°♍42'23		superior conj	1155 Feb 28 j 13:22	16°♌11'02	-1°-27'-15
evening rise	1154 Mar 24 j 16:11	18°♍39'33		minimum elong	1155 Feb 28 j 17:20	16°♌30'40	1°26'44
	1154 Mar 30 j 09:07	0°♌			1155 Mar 07 j 10:03	0°♍	
evening max el	1154 Apr 12 j 15:02	19°♌19'54	20°50'03	evening rise	1155 Mar 08 j 20:14	2°♍52'43	
retrograde	1154 Apr 24 j 01:17	24°♌52'46		asc. node	1155 Mar 10 j 03:03	5°♍27'20	
evening set	1154 Apr 26 j 05:37	24°♌41'25			1155 Mar 25 j 06:18	0°♌	
desc. node	1154 May 01 j 02:32	23°♌04'31		evening max el	1155 Mar 26 j 03:09	0°♌52'27	19°39'48
inferior conj	1154 May 05 j 12:05	20°♌43'37	-1°-16'-13	retrograde	1155 Apr 04 j 20:02	5°♌32'53	
minimum elong	1154 May 05 j 08:29	20°♌48'45	1°14'56	evening set	1155 Apr 06 j 21:34	5°♌21'08	
min. Earth dist.	1154 May 06 j 09:41	20°♌12'51	0.54988 AU	inferior conj	1155 Apr 15 j 13:54	1°♌17'53	0°41'07
morning rise	1154 May 14 j 10:30	16°♌37'47		minimum elong	1155 Apr 15 j 15:39	1°♌15'07	0°40'30
direct	1154 May 17 j 22:03	16°♌11'41		desc. node	1155 Apr 17 j 23:34	29°♍47'22	
morning max el	1154 May 31 j 00:22	22°♌29'11	22°53'03		1155 Apr 17 j 15:23	30°♍	
	1154 Jun 06 j 14:18	0°♌		min. Earth dist.	1155 Apr 18 j 00:03	29°♍46'37	0.55765 AU
asc. node	1154 Jun 19 j 05:17	21°♌18'44		morning rise	1155 Apr 24 j 06:12	26°♍41'53	
morning set	1154 Jun 22 j 13:31	28°♌09'33		direct	1155 Apr 28 j 15:33	25°♍58'48	
	1154 Jun 23 j 10:30	0°♍			1155 May 09 j 02:37	0°♌	
				morning max el	1155 May 12 j 15:36	3°♌00'20	24°34'32
superior conj	1154 Jun 29 j 17:26	13°♍26'18	1°31'04		1155 May 31 j 12:08	0°♌	
minimum elong	1154 Jun 29 j 15:11	13°♍14'18	1°30'49	asc. node	1155 Jun 06 j 02:19	11°♌05'58	
max. Earth dist.	1154 Jul 02 j 12:25	19°♍19'49	1.33953 AU	morning set	1155 Jun 07 j 01:25	13°♌06'54	
evening rise	1154 Jul 07 j 12:08	29°♍28'18					
	1154 Jul 07 j 18:34	0°♌		superior conj	1155 Jun 14 j 02:19	28°♌18'40	1°15'33
	1154 Jul 25 j 02:10	0°♍		minimum elong	1155 Jun 13 j 23:53	28°♌05'26	1°15'10
desc. node	1154 Jul 28 j 01:53	4°♍22'05			1155 Jun 14 j 21:00	0°♍	
evening max el	1154 Aug 10 j 21:32	21°♍04'10	27°15'18	max. Earth dist.	1155 Jun 15 j 16:46	1°♍46'45	1.32998 AU
retrograde	1154 Aug 24 j 07:27	28°♍22'59		evening rise	1155 Jun 21 j 09:46	13°♍46'43	
evening set	1154 Aug 31 j 07:38	25°♍39'18			1155 Jun 29 j 21:27	0°♌	
min. Earth dist.	1154 Sep 04 j 02:39	22°♍04'18	0.64737 AU	desc. node	1155 Jul 14 j 22:55	23°♌23'32	
inferior conj	1154 Sep 06 j 08:03	19°♍38'06	-2°-49'-58		1155 Jul 20 j 08:47	0°♍	
minimum elong	1154 Sep 06 j 12:23	19°♍26'12	2°48'29	evening max el	1155 Jul 24 j 07:33	4°♍05'48	27°25'11
morning rise	1154 Sep 12 j 18:58	14°♍06'44		retrograde	1155 Aug 07 j 00:58	11°♍24'09	
direct	1154 Sep 15 j 09:32	13°♍31'06		evening set	1155 Aug 14 j 05:49	8°♍49'14	

min. Earth dist.	1155 Aug 17 j 20:18	5° $\mathring{\text{M}}$ 46'12	0.63102 AU	min. Earth dist.	1156 Jul 30 j 03:38	18° $\mathring{\text{O}}$ 52'13	0.61182 AU
inferior conj	1155 Aug 20 j 14:22	3° $\mathring{\text{M}}$ 03'35	-3°-42'-19	inferior conj	1156 Aug 02 j 07:50	16° $\mathring{\text{O}}$ 06'51	-4°-25'-16
minimum elong	1155 Aug 20 j 19:28	2° $\mathring{\text{M}}$ 51'00	3°40'57	minimum elong	1156 Aug 02 j 12:21	15° $\mathring{\text{O}}$ 57'00	4°24'31
	1155 Aug 23 j 22:16	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$		morning rise	1156 Aug 09 j 15:46	11° $\mathring{\text{O}}$ 14'21	
morning rise	1155 Aug 27 j 11:34	27° $\mathring{\text{O}}$ 50'11		direct	1156 Aug 12 j 01:12	10° $\mathring{\text{O}}$ 51'03	
direct	1155 Aug 29 j 22:10	27° $\mathring{\text{O}}$ 22'07		asc. node	1156 Aug 18 j 22:36	14° $\mathring{\text{O}}$ 10'55	
asc. node	1155 Sep 02 j 01:32	28° $\mathring{\text{O}}$ 09'27		morning max el	1156 Aug 19 j 03:28	14° $\mathring{\text{O}}$ 22'38	18°00'21
	1155 Sep 04 j 17:12	0° $\mathring{\text{M}}$			1156 Aug 29 j 20:19	0° $\mathring{\text{M}}$	
morning max el	1155 Sep 05 j 13:40	0° $\mathring{\text{M}}$ 47'53	17°52'14	morning set	1156 Sep 03 j 23:22	9° $\mathring{\text{M}}$ 20'03	
morning set	1155 Sep 21 j 21:46	26° $\mathring{\text{M}}$ 06'42					
	1155 Sep 24 j 02:51	0° $\mathring{\text{A}}$		superior conj	1156 Sep 14 j 04:32	27° $\mathring{\text{M}}$ 51'46	1°18'28
				minimum elong	1156 Sep 14 j 09:02	28° $\mathring{\text{M}}$ 11'31	1°17'59
superior conj	1155 Oct 03 j 17:26	16° $\mathring{\text{A}}$ 28'48	0°47'18		1156 Sep 15 j 09:49	0° $\mathring{\text{A}}$	
minimum elong	1155 Oct 03 j 21:44	16° $\mathring{\text{A}}$ 46'46	0°46'43	max. Earth dist.	1156 Sep 21 j 18:07	10° $\mathring{\text{A}}$ 47'47	1.42122 AU
max. Earth dist.	1155 Oct 10 j 06:48	27° $\mathring{\text{A}}$ 13'43	1.43713 AU	desc. node	1156 Sep 26 j 19:16	19° $\mathring{\text{A}}$ 01'42	
desc. node	1155 Oct 10 j 22:13	28° $\mathring{\text{A}}$ 15'43		evening rise	1156 Sep 27 j 20:19	20° $\mathring{\text{A}}$ 41'38	
	1155 Oct 12 j 00:17	0° $\mathring{\text{M}}$			1156 Oct 03 j 19:29	0° $\mathring{\text{M}}$	
evening rise	1155 Oct 19 j 04:02	11° $\mathring{\text{M}}$ 14'06			1156 Oct 24 j 23:49	0° $\mathring{\text{A}}$	
	1155 Oct 31 j 14:12	0° $\mathring{\text{A}}$		greatest brilliancy	1156 Oct 25 j 20:02	1° $\mathring{\text{A}}$ 02'10	-0.3m
greatest brilliancy	1155 Nov 12 j 10:34	16° $\mathring{\text{A}}$ 34'58	-0.5m	evening max el	1156 Oct 30 j 13:27	6° $\mathring{\text{A}}$ 21'02	22°19'27
evening max el	1155 Nov 17 j 18:56	22° $\mathring{\text{A}}$ 50'05	21°03'56	retrograde	1156 Nov 09 j 03:07	12° $\mathring{\text{A}}$ 02'21	
retrograde	1155 Nov 26 j 07:15	27° $\mathring{\text{A}}$ 53'04		evening set	1156 Nov 13 j 14:47	10° $\mathring{\text{A}}$ 15'11	
asc. node	1155 Nov 29 j 00:46	27° $\mathring{\text{A}}$ 11'18		asc. node	1156 Nov 14 j 21:49	9° $\mathring{\text{A}}$ 03'49	
evening set	1155 Nov 30 j 07:05	26° $\mathring{\text{A}}$ 22'46		inferior conj	1156 Nov 19 j 00:16	3° $\mathring{\text{A}}$ 53'32	1°22'25
inferior conj	1155 Dec 05 j 17:08	20° $\mathring{\text{A}}$ 08'03	2°08'27	minimum elong	1156 Nov 18 j 22:29	3° $\mathring{\text{A}}$ 59'42	1°21'42
minimum elong	1155 Dec 05 j 14:41	20° $\mathring{\text{A}}$ 16'31	2°07'36	min. Earth dist.	1156 Nov 18 j 22:51	3° $\mathring{\text{A}}$ 58'24	0.67752 AU
min. Earth dist.	1155 Dec 06 j 02:50	19° $\mathring{\text{A}}$ 34'43	0.67472 AU		1156 Nov 21 j 23:09	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
morning rise	1155 Dec 10 j 21:52	13° $\mathring{\text{A}}$ 52'41		morning rise	1156 Nov 24 j 06:01	27° $\mathring{\text{M}}$ 40'01	
direct	1155 Dec 16 j 04:01	11° $\mathring{\text{A}}$ 36'02		direct	1156 Nov 28 j 21:04	25° $\mathring{\text{M}}$ 45'55	
morning max el	1155 Dec 26 j 20:57	17° $\mathring{\text{A}}$ 59'06	23°46'43		1156 Dec 06 j 22:29	0° $\mathring{\text{A}}$	
	1156 Jan 05 j 22:16	0° $\mathring{\text{B}}$		morning max el	1156 Dec 08 j 08:01	1° $\mathring{\text{A}}$ 20'56	22°19'01
desc. node	1156 Jan 06 j 21:24	1° $\mathring{\text{B}}$ 17'35		greatest brilliancy	1156 Dec 12 j 22:36	6° $\mathring{\text{A}}$ 30'51	-0.3m
	1156 Jan 26 j 01:47	0° $\mathring{\text{A}}$		desc. node	1156 Dec 23 j 18:28	21° $\mathring{\text{A}}$ 02'25	
morning set	1156 Jan 31 j 07:00	8° $\mathring{\text{A}}$ 42'02			1156 Dec 29 j 21:00	0° $\mathring{\text{B}}$	
max. Earth dist.	1156 Feb 04 j 05:35	15° $\mathring{\text{A}}$ 32'56	1.38642 AU	morning set	1157 Jan 10 j 16:34	18° $\mathring{\text{B}}$ 26'03	
				max. Earth dist.	1157 Jan 16 j 02:15	27° $\mathring{\text{B}}$ 22'29	1.40786 AU
superior conj	1156 Feb 11 j 14:16	29° $\mathring{\text{A}}$ 00'41	-1°-48'-18		1157 Jan 17 j 15:22	0° $\mathring{\text{A}}$	
minimum elong	1156 Feb 11 j 18:12	29° $\mathring{\text{A}}$ 19'11	1°47'58	superior conj	1157 Jan 23 j 21:35	10° $\mathring{\text{A}}$ 56'35	-2°-1'-29
	1156 Feb 12 j 02:49	0° $\mathring{\text{H}}$		minimum elong	1157 Jan 23 j 23:38	11° $\mathring{\text{A}}$ 05'49	2°01'25
evening rise	1156 Feb 20 j 17:00	16° $\mathring{\text{H}}$ 38'44		evening rise	1157 Feb 03 j 03:17	29° $\mathring{\text{A}}$ 49'32	
asc. node	1156 Feb 25 j 00:06	24° $\mathring{\text{H}}$ 53'59			1157 Feb 03 j 05:31	0° $\mathring{\text{H}}$	
	1156 Feb 27 j 19:22	0° $\mathring{\text{Y}}$		asc. node	1157 Feb 10 j 21:08	13° $\mathring{\text{H}}$ 55'34	
evening max el	1156 Mar 08 j 01:54	13° $\mathring{\text{Y}}$ 03'07	18°49'05	evening max el	1157 Feb 19 j 08:20	25° $\mathring{\text{H}}$ 43'54	18°18'24
retrograde	1156 Mar 16 j 06:35	17° $\mathring{\text{Y}}$ 01'49		retrograde	1157 Feb 26 j 12:10	29° $\mathring{\text{H}}$ 17'32	
evening set	1156 Mar 18 j 12:34	16° $\mathring{\text{Y}}$ 45'00		evening set	1157 Feb 28 j 23:32	28° $\mathring{\text{H}}$ 53'02	
inferior conj	1156 Mar 26 j 10:03	12° $\mathring{\text{Y}}$ 25'13	2°14'25	inferior conj	1157 Mar 08 j 03:21	24° $\mathring{\text{H}}$ 12'01	3°13'22
minimum elong	1156 Mar 26 j 14:10	12° $\mathring{\text{Y}}$ 17'41	2°13'16	minimum elong	1157 Mar 08 j 06:42	24° $\mathring{\text{H}}$ 04'51	3°12'45
min. Earth dist.	1156 Mar 29 j 16:43	10° $\mathring{\text{Y}}$ 02'42	0.57330 AU	min. Earth dist.	1157 Mar 11 j 13:31	21° $\mathring{\text{H}}$ 18'09	0.59349 AU
morning rise	1156 Apr 03 j 11:26	7° $\mathring{\text{Y}}$ 15'56		morning rise	1157 Mar 15 j 10:13	18° $\mathring{\text{H}}$ 36'20	
desc. node	1156 Apr 03 j 20:35	7° $\mathring{\text{Y}}$ 06'17		direct	1157 Mar 21 j 19:14	16° $\mathring{\text{H}}$ 46'34	
direct	1156 Apr 08 j 23:00	6° $\mathring{\text{Y}}$ 02'51		desc. node	1157 Mar 21 j 17:37	16° $\mathring{\text{H}}$ 46'35	
morning max el	1156 Apr 23 j 06:56	13° $\mathring{\text{Y}}$ 32'33	26°06'17	morning max el	1157 Apr 05 j 03:06	24° $\mathring{\text{H}}$ 31'26	27°13'36
	1156 May 06 j 06:35	0° $\mathring{\text{B}}$			1157 Apr 10 j 03:06	0° $\mathring{\text{Y}}$	
morning set	1156 May 21 j 12:45	28° $\mathring{\text{B}}$ 01'52			1157 Apr 29 j 11:06	0° $\mathring{\text{B}}$	
	1156 May 22 j 11:04	0° $\mathring{\text{H}}$		morning set	1157 May 05 j 21:49	12° $\mathring{\text{B}}$ 48'40	
asc. node	1156 May 22 j 23:23	1° $\mathring{\text{H}}$ 05'40		asc. node	1157 May 09 j 20:27	21° $\mathring{\text{B}}$ 12'55	
				max. Earth dist.	1157 May 12 j 15:35	27° $\mathring{\text{B}}$ 20'02	1.32241 AU
superior conj	1156 May 28 j 13:32	13° $\mathring{\text{H}}$ 16'27	0°56'02	superior conj	1157 May 13 j 01:18	28° $\mathring{\text{B}}$ 13'26	0°33'19
minimum elong	1156 May 28 j 11:24	13° $\mathring{\text{H}}$ 04'42	0°55'39	minimum elong	1157 May 12 j 23:53	28° $\mathring{\text{B}}$ 05'36	0°33'02
max. Earth dist.	1156 May 29 j 03:01	14° $\mathring{\text{H}}$ 30'24	1.32434 AU		1157 May 13 j 20:41	0° $\mathring{\text{H}}$	
evening rise	1156 Jun 04 j 14:20	28° $\mathring{\text{H}}$ 24'57		evening rise	1157 May 19 j 23:20	13° $\mathring{\text{H}}$ 14'35	
	1156 Jun 05 j 08:42	0° $\mathring{\text{B}}$			1157 May 28 j 11:19	0° $\mathring{\text{B}}$	
	1156 Jun 22 j 04:36	0° $\mathring{\text{O}}$		evening max el	1157 Jun 17 j 12:40	28° $\mathring{\text{B}}$ 12'00	26°07'41
desc. node	1156 Jun 30 j 19:56	11° $\mathring{\text{O}}$ 30'54		desc. node	1157 Jun 17 j 16:55	28° $\mathring{\text{B}}$ 22'05	
evening max el	1156 Jul 05 j 13:22	16° $\mathring{\text{O}}$ 31'22	27°02'43		1157 Jun 19 j 12:44	0° $\mathring{\text{O}}$	
retrograde	1156 Jul 19 j 11:18	23° $\mathring{\text{O}}$ 46'25					
evening set	1156 Jul 26 j 11:55	21° $\mathring{\text{O}}$ 33'56					

retrograde	1157 Jul 01 j 12:55	5°♂23'20			1158 May 05 j 07:58	0°♂	
evening set	1157 Jul 07 j 21:20	3°♂45'05			1158 May 22 j 09:43	0°♂	
min. Earth dist.	1157 Jul 12 j 01:23	1°♂08'34	0.59123 AU	evening max el	1158 May 30 j 05:05	9°♂07'58	24°46'18
	1157 Jul 13 j 14:17	30°♂		desc. node	1158 Jun 04 j 13:56	13°♂25'38	
inferior conj	1157 Jul 15 j 08:53	28°♂38'47	-4°-50'-27	retrograde	1158 Jun 13 j 03:57	16°♂12'25	
minimum elong	1157 Jul 15 j 10:40	28°♂35'24	4°50'22	evening set	1158 Jun 18 j 07:07	15°♂12'41	
morning rise	1157 Jul 23 j 03:27	24°♂09'20		min. Earth dist.	1158 Jun 23 j 16:20	12°♂23'08	0.57175 AU
direct	1157 Jul 25 j 14:25	23°♂48'45		inferior conj	1158 Jun 26 j 14:17	10°♂28'45	-4°-45'-34
morning max el	1157 Aug 02 j 12:01	27°♂35'51	18°28'21	minimum elong	1158 Jun 26 j 11:12	10°♂33'49	4°45'19
	1157 Aug 04 j 17:40	0°♂		morning rise	1158 Jul 04 j 19:06	6°♂21'18	
asc. node	1157 Aug 05 j 19:40	1°♂21'08		direct	1158 Jul 07 j 09:21	6°♂02'18	
morning set	1157 Aug 18 j 13:50	23°♂11'16		morning max el	1158 Jul 16 j 12:15	10°♂17'21	19°17'24
	1157 Aug 22 j 02:48	0°♂		asc. node	1158 Jul 23 j 16:43	19°♂24'27	
					1158 Jul 29 j 17:23	0°♂	
superior conj	1157 Aug 27 j 14:47	10°♂23'43	1°37'21	morning set	1158 Aug 02 j 13:16	7°♂28'54	
minimum elong	1157 Aug 27 j 17:37	10°♂36'53	1°37'09				
max. Earth dist.	1157 Sep 04 j 00:29	23°♂41'08	1.40183 AU	superior conj	1158 Aug 10 j 18:27	23°♂47'54	1°45'35
	1157 Sep 07 j 17:24	0°♂		minimum elong	1158 Aug 10 j 19:17	23°♂51'58	1°45'33
evening rise	1157 Sep 08 j 09:53	1°♂08'50			1158 Aug 14 j 00:01	0°♂	
desc. node	1157 Sep 13 j 16:18	9°♂42'53		max. Earth dist.	1158 Aug 17 j 04:02	5°♂53'22	1.38142 AU
	1157 Sep 27 j 04:56	0°♂		evening rise	1158 Aug 20 j 23:45	12°♂44'07	
evening max el	1157 Oct 13 j 03:43	19°♂54'47	23°39'19		1158 Aug 31 j 09:36	0°♂	
retrograde	1157 Oct 23 j 19:58	26°♂12'40		desc. node	1158 Aug 31 j 13:19	0°♂14'32	
evening set	1157 Oct 28 j 21:09	24°♂07'48			1158 Sep 22 j 07:28	0°♂	
asc. node	1157 Nov 01 j 18:52	19°♂46'33		evening max el	1158 Sep 25 j 15:42	3°♂31'19	24°57'10
inferior conj	1157 Nov 03 j 07:25	17°♂42'58	0°31'22	retrograde	1158 Oct 07 j 08:49	10°♂19'27	
minimum elong	1157 Nov 03 j 06:40	17°♂45'30	0°31'02	evening set	1158 Oct 13 j 00:27	7°♂57'39	
min. Earth dist.	1157 Nov 02 j 19:27	18°♂23'49	0.67696 AU	min. Earth dist.	1158 Oct 17 j 14:14	2°♂48'10	0.67306 AU
morning rise	1157 Nov 08 j 16:21	11°♂33'41		inferior conj	1158 Oct 18 j 12:49	1°♂33'47	0°-23'-22
direct	1157 Nov 12 j 17:13	10°♂02'11		minimum elong	1158 Oct 18 j 13:24	1°♂31'51	0°23'08
morning max el	1157 Nov 21 j 01:16	14°♂52'41	20°58'06	asc. node	1158 Oct 19 j 15:54	0°♂05'33	
greatest brilliancy	1157 Nov 26 j 15:11	21°♂21'23	-0.5m		1158 Oct 19 j 17:39	30°♂	
	1157 Dec 02 j 23:55	0°♂		morning rise	1158 Oct 24 j 02:53	25°♂31'12	
desc. node	1157 Dec 10 j 15:32	11°♂10'13		direct	1158 Oct 27 j 15:12	24°♂20'01	
morning set	1157 Dec 20 j 23:13	26°♂56'30		morning max el	1158 Nov 04 j 02:18	28°♂35'10	19°49'06
	1157 Dec 22 j 21:58	0°♂			1158 Nov 05 j 10:18	0°♂	
max. Earth dist.	1157 Dec 29 j 06:15	10°♂09'54	1.42714 AU	greatest brilliancy	1158 Nov 11 j 18:46	8°♂05'22	-0.6m
					1158 Nov 26 j 12:05	0°♂	
superior conj	1158 Jan 05 j 05:58	21°♂46'38	-2°-2'-14	desc. node	1158 Nov 27 j 12:35	1°♂34'10	
minimum elong	1158 Jan 05 j 03:48	21°♂37'26	2°02'12	morning set	1158 Nov 29 j 19:31	5°♂05'53	
	1158 Jan 10 j 00:41	0°♂		max. Earth dist.	1158 Dec 11 j 17:33	23°♂45'33	1.44161 AU
evening rise	1158 Jan 16 j 23:18	12°♂17'41			1158 Dec 15 j 15:03	0°♂	
	1158 Jan 27 j 04:31	0°♂					
asc. node	1158 Jan 28 j 18:10	2°♂24'32		superior conj	1158 Dec 16 j 11:50	1°♂24'00	-1°-45'-55
evening max el	1158 Feb 02 j 19:17	8°♂46'25	18°07'27	minimum elong	1158 Dec 16 j 04:36	0°♂54'43	1°45'24
retrograde	1158 Feb 09 j 09:56	12°♂10'52		evening rise	1158 Dec 30 j 00:42	23°♂54'48	
evening set	1158 Feb 12 j 02:02	11°♂37'22			1159 Jan 02 j 14:28	0°♂	
inferior conj	1158 Feb 18 j 15:40	6°♂34'47	3°41'19	asc. node	1159 Jan 05 j 15:11	20°♂11'04	
minimum elong	1158 Feb 18 j 16:59	6°♂31'34	3°41'14	evening max el	1159 Jan 17 j 07:50	22°♂03'15	18°15'44
min. Earth dist.	1158 Feb 21 j 17:32	3°♂34'17	0.61475 AU	retrograde	1159 Jan 23 j 19:12	25°♂31'50	
morning rise	1158 Feb 25 j 05:16	0°♂41'29		evening set	1159 Jan 26 j 16:01	24°♂48'24	
	1158 Feb 26 j 07:17	30°♂		inferior conj	1159 Feb 01 j 19:01	19°♂25'48	3°45'38
direct	1158 Mar 04 j 02:00	28°♂18'37		minimum elong	1159 Feb 01 j 18:23	19°♂27'32	3°45'37
desc. node	1158 Mar 08 j 14:40	29°♂14'52		min. Earth dist.	1159 Feb 04 j 06:56	16°♂40'41	0.63434 AU
	1158 Mar 10 j 05:41	0°♂		morning rise	1159 Feb 07 j 18:58	13°♂21'51	
morning max el	1158 Mar 18 j 05:45	6°♂11'26	27°46'19	direct	1159 Feb 14 j 17:35	10°♂37'27	
	1158 Apr 05 j 04:34	0°♂		desc. node	1159 Feb 23 j 11:43	14°♂06'46	
morning set	1158 Apr 20 j 02:41	27°♂20'17		morning max el	1159 Feb 28 j 13:22	18°♂31'39	27°41'42
	1158 Apr 21 j 09:37	0°♂			1159 Mar 10 j 06:00	0°♂	
max. Earth dist.	1158 Apr 26 j 02:32	10°♂01'29	1.32429 AU		1159 Mar 29 j 01:14	0°♂	
asc. node	1158 Apr 26 j 17:29	11°♂22'43		morning set	1159 Apr 04 j 01:01	11°♂29'22	
				max. Earth dist.	1159 Apr 09 j 07:44	22°♂21'10	1.33024 AU
superior conj	1158 Apr 27 j 11:54	13°♂03'10	0°08'08				
minimum elong	1158 Apr 27 j 11:32	13°♂01'07	0°08'03	superior conj	1159 Apr 11 j 19:37	27°♂40'20	0°-18'-45
behind sun begin	1158 Apr 27 j 07:06	12°♂36'59		minimum elong	1159 Apr 11 j 20:32	27°♂45'15	0°18'34
behind sun end	1158 Apr 27 j 15:57	13°♂25'17			1159 Apr 12 j 21:34	0°♂	
evening rise	1158 May 04 j 10:39	28°♂07'41		asc. node	1159 Apr 13 j 14:30	1°♂31'22	

evening rise	1159 Apr 18 j 22:26	12°♄58'05		1160 Apr 03 j 12:00	0°♄	
	1159 Apr 27 j 14:31	0°♄		1160 Apr 22 j 06:29	0°♄	
evening max el	1159 May 11 j 19:04	19°♄39'44	23°11'30	evening max el	1160 Apr 22 j 14:07	0°♄18'42 21°38'18
desc. node	1159 May 22 j 10:55	26°♄05'19		retrograde	1160 May 04 j 22:25	6°♄20'58
retrograde	1159 May 25 j 06:47	26°♄23'32		evening set	1160 May 07 j 10:36	6°♄06'48
evening set	1159 May 28 j 22:15	25°♄54'23		desc. node	1160 May 08 j 07:56	5°♄55'17
min. Earth dist.	1159 Jun 05 j 04:43	22°♄37'14	0.55681 AU	inferior conj	1160 May 16 j 19:55	2°♄05'23 -2°-23'-41
inferior conj	1159 Jun 06 j 23:53	21°♄34'01	-3°-57'-28	minimum elong	1160 May 16 j 13:30	2°♄14'22 2°21'35
minimum elong	1159 Jun 06 j 16:39	21°♄44'39	3°55'52	min. Earth dist.	1160 May 16 j 17:05	2°♄09'21 0.54969 AU
morning rise	1159 Jun 15 j 14:13	17°♄40'15			1160 May 20 j 17:24	30°♄
direct	1159 Jun 18 j 08:59	17°♄21'38		morning rise	1160 May 25 j 17:10	28°♄09'12
morning max el	1159 Jun 29 j 01:48	22°♄18'45	20°27'31	direct	1160 May 28 j 20:30	27°♄47'35
	1159 Jul 05 j 12:53	0°♄			1160 Jun 05 j 10:01	0°♄
asc. node	1159 Jul 10 j 13:46	8°♄08'31		morning max el	1160 Jun 10 j 04:05	3°♄36'18 21°56'13
morning set	1159 Jul 17 j 18:50	22°♄05'19		asc. node	1160 Jun 26 j 10:48	27°♄23'15
	1159 Jul 21 j 14:59	0°♄			1160 Jun 27 j 18:53	0°♄
				morning set	1160 Jul 01 j 04:17	6°♄54'17
superior conj	1159 Jul 25 j 10:37	7°♄49'56	1°45'10	superior conj	1160 Jul 08 j 11:27	22°♄18'23 1°37'51
minimum elong	1159 Jul 25 j 09:48	7°♄45'47	1°45'08	minimum elong	1160 Jul 08 j 09:33	22°♄08'25 1°37'42
max. Earth dist.	1159 Jul 30 j 10:08	17°♄43'06	1.36251 AU	max. Earth dist.	1160 Jul 12 j 00:25	29°♄38'10 1.34678 AU
evening rise	1159 Aug 03 j 11:04	25°♄21'08			1160 Jul 12 j 04:42	0°♄
	1159 Aug 06 j 00:29	0°♄		evening rise	1160 Jul 16 j 15:05	8°♄47'23
desc. node	1159 Aug 18 j 10:18	20°♄31'31			1160 Jul 28 j 13:20	0°♄
	1159 Aug 24 j 22:08	0°♄		desc. node	1160 Aug 04 j 07:17	10°♄27'09
evening max el	1159 Sep 08 j 03:24	17°♄09'22	26°05'35		1160 Aug 19 j 21:55	0°♄
retrograde	1159 Sep 20 j 16:59	24°♄17'27		evening max el	1160 Aug 20 j 15:37	0°♄43'13 26°56'47
evening set	1159 Sep 26 j 22:52	21°♄42'01		retrograde	1160 Sep 02 j 19:48	8°♄00'15
min. Earth dist.	1159 Oct 01 j 04:53	17°♄08'44	0.66581 AU	evening set	1160 Sep 09 j 14:13	5°♄17'19
inferior conj	1159 Oct 02 j 14:40	15°♄23'26	-1°-20'-21	min. Earth dist.	1160 Sep 13 j 13:04	1°♄21'10 0.65506 AU
minimum elong	1159 Oct 02 j 16:46	15°♄16'55	1°19'29		1160 Sep 14 j 17:15	30°♄
asc. node	1159 Oct 06 j 12:58	10°♄58'23		inferior conj	1160 Sep 15 j 10:58	29°♄08'34 -2°-17'-42
morning rise	1159 Oct 08 j 11:37	9°♄30'19		minimum elong	1160 Sep 15 j 14:33	28°♄58'11 2°16'21
direct	1159 Oct 11 j 13:35	8°♄35'56		morning rise	1160 Sep 21 j 16:22	23°♄28'03
morning max el	1159 Oct 18 j 10:27	12°♄25'47	18°54'50	asc. node	1160 Sep 22 j 10:01	23°♄08'54
	1159 Oct 31 j 06:28	0°♄		direct	1160 Sep 24 j 10:23	22°♄46'33
morning set	1159 Nov 09 j 06:18	14°♄04'37		morning max el	1160 Sep 30 j 23:46	26°♄20'24 18°16'54
desc. node	1159 Nov 14 j 09:36	22°♄09'07			1160 Oct 04 j 03:27	0°♄
	1159 Nov 19 j 09:37	0°♄		morning set	1160 Oct 19 j 21:21	24°♄29'17
max. Earth dist.	1159 Nov 24 j 09:47	7°♄51'50	1.44966 AU		1160 Oct 23 j 06:34	0°♄
				desc. node	1160 Oct 31 j 06:37	12°♄51'43
superior conj	1159 Nov 25 j 19:11	10°♄03'13	-1°-11'-1	superior conj	1160 Nov 03 j 20:50	18°♄33'23 0°-23'-43
minimum elong	1159 Nov 25 j 10:59	9°♄30'56	1°10'05	minimum elong	1160 Nov 03 j 17:45	18°♄21'11 0°23'19
	1159 Dec 08 j 07:49	0°♄		max. Earth dist.	1160 Nov 06 j 04:44	22°♄13'36 1.45046 AU
evening rise	1159 Dec 11 j 03:31	4°♄33'41			1160 Nov 11 j 03:40	0°♄
	1159 Dec 27 j 08:00	0°♄		evening rise	1160 Nov 20 j 07:08	14°♄17'17
evening max el	1159 Dec 31 j 19:19	5°♄27'34	18°42'23		1160 Nov 30 j 09:33	0°♄
asc. node	1160 Jan 02 j 12:13	7°♄02'05		greatest brilliancy	1160 Dec 05 j 09:58	7°♄34'24 -0.7m
retrograde	1160 Jan 07 j 11:40	9°♄11'26		evening max el	1160 Dec 14 j 03:34	18°♄55'55 19°26'00
evening set	1160 Jan 10 j 14:02	8°♄16'53		asc. node	1160 Dec 19 j 09:16	22°♄43'31
inferior conj	1160 Jan 16 j 09:26	2°♄36'15	3°32'44	retrograde	1160 Dec 21 j 08:05	23°♄04'30
minimum elong	1160 Jan 16 j 07:28	2°♄42'11	3°32'28	evening set	1160 Dec 24 j 17:26	21°♄57'19
min. Earth dist.	1160 Jan 18 j 05:54	0°♄21'37	0.65071 AU	inferior conj	1160 Dec 30 j 07:40	16°♄01'03 3°07'13
	1160 Jan 18 j 13:13	30°♄		minimum elong	1160 Dec 30 j 05:04	16°♄09'30 3°06'36
morning rise	1160 Jan 21 j 23:43	26°♄26'09		min. Earth dist.	1160 Dec 31 j 13:23	14°♄24'42 0.66318 AU
direct	1160 Jan 28 j 16:21	23°♄34'59		morning rise	1161 Jan 04 j 15:55	9°♄47'27
	1160 Feb 09 j 13:52	0°♄		direct	1161 Jan 10 j 21:10	7°♄02'59
desc. node	1160 Feb 10 j 08:46	0°♄45'18		morning max el	1161 Jan 23 j 08:14	14°♄26'12 25°58'35
morning max el	1160 Feb 10 j 22:56	1°♄20'24	27°03'17	desc. node	1161 Jan 27 j 05:49	18°♄40'26
	1160 Mar 03 j 08:21	0°♄			1161 Feb 05 j 01:47	0°♄
morning set	1160 Mar 17 j 13:45	25°♄05'28			1161 Feb 24 j 03:04	0°♄
	1160 Mar 20 j 01:57	0°♄		morning set	1161 Feb 28 j 12:46	7°♄56'22
max. Earth dist.	1160 Mar 22 j 03:21	4°♄07'56	1.34057 AU	max. Earth dist.	1161 Mar 04 j 11:17	15°♄22'38 1.35551 AU
				superior conj	1161 Mar 09 j 17:49	25°♄48'42 -1°-13'00
superior conj	1160 Mar 25 j 22:25	11°♄57'53	0°-46'-16	minimum elong	1161 Mar 09 j 21:19	26°♄06'27 1°12'26
minimum elong	1160 Mar 26 j 00:42	12°♄09'53	0°45'50			
asc. node	1160 Mar 30 j 11:31	21°♄34'13				
evening rise	1160 Apr 02 j 08:49	27°♄38'59				

	1161 Mar 11 j 19:09	0°♄		minimum elong	1162 Feb 21 j 06:46	9°♂23'53	1°36'26
asc. node	1161 Mar 17 j 08:34	11°♄27'06		evening rise	1162 Mar 01 j 17:11	26°♂07'21	
evening rise	1161 Mar 17 j 15:50	12°♄04'18			1162 Mar 03 j 16:15	0°♄	
	1161 Mar 27 j 03:28	0°♄		asc. node	1162 Mar 04 j 05:37	1°♄05'18	
evening max el	1161 Apr 04 j 19:38	11°♄28'59	20°17'50	evening max el	1162 Mar 18 j 12:33	23°♄18'30	19°15'41
retrograde	1161 Apr 15 j 11:54	16°♄38'14		retrograde	1162 Mar 27 j 12:45	27°♄39'28	
evening set	1161 Apr 17 j 13:49	16°♄27'21		evening set	1162 Mar 29 j 15:54	27°♄25'54	
desc. node	1161 Apr 25 j 04:59	13°♄19'26		inferior conj	1162 Apr 07 j 00:16	23°♄16'08	1°24'45
inferior conj	1161 Apr 26 j 15:25	12°♄29'18	0°-24'-56	minimum elong	1162 Apr 07 j 03:29	23°♄10'44	1°23'41
minimum elong	1161 Apr 26 j 14:16	12°♄31'00	0°24'31	min. Earth dist.	1162 Apr 09 j 21:10	21°♄21'36	0.56355 AU
min. Earth dist.	1161 Apr 28 j 06:16	11°♄32'15	0.55214 AU	desc. node	1162 Apr 12 j 02:02	20°♄01'17	
morning rise	1161 May 05 j 12:31	8°♄12'11		morning rise	1162 Apr 15 j 11:06	18°♄25'55	
direct	1161 May 09 j 08:43	7°♄40'09		direct	1162 Apr 20 j 07:34	17°♄31'43	
morning max el	1161 May 22 j 21:40	14°♄17'50	23°36'28	morning max el	1162 May 04 j 12:14	24°♄46'18	25°15'48
	1161 Jun 04 j 01:57	0°♄			1162 May 09 j 07:57	0°♄	
asc. node	1161 Jun 13 j 07:50	17°♄00'33			1162 May 27 j 20:28	0°♄	
morning set	1161 Jun 15 j 15:47	21°♄50'08		morning set	1162 May 31 j 03:41	6°♄47'47	
	1161 Jun 19 j 11:30	0°♄		asc. node	1162 May 31 j 04:54	6°♄54'10	
superior conj	1161 Jun 22 j 18:03	7°♄03'56	1°25'00	superior conj	1162 Jun 07 j 04:10	21°♄59'41	1°07'42
minimum elong	1161 Jun 22 j 15:39	6°♄51'02	1°24'43	minimum elong	1162 Jun 07 j 01:48	21°♄46'45	1°07'19
max. Earth dist.	1161 Jun 25 j 00:18	11°♄53'51	1.33498 AU	max. Earth dist.	1162 Jun 08 j 07:50	24°♄30'28	1.32712 AU
evening rise	1161 Jun 30 j 07:21	22°♄49'52			1162 Jun 10 j 20:52	0°♄	
	1161 Jul 03 j 23:32	0°♄		evening rise	1162 Jun 14 j 08:18	7°♄18'07	
desc. node	1161 Jul 22 j 04:19	29°♄51'50			1162 Jun 26 j 11:17	0°♄	
	1161 Jul 22 j 06:41	0°♄		desc. node	1162 Jul 09 j 01:20	18°♄32'40	
evening max el	1161 Aug 03 j 03:10	14°♄00'35	27°23'26	evening max el	1162 Jul 16 j 11:43	26°♄48'15	27°19'41
retrograde	1161 Aug 16 j 16:35	21°♄18'56			1162 Jul 20 j 05:34	0°♄	
evening set	1161 Aug 23 j 19:37	18°♄37'44		retrograde	1162 Jul 30 j 06:54	4°♄04'50	
min. Earth dist.	1161 Aug 27 j 12:27	15°♄17'03	0.64077 AU	evening set	1162 Aug 06 j 11:30	1°♄37'36	
inferior conj	1161 Aug 29 j 23:12	12°♄42'57	-3°-12'-57		1162 Aug 08 j 15:12	30°♄	
minimum elong	1161 Aug 30 j 03:58	12°♄30'24	3°11'27	min. Earth dist.	1162 Aug 10 j 01:29	28°♄45'36	0.62317 AU
morning rise	1161 Sep 05 j 14:21	7°♄18'33		inferior conj	1162 Aug 13 j 00:28	25°♄59'53	-4°-2'-7
direct	1161 Sep 08 j 03:00	6°♄46'23		minimum elong	1162 Aug 13 j 05:32	25°♄48'00	4°00'57
asc. node	1161 Sep 09 j 07:05	6°♄53'23		morning rise	1162 Aug 20 j 02:12	20°♄55'08	
morning max el	1161 Sep 14 j 15:35	10°♄12'32	17°56'08	direct	1162 Aug 22 j 12:06	20°♄29'18	
	1161 Sep 28 j 00:29	0°♄		asc. node	1162 Aug 27 j 04:07	22°♄08'36	
morning set	1161 Oct 01 j 15:47	6°♄13'23		morning max el	1162 Aug 29 j 07:02	23°♄56'03	17°53'24
					1162 Sep 03 j 03:55	0°♄	
superior conj	1161 Oct 14 j 13:57	27°♄52'02	0°23'48	morning set	1162 Sep 14 j 07:41	18°♄58'47	
minimum elong	1161 Oct 14 j 16:34	28°♄02'41	0°23'27		1162 Sep 20 j 12:01	0°♄	
	1161 Oct 15 j 21:30	0°♄		superior conj	1162 Sep 25 j 09:39	8°♄29'43	1°02'04
desc. node	1161 Oct 18 j 03:39	3°♄38'01		minimum elong	1162 Sep 25 j 14:23	8°♄49'54	1°01'29
max. Earth dist.	1161 Oct 19 j 23:06	6°♄31'30	1.44393 AU	max. Earth dist.	1162 Oct 02 j 13:36	20°♄26'07	1.43093 AU
evening rise	1161 Oct 30 j 18:01	23°♄23'21		desc. node	1162 Oct 05 j 00:41	24°♄24'57	
	1161 Nov 04 j 01:36	0°♄			1162 Oct 08 j 13:01	0°♄	
greatest brilliancy	1161 Nov 21 j 01:40	24°♄54'39	-0.5m	evening rise	1162 Oct 10 j 03:14	2°♄29'44	
	1161 Nov 25 j 02:16	0°♄			1162 Oct 28 j 14:14	0°♄	
evening max el	1161 Nov 27 j 06:51	2°♄25'13	20°24'34	greatest brilliancy	1162 Nov 05 j 06:08	10°♄15'56	-0.4m
retrograde	1161 Dec 05 j 05:53	7°♄06'32		evening max el	1162 Nov 10 j 04:22	15°♄54'48	21°35'05
asc. node	1161 Dec 06 j 06:20	7°♄00'41		retrograde	1162 Nov 19 j 03:02	21°♄14'09	
evening set	1161 Dec 08 j 23:58	5°♄44'58		evening set	1162 Nov 23 j 07:45	19°♄36'36	
inferior conj	1161 Dec 14 j 11:03	29°♄35'56	2°32'08	asc. node	1162 Nov 23 j 03:23	19°♄44'59	
minimum elong	1161 Dec 14 j 08:23	29°♄44'56	2°31'18	inferior conj	1162 Nov 28 j 17:22	13°♄18'15	1°49'37
	1161 Dec 14 j 03:56	30°♄		minimum elong	1162 Nov 28 j 15:08	13°♄25'56	1°48'48
min. Earth dist.	1161 Dec 15 j 03:32	28°♄40'03	0.67163 AU	min. Earth dist.	1162 Nov 28 j 22:08	13°♄01'46	0.67633 AU
morning rise	1161 Dec 19 j 16:19	23°♄20'49		morning rise	1162 Dec 03 j 22:16	7°♄03'29	
direct	1161 Dec 25 j 07:12	20°♄52'33		direct	1162 Dec 08 j 21:48	4°♄56'33	
morning max el	1162 Jan 05 j 16:43	27°♄40'10	24°37'11	morning max el	1162 Dec 19 j 02:03	10°♄59'17	23°09'05
	1162 Jan 07 j 21:36	0°♄		greatest brilliancy	1162 Dec 24 j 01:07	16°♄32'33	-0.3m
desc. node	1162 Jan 14 j 02:53	7°♄29'40		desc. node	1162 Dec 31 j 23:56	26°♄57'29	
	1162 Jan 29 j 18:34	0°♄			1163 Jan 03 j 03:53	0°♄	
morning set	1162 Feb 10 j 16:42	19°♄46'57		morning set	1163 Jan 22 j 19:12	0°♄20'44	
max. Earth dist.	1162 Feb 14 j 09:39	26°♄25'30	1.37441 AU		1163 Jan 22 j 14:14	0°♄	
	1162 Feb 16 j 08:13	0°♄		max. Earth dist.	1163 Jan 27 j 04:51	7°♄49'46	1.39561 AU
superior conj	1162 Feb 21 j 02:39	9°♄03'55	-1°-36'-54				

superior conj	1163 Feb 03 j 20:43	21° \approx 32'17	-1°-55'-6	morning set	1164 Jan 02 j 16:31	9° \approx 31'01	
minimum elong	1163 Feb 04 j 00:08	21° \approx 48'02	1°54'53	max. Earth dist.	1164 Jan 09 j 03:55	20° \approx 02'29	1.41641 AU
	1163 Feb 08 j 08:59	0° \approx			1164 Jan 15 j 01:04	0° \approx	
evening rise	1163 Feb 13 j 09:59	9° \approx 39'55					
asc. node	1163 Feb 19 j 02:41	20° \approx 22'29		superior conj	1164 Jan 16 j 18:58	3° \approx 02'03	-2°-3'-36
	1163 Feb 24 j 22:33	0° \approx		minimum elong	1164 Jan 16 j 19:31	3° \approx 04'27	2°03'38
evening max el	1163 Mar 01 j 14:54	5° \approx 42'53	18°33'30	evening rise	1164 Jan 27 j 14:46	22° \approx 34'12	
retrograde	1163 Mar 09 j 07:46	9° \approx 29'21			1164 Jan 31 j 16:14	0° \approx	
evening set	1163 Mar 11 j 15:55	9° \approx 09'37		asc. node	1164 Feb 05 j 23:43	9° \approx 11'51	
inferior conj	1163 Mar 19 j 05:32	4° \approx 40'55	2°43'37	evening max el	1164 Feb 12 j 23:41	18° \approx 34'39	18°11'20
minimum elong	1163 Mar 19 j 09:36	4° \approx 32'56	2°42'38	retrograde	1164 Feb 19 j 20:42	22° \approx 02'35	
min. Earth dist.	1163 Mar 22 j 15:25	2° \approx 02'06	0.58150 AU	evening set	1164 Feb 22 j 10:01	21° \approx 34'31	
	1163 Mar 25 j 16:27	30° \approx		inferior conj	1164 Feb 29 j 07:25	16° \approx 44'34	3°28'31
morning rise	1163 Mar 26 j 23:06	29° \approx 18'54		minimum elong	1164 Feb 29 j 09:57	16° \approx 38'48	3°28'11
desc. node	1163 Mar 29 j 23:05	28° \approx 12'07		min. Earth dist.	1164 Mar 03 j 15:16	13° \approx 44'32	0.60259 AU
direct	1163 Apr 01 j 20:29	27° \approx 50'41		morning rise	1164 Mar 07 j 06:34	11° \approx 00'11	
	1163 Apr 09 j 04:48	0° \approx		direct	1164 Mar 13 j 21:54	8° \approx 54'58	
morning max el	1163 Apr 16 j 05:31	5° \approx 28'30	26°38'43	desc. node	1164 Mar 15 j 20:08	9° \approx 05'05	
	1163 May 04 j 06:13	0° \approx		morning max el	1164 Mar 28 j 04:32	16° \approx 44'49	27°31'54
morning set	1163 May 15 j 14:16	21° \approx 40'20			1164 Apr 08 j 02:53	0° \approx	
asc. node	1163 May 18 j 01:56	26° \approx 57'44			1164 Apr 25 j 18:28	0° \approx	
	1163 May 19 j 11:35	0° \approx		morning set	1164 Apr 28 j 21:48	6° \approx 21'39	
				asc. node	1164 May 03 j 22:59	17° \approx 06'44	
superior conj	1163 May 22 j 15:50	6° \approx 57'58	0°46'46	max. Earth dist.	1164 May 05 j 07:39	20° \approx 05'02	1.32275 AU
minimum elong	1163 May 22 j 13:57	6° \approx 47'36	0°46'23				
max. Earth dist.	1163 May 22 j 19:31	7° \approx 18'12	1.32305 AU	superior conj	1164 May 06 j 03:19	21° \approx 52'52	0°22'55
evening rise	1163 May 29 j 15:01	22° \approx 01'57		minimum elong	1164 May 06 j 02:18	21° \approx 47'17	0°22'41
	1163 Jun 02 j 12:51	0° \approx			1164 May 09 j 20:14	0° \approx	
	1163 Jun 20 j 18:08	0° \approx		evening rise	1164 May 13 j 01:14	6° \approx 53'51	
desc. node	1163 Jun 25 j 22:21	6° \approx 10'44			1164 May 25 j 04:09	0° \approx	
evening max el	1163 Jun 28 j 14:40	8° \approx 54'09	26°42'57	evening max el	1164 Jun 09 j 10:45	20° \approx 14'21	25°35'34
retrograde	1163 Jul 12 j 13:54	16° \approx 08'26		desc. node	1164 Jun 11 j 19:22	22° \approx 20'18	
evening set	1163 Jul 19 j 09:19	14° \approx 08'58		retrograde	1164 Jun 23 j 11:35	27° \approx 24'07	
min. Earth dist.	1163 Jul 23 j 04:20	11° \approx 31'55	0.60310 AU	evening set	1164 Jun 29 j 08:42	26° \approx 02'36	
inferior conj	1163 Jul 26 j 11:18	8° \approx 50'23	-4°-38'-49	min. Earth dist.	1164 Jul 03 j 23:00	23° \approx 22'16	0.58259 AU
minimum elong	1163 Jul 26 j 14:57	8° \approx 42'51	4°38'22	inferior conj	1164 Jul 07 j 04:13	21° \approx 05'13	-4°-52'-55
morning rise	1163 Aug 02 j 23:51	4° \approx 07'57		minimum elong	1164 Jul 07 j 04:06	21° \approx 05'25	4°52'56
direct	1163 Aug 05 j 09:35	3° \approx 46'06		morning rise	1164 Jul 15 j 03:13	16° \approx 45'31	
morning max el	1163 Aug 12 j 19:01	7° \approx 22'50	18°09'49	direct	1164 Jul 17 j 15:12	16° \approx 25'51	
asc. node	1163 Aug 14 j 01:10	8° \approx 40'57		morning max el	1164 Jul 26 j 00:22	20° \approx 23'38	18°46'35
	1163 Aug 27 j 07:26	0° \approx		asc. node	1164 Jul 30 j 22:13	26° \approx 15'15	
morning set	1163 Aug 28 j 15:13	2° \approx 29'05			1164 Aug 02 j 09:12	0° \approx	
				morning set	1164 Aug 11 j 09:52	16° \approx 32'09	
superior conj	1163 Sep 07 j 07:15	20° \approx 23'53	1°27'54		1164 Aug 18 j 07:41	0° \approx	
minimum elong	1163 Sep 07 j 11:10	20° \approx 41'28	1°27'32				
	1163 Sep 12 j 18:12	0° \approx		superior conj	1164 Aug 20 j 01:30	3° \approx 19'26	1°42'01
max. Earth dist.	1163 Sep 14 j 22:17	3° \approx 41'51	1.41317 AU	minimum elong	1164 Aug 20 j 03:29	3° \approx 28'47	1°41'55
evening rise	1163 Sep 20 j 03:27	12° \approx 19'17		max. Earth dist.	1164 Aug 27 j 02:23	16° \approx 14'07	1.39307 AU
desc. node	1163 Sep 21 j 21:42	15° \approx 09'11		evening rise	1164 Aug 31 j 03:24	23° \approx 15'25	
	1163 Oct 01 j 12:38	0° \approx			1164 Sep 04 j 04:26	0° \approx	
greatest brilliancy	1163 Oct 18 j 16:34	23° \approx 38'14	-0.3m	desc. node	1164 Sep 07 j 18:42	5° \approx 46'40	
evening max el	1163 Oct 23 j 20:40	29° \approx 26'08	22°53'17		1164 Sep 24 j 09:39	0° \approx	
	1163 Oct 24 j 10:20	0° \approx		evening max el	1164 Oct 05 j 09:40	13° \approx 00'53	24°13'18
retrograde	1163 Nov 02 j 21:55	5° \approx 24'20		retrograde	1164 Oct 16 j 13:09	19° \approx 33'02	
evening set	1163 Nov 07 j 15:05	3° \approx 29'39		evening set	1164 Oct 21 j 20:18	17° \approx 21'01	
asc. node	1163 Nov 10 j 00:25	1° \approx 03'55		min. Earth dist.	1164 Oct 26 j 14:56	11° \approx 51'15	0.67561 AU
	1163 Nov 10 j 21:04	30° \approx		asc. node	1164 Oct 26 j 21:27	11° \approx 29'17	
inferior conj	1163 Nov 13 j 00:42	27° \approx 05'54	1°01'18	inferior conj	1164 Oct 27 j 07:18	10° \approx 56'04	0°08'29
minimum elong	1163 Nov 12 j 23:19	27° \approx 10'40	1°00'44	minimum elong	1164 Oct 27 j 07:05	10° \approx 56'47	0°08'25
min. Earth dist.	1163 Nov 12 j 18:45	27° \approx 26'27	0.67758 AU	transit middle	1164 Oct 27 j 07:05	10° \approx 56'47	0°08'25
morning rise	1163 Nov 18 j 07:32	20° \approx 53'43		transit begin	1164 Oct 27 j 04:45	11° \approx 04'40	
direct	1163 Nov 22 j 16:17	19° \approx 09'30		transit end	1164 Oct 27 j 09:25	10° \approx 48'54	
morning max el	1163 Dec 01 j 15:28	24° \approx 25'26	21°43'28	morning rise	1164 Nov 01 j 18:09	4° \approx 49'02	
greatest brilliancy	1163 Dec 06 j 12:30	29° \approx 57'08	-0.4m	direct	1164 Nov 05 j 13:27	3° \approx 26'25	
	1163 Dec 06 j 13:26	0° \approx		morning max el	1164 Nov 13 j 11:47	8° \approx 00'55	20°27'04
desc. node	1163 Dec 18 j 20:58	16° \approx 53'07		greatest brilliancy	1164 Nov 19 j 19:54	15° \approx 33'14	-0.5m
	1163 Dec 27 j 14:38	0° \approx			1164 Nov 29 j 23:49	0° \approx	

desc. node	1164 Dec 04 j 17:59	7°♂08'09		asc. node	1165 Oct 13 j 18:29	21°♂56'20	
morning set	1164 Dec 11 j 15:38	17°♂42'41		morning rise	1165 Oct 17 j 04:12	18°♂48'06	
	1164 Dec 19 j 11:13	0°♂		direct	1165 Oct 20 j 11:57	17°♂44'19	
max. Earth dist.	1164 Dec 21 j 10:40	3°♂10'08	1.43395 AU	morning max el	1165 Oct 27 j 15:57	21°♂47'09	19°24'05
					1165 Nov 03 j 08:07	0°♂	
superior conj	1164 Dec 27 j 16:13	13°♂21'12	-1°-57'-38	greatest brilliancy	1165 Nov 05 j 21:42	3°♂39'04	-0.7m
minimum elong	1164 Dec 27 j 11:46	13°♂02'44	1°57'26	morning set	1165 Nov 20 j 15:18	26°♂05'25	
	1165 Jan 06 j 10:58	0°♂		desc. node	1165 Nov 21 j 15:00	27°♂37'22	
evening rise	1165 Jan 09 j 03:18	4°♂40'56			1165 Nov 23 j 03:42	0°♂	
asc. node	1165 Jan 22 j 20:45	27°♂24'15		max. Earth dist.	1165 Dec 04 j 00:47	17°♂02'26	1.44594 AU
	1165 Jan 24 j 21:26	0°♂					
evening max el	1165 Jan 26 j 11:43	1°♂44'29	18°08'44	superior conj	1165 Dec 07 j 11:13	22°♂29'49	-1°-33'-14
retrograde	1165 Feb 01 j 23:43	5°♂08'49		minimum elong	1165 Dec 07 j 02:46	21°♂56'06	1°32'27
evening set	1165 Feb 04 j 17:52	4°♂31'08			1165 Dec 12 j 03:19	0°♂	
	1165 Feb 10 j 11:04	30°♂		evening rise	1165 Dec 21 j 19:22	15°♂53'23	
inferior conj	1165 Feb 11 j 02:35	29°♂20'03	3°45'34		1165 Dec 30 j 07:24	0°♂	
minimum elong	1165 Feb 11 j 03:01	29°♂18'55	3°45'34	asc. node	1166 Jan 09 j 17:47	14°♂48'48	
min. Earth dist.	1165 Feb 13 j 23:02	26°♂23'43	0.62346 AU	evening max el	1166 Jan 10 j 00:08	15°♂05'09	18°24'57
morning rise	1165 Feb 17 j 09:56	23°♂21'49		retrograde	1166 Jan 16 j 12:30	18°♂38'41	
direct	1165 Feb 24 j 08:48	20°♂47'51		evening set	1166 Jan 19 j 11:40	17°♂50'30	
desc. node	1165 Mar 02 j 17:10	22°♂38'37		inferior conj	1166 Jan 25 j 11:03	12°♂19'47	3°41'58
morning max el	1165 Mar 10 j 09:19	28°♂41'49	27°48'42	minimum elong	1166 Jan 25 j 09:47	12°♂23'28	3°41'51
	1165 Mar 11 j 15:54	0°♂		min. Earth dist.	1166 Jan 27 j 16:19	9°♂46'35	0.64177 AU
	1165 Apr 01 j 22:39	0°♂		morning rise	1166 Jan 31 j 06:27	6°♂13'02	
morning set	1165 Apr 13 j 00:13	20°♂44'50		direct	1166 Feb 07 j 03:22	3°♂24'15	
	1165 Apr 17 j 10:54	0°♂		desc. node	1166 Feb 17 j 14:12	8°♂19'58	
max. Earth dist.	1165 Apr 18 j 16:33	2°♂38'36	1.32633 AU	morning max el	1166 Feb 20 j 18:01	11°♂15'13	27°29'12
					1166 Mar 07 j 14:49	0°♂	
superior conj	1165 Apr 20 j 12:58	6°♂38'31	0°-3'-7		1166 Mar 25 j 08:53	0°♂	
minimum elong	1165 Apr 20 j 13:06	6°♂39'19	0°03'06	morning set	1166 Mar 27 j 18:53	4°♂41'14	
behind sun begin	1165 Apr 20 j 08:01	6°♂11'44		max. Earth dist.	1166 Apr 01 j 18:17	14°♂46'15	1.33411 AU
behind sun end	1165 Apr 20 j 18:11	7°♂06'54					
asc. node	1165 Apr 20 j 20:03	7°♂17'01		superior conj	1166 Apr 04 j 18:52	21°♂08'22	0°-30'-24
evening rise	1165 Apr 27 j 12:59	21°♂47'05		minimum elong	1166 Apr 04 j 20:22	21°♂16'21	0°30'06
	1165 May 01 j 12:42	0°♂		asc. node	1166 Apr 07 j 17:04	27°♂23'52	
	1165 May 21 j 02:10	0°♂			1166 Apr 08 j 22:11	0°♂	
evening max el	1165 May 22 j 01:39	0°♂58'14	24°06'44	evening rise	1166 Apr 12 j 00:26	6°♂34'46	
desc. node	1165 May 29 j 16:22	6°♂27'56			1166 Apr 24 j 14:19	0°♂	
retrograde	1165 Jun 04 j 21:23	7°♂55'25		evening max el	1166 May 03 j 16:56	11°♂29'39	22°30'50
evening set	1165 Jun 09 j 09:18	7°♂10'37		retrograde	1166 May 16 j 18:37	17°♂57'52	
min. Earth dist.	1165 Jun 15 j 12:36	4°♂10'49	0.56467 AU	desc. node	1166 May 16 j 13:25	17°♂57'45	
inferior conj	1165 Jun 18 j 01:03	2°♂37'04	-4°-31'-1	evening set	1166 May 19 j 20:57	17°♂36'45	
minimum elong	1165 Jun 17 j 19:50	2°♂45'12	4°30'18	min. Earth dist.	1166 May 28 j 00:26	14°♂04'33	0.55273 AU
	1165 Jun 22 j 14:46	30°♂		inferior conj	1166 May 29 j 03:42	13°♂25'52	-3°-22'-38
morning rise	1165 Jun 26 j 09:59	28°♂36'32		minimum elong	1166 May 28 j 20:03	13°♂36'44	3°20'34
direct	1165 Jun 29 j 02:04	28°♂17'47		morning rise	1166 Jun 06 j 21:33	9°♂33'45	
	1165 Jul 05 j 02:13	0°♂		direct	1166 Jun 09 j 19:28	9°♂14'21	
morning max el	1165 Jul 08 j 20:14	2°♂49'22	19°44'38	morning max el	1166 Jun 21 j 04:51	14°♂32'08	21°03'15
asc. node	1165 Jul 17 j 19:15	14°♂37'52			1166 Jul 02 j 15:59	0°♂	
	1165 Jul 26 j 00:26	0°♂		asc. node	1166 Jul 04 j 16:18	3°♂36'25	
morning set	1165 Jul 26 j 12:17	0°♂59'32		morning set	1166 Jul 10 j 19:48	15°♂42'46	
					1166 Jul 17 j 16:29	0°♂	
superior conj	1165 Aug 03 j 11:04	17°♂01'48	1°46'20	superior conj	1166 Jul 18 j 07:23	1°♂16'50	1°42'49
minimum elong	1165 Aug 03 j 11:08	17°♂02'09	1°46'20	minimum elong	1166 Jul 18 j 06:02	1°♂09'53	1°42'45
max. Earth dist.	1165 Aug 09 j 06:39	28°♂15'42	1.37313 AU	max. Earth dist.	1166 Jul 22 j 16:13	10°♂07'03	1.35542 AU
	1165 Aug 10 j 05:02	0°♂		evening rise	1166 Jul 26 j 22:06	18°♂19'12	
evening rise	1165 Aug 13 j 03:04	5°♂19'19			1166 Aug 02 j 09:22	0°♂	
desc. node	1165 Aug 25 j 15:42	26°♂13'21		desc. node	1166 Aug 12 j 12:44	16°♂22'41	
	1165 Aug 28 j 03:04	0°♂			1166 Aug 22 j 07:37	0°♂	
evening max el	1165 Sep 17 j 21:37	26°♂39'45	25°27'57	evening max el	1166 Aug 31 j 09:33	10°♂17'10	26°29'47
	1165 Sep 21 j 16:20	0°♂		retrograde	1166 Sep 13 j 05:41	17°♂29'40	
retrograde	1165 Sep 29 j 23:56	3°♂36'56		evening set	1166 Sep 19 j 17:26	14°♂49'57	
evening set	1165 Oct 05 j 21:44	1°♂09'01		min. Earth dist.	1166 Sep 23 j 20:19	10°♂32'43	0.66176 AU
	1165 Oct 07 j 03:19	30°♂		inferior conj	1166 Sep 25 j 11:10	8°♂35'17	-1°-44'-44
min. Earth dist.	1165 Oct 10 j 08:15	26°♂14'41	0.67042 AU	minimum elong	1166 Sep 25 j 13:55	8°♂26'59	1°43'39
inferior conj	1165 Oct 11 j 11:25	24°♂47'06	0°-47'-21	asc. node	1166 Sep 30 j 15:31	3°♂18'28	
minimum elong	1165 Oct 11 j 12:38	24°♂43'12	0°46'51				

morning rise	1166 Oct 01 j 11:34	2°♄47'20		morning rise	1167 Sep 15 j 13:49	16°♄42'43	
direct	1166 Oct 04 j 09:54	1°♄58'52		asc. node	1167 Sep 17 j 12:35	16°♄08'17	
morning max el	1166 Oct 11 j 02:39	5°♄40'24	18°36'40	direct	1167 Sep 18 j 05:10	16°♄05'44	
	1166 Oct 28 j 00:22	0°♄		morning max el	1167 Sep 24 j 17:28	19°♄35'18	18°05'53
morning set	1166 Oct 31 j 13:29	5°♄39'36			1167 Oct 02 j 12:49	0°♄	
desc. node	1166 Nov 08 j 12:02	18°♄16'10		morning set	1167 Oct 12 j 16:43	16°♄39'43	
	1166 Nov 15 j 22:50	0°♄			1167 Oct 20 j 18:51	0°♄	
				desc. node	1167 Oct 26 j 09:04	9°♄00'52	
superior conj	1166 Nov 16 j 13:22	0°♄57'07	0°-51'-46	superior conj	1167 Oct 26 j 19:25	9°♄42'10	0°-2'-53
minimum elong	1166 Nov 16 j 06:49	0°♄31'21	0°50'58	minimum elong	1167 Oct 26 j 19:03	9°♄40'44	0°02'51
max. Earth dist.	1166 Nov 16 j 18:58	1°♄19'05	1.45091 AU	behind sun begin	1167 Oct 26 j 08:27	8°♄58'25	
evening rise	1166 Dec 02 j 12:07	26°♄08'07		behind sun end	1167 Oct 27 j 05:39	10°♄23'00	
	1166 Dec 04 j 22:19	0°♄		max. Earth dist.	1167 Oct 30 j 13:44	15°♄40'19	1.44850 AU
evening max el	1166 Dec 24 j 10:25	28°♄31'17	18°58'59		1167 Nov 08 j 17:35	0°♄	
	1166 Dec 26 j 00:04	0°♄		evening rise	1167 Nov 12 j 07:15	5°♄31'59	
asc. node	1166 Dec 27 j 14:49	1°♄12'09			1167 Nov 28 j 09:38	0°♄	
retrograde	1166 Dec 31 j 07:08	2°♄24'52		greatest brilliancy	1167 Nov 30 j 05:45	2°♄37'49	-0.6m
evening set	1167 Jan 03 j 12:17	1°♄25'04		evening max el	1167 Dec 07 j 16:36	11°♄59'41	19°49'17
	1167 Jan 05 j 08:14	30°♄		asc. node	1167 Dec 14 j 11:52	16°♄19'12	
inferior conj	1167 Jan 09 j 05:10	25°♄37'10	3°23'17	retrograde	1167 Dec 15 j 04:30	16°♄21'53	
minimum elong	1167 Jan 09 j 02:52	25°♄44'24	3°22'51	evening set	1167 Dec 18 j 17:15	15°♄08'56	
min. Earth dist.	1167 Jan 10 j 19:06	23°♄38'28	0.65641 AU	inferior conj	1167 Dec 24 j 05:53	9°♄06'46	2°53'22
morning rise	1167 Jan 14 j 16:28	19°♄25'12		minimum elong	1167 Dec 24 j 03:12	9°♄15'42	2°52'39
direct	1167 Jan 21 j 04:35	16°♄35'46		min. Earth dist.	1167 Dec 25 j 05:49	7°♄47'26	0.66716 AU
morning max el	1167 Feb 03 j 03:56	24°♄13'37	26°38'39	morning rise	1167 Dec 29 j 12:29	2°♄52'02	
desc. node	1167 Feb 04 j 11:15	25°♄34'31		direct	1168 Jan 04 j 11:46	0°♄13'29	
	1167 Feb 08 j 08:59	0°♄		morning max el	1168 Jan 16 j 12:57	7°♄24'04	25°25'27
	1167 Mar 01 j 00:12	0°♄		desc. node	1168 Jan 22 j 08:18	13°♄54'53	
morning set	1167 Mar 11 j 02:26	18°♄00'26			1168 Feb 03 j 04:27	0°♄	
max. Earth dist.	1167 Mar 15 j 09:23	26°♄20'27	1.34634 AU		1168 Feb 21 j 11:55	0°♄	
	1167 Mar 17 j 05:09	0°♄		morning set	1168 Feb 21 j 18:04	0°♄27'46	
				max. Earth dist.	1168 Feb 25 j 12:31	7°♄25'32	1.36303 AU
superior conj	1167 Mar 19 j 18:52	5°♄15'51	0°-57'-48	superior conj	1168 Mar 02 j 10:10	18°♄52'17	-1°-23'-38
minimum elong	1167 Mar 19 j 21:43	5°♄30'35	0°57'17	minimum elong	1168 Mar 02 j 14:02	19°♄11'34	1°23'05
asc. node	1167 Mar 25 j 14:08	17°♄23'35			1168 Mar 07 j 22:18	0°♄	
evening rise	1167 Mar 27 j 09:42	21°♄10'32		evening rise	1168 Mar 10 j 14:34	5°♄26'49	
	1167 Mar 31 j 18:45	0°♄		asc. node	1168 Mar 11 j 11:11	7°♄10'47	
evening max el	1167 Apr 15 j 15:55	22°♄19'56	21°02'05		1168 Mar 24 j 17:24	0°♄	
retrograde	1167 Apr 27 j 08:18	28°♄00'54		evening max el	1168 Mar 28 j 02:21	3°♄46'42	19°49'07
evening set	1167 Apr 29 j 14:03	27°♄49'07		retrograde	1168 Apr 07 j 01:13	8°♄34'16	
desc. node	1167 May 03 j 10:26	26°♄39'30		evening set	1168 Apr 09 j 02:33	8°♄22'55	
inferior conj	1167 May 08 j 21:44	23°♄50'47	-1°-34'-28	inferior conj	1168 Apr 17 j 21:31	4°♄21'34	0°24'22
minimum elong	1167 May 08 j 17:17	23°♄57'05	1°32'53	minimum elong	1168 Apr 17 j 22:35	4°♄19'55	0°23'59
min. Earth dist.	1167 May 09 j 13:03	23°♄29'06	0.54952 AU	desc. node	1168 Apr 19 j 07:29	3°♄29'01	
morning rise	1167 May 17 j 20:06	19°♄48'00		min. Earth dist.	1168 Apr 20 j 03:11	2°♄58'55	0.55593 AU
direct	1167 May 21 j 05:07	19°♄23'24			1168 Apr 26 j 03:43	30°♄	
morning max el	1167 Jun 03 j 03:07	25°♄33'40	22°38'02	morning rise	1168 Apr 26 j 15:21	29°♄50'36	
	1167 Jun 07 j 06:49	0°♄		direct	1168 Apr 30 j 21:08	29°♄10'44	
asc. node	1167 Jun 21 j 13:22	23°♄02'01			1168 May 05 j 13:05	0°♄	
	1167 Jun 24 j 23:30	0°♄		morning max el	1168 May 14 j 18:46	6°♄06'49	24°19'40
morning set	1167 Jun 25 j 06:22	0°♄35'51			1168 May 31 j 21:09	0°♄	
				asc. node	1168 Jun 07 j 10:26	12°♄47'03	
superior conj	1167 Jul 02 j 11:02	15°♄54'11	1°33'01	morning set	1168 Jun 08 j 18:14	15°♄33'08	
minimum elong	1167 Jul 02 j 08:51	15°♄42'38	1°32'48		1168 Jun 15 j 11:03	0°♄	
max. Earth dist.	1167 Jul 05 j 10:30	22°♄09'37	1.34129 AU	superior conj	1168 Jun 15 j 19:24	0°♄45'17	1°18'11
	1167 Jul 09 j 07:02	0°♄		minimum elong	1168 Jun 15 j 16:58	0°♄32'02	1°17'50
evening rise	1167 Jul 10 j 07:51	2°♄02'29		max. Earth dist.	1168 Jun 17 j 13:45	4°♄33'50	1.33114 AU
	1167 Jul 26 j 07:12	0°♄		evening rise	1168 Jun 23 j 04:12	16°♄17'25	
desc. node	1167 Jul 30 j 09:45	6°♄06'47			1168 Jun 30 j 07:11	0°♄	
evening max el	1167 Aug 13 j 21:29	23°♄44'53	27°11'19	desc. node	1168 Jul 16 j 06:47	25°♄15'06	
	1167 Aug 22 j 13:49	0°♄			1168 Jul 20 j 00:17	0°♄	
retrograde	1167 Aug 27 j 06:10	1°♄03'44		evening max el	1168 Jul 26 j 08:03	6°♄51'38	27°25'48
	1167 Aug 31 j 14:52	30°♄		retrograde	1168 Aug 09 j 00:38	14°♄10'09	
evening set	1167 Sep 03 j 04:57	28°♄19'51		evening set	1168 Aug 16 j 05:11	11°♄33'16	
min. Earth dist.	1167 Sep 07 j 00:53	24°♄39'29	0.64946 AU				
inferior conj	1167 Sep 09 j 04:21	22°♄16'29	-2°-41'-35				
minimum elong	1167 Sep 09 j 08:30	22°♄04'55	2°40'08				

min. Earth dist.	1168 Aug 19 j 20:11	8° \cap 25'48	0.63363 AU	retrograde	1169 Jul 22 j 11:58	26° Ω 38'57	
inferior conj	1168 Aug 22 j 12:21	5° \cap 45'03	-3°-34'-53	evening set	1169 Jul 29 j 14:00	24° Ω 22'20	
minimum elong	1168 Aug 22 j 17:24	5° \cap 32'22	3°33'28	min. Earth dist.	1169 Aug 02 j 05:00	21° Ω 38'24	0.61483 AU
morning rise	1168 Aug 29 j 07:58	0° \cap 28'36		inferior conj	1169 Aug 05 j 07:58	18° Ω 52'29	-4°-19'-45
direct	1168 Aug 31 j 18:58	29° Ω 59'37		minimum elong	1169 Aug 05 j 12:42	18° Ω 41'58	4°18'52
	1168 Aug 31 j 12:13	30° \cap Ω		morning rise	1169 Aug 12 j 14:17	13° Ω 56'37	
	1168 Sep 01 j 01:42	0° \cap		direct	1169 Aug 14 j 23:48	13° Ω 32'41	
asc. node	1168 Sep 03 j 09:38	0° \cap 32'56		asc. node	1169 Aug 21 j 06:41	16° Ω 22'49	
morning max el	1168 Sep 07 j 09:32	3° \cap 25'22	17°52'38	morning max el	1169 Aug 21 j 23:50	17° Ω 02'42	17°57'53
morning set	1168 Sep 23 j 21:08	28° \cap 52'49			1169 Aug 31 j 04:00	0° \cap	
	1168 Sep 24 j 12:30	0° Ω		morning set	1169 Sep 06 j 20:22	11° \cap 59'39	
					1169 Sep 16 j 20:10	0° Ω	
superior conj	1168 Oct 05 j 23:25	19° Ω 34'01	0°41'28	superior conj	1169 Sep 17 j 06:35	0° Ω 45'31	1°14'33
minimum elong	1168 Oct 06 j 03:24	19° Ω 50'32	0°40'56	minimum elong	1169 Sep 17 j 11:12	1° Ω 05'42	1°14'02
desc. node	1168 Oct 12 j 06:06	29° Ω 48'25		max. Earth dist.	1169 Sep 24 j 18:39	13° Ω 29'50	1.42391 AU
	1168 Oct 12 j 08:59	0° \cap		desc. node	1169 Sep 29 j 03:07	20° Ω 34'48	
max. Earth dist.	1168 Oct 12 j 06:21	29° Ω 49'25	1.43910 AU	evening rise	1169 Oct 01 j 05:14	23° Ω 54'18	
evening rise	1168 Oct 21 j 15:16	14° \cap 33'17			1169 Oct 05 j 02:50	0° \cap	
	1168 Oct 31 j 19:41	0° \cap			1169 Oct 25 j 21:41	0° \cap	
greatest brilliancy	1168 Nov 14 j 04:36	18° \cap 58'20	-0.5m	greatest brilliancy	1169 Oct 28 j 19:36	3° \cap 41'05	-0.3m
evening max el	1168 Nov 19 j 17:30	25° \cap 29'42	20°53'21	evening max el	1169 Nov 02 j 12:48	9° \cap 00'32	22°07'43
	1168 Nov 25 j 19:14	0° \cap		retrograde	1169 Nov 11 j 22:25	14° \cap 35'57	
retrograde	1168 Nov 28 j 02:12	0° \cap 26'48		evening set	1169 Nov 16 j 08:16	12° \cap 51'16	
asc. node	1168 Nov 30 j 08:54	29° \cap 57'38		asc. node	1169 Nov 17 j 05:56	12° \cap 03'28	
	1168 Nov 30 j 06:40	30° \cap \cap		inferior conj	1169 Nov 21 j 17:44	6° \cap 30'23	1°29'44
evening set	1168 Dec 02 j 00:30	28° \cap 58'52		minimum elong	1169 Nov 21 j 15:50	6° \cap 37'00	1°29'00
inferior conj	1168 Dec 07 j 10:47	22° \cap 45'37	2°14'54	min. Earth dist.	1169 Nov 21 j 17:54	6° \cap 29'50	0.67737 AU
minimum elong	1168 Dec 07 j 08:15	22° \cap 54'16	2°14'03	morning rise	1169 Nov 26 j 23:12	0° \cap 16'35	
min. Earth dist.	1168 Dec 07 j 22:13	22° \cap 06'24	0.67410 AU		1169 Nov 27 j 07:23	30° \cap \cap	
morning rise	1168 Dec 12 j 15:34	16° \cap 30'15		direct	1169 Dec 01 j 16:28	28° \cap 19'08	
direct	1168 Dec 18 j 00:02	14° \cap 10'22			1169 Dec 06 j 13:13	0° \cap	
morning max el	1168 Dec 28 j 21:16	20° \cap 39'53	23°59'48	morning max el	1169 Dec 11 j 07:44	4° \cap 01'01	22°31'48
	1169 Jan 05 j 21:42	0° \cap		greatest brilliancy	1169 Dec 15 j 21:46	9° \cap 08'35	-0.3m
desc. node	1169 Jan 08 j 05:21	3° \cap 02'22		desc. node	1169 Dec 26 j 02:23	22° \cap 43'10	
	1169 Jan 26 j 10:02	0° \cap			1169 Dec 31 j 02:40	0° \cap	
morning set	1169 Feb 02 j 11:50	11° \cap 47'06		morning set	1170 Jan 14 j 01:53	21° \cap 44'25	
max. Earth dist.	1169 Feb 06 j 07:56	18° \cap 30'21	1.38329 AU	max. Earth dist.	1170 Jan 19 j 04:14	0° \cap 13'57	1.40475 AU
	1169 Feb 12 j 14:16	0° \cap			1170 Jan 19 j 00:57	0° \cap	
superior conj	1169 Feb 13 j 13:14	1° \cap 48'46	-1°-45'-32	superior conj	1170 Jan 26 j 23:32	13° \cap 54'01	-2°00'-10
minimum elong	1169 Feb 13 j 17:16	2° \cap 07'55	1°45'10	minimum elong	1170 Jan 27 j 02:02	14° \cap 05'17	2°00'05
evening rise	1169 Feb 22 j 12:36	19° \cap 17'10			1170 Feb 04 j 15:59	0° \cap	
asc. node	1169 Feb 26 j 08:13	26° \cap 40'26		evening rise	1170 Feb 06 j 00:43	2° \cap 34'26	
	1169 Feb 28 j 03:02	0° \cap		asc. node	1170 Feb 13 j 05:15	15° \cap 46'42	
evening max el	1169 Mar 10 j 23:39	15° \cap 51'47	18°55'20	evening max el	1170 Feb 22 j 05:08	28° \cap 28'58	18°21'38
retrograde	1169 Mar 19 j 08:57	19° \cap 55'34			1170 Feb 23 j 23:14	0° \cap	
evening set	1169 Mar 21 j 14:12	19° \cap 39'41		retrograde	1170 Mar 01 j 11:57	2° \cap 05'30	
inferior conj	1169 Mar 29 j 14:29	15° \cap 22'41	2°02'29	evening set	1170 Mar 03 j 22:30	1° \cap 42'16	
minimum elong	1169 Mar 29 j 18:29	15° \cap 15'33	2°01'19		1170 Mar 07 j 09:02	30° \cap \cap	
min. Earth dist.	1169 Apr 01 j 19:14	13° \cap 06'52	0.57059 AU	inferior conj	1170 Mar 11 j 04:44	27° \cap 04'20	3°06'33
desc. node	1169 Apr 06 j 04:31	10° \cap 33'33		minimum elong	1170 Mar 11 j 08:20	26° \cap 56'49	3°05'51
morning rise	1169 Apr 06 j 18:30	10° \cap 18'18		min. Earth dist.	1170 Mar 14 j 15:13	24° \cap 13'39	0.59031 AU
direct	1169 Apr 12 j 02:21	9° \cap 10'22		morning rise	1170 Mar 18 j 14:22	21° \cap 31'55	
morning max el	1169 Apr 26 j 09:34	16° \cap 36'27	25°53'58	desc. node	1170 Mar 24 j 01:33	19° \cap 49'31	
	1169 May 07 j 07:52	0° \cap		direct	1170 Mar 24 j 20:36	19° \cap 47'51	
morning set	1169 May 24 j 05:44	0° \cap 28'50		morning max el	1170 Apr 08 j 04:56	27° \cap 30'57	27°05'42
	1169 May 24 j 00:15	0° \cap			1170 Apr 10 j 14:29	0° \cap	
asc. node	1169 May 25 j 07:29	2° \cap 45'18			1170 Apr 30 j 20:46	0° \cap	
superior conj	1169 May 31 j 06:21	15° \cap 42'38	0°59'14	morning set	1170 May 08 j 15:15	15° \cap 17'40	
minimum elong	1169 May 31 j 04:08	15° \cap 30'29	0°58'50	asc. node	1170 May 12 j 04:31	22° \cap 51'58	
max. Earth dist.	1169 May 31 j 23:24	17° \cap 16'06	1.32491 AU		1170 May 15 j 10:48	0° \cap	
	1169 Jun 06 j 21:38	0° \cap		superior conj	1170 May 15 j 18:08	0° \cap 40'20	0°36'58
evening rise	1169 Jun 07 j 07:53	0° \cap 53'21		minimum elong	1170 May 15 j 16:34	0° \cap 31'45	0°36'39
	1169 Jun 23 j 07:47	0° \cap		max. Earth dist.	1170 May 15 j 11:57	0° \cap 06'20	1.32245 AU
desc. node	1169 Jul 03 j 03:48	13° \cap 32'11		evening rise	1170 May 22 j 16:22	15° \cap 42'01	
evening max el	1169 Jul 08 j 14:44	19° \cap 23'46	27°08'16				

	1170 May 29 j 20:33	0°☿		behind sun end	1171 Apr 30 j 07:48	15°♄46'55	
	1170 Jun 19 j 10:04	0°♌			1171 May 06 j 20:51	0°♈	
desc. node	1170 Jun 20 j 00:49	0°♌36'48		evening rise	1171 May 07 j 03:26	0°♈34'54	
evening max el	1170 Jun 20 j 14:58	1°♌11'03	26°17'45		1171 May 23 j 07:56	0°☿	
retrograde	1170 Jul 04 j 14:53	8°♌23'04		evening max el	1171 Jun 02 j 08:06	12°♌12'18	24°59'34
evening set	1170 Jul 11 j 02:42	6°♌38'58		desc. node	1171 Jun 06 j 21:50	15°♌58'42	
min. Earth dist.	1170 Jul 15 j 03:50	4°♌03'04	0.59433 AU	retrograde	1171 Jun 16 j 07:46	19°♌18'44	
inferior conj	1170 Jul 18 j 11:37	1°♌29'33	-4°-48'-18	evening set	1171 Jun 21 j 15:55	18°♌13'26	
minimum elong	1170 Jul 18 j 13:59	1°♌25'00	4°48'09	min. Earth dist.	1171 Jun 26 j 19:35	15°♌26'45	0.57444 AU
	1170 Jul 20 j 11:08	30°♌☿		inferior conj	1171 Jun 29 j 19:59	13°♌25'51	-4°-48'-50
morning rise	1170 Jul 26 j 04:39	26°♌56'47		minimum elong	1171 Jun 29 j 17:42	13°♌29'41	4°48'43
direct	1170 Jul 28 j 15:17	26°♌35'53		morning rise	1171 Jul 07 j 23:19	9°♌15'32	
	1170 Aug 05 j 00:53	0°♌		direct	1171 Jul 10 j 12:55	8°♌56'26	
morning max el	1170 Aug 05 j 09:20	0°♌19'44	18°22'52	morning max el	1171 Jul 19 j 10:58	13°♌06'33	19°08'46
asc. node	1170 Aug 08 j 03:44	3°♌23'34		asc. node	1171 Jul 26 j 00:46	21°♌19'34	
morning set	1170 Aug 21 j 09:09	25°♌45'49			1171 Jul 31 j 02:55	0°♌	
	1170 Aug 23 j 14:17	0°♍		morning set	1171 Aug 05 j 07:27	9°♌59'56	
superior conj	1170 Aug 30 j 13:43	13°♍08'16	1°35'12	superior conj	1171 Aug 13 j 15:07	26°♌25'43	1°44'55
minimum elong	1170 Aug 30 j 16:51	13°♍22'42	1°34'58	minimum elong	1171 Aug 13 j 16:15	26°♌31'10	1°44'53
max. Earth dist.	1170 Sep 07 j 01:41	26°♍29'34	1.40485 AU		1171 Aug 15 j 11:49	0°♍	
	1170 Sep 09 j 03:02	0°♌		max. Earth dist.	1171 Aug 20 j 05:02	8°♍45'59	1.38439 AU
evening rise	1170 Sep 11 j 15:08	4°♌11'06		evening rise	1171 Aug 24 j 01:28	15°♍36'32	
desc. node	1170 Sep 16 j 00:07	11°♌16'48			1171 Sep 01 j 17:11	0°♌	
	1170 Sep 28 j 09:01	0°♍		desc. node	1171 Sep 02 j 21:08	1°♌50'22	
evening max el	1170 Oct 16 j 03:28	22°♍33'16	23°27'22		1171 Sep 23 j 00:45	0°♍	
retrograde	1170 Oct 26 j 15:48	28°♍46'15		evening max el	1171 Sep 28 j 15:34	6°♍09'31	24°46'02
evening set	1170 Oct 31 j 14:54	26°♍43'55		retrograde	1171 Oct 10 j 05:22	12°♍54'08	
asc. node	1170 Nov 04 j 02:58	22°♍54'06		evening set	1171 Oct 15 j 18:47	10°♍34'46	
min. Earth dist.	1170 Nov 05 j 14:31	20°♍54'58	0.67724 AU	min. Earth dist.	1171 Oct 20 j 09:46	5°♍19'55	0.67381 AU
inferior conj	1170 Nov 06 j 00:58	20°♍19'11	0°39'21	inferior conj	1171 Oct 21 j 06:45	4°♍10'21	0°-14'-52
minimum elong	1170 Nov 06 j 00:03	20°♍22'19	0°38'58	minimum elong	1171 Oct 21 j 07:07	4°♍09'08	0°14'44
morning rise	1170 Nov 11 j 09:18	14°♍09'08		transit middle	1171 Oct 21 j 07:07	4°♍09'08	0°14'44
direct	1170 Nov 15 j 12:07	12°♍34'30		transit begin	1171 Oct 21 j 05:58	4°♍12'59	
morning max el	1170 Nov 23 j 23:57	17°♍31'17	21°09'30	transit end	1171 Oct 21 j 08:16	4°♍05'18	
greatest brilliancy	1170 Nov 29 j 08:37	23°♍42'03	-0.5m	asc. node	1171 Oct 22 j 00:00	3°♍13'26	
	1170 Dec 04 j 02:17	0°♎			1171 Oct 24 j 16:18	30°♎♌	
desc. node	1170 Dec 12 j 23:24	12°♎47'47		morning rise	1171 Oct 26 j 19:55	28°♌06'30	
morning set	1170 Dec 24 j 11:55	0°♎23'55		direct	1171 Oct 30 j 09:57	26°♌52'32	
	1170 Dec 24 j 05:49	0°♎			1171 Nov 05 j 17:24	0°♍	
max. Earth dist.	1171 Jan 01 j 07:00	12°♎52'57	1.42447 AU	morning max el	1171 Nov 06 j 23:49	1°♍12'31	19°58'28
				greatest brilliancy	1171 Nov 14 j 06:51	10°♍07'38	-0.6m
superior conj	1171 Jan 08 j 11:38	24°♎54'34	-2°-3'-8		1171 Nov 27 j 18:48	0°♎	
minimum elong	1171 Jan 08 j 10:14	24°♎48'34	2°03'08	desc. node	1171 Nov 29 j 20:24	3°♎09'37	
	1171 Jan 11 j 10:27	0°♎		morning set	1171 Dec 03 j 08:06	8°♎31'39	
evening rise	1171 Jan 19 j 23:07	15°♎09'46		max. Earth dist.	1171 Dec 14 j 16:59	26°♎21'15	1.43980 AU
	1171 Jan 28 j 08:56	0°♎			1171 Dec 16 j 23:36	0°♎	
asc. node	1171 Jan 31 j 02:17	4°♎21'30					
evening max el	1171 Feb 05 j 15:35	11°♎29'00	18°07'49	superior conj	1171 Dec 19 j 21:27	4°♎42'41	-1°-49'-38
retrograde	1171 Feb 12 j 07:37	14°♎54'02		minimum elong	1171 Dec 19 j 14:51	4°♎15'50	1°49'11
evening set	1171 Feb 14 j 22:58	14°♎22'02		evening rise	1172 Jan 02 j 03:32	26°♎54'51	
inferior conj	1171 Feb 21 j 14:29	9°♎22'41	3°38'45		1172 Jan 03 j 22:41	0°♎	
minimum elong	1171 Feb 21 j 16:07	9°♎18'44	3°38'36	asc. node	1172 Jan 17 j 23:19	22°♎15'23	
min. Earth dist.	1171 Feb 24 j 18:06	6°♎21'31	0.61160 AU	evening max el	1172 Jan 20 j 04:06	24°♎44'19	18°13'21
morning rise	1171 Feb 28 j 06:26	3°♎31'19		retrograde	1172 Jan 26 j 15:24	28°♎11'27	
direct	1171 Mar 07 j 02:02	1°♎12'45		evening set	1172 Jan 29 j 11:29	27°♎29'36	
desc. node	1171 Mar 10 j 22:36	1°♎53'34		inferior conj	1172 Feb 04 j 15:52	22°♎10'01	3°46'12
morning max el	1171 Mar 21 j 06:48	9°♎05'15	27°43'49	minimum elong	1172 Feb 04 j 15:30	22°♎11'01	3°46'11
	1171 Apr 06 j 09:15	0°♎		min. Earth dist.	1172 Feb 07 j 06:06	19°♎21'20	0.63162 AU
morning set	1171 Apr 22 j 20:51	29°♎52'07		morning rise	1172 Feb 10 j 17:36	16°♎07'21	
	1171 Apr 22 j 22:23	0°♎		direct	1172 Feb 17 j 16:33	13°♎25'04	
max. Earth dist.	1171 Apr 28 j 23:19	12°♎49'36	1.32376 AU	desc. node	1172 Feb 25 j 19:38	16°♎26'02	
asc. node	1171 Apr 29 j 01:33	13°♎01'47		morning max el	1172 Mar 02 j 13:45	21°♎19'45	27°44'35
					1172 Mar 10 j 03:08	0°♎	
superior conj	1171 Apr 30 j 05:00	15°♎31'36	0°12'06		1172 Mar 29 j 11:04	0°♎	
minimum elong	1171 Apr 30 j 04:27	15°♎28'34	0°11'58	morning set	1172 Apr 05 j 20:20	14°♎05'04	
behind sun begin	1171 Apr 30 j 01:06	15°♎10'14		max. Earth dist.	1172 Apr 11 j 05:31	25°♎12'45	1.32909 AU

	1172 Apr 13 j 11:14	0°♄				1173 Mar 21 j 14:01	0°♅	
				max. Earth dist.		1173 Mar 25 j 02:45	7°♅04'51	1.33874 AU
superior conj	1172 Apr 13 j 13:17	0°♄11'04	0°-14'-36		superior conj	1173 Mar 28 j 16:59	14°♅32'17	0°-42'-7
minimum elong	1172 Apr 13 j 13:59	0°♄14'52	0°14'28		minimum elong	1173 Mar 28 j 19:04	14°♅43'15	0°41'42
behind sun begin	1172 Apr 13 j 11:47	0°♄03'02			asc. node	1173 Apr 01 j 19:41	23°♅15'23	
behind sun end	1172 Apr 13 j 16:11	0°♄26'43			evening rise	1173 Apr 05 j 02:00	0°♄09'06	
asc. node	1172 Apr 14 j 22:36	3°♄10'58				1173 Apr 05 j 00:15	0°♄	
evening rise	1172 Apr 20 j 15:16	15°♄26'03				1173 Apr 22 j 12:54	0°♄	
	1172 Apr 27 j 22:28	0°♄			evening max el	1173 Apr 25 j 16:05	3°♄22'57	21°51'37
evening max el	1172 May 13 j 22:05	22°♄46'06	23°25'51		retrograde	1173 May 08 j 05:19	9°♄32'15	
desc. node	1172 May 23 j 18:52	29°♄02'20			evening set	1173 May 10 j 20:38	9°♄16'43	
retrograde	1172 May 27 j 12:31	29°♄34'04			desc. node	1173 May 10 j 15:53	9°♄18'56	
evening set	1172 May 31 j 09:01	29°♄01'27			inferior conj	1173 May 20 j 05:49	5°♄13'26	-2°-40'-18
min. Earth dist.	1172 Jun 07 j 08:17	25°♄49'04	0.55861 AU		minimum elong	1173 May 19 j 22:53	5°♄23'08	2°38'07
inferior conj	1172 Jun 09 j 08:22	24°♄37'42	-4°-7'-52		min. Earth dist.	1173 May 19 j 20:31	5°♄26'27	0.55017 AU
minimum elong	1172 Jun 09 j 01:30	24°♄47'55	4°06'30		morning rise	1173 May 29 j 02:21	1°♄18'55	
morning rise	1172 Jun 17 j 21:19	20°♄42'33			direct	1173 Jun 01 j 04:07	0°♄58'00	
direct	1172 Jun 20 j 15:16	20°♄23'59			morning max el	1173 Jun 13 j 06:05	6°♄38'39	21°42'01
morning max el	1172 Jul 01 j 02:12	25°♄14'21	20°15'48		asc. node	1173 Jun 28 j 18:53	29°♄09'27	
	1172 Jul 05 j 09:16	0°♄				1173 Jun 29 j 05:26	0°♄	
asc. node	1172 Jul 11 j 21:49	9°♄58'14			morning set	1173 Jul 03 j 21:18	9°♄22'09	
morning set	1172 Jul 19 j 12:15	24°♄34'01						
	1172 Jul 22 j 03:51	0°♄			superior conj	1173 Jul 11 j 05:29	24°♄48'30	1°39'21
superior conj	1172 Jul 27 j 05:41	10°♄22'53	1°45'42		minimum elong	1173 Jul 11 j 03:43	24°♄39'14	1°39'13
minimum elong	1172 Jul 27 j 05:05	10°♄19'51	1°45'41			1173 Jul 13 j 17:40	0°♄	
max. Earth dist.	1172 Aug 01 j 10:21	20°♄37'21	1.36514 AU		max. Earth dist.	1173 Jul 14 j 23:30	2°♄31'52	1.34892 AU
evening rise	1172 Aug 05 j 09:54	28°♄05'23			evening rise	1173 Jul 19 j 11:47	11°♄25'42	
	1172 Aug 06 j 11:05	0°♄				1173 Jul 29 j 21:05	0°♄	
desc. node	1172 Aug 19 j 18:11	22°♄10'16			desc. node	1173 Aug 06 j 15:14	12°♄10'08	
	1172 Aug 25 j 01:04	0°♄				1173 Aug 20 j 08:27	0°♄	
evening max el	1172 Sep 10 j 03:21	19°♄48'14	25°56'22		evening max el	1173 Aug 23 j 15:38	3°♄23'52	26°50'31
retrograde	1172 Sep 22 j 14:18	26°♄53'56			retrograde	1173 Sep 05 j 17:50	10°♄39'41	
evening set	1172 Sep 28 j 18:04	24°♄20'24			evening set	1173 Sep 12 j 10:37	7°♄57'26	
min. Earth dist.	1172 Oct 03 j 01:15	19°♄41'32	0.66708 AU		min. Earth dist.	1173 Sep 16 j 10:33	3°♄55'46	0.65693 AU
inferior conj	1172 Oct 04 j 09:17	18°♄00'46	-1°-11'-36		inferior conj	1173 Sep 18 j 06:33	1°♄47'05	-2°-9'-3
minimum elong	1172 Oct 04 j 11:08	17°♄54'56	1°10'51		minimum elong	1173 Sep 18 j 09:55	1°♄37'13	2°07'46
asc. node	1172 Oct 07 j 21:03	13°♄58'08				1173 Sep 19 j 19:55	30°♄	
morning rise	1172 Oct 10 j 05:05	12°♄05'56			morning rise	1173 Sep 24 j 10:36	26°♄04'27	
direct	1172 Oct 13 j 08:28	11°♄09'13			asc. node	1173 Sep 24 j 18:05	25°♄55'24	
morning max el	1172 Oct 20 j 06:59	15°♄02'13	19°01'54		direct	1173 Sep 27 j 05:42	25°♄21'12	
	1172 Oct 31 j 11:31	0°♄			morning max el	1173 Oct 03 j 19:42	28°♄56'42	18°21'29
morning set	1172 Nov 11 j 15:28	17°♄19'43				1173 Oct 04 j 19:36	0°♄	
desc. node	1172 Nov 15 j 17:26	23°♄43'17			morning set	1173 Oct 23 j 02:09	27°♄31'36	
	1172 Nov 19 j 17:37	0°♄				1173 Oct 24 j 14:47	0°♄	
max. Earth dist.	1172 Nov 26 j 08:44	10°♄24'31	1.44895 AU		desc. node	1173 Nov 02 j 14:30	14°♄25'11	
superior conj	1172 Nov 28 j 07:25	13°♄28'35	-1°-17'-21		superior conj	1173 Nov 07 j 08:30	21°♄56'04	0°-31'-12
minimum elong	1172 Nov 27 j 22:55	12°♄55'02	1°16'26		minimum elong	1173 Nov 07 j 04:26	21°♄40'02	0°30'40
	1172 Dec 08 j 15:56	0°♄			max. Earth dist.	1173 Nov 09 j 03:43	24°♄46'06	1.45087 AU
evening rise	1172 Dec 13 j 09:51	7°♄42'30				1173 Nov 12 j 11:42	0°♄	
	1172 Dec 27 j 08:04	0°♄			evening rise	1173 Nov 23 j 16:48	17°♄34'00	
evening max el	1173 Jan 02 j 15:56	8°♄08'04	18°37'20			1173 Dec 01 j 15:19	0°♄	
asc. node	1173 Jan 03 j 20:23	9°♄15'46			greatest brilliancy	1173 Dec 07 j 16:27	9°♄16'07	-0.7m
retrograde	1173 Jan 09 j 06:59	11°♄48'46			evening max el	1173 Dec 17 j 00:48	21°♄36'01	19°18'29
evening set	1173 Jan 12 j 08:31	10°♄55'53			asc. node	1173 Dec 21 j 17:25	25°♄08'43	
inferior conj	1173 Jan 18 j 04:52	5°♄17'51	3°35'34		retrograde	1173 Dec 24 j 03:01	25°♄40'18	
minimum elong	1173 Jan 18 j 03:04	5°♄23'15	3°35'20		evening set	1173 Dec 27 j 11:16	24°♄35'00	
min. Earth dist.	1173 Jan 20 j 03:38	2°♄58'04	0.64855 AU		inferior conj	1174 Jan 02 j 02:07	18°♄40'46	3°11'42
	1173 Jan 22 j 21:39	30°♄			minimum elong	1174 Jan 01 j 23:34	18°♄48'57	3°11'10
morning rise	1173 Jan 23 j 20:22	29°♄08'35			min. Earth dist.	1174 Jan 03 j 09:53	16°♄58'38	0.66160 AU
direct	1173 Jan 30 j 14:22	26°♄17'32			morning rise	1174 Jan 07 j 11:04	12°♄27'37	
	1173 Feb 08 j 09:10	0°♄			direct	1174 Jan 13 j 18:14	9°♄41'36	
desc. node	1173 Feb 11 j 16:39	2°♄50'27			morning max el	1174 Jan 26 j 08:36	17°♄08'43	26°09'33
morning max el	1173 Feb 12 j 23:07	4°♄04'39	27°10'51		desc. node	1174 Jan 29 j 13:41	20°♄35'33	
	1173 Mar 04 j 14:24	0°♄				1174 Feb 06 j 02:35	0°♄	
morning set	1173 Mar 20 j 10:44	27°♄46'51				1174 Feb 25 j 12:33	0°♄	

morning set	1174 Mar 03 j 12:08	10° ✕ 45'27		morning set	1175 Feb 13 j 19:20	22° ≈ 46'32	
max. Earth dist.	1174 Mar 07 j 12:35	18° ✕ 24'23	1.35299 AU	max. Earth dist.	1175 Feb 17 j 12:13	29° ≈ 27'56	1.37138 AU
					1175 Feb 17 j 19:11	0° ✕	
superior conj	1174 Mar 12 j 13:41	28° ✕ 27'42	-1°-9'-5	superior conj	1175 Feb 24 j 00:20	11° ✕ 48'58	-1°-33'-34
minimum elong	1174 Mar 12 j 17:02	28° ✕ 44'45	1°08'31	minimum elong	1175 Feb 24 j 04:25	12° ✕ 08'57	1°33'04
	1174 Mar 13 j 07:46	0° Υ		evening rise	1175 Mar 04 j 12:03	28° ✕ 44'29	
asc. node	1174 Mar 19 j 16:44	13° Υ 10'19			1175 Mar 05 j 03:12	0° Υ	
evening rise	1174 Mar 20 j 09:41	14° Υ 37'27		asc. node	1175 Mar 06 j 13:47	2° Υ 51'10	
	1174 Mar 28 j 08:43	0° ♄		evening max el	1175 Mar 21 j 11:03	26° Υ 11'01	19°23'40
evening max el	1174 Apr 07 j 19:49	14° ♄ 27'33	20°28'45		1175 Mar 27 j 03:56	0° ♄	
retrograde	1174 Apr 18 j 18:23	19° ♄ 45'04		retrograde	1175 Mar 30 j 16:58	0° ♄ 38'39	
evening set	1174 Apr 20 j 20:55	19° ♄ 34'08		evening set	1175 Apr 01 j 19:25	0° ♄ 25'49	
desc. node	1174 Apr 27 j 12:55	17° ♄ 00'46			1175 Apr 03 j 09:44	30° ♄	
inferior conj	1174 Apr 30 j 00:27	15° ♄ 36'29	0°-43'-8	inferior conj	1175 Apr 10 j 06:38	26° Υ 18'26	1°09'47
minimum elong	1174 Apr 29 j 22:25	15° ♄ 39'26	0°42'24	minimum elong	1175 Apr 10 j 09:24	26° Υ 13'54	1°08'51
min. Earth dist.	1174 May 01 j 09:25	14° ♄ 48'40	0.55113 AU	min. Earth dist.	1175 Apr 13 j 00:05	24° Υ 31'51	0.56132 AU
morning rise	1174 May 08 j 22:13	11° ♄ 23'45		desc. node	1175 Apr 14 j 09:56	23° Υ 39'58	
direct	1174 May 12 j 15:14	10° ♄ 54'02		morning rise	1175 Apr 18 j 19:32	21° Υ 33'12	
morning max el	1174 May 26 j 00:42	17° ♄ 24'43	23°21'16	direct	1175 Apr 23 j 12:00	20° Υ 43'13	
	1174 Jun 05 j 04:31	0° ♄		morning max el	1175 May 07 j 15:25	27° Υ 53'33	25°01'41
asc. node	1174 Jun 15 j 15:57	18° ♄ 44'06			1175 May 09 j 17:22	0° ♄	
morning set	1174 Jun 18 j 08:38	24° ♄ 17'39			1175 May 29 j 07:37	0° ♄	
	1174 Jun 21 j 01:03	0° ♄		morning set	1175 Jun 02 j 20:32	9° ♄ 15'07	
				asc. node	1175 Jun 02 j 13:02	8° ♄ 35'37	
superior conj	1174 Jun 25 j 11:24	9° ♄ 32'13	1°27'17	superior conj	1175 Jun 09 j 21:06	24° ♄ 26'42	1°10'36
minimum elong	1174 Jun 25 j 09:03	9° ♄ 19'36	1°27'00	minimum elong	1175 Jun 09 j 18:42	24° ♄ 13'36	1°10'12
max. Earth dist.	1174 Jun 27 j 22:04	14° ♄ 44'29	1.33649 AU	max. Earth dist.	1175 Jun 11 j 04:30	27° ♄ 17'34	1.32802 AU
evening rise	1174 Jul 03 j 02:29	25° ♄ 23'33			1175 Jun 12 j 10:34	0° ♄	
	1174 Jul 05 j 10:54	0° ♄		evening rise	1175 Jun 17 j 02:17	9° ♄ 48'09	
	1174 Jul 23 j 07:52	0° ♄			1175 Jun 27 j 18:50	0° ♄	
desc. node	1174 Jul 24 j 12:16	1° ♄ 40'22		desc. node	1175 Jul 11 j 09:16	20° ♄ 28'41	
evening max el	1174 Aug 06 j 03:20	16° ♄ 44'15	27°21'10	evening max el	1175 Jul 19 j 12:21	29° ♄ 36'35	27°22'18
retrograde	1174 Aug 19 j 15:31	24° ♄ 02'39			1175 Jul 19 j 22:19	0° ♄	
evening set	1174 Aug 26 j 17:43	21° ♄ 20'22		retrograde	1175 Aug 02 j 06:58	6° ♄ 53'55	
min. Earth dist.	1174 Aug 30 j 11:15	17° ♄ 54'48	0.64318 AU	evening set	1175 Aug 09 j 11:52	4° ♄ 23'36	
inferior conj	1174 Sep 01 j 20:09	15° ♄ 23'18	-3°-4'-52	min. Earth dist.	1175 Aug 13 j 01:52	1° ♄ 28'03	0.62597 AU
minimum elong	1174 Sep 02 j 00:47	15° ♄ 10'56	3°03'22		1175 Aug 14 j 15:12	30° ♄	
morning rise	1174 Sep 08 j 09:48	9° ♄ 56'27		inferior conj	1175 Aug 15 j 23:13	28° ♄ 43'04	-3°-55'-21
direct	1174 Sep 10 j 23:06	9° ♄ 23'06		minimum elong	1175 Aug 16 j 04:20	28° ♄ 30'51	3°54'06
asc. node	1174 Sep 11 j 15:08	9° ♄ 25'24		morning rise	1175 Aug 22 j 23:23	23° ♄ 35'18	
morning max el	1174 Sep 17 j 11:20	12° ♄ 49'43	17°58'06	direct	1175 Aug 25 j 09:27	23° ♄ 08'46	
	1174 Sep 29 j 08:14	0° ♄		asc. node	1175 Aug 29 j 12:11	24° ♄ 27'22	
morning set	1174 Oct 04 j 16:48	9° ♄ 04'50		morning max el	1175 Sep 01 j 03:01	26° ♄ 34'59	17°52'35
	1174 Oct 17 j 06:17	0° ♄			1175 Sep 04 j 02:06	0° ♄	
				morning set	1175 Sep 17 j 05:50	21° ♄ 41'54	
superior conj	1174 Oct 17 j 22:17	1° ♄ 04'47	0°17'04		1175 Sep 21 j 22:03	0° ♄	
minimum elong	1174 Oct 18 j 00:14	1° ♄ 12'40	0°16'47	superior conj	1175 Sep 28 j 13:48	11° ♄ 30'11	0°57'04
desc. node	1174 Oct 20 j 11:33	5° ♄ 11'20		minimum elong	1175 Sep 28 j 18:27	11° ♄ 49'51	0°56'28
max. Earth dist.	1174 Oct 22 j 22:25	9° ♄ 05'56	1.44533 AU	max. Earth dist.	1175 Oct 05 j 13:23	23° ♄ 04'16	1.43318 AU
evening rise	1174 Nov 03 j 05:24	26° ♄ 43'51		desc. node	1175 Oct 07 j 08:33	25° ♄ 58'22	
	1174 Nov 05 j 08:27	0° ♄			1175 Oct 09 j 21:11	0° ♄	
greatest brilliancy	1174 Nov 23 j 16:48	27° ♄ 09'23	-0.6m	evening rise	1175 Oct 13 j 13:37	5° ♄ 46'52	
	1174 Nov 25 j 20:27	0° ♄			1175 Oct 29 j 17:29	0° ♄	
evening max el	1174 Nov 30 j 04:51	5° ♄ 05'21	20°14'58	greatest brilliancy	1175 Nov 08 j 01:55	12° ♄ 44'53	-0.4m
retrograde	1174 Dec 08 j 00:49	9° ♄ 41'35		evening max el	1175 Nov 13 j 03:09	18° ♄ 34'37	21°24'00
asc. node	1174 Dec 08 j 14:25	9° ♄ 39'46		retrograde	1175 Nov 21 j 22:12	23° ♄ 48'23	
evening set	1174 Dec 11 j 17:28	8° ♄ 22'15		asc. node	1175 Nov 25 j 11:26	22° ♄ 38'11	
inferior conj	1174 Dec 17 j 04:53	2° ♄ 14'47	2°37'57	evening set	1175 Nov 26 j 01:08	22° ♄ 13'25	
minimum elong	1174 Dec 17 j 02:12	2° ♄ 23'50	2°37'10	inferior conj	1175 Dec 01 j 10:52	15° ♄ 56'11	1°56'29
min. Earth dist.	1174 Dec 17 j 23:13	1° ♄ 12'56	0.67058 AU	minimum elong	1175 Dec 01 j 08:33	16° ♄ 04'11	1°55'39
	1174 Dec 18 j 21:12	30° ♄		min. Earth dist.	1175 Dec 01 j 17:19	15° ♄ 33'53	0.67582 AU
morning rise	1174 Dec 22 j 10:24	25° ♄ 59'41		morning rise	1175 Dec 06 j 15:39	9° ♄ 41'08	
direct	1174 Dec 28 j 03:28	23° ♄ 28'41		direct	1175 Dec 11 j 17:29	7° ♄ 30'45	
	1175 Jan 08 j 08:13	0° ♄		morning max el	1175 Dec 22 j 02:15	13° ♄ 40'53	23°22'15
morning max el	1175 Jan 08 j 17:16	0° ♄ 22'38	24°50'01				
desc. node	1175 Jan 16 j 10:45	9° ♄ 18'06					
	1175 Jan 31 j 00:58	0° ♄					

greatest brilliancy	1175 Dec 27 j 12:53	19° ♂ 48'50	-0.2m	morning max el	1176 Dec 03 j 14:43	27° ♂ 05'13	21°55'41
desc. node	1176 Jan 03 j 07:46	28° ♂ 40'52			1176 Dec 06 j 07:19	0° ♂	
	1176 Jan 04 j 06:40	0° ♂		greatest brilliancy	1176 Dec 08 j 08:46	2° ♂ 26'59	-0.4m
	1176 Jan 23 j 22:56	0° ♂		desc. node	1176 Dec 20 j 04:48	18° ♂ 32'42	
morning set	1176 Jan 26 j 01:58	3° ♂ 32'38			1176 Dec 27 j 21:23	0° ♂	
max. Earth dist.	1176 Jan 30 j 07:06	10° ♂ 45'40	1.39240 AU	morning set	1177 Jan 05 j 03:28	12° ♂ 54'15	
				max. Earth dist.	1177 Jan 11 j 05:03	22° ♂ 49'22	1.41349 AU
superior conj	1176 Feb 06 j 20:51	24° ♂ 24'53	-1°-52'-52		1177 Jan 15 j 10:44	0° ♂	
minimum elong	1176 Feb 07 j 00:30	24° ♂ 41'49	1°52'37				
	1176 Feb 09 j 20:07	0° ♂		superior conj	1177 Jan 18 j 22:21	6° ♂ 04'00	-2°-3'-9
evening rise	1176 Feb 16 j 06:18	12° ♂ 21'52		minimum elong	1177 Jan 18 j 23:30	6° ♂ 09'01	2°03'09
asc. node	1176 Feb 21 j 10:48	22° ♂ 11'43		evening rise	1177 Jan 29 j 13:04	25° ♂ 21'57	
	1176 Feb 25 j 23:23	0° ♂			1177 Feb 01 j 01:16	0° ♂	
evening max el	1176 Mar 03 j 12:10	8° ♂ 30'40	18°38'30	asc. node	1177 Feb 07 j 07:48	11° ♂ 05'28	
retrograde	1176 Mar 11 j 08:59	12° ♂ 21'04		evening max el	1177 Feb 14 j 20:13	21° ♂ 18'53	18°13'23
evening set	1176 Mar 13 j 16:19	12° ♂ 02'27		retrograde	1177 Feb 21 j 19:21	24° ♂ 48'22	
inferior conj	1176 Mar 21 j 08:39	7° ♂ 36'58	2°33'52	evening set	1177 Feb 24 j 08:01	24° ♂ 21'34	
minimum elong	1176 Mar 21 j 12:48	7° ♂ 29'03	2°32'49	inferior conj	1177 Mar 03 j 07:36	19° ♂ 34'48	3°23'40
min. Earth dist.	1176 Mar 24 j 17:47	5° ♂ 03'19	0.57856 AU	minimum elong	1177 Mar 03 j 10:26	19° ♂ 28'28	3°23'14
morning rise	1176 Mar 29 j 05:00	2° ♂ 19'08		min. Earth dist.	1177 Mar 06 j 16:31	16° ♂ 36'20	0.59943 AU
desc. node	1176 Mar 31 j 06:58	1° ♂ 30'18		morning rise	1177 Mar 10 j 09:25	13° ♂ 53'17	
direct	1176 Apr 03 j 23:04	0° ♂ 56'16		direct	1177 Mar 16 j 22:48	11° ♂ 53'17	
morning max el	1176 Apr 18 j 07:55	8° ♂ 31'41	26°27'58	desc. node	1177 Mar 18 j 04:00	11° ♂ 57'18	
	1176 May 04 j 12:08	0° ♂		morning max el	1177 Mar 31 j 05:51	19° ♂ 41'29	27°26'13
morning set	1176 May 17 j 07:24	24° ♂ 08'29			1177 Apr 09 j 00:50	0° ♂	
asc. node	1176 May 19 j 10:05	28° ♂ 37'54			1177 Apr 27 j 05:48	0° ♂	
	1176 May 20 j 01:19	0° ♂		morning set	1177 May 01 j 15:29	8° ♂ 51'42	
				asc. node	1177 May 06 j 07:07	18° ♂ 46'13	
superior conj	1176 May 24 j 08:37	9° ♂ 24'52	0°50'09	max. Earth dist.	1177 May 08 j 04:01	22° ♂ 51'28	1.32255 AU
minimum elong	1176 May 24 j 06:38	9° ♂ 13'58	0°49'46				
max. Earth dist.	1176 May 24 j 15:40	10° ♂ 03'35	1.32338 AU	superior conj	1177 May 08 j 20:15	24° ♂ 20'35	0°26'41
evening rise	1176 May 31 j 08:17	24° ♂ 30'05		minimum elong	1177 May 08 j 19:05	24° ♂ 14'09	0°26'26
	1176 Jun 03 j 00:35	0° ♂			1177 May 11 j 10:04	0° ♂	
	1176 Jun 20 j 15:06	0° ♂		evening rise	1177 May 15 j 18:07	9° ♂ 21'20	
desc. node	1176 Jun 27 j 06:16	8° ♂ 17'49			1177 May 26 j 10:21	0° ♂	
evening max el	1176 Jun 30 j 16:20	11° ♂ 49'36	26°50'37	evening max el	1177 Jun 12 j 13:34	23° ♂ 16'52	25°47'22
retrograde	1176 Jul 14 j 15:15	19° ♂ 04'23		desc. node	1177 Jun 14 j 03:17	24° ♂ 42'49	
evening set	1176 Jul 21 j 12:44	17° ♂ 00'06			1177 Jun 23 j 05:19	0° ♂	
min. Earth dist.	1176 Jul 25 j 06:17	14° ♂ 21'48	0.60614 AU	retrograde	1177 Jun 26 j 14:22	0° ♂ 27'11	
inferior conj	1176 Jul 28 j 12:28	11° ♂ 38'27	-4°-34'-30		1177 Jun 29 j 22:50	30° ♂	
minimum elong	1176 Jul 28 j 16:29	11° ♂ 30'00	4°33'57	evening set	1177 Jul 02 j 15:38	28° ♂ 59'51	
morning rise	1176 Aug 04 j 23:25	6° ♂ 52'29		min. Earth dist.	1177 Jul 07 j 02:00	26° ♂ 21'12	0.58555 AU
direct	1176 Aug 07 j 08:57	6° ♂ 30'13		inferior conj	1177 Jul 10 j 08:16	23° ♂ 59'20	-4°-52'-50
morning max el	1176 Aug 14 j 15:44	10° ♂ 05'00	18°06'03	minimum elong	1177 Jul 10 j 08:52	23° ♂ 58'14	4°52'51
asc. node	1176 Aug 15 j 09:15	10° ♂ 49'14		morning rise	1177 Jul 18 j 05:43	19° ♂ 36'11	
	1176 Aug 27 j 17:22	0° ♂		direct	1177 Jul 20 j 17:19	19° ♂ 16'13	
morning set	1176 Aug 30 j 11:25	5° ♂ 06'44		morning max el	1177 Jul 28 j 22:15	23° ♂ 10'09	18°39'46
				asc. node	1177 Aug 02 j 06:19	28° ♂ 15'06	
superior conj	1176 Sep 09 j 07:50	23° ♂ 13'54	1°24'46		1177 Aug 03 j 11:33	0° ♂	
minimum elong	1176 Sep 09 j 11:59	23° ♂ 32'24	1°24'22	morning set	1177 Aug 14 j 04:42	19° ♂ 05'52	
	1176 Sep 13 j 04:14	0° ♂			1177 Aug 19 j 19:28	0° ♂	
max. Earth dist.	1176 Sep 16 j 22:50	6° ♂ 26'07	1.41604 AU				
evening rise	1176 Sep 22 j 10:51	15° ♂ 28'18		superior conj	1177 Aug 22 j 23:25	6° ♂ 01'25	1°40'32
desc. node	1176 Sep 23 j 05:34	16° ♂ 43'21		minimum elong	1177 Aug 23 j 01:43	6° ♂ 12'10	1°40'25
	1176 Oct 01 j 18:50	0° ♂		max. Earth dist.	1177 Aug 30 j 03:44	19° ♂ 05'47	1.39615 AU
greatest brilliancy	1176 Oct 20 j 22:14	26° ♂ 35'20	-0.3m	evening rise	1177 Sep 03 j 07:12	26° ♂ 14'18	
	1176 Oct 23 j 20:42	0° ♂			1177 Sep 05 j 13:14	0° ♂	
evening max el	1176 Oct 25 j 20:12	2° ♂ 05'46	22°41'23	desc. node	1177 Sep 10 j 02:36	7° ♂ 22'12	
retrograde	1176 Nov 04 j 17:26	7° ♂ 58'12			1177 Sep 25 j 10:50	0° ♂	
evening set	1176 Nov 09 j 08:37	6° ♂ 06'14		evening max el	1177 Oct 08 j 09:39	15° ♂ 40'11	24°01'29
asc. node	1176 Nov 11 j 08:28	4° ♂ 08'33		retrograde	1177 Oct 19 j 09:13	22° ♂ 07'20	
inferior conj	1176 Nov 14 j 18:10	29° ♂ 43'07	1°08'58	evening set	1177 Oct 24 j 14:16	19° ♂ 57'51	
minimum elong	1176 Nov 14 j 16:38	29° ♂ 48'25	1°08'21	asc. node	1177 Oct 29 j 05:31	14° ♂ 38'47	
min. Earth dist.	1176 Nov 14 j 13:49	29° ♂ 58'10	0.67764 AU	min. Earth dist.	1177 Oct 29 j 10:11	14° ♂ 23'04	0.67618 AU
	1176 Nov 14 j 13:17	30° ♂		inferior conj	1177 Oct 30 j 00:59	13° ♂ 32'54	0°16'46
morning rise	1176 Nov 20 j 00:34	23° ♂ 30'21		minimum elong	1177 Oct 30 j 00:35	13° ♂ 34'16	0°16'35
direct	1176 Nov 24 j 11:29	21° ♂ 42'39		morning rise	1177 Nov 04 j 11:08	7° ♂ 25'01	

direct	1177 Nov 08 j 08:22	5°♄59'17		inferior conj	1178 Oct 14 j 05:37	27°♄23'37	0°-38'-44
morning max el	1177 Nov 16 j 09:55	10°♄39'04	20°37'37	minimum elong	1178 Oct 14 j 06:36	27°♄20'26	0°38'20
greatest brilliancy	1177 Nov 22 j 11:08	17°♄47'01	-0.5m	asc. node	1178 Oct 16 j 02:35	25°♄01'26	
	1177 Dec 01 j 04:34	0°♄		morning rise	1178 Oct 19 j 21:24	21°♄23'22	
desc. node	1177 Dec 07 j 01:50	8°♄45'04		direct	1178 Oct 23 j 06:44	20°♄17'05	
morning set	1177 Dec 15 j 04:46	21°♄10'52		morning max el	1178 Oct 30 j 13:02	24°♄23'50	19°32'30
	1177 Dec 20 j 19:29	0°♄			1178 Nov 04 j 07:19	0°♄	
max. Earth dist.	1177 Dec 24 j 10:55	5°♄50'15	1.43167 AU	greatest brilliancy	1178 Nov 08 j 03:22	5°♄16'40	-0.7m
				desc. node	1178 Nov 23 j 22:52	29°♄12'12	
superior conj	1177 Dec 30 j 23:35	16°♄34'02	-1°-59'-40	morning set	1178 Nov 24 j 02:43	29°♄27'08	
minimum elong	1177 Dec 30 j 19:57	16°♄18'50	1°59'33		1178 Nov 24 j 11:12	0°♄	
	1178 Jan 07 j 20:20	0°♄		max. Earth dist.	1178 Dec 07 j 00:12	19°♄37'10	1.44456 AU
evening rise	1178 Jan 12 j 04:17	7°♄36'15					
asc. node	1178 Jan 25 j 04:50	29°♄24'01		superior conj	1178 Dec 10 j 22:13	25°♄51'43	-1°-38'-8
	1178 Jan 25 j 15:09	0°♄		minimum elong	1178 Dec 10 j 14:04	25°♄19'04	1°37'27
evening max el	1178 Jan 29 j 07:59	4°♄26'34	18°07'55		1178 Dec 13 j 11:55	0°♄	
retrograde	1178 Feb 04 j 20:39	7°♄50'37		evening rise	1178 Dec 24 j 23:41	18°♄57'01	
evening set	1178 Feb 07 j 14:08	7°♄14'22			1178 Dec 31 j 13:51	0°♄	
inferior conj	1178 Feb 14 j 00:29	2°♄06'13	3°44'29	asc. node	1179 Jan 12 j 01:53	16°♄56'22	
minimum elong	1178 Feb 14 j 01:14	2°♄04'20	3°44'27	evening max el	1179 Jan 12 j 20:28	17°♄45'31	18°21'23
	1178 Feb 16 j 01:57	30°♄		retrograde	1179 Jan 19 j 08:21	21°♄17'10	
min. Earth dist.	1178 Feb 16 j 22:54	29°♄08'05	0.62043 AU	evening set	1179 Jan 22 j 06:40	20°♄30'39	
morning rise	1178 Feb 20 j 09:57	26°♄09'39		inferior conj	1179 Jan 28 j 07:15	15°♄02'40	3°43'35
direct	1178 Feb 27 j 08:17	23°♄39'23		minimum elong	1179 Jan 28 j 06:11	15°♄05'40	3°43'30
desc. node	1178 Mar 05 j 01:02	25°♄08'37		min. Earth dist.	1179 Jan 30 j 14:49	12°♄25'05	0.63921 AU
	1178 Mar 11 j 19:00	0°♄		morning rise	1179 Feb 03 j 04:09	8°♄56'48	
morning max el	1178 Mar 13 j 09:57	1°♄32'55	27°48'40	direct	1179 Feb 10 j 01:46	6°♄09'21	
	1178 Apr 03 j 05:58	0°♄		desc. node	1179 Feb 19 j 22:04	10°♄32'40	
morning set	1178 Apr 15 j 18:51	23°♄18'24		morning max el	1179 Feb 23 j 18:22	14°♄01'40	27°34'19
	1178 Apr 19 j 00:15	0°♄			1179 Mar 08 j 17:02	0°♄	
max. Earth dist.	1178 Apr 21 j 13:49	5°♄28'48	1.32557 AU		1179 Mar 26 j 19:53	0°♄	
				morning set	1179 Mar 30 j 14:53	7°♄19'13	
superior conj	1178 Apr 23 j 06:18	9°♄08'12	0°00'57	max. Earth dist.	1179 Apr 04 j 16:55	17°♄40'59	1.33267 AU
minimum elong	1178 Apr 23 j 06:15	9°♄07'57	0°00'57				
behind sun begin	1178 Apr 23 j 01:08	8°♄40'04		superior conj	1179 Apr 07 j 12:52	23°♄40'27	0°-26'-13
behind sun end	1178 Apr 23 j 11:23	9°♄35'52		minimum elong	1179 Apr 07 j 14:10	23°♄47'20	0°25'58
asc. node	1178 Apr 23 j 04:09	8°♄56'31		asc. node	1179 Apr 10 j 01:11	29°♄03'57	
evening rise	1178 Apr 30 j 05:49	24°♄15'08			1179 Apr 10 j 11:37	0°♄	
	1178 May 03 j 00:07	0°♄		evening rise	1179 Apr 14 j 17:25	9°♄03'42	
	1178 May 21 j 09:31	0°♄			1179 Apr 25 j 17:09	0°♄	
evening max el	1178 May 25 j 04:56	4°♄04'42	24°20'44	evening max el	1179 May 06 j 19:34	14°♄35'15	22°44'56
desc. node	1178 Jun 01 j 00:19	9°♄11'16		desc. node	1179 May 18 j 21:21	21°♄06'26	
retrograde	1178 Jun 08 j 01:52	11°♄04'32		retrograde	1179 May 20 j 01:03	21°♄09'28	
evening set	1178 Jun 12 j 19:17	10°♄14'42		evening set	1179 May 23 j 07:49	20°♄45'49	
min. Earth dist.	1178 Jun 18 j 15:59	7°♄18'46	0.56707 AU	min. Earth dist.	1179 May 31 j 03:54	17°♄19'08	0.55402 AU
inferior conj	1178 Jun 21 j 08:06	5°♄37'35	-4°-37'-15	inferior conj	1179 Jun 01 j 13:02	16°♄31'40	-3°-36'-1
minimum elong	1178 Jun 21 j 03:36	5°♄44'43	4°36'43	minimum elong	1179 Jun 01 j 05:24	16°♄42'38	3°34'05
morning rise	1178 Jun 29 j 15:35	1°♄34'48		morning rise	1179 Jun 10 j 05:44	12°♄39'25	
direct	1178 Jul 02 j 07:04	1°♄15'56		direct	1179 Jun 13 j 02:28	12°♄20'23	
morning max el	1178 Jul 11 j 19:40	5°♄41'21	19°34'40	morning max el	1179 Jun 24 j 06:03	17°♄30'37	20°50'22
asc. node	1178 Jul 20 j 03:23	16°♄31'00			1179 Jul 03 j 21:35	0°♄	
	1178 Jul 27 j 11:59	0°♄		asc. node	1179 Jul 07 j 00:27	5°♄24'24	
morning set	1178 Jul 29 j 06:10	3°♄29'57		morning set	1179 Jul 13 j 13:02	18°♄10'44	
					1179 Jul 19 j 05:43	0°♄	
superior conj	1178 Aug 06 j 07:03	19°♄37'35	1°46'13	superior conj	1179 Jul 21 j 01:59	3°♄48'09	1°43'47
minimum elong	1178 Aug 06 j 07:23	19°♄39'14	1°46'13	minimum elong	1179 Jul 21 j 00:49	3°♄42'09	1°43'44
	1178 Aug 11 j 16:32	0°♄		max. Earth dist.	1179 Jul 25 j 15:57	13°♄00'41	1.35783 AU
max. Earth dist.	1178 Aug 12 j 07:45	1°♄10'53	1.37601 AU	evening rise	1179 Jul 29 j 19:57	21°♄00'04	
evening rise	1178 Aug 16 j 03:32	8°♄08'13			1179 Aug 03 j 19:10	0°♄	
desc. node	1178 Aug 27 j 23:37	27°♄50'39		desc. node	1179 Aug 14 j 20:41	18°♄02'53	
	1178 Aug 29 j 09:09	0°♄			1179 Aug 23 j 06:43	0°♄	
evening max el	1178 Sep 20 j 21:34	29°♄18'05	25°17'24	evening max el	1179 Sep 03 j 09:25	12°♄55'47	26°21'43
	1178 Sep 21 j 14:59	0°♄		retrograde	1179 Sep 16 j 03:23	20°♄07'05	
retrograde	1178 Oct 02 j 20:42	6°♄12'09		evening set	1179 Sep 22 j 13:08	17°♄28'39	
evening set	1178 Oct 08 j 16:24	3°♄46'16		min. Earth dist.	1179 Sep 26 j 17:03	13°♄05'52	0.66323 AU
	1178 Oct 12 j 04:57	30°♄		inferior conj	1179 Sep 28 j 06:10	11°♄12'30	-1°-36'-2
min. Earth dist.	1178 Oct 13 j 04:03	28°♄46'40	0.67144 AU				

minimum elong	1179 Sep 28 j 08:40	11°♄04'49	1°35'01		1180 Sep 06 j 06:12	30°♄	
asc. node	1179 Oct 02 j 23:38	6°♄12'28		min. Earth dist.	1180 Sep 08 j 22:57	27°♄14'29	0.65147 AU
morning rise	1179 Oct 04 j 05:20	5°♄22'46		inferior conj	1180 Sep 11 j 00:28	24°♄54'57	-2°-33'-11
direct	1179 Oct 07 j 04:52	4°♄32'21		minimum elong	1180 Sep 11 j 04:26	24°♄43'45	2°31'44
morning max el	1179 Oct 13 j 22:57	8°♄16'36	18°42'42	morning rise	1180 Sep 17 j 08:30	19°♄18'45	
	1179 Oct 29 j 07:25	0°♄		asc. node	1180 Sep 18 j 20:41	18°♄47'40	
morning set	1179 Nov 03 j 20:47	8°♄48'49		direct	1180 Sep 20 j 00:41	18°♄40'19	
desc. node	1179 Nov 10 j 19:55	19°♄49'54		morning max el	1180 Sep 26 j 13:16	22°♄11'18	18°09'22
	1179 Nov 17 j 07:03	0°♄			1180 Oct 02 j 16:01	0°♄	
max. Earth dist.	1179 Nov 19 j 17:50	3°♄50'55	1.45062 AU	morning set	1180 Oct 14 j 19:47	19°♄36'27	
					1180 Oct 21 j 03:37	0°♄	
superior conj	1179 Nov 20 j 01:50	4°♄22'20	0°-58'-50	desc. node	1180 Oct 27 j 16:58	10°♄33'53	
minimum elong	1179 Nov 19 j 18:34	3°♄53'48	0°57'57				
evening rise	1179 Dec 05 j 20:00	29°♄20'24		superior conj	1180 Oct 29 j 05:55	13°♄00'55	0°-10'-15
	1179 Dec 06 j 05:53	0°♄		minimum elong	1180 Oct 29 j 04:36	12°♄55'44	0°10'04
	1179 Dec 26 j 04:57	0°♄		behind sun begin	1180 Oct 28 j 19:59	12°♄21'29	
evening max el	1179 Dec 27 j 07:13	1°♄10'59	18°52'49	behind sun end	1180 Oct 29 j 13:13	13°♄29'58	
asc. node	1179 Dec 29 j 22:55	3°♄29'50		max. Earth dist.	1180 Nov 01 j 12:35	18°♄12'03	1.44932 AU
retrograde	1180 Jan 03 j 02:19	5°♄01'03			1180 Nov 09 j 01:25	0°♄	
evening set	1180 Jan 06 j 06:27	4°♄03'08		evening rise	1180 Nov 14 j 17:55	8°♄50'29	
	1180 Jan 10 j 14:32	30°♄			1180 Nov 28 j 12:57	0°♄	
inferior conj	1180 Jan 12 j 00:09	28°♄17'43	3°26'50	greatest brilliancy	1180 Dec 01 j 17:53	4°♄41'11	-0.6m
minimum elong	1180 Jan 11 j 21:57	28°♄24'31	3°26'30	evening max el	1180 Dec 09 j 14:09	14°♄39'17	19°40'49
min. Earth dist.	1180 Jan 13 j 16:21	26°♄13'15	0.65450 AU	asc. node	1180 Dec 15 j 19:57	18°♄49'17	
morning rise	1180 Jan 17 j 12:25	22°♄06'15		retrograde	1180 Dec 16 j 23:22	18°♄56'33	
direct	1180 Jan 24 j 02:10	19°♄15'57		evening set	1180 Dec 20 j 10:52	17°♄45'42	
morning max el	1180 Feb 06 j 04:16	26°♄56'56	26°47'45	inferior conj	1180 Dec 26 j 00:02	11°♄45'35	2°58'26
desc. node	1180 Feb 06 j 19:06	27°♄34'41		minimum elong	1180 Dec 25 j 21:21	11°♄54'22	2°57'47
	1180 Feb 09 j 01:05	0°♄		min. Earth dist.	1180 Dec 27 j 01:58	10°♄20'11	0.66588 AU
	1180 Mar 01 j 08:07	0°♄		morning rise	1180 Dec 31 j 07:08	5°♄31'08	
morning set	1180 Mar 13 j 00:18	20°♄44'14		direct	1181 Jan 06 j 08:35	2°♄50'16	
max. Earth dist.	1180 Mar 17 j 09:35	29°♄18'59	1.34421 AU	morning max el	1181 Jan 18 j 13:20	10°♄05'39	25°37'16
	1180 Mar 17 j 17:45	0°♄		desc. node	1181 Jan 23 j 16:08	15°♄46'16	
superior conj	1180 Mar 21 j 13:53	7°♄51'09	0°-53'-42		1181 Feb 03 j 08:31	0°♄	
minimum elong	1180 Mar 21 j 16:32	8°♄04'57	0°53'13		1181 Feb 21 j 22:20	0°♄	
asc. node	1180 Mar 26 j 22:14	19°♄04'33		morning set	1181 Feb 23 j 18:38	3°♄19'54	
evening rise	1180 Mar 29 j 03:05	23°♄40'54		max. Earth dist.	1181 Feb 27 j 14:08	10°♄25'50	1.36030 AU
	1180 Apr 01 j 05:23	0°♄					
evening max el	1180 Apr 17 j 17:02	25°♄20'48	21°14'28	superior conj	1181 Mar 05 j 06:41	21°♄32'35	-1°-19'-55
	1180 Apr 24 j 07:16	0°♄		minimum elong	1181 Mar 05 j 10:26	21°♄51'24	1°19'22
retrograde	1180 Apr 29 j 15:20	1°♄09'31			1181 Mar 09 j 10:47	0°♄	
evening set	1180 May 01 j 22:54	0°♄57'09		evening rise	1181 Mar 13 j 08:44	8°♄00'12	
desc. node	1180 May 04 j 18:21	0°♄11'28		asc. node	1181 Mar 13 j 19:17	8°♄53'41	
	1180 May 05 j 06:38	30°♄			1181 Mar 25 j 12:59	0°♄	
inferior conj	1180 May 11 j 07:28	26°♄58'02	-1°-52'-21	evening max el	1181 Mar 31 j 01:45	6°♄41'37	19°58'48
minimum elong	1180 May 11 j 02:14	27°♄05'23	1°50'34	retrograde	1181 Apr 10 j 06:41	11°♄36'32	
min. Earth dist.	1180 May 11 j 16:27	26°♄45'24	0.54937 AU	evening set	1181 Apr 12 j 07:59	11°♄25'29	
morning rise	1180 May 20 j 05:35	22°♄57'56		inferior conj	1181 Apr 21 j 05:26	7°♄25'42	0°07'08
direct	1180 May 23 j 12:24	22°♄34'34		minimum elong	1181 Apr 21 j 05:46	7°♄25'13	0°07'02
morning max el	1180 Jun 05 j 05:40	28°♄37'30	22°23'12	transit middle	1181 Apr 21 j 05:46	7°♄25'13	0°07'02
	1180 Jun 06 j 15:21	0°♄		transit begin	1181 Apr 21 j 02:11	7°♄30'38	
asc. node	1180 Jun 22 j 21:30	24°♄46'06		transit end	1181 Apr 21 j 09:20	7°♄19'47	
	1180 Jun 25 j 12:01	0°♄		desc. node	1181 Apr 21 j 15:20	7°♄10'40	
morning set	1180 Jun 26 j 23:13	3°♄02'17		min. Earth dist.	1181 Apr 23 j 06:16	6°♄11'52	0.55438 AU
				morning rise	1181 Apr 30 j 00:36	2°♄59'47	
superior conj	1180 Jul 04 j 04:42	18°♄22'27	1°34'52	direct	1181 May 04 j 02:54	2°♄22'53	
minimum elong	1180 Jul 04 j 02:36	18°♄11'24	1°34'39	morning max el	1181 May 17 j 21:48	9°♄12'58	24°04'40
max. Earth dist.	1180 Jul 07 j 08:46	25°♄00'04	1.34313 AU		1181 Jun 02 j 04:51	0°♄	
	1180 Jul 09 j 19:41	0°♄		asc. node	1181 Jun 09 j 18:33	14°♄28'43	
evening rise	1180 Jul 12 j 03:45	4°♄37'32		morning set	1181 Jun 11 j 11:00	17°♄59'23	
	1180 Jul 26 j 13:10	0°♄			1181 Jun 17 j 01:02	0°♄	
desc. node	1180 Jul 31 j 17:43	7°♄51'15		superior conj	1181 Jun 18 j 12:29	3°♄12'01	1°20'43
evening max el	1180 Aug 15 j 21:26	26°♄25'34	27°06'47	minimum elong	1181 Jun 18 j 10:03	2°♄58'51	1°20'23
	1180 Aug 20 j 01:41	0°♄		max. Earth dist.	1181 Jun 20 j 10:54	7°♄21'43	1.33240 AU
retrograde	1180 Aug 29 j 04:44	3°♄44'07		evening rise	1181 Jun 25 j 22:45	18°♄48'41	
evening set	1180 Sep 05 j 02:03	1°♄00'22			1181 Jul 01 j 17:26	0°♄	

desc. node	1181 Jul 18 j 14:43	27°05'49			1182 Jun 24 j 12:30	0°0		
	1181 Jul 20 j 19:34	0°0			desc. node	1182 Jul 05 j 11:43	15°03'138	
evening max el	1181 Jul 29 j 08:25	9°036'41	27°25'36		evening max el	1182 Jul 11 j 15:51	22°014'38	27°12'59
retrograde	1181 Aug 12 j 00:00	16°055'06			retrograde	1182 Jul 25 j 12:20	29°030'03	
evening set	1181 Aug 19 j 04:09	14°016'31			evening set	1182 Aug 01 j 15:31	27°009'29	
min. Earth dist.	1181 Aug 22 j 19:45	11°004'30	0.63623 AU		min. Earth dist.	1182 Aug 05 j 06:00	24°023'02	0.61783 AU
inferior conj	1181 Aug 25 j 10:01	8°025'54	-3°-27'-15		inferior conj	1182 Aug 08 j 07:40	21°036'54	-4°-13'-47
minimum elong	1181 Aug 25 j 14:59	8°013'12	3°25'47		minimum elong	1182 Aug 08 j 12:34	21°025'49	4°12'48
morning rise	1181 Sep 01 j 04:03	3°006'29			morning rise	1182 Aug 15 j 12:23	16°037'49	
direct	1181 Sep 03 j 15:33	2°036'27			direct	1182 Aug 17 j 22:00	16°013'14	
asc. node	1181 Sep 05 j 17:44	2°058'10			asc. node	1182 Aug 23 j 14:47	18°035'59	
morning max el	1181 Sep 10 j 05:17	6°002'11	17°53'25		morning max el	1182 Aug 24 j 20:02	19°041'51	17°55'52
	1181 Sep 25 j 21:50	0°0				1182 Sep 01 j 10:17	0°0	
morning set	1181 Sep 26 j 20:49	1°039'41			morning set	1182 Sep 09 j 17:37	14°039'31	
						1182 Sep 18 j 06:34	0°0	
superior conj	1181 Oct 09 j 05:54	22°040'25	0°35'25		superior conj	1182 Sep 20 j 09:06	3°040'19	1°10'21
minimum elong	1181 Oct 09 j 09:29	22°055'10	0°34'55		minimum elong	1182 Sep 20 j 13:49	4°000'43	1°09'48
	1181 Oct 13 j 17:52	0°0			max. Earth dist.	1182 Sep 27 j 19:01	16°010'26	1.42649 AU
desc. node	1181 Oct 14 j 14:01	1°021'01			desc. node	1182 Oct 01 j 11:03	22°007'41	
max. Earth dist.	1181 Oct 15 j 05:45	2°024'02	1.44095 AU		evening rise	1182 Oct 04 j 14:31	27°007'29	
evening rise	1181 Oct 25 j 02:32	17°052'18				1182 Oct 06 j 10:36	0°0	
	1181 Nov 02 j 01:45	0°0				1182 Oct 26 j 21:46	0°0	
greatest brilliancy	1181 Nov 16 j 21:55	21°019'15	-0.5m		greatest brilliancy	1182 Oct 31 j 17:50	6°015'49	-0.4m
evening max el	1181 Nov 22 j 15:54	28°008'56	20°43'04		evening max el	1182 Nov 05 j 11:57	11°039'26	21°56'12
	1181 Nov 24 j 14:41	0°0			retrograde	1182 Nov 14 j 17:39	17°009'09	
retrograde	1181 Nov 30 j 21:05	3°000'18			evening set	1182 Nov 19 j 01:42	15°026'55	
asc. node	1181 Dec 02 j 16:58	2°041'29			asc. node	1182 Nov 19 j 14:00	15°001'01	
evening set	1181 Dec 04 j 17:53	1°034'36			inferior conj	1182 Nov 24 j 11:11	9°006'51	1°36'59
	1181 Dec 06 j 11:54	30°00			minimum elong	1182 Nov 24 j 09:09	9°013'52	1°36'12
inferior conj	1181 Dec 10 j 04:24	25°022'50	2°21'11		min. Earth dist.	1182 Nov 24 j 12:55	9°000'51	0.67707 AU
minimum elong	1181 Dec 10 j 01:49	25°031'39	2°20'20		morning rise	1182 Nov 29 j 16:25	2°052'46	
min. Earth dist.	1181 Dec 10 j 17:36	24°037'47	0.67334 AU		direct	1182 Dec 04 j 11:52	0°052'01	
morning rise	1181 Dec 15 j 09:19	19°007'33			morning max el	1182 Dec 14 j 07:37	6°041'05	22°44'47
direct	1181 Dec 20 j 20:04	16°044'35			greatest brilliancy	1182 Dec 18 j 22:33	11°050'47	-0.3m
morning max el	1181 Dec 31 j 21:34	23°020'26	24°12'56		desc. node	1182 Dec 28 j 10:15	24°023'59	
	1182 Jan 06 j 19:08	0°0				1183 Jan 01 j 07:48	0°0	
desc. node	1182 Jan 10 j 13:11	4°047'26			morning set	1183 Jan 17 j 10:34	25°000'55	
	1182 Jan 27 j 17:54	0°0				1183 Jan 20 j 10:25	0°0	
morning set	1182 Feb 05 j 16:04	14°050'24			max. Earth dist.	1183 Jan 22 j 06:27	3°006'53	1.40157 AU
max. Earth dist.	1182 Feb 09 j 10:27	21°029'18	1.38015 AU					
	1182 Feb 14 j 01:39	0°0			superior conj	1183 Jan 30 j 01:00	16°049'48	-1°-58'-36
superior conj	1182 Feb 16 j 11:51	4°035'51	-1°-42'-37		minimum elong	1183 Jan 30 j 03:52	17°002'53	1°58'29
minimum elong	1182 Feb 16 j 15:57	4°055'27	1°42'12			1183 Feb 06 j 02:47	0°0	
evening rise	1182 Feb 25 j 07:59	21°055'04			evening rise	1183 Feb 08 j 21:50	5°018'18	
asc. node	1182 Feb 28 j 16:18	28°026'19			asc. node	1183 Feb 15 j 13:20	17°036'49	
	1182 Mar 01 j 12:00	0°0				1183 Feb 23 j 21:29	0°0	
evening max el	1182 Mar 13 j 21:34	18°041'12	19°02'01		evening max el	1183 Feb 25 j 02:02	1°014'22	18°25'21
retrograde	1182 Mar 22 j 11:46	22°050'37			retrograde	1183 Mar 04 j 12:08	4°054'04	
evening set	1182 Mar 24 j 16:18	22°035'34			evening set	1183 Mar 06 j 21:51	4°032'07	
inferior conj	1182 Apr 01 j 19:24	18°021'13	1°49'44		inferior conj	1183 Mar 14 j 06:36	29°057'19	2°59'01
minimum elong	1182 Apr 01 j 23:12	18°014'35	1°48'34		minimum elong	1183 Mar 14 j 10:23	29°049'33	2°58'12
min. Earth dist.	1182 Apr 04 j 21:47	16°012'32	0.56798 AU			1183 Mar 14 j 05:17	30°00	
desc. node	1182 Apr 08 j 12:22	14°004'04			min. Earth dist.	1183 Mar 17 j 17:05	27°010'21	0.58718 AU
morning rise	1182 Apr 10 j 01:55	13°021'48			morning rise	1183 Mar 21 j 19:00	24°028'19	
direct	1182 Apr 15 j 05:52	12°018'54			desc. node	1183 Mar 26 j 09:24	22°056'04	
morning max el	1182 Apr 29 j 12:20	19°041'07	25°41'08		direct	1183 Mar 27 j 22:17	22°049'53	
	1182 May 08 j 06:27	0°0				1183 Apr 10 j 18:03	0°0	
	1182 May 25 j 13:00	0°0			morning max el	1183 Apr 11 j 07:00	0°031'13	26°56'57
morning set	1182 May 26 j 22:39	2°055'40				1183 May 02 j 05:44	0°0	
asc. node	1182 May 27 j 15:35	4°025'15			morning set	1183 May 11 j 08:35	17°045'44	
					asc. node	1183 May 14 j 12:38	24°030'46	
superior conj	1182 Jun 02 j 23:10	18°008'40	1°02'21			1183 May 17 j 01:01	0°0	
minimum elong	1182 Jun 02 j 20:53	17°056'11	1°01'57		superior conj	1183 May 18 j 10:56	3°006'26	0°40'31
max. Earth dist.	1182 Jun 03 j 19:54	20°002'10	1.32558 AU		minimum elong	1183 May 18 j 09:15	2°057'11	0°40'12
	1182 Jun 08 j 10:53	0°0			max. Earth dist.	1183 May 18 j 08:14	2°051'35	1.32258 AU
evening rise	1182 Jun 10 j 01:31	3°021'54						

evening rise	1183 May 25 j 09:25	18°II08'45		superior conj	1184 May 01 j 22:05	17°859'06	0°16'00
	1183 May 31 j 06:47	0°☿		minimum elong	1184 May 01 j 21:21	17°855'07	0°15'51
	1183 Jun 19 j 18:28	0°♊			1184 May 07 j 10:16	0°♊	
desc. node	1183 Jun 22 j 08:42	2°♊48'21		evening rise	1184 May 08 j 20:15	3°♊01'22	
evening max el	1183 Jun 23 j 17:01	4°♊08'00	26°27'10		1184 May 23 j 09:18	0°☿	
retrograde	1183 Jul 07 j 16:40	11°♊20'52		evening max el	1184 Jun 04 j 11:06	15°☿15'32	25°12'34
evening set	1183 Jul 14 j 07:30	9°♊31'07		desc. node	1184 Jun 08 j 05:43	18°☿27'57	
min. Earth dist.	1183 Jul 18 j 06:07	6°♊55'17	0.59739 AU	retrograde	1184 Jun 18 j 11:25	22°☿23'35	
inferior conj	1183 Jul 21 j 13:53	4°♊18'32	-4°-45'-31	evening set	1184 Jun 24 j 00:18	21°☿12'39	
minimum elong	1183 Jul 21 j 16:45	4°♊12'51	4°45'16	min. Earth dist.	1184 Jun 28 j 22:51	18°☿28'31	0.57718 AU
	1183 Jul 28 j 08:17	30°♋☿		inferior conj	1184 Jul 02 j 01:18	16°☿21'33	-4°-51'-15
morning rise	1183 Jul 29 j 05:22	29°☿42'27		minimum elong	1184 Jul 01 j 23:49	16°☿24'06	4°51'12
direct	1183 Jul 31 j 15:39	29°☿21'15		morning rise	1184 Jul 10 j 03:08	12°☿08'08	
	1183 Aug 03 j 20:18	0°♊		direct	1184 Jul 12 j 16:06	11°☿48'53	
morning max el	1183 Aug 08 j 06:28	3°♊02'18	18°17'53	morning max el	1184 Jul 21 j 09:31	15°☿54'29	19°00'38
asc. node	1183 Aug 10 j 11:50	5°♊26'47		asc. node	1184 Jul 27 j 08:55	23°☿15'32	
morning set	1183 Aug 24 j 04:39	28°♊20'19			1184 Jul 31 j 11:20	0°♊	
	1183 Aug 25 j 01:38	0°♋		morning set	1184 Aug 07 j 01:48	12°♊31'04	
superior conj	1183 Sep 02 j 13:03	15°♋53'30	1°32'49	superior conj	1184 Aug 15 j 12:08	29°♊04'03	1°44'03
minimum elong	1183 Sep 02 j 16:28	16°♋09'08	1°32'32	minimum elong	1184 Aug 15 j 13:33	29°♊10'53	1°44'00
max. Earth dist.	1183 Sep 10 j 02:39	29°♋16'04	1.40781 AU		1184 Aug 15 j 23:49	0°♋	
	1183 Sep 10 j 12:57	0°♊		max. Earth dist.	1184 Aug 22 j 06:08	11°♋37'46	1.38739 AU
evening rise	1183 Sep 14 j 20:55	7°♊14'25		evening rise	1184 Aug 26 j 03:45	18°♋30'12	
desc. node	1183 Sep 18 j 08:03	12°♊50'34			1184 Sep 02 j 01:20	0°♊	
	1183 Sep 29 j 13:56	0°♋		desc. node	1184 Sep 04 j 05:05	3°♊25'53	
evening max el	1183 Oct 19 j 03:06	25°♋11'28	23°15'26		1184 Sep 22 j 21:13	0°♋	
	1183 Oct 25 j 01:56	0°♋		evening max el	1184 Sep 30 j 15:32	8°♋47'38	24°34'41
retrograde	1183 Oct 29 j 11:36	1°♋19'33		retrograde	1184 Oct 12 j 01:53	15°♋28'13	
	1183 Nov 02 j 11:23	30°♋♋		evening set	1184 Oct 17 j 13:02	13°♋11'27	
evening set	1183 Nov 03 j 08:37	29°♋19'49		min. Earth dist.	1184 Oct 22 j 05:17	7°♋51'16	0.67452 AU
asc. node	1183 Nov 06 j 11:03	26°♋00'58		inferior conj	1184 Oct 23 j 00:38	6°♋46'39	0°-6'-25
inferior conj	1183 Nov 08 j 18:30	22°♋55'16	0°47'19	minimum elong	1184 Oct 23 j 00:48	6°♋46'07	0°06'22
minimum elong	1183 Nov 08 j 17:25	22°♋59'02	0°46'51	transit middle	1184 Oct 23 j 00:48	6°♋46'07	0°06'22
min. Earth dist.	1183 Nov 08 j 09:36	23°♋25'53	0.67743 AU	transit begin	1184 Oct 22 j 22:16	6°♋54'34	
morning rise	1183 Nov 14 j 02:16	16°♋44'27		transit end	1184 Oct 23 j 03:19	6°♋37'42	
direct	1183 Nov 18 j 07:06	15°♋06'33		asc. node	1184 Oct 23 j 08:06	6°♋21'46	
morning max el	1183 Nov 26 j 22:51	20°♋09'56	21°21'08	morning rise	1184 Oct 28 j 12:58	0°♋41'35	
greatest brilliancy	1183 Dec 02 j 02:57	26°♋05'13	-0.4m		1184 Oct 29 j 17:04	30°♋♋	
	1183 Dec 05 j 03:16	0°♋		direct	1184 Nov 01 j 04:47	29°♋24'40	
desc. node	1183 Dec 15 j 07:17	14°♋25'23			1184 Nov 03 j 19:24	0°♋	
	1183 Dec 25 j 13:33	0°☿		morning max el	1184 Nov 08 j 21:31	3°♋49'35	20°08'08
morning set	1183 Dec 28 j 00:17	3°☿50'08		greatest brilliancy	1184 Nov 15 j 20:00	12°♋13'25	-0.6m
max. Earth dist.	1184 Jan 04 j 07:48	15°☿36'13	1.42172 AU		1184 Nov 28 j 01:16	0°♋	
superior conj	1184 Jan 11 j 16:42	28°☿00'21	-2°-3'-39	desc. node	1184 Dec 01 j 04:21	4°♋45'10	
minimum elong	1184 Jan 11 j 16:02	27°☿57'29	2°03'40	morning set	1184 Dec 05 j 21:00	11°♋57'50	
	1184 Jan 12 j 20:22	0°♋		max. Earth dist.	1184 Dec 16 j 16:34	28°♋57'11	1.43791 AU
evening rise	1184 Jan 22 j 22:33	18°♋00'12			1184 Dec 17 j 08:15	0°☿	
	1184 Jan 29 j 15:17	0°♋		superior conj	1184 Dec 22 j 06:33	7°☿59'25	-1°-52'-53
asc. node	1184 Feb 02 j 10:22	6°♋16'56		minimum elong	1184 Dec 22 j 00:40	7°☿35'20	1°52'33
evening max el	1184 Feb 08 j 11:58	14°♋11'27	18°08'40	evening rise	1185 Jan 04 j 05:54	29°☿52'59	
retrograde	1184 Feb 15 j 05:35	17°♋37'19			1185 Jan 04 j 07:32	0°♋	
evening set	1184 Feb 17 j 20:12	17°♋06'45		asc. node	1185 Jan 19 j 07:25	24°♋17'36	
inferior conj	1184 Feb 24 j 13:41	12°♋10'41	3°35'35	evening max el	1185 Jan 22 j 00:23	27°♋24'57	18°11'22
minimum elong	1184 Feb 24 j 15:39	12°♋06'02	3°35'22		1185 Jan 25 j 08:14	0°♋	
min. Earth dist.	1184 Feb 27 j 18:57	9°♋09'21	0.60846 AU	retrograde	1185 Jan 28 j 11:45	0°♋50'48	
morning rise	1184 Mar 02 j 08:06	6°♋21'29		evening set	1185 Jan 31 j 07:09	0°♋10'27	
direct	1184 Mar 09 j 02:21	4°♋07'22			1185 Jan 31 j 15:32	30°♋♋	
desc. node	1184 Mar 12 j 06:26	4°♋34'55		inferior conj	1185 Feb 06 j 12:59	24°♋53'54	3°46'18
morning max el	1184 Mar 23 j 07:56	11°♋59'16	27°40'24	minimum elong	1185 Feb 06 j 12:54	24°♋54'08	3°46'18
	1184 Apr 06 j 12:45	0°♋		min. Earth dist.	1185 Feb 09 j 05:30	22°♋02'04	0.62883 AU
	1184 Apr 23 j 10:59	0°☿		morning rise	1185 Feb 12 j 16:36	18°♋52'40	
morning set	1184 Apr 24 j 14:55	2°☿22'45		direct	1185 Feb 19 j 15:45	16°♋12'54	
asc. node	1184 Apr 30 j 09:41	14°♋40'20		desc. node	1185 Feb 27 j 03:29	18°♋46'57	
max. Earth dist.	1184 Apr 30 j 19:56	15°♋36'11	1.32332 AU	morning max el	1185 Mar 05 j 14:10	24°♋07'40	27°46'44
					1185 Mar 10 j 21:35	0°♋	

	1185 Mar 30 j 20:32	0°♿				1186 Feb 06 j 21:15	0°♿	
morning set	1185 Apr 08 j 15:30	16°♿39'30			desc. node	1186 Feb 14 j 00:33	4°♿56'55	
max. Earth dist.	1185 Apr 14 j 03:08	28°♿03'04	1.32801 AU		morning max el	1186 Feb 15 j 23:19	6°♿48'51	27°17'54
	1185 Apr 15 j 01:00	0°♿				1186 Mar 05 j 19:42	0°♿	
					morning set	1186 Mar 23 j 07:29	0°♿26'56	
superior conj	1185 Apr 16 j 06:54	2°♿40'57	0°-10'-28			1186 Mar 23 j 01:57	0°♿	
minimum elong	1185 Apr 16 j 07:24	2°♿43'41	0°10'23		max. Earth dist.	1186 Mar 28 j 02:01	10°♿01'03	1.33701 AU
behind sun begin	1185 Apr 16 j 03:25	2°♿22'09						
behind sun end	1185 Apr 16 j 11:23	3°♿05'13			superior conj	1186 Mar 31 j 11:26	17°♿05'45	0°-37'-55
asc. node	1185 Apr 17 j 06:44	4°♿49'56			minimum elong	1186 Mar 31 j 13:19	17°♿15'40	0°37'33
evening rise	1185 Apr 23 j 08:06	17°♿53'24			asc. node	1186 Apr 04 j 03:46	24°♿55'32	
	1185 Apr 29 j 07:48	0°♿				1186 Apr 06 j 13:02	0°♿	
evening max el	1185 May 17 j 01:18	25°♿52'25	23°40'15		evening rise	1186 Apr 07 j 19:09	2°♿38'36	
	1185 May 22 j 05:02	0°♿				1186 Apr 23 j 04:40	0°♿	
desc. node	1185 May 26 j 02:44	1°♿55'09			evening max el	1186 Apr 28 j 18:16	6°♿27'15	22°05'10
retrograde	1185 May 30 j 18:00	2°♿43'59			retrograde	1186 May 11 j 12:06	12°♿43'24	
evening set	1185 Jun 03 j 19:46	2°♿07'29			desc. node	1186 May 12 j 23:45	12°♿38'26	
	1185 Jun 08 j 17:41	30°♿			evening set	1186 May 14 j 07:00	12°♿26'10	
min. Earth dist.	1185 Jun 10 j 11:53	28°♿59'42	0.56056 AU		min. Earth dist.	1186 May 22 j 23:57	8°♿42'38	0.55090 AU
inferior conj	1185 Jun 12 j 16:35	27°♿40'21	-4°-17'-14		inferior conj	1186 May 23 j 15:41	8°♿20'34	-2°-56'-11
minimum elong	1185 Jun 12 j 10:13	27°♿49'58	4°16'06		minimum elong	1186 May 23 j 08:22	8°♿30'51	2°54'00
morning rise	1185 Jun 21 j 04:07	23°♿43'30			morning rise	1186 Jun 01 j 11:21	4°♿27'18	
direct	1185 Jun 23 j 21:23	23°♿24'54			direct	1186 Jun 04 j 11:43	4°♿06'59	
morning max el	1185 Jul 04 j 02:24	28°♿08'37	20°04'31		morning max el	1186 Jun 16 j 07:53	9°♿39'26	21°28'05
	1185 Jul 05 j 22:33	0°♿				1186 Jun 30 j 15:08	0°♿	
asc. node	1185 Jul 14 j 05:58	11°♿48'42			asc. node	1186 Jul 01 j 03:02	0°♿55'43	
morning set	1185 Jul 22 j 05:49	27°♿02'49			morning set	1186 Jul 06 j 14:22	11°♿49'21	
	1185 Jul 23 j 16:37	0°♿						
					superior conj	1186 Jul 13 j 23:38	27°♿18'03	1°40'42
superior conj	1185 Jul 30 j 01:01	12°♿56'08	1°46'05		minimum elong	1186 Jul 13 j 22:00	27°♿09'34	1°40'36
minimum elong	1185 Jul 30 j 00:39	12°♿54'16	1°46'04			1186 Jul 15 j 06:55	0°♿	
max. Earth dist.	1185 Aug 04 j 10:56	23°♿31'55	1.36786 AU		max. Earth dist.	1186 Jul 17 j 22:47	5°♿25'01	1.35114 AU
	1185 Aug 07 j 22:07	0°♿			evening rise	1186 Jul 22 j 08:45	14°♿03'45	
evening rise	1185 Aug 08 j 09:12	0°♿50'30				1186 Jul 31 j 05:40	0°♿	
desc. node	1185 Aug 22 j 02:07	23°♿48'14			desc. node	1186 Aug 08 j 23:07	13°♿51'24	
	1185 Aug 26 j 05:15	0°♿				1186 Aug 21 j 00:25	0°♿	
evening max el	1185 Sep 13 j 03:23	22°♿26'38	25°46'44		evening max el	1186 Aug 26 j 15:35	6°♿02'57	26°43'43
retrograde	1185 Sep 25 j 11:27	29°♿29'33			retrograde	1186 Sep 08 j 15:43	13°♿17'35	
evening set	1185 Oct 01 j 13:07	26°♿57'59			evening set	1186 Sep 15 j 06:48	10°♿36'06	
min. Earth dist.	1185 Oct 05 j 21:30	22°♿13'37	0.66833 AU		min. Earth dist.	1186 Sep 19 j 07:46	6°♿29'00	0.65870 AU
inferior conj	1185 Oct 07 j 03:47	20°♿37'28	-1°-2'-54		inferior conj	1186 Sep 21 j 01:56	4°♿24'13	-2°00'-25
minimum elong	1185 Oct 07 j 05:24	20°♿32'19	1°02'13		minimum elong	1186 Sep 21 j 05:05	4°♿14'53	1°59'11
asc. node	1185 Oct 10 j 05:10	16°♿59'08				1186 Sep 25 j 05:54	30°♿	
morning rise	1185 Oct 12 j 22:29	14°♿41'01			morning rise	1186 Sep 27 j 04:41	28°♿39'40	
direct	1185 Oct 16 j 03:21	13°♿41'53			asc. node	1186 Sep 27 j 02:13	28°♿42'57	
morning max el	1185 Oct 23 j 03:39	17°♿38'08	19°09'19		direct	1186 Sep 30 j 00:54	27°♿54'37	
	1185 Nov 01 j 15:40	0°♿				1186 Oct 04 j 23:10	0°♿	
morning set	1185 Nov 15 j 01:19	20°♿36'14			morning max el	1186 Oct 06 j 15:39	1°♿31'56	18°26'26
desc. node	1185 Nov 18 j 01:23	25°♿17'31				1186 Oct 25 j 22:55	0°♿	
	1185 Nov 21 j 01:42	0°♿			morning set	1186 Oct 26 j 07:31	0°♿34'41	
max. Earth dist.	1185 Nov 29 j 07:49	12°♿57'11	1.44808 AU		desc. node	1186 Nov 04 j 22:25	15°♿58'17	
superior conj	1185 Dec 01 j 19:30	16°♿52'56	-1°-23'-21		superior conj	1186 Nov 10 j 20:25	25°♿18'46	0°-38'-37
minimum elong	1185 Dec 01 j 10:51	16°♿18'44	1°22'28		minimum elong	1186 Nov 10 j 15:24	24°♿59'02	0°37'58
	1185 Dec 10 j 00:22	0°♿			max. Earth dist.	1186 Nov 12 j 02:42	27°♿17'50	1.45105 AU
evening rise	1185 Dec 16 j 15:42	10°♿49'34				1186 Nov 13 j 20:00	0°♿	
	1185 Dec 28 j 10:53	0°♿			evening rise	1186 Nov 27 j 01:59	20°♿48'58	
evening max el	1186 Jan 05 j 12:30	10°♿48'02	18°32'38			1186 Dec 02 j 21:49	0°♿	
asc. node	1186 Jan 06 j 04:26	11°♿27'07			greatest brilliancy	1186 Dec 09 j 17:51	10°♿37'15	-0.7m
retrograde	1186 Jan 12 j 02:24	14°♿25'54			evening max el	1186 Dec 19 j 21:53	24°♿15'28	19°11'18
evening set	1186 Jan 15 j 03:07	13°♿34'40			asc. node	1186 Dec 24 j 01:28	27°♿31'22	
inferior conj	1186 Jan 21 j 00:28	7°♿59'11	3°38'05		retrograde	1186 Dec 26 j 22:00	28°♿15'46	
minimum elong	1186 Jan 20 j 22:51	8°♿03'59	3°37'55		evening set	1186 Dec 30 j 05:09	27°♿12'22	
min. Earth dist.	1186 Jan 23 j 01:31	5°♿34'30	0.64627 AU		inferior conj	1187 Jan 04 j 20:39	21°♿20'15	3°16'02
morning rise	1186 Jan 26 j 17:17	1°♿50'48			minimum elong	1187 Jan 04 j 18:11	21°♿28'08	3°15'32
	1186 Jan 29 j 11:00	30°♿			min. Earth dist.	1187 Jan 06 j 06:32	19°♿32'18	0.65988 AU
direct	1186 Feb 02 j 12:27	29°♿00'15			morning rise	1187 Jan 10 j 06:22	15°♿07'30	

direct	1187 Jan 16 j 15:20	12°☿20'09			1187 Dec 23 j 19:41	30°☿☿	
morning max el	1187 Jan 29 j 08:57	19°☿51'09	26°20'10	morning rise	1187 Dec 25 j 04:35	28°☿☿38'00	
desc. node	1187 Jan 31 j 21:35	22°☿31'41		direct	1187 Dec 30 j 23:49	26°☿☿04'17	
	1187 Feb 07 j 01:52	0°≈			1188 Jan 08 j 09:50	0°☿	
	1187 Feb 26 j 21:42	0°☿		morning max el	1188 Jan 11 j 17:47	3°☿04'25	25°02'38
morning set	1187 Mar 06 j 11:05	13°☿32'48		desc. node	1188 Jan 18 j 18:38	11°☿06'53	
max. Earth dist.	1187 Mar 10 j 13:45	21°☿25'44	1.35058 AU		1188 Feb 01 j 06:58	0°≈	
	1187 Mar 14 j 20:31	0°☿		morning set	1188 Feb 16 j 21:21	25°≈☿43'30	
					1188 Feb 19 j 06:06	0°☿	
superior conj	1187 Mar 15 j 09:18	1°☿05'18	-1°-5'-5	max. Earth dist.	1188 Feb 20 j 14:31	2°☿29'20	1.36842 AU
minimum elong	1187 Mar 15 j 12:29	1°☿21'35	1°04'33				
asc. node	1187 Mar 22 j 00:47	14°☿52'05		superior conj	1188 Feb 26 j 21:37	14°☿32'01	-1°-30'-8
evening rise	1187 Mar 23 j 03:23	17°☿09'33		minimum elong	1188 Feb 27 j 01:39	14°☿51'52	1°29'36
	1187 Mar 29 j 16:02	0°☿			1188 Mar 05 j 14:47	0°☿	
evening max el	1187 Apr 10 j 20:12	17°☿26'08	20°40'03	evening rise	1188 Mar 06 j 06:41	1°☿19'59	
retrograde	1187 Apr 22 j 01:05	22°☿52'01		asc. node	1188 Mar 07 j 21:49	4°☿35'15	
evening set	1187 Apr 24 j 04:28	22°☿40'55		evening max el	1188 Mar 23 j 09:44	29°☿03'29	19°32'06
desc. node	1187 Apr 29 j 20:47	20°☿39'56			1188 Mar 24 j 10:27	0°☿	
inferior conj	1187 May 03 j 09:43	18°☿43'19	-1°-1'-29	retrograde	1188 Apr 01 j 21:30	3°☿37'55	
minimum elong	1187 May 03 j 06:48	18°☿47'30	1°00'26	evening set	1188 Apr 03 j 23:21	3°☿25'44	
min. Earth dist.	1187 May 04 j 12:36	18°☿04'44	0.55037 AU		1188 Apr 11 j 12:38	30°☿☿	
morning rise	1187 May 12 j 07:55	14°☿34'31		inferior conj	1188 Apr 12 j 13:23	29°☿20'39	0°54'11
direct	1187 May 15 j 21:55	14°☿06'52		minimum elong	1188 Apr 12 j 15:37	29°☿17'03	0°53'24
morning max el	1187 May 29 j 03:39	20°☿30'26	23°06'02	min. Earth dist.	1188 Apr 15 j 03:03	27°☿42'13	0.55928 AU
	1187 Jun 06 j 04:23	0°☿		desc. node	1188 Apr 15 j 17:48	27°☿19'31	
asc. node	1187 Jun 18 j 00:04	20°☿27'12		morning rise	1188 Apr 21 j 04:11	24°☿40'23	
morning set	1187 Jun 21 j 01:25	26°☿44'04		direct	1188 Apr 25 j 16:48	23°☿54'13	
	1187 Jun 22 j 14:31	0°☿			1188 May 08 j 16:33	0°☿	
				morning max el	1188 May 09 j 18:33	1°☿00'02	24°47'16
superior conj	1187 Jun 28 j 04:46	11°☿59'39	1°29'26		1188 May 29 j 18:09	0°☿	
minimum elong	1187 Jun 28 j 02:28	11°☿47'21	1°29'10	asc. node	1188 Jun 03 j 21:06	10°☿16'20	
max. Earth dist.	1187 Jun 30 j 19:54	17°☿34'08	1.33809 AU	morning set	1188 Jun 04 j 13:20	11°☿41'31	
evening rise	1187 Jul 05 j 21:45	27°☿56'34					
	1187 Jul 06 j 22:50	0°☿		superior conj	1188 Jun 11 j 14:02	26°☿53'05	1°13'23
	1187 Jul 24 j 10:52	0°☿		minimum elong	1188 Jun 11 j 11:37	26°☿39'53	1°13'01
desc. node	1187 Jul 26 j 20:08	3°☿26'49		max. Earth dist.	1188 Jun 13 j 01:13	0°☿03'55	1.32901 AU
evening max el	1187 Aug 09 j 03:21	19°☿26'04	27°18'19		1188 Jun 13 j 00:29	0°☿	
retrograde	1187 Aug 22 j 14:19	26°☿44'42		evening rise	1188 Jun 18 j 20:23	12°☿17'55	
evening set	1187 Aug 29 j 15:30	24°☿01'31			1188 Jun 28 j 03:23	0°☿	
min. Earth dist.	1187 Sep 02 j 09:48	20°☿30'59	0.64544 AU	desc. node	1188 Jul 12 j 17:08	22°☿22'40	
inferior conj	1187 Sep 04 j 16:50	18°☿02'15	-2°-56'-41		1188 Jul 19 j 03:43	0°☿	
minimum elong	1187 Sep 04 j 21:18	17°☿50'07	2°55'12	evening max el	1188 Jul 21 j 12:52	2°☿23'28	27°24'12
morning rise	1187 Sep 11 j 05:00	12°☿32'58		retrograde	1188 Aug 04 j 06:53	9°☿41'29	
direct	1187 Sep 13 j 18:57	11°☿58'26		evening set	1188 Aug 11 j 11:51	7°☿08'31	
asc. node	1187 Sep 13 j 23:16	11°☿58'36		min. Earth dist.	1188 Aug 15 j 02:03	4°☿09'03	0.62870 AU
morning max el	1187 Sep 20 j 07:03	15°☿25'51	18°00'28	inferior conj	1188 Aug 17 j 21:40	1°☿25'11	-3°-48'-18
	1187 Sep 30 j 15:20	0°☿		minimum elong	1188 Aug 18 j 02:48	1°☿12'43	3°47'00
morning set	1187 Oct 07 j 18:15	11°☿56'44			1188 Aug 19 j 09:24	30°☿☿	
	1187 Oct 18 j 15:13	0°☿		morning rise	1188 Aug 24 j 20:15	26°☿14'24	
				direct	1188 Aug 27 j 06:33	25°☿47'07	
superior conj	1187 Oct 21 j 07:08	4°☿18'25	0°10'08	asc. node	1188 Aug 30 j 20:19	26°☿47'30	
minimum elong	1187 Oct 21 j 08:20	4°☿23'14	0°09'57	morning max el	1188 Sep 02 j 22:57	29°☿13'01	17°52'13
behind sun begin	1187 Oct 21 j 00:01	3°☿49'45			1188 Sep 03 j 17:08	0°☿	
behind sun end	1187 Oct 21 j 16:39	4°☿56'41		morning set	1188 Sep 19 j 04:23	24°☿25'36	
desc. node	1187 Oct 22 j 19:27	6°☿44'06			1188 Sep 22 j 08:05	0°☿	
max. Earth dist.	1187 Oct 25 j 21:34	11°☿39'00	1.44656 AU				
evening rise	1187 Nov 06 j 16:37	0°☿03'16		superior conj	1188 Sep 30 j 18:33	14°☿31'52	0°51'45
	1187 Nov 06 j 15:46	0°☿		minimum elong	1188 Sep 30 j 23:03	14°☿50'42	0°51'11
greatest brilliancy	1187 Nov 26 j 07:16	29°☿21'10	-0.6m	max. Earth dist.	1188 Oct 07 j 12:57	25°☿40'34	1.43534 AU
	1187 Nov 26 j 18:37	0°☿		desc. node	1188 Oct 08 j 16:28	27°☿31'17	
evening max el	1187 Dec 03 j 02:41	7°☿44'36	20°05'40		1188 Oct 10 j 05:40	0°☿	
retrograde	1187 Dec 10 j 19:43	12°☿15'53		evening rise	1188 Oct 16 j 00:19	9°☿04'20	
asc. node	1187 Dec 10 j 22:30	12°☿15'49			1188 Oct 29 j 21:48	0°☿	
evening set	1187 Dec 14 j 10:57	10°☿58'49		greatest brilliancy	1188 Nov 09 j 21:04	15°☿11'29	-0.4m
inferior conj	1187 Dec 19 j 22:45	4°☿53'04	2°43'38	evening max el	1188 Nov 15 j 01:51	21°☿13'52	21°13'07
minimum elong	1187 Dec 19 j 20:03	5°☿02'07	2°42'52	retrograde	1188 Nov 23 j 17:16	26°☿21'56	
min. Earth dist.	1187 Dec 20 j 18:59	3°☿45'09	0.66947 AU	asc. node	1188 Nov 26 j 19:33	25°☿28'22	

evening set	1188 Nov 27 j 18:31	24° ♄ 49'29		inferior conj	1189 Nov 17 j 11:38	2° ♄ 19'46	1°16'30
inferior conj	1188 Dec 03 j 04:23	18° ♄ 33'33	2°03'13	minimum elong	1189 Nov 17 j 09:58	2° ♄ 25'33	1°15'50
minimum elong	1188 Dec 03 j 02:00	18° ♄ 41'49	2°02'22	min. Earth dist.	1189 Nov 17 j 08:52	2° ♄ 29'21	0.67762 AU
min. Earth dist.	1188 Dec 03 j 12:35	18° ♄ 05'19	0.67528 AU		1189 Nov 19 j 04:43	30° ♄	
morning rise	1188 Dec 08 j 09:07	12° ♄ 18'17		morning rise	1189 Nov 22 j 17:39	26° ♄ 06'33	
direct	1188 Dec 13 j 13:16	10° ♄ 04'29		direct	1189 Nov 27 j 06:48	24° ♄ 15'23	
morning max el	1188 Dec 24 j 02:27	16° ♄ 21'41	23°35'23	morning max el	1189 Dec 06 j 14:07	29° ♄ 44'33	22°08'07
	1189 Jan 04 j 08:28	0° ♄			1189 Dec 06 j 20:12	0° ♄	
desc. node	1189 Jan 04 j 15:40	0° ♄ 24'27		greatest brilliancy	1189 Dec 11 j 05:58	4° ♄ 58'53	-0.4m
	1189 Jan 24 j 07:33	0° ♄		desc. node	1189 Dec 22 j 12:44	20° ♄ 12'30	
morning set	1189 Jan 28 j 08:01	6° ♄ 41'45			1189 Dec 29 j 03:52	0° ♄	
max. Earth dist.	1189 Feb 01 j 09:16	13° ♄ 41'23	1.38919 AU	morning set	1190 Jan 08 j 13:51	16° ♄ 15'26	
				max. Earth dist.	1190 Jan 14 j 06:30	25° ♄ 37'33	1.41046 AU
					1190 Jan 16 j 20:27	0° ♄	
superior conj	1189 Feb 08 j 20:33	27° ♄ 15'32	-1°-50'-27				
minimum elong	1189 Feb 09 j 00:22	27° ♄ 33'26	1°50'09				
	1189 Feb 10 j 07:27	0° ♄		superior conj	1190 Jan 22 j 01:14	9° ♄ 04'03	-2°-2'-23
evening rise	1189 Feb 18 j 02:20	15° ♄ 02'12		minimum elong	1190 Jan 22 j 02:55	9° ♄ 11'31	2°02'21
asc. node	1189 Feb 22 j 18:51	23° ♄ 59'24		evening rise	1190 Feb 01 j 11:02	28° ♄ 08'23	
	1189 Feb 26 j 03:39	0° ♄			1190 Feb 02 j 11:00	0° ♄	
evening max el	1189 Mar 06 j 09:37	11° ♄ 18'35	18°43'58	asc. node	1190 Feb 09 j 15:54	12° ♄ 57'58	
retrograde	1189 Mar 14 j 10:34	15° ♄ 13'17		evening max el	1190 Feb 17 j 16:53	24° ♄ 03'26	18°15'55
evening set	1189 Mar 16 j 17:07	14° ♄ 55'42		retrograde	1190 Feb 24 j 18:24	27° ♄ 34'59	
inferior conj	1189 Mar 24 j 12:13	10° ♄ 33'21	2°23'24	evening set	1190 Feb 27 j 06:23	27° ♄ 09'25	
minimum elong	1189 Mar 24 j 16:23	10° ♄ 25'36	2°22'16	inferior conj	1190 Mar 06 j 08:13	22° ♄ 25'47	3°18'08
min. Earth dist.	1189 Mar 27 j 20:14	8° ♄ 05'26	0.57567 AU	minimum elong	1190 Mar 06 j 11:21	22° ♄ 18'58	3°17'36
morning rise	1189 Apr 01 j 11:18	5° ♄ 20'02		min. Earth dist.	1190 Mar 09 j 17:56	19° ♄ 29'33	0.59620 AU
desc. node	1189 Apr 02 j 14:49	4° ♄ 51'53		morning rise	1190 Mar 13 j 12:45	16° ♄ 47'20	
direct	1189 Apr 07 j 01:55	4° ♄ 02'27		direct	1190 Mar 19 j 23:53	14° ♄ 52'50	
morning max el	1189 Apr 21 j 10:23	11° ♄ 35'02	26°16'38	desc. node	1190 Mar 20 j 11:53	14° ♄ 53'30	
	1189 May 05 j 16:34	0° ♄		morning max el	1190 Apr 03 j 07:23	22° ♄ 39'18	27°19'47
morning set	1189 May 20 j 00:29	26° ♄ 36'16			1190 Apr 09 j 19:45	0° ♄	
asc. node	1189 May 21 j 18:09	0° ♄ 17'32			1190 Apr 28 j 16:33	0° ♄	
	1189 May 21 j 14:53	0° ♄		morning set	1190 May 04 j 09:07	11° ♄ 21'37	
				asc. node	1190 May 08 j 15:11	20° ♄ 25'22	
superior conj	1189 May 27 j 01:27	11° ♄ 51'39	0°53'29	max. Earth dist.	1190 May 11 j 00:26	25° ♄ 38'19	1.32244 AU
minimum elong	1189 May 26 j 23:22	11° ♄ 40'15	0°53'05				
max. Earth dist.	1189 May 27 j 11:55	12° ♄ 49'06	1.32381 AU	superior conj	1190 May 11 j 13:10	26° ♄ 48'16	0°30'26
evening rise	1189 Jun 03 j 01:40	26° ♄ 58'28		minimum elong	1190 May 11 j 11:51	26° ♄ 41'02	0°30'09
	1189 Jun 04 j 12:50	0° ♄			1190 May 13 j 00:03	0° ♄	
	1189 Jun 21 j 14:55	0° ♄		evening rise	1190 May 18 j 11:05	11° ♄ 49'06	
desc. node	1189 Jun 29 j 14:08	10° ♄ 22'39			1190 May 27 j 17:51	0° ♄	
evening max el	1189 Jul 03 j 17:55	14° ♄ 44'02	26°57'30	evening max el	1190 Jun 15 j 16:17	26° ♄ 18'31	25°58'33
retrograde	1189 Jul 17 j 16:23	21° ♄ 59'01		desc. node	1190 Jun 16 j 11:10	27° ♄ 02'31	
evening set	1189 Jul 24 j 15:39	19° ♄ 50'12			1190 Jun 20 j 03:12	0° ♄	
min. Earth dist.	1189 Jul 28 j 08:05	17° ♄ 10'14	0.60920 AU	retrograde	1190 Jun 29 j 16:48	3° ♄ 29'17	
inferior conj	1189 Jul 31 j 13:16	14° ♄ 25'36	-4°-29'-41	evening set	1190 Jul 05 j 22:04	1° ♄ 56'03	
minimum elong	1189 Jul 31 j 17:35	14° ♄ 16'19	4°29'01		1190 Jul 09 j 05:03	30° ♄	
morning rise	1189 Aug 07 j 22:36	9° ♄ 36'04		min. Earth dist.	1190 Jul 10 j 04:52	29° ♄ 18'44	0.58861 AU
direct	1189 Aug 10 j 08:02	9° ♄ 13'17		inferior conj	1190 Jul 13 j 11:54	26° ♄ 52'29	-4°-51'-58
morning max el	1189 Aug 17 j 12:20	12° ♄ 46'19	18°02'45	minimum elong	1190 Jul 13 j 13:11	26° ♄ 50'06	4°51'56
asc. node	1189 Aug 17 j 17:23	12° ♄ 58'44		morning rise	1190 Jul 21 j 07:49	22° ♄ 25'55	
	1189 Aug 29 j 02:41	0° ♄		direct	1190 Jul 23 j 19:03	22° ♄ 05'38	
morning set	1189 Sep 02 j 07:55	7° ♄ 44'56		morning max el	1190 Jul 31 j 19:57	25° ♄ 55'47	18°33'24
					1190 Aug 04 j 09:39	0° ♄	
superior conj	1189 Sep 12 j 08:57	26° ♄ 04'59	1°21'21	asc. node	1190 Aug 04 j 14:26	0° ♄ 15'56	
minimum elong	1189 Sep 12 j 13:18	26° ♄ 24'14	1°20'55	morning set	1190 Aug 16 j 23:44	21° ♄ 39'59	
	1189 Sep 14 j 14:29	0° ♄			1190 Aug 21 j 07:13	0° ♄	
max. Earth dist.	1189 Sep 19 j 23:23	9° ♄ 09'16	1.41890 AU				
evening rise	1189 Sep 25 j 18:50	18° ♄ 38'26		superior conj	1190 Aug 25 j 21:44	8° ♄ 44'20	1°38'50
desc. node	1189 Sep 25 j 13:29	18° ♄ 17'04		minimum elong	1190 Aug 26 j 00:19	8° ♄ 56'26	1°38'40
	1189 Oct 03 j 01:37	0° ♄		max. Earth dist.	1190 Sep 02 j 05:08	21° ♄ 56'36	1.39925 AU
greatest brilliancy	1189 Oct 24 j 00:58	29° ♄ 23'15	-0.3m	evening rise	1190 Sep 06 j 11:32	29° ♄ 14'25	
	1189 Oct 24 j 13:10	0° ♄			1190 Sep 06 j 22:26	0° ♄	
evening max el	1189 Oct 28 j 19:42	4° ♄ 45'01	22°29'33	desc. node	1190 Sep 12 j 10:31	8° ♄ 57'18	
retrograde	1189 Nov 07 j 12:51	10° ♄ 31'28			1190 Sep 26 j 13:20	0° ♄	
evening set	1189 Nov 12 j 02:08	8° ♄ 42'08		evening max el	1190 Oct 11 j 09:35	18° ♄ 19'16	23°49'37
asc. node	1189 Nov 13 j 16:36	7° ♄ 10'50		retrograde	1190 Oct 22 j 05:13	24° ♄ 41'26	

evening set	1190 Oct 27 j 08:11	22° \mathbb{M} 34'25		1191 Sep 21 j 23:56	0° \mathbb{M}	
asc. node	1190 Oct 31 j 13:40	17° \mathbb{M} 47'41		evening max el	1191 Sep 23 j 21:31	1° \mathbb{M} 56'36 25°06'37
min. Earth dist.	1190 Nov 01 j 05:23	16° \mathbb{M} 54'41	0.67664 AU	retrograde	1191 Oct 05 j 17:26	8° \mathbb{M} 47'36
inferior conj	1190 Nov 01 j 18:40	16° \mathbb{M} 09'32	0°24'56	evening set	1191 Oct 11 j 10:58	6° \mathbb{M} 23'52
minimum elong	1190 Nov 01 j 18:04	16° \mathbb{M} 11'33	0°24'40	min. Earth dist.	1191 Oct 15 j 23:45	1° \mathbb{M} 18'59 0.67235 AU
morning rise	1190 Nov 07 j 04:08	10° \mathbb{M} 00'54		inferior conj	1191 Oct 16 j 23:43	0° \mathbb{M} 00'31 0°-30'-10
direct	1190 Nov 11 j 03:19	8° \mathbb{M} 32'03		minimum elong	1191 Oct 17 j 00:29	29° \mathbb{A} 58'01 0°29'51
morning max el	1190 Nov 19 j 08:17	13° \mathbb{M} 17'26	20°48'30		1191 Oct 16 j 23:53	30° \mathbb{R} \mathbb{A}
greatest brilliancy	1190 Nov 25 j 03:09	20° \mathbb{M} 03'15	-0.5m	asc. node	1191 Oct 18 j 10:43	28° \mathbb{A} 07'58
	1190 Dec 02 j 08:35	0° \mathbb{A}		morning rise	1191 Oct 22 j 14:34	23° \mathbb{A} 59'02
desc. node	1190 Dec 09 j 09:47	10° \mathbb{A} 22'32		direct	1191 Oct 26 j 01:29	22° \mathbb{A} 50'10
morning set	1190 Dec 18 j 17:52	24° \mathbb{A} 39'08		morning max el	1191 Nov 02 j 10:17	27° \mathbb{A} 01'14 19°41'16
	1190 Dec 22 j 03:38	0° \mathbb{B}			1191 Nov 05 j 02:44	0° \mathbb{M}
max. Earth dist.	1190 Dec 27 j 11:26	8° \mathbb{B} 31'44	1.42925 AU	greatest brilliancy	1191 Nov 10 j 12:06	7° \mathbb{M} 06'31 -0.6m
					1191 Nov 25 j 18:22	0° \mathbb{A}
superior conj	1191 Jan 03 j 06:23	19° \mathbb{B} 45'10	-2°-1'-17	desc. node	1191 Nov 26 j 06:49	0° \mathbb{A} 48'02
minimum elong	1191 Jan 03 j 03:33	19° \mathbb{B} 33'16	2°01'13	morning set	1191 Nov 27 j 14:40	2° \mathbb{A} 50'58
	1191 Jan 09 j 05:52	0° \mathbb{A}		max. Earth dist.	1191 Dec 09 j 23:41	22° \mathbb{A} 12'48 1.44304 AU
evening rise	1191 Jan 15 j 04:53	10° \mathbb{A} 30'29				
	1191 Jan 26 j 14:41	0° \mathbb{H}		superior conj	1191 Dec 14 j 08:49	29° \mathbb{A} 13'05 -1°-42'-38
asc. node	1191 Jan 27 j 12:57	1° \mathbb{H} 22'45		minimum elong	1191 Dec 14 j 01:07	28° \mathbb{A} 42'04 1°42'01
evening max el	1191 Feb 01 j 04:17	7° \mathbb{H} 08'48	18°07'31		1191 Dec 14 j 20:27	0° \mathbb{B}
retrograde	1191 Feb 07 j 17:55	10° \mathbb{H} 32'57		evening rise	1191 Dec 28 j 03:31	21° \mathbb{B} 59'54
evening set	1191 Feb 10 j 10:40	9° \mathbb{H} 58'11			1192 Jan 01 j 21:03	0° \mathbb{A}
inferior conj	1191 Feb 16 j 22:44	4° \mathbb{H} 52'59	3°42'49	asc. node	1192 Jan 14 j 10:00	19° \mathbb{A} 02'53
minimum elong	1191 Feb 16 j 23:47	4° \mathbb{H} 50'20	3°42'46	evening max el	1192 Jan 15 j 16:47	20° \mathbb{A} 26'14 18°18'10
min. Earth dist.	1191 Feb 19 j 23:02	1° \mathbb{H} 53'26	0.61736 AU	retrograde	1192 Jan 22 j 04:18	23° \mathbb{A} 56'10
	1191 Feb 22 j 01:55	30° \mathbb{R} \mathbb{A}		evening set	1192 Jan 25 j 01:49	23° \mathbb{A} 11'19
morning rise	1191 Feb 23 j 10:24	28° \mathbb{A} 58'08		inferior conj	1192 Jan 31 j 03:39	17° \mathbb{A} 46'11 3°44'47
direct	1191 Mar 02 j 07:57	26° \mathbb{A} 31'48		minimum elong	1192 Jan 31 j 02:50	17° \mathbb{A} 48'29 3°44'45
desc. node	1191 Mar 07 j 08:55	27° \mathbb{A} 41'37		min. Earth dist.	1192 Feb 02 j 13:34	15° \mathbb{A} 04'22 0.63661 AU
	1191 Mar 11 j 07:32	0° \mathbb{H}		morning rise	1192 Feb 06 j 02:09	11° \mathbb{A} 41'15
morning max el	1191 Mar 16 j 10:46	4° \mathbb{H} 24'55	27°47'46	direct	1192 Feb 13 j 00:19	8° \mathbb{A} 55'21
	1191 Apr 04 j 12:25	0° \mathbb{Y}		desc. node	1192 Feb 22 j 05:58	12° \mathbb{A} 47'45
morning set	1191 Apr 18 j 13:19	25° \mathbb{Y} 51'14		morning max el	1192 Feb 26 j 18:45	16° \mathbb{A} 48'51 27°38'38
	1191 Apr 20 j 13:26	0° \mathbb{B}			1192 Mar 08 j 17:38	0° \mathbb{H}
max. Earth dist.	1191 Apr 24 j 10:55	8° \mathbb{B} 18'18	1.32488 AU		1192 Mar 27 j 06:27	0° \mathbb{Y}
				morning set	1192 Apr 01 j 10:37	9° \mathbb{Y} 56'23
superior conj	1191 Apr 25 j 23:33	11° \mathbb{B} 37'17	0°05'00	max. Earth dist.	1192 Apr 06 j 15:12	20° \mathbb{Y} 34'27 1.33130 AU
minimum elong	1191 Apr 25 j 23:19	11° \mathbb{B} 36'01	0°04'56			
behind sun begin	1191 Apr 25 j 18:26	11° \mathbb{B} 09'23		superior conj	1192 Apr 09 j 06:44	26° \mathbb{Y} 11'59 0°-22'-3
behind sun end	1191 Apr 26 j 04:12	12° \mathbb{B} 02'40		minimum elong	1192 Apr 09 j 07:49	26° \mathbb{Y} 17'46 0°21'50
asc. node	1191 Apr 25 j 12:14	10° \mathbb{B} 35'42		asc. node	1192 Apr 11 j 09:17	0° \mathbb{B} 43'47
evening rise	1191 May 02 j 22:37	26° \mathbb{B} 42'48			1192 Apr 11 j 01:10	0° \mathbb{B}
	1191 May 04 j 12:12	0° \mathbb{II}		evening rise	1192 Apr 16 j 10:18	11° \mathbb{B} 32'12
	1191 May 22 j 00:27	0° \mathbb{B}			1192 Apr 25 j 22:17	0° \mathbb{II}
evening max el	1191 May 28 j 08:08	7° \mathbb{B} 10'23	24°34'32	evening max el	1192 May 08 j 22:19	17° \mathbb{II} 41'16 22°59'11
desc. node	1191 Jun 03 j 08:10	11° \mathbb{B} 50'43		desc. node	1192 May 20 j 05:10	24° \mathbb{II} 11'00
retrograde	1191 Jun 11 j 06:07	14° \mathbb{B} 12'44		retrograde	1192 May 22 j 07:20	24° \mathbb{II} 20'57
evening set	1191 Jun 16 j 04:55	13° \mathbb{B} 17'37		evening set	1192 May 25 j 18:42	23° \mathbb{II} 54'28
min. Earth dist.	1191 Jun 21 j 19:17	10° \mathbb{B} 25'15	0.56958 AU	min. Earth dist.	1192 Jun 02 j 07:23	20° \mathbb{II} 33'05 0.55543 AU
inferior conj	1191 Jun 24 j 14:41	8° \mathbb{B} 36'52	-4°-42'-23	inferior conj	1192 Jun 03 j 22:05	19° \mathbb{II} 37'01 -3°-48'-24
minimum elong	1191 Jun 24 j 10:58	8° \mathbb{B} 42'54	4°42'01	minimum elong	1192 Jun 03 j 14:36	19° \mathbb{II} 47'53 3°46'39
morning rise	1191 Jul 02 j 20:45	4° \mathbb{B} 31'39		morning rise	1192 Jun 12 j 13:31	15° \mathbb{II} 44'11
direct	1191 Jul 05 j 11:36	4° \mathbb{B} 12'42		direct	1192 Jun 15 j 09:10	15° \mathbb{II} 25'24
morning max el	1191 Jul 14 j 18:51	8° \mathbb{B} 32'21	19°25'11	morning max el	1192 Jun 26 j 06:58	20° \mathbb{II} 28'29 20°37'55
asc. node	1191 Jul 22 j 11:29	18° \mathbb{B} 24'46			1192 Jul 04 j 00:28	0° \mathbb{B}
	1191 Jul 28 j 22:54	0° \mathbb{Q}		asc. node	1192 Jul 08 j 08:32	7° \mathbb{B} 13'17
morning set	1191 Aug 01 j 00:07	6° \mathbb{Q} 00'34		morning set	1192 Jul 15 j 06:18	20° \mathbb{B} 39'21
					1192 Jul 19 j 18:45	0° \mathbb{Q}
superior conj	1191 Aug 09 j 03:15	22° \mathbb{Q} 14'05	1°45'56			
minimum elong	1191 Aug 09 j 03:51	22° \mathbb{Q} 17'04	1°45'54	superior conj	1192 Jul 22 j 20:44	6° \mathbb{Q} 20'30 1°44'36
	1191 Aug 13 j 04:11	0° \mathbb{P}		minimum elong	1192 Jul 22 j 19:45	6° \mathbb{Q} 15'32 1°44'34
max. Earth dist.	1191 Aug 15 j 08:48	4° \mathbb{P} 05'14	1.37891 AU	max. Earth dist.	1192 Jul 27 j 15:52	15° \mathbb{Q} 55'13 1.36030 AU
evening rise	1191 Aug 19 j 04:24	10° \mathbb{P} 58'19		evening rise	1192 Jul 31 j 18:07	23° \mathbb{Q} 42'36
desc. node	1191 Aug 30 j 07:32	29° \mathbb{P} 27'39			1192 Aug 04 j 05:13	0° \mathbb{P}
	1191 Aug 30 j 15:51	0° \mathbb{A}		desc. node	1192 Aug 16 j 04:32	19° \mathbb{P} 42'46

	1192 Aug 23 j 07:22	0°♄				1193 Jul 27 j 19:45	0°♄		
evening max el	1192 Sep 05 j 09:16	15°♄34'52	26°13'12	desc. node		1193 Aug 03 j 01:32	9°♄35'17		
retrograde	1192 Sep 18 j 00:58	22°♄44'39		evening max el		1193 Aug 18 j 21:22	29°♄06'48	27°01'38	
evening set	1192 Sep 24 j 08:38	20°♄07'45				1193 Aug 19 j 20:04	0°♄		
min. Earth dist.	1192 Sep 28 j 13:40	15°♄39'20	0.66465 AU	retrograde		1193 Sep 01 j 03:05	6°♄24'40		
inferior conj	1192 Sep 30 j 00:59	13°♄50'13	-1°-27'-17	evening set		1193 Sep 07 j 22:51	3°♄41'19		
minimum elong	1192 Sep 30 j 03:16	13°♄43'11	1°26'22			1193 Sep 11 j 17:11	30°♄		
asc. node	1192 Oct 04 j 07:44	9°♄08'56		min. Earth dist.		1193 Sep 11 j 20:49	29°♄49'52	0.65346 AU	
morning rise	1192 Oct 05 j 22:57	7°♄58'40		inferior conj		1193 Sep 13 j 20:22	27°♄34'00	-2°-24'-37	
direct	1192 Oct 08 j 23:45	7°♄06'09		minimum elong		1193 Sep 14 j 00:08	27°♄23'14	2°23'14	
morning max el	1192 Oct 15 j 19:18	10°♄53'23	18°49'05	morning rise		1193 Sep 20 j 02:58	21°♄55'26		
	1192 Oct 29 j 13:43	0°♄		asc. node		1193 Sep 21 j 04:47	21°♄30'04		
morning set	1192 Nov 06 j 04:45	12°♄00'31		direct		1193 Sep 22 j 20:06	21°♄15'24		
desc. node	1192 Nov 12 j 03:52	21°♄24'35		morning max el		1193 Sep 29 j 09:04	24°♄47'52	18°13'12	
	1192 Nov 17 j 15:04	0°♄				1193 Oct 03 j 16:18	0°♄		
max. Earth dist.	1192 Nov 21 j 16:39	6°♄23'10	1.45021 AU	morning set		1193 Oct 17 j 23:25	22°♄35'31		
						1193 Oct 22 j 12:06	0°♄		
superior conj	1192 Nov 22 j 14:20	7°♄48'23	-1°-5'-41	desc. node		1193 Oct 30 j 00:52	12°♄07'37		
minimum elong	1192 Nov 22 j 06:29	7°♄17'33	1°04'46						
	1192 Dec 06 j 13:38	0°♄		superior conj		1193 Nov 01 j 16:50	16°♄21'35	0°-17'-40	
evening rise	1192 Dec 08 j 03:23	2°♄31'59		minimum elong		1193 Nov 01 j 14:33	16°♄12'33	0°17'23	
	1192 Dec 25 j 21:12	0°♄		max. Earth dist.		1193 Nov 04 j 11:20	20°♄44'03	1.45003 AU	
evening max el	1192 Dec 29 j 03:56	3°♄51'11	18°46'59			1193 Nov 10 j 09:13	0°♄		
asc. node	1192 Dec 31 j 07:01	5°♄46'15		evening rise		1193 Nov 18 j 04:14	12°♄08'52		
retrograde	1193 Jan 04 j 21:29	7°♄37'47				1193 Nov 29 j 17:16	0°♄		
evening set	1193 Jan 08 j 00:39	6°♄41'43		greatest brilliancy		1193 Dec 04 j 04:40	6°♄40'07	-0.7m	
inferior conj	1193 Jan 13 j 19:14	0°♄58'51	3°30'11	evening max el		1193 Dec 12 j 11:35	17°♄19'37	19°32'42	
minimum elong	1193 Jan 13 j 17:10	1°♄05'11	3°29'52	asc. node		1193 Dec 18 j 04:03	21°♄18'07		
	1193 Jan 14 j 14:22	30°♄		retrograde		1193 Dec 19 j 18:12	21°♄32'07		
min. Earth dist.	1193 Jan 15 j 13:44	28°♄48'46	0.65254 AU	evening set		1193 Dec 23 j 04:32	20°♄23'15		
morning rise	1193 Jan 19 j 08:33	24°♄48'02		inferior conj		1193 Dec 28 j 18:15	14°♄25'13	3°03'24	
direct	1193 Jan 25 j 23:55	21°♄57'06		minimum elong		1193 Dec 28 j 15:37	14°♄33'50	3°02'45	
morning max el	1193 Feb 08 j 04:31	29°♄40'45	26°56'20	min. Earth dist.		1193 Dec 29 j 22:14	12°♄53'51	0.66448 AU	
desc. node	1193 Feb 08 j 03:02	29°♄37'02		morning rise		1194 Jan 03 j 01:57	8°♄11'13		
	1193 Feb 08 j 12:08	0°♄		direct		1194 Jan 09 j 05:29	5°♄28'16		
	1193 Mar 02 j 15:21	0°♄		morning max el		1194 Jan 21 j 13:40	12°♄48'01	25°48'54	
morning set	1193 Mar 15 j 21:50	23°♄27'20		desc. node		1194 Jan 26 j 00:06	17°♄39'53		
	1193 Mar 19 j 06:07	0°♄				1194 Feb 04 j 11:18	0°♄		
max. Earth dist.	1193 Mar 20 j 09:22	2°♄16'36	1.34217 AU			1194 Feb 23 j 08:16	0°♄		
				morning set		1194 Feb 26 j 18:46	6°♄11'45		
superior conj	1193 Mar 24 j 08:43	10°♄26'16	0°-49'-36	max. Earth dist.		1194 Mar 02 j 15:43	13°♄27'49	1.35765 AU	
minimum elong	1193 Mar 24 j 11:10	10°♄39'05	0°49'08						
asc. node	1193 Mar 29 j 06:19	20°♄45'35		superior conj		1194 Mar 08 j 02:58	24°♄13'14	-1°-16'-7	
evening rise	1193 Mar 31 j 20:21	26°♄11'16		minimum elong		1194 Mar 08 j 06:36	24°♄31'31	1°15'33	
	1193 Apr 02 j 16:43	0°♄				1194 Mar 10 j 23:13	0°♄		
evening max el	1193 Apr 20 j 18:26	28°♄23'05	21°27'12	evening rise		1194 Mar 16 j 02:48	10°♄34'14		
	1193 Apr 22 j 13:31	0°♄		asc. node		1194 Mar 16 j 03:21	10°♄37'05		
retrograde	1193 Apr 22 j 22:19	4°♄19'18				1194 Mar 26 j 13:20	0°♄		
evening set	1193 May 05 j 08:08	4°♄06'05		evening max el		1194 Apr 03 j 01:27	9°♄38'32	20°08'54	
desc. node	1193 May 07 j 02:11	3°♄40'51		retrograde		1194 Apr 13 j 12:29	14°♄41'09		
inferior conj	1193 May 14 j 17:15	0°♄05'55	-2°-9'-58	evening set		1194 Apr 15 j 14:00	14°♄30'14		
minimum elong	1193 May 14 j 11:20	0°♄14'14	2°07'58	desc. node		1194 Apr 23 j 23:14	10°♄53'13		
	1193 May 14 j 21:29	30°♄		inferior conj		1194 Apr 24 j 13:48	10°♄31'35	0°-10'-31	
min. Earth dist.	1193 May 14 j 19:52	0°♄02'15	0.54940 AU	minimum elong		1194 Apr 24 j 13:19	10°♄32'19	0°10'21	
morning rise	1193 May 23 j 14:56	26°♄08'09		transit middle		1194 Apr 24 j 13:19	10°♄32'19	0°10'21	
direct	1193 May 26 j 19:47	25°♄45'47		transit begin		1194 Apr 24 j 10:16	10°♄36'51		
	1193 Jun 06 j 09:05	0°♄		transit end		1194 Apr 24 j 16:22	10°♄27'46		
morning max el	1193 Jun 08 j 07:59	1°♄41'11	22°08'35	min. Earth dist.		1194 Apr 26 j 09:23	9°♄26'46	0.55305 AU	
asc. node	1193 Jun 25 j 05:34	26°♄31'20		morning rise		1194 May 03 j 10:04	6°♄10'33		
	1193 Jun 26 j 23:47	0°♄		direct		1194 May 07 j 09:02	5°♄36'23		
morning set	1193 Jun 29 j 16:07	5°♄29'42		morning max el		1194 May 21 j 00:51	12°♄19'54	23°49'31	
						1194 Jun 03 j 10:48	0°♄		
superior conj	1193 Jul 06 j 22:27	20°♄51'52	1°36'34	asc. node		1194 Jun 12 j 02:37	16°♄11'11		
minimum elong	1193 Jul 06 j 20:27	20°♄41'24	1°36'24	morning set		1194 Jun 14 j 03:46	20°♄26'21		
max. Earth dist.	1193 Jul 10 j 07:17	27°♄52'15	1.34505 AU			1194 Jun 18 j 14:51	0°♄		
	1193 Jul 11 j 08:21	0°♄							
evening rise	1193 Jul 14 j 23:54	7°♄14'16		superior conj		1194 Jun 21 j 05:38	5°♄39'32	1°23'09	

minimum elong	1194 Jun 21 j 03:13	5° 26 26'30	1°22'51	minimum elong	1195 Jun 05 j 13:42	20° II 22'32	1°04'58
max. Earth dist.	1194 Jun 23 j 08:14	10° 26 10'49	1.33376 AU	max. Earth dist.	1195 Jun 06 j 16:29	22° II 48'51	1.32637 AU
evening rise	1194 Jun 28 j 17:29	21° 26 21'02			1195 Jun 10 j 00:21	0° 26	
	1194 Jul 03 j 04:05	0° 26		evening rise	1195 Jun 12 j 19:18	5° 26 51'14	
desc. node	1194 Jul 20 j 22:32	28° 26 55'35			1195 Jun 25 j 18:24	0° 26	
	1194 Jul 21 j 17:30	0° 26		desc. node	1195 Jul 07 j 19:34	17° 26 29'41	
evening max el	1194 Aug 01 j 08:44	12° 26 21'36	27°24'41	evening max el	1195 Jul 14 j 16:48	25° 26 04'42	27°16'55
retrograde	1194 Aug 14 j 23:10	19° 26 39'50			1195 Jul 21 j 00:19	0° 26	
evening set	1194 Aug 22 j 02:46	16° 26 59'47		retrograde	1195 Jul 28 j 12:32	2° 26 20'38	
min. Earth dist.	1194 Aug 25 j 19:01	13° 26 43'06	0.63876 AU	evening set	1195 Aug 04 j 16:37	29° 26 56'20	
inferior conj	1194 Aug 28 j 07:23	11° 26 06'51	-3°-19'-25		1195 Aug 04 j 14:23	30° 26 R 26	
minimum elong	1194 Aug 28 j 12:16	10° 26 54'13	3°17'56	min. Earth dist.	1195 Aug 08 j 06:46	27° 26 07'04	0.62072 AU
morning rise	1194 Sep 03 j 23:52	5° 26 44'41		inferior conj	1195 Aug 11 j 07:01	24° 26 21'03	-4°-7'-33
direct	1194 Sep 06 j 11:58	5° 26 13'31		minimum elong	1195 Aug 11 j 12:02	24° 26 09'28	4°06'28
asc. node	1194 Sep 08 j 01:50	5° 26 26'05		morning rise	1195 Aug 18 j 10:09	19° 26 18'53	
morning max el	1194 Sep 13 j 00:59	8° 26 39'23	17°54'37	direct	1195 Aug 20 j 19:53	18° 26 53'39	
	1194 Sep 27 j 06:34	0° 26		asc. node	1195 Aug 25 j 22:53	20° 26 51'25	
morning set	1194 Sep 29 j 20:55	4° 26 28'27		morning max el	1195 Aug 27 j 16:09	22° 26 21'09	17°54'21
					1195 Sep 02 j 14:20	0° 26	
superior conj	1194 Oct 12 j 12:58	25° 26 49'18	0°29'05	morning set	1195 Sep 12 j 15:12	17° 26 20'58	
minimum elong	1194 Oct 12 j 16:04	26° 26 01'55	0°28'40		1195 Sep 19 j 16:47	0° 26	
	1194 Oct 15 j 02:38	0° 26					
desc. node	1194 Oct 16 j 21:52	2° 26 54'02		superior conj	1195 Sep 23 j 12:14	6° 26 37'39	1°05'51
max. Earth dist.	1194 Oct 18 j 05:11	4° 26 59'16	1.44264 AU	minimum elong	1195 Sep 23 j 16:58	6° 26 58'00	1°05'18
evening rise	1194 Oct 28 j 13:51	21° 26 12'17		max. Earth dist.	1195 Sep 30 j 19:18	18° 26 51'01	1.42893 AU
	1194 Nov 03 j 08:01	0° 26		desc. node	1195 Oct 03 j 18:53	23° 26 40'56	
greatest brilliancy	1194 Nov 19 j 14:27	23° 26 38'32	-0.5m		1195 Oct 07 j 18:28	0° 26	
	1194 Nov 24 j 19:35	0° 26		evening rise	1195 Oct 08 j 00:16	0° 26 22'44	
evening max el	1194 Nov 25 j 14:09	0° 26 49'03	20°33'03		1195 Oct 27 j 23:11	0° 26	
retrograde	1194 Dec 03 j 15:58	5° 26 34'55		greatest brilliancy	1195 Nov 03 j 15:00	8° 26 48'22	-0.4m
asc. node	1194 Dec 05 j 01:06	5° 26 24'11		evening max el	1195 Nov 08 j 10:59	14° 26 19'09	21°44'46
evening set	1194 Dec 07 j 11:19	4° 26 11'26		retrograde	1195 Nov 17 j 12:53	19° 26 43'18	
	1194 Dec 11 j 10:35	30° 26 R 26		evening set	1195 Nov 21 j 19:08	18° 26 03'33	
inferior conj	1194 Dec 12 j 22:07	28° 26 01'07	2°27'19	asc. node	1195 Nov 21 j 22:09	17° 26 57'31	
minimum elong	1194 Dec 12 j 19:29	28° 26 10'03	2°26'29	inferior conj	1195 Nov 27 j 04:40	11° 26 44'21	1°44'03
min. Earth dist.	1194 Dec 13 j 13:03	27° 26 10'17	0.67245 AU	minimum elong	1195 Nov 27 j 02:32	11° 26 51'45	1°43'15
morning rise	1194 Dec 18 j 03:11	21° 26 45'57		min. Earth dist.	1195 Nov 27 j 08:00	11° 26 32'47	0.67672 AU
direct	1194 Dec 23 j 16:11	19° 26 20'06		morning rise	1195 Dec 02 j 09:42	5° 26 29'55	
morning max el	1195 Jan 03 j 22:00	26° 26 02'19	24°26'02	direct	1195 Dec 07 j 07:21	3° 26 25'50	
	1195 Jan 07 j 13:26	0° 26		morning max el	1195 Dec 17 j 07:39	9° 26 22'14	22°57'48
desc. node	1195 Jan 12 j 21:08	6° 26 34'29		greatest brilliancy	1195 Dec 22 j 01:35	14° 26 40'23	-0.3m
	1195 Jan 29 j 01:05	0° 26		desc. node	1195 Dec 30 j 18:09	26° 26 06'10	
morning set	1195 Feb 08 j 19:44	17° 26 53'04			1196 Jan 02 j 12:05	0° 26	
max. Earth dist.	1195 Feb 12 j 13:09	24° 26 30'55	1.37705 AU	morning set	1196 Jan 20 j 18:34	28° 26 16'03	
	1195 Feb 15 j 12:45	0° 26			1196 Jan 21 j 19:32	0° 26	
				max. Earth dist.	1196 Jan 25 j 08:40	6° 26 01'04	1.39840 AU
superior conj	1195 Feb 19 j 10:08	7° 26 22'58	-1°-39'-31				
minimum elong	1195 Feb 19 j 14:16	7° 26 42'51	1°39'05	superior conj	1196 Feb 02 j 01:58	19° 26 44'37	-1°-56'-47
evening rise	1195 Feb 28 j 03:12	24° 26 33'31		minimum elong	1196 Feb 02 j 05:10	19° 26 59'16	1°56'37
	1195 Mar 02 j 21:45	0° 26			1196 Feb 07 j 13:42	0° 26	
asc. node	1195 Mar 03 j 00:24	0° 26 12'47		evening rise	1196 Feb 11 j 18:41	8° 26 01'47	
evening max el	1195 Mar 16 j 19:43	21° 26 32'25	19°09'09	asc. node	1196 Feb 17 j 21:28	19° 26 27'02	
retrograde	1195 Mar 25 j 15:10	25° 26 47'54			1196 Feb 24 j 12:13	0° 26	
evening set	1195 Mar 27 j 18:56	25° 26 33'41		evening max el	1196 Feb 27 j 23:04	4° 26 00'44	18°29'30
inferior conj	1195 Apr 05 j 00:53	21° 26 21'49	1°36'12	retrograde	1196 Mar 06 j 12:43	7° 26 43'56	
minimum elong	1195 Apr 05 j 04:24	21° 26 15'50	1°35'03	evening set	1196 Mar 08 j 21:33	7° 26 23'13	
min. Earth dist.	1195 Apr 08 j 00:28	19° 26 20'39	0.56554 AU	inferior conj	1196 Mar 16 j 08:54	2° 26 51'39	2°50'43
desc. node	1195 Apr 10 j 20:18	17° 26 38'26		minimum elong	1196 Mar 16 j 12:51	2° 26 43'44	2°49'48
morning rise	1195 Apr 13 j 09:47	16° 26 27'21			1196 Mar 19 j 23:53	30° 26 R 26	
direct	1195 Apr 18 j 09:44	15° 26 29'16		min. Earth dist.	1196 Mar 19 j 19:10	0° 26 08'51	0.58412 AU
morning max el	1195 May 02 j 15:19	22° 26 47'24	25°27'44	morning rise	1196 Mar 24 j 00:05	27° 26 42'16	
	1195 May 09 j 01:18	0° 26		desc. node	1196 Mar 27 j 17:21	26° 26 06'55	
	1195 May 27 j 01:10	0° 26		direct	1196 Mar 30 j 00:15	25° 26 45'321	
morning set	1195 May 29 j 15:34	5° 26 22'59			1196 Apr 09 j 06:58	0° 26	
asc. node	1195 May 29 j 23:40	6° 26 05'44		morning max el	1196 Apr 13 j 09:13	3° 26 32'51	26°47'28
					1196 May 02 j 13:38	0° 26	
superior conj	1195 Jun 05 j 16:02	20° 26 35'17	1°05'23	morning set	1196 May 13 j 01:52	20° 26 414'10	

asc. node	1196 May 15 j 20:43	26°♄09'59			1197 Apr 24 j 23:04	0°♄	
	1196 May 17 j 15:03	0°♄		morning set	1197 Apr 27 j 08:53	4°♄53'49	
				asc. node	1197 May 02 j 17:47	16°♄19'31	
superior conj	1196 May 20 j 03:46	5°♄33'08	0°44'03	max. Earth dist.	1197 May 03 j 16:29	18°♄23'19	1.32293 AU
minimum elong	1196 May 20 j 01:58	5°♄23'15	0°43'40				
max. Earth dist.	1196 May 20 j 04:28	5°♄37'01	1.32278 AU	superior conj	1197 May 04 j 15:08	20°♄27'19	0°19'54
evening rise	1196 May 27 j 02:35	20°♄36'12		minimum elong	1197 May 04 j 14:14	20°♄22'26	0°19'41
	1196 May 31 j 17:41	0°♄			1197 May 08 j 23:49	0°♄	
	1196 Jun 19 j 09:03	0°♄		evening rise	1197 May 11 j 13:07	5°♄28'46	
desc. node	1196 Jun 23 j 16:37	4°♄58'23			1197 May 24 j 12:44	0°♄	
evening max el	1196 Jun 25 j 18:54	7°♄04'32	26°35'58	evening max el	1197 Jun 07 j 14:06	18°♄19'16	25°25'12
retrograde	1196 Jul 09 j 18:21	14°♄18'16		desc. node	1197 Jun 10 j 13:38	20°♄55'16	
evening set	1196 Jul 16 j 11:48	12°♄23'09		retrograde	1197 Jun 21 j 14:49	25°♄28'23	
min. Earth dist.	1196 Jul 20 j 08:18	9°♄46'53	0.60043 AU	evening set	1197 Jun 27 j 08:14	24°♄11'44	
inferior conj	1196 Jul 23 j 15:45	7°♄07'22	-4°-42'-11	min. Earth dist.	1197 Jul 02 j 02:07	21°♄29'50	0.58004 AU
minimum elong	1196 Jul 23 j 19:05	7°♄00'37	4°41'50	inferior conj	1197 Jul 05 j 06:13	19°♄17'14	-4°-52'-40
morning rise	1196 Jul 31 j 05:41	2°♄27'56		minimum elong	1197 Jul 05 j 05:30	19°♄18'29	4°52'41
direct	1196 Aug 02 j 15:38	2°♄06'24		morning rise	1197 Jul 13 j 06:31	15°♄00'27	
morning max el	1196 Aug 10 j 03:29	5°♄45'02	18°13'23	direct	1197 Jul 15 j 18:54	14°♄41'01	
asc. node	1196 Aug 11 j 19:57	7°♄32'00		morning max el	1197 Jul 24 j 07:51	18°♄42'22	18°52'52
	1196 Aug 25 j 12:31	0°♄		asc. node	1197 Jul 29 j 16:59	25°♄13'01	
morning set	1196 Aug 26 j 00:26	0°♄56'15			1197 Aug 01 j 17:54	0°♄	
				morning set	1197 Aug 09 j 20:18	15°♄03'14	
					1197 Aug 17 j 11:44	0°♄	
superior conj	1196 Sep 04 j 12:51	18°♄40'48	1°30'11				
minimum elong	1196 Sep 04 j 16:33	18°♄57'32	1°29'51				
	1196 Sep 10 j 22:53	0°♄		superior conj	1197 Aug 18 j 09:26	1°♄43'44	1°42'59
max. Earth dist.	1196 Sep 12 j 03:28	2°♄01'58	1.41070 AU	minimum elong	1197 Aug 18 j 11:09	1°♄51'59	1°42'54
evening rise	1196 Sep 17 j 03:18	10°♄20'07		max. Earth dist.	1197 Aug 25 j 07:17	14°♄29'30	1.39045 AU
desc. node	1196 Sep 19 j 15:55	14°♄24'29		evening rise	1197 Aug 29 j 06:31	21°♄25'46	
	1196 Sep 29 j 19:22	0°♄			1197 Sep 03 j 09:44	0°♄	
greatest brilliancy	1196 Oct 15 j 12:47	21°♄33'48	-0.2m	desc. node	1197 Sep 06 j 12:57	5°♄01'14	
evening max el	1196 Oct 21 j 02:44	27°♄50'36	23°03'29		1197 Sep 23 j 19:51	0°♄	
	1196 Oct 23 j 09:50	0°♄		evening max el	1197 Oct 03 j 15:30	11°♄26'13	24°23'11
retrograde	1196 Oct 31 j 07:22	3°♄53'29		retrograde	1197 Oct 14 j 22:12	18°♄02'21	
evening set	1196 Nov 05 j 02:18	1°♄56'28		evening set	1197 Oct 20 j 07:10	15°♄48'09	
	1196 Nov 07 j 01:26	30°♄		min. Earth dist.	1197 Oct 25 j 00:42	10°♄22'45	0.67518 AU
asc. node	1196 Nov 07 j 19:12	29°♄07'31		inferior conj	1197 Oct 25 j 18:27	9°♄23'10	0°01'55
min. Earth dist.	1196 Nov 10 j 04:41	25°♄57'31	0.67757 AU	minimum elong	1197 Oct 25 j 18:24	9°♄23'20	0°01'54
inferior conj	1196 Nov 10 j 12:01	25°♄32'15	0°55'07	transit middle	1197 Oct 25 j 18:24	9°♄23'20	0°01'54
minimum elong	1196 Nov 10 j 10:46	25°♄36'34	0°54'37	transit begin	1197 Oct 25 j 15:41	9°♄32'28	
morning rise	1196 Nov 15 j 19:16	19°♄20'39		transit end	1197 Oct 25 j 21:07	9°♄14'12	
direct	1196 Nov 20 j 02:11	17°♄39'24		asc. node	1197 Oct 25 j 16:13	9°♄30'39	
morning max el	1196 Nov 28 j 21:53	22°♄49'26	21°32'59	morning rise	1197 Oct 31 j 05:57	3°♄16'59	
greatest brilliancy	1196 Dec 03 j 22:01	28°♄31'22	-0.4m	direct	1197 Nov 03 j 23:38	1°♄57'00	
	1196 Dec 05 j 02:06	0°♄		morning max el	1197 Nov 11 j 19:19	6°♄26'58	20°18'07
desc. node	1196 Dec 16 j 15:11	16°♄04'05		greatest brilliancy	1197 Nov 18 j 09:51	14°♄22'05	-0.6m
	1196 Dec 25 j 20:52	0°♄			1197 Nov 29 j 07:08	0°♄	
morning set	1196 Dec 30 j 12:15	7°♄15'53		desc. node	1197 Dec 03 j 12:13	6°♄21'14	
max. Earth dist.	1197 Jan 06 j 08:40	18°♄20'48	1.41891 AU	morning set	1197 Dec 09 j 10:01	15°♄25'00	
	1197 Jan 13 j 06:09	0°♄			1197 Dec 18 j 16:43	0°♄	
				max. Earth dist.	1197 Dec 19 j 16:19	1°♄34'32	1.43586 AU
superior conj	1197 Jan 13 j 21:11	1°♄05'05	-2°-3'-48				
minimum elong	1197 Jan 13 j 21:12	1°♄05'12	2°03'49	superior conj	1197 Dec 25 j 15:02	11°♄14'58	-1°-55'-43
evening rise	1197 Jan 24 j 21:34	20°♄49'57		minimum elong	1197 Dec 25 j 09:55	10°♄53'53	1°55'27
	1197 Jan 29 j 22:51	0°♄			1198 Jan 05 j 16:34	0°♄	
asc. node	1197 Feb 03 j 18:31	8°♄12'10		evening rise	1198 Jan 07 j 07:45	2°♄50'11	
evening max el	1197 Feb 10 j 08:24	16°♄54'46	18°09'57	asc. node	1198 Jan 21 j 15:32	26°♄19'21	
retrograde	1197 Feb 17 j 03:45	20°♄21'39			1198 Jan 24 j 18:08	0°♄	
evening set	1197 Feb 19 j 17:40	19°♄52'27		evening max el	1198 Jan 24 j 20:38	0°♄06'20	18°09'48
inferior conj	1197 Feb 26 j 13:14	14°♄59'42	3°31'48	retrograde	1198 Jan 31 j 08:15	3°♄31'11	
minimum elong	1197 Feb 26 j 15:31	14°♄54'25	3°31'33	evening set	1198 Feb 03 j 02:59	2°♄52'16	
min. Earth dist.	1197 Mar 01 j 19:59	11°♄58'45	0.60528 AU		1198 Feb 07 j 02:14	30°♄	
morning rise	1197 Mar 05 j 10:10	9°♄12'58		inferior conj	1198 Feb 09 j 10:20	27°♄38'42	3°46'00
direct	1197 Mar 12 j 02:54	7°♄03'33		minimum elong	1198 Feb 09 j 10:32	27°♄38'11	3°46'00
desc. node	1197 Mar 14 j 14:23	7°♄20'21		min. Earth dist.	1198 Feb 12 j 05:00	24°♄44'13	0.62594 AU
morning max el	1197 Mar 26 j 09:09	14°♄54'35	27°36'15	morning rise	1198 Feb 15 j 15:55	21°♄39'01	
	1197 Apr 07 j 14:24	0°♄		direct	1198 Feb 22 j 15:02	19°♄02'14	

desc. node	1198 Mar 01 j 11:25	21° \approx 11'17		inferior conj	1199 Jan 23 j 20:13	10° \approx 41'10	3°40'19
morning max el	1198 Mar 08 j 14:36	26° \approx 56'45	27°48'11	minimum elong	1199 Jan 23 j 18:47	10° \approx 45'21	3°40'10
	1198 Mar 11 j 11:54	0° H		min. Earth dist.	1199 Jan 25 j 23:32	8° \approx 11'48	0.64390 AU
	1198 Apr 01 j 05:11	0° Y		morning rise	1199 Jan 29 j 14:24	4° \approx 33'40	
morning set	1198 Apr 11 j 10:26	19° Y 13'54		direct	1199 Feb 05 j 10:34	1° \approx 43'56	
	1198 Apr 16 j 14:33	0° B		desc. node	1199 Feb 16 j 08:26	7° \approx 05'45	
max. Earth dist.	1198 Apr 17 j 00:35	0° B 53'38	1.32705 AU	morning max el	1199 Feb 18 j 23:30	9° \approx 33'48	27°24'17
					1199 Mar 06 j 23:55	0° H	
superior conj	1198 Apr 19 j 00:23	5° B 11'09	0°-6'-21		1199 Mar 24 j 13:33	0° Y	
minimum elong	1198 Apr 19 j 00:41	5° B 12'47	0°06'18	morning set	1199 Mar 26 j 03:53	3° Y 06'03	
behind sun begin	1198 Apr 18 j 19:53	4° B 46'49		max. Earth dist.	1199 Mar 31 j 01:02	12° Y 56'47	1.33541 AU
behind sun end	1198 Apr 19 j 05:29	5° B 38'47					
asc. node	1198 Apr 19 j 14:49	6° B 29'24		superior conj	1199 Apr 03 j 05:39	19° Y 38'31	0°-33'-45
evening rise	1198 Apr 26 j 00:55	20° B 21'21		minimum elong	1199 Apr 03 j 07:19	19° Y 47'21	0°33'24
	1198 Apr 30 j 17:59	0° II		asc. node	1199 Apr 06 j 11:51	26° Y 35'44	
evening max el	1198 May 20 j 04:36	28° II 59'27	23°54'36		1199 Apr 08 j 02:05	0° B	
	1198 May 21 j 06:38	0° B		evening rise	1199 Apr 10 j 12:10	5° B 07'45	
desc. node	1198 May 28 j 10:39	4° B 45'02			1199 Apr 24 j 01:59	0° II	
retrograde	1198 Jun 02 j 23:03	5° B 54'08		evening max el	1199 May 01 j 20:33	9° II 31'44	22°18'53
evening set	1198 Jun 07 j 06:19	5° B 13'18		retrograde	1199 May 14 j 18:42	15° II 54'31	
min. Earth dist.	1198 Jun 13 j 15:27	2° B 09'56	0.56273 AU	desc. node	1199 May 15 j 07:39	15° II 53'51	
inferior conj	1198 Jun 16 j 00:26	0° B 42'45	-4°-25'-25	evening set	1199 May 17 j 17:31	15° II 35'19	
minimum elong	1198 Jun 15 j 18:41	0° B 51'37	4°24'32	min. Earth dist.	1199 May 26 j 03:16	11° II 58'03	0.55182 AU
	1198 Jun 17 j 04:31	30° R II		inferior conj	1199 May 27 j 01:18	11° II 26'59	-3°-11'-16
morning rise	1198 Jun 24 j 10:34	26° II 43'59		minimum elong	1199 May 26 j 17:44	11° II 37'40	3°09'06
direct	1198 Jun 27 j 03:12	26° II 25'18		morning rise	1199 Jun 04 j 20:01	7° II 34'33	
	1198 Jul 05 j 21:46	0° B		direct	1199 Jun 07 j 19:05	7° II 14'44	
morning max el	1198 Jul 07 j 02:18	1° B 02'23	19°53'35	morning max el	1199 Jun 19 j 09:25	12° II 39'09	21°14'33
asc. node	1198 Jul 16 j 14:01	13° B 40'03			1199 Jul 01 j 23:32	0° B	
morning set	1198 Jul 24 j 23:27	29° B 32'14		asc. node	1199 Jul 03 j 11:05	2° B 42'13	
	1198 Jul 25 j 04:56	0° B		morning set	1199 Jul 09 j 07:26	14° B 16'41	
superior conj	1198 Aug 01 j 20:31	15° B 30'11	1°46'16	superior conj	1199 Jul 16 j 17:53	29° B 48'04	1°41'55
minimum elong	1198 Aug 01 j 20:23	15° B 29'32	1°46'16	minimum elong	1199 Jul 16 j 16:24	29° B 40'25	1°41'51
max. Earth dist.	1198 Aug 07 j 11:40	26° B 26'48	1.37069 AU		1199 Jul 16 j 20:11	0° B	
	1198 Aug 09 j 09:20	0° B		max. Earth dist.	1199 Jul 20 j 22:14	8° B 18'23	1.35342 AU
evening rise	1198 Aug 11 j 08:50	3° B 36'53		evening rise	1199 Jul 25 j 05:58	16° B 42'35	
desc. node	1198 Aug 24 j 09:59	25° B 25'46			1199 Aug 01 j 14:45	0° B	
	1198 Aug 27 j 10:15	0° B		desc. node	1199 Aug 11 j 06:59	15° B 32'08	
evening max el	1198 Sep 16 j 03:23	25° B 04'56	25°36'45		1199 Aug 21 j 19:48	0° B	
	1198 Sep 22 j 04:18	0° B		evening max el	1199 Aug 29 j 15:27	8° B 41'42	26°36'27
retrograde	1198 Sep 28 j 08:24	2° B 04'49		retrograde	1199 Sep 11 j 13:27	15° B 55'12	
	1198 Oct 03 j 19:48	30° R B		evening set	1199 Sep 18 j 02:46	13° B 14'36	
evening set	1198 Oct 04 j 08:00	29° B 35'13		min. Earth dist.	1199 Sep 22 j 04:45	9° B 02'05	0.66037 AU
min. Earth dist.	1198 Oct 08 j 17:32	24° B 45'27	0.66949 AU	inferior conj	1199 Sep 23 j 21:09	7° B 01'12	-1°-51'-42
inferior conj	1198 Oct 09 j 22:08	23° B 13'55	0°-54'-12	minimum elong	1199 Sep 24 j 00:04	6° B 52'26	1°50'34
minimum elong	1198 Oct 09 j 23:31	23° B 09'28	0°53'38	asc. node	1199 Sep 29 j 10:17	1° B 32'47	
asc. node	1198 Oct 12 j 13:14	20° B 01'35		morning rise	1199 Sep 29 j 22:37	1° B 14'50	
morning rise	1198 Oct 15 j 15:46	17° B 16'03		direct	1199 Oct 02 j 19:57	0° B 27'58	
direct	1198 Oct 18 j 22:10	16° B 14'25		morning max el	1199 Oct 09 j 11:41	4° B 07'25	18°31'47
morning max el	1198 Oct 26 j 00:22	20° B 14'04	19°17'06		1199 Oct 27 j 06:42	0° B	
	1198 Nov 02 j 18:22	0° B		morning set	1199 Oct 29 j 13:32	3° B 39'51	
greatest brilliancy	1198 Nov 05 j 00:34	3° B 16'54	-0.7m	desc. node	1199 Nov 07 j 06:16	17° B 31'26	
morning set	1198 Nov 18 j 11:42	23° B 54'39					
desc. node	1198 Nov 20 j 09:15	26° B 51'54		superior conj	1199 Nov 14 j 08:34	28° B 42'31	0°-45'-56
	1198 Nov 22 j 09:32	0° B		minimum elong	1199 Nov 14 j 02:40	28° B 19'19	0°45'12
max. Earth dist.	1198 Dec 02 j 07:02	15° B 30'47	1.44699 AU	max. Earth dist.	1199 Nov 15 j 01:42	29° B 49'50	1.45103 AU
					1199 Nov 15 j 04:18	0° B	
superior conj	1198 Dec 05 j 07:13	20° B 16'40	-1°-28'-59	evening rise	1199 Nov 30 j 10:44	24° B 03'08	
minimum elong	1198 Dec 04 j 22:36	19° B 42'27	1°28'09		1199 Dec 04 j 04:46	0° B	
	1198 Dec 11 j 08:49	0° B		evening max el	1199 Dec 22 j 18:51	26° B 55'03	19°04'28
evening rise	1198 Dec 19 j 21:00	13° B 55'38		asc. node	1199 Dec 26 j 09:35	29° B 52'21	
	1198 Dec 29 j 15:23	0° B			1199 Dec 26 j 15:05	0° B	
evening max el	1199 Jan 08 j 08:57	13° B 28'21	18°28'18	retrograde	1199 Dec 29 j 17:03	0° B 51'36	
asc. node	1199 Jan 08 j 12:33	13° B 37'26		evening set	1200 Jan 01 j 23:07	29° B 50'07	
retrograde	1199 Jan 14 j 21:55	17° B 03'44			1200 Jan 01 j 16:33	30° R B	
evening set	1199 Jan 17 j 21:48	16° B 14'07		inferior conj	1200 Jan 07 j 15:20	24° B 00'13	3°20'07

minimum elong	1200 Jan 07 j 12:57	24°☿07'45	3°19'39	inferior conj	1200 Dec 21 j 16:44	7°☿31'22	2°49'06
min. Earth dist.	1200 Jan 09 j 03:22	22°☿06'27	0.65807 AU	minimum elong	1200 Dec 21 j 14:02	7°☿40'21	2°48'22
morning rise	1200 Jan 13 j 01:52	17°☿47'50		min. Earth dist.	1200 Dec 22 j 14:57	6°☿17'18	0.66828 AU
direct	1200 Jan 19 j 12:33	14°☿59'18		morning rise	1200 Dec 26 j 22:57	1°☿16'25	
morning max el	1200 Feb 01 j 09:20	22°☿34'05	26°30'18		1200 Dec 28 j 14:27	30°☿☿	
desc. node	1200 Feb 03 j 05:29	24°☿29'23		direct	1201 Jan 01 j 20:22	28°☿☿40'00	
	1200 Feb 07 j 23:00	0°☿			1201 Jan 06 j 12:55	0°☿	
	1200 Feb 28 j 06:23	0°☿		morning max el	1201 Jan 13 j 18:18	5°☿45'57	25°14'59
morning set	1200 Mar 08 j 09:38	16°☿18'53		desc. node	1201 Jan 20 j 02:32	12°☿56'28	
max. Earth dist.	1200 Mar 12 j 14:36	24°☿26'16	1.34828 AU		1201 Feb 01 j 12:23	0°☿	
	1200 Mar 15 j 09:14	0°☿		morning set	1201 Feb 18 j 22:52	28°☿☿38'44	
					1201 Feb 19 j 16:52	0°☿	
superior conj	1200 Mar 17 j 04:41	3°☿42'01	-1°-1'-4	max. Earth dist.	1201 Feb 22 j 16:34	5°☿30'10	1.36550 AU
minimum elong	1200 Mar 17 j 07:41	3°☿57'28	1°00'32				
asc. node	1200 Mar 23 j 08:54	16°☿33'46		superior conj	1201 Feb 28 j 18:40	17°☿14'01	-1°-26'-35
evening rise	1200 Mar 24 j 20:58	19°☿41'00		minimum elong	1201 Feb 28 j 22:37	17°☿33'37	1°26'03
	1200 Mar 30 j 00:53	0°☿			1201 Mar 07 j 02:49	0°☿	
evening max el	1200 Apr 12 j 20:48	20°☿25'17	20°51'42	evening rise	1201 Mar 09 j 01:10	3°☿54'40	
retrograde	1200 Apr 24 j 07:58	25°☿59'24		asc. node	1201 Mar 10 j 05:57	6°☿19'06	
evening set	1200 Apr 26 j 12:27	25°☿48'01			1201 Mar 24 j 12:17	0°☿	
desc. node	1200 May 01 j 04:40	24°☿16'37		evening max el	1201 Mar 26 j 08:42	1°☿56'54	19°41'02
inferior conj	1200 May 05 j 19:08	21°☿50'09	-1°-19'-46	retrograde	1201 Apr 05 j 02:26	6°☿38'20	
minimum elong	1200 May 05 j 15:21	21°☿55'31	1°18'25	evening set	1201 Apr 07 j 03:52	6°☿26'40	
min. Earth dist.	1200 May 06 j 15:49	21°☿20'42	0.54981 AU	inferior conj	1201 Apr 15 j 20:37	2°☿23'43	0°37'56
morning rise	1200 May 14 j 17:29	17°☿44'50		minimum elong	1201 Apr 15 j 22:14	2°☿21'10	0°37'21
direct	1200 May 18 j 04:44	17°☿18'55		desc. node	1201 Apr 18 j 01:44	1°☿00'28	
morning max el	1200 May 31 j 06:28	23°☿35'24	22°51'00	min. Earth dist.	1201 Apr 18 j 06:10	0°☿53'39	0.55738 AU
	1200 Jun 06 j 00:15	0°☿			1201 Apr 19 j 18:18	30°☿☿	
asc. node	1200 Jun 19 j 08:09	22°☿10'28		morning rise	1201 Apr 24 j 13:07	27°☿48'28	
morning set	1200 Jun 22 j 18:15	29°☿10'38		direct	1201 Apr 28 j 21:59	27°☿05'48	
	1200 Jun 23 j 03:40	0°☿			1201 May 07 j 18:16	0°☿	
superior conj	1200 Jun 29 j 22:16	14°☿27'33	1°31'28	morning max el	1201 May 12 j 21:43	4°☿06'37	24°32'35
minimum elong	1200 Jun 29 j 20:02	14°☿15'38	1°31'15		1201 May 31 j 03:47	0°☿	
max. Earth dist.	1200 Jul 02 j 17:53	20°☿24'15	1.33974 AU	asc. node	1201 Jun 06 j 05:12	11°☿57'18	
	1200 Jul 07 j 11:05	0°☿		morning set	1201 Jun 07 j 06:09	14°☿07'58	
evening rise	1200 Jul 07 j 17:15	0°☿30'26		superior conj	1201 Jun 14 j 07:04	29°☿19'46	1°16'07
	1200 Jul 24 j 15:05	0°☿		minimum elong	1201 Jun 14 j 04:38	29°☿06'31	1°15'44
desc. node	1200 Jul 28 j 03:59	5°☿12'35			1201 Jun 14 j 14:29	0°☿	
evening max el	1200 Aug 11 j 03:18	22°☿07'31	27°14'50	max. Earth dist.	1201 Jun 15 j 22:04	2°☿50'45	1.33008 AU
retrograde	1200 Aug 24 j 13:04	29°☿26'24		evening rise	1201 Jun 21 j 14:41	14°☿48'21	
evening set	1200 Aug 31 j 13:02	26°☿42'41			1201 Jun 29 j 12:42	0°☿	
min. Earth dist.	1200 Sep 04 j 08:12	23°☿06'56	0.64763 AU	desc. node	1201 Jul 15 j 01:02	24°☿15'32	
inferior conj	1200 Sep 06 j 13:19	20°☿41'11	-2°-48'-23		1201 Jul 19 j 16:05	0°☿	
minimum elong	1200 Sep 06 j 17:37	20°☿29'20	2°46'54	evening max el	1201 Jul 24 j 13:23	5°☿09'57	27°25'23
morning rise	1200 Sep 13 j 00:02	15°☿09'29		retrograde	1201 Aug 07 j 06:43	12°☿28'21	
asc. node	1200 Sep 15 j 07:21	14°☿34'11		evening set	1201 Aug 14 j 11:32	9°☿53'10	
direct	1200 Sep 15 j 14:41	14°☿33'41		min. Earth dist.	1201 Aug 18 j 02:06	6°☿49'30	0.63139 AU
morning max el	1200 Sep 22 j 02:51	18°☿02'11	18°03'13	inferior conj	1201 Aug 20 j 19:54	4°☿07'07	-3°-41'-2
	1200 Sep 30 j 21:18	0°☿		minimum elong	1201 Aug 21 j 01:00	3°☿54'30	3°39'39
morning set	1200 Oct 09 j 20:17	14°☿50'16			1201 Aug 25 j 14:00	30°☿☿	
	1200 Oct 19 j 00:09	0°☿		morning rise	1201 Aug 27 j 16:53	28°☿53'17	
superior conj	1200 Oct 23 j 16:38	7°☿33'58	0°02'59	direct	1201 Aug 30 j 03:31	28°☿25'08	
minimum elong	1200 Oct 23 j 16:59	7°☿35'24	0°02'57	asc. node	1201 Sep 02 j 04:25	29°☿09'33	
behind sun begin	1200 Oct 23 j 06:32	6°☿53'29			1201 Sep 03 j 14:32	0°☿	
behind sun end	1200 Oct 24 j 03:27	8°☿17'15		morning max el	1201 Sep 05 j 18:53	1°☿50'53	17°52'13
desc. node	1200 Oct 24 j 03:18	8°☿16'38		morning set	1201 Sep 22 j 03:23	27°☿10'34	
max. Earth dist.	1200 Oct 27 j 20:31	14°☿11'07	1.44767 AU		1201 Sep 23 j 17:57	0°☿	
	1200 Nov 06 j 23:23	0°☿		superior conj	1201 Oct 04 j 00:00	17°☿35'21	0°46'10
evening rise	1200 Nov 09 j 03:41	3°☿22'17		minimum elong	1201 Oct 04 j 04:14	17°☿53'02	0°45'36
	1200 Nov 26 j 19:20	0°☿		max. Earth dist.	1201 Oct 10 j 12:27	28°☿16'07	1.43745 AU
greatest brilliancy	1200 Nov 27 j 21:01	1°☿30'17	-0.6m	desc. node	1201 Oct 11 j 00:19	29°☿03'46	
evening max el	1200 Dec 05 j 00:24	10°☿23'42	19°56'41		1201 Oct 11 j 14:21	0°☿	
asc. node	1200 Dec 12 j 06:37	14°☿49'29		evening rise	1201 Oct 19 j 11:20	12°☿22'35	
retrograde	1200 Dec 12 j 14:38	14°☿50'06			1201 Oct 31 j 02:58	0°☿	
evening set	1200 Dec 16 j 04:31	13°☿35'15		greatest brilliancy	1201 Nov 12 j 15:35	17°☿35'58	-0.5m

evening max el	1201 Nov 18 j 00:30	23°♂53'02	21°02'25	retrograde	1202 Nov 10 j 08:12	13°♂04'22	
retrograde	1201 Nov 26 j 12:18	28°♂55'12		evening set	1202 Nov 14 j 19:38	11°♂17'33	
asc. node	1201 Nov 29 j 03:41	28°♂16'06		asc. node	1202 Nov 16 j 00:44	10°♂11'09	
evening set	1201 Nov 30 j 11:56	27°♂25'13		inferior conj	1202 Nov 20 j 05:07	4°♂55'58	1°23'54
inferior conj	1201 Dec 05 j 22:00	21°♂10'43	2°09'45	minimum elong	1202 Nov 20 j 03:18	5°♂02'14	1°23'12
minimum elong	1201 Dec 05 j 19:32	21°♂19'13	2°08'55	min. Earth dist.	1202 Nov 20 j 03:55	5°♂00'07	0.67754 AU
min. Earth dist.	1201 Dec 06 j 07:57	20°♂36'32	0.67467 AU		1202 Nov 24 j 02:10	30°♂	
morning rise	1201 Dec 11 j 02:44	14°♂55'21		morning rise	1202 Nov 25 j 10:48	28°♂42'27	
direct	1201 Dec 16 j 09:13	12°♂38'12		direct	1202 Nov 30 j 02:10	26°♂47'51	
morning max el	1201 Dec 27 j 02:45	19°♂02'10	23°48'32		1202 Dec 06 j 23:29	0°♂	
	1202 Jan 05 j 09:01	0°♂		morning max el	1202 Dec 09 j 13:43	2°♂23'48	22°20'45
desc. node	1202 Jan 06 j 23:34	2°♂08'18		greatest brilliancy	1202 Dec 14 j 04:06	7°♂33'01	-0.3m
	1202 Jan 25 j 15:59	0°♂		desc. node	1202 Dec 24 j 20:36	21°♂52'08	
morning set	1202 Jan 31 j 13:29	9°♂48'48			1202 Dec 30 j 10:00	0°♂	
max. Earth dist.	1202 Feb 04 j 11:38	16°♂38'16	1.38596 AU	morning set	1203 Jan 11 j 23:41	19°♂34'40	
				max. Earth dist.	1203 Jan 17 j 08:16	28°♂27'07	1.40739 AU
superior conj	1202 Feb 11 j 19:55	0°♂04'59	-1°-47'-49		1203 Jan 18 j 06:11	0°♂	
minimum elong	1202 Feb 11 j 23:52	0°♂23'40	1°47'29				
	1202 Feb 11 j 18:51	0°♂		superior conj	1203 Jan 25 j 03:38	12°♂02'15	-2°-1'-18
evening rise	1202 Feb 20 j 22:10	17°♂41'43		minimum elong	1203 Jan 25 j 05:47	12°♂11'55	2°01'15
asc. node	1202 Feb 25 j 03:00	25°♂46'40			1203 Feb 03 j 21:18	0°♂	
	1202 Feb 27 j 10:13	0°♂		evening rise	1203 Feb 04 j 08:43	0°♂53'34	
evening max el	1202 Mar 09 j 07:19	14°♂07'26	18°49'56	asc. node	1203 Feb 12 j 00:03	14°♂49'21	
retrograde	1202 Mar 17 j 12:39	18°♂06'52		evening max el	1203 Feb 20 j 13:39	26°♂47'56	18°18'51
evening set	1202 Mar 19 j 18:30	17°♂50'13			1203 Feb 25 j 10:49	0°♂	
inferior conj	1202 Mar 27 j 16:24	13°♂30'50	2°12'02	retrograde	1203 Feb 27 j 17:53	0°♂21'59	
minimum elong	1202 Mar 27 j 20:29	13°♂23'23	2°10'52	evening set	1203 Mar 02 j 05:07	29°♂57'41	
min. Earth dist.	1202 Mar 30 j 22:49	11°♂09'16	0.57286 AU		1203 Mar 02 j 02:10	30°♂	
morning rise	1202 Apr 04 j 18:10	8°♂22'16		inferior conj	1203 Mar 09 j 09:17	25°♂17'06	3°11'54
desc. node	1202 Apr 04 j 22:47	8°♂17'21		minimum elong	1203 Mar 09 j 12:41	25°♂09'52	3°11'17
direct	1202 Apr 10 j 05:11	7°♂09'57		min. Earth dist.	1203 Mar 12 j 19:30	22°♂23'42	0.59300 AU
morning max el	1202 Apr 24 j 13:02	14°♂39'10	26°04'39	morning rise	1203 Mar 16 j 16:34	19°♂41'51	
	1202 May 06 j 19:10	0°♂		desc. node	1203 Mar 22 j 19:49	17°♂53'06	
morning set	1202 May 22 j 17:33	29°♂03'34		direct	1203 Mar 23 j 01:09	17°♂52'58	
	1202 May 23 j 04:14	0°♂		morning max el	1203 Apr 06 j 09:06	25°♂37'36	27°12'33
asc. node	1202 May 24 j 02:15	1°♂57'07			1203 Apr 10 j 10:45	0°♂	
					1203 Apr 30 j 02:46	0°♂	
superior conj	1202 May 29 j 18:18	14°♂18'03	0°56'45	morning set	1203 May 07 j 02:39	13°♂50'32	
minimum elong	1202 May 29 j 16:08	14°♂06'13	0°56'20	asc. node	1203 May 10 j 23:18	22°♂04'09	
max. Earth dist.	1202 May 30 j 08:17	15°♂34'48	1.32438 AU				
evening rise	1202 Jun 05 j 19:11	29°♂26'49		superior conj	1203 May 14 j 06:03	29°♂15'01	0°34'07
	1202 Jun 06 j 01:35	0°♂		minimum elong	1203 May 14 j 04:36	29°♂07'00	0°33'49
	1202 Jun 22 j 17:03	0°♂		max. Earth dist.	1203 May 13 j 20:50	28°♂24'21	1.32244 AU
desc. node	1202 Jul 01 j 22:04	12°♂25'12			1203 May 14 j 14:14	0°♂	
evening max el	1202 Jul 06 j 19:24	17°♂36'57	27°03'35	evening rise	1203 May 21 j 04:06	14°♂16'10	
retrograde	1202 Jul 20 j 17:13	24°♂51'56			1203 May 29 j 02:38	0°♂	
evening set	1202 Jul 27 j 18:04	22°♂38'49		desc. node	1203 Jun 18 j 19:05	29°♂18'45	
min. Earth dist.	1202 Jul 31 j 09:39	19°♂56'49	0.61228 AU	evening max el	1203 Jun 18 j 18:45	29°♂17'57	26°09'05
inferior conj	1202 Aug 03 j 13:41	17°♂01'22	-4°-24'-27		1203 Jun 19 j 12:47	0°♂	
minimum elong	1202 Aug 03 j 18:15	17°♂01'22	4°23'39	retrograde	1203 Jul 02 j 18:53	6°♂29'16	
morning rise	1202 Aug 10 j 21:25	12°♂18'20		evening set	1203 Jul 09 j 03:52	4°♂50'08	
direct	1202 Aug 13 j 06:49	11°♂54'58		min. Earth dist.	1203 Jul 13 j 07:29	2°♂13'43	0.59170 AU
asc. node	1202 Aug 20 j 01:28	15°♂08'55			1203 Jul 16 j 06:21	30°♂	
morning max el	1202 Aug 20 j 08:46	15°♂26'20	17°59'54	inferior conj	1203 Jul 16 j 15:00	29°♂43'27	-4°-50'-20
	1202 Aug 30 j 11:11	0°♂		minimum elong	1203 Jul 16 j 16:54	29°♂39'51	4°50'15
morning set	1202 Sep 05 j 04:40	10°♂23'18		morning rise	1203 Jul 24 j 09:23	25°♂13'32	
				direct	1203 Jul 26 j 20:17	24°♂52'55	
superior conj	1202 Sep 15 j 10:33	28°♂56'55	1°17'41	morning max el	1203 Aug 03 j 17:23	28°♂39'34	18°27'33
minimum elong	1202 Sep 15 j 15:04	29°♂16'44	1°17'11		1203 Aug 05 j 00:46	0°♂	
	1202 Sep 16 j 00:57	0°♂		asc. node	1203 Aug 06 j 22:30	2°♂16'46	
max. Earth dist.	1202 Sep 22 j 23:57	11°♂51'19	1.42167 AU	morning set	1203 Aug 19 j 18:54	24°♂13'37	
desc. node	1202 Sep 27 j 21:21	19°♂49'50			1203 Aug 22 j 18:56	0°♂	
evening rise	1202 Sep 29 j 03:19	21°♂49'23					
	1202 Oct 04 j 08:55	0°♂		superior conj	1203 Aug 28 j 20:20	11°♂27'25	1°36'54
	1202 Oct 25 j 09:31	0°♂		minimum elong	1203 Aug 28 j 23:14	11°♂40'50	1°36'41
greatest brilliancy	1202 Oct 27 j 01:51	2°♂05'19	-0.3m	max. Earth dist.	1203 Sep 05 j 06:25	24°♂45'34	1.40227 AU
evening max el	1202 Oct 31 j 19:07	7°♂23'54	22°17'47		1203 Sep 08 j 08:03	0°♂	

evening rise	1203 Sep 09 j 16:20	2°♄15'06			1204 Aug 13 j 16:03	0°♄	
desc. node	1203 Sep 14 j 18:23	10°♄31'16		max. Earth dist.	1204 Aug 17 j 09:52	6°♄58'15	1.38183 AU
	1203 Sep 27 j 16:59	0°♄		evening rise	1204 Aug 21 j 05:41	13°♄48'59	
evening max el	1203 Oct 14 j 09:25	20°♄57'38	23°37'39		1204 Aug 30 j 23:15	0°♄	
retrograde	1203 Oct 25 j 01:07	27°♄14'53		desc. node	1204 Aug 31 j 15:24	1°♄03'26	
evening set	1203 Oct 30 j 02:00	25°♄10'22			1204 Sep 21 j 14:57	0°♄	
asc. node	1203 Nov 02 j 21:44	20°♄55'39		evening max el	1204 Sep 25 j 21:23	4°♄34'15	24°55'37
min. Earth dist.	1203 Nov 04 j 00:29	19°♄25'43	0.67701 AU	retrograde	1204 Oct 07 j 14:04	11°♄21'59	
inferior conj	1203 Nov 04 j 12:15	18°♄45'33	0°33'01	evening set	1204 Oct 13 j 05:22	9°♄00'33	
minimum elong	1203 Nov 04 j 11:29	18°♄48'12	0°32'41	min. Earth dist.	1204 Oct 17 j 19:19	3°♄50'21	0.67317 AU
morning rise	1203 Nov 09 j 21:06	12°♄36'09		inferior conj	1204 Oct 18 j 17:42	2°♄36'33	0°-21'-37
direct	1203 Nov 13 j 22:14	11°♄04'13		minimum elong	1204 Oct 18 j 18:14	2°♄34'46	0°21'24
morning max el	1203 Nov 22 j 06:49	15°♄55'32	20°59'40	asc. node	1204 Oct 19 j 18:45	1°♄14'44	
greatest brilliancy	1203 Nov 27 j 19:58	22°♄21'35	-0.5m		1204 Oct 20 j 18:41	30°♄	
	1203 Dec 03 j 11:48	0°♄		morning rise	1204 Oct 24 j 07:37	26°♄33'49	
desc. node	1203 Dec 11 j 17:37	11°♄59'21		direct	1204 Oct 27 j 20:11	25°♄22'15	
morning set	1203 Dec 22 j 06:47	28°♄06'26		morning max el	1204 Nov 04 j 07:40	29°♄38'01	19°50'22
	1203 Dec 23 j 11:45	0°♄			1204 Nov 04 j 16:16	0°♄	
max. Earth dist.	1203 Dec 30 j 12:05	11°♄13'21	1.42675 AU	greatest brilliancy	1204 Nov 11 j 22:48	9°♄03'12	-0.6m
					1204 Nov 26 j 01:25	0°♄	
superior conj	1204 Jan 06 j 12:32	22°♄53'48	-2°-2'-31	desc. node	1204 Nov 27 j 14:39	2°♄22'52	
minimum elong	1204 Jan 06 j 10:30	22°♄45'11	2°02'28	morning set	1204 Nov 30 j 02:58	6°♄15'17	
	1204 Jan 10 j 15:42	0°♄		max. Earth dist.	1204 Dec 11 j 23:10	24°♄47'55	1.44140 AU
evening rise	1204 Jan 18 j 05:03	13°♄22'44			1204 Dec 15 j 05:09	0°♄	
	1204 Jan 27 j 17:51	0°♄					
asc. node	1204 Jan 29 j 21:05	3°♄19'34		superior conj	1204 Dec 16 j 18:53	2°♄32'22	-1°-46'-42
evening max el	1204 Feb 04 j 00:31	9°♄50'05	18°07'29	minimum elong	1204 Dec 16 j 11:45	2°♄03'28	1°46'11
retrograde	1204 Feb 10 j 15:22	13°♄14'36		evening rise	1204 Dec 30 j 06:48	25°♄00'31	
evening set	1204 Feb 13 j 07:20	12°♄41'20			1205 Jan 02 j 05:03	0°♄	
inferior conj	1204 Feb 19 j 21:13	7°♄39'14	3°40'42	asc. node	1205 Jan 15 j 18:05	21°♄07'13	
minimum elong	1204 Feb 19 j 22:36	7°♄35'51	3°40'36	evening max el	1205 Jan 17 j 13:01	23°♄06'11	18°15'22
min. Earth dist.	1204 Feb 22 j 23:22	4°♄38'35	0.61427 AU	retrograde	1205 Jan 24 j 00:20	26°♄34'30	
morning rise	1204 Feb 26 j 11:11	1°♄46'09		evening set	1205 Jan 26 j 21:04	25°♄51'17	
	1204 Feb 29 j 20:34	30°♄		inferior conj	1205 Feb 02 j 00:15	20°♄29'08	3°45'39
direct	1204 Mar 04 j 07:44	29°♄23'56		minimum elong	1205 Feb 01 j 23:40	20°♄30'43	3°45'38
	1204 Mar 07 j 22:12	0°♄		min. Earth dist.	1205 Feb 04 j 12:31	17°♄43'23	0.63397 AU
desc. node	1204 Mar 08 j 16:50	0°♄16'37		morning rise	1205 Feb 08 j 00:27	14°♄25'18	
morning max el	1204 Mar 18 j 11:39	7°♄16'46	27°46'02	direct	1205 Feb 14 j 23:06	11°♄41'13	
	1204 Apr 04 j 18:04	0°♄		desc. node	1205 Feb 23 j 13:51	15°♄04'09	
morning set	1204 Apr 20 j 07:37	28°♄22'34		morning max el	1205 Feb 28 j 19:08	19°♄35'38	27°42'12
	1204 Apr 21 j 02:32	0°♄			1205 Mar 09 j 16:32	0°♄	
max. Earth dist.	1204 Apr 26 j 07:50	11°♄06'05	1.32422 AU		1205 Mar 28 j 16:45	0°♄	
asc. node	1204 Apr 26 j 20:21	12°♄14'08		morning set	1205 Apr 04 j 06:06	12°♄32'00	
				max. Earth dist.	1205 Apr 09 j 13:09	23°♄25'59	1.33000 AU
superior conj	1204 Apr 27 j 16:41	14°♄05'01	0°08'58				
minimum elong	1204 Apr 27 j 16:16	14°♄02'45	0°08'53	superior conj	1205 Apr 12 j 00:28	28°♄42'21	0°-17'-55
behind sun begin	1204 Apr 27 j 12:01	13°♄39'32		minimum elong	1205 Apr 12 j 01:21	28°♄47'02	0°17'43
behind sun end	1204 Apr 27 j 20:32	14°♄25'58			1205 Apr 12 j 14:54	0°♄	
evening rise	1204 May 04 j 15:22	29°♄09'15		asc. node	1205 Apr 13 j 17:24	2°♄22'58	
	1204 May 05 j 00:58	0°♄		evening rise	1205 Apr 19 j 03:08	13°♄59'39	
	1204 May 21 j 20:31	0°♄			1205 Apr 27 j 05:24	0°♄	
evening max el	1204 May 30 j 11:14	10°♄14'41	24°48'09	evening max el	1205 May 12 j 01:15	20°♄47'16	23°13'39
desc. node	1204 Jun 04 j 16:06	14°♄26'02		desc. node	1205 May 22 j 13:06	27°♄11'05	
retrograde	1204 Jun 13 j 10:12	17°♄19'22		retrograde	1205 May 25 j 13:27	27°♄31'47	
evening set	1204 Jun 18 j 14:09	16°♄18'48		evening set	1205 May 29 j 05:39	27°♄02'08	
min. Earth dist.	1204 Jun 23 j 22:31	13°♄29'40	0.57215 AU	min. Earth dist.	1205 Jun 05 j 10:58	23°♄45'47	0.55703 AU
inferior conj	1204 Jun 26 j 20:49	11°♄34'22	-4°-46'-30	inferior conj	1205 Jun 07 j 06:55	22°♄41'20	-3°-59'-48
minimum elong	1204 Jun 26 j 17:53	11°♄39'12	4°46'17	minimum elong	1205 Jun 06 j 23:43	22°♄51'55	3°58'14
morning rise	1204 Jul 05 j 01:25	7°♄26'32		morning rise	1205 Jun 15 j 21:00	18°♄47'25	
direct	1204 Jul 07 j 15:36	7°♄07'30		direct	1205 Jun 18 j 15:40	18°♄28'48	
morning max el	1204 Jul 16 j 17:48	11°♄21'50	19°16'08	morning max el	1205 Jun 29 j 07:39	23°♄24'57	20°25'48
asc. node	1204 Jul 23 j 19:33	20°♄18'41			1205 Jul 04 j 23:54	0°♄	
	1204 Jul 29 j 09:08	0°♄		asc. node	1205 Jul 10 j 16:36	9°♄02'20	
morning set	1204 Aug 02 j 18:09	8°♄30'47		morning set	1205 Jul 17 j 23:39	23°♄07'39	
					1205 Jul 21 j 07:47	0°♄	
superior conj	1204 Aug 10 j 23:40	24°♄50'40	1°45'25				
minimum elong	1204 Aug 11 j 00:33	24°♄55'01	1°45'24	superior conj	1205 Jul 25 j 15:39	8°♄52'49	1°45'16

minimum elong	1205 Jul 25 j 14:53	8° Ω 48'54	1°45'15	superior conj	1206 Jul 09 j 16:22	23° \mathfrak{G} 21'05	1°38'10
max. Earth dist.	1205 Jul 30 j 15:59	18° Ω 49'22	1.36289 AU	minimum elong	1206 Jul 09 j 14:30	23° \mathfrak{G} 11'17	1°38'01
evening rise	1205 Aug 03 j 16:39	26° Ω 25'41			1206 Jul 12 j 21:22	0° Ω	
	1205 Aug 05 j 15:44	0° \mathfrak{M}		max. Earth dist.	1206 Jul 13 j 06:06	0° Ω 44'33	1.34710 AU
desc. node	1205 Aug 18 j 12:26	21° \mathfrak{M} 21'36		evening rise	1206 Jul 17 j 20:23	9° Ω 51'18	
	1205 Aug 24 j 09:41	0° \mathfrak{A}			1206 Jul 29 j 03:16	0° \mathfrak{M}	
evening max el	1205 Sep 08 j 09:09	18° \mathfrak{A} 12'59	26°04'14	desc. node	1206 Aug 05 j 09:28	11° \mathfrak{M} 18'14	
retrograde	1205 Sep 20 j 22:22	25° \mathfrak{A} 20'43			1206 Aug 20 j 02:28	0° \mathfrak{A}	
evening set	1205 Sep 27 j 03:56	22° \mathfrak{A} 45'36		evening max el	1206 Aug 21 j 21:23	1° \mathfrak{A} 47'07	26°55'51
min. Earth dist.	1205 Oct 01 j 10:07	18° \mathfrak{A} 11'29	0.66603 AU	retrograde	1206 Sep 04 j 01:16	9° \mathfrak{A} 03'53	
inferior conj	1205 Oct 02 j 19:40	16° \mathfrak{A} 26'49	-1°-18'-33	evening set	1206 Sep 10 j 19:27	6° \mathfrak{A} 21'06	
minimum elong	1205 Oct 02 j 21:42	16° \mathfrak{A} 20'26	1°17'43	min. Earth dist.	1206 Sep 14 j 18:28	2° \mathfrak{A} 24'08	0.65539 AU
asc. node	1205 Oct 06 j 15:47	12° \mathfrak{A} 06'23		inferior conj	1206 Sep 16 j 16:06	0° \mathfrak{A} 12'05	-2°-16'-1
morning rise	1205 Oct 08 j 16:27	10° \mathfrak{A} 33'27		minimum elong	1206 Sep 16 j 19:39	0° \mathfrak{A} 01'47	2°14'41
direct	1205 Oct 11 j 18:36	9° \mathfrak{A} 38'44			1206 Sep 16 j 20:16	30° \mathfrak{R} \mathfrak{M}	
morning max el	1205 Oct 18 j 15:41	13° \mathfrak{A} 28'59	18°55'45	morning rise	1206 Sep 22 j 21:20	24° \mathfrak{M} 31'14	
	1205 Oct 30 j 19:31	0° \mathfrak{M}		asc. node	1206 Sep 23 j 12:51	24° \mathfrak{M} 14'03	
morning set	1205 Nov 09 j 13:15	15° \mathfrak{M} 12'50		direct	1206 Sep 25 j 15:29	23° \mathfrak{M} 49'31	
desc. node	1205 Nov 14 j 11:41	22° \mathfrak{M} 57'58		morning max el	1206 Oct 02 j 04:55	27° \mathfrak{M} 23'31	18°17'26
	1205 Nov 18 j 23:17	0° \mathfrak{J}			1206 Oct 04 j 12:37	0° \mathfrak{A}	
max. Earth dist.	1205 Nov 24 j 15:21	8° \mathfrak{J} 54'08	1.44963 AU	morning set	1206 Oct 21 j 03:39	25° \mathfrak{A} 35'33	
					1206 Oct 23 j 20:37	0° \mathfrak{M}	
superior conj	1205 Nov 26 j 02:38	11° \mathfrak{J} 13'00	-1°-12'-14	desc. node	1206 Nov 01 j 08:45	13° \mathfrak{M} 40'29	
minimum elong	1205 Nov 25 j 18:21	10° \mathfrak{J} 40'24	1°11'20				
	1205 Dec 07 j 21:48	0° \mathfrak{Z}		superior conj	1206 Nov 05 j 04:09	19° \mathfrak{M} 42'38	0°-25'-8
evening rise	1205 Dec 11 j 10:08	5° \mathfrak{Z} 41'00		minimum elong	1206 Nov 05 j 00:53	19° \mathfrak{M} 29'43	0°24'42
	1205 Dec 26 j 19:14	0° \mathfrak{A}		max. Earth dist.	1206 Nov 07 j 10:13	23° \mathfrak{M} 15'36	1.45055 AU
evening max el	1206 Jan 01 j 00:33	6° \mathfrak{A} 30'44	18°41'38		1206 Nov 11 j 17:19	0° \mathfrak{J}	
asc. node	1206 Jan 02 j 15:06	8° \mathfrak{A} 00'19		evening rise	1206 Nov 21 j 14:11	15° \mathfrak{J} 25'42	
retrograde	1206 Jan 07 j 16:42	10° \mathfrak{A} 14'04			1206 Nov 30 j 22:40	0° \mathfrak{Z}	
evening set	1206 Jan 10 j 18:58	9° \mathfrak{A} 19'44		greatest brilliancy	1206 Dec 06 j 13:35	8° \mathfrak{Z} 31'02	-0.7m
inferior conj	1206 Jan 16 j 14:28	3° \mathfrak{A} 39'29	3°33'14	evening max el	1206 Dec 15 j 08:55	19° \mathfrak{Z} 59'24	19°24'56
minimum elong	1206 Jan 16 j 12:33	3° \mathfrak{A} 45'18	3°32'58	asc. node	1206 Dec 20 j 12:08	23° \mathfrak{Z} 44'28	
min. Earth dist.	1206 Jan 18 j 11:17	1° \mathfrak{A} 24'02	0.65044 AU	retrograde	1206 Dec 22 j 13:05	24° \mathfrak{Z} 07'22	
	1206 Jan 19 j 16:26	30° \mathfrak{R} \mathfrak{Z}		evening set	1206 Dec 25 j 22:18	23° \mathfrak{Z} 00'24	
morning rise	1206 Jan 22 j 04:56	27° \mathfrak{Z} 29'26		inferior conj	1206 Dec 31 j 12:35	17° \mathfrak{Z} 04'28	3°08'04
direct	1206 Jan 28 j 21:47	24° \mathfrak{Z} 38'16		minimum elong	1206 Dec 31 j 10:00	17° \mathfrak{Z} 12'51	3°07'29
	1206 Feb 08 j 15:40	0° \mathfrak{A}		min. Earth dist.	1207 Jan 01 j 18:37	15° \mathfrak{Z} 27'15	0.66296 AU
desc. node	1206 Feb 10 j 10:53	1° \mathfrak{A} 40'07		morning rise	1207 Jan 05 j 20:56	10° \mathfrak{Z} 50'55	
morning max el	1206 Feb 11 j 04:40	2° \mathfrak{A} 24'00	27°04'24	direct	1207 Jan 12 j 02:27	8° \mathfrak{Z} 06'12	
	1206 Mar 03 j 22:01	0° \mathfrak{H}		morning max el	1207 Jan 24 j 14:00	15° \mathfrak{Z} 30'01	26°00'12
morning set	1206 Mar 18 j 19:04	26° \mathfrak{H} 08'58		desc. node	1207 Jan 28 j 07:56	19° \mathfrak{Z} 33'42	
	1206 Mar 20 j 18:24	0° \mathfrak{Y}			1207 Feb 05 j 13:02	0° \mathfrak{A}	
max. Earth dist.	1206 Mar 23 j 08:56	5° \mathfrak{Y} 13'19	1.34025 AU		1207 Feb 24 j 18:01	0° \mathfrak{H}	
				morning set	1207 Mar 01 j 18:28	9° \mathfrak{H} 01'32	
superior conj	1206 Mar 27 j 03:24	13° \mathfrak{Y} 00'30	0°-45'-27	max. Earth dist.	1207 Mar 05 j 17:14	16° \mathfrak{H} 29'30	1.35512 AU
minimum elong	1206 Mar 27 j 05:39	13° \mathfrak{Y} 12'18	0°45'00				
asc. node	1206 Mar 31 j 14:27	22° \mathfrak{Y} 26'13		superior conj	1207 Mar 10 j 23:02	26° \mathfrak{H} 52'29	-1°-12'-14
evening rise	1206 Apr 03 j 13:35	28° \mathfrak{Y} 40'59		minimum elong	1207 Mar 11 j 02:31	27° \mathfrak{H} 10'08	1°11'41
	1206 Apr 04 j 04:47	0° \mathfrak{B}			1207 Mar 12 j 11:52	0° \mathfrak{Y}	
	1206 Apr 22 j 10:26	0° \mathfrak{I}		asc. node	1207 Mar 18 j 11:30	12° \mathfrak{Y} 19'53	
evening max el	1206 Apr 23 j 20:09	1° \mathfrak{I} 25'56	21°40'16	evening rise	1207 Mar 18 j 20:45	13° \mathfrak{Y} 07'15	
retrograde	1206 May 06 j 05:14	7° \mathfrak{I} 29'23			1207 Mar 27 j 17:13	0° \mathfrak{B}	
evening set	1206 May 08 j 17:49	7° \mathfrak{I} 15'02		evening max el	1207 Apr 06 j 01:24	12° \mathfrak{B} 35'31	20°19'21
desc. node	1206 May 09 j 10:08	7° \mathfrak{I} 06'29		retrograde	1207 Apr 16 j 18:36	17° \mathfrak{B} 46'03	
inferior conj	1206 May 18 j 03:08	3° \mathfrak{I} 13'26	-2°-27'-3	evening set	1207 Apr 18 j 20:33	17° \mathfrak{B} 35'11	
minimum elong	1206 May 17 j 20:36	3° \mathfrak{I} 22'35	2°24'56	desc. node	1207 Apr 26 j 07:09	14° \mathfrak{B} 34'12	
min. Earth dist.	1206 May 17 j 23:20	3° \mathfrak{I} 18'45	0.54969 AU	inferior conj	1207 Apr 27 j 22:28	13° \mathfrak{B} 37'13	0°-28'-29
	1206 May 24 j 15:32	30° \mathfrak{R} \mathfrak{B}		minimum elong	1207 Apr 27 j 21:08	13° \mathfrak{B} 39'10	0°28'01
morning rise	1206 May 27 j 00:13	29° \mathfrak{B} 17'36		min. Earth dist.	1207 Apr 29 j 12:28	12° \mathfrak{B} 41'32	0.55195 AU
direct	1206 May 30 j 03:22	28° \mathfrak{B} 56'04		morning rise	1207 May 06 j 19:37	9° \mathfrak{B} 20'49	
	1206 Jun 04 j 09:28	0° \mathfrak{I}		direct	1207 May 10 j 15:24	8° \mathfrak{B} 49'07	
morning max el	1206 Jun 11 j 10:09	4° \mathfrak{I} 43'37	21°54'11	morning max el	1207 May 24 j 03:52	15° \mathfrak{B} 25'47	23°34'22
asc. node	1206 Jun 27 j 13:41	28° \mathfrak{I} 16'36			1207 Jun 04 j 15:03	0° \mathfrak{I}	
	1206 Jun 28 j 10:59	0° \mathfrak{G}		asc. node	1207 Jun 14 j 10:46	17° \mathfrak{I} 53'35	
morning set	1206 Jul 02 j 09:05	7° \mathfrak{G} 56'46		morning set	1207 Jun 16 j 20:35	22° \mathfrak{I} 52'41	
					1207 Jun 20 j 04:43	0° \mathfrak{G}	

superior conj	1207 Jun 23 j 22:54	8° \mathfrak{G} 06'31	1°25'30	superior conj	1208 Jun 07 j 08:56	23° \mathbb{I} 01'42	1°08'20
minimum elong	1207 Jun 23 j 20:31	7° \mathfrak{G} 53'41	1°25'12	minimum elong	1208 Jun 07 j 06:34	22° \mathbb{I} 48'44	1°07'56
max. Earth dist.	1207 Jun 26 j 05:48	12° \mathfrak{G} 59'46	1.33518 AU	max. Earth dist.	1208 Jun 08 j 13:06	25° \mathbb{I} 35'14	1.32718 AU
evening rise	1207 Jul 01 j 12:26	23° \mathfrak{G} 53'11			1208 Jun 10 j 14:05	0° \mathfrak{G}	
	1207 Jul 04 j 15:24	0° \mathcal{Q}		evening rise	1208 Jun 14 j 13:11	8° \mathfrak{G} 20'31	
	1207 Jul 22 j 17:50	0° \mathfrak{M}			1208 Jun 26 j 01:28	0° \mathcal{Q}	
desc. node	1207 Jul 23 j 06:29	0° \mathfrak{M} 44'06		desc. node	1208 Jul 09 j 03:31	19° \mathcal{Q} 26'31	
evening max el	1207 Aug 04 j 09:00	15° \mathfrak{M} 05'13	27°23'07	evening max el	1208 Jul 16 j 17:36	27° \mathcal{Q} 53'42	27°20'12
retrograde	1207 Aug 17 j 22:13	22° \mathfrak{M} 23'27			1208 Jul 19 j 02:20	0° \mathfrak{M}	
evening set	1207 Aug 25 j 01:07	19° \mathfrak{M} 42'07		retrograde	1208 Jul 30 j 12:43	5° \mathfrak{M} 10'28	
min. Earth dist.	1207 Aug 28 j 18:04	16° \mathfrak{M} 20'43	0.64116 AU	evening set	1208 Aug 06 j 17:23	2° \mathfrak{M} 42'47	
inferior conj	1207 Aug 31 j 04:33	13° \mathfrak{M} 46'59	-3°-11'-29		1208 Aug 10 j 03:03	30° \mathcal{R} \mathcal{Q}	
minimum elong	1207 Aug 31 j 09:18	13° \mathfrak{M} 34'27	3°09'58	min. Earth dist.	1208 Aug 10 j 07:21	29° \mathcal{Q} 50'19	0.62354 AU
morning rise	1207 Sep 06 j 19:31	8° \mathfrak{M} 22'14		inferior conj	1208 Aug 13 j 06:06	27° \mathcal{Q} 04'42	-4°-1'00
direct	1207 Sep 09 j 08:14	7° \mathfrak{M} 49'55		minimum elong	1208 Aug 13 j 11:12	26° \mathcal{Q} 52'44	3°59'49
asc. node	1207 Sep 10 j 09:56	7° \mathfrak{M} 55'47		morning rise	1208 Aug 20 j 07:39	21° \mathcal{Q} 59'33	
morning max el	1207 Sep 15 j 20:44	11° \mathfrak{M} 16'05	17°56'18	direct	1208 Aug 22 j 17:31	21° \mathcal{Q} 33'39	
	1207 Sep 28 j 14:52	0° \mathfrak{A}		asc. node	1208 Aug 27 j 07:00	23° \mathcal{Q} 08'45	
morning set	1207 Oct 02 j 21:34	7° \mathfrak{A} 18'26		morning max el	1208 Aug 29 j 12:16	25° \mathcal{Q} 00'21	17°53'15
					1208 Sep 02 j 15:16	0° \mathfrak{M}	
superior conj	1207 Oct 15 j 20:47	29° \mathfrak{A} 00'04	0°22'32	morning set	1208 Sep 14 j 13:09	20° \mathfrak{M} 03'27	
minimum elong	1207 Oct 15 j 23:17	29° \mathfrak{A} 10'12	0°22'11		1208 Sep 20 j 02:57	0° \mathfrak{A}	
	1207 Oct 16 j 11:33	0° \mathcal{M}					
desc. node	1207 Oct 19 j 05:46	4° \mathcal{M} 26'55		superior conj	1208 Sep 25 j 15:59	9° \mathfrak{A} 36'52	1°01'04
max. Earth dist.	1207 Oct 21 j 04:42	7° \mathcal{M} 34'15	1.44416 AU	minimum elong	1208 Sep 25 j 20:41	9° \mathfrak{A} 56'56	1°00'29
evening rise	1207 Nov 01 j 01:17	24° \mathcal{M} 32'25		max. Earth dist.	1208 Oct 02 j 19:22	21° \mathfrak{A} 30'20	1.43128 AU
	1207 Nov 04 j 14:45	0° \mathfrak{A}		desc. node	1208 Oct 05 j 02:49	25° \mathfrak{A} 14'21	
greatest brilliancy	1207 Nov 22 j 06:15	25° \mathfrak{A} 55'02	-0.5m		1208 Oct 08 j 02:35	0° \mathcal{M}	
	1207 Nov 25 j 10:28	0° \mathfrak{B}		evening rise	1208 Oct 10 j 10:28	3° \mathcal{M} 39'13	
evening max el	1207 Nov 28 j 12:18	3° \mathfrak{B} 28'48	20°23'13		1208 Oct 28 j 01:51	0° \mathfrak{A}	
retrograde	1207 Dec 06 j 10:54	8° \mathfrak{B} 09'24		greatest brilliancy	1208 Nov 05 j 11:18	11° \mathfrak{A} 18'28	-0.4m
asc. node	1207 Dec 07 j 09:11	8° \mathfrak{B} 04'32		evening max el	1208 Nov 10 j 09:56	16° \mathfrak{A} 58'46	21°33'28
evening set	1207 Dec 10 j 04:48	6° \mathfrak{B} 48'07		retrograde	1208 Nov 19 j 08:05	22° \mathfrak{A} 17'21	
inferior conj	1207 Dec 15 j 15:54	0° \mathfrak{B} 39'18	2°33'17	asc. node	1208 Nov 23 j 06:13	20° \mathfrak{A} 52'10	
minimum elong	1207 Dec 15 j 13:14	0° \mathfrak{B} 48'18	2°32'28	evening set	1208 Nov 23 j 12:34	20° \mathfrak{A} 40'09	
	1207 Dec 16 j 03:30	30° \mathcal{R} \mathfrak{A}		inferior conj	1208 Nov 28 j 22:11	14° \mathfrak{A} 21'56	1°51'02
min. Earth dist.	1207 Dec 16 j 08:38	29° \mathfrak{A} 42'36	0.67150 AU	minimum elong	1208 Nov 28 j 19:57	14° \mathfrak{A} 29'40	1°50'13
morning rise	1207 Dec 20 j 21:11	24° \mathfrak{A} 24'12		min. Earth dist.	1208 Nov 29 j 03:11	14° \mathfrak{A} 04'38	0.67632 AU
direct	1207 Dec 26 j 12:23	21° \mathfrak{A} 55'32		morning rise	1208 Dec 04 j 03:03	8° \mathfrak{A} 07'07	
morning max el	1208 Jan 06 j 22:31	28° \mathfrak{A} 44'06	24°38'59	direct	1208 Dec 09 j 02:56	5° \mathfrak{A} 59'40	
	1208 Jan 08 j 03:48	0° \mathfrak{B}		morning max el	1208 Dec 19 j 07:48	12° \mathfrak{A} 03'24	23°10'50
desc. node	1208 Jan 15 j 04:58	8° \mathfrak{B} 21'35		greatest brilliancy	1208 Dec 24 j 08:02	17° \mathfrak{A} 40'07	-0.3m
	1208 Jan 30 j 07:55	0° \mathfrak{A}		desc. node	1209 Jan 01 j 02:01	27° \mathfrak{A} 48'33	
morning set	1208 Feb 11 j 22:49	20° \mathfrak{A} 53'24			1209 Jan 02 j 15:37	0° \mathfrak{B}	
max. Earth dist.	1208 Feb 15 j 15:47	27° \mathfrak{A} 32'25	1.37400 AU		1209 Jan 22 j 04:30	0° \mathfrak{A}	
	1208 Feb 16 j 23:52	0° \mathfrak{H}		morning set	1209 Jan 23 j 01:52	1° \mathfrak{A} 28'55	
				max. Earth dist.	1209 Jan 27 j 10:50	8° \mathfrak{A} 55'27	1.39519 AU
superior conj	1208 Feb 22 j 08:04	10° \mathfrak{H} 08'18	-1°-36'-17				
minimum elong	1208 Feb 22 j 12:11	10° \mathfrak{H} 28'19	1°35'49	superior conj	1209 Feb 04 j 02:27	22° \mathfrak{A} 37'38	-1°-54'-44
evening rise	1208 Mar 01 j 22:13	27° \mathfrak{H} 10'40		minimum elong	1209 Feb 04 j 05:54	22° \mathfrak{A} 53'39	1°54'31
	1208 Mar 03 j 08:24	0° \mathfrak{Y}			1209 Feb 08 j 00:51	0° \mathfrak{H}	
asc. node	1208 Mar 04 j 08:32	1° \mathfrak{Y} 58'26		evening rise	1209 Feb 13 j 15:12	10° \mathfrak{H} 43'52	
evening max el	1208 Mar 18 j 18:02	24° \mathfrak{Y} 23'40	19°16'44	asc. node	1209 Feb 19 j 05:33	21° \mathfrak{H} 16'14	
retrograde	1208 Mar 27 j 19:01	28° \mathfrak{Y} 45'35			1209 Feb 24 j 10:21	0° \mathfrak{Y}	
evening set	1208 Mar 29 j 22:01	28° \mathfrak{Y} 32'09		evening max el	1209 Mar 01 j 20:12	6° \mathfrak{Y} 47'25	18°34'09
inferior conj	1208 Apr 07 j 06:49	24° \mathfrak{Y} 22'41	1°21'50	retrograde	1209 Mar 09 j 13:37	10° \mathfrak{Y} 34'25	
minimum elong	1208 Apr 07 j 09:57	24° \mathfrak{Y} 17'27	1°20'48	evening set	1209 Mar 11 j 21:36	10° \mathfrak{Y} 14'52	
min. Earth dist.	1208 Apr 10 j 03:15	22° \mathfrak{Y} 29'16	0.56322 AU	inferior conj	1209 Mar 19 j 11:37	5° \mathfrak{Y} 46'36	2°41'38
desc. node	1208 Apr 12 j 04:11	21° \mathfrak{Y} 14'40		minimum elong	1209 Mar 19 j 15:42	5° \mathfrak{Y} 38'38	2°40'39
morning rise	1208 Apr 15 j 17:56	19° \mathfrak{Y} 33'11		min. Earth dist.	1209 Mar 22 j 21:26	3° \mathfrak{Y} 08'27	0.58107 AU
direct	1208 Apr 20 j 13:52	18° \mathfrak{Y} 39'34		morning rise	1209 Mar 27 j 05:35	0° \mathfrak{Y} 25'07	
morning max el	1208 May 04 j 18:23	25° \mathfrak{Y} 53'34	25°13'58		1209 Mar 28 j 03:48	30° \mathcal{R} \mathfrak{H}	
	1208 May 08 j 15:20	0° \mathfrak{B}		desc. node	1209 Mar 30 j 01:12	29° \mathfrak{H} 21'31	
	1208 May 27 j 12:49	0° \mathbb{I}		direct	1209 Apr 02 j 02:30	28° \mathfrak{H} 57'40	
morning set	1208 May 31 j 08:28	7° \mathbb{I} 49'52			1209 Apr 07 j 03:36	0° \mathfrak{Y}	
asc. node	1208 May 31 j 07:50	7° \mathbb{I} 46'33		morning max el	1209 Apr 16 j 11:31	6° \mathfrak{Y} 35'10	26°37'20
					1209 May 03 j 20:24	0° \mathfrak{B}	

morning set	1209 May 15 j 19:03	22°♄42'27		1210 Apr 08 j 13:50	0°♄	
asc. node	1209 May 18 j 04:51	27°♄49'54		1210 Apr 26 j 10:37	0°♄	
	1209 May 19 j 04:55	0°♄		morning set	1210 Apr 30 j 02:40	7°♄24'31
				asc. node	1210 May 05 j 01:53	17°♄59'07
superior conj	1209 May 22 j 20:34	7°♄59'57	0°47'29	max. Earth dist.	1210 May 06 j 12:54	21°♄10'16 1.32267 AU
minimum elong	1209 May 22 j 18:39	7°♄49'28	0°47'07			
max. Earth dist.	1209 May 23 j 00:40	8°♄22'34	1.32303 AU	superior conj	1210 May 07 j 08:05	22°♄55'28 0°23'43
evening rise	1209 May 29 j 19:47	23°♄04'03		minimum elong	1210 May 07 j 07:02	22°♄49'41 0°23'30
	1209 Jun 02 j 05:08	0°♄			1210 May 10 j 13:30	0°♄
	1209 Jun 20 j 03:56	0°♄		evening rise	1210 May 14 j 05:58	7°♄56'22
desc. node	1209 Jun 26 j 00:32	7°♄06'52			1210 May 25 j 17:58	0°♄
evening max el	1209 Jun 28 j 20:42	10°♄00'40	26°44'11	evening max el	1210 Jun 10 j 16:58	21°♄22'17 25°37'20
retrograde	1209 Jul 12 j 19:55	17°♄15'05		desc. node	1210 Jun 12 j 21:31	23°♄19'49
evening set	1209 Jul 19 j 15:40	15°♄14'53		retrograde	1210 Jun 24 j 17:47	28°♄32'04
min. Earth dist.	1209 Jul 23 j 10:24	12°♄37'45	0.60348 AU	evening set	1210 Jun 30 j 15:34	27°♄09'37
inferior conj	1209 Jul 26 j 17:16	9°♄55'56	-4°-38'-15	min. Earth dist.	1210 Jul 05 j 05:14	24°♄29'36 0.58302 AU
minimum elong	1209 Jul 26 j 21:01	9°♄48'13	4°37'48	inferior conj	1210 Jul 08 j 10:36	22°♄11'52 -4°-53'-15
morning rise	1209 Aug 03 j 05:37	5°♄13'01		minimum elong	1210 Jul 08 j 10:38	22°♄11'49 4°53'16
direct	1209 Aug 05 j 15:17	4°♄51'08		morning rise	1210 Jul 16 j 09:23	17°♄51'38
morning max el	1209 Aug 13 j 00:21	8°♄27'40	18°09'16	direct	1210 Jul 18 j 21:18	17°♄31'57
asc. node	1209 Aug 14 j 04:03	9°♄39'04		morning max el	1210 Jul 27 j 05:52	21°♄29'12 18°45'35
	1209 Aug 26 j 22:53	0°♄		asc. node	1210 Aug 01 j 01:06	27°♄11'48
morning set	1209 Aug 28 j 20:27	3°♄33'12			1210 Aug 02 j 22:08	0°♄
				morning set	1210 Aug 12 j 14:55	17°♄35'50
superior conj	1209 Sep 07 j 13:05	21°♄29'42	1°27'15		1210 Aug 18 j 23:38	0°♄
minimum elong	1209 Sep 07 j 17:03	21°♄47'27	1°26'53			
	1209 Sep 12 j 08:54	0°♄		superior conj	1210 Aug 21 j 06:59	4°♄24'15 1°41'41
max. Earth dist.	1209 Sep 15 j 04:11	4°♄47'08	1.41361 AU	minimum elong	1210 Aug 21 j 09:01	4°♄33'53 1°41'35
evening rise	1209 Sep 20 j 10:17	13°♄27'51		max. Earth dist.	1210 Aug 28 j 08:25	17°♄20'34 1.39354 AU
desc. node	1209 Sep 21 j 23:51	15°♄58'51		evening rise	1210 Sep 01 j 09:45	24°♄22'44
	1209 Oct 01 j 01:19	0°♄			1210 Sep 04 j 18:27	0°♄
greatest brilliancy	1209 Oct 18 j 23:10	24°♄44'54	-0.3m	desc. node	1210 Sep 08 j 20:52	6°♄36'43
	1209 Oct 23 j 14:32	0°♄			1210 Sep 24 j 20:13	0°♄
evening max el	1209 Oct 24 j 02:20	0°♄30'07	22°51'31	evening max el	1210 Oct 06 j 15:26	14°♄05'01 24°11'34
retrograde	1209 Nov 03 j 03:02	6°♄27'27		retrograde	1210 Oct 17 j 18:21	20°♄36'26
evening set	1209 Nov 07 j 19:54	4°♄33'11		evening set	1210 Oct 23 j 01:11	18°♄24'48
asc. node	1209 Nov 10 j 03:15	2°♄13'22		min. Earth dist.	1210 Oct 27 j 20:00	12°♄54'19 0.67575 AU
	1209 Nov 11 j 21:14	30°♄		asc. node	1210 Oct 28 j 00:17	12°♄39'55
inferior conj	1209 Nov 13 j 05:32	28°♄09'27	1°02'54	inferior conj	1210 Oct 28 j 12:10	11°♄59'50 0°10'14
minimum elong	1209 Nov 13 j 04:07	28°♄14'20	1°02'19	minimum elong	1210 Oct 28 j 11:55	12°♄00'40 0°10'07
min. Earth dist.	1209 Nov 12 j 23:47	28°♄29'17	0.67767 AU	transit middle	1210 Oct 28 j 11:55	12°♄00'40 0°10'07
morning rise	1209 Nov 18 j 12:17	21°♄57'12		transit begin	1210 Oct 28 j 09:47	12°♄07'52
direct	1209 Nov 22 j 21:21	20°♄12'28		transit end	1210 Oct 28 j 14:03	11°♄53'27
morning max el	1209 Dec 01 j 21:04	25°♄29'13	21°45'03	morning rise	1210 Nov 02 j 22:54	5°♄52'39
	1209 Dec 05 j 22:11	0°♄		direct	1210 Nov 06 j 18:29	4°♄29'35
greatest brilliancy	1209 Dec 06 j 17:43	0°♄59'35	-0.4m	morning max el	1210 Nov 14 j 17:15	9°♄04'43 20°28'28
desc. node	1209 Dec 18 j 23:03	17°♄43'21		greatest brilliancy	1210 Nov 21 j 00:21	16°♄33'25 -0.5m
	1209 Dec 27 j 03:50	0°♄			1210 Nov 30 j 12:18	0°♄
morning set	1210 Jan 02 j 23:44	10°♄40'37		desc. node	1210 Dec 05 j 20:05	7°♄58'04
max. Earth dist.	1210 Jan 09 j 09:40	21°♄06'39	1.41602 AU	morning set	1210 Dec 12 j 23:11	18°♄53'15
	1210 Jan 14 j 15:51	0°♄			1210 Dec 20 j 00:59	0°♄
				max. Earth dist.	1210 Dec 22 j 16:21	4°♄13'42 1.43367 AU
superior conj	1210 Jan 17 j 01:07	4°♄08'36	-2°-3'-37			
minimum elong	1210 Jan 17 j 01:47	4°♄11'31	2°03'37	superior conj	1210 Dec 28 j 22:58	14°♄29'34 -1°-58'-6
evening rise	1210 Jan 27 j 20:14	23°♄38'52		minimum elong	1210 Dec 28 j 18:40	14°♄11'41 1°57'56
	1210 Jan 31 j 07:21	0°♄			1211 Jan 07 j 01:45	0°♄
asc. node	1210 Feb 06 j 02:34	10°♄06'31		evening rise	1211 Jan 10 j 09:10	5°♄46'50
evening max el	1210 Feb 13 j 04:53	19°♄38'52	18°11'38	asc. node	1211 Jan 23 j 23:35	28°♄20'09
retrograde	1210 Feb 20 j 02:11	23°♄07'00			1211 Jan 25 j 05:44	0°♄
evening set	1210 Feb 22 j 15:25	22°♄39'07		evening max el	1211 Jan 27 j 16:54	2°♄48'25 18°08'35
inferior conj	1210 Mar 01 j 13:06	17°♄49'40	3°27'29	retrograde	1211 Feb 03 j 04:58	6°♄12'39
minimum elong	1210 Mar 01 j 15:42	17°♄43'46	3°27'07	evening set	1211 Feb 05 j 23:01	5°♄35'10
min. Earth dist.	1210 Mar 04 j 21:08	14°♄49'46	0.60209 AU	inferior conj	1211 Feb 12 j 07:57	0°♄24'30 3°45'16
morning rise	1210 Mar 08 j 12:39	12°♄05'39		minimum elong	1211 Feb 12 j 08:27	0°♄23'14 3°45'15
direct	1210 Mar 15 j 03:41	10°♄01'13			1211 Feb 12 j 17:24	30°♄
desc. node	1210 Mar 16 j 22:13	10°♄09'46		min. Earth dist.	1211 Feb 15 j 04:41	27°♄27'52 0.62301 AU
morning max el	1210 Mar 29 j 10:25	17°♄50'58	27°31'15	morning rise	1211 Feb 18 j 15:37	24°♄26'29

direct	1211 Feb 25 j 14:24	21° \approx 53'04		evening set	1212 Jan 20 j 16:41	18° \approx 54'27	
desc. node	1211 Mar 03 j 19:15	23° \approx 38'55		inferior conj	1212 Jan 26 j 16:14	13° \approx 24'07	3°42'10
morning max el	1211 Mar 11 j 15:05	29° \approx 47'03	27°48'49	minimum elong	1212 Jan 26 j 15:00	13° \approx 27'39	3°42'05
	1211 Mar 11 j 20:17	0° H		min. Earth dist.	1212 Jan 28 j 21:50	10° \approx 50'13	0.64144 AU
	1211 Apr 02 j 13:00	0° Y		morning rise	1212 Feb 01 j 11:51	7° \approx 17'26	
morning set	1211 Apr 14 j 05:10	21° Y 47'52		direct	1212 Feb 08 j 08:51	4° \approx 28'52	
	1211 Apr 18 j 03:57	0° B		desc. node	1212 Feb 18 j 16:18	9° \approx 17'04	
max. Earth dist.	1211 Apr 19 j 21:53	3° B 43'59	1.32621 AU	morning max el	1212 Feb 21 j 23:48	12° \approx 20'01	27°29'56
					1212 Mar 07 j 02:52	0° H	
superior conj	1211 Apr 21 j 17:45	7° B 41'04	0°-2'-16		1212 Mar 25 j 00:44	0° Y	
minimum elong	1211 Apr 21 j 17:51	7° B 41'39	0°02'16	morning set	1212 Mar 28 j 00:03	5° Y 44'42	
behind sun begin	1211 Apr 21 j 12:44	7° B 13'51		max. Earth dist.	1212 Apr 01 j 23:49	15° Y 52'05	1.33391 AU
behind sun end	1211 Apr 21 j 22:58	8° B 09'27					
asc. node	1211 Apr 21 j 22:54	8° B 09'06		superior conj	1212 Apr 04 j 23:45	22° Y 11'02	0°-29'-33
evening rise	1211 Apr 28 j 17:41	22° B 49'21		minimum elong	1212 Apr 05 j 01:12	22° Y 18'48	0°29'16
	1211 May 02 j 04:57	0° II		asc. node	1212 Apr 07 j 19:57	28° Y 15'57	
	1211 May 21 j 06:33	0° S			1212 Apr 08 j 15:20	0° B	
evening max el	1211 May 23 j 07:50	2° S 06'00	24°08'43	evening rise	1212 Apr 12 j 05:10	7° B 36'56	
desc. node	1211 May 30 j 18:32	7° S 31'04			1212 Apr 24 j 03:00	0° II	
retrograde	1211 Jun 06 j 03:41	9° S 03'30		evening max el	1212 May 03 j 22:59	12° II 36'54	22°32'48
evening set	1211 Jun 10 j 16:29	8° S 17'57		desc. node	1212 May 16 j 15:33	19° II 05'40	
min. Earth dist.	1211 Jun 16 j 18:49	5° S 18'43	0.56503 AU	retrograde	1212 May 17 j 01:14	19° II 06'02	
inferior conj	1211 Jun 19 j 07:47	3° S 43'55	-4°-32'-33	evening set	1212 May 20 j 04:12	18° II 44'34	
minimum elong	1211 Jun 19 j 02:41	3° S 51'53	4°31'51	min. Earth dist.	1212 May 28 j 06:36	15° II 13'11	0.55291 AU
	1211 Jun 26 j 15:27	30° R II		inferior conj	1212 May 29 j 10:44	14° II 33'12	-3°-25'-23
morning rise	1211 Jun 27 j 16:29	29° II 43'04		minimum elong	1212 May 29 j 03:03	14° II 44'08	3°23'20
direct	1211 Jun 30 j 08:32	29° II 24'17		morning rise	1212 Jun 07 j 04:22	10° II 41'08	
	1211 Jul 03 j 22:05	0° S		direct	1212 Jun 10 j 02:11	10° II 21'46	
morning max el	1211 Jul 10 j 01:53	3° S 54'57	19°43'12	morning max el	1212 Jun 21 j 10:44	15° II 38'26	21°01'25
asc. node	1211 Jul 18 j 22:09	15° S 32'36			1212 Jul 02 j 06:14	0° S	
	1211 Jul 26 j 16:47	0° Q		asc. node	1212 Jul 04 j 19:12	4° S 30'05	
morning set	1211 Jul 27 j 17:09	2° Q 02'06		morning set	1212 Jul 11 j 00:34	16° S 44'47	
					1212 Jul 17 j 09:21	0° Q	
superior conj	1211 Aug 04 j 16:12	18° Q 05'01	1°46'18				
minimum elong	1211 Aug 04 j 16:20	18° Q 05'38	1°46'18	superior conj	1212 Jul 18 j 12:18	2° Q 19'13	1°43'01
max. Earth dist.	1211 Aug 10 j 12:31	29° Q 21'42	1.37353 AU	minimum elong	1212 Jul 18 j 11:00	2° Q 12'28	1°42'56
	1211 Aug 10 j 20:43	0° H		max. Earth dist.	1212 Jul 22 j 21:52	11° Q 12'40	1.35574 AU
evening rise	1211 Aug 14 j 08:51	6° H 24'28		evening rise	1212 Jul 27 j 03:29	19° Q 22'55	
desc. node	1211 Aug 26 j 17:53	27° H 03'28			1212 Aug 02 j 00:11	0° H	
	1211 Aug 28 j 15:55	0° A		desc. node	1212 Aug 12 j 14:54	17° H 13'13	
evening max el	1211 Sep 19 j 03:21	27° A 43'34	25°26'32		1212 Aug 21 j 17:31	0° A	
	1211 Sep 21 j 14:46	0° M		evening max el	1212 Aug 31 j 15:17	11° A 20'50	26°28'45
retrograde	1211 Oct 01 j 05:15	4° M 40'23		retrograde	1212 Sep 13 j 11:08	18° A 33'14	
evening set	1211 Oct 07 j 02:44	2° M 12'47		evening set	1212 Sep 19 j 22:35	15° A 53'43	
	1211 Oct 09 j 08:06	30° R A		min. Earth dist.	1212 Sep 24 j 01:36	11° A 35'44	0.66194 AU
min. Earth dist.	1211 Oct 11 j 13:24	27° A 17'45	0.67054 AU	inferior conj	1212 Sep 25 j 16:14	9° A 38'48	-1°-43'-2
inferior conj	1211 Oct 12 j 16:22	25° A 50'44	0°-45'-35	minimum elong	1212 Sep 25 j 18:56	9° A 30'38	1°41'57
minimum elong	1211 Oct 12 j 17:32	25° A 46'59	0°45'06	asc. node	1212 Sep 30 j 18:25	4° A 25'22	
asc. node	1211 Oct 14 j 21:20	23° A 05'51		morning rise	1212 Oct 01 j 16:27	3° A 50'39	
morning rise	1211 Oct 18 j 09:00	19° A 51'36		direct	1212 Oct 04 j 14:57	3° A 01'55	
direct	1211 Oct 21 j 16:58	18° A 47'28		morning max el	1212 Oct 11 j 07:52	6° A 43'49	18°37'30
morning max el	1211 Oct 28 j 21:17	22° A 50'48	19°25'16		1212 Oct 27 j 13:58	0° M	
	1211 Nov 03 j 19:01	0° M		morning set	1212 Oct 31 j 20:13	6° M 47'32	
greatest brilliancy	1211 Nov 07 j 00:31	4° M 33'05	-0.7m	desc. node	1212 Nov 08 j 14:10	19° M 05'29	
morning set	1211 Nov 21 j 22:41	27° M 15'30			1212 Nov 15 j 12:26	0° J	
desc. node	1211 Nov 22 j 17:08	28° M 27'04					
	1211 Nov 23 j 17:04	0° J		superior conj	1212 Nov 16 j 20:53	2° J 07'30	0°-53'-9
max. Earth dist.	1211 Dec 05 j 06:29	18° J 05'56	1.44575 AU	minimum elong	1212 Nov 16 j 14:11	1° J 41'11	0°52'18
				max. Earth dist.	1212 Nov 17 j 00:37	2° J 22'10	1.45089 AU
superior conj	1211 Dec 08 j 18:35	23° J 40'04	-1°-34'-14	evening rise	1212 Dec 02 j 19:00	27° J 16'41	
minimum elong	1211 Dec 08 j 10:10	23° J 06'26	1°33'28		1212 Dec 04 j 11:58	0° S	
	1211 Dec 12 j 17:13	0° S		evening max el	1212 Dec 24 j 15:44	29° S 35'08	18°58'02
evening rise	1211 Dec 23 j 01:47	17° S 01'00			1212 Dec 25 j 01:37	0° \approx	
	1211 Dec 30 j 21:05	0° \approx		asc. node	1212 Dec 27 j 17:42	2° \approx 11'56	
asc. node	1212 Jan 10 j 20:38	15° \approx 46'35		retrograde	1212 Dec 31 j 12:12	3° \approx 28'08	
evening max el	1212 Jan 11 j 05:22	16° \approx 09'12	18°24'21	evening set	1213 Jan 03 j 17:13	2° \approx 28'35	
retrograde	1212 Jan 17 j 17:38	19° \approx 42'25			1213 Jan 06 j 14:48	30° R S	

inferior conj	1213 Jan 09 j 10:11	26°☿41'02	3°23'54	asc. node	1213 Dec 14 j 14:45	17°☿21'24	
minimum elong	1213 Jan 09 j 07:55	26°☿48'10	3°23'30	retrograde	1213 Dec 15 j 09:32	17°☿24'49	
min. Earth dist.	1213 Jan 11 j 00:27	24°☿41'28	0.65621 AU	evening set	1213 Dec 18 j 22:06	16°☿12'08	
morning rise	1213 Jan 14 j 21:38	20°☿29'04		inferior conj	1213 Dec 24 j 10:48	10°☿10'15	2°54'21
direct	1213 Jan 21 j 09:59	17°☿39'30		minimum elong	1213 Dec 24 j 08:07	10°☿19'09	2°53'39
morning max el	1213 Feb 03 j 09:44	25°☿17'51	26°39'54	min. Earth dist.	1213 Dec 25 j 11:02	8°☿50'01	0.66701 AU
desc. node	1213 Feb 04 j 13:21	26°☿28'56		morning rise	1213 Dec 29 j 17:28	3°☿55'32	
	1213 Feb 07 j 17:08	0°≈		direct	1214 Jan 04 j 17:03	1°☿16'36	
	1213 Feb 28 j 14:28	0°✕		morning max el	1214 Jan 16 j 18:44	8°☿27'54	25°27'06
morning set	1213 Mar 11 j 07:51	19°✕04'27		desc. node	1214 Jan 22 j 10:24	14°☿47'28	
max. Earth dist.	1213 Mar 15 j 15:05	27°✕26'17	1.34604 AU		1214 Feb 02 j 16:52	0°≈	
	1213 Mar 16 j 21:47	0°☿			1214 Feb 21 j 03:15	0°✕	
				morning set	1214 Feb 21 j 23:55	1°✕33'11	
superior conj	1213 Mar 19 j 23:54	6°☿18'42	0°-56'-59	max. Earth dist.	1214 Feb 25 j 18:27	8°✕31'48	1.36264 AU
minimum elong	1213 Mar 20 j 02:43	6°☿33'16	0°56'29				
asc. node	1213 Mar 25 j 17:01	18°☿15'35		superior conj	1214 Mar 03 j 15:27	19°✕56'02	-1°-22'-56
evening rise	1213 Mar 27 j 14:30	22°☿12'39		minimum elong	1214 Mar 03 j 19:19	20°✕15'16	1°22'23
	1213 Mar 31 j 10:47	0°♄			1214 Mar 08 j 14:59	0°☿	
evening max el	1213 Apr 15 j 21:45	23°♄26'18	21°03'47	evening rise	1214 Mar 11 j 19:32	6°☿29'36	
retrograde	1213 Apr 27 j 15:03	29°♄08'28		asc. node	1214 Mar 12 j 14:04	8°☿03'10	
evening set	1213 Apr 29 j 20:58	28°♄56'38			1214 Mar 25 j 02:55	0°♄	
desc. node	1213 May 03 j 12:34	27°♄51'57		evening max el	1214 Mar 29 j 07:58	4°♄52'19	19°50'25
inferior conj	1213 May 09 j 04:48	24°♄58'15	-1°-37'-56	retrograde	1214 Apr 08 j 07:42	9°♄40'57	
minimum elong	1213 May 09 j 00:12	25°♄04'45	1°36'20	evening set	1214 Apr 10 j 08:58	9°♄29'40	
min. Earth dist.	1213 May 09 j 19:14	24°♄37'52	0.54944 AU	inferior conj	1214 Apr 19 j 04:20	5°♄28'35	0°21'01
morning rise	1213 May 18 j 03:05	20°♄55'57		minimum elong	1214 Apr 19 j 05:15	5°♄27'10	0°20'42
direct	1213 May 21 j 11:49	20°♄31'30		desc. node	1214 Apr 20 j 09:35	4°♄43'25	
morning max el	1213 Jun 03 j 09:12	26°♄40'47	22°36'02	min. Earth dist.	1214 Apr 21 j 09:20	4°♄07'11	0.55567 AU
	1213 Jun 06 j 13:57	0°♄		morning rise	1214 Apr 27 j 22:19	0°♄58'24	
asc. node	1213 Jun 21 j 16:16	23°♄55'05		direct	1214 May 02 j 03:38	0°♄18'56	
	1213 Jun 24 j 16:18	0°♄		morning max el	1214 May 16 j 00:54	7°♄14'10	24°17'38
morning set	1213 Jun 25 j 11:08	1°♄38'03			1214 Jun 01 j 12:07	0°♄	
				asc. node	1214 Jun 08 j 13:19	13°♄39'24	
superior conj	1213 Jul 02 j 15:53	16°♄56'35	1°33'25	morning set	1214 Jun 09 j 22:59	16°♄35'08	
minimum elong	1213 Jul 02 j 13:43	16°♄45'08	1°33'12		1214 Jun 16 j 04:23	0°♄	
max. Earth dist.	1213 Jul 05 j 16:02	23°♄15'25	1.34150 AU				
	1213 Jul 08 j 23:27	0°♄		superior conj	1214 Jun 17 j 00:10	1°♄47'20	1°18'44
evening rise	1213 Jul 10 j 13:00	3°♄05'51		minimum elong	1214 Jun 16 j 21:44	1°♄34'06	1°18'22
	1213 Jul 25 j 20:16	0°♄		max. Earth dist.	1214 Jun 18 j 19:06	5°♄38'55	1.33128 AU
desc. node	1213 Jul 30 j 11:56	6°♄58'27		evening rise	1214 Jun 24 j 09:10	17°♄20'04	
evening max el	1213 Aug 14 j 03:14	24°♄49'07	27°10'43		1214 Jun 30 j 22:31	0°♄	
	1213 Aug 20 j 17:25	0°♄		desc. node	1214 Jul 17 j 08:57	26°♄07'47	
retrograde	1213 Aug 27 j 11:44	2°♄07'58			1214 Jul 20 j 08:57	0°♄	
	1213 Sep 02 j 15:06	30°♄♄		evening max el	1214 Jul 27 j 13:51	7°♄56'16	27°25'47
evening set	1213 Sep 03 j 10:19	29°♄24'07		retrograde	1214 Aug 10 j 06:18	15°♄14'41	
min. Earth dist.	1213 Sep 07 j 06:24	25°♄42'56	0.64977 AU	evening set	1214 Aug 17 j 10:48	12°♄37'34	
inferior conj	1213 Sep 09 j 09:35	23°♄20'24	-2°-40'00	min. Earth dist.	1214 Aug 21 j 01:53	9°♄29'26	0.63403 AU
minimum elong	1213 Sep 09 j 13:43	23°♄08'53	2°38'32	inferior conj	1214 Aug 23 j 17:47	6°♄48'59	-3°-33'-30
morning rise	1213 Sep 15 j 18:52	17°♄46'16		minimum elong	1214 Aug 23 j 22:50	6°♄36'17	3°32'05
asc. node	1213 Sep 17 j 15:28	17°♄12'25		morning rise	1214 Aug 30 j 13:12	1°♄32'05	
direct	1213 Sep 18 j 10:19	17°♄09'07		direct	1214 Sep 02 j 00:15	1°♄02'58	
morning max el	1213 Sep 24 j 22:38	20°♄38'50	18°06'19	asc. node	1214 Sep 04 j 12:31	1°♄33'51	
	1213 Oct 02 j 01:36	0°♄		morning max el	1214 Sep 08 j 14:41	4°♄28'42	17°52'39
morning set	1213 Oct 12 j 22:49	17°♄45'44		morning set	1214 Sep 25 j 02:45	29°♄57'05	
	1213 Oct 20 j 08:55	0°♄			1214 Sep 25 j 03:25	0°♄	
desc. node	1213 Oct 26 j 11:14	9°♄50'01					
				superior conj	1214 Oct 07 j 05:59	20°♄40'58	0°40'19
superior conj	1213 Oct 27 j 02:37	10°♄51'24	0°-4'-17	minimum elong	1214 Oct 07 j 09:53	20°♄57'09	0°39'47
minimum elong	1213 Oct 27 j 02:04	10°♄49'14	0°04'14		1214 Oct 12 j 23:01	0°♄	
behind sun begin	1213 Oct 26 j 15:38	10°♄07'35		desc. node	1214 Oct 13 j 08:17	0°♄37'12	
behind sun end	1213 Oct 27 j 12:31	11°♄30'50		max. Earth dist.	1214 Oct 13 j 11:55	0°♄51'47	1.43940 AU
max. Earth dist.	1213 Oct 30 j 19:16	16°♄42'48	1.44865 AU	evening rise	1214 Oct 22 j 22:30	15°♄41'53	
	1213 Nov 08 j 07:04	0°♄			1214 Nov 01 j 08:32	0°♄	
evening rise	1213 Nov 12 j 14:29	6°♄41'05		greatest brilliancy	1214 Nov 15 j 09:28	19°♄59'19	-0.5m
	1213 Nov 27 j 21:43	0°☿		evening max el	1214 Nov 20 j 23:00	26°♄32'57	20°51'57
greatest brilliancy	1213 Nov 30 j 10:01	3°☿37'06	-0.6m		1214 Nov 25 j 00:03	0°☿	
evening max el	1213 Dec 07 j 22:01	13°☿03'19	19°48'03	retrograde	1214 Nov 29 j 07:13	1°☿29'16	

asc. node	1214 Dec 01 j 11:46	1°☾02'21		evening set	1215 Nov 17 j 13:03	13°☾53'47	
evening set	1214 Dec 03 j 05:19	0°☾01'37		asc. node	1215 Nov 18 j 08:47	13°☾10'39	
	1214 Dec 03 j 06:10	30°☾☾		inferior conj	1215 Nov 22 j 22:32	7°☾33'01	1°31'15
inferior conj	1214 Dec 08 j 15:37	23°☾48'35	2°16'12	minimum elong	1215 Nov 22 j 20:36	7°☾39'42	1°30'29
minimum elong	1214 Dec 08 j 13:05	23°☾57'16	2°15'20	min. Earth dist.	1215 Nov 22 j 22:54	7°☾31'44	0.67735 AU
min. Earth dist.	1214 Dec 09 j 03:18	23°☾08'33	0.67397 AU	morning rise	1215 Nov 28 j 03:57	1°☾19'11	
morning rise	1214 Dec 13 j 20:24	17°☾33'15			1215 Nov 30 j 03:42	30°☾☾	
direct	1214 Dec 19 j 05:13	15°☾12'53		direct	1215 Dec 02 j 21:32	29°☾21'15	
morning max el	1214 Dec 30 j 03:03	21°☾43'23	24°01'42		1215 Dec 05 j 19:56	0°☾	
	1215 Jan 06 j 07:34	0°☾		morning max el	1215 Dec 12 j 13:25	5°☾04'06	22°33'36
desc. node	1215 Jan 09 j 07:27	3°☾53'34		greatest brilliancy	1215 Dec 17 j 03:29	10°☾11'40	-0.3m
	1215 Jan 26 j 23:55	0°☾☾		desc. node	1215 Dec 27 j 04:29	23°☾33'12	
morning set	1215 Feb 03 j 18:16	12°☾☾54'27			1215 Dec 31 j 15:22	0°☾	
max. Earth dist.	1215 Feb 07 j 14:06	19°☾☾37'01	1.38280 AU	morning set	1216 Jan 15 j 08:51	22°☾52'49	
	1215 Feb 13 j 06:06	0°☾☾			1216 Jan 19 j 15:38	0°☾☾	
				max. Earth dist.	1216 Jan 20 j 10:15	1°☾☾18'54	1.40430 AU
superior conj	1215 Feb 14 j 18:51	2°☾☾53'48	-1°-45'-2				
minimum elong	1215 Feb 14 j 22:54	3°☾☾13'05	1°44'38	superior conj	1216 Jan 28 j 05:28	14°☾☾59'25	-1°-59'-58
evening rise	1215 Feb 23 j 17:45	20°☾☾20'58		minimum elong	1216 Jan 28 j 08:02	15°☾☾11'05	1°59'51
asc. node	1215 Feb 27 j 11:06	27°☾☾33'41			1216 Feb 05 j 07:49	0°☾☾	
	1215 Feb 28 j 18:16	0°☾☾		evening rise	1216 Feb 07 j 06:03	3°☾☾38'17	
evening max el	1215 Mar 12 j 05:08	16°☾☾57'09	18°56'16	asc. node	1216 Feb 14 j 08:06	16°☾☾40'13	
retrograde	1215 Mar 20 j 15:07	21°☾☾01'46		evening max el	1216 Feb 23 j 10:25	29°☾☾32'59	18°22'10
evening set	1215 Mar 22 j 20:14	20°☾☾46'01			1216 Feb 23 j 21:52	0°☾☾	
inferior conj	1215 Mar 30 j 20:57	16°☾☾29'24	1°59'54	retrograde	1216 Mar 01 j 17:42	3°☾☾09'57	
minimum elong	1215 Mar 31 j 00:55	16°☾☾22'21	1°58'44	evening set	1216 Mar 04 j 04:06	2°☾☾46'55	
min. Earth dist.	1215 Apr 03 j 01:21	14°☾☾14'39	0.57019 AU		1216 Mar 09 j 03:31	30°☾☾☾	
desc. node	1215 Apr 07 j 06:36	11°☾☾46'22		inferior conj	1216 Mar 11 j 10:42	28°☾☾09'25	3°04'59
morning rise	1215 Apr 08 j 01:20	11°☾☾25'44		minimum elong	1216 Mar 11 j 14:20	28°☾☾01'51	3°04'15
direct	1215 Apr 13 j 08:38	10°☾☾18'34		min. Earth dist.	1216 Mar 14 j 21:11	25°☾☾19'16	0.58985 AU
morning max el	1215 Apr 27 j 15:44	17°☾☾44'02	25°52'10	morning rise	1216 Mar 18 j 20:45	22°☾☾37'27	
	1215 May 07 j 19:21	0°☾☾☾		desc. node	1216 Mar 24 j 03:38	20°☾☾56'37	
	1215 May 24 j 17:09	0°☾☾☾		direct	1216 Mar 25 j 02:33	20°☾☾54'13	
morning set	1215 May 25 j 10:30	1°☾☾30'55		morning max el	1216 Apr 08 j 10:57	28°☾☾37'03	27°04'32
asc. node	1215 May 26 j 10:22	3°☾☾37'20			1216 Apr 09 j 19:45	0°☾☾	
					1216 Apr 30 j 12:08	0°☾☾☾	
superior conj	1215 Jun 01 j 11:06	16°☾☾44'33	0°59'54	morning set	1216 May 08 j 20:03	16°☾☾19'18	
minimum elong	1215 Jun 01 j 08:53	16°☾☾32'20	0°59'30	asc. node	1216 May 12 j 07:25	23°☾☾43'19	
max. Earth dist.	1215 Jun 02 j 04:41	18°☾☾20'54	1.32503 AU		1216 May 15 j 04:22	0°☾☾☾	
	1215 Jun 07 j 14:35	0°☾☾☾					
evening rise	1215 Jun 08 j 12:44	1°☾☾☾55'34		superior conj	1216 May 15 j 22:52	1°☾☾41'42	0°37'43
	1215 Jun 23 j 20:49	0°☾☾☾		minimum elong	1216 May 15 j 21:16	1°☾☾32'58	0°37'24
desc. node	1215 Jul 04 j 05:57	14°☾☾26'14		max. Earth dist.	1216 May 15 j 17:09	1°☾☾10'18	1.32246 AU
evening max el	1215 Jul 09 j 20:39	20°☾☾29'00	27°08'56	evening rise	1216 May 22 j 21:06	16°☾☾43'23	
retrograde	1215 Jul 23 j 17:44	27°☾☾44'04			1216 May 29 j 12:14	0°☾☾☾	
evening set	1215 Jul 30 j 19:58	25°☾☾26'52			1216 Jun 18 j 14:48	0°☾☾☾	
min. Earth dist.	1215 Aug 03 j 10:54	22°☾☾42'33	0.61528 AU	desc. node	1216 Jun 20 j 02:56	1°☾☾32'54	
inferior conj	1215 Aug 06 j 13:40	19°☾☾56'40	-4°-18'-47	evening max el	1216 Jun 20 j 21:01	2°☾☾16'51	26°19'08
minimum elong	1215 Aug 06 j 18:27	19°☾☾46'01	4°17'54	retrograde	1216 Jul 04 j 20:52	9°☾☾28'57	
morning rise	1215 Aug 13 j 19:48	15°☾☾00'19		evening set	1216 Jul 11 j 09:11	7°☾☾44'00	
direct	1215 Aug 16 j 05:17	14°☾☾36'19		min. Earth dist.	1216 Jul 15 j 09:55	5°☾☾08'08	0.59475 AU
asc. node	1215 Aug 22 j 09:34	17°☾☾21'06		inferior conj	1216 Jul 18 j 17:42	2°☾☾34'12	-4°-48'-5
morning max el	1215 Aug 23 j 05:02	18°☾☾06'07	17°57'32	minimum elong	1216 Jul 18 j 20:10	2°☾☾29'24	4°47'54
	1215 Aug 31 j 18:19	0°☾☾☾			1216 Jul 22 j 06:42	30°☾☾☾☾	
morning set	1215 Sep 08 j 01:40	13°☾☾02'56		morning rise	1216 Jul 26 j 10:32	28°☾☾00'58	
	1215 Sep 17 j 11:16	0°☾☾☾		direct	1216 Jul 28 j 21:05	27°☾☾40'02	
					1216 Aug 03 j 23:50	0°☾☾☾	
superior conj	1215 Sep 18 j 12:37	1°☾☾50'51	1°13'43	morning max el	1216 Aug 05 j 14:41	1°☾☾23'32	18°22'08
minimum elong	1215 Sep 18 j 17:15	2°☾☾11'04	1°13'11	asc. node	1216 Aug 08 j 06:37	4°☾☾19'46	
max. Earth dist.	1215 Sep 26 j 00:25	14°☾☾33'17	1.42430 AU	morning set	1216 Aug 21 j 14:14	26°☾☾48'26	
desc. node	1215 Sep 30 j 05:18	21°☾☾23'35			1216 Aug 23 j 06:18	0°☾☾☾	
evening rise	1215 Oct 02 j 12:13	25°☾☾02'11					
	1215 Oct 05 j 16:20	0°☾☾☾		superior conj	1216 Aug 30 j 19:20	14°☾☾12'24	1°34'43
	1215 Oct 26 j 08:09	0°☾☾☾		minimum elong	1216 Aug 30 j 22:31	14°☾☾27'03	1°34'28
greatest brilliancy	1215 Oct 30 j 01:06	4°☾☾43'39	-0.3m	max. Earth dist.	1216 Sep 07 j 07:35	27°☾☾34'06	1.40526 AU
evening max el	1215 Nov 03 j 18:22	10°☾☾03'31	22°06'07		1216 Sep 08 j 17:44	0°☾☾☾	
retrograde	1215 Nov 13 j 03:27	15°☾☾38'09		evening rise	1216 Sep 11 j 21:41	5°☾☾17'53	

desc. node	1216 Sep 16 j 02:18	12°♄05'49			1217 Sep 01 j 07:03	0°♄	
	1216 Sep 27 j 21:17	0°♄		desc. node	1217 Sep 02 j 23:19	2°♄39'29	
evening max el	1216 Oct 16 j 09:08	23°♄36'29	23°25'39		1217 Sep 22 j 09:35	0°♄	
retrograde	1216 Oct 26 j 20:57	29°♄48'49		evening max el	1217 Sep 28 j 21:18	7°♄12'27	24°44'23
evening set	1216 Oct 31 j 19:45	27°♄46'52		retrograde	1217 Oct 10 j 10:38	13°♄56'30	
asc. node	1216 Nov 04 j 05:48	24°♄03'32		evening set	1217 Oct 15 j 23:42	11°♄37'32	
inferior conj	1216 Nov 06 j 05:47	21°♄22'06	0°41'02	min. Earth dist.	1217 Oct 20 j 14:52	6°♄21'56	0.67396 AU
minimum elong	1216 Nov 06 j 04:50	21°♄25'23	0°40'37	inferior conj	1217 Oct 21 j 11:38	5°♄13'01	0°-13'-8
min. Earth dist.	1216 Nov 05 j 19:32	21°♄57'14	0.67730 AU	minimum elong	1217 Oct 21 j 11:57	5°♄11'56	0°13'01
morning rise	1216 Nov 11 j 14:02	15°♄11'58		transit middle	1217 Oct 21 j 11:57	5°♄11'56	0°13'01
direct	1216 Nov 15 j 17:09	13°♄36'51		transit begin	1217 Oct 21 j 10:18	5°♄17'24	
morning max el	1216 Nov 24 j 05:31	18°♄34'28	21°11'04	transit end	1217 Oct 21 j 13:36	5°♄06'28	
greatest brilliancy	1216 Nov 29 j 13:32	24°♄42'58	-0.4m	asc. node	1217 Oct 22 j 02:52	4°♄22'38	
	1216 Dec 03 j 13:36	0°♄			1217 Oct 25 j 22:51	30°♄	
desc. node	1216 Dec 13 j 01:33	13°♄37'23		morning rise	1217 Oct 27 j 00:40	29°♄09'00	
	1216 Dec 23 j 19:29	0°♄		direct	1217 Oct 30 j 14:57	27°♄54'36	
morning set	1216 Dec 24 j 19:24	1°♄33'38			1217 Nov 04 j 16:37	0°♄	
max. Earth dist.	1217 Jan 01 j 12:48	13°♄56'23	1.42412 AU	morning max el	1217 Nov 07 j 05:12	2°♄15'13	19°59'45
				greatest brilliancy	1217 Nov 14 j 10:58	11°♄05'35	-0.6m
superior conj	1217 Jan 08 j 18:04	26°♄01'12	-2°-3'-19		1217 Nov 27 j 08:04	0°♄	
minimum elong	1217 Jan 08 j 16:48	25°♄55'49	2°03'19	desc. node	1217 Nov 29 j 22:36	3°♄58'39	
	1217 Jan 11 j 01:28	0°♄		morning set	1217 Dec 03 j 15:37	9°♄40'59	
evening rise	1217 Jan 20 j 04:46	16°♄14'17		max. Earth dist.	1217 Dec 14 j 22:35	27°♄23'23	1.43957 AU
	1217 Jan 27 j 23:06	0°♄			1217 Dec 16 j 13:44	0°♄	
asc. node	1217 Jan 31 j 05:07	5°♄15'44		superior conj	1217 Dec 20 j 04:27	5°♄50'43	-1°-50'-19
evening max el	1217 Feb 05 j 20:47	12°♄32'10	18°07'55	minimum elong	1217 Dec 19 j 21:58	5°♄24'19	1°49'55
retrograde	1217 Feb 12 j 13:01	15°♄57'18		evening rise	1218 Jan 02 j 09:36	28°♄00'16	
evening set	1217 Feb 15 j 04:15	15°♄25'29			1218 Jan 03 j 13:29	0°♄	
inferior conj	1217 Feb 21 j 20:03	10°♄26'36	3°38'00	asc. node	1218 Jan 18 j 02:09	23°♄10'52	
minimum elong	1217 Feb 21 j 21:45	10°♄22'31	3°37'51	evening max el	1218 Jan 20 j 09:17	25°♄47'08	18°13'02
min. Earth dist.	1217 Feb 24 j 23:56	7°♄25'18	0.61115 AU	retrograde	1218 Jan 26 j 20:34	29°♄14'01	
morning rise	1217 Feb 28 j 12:22	4°♄35'28		evening set	1218 Jan 29 j 16:33	28°♄32'23	
direct	1217 Mar 07 j 07:44	2°♄17'33		inferior conj	1218 Feb 04 j 21:08	23°♄13'15	3°46'06
desc. node	1217 Mar 11 j 00:41	2°♄55'15		minimum elong	1218 Feb 04 j 20:49	23°♄14'05	3°46'06
morning max el	1217 Mar 21 j 12:40	10°♄10'04	27°43'27	min. Earth dist.	1218 Feb 07 j 11:43	20°♄24'00	0.63120 AU
	1217 Apr 05 j 22:22	0°♄		morning rise	1218 Feb 10 j 23:08	17°♄10'44	
	1217 Apr 22 j 15:15	0°♄		direct	1218 Feb 17 j 22:08	14°♄28'47	
morning set	1217 Apr 23 j 01:46	0°♄53'57		desc. node	1218 Feb 25 j 21:45	17°♄23'42	
max. Earth dist.	1217 Apr 29 j 04:35	13°♄53'39	1.32365 AU	morning max el	1218 Mar 03 j 19:32	22°♄23'40	27°45'03
asc. node	1217 Apr 29 j 04:26	13°♄52'54			1218 Mar 10 j 12:43	0°♄	
					1218 Mar 30 j 02:25	0°♄	
superior conj	1217 Apr 30 j 09:47	16°♄33'02	0°12'55	morning set	1218 Apr 07 j 01:26	15°♄07'37	
minimum elong	1217 Apr 30 j 09:11	16°♄29'48	0°12'47	max. Earth dist.	1218 Apr 12 j 10:57	26°♄17'26	1.32886 AU
behind sun begin	1217 Apr 30 j 06:10	16°♄13'17			1218 Apr 14 j 04:36	0°♄	
behind sun end	1217 Apr 30 j 12:13	16°♄46'19		superior conj	1218 Apr 14 j 18:10	1°♄13'04	0°-13'-44
	1217 May 06 j 14:05	0°♄		minimum elong	1218 Apr 14 j 18:50	1°♄16'39	0°13'37
evening rise	1217 May 07 j 08:09	1°♄36'08		behind sun begin	1218 Apr 14 j 16:06	1°♄01'54	
	1217 May 22 j 19:58	0°♄		behind sun end	1218 Apr 14 j 21:34	1°♄31'24	
evening max el	1217 Jun 02 j 14:19	13°♄19'10	25°01'31	asc. node	1218 Apr 16 j 01:29	4°♄02'11	
desc. node	1217 Jun 06 j 23:56	16°♄58'27		evening rise	1218 Apr 21 j 20:01	16°♄27'38	
retrograde	1217 Jun 16 j 14:06	20°♄25'51			1218 Apr 28 j 13:56	0°♄	
evening set	1217 Jun 21 j 23:00	19°♄19'41		evening max el	1218 May 15 j 04:21	23°♄53'43	23°28'01
min. Earth dist.	1217 Jun 27 j 01:49	16°♄33'28	0.57481 AU		1218 May 24 j 11:40	0°♄	
inferior conj	1217 Jun 30 j 02:33	14°♄31'40	-4°-49'-42	desc. node	1218 May 24 j 20:57	0°♄07'14	
minimum elong	1217 Jun 30 j 00:25	14°♄35'15	4°49'35	retrograde	1218 May 28 j 19:10	0°♄42'18	
morning rise	1217 Jul 08 j 05:40	10°♄20'54		evening set	1218 Jun 01 j 16:29	0°♄09'06	
direct	1217 Jul 10 j 19:10	10°♄01'47			1218 Jun 02 j 04:48	30°♄	
morning max el	1217 Jul 19 j 16:34	14°♄11'16	19°07'34	min. Earth dist.	1218 Jun 08 j 14:37	26°♄57'29	0.55886 AU
asc. node	1217 Jul 26 j 03:41	22°♄14'27		inferior conj	1218 Jun 10 j 15:25	25°♄44'55	-4°-10'-1
	1217 Jul 30 j 18:12	0°♄		minimum elong	1218 Jun 10 j 08:38	25°♄55'03	4°08'41
morning set	1217 Aug 05 j 12:23	11°♄02'08		morning rise	1218 Jun 19 j 04:07	21°♄49'33	
				direct	1218 Jun 21 j 22:00	21°♄30'58	
superior conj	1217 Aug 13 j 20:26	27°♄28'52	1°44'44	morning max el	1218 Jul 02 j 08:04	26°♄20'21	20°14'07
minimum elong	1217 Aug 13 j 21:37	27°♄34'36	1°44'41		1218 Jul 05 j 17:59	0°♄	
	1217 Aug 15 j 03:54	0°♄		asc. node	1218 Jul 13 j 00:46	10°♄52'17	
max. Earth dist.	1217 Aug 20 j 11:00	9°♄51'22	1.38484 AU				
evening rise	1217 Aug 24 j 07:33	16°♄41'55					

morning set	1218 Jul 20 j 17:08	25° ♄ 36'13		morning set	1219 Jul 05 j 02:06	10° ♄ 23'37	
	1218 Jul 22 j 20:41	0° Ω					
superior conj	1218 Jul 28 j 10:48	11° Ω 25'36	1°45'46	superior conj	1219 Jul 12 j 10:25	25° ♄ 50'11	1°39'37
minimum elong	1218 Jul 28 j 10:15	11° Ω 22'49	1°45'45	minimum elong	1219 Jul 12 j 08:40	25° ♄ 41'05	1°39'30
max. Earth dist.	1218 Aug 02 j 16:17	21° Ω 43'21	1.36558 AU	max. Earth dist.	1219 Jul 14 j 10:37	0° Ω	
evening rise	1218 Aug 06 j 15:36	29° Ω 09'49		evening rise	1219 Jul 16 j 05:10	3° Ω 36'59	1.34923 AU
	1218 Aug 07 j 02:36	0° ♍			1219 Jul 20 j 17:07	12° Ω 28'35	
desc. node	1218 Aug 20 j 20:19	22° ♍ 59'41		desc. node	1219 Jul 30 j 11:31	0° ♍	
	1218 Aug 25 j 13:15	0° ♄			1219 Aug 07 j 17:20	12° ♍ 59'55	
evening max el	1218 Sep 11 j 09:06	20° ♄ 51'10	25°54'56	evening max el	1219 Aug 20 j 15:33	0° ♄	
retrograde	1218 Sep 23 j 19:39	27° ♄ 56'25		retrograde	1219 Aug 24 j 21:24	4° ♄ 26'50	26°49'35
evening set	1218 Sep 29 j 23:07	25° ♄ 23'13		evening set	1219 Sep 06 j 23:19	11° ♄ 42'27	
min. Earth dist.	1218 Oct 04 j 06:29	20° ♄ 43'31	0.66732 AU	min. Earth dist.	1219 Sep 13 j 15:51	9° ♄ 00'20	
inferior conj	1218 Oct 05 j 14:16	19° ♄ 03'24	-1°-9'-52	inferior conj	1219 Sep 17 j 15:55	4° ♄ 57'55	0.65720 AU
minimum elong	1218 Oct 05 j 16:04	18° ♄ 57'41	1°09'06	minimum elong	1219 Sep 19 j 11:41	2° ♄ 49'45	-2°-7'-23
asc. node	1218 Oct 08 j 23:57	15° ♄ 05'36			1219 Sep 19 j 15:01	2° ♄ 39'58	2°06'06
morning rise	1218 Oct 11 j 09:55	13° ♄ 08'19		morning rise	1219 Sep 22 j 00:23	30° ♍	
direct	1218 Oct 14 j 13:30	12° ♄ 11'16		asc. node	1219 Sep 25 j 15:34	27° ♍ 06'51	
morning max el	1218 Oct 21 j 12:14	16° ♄ 04'37	19°02'50	direct	1219 Sep 25 j 21:02	27° ♍ 00'07	
	1218 Nov 01 j 00:25	0° ♌		morning max el	1219 Sep 28 j 10:48	26° ♍ 23'22	
morning set	1218 Nov 12 j 22:29	18° ♌ 27'22			1219 Oct 05 j 00:52	29° ♍ 59'04	18°22'05
desc. node	1218 Nov 16 j 19:38	24° ♌ 31'54		morning set	1219 Oct 05 j 01:14	0° ♄	
	1218 Nov 20 j 07:26	0° ♊			1219 Oct 24 j 08:33	28° ♄ 37'27	
max. Earth dist.	1218 Nov 27 j 14:13	11° ♊ 25'53	1.44885 AU	desc. node	1219 Oct 25 j 04:56	0° ♌	
					1219 Nov 03 j 16:39	15° ♌ 13'29	
superior conj	1218 Nov 29 j 14:50	14° ♊ 37'32	-1°-18'-31	superior conj	1219 Nov 08 j 15:52	23° ♌ 04'47	0°-32'-36
minimum elong	1218 Nov 29 j 06:17	14° ♊ 03'47	1°17'36	minimum elong	1219 Nov 08 j 11:37	22° ♌ 48'03	0°32'03
	1218 Dec 09 j 06:07	0° ♋		max. Earth dist.	1219 Nov 10 j 09:17	25° ♌ 47'46	1.45090 AU
evening rise	1218 Dec 14 j 16:24	8° ♋ 49'01			1219 Nov 13 j 01:33	0° ♊	
	1218 Dec 27 j 20:32	0° ♌		evening rise	1219 Nov 24 j 23:47	18° ♊ 41'41	
evening max el	1219 Jan 03 j 21:11	9° ♌ 10'50	18°36'39		1219 Dec 02 j 04:49	0° ♋	
asc. node	1219 Jan 04 j 23:13	10° ♌ 13'09		greatest brilliancy	1219 Dec 08 j 19:34	10° ♋ 10'07	-0.7m
retrograde	1219 Jan 10 j 12:02	12° ♌ 51'05		evening max el	1219 Dec 18 j 06:08	22° ♋ 38'55	19°17'27
evening set	1219 Jan 13 j 13:28	11° ♌ 58'24		asc. node	1219 Dec 22 j 20:16	26° ♋ 08'40	
inferior conj	1219 Jan 19 j 09:56	6° ♌ 20'45	3°35'59	retrograde	1219 Dec 25 j 08:02	26° ♋ 42'36	
minimum elong	1219 Jan 19 j 08:10	6° ♌ 26'01	3°35'47	evening set	1219 Dec 28 j 16:09	25° ♋ 37'32	
min. Earth dist.	1219 Jan 21 j 09:02	4° ♌ 00'12	0.64823 AU	inferior conj	1220 Jan 03 j 07:04	19° ♋ 43'36	3°12'33
morning rise	1219 Jan 25 j 01:38	0° ♌ 11'35		minimum elong	1220 Jan 03 j 04:32	19° ♋ 51'44	3°12'00
	1219 Jan 25 j 07:10	30° ♌		min. Earth dist.	1220 Jan 04 j 15:08	18° ♋ 00'37	0.66137 AU
direct	1219 Jan 31 j 19:47	27° ♋ 20'35		morning rise	1220 Jan 08 j 16:07	13° ♋ 30'30	
	1219 Feb 08 j 03:33	0° ♍		direct	1220 Jan 14 j 23:32	10° ♋ 44'17	
desc. node	1219 Feb 12 j 18:49	3° ♍ 45'22		morning max el	1220 Jan 14 j 23:32	18° ♋ 12'01	26°11'05
morning max el	1219 Feb 14 j 04:51	5° ♍ 07'58	27°11'56	desc. node	1220 Jan 27 j 14:23	18° ♋ 12'01	26°11'05
	1219 Mar 05 j 03:50	0° ♎			1220 Jan 30 j 15:51	21° ♋ 28'36	
morning set	1219 Mar 21 j 16:03	28° ♎ 49'55			1220 Feb 06 j 13:27	0° ♍	
	1219 Mar 22 j 06:26	0° ♏		morning set	1220 Feb 26 j 03:28	0° ♎	
max. Earth dist.	1219 Mar 26 j 08:24	8° ♏ 10'09	1.33846 AU	max. Earth dist.	1220 Mar 03 j 17:44	11° ♎ 49'28	
					1220 Mar 07 j 18:31	19° ♎ 30'27	1.35266 AU
superior conj	1219 Mar 29 j 21:58	15° ♏ 34'28	0°-41'-15	superior conj	1220 Mar 12 j 18:49	29° ♎ 30'22	-1°-8'-17
minimum elong	1219 Mar 30 j 00:01	15° ♏ 45'15	0°40'52	minimum elong	1220 Mar 12 j 22:08	29° ♎ 47'18	1°07'45
asc. node	1219 Apr 02 j 22:31	24° ♏ 06'26			1220 Mar 13 j 00:38	0° ♏	
	1219 Apr 05 j 17:18	0° ♐		asc. node	1220 Mar 19 j 19:34	14° ♏ 01'37	
evening rise	1219 Apr 06 j 06:47	1° ♐ 10'41		evening rise	1220 Mar 20 j 14:33	15° ♏ 39'19	
	1219 Apr 22 j 21:06	0° ♑			1220 Mar 27 j 23:31	0° ♐	
evening max el	1219 Apr 26 j 22:08	4° ♑ 29'30	21°53'32	evening max el	1220 Apr 08 j 01:34	15° ♐ 32'54	20°30'16
retrograde	1219 May 09 j 12:02	10° ♑ 39'51		retrograde	1220 Apr 19 j 01:01	20° ♐ 51'37	
desc. node	1219 May 11 j 18:00	10° ♑ 28'31		evening set	1220 Apr 21 j 03:37	20° ♐ 40'41	
evening set	1219 May 12 j 03:52	10° ♑ 24'05		desc. node	1220 Apr 27 j 15:02	18° ♐ 13'47	
min. Earth dist.	1219 May 21 j 02:45	6° ♑ 34'51	0.55026 AU	inferior conj	1220 Apr 30 j 07:27	16° ♐ 43'01	0°-46'-41
inferior conj	1219 May 21 j 13:00	6° ♑ 20'31	-2°-43'-29	minimum elong	1220 Apr 30 j 05:14	16° ♐ 46'13	0°45'53
minimum elong	1219 May 21 j 05:58	6° ♑ 30'21	2°41'19	min. Earth dist.	1220 May 01 j 15:32	15° ♐ 56'33	0.55102 AU
morning rise	1219 May 30 j 09:21	2° ♑ 26'15		morning rise	1220 May 09 j 05:13	12° ♐ 30'54	
direct	1219 Jun 02 j 10:59	2° ♑ 05'23		direct	1220 May 12 j 21:53	12° ♐ 01'27	
morning max el	1219 Jun 14 j 12:07	7° ♑ 44'50	21°40'02	morning max el	1220 May 26 j 06:49	18° ♐ 31'04	23°19'12
asc. node	1219 Jun 29 j 21:49	0° ♒ 02'08			1220 Jun 04 j 16:55	0° ♑	
	1219 Jun 29 j 21:22	0° ♓		asc. node	1220 Jun 15 j 18:50	19° ♑ 35'48	

morning set	1220 Jun 18 j 13:22	25° Π 18'44		direct	1221 Apr 23 j 18:17	21° Υ 50'08	
	1220 Jun 20 j 18:24	0° \mathfrak{G}		morning max el	1221 May 07 j 21:31	28° Υ 59'54	24°59'50
					1221 May 08 j 21:56	0° \mathfrak{B}	
superior conj	1220 Jun 25 j 16:12	10° \mathfrak{G} 33'23	1°27'44		1221 May 28 j 23:48	0° Π	
minimum elong	1220 Jun 25 j 13:52	10° \mathfrak{G} 20'50	1°27'27	asc. node	1221 Jun 02 j 15:52	9° Π 26'54	
max. Earth dist.	1220 Jun 28 j 03:31	15° \mathfrak{G} 48'52	1.33668 AU	morning set	1221 Jun 03 j 01:17	10° Π 16'25	
evening rise	1220 Jul 03 j 07:32	26° \mathfrak{G} 25'29					
	1220 Jul 05 j 03:11	0° \mathfrak{Q}		superior conj	1221 Jun 10 j 01:51	25° Π 28'00	1°11'12
	1220 Jul 22 j 19:58	0° \mathfrak{M}		minimum elong	1221 Jun 09 j 23:26	25° Π 14'53	1°10'49
desc. node	1220 Jul 24 j 14:22	2° \mathfrak{M} 31'08		max. Earth dist.	1221 Jun 11 j 09:47	28° Π 21'41	1.32809 AU
evening max el	1220 Aug 06 j 09:06	17° \mathfrak{M} 47'38	27°20'51		1221 Jun 12 j 03:57	0° \mathfrak{G}	
retrograde	1220 Aug 19 j 21:06	25° \mathfrak{M} 06'06		evening rise	1221 Jun 17 j 07:11	10° \mathfrak{G} 49'55	
evening set	1220 Aug 26 j 23:10	22° \mathfrak{M} 23'41			1221 Jun 27 j 09:33	0° \mathfrak{Q}	
min. Earth dist.	1220 Aug 30 j 16:50	18° \mathfrak{M} 57'26	0.64349 AU	desc. node	1221 Jul 11 j 11:22	21° \mathfrak{Q} 21'23	
inferior conj	1220 Sep 02 j 01:28	16° \mathfrak{M} 26'19	-3°-3'-21		1221 Jul 19 j 01:09	0° \mathfrak{M}	
minimum elong	1220 Sep 02 j 06:05	16° \mathfrak{M} 13'59	3°01'51	evening max el	1221 Jul 19 j 18:13	0° \mathfrak{M} 41'14	27°22'41
morning rise	1220 Sep 08 j 14:56	10° \mathfrak{M} 59'07		retrograde	1221 Aug 02 j 12:46	7° \mathfrak{M} 58'44	
direct	1220 Sep 11 j 04:17	10° \mathfrak{M} 25'39		evening set	1221 Aug 09 j 17:41	5° \mathfrak{M} 28'00	
asc. node	1220 Sep 11 j 18:04	10° \mathfrak{M} 27'21		min. Earth dist.	1221 Aug 13 j 07:41	2° \mathfrak{M} 31'56	0.62635 AU
morning max el	1220 Sep 17 j 16:29	13° \mathfrak{M} 52'20	17°58'22		1221 Aug 15 j 23:26	30° \mathfrak{R} \mathfrak{Q}	
	1220 Sep 28 j 22:33	0° \mathfrak{L}		inferior conj	1221 Aug 16 j 04:48	29° \mathfrak{Q} 47'05	-3°-54'-7
morning set	1220 Oct 04 j 22:40	10° \mathfrak{L} 09'18		minimum elong	1221 Aug 16 j 09:56	29° \mathfrak{Q} 34'48	3°52'52
	1220 Oct 16 j 20:34	0° \mathfrak{M}		morning rise	1221 Aug 23 j 04:46	24° \mathfrak{Q} 38'54	
				direct	1221 Aug 25 j 14:50	24° \mathfrak{Q} 12'17	
superior conj	1220 Oct 18 j 05:12	2° \mathfrak{M} 12'18	0°15'44	asc. node	1221 Aug 29 j 15:05	25° \mathfrak{Q} 27'11	
minimum elong	1220 Oct 18 j 07:01	2° \mathfrak{M} 19'37	0°15'29	morning max el	1221 Sep 01 j 08:15	27° \mathfrak{Q} 38'28	17°52'31
behind sun begin	1220 Oct 18 j 03:59	2° \mathfrak{M} 07'21			1221 Sep 03 j 11:16	0° \mathfrak{M}	
behind sun end	1220 Oct 18 j 10:03	2° \mathfrak{M} 31'53		morning set	1221 Sep 17 j 11:23	22° \mathfrak{M} 45'59	
desc. node	1220 Oct 20 j 13:41	5° \mathfrak{M} 59'29			1221 Sep 21 j 13:10	0° \mathfrak{L}	
max. Earth dist.	1220 Oct 23 j 04:02	10° \mathfrak{M} 08'00	1.44555 AU				
evening rise	1220 Nov 03 j 12:40	27° \mathfrak{M} 52'07		superior conj	1221 Sep 28 j 20:15	12° \mathfrak{L} 36'49	0°56'00
	1220 Nov 04 j 21:55	0° \mathfrak{J}		minimum elong	1221 Sep 29 j 00:52	12° \mathfrak{L} 56'18	0°55'25
greatest brilliancy	1220 Nov 23 j 21:16	28° \mathfrak{J} 08'27	-0.6m	max. Earth dist.	1221 Oct 05 j 19:08	24° \mathfrak{L} 07'18	1.43355 AU
	1220 Nov 25 j 06:38	0° \mathfrak{B}		desc. node	1221 Oct 07 j 10:43	26° \mathfrak{L} 46'55	
evening max el	1220 Nov 30 j 10:16	6° \mathfrak{B} 07'52	20°13'37		1221 Oct 09 j 11:05	0° \mathfrak{M}	
retrograde	1220 Dec 08 j 05:48	10° \mathfrak{B} 43'24		evening rise	1221 Oct 13 j 20:56	6° \mathfrak{M} 55'39	
asc. node	1220 Dec 08 j 17:19	10° \mathfrak{B} 42'06			1221 Oct 29 j 05:45	0° \mathfrak{J}	
evening set	1220 Dec 11 j 22:16	9° \mathfrak{B} 24'21		greatest brilliancy	1221 Nov 08 j 06:55	13° \mathfrak{J} 45'54	-0.4m
inferior conj	1220 Dec 17 j 09:43	3° \mathfrak{B} 17'07	2°39'05	evening max el	1221 Nov 13 j 08:42	19° \mathfrak{J} 37'29	21°22'22
minimum elong	1220 Dec 17 j 07:02	3° \mathfrak{B} 26'10	2°38'17	retrograde	1221 Nov 22 j 03:13	24° \mathfrak{J} 50'24	
min. Earth dist.	1220 Dec 18 j 04:19	2° \mathfrak{B} 14'25	0.67049 AU	asc. node	1221 Nov 25 j 14:20	23° \mathfrak{J} 43'37	
	1220 Dec 19 j 21:36	30° \mathfrak{R} \mathfrak{J}		evening set	1221 Nov 26 j 05:56	23° \mathfrak{J} 15'46	
morning rise	1220 Dec 22 j 15:17	27° \mathfrak{J} 02'01		inferior conj	1221 Dec 01 j 15:41	16° \mathfrak{J} 58'42	1°57'52
direct	1220 Dec 28 j 08:39	24° \mathfrak{J} 30'36		minimum elong	1221 Dec 01 j 13:21	17° \mathfrak{J} 06'45	1°57'01
	1221 Jan 07 j 11:54	0° \mathfrak{B}		min. Earth dist.	1221 Dec 01 j 22:23	16° \mathfrak{J} 35'33	0.67583 AU
morning max el	1221 Jan 08 j 23:02	1° \mathfrak{B} 25'26	24°51'42	morning rise	1221 Dec 06 j 20:27	10° \mathfrak{J} 43'35	
desc. node	1221 Jan 16 j 12:53	10° \mathfrak{B} 09'17		direct	1221 Dec 11 j 22:37	8° \mathfrak{J} 32'42	
	1221 Jan 30 j 14:22	0° \mathfrak{M}		morning max el	1221 Dec 22 j 07:59	14° \mathfrak{J} 43'46	23°23'58
morning set	1221 Feb 14 j 01:18	23° \mathfrak{M} 51'21		greatest brilliancy	1221 Dec 27 j 21:33	21° \mathfrak{J} 00'36	-0.2m
	1221 Feb 17 j 10:58	0° \mathfrak{K}		desc. node	1222 Jan 03 j 09:56	29° \mathfrak{J} 31'10	
max. Earth dist.	1221 Feb 17 j 18:10	0° \mathfrak{K} 33'06	1.37097 AU		1222 Jan 03 j 18:19	0° \mathfrak{B}	
					1222 Jan 23 j 13:22	0° \mathfrak{M}	
superior conj	1221 Feb 24 j 05:38	12° \mathfrak{K} 51'51	-1°-32'-57	morning set	1222 Jan 26 j 08:31	4° \mathfrak{M} 39'18	
minimum elong	1221 Feb 24 j 09:44	13° \mathfrak{K} 11'51	1°32'26	max. Earth dist.	1222 Jan 30 j 13:01	11° \mathfrak{M} 50'06	1.39196 AU
evening rise	1221 Mar 04 j 17:00	29° \mathfrak{K} 46'24					
	1221 Mar 04 j 19:43	0° \mathfrak{Y}		superior conj	1222 Feb 07 j 02:30	25° \mathfrak{M} 28'55	-1°-52'-29
asc. node	1221 Mar 06 j 16:36	3° \mathfrak{Y} 42'46		minimum elong	1222 Feb 07 j 06:11	25° \mathfrak{M} 46'05	1°52'13
evening max el	1221 Mar 21 j 16:31	27° \mathfrak{Y} 15'13	19°24'49		1222 Feb 09 j 12:12	0° \mathfrak{K}	
	1221 Mar 25 j 04:22	0° \mathfrak{B}		evening rise	1222 Feb 16 j 11:27	13° \mathfrak{K} 24'33	
retrograde	1221 Mar 30 j 23:17	1° \mathfrak{B} 43'51		asc. node	1222 Feb 21 j 13:38	23° \mathfrak{K} 04'11	
evening set	1221 Apr 02 j 01:34	1° \mathfrak{B} 31'09			1222 Feb 25 j 12:52	0° \mathfrak{Y}	
	1221 Apr 06 j 05:14	30° \mathfrak{R} \mathfrak{Y}		evening max el	1222 Mar 04 j 17:29	9° \mathfrak{Y} 34'23	18°39'16
inferior conj	1221 Apr 10 j 13:13	27° \mathfrak{Y} 24'06	1°06'47	retrograde	1222 Mar 12 j 14:52	13° \mathfrak{Y} 25'25	
minimum elong	1221 Apr 10 j 15:53	27° \mathfrak{Y} 19'44	1°05'53	evening set	1222 Mar 14 j 22:04	13° \mathfrak{Y} 06'58	
min. Earth dist.	1221 Apr 13 j 06:09	25° \mathfrak{Y} 38'39	0.56098 AU	inferior conj	1222 Mar 22 j 14:48	8° \mathfrak{Y} 41'59	2°31'48
desc. node	1221 Apr 14 j 12:02	24° \mathfrak{Y} 52'46		minimum elong	1222 Mar 22 j 18:57	8° \mathfrak{Y} 34'05	2°30'43
morning rise	1221 Apr 19 j 02:21	22° \mathfrak{Y} 39'36		min. Earth dist.	1222 Mar 25 j 23:48	6° \mathfrak{Y} 09'06	0.57808 AU

morning rise	1222 Mar 30 j 11:32	3°♄24'46		min. Earth dist.	1223 Mar 07 j 22:26	17°♄41'21	0.59893 AU
desc. node	1222 Apr 01 j 09:04	2°♄39'44		morning rise	1223 Mar 11 j 15:37	14°♄58'26	
direct	1222 Apr 05 j 05:06	2°♄02'41		direct	1223 Mar 18 j 04:40	12°♄59'16	
morning max el	1222 Apr 19 j 13:56	9°♄37'49	26°26'32	desc. node	1223 Mar 19 j 06:07	13°♄02'19	
	1222 May 05 j 01:53	0°♄		morning max el	1223 Apr 01 j 11:48	20°♄47'18	27°25'25
morning set	1222 May 18 j 12:10	25°♄10'04			1223 Apr 09 j 10:57	0°♄	
asc. node	1222 May 20 j 12:53	29°♄29'01			1223 Apr 27 j 21:52	0°♄	
	1222 May 20 j 18:39	0°♄		morning set	1223 May 02 j 20:20	9°♄53'47	
				asc. node	1223 May 07 j 09:57	19°♄37'33	
superior conj	1222 May 25 j 13:20	10°♄26'19	0°50'52	max. Earth dist.	1223 May 09 j 09:15	23°♄55'58	1.32251 AU
minimum elong	1222 May 25 j 11:20	10°♄15'19	0°50'29				
max. Earth dist.	1222 May 25 j 20:53	11°♄07'43	1.32339 AU	superior conj	1223 May 10 j 01:00	25°♄22'23	0°27'30
evening rise	1222 Jun 01 j 13:03	25°♄31'42		minimum elong	1223 May 09 j 23:47	25°♄15'47	0°27'14
	1222 Jun 03 j 17:10	0°♄			1223 May 12 j 03:32	0°♄	
	1222 Jun 21 j 02:14	0°♄		evening rise	1223 May 16 j 22:51	10°♄23'03	
desc. node	1222 Jun 28 j 08:22	9°♄12'38			1223 May 27 j 00:54	0°♄	
evening max el	1222 Jul 01 j 22:19	12°♄55'13	26°51'40	evening max el	1223 Jun 13 j 19:43	24°♄23'33	25°48'59
retrograde	1222 Jul 15 j 21:10	20°♄09'59		desc. node	1223 Jun 15 j 05:22	25°♄40'36	
evening set	1222 Jul 22 j 18:57	18°♄04'59			1223 Jun 21 j 12:27	0°♄	
min. Earth dist.	1222 Jul 26 j 12:20	15°♄26'28	0.60658 AU	retrograde	1223 Jun 27 j 20:26	1°♄33'49	
inferior conj	1222 Jul 29 j 18:21	12°♄42'57	-4°-33'-50	evening set	1223 Jul 03 j 22:22	0°♄05'35	
minimum elong	1222 Jul 29 j 22:26	12°♄34'20	4°33'15		1223 Jul 04 j 03:02	30°♄	
morning rise	1222 Aug 06 j 05:06	7°♄56'27		min. Earth dist.	1223 Jul 08 j 08:11	27°♄27'08	0.58602 AU
direct	1222 Aug 08 j 14:34	7°♄34'08		inferior conj	1223 Jul 11 j 14:33	25°♄04'41	-4°-53'-1
morning max el	1222 Aug 15 j 21:01	11°♄08'43	18°05'33	minimum elong	1223 Jul 11 j 15:17	25°♄03'19	4°53'00
asc. node	1222 Aug 16 j 12:07	11°♄46'37		morning rise	1223 Jul 19 j 11:47	20°♄41'01	
	1222 Aug 28 j 08:48	0°♄		direct	1223 Jul 21 j 23:20	20°♄21'00	
morning set	1222 Aug 31 j 16:39	6°♄09'51		morning max el	1223 Jul 30 j 03:40	24°♄14'23	18°38'48
				asc. node	1223 Aug 03 j 09:11	29°♄10'43	
superior conj	1222 Sep 10 j 13:44	24°♄18'49	1°24'05		1223 Aug 03 j 23:15	0°♄	
minimum elong	1222 Sep 10 j 17:55	24°♄37'27	1°23'39	morning set	1223 Aug 15 j 09:43	20°♄08'20	
	1222 Sep 13 j 19:15	0°♄			1223 Aug 20 j 11:37	0°♄	
max. Earth dist.	1222 Sep 18 j 04:41	7°♄29'59	1.41648 AU				
evening rise	1222 Sep 23 j 17:44	16°♄35'56		superior conj	1223 Aug 24 j 04:53	7°♄05'03	1°40'12
desc. node	1222 Sep 24 j 07:44	17°♄32'02		minimum elong	1223 Aug 24 j 07:13	7°♄16'04	1°40'03
	1222 Oct 02 j 07:59	0°♄		max. Earth dist.	1223 Aug 31 j 09:38	20°♄10'35	1.39660 AU
greatest brilliancy	1222 Oct 22 j 04:27	27°♄39'56	-0.3m	evening rise	1223 Sep 04 j 13:31	27°♄20'27	
	1222 Oct 24 j 03:57	0°♄			1223 Sep 06 j 03:39	0°♄	
evening max el	1222 Oct 27 j 01:52	3°♄08'51	22°39'42	desc. node	1223 Sep 11 j 04:44	8°♄11'09	
retrograde	1222 Nov 05 j 22:33	9°♄00'27			1223 Sep 25 j 22:11	0°♄	
evening set	1222 Nov 10 j 13:27	7°♄08'53		evening max el	1223 Oct 09 j 15:23	16°♄43'27	23°59'51
asc. node	1222 Nov 12 j 11:22	5°♄16'42		retrograde	1223 Oct 20 j 14:25	23°♄09'58	
inferior conj	1222 Nov 15 j 22:59	0°♄45'51	1°10'32	evening set	1223 Oct 25 j 19:09	21°♄00'50	
minimum elong	1222 Nov 15 j 21:26	0°♄51'15	1°09'54	asc. node	1223 Oct 30 j 08:25	15°♄48'25	
min. Earth dist.	1222 Nov 15 j 18:51	1°♄00'10	0.67767 AU	min. Earth dist.	1223 Oct 30 j 15:15	15°♄25'23	0.67624 AU
	1222 Nov 16 j 12:17	30°♄		inferior conj	1223 Oct 31 j 05:52	14°♄35'53	0°18'27
morning rise	1222 Nov 21 j 05:19	24°♄33'02		minimum elong	1223 Oct 31 j 05:25	14°♄37'24	0°18'16
direct	1222 Nov 25 j 16:35	22°♄44'48		morning rise	1223 Nov 05 j 15:53	8°♄27'55	
morning max el	1222 Dec 04 j 20:22	28°♄08'16	21°57'23	direct	1223 Nov 09 j 13:25	7°♄01'44	
	1222 Dec 06 j 14:36	0°♄		morning max el	1223 Nov 17 j 15:25	11°♄42'14	20°39'08
greatest brilliancy	1222 Dec 09 j 14:05	3°♄28'55	-0.4m	greatest brilliancy	1223 Nov 23 j 15:40	18°♄46'48	-0.5m
desc. node	1222 Dec 21 j 06:59	19°♄22'38			1223 Dec 01 j 16:57	0°♄	
	1222 Dec 28 j 10:38	0°♄		desc. node	1223 Dec 08 j 04:01	9°♄34'46	
morning set	1223 Jan 06 j 10:42	14°♄03'18		morning set	1223 Dec 16 j 12:23	22°♄21'12	
max. Earth dist.	1223 Jan 12 j 10:57	23°♄53'27	1.41306 AU		1223 Dec 21 j 09:20	0°♄	
	1223 Jan 16 j 01:37	0°♄		max. Earth dist.	1223 Dec 25 j 16:45	6°♄53'55	1.43136 AU
superior conj	1223 Jan 20 j 04:31	7°♄09'58	-2°-3'-5	superior conj	1224 Jan 01 j 06:19	17°♄41'53	-2°00'-4
minimum elong	1223 Jan 20 j 05:46	7°♄15'30	2°03'05	minimum elong	1224 Jan 01 j 02:49	17°♄27'16	1°59'57
evening rise	1223 Jan 30 j 18:32	26°♄26'05			1224 Jan 08 j 11:16	0°♄	
	1223 Feb 01 j 16:46	0°♄		evening rise	1224 Jan 13 j 10:10	8°♄41'44	
asc. node	1223 Feb 08 j 10:40	11°♄59'24		asc. node	1224 Jan 26 j 07:44	0°♄19'22	
evening max el	1223 Feb 16 j 01:29	22°♄22'41	18°13'44		1224 Jan 26 j 02:19	0°♄	
retrograde	1223 Feb 23 j 00:56	25°♄52'26		evening max el	1224 Jan 30 j 13:12	5°♄30'04	18°07'47
evening set	1223 Feb 25 j 13:29	25°♄25'50		retrograde	1224 Feb 06 j 01:59	8°♄54'04	
inferior conj	1223 Mar 04 j 13:23	20°♄39'31	3°22'27	evening set	1224 Feb 08 j 19:21	8°♄18'01	
minimum elong	1223 Mar 04 j 16:17	20°♄33'05	3°22'01	inferior conj	1224 Feb 15 j 05:56	3°♄10'16	3°43'59

minimum elong	1224 Feb 15 j 06:44	3° ✕ 08'13	3°43'58	evening max el	1225 Jan 13 j 01:44	18° ≈ 49'19	18°20'49
min. Earth dist.	1224 Feb 18 j 04:38	0° ✕ 11'52	0.62004 AU	retrograde	1225 Jan 19 j 13:30	22° ≈ 20'37	
	1224 Feb 18 j 09:33	30° ≈		evening set	1225 Jan 22 j 11:43	21° ≈ 34'20	
morning rise	1224 Feb 21 j 15:44	27° ≈ 13'53		inferior conj	1225 Jan 28 j 12:28	16° ≈ 06'45	3°43'42
direct	1224 Feb 28 j 13:56	24° ≈ 44'11		minimum elong	1225 Jan 28 j 11:27	16° ≈ 09'36	3°43'38
desc. node	1224 Mar 05 j 03:11	26° ≈ 08'59		min. Earth dist.	1225 Jan 30 j 20:23	13° ≈ 28'28	0.63890 AU
	1224 Mar 10 j 19:27	0° ✕		morning rise	1225 Feb 03 j 09:37	10° ≈ 00'54	
morning max el	1224 Mar 13 j 15:47	2° ✕ 37'40	27°48'34	direct	1225 Feb 10 j 07:18	7° ≈ 13'42	
	1224 Apr 02 j 20:10	0° ✕		desc. node	1225 Feb 20 j 00:15	11° ≈ 29'59	
morning set	1224 Apr 15 j 23:47	24° ✕ 20'27		morning max el	1225 Feb 24 j 00:11	15° ≈ 06'13	27°34'55
	1224 Apr 18 j 17:23	0° ✕			1225 Mar 08 j 04:38	0° ✕	
max. Earth dist.	1224 Apr 21 j 19:06	6° ✕ 33'04	1.32545 AU		1225 Mar 26 j 11:40	0° ✕	
				morning set	1225 Mar 30 j 20:01	8° ✕ 22'09	
superior conj	1224 Apr 23 j 11:04	10° ✕ 09'45	0°01'48	max. Earth dist.	1225 Apr 04 j 22:22	18° ✕ 45'59	1.33247 AU
minimum elong	1224 Apr 23 j 10:59	10° ✕ 09'19	0°01'47				
behind sun begin	1224 Apr 23 j 05:53	9° ✕ 41'31		superior conj	1225 Apr 07 j 17:46	24° ✕ 42'39	0°-25'-22
behind sun end	1224 Apr 23 j 16:06	10° ✕ 37'08		minimum elong	1225 Apr 07 j 19:01	24° ✕ 49'19	0°25'07
asc. node	1224 Apr 23 j 07:00	9° ✕ 47'37		asc. node	1225 Apr 10 j 04:04	29° ✕ 55'28	
evening rise	1224 Apr 30 j 10:30	25° ✕ 16'27			1225 Apr 10 j 04:55	0° ✕	
	1224 May 02 j 16:49	0° ✕		evening rise	1225 Apr 14 j 22:09	10° ✕ 05'24	
	1224 May 20 j 17:22	0° ✕			1225 Apr 25 j 06:55	0° ✕	
evening max el	1224 May 25 j 11:07	5° ✕ 11'37	24°22'43	evening max el	1225 May 07 j 01:39	15° ✕ 42'17	22°46'55
desc. node	1224 Jun 01 j 02:23	10° ✕ 12'53		desc. node	1225 May 18 j 23:26	22° ✕ 13'15	
retrograde	1224 Jun 08 j 08:13	12° ✕ 11'51		retrograde	1225 May 20 j 07:42	22° ✕ 17'22	
evening set	1224 Jun 13 j 02:28	11° ✕ 21'15		evening set	1225 May 23 j 15:06	21° ✕ 53'20	
min. Earth dist.	1224 Jun 18 j 22:10	8° ✕ 25'55	0.56740 AU	min. Earth dist.	1225 May 31 j 10:06	18° ✕ 27'29	0.55417 AU
inferior conj	1224 Jun 21 j 14:46	6° ✕ 43'42	-4°-38'-34	inferior conj	1225 Jun 01 j 20:02	17° ✕ 38'48	-3°-38'-37
minimum elong	1224 Jun 21 j 10:25	6° ✕ 50'38	4°38'04	minimum elong	1225 Jun 01 j 12:24	17° ✕ 49'46	3°36'43
morning rise	1224 Jun 29 j 22:03	2° ✕ 40'37		morning rise	1225 Jun 10 j 12:30	13° ✕ 46'33	
direct	1224 Jul 02 j 13:28	2° ✕ 21'44		direct	1225 Jun 13 j 09:06	13° ✕ 27'33	
morning max el	1224 Jul 12 j 01:18	6° ✕ 46'21	19°33'19	morning max el	1225 Jun 24 j 11:55	18° ✕ 36'48	20°48'39
asc. node	1224 Jul 20 j 06:15	17° ✕ 25'21			1225 Jul 03 j 10:54	0° ✕	
	1224 Jul 27 j 04:12	0° ✕		asc. node	1225 Jul 07 j 03:18	6° ✕ 18'02	
morning set	1224 Jul 29 j 11:02	4° ✕ 32'11		morning set	1225 Jul 13 j 17:51	19° ✕ 13'02	
					1225 Jul 18 j 22:34	0° ✕	
superior conj	1224 Aug 06 j 12:13	20° ✕ 40'33	1°46'09	superior conj	1225 Jul 21 j 06:58	4° ✕ 50'54	1°43'56
minimum elong	1224 Aug 06 j 12:36	20° ✕ 42'29	1°46'09	minimum elong	1225 Jul 21 j 05:50	4° ✕ 45'07	1°43'54
	1224 Aug 11 j 08:23	0° ✕		max. Earth dist.	1225 Jul 25 j 21:44	14° ✕ 06'59	1.35815 AU
max. Earth dist.	1224 Aug 12 j 13:39	2° ✕ 16'40	1.37639 AU	evening rise	1225 Jul 30 j 01:25	22° ✕ 04'18	
evening rise	1224 Aug 16 j 09:22	9° ✕ 13'12			1225 Aug 03 j 10:09	0° ✕	
desc. node	1224 Aug 28 j 01:44	28° ✕ 40'10		desc. node	1225 Aug 14 j 22:45	18° ✕ 53'05	
	1224 Aug 28 j 22:21	0° ✕			1225 Aug 22 j 17:19	0° ✕	
	1224 Sep 20 j 18:33	0° ✕		evening max el	1225 Sep 03 j 15:07	13° ✕ 59'29	26°20'31
evening max el	1224 Sep 21 j 03:20	0° ✕ 21'44	25°15'56	retrograde	1225 Sep 16 j 08:47	21° ✕ 10'37	
retrograde	1224 Oct 03 j 02:02	7° ✕ 15'26		evening set	1225 Sep 22 j 18:14	18° ✕ 32'25	
evening set	1224 Oct 08 j 21:24	4° ✕ 49'53		min. Earth dist.	1225 Sep 26 j 22:20	14° ✕ 08'50	0.66346 AU
	1224 Oct 13 j 05:58	30° ✕		inferior conj	1225 Sep 28 j 11:12	12° ✕ 16'01	-1°-34'-17
min. Earth dist.	1224 Oct 13 j 09:12	29° ✕ 49'34	0.67156 AU	minimum elong	1225 Sep 28 j 13:39	12° ✕ 08'28	1°33'17
inferior conj	1224 Oct 14 j 10:33	28° ✕ 27'06	0°-36'-58	asc. node	1225 Oct 03 j 02:32	7° ✕ 19'43	
minimum elong	1224 Oct 14 j 11:30	28° ✕ 24'03	0°36'35	morning rise	1225 Oct 04 j 10:12	6° ✕ 26'02	
asc. node	1224 Oct 16 j 05:29	26° ✕ 10'58		direct	1225 Oct 07 j 09:53	5° ✕ 35'20	
morning rise	1224 Oct 20 j 02:12	22° ✕ 26'43		morning max el	1225 Oct 14 j 04:09	9° ✕ 19'57	18°43'31
direct	1224 Oct 23 j 11:45	21° ✕ 20'03			1225 Oct 28 j 20:52	0° ✕	
morning max el	1224 Oct 30 j 18:24	25° ✕ 27'23	19°33'44	morning set	1225 Nov 04 j 03:33	9° ✕ 56'40	
	1224 Nov 03 j 17:02	0° ✕		desc. node	1225 Nov 10 j 22:04	20° ✕ 39'11	
greatest brilliancy	1224 Nov 08 j 06:39	6° ✕ 12'19	-0.6m		1225 Nov 16 j 20:40	0° ✕	
morning set	1224 Nov 24 j 10:12	0° ✕ 37'18		superior conj	1225 Nov 20 j 09:18	5° ✕ 32'23	-1°00'-9
desc. node	1224 Nov 24 j 01:04	0° ✕ 01'58		minimum elong	1225 Nov 20 j 01:55	5° ✕ 03'22	0°59'16
	1224 Nov 24 j 00:33	0° ✕		max. Earth dist.	1225 Nov 19 j 23:20	4° ✕ 53'13	1.45059 AU
max. Earth dist.	1224 Dec 07 j 05:59	20° ✕ 40'44	1.44438 AU		1225 Dec 05 j 19:40	0° ✕	
				evening rise	1225 Dec 06 j 02:46	0° ✕ 28'25	
superior conj	1224 Dec 11 j 05:33	27° ✕ 01'39	-1°-39'-4		1225 Dec 25 j 12:27	0° ✕	
minimum elong	1224 Dec 10 j 21:28	26° ✕ 29'14	1°38'23	evening max el	1225 Dec 27 j 12:30	2° ≈ 14'42	18°52'00
	1224 Dec 13 j 01:53	0° ✕		asc. node	1225 Dec 30 j 01:49	4° ≈ 29'14	
evening rise	1224 Dec 25 j 06:03	20° ✕ 04'18		retrograde	1226 Jan 03 j 07:22	6° ≈ 04'17	
	1224 Dec 31 j 03:56	0° ≈					
asc. node	1225 Jan 12 j 04:47	17° ≈ 53'41					

evening set	1226 Jan 06 j 11:23	5° ≈ 06'37		evening rise	1226 Nov 16 j 01:00	9° ≈ 59'10	
	1226 Jan 11 j 16:43	30° R			1226 Nov 29 j 01:28	0° Θ	
inferior conj	1226 Jan 12 j 05:11	29° Θ 21'34	3°27'29	greatest brilliancy	1226 Dec 02 j 21:55	5° Θ 39'42	-0.7m
minimum elong	1226 Jan 12 j 03:01	29° Θ 28'17	3°27'08	evening max el	1226 Dec 10 j 19:30	15° Θ 42'55	19°39'43
min. Earth dist.	1226 Jan 13 j 21:44	27° Θ 16'14	0.65422 AU	asc. node	1226 Dec 16 j 22:51	19° Θ 51'07	
morning rise	1226 Jan 17 j 17:35	23° Θ 10'11		retrograde	1226 Dec 18 j 04:21	19° Θ 59'31	
direct	1226 Jan 24 j 07:34	20° Θ 19'45		evening set	1226 Dec 21 j 15:42	18° Θ 48'55	
morning max el	1226 Feb 06 j 10:04	28° Θ 01'16	26°49'03	inferior conj	1226 Dec 27 j 04:55	12° Θ 49'08	2°59'26
desc. node	1226 Feb 06 j 21:18	28° Θ 29'48		minimum elong	1226 Dec 27 j 02:16	12° Θ 57'53	2°58'46
	1226 Feb 08 j 07:31	0° ≈		min. Earth dist.	1226 Dec 28 j 07:10	11° Θ 22'50	0.66566 AU
	1226 Mar 01 j 22:05	0° ⋈		morning rise	1227 Jan 01 j 12:06	6° Θ 34'46	
morning set	1226 Mar 14 j 05:46	21° ⋈ 48'48		direct	1227 Jan 07 j 13:51	3° Θ 53'33	
	1226 Mar 18 j 10:15	0° Υ		morning max el	1227 Jan 19 j 19:06	11° Θ 09'40	25°39'00
max. Earth dist.	1226 Mar 18 j 15:20	0° Υ 25'28	1.34389 AU	desc. node	1227 Jan 24 j 18:19	16° Θ 39'36	
					1227 Feb 03 j 20:26	0° ≈	
superior conj	1226 Mar 22 j 18:58	8° Υ 54'37	0°-52'-52		1227 Feb 22 j 13:24	0° ⋈	
minimum elong	1226 Mar 22 j 21:35	9° Υ 08'14	0°52'23	morning set	1227 Feb 25 j 00:26	4° ⋈ 25'49	
asc. node	1226 Mar 28 j 01:07	19° Υ 56'51		max. Earth dist.	1227 Feb 28 j 20:10	11° ⋈ 33'19	1.35989 AU
evening rise	1226 Mar 30 j 07:55	24° Υ 43'40					
	1226 Apr 01 j 21:41	0° ⋈		superior conj	1227 Mar 06 j 11:56	22° ⋈ 36'56	-1°-19'-11
evening max el	1226 Apr 18 j 22:59	26° ⋈ 28'04	21°16'15	minimum elong	1227 Mar 06 j 15:40	22° ⋈ 55'41	1°18'38
	1226 Apr 23 j 09:53	0° Π			1227 Mar 10 j 03:23	0° Υ	
retrograde	1226 Apr 30 j 22:07	2° Π 17'58		evening rise	1227 Mar 14 j 13:40	9° Υ 03'38	
evening set	1226 May 03 j 05:57	2° Π 05'29		asc. node	1227 Mar 14 j 22:09	9° Υ 46'37	
desc. node	1226 May 05 j 20:29	1° Π 24'07			1227 Mar 26 j 00:31	0° ⋈	
	1226 May 09 j 02:37	30° R		evening max el	1227 Apr 01 j 07:28	7° ⋈ 48'16	20°00'13
inferior conj	1226 May 12 j 14:38	28° ⋈ 06'16	-1°-55'-54	retrograde	1227 Apr 11 j 13:16	12° ⋈ 44'20	
minimum elong	1226 May 12 j 09:16	28° ⋈ 13'50	1°54'03	evening set	1227 Apr 13 j 14:33	12° ⋈ 33'18	
min. Earth dist.	1226 May 12 j 22:42	27° ⋈ 54'56	0.54935 AU	inferior conj	1227 Apr 22 j 12:24	8° ⋈ 33'41	0°03'41
morning rise	1226 May 21 j 12:39	24° ⋈ 06'35		minimum elong	1227 Apr 22 j 12:34	8° ⋈ 33'26	0°03'37
direct	1226 May 24 j 19:13	23° ⋈ 43'20		transit middle	1227 Apr 22 j 12:34	8° ⋈ 33'26	0°03'37
morning max el	1226 Jun 06 j 11:47	29° ⋈ 45'11	22°21'07	transit begin	1227 Apr 22 j 08:41	8° ⋈ 39'19	
	1226 Jun 06 j 18:05	0° Π		transit end	1227 Apr 22 j 16:27	8° ⋈ 27'33	
asc. node	1226 Jun 24 j 00:21	25° Π 39'23		desc. node	1227 Apr 22 j 17:31	8° ⋈ 25'57	
	1226 Jun 26 j 04:32	0° ☿		min. Earth dist.	1227 Apr 24 j 12:27	7° ⋈ 21'13	0.55420 AU
morning set	1226 Jun 28 j 04:00	4° ☿ 04'54		morning rise	1227 May 01 j 07:42	4° ⋈ 08'31	
				direct	1227 May 05 j 09:35	3° ⋈ 31'58	
superior conj	1226 Jul 05 j 09:34	19° ☿ 25'16	1°35'12	morning max el	1227 May 19 j 04:00	10° ⋈ 21'01	24°02'29
minimum elong	1226 Jul 05 j 07:30	19° ☿ 14'21	1°35'02		1227 Jun 02 j 19:09	0° Π	
max. Earth dist.	1226 Jul 08 j 14:20	26° ☿ 06'14	1.34340 AU	asc. node	1227 Jun 10 j 21:23	15° Π 21'10	
	1226 Jul 10 j 12:10	0° ♈		morning set	1227 Jun 12 j 15:44	19° Π 01'36	
evening rise	1226 Jul 13 j 08:58	5° ♈ 41'23			1227 Jun 17 j 18:20	0° ☿	
	1226 Jul 27 j 02:32	0° ♐					
desc. node	1226 Aug 01 j 19:46	8° ♐ 42'27		superior conj	1227 Jun 19 j 17:16	4° ☿ 14'16	1°21'14
evening max el	1226 Aug 17 j 03:10	27° ♐ 29'51	27°06'02	minimum elong	1227 Jun 19 j 14:50	4° ☿ 01'07	1°20'54
	1226 Aug 19 j 22:34	0° ♊		max. Earth dist.	1227 Jun 21 j 16:15	8° ☿ 26'57	1.33261 AU
retrograde	1226 Aug 30 j 10:15	4° ♊ 48'15		evening rise	1227 Jun 27 j 03:45	19° ☿ 51'34	
evening set	1226 Sep 06 j 07:20	2° ♊ 04'36			1227 Jul 02 j 08:59	0° ♈	
	1226 Sep 08 j 14:02	30° R ♐		desc. node	1227 Jul 19 j 16:48	27° ♈ 58'03	
min. Earth dist.	1226 Sep 10 j 04:24	28° ♐ 17'55	0.65181 AU		1227 Jul 21 j 05:23	0° ♐	
inferior conj	1226 Sep 12 j 05:39	25° ♐ 58'52	-2°-31'-30	evening max el	1227 Jul 30 j 14:13	10° ♐ 41'19	27°25'30
minimum elong	1226 Sep 12 j 09:35	25° ♐ 47'44	2°30'05	retrograde	1227 Aug 13 j 05:38	17° ♐ 59'38	
morning rise	1226 Sep 18 j 13:29	20° ♐ 22'19		evening set	1227 Aug 20 j 09:41	15° ♐ 20'53	
asc. node	1226 Sep 19 j 23:34	19° ♐ 52'16		min. Earth dist.	1227 Aug 24 j 01:24	12° ♐ 08'11	0.63658 AU
direct	1226 Sep 21 j 05:48	19° ♐ 43'40		inferior conj	1227 Aug 26 j 15:23	9° ♐ 29'58	-3°-25'-51
morning max el	1226 Sep 27 j 18:24	23° ♐ 14'49	18°09'48	minimum elong	1227 Aug 26 j 20:21	9° ♐ 17'15	3°24'23
	1226 Oct 03 j 03:50	0° ♋		morning rise	1227 Sep 02 j 09:13	4° ♐ 10'09	
morning set	1226 Oct 16 j 01:55	20° ♋ 42'31		direct	1227 Sep 04 j 20:47	3° ♐ 39'59	
	1226 Oct 21 j 17:40	0° ♌		asc. node	1227 Sep 06 j 20:35	3° ♐ 59'45	
desc. node	1226 Oct 28 j 19:04	11° ♌ 22'54		morning max el	1227 Sep 11 j 10:24	7° ♐ 05'46	17°53'32
					1227 Sep 26 j 12:30	0° ♋	
superior conj	1226 Oct 30 j 13:05	14° ♌ 10'02	0°-11'-38	morning set	1227 Sep 28 j 02:30	2° ♋ 44'40	
minimum elong	1226 Oct 30 j 11:36	14° ♌ 04'08	0°11'27				
behind sun begin	1226 Oct 30 j 03:47	13° ♌ 33'08		superior conj	1227 Oct 10 j 12:34	23° ♋ 48'17	0°34'11
behind sun end	1226 Oct 30 j 19:24	14° ♌ 35'07		minimum elong	1227 Oct 10 j 16:03	24° ♋ 02'37	0°33'43
max. Earth dist.	1226 Nov 02 j 18:00	19° ♌ 14'08	1.44946 AU		1227 Oct 14 j 07:47	0° ♌	
	1226 Nov 09 j 14:55	0° ♍		desc. node	1227 Oct 15 j 16:06	2° ♌ 10'01	

max. Earth dist.	1227 Oct 16 j 11:24	3° \mathbb{M} 27'20	1.44121 AU	minimum elong	1228 Sep 20 j 19:57	5° \mathbb{A} 06'56	1°08'55
evening rise	1227 Oct 26 j 09:49	19° \mathbb{M} 01'42		max. Earth dist.	1228 Sep 28 j 00:48	17° \mathbb{A} 14'31	1.42685 AU
	1227 Nov 02 j 14:34	0° \mathbb{A}		desc. node	1228 Oct 01 j 13:07	22° \mathbb{A} 56'43	
greatest brilliancy	1227 Nov 18 j 02:39	22° \mathbb{A} 20'27	-0.5m	evening rise	1228 Oct 04 j 21:35	28° \mathbb{A} 16'17	
evening max el	1227 Nov 23 j 21:22	29° \mathbb{A} 12'50	20°41'39		1228 Oct 06 j 00:03	0° \mathbb{M}	
	1227 Nov 24 j 16:17	0° \mathbb{B}			1228 Oct 26 j 08:40	0° \mathbb{A}	
retrograde	1227 Dec 02 j 02:04	4° \mathbb{B} 03'26		greatest brilliancy	1228 Oct 31 j 23:09	7° \mathbb{A} 18'35	-0.4m
asc. node	1227 Dec 03 j 19:52	3° \mathbb{B} 46'22		evening max el	1228 Nov 05 j 17:31	12° \mathbb{A} 43'10	21°54'32
evening set	1227 Dec 05 j 22:41	2° \mathbb{B} 38'01		retrograde	1228 Nov 14 j 22:41	18° \mathbb{A} 12'07	
	1227 Dec 08 j 15:29	30° \mathbb{R} \mathbb{A}		evening set	1228 Nov 19 j 06:29	16° \mathbb{A} 30'13	
inferior conj	1227 Dec 11 j 09:14	26° \mathbb{A} 26'27	2°22'25	asc. node	1228 Nov 19 j 16:54	16° \mathbb{A} 08'29	
minimum elong	1227 Dec 11 j 06:38	26° \mathbb{A} 35'17	2°21'35	inferior conj	1228 Nov 24 j 15:58	10° \mathbb{A} 10'15	1°38'24
min. Earth dist.	1227 Dec 11 j 22:40	25° \mathbb{A} 40'36	0.67323 AU	minimum elong	1228 Nov 24 j 13:55	10° \mathbb{A} 17'21	1°37'38
morning rise	1227 Dec 16 j 14:09	20° \mathbb{A} 11'13		min. Earth dist.	1228 Nov 24 j 17:55	10° \mathbb{A} 03'30	0.67708 AU
direct	1227 Dec 22 j 01:14	17° \mathbb{A} 47'48		morning rise	1228 Nov 29 j 21:09	3° \mathbb{A} 56'06	
morning max el	1228 Jan 02 j 03:21	24° \mathbb{A} 24'35	24°14'48	direct	1228 Dec 04 j 16:56	1° \mathbb{A} 54'52	
	1228 Jan 07 j 03:49	0° \mathbb{B}		morning max el	1228 Dec 14 j 13:18	7° \mathbb{A} 44'53	22°46'31
desc. node	1228 Jan 11 j 15:20	5° \mathbb{B} 39'32		greatest brilliancy	1228 Dec 19 j 04:33	12° \mathbb{A} 55'25	-0.3m
	1228 Jan 28 j 07:28	0° \mathbb{A}		desc. node	1228 Dec 28 j 12:22	25° \mathbb{A} 14'50	
morning set	1228 Feb 06 j 22:20	15° \mathbb{A} 57'43			1228 Dec 31 j 20:06	0° \mathbb{B}	
max. Earth dist.	1228 Feb 10 j 16:34	22° \mathbb{A} 36'23	1.37970 AU	morning set	1229 Jan 17 j 17:23	26° \mathbb{B} 09'18	
	1228 Feb 14 j 17:18	0° \mathbb{H}			1229 Jan 20 j 00:53	0° \mathbb{A}	
				max. Earth dist.	1229 Jan 22 j 12:22	4° \mathbb{A} 12'00	1.40115 AU
superior conj	1228 Feb 17 j 17:21	5° \mathbb{H} 40'57	-1°-42'-4	superior conj	1229 Jan 30 j 06:48	17° \mathbb{A} 55'14	-1°-58'-20
minimum elong	1228 Feb 17 j 21:28	6° \mathbb{H} 00'39	1°41'38	minimum elong	1229 Jan 30 j 09:45	18° \mathbb{A} 08'40	1°58'12
evening rise	1228 Feb 26 j 13:03	22° \mathbb{H} 59'00			1229 Feb 05 j 18:35	0° \mathbb{H}	
asc. node	1228 Feb 29 j 19:11	29° \mathbb{H} 19'56		evening rise	1229 Feb 09 j 03:05	6° \mathbb{H} 22'15	
	1228 Mar 01 j 03:33	0° \mathbb{Y}		asc. node	1229 Feb 15 j 16:13	18° \mathbb{H} 30'47	
evening max el	1228 Mar 14 j 03:02	19° \mathbb{Y} 46'54	19°03'02		1229 Feb 23 j 04:35	0° \mathbb{Y}	
retrograde	1228 Mar 22 j 18:00	23° \mathbb{Y} 57'12		evening max el	1229 Feb 25 j 07:17	2° \mathbb{Y} 18'37	18°25'56
evening set	1228 Mar 24 j 22:22	23° \mathbb{Y} 42'18		retrograde	1229 Mar 04 j 17:54	5° \mathbb{Y} 58'52	
inferior conj	1228 Apr 02 j 01:55	19° \mathbb{Y} 28'16	1°47'03	evening set	1229 Mar 07 j 03:26	5° \mathbb{Y} 37'06	
minimum elong	1228 Apr 02 j 05:39	19° \mathbb{Y} 21'46	1°45'53	inferior conj	1229 Mar 14 j 12:33	1° \mathbb{Y} 02'47	2°57'19
min. Earth dist.	1228 Apr 05 j 03:53	17° \mathbb{Y} 20'43	0.56763 AU	minimum elong	1229 Mar 14 j 16:23	0° \mathbb{Y} 54'59	2°56'30
desc. node	1228 Apr 08 j 14:32	15° \mathbb{Y} 17'30			1229 Mar 15 j 19:13	30° \mathbb{R} \mathbb{H}	
morning rise	1228 Apr 10 j 08:46	14° \mathbb{Y} 29'35		min. Earth dist.	1229 Mar 17 j 23:04	28° \mathbb{H} 16'20	0.58669 AU
direct	1228 Apr 15 j 12:09	13° \mathbb{Y} 27'23		morning rise	1229 Mar 22 j 01:22	25° \mathbb{H} 34'16	
morning max el	1228 Apr 29 j 18:29	20° \mathbb{Y} 48'55	25°39'16	desc. node	1229 Mar 26 j 11:34	24° \mathbb{H} 04'08	
	1228 May 07 j 16:39	0° \mathbb{B}		direct	1229 Mar 28 j 04:10	23° \mathbb{H} 56'39	
	1228 May 25 j 05:39	0° \mathbb{II}			1229 Apr 09 j 19:00	0° \mathbb{Y}	
morning set	1228 May 27 j 03:24	3° \mathbb{II} 57'56		morning max el	1229 Apr 11 j 13:00	1° \mathbb{Y} 37'52	26°55'49
asc. node	1228 May 27 j 18:26	5° \mathbb{II} 17'22			1229 May 01 j 20:34	0° \mathbb{B}	
superior conj	1228 Jun 03 j 03:54	19° \mathbb{II} 10'49	1°03'00	morning set	1229 May 11 j 13:25	18° \mathbb{B} 48'23	
minimum elong	1228 Jun 03 j 01:37	18° \mathbb{II} 58'17	1°02'36	asc. node	1229 May 14 j 15:30	25° \mathbb{B} 22'52	
max. Earth dist.	1228 Jun 04 j 01:09	21° \mathbb{II} 07'05	1.32571 AU		1229 May 16 j 18:23	0° \mathbb{II}	
	1228 Jun 08 j 03:55	0° \mathbb{B}		superior conj	1229 May 18 j 15:41	4° \mathbb{II} 08'52	0°41'18
evening rise	1228 Jun 10 j 06:23	4° \mathbb{B} 24'23		minimum elong	1229 May 18 j 13:59	3° \mathbb{II} 59'28	0°40'57
	1228 Jun 24 j 02:00	0° \mathbb{Q}		max. Earth dist.	1229 May 18 j 13:29	3° \mathbb{II} 56'42	1.32253 AU
desc. node	1228 Jul 05 j 13:49	16° \mathbb{Q} 25'35		evening rise	1229 May 25 j 14:12	19° \mathbb{II} 11'14	
evening max el	1228 Jul 11 j 21:44	23° \mathbb{Q} 19'58	27°13'33		1229 May 30 j 22:35	0° \mathbb{B}	
	1228 Jul 22 j 01:32	0° \mathbb{M}			1229 Jun 19 j 01:28	0° \mathbb{Q}	
retrograde	1228 Jul 25 j 18:04	0° \mathbb{M} 35'23		desc. node	1229 Jun 22 j 10:50	3° \mathbb{Q} 45'20	
	1228 Jul 29 j 07:53	30° \mathbb{R} \mathbb{Q}		evening max el	1229 Jun 23 j 23:07	5° \mathbb{Q} 15'07	26°28'32
evening set	1228 Aug 01 j 21:25	28° \mathbb{Q} 14'16		retrograde	1229 Jul 07 j 22:44	12° \mathbb{Q} 28'04	
min. Earth dist.	1228 Aug 05 j 11:52	25° \mathbb{Q} 27'25	0.61824 AU	evening set	1229 Jul 14 j 14:00	10° \mathbb{Q} 37'28	
inferior conj	1228 Aug 08 j 13:19	22° \mathbb{Q} 41'21	-4°-12'-50	min. Earth dist.	1229 Jul 18 j 12:14	8° \mathbb{Q} 01'39	0.59783 AU
minimum elong	1228 Aug 08 j 18:15	22° \mathbb{Q} 30'08	4°11'49	inferior conj	1229 Jul 21 j 19:59	5° \mathbb{Q} 24'28	-4°-45'-11
morning rise	1228 Aug 15 j 17:50	17° \mathbb{Q} 41'50		minimum elong	1229 Jul 21 j 22:57	5° \mathbb{Q} 18'34	4°44'54
direct	1228 Aug 18 j 03:27	17° \mathbb{Q} 17'11		morning rise	1229 Jul 29 j 11:16	0° \mathbb{Q} 47'54	
asc. node	1228 Aug 23 j 17:38	19° \mathbb{Q} 35'00		direct	1229 Jul 31 j 21:28	0° \mathbb{Q} 26'40	
morning max el	1228 Aug 25 j 01:13	20° \mathbb{Q} 45'39	17°55'37	morning max el	1229 Aug 08 j 11:52	4° \mathbb{Q} 07'23	18°17'11
	1228 Aug 31 j 23:44	0° \mathbb{M}		asc. node	1229 Aug 10 j 14:42	6° \mathbb{Q} 24'20	
morning set	1228 Sep 09 j 22:58	15° \mathbb{M} 43'30		morning set	1229 Aug 24 j 09:49	29° \mathbb{Q} 24'11	
	1228 Sep 17 j 21:34	0° \mathbb{A}			1229 Aug 24 j 17:22	0° \mathbb{M}	
superior conj	1228 Sep 20 j 15:14	4° \mathbb{A} 46'33	1°09'28				

superior conj	1229 Sep 02 j 18:46	16° \mathbb{M} 58'55	1°32'16	superior conj	1230 Aug 16 j 17:30	0° \mathbb{M} 08'14	1°43'49
minimum elong	1229 Sep 02 j 22:15	17° \mathbb{M} 14'46	1°31'58	minimum elong	1230 Aug 16 j 18:59	0° \mathbb{M} 15'21	1°43'45
	1229 Sep 10 j 03:34	0° $\underline{\mathbb{A}}$			1230 Aug 16 j 15:47	0° \mathbb{M}	
max. Earth dist.	1229 Sep 10 j 08:35	0° $\underline{\mathbb{A}}$ 21'28	1.40826 AU	max. Earth dist.	1230 Aug 23 j 12:05	12° \mathbb{M} 43'47	1.38788 AU
evening rise	1229 Sep 15 j 03:36	8° $\underline{\mathbb{A}}$ 22'27		evening rise	1230 Aug 27 j 09:54	19° \mathbb{M} 36'37	
desc. node	1229 Sep 18 j 10:09	13° $\underline{\mathbb{A}}$ 40'00			1230 Sep 02 j 15:11	0° $\underline{\mathbb{A}}$	
	1229 Sep 29 j 02:17	0° \mathbb{M}		desc. node	1230 Sep 05 j 07:12	4° $\underline{\mathbb{A}}$ 15'26	
evening max el	1229 Oct 19 j 08:48	26° \mathbb{M} 15'24	23°13'41		1230 Sep 23 j 06:47	0° \mathbb{M}	
	1229 Oct 23 j 15:51	0° \mathbb{A}		evening max el	1230 Oct 01 j 21:15	9° \mathbb{M} 51'13	24°33'02
retrograde	1229 Oct 29 j 16:45	2° \mathbb{A} 22'44		retrograde	1230 Oct 13 j 07:07	16° \mathbb{M} 31'12	
evening set	1229 Nov 03 j 13:28	0° \mathbb{A} 23'24		evening set	1230 Oct 18 j 17:57	14° \mathbb{M} 14'49	
	1229 Nov 04 j 00:13	30° \mathbb{R} \mathbb{M}		min. Earth dist.	1230 Oct 23 j 10:23	8° \mathbb{M} 53'53	0.67466 AU
asc. node	1229 Nov 06 j 13:57	27° \mathbb{M} 10'43		inferior conj	1230 Oct 24 j 05:32	7° \mathbb{M} 49'56	0°-4'-42
inferior conj	1229 Nov 08 j 23:20	23° \mathbb{M} 58'51	0°48'55	minimum elong	1230 Oct 24 j 05:39	7° \mathbb{M} 49'34	0°04'40
minimum elong	1229 Nov 08 j 22:12	24° \mathbb{M} 02'43	0°48'27	transit middle	1230 Oct 24 j 05:39	7° \mathbb{M} 49'34	0°04'40
min. Earth dist.	1229 Nov 08 j 14:38	24° \mathbb{M} 28'46	0.67751 AU	transit begin	1230 Oct 24 j 03:01	7° \mathbb{M} 58'21	
morning rise	1229 Nov 14 j 07:01	17° \mathbb{M} 47'56		transit end	1230 Oct 24 j 08:16	7° \mathbb{M} 40'47	
direct	1229 Nov 18 j 12:09	16° \mathbb{M} 09'32		asc. node	1230 Oct 24 j 10:59	7° \mathbb{M} 31'43	
morning max el	1229 Nov 27 j 04:26	21° \mathbb{M} 13'47	21°22'42	morning rise	1230 Oct 29 j 17:43	1° \mathbb{M} 44'43	
greatest brilliancy	1229 Dec 02 j 07:56	27° \mathbb{M} 07'02	-0.4m	direct	1230 Nov 02 j 09:48	0° \mathbb{M} 27'23	
	1229 Dec 04 j 13:43	0° \mathbb{A}		morning max el	1230 Nov 10 j 02:54	4° \mathbb{M} 52'56	20°09'26
desc. node	1229 Dec 15 j 09:25	15° \mathbb{A} 15'41		greatest brilliancy	1230 Nov 17 j 00:12	13° \mathbb{M} 12'26	-0.6m
	1229 Dec 25 j 02:56	0° \mathbb{Z}			1230 Nov 28 j 14:10	0° \mathbb{A}	
morning set	1229 Dec 28 j 07:42	5° \mathbb{Z} 00'20		desc. node	1230 Dec 02 j 06:28	5° \mathbb{A} 34'47	
max. Earth dist.	1230 Jan 04 j 13:36	16° \mathbb{Z} 40'23	1.42136 AU	morning set	1230 Dec 07 j 04:31	13° \mathbb{A} 08'03	
					1230 Dec 17 j 22:07	0° \mathbb{Z}	
superior conj	1230 Jan 11 j 23:02	29° \mathbb{Z} 07'28	-2°-3'-46	max. Earth dist.	1230 Dec 17 j 22:11	0° \mathbb{Z} 00'15	1.43762 AU
minimum elong	1230 Jan 11 j 22:30	29° \mathbb{Z} 05'10	2°03'47				
	1230 Jan 12 j 11:12	0° \approx		superior conj	1230 Dec 23 j 13:28	9° \mathbb{Z} 08'09	-1°-53'-31
evening rise	1230 Jan 23 j 04:09	19° \approx 05'16		minimum elong	1230 Dec 23 j 07:43	8° \mathbb{Z} 44'35	1°53'11
	1230 Jan 29 j 05:50	0° \mathbb{H}			1231 Jan 04 j 22:12	0° \approx	
asc. node	1230 Feb 02 j 13:16	7° \mathbb{H} 11'59		evening rise	1231 Jan 05 j 11:55	0° \approx 59'14	
evening max el	1230 Feb 08 j 17:10	15° \mathbb{H} 15'24	18°08'49	asc. node	1231 Jan 20 j 10:19	25° \approx 14'12	
retrograde	1230 Feb 15 j 11:00	18° \mathbb{H} 41'22		evening max el	1231 Jan 23 j 05:35	28° \approx 28'57	18°11'07
evening set	1230 Feb 18 j 01:30	18° \mathbb{H} 11'00			1231 Jan 24 j 22:26	0° \mathbb{H}	
inferior conj	1230 Feb 24 j 19:17	13° \mathbb{H} 15'26	3°34'44	retrograde	1231 Jan 29 j 16:58	1° \mathbb{H} 54'38	
minimum elong	1230 Feb 24 j 21:18	13° \mathbb{H} 10'40	3°34'31	evening set	1231 Feb 01 j 12:16	1° \mathbb{H} 14'28	
min. Earth dist.	1230 Feb 28 j 00:47	10° \mathbb{H} 14'02	0.60797 AU		1231 Feb 03 j 12:31	30° \mathbb{R} \approx	
morning rise	1230 Mar 03 j 14:03	7° \mathbb{H} 26'32		inferior conj	1231 Feb 07 j 18:18	25° \approx 58'21	3°46'08
direct	1230 Mar 10 j 08:05	5° \mathbb{H} 13'05		minimum elong	1231 Feb 07 j 18:16	25° \approx 58'26	3°46'08
desc. node	1230 Mar 13 j 08:37	5° \mathbb{H} 38'09		min. Earth dist.	1231 Feb 10 j 11:08	23° \approx 06'04	0.62841 AU
morning max el	1230 Mar 24 j 13:48	13° \mathbb{H} 05'03	27°40'01	morning rise	1231 Feb 13 j 22:13	19° \approx 57'18	
	1230 Apr 07 j 01:02	0° \mathbb{Y}		direct	1231 Feb 20 j 21:20	17° \approx 17'58	
	1230 Apr 24 j 03:28	0° \mathbb{B}		desc. node	1231 Feb 28 j 05:39	19° \approx 46'24	
morning set	1230 Apr 25 j 19:51	3° \mathbb{B} 25'43		morning max el	1231 Mar 06 j 19:57	25° \approx 12'46	27°47'04
asc. node	1230 May 01 j 12:33	15° \mathbb{B} 32'24			1231 Mar 11 j 05:29	0° \mathbb{H}	
max. Earth dist.	1230 May 02 j 01:13	16° \mathbb{B} 41'26	1.32318 AU		1231 Mar 31 j 11:23	0° \mathbb{Y}	
				morning set	1231 Apr 09 j 20:32	17° \mathbb{Y} 42'50	
superior conj	1230 May 03 j 02:52	19° \mathbb{B} 01'42	0°16'50	max. Earth dist.	1231 Apr 15 j 08:31	29° \mathbb{Y} 08'36	1.32784 AU
minimum elong	1230 May 03 j 02:06	18° \mathbb{B} 57'32	0°16'40		1231 Apr 15 j 18:08	0° \mathbb{B}	
	1230 May 08 j 03:25	0° \mathbb{I}		superior conj	1231 Apr 17 j 11:44	3° \mathbb{B} 43'45	0°-9'-37
evening rise	1230 May 10 j 00:59	4° \mathbb{I} 03'47		minimum elong	1231 Apr 17 j 12:12	3° \mathbb{B} 46'15	0°09'31
	1230 May 23 j 21:57	0° \mathbb{G}		behind sun begin	1231 Apr 17 j 07:59	3° \mathbb{B} 23'30	
evening max el	1230 Jun 05 j 17:21	16° \mathbb{G} 23'39	25°14'30	behind sun end	1231 Apr 17 j 16:25	4° \mathbb{B} 09'01	
desc. node	1230 Jun 09 j 07:53	19° \mathbb{G} 28'30		asc. node	1231 Apr 18 j 09:36	5° \mathbb{B} 42'06	
retrograde	1230 Jun 19 j 17:44	23° \mathbb{G} 31'52		evening rise	1231 Apr 24 j 12:50	18° \mathbb{B} 55'48	
evening set	1230 Jun 25 j 07:22	22° \mathbb{G} 20'01			1231 Apr 29 j 23:31	0° \mathbb{I}	
min. Earth dist.	1230 Jun 30 j 05:09	19° \mathbb{G} 36'19	0.57760 AU	evening max el	1231 May 18 j 07:32	27° \mathbb{I} 00'35	23°42'20
inferior conj	1230 Jul 03 j 07:51	17° \mathbb{G} 28'29	-4°-51'-51		1231 May 21 j 19:31	0° \mathbb{G}	
minimum elong	1230 Jul 03 j 06:31	17° \mathbb{G} 30'48	4°51'49	desc. node	1231 May 27 j 04:54	2° \mathbb{G} 59'55	
morning rise	1230 Jul 11 j 09:28	13° \mathbb{G} 14'35		retrograde	1231 Jun 01 j 00:29	3° \mathbb{G} 52'36	
direct	1230 Jul 13 j 22:20	12° \mathbb{G} 55'19		evening set	1231 Jun 05 j 03:07	3° \mathbb{G} 15'28	
morning max el	1230 Jul 22 j 15:07	17° \mathbb{G} 00'17	18°59'25		1231 Jun 11 j 23:48	30° \mathbb{R} \mathbb{I}	
asc. node	1230 Jul 28 j 11:46	24° \mathbb{G} 11'27		min. Earth dist.	1231 Jun 11 j 18:10	0° \mathbb{G} 08'23	0.56087 AU
	1230 Aug 01 j 01:48	0° \mathbb{Q}		inferior conj	1231 Jun 13 j 23:30	28° \mathbb{I} 47'53	-4°-19'-7
morning set	1230 Aug 08 j 06:47	13° \mathbb{Q} 34'18		minimum elong	1231 Jun 13 j 17:14	28° \mathbb{I} 57'23	4°18'01

morning rise	1231 Jun 22 j 10:48	24° Π 50'47		morning rise	1232 Jun 01 j 18:11	5° Π 34'42	
direct	1231 Jun 25 j 04:02	24° Π 32'09		direct	1232 Jun 04 j 18:26	5° Π 14'25	
morning max el	1231 Jul 05 j 08:10	29° Π 14'54	20°02'54	morning max el	1232 Jun 16 j 13:48	10° Π 45'45	21°26'16
	1231 Jul 06 j 02:55	0° \mathfrak{S}			1232 Jun 30 j 06:25	0° \mathfrak{S}	
asc. node	1231 Jul 15 j 08:49	12° \mathfrak{S} 43'09		asc. node	1232 Jul 01 j 05:52	1° \mathfrak{S} 48'52	
morning set	1231 Jul 23 j 10:41	28° \mathfrak{S} 05'31		morning set	1232 Jul 06 j 19:09	12° \mathfrak{S} 51'32	
	1231 Jul 24 j 09:12	0° \mathfrak{Q}					
superior conj	1231 Jul 31 j 06:08	13° \mathfrak{Q} 59'22	1°46'05	superior conj	1232 Jul 14 j 04:33	28° \mathfrak{S} 20'33	1°40'57
minimum elong	1231 Jul 31 j 05:48	13° \mathfrak{Q} 57'46	1°46'06	minimum elong	1232 Jul 14 j 02:57	28° \mathfrak{S} 12'14	1°40'51
max. Earth dist.	1231 Aug 05 j 16:48	24° \mathfrak{Q} 38'14	1.36829 AU	max. Earth dist.	1232 Jul 14 j 23:45	0° \mathfrak{Q}	
	1231 Aug 08 j 13:37	0° \mathfrak{P}		evening rise	1232 Jul 18 j 04:29	6° \mathfrak{Q} 31'05	1.35141 AU
evening rise	1231 Aug 09 j 14:54	1° \mathfrak{P} 55'31		evening rise	1232 Jul 22 j 14:05	15° \mathfrak{Q} 07'33	
desc. node	1231 Aug 23 j 04:13	24° \mathfrak{P} 38'09		desc. node	1232 Jul 30 j 20:07	0° \mathfrak{P}	
	1231 Aug 26 j 17:37	0° \mathfrak{A}			1232 Jul 30 j 20:07	0° \mathfrak{P}	
evening max el	1231 Sep 14 j 09:08	23° \mathfrak{A} 30'15	25°45'20	evening max el	1232 Aug 09 j 01:14	14° \mathfrak{P} 42'06	
	1231 Sep 23 j 15:28	0° \mathfrak{M}			1232 Aug 20 j 08:38	0° \mathfrak{A}	
retrograde	1231 Sep 26 j 16:47	0° \mathfrak{M} 32'41		retrograde	1232 Aug 26 j 21:20	7° \mathfrak{A} 06'59	26°42'45
	1231 Sep 29 j 13:37	30° \mathfrak{R} \mathfrak{A}		evening set	1232 Sep 08 j 21:10	14° \mathfrak{A} 21'28	
evening set	1231 Oct 02 j 18:09	28° \mathfrak{A} 01'26		min. Earth dist.	1232 Sep 15 j 12:00	11° \mathfrak{A} 40'08	
min. Earth dist.	1231 Oct 07 j 02:42	23° \mathfrak{A} 16'18	0.66852 AU	inferior conj	1232 Sep 19 j 13:07	7° \mathfrak{A} 32'17	0.65894 AU
inferior conj	1231 Oct 08 j 08:45	21° \mathfrak{A} 40'44	-1°-1'-7	inferior conj	1232 Sep 21 j 07:03	5° \mathfrak{A} 28'01	-1°-58'-40
minimum elong	1231 Oct 08 j 10:20	21° \mathfrak{A} 35'44	1°00'29	minimum elong	1232 Sep 21 j 10:10	5° \mathfrak{A} 18'47	1°57'27
asc. node	1231 Oct 11 j 08:02	18° \mathfrak{A} 07'41			1232 Sep 26 j 21:48	30° \mathfrak{R} \mathfrak{P}	
morning rise	1231 Oct 14 j 03:18	15° \mathfrak{A} 44'06		morning rise	1232 Sep 27 j 09:37	29° \mathfrak{P} 43'12	
direct	1231 Oct 17 j 08:23	14° \mathfrak{A} 44'37		asc. node	1232 Sep 27 j 05:04	29° \mathfrak{P} 49'23	
morning max el	1231 Oct 24 j 08:54	18° \mathfrak{A} 41'14	19°10'18	direct	1232 Sep 30 j 05:59	28° \mathfrak{P} 57'55	
	1231 Nov 02 j 03:53	0° \mathfrak{M}		morning max el	1232 Oct 03 j 15:58	0° \mathfrak{A}	
morning set	1231 Nov 16 j 08:24	21° \mathfrak{M} 44'52		morning max el	1232 Oct 06 j 20:51	2° \mathfrak{A} 35'29	18°27'09
desc. node	1231 Nov 19 j 03:29	26° \mathfrak{M} 06'33			1232 Oct 25 j 12:44	0° \mathfrak{M}	
	1231 Nov 21 j 15:15	0° \mathfrak{X}		morning set	1232 Oct 26 j 14:04	1° \mathfrak{M} 42'03	
max. Earth dist.	1231 Nov 30 j 13:23	13° \mathfrak{X} 59'42	1.44794 AU	desc. node	1232 Nov 05 j 00:31	16° \mathfrak{M} 47'15	
superior conj	1231 Dec 03 j 02:50	18° \mathfrak{X} 02'31	-1°-24'-27	superior conj	1232 Nov 11 j 03:53	26° \mathfrak{M} 28'48	0°-40'-1
minimum elong	1231 Dec 02 j 18:10	17° \mathfrak{X} 28'13	1°23'35	minimum elong	1232 Nov 10 j 22:41	26° \mathfrak{M} 08'23	0°39'21
	1231 Dec 10 j 14:21	0° \mathfrak{Z}		max. Earth dist.	1232 Nov 12 j 08:21	28° \mathfrak{M} 20'41	1.45110 AU
evening rise	1231 Dec 17 j 22:10	11° \mathfrak{Z} 56'43			1232 Nov 13 j 09:38	0° \mathfrak{X}	
	1231 Dec 28 j 23:52	0° \mathfrak{A}		evening rise	1232 Nov 27 j 08:58	21° \mathfrak{X} 57'32	
evening max el	1232 Jan 06 j 17:44	11° \mathfrak{A} 51'38	18°31'59		1232 Dec 02 j 11:18	0° \mathfrak{Z}	
asc. node	1232 Jan 07 j 07:21	12° \mathfrak{A} 25'13		greatest brilliancy	1232 Dec 09 j 19:38	11° \mathfrak{Z} 26'45	-0.7m
retrograde	1232 Jan 13 j 07:28	15° \mathfrak{A} 29'05		evening max el	1232 Dec 20 j 03:11	25° \mathfrak{Z} 18'55	19°10'16
evening set	1232 Jan 16 j 08:05	14° \mathfrak{A} 38'02		asc. node	1232 Dec 24 j 04:22	28° \mathfrak{Z} 31'31	
inferior conj	1232 Jan 22 j 05:33	9° \mathfrak{A} 02'56	3°38'26	retrograde	1232 Dec 27 j 03:01	29° \mathfrak{Z} 18'38	
minimum elong	1232 Jan 22 j 03:59	9° \mathfrak{A} 07'36	3°38'16	evening set	1232 Dec 30 j 10:02	28° \mathfrak{Z} 15'28	
min. Earth dist.	1232 Jan 24 j 06:56	6° \mathfrak{A} 37'32	0.64596 AU	inferior conj	1233 Jan 05 j 01:37	22° \mathfrak{Z} 23'39	3°16'47
morning rise	1232 Jan 27 j 22:34	2° \mathfrak{A} 54'37		minimum elong	1233 Jan 04 j 23:10	22° \mathfrak{Z} 31'27	3°16'18
direct	1232 Feb 03 j 17:52	0° \mathfrak{A} 04'12		min. Earth dist.	1233 Jan 06 j 11:48	20° \mathfrak{Z} 34'51	0.65968 AU
desc. node	1232 Feb 15 j 02:41	5° \mathfrak{A} 52'59		morning rise	1233 Jan 10 j 11:27	16° \mathfrak{Z} 10'54	
morning max el	1232 Feb 17 j 05:02	7° \mathfrak{A} 53'00	27°18'49	direct	1233 Jan 16 j 20:39	13° \mathfrak{Z} 23'23	
	1232 Mar 05 j 08:33	0° \mathfrak{H}		morning max el	1233 Jan 29 j 14:44	20° \mathfrak{Z} 54'56	26°21'34
	1232 Mar 22 j 18:06	0° \mathfrak{Y}		desc. node	1233 Jan 31 j 23:43	23° \mathfrak{Z} 25'23	
morning set	1232 Mar 23 j 12:41	1° \mathfrak{Y} 30'15			1233 Feb 06 j 11:50	0° \mathfrak{A}	
max. Earth dist.	1232 Mar 28 j 07:35	11° \mathfrak{Y} 06'37	1.33679 AU		1233 Feb 26 j 12:20	0° \mathfrak{H}	
				morning set	1233 Mar 06 j 16:35	14° \mathfrak{H} 36'53	
superior conj	1232 Mar 31 j 16:20	18° \mathfrak{Y} 08'14	0°-37'-5	max. Earth dist.	1233 Mar 10 j 19:33	22° \mathfrak{H} 31'40	1.35026 AU
minimum elong	1232 Mar 31 j 18:11	18° \mathfrak{Y} 17'57	0°36'43		1233 Mar 14 j 13:15	0° \mathfrak{Y}	
asc. node	1232 Apr 04 j 06:39	25° \mathfrak{Y} 47'27		superior conj	1233 Mar 15 j 14:22	2° \mathfrak{Y} 08'07	-1°-4'-19
	1232 Apr 06 j 06:05	0° \mathfrak{B}		minimum elong	1233 Mar 15 j 17:31	2° \mathfrak{Y} 24'15	1°03'46
evening rise	1232 Apr 07 j 23:53	3° \mathfrak{B} 40'31		asc. node	1233 Mar 22 j 03:41	15° \mathfrak{Y} 44'10	
	1232 Apr 22 j 15:05	0° \mathfrak{I}		evening rise	1233 Mar 23 j 08:12	18° \mathfrak{Y} 11'37	
evening max el	1232 Apr 29 j 00:16	7° \mathfrak{I} 34'03	22°07'03		1233 Mar 29 j 07:23	0° \mathfrak{B}	
retrograde	1232 May 11 j 18:43	13° \mathfrak{I} 51'12		evening max el	1233 Apr 11 j 01:56	18° \mathfrak{B} 31'56	20°41'38
desc. node	1232 May 13 j 01:54	13° \mathfrak{I} 47'24		retrograde	1233 Apr 22 j 07:45	23° \mathfrak{B} 59'03	
evening set	1232 May 14 j 14:09	13° \mathfrak{I} 33'43		evening set	1233 Apr 24 j 11:13	23° \mathfrak{B} 47'56	
inferior conj	1232 May 23 j 22:43	9° \mathfrak{I} 27'45	-2°-59'-15	desc. node	1233 Apr 29 j 22:56	21° \mathfrak{B} 52'48	
minimum elong	1232 May 23 j 15:19	9° \mathfrak{I} 38'08	2°57'02	inferior conj	1233 May 03 j 16:42	19° \mathfrak{B} 50'17	-1°-4'-59
min. Earth dist.	1232 May 23 j 06:05	9° \mathfrak{I} 51'06	0.55099 AU	minimum elong	1233 May 03 j 13:37	19° \mathfrak{B} 54'43	1°03'53
				min. Earth dist.	1233 May 04 j 18:43	19° \mathfrak{B} 13'00	0.55025 AU

morning rise	1233 May 12 j 14:51	15°♄42'03		minimum elong	1234 Apr 13 j 22:16	0°♄24'10	0°50'15
direct	1233 May 16 j 04:30	15°♄14'37			1234 Apr 14 j 13:20	30°♄♂	
morning max el	1233 May 29 j 09:43	21°♄37'11	23°04'03	min. Earth dist.	1234 Apr 16 j 09:13	28°♂50'21	0.55894 AU
	1233 Jun 05 j 15:14	0°♂		desc. node	1234 Apr 16 j 19:57	28°♂33'49	
asc. node	1233 Jun 18 j 02:54	21°♂19'33		morning rise	1234 Apr 22 j 11:09	25°♂48'04	
morning set	1233 Jun 21 j 06:10	27°♂45'55		direct	1234 Apr 26 j 23:14	25°♂02'25	
	1233 Jun 22 j 07:36	0°♄			1234 May 08 j 15:05	0°♄	
				morning max el	1234 May 11 j 00:44	2°♄07'34	24°45'15
superior conj	1233 Jun 28 j 09:35	13°♄01'37	1°29'52		1234 May 30 j 09:50	0°♂	
minimum elong	1233 Jun 28 j 07:17	12°♄49'24	1°29'37	asc. node	1234 Jun 04 j 23:58	11°♂08'29	
max. Earth dist.	1233 Jul 01 j 01:21	18°♄39'22	1.33826 AU	morning set	1234 Jun 05 j 18:05	12°♂43'32	
evening rise	1233 Jul 06 j 02:49	28°♄59'23					
	1233 Jul 06 j 15:06	0°♂		superior conj	1234 Jun 12 j 18:49	27°♂55'06	1°13'59
	1233 Jul 23 j 23:15	0°♄		minimum elong	1234 Jun 12 j 16:23	27°♂41'53	1°13'36
desc. node	1233 Jul 26 j 22:15	4°♄18'24			1234 Jun 13 j 17:49	0°♄	
evening max el	1233 Aug 09 j 09:06	20°♄30'14	27°17'53	max. Earth dist.	1234 Jun 14 j 06:33	1°♄08'55	1.32913 AU
retrograde	1233 Aug 22 j 19:54	27°♄48'58		evening rise	1234 Jun 20 j 01:19	13°♄20'25	
evening set	1233 Aug 29 j 20:55	25°♄05'44			1234 Jun 28 j 18:19	0°♂	
min. Earth dist.	1233 Sep 02 j 15:20	21°♄34'27	0.64576 AU	desc. node	1234 Jul 13 j 19:16	23°♂15'35	
inferior conj	1233 Sep 04 j 22:06	19°♄06'07	-2°-55'-8		1234 Jul 19 j 09:29	0°♄	
minimum elong	1233 Sep 05 j 02:33	18°♄54'01	2°53'38	evening max el	1234 Jul 22 j 18:44	3°♄28'21	27°24'24
morning rise	1233 Sep 11 j 10:05	13°♄36'30		retrograde	1234 Aug 05 j 12:39	10°♄46'21	
direct	1233 Sep 14 j 00:08	13°♄01'48		evening set	1234 Aug 12 j 17:36	8°♄13'03	
asc. node	1233 Sep 14 j 02:05	13°♄01'50		min. Earth dist.	1234 Aug 16 j 07:51	5°♄12'59	0.62911 AU
morning max el	1233 Sep 20 j 12:13	16°♄29'21	18°00'49	inferior conj	1234 Aug 19 j 03:12	2°♄29'20	-3°-47'-4
	1233 Sep 30 j 05:06	0°♄		minimum elong	1234 Aug 19 j 08:20	2°♄16'49	3°45'43
morning set	1233 Oct 08 j 00:15	13°♄02'18			1234 Aug 21 j 19:36	30°♄♂	
	1233 Oct 18 j 05:21	0°♄		morning rise	1234 Aug 26 j 01:34	27°♄18'05	
				direct	1234 Aug 28 j 11:53	26°♄50'41	
superior conj	1233 Oct 21 j 14:13	5°♄27'07	0°08'45	asc. node	1234 Aug 31 j 23:09	27°♄47'45	
minimum elong	1233 Oct 21 j 15:15	5°♄31'17	0°08'36		1234 Sep 03 j 21:18	0°♄	
behind sun begin	1233 Oct 21 j 06:18	4°♄55'17		morning max el	1234 Sep 04 j 04:09	0°♄16'35	17°52'09
behind sun end	1233 Oct 22 j 00:12	6°♄07'13		morning set	1234 Sep 20 j 09:57	25°♄29'51	
desc. node	1233 Oct 22 j 21:32	7°♄32'43			1234 Sep 22 j 23:08	0°♄	
max. Earth dist.	1233 Oct 26 j 03:09	12°♄41'28	1.44678 AU				
	1233 Nov 06 j 05:11	0°♄		superior conj	1234 Oct 02 j 01:03	15°♄38'46	0°50'40
evening rise	1233 Nov 06 j 23:54	1°♄12'13		minimum elong	1234 Oct 02 j 05:30	15°♄57'22	0°50'05
	1233 Nov 26 j 05:42	0°♄		max. Earth dist.	1234 Oct 08 j 18:38	26°♄43'29	1.43569 AU
greatest brilliancy	1233 Nov 26 j 11:33	0°♄20'09	-0.6m	desc. node	1234 Oct 09 j 18:34	28°♄19'49	
evening max el	1233 Dec 03 j 08:05	8°♄47'41	20°04'22		1234 Oct 10 j 19:36	0°♄	
retrograde	1233 Dec 11 j 00:43	13°♄18'16		evening rise	1234 Oct 17 j 07:37	10°♄13'14	
asc. node	1233 Dec 11 j 01:22	13°♄18'15			1234 Oct 30 j 10:18	0°♄	
evening set	1233 Dec 14 j 15:47	12°♄01'28		greatest brilliancy	1234 Nov 11 j 02:02	16°♄12'39	-0.4m
inferior conj	1233 Dec 20 j 03:37	5°♄55'59	2°44'42	evening max el	1234 Nov 16 j 07:23	22°♄17'03	21°11'34
minimum elong	1233 Dec 20 j 00:56	6°♄05'00	2°43'57	retrograde	1234 Nov 24 j 22:18	27°♄24'15	
min. Earth dist.	1233 Dec 21 j 00:09	4°♄47'09	0.66935 AU	asc. node	1234 Nov 27 j 22:25	26°♄33'47	
morning rise	1233 Dec 25 j 09:30	29°♄40'54		evening set	1234 Nov 28 j 23:20	25°♄52'08	
	1233 Dec 25 j 01:14	30°♄♄		inferior conj	1234 Dec 04 j 09:14	19°♄36'23	2°04'33
direct	1233 Dec 31 j 05:02	27°♄06'46		minimum elong	1234 Dec 04 j 06:49	19°♄44'42	2°03'42
	1234 Jan 07 j 07:16	0°♄		min. Earth dist.	1234 Dec 04 j 17:40	19°♄07'19	0.67523 AU
morning max el	1234 Jan 11 j 23:35	4°♄07'45	25°04'20	morning rise	1234 Dec 09 j 13:56	13°♄21'06	
desc. node	1234 Jan 18 j 20:45	11°♄58'43		direct	1234 Dec 14 j 18:26	11°♄06'47	
	1234 Jan 31 j 19:59	0°♄		morning max el	1234 Dec 25 j 08:14	17°♄24'56	23°37'11
morning set	1234 Feb 17 j 03:18	26°♄48'55			1235 Jan 04 j 19:33	0°♄	
	1234 Feb 18 j 21:40	0°♄		desc. node	1235 Jan 05 j 17:48	1°♄15'05	
max. Earth dist.	1234 Feb 20 j 20:29	3°♄35'19	1.36797 AU		1235 Jan 24 j 21:47	0°♄	
				morning set	1235 Jan 29 j 14:33	7°♄48'46	
superior conj	1234 Feb 27 j 02:56	15°♄35'35	-1°-29'-28	max. Earth dist.	1235 Feb 02 j 15:18	14°♄46'44	1.38873 AU
minimum elong	1234 Feb 27 j 06:58	15°♄55'26	1°28'57				
	1234 Mar 06 j 07:20	0°♄		superior conj	1235 Feb 10 j 02:12	28°♄20'00	-1°-50'00
evening rise	1234 Mar 07 j 11:39	2°♄22'35		minimum elong	1235 Feb 10 j 06:03	28°♄38'07	1°49'42
asc. node	1234 Mar 09 j 00:43	5°♄27'49			1235 Feb 10 j 23:26	0°♄	
	1234 Mar 24 j 11:40	0°♄		evening rise	1235 Feb 19 j 07:30	16°♄05'22	
evening max el	1234 Mar 24 j 15:18	0°♄08'51	19°33'24	asc. node	1235 Feb 23 j 21:46	23°♄52'25	
retrograde	1234 Apr 03 j 03:57	4°♄44'23			1235 Feb 26 j 18:01	0°♄	
evening set	1234 Apr 05 j 05:42	4°♄32'18		evening max el	1235 Mar 07 j 15:01	12°♄23'00	18°44'48
inferior conj	1234 Apr 13 j 20:09	0°♄27'34	0°51'00	retrograde	1235 Mar 15 j 16:35	16°♄18'22	

evening set	1235 Mar 17 j 23:00	16° Υ 00'56		retrograde	1236 Feb 26 j 00:02	28° Υ 38'57	
inferior conj	1235 Mar 25 j 18:32	11° Υ 39'02	2°21'06	evening set	1236 Feb 28 j 11:54	28° Υ 13'35	
minimum elong	1235 Mar 25 j 22:40	11° Υ 31'21	2°19'58	inferior conj	1236 Mar 06 j 14:04	23° Υ 30'20	3°16'48
min. Earth dist.	1235 Mar 29 j 02:19	9° Υ 12'02	0.57524 AU	minimum elong	1236 Mar 06 j 17:15	23° Υ 23'26	3°16'15
morning rise	1235 Apr 02 j 18:00	6° Υ 26'24		min. Earth dist.	1236 Mar 09 j 23:52	20° Υ 34'27	0.59577 AU
desc. node	1235 Apr 03 j 17:00	6° Υ 02'37		morning rise	1236 Mar 13 j 19:01	17° Υ 52'17	
direct	1235 Apr 08 j 08:07	5° Υ 09'35		direct	1236 Mar 20 j 05:47	15° Υ 58'36	
morning max el	1235 Apr 22 j 16:28	12° Υ 41'43	26°15'01	desc. node	1236 Mar 20 j 14:02	15° Υ 58'55	
	1235 May 06 j 05:37	0° ♄		morning max el	1236 Apr 03 j 13:20	23° Υ 44'45	27°18'51
morning set	1235 May 21 j 05:15	27° ♄ 37'49			1236 Apr 09 j 04:40	0° Υ	
	1235 May 22 j 08:07	0° ♂			1236 Apr 28 j 08:29	0° ♄	
asc. node	1235 May 22 j 21:02	1° ♂ 09'03		morning set	1236 May 04 j 13:58	12° ♄ 23'03	
				asc. node	1236 May 08 j 18:06	21° ♄ 16'30	
superior conj	1235 May 28 j 06:11	12° ♂ 53'04	0°54'11	max. Earth dist.	1236 May 11 j 05:39	26° ♄ 42'00	1.32242 AU
minimum elong	1235 May 28 j 04:05	12° ♂ 41'34	0°53'47				
max. Earth dist.	1235 May 28 j 17:08	13° ♂ 53'15	1.32389 AU	superior conj	1236 May 11 j 17:55	27° ♄ 49'26	0°31'13
evening rise	1235 Jun 04 j 06:28	28° ♂ 00'03		minimum elong	1236 May 11 j 16:34	27° ♄ 42'01	0°30'56
	1235 Jun 05 j 05:38	0° ♄			1236 May 12 j 17:40	0° ♂	
	1235 Jun 22 j 03:00	0° ♂		evening rise	1236 May 18 j 15:50	12° ♂ 50'12	
desc. node	1235 Jun 30 j 16:18	11° ♂ 16'58			1236 May 27 j 09:01	0° ♄	
evening max el	1235 Jul 04 j 23:52	15° ♂ 49'06	26°58'23	evening max el	1236 Jun 15 j 22:23	27° ♄ 24'20	26°00'05
retrograde	1235 Jul 18 j 22:13	23° ♂ 04'00		desc. node	1236 Jun 16 j 13:20	27° ♄ 59'20	
evening set	1235 Jul 25 j 21:46	20° ♂ 54'33			1236 Jun 18 j 21:50	0° ♂	
min. Earth dist.	1235 Jul 29 j 14:05	18° ♂ 14'16	0.60965 AU	retrograde	1236 Jun 29 j 22:49	4° ♂ 35'06	
inferior conj	1235 Aug 01 j 19:04	15° ♂ 29'34	-4°-28'-57	evening set	1236 Jul 06 j 04:41	3° ♂ 00'58	
minimum elong	1235 Aug 01 j 23:27	15° ♂ 20'08	4°28'15	min. Earth dist.	1236 Jul 10 j 10:58	0° ♂ 23'50	0.58904 AU
morning rise	1235 Aug 09 j 04:12	10° ♂ 39'31			1236 Jul 11 j 00:12	30° ♄	
direct	1235 Aug 11 j 13:36	10° ♂ 16'41		inferior conj	1236 Jul 13 j 18:05	27° ♄ 57'01	-4°-51'-58
morning max el	1235 Aug 18 j 17:34	13° ♂ 49'30	18°02'18	minimum elong	1236 Jul 13 j 19:29	27° ♄ 54'24	4°51'56
asc. node	1235 Aug 18 j 20:13	13° ♂ 56'00		morning rise	1236 Jul 21 j 13:47	23° ♄ 29'59	
	1235 Aug 29 j 17:50	0° ♄		direct	1236 Jul 24 j 00:59	23° ♄ 09'39	
morning set	1235 Sep 03 j 13:09	8° ♄ 47'46		morning max el	1236 Aug 01 j 01:20	26° ♄ 59'20	18°32'31
					1236 Aug 03 j 19:08	0° ♂	
superior conj	1235 Sep 13 j 14:52	27° ♄ 09'45	1°20'37	asc. node	1236 Aug 04 j 17:18	1° ♂ 11'16	
minimum elong	1235 Sep 13 j 19:15	27° ♄ 29'06	1°20'10	morning set	1236 Aug 17 j 04:45	22° ♂ 42'00	
	1235 Sep 15 j 05:36	0° ♄			1236 Aug 20 j 23:25	0° ♄	
max. Earth dist.	1235 Sep 21 j 05:11	10° ♄ 12'43	1.41929 AU				
desc. node	1235 Sep 26 j 15:36	19° ♄ 05'27		superior conj	1236 Aug 26 j 03:12	9° ♄ 47'35	1°38'25
evening rise	1235 Sep 27 j 01:44	19° ♄ 45'59		minimum elong	1236 Aug 26 j 05:51	9° ♄ 59'56	1°38'16
	1235 Oct 03 j 14:56	0° ♄		max. Earth dist.	1236 Sep 02 j 11:02	23° ♄ 00'55	1.39967 AU
	1235 Oct 24 j 22:01	0° ♄		evening rise	1236 Sep 06 j 17:53	0° ♄ 20'12	
greatest brilliancy	1235 Oct 25 j 07:01	0° ♄ 27'25	-0.3m		1236 Sep 06 j 13:04	0° ♄	
evening max el	1235 Oct 30 j 01:21	5° ♄ 48'14	22°27'54	desc. node	1236 Sep 12 j 12:37	9° ♄ 45'42	
retrograde	1235 Nov 08 j 17:57	11° ♄ 33'54			1236 Sep 26 j 01:11	0° ♄	
evening set	1235 Nov 13 j 06:58	9° ♄ 44'54		evening max el	1236 Oct 11 j 15:17	19° ♄ 22'05	23°47'57
asc. node	1235 Nov 14 j 19:27	8° ♄ 18'59		retrograde	1236 Oct 22 j 10:23	25° ♄ 43'36	
inferior conj	1235 Nov 18 j 16:28	3° ♄ 22'39	1°18'03	evening set	1236 Oct 27 j 13:03	23° ♄ 36'57	
minimum elong	1235 Nov 18 j 14:46	3° ♄ 28'33	1°17'23	asc. node	1236 Oct 31 j 16:31	18° ♄ 56'50	
min. Earth dist.	1235 Nov 18 j 13:55	3° ♄ 31'30	0.67762 AU	inferior conj	1236 Nov 01 j 23:30	17° ♄ 12'02	0°26'37
	1235 Nov 21 j 05:14	30° ♄		minimum elong	1236 Nov 01 j 22:52	17° ♄ 14'11	0°26'20
morning rise	1235 Nov 23 j 22:25	27° ♄ 09'25		min. Earth dist.	1236 Nov 01 j 10:24	17° ♄ 56'34	0.67670 AU
direct	1235 Nov 28 j 11:54	25° ♄ 17'43		morning rise	1236 Nov 07 j 08:52	11° ♄ 03'20	
	1235 Dec 07 j 00:22	0° ♄		direct	1236 Nov 11 j 08:20	9° ♄ 34'02	
morning max el	1235 Dec 07 j 19:48	0° ♄ 47'49	22°09'54	morning max el	1236 Nov 19 j 13:46	14° ♄ 20'11	20°50'02
greatest brilliancy	1235 Dec 12 j 11:18	6° ♄ 00'58	-0.3m	greatest brilliancy	1236 Nov 25 j 07:46	21° ♄ 02'55	-0.5m
desc. node	1235 Dec 23 j 14:50	21° ♄ 02'25			1236 Dec 01 j 20:45	0° ♄	
	1235 Dec 29 j 16:55	0° ♄		desc. node	1236 Dec 09 j 11:51	11° ♄ 11'30	
morning set	1236 Jan 09 j 21:05	17° ♄ 24'35		morning set	1236 Dec 19 j 01:26	25° ♄ 48'53	
max. Earth dist.	1236 Jan 15 j 12:31	26° ♄ 42'15	1.41006 AU		1236 Dec 21 j 17:30	0° ♄	
	1236 Jan 17 j 11:16	0° ♄		max. Earth dist.	1236 Dec 27 j 17:17	9° ♄ 35'02	1.42894 AU
superior conj	1236 Jan 23 j 07:23	10° ♄ 10'03	-2°-2'-16	superior conj	1237 Jan 03 j 13:00	20° ♄ 52'12	-2°-1'-37
minimum elong	1236 Jan 23 j 09:09	10° ♄ 17'58	2°02'14	minimum elong	1237 Jan 03 j 10:19	20° ♄ 40'54	2°01'33
evening rise	1236 Feb 02 j 16:31	29° ♄ 12'33			1237 Jan 08 j 20:56	0° ♄	
	1236 Feb 03 j 02:42	0° ♄		evening rise	1237 Jan 15 j 10:41	11° ♄ 35'13	
asc. node	1236 Feb 10 j 18:49	13° ♄ 51'44			1237 Jan 26 j 03:31	0° ♄	
evening max el	1236 Feb 18 j 22:10	25° ♄ 07'07	18°16'14	asc. node	1237 Jan 27 j 15:51	2° ♄ 17'17	

evening max el	1237 Feb 01 j 09:28	8° X 11'41	18°07'26	minimum elong	1237 Dec 14 j 08:19	29° Z 50'40	1°42'53
retrograde	1237 Feb 07 j 23:14	11° X 35'48		evening rise	1237 Dec 28 j 09:42	23° Z 05'36	
evening set	1237 Feb 10 j 15:52	11° X 01'14			1238 Jan 01 j 11:33	0° \approx	
inferior conj	1237 Feb 17 j 04:11	5° X 56'29	3°42'18	asc. node	1238 Jan 14 j 12:52	19° \approx 58'56	
minimum elong	1237 Feb 17 j 05:18	5° X 53'41	3°42'14	evening max el	1238 Jan 15 j 21:58	21° \approx 29'01	18°17'45
min. Earth dist.	1237 Feb 20 j 04:46	2° X 56'40	0.61694 AU	retrograde	1238 Jan 22 j 09:27	24° \approx 58'41	
morning rise	1237 Feb 23 j 16:12	0° X 01'47		evening set	1238 Jan 25 j 06:51	24° \approx 14'03	
	1237 Feb 23 j 17:13	30° R \approx		inferior conj	1238 Jan 31 j 08:51	18° \approx 49'21	3°44'52
direct	1237 Mar 02 j 13:36	27° \approx 36'03		minimum elong	1238 Jan 31 j 08:05	18° \approx 51'30	3°44'50
desc. node	1237 Mar 07 j 11:04	28° \approx 41'57		min. Earth dist.	1238 Feb 02 j 19:08	16° \approx 06'54	0.63623 AU
	1237 Mar 09 j 22:39	0° X		morning rise	1238 Feb 06 j 07:37	12° \approx 44'31	
morning max el	1237 Mar 16 j 16:36	5° X 29'14	27°47'38	direct	1238 Feb 13 j 05:50	9° \approx 58'52	
	1237 Apr 04 j 02:22	0° Y		desc. node	1238 Feb 22 j 08:05	13° \approx 44'35	
morning set	1237 Apr 18 j 18:17	26° Y 52'56		morning max el	1238 Feb 27 j 00:32	17° \approx 52'38	27°39'14
	1237 Apr 20 j 06:33	0° Z			1238 Mar 09 j 04:45	0° X	
max. Earth dist.	1237 Apr 24 j 16:13	9° Z 22'10	1.32472 AU		1238 Mar 27 j 22:08	0° Y	
asc. node	1237 Apr 25 j 15:10	11° Z 26'41		morning set	1238 Apr 02 j 15:44	10° Y 58'49	
				max. Earth dist.	1238 Apr 07 j 20:39	21° Y 39'02	1.33108 AU
superior conj	1237 Apr 26 j 04:21	12° Z 38'32	0°05'50				
minimum elong	1237 Apr 26 j 04:04	12° Z 37'02	0°05'46	superior conj	1238 Apr 10 j 11:37	27° Y 13'45	0°-21'-11
behind sun begin	1237 Apr 25 j 23:17	12° Z 10'55		minimum elong	1238 Apr 10 j 12:39	27° Y 19'18	0°20'59
behind sun end	1237 Apr 26 j 08:52	13° Z 03'10			1238 Apr 11 j 18:34	0° Z	
evening rise	1237 May 03 j 03:19	27° Z 43'47		asc. node	1238 Apr 12 j 12:10	1° Z 34'55	
	1237 May 04 j 05:12	0° II		evening rise	1238 Apr 17 j 15:03	12° Z 33'30	
	1237 May 21 j 10:24	0° Z			1238 Apr 26 j 12:54	0° II	
evening max el	1237 May 28 j 14:22	8° Z 17'14	24°36'34	evening max el	1238 May 10 j 04:28	18° II 48'12	23°01'16
desc. node	1237 Jun 03 j 10:21	12° Z 51'41		desc. node	1238 May 21 j 07:22	25° II 16'52	
retrograde	1237 Jun 11 j 12:31	15° Z 19'59		retrograde	1238 May 23 j 13:59	25° II 28'40	
evening set	1237 Jun 16 j 12:07	14° Z 24'02		evening set	1238 May 27 j 02:05	25° II 01'44	
min. Earth dist.	1237 Jun 22 j 01:31	11° Z 32'15	0.56990 AU	min. Earth dist.	1238 Jun 03 j 13:39	21° II 41'06	0.55564 AU
inferior conj	1237 Jun 24 j 21:22	9° Z 42'51	-4°-43'-33	inferior conj	1238 Jun 05 j 05:08	20° II 43'50	-3°-50'-52
minimum elong	1237 Jun 24 j 17:47	9° Z 48'40	4°43'13	minimum elong	1238 Jun 04 j 21:40	20° II 54'41	3°49'08
morning rise	1237 Jul 03 j 03:12	5° Z 37'19		morning rise	1238 Jun 13 j 20:19	16° II 50'53	
direct	1237 Jul 05 j 17:58	5° Z 18'22		direct	1238 Jun 16 j 15:52	16° II 32'07	
morning max el	1237 Jul 15 j 00:31	9° Z 37'16	19°23'52	morning max el	1238 Jun 27 j 12:51	21° II 34'12	20°36'11
asc. node	1237 Jul 22 j 14:22	19° Z 19'10			1238 Jul 04 j 12:41	0° Z	
	1237 Jul 28 j 14:52	0° Q		asc. node	1238 Jul 09 j 11:24	8° Z 06'29	
morning set	1237 Aug 01 j 05:02	7° Q 02'44		morning set	1238 Jul 16 j 11:08	21° Z 41'06	
					1238 Jul 20 j 11:43	0° Q	
superior conj	1237 Aug 09 j 08:29	23° Q 17'02	1°45'48				
minimum elong	1237 Aug 09 j 09:09	23° Q 20'18	1°45'47	superior conj	1238 Jul 24 j 01:45	7° Q 22'43	1°44'44
	1237 Aug 12 j 20:10	0° P		minimum elong	1238 Jul 24 j 00:49	7° Q 17'58	1°44'42
max. Earth dist.	1237 Aug 15 j 14:48	5° P 11'01	1.37934 AU	max. Earth dist.	1238 Jul 28 j 21:40	17° Q 00'43	1.36068 AU
evening rise	1237 Aug 19 j 10:20	12° P 03'18		evening rise	1238 Aug 01 j 23:39	24° Q 46'21	
desc. node	1237 Aug 30 j 09:40	0° A 16'41			1238 Aug 04 j 20:32	0° P	
	1237 Aug 30 j 05:24	0° A		desc. node	1238 Aug 17 j 06:42	20° P 32'22	
	1237 Sep 21 j 06:24	0° M			1238 Aug 23 j 18:50	0° A	
evening max el	1237 Sep 24 j 03:14	2° M 59'24	25°05'02	evening max el	1238 Sep 06 j 14:58	16° A 37'34	26°11'54
retrograde	1237 Oct 05 j 22:42	9° M 49'57		retrograde	1238 Sep 19 j 06:20	23° A 47'02	
evening set	1237 Oct 11 j 15:55	7° M 26'34		evening set	1238 Sep 25 j 13:41	21° A 10'26	
min. Earth dist.	1237 Oct 16 j 04:51	2° M 20'56	0.67252 AU	min. Earth dist.	1238 Sep 29 j 18:54	16° A 41'12	0.66489 AU
inferior conj	1237 Oct 17 j 04:37	1° M 03'03	0°-28'-23	inferior conj	1238 Oct 01 j 05:59	14° A 52'39	-1°-25'-32
minimum elong	1237 Oct 17 j 05:20	1° M 00'43	0°28'06	minimum elong	1238 Oct 01 j 08:13	14° A 45'45	1°24'38
	1237 Oct 18 j 00:00	30° R A		asc. node	1238 Oct 05 j 10:35	10° A 15'37	
asc. node	1237 Oct 18 j 13:33	29° A 16'50		morning rise	1238 Oct 07 j 03:47	9° A 00'51	
morning rise	1237 Oct 22 j 19:20	25° A 01'24		direct	1238 Oct 10 j 04:46	8° A 08'03	
direct	1237 Oct 26 j 06:29	23° A 52'10		morning max el	1238 Oct 17 j 00:29	11° A 55'37	18°49'54
morning max el	1237 Nov 02 j 15:38	28° A 03'49	19°42'27		1238 Oct 30 j 03:11	0° M	
	1237 Nov 04 j 10:43	0° M		morning set	1238 Nov 07 j 11:32	13° M 07'22	
greatest brilliancy	1237 Nov 10 j 15:49	8° M 02'57	-0.6m	desc. node	1238 Nov 13 j 05:56	22° M 12'35	
	1237 Nov 25 j 07:50	0° Z			1238 Nov 18 j 04:56	0° Z	
desc. node	1237 Nov 26 j 08:53	1° Z 36'27		max. Earth dist.	1238 Nov 22 j 22:03	7° Z 24'07	1.45014 AU
morning set	1237 Nov 27 j 22:02	3° Z 59'51					
max. Earth dist.	1237 Dec 10 j 05:17	23° Z 14'46	1.44284 AU	superior conj	1238 Nov 23 j 21:42	8° Z 57'07	-1°-6'-57
	1237 Dec 14 j 10:38	0° Z		minimum elong	1238 Nov 23 j 13:45	8° Z 25'52	1°06'02
					1238 Dec 07 j 03:42	0° Z	
superior conj	1237 Dec 14 j 15:56	0° Z 21'22	-1°-43'-28	evening rise	1238 Dec 09 j 09:59	3° Z 38'33	

	1238 Dec 26 j 07:34	0°♊		max. Earth dist.	1239 Nov 05 j 16:53	21°♌45'39	1.45013 AU
evening max el	1238 Dec 30 j 09:10	4°♊53'57	18°46'16		1239 Nov 10 j 22:59	0°♊	
asc. node	1239 Jan 01 j 09:52	6°♊44'19		evening rise	1239 Nov 19 j 11:18	13°♊16'41	
retrograde	1239 Jan 06 j 02:31	8°♊40'05			1239 Nov 30 j 06:23	0°♊	
evening set	1239 Jan 09 j 05:34	7°♊44'14		greatest brilliancy	1239 Dec 05 j 08:25	7°♊36'37	-0.7m
inferior conj	1239 Jan 15 j 00:15	2°♊01'48	3°30'43	evening max el	1239 Dec 13 j 16:54	18°♊22'18	19°31'35
minimum elong	1239 Jan 14 j 22:13	2°♊08'01	3°30'26	asc. node	1239 Dec 19 j 06:54	22°♊18'32	
	1239 Jan 16 j 16:05	30°♊		retrograde	1239 Dec 20 j 23:10	22°♊34'07	
min. Earth dist.	1239 Jan 16 j 19:07	29°♊50'52	0.65220 AU	evening set	1239 Dec 24 j 09:22	21°♊25'29	
morning rise	1239 Jan 20 j 13:44	25°♊51'04		inferior conj	1239 Dec 29 j 23:08	15°♊27'46	3°04'16
direct	1239 Jan 27 j 05:17	23°♊00'06		minimum elong	1239 Dec 29 j 20:31	15°♊36'19	3°03'39
	1239 Feb 08 j 16:22	0°♊		min. Earth dist.	1239 Dec 31 j 03:25	13°♊55'33	0.66429 AU
desc. node	1239 Feb 09 j 05:06	0°♊31'17		morning rise	1240 Jan 04 j 06:55	9°♊13'49	
morning max el	1239 Feb 09 j 10:15	0°♊44'11	26°57'35	direct	1240 Jan 10 j 10:45	6°♊30'36	
	1239 Mar 03 j 05:13	0°♊		morning max el	1240 Jan 22 j 19:25	13°♊50'59	25°50'29
morning set	1239 Mar 17 j 03:13	24°♊30'59		desc. node	1240 Jan 27 j 02:09	18°♊31'59	
	1239 Mar 19 j 22:38	0°♊			1240 Feb 04 j 23:05	0°♊	
max. Earth dist.	1239 Mar 21 j 15:06	3°♊22'34	1.34188 AU		1240 Feb 23 j 23:27	0°♊	
				morning set	1240 Feb 28 j 00:26	7°♊15'54	
superior conj	1239 Mar 25 j 13:44	11°♊28'56	0°-48'-45	max. Earth dist.	1240 Mar 02 j 21:38	14°♊33'35	1.35729 AU
minimum elong	1239 Mar 25 j 16:09	11°♊41'33	0°48'17				
asc. node	1239 Mar 30 j 09:12	21°♊37'19		superior conj	1240 Mar 08 j 08:07	25°♊15'59	-1°-15'-22
evening rise	1239 Apr 02 j 01:10	27°♊13'16		minimum elong	1240 Mar 08 j 11:44	25°♊34'10	1°14'49
	1239 Apr 03 j 09:24	0°♊			1240 Mar 10 j 16:03	0°♊	
evening max el	1239 Apr 22 j 00:26	29°♊29'47	21°29'03	evening rise	1240 Mar 16 j 07:39	11°♊36'07	
	1239 Apr 22 j 13:11	0°♊		asc. node	1240 Mar 16 j 06:14	11°♊28'53	
retrograde	1239 May 04 j 05:04	5°♊27'03			1240 Mar 26 j 02:39	0°♊	
evening set	1239 May 06 j 15:16	5°♊13'41		evening max el	1240 Apr 03 j 07:08	10°♊43'45	20°10'21
desc. node	1239 May 08 j 04:21	4°♊52'00		retrograde	1240 Apr 13 j 19:03	15°♊47'32	
inferior conj	1239 May 16 j 00:26	1°♊13'18	-2°-13'-21	evening set	1240 Apr 15 j 20:35	15°♊36'39	
minimum elong	1239 May 15 j 18:23	1°♊21'48	2°11'21	desc. node	1240 Apr 24 j 01:21	12°♊06'45	
min. Earth dist.	1239 May 16 j 02:06	1°♊10'58	0.54946 AU	inferior conj	1240 Apr 24 j 20:43	11°♊38'05	0°-14'00
	1239 May 18 j 05:24	30°♊		minimum elong	1240 Apr 24 j 20:04	11°♊39'03	0°13'46
morning rise	1239 May 24 j 21:59	27°♊15'50		transit middle	1240 Apr 24 j 20:04	11°♊39'03	0°13'46
direct	1239 May 28 j 02:41	26°♊53'32		transit begin	1240 Apr 24 j 18:03	11°♊42'03	
	1239 Jun 06 j 03:07	0°♊		transit end	1240 Apr 24 j 22:05	11°♊36'04	
morning max el	1239 Jun 09 j 14:04	2°♊47'44	22°06'31	min. Earth dist.	1240 Apr 26 j 15:30	10°♊34'37	0.55288 AU
asc. node	1239 Jun 26 j 08:27	27°♊23'46		morning rise	1240 May 03 j 17:04	7°♊17'48	
	1239 Jun 27 j 16:15	0°♊		direct	1240 May 07 j 15:39	6°♊43'56	
morning set	1239 Jun 30 j 20:53	6°♊31'08		morning max el	1240 May 21 j 06:58	13°♊26'26	23°47'27
					1240 Jun 03 j 00:40	0°♊	
superior conj	1239 Jul 08 j 03:20	21°♊53'33	1°36'55	asc. node	1240 Jun 12 j 05:31	17°♊03'03	
minimum elong	1239 Jul 08 j 01:23	21°♊43'14	1°36'44	morning set	1240 Jun 14 j 08:31	21°♊27'35	
max. Earth dist.	1239 Jul 11 j 12:52	28°♊57'09	1.34536 AU		1240 Jun 18 j 08:18	0°♊	
	1239 Jul 12 j 01:10	0°♊					
evening rise	1239 Jul 16 j 05:10	8°♊17'03		superior conj	1240 Jun 21 j 10:26	6°♊40'50	1°23'39
	1239 Jul 28 j 09:45	0°♊		minimum elong	1240 Jun 21 j 08:01	6°♊27'50	1°23'21
desc. node	1239 Aug 04 j 03:43	10°♊25'39		max. Earth dist.	1240 Jun 23 j 13:38	11°♊15'14	1.33393 AU
	1239 Aug 19 j 23:00	0°♊		evening rise	1240 Jun 28 j 22:31	22°♊23'04	
evening max el	1239 Aug 20 j 03:08	0°♊09'56	27°00'49		1240 Jul 02 j 20:03	0°♊	
retrograde	1239 Sep 02 j 08:35	7°♊27'35		desc. node	1240 Jul 21 j 00:43	29°♊47'10	
evening set	1239 Sep 09 j 04:06	4°♊44'21			1240 Jul 21 j 04:27	0°♊	
min. Earth dist.	1239 Sep 13 j 02:14	0°♊52'07	0.65374 AU	evening max el	1240 Aug 01 j 14:33	13°♊25'30	27°24'33
	1239 Sep 13 j 20:35	30°♊		retrograde	1240 Aug 15 j 04:49	20°♊43'45	
inferior conj	1239 Sep 15 j 01:31	28°♊36'47	-2°-22'-58	evening set	1240 Aug 22 j 08:19	18°♊03'33	
minimum elong	1239 Sep 15 j 05:14	28°♊26'05	2°21'35	min. Earth dist.	1240 Aug 26 j 00:41	14°♊46'12	0.63907 AU
morning rise	1239 Sep 21 j 07:56	22°♊57'52		inferior conj	1240 Aug 28 j 12:46	12°♊10'20	-3°-17'-59
asc. node	1239 Sep 22 j 07:37	22°♊34'02		minimum elong	1240 Aug 28 j 17:38	11°♊57'41	3°16'30
direct	1239 Sep 24 j 01:11	22°♊17'38		morning rise	1240 Sep 04 j 05:03	6°♊47'47	
morning max el	1239 Sep 30 j 14:13	25°♊50'17	18°13'45	direct	1240 Sep 06 j 17:13	6°♊16'29	
	1239 Oct 04 j 03:00	0°♊		asc. node	1240 Sep 08 j 04:42	6°♊27'32	
morning set	1239 Oct 19 j 05:39	23°♊41'00		morning max el	1240 Sep 13 j 06:09	9°♊42'23	17°54'51
	1239 Oct 23 j 02:21	0°♊			1240 Sep 26 j 21:14	0°♊	
desc. node	1239 Oct 31 j 02:59	12°♊55'43		morning set	1240 Sep 30 j 02:45	5°♊33'17	
superior conj	1239 Nov 03 j 00:06	17°♊30'05	0°-19'-5	superior conj	1240 Oct 12 j 19:51	26°♊57'10	0°27'49
minimum elong	1239 Nov 02 j 21:38	17°♊20'19	0°18'46	minimum elong	1240 Oct 12 j 22:49	27°♊09'18	0°27'24

	1240 Oct 14 j 16:47	0°♄		superior conj	1241 Sep 23 j 18:29	7°♄43'43	1°04'55
desc. node	1240 Oct 17 j 00:02	3°♄42'41		minimum elong	1241 Sep 23 j 23:13	8°♄04'00	1°04'20
max. Earth dist.	1240 Oct 18 j 10:56	6°♄02'11	1.44288 AU	max. Earth dist.	1241 Oct 01 j 01:05	19°♄54'26	1.42931 AU
evening rise	1240 Oct 28 j 21:16	22°♄21'28		desc. node	1241 Oct 03 j 21:04	24°♄29'40	
	1240 Nov 02 j 21:11	0°♄			1241 Oct 07 j 08:12	0°♄	
greatest brilliancy	1240 Nov 19 j 19:03	24°♄38'32	-0.5m	evening rise	1241 Oct 08 j 07:27	1°♄31'12	
	1240 Nov 24 j 02:21	0°♄			1241 Oct 27 j 10:48	0°♄	
evening max el	1240 Nov 25 j 19:38	1°♄52'14	20°31'34	greatest brilliancy	1241 Nov 03 j 20:16	9°♄50'19	-0.4m
retrograde	1240 Dec 03 j 20:58	6°♄37'19		evening max el	1241 Nov 08 j 16:35	15°♄22'17	21°43'08
asc. node	1240 Dec 05 j 03:56	6°♄27'56		retrograde	1241 Nov 17 j 17:57	20°♄45'38	
evening set	1240 Dec 07 j 16:08	5°♄14'06		evening set	1241 Nov 21 j 23:57	19°♄06'15	
	1240 Dec 12 j 10:25	30°♄		asc. node	1241 Nov 22 j 01:00	19°♄04'11	
inferior conj	1240 Dec 13 j 02:58	29°♄03'59	2°28'31	inferior conj	1241 Nov 27 j 09:30	12°♄47'09	1°45'31
minimum elong	1240 Dec 13 j 00:20	29°♄12'56	2°27'42	minimum elong	1241 Nov 27 j 07:20	12°♄54'37	1°44'42
min. Earth dist.	1240 Dec 13 j 18:10	28°♄12'19	0.67240 AU	min. Earth dist.	1241 Nov 27 j 13:03	12°♄34'49	0.67672 AU
morning rise	1240 Dec 18 j 08:03	22°♄48'49		morning rise	1241 Dec 02 j 14:29	6°♄32'39	
direct	1240 Dec 23 j 21:23	20°♄22'32		direct	1241 Dec 07 j 12:28	4°♄28'06	
morning max el	1241 Jan 04 j 03:47	27°♄05'34	24°27'47	morning max el	1241 Dec 17 j 13:24	10°♄25'30	22°59'34
	1241 Jan 06 j 21:04	0°♄		greatest brilliancy	1241 Dec 22 j 07:58	15°♄45'30	-0.3m
desc. node	1241 Jan 12 j 23:13	7°♄25'33		desc. node	1241 Dec 30 j 20:17	26°♄56'27	
	1241 Jan 28 j 14:45	0°♄			1242 Jan 02 j 00:16	0°♄	
morning set	1241 Feb 09 j 01:52	18°♄58'41		morning set	1242 Jan 21 j 01:21	29°♄23'49	
max. Earth dist.	1241 Feb 12 j 19:10	25°♄36'23	1.37665 AU		1242 Jan 21 j 10:03	0°♄	
	1241 Feb 15 j 04:37	0°♄		max. Earth dist.	1242 Jan 25 j 14:40	7°♄05'57	1.39794 AU
superior conj	1241 Feb 19 j 15:33	8°♄26'25	-1°-38'-57	superior conj	1242 Feb 02 j 07:46	20°♄49'30	-1°-56'-28
minimum elong	1241 Feb 19 j 19:41	8°♄46'22	1°38'30	minimum elong	1242 Feb 02 j 11:02	21°♄04'28	1°56'17
evening rise	1241 Feb 28 j 08:13	25°♄35'52			1242 Feb 07 j 05:41	0°♄	
	1241 Mar 02 j 13:54	0°♄		evening rise	1242 Feb 11 j 23:56	9°♄05'12	
asc. node	1241 Mar 03 j 03:16	1°♄05'00		asc. node	1242 Feb 18 j 00:19	20°♄20'10	
evening max el	1241 Mar 17 j 01:09	22°♄36'37	19°10'11		1242 Feb 23 j 22:54	0°♄	
retrograde	1241 Mar 25 j 21:23	26°♄53'05		evening max el	1242 Feb 28 j 04:22	5°♄04'44	18°30'09
evening set	1241 Mar 28 j 00:59	26°♄39'00		retrograde	1242 Mar 07 j 18:33	8°♄48'29	
inferior conj	1241 Apr 05 j 07:23	22°♄27'29	1°33'22	evening set	1242 Mar 10 j 03:13	8°♄27'58	
minimum elong	1241 Apr 05 j 10:49	22°♄21'38	1°32'17	inferior conj	1242 Mar 17 j 14:57	3°♄56'55	2°48'53
min. Earth dist.	1241 Apr 08 j 06:32	20°♄27'24	0.56516 AU	minimum elong	1242 Mar 17 j 18:56	3°♄48'59	2°47'57
desc. node	1241 Apr 10 j 22:24	18°♄50'49		min. Earth dist.	1242 Mar 21 j 01:12	1°♄14'43	0.58362 AU
morning rise	1241 Apr 13 j 16:35	17°♄33'46			1242 Mar 22 j 19:02	30°♄	
direct	1241 Apr 18 j 15:56	16°♄36'20		morning rise	1242 Mar 25 j 06:33	28°♄32'04	
morning max el	1241 May 02 j 21:25	23°♄53'56	25°25'56	desc. node	1242 Mar 28 j 19:26	27°♄15'30	
	1241 May 08 j 10:14	0°♄		direct	1242 Mar 31 j 06:14	26°♄59'59	
	1241 May 26 j 17:45	0°♄			1242 Apr 08 j 23:14	0°♄	
morning set	1241 May 29 j 20:19	6°♄24'28		morning max el	1242 Apr 14 j 15:16	4°♄39'22	26°46'13
asc. node	1241 May 30 j 02:35	6°♄57'30			1242 May 03 j 04:08	0°♄	
superior conj	1241 Jun 05 j 20:46	21°♄36'42	1°06'00	morning set	1242 May 14 j 06:41	21°♄16'22	
minimum elong	1241 Jun 05 j 18:25	21°♄23'54	1°05'37	asc. node	1242 May 16 j 23:38	27°♄01'59	
max. Earth dist.	1241 Jun 06 j 21:45	23°♄53'10	1.32642 AU		1242 May 18 j 08:27	0°♄	
	1241 Jun 09 j 17:36	0°♄		superior conj	1242 May 21 j 08:31	6°♄35'08	0°44'47
evening rise	1241 Jun 13 j 00:09	6°♄53'01		minimum elong	1242 May 21 j 06:41	6°♄25'07	0°44'26
	1241 Jun 25 j 08:29	0°♄		max. Earth dist.	1242 May 21 j 09:43	6°♄41'49	1.32276 AU
desc. node	1241 Jul 07 j 21:44	18°♄23'08		evening rise	1242 May 28 j 07:22	21°♄38'18	
evening max el	1241 Jul 14 j 22:43	26°♄09'41	27°17'29		1242 Jun 01 j 09:50	0°♄	
	1241 Jul 19 j 13:57	0°♄			1242 Jun 19 j 18:03	0°♄	
retrograde	1241 Jul 28 j 18:21	3°♄25'43		desc. node	1242 Jun 24 j 18:45	5°♄54'30	
evening set	1241 Aug 04 j 22:33	1°♄00'54		evening max el	1242 Jun 27 j 00:59	8°♄11'02	26°37'14
	1241 Aug 06 j 08:29	30°♄		retrograde	1242 Jul 11 j 00:23	15°♄24'50	
min. Earth dist.	1241 Aug 08 j 12:39	28°♄11'13	0.62113 AU	evening set	1242 Jul 17 j 18:14	13°♄28'53	
inferior conj	1241 Aug 11 j 12:42	25°♄25'14	-4°-6'-28	min. Earth dist.	1242 Jul 21 j 14:26	10°♄52'33	0.60090 AU
minimum elong	1241 Aug 11 j 17:45	25°♄13'34	4°05'22	inferior conj	1242 Jul 24 j 21:48	8°♄12'41	-4°-41'-41
morning rise	1241 Aug 18 j 15:38	20°♄22'38		minimum elong	1242 Jul 25 j 01:14	8°♄05'44	4°41'19
direct	1241 Aug 21 j 01:22	19°♄57'21		morning rise	1242 Aug 01 j 11:32	3°♄32'43	
asc. node	1241 Aug 26 j 01:47	21°♄50'33		direct	1242 Aug 03 j 21:25	3°♄11'10	
morning max el	1241 Aug 27 j 21:24	23°♄24'43	17°54'08	morning max el	1242 Aug 11 j 08:51	6°♄49'29	18°12'42
	1241 Sep 02 j 02:49	0°♄		asc. node	1242 Aug 12 j 22:51	8°♄29'27	
morning set	1241 Sep 12 j 20:38	18°♄24'42			1242 Aug 26 j 04:14	0°♄	
	1241 Sep 19 j 07:56	0°♄		morning set	1242 Aug 27 j 05:36	1°♄59'30	

superior conj	1242 Sep 05 j 18:37	19° \mathbb{M} 45'41	1°29'33		1243 Aug 18 j 03:51	0° \mathbb{M}	
minimum elong	1242 Sep 05 j 22:21	20° \mathbb{M} 02'36	1°29'14				
	1242 Sep 11 j 13:44	0° \mathbb{A}		superior conj	1243 Aug 19 j 14:47	2° \mathbb{M} 47'15	1°42'42
max. Earth dist.	1242 Sep 13 j 09:20	3° \mathbb{A} 06'21	1.41119 AU	minimum elong	1243 Aug 19 j 16:34	2° \mathbb{M} 55'46	1°42'37
evening rise	1242 Sep 18 j 10:02	11° \mathbb{A} 27'38		max. Earth dist.	1243 Aug 26 j 13:08	15° \mathbb{M} 34'32	1.39090 AU
desc. node	1242 Sep 20 j 18:05	15° \mathbb{A} 13'33		evening rise	1243 Aug 30 j 12:40	22° \mathbb{M} 31'39	
	1242 Sep 30 j 08:08	0° \mathbb{M}			1243 Sep 03 j 23:52	0° \mathbb{A}	
greatest brilliancy	1242 Oct 16 j 20:36	22° \mathbb{M} 43'24	-0.2m	desc. node	1243 Sep 07 j 15:06	5° \mathbb{A} 50'32	
evening max el	1242 Oct 22 j 08:25	28° \mathbb{M} 53'47	23°01'47		1243 Sep 24 j 06:15	0° \mathbb{M}	
	1242 Oct 23 j 11:35	0° \mathbb{A}		evening max el	1243 Oct 04 j 21:12	12° \mathbb{M} 29'30	24°21'35
retrograde	1242 Nov 01 j 12:30	4° \mathbb{A} 55'56		retrograde	1243 Oct 16 j 03:24	19° \mathbb{M} 05'01	
evening set	1242 Nov 06 j 07:08	2° \mathbb{A} 59'19		evening set	1243 Oct 21 j 12:04	16° \mathbb{M} 51'14	
asc. node	1242 Nov 08 j 22:04	0° \mathbb{A} 16'29		min. Earth dist.	1243 Oct 26 j 05:46	11° \mathbb{M} 25'08	0.67527 AU
	1242 Nov 09 j 03:26	30° \mathbb{R} \mathbb{M}		inferior conj	1243 Oct 26 j 23:19	10° \mathbb{M} 26'13	0°03'38
inferior conj	1242 Nov 11 j 16:52	26° \mathbb{M} 35'07	0°56'45	minimum elong	1243 Oct 26 j 23:13	10° \mathbb{M} 26'31	0°03'36
minimum elong	1242 Nov 11 j 15:34	26° \mathbb{M} 39'34	0°56'13	transit middle	1243 Oct 26 j 23:13	10° \mathbb{M} 26'31	0°03'36
min. Earth dist.	1242 Nov 11 j 09:45	26° \mathbb{M} 59'40	0.67762 AU	transit begin	1243 Oct 26 j 20:33	10° \mathbb{M} 35'29	
morning rise	1242 Nov 17 j 00:01	20° \mathbb{M} 23'27		transit end	1243 Oct 27 j 01:53	10° \mathbb{M} 17'33	
direct	1242 Nov 21 j 07:14	18° \mathbb{M} 41'40		asc. node	1243 Oct 26 j 19:06	10° \mathbb{M} 40'24	
morning max el	1242 Nov 30 j 03:29	23° \mathbb{M} 52'38	21°34'36	morning rise	1243 Nov 01 j 10:42	4° \mathbb{M} 19'55	
greatest brilliancy	1242 Dec 05 j 03:01	29° \mathbb{M} 32'36	-0.4m	direct	1243 Nov 05 j 04:39	2° \mathbb{M} 59'30	
	1242 Dec 05 j 11:48	0° \mathbb{A}		morning max el	1243 Nov 13 j 00:43	7° \mathbb{M} 30'06	20°19'31
desc. node	1242 Dec 17 j 17:19	16° \mathbb{A} 53'55		greatest brilliancy	1243 Nov 19 j 14:12	15° \mathbb{M} 21'26	-0.5m
	1242 Dec 26 j 10:16	0° \mathbb{A}			1243 Nov 29 j 19:53	0° \mathbb{A}	
morning set	1242 Dec 31 j 19:37	8° \mathbb{A} 25'32		desc. node	1243 Dec 04 j 14:21	7° \mathbb{A} 10'49	
max. Earth dist.	1243 Jan 07 j 14:29	19° \mathbb{A} 24'40	1.41850 AU	morning set	1243 Dec 10 j 17:36	16° \mathbb{A} 35'16	
	1243 Jan 13 j 21:03	0° \mathbb{A}			1243 Dec 19 j 06:35	0° \mathbb{A}	
				max. Earth dist.	1243 Dec 20 j 22:02	2° \mathbb{A} 37'51	1.43556 AU
superior conj	1243 Jan 15 j 03:29	2° \mathbb{A} 11'43	-2°-3'-52				
minimum elong	1243 Jan 15 j 03:38	2° \mathbb{A} 12'23	2°03'53	superior conj	1243 Dec 26 j 21:54	12° \mathbb{A} 23'25	-1°-56'-15
evening rise	1243 Jan 26 j 03:09	21° \mathbb{A} 54'39		minimum elong	1243 Dec 26 j 16:56	12° \mathbb{A} 02'54	1°56'01
	1243 Jan 30 j 13:52	0° \mathbb{A}			1244 Jan 06 j 07:22	0° \mathbb{A}	
asc. node	1243 Feb 04 j 21:21	9° \mathbb{A} 06'31		evening rise	1244 Jan 08 j 13:43	3° \mathbb{A} 56'11	
evening max el	1243 Feb 11 j 13:37	17° \mathbb{A} 58'36	18°10'08	asc. node	1244 Jan 22 j 18:23	27° \mathbb{A} 15'16	
retrograde	1243 Feb 18 j 09:14	21° \mathbb{A} 25'36			1244 Jan 24 j 23:30	0° \mathbb{A}	
evening set	1243 Feb 20 j 23:01	20° \mathbb{A} 56'37		evening max el	1244 Jan 26 j 01:51	1° \mathbb{A} 10'10	18°09'35
inferior conj	1243 Feb 27 j 18:53	16° \mathbb{A} 04'20	3°30'53	retrograde	1244 Feb 01 j 13:29	4° \mathbb{A} 34'52	
minimum elong	1243 Feb 27 j 21:13	15° \mathbb{A} 58'56	3°30'34	evening set	1244 Feb 04 j 08:08	3° \mathbb{A} 56'09	
min. Earth dist.	1243 Mar 03 j 01:51	13° \mathbb{A} 03'29	0.60482 AU		1244 Feb 09 j 09:51	30° \mathbb{R} \mathbb{A}	
morning rise	1243 Mar 06 j 16:12	10° \mathbb{A} 17'57		inferior conj	1244 Feb 10 j 15:41	28° \mathbb{A} 43'00	3°45'44
direct	1243 Mar 13 j 08:41	8° \mathbb{A} 09'14		minimum elong	1244 Feb 10 j 15:57	28° \mathbb{A} 42'19	3°45'44
desc. node	1243 Mar 15 j 16:29	8° \mathbb{A} 24'02		min. Earth dist.	1244 Feb 13 j 10:41	25° \mathbb{A} 48'09	0.62555 AU
morning max el	1243 Mar 27 j 15:01	16° \mathbb{A} 00'10	27°35'39	morning rise	1244 Feb 16 j 21:36	22° \mathbb{A} 43'30	
	1243 Apr 08 j 02:02	0° \mathbb{Y}		direct	1244 Feb 23 j 20:38	20° \mathbb{A} 07'13	
	1243 Apr 25 j 15:27	0° \mathbb{A}		desc. node	1244 Mar 01 j 13:30	22° \mathbb{A} 10'55	
morning set	1243 Apr 28 j 13:45	5° \mathbb{A} 56'00		morning max el	1244 Mar 08 j 20:22	28° \mathbb{A} 01'39	27°48'19
asc. node	1243 May 03 j 20:39	17° \mathbb{A} 11'08			1244 Mar 10 j 18:01	0° \mathbb{A}	
max. Earth dist.	1243 May 04 j 21:41	19° \mathbb{A} 27'39	1.32287 AU		1244 Mar 31 j 19:50	0° \mathbb{Y}	
				morning set	1244 Apr 11 j 15:25	20° \mathbb{Y} 16'30	
superior conj	1243 May 05 j 19:53	21° \mathbb{A} 29'11	0°20'42		1244 Apr 16 j 07:44	0° \mathbb{A}	
minimum elong	1243 May 05 j 18:57	21° \mathbb{A} 24'06	0°20'30	max. Earth dist.	1244 Apr 17 j 05:54	1° \mathbb{A} 58'24	1.32693 AU
	1243 May 09 j 17:10	0° \mathbb{II}					
evening rise	1243 May 12 j 17:49	6° \mathbb{II} 30'27		superior conj	1244 Apr 19 j 05:11	6° \mathbb{A} 13'13	0°-5'-30
	1243 May 25 j 02:21	0° \mathbb{A}		minimum elong	1244 Apr 19 j 05:26	6° \mathbb{A} 14'39	0°05'28
evening max el	1243 Jun 08 j 20:14	19° \mathbb{A} 26'04	25°26'56	behind sun begin	1244 Apr 19 j 00:32	5° \mathbb{A} 48'06	
desc. node	1243 Jun 11 j 15:45	21° \mathbb{A} 54'08		behind sun end	1244 Apr 19 j 10:20	6° \mathbb{A} 41'12	
retrograde	1243 Jun 22 j 20:58	26° \mathbb{A} 35'15		asc. node	1244 Apr 19 j 17:41	7° \mathbb{A} 21'00	
evening set	1243 Jun 28 j 15:04	25° \mathbb{A} 17'44		evening rise	1244 Apr 26 j 05:36	21° \mathbb{A} 23'04	
min. Earth dist.	1243 Jul 03 j 08:18	22° \mathbb{A} 36'09	0.58047 AU		1244 Apr 30 j 10:10	0° \mathbb{II}	
inferior conj	1243 Jul 06 j 12:34	20° \mathbb{A} 22'51	-4°-53'-8		1244 May 20 j 08:02	0° \mathbb{A}	
minimum elong	1243 Jul 06 j 12:00	20° \mathbb{A} 23'51	4°53'09	evening max el	1244 May 20 j 10:45	0° \mathbb{A} 06'33	23°56'33
morning rise	1243 Jul 14 j 12:40	16° \mathbb{A} 05'36		desc. node	1244 May 28 j 12:46	5° \mathbb{A} 48'03	
direct	1243 Jul 17 j 00:59	15° \mathbb{A} 46'07		retrograde	1244 Jun 03 j 05:24	7° \mathbb{A} 01'37	
morning max el	1243 Jul 25 j 13:19	19° \mathbb{A} 46'56	18°51'48	evening set	1244 Jun 07 j 13:29	6° \mathbb{A} 20'07	
asc. node	1243 Jul 30 j 19:53	26° \mathbb{A} 08'34		min. Earth dist.	1244 Jun 13 j 21:36	3° \mathbb{A} 17'23	0.56303 AU
	1243 Aug 02 j 07:42	0° \mathbb{Q}		inferior conj	1244 Jun 16 j 07:10	1° \mathbb{A} 49'09	-4°-27'-7
morning set	1243 Aug 11 j 01:15	16° \mathbb{Q} 05'42		minimum elong	1244 Jun 16 j 01:30	1° \mathbb{A} 57'52	4°26'14

	1244 Jun 19 j 09:05	30° RII		inferior conj	1245 May 27 j 08:22	12° II 34'35	-3°-14'-9
morning rise	1244 Jun 24 j 17:03	27° II 50'07		minimum elong	1245 May 27 j 00:46	12° II 45'21	3°12'01
direct	1244 Jun 27 j 09:38	27° II 31'24		morning rise	1245 Jun 05 j 02:52	8° II 42'18	
	1244 Jul 04 j 16:44	0° S		direct	1245 Jun 08 j 01:48	8° II 22'32	
morning max el	1244 Jul 07 j 07:57	2° S 07'37	19°52'09	morning max el	1245 Jun 19 j 15:20	13° II 45'51	21°12'44
asc. node	1244 Jul 16 j 16:55	14° S 34'25			1245 Jul 01 j 14:09	0° S	
	1244 Jul 24 j 21:27	0° Q		asc. node	1245 Jul 03 j 13:58	3° S 36'03	
morning set	1244 Jul 25 j 04:17	0° Q 34'27		morning set	1245 Jul 09 j 12:13	15° S 19'17	
superior conj	1244 Aug 02 j 01:36	16° Q 33'01	1°46'16	superior conj	1245 Jul 16 j 22:50	0° Q 51'01	1°42'09
minimum elong	1244 Aug 02 j 01:31	16° Q 32'38	1°46'16	minimum elong	1245 Jul 16 j 21:23	0° Q 43'34	1°42'04
max. Earth dist.	1244 Aug 07 j 17:31	27° Q 32'45	1.37107 AU		1245 Jul 16 j 12:59	0° Q	
	1244 Aug 09 j 01:00	0° P		max. Earth dist.	1245 Jul 21 j 03:59	9° Q 25'00	1.35372 AU
evening rise	1244 Aug 11 j 14:32	4° P 41'34		evening rise	1245 Jul 25 j 11:21	17° Q 46'55	
desc. node	1244 Aug 24 j 12:07	26° P 15'41			1245 Aug 01 j 05:21	0° P	
	1244 Aug 26 j 22:58	0° A		desc. node	1245 Aug 11 j 09:09	16° P 23'13	
evening max el	1244 Sep 16 j 09:06	26° A 08'29	25°35'21		1245 Aug 21 j 05:02	0° A	
	1244 Sep 20 j 20:30	0° M		evening max el	1245 Aug 29 j 21:10	9° A 45'52	26°35'21
retrograde	1244 Sep 28 j 13:41	3° M 07'57		retrograde	1245 Sep 11 j 18:53	16° A 59'14	
evening set	1244 Oct 04 j 12:58	0° M 38'40		evening set	1245 Sep 18 j 07:55	14° A 18'50	
	1244 Oct 05 j 06:12	30° R A		min. Earth dist.	1245 Sep 22 j 10:03	10° A 05'32	0.66063 AU
min. Earth dist.	1244 Oct 08 j 22:40	25° A 48'11	0.66966 AU	inferior conj	1245 Sep 24 j 02:13	8° A 05'10	-1°-49'-59
inferior conj	1244 Oct 10 j 03:03	24° A 17'14	0°-52'-29	minimum elong	1245 Sep 24 j 05:06	7° A 56'30	1°48'51
minimum elong	1244 Oct 10 j 04:24	24° A 12'55	0°51'54	asc. node	1245 Sep 29 j 13:09	2° A 39'46	
asc. node	1244 Oct 12 j 16:07	21° A 10'24		morning rise	1245 Sep 30 j 03:31	2° A 18'33	
morning rise	1244 Oct 15 j 20:33	18° A 19'12		direct	1245 Oct 03 j 01:00	1° A 31'26	
direct	1244 Oct 19 j 03:11	17° A 17'13		morning max el	1245 Oct 09 j 16:53	5° A 11'09	18°32'31
morning max el	1244 Oct 26 j 05:39	21° A 17'18	19°18'10		1245 Oct 26 j 20:22	0° M	
	1244 Nov 02 j 05:54	0° M		morning set	1245 Oct 29 j 20:08	4° M 47'29	
greatest brilliancy	1244 Nov 05 j 02:18	4° M 06'28	-0.7m	desc. node	1245 Nov 07 j 08:26	18° M 20'52	
morning set	1244 Nov 18 j 18:52	25° M 03'41					
desc. node	1244 Nov 20 j 11:22	27° M 41'10		superior conj	1245 Nov 14 j 16:00	29° M 52'35	0°-47'-19
	1244 Nov 21 j 23:02	0° J		minimum elong	1245 Nov 14 j 09:56	29° M 28'46	0°46'33
max. Earth dist.	1244 Dec 02 j 12:40	16° J 33'38	1.44687 AU		1245 Nov 14 j 17:53	0° J	
				max. Earth dist.	1245 Nov 15 j 07:14	0° J 52'25	1.45110 AU
superior conj	1244 Dec 05 j 14:29	21° J 26'05	-1°-30'-2	evening rise	1245 Nov 30 j 17:36	25° J 11'24	
minimum elong	1244 Dec 05 j 05:53	20° J 51'54	1°29'12		1245 Dec 03 j 18:21	0° S	
	1244 Dec 10 j 22:48	0° S		evening max el	1245 Dec 23 j 00:06	27° S 58'26	19°03'32
evening rise	1244 Dec 20 j 03:21	15° S 02'29			1245 Dec 25 j 05:51	0° \approx	
	1244 Dec 29 j 04:56	0° \approx		asc. node	1245 Dec 26 j 12:26	0° \approx 52'04	
evening max el	1245 Jan 08 j 14:10	14° \approx 31'45	18°27'44	retrograde	1245 Dec 29 j 22:03	1° \approx 54'28	
asc. node	1245 Jan 08 j 15:24	14° \approx 34'55		evening set	1246 Jan 02 j 04:00	0° \approx 53'14	
retrograde	1245 Jan 15 j 03:01	18° \approx 06'46			1246 Jan 03 j 09:04	30° R S	
evening set	1245 Jan 18 j 02:48	17° \approx 17'21		inferior conj	1246 Jan 07 j 20:18	25° S 03'39	3°20'47
inferior conj	1245 Jan 24 j 01:21	11° \approx 44'47	3°40'33	minimum elong	1246 Jan 07 j 17:56	25° S 11'06	3°20'21
minimum elong	1245 Jan 23 j 23:57	11° \approx 48'49	3°40'27	min. Earth dist.	1246 Jan 09 j 08:40	23° S 09'00	0.65785 AU
min. Earth dist.	1245 Jan 26 j 04:59	9° \approx 14'43	0.64357 AU	morning rise	1246 Jan 13 j 06:58	18° S 51'16	
morning rise	1245 Jan 29 j 19:44	5° \approx 37'20		direct	1246 Jan 19 j 17:52	16° S 02'36	
direct	1245 Feb 05 j 16:01	2° \approx 47'47		morning max el	1246 Feb 01 j 15:06	23° S 37'57	26°31'39
desc. node	1245 Feb 16 j 10:32	8° \approx 01'57		desc. node	1246 Feb 03 j 07:35	25° S 23'22	
morning max el	1245 Feb 19 j 05:15	10° \approx 37'56	27°25'07		1246 Feb 07 j 07:57	0° \approx	
	1245 Mar 06 j 12:22	0° H			1246 Feb 27 j 20:45	0° H	
	1245 Mar 24 j 05:33	0° Y		morning set	1246 Mar 09 j 15:06	17° H 23'11	
morning set	1245 Mar 26 j 09:04	4° Y 09'18		max. Earth dist.	1246 Mar 13 j 20:21	25° H 32'29	1.34791 AU
max. Earth dist.	1245 Mar 31 j 06:33	14° Y 02'12	1.33516 AU		1246 Mar 16 j 01:51	0° Y	
superior conj	1245 Apr 03 j 10:33	20° Y 41'01	0°-32'-53	superior conj	1246 Mar 18 j 09:44	4° Y 45'11	-1°00'-16
minimum elong	1245 Apr 03 j 12:11	20° Y 49'38	0°32'34	minimum elong	1246 Mar 18 j 12:43	5° Y 00'28	0°59'45
asc. node	1245 Apr 06 j 14:43	27° Y 27'31		asc. node	1246 Mar 24 j 11:46	17° Y 25'59	
	1245 Apr 07 j 19:13	0° B		evening rise	1246 Mar 26 j 01:47	20° Y 43'30	
evening rise	1245 Apr 10 j 16:54	6° B 09'45			1246 Mar 30 j 16:37	0° B	
	1245 Apr 23 j 13:56	0° II		evening max el	1246 Apr 14 j 02:39	21° B 32'06	20°53'26
evening max el	1245 May 02 j 02:36	10° II 39'01	22°20'53	retrograde	1246 Apr 25 j 14:44	27° B 07'31	
retrograde	1245 May 15 j 01:23	17° II 02'49		evening set	1246 Apr 27 j 19:22	26° B 56'05	
desc. node	1245 May 15 j 09:46	17° II 02'33		desc. node	1246 May 02 j 06:47	25° B 30'12	
evening set	1245 May 18 j 00:47	16° II 43'18		inferior conj	1246 May 07 j 02:15	22° B 58'10	-1°-23'-20
min. Earth dist.	1245 May 26 j 09:27	13° II 06'57	0.55192 AU	minimum elong	1246 May 06 j 22:19	23° B 03'46	1°21'56

min. Earth dist.	1246 May 07 j 22:01	22°♄30'04	0.54970 AU	retrograde	1247 Apr 06 j 08:56	7°♄45'41	
morning rise	1246 May 16 j 00:32	18°♄53'21		evening set	1247 Apr 08 j 10:18	7°♄34'06	
direct	1246 May 19 j 11:27	18°♄27'38		inferior conj	1247 Apr 17 j 03:28	3°♄31'27	0°34'35
morning max el	1246 Jun 01 j 12:35	24°♄43'05	22°48'55	minimum elong	1247 Apr 17 j 04:57	3°♄29'07	0°34'04
	1246 Jun 06 j 08:58	0°♂		desc. node	1247 Apr 19 j 03:48	2°♄15'47	
asc. node	1246 Jun 20 j 11:01	23°♂03'39		min. Earth dist.	1247 Apr 19 j 12:21	2°♄02'40	0.55710 AU
morning set	1246 Jun 23 j 23:00	0°♄13'05			1247 Apr 23 j 05:01	30°♄	
	1246 Jun 23 j 20:30	0°♄		morning rise	1247 Apr 25 j 20:08	28°♄56'59	
				direct	1247 Apr 30 j 04:33	28°♄14'45	
superior conj	1246 Jul 01 j 03:06	15°♄30'10	1°31'53		1247 May 07 j 00:40	0°♄	
minimum elong	1246 Jul 01 j 00:53	15°♄18'22	1°31'39	morning max el	1247 May 14 j 03:55	5°♄14'46	24°30'30
max. Earth dist.	1246 Jul 03 j 23:23	21°♄30'08	1.33998 AU		1247 May 31 j 18:56	0°♂	
	1246 Jul 08 j 03:24	0°♂		asc. node	1247 Jun 07 j 08:06	12°♂50'08	
evening rise	1246 Jul 08 j 22:23	1°♂33'56		morning set	1247 Jun 08 j 10:55	15°♂10'26	
	1246 Jul 25 j 03:52	0°♄					
desc. node	1246 Jul 29 j 06:10	6°♄04'28		superior conj	1247 Jun 15 j 11:51	0°♄22'13	1°16'39
evening max el	1246 Aug 12 j 09:03	23°♄11'51	27°14'15	minimum elong	1247 Jun 15 j 09:25	0°♄08'59	1°16'18
	1246 Aug 22 j 13:25	0°♂			1247 Jun 15 j 07:46	0°♄	
retrograde	1246 Aug 25 j 18:39	0°♂30'42		max. Earth dist.	1247 Jun 17 j 03:25	3°♄56'10	1.33025 AU
	1246 Aug 28 j 20:12	30°♄		evening rise	1247 Jun 22 j 19:39	15°♄51'20	
evening set	1246 Sep 01 j 18:23	27°♄46'59			1247 Jun 30 j 03:51	0°♂	
min. Earth dist.	1246 Sep 05 j 13:41	24°♄10'27	0.64796 AU	desc. node	1247 Jul 16 j 03:10	25°♂08'28	
inferior conj	1246 Sep 07 j 18:32	21°♄45'09	-2°-46'-48		1247 Jul 19 j 23:44	0°♄	
minimum elong	1246 Sep 07 j 22:49	21°♄33'21	2°45'19	evening max el	1247 Jul 25 j 19:13	6°♄14'54	27°25'29
morning rise	1246 Sep 14 j 05:04	16°♄13'06		retrograde	1247 Aug 08 j 12:24	13°♄33'14	
asc. node	1246 Sep 16 j 10:13	15°♄37'59		evening set	1247 Aug 15 j 17:11	10°♄57'46	
direct	1246 Sep 16 j 19:49	15°♄37'08		min. Earth dist.	1247 Aug 19 j 07:50	7°♄53'26	0.63177 AU
morning max el	1246 Sep 23 j 07:59	19°♄05'47	18°03'36	inferior conj	1247 Aug 22 j 01:21	5°♄11'22	-3°-39'-42
	1246 Oct 01 j 10:28	0°♂		minimum elong	1247 Aug 22 j 06:27	4°♄58'43	3°38'19
morning set	1246 Oct 11 j 02:19	15°♂56'13		morning rise	1247 Aug 28 j 22:08	29°♂57'04	
	1246 Oct 19 j 14:12	0°♄			1247 Aug 28 j 19:08	30°♄	
superior conj	1246 Oct 24 j 23:44	8°♄43'06	0°01'37	direct	1247 Aug 31 j 08:47	29°♂28'49	
minimum elong	1246 Oct 24 j 23:56	8°♄43'53	0°01'34		1247 Sep 02 j 21:45	0°♄	
behind sun begin	1246 Oct 24 j 13:21	8°♄01'31		asc. node	1247 Sep 03 j 07:18	0°♄10'28	
behind sun end	1246 Oct 25 j 10:31	9°♄26'11		morning max el	1247 Sep 07 j 00:01	2°♄54'35	17°52'14
desc. node	1246 Oct 25 j 05:32	9°♄06'18		morning set	1247 Sep 23 j 08:58	28°♄15'15	
max. Earth dist.	1246 Oct 29 j 02:03	15°♄13'48	1.44784 AU		1247 Sep 24 j 08:49	0°♂	
	1246 Nov 07 j 12:45	0°♄		superior conj	1247 Oct 05 j 06:31	18°♂42'47	0°45'02
evening rise	1246 Nov 10 j 10:55	4°♄31'34		minimum elong	1247 Oct 05 j 10:41	19°♂00'10	0°44'28
	1246 Nov 27 j 06:59	0°♄		max. Earth dist.	1247 Oct 11 j 18:05	29°♂19'23	1.43773 AU
greatest brilliancy	1246 Nov 29 j 01:14	2°♄29'40	-0.6m	desc. node	1247 Oct 12 j 02:31	29°♂53'16	
evening max el	1246 Dec 06 j 05:47	11°♄27'29	19°55'26		1247 Oct 12 j 04:11	0°♄	
asc. node	1246 Dec 13 j 09:28	15°♄52'10		evening rise	1247 Oct 20 j 18:37	13°♄31'59	
retrograde	1246 Dec 13 j 19:38	15°♄53'10			1247 Oct 31 j 15:29	0°♄	
evening set	1246 Dec 17 j 09:20	14°♄38'37		greatest brilliancy	1247 Nov 13 j 20:33	18°♄37'57	-0.5m
inferior conj	1246 Dec 22 j 21:37	8°♄35'02	2°50'09	evening max el	1247 Nov 19 j 06:00	24°♄57'02	21°00'55
minimum elong	1246 Dec 22 j 18:55	8°♄44'00	2°49'25	retrograde	1247 Nov 27 j 17:18	29°♄58'24	
min. Earth dist.	1246 Dec 23 j 20:07	7°♄20'03	0.66812 AU	asc. node	1247 Nov 30 j 06:32	29°♄21'55	
morning rise	1246 Dec 28 j 03:53	2°♄20'06		evening set	1247 Dec 01 j 16:44	28°♄28'43	
	1247 Jan 01 j 02:08	30°♄		inferior conj	1247 Dec 07 j 02:49	22°♄14'26	2°11'06
direct	1247 Jan 03 j 01:37	29°♄43'18		minimum elong	1247 Dec 07 j 00:20	22°♄22'58	2°10'15
	1247 Jan 05 j 03:21	0°♄		min. Earth dist.	1247 Dec 07 j 13:00	21°♄39'26	0.67460 AU
morning max el	1247 Jan 15 j 00:06	6°♄50'06	25°16'43	morning rise	1247 Dec 12 j 07:33	15°♄59'05	
desc. node	1247 Jan 21 j 04:40	13°♄49'15		direct	1247 Dec 17 j 14:22	13°♄41'26	
	1247 Feb 02 j 00:54	0°♄		morning max el	1247 Dec 28 j 08:30	20°♄06'19	23°50'22
morning set	1247 Feb 20 j 04:47	29°♄44'51			1248 Jan 05 j 19:10	0°♄	
	1247 Feb 20 j 08:09	0°♄		desc. node	1248 Jan 08 j 01:43	3°♄00'08	
max. Earth dist.	1247 Feb 23 j 22:35	6°♄37'12	1.36508 AU		1248 Jan 26 j 05:51	0°♄	
				morning set	1248 Feb 01 j 19:54	10°♄56'20	
superior conj	1247 Mar 01 j 23:59	18°♄18'23	-1°-25'-54	max. Earth dist.	1248 Feb 05 j 17:41	17°♄44'36	1.38556 AU
minimum elong	1247 Mar 02 j 03:55	18°♄37'57	1°25'21		1248 Feb 12 j 10:38	0°♄	
	1247 Mar 07 j 19:20	0°♄					
evening rise	1247 Mar 10 j 06:09	4°♄58'04		superior conj	1248 Feb 13 j 01:30	1°♄10'02	-1°-47'-21
asc. node	1247 Mar 11 j 08:49	7°♄12'06		minimum elong	1248 Feb 13 j 05:29	1°♄28'53	1°46'59
	1247 Mar 24 j 19:29	0°♄		evening rise	1248 Feb 22 j 03:18	18°♄45'26	
evening max el	1247 Mar 27 j 14:20	3°♄03'10	19°42'21	asc. node	1248 Feb 26 j 05:51	26°♄39'58	

	1248 Feb 28 j 01:07	0°Υ		evening rise	1249 Feb 04 j 14:07	1°κ58'17	
evening max el	1248 Mar 09 j 12:41	15°Υ12'15	18°50'44	asc. node	1249 Feb 12 j 02:53	15°κ43'30	
retrograde	1248 Mar 17 j 18:39	19°Υ12'22		evening max el	1249 Feb 20 j 18:53	27°κ52'16	18°19'13
evening set	1248 Mar 20 j 00:21	18°Υ55'52			1249 Feb 23 j 10:12	0°Υ	
inferior conj	1248 Mar 27 j 22:40	14°Υ36'52	2°09'39	retrograde	1249 Feb 27 j 23:31	1°Υ26'40	
minimum elong	1248 Mar 28 j 02:44	14°Υ29'29	2°08'29	evening set	1249 Mar 02 j 10:37	1°Υ02'34	
min. Earth dist.	1248 Mar 31 j 04:51	12°Υ16'13	0.57249 AU		1249 Mar 04 j 18:05	30°κκ	
morning rise	1248 Apr 05 j 00:49	9°Υ29'00		inferior conj	1249 Mar 09 j 15:08	26°κ22'24	3°10'28
desc. node	1248 Apr 05 j 00:51	9°Υ28'57		minimum elong	1249 Mar 09 j 18:34	26°κ15'05	3°09'48
direct	1248 Apr 10 j 11:20	8°Υ17'23		min. Earth dist.	1249 Mar 13 j 01:25	23°κ29'22	0.59257 AU
morning max el	1248 Apr 24 j 19:05	15°Υ46'04	26°03'02	morning rise	1249 Mar 16 j 22:49	20°κ47'32	
	1248 May 06 j 07:19	0°Ϡ		desc. node	1249 Mar 22 j 21:54	18°κ59'52	
morning set	1248 May 22 j 22:18	0°Π05'35		direct	1249 Mar 23 j 07:00	18°κ59'29	
	1248 May 22 j 21:15	0°Π		morning max el	1249 Apr 06 j 15:03	26°κ43'52	27°11'31
asc. node	1248 May 24 j 05:10	2°Π49'15			1249 Apr 09 j 17:33	0°Υ	
					1249 Apr 29 j 18:12	0°Ϡ	
superior conj	1248 May 29 j 23:01	15°Π19'57	0°57'24	morning set	1249 May 07 j 07:28	14°Ϡ52'43	
minimum elong	1248 May 29 j 20:51	15°Π08'02	0°57'01	asc. node	1249 May 11 j 02:11	22°Ϡ55'56	
max. Earth dist.	1248 May 30 j 13:29	16°Π39'17	1.32441 AU				
evening rise	1248 Jun 05 j 23:58	0°ϣ28'57		superior conj	1249 May 14 j 10:47	0°Π16'56	0°34'53
	1248 Jun 05 j 18:25	0°ϣ		minimum elong	1249 May 14 j 09:18	0°Π08'46	0°34'34
	1248 Jun 22 j 05:39	0°Ω		max. Earth dist.	1249 May 14 j 02:02	29°Ϡ28'50	1.32238 AU
desc. node	1248 Jul 02 j 00:09	13°Ω19'51			1249 May 14 j 07:42	0°Π	
evening max el	1248 Jul 07 j 01:21	18°Ω42'51	27°04'29	evening rise	1249 May 21 j 08:49	15°Π18'06	
retrograde	1248 Jul 20 j 23:05	25°Ω57'49			1249 May 28 j 17:58	0°ϣ	
evening set	1248 Jul 28 j 00:10	23°Ω44'05		desc. node	1249 Jun 18 j 21:10	0°Ω16'06	
min. Earth dist.	1248 Jul 31 j 15:37	21°Ω01'49	0.61267 AU		1249 Jun 18 j 14:31	0°Ω	
inferior conj	1248 Aug 03 j 19:28	18°Ω16'19	-4°-23'-36	evening max el	1249 Jun 19 j 00:52	0°Ω24'56	26°10'39
minimum elong	1248 Aug 04 j 00:06	18°Ω06'09	4°22'48	retrograde	1249 Jul 03 j 00:58	7°Ω36'21	
morning rise	1248 Aug 11 j 02:59	13°Ω22'48		evening set	1249 Jul 09 j 10:29	5°Ω56'18	
direct	1248 Aug 13 j 12:23	12°Ω59'22		min. Earth dist.	1249 Jul 13 j 13:36	3°Ω20'06	0.59210 AU
asc. node	1248 Aug 20 j 04:23	16°Ω07'42		inferior conj	1249 Jul 16 j 21:11	0°Ω49'18	-4°-50'-16
morning max el	1248 Aug 20 j 14:01	16°Ω30'33	17°59'31	minimum elong	1249 Jul 16 j 23:13	0°Ω45'27	4°50'09
	1248 Aug 30 j 01:40	0°η			1249 Jul 17 j 23:19	30°κϣ	
morning set	1248 Sep 05 j 09:57	11°η27'20		morning rise	1249 Jul 24 j 15:22	26°ϣ18'55	
				direct	1249 Jul 27 j 02:12	25°ϣ58'17	
superior conj	1248 Sep 15 j 16:32	0°Ϡ02'56	1°16'52	morning max el	1249 Aug 03 j 22:48	29°ϣ44'29	18°26'43
minimum elong	1248 Sep 15 j 21:04	0°Ϡ22'50	1°16'23		1249 Aug 04 j 05:13	0°Ω	
	1248 Sep 15 j 15:52	0°Ϡ		asc. node	1249 Aug 07 j 01:25	3°Ω13'48	
max. Earth dist.	1248 Sep 23 j 05:46	12°Ϡ55'55	1.42204 AU	morning set	1249 Aug 19 j 23:58	25°Ω17'04	
desc. node	1248 Sep 27 j 23:31	20°Ϡ39'30			1249 Aug 22 j 10:51	0°η	
evening rise	1248 Sep 29 j 10:17	22°Ϡ58'10					
	1248 Oct 03 j 22:06	0°ℓ		superior conj	1249 Aug 29 j 01:54	12°η32'12	1°36'26
	1248 Oct 24 j 19:08	0°Ϡ		minimum elong	1249 Aug 29 j 04:51	12°η45'51	1°36'13
greatest brilliancy	1248 Oct 27 j 07:38	3°Ϡ09'46	-0.3m	max. Earth dist.	1249 Sep 05 j 12:24	25°η51'18	1.40272 AU
evening max el	1248 Nov 01 j 00:46	8°Ϡ28'08	22°16'07		1249 Sep 07 j 22:32	0°Ϡ	
retrograde	1248 Nov 10 j 13:17	14°Ϡ07'48		evening rise	1249 Sep 10 j 22:49	3°Ϡ22'24	
evening set	1248 Nov 15 j 00:27	12°Ϡ21'19		desc. node	1249 Sep 14 j 20:32	11°Ϡ20'50	
asc. node	1248 Nov 16 j 03:35	11°Ϡ19'54			1249 Sep 27 j 04:54	0°ℓ	
inferior conj	1248 Nov 20 j 09:55	5°Ϡ59'50	1°25'28	evening max el	1249 Oct 14 j 15:06	22°ℓ01'19	23°35'56
minimum elong	1248 Nov 20 j 08:05	6°Ϡ06'11	1°24'44	retrograde	1249 Oct 25 j 06:15	28°ℓ17'54	
min. Earth dist.	1248 Nov 20 j 08:56	6°Ϡ03'16	0.67754 AU	evening set	1249 Oct 30 j 06:51	26°ℓ13'44	
	1248 Nov 25 j 09:11	30°κℓ		asc. node	1249 Nov 03 j 00:37	22°ℓ05'24	
morning rise	1248 Nov 25 j 15:34	29°ℓ46'17		min. Earth dist.	1249 Nov 04 j 05:30	20°ℓ28'23	0.67710 AU
direct	1248 Nov 30 j 07:16	27°ℓ51'11		inferior conj	1249 Nov 04 j 17:05	19°ℓ48'51	0°34'40
	1248 Dec 05 j 19:56	0°Ϡ		minimum elong	1249 Nov 04 j 16:16	19°ℓ51'38	0°34'20
morning max el	1248 Dec 09 j 19:23	3°Ϡ28'02	22°22'32	morning rise	1249 Nov 10 j 01:49	13°ℓ39'24	
greatest brilliancy	1248 Dec 14 j 09:34	8°Ϡ36'31	-0.3m	direct	1249 Nov 14 j 03:15	12°ℓ06'59	
desc. node	1248 Dec 24 j 22:46	22°Ϡ43'21		morning max el	1249 Nov 22 j 12:19	16°ℓ59'08	21°01'11
	1248 Dec 29 j 22:35	0°ϣ		greatest brilliancy	1249 Nov 28 j 00:40	23°ℓ22'23	-0.5m
morning set	1249 Jan 12 j 06:46	20°ϣ44'18			1249 Dec 02 j 23:17	0°Ϡ	
max. Earth dist.	1249 Jan 17 j 14:18	29°ϣ32'53	1.40700 AU	desc. node	1249 Dec 11 j 19:48	12°Ϡ49'36	
	1249 Jan 17 j 20:43	0°≈		morning set	1249 Dec 22 j 14:17	29°Ϡ16'53	
					1249 Dec 23 j 01:17	0°ϣ	
superior conj	1249 Jan 25 j 09:39	13°≈08'44	-2°-1'-8	max. Earth dist.	1249 Dec 30 j 17:52	12°ϣ17'27	1.42636 AU
minimum elong	1249 Jan 25 j 11:54	13°≈18'49	2°01'04				
	1249 Feb 03 j 12:56	0°κ		superior conj	1250 Jan 06 j 19:02	24°ϣ01'30	-2°-2'-45

minimum elong	1250 Jan 06 j 17:09	23°☾53'29	2°02'44		1250 Dec 15 j 19:07	0°☾	
	1250 Jan 10 j 06:31	0°☾					
evening rise	1250 Jan 18 j 10:45	14°☾28'19		superior conj	1250 Dec 18 j 01:55	3°☾41'07	-1°-47'-27
	1250 Jan 27 j 07:20	0°☾		minimum elong	1250 Dec 17 j 18:52	3°☾12'36	1°46'57
asc. node	1250 Jan 29 j 23:54	4°☾14'56		evening rise	1250 Dec 31 j 12:54	26°☾06'46	
evening max el	1250 Feb 04 j 05:43	10°☾54'19	18°07'32		1251 Jan 02 j 19:33	0°☾	
retrograde	1250 Feb 10 j 20:45	14°☾18'54		asc. node	1251 Jan 16 j 20:56	22°☾03'56	
evening set	1250 Feb 13 j 12:37	13°☾45'51		evening max el	1251 Jan 18 j 18:13	24°☾09'59	18°15'04
inferior conj	1250 Feb 20 j 02:45	8°☾44'13	3°40'02	retrograde	1251 Jan 25 j 05:32	27°☾38'06	
minimum elong	1250 Feb 20 j 04:11	8°☾40'42	3°39'56	evening set	1251 Jan 28 j 02:09	26°☾55'05	
min. Earth dist.	1250 Feb 23 j 05:09	5°☾43'26	0.61379 AU	inferior conj	1251 Feb 03 j 05:30	21°☾33'24	3°45'38
morning rise	1250 Feb 26 j 17:03	2°☾51'22		minimum elong	1251 Feb 03 j 04:59	21°☾34'50	3°45'38
direct	1250 Mar 05 j 13:25	0°☾29'48		min. Earth dist.	1251 Feb 05 j 18:08	18°☾47'05	0.63352 AU
desc. node	1250 Mar 09 j 18:56	1°☾19'00		morning rise	1251 Feb 09 j 05:58	15°☾29'43	
morning max el	1250 Mar 19 j 17:31	8°☾22'43	27°45'48	direct	1251 Feb 16 j 04:38	12°☾45'57	
	1250 Apr 05 j 07:11	0°☾		desc. node	1251 Feb 24 j 15:59	16°☾02'34	
morning set	1250 Apr 21 j 12:33	29°☾25'38		morning max el	1251 Mar 02 j 00:54	20°☾40'34	27°42'43
	1250 Apr 21 j 19:15	0°☾			1251 Mar 10 j 02:26	0°☾	
max. Earth dist.	1250 Apr 27 j 13:08	12°☾11'26	1.32412 AU		1251 Mar 29 j 07:59	0°☾	
asc. node	1250 Apr 27 j 23:11	13°☾06'04		morning set	1251 Apr 05 j 11:12	13°☾35'26	
				max. Earth dist.	1251 Apr 10 j 18:37	24°☾31'48	1.32984 AU
superior conj	1250 Apr 28 j 21:29	15°☾07'39	0°09'50				
minimum elong	1250 Apr 28 j 21:02	15°☾05'11	0°09'43	superior conj	1251 Apr 13 j 05:20	29°☾45'08	0°-17'-1
behind sun begin	1250 Apr 28 j 16:59	14°☾43'03		minimum elong	1251 Apr 13 j 06:10	29°☾49'35	0°16'52
behind sun end	1250 Apr 29 j 01:05	15°☾27'19			1251 Apr 13 j 08:07	0°☾	
evening rise	1250 May 05 j 20:06	0°☾11'40		asc. node	1251 Apr 14 j 20:13	3°☾14'42	
	1250 May 05 j 17:54	0°☾		evening rise	1251 Apr 20 j 07:53	15°☾01'59	
	1250 May 22 j 07:34	0°☾			1251 Apr 27 j 20:25	0°☾	
evening max el	1250 May 31 j 17:27	11°☾22'36	24°50'05	evening max el	1251 May 13 j 07:24	21°☾54'52	23°15'37
desc. node	1250 Jun 05 j 18:10	15°☾27'14		desc. node	1251 May 23 j 15:12	28°☾16'37	
retrograde	1250 Jun 14 j 16:31	18°☾27'34		retrograde	1251 May 26 j 19:58	28°☾39'55	
evening set	1250 Jun 19 j 21:16	17°☾26'08		evening set	1251 May 30 j 12:56	28°☾09'45	
min. Earth dist.	1250 Jun 25 j 04:47	14°☾37'28	0.57254 AU	min. Earth dist.	1251 Jun 06 j 17:13	24°☾54'04	0.55733 AU
inferior conj	1250 Jun 28 j 03:26	12°☾41'14	-4°-47'-28	inferior conj	1251 Jun 08 j 13:51	23°☾48'27	-4°-1'-58
minimum elong	1250 Jun 28 j 00:38	12°☾45'51	4°47'16	minimum elong	1251 Jun 08 j 06:43	23°☾58'59	4°00'28
morning rise	1250 Jul 06 j 07:49	8°☾33'00		morning rise	1251 Jun 17 j 03:43	19°☾54'20	
direct	1250 Jul 08 j 21:55	8°☾13'57		direct	1251 Jun 19 j 22:20	19°☾35'41	
morning max el	1250 Jul 17 j 23:26	12°☾27'35	19°14'53	morning max el	1251 Jun 30 j 13:28	24°☾30'52	20°24'07
asc. node	1250 Jul 24 j 22:27	21°☾14'14			1251 Jul 05 j 10:11	0°☾	
	1250 Jul 30 j 00:33	0°☾		asc. node	1251 Jul 11 j 19:29	9°☾56'06	
morning set	1250 Aug 03 j 23:07	9°☾33'52		morning set	1251 Jul 19 j 04:29	24°☾09'43	
					1251 Jul 22 j 00:38	0°☾	
superior conj	1250 Aug 12 j 04:58	25°☾54'38	1°45'16				
minimum elong	1250 Aug 12 j 05:55	25°☾59'16	1°45'14	superior conj	1251 Jul 26 j 20:42	9°☾55'24	1°45'21
	1250 Aug 14 j 07:57	0°☾		minimum elong	1251 Jul 26 j 19:58	9°☾51'44	1°45'20
max. Earth dist.	1250 Aug 18 j 15:49	8°☾04'29	1.38230 AU	max. Earth dist.	1251 Jul 31 j 21:43	19°☾54'48	1.36327 AU
evening rise	1250 Aug 22 j 11:43	14°☾55'03		evening rise	1251 Aug 04 j 22:14	27°☾29'53	
	1250 Aug 31 j 12:51	0°☾			1251 Aug 06 j 07:07	0°☾	
desc. node	1250 Sep 01 j 17:32	1°☾53'09		desc. node	1251 Aug 19 j 14:33	22°☾11'20	
	1250 Sep 21 j 22:49	0°☾			1251 Aug 24 j 21:30	0°☾	
evening max el	1250 Sep 27 j 03:06	5°☾37'44	24°54'00	evening max el	1251 Sep 09 j 14:53	19°☾16'23	26°02'59
retrograde	1250 Oct 08 j 19:19	12°☾24'57		retrograde	1251 Sep 22 j 03:45	26°☾23'49	
evening set	1250 Oct 14 j 10:18	10°☾03'53		evening set	1251 Sep 28 j 08:59	23°☾49'00	
min. Earth dist.	1250 Oct 19 j 00:25	4°☾52'54	0.67333 AU	min. Earth dist.	1251 Oct 02 j 15:21	19°☾14'08	0.66620 AU
inferior conj	1250 Oct 19 j 22:35	3°☾39'45	0°-19'-54	inferior conj	1251 Oct 04 j 00:40	17°☾30'03	-1°-16'-49
minimum elong	1250 Oct 19 j 23:05	3°☾38'06	0°19'41	minimum elong	1251 Oct 04 j 02:40	17°☾23'48	1°16'00
asc. node	1250 Oct 20 j 21:40	2°☾24'13		asc. node	1251 Oct 07 j 18:42	13°☾14'06	
	1250 Oct 22 j 21:16	30°☾		morning rise	1251 Oct 09 j 21:18	11°☾36'27	
morning rise	1250 Oct 25 j 12:23	27°☾36'49		direct	1251 Oct 12 j 23:38	10°☾41'25	
direct	1250 Oct 29 j 01:11	26°☾24'52		morning max el	1251 Oct 19 j 20:57	14°☾32'04	18°56'43
	1250 Nov 04 j 20:10	0°☾			1251 Oct 31 j 08:29	0°☾	
morning max el	1250 Nov 05 j 13:01	0°☾41'11	19°51'35	morning set	1251 Nov 10 j 20:15	16°☾21'10	
greatest brilliancy	1250 Nov 13 j 02:51	10°☾01'27	-0.6m	desc. node	1251 Nov 15 j 13:51	23°☾47'08	
	1250 Nov 26 j 14:37	0°☾			1251 Nov 19 j 12:56	0°☾	
desc. node	1250 Nov 28 j 16:49	3°☾12'25		max. Earth dist.	1251 Nov 25 j 20:55	9°☾56'32	1.44953 AU
morning set	1250 Dec 01 j 10:23	7°☾24'56					
max. Earth dist.	1250 Dec 13 j 04:40	25°☾50'18	1.44113 AU	superior conj	1251 Nov 27 j 10:05	12°☾22'53	-1°-13'-29

minimum elong	1251 Nov 27 j 01:44	11°♂50'00	1°12'33	minimum elong	1252 Nov 05 j 08:03	20°♂38'15	0°26'07
	1251 Dec 08 j 11:44	0°♂		max. Earth dist.	1252 Nov 07 j 15:50	24°♂17'57	1.45064 AU
evening rise	1251 Dec 12 j 16:45	6°♂48'29			1252 Nov 11 j 07:00	0°♂	
	1251 Dec 27 j 06:51	0°♂		evening rise	1252 Nov 21 j 21:15	16°♂34'01	
evening max el	1252 Jan 02 j 05:49	7°♂34'20	18°40'55		1252 Nov 30 j 11:56	0°♂	
asc. node	1252 Jan 03 j 17:59	8°♂58'51		greatest brilliancy	1252 Dec 06 j 17:02	9°♂26'42	-0.7m
retrograde	1252 Jan 08 j 21:45	11°♂17'08		evening max el	1252 Dec 15 j 14:15	21°♂02'26	19°23'49
evening set	1252 Jan 11 j 23:55	10°♂23'02		asc. node	1252 Dec 20 j 15:03	24°♂44'53	
inferior conj	1252 Jan 17 j 19:33	4°♂43'10	3°33'42	retrograde	1252 Dec 22 j 18:04	25°♂09'44	
minimum elong	1252 Jan 17 j 17:39	4°♂48'52	3°33'27	evening set	1252 Dec 26 j 03:09	24°♂03'00	
min. Earth dist.	1252 Jan 19 j 16:42	2°♂26'55	0.65013 AU	inferior conj	1252 Dec 31 j 17:31	18°♂07'19	3°08'56
	1252 Jan 21 j 21:26	30°♂♂		minimum elong	1252 Dec 31 j 14:57	18°♂15'38	3°08'21
morning rise	1252 Jan 23 j 10:11	28°♂33'12		min. Earth dist.	1253 Jan 01 j 23:50	16°♂29'16	0.66280 AU
direct	1252 Jan 30 j 03:13	25°♂42'04		morning rise	1253 Jan 06 j 01:57	11°♂53'48	
	1252 Feb 08 j 15:08	0°♂		direct	1253 Jan 12 j 07:45	9°♂08'51	
desc. node	1252 Feb 11 j 13:03	2°♂35'31		morning max el	1253 Jan 24 j 19:46	16°♂33'12	26°01'41
morning max el	1252 Feb 12 j 10:26	3°♂28'08	27°05'31	desc. node	1253 Jan 28 j 10:06	20°♂26'32	
	1252 Mar 03 j 11:28	0°♂			1253 Feb 05 j 00:16	0°♂	
morning set	1252 Mar 19 j 00:23	27°♂12'45			1253 Feb 24 j 09:02	0°♂	
	1252 Mar 20 j 10:43	0°♂		morning set	1253 Mar 02 j 00:05	10°♂05'35	
max. Earth dist.	1252 Mar 23 j 14:37	6°♂19'23	1.33998 AU	max. Earth dist.	1253 Mar 05 j 23:03	17°♂35'00	1.35474 AU
superior conj	1252 Mar 27 j 08:23	14°♂03'21	0°-44'-35	superior conj	1253 Mar 11 j 04:09	27°♂55'11	-1°-11'-29
minimum elong	1252 Mar 27 j 10:36	14°♂14'58	0°44'10	minimum elong	1253 Mar 11 j 07:37	28°♂12'43	1°10'55
asc. node	1252 Mar 31 j 17:16	23°♂17'55			1253 Mar 12 j 04:41	0°♂	
evening rise	1252 Apr 03 j 18:22	29°♂43'10		asc. node	1253 Mar 18 j 14:21	13°♂11'33	
	1252 Apr 03 j 21:35	0°♂		evening rise	1253 Mar 19 j 01:35	14°♂09'09	
	1252 Apr 21 j 16:13	0°♂			1253 Mar 27 j 07:29	0°♂	
evening max el	1252 Apr 24 j 02:09	2°♂32'55	21°42'07	evening max el	1253 Apr 06 j 07:07	13°♂41'10	20°20'56
retrograde	1252 May 06 j 11:56	8°♂37'21		retrograde	1253 Apr 17 j 01:15	18°♂53'01	
evening set	1252 May 09 j 00:58	8°♂22'48		evening set	1253 Apr 19 j 03:15	18°♂42'10	
desc. node	1252 May 09 j 12:14	8°♂17'04		desc. node	1253 Apr 26 j 09:16	15°♂48'03	
inferior conj	1252 May 18 j 10:17	4°♂20'54	-2°-30'-21	inferior conj	1253 Apr 28 j 05:28	14°♂44'18	0°-32'-3
minimum elong	1252 May 18 j 03:38	4°♂30'12	2°28'12	minimum elong	1253 Apr 28 j 03:58	14°♂46'30	0°31'30
min. Earth dist.	1252 May 18 j 05:32	4°♂27'33	0.54979 AU	min. Earth dist.	1253 Apr 29 j 18:36	13°♂49'58	0.55173 AU
morning rise	1252 May 27 j 07:12	0°♂25'20		morning rise	1253 May 07 j 02:39	10°♂28'38	
direct	1252 May 30 j 10:12	0°♂03'51		direct	1253 May 10 j 22:00	9°♂57'15	
morning max el	1252 Jun 11 j 16:09	5°♂50'09	21°52'09	morning max el	1253 May 24 j 10:00	16°♂32'55	23°32'18
asc. node	1252 Jun 27 j 16:32	29°♂09'19			1253 Jun 04 j 03:54	0°♂	
	1252 Jun 28 j 03:03	0°♂		asc. node	1253 Jun 14 j 13:36	18°♂45'48	
morning set	1252 Jul 02 j 13:50	8°♂58'24		morning set	1253 Jun 17 j 01:20	23°♂54'37	
					1253 Jun 19 j 21:58	0°♂	
superior conj	1252 Jul 09 j 21:14	24°♂22'57	1°38'27	superior conj	1253 Jun 24 j 03:42	9°♂08'31	1°25'58
minimum elong	1252 Jul 09 j 19:24	24°♂13'18	1°38'19	minimum elong	1253 Jun 24 j 01:20	8°♂55'44	1°25'41
	1252 Jul 12 j 14:12	0°♂		max. Earth dist.	1253 Jun 26 j 11:17	14°♂05'12	1.33536 AU
max. Earth dist.	1252 Jul 13 j 11:42	1°♂49'47	1.34741 AU	evening rise	1253 Jul 01 j 17:29	24°♂55'58	
evening rise	1252 Jul 18 j 01:38	10°♂54'20			1253 Jul 04 j 07:26	0°♂	
	1252 Jul 28 j 17:28	0°♂			1253 Jul 22 j 05:22	0°♂	
desc. node	1252 Aug 05 j 11:34	12°♂08'28		desc. node	1253 Jul 23 j 08:35	1°♂35'42	
	1252 Aug 19 j 08:10	0°♂		evening max el	1253 Aug 04 j 14:48	16°♂09'28	27°22'48
evening max el	1252 Aug 22 j 03:08	2°♂50'32	26°55'01	retrograde	1253 Aug 18 j 03:50	23°♂27'40	
retrograde	1252 Sep 04 j 06:45	10°♂07'09		evening set	1253 Aug 25 j 06:37	20°♂46'10	
evening set	1252 Sep 11 j 00:41	7°♂24'30		min. Earth dist.	1253 Aug 28 j 23:41	17°♂24'05	0.64154 AU
min. Earth dist.	1252 Sep 14 j 23:52	3°♂26'45	0.65563 AU	inferior conj	1253 Aug 31 j 09:55	14°♂50'42	-3°-9'-56
inferior conj	1252 Sep 16 j 21:14	1°♂15'15	-2°-14'-20	minimum elong	1253 Aug 31 j 14:39	14°♂38'11	3°08'26
minimum elong	1252 Sep 17 j 00:45	1°♂05'03	2°13'01	morning rise	1253 Sep 07 j 00:41	9°♂25'35	
	1252 Sep 17 j 23:29	30°♂♂		direct	1253 Sep 09 j 13:28	8°♂53'07	
morning rise	1252 Sep 23 j 02:17	25°♂34'07		asc. node	1253 Sep 10 j 12:50	8°♂57'59	
asc. node	1252 Sep 23 j 15:47	25°♂18'52		morning max el	1253 Sep 16 j 01:54	12°♂19'19	17°56'30
direct	1252 Sep 25 j 20:34	24°♂52'11			1253 Sep 28 j 05:17	0°♂	
morning max el	1252 Oct 02 j 10:05	28°♂26'23	18°18'03	morning set	1253 Oct 03 j 03:25	8°♂23'16	
	1252 Oct 03 j 20:42	0°♂					
morning set	1252 Oct 21 j 10:01	26°♂41'53		superior conj	1253 Oct 16 j 03:42	0°♂07'56	0°21'13
	1252 Oct 23 j 10:42	0°♂		minimum elong	1253 Oct 16 j 06:03	0°♂17'32	0°20'53
desc. node	1252 Nov 01 j 10:53	14°♂29'10			1253 Oct 16 j 01:44	0°♂	
superior conj	1252 Nov 05 j 11:31	20°♂51'54	0°-26'-33	desc. node	1253 Oct 19 j 07:55	5°♂15'26	

max. Earth dist.	1253 Oct 21 j 10:20	8° \mathbb{M} 36'39	1.44443 AU	minimum elong	1254 Sep 27 j 02:56	11° \mathbb{A} 02'30	0°59'30
evening rise	1253 Nov 01 j 08:38	25° \mathbb{M} 41'15		max. Earth dist.	1254 Oct 04 j 01:01	22° \mathbb{A} 32'46	1.43166 AU
	1253 Nov 04 j 04:04	0° \mathbb{A}		desc. node	1254 Oct 06 j 04:56	26° \mathbb{A} 02'32	
greatest brilliancy	1253 Nov 22 j 10:48	26° \mathbb{A} 54'37	-0.5m		1254 Oct 08 j 16:30	0° \mathbb{M}	
	1253 Nov 24 j 19:39	0° \mathbb{B}		evening rise	1254 Oct 11 j 17:36	4° \mathbb{M} 47'07	
evening max el	1253 Nov 28 j 17:45	4° \mathbb{B} 31'43	20°21'48		1254 Oct 28 j 13:58	0° \mathbb{A}	
retrograde	1253 Dec 06 j 15:54	9° \mathbb{B} 11'34		greatest brilliancy	1254 Nov 06 j 16:30	12° \mathbb{A} 19'50	-0.4m
asc. node	1253 Dec 07 j 12:06	9° \mathbb{B} 07'34		evening max el	1254 Nov 11 j 15:27	18° \mathbb{A} 01'24	21°31'55
evening set	1253 Dec 10 j 09:36	7° \mathbb{B} 50'34		retrograde	1254 Nov 20 j 13:08	23° \mathbb{A} 19'14	
inferior conj	1253 Dec 15 j 20:45	1° \mathbb{B} 41'57	2°34'27	asc. node	1254 Nov 24 j 09:08	21° \mathbb{A} 57'50	
minimum elong	1253 Dec 15 j 18:05	1° \mathbb{B} 50'58	2°33'38	evening set	1254 Nov 24 j 17:22	21° \mathbb{A} 42'23	
min. Earth dist.	1253 Dec 16 j 13:45	0° \mathbb{B} 44'23	0.67142 AU	inferior conj	1254 Nov 30 j 02:59	15° \mathbb{A} 24'18	1°52'26
	1253 Dec 17 j 02:59	30° \mathbb{R} \mathbb{A}		minimum elong	1254 Nov 30 j 00:44	15° \mathbb{A} 32'07	1°51'36
morning rise	1253 Dec 21 j 02:03	25° \mathbb{A} 26'49		min. Earth dist.	1254 Nov 30 j 08:13	15° \mathbb{A} 06'13	0.67627 AU
direct	1253 Dec 26 j 17:34	22° \mathbb{A} 57'45		morning rise	1254 Dec 05 j 07:50	9° \mathbb{A} 09'28	
morning max el	1254 Jan 07 j 04:18	29° \mathbb{A} 47'11	24°40'43	direct	1254 Dec 10 j 08:02	7° \mathbb{A} 01'30	
	1254 Jan 07 j 09:22	0° \mathbb{B}		morning max el	1254 Dec 20 j 13:33	13° \mathbb{A} 06'21	23°12'40
desc. node	1254 Jan 15 j 07:09	9° \mathbb{B} 12'59		greatest brilliancy	1254 Dec 25 j 14:54	18° \mathbb{A} 46'23	-0.3m
	1254 Jan 29 j 21:23	0° \mathbb{A}		desc. node	1255 Jan 02 j 04:11	28° \mathbb{A} 38'57	
morning set	1254 Feb 12 j 04:54	21° \mathbb{A} 58'50			1255 Jan 03 j 03:30	0° \mathbb{B}	
max. Earth dist.	1254 Feb 15 j 21:48	28° \mathbb{A} 37'57	1.37356 AU		1255 Jan 22 j 18:56	0° \mathbb{A}	
	1254 Feb 16 j 15:40	0° \mathbb{H}		morning set	1255 Jan 24 j 08:36	2° \mathbb{A} 36'28	
				max. Earth dist.	1255 Jan 28 j 16:52	10° \mathbb{A} 00'32	1.39471 AU
superior conj	1254 Feb 22 j 13:28	11° \mathbb{H} 11'42	-1°-35'-42	superior conj	1255 Feb 05 j 08:13	23° \mathbb{A} 42'25	-1°-54'-22
minimum elong	1254 Feb 22 j 17:35	11° \mathbb{H} 31'46	1°35'12	minimum elong	1255 Feb 05 j 11:45	23° \mathbb{A} 58'43	1°54'09
evening rise	1254 Mar 03 j 03:13	28° \mathbb{H} 13'01			1255 Feb 08 j 16:52	0° \mathbb{H}	
	1254 Mar 04 j 00:46	0° \mathbb{Y}		evening rise	1255 Feb 14 j 20:27	11° \mathbb{H} 47'15	
asc. node	1254 Mar 05 j 11:24	2° \mathbb{Y} 50'29		asc. node	1255 Feb 20 j 08:26	22° \mathbb{H} 09'15	
evening max el	1254 Mar 19 j 23:30	25° \mathbb{Y} 28'10	19°17'51		1255 Feb 24 j 22:58	0° \mathbb{Y}	
retrograde	1254 Mar 29 j 01:19	29° \mathbb{Y} 51'07		evening max el	1255 Mar 03 j 01:32	7° \mathbb{Y} 51'29	18°34'50
evening set	1254 Mar 31 j 04:09	29° \mathbb{Y} 37'49		retrograde	1255 Mar 10 j 19:31	11° \mathbb{Y} 39'02	
inferior conj	1254 Apr 08 j 13:24	25° \mathbb{Y} 28'44	1°18'57	evening set	1255 Mar 13 j 03:21	11° \mathbb{Y} 19'40	
minimum elong	1254 Apr 08 j 16:26	25° \mathbb{Y} 23'40	1°17'55	inferior conj	1255 Mar 20 j 17:46	6° \mathbb{Y} 51'53	2°39'39
min. Earth dist.	1254 Apr 11 j 09:21	23° \mathbb{Y} 36'27	0.56282 AU	minimum elong	1255 Mar 20 j 21:51	6° \mathbb{Y} 43'55	2°38'38
desc. node	1254 Apr 13 j 06:19	22° \mathbb{Y} 27'41		min. Earth dist.	1255 Mar 24 j 03:29	4° \mathbb{Y} 14'27	0.58062 AU
morning rise	1254 Apr 17 j 00:46	20° \mathbb{Y} 40'00		morning rise	1255 Mar 28 j 12:08	1° \mathbb{Y} 30'59	
direct	1254 Apr 21 j 20:08	19° \mathbb{Y} 47'00		desc. node	1255 Mar 31 j 03:21	0° \mathbb{Y} 30'44	
morning max el	1254 May 06 j 00:32	27° \mathbb{Y} 00'30	25°12'08	direct	1255 Apr 03 j 08:34	0° \mathbb{Y} 04'18	
	1254 May 08 j 21:54	0° \mathbb{B}		morning max el	1255 Apr 17 j 17:35	7° \mathbb{Y} 41'31	26°35'56
	1254 May 28 j 05:06	0° \mathbb{H}			1255 May 04 j 10:30	0° \mathbb{B}	
asc. node	1254 Jun 01 j 10:39	8° \mathbb{H} 38'05		morning set	1255 May 16 j 23:51	23° \mathbb{B} 44'05	
morning set	1254 Jun 01 j 13:13	8° \mathbb{H} 51'38		asc. node	1255 May 19 j 07:41	28° \mathbb{B} 41'02	
					1255 May 19 j 22:19	0° \mathbb{H}	
superior conj	1254 Jun 08 j 13:41	24° \mathbb{H} 03'23	1°08'57	superior conj	1255 May 24 j 01:18	9° \mathbb{H} 01'23	0°48'13
minimum elong	1254 Jun 08 j 11:18	23° \mathbb{H} 50'23	1°08'33	minimum elong	1255 May 23 j 23:22	8° \mathbb{H} 50'48	0°47'50
max. Earth dist.	1254 Jun 09 j 18:26	26° \mathbb{H} 40'02	1.32726 AU	max. Earth dist.	1255 May 24 j 05:53	9° \mathbb{H} 26'35	1.32305 AU
	1254 Jun 11 j 07:22	0° \mathbb{B}		evening rise	1255 May 31 j 00:34	24° \mathbb{H} 05'33	
evening rise	1254 Jun 15 j 18:04	9° \mathbb{B} 22'36			1255 Jun 02 j 21:37	0° \mathbb{B}	
	1254 Jun 26 j 15:55	0° \mathbb{Q}			1255 Jun 20 j 14:27	0° \mathbb{Q}	
desc. node	1254 Jul 10 j 05:36	20° \mathbb{Q} 19'27		desc. node	1255 Jun 27 j 02:37	8° \mathbb{Q} 01'43	
evening max el	1254 Jul 17 j 23:27	28° \mathbb{Q} 58'24	27°20'34	evening max el	1255 Jun 30 j 02:40	11° \mathbb{Q} 06'06	26°45'18
	1254 Jul 19 j 02:10	0° \mathbb{P}		retrograde	1255 Jul 14 j 01:50	18° \mathbb{Q} 20'31	
retrograde	1254 Jul 31 j 18:28	6° \mathbb{P} 15'11		evening set	1255 Jul 20 j 21:56	16° \mathbb{Q} 19'35	
evening set	1254 Aug 07 j 23:12	3° \mathbb{P} 47'01		min. Earth dist.	1255 Jul 24 j 16:26	13° \mathbb{Q} 42'17	0.60394 AU
min. Earth dist.	1254 Aug 11 j 13:11	0° \mathbb{P} 54'02	0.62400 AU	inferior conj	1255 Jul 27 j 23:11	11° \mathbb{Q} 00'14	-4°-37'-42
	1254 Aug 12 j 12:36	30° \mathbb{R} \mathbb{Q}		minimum elong	1255 Jul 28 j 03:00	10° \mathbb{Q} 52'18	4°37'12
inferior conj	1254 Aug 14 j 11:41	28° \mathbb{Q} 08'31	-3°-59'-49	morning rise	1255 Aug 04 j 11:20	6° \mathbb{Q} 16'47	
minimum elong	1254 Aug 14 j 16:48	27° \mathbb{Q} 56'28	3°58'37	direct	1255 Aug 06 j 20:57	5° \mathbb{Q} 54'51	
morning rise	1254 Aug 21 j 13:03	23° \mathbb{Q} 02'54		morning max el	1255 Aug 14 j 05:38	9° \mathbb{Q} 31'07	18°08'39
direct	1254 Aug 23 j 22:55	22° \mathbb{Q} 36'57		asc. node	1255 Aug 15 j 06:54	10° \mathbb{Q} 35'54	
asc. node	1254 Aug 28 j 09:52	24° \mathbb{Q} 07'57			1255 Aug 27 j 14:32	0° \mathbb{P}	
morning max el	1254 Aug 30 j 17:27	26° \mathbb{Q} 03'32	17°53'02	morning set	1255 Aug 30 j 01:36	4° \mathbb{P} 35'43	
	1254 Sep 03 j 02:05	0° \mathbb{P}					
morning set	1254 Sep 15 j 18:34	21° \mathbb{P} 06'45		superior conj	1255 Sep 08 j 18:51	22° \mathbb{P} 33'53	1°26'37
	1254 Sep 20 j 18:09	0° \mathbb{A}		minimum elong	1255 Sep 08 j 22:50	22° \mathbb{P} 51'47	1°26'14
superior conj	1254 Sep 26 j 22:15	10° \mathbb{A} 42'34	1°00'05				

	1255 Sep 12 j 23:57	0°♄		superior conj	1256 Aug 21 j 12:25	5°♄27'41	1°41'23
max. Earth dist.	1255 Sep 16 j 09:55	5°♄50'23	1.41406 AU	minimum elong	1256 Aug 21 j 14:31	5°♄37'36	1°41'15
evening rise	1255 Sep 21 j 17:00	14°♄34'39		max. Earth dist.	1256 Aug 28 j 14:25	18°♄25'44	1.39396 AU
desc. node	1255 Sep 23 j 01:56	16°♄46'59		evening rise	1256 Sep 01 j 16:02	25°♄28'40	
	1255 Oct 01 j 14:26	0°♄			1256 Sep 04 j 08:49	0°♄	
greatest brilliancy	1255 Oct 20 j 05:44	25°♄50'11	-0.3m	desc. node	1256 Sep 08 j 22:57	7°♄25'22	
	1255 Oct 23 j 20:30	0°♄			1256 Sep 24 j 07:18	0°♄	
evening max el	1255 Oct 25 j 07:57	1°♄32'39	22°49'52	evening max el	1256 Oct 06 j 21:11	15°♄08'08	24°09'52
retrograde	1255 Nov 04 j 08:06	7°♄29'13		retrograde	1256 Oct 17 j 23:32	21°♄38'49	
evening set	1255 Nov 09 j 00:42	5°♄35'21		evening set	1256 Oct 23 j 06:04	19°♄27'34	
asc. node	1255 Nov 11 j 06:09	3°♄21'11		min. Earth dist.	1256 Oct 28 j 01:04	13°♄56'24	0.67588 AU
	1255 Nov 13 j 20:20	30°♄		asc. node	1256 Oct 28 j 03:10	13°♄49'21	
inferior conj	1255 Nov 14 j 10:19	29°♄11'42	1°04'27	inferior conj	1256 Oct 28 j 17:02	13°♄02'32	0°11'57
minimum elong	1255 Nov 14 j 08:53	29°♄16'41	1°03'52	minimum elong	1256 Oct 28 j 16:44	13°♄03'31	0°11'49
min. Earth dist.	1255 Nov 14 j 04:48	29°♄30'47	0.67770 AU	transit middle	1256 Oct 28 j 16:44	13°♄03'31	0°11'49
morning rise	1255 Nov 19 j 17:01	22°♄59'22		transit begin	1256 Oct 28 j 14:52	13°♄09'51	
direct	1255 Nov 24 j 02:24	21°♄14'07		transit end	1256 Oct 28 j 18:36	12°♄57'12	
morning max el	1255 Dec 03 j 02:39	26°♄31'45	21°46'42	morning rise	1256 Nov 03 j 03:39	6°♄55'17	
	1255 Dec 06 j 06:44	0°♄		direct	1256 Nov 06 j 23:32	5°♄31'45	
greatest brilliancy	1255 Dec 07 j 22:52	2°♄00'41	-0.4m	morning max el	1256 Nov 14 j 22:42	10°♄07'31	20°29'52
desc. node	1255 Dec 20 j 01:12	18°♄32'46		greatest brilliancy	1256 Nov 21 j 04:51	17°♄32'45	-0.5m
	1255 Dec 27 j 17:15	0°♄			1256 Nov 30 j 00:58	0°♄	
morning set	1256 Jan 04 j 06:58	11°♄49'19		desc. node	1256 Dec 05 j 22:14	8°♄47'07	
max. Earth dist.	1256 Jan 10 j 15:30	22°♄10'07	1.41562 AU	morning set	1256 Dec 13 j 06:44	20°♄02'46	
	1256 Jan 15 j 06:49	0°♄			1256 Dec 19 j 14:59	0°♄	
				max. Earth dist.	1256 Dec 22 j 22:07	5°♄16'31	1.43341 AU
superior conj	1256 Jan 18 j 07:17	5°♄14'15	-2°-3'-36				
minimum elong	1256 Jan 18 j 08:04	5°♄17'41	2°03'37	superior conj	1256 Dec 29 j 05:42	15°♄36'48	-1°-58'-34
evening rise	1256 Jan 29 j 01:43	24°♄42'38		minimum elong	1256 Dec 29 j 01:32	15°♄19'28	1°58'23
	1256 Jan 31 j 22:48	0°♄			1257 Jan 06 j 16:46	0°♄	
asc. node	1256 Feb 07 j 05:28	11°♄00'15		evening rise	1257 Jan 10 j 15:01	6°♄51'38	
evening max el	1256 Feb 14 j 10:07	20°♄41'59	18°11'54	asc. node	1257 Jan 24 j 02:30	29°♄15'04	
retrograde	1256 Feb 21 j 07:41	24°♄10'19			1257 Jan 24 j 15:40	0°♄	
evening set	1256 Feb 23 j 20:49	23°♄42'37		evening max el	1257 Jan 27 j 22:05	3°♄51'13	18°08'26
inferior conj	1256 Mar 01 j 18:48	18°♄53'35	3°26'21	retrograde	1257 Feb 03 j 10:13	7°♄15'20	
minimum elong	1256 Mar 01 j 21:27	18°♄47'35	3°25'59	evening set	1257 Feb 06 j 04:12	6°♄38'03	
min. Earth dist.	1256 Mar 05 j 03:01	15°♄53'52	0.60166 AU	inferior conj	1257 Feb 12 j 13:21	1°♄27'48	3°44'52
morning rise	1256 Mar 08 j 18:45	13°♄09'55		minimum elong	1257 Feb 12 j 13:54	1°♄26'21	3°44'52
direct	1256 Mar 15 j 09:30	11°♄06'15			1257 Feb 13 j 23:13	30°♄	
desc. node	1256 Mar 17 j 00:23	11°♄13'24		min. Earth dist.	1257 Feb 15 j 10:22	28°♄30'50	0.62261 AU
morning max el	1256 Mar 29 j 16:17	18°♄55'45	27°30'30	morning rise	1257 Feb 18 j 21:20	25°♄29'55	
	1256 Apr 08 j 00:51	0°♄		direct	1257 Feb 25 j 20:01	22°♄57'04	
	1256 Apr 26 j 02:59	0°♄		desc. node	1257 Mar 03 j 21:25	24°♄38'10	
morning set	1256 Apr 30 j 07:30	8°♄25'41			1257 Mar 10 j 23:54	0°♄	
asc. node	1256 May 05 j 04:44	18°♄49'42		morning max el	1257 Mar 11 j 20:53	0°♄51'02	27°48'50
max. Earth dist.	1256 May 06 j 18:04	22°♄13'31	1.32261 AU		1257 Apr 02 j 03:32	0°♄	
				morning set	1257 Apr 14 j 10:08	22°♄49'28	
superior conj	1256 May 07 j 12:49	23°♄56'20	0°24'31		1257 Apr 17 j 21:14	0°♄	
minimum elong	1256 May 07 j 11:44	23°♄50'23	0°24'17	max. Earth dist.	1257 Apr 20 j 03:11	4°♄47'44	1.32607 AU
	1256 May 10 j 07:05	0°♄					
evening rise	1256 May 14 j 10:40	8°♄57'07		superior conj	1257 Apr 21 j 22:33	8°♄42'12	0°-1'-25
	1256 May 25 j 08:24	0°♄		minimum elong	1257 Apr 21 j 22:37	8°♄42'35	0°01'25
evening max el	1256 Jun 10 j 23:07	22°♄28'22	25°39'06	behind sun begin	1257 Apr 21 j 17:28	8°♄14'40	
desc. node	1256 Jun 12 j 23:37	24°♄17'25		behind sun end	1257 Apr 22 j 03:45	9°♄10'31	
retrograde	1256 Jun 24 j 23:57	29°♄38'13		asc. node	1257 Apr 22 j 01:47	8°♄59'48	
evening set	1256 Jun 30 j 22:21	28°♄14'55		evening rise	1257 Apr 28 j 22:24	23°♄50'13	
min. Earth dist.	1256 Jul 05 j 11:24	25°♄35'13	0.58338 AU		1257 May 01 j 21:36	0°♄	
inferior conj	1256 Jul 08 j 16:55	23°♄16'50	-4°-53'-34		1257 May 20 j 12:45	0°♄	
minimum elong	1256 Jul 08 j 17:05	23°♄16'31	4°53'35	evening max el	1257 May 23 j 14:03	3°♄12'39	24°10'45
morning rise	1256 Jul 16 j 15:28	18°♄56'07		desc. node	1257 May 30 j 20:39	8°♄32'56	
direct	1256 Jul 19 j 03:20	18°♄36'23		retrograde	1257 Jun 06 j 10:05	10°♄10'35	
morning max el	1256 Jul 27 j 11:19	22°♄33'12	18°44'38	evening set	1257 Jun 10 j 23:44	9°♄24'16	
asc. node	1256 Aug 01 j 03:56	28°♄06'50		min. Earth dist.	1257 Jun 17 j 01:02	6°♄25'40	0.56531 AU
	1256 Aug 02 j 10:52	0°♄		inferior conj	1257 Jun 19 j 14:31	4°♄49'51	-4°-34'-1
morning set	1256 Aug 12 j 19:56	18°♄38'09		minimum elong	1257 Jun 19 j 09:33	4°♄57'38	4°33'22
	1256 Aug 18 j 15:51	0°♄		morning rise	1257 Jun 27 j 22:59	0°♄48'43	
				direct	1257 Jun 30 j 14:59	0°♄29'54	

morning max el	1257 Jul 10 j 07:33	4° \mathfrak{S} 59'44	19°41'50	morning max el	1258 Jun 22 j 16:42	16° \mathbb{I} 44'35	20°59'35
asc. node	1257 Jul 19 j 00:59	16° \mathfrak{S} 26'21			1258 Jul 02 j 20:16	0° \mathfrak{S}	
	1257 Jul 26 j 09:13	0° \mathcal{Q}		asc. node	1258 Jul 05 j 22:04	5° \mathfrak{S} 23'06	
morning set	1257 Jul 27 j 22:04	3° \mathcal{Q} 04'08		morning set	1258 Jul 12 j 05:24	17° \mathfrak{S} 46'40	
					1258 Jul 18 j 02:20	0° \mathcal{Q}	
superior conj	1257 Aug 04 j 21:23	19° \mathcal{Q} 07'44	1°46'15	superior conj	1258 Jul 19 j 17:19	3° \mathcal{Q} 21'30	1°43'11
minimum elong	1257 Aug 04 j 21:34	19° \mathcal{Q} 08'38	1°46'15	minimum elong	1258 Jul 19 j 16:03	3° \mathcal{Q} 14'58	1°43'08
	1257 Aug 10 j 12:37	0° \mathfrak{M}		max. Earth dist.	1258 Jul 24 j 03:39	12° \mathcal{Q} 18'18	1.35608 AU
max. Earth dist.	1257 Aug 10 j 18:31	0° \mathfrak{M} 27'40	1.37391 AU	evening rise	1258 Jul 28 j 08:58	20° \mathcal{Q} 26'36	
evening rise	1257 Aug 14 j 14:41	7° \mathfrak{M} 29'10			1258 Aug 02 j 15:14	0° \mathfrak{M}	
desc. node	1257 Aug 26 j 19:59	27° \mathfrak{M} 52'35		desc. node	1258 Aug 13 j 17:00	18° \mathfrak{M} 02'51	
	1257 Aug 28 j 05:03	0° \mathfrak{A}			1258 Aug 22 j 03:55	0° \mathfrak{A}	
evening max el	1257 Sep 19 j 09:06	28° \mathfrak{A} 46'37	25°24'59	evening max el	1258 Sep 01 j 21:01	12° \mathfrak{A} 23'57	26°27'33
	1257 Sep 20 j 16:03	0° \mathfrak{M}		retrograde	1258 Sep 14 j 16:34	19° \mathfrak{A} 36'10	
retrograde	1257 Oct 01 j 10:32	5° \mathfrak{M} 42'59		evening set	1258 Sep 21 j 03:42	16° \mathfrak{A} 56'51	
evening set	1257 Oct 07 j 07:43	3° \mathfrak{M} 15'43		min. Earth dist.	1258 Sep 25 j 06:53	12° \mathfrak{A} 38'05	0.66218 AU
	1257 Oct 10 j 10:34	30° \mathfrak{R} \mathfrak{A}		inferior conj	1258 Sep 26 j 21:17	10° \mathfrak{A} 41'41	-1°-41'-16
min. Earth dist.	1257 Oct 11 j 18:33	28° \mathfrak{A} 19'56	0.67074 AU	minimum elong	1258 Sep 26 j 23:56	10° \mathfrak{A} 33'38	1°40'13
inferior conj	1257 Oct 12 j 21:19	26° \mathfrak{A} 53'31	0°-43'-48	asc. node	1258 Oct 01 j 21:16	5° \mathfrak{A} 31'44	
minimum elong	1257 Oct 12 j 22:25	26° \mathfrak{A} 49'54	0°43'20	morning rise	1258 Oct 02 j 21:20	4° \mathfrak{A} 53'17	
asc. node	1257 Oct 15 j 00:12	24° \mathfrak{A} 14'32		direct	1258 Oct 05 j 19:59	4° \mathfrak{A} 04'17	
morning rise	1257 Oct 18 j 13:47	20° \mathfrak{A} 54'12		morning max el	1258 Oct 12 j 13:05	7° \mathfrak{A} 46'31	18°38'17
direct	1257 Oct 21 j 21:59	19° \mathfrak{A} 49'43			1258 Oct 28 j 03:44	0° \mathfrak{M}	
morning max el	1257 Oct 29 j 02:36	23° \mathfrak{A} 53'29	19°26'22	morning set	1258 Nov 02 j 02:55	7° \mathfrak{M} 54'32	
	1257 Nov 03 j 05:48	0° \mathfrak{M}		desc. node	1258 Nov 09 j 16:18	19° \mathfrak{M} 53'56	
greatest brilliancy	1257 Nov 07 j 03:34	5° \mathfrak{M} 26'59	-0.7m		1258 Nov 16 j 02:15	0° \mathfrak{A}	
morning set	1257 Nov 22 j 05:58	28° \mathfrak{M} 24'06		superior conj	1258 Nov 18 j 04:22	3° \mathfrak{A} 16'51	0°-54'-29
desc. node	1257 Nov 22 j 19:16	29° \mathfrak{M} 15'42		minimum elong	1258 Nov 17 j 21:31	2° \mathfrak{A} 49'58	0°53'39
	1257 Nov 23 j 06:42	0° \mathfrak{A}		max. Earth dist.	1258 Nov 18 j 06:09	3° \mathfrak{A} 23'48	1.45088 AU
max. Earth dist.	1257 Dec 05 j 12:04	19° \mathfrak{A} 07'47	1.44562 AU	evening rise	1258 Dec 04 j 01:50	28° \mathfrak{A} 24'05	
					1258 Dec 05 j 01:52	0° \mathfrak{B}	
superior conj	1257 Dec 09 j 01:50	24° \mathfrak{A} 48'37	-1°-35'-12		1258 Dec 25 j 06:39	0° \approx	
minimum elong	1257 Dec 08 j 17:27	24° \mathfrak{A} 15'08	1°34'27	evening max el	1258 Dec 25 j 20:59	0° \approx 37'55	18°57'08
	1257 Dec 12 j 07:25	0° \mathfrak{B}		asc. node	1258 Dec 28 j 20:34	3° \approx 10'42	
evening rise	1257 Dec 23 j 08:05	18° \mathfrak{B} 06'55		retrograde	1259 Jan 01 j 17:13	4° \approx 30'23	
	1257 Dec 30 j 11:11	0° \approx		evening set	1259 Jan 04 j 22:06	3° \approx 31'05	
asc. node	1258 Jan 10 j 23:31	16° \approx 43'05			1259 Jan 08 j 18:20	30° \mathfrak{R} \mathfrak{B}	
evening max el	1258 Jan 11 j 10:33	17° \approx 11'48	18°23'50	inferior conj	1259 Jan 10 j 15:10	27° \mathfrak{B} 43'54	3°24'35
retrograde	1258 Jan 17 j 22:44	20° \approx 44'43		minimum elong	1259 Jan 10 j 12:55	27° \mathfrak{B} 50'57	3°24'11
evening set	1258 Jan 20 j 21:41	19° \approx 56'58		min. Earth dist.	1259 Jan 12 j 05:47	25° \mathfrak{B} 43'27	0.65594 AU
inferior conj	1258 Jan 26 j 21:22	14° \approx 27'02	3°42'24	morning rise	1259 Jan 16 j 02:45	21° \mathfrak{B} 31'59	
minimum elong	1258 Jan 26 j 20:12	14° \approx 30'25	3°42'18	direct	1259 Jan 22 j 15:20	18° \mathfrak{B} 42'17	
min. Earth dist.	1258 Jan 29 j 03:20	11° \approx 52'26	0.64108 AU	morning max el	1259 Feb 04 j 15:30	26° \mathfrak{B} 21'11	26°41'14
morning rise	1258 Feb 01 j 17:13	8° \approx 20'25		desc. node	1259 Feb 05 j 15:32	27° \mathfrak{B} 22'51	
direct	1258 Feb 08 j 14:18	5° \approx 32'03			1259 Feb 08 j 00:57	0° \approx	
desc. node	1258 Feb 18 j 18:29	10° \approx 13'09			1259 Mar 01 j 04:46	0° \mathfrak{H}	
morning max el	1258 Feb 22 j 05:34	13° \approx 23'33	27°30'45	morning set	1259 Mar 12 j 13:18	20° \mathfrak{H} 08'03	
	1258 Mar 07 j 15:01	0° \mathfrak{H}		max. Earth dist.	1259 Mar 16 j 20:52	28° \mathfrak{H} 32'02	1.34572 AU
morning set	1258 Mar 25 j 16:42	0° \mathfrak{Y}			1259 Mar 17 j 14:28	0° \mathfrak{Y}	
max. Earth dist.	1258 Mar 29 j 05:15	6° \mathfrak{Y} 47'27		superior conj	1259 Mar 21 j 04:57	7° \mathfrak{Y} 21'10	0°-56'-11
	1258 Apr 03 j 05:23	16° \mathfrak{Y} 57'09	1.33366 AU	minimum elong	1259 Mar 21 j 07:44	7° \mathfrak{Y} 35'33	0°55'40
				asc. node	1259 Mar 26 j 19:53	19° \mathfrak{Y} 07'06	
superior conj	1258 Apr 06 j 04:41	23° \mathfrak{Y} 13'03	0°-28'-42	evening rise	1259 Mar 28 j 19:18	23° \mathfrak{Y} 14'24	
minimum elong	1258 Apr 06 j 06:05	23° \mathfrak{Y} 20'35	0°28'24		1259 Apr 01 j 03:03	0° \mathfrak{B}	
asc. node	1258 Apr 08 j 22:50	29° \mathfrak{Y} 07'12		evening max el	1259 Apr 17 j 03:37	24° \mathfrak{B} 32'23	21°05'32
	1258 Apr 09 j 08:40	0° \mathfrak{B}			1259 Apr 26 j 08:55	0° \mathfrak{I}	
evening rise	1258 Apr 13 j 09:56	8° \mathfrak{B} 38'30		retrograde	1259 Apr 28 j 21:48	0° \mathfrak{I} 15'43	
	1258 Apr 24 j 16:16	0° \mathfrak{I}		evening set	1259 May 01 j 03:56	0° \mathfrak{I} 03'50	
evening max el	1258 May 05 j 05:08	13° \mathfrak{I} 43'56	22°34'50		1259 May 01 j 12:12	30° \mathfrak{R} \mathfrak{B}	
desc. node	1258 May 17 j 17:41	20° \mathfrak{I} 13'14		desc. node	1259 May 04 j 14:44	29° \mathfrak{B} 03'56	
retrograde	1258 May 18 j 07:57	20° \mathfrak{I} 14'02		inferior conj	1259 May 10 j 11:56	26° \mathfrak{B} 05'21	-1°-41'-28
evening set	1258 May 21 j 11:35	19° \mathfrak{I} 52'12		minimum elong	1259 May 10 j 07:11	26° \mathfrak{B} 12'04	1°39'48
min. Earth dist.	1258 May 29 j 12:52	16° \mathfrak{I} 21'40	0.55307 AU	min. Earth dist.	1259 May 11 j 01:25	25° \mathfrak{B} 46'18	0.54942 AU
inferior conj	1258 May 30 j 17:52	15° \mathfrak{I} 40'24	-3°-28'-12	morning rise	1259 May 19 j 10:08	22° \mathfrak{B} 03'28	
minimum elong	1258 May 30 j 10:11	15° \mathfrak{I} 51'21	3°26'09				
morning rise	1258 Jun 08 j 11:17	11° \mathfrak{I} 48'22					
direct	1258 Jun 11 j 08:59	11° \mathfrak{I} 29'01					

direct	1259 May 22 j 18:37	21°♄39'10		desc. node	1260 Apr 20 j 11:46	5°♄57'04	
morning max el	1259 Jun 04 j 15:18	27°♄47'22	22°33'55	min. Earth dist.	1260 Apr 21 j 15:27	5°♄14'52	0.55547 AU
	1259 Jun 06 j 20:03	0°♄		morning rise	1260 Apr 28 j 05:17	2°♄05'34	
asc. node	1259 Jun 22 j 19:08	24°♄47'08		direct	1260 May 02 j 10:08	1°♄26'30	
	1259 Jun 25 j 09:11	0°♄		morning max el	1260 May 16 j 07:01	8°♄20'49	24°15'34
morning set	1259 Jun 26 j 15:52	2°♄39'16			1260 Jun 01 j 03:00	0°♄	
				asc. node	1260 Jun 08 j 16:11	14°♄31'00	
superior conj	1259 Jul 03 j 20:43	17°♄57'58	1°33'46	morning set	1260 Jun 10 j 03:41	17°♄36'17	
minimum elong	1259 Jul 03 j 18:34	17°♄46'39	1°33'35		1260 Jun 15 j 21:51	0°♄	
max. Earth dist.	1259 Jul 06 j 21:31	24°♄19'55	1.34176 AU				
	1259 Jul 09 j 16:07	0°♄		superior conj	1260 Jun 17 j 04:55	2°♄48'30	1°19'16
evening rise	1259 Jul 11 j 18:08	4°♄08'10		minimum elong	1260 Jun 17 j 02:28	2°♄35'17	1°18'54
	1259 Jul 26 j 09:44	0°♄		max. Earth dist.	1260 Jun 19 j 00:23	6°♄42'59	1.33145 AU
desc. node	1259 Jul 31 j 14:01	7°♄48'43		evening rise	1260 Jun 24 j 14:05	18°♄21'50	
evening max el	1259 Aug 15 j 08:58	25°♄52'18	27°10'09		1260 Jun 30 j 14:07	0°♄	
	1259 Aug 20 j 07:51	0°♄		desc. node	1260 Jul 17 j 11:03	26°♄59'25	
retrograde	1259 Aug 28 j 17:18	3°♄11'09			1260 Jul 19 j 18:20	0°♄	
evening set	1259 Sep 04 j 15:39	0°♄27'20		evening max el	1260 Jul 27 j 19:38	9°♄00'07	27°25'50
	1259 Sep 05 j 04:59	30°♄		retrograde	1260 Aug 10 j 11:57	16°♄18'31	
min. Earth dist.	1259 Sep 08 j 11:53	26°♄45'22	0.65002 AU	evening set	1260 Aug 17 j 16:24	13°♄41'11	
inferior conj	1259 Sep 10 j 14:48	24°♄23'20	-2°-38'-24	min. Earth dist.	1260 Aug 21 j 07:35	10°♄32'25	0.63438 AU
minimum elong	1259 Sep 10 j 18:54	24°♄11'53	2°36'56	inferior conj	1260 Aug 23 j 23:12	7°♄52'17	-3°-32'-12
morning rise	1259 Sep 16 j 23:52	18°♄48'52		minimum elong	1260 Aug 24 j 04:15	7°♄39'33	3°30'45
asc. node	1259 Sep 18 j 18:20	18°♄15'40		morning rise	1260 Aug 30 j 18:25	2°♄34'58	
direct	1259 Sep 19 j 15:24	18°♄11'32		direct	1260 Sep 02 j 05:30	2°♄05'44	
morning max el	1259 Sep 26 j 03:46	21°♄41'29	18°06'47	asc. node	1260 Sep 04 j 15:23	2°♄34'19	
	1259 Oct 02 j 14:15	0°♄		morning max el	1260 Sep 08 j 19:48	5°♄31'28	17°52'43
morning set	1259 Oct 14 j 04:56	18°♄51'11			1260 Sep 24 j 18:21	0°♄	
	1259 Oct 20 j 23:09	0°♄		morning set	1260 Sep 25 j 08:21	1°♄01'06	
desc. node	1259 Oct 27 j 13:19	10°♄38'24					
				superior conj	1260 Oct 07 j 12:33	21°♄47'46	0°39'08
superior conj	1259 Oct 28 j 09:49	12°♄00'08	0°-5'-42	minimum elong	1260 Oct 07 j 16:23	22°♄03'36	0°38'37
minimum elong	1259 Oct 28 j 09:06	11°♄57'18	0°05'37		1260 Oct 12 j 13:06	0°♄	
behind sun begin	1259 Oct 27 j 22:55	11°♄16'41		desc. node	1260 Oct 13 j 10:19	1°♄25'23	
behind sun end	1259 Oct 28 j 19:17	12°♄37'52		max. Earth dist.	1260 Oct 13 j 17:32	1°♄54'17	1.43966 AU
max. Earth dist.	1259 Nov 01 j 00:51	17°♄44'59	1.44875 AU	evening rise	1260 Oct 23 j 05:46	16°♄50'31	
	1259 Nov 08 j 20:38	0°♄			1260 Oct 31 j 21:27	0°♄	
evening rise	1259 Nov 13 j 21:43	7°♄49'51		greatest brilliancy	1260 Nov 15 j 14:22	21°♄00'18	-0.5m
	1259 Nov 28 j 10:03	0°♄		evening max el	1260 Nov 21 j 04:29	27°♄36'09	20°50'29
greatest brilliancy	1259 Dec 01 j 14:11	4°♄35'46	-0.6m		1260 Nov 23 j 18:54	0°♄	
evening max el	1259 Dec 09 j 03:25	14°♄06'44	19°46'49	retrograde	1260 Nov 29 j 12:12	2°♄31'40	
asc. node	1259 Dec 15 j 17:37	18°♄23'16		asc. node	1260 Dec 01 j 14:39	2°♄06'50	
retrograde	1259 Dec 16 j 14:32	18°♄27'31		evening set	1260 Dec 03 j 10:06	1°♄04'18	
evening set	1259 Dec 20 j 02:57	17°♄15'06			1260 Dec 04 j 15:54	30°♄	
inferior conj	1259 Dec 25 j 15:42	11°♄13'32	2°55'22	inferior conj	1260 Dec 08 j 20:26	24°♄51'29	2°17'26
minimum elong	1259 Dec 25 j 13:01	11°♄22'23	2°54'41	minimum elong	1260 Dec 08 j 17:53	25°♄00'12	2°16'36
min. Earth dist.	1259 Dec 26 j 16:12	9°♄52'25	0.66686 AU	min. Earth dist.	1260 Dec 09 j 08:21	24°♄10'38	0.67391 AU
morning rise	1259 Dec 30 j 22:25	4°♄58'51		morning rise	1260 Dec 14 j 01:13	18°♄36'10	
direct	1260 Jan 05 j 22:21	2°♄19'33		direct	1260 Dec 19 j 10:21	16°♄15'20	
morning max el	1260 Jan 18 j 00:32	9°♄31'34	25°28'47	morning max el	1260 Dec 30 j 08:46	22°♄46'39	24°03'30
desc. node	1260 Jan 23 j 12:34	15°♄40'06			1261 Jan 05 j 17:08	0°♄	
	1260 Feb 03 j 05:11	0°♄		desc. node	1261 Jan 09 j 09:34	4°♄44'43	
	1260 Feb 21 j 18:34	0°♄			1261 Jan 26 j 13:48	0°♄	
morning set	1260 Feb 23 j 05:44	2°♄38'13		morning set	1261 Feb 04 j 00:34	14°♄00'53	
max. Earth dist.	1260 Feb 27 j 00:25	9°♄37'57	1.36229 AU	max. Earth dist.	1261 Feb 07 j 20:06	20°♄42'37	1.38238 AU
					1261 Feb 12 j 21:58	0°♄	
superior conj	1260 Mar 03 j 20:41	20°♄59'21	-1°-22'-13				
minimum elong	1260 Mar 04 j 00:32	21°♄18'31	1°21'40	superior conj	1261 Feb 15 j 00:21	3°♄57'55	-1°-44'-30
	1260 Mar 08 j 07:44	0°♄		minimum elong	1261 Feb 15 j 04:26	4°♄17'20	1°44'07
evening rise	1260 Mar 12 j 00:26	7°♄31'56		evening rise	1261 Feb 23 j 22:49	21°♄23'48	
asc. node	1260 Mar 12 j 16:55	8°♄55'13		asc. node	1261 Feb 27 j 13:58	28°♄26'22	
	1260 Mar 24 j 13:31	0°♄			1261 Feb 28 j 09:47	0°♄	
evening max el	1260 Mar 29 j 13:34	5°♄57'24	19°51'42	evening max el	1261 Mar 12 j 10:30	18°♄01'24	18°57'09
retrograde	1260 Apr 08 j 14:09	10°♄47'05		retrograde	1261 Mar 20 j 21:10	22°♄06'50	
evening set	1260 Apr 10 j 15:22	10°♄35'52		evening set	1261 Mar 23 j 02:08	21°♄51'13	
inferior conj	1260 Apr 19 j 11:08	6°♄35'00	0°17'44	inferior conj	1261 Mar 31 j 03:16	17°♄34'59	1°57'24
minimum elong	1260 Apr 19 j 11:55	6°♄33'48	0°17'26	minimum elong	1261 Mar 31 j 07:11	17°♄28'02	1°56'13

min. Earth dist.	1261 Apr 03 j 07:22	15° Υ 21'13	0.56979 AU	minimum elong	1262 Mar 12 j 20:19	29° Υ 07'12	3°02'38
desc. node	1261 Apr 07 j 08:47	12° Υ 57'50		min. Earth dist.	1262 Mar 16 j 03:08	26° Υ 25'10	0.58934 AU
morning rise	1261 Apr 08 j 08:00	12° Υ 32'02		morning rise	1262 Mar 20 j 03:06	23° Υ 43'19	
direct	1261 Apr 13 j 14:45	11° Υ 25'36		desc. node	1262 Mar 25 j 05:48	22° Υ 04'10	
morning max el	1261 Apr 27 j 21:46	18° Υ 50'33	25°50'31	direct	1262 Mar 26 j 08:27	22° Υ 00'55	
	1261 May 07 j 06:35	0° Υ		morning max el	1262 Apr 09 j 16:56	29° Υ 43'37	27°03'26
	1261 May 24 j 10:02	0° Υ			1262 Apr 09 j 23:36	0° Υ	
morning set	1261 May 25 j 15:15	2° Υ 32'39			1262 May 01 j 03:13	0° Υ	
asc. node	1261 May 26 j 13:13	4° Υ 28'55		morning set	1262 May 10 j 00:52	17° Υ 21'40	
				asc. node	1262 May 13 j 10:15	24° Υ 35'04	
					1262 May 15 j 21:48	0° Υ	
superior conj	1261 Jun 01 j 15:50	17° Υ 46'12	1°00'35	superior conj	1262 May 17 j 03:36	2° Υ 43'49	0°38'31
minimum elong	1261 Jun 01 j 13:35	17° Υ 33'54	1°00'10	minimum elong	1262 May 17 j 01:59	2° Υ 34'56	0°38'10
max. Earth dist.	1261 Jun 02 j 09:56	19° Υ 25'22	1.32506 AU	max. Earth dist.	1262 May 16 j 22:23	2° Υ 15'09	1.32244 AU
	1261 Jun 07 j 07:37	0° Υ		evening rise	1262 May 24 j 01:52	17° Υ 45'32	
evening rise	1261 Jun 08 j 17:33	2° Υ 57'33			1262 May 30 j 03:55	0° Υ	
	1261 Jun 23 j 10:04	0° Υ			1262 Jun 18 j 20:24	0° Υ	
desc. node	1261 Jul 04 j 08:05	15° Υ 20'24		desc. node	1262 Jun 21 j 05:06	2° Υ 29'51	
evening max el	1261 Jul 10 j 02:36	21° Υ 34'36	27°09'41	evening max el	1262 Jun 22 j 03:04	3° Υ 23'26	26°20'30
retrograde	1261 Jul 23 j 23:34	28° Υ 49'40		retrograde	1262 Jul 06 j 02:52	10° Υ 35'37	
evening set	1261 Jul 31 j 01:59	26° Υ 31'51		evening set	1262 Jul 12 j 15:40	8° Υ 49'47	
min. Earth dist.	1261 Aug 03 j 16:50	23° Υ 47'15	0.61571 AU	min. Earth dist.	1262 Jul 16 j 16:01	6° Υ 13'58	0.59522 AU
inferior conj	1261 Aug 06 j 19:25	21° Υ 01'19	-4°-17'-52	inferior conj	1262 Jul 19 j 23:47	3° Υ 39'36	-4°-47'-48
minimum elong	1261 Aug 07 j 00:15	20° Υ 50'32	4°16'57	minimum elong	1262 Jul 20 j 02:21	3° Υ 34'34	4°47'37
morning rise	1261 Aug 14 j 01:21	16° Υ 04'29			1262 Jul 25 j 09:47	30° Υ	
direct	1261 Aug 16 j 10:49	15° Υ 40'26		morning rise	1262 Jul 27 j 16:26	29° Υ 05'53	
asc. node	1261 Aug 22 j 12:25	18° Υ 19'49		direct	1262 Jul 30 j 02:55	28° Υ 44'56	
morning max el	1261 Aug 23 j 10:17	19° Υ 10'03	17°57'11		1262 Aug 03 j 14:19	0° Υ	
	1261 Aug 31 j 08:17	0° Υ		morning max el	1262 Aug 06 j 20:04	2° Υ 28'02	18°21'23
morning set	1261 Sep 08 j 07:00	14° Υ 06'42		asc. node	1262 Aug 09 j 09:27	5° Υ 16'29	
	1261 Sep 17 j 02:21	0° Υ		morning set	1262 Aug 22 j 19:21	27° Υ 51'36	
					1262 Aug 23 j 22:14	0° Υ	
superior conj	1261 Sep 18 j 18:42	2° Υ 56'40	1°12'52	superior conj	1262 Sep 01 j 00:58	15° Υ 16'59	1°34'12
minimum elong	1261 Sep 18 j 23:21	3° Υ 16'54	1°12'20	minimum elong	1262 Sep 01 j 04:13	15° Υ 31'53	1°33'56
max. Earth dist.	1261 Sep 26 j 06:14	15° Υ 37'13	1.42472 AU	max. Earth dist.	1262 Sep 08 j 13:27	28° Υ 38'51	1.40574 AU
desc. node	1261 Sep 30 j 07:21	22° Υ 12'08			1262 Sep 09 j 08:25	0° Υ	
evening rise	1261 Oct 02 j 19:16	26° Υ 10'32		evening rise	1262 Sep 13 j 04:15	6° Υ 25'00	
	1261 Oct 05 j 05:49	0° Υ		desc. node	1262 Sep 17 j 04:24	12° Υ 54'45	
	1261 Oct 25 j 18:49	0° Υ			1262 Sep 28 j 09:36	0° Υ	
greatest brilliancy	1261 Oct 30 j 06:40	5° Υ 46'37	-0.3m	evening max el	1262 Oct 17 j 14:47	24° Υ 39'41	23°23'58
evening max el	1261 Nov 03 j 23:59	11° Υ 06'49	22°04'28		1262 Oct 24 j 13:48	0° Υ	
retrograde	1261 Nov 13 j 08:30	16° Υ 40'38		retrograde	1262 Oct 28 j 02:05	0° Υ 51'23	
evening set	1261 Nov 17 j 17:52	14° Υ 56'36			1262 Oct 31 j 07:52	30° Υ	
asc. node	1261 Nov 18 j 11:40	14° Υ 18'00		evening set	1262 Nov 02 j 00:35	28° Υ 49'48	
inferior conj	1261 Nov 23 j 03:20	8° Υ 35'54	1°32'42	asc. node	1262 Nov 05 j 08:41	25° Υ 12'49	
minimum elong	1261 Nov 23 j 01:23	8° Υ 42'41	1°31'57	inferior conj	1262 Nov 07 j 10:37	22° Υ 25'02	0°42'40
min. Earth dist.	1261 Nov 23 j 03:55	8° Υ 33'54	0.67735 AU	minimum elong	1262 Nov 07 j 09:38	22° Υ 28'26	0°42'14
morning rise	1261 Nov 28 j 08:42	2° Υ 22'04		min. Earth dist.	1262 Nov 07 j 00:34	22° Υ 59'28	0.67736 AU
direct	1261 Dec 03 j 02:36	0° Υ 23'38		morning rise	1262 Nov 12 j 18:46	16° Υ 14'48	
morning max el	1261 Dec 12 j 19:06	6° Υ 07'28	22°35'21	direct	1262 Nov 16 j 22:10	14° Υ 39'13	
greatest brilliancy	1261 Dec 17 j 09:10	11° Υ 14'56	-0.3m	morning max el	1262 Nov 25 j 11:04	19° Υ 37'44	21°12'38
desc. node	1261 Dec 27 j 06:35	24° Υ 23'30		greatest brilliancy	1262 Nov 30 j 18:27	25° Υ 44'03	-0.4m
	1261 Dec 31 j 03:55	0° Υ			1262 Dec 04 j 00:38	0° Υ	
morning set	1262 Jan 15 j 15:49	24° Υ 01'26		desc. node	1262 Dec 14 j 03:38	14° Υ 27'02	
	1262 Jan 19 j 06:13	0° Υ			1262 Dec 24 j 09:01	0° Υ	
max. Earth dist.	1262 Jan 20 j 16:15	2° Υ 24'01	1.40383 AU	morning set	1262 Dec 26 j 02:52	2° Υ 43'45	
				max. Earth dist.	1263 Jan 02 j 18:35	15° Υ 00'12	1.42370 AU
superior conj	1262 Jan 28 j 11:23	16° Υ 05'06	-1°-59'-43	superior conj	1263 Jan 10 j 00:29	27° Υ 08'28	-2°-3'-31
minimum elong	1262 Jan 28 j 14:03	16° Υ 17'08	1°59'38	minimum elong	1263 Jan 09 j 23:22	27° Υ 03'39	2°03'30
	1262 Feb 04 j 23:37	0° Υ			1263 Jan 11 j 16:20	0° Υ	
evening rise	1262 Feb 07 j 11:23	4° Υ 42'23		evening rise	1263 Jan 21 j 10:26	17° Υ 19'33	
asc. node	1262 Feb 14 j 11:00	17° Υ 34'10			1263 Jan 28 j 13:17	0° Υ	
	1262 Feb 23 j 00:56	0° Υ		asc. node	1263 Feb 01 j 08:02	6° Υ 11'10	
evening max el	1262 Feb 23 j 15:41	0° Υ 37'15	18°22'41	evening max el	1263 Feb 07 j 02:01	13° Υ 36'28	18°08'05
retrograde	1262 Mar 02 j 23:26	4° Υ 14'41					
evening set	1262 Mar 05 j 09:41	3° Υ 51'51					
	1262 Mar 11 j 18:39	30° Υ					
inferior conj	1262 Mar 12 j 16:39	29° Υ 14'49	3°03'23				

retrograde	1263 Feb 13 j 18:29	17° ✕ 01'45		minimum elong	1263 Dec 21 j 05:04	6° ☾ 33'30	1°50'36
evening set	1263 Feb 16 j 09:37	16° ✕ 30'09		evening rise	1264 Jan 03 j 15:39	29° ☾ 06'27	
inferior conj	1263 Feb 23 j 01:40	11° ✕ 31'47	3°37'14		1264 Jan 04 j 04:06	0° ≈	
minimum elong	1263 Feb 23 j 03:26	11° ✕ 27'32	3°37'05	asc. node	1264 Jan 19 j 05:05	24° ≈ 07'30	
min. Earth dist.	1263 Feb 26 j 05:48	8° ✕ 30'25	0.61063 AU	evening max el	1264 Jan 21 j 14:30	26° ≈ 50'53	18°12'45
morning rise	1263 Mar 01 j 18:21	5° ✕ 40'55			1264 Jan 26 j 05:47	0° ✕	
direct	1263 Mar 08 j 13:29	3° ✕ 23'41		retrograde	1264 Jan 28 j 01:46	0° ✕ 17'33	
desc. node	1263 Mar 12 j 02:49	3° ✕ 58'25			1264 Jan 29 j 21:45	30° ☾	
morning max el	1263 Mar 22 j 18:34	11° ✕ 16'13	27°43'05	evening set	1264 Jan 30 j 21:40	29° ≈ 36'06	
	1263 Apr 06 j 10:58	0° ☿		inferior conj	1264 Feb 06 j 02:26	24° ≈ 17'26	3°46'00
	1263 Apr 23 j 07:48	0° ☿		minimum elong	1264 Feb 06 j 02:10	24° ≈ 18'07	3°46'00
morning set	1263 Apr 24 j 06:42	1° ☿ 57'00		min. Earth dist.	1264 Feb 08 j 17:22	21° ≈ 27'40	0.63081 AU
asc. node	1263 Apr 30 j 07:19	14° ☿ 45'04		morning rise	1264 Feb 12 j 04:43	18° ≈ 15'03	
max. Earth dist.	1263 Apr 30 j 09:53	14° ☿ 59'02	1.32357 AU	direct	1264 Feb 19 j 03:42	15° ≈ 33'30	
				desc. node	1264 Feb 26 j 23:52	18° ≈ 22'24	
superior conj	1263 May 01 j 14:34	17° ☿ 35'40	0°13'45	morning max el	1264 Mar 04 j 01:19	23° ≈ 28'29	27°45'24
minimum elong	1263 May 01 j 13:57	17° ☿ 32'13	0°13'37		1264 Mar 09 j 21:34	0° ✕	
behind sun begin	1263 May 01 j 11:20	17° ☿ 17'57			1264 Mar 29 j 17:27	0° ☿	
behind sun end	1263 May 01 j 16:33	17° ☿ 46'30		morning set	1264 Apr 07 j 06:29	16° ☿ 10'41	
	1263 May 07 j 07:10	0° ☿		max. Earth dist.	1264 Apr 12 j 16:19	27° ☿ 22'40	1.32868 AU
evening rise	1263 May 08 j 12:53	2° ☿ 38'32			1264 Apr 13 j 21:47	0° ☿	
	1263 May 23 j 08:08	0° ☿					
evening max el	1263 Jun 03 j 20:30	14° ☿ 26'44	25°03'21	superior conj	1264 Apr 14 j 23:00	2° ☿ 15'32	0°-12'-54
desc. node	1263 Jun 08 j 02:07	17° ☿ 58'59		minimum elong	1264 Apr 14 j 23:37	2° ☿ 18'54	0°12'45
retrograde	1263 Jun 17 j 20:21	21° ☿ 33'34		behind sun begin	1264 Apr 14 j 20:28	2° ☿ 01'53	
evening set	1263 Jun 23 j 06:00	20° ☿ 26'32		behind sun end	1264 Apr 15 j 02:47	2° ☿ 35'56	
min. Earth dist.	1263 Jun 28 j 08:03	17° ☿ 40'41	0.57525 AU	asc. node	1264 Apr 16 j 04:23	4° ☿ 54'21	
inferior conj	1263 Jul 01 j 09:03	15° ☿ 38'01	-4°-50'-24	evening rise	1264 Apr 22 j 00:43	17° ☿ 29'41	
minimum elong	1263 Jul 01 j 07:04	15° ☿ 41'22	4°50'19		1264 Apr 28 j 05:26	0° ☿	
morning rise	1263 Jul 09 j 11:58	11° ☿ 26'48		evening max el	1264 May 15 j 10:33	25° ☿ 01'33	23°30'05
direct	1263 Jul 12 j 01:23	11° ☿ 07'39			1264 May 22 j 01:54	0° ☿	
morning max el	1263 Jul 20 j 22:07	15° ☿ 16'30	19°06'21	desc. node	1264 May 24 j 23:07	1° ☿ 12'16	
asc. node	1263 Jul 27 j 06:30	23° ☿ 09'38		retrograde	1264 May 29 j 01:42	1° ☿ 50'39	
	1263 Jul 31 j 09:09	0° ☿		evening set	1264 Jun 01 j 23:48	1° ☿ 16'52	
morning set	1263 Aug 06 j 17:19	12° ☿ 04'50			1264 Jun 05 j 08:13	30° ☿	
				min. Earth dist.	1264 Jun 08 j 20:51	28° ☿ 05'58	0.55913 AU
superior conj	1263 Aug 15 j 01:43	28° ☿ 32'29	1°44'31	inferior conj	1264 Jun 10 j 22:19	26° ☿ 52'15	-4°-12'-5
minimum elong	1263 Aug 15 j 02:58	28° ☿ 38'30	1°44'29	minimum elong	1264 Jun 10 j 15:37	27° ☿ 02'17	4°10'47
	1263 Aug 15 j 19:55	0° ☿		morning rise	1264 Jun 19 j 10:47	22° ☿ 56'39	
max. Earth dist.	1263 Aug 21 j 16:51	10° ☿ 56'48	1.38529 AU	direct	1264 Jun 22 j 04:36	22° ☿ 38'03	
evening rise	1263 Aug 25 j 13:36	17° ☿ 47'45		morning max el	1264 Jul 02 j 13:51	27° ☿ 26'30	20°12'31
	1263 Sep 01 j 20:52	0° ☿			1264 Jul 05 j 01:14	0° ☿	
desc. node	1263 Sep 04 j 01:27	3° ☿ 28'59		asc. node	1264 Jul 13 j 03:36	11° ☿ 46'33	
	1263 Sep 22 j 18:37	0° ☿		morning set	1264 Jul 20 j 21:58	26° ☿ 38'51	
evening max el	1263 Sep 30 j 03:01	8° ☿ 15'57	24°42'48		1264 Jul 22 j 13:20	0° ☿	
retrograde	1263 Oct 11 j 15:54	14° ☿ 59'29					
evening set	1263 Oct 17 j 04:37	12° ☿ 40'55		superior conj	1264 Jul 28 j 15:52	12° ☿ 28'49	1°45'49
min. Earth dist.	1263 Oct 21 j 19:58	7° ☿ 24'36	0.67407 AU	minimum elong	1264 Jul 28 j 15:22	12° ☿ 26'17	1°45'49
inferior conj	1263 Oct 22 j 16:31	6° ☿ 16'18	0°-11'-23	max. Earth dist.	1264 Aug 02 j 22:08	22° ☿ 49'50	1.36595 AU
minimum elong	1263 Oct 22 j 16:48	6° ☿ 15'22	0°11'17	evening rise	1264 Aug 06 j 21:14	0° ☿ 14'49	
transit middle	1263 Oct 22 j 16:48	6° ☿ 15'22	0°11'17		1264 Aug 06 j 18:00	0° ☿	
transit begin	1263 Oct 22 j 14:49	6° ☿ 21'57		desc. node	1264 Aug 20 j 22:28	23° ☿ 50'08	
transit end	1263 Oct 22 j 18:47	6° ☿ 08'47			1264 Aug 25 j 01:19	0° ☿	
asc. node	1263 Oct 23 j 05:44	5° ☿ 32'33		evening max el	1264 Sep 11 j 14:53	21° ☿ 55'17	25°53'35
morning rise	1263 Oct 28 j 05:26	0° ☿ 12'08		retrograde	1264 Sep 24 j 01:01	29° ☿ 00'12	
	1263 Oct 28 j 12:44	30° ☿		evening set	1264 Sep 30 j 04:10	26° ☿ 27'19	
direct	1263 Oct 31 j 19:59	28° ☿ 57'19		min. Earth dist.	1264 Oct 04 j 11:43	21° ☿ 46'51	0.66750 AU
	1263 Nov 04 j 08:09	0° ☿		inferior conj	1264 Oct 05 j 19:16	20° ☿ 07'20	-1°-8'-3
morning max el	1263 Nov 08 j 10:36	3° ☿ 18'33	20°01'02	minimum elong	1264 Oct 05 j 21:01	20° ☿ 01'47	1°07'20
greatest brilliancy	1263 Nov 15 j 15:11	12° ☿ 04'38	-0.6m	asc. node	1264 Oct 09 j 02:46	16° ☿ 14'41	
	1263 Nov 27 j 21:06	0° ☿		morning rise	1264 Oct 11 j 14:45	14° ☿ 12'03	
desc. node	1263 Dec 01 j 00:41	4° ☿ 48'00		direct	1264 Oct 14 j 18:32	13° ☿ 14'40	
morning set	1263 Dec 04 j 23:06	10° ☿ 51'01		morning max el	1264 Oct 21 j 17:30	17° ☿ 08'26	19°03'51
max. Earth dist.	1263 Dec 16 j 04:13	28° ☿ 26'24	1.43932 AU		1264 Oct 31 j 12:48	0° ☿	
	1263 Dec 17 j 03:38	0° ☿		morning set	1264 Nov 13 j 05:37	19° ☿ 36'44	
				desc. node	1264 Nov 16 j 21:45	25° ☿ 21'29	
superior conj	1263 Dec 21 j 11:25	6° ☿ 59'27	-1°-51'00		1264 Nov 19 j 20:55	0° ☿	

max. Earth dist.	1264 Nov 27 j 19:53	12° ♄ 29'10	1.44879 AU	desc. node	1265 Nov 03 j 18:46	16° ♍ 02'45	
superior conj	1264 Nov 29 j 22:19	15° ♄ 48'04	-1°-19'-41	superior conj	1265 Nov 08 j 23:15	24° ♍ 14'45	0°-34'-1
minimum elong	1264 Nov 29 j 13:43	15° ♄ 14'08	1°18'47	minimum elong	1265 Nov 08 j 18:49	23° ♍ 57'18	0°33'26
	1264 Dec 08 j 19:58	0° ♄		max. Earth dist.	1265 Nov 10 j 14:49	26° ♍ 50'26	1.45099 AU
evening rise	1264 Dec 14 j 23:00	9° ♄ 56'59			1265 Nov 12 j 15:06	0° ♄	
	1264 Dec 27 j 09:01	0° ♄		evening rise	1265 Nov 25 j 06:47	19° ♄ 50'26	
evening max el	1265 Jan 04 j 02:26	10° ♄ 14'39	18°35'54		1265 Dec 01 j 18:06	0° ♄	
asc. node	1265 Jan 05 j 02:06	11° ♄ 11'39		greatest brilliancy	1265 Dec 08 j 22:31	11° ♄ 04'30	-0.7m
retrograde	1265 Jan 10 j 17:05	13° ♄ 54'24		evening max el	1265 Dec 18 j 11:26	23° ♄ 42'38	19°16'24
evening set	1265 Jan 13 j 18:25	13° ♄ 01'56		asc. node	1265 Dec 22 j 23:07	27° ♄ 09'22	
inferior conj	1265 Jan 19 j 15:01	7° ♄ 24'38	3°36'23	retrograde	1265 Dec 25 j 13:01	27° ♄ 45'44	
minimum elong	1265 Jan 19 j 13:17	7° ♄ 29'46	3°36'11	evening set	1265 Dec 28 j 21:00	26° ♄ 40'53	
min. Earth dist.	1265 Jan 21 j 14:27	5° ♄ 03'20	0.64797 AU	inferior conj	1266 Jan 03 j 11:59	20° ♄ 47'17	3°13'21
morning rise	1265 Jan 25 j 06:54	1° ♄ 15'31		minimum elong	1266 Jan 03 j 09:29	20° ♄ 55'20	3°12'49
	1265 Jan 26 j 23:25	30° ♄		min. Earth dist.	1266 Jan 04 j 20:23	19° ♄ 03'25	0.66115 AU
direct	1265 Feb 01 j 01:13	28° ♄ 24'36		morning rise	1266 Jan 08 j 21:09	14° ♄ 34'12	
	1265 Feb 06 j 14:44	0° ♄		direct	1266 Jan 15 j 04:49	11° ♄ 47'47	
desc. node	1265 Feb 12 j 20:56	4° ♄ 41'09		morning max el	1266 Jan 27 j 20:09	19° ♄ 16'08	26°12'36
morning max el	1265 Feb 14 j 10:36	6° ♄ 12'13	27°12'55	desc. node	1266 Jan 30 j 17:59	22° ♄ 22'27	
	1265 Mar 04 j 16:54	0° ♄			1266 Feb 05 j 23:46	0° ♄	
morning set	1265 Mar 21 j 21:18	29° ♄ 53'34			1266 Feb 25 j 18:05	0° ♄	
	1265 Mar 21 j 22:38	0° ♄		morning set	1266 Mar 04 j 23:20	12° ♄ 54'32	
max. Earth dist.	1265 Mar 26 j 13:57	9° ♄ 15'45	1.33819 AU	max. Earth dist.	1266 Mar 09 j 00:24	20° ♄ 37'18	1.35228 AU
superior conj	1265 Mar 30 j 02:55	16° ♄ 37'18	0°-40'-26	superior conj	1266 Mar 13 j 23:58	0° ♄ 34'07	-1°-7'-31
minimum elong	1265 Mar 30 j 04:55	16° ♄ 47'52	0°40'02	minimum elong	1266 Mar 14 j 03:15	0° ♄ 50'55	1°06'58
asc. node	1265 Apr 03 j 01:27	24° ♄ 58'48			1266 Mar 13 j 17:16	0° ♄	
	1265 Apr 05 j 10:14	0° ♄		asc. node	1266 Mar 20 j 22:28	14° ♄ 54'30	
evening rise	1265 Apr 06 j 11:32	2° ♄ 12'55		evening rise	1266 Mar 21 j 19:24	16° ♄ 42'19	
	1265 Apr 22 j 06:02	0° ♄			1266 Mar 28 j 14:19	0° ♄	
evening max el	1265 Apr 27 j 04:08	5° ♄ 36'51	21°55'29	evening max el	1266 Apr 09 j 07:20	16° ♄ 39'46	20°31'53
retrograde	1265 May 09 j 18:44	11° ♄ 48'19		retrograde	1266 Apr 20 j 07:45	21° ♄ 59'51	
desc. node	1265 May 11 j 20:09	11° ♄ 38'48		evening set	1266 Apr 22 j 10:25	21° ♄ 48'54	
evening set	1265 May 12 j 11:04	11° ♄ 32'18		desc. node	1266 Apr 28 j 17:10	19° ♄ 28'28	
inferior conj	1265 May 21 j 20:07	7° ♄ 28'28	-2°-46'-43	inferior conj	1266 May 01 j 14:31	17° ♄ 51'18	0°-50'-16
minimum elong	1265 May 21 j 13:00	7° ♄ 38'27	2°44'30	minimum elong	1266 May 01 j 12:08	17° ♄ 54'45	0°49'25
min. Earth dist.	1265 May 21 j 08:57	7° ♄ 44'07	0.55029 AU	min. Earth dist.	1266 May 02 j 21:43	17° ♄ 06'12	0.55083 AU
morning rise	1265 May 30 j 16:16	3° ♄ 34'29		morning rise	1266 May 10 j 12:18	13° ♄ 39'52	
direct	1265 Jun 02 j 17:46	3° ♄ 13'41		direct	1266 May 14 j 04:34	13° ♄ 10'43	
morning max el	1265 Jun 14 j 18:05	8° ♄ 51'58	21°38'08	morning max el	1266 May 27 j 12:59	19° ♄ 39'20	23°17'06
	1265 Jun 29 j 12:49	0° ♄			1266 Jun 05 j 04:22	0° ♄	
asc. node	1265 Jun 30 j 00:40	0° ♄ 55'53		asc. node	1266 Jun 16 j 21:44	20° ♄ 29'20	
morning set	1265 Jul 05 j 06:53	11° ♄ 26'20		morning set	1266 Jun 19 j 18:08	26° ♄ 21'40	
					1266 Jun 21 j 11:23	0° ♄	
superior conj	1265 Jul 12 j 15:19	26° ♄ 53'08	1°39'54	superior conj	1266 Jun 26 j 21:01	11° ♄ 36'22	1°28'11
minimum elong	1265 Jul 12 j 13:36	26° ♄ 44'13	1°39'47	minimum elong	1266 Jun 26 j 18:42	11° ♄ 23'54	1°27'55
	1265 Jul 14 j 03:19	0° ♄		max. Earth dist.	1266 Jun 29 j 09:01	16° ♄ 55'20	1.33688 AU
max. Earth dist.	1265 Jul 16 j 10:52	4° ♄ 43'39	1.34952 AU	evening rise	1266 Jul 04 j 12:37	27° ♄ 29'15	
evening rise	1265 Jul 20 j 22:25	13° ♄ 32'48			1266 Jul 05 j 19:12	0° ♄	
	1265 Jul 30 j 01:44	0° ♄			1266 Jul 23 j 07:52	0° ♄	
desc. node	1265 Aug 07 j 19:29	13° ♄ 51'13		desc. node	1266 Jul 25 j 16:29	3° ♄ 23'32	
	1265 Aug 19 j 22:47	0° ♄		evening max el	1266 Aug 07 j 14:52	18° ♄ 52'30	27°20'25
evening max el	1265 Aug 25 j 03:08	5° ♄ 31'08	26°48'36	retrograde	1266 Aug 21 j 02:41	26° ♄ 10'54	
retrograde	1265 Sep 07 j 04:46	12° ♄ 46'32		evening set	1266 Aug 28 j 04:36	23° ♄ 28'21	
evening set	1265 Sep 13 j 21:02	10° ♄ 04'35		min. Earth dist.	1266 Aug 31 j 22:23	20° ♄ 01'23	0.64388 AU
min. Earth dist.	1265 Sep 17 j 21:17	6° ♄ 01'22	0.65750 AU	inferior conj	1266 Sep 03 j 06:45	17° ♄ 30'38	-3°-1'-50
inferior conj	1265 Sep 19 j 16:47	3° ♄ 53'43	-2°-5'-39	minimum elong	1266 Sep 03 j 11:21	17° ♄ 18'20	3°00'18
minimum elong	1265 Sep 19 j 20:05	3° ♄ 44'03	2°04'23	morning rise	1266 Sep 09 j 20:02	12° ♄ 03'04	
	1265 Sep 23 j 07:43	30° ♄		direct	1266 Sep 12 j 09:28	11° ♄ 29'27	
morning rise	1265 Sep 25 j 20:29	28° ♄ 10'33		asc. node	1266 Sep 12 j 20:54	11° ♄ 30'38	
asc. node	1265 Sep 25 j 23:50	28° ♄ 06'21		morning max el	1266 Sep 18 j 21:37	14° ♄ 56'12	17°58'36
direct	1265 Sep 28 j 15:53	27° ♄ 26'50			1266 Sep 29 j 12:28	0° ♄	
	1265 Oct 04 j 03:24	0° ♄		morning set	1266 Oct 06 j 04:31	11° ♄ 14'48	
morning max el	1265 Oct 05 j 06:01	1° ♄ 02'42	18°22'42		1266 Oct 17 j 10:35	0° ♄	
morning set	1265 Oct 24 j 14:58	29° ♄ 44'36					
	1265 Oct 24 j 18:46	0° ♄					

superior conj	1266 Oct 19 j 12:06	3°♄20'51	0°14'24	asc. node	1267 Aug 30 j 17:56	26°♂27'29	
minimum elong	1266 Oct 19 j 13:46	3°♄27'34	0°14'11	morning max el	1267 Sep 02 j 13:25	28°♂42'20	17°52'24
behind sun begin	1266 Oct 19 j 08:44	3°♄07'15			1267 Sep 03 j 18:45	0°♄	
behind sun end	1266 Oct 19 j 18:48	3°♄47'52		morning set	1267 Sep 18 j 16:51	23°♄50'21	
desc. node	1266 Oct 21 j 15:46	6°♄48'34			1267 Sep 22 j 04:08	0°♄	
max. Earth dist.	1266 Oct 24 j 09:35	11°♄10'47	1.44578 AU				
evening rise	1266 Nov 04 j 19:53	29°♄01'17		superior conj	1267 Sep 30 j 02:35	13°♂43'44	0°54'58
	1266 Nov 05 j 11:09	0°♄		minimum elong	1267 Sep 30 j 07:10	14°♂03'02	0°54'22
greatest brilliancy	1266 Nov 25 j 01:42	29°♄08'32	-0.6m	max. Earth dist.	1267 Oct 07 j 00:44	25°♂10'36	1.43388 AU
	1266 Nov 25 j 16:56	0°♄		desc. node	1267 Oct 08 j 12:48	27°♂36'00	
evening max el	1266 Dec 01 j 15:39	7°♄11'31	20°12'19		1267 Oct 10 j 00:49	0°♄	
retrograde	1266 Dec 09 j 10:48	11°♄46'22		evening rise	1267 Oct 15 j 04:06	8°♄04'42	
asc. node	1266 Dec 09 j 20:09	11°♄45'31			1267 Oct 29 j 17:52	0°♄	
evening set	1266 Dec 13 j 03:04	10°♄27'37		greatest brilliancy	1267 Nov 09 j 12:00	14°♄48'06	-0.4m
inferior conj	1266 Dec 18 j 14:34	4°♄20'37	2°40'11	evening max el	1267 Nov 14 j 14:13	20°♄41'15	21°20'51
minimum elong	1266 Dec 18 j 11:53	4°♄29'39	2°39'25	retrograde	1267 Nov 23 j 08:14	25°♄53'25	
min. Earth dist.	1266 Dec 19 j 09:26	3°♄17'03	0.67034 AU	asc. node	1267 Nov 26 j 17:10	24°♄50'05	
	1266 Dec 21 j 23:40	30°♄		evening set	1267 Nov 27 j 10:43	24°♄19'08	
morning rise	1266 Dec 23 j 20:09	28°♄05'31		inferior conj	1267 Dec 02 j 20:29	18°♄02'14	1°59'14
direct	1266 Dec 29 j 13:50	25°♄33'42		minimum elong	1267 Dec 02 j 18:08	18°♄10'20	1°58'24
	1267 Jan 07 j 13:17	0°♄		min. Earth dist.	1267 Dec 03 j 03:26	17°♄38'16	0.67577 AU
morning max el	1267 Jan 10 j 04:50	2°♄29'30	24°53'30	morning rise	1267 Dec 08 j 01:13	11°♄47'06	
desc. node	1267 Jan 17 j 14:59	11°♄01'40		direct	1267 Dec 13 j 03:44	9°♄35'41	
	1267 Jan 31 j 03:19	0°♄		morning max el	1267 Dec 23 j 13:43	15°♄47'45	23°25'47
morning set	1267 Feb 15 j 07:19	24°♄57'49		greatest brilliancy	1267 Dec 29 j 06:21	22°♄13'58	-0.2m
	1267 Feb 18 j 02:25	0°♄			1268 Jan 04 j 05:26	0°♄	
max. Earth dist.	1267 Feb 19 j 00:14	1°♄40'12	1.37054 AU	desc. node	1268 Jan 04 j 12:00	0°♄22'26	
					1268 Jan 24 j 03:26	0°♄	
superior conj	1267 Feb 25 j 11:00	13°♄56'22	-1°-32'-18	morning set	1268 Jan 27 j 15:06	5°♄47'25	
minimum elong	1267 Feb 25 j 15:06	14°♄16'23	1°31'48	max. Earth dist.	1268 Jan 31 j 19:02	12°♄56'15	1.39152 AU
evening rise	1267 Mar 05 j 22:00	0°♄49'55					
	1267 Mar 05 j 12:02	0°♄		superior conj	1268 Feb 08 j 08:11	26°♄34'20	-1°-52'-4
asc. node	1267 Mar 07 j 19:29	4°♄35'59		minimum elong	1268 Feb 08 j 11:55	26°♄51'44	1°51'48
evening max el	1267 Mar 22 j 22:03	28°♄20'59	19°25'59		1268 Feb 10 j 04:00	0°♄	
	1267 Mar 24 j 19:37	0°♄		evening rise	1268 Feb 17 j 16:39	14°♄28'37	
retrograde	1267 Apr 01 j 05:39	2°♄50'37		asc. node	1268 Feb 22 j 16:30	23°♄57'55	
evening set	1267 Apr 03 j 07:48	2°♄38'03			1268 Feb 26 j 02:29	0°♄	
	1267 Apr 09 j 11:44	30°♄		evening max el	1268 Mar 04 j 22:51	10°♄39'18	18°39'59
inferior conj	1267 Apr 11 j 19:53	28°♄31'19	1°03'43	retrograde	1268 Mar 12 j 20:48	14°♄30'55	
minimum elong	1267 Apr 11 j 22:27	28°♄27'08	1°02'50	evening set	1268 Mar 15 j 03:51	14°♄12'38	
min. Earth dist.	1267 Apr 14 j 12:17	26°♄47'04	0.56068 AU	inferior conj	1268 Mar 22 j 21:00	9°♄48'03	2°29'38
desc. node	1267 Apr 15 j 14:12	26°♄07'09		minimum elong	1268 Mar 23 j 01:08	9°♄40'12	2°28'33
morning rise	1267 Apr 20 j 09:17	23°♄47'33		min. Earth dist.	1268 Mar 26 j 05:51	7°♄15'58	0.57770 AU
direct	1267 Apr 25 j 00:41	22°♄58'37		morning rise	1268 Mar 30 j 18:08	4°♄31'27	
morning max el	1267 May 09 j 03:41	0°♄07'44	24°57'51	desc. node	1268 Apr 01 j 11:13	3°♄50'19	
	1267 May 09 j 00:26	0°♄		direct	1268 Apr 05 j 11:13	3°♄10'06	
	1267 May 29 j 15:38	0°♄		morning max el	1268 Apr 19 j 19:59	10°♄44'46	26°24'59
asc. node	1267 Jun 03 j 18:46	10°♄19'30			1268 May 04 j 15:15	0°♄	
morning set	1267 Jun 04 j 06:02	11°♄18'42		morning set	1268 May 18 j 16:56	26°♄12'05	
					1268 May 20 j 11:52	0°♄	
superior conj	1267 Jun 11 j 06:36	26°♄30'13	1°11'48	asc. node	1268 May 20 j 15:48	0°♄21'05	
minimum elong	1267 Jun 11 j 04:11	26°♄17'05	1°11'24				
max. Earth dist.	1267 Jun 12 j 15:03	29°♄26'42	1.32821 AU	superior conj	1268 May 25 j 18:05	11°♄28'13	0°51'35
	1267 Jun 12 j 21:12	0°♄		minimum elong	1268 May 25 j 16:03	11°♄17'06	0°51'11
evening rise	1267 Jun 18 j 12:04	11°♄52'33		max. Earth dist.	1268 May 26 j 02:03	12°♄12'00	1.32344 AU
	1267 Jun 28 j 00:13	0°♄		evening rise	1268 Jun 01 j 17:51	26°♄33'45	
desc. node	1267 Jul 12 j 13:31	22°♄14'51			1268 Jun 03 j 09:47	0°♄	
	1267 Jul 19 j 05:07	0°♄			1268 Jun 20 j 13:38	0°♄	
evening max el	1267 Jul 21 j 00:02	1°♄46'19	27°23'00	desc. node	1268 Jun 28 j 10:33	10°♄07'56	
retrograde	1267 Aug 03 j 18:29	9°♄03'54		evening max el	1268 Jul 02 j 04:18	14°♄01'07	26°52'42
evening set	1267 Aug 10 j 23:26	6°♄32'48		retrograde	1268 Jul 16 j 03:06	21°♄15'52	
min. Earth dist.	1267 Aug 14 j 13:28	3°♄36'10	0.62673 AU	evening set	1268 Jul 23 j 01:08	19°♄10'14	
inferior conj	1267 Aug 17 j 10:20	0°♄51'29	-3°-52'-57	min. Earth dist.	1268 Jul 26 j 18:20	16°♄31'30	0.60698 AU
minimum elong	1267 Aug 17 j 15:29	0°♄39'08	3°51'40	inferior conj	1268 Jul 30 j 00:12	13°♄47'51	-4°-33'-10
	1267 Aug 18 j 07:59	30°♄		minimum elong	1268 Jul 30 j 04:22	13°♄39'02	4°32'34
morning rise	1267 Aug 24 j 10:06	25°♄42'53		morning rise	1268 Aug 06 j 10:44	9°♄00'50	
direct	1267 Aug 26 j 20:10	25°♄16'12		direct	1268 Aug 08 j 20:10	8°♄38'28	

morning max el	1268 Aug 16 j 02:18	12°Ω12'52	18°05'05	minimum elong	1269 Jul 11 j 21:44	26°☿09'11	4°53'09
asc. node	1268 Aug 16 j 15:00	12°Ω44'36		morning rise	1269 Jul 19 j 17:53	21°☿46'38	
	1268 Aug 28 j 00:00	0°♊		direct	1269 Jul 22 j 05:22	21°☿26'35	
morning set	1268 Aug 31 j 21:53	7°♊13'33		morning max el	1269 Jul 30 j 09:09	25°☿19'28	18°37'54
					1269 Aug 03 j 09:57	0°Ω	
superior conj	1268 Sep 10 j 19:36	25°♊24'18	1°23'22	asc. node	1269 Aug 03 j 12:04	0°Ω07'10	
minimum elong	1268 Sep 10 j 23:49	25°♊43'04	1°22'57	morning set	1269 Aug 15 j 14:48	21°Ω11'52	
	1268 Sep 13 j 10:09	0°♊			1269 Aug 20 j 03:39	0°♊	
max. Earth dist.	1268 Sep 18 j 10:32	8°♊34'35	1.41689 AU				
evening rise	1268 Sep 24 j 00:35	17°♊44'09		superior conj	1269 Aug 24 j 10:26	8°♊09'47	1°39'48
desc. node	1268 Sep 24 j 09:50	18°♊21'14		minimum elong	1269 Aug 24 j 12:50	8°♊21'03	1°39'40
	1268 Oct 01 j 21:00	0°♊		max. Earth dist.	1269 Aug 31 j 15:43	21°♊16'50	1.39707 AU
greatest brilliancy	1268 Oct 22 j 10:34	28°♊44'53	-0.3m	evening rise	1269 Sep 04 j 19:57	28°♊27'43	
	1268 Oct 23 j 11:42	0°♊			1269 Sep 05 j 17:57	0°♊	
evening max el	1268 Oct 27 j 07:30	4°♊12'31	22°37'59	desc. node	1269 Sep 11 j 06:54	9°♊00'50	
retrograde	1268 Nov 06 j 03:37	10°♊03'14			1269 Sep 25 j 09:31	0°♊	
evening set	1268 Nov 10 j 18:15	8°♊12'02		evening max el	1269 Oct 09 j 21:08	17°♊47'15	23°58'05
asc. node	1268 Nov 12 j 14:13	6°♊25'23		retrograde	1269 Oct 20 j 19:35	24°♊13'00	
inferior conj	1268 Nov 16 j 03:48	1°♊49'04	1°12'05	evening set	1269 Oct 26 j 00:01	22°♊04'14	
minimum elong	1268 Nov 16 j 02:12	1°♊54'35	1°11'27	asc. node	1269 Oct 30 j 11:16	16°♊58'35	
min. Earth dist.	1268 Nov 15 j 23:52	2°♊02'41	0.67773 AU	inferior conj	1269 Oct 31 j 10:43	15°♊39'15	0°20'11
	1268 Nov 17 j 11:40	30°♊		minimum elong	1269 Oct 31 j 10:14	15°♊40'54	0°19'58
morning rise	1268 Nov 21 j 10:04	25°♊36'13		min. Earth dist.	1269 Oct 30 j 20:18	16°♊28'06	0.67639 AU
direct	1268 Nov 25 j 21:39	23°♊47'28		morning rise	1269 Nov 05 j 20:39	9°♊31'11	
morning max el	1268 Dec 05 j 01:58	29°♊11'44	21°59'01	direct	1269 Nov 09 j 18:27	8°♊04'32	
	1268 Dec 05 j 20:41	0°♊		morning max el	1269 Nov 17 j 20:54	12°♊45'41	20°40'33
greatest brilliancy	1268 Dec 09 j 19:24	4°♊31'22	-0.4m	greatest brilliancy	1269 Nov 23 j 20:16	19°♊47'05	-0.5m
desc. node	1268 Dec 21 j 09:03	20°♊12'41			1269 Dec 01 j 05:10	0°♊	
	1268 Dec 27 j 23:40	0°☿		desc. node	1269 Dec 08 j 06:06	10°♊24'16	
morning set	1269 Jan 06 j 17:49	15°☿12'19		morning set	1269 Dec 16 j 19:53	23°♊31'10	
max. Earth dist.	1269 Jan 12 j 16:47	24°☿57'43	1.41268 AU		1269 Dec 20 j 23:07	0°☿	
	1269 Jan 15 j 16:22	0°♈		max. Earth dist.	1269 Dec 25 j 22:27	7°☿57'05	1.43107 AU
superior conj	1269 Jan 20 j 10:34	8°♈15'55	-2°-3'-2	superior conj	1270 Jan 01 j 12:56	18°☿49'17	-2°00'-27
minimum elong	1269 Jan 20 j 11:56	8°♈21'56	2°03'01	minimum elong	1270 Jan 01 j 09:35	18°☿35'17	2°00'20
evening rise	1269 Jan 30 j 23:56	27°♈30'13			1270 Jan 08 j 02:10	0°♈	
	1269 Feb 01 j 08:15	0°♈		evening rise	1270 Jan 13 j 15:56	9°♈46'48	
asc. node	1269 Feb 08 j 13:33	12°♈53'31			1270 Jan 25 j 14:10	0°♈	
evening max el	1269 Feb 16 j 06:42	23°♈26'29	18°14'05	asc. node	1270 Jan 26 j 10:35	1°♈14'28	
retrograde	1269 Feb 23 j 06:27	26°♈56'31		evening max el	1270 Jan 30 j 18:22	6°♈33'22	18°07'44
evening set	1269 Feb 25 j 18:55	26°♈30'05		retrograde	1270 Feb 06 j 07:16	9°♈57'21	
inferior conj	1269 Mar 04 j 19:07	21°♈44'13	3°21'16	evening set	1270 Feb 09 j 00:31	9°♈21'31	
minimum elong	1269 Mar 04 j 22:04	21°♈37'42	3°20'48	inferior conj	1270 Feb 15 j 11:20	4°♈14'10	3°43'34
min. Earth dist.	1269 Mar 08 j 04:18	18°♈46'18	0.59845 AU	minimum elong	1270 Feb 15 j 12:12	4°♈11'58	3°43'32
morning rise	1269 Mar 11 j 21:44	16°♈03'31		min. Earth dist.	1270 Feb 18 j 10:19	1°♈15'30	0.61957 AU
direct	1269 Mar 18 j 10:28	14°♈05'10			1270 Feb 19 j 18:47	30°♈	
desc. node	1269 Mar 19 j 08:14	14°♈07'23		morning rise	1270 Feb 21 j 21:28	28°♈17'58	
morning max el	1269 Apr 01 j 17:41	21°♈53'02	27°24'39	direct	1270 Feb 28 j 19:32	25°♈48'52	
	1269 Apr 08 j 20:34	0°♈		desc. node	1270 Mar 06 j 05:17	27°♈09'21	
	1269 Apr 27 j 13:47	0°♈			1270 Mar 10 j 17:22	0°♈	
morning set	1269 May 03 j 01:12	10°♈56'05		morning max el	1270 Mar 14 j 21:34	3°♈42'24	27°48'36
asc. node	1269 May 07 j 12:52	20°♈29'26			1270 Apr 03 j 10:09	0°♈	
max. Earth dist.	1269 May 09 j 14:29	25°♈00'35	1.32244 AU	morning set	1270 Apr 17 j 04:45	25°♈23'01	
					1270 Apr 19 j 10:23	0°♈	
superior conj	1269 May 10 j 05:46	26°♈24'27	0°28'17	max. Earth dist.	1270 Apr 23 j 00:26	7°♈38'01	1.32529 AU
minimum elong	1269 May 10 j 04:32	26°♈17'40	0°28'02	asc. node	1270 Apr 24 j 09:54	10°♈39'24	
	1269 May 11 j 20:59	0°♈					
evening rise	1269 May 17 j 03:36	11°♈25'05		superior conj	1270 Apr 24 j 15:52	11°♈11'55	0°02'39
	1269 May 26 j 15:36	0°☿		minimum elong	1270 Apr 24 j 15:45	11°♈11'13	0°02'38
evening max el	1269 Jun 14 j 01:55	25°☿30'51	25°50'41	behind sun begin	1270 Apr 24 j 10:40	10°♈43'36	
desc. node	1269 Jun 15 j 07:33	26°☿39'04		behind sun end	1270 Apr 24 j 20:49	11°♈38'52	
	1269 Jun 19 j 17:49	0°Ω		evening rise	1270 May 01 j 15:12	26°♈18'20	
retrograde	1269 Jun 28 j 02:34	2°Ω41'10			1270 May 03 j 09:31	0°♈	
evening set	1269 Jul 04 j 05:09	1°Ω12'00			1270 May 21 j 01:52	0°☿	
	1269 Jul 06 j 10:04	30°♈		evening max el	1270 May 26 j 17:20	6°☿19'15	24°24'46
min. Earth dist.	1269 Jul 08 j 14:23	28°☿33'50	0.58642 AU	desc. node	1270 Jun 02 j 04:35	11°☿15'08	
inferior conj	1269 Jul 11 j 20:52	26°☿10'47	-4°-53'-8	retrograde	1270 Jun 09 j 14:35	13°☿19'52	

evening set	1270 Jun 14 j 09:42	12°♄28'26		evening set	1271 May 24 j 22:26	23°♄01'02	
min. Earth dist.	1270 Jun 20 j 04:24	9°♄33'41	0.56776 AU	min. Earth dist.	1271 Jun 01 j 16:18	19°♄35'58	0.55438 AU
inferior conj	1270 Jun 22 j 21:30	7°♄50'24	-4°-39'-52	inferior conj	1271 Jun 03 j 03:05	18°♄45'59	-3°-41'-13
minimum elong	1270 Jun 22 j 17:17	7°♄57'09	4°39'24	minimum elong	1271 Jun 02 j 19:28	18°♄56'58	3°39'20
morning rise	1270 Jul 01 j 04:34	3°♄47'00		morning rise	1271 Jun 11 j 19:19	14°♄53'41	
direct	1270 Jul 03 j 19:55	3°♄28'06		direct	1271 Jun 14 j 15:50	14°♄34'41	
morning max el	1270 Jul 13 j 06:58	7°♄51'52	19°31'56	morning max el	1271 Jun 25 j 17:48	19°♄42'51	20°46'50
asc. node	1270 Jul 21 j 09:08	18°♄20'05		asc. node	1271 Jul 03 j 23:51	0°♄	
	1270 Jul 27 j 20:16	0°♄			1271 Jul 08 j 06:12	7°♄11'29	
morning set	1270 Jul 30 j 15:57	5°♄34'43		morning set	1271 Jul 14 j 22:37	20°♄14'48	
					1271 Jul 19 j 15:30	0°♄	
superior conj	1270 Aug 07 j 17:25	21°♄43'48	1°46'04	superior conj	1271 Jul 22 j 11:56	5°♄53'06	1°44'06
minimum elong	1270 Aug 07 j 17:52	21°♄46'01	1°46'03	minimum elong	1271 Jul 22 j 10:51	5°♄47'33	1°44'03
	1270 Aug 12 j 00:17	0°♄			1271 Jul 27 j 03:27	15°♄12'22	1.35851 AU
max. Earth dist.	1270 Aug 13 j 19:34	3°♄22'34	1.37683 AU	max. Earth dist.	1271 Jul 31 j 06:53	23°♄07'57	
evening rise	1270 Aug 17 j 15:15	10°♄18'25		evening rise	1271 Aug 04 j 01:21	0°♄	
desc. node	1270 Aug 29 j 03:56	29°♄29'57		desc. node	1271 Aug 16 j 00:57	19°♄43'05	
	1270 Aug 29 j 11:40	0°♄			1271 Aug 23 j 04:22	0°♄	
	1270 Sep 20 j 23:26	0°♄			1271 Sep 04 j 20:51	15°♄02'33	26°19'21
evening max el	1270 Sep 22 j 09:04	1°♄25'02	25°14'23	evening max el	1271 Sep 17 j 14:12	22°♄13'30	
retrograde	1270 Oct 04 j 07:19	8°♄18'20		retrograde	1271 Sep 23 j 23:20	19°♄35'33	
evening set	1270 Oct 10 j 02:22	5°♄53'07		evening set	1271 Sep 28 j 03:35	15°♄11'10	0.66365 AU
min. Earth dist.	1270 Oct 14 j 14:19	0°♄52'05	0.67172 AU	min. Earth dist.	1271 Sep 29 j 16:13	13°♄18'55	-1°-32'-33
	1270 Oct 15 j 06:21	30°♄		inferior conj	1271 Sep 29 j 18:38	13°♄11'29	1°31'34
inferior conj	1270 Oct 15 j 15:29	29°♄30'11	0°-35'-11	minimum elong	1271 Oct 04 j 05:23	8°♄26'30	
minimum elong	1270 Oct 15 j 16:22	29°♄27'17	0°34'50	asc. node	1271 Oct 05 j 15:02	7°♄28'41	
asc. node	1270 Oct 17 j 08:19	27°♄20'14		morning rise	1271 Oct 08 j 14:54	6°♄37'43	
morning rise	1270 Oct 21 j 06:59	23°♄29'39		direct	1271 Oct 15 j 09:21	10°♄22'44	18°44'22
direct	1270 Oct 24 j 16:46	22°♄22'38		morning max el	1271 Oct 29 j 10:22	0°♄	
morning max el	1270 Oct 31 j 23:43	26°♄30'29	19°34'53		1271 Nov 05 j 10:21	11°♄04'10	
	1270 Nov 04 j 02:11	0°♄		morning set	1271 Nov 12 j 00:12	21°♄27'59	
greatest brilliancy	1270 Nov 09 j 10:08	7°♄08'20	-0.6m	desc. node	1271 Nov 17 j 10:24	0°♄	
	1270 Nov 24 j 13:57	0°♄			1271 Nov 21 j 04:55	5°♄55'28	1.45054 AU
desc. node	1270 Nov 25 j 03:10	0°♄51'04		max. Earth dist.			
morning set	1270 Nov 25 j 17:33	1°♄46'42		superior conj	1271 Nov 21 j 16:48	6°♄42'08	-1°-1'-29
max. Earth dist.	1270 Dec 08 j 11:34	21°♄43'15	1.44418 AU	minimum elong	1271 Nov 21 j 09:17	6°♄12'37	1°00'35
					1271 Dec 06 j 09:34	0°♄	
superior conj	1270 Dec 12 j 12:45	28°♄10'44	-1°-39'-58	evening rise	1271 Dec 07 j 09:33	1°♄36'07	
minimum elong	1270 Dec 12 j 04:43	27°♄38'32	1°39'19		1271 Dec 25 j 21:20	0°♄	
	1270 Dec 13 j 15:56	0°♄		evening max el	1271 Dec 28 j 17:46	3°♄17'52	18°51'06
evening rise	1270 Dec 26 j 12:18	21°♄10'47		asc. node	1271 Dec 31 j 04:39	5°♄27'55	
	1270 Dec 31 j 18:09	0°♄		retrograde	1272 Jan 04 j 12:23	7°♄06'52	
asc. node	1271 Jan 13 j 07:37	18°♄50'27		evening set	1272 Jan 07 j 16:16	6°♄09'27	
evening max el	1271 Jan 14 j 06:55	19°♄52'37	18°20'21	inferior conj	1272 Jan 13 j 10:10	0°♄24'47	3°28'01
retrograde	1271 Jan 20 j 18:37	23°♄23'39		minimum elong	1272 Jan 13 j 08:02	0°♄31'22	3°27'42
evening set	1271 Jan 23 j 16:44	22°♄37'34			1272 Jan 13 j 18:10	30°♄	
inferior conj	1271 Jan 29 j 17:38	17°♄10'24	3°43'49	min. Earth dist.	1272 Jan 15 j 03:03	28°♄18'36	0.65399 AU
minimum elong	1271 Jan 29 j 16:41	17°♄13'07	3°43'46	morning rise	1272 Jan 18 j 22:44	24°♄13'25	
min. Earth dist.	1271 Feb 01 j 01:55	14°♄31'26	0.63852 AU	direct	1272 Jan 25 j 12:57	21°♄22'53	
morning rise	1271 Feb 04 j 15:01	11°♄04'39		morning max el	1272 Feb 07 j 15:48	29°♄04'48	26°50'14
direct	1271 Feb 11 j 12:45	8°♄17'41		desc. node	1272 Feb 07 j 23:21	29°♄23'55	
desc. node	1271 Feb 21 j 02:19	12°♄26'54			1272 Feb 08 j 13:21	0°♄	
morning max el	1271 Feb 25 j 05:57	16°♄10'28	27°35'36		1272 Mar 01 j 12:07	0°♄	
	1271 Mar 08 j 16:01	0°♄		morning set	1272 Mar 14 j 11:05	22°♄51'56	
	1271 Mar 27 j 03:19	0°♄			1272 Mar 18 j 02:50	0°♄	
morning set	1271 Apr 01 j 01:09	9°♄25'11		max. Earth dist.	1272 Mar 18 j 20:56	1°♄30'25	1.34363 AU
max. Earth dist.	1271 Apr 06 j 03:53	19°♄51'26	1.33225 AU				
				superior conj	1272 Mar 22 j 23:55	9°♄56'40	0°-52'-3
superior conj	1271 Apr 08 j 22:38	25°♄44'56	0°-24'-31	minimum elong	1272 Mar 23 j 02:30	10°♄10'06	0°51'35
minimum elong	1271 Apr 08 j 23:50	25°♄51'22	0°24'16	asc. node	1272 Mar 28 j 03:59	20°♄48'12	
	1271 Apr 10 j 22:11	0°♄		evening rise	1272 Mar 30 j 12:40	25°♄45'00	
asc. node	1271 Apr 11 j 06:57	0°♄47'12			1272 Apr 01 j 14:16	0°♄	
evening rise	1271 Apr 16 j 02:52	11°♄07'13		evening max el	1272 Apr 19 j 04:49	27°♄33'46	21°17'59
	1271 Apr 25 j 20:57	0°♄			1272 Apr 22 j 01:02	0°♄	
evening max el	1271 May 08 j 07:46	16°♄49'34	22°48'58	retrograde	1272 May 01 j 04:47	3°♄24'45	
desc. node	1271 May 20 j 01:34	23°♄20'08		evening set	1272 May 03 j 12:52	3°♄12'11	
retrograde	1271 May 21 j 14:21	23°♄25'29					

desc. node	1272 May 05 j 22:34	2° Π 34'54			1273 Mar 25 j 13:03	0° \mathcal{B}	
	1272 May 11 j 11:55	30° \mathcal{R} \mathcal{B}		evening max el	1273 Apr 01 j 13:03	8° \mathcal{B} 53'01	20°01'32
inferior conj	1272 May 12 j 21:39	29° \mathcal{B} 12'52	-1°-59'-17	retrograde	1273 Apr 11 j 19:42	13° \mathcal{B} 50'10	
minimum elong	1272 May 12 j 16:09	29° \mathcal{B} 20'37	1°57'24	evening set	1273 Apr 13 j 20:58	13° \mathcal{B} 39'11	
min. Earth dist.	1272 May 13 j 04:50	29° \mathcal{B} 02'47	0.54932 AU	inferior conj	1273 Apr 22 j 19:11	9° \mathcal{B} 39'45	0°00'17
morning rise	1272 May 21 j 19:32	25° \mathcal{B} 13'33		minimum elong	1273 Apr 22 j 19:12	9° \mathcal{B} 39'44	0°00'17
direct	1272 May 25 j 01:53	24° \mathcal{B} 50'24		transit middle	1273 Apr 22 j 19:12	9° \mathcal{B} 39'44	0°00'17
	1272 Jun 05 j 18:59	0° Π		transit begin	1273 Apr 22 j 15:12	9° \mathcal{B} 45'45	
morning max el	1272 Jun 06 j 17:46	0° Π 51'14	22°19'10	transit end	1273 Apr 22 j 23:11	9° \mathcal{B} 33'42	
asc. node	1272 Jun 24 j 03:15	26° Π 31'50		desc. node	1273 Apr 22 j 19:35	9° \mathcal{B} 39'08	
	1272 Jun 25 j 21:09	0° \mathcal{E}		min. Earth dist.	1273 Apr 24 j 18:32	8° \mathcal{B} 28'30	0.55397 AU
morning set	1272 Jun 28 j 08:44	5° \mathcal{E} 06'15		morning rise	1273 May 01 j 14:35	5° \mathcal{B} 15'19	
				direct	1273 May 05 j 16:04	4° \mathcal{B} 39'08	
superior conj	1272 Jul 05 j 14:24	20° \mathcal{E} 26'51	1°35'34	morning max el	1273 May 19 j 10:03	11° \mathcal{B} 27'16	24°00'31
minimum elong	1272 Jul 05 j 12:21	20° \mathcal{E} 16'04	1°35'23		1273 Jun 02 j 09:27	0° Π	
max. Earth dist.	1272 Jul 08 j 19:51	27° \mathcal{E} 11'09	1.34362 AU	asc. node	1273 Jun 11 j 00:16	16° Π 12'59	
	1272 Jul 10 j 04:53	0° \mathcal{Q}		morning set	1273 Jun 12 j 20:27	20° Π 02'48	
evening rise	1272 Jul 13 j 14:07	6° \mathcal{Q} 44'01			1273 Jun 17 j 11:46	0° \mathcal{E}	
	1272 Jul 26 j 16:17	0° \mathcal{M}					
desc. node	1272 Aug 01 j 21:56	9° \mathcal{M} 33'13		superior conj	1273 Jun 19 j 22:01	5° \mathcal{E} 15'32	1°21'45
evening max el	1272 Aug 17 j 08:54	28° \mathcal{M} 33'22	27°05'23	minimum elong	1273 Jun 19 j 19:35	5° \mathcal{E} 02'25	1°21'25
	1272 Aug 18 j 22:30	0° \mathcal{A}		max. Earth dist.	1273 Jun 21 j 21:36	9° \mathcal{E} 31'21	1.33272 AU
retrograde	1272 Aug 30 j 15:47	5° \mathcal{A} 51'45		evening rise	1273 Jun 27 j 08:42	20° \mathcal{E} 53'30	
evening set	1272 Sep 06 j 12:38	3° \mathcal{A} 08'11			1273 Jul 02 j 00:47	0° \mathcal{Q}	
	1272 Sep 09 j 19:31	30° \mathcal{R} \mathcal{M}		desc. node	1273 Jul 19 j 18:57	28° \mathcal{Q} 49'52	
min. Earth dist.	1272 Sep 10 j 09:52	29° \mathcal{M} 20'42	0.65206 AU		1273 Jul 20 j 15:45	0° \mathcal{M}	
inferior conj	1272 Sep 12 j 10:50	27° \mathcal{M} 02'09	-2°-29'-53	evening max el	1273 Jul 30 j 20:01	11° \mathcal{M} 45'24	27°25'28
minimum elong	1272 Sep 12 j 14:44	26° \mathcal{M} 51'06	2°28'28	retrograde	1273 Aug 13 j 11:17	19° \mathcal{M} 03'40	
morning rise	1272 Sep 18 j 18:29	21° \mathcal{M} 25'16		evening set	1273 Aug 20 j 15:15	16° \mathcal{M} 24'43	
asc. node	1272 Sep 20 j 02:26	20° \mathcal{M} 56'21		min. Earth dist.	1273 Aug 24 j 07:04	13° \mathcal{M} 11'22	0.63695 AU
direct	1272 Sep 21 j 10:54	20° \mathcal{M} 46'25		inferior conj	1273 Aug 26 j 20:47	10° \mathcal{M} 33'27	-3°-24'-25
morning max el	1272 Sep 27 j 23:34	24° \mathcal{M} 17'45	18°10'19	minimum elong	1273 Aug 27 j 01:45	10° \mathcal{M} 20'44	3°22'57
	1272 Oct 02 j 15:20	0° \mathcal{A}		morning rise	1273 Sep 02 j 14:25	5° \mathcal{M} 13'14	
morning set	1272 Oct 16 j 08:08	21° \mathcal{A} 48'29		direct	1273 Sep 05 j 02:03	4° \mathcal{M} 42'56	
	1272 Oct 21 j 07:51	0° \mathcal{M}		asc. node	1273 Sep 06 j 23:28	5° \mathcal{M} 00'49	
desc. node	1272 Oct 28 j 21:14	12° \mathcal{M} 11'40		morning max el	1273 Sep 11 j 15:33	8° \mathcal{M} 08'43	17°53'40
					1273 Sep 26 j 03:19	0° \mathcal{A}	
superior conj	1272 Oct 30 j 20:24	15° \mathcal{M} 19'13	0°-13'-4	morning set	1273 Sep 28 j 08:13	3° \mathcal{A} 48'54	
minimum elong	1272 Oct 30 j 18:43	15° \mathcal{M} 12'36	0°12'52				
behind sun begin	1272 Oct 30 j 11:59	14° \mathcal{M} 45'52		superior conj	1273 Oct 10 j 19:16	24° \mathcal{A} 55'18	0°32'58
behind sun end	1272 Oct 31 j 01:27	15° \mathcal{M} 39'18		minimum elong	1273 Oct 10 j 22:40	25° \mathcal{A} 09'13	0°32'30
max. Earth dist.	1272 Nov 02 j 23:35	20° \mathcal{M} 16'23	1.44958 AU		1273 Oct 13 j 21:59	0° \mathcal{M}	
	1272 Nov 09 j 04:33	0° \mathcal{A}		desc. node	1273 Oct 15 j 18:16	2° \mathcal{M} 58'24	
evening rise	1272 Nov 16 j 08:14	11° \mathcal{A} 07'59		max. Earth dist.	1273 Oct 16 j 17:02	4° \mathcal{M} 29'36	1.44150 AU
	1272 Nov 28 j 14:14	0° \mathcal{E}		evening rise	1273 Oct 26 j 17:06	20° \mathcal{M} 10'08	
greatest brilliancy	1272 Dec 03 j 01:57	6° \mathcal{E} 37'45	-0.7m		1273 Nov 02 j 03:44	0° \mathcal{A}	
evening max el	1272 Dec 11 j 00:53	16° \mathcal{E} 46'13	19°38'29	greatest brilliancy	1273 Nov 18 j 07:23	23° \mathcal{A} 20'35	-0.5m
asc. node	1272 Dec 17 j 01:41	20° \mathcal{E} 52'26			1273 Nov 23 j 20:48	0° \mathcal{E}	
retrograde	1272 Dec 18 j 09:21	21° \mathcal{E} 02'05		evening max el	1273 Nov 24 j 02:51	0° \mathcal{E} 15'41	20°40'14
evening set	1272 Dec 21 j 20:33	19° \mathcal{E} 51'44		retrograde	1273 Dec 02 j 07:05	5° \mathcal{E} 05'29	
inferior conj	1272 Dec 27 j 09:50	13° \mathcal{E} 52'14	3°00'22	asc. node	1273 Dec 03 j 22:43	4° \mathcal{E} 50'09	
minimum elong	1272 Dec 27 j 07:11	14° \mathcal{E} 00'57	2°59'43	evening set	1273 Dec 06 j 03:30	3° \mathcal{E} 40'22	
min. Earth dist.	1272 Dec 28 j 12:22	12° \mathcal{E} 25'04	0.66553 AU		1273 Dec 09 j 16:42	30° \mathcal{R} \mathcal{A}	
morning rise	1273 Jan 01 j 17:05	7° \mathcal{E} 37'54		inferior conj	1273 Dec 11 j 14:05	27° \mathcal{A} 29'00	2°23'41
direct	1273 Jan 07 j 19:08	4° \mathcal{E} 56'22		minimum elong	1273 Dec 11 j 11:29	27° \mathcal{A} 37'51	2°22'50
morning max el	1273 Jan 20 j 00:52	12° \mathcal{E} 13'03	25°40'34	min. Earth dist.	1273 Dec 12 j 03:45	26° \mathcal{A} 42'20	0.67313 AU
desc. node	1273 Jan 24 j 20:24	17° \mathcal{E} 31'59		morning rise	1273 Dec 16 j 19:00	21° \mathcal{A} 13'47	
	1273 Feb 03 j 08:25	0° \approx		direct	1273 Dec 22 j 06:25	18° \mathcal{A} 49'57	
	1273 Feb 22 j 04:39	0° \mathcal{H}		morning max el	1274 Jan 02 j 09:09	25° \mathcal{A} 27'40	24°16'37
morning set	1273 Feb 25 j 06:09	5° \mathcal{H} 30'12			1274 Jan 06 j 12:24	0° \mathcal{E}	
max. Earth dist.	1273 Mar 01 j 02:03	12° \mathcal{H} 38'52	1.35955 AU	desc. node	1274 Jan 11 j 17:28	6° \mathcal{E} 30'27	
					1274 Jan 27 j 21:14	0° \approx	
superior conj	1273 Mar 06 j 17:07	23° \mathcal{H} 39'45	-1°-18'-27	morning set	1274 Feb 07 j 04:38	17° \approx 04'00	
minimum elong	1273 Mar 06 j 20:51	23° \mathcal{H} 58'25	1°17'54	max. Earth dist.	1274 Feb 10 j 22:42	23° \approx 42'28	1.37924 AU
	1273 Mar 09 j 20:13	0° \mathcal{Y}			1274 Feb 14 j 09:10	0° \mathcal{H}	
evening rise	1273 Mar 14 j 18:33	10° \mathcal{Y} 05'29					
asc. node	1273 Mar 15 j 01:00	10° \mathcal{Y} 38'12		superior conj	1274 Feb 17 j 22:52	6° \mathcal{H} 45'03	-1°-41'-30

minimum elong	1274 Feb 18 j 03:00	7° K 04'51	1°41'04	superior conj	1275 Jan 31 j 12:41	19° \approx 00'15	-1°-58'-4
evening rise	1274 Feb 26 j 18:09	24° K 01'56		minimum elong	1275 Jan 31 j 15:43	19° \approx 14'02	1°57'55
asc. node	1274 Mar 01 j 22:02	0° Y 12'19			1275 Feb 06 j 10:34	0° K	
	1274 Mar 01 j 19:28	0° Y		evening rise	1275 Feb 10 j 08:25	7° K 25'50	
evening max el	1274 Mar 15 j 08:31	20° Y 51'36	19°04'02	asc. node	1275 Feb 16 j 19:04	19° K 23'54	
retrograde	1274 Mar 24 j 00:13	25° Y 02'49			1275 Feb 23 j 13:29	0° Y	
evening set	1274 Mar 26 j 04:27	24° Y 48'03		evening max el	1275 Feb 26 j 12:38	3° Y 22'38	18°26'32
inferior conj	1274 Apr 03 j 08:25	20° Y 34'23	1°44'19	retrograde	1275 Mar 05 j 23:45	7° Y 03'23	
minimum elong	1274 Apr 03 j 12:06	20° Y 28'00	1°43'10	evening set	1275 Mar 08 j 09:08	6° Y 41'50	
min. Earth dist.	1274 Apr 06 j 09:58	18° Y 27'57	0.56723 AU	inferior conj	1275 Mar 15 j 18:38	2° Y 07'59	2°55'35
desc. node	1274 Apr 09 j 16:37	16° Y 30'10		minimum elong	1275 Mar 15 j 22:29	2° Y 00'09	2°54'43
morning rise	1274 Apr 11 j 15:37	15° Y 36'26			1275 Mar 18 j 09:43	30° R K	
direct	1274 Apr 16 j 18:26	14° Y 34'57		min. Earth dist.	1275 Mar 19 j 05:06	29° K 22'09	0.58622 AU
morning max el	1274 May 01 j 00:38	21° Y 55'55	25°37'26	morning rise	1275 Mar 23 j 07:52	26° K 39'57	
	1274 May 08 j 02:35	0° B		desc. node	1275 Mar 27 j 13:40	25° K 12'10	
	1274 May 25 j 22:22	0° II		direct	1275 Mar 29 j 10:11	25° K 03'10	
morning set	1274 May 28 j 08:10	4° II 59'33			1275 Apr 09 j 17:53	0° Y	
asc. node	1274 May 28 j 21:19	6° II 09'02		morning max el	1275 Apr 12 j 19:03	2° Y 44'08	26°54'30
					1275 May 02 j 11:25	0° B	
superior conj	1274 Jun 04 j 08:39	20° II 12'18	1°03'39	morning set	1275 May 12 j 18:12	19° B 49'48	
minimum elong	1274 Jun 04 j 06:21	19° II 59'42	1°03'15	asc. node	1275 May 15 j 18:22	26° B 13'58	
max. Earth dist.	1274 Jun 05 j 06:27	22° II 11'32	1.32580 AU		1275 May 17 j 11:56	0° II	
	1274 Jun 08 j 21:07	0° E					
evening rise	1274 Jun 11 j 11:14	5° E 26'13		superior conj	1275 May 19 j 20:25	5° II 10'02	0°42'02
	1274 Jun 24 j 15:50	0° Q		minimum elong	1275 May 19 j 18:41	5° II 00'30	0°41'42
desc. node	1274 Jul 06 j 15:57	17° Q 18'59		max. Earth dist.	1275 May 19 j 18:41	5° II 00'29	1.32259 AU
evening max el	1274 Jul 13 j 03:39	24° Q 24'52	27°14'09	evening rise	1275 May 26 j 18:58	20° II 12'25	
	1274 Jul 20 j 16:26	0° np			1275 May 31 j 14:46	0° E	
retrograde	1274 Jul 26 j 23:51	1° np 40'18			1275 Jun 19 j 09:48	0° Q	
	1274 Aug 01 j 23:55	30° R Q		desc. node	1275 Jun 23 j 12:58	4° Q 40'30	
evening set	1274 Aug 03 j 03:22	29° Q 18'36		evening max el	1275 Jun 25 j 05:06	6° Q 20'12	26°29'44
min. Earth dist.	1274 Aug 06 j 17:46	26° Q 31'21	0.61867 AU	retrograde	1275 Jul 09 j 04:40	13° Q 33'13	
inferior conj	1274 Aug 09 j 19:00	23° Q 45'20	-4°-11'-46	evening set	1275 Jul 15 j 20:21	11° Q 41'48	
minimum elong	1274 Aug 09 j 23:58	23° Q 34'01	4°10'45	min. Earth dist.	1275 Jul 19 j 18:17	9° Q 05'55	0.59828 AU
morning rise	1274 Aug 16 j 23:20	18° Q 45'21		inferior conj	1275 Jul 23 j 01:57	6° Q 28'24	-4°-44'-48
direct	1274 Aug 19 j 08:55	18° Q 20'38		minimum elong	1275 Jul 23 j 05:02	6° Q 22'17	4°44'31
asc. node	1274 Aug 24 j 20:32	20° Q 33'35		morning rise	1275 Jul 30 j 17:03	1° Q 51'21	
morning max el	1274 Aug 26 j 06:26	21° Q 48'55	17°55'21	direct	1275 Aug 02 j 03:11	1° Q 30'06	
	1274 Sep 01 j 12:59	0° np		morning max el	1275 Aug 09 j 17:10	5° Q 10'31	18°16'32
morning set	1274 Sep 11 j 04:20	16° np 46'47		asc. node	1275 Aug 11 j 17:35	7° Q 20'23	
	1274 Sep 18 j 12:47	0° A			1275 Aug 25 j 09:23	0° np	
				morning set	1275 Aug 25 j 14:56	0° np 26'19	
superior conj	1274 Sep 21 j 21:23	5° A 52'02	1°08'33				
minimum elong	1274 Sep 22 j 02:06	6° A 12'22	1°08'00	superior conj	1275 Sep 04 j 00:26	18° np 02'39	1°31'43
max. Earth dist.	1274 Sep 29 j 06:34	18° A 17'38	1.42725 AU	minimum elong	1275 Sep 04 j 03:58	18° np 18'41	1°31'25
desc. node	1274 Oct 02 j 15:18	23° A 45'07			1275 Sep 10 j 18:32	0° A	
evening rise	1274 Oct 06 j 04:41	29° A 24'10		max. Earth dist.	1275 Sep 11 j 14:23	1° A 25'00	1.40866 AU
	1274 Oct 06 j 13:49	0° ML		evening rise	1275 Sep 16 j 10:12	9° A 28'50	
	1274 Oct 26 j 20:06	0° A		desc. node	1275 Sep 19 j 12:20	14° A 28'26	
greatest brilliancy	1274 Nov 02 j 04:29	8° A 20'20	-0.4m		1275 Sep 29 j 15:04	0° ML	
evening max el	1274 Nov 06 j 23:06	13° A 45'51	21°52'56	greatest brilliancy	1275 Oct 14 j 04:38	20° ML 01'09	-0.2m
retrograde	1274 Nov 16 j 03:44	19° A 14'02		evening max el	1275 Oct 20 j 14:28	27° ML 18'08	23°12'01
evening set	1274 Nov 20 j 11:18	17° A 32'28			1275 Oct 23 j 12:57	0° A	
asc. node	1274 Nov 20 j 19:46	17° A 14'59		retrograde	1275 Oct 30 j 21:54	3° A 24'49	
inferior conj	1274 Nov 25 j 20:48	11° A 12'35	1°39'54	evening set	1275 Nov 04 j 18:18	1° A 25'53	
minimum elong	1274 Nov 25 j 18:44	11° A 19'46	1°39'06		1275 Nov 06 j 06:18	30° R ML	
min. Earth dist.	1274 Nov 25 j 22:58	11° A 05'06	0.67706 AU	asc. node	1275 Nov 07 j 16:48	28° ML 19'26	
morning rise	1274 Dec 01 j 01:57	4° A 58'25		inferior conj	1275 Nov 10 j 04:09	25° ML 01'20	0°50'34
direct	1274 Dec 05 j 22:02	2° A 56'41		minimum elong	1275 Nov 10 j 03:00	25° ML 05'20	0°50'05
morning max el	1274 Dec 15 j 19:02	8° A 47'43	22°48'19	min. Earth dist.	1275 Nov 09 j 19:40	25° ML 30'33	0.67754 AU
greatest brilliancy	1274 Dec 20 j 10:35	13° A 59'06	-0.3m	morning rise	1275 Nov 15 j 11:45	18° ML 50'20	
desc. node	1274 Dec 29 j 14:31	26° A 04'43		direct	1275 Nov 19 j 17:11	17° ML 11'27	
	1275 Jan 01 j 08:33	0° E		morning max el	1275 Nov 28 j 10:01	22° ML 16'35	21°24'21
morning set	1275 Jan 19 j 00:16	27° E 17'12		greatest brilliancy	1275 Dec 03 j 12:58	28° ML 07'56	-0.4m
	1275 Jan 20 j 15:30	0° \approx			1275 Dec 05 j 00:09	0° A	
max. Earth dist.	1275 Jan 23 j 18:24	5° \approx 16'48	1.40067 AU	desc. node	1275 Dec 16 j 11:35	16° A 05'05	
					1275 Dec 25 j 16:31	0° E	

morning set	1275 Dec 29 j 15:09	6°☾09'47		desc. node	1276 Dec 02 j 08:37	6°☾23'41	
max. Earth dist.	1276 Jan 05 j 19:27	17°☾43'53	1.42097 AU	morning set	1276 Dec 07 j 12:03	14°☾17'26	
					1276 Dec 17 j 12:11	0°☾	
superior conj	1276 Jan 13 j 05:25	0°☾13'50	-2°-3'-53	max. Earth dist.	1276 Dec 18 j 03:51	1°☾02'38	1.43738 AU
minimum elong	1276 Jan 13 j 05:01	0°☾12'07	2°03'54				
	1276 Jan 13 j 02:13	0°☾		superior conj	1276 Dec 23 j 20:22	10°☾15'49	-1°-54'-6
evening rise	1276 Jan 24 j 09:47	20°☾09'37		minimum elong	1276 Dec 23 j 14:45	9°☾52'45	1°53'48
	1276 Jan 29 j 20:43	0°☾			1277 Jan 04 j 13:08	0°☾	
asc. node	1276 Feb 03 j 16:07	8°☾05'59		evening rise	1277 Jan 05 j 17:53	2°☾04'18	
evening max el	1276 Feb 09 j 22:24	16°☾18'42	18°08'58	asc. node	1277 Jan 20 j 13:09	26°☾09'16	
retrograde	1276 Feb 16 j 16:27	19°☾44'47		evening max el	1277 Jan 23 j 10:46	29°☾31'37	18°10'51
evening set	1276 Feb 19 j 06:51	19°☾14'37			1277 Jan 23 j 22:27	0°☾	
inferior conj	1276 Feb 26 j 00:55	14°☾19'32	3°33'51	retrograde	1277 Jan 29 j 22:09	2°☾57'04	
minimum elong	1276 Feb 26 j 03:00	14°☾14'38	3°33'37	evening set	1277 Feb 01 j 17:21	2°☾17'06	
min. Earth dist.	1276 Feb 29 j 06:40	11°☾18'08	0.60751 AU		1277 Feb 05 j 00:05	30°☾	
morning rise	1276 Mar 03 j 20:05	8°☾30'55		inferior conj	1277 Feb 07 j 23:35	27°☾01'25	3°45'56
direct	1276 Mar 10 j 13:51	6°☾18'11		minimum elong	1277 Feb 07 j 23:37	27°☾01'21	3°45'56
desc. node	1276 Mar 13 j 10:43	6°☾40'46		min. Earth dist.	1277 Feb 10 j 16:45	24°☾08'40	0.62801 AU
morning max el	1276 Mar 24 j 19:42	14°☾10'05	27°39'29	morning rise	1277 Feb 14 j 03:48	21°☾00'31	
	1276 Apr 06 j 13:18	0°☾		direct	1277 Feb 21 j 02:55	18°☾21'37	
	1276 Apr 23 j 20:06	0°☾		desc. node	1277 Feb 28 j 07:46	20°☾44'29	
morning set	1276 Apr 26 j 00:44	4°☾27'20		morning max el	1277 Mar 07 j 01:42	26°☾16'31	27°47'22
asc. node	1276 May 01 j 15:26	16°☾23'20			1277 Mar 10 j 13:13	0°☾	
max. Earth dist.	1276 May 02 j 06:27	17°☾45'15	1.32312 AU		1277 Mar 31 j 02:23	0°☾	
				morning set	1277 Apr 10 j 01:35	18°☾44'56	
superior conj	1276 May 03 j 07:38	20°☾02'56	0°17'39		1277 Apr 15 j 11:28	0°☾	
minimum elong	1276 May 03 j 06:50	19°☾58'34	0°17'29	max. Earth dist.	1277 Apr 15 j 13:52	0°☾12'46	1.32763 AU
	1276 May 07 j 20:51	0°☾					
evening rise	1276 May 10 j 05:42	5°☾04'49		superior conj	1277 Apr 17 j 16:34	4°☾45'21	0°-8'-45
	1276 May 23 j 11:19	0°☾		minimum elong	1277 Apr 17 j 16:59	4°☾47'37	0°08'40
evening max el	1276 Jun 05 j 23:30	17°☾29'47	25°16'16	behind sun begin	1277 Apr 17 j 12:35	4°☾23'50	
desc. node	1276 Jun 09 j 09:58	20°☾26'58		behind sun end	1277 Apr 17 j 21:23	5°☾11'26	
retrograde	1276 Jun 19 j 23:55	24°☾38'03		asc. node	1277 Apr 18 j 12:28	6°☾33'04	
evening set	1276 Jun 25 j 14:14	23°☾25'21		evening rise	1277 Apr 24 j 17:32	19°☾57'01	
min. Earth dist.	1276 Jun 30 j 11:19	20°☾41'59	0.57801 AU		1277 Apr 29 j 15:36	0°☾	
inferior conj	1276 Jul 03 j 14:14	18°☾33'24	-4°-52'-28	evening max el	1277 May 18 j 13:46	28°☾07'49	23°44'28
minimum elong	1276 Jul 03 j 13:03	18°☾35'27	4°52'26		1277 May 20 j 15:37	0°☾	
morning rise	1276 Jul 11 j 15:39	14°☾18'59		desc. node	1277 May 27 j 06:59	4°☾03'34	
direct	1276 Jul 14 j 04:26	13°☾59'42		retrograde	1277 Jun 01 j 07:00	5°☾00'23	
morning max el	1276 Jul 22 j 20:36	18°☾04'07	18°58'18	evening set	1277 Jun 05 j 10:28	4°☾22'35	
asc. node	1276 Jul 28 j 14:40	25°☾06'02		min. Earth dist.	1277 Jun 12 j 00:26	1°☾16'15	0.56114 AU
	1276 Jul 31 j 16:18	0°☾		inferior conj	1277 Jun 14 j 06:25	29°☾54'37	-4°-21'00
morning set	1276 Aug 08 j 11:42	14°☾35'52		minimum elong	1277 Jun 14 j 00:15	0°☾03'59	4°19'57
	1276 Aug 16 j 08:02	0°☾			1277 Jun 14 j 02:53	30°☾	
superior conj	1276 Aug 16 j 22:47	1°☾10'49	1°43'35	morning rise	1277 Jun 22 j 17:29	25°☾57'17	
minimum elong	1276 Aug 17 j 00:19	1°☾18'13	1°43'31	direct	1277 Jun 25 j 10:38	25°☾38'38	
max. Earth dist.	1276 Aug 23 j 17:56	13°☾48'12	1.38830 AU		1277 Jul 05 j 04:59	0°☾	
evening rise	1276 Aug 27 j 15:58	20°☾41'31		morning max el	1277 Jul 05 j 13:57	0°☾20'26	20°01'18
	1276 Sep 02 j 05:24	0°☾		asc. node	1277 Jul 15 j 11:43	13°☾37'12	
desc. node	1276 Sep 05 j 09:20	5°☾04'02		morning set	1277 Jul 23 j 15:32	29°☾07'33	
	1276 Sep 22 j 16:57	0°☾			1277 Jul 24 j 01:52	0°☾	
evening max el	1276 Oct 02 j 02:57	10°☾53'50	24°31'27	superior conj	1277 Jul 31 j 11:13	15°☾01'57	1°46'07
retrograde	1276 Oct 13 j 12:19	17°☾33'16		minimum elong	1277 Jul 31 j 10:57	15°☾00'37	1°46'07
evening set	1276 Oct 18 j 22:50	15°☾17'16		max. Earth dist.	1277 Aug 05 j 22:42	25°☾44'07	1.36872 AU
min. Earth dist.	1276 Oct 23 j 15:26	9°☾55'38	0.67475 AU		1277 Aug 08 j 05:18	0°☾	
inferior conj	1276 Oct 24 j 10:22	8°☾52'20	0°-3'00	evening rise	1277 Aug 09 j 20:35	2°☾59'56	
minimum elong	1276 Oct 24 j 10:27	8°☾52'06	0°02'58	desc. node	1277 Aug 23 j 06:21	25°☾27'33	
transit middle	1276 Oct 24 j 10:27	8°☾52'06	0°02'58		1277 Aug 26 j 06:17	0°☾	
transit begin	1276 Oct 24 j 07:45	9°☾01'08		evening max el	1277 Sep 14 j 14:51	24°☾33'11	25°43'52
transit end	1276 Oct 24 j 13:08	8°☾43'05			1277 Sep 21 j 13:28	0°☾	
asc. node	1276 Oct 24 j 13:52	8°☾40'40		retrograde	1277 Sep 26 j 22:04	1°☾35'09	
morning rise	1276 Oct 29 j 22:26	2°☾46'59			1277 Oct 01 j 17:50	30°☾	
direct	1276 Nov 02 j 14:47	1°☾29'11		evening set	1277 Oct 02 j 23:07	29°☾04'14	
morning max el	1276 Nov 10 j 08:17	5°☾55'24	20°10'48	min. Earth dist.	1277 Oct 07 j 07:51	24°☾18'19	0.66875 AU
greatest brilliancy	1276 Nov 17 j 04:25	14°☾10'39	-0.6m	inferior conj	1277 Oct 08 j 13:41	22°☾43'23	0°-59'-23
	1276 Nov 28 j 03:14	0°☾		minimum elong	1277 Oct 08 j 15:13	22°☾38'30	0°58'45

asc. node	1277 Oct 11 j 10:55	19°♄15'33		direct	1278 Oct 01 j 11:01	0°♄00'07	
morning rise	1277 Oct 14 j 08:05	16°♄46'32		morning max el	1278 Oct 08 j 01:59	3°♄37'54	18°27'46
direct	1277 Oct 17 j 13:23	15°♄46'42			1278 Oct 26 j 02:44	0°♄	
morning max el	1277 Oct 24 j 14:07	19°♄43'41	19°11'18	morning set	1278 Oct 27 j 20:29	2°♄48'06	
	1277 Nov 01 j 16:02	0°♄		desc. node	1278 Nov 06 j 02:40	17°♄35'47	
morning set	1277 Nov 16 j 15:28	22°♄52'53					
desc. node	1277 Nov 19 j 05:38	26°♄55'16		superior conj	1278 Nov 12 j 11:12	27°♄37'32	0°-41'-24
	1277 Nov 21 j 04:58	0°♄		minimum elong	1278 Nov 12 j 05:50	27°♄16'28	0°40'43
max. Earth dist.	1277 Nov 30 j 18:54	15°♄01'21	1.44784 AU	max. Earth dist.	1278 Nov 13 j 13:50	29°♄22'12	1.45112 AU
					1278 Nov 13 j 23:27	0°♄	
superior conj	1277 Dec 03 j 10:08	19°♄11'19	-1°-25'-33	evening rise	1278 Nov 28 j 15:49	23°♄04'56	
minimum elong	1277 Dec 03 j 01:28	18°♄36'57	1°24'40		1278 Dec 03 j 00:57	0°♄	
	1277 Dec 10 j 04:29	0°♄		greatest brilliancy	1278 Dec 10 j 21:25	12°♄15'43	-0.7m
evening rise	1277 Dec 18 j 04:34	13°♄03'00		evening max el	1278 Dec 21 j 08:28	26°♄21'51	19°09'20
	1277 Dec 28 j 13:16	0°♄		asc. node	1278 Dec 25 j 07:13	29°♄31'05	
evening max el	1278 Jan 06 j 22:55	12°♄54'16	18°31'21		1278 Dec 26 j 09:18	0°♄	
asc. node	1278 Jan 07 j 10:11	13°♄22'11		retrograde	1278 Dec 28 j 08:00	0°♄21'02	
retrograde	1278 Jan 13 j 12:30	16°♄31'20			1278 Dec 30 j 05:38	30°♄	
evening set	1278 Jan 16 j 13:01	15°♄40'29		evening set	1278 Dec 31 j 14:54	29°♄18'06	
inferior conj	1278 Jan 22 j 10:37	10°♄05'44	3°38'46	inferior conj	1279 Jan 06 j 06:33	23°♄26'37	3°17'33
minimum elong	1278 Jan 22 j 09:05	10°♄10'16	3°38'37	minimum elong	1279 Jan 06 j 04:07	23°♄34'20	3°17'04
min. Earth dist.	1278 Jan 24 j 12:20	7°♄39'36	0.64563 AU	min. Earth dist.	1279 Jan 07 j 17:03	21°♄36'57	0.65941 AU
morning rise	1278 Jan 28 j 03:49	3°♄57'30		morning rise	1279 Jan 11 j 16:29	17°♄13'54	
direct	1278 Feb 03 j 23:15	1°♄07'12		direct	1279 Jan 18 j 01:56	14°♄26'13	
desc. node	1278 Feb 15 j 04:48	6°♄48'12		morning max el	1279 Jan 30 j 20:29	21°♄58'27	26°23'04
morning max el	1278 Feb 17 j 10:44	8°♄56'14	27°19'48	desc. node	1279 Feb 02 j 01:50	24°♄18'54	
	1278 Mar 05 j 21:27	0°♄			1279 Feb 06 j 21:31	0°♄	
	1278 Mar 23 j 10:18	0°♄			1279 Feb 27 j 02:52	0°♄	
morning set	1278 Mar 24 j 17:55	2°♄33'05		morning set	1279 Mar 07 j 22:07	15°♄41'10	
max. Earth dist.	1278 Mar 29 j 13:08	12°♄11'40	1.33650 AU	max. Earth dist.	1279 Mar 12 j 01:25	23°♄38'05	1.34991 AU
					1279 Mar 15 j 05:57	0°♄	
superior conj	1278 Apr 01 j 21:16	19°♄10'17	0°-36'-13				
minimum elong	1278 Apr 01 j 23:04	19°♄19'47	0°35'53	superior conj	1279 Mar 16 j 19:28	3°♄11'10	-1°-3'-30
asc. node	1278 Apr 05 j 09:29	26°♄38'34		minimum elong	1279 Mar 16 j 22:35	3°♄27'09	1°02'58
	1278 Apr 06 j 23:16	0°♄		asc. node	1279 Mar 23 j 06:31	16°♄35'57	
evening rise	1278 Apr 09 j 04:37	4°♄42'03		evening rise	1279 Mar 24 j 13:03	19°♄13'56	
	1278 Apr 23 j 02:15	0°♄			1279 Mar 29 j 22:54	0°♄	
evening max el	1278 Apr 30 j 06:19	8°♄40'56	22°09'03	evening max el	1279 Apr 12 j 07:45	19°♄38'10	20°43'16
retrograde	1278 May 13 j 01:27	14°♄59'10		retrograde	1279 Apr 23 j 14:29	25°♄06'32	
desc. node	1278 May 14 j 04:00	14°♄56'25		evening set	1279 Apr 25 j 18:04	24°♄55'24	
evening set	1278 May 15 j 21:27	14°♄41'25		desc. node	1279 May 01 j 01:01	23°♄06'15	
min. Earth dist.	1278 May 24 j 12:17	10°♄59'49	0.55108 AU	inferior conj	1279 May 04 j 23:47	20°♄57'43	-1°-8'-36
inferior conj	1278 May 25 j 05:52	10°♄35'07	-3°-2'-17	minimum elong	1279 May 04 j 20:32	21°♄02'22	1°07'25
minimum elong	1278 May 24 j 22:25	10°♄45'35	3°00'06	min. Earth dist.	1279 May 06 j 00:53	20°♄21'47	0.55015 AU
morning rise	1278 Jun 03 j 01:09	6°♄42'17		morning rise	1279 May 13 j 21:54	16°♄50'02	
direct	1278 Jun 06 j 01:16	6°♄22'03		direct	1279 May 17 j 11:13	16°♄22'49	
morning max el	1278 Jun 17 j 19:47	11°♄52'14	21°24'19	morning max el	1279 May 30 j 15:51	22°♄44'19	23°01'57
	1278 Jun 30 j 21:33	0°♄			1279 Jun 06 j 01:26	0°♄	
asc. node	1278 Jul 02 j 08:45	2°♄41'59		asc. node	1279 Jun 19 j 05:47	22°♄12'00	
morning set	1278 Jul 07 j 23:55	13°♄53'24		morning set	1279 Jun 22 j 10:56	28°♄47'44	
					1279 Jun 23 j 00:40	0°♄	
superior conj	1278 Jul 15 j 09:29	29°♄22'41	1°41'12				
minimum elong	1278 Jul 15 j 07:55	29°♄14'34	1°41'06	superior conj	1279 Jun 29 j 14:25	14°♄03'34	1°30'17
	1278 Jul 15 j 16:40	0°♄		minimum elong	1279 Jun 29 j 12:09	13°♄51'27	1°30'02
max. Earth dist.	1278 Jul 19 j 10:13	7°♄36'50	1.35176 AU	max. Earth dist.	1279 Jul 02 j 06:51	19°♄44'35	1.33850 AU
evening rise	1278 Jul 23 j 19:26	16°♄10'57		evening rise	1279 Jul 07 j 07:56	0°♄02'10	
	1278 Jul 31 j 10:48	0°♄			1279 Jul 07 j 07:30	0°♄	
desc. node	1278 Aug 10 j 03:21	15°♄32'09			1279 Jul 24 j 11:57	0°♄	
	1278 Aug 20 j 17:35	0°♄		desc. node	1279 Jul 28 j 00:22	5°♄09'30	
evening max el	1278 Aug 28 j 03:03	8°♄10'00	26°41'40	evening max el	1279 Aug 10 j 14:50	21°♄33'53	27°17'23
retrograde	1278 Sep 10 j 02:34	15°♄24'14		retrograde	1279 Aug 24 j 01:28	28°♄52'38	
evening set	1278 Sep 16 j 17:08	12°♄43'04		evening set	1279 Aug 31 j 02:18	26°♄09'20	
min. Earth dist.	1278 Sep 20 j 18:25	8°♄34'27	0.65924 AU	min. Earth dist.	1279 Sep 03 j 20:52	22°♄37'18	0.64609 AU
inferior conj	1278 Sep 22 j 12:06	6°♄30'42	-1°-56'-58	inferior conj	1279 Sep 06 j 03:21	20°♄09'23	-2°-53'-33
minimum elong	1278 Sep 22 j 15:11	6°♄21'34	1°55'46	minimum elong	1279 Sep 06 j 07:47	19°♄57'20	2°52'04
asc. node	1278 Sep 28 j 07:57	0°♄54'40		morning rise	1279 Sep 12 j 15:10	14°♄39'25	
morning rise	1278 Sep 28 j 14:30	0°♄45'38		direct	1279 Sep 15 j 05:16	14°♄04'36	

asc. node	1279 Sep 15 j 05:00	14° \cap 04'36		min. Earth dist.	1280 Aug 16 j 13:38	6° \cap 17'05	0.62944 AU
morning max el	1279 Sep 21 j 17:21	17° \cap 32'15	18°01'07	inferior conj	1280 Aug 19 j 08:44	3° \cap 33'39	-3°-45'-45
	1279 Sep 30 j 18:48	0° $\underline{\cap}$		minimum elong	1280 Aug 19 j 13:53	3° \cap 21'05	3°44'25
morning set	1279 Oct 09 j 06:10	14° $\underline{\cap}$ 07'10			1280 Aug 23 j 09:14	30° \mathbb{R} Ω	
	1279 Oct 18 j 19:35	0° \mathbb{M}		morning rise	1280 Aug 26 j 06:55	28° Ω 21'59	
				direct	1280 Aug 28 j 17:14	27° Ω 54'30	
superior conj	1279 Oct 22 j 21:11	6° \mathbb{M} 35'06	0°07'24	asc. node	1280 Sep 01 j 02:04	28° Ω 48'25	
minimum elong	1279 Oct 22 j 22:04	6° \mathbb{M} 38'39	0°07'16		1280 Sep 02 j 21:17	0° \cap	
behind sun begin	1279 Oct 22 j 12:37	6° \mathbb{M} 00'40		morning max el	1280 Sep 04 j 09:22	1° \cap 20'26	17°52'09
behind sun end	1279 Oct 23 j 07:31	7° \mathbb{M} 16'35		morning set	1280 Sep 20 j 15:34	26° \cap 34'35	
desc. node	1279 Oct 23 j 23:41	8° \mathbb{M} 21'21			1280 Sep 22 j 14:06	0° $\underline{\cap}$	
max. Earth dist.	1279 Oct 27 j 08:40	13° \mathbb{M} 43'25	1.44697 AU				
	1279 Nov 06 j 18:41	0° \mathbb{A}		superior conj	1280 Oct 02 j 07:36	16° $\underline{\cap}$ 46'09	0°49'32
evening rise	1279 Nov 08 j 07:06	2° \mathbb{A} 20'37		minimum elong	1280 Oct 02 j 11:59	17° $\underline{\cap}$ 04'31	0°48'58
	1279 Nov 26 j 17:07	0° \mathbb{B}		max. Earth dist.	1280 Oct 09 j 00:21	27° $\underline{\cap}$ 46'59	1.43603 AU
greatest brilliancy	1279 Nov 27 j 15:55	1° \mathbb{B} 19'22	-0.6m	desc. node	1280 Oct 09 j 20:44	29° $\underline{\cap}$ 08'59	
evening max el	1279 Dec 04 j 13:27	9° \mathbb{B} 50'38	20°03'05		1280 Oct 10 j 09:27	0° \mathbb{M}	
retrograde	1279 Dec 12 j 05:41	14° \mathbb{B} 20'34		evening rise	1280 Oct 17 j 14:57	11° \mathbb{M} 22'39	
asc. node	1279 Dec 12 j 04:15	14° \mathbb{B} 20'33			1280 Oct 29 j 22:46	0° \mathbb{A}	
evening set	1279 Dec 15 j 20:35	13° \mathbb{B} 04'03		greatest brilliancy	1280 Nov 11 j 06:58	17° \mathbb{A} 14'08	-0.4m
inferior conj	1279 Dec 21 j 08:28	6° \mathbb{B} 58'50	2°45'47	evening max el	1280 Nov 16 j 12:56	23° \mathbb{A} 20'38	21°09'59
minimum elong	1279 Dec 21 j 05:46	7° \mathbb{B} 07'51	2°45'02	retrograde	1280 Nov 25 j 03:19	28° \mathbb{A} 26'57	
min. Earth dist.	1279 Dec 22 j 05:16	5° \mathbb{B} 49'08	0.66921 AU	asc. node	1280 Nov 28 j 01:18	27° \mathbb{A} 39'26	
morning rise	1279 Dec 26 j 14:23	0° \mathbb{B} 43'46		evening set	1280 Nov 29 j 04:08	26° \mathbb{A} 55'11	
	1279 Dec 27 j 11:26	30° \mathbb{R} \mathbb{A}		inferior conj	1280 Dec 04 j 14:04	20° \mathbb{A} 39'38	2°05'54
direct	1280 Jan 01 j 10:14	28° \mathbb{A} 09'13		minimum elong	1280 Dec 04 j 11:38	20° \mathbb{A} 47'59	2°05'03
	1280 Jan 06 j 23:38	0° \mathbb{B}		min. Earth dist.	1280 Dec 04 j 22:44	20° \mathbb{A} 09'44	0.67523 AU
morning max el	1280 Jan 13 j 05:21	5° \mathbb{B} 11'05	25°06'02	morning rise	1280 Dec 09 j 18:46	14° \mathbb{A} 24'19	
desc. node	1280 Jan 19 j 22:53	12° \mathbb{B} 50'42		direct	1280 Dec 14 j 23:36	12° \mathbb{A} 09'30	
	1280 Feb 01 j 08:51	0° \approx		morning max el	1280 Dec 25 j 13:59	18° \mathbb{A} 28'32	23°38'55
morning set	1280 Feb 18 j 09:12	27° \approx 54'11			1281 Jan 04 j 06:16	0° \mathbb{B}	
	1280 Feb 19 j 13:09	0° \mathbb{H}		desc. node	1281 Jan 05 j 19:57	2° \mathbb{B} 06'17	
max. Earth dist.	1280 Feb 22 j 02:27	4° \mathbb{H} 41'17	1.36758 AU		1281 Jan 24 j 11:51	0° \approx	
				morning set	1281 Jan 29 j 20:59	8° \approx 55'47	
superior conj	1280 Feb 28 j 08:13	16° \mathbb{H} 39'00	-1°-28'-49	max. Earth dist.	1281 Feb 02 j 21:16	15° \approx 52'08	1.38831 AU
minimum elong	1280 Feb 28 j 12:15	16° \mathbb{H} 58'50	1°28'17				
	1280 Mar 05 j 23:56	0° \mathbb{Y}		superior conj	1281 Feb 10 j 07:47	29° \approx 24'30	-1°-49'-33
evening rise	1280 Mar 07 j 16:35	3° \mathbb{Y} 25'02		minimum elong	1281 Feb 10 j 11:41	29° \approx 42'48	1°49'14
asc. node	1280 Mar 09 j 03:33	6° \mathbb{Y} 19'55			1281 Feb 10 j 15:20	0° \mathbb{H}	
	1280 Mar 23 j 16:01	0° \mathbb{B}		evening rise	1281 Feb 19 j 12:37	17° \mathbb{H} 08'31	
evening max el	1280 Mar 24 j 20:48	1° \mathbb{B} 13'41	19°34'35	asc. node	1281 Feb 24 j 00:36	25° \mathbb{H} 45'19	
retrograde	1280 Apr 03 j 10:19	5° \mathbb{B} 50'13			1281 Feb 26 j 08:37	0° \mathbb{Y}	
evening set	1280 Apr 05 j 11:56	5° \mathbb{B} 38'14		evening max el	1281 Mar 07 j 20:22	13° \mathbb{Y} 27'20	18°45'37
inferior conj	1280 Apr 14 j 02:48	1° \mathbb{B} 33'47	0°47'51	retrograde	1281 Mar 15 j 22:31	17° \mathbb{Y} 23'22	
minimum elong	1280 Apr 14 j 04:48	1° \mathbb{B} 30'36	0°47'09	evening set	1281 Mar 18 j 04:49	17° \mathbb{Y} 06'05	
min. Earth dist.	1280 Apr 16 j 15:19	29° \mathbb{Y} 57'44	0.55866 AU	inferior conj	1281 Mar 26 j 00:45	12° \mathbb{Y} 44'37	2°18'51
desc. node	1280 Apr 16 j 22:02	29° \mathbb{Y} 47'22		minimum elong	1281 Mar 26 j 04:52	12° \mathbb{Y} 36'58	2°17'43
	1280 Apr 16 j 13:51	30° \mathbb{R} \mathbb{Y}		min. Earth dist.	1281 Mar 29 j 08:20	10° \mathbb{Y} 18'28	0.57481 AU
morning rise	1280 Apr 22 j 18:00	26° \mathbb{Y} 55'01		morning rise	1281 Apr 03 j 00:36	7° \mathbb{Y} 32'38	
direct	1280 Apr 27 j 05:36	26° \mathbb{Y} 09'49		desc. node	1281 Apr 03 j 19:06	7° \mathbb{Y} 13'18	
	1280 May 07 j 10:30	0° \mathbb{B}		direct	1281 Apr 08 j 14:13	6° \mathbb{Y} 16'34	
morning max el	1280 May 11 j 06:50	3° \mathbb{B} 14'17	24°43'21	morning max el	1281 Apr 22 j 22:30	13° \mathbb{Y} 48'16	26°13'29
	1280 May 30 j 01:27	0° \mathbb{H}			1281 May 05 j 18:20	0° \mathbb{B}	
asc. node	1280 Jun 05 j 02:51	12° \mathbb{H} 00'16		morning set	1281 May 21 j 10:01	28° \mathbb{B} 39'42	
morning set	1280 Jun 05 j 22:51	13° \mathbb{H} 45'09			1281 May 22 j 01:14	0° \mathbb{H}	
				asc. node	1281 May 22 j 23:53	2° \mathbb{H} 00'42	
superior conj	1280 Jun 12 j 23:35	28° \mathbb{H} 56'44	1°14'33				
minimum elong	1280 Jun 12 j 21:09	28° \mathbb{H} 43'31	1°14'11	superior conj	1281 May 28 j 10:54	13° \mathbb{H} 54'51	0°54'52
	1280 Jun 13 j 11:13	0° \mathbb{B}		minimum elong	1281 May 28 j 08:48	13° \mathbb{H} 43'15	0°54'29
max. Earth dist.	1280 Jun 14 j 11:49	2° \mathbb{B} 13'14	1.32922 AU	max. Earth dist.	1281 May 28 j 22:21	14° \mathbb{H} 57'41	1.32390 AU
evening rise	1280 Jun 20 j 06:15	14° \mathbb{B} 22'34		evening rise	1281 Jun 04 j 11:16	29° \mathbb{H} 02'05	
	1280 Jun 28 j 09:26	0° Ω			1281 Jun 04 j 22:25	0° \mathbb{B}	
desc. node	1280 Jul 13 j 21:22	24° Ω 08'17			1281 Jun 21 j 15:12	0° Ω	
	1280 Jul 18 j 16:08	0° \cap		desc. node	1281 Jun 30 j 18:24	12° Ω 11'52	
evening max el	1280 Jul 23 j 00:35	4° \cap 33'13	27°24'42	evening max el	1281 Jul 05 j 05:53	16° Ω 55'14	26°59'24
retrograde	1280 Aug 05 j 18:26	11° \cap 51'20		retrograde	1281 Jul 19 j 04:09	24° Ω 10'08	
evening set	1280 Aug 12 j 23:21	9° \cap 17'44		evening set	1281 Jul 26 j 03:57	22° Ω 00'01	

min. Earth dist.	1281 Jul 29 j 20:07	19°♎19'30	0.61005 AU	retrograde	1282 Jul 01 j 04:52	5°♎42'27	
inferior conj	1281 Aug 02 j 00:56	16°♎34'44	-4°-28'-10	evening set	1282 Jul 07 j 11:22	4°♎07'24	
minimum elong	1281 Aug 02 j 05:23	16°♎25'07	4°27'27	min. Earth dist.	1282 Jul 11 j 17:09	1°♎30'27	0.58950 AU
morning rise	1281 Aug 09 j 09:51	11°♎44'10			1282 Jul 13 j 18:08	30°♎	
direct	1281 Aug 11 j 19:12	11°♎21'16		inferior conj	1282 Jul 15 j 00:19	29°♎03'05	-4°-52'00
asc. node	1281 Aug 18 j 23:07	14°♎54'32		minimum elong	1282 Jul 15 j 01:51	29°♎00'12	4°51'56
morning max el	1281 Aug 18 j 22:52	14°♎53'54	18°01'53	morning rise	1282 Jul 22 j 19:50	24°♎35'32	
	1281 Aug 29 j 08:38	0°♎		direct	1282 Jul 25 j 06:58	24°♎15'10	
morning set	1281 Sep 03 j 18:28	9°♎51'51		morning max el	1282 Aug 02 j 06:45	28°♎04'20	18°31'39
					1282 Aug 04 j 02:46	0°♎	
superior conj	1281 Sep 13 j 20:52	28°♎15'44	1°19'51	asc. node	1282 Aug 05 j 20:11	2°♎08'00	
minimum elong	1281 Sep 14 j 01:16	28°♎35'10	1°19'24	morning set	1282 Aug 18 j 09:49	23°♎45'27	
	1281 Sep 14 j 20:33	0°♎			1282 Aug 21 j 15:23	0°♎	
max. Earth dist.	1281 Sep 21 j 11:06	11°♎17'35	1.41972 AU				
desc. node	1281 Sep 26 j 17:45	19°♎54'49		superior conj	1282 Aug 27 j 08:45	10°♎52'18	1°38'01
evening rise	1281 Sep 27 j 08:44	20°♎54'41		minimum elong	1282 Aug 27 j 11:27	11°♎04'55	1°37'50
	1281 Oct 03 j 04:07	0°♎		max. Earth dist.	1282 Sep 03 j 17:00	24°♎06'35	1.40013 AU
	1281 Oct 24 j 07:09	0°♎			1282 Sep 07 j 03:30	0°♎	
greatest brilliancy	1281 Oct 25 j 12:54	1°♎31'43	-0.3m	evening rise	1282 Sep 08 j 00:21	1°♎27'30	
evening max el	1281 Oct 30 j 07:01	6°♎51'59	22°26'10	desc. node	1282 Sep 13 j 14:45	10°♎35'15	
retrograde	1281 Nov 08 j 23:02	12°♎36'46			1282 Sep 26 j 12:54	0°♎	
evening set	1281 Nov 13 j 11:47	10°♎48'08		evening max el	1282 Oct 12 j 21:01	20°♎25'57	23°46'13
asc. node	1281 Nov 14 j 22:21	9°♎27'21		retrograde	1282 Oct 23 j 15:33	26°♎46'47	
inferior conj	1281 Nov 18 j 21:17	4°♎25'58	1°19'36	evening set	1282 Oct 28 j 17:55	24°♎40'30	
minimum elong	1281 Nov 18 j 19:34	4°♎31'57	1°18'54	asc. node	1282 Nov 01 j 19:24	20°♎06'55	
min. Earth dist.	1281 Nov 18 j 18:57	4°♎34'05	0.67769 AU	min. Earth dist.	1282 Nov 02 j 15:27	18°♎59'26	0.67680 AU
	1281 Nov 22 j 07:29	30°♎		inferior conj	1282 Nov 03 j 04:21	18°♎15'33	0°28'17
morning rise	1281 Nov 24 j 03:12	28°♎12'42		minimum elong	1282 Nov 03 j 03:41	18°♎17'50	0°28'00
direct	1281 Nov 28 j 17:00	26°♎20'30		morning rise	1282 Nov 08 j 13:36	12°♎06'46	
	1281 Dec 06 j 02:18	0°♎		direct	1282 Nov 12 j 13:22	10°♎37'01	
morning max el	1281 Dec 08 j 01:28	1°♎51'28	22°11'34	morning max el	1282 Nov 20 j 19:17	15°♎23'55	20°51'32
greatest brilliancy	1281 Dec 12 j 16:44	7°♎03'48	-0.3m	greatest brilliancy	1282 Nov 26 j 12:25	22°♎03'40	-0.5m
desc. node	1281 Dec 23 j 17:01	21°♎53'02			1282 Dec 02 j 08:30	0°♎	
	1281 Dec 29 j 05:45	0°♎		desc. node	1282 Dec 10 j 14:03	12°♎01'50	
morning set	1282 Jan 10 j 04:09	18°♎33'37		morning set	1282 Dec 20 j 08:59	26°♎59'30	
max. Earth dist.	1282 Jan 15 j 18:24	27°♎46'50	1.40964 AU		1282 Dec 22 j 07:06	0°♎	
	1282 Jan 17 j 01:55	0°♎		max. Earth dist.	1282 Dec 28 j 23:04	10°♎39'00	1.42860 AU
superior conj	1282 Jan 23 j 13:24	11°♎16'04	-2°-2'-7	superior conj	1283 Jan 04 j 19:35	22°♎00'08	-2°-1'-55
minimum elong	1282 Jan 23 j 15:16	11°♎24'27	2°02'06	minimum elong	1283 Jan 04 j 17:03	21°♎49'26	2°01'52
evening rise	1282 Feb 02 j 21:54	0°♎			1283 Jan 09 j 11:44	0°♎	
	1282 Feb 02 j 18:17	0°♎		evening rise	1283 Jan 16 j 16:27	12°♎40'56	
asc. node	1282 Feb 10 j 21:39	14°♎45'50			1283 Jan 26 j 16:28	0°♎	
evening max el	1282 Feb 19 j 03:24	26°♎11'21	18°16'40	asc. node	1283 Jan 28 j 18:42	3°♎12'48	
retrograde	1282 Feb 26 j 05:40	29°♎43'33		evening max el	1283 Feb 02 j 14:39	9°♎15'40	18°07'23
evening set	1282 Feb 28 j 17:23	29°♎18'22		retrograde	1283 Feb 09 j 04:34	12°♎39'50	
inferior conj	1282 Mar 07 j 19:53	24°♎35'35	3°15'27	evening set	1283 Feb 11 j 21:05	12°♎05'29	
minimum elong	1282 Mar 07 j 23:07	24°♎28'36	3°14'53	inferior conj	1283 Feb 18 j 09:38	7°♎01'10	3°41'43
min. Earth dist.	1282 Mar 11 j 05:47	21°♎40'05	0.59526 AU	minimum elong	1283 Feb 18 j 10:50	6°♎58'13	3°41'39
morning rise	1282 Mar 15 j 01:14	18°♎58'00		min. Earth dist.	1283 Feb 21 j 10:31	4°♎01'08	0.61650 AU
direct	1282 Mar 21 j 11:37	17°♎05'09		morning rise	1283 Feb 24 j 22:00	1°♎06'40	
desc. node	1282 Mar 21 j 16:09	17°♎05'15			1283 Feb 26 j 17:42	30°♎	
morning max el	1282 Apr 04 j 19:16	24°♎51'09	27°17'58	direct	1283 Mar 03 j 19:13	28°♎41'34	
	1282 Apr 09 j 12:39	0°♎		desc. node	1283 Mar 08 j 13:12	29°♎43'40	
	1282 Apr 29 j 00:01	0°♎			1283 Mar 09 j 03:56	0°♎	
morning set	1282 May 05 j 18:48	13°♎25'43		morning max el	1283 Mar 17 j 22:25	6°♎34'46	27°47'28
asc. node	1282 May 09 j 20:56	22°♎08'29			1283 Apr 04 j 15:48	0°♎	
				morning set	1283 Apr 19 j 23:11	27°♎55'42	
superior conj	1282 May 12 j 22:39	28°♎51'50	0°32'01		1283 Apr 20 j 23:21	0°♎	
minimum elong	1282 May 12 j 21:17	28°♎44'16	0°31'43	max. Earth dist.	1283 Apr 25 j 21:30	10°♎27'18	1.32462 AU
max. Earth dist.	1282 May 12 j 10:53	27°♎47'10	1.32237 AU	asc. node	1283 Apr 26 j 17:58	12°♎18'27	
	1282 May 13 j 11:03	0°♎					
evening rise	1282 May 19 j 20:34	13°♎52'36		superior conj	1283 Apr 27 j 09:05	13°♎40'48	0°06'40
	1282 May 28 j 00:03	0°♎		minimum elong	1283 Apr 27 j 08:47	13°♎39'07	0°06'36
evening max el	1282 Jun 17 j 04:32	28°♎31'41	26°01'40	behind sun begin	1283 Apr 27 j 04:06	13°♎13'37	
desc. node	1282 Jun 17 j 15:24	28°♎57'15		behind sun end	1283 Apr 27 j 13:27	14°♎04'38	
	1282 Jun 18 j 19:22	0°♎		evening rise	1283 May 04 j 08:00	28°♎45'51	

	1283 May 04 j 22:02	0°♂		evening rise	1284 Apr 17 j 19:44	13°♂35'34	
	1283 May 21 j 20:39	0°♂			1284 Apr 26 j 03:34	0°♂	
evening max el	1283 May 29 j 20:30	9°♂24'38	24°38'29	evening max el	1284 May 10 j 10:33	19°♂55'34	23°03'14
desc. node	1283 Jun 04 j 12:24	13°♂52'59		desc. node	1284 May 21 j 09:27	26°♂22'54	
retrograde	1283 Jun 12 j 18:47	16°♂27'40		retrograde	1284 May 23 j 20:32	26°♂36'43	
evening set	1283 Jun 17 j 19:11	15°♂30'54		evening set	1284 May 27 j 09:18	26°♂09'20	
min. Earth dist.	1283 Jun 23 j 07:39	12°♂39'37	0.57029 AU	min. Earth dist.	1284 Jun 03 j 19:50	22°♂49'26	0.55586 AU
inferior conj	1283 Jun 26 j 03:56	10°♂49'13	-4°-44'-37	inferior conj	1284 Jun 05 j 12:02	21°♂51'00	-3°-53'-13
minimum elong	1283 Jun 26 j 00:29	10°♂54'50	4°44'19	minimum elong	1284 Jun 05 j 04:37	22°♂01'49	3°51'32
morning rise	1283 Jul 04 j 09:34	6°♂43'20		morning rise	1284 Jun 14 j 03:00	17°♂57'56	
direct	1283 Jul 07 j 00:14	6°♂24'21		direct	1284 Jun 16 j 22:26	17°♂39'10	
morning max el	1283 Jul 16 j 06:05	10°♂42'31	19°22'34	morning max el	1284 Jun 27 j 18:37	22°♂40'17	20°34'29
asc. node	1283 Jul 23 j 17:13	20°♂14'05			1284 Jul 04 j 00:05	0°♂	
	1283 Jul 29 j 06:34	0°♂		asc. node	1284 Jul 09 j 14:15	9°♂00'23	
morning set	1283 Aug 02 j 09:54	8°♂05'15		morning set	1284 Jul 16 j 15:54	22°♂43'20	
					1284 Jul 20 j 04:30	0°♂	
superior conj	1283 Aug 10 j 13:39	24°♂20'22	1°45'41				
minimum elong	1283 Aug 10 j 14:23	24°♂23'55	1°45'40	superior conj	1284 Jul 24 j 06:42	8°♂25'25	1°44'50
	1283 Aug 13 j 12:05	0°♂		minimum elong	1284 Jul 24 j 05:49	8°♂20'54	1°44'49
max. Earth dist.	1283 Aug 16 j 20:38	6°♂16'42	1.37974 AU	max. Earth dist.	1284 Jul 29 j 03:22	18°♂06'37	1.36102 AU
evening rise	1283 Aug 20 j 16:12	13°♂08'41		evening rise	1284 Aug 02 j 05:07	25°♂50'37	
	1283 Aug 30 j 18:51	0°♂			1284 Aug 04 j 11:44	0°♂	
desc. node	1283 Aug 31 j 11:45	1°♂06'19		desc. node	1284 Aug 17 j 08:45	21°♂22'28	
	1283 Sep 21 j 13:16	0°♂			1284 Aug 23 j 06:13	0°♂	
evening max el	1283 Sep 25 j 08:57	4°♂03'11	25°03'33	evening max el	1284 Sep 06 j 20:39	17°♂41'15	26°10'43
retrograde	1283 Oct 07 j 03:59	10°♂53'23		retrograde	1284 Sep 19 j 11:42	24°♂50'33	
evening set	1283 Oct 12 j 20:52	8°♂30'20		evening set	1284 Sep 25 j 18:45	22°♂14'14	
min. Earth dist.	1283 Oct 17 j 09:57	3°♂24'00	0.67260 AU	min. Earth dist.	1284 Sep 30 j 00:07	17°♂44'12	0.66506 AU
inferior conj	1283 Oct 18 j 09:31	2°♂06'42	0°-26'-40	inferior conj	1284 Oct 01 j 10:58	15°♂56'14	-1°-23'-49
minimum elong	1283 Oct 18 j 10:11	2°♂04'31	0°26'23	minimum elong	1284 Oct 01 j 13:09	15°♂49'28	1°22'55
asc. node	1283 Oct 19 j 16:27	0°♂26'42		asc. node	1284 Oct 05 j 13:29	11°♂23'20	
	1283 Oct 20 j 00:59	30°♂		morning rise	1284 Oct 07 j 08:36	10°♂04'11	
morning rise	1283 Oct 24 j 00:05	26°♂04'55		direct	1284 Oct 10 j 09:46	9°♂11'06	
direct	1283 Oct 27 j 11:28	24°♂55'17		morning max el	1284 Oct 17 j 05:42	12°♂59'03	18°50'49
morning max el	1283 Nov 03 j 20:59	29°♂07'36	19°43'44		1284 Oct 29 j 16:15	0°♂	
	1283 Nov 04 j 17:06	0°♂		morning set	1284 Nov 07 j 18:24	14°♂15'50	
greatest brilliancy	1283 Nov 11 j 19:30	9°♂00'26	-0.6m	desc. node	1284 Nov 13 j 08:03	23°♂02'04	
	1283 Nov 25 j 20:58	0°♂			1284 Nov 17 j 18:28	0°♂	
desc. node	1283 Nov 27 j 11:04	2°♂26'35		max. Earth dist.	1284 Nov 23 j 03:35	8°♂26'55	1.45007 AU
morning set	1283 Nov 29 j 05:34	5°♂10'35					
max. Earth dist.	1283 Dec 11 j 11:01	24°♂18'38	1.44261 AU	superior conj	1284 Nov 24 j 05:09	10°♂07'28	-1°-8'-13
	1283 Dec 15 j 00:27	0°♂		minimum elong	1284 Nov 23 j 21:07	9°♂35'51	1°07'17
					1284 Dec 06 j 17:29	0°♂	
superior conj	1283 Dec 15 j 23:10	1°♂31'28	-1°-44'-19	evening rise	1284 Dec 09 j 16:39	4°♂46'40	
minimum elong	1283 Dec 15 j 15:38	1°♂01'06	1°43'44		1284 Dec 25 j 18:14	0°♂	
evening rise	1283 Dec 29 j 15:58	24°♂13'04		evening max el	1284 Dec 30 j 14:26	5°♂57'54	18°45'29
	1284 Jan 02 j 01:48	0°♂		asc. node	1285 Jan 01 j 12:47	7°♂43'34	
asc. node	1284 Jan 15 j 15:44	20°♂56'22		retrograde	1285 Jan 06 j 07:34	9°♂43'32	
evening max el	1284 Jan 17 j 03:11	22°♂33'17	18°17'16	evening set	1285 Jan 09 j 10:30	8°♂47'54	
retrograde	1284 Jan 23 j 14:36	26°♂02'37		inferior conj	1285 Jan 15 j 05:18	3°♂05'50	3°31'15
evening set	1284 Jan 26 j 11:54	25°♂18'13		minimum elong	1285 Jan 15 j 03:18	3°♂11'56	3°30'58
inferior conj	1284 Feb 01 j 14:05	19°♂53'58	3°44'55	min. Earth dist.	1285 Jan 17 j 00:30	0°♂54'05	0.65194 AU
minimum elong	1284 Feb 01 j 13:22	19°♂55'58	3°44'52		1285 Jan 17 j 18:51	30°♂	
min. Earth dist.	1284 Feb 04 j 00:42	17°♂10'53	0.63589 AU	morning rise	1285 Jan 20 j 18:57	26°♂55'10	
morning rise	1284 Feb 07 j 13:06	13°♂49'12		direct	1285 Jan 27 j 10:42	24°♂04'09	
direct	1284 Feb 14 j 11:23	11°♂03'51			1285 Feb 07 j 18:49	0°♂	
desc. node	1284 Feb 23 j 10:15	14°♂42'58		desc. node	1285 Feb 09 j 07:17	1°♂26'51	
morning max el	1284 Feb 28 j 06:20	18°♂57'47	27°39'43	morning max el	1285 Feb 09 j 16:00	1°♂48'34	26°58'43
	1284 Mar 08 j 15:10	0°♂			1285 Mar 02 j 18:45	0°♂	
	1284 Mar 27 j 13:30	0°♂		morning set	1285 Mar 17 j 08:33	25°♂35'09	
morning set	1284 Apr 02 j 20:48	12°♂02'06			1285 Mar 19 j 14:57	0°♂	
max. Earth dist.	1284 Apr 08 j 02:03	22°♂44'25	1.33092 AU	max. Earth dist.	1285 Mar 21 j 20:44	4°♂28'36	1.34159 AU
superior conj	1284 Apr 10 j 16:27	28°♂16'19	0°-20'-20	superior conj	1285 Mar 25 j 18:44	12°♂32'06	0°-47'-55
minimum elong	1284 Apr 10 j 17:27	28°♂21'39	0°20'08	minimum elong	1285 Mar 25 j 21:07	12°♂44'32	0°47'28
	1284 Apr 11 j 11:46	0°♂		asc. node	1285 Mar 30 j 12:03	22°♂29'28	
asc. node	1284 Apr 12 j 15:00	2°♂26'45		evening rise	1285 Apr 02 j 05:57	28°♂15'46	

	1285 Apr 03 j 02:02	0°♄			1286 Mar 11 j 08:41	0°♅	
	1285 Apr 21 j 15:27	0°♅		asc. node	1286 Mar 17 j 09:07	12°♅21'40	
evening max el	1285 Apr 22 j 06:22	0°♅36'58	21°30'52	evening rise	1286 Mar 17 j 12:34	12°♅39'20	
retrograde	1285 May 04 j 11:46	6°♅35'22			1286 Mar 26 j 16:07	0°♄	
evening set	1285 May 06 j 22:20	6°♅21'51		evening max el	1286 Apr 04 j 12:52	11°♄50'27	20°11'50
desc. node	1285 May 08 j 06:29	6°♅03'33		retrograde	1286 Apr 15 j 01:41	16°♄55'26	
inferior conj	1285 May 16 j 07:34	2°♅21'21	-2°-16'-46	evening set	1286 Apr 17 j 03:14	16°♄44'34	
minimum elong	1285 May 16 j 01:23	2°♅30'01	2°14'43	desc. node	1286 Apr 25 j 03:32	13°♄21'47	
min. Earth dist.	1285 May 16 j 08:19	2°♅20'17	0.54946 AU	inferior conj	1286 Apr 26 j 03:43	12°♄46'07	0°-17'-31
	1285 May 20 j 18:09	30°♄♄		minimum elong	1286 Apr 26 j 02:54	12°♄47'20	0°17'14
morning rise	1285 May 25 j 04:57	28°♄24'14		min. Earth dist.	1286 Apr 27 j 21:39	11°♄44'02	0.55269 AU
direct	1285 May 28 j 09:27	28°♄02'02		morning rise	1286 May 05 j 00:09	8°♄26'34	
	1285 Jun 04 j 13:20	0°♅		direct	1286 May 08 j 22:19	7°♄53'03	
morning max el	1285 Jun 09 j 20:06	3°♅55'09	22°04'32	morning max el	1286 May 22 j 13:09	14°♄34'31	23°45'19
asc. node	1285 Jun 26 j 11:17	28°♅17'10			1286 Jun 03 j 13:54	0°♅	
	1285 Jun 27 j 08:21	0°♄		asc. node	1286 Jun 13 j 08:20	17°♅55'42	
morning set	1285 Jul 01 j 01:39	7°♄33'50		morning set	1286 Jun 15 j 13:16	22°♅30'07	
					1286 Jun 19 j 01:30	0°♄	
superior conj	1285 Jul 08 j 08:13	22°♄56'29	1°37'13	superior conj	1286 Jun 22 j 15:14	7°♄43'23	1°24'09
minimum elong	1285 Jul 08 j 06:17	22°♄46'19	1°37'04	minimum elong	1286 Jun 22 j 12:50	7°♄30'26	1°23'50
	1285 Jul 11 j 17:46	0°♄		max. Earth dist.	1286 Jun 24 j 19:05	12°♄21'05	1.33414 AU
max. Earth dist.	1285 Jul 11 j 18:28	0°♄03'37	1.34562 AU	evening rise	1286 Jun 30 j 03:33	23°♄26'21	
evening rise	1285 Jul 16 j 10:24	9°♄21'08			1286 Jul 03 j 11:52	0°♄	
	1285 Jul 27 j 23:32	0°♄			1286 Jul 21 j 15:27	0°♄	
desc. node	1285 Aug 04 j 05:47	11°♄16'57		desc. node	1286 Jul 22 j 02:50	0°♄39'27	
	1285 Aug 19 j 02:41	0°♄		evening max el	1286 Aug 02 j 20:21	14°♄30'12	27°24'17
evening max el	1285 Aug 20 j 08:53	1°♄14'26	27°00'00	retrograde	1286 Aug 16 j 10:24	21°♄48'20	
retrograde	1285 Sep 02 j 14:05	8°♄31'53		evening set	1286 Aug 23 j 13:48	19°♄07'58	
evening set	1285 Sep 09 j 09:22	5°♄48'47		min. Earth dist.	1286 Aug 27 j 06:18	15°♄49'54	0.63945 AU
min. Earth dist.	1285 Sep 13 j 07:39	1°♄55'44	0.65406 AU	inferior conj	1286 Aug 29 j 18:07	13°♄14'26	-3°-16'-30
inferior conj	1285 Sep 15 j 06:41	29°♄40'54	-2°-21'-16	minimum elong	1286 Aug 29 j 22:58	13°♄01'48	3°15'00
minimum elong	1285 Sep 15 j 10:22	29°♄30'18	2°19'54	morning rise	1286 Sep 05 j 10:13	7°♄51'30	
	1285 Sep 15 j 00:03	30°♄♄		direct	1286 Sep 07 j 22:26	7°♄20'04	
morning rise	1285 Sep 21 j 12:55	24°♄01'39		asc. node	1286 Sep 09 j 07:33	7°♄29'43	
asc. node	1285 Sep 22 j 10:31	23°♄39'26		morning max el	1286 Sep 14 j 11:17	10°♄45'59	17°55'01
direct	1285 Sep 24 j 06:18	23°♄21'11			1286 Sep 27 j 11:41	0°♄	
morning max el	1285 Sep 30 j 19:22	26°♄53'59	18°14'15	morning set	1286 Oct 01 j 08:30	6°♄38'19	
	1285 Oct 03 j 12:30	0°♄					
morning set	1285 Oct 19 j 11:54	24°♄47'37		superior conj	1286 Oct 14 j 02:37	28°♄05'05	0°26'33
	1285 Oct 22 j 16:20	0°♄		minimum elong	1286 Oct 14 j 05:28	28°♄16'45	0°26'10
desc. node	1285 Oct 31 j 05:05	13°♄44'54			1286 Oct 15 j 06:50	0°♄	
				desc. node	1286 Oct 18 j 02:08	4°♄31'36	
superior conj	1285 Nov 03 j 07:22	18°♄39'39	0°-20'-30	max. Earth dist.	1286 Oct 19 j 16:32	7°♄05'02	1.44314 AU
minimum elong	1285 Nov 03 j 04:43	18°♄29'09	0°20'09	evening rise	1286 Oct 30 j 04:31	23°♄30'33	
max. Earth dist.	1285 Nov 05 j 22:22	22°♄48'10	1.45025 AU		1286 Nov 03 j 10:16	0°♄	
	1285 Nov 10 j 12:30	0°♄		greatest brilliancy	1286 Nov 20 j 23:41	25°♄39'08	-0.5m
evening rise	1285 Nov 19 j 18:22	14°♄25'29			1286 Nov 24 j 10:02	0°♄	
	1285 Nov 29 j 19:18	0°♄		evening max el	1286 Nov 27 j 01:05	2°♄55'48	20°30'13
greatest brilliancy	1285 Dec 05 j 12:13	8°♄34'18	-0.7m	retrograde	1286 Dec 05 j 01:58	7°♄40'10	
evening max el	1285 Dec 13 j 22:16	19°♄26'06	19°30'31	asc. node	1286 Dec 06 j 06:51	7°♄32'01	
asc. node	1285 Dec 19 j 09:49	23°♄20'03		evening set	1286 Dec 08 j 20:56	6°♄17'14	
retrograde	1285 Dec 21 j 04:10	23°♄37'14		inferior conj	1286 Dec 14 j 07:48	0°♄07'19	2°29'43
evening set	1285 Dec 24 j 14:14	22°♄28'50		minimum elong	1286 Dec 14 j 05:10	0°♄16'17	2°28'54
inferior conj	1285 Dec 30 j 04:04	16°♄31'25	3°05'11		1286 Dec 14 j 09:57	30°♄♄	
minimum elong	1285 Dec 30 j 01:28	16°♄39'56	3°04'34	min. Earth dist.	1286 Dec 14 j 23:15	29°♄14'50	0.67225 AU
min. Earth dist.	1285 Dec 31 j 08:38	14°♄58'20	0.66408 AU	morning rise	1286 Dec 19 j 12:54	23°♄52'12	
morning rise	1286 Jan 04 j 11:56	10°♄17'31		direct	1286 Dec 25 j 02:33	21°♄25'28	
direct	1286 Jan 10 j 16:02	7°♄34'03		morning max el	1287 Jan 05 j 09:35	28°♄09'30	24°29'39
morning max el	1286 Jan 23 j 01:11	14°♄55'03	25°52'06		1287 Jan 07 j 03:44	0°♄	
desc. node	1286 Jan 27 j 04:19	19°♄25'33		desc. node	1287 Jan 14 j 01:22	8°♄17'35	
	1286 Feb 04 j 10:22	0°♄			1287 Jan 29 j 04:04	0°♄	
	1286 Feb 23 j 14:20	0°♄		morning set	1287 Feb 10 j 08:06	20°♄05'45	
morning set	1286 Feb 28 j 06:09	8°♄21'24		max. Earth dist.	1287 Feb 14 j 01:18	26°♄43'34	1.37616 AU
max. Earth dist.	1286 Mar 04 j 03:36	15°♄40'43	1.35689 AU		1287 Feb 15 j 20:12	0°♄	
				superior conj	1287 Feb 20 j 21:02	9°♄31'24	-1°-38'-21
superior conj	1286 Mar 09 j 13:21	26°♄20'04	-1°-14'-38				
minimum elong	1286 Mar 09 j 16:56	26°♄38'09	1°14'03				

minimum elong	1287 Feb 21 j 01:11	9° H 51'26	1°37'53	superior conj	1288 Feb 03 j 13:31	21° \approx 54'39	-1°-56'-8
evening rise	1287 Mar 01 j 13:18	26° H 39'47		minimum elong	1288 Feb 03 j 16:51	22° \approx 09'55	1°55'57
	1287 Mar 03 j 05:52	0° Y			1288 Feb 07 j 21:33	0° H	
asc. node	1287 Mar 04 j 06:11	1° Y 58'34		evening rise	1288 Feb 13 j 05:10	10° H 08'55	
evening max el	1287 Mar 18 j 06:41	23° Y 42'35	19°11'17	asc. node	1288 Feb 19 j 03:13	21° H 13'53	
retrograde	1287 Mar 27 j 03:45	28° Y 00'02			1288 Feb 24 j 10:21	0° Y	
evening set	1287 Mar 29 j 07:11	27° Y 46'05		evening max el	1288 Feb 29 j 09:39	6° Y 08'58	18°30'48
inferior conj	1287 Apr 06 j 14:00	23° Y 34'54	1°30'30	retrograde	1288 Mar 08 j 00:22	9° Y 53'17	
minimum elong	1287 Apr 06 j 17:22	23° Y 29'12	1°29'25	evening set	1288 Mar 10 j 08:54	9° Y 32'57	
min. Earth dist.	1287 Apr 09 j 12:41	21° Y 36'01	0.56480 AU	inferior conj	1288 Mar 17 j 21:01	5° Y 02'22	2°46'59
desc. node	1287 Apr 12 j 00:33	20° Y 05'06		minimum elong	1288 Mar 18 j 01:01	4° Y 54'25	2°46'03
morning rise	1287 Apr 14 j 23:31	18° Y 41'56		min. Earth dist.	1288 Mar 21 j 07:13	2° Y 20'47	0.58316 AU
direct	1287 Apr 19 j 22:18	17° Y 45'09			1288 Mar 24 j 20:20	30° R H	
morning max el	1287 May 04 j 03:37	25° Y 02'05	25°23'59	morning rise	1288 Mar 25 j 13:00	29° H 38'02	
	1287 May 08 j 18:02	0° B		desc. node	1288 Mar 28 j 21:35	28° H 24'19	
	1287 May 27 j 10:03	0° II		direct	1288 Mar 31 j 12:12	28° H 06'44	
morning set	1287 May 31 j 01:05	7° II 26'57			1288 Apr 07 j 08:25	0° Y	
asc. node	1287 May 31 j 05:25	7° II 49'46		morning max el	1288 Apr 14 j 21:17	5° Y 45'54	26°44'55
					1288 May 02 j 18:27	0° B	
superior conj	1287 Jun 07 j 01:32	22° II 39'03	1°06'39	morning set	1288 May 14 j 11:29	22° B 18'25	
minimum elong	1287 Jun 06 j 23:11	22° II 26'13	1°06'15	asc. node	1288 May 17 j 02:29	27° B 53'43	
max. Earth dist.	1287 Jun 08 j 03:03	24° II 58'22	1.32657 AU		1288 May 18 j 01:49	0° II	
	1287 Jun 10 j 10:46	0° E					
evening rise	1287 Jun 14 j 05:03	7° E 55'42		superior conj	1288 May 21 j 13:14	7° II 36'59	0°45'32
	1287 Jun 25 j 22:37	0° Q		minimum elong	1288 May 21 j 11:23	7° II 26'50	0°45'09
desc. node	1287 Jul 08 j 23:51	19° Q 16'47		max. Earth dist.	1288 May 21 j 14:55	7° II 46'15	1.32274 AU
evening max el	1287 Jul 16 j 04:33	27° Q 14'49	27°17'53	evening rise	1288 May 28 j 12:07	22° II 40'13	
	1287 Jul 19 j 08:39	0° M			1288 Jun 01 j 02:06	0° E	
retrograde	1287 Jul 30 j 00:05	4° M 30'52			1288 Jun 19 j 03:38	0° Q	
evening set	1287 Aug 06 j 04:23	2° M 05'33		desc. node	1288 Jun 24 j 20:51	6° Q 50'21	
	1287 Aug 08 j 22:01	30° R Q		evening max el	1288 Jun 27 j 07:00	9° Q 17'17	26°38'29
min. Earth dist.	1287 Aug 09 j 18:29	29° Q 15'23	0.62156 AU	retrograde	1288 Jul 11 j 06:23	16° Q 31'08	
inferior conj	1287 Aug 12 j 18:17	26° Q 29'30	-4°-5'-23	evening set	1288 Jul 18 j 00:36	14° Q 34'25	
minimum elong	1287 Aug 12 j 23:22	26° Q 17'44	4°04'15	min. Earth dist.	1288 Jul 21 j 20:29	11° Q 58'01	0.60132 AU
morning rise	1287 Aug 19 j 21:02	21° Q 26'29		inferior conj	1288 Jul 25 j 03:47	9° Q 17'49	-4°-41'-13
direct	1287 Aug 22 j 06:45	21° Q 01'07		minimum elong	1288 Jul 25 j 07:18	9° Q 10'40	4°40'49
asc. node	1287 Aug 27 j 04:37	22° Q 49'52		morning rise	1288 Aug 01 j 17:19	4° Q 37'21	
morning max el	1287 Aug 29 j 02:34	24° Q 28'23	17°53'55	direct	1288 Aug 04 j 03:07	4° Q 15'46	
	1287 Sep 02 j 14:38	0° M		morning max el	1288 Aug 11 j 14:11	7° Q 53'51	18°12'04
morning set	1287 Sep 14 j 02:01	19° M 28'35		asc. node	1288 Aug 13 j 01:40	9° Q 26'46	
	1287 Sep 19 j 23:00	0° A			1288 Aug 25 j 19:51	0° M	
				morning set	1288 Aug 27 j 10:45	3° M 02'54	
superior conj	1287 Sep 25 j 00:41	8° A 49'58	1°03'58				
minimum elong	1287 Sep 25 j 05:24	9° A 10'11	1°03'23	superior conj	1288 Sep 06 j 00:21	20° M 50'45	1°28'58
max. Earth dist.	1287 Oct 02 j 06:46	20° A 57'51	1.42966 AU	minimum elong	1288 Sep 06 j 04:08	21° M 07'51	1°28'37
desc. node	1287 Oct 04 j 23:10	25° A 18'31			1288 Sep 11 j 04:33	0° A	
	1287 Oct 07 j 21:52	0° M		max. Earth dist.	1288 Sep 13 j 15:12	4° A 11'07	1.41161 AU
evening rise	1287 Oct 09 j 14:33	2° M 39'50		evening rise	1288 Sep 18 j 16:45	12° A 35'26	
	1287 Oct 27 j 22:25	0° A		desc. node	1288 Sep 20 j 20:11	16° A 02'38	
greatest brilliancy	1287 Nov 05 j 01:25	10° A 52'24	-0.4m		1288 Sep 29 j 20:53	0° M	
evening max el	1287 Nov 09 j 22:07	16° A 25'43	21°41'32	greatest brilliancy	1288 Oct 17 j 04:03	23° M 52'21	-0.2m
retrograde	1287 Nov 18 j 22:58	21° A 48'19		evening max el	1288 Oct 22 j 14:04	29° M 57'28	23°00'03
evening set	1287 Nov 23 j 04:44	20° A 09'16			1288 Oct 22 j 15:05	0° A	
asc. node	1287 Nov 23 j 03:53	20° A 10'57		retrograde	1288 Nov 01 j 17:37	5° A 58'50	
inferior conj	1287 Nov 28 j 14:17	13° A 50'17	1°46'54	evening set	1288 Nov 06 j 11:57	4° A 02'37	
minimum elong	1287 Nov 28 j 12:06	13° A 57'50	1°46'06	asc. node	1288 Nov 09 j 00:54	1° A 25'48	
min. Earth dist.	1287 Nov 28 j 18:04	13° A 37'11	0.67669 AU		1288 Nov 10 j 04:01	30° R M	
morning rise	1287 Dec 03 j 19:14	7° A 35'45		inferior conj	1288 Nov 11 j 21:40	27° M 38'27	0°58'21
direct	1287 Dec 08 j 17:32	5° A 30'41		minimum elong	1288 Nov 11 j 20:21	27° M 43'01	0°57'49
morning max el	1287 Dec 18 j 19:07	11° A 29'05	23°01'21	min. Earth dist.	1288 Nov 11 j 14:45	28° M 02'17	0.67769 AU
greatest brilliancy	1287 Dec 23 j 14:27	16° A 51'21	-0.3m	morning rise	1288 Nov 17 j 04:44	21° M 26'42	
desc. node	1287 Dec 31 j 22:24	27° A 47'12		direct	1288 Nov 21 j 12:17	19° M 44'24	
	1288 Jan 02 j 12:12	0° E		morning max el	1288 Nov 30 j 09:04	24° M 56'14	21°36'13
morning set	1288 Jan 22 j 08:05	0° \approx 31'51			1288 Dec 04 j 20:55	0° A	
	1288 Jan 22 j 00:24	0° \approx		greatest brilliancy	1288 Dec 05 j 08:06	0° A 34'29	-0.4m
max. Earth dist.	1288 Jan 26 j 20:38	8° \approx 11'14	1.39750 AU	desc. node	1288 Dec 17 j 19:26	17° A 44'02	
					1288 Dec 25 j 23:33	0° E	

morning set	1289 Jan 01 j 02:56	9°☾35'10		desc. node	1289 Dec 04 j 16:28	8°☾00'07	
max. Earth dist.	1289 Jan 07 j 20:17	20°☾28'39	1.41815 AU	morning set	1289 Dec 11 j 01:06	17°☾45'03	
	1289 Jan 13 j 11:52	0°☾			1289 Dec 18 j 20:29	0°☾	
				max. Earth dist.	1289 Dec 21 j 03:39	3°☾40'30	1.43528 AU
superior conj	1289 Jan 15 j 09:42	3°☾18'09	-2°-3'-54	superior conj	1289 Dec 27 j 04:42	13°☾31'17	-1°-56'-47
minimum elong	1289 Jan 15 j 09:59	3°☾19'22	2°03'55	minimum elong	1289 Dec 26 j 23:51	13°☾11'18	1°56'33
evening rise	1289 Jan 26 j 08:40	22°☾59'04			1290 Jan 05 j 22:13	0°☾	
	1289 Jan 30 j 04:59	0°☾		evening rise	1290 Jan 08 j 19:36	5°☾01'34	
asc. node	1289 Feb 05 j 00:14	10°☾00'53		asc. node	1290 Jan 22 j 21:15	28°☾10'50	
evening max el	1289 Feb 11 j 18:48	19°☾02'06	18°10'20		1290 Jan 24 j 07:08	0°☾	
retrograde	1289 Feb 18 j 14:39	22°☾29'12		evening max el	1290 Jan 26 j 07:01	2°☾13'26	18°09'23
evening set	1289 Feb 21 j 04:21	22°☾00'25		retrograde	1290 Feb 01 j 18:41	5°☾38'00	
inferior conj	1289 Feb 28 j 00:30	17°☾08'37	3°29'52	evening set	1290 Feb 04 j 13:15	4°☾59'29	
minimum elong	1289 Feb 28 j 02:54	17°☾03'04	3°29'34	inferior conj	1290 Feb 10 j 21:00	29°☾46'44	3°45'28
min. Earth dist.	1289 Mar 03 j 07:40	14°☾07'48	0.60435 AU	minimum elong	1290 Feb 10 j 21:19	29°☾45'54	3°45'27
morning rise	1289 Mar 06 j 22:12	11°☾22'31			1290 Feb 10 j 15:56	30°☾	
direct	1289 Mar 13 j 14:27	9°☾14'32		min. Earth dist.	1290 Feb 13 j 16:19	26°☾51'30	0.62511 AU
desc. node	1289 Mar 15 j 18:38	9°☾27'28		morning rise	1290 Feb 17 j 03:13	23°☾47'26	
morning max el	1289 Mar 27 j 20:52	17°☾05'23	27°35'06	direct	1290 Feb 24 j 02:11	21°☾11'38	
	1289 Apr 07 j 13:26	0°☾		desc. node	1290 Mar 02 j 15:40	23°☾10'17	
	1289 Apr 25 j 07:47	0°☾		morning max el	1290 Mar 10 j 02:07	29°☾06'05	27°48'33
morning set	1289 Apr 28 j 18:36	6°☾58'03			1290 Mar 10 j 23:22	0°☾	
asc. node	1289 May 03 j 23:31	18°☾02'37			1290 Apr 01 j 10:23	0°☾	
max. Earth dist.	1289 May 05 j 02:53	20°☾31'53	1.32275 AU	morning set	1290 Apr 12 j 20:26	21°☾19'08	
					1290 Apr 17 j 00:53	0°☾	
superior conj	1289 May 06 j 00:37	22°☾30'56	0°21'31	max. Earth dist.	1290 Apr 18 j 11:15	3°☾03'17	1.32675 AU
minimum elong	1289 May 05 j 23:39	22°☾25'40	0°21'18				
	1289 May 09 j 10:33	0°☾		superior conj	1290 Apr 20 j 10:00	7°☾15'21	0°-4'-39
evening rise	1289 May 12 j 22:31	7°☾32'04		minimum elong	1290 Apr 20 j 10:13	7°☾16'34	0°04'37
	1289 May 24 j 16:12	0°☾		behind sun begin	1290 Apr 20 j 05:14	6°☾49'33	
evening max el	1289 Jun 09 j 02:26	20°☾33'24	25°28'50	behind sun end	1290 Apr 20 j 15:12	7°☾43'36	
desc. node	1289 Jun 11 j 17:53	22°☾53'17		asc. node	1290 Apr 20 j 20:34	8°☾12'39	
retrograde	1289 Jun 23 j 03:12	27°☾42'42		evening rise	1290 Apr 27 j 10:19	22°☾24'53	
evening set	1289 Jun 28 j 22:01	26°☾24'17			1290 May 01 j 02:28	0°☾	
min. Earth dist.	1289 Jul 03 j 14:33	23°☾43'04	0.58086 AU		1290 May 20 j 11:17	0°☾	
inferior conj	1289 Jul 06 j 19:01	21°☾29'00	-4°-53'-34	evening max el	1290 May 21 j 17:00	1°☾14'20	23°58'40
minimum elong	1289 Jul 06 j 18:35	21°☾29'45	4°53'35	desc. node	1290 May 29 j 14:54	6°☾51'33	
morning rise	1289 Jul 14 j 18:54	17°☾11'15		retrograde	1290 Jun 04 j 11:52	8°☾09'51	
direct	1289 Jul 17 j 07:08	16°☾51'46		evening set	1290 Jun 08 j 20:50	7°☾27'37	
morning max el	1289 Jul 25 j 18:50	20°☾52'00	18°50'42	min. Earth dist.	1290 Jun 15 j 03:52	4°☾25'35	0.56334 AU
asc. node	1289 Jul 30 j 22:43	27°☾04'15		inferior conj	1290 Jun 17 j 14:02	2°☾56'13	-4°-28'-47
	1289 Aug 01 j 21:00	0°☾		minimum elong	1290 Jun 17 j 08:30	3°☾04'46	4°27'57
morning set	1289 Aug 11 j 06:15	17°☾08'36			1290 Jun 22 j 21:29	30°☾	
	1289 Aug 17 j 19:56	0°☾		morning rise	1290 Jun 25 j 23:42	28°☾56'55	
superior conj	1289 Aug 19 j 20:10	3°☾51'09	1°42'25	direct	1290 Jun 28 j 16:15	28°☾38'09	
minimum elong	1289 Aug 19 j 22:01	3°☾59'58	1°42'19		1290 Jul 04 j 02:19	0°☾	
max. Earth dist.	1289 Aug 26 j 19:07	16°☾40'16	1.39139 AU	morning max el	1290 Jul 08 j 13:42	3°☾13'27	19°50'37
evening rise	1289 Aug 30 j 18:54	23°☾37'58		asc. node	1290 Jul 17 j 19:47	15°☾28'46	
	1289 Sep 03 j 14:02	0°☾			1290 Jul 25 j 13:54	0°☾	
desc. node	1289 Sep 07 j 17:11	6°☾39'40		morning set	1290 Jul 26 j 09:10	1°☾36'57	
	1289 Sep 23 j 16:54	0°☾					
evening max el	1289 Oct 05 j 02:55	13°☾32'46	24°19'52	superior conj	1290 Aug 03 j 06:45	17°☾36'06	1°46'14
retrograde	1289 Oct 16 j 08:35	20°☾07'36		minimum elong	1290 Aug 03 j 06:44	17°☾36'00	1°46'15
evening set	1289 Oct 21 j 16:56	17°☾54'11		max. Earth dist.	1290 Aug 08 j 23:28	28°☾38'56	1.37152 AU
min. Earth dist.	1289 Oct 26 j 10:50	12°☾27'22	0.67542 AU		1290 Aug 09 j 16:46	0°☾	
asc. node	1289 Oct 26 j 21:56	11°☾50'03		evening rise	1290 Aug 12 j 20:20	5°☾46'31	
inferior conj	1289 Oct 27 j 04:09	11°☾29'08	0°05'22	desc. node	1290 Aug 25 j 14:12	27°☾05'00	
minimum elong	1289 Oct 27 j 04:01	11°☾29'35	0°05'18		1290 Aug 27 j 11:54	0°☾	
transit middle	1289 Oct 27 j 04:01	11°☾29'35	0°05'18	evening max el	1290 Sep 17 j 14:51	27°☾11'37	25°33'50
transit begin	1289 Oct 27 j 01:26	11°☾38'17			1290 Sep 20 j 17:40	0°☾	
transit end	1289 Oct 27 j 06:36	11°☾20'53		retrograde	1290 Sep 29 j 18:59	4°☾10'33	
morning rise	1289 Nov 01 j 15:25	5°☾22'41		evening set	1290 Oct 05 j 17:57	1°☾41'35	
direct	1289 Nov 05 j 09:39	4°☾01'49			1290 Oct 07 j 12:05	30°☾	
morning max el	1289 Nov 13 j 06:07	8°☾33'03	20°20'51	min. Earth dist.	1290 Oct 10 j 03:49	26°☾50'21	0.66987 AU
greatest brilliancy	1289 Nov 19 j 18:29	16°☾20'24	-0.5m	inferior conj	1290 Oct 11 j 08:00	25°☾19'58	0°-50'-42
	1289 Nov 29 j 08:36	0°☾		minimum elong	1290 Oct 11 j 09:18	25°☾15'48	0°50'10

asc. node	1290 Oct 13 j 18:59	22°♄18'48		morning rise	1291 Oct 01 j 08:25	3°♄21'11	
morning rise	1290 Oct 17 j 01:21	19°♄21'47		direct	1291 Oct 04 j 06:04	2°♄33'50	
direct	1290 Oct 20 j 08:12	18°♄19'27		morning max el	1291 Oct 10 j 22:06	6°♄13'51	18°33'17
morning max el	1290 Oct 27 j 10:55	22°♄19'56	19°19'12		1291 Oct 27 j 10:14	0°♄	
	1290 Nov 02 j 17:17	0°♄		morning set	1291 Oct 31 j 02:46	5°♄54'19	
greatest brilliancy	1290 Nov 06 j 04:15	4°♄56'15	-0.7m	desc. node	1291 Nov 08 j 10:30	19°♄09'10	
morning set	1290 Nov 20 j 02:02	26°♄12'02			1291 Nov 15 j 07:42	0°♄	
desc. node	1290 Nov 21 j 13:29	28°♄29'48					
	1290 Nov 22 j 12:40	0°♄		superior conj	1291 Nov 15 j 23:28	1°♄01'58	0°-48'-42
max. Earth dist.	1290 Dec 03 j 18:14	17°♄35'34	1.44672 AU	minimum elong	1291 Nov 15 j 17:15	0°♄37'32	0°47'55
				max. Earth dist.	1291 Nov 16 j 12:49	1°♄54'26	1.45109 AU
superior conj	1290 Dec 06 j 21:45	22°♄34'54	-1°-31'-3	evening rise	1291 Dec 02 j 00:29	26°♄19'08	
minimum elong	1290 Dec 06 j 13:09	22°♄00'45	1°30'14		1291 Dec 04 j 08:07	0°♄	
	1290 Dec 11 j 12:55	0°♄		evening max el	1291 Dec 24 j 05:24	29°♄01'29	19°02'35
evening rise	1290 Dec 21 j 09:43	16°♄08'50			1291 Dec 25 j 05:24	0°♄	
	1290 Dec 29 j 18:43	0°♄		asc. node	1291 Dec 27 j 15:20	1°♄51'22	
asc. node	1291 Jan 09 j 18:17	15°♄32'01		retrograde	1291 Dec 31 j 03:06	2°♄56'59	
evening max el	1291 Jan 09 j 19:22	15°♄34'46	18°27'09	evening set	1292 Jan 03 j 08:54	1°♄56'00	
retrograde	1291 Jan 16 j 08:05	19°♄09'27			1292 Jan 05 j 17:16	30°♄	
evening set	1291 Jan 19 j 07:46	18°♄20'14		inferior conj	1292 Jan 09 j 01:17	26°♄06'46	3°21'30
inferior conj	1291 Jan 25 j 06:27	12°♄48'03	3°40'52	minimum elong	1292 Jan 08 j 22:57	26°♄14'07	3°21'04
minimum elong	1291 Jan 25 j 05:07	12°♄51'58	3°40'44	min. Earth dist.	1292 Jan 10 j 13:59	24°♄11'15	0.65761 AU
min. Earth dist.	1291 Jan 27 j 10:26	10°♄17'17	0.64322 AU	morning rise	1292 Jan 14 j 12:05	19°♄54'25	
morning rise	1291 Jan 31 j 01:03	6°♄40'40		direct	1292 Jan 20 j 23:14	17°♄05'35	
direct	1291 Feb 06 j 21:26	3°♄51'19		morning max el	1292 Feb 02 j 20:53	24°♄41'30	26°33'00
desc. node	1291 Feb 17 j 12:42	8°♄58'05		desc. node	1292 Feb 04 j 09:44	26°♄17'10	
morning max el	1291 Feb 20 j 10:59	11°♄41'44	27°25'59		1292 Feb 07 j 16:34	0°♄	
	1291 Mar 07 j 00:43	0°♄			1292 Feb 28 j 11:10	0°♄	
	1291 Mar 24 j 21:33	0°♄		morning set	1292 Mar 09 j 20:34	18°♄26'50	
morning set	1291 Mar 27 j 14:15	5°♄12'11		max. Earth dist.	1292 Mar 14 j 02:09	26°♄38'09	1.34763 AU
max. Earth dist.	1291 Apr 01 j 12:07	15°♄07'28	1.33495 AU		1292 Mar 15 j 18:35	0°♄	
superior conj	1291 Apr 04 j 15:27	21°♄43'06	0°-32'-2	superior conj	1292 Mar 18 j 14:48	5°♄47'35	0°-59'-28
minimum elong	1291 Apr 04 j 17:02	21°♄51'30	0°31'43	minimum elong	1292 Mar 18 j 17:44	6°♄02'43	0°58'56
asc. node	1291 Apr 07 j 17:35	28°♄18'53		asc. node	1292 Mar 24 j 14:38	18°♄17'28	
	1291 Apr 08 j 12:28	0°♄		evening rise	1292 Mar 26 j 06:36	21°♄45'11	
evening rise	1291 Apr 11 j 21:38	7°♄11'19			1292 Mar 30 j 08:41	0°♄	
	1291 Apr 24 j 02:32	0°♄		evening max el	1292 Apr 14 j 08:26	22°♄37'37	20°55'03
evening max el	1291 May 03 j 08:38	11°♄45'36	22°22'48	retrograde	1292 Apr 25 j 21:24	28°♄14'10	
retrograde	1291 May 16 j 08:00	18°♄10'19		evening set	1292 Apr 28 j 02:12	28°♄02'42	
desc. node	1291 May 16 j 11:56	18°♄10'15		desc. node	1292 May 02 j 08:58	26°♄42'00	
evening set	1291 May 19 j 08:00	17°♄50'28		inferior conj	1292 May 07 j 09:16	24°♄04'42	-1°-26'-49
min. Earth dist.	1291 May 27 j 15:36	14°♄14'58	0.55208 AU	minimum elong	1292 May 07 j 05:10	24°♄10'31	1°25'22
inferior conj	1291 May 28 j 15:25	13°♄41'19	-3°-17'-2	min. Earth dist.	1292 May 08 j 04:10	23°♄37'51	0.54965 AU
minimum elong	1291 May 28 j 07:45	13°♄52'09	3°14'54	morning rise	1292 May 16 j 07:29	20°♄00'19	
morning rise	1291 Jun 06 j 09:42	9°♄49'08		direct	1292 May 19 j 18:07	19°♄34'46	
direct	1291 Jun 09 j 08:31	9°♄29'23		morning max el	1292 Jun 01 j 18:39	25°♄49'10	22°46'54
morning max el	1291 Jun 20 j 21:15	14°♄51'35	21°10'56		1292 Jun 05 j 17:12	0°♄	
	1291 Jul 02 j 04:43	0°♄		asc. node	1292 Jun 20 j 13:53	23°♄55'24	
asc. node	1291 Jul 04 j 16:50	4°♄28'47			1292 Jun 23 j 13:32	0°♄	
morning set	1291 Jul 10 j 17:01	16°♄20'50		morning set	1292 Jun 24 j 03:44	1°♄14'07	
	1291 Jul 17 j 06:00	0°♄					
				superior conj	1292 Jul 01 j 07:55	16°♄31'22	1°32'17
superior conj	1291 Jul 18 j 03:47	1°♄52'55	1°42'21	minimum elong	1292 Jul 01 j 05:43	16°♄19'40	1°32'03
minimum elong	1291 Jul 18 j 02:23	1°♄45'40	1°42'17	max. Earth dist.	1292 Jul 04 j 04:49	22°♄34'22	1.34018 AU
max. Earth dist.	1291 Jul 22 j 09:42	10°♄30'17	1.35402 AU		1292 Jul 07 j 20:02	0°♄	
evening rise	1291 Jul 26 j 16:45	18°♄50'07		evening rise	1292 Jul 09 j 03:29	2°♄36'01	
	1291 Aug 01 j 20:19	0°♄			1292 Jul 24 j 17:07	0°♄	
desc. node	1291 Aug 12 j 11:14	17°♄12'54		desc. node	1292 Jul 29 j 08:17	6°♄55'01	
	1291 Aug 21 j 14:58	0°♄		evening max el	1292 Aug 12 j 14:46	24°♄15'06	27°13'46
evening max el	1291 Aug 31 j 02:54	10°♄48'56	26°34'18		1292 Aug 20 j 05:55	0°♄	
retrograde	1291 Sep 13 j 00:19	18°♄02'10		retrograde	1292 Aug 26 j 00:14	1°♄34'02	
evening set	1291 Sep 19 j 13:04	15°♄21'57			1292 Aug 31 j 07:36	30°♄	
min. Earth dist.	1291 Sep 23 j 15:22	11°♄07'54	0.66084 AU	evening set	1292 Sep 01 j 23:46	28°♄50'21	
inferior conj	1291 Sep 25 j 07:18	9°♄08'02	-1°-48'-15	min. Earth dist.	1292 Sep 05 j 19:12	25°♄13'03	0.64823 AU
minimum elong	1291 Sep 25 j 10:08	8°♄59'30	1°47'08	inferior conj	1292 Sep 07 j 23:47	22°♄48'10	-2°-45'-13
asc. node	1291 Sep 30 j 16:02	3°♄45'47		minimum elong	1292 Sep 08 j 04:02	22°♄36'25	2°43'44

morning rise	1292 Sep 14 j 10:07	17° $\mathring{\text{M}}$ 15'48		min. Earth dist.	1293 Aug 19 j 13:36	8° $\mathring{\text{M}}$ 56'50	0.63214 AU
asc. node	1292 Sep 16 j 13:05	16° $\mathring{\text{M}}$ 40'58		inferior conj	1293 Aug 22 j 06:50	6° $\mathring{\text{M}}$ 15'04	-3°-38'-23
direct	1292 Sep 17 j 00:57	16° $\mathring{\text{M}}$ 39'40		minimum elong	1293 Aug 22 j 11:56	6° $\mathring{\text{M}}$ 02'22	3°36'59
morning max el	1292 Sep 23 j 13:09	20° $\mathring{\text{M}}$ 08'29	18°04'00	morning rise	1293 Aug 29 j 03:25	1° $\mathring{\text{M}}$ 00'18	
	1292 Sep 30 j 23:39	0° $\mathring{\text{A}}$		direct	1293 Aug 31 j 14:05	0° $\mathring{\text{M}}$ 31'56	
morning set	1292 Oct 11 j 08:22	17° $\mathring{\text{A}}$ 01'16		asc. node	1293 Sep 03 j 10:08	1° $\mathring{\text{M}}$ 10'49	
	1292 Oct 19 j 04:30	0° $\mathring{\text{M}}$		morning max el	1293 Sep 07 j 05:12	3° $\mathring{\text{M}}$ 57'43	17°52'16
				morning set	1293 Sep 23 j 14:36	29° $\mathring{\text{M}}$ 19'22	
					1293 Sep 23 j 23:52	0° $\mathring{\text{A}}$	
superior conj	1292 Oct 25 j 06:52	9° $\mathring{\text{M}}$ 51'17	0°00'12				
minimum elong	1292 Oct 25 j 06:53	9° $\mathring{\text{M}}$ 51'23	0°00'12				
behind sun begin	1292 Oct 24 j 20:17	9° $\mathring{\text{M}}$ 09'01		superior conj	1293 Oct 05 j 13:07	19° $\mathring{\text{A}}$ 49'39	0°43'53
behind sun end	1292 Oct 25 j 17:29	10° $\mathring{\text{M}}$ 33'43		minimum elong	1293 Oct 05 j 17:14	20° $\mathring{\text{A}}$ 06'44	0°43'19
desc. node	1292 Oct 25 j 07:33	9° $\mathring{\text{M}}$ 54'03			1293 Oct 11 j 18:18	0° $\mathring{\text{M}}$	
max. Earth dist.	1292 Oct 29 j 07:37	16° $\mathring{\text{M}}$ 15'37	1.44802 AU	max. Earth dist.	1293 Oct 11 j 23:48	0° $\mathring{\text{M}}$ 22'03	1.43806 AU
	1292 Nov 07 j 02:24	0° $\mathring{\text{A}}$		desc. node	1293 Oct 12 j 04:36	0° $\mathring{\text{M}}$ 41'22	
evening rise	1292 Nov 10 j 18:08	5° $\mathring{\text{A}}$ 39'46		evening rise	1293 Oct 21 j 01:57	14° $\mathring{\text{M}}$ 40'39	
	1292 Nov 26 j 19:10	0° $\mathring{\text{B}}$			1293 Oct 31 j 04:23	0° $\mathring{\text{A}}$	
greatest brilliancy	1292 Nov 29 j 05:27	3° $\mathring{\text{B}}$ 27'52	-0.6m	greatest brilliancy	1293 Nov 14 j 01:26	19° $\mathring{\text{A}}$ 38'28	-0.5m
evening max el	1292 Dec 06 j 11:10	12° $\mathring{\text{B}}$ 30'02	19°54'10	evening max el	1293 Nov 19 j 11:31	25° $\mathring{\text{A}}$ 59'46	20°59'23
asc. node	1292 Dec 13 j 12:23	16° $\mathring{\text{B}}$ 53'32			1293 Nov 24 j 10:13	0° $\mathring{\text{B}}$	
retrograde	1292 Dec 14 j 00:37	16° $\mathring{\text{B}}$ 54'59		retrograde	1293 Nov 27 j 22:18	1° $\mathring{\text{B}}$ 00'14	
evening set	1292 Dec 17 j 14:09	15° $\mathring{\text{B}}$ 40'42		asc. node	1293 Nov 30 j 09:25	0° $\mathring{\text{B}}$ 26'14	
inferior conj	1292 Dec 23 j 02:29	9° $\mathring{\text{B}}$ 37'23	2°51'08		1293 Dec 01 j 04:39	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
minimum elong	1292 Dec 22 j 23:48	9° $\mathring{\text{B}}$ 46'20	2°50'26	evening set	1293 Dec 01 j 21:31	29° $\mathring{\text{A}}$ 30'53	
min. Earth dist.	1292 Dec 24 j 01:17	8° $\mathring{\text{B}}$ 21'30	0.66802 AU	inferior conj	1293 Dec 07 j 07:39	23° $\mathring{\text{A}}$ 16'46	2°12'22
morning rise	1292 Dec 28 j 08:49	3° $\mathring{\text{B}}$ 22'27		minimum elong	1293 Dec 07 j 05:09	23° $\mathring{\text{A}}$ 25'20	2°11'31
direct	1293 Jan 03 j 06:52	0° $\mathring{\text{B}}$ 45'17		min. Earth dist.	1293 Dec 07 j 18:04	22° $\mathring{\text{A}}$ 40'58	0.67458 AU
morning max el	1293 Jan 15 j 05:52	7° $\mathring{\text{B}}$ 52'48	25°18'19	morning rise	1293 Dec 12 j 12:22	17° $\mathring{\text{A}}$ 01'25	
desc. node	1293 Jan 21 j 06:46	14° $\mathring{\text{B}}$ 40'44		direct	1293 Dec 17 j 19:32	14° $\mathring{\text{A}}$ 43'17	
	1293 Feb 01 j 13:39	0° $\mathring{\text{A}}$		morning max el	1293 Dec 28 j 14:15	21° $\mathring{\text{A}}$ 09'01	23°52'07
	1293 Feb 19 j 23:40	0° $\mathring{\text{H}}$			1294 Jan 05 j 05:27	0° $\mathring{\text{B}}$	
morning set	1293 Feb 20 j 10:36	0° $\mathring{\text{H}}$ 49'10		desc. node	1294 Jan 08 j 03:48	3° $\mathring{\text{B}}$ 50'23	
max. Earth dist.	1293 Feb 24 j 04:28	7° $\mathring{\text{H}}$ 42'19	1.36467 AU		1294 Jan 25 j 19:59	0° $\mathring{\text{A}}$	
				morning set	1294 Feb 02 j 02:16	12° $\mathring{\text{A}}$ 02'21	
superior conj	1293 Mar 02 j 05:12	19° $\mathring{\text{H}}$ 21'00	-1°-25'-13	max. Earth dist.	1294 Feb 05 j 23:38	18° $\mathring{\text{A}}$ 49'16	1.38511 AU
minimum elong	1293 Mar 02 j 09:09	19° $\mathring{\text{H}}$ 40'32	1°24'40		1294 Feb 12 j 02:39	0° $\mathring{\text{H}}$	
	1293 Mar 07 j 12:08	0° $\mathring{\text{Y}}$					
evening rise	1293 Mar 10 j 11:02	5° $\mathring{\text{Y}}$ 59'45		superior conj	1294 Feb 13 j 07:02	2° $\mathring{\text{H}}$ 13'42	-1°-46'-51
asc. node	1293 Mar 11 j 11:42	8° $\mathring{\text{Y}}$ 03'48		minimum elong	1294 Feb 13 j 11:03	2° $\mathring{\text{H}}$ 32'42	1°46'30
	1293 Mar 24 j 04:32	0° $\mathring{\text{B}}$		evening rise	1294 Feb 22 j 08:23	19° $\mathring{\text{H}}$ 47'50	
evening max el	1293 Mar 27 j 19:53	4° $\mathring{\text{B}}$ 07'46	19°43'40	asc. node	1294 Feb 26 j 08:45	27° $\mathring{\text{H}}$ 32'20	
retrograde	1293 Apr 06 j 15:22	8° $\mathring{\text{B}}$ 51'22			1294 Feb 27 j 16:27	0° $\mathring{\text{Y}}$	
evening set	1293 Apr 08 j 16:39	8° $\mathring{\text{B}}$ 39'52		evening max el	1294 Mar 10 j 18:04	16° $\mathring{\text{Y}}$ 16'10	18°51'38
inferior conj	1293 Apr 17 j 10:13	4° $\mathring{\text{B}}$ 37'31	0°31'21	retrograde	1294 Mar 19 j 00:42	20° $\mathring{\text{Y}}$ 17'04	
minimum elong	1293 Apr 17 j 11:34	4° $\mathring{\text{B}}$ 35'24	0°30'52	evening set	1294 Mar 21 j 06:15	20° $\mathring{\text{Y}}$ 00'43	
desc. node	1293 Apr 19 j 05:59	3° $\mathring{\text{B}}$ 29'09		inferior conj	1294 Mar 29 j 04:59	15° $\mathring{\text{Y}}$ 42'08	2°07'13
min. Earth dist.	1293 Apr 19 j 18:28	3° $\mathring{\text{B}}$ 09'58	0.55680 AU	minimum elong	1294 Mar 29 j 09:01	15° $\mathring{\text{Y}}$ 34'50	2°06'03
morning rise	1293 Apr 26 j 03:04	0° $\mathring{\text{B}}$ 03'49		min. Earth dist.	1294 Apr 01 j 10:52	13° $\mathring{\text{Y}}$ 22'29	0.57204 AU
	1293 Apr 26 j 08:01	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$		morning rise	1294 Apr 06 j 07:29	10° $\mathring{\text{Y}}$ 35'01	
direct	1293 Apr 30 j 11:00	29° $\mathring{\text{Y}}$ 22'02		desc. node	1294 Apr 06 j 03:01	10° $\mathring{\text{Y}}$ 39'53	
	1293 May 04 j 13:04	0° $\mathring{\text{B}}$		direct	1294 Apr 11 j 17:29	9° $\mathring{\text{Y}}$ 24'10	
morning max el	1293 May 14 j 10:03	6° $\mathring{\text{B}}$ 21'19	24°28'31	morning max el	1294 Apr 26 j 01:08	16° $\mathring{\text{Y}}$ 52'22	26°01'24
	1293 May 31 j 10:09	0° $\mathring{\text{H}}$			1294 May 06 j 19:15	0° $\mathring{\text{B}}$	
asc. node	1293 Jun 07 j 10:57	13° $\mathring{\text{H}}$ 41'35			1294 May 23 j 14:17	0° $\mathring{\text{H}}$	
morning set	1293 Jun 08 j 15:39	16° $\mathring{\text{H}}$ 11'43		morning set	1294 May 24 j 03:03	1° $\mathring{\text{H}}$ 06'57	
	1293 Jun 15 j 01:14	0° $\mathring{\text{B}}$		asc. node	1294 May 25 j 08:00	3° $\mathring{\text{H}}$ 40'29	
superior conj	1293 Jun 15 j 16:37	1° $\mathring{\text{B}}$ 23'34	1°17'14	superior conj	1294 May 31 j 03:44	16° $\mathring{\text{H}}$ 21'12	0°58'06
minimum elong	1293 Jun 15 j 14:11	1° $\mathring{\text{B}}$ 10'20	1°16'52	minimum elong	1294 May 31 j 01:32	16° $\mathring{\text{H}}$ 09'12	0°57'42
max. Earth dist.	1293 Jun 17 j 08:44	5° $\mathring{\text{B}}$ 00'30	1.33036 AU	max. Earth dist.	1294 May 31 j 18:43	17° $\mathring{\text{H}}$ 43'27	1.32448 AU
evening rise	1293 Jun 23 j 00:35	16° $\mathring{\text{B}}$ 53'15			1294 Jun 06 j 11:27	0° $\mathring{\text{B}}$	
	1293 Jun 29 j 19:18	0° $\mathring{\text{B}}$		evening rise	1294 Jun 07 j 04:47	1° $\mathring{\text{B}}$ 30'29	
desc. node	1293 Jul 16 j 05:19	26° $\mathring{\text{B}}$ 00'41			1294 Jun 22 j 18:42	0° $\mathring{\text{B}}$	
	1293 Jul 19 j 08:15	0° $\mathring{\text{M}}$		desc. node	1294 Jul 03 j 02:20	14° $\mathring{\text{B}}$ 13'45	
evening max el	1293 Jul 26 j 01:04	7° $\mathring{\text{M}}$ 19'15	27°25'37	evening max el	1294 Jul 08 j 07:16	19° $\mathring{\text{B}}$ 47'42	27°05'15
retrograde	1293 Aug 08 j 18:08	14° $\mathring{\text{M}}$ 37'34		retrograde	1294 Jul 22 j 04:51	27° $\mathring{\text{B}}$ 02'35	
evening set	1293 Aug 15 j 22:52	12° $\mathring{\text{M}}$ 01'49		evening set	1294 Jul 29 j 06:10	24° $\mathring{\text{B}}$ 48'15	

min. Earth dist.	1294 Aug 01 j 21:33	22°05'37	0.61313 AU	desc. node	1295 Jun 19 j 23:20	1°012'26	
inferior conj	1294 Aug 05 j 01:12	19°020'06	-4°-22'-44	evening max el	1295 Jun 20 j 06:54	1°030'38	26°12'04
minimum elong	1294 Aug 05 j 05:53	19°009'48	4°21'54	retrograde	1295 Jul 04 j 06:56	8°042'04	
morning rise	1294 Aug 12 j 08:31	14°026'05		evening set	1295 Jul 10 j 16:59	7°001'07	
direct	1294 Aug 14 j 17:54	14°002'35		min. Earth dist.	1295 Jul 14 j 19:40	4°025'01	0.59257 AU
asc. node	1294 Aug 21 j 07:11	17°005'11		inferior conj	1295 Jul 18 j 03:17	1°053'43	-4°-50'-5
morning max el	1294 Aug 21 j 19:13	17°033'32	17°59'08	minimum elong	1295 Jul 18 j 05:25	1°049'38	4°49'58
	1294 Aug 30 j 16:13	0°00			1295 Jul 20 j 17:09	30°00	
morning set	1294 Sep 06 j 15:13	12°0030'08		morning rise	1295 Jul 25 j 21:16	27°022'51	
	1294 Sep 16 j 07:06	0°00		direct	1295 Jul 28 j 08:02	27°002'10	
					1295 Aug 04 j 06:53	0°00	
superior conj	1294 Sep 16 j 22:31	1°007'44	1°16'05	morning max el	1295 Aug 05 j 04:08	0°047'56	18°25'54
minimum elong	1294 Sep 17 j 03:05	1°027'41	1°15'35	asc. node	1295 Aug 08 j 04:14	4°009'21	
max. Earth dist.	1294 Sep 24 j 11:31	13°058'56	1.42244 AU	morning set	1295 Aug 21 j 04:59	26°019'02	
desc. node	1294 Sep 29 j 01:38	21°027'37			1295 Aug 23 j 03:00	0°00	
evening rise	1294 Sep 30 j 17:15	24°005'38					
	1294 Oct 04 j 11:41	0°00		superior conj	1295 Aug 30 j 07:25	13°0035'31	1°35'59
	1294 Oct 25 j 05:31	0°00		minimum elong	1295 Aug 30 j 10:25	13°0049'24	1°35'46
greatest brilliancy	1294 Oct 28 j 13:17	4°0012'30	-0.3m	max. Earth dist.	1295 Sep 06 j 18:12	26°0055'06	1.40315 AU
evening max el	1294 Nov 02 j 06:22	9°0030'54	22°14'28		1295 Sep 08 j 13:21	0°00	
retrograde	1294 Nov 11 j 18:20	15°0009'46		evening rise	1295 Sep 11 j 05:13	4°0028'14	
evening set	1294 Nov 16 j 05:15	13°0023'37		desc. node	1295 Sep 15 j 22:38	12°0009'07	
asc. node	1294 Nov 17 j 06:25	12°0027'08			1295 Sep 27 j 17:14	0°00	
inferior conj	1294 Nov 21 j 14:43	7°0002'15	1°26'58	evening max el	1295 Oct 15 j 20:45	23°0004'00	23°34'18
minimum elong	1294 Nov 21 j 12:52	7°0008'42	1°26'14	retrograde	1295 Oct 26 j 11:24	29°0019'58	
min. Earth dist.	1294 Nov 21 j 13:57	7°0004'56	0.67753 AU	evening set	1295 Oct 31 j 11:41	27°0016'10	
morning rise	1294 Nov 26 j 20:18	0°0048'41		asc. node	1295 Nov 04 j 03:27	23°0014'23	
	1294 Nov 27 j 22:41	30°0000		inferior conj	1295 Nov 05 j 21:53	20°0051'16	0°36'21
direct	1294 Dec 01 j 12:20	28°0053'05		minimum elong	1295 Nov 05 j 21:02	20°0054'11	0°35'58
	1294 Dec 05 j 09:42	0°00		min. Earth dist.	1295 Nov 05 j 10:30	21°0030'10	0.67712 AU
morning max el	1294 Dec 11 j 01:04	4°0030'52	22°24'19	morning rise	1295 Nov 11 j 06:32	14°0041'45	
greatest brilliancy	1294 Dec 15 j 15:05	9°0038'47	-0.3m	direct	1295 Nov 15 j 08:15	13°0008'53	
desc. node	1294 Dec 26 j 00:51	23°0032'58		morning max el	1295 Nov 23 j 17:50	18°0001'53	21°02'47
	1294 Dec 30 j 11:25	0°00		greatest brilliancy	1295 Nov 29 j 05:25	24°0022'30	-0.5m
morning set	1295 Jan 13 j 13:50	21°0052'43			1295 Dec 03 j 10:50	0°00	
	1295 Jan 18 j 11:27	0°00		desc. node	1295 Dec 12 j 21:51	13°0038'40	
max. Earth dist.	1295 Jan 18 j 20:18	0°0037'20	1.40656 AU	morning set	1295 Dec 23 j 21:49	0°0026'39	
					1295 Dec 23 j 15:00	0°00	
superior conj	1295 Jan 26 j 15:39	14°0014'05	-2°00'-57	max. Earth dist.	1295 Dec 31 j 23:45	13°0021'05	1.42601 AU
minimum elong	1295 Jan 26 j 17:59	14°0024'36	2°00'52				
	1295 Feb 04 j 04:47	0°00		superior conj	1296 Jan 08 j 01:33	25°0008'21	-2°-3'00
evening rise	1295 Feb 05 j 19:30	3°0001'58		minimum elong	1296 Jan 07 j 23:49	25°0000'56	2°02'58
asc. node	1295 Feb 13 j 05:46	16°00036'58			1296 Jan 10 j 21:31	0°00	
evening max el	1295 Feb 22 j 00:09	28°0055'49	18°19'39	evening rise	1296 Jan 19 j 16:29	15°0033'00	
	1295 Feb 23 j 04:39	0°00			1296 Jan 27 j 21:21	0°00	
retrograde	1295 Mar 01 j 05:12	2°00030'39		asc. node	1296 Jan 31 j 02:48	5°0009'26	
evening set	1295 Mar 03 j 16:09	2°0006'45		evening max el	1296 Feb 05 j 10:55	11°0057'22	18°07'32
	1295 Mar 07 j 15:47	30°0000		retrograde	1296 Feb 12 j 02:06	15°0021'59	
inferior conj	1295 Mar 10 j 21:01	27°0027'01	3°08'57	evening set	1296 Feb 14 j 17:51	14°0049'08	
minimum elong	1295 Mar 11 j 00:30	27°0019'38	3°08'18	inferior conj	1296 Feb 21 j 08:16	9°0047'58	3°39'22
min. Earth dist.	1295 Mar 14 j 07:21	24°0034'26	0.59209 AU	minimum elong	1296 Feb 21 j 09:46	9°0044'17	3°39'15
morning rise	1295 Mar 18 j 05:08	21°0052'36		min. Earth dist.	1296 Feb 24 j 10:56	6°0047'00	0.61338 AU
desc. node	1295 Mar 24 j 00:02	20°0006'10		morning rise	1296 Feb 27 j 22:56	3°0055'17	
direct	1295 Mar 24 j 12:52	20°0005'24		direct	1296 Mar 05 j 19:06	1°0034'22	
morning max el	1295 Apr 07 j 21:00	27°0049'34	27°10'29	desc. node	1296 Mar 09 j 21:03	2°0020'12	
	1295 Apr 09 j 23:39	0°00		morning max el	1296 Mar 19 j 23:22	9°0027'17	27°45'28
	1295 Apr 30 j 09:39	0°00			1296 Apr 04 j 20:28	0°00	
morning set	1295 May 08 j 12:16	15°0054'15		morning set	1296 Apr 21 j 17:27	0°0027'08	
asc. node	1295 May 12 j 05:03	23°0047'10			1296 Apr 21 j 12:09	0°00	
	1295 May 15 j 01:16	0°00		max. Earth dist.	1296 Apr 27 j 18:22	13°0015'01	1.32401 AU
				asc. node	1296 Apr 28 j 02:06	13°0057'07	
superior conj	1295 May 15 j 15:29	1°0018'10	0°35'39				
minimum elong	1295 May 15 j 13:59	1°0009'51	0°35'21	superior conj	1296 Apr 29 j 02:14	16°0008'43	0°10'38
max. Earth dist.	1295 May 15 j 07:15	0°0032'49	1.32237 AU	minimum elong	1296 Apr 29 j 01:45	16°0006'02	0°10'32
evening rise	1295 May 22 j 13:32	16°0019'20		behind sun begin	1296 Apr 28 j 21:55	15°0045'07	
	1295 May 29 j 09:36	0°00		behind sun end	1296 Apr 29 j 05:34	16°0026'58	
	1295 Jun 18 j 18:21	0°00			1296 May 05 j 11:09	0°00	

evening rise	1296 May 06 j 00:47	1° Π 12'29		evening rise	1297 Apr 20 j 12:37	16° U 03'17	
	1296 May 21 j 19:25	0° U			1297 Apr 27 j 11:51	0° Π	
evening max el	1296 May 31 j 23:37	12° U 29'06	24°52'03	evening max el	1297 May 13 j 13:35	23° Π 01'49	23°17'40
desc. node	1296 Jun 05 j 20:20	16° U 27'10		desc. node	1297 May 23 j 17:22	29° Π 21'29	
retrograde	1296 Jun 14 j 22:50	19° U 34'25		retrograde	1297 May 27 j 02:33	29° Π 47'32	
evening set	1296 Jun 20 j 04:20	18° U 32'08		evening set	1297 May 30 j 20:16	29° Π 16'52	
min. Earth dist.	1296 Jun 25 j 10:58	15° U 43'59	0.57288 AU	min. Earth dist.	1297 Jun 06 j 23:28	26° Π 01'56	0.55753 AU
inferior conj	1296 Jun 28 j 09:59	13° U 46'49	-4°-48'-24	inferior conj	1297 Jun 08 j 20:48	24° Π 55'11	-4°-4'-13
minimum elong	1296 Jun 28 j 07:20	13° U 51'12	4°48'14	minimum elong	1297 Jun 08 j 13:43	25° Π 05'39	4°02'44
morning rise	1296 Jul 06 j 14:09	9° U 38'13		morning rise	1297 Jun 17 j 10:25	21° Π 00'56	
direct	1296 Jul 09 j 04:08	9° U 19'10		direct	1297 Jun 20 j 04:57	20° Π 42'16	
morning max el	1296 Jul 18 j 05:00	13° U 32'10	19°13'39	morning max el	1297 Jun 30 j 19:17	25° Π 36'34	20°22'30
asc. node	1296 Jul 25 j 01:18	22° U 08'44			1297 Jul 04 j 19:35	0° U	
	1296 Jul 29 j 15:57	0° Ω		asc. node	1297 Jul 11 j 22:22	10° U 49'48	
morning set	1296 Aug 04 j 04:01	10° Ω 35'56		morning set	1297 Jul 19 j 09:20	25° U 11'51	
					1297 Jul 21 j 17:28	0° Ω	
superior conj	1296 Aug 12 j 10:12	26° Ω 57'35	1°45'05	superior conj	1297 Jul 27 j 01:45	10° Ω 58'03	1°45'26
minimum elong	1296 Aug 12 j 11:13	27° Ω 02'30	1°45'04	minimum elong	1297 Jul 27 j 01:05	10° Ω 54'38	1°45'25
	1296 Aug 14 j 00:03	0° U		max. Earth dist.	1297 Aug 01 j 03:34	21° Ω 00'49	1.36364 AU
max. Earth dist.	1296 Aug 18 j 21:45	9° U 09'55	1.38271 AU	evening rise	1297 Aug 05 j 03:50	28° Ω 34'15	
evening rise	1296 Aug 22 j 17:42	16° U 00'11			1297 Aug 05 j 22:35	0° U	
	1296 Aug 31 j 02:40	0° U		desc. node	1297 Aug 19 j 16:42	23° U 01'15	
desc. node	1296 Sep 01 j 19:40	2° U 42'16			1297 Aug 24 j 09:31	0° U	
	1296 Sep 21 j 07:20	0° U		evening max el	1297 Sep 09 j 20:36	20° U 19'38	26°01'37
evening max el	1296 Sep 27 j 08:49	6° U 40'49	24°52'25	retrograde	1297 Sep 22 j 09:07	27° U 26'41	
retrograde	1296 Oct 09 j 00:35	13° U 27'35		evening set	1297 Sep 28 j 14:02	24° U 52'13	
evening set	1296 Oct 14 j 15:14	11° U 06'54		min. Earth dist.	1297 Oct 02 j 20:35	20° U 16'31	0.66644 AU
min. Earth dist.	1296 Oct 19 j 05:31	5° U 55'10	0.67346 AU	inferior conj	1297 Oct 04 j 05:39	18° U 33'02	-1°-15'-2
inferior conj	1296 Oct 20 j 03:29	4° U 42'38	0°-18'-7	minimum elong	1297 Oct 04 j 07:36	18° U 26'55	1°14'14
minimum elong	1296 Oct 20 j 03:56	4° U 41'09	0°17'57	asc. node	1297 Oct 07 j 21:33	14° U 21'51	
asc. node	1296 Oct 21 j 00:29	3° U 33'45		morning rise	1297 Oct 10 j 02:07	12° U 39'11	
	1296 Oct 24 j 02:16	30° R U		direct	1297 Oct 13 j 04:40	11° U 43'50	
morning rise	1296 Oct 25 j 17:08	28° U 39'33		morning max el	1297 Oct 20 j 02:10	15° U 34'49	18°57'36
direct	1296 Oct 29 j 06:11	27° U 27'11			1297 Oct 30 j 21:25	0° U	
	1296 Nov 03 j 21:13	0° U		morning set	1297 Nov 11 j 03:10	17° U 28'54	
morning max el	1296 Nov 05 j 18:23	1° U 44'10	19°52'51	desc. node	1297 Nov 15 j 15:58	24° U 35'42	
greatest brilliancy	1296 Nov 13 j 06:48	10° U 59'07	-0.6m		1297 Nov 19 j 02:40	0° U	
	1296 Nov 26 j 03:51	0° U		max. Earth dist.	1297 Nov 26 j 02:21	10° U 58'06	1.44945 AU
desc. node	1296 Nov 28 j 18:54	4° U 01'20		superior conj	1297 Nov 27 j 17:28	13° U 32'05	-1°-14'-40
morning set	1296 Dec 01 j 17:53	8° U 34'40		minimum elong	1297 Nov 27 j 09:03	12° U 58'56	1°13'45
max. Earth dist.	1296 Dec 13 j 10:20	26° U 52'58	1.44091 AU		1297 Dec 08 j 01:46	0° U	
	1296 Dec 15 j 09:08	0° U		evening rise	1297 Dec 12 j 23:18	7° U 55'22	
superior conj	1296 Dec 18 j 09:00	4° U 49'49	-1°-48'-12		1297 Dec 26 j 18:57	0° \approx	
minimum elong	1296 Dec 18 j 02:04	4° U 21'43	1°47'44	evening max el	1298 Jan 02 j 11:05	8° \approx 37'33	18°40'14
evening rise	1296 Dec 31 j 19:03	27° U 12'52		asc. node	1298 Jan 03 j 20:50	9° \approx 56'56	
	1297 Jan 02 j 10:11	0° \approx		retrograde	1298 Jan 09 j 02:49	12° \approx 19'55	
asc. node	1297 Jan 16 j 23:49	23° \approx 00'06		evening set	1298 Jan 12 j 04:53	11° \approx 26'00	
evening max el	1297 Jan 18 j 23:26	25° \approx 13'14	18°14'41	inferior conj	1298 Jan 18 j 00:37	5° \approx 46'34	3°34'11
retrograde	1297 Jan 25 j 10:43	28° \approx 41'05		minimum elong	1298 Jan 17 j 22:46	5° \approx 52'08	3°33'56
evening set	1297 Jan 28 j 07:15	27° \approx 58'17		min. Earth dist.	1298 Jan 19 j 22:07	3° \approx 29'30	0.64979 AU
inferior conj	1297 Feb 03 j 10:46	22° \approx 37'01	3°45'36		1298 Jan 23 j 04:52	30° R U	
minimum elong	1297 Feb 03 j 10:19	22° \approx 38'17	3°45'35	morning rise	1298 Jan 23 j 15:26	29° U 36'42	
min. Earth dist.	1297 Feb 05 j 23:45	19° \approx 50'08	0.63317 AU	direct	1298 Jan 30 j 08:37	26° U 45'35	
morning rise	1297 Feb 09 j 11:31	16° \approx 33'27			1298 Feb 07 j 11:41	0° \approx	
direct	1297 Feb 16 j 10:13	13° \approx 49'59		desc. node	1298 Feb 11 j 15:09	3° \approx 30'37	
desc. node	1297 Feb 24 j 18:06	17° \approx 00'16		morning max el	1298 Feb 12 j 16:12	4° \approx 32'01	27°06'41
morning max el	1297 Mar 02 j 06:41	21° \approx 44'42	27°43'08		1298 Mar 04 j 00:48	0° U	
	1297 Mar 09 j 12:13	0° U		morning set	1298 Mar 20 j 05:45	28° U 16'43	
	1297 Mar 28 j 23:20	0° U			1298 Mar 21 j 03:01	0° U	
morning set	1297 Apr 05 j 16:17	14° U 37'48		max. Earth dist.	1298 Mar 24 j 20:20	7° U 25'36	1.33969 AU
max. Earth dist.	1297 Apr 11 j 00:00	25° U 36'05	1.32965 AU	superior conj	1298 Mar 28 j 13:25	15° U 06'25	0°-43'-44
superior conj	1297 Apr 13 j 10:12	0° U 46'52	0°-16'-10	minimum elong	1298 Mar 28 j 15:36	15° U 17'49	0°43'19
minimum elong	1297 Apr 13 j 11:00	0° U 51'06	0°16'01	asc. node	1298 Apr 01 j 20:12	24° U 10'05	
	1297 Apr 13 j 01:29	0° U		evening rise	1298 Apr 04 j 23:11	0° U 45'36	
asc. node	1297 Apr 14 j 23:09	4° U 06'04					

	1298 Apr 04 j 14:28	0°♄		evening rise	1299 Mar 20 j 06:28	15°♄11'55	
	1298 Apr 21 j 23:21	0°♄			1299 Mar 27 j 21:56	0°♄	
evening max el	1298 Apr 25 j 08:12	3°♄40'16	21°44'01	evening max el	1299 Apr 07 j 12:53	14°♄47'33	20°22'29
retrograde	1298 May 07 j 18:41	9°♄45'46		retrograde	1299 Apr 18 j 07:56	20°♄00'38	
evening set	1298 May 10 j 08:12	9°♄31'01		evening set	1299 Apr 20 j 09:59	19°♄49'47	
desc. node	1298 May 10 j 14:23	9°♄27'58		desc. node	1299 Apr 27 j 11:24	17°♄02'25	
inferior conj	1298 May 19 j 17:29	5°♄28'52	-2°-33'-39	inferior conj	1299 Apr 29 j 12:30	15°♄51'55	0°-35'-36
minimum elong	1298 May 19 j 10:44	5°♄38'19	2°31'30	minimum elong	1299 Apr 29 j 10:50	15°♄54'22	0°35'00
min. Earth dist.	1298 May 19 j 11:47	5°♄36'52	0.54985 AU	min. Earth dist.	1299 May 01 j 00:45	14°♄59'00	0.55161 AU
morning rise	1298 May 28 j 14:14	1°♄33'35		morning rise	1299 May 08 j 09:45	11°♄36'55	
direct	1298 May 31 j 17:07	1°♄12'10		direct	1299 May 12 j 04:42	11°♄05'50	
morning max el	1298 Jun 12 j 22:14	6°♄57'16	21°50'09	morning max el	1299 May 25 j 16:10	17°♄40'22	23°30'08
asc. node	1298 Jun 28 j 19:27	0°♄02'38			1299 Jun 04 j 16:19	0°♄	
	1298 Jun 28 j 18:54	0°♄		asc. node	1299 Jun 15 j 16:30	19°♄38'24	
morning set	1298 Jul 03 j 18:39	10°♄00'41		morning set	1299 Jun 18 j 06:04	24°♄56'28	
					1299 Jun 20 j 15:12	0°♄	
superior conj	1298 Jul 11 j 02:11	25°♄25'29	1°38'46				
minimum elong	1298 Jul 11 j 00:22	25°♄15'59	1°38'37	superior conj	1299 Jun 25 j 08:30	10°♄10'22	1°26'27
	1298 Jul 13 j 07:01	0°♄		minimum elong	1299 Jun 25 j 06:08	9°♄57'40	1°26'09
max. Earth dist.	1298 Jul 14 j 17:23	2°♄55'49	1.34772 AU	max. Earth dist.	1299 Jun 27 j 16:42	15°♄10'12	1.33559 AU
evening rise	1298 Jul 19 j 06:57	11°♄58'03		evening rise	1299 Jul 02 j 22:32	25°♄58'35	
	1298 Jul 29 j 07:42	0°♄			1299 Jul 04 j 23:33	0°♄	
desc. node	1298 Aug 06 j 13:44	12°♄59'18			1299 Jul 22 j 17:11	0°♄	
	1298 Aug 19 j 14:34	0°♄		desc. node	1299 Jul 24 j 10:45	2°♄27'26	
evening max el	1298 Aug 23 j 08:54	3°♄54'20	26°54'05	evening max el	1299 Aug 05 j 20:33	17°♄13'28	27°22'30
retrograde	1298 Sep 05 j 12:13	11°♄10'42		retrograde	1299 Aug 19 j 09:25	24°♄31'42	
evening set	1298 Sep 12 j 05:54	8°♄28'11		evening set	1299 Aug 26 j 12:05	21°♄50'07	
min. Earth dist.	1298 Sep 16 j 05:16	4°♄29'39	0.65594 AU	min. Earth dist.	1299 Aug 30 j 05:15	18°♄27'19	0.64185 AU
inferior conj	1298 Sep 18 j 02:22	2°♄18'41	-2°-12'-39	inferior conj	1299 Sep 01 j 15:13	15°♄54'19	-3°-8'-28
minimum elong	1298 Sep 18 j 05:51	2°♄08'34	2°11'20	minimum elong	1299 Sep 01 j 19:56	15°♄41'50	3°06'57
	1298 Sep 20 j 03:42	30°♄		morning rise	1299 Sep 08 j 05:48	10°♄28'53	
morning rise	1298 Sep 24 j 07:14	26°♄37'15		direct	1299 Sep 10 j 18:39	9°♄56'18	
asc. node	1298 Sep 24 j 18:37	26°♄24'07		asc. node	1299 Sep 11 j 15:41	10°♄00'15	
direct	1298 Sep 27 j 01:40	25°♄55'04		morning max el	1299 Sep 17 j 07:02	13°♄22'34	17°56'46
morning max el	1298 Oct 03 j 15:14	29°♄29'27	18°18'37		1299 Sep 28 j 19:32	0°♄	
	1298 Oct 04 j 03:05	0°♄		morning set	1299 Oct 04 j 09:15	9°♄28'26	
morning set	1298 Oct 22 j 16:20	27°♄48'08			1299 Oct 16 j 15:50	0°♄	
	1298 Oct 24 j 00:46	0°♄					
desc. node	1298 Nov 02 j 13:00	15°♄17'50		superior conj	1299 Oct 17 j 10:35	1°♄16'13	0°19'55
				minimum elong	1299 Oct 17 j 12:49	1°♄25'17	0°19'36
superior conj	1298 Nov 06 j 18:49	22°♄00'59	0°-27'-58	desc. node	1299 Oct 20 j 10:03	6°♄04'24	
minimum elong	1298 Nov 06 j 15:11	21°♄46'37	0°27'29	max. Earth dist.	1299 Oct 22 j 15:58	9°♄39'36	1.44463 AU
max. Earth dist.	1298 Nov 08 j 21:21	25°♄19'59	1.45073 AU	evening rise	1299 Nov 02 j 15:56	26°♄50'34	
	1298 Nov 11 j 20:42	0°♄			1299 Nov 04 j 17:16	0°♄	
evening rise	1298 Nov 23 j 04:15	17°♄42'06		greatest brilliancy	1299 Nov 23 j 15:15	27°♄54'41	-0.6m
	1298 Dec 01 j 01:15	0°♄			1299 Nov 25 j 05:12	0°♄	
greatest brilliancy	1298 Dec 07 j 20:26	10°♄22'15	-0.7m	evening max el	1299 Nov 29 j 23:10	5°♄35'19	20°20'24
evening max el	1298 Dec 16 j 19:33	22°♄05'37	19°22'47	retrograde	1299 Dec 07 j 20:52	10°♄14'27	
asc. node	1298 Dec 21 j 17:53	25°♄45'20		asc. node	1299 Dec 08 j 14:54	10°♄11'16	
retrograde	1298 Dec 23 j 23:03	26°♄12'18		evening set	1299 Dec 11 j 14:24	8°♄53'45	
evening set	1298 Dec 27 j 08:00	25°♄05'48		inferior conj	1299 Dec 17 j 01:34	2°♄45'21	2°35'36
inferior conj	1299 Jan 01 j 22:26	19°♄10'25	3°09'46	minimum elong	1299 Dec 16 j 22:54	2°♄54'21	2°34'48
minimum elong	1299 Jan 01 j 19:53	19°♄18'41	3°09'12	min. Earth dist.	1299 Dec 17 j 18:50	1°♄46'56	0.67131 AU
min. Earth dist.	1299 Jan 03 j 05:02	17°♄31'31	0.66255 AU		1299 Dec 19 j 03:14	30°♄	
morning rise	1299 Jan 07 j 06:58	12°♄56'59		morning rise	1299 Dec 22 j 06:55	26°♄30'12	
direct	1299 Jan 13 j 13:02	10°♄11'49		direct	1299 Dec 27 j 22:44	24°♄00'43	
morning max el	1299 Jan 26 j 01:32	17°♄36'51	26°03'18		1300 Jan 07 j 13:24	0°♄	
desc. node	1299 Jan 29 j 12:11	21°♄19'38		morning max el	1300 Jan 08 j 10:05	0°♄51'03	24°42'29
	1299 Feb 05 j 11:06	0°♄		desc. node	1300 Jan 16 j 09:14	10°♄04'55	
	1299 Feb 24 j 23:48	0°♄			1300 Jan 30 j 10:32	0°♄	
morning set	1299 Mar 03 j 05:43	11°♄10'29		morning set	1300 Feb 13 j 10:57	23°♄05'01	
max. Earth dist.	1299 Mar 07 j 05:00	18°♄41'51	1.35436 AU	max. Earth dist.	1300 Feb 17 j 03:49	29°♄44'28	1.37314 AU
					1300 Feb 17 j 07:13	0°♄	
superior conj	1299 Mar 12 j 09:19	28°♄58'45	-1°-10'-42				
minimum elong	1299 Mar 12 j 12:45	29°♄16'10	1°10'09	superior conj	1300 Feb 23 j 18:49	12°♄15'50	-1°-35'-4
	1299 Mar 12 j 21:22	0°♄		minimum elong	1300 Feb 23 j 22:57	12°♄35'56	1°34'35
asc. node	1299 Mar 19 j 17:13	14°♄04'00		evening rise	1300 Mar 03 j 08:12	29°♄16'07	

	1300 Mar 03 j 17:01	0°♿		superior conj	1301 Feb 05 j 13:53	24°≈47'18	-1°-54'00
asc. node	1300 Mar 05 j 14:14	3°♿43'19		minimum elong	1301 Feb 05 j 17:27	25°≈03'51	1°53'46
evening max el	1300 Mar 20 j 04:58	26°♿33'23	19°18'59		1301 Feb 08 j 08:44	0°♿	
	1300 Mar 25 j 01:07	0°♿		evening rise	1301 Feb 15 j 01:36	12°♿50'43	
retrograde	1300 Mar 29 j 07:38	0°♿57'21		asc. node	1301 Feb 20 j 11:16	23°♿02'33	
evening set	1300 Mar 31 j 10:19	0°♿44'11			1301 Feb 24 j 11:59	0°♿	
	1300 Apr 02 j 19:46	30°♿♿		evening max el	1301 Mar 03 j 06:48	8°♿55'45	18°35'32
inferior conj	1300 Apr 08 j 20:00	26°♿35'26	1°15'57	retrograde	1301 Mar 11 j 01:20	12°♿43'53	
minimum elong	1300 Apr 08 j 22:57	26°♿30'32	1°14'58	evening set	1301 Mar 13 j 09:01	12°♿24'42	
min. Earth dist.	1300 Apr 11 j 15:27	24°♿44'18	0.56248 AU	inferior conj	1301 Mar 20 j 23:50	7°♿57'25	2°37'40
desc. node	1300 Apr 13 j 08:25	23°♿41'28		minimum elong	1301 Mar 21 j 03:55	7°♿49'28	2°36'38
morning rise	1300 Apr 17 j 07:38	21°♿47'25		min. Earth dist.	1301 Mar 24 j 09:28	5°♿20'41	0.58013 AU
direct	1300 Apr 22 j 02:25	20°♿55'01		morning rise	1301 Mar 28 j 18:35	2°♿37'08	
morning max el	1300 May 06 j 06:40	28°♿07'53	25°10'11	desc. node	1301 Mar 31 j 05:25	1°♿40'19	
	1300 May 08 j 03:10	0°♿		direct	1301 Apr 03 j 14:33	1°♿11'13	
	1300 May 27 j 21:10	0°♿		morning max el	1301 Apr 17 j 23:35	8°♿48'16	26°34'36
morning set	1300 Jun 01 j 17:56	9°♿53'32			1301 May 04 j 00:11	0°♿	
asc. node	1300 Jun 01 j 13:32	9°♿30'24		morning set	1301 May 17 j 04:38	24°♿46'33	
				asc. node	1301 May 19 j 10:34	29°♿33'22	
superior conj	1300 Jun 08 j 18:24	25°♿05'14	1°09'33		1301 May 19 j 15:31	0°♿	
minimum elong	1300 Jun 08 j 16:01	24°♿52'12	1°09'10	superior conj	1301 May 24 j 06:01	10°♿03'43	0°48'56
max. Earth dist.	1300 Jun 09 j 23:40	27°♿44'40	1.32737 AU	minimum elong	1301 May 24 j 04:04	9°♿53'01	0°48'34
	1300 Jun 11 j 00:39	0°♿		max. Earth dist.	1301 May 24 j 11:05	10°♿31'36	1.32302 AU
evening rise	1300 Jun 15 j 22:56	10°♿24'49		evening rise	1301 May 31 j 05:20	25°♿08'02	
	1300 Jun 26 j 06:28	0°♿			1301 Jun 02 j 14:01	0°♿	
desc. node	1300 Jul 10 j 07:46	21°♿12'52			1301 Jun 20 j 01:05	0°♿	
evening max el	1300 Jul 18 j 05:17	0°♿03'22	27°20'59	desc. node	1301 Jun 27 j 04:45	8°♿57'54	
	1300 Jul 18 j 03:52	0°♿		evening max el	1301 Jun 30 j 08:42	12°♿12'55	26°46'30
retrograde	1300 Aug 01 j 00:14	7°♿20'14		retrograde	1301 Jul 14 j 07:49	19°♿27'22	
evening set	1300 Aug 08 j 05:00	4°♿51'36		evening set	1301 Jul 21 j 04:15	17°♿25'41	
min. Earth dist.	1300 Aug 11 j 18:58	1°♿58'09	0.62438 AU	min. Earth dist.	1301 Jul 24 j 22:32	14°♿48'13	0.60439 AU
	1300 Aug 13 j 21:23	30°♿♿		inferior conj	1301 Jul 28 j 05:08	12°♿05'55	-4°-37'-4
inferior conj	1300 Aug 14 j 17:15	29°♿12'45	-3°-58'-41	minimum elong	1301 Jul 28 j 09:03	11°♿57'48	4°36'34
minimum elong	1300 Aug 14 j 22:23	29°♿00'37	3°57'28	morning rise	1301 Aug 04 j 17:06	7°♿21'56	
morning rise	1300 Aug 21 j 18:25	24°♿06'43		direct	1301 Aug 07 j 02:39	6°♿59'59	
direct	1300 Aug 24 j 04:16	23°♿40'41		morning max el	1301 Aug 14 j 10:58	10°♿35'58	18°08'04
asc. node	1300 Aug 28 j 12:44	25°♿07'46		asc. node	1301 Aug 15 j 09:47	11°♿34'12	
morning max el	1300 Aug 30 j 22:38	27°♿07'14	17°52'53		1301 Aug 27 j 05:50	0°♿	
	1300 Sep 02 j 11:44	0°♿		morning set	1301 Aug 30 j 06:48	5°♿39'41	
morning set	1300 Sep 16 j 00:00	22°♿10'53					
	1300 Sep 20 j 09:12	0°♿		superior conj	1301 Sep 09 j 00:41	23°♿39'35	1°25'56
superior conj	1300 Sep 27 j 04:32	11°♿49'12	0°59'05	minimum elong	1301 Sep 09 j 04:43	23°♿57'39	1°25'33
minimum elong	1300 Sep 27 j 09:12	12°♿09'01	0°58'30		1301 Sep 12 j 14:47	0°♿	
max. Earth dist.	1300 Oct 04 j 06:44	23°♿36'23	1.43200 AU	max. Earth dist.	1301 Sep 16 j 15:47	6°♿55'17	1.41453 AU
desc. node	1300 Oct 06 j 07:04	26°♿51'37		evening rise	1301 Sep 21 j 23:50	15°♿43'02	
	1300 Oct 08 j 06:14	0°♿		desc. node	1301 Sep 23 j 04:05	17°♿36'33	
evening rise	1300 Oct 12 j 00:46	5°♿56'05			1301 Oct 01 j 03:19	0°♿	
	1300 Oct 28 j 01:56	0°♿		greatest brilliancy	1301 Oct 20 j 12:23	26°♿56'49	-0.3m
greatest brilliancy	1300 Nov 06 j 21:37	13°♿21'58	-0.4m		1301 Oct 23 j 03:01	0°♿	
evening max el	1300 Nov 11 j 20:59	19°♿04'58	21°30'18	evening max el	1301 Oct 25 j 13:37	2°♿36'25	22°48'08
retrograde	1300 Nov 20 j 18:09	24°♿22'00		retrograde	1301 Nov 04 j 13:11	8°♿32'10	
asc. node	1300 Nov 24 j 11:57	23°♿04'23		evening set	1301 Nov 09 j 05:31	6°♿38'40	
evening set	1300 Nov 24 j 22:07	22°♿45'31		asc. node	1301 Nov 11 j 09:00	4°♿30'17	
inferior conj	1300 Nov 30 j 07:46	16°♿27'34	1°53'50	inferior conj	1301 Nov 14 j 15:08	0°♿15'05	1°06'03
minimum elong	1300 Nov 30 j 05:30	16°♿35'27	1°53'00	minimum elong	1301 Nov 14 j 13:39	0°♿20'10	1°05'27
min. Earth dist.	1300 Nov 30 j 13:14	16°♿08'42	0.67626 AU	min. Earth dist.	1301 Nov 14 j 09:49	0°♿33'25	0.67777 AU
morning rise	1300 Dec 05 j 12:35	10°♿12'42			1301 Nov 14 j 19:30	30°♿♿	
direct	1300 Dec 10 j 13:08	8°♿04'13		morning rise	1301 Nov 19 j 21:44	24°♿02'40	
morning max el	1300 Dec 20 j 19:15	14°♿10'02	23°14'25	direct	1301 Nov 24 j 07:27	22°♿16'54	
greatest brilliancy	1300 Dec 25 j 22:04	19°♿54'24	-0.3m	morning max el	1301 Dec 03 j 08:14	27°♿35'24	21°48'19
desc. node	1301 Jan 02 j 06:16	29°♿29'47			1301 Dec 05 j 14:12	0°♿	
	1301 Jan 02 j 15:00	0°♿		greatest brilliancy	1301 Dec 08 j 03:59	3°♿02'43	-0.4m
	1301 Jan 22 j 09:09	0°≈		desc. node	1301 Dec 20 j 03:18	19°♿23'06	
morning set	1301 Jan 24 j 15:11	3°≈44'06			1301 Dec 27 j 06:20	0°♿	
max. Earth dist.	1301 Jan 28 j 22:47	11°≈05'43	1.39429 AU	morning set	1302 Jan 04 j 14:12	12°♿58'57	
				max. Earth dist.	1302 Jan 10 j 21:17	23°♿14'21	1.41523 AU

	1302 Jan 14 j 21:31	0°♊		desc. node	1302 Dec 07 j 00:21	9°♊37'02	
				morning set	1302 Dec 14 j 14:17	21°♊13'18	
superior conj	1302 Jan 18 j 13:27	6°♊20'49	-2°-3'-35		1302 Dec 20 j 04:41	0°♊	
minimum elong	1302 Jan 18 j 14:21	6°♊24'46	2°03'35	max. Earth dist.	1302 Dec 24 j 03:50	6°♊20'15	1.43307 AU
evening rise	1302 Jan 29 j 07:12	25°♊47'19					
	1302 Jan 31 j 14:05	0°♋		superior conj	1302 Dec 30 j 12:26	16°♊45'12	-1°-59'00
asc. node	1302 Feb 07 j 08:18	11°♋54'38		minimum elong	1302 Dec 30 j 08:25	16°♊28'28	1°58'51
evening max el	1302 Feb 14 j 15:19	21°♋46'03	18°12'10		1303 Jan 07 j 07:30	0°♋	
retrograde	1302 Feb 21 j 13:10	25°♋14'35		evening rise	1303 Jan 11 j 20:54	7°♋57'43	
evening set	1302 Feb 24 j 02:10	24°♋47'05		asc. node	1303 Jan 25 j 05:20	0°♋11'06	
inferior conj	1302 Mar 03 j 00:28	19°♋58'30	3°25'17		1303 Jan 25 j 02:10	0°♋	
minimum elong	1302 Mar 03 j 03:11	19°♋52'23	3°24'53	evening max el	1303 Jan 29 j 03:18	4°♋55'27	18°08'19
min. Earth dist.	1302 Mar 06 j 08:51	16°♋58'58	0.60117 AU	retrograde	1303 Feb 04 j 15:30	8°♋19'31	
morning rise	1302 Mar 10 j 00:48	14°♋15'14		evening set	1303 Feb 07 j 09:23	7°♋42'26	
direct	1302 Mar 16 j 15:15	12°♋12'19		inferior conj	1303 Feb 13 j 18:45	2°♋32'36	3°44'30
desc. node	1302 Mar 18 j 02:28	12°♋18'11		minimum elong	1303 Feb 13 j 19:22	2°♋31'00	3°44'29
morning max el	1302 Mar 30 j 22:08	20°♋01'41	27°29'52		1303 Feb 16 j 06:09	30°♌	
	1302 Apr 08 j 11:05	0°♌		min. Earth dist.	1303 Feb 16 j 16:05	29°♌35'20	0.62217 AU
	1302 Apr 26 j 18:58	0°♍		morning rise	1303 Feb 20 j 03:03	26°♌34'54	
morning set	1302 May 01 j 12:21	9°♍28'24		direct	1303 Feb 27 j 01:37	24°♌02'38	
asc. node	1302 May 06 j 07:36	19°♍41'52		desc. node	1303 Mar 04 j 23:30	25°♌38'57	
max. Earth dist.	1302 May 07 j 23:17	23°♍18'33	1.32252 AU		1303 Mar 11 j 01:18	0°♎	
				morning max el	1303 Mar 13 j 02:41	1°♎56'35	27°48'53
superior conj	1302 May 08 j 17:33	24°♍58'49	0°25'19		1303 Apr 02 j 17:35	0°♏	
minimum elong	1302 May 08 j 16:26	24°♍52'41	0°25'05	morning set	1303 Apr 15 j 15:07	23°♏52'38	
	1302 May 11 j 00:25	0°♐			1303 Apr 18 j 14:11	0°♏	
evening rise	1302 May 15 j 15:22	9°♐59'29		max. Earth dist.	1303 Apr 21 j 08:32	5°♏53'17	1.32595 AU
	1302 May 25 j 22:40	0°♑					
evening max el	1302 Jun 12 j 05:16	23°♑36'01	25°40'50	superior conj	1303 Apr 23 j 03:21	9°♏44'55	0°00'-33
desc. node	1302 Jun 14 j 01:46	25°♑16'34		minimum elong	1303 Apr 23 j 03:23	9°♏45'02	0°00'34
	1302 Jun 21 j 20:17	0°♒		behind sun begin	1303 Apr 22 j 22:14	9°♏17'05	
retrograde	1302 Jun 26 j 06:05	0°♒45'54		behind sun end	1303 Apr 23 j 08:31	10°♏13'00	
	1302 Jun 30 j 15:10	30°♓		asc. node	1303 Apr 23 j 04:39	9°♏51'57	
evening set	1302 Jul 02 j 05:10	29°♓21'42		evening rise	1303 Apr 30 j 03:06	24°♏52'36	
min. Earth dist.	1302 Jul 06 j 17:36	26°♓42'18	0.58383 AU		1303 May 02 j 14:05	0°♐	
inferior conj	1302 Jul 09 j 23:16	24°♓23'14	-4°-53'-49		1303 May 20 j 19:36	0°♑	
minimum elong	1302 Jul 09 j 23:35	24°♓22'40	4°53'50	evening max el	1303 May 24 j 20:15	4°♑20'35	24°12'44
morning rise	1302 Jul 17 j 21:37	20°♓02'01		desc. node	1303 May 31 j 22:47	9°♑35'55	
direct	1302 Jul 20 j 09:25	19°♓42'14		retrograde	1303 Jun 07 j 16:27	11°♑18'52	
morning max el	1302 Jul 28 j 16:48	23°♓38'30	18°43'36	evening set	1303 Jun 12 j 06:56	10°♑31'47	
asc. node	1302 Aug 02 j 06:50	29°♓03'20		min. Earth dist.	1303 Jun 18 j 07:14	7°♑33'47	0.56566 AU
	1302 Aug 02 j 22:42	0°♓		inferior conj	1303 Jun 20 j 21:15	5°♑56'54	-4°-35'-29
morning set	1302 Aug 14 j 00:56	19°♓41'27		minimum elong	1303 Jun 20 j 16:25	6°♑04'31	4°34'51
	1302 Aug 19 j 07:52	0°♔		morning rise	1303 Jun 29 j 05:30	1°♑55'28	
				direct	1303 Jul 01 j 21:26	1°♑36'37	
superior conj	1302 Aug 22 j 17:51	6°♔32'02	1°41'02	morning max el	1303 Jul 11 j 13:14	6°♑05'36	19°40'25
minimum elong	1302 Aug 22 j 20:00	6°♔42'13	1°40'55	asc. node	1303 Jul 20 j 03:53	17°♑21'24	
max. Earth dist.	1302 Aug 29 j 20:19	19°♔31'23	1.39445 AU		1303 Jul 27 j 01:22	0°♒	
evening rise	1302 Sep 02 j 22:19	26°♔35'26		morning set	1303 Jul 29 j 02:56	4°♒06'56	
	1302 Sep 04 j 23:03	0°♕					
desc. node	1302 Sep 10 j 01:07	8°♕15'09		superior conj	1303 Aug 06 j 02:33	20°♒11'13	1°46'13
	1302 Sep 24 j 18:22	0°♌		minimum elong	1303 Aug 06 j 02:47	20°♒12'23	1°46'12
evening max el	1302 Oct 08 j 02:54	16°♌11'50	24°08'13		1303 Aug 11 j 04:23	0°♎	
retrograde	1302 Oct 19 j 04:43	22°♌41'49		max. Earth dist.	1303 Aug 12 j 00:26	1°♎34'04	1.37433 AU
evening set	1302 Oct 24 j 10:57	20°♌30'57		evening rise	1303 Aug 15 j 20:29	8°♎34'33	
asc. node	1302 Oct 29 j 06:02	14°♌59'24		desc. node	1303 Aug 27 j 22:10	28°♎42'48	
inferior conj	1302 Oct 29 j 21:53	14°♌05'53	0°13'39		1303 Aug 28 j 18:07	0°♏	
minimum elong	1302 Oct 29 j 21:33	14°♌07'00	0°13'30	evening max el	1303 Sep 20 j 14:50	29°♏50'23	25°23'31
transit middle	1302 Oct 29 j 21:33	14°♌07'00	0°13'30		1303 Sep 20 j 18:47	0°♌	
transit begin	1302 Oct 29 j 20:02	14°♌12'09		retrograde	1303 Oct 02 j 15:50	6°♌46'21	
transit end	1302 Oct 29 j 23:05	14°♌01'52		evening set	1303 Oct 08 j 12:42	4°♌19'22	
min. Earth dist.	1302 Oct 29 j 06:08	14°♌59'06	0.67598 AU		1303 Oct 12 j 12:03	30°♐	
morning rise	1302 Nov 04 j 08:24	7°♌58'32		min. Earth dist.	1303 Oct 12 j 23:42	29°♐22'53	0.67090 AU
direct	1302 Nov 08 j 04:34	6°♌34'33		inferior conj	1303 Oct 14 j 02:15	27°♐57'02	0°-42'-3
morning max el	1302 Nov 16 j 04:09	11°♌10'59	20°31'17	minimum elong	1303 Oct 14 j 03:19	27°♐53'34	0°41'36
greatest brilliancy	1302 Nov 22 j 09:20	18°♌32'47	-0.5m	asc. node	1303 Oct 16 j 03:06	25°♐23'56	
	1302 Nov 30 j 13:18	0°♑		morning rise	1303 Oct 19 j 18:36	21°♐57'34	

direct	1303 Oct 23 j 03:01	20°♄52'44		morning max el	1304 Oct 12 j 18:19	8°♄50'30	18°39'06
morning max el	1303 Oct 30 j 07:55	24°♄57'00	19°27'29		1304 Oct 27 j 17:09	0°♄	
	1303 Nov 03 j 15:49	0°♄		morning set	1304 Nov 02 j 09:41	9°♄02'52	
greatest brilliancy	1303 Nov 08 j 06:38	6°♄21'47	-0.7m	desc. node	1304 Nov 09 j 18:28	20°♄43'41	
morning set	1303 Nov 23 j 13:14	29°♄33'37			1304 Nov 15 j 15:48	0°♄	
desc. node	1303 Nov 23 j 21:24	0°♄05'16					
	1303 Nov 23 j 20:02	0°♄		superior conj	1304 Nov 18 j 11:53	4°♄27'25	0°-55'-51
max. Earth dist.	1303 Dec 06 j 17:44	20°♄10'59	1.44545 AU	minimum elong	1304 Nov 18 j 04:54	4°♄00'00	0°54'59
				max. Earth dist.	1304 Nov 18 j 11:43	4°♄26'45	1.45090 AU
superior conj	1303 Dec 10 j 09:03	25°♄58'09	-1°-36'-10	evening rise	1304 Dec 04 j 08:40	29°♄32'36	
minimum elong	1303 Dec 10 j 00:42	25°♄24'49	1°35'25		1304 Dec 04 j 15:32	0°♄	
	1303 Dec 12 j 21:20	0°♄			1304 Dec 24 j 13:20	0°♄	
evening rise	1303 Dec 24 j 14:23	19°♄13'57		evening max el	1304 Dec 26 j 02:15	1°♄41'34	18°56'12
	1303 Dec 31 j 01:08	0°♄		asc. node	1304 Dec 28 j 23:26	4°♄10'12	
asc. node	1304 Jan 12 j 02:24	17°♄40'35		retrograde	1305 Jan 01 j 22:14	5°♄33'30	
evening max el	1304 Jan 12 j 15:46	18°♄15'33	18°23'19	evening set	1305 Jan 05 j 03:00	4°♄34'26	
retrograde	1304 Jan 19 j 03:52	21°♄48'09			1305 Jan 09 j 20:43	30°♄	
evening set	1304 Jan 22 j 02:42	21°♄00'37		inferior conj	1305 Jan 10 j 20:10	28°♄47'36	3°25'10
inferior conj	1304 Jan 28 j 02:32	15°♄31'04	3°42'32	minimum elong	1305 Jan 10 j 17:56	28°♄54'33	3°24'48
minimum elong	1304 Jan 28 j 01:24	15°♄34'18	3°42'28	min. Earth dist.	1305 Jan 12 j 11:07	26°♄46'15	0.65573 AU
min. Earth dist.	1304 Jan 30 j 08:49	12°♄55'48	0.64075 AU	morning rise	1305 Jan 16 j 07:53	22°♄35'41	
morning rise	1304 Feb 02 j 22:37	9°♄24'31		direct	1305 Jan 22 j 20:41	19°♄45'51	
direct	1304 Feb 09 j 19:46	6°♄36'21		morning max el	1305 Feb 04 j 21:15	27°♄25'12	26°42'27
desc. node	1304 Feb 19 j 20:33	11°♄10'09		desc. node	1305 Feb 05 j 17:37	28°♄17'18	
morning max el	1304 Feb 23 j 11:19	14°♄28'05	27°31'26		1305 Feb 07 j 07:53	0°♄	
	1304 Mar 07 j 02:40	0°♄			1305 Feb 28 j 18:49	0°♄	
	1304 Mar 25 j 08:24	0°♄		morning set	1305 Mar 12 j 18:41	21°♄12'02	
morning set	1304 Mar 29 j 10:22	7°♄50'38		max. Earth dist.	1305 Mar 17 j 02:33	29°♄37'52	1.34541 AU
max. Earth dist.	1304 Apr 03 j 10:50	18°♄02'29	1.33346 AU		1305 Mar 17 j 06:59	0°♄	
superior conj	1304 Apr 06 j 09:32	24°♄15'30	0°-27'-50	superior conj	1305 Mar 21 j 09:57	8°♄24'02	0°-55'-22
minimum elong	1304 Apr 06 j 10:55	24°♄22'49	0°27'34	minimum elong	1305 Mar 21 j 12:42	8°♄38'15	0°54'52
asc. node	1304 Apr 09 j 01:42	29°♄59'06		asc. node	1305 Mar 26 j 22:45	19°♄59'09	
	1304 Apr 09 j 01:52	0°♄		evening rise	1305 Mar 29 j 00:04	24°♄16'35	
evening rise	1304 Apr 13 j 14:38	9°♄40'28			1305 Mar 31 j 19:20	0°♄	
	1304 Apr 24 j 05:45	0°♄		evening max el	1305 Apr 17 j 09:27	25°♄38'52	21°07'15
evening max el	1304 May 05 j 11:10	14°♄51'07	22°36'48		1305 Apr 23 j 08:59	0°♄	
desc. node	1304 May 17 j 19:47	21°♄20'45		retrograde	1305 Apr 29 j 04:28	1°♄23'24	
retrograde	1304 May 18 j 14:33	21°♄22'08		evening set	1305 May 01 j 10:51	1°♄11'26	
evening set	1304 May 21 j 18:49	20°♄59'56		desc. node	1305 May 04 j 16:48	0°♄16'15	
min. Earth dist.	1304 May 29 j 19:02	17°♄30'12	0.55320 AU		1305 May 05 j 08:59	30°♄	
inferior conj	1304 May 31 j 00:51	16°♄47'44	-3°-30'-53	inferior conj	1305 May 10 j 18:59	27°♄12'53	-1°-44'-57
minimum elong	1304 May 30 j 17:09	16°♄58'43	3°28'52	minimum elong	1305 May 10 j 14:04	27°♄19'49	1°43'14
morning rise	1304 Jun 08 j 18:02	12°♄55'45		min. Earth dist.	1305 May 11 j 07:34	26°♄55'07	0.54935 AU
direct	1304 Jun 11 j 15:36	12°♄36'25		morning rise	1305 May 19 j 17:03	23°♄11'27	
morning max el	1304 Jun 22 j 22:33	17°♄50'59	20°57'53	direct	1305 May 23 j 01:18	22°♄47'16	
	1304 Jul 02 j 09:44	0°♄		morning max el	1305 Jun 04 j 21:20	28°♄54'29	22°31'56
asc. node	1304 Jul 06 j 00:57	6°♄17'01			1305 Jun 06 j 00:20	0°♄	
morning set	1304 Jul 12 j 10:12	18°♄49'16		asc. node	1305 Jun 22 j 22:00	25°♄40'15	
	1304 Jul 17 j 19:09	0°♄			1305 Jun 25 j 01:46	0°♄	
				morning set	1305 Jun 26 j 20:36	3°♄41'32	
superior conj	1304 Jul 19 j 22:17	4°♄24'31	1°43'23				
minimum elong	1304 Jul 19 j 21:03	4°♄18'12	1°43'19	superior conj	1305 Jul 04 j 01:32	19°♄00'28	1°34'09
max. Earth dist.	1304 Jul 24 j 09:24	13°♄24'47	1.35637 AU	minimum elong	1305 Jul 03 j 23:25	18°♄49'16	1°33'57
evening rise	1304 Jul 28 j 14:24	21°♄31'04		max. Earth dist.	1305 Jul 07 j 03:01	25°♄25'44	1.34197 AU
	1304 Aug 02 j 06:08	0°♄			1305 Jul 09 j 08:37	0°♄	
desc. node	1304 Aug 13 j 19:11	18°♄53'57		evening rise	1305 Jul 11 j 23:16	5°♄11'40	
	1304 Aug 21 j 14:15	0°♄			1305 Jul 25 j 23:04	0°♄	
evening max el	1304 Sep 02 j 02:45	13°♄28'15	26°26'26	desc. node	1305 Jul 31 j 16:11	8°♄40'26	
retrograde	1304 Sep 14 j 22:01	20°♄40'22		evening max el	1305 Aug 15 j 14:42	26°♄56'44	27°09'31
evening set	1304 Sep 21 j 08:51	18°♄01'17			1305 Aug 19 j 02:43	0°♄	
min. Earth dist.	1304 Sep 25 j 12:11	13°♄41'44	0.66240 AU	retrograde	1305 Aug 28 j 22:51	4°♄15'31	
inferior conj	1304 Sep 27 j 02:21	11°♄45'51	-1°-39'-31	evening set	1305 Sep 04 j 20:58	1°♄31'46	
minimum elong	1304 Sep 27 j 04:58	11°♄37'55	1°38'28		1305 Sep 06 j 14:43	30°♄	
asc. node	1304 Oct 02 j 00:08	6°♄39'30		min. Earth dist.	1305 Sep 08 j 17:21	27°♄49'01	0.65033 AU
morning rise	1304 Oct 03 j 02:14	5°♄57'12		inferior conj	1305 Sep 10 j 19:59	25°♄27'26	-2°-36'-45
direct	1304 Oct 06 j 01:03	5°♄07'57		minimum elong	1305 Sep 11 j 00:03	25°♄16'04	2°35'18

morning rise	1305 Sep 17 j 04:53	19° $\mathring{\text{M}}$ 52'37		evening set	1306 Aug 18 j 21:58	14° $\mathring{\text{M}}$ 45'42	
asc. node	1305 Sep 18 j 21:11	19° $\mathring{\text{M}}$ 20'10		min. Earth dist.	1306 Aug 22 j 13:16	11° $\mathring{\text{M}}$ 36'14	0.63476 AU
direct	1305 Sep 19 j 20:31	19° $\mathring{\text{M}}$ 15'06		inferior conj	1306 Aug 25 j 04:36	8° $\mathring{\text{M}}$ 56'27	-3°-30'-47
morning max el	1305 Sep 26 j 08:55	22° $\mathring{\text{M}}$ 45'14	18°07'14	minimum elong	1306 Aug 25 j 09:39	8° $\mathring{\text{M}}$ 43'42	3°29'21
	1305 Oct 02 j 02:16	0° $\mathring{\text{A}}$		morning rise	1306 Aug 31 j 23:36	3° $\mathring{\text{M}}$ 38'42	
morning set	1305 Oct 14 j 11:04	19° $\mathring{\text{A}}$ 57'32		direct	1306 Sep 03 j 10:44	3° $\mathring{\text{M}}$ 09'20	
	1305 Oct 20 j 13:11	0° $\mathring{\text{M}}$		asc. node	1306 Sep 05 j 18:15	3° $\mathring{\text{M}}$ 35'40	
desc. node	1305 Oct 27 j 15:30	11° $\mathring{\text{M}}$ 27'54		morning max el	1306 Sep 10 j 00:55	6° $\mathring{\text{M}}$ 35'04	17°52'48
					1306 Sep 25 j 09:05	0° $\mathring{\text{A}}$	
superior conj	1305 Oct 28 j 17:02	13° $\mathring{\text{M}}$ 09'39	0°-7'-6	morning set	1306 Sep 26 j 13:59	2° $\mathring{\text{A}}$ 05'53	
minimum elong	1305 Oct 28 j 16:08	13° $\mathring{\text{M}}$ 06'04	0°07'00				
behind sun begin	1305 Oct 28 j 06:19	12° $\mathring{\text{M}}$ 26'56		superior conj	1306 Oct 08 j 19:11	22° $\mathring{\text{A}}$ 55'24	0°37'57
behind sun end	1305 Oct 29 j 01:58	13° $\mathring{\text{M}}$ 45'09		minimum elong	1306 Oct 08 j 22:56	23° $\mathring{\text{A}}$ 10'52	0°37'26
max. Earth dist.	1305 Nov 01 j 06:23	18° $\mathring{\text{M}}$ 47'39	1.44893 AU		1306 Oct 13 j 03:04	0° $\mathring{\text{M}}$	
	1305 Nov 08 j 10:05	0° $\mathring{\text{A}}$		desc. node	1306 Oct 14 j 12:30	2° $\mathring{\text{M}}$ 14'40	
evening rise	1305 Nov 14 j 04:55	8° $\mathring{\text{A}}$ 59'01		max. Earth dist.	1306 Oct 14 j 23:09	2° $\mathring{\text{M}}$ 57'20	1.43995 AU
	1305 Nov 27 j 22:25	0° $\mathring{\text{B}}$		evening rise	1306 Oct 24 j 13:04	17° $\mathring{\text{M}}$ 59'50	
greatest brilliancy	1305 Dec 01 j 18:13	5° $\mathring{\text{B}}$ 34'20	-0.6m		1306 Nov 01 j 10:16	0° $\mathring{\text{A}}$	
evening max el	1305 Dec 09 j 08:46	15° $\mathring{\text{B}}$ 10'19	19°45'36	greatest brilliancy	1306 Nov 16 j 19:09	22° $\mathring{\text{A}}$ 01'30	-0.5m
asc. node	1305 Dec 15 j 20:26	19° $\mathring{\text{B}}$ 25'12		evening max el	1306 Nov 22 j 09:58	28° $\mathring{\text{A}}$ 39'51	20°49'01
retrograde	1305 Dec 16 j 19:30	19° $\mathring{\text{B}}$ 30'20			1306 Nov 23 j 18:53	0° $\mathring{\text{B}}$	
evening set	1305 Dec 20 j 07:45	18° $\mathring{\text{B}}$ 18'13		retrograde	1306 Nov 30 j 17:11	3° $\mathring{\text{B}}$ 34'32	
inferior conj	1305 Dec 25 j 20:34	12° $\mathring{\text{B}}$ 16'56	2°56'22	asc. node	1306 Dec 02 j 17:29	3° $\mathring{\text{B}}$ 11'48	
minimum elong	1305 Dec 25 j 17:54	12° $\mathring{\text{B}}$ 25'46	2°55'40	evening set	1306 Dec 04 j 14:53	2° $\mathring{\text{B}}$ 07'27	
min. Earth dist.	1305 Dec 26 j 21:22	10° $\mathring{\text{B}}$ 54'55	0.66671 AU		1306 Dec 06 j 20:47	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
morning rise	1305 Dec 31 j 03:22	6° $\mathring{\text{B}}$ 02'17		inferior conj	1306 Dec 10 j 01:14	25° $\mathring{\text{A}}$ 54'51	2°18'45
direct	1306 Jan 06 j 03:36	3° $\mathring{\text{B}}$ 22'38		minimum elong	1306 Dec 09 j 22:41	26° $\mathring{\text{A}}$ 03'36	2°17'53
morning max el	1306 Jan 18 j 06:19	10° $\mathring{\text{B}}$ 35'23	25°30'26	min. Earth dist.	1306 Dec 10 j 13:25	25° $\mathring{\text{A}}$ 13'11	0.67383 AU
desc. node	1306 Jan 23 j 14:41	16° $\mathring{\text{B}}$ 32'52		morning rise	1306 Dec 15 j 06:02	19° $\mathring{\text{A}}$ 39'34	
	1306 Feb 02 j 17:16	0° $\mathring{\text{A}}$		direct	1306 Dec 20 j 15:31	17° $\mathring{\text{A}}$ 18'16	
	1306 Feb 21 j 09:43	0° $\mathring{\text{H}}$		morning max el	1306 Dec 31 j 14:32	23° $\mathring{\text{A}}$ 50'28	24°05'21
morning set	1306 Feb 23 j 11:32	3° $\mathring{\text{H}}$ 43'40			1307 Jan 06 j 02:10	0° $\mathring{\text{B}}$	
max. Earth dist.	1306 Feb 27 j 06:20	10° $\mathring{\text{H}}$ 44'25	1.36186 AU	desc. node	1307 Jan 10 j 11:43	5° $\mathring{\text{B}}$ 36'25	
					1307 Jan 27 j 03:28	0° $\mathring{\text{A}}$	
superior conj	1306 Mar 05 j 01:56	22° $\mathring{\text{H}}$ 03'12	-1°-21'-31	morning set	1307 Feb 05 j 06:53	15° $\mathring{\text{A}}$ 07'53	
minimum elong	1306 Mar 05 j 05:45	22° $\mathring{\text{H}}$ 22'18	1°20'57	max. Earth dist.	1307 Feb 09 j 02:11	21° $\mathring{\text{A}}$ 49'00	1.38195 AU
	1306 Mar 09 j 00:21	0° $\mathring{\text{Y}}$			1307 Feb 13 j 13:42	0° $\mathring{\text{H}}$	
evening rise	1306 Mar 13 j 05:21	8° $\mathring{\text{Y}}$ 34'50					
asc. node	1306 Mar 13 j 19:46	9° $\mathring{\text{Y}}$ 47'47		superior conj	1307 Feb 16 j 05:53	5° $\mathring{\text{H}}$ 02'35	-1°-43'-59
	1306 Mar 25 j 00:42	0° $\mathring{\text{B}}$		minimum elong	1307 Feb 16 j 09:59	5° $\mathring{\text{H}}$ 22'07	1°43'34
evening max el	1306 Mar 30 j 19:12	7° $\mathring{\text{B}}$ 03'31	19°53'07	evening rise	1307 Feb 25 j 03:54	22° $\mathring{\text{H}}$ 27'14	
retrograde	1306 Apr 09 j 20:42	11° $\mathring{\text{B}}$ 54'20		asc. node	1307 Feb 28 j 16:47	29° $\mathring{\text{H}}$ 19'16	
evening set	1306 Apr 11 j 21:51	11° $\mathring{\text{B}}$ 43'11			1307 Mar 01 j 01:22	0° $\mathring{\text{Y}}$	
inferior conj	1306 Apr 20 j 18:00	7° $\mathring{\text{B}}$ 42'34	0°14'16	evening max el	1307 Mar 13 j 15:54	19° $\mathring{\text{Y}}$ 06'17	18°58'04
minimum elong	1306 Apr 20 j 18:38	7° $\mathring{\text{B}}$ 41'35	0°14'03	retrograde	1307 Mar 22 j 03:17	23° $\mathring{\text{Y}}$ 12'32	
transit middle	1306 Apr 20 j 18:38	7° $\mathring{\text{B}}$ 41'35	0°14'03	evening set	1307 Mar 24 j 08:06	22° $\mathring{\text{Y}}$ 57'04	
transit begin	1306 Apr 20 j 16:46	7° $\mathring{\text{B}}$ 44'27		inferior conj	1307 Apr 01 j 09:40	18° $\mathring{\text{Y}}$ 41'10	1°54'50
transit end	1306 Apr 20 j 20:30	7° $\mathring{\text{B}}$ 38'43		minimum elong	1307 Apr 01 j 13:32	18° $\mathring{\text{Y}}$ 34'19	1°53'39
desc. node	1306 Apr 21 j 13:49	7° $\mathring{\text{B}}$ 12'08		min. Earth dist.	1307 Apr 04 j 13:25	16° $\mathring{\text{Y}}$ 28'27	0.56943 AU
min. Earth dist.	1306 Apr 22 j 21:36	6° $\mathring{\text{B}}$ 23'46	0.55520 AU	desc. node	1307 Apr 08 j 10:51	14° $\mathring{\text{Y}}$ 10'12	
morning rise	1306 Apr 29 j 12:18	3° $\mathring{\text{B}}$ 13'56		morning rise	1307 Apr 09 j 14:45	13° $\mathring{\text{Y}}$ 38'57	
direct	1306 May 03 j 16:43	2° $\mathring{\text{B}}$ 35'15		direct	1307 Apr 14 j 20:56	12° $\mathring{\text{Y}}$ 33'13	
morning max el	1306 May 17 j 13:10	9° $\mathring{\text{B}}$ 28'42	24°13'28	morning max el	1307 Apr 29 j 03:51	19° $\mathring{\text{Y}}$ 57'32	25°48'43
	1306 Jun 01 j 17:25	0° $\mathring{\text{I}}$			1307 May 07 j 17:17	0° $\mathring{\text{B}}$	
asc. node	1306 Jun 09 j 19:03	15° $\mathring{\text{I}}$ 23'47			1307 May 25 j 02:49	0° $\mathring{\text{I}}$	
morning set	1306 Jun 11 j 08:25	18° $\mathring{\text{I}}$ 38'35		morning set	1307 May 26 j 19:59	3° $\mathring{\text{I}}$ 34'18	
	1306 Jun 16 j 15:07	0° $\mathring{\text{E}}$		asc. node	1307 May 27 j 16:05	5° $\mathring{\text{I}}$ 20'45	
superior conj	1306 Jun 18 j 09:40	3° $\mathring{\text{E}}$ 50'49	1°19'47	superior conj	1307 Jun 02 j 20:31	18° $\mathring{\text{I}}$ 47'43	1°01'13
minimum elong	1306 Jun 18 j 07:14	3° $\mathring{\text{E}}$ 37'37	1°19'27	minimum elong	1307 Jun 02 j 18:16	18° $\mathring{\text{I}}$ 35'21	1°00'50
max. Earth dist.	1306 Jun 20 j 05:45	7° $\mathring{\text{E}}$ 48'28	1.33162 AU	max. Earth dist.	1307 Jun 03 j 15:08	20° $\mathring{\text{I}}$ 29'38	1.32515 AU
evening rise	1306 Jun 25 j 19:03	19° $\mathring{\text{E}}$ 24'46			1307 Jun 08 j 00:43	0° $\mathring{\text{E}}$	
	1306 Jul 01 j 05:37	0° $\mathring{\text{O}}$		evening rise	1307 Jun 09 j 22:21	3° $\mathring{\text{E}}$ 59'20	
desc. node	1306 Jul 18 j 13:09	27° $\mathring{\text{O}}$ 51'58			1307 Jun 23 j 23:34	0° $\mathring{\text{O}}$	
	1306 Jul 20 j 03:52	0° $\mathring{\text{M}}$		desc. node	1307 Jul 05 j 10:09	16° $\mathring{\text{O}}$ 14'01	
evening max el	1306 Jul 29 j 01:26	10° $\mathring{\text{M}}$ 04'56	27°25'49	evening max el	1307 Jul 11 j 08:28	22° $\mathring{\text{O}}$ 39'32	27°10'23
retrograde	1306 Aug 11 j 17:35	17° $\mathring{\text{M}}$ 23'15		retrograde	1307 Jul 25 j 05:19	29° $\mathring{\text{O}}$ 54'35	

evening set	1307 Aug 01 j 07:56	27°♂36'12		evening max el	1308 Jun 22 j 09:06	4°♂29'12	26°21'53
min. Earth dist.	1307 Aug 04 j 22:42	24°♂51'14	0.61612 AU	retrograde	1308 Jul 06 j 08:51	11°♂41'28	
inferior conj	1307 Aug 08 j 01:05	22°♂05'20	-4°-16'-56	evening set	1308 Jul 12 j 22:07	9°♂54'45	
minimum elong	1307 Aug 08 j 05:57	21°♂54'25	4°15'59	min. Earth dist.	1308 Jul 16 j 22:04	7°♂19'01	0.59562 AU
morning rise	1307 Aug 15 j 06:49	17°♂08'03		inferior conj	1308 Jul 20 j 05:50	4°♂44'12	-4°-47'-34
direct	1307 Aug 17 j 16:16	16°♂43'55		minimum elong	1308 Jul 20 j 08:31	4°♂38'57	4°47'22
asc. node	1307 Aug 23 j 15:19	19°♂18'15		morning rise	1308 Jul 27 j 22:17	0°♂10'02	
morning max el	1307 Aug 24 j 15:27	20°♂13'22	17°56'53		1308 Jul 28 j 14:44	30°♂	
	1307 Aug 31 j 22:01	0°♂		direct	1308 Jul 30 j 08:41	29°♂49'04	
morning set	1307 Sep 09 j 12:16	15°♂10'02			1308 Aug 01 j 01:53	0°♂	
	1307 Sep 17 j 17:28	0°♂		morning max el	1308 Aug 07 j 01:24	3°♂31'48	18°20'40
				asc. node	1308 Aug 09 j 12:22	6°♂12'57	
superior conj	1307 Sep 20 j 00:43	4°♂02'09	1°12'00	morning set	1308 Aug 23 j 00:25	28°♂54'09	
minimum elong	1307 Sep 20 j 05:22	4°♂22'24	1°11'29		1308 Aug 23 j 14:13	0°♂	
max. Earth dist.	1307 Sep 27 j 11:59	16°♂40'50	1.42506 AU				
desc. node	1307 Oct 01 j 09:31	23°♂01'05		superior conj	1308 Sep 01 j 06:33	16°♂21'00	1°33'41
evening rise	1307 Oct 04 j 02:15	27°♂18'41		minimum elong	1308 Sep 01 j 09:51	16°♂36'06	1°33'26
	1307 Oct 05 j 19:21	0°♂			1308 Sep 08 j 23:14	0°♂	
	1307 Oct 26 j 05:39	0°♂		max. Earth dist.	1308 Sep 08 j 19:20	29°♂43'18	1.40615 AU
greatest brilliancy	1307 Oct 31 j 12:12	6°♂49'51	-0.3m	evening rise	1308 Sep 13 j 10:45	7°♂31'34	
evening max el	1307 Nov 05 j 05:35	12°♂10'28	22°02'51	desc. node	1308 Sep 17 j 06:31	13°♂43'28	
retrograde	1307 Nov 14 j 13:34	17°♂43'33			1308 Sep 27 j 22:07	0°♂	
evening set	1307 Nov 18 j 22:40	15°♂59'51		evening max el	1308 Oct 17 j 20:27	25°♂42'45	23°22'18
asc. node	1307 Nov 19 j 14:31	15°♂25'47			1308 Oct 22 j 22:28	0°♂	
inferior conj	1307 Nov 24 j 08:08	9°♂39'14	1°34'13	retrograde	1308 Oct 28 j 07:13	1°♂53'50	
minimum elong	1307 Nov 24 j 06:09	9°♂46'06	1°33'27	evening set	1308 Nov 02 j 05:26	29°♂52'36	
min. Earth dist.	1307 Nov 24 j 08:55	9°♂36'31	0.67731 AU		1308 Nov 02 j 01:50	30°♂	
morning rise	1307 Nov 29 j 13:27	3°♂25'23		asc. node	1308 Nov 05 j 11:35	26°♂21'49	
direct	1307 Dec 04 j 07:41	1°♂26'28		min. Earth dist.	1308 Nov 07 j 05:35	24°♂01'36	0.67740 AU
morning max el	1307 Dec 14 j 00:49	7°♂11'18	22°37'11	inferior conj	1308 Nov 07 j 15:26	23°♂27'50	0°44'17
greatest brilliancy	1307 Dec 18 j 14:53	12°♂18'41	-0.3m	minimum elong	1308 Nov 07 j 14:24	23°♂31'21	0°43'51
desc. node	1307 Dec 28 j 08:45	25°♂14'24		morning rise	1308 Nov 12 j 23:29	17°♂17'31	
	1307 Dec 31 j 16:17	0°♂		direct	1308 Nov 17 j 03:11	15°♂41'26	
morning set	1308 Jan 16 j 22:49	25°♂10'30		morning max el	1308 Nov 25 j 16:37	20°♂40'52	21°14'14
	1308 Jan 19 j 20:41	0°♂		greatest brilliancy	1308 Nov 30 j 23:16	26°♂44'42	-0.4m
max. Earth dist.	1308 Jan 21 j 22:22	3°♂29'50	1.40343 AU		1308 Dec 03 j 11:26	0°♂	
				desc. node	1308 Dec 14 j 05:47	15°♂16'48	
superior conj	1308 Jan 29 j 17:20	17°♂11'03	-1°-59'-29		1308 Dec 23 j 22:33	0°♂	
minimum elong	1308 Jan 29 j 20:05	17°♂23'28	1°59'22	morning set	1308 Dec 26 j 10:20	3°♂53'37	
	1308 Feb 05 j 15:24	0°♂		max. Earth dist.	1309 Jan 03 j 00:24	16°♂03'56	1.42332 AU
evening rise	1308 Feb 08 j 16:45	5°♂46'42					
asc. node	1308 Feb 15 j 13:49	18°♂27'46		superior conj	1309 Jan 10 j 06:55	28°♂15'20	-2°-3'-40
	1308 Feb 23 j 06:55	0°♂		minimum elong	1309 Jan 10 j 05:56	28°♂11'07	2°03'41
evening max el	1308 Feb 24 j 20:58	1°♂41'22	18°23'07		1309 Jan 11 j 07:15	0°♂	
retrograde	1308 Mar 03 j 05:09	5°♂19'13		evening rise	1309 Jan 21 j 16:06	18°♂24'23	
evening set	1308 Mar 05 j 15:15	4°♂56'35			1309 Jan 28 j 03:48	0°♂	
inferior conj	1308 Mar 12 j 22:36	0°♂19'57	3°01'46	asc. node	1309 Feb 01 j 10:52	7°♂05'39	
minimum elong	1308 Mar 13 j 02:17	0°♂12'17	3°01'00	evening max el	1309 Feb 07 j 07:14	14°♂40'01	18°08'10
	1308 Mar 13 j 08:12	30°♂		retrograde	1309 Feb 13 j 23:54	18°♂05'21	
min. Earth dist.	1308 Mar 16 j 09:06	27°♂30'47	0.58894 AU	evening set	1309 Feb 16 j 14:54	17°♂33'59	
morning rise	1308 Mar 20 j 09:27	24°♂48'51		inferior conj	1309 Feb 23 j 07:14	12°♂36'05	3°36'27
desc. node	1308 Mar 25 j 07:55	23°♂11'32		minimum elong	1309 Feb 23 j 09:04	12°♂31'42	3°36'16
direct	1308 Mar 26 j 14:22	23°♂07'17		min. Earth dist.	1309 Feb 26 j 11:38	9°♂34'38	0.61018 AU
	1308 Apr 09 j 02:09	0°♂		morning rise	1309 Mar 02 j 00:17	6°♂45'28	
morning max el	1308 Apr 09 j 22:56	0°♂49'43	27°02'14	direct	1309 Mar 08 j 19:14	4°♂28'53	
	1308 Apr 30 j 18:17	0°♂		desc. node	1309 Mar 12 j 04:58	5°♂00'46	
morning set	1308 May 10 j 05:40	18°♂23'14		morning max el	1309 Mar 23 j 00:27	12°♂21'27	27°42'41
asc. node	1308 May 13 j 13:07	25°♂26'19			1309 Apr 05 j 23:33	0°♂	
	1308 May 15 j 15:21	0°♂			1309 Apr 23 j 00:27	0°♂	
superior conj	1308 May 17 j 08:19	3°♂45'06	0°39'15	morning set	1309 Apr 24 j 11:38	2°♂59'11	
minimum elong	1308 May 17 j 06:41	3°♂36'05	0°38'55	asc. node	1309 Apr 30 j 10:10	15°♂36'14	
max. Earth dist.	1308 May 17 j 03:34	3°♂18'59	1.32244 AU	max. Earth dist.	1309 Apr 30 j 15:09	16°♂03'18	1.32347 AU
evening rise	1308 May 24 j 06:36	18°♂46'50					
	1308 May 29 j 19:52	0°♂		superior conj	1309 May 01 j 19:23	18°♂37'28	0°14'36
	1308 Jun 18 j 03:15	0°♂		minimum elong	1309 May 01 j 18:43	18°♂33'50	0°14'27
desc. node	1308 Jun 21 j 07:11	3°♂25'43		behind sun begin	1309 May 01 j 16:37	18°♂22'21	
				behind sun end	1309 May 01 j 20:49	18°♂45'19	

	1309 May 07 j 00:28	0°♊		max. Earth dist.	1310 Apr 13 j 21:45	28°♑27'42	1.32850 AU
evening rise	1309 May 08 j 17:38	3°♊40'06			1310 Apr 14 j 15:03	0°♑	
	1309 May 22 j 20:51	0°♑					
evening max el	1309 Jun 04 j 02:43	15°♑33'49	25°05'15	superior conj	1310 Apr 16 j 03:52	3°♑17'41	0°-12'00
desc. node	1309 Jun 08 j 04:13	18°♑58'45		minimum elong	1310 Apr 16 j 04:27	3°♑20'49	0°11'54
retrograde	1309 Jun 18 j 02:39	22°♑40'55		behind sun begin	1310 Apr 16 j 00:56	3°♑01'55	
evening set	1309 Jun 23 j 13:03	21°♑33'01		behind sun end	1310 Apr 16 j 07:57	3°♑39'44	
min. Earth dist.	1309 Jun 28 j 14:19	18°♑47'36	0.57562 AU	asc. node	1310 Apr 17 j 07:12	5°♑45'27	
inferior conj	1309 Jul 01 j 15:36	16°♑44'05	-4°-51'-10	evening rise	1310 Apr 23 j 05:27	18°♑31'25	
minimum elong	1309 Jul 01 j 13:46	16°♑47'12	4°51'06		1310 Apr 28 j 21:14	0°♊	
morning rise	1309 Jul 09 j 18:18	12°♑32'27		evening max el	1310 May 16 j 16:46	26°♊08'53	23°32'07
direct	1309 Jul 12 j 07:38	12°♑13'17			1310 May 21 j 10:24	0°♑	
morning max el	1309 Jul 21 j 03:43	16°♑21'32	19°05'10	desc. node	1310 May 26 j 01:15	2°♑16'36	
asc. node	1309 Jul 27 j 09:25	24°♑04'54		retrograde	1310 May 30 j 08:14	2°♑58'27	
	1309 Jul 30 j 23:56	0°♊		evening set	1310 Jun 03 j 07:09	2°♑24'06	
morning set	1309 Aug 06 j 22:18	13°♊07'26			1310 Jun 08 j 18:59	30°♊♊	
				min. Earth dist.	1310 Jun 10 j 03:07	29°♊13'53	0.55944 AU
superior conj	1309 Aug 15 j 07:04	29°♊36'02	1°44'19	inferior conj	1310 Jun 12 j 05:16	27°♊59'00	-4°-14'-2
minimum elong	1309 Aug 15 j 08:22	29°♊42'20	1°44'15	minimum elong	1310 Jun 11 j 22:38	28°♊08'57	4°12'49
	1309 Aug 15 j 12:03	0°♎		morning rise	1310 Jun 20 j 17:30	24°♊03'10	
max. Earth dist.	1309 Aug 21 j 22:49	12°♎02'25	1.38575 AU	direct	1310 Jun 23 j 11:16	23°♊44'31	
evening rise	1309 Aug 25 j 19:42	18°♎53'30		morning max el	1310 Jul 03 j 19:39	28°♊32'01	20°10'52
	1309 Sep 01 j 10:52	0°♎			1310 Jul 05 j 07:09	0°♑	
desc. node	1309 Sep 04 j 03:33	4°♎18'04		asc. node	1310 Jul 14 j 06:28	12°♑40'08	
	1309 Sep 22 j 04:10	0°♎		morning set	1310 Jul 22 j 02:49	27°♑40'39	
evening max el	1309 Sep 30 j 08:44	9°♎18'56	24°41'09		1310 Jul 23 j 06:09	0°♊	
retrograde	1309 Oct 11 j 21:07	16°♎01'53					
evening set	1309 Oct 17 j 09:32	13°♎43'42		superior conj	1310 Jul 29 j 20:57	13°♊31'08	1°45'52
min. Earth dist.	1309 Oct 22 j 01:03	8°♎26'37	0.67423 AU	minimum elong	1310 Jul 29 j 20:30	13°♊28'51	1°45'51
inferior conj	1309 Oct 22 j 21:24	7°♎18'58	0°-9'-41	max. Earth dist.	1310 Aug 04 j 03:57	23°♊55'11	1.36636 AU
minimum elong	1309 Oct 22 j 21:38	7°♎18'10	0°09'35		1310 Aug 07 j 09:41	0°♎	
transit middle	1309 Oct 22 j 21:38	7°♎18'10	0°09'35	evening rise	1310 Aug 08 j 02:53	1°♎18'50	
transit begin	1309 Oct 22 j 19:25	7°♎25'34		desc. node	1310 Aug 22 j 00:35	24°♎39'20	
transit end	1309 Oct 22 j 23:51	7°♎10'47			1310 Aug 25 j 13:51	0°♎	
asc. node	1309 Oct 23 j 08:39	6°♎41'39		evening max el	1310 Sep 12 j 20:36	22°♎58'05	25°52'14
morning rise	1309 Oct 28 j 10:11	1°♎14'38			1310 Sep 24 j 10:22	0°♎	
	1309 Oct 31 j 17:02	30°♎♎		retrograde	1310 Sep 25 j 06:21	0°♎02'32	
direct	1309 Nov 01 j 00:59	29°♎59'24			1310 Sep 26 j 01:59	30°♎♎	
	1309 Nov 01 j 09:00	0°♎		evening set	1310 Oct 01 j 09:10	27°♎29'59	
morning max el	1309 Nov 08 j 15:58	4°♎21'12	20°02'17	min. Earth dist.	1310 Oct 05 j 16:54	22°♎48'45	0.66770 AU
greatest brilliancy	1309 Nov 15 j 19:25	13°♎02'59	-0.6m	inferior conj	1310 Oct 07 j 00:13	21°♎09'50	-1°-6'-19
	1309 Nov 27 j 10:15	0°♎		minimum elong	1310 Oct 07 j 01:56	21°♎04'24	1°05'36
desc. node	1309 Dec 01 j 02:50	5°♎36'58		asc. node	1310 Oct 10 j 05:41	17°♎22'07	
morning set	1309 Dec 05 j 06:33	12°♎00'13		morning rise	1310 Oct 12 j 19:33	15°♎14'19	
max. Earth dist.	1309 Dec 16 j 09:45	29°♎28'19	1.43906 AU	direct	1310 Oct 15 j 23:33	14°♎16'36	
	1309 Dec 16 j 17:41	0°♎		morning max el	1310 Oct 22 j 22:44	18°♎10'44	19°04'48
					1310 Nov 01 j 01:22	0°♎	
superior conj	1309 Dec 21 j 18:21	8°♎07'20	-1°-51'-40	morning set	1310 Nov 14 j 12:36	20°♎44'21	
minimum elong	1309 Dec 21 j 12:06	7°♎41'51	1°51'17	desc. node	1310 Nov 17 j 23:53	26°♎09'57	
evening rise	1310 Jan 03 j 21:39	0°♎11'50			1310 Nov 20 j 10:42	0°♎	
	1310 Jan 03 j 18:54	0°♎		max. Earth dist.	1310 Nov 29 j 01:23	13°♎30'41	1.44866 AU
asc. node	1310 Jan 19 j 07:56	25°♎03'14					
evening max el	1310 Jan 21 j 19:41	27°♎54'00	18°12'31	superior conj	1310 Dec 01 j 05:38	16°♎56'50	-1°-20'-50
	1310 Jan 24 j 07:48	0°♎		minimum elong	1310 Nov 30 j 21:00	16°♎22'44	1°19'56
retrograde	1310 Jan 28 j 06:57	1°♎20'29			1310 Dec 09 j 10:05	0°♎	
evening set	1310 Jan 31 j 02:46	0°♎39'13		evening rise	1310 Dec 16 j 05:27	11°♎03'20	
	1310 Feb 01 j 06:26	30°♎♎			1310 Dec 27 j 21:59	0°♎	
inferior conj	1310 Feb 06 j 07:43	25°♎21'00	3°45'52	evening max el	1311 Jan 05 j 07:39	11°♎17'34	18°35'17
minimum elong	1310 Feb 06 j 07:31	25°♎21'31	3°45'53	asc. node	1311 Jan 06 j 04:58	12°♎09'10	
min. Earth dist.	1310 Feb 08 j 23:00	22°♎30'43	0.63037 AU	retrograde	1311 Jan 11 j 22:08	14°♎56'53	
morning rise	1310 Feb 12 j 10:17	19°♎18'48		evening set	1311 Jan 14 j 23:22	14°♎04'38	
direct	1310 Feb 19 j 09:16	16°♎37'38		inferior conj	1311 Jan 20 j 20:05	8°♎27'43	3°36'47
desc. node	1310 Feb 27 j 02:01	19°♎20'41		minimum elong	1311 Jan 20 j 18:24	8°♎32'44	3°36'36
morning max el	1310 Mar 05 j 07:04	24°♎32'43	27°45'49	min. Earth dist.	1311 Jan 22 j 19:51	6°♎05'40	0.64760 AU
	1310 Mar 10 j 06:05	0°♎		morning rise	1311 Jan 26 j 12:09	2°♎18'43	
	1310 Mar 30 j 08:29	0°♎			1311 Jan 30 j 07:04	30°♎♎	
morning set	1310 Apr 08 j 11:33	17°♎13'23		direct	1311 Feb 02 j 06:38	29°♎27'54	

	1311 Feb 05 j 10:12	0°♊		direct	1312 Jan 16 j 10:04	12°♊50'05	
desc. node	1311 Feb 13 j 23:03	5°♊36'25		morning max el	1312 Jan 29 j 01:51	20°♊18'58	26°14'04
morning max el	1311 Feb 15 j 16:20	7°♊15'51	27°14'01	desc. node	1312 Jan 31 j 20:06	23°♊15'11	
	1311 Mar 05 j 05:56	0°♋			1312 Feb 06 j 10:08	0°♊	
	1311 Mar 22 j 14:49	0°♋			1312 Feb 26 j 08:53	0°♋	
morning set	1311 Mar 23 j 02:34	0°♋56'57		morning set	1312 Mar 05 j 04:50	13°♋58'00	
max. Earth dist.	1311 Mar 27 j 19:37	10°♋21'34	1.33792 AU	max. Earth dist.	1312 Mar 09 j 06:11	21°♋42'36	1.35193 AU
					1312 Mar 13 j 10:05	0°♋	
superior conj	1311 Mar 31 j 07:52	17°♋39'50	0°-39'-33				
minimum elong	1311 Mar 31 j 09:50	17°♋50'11	0°39'10	superior conj	1312 Mar 14 j 05:01	1°♋36'17	-1°-6'-45
asc. node	1311 Apr 04 j 04:15	25°♋50'11		minimum elong	1312 Mar 14 j 08:17	1°♋52'57	1°06'12
	1311 Apr 06 j 03:17	0°♌		asc. node	1312 Mar 21 j 01:18	15°♋45'43	
evening rise	1311 Apr 07 j 16:18	3°♌14'51		evening rise	1312 Mar 22 j 00:11	17°♋43'44	
	1311 Apr 22 j 15:59	0°♌			1312 Mar 28 j 05:39	0°♌	
evening max el	1311 Apr 28 j 10:12	6°♌43'50	21°57'24	evening max el	1312 Apr 09 j 13:02	17°♌44'57	20°33'29
retrograde	1311 May 11 j 01:27	12°♌56'16		retrograde	1312 Apr 20 j 14:23	23°♌06'21	
desc. node	1311 May 12 j 22:15	12°♌48'26		evening set	1312 Apr 22 j 17:08	22°♌55'24	
evening set	1311 May 13 j 18:19	12°♌40'00		desc. node	1312 Apr 28 j 19:14	20°♌41'17	
min. Earth dist.	1311 May 22 j 15:09	8°♌52'48	0.55044 AU	inferior conj	1312 May 01 j 21:30	18°♌57'49	0°-53'-51
inferior conj	1311 May 23 j 03:17	8°♌35'47	-2°-49'-53	minimum elong	1312 May 01 j 18:57	19°♌01'30	0°52'55
minimum elong	1311 May 22 j 20:05	8°♌45'53	2°47'40	min. Earth dist.	1312 May 03 j 03:50	18°♌14'03	0.55068 AU
morning rise	1311 May 31 j 23:16	4°♌42'00		morning rise	1312 May 10 j 19:16	14°♌47'00	
direct	1311 Jun 04 j 00:38	4°♌21'14		direct	1312 May 14 j 11:08	14°♌18'07	
morning max el	1311 Jun 16 j 00:04	9°♌58'13	21°36'06	morning max el	1312 May 27 j 19:04	20°♌45'44	23°15'03
	1311 Jun 30 j 04:20	0°♍			1312 Jun 04 j 15:44	0°♌	
asc. node	1311 Jul 01 j 03:30	1°♍48'21		asc. node	1312 Jun 17 j 00:33	21°♌21'03	
morning set	1311 Jul 06 j 11:38	12°♍27'42		morning set	1312 Jun 19 j 22:52	27°♌22'55	
					1312 Jun 21 j 04:36	0°♍	
superior conj	1311 Jul 13 j 20:13	27°♍54'45	1°40'09				
minimum elong	1311 Jul 13 j 18:32	27°♍46'01	1°40'03	superior conj	1312 Jun 27 j 01:49	12°♍37'44	1°28'37
	1311 Jul 14 j 20:19	0°♎		minimum elong	1312 Jun 26 j 23:30	12°♍25'20	1°28'22
max. Earth dist.	1311 Jul 17 j 16:30	5°♎48'39	1.34987 AU	max. Earth dist.	1312 Jun 29 j 14:27	17°♍59'57	1.33708 AU
evening rise	1311 Jul 22 j 03:43	14°♎35'40		evening rise	1312 Jul 04 j 17:40	28°♍31'26	
	1311 Jul 30 j 16:24	0°♏			1312 Jul 05 j 11:35	0°♎	
desc. node	1311 Aug 08 j 21:36	14°♏40'54			1312 Jul 22 j 20:21	0°♏	
	1311 Aug 20 j 07:07	0°♏		desc. node	1312 Jul 25 j 18:35	4°♏14'24	
evening max el	1311 Aug 26 j 08:51	6°♏33'54	26°47'38	evening max el	1312 Aug 07 j 20:38	19°♏56'04	27°20'02
retrograde	1311 Sep 08 j 10:11	13°♏49'08		retrograde	1312 Aug 21 j 08:17	27°♏14'31	
evening set	1311 Sep 15 j 02:12	11°♏07'20		evening set	1312 Aug 28 j 10:02	24°♏31'52	
min. Earth dist.	1311 Sep 19 j 02:37	7°♏03'21	0.65774 AU	min. Earth dist.	1312 Sep 01 j 03:56	21°♏04'11	0.64419 AU
inferior conj	1311 Sep 20 j 21:52	4°♏56'14	-2°-3'-58	inferior conj	1312 Sep 03 j 12:02	18°♏33'50	-3°00'-15
minimum elong	1311 Sep 21 j 01:07	4°♏46'40	2°02'43	minimum elong	1312 Sep 03 j 16:37	18°♏21'33	2°58'45
	1311 Sep 25 j 19:07	30°♐♏		morning rise	1312 Sep 10 j 01:08	13°♏05'55	
morning rise	1311 Sep 27 j 01:23	29°♏12'49		direct	1312 Sep 12 j 14:38	12°♏32'09	
asc. node	1311 Sep 27 j 02:43	29°♏11'06		asc. node	1312 Sep 12 j 23:46	12°♏32'54	
direct	1311 Sep 29 j 20:55	28°♏28'52		morning max el	1312 Sep 19 j 02:46	15°♏59'01	17°58'55
	1311 Oct 04 j 01:01	0°♑			1312 Sep 29 j 02:31	0°♏	
morning max el	1311 Oct 06 j 11:09	2°♑04'56	18°23'22	morning set	1312 Oct 06 j 10:27	12°♑19'40	
	1311 Oct 25 j 08:53	0°♑			1312 Oct 17 j 00:51	0°♑	
morning set	1311 Oct 25 j 21:23	0°♑50'34					
desc. node	1311 Nov 04 j 20:54	16°♑51'02		superior conj	1312 Oct 19 j 19:08	4°♑28'54	0°13'03
				minimum elong	1312 Oct 19 j 20:39	4°♑35'02	0°12'51
superior conj	1311 Nov 10 j 06:36	25°♑23'34	0°-35'-25	behind sun begin	1312 Oct 19 j 14:17	4°♑09'21	
minimum elong	1311 Nov 10 j 02:00	25°♑05'24	0°34'49	behind sun end	1312 Oct 20 j 03:00	5°♑00'40	
max. Earth dist.	1311 Nov 11 j 20:24	27°♑52'10	1.45103 AU	desc. node	1312 Oct 21 j 17:56	7°♑37'00	
	1311 Nov 13 j 04:57	0°♒		max. Earth dist.	1312 Oct 24 j 15:13	12°♑13'02	1.44598 AU
evening rise	1311 Nov 26 j 13:45	20°♒58'03		evening rise	1312 Nov 05 j 03:14	0°♒10'01	
	1311 Dec 02 j 07:43	0°♒			1312 Nov 05 j 00:38	0°♒	
greatest brilliancy	1311 Dec 10 j 01:20	11°♒57'18	-0.7m	greatest brilliancy	1312 Nov 25 j 06:05	0°♒07'31	-0.6m
evening max el	1311 Dec 19 j 16:43	24°♒45'11	19°15'20		1312 Nov 25 j 03:53	0°♒	
asc. node	1311 Dec 24 j 02:00	28°♒08'53		evening max el	1312 Dec 01 j 21:04	8°♒14'20	20°10'55
retrograde	1311 Dec 26 j 17:59	28°♒47'41		retrograde	1312 Dec 09 j 15:46	12°♒48'25	
evening set	1311 Dec 30 j 01:50	27°♒43'04		asc. node	1312 Dec 09 j 23:02	12°♒47'55	
inferior conj	1312 Jan 04 j 16:53	21°♒49'45	3°14'08	evening set	1312 Dec 13 j 07:52	11°♒29'58	
minimum elong	1312 Jan 04 j 14:24	21°♒57'43	3°13'37	inferior conj	1312 Dec 18 j 19:24	5°♒23'12	2°41'20
min. Earth dist.	1312 Jan 06 j 01:35	20°♒05'02	0.66095 AU	minimum elong	1312 Dec 18 j 16:43	5°♒32'14	2°40'32
morning rise	1312 Jan 10 j 02:09	15°♒36'41		min. Earth dist.	1312 Dec 19 j 14:33	4°♒18'45	0.67025 AU

	1312 Dec 23 j 03:29	30° RA	evening set	1313 Nov 27 j 15:32	25° A 21'21	
morning rise	1312 Dec 24 j 01:02	29° A 08'04	inferior conj	1313 Dec 03 j 01:18	19° A 04'38	2°00'36
direct	1312 Dec 29 j 19:01	26° A 35'50	minimum elong	1313 Dec 02 j 22:57	19° A 12'47	1°59'45
	1313 Jan 06 j 12:39	0° C	min. Earth dist.	1313 Dec 03 j 08:29	18° A 39'50	0.67573 AU
morning max el	1313 Jan 10 j 10:36	3° C 32'28	24°55'12	morning rise	1313 Dec 08 j 06:02	12° A 49'29
desc. node	1313 Jan 17 j 17:09	11° C 53'07	direct	1313 Dec 13 j 08:52	10° A 37'33	
	1313 Jan 30 j 16:29	0° \approx	morning max el	1313 Dec 23 j 19:29	16° A 50'38	23°27'36
morning set	1313 Feb 15 j 13:17	26° \approx 02'39	greatest brilliancy	1313 Dec 29 j 15:56	23° A 28'33	-0.2m
	1313 Feb 17 j 18:05	0° H		1314 Jan 03 j 16:43	0° C	
max. Earth dist.	1313 Feb 19 j 06:12	2° H 45'26	1.37013 AU	desc. node	1314 Jan 04 j 14:12	1° C 12'58
				1314 Jan 23 j 17:42	0° \approx	
superior conj	1313 Feb 25 j 16:19	14° H 59'15	-1°-31'-41	morning set	1314 Jan 27 j 21:42	6° \approx 54'26
minimum elong	1313 Feb 25 j 20:24	15° H 19'16	1°31'09	max. Earth dist.	1314 Feb 01 j 01:02	14° \approx 01'06
	1313 Mar 05 j 04:40	0° Y				1.39104 AU
evening rise	1313 Mar 06 j 02:57	1° Y 51'46	superior conj	1314 Feb 08 j 13:53	27° \approx 38'44	-1°-51'-38
asc. node	1313 Mar 07 j 22:20	5° Y 27'37	minimum elong	1314 Feb 08 j 17:39	27° \approx 56'22	1°51'22
evening max el	1313 Mar 23 j 03:31	29° Y 25'11	19°27'10		1314 Feb 09 j 20:00	0° H
	1313 Mar 23 j 18:25	0° B		evening rise	1314 Feb 17 j 21:50	15° H 31'40
retrograde	1313 Apr 01 j 11:58	3° B 55'51	asc. node	1314 Feb 22 j 19:22	24° H 50'38	
evening set	1313 Apr 03 j 13:59	3° B 43'24		1314 Feb 25 j 16:42	0° Y	
	1313 Apr 11 j 12:17	30° RY	evening max el	1314 Mar 06 j 04:13	11° Y 43'24	18°40'46
inferior conj	1313 Apr 12 j 02:29	29° Y 37'03	1°00'41	retrograde	1314 Mar 14 j 02:46	15° Y 35'40
minimum elong	1313 Apr 12 j 04:57	29° Y 33'03	0°59'50	evening set	1314 Mar 16 j 09:39	15° Y 17'33
min. Earth dist.	1313 Apr 14 j 18:21	27° Y 53'56	0.56031 AU	inferior conj	1314 Mar 24 j 03:13	10° Y 53'27
desc. node	1313 Apr 15 j 16:18	27° Y 20'06		minimum elong	1314 Mar 24 j 07:21	10° Y 45'37
morning rise	1313 Apr 20 j 16:07	24° Y 54'02		min. Earth dist.	1314 Mar 27 j 11:55	8° Y 22'11
direct	1313 Apr 25 j 07:00	24° Y 05'39		morning rise	1314 Apr 01 j 00:44	5° Y 37'31
	1313 May 08 j 01:26	0° B		desc. node	1314 Apr 02 j 13:21	5° Y 00'26
morning max el	1313 May 09 j 09:48	1° B 14'14	24°55'59	direct	1314 Apr 06 j 17:19	4° Y 16'56
	1313 May 29 j 07:30	0° II		morning max el	1314 Apr 21 j 02:03	11° Y 51'16
asc. node	1313 Jun 03 j 21:35	11° II 10'53			1314 May 05 j 04:28	0° B
morning set	1313 Jun 04 j 10:46	12° II 20'06		morning set	1314 May 19 j 21:44	27° B 13'55
				1314 May 21 j 05:06	0° II	
superior conj	1313 Jun 11 j 11:20	27° II 31'36	1°12'23	asc. node	1314 May 21 j 18:39	1° II 12'28
minimum elong	1313 Jun 11 j 08:55	27° II 18'27	1°12'01			
	1313 Jun 12 j 14:37	0° S		superior conj	1314 May 26 j 22:50	12° II 29'55
max. Earth dist.	1313 Jun 12 j 20:22	0° S 31'08	1.32828 AU	minimum elong	1314 May 26 j 20:47	12° II 18'42
evening rise	1313 Jun 18 j 16:57	12° S 54'24		max. Earth dist.	1314 May 27 j 07:17	13° II 16'25
	1313 Jun 27 j 15:12	0° Q		evening rise	1314 Jun 02 j 22:40	27° II 35'37
desc. node	1313 Jul 12 j 15:35	23° Q 07'20			1314 Jun 04 j 02:31	0° S
	1313 Jul 18 j 10:27	0° P			1314 Jun 21 j 01:27	0° Q
evening max el	1313 Jul 21 j 05:52	2° P 50'51	27°23'19	desc. node	1314 Jun 29 j 12:36	11° Q 02'37
retrograde	1313 Aug 04 j 00:15	10° P 08'30		evening max el	1314 Jul 03 j 10:19	15° Q 06'53
evening set	1313 Aug 11 j 05:13	7° P 37'00		retrograde	1314 Jul 17 j 09:01	22° Q 21'36
min. Earth dist.	1313 Aug 14 j 19:17	4° P 39'48	0.62715 AU	evening set	1314 Jul 24 j 07:23	20° Q 15'16
inferior conj	1313 Aug 17 j 15:54	1° P 55'17	-3°-51'-42	min. Earth dist.	1314 Jul 28 j 00:24	17° Q 36'19
minimum elong	1313 Aug 17 j 21:03	1° P 42'52	3°50'24	inferior conj	1314 Jul 31 j 06:06	14° Q 52'29
	1313 Aug 19 j 17:24	30° RQ		minimum elong	1314 Jul 31 j 10:21	14° Q 43'30
morning rise	1313 Aug 24 j 15:28	26° Q 46'13		morning rise	1314 Aug 07 j 16:27	10° Q 04'56
direct	1313 Aug 27 j 01:31	26° Q 19'28		direct	1314 Aug 10 j 01:50	9° Q 42'31
asc. node	1313 Aug 30 j 20:49	27° Q 27'11		morning max el	1314 Aug 17 j 07:36	13° Q 16'40
morning max el	1313 Sep 02 j 18:37	29° Q 45'34	17°52'16	asc. node	1314 Aug 17 j 17:52	13° Q 42'11
	1313 Sep 03 j 00:23	0° P			1314 Aug 28 j 15:12	0° P
morning set	1313 Sep 18 j 22:21	24° P 53'57		morning set	1314 Sep 02 j 03:06	8° P 16'32
	1313 Sep 21 j 19:20	0° A				
superior conj	1313 Sep 30 j 08:59	14° A 49'52	0°53'53	superior conj	1314 Sep 12 j 01:29	26° P 29'03
minimum elong	1313 Sep 30 j 13:31	15° A 08'59	0°53'19	minimum elong	1314 Sep 12 j 05:44	26° P 47'55
max. Earth dist.	1313 Oct 07 j 06:23	26° A 13'02	1.43425 AU		1314 Sep 14 j 01:17	0° A
desc. node	1313 Oct 08 j 14:56	28° A 24'13		max. Earth dist.	1314 Sep 19 j 16:18	9° A 38'01
	1313 Oct 09 j 14:51	0° M		evening rise	1314 Sep 25 j 07:27	18° A 51'32
evening rise	1313 Oct 15 j 11:19	9° M 12'54		desc. node	1314 Sep 25 j 11:57	19° A 09'32
	1313 Oct 29 j 06:24	0° A			1314 Oct 02 j 10:20	0° M
greatest brilliancy	1313 Nov 09 j 17:06	15° A 49'13	-0.4m	greatest brilliancy	1314 Oct 23 j 16:43	29° M 49'03
evening max el	1313 Nov 14 j 19:45	21° A 43'55	21°19'19		1314 Oct 23 j 20:21	0° A
retrograde	1313 Nov 23 j 13:17	26° A 55'18		evening max el	1314 Oct 28 j 13:09	5° A 15'18
asc. node	1313 Nov 26 j 20:04	25° A 55'14		retrograde	1314 Nov 07 j 08:42	11° A 05'12
				evening set	1314 Nov 11 j 23:04	9° A 14'21

asc. node	1314 Nov 13 j 17:08	7°♊33'04		retrograde	1315 Oct 22 j 00:46	25°♍15'28	
inferior conj	1314 Nov 17 j 08:37	2°♊51'29	1°13'38	evening set	1315 Oct 27 j 04:54	23°♍07'04	
minimum elong	1314 Nov 17 j 07:00	2°♊57'06	1°12'59	asc. node	1315 Oct 31 j 14:10	18°♍07'58	
min. Earth dist.	1314 Nov 17 j 04:54	3°♊04'21	0.67776 AU	min. Earth dist.	1315 Nov 01 j 01:21	17°♍30'16	0.67648 AU
	1314 Nov 19 j 11:32	30°♋♍		inferior conj	1315 Nov 01 j 15:34	16°♍42'03	0°21'51
morning rise	1314 Nov 22 j 14:49	26°♍38'35		minimum elong	1315 Nov 01 j 15:03	16°♍43'49	0°21'38
direct	1314 Nov 27 j 02:44	24°♍49'19		morning rise	1315 Nov 07 j 01:24	10°♍33'55	
	1314 Dec 06 j 01:49	0°♊		direct	1315 Nov 10 j 23:30	9°♍06'48	
morning max el	1314 Dec 06 j 07:36	0°♊14'27	22°00'42	morning max el	1315 Nov 19 j 02:24	13°♍48'42	20°42'02
greatest brilliancy	1314 Dec 11 j 00:40	5°♊32'53	-0.4m	greatest brilliancy	1315 Nov 25 j 00:52	20°♍46'55	-0.5m
desc. node	1314 Dec 22 j 11:14	21°♊02'28			1315 Dec 01 j 17:21	0°♊	
	1314 Dec 28 j 12:49	0°♋		desc. node	1315 Dec 09 j 08:16	11°♊13'44	
morning set	1315 Jan 08 j 01:01	16°♋21'05		morning set	1315 Dec 18 j 03:29	24°♊41'11	
max. Earth dist.	1315 Jan 13 j 22:42	26°♋01'46	1.41224 AU		1315 Dec 21 j 12:55	0°♋	
	1315 Jan 16 j 07:11	0°♌		max. Earth dist.	1315 Dec 27 j 04:17	9°♋00'36	1.43075 AU
superior conj	1315 Jan 21 j 16:42	9°♌21'44	-2°-2'-56	superior conj	1316 Jan 02 j 19:37	19°♋56'49	-2°00'-49
minimum elong	1315 Jan 21 j 18:10	9°♌28'13	2°02'56	minimum elong	1316 Jan 02 j 16:24	19°♋43'24	2°00'43
evening rise	1315 Feb 01 j 05:25	28°♌34'15			1316 Jan 08 j 17:07	0°♌	
	1315 Feb 01 j 23:54	0°♍		evening rise	1316 Jan 14 j 21:46	10°♌52'03	
asc. node	1315 Feb 09 j 16:26	13°♍47'19			1316 Jan 26 j 02:36	0°♍	
evening max el	1315 Feb 17 j 11:58	24°♍30'10	18°14'25	asc. node	1316 Jan 27 j 13:29	2°♍09'36	
retrograde	1315 Feb 24 j 12:03	28°♍00'28		evening max el	1316 Jan 31 j 23:35	7°♍36'47	18°07'38
evening set	1315 Feb 27 j 00:23	27°♍34'14		retrograde	1316 Feb 07 j 12:36	11°♍00'44	
inferior conj	1315 Mar 06 j 00:55	22°♍48'48	3°19'59	evening set	1316 Feb 10 j 05:45	10°♍25'06	
minimum elong	1315 Mar 06 j 03:55	22°♍42'10	3°19'31	inferior conj	1316 Feb 16 j 16:47	5°♍18'11	3°43'04
min. Earth dist.	1315 Mar 09 j 10:13	19°♍51'11	0.59799 AU	minimum elong	1316 Feb 16 j 17:43	5°♍15'49	3°43'01
morning rise	1315 Mar 13 j 03:57	17°♍08'29		min. Earth dist.	1316 Feb 19 j 16:03	2°♍19'16	0.61915 AU
direct	1315 Mar 19 j 16:19	15°♍10'57			1316 Feb 22 j 07:03	30°♋♌	
desc. node	1315 Mar 20 j 10:24	15°♍12'29		morning rise	1316 Feb 23 j 03:15	29°♌22'09	
morning max el	1315 Apr 02 j 23:36	22°♍58'32	27°23'48	direct	1316 Mar 01 j 01:11	26°♌53'39	
	1315 Apr 09 j 05:49	0°♎		desc. node	1316 Mar 06 j 07:28	28°♌09'57	
	1315 Apr 28 j 05:43	0°♏			1316 Mar 09 j 11:42	0°♍	
morning set	1315 May 04 j 06:02	11°♏57'42		morning max el	1316 Mar 15 j 03:24	4°♍47'10	27°48'29
asc. node	1315 May 08 j 15:42	21°♏20'22			1316 Apr 03 j 00:03	0°♎	
superior conj	1315 May 11 j 10:30	27°♏25'47	0°29'05	morning set	1316 Apr 17 j 09:42	26°♎25'01	
minimum elong	1315 May 11 j 09:14	27°♏18'50	0°28'49		1316 Apr 19 j 03:26	0°♏	
max. Earth dist.	1315 May 10 j 19:42	26°♏04'29	1.32242 AU	max. Earth dist.	1316 Apr 23 j 05:43	8°♏42'11	1.32519 AU
	1315 May 12 j 14:34	0°♐		superior conj	1316 Apr 24 j 20:39	12°♏13'25	0°03'30
evening rise	1315 May 18 j 08:19	12°♐26'21		minimum elong	1316 Apr 24 j 20:30	12°♏12'32	0°03'27
	1315 May 27 j 06:38	0°♑		behind sun begin	1316 Apr 24 j 15:28	11°♏45'11	
evening max el	1315 Jun 15 j 08:02	26°♑37'01	25°52'16	behind sun end	1316 Apr 25 j 01:31	12°♏39'55	
desc. node	1315 Jun 16 j 09:39	27°♑36'15		asc. node	1316 Apr 24 j 12:45	11°♏30'24	
	1315 Jun 19 j 08:33	0°♒		evening rise	1316 May 01 j 19:55	27°♏19'35	
retrograde	1315 Jun 29 j 08:38	3°♒47'20			1316 May 03 j 02:26	0°♐	
evening set	1315 Jul 05 j 11:49	2°♒17'17			1316 May 20 j 11:21	0°♑	
	1315 Jul 09 j 08:38	30°♋♑		evening max el	1316 May 26 j 23:30	7°♑25'54	24°26'41
min. Earth dist.	1315 Jul 09 j 20:31	29°♑39'22	0.58684 AU	desc. node	1316 Jun 02 j 06:41	12°♑16'13	
inferior conj	1315 Jul 13 j 03:05	27°♑15'44	-4°-53'-16	retrograde	1316 Jun 09 j 20:52	14°♑26'51	
minimum elong	1315 Jul 13 j 04:06	27°♑13'53	4°53'15	evening set	1316 Jun 14 j 16:48	13°♑34'38	
morning rise	1315 Jul 20 j 23:55	22°♑51'06		min. Earth dist.	1316 Jun 20 j 10:34	10°♑40'24	0.56808 AU
direct	1315 Jul 23 j 11:19	22°♑31'01		inferior conj	1316 Jun 23 j 04:07	8°♑56'10	-4°-41'-5
morning max el	1315 Jul 31 j 14:34	26°♑23'26	18°37'00	minimum elong	1316 Jun 23 j 00:01	9°♑02'43	4°40'40
	1315 Aug 03 j 19:56	0°♓		morning rise	1316 Jul 01 j 10:57	4°♑52'27	
asc. node	1315 Aug 04 j 14:55	1°♓02'39		direct	1316 Jul 04 j 02:13	4°♑33'32	
morning set	1315 Aug 16 j 19:50	22°♓14'16		morning max el	1316 Jul 13 j 12:34	8°♑56'32	19°30'39
	1315 Aug 20 j 19:50	0°♑		asc. node	1316 Jul 21 j 11:58	19°♑14'11	
superior conj	1315 Aug 25 j 15:54	9°♑13'22	1°39'26		1316 Jul 27 j 12:17	0°♒	
minimum elong	1315 Aug 25 j 18:22	9°♑24'55	1°39'16	morning set	1316 Jul 30 j 20:50	6°♒36'48	
max. Earth dist.	1315 Sep 01 j 21:41	22°♑21'46	1.39750 AU	superior conj	1316 Aug 07 j 22:35	22°♒46'40	1°45'58
evening rise	1315 Sep 06 j 02:18	29°♑33'49		minimum elong	1316 Aug 07 j 23:06	22°♒49'10	1°45'58
	1315 Sep 06 j 08:32	0°♊			1316 Aug 11 j 16:16	0°♑	
desc. node	1315 Sep 12 j 08:58	9°♊49'26		max. Earth dist.	1316 Aug 14 j 01:30	4°♑28'18	1.37721 AU
	1315 Sep 25 j 21:13	0°♋		evening rise	1316 Aug 17 j 21:06	11°♑23'19	
evening max el	1315 Oct 11 j 02:51	18°♋50'24	23°56'24	desc. node	1316 Aug 29 j 05:59	0°♊	

	1316 Aug 29 j 01:07	0°♄		desc. node	1317 Aug 16 j 03:01	20°♄33'12	
	1316 Sep 20 j 05:18	0°♌			1317 Aug 22 j 15:27	0°♄	
evening max el	1316 Sep 22 j 14:45	2°♌28'12	25°12'51	evening max el	1317 Sep 05 j 02:33	16°♄06'16	26°18'06
retrograde	1316 Oct 04 j 12:34	9°♌21'08		retrograde	1317 Sep 17 j 19:37	23°♄17'00	
evening set	1316 Oct 10 j 07:18	6°♌56'16		evening set	1317 Sep 24 j 04:24	20°♄39'19	
min. Earth dist.	1316 Oct 14 j 19:25	1°♌54'30	0.67188 AU	min. Earth dist.	1317 Sep 28 j 08:49	16°♄14'08	0.66390 AU
inferior conj	1316 Oct 15 j 20:23	0°♌33'10	0°-33'-27	inferior conj	1317 Sep 29 j 21:13	14°♄22'26	-1°-30'-46
minimum elong	1316 Oct 15 j 21:13	0°♌30'25	0°33'06	minimum elong	1317 Sep 29 j 23:36	14°♄15'08	1°29'49
	1316 Oct 16 j 06:35	30°♌♄		asc. node	1317 Oct 04 j 08:13	9°♄33'59	
asc. node	1316 Oct 17 j 11:11	28°♄29'18		morning rise	1317 Oct 05 j 19:53	8°♄31'57	
morning rise	1316 Oct 21 j 11:45	24°♄32'29		direct	1317 Oct 08 j 19:55	7°♄40'41	
direct	1316 Oct 24 j 21:45	23°♄25'07		morning max el	1317 Oct 15 j 14:33	11°♄26'03	18°45'12
morning max el	1316 Nov 01 j 05:02	27°♄33'29	19°36'03		1317 Oct 28 j 23:41	0°♌	
	1316 Nov 03 j 10:33	0°♌		morning set	1317 Nov 05 j 17:07	12°♌11'58	
greatest brilliancy	1316 Nov 09 j 13:45	8°♌04'46	-0.6m	desc. node	1317 Nov 12 j 02:17	22°♌16'54	
	1316 Nov 24 j 03:22	0°♌♄			1317 Nov 17 j 00:04	0°♌♄	
desc. node	1316 Nov 25 j 05:17	1°♌40'03		max. Earth dist.	1317 Nov 21 j 10:24	6°♌57'35	1.45054 AU
morning set	1316 Nov 26 j 00:53	2°♌55'52					
max. Earth dist.	1316 Dec 08 j 17:09	22°♌45'32	1.44403 AU	superior conj	1317 Nov 22 j 00:14	7°♌51'55	-1°-2'-46
				minimum elong	1317 Nov 21 j 16:36	7°♌21'57	1°01'52
superior conj	1316 Dec 12 j 19:53	29°♌19'23	-1°-40'-51		1317 Dec 05 j 23:25	0°♄	
minimum elong	1316 Dec 12 j 11:56	28°♌47'27	1°40'12	evening rise	1317 Dec 07 j 16:14	2°♄43'39	
	1316 Dec 13 j 06:00	0°♄			1317 Dec 25 j 07:06	0°♄	
evening rise	1316 Dec 26 j 18:30	22°♄16'48		evening max el	1317 Dec 28 j 22:58	4°♄20'57	18°50'16
	1316 Dec 31 j 08:30	0°♄		asc. node	1317 Dec 31 j 07:32	6°♄26'36	
asc. node	1317 Jan 13 j 10:30	19°♄46'56		retrograde	1318 Jan 04 j 17:22	8°♄09'25	
evening max el	1317 Jan 14 j 12:05	20°♄55'28	18°19'53	evening set	1318 Jan 07 j 21:08	7°♄12'14	
retrograde	1317 Jan 20 j 23:44	24°♄26'14		inferior conj	1318 Jan 13 j 15:09	1°♄27'57	3°28'37
evening set	1317 Jan 23 j 21:44	23°♄40'23		minimum elong	1318 Jan 13 j 13:02	1°♄34'26	3°28'17
inferior conj	1317 Jan 29 j 22:48	18°♄13'38	3°43'57		1318 Jan 14 j 19:35	30°♌♄	
minimum elong	1317 Jan 29 j 21:53	18°♄16'12	3°43'54	min. Earth dist.	1318 Jan 15 j 08:23	29°♄20'53	0.65373 AU
min. Earth dist.	1317 Feb 01 j 07:26	15°♄34'00	0.63816 AU	morning rise	1318 Jan 19 j 03:52	25°♄16'38	
morning rise	1317 Feb 04 j 20:25	12°♄07'58		direct	1318 Jan 25 j 18:18	22°♄26'02	
direct	1317 Feb 11 j 18:12	9°♄21'13			1318 Feb 07 j 18:10	0°♄	
desc. node	1317 Feb 21 j 04:29	13°♄23'47		morning max el	1318 Feb 07 j 21:31	0°♄08'25	26°51'27
morning max el	1317 Feb 25 j 11:41	17°♄14'19	27°36'16	desc. node	1318 Feb 08 j 01:31	0°♄18'29	
	1317 Mar 08 j 03:12	0°♌			1318 Mar 02 j 01:57	0°♌	
	1317 Mar 26 j 18:57	0°♌		morning set	1318 Mar 15 j 16:26	23°♌55'43	
morning set	1317 Apr 01 j 06:16	10°♌27'59			1318 Mar 18 j 19:17	0°♌	
max. Earth dist.	1317 Apr 06 j 09:20	20°♌56'25	1.33199 AU	max. Earth dist.	1318 Mar 20 j 02:36	2°♌36'14	1.34329 AU
superior conj	1317 Apr 09 j 03:30	26°♌47'03	0°-23'-39	superior conj	1318 Mar 24 j 04:54	10°♌59'27	0°-51'-15
minimum elong	1317 Apr 09 j 04:40	26°♌53'16	0°23'25	minimum elong	1318 Mar 24 j 07:27	11°♌12'42	0°50'46
	1317 Apr 10 j 15:29	0°♌		asc. node	1318 Mar 29 j 06:50	21°♌40'09	
asc. node	1317 Apr 11 j 09:48	1°♌38'36		evening rise	1318 Mar 31 j 17:25	26°♌47'08	
evening rise	1317 Apr 16 j 07:35	12°♌08'53			1318 Apr 02 j 06:49	0°♌	
	1317 Apr 25 j 11:17	0°♌		evening max el	1318 Apr 20 j 10:45	28°♌40'46	21°19'51
evening max el	1317 May 08 j 13:53	17°♌56'53	22°51'03		1318 Apr 21 j 21:29	0°♌	
desc. node	1317 May 20 j 03:42	24°♌26'58		retrograde	1318 May 02 j 11:34	4°♌32'55	
retrograde	1317 May 21 j 21:01	24°♌33'43		evening set	1318 May 04 j 19:57	4°♌20'15	
evening set	1317 May 25 j 05:48	24°♌08'50		desc. node	1318 May 07 j 00:44	3°♌46'58	
min. Earth dist.	1317 Jun 01 j 22:33	20°♌44'36	0.55454 AU	inferior conj	1318 May 14 j 04:50	0°♌20'48	-2°-2'-47
inferior conj	1317 Jun 03 j 10:08	19°♌53'22	-3°-43'-48	minimum elong	1318 May 13 j 23:10	0°♌28'44	2°00'51
minimum elong	1317 Jun 03 j 02:32	20°♌04'21	3°41'56	min. Earth dist.	1318 May 14 j 11:02	0°♌12'04	0.54930 AU
morning rise	1317 Jun 12 j 02:08	16°♌01'02			1318 May 14 j 19:38	30°♌♄	
direct	1317 Jun 14 j 22:32	15°♌42'03		morning rise	1318 May 23 j 02:34	26°♌21'52	
morning max el	1317 Jun 25 j 23:41	20°♌49'14	20°45'05	direct	1318 May 26 j 08:43	25°♌58'50	
	1317 Jul 03 j 12:12	0°♄			1318 Jun 05 j 16:10	0°♌	
asc. node	1317 Jul 08 j 09:01	8°♄05'03		morning max el	1318 Jun 07 j 23:50	1°♌58'32	22°17'04
morning set	1317 Jul 15 j 03:26	21°♄17'12		asc. node	1318 Jun 25 j 06:03	27°♌24'39	
	1317 Jul 19 j 08:21	0°♌			1318 Jun 26 j 13:31	0°♄	
				morning set	1318 Jun 29 j 13:28	6°♄08'21	
superior conj	1317 Jul 22 j 16:56	6°♌55'58	1°44'14	superior conj	1318 Jul 06 j 19:14	21°♄29'09	1°35'54
minimum elong	1317 Jul 22 j 15:53	6°♌50'38	1°44'12	minimum elong	1318 Jul 06 j 17:13	21°♄18'30	1°35'44
max. Earth dist.	1317 Jul 27 j 09:13	16°♌18'36	1.35885 AU	max. Earth dist.	1318 Jul 10 j 01:24	28°♄16'52	1.34391 AU
evening rise	1317 Jul 31 j 12:22	24°♌12'20			1318 Jul 10 j 21:32	0°♌	
	1317 Aug 03 j 16:29	0°♌					

evening rise	1318 Jul 14 j 19:19	7°♌47'23		1319 Jun 18 j 05:04	0°♏		
	1318 Jul 27 j 06:03	0°♏					
desc. node	1318 Aug 03 j 00:02	10°♏24'06		superior conj	1319 Jun 21 j 02:47	6°♏17'40	1°22'16
evening max el	1318 Aug 18 j 14:38	29°♏37'11	27°04'39	minimum elong	1319 Jun 21 j 00:22	6°♏04'35	1°21'56
	1318 Aug 19 j 00:15	0°♏		max. Earth dist.	1319 Jun 23 j 02:58	10°♏36'33	1.33292 AU
retrograde	1318 Aug 31 j 21:17	6°♏55'25		evening rise	1319 Jun 28 j 13:41	21°♏56'18	
evening set	1318 Sep 07 j 17:53	4°♏11'57			1319 Jul 02 j 16:33	0°♏	
min. Earth dist.	1318 Sep 11 j 15:18	0°♏23'38	0.65235 AU	desc. node	1319 Jul 20 j 21:03	29°♏41'59	
	1318 Sep 11 j 23:46	30°♏			1319 Jul 21 j 02:21	0°♏	
inferior conj	1318 Sep 13 j 15:59	28°♏05'38	-2°-28'-13	evening max el	1319 Aug 01 j 01:48	12°♏49'51	27°25'20
minimum elong	1318 Sep 13 j 19:51	27°♏54'40	2°26'49	retrograde	1319 Aug 14 j 16:53	20°♏08'01	
morning rise	1318 Sep 19 j 23:26	22°♏28'24		evening set	1319 Aug 21 j 20:47	17°♏28'53	
asc. node	1318 Sep 21 j 05:15	22°♏00'44		min. Earth dist.	1319 Aug 25 j 12:42	14°♏14'51	0.63730 AU
direct	1318 Sep 22 j 15:58	21°♏49'22		inferior conj	1319 Aug 28 j 02:09	11°♏37'19	-3°-23'-1
morning max el	1318 Sep 29 j 04:40	25°♏20'53	18°10'49	minimum elong	1319 Aug 28 j 07:06	11°♏24'35	3°21'32
	1318 Oct 03 j 02:08	0°♏		morning rise	1319 Sep 03 j 19:35	6°♏16'42	
morning set	1318 Oct 17 j 14:18	22°♏54'36		direct	1319 Sep 06 j 07:16	5°♏46'15	
	1318 Oct 21 j 21:55	0°♏		asc. node	1319 Sep 08 j 02:19	6°♏02'21	
desc. node	1318 Oct 29 j 23:19	13°♏00'33		morning max el	1319 Sep 12 j 20:40	9°♏12'02	17°53'48
					1319 Sep 26 j 17:56	0°♏	
superior conj	1318 Nov 01 j 03:38	16°♏28'32	0°-14'-29	morning set	1319 Sep 29 j 13:53	4°♏53'42	
minimum elong	1318 Nov 01 j 01:46	16°♏21'10	0°14'15				
behind sun begin	1318 Oct 31 j 20:29	16°♏00'09		superior conj	1319 Oct 12 j 01:58	26°♏03'01	0°31'44
behind sun end	1318 Nov 01 j 07:04	16°♏42'10		minimum elong	1319 Oct 12 j 05:15	26°♏16'31	0°31'17
max. Earth dist.	1318 Nov 04 j 05:05	21°♏18'47	1.44969 AU		1319 Oct 14 j 12:01	0°♏	
	1318 Nov 09 j 18:04	0°♏		desc. node	1319 Oct 16 j 20:20	3°♏47'16	
evening rise	1318 Nov 17 j 15:22	12°♏16'54		max. Earth dist.	1319 Oct 17 j 22:39	5°♏32'36	1.44172 AU
	1318 Nov 29 j 02:59	0°♏		evening rise	1319 Oct 28 j 00:23	21°♏19'27	
greatest brilliancy	1318 Dec 04 j 05:53	7°♏35'59	-0.7m		1319 Nov 02 j 16:41	0°♏	
evening max el	1318 Dec 12 j 06:14	17°♏49'55	19°37'19	greatest brilliancy	1319 Nov 19 j 12:07	24°♏21'44	-0.5m
asc. node	1318 Dec 18 j 04:33	21°♏54'07			1319 Nov 24 j 02:35	0°♏	
retrograde	1318 Dec 19 j 14:19	22°♏05'05		evening max el	1319 Nov 25 j 08:19	1°♏19'33	20°38'48
evening set	1318 Dec 23 j 01:22	20°♏54'59		retrograde	1319 Dec 03 j 12:04	6°♏08'36	
inferior conj	1318 Dec 28 j 14:42	14°♏55'48	3°01'19	asc. node	1319 Dec 05 j 01:36	5°♏54'50	
minimum elong	1318 Dec 28 j 12:04	15°♏04'28	3°00'41	evening set	1319 Dec 07 j 08:18	4°♏43'45	
min. Earth dist.	1318 Dec 29 j 17:32	13°♏27'46	0.66535 AU		1319 Dec 11 j 17:02	30°♏	
morning rise	1319 Jan 02 j 22:03	8°♏41'32		inferior conj	1319 Dec 12 j 18:54	28°♏32'35	2°24'53
direct	1319 Jan 09 j 00:24	5°♏59'41		minimum elong	1319 Dec 12 j 16:18	28°♏41'28	2°24'04
morning max el	1319 Jan 21 j 06:38	13°♏17'02	25°42'13	min. Earth dist.	1319 Dec 13 j 08:49	27°♏45'07	0.67303 AU
desc. node	1319 Jan 25 j 22:32	18°♏25'13		morning rise	1319 Dec 17 j 23:50	22°♏17'24	
	1319 Feb 03 j 20:01	0°♏		direct	1319 Dec 23 j 11:35	19°♏53'07	
	1319 Feb 22 j 19:38	0°♏		morning max el	1320 Jan 03 j 14:55	26°♏31'42	24°18'26
morning set	1319 Feb 26 j 11:53	6°♏35'36			1320 Jan 06 j 20:05	0°♏	
max. Earth dist.	1319 Mar 02 j 07:58	13°♏45'36	1.35918 AU	desc. node	1320 Jan 12 j 19:34	7°♏22'25	
					1320 Jan 28 j 10:40	0°♏	
superior conj	1319 Mar 07 j 22:20	24°♏43'37	-1°-17'-44	morning set	1320 Feb 08 j 10:50	18°♏10'48	
minimum elong	1319 Mar 08 j 02:02	25°♏02'12	1°17'10	max. Earth dist.	1320 Feb 12 j 04:47	24°♏49'09	1.37885 AU
	1319 Mar 10 j 12:51	0°♏			1320 Feb 15 j 00:48	0°♏	
evening rise	1319 Mar 15 j 23:27	11°♏08'26					
asc. node	1319 Mar 16 j 03:53	11°♏30'57		superior conj	1320 Feb 19 j 04:20	7°♏49'36	-1°-40'-56
	1319 Mar 26 j 01:52	0°♏		minimum elong	1320 Feb 19 j 08:29	8°♏09'30	1°40'30
evening max el	1319 Apr 02 j 18:44	9°♏59'12	20°02'57	evening rise	1320 Feb 27 j 23:12	25°♏05'18	
retrograde	1319 Apr 13 j 02:16	14°♏57'30			1320 Mar 01 j 11:21	0°♏	
evening set	1319 Apr 15 j 03:31	14°♏46'34		asc. node	1320 Mar 02 j 00:56	1°♏05'32	
desc. node	1319 Apr 23 j 21:45	10°♏53'50		evening max el	1320 Mar 15 j 13:54	21°♏56'23	19°04'56
inferior conj	1319 Apr 24 j 02:06	10°♏47'17	0°-3'-8	retrograde	1320 Mar 24 j 06:20	26°♏08'29	
minimum elong	1319 Apr 24 j 01:58	10°♏47'30	0°03'06	evening set	1320 Mar 26 j 10:24	25°♏53'52	
transit middle	1319 Apr 24 j 01:58	10°♏47'30	0°03'06	inferior conj	1320 Apr 03 j 14:49	21°♏40'32	1°41'38
transit begin	1319 Apr 23 j 22:02	10°♏53'24		minimum elong	1320 Apr 03 j 18:26	21°♏34'17	1°40'30
transit end	1319 Apr 24 j 05:53	10°♏41'36		min. Earth dist.	1320 Apr 06 j 16:00	19°♏35'07	0.56688 AU
min. Earth dist.	1319 Apr 26 j 00:41	9°♏37'23	0.55378 AU	desc. node	1320 Apr 09 j 18:47	17°♏42'38	
morning rise	1319 May 02 j 21:37	6°♏23'37		morning rise	1320 Apr 11 j 22:20	16°♏43'17	
direct	1319 May 06 j 22:39	5°♏47'47		direct	1320 Apr 17 j 00:35	15°♏42'29	
morning max el	1319 May 20 j 16:12	12°♏34'55	23°58'25	morning max el	1320 May 01 j 06:43	23°♏02'54	25°35'43
	1319 Jun 02 j 23:15	0°♏			1320 May 07 j 11:50	0°♏	
asc. node	1319 Jun 12 j 03:07	17°♏05'27			1320 May 25 j 14:53	0°♏	
morning set	1319 Jun 14 j 01:11	21°♏04'55		morning set	1320 May 28 j 12:56	6°♏01'38	

asc. node	1320 May 29 j 00:12	7°II01'08		morning max el	1321 Apr 13 j 01:04	3°V50'55	26°53'16
					1321 May 02 j 01:55	0°8	
superior conj	1320 Jun 04 j 13:24	21°II14'16	1°04'18	morning set	1321 May 12 j 23:01	20°852'14	
minimum elong	1320 Jun 04 j 11:05	21°II01'37	1°03'53	asc. node	1321 May 15 j 21:14	27°806'03	
max. Earth dist.	1320 Jun 05 j 11:42	23°II16'17	1.32583 AU		1321 May 17 j 05:17	0°II	
	1320 Jun 08 j 14:16	0°8					
evening rise	1320 Jun 11 j 16:05	6°828'33		superior conj	1321 May 20 j 01:09	6°II12'15	0°42'48
	1320 Jun 24 j 05:42	0°8		minimum elong	1321 May 19 j 23:24	6°II02'35	0°42'26
desc. node	1320 Jul 06 j 18:05	18°813'08		max. Earth dist.	1321 May 19 j 23:53	6°II05'13	1.32256 AU
evening max el	1320 Jul 13 j 09:35	25°830'39	27°14'49	evening rise	1321 May 26 j 23:43	21°II14'42	
	1320 Jul 19 j 00:23	0°8			1321 May 31 j 06:50	0°8	
retrograde	1320 Jul 27 j 05:40	2°846'09			1321 Jun 18 j 18:17	0°8	
evening set	1320 Aug 03 j 09:20	0°823'54		desc. node	1321 Jun 23 j 15:08	5°837'19	
	1320 Aug 03 j 23:29	30°88		evening max el	1321 Jun 25 j 11:09	7°827'06	26°31'06
min. Earth dist.	1320 Aug 06 j 23:40	27°836'18	0.61906 AU	retrograde	1321 Jul 09 j 10:42	14°840'16	
inferior conj	1320 Aug 10 j 00:42	24°850'18	-4°-10'-46	evening set	1321 Jul 16 j 02:49	12°848'02	
minimum elong	1320 Aug 10 j 05:43	24°838'51	4°09'42	min. Earth dist.	1321 Jul 20 j 00:24	10°812'10	0.59869 AU
morning rise	1320 Aug 17 j 04:50	19°849'52		inferior conj	1321 Jul 23 j 08:01	7°834'15	-4°-44'-24
direct	1320 Aug 19 j 14:24	19°825'06		minimum elong	1321 Jul 23 j 11:12	7°827'55	4°44'06
asc. node	1320 Aug 24 j 23:23	21°833'11		morning rise	1321 Jul 30 j 22:55	2°856'45	
morning max el	1320 Aug 26 j 11:41	22°853'15	17°55'06	direct	1321 Aug 02 j 08:59	2°835'28	
	1320 Sep 01 j 01:32	0°8		morning max el	1321 Aug 09 j 22:33	6°815'35	18°15'51
morning set	1320 Sep 11 j 09:44	17°851'14		asc. node	1321 Aug 11 j 20:27	8°818'04	
	1320 Sep 18 j 03:47	0°8			1321 Aug 25 j 01:02	0°8	
				morning set	1321 Aug 25 j 20:05	1°830'14	
superior conj	1320 Sep 22 j 03:35	6°858'43	1°07'39				
minimum elong	1320 Sep 22 j 08:17	7°819'02	1°07'05	superior conj	1321 Sep 04 j 06:10	19°808'06	1°31'09
max. Earth dist.	1320 Sep 29 j 12:25	19°822'09	1.42761 AU	minimum elong	1321 Sep 04 j 09:44	19°824'21	1°30'50
desc. node	1320 Oct 02 j 17:23	24°834'21			1321 Sep 10 j 09:14	0°8	
evening rise	1320 Oct 06 j 11:49	0°833'22		max. Earth dist.	1321 Sep 11 j 20:18	2°830'22	1.40913 AU
	1320 Oct 06 j 03:19	0°8		evening rise	1321 Sep 16 j 16:53	10°836'52	
	1320 Oct 26 j 07:19	0°8		desc. node	1321 Sep 19 j 14:25	15°817'53	
greatest brilliancy	1320 Nov 02 j 09:54	9°823'38	-0.4m		1321 Sep 29 j 03:36	0°8	
evening max el	1320 Nov 07 j 04:42	14°849'57	21°51'18	greatest brilliancy	1321 Oct 14 j 16:48	21°824'53	-0.2m
retrograde	1320 Nov 16 j 08:49	20°817'21		evening max el	1321 Oct 20 j 20:07	28°821'55	23°10'18
evening set	1320 Nov 20 j 16:07	18°836'07			1321 Oct 22 j 13:07	0°8	
asc. node	1320 Nov 20 j 22:38	18°822'47		retrograde	1321 Oct 31 j 03:01	4°827'53	
inferior conj	1320 Nov 26 j 01:37	12°816'20	1°41'19	evening set	1321 Nov 04 j 23:09	2°829'20	
minimum elong	1320 Nov 25 j 23:32	12°823'35	1°40'33		1321 Nov 07 j 09:31	30°88	
min. Earth dist.	1320 Nov 26 j 04:00	12°808'06	0.67705 AU	asc. node	1321 Nov 07 j 19:40	29°829'04	
morning rise	1320 Dec 01 j 06:43	6°802'08		inferior conj	1321 Nov 10 j 08:59	26°804'48	0°52'11
direct	1320 Dec 06 j 03:08	3°859'54		minimum elong	1321 Nov 10 j 07:48	26°808'55	0°51'41
morning max el	1320 Dec 16 j 00:47	9°851'58	22°50'06	min. Earth dist.	1321 Nov 10 j 00:42	26°833'18	0.67761 AU
greatest brilliancy	1320 Dec 20 j 16:38	15°804'09	-0.3m	morning rise	1321 Nov 15 j 16:29	19°853'41	
desc. node	1320 Dec 29 j 16:37	26°855'51		direct	1321 Nov 19 j 22:14	18°814'19	
	1320 Dec 31 j 20:33	0°8		morning max el	1321 Nov 28 j 15:35	23°820'20	21°25'55
morning set	1321 Jan 19 j 07:08	28°826'09		greatest brilliancy	1321 Dec 03 j 17:56	29°809'42	-0.4m
	1321 Jan 20 j 05:47	0°8			1321 Dec 04 j 09:54	0°8	
max. Earth dist.	1321 Jan 24 j 00:27	6°822'46	1.40025 AU	desc. node	1321 Dec 16 j 13:40	16°855'17	
					1321 Dec 25 j 05:47	0°8	
superior conj	1321 Jan 31 j 18:33	20°806'13	-1°-57'-45	morning set	1321 Dec 29 j 22:32	7°820'03	
minimum elong	1321 Jan 31 j 21:38	20°820'20	1°57'37	max. Earth dist.	1322 Jan 06 j 01:11	18°848'00	1.42054 AU
	1321 Feb 06 j 02:19	0°8			1322 Jan 12 j 16:55	0°8	
evening rise	1321 Feb 10 j 13:43	8°830'16					
asc. node	1321 Feb 16 j 21:58	20°818'07		superior conj	1322 Jan 13 j 11:44	1°821'08	-2°-3'-59
	1321 Feb 22 j 23:22	0°8		minimum elong	1322 Jan 13 j 11:28	1°819'58	2°04'00
evening max el	1321 Feb 26 j 17:54	4°827'14	18°27'04	evening rise	1322 Jan 24 j 15:21	21°814'58	
retrograde	1321 Mar 06 j 05:31	8°808'28			1322 Jan 29 j 11:26	0°8	
evening set	1321 Mar 08 j 14:45	7°847'07		asc. node	1322 Feb 03 j 19:00	9°801'25	
inferior conj	1321 Mar 16 j 00:38	3°813'42	2°53'47	evening max el	1322 Feb 10 j 03:37	17°823'18	18°09'11
minimum elong	1321 Mar 16 j 04:31	3°805'51	2°52'56	retrograde	1322 Feb 16 j 21:56	20°849'33	
min. Earth dist.	1321 Mar 19 j 11:04	0°828'27	0.58578 AU	evening set	1322 Feb 19 j 12:13	20°819'35	
	1321 Mar 20 j 02:12	30°88		inferior conj	1322 Feb 26 j 06:34	15°825'00	3°32'57
morning rise	1321 Mar 23 j 14:15	27°846'10		minimum elong	1322 Feb 26 j 08:43	15°819'58	3°32'42
desc. node	1321 Mar 27 j 15:50	26°820'44		min. Earth dist.	1322 Mar 01 j 12:33	12°823'38	0.60700 AU
direct	1321 Mar 29 j 16:09	26°810'10		morning rise	1322 Mar 05 j 02:06	9°836'43	
	1321 Apr 08 j 13:17	0°8		direct	1322 Mar 11 j 19:38	7°824'42	

desc. node	1322 Mar 14 j 12:51	7° ✕ 44'59		min. Earth dist.	1323 Feb 11 j 22:23	25° ≈ 12'46	0.62756 AU
morning max el	1322 Mar 26 j 01:35	15° ✕ 16'33	27°38'59	morning rise	1323 Feb 15 j 09:24	22° ≈ 05'14	
	1322 Apr 07 j 00:53	0° Υ		direct	1323 Feb 22 j 08:29	19° ≈ 26'48	
	1322 Apr 24 j 12:20	0° ♄		desc. node	1323 Mar 01 j 09:53	21° ≈ 44'10	
morning set	1322 Apr 27 j 05:38	5° ♄ 30'35		morning max el	1323 Mar 08 j 07:27	27° ≈ 21'45	27°47'39
asc. node	1322 May 02 j 18:17	17° ♄ 15'48			1323 Mar 10 j 19:42	0° ✕	
max. Earth dist.	1322 May 03 j 11:43	18° ♄ 50'49	1.32306 AU		1323 Mar 31 j 16:55	0° Υ	
				morning set	1323 Apr 11 j 06:34	19° Υ 48'13	
superior conj	1322 May 04 j 12:24	21° ♄ 05'50	0°18'29		1323 Apr 16 j 04:30	0° ♄	
minimum elong	1322 May 04 j 11:34	21° ♄ 01'16	0°18'19	max. Earth dist.	1323 Apr 16 j 19:13	1° ♄ 18'26	1.32750 AU
	1322 May 08 j 14:01	0° ♁					
evening rise	1322 May 11 j 10:26	6° ♁ 07'32		superior conj	1323 Apr 18 j 21:22	5° ♄ 48'05	0°-7'-54
	1322 May 24 j 00:34	0° ♄		minimum elong	1323 Apr 18 j 21:45	5° ♄ 50'09	0°07'49
evening max el	1322 Jun 07 j 05:41	18° ♄ 37'45	25°18'04	behind sun begin	1323 Apr 18 j 17:11	5° ♄ 25'26	
desc. node	1322 Jun 10 j 12:08	21° ♄ 27'12		behind sun end	1323 Apr 19 j 02:19	6° ♄ 14'52	
retrograde	1322 Jun 21 j 06:09	25° ♄ 46'06		asc. node	1323 Apr 19 j 15:20	7° ♄ 25'21	
evening set	1322 Jun 26 j 21:11	24° ♄ 32'31		evening rise	1323 Apr 25 j 22:14	20° ♄ 59'23	
min. Earth dist.	1322 Jul 01 j 17:33	21° ♄ 49'30	0.57846 AU		1323 Apr 30 j 07:35	0° ♁	
inferior conj	1322 Jul 04 j 20:42	19° ♄ 40'07	-4°-52'-59	evening max el	1323 May 19 j 19:56	29° ♁ 15'39	23°46'26
minimum elong	1322 Jul 04 j 19:39	19° ♄ 41'56	4°52'58		1323 May 20 j 14:49	0° ♄	
morning rise	1322 Jul 12 j 21:54	15° ♄ 25'13		desc. node	1323 May 28 j 09:08	5° ♄ 07'40	
direct	1322 Jul 15 j 10:36	15° ♄ 05'54		retrograde	1323 Jun 02 j 13:23	6° ♄ 08'32	
morning max el	1322 Jul 24 j 02:08	19° ♄ 09'44	18°57'10	evening set	1323 Jun 06 j 17:41	5° ♄ 30'05	
asc. node	1322 Jul 29 j 17:29	26° ♄ 01'58		min. Earth dist.	1323 Jun 13 j 06:38	2° ♄ 24'23	0.56149 AU
	1322 Aug 01 j 06:06	0° ♁		inferior conj	1323 Jun 15 j 13:13	1° ♄ 01'39	-4°-22'-48
morning set	1322 Aug 09 j 16:40	15° ♁ 39'10		minimum elong	1323 Jun 15 j 07:09	1° ♄ 10'54	4°21'46
	1322 Aug 17 j 00:03	0° ♄			1323 Jun 17 j 06:22	30° ♁ ♁	
				morning rise	1323 Jun 24 j 00:03	27° ♁ 04'02	
superior conj	1322 Aug 18 j 04:09	2° ♄ 15'06	1°43'19	direct	1323 Jun 26 j 17:09	26° ♁ 45'20	
minimum elong	1322 Aug 18 j 05:45	2° ♄ 22'48	1°43'15		1323 Jul 05 j 03:10	0° ♄	
max. Earth dist.	1322 Aug 24 j 23:51	14° ♄ 54'10	1.38878 AU	morning max el	1323 Jul 06 j 19:37	1° ♄ 26'11	19°59'46
evening rise	1322 Aug 28 j 22:08	21° ♄ 48'08		asc. node	1323 Jul 16 j 14:32	14° ♄ 31'30	
	1322 Sep 02 j 19:23	0° ♁		morning set	1323 Jul 24 j 20:21	0° ♁ 09'58	
desc. node	1322 Sep 06 j 11:27	5° ♁ 53'49			1323 Jul 24 j 18:22	0° ♁	
	1322 Sep 23 j 03:02	0° ♄					
evening max el	1322 Oct 03 j 08:40	11° ♄ 57'39	24°29'48	superior conj	1323 Aug 01 j 16:16	16° ♁ 04'57	1°46'07
retrograde	1322 Oct 14 j 17:32	18° ♄ 36'25		minimum elong	1323 Aug 01 j 16:03	16° ♁ 03'52	1°46'08
evening set	1322 Oct 20 j 03:43	16° ♄ 20'49		max. Earth dist.	1323 Aug 07 j 04:31	26° ♁ 50'07	1.36911 AU
min. Earth dist.	1322 Oct 24 j 20:31	10° ♄ 58'27	0.67489 AU		1323 Aug 08 j 20:57	0° ♄	
inferior conj	1322 Oct 25 j 15:14	9° ♄ 55'48	0°-1'-15	evening rise	1323 Aug 11 j 02:15	4° ♄ 04'45	
minimum elong	1322 Oct 25 j 15:16	9° ♄ 55'43	0°01'16	desc. node	1323 Aug 24 j 08:28	26° ♄ 17'34	
transit middle	1322 Oct 25 j 15:16	9° ♄ 55'43	0°01'16		1323 Aug 26 j 18:55	0° ♁	
transit begin	1322 Oct 25 j 12:32	10° ♄ 04'52		evening max el	1323 Sep 15 j 20:35	25° ♁ 36'58	25°42'30
transit end	1322 Oct 25 j 18:00	9° ♄ 46'34			1323 Sep 21 j 01:55	0° ♄	
asc. node	1322 Oct 25 j 16:42	9° ♄ 50'54		retrograde	1323 Sep 28 j 03:22	2° ♄ 38'34	
morning rise	1322 Oct 31 j 03:11	3° ♄ 50'18		evening set	1323 Oct 04 j 04:07	0° ♄ 07'58	
direct	1322 Nov 03 j 19:49	2° ♄ 32'03			1323 Oct 04 j 07:50	30° ♁ ♁	
morning max el	1322 Nov 11 j 13:41	6° ♄ 58'53	20°12'07	min. Earth dist.	1323 Oct 08 j 13:01	25° ♁ 21'20	0.66889 AU
greatest brilliancy	1322 Nov 18 j 08:44	15° ♄ 10'11	-0.6m	inferior conj	1323 Oct 09 j 18:37	23° ♁ 47'00	0°-57'-36
	1322 Nov 28 j 15:58	0° ♄		minimum elong	1323 Oct 09 j 20:06	23° ♁ 42'16	0°56'59
desc. node	1322 Dec 03 j 10:42	7° ♄ 13'19		asc. node	1323 Oct 12 j 13:44	20° ♁ 24'40	
morning set	1322 Dec 08 j 19:32	15° ♄ 27'40		morning rise	1323 Oct 15 j 12:52	17° ♁ 49'59	
	1322 Dec 18 j 01:58	0° ♄		direct	1323 Oct 18 j 18:23	16° ♁ 49'49	
max. Earth dist.	1322 Dec 19 j 09:27	2° ♄ 05'45	1.43708 AU	morning max el	1323 Oct 25 j 19:23	20° ♁ 47'15	19°12'24
					1323 Nov 02 j 03:40	0° ♄	
superior conj	1322 Dec 25 j 03:14	11° ♄ 24'26	-1°-54'-42	greatest brilliancy	1323 Nov 06 j 09:55	6° ♄ 15'30	-0.7m
minimum elong	1322 Dec 24 j 21:44	11° ♄ 01'53	1°54'24	morning set	1323 Nov 17 j 22:41	24° ♄ 02'29	
	1323 Jan 05 j 03:47	0° ≈		desc. node	1323 Nov 20 j 07:44	27° ♄ 44'46	
evening rise	1323 Jan 06 j 23:50	3° ≈ 10'26			1323 Nov 21 j 18:24	0° ♄	
asc. node	1323 Jan 21 j 16:02	27° ≈ 05'47		max. Earth dist.	1323 Dec 02 j 00:33	16° ♄ 04'40	1.44770 AU
	1323 Jan 24 j 02:10	0° ✕					
evening max el	1323 Jan 24 j 15:57	0° ✕ 35'40	18°10'39	superior conj	1323 Dec 04 j 17:33	20° ♄ 21'40	-1°-26'-38
retrograde	1323 Jan 31 j 03:20	4° ✕ 00'57		minimum elong	1323 Dec 04 j 08:52	19° ♄ 47'15	1°25'48
evening set	1323 Feb 02 j 22:28	3° ✕ 21'10			1323 Dec 10 j 18:20	0° ♄	
	1323 Feb 07 j 08:40	30° ♁ ≈		evening rise	1323 Dec 19 j 11:04	14° ♄ 10'46	
inferior conj	1323 Feb 09 j 04:54	28° ≈ 05'57	3°45'45		1323 Dec 29 j 02:32	0° ≈	
minimum elong	1323 Feb 09 j 04:59	28° ≈ 05'43	3°45'45	evening max el	1324 Jan 08 j 04:09	13° ≈ 58'14	18°30'41

asc. node	1324 Jan 08 j 13:02	14° \approx 20'23		retrograde	1324 Dec 28 j 13:00	1° \approx 23'51	
retrograde	1324 Jan 14 j 17:34	17° \approx 34'52		evening set	1324 Dec 31 j 19:45	0° \approx 21'10	
evening set	1324 Jan 17 j 17:59	16° \approx 44'14			1325 Jan 01 j 08:12	30° \approx 30'	
inferior conj	1324 Jan 23 j 15:43	11° \approx 09'50	3°39'06	inferior conj	1325 Jan 06 j 11:29	24° \approx 29'59	3°18'16
minimum elong	1324 Jan 23 j 14:13	11° \approx 14'14	3°38'57	minimum elong	1325 Jan 06 j 09:05	24° \approx 37'38	3°17'48
min. Earth dist.	1324 Jan 25 j 17:46	8° \approx 42'59	0.64532 AU	min. Earth dist.	1325 Jan 07 j 22:19	22° \approx 39'26	0.65920 AU
morning rise	1324 Jan 29 j 09:08	5° \approx 01'40		morning rise	1325 Jan 11 j 21:33	18° \approx 17'16	
direct	1324 Feb 05 j 04:42	2° \approx 11'30		direct	1325 Jan 18 j 07:13	15° \approx 29'25	
desc. node	1324 Feb 16 j 06:55	7° \approx 44'41		morning max el	1325 Jan 31 j 02:15	23° \approx 02'13	26°24'27
morning max el	1324 Feb 18 j 16:29	10° \approx 00'45	27°20'42	desc. node	1325 Feb 02 j 03:57	25° \approx 12'41	
	1324 Mar 05 j 09:53	0° \approx			1325 Feb 06 j 06:45	0° \approx	
	1324 Mar 23 j 02:14	0° \approx			1325 Feb 26 j 17:18	0° \approx	
morning set	1324 Mar 24 j 23:06	3° \approx 36'43		morning set	1325 Mar 08 j 03:37	16° \approx 45'25	
max. Earth dist.	1324 Mar 29 j 18:41	13° \approx 17'31	1.33627 AU	max. Earth dist.	1325 Mar 12 j 07:12	24° \approx 44'09	1.34954 AU
					1325 Mar 14 j 22:36	0° \approx	
superior conj	1324 Apr 02 j 02:10	20° \approx 13'05	0°-35'-23				
minimum elong	1324 Apr 02 j 03:55	20° \approx 22'22	0°35'02	superior conj	1325 Mar 17 j 00:32	4° \approx 14'10	-1°-2'-43
asc. node	1324 Apr 05 j 12:22	27° \approx 30'47		minimum elong	1325 Mar 17 j 03:38	4° \approx 30'01	1°02'11
	1324 Apr 06 j 16:19	0° \approx		asc. node	1325 Mar 23 j 09:25	17° \approx 28'13	
evening rise	1324 Apr 09 j 09:20	5° \approx 44'17		evening rise	1325 Mar 24 j 17:51	20° \approx 16'13	
	1324 Apr 22 j 13:50	0° \approx			1325 Mar 29 j 14:34	0° \approx	
evening max el	1324 Apr 30 j 12:19	9° \approx 48'11	22°10'59	evening max el	1325 Apr 12 j 13:32	20° \approx 44'36	20°44'58
retrograde	1324 May 13 j 08:04	16° \approx 07'25		retrograde	1325 Apr 23 j 21:14	26° \approx 14'18	
desc. node	1324 May 14 j 06:09	16° \approx 05'30		evening set	1325 Apr 26 j 00:55	26° \approx 03'09	
evening set	1324 May 16 j 04:39	15° \approx 49'21		desc. node	1325 May 01 j 03:11	24° \approx 19'49	
min. Earth dist.	1324 May 24 j 18:26	12° \approx 08'41	0.55120 AU	inferior conj	1325 May 05 j 06:51	22° \approx 05'29	-1°-12'-9
inferior conj	1324 May 25 j 12:55	11° \approx 42'41	-3°-5'-19	minimum elong	1325 May 05 j 03:26	22° \approx 10'23	1°10'56
minimum elong	1324 May 25 j 05:24	11° \approx 53'15	3°03'07	min. Earth dist.	1325 May 06 j 07:02	21° \approx 30'55	0.54999 AU
morning rise	1324 Jun 03 j 08:01	7° \approx 50'01		morning rise	1325 May 14 j 04:55	17° \approx 58'24	
direct	1324 Jun 06 j 08:00	7° \approx 29'49		direct	1325 May 17 j 17:54	17° \approx 31'25	
morning max el	1324 Jun 18 j 01:42	12° \approx 58'48	21°22'26	morning max el	1325 May 30 j 21:59	23° \approx 51'59	22°59'54
	1324 Jun 30 j 12:19	0° \approx			1325 Jun 05 j 10:45	0° \approx	
asc. node	1324 Jul 02 j 11:36	3° \approx 35'27		asc. node	1325 Jun 19 j 08:40	23° \approx 05'07	
morning set	1324 Jul 08 j 04:39	14° \approx 55'33		morning set	1325 Jun 22 j 15:41	29° \approx 50'14	
	1324 Jul 15 j 09:31	0° \approx			1325 Jun 22 j 17:33	0° \approx	
superior conj	1324 Jul 15 j 14:21	0° \approx 25'07	1°41'25	superior conj	1325 Jun 29 j 19:15	15° \approx 06'12	1°30'43
minimum elong	1324 Jul 15 j 12:50	0° \approx 17'11	1°41'20	minimum elong	1325 Jun 29 j 16:59	14° \approx 54'10	1°30'28
max. Earth dist.	1324 Jul 19 j 15:51	8° \approx 42'42	1.35207 AU	max. Earth dist.	1325 Jul 02 j 12:23	20° \approx 50'42	1.33870 AU
evening rise	1324 Jul 24 j 00:44	17° \approx 14'40			1325 Jul 06 j 23:49	0° \approx	
	1324 Jul 31 j 01:28	0° \approx		evening rise	1325 Jul 07 j 13:03	1° \approx 05'39	
desc. node	1324 Aug 10 j 05:28	16° \approx 22'46			1325 Jul 24 j 00:39	0° \approx	
	1324 Aug 20 j 02:44	0° \approx		desc. node	1325 Jul 28 j 02:30	6° \approx 01'24	
evening max el	1324 Aug 28 j 08:44	9° \approx 13'42	26°40'39	evening max el	1325 Aug 10 j 20:35	22° \approx 38'20	27°16'51
retrograde	1324 Sep 10 j 07:59	16° \approx 27'49		retrograde	1325 Aug 24 j 07:03	29° \approx 57'03	
evening set	1324 Sep 16 j 22:16	13° \approx 46'49		evening set	1325 Aug 31 j 07:42	27° \approx 13'42	
min. Earth dist.	1324 Sep 20 j 23:42	9° \approx 37'26	0.65947 AU	min. Earth dist.	1325 Sep 04 j 02:24	23° \approx 40'53	0.64646 AU
inferior conj	1324 Sep 22 j 17:10	7° \approx 34'11	-1°-55'-16	inferior conj	1325 Sep 06 j 08:38	21° \approx 13'23	-2°-51'-59
minimum elong	1324 Sep 22 j 20:11	7° \approx 25'10	1°54'05	minimum elong	1325 Sep 06 j 13:02	21° \approx 01'22	2°50'29
asc. node	1324 Sep 28 j 10:47	2° \approx 00'58		morning rise	1325 Sep 12 j 20:15	15° \approx 43'03	
morning rise	1324 Sep 28 j 19:23	1° \approx 48'54		direct	1325 Sep 15 j 10:25	15° \approx 08'04	
direct	1324 Oct 01 j 16:03	1° \approx 03'08		asc. node	1325 Sep 15 j 07:51	15° \approx 08'08	
morning max el	1324 Oct 08 j 07:09	4° \approx 41'10	18°28'30	morning max el	1325 Sep 21 j 22:31	18° \approx 35'50	18°01'25
	1324 Oct 25 j 16:31	0° \approx			1325 Sep 30 j 08:10	0° \approx	
morning set	1324 Oct 28 j 03:01	3° \approx 55'19		morning set	1325 Oct 09 j 12:06	15° \approx 12'37	
desc. node	1324 Nov 06 j 04:44	18° \approx 24'43			1325 Oct 18 j 09:43	0° \approx	
superior conj	1324 Nov 12 j 18:36	28° \approx 47'24	0°-42'-48	superior conj	1325 Oct 23 j 04:13	7° \approx 43'41	0°06'02
minimum elong	1324 Nov 12 j 13:05	28° \approx 25'40	0°42'05	minimum elong	1325 Oct 23 j 04:56	7° \approx 46'34	0°05'56
	1324 Nov 13 j 13:05	0° \approx		behind sun begin	1325 Oct 22 j 19:05	7° \approx 07'00	
max. Earth dist.	1324 Nov 13 j 19:24	0° \approx 24'49	1.45116 AU	behind sun end	1325 Oct 23 j 14:47	8° \approx 26'05	
evening rise	1324 Nov 28 j 22:44	24° \approx 13'18		desc. node	1325 Oct 24 j 01:46	9° \approx 10'04	
	1324 Dec 02 j 14:29	0° \approx		max. Earth dist.	1325 Oct 27 j 14:12	14° \approx 45'48	1.44719 AU
greatest brilliancy	1324 Dec 10 j 22:29	13° \approx 02'29	-0.7m		1325 Nov 06 j 08:07	0° \approx	
evening max el	1324 Dec 21 j 13:44	27° \approx 25'14	19°08'20	evening rise	1325 Nov 08 j 14:19	3° \approx 29'27	
	1324 Dec 24 j 13:41	0° \approx			1325 Nov 26 j 04:42	0° \approx	
asc. node	1324 Dec 25 j 10:05	0° \approx 31'02		greatest brilliancy	1325 Nov 27 j 20:17	2° \approx 18'48	-0.6m

evening max el	1325 Dec 04 j 18:50	10° $\overline{3}$ 53'55	20°01'49		1326 Oct 10 j 23:27	0° \overline{M}	
retrograde	1325 Dec 12 j 10:42	15° $\overline{3}$ 23'08		evening rise	1326 Oct 18 j 22:09	12° \overline{M} 31'09	
asc. node	1325 Dec 12 j 07:08	15° $\overline{3}$ 23'00			1326 Oct 30 j 11:25	0° \overline{A}	
evening set	1325 Dec 16 j 01:24	14° $\overline{3}$ 06'55		greatest brilliancy	1326 Nov 12 j 11:58	18° \overline{A} 15'26	-0.4m
inferior conj	1325 Dec 21 j 13:20	8° $\overline{3}$ 01'57	2°46'49	evening max el	1326 Nov 17 j 18:26	24° \overline{A} 23'45	21°08'30
minimum elong	1325 Dec 21 j 10:39	8° $\overline{3}$ 10'56	2°46'05	retrograde	1326 Nov 26 j 08:20	29° \overline{A} 29'17	
min. Earth dist.	1325 Dec 22 j 10:25	6° $\overline{3}$ 51'21	0.66907 AU	asc. node	1326 Nov 29 j 04:09	28° \overline{A} 44'38	
morning rise	1325 Dec 26 j 19:18	1° $\overline{3}$ 46'52		evening set	1326 Nov 30 j 08:55	27° \overline{A} 57'50	
	1325 Dec 29 j 08:17	30° \overline{R} \overline{A}		inferior conj	1326 Dec 05 j 18:53	21° \overline{A} 42'29	2°07'12
direct	1326 Jan 01 j 15:28	29° \overline{A} 11'55		minimum elong	1326 Dec 05 j 16:26	21° \overline{A} 50'54	2°06'22
	1326 Jan 05 j 05:06	0° $\overline{3}$		min. Earth dist.	1326 Dec 06 j 03:48	21° \overline{A} 11'45	0.67515 AU
morning max el	1326 Jan 13 j 11:08	6° $\overline{3}$ 14'40	25°07'44	morning rise	1326 Dec 10 j 23:34	15° \overline{A} 27'12	
desc. node	1326 Jan 20 j 00:59	13° $\overline{3}$ 42'47		direct	1326 Dec 16 j 04:44	13° \overline{A} 11'52	
	1326 Jan 31 j 21:33	0° \approx		morning max el	1326 Dec 26 j 19:44	19° \overline{A} 31'51	23°40'46
morning set	1326 Feb 18 j 15:09	28° \approx 59'48			1327 Jan 04 j 16:47	0° $\overline{3}$	
	1326 Feb 19 j 04:33	0° \overline{H}		desc. node	1327 Jan 06 j 22:02	2° $\overline{3}$ 57'06	
max. Earth dist.	1326 Feb 22 j 08:25	5° \overline{H} 47'27	1.36714 AU		1327 Jan 25 j 01:52	0° \approx	
				morning set	1327 Jan 31 j 03:31	10° \approx 03'10	
superior conj	1326 Feb 28 j 13:33	17° \overline{H} 42'48	-1°-28'-8	max. Earth dist.	1327 Feb 04 j 03:20	16° \approx 57'57	1.38785 AU
minimum elong	1326 Feb 28 j 17:34	18° \overline{H} 02'38	1°27'37		1327 Feb 11 j 07:12	0° \overline{H}	
	1326 Mar 06 j 16:31	0° \overline{Y}					
evening rise	1326 Mar 08 j 21:34	4° \overline{Y} 27'53		superior conj	1327 Feb 11 j 13:27	0° \overline{H} 29'24	-1°-49'-5
asc. node	1326 Mar 10 j 06:28	7° \overline{Y} 12'34		minimum elong	1327 Feb 11 j 17:23	0° \overline{H} 47'53	1°48'46
	1326 Mar 23 j 22:19	0° $\overline{8}$		evening rise	1327 Feb 20 j 17:48	18° \overline{H} 12'06	
evening max el	1326 Mar 26 j 02:23	2° $\overline{8}$ 19'13	19°35'51	asc. node	1327 Feb 25 j 03:31	26° \overline{H} 38'35	
retrograde	1326 Apr 04 j 16:46	6° $\overline{8}$ 56'49			1327 Feb 26 j 23:27	0° \overline{Y}	
evening set	1326 Apr 06 j 18:16	6° $\overline{8}$ 44'56		evening max el	1327 Mar 09 j 01:46	14° \overline{Y} 32'04	18°46'25
inferior conj	1326 Apr 15 j 09:33	2° $\overline{8}$ 40'49	0°44'39	retrograde	1327 Mar 17 j 04:32	18° \overline{Y} 28'46	
minimum elong	1326 Apr 15 j 11:26	2° $\overline{8}$ 37'49	0°43'59	evening set	1327 Mar 19 j 10:42	18° \overline{Y} 11'39	
min. Earth dist.	1326 Apr 17 j 21:28	1° $\overline{8}$ 05'59	0.55833 AU	inferior conj	1327 Mar 27 j 07:03	13° \overline{Y} 50'34	2°16'30
desc. node	1326 Apr 18 j 00:13	1° $\overline{8}$ 01'45		minimum elong	1327 Mar 27 j 11:09	13° \overline{Y} 42'59	2°15'21
	1326 Apr 19 j 17:58	30° \overline{R} \overline{Y}		min. Earth dist.	1327 Mar 30 j 14:25	11° \overline{Y} 25'19	0.57440 AU
morning rise	1326 Apr 24 j 00:58	28° \overline{Y} 02'49		morning rise	1327 Apr 04 j 07:16	8° \overline{Y} 39'16	
direct	1326 Apr 28 j 12:04	27° \overline{Y} 18'05		desc. node	1327 Apr 04 j 21:14	8° \overline{Y} 24'31	
	1326 May 07 j 00:21	0° $\overline{8}$		direct	1327 Apr 09 j 20:23	7° \overline{Y} 23'56	
morning max el	1326 May 12 j 13:00	4° $\overline{8}$ 21'51	24°41'22	morning max el	1327 Apr 24 j 04:35	14° \overline{Y} 55'06	26°11'52
	1326 May 30 j 16:46	0° \overline{II}			1327 May 06 j 06:45	0° $\overline{8}$	
asc. node	1326 Jun 06 j 05:43	12° \overline{II} 52'38		morning set	1327 May 22 j 14:48	29° $\overline{8}$ 41'30	
morning set	1326 Jun 07 j 03:36	14° \overline{II} 47'20			1327 May 22 j 18:19	0° \overline{II}	
				asc. node	1327 May 24 j 02:47	2° \overline{II} 52'27	
superior conj	1326 Jun 14 j 04:21	29° \overline{II} 58'54	1°15'08				
minimum elong	1326 Jun 14 j 01:55	29° \overline{II} 45'41	1°14'46	superior conj	1327 May 29 j 15:39	14° \overline{II} 56'31	0°55'34
	1326 Jun 14 j 04:33	0° $\overline{3}$		minimum elong	1327 May 29 j 13:31	14° \overline{II} 44'50	0°55'10
max. Earth dist.	1326 Jun 15 j 17:09	3° $\overline{3}$ 18'25	1.32935 AU	max. Earth dist.	1327 May 30 j 03:34	16° \overline{II} 01'57	1.32395 AU
evening rise	1326 Jun 21 j 11:11	15° $\overline{3}$ 25'13		evening rise	1327 Jun 05 j 16:05	0° $\overline{3}$ 03'57	
	1326 Jun 29 j 00:36	0° \overline{O}			1327 Jun 05 j 15:20	0° $\overline{3}$	
desc. node	1326 Jul 14 j 23:33	25° \overline{O} 01'18			1327 Jun 22 j 03:47	0° \overline{O}	
	1326 Jul 18 j 23:29	0° \overline{H}		desc. node	1327 Jul 01 j 20:34	13° \overline{O} 06'22	
evening max el	1326 Jul 24 j 06:24	5° \overline{H} 37'57	27°24'50	evening max el	1327 Jul 06 j 11:50	18° \overline{O} 00'37	27°00'17
retrograde	1326 Aug 07 j 00:08	12° \overline{H} 56'03		retrograde	1327 Jul 20 j 10:00	25° \overline{O} 15'24	
evening set	1326 Aug 14 j 05:02	10° \overline{H} 22'08		evening set	1327 Jul 27 j 10:02	23° \overline{O} 04'39	
min. Earth dist.	1326 Aug 17 j 19:24	7° \overline{H} 20'52	0.62987 AU	min. Earth dist.	1327 Jul 31 j 02:04	20° \overline{O} 23'52	0.61048 AU
inferior conj	1326 Aug 20 j 14:14	4° \overline{H} 37'39	-3°-44'-29	inferior conj	1327 Aug 03 j 06:42	17° \overline{O} 39'00	-4°-27'-21
minimum elong	1326 Aug 20 j 19:23	4° \overline{H} 25'03	3°43'07	minimum elong	1327 Aug 03 j 11:13	17° \overline{O} 29'15	4°26'37
	1326 Aug 26 j 06:13	30° \overline{R} \overline{O}		morning rise	1327 Aug 10 j 15:26	12° \overline{O} 47'55	
morning rise	1326 Aug 27 j 12:13	29° \overline{O} 25'32		direct	1327 Aug 13 j 00:46	12° \overline{O} 24'57	
direct	1326 Aug 29 j 22:33	28° \overline{O} 57'57		morning max el	1327 Aug 20 j 04:06	15° \overline{O} 57'24	18°01'27
asc. node	1326 Sep 02 j 04:54	29° \overline{O} 48'45		asc. node	1327 Aug 20 j 01:58	15° \overline{O} 52'15	
	1326 Sep 02 j 13:13	0° \overline{H}			1327 Aug 29 j 23:25	0° \overline{H}	
morning max el	1326 Sep 05 j 14:31	2° \overline{H} 23'50	17°52'04	morning set	1327 Sep 04 j 23:41	10° \overline{H} 54'56	
morning set	1326 Sep 21 j 21:05	27° \overline{H} 38'34					
	1326 Sep 23 j 05:09	0° \overline{A}		superior conj	1327 Sep 15 j 02:46	29° \overline{H} 20'40	1°19'06
				minimum elong	1327 Sep 15 j 07:12	29° \overline{H} 40'12	1°18'38
superior conj	1326 Oct 03 j 14:02	17° \overline{A} 52'43	0°48'27		1327 Sep 15 j 11:42	0° \overline{A}	
minimum elong	1326 Oct 03 j 18:21	18° \overline{A} 10'50	0°47'52	max. Earth dist.	1327 Sep 22 j 16:53	12° \overline{A} 21'11	1.42013 AU
max. Earth dist.	1326 Oct 10 j 05:54	28° \overline{A} 49'24	1.43636 AU	desc. node	1327 Sep 27 j 19:52	20° \overline{A} 43'23	
desc. node	1326 Oct 10 j 22:50	29° \overline{A} 57'31		evening rise	1327 Sep 28 j 15:37	22° \overline{A} 02'17	

	1327 Oct 03 j 17:31	0°♄		superior conj	1328 Aug 27 j 14:18	11°♄56'29	1°37'35
	1327 Oct 24 j 16:53	0°♂		minimum elong	1328 Aug 27 j 17:04	12°♄09'21	1°37'23
greatest brilliancy	1327 Oct 26 j 18:42	2°♂35'06	-0.3m	max. Earth dist.	1328 Sep 03 j 23:01	25°♄12'03	1.40056 AU
evening max el	1327 Oct 31 j 12:37	7°♂54'59	22°24'31		1328 Sep 06 j 18:07	0°♄	
retrograde	1327 Nov 10 j 04:04	13°♂38'55		evening rise	1328 Sep 08 j 06:48	2°♄34'17	
evening set	1327 Nov 14 j 16:34	11°♂50'37		desc. node	1328 Sep 13 j 16:54	11°♄24'23	
asc. node	1327 Nov 16 j 01:11	10°♂34'58			1328 Sep 26 j 00:53	0°♄	
inferior conj	1327 Nov 20 j 02:04	5°♂28'32	1°21'07	evening max el	1328 Oct 13 j 02:42	21°♄29'13	23°44'28
minimum elong	1327 Nov 20 j 00:19	5°♂34'37	1°20'25	retrograde	1328 Oct 23 j 20:41	27°♄49'22	
min. Earth dist.	1327 Nov 19 j 23:56	5°♂35'57	0.67771 AU	evening set	1328 Oct 28 j 22:45	25°♄43'26	
	1327 Nov 24 j 12:04	30°♄		asc. node	1328 Nov 01 j 22:12	21°♄16'35	
morning rise	1327 Nov 25 j 07:55	29°♄15'15		inferior conj	1328 Nov 03 j 09:10	19°♄18'26	0°30'00
direct	1327 Nov 29 j 22:04	27°♄22'32		minimum elong	1328 Nov 03 j 08:28	19°♄20'52	0°29'41
	1327 Dec 06 j 01:29	0°♂		min. Earth dist.	1328 Nov 02 j 20:28	20°♄01'41	0.67692 AU
morning max el	1327 Dec 09 j 07:05	2°♂54'22	22°13'16	morning rise	1328 Nov 08 j 18:20	13°♄09'33	
greatest brilliancy	1327 Dec 13 j 22:10	8°♂06'01	-0.3m	direct	1328 Nov 12 j 18:23	11°♄39'21	
desc. node	1327 Dec 24 j 19:04	22°♂42'37		morning max el	1328 Nov 21 j 00:47	16°♄26'59	20°53'00
	1327 Dec 29 j 18:40	0°♄		greatest brilliancy	1328 Nov 26 j 17:08	23°♄03'56	-0.5m
morning set	1328 Jan 11 j 11:11	19°♄41'59			1328 Dec 01 j 20:18	0°♂	
max. Earth dist.	1328 Jan 17 j 00:21	28°♄51'11	1.40925 AU	desc. node	1328 Dec 10 j 16:07	12°♂50'57	
	1328 Jan 17 j 16:39	0°♄		morning set	1328 Dec 20 j 16:28	28°♂09'01	
					1328 Dec 21 j 20:51	0°♄	
superior conj	1328 Jan 24 j 19:23	12°♄21'24	-2°-2'00	max. Earth dist.	1328 Dec 29 j 04:48	11°♄42'00	1.42830 AU
minimum elong	1328 Jan 24 j 21:21	12°♄30'12	2°01'56				
	1328 Feb 03 j 10:03	0°♂		superior conj	1329 Jan 05 j 02:05	23°♄06'48	-2°-2'-13
evening rise	1328 Feb 04 j 03:16	1°♂20'28		minimum elong	1329 Jan 04 j 23:42	22°♄56'43	2°02'10
asc. node	1328 Feb 12 j 00:32	15°♂39'21			1329 Jan 09 j 02:43	0°♄	
evening max el	1328 Feb 20 j 08:38	27°♂14'43	18°17'03	evening rise	1329 Jan 16 j 22:08	13°♄45'21	
	1328 Feb 24 j 03:10	0°♂			1329 Jan 26 j 06:02	0°♂	
retrograde	1328 Feb 27 j 11:15	0°♂47'15		asc. node	1329 Jan 28 j 21:32	4°♂07'09	
evening set	1328 Feb 29 j 22:52	0°♂22'15		evening max el	1329 Feb 02 j 19:47	10°♂18'26	18°07'23
	1328 Mar 01 j 21:54	30°♄		retrograde	1329 Feb 09 j 09:53	13°♂42'38	
inferior conj	1328 Mar 08 j 01:41	25°♂39'53	3°14'05	evening set	1329 Feb 12 j 02:17	13°♂08'30	
minimum elong	1328 Mar 08 j 04:58	25°♂32'49	3°13'30	inferior conj	1329 Feb 18 j 15:05	8°♂04'37	3°41'09
min. Earth dist.	1328 Mar 11 j 11:39	22°♂44'45	0.59481 AU	minimum elong	1329 Feb 18 j 16:20	8°♂01'31	3°41'04
morning rise	1328 Mar 15 j 07:27	20°♂02'40		min. Earth dist.	1329 Feb 21 j 16:14	5°♂04'22	0.61606 AU
direct	1328 Mar 21 j 17:27	18°♂10'40		morning rise	1329 Feb 25 j 03:47	2°♂10'18	
desc. node	1328 Mar 21 j 18:15	18°♂10'40			1329 Mar 01 j 20:39	30°♄	
morning max el	1328 Apr 05 j 01:11	25°♂56'27	27°17'02	direct	1329 Mar 04 j 00:50	29°♄45'49	
	1328 Apr 08 j 20:17	0°♂			1329 Mar 06 j 06:22	0°♂	
	1328 Apr 28 j 15:42	0°♂		desc. node	1329 Mar 08 j 15:16	0°♂44'09	
morning set	1328 May 05 j 23:37	14°♂27'08		morning max el	1329 Mar 18 j 04:12	7°♂39'03	27°47'17
asc. node	1328 May 09 j 23:50	22°♂59'40			1329 Apr 04 j 05:21	0°♂	
max. Earth dist.	1328 May 12 j 16:05	28°♂50'50	1.32232 AU	morning set	1329 Apr 20 j 04:05	28°♂57'21	
					1329 Apr 20 j 16:18	0°♂	
superior conj	1328 May 13 j 03:23	29°♂52'59	0°32'47	max. Earth dist.	1329 Apr 26 j 02:45	11°♂31'09	1.32448 AU
minimum elong	1328 May 13 j 01:58	29°♂45'15	0°32'29	asc. node	1329 Apr 26 j 20:51	13°♂09'31	
	1328 May 13 j 04:40	0°♄					
evening rise	1328 May 20 j 01:17	14°♄53'45		superior conj	1329 Apr 27 j 13:51	14°♄42'04	0°07'30
	1328 May 27 j 15:30	0°♄		minimum elong	1329 Apr 27 j 13:30	14°♄40'09	0°07'26
evening max el	1328 Jun 17 j 10:38	29°♄37'54	26°03'16	behind sun begin	1329 Apr 27 j 08:57	14°♄15'23	
desc. node	1328 Jun 17 j 17:34	29°♄54'17		behind sun end	1329 Apr 27 j 18:02	15°♄04'57	
	1328 Jun 17 j 20:01	0°♄		evening rise	1329 May 04 j 12:41	29°♄46'52	
retrograde	1328 Jul 01 j 10:55	6°♄48'47			1329 May 04 j 15:09	0°♄	
evening set	1328 Jul 07 j 18:00	5°♄12'49			1329 May 21 j 07:41	0°♄	
min. Earth dist.	1328 Jul 11 j 23:17	2°♄36'05	0.58988 AU	evening max el	1329 May 30 j 02:41	10°♄31'27	24°40'30
inferior conj	1328 Jul 15 j 06:31	0°♄08'11	-4°-51'-57	desc. node	1329 Jun 04 j 14:34	14°♄53'42	
minimum elong	1328 Jul 15 j 08:10	0°♄05'04	4°51'53	retrograde	1329 Jun 13 j 01:07	17°♄34'54	
	1328 Jul 15 j 10:52	30°♄		evening set	1329 Jun 18 j 02:20	16°♄37'17	
morning rise	1328 Jul 23 j 01:48	25°♄40'11		min. Earth dist.	1329 Jun 23 j 13:53	13°♄46'31	0.57062 AU
direct	1328 Jul 25 j 12:52	25°♄19'47		inferior conj	1329 Jun 26 j 10:34	11°♄55'08	-4°-45'-43
morning max el	1328 Aug 02 j 12:09	29°♄08'30	18°30'50	minimum elong	1329 Jun 26 j 07:16	12°♄00'31	4°45'26
	1328 Aug 03 j 08:46	0°♄		morning rise	1329 Jul 04 j 15:58	7°♄48'54	
asc. node	1328 Aug 05 j 23:01	3°♄03'57		direct	1329 Jul 07 j 06:34	7°♄29'54	
morning set	1328 Aug 18 j 14:53	24°♄48'18		morning max el	1329 Jul 16 j 11:42	11°♄47'21	19°21'18
	1328 Aug 21 j 07:29	0°♄		asc. node	1329 Jul 23 j 20:04	21°♄08'31	
					1329 Jul 28 j 22:14	0°♄	

morning set	1329 Aug 02 j 14:49	9°Ω07'28		morning set	1330 Jul 17 j 20:43	23°Ω45'06	
					1330 Jul 20 j 21:26	0°Ω	
superior conj	1329 Aug 10 j 18:54	25°Ω23'26	1°45'33	superior conj	1330 Jul 25 j 11:45	9°Ω27'42	1°44'57
minimum elong	1329 Aug 10 j 19:41	25°Ω27'16	1°45'31	minimum elong	1330 Jul 25 j 10:54	9°Ω23'25	1°44'56
	1329 Aug 13 j 04:09	0°Π		max. Earth dist.	1330 Jul 30 j 09:10	19°Ω12'04	1.36141 AU
max. Earth dist.	1329 Aug 17 j 02:35	7°Π22'21	1.38016 AU	evening rise	1330 Aug 03 j 10:41	26°Ω54'28	
evening rise	1329 Aug 20 j 22:10	14°Π13'51			1330 Aug 05 j 03:13	0°Π	
	1329 Aug 30 j 08:35	0°Δ		desc. node	1330 Aug 18 j 10:56	22°Π12'05	
desc. node	1329 Aug 31 j 13:56	1°Δ55'41			1330 Aug 23 j 18:04	0°Δ	
	1329 Sep 20 j 21:01	0°Π		evening max el	1330 Sep 08 j 02:24	18°Δ44'11	26°09'26
evening max el	1329 Sep 25 j 14:40	5°Π06'10	25°01'55	retrograde	1330 Sep 20 j 17:06	25°Δ53'10	
retrograde	1329 Oct 07 j 09:14	11°Π55'52		evening set	1330 Sep 26 j 23:49	23°Δ17'09	
evening set	1329 Oct 13 j 01:47	9°Π33'12		min. Earth dist.	1330 Oct 01 j 05:22	18°Δ46'17	0.66527 AU
min. Earth dist.	1329 Oct 17 j 15:03	4°Π26'06	0.67278 AU	inferior conj	1330 Oct 02 j 15:58	16°Δ58'56	-1°-22'-3
inferior conj	1329 Oct 18 j 14:24	3°Π09'24	0°-24'-52	minimum elong	1330 Oct 02 j 18:07	16°Δ52'17	1°21'10
minimum elong	1329 Oct 18 j 15:02	3°Π07'21	0°24'38	asc. node	1330 Oct 06 j 16:19	12°Δ30'26	
asc. node	1329 Oct 19 j 19:15	1°Π35'53		morning rise	1330 Oct 08 j 13:26	11°Δ06'37	
	1329 Oct 21 j 02:45	30°RΔ		direct	1330 Oct 11 j 14:47	10°Δ13'13	
morning rise	1329 Oct 24 j 04:50	27°Δ07'27		morning max el	1330 Oct 18 j 10:55	14°Δ01'34	18°51'43
direct	1329 Oct 27 j 16:27	25°Δ57'26			1330 Oct 30 j 05:28	0°Π	
	1329 Nov 03 j 22:12	0°Π		morning set	1330 Nov 09 j 01:18	15°Π23'21	
morning max el	1329 Nov 04 j 02:19	0°Π10'18	19°44'56	desc. node	1330 Nov 14 j 10:12	23°Π50'36	
greatest brilliancy	1329 Nov 11 j 23:23	9°Π57'31	-0.6m		1330 Nov 18 j 08:16	0°♂	
	1329 Nov 25 j 10:21	0°♂		max. Earth dist.	1330 Nov 24 j 09:07	9°♂28'37	1.44999 AU
desc. node	1329 Nov 27 j 13:10	3°♂15'17					
morning set	1329 Nov 29 j 12:58	6°♂19'38		superior conj	1330 Nov 25 j 12:38	11°♂16'51	-1°-9'-29
max. Earth dist.	1329 Dec 11 j 16:34	25°♂20'31	1.44240 AU	minimum elong	1330 Nov 25 j 04:30	10°♂44'52	1°08'33
	1329 Dec 14 j 14:34	0°♂			1330 Dec 07 j 07:31	0°♂	
				evening rise	1330 Dec 10 j 23:20	5°♂53'46	
superior conj	1329 Dec 16 j 06:15	2°♂39'43	-1°-45'-6		1330 Dec 26 j 05:43	0°≈	
minimum elong	1329 Dec 15 j 22:48	2°♂09'41	1°44'34	evening max el	1330 Dec 31 j 19:41	7°≈00'48	18°44'41
evening rise	1329 Dec 29 j 22:06	25°♂18'41		asc. node	1331 Jan 02 j 15:35	8°≈41'30	
	1330 Jan 01 j 16:23	0°≈		retrograde	1331 Jan 07 j 12:35	10°≈45'53	
asc. node	1330 Jan 15 j 18:32	21°≈52'11		evening set	1331 Jan 10 j 15:25	9°≈50'30	
evening max el	1330 Jan 17 j 08:21	23°≈35'58	18°16'53	inferior conj	1331 Jan 16 j 10:19	4°≈08'49	3°31'45
retrograde	1330 Jan 23 j 19:43	27°≈05'04		minimum elong	1331 Jan 16 j 08:21	4°≈14'48	3°31'29
evening set	1330 Jan 26 j 16:55	26°≈20'53		min. Earth dist.	1331 Jan 18 j 05:51	1°≈56'15	0.65166 AU
inferior conj	1330 Feb 01 j 19:16	20°≈57'04	3°44'57		1331 Jan 19 j 22:25	30°R♂	
minimum elong	1330 Feb 01 j 18:36	20°≈58'56	3°44'55	morning rise	1331 Jan 22 j 00:08	27°♂58'14	
min. Earth dist.	1330 Feb 04 j 06:16	18°≈13'21	0.63550 AU	direct	1331 Jan 28 j 16:07	25°♂07'10	
morning rise	1330 Feb 07 j 18:32	14°≈52'25			1331 Feb 07 j 19:53	0°≈	
direct	1330 Feb 14 j 16:52	12°≈07'21		desc. node	1331 Feb 10 j 09:22	2°≈21'14	
desc. node	1330 Feb 23 j 12:19	15°≈39'53		morning max el	1331 Feb 10 j 21:44	2°≈51'56	26°59'52
morning max el	1330 Feb 28 j 12:04	20°≈01'33	27°40'19		1331 Mar 03 j 08:25	0°♂	
	1330 Mar 09 j 01:36	0°♂		morning set	1331 Mar 18 j 13:52	26°♂38'12	
	1330 Mar 28 j 04:57	0°Υ			1331 Mar 20 j 07:25	0°Υ	
morning set	1330 Apr 04 j 01:54	13°Υ04'39		max. Earth dist.	1331 Mar 23 j 02:22	5°Υ33'42	1.34133 AU
max. Earth dist.	1330 Apr 09 j 07:30	23°Υ49'18	1.33069 AU				
				superior conj	1331 Mar 26 j 23:42	13°Υ34'10	0°-47'-4
superior conj	1330 Apr 11 j 21:19	29°Υ18'13	0°-19'-28	minimum elong	1331 Mar 27 j 02:03	13°Υ46'25	0°46'38
minimum elong	1330 Apr 11 j 22:16	29°Υ23'20	0°19'17	asc. node	1331 Mar 31 j 14:55	23°Υ20'43	
	1330 Apr 12 j 05:06	0°♂		evening rise	1331 Apr 03 j 10:42	29°Υ17'08	
asc. node	1330 Apr 13 j 17:53	3°♂18'08			1331 Apr 03 j 18:56	0°♂	
evening rise	1330 Apr 19 j 00:27	14°♂37'01			1331 Apr 21 j 20:18	0°Π	
	1330 Apr 26 j 18:36	0°Π		evening max el	1331 Apr 23 j 12:17	1°Π42'58	21°32'40
evening max el	1330 May 11 j 16:44	21°Π02'49	23°05'21	retrograde	1331 May 05 j 18:26	7°Π42'24	
desc. node	1330 May 22 j 11:33	27°Π28'39		evening set	1331 May 08 j 05:23	7°Π28'44	
retrograde	1330 May 25 j 03:12	27°Π44'41		desc. node	1331 May 09 j 08:35	7°Π13'40	
evening set	1330 May 28 j 16:42	27°Π16'49		inferior conj	1331 May 17 j 14:39	3°Π28'02	-2°-20'-5
min. Earth dist.	1330 Jun 05 j 02:05	23°Π57'42	0.55610 AU	minimum elong	1331 May 17 j 08:21	3°Π36'52	2°18'00
inferior conj	1330 Jun 06 j 19:05	22°Π58'00	-3°-55'-38	min. Earth dist.	1331 May 17 j 14:30	3°Π28'15	0.54951 AU
minimum elong	1330 Jun 06 j 11:42	23°Π08'47	3°53'58		1331 May 24 j 19:02	30°R♂	
morning rise	1330 Jun 15 j 09:48	19°Π04'48		morning rise	1331 May 26 j 11:54	29°♂31'14	
direct	1330 Jun 18 j 05:09	18°Π46'01		direct	1331 May 29 j 16:14	29°♂09'06	
morning max el	1330 Jun 29 j 00:30	23°Π46'08	20°32'44		1331 Jun 03 j 09:08	0°Π	
	1330 Jul 04 j 10:55	0°♂		morning max el	1331 Jun 11 j 02:06	5°Π01'03	22°02'31
asc. node	1330 Jul 10 j 17:09	9°♂53'53					

asc. node	1331 Jun 27 j 14:13	29°II09'34			1332 Jun 03 j 03:10	0°II	
	1331 Jun 28 j 00:37	0°☾		asc. node	1332 Jun 13 j 11:15	18°II47'29	
morning set	1331 Jul 02 j 06:24	8°☾34'54		morning set	1332 Jun 15 j 17:59	23°II31'05	
					1332 Jun 18 j 18:55	0°☾	
superior conj	1331 Jul 09 j 13:05	23°☾57'46	1°37'32	superior conj	1332 Jun 22 j 20:00	8°☾44'23	1°24'38
minimum elong	1331 Jul 09 j 11:10	23°☾47'45	1°37'23	minimum elong	1332 Jun 22 j 17:36	8°☾31'30	1°24'20
	1331 Jul 12 j 10:43	0°♂		max. Earth dist.	1332 Jun 25 j 00:27	13°☾25'14	1.33430 AU
max. Earth dist.	1331 Jul 13 j 00:01	1°♂08'10	1.34590 AU	evening rise	1332 Jun 30 j 08:32	24°☾28'04	
evening rise	1331 Jul 17 j 15:37	10°♂23'32			1332 Jul 03 j 04:02	0°♂	
	1331 Jul 28 j 13:50	0°♍			1332 Jul 21 j 03:02	0°♍	
desc. node	1331 Aug 05 j 07:56	12°♍06'59		desc. node	1332 Jul 22 j 04:58	1°♍30'40	
	1331 Aug 19 j 08:04	0°♂		evening max el	1332 Aug 03 j 02:08	15°♍33'51	27°24'08
evening max el	1331 Aug 21 j 14:38	2°♂17'26	26°59'15	retrograde	1332 Aug 16 j 16:02	22°♍51'59	
retrograde	1331 Sep 03 j 19:35	9°♂34'47		evening set	1332 Aug 23 j 19:20	20°♍11'26	
evening set	1331 Sep 10 j 14:38	6°♂51'48		min. Earth dist.	1332 Aug 27 j 11:55	16°♍52'45	0.63978 AU
min. Earth dist.	1331 Sep 14 j 13:05	2°♂57'59	0.65429 AU	inferior conj	1332 Aug 29 j 23:29	14°♍17'36	-3°-15'-4
inferior conj	1331 Sep 16 j 11:50	0°♂43'41	-2°-19'-39	minimum elong	1332 Aug 30 j 04:19	14°♍04'58	3°13'33
minimum elong	1331 Sep 16 j 15:30	0°♂33'10	2°18'16	morning rise	1332 Sep 05 j 15:23	8°♍54'19	
	1331 Sep 17 j 03:07	30°♍♍		direct	1332 Sep 08 j 03:40	8°♍22'45	
morning rise	1331 Sep 22 j 17:53	25°♍04'08		asc. node	1332 Sep 09 j 10:28	8°♍31'07	
asc. node	1331 Sep 23 j 13:24	24°♍43'36		morning max el	1332 Sep 14 j 16:27	11°♍48'42	17°55'12
direct	1331 Sep 25 j 11:24	24°♍23'27			1332 Sep 27 j 02:17	0°♂	
morning max el	1331 Oct 02 j 00:31	27°♍56'27	18°14'50	morning set	1332 Oct 01 j 14:16	7°♂42'35	
	1331 Oct 03 j 21:20	0°♂					
morning set	1331 Oct 20 j 18:13	25°♂53'31		superior conj	1332 Oct 14 j 09:24	29°♂12'18	0°25'17
	1331 Oct 23 j 06:32	0°♍		minimum elong	1332 Oct 14 j 12:09	29°♂23'28	0°24'54
desc. node	1331 Nov 01 j 07:14	14°♍33'21			1332 Oct 14 j 21:07	0°♍	
				desc. node	1332 Oct 18 j 04:16	5°♍19'49	
superior conj	1331 Nov 04 j 14:44	19°♍48'44	0°-21'-57	max. Earth dist.	1332 Oct 19 j 22:12	8°♍07'23	1.44338 AU
minimum elong	1331 Nov 04 j 11:53	19°♍37'30	0°21'34	evening rise	1332 Oct 30 j 11:48	24°♍38'59	
max. Earth dist.	1331 Nov 07 j 03:59	23°♍50'15	1.45031 AU		1332 Nov 02 j 23:35	0°♂	
	1331 Nov 11 j 02:14	0°♂		greatest brilliancy	1332 Nov 21 j 04:21	26°♂39'02	-0.5m
evening rise	1331 Nov 21 j 01:32	15°♂33'59			1332 Nov 23 j 18:50	0°♂	
	1331 Nov 30 j 08:29	0°♂		evening max el	1332 Nov 27 j 06:33	3°♂58'41	20°28'49
greatest brilliancy	1331 Dec 06 j 15:59	9°♂31'13	-0.7m	retrograde	1332 Dec 05 j 06:59	8°♂42'18	
evening max el	1331 Dec 15 j 03:39	20°♂29'23	19°29'22	asc. node	1332 Dec 06 j 09:42	8°♂35'19	
asc. node	1331 Dec 20 j 12:38	24°♂20'52		evening set	1332 Dec 09 j 01:46	7°♂19'39	
retrograde	1331 Dec 22 j 09:11	24°♂39'52		inferior conj	1332 Dec 14 j 12:39	1°♂09'56	2°30'54
evening set	1331 Dec 25 j 19:07	23°♂31'41		minimum elong	1332 Dec 14 j 10:00	1°♂18'53	2°30'05
inferior conj	1331 Dec 31 j 09:00	17°♂34'34	3°06'04	min. Earth dist.	1332 Dec 15 j 04:21	0°♂16'37	0.67216 AU
minimum elong	1331 Dec 31 j 06:25	17°♂43'02	3°05'28		1332 Dec 15 j 09:16	30°♍♂	
min. Earth dist.	1332 Jan 01 j 13:52	16°♂00'38	0.66390 AU	morning rise	1332 Dec 19 j 17:47	24°♂54'48	
morning rise	1332 Jan 05 j 16:57	11°♂20'43		direct	1332 Dec 25 j 07:44	22°♂27'40	
direct	1332 Jan 11 j 21:21	8°♂36'58		morning max el	1333 Jan 05 j 15:23	29°♂12'37	24°31'25
morning max el	1332 Jan 24 j 06:58	15°♂58'31	25°53'41		1333 Jan 06 j 09:50	0°♂	
desc. node	1332 Jan 28 j 06:26	20°♂18'18		desc. node	1333 Jan 14 j 03:28	9°♂08'40	
	1332 Feb 04 j 21:40	0°♂			1333 Jan 28 j 17:33	0°♂	
	1332 Feb 24 j 05:20	0°♂		morning set	1333 Feb 10 j 14:15	21°♂11'29	
morning set	1332 Feb 29 j 11:50	9°♂25'42		max. Earth dist.	1333 Feb 14 j 07:23	27°♂49'25	1.37572 AU
max. Earth dist.	1332 Mar 04 j 09:32	16°♂46'38	1.35658 AU		1333 Feb 15 j 11:56	0°♂	
				superior conj	1333 Feb 21 j 02:28	10°♂35'03	-1°-37'-46
superior conj	1332 Mar 09 j 18:31	27°♂22'52	-1°-13'-51	minimum elong	1333 Feb 21 j 06:37	10°♂55'08	1°37'17
minimum elong	1332 Mar 09 j 22:05	27°♂40'51	1°13'18	evening rise	1333 Mar 01 j 18:19	27°♂42'21	
	1332 Mar 11 j 01:31	0°♂			1333 Mar 02 j 22:09	0°♂	
asc. node	1332 Mar 17 j 11:58	13°♂13'09		asc. node	1333 Mar 04 j 09:01	2°♂50'40	
evening rise	1332 Mar 17 j 17:27	13°♂41'13		evening max el	1333 Mar 18 j 12:08	24°♂47'04	19°12'20
	1332 Mar 26 j 06:17	0°♂		retrograde	1333 Mar 27 j 10:00	29°♂05'28	
evening max el	1332 Apr 04 j 18:31	12°♂55'23	20°13'13	evening set	1333 Mar 29 j 13:16	28°♂51'40	
retrograde	1332 Apr 15 j 08:12	18°♂01'31		inferior conj	1333 Apr 06 j 20:32	24°♂40'50	1°27'38
evening set	1332 Apr 17 j 09:47	17°♂50'41		minimum elong	1333 Apr 06 j 23:49	24°♂35'17	1°26'34
desc. node	1332 Apr 25 j 05:38	14°♂34'51		min. Earth dist.	1333 Apr 09 j 18:44	22°♂43'04	0.56442 AU
inferior conj	1332 Apr 26 j 10:36	13°♂52'19	0°-20'-59	desc. node	1333 Apr 12 j 02:39	21°♂17'54	
minimum elong	1332 Apr 26 j 09:37	13°♂53'46	0°20'39	morning rise	1333 Apr 15 j 06:20	19°♂48'36	
min. Earth dist.	1332 Apr 28 j 03:45	12°♂51'30	0.55253 AU	direct	1333 Apr 20 j 04:34	18°♂52'27	
morning rise	1332 May 05 j 07:07	9°♂33'28		morning max el	1333 May 04 j 09:45	26°♂08'51	25°22'10
direct	1332 May 09 j 04:53	9°♂00'16					
morning max el	1332 May 22 j 19:14	15°♂40'43	23°43'17				

	1333 May 08 j 01:22	0°♄		desc. node	1334 Mar 29 j 23:40	29°♄33'20	
	1333 May 27 j 02:24	0°♄		direct	1334 Apr 01 j 18:12	29°♄13'30	
morning set	1333 May 31 j 05:51	8°♄28'32			1334 Apr 06 j 02:10	0°♄	
asc. node	1333 May 31 j 08:17	8°♄41'25		morning max el	1334 Apr 16 j 03:18	6°♄52'26	26°43'33
					1334 May 03 j 08:34	0°♄	
superior conj	1333 Jun 07 j 06:17	23°♄40'33	1°07'17	morning set	1334 May 15 j 16:15	23°♄20'19	
minimum elong	1333 Jun 07 j 03:55	23°♄27'40	1°06'53	asc. node	1334 May 18 j 05:19	28°♄45'10	
max. Earth dist.	1333 Jun 08 j 08:20	26°♄02'48	1.32664 AU		1334 May 18 j 19:10	0°♄	
	1333 Jun 10 j 04:06	0°♄					
evening rise	1333 Jun 14 j 09:55	8°♄57'36		superior conj	1334 May 22 j 17:57	8°♄38'41	0°46'16
	1333 Jun 25 j 13:02	0°♄		minimum elong	1334 May 22 j 16:05	8°♄28'25	0°45'54
desc. node	1333 Jul 09 j 02:00	20°♄10'03		max. Earth dist.	1334 May 22 j 20:07	8°♄50'35	1.32277 AU
evening max el	1333 Jul 16 j 10:27	28°♄19'45	27°18'24	evening rise	1334 May 29 j 16:53	23°♄41'59	
	1333 Jul 18 j 06:51	0°♄			1334 Jun 01 j 18:31	0°♄	
retrograde	1333 Jul 30 j 05:52	5°♄35'55			1334 Jun 19 j 13:49	0°♄	
evening set	1333 Aug 06 j 10:16	3°♄10'06		desc. node	1334 Jun 25 j 22:59	7°♄45'44	
min. Earth dist.	1333 Aug 10 j 00:21	0°♄19'28	0.62198 AU	evening max el	1334 Jun 28 j 12:58	10°♄22'54	26°39'37
	1333 Aug 10 j 09:00	30°♄♄		retrograde	1334 Jul 12 j 12:18	17°♄36'46	
inferior conj	1333 Aug 12 j 23:56	27°♄33'40	-4°-4'-14	evening set	1334 Jul 19 j 06:52	15°♄39'18	
minimum elong	1333 Aug 13 j 05:02	27°♄21'48	4°03'06	min. Earth dist.	1334 Jul 23 j 02:31	13°♄02'44	0.60179 AU
morning rise	1333 Aug 20 j 02:29	22°♄30'12		inferior conj	1334 Jul 26 j 09:42	10°♄22'17	-4°-40'-40
direct	1333 Aug 22 j 12:11	22°♄04'47		minimum elong	1334 Jul 26 j 13:18	10°♄14'55	4°40'15
asc. node	1333 Aug 27 j 07:30	23°♄49'11		morning rise	1334 Aug 02 j 23:02	5°♄41'18	
morning max el	1333 Aug 29 j 07:48	25°♄31'55	17°53'43	direct	1334 Aug 05 j 08:47	5°♄19'41	
	1333 Sep 02 j 01:48	0°♄		morning max el	1334 Aug 12 j 19:28	8°♄57'30	18°11'27
morning set	1333 Sep 14 j 07:27	20°♄32'16		asc. node	1334 Aug 14 j 04:32	10°♄23'39	
	1333 Sep 19 j 14:12	0°♄			1334 Aug 26 j 11:32	0°♄	
				morning set	1334 Aug 28 j 15:54	4°♄05'37	
superior conj	1333 Sep 25 j 06:57	9°♄56'00	1°02'59				
minimum elong	1333 Sep 25 j 11:39	10°♄16'07	1°02'25	superior conj	1334 Sep 07 j 06:05	21°♄55'08	1°28'20
max. Earth dist.	1333 Oct 02 j 12:31	22°♄00'58	1.43006 AU	minimum elong	1334 Sep 07 j 09:55	22°♄12'25	1°27'59
desc. node	1333 Oct 05 j 01:19	26°♄07'04			1334 Sep 11 j 19:33	0°♄	
	1333 Oct 07 j 11:44	0°♄		max. Earth dist.	1334 Sep 14 j 20:58	5°♄14'48	1.41205 AU
evening rise	1333 Oct 09 j 21:43	3°♄48'09		evening rise	1334 Sep 19 j 23:27	13°♄42'29	
	1333 Oct 27 j 10:23	0°♄		desc. node	1334 Sep 21 j 22:21	16°♄51'25	
greatest brilliancy	1333 Nov 05 j 06:39	11°♄53'59	-0.4m		1334 Sep 30 j 09:53	0°♄	
evening max el	1333 Nov 10 j 03:40	17°♄28'28	21°39'55	greatest brilliancy	1334 Oct 18 j 11:07	24°♄59'29	-0.2m
retrograde	1333 Nov 19 j 04:00	22°♄50'19			1334 Oct 22 j 20:17	0°♄	
evening set	1333 Nov 23 j 09:32	21°♄11'37		evening max el	1334 Oct 23 j 19:42	1°♄00'23	22°58'22
asc. node	1333 Nov 23 j 06:45	21°♄17'01		retrograde	1334 Nov 02 j 22:43	7°♄01'00	
inferior conj	1333 Nov 28 j 19:06	14°♄52'44	1°48'20	evening set	1334 Nov 07 j 16:45	5°♄05'11	
minimum elong	1333 Nov 28 j 16:54	15°♄00'21	1°47'31	asc. node	1334 Nov 10 j 03:45	2°♄34'18	
min. Earth dist.	1333 Nov 28 j 23:06	14°♄38'50	0.67668 AU		1334 Nov 12 j 03:30	30°♄♄	
morning rise	1333 Dec 04 j 00:00	8°♄38'09		inferior conj	1334 Nov 13 j 02:28	28°♄41'05	0°59'58
direct	1333 Dec 08 j 22:37	6°♄32'34		minimum elong	1334 Nov 13 j 01:07	28°♄45'45	0°59'24
morning max el	1333 Dec 19 j 00:50	12°♄32'01	23°03'07	min. Earth dist.	1334 Nov 12 j 19:46	29°♄04'11	0.67772 AU
greatest brilliancy	1333 Dec 23 j 20:53	17°♄56'22	-0.3m	morning rise	1334 Nov 18 j 09:28	22°♄29'15	
desc. node	1334 Jan 01 j 00:31	28°♄37'18		direct	1334 Nov 22 j 17:19	20°♄46'26	
	1334 Jan 02 j 00:10	0°♄		morning max el	1334 Dec 01 j 14:39	25°♄59'09	21°37'52
	1334 Jan 21 j 14:49	0°♄			1334 Dec 05 j 05:41	0°♄	
morning set	1334 Jan 22 j 14:50	1°♄39'26		greatest brilliancy	1334 Dec 06 j 13:15	1°♄35'57	-0.4m
max. Earth dist.	1334 Jan 27 j 02:35	9°♄15'54	1.39701 AU	desc. node	1334 Dec 18 j 21:34	18°♄33'43	
					1334 Dec 26 j 12:53	0°♄	
superior conj	1334 Feb 03 j 19:18	22°♄59'26	-1°-55'-49	morning set	1335 Jan 02 j 10:16	10°♄44'36	
minimum elong	1334 Feb 03 j 22:41	23°♄15'01	1°55'36	max. Earth dist.	1335 Jan 09 j 02:06	21°♄32'24	1.41772 AU
	1334 Feb 07 j 13:30	0°♄			1335 Jan 14 j 02:42	0°♄	
evening rise	1334 Feb 13 j 10:24	11°♄12'20					
asc. node	1334 Feb 19 j 06:03	22°♄06'54		superior conj	1335 Jan 16 j 15:58	4°♄24'33	-2°-3'-56
	1334 Feb 23 j 22:34	0°♄		minimum elong	1335 Jan 16 j 16:22	4°♄26'18	2°03'57
evening max el	1334 Mar 01 j 14:58	7°♄13'06	18°31'29	evening rise	1335 Jan 27 j 14:12	24°♄03'32	
retrograde	1334 Mar 09 j 06:14	10°♄58'00			1335 Jan 30 j 20:12	0°♄	
evening set	1334 Mar 11 j 14:36	10°♄37'52		asc. node	1335 Feb 06 j 03:04	10°♄55'08	
inferior conj	1334 Mar 19 j 03:06	6°♄07'46	2°45'06	evening max el	1335 Feb 13 j 00:02	20°♄05'58	18°10'36
minimum elong	1334 Mar 19 j 07:07	5°♄59'49	2°44'08	retrograde	1335 Feb 19 j 20:09	23°♄33'17	
min. Earth dist.	1334 Mar 22 j 13:14	3°♄26'52	0.58266 AU	evening set	1335 Feb 22 j 09:44	23°♄04'41	
morning rise	1334 Mar 26 j 19:30	0°♄44'01		inferior conj	1335 Mar 01 j 06:11	18°♄13'22	3°28'51
	1334 Mar 28 j 12:16	30°♄♄		minimum elong	1335 Mar 01 j 08:39	18°♄07'43	3°28'32

min. Earth dist.	1335 Mar 04 j 13:34	15° ✕ 12'42	0.60385 AU	inferior conj	1336 Feb 12 j 02:20	0° ✕ 50'27	3°45'08
morning rise	1335 Mar 08 j 04:17	12° ✕ 27'40		minimum elong	1336 Feb 12 j 02:43	0° ✕ 49'28	3°45'08
direct	1335 Mar 14 j 20:15	10° ✕ 20'27			1336 Feb 12 j 21:34	30° ℞	
desc. node	1335 Mar 16 j 20:42	10° ✕ 31'35		min. Earth dist.	1336 Feb 14 j 21:57	27° ≈ 54'52	0.62472 AU
morning max el	1335 Mar 29 j 02:46	18° ✕ 11'11	27°34'27	morning rise	1336 Feb 18 j 08:52	24° ≈ 51'18	
	1335 Apr 08 j 00:24	0° Υ		direct	1336 Feb 25 j 07:47	22° ≈ 16'02	
	1335 Apr 25 j 23:58	0° ♄		desc. node	1336 Mar 02 j 17:44	24° ≈ 09'34	
morning set	1335 Apr 29 j 23:28	8° ♄ 00'21			1336 Mar 10 j 03:39	0° ✕	
asc. node	1335 May 05 j 02:21	18° ♄ 54'09		morning max el	1336 Mar 10 j 07:53	0° ✕ 10'29	27°48'41
max. Earth dist.	1335 May 06 j 08:07	21° ♄ 36'33	1.32271 AU		1336 Apr 01 j 00:50	0° Υ	
				morning set	1336 Apr 13 j 01:24	22° Υ 21'25	
superior conj	1335 May 07 j 05:21	23° ♄ 32'53	0°22'20		1336 Apr 16 j 18:01	0° ♄	
minimum elong	1335 May 07 j 04:22	23° ♄ 27'26	0°22'07	max. Earth dist.	1336 Apr 18 j 16:33	4° ♄ 07'42	1.32657 AU
	1335 May 10 j 03:56	0° ♄					
evening rise	1335 May 14 j 03:13	8° ♄ 33'51		superior conj	1336 Apr 20 j 14:47	8° ♄ 17'12	0°-3'-48
	1335 May 25 j 06:18	0° ♄		minimum elong	1336 Apr 20 j 14:58	8° ♄ 18'10	0°03'46
evening max el	1335 Jun 10 j 08:35	21° ♄ 40'12	25°30'32	behind sun begin	1336 Apr 20 j 09:55	7° ♄ 50'47	
desc. node	1335 Jun 12 j 19:59	23° ♄ 51'51		behind sun end	1336 Apr 20 j 20:01	8° ♄ 45'34	
retrograde	1335 Jun 24 j 09:19	28° ♄ 49'27		asc. node	1336 Apr 20 j 23:25	9° ♄ 04'00	
evening set	1335 Jun 30 j 04:48	27° ♄ 30'08		evening rise	1336 Apr 27 j 15:00	23° ♄ 26'23	
min. Earth dist.	1335 Jul 04 j 20:42	24° ♄ 49'12	0.58133 AU		1336 Apr 30 j 18:55	0° ♄	
inferior conj	1335 Jul 08 j 01:20	22° ♄ 34'27	-4°-53'-57		1336 May 19 j 16:13	0° ♄	
minimum elong	1335 Jul 08 j 01:04	22° ♄ 34'57	4°53'58	evening max el	1336 May 21 j 23:12	2° ♄ 21'46	24°00'46
morning rise	1335 Jul 16 j 01:01	18° ♄ 16'09		desc. node	1336 May 29 j 16:58	7° ♄ 54'34	
direct	1335 Jul 18 j 13:11	17° ♄ 56'37		retrograde	1336 Jun 04 j 18:16	9° ♄ 17'46	
morning max el	1335 Jul 27 j 00:16	21° ♄ 56'18	18°49'38	evening set	1336 Jun 09 j 04:06	8° ♄ 34'48	
asc. node	1335 Aug 01 j 01:35	27° ♄ 59'33		min. Earth dist.	1336 Jun 15 j 10:05	5° ♄ 33'27	0.56363 AU
	1335 Aug 02 j 09:56	0° ♄		inferior conj	1336 Jun 17 j 20:50	4° ♄ 02'59	-4°-30'-26
morning set	1335 Aug 12 j 11:10	18° ♄ 10'46		minimum elong	1336 Jun 17 j 15:25	4° ♄ 11'24	4°29'38
	1335 Aug 18 j 12:08	0° ♄		morning rise	1336 Jun 26 j 06:16	0° ♄ 03'27	
					1336 Jun 26 j 12:36	30° ℞ ♄	
superior conj	1335 Aug 21 j 01:29	4° ♄ 54'23	1°42'07	direct	1336 Jun 28 j 22:45	29° ♄ 44'40	
minimum elong	1335 Aug 21 j 03:24	5° ♄ 03'28	1°42'01		1336 Jul 01 j 07:26	0° ♄	
max. Earth dist.	1335 Aug 28 j 00:57	17° ♄ 45'01	1.39183 AU	morning max el	1336 Jul 08 j 19:24	4° ♄ 19'03	19°49'08
evening rise	1335 Sep 01 j 01:03	24° ♄ 43'36		asc. node	1336 Jul 17 j 22:39	16° ♄ 23'19	
	1335 Sep 04 j 04:22	0° ♄			1336 Jul 25 j 06:14	0° ♄	
desc. node	1335 Sep 08 j 19:21	7° ♄ 28'48		morning set	1336 Jul 26 j 14:02	2° ♄ 39'28	
	1335 Sep 24 j 03:49	0° ♄					
evening max el	1335 Oct 06 j 08:36	14° ♄ 35'52	24°18'16	superior conj	1336 Aug 03 j 11:52	18° ♄ 39'15	1°46'14
retrograde	1335 Oct 17 j 13:45	21° ♄ 10'05		minimum elong	1336 Aug 03 j 11:54	18° ♄ 39'24	1°46'13
evening set	1335 Oct 22 j 21:47	18° ♄ 57'04		max. Earth dist.	1336 Aug 09 j 05:23	29° ♄ 45'17	1.37191 AU
min. Earth dist.	1335 Oct 27 j 15:52	13° ♄ 29'34	0.67551 AU		1336 Aug 09 j 08:31	0° ♄	
inferior conj	1335 Oct 28 j 08:59	12° ♄ 31'59	0°07'04	evening rise	1336 Aug 13 j 02:05	6° ♄ 51'36	
minimum elong	1335 Oct 28 j 08:49	12° ♄ 32'35	0°06'59	desc. node	1336 Aug 25 j 16:21	27° ♄ 55'03	
transit middle	1335 Oct 28 j 08:49	12° ♄ 32'35	0°06'59		1336 Aug 27 j 00:50	0° ♄	
transit begin	1335 Oct 28 j 06:21	12° ♄ 40'53		evening max el	1336 Sep 17 j 20:35	28° ♄ 15'20	25°32'21
transit end	1335 Oct 28 j 11:17	12° ♄ 24'16			1336 Sep 19 j 17:28	0° ♄	
asc. node	1335 Oct 28 j 00:47	12° ♄ 59'35		retrograde	1336 Sep 30 j 00:17	5° ♄ 13'51	
morning rise	1335 Nov 02 j 20:08	6° ♄ 25'26		evening set	1336 Oct 05 j 22:57	2° ♄ 45'13	
direct	1335 Nov 06 j 14:39	5° ♄ 04'07			1336 Oct 08 j 15:45	30° ℞ ♄	
morning max el	1335 Nov 14 j 11:32	9° ♄ 36'02	20°22'16	min. Earth dist.	1336 Oct 10 j 08:59	27° ♄ 53'15	0.67005 AU
greatest brilliancy	1335 Nov 20 j 22:51	17° ♄ 19'35	-0.5m	inferior conj	1336 Oct 11 j 12:56	26° ♄ 23'28	0°-48'-56
	1335 Nov 29 j 21:14	0° ♄		minimum elong	1336 Oct 11 j 14:11	26° ♄ 19'26	0°48'24
desc. node	1335 Dec 05 j 18:36	8° ♄ 49'32		asc. node	1336 Oct 13 j 21:51	23° ♄ 28'00	
morning set	1335 Dec 12 j 08:39	18° ♄ 55'02		morning rise	1336 Oct 17 j 06:08	20° ♄ 25'06	
	1335 Dec 19 j 10:21	0° ♄		direct	1336 Oct 20 j 13:13	19° ♄ 22'25	
max. Earth dist.	1335 Dec 22 j 09:23	4° ♄ 43'41	1.43501 AU	morning max el	1336 Oct 27 j 16:12	23° ♄ 23'20	19°20'18
					1336 Nov 02 j 04:05	0° ♄	
superior conj	1335 Dec 28 j 11:29	14° ♄ 39'12	-1°-57'-17	greatest brilliancy	1336 Nov 06 j 06:23	5° ♄ 47'28	-0.7m
minimum elong	1335 Dec 28 j 06:47	14° ♄ 19'47	1°57'04	morning set	1336 Nov 20 j 09:18	27° ♄ 21'28	
	1336 Jan 06 j 13:04	0° ♄		desc. node	1336 Nov 21 j 15:39	29° ♄ 19'24	
evening rise	1336 Jan 10 j 01:30	6° ≈ 07'00			1336 Nov 22 j 02:06	0° ♄	
asc. node	1336 Jan 24 j 00:06	29° ≈ 06'15		max. Earth dist.	1336 Dec 03 j 23:53	18° ♄ 38'33	1.44660 AU
	1336 Jan 24 j 16:15	0° ✕					
evening max el	1336 Jan 27 j 12:11	3° ✕ 16'42	18°09'11	superior conj	1336 Dec 07 j 05:05	23° ♄ 44'38	-1°-32'-4
retrograde	1336 Feb 02 j 23:54	6° ✕ 41'07		minimum elong	1336 Dec 06 j 20:31	23° ♄ 10'33	1°31'16
evening set	1336 Feb 05 j 18:22	6° ✕ 02'47			1336 Dec 11 j 02:52	0° ♄	

evening rise	1336 Dec 21 j 16:07	17°☾15'58		evening max el	1337 Dec 24 j 10:41	0°≈05'02	19°01'41
	1336 Dec 29 j 08:30	0°≈		asc. node	1337 Dec 27 j 18:11	2°≈51'04	
asc. node	1337 Jan 09 j 21:08	16°≈29'23		retrograde	1337 Dec 31 j 08:07	4°≈00'01	
evening max el	1337 Jan 10 j 00:35	16°≈38'11	18°26'32	evening set	1338 Jan 03 j 13:48	2°≈59'16	
retrograde	1337 Jan 16 j 13:11	20°≈12'30			1338 Jan 06 j 22:03	30°☿☾	
evening set	1337 Jan 19 j 12:45	19°≈23'30		inferior conj	1338 Jan 09 j 06:16	27°☾10'24	3°22'11
inferior conj	1337 Jan 25 j 11:35	13°≈51'41	3°41'04	minimum elong	1338 Jan 09 j 03:57	27°☾17'40	3°21'46
minimum elong	1337 Jan 25 j 10:17	13°≈55'26	3°40'58	min. Earth dist.	1338 Jan 10 j 19:17	25°☾14'01	0.65734 AU
min. Earth dist.	1337 Jan 27 j 15:55	11°≈20'11	0.64292 AU	morning rise	1338 Jan 14 j 17:11	20°☾58'05	
morning rise	1337 Jan 31 j 06:24	7°≈44'20		direct	1338 Jan 21 j 04:33	18°☾09'06	
direct	1337 Feb 07 j 02:52	4°≈55'09		morning max el	1338 Feb 03 j 02:41	25°☾45'41	26°34'24
desc. node	1337 Feb 17 j 14:48	9°≈54'24		desc. node	1338 Feb 04 j 11:53	27°☾11'38	
morning max el	1337 Feb 20 j 16:43	12°≈45'47	27°26'46		1338 Feb 07 j 00:28	0°≈	
	1337 Mar 06 j 12:49	0°☿			1338 Feb 28 j 01:17	0°☿	
	1337 Mar 24 j 13:26	0°☿		morning set	1338 Mar 11 j 02:05	19°☿31'33	
morning set	1337 Mar 27 j 19:26	6°☿15'16		max. Earth dist.	1338 Mar 15 j 07:58	27°☿44'49	1.34728 AU
max. Earth dist.	1337 Apr 01 j 17:37	16°☿12'41	1.33469 AU		1338 Mar 16 j 11:05	0°☿	
superior conj	1337 Apr 04 j 20:22	22°☿45'25	0°-31'-11	superior conj	1338 Mar 19 j 19:54	6°☿51'08	0°-58'-38
minimum elong	1337 Apr 04 j 21:55	22°☿53'37	0°30'53	minimum elong	1338 Mar 19 j 22:48	7°☿06'07	0°58'08
asc. node	1337 Apr 07 j 20:27	29°☿10'31		asc. node	1338 Mar 25 j 17:30	19°☿09'48	
	1337 Apr 08 j 05:41	0°☿		evening rise	1338 Mar 27 j 11:28	22°☿48'00	
evening rise	1337 Apr 12 j 02:23	8°☿13'10			1338 Mar 31 j 00:42	0°☿	
	1337 Apr 23 j 15:27	0°☿		evening max el	1338 Apr 15 j 14:19	23°☿44'41	20°56'46
evening max el	1337 May 03 j 14:43	12°☿52'52	22°24'49	retrograde	1338 Apr 27 j 04:13	29°☿22'29	
retrograde	1337 May 16 j 14:43	19°☿18'40		evening set	1338 Apr 29 j 09:09	29°☿10'59	
desc. node	1337 May 16 j 14:00	19°☿18'40		desc. node	1338 May 03 j 11:02	27°☿55'38	
evening set	1337 May 19 j 15:19	18°☿58'31		inferior conj	1338 May 08 j 16:25	25°☿12'56	-1°-30'-26
min. Earth dist.	1337 May 27 j 21:48	15°☿23'56	0.55216 AU	minimum elong	1338 May 08 j 12:09	25°☿18'59	1°28'55
inferior conj	1337 May 28 j 22:31	14°☿48'59	-3°-19'-55	min. Earth dist.	1338 May 09 j 10:23	24°☿47'26	0.54957 AU
minimum elong	1337 May 28 j 14:49	14°☿59'52	3°17'47	morning rise	1338 May 17 j 14:33	21°☿09'04	
morning rise	1337 Jun 06 j 16:35	10°☿56'58		direct	1338 May 21 j 00:52	20°☿43'41	
direct	1337 Jun 09 j 15:16	10°☿37'15		morning max el	1338 Jun 03 j 00:48	26°☿57'04	22°44'49
morning max el	1337 Jun 21 j 03:12	15°☿58'23	21°09'07		1338 Jun 05 j 23:49	0°☿	
	1337 Jul 01 j 18:43	0°☿		asc. node	1338 Jun 21 j 16:47	24°☿48'50	
asc. node	1337 Jul 04 j 19:43	5°☿22'41			1338 Jun 24 j 06:13	0°☿	
morning set	1337 Jul 10 j 21:49	17°☿23'26		morning set	1338 Jun 25 j 08:32	2°☿16'49	
	1337 Jul 16 j 22:50	0°☿		superior conj	1338 Jul 02 j 12:47	17°☿34'13	1°32'40
superior conj	1337 Jul 18 j 08:45	2°☿55'52	1°42'34	minimum elong	1338 Jul 02 j 10:36	17°☿22'38	1°32'27
minimum elong	1337 Jul 18 j 07:23	2°☿48'50	1°42'29	max. Earth dist.	1338 Jul 05 j 10:22	23°☿40'35	1.34042 AU
max. Earth dist.	1337 Jul 22 j 15:29	11°☿36'55	1.35434 AU		1338 Jul 08 j 12:28	0°☿	
evening rise	1337 Jul 26 j 22:09	19°☿54'26		evening rise	1338 Jul 10 j 08:39	3°☿39'47	
	1337 Aug 01 j 11:09	0°☿			1338 Jul 25 j 06:14	0°☿	
desc. node	1337 Aug 12 j 13:22	18°☿03'38		desc. node	1338 Jul 30 j 10:22	7°☿46'38	
	1337 Aug 21 j 00:58	0°☿		evening max el	1338 Aug 13 j 20:30	25°☿19'30	27°13'10
evening max el	1337 Aug 31 j 08:38	11°☿52'49	26°33'09		1338 Aug 19 j 15:11	0°☿	
retrograde	1337 Sep 13 j 05:44	19°☿05'50		retrograde	1338 Aug 27 j 05:47	2°☿38'24	
evening set	1337 Sep 19 j 18:12	16°☿25'48		evening set	1338 Sep 03 j 05:07	29°☿54'43	
min. Earth dist.	1337 Sep 23 j 20:40	12°☿10'58	0.66113 AU		1338 Sep 03 j 02:24	30°☿☿	
inferior conj	1337 Sep 25 j 12:21	10°☿11'37	-1°-46'-32	min. Earth dist.	1338 Sep 07 j 00:42	26°☿16'37	0.64856 AU
minimum elong	1337 Sep 25 j 15:09	10°☿03'11	1°45'24	inferior conj	1338 Sep 09 j 05:01	23°☿52'10	-2°-43'-36
asc. node	1337 Sep 30 j 18:55	4°☿52'31		minimum elong	1338 Sep 09 j 09:14	23°☿40'29	2°42'07
morning rise	1337 Oct 01 j 13:19	4°☿24'31		morning rise	1338 Sep 15 j 15:10	18°☿19'27	
direct	1337 Oct 04 j 11:06	3°☿36'54		asc. node	1338 Sep 17 j 15:59	17°☿45'00	
morning max el	1337 Oct 11 j 03:17	7°☿17'12	18°33'59	direct	1338 Sep 18 j 06:05	17°☿43'10	
	1337 Oct 26 j 23:54	0°☿		morning max el	1338 Sep 24 j 18:17	21°☿12'06	18°04'21
morning set	1337 Oct 31 j 09:20	7°☿01'34			1338 Oct 01 j 12:17	0°☿	
desc. node	1337 Nov 08 j 12:42	19°☿58'32		morning set	1338 Oct 12 j 14:22	18°☿07'04	
	1337 Nov 14 j 21:21	0°☿			1338 Oct 19 j 18:35	0°☿	
superior conj	1337 Nov 16 j 06:52	2°☿11'43	0°-50'-3	desc. node	1338 Oct 26 j 09:42	10°☿43'17	
minimum elong	1337 Nov 16 j 00:30	1°☿46'41	0°49'16	superior conj	1338 Oct 26 j 13:57	11°☿00'16	0°-1'-11
max. Earth dist.	1337 Nov 16 j 18:20	2°☿56'43	1.45110 AU	minimum elong	1338 Oct 26 j 13:47	10°☿59'38	0°01'11
evening rise	1337 Dec 02 j 07:19	27°☿27'12		behind sun begin	1338 Oct 26 j 03:09	10°☿17'07	
	1337 Dec 03 j 21:47	0°☿		behind sun end	1338 Oct 27 j 00:25	11°☿42'05	
	1337 Dec 24 j 08:44	0°≈		max. Earth dist.	1338 Oct 30 j 13:04	17°☿17'54	1.44819 AU

	1338 Nov 07 j 15:49	0°♊			1339 Oct 31 j 17:01	0°♊	
evening rise	1338 Nov 12 j 01:18	6°♊48'43		greatest brilliancy	1339 Nov 15 j 06:18	20°♊40'11	-0.5m
	1338 Nov 27 j 07:13	0°♋		evening max el	1339 Nov 20 j 17:01	27°♊03'46	20°57'54
greatest brilliancy	1338 Nov 30 j 09:45	4°♋27'26	-0.6m		1339 Nov 24 j 00:03	0°♋	
evening max el	1338 Dec 07 j 16:32	13°♋33'42	19°52'59	retrograde	1339 Nov 29 j 03:17	2°♋03'23	
asc. node	1338 Dec 14 j 15:14	17°♋55'59		asc. node	1339 Dec 01 j 12:16	1°♋31'48	
retrograde	1338 Dec 15 j 05:36	17°♋57'59		evening set	1339 Dec 03 j 02:18	0°♋34'20	
evening set	1338 Dec 18 j 18:58	16°♋43'59			1339 Dec 03 j 19:02	30°♌♊	
inferior conj	1338 Dec 24 j 07:21	10°♋40'58	2°52'12	inferior conj	1339 Dec 08 j 12:27	24°♌20'26	2°13'41
minimum elong	1338 Dec 24 j 04:41	10°♋49'53	2°51'29	minimum elong	1339 Dec 08 j 09:57	24°♌29'02	2°12'50
min. Earth dist.	1338 Dec 25 j 06:26	9°♋24'11	0.66784 AU	min. Earth dist.	1339 Dec 08 j 23:07	23°♌43'48	0.67452 AU
morning rise	1338 Dec 29 j 13:44	4°♋26'05		morning rise	1339 Dec 13 j 17:10	18°♌05'06	
direct	1339 Jan 04 j 12:05	1°♋48'31		direct	1339 Dec 19 j 00:41	15°♌46'28	
morning max el	1339 Jan 16 j 11:38	8°♋56'52	25°20'03	morning max el	1339 Dec 29 j 19:59	22°♌13'05	23°53'55
desc. node	1339 Jan 22 j 08:56	15°♋33'46			1340 Jan 05 j 14:59	0°♋	
	1339 Feb 02 j 01:52	0°♌		desc. node	1340 Jan 09 j 05:58	4°♋42'21	
	1339 Feb 20 j 14:48	0°♌			1340 Jan 26 j 09:39	0°♌	
morning set	1339 Feb 21 j 16:28	1°♌55'09		morning set	1340 Feb 03 j 08:37	13°♌09'46	
max. Earth dist.	1339 Feb 25 j 10:28	8°♌49'21	1.36427 AU	max. Earth dist.	1340 Feb 07 j 05:41	19°♌55'50	1.38469 AU
					1340 Feb 12 j 18:19	0°♌	
superior conj	1339 Mar 03 j 10:29	20°♌25'14	-1°-24'-31				
minimum elong	1339 Mar 03 j 14:25	20°♌44'43	1°23'58	superior conj	1340 Feb 14 j 12:34	3°♌18'43	-1°-46'-21
	1339 Mar 08 j 04:41	0°♍		minimum elong	1340 Feb 14 j 16:37	3°♌37'53	1°45'59
evening rise	1339 Mar 11 j 15:59	7°♍03'01		evening rise	1340 Feb 23 j 13:28	20°♌51'34	
asc. node	1339 Mar 12 j 14:32	8°♍56'31		asc. node	1340 Feb 27 j 11:33	28°♌25'36	
	1339 Mar 24 j 14:19	0°♎			1340 Feb 28 j 07:42	0°♍	
evening max el	1339 Mar 29 j 01:28	5°♎13'41	19°44'56	evening max el	1340 Mar 10 j 23:26	17°♍21'13	18°52'30
retrograde	1339 Apr 07 j 21:47	9°♎58'20		retrograde	1340 Mar 19 j 06:42	21°♍22'51	
evening set	1339 Apr 09 j 23:01	9°♎46'54		evening set	1340 Mar 21 j 12:08	21°♍06'39	
inferior conj	1339 Apr 18 j 16:59	5°♎44'47	0°28'03	inferior conj	1340 Mar 29 j 11:18	16°♍48'25	2°04'48
minimum elong	1339 Apr 18 j 18:13	5°♎42'53	0°27'37	minimum elong	1340 Mar 29 j 15:18	16°♍41'12	2°03'37
desc. node	1339 Apr 20 j 08:05	4°♎43'50		min. Earth dist.	1340 Apr 01 j 16:53	14°♍29'44	0.57168 AU
min. Earth dist.	1339 Apr 21 j 00:36	4°♎18'28	0.55659 AU	desc. node	1340 Apr 06 j 05:07	11°♍51'53	
morning rise	1339 Apr 27 j 10:01	1°♎11'49		morning rise	1340 Apr 06 j 14:10	11°♍41'59	
direct	1339 May 01 j 17:29	0°♎30'27		direct	1340 Apr 11 j 23:39	10°♍31'52	
morning max el	1339 May 15 j 16:10	7°♎28'52	24°26'28	morning max el	1340 Apr 26 j 07:10	17°♍59'28	25°59'42
	1339 Jun 01 j 00:59	0°♏			1340 May 06 j 06:37	0°♎	
asc. node	1339 Jun 08 j 13:49	14°♏34'00			1340 May 23 j 07:07	0°♏	
morning set	1339 Jun 09 j 20:23	17°♏13'44		morning set	1340 May 24 j 07:46	2°♏08'55	
	1339 Jun 15 j 18:34	0°♐		asc. node	1340 May 25 j 10:50	4°♏32'24	
superior conj	1339 Jun 16 j 21:22	2°♐25'37	1°17'46	superior conj	1340 May 31 j 08:26	17°♏23'04	0°58'46
minimum elong	1339 Jun 16 j 18:56	2°♐12'23	1°17'25	minimum elong	1340 May 31 j 06:14	17°♏10'59	0°58'22
max. Earth dist.	1339 Jun 18 j 14:00	6°♐05'16	1.33051 AU	max. Earth dist.	1340 May 31 j 23:54	18°♏47'57	1.32455 AU
evening rise	1339 Jun 24 j 05:31	17°♐55'51			1340 Jun 06 j 04:25	0°♐	
	1339 Jun 30 j 10:42	0°♑		evening rise	1340 Jun 07 j 09:34	2°♐32'38	
desc. node	1339 Jul 17 j 07:23	26°♑53'17			1340 Jun 22 j 07:47	0°♑	
	1339 Jul 19 j 17:05	0°♒		desc. node	1340 Jul 03 j 04:24	15°♑08'08	
evening max el	1339 Jul 27 j 06:52	8°♒24'07	27°25'44	evening max el	1340 Jul 08 j 13:12	20°♑53'29	27°06'05
retrograde	1339 Aug 09 j 23:50	15°♒42'27		retrograde	1340 Jul 22 j 10:40	28°♑08'21	
evening set	1339 Aug 17 j 04:30	13°♒06'28		evening set	1340 Jul 29 j 12:12	25°♑53'25	
min. Earth dist.	1339 Aug 20 j 19:19	10°♒00'53	0.63248 AU	min. Earth dist.	1340 Aug 02 j 03:29	23°♑10'30	0.61351 AU
inferior conj	1339 Aug 23 j 12:16	7°♒19'23	-3°-37'-3	inferior conj	1340 Aug 05 j 06:56	20°♑24'59	-4°-21'-52
minimum elong	1339 Aug 23 j 17:23	7°♒06'39	3°35'38	minimum elong	1340 Aug 05 j 11:40	20°♑14'32	4°21'00
morning rise	1339 Aug 30 j 08:40	2°♒04'12		morning rise	1340 Aug 12 j 14:03	15°♑30'29	
direct	1339 Sep 01 j 19:22	1°♒35'43		direct	1340 Aug 14 j 23:24	15°♑06'56	
asc. node	1339 Sep 04 j 13:02	2°♒12'03		asc. node	1340 Aug 21 j 10:04	18°♑04'03	
morning max el	1339 Sep 08 j 10:21	5°♒01'32	17°52'18	morning max el	1340 Aug 22 j 00:26	18°♑37'43	17°58'49
morning set	1339 Sep 24 j 20:12	0°♓24'15			1340 Aug 30 j 06:14	0°♒	
	1339 Sep 24 j 14:40	0°♓		morning set	1340 Sep 06 j 20:31	13°♒34'17	
					1340 Sep 15 j 22:05	0°♓	
superior conj	1339 Oct 06 j 19:40	20°♓57'16	0°42'43				
minimum elong	1339 Oct 06 j 23:42	21°♓14'02	0°42'11	superior conj	1340 Sep 17 j 04:32	2°♓13'55	1°15'16
	1339 Oct 12 j 08:11	0°♔		minimum elong	1340 Sep 17 j 09:07	2°♓33'54	1°14'45
max. Earth dist.	1339 Oct 13 j 05:26	1°♔25'32	1.43835 AU	max. Earth dist.	1340 Sep 24 j 17:24	15°♓03'44	1.42283 AU
desc. node	1339 Oct 13 j 06:44	1°♔30'46		desc. node	1340 Sep 29 j 03:45	22°♓17'02	
evening rise	1339 Oct 22 j 09:12	15°♔50'09		evening rise	1340 Oct 01 j 00:15	25°♓14'30	

	1340 Oct 04 j 00:59	0°♌		superior conj	1341 Aug 30 j 13:03	14°♎40'47	1°35'30
	1340 Oct 24 j 15:48	0°♊		minimum elong	1341 Aug 30 j 16:07	14°♎54'54	1°35'16
greatest brilliancy	1340 Oct 28 j 18:53	5°♊16'13	-0.3m	max. Earth dist.	1341 Sep 07 j 00:10	28°♎00'55	1.40362 AU
evening max el	1340 Nov 02 j 11:57	10°♊34'47	22°12'46		1341 Sep 08 j 03:54	0°♏	
retrograde	1340 Nov 11 j 23:21	16°♊12'49		evening rise	1341 Sep 11 j 11:48	5°♏36'06	
evening set	1340 Nov 16 j 10:01	14°♊27'00		desc. node	1341 Sep 16 j 00:45	12°♏58'48	
asc. node	1340 Nov 17 j 09:18	13°♊35'11			1341 Sep 27 j 05:19	0°♌	
inferior conj	1340 Nov 21 j 19:30	8°♊05'42	1°28'28	evening max el	1341 Oct 16 j 02:27	24°♌07'58	23°32'32
minimum elong	1340 Nov 21 j 17:37	8°♊12'14	1°27'43		1341 Oct 24 j 08:30	0°♊	
min. Earth dist.	1340 Nov 21 j 18:56	8°♊07'41	0.67758 AU	retrograde	1341 Oct 26 j 16:32	0°♊23'14	
morning rise	1340 Nov 27 j 01:02	1°♊52'06			1341 Oct 28 j 21:35	30°♌	
	1340 Nov 30 j 19:56	30°♌		evening set	1341 Oct 31 j 16:31	28°♌19'49	
direct	1340 Dec 01 j 17:23	29°♌56'00		asc. node	1341 Nov 04 j 06:20	24°♌24'23	
	1340 Dec 02 j 15:19	0°♊		min. Earth dist.	1341 Nov 05 j 15:32	22°♌33'07	0.67723 AU
morning max el	1340 Dec 11 j 06:42	5°♊34'41	22°26'01	inferior conj	1341 Nov 06 j 02:43	21°♌54'53	0°37'59
greatest brilliancy	1340 Dec 15 j 20:40	10°♊42'18	-0.3m	minimum elong	1341 Nov 06 j 01:49	21°♌57'55	0°37'37
desc. node	1340 Dec 26 j 03:00	24°♊23'51		morning rise	1341 Nov 11 j 11:15	15°♌45'15	
	1340 Dec 29 j 23:53	0°♏		direct	1341 Nov 15 j 13:16	14°♌11'55	
morning set	1341 Jan 13 j 20:45	23°♏01'31		morning max el	1341 Nov 23 j 23:22	19°♌05'43	21°04'18
	1341 Jan 18 j 01:55	0°♏		greatest brilliancy	1341 Nov 29 j 10:14	25°♌23'53	-0.5m
max. Earth dist.	1341 Jan 19 j 02:10	1°♏42'15	1.40614 AU		1341 Dec 02 j 21:52	0°♊	
				desc. node	1341 Dec 13 j 00:02	14°♊29'02	
superior conj	1341 Jan 26 j 21:32	15°♏19'54	-2°00'45		1341 Dec 23 j 04:27	0°♏	
minimum elong	1341 Jan 26 j 23:58	15°♏30'49	2°00'40	morning set	1341 Dec 24 j 05:17	1°♏37'00	
	1341 Feb 03 j 20:27	0°♋		max. Earth dist.	1342 Jan 01 j 05:28	14°♏24'55	1.42567 AU
evening rise	1341 Feb 06 j 00:47	4°♋06'10					
asc. node	1341 Feb 13 j 08:35	17°♋30'58		superior conj	1342 Jan 08 j 08:00	26°♏15'46	-2°-3'-12
evening max el	1341 Feb 22 j 05:22	0°♐00'08	18°20'09	minimum elong	1342 Jan 08 j 06:24	26°♏08'57	2°03'12
	1341 Feb 22 j 05:19	0°♐			1342 Jan 10 j 12:18	0°♏	
retrograde	1341 Mar 01 j 10:51	3°♐35'24		evening rise	1342 Jan 19 j 22:08	16°♏38'16	
evening set	1341 Mar 03 j 21:39	3°♐11'42			1342 Jan 27 j 11:24	0°♋	
	1341 Mar 09 j 08:14	30°♌		asc. node	1342 Jan 31 j 05:38	6°♋04'36	
inferior conj	1341 Mar 11 j 02:53	28°♋32'24	3°07'28	evening max el	1342 Feb 05 j 16:04	13°♋01'15	18°07'36
minimum elong	1341 Mar 11 j 06:24	28°♋24'58	3°06'48	retrograde	1342 Feb 12 j 07:27	16°♋25'57	
min. Earth dist.	1341 Mar 14 j 13:15	25°♋40'16	0.59159 AU	evening set	1342 Feb 14 j 23:05	15°♋53'19	
morning rise	1341 Mar 18 j 11:23	22°♋58'27		inferior conj	1342 Feb 21 j 13:45	10°♋52'38	3°38'40
desc. node	1341 Mar 24 j 02:08	21°♋13'21		minimum elong	1342 Feb 21 j 15:19	10°♋48'48	3°38'33
direct	1341 Mar 24 j 18:42	21°♋12'05		min. Earth dist.	1342 Feb 24 j 16:43	7°♋51'29	0.61289 AU
morning max el	1341 Apr 08 j 02:56	28°♋56'06	27°09'30	morning rise	1342 Feb 28 j 04:46	5°♋00'11	
	1341 Apr 09 j 04:21	0°♐		direct	1342 Mar 07 j 00:44	2°♋39'54	
	1341 Apr 30 j 00:43	0°♏		desc. node	1342 Mar 10 j 23:12	3°♋22'33	
morning set	1341 May 08 j 17:05	16°♏56'56		morning max el	1342 Mar 21 j 05:12	10°♋32'54	27°45'14
asc. node	1341 May 12 j 07:52	24°♏39'10			1342 Apr 05 j 09:12	0°♐	
	1341 May 14 j 18:38	0°♏			1342 Apr 22 j 04:43	0°♏	
				morning set	1342 Apr 22 j 22:22	1°♏30'05	
superior conj	1341 May 15 j 20:13	2°♏20'37	0°36'26	max. Earth dist.	1342 Apr 28 j 23:39	14°♏20'23	1.32388 AU
minimum elong	1341 May 15 j 18:41	2°♏12'09	0°36'07	asc. node	1342 Apr 29 j 04:54	14°♏48'56	
max. Earth dist.	1341 May 15 j 12:28	1°♏37'58	1.32233 AU				
evening rise	1341 May 22 j 18:17	17°♏21'49		superior conj	1342 Apr 30 j 06:59	17°♏11'14	0°11'29
	1341 May 29 j 01:09	0°♏		minimum elong	1342 Apr 30 j 06:28	17°♏08'21	0°11'22
	1341 Jun 17 j 22:59	0°♏		behind sun begin	1342 Apr 30 j 02:53	16°♏48'49	
desc. node	1341 Jun 20 j 01:24	2°♏09'56		behind sun end	1342 Apr 30 j 10:02	17°♏27'53	
evening max el	1341 Jun 20 j 13:00	2°♏37'55	26°13'34		1342 May 06 j 04:11	0°♏	
retrograde	1341 Jul 04 j 12:58	9°♏49'26		evening rise	1342 May 07 j 05:28	2°♏14'47	
evening set	1341 Jul 10 j 23:34	8°♏07'36			1342 May 22 j 07:18	0°♏	
min. Earth dist.	1341 Jul 15 j 01:48	5°♏31'36	0.59301 AU	evening max el	1342 Jun 02 j 05:48	13°♏36'54	24°53'58
inferior conj	1341 Jul 18 j 09:26	2°♏59'48	-4°-49'-56	desc. node	1342 Jun 06 j 22:26	17°♏28'08	
minimum elong	1341 Jul 18 j 11:41	2°♏55'28	4°49'47	retrograde	1342 Jun 16 j 05:07	20°♏42'26	
	1341 Jul 22 j 16:19	30°♌		evening set	1342 Jun 21 j 11:24	19°♏39'17	
morning rise	1341 Jul 26 j 03:13	28°♏28'28		min. Earth dist.	1342 Jun 26 j 17:10	16°♏51'35	0.57330 AU
direct	1341 Jul 28 j 13:56	28°♏07'45		inferior conj	1342 Jun 29 j 16:32	14°♏53'28	-4°-49'-15
	1341 Aug 03 j 02:17	0°♏		minimum elong	1342 Jun 29 j 14:03	14°♏57'38	4°49'07
morning max el	1341 Aug 05 j 09:32	1°♏53'06	18°25'07	morning rise	1342 Jul 07 j 20:30	10°♏44'25	
asc. node	1341 Aug 08 j 07:06	5°♏06'37		direct	1342 Jul 10 j 10:24	10°♏25'21	
morning set	1341 Aug 21 j 10:05	27°♏22'53		morning max el	1342 Jul 19 j 10:35	14°♏37'40	19°12'23
	1341 Aug 22 j 18:51	0°♎		asc. node	1342 Jul 26 j 04:09	23°♏04'04	
					1342 Jul 30 j 06:59	0°♏	

morning set	1342 Aug 05 j 08:56	11°♎38'43		inferior conj	1343 Jun 10 j 03:45	26°♐02'35	-4°-6'-21
				minimum elong	1343 Jun 09 j 20:44	26°♐12'58	4°04'56
superior conj	1342 Aug 13 j 15:28	28°♎01'15	1°44'55	morning rise	1343 Jun 18 j 17:08	22°♐08'06	
minimum elong	1342 Aug 13 j 16:32	28°♎06'27	1°44'53	direct	1343 Jun 21 j 11:36	21°♐49'26	
	1342 Aug 14 j 16:04	0°♐		morning max el	1343 Jul 02 j 01:04	26°♐42'42	20°20'48
max. Earth dist.	1342 Aug 20 j 03:37	10°♐15'36	1.38316 AU		1343 Jul 05 j 03:41	0°♐	
evening rise	1342 Aug 23 j 23:41	17°♐05'58		asc. node	1343 Jul 13 j 01:13	11°♐43'50	
	1342 Aug 31 j 16:27	0°♐		morning set	1343 Jul 20 j 14:08	26°♐14'06	
desc. node	1342 Sep 02 j 21:46	3°♐31'50			1343 Jul 22 j 10:12	0°♎	
	1342 Sep 21 j 16:07	0°♐					
evening max el	1342 Sep 28 j 14:32	7°♐44'27	24°50'53	superior conj	1343 Jul 28 j 06:46	12°♎00'47	1°45'31
retrograde	1342 Oct 10 j 05:52	14°♐30'46		minimum elong	1343 Jul 28 j 06:08	11°♎57'36	1°45'30
evening set	1342 Oct 15 j 20:10	12°♐10'28		max. Earth dist.	1343 Aug 02 j 09:20	22°♎06'38	1.36404 AU
min. Earth dist.	1342 Oct 20 j 10:38	6°♐58'00	0.67356 AU	evening rise	1343 Aug 06 j 09:24	29°♎38'37	
inferior conj	1342 Oct 21 j 08:23	5°♐46'05	0°-16'-24		1343 Aug 06 j 14:03	0°♐	
minimum elong	1342 Oct 21 j 08:47	5°♐44'45	0°16'14	desc. node	1343 Aug 20 j 18:48	23°♐51'04	
transit middle	1342 Oct 21 j 08:47	5°♐44'45	0°16'14		1343 Aug 24 j 21:39	0°♐	
transit begin	1342 Oct 21 j 08:42	5°♐45'00		evening max el	1343 Sep 11 j 02:20	21°♐23'07	26°00'21
transit end	1342 Oct 21 j 08:52	5°♐44'30		retrograde	1343 Sep 23 j 14:29	28°♐29'52	
asc. node	1342 Oct 22 j 03:24	4°♐43'36		evening set	1343 Sep 29 j 19:06	25°♐55'42	
morning rise	1342 Oct 26 j 21:54	29°♐42'51		min. Earth dist.	1343 Oct 04 j 01:49	21°♐19'14	0.66660 AU
	1342 Oct 26 j 12:23	30°♐		inferior conj	1343 Oct 05 j 10:39	19°♐36'21	-1°-13'-18
direct	1342 Oct 30 j 11:12	28°♐30'05		minimum elong	1343 Oct 05 j 12:33	19°♐30'22	1°12'31
	1342 Nov 03 j 16:46	0°♐		asc. node	1343 Oct 09 j 00:28	15°♐29'48	
morning max el	1342 Nov 06 j 23:46	2°♐47'44	19°54'09	morning rise	1343 Oct 11 j 06:57	13°♐42'17	
greatest brilliancy	1342 Nov 14 j 10:48	11°♐57'31	-0.6m	direct	1343 Oct 14 j 09:41	12°♐46'37	
	1342 Nov 26 j 16:52	0°♐		morning max el	1343 Oct 21 j 07:24	16°♐37'59	18°58'34
desc. node	1342 Nov 29 j 21:04	4°♐51'13			1343 Oct 31 j 10:03	0°♐	
morning set	1342 Dec 03 j 01:25	9°♐45'09		morning set	1343 Nov 12 j 10:10	18°♐37'28	
max. Earth dist.	1342 Dec 14 j 16:00	27°♐56'23	1.44064 AU	desc. node	1343 Nov 16 j 18:05	25°♐24'59	
	1342 Dec 15 j 22:58	0°♐			1343 Nov 19 j 16:15	0°♐	
				max. Earth dist.	1343 Nov 27 j 07:56	12°♐00'49	1.44934 AU
superior conj	1342 Dec 19 j 16:07	5°♐59'18	-1°-48'-57				
minimum elong	1342 Dec 19 j 09:17	5°♐31'36	1°48'29	superior conj	1343 Nov 29 j 00:55	14°♐42'14	-1°-15'-53
evening rise	1343 Jan 02 j 01:12	28°♐19'44		minimum elong	1343 Nov 28 j 16:27	14°♐08'49	1°14'58
	1343 Jan 03 j 00:39	0°♐			1343 Dec 08 j 15:38	0°♐	
asc. node	1343 Jan 18 j 02:42	23°♐57'06		evening rise	1343 Dec 14 j 05:55	9°♐03'11	
evening max el	1343 Jan 20 j 04:39	26°♐17'21	18°14'19		1343 Dec 27 j 07:15	0°♐	
retrograde	1343 Jan 26 j 15:54	29°♐44'55		evening max el	1344 Jan 03 j 16:21	9°♐41'21	18°39'28
evening set	1343 Jan 29 j 12:19	29°♐02'21		asc. node	1344 Jan 04 j 23:46	10°♐55'38	
inferior conj	1343 Feb 04 j 16:02	23°♐41'32	3°45'32	retrograde	1344 Jan 10 j 07:52	13°♐23'13	
minimum elong	1343 Feb 04 j 15:38	23°♐42'39	3°45'32	evening set	1344 Jan 13 j 09:50	12°♐29'30	
min. Earth dist.	1343 Feb 07 j 05:22	20°♐54'05	0.63278 AU	inferior conj	1344 Jan 19 j 05:41	6°♐50'25	3°34'36
morning rise	1343 Feb 10 j 17:03	17°♐38'06		minimum elong	1344 Jan 19 j 03:52	6°♐55'52	3°34'23
direct	1343 Feb 17 j 15:48	14°♐54'58		min. Earth dist.	1344 Jan 21 j 03:31	4°♐32'37	0.64953 AU
desc. node	1343 Feb 25 j 20:15	17°♐59'04		morning rise	1344 Jan 24 j 20:41	0°♐40'38	
morning max el	1343 Mar 03 j 12:29	22°♐49'50	27°43'35		1344 Jan 25 j 16:55	30°♐	
	1343 Mar 09 j 21:16	0°♐		direct	1344 Jan 31 j 14:04	27°♐49'33	
	1343 Mar 29 j 14:21	0°♐			1344 Feb 07 j 03:12	0°♐	
morning set	1343 Apr 06 j 21:21	15°♐41'10		desc. node	1344 Feb 12 j 17:18	4°♐26'16	
max. Earth dist.	1343 Apr 12 j 05:24	26°♐41'37	1.32948 AU	morning max el	1344 Feb 13 j 21:55	5°♐36'10	27°07'42
	1343 Apr 13 j 18:38	0°♐			1344 Mar 03 j 13:57	0°♐	
				morning set	1344 Mar 20 j 11:01	29°♐20'12	
superior conj	1343 Apr 14 j 15:03	1°♐49'36	0°-15'-18		1344 Mar 20 j 19:14	0°♐	
minimum elong	1343 Apr 14 j 15:48	1°♐53'36	0°15'09	max. Earth dist.	1344 Mar 25 j 01:54	8°♐31'02	1.33945 AU
behind sun begin	1343 Apr 14 j 14:11	1°♐44'56					
behind sun end	1343 Apr 14 j 17:24	2°♐02'16		superior conj	1344 Mar 28 j 18:22	16°♐08'59	0°-42'-54
asc. node	1343 Apr 16 j 01:58	4°♐57'57		minimum elong	1344 Mar 28 j 20:30	16°♐20'11	0°42'29
evening rise	1343 Apr 21 j 17:19	17°♐05'31		asc. node	1344 Apr 01 j 23:02	25°♐01'48	
	1343 Apr 28 j 03:14	0°♐			1344 Apr 04 j 07:25	0°♐	
evening max el	1343 May 14 j 19:45	24°♐09'39	23°19'44	evening rise	1344 Apr 05 j 03:56	1°♐47'31	
	1343 May 23 j 10:07	0°♐			1344 Apr 21 j 07:46	0°♐	
desc. node	1343 May 24 j 19:28	0°♐26'57		evening max el	1344 Apr 25 j 14:09	4°♐46'55	21°45'51
retrograde	1343 May 28 j 09:05	0°♐55'56		retrograde	1344 May 08 j 01:19	10°♐53'28	
evening set	1343 Jun 01 j 03:36	0°♐24'43		evening set	1344 May 10 j 15:17	10°♐38'32	
	1343 Jun 02 j 11:14	30°♐		desc. node	1344 May 10 j 16:29	10°♐37'57	
min. Earth dist.	1343 Jun 08 j 05:43	27°♐10'30	0.55781 AU	min. Earth dist.	1344 May 19 j 17:56	6°♐45'25	0.54988 AU

inferior conj	1344 May 20 j 00:33	6° Π 36'10	-2°-36'-54	minimum elong	1345 Apr 29 j 17:37	17° 8 01'46	0°38'29
minimum elong	1344 May 19 j 17:42	6° Π 45'46	2°34'43	min. Earth dist.	1345 May 01 j 06:51	16° 8 07'29	0.55143 AU
morning rise	1344 May 28 j 21:08	2° Π 41'12		morning rise	1345 May 08 j 16:43	12° 8 44'46	
direct	1344 May 31 j 23:51	2° Π 19'50		direct	1345 May 12 j 11:17	12° 8 13'58	
morning max el	1344 Jun 13 j 04:11	8° Π 03'50	21°48'15	morning max el	1345 May 25 j 22:16	18° 8 47'30	23°28'07
	1344 Jun 28 j 10:33	0° 8			1345 Jun 04 j 04:18	0° Π	
asc. node	1344 Jun 28 j 22:16	0° 8 55'38		asc. node	1345 Jun 15 j 19:18	20° Π 30'37	
morning set	1344 Jul 03 j 23:24	11° 8 02'50		morning set	1345 Jun 18 j 10:48	25° Π 58'27	
					1345 Jun 20 j 08:22	0° 8	
superior conj	1344 Jul 11 j 07:03	26° 8 27'53	1°39'02				
minimum elong	1344 Jul 11 j 05:17	26° 8 18'34	1°38'55	superior conj	1345 Jun 25 j 13:17	11° 8 12'26	1°26'55
	1344 Jul 12 j 23:49	0° 8		minimum elong	1345 Jun 25 j 10:56	10° 8 59'48	1°26'38
max. Earth dist.	1344 Jul 14 j 23:01	4° 8 01'47	1.34797 AU	max. Earth dist.	1345 Jun 27 j 22:09	16° 8 15'39	1.33575 AU
evening rise	1344 Jul 19 j 12:13	13° 8 01'41		evening rise	1345 Jul 03 j 03:33	27° 8 01'25	
	1344 Jul 28 j 22:00	0° 8			1345 Jul 04 j 15:43	0° 8	
desc. node	1344 Aug 06 j 15:49	13° 8 50'03			1345 Jul 22 j 05:09	0° 8	
	1344 Aug 18 j 21:36	0° 8		desc. node	1345 Jul 24 j 12:50	3° 8 19'09	
evening max el	1344 Aug 23 j 14:39	4° 8 58'25	26°53'13	evening max el	1345 Aug 06 j 02:19	18° 8 17'48	27°22'11
retrograde	1344 Sep 05 j 17:42	12° 8 14'35		retrograde	1345 Aug 19 j 14:59	25° 8 36'02	
evening set	1344 Sep 12 j 11:08	9° 8 32'13		evening set	1345 Aug 26 j 17:32	22° 8 54'16	
min. Earth dist.	1344 Sep 16 j 10:39	5° 8 32'54	0.65621 AU	min. Earth dist.	1345 Aug 30 j 10:49	19° 8 30'47	0.64222 AU
inferior conj	1344 Sep 18 j 07:31	3° 8 22'26	-2°-10'-55	inferior conj	1345 Sep 01 j 20:31	16° 8 58'09	-3°-6'-55
minimum elong	1344 Sep 18 j 10:57	3° 8 12'26	2°09'38	minimum elong	1345 Sep 02 j 01:13	16° 8 45'42	3°05'25
	1344 Sep 21 j 09:52	30° 8		morning rise	1345 Sep 08 j 10:55	11° 8 32'21	
morning rise	1344 Sep 24 j 12:12	27° 8 40'43		direct	1345 Sep 10 j 23:50	10° 8 59'37	
asc. node	1344 Sep 24 j 21:30	27° 8 29'46		asc. node	1345 Sep 11 j 18:31	11° 8 02'44	
direct	1344 Sep 27 j 06:46	26° 8 58'18		morning max el	1345 Sep 17 j 12:10	14° 8 25'55	17°57'00
	1344 Oct 03 j 06:55	0° 8			1345 Sep 28 j 09:42	0° 8	
morning max el	1344 Oct 03 j 20:25	0° 8 32'51	18°19'13	morning set	1345 Oct 04 j 15:04	10° 8 33'23	
morning set	1344 Oct 22 j 22:43	28° 8 54'56			1345 Oct 16 j 06:01	0° 8	
	1344 Oct 23 j 14:44	0° 8					
desc. node	1344 Nov 02 j 15:07	16° 8 06'51		superior conj	1345 Oct 17 j 17:27	2° 8 24'08	0°18'36
				minimum elong	1345 Oct 17 j 19:33	2° 8 32'38	0°18'18
superior conj	1344 Nov 07 j 02:12	23° 8 10'42	0°-29'-23	desc. node	1345 Oct 20 j 12:09	6° 8 52'58	
minimum elong	1344 Nov 06 j 22:22	22° 8 55'37	0°28'54	max. Earth dist.	1345 Oct 22 j 21:33	10° 8 41'57	1.44488 AU
max. Earth dist.	1344 Nov 09 j 02:57	26° 8 22'38	1.45082 AU	evening rise	1345 Nov 02 j 23:11	27° 8 59'15	
	1344 Nov 11 j 10:19	0° 8			1345 Nov 04 j 06:36	0° 8	
evening rise	1344 Nov 23 j 11:19	18° 8 50'49		greatest brilliancy	1345 Nov 23 j 19:44	28° 8 54'20	-0.6m
	1344 Nov 30 j 14:31	0° 8			1345 Nov 24 j 15:24	0° 8	
greatest brilliancy	1344 Dec 07 j 23:50	11° 8 18'08	-0.7m	evening max el	1345 Nov 30 j 04:34	6° 8 38'21	20°19'05
evening max el	1344 Dec 17 j 00:55	23° 8 09'13	19°21'41	retrograde	1345 Dec 08 j 01:52	11° 8 16'48	
asc. node	1344 Dec 21 j 20:48	26° 8 46'09		asc. node	1345 Dec 08 j 17:48	11° 8 14'19	
retrograde	1344 Dec 24 j 04:04	27° 8 15'14		evening set	1345 Dec 11 j 19:12	9° 8 56'22	
evening set	1344 Dec 27 j 12:53	26° 8 08'58		inferior conj	1345 Dec 17 j 06:25	3° 8 48'11	2°36'45
inferior conj	1345 Jan 02 j 03:22	20° 8 13'53	3°10'36	minimum elong	1345 Dec 17 j 03:45	3° 8 57'12	2°35'57
minimum elong	1345 Jan 02 j 00:50	20° 8 22'04	3°10'03	min. Earth dist.	1345 Dec 17 j 23:57	2° 8 48'55	0.67116 AU
min. Earth dist.	1345 Jan 03 j 10:17	18° 8 34'07	0.66237 AU		1345 Dec 20 j 04:18	30° 8	
morning rise	1345 Jan 07 j 12:00	14° 8 00'28		morning rise	1345 Dec 22 j 11:47	27° 8 33'04	
direct	1345 Jan 13 j 18:20	11° 8 15'05		direct	1345 Dec 28 j 03:55	25° 8 03'10	
morning max el	1345 Jan 26 j 07:19	18° 8 40'41	26°04'49		1346 Jan 06 j 16:06	0° 8	
desc. node	1345 Jan 29 j 14:20	22° 8 13'07		morning max el	1346 Jan 08 j 15:53	1° 8 54'30	24°44'19
	1345 Feb 04 j 21:40	0° 8		desc. node	1346 Jan 16 j 11:23	10° 8 56'42	
	1345 Feb 24 j 14:32	0° 8			1346 Jan 29 j 23:41	0° 8	
morning set	1345 Mar 03 j 11:21	12° 8 15'07		morning set	1346 Feb 13 j 17:04	24° 8 11'16	
max. Earth dist.	1345 Mar 07 j 10:54	19° 8 48'15	1.35401 AU		1346 Feb 16 j 22:45	0° 8	
				max. Earth dist.	1346 Feb 17 j 09:54	0° 8 51'01	1.37265 AU
superior conj	1345 Mar 12 j 14:28	0° 8 02'01	-1°-9'-57				
minimum elong	1345 Mar 12 j 17:52	0° 8 19'18	1°09'23	superior conj	1346 Feb 24 j 00:14	13° 8 20'04	-1°-34'-27
	1345 Mar 12 j 14:04	0° 8		minimum elong	1346 Feb 24 j 04:22	13° 8 40'12	1°33'57
asc. node	1345 Mar 19 j 20:05	14° 8 56'07			1346 Mar 04 j 09:21	0° 8	
evening rise	1345 Mar 20 j 11:19	16° 8 14'21		evening rise	1346 Mar 04 j 13:14	0° 8 19'20	
	1345 Mar 27 j 12:44	0° 8		asc. node	1346 Mar 06 j 17:07	4° 8 36'11	
evening max el	1345 Apr 07 j 18:35	15° 8 53'25	20°23'58	evening max el	1346 Mar 21 j 10:31	27° 8 38'58	19°20'10
retrograde	1345 Apr 18 j 14:32	21° 8 07'44			1346 Mar 24 j 07:36	0° 8	
evening set	1345 Apr 20 j 16:38	20° 8 56'53		retrograde	1346 Mar 30 j 14:03	2° 8 03'58	
desc. node	1345 Apr 27 j 13:32	18° 8 16'07		evening set	1346 Apr 01 j 16:34	1° 8 50'56	
inferior conj	1345 Apr 29 j 19:27	16° 8 59'05	0°-39'-8		1346 Apr 06 j 09:50	30° 8	

inferior conj	1346 Apr 10 j 02:41	27° Υ 42'33	1°12'55	retrograde	1347 Mar 12 j 07:15	13° Υ 48'50	
minimum elong	1346 Apr 10 j 05:33	27° Υ 37'49	1°11'57	evening set	1347 Mar 14 j 14:48	13° Υ 29'49	
min. Earth dist.	1346 Apr 12 j 21:36	25° Υ 52'37	0.56212 AU	inferior conj	1347 Mar 22 j 06:02	9° Υ 03'00	2°35'34
desc. node	1346 Apr 14 j 10:33	24° Υ 55'49		minimum elong	1347 Mar 22 j 10:07	8° Υ 55'05	2°34'32
morning rise	1346 Apr 18 j 14:36	22° Υ 55'17		min. Earth dist.	1347 Mar 25 j 15:32	6° Υ 27'03	0.57968 AU
direct	1346 Apr 23 j 08:49	22° Υ 03'28		morning rise	1347 Mar 30 j 01:11	3° Υ 43'20	
morning max el	1346 May 07 j 12:52	29° Υ 15'42	25°08'11	desc. node	1347 Apr 01 j 07:35	2° Υ 50'09	
	1346 May 08 j 06:59	0° ♄		direct	1347 Apr 04 j 20:39	2° Υ 18'13	
	1346 May 28 j 13:06	0° ♅		morning max el	1347 Apr 19 j 05:39	9° Υ 54'55	26°33'05
morning set	1346 Jun 02 j 22:41	10° ♅ 55'39			1347 May 04 j 13:47	0° ♄	
asc. node	1346 Jun 02 j 16:21	10° ♅ 22'20		morning set	1347 May 18 j 09:24	25° ♄ 48'09	
					1347 May 20 j 08:49	0° ♅	
				asc. node	1347 May 20 j 13:24	0° ♅ 24'38	
superior conj	1346 Jun 09 j 23:09	26° ♅ 07'15	1°10'10				
minimum elong	1346 Jun 09 j 20:46	25° ♅ 54'12	1°09'47	superior conj	1347 May 25 j 10:44	11° ♅ 05'08	0°49'40
max. Earth dist.	1346 Jun 11 j 04:58	28° ♅ 49'36	1.32751 AU	minimum elong	1347 May 25 j 08:46	10° ♅ 54'19	0°49'17
	1346 Jun 11 j 17:57	0° ♄		max. Earth dist.	1347 May 25 j 16:17	11° ♅ 35'38	1.32308 AU
evening rise	1346 Jun 17 j 03:49	11° ♄ 27'13		evening rise	1347 Jun 01 j 10:06	26° ♅ 09'34	
	1346 Jun 26 j 21:11	0° ♄			1347 Jun 03 j 06:42	0° ♄	
desc. node	1346 Jul 11 j 09:50	22° ♄ 05'51			1347 Jun 20 j 12:26	0° ♄	
	1346 Jul 18 j 07:12	0° ♅		desc. node	1347 Jun 28 j 06:51	9° ♄ 52'34	
evening max el	1346 Jul 19 j 11:07	1° ♅ 08'08	27°21'18	evening max el	1347 Jul 01 j 14:41	13° ♄ 18'14	26°47'33
retrograde	1346 Aug 02 j 05:57	8° ♅ 25'02		retrograde	1347 Jul 15 j 13:43	20° ♄ 32'38	
evening set	1346 Aug 09 j 10:46	5° ♅ 55'59		evening set	1347 Jul 22 j 10:28	18° ♄ 30'14	
min. Earth dist.	1346 Aug 13 j 00:46	3° ♅ 01'58	0.62480 AU	min. Earth dist.	1347 Jul 26 j 04:33	15° ♄ 52'34	0.60483 AU
inferior conj	1346 Aug 15 j 22:48	0° ♅ 16'43	-3°-57'-30	inferior conj	1347 Jul 29 j 11:01	13° ♄ 10'06	-4°-36'-29
minimum elong	1346 Aug 16 j 03:57	0° ♅ 04'30	3°56'15	minimum elong	1347 Jul 29 j 15:00	13° ♄ 01'47	4°35'56
	1346 Aug 16 j 05:52	30° ♄		morning rise	1347 Aug 05 j 22:46	8° ♄ 25'34	
morning rise	1346 Aug 22 j 23:46	25° ♄ 10'14		direct	1347 Aug 08 j 08:15	8° ♄ 03'35	
direct	1346 Aug 25 j 09:37	24° ♄ 44'07		morning max el	1347 Aug 15 j 16:14	11° ♄ 39'21	18°07'31
asc. node	1346 Aug 29 j 15:33	26° ♄ 07'14		asc. node	1347 Aug 16 j 12:36	12° ♄ 31'04	
morning max el	1346 Sep 01 j 03:47	28° ♄ 10'36	17°52'44		1347 Aug 27 j 21:17	0° ♅	
	1346 Sep 02 j 20:10	0° ♅		morning set	1347 Aug 31 j 11:58	6° ♅ 42'22	
morning set	1346 Sep 17 j 05:26	23° ♅ 14'36					
	1346 Sep 21 j 00:21	0° ♄		superior conj	1347 Sep 10 j 06:29	24° ♅ 44'03	1°25'17
superior conj	1346 Sep 28 j 10:50	12° ♄ 55'23	0°58'04	minimum elong	1347 Sep 10 j 10:33	25° ♅ 02'16	1°24'53
minimum elong	1346 Sep 28 j 15:28	13° ♄ 15'03	0°57'28		1347 Sep 13 j 05:53	0° ♄	
max. Earth dist.	1346 Oct 05 j 12:21	24° ♄ 39'04	1.43235 AU	max. Earth dist.	1347 Sep 17 j 21:34	7° ♄ 58'59	1.41493 AU
desc. node	1346 Oct 07 j 09:09	27° ♄ 40'01		evening rise	1347 Sep 23 j 06:37	16° ♄ 50'17	
	1346 Oct 08 j 20:09	0° ♅		desc. node	1347 Sep 24 j 06:10	18° ♄ 24'55	
evening rise	1346 Oct 13 j 07:56	7° ♅ 04'27			1347 Oct 01 j 16:30	0° ♅	
	1346 Oct 28 j 14:10	0° ♄		greatest brilliancy	1347 Oct 21 j 18:58	28° ♅ 02'35	-0.3m
greatest brilliancy	1346 Nov 08 j 02:38	14° ♄ 23'10	-0.4m		1347 Oct 23 j 10:33	0° ♄	
evening max el	1346 Nov 13 j 02:29	20° ♄ 07'53	21°28'45	evening max el	1347 Oct 26 j 19:16	3° ♄ 39'35	22°46'28
retrograde	1346 Nov 21 j 23:09	25° ♄ 24'08		retrograde	1347 Nov 05 j 18:18	9° ♄ 34'32	
asc. node	1346 Nov 25 j 14:49	24° ♄ 10'09		evening set	1347 Nov 10 j 10:19	7° ♄ 41'26	
evening set	1346 Nov 26 j 02:54	23° ♄ 48'00		asc. node	1347 Nov 12 j 11:50	5° ♄ 38'46	
inferior conj	1346 Dec 01 j 12:34	17° ♄ 30'12	1°55'12	inferior conj	1347 Nov 15 j 19:56	1° ♄ 17'55	1°07'38
minimum elong	1346 Dec 01 j 10:16	17° ♄ 38'08	1°54'23	minimum elong	1347 Nov 15 j 18:26	1° ♄ 23'07	1°07'01
min. Earth dist.	1346 Dec 01 j 18:16	17° ♄ 10'30	0.67621 AU	min. Earth dist.	1347 Nov 15 j 14:50	1° ♄ 35'32	0.67779 AU
morning rise	1346 Dec 06 j 17:21	11° ♄ 15'16			1347 Nov 16 j 18:37	30° ♅	
direct	1346 Dec 11 j 18:14	9° ♄ 06'16		morning rise	1347 Nov 21 j 02:28	25° ♅ 05'27	
morning max el	1346 Dec 22 j 00:59	15° ♄ 13'07	23°16'14	direct	1347 Nov 25 j 12:31	23° ♅ 19'09	
greatest brilliancy	1346 Dec 27 j 05:28	21° ♄ 02'31	-0.2m	morning max el	1347 Dec 04 j 13:52	28° ♅ 38'33	21°50'02
desc. node	1347 Jan 03 j 08:25	0° ♄ 20'19			1347 Dec 05 j 21:00	0° ♄	
	1347 Jan 03 j 02:30	0° ♄		greatest brilliancy	1347 Dec 09 j 09:10	4° ♄ 04'24	-0.4m
	1347 Jan 22 j 23:25	0° ♅		desc. node	1347 Dec 21 j 05:27	20° ♄ 12'59	
morning set	1347 Jan 25 j 21:51	4° ♅ 51'35			1347 Dec 27 j 19:31	0° ♄	
max. Earth dist.	1347 Jan 30 j 04:48	12° ♅ 10'56	1.39381 AU	morning set	1348 Jan 05 j 21:30	14° ♄ 08'11	
				max. Earth dist.	1348 Jan 12 j 03:13	24° ♄ 18'31	1.41485 AU
					1348 Jan 15 j 12:19	0° ♅	
superior conj	1347 Feb 06 j 19:36	25° ♅ 52'03	-1°-53'-37				
minimum elong	1347 Feb 06 j 23:13	26° ♅ 08'52	1°53'23	superior conj	1348 Jan 19 j 19:38	7° ♅ 26'52	-2°-3'-33
	1347 Feb 09 j 00:39	0° ♄		minimum elong	1348 Jan 19 j 20:39	7° ♅ 31'20	2°03'33
evening rise	1347 Feb 16 j 06:48	13° ♄ 54'06		evening rise	1348 Jan 30 j 12:42	26° ♅ 51'26	
asc. node	1347 Feb 21 j 14:09	23° ♄ 55'46			1348 Feb 01 j 05:35	0° ♄	
	1347 Feb 25 j 01:31	0° ♅		asc. node	1348 Feb 08 j 11:11	12° ♄ 48'31	
evening max el	1347 Mar 04 j 12:09	10° ♅ 00'04	18°36'18				

evening max el	1348 Feb 15 j 20:33	22° ✕ 49'32	18°12'26		1349 Jan 06 j 22:30	0° ≈	
retrograde	1348 Feb 22 j 18:41	26° ✕ 18'13		evening rise	1349 Jan 12 j 02:44	9° ≈ 02'28	
evening set	1348 Feb 25 j 07:36	25° ✕ 50'55			1349 Jan 24 j 13:48	0° ✕	
inferior conj	1348 Mar 03 j 06:13	21° ✕ 02'47	3°24'07	asc. node	1349 Jan 25 j 08:14	1° ✕ 05'54	
minimum elong	1348 Mar 03 j 08:58	20° ✕ 56'34	3°23'42	evening max el	1349 Jan 29 j 08:28	5° ✕ 58'12	18°08'10
min. Earth dist.	1348 Mar 06 j 14:45	18° ✕ 03'27	0.60072 AU	retrograde	1349 Feb 04 j 20:46	9° ✕ 22'12	
morning rise	1348 Mar 10 j 06:57	15° ✕ 19'52		evening set	1349 Feb 07 j 14:33	8° ✕ 45'19	
direct	1348 Mar 16 j 21:07	13° ✕ 17'44		inferior conj	1349 Feb 14 j 00:07	3° ✕ 35'53	3°44'07
desc. node	1348 Mar 18 j 04:38	13° ✕ 22'26		minimum elong	1349 Feb 14 j 00:48	3° ✕ 34'08	3°44'05
morning max el	1348 Mar 31 j 04:02	21° ✕ 06'54	27°29'07	min. Earth dist.	1349 Feb 16 j 21:45	0° ✕ 38'17	0.62173 AU
	1348 Apr 07 j 21:12	0° Υ			1349 Feb 17 j 13:38	30° ℞	
	1348 Apr 26 j 11:04	0° ♄		morning rise	1349 Feb 20 j 08:45	27° ≈ 38'22	
morning set	1348 May 01 j 17:13	10° ♄ 29'58		direct	1349 Feb 27 j 07:12	25° ≈ 06'39	
asc. node	1348 May 06 j 10:28	20° ♄ 32'52		desc. node	1349 Mar 05 j 01:41	26° ≈ 38'29	
max. Earth dist.	1348 May 08 j 04:29	24° ♄ 22'20	1.32247 AU		1349 Mar 10 j 01:18	0° ✕	
				morning max el	1349 Mar 13 j 08:28	3° ✕ 00'38	27°49'00
superior conj	1348 May 08 j 22:18	26° ♄ 00'06	0°26'08		1349 Apr 02 j 07:47	0° Υ	
minimum elong	1348 May 08 j 21:09	25° ♄ 53'47	0°25'53	morning set	1349 Apr 15 j 20:08	24° Υ 54'45	
	1348 May 10 j 17:59	0° ♄			1349 Apr 18 j 07:19	0° ♄	
evening rise	1348 May 15 j 20:06	11° ♄ 00'40		max. Earth dist.	1349 Apr 21 j 13:54	6° ♄ 57'37	1.32576 AU
	1348 May 25 j 13:27	0° ♄					
evening max el	1348 Jun 12 j 11:26	24° ♄ 42'22	25°42'32	superior conj	1349 Apr 23 j 08:11	10° ♄ 46'32	0°00'17
desc. node	1348 Jun 14 j 03:53	26° ♄ 14'13		minimum elong	1349 Apr 23 j 08:10	10° ♄ 46'28	0°00'17
	1348 Jun 19 j 13:19	0° ♄		behind sun begin	1349 Apr 23 j 03:02	10° ♄ 18'32	
retrograde	1348 Jun 26 j 12:11	1° ♄ 52'15		behind sun end	1349 Apr 23 j 13:19	11° ♄ 14'25	
evening set	1348 Jul 02 j 11:57	0° ♄ 27'10		asc. node	1349 Apr 23 j 07:32	10° ♄ 42'58	
	1348 Jul 03 j 10:03	30° ℞		evening rise	1349 Apr 30 j 07:50	25° ♄ 53'59	
min. Earth dist.	1348 Jul 06 j 23:47	27° ♄ 48'02	0.58425 AU		1349 May 02 j 06:52	0° ♄	
inferior conj	1348 Jul 10 j 05:35	25° ♄ 28'20	-4°-54'-4		1349 May 20 j 03:40	0° ♄	
minimum elong	1348 Jul 10 j 06:02	25° ♄ 27'31	4°54'04	evening max el	1349 May 25 j 02:32	5° ♄ 27'59	24°14'51
morning rise	1348 Jul 18 j 03:44	21° ♄ 06'38		desc. node	1349 Jun 01 j 00:55	10° ♄ 38'13	
direct	1348 Jul 20 j 15:28	20° ♄ 46'49		retrograde	1349 Jun 07 j 22:56	12° ♄ 26'44	
morning max el	1348 Jul 28 j 22:15	24° ♄ 42'32	18°42'37	evening set	1349 Jun 12 j 14:16	11° ♄ 38'52	
asc. node	1348 Aug 02 j 09:41	29° ♄ 58'33		min. Earth dist.	1349 Jun 18 j 13:30	8° ♄ 41'33	0.56598 AU
	1348 Aug 02 j 10:06	0° ♄		inferior conj	1349 Jun 21 j 04:05	7° ♄ 03'32	-4°-36'-55
morning set	1348 Aug 14 j 05:56	20° ♄ 43'39		minimum elong	1349 Jun 20 j 23:23	7° ♄ 10'58	4°36'20
	1348 Aug 19 j 00:07	0° ♄		morning rise	1349 Jun 29 j 12:07	3° ♄ 01'51	
				direct	1349 Jul 02 j 03:58	2° ♄ 42'58	
superior conj	1348 Aug 22 j 23:16	7° ♄ 35'21	1°40'41	morning max el	1349 Jul 11 j 18:58	7° ♄ 11'05	19°38'57
minimum elong	1348 Aug 23 j 01:29	7° ♄ 45'48	1°40'34	asc. node	1349 Jul 20 j 06:45	18° ♄ 15'43	
max. Earth dist.	1348 Aug 30 j 02:16	20° ♄ 36'13	1.39491 AU		1349 Jul 26 j 17:34	0° ♄	
evening rise	1348 Sep 03 j 04:36	27° ♄ 41'14		morning set	1349 Jul 29 j 07:52	5° ♄ 09'19	
	1348 Sep 04 j 13:35	0° ♄					
desc. node	1348 Sep 10 j 03:11	9° ♄ 03'35		superior conj	1349 Aug 06 j 07:45	21° ♄ 14'15	1°46'07
	1348 Sep 24 j 05:53	0° ♄		minimum elong	1349 Aug 06 j 08:02	21° ♄ 15'42	1°46'08
evening max el	1348 Oct 08 j 08:36	17° ♄ 14'39	24°06'32		1349 Aug 10 j 20:21	0° ♄	
retrograde	1348 Oct 19 j 09:53	23° ♄ 43'58		max. Earth dist.	1349 Aug 12 j 06:26	2° ♄ 40'09	1.37478 AU
evening set	1348 Oct 24 j 15:48	21° ♄ 33'28		evening rise	1349 Aug 16 j 02:22	9° ♄ 39'31	
asc. node	1348 Oct 29 j 08:54	16° ♄ 08'33		desc. node	1349 Aug 28 j 00:13	29° ♄ 31'46	
min. Earth dist.	1348 Oct 29 j 11:10	16° ♄ 00'56	0.67609 AU		1349 Aug 28 j 07:29	0° ♄	
inferior conj	1348 Oct 30 j 02:43	15° ♄ 08'22	0°15'20		1349 Sep 19 j 23:14	0° ♄	
minimum elong	1348 Oct 30 j 02:21	15° ♄ 09'38	0°15'11	evening max el	1349 Sep 20 j 20:35	0° ♄ 53'17	25°21'55
transit middle	1348 Oct 30 j 02:21	15° ♄ 09'38	0°15'11	retrograde	1349 Oct 02 j 21:06	7° ♄ 48'44	
transit begin	1348 Oct 30 j 01:22	15° ♄ 12'57		evening set	1349 Oct 08 j 17:40	5° ♄ 22'05	
transit end	1348 Oct 30 j 03:20	15° ♄ 06'19		min. Earth dist.	1349 Oct 13 j 04:50	0° ♄ 24'51	0.67112 AU
morning rise	1348 Nov 04 j 13:08	9° ♄ 00'56			1349 Oct 13 j 12:32	30° ℞	
direct	1348 Nov 08 j 09:34	7° ♄ 36'29		inferior conj	1349 Oct 14 j 07:10	28° ♄ 59'34	0°-40'-17
morning max el	1348 Nov 16 j 09:35	12° ♄ 13'35	20°32'43	minimum elong	1349 Oct 14 j 08:12	28° ♄ 56'15	0°39'52
greatest brilliancy	1348 Nov 22 j 13:45	19° ♄ 31'47	-0.5m	asc. node	1349 Oct 16 j 05:58	26° ♄ 32'24	
	1348 Nov 30 j 01:47	0° ♄		morning rise	1349 Oct 19 j 23:23	22° ♄ 59'57	
desc. node	1348 Dec 07 j 02:28	10° ♄ 25'59		direct	1349 Oct 23 j 08:01	21° ♄ 54'45	
morning set	1348 Dec 14 j 21:50	22° ♄ 22'48		morning max el	1349 Oct 30 j 13:12	25° ♄ 59'28	19°28'33
	1348 Dec 19 j 18:37	0° ♄			1349 Nov 03 j 01:33	0° ♄	
max. Earth dist.	1348 Dec 24 j 09:33	7° ♄ 22'50	1.43279 AU	greatest brilliancy	1349 Nov 08 j 09:47	7° ♄ 15'55	-0.7m
					1349 Nov 23 j 09:38	0° ♄	
superior conj	1348 Dec 30 j 19:09	17° ♄ 52'22	-1°-59'-27	morning set	1349 Nov 23 j 20:29	0° ♄ 41'59	
minimum elong	1348 Dec 30 j 15:16	17° ♄ 36'13	1°59'18	desc. node	1349 Nov 23 j 23:29	0° ♄ 53'38	

max. Earth dist.	1349 Dec 06 j 23:18	21° ♄ 12'42	1.44528 AU	minimum elong	1350 Nov 19 j 12:09	5° ♄ 08'19	0°56'18
				max. Earth dist.	1350 Nov 19 j 17:10	5° ♄ 28'00	1.45087 AU
superior conj	1349 Dec 10 j 16:14	27° ♄ 06'28	-1°-37'-6		1350 Dec 05 j 05:29	0° ♄	
minimum elong	1349 Dec 10 j 07:56	26° ♄ 33'19	1°36'22	evening rise	1350 Dec 05 j 15:24	0° ♄ 39'36	
	1349 Dec 12 j 11:31	0° ♄			1350 Dec 24 j 21:43	0° ♄	
evening rise	1349 Dec 24 j 20:39	20° ♄ 19'44		evening max el	1350 Dec 27 j 07:30	2° ♄ 44'17	18°55'22
	1349 Dec 30 j 15:25	0° ♄		asc. node	1350 Dec 30 j 02:18	5° ♄ 08'48	
asc. node	1350 Jan 12 j 05:16	18° ♄ 36'57		retrograde	1351 Jan 03 j 03:15	6° ♄ 35'44	
evening max el	1350 Jan 12 j 20:57	19° ♄ 18'09	18°22'49	evening set	1351 Jan 06 j 07:53	5° ♄ 36'54	
retrograde	1350 Jan 19 j 08:57	22° ♄ 50'27			1351 Jan 11 j 22:05	30° ♄	
evening set	1350 Jan 22 j 07:42	22° ♄ 03'08		inferior conj	1351 Jan 12 j 01:08	29° ♄ 50'28	3°25'49
inferior conj	1350 Jan 28 j 07:40	16° ♄ 33'59	3°42'46	minimum elong	1351 Jan 11 j 22:57	29° ♄ 57'18	3°25'27
minimum elong	1350 Jan 28 j 06:35	16° ♄ 37'05	3°42'41	min. Earth dist.	1351 Jan 13 j 16:25	27° ♄ 48'15	0.65544 AU
min. Earth dist.	1350 Jan 30 j 14:19	13° ♄ 58'01	0.64037 AU	morning rise	1351 Jan 17 j 13:00	23° ♄ 38'37	
morning rise	1350 Feb 03 j 03:58	10° ♄ 27'29		direct	1351 Jan 24 j 02:02	20° ♄ 48'38	
direct	1350 Feb 10 j 01:12	7° ♄ 39'33		morning max el	1351 Feb 06 j 03:00	28° ♄ 28'32	26°43'47
desc. node	1350 Feb 19 j 22:43	12° ♄ 06'23		desc. node	1351 Feb 06 j 19:44	29° ♄ 11'15	
morning max el	1350 Feb 23 j 17:04	15° ♄ 31'37	27°32'14		1351 Feb 07 j 14:17	0° ♄	
	1350 Mar 07 j 14:21	0° ♄			1351 Mar 01 j 08:52	0° ♄	
	1350 Mar 26 j 00:12	0° ♄		morning set	1351 Mar 14 j 00:06	22° ♄ 15'39	
morning set	1350 Mar 30 j 15:32	8° ♄ 53'17			1351 Mar 17 j 23:32	0° ♄	
max. Earth dist.	1350 Apr 04 j 16:22	19° ♄ 07'29	1.33320 AU	max. Earth dist.	1351 Mar 18 j 08:17	0° ♄ 43'32	1.34510 AU
superior conj	1350 Apr 07 j 14:27	25° ♄ 17'25	0°-26'-59	superior conj	1351 Mar 22 j 14:59	9° ♄ 26'31	0°-54'-33
minimum elong	1350 Apr 07 j 15:46	25° ♄ 24'31	0°26'43	minimum elong	1351 Mar 22 j 17:41	9° ♄ 40'33	0°54'03
	1350 Apr 09 j 19:13	0° ♄		asc. node	1351 Mar 28 j 01:37	20° ♄ 50'41	
asc. node	1350 Apr 10 j 04:34	0° ♄ 50'14		evening rise	1351 Mar 30 j 04:52	25° ♄ 18'22	
evening rise	1350 Apr 14 j 19:23	10° ♄ 41'54			1351 Apr 01 j 11:49	0° ♄	
	1350 Apr 24 j 19:43	0° ♄		evening max el	1351 Apr 18 j 15:19	26° ♄ 44'58	21°09'00
evening max el	1350 May 06 j 17:18	15° ♄ 58'04	22°38'51		1351 Apr 22 j 15:50	0° ♄	
desc. node	1350 May 18 j 21:58	22° ♄ 27'53		retrograde	1351 Apr 30 j 11:11	2° ♄ 30'38	
retrograde	1350 May 19 j 21:16	22° ♄ 30'01		evening set	1351 May 02 j 17:49	2° ♄ 18'35	
evening set	1350 May 23 j 02:11	22° ♄ 07'27		desc. node	1351 May 05 j 18:59	1° ♄ 27'52	
min. Earth dist.	1350 May 31 j 01:16	18° ♄ 38'35	0.55337 AU		1351 May 09 j 00:56	30° ♄	
inferior conj	1350 Jun 01 j 07:58	17° ♄ 54'48	-3°-33'-37	inferior conj	1351 May 12 j 02:05	28° ♄ 19'54	-1°-48'-26
minimum elong	1350 Jun 01 j 00:15	18° ♄ 05'49	3°31'37	minimum elong	1351 May 11 j 21:01	28° ♄ 27'02	1°46'41
morning rise	1350 Jun 10 j 00:56	14° ♄ 02'50		min. Earth dist.	1351 May 12 j 13:46	28° ♄ 03'25	0.54934 AU
direct	1350 Jun 12 j 22:22	13° ♄ 43'33		morning rise	1351 May 21 j 00:03	24° ♄ 18'51	
morning max el	1350 Jun 24 j 04:30	18° ♄ 57'01	20°56'02	direct	1351 May 24 j 08:03	23° ♄ 54'48	
	1350 Jul 02 j 23:00	0° ♄		morning max el	1351 Jun 06 j 03:24	0° ♄ 00'55	22°29'52
asc. node	1350 Jul 07 j 03:48	7° ♄ 09'59			1351 Jun 06 j 03:01	0° ♄	
morning set	1350 Jul 13 j 15:01	19° ♄ 50'59		asc. node	1351 Jun 24 j 00:50	26° ♄ 32'15	
	1350 Jul 18 j 12:10	0° ♄			1351 Jun 25 j 18:27	0° ♄	
				morning set	1351 Jun 28 j 01:21	4° ♄ 42'52	
superior conj	1350 Jul 21 j 03:16	5° ♄ 26'37	1°43'32	superior conj	1351 Jul 05 j 06:23	20° ♄ 02'00	1°34'32
minimum elong	1350 Jul 21 j 02:05	5° ♄ 20'31	1°43'29	minimum elong	1351 Jul 05 j 04:17	19° ♄ 50'55	1°34'20
max. Earth dist.	1350 Jul 25 j 15:10	14° ♄ 30'19	1.35674 AU	max. Earth dist.	1351 Jul 08 j 08:30	26° ♄ 30'23	1.34223 AU
evening rise	1350 Jul 29 j 19:52	22° ♄ 34'34			1351 Jul 10 j 01:24	0° ♄	
	1350 Aug 02 j 21:22	0° ♄		evening rise	1351 Jul 13 j 04:26	6° ♄ 14'11	
desc. node	1350 Aug 14 j 21:16	19° ♄ 43'25			1351 Jul 26 j 12:50	0° ♄	
	1350 Aug 22 j 01:15	0° ♄		desc. node	1351 Aug 01 j 18:18	9° ♄ 30'52	
evening max el	1350 Sep 03 j 08:27	14° ♄ 31'00	26°25'14	evening max el	1351 Aug 16 j 20:26	27° ♄ 59'57	27°08'52
retrograde	1350 Sep 16 j 03:25	21° ♄ 42'56			1351 Aug 19 j 01:28	0° ♄	
evening set	1350 Sep 22 j 13:58	19° ♄ 04'05		retrograde	1351 Aug 30 j 04:24	5° ♄ 18'40	
min. Earth dist.	1350 Sep 26 j 17:27	14° ♄ 43'43	0.66265 AU	evening set	1351 Sep 06 j 02:16	2° ♄ 35'01	
inferior conj	1350 Sep 28 j 07:23	12° ♄ 48'24	-1°-37'-45		1351 Sep 08 j 21:12	30° ♄	
minimum elong	1350 Sep 28 j 09:57	12° ♄ 40'35	1°36'44	min. Earth dist.	1351 Sep 09 j 22:48	28° ♄ 51'29	0.65062 AU
asc. node	1350 Oct 03 j 03:00	7° ♄ 45'40		inferior conj	1351 Sep 12 j 01:11	26° ♄ 30'22	-2°-35'-8
morning rise	1350 Oct 04 j 07:06	6° ♄ 59'29		minimum elong	1351 Sep 12 j 05:13	26° ♄ 19'03	2°33'41
direct	1350 Oct 07 j 06:04	6° ♄ 09'59		morning rise	1351 Sep 18 j 09:53	20° ♄ 55'13	
morning max el	1350 Oct 13 j 23:30	9° ♄ 52'52	18°39'50	asc. node	1351 Sep 20 j 00:02	20° ♄ 23'38	
	1350 Oct 28 j 06:51	0° ♄		direct	1351 Sep 21 j 01:37	20° ♄ 17'30	
morning set	1350 Nov 03 j 16:19	10° ♄ 09'24		morning max el	1351 Sep 27 j 14:03	23° ♄ 47'48	18°07'40
desc. node	1350 Nov 10 j 20:31	21° ♄ 31'40			1351 Oct 02 j 14:08	0° ♄	
	1350 Nov 16 j 05:39	0° ♄		morning set	1351 Oct 15 j 17:10	21° ♄ 02'43	
					1351 Oct 21 j 03:29	0° ♄	
superior conj	1350 Nov 19 j 19:16	5° ♄ 36'16	0°-57'-10				

desc. node	1351 Oct 28 j 17:33	12°♄15'51		morning max el	1352 Sep 10 j 06:06	7°♄38'27	17°52'56
					1352 Sep 24 j 23:54	0°♄	
superior conj	1351 Oct 30 j 00:11	14°♄17'57	0°-8'-31	morning set	1352 Sep 26 j 19:44	3°♄10'40	
minimum elong	1351 Oct 29 j 23:07	14°♄13'41	0°08'22				
behind sun begin	1351 Oct 29 j 13:46	13°♄36'27		superior conj	1352 Oct 09 j 01:55	24°♄03'03	0°36'44
behind sun end	1351 Oct 30 j 08:28	14°♄50'53		minimum elong	1352 Oct 09 j 05:35	24°♄18'08	0°36'13
max. Earth dist.	1351 Nov 02 j 11:53	19°♄49'16	1.44908 AU		1352 Oct 12 j 17:11	0°♄	
	1351 Nov 08 j 23:47	0°♄		desc. node	1352 Oct 14 j 14:36	3°♄03'10	
evening rise	1351 Nov 15 j 12:03	10°♄07'06		max. Earth dist.	1352 Oct 15 j 04:55	4°♄00'33	1.44026 AU
	1351 Nov 28 j 11:10	0°♄		evening rise	1352 Oct 24 j 20:28	19°♄09'07	
greatest brilliancy	1351 Dec 02 j 22:17	6°♄32'08	-0.6m		1352 Oct 31 j 23:16	0°♄	
evening max el	1351 Dec 10 j 14:06	16°♄12'56	19°44'23	greatest brilliancy	1352 Nov 16 j 23:53	23°♄01'59	-0.5m
asc. node	1351 Dec 16 j 23:19	20°♄26'08		evening max el	1352 Nov 22 j 15:28	29°♄43'00	20°47'28
retrograde	1351 Dec 18 j 00:26	20°♄32'14			1352 Nov 22 j 22:09	0°♄	
evening set	1351 Dec 21 j 12:32	19°♄20'22		retrograde	1352 Nov 30 j 22:10	4°♄36'49	
inferior conj	1351 Dec 27 j 01:25	13°♄19'24	2°57'17	asc. node	1352 Dec 02 j 20:20	4°♄16'02	
minimum elong	1351 Dec 26 j 22:46	13°♄28'11	2°56'38	evening set	1352 Dec 04 j 19:40	3°♄10'02	
min. Earth dist.	1351 Dec 28 j 02:31	11°♄56'29	0.66658 AU		1352 Dec 07 j 22:48	30°♄	
morning rise	1352 Jan 01 j 08:17	7°♄04'46		inferior conj	1352 Dec 10 j 06:04	26°♄57'36	2°19'57
direct	1352 Jan 07 j 08:49	4°♄24'47		minimum elong	1352 Dec 10 j 03:30	27°♄06'22	2°19'08
morning max el	1352 Jan 19 j 12:01	11°♄38'11	25°32'01	min. Earth dist.	1352 Dec 10 j 18:28	26°♄15'08	0.67381 AU
desc. node	1352 Jan 24 j 16:45	17°♄24'43		morning rise	1352 Dec 15 j 10:52	20°♄42'20	
	1352 Feb 03 j 05:25	0°♄		direct	1352 Dec 20 j 20:41	18°♄20'35	
	1352 Feb 22 j 00:59	0°♄		morning max el	1352 Dec 31 j 20:18	24°♄53'37	24°07'04
morning set	1352 Feb 24 j 17:14	4°♄47'49			1353 Jan 05 j 11:00	0°♄	
max. Earth dist.	1352 Feb 28 j 12:11	11°♄49'42	1.36150 AU	desc. node	1353 Jan 10 j 13:48	6°♄27'13	
					1353 Jan 26 j 17:16	0°♄	
superior conj	1352 Mar 05 j 07:05	23°♄05'46	-1°-20'-48	morning set	1353 Feb 05 j 13:06	16°♄13'44	
minimum elong	1352 Mar 05 j 10:54	23°♄24'48	1°20'15	max. Earth dist.	1353 Feb 09 j 08:08	22°♄54'05	1.38154 AU
	1352 Mar 08 j 17:10	0°♄			1353 Feb 13 j 05:33	0°♄	
evening rise	1352 Mar 13 j 10:11	9°♄36'27					
asc. node	1352 Mar 13 j 22:39	10°♄39'30		superior conj	1353 Feb 16 j 11:20	6°♄06'11	-1°-43'-26
	1352 Mar 24 j 12:54	0°♄		minimum elong	1353 Feb 16 j 15:27	6°♄25'51	1°43'02
evening max el	1352 Mar 31 j 00:46	8°♄08'09	19°54'27	evening rise	1353 Feb 25 j 08:56	23°♄29'39	
retrograde	1352 Apr 10 j 03:06	13°♄00'04		asc. node	1353 Feb 28 j 19:40	0°♄11'42	
evening set	1352 Apr 12 j 04:13	12°♄48'58			1353 Feb 28 j 17:13	0°♄	
inferior conj	1352 Apr 21 j 00:45	8°♄48'34	0°10'58	evening max el	1353 Mar 13 j 21:16	20°♄10'19	18°59'01
minimum elong	1352 Apr 21 j 01:15	8°♄47'49	0°10'47	retrograde	1353 Mar 22 j 09:22	24°♄17'24	
transit middle	1352 Apr 21 j 01:15	8°♄47'49	0°10'47	evening set	1353 Mar 24 j 14:01	24°♄02'05	
transit begin	1352 Apr 20 j 22:19	8°♄52'18		inferior conj	1353 Apr 01 j 16:01	19°♄46'34	1°52'14
transit end	1352 Apr 21 j 04:10	8°♄43'21		minimum elong	1353 Apr 01 j 19:50	19°♄39'50	1°51'05
desc. node	1352 Apr 21 j 15:58	8°♄25'17		min. Earth dist.	1353 Apr 04 j 19:25	17°♄34'52	0.56901 AU
min. Earth dist.	1352 Apr 23 j 03:40	7°♄31'01	0.55495 AU	desc. node	1353 Apr 08 j 13:00	15°♄21'42	
morning rise	1352 Apr 29 j 19:11	4°♄20'41		morning rise	1353 Apr 09 j 21:26	14°♄45'06	
direct	1352 May 03 j 23:10	3°♄42'24		direct	1353 Apr 15 j 03:04	13°♄40'04	
morning max el	1352 May 17 j 19:14	10°♄35'00	24°11'31	morning max el	1353 Apr 29 j 09:53	21°♄03'53	25°47'04
	1352 Jun 01 j 07:51	0°♄			1353 May 07 j 03:39	0°♄	
asc. node	1352 Jun 09 j 21:53	16°♄15'16			1353 May 24 j 19:33	0°♄	
morning set	1352 Jun 11 j 13:08	19°♄39'50		morning set	1353 May 27 j 00:43	4°♄35'51	
	1352 Jun 16 j 08:35	0°♄		asc. node	1353 May 27 j 18:56	6°♄12'17	
superior conj	1352 Jun 18 j 14:25	4°♄52'08	1°20'20	superior conj	1353 Jun 03 j 01:14	19°♄49'09	1°01'54
minimum elong	1352 Jun 18 j 11:59	4°♄38'59	1°19'59	minimum elong	1353 Jun 02 j 22:58	19°♄36'44	1°01'29
max. Earth dist.	1352 Jun 20 j 11:05	8°♄52'49	1.33173 AU	max. Earth dist.	1353 Jun 03 j 20:22	21°♄33'58	1.32518 AU
evening rise	1352 Jun 26 j 00:00	20°♄26'46			1353 Jun 07 j 17:53	0°♄	
	1352 Jun 30 j 21:24	0°♄		evening rise	1353 Jun 10 j 03:09	5°♄01'08	
desc. node	1352 Jul 18 j 15:18	28°♄44'03			1353 Jun 23 j 13:16	0°♄	
	1352 Jul 19 j 14:01	0°♄		desc. node	1353 Jul 05 j 12:19	17°♄08'02	
evening max el	1352 Jul 29 j 07:16	11°♄09'22	27°25'52	evening max el	1353 Jul 11 j 14:24	23°♄44'52	27°11'08
retrograde	1352 Aug 11 j 23:17	18°♄27'40			1353 Jul 20 j 14:44	0°♄	
evening set	1352 Aug 19 j 03:36	15°♄49'54		retrograde	1353 Jul 25 j 11:07	0°♄59'58	
min. Earth dist.	1352 Aug 22 j 18:59	12°♄39'48	0.63510 AU		1353 Jul 30 j 03:07	30°♄	
inferior conj	1352 Aug 25 j 10:02	10°♄00'21	-3°-29'-24	evening set	1353 Aug 01 j 13:56	28°♄41'00	
minimum elong	1352 Aug 25 j 15:05	9°♄47'35	3°27'56	min. Earth dist.	1353 Aug 05 j 04:37	25°♄55'42	0.61653 AU
morning rise	1352 Sep 01 j 04:50	4°♄42'10		inferior conj	1353 Aug 08 j 06:48	23°♄09'47	-4°-15'-57
direct	1352 Sep 03 j 16:01	4°♄12'41		minimum elong	1353 Aug 08 j 11:43	22°♄58'45	4°14'59
asc. node	1352 Sep 05 j 21:04	4°♄36'48		morning rise	1353 Aug 15 j 12:20	18°♄12'03	

direct	1353 Aug 17 j 21:47	17° Ω 47'51		minimum elong	1354 Jul 21 j 14:42	5° Ω 43'56	4°47'01
asc. node	1353 Aug 23 j 18:07	20° Ω 16'52		morning rise	1354 Jul 29 j 04:10	1° Ω 14'44	
morning max el	1353 Aug 24 j 20:41	21° Ω 17'08	17°56'37	direct	1354 Jul 31 j 14:30	0° Ω 53'44	
	1353 Aug 31 j 11:22	0° \mathfrak{M}		morning max el	1354 Aug 08 j 06:46	4° Ω 36'06	18°19'54
morning set	1353 Sep 09 j 17:39	16° \mathfrak{M} 13'52		asc. node	1354 Aug 10 j 15:12	7° Ω 09'38	
	1353 Sep 17 j 08:37	0° $\underline{\Omega}$		morning set	1354 Aug 24 j 05:30	29° Ω 57'07	
					1354 Aug 24 j 06:07	0° \mathfrak{M}	
superior conj	1353 Sep 20 j 06:52	5° $\underline{\Omega}$ 08'08	1°11'09	superior conj	1354 Sep 02 j 12:12	17° \mathfrak{M} 25'28	1°33'10
minimum elong	1353 Sep 20 j 11:32	5° $\underline{\Omega}$ 28'23	1°10'36	minimum elong	1354 Sep 02 j 15:33	17° \mathfrak{M} 40'47	1°32'54
max. Earth dist.	1353 Sep 27 j 17:49	17° $\underline{\Omega}$ 44'45	1.42547 AU		1354 Sep 09 j 14:04	0° $\underline{\Omega}$	
desc. node	1353 Oct 01 j 11:38	23° $\underline{\Omega}$ 49'49		max. Earth dist.	1354 Sep 10 j 01:12	0° $\underline{\Omega}$ 47'51	1.40659 AU
evening rise	1353 Oct 04 j 09:22	28° $\underline{\Omega}$ 27'15		evening rise	1354 Sep 14 j 17:19	8° $\underline{\Omega}$ 38'38	
	1353 Oct 05 j 08:58	0° \mathfrak{M}		desc. node	1354 Sep 18 j 08:39	14° $\underline{\Omega}$ 32'27	
	1353 Oct 25 j 16:45	0° \mathfrak{J}			1354 Sep 28 j 10:40	0° \mathfrak{M}	
greatest brilliancy	1353 Oct 31 j 17:37	7° \mathfrak{J} 52'25	-0.3m	evening max el	1354 Oct 19 j 02:09	26° \mathfrak{M} 46'11	23°20'38
evening max el	1353 Nov 05 j 11:12	13° \mathfrak{J} 13'50	22°01'10		1354 Oct 22 j 16:38	0° \mathfrak{J}	
retrograde	1353 Nov 14 j 18:38	18° \mathfrak{J} 46'07		retrograde	1354 Oct 29 j 12:23	2° \mathfrak{J} 56'36	
evening set	1353 Nov 19 j 03:29	17° \mathfrak{J} 02'46		evening set	1354 Nov 03 j 10:18	0° \mathfrak{J} 55'46	
asc. node	1353 Nov 19 j 17:22	16° \mathfrak{J} 33'14			1354 Nov 04 j 10:35	30° \mathfrak{R} \mathfrak{M}	
inferior conj	1353 Nov 24 j 12:58	10° \mathfrak{J} 42'15	1°35'42	asc. node	1354 Nov 06 j 14:26	27° \mathfrak{M} 31'27	
minimum elong	1353 Nov 24 j 10:57	10° \mathfrak{J} 49'12	1°34'56	inferior conj	1354 Nov 08 j 20:17	24° \mathfrak{M} 30'59	0°45'57
min. Earth dist.	1353 Nov 24 j 13:58	10° \mathfrak{J} 38'47	0.67733 AU	minimum elong	1354 Nov 08 j 19:13	24° \mathfrak{M} 34'38	0°45'30
morning rise	1353 Nov 29 j 18:14	4° \mathfrak{J} 28'21		min. Earth dist.	1354 Nov 08 j 10:38	25° \mathfrak{M} 04'05	0.67744 AU
direct	1353 Dec 04 j 12:47	2° \mathfrak{J} 28'57		morning rise	1354 Nov 14 j 04:14	18° \mathfrak{M} 20'35	
morning max el	1353 Dec 14 j 06:32	8° \mathfrak{J} 14'44	22°38'56	direct	1354 Nov 18 j 08:14	16° \mathfrak{M} 44'02	
greatest brilliancy	1353 Dec 18 j 20:46	13° \mathfrak{J} 22'30	-0.3m	morning max el	1354 Nov 26 j 22:12	21° \mathfrak{M} 44'21	21°15'50
desc. node	1353 Dec 28 j 10:51	26° \mathfrak{J} 04'38		greatest brilliancy	1354 Dec 02 j 04:10	27° \mathfrak{M} 45'54	-0.4m
	1353 Dec 31 j 04:39	0° $\overline{\mathfrak{Z}}$			1354 Dec 03 j 21:53	0° \mathfrak{J}	
morning set	1354 Jan 17 j 05:45	26° $\overline{\mathfrak{Z}}$ 18'55		desc. node	1354 Dec 15 j 07:54	16° \mathfrak{J} 06'39	
	1354 Jan 19 j 11:11	0° \approx			1354 Dec 24 j 11:58	0° $\overline{\mathfrak{Z}}$	
max. Earth dist.	1354 Jan 22 j 04:20	4° \approx 34'41	1.40299 AU	morning set	1354 Dec 27 j 17:51	5° $\overline{\mathfrak{Z}}$ 03'57	
				max. Earth dist.	1355 Jan 04 j 06:18	17° $\overline{\mathfrak{Z}}$ 08'16	1.42295 AU
superior conj	1354 Jan 29 j 23:15	18° \approx 16'27	-1°-59'-13				
minimum elong	1354 Jan 30 j 02:04	18° \approx 29'15	1°59'07	superior conj	1355 Jan 11 j 13:22	29° $\overline{\mathfrak{Z}}$ 22'40	-2°-3'-49
	1354 Feb 05 j 07:15	0° \mathfrak{H}		minimum elong	1355 Jan 11 j 12:32	29° $\overline{\mathfrak{Z}}$ 19'03	2°03'50
evening rise	1354 Feb 08 j 22:04	6° \mathfrak{H} 50'33			1355 Jan 11 j 22:03	0° \approx	
asc. node	1354 Feb 15 j 16:43	19° \mathfrak{H} 21'27		evening rise	1355 Jan 22 j 21:47	19° \approx 29'38	
	1354 Feb 22 j 14:53	0° \mathfrak{Y}			1355 Jan 28 j 18:24	0° \mathfrak{H}	
evening max el	1354 Feb 25 j 02:14	2° \mathfrak{Y} 45'24	18°23'39	asc. node	1355 Feb 02 j 13:46	8° \mathfrak{H} 00'36	
retrograde	1354 Mar 04 j 10:55	6° \mathfrak{Y} 23'45		evening max el	1355 Feb 08 j 12:27	15° \mathfrak{H} 43'54	18°08'13
evening set	1354 Mar 06 j 20:51	6° \mathfrak{Y} 01'20		retrograde	1355 Feb 15 j 05:19	19° \mathfrak{H} 09'18	
inferior conj	1354 Mar 14 j 04:34	1° \mathfrak{Y} 25'11	3°00'06	evening set	1355 Feb 17 j 20:12	18° \mathfrak{H} 38'08	
minimum elong	1354 Mar 14 j 08:18	1° \mathfrak{Y} 17'28	2°59'19	inferior conj	1355 Feb 24 j 12:49	13° \mathfrak{H} 40'44	3°35'39
	1354 Mar 15 j 21:39	30° \mathfrak{R} \mathfrak{H}		minimum elong	1355 Feb 24 j 14:43	13° \mathfrak{H} 36'13	3°35'27
min. Earth dist.	1354 Mar 17 j 15:05	28° \mathfrak{H} 36'31	0.58844 AU	min. Earth dist.	1355 Feb 27 j 17:28	10° \mathfrak{H} 39'13	0.60975 AU
morning rise	1354 Mar 21 j 15:50	25° \mathfrak{H} 54'34		morning rise	1355 Mar 03 j 06:15	7° \mathfrak{H} 50'21	
desc. node	1354 Mar 26 j 10:02	24° \mathfrak{H} 19'12		direct	1355 Mar 10 j 00:59	5° \mathfrak{H} 34'27	
direct	1354 Mar 27 j 20:16	24° \mathfrak{H} 13'51		desc. node	1355 Mar 13 j 07:05	6° \mathfrak{H} 03'35	
	1354 Apr 09 j 02:41	0° \mathfrak{Y}		morning max el	1355 Mar 24 j 06:19	13° \mathfrak{H} 27'00	27°42'12
morning max el	1354 Apr 11 j 04:57	1° \mathfrak{Y} 56'07	27°01'06		1355 Apr 06 j 11:48	0° \mathfrak{Y}	
	1354 May 01 j 09:05	0° \mathfrak{B}			1355 Apr 23 j 16:58	0° \mathfrak{B}	
morning set	1354 May 11 j 10:28	19° \mathfrak{B} 25'25		morning set	1355 Apr 25 j 16:31	4° \mathfrak{B} 01'20	
asc. node	1354 May 14 j 16:01	26° \mathfrak{B} 18'14		asc. node	1355 May 01 j 13:04	16° \mathfrak{B} 27'55	
	1354 May 16 j 08:46	0° \mathfrak{H}		max. Earth dist.	1355 May 01 j 20:21	17° \mathfrak{B} 07'35	1.32340 AU
superior conj	1354 May 18 j 13:03	4° \mathfrak{H} 47'01	0°40'01				
minimum elong	1354 May 18 j 11:23	4° \mathfrak{H} 37'51	0°39'41	superior conj	1355 May 03 j 00:07	19° \mathfrak{B} 39'12	0°15'24
max. Earth dist.	1354 May 18 j 08:48	4° \mathfrak{H} 23'42	1.32242 AU	minimum elong	1355 May 02 j 23:25	19° \mathfrak{B} 35'22	0°15'16
evening rise	1354 May 25 j 11:20	19° \mathfrak{H} 48'48		behind sun begin	1355 May 02 j 22:02	19° \mathfrak{B} 27'52	
	1354 May 30 j 11:50	0° \mathfrak{B}		behind sun end	1355 May 03 j 00:47	19° \mathfrak{B} 42'52	
	1354 Jun 18 j 10:44	0° Ω			1355 May 07 j 17:45	0° \mathfrak{H}	
desc. node	1354 Jun 22 j 09:20	4° Ω 22'17		evening rise	1355 May 09 j 22:18	4° \mathfrak{H} 41'36	
evening max el	1354 Jun 23 j 15:10	5° Ω 35'39	26°23'15		1355 May 23 j 09:53	0° \mathfrak{B}	
retrograde	1354 Jul 07 j 14:52	12° Ω 47'57		evening max el	1355 Jun 05 j 08:50	16° \mathfrak{B} 40'38	25°07'05
evening set	1354 Jul 14 j 04:37	11° Ω 00'22		desc. node	1355 Jun 09 j 06:21	19° \mathfrak{B} 58'20	
min. Earth dist.	1354 Jul 18 j 04:09	8° Ω 24'40	0.59609 AU	retrograde	1355 Jun 19 j 08:52	23° \mathfrak{B} 47'54	
inferior conj	1354 Jul 21 j 11:55	5° Ω 49'24	-4°-47'-15	evening set	1355 Jun 24 j 19:59	22° \mathfrak{B} 39'09	

min. Earth dist.	1355 Jun 29 j 20:29	19° \mathfrak{G} 54'08	0.57601 AU		1356 Apr 28 j 13:09	0° \mathbb{I}	
inferior conj	1355 Jul 02 j 22:02	17° \mathfrak{G} 49'48	-4°-51'-52	evening max el	1356 May 16 j 22:53	27° \mathbb{I} 16'04	23°34'05
minimum elong	1355 Jul 02 j 20:21	17° \mathfrak{G} 52'41	4°51'49		1356 May 20 j 02:40	0° \mathfrak{G}	
morning rise	1355 Jul 11 j 00:32	13° \mathfrak{G} 37'44		desc. node	1356 May 26 j 03:23	3° \mathfrak{G} 20'44	
direct	1355 Jul 13 j 13:45	13° \mathfrak{G} 18'34		retrograde	1356 May 30 j 14:39	4° \mathfrak{G} 06'08	
morning max el	1355 Jul 22 j 09:14	17° \mathfrak{G} 26'13	19°04'01	evening set	1356 Jun 03 j 14:21	3° \mathfrak{G} 31'12	
asc. node	1355 Jul 28 j 12:17	25° \mathfrak{G} 00'00		min. Earth dist.	1356 Jun 10 j 09:19	0° \mathfrak{G} 21'40	0.55969 AU
	1355 Jul 31 j 14:25	0° \mathfrak{Q}			1356 Jun 10 j 23:56	30° \mathbb{R} \mathbb{I}	
morning set	1355 Aug 08 j 03:13	14° \mathfrak{Q} 09'47		inferior conj	1356 Jun 12 j 12:04	29° \mathbb{I} 05'44	-4°-16'-2
	1355 Aug 16 j 04:10	0° \mathfrak{M}		minimum elong	1356 Jun 12 j 05:31	29° \mathbb{I} 15'34	4°14'49
				morning rise	1356 Jun 21 j 00:04	25° \mathbb{I} 09'43	
superior conj	1355 Aug 16 j 12:19	0° \mathfrak{M} 39'20	1°44'05	direct	1356 Jun 23 j 17:48	24° \mathbb{I} 51'02	
minimum elong	1355 Aug 16 j 13:41	0° \mathfrak{M} 45'55	1°44'03	morning max el	1356 Jul 04 j 01:21	29° \mathbb{I} 37'39	20°09'20
max. Earth dist.	1355 Aug 23 j 04:40	13° \mathfrak{M} 07'42	1.38615 AU		1356 Jul 04 j 10:49	0° \mathfrak{G}	
evening rise	1355 Aug 27 j 01:43	19° \mathfrak{M} 59'04		asc. node	1356 Jul 14 j 09:20	13° \mathfrak{G} 34'21	
	1355 Sep 02 j 00:53	0° \mathfrak{A}		morning set	1356 Jul 22 j 07:38	28° \mathfrak{G} 42'58	
desc. node	1355 Sep 05 j 05:41	5° \mathfrak{A} 07'26			1356 Jul 22 j 22:46	0° \mathfrak{Q}	
	1355 Sep 22 j 13:53	0° \mathfrak{M}					
evening max el	1355 Oct 01 j 14:27	10° \mathfrak{M} 22'31	24°39'38	superior conj	1356 Jul 30 j 01:58	14° \mathfrak{Q} 33'59	1°45'54
retrograde	1355 Oct 13 j 02:23	17° \mathfrak{M} 05'01		minimum elong	1356 Jul 30 j 01:34	14° \mathfrak{Q} 31'57	1°45'54
evening set	1355 Oct 18 j 14:28	14° \mathfrak{M} 47'14		max. Earth dist.	1356 Aug 04 j 09:45	25° \mathfrak{Q} 01'15	1.36672 AU
min. Earth dist.	1355 Oct 23 j 06:10	9° \mathfrak{M} 29'24	0.67430 AU		1356 Aug 07 j 01:16	0° \mathfrak{M}	
inferior conj	1355 Oct 24 j 02:17	8° \mathfrak{M} 22'25	0°-7'-55	evening rise	1356 Aug 08 j 08:29	2° \mathfrak{M} 23'28	
minimum elong	1355 Oct 24 j 02:29	8° \mathfrak{M} 21'46	0°07'51	desc. node	1356 Aug 22 j 02:42	25° \mathfrak{M} 29'25	
transit middle	1355 Oct 24 j 02:29	8° \mathfrak{M} 21'46	0°07'51		1356 Aug 25 j 02:17	0° \mathfrak{A}	
transit begin	1355 Oct 24 j 00:05	8° \mathfrak{M} 29'48		evening max el	1356 Sep 13 j 02:19	24° \mathfrak{A} 01'44	25°50'53
transit end	1355 Oct 24 j 04:53	8° \mathfrak{M} 13'46			1356 Sep 21 j 01:26	0° \mathfrak{M}	
asc. node	1355 Oct 24 j 11:29	7° \mathfrak{M} 51'53		retrograde	1356 Sep 25 j 11:39	1° \mathfrak{M} 05'48	
morning rise	1355 Oct 29 j 14:56	2° \mathfrak{M} 17'56			1356 Sep 29 j 12:56	30° \mathbb{R} \mathfrak{A}	
direct	1355 Nov 02 j 06:00	1° \mathfrak{M} 02'16		evening set	1356 Oct 01 j 14:10	28° \mathfrak{A} 33'34	
morning max el	1355 Nov 09 j 21:22	5° \mathfrak{M} 24'47	20°03'40	min. Earth dist.	1356 Oct 05 j 22:04	23° \mathfrak{A} 51'35	0.66789 AU
greatest brilliancy	1355 Nov 16 j 23:29	14° \mathfrak{M} 01'42	-0.6m	inferior conj	1356 Oct 07 j 05:10	22° \mathfrak{A} 13'15	-1°-4'-33
	1355 Nov 27 j 23:06	0° \mathfrak{A}		minimum elong	1356 Oct 07 j 06:50	22° \mathfrak{A} 07'58	1°03'52
desc. node	1355 Dec 02 j 04:56	6° \mathfrak{A} 26'42		asc. node	1356 Oct 10 j 08:31	18° \mathfrak{A} 30'40	
morning set	1355 Dec 06 j 14:11	13° \mathfrak{A} 11'07		morning rise	1356 Oct 13 j 00:20	16° \mathfrak{A} 17'32	
	1355 Dec 17 j 07:27	0° \mathfrak{G}		direct	1356 Oct 16 j 04:33	15° \mathfrak{A} 19'28	
max. Earth dist.	1355 Dec 17 j 15:29	0° \mathfrak{G} 32'06	1.43879 AU	morning max el	1356 Oct 23 j 03:57	19° \mathfrak{A} 13'59	19°05'47
					1356 Oct 31 j 13:28	0° \mathfrak{M}	
superior conj	1355 Dec 23 j 01:26	9° \mathfrak{G} 16'52	-1°-52'-20	morning set	1356 Nov 14 j 19:39	21° \mathfrak{M} 53'06	
minimum elong	1355 Dec 22 j 19:19	8° \mathfrak{G} 51'54	1°51'58	desc. node	1356 Nov 18 j 01:57	26° \mathfrak{M} 59'06	
	1356 Jan 04 j 09:29	0° \mathfrak{A}			1356 Nov 20 j 00:13	0° \mathfrak{A}	
evening rise	1356 Jan 05 j 03:48	1° \mathfrak{A} 18'46		max. Earth dist.	1356 Nov 29 j 06:55	14° \mathfrak{A} 33'17	1.44855 AU
asc. node	1356 Jan 20 j 10:48	25° \mathfrak{A} 59'58					
evening max el	1356 Jan 23 j 00:56	28° \mathfrak{A} 58'13	18°12'09	superior conj	1356 Dec 01 j 12:59	18° \mathfrak{A} 06'39	-1°-21'-58
	1356 Jan 24 j 03:24	0° \mathfrak{H}		minimum elong	1356 Dec 01 j 04:19	17° \mathfrak{A} 32'24	1°21'04
retrograde	1356 Jan 29 j 12:11	2° \mathfrak{H} 24'26			1356 Dec 08 j 23:58	0° \mathfrak{G}	
evening set	1356 Feb 01 j 07:54	1° \mathfrak{H} 43'23		evening rise	1356 Dec 16 j 11:55	12° \mathfrak{G} 10'42	
	1356 Feb 03 j 22:02	30° \mathbb{R} \mathfrak{A}			1356 Dec 27 j 10:58	0° \mathfrak{A}	
inferior conj	1356 Feb 07 j 13:02	26° \mathfrak{A} 25'35	3°45'45	evening max el	1357 Jan 05 j 12:53	12° \mathfrak{A} 21'20	18°34'38
minimum elong	1356 Feb 07 j 12:54	26° \mathfrak{A} 25'57	3°45'44	asc. node	1357 Jan 06 j 07:49	13° \mathfrak{A} 07'25	
min. Earth dist.	1356 Feb 10 j 04:39	23° \mathfrak{A} 34'50	0.63002 AU	retrograde	1357 Jan 12 j 03:12	16° \mathfrak{A} 00'15	
morning rise	1356 Feb 13 j 15:54	20° \mathfrak{A} 23'32		evening set	1357 Jan 15 j 04:20	15° \mathfrak{A} 08'10	
direct	1356 Feb 20 j 14:54	17° \mathfrak{A} 42'46		inferior conj	1357 Jan 21 j 01:10	9° \mathfrak{A} 31'39	3°37'10
desc. node	1356 Feb 28 j 04:08	20° \mathfrak{A} 19'54		minimum elong	1357 Jan 20 j 23:31	9° \mathfrak{A} 36'32	3°36'59
morning max el	1356 Mar 05 j 12:51	25° \mathfrak{A} 37'49	27°46'04	min. Earth dist.	1357 Jan 23 j 01:17	7° \mathfrak{A} 08'51	0.64727 AU
	1356 Mar 09 j 13:47	0° \mathfrak{H}		morning rise	1357 Jan 26 j 17:26	3° \mathfrak{A} 22'44	
	1356 Mar 29 j 23:18	0° \mathfrak{Y}		direct	1357 Feb 02 j 12:02	0° \mathfrak{A} 32'01	
morning set	1356 Apr 08 j 16:35	18° \mathfrak{Y} 16'15		desc. node	1357 Feb 14 j 01:09	6° \mathfrak{A} 32'28	
max. Earth dist.	1356 Apr 14 j 03:05	29° \mathfrak{Y} 32'31	1.32838 AU	morning max el	1357 Feb 15 j 22:04	8° \mathfrak{A} 20'16	27°15'02
	1356 Apr 14 j 08:14	0° \mathfrak{B}			1357 Mar 04 j 18:36	0° \mathfrak{H}	
					1357 Mar 22 j 06:49	0° \mathfrak{Y}	
superior conj	1356 Apr 16 j 08:42	4° \mathfrak{B} 19'58	0°-11'-9	morning set	1357 Mar 23 j 07:51	2° \mathfrak{Y} 00'58	
minimum elong	1356 Apr 16 j 09:14	4° \mathfrak{B} 22'52	0°11'03	max. Earth dist.	1357 Mar 28 j 01:14	11° \mathfrak{Y} 27'51	1.33765 AU
behind sun begin	1356 Apr 16 j 05:26	4° \mathfrak{B} 02'24					
behind sun end	1356 Apr 16 j 13:02	4° \mathfrak{B} 43'21		superior conj	1357 Mar 31 j 12:50	18° \mathfrak{Y} 43'01	0°-38'-42
asc. node	1356 Apr 17 j 10:07	6° \mathfrak{B} 37'21		minimum elong	1357 Mar 31 j 14:46	18° \mathfrak{Y} 53'10	0°38'19
evening rise	1356 Apr 23 j 10:10	19° \mathfrak{B} 33'14		asc. node	1357 Apr 04 j 07:08	26° \mathfrak{Y} 42'34	

	1357 Apr 05 j 20:16	0°♄		asc. node	1358 Mar 22 j 04:10	16°♄38'35	
evening rise	1357 Apr 07 j 21:04	4°♄17'27		evening rise	1358 Mar 23 j 05:03	18°♄46'59	
	1357 Apr 22 j 02:29	0°♄			1358 Mar 28 j 20:51	0°♄	
evening max el	1357 Apr 28 j 16:14	7°♄51'28	21°59'19	evening max el	1358 Apr 10 j 18:51	18°♄52'12	20°35'09
retrograde	1357 May 11 j 08:09	14°♄04'57		retrograde	1358 Apr 21 j 21:10	24°♄14'54	
desc. node	1357 May 13 j 00:24	13°♄58'38		evening set	1358 Apr 24 j 00:00	24°♄03'57	
evening set	1357 May 14 j 01:32	13°♄48'27		desc. node	1358 Apr 29 j 21:24	21°♄56'05	
inferior conj	1357 May 23 j 10:25	9°♄43'55	-2°-53'-1	inferior conj	1358 May 03 j 04:37	20°♄06'20	0°-57'-26
minimum elong	1357 May 23 j 03:08	9°♄54'08	2°50'48	minimum elong	1358 May 03 j 01:54	20°♄10'16	0°56'28
min. Earth dist.	1357 May 22 j 21:20	10°♄02'16	0.55052 AU	min. Earth dist.	1358 May 04 j 10:01	19°♄23'59	0.55057 AU
morning rise	1357 Jun 01 j 06:13	5°♄50'24		morning rise	1358 May 12 j 02:24	15°♄56'07	
direct	1357 Jun 04 j 07:27	5°♄29'41		direct	1358 May 15 j 17:52	15°♄27'30	
morning max el	1357 Jun 16 j 06:04	11°♄05'30	21°34'10	morning max el	1358 May 29 j 01:14	21°♄53'59	23°12'51
	1357 Jun 29 j 19:23	0°♄			1358 Jun 05 j 02:04	0°♄	
asc. node	1357 Jul 01 j 06:22	2°♄42'13		asc. node	1358 Jun 18 j 03:25	22°♄14'17	
morning set	1357 Jul 06 j 16:25	13°♄30'27		morning set	1358 Jun 21 j 03:36	28°♄25'31	
					1358 Jun 21 j 21:32	0°♄	
superior conj	1357 Jul 14 j 01:07	28°♄57'47	1°40'26				
minimum elong	1357 Jul 13 j 23:29	28°♄49'13	1°40'19	superior conj	1358 Jun 28 j 06:37	13°♄40'24	1°29'05
	1357 Jul 14 j 13:05	0°♄		minimum elong	1358 Jun 28 j 04:19	13°♄28'05	1°28'49
max. Earth dist.	1357 Jul 17 j 22:12	6°♄55'22	1.35017 AU	max. Earth dist.	1358 Jun 30 j 19:55	19°♄05'50	1.33734 AU
evening rise	1357 Jul 22 j 09:02	15°♄39'57		evening rise	1358 Jul 05 j 22:45	29°♄34'53	
	1357 Jul 30 j 06:50	0°♄			1358 Jul 06 j 03:49	0°♄	
desc. node	1357 Aug 08 j 23:44	15°♄32'09			1358 Jul 23 j 08:47	0°♄	
	1357 Aug 19 j 15:27	0°♄		desc. node	1358 Jul 26 j 20:46	5°♄06'33	
evening max el	1357 Aug 26 j 14:35	7°♄38'10	26°46'37	evening max el	1358 Aug 09 j 02:21	21°♄00'22	27°19'33
retrograde	1357 Sep 08 j 15:35	14°♄53'10		retrograde	1358 Aug 22 j 13:49	28°♄18'50	
evening set	1357 Sep 15 j 07:21	12°♄11'31		evening set	1358 Aug 29 j 15:25	25°♄36'08	
min. Earth dist.	1357 Sep 19 j 07:56	8°♄06'45	0.65804 AU	min. Earth dist.	1358 Sep 02 j 09:26	22°♄07'41	0.64453 AU
inferior conj	1357 Sep 21 j 02:56	6°♄00'10	-2°-2'-15	inferior conj	1358 Sep 04 j 17:17	19°♄37'44	-2°-58'-44
minimum elong	1357 Sep 21 j 06:09	5°♄50'41	2°01'00	minimum elong	1358 Sep 04 j 21:50	19°♄25'30	2°57'13
morning rise	1357 Sep 27 j 06:18	0°♄16'28		morning rise	1358 Sep 11 j 06:11	14°♄09'31	
asc. node	1357 Sep 27 j 05:33	0°♄17'26		direct	1358 Sep 13 j 19:45	13°♄35'37	
	1357 Sep 27 j 20:26	30°♄		asc. node	1358 Sep 14 j 02:35	13°♄36'02	
direct	1357 Sep 30 j 01:58	29°♄32'16		morning max el	1358 Sep 20 j 07:52	17°♄02'35	17°59'13
	1357 Oct 02 j 08:18	0°♄			1358 Sep 29 j 16:10	0°♄	
morning max el	1357 Oct 06 j 16:18	3°♄08'32	18°23'59	morning set	1358 Oct 07 j 16:19	13°♄25'12	
	1357 Oct 24 j 22:42	0°♄			1358 Oct 17 j 14:55	0°♄	
morning set	1357 Oct 26 j 03:46	1°♄57'33					
desc. node	1357 Nov 04 j 22:59	17°♄40'07		superior conj	1358 Oct 21 j 02:04	5°♄37'35	0°11'43
				minimum elong	1358 Oct 21 j 03:26	5°♄43'06	0°11'31
superior conj	1357 Nov 10 j 13:55	26°♄33'12	0°-36'-49	behind sun begin	1358 Oct 20 j 20:05	5°♄13'26	
minimum elong	1357 Nov 10 j 09:08	26°♄14'22	0°36'11	behind sun end	1358 Oct 21 j 10:48	6°♄12'44	
max. Earth dist.	1357 Nov 12 j 01:53	28°♄54'37	1.45110 AU	desc. node	1358 Oct 22 j 20:02	8°♄26'13	
	1357 Nov 12 j 18:32	0°♄		max. Earth dist.	1358 Oct 25 j 20:44	13°♄15'45	1.44618 AU
evening rise	1357 Nov 26 j 20:38	22°♄06'21			1358 Nov 05 j 13:54	0°♄	
	1357 Dec 01 j 21:06	0°♄		evening rise	1358 Nov 06 j 10:27	1°♄19'18	
greatest brilliancy	1357 Dec 10 j 04:00	12°♄50'30	-0.7m		1358 Nov 25 j 14:51	0°♄	
evening max el	1357 Dec 19 j 21:59	25°♄48'45	19°14'23	greatest brilliancy	1358 Nov 26 j 10:26	1°♄07'29	-0.6m
asc. node	1357 Dec 24 j 04:50	29°♄09'18		evening max el	1358 Dec 03 j 02:26	9°♄18'04	20°09'38
retrograde	1357 Dec 26 j 22:58	29°♄50'42		retrograde	1358 Dec 10 j 20:45	13°♄51'30	
evening set	1357 Dec 30 j 06:41	28°♄46'20		asc. node	1358 Dec 11 j 01:50	13°♄51'14	
inferior conj	1358 Jan 04 j 21:49	22°♄53'18	3°14'54	evening set	1358 Dec 14 j 12:40	12°♄33'19	
minimum elong	1358 Jan 04 j 19:21	23°♄01'12	3°14'25	inferior conj	1358 Dec 20 j 00:14	6°♄26'49	2°42'24
min. Earth dist.	1358 Jan 06 j 06:48	21°♄07'43	0.66069 AU	minimum elong	1358 Dec 19 j 21:33	6°♄35'50	2°41'39
morning rise	1358 Jan 10 j 07:11	16°♄40'17		min. Earth dist.	1358 Dec 20 j 19:40	5°♄21'27	0.67009 AU
direct	1358 Jan 16 j 15:21	13°♄53'29		morning rise	1358 Dec 25 j 05:54	0°♄11'40	
morning max el	1358 Jan 29 j 07:37	21°♄23'05	26°15'37		1358 Dec 25 j 11:12	30°♄	
desc. node	1358 Jan 31 j 22:10	24°♄09'00		direct	1358 Dec 31 j 00:11	27°♄39'02	
	1358 Feb 05 j 19:48	0°♄			1359 Jan 06 j 07:34	0°♄	
	1358 Feb 25 j 23:16	0°♄		morning max el	1359 Jan 11 j 16:23	4°♄36'36	24°57'00
morning set	1358 Mar 06 j 10:25	15°♄03'13		desc. node	1359 Jan 18 j 19:12	12°♄45'31	
max. Earth dist.	1358 Mar 10 j 12:05	22°♄49'51	1.35153 AU		1359 Jan 31 j 05:10	0°♄	
	1358 Mar 14 j 02:36	0°♄		morning set	1359 Feb 16 j 19:18	27°♄09'14	
					1359 Feb 18 j 09:22	0°♄	
superior conj	1358 Mar 15 j 10:08	2°♄40'15	-1°-5'-57	max. Earth dist.	1359 Feb 20 j 12:15	3°♄52'40	1.36967 AU
minimum elong	1358 Mar 15 j 13:22	2°♄56'47	1°05'24				

superior conj	1359 Feb 26 j 21:40	16° K 03'54	-1°-31'-1	morning set	1360 Jan 29 j 04:13	8° \approx 02'04	
minimum elong	1359 Feb 27 j 01:44	16° K 23'56	1°30'30	max. Earth dist.	1360 Feb 02 j 06:59	15° \approx 06'49	1.39062 AU
	1359 Mar 05 j 21:01	0° Y					
evening rise	1359 Mar 07 j 07:56	2° Y 55'26		superior conj	1360 Feb 09 j 19:30	28° \approx 43'44	-1°-51'-14
asc. node	1359 Mar 09 j 01:12	6° Y 20'59		minimum elong	1360 Feb 09 j 23:19	29° \approx 01'34	1°50'56
	1359 Mar 23 j 20:25	0° X			1360 Feb 10 j 11:47	0° X	
evening max el	1359 Mar 24 j 09:05	0° X 31'25	19°28'25	evening rise	1360 Feb 19 j 02:58	16° K 35'16	
retrograde	1359 Apr 02 j 18:25	5° X 03'10		asc. node	1360 Feb 23 j 22:14	25° K 44'06	
evening set	1359 Apr 04 j 20:18	4° X 50'49			1360 Feb 26 j 07:02	0° Y	
inferior conj	1359 Apr 13 j 09:15	0° X 44'48	0°57'29	evening max el	1360 Mar 06 j 09:32	12° Y 48'01	18°41'32
minimum elong	1359 Apr 13 j 11:35	0° X 40'59	0°56'41	retrograde	1360 Mar 14 j 08:39	16° Y 40'53	
	1359 Apr 14 j 12:50	30° R Y		evening set	1360 Mar 16 j 15:25	16° Y 22'56	
min. Earth dist.	1359 Apr 16 j 00:32	29° Y 02'54	0.56000 AU	inferior conj	1360 Mar 24 j 09:23	11° Y 59'17	2°25'17
desc. node	1359 Apr 16 j 18:24	28° Y 35'18		minimum elong	1360 Mar 24 j 13:31	11° Y 51'30	2°24'12
morning rise	1359 Apr 21 j 23:06	26° Y 02'31		min. Earth dist.	1360 Mar 27 j 17:56	9° Y 28'50	0.57677 AU
direct	1359 Apr 26 j 13:27	25° Y 14'40		morning rise	1360 Apr 01 j 07:17	6° Y 44'01	
	1359 May 07 j 23:03	0° X		desc. node	1360 Apr 02 j 15:26	6° Y 11'05	
morning max el	1359 May 10 j 15:59	2° X 22'32	24°53'55	direct	1360 Apr 06 j 23:24	5° Y 24'11	
	1359 May 29 j 22:59	0° II		morning max el	1360 Apr 21 j 08:05	12° Y 58'12	26°22'04
asc. node	1359 Jun 05 j 00:29	12° II 03'43			1360 May 04 j 17:16	0° X	
morning set	1359 Jun 05 j 15:30	13° II 22'38		morning set	1360 May 20 j 02:32	28° X 16'21	
					1360 May 20 j 22:09	0° II	
superior conj	1359 Jun 12 j 16:06	28° II 34'06	1°12'59	asc. node	1360 May 21 j 21:34	2° II 04'54	
minimum elong	1359 Jun 12 j 13:41	28° II 20'56	1°12'36				
	1359 Jun 13 j 07:53	0° X		superior conj	1360 May 27 j 03:34	13° II 32'14	0°53'00
max. Earth dist.	1359 Jun 14 j 01:40	1° X 36'29	1.32845 AU	minimum elong	1360 May 27 j 01:31	13° II 20'55	0°52'37
evening rise	1359 Jun 19 j 21:53	13° X 57'20		max. Earth dist.	1360 May 27 j 12:31	14° II 21'23	1.32344 AU
	1359 Jun 28 j 06:09	0° O		evening rise	1360 Jun 03 j 03:27	28° II 38'08	
desc. node	1359 Jul 13 j 17:46	24° O 00'48			1360 Jun 03 j 19:12	0° X	
	1359 Jul 18 j 16:30	0° X			1360 Jun 20 j 13:22	0° O	
evening max el	1359 Jul 22 j 11:42	3° X 55'55	27°23'31	desc. node	1360 Jun 29 j 14:46	11° O 58'21	
retrograde	1359 Aug 05 j 05:58	11° X 13'32		evening max el	1360 Jul 03 j 16:20	16° O 13'31	26°54'48
evening set	1359 Aug 12 j 10:55	8° X 41'41		retrograde	1360 Jul 17 j 14:58	23° O 28'14	
min. Earth dist.	1359 Aug 16 j 01:03	5° X 43'53	0.62756 AU	evening set	1360 Jul 24 j 13:37	21° O 21'13	
inferior conj	1359 Aug 18 j 21:24	2° X 59'35	-3°-50'-27	min. Earth dist.	1360 Jul 28 j 06:28	18° O 42'03	0.60788 AU
minimum elong	1359 Aug 19 j 02:34	2° X 47'07	3°49'09	inferior conj	1360 Jul 31 j 12:01	15° O 58'05	-4°-31'-43
	1359 Aug 22 j 05:20	30° R O		minimum elong	1360 Jul 31 j 16:19	15° O 48'55	4°31'04
morning rise	1359 Aug 25 j 20:46	27° O 50'04		morning rise	1360 Aug 07 j 22:10	11° O 10'00	
direct	1359 Aug 28 j 06:50	27° O 23'14		direct	1360 Aug 10 j 07:30	10° O 47'32	
asc. node	1359 Aug 31 j 23:40	28° O 27'32		morning max el	1360 Aug 17 j 12:54	14° O 21'27	18°04'01
	1359 Sep 03 j 02:34	0° X		asc. node	1360 Aug 17 j 20:45	14° O 40'50	
morning max el	1359 Sep 03 j 23:46	0° X 49'20	17°52'11		1360 Aug 28 j 06:02	0° X	
morning set	1359 Sep 20 j 03:50	25° X 58'20		morning set	1360 Sep 02 j 08:22	9° X 20'44	
	1359 Sep 22 j 10:19	0° X					
superior conj	1359 Oct 01 j 15:22	15° X 56'52	0°52'51	superior conj	1360 Sep 12 j 07:24	27° X 35'04	1°21'55
minimum elong	1359 Oct 01 j 19:51	16° X 15'47	0°52'15	minimum elong	1360 Sep 12 j 11:41	27° X 54'04	1°21'30
max. Earth dist.	1359 Oct 08 j 12:01	27° X 16'26	1.43456 AU		1360 Sep 13 j 16:12	0° X	
desc. node	1359 Oct 09 j 17:05	29° X 13'31		max. Earth dist.	1360 Sep 19 j 22:10	10° X 43'00	1.41781 AU
	1359 Oct 10 j 04:40	0° X		evening rise	1360 Sep 25 j 14:22	20° X 00'19	
evening rise	1359 Oct 16 j 18:31	10° X 22'05		desc. node	1360 Sep 25 j 14:07	19° X 59'17	
	1359 Oct 29 j 18:42	0° X			1360 Oct 01 j 23:24	0° X	
greatest brilliancy	1359 Nov 10 j 22:07	16° X 51'16	-0.4m		1360 Oct 23 j 05:05	0° X	
evening max el	1359 Nov 16 j 01:15	22° X 47'43	21°17'45	greatest brilliancy	1360 Oct 23 j 22:53	0° X 54'29	-0.3m
retrograde	1359 Nov 24 j 18:17	27° X 58'17		evening max el	1360 Oct 28 j 18:49	6° X 19'21	22°34'35
asc. node	1359 Nov 27 j 22:54	27° X 01'29		retrograde	1360 Nov 07 j 13:46	12° X 08'24	
evening set	1359 Nov 28 j 20:18	26° X 24'41		evening set	1360 Nov 12 j 03:53	10° X 17'55	
inferior conj	1359 Dec 04 j 06:06	20° X 08'08	2°01'57	asc. node	1360 Nov 13 j 19:57	8° X 42'06	
minimum elong	1359 Dec 04 j 03:43	20° X 16'20	2°01'06	inferior conj	1360 Nov 17 j 13:26	3° X 55'09	1°15'13
min. Earth dist.	1359 Dec 04 j 13:31	19° X 42'32	0.67569 AU	minimum elong	1360 Nov 17 j 11:47	4° X 00'51	1°14'32
morning rise	1359 Dec 09 j 10:48	13° X 52'58		min. Earth dist.	1360 Nov 17 j 09:56	4° X 07'15	0.67783 AU
direct	1359 Dec 14 j 13:59	11° X 40'30			1360 Nov 20 j 13:01	30° R X	
morning max el	1359 Dec 25 j 01:12	17° X 54'33	23°29'23	morning rise	1360 Nov 22 j 19:34	27° X 42'11	
greatest brilliancy	1359 Dec 31 j 03:38	24° X 50'51	-0.2m	direct	1360 Nov 27 j 07:48	25° X 52'24	
	1360 Jan 04 j 03:28	0° X			1360 Dec 05 j 04:44	0° X	
desc. node	1360 Jan 05 j 16:16	2° X 04'09		morning max el	1360 Dec 06 j 13:13	1° X 18'23	22°02'22
	1360 Jan 24 j 07:41	0° \approx		greatest brilliancy	1360 Dec 11 j 05:55	6° X 35'31	-0.4m
				desc. node	1360 Dec 22 j 13:19	21° X 53'03	

	1360 Dec 28 j 01:38	0°☾		desc. node	1361 Dec 09 j 10:23	12°☾03'37	
morning set	1361 Jan 08 j 08:10	17°☾30'35		morning set	1361 Dec 18 j 10:59	25°☾51'27	
max. Earth dist.	1361 Jan 14 j 04:33	27°☾06'28	1.41187 AU		1361 Dec 21 j 02:32	0°☾	
	1361 Jan 15 j 21:46	0°☾		max. Earth dist.	1361 Dec 27 j 10:00	10°☾04'13	1.43041 AU
superior conj	1361 Jan 21 j 22:47	10°☾28'06	-2°-2'-51	superior conj	1362 Jan 03 j 02:13	21°☾04'38	-2°-1'-10
minimum elong	1361 Jan 22 j 00:21	10°☾35'04	2°02'49	minimum elong	1362 Jan 02 j 23:10	20°☾51'49	2°01'05
evening rise	1361 Feb 01 j 10:50	29°☾38'46			1362 Jan 08 j 07:53	0°☾	
	1361 Feb 01 j 15:24	0°☾		evening rise	1362 Jan 15 j 03:33	11°☾57'38	
asc. node	1361 Feb 09 j 19:17	14°☾41'31			1362 Jan 25 j 15:20	0°☾	
evening max el	1361 Feb 17 j 17:10	25°☾34'11	18°14'44	asc. node	1362 Jan 27 j 16:18	3°☾05'04	
retrograde	1361 Feb 24 j 17:35	29°☾04'45		evening max el	1362 Feb 01 j 04:45	8°☾40'42	18°07'34
evening set	1361 Feb 27 j 05:48	28°☾38'41		retrograde	1362 Feb 07 j 17:53	12°☾04'39	
inferior conj	1361 Mar 06 j 06:39	23°☾53'40	3°18'46	evening set	1362 Feb 10 j 10:56	11°☾29'14	
minimum elong	1361 Mar 06 j 09:42	23°☾46'57	3°18'15	inferior conj	1362 Feb 16 j 22:13	6°☾22'45	3°42'35
min. Earth dist.	1361 Mar 09 j 16:05	20°☾56'19	0.59752 AU	minimum elong	1362 Feb 16 j 23:12	6°☾20'15	3°42'31
morning rise	1361 Mar 13 j 10:04	18°☾13'46		min. Earth dist.	1362 Feb 19 j 21:46	3°☾23'34	0.61868 AU
direct	1361 Mar 19 j 22:06	16°☾17'00		morning rise	1362 Feb 23 j 09:00	0°☾26'53	
desc. node	1361 Mar 20 j 12:29	16°☾17'58			1362 Feb 24 j 00:52	30°☾	
morning max el	1361 Apr 03 j 05:28	24°☾04'24	27°23'03	direct	1362 Mar 02 j 06:47	27°☾59'01	
	1361 Apr 08 j 14:20	0°☾		desc. node	1362 Mar 07 j 09:31	29°☾11'08	
	1361 Apr 27 j 21:22	0°☾			1362 Mar 08 j 23:47	0°☾	
morning set	1361 May 04 j 10:53	13°☾00'13		morning max el	1362 Mar 16 j 09:12	5°☾52'36	27°48'28
asc. node	1361 May 08 j 18:35	22°☾12'30			1362 Apr 03 j 13:34	0°☾	
max. Earth dist.	1361 May 11 j 00:54	27°☾09'18	1.32231 AU	morning set	1362 Apr 18 j 14:39	27°☾28'02	
					1362 Apr 19 j 20:14	0°☾	
superior conj	1361 May 11 j 15:14	28°☾28'02	0°29'52	max. Earth dist.	1362 Apr 24 j 11:03	9°☾47'36	1.32505 AU
minimum elong	1361 May 11 j 13:57	28°☾20'55	0°29'36	asc. node	1362 Apr 25 j 15:37	12°☾22'29	
	1361 May 12 j 07:58	0°☾					
evening rise	1361 May 18 j 13:02	13°☾28'34		superior conj	1362 Apr 26 j 01:27	13°☾16'00	0°04'21
	1361 May 26 j 21:36	0°☾		minimum elong	1362 Apr 26 j 01:14	13°☾14'52	0°04'18
evening max el	1361 Jun 15 j 14:13	27°☾44'41	25°54'01	behind sun begin	1362 Apr 25 j 20:17	12°☾47'53	
desc. node	1361 Jun 16 j 11:48	28°☾34'50		behind sun end	1362 Apr 26 j 06:12	13°☾41'53	
	1361 Jun 18 j 03:28	0°☾		evening rise	1362 May 03 j 00:37	28°☾21'53	
retrograde	1361 Jun 29 j 14:47	4°☾55'05			1362 May 03 j 19:13	0°☾	
evening set	1361 Jul 05 j 18:37	3°☾24'07			1362 May 20 j 21:08	0°☾	
min. Earth dist.	1361 Jul 10 j 02:43	0°☾46'29	0.58726 AU	evening max el	1362 May 28 j 05:44	8°☾34'00	24°28'44
	1361 Jul 11 j 04:35	30°☾		desc. node	1362 Jun 03 j 08:47	13°☾18'31	
inferior conj	1361 Jul 13 j 09:25	28°☾22'12	-4°-53'-21	retrograde	1362 Jun 11 j 03:15	15°☾35'19	
minimum elong	1361 Jul 13 j 10:34	28°☾20'05	4°53'20	evening set	1362 Jun 16 j 00:02	14°☾42'15	
morning rise	1361 Jul 21 j 06:03	23°☾57'04		min. Earth dist.	1362 Jun 21 j 16:48	11°☾48'36	0.56844 AU
direct	1361 Jul 23 j 17:23	23°☾36'57		inferior conj	1362 Jun 24 j 10:50	10°☾03'18	-4°-42'-22
morning max el	1361 Jul 31 j 20:03	27°☾28'51	18°36'02	minimum elong	1362 Jun 24 j 06:53	10°☾09'39	4°41'57
	1361 Aug 03 j 04:17	0°☾		morning rise	1362 Jul 02 j 17:27	5°☾59'15	
asc. node	1361 Aug 04 j 17:49	1°☾59'34		direct	1362 Jul 05 j 08:39	5°☾40'18	
morning set	1361 Aug 17 j 00:53	23°☾17'51		morning max el	1362 Jul 14 j 18:14	10°☾02'29	19°29'16
	1361 Aug 20 j 11:49	0°☾		asc. node	1362 Jul 22 j 14:52	20°☾09'31	
					1362 Jul 28 j 04:01	0°☾	
superior conj	1361 Aug 25 j 21:24	10°☾18'07	1°39'01	morning set	1362 Aug 01 j 01:44	7°☾39'47	
minimum elong	1361 Aug 25 j 23:56	10°☾29'55	1°38'52				
max. Earth dist.	1361 Sep 02 j 03:41	23°☾27'48	1.39800 AU	superior conj	1362 Aug 09 j 03:49	23°☾50'25	1°45'52
	1361 Sep 05 j 22:57	0°☾		minimum elong	1362 Aug 09 j 04:22	23°☾53'11	1°45'51
evening rise	1361 Sep 06 j 08:41	0°☾41'02			1362 Aug 12 j 08:10	0°☾	
desc. node	1361 Sep 12 j 11:09	10°☾39'15		max. Earth dist.	1362 Aug 15 j 07:28	5°☾34'49	1.37766 AU
	1361 Sep 25 j 08:51	0°☾		evening rise	1362 Aug 19 j 03:01	12°☾29'03	
evening max el	1361 Oct 11 j 08:34	19°☾54'06	23°54'40		1362 Aug 29 j 14:33	0°☾	
retrograde	1361 Oct 22 j 05:55	26°☾18'25		desc. node	1362 Aug 30 j 08:10	1°☾09'04	
evening set	1361 Oct 27 j 09:46	24°☾10'23			1362 Sep 20 j 11:52	0°☾	
asc. node	1361 Oct 31 j 17:00	19°☾17'58		evening max el	1362 Sep 23 j 20:29	3°☾31'45	25°11'16
inferior conj	1361 Nov 01 j 20:25	17°☾45'18	0°23'33	retrograde	1362 Oct 05 j 17:50	10°☾24'13	
minimum elong	1361 Nov 01 j 19:51	17°☾47'14	0°23'18	evening set	1362 Oct 11 j 12:15	7°☾59'39	
min. Earth dist.	1361 Nov 01 j 06:23	18°☾32'54	0.67661 AU	min. Earth dist.	1362 Oct 16 j 00:32	2°☾57'08	0.67206 AU
morning rise	1361 Nov 07 j 06:08	11°☾37'06		inferior conj	1362 Oct 17 j 01:17	1°☾36'25	0°-31'-41
direct	1361 Nov 11 j 04:31	10°☾09'33		minimum elong	1362 Oct 17 j 02:05	1°☾33'48	0°31'21
morning max el	1361 Nov 19 j 07:51	14°☾52'08	20°43'26		1362 Oct 18 j 07:15	30°☾	
greatest brilliancy	1361 Nov 25 j 05:25	21°☾47'10	-0.5m	asc. node	1362 Oct 18 j 14:03	29°☾38'44	
	1361 Dec 01 j 05:16	0°☾		morning rise	1362 Oct 22 j 16:31	25°☾35'33	

direct	1362 Oct 26 j 02:45	24°♄27'48		morning max el	1363 Oct 16 j 19:47	12°♄29'22	18°46'05
morning max el	1362 Nov 02 j 10:22	28°♄36'43	19°37'11		1363 Oct 29 j 12:56	0°♄	
	1362 Nov 03 j 17:46	0°♄		morning set	1363 Nov 06 j 23:59	13°♄20'06	
greatest brilliancy	1362 Nov 10 j 17:19	9°♄01'17	-0.6m	desc. node	1363 Nov 13 j 04:27	23°♄06'11	
	1362 Nov 24 j 16:40	0°♄			1363 Nov 17 j 13:42	0°♄	
desc. node	1362 Nov 26 j 07:25	2°♄29'27		max. Earth dist.	1363 Nov 22 j 15:57	8°♄00'01	1.45050 AU
morning set	1362 Nov 27 j 08:12	4°♄05'15					
max. Earth dist.	1362 Dec 09 j 22:43	23°♄48'08	1.44382 AU	superior conj	1363 Nov 23 j 07:44	9°♄02'04	-1°-4'-5
	1362 Dec 13 j 19:56	0°♄		minimum elong	1363 Nov 23 j 00:00	8°♄31'40	1°03'10
					1363 Dec 06 j 13:15	0°♄	
superior conj	1362 Dec 14 j 03:01	0°♄28'26	-1°-41'-43	evening rise	1363 Dec 08 j 22:59	3°♄51'34	
minimum elong	1362 Dec 13 j 19:08	29°♄56'46	1°41'05		1363 Dec 25 j 17:32	0°♄	
evening rise	1362 Dec 28 j 00:43	23°♄23'21		evening max el	1363 Dec 30 j 04:14	5°♄24'25	18°49'24
	1362 Dec 31 j 22:47	0°♄		asc. node	1364 Jan 01 j 10:21	7°♄25'24	
asc. node	1363 Jan 14 j 13:20	20°♄43'47		retrograde	1364 Jan 05 j 22:23	9°♄12'20	
evening max el	1363 Jan 15 j 17:15	21°♄59'00	18°19'26	evening set	1364 Jan 09 j 02:02	8°♄15'22	
retrograde	1363 Jan 22 j 04:51	25°♄29'29		inferior conj	1364 Jan 14 j 20:10	2°♄31'28	3°29'09
evening set	1363 Jan 25 j 02:45	24°♄43'52		minimum elong	1364 Jan 14 j 18:05	2°♄37'51	3°28'51
inferior conj	1363 Jan 31 j 03:58	19°♄17'33	3°44'01	min. Earth dist.	1364 Jan 16 j 13:45	0°♄23'33	0.65349 AU
minimum elong	1363 Jan 31 j 03:06	19°♄19'57	3°43'59		1364 Jan 16 j 21:35	30°♄	
min. Earth dist.	1363 Feb 02 j 12:56	16°♄37'16	0.63779 AU	morning rise	1364 Jan 20 j 09:03	26°♄20'12	
morning rise	1363 Feb 06 j 01:50	13°♄11'58		direct	1364 Jan 26 j 23:41	23°♄29'31	
direct	1363 Feb 12 j 23:41	10°♄25'28			1364 Feb 07 j 21:40	0°♄	
desc. node	1363 Feb 22 j 06:33	14°♄21'11		morning max el	1364 Feb 09 j 03:15	1°♄12'15	26°52'36
morning max el	1363 Feb 26 j 17:26	18°♄18'49	27°36'54	desc. node	1364 Feb 09 j 03:36	1°♄13'08	
	1363 Mar 08 j 13:55	0°♄			1364 Mar 01 j 15:40	0°♄	
	1363 Mar 27 j 10:22	0°♄		morning set	1364 Mar 15 j 21:46	24°♄59'15	
morning set	1363 Apr 02 j 11:21	11°♄30'59			1364 Mar 18 j 11:42	0°♄	
max. Earth dist.	1363 Apr 07 j 14:46	22°♄01'37	1.33182 AU	max. Earth dist.	1364 Mar 20 j 08:15	3°♄41'48	1.34302 AU
superior conj	1363 Apr 10 j 08:20	27°♄49'20	0°-22'-47	superior conj	1364 Mar 24 j 09:53	12°♄01'56	0°-50'-24
minimum elong	1363 Apr 10 j 09:27	27°♄55'19	0°22'34	minimum elong	1364 Mar 24 j 12:23	12°♄14'59	0°49'57
	1363 Apr 11 j 08:43	0°♄		asc. node	1364 Mar 29 j 09:40	22°♄31'40	
asc. node	1363 Apr 12 j 12:38	2°♄30'13		evening rise	1364 Mar 31 j 22:10	27°♄48'54	
evening rise	1363 Apr 17 j 12:16	13°♄10'40			1364 Apr 01 j 23:31	0°♄	
	1363 Apr 26 j 01:53	0°♄		evening max el	1364 Apr 20 j 16:36	29°♄46'53	21°21'36
evening max el	1363 May 09 j 19:56	19°♄03'51	22°53'01		1364 Apr 20 j 22:04	0°♄	
desc. node	1363 May 21 j 05:47	25°♄33'09		retrograde	1364 May 02 j 18:10	5°♄40'06	
retrograde	1363 May 23 j 03:33	25°♄41'26		evening set	1364 May 05 j 02:54	5°♄27'18	
evening set	1363 May 26 j 13:01	25°♄16'08		desc. node	1364 May 07 j 02:48	4°♄57'50	
min. Earth dist.	1363 Jun 03 j 04:43	21°♄52'37	0.55474 AU	inferior conj	1364 May 14 j 11:51	1°♄27'42	-2°-6'-8
inferior conj	1363 Jun 04 j 17:04	21°♄00'13	-3°-46'-16	minimum elong	1364 May 14 j 06:04	1°♄35'50	2°04'11
minimum elong	1363 Jun 04 j 09:28	21°♄11'12	3°44'27	min. Earth dist.	1364 May 14 j 17:10	1°♄20'14	0.54931 AU
morning rise	1363 Jun 13 j 08:50	17°♄07'49			1364 May 17 j 03:27	30°♄	
direct	1363 Jun 16 j 05:08	16°♄48'49		morning rise	1364 May 23 j 09:28	27°♄29'07	
morning max el	1363 Jun 27 j 05:29	21°♄55'02	20°43'25	direct	1364 May 26 j 15:26	27°♄06'10	
	1363 Jul 04 j 00:04	0°♄			1364 Jun 04 j 09:03	0°♄	
asc. node	1363 Jul 09 j 11:53	8°♄58'38		morning max el	1364 Jun 08 j 05:49	3°♄04'47	22°15'07
morning set	1363 Jul 16 j 08:13	22°♄19'13		asc. node	1364 Jun 25 j 08:56	28°♄17'14	
	1363 Jul 20 j 01:14	0°♄			1364 Jun 26 j 05:52	0°♄	
				morning set	1364 Jun 29 j 18:11	7°♄09'51	
superior conj	1363 Jul 23 j 21:55	7°♄58'27	1°44'23				
minimum elong	1363 Jul 23 j 20:55	7°♄53'21	1°44'21	superior conj	1364 Jul 07 j 00:04	22°♄30'55	1°36'15
max. Earth dist.	1363 Jul 28 j 14:56	17°♄24'14	1.35917 AU	minimum elong	1364 Jul 06 j 22:04	22°♄20'24	1°36'05
evening rise	1363 Aug 01 j 17:51	25°♄16'21		max. Earth dist.	1364 Jul 10 j 06:54	29°♄21'52	1.34413 AU
	1363 Aug 04 j 07:46	0°♄			1364 Jul 10 j 14:20	0°♄	
desc. node	1363 Aug 17 j 05:10	21°♄23'27		evening rise	1364 Jul 15 j 00:28	8°♄50'13	
	1363 Aug 23 j 02:49	0°♄			1364 Jul 26 j 20:02	0°♄	
evening max el	1363 Sep 06 j 08:16	17°♄09'51	26°16'56	desc. node	1364 Aug 03 j 02:10	11°♄14'55	
retrograde	1363 Sep 19 j 01:01	24°♄20'26			1364 Aug 18 j 03:32	0°♄	
evening set	1363 Sep 25 j 09:30	21°♄43'02		evening max el	1364 Aug 18 j 20:22	0°♄40'59	27°03'59
min. Earth dist.	1363 Sep 29 j 14:05	17°♄17'04	0.66408 AU	retrograde	1364 Sep 01 j 02:49	7°♄59'07	
inferior conj	1363 Oct 01 j 02:14	15°♄25'54	-1°-29'-2	evening set	1364 Sep 07 j 23:10	5°♄15'46	
minimum elong	1363 Oct 01 j 04:34	15°♄18'44	1°28'04	min. Earth dist.	1364 Sep 11 j 20:44	1°♄26'40	0.65261 AU
asc. node	1363 Oct 05 j 11:05	10°♄41'31			1364 Sep 13 j 03:22	30°♄	
morning rise	1363 Oct 07 j 00:44	9°♄35'11		inferior conj	1364 Sep 13 j 21:09	29°♄09'10	-2°-26'-35
direct	1363 Oct 10 j 00:57	8°♄43'38		minimum elong	1364 Sep 14 j 00:59	28°♄58'16	2°25'10

morning rise	1364 Sep 20 j 04:25	23° \mathring{M} 31'35		evening set	1365 Aug 22 j 02:21	18° \mathring{M} 33'03	
asc. node	1364 Sep 21 j 08:08	23° \mathring{M} 05'13		min. Earth dist.	1365 Aug 25 j 18:23	15° \mathring{M} 18'20	0.63767 AU
direct	1364 Sep 22 j 21:04	22° \mathring{M} 52'20		inferior conj	1365 Aug 28 j 07:33	12° \mathring{M} 41'08	-3°-21'-33
morning max el	1364 Sep 29 j 09:50	26° \mathring{M} 24'04	18°11'22	minimum elong	1365 Aug 28 j 12:29	12° \mathring{M} 28'25	3°20'04
	1364 Oct 02 j 12:15	0° \mathring{A}		morning rise	1365 Sep 04 j 00:47	7° \mathring{M} 20'07	
morning set	1364 Oct 17 j 20:34	24° \mathring{A} 00'48		direct	1365 Sep 06 j 12:32	6° \mathring{M} 49'32	
	1364 Oct 21 j 12:04	0° \mathring{M}		asc. node	1365 Sep 08 j 05:12	7° \mathring{M} 03'56	
desc. node	1364 Oct 30 j 01:29	13° \mathring{M} 49'25		morning max el	1365 Sep 13 j 01:49	10° \mathring{M} 15'19	17°53'57
					1365 Sep 26 j 08:34	0° \mathring{A}	
superior conj	1364 Nov 01 j 10:56	17° \mathring{M} 37'47	0°-15'-55	morning set	1365 Sep 29 j 19:39	5° \mathring{A} 58'26	
minimum elong	1364 Nov 01 j 08:53	17° \mathring{M} 29'41	0°15'39				
behind sun begin	1364 Nov 01 j 05:58	17° \mathring{M} 18'06		superior conj	1365 Oct 12 j 08:45	27° \mathring{A} 10'41	0°30'29
behind sun end	1364 Nov 01 j 11:49	17° \mathring{M} 41'16		minimum elong	1365 Oct 12 j 11:56	27° \mathring{A} 23'44	0°30'03
max. Earth dist.	1364 Nov 04 j 10:42	22° \mathring{M} 21'16	1.44984 AU		1365 Oct 14 j 02:12	0° \mathring{M}	
	1364 Nov 09 j 07:42	0° \mathring{A}		desc. node	1365 Oct 16 j 22:31	4° \mathring{M} 36'01	
evening rise	1364 Nov 17 j 22:31	13° \mathring{A} 25'31		max. Earth dist.	1365 Oct 18 j 04:19	6° \mathring{M} 35'19	1.44201 AU
	1364 Nov 28 j 15:57	0° \mathring{B}		evening rise	1365 Oct 28 j 07:45	22° \mathring{M} 28'29	
greatest brilliancy	1364 Dec 04 j 09:42	8° \mathring{B} 33'10	-0.7m		1365 Nov 02 j 05:51	0° \mathring{A}	
evening max el	1364 Dec 12 j 11:35	18° \mathring{B} 53'00	19°36'08	greatest brilliancy	1365 Nov 19 j 16:48	25° \mathring{A} 21'59	-0.5m
asc. node	1364 Dec 18 j 07:24	22° \mathring{B} 55'02			1365 Nov 23 j 09:54	0° \mathring{B}	
retrograde	1364 Dec 19 j 19:17	23° \mathring{B} 07'25		evening max el	1365 Nov 25 j 13:48	2° \mathring{B} 22'41	20°37'20
evening set	1364 Dec 23 j 06:12	21° \mathring{B} 57'34		retrograde	1365 Dec 03 j 17:04	7° \mathring{B} 10'55	
inferior conj	1364 Dec 28 j 19:37	15° \mathring{B} 58'40	3°02'14	asc. node	1365 Dec 05 j 04:27	6° \mathring{B} 58'42	
minimum elong	1364 Dec 28 j 16:59	16° \mathring{B} 07'17	3°01'36	evening set	1365 Dec 07 j 13:07	5° \mathring{B} 46'20	
min. Earth dist.	1364 Dec 29 j 22:44	14° \mathring{B} 29'46	0.66521 AU	inferior conj	1365 Dec 12 j 23:45	29° \mathring{A} 35'22	2°26'07
morning rise	1365 Jan 03 j 03:02	9° \mathring{B} 44'26		minimum elong	1365 Dec 12 j 21:08	29° \mathring{A} 44'16	2°25'17
direct	1365 Jan 09 j 05:42	7° \mathring{B} 02'18			1365 Dec 12 j 16:31	30° \mathring{R} \mathring{A}	
morning max el	1365 Jan 21 j 12:24	14° \mathring{B} 20'15	25°43'47	min. Earth dist.	1365 Dec 13 j 13:55	28° \mathring{A} 47'04	0.67297 AU
desc. node	1365 Jan 26 j 00:40	19° \mathring{B} 17'39		morning rise	1365 Dec 18 j 04:42	23° \mathring{A} 20'11	
	1365 Feb 03 j 07:39	0° \mathring{A}		direct	1365 Dec 23 j 16:46	20° \mathring{A} 55'28	
	1365 Feb 22 j 10:42	0° \mathring{H}		morning max el	1366 Jan 03 j 20:42	27° \mathring{A} 34'54	24°20'13
morning set	1365 Feb 26 j 17:35	7° \mathring{H} 40'00			1366 Jan 06 j 03:26	0° \mathring{B}	
max. Earth dist.	1365 Mar 02 j 13:50	14° \mathring{H} 51'14	1.35879 AU	desc. node	1366 Jan 12 j 21:43	8° \mathring{B} 13'35	
					1366 Jan 28 j 00:15	0° \mathring{A}	
superior conj	1365 Mar 08 j 03:30	25° \mathring{H} 46'34	-1°-16'-59	morning set	1366 Feb 08 j 17:04	19° \mathring{A} 16'47	
minimum elong	1365 Mar 08 j 07:11	26° \mathring{H} 05'04	1°16'26	max. Earth dist.	1366 Feb 12 j 10:50	25° \mathring{A} 54'45	1.37841 AU
	1365 Mar 10 j 05:37	0° \mathring{Y}			1366 Feb 14 j 16:35	0° \mathring{H}	
evening rise	1365 Mar 16 j 04:19	12° \mathring{Y} 10'30		superior conj	1366 Feb 19 j 09:49	8° \mathring{H} 53'26	-1°-40'-22
asc. node	1365 Mar 16 j 06:42	12° \mathring{Y} 22'41		minimum elong	1366 Feb 19 j 13:58	9° \mathring{H} 13'24	1°39'56
	1365 Mar 25 j 15:18	0° \mathring{B}		evening rise	1366 Feb 28 j 04:16	26° \mathring{H} 08'00	
evening max el	1365 Apr 03 j 00:24	11° \mathring{B} 04'43	20°04'26		1366 Mar 02 j 03:29	0° \mathring{Y}	
retrograde	1365 Apr 13 j 08:51	16° \mathring{B} 04'14		asc. node	1366 Mar 03 j 03:46	1° \mathring{Y} 57'44	
evening set	1365 Apr 15 j 10:05	15° \mathring{B} 53'20		evening max el	1366 Mar 16 j 19:21	23° \mathring{Y} 00'54	19°05'58
desc. node	1365 Apr 23 j 23:50	12° \mathring{B} 07'59		retrograde	1366 Mar 25 j 12:35	27° \mathring{Y} 13'58	
inferior conj	1365 Apr 24 j 09:01	11° \mathring{B} 54'13	0°-6'-38	evening set	1366 Mar 27 j 16:28	26° \mathring{Y} 59'29	
minimum elong	1365 Apr 24 j 08:43	11° \mathring{B} 54'40	0°06'32	inferior conj	1366 Apr 04 j 21:19	22° \mathring{Y} 46'32	1°38'54
transit middle	1365 Apr 24 j 08:43	11° \mathring{B} 54'40	0°06'32	minimum elong	1366 Apr 05 j 00:53	22° \mathring{Y} 40'24	1°37'46
transit begin	1365 Apr 24 j 05:04	12° \mathring{B} 00'09		min. Earth dist.	1366 Apr 07 j 22:05	20° \mathring{Y} 42'12	0.56648 AU
transit end	1365 Apr 24 j 12:22	11° \mathring{B} 49'11		desc. node	1366 Apr 10 j 20:53	18° \mathring{Y} 55'18	
min. Earth dist.	1365 Apr 26 j 06:48	10° \mathring{B} 45'40	0.55353 AU	morning rise	1366 Apr 13 j 05:09	17° \mathring{Y} 50'02	
morning rise	1365 May 03 j 04:38	7° \mathring{B} 31'21		direct	1366 Apr 18 j 06:49	16° \mathring{Y} 49'55	
direct	1365 May 07 j 05:15	6° \mathring{B} 55'53		morning max el	1366 May 02 j 12:50	24° \mathring{Y} 09'46	25°33'53
morning max el	1365 May 20 j 22:20	13° \mathring{B} 42'03	23°56'20		1366 May 07 j 20:31	0° \mathring{B}	
	1365 Jun 02 j 12:50	0° \mathring{I}			1366 May 26 j 07:23	0° \mathring{I}	
asc. node	1365 Jun 12 j 05:59	17° \mathring{I} 57'40		morning set	1366 May 29 j 17:41	7° \mathring{I} 03'11	
morning set	1365 Jun 14 j 05:55	22° \mathring{I} 06'42		asc. node	1366 May 30 j 03:03	7° \mathring{I} 52'40	
	1365 Jun 17 j 22:24	0° \mathring{B}					
superior conj	1365 Jun 21 j 07:34	7° \mathring{B} 19'28	1°22'46	superior conj	1366 Jun 05 j 18:07	22° \mathring{I} 15'42	1°04'56
minimum elong	1365 Jun 21 j 05:09	7° \mathring{B} 06'27	1°22'27	minimum elong	1366 Jun 05 j 15:48	22° \mathring{I} 03'00	1°04'32
max. Earth dist.	1365 Jun 23 j 08:23	11° \mathring{B} 41'43	1.33309 AU	max. Earth dist.	1366 Jun 06 j 16:58	24° \mathring{I} 20'40	1.32594 AU
evening rise	1365 Jun 28 j 18:41	22° \mathring{B} 58'51			1366 Jun 09 j 07:34	0° \mathring{B}	
	1365 Jul 02 j 08:29	0° \mathring{A}		evening rise	1366 Jun 12 j 20:55	7° \mathring{B} 30'17	
desc. node	1365 Jul 20 j 23:11	0° \mathring{M} 33'55			1366 Jun 24 j 19:55	0° \mathring{A}	
	1365 Jul 20 j 13:19	0° \mathring{M}		desc. node	1366 Jul 07 j 20:11	19° \mathring{A} 06'12	
evening max el	1365 Aug 01 j 07:38	13° \mathring{M} 54'16	27°25'13	evening max el	1366 Jul 14 j 15:26	26° \mathring{A} 35'11	27°15'20
retrograde	1365 Aug 14 j 22:32	21° \mathring{M} 12'23			1366 Jul 18 j 16:32	0° \mathring{M}	

retrograde	1366 Jul 28 j 11:25	3° $\mathring{\text{M}}$ 50'41		1367 Jun 19 j 03:47	0° $\mathring{\text{Q}}$	
evening set	1366 Aug 04 j 15:13	1° $\mathring{\text{M}}$ 27'53		desc. node	1367 Jun 24 j 17:12	6° $\mathring{\text{Q}}$ 32'24
	1366 Aug 06 j 15:23	30° $\mathring{\text{R}}$ $\mathring{\text{Q}}$		evening max el	1367 Jun 26 j 17:08	8° $\mathring{\text{Q}}$ 32'22 26°32'21
min. Earth dist.	1366 Aug 08 j 05:30	28° $\mathring{\text{Q}}$ 39'51	0.61950 AU	retrograde	1367 Jul 10 j 16:38	15° $\mathring{\text{Q}}$ 45'35
inferior conj	1366 Aug 11 j 06:20	25° $\mathring{\text{Q}}$ 53'54	-4°-9'-41	evening set	1367 Jul 17 j 09:09	13° $\mathring{\text{Q}}$ 52'32
minimum elong	1366 Aug 11 j 11:22	25° $\mathring{\text{Q}}$ 42'21	4°08'37	min. Earth dist.	1367 Jul 21 j 06:25	11° $\mathring{\text{Q}}$ 16'36 0.59914 AU
morning rise	1366 Aug 18 j 10:16	20° $\mathring{\text{Q}}$ 53'02		inferior conj	1367 Jul 24 j 13:59	8° $\mathring{\text{Q}}$ 38'21 -4°-44'00
direct	1366 Aug 20 j 19:50	20° $\mathring{\text{Q}}$ 28'12		minimum elong	1367 Jul 24 j 17:15	8° $\mathring{\text{Q}}$ 31'47 4°43'40
asc. node	1366 Aug 26 j 02:16	22° $\mathring{\text{Q}}$ 31'38		morning rise	1367 Aug 01 j 04:42	4° $\mathring{\text{Q}}$ 00'19
morning max el	1366 Aug 27 j 16:52	23° $\mathring{\text{Q}}$ 56'12	17°54'51	direct	1367 Aug 03 j 14:40	3° $\mathring{\text{Q}}$ 39'02
	1366 Sep 01 j 13:51	0° $\mathring{\text{M}}$		morning max el	1367 Aug 11 j 03:51	7° $\mathring{\text{Q}}$ 18'49 18°15'09
morning set	1366 Sep 12 j 15:04	18° $\mathring{\text{M}}$ 54'17		asc. node	1367 Aug 12 j 23:20	9° $\mathring{\text{Q}}$ 14'22
	1366 Sep 18 j 19:04	0° $\mathring{\text{A}}$			1367 Aug 25 j 16:55	0° $\mathring{\text{M}}$
				morning set	1367 Aug 27 j 01:09	2° $\mathring{\text{M}}$ 32'17
superior conj	1366 Sep 23 j 09:43	8° $\mathring{\text{A}}$ 04'03	1°06'43	superior conj	1367 Sep 05 j 11:47	20° $\mathring{\text{M}}$ 11'43 1°30'34
minimum elong	1366 Sep 23 j 14:25	8° $\mathring{\text{A}}$ 24'19	1°06'10	minimum elong	1367 Sep 05 j 15:24	20° $\mathring{\text{M}}$ 28'10 1°30'16
max. Earth dist.	1366 Sep 30 j 18:07	20° $\mathring{\text{A}}$ 24'58	1.42796 AU		1367 Sep 11 j 00:17	0° $\mathring{\text{A}}$
desc. node	1366 Oct 03 j 19:33	25° $\mathring{\text{A}}$ 22'47		max. Earth dist.	1367 Sep 13 j 02:04	3° $\mathring{\text{A}}$ 33'47 1.40954 AU
	1366 Oct 06 j 17:10	0° $\mathring{\text{M}}$		evening rise	1367 Sep 17 j 23:26	11° $\mathring{\text{A}}$ 43'06
evening rise	1366 Oct 07 j 18:53	1° $\mathring{\text{M}}$ 41'13		desc. node	1367 Sep 20 j 16:33	16° $\mathring{\text{A}}$ 06'08
	1366 Oct 26 j 19:01	0° $\mathring{\text{A}}$			1367 Sep 29 j 16:34	0° $\mathring{\text{M}}$
greatest brilliancy	1366 Nov 03 j 15:16	10° $\mathring{\text{A}}$ 25'46	-0.4m	greatest brilliancy	1367 Oct 16 j 03:07	22° $\mathring{\text{M}}$ 41'47 -0.2m
evening max el	1366 Nov 08 j 10:18	15° $\mathring{\text{A}}$ 52'58	21°49'42	evening max el	1367 Oct 22 j 01:45	29° $\mathring{\text{M}}$ 24'33 23°08'41
retrograde	1366 Nov 17 j 13:53	21° $\mathring{\text{A}}$ 19'38			1367 Oct 22 j 16:06	0° $\mathring{\text{A}}$
evening set	1366 Nov 21 j 20:56	19° $\mathring{\text{A}}$ 38'45		retrograde	1367 Nov 01 j 08:08	5° $\mathring{\text{A}}$ 29'53
asc. node	1366 Nov 22 j 01:30	19° $\mathring{\text{A}}$ 29'30		evening set	1367 Nov 06 j 03:58	3° $\mathring{\text{A}}$ 31'42
inferior conj	1366 Nov 27 j 06:26	13° $\mathring{\text{A}}$ 19'04	1°42'49	asc. node	1367 Nov 08 j 22:33	0° $\mathring{\text{A}}$ 37'27
minimum elong	1366 Nov 27 j 04:19	13° $\mathring{\text{A}}$ 26'24	1°42'01		1367 Nov 09 j 10:28	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$
min. Earth dist.	1366 Nov 27 j 09:02	13° $\mathring{\text{A}}$ 10'05	0.67699 AU	min. Earth dist.	1367 Nov 11 j 05:43	27° $\mathring{\text{M}}$ 35'00 0.67762 AU
morning rise	1366 Dec 02 j 11:29	7° $\mathring{\text{A}}$ 04'50		inferior conj	1367 Nov 11 j 13:47	27° $\mathring{\text{M}}$ 07'13 0°53'47
direct	1366 Dec 07 j 08:14	5° $\mathring{\text{A}}$ 02'07		minimum elong	1367 Nov 11 j 12:33	27° $\mathring{\text{M}}$ 11'26 0°53'17
morning max el	1366 Dec 17 j 06:32	10° $\mathring{\text{A}}$ 55'14	22°51'57	morning rise	1367 Nov 16 j 21:12	20° $\mathring{\text{M}}$ 56'01
greatest brilliancy	1366 Dec 21 j 22:43	16° $\mathring{\text{A}}$ 08'24	-0.3m	direct	1367 Nov 21 j 03:14	19° $\mathring{\text{M}}$ 16'07
desc. node	1366 Dec 30 j 18:47	27° $\mathring{\text{A}}$ 46'14		morning max el	1367 Nov 29 j 21:09	24° $\mathring{\text{M}}$ 23'05 21°27'34
	1367 Jan 01 j 08:40	0° $\mathring{\text{B}}$			1367 Dec 04 j 19:33	0° $\mathring{\text{A}}$
morning set	1367 Jan 20 j 14:04	29° $\mathring{\text{B}}$ 34'30		greatest brilliancy	1367 Dec 04 j 22:51	0° $\mathring{\text{A}}$ 10'19 -0.4m
	1367 Jan 20 j 20:14	0° $\mathring{\text{A}}$		desc. node	1367 Dec 17 j 15:48	17° $\mathring{\text{A}}$ 44'45
max. Earth dist.	1367 Jan 25 j 06:35	7° $\mathring{\text{A}}$ 28'12	1.39980 AU		1367 Dec 25 j 19:14	0° $\mathring{\text{B}}$
superior conj	1367 Feb 02 j 00:27	21° $\mathring{\text{A}}$ 11'34	-1°-57'-27	morning set	1367 Dec 31 j 05:57	8° $\mathring{\text{B}}$ 29'29
minimum elong	1367 Feb 02 j 03:37	21° $\mathring{\text{A}}$ 26'01	1°57'18	max. Earth dist.	1368 Jan 07 j 07:02	19° $\mathring{\text{B}}$ 51'40 1.42016 AU
	1367 Feb 06 j 18:14	0° $\mathring{\text{H}}$			1368 Jan 13 j 07:50	0° $\mathring{\text{A}}$
evening rise	1367 Feb 11 j 19:03	9° $\mathring{\text{H}}$ 34'04		superior conj	1368 Jan 14 j 18:04	2° $\mathring{\text{A}}$ 27'28 -2°-4'-4
asc. node	1367 Feb 18 j 00:49	21° $\mathring{\text{H}}$ 11'14		minimum elong	1368 Jan 14 j 17:56	2° $\mathring{\text{A}}$ 26'53 2°04'05
	1367 Feb 23 j 10:29	0° $\mathring{\text{Y}}$		evening rise	1368 Jan 25 j 20:57	22° $\mathring{\text{A}}$ 19'18
evening max el	1367 Feb 27 j 23:13	5° $\mathring{\text{Y}}$ 31'09	18°27'36		1368 Jan 30 j 02:33	0° $\mathring{\text{H}}$
retrograde	1367 Mar 07 j 11:19	9° $\mathring{\text{Y}}$ 12'52		asc. node	1368 Feb 04 j 21:51	9° $\mathring{\text{H}}$ 55'20
evening set	1367 Mar 09 j 20:23	8° $\mathring{\text{Y}}$ 51'43		evening max el	1368 Feb 11 j 08:50	18° $\mathring{\text{H}}$ 26'28 18°09'19
inferior conj	1367 Mar 17 j 06:40	4° $\mathring{\text{Y}}$ 18'47	2°52'01	retrograde	1368 Feb 18 j 03:22	21° $\mathring{\text{H}}$ 52'47
minimum elong	1367 Mar 17 j 10:34	4° $\mathring{\text{Y}}$ 10'54	2°51'07	evening set	1368 Feb 20 j 17:32	21° $\mathring{\text{H}}$ 23'02
min. Earth dist.	1367 Mar 20 j 17:05	1° $\mathring{\text{Y}}$ 34'05	0.58534 AU	inferior conj	1368 Feb 27 j 12:11	16° $\mathring{\text{H}}$ 28'54 3°32'00
	1367 Mar 22 j 22:01	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$		minimum elong	1368 Feb 27 j 14:23	16° $\mathring{\text{H}}$ 23'44 3°31'45
morning rise	1367 Mar 24 j 20:43	28° $\mathring{\text{H}}$ 51'42		min. Earth dist.	1368 Mar 01 j 18:23	13° $\mathring{\text{H}}$ 27'33 0.60658 AU
desc. node	1367 Mar 28 j 17:55	27° $\mathring{\text{H}}$ 28'51		morning rise	1368 Mar 05 j 08:06	10° $\mathring{\text{H}}$ 40'54
direct	1367 Mar 30 j 22:08	27° $\mathring{\text{H}}$ 16'31		direct	1368 Mar 12 j 01:25	8° $\mathring{\text{H}}$ 29'33
	1367 Apr 08 j 04:22	0° $\mathring{\text{Y}}$		desc. node	1368 Mar 14 j 14:57	8° $\mathring{\text{H}}$ 47'37
morning max el	1367 Apr 14 j 07:06	4° $\mathring{\text{Y}}$ 57'04	26°51'58	morning max el	1368 Mar 26 j 07:27	16° $\mathring{\text{H}}$ 21'17 27°38'25
	1367 May 02 j 16:27	0° $\mathring{\text{B}}$			1368 Apr 06 j 12:38	0° $\mathring{\text{Y}}$
morning set	1367 May 14 j 03:48	21° $\mathring{\text{B}}$ 53'41			1368 Apr 24 j 04:49	0° $\mathring{\text{B}}$
asc. node	1367 May 17 j 00:06	27° $\mathring{\text{B}}$ 57'07		morning set	1368 Apr 27 j 10:30	6° $\mathring{\text{B}}$ 31'58
	1367 May 17 j 22:47	0° $\mathring{\text{H}}$		asc. node	1368 May 02 j 21:08	18° $\mathring{\text{B}}$ 06'28
superior conj	1367 May 21 j 05:53	7° $\mathring{\text{H}}$ 13'26	0°43'32	max. Earth dist.	1368 May 03 j 16:54	19° $\mathring{\text{B}}$ 54'09 1.32296 AU
minimum elong	1367 May 21 j 04:06	7° $\mathring{\text{H}}$ 03'38	0°43'10	superior conj	1368 May 04 j 17:09	22° $\mathring{\text{B}}$ 06'53 0°19'18
max. Earth dist.	1367 May 21 j 05:05	7° $\mathring{\text{H}}$ 09'01	1.32257 AU	minimum elong	1368 May 04 j 16:17	22° $\mathring{\text{B}}$ 02'08 0°19'07
evening rise	1367 May 28 j 04:28	22° $\mathring{\text{H}}$ 15'54			1368 May 08 j 07:32	0° $\mathring{\text{H}}$
	1367 May 31 j 23:13	0° $\mathring{\text{B}}$				

evening rise	1368 May 11 j 15:07	7°II08'22		superior conj	1369 Apr 19 j 02:11	6°849'41	0°-7'-1
	1368 May 23 j 14:29	0°☿		minimum elong	1369 Apr 19 j 02:31	6°851'30	0°06'58
evening max el	1368 Jun 07 j 11:51	19°☿44'07	25°19'56	behind sun begin	1369 Apr 18 j 21:49	6°826'01	
desc. node	1368 Jun 10 j 14:12	22°☿25'41		behind sun end	1369 Apr 19 j 07:14	7°816'59	
retrograde	1368 Jun 21 j 12:23	26°☿52'40		asc. node	1369 Apr 19 j 18:09	8°816'08	
evening set	1368 Jun 27 j 04:07	25°☿38'14		evening rise	1369 Apr 26 j 02:56	22°800'36	
min. Earth dist.	1368 Jul 01 j 23:46	22°☿55'37	0.57881 AU		1369 Apr 29 j 23:58	0°II	
inferior conj	1368 Jul 05 j 03:08	20°☿45'28	-4°-53'-34		1369 May 19 j 16:53	0°☿	
minimum elong	1368 Jul 05 j 02:14	20°☿47'02	4°53'33	evening max el	1369 May 20 j 02:10	0°☿22'39	23°48'30
morning rise	1368 Jul 13 j 04:07	16°☿30'08		desc. node	1369 May 28 j 11:14	6°☿10'48	
direct	1368 Jul 15 j 16:44	16°☿10'48		retrograde	1369 Jun 02 j 19:51	7°☿16'00	
morning max el	1368 Jul 24 j 07:39	20°☿14'07	18°56'04	evening set	1369 Jun 07 j 01:00	6°☿36'53	
asc. node	1368 Jul 29 j 20:22	26°☿57'01		min. Earth dist.	1369 Jun 13 j 12:52	3°☿31'53	0.56177 AU
	1368 Jul 31 j 19:46	0°♊		inferior conj	1369 Jun 15 j 20:04	2°☿08'02	-4°-24'-33
morning set	1368 Aug 09 j 21:38	16°♊41'25		minimum elong	1369 Jun 15 j 14:06	2°☿17'09	4°23'35
	1368 Aug 16 j 16:16	0°♊			1369 Jun 19 j 12:54	30°♊II	
superior conj	1368 Aug 18 j 09:29	3°♊18'20	1°43'04	morning rise	1369 Jun 24 j 06:40	28°II10'11	
minimum elong	1368 Aug 18 j 11:09	3°♊26'19	1°42'59	direct	1369 Jun 26 j 23:43	27°II51'27	
max. Earth dist.	1368 Aug 25 j 05:47	15°♊59'21	1.38922 AU		1369 Jul 03 j 19:50	0°☿	
evening rise	1368 Aug 29 j 04:16	22°♊53'45		morning max el	1369 Jul 07 j 01:22	2°☿31'24	19°58'14
	1368 Sep 02 j 09:39	0°♋		asc. node	1369 Jul 16 j 17:23	15°☿25'14	
desc. node	1368 Sep 06 j 13:34	6°♋42'40		morning set	1369 Jul 24 j 10:58	0°♊	
	1368 Sep 22 j 13:39	0°♋			1369 Jul 25 j 01:12	1°♊11'55	
evening max el	1368 Oct 03 j 14:23	13°♋00'35	24°28'08	superior conj	1369 Aug 01 j 21:23	17°♊07'30	1°46'08
retrograde	1368 Oct 14 j 22:44	19°♋38'42		minimum elong	1369 Aug 01 j 21:13	17°♊06'41	1°46'08
evening set	1368 Oct 20 j 08:36	17°♋23'30		max. Earth dist.	1369 Aug 07 j 10:26	27°♊55'59	1.36952 AU
min. Earth dist.	1368 Oct 25 j 01:35	12°♋00'25	0.67503 AU		1369 Aug 08 j 12:48	0°♊	
inferior conj	1368 Oct 25 j 20:05	10°♋58'26	0°00'27	evening rise	1369 Aug 11 j 07:58	5°♊09'09	
minimum elong	1368 Oct 25 j 20:05	10°♋58'28	0°00'27	desc. node	1369 Aug 24 j 10:35	27°♊06'52	
transit middle	1368 Oct 25 j 20:05	10°♋58'28	0°00'27		1369 Aug 26 j 07:52	0°♋	
transit begin	1368 Oct 25 j 17:20	11°♋07'39		evening max el	1369 Sep 16 j 02:19	26°♋39'52	25°41'01
transit end	1368 Oct 25 j 22:49	10°♋49'18			1369 Sep 19 j 21:11	0°♋	
asc. node	1368 Oct 25 j 19:35	11°♋00'08		retrograde	1369 Sep 28 j 08:39	3°♋40'58	
morning rise	1368 Oct 31 j 07:55	4°♋52'47		evening set	1369 Oct 04 j 09:05	1°♋10'40	
direct	1368 Nov 04 j 00:49	3°♋34'06			1369 Oct 05 j 15:27	30°♋♋	
morning max el	1368 Nov 11 j 19:04	8°♋01'31	20°13'26	min. Earth dist.	1369 Oct 08 j 18:10	26°♋23'16	0.66912 AU
greatest brilliancy	1368 Nov 18 j 13:02	16°♋08'51	-0.6m	inferior conj	1369 Oct 09 j 23:33	24°♋49'33	0°-55'-51
	1368 Nov 28 j 04:51	0°♌		minimum elong	1369 Oct 10 j 00:59	24°♋44'57	0°55'15
desc. node	1368 Dec 03 j 12:50	8°♌02'19		asc. node	1369 Oct 12 j 16:36	21°♋32'36	
morning set	1368 Dec 09 j 03:02	16°♌37'06		morning rise	1369 Oct 15 j 17:39	18°♋52'21	
	1368 Dec 17 j 15:57	0°♍		direct	1369 Oct 18 j 23:23	17°♋51'49	
max. Earth dist.	1368 Dec 19 j 15:04	3°♍08'04	1.43682 AU	morning max el	1369 Oct 26 j 00:37	21°♋49'38	19°13'24
					1369 Nov 01 j 15:19	0°♋	
superior conj	1368 Dec 25 j 10:05	12°♍32'09	-1°-55'-16	greatest brilliancy	1369 Nov 05 j 16:26	5°♋52'00	-0.7m
minimum elong	1368 Dec 25 j 04:43	12°♍10'07	1°54'59	morning set	1369 Nov 18 j 05:46	25°♋10'22	
	1369 Jan 04 j 18:40	0°♎		desc. node	1369 Nov 20 j 09:53	28°♋33'22	
evening rise	1369 Jan 07 j 05:46	4°♎15'37			1369 Nov 21 j 08:06	0°♌	
asc. node	1369 Jan 21 j 18:52	28°♎01'05		max. Earth dist.	1369 Dec 02 j 06:05	17°♌06'15	1.44757 AU
	1369 Jan 23 j 08:54	0°♏					
evening max el	1369 Jan 24 j 21:08	1°♏38'40	18°10'26	superior conj	1369 Dec 05 j 00:48	21°♌30'13	-1°-27'-43
retrograde	1369 Jan 31 j 08:32	5°♏03'46		minimum elong	1369 Dec 04 j 16:07	20°♌55'47	1°26'52
evening set	1369 Feb 03 j 03:36	4°♏24'10			1369 Dec 10 j 08:28	0°♐	
	1369 Feb 08 j 14:57	30°♏♏		evening rise	1369 Dec 19 j 17:25	15°♐16'51	
inferior conj	1369 Feb 09 j 10:13	29°♏09'22	3°45'29		1369 Dec 28 j 16:14	0°♏	
minimum elong	1369 Feb 09 j 10:22	29°♏08'59	3°45'30	evening max el	1370 Jan 08 j 09:21	15°♏01'03	18°30'08
min. Earth dist.	1369 Feb 12 j 04:02	26°♏15'46	0.62715 AU	asc. node	1370 Jan 08 j 15:53	15°♏17'25	
morning rise	1369 Feb 15 j 15:01	23°♏08'49		retrograde	1370 Jan 14 j 22:38	18°♏37'20	
direct	1369 Feb 22 j 14:03	20°♏30'51		evening set	1370 Jan 17 j 22:57	17°♏46'54	
desc. node	1369 Mar 01 j 12:00	22°♏42'48		inferior conj	1370 Jan 23 j 20:48	12°♏12'54	3°39'25
morning max el	1369 Mar 08 j 13:12	28°♏25'46	27°47'52	minimum elong	1370 Jan 23 j 19:21	12°♏17'10	3°39'17
	1369 Mar 10 j 01:48	0°♐		min. Earth dist.	1370 Jan 25 j 23:12	9°♏45'19	0.64494 AU
	1369 Mar 31 j 07:38	0°♑		morning rise	1370 Jan 29 j 14:25	6°♏04'51	
morning set	1369 Apr 11 j 11:35	20°♑50'17		direct	1370 Feb 05 j 10:06	3°♏14'50	
	1369 Apr 15 j 21:45	0°♒		desc. node	1370 Feb 16 j 09:02	8°♏40'22	
max. Earth dist.	1369 Apr 17 j 00:34	2°♒22'42	1.32734 AU	morning max el	1370 Feb 18 j 22:13	11°♏04'27	27°21'43
					1370 Mar 05 j 22:19	0°♒	

	1370 Mar 23 j 18:13	0°Υ			1371 Feb 27 j 07:42	0°Ϡ		
morning set	1370 Mar 26 j 04:21	4°Υ40'02		morning set	1371 Mar 09 j 09:08	17°Ϡ49'25		
max. Earth dist.	1370 Mar 31 j 00:19	14°Υ23'18	1.33600 AU	max. Earth dist.	1371 Mar 13 j 13:03	25°Ϡ50'16	1.34920 AU	
					1371 Mar 15 j 15:15	0°Υ		
superior conj	1370 Apr 03 j 07:07	21°Υ15'38	0°-34'-30	superior conj	1371 Mar 18 j 05:37	5°Υ16'55	-1°-1'-55	
minimum elong	1370 Apr 03 j 08:50	21°Υ24'41	0°34'10	minimum elong	1371 Mar 18 j 08:40	5°Υ32'36	1°01'23	
asc. node	1370 Apr 06 j 15:12	28°Υ22'14		asc. node	1371 Mar 24 j 12:14	18°Υ19'47		
	1370 Apr 07 j 09:29	0°Ϡ		evening rise	1371 Mar 25 j 22:40	21°Υ18'15		
evening rise	1370 Apr 10 j 14:07	6°Ϡ46'19			1371 Mar 30 j 06:28	0°Ϡ		
	1370 Apr 23 j 02:03	0°Π		evening max el	1371 Apr 13 j 19:20	21°Ϡ50'35	20°46'37	
evening max el	1370 May 01 j 18:26	10°Π55'29	22°12'59	retrograde	1371 Apr 25 j 03:56	27°Ϡ21'33		
retrograde	1370 May 14 j 14:49	17°Π15'42		evening set	1371 Apr 27 j 07:46	27°Ϡ10'21		
desc. node	1370 May 15 j 08:14	17°Π14'31		desc. node	1371 May 02 j 05:16	25°Ϡ32'45		
evening set	1370 May 17 j 11:59	16°Π57'20		inferior conj	1371 May 06 j 13:56	23°Ϡ12'38	-1°-15'-46	
min. Earth dist.	1370 May 26 j 00:40	13°Π17'34	0.55136 AU	minimum elong	1371 May 06 j 10:21	23°Ϡ17'46	1°14'28	
inferior conj	1370 May 26 j 20:06	12°Π50'13	-3°-8'-20	min. Earth dist.	1371 May 07 j 13:13	22°Ϡ39'23	0.54992 AU	
minimum elong	1370 May 26 j 12:32	13°Π00'53	3°06'09	morning rise	1371 May 15 j 11:58	19°Ϡ06'03		
morning rise	1370 Jun 04 j 15:00	8°Π57'41		direct	1371 May 19 j 00:36	18°Ϡ39'17		
direct	1370 Jun 07 j 14:52	8°Π37'31		morning max el	1371 Jun 01 j 04:07	24°Ϡ58'46	22°57'47	
morning max el	1370 Jun 19 j 07:41	14°Π05'14	21°20'29		1371 Jun 05 j 19:29	0°Π		
	1370 Jul 01 j 02:56	0°Ϡ		asc. node	1371 Jun 20 j 11:31	23°Π57'12		
asc. node	1370 Jul 03 j 14:27	4°Ϡ28'23			1371 Jun 23 j 10:33	0°Ϡ		
morning set	1370 Jul 09 j 09:28	15°Ϡ57'23		morning set	1371 Jun 23 j 20:25	0°Ϡ51'38		
	1370 Jul 16 j 02:32	0°Ω						
superior conj	1370 Jul 16 j 19:19	1°Ω27'15	1°41'39	superior conj	1371 Jul 01 j 00:04	16°Ϡ07'44	1°31'07	
minimum elong	1370 Jul 16 j 17:50	1°Ω19'31	1°41'34	minimum elong	1371 Jun 30 j 21:50	15°Ϡ55'49	1°30'54	
max. Earth dist.	1370 Jul 20 j 21:34	9°Ω48'17	1.35242 AU	max. Earth dist.	1371 Jul 03 j 17:49	21°Ϡ55'17	1.33894 AU	
evening rise	1370 Jul 25 j 06:09	18°Ω18'07			1371 Jul 07 j 16:25	0°Ω		
	1370 Jul 31 j 16:24	0°Ϡ		evening rise	1371 Jul 08 j 18:09	2°Ω08'01		
desc. node	1370 Aug 11 j 07:35	17°Ϡ12'38			1371 Jul 24 j 13:48	0°Ϡ		
	1370 Aug 20 j 12:30	0°Ω		desc. node	1371 Jul 29 j 04:35	6°Ϡ52'04		
evening max el	1370 Aug 29 j 14:28	10°Ω16'46	26°39'34	evening max el	1371 Aug 12 j 02:20	23°Ϡ41'49	27°16'24	
retrograde	1370 Sep 11 j 13:24	17°Ω30'42			1371 Aug 20 j 22:25	0°Ω		
evening set	1370 Sep 18 j 03:25	14°Ω49'53		retrograde	1371 Aug 25 j 12:39	1°Ω00'34		
min. Earth dist.	1370 Sep 22 j 05:00	10°Ω39'43	0.65973 AU		1371 Aug 29 j 19:51	30°ϠϠ		
inferior conj	1370 Sep 23 j 22:13	8°Ω37'00	-1°-53'-32	evening set	1371 Sep 01 j 13:05	28°Ϡ17'11		
minimum elong	1370 Sep 24 j 01:13	8°Ω28'05	1°52'22	min. Earth dist.	1371 Sep 05 j 07:55	24°Ϡ43'39	0.64673 AU	
asc. node	1370 Sep 29 j 13:39	3°Ω06'36		inferior conj	1371 Sep 07 j 13:53	22°Ϡ16'33	-2°-50'-24	
morning rise	1370 Sep 30 j 00:17	2°Ω51'28		minimum elong	1371 Sep 07 j 18:16	22°Ϡ04'36	2°48'54	
direct	1370 Oct 02 j 21:05	2°Ω05'28		morning rise	1371 Sep 14 j 01:18	16°Ϡ45'54		
morning max el	1370 Oct 09 j 12:19	5°Ω43'45	18°29'13	asc. node	1371 Sep 16 j 10:44	16°Ϡ10'59		
	1370 Oct 26 j 06:28	0°Ϡ		direct	1371 Sep 16 j 15:33	16°Ϡ10'46		
morning set	1370 Oct 29 j 09:33	5°Ϡ01'49		morning max el	1371 Sep 23 j 03:40	19°Ϡ38'43	18°01'48	
desc. node	1370 Nov 07 j 06:55	19°Ϡ13'20			1371 Sep 30 j 21:27	0°Ω		
				morning set	1371 Oct 10 j 18:07	16°Ω17'54		
superior conj	1370 Nov 14 j 02:02	29°Ϡ56'34	0°-44'-10		1371 Oct 18 j 23:58	0°Ϡ		
minimum elong	1370 Nov 13 j 20:20	29°Ϡ34'11	0°43'27					
	1370 Nov 14 j 02:54	0°Ϡ		superior conj	1371 Oct 24 j 11:19	8°Ϡ52'13	0°04'39	
max. Earth dist.	1370 Nov 15 j 00:55	1°Ϡ26'30	1.45117 AU	minimum elong	1371 Oct 24 j 11:53	8°Ϡ54'29	0°04'35	
evening rise	1370 Nov 30 j 05:38	25°Ϡ20'57		behind sun begin	1371 Oct 24 j 01:43	8°Ϡ13'41		
	1370 Dec 03 j 04:13	0°Ϡ		behind sun end	1371 Oct 24 j 22:02	9°Ϡ35'13		
greatest brilliancy	1370 Dec 11 j 22:59	13°Ϡ46'25	-0.7m	desc. node	1371 Oct 25 j 03:56	9°Ϡ58'46		
evening max el	1370 Dec 22 j 19:00	28°Ϡ28'06	19°07'22	max. Earth dist.	1371 Oct 28 j 19:49	15°Ϡ48'14	1.44733 AU	
	1370 Dec 24 j 10:01	0°≈			1371 Nov 06 j 21:37	0°Ϡ		
asc. node	1370 Dec 26 j 12:56	1°≈30'23		evening rise	1371 Nov 09 j 21:37	4°Ϡ38'25		
retrograde	1370 Dec 29 j 18:00	2°≈26'12			1371 Nov 26 j 16:32	0°Ϡ		
evening set	1371 Jan 02 j 00:37	1°≈23'45		greatest brilliancy	1371 Nov 29 j 00:34	3°Ϡ17'54	-0.6m	
	1371 Jan 03 j 19:11	30°ϠϠ		evening max el	1371 Dec 06 j 00:15	11°Ϡ57'14	20°00'30	
inferior conj	1371 Jan 07 j 16:26	25°Ϡ32'54	3°19'01	asc. node	1371 Dec 13 j 09:59	16°Ϡ25'24		
minimum elong	1371 Jan 07 j 14:03	25°Ϡ40'28	3°18'34	retrograde	1371 Dec 13 j 15:42	16°Ϡ25'43		
min. Earth dist.	1371 Jan 09 j 03:35	23°Ϡ41'28	0.65895 AU	evening set	1371 Dec 17 j 06:13	15°Ϡ09'48		
morning rise	1371 Jan 13 j 02:36	19°Ϡ20'14		inferior conj	1371 Dec 22 j 18:12	9°Ϡ05'06	2°47'55	
direct	1371 Jan 19 j 12:31	16°Ϡ32'12		minimum elong	1371 Dec 22 j 15:31	9°Ϡ14'05	2°47'10	
morning max el	1371 Feb 01 j 08:01	24°Ϡ05'37	26°25'55	min. Earth dist.	1371 Dec 23 j 15:34	7°Ϡ53'37	0.66895 AU	
desc. node	1371 Feb 03 j 06:06	26°Ϡ06'16		morning rise	1371 Dec 28 j 00:13	2°Ϡ50'02		
	1371 Feb 06 j 15:39	0°≈		direct	1372 Jan 02 j 20:43	0°Ϡ14'41		

morning max el	1372 Jan 14 j 16:56	7°☿18'15	25°09'26	morning rise	1372 Dec 11 j 04:22	16°☿30'06	
desc. node	1372 Jan 21 j 03:10	14°☿35'06		direct	1372 Dec 16 j 09:53	14°☿14'16	
	1372 Feb 01 j 10:10	0°☿		morning max el	1372 Dec 27 j 01:28	20°☿35'11	23°42'32
morning set	1372 Feb 19 j 21:03	0°☿05'02			1373 Jan 04 j 03:03	0°☿	
	1372 Feb 19 j 19:55	0°☿		desc. node	1373 Jan 07 j 00:12	3°☿48'14	
max. Earth dist.	1372 Feb 23 j 14:24	6°☿53'28	1.36676 AU		1373 Jan 24 j 15:49	0°☿	
				morning set	1373 Jan 31 j 09:57	11°☿10'07	
superior conj	1372 Feb 29 j 18:50	18°☿46'11	-1°-27'-28	max. Earth dist.	1373 Feb 04 j 09:16	18°☿03'10	1.38740 AU
minimum elong	1372 Feb 29 j 22:50	19°☿05'59	1°26'56		1373 Feb 10 j 23:01	0°☿	
	1372 Mar 06 j 09:10	0°☿					
evening rise	1372 Mar 09 j 02:30	5°☿30'14		superior conj	1373 Feb 11 j 19:02	1°☿33'52	-1°-48'-37
asc. node	1372 Mar 10 j 09:17	8°☿04'32		minimum elong	1373 Feb 11 j 23:00	1°☿52'33	1°48'18
	1372 Mar 23 j 06:25	0°☿		evening rise	1373 Feb 20 j 22:55	19°☿15'16	
evening max el	1372 Mar 26 j 07:55	3°☿24'08	19°37'05	asc. node	1373 Feb 25 j 06:21	27°☿31'24	
retrograde	1372 Apr 04 j 23:09	8°☿02'45			1373 Feb 26 j 14:31	0°☿	
evening set	1372 Apr 07 j 00:33	7°☿50'58		evening max el	1373 Mar 09 j 07:07	15°☿36'31	18°47'15
inferior conj	1372 Apr 15 j 16:15	3°☿47'10	0°41'28	retrograde	1373 Mar 17 j 10:32	19°☿33'57	
minimum elong	1372 Apr 15 j 18:01	3°☿44'23	0°40'50	evening set	1373 Mar 19 j 16:32	19°☿16'59	
min. Earth dist.	1372 Apr 18 j 03:35	2°☿13'33	0.55804 AU	inferior conj	1373 Mar 27 j 13:18	14°☿56'20	2°14'12
desc. node	1372 Apr 18 j 02:19	2°☿15'30		minimum elong	1373 Mar 27 j 17:23	14°☿48'49	2°13'02
	1372 Apr 22 j 04:55	30°☿		min. Earth dist.	1373 Mar 30 j 20:27	12°☿32'00	0.57395 AU
morning rise	1372 Apr 24 j 07:52	29°☿09'56		morning rise	1373 Apr 04 j 13:54	9°☿45'47	
direct	1372 Apr 28 j 18:30	28°☿25'40		desc. node	1373 Apr 04 j 23:22	9°☿35'41	
	1372 May 05 j 05:34	0°☿		direct	1373 Apr 10 j 02:29	8°☿31'12	
morning max el	1372 May 12 j 19:08	5°☿28'44	24°39'22	morning max el	1373 Apr 24 j 10:37	16°☿01'57	26°10'20
	1372 May 30 j 08:02	0°☿			1373 May 05 j 18:45	0°☿	
asc. node	1372 Jun 06 j 08:34	13°☿44'22			1373 May 22 j 11:15	0°☿	
morning set	1372 Jun 07 j 08:20	15°☿48'49		morning set	1373 May 22 j 19:35	0°☿43'44	
	1372 Jun 13 j 21:59	0°☿		asc. node	1373 May 24 j 05:36	3°☿44'17	
superior conj	1372 Jun 14 j 09:05	1°☿00'24	1°15'41	superior conj	1373 May 29 j 20:23	15°☿58'40	0°56'16
minimum elong	1372 Jun 14 j 06:39	0°☿47'11	1°15'20	minimum elong	1373 May 29 j 18:14	15°☿46'54	0°55'52
max. Earth dist.	1372 Jun 15 j 22:27	4°☿22'49	1.32947 AU	max. Earth dist.	1373 May 30 j 08:49	17°☿06'54	1.32397 AU
evening rise	1372 Jun 21 j 16:05	16°☿27'14			1373 Jun 05 j 08:12	0°☿	
	1372 Jun 28 j 15:59	0°☿		evening rise	1373 Jun 05 j 20:54	1°☿06'22	
desc. node	1372 Jul 15 j 01:37	25°☿53'33			1373 Jun 21 j 16:28	0°☿	
	1372 Jul 18 j 07:36	0°☿		desc. node	1373 Jul 01 j 22:38	14°☿01'12	
evening max el	1372 Jul 24 j 12:14	6°☿42'29	27°25'04	evening max el	1373 Jul 06 j 17:50	19°☿06'52	27°01'13
retrograde	1372 Aug 07 j 05:52	14°☿00'38		retrograde	1373 Jul 20 j 15:54	26°☿21'36	
evening set	1372 Aug 14 j 10:45	11°☿26'24		evening set	1373 Jul 27 j 16:12	24°☿10'13	
min. Earth dist.	1372 Aug 18 j 01:11	8°☿24'31	0.63024 AU	min. Earth dist.	1373 Jul 31 j 08:05	21°☿29'10	0.61095 AU
inferior conj	1372 Aug 20 j 19:45	5°☿41'33	-3°-43'-11	inferior conj	1373 Aug 03 j 12:34	18°☿44'12	-4°-26'-33
minimum elong	1372 Aug 21 j 00:54	5°☿28'53	3°41'48	minimum elong	1373 Aug 03 j 17:08	18°☿34'16	4°25'45
morning rise	1372 Aug 27 j 17:31	0°☿28'58		morning rise	1373 Aug 10 j 21:06	13°☿52'35	
direct	1372 Aug 30 j 03:52	0°☿01'19		direct	1373 Aug 13 j 06:24	13°☿29'33	
asc. node	1372 Sep 02 j 07:49	0°☿49'10		asc. node	1373 Aug 20 j 04:51	16°☿50'52	
morning max el	1372 Sep 05 j 19:42	3°☿27'11	17°52'01	morning max el	1373 Aug 20 j 09:22	17°☿01'45	18°00'58
morning set	1372 Sep 22 j 02:38	28°☿42'40			1373 Aug 29 j 13:52	0°☿	
	1372 Sep 22 j 20:11	0°☿		morning set	1373 Sep 05 j 04:58	11°☿58'45	
superior conj	1372 Oct 03 j 20:30	18°☿59'29	0°47'19	superior conj	1373 Sep 15 j 08:45	0°☿26'22	1°18'19
minimum elong	1372 Oct 04 j 00:46	19°☿17'20	0°46'46	minimum elong	1373 Sep 15 j 13:12	0°☿45'58	1°17'50
max. Earth dist.	1372 Oct 10 j 11:34	29°☿52'18	1.43668 AU		1373 Sep 15 j 02:46	0°☿	
	1372 Oct 10 j 13:29	0°☿		max. Earth dist.	1373 Sep 22 j 22:41	13°☿25'19	1.42060 AU
desc. node	1372 Oct 11 j 00:56	0°☿46'06		desc. node	1373 Sep 27 j 21:57	21°☿32'13	
evening rise	1372 Oct 19 j 05:24	13°☿39'55		evening rise	1373 Sep 28 j 22:35	23°☿10'36	
	1372 Oct 30 j 00:07	0°☿			1373 Oct 03 j 06:53	0°☿	
greatest brilliancy	1372 Nov 12 j 17:00	19°☿16'56	-0.5m		1373 Oct 24 j 02:51	0°☿	
evening max el	1372 Nov 17 j 23:57	25°☿26'59	21°06'58	greatest brilliancy	1373 Oct 27 j 00:32	3°☿38'57	-0.3m
	1372 Nov 24 j 00:58	0°☿		evening max el	1373 Oct 31 j 18:15	8°☿58'21	22°22'49
retrograde	1372 Nov 26 j 13:20	0°☿31'41		retrograde	1373 Nov 10 j 09:07	14°☿41'25	
	1372 Nov 28 j 22:36	30°☿		evening set	1373 Nov 14 j 21:22	12°☿53'28	
asc. node	1372 Nov 29 j 07:03	29°☿49'45		asc. node	1373 Nov 16 j 04:06	11°☿42'46	
evening set	1372 Nov 30 j 13:43	29°☿00'34		inferior conj	1373 Nov 20 j 06:53	6°☿31'28	1°22'37
inferior conj	1372 Dec 05 j 23:41	22°☿45'25	2°08'31	minimum elong	1373 Nov 20 j 05:05	6°☿37'39	1°21'55
minimum elong	1372 Dec 05 j 21:14	22°☿53'51	2°07'41	min. Earth dist.	1373 Nov 20 j 04:57	6°☿38'09	0.67775 AU
min. Earth dist.	1372 Dec 06 j 08:51	22°☿13'51	0.67512 AU	morning rise	1373 Nov 25 j 12:40	0°☿18'09	

	1373 Nov 25 j 21:46	30° \mathbb{M}		min. Earth dist.	1374 Nov 04 j 01:29	21° \mathbb{M} 04'08	0.67698 AU
direct	1373 Nov 30 j 03:07	28° \mathbb{M} 24'56		inferior conj	1374 Nov 04 j 13:59	20° \mathbb{M} 21'31	0°31'37
	1373 Dec 04 j 19:12	0° \mathbb{A}		minimum elong	1374 Nov 04 j 13:15	20° \mathbb{M} 24'04	0°31'19
morning max el	1373 Dec 09 j 12:43	3° \mathbb{A} 57'39	22°14'58	morning rise	1374 Nov 09 j 23:03	14° \mathbb{M} 12'34	
greatest brilliancy	1373 Dec 14 j 03:31	9° \mathbb{A} 08'24	-0.3m	direct	1374 Nov 13 j 23:24	12° \mathbb{M} 41'54	
desc. node	1373 Dec 24 j 21:13	23° \mathbb{A} 33'02		morning max el	1374 Nov 22 j 06:17	17° \mathbb{M} 30'21	20°54'32
	1373 Dec 29 j 07:23	0° \mathbb{B}		greatest brilliancy	1374 Nov 27 j 21:50	24° \mathbb{M} 04'32	-0.5m
morning set	1374 Jan 11 j 18:16	20° \mathbb{B} 50'55			1374 Dec 02 j 07:47	0° \mathbb{A}	
	1374 Jan 17 j 07:14	0° \mathbb{A}		desc. node	1374 Dec 11 j 18:15	13° \mathbb{A} 40'53	
max. Earth dist.	1374 Jan 17 j 06:15	29° \mathbb{B} 55'48	1.40880 AU	morning set	1374 Dec 22 j 00:00	29° \mathbb{A} 19'26	
					1374 Dec 22 j 10:23	0° \mathbb{B}	
superior conj	1374 Jan 25 j 01:24	13° \mathbb{A} 27'22	-2°-1'-50	max. Earth dist.	1374 Dec 30 j 10:36	12° \mathbb{B} 46'03	1.42792 AU
minimum elong	1374 Jan 25 j 03:29	13° \mathbb{A} 36'37	2°01'47				
	1374 Feb 03 j 01:43	0° \mathbb{H}		superior conj	1375 Jan 06 j 08:39	24° \mathbb{B} 14'33	-2°-2'-30
evening rise	1374 Feb 04 j 08:39	2° \mathbb{H} 24'44		minimum elong	1375 Jan 06 j 06:24	24° \mathbb{B} 05'04	2°02'27
asc. node	1374 Feb 12 j 03:23	16° \mathbb{H} 33'22			1375 Jan 09 j 17:30	0° \mathbb{A}	
evening max el	1374 Feb 20 j 13:52	28° \mathbb{H} 18'51	18°17'27	evening rise	1375 Jan 18 j 03:53	14° \mathbb{A} 50'59	
	1374 Feb 22 j 13:28	0° \mathbb{Y}			1375 Jan 26 j 19:38	0° \mathbb{H}	
retrograde	1374 Feb 27 j 16:51	1° \mathbb{Y} 51'46		asc. node	1375 Jan 30 j 00:25	5° \mathbb{H} 02'45	
evening set	1374 Mar 02 j 04:20	1° \mathbb{Y} 26'58		evening max el	1375 Feb 04 j 01:00	11° \mathbb{H} 22'36	18°07'23
	1374 Mar 05 j 02:58	30° \mathbb{R} \mathbb{H}		retrograde	1375 Feb 10 j 15:15	14° \mathbb{H} 46'50	
inferior conj	1374 Mar 09 j 07:30	26° \mathbb{H} 45'03	3°12'41	evening set	1375 Feb 13 j 07:32	14° \mathbb{H} 12'56	
minimum elong	1374 Mar 09 j 10:49	26° \mathbb{H} 37'54	3°12'05	inferior conj	1375 Feb 19 j 20:35	9° \mathbb{H} 09'30	3°40'31
min. Earth dist.	1374 Mar 12 j 17:33	23° \mathbb{H} 50'17	0.59431 AU	minimum elong	1375 Feb 19 j 21:54	9° \mathbb{H} 06'15	3°40'26
morning rise	1374 Mar 16 j 13:40	21° \mathbb{H} 08'16		min. Earth dist.	1375 Feb 22 j 22:00	6° \mathbb{H} 09'06	0.61558 AU
direct	1374 Mar 22 j 23:15	19° \mathbb{H} 17'07		morning rise	1375 Feb 26 j 09:38	3° \mathbb{H} 15'24	
desc. node	1374 Mar 22 j 20:25	19° \mathbb{H} 17'09		direct	1375 Mar 05 j 06:30	0° \mathbb{H} 51'33	
morning max el	1374 Apr 06 j 07:06	27° \mathbb{H} 02'43	27°16'07	desc. node	1375 Mar 09 j 17:26	1° \mathbb{H} 46'18	
	1374 Apr 09 j 02:48	0° \mathbb{Y}		morning max el	1375 Mar 19 j 10:03	8° \mathbb{H} 44'50	27°47'05
	1374 Apr 29 j 07:01	0° \mathbb{B}			1375 Apr 04 j 18:23	0° \mathbb{Y}	
morning set	1374 May 07 j 04:26	15° \mathbb{B} 29'34		morning set	1375 Apr 21 j 09:01	0° \mathbb{B} 00'13	
asc. node	1374 May 11 j 02:38	23° \mathbb{B} 51'16			1375 Apr 21 j 08:58	0° \mathbb{B}	
	1374 May 13 j 22:05	0° \mathbb{H}		max. Earth dist.	1375 Apr 27 j 08:02	12° \mathbb{B} 36'17	1.32439 AU
				asc. node	1375 Apr 27 j 23:40	14° \mathbb{B} 01'15	
superior conj	1374 May 14 j 08:06	0° \mathbb{H} 55'08	0°33'35				
minimum elong	1374 May 14 j 06:40	0° \mathbb{H} 47'14	0°33'16	superior conj	1375 Apr 28 j 18:37	15° \mathbb{B} 44'28	0°08'21
max. Earth dist.	1374 May 13 j 21:18	29° \mathbb{B} 55'46	1.32229 AU	minimum elong	1375 Apr 28 j 18:13	15° \mathbb{B} 42'21	0°08'15
evening rise	1374 May 21 j 06:00	15° \mathbb{H} 55'54		behind sun begin	1375 Apr 28 j 13:50	15° \mathbb{B} 18'24	
	1374 May 28 j 06:53	0° \mathbb{B}		behind sun end	1375 Apr 28 j 22:37	16° \mathbb{B} 06'18	
	1374 Jun 17 j 22:19	0° \mathbb{Q}			1375 May 05 j 08:09	0° \mathbb{H}	
evening max el	1374 Jun 18 j 16:44	0° \mathbb{Q} 44'48	26°04'46	evening rise	1375 May 05 j 17:23	0° \mathbb{H} 49'00	
desc. node	1374 Jun 18 j 19:39	0° \mathbb{Q} 51'45			1375 May 21 j 18:57	0° \mathbb{B}	
retrograde	1374 Jul 02 j 16:56	7° \mathbb{Q} 55'40		evening max el	1375 May 31 j 08:50	11° \mathbb{B} 38'54	24°42'24
evening set	1374 Jul 09 j 00:35	6° \mathbb{Q} 18'48		desc. node	1375 Jun 05 j 16:41	15° \mathbb{B} 54'51	
min. Earth dist.	1374 Jul 13 j 05:22	3° \mathbb{Q} 42'14	0.59035 AU	retrograde	1375 Jun 14 j 07:23	18° \mathbb{B} 42'38	
inferior conj	1374 Jul 16 j 12:40	1° \mathbb{Q} 13'47	-4°-51'-53	evening set	1375 Jun 19 j 09:23	17° \mathbb{B} 44'11	
minimum elong	1374 Jul 16 j 14:27	1° \mathbb{Q} 10'26	4°51'48	min. Earth dist.	1375 Jun 24 j 20:04	14° \mathbb{B} 53'53	0.57100 AU
	1374 Jul 18 j 04:37	30° \mathbb{R} \mathbb{B}		inferior conj	1375 Jun 27 j 17:07	13° \mathbb{B} 01'35	-4°-46'-42
morning rise	1374 Jul 24 j 07:47	26° \mathbb{B} 45'18		minimum elong	1375 Jun 27 j 13:58	13° \mathbb{B} 06'45	4°46'28
direct	1374 Jul 26 j 18:46	26° \mathbb{B} 24'52		morning rise	1375 Jul 05 j 22:19	8° \mathbb{B} 54'58	
	1374 Aug 03 j 11:57	0° \mathbb{Q}		direct	1375 Jul 08 j 12:50	8° \mathbb{B} 35'58	
morning max el	1374 Aug 03 j 17:32	0° \mathbb{Q} 13'07	18°29'59	morning max el	1375 Jul 17 j 17:16	12° \mathbb{B} 52'41	19°20'01
asc. node	1374 Aug 07 j 01:51	4° \mathbb{Q} 00'23		asc. node	1375 Jul 24 j 22:53	22° \mathbb{B} 03'27	
morning set	1374 Aug 19 j 19:55	25° \mathbb{Q} 51'21			1375 Jul 29 j 13:35	0° \mathbb{Q}	
	1374 Aug 21 j 23:29	0° \mathbb{M}		morning set	1375 Aug 03 j 19:42	10° \mathbb{Q} 10'08	
superior conj	1374 Aug 28 j 19:49	13° \mathbb{M} 00'48	1°37'09	superior conj	1375 Aug 12 j 00:06	26° \mathbb{Q} 26'57	1°45'24
minimum elong	1374 Aug 28 j 22:38	13° \mathbb{M} 13'55	1°36'56	minimum elong	1375 Aug 12 j 00:57	26° \mathbb{Q} 31'04	1°45'23
max. Earth dist.	1374 Sep 05 j 04:56	26° \mathbb{M} 17'11	1.40103 AU		1375 Aug 13 j 20:08	0° \mathbb{M}	
	1374 Sep 07 j 08:45	0° \mathbb{A}		max. Earth dist.	1375 Aug 18 j 08:27	8° \mathbb{M} 28'13	1.38058 AU
evening rise	1374 Sep 09 j 13:13	3° \mathbb{A} 41'05		evening rise	1375 Aug 22 j 04:05	15° \mathbb{M} 19'26	
desc. node	1374 Sep 14 j 18:58	12° \mathbb{A} 13'24			1375 Aug 30 j 22:14	0° \mathbb{A}	
	1374 Sep 26 j 12:56	0° \mathbb{M}		desc. node	1375 Sep 01 j 15:59	2° \mathbb{A} 45'13	
evening max el	1374 Oct 14 j 08:23	22° \mathbb{M} 32'38	23°42'48		1375 Sep 21 j 05:04	0° \mathbb{M}	
retrograde	1374 Oct 25 j 01:49	28° \mathbb{M} 52'07		evening max el	1375 Sep 26 j 20:20	6° \mathbb{M} 09'44	25°00'23
evening set	1374 Oct 30 j 03:35	26° \mathbb{M} 46'32		retrograde	1375 Oct 08 j 14:29	12° \mathbb{M} 59'03	
asc. node	1374 Nov 03 j 01:06	22° \mathbb{M} 26'04		evening set	1375 Oct 14 j 06:42	10° \mathbb{M} 36'45	

min. Earth dist.	1375 Oct 18 j 20:08	5° \mathbb{M} 28'55	0.67290 AU	min. Earth dist.	1376 Oct 01 j 10:37	19° \mathbb{A} 49'54	0.66549 AU
inferior conj	1375 Oct 19 j 19:17	4° \mathbb{M} 12'49	0°-23'-8	inferior conj	1376 Oct 02 j 20:59	18° \mathbb{A} 03'07	-1°-20'-14
minimum elong	1375 Oct 19 j 19:52	4° \mathbb{M} 10'55	0°22'54	minimum elong	1376 Oct 02 j 23:05	17° \mathbb{A} 56'37	1°19'23
asc. node	1375 Oct 20 j 22:08	2° \mathbb{M} 45'35		asc. node	1376 Oct 06 j 19:09	13° \mathbb{A} 39'09	
	1375 Oct 23 j 06:43	30° \mathbb{R} \mathbb{A}		morning rise	1376 Oct 08 j 18:17	12° \mathbb{A} 10'34	
morning rise	1375 Oct 25 j 09:35	28° \mathbb{A} 10'42		direct	1376 Oct 11 j 19:49	11° \mathbb{A} 16'51	
direct	1375 Oct 28 j 21:26	27° \mathbb{A} 00'19		morning max el	1376 Oct 18 j 16:09	15° \mathbb{A} 05'34	18°52'38
	1375 Nov 04 j 00:35	0° \mathbb{M}			1376 Oct 29 j 18:13	0° \mathbb{M}	
morning max el	1375 Nov 05 j 07:40	1° \mathbb{M} 13'46	19°46'10	morning set	1376 Nov 09 j 08:15	16° \mathbb{M} 32'15	
greatest brilliancy	1375 Nov 13 j 03:20	10° \mathbb{M} 55'43	-0.6m	desc. node	1376 Nov 14 j 12:19	24° \mathbb{M} 40'13	
	1375 Nov 25 j 23:28	0° \mathbb{A}			1376 Nov 17 j 21:46	0° \mathbb{A}	
desc. node	1375 Nov 28 j 15:16	4° \mathbb{A} 04'48		max. Earth dist.	1376 Nov 24 j 14:41	10° \mathbb{A} 31'35	1.44998 AU
morning set	1375 Nov 30 j 20:22	7° \mathbb{A} 29'32					
max. Earth dist.	1375 Dec 12 j 22:09	26° \mathbb{A} 23'26	1.44220 AU	superior conj	1376 Nov 25 j 20:07	12° \mathbb{A} 27'22	-1°-10'-43
	1375 Dec 15 j 04:26	0° \mathbb{B}		minimum elong	1376 Nov 25 j 11:54	11° \mathbb{A} 55'03	1°09'48
					1376 Dec 06 j 21:18	0° \mathbb{B}	
superior conj	1375 Dec 17 j 13:18	3° \mathbb{B} 48'45	-1°-45'-55	evening rise	1376 Dec 11 j 06:00	7° \mathbb{B} 01'49	
minimum elong	1375 Dec 17 j 05:57	3° \mathbb{B} 19'05	1°45'22		1376 Dec 25 j 17:23	0° \mathbb{A}	
evening rise	1375 Dec 31 j 04:14	26° \mathbb{B} 25'08		evening max el	1377 Jan 01 j 00:56	8° \mathbb{A} 04'32	18°43'53
	1376 Jan 02 j 06:49	0° \mathbb{A}		asc. node	1377 Jan 02 j 18:30	9° \mathbb{A} 40'26	
asc. node	1376 Jan 16 j 21:28	22° \mathbb{A} 49'08		retrograde	1377 Jan 07 j 17:36	11° \mathbb{A} 49'04	
evening max el	1376 Jan 18 j 13:31	24° \mathbb{A} 39'35	18°16'30	evening set	1377 Jan 10 j 20:20	10° \mathbb{A} 53'53	
retrograde	1376 Jan 25 j 00:52	28° \mathbb{A} 08'26		inferior conj	1377 Jan 16 j 15:21	5° \mathbb{A} 12'35	3°32'15
evening set	1376 Jan 27 j 21:58	27° \mathbb{A} 24'27		minimum elong	1377 Jan 16 j 13:25	5° \mathbb{A} 18'27	3°31'59
inferior conj	1376 Feb 03 j 00:29	22° \mathbb{A} 01'05	3°44'57	min. Earth dist.	1377 Jan 18 j 11:14	2° \mathbb{A} 59'12	0.65141 AU
minimum elong	1376 Feb 02 j 23:53	22° \mathbb{A} 02'46	3°44'55		1377 Jan 21 j 04:15	30° \mathbb{R} \mathbb{B}	
min. Earth dist.	1376 Feb 05 j 11:50	19° \mathbb{A} 16'44	0.63514 AU	morning rise	1377 Jan 22 j 05:21	29° \mathbb{B} 02'03	
morning rise	1376 Feb 09 j 00:01	15° \mathbb{A} 56'32		direct	1377 Jan 28 j 21:32	26° \mathbb{B} 10'59	
direct	1376 Feb 15 j 22:23	13° \mathbb{A} 11'43			1377 Feb 06 j 18:09	0° \mathbb{A}	
desc. node	1376 Feb 24 j 14:28	16° \mathbb{A} 37'54		desc. node	1377 Feb 10 j 11:31	3° \mathbb{A} 16'36	
morning max el	1376 Feb 29 j 17:49	21° \mathbb{A} 06'06	27°40'48	morning max el	1377 Feb 11 j 03:29	3° \mathbb{A} 56'05	27°00'58
	1376 Mar 08 j 11:26	0° \mathbb{H}			1377 Mar 02 j 21:45	0° \mathbb{H}	
	1376 Mar 27 j 20:09	0° \mathbb{Y}		morning set	1377 Mar 18 j 19:11	27° \mathbb{H} 42'08	
morning set	1376 Apr 04 j 06:58	14° \mathbb{Y} 07'43			1377 Mar 19 j 23:38	0° \mathbb{Y}	
max. Earth dist.	1376 Apr 09 j 12:53	24° \mathbb{Y} 54'28	1.33048 AU	max. Earth dist.	1377 Mar 23 j 07:58	6° \mathbb{Y} 39'34	1.34102 AU
	1376 Apr 11 j 22:18	0° \mathbb{B}					
				superior conj	1377 Mar 27 j 04:41	14° \mathbb{Y} 37'12	0°-46'-15
superior conj	1376 Apr 12 j 02:09	0° \mathbb{B} 20'39	0°-18'-37	minimum elong	1377 Mar 27 j 06:59	14° \mathbb{Y} 49'14	0°45'48
minimum elong	1376 Apr 12 j 03:03	0° \mathbb{B} 25'31	0°18'26	asc. node	1377 Mar 31 j 17:48	24° \mathbb{Y} 13'00	
asc. node	1376 Apr 13 j 20:44	4° \mathbb{B} 09'57			1377 Apr 03 j 11:43	0° \mathbb{B}	
evening rise	1376 Apr 19 j 05:09	15° \mathbb{B} 39'00		evening rise	1377 Apr 03 j 15:28	0° \mathbb{B} 19'31	
	1376 Apr 26 j 09:44	0° \mathbb{H}			1377 Apr 21 j 02:22	0° \mathbb{H}	
evening max el	1376 May 11 j 22:52	22° \mathbb{H} 10'28	23°07'25	evening max el	1377 Apr 23 j 18:16	2° \mathbb{H} 50'23	21°34'35
desc. node	1376 May 22 j 13:41	28° \mathbb{H} 34'44		retrograde	1377 May 06 j 01:12	8° \mathbb{H} 50'56	
retrograde	1376 May 25 j 09:47	28° \mathbb{H} 53'04		evening set	1377 May 08 j 12:32	8° \mathbb{H} 37'07	
evening set	1376 May 29 j 00:01	28° \mathbb{H} 24'44		desc. node	1377 May 09 j 10:44	8° \mathbb{H} 25'10	
min. Earth dist.	1376 Jun 05 j 08:19	25° \mathbb{H} 06'23	0.55628 AU	inferior conj	1377 May 17 j 21:49	4° \mathbb{H} 36'13	-2°-23'-29
inferior conj	1376 Jun 07 j 02:03	24° \mathbb{H} 05'30	-3°-57'-58	minimum elong	1377 May 17 j 15:23	4° \mathbb{H} 45'14	2°21'22
minimum elong	1376 Jun 06 j 18:43	24° \mathbb{H} 16'14	3°56'20	min. Earth dist.	1377 May 17 j 20:41	4° \mathbb{H} 37'47	0.54950 AU
morning rise	1376 Jun 15 j 16:31	20° \mathbb{H} 12'11		morning rise	1377 May 26 j 18:53	0° \mathbb{H} 39'47	
direct	1376 Jun 18 j 11:48	19° \mathbb{H} 53'24		direct	1377 May 29 j 23:03	0° \mathbb{H} 17'44	
morning max el	1376 Jun 29 j 06:19	24° \mathbb{H} 52'37	20°31'05	morning max el	1377 Jun 11 j 08:08	6° \mathbb{H} 08'33	22°00'32
	1376 Jul 03 j 20:39	0° \mathbb{B}		asc. node	1377 Jun 27 j 17:01	0° \mathbb{B} 02'57	
asc. node	1376 Jul 10 j 19:56	10° \mathbb{B} 47'55			1377 Jun 27 j 16:24	0° \mathbb{B}	
morning set	1376 Jul 18 j 01:32	24° \mathbb{B} 47'55		morning set	1377 Jul 02 j 11:10	9° \mathbb{B} 37'39	
	1376 Jul 20 j 14:09	0° \mathbb{Q}					
				superior conj	1377 Jul 09 j 17:57	25° \mathbb{B} 00'45	1°37'51
superior conj	1376 Jul 25 j 16:46	10° \mathbb{Q} 31'04	1°45'04	minimum elong	1377 Jul 09 j 16:05	24° \mathbb{B} 50'53	1°37'43
minimum elong	1376 Jul 25 j 15:58	10° \mathbb{Q} 27'01	1°45'03		1377 Jul 12 j 03:24	0° \mathbb{Q}	
max. Earth dist.	1376 Jul 30 j 14:58	20° \mathbb{Q} 18'46	1.36174 AU	max. Earth dist.	1377 Jul 13 j 05:40	2° \mathbb{Q} 14'48	1.34618 AU
evening rise	1376 Aug 03 j 16:15	27° \mathbb{Q} 59'30		evening rise	1377 Jul 17 j 20:52	11° \mathbb{Q} 27'43	
	1376 Aug 04 j 18:30	0° \mathbb{H}			1377 Jul 28 j 03:53	0° \mathbb{H}	
desc. node	1376 Aug 18 j 13:02	23° \mathbb{H} 02'43		desc. node	1377 Aug 05 j 10:03	12° \mathbb{H} 58'24	
	1376 Aug 23 j 05:45	0° \mathbb{A}			1377 Aug 18 j 13:46	0° \mathbb{A}	
evening max el	1376 Sep 08 j 08:09	19° \mathbb{A} 48'34	26°08'08	evening max el	1377 Aug 21 j 20:23	3° \mathbb{A} 21'57	26°58'24
retrograde	1376 Sep 20 j 22:31	26° \mathbb{A} 57'16		retrograde	1377 Sep 04 j 01:04	10° \mathbb{A} 39'07	
evening set	1376 Sep 27 j 04:53	24° \mathbb{A} 21'33		evening set	1377 Sep 10 j 19:52	7° \mathbb{A} 56'16	

min. Earth dist.	1377 Sep 14 j 18:30	4° Ω 01'37	0.65459 AU	min. Earth dist.	1378 Aug 28 j 17:31	17° \mathbb{M} 56'39	0.64016 AU
inferior conj	1377 Sep 16 j 16:59	1° Ω 47'53	-2°-17'-54	inferior conj	1378 Aug 31 j 04:49	15° \mathbb{M} 21'52	-3°-13'-34
minimum elong	1377 Sep 16 j 20:36	1° Ω 37'28	2°16'34	minimum elong	1378 Aug 31 j 09:38	15° \mathbb{M} 09'15	3°12'03
	1377 Sep 18 j 07:16	30° \mathbb{R} \mathbb{M}		morning rise	1378 Sep 06 j 20:31	9° \mathbb{M} 58'13	
morning rise	1377 Sep 22 j 22:51	26° \mathbb{M} 08'01		direct	1378 Sep 09 j 08:53	9° \mathbb{M} 26'30	
asc. node	1377 Sep 23 j 16:13	25° \mathbb{M} 49'19		asc. node	1378 Sep 10 j 13:17	9° \mathbb{M} 33'38	
direct	1377 Sep 25 j 16:30	25° \mathbb{M} 27'06		morning max el	1378 Sep 15 j 21:34	12° \mathbb{M} 52'28	17°55'23
morning max el	1377 Oct 02 j 05:40	29° \mathbb{M} 00'16	18°15'24		1378 Sep 27 j 16:31	0° Ω	
	1377 Oct 03 j 04:17	0° Ω		morning set	1378 Oct 02 j 20:02	8° Ω 47'56	
morning set	1377 Oct 21 j 00:32	27° Ω 00'32			1378 Oct 15 j 11:08	0° \mathbb{M}	
	1377 Oct 22 j 20:28	0° \mathbb{M}					
desc. node	1377 Nov 01 j 09:22	15° \mathbb{M} 22'47		superior conj	1378 Oct 15 j 16:13	0° \mathbb{M} 20'42	0°24'00
				minimum elong	1378 Oct 15 j 18:50	0° \mathbb{M} 31'22	0°23'38
superior conj	1377 Nov 04 j 22:05	20° \mathbb{M} 58'47	0°-23'-22	desc. node	1378 Oct 19 j 06:22	6° \mathbb{M} 09'01	
minimum elong	1377 Nov 04 j 19:03	20° \mathbb{M} 46'48	0°22'58	max. Earth dist.	1378 Oct 21 j 03:47	9° \mathbb{M} 10'32	1.44361 AU
max. Earth dist.	1377 Nov 07 j 09:32	24° \mathbb{M} 53'08	1.45043 AU	evening rise	1378 Oct 31 j 19:06	25° \mathbb{M} 48'36	
	1377 Nov 10 j 15:43	0° \mathbb{X}			1378 Nov 03 j 12:39	0° \mathbb{X}	
evening rise	1377 Nov 21 j 08:39	16° \mathbb{X} 43'14		greatest brilliancy	1378 Nov 22 j 08:55	27° \mathbb{X} 39'52	-0.5m
	1377 Nov 29 j 21:31	0° \mathbb{Z}			1378 Nov 24 j 03:53	0° \mathbb{Z}	
greatest brilliancy	1377 Dec 06 j 19:37	10° \mathbb{Z} 28'29	-0.7m	evening max el	1378 Nov 28 j 11:59	5° \mathbb{Z} 02'44	20°27'25
evening max el	1377 Dec 15 j 08:59	21° \mathbb{Z} 33'20	19°28'14	retrograde	1378 Dec 06 j 11:58	9° \mathbb{Z} 45'37	
asc. node	1377 Dec 20 j 15:31	25° \mathbb{Z} 22'20		asc. node	1378 Dec 07 j 12:34	9° \mathbb{Z} 39'42	
retrograde	1377 Dec 22 j 14:10	25° \mathbb{Z} 43'08		evening set	1378 Dec 10 j 06:34	8° \mathbb{Z} 23'15	
evening set	1377 Dec 25 j 23:57	24° \mathbb{Z} 35'12		inferior conj	1378 Dec 15 j 17:29	2° \mathbb{Z} 13'45	2°32'05
inferior conj	1377 Dec 31 j 13:55	18° \mathbb{Z} 38'23	3°06'58	minimum elong	1378 Dec 15 j 14:50	2° \mathbb{Z} 22'43	2°31'17
minimum elong	1377 Dec 31 j 11:20	18° \mathbb{Z} 46'47	3°06'22	min. Earth dist.	1378 Dec 16 j 09:26	1° \mathbb{Z} 19'35	0.67203 AU
min. Earth dist.	1378 Jan 01 j 19:04	17° \mathbb{Z} 03'34	0.66371 AU		1378 Dec 17 j 09:15	30° \mathbb{R} \mathbb{X}	
morning rise	1378 Jan 05 j 21:57	12° \mathbb{Z} 24'35		morning rise	1378 Dec 20 j 22:37	25° \mathbb{X} 58'37	
direct	1378 Jan 12 j 02:38	9° \mathbb{Z} 40'35		direct	1378 Dec 26 j 12:54	23° \mathbb{X} 31'05	
morning max el	1378 Jan 24 j 12:45	17° \mathbb{Z} 02'45	25°55'17		1379 Jan 06 j 14:24	0° \mathbb{Z}	
desc. node	1378 Jan 28 j 08:35	21° \mathbb{Z} 12'01		morning max el	1379 Jan 06 j 21:10	0° \mathbb{Z} 16'57	24°33'16
	1378 Feb 04 j 08:28	0° \approx		desc. node	1379 Jan 15 j 05:36	10° \mathbb{Z} 01'07	
	1378 Feb 23 j 20:02	0° \mathbb{H}			1379 Jan 29 j 06:37	0° \approx	
morning set	1378 Mar 01 j 17:32	10° \mathbb{H} 31'13		morning set	1379 Feb 11 j 20:24	22° \approx 18'26	
max. Earth dist.	1378 Mar 05 j 15:27	17° \mathbb{H} 53'38	1.35618 AU	max. Earth dist.	1379 Feb 15 j 13:31	28° \approx 56'40	1.37531 AU
					1379 Feb 16 j 03:23	0° \mathbb{H}	
superior conj	1378 Mar 10 j 23:43	28° \mathbb{H} 26'58	-1°-13'-6	superior conj	1379 Feb 22 j 07:54	11° \mathbb{H} 39'51	-1°-37'-9
minimum elong	1378 Mar 11 j 03:15	28° \mathbb{H} 44'50	1°12'32	minimum elong	1379 Feb 22 j 12:03	11° \mathbb{H} 59'59	1°36'41
	1378 Mar 11 j 18:05	0° \mathbb{Y}		evening rise	1379 Mar 02 j 23:21	28° \mathbb{H} 46'00	
evening rise	1378 Mar 18 j 22:21	14° \mathbb{Y} 44'28			1379 Mar 03 j 14:17	0° \mathbb{Y}	
asc. node	1378 Mar 18 j 14:52	14° \mathbb{Y} 06'13		asc. node	1379 Mar 05 j 11:54	3° \mathbb{Y} 44'03	
	1378 Mar 26 j 20:27	0° \mathbb{B}		evening max el	1379 Mar 19 j 17:35	25° \mathbb{Y} 52'27	19°13'21
evening max el	1378 Apr 06 j 00:15	14° \mathbb{B} 02'12	20°14'45		1379 Mar 26 j 17:49	0° \mathbb{B}	
retrograde	1378 Apr 16 j 14:53	19° \mathbb{B} 09'37		retrograde	1379 Mar 28 j 16:14	0° \mathbb{B} 11'48	
evening set	1378 Apr 18 j 16:28	18° \mathbb{B} 58'48		evening set	1379 Mar 30 j 19:21	29° \mathbb{Y} 58'09	
desc. node	1378 Apr 26 j 07:46	15° \mathbb{B} 50'01			1379 Mar 30 j 15:42	30° \mathbb{R} \mathbb{Y}	
inferior conj	1378 Apr 27 j 17:37	15° \mathbb{B} 00'33	0°-24'-33	inferior conj	1379 Apr 08 j 03:04	25° \mathbb{Y} 47'39	1°24'47
minimum elong	1378 Apr 27 j 16:28	15° \mathbb{B} 02'14	0°24'09	minimum elong	1379 Apr 08 j 06:16	25° \mathbb{Y} 42'15	1°23'44
min. Earth dist.	1378 Apr 29 j 09:56	14° \mathbb{B} 01'07	0.55233 AU	min. Earth dist.	1379 Apr 11 j 00:49	23° \mathbb{Y} 50'58	0.56410 AU
morning rise	1378 May 06 j 14:12	10° \mathbb{B} 42'27		desc. node	1379 Apr 13 j 04:48	22° \mathbb{Y} 31'30	
direct	1378 May 10 j 11:32	10° \mathbb{B} 09'35		morning rise	1379 Apr 16 j 13:09	20° \mathbb{Y} 56'06	
morning max el	1378 May 24 j 01:25	16° \mathbb{B} 48'59	23°41'09	direct	1379 Apr 21 j 10:50	20° \mathbb{Y} 00'35	
	1378 Jun 03 j 15:37	0° \mathbb{I}		morning max el	1379 May 05 j 15:53	27° \mathbb{Y} 16'23	25°20'17
asc. node	1378 Jun 14 j 14:06	19° \mathbb{I} 40'35			1379 May 08 j 07:28	0° \mathbb{B}	
morning set	1378 Jun 16 j 22:45	24° \mathbb{I} 33'50			1379 May 27 j 18:30	0° \mathbb{I}	
	1378 Jun 19 j 12:01	0° \mathbb{S}		morning set	1379 Jun 01 j 10:35	9° \mathbb{I} 30'39	
superior conj	1378 Jun 24 j 00:48	9° \mathbb{S} 47'09	1°25'07	asc. node	1379 Jun 01 j 11:10	9° \mathbb{I} 33'44	
minimum elong	1378 Jun 23 j 22:25	9° \mathbb{S} 34'19	1°24'49	superior conj	1379 Jun 08 j 11:00	24° \mathbb{I} 42'34	1°07'54
max. Earth dist.	1378 Jun 26 j 05:54	14° \mathbb{S} 31'20	1.33450 AU	minimum elong	1379 Jun 08 j 08:38	24° \mathbb{I} 29'38	1°07'30
evening rise	1378 Jul 01 j 13:34	25° \mathbb{S} 31'33		max. Earth dist.	1379 Jun 09 j 13:35	27° \mathbb{I} 07'39	1.32671 AU
	1378 Jul 03 j 19:59	0° \mathbb{Q}			1379 Jun 10 j 21:20	0° \mathbb{S}	
	1378 Jul 21 j 14:31	0° \mathbb{M}		evening rise	1379 Jun 15 j 14:45	9° \mathbb{S} 59'57	
desc. node	1378 Jul 23 j 07:04	2° \mathbb{M} 23'00			1379 Jun 26 j 03:27	0° \mathbb{Q}	
evening max el	1378 Aug 04 j 07:55	16° \mathbb{M} 38'42	27°23'52	desc. node	1379 Jul 10 j 04:05	21° \mathbb{Q} 03'40	
retrograde	1378 Aug 17 j 21:38	23° \mathbb{M} 56'45		evening max el	1379 Jul 17 j 16:17	29° \mathbb{Q} 25'05	27°18'56
evening set	1378 Aug 25 j 00:49	21° \mathbb{M} 16'03					

	1379 Jul 18 j 07:15	0° $\mathring{\text{M}}$		desc. node	1380 Jun 26 j 01:07	8° $\mathring{\text{Q}}$ 41'35	
retrograde	1379 Jul 31 j 11:38	6° $\mathring{\text{M}}$ 41'21		evening max el	1380 Jun 28 j 18:58	11° $\mathring{\text{Q}}$ 29'09	26°40'52
evening set	1379 Aug 07 j 16:07	4° $\mathring{\text{M}}$ 15'01		retrograde	1380 Jul 12 j 18:15	18° $\mathring{\text{Q}}$ 43'08	
min. Earth dist.	1379 Aug 11 j 06:10	1° $\mathring{\text{M}}$ 23'57	0.62236 AU	evening set	1380 Jul 19 j 13:12	16° $\mathring{\text{Q}}$ 44'55	
	1379 Aug 12 j 18:42	30° $\mathring{\text{R}}$ $\mathring{\text{Q}}$		min. Earth dist.	1380 Jul 23 j 08:34	14° $\mathring{\text{Q}}$ 08'16	0.60218 AU
inferior conj	1379 Aug 14 j 05:32	28° $\mathring{\text{Q}}$ 38'14	-4°-3'-10	inferior conj	1380 Jul 26 j 15:39	11° $\mathring{\text{Q}}$ 27'31	-4°-40'-10
minimum elong	1379 Aug 14 j 10:40	28° $\mathring{\text{Q}}$ 26'16	4°01'59	minimum elong	1380 Jul 26 j 19:21	11° $\mathring{\text{Q}}$ 19'57	4°39'44
morning rise	1379 Aug 21 j 07:54	23° $\mathring{\text{Q}}$ 34'20		morning rise	1380 Aug 03 j 04:48	6° $\mathring{\text{Q}}$ 46'03	
direct	1379 Aug 23 j 17:34	23° $\mathring{\text{Q}}$ 08'52		direct	1380 Aug 05 j 14:28	6° $\mathring{\text{Q}}$ 24'25	
asc. node	1379 Aug 28 j 10:21	24° $\mathring{\text{Q}}$ 48'59		morning max el	1380 Aug 13 j 00:46	10° $\mathring{\text{Q}}$ 01'59	18°10'52
morning max el	1379 Aug 30 j 12:58	26° $\mathring{\text{Q}}$ 35'55	17°53'31	asc. node	1380 Aug 14 j 07:23	11° $\mathring{\text{Q}}$ 21'19	
	1379 Sep 02 j 11:53	0° $\mathring{\text{M}}$			1380 Aug 26 j 02:58	0° $\mathring{\text{M}}$	
morning set	1379 Sep 15 j 12:49	21° $\mathring{\text{M}}$ 36'32		morning set	1380 Aug 28 j 21:03	5° $\mathring{\text{M}}$ 09'14	
	1379 Sep 20 j 05:13	0° $\mathring{\text{Q}}$					
				superior conj	1380 Sep 07 j 11:50	23° $\mathring{\text{M}}$ 00'23	1°27'43
superior conj	1379 Sep 26 j 13:10	11° $\mathring{\text{Q}}$ 02'40	1°02'01	minimum elong	1380 Sep 07 j 15:43	23° $\mathring{\text{M}}$ 17'51	1°27'21
minimum elong	1379 Sep 26 j 17:51	11° $\mathring{\text{Q}}$ 22'42	1°01'27		1380 Sep 11 j 10:26	0° $\mathring{\text{Q}}$	
max. Earth dist.	1379 Oct 03 j 18:14	23° $\mathring{\text{Q}}$ 04'56	1.43038 AU	max. Earth dist.	1380 Sep 15 j 02:48	6° $\mathring{\text{Q}}$ 19'35	1.41248 AU
desc. node	1379 Oct 06 j 03:22	26° $\mathring{\text{Q}}$ 56'10		evening rise	1380 Sep 20 j 06:10	14° $\mathring{\text{Q}}$ 50'24	
	1379 Oct 08 j 01:23	0° $\mathring{\text{M}}$		desc. node	1380 Sep 22 j 00:24	17° $\mathring{\text{Q}}$ 40'27	
evening rise	1379 Oct 11 j 04:51	4° $\mathring{\text{M}}$ 57'15			1380 Sep 29 j 22:45	0° $\mathring{\text{M}}$	
	1379 Oct 27 j 22:08	0° $\mathring{\text{J}}$		greatest brilliancy	1380 Oct 18 j 18:14	26° $\mathring{\text{M}}$ 07'27	-0.2m
greatest brilliancy	1379 Nov 06 j 11:56	12° $\mathring{\text{J}}$ 57'02	-0.4m		1380 Oct 22 j 02:18	0° $\mathring{\text{J}}$	
evening max el	1379 Nov 11 j 09:13	18° $\mathring{\text{J}}$ 32'36	21°38'20	evening max el	1380 Oct 24 j 01:20	2° $\mathring{\text{J}}$ 04'01	22°56'40
retrograde	1379 Nov 20 j 09:04	23° $\mathring{\text{J}}$ 53'43		retrograde	1380 Nov 03 j 03:48	8° $\mathring{\text{J}}$ 03'52	
asc. node	1379 Nov 24 j 09:35	22° $\mathring{\text{J}}$ 24'27		evening set	1380 Nov 07 j 21:33	6° $\mathring{\text{J}}$ 08'26	
evening set	1379 Nov 24 j 14:20	22° $\mathring{\text{J}}$ 15'21		asc. node	1380 Nov 10 j 06:37	3° $\mathring{\text{J}}$ 43'25	
inferior conj	1379 Nov 29 j 23:53	15° $\mathring{\text{J}}$ 56'37	1°49'45	inferior conj	1380 Nov 13 j 07:16	29° $\mathring{\text{M}}$ 44'22	1°01'32
minimum elong	1379 Nov 29 j 21:41	16° $\mathring{\text{J}}$ 04'17	1°48'57	minimum elong	1380 Nov 13 j 05:52	29° $\mathring{\text{M}}$ 49'09	1°00'58
min. Earth dist.	1379 Nov 30 j 04:08	15° $\mathring{\text{J}}$ 41'56	0.67663 AU	min. Earth dist.	1380 Nov 13 j 00:47	0° $\mathring{\text{J}}$ 06'44	0.67778 AU
morning rise	1379 Dec 05 j 04:46	9° $\mathring{\text{J}}$ 42'00			1380 Nov 13 j 02:44	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
direct	1379 Dec 10 j 03:43	7° $\mathring{\text{J}}$ 35'53		morning rise	1380 Nov 18 j 14:11	23° $\mathring{\text{M}}$ 32'26	
morning max el	1379 Dec 20 j 06:35	13° $\mathring{\text{J}}$ 36'26	23°04'58	direct	1380 Nov 22 j 22:21	21° $\mathring{\text{M}}$ 49'07	
greatest brilliancy	1379 Dec 25 j 03:21	19° $\mathring{\text{J}}$ 02'52	-0.3m	morning max el	1380 Dec 01 j 20:13	27° $\mathring{\text{M}}$ 02'42	21°39'29
desc. node	1380 Jan 02 j 02:37	29° $\mathring{\text{J}}$ 28'46			1380 Dec 04 j 13:36	0° $\mathring{\text{J}}$	
	1380 Jan 02 j 11:36	0° $\mathring{\text{Z}}$		greatest brilliancy	1380 Dec 06 j 18:18	2° $\mathring{\text{J}}$ 37'47	-0.4m
	1380 Jan 22 j 04:53	0° $\mathring{\approx}$		desc. node	1380 Dec 18 j 23:38	19° $\mathring{\text{J}}$ 23'49	
morning set	1380 Jan 23 j 21:36	2° $\mathring{\approx}$ 48'19			1380 Dec 26 j 02:00	0° $\mathring{\text{Z}}$	
max. Earth dist.	1380 Jan 28 j 08:39	10° $\mathring{\approx}$ 22'19	1.39659 AU	morning set	1381 Jan 02 j 17:33	11° $\mathring{\text{Z}}$ 54'22	
				max. Earth dist.	1381 Jan 09 j 07:51	22° $\mathring{\text{Z}}$ 36'29	1.41731 AU
					1381 Jan 13 j 17:22	0° $\mathring{\approx}$	
superior conj	1380 Feb 05 j 01:05	24° $\mathring{\approx}$ 05'23	-1°-55'-26				
minimum elong	1380 Feb 05 j 04:32	24° $\mathring{\approx}$ 21'15	1°55'15	superior conj	1381 Jan 16 j 22:10	5° $\mathring{\approx}$ 31'18	-2°-3'-57
	1380 Feb 08 j 05:13	0° $\mathring{\text{H}}$		minimum elong	1381 Jan 16 j 22:42	5° $\mathring{\approx}$ 33'35	2°03'58
evening rise	1380 Feb 14 j 15:40	12° $\mathring{\text{H}}$ 16'48		evening rise	1381 Jan 27 j 19:42	25° $\mathring{\approx}$ 08'22	
asc. node	1380 Feb 20 j 08:55	23° $\mathring{\text{H}}$ 00'57			1381 Jan 30 j 11:23	0° $\mathring{\text{H}}$	
	1380 Feb 24 j 11:11	0° $\mathring{\text{Y}}$		asc. node	1381 Feb 06 j 05:56	11° $\mathring{\text{H}}$ 49'56	
evening max el	1380 Mar 01 j 20:16	8° $\mathring{\text{Y}}$ 17'53	18°32'04	evening max el	1381 Feb 13 j 05:15	21° $\mathring{\text{H}}$ 10'12	18°10'52
retrograde	1380 Mar 09 j 12:03	12° $\mathring{\text{Y}}$ 03'16		retrograde	1381 Feb 20 j 01:38	24° $\mathring{\text{H}}$ 37'43	
evening set	1380 Mar 11 j 20:16	11° $\mathring{\text{Y}}$ 43'19		evening set	1381 Feb 22 j 15:07	24° $\mathring{\text{H}}$ 09'18	
inferior conj	1380 Mar 19 j 09:11	7° $\mathring{\text{Y}}$ 13'40	2°43'08	inferior conj	1381 Mar 01 j 11:52	19° $\mathring{\text{H}}$ 18'28	3°27'48
minimum elong	1380 Mar 19 j 13:12	7° $\mathring{\text{Y}}$ 05'43	2°42'10	minimum elong	1381 Mar 01 j 14:23	19° $\mathring{\text{H}}$ 12'42	3°27'28
min. Earth dist.	1380 Mar 22 j 19:14	4° $\mathring{\text{Y}}$ 33'25	0.58226 AU	min. Earth dist.	1381 Mar 04 j 19:26	16° $\mathring{\text{H}}$ 17'55	0.60336 AU
morning rise	1380 Mar 27 j 01:59	1° $\mathring{\text{Y}}$ 50'25		morning rise	1381 Mar 08 j 10:22	13° $\mathring{\text{H}}$ 33'08	
desc. node	1380 Mar 30 j 01:50	0° $\mathring{\text{Y}}$ 42'50		direct	1381 Mar 15 j 02:02	11° $\mathring{\text{H}}$ 26'39	
direct	1380 Apr 02 j 00:15	0° $\mathring{\text{Y}}$ 20'40		desc. node	1381 Mar 16 j 22:51	11° $\mathring{\text{H}}$ 36'12	
morning max el	1380 Apr 16 j 09:19	7° $\mathring{\text{Y}}$ 59'17	26°42'09	morning max el	1381 Mar 29 j 08:38	19° $\mathring{\text{H}}$ 17'15	27°33'50
	1380 May 02 j 22:25	0° $\mathring{\text{Z}}$			1381 Apr 07 j 10:52	0° $\mathring{\text{Y}}$	
morning set	1380 May 15 j 21:01	24° $\mathring{\text{Z}}$ 22'22			1381 Apr 25 j 15:59	0° $\mathring{\text{Z}}$	
asc. node	1380 May 18 j 08:11	29° $\mathring{\text{Z}}$ 37'03		morning set	1381 Apr 30 j 04:21	9° $\mathring{\text{Z}}$ 03'06	
	1380 May 18 j 12:26	0° $\mathring{\text{H}}$		asc. node	1381 May 05 j 05:13	19° $\mathring{\text{Z}}$ 46'09	
				max. Earth dist.	1381 May 06 j 13:22	22° $\mathring{\text{Z}}$ 41'34	1.32264 AU
superior conj	1380 May 22 j 22:40	9° $\mathring{\text{H}}$ 40'33	0°47'00				
minimum elong	1380 May 22 j 20:47	9° $\mathring{\text{H}}$ 30'09	0°46'37	superior conj	1381 May 07 j 10:08	24° $\mathring{\text{Z}}$ 35'22	0°23'09
max. Earth dist.	1380 May 23 j 01:16	9° $\mathring{\text{H}}$ 54'49	1.32278 AU	minimum elong	1381 May 07 j 09:06	24° $\mathring{\text{Z}}$ 29'43	0°22'56
evening rise	1380 May 29 j 21:38	24° $\mathring{\text{H}}$ 43'55			1381 May 09 j 21:17	0° $\mathring{\text{H}}$	
	1380 Jun 01 j 10:59	0° $\mathring{\text{Z}}$			1381 May 14 j 07:58	9° $\mathring{\text{H}}$ 36'13	
	1380 Jun 19 j 00:20	0° $\mathring{\text{Q}}$		evening rise			

	1381 May 24 j 20:32	0°☿		minimum elong	1382 Apr 21 j 19:45	9°☿20'32	0°02'55
evening max el	1381 Jun 10 j 14:48	22°☿47'53	25°32'19	behind sun begin	1382 Apr 21 j 14:38	8°☿52'52	
desc. node	1381 Jun 12 j 22:08	24°☿51'12		behind sun end	1382 Apr 22 j 00:51	9°☿48'14	
retrograde	1381 Jun 24 j 15:32	29°☿57'09		asc. node	1382 Apr 22 j 02:16	9°☿55'54	
evening set	1381 Jun 30 j 11:42	28°☿36'57		evening rise	1382 Apr 28 j 19:43	24°☿28'40	
min. Earth dist.	1381 Jul 05 j 02:57	25°☿56'21	0.58174 AU		1382 May 01 j 11:23	0°☿	
inferior conj	1381 Jul 08 j 07:45	23°☿40'53	-4°-54'-17		1382 May 19 j 22:19	0°☿	
minimum elong	1381 Jul 08 j 07:37	23°☿41'07	4°54'19	evening max el	1382 May 23 j 05:27	3°☿29'40	24°02'46
morning rise	1381 Jul 16 j 07:13	19°☿22'04		desc. node	1382 May 30 j 19:10	8°☿57'54	
direct	1381 Jul 18 j 19:19	19°☿02'30		retrograde	1382 Jun 06 j 00:40	10°☿25'58	
morning max el	1381 Jul 27 j 05:48	23°☿01'40	18°48'36	evening set	1382 Jun 10 j 11:23	9°☿42'14	
asc. node	1381 Aug 01 j 04:25	28°☿55'38		min. Earth dist.	1382 Jun 16 j 16:20	6°☿41'30	0.56401 AU
	1381 Aug 01 j 22:06	0°☿		inferior conj	1382 Jun 19 j 03:39	5°☿09'57	-4°-31'-58
morning set	1381 Aug 12 j 16:12	19°☿14'09		minimum elong	1382 Jun 18 j 22:21	5°☿18'11	4°31'13
	1381 Aug 18 j 04:13	0°☿		morning rise	1382 Jun 27 j 12:52	1°☿10'04	
				direct	1382 Jun 30 j 05:18	0°☿51'15	
superior conj	1381 Aug 21 j 06:57	5°☿58'50	1°41'48	morning max el	1382 Jul 10 j 01:06	5°☿24'40	19°47'38
minimum elong	1381 Aug 21 j 08:55	6°☿08'11	1°41'42	asc. node	1382 Jul 19 j 01:29	17°☿17'33	
max. Earth dist.	1381 Aug 28 j 06:58	18°☿51'08	1.39231 AU		1382 Jul 25 j 22:33	0°☿	
evening rise	1381 Sep 01 j 07:21	25°☿50'28		morning set	1382 Jul 27 j 18:54	3°☿41'47	
	1381 Sep 03 j 18:37	0°☿					
desc. node	1381 Sep 08 j 21:26	8°☿18'13		superior conj	1382 Aug 04 j 17:01	19°☿42'11	1°46'11
	1381 Sep 23 j 14:47	0°☿		minimum elong	1382 Aug 04 j 17:06	19°☿42'36	1°46'11
evening max el	1381 Oct 06 j 14:21	15°☿39'34	24°16'32		1382 Aug 10 j 00:25	0°☿	
retrograde	1381 Oct 17 j 18:56	22°☿12'59		max. Earth dist.	1382 Aug 10 j 11:16	0°☿51'04	1.37235 AU
evening set	1381 Oct 23 j 02:40	20°☿00'21		evening rise	1382 Aug 14 j 07:51	7°☿56'24	
min. Earth dist.	1381 Oct 27 j 20:56	14°☿32'08	0.67566 AU	desc. node	1382 Aug 26 j 18:29	28°☿44'34	
asc. node	1381 Oct 28 j 03:38	14°☿09'34			1382 Aug 27 j 14:00	0°☿	
inferior conj	1381 Oct 28 j 13:50	13°☿35'12	0°08'47	evening max el	1382 Sep 19 j 02:19	29°☿18'35	25°30'54
minimum elong	1381 Oct 28 j 13:37	13°☿35'56	0°08'42		1382 Sep 19 j 19:34	0°☿	
transit middle	1381 Oct 28 j 13:37	13°☿35'56	0°08'42	retrograde	1382 Oct 01 j 05:34	6°☿16'43	
transit begin	1381 Oct 28 j 11:19	13°☿43'42		evening set	1382 Oct 07 j 03:56	3°☿48'23	
transit end	1381 Oct 28 j 15:56	13°☿28'09			1382 Oct 10 j 17:42	30°☿	
morning rise	1381 Nov 03 j 00:53	7°☿28'32		min. Earth dist.	1382 Oct 11 j 14:08	28°☿55'42	0.67021 AU
direct	1381 Nov 06 j 19:41	6°☿06'45		inferior conj	1382 Oct 12 j 17:53	27°☿26'30	0°-47'-8
morning max el	1381 Nov 14 j 16:57	10°☿39'15	20°23'37	minimum elong	1382 Oct 12 j 19:05	27°☿22'37	0°46'39
greatest brilliancy	1381 Nov 21 j 03:18	18°☿19'17	-0.5m	asc. node	1382 Oct 15 j 00:41	24°☿36'53	
	1381 Nov 29 j 09:45	0°☿		morning rise	1382 Oct 18 j 10:56	21°☿27'59	
desc. node	1381 Dec 05 j 20:40	9°☿38'52		direct	1382 Oct 21 j 18:13	20°☿24'57	
morning set	1381 Dec 12 j 16:09	20°☿04'57		morning max el	1382 Oct 28 j 21:30	24°☿26'20	19°21'25
	1381 Dec 19 j 00:09	0°☿			1382 Nov 02 j 14:34	0°☿	
max. Earth dist.	1381 Dec 22 j 15:01	5°☿46'34	1.43471 AU	greatest brilliancy	1382 Nov 07 j 08:49	6°☿39'25	-0.7m
				morning set	1382 Nov 21 j 16:34	28°☿30'34	
superior conj	1381 Dec 28 j 18:14	15°☿47'06	-1°-57'-47	desc. node	1382 Nov 22 j 17:44	0°☿08'16	
minimum elong	1381 Dec 28 j 13:41	15°☿28'15	1°57'35		1382 Nov 22 j 15:36	0°☿	
	1382 Jan 06 j 03:52	0°☿		max. Earth dist.	1382 Dec 05 j 05:30	19°☿41'07	1.44642 AU
evening rise	1382 Jan 10 j 07:22	7°☿12'29					
asc. node	1382 Jan 24 j 02:58	0°☿02'01		superior conj	1382 Dec 08 j 12:23	24°☿54'02	-1°-33'-5
	1382 Jan 24 j 02:23	0°☿		minimum elong	1382 Dec 08 j 03:51	24°☿20'02	1°32'18
evening max el	1382 Jan 27 j 17:23	4°☿20'22	18°09'04		1382 Dec 11 j 16:52	0°☿	
retrograde	1382 Feb 03 j 05:09	7°☿44'41		evening rise	1382 Dec 22 j 22:29	18°☿22'47	
evening set	1382 Feb 05 j 23:32	7°☿06'33			1382 Dec 29 j 22:26	0°☿	
inferior conj	1382 Feb 12 j 07:42	1°☿54'40	3°44'51	evening max el	1383 Jan 11 j 05:48	17°☿41'37	18°25'59
minimum elong	1382 Feb 12 j 08:09	1°☿53'31	3°44'50	asc. node	1383 Jan 11 j 00:01	17°☿26'45	
	1382 Feb 14 j 03:33	30°☿		retrograde	1383 Jan 17 j 18:17	21°☿15'36	
min. Earth dist.	1382 Feb 15 j 03:37	28°☿58'43	0.62423 AU	evening set	1383 Jan 20 j 17:45	20°☿26'50	
morning rise	1382 Feb 18 j 14:32	25°☿55'43		inferior conj	1383 Jan 26 j 16:43	14°☿55'23	3°41'20
direct	1382 Feb 25 j 13:22	23°☿21'00		minimum elong	1383 Jan 26 j 15:28	14°☿59'00	3°41'14
desc. node	1382 Mar 03 j 19:53	25°☿09'38		min. Earth dist.	1383 Jan 28 j 21:24	12°☿23'11	0.64255 AU
	1382 Mar 10 j 06:20	0°☿		morning rise	1383 Feb 01 j 11:45	8°☿48'08	
morning max el	1382 Mar 11 j 13:40	1°☿15'31	27°48'53	direct	1383 Feb 08 j 08:19	5°☿59'08	
	1382 Apr 01 j 15:00	0°☿		desc. node	1383 Feb 18 j 16:55	10°☿50'59	
morning set	1382 Apr 14 j 06:24	23°☿24'30		morning max el	1383 Feb 21 j 22:29	13°☿50'02	27°27'39
	1382 Apr 17 j 11:00	0°☿			1383 Mar 07 j 00:39	0°☿	
max. Earth dist.	1382 Apr 19 j 21:57	5°☿13'17	1.32643 AU		1383 Mar 25 j 05:11	0°☿	
				morning set	1383 Mar 29 j 00:37	7°☿18'39	
superior conj	1382 Apr 21 j 19:36	9°☿19'47	0°-2'-56	max. Earth dist.	1383 Apr 02 j 23:12	17°☿18'31	1.33446 AU

superior conj	1383 Apr 06 j 01:16	23° Υ 48'00	0°-30'-19	superior conj	1384 Mar 20 j 00:54	7° Υ 53'19	0°-57'-51
minimum elong	1383 Apr 06 j 02:46	23° Υ 55'58	0°30'01	minimum elong	1384 Mar 20 j 03:46	8° Υ 08'07	0°57'20
asc. node	1383 Apr 08 j 23:20	0° C 02'23		asc. node	1384 Mar 25 j 20:23	20° Υ 01'22	
	1383 Apr 08 j 22:53	0° C		evening rise	1384 Mar 27 j 16:13	23° Υ 49'28	
evening rise	1383 Apr 13 j 07:07	9° C 15'14			1384 Mar 30 j 17:02	0° C	
	1383 Apr 24 j 04:44	0° II		evening max el	1384 Apr 15 j 20:07	24° C 50'27	20°58'30
evening max el	1383 May 04 j 20:48	14° II 00'10	22°26'49		1384 Apr 24 j 00:08	0° II	
retrograde	1383 May 17 j 21:23	20° II 26'55		retrograde	1384 Apr 27 j 10:56	0° II 29'30	
desc. node	1383 May 17 j 16:11	20° II 26'49		evening set	1384 Apr 29 j 16:02	0° II 17'57	
evening set	1383 May 20 j 22:39	20° II 06'24			1384 May 01 j 00:40	30° R C	
min. Earth dist.	1383 May 29 j 04:01	16° II 32'41	0.55235 AU	desc. node	1384 May 03 j 13:11	29° C 07'40	
inferior conj	1383 May 30 j 05:38	15° II 56'25	-3°-22'-47	inferior conj	1384 May 08 j 23:28	26° C 19'53	-1°-33'-56
minimum elong	1383 May 29 j 21:55	16° II 07'22	3°20'40	minimum elong	1384 May 08 j 19:02	26° C 26'09	1°32'23
morning rise	1383 Jun 07 j 23:30	12° II 04'27		min. Earth dist.	1384 May 09 j 16:31	25° C 55'42	0.54945 AU
direct	1383 Jun 10 j 22:04	11° II 44'47		morning rise	1384 May 17 j 21:31	22° C 16'32	
morning max el	1383 Jun 22 j 09:08	17° II 04'43	21°07'12	direct	1384 May 21 j 07:33	21° C 51'20	
	1383 Jul 02 j 08:31	0° C		morning max el	1384 Jun 03 j 06:52	28° C 03'46	22°42'48
asc. node	1383 Jul 05 j 22:33	6° C 15'47			1384 Jun 05 j 05:29	0° II	
morning set	1383 Jul 12 j 02:35	18° C 25'13		asc. node	1384 Jun 21 j 19:38	25° II 41'13	
	1383 Jul 17 j 15:49	0° Ω			1384 Jun 23 j 22:58	0° C	
				morning set	1384 Jun 25 j 13:16	3° C 18'32	
superior conj	1383 Jul 19 j 13:41	3° Ω 57'59	1°42'45	superior conj	1384 Jul 02 j 17:36	18° C 36'08	1°33'04
minimum elong	1383 Jul 19 j 12:21	3° Ω 51'09	1°42'41	minimum elong	1384 Jul 02 j 15:27	18° C 24'39	1°32'51
max. Earth dist.	1383 Jul 23 j 21:09	12° Ω 42'16	1.35470 AU	max. Earth dist.	1384 Jul 05 j 15:54	24° C 45'55	1.34063 AU
evening rise	1383 Jul 28 j 03:33	20° Ω 57'53			1384 Jul 08 j 05:06	0° Ω	
	1383 Aug 02 j 02:15	0° C		evening rise	1384 Jul 10 j 13:46	4° Ω 42'39	
desc. node	1383 Aug 13 j 15:31	18° C 53'37			1384 Jul 24 j 19:40	0° C	
	1383 Aug 21 j 11:30	0° C		desc. node	1384 Jul 30 j 12:32	8° C 37'47	
evening max el	1383 Sep 01 j 14:21	12° C 55'55	26°32'04	evening max el	1384 Aug 14 j 02:16	26° C 23'20	27°12'35
retrograde	1383 Sep 14 j 11:10	20° C 08'48			1384 Aug 18 j 07:59	0° C	
evening set	1383 Sep 20 j 23:21	17° C 28'57		retrograde	1384 Aug 27 j 11:22	3° C 42'13	
min. Earth dist.	1383 Sep 25 j 01:57	13° C 13'21	0.66134 AU	evening set	1384 Sep 03 j 10:29	0° C 58'32	
inferior conj	1383 Sep 26 j 17:24	11° C 14'31	-1°-44'-47		1384 Sep 04 j 14:13	30° R C	
minimum elong	1383 Sep 26 j 20:10	11° C 06'13	1°43'41	min. Earth dist.	1384 Sep 07 j 06:13	27° C 19'39	0.64889 AU
asc. node	1383 Oct 01 j 21:46	5° C 58'46		inferior conj	1384 Sep 09 j 10:15	24° C 55'39	-2°-41'-59
morning rise	1383 Oct 02 j 18:11	5° C 27'11		minimum elong	1384 Sep 09 j 14:27	24° C 44'02	2°40'30
direct	1383 Oct 05 j 16:08	4° C 39'20		morning rise	1384 Sep 15 j 20:13	19° C 22'34	
morning max el	1383 Oct 12 j 08:28	8° C 19'57	18°34'45	asc. node	1384 Sep 17 j 18:49	18° C 48'36	
	1383 Oct 27 j 13:38	0° C		direct	1384 Sep 18 j 11:13	18° C 46'06	
morning set	1383 Nov 01 j 15:58	8° C 08'34		morning max el	1384 Sep 24 j 23:26	22° C 15'12	18°04'45
desc. node	1383 Nov 09 j 14:46	20° C 46'58			1384 Oct 01 j 00:43	0° C	
	1383 Nov 15 j 11:06	0° C		morning set	1384 Oct 12 j 20:26	19° C 12'31	
superior conj	1383 Nov 17 j 14:20	3° C 21'14	0°-51'-25		1384 Oct 19 j 08:51	0° C	
minimum elong	1383 Nov 17 j 07:48	2° C 55'37	0°50'37	desc. node	1384 Oct 26 j 11:48	11° C 31'43	
max. Earth dist.	1383 Nov 17 j 23:55	3° C 58'52	1.45109 AU	superior conj	1384 Oct 26 j 21:06	12° C 08'50	0°-2'-36
evening rise	1383 Dec 03 j 14:11	28° C 35'00		minimum elong	1384 Oct 26 j 20:47	12° C 07'34	0°02'34
	1383 Dec 04 j 11:34	0° C		behind sun begin	1384 Oct 26 j 10:12	11° C 25'18	
	1383 Dec 24 j 14:44	0° \approx		behind sun end	1384 Oct 27 j 07:22	12° C 49'48	
evening max el	1383 Dec 25 j 15:57	1° \approx 07'59	19°00'43	max. Earth dist.	1384 Oct 30 j 18:38	18° C 19'59	1.44837 AU
asc. node	1383 Dec 28 j 21:04	3° \approx 50'09			1384 Nov 07 j 05:26	0° C	
retrograde	1384 Jan 01 j 13:07	5° \approx 02'24		evening rise	1384 Nov 12 j 08:33	7° C 57'20	
evening set	1384 Jan 04 j 18:40	4° \approx 01'54			1384 Nov 26 j 19:39	0° C	
	1384 Jan 09 j 00:39	30° R C		greatest brilliancy	1384 Nov 30 j 14:00	5° C 26'04	-0.6m
inferior conj	1384 Jan 10 j 11:13	28° C 13'22	3°22'49	evening max el	1384 Dec 07 j 21:55	14° C 36'36	19°51'42
minimum elong	1384 Jan 10 j 08:56	28° C 20'32	3°22'25	asc. node	1384 Dec 14 j 18:06	18° C 57'30	
min. Earth dist.	1384 Jan 12 j 00:34	26° C 16'05	0.65714 AU	retrograde	1384 Dec 15 j 10:35	19° C 00'09	
morning rise	1384 Jan 15 j 22:16	22° C 01'02		evening set	1384 Dec 18 j 23:47	17° C 46'25	
direct	1384 Jan 22 j 09:53	19° C 11'54		inferior conj	1384 Dec 24 j 12:13	11° C 43'41	2°53'10
morning max el	1384 Feb 04 j 08:25	26° C 48'58	26°35'41	minimum elong	1384 Dec 24 j 09:33	11° C 52'34	2°52'28
desc. node	1384 Feb 05 j 13:58	28° C 05'12		min. Earth dist.	1384 Dec 25 j 11:35	10° C 26'01	0.66772 AU
	1384 Feb 07 j 08:01	0° \approx		morning rise	1384 Dec 29 j 18:40	5° C 28'47	
	1384 Feb 28 j 15:31	0° C		direct	1385 Jan 04 j 17:21	2° C 50'50	
morning set	1384 Mar 11 j 07:29	20° C 34'54		morning max el	1385 Jan 16 j 17:24	9° C 59'56	25°21'41
max. Earth dist.	1384 Mar 15 j 13:39	28° C 50'00	1.34695 AU	desc. node	1385 Jan 22 j 11:00	16° C 25'32	
	1384 Mar 16 j 03:43	0° Υ			1385 Feb 01 j 14:14	0° \approx	

	1385 Feb 20 j 06:09	0°☿			1386 Jan 25 j 23:33	0°♊		
morning set	1385 Feb 21 j 22:17	2°☿59'42		morning set	1386 Feb 03 j 15:01	14°♊16'19		
max. Earth dist.	1385 Feb 25 j 16:20	9°☿54'31	1.36388 AU	max. Earth dist.	1386 Feb 07 j 11:45	21°♊01'20	1.38422 AU	
					1386 Feb 12 j 10:10	0°☿		
superior conj	1385 Mar 03 j 15:43	21°☿28'06	-1°-23'-49	superior conj	1386 Feb 14 j 18:09	4°☿22'55	-1°-45'-50	
minimum elong	1385 Mar 03 j 19:38	21°☿47'32	1°23'16	minimum elong	1386 Feb 14 j 22:13	4°☿42'14	1°45'28	
	1385 Mar 07 j 21:28	0°☿		evening rise	1386 Feb 23 j 18:35	21°☿54'30		
evening rise	1385 Mar 11 j 20:53	8°☿04'54		asc. node	1386 Feb 27 j 14:27	29°☿18'15		
asc. node	1385 Mar 12 j 17:25	9°☿48'21			1386 Feb 27 j 23:18	0°☿		
	1385 Mar 24 j 01:20	0°☿		evening max el	1386 Mar 12 j 04:50	18°☿25'35	18°53'23	
evening max el	1385 Mar 29 j 07:02	6°☿18'25	19°46'14	retrograde	1386 Mar 20 j 12:47	22°☿28'01		
retrograde	1385 Apr 08 j 04:13	11°☿04'07		evening set	1386 Mar 22 j 18:04	22°☿11'58		
evening set	1385 Apr 10 j 05:21	10°☿52'47		inferior conj	1386 Mar 30 j 17:39	17°☿54'08	2°02'16	
inferior conj	1385 Apr 18 j 23:43	6°☿50'58	0°24'46	minimum elong	1386 Mar 30 j 21:37	17°☿47'00	2°01'06	
minimum elong	1385 Apr 19 j 00:48	6°☿49'17	0°24'23	min. Earth dist.	1386 Apr 02 j 22:57	15°☿36'26	0.57125 AU	
desc. node	1385 Apr 20 j 10:12	5°☿57'19		desc. node	1386 Apr 07 j 07:13	13°☿03'30		
min. Earth dist.	1385 Apr 21 j 06:42	5°☿25'53	0.55627 AU	morning rise	1386 Apr 07 j 20:53	12°☿48'25		
morning rise	1385 Apr 27 j 16:54	2°☿18'48		direct	1386 Apr 13 j 05:49	11°☿39'03		
direct	1385 May 01 j 23:54	1°☿37'51		morning max el	1386 Apr 27 j 13:15	19°☿06'06	25°58'01	
morning max el	1385 May 15 j 22:16	8°☿35'31	24°24'32		1386 May 06 j 17:44	0°☿		
	1385 May 31 j 15:43	0°☿			1386 May 23 j 23:58	0°☿		
asc. node	1385 Jun 08 j 16:40	15°☿25'51		morning set	1386 May 25 j 12:32	3°☿10'31		
morning set	1385 Jun 10 j 01:06	18°☿15'19		asc. node	1386 May 26 j 13:43	5°☿23'59		
	1385 Jun 15 j 11:59	0°☿						
superior conj	1385 Jun 17 j 02:07	3°☿27'14	1°18'20	superior conj	1386 Jun 01 j 13:09	18°☿24'32	0°59'27	
minimum elong	1385 Jun 16 j 23:41	3°☿14'01	1°17'58	minimum elong	1386 Jun 01 j 10:56	18°☿12'22	0°59'02	
max. Earth dist.	1385 Jun 18 j 19:21	7°☿10'01	1.33062 AU	max. Earth dist.	1386 Jun 02 j 05:09	19°☿52'16	1.32460 AU	
evening rise	1385 Jun 24 j 10:26	18°☿58'04			1386 Jun 06 j 21:33	0°☿		
	1385 Jun 30 j 02:19	0°☿		evening rise	1386 Jun 08 j 14:23	3°☿34'23		
desc. node	1385 Jul 17 j 09:33	27°☿45'39			1386 Jun 22 j 21:14	0°☿		
	1385 Jul 19 j 02:32	0°☿		desc. node	1386 Jul 04 j 06:33	16°☿02'04		
evening max el	1385 Jul 27 j 12:40	9°☿28'31	27°25'49	evening max el	1386 Jul 09 j 19:08	21°☿58'38	27°06'51	
retrograde	1385 Aug 10 j 05:30	16°☿46'48		retrograde	1386 Jul 23 j 16:28	29°☿13'25		
evening set	1385 Aug 17 j 10:08	14°☿10'35		evening set	1386 Jul 30 j 18:13	26°☿57'52		
min. Earth dist.	1385 Aug 21 j 01:02	11°☿04'20	0.63290 AU	min. Earth dist.	1386 Aug 03 j 09:24	24°☿14'38	0.61397 AU	
inferior conj	1385 Aug 23 j 17:44	8°☿23'07	-3°-35'-41	inferior conj	1386 Aug 06 j 12:40	21°☿29'04	-4°-20'-56	
minimum elong	1385 Aug 23 j 22:50	8°☿10'21	3°34'15	minimum elong	1386 Aug 06 j 17:27	21°☿18'29	4°20'03	
morning rise	1385 Aug 30 j 13:55	3°☿07'28		morning rise	1386 Aug 13 j 19:36	16°☿34'05		
direct	1385 Sep 02 j 00:40	2°☿38'53		direct	1386 Aug 16 j 04:56	16°☿10'27		
asc. node	1385 Sep 04 j 15:51	3°☿12'36		asc. node	1386 Aug 22 j 12:54	19°☿02'01		
morning max el	1385 Sep 08 j 15:30	6°☿04'39	17°52'17	morning max el	1386 Aug 23 j 05:39	19°☿41'02	17°58'25	
	1385 Sep 24 j 05:39	0°☿			1386 Aug 30 j 20:13	0°☿		
morning set	1385 Sep 25 j 01:48	1°☿28'12		morning set	1386 Sep 08 j 01:47	14°☿37'17		
					1386 Sep 16 j 13:21	0°☿		
superior conj	1385 Oct 07 j 02:13	22°☿03'52	0°41'34	superior conj	1386 Sep 18 j 10:32	3°☿18'53	1°14'26	
minimum elong	1385 Oct 07 j 06:10	22°☿20'19	0°41'01	minimum elong	1386 Sep 18 j 15:07	3°☿38'55	1°13'55	
	1385 Oct 11 j 22:22	0°☿		max. Earth dist.	1386 Sep 25 j 23:10	16°☿06'58	1.42326 AU	
desc. node	1385 Oct 13 j 08:50	2°☿18'56		desc. node	1386 Sep 30 j 05:51	23°☿05'15		
max. Earth dist.	1385 Oct 13 j 10:59	2°☿27'36	1.43869 AU	evening rise	1386 Oct 02 j 07:13	26°☿22'01		
evening rise	1385 Oct 22 j 16:28	16°☿58'29			1386 Oct 04 j 14:40	0°☿		
	1385 Oct 31 j 06:01	0°☿			1386 Oct 25 j 02:43	0°☿		
greatest brilliancy	1385 Nov 15 j 11:10	21°☿40'44	-0.5m	greatest brilliancy	1386 Oct 30 j 00:26	6°☿18'34	-0.3m	
evening max el	1385 Nov 20 j 22:30	28°☿06'29	20°56'25	evening max el	1386 Nov 03 j 17:33	11°☿37'26	22°11'09	
	1385 Nov 22 j 22:20	0°☿		retrograde	1386 Nov 13 j 04:23	17°☿14'38		
retrograde	1385 Nov 29 j 08:16	3°☿05'18		evening set	1386 Nov 17 j 14:49	15°☿29'09		
asc. node	1385 Dec 01 j 15:06	2°☿36'02		asc. node	1386 Nov 18 j 12:07	14°☿42'08		
evening set	1385 Dec 03 j 07:05	1°☿36'32		inferior conj	1386 Nov 23 j 00:17	9°☿07'56	1°29'57	
	1385 Dec 05 j 01:24	30°☿R☿		minimum elong	1386 Nov 22 j 22:23	9°☿14'33	1°29'13	
inferior conj	1385 Dec 08 j 17:16	25°☿22'51	2°14'57	min. Earth dist.	1386 Nov 22 j 23:55	9°☿09'12	0.67758 AU	
minimum elong	1385 Dec 08 j 14:45	25°☿31'29	2°14'07	morning rise	1386 Nov 28 j 05:47	2°☿54'20		
min. Earth dist.	1385 Dec 09 j 04:11	24°☿45'23	0.67444 AU	direct	1386 Dec 02 j 22:27	0°☿57'44		
morning rise	1385 Dec 13 j 21:59	19°☿07'32		morning max el	1386 Dec 12 j 12:22	6°☿37'22	22°27'46	
direct	1385 Dec 19 j 05:50	16°☿48'26		greatest brilliancy	1386 Dec 17 j 02:19	11°☿44'50	-0.3m	
morning max el	1385 Dec 30 j 01:44	23°☿15'57	23°55'45	desc. node	1386 Dec 27 j 05:04	25°☿13'23		
	1386 Jan 05 j 00:31	0°☿			1386 Dec 30 j 12:33	0°☿		
desc. node	1386 Jan 09 j 08:02	5°☿32'53						

morning set	1387 Jan 15 j 03:44	24°☿09'34		morning max el	1387 Nov 25 j 04:56	20°♌08'44	21°05'52
	1387 Jan 18 j 16:35	0°♊		greatest brilliancy	1387 Nov 30 j 15:05	26°♌24'27	-0.5m
max. Earth dist.	1387 Jan 20 j 08:11	2°♊46'49	1.40570 AU		1387 Dec 03 j 08:55	0°♈	
				desc. node	1387 Dec 14 j 02:07	15°♈18'14	
superior conj	1387 Jan 28 j 03:29	16°♊24'59	-2°00'-33		1387 Dec 23 j 18:04	0°♈	
minimum elong	1387 Jan 28 j 06:00	16°♊36'18	2°00'27	morning set	1387 Dec 25 j 12:47	2°♈46'42	
	1387 Feb 04 j 12:19	0°♈		max. Earth dist.	1388 Jan 02 j 11:18	15°♈28'19	1.42533 AU
evening rise	1387 Feb 07 j 06:08	5°♈09'40					
asc. node	1387 Feb 14 j 11:28	18°♈24'12		superior conj	1388 Jan 09 j 14:28	27°♈22'28	-2°-3'-25
	1387 Feb 22 j 10:03	0°♈		minimum elong	1388 Jan 09 j 13:01	27°♈16'15	2°03'24
evening max el	1387 Feb 23 j 10:38	1°♈03'39	18°20'37		1388 Jan 11 j 03:15	0°♊	
retrograde	1387 Mar 02 j 16:33	4°♈39'19		evening rise	1388 Jan 21 j 03:50	17°♊42'51	
evening set	1387 Mar 05 j 03:13	4°♈15'49			1388 Jan 28 j 01:51	0°♈	
	1387 Mar 11 j 21:47	30°♈		asc. node	1388 Feb 01 j 08:29	6°♈58'53	
inferior conj	1387 Mar 12 j 08:48	29°♈36'56	3°05'56	evening max el	1388 Feb 06 j 21:17	14°♈04'23	18°07'38
minimum elong	1387 Mar 12 j 12:21	29°♈29'27	3°05'13	retrograde	1388 Feb 13 j 12:51	17°♈29'08	
min. Earth dist.	1387 Mar 15 j 19:11	26°♈45'18	0.59114 AU	evening set	1388 Feb 16 j 04:23	16°♈56'44	
morning rise	1387 Mar 19 j 17:42	24°♈03'24		inferior conj	1388 Feb 22 j 19:19	11°♈56'29	3°37'58
desc. node	1387 Mar 25 j 04:15	22°♈19'48		minimum elong	1388 Feb 22 j 20:57	11°♈52'31	3°37'49
direct	1387 Mar 26 j 00:37	22°♈17'53		min. Earth dist.	1388 Feb 25 j 22:31	8°♈55'14	0.61246 AU
	1387 Apr 09 j 08:14	0°♈		morning rise	1388 Feb 29 j 10:42	6°♈04'15	
morning max el	1387 Apr 09 j 08:54	0°♈01'39	27°08'23	direct	1388 Mar 07 j 06:27	3°♈44'37	
	1387 Apr 30 j 15:56	0°♈		desc. node	1388 Mar 11 j 01:17	4°♈24'05	
morning set	1387 May 09 j 21:52	17°♈58'05		morning max el	1388 Mar 21 j 11:03	11°♈37'36	27°44'52
asc. node	1387 May 13 j 10:46	25°♈30'09			1388 Apr 04 j 22:02	0°♈	
	1387 May 15 j 12:15	0°♈			1388 Apr 21 j 21:28	0°♈	
max. Earth dist.	1387 May 16 j 17:38	2°♈41'24	1.32232 AU	morning set	1388 Apr 23 j 03:16	2°♈31'38	
				max. Earth dist.	1388 Apr 29 j 04:53	15°♈24'00	1.32379 AU
superior conj	1387 May 17 j 00:56	3°♈21'29	0°37'11	asc. node	1388 Apr 29 j 07:49	15°♈39'56	
minimum elong	1387 May 16 j 23:22	3°♈12'52	0°36'52				
evening rise	1387 May 23 j 23:00	18°♈22'42		superior conj	1388 Apr 30 j 11:46	18°♈12'22	0°12'18
	1387 May 29 j 17:08	0°♈		minimum elong	1388 Apr 30 j 11:12	18°♈09'17	0°12'11
	1387 Jun 18 j 05:19	0°♈		behind sun begin	1388 Apr 30 j 07:55	17°♈51'23	
desc. node	1387 Jun 21 j 03:34	3°♈05'53		behind sun end	1388 Apr 30 j 14:28	18°♈27'11	
evening max el	1387 Jun 21 j 19:03	3°♈43'25	26°15'00		1388 May 05 j 21:33	0°♈	
retrograde	1387 Jul 05 j 18:57	10°♈55'02		evening rise	1388 May 07 j 10:11	3°♈15'42	
evening set	1387 Jul 12 j 06:04	9°♈12'19			1388 May 21 j 19:58	0°♈	
min. Earth dist.	1387 Jul 16 j 07:52	6°♈36'25	0.59340 AU	evening max el	1388 Jun 02 j 11:57	14°♈43'11	24°55'52
inferior conj	1387 Jul 19 j 15:31	4°♈04'10	-4°-49'-43	desc. node	1388 Jun 07 j 00:35	18°♈27'38	
minimum elong	1387 Jul 19 j 17:53	3°♈59'37	4°49'35	retrograde	1388 Jun 16 j 11:23	21°♈49'01	
	1387 Jul 26 j 01:07	30°♈		evening set	1388 Jun 21 j 18:25	20°♈45'01	
morning rise	1387 Jul 27 j 09:06	29°♈32'23		min. Earth dist.	1388 Jun 26 j 23:22	17°♈57'45	0.57364 AU
direct	1387 Jul 29 j 19:44	29°♈11'39		inferior conj	1388 Jun 29 j 23:03	15°♈58'47	-4°-50'-8
	1387 Aug 02 j 10:40	0°♈		minimum elong	1388 Jun 29 j 20:42	16°♈02'42	4°50'00
morning max el	1387 Aug 06 j 14:53	2°♈56'37	18°24'24	morning rise	1388 Jul 08 j 02:47	11°♈49'21	
asc. node	1387 Aug 09 j 09:57	6°♈02'25		direct	1388 Jul 10 j 16:36	11°♈30'15	
morning set	1387 Aug 22 j 15:10	28°♈25'16		morning max el	1388 Jul 19 j 16:08	15°♈41'59	19°11'14
	1387 Aug 23 j 10:56	0°♈		asc. node	1388 Jul 26 j 07:02	23°♈58'31	
					1388 Jul 29 j 22:00	0°♈	
superior conj	1387 Aug 31 j 18:38	15°♈44'38	1°35'00	morning set	1388 Aug 05 j 13:52	12°♈40'44	
minimum elong	1387 Aug 31 j 21:45	15°♈59'00	1°34'46				
max. Earth dist.	1387 Sep 08 j 06:06	29°♈05'27	1.40403 AU	superior conj	1388 Aug 13 j 20:44	29°♈04'14	1°44'44
	1387 Sep 08 j 18:47	0°♈		minimum elong	1388 Aug 13 j 21:52	29°♈09'42	1°44'42
evening rise	1387 Sep 12 j 18:18	6°♈42'35			1388 Aug 14 j 08:17	0°♈	
desc. node	1387 Sep 17 j 02:54	13°♈47'27		max. Earth dist.	1388 Aug 20 j 09:33	11°♈20'52	1.38356 AU
	1387 Sep 27 j 17:49	0°♈		evening rise	1388 Aug 24 j 05:43	18°♈11'10	
evening max el	1387 Oct 17 j 08:07	25°♈10'58	23°30'49		1388 Aug 31 j 06:29	0°♈	
	1387 Oct 23 j 06:38	0°♈		desc. node	1388 Sep 02 j 23:56	4°♈20'56	
retrograde	1387 Oct 27 j 21:41	1°♈25'37			1388 Sep 21 j 01:28	0°♈	
	1387 Nov 01 j 01:54	30°♈		evening max el	1388 Sep 28 j 20:15	8°♈47'29	24°49'15
evening set	1387 Nov 01 j 21:22	29°♈22'34		retrograde	1388 Oct 10 j 11:07	15°♈33'18	
asc. node	1387 Nov 05 j 09:09	25°♈33'45		evening set	1388 Oct 16 j 01:05	13°♈13'23	
inferior conj	1387 Nov 07 j 07:33	22°♈57'37	0°39'41	min. Earth dist.	1388 Oct 20 j 15:43	8°♈00'12	0.67371 AU
minimum elong	1387 Nov 07 j 06:37	23°♈00'47	0°39'17	inferior conj	1388 Oct 21 j 13:15	6°♈48'54	0°-14'-37
min. Earth dist.	1387 Nov 06 j 20:34	23°♈35'11	0.67730 AU	minimum elong	1388 Oct 21 j 13:37	6°♈47'42	0°14'29
morning rise	1387 Nov 12 j 16:00	16°♈47'53		transit middle	1388 Oct 21 j 13:37	6°♈47'42	0°14'29
direct	1387 Nov 16 j 18:17	15°♈14'05		transit begin	1388 Oct 21 j 12:22	6°♈51'50	

transit end	1388 Oct 21 j 14:52	6° \mathbb{M} 43'34		1389 Aug 24 j 10:01	0° \mathbb{L}	
asc. node	1388 Oct 22 j 06:13	5° \mathbb{M} 53'04		evening max el	1389 Sep 11 j 08:05	22° \mathbb{L} 26'23 25°59'00
morning rise	1388 Oct 27 j 02:39	0° \mathbb{M} 45'30		retrograde	1389 Sep 23 j 19:50	29° \mathbb{L} 32'45
	1388 Oct 28 j 11:23	30° \mathbb{R} \mathbb{L}		evening set	1389 Sep 30 j 00:07	26° \mathbb{L} 58'54
direct	1388 Oct 30 j 16:12	29° \mathbb{L} 32'18		min. Earth dist.	1389 Oct 04 j 07:02	22° \mathbb{L} 21'38 0.66682 AU
	1388 Nov 01 j 23:10	0° \mathbb{M}		inferior conj	1389 Oct 05 j 15:37	20° \mathbb{L} 39'22 -1°-11'-32
morning max el	1388 Nov 07 j 05:09	3° \mathbb{M} 50'33	19°55'24	minimum elong	1389 Oct 05 j 17:29	20° \mathbb{L} 33'32 1°10'45
greatest brilliancy	1388 Nov 14 j 14:56	12° \mathbb{M} 55'37	-0.6m	asc. node	1389 Oct 09 j 03:17	16° \mathbb{L} 37'43
	1388 Nov 26 j 06:04	0° \mathbb{Z}		morning rise	1389 Oct 11 j 11:45	14° \mathbb{L} 45'03
desc. node	1388 Nov 29 j 23:10	5° \mathbb{Z} 40'00		direct	1389 Oct 14 j 14:42	13° \mathbb{L} 49'03
morning set	1388 Dec 03 j 08:54	10° \mathbb{Z} 54'28		morning max el	1389 Oct 21 j 12:37	17° \mathbb{L} 40'49 18°59'31
max. Earth dist.	1388 Dec 14 j 21:35	28° \mathbb{Z} 58'29	1.44045 AU		1389 Oct 30 j 22:39	0° \mathbb{M}
	1388 Dec 15 j 13:01	0° \mathbb{Z}		morning set	1389 Nov 12 j 17:10	19° \mathbb{M} 45'33
				desc. node	1389 Nov 16 j 20:12	26° \mathbb{M} 13'43
superior conj	1388 Dec 19 j 23:07	7° \mathbb{Z} 07'21	-1°-49'-39		1389 Nov 19 j 05:58	0° \mathbb{Z}
minimum elong	1388 Dec 19 j 16:25	6° \mathbb{Z} 40'07	1°49'13	max. Earth dist.	1389 Nov 27 j 13:28	13° \mathbb{Z} 02'46 1.44928 AU
evening rise	1389 Jan 02 j 07:16	29° \mathbb{Z} 25'08				
	1389 Jan 02 j 15:25	0° \mathbb{Z}		superior conj	1389 Nov 29 j 08:21	15° \mathbb{Z} 51'41 -1°-17'-5
asc. node	1389 Jan 18 j 05:31	24° \mathbb{Z} 52'36		minimum elong	1389 Nov 28 j 23:49	15° \mathbb{Z} 18'02 1°16'10
evening max el	1389 Jan 20 j 09:49	27° \mathbb{Z} 20'02	18°13'59		1389 Dec 08 j 05:39	0° \mathbb{Z}
	1389 Jan 23 j 20:40	0° \mathbb{H}		evening rise	1389 Dec 14 j 12:29	10° \mathbb{Z} 10'09
retrograde	1389 Jan 26 j 21:02	0° \mathbb{H} 47'22			1389 Dec 26 j 20:00	0° \mathbb{Z}
evening set	1389 Jan 29 j 17:23	0° \mathbb{H} 05'00		evening max el	1390 Jan 03 j 21:34	10° \mathbb{Z} 44'18 18°38'44
	1389 Jan 29 j 21:22	30° \mathbb{R} \mathbb{Z}		asc. node	1390 Jan 05 j 02:34	11° \mathbb{Z} 53'16
inferior conj	1389 Feb 04 j 21:16	24° \mathbb{Z} 44'39	3°45'29	retrograde	1390 Jan 10 j 12:53	14° \mathbb{Z} 25'40
minimum elong	1389 Feb 04 j 20:55	24° \mathbb{Z} 45'36	3°45'28	evening set	1390 Jan 13 j 14:45	13° \mathbb{Z} 32'11
min. Earth dist.	1389 Feb 07 j 10:58	21° \mathbb{Z} 56'37	0.63239 AU	inferior conj	1390 Jan 19 j 10:42	7° \mathbb{Z} 53'28 3°35'02
morning rise	1389 Feb 10 j 22:34	18° \mathbb{Z} 41'21		minimum elong	1390 Jan 19 j 08:56	7° \mathbb{Z} 58'47 3°34'49
direct	1389 Feb 17 j 21:20	15° \mathbb{Z} 58'33		min. Earth dist.	1390 Jan 21 j 08:53	5° \mathbb{Z} 34'53 0.64923 AU
desc. node	1389 Feb 25 j 22:20	18° \mathbb{Z} 56'33		morning rise	1390 Jan 25 j 01:54	1° \mathbb{Z} 43'46
morning max el	1389 Mar 03 j 18:14	23° \mathbb{Z} 53'37	27°44'02		1390 Jan 27 j 13:18	30° \mathbb{R} \mathbb{Z}
	1389 Mar 09 j 06:14	0° \mathbb{H}		direct	1390 Jan 31 j 19:28	28° \mathbb{Z} 52'44
	1389 Mar 29 j 05:30	0° \mathbb{Y}			1390 Feb 05 j 10:02	0° \mathbb{Z}
morning set	1389 Apr 07 j 02:26	16° \mathbb{Y} 43'36		desc. node	1390 Feb 12 j 19:23	5° \mathbb{Z} 21'11
max. Earth dist.	1389 Apr 12 j 10:48	27° \mathbb{Y} 46'13	1.32925 AU	morning max el	1390 Feb 14 j 03:38	6° \mathbb{Z} 39'40 27°08'49
	1389 Apr 13 j 11:57	0° \mathbb{B}			1390 Mar 04 j 03:04	0° \mathbb{H}
					1390 Mar 21 j 11:26	0° \mathbb{Y}
superior conj	1389 Apr 14 j 19:55	2° \mathbb{B} 51'27	0°-14'-26	morning set	1390 Mar 21 j 16:18	0° \mathbb{Y} 23'29
minimum elong	1389 Apr 14 j 20:37	2° \mathbb{B} 55'13	0°14'18	max. Earth dist.	1390 Mar 26 j 07:30	9° \mathbb{Y} 36'28 1.33916 AU
behind sun begin	1389 Apr 14 j 18:17	2° \mathbb{B} 42'42				
behind sun end	1389 Apr 14 j 22:56	3° \mathbb{B} 07'45		superior conj	1390 Mar 29 j 23:19	17° \mathbb{Y} 11'24 0°-42'-3
asc. node	1389 Apr 16 j 04:52	5° \mathbb{B} 49'16		minimum elong	1390 Mar 30 j 01:25	17° \mathbb{Y} 22'24 0°41'39
evening rise	1389 Apr 21 j 22:02	18° \mathbb{B} 06'57		asc. node	1390 Apr 03 j 01:53	25° \mathbb{Y} 53'21
	1389 Apr 27 j 18:59	0° \mathbb{H}			1390 Apr 05 j 00:27	0° \mathbb{B}
evening max el	1389 May 15 j 01:58	25° \mathbb{H} 17'01	23°21'51	evening rise	1390 Apr 06 j 08:41	2° \mathbb{B} 49'19
	1389 May 21 j 06:10	0° \mathbb{B}			1390 Apr 21 j 17:09	0° \mathbb{H}
desc. node	1389 May 24 j 21:36	1° \mathbb{B} 31'48		evening max el	1390 Apr 26 j 20:10	5° \mathbb{H} 53'49 21°47'47
retrograde	1389 May 28 j 15:43	2° \mathbb{B} 03'54		retrograde	1390 May 09 j 08:03	12° \mathbb{H} 01'26
evening set	1389 Jun 01 j 10:59	1° \mathbb{B} 32'09		evening set	1390 May 11 j 22:30	11° \mathbb{H} 46'17
	1389 Jun 05 j 09:34	30° \mathbb{R} \mathbb{H}		desc. node	1390 May 11 j 18:37	11° \mathbb{H} 48'05
min. Earth dist.	1389 Jun 08 j 12:00	28° \mathbb{H} 18'41	0.55805 AU	inferior conj	1390 May 21 j 07:44	7° \mathbb{H} 43'39 -2°-40'-8
inferior conj	1389 Jun 10 j 10:45	27° \mathbb{H} 09'34	-4°-8'-34	minimum elong	1390 May 21 j 00:46	7° \mathbb{H} 53'24 2°37'57
minimum elong	1389 Jun 10 j 03:48	27° \mathbb{H} 19'53	4°07'09	min. Earth dist.	1390 May 21 j 00:09	7° \mathbb{H} 54'15 0.54996 AU
morning rise	1389 Jun 18 j 23:53	23° \mathbb{H} 14'54		morning rise	1390 May 30 j 04:08	3° \mathbb{H} 48'58
direct	1389 Jun 21 j 18:16	22° \mathbb{H} 56'12		direct	1390 Jun 02 j 06:42	3° \mathbb{H} 27'40
morning max el	1389 Jul 02 j 06:55	27° \mathbb{H} 48'32	20°19'08	morning max el	1390 Jun 14 j 10:12	9° \mathbb{H} 10'25 21°46'12
	1389 Jul 04 j 10:33	0° \mathbb{B}			1390 Jun 29 j 02:06	0° \mathbb{B}
asc. node	1389 Jul 13 j 04:07	12° \mathbb{B} 37'43		asc. node	1390 Jun 30 j 01:10	1° \mathbb{B} 48'38
morning set	1389 Jul 20 j 18:58	27° \mathbb{B} 16'11		morning set	1390 Jul 05 j 04:09	12° \mathbb{B} 04'30
	1389 Jul 22 j 02:59	0° \mathbb{L}				
				superior conj	1390 Jul 12 j 11:56	27° \mathbb{B} 29'44 1°39'20
superior conj	1389 Jul 28 j 11:50	13° \mathbb{L} 03'25	1°45'35	minimum elong	1390 Jul 12 j 10:11	27° \mathbb{B} 20'35 1°39'12
minimum elong	1389 Jul 28 j 11:15	13° \mathbb{L} 00'29	1°45'34		1390 Jul 13 j 16:46	0° \mathbb{L}
max. Earth dist.	1389 Aug 02 j 15:12	23° \mathbb{L} 12'36	1.36442 AU	max. Earth dist.	1390 Jul 16 j 04:37	5° \mathbb{L} 07'04 1.34830 AU
	1389 Aug 06 j 05:41	0° \mathbb{H}		evening rise	1390 Jul 20 j 17:28	14° \mathbb{L} 04'43
evening rise	1389 Aug 06 j 15:01	0° \mathbb{H} 42'57			1390 Jul 29 j 12:33	0° \mathbb{H}
desc. node	1389 Aug 20 j 20:57	24° \mathbb{H} 40'49		desc. node	1390 Aug 07 j 17:58	14° \mathbb{H} 40'21

	1390 Aug 19 j 05:30	0°♄		desc. node	1391 Jul 25 j 14:59	4°♄10'33	
evening max el	1390 Aug 24 j 20:23	6°♄01'36	26°52'19	evening max el	1391 Aug 07 j 08:03	19°♄21'32	27°21'52
retrograde	1390 Sep 06 j 23:09	13°♄17'36		retrograde	1391 Aug 20 j 20:32	26°♄39'45	
evening set	1390 Sep 13 j 16:20	10°♄35'23		evening set	1391 Aug 27 j 22:58	23°♄57'52	
min. Earth dist.	1390 Sep 17 j 16:01	6°♄35'17	0.65647 AU	min. Earth dist.	1391 Aug 31 j 16:22	20°♄33'40	0.64254 AU
inferior conj	1390 Sep 19 j 12:36	4°♄25'22	-2°-9'-16	inferior conj	1391 Sep 03 j 01:48	18°♄01'26	-3°-5'-27
minimum elong	1390 Sep 19 j 16:00	4°♄15'27	2°07'58	minimum elong	1391 Sep 03 j 06:29	17°♄48'59	3°03'55
	1390 Sep 23 j 19:03	30°♄		morning rise	1391 Sep 09 j 16:00	12°♄35'17	
morning rise	1390 Sep 25 j 17:06	28°♄43'22		direct	1391 Sep 12 j 04:59	12°♄02'25	
asc. node	1390 Sep 26 j 00:21	28°♄34'40		asc. node	1391 Sep 12 j 21:24	12°♄04'50	
direct	1390 Sep 28 j 11:49	28°♄00'43		morning max el	1391 Sep 18 j 17:17	15°♄28'47	17°57'15
	1390 Oct 03 j 07:07	0°♄			1391 Sep 28 j 23:47	0°♄	
morning max el	1390 Oct 05 j 01:32	1°♄35'28	18°19'50	morning set	1391 Oct 05 j 20:52	11°♄38'04	
morning set	1390 Oct 24 j 05:04	0°♄01'11			1391 Oct 16 j 20:14	0°♄	
	1390 Oct 24 j 04:47	0°♄					
desc. node	1390 Nov 03 j 17:14	16°♄55'31		superior conj	1391 Oct 19 j 00:18	3°♄31'56	0°17'18
				minimum elong	1391 Oct 19 j 02:16	3°♄39'52	0°17'01
superior conj	1390 Nov 08 j 09:33	24°♄20'01	0°-30'-49	desc. node	1391 Oct 21 j 14:16	7°♄41'37	
minimum elong	1390 Nov 08 j 05:32	24°♄04'12	0°30'17	max. Earth dist.	1391 Oct 24 j 03:09	11°♄44'30	1.44506 AU
max. Earth dist.	1390 Nov 10 j 08:30	27°♄24'46	1.45084 AU	evening rise	1391 Nov 04 j 06:25	29°♄08'01	
	1390 Nov 12 j 00:01	0°♄			1391 Nov 04 j 19:56	0°♄	
evening rise	1390 Nov 24 j 18:21	19°♄59'15		greatest brilliancy	1391 Nov 25 j 00:16	29°♄54'24	-0.6m
	1390 Dec 01 j 03:53	0°♄			1391 Nov 25 j 01:56	0°♄	
greatest brilliancy	1390 Dec 09 j 03:10	12°♄13'41	-0.7m	evening max el	1391 Dec 01 j 09:59	7°♄41'43	20°17'44
evening max el	1390 Dec 18 j 06:14	24°♄12'42	19°20'37	retrograde	1391 Dec 09 j 06:51	12°♄19'27	
asc. node	1390 Dec 22 j 23:36	27°♄46'44		asc. node	1391 Dec 09 j 20:38	12°♄17'36	
retrograde	1390 Dec 25 j 09:03	28°♄18'07		evening set	1391 Dec 13 j 00:00	10°♄59'20	
evening set	1390 Dec 28 j 17:44	27°♄12'05		inferior conj	1391 Dec 18 j 11:14	4°♄51'23	2°37'52
inferior conj	1391 Jan 03 j 08:17	21°♄17'19	3°11'25	minimum elong	1391 Dec 18 j 08:34	5°♄00'23	2°37'06
minimum elong	1391 Jan 03 j 05:46	21°♄25'27	3°10'53	min. Earth dist.	1391 Dec 19 j 05:02	3°♄51'15	0.67104 AU
min. Earth dist.	1391 Jan 04 j 15:30	19°♄36'41	0.66214 AU		1391 Dec 22 j 07:06	30°♄	
morning rise	1391 Jan 08 j 17:01	15°♄03'56		morning rise	1391 Dec 23 j 16:38	28°♄36'15	
direct	1391 Jan 14 j 23:36	12°♄18'20		direct	1391 Dec 29 j 09:05	26°♄05'56	
morning max el	1391 Jan 27 j 13:04	19°♄44'33	26°06'23		1392 Jan 06 j 16:33	0°♄	
desc. node	1391 Jan 30 j 16:24	23°♄06'29		morning max el	1392 Jan 09 j 21:39	2°♄58'12	24°46'05
	1391 Feb 05 j 07:56	0°♄		desc. node	1392 Jan 17 j 13:26	11°♄48'29	
	1391 Feb 25 j 05:09	0°♄			1392 Jan 30 j 12:39	0°♄	
morning set	1391 Mar 04 j 16:57	13°♄19'47		morning set	1392 Feb 14 j 23:06	25°♄17'11	
max. Earth dist.	1391 Mar 08 j 16:49	20°♄54'55	1.35368 AU		1392 Feb 17 j 14:13	0°♄	
	1391 Mar 13 j 06:43	0°♄		max. Earth dist.	1392 Feb 18 j 15:56	1°♄57'23	1.37226 AU
superior conj	1391 Mar 13 j 19:35	1°♄05'17	-1°-9'-9	superior conj	1392 Feb 25 j 05:35	14°♄23'58	-1°-33'-49
minimum elong	1391 Mar 13 j 22:58	1°♄22'27	1°08'36	minimum elong	1392 Feb 25 j 09:43	14°♄44'07	1°33'19
asc. node	1391 Mar 20 j 22:55	15°♄48'09			1392 Mar 04 j 01:46	0°♄	
evening rise	1391 Mar 21 j 16:10	17°♄16'48		evening rise	1392 Mar 04 j 18:12	1°♄22'11	
	1391 Mar 28 j 03:47	0°♄		asc. node	1392 Mar 06 j 19:57	5°♄28'38	
evening max el	1391 Apr 09 j 00:17	16°♄59'17	20°25'28	evening max el	1392 Mar 21 j 15:57	28°♄43'48	19°21'15
retrograde	1391 Apr 19 j 21:09	22°♄14'50			1392 Mar 23 j 02:05	0°♄	
evening set	1391 Apr 21 j 23:18	22°♄04'00		retrograde	1392 Mar 30 j 20:19	3°♄09'45	
desc. node	1391 Apr 28 j 15:37	19°♄29'49		evening set	1392 Apr 01 j 22:41	2°♄56'52	
inferior conj	1391 May 01 j 02:26	18°♄06'13	0°-42'-41		1392 Apr 08 j 13:06	30°♄	
minimum elong	1391 May 01 j 00:26	18°♄09'09	0°41'58	inferior conj	1392 Apr 10 j 09:14	28°♄48'48	1°09'55
min. Earth dist.	1391 May 02 j 12:59	17°♄15'58	0.55132 AU	minimum elong	1392 Apr 10 j 11:59	28°♄44'15	1°09'00
morning rise	1391 May 09 j 23:44	13°♄52'33		min. Earth dist.	1392 Apr 13 j 03:39	27°♄00'01	0.56180 AU
direct	1391 May 13 j 17:55	13°♄22'03		desc. node	1392 Apr 14 j 12:37	26°♄09'12	
morning max el	1391 May 27 j 04:23	19°♄54'32	23°25'59	morning rise	1392 Apr 18 j 21:24	24°♄02'17	
	1391 Jun 04 j 15:51	0°♄		direct	1392 Apr 23 j 15:06	23°♄11'01	
asc. node	1391 Jun 16 j 22:12	21°♄23'01			1392 May 07 j 09:22	0°♄	
morning set	1391 Jun 19 j 15:31	27°♄00'01		morning max el	1392 May 07 j 18:58	0°♄22'41	25°06'19
	1391 Jun 21 j 01:32	0°♄			1392 May 28 j 04:56	0°♄	
				asc. node	1392 Jun 02 j 19:14	11°♄14'26	
superior conj	1391 Jun 26 j 18:03	12°♄14'03	1°27'22	morning set	1392 Jun 03 j 03:25	11°♄57'30	
minimum elong	1391 Jun 26 j 15:43	12°♄01'30	1°27'05				
max. Earth dist.	1391 Jun 29 j 03:33	17°♄20'27	1.33597 AU	superior conj	1392 Jun 10 j 03:54	27°♄09'05	1°10'46
evening rise	1391 Jul 04 j 08:35	28°♄03'47		minimum elong	1392 Jun 10 j 01:30	26°♄56'00	1°10'23
	1391 Jul 05 j 08:02	0°♄			1392 Jun 11 j 11:17	0°♄	
	1391 Jul 22 j 17:29	0°♄		max. Earth dist.	1392 Jun 11 j 10:13	29°♄54'14	1.32758 AU

evening rise	1392 Jun 17 j 08:42	12° \mathfrak{G} 29'30		max. Earth dist.	1393 May 25 j 21:29	12° \mathbb{H} 40'27	1.32309 AU
	1392 Jun 26 j 12:01	0° \mathcal{Q}		evening rise	1393 Jun 01 j 14:53	27° \mathbb{H} 11'57	
desc. node	1392 Jul 11 j 11:59	22° \mathcal{Q} 59'17			1393 Jun 02 j 23:18	0° \mathfrak{G}	
	1392 Jul 17 j 11:40	0° \mathfrak{M}			1393 Jun 19 j 23:53	0° \mathcal{Q}	
evening max el	1392 Jul 19 j 16:58	2° \mathfrak{M} 13'21	27°21'44	desc. node	1393 Jun 28 j 09:00	10° \mathcal{Q} 48'20	
retrograde	1392 Aug 02 j 11:44	9° \mathfrak{M} 30'26		evening max el	1393 Jul 01 j 20:41	14° \mathcal{Q} 24'40	26°48'39
evening set	1392 Aug 09 j 16:36	7° \mathfrak{M} 00'57		retrograde	1393 Jul 15 j 19:41	21° \mathcal{Q} 39'04	
min. Earth dist.	1392 Aug 13 j 06:36	4° \mathfrak{M} 06'25	0.62518 AU	evening set	1393 Jul 22 j 16:43	19° \mathcal{Q} 35'59	
inferior conj	1392 Aug 16 j 04:23	1° \mathfrak{M} 21'18	-3°-56'-17	min. Earth dist.	1393 Jul 26 j 10:36	16° \mathcal{Q} 58'08	0.60528 AU
minimum elong	1392 Aug 16 j 09:34	1° \mathfrak{M} 09'00	3°55'02	inferior conj	1393 Jul 29 j 16:56	14° \mathcal{Q} 15'28	-4°-35'-47
	1392 Aug 17 j 15:17	30° \mathfrak{R} \mathcal{Q}		minimum elong	1393 Jul 29 j 21:00	14° \mathcal{Q} 06'58	4°35'14
morning rise	1392 Aug 23 j 05:10	26° \mathcal{Q} 14'23		morning rise	1393 Aug 06 j 04:29	9° \mathcal{Q} 30'25	
direct	1392 Aug 25 j 15:00	25° \mathcal{Q} 48'13		direct	1393 Aug 08 j 13:55	9° \mathcal{Q} 08'23	
asc. node	1392 Aug 29 j 18:26	27° \mathcal{Q} 07'32		morning max el	1393 Aug 15 j 21:33	12° \mathcal{Q} 43'57	18°06'58
morning max el	1392 Sep 01 j 09:00	29° \mathcal{Q} 14'39	17°52'37	asc. node	1393 Aug 16 j 15:29	13° \mathcal{Q} 29'15	
	1392 Sep 02 j 02:38	0° \mathfrak{M}			1393 Aug 27 j 12:25	0° \mathfrak{M}	
morning set	1392 Sep 17 j 10:56	24° \mathfrak{M} 19'05		morning set	1393 Aug 31 j 17:12	7° \mathfrak{M} 46'14	
	1392 Sep 20 j 15:24	0° \mathfrak{L}					
superior conj	1392 Sep 28 j 17:13	14° \mathfrak{L} 02'22	0°57'01	superior conj	1393 Sep 10 j 12:21	25° \mathfrak{M} 49'38	1°24'35
minimum elong	1392 Sep 28 j 21:49	14° \mathfrak{L} 21'52	0°56'26	minimum elong	1393 Sep 10 j 16:27	26° \mathfrak{M} 08'00	1°24'11
max. Earth dist.	1392 Oct 05 j 18:03	25° \mathfrak{L} 42'40	1.43272 AU		1393 Sep 12 j 20:51	0° \mathfrak{L}	
desc. node	1392 Oct 07 j 11:19	28° \mathfrak{L} 29'15		max. Earth dist.	1393 Sep 18 j 03:24	9° \mathfrak{L} 03'35	1.41539 AU
	1392 Oct 08 j 09:58	0° \mathfrak{M}		evening rise	1393 Sep 23 j 13:27	17° \mathfrak{L} 58'32	
evening rise	1392 Oct 13 j 15:10	8° \mathfrak{M} 13'37		desc. node	1393 Sep 24 j 08:21	19° \mathfrak{L} 14'27	
	1392 Oct 28 j 02:21	0° \mathfrak{J}			1393 Oct 01 j 05:34	0° \mathfrak{M}	
greatest brilliancy	1392 Nov 08 j 07:46	15° \mathfrak{J} 25'16	-0.4m	greatest brilliancy	1393 Oct 22 j 01:17	29° \mathfrak{M} 08'08	-0.3m
evening max el	1392 Nov 13 j 08:02	21° \mathfrak{J} 11'26	21°27'09		1393 Oct 22 j 18:33	0° \mathfrak{J}	
retrograde	1392 Nov 22 j 04:11	26° \mathfrak{J} 26'55		evening max el	1393 Oct 27 j 00:55	4° \mathfrak{J} 43'15	22°44'46
asc. node	1392 Nov 25 j 17:40	25° \mathfrak{J} 16'31		retrograde	1393 Nov 05 j 23:23	10° \mathfrak{J} 37'21	
evening set	1392 Nov 26 j 07:42	24° \mathfrak{J} 51'06		evening set	1393 Nov 10 j 15:09	8° \mathfrak{J} 44'38	
inferior conj	1392 Dec 01 j 17:22	18° \mathfrak{J} 33'28	1°56'36	asc. node	1393 Nov 12 j 14:42	6° \mathfrak{J} 47'39	
minimum elong	1392 Dec 01 j 15:04	18° \mathfrak{J} 41'27	1°55'46	inferior conj	1393 Nov 16 j 00:45	2° \mathfrak{J} 21'11	1°09'14
min. Earth dist.	1392 Dec 01 j 23:19	18° \mathfrak{J} 12'56	0.67619 AU	minimum elong	1393 Nov 15 j 23:13	2° \mathfrak{J} 26'29	1°08'35
morning rise	1392 Dec 06 j 22:08	12° \mathfrak{J} 18'30		min. Earth dist.	1393 Nov 15 j 19:52	2° \mathfrak{J} 38'04	0.67784 AU
direct	1392 Dec 11 j 23:20	10° \mathfrak{J} 08'58			1393 Nov 17 j 18:22	30° \mathfrak{R} \mathfrak{M}	
morning max el	1392 Dec 22 j 06:43	16° \mathfrak{J} 16'49	23°18'02	morning rise	1393 Nov 21 j 07:13	26° \mathfrak{M} 08'40	
greatest brilliancy	1392 Dec 27 j 12:52	22° \mathfrak{J} 11'14	-0.2m	direct	1393 Nov 25 j 17:35	24° \mathfrak{M} 21'50	
	1393 Jan 02 j 13:39	0° \mathfrak{Z}		morning max el	1393 Dec 04 j 19:29	29° \mathfrak{M} 42'06	21°51'42
desc. node	1393 Jan 03 j 10:30	1° \mathfrak{Z} 11'14			1393 Dec 05 j 02:31	0° \mathfrak{J}	
	1393 Jan 22 j 13:29	0° \approx		greatest brilliancy	1393 Dec 09 j 14:26	5° \mathfrak{J} 06'47	-0.4m
morning set	1393 Jan 26 j 04:29	5° \approx 59'30		desc. node	1393 Dec 21 j 07:35	21° \mathfrak{J} 03'21	
max. Earth dist.	1393 Jan 30 j 10:44	13° \approx 16'23	1.39335 AU		1393 Dec 27 j 08:30	0° \mathfrak{Z}	
				morning set	1394 Jan 06 j 04:45	15° \mathfrak{Z} 17'54	
superior conj	1393 Feb 07 j 01:18	26° \approx 57'14	-1°-53'-14	max. Earth dist.	1394 Jan 12 j 09:03	25° \mathfrak{Z} 23'01	1.41439 AU
minimum elong	1393 Feb 07 j 04:58	27° \approx 14'18	1°52'58		1394 Jan 15 j 02:56	0° \approx	
	1393 Feb 08 j 16:27	0° \mathfrak{H}		superior conj	1394 Jan 20 j 01:48	8° \approx 33'35	-2°-3'-30
evening rise	1393 Feb 16 j 12:00	14° \mathfrak{H} 57'54		minimum elong	1394 Jan 20 j 02:56	8° \approx 38'33	2°03'30
asc. node	1393 Feb 21 j 16:59	24° \mathfrak{H} 49'10		evening rise	1394 Jan 30 j 18:10	27° \approx 56'18	
	1393 Feb 24 j 15:20	0° \mathfrak{Y}			1394 Jan 31 j 20:57	0° \mathfrak{H}	
evening max el	1393 Mar 04 j 17:29	11° \mathfrak{Y} 04'45	18°37'01	asc. node	1394 Feb 08 j 14:01	13° \mathfrak{H} 43'10	
retrograde	1393 Mar 12 j 13:09	14° \mathfrak{Y} 54'06		evening max el	1394 Feb 16 j 01:49	23° \mathfrak{H} 54'11	18°12'48
evening set	1393 Mar 14 j 20:33	14° \mathfrak{Y} 35'16		retrograde	1394 Feb 23 j 00:15	27° \mathfrak{H} 23'09	
inferior conj	1393 Mar 22 j 12:10	10° \mathfrak{Y} 08'56	2°33'31	evening set	1394 Feb 25 j 13:04	26° \mathfrak{H} 56'02	
minimum elong	1393 Mar 22 j 16:16	10° \mathfrak{Y} 01'01	2°32'27	inferior conj	1394 Mar 04 j 11:59	22° \mathfrak{H} 08'24	3°22'57
min. Earth dist.	1393 Mar 25 j 21:34	7° \mathfrak{Y} 33'43	0.57922 AU	minimum elong	1394 Mar 04 j 14:49	22° \mathfrak{H} 02'04	3°22'32
morning rise	1393 Mar 30 j 07:43	4° \mathfrak{Y} 49'52		min. Earth dist.	1394 Mar 07 j 20:40	19° \mathfrak{H} 09'19	0.60018 AU
desc. node	1393 Apr 01 j 09:39	4° \mathfrak{Y} 00'26		morning rise	1394 Mar 11 j 13:08	16° \mathfrak{H} 25'54	
direct	1393 Apr 05 j 02:41	3° \mathfrak{Y} 25'31		direct	1394 Mar 18 j 02:57	14° \mathfrak{H} 24'36	
morning max el	1393 Apr 19 j 11:41	11° \mathfrak{Y} 01'53	26°31'39	desc. node	1394 Mar 19 j 06:42	14° \mathfrak{H} 28'14	
	1393 May 04 j 03:00	0° \mathfrak{B}		morning max el	1394 Apr 01 j 09:59	22° \mathfrak{H} 13'37	27°28'23
morning set	1393 May 18 j 14:10	26° \mathfrak{B} 50'31			1394 Apr 08 j 06:24	0° \mathfrak{Y}	
	1393 May 20 j 01:56	0° \mathbb{H}			1394 Apr 27 j 02:45	0° \mathfrak{B}	
asc. node	1393 May 20 j 16:15	1° \mathbb{H} 16'43		morning set	1394 May 02 j 22:05	11° \mathfrak{B} 33'06	
				asc. node	1394 May 07 j 13:19	21° \mathfrak{B} 25'14	
superior conj	1393 May 25 j 15:28	12° \mathbb{H} 07'22	0°50'23	max. Earth dist.	1394 May 09 j 09:46	25° \mathfrak{B} 27'59	1.32243 AU
minimum elong	1393 May 25 j 13:29	11° \mathbb{H} 56'26	0°50'00				

superior conj	1394 May 10 j 03:04	27°♄02'56	0°26'56	max. Earth dist.	1395 Apr 22 j 19:12	8°♄02'55	1.32563 AU
minimum elong	1394 May 10 j 01:53	26°♄56'26	0°26'42	asc. node	1395 Apr 24 j 10:22	11°♄34'59	
	1394 May 11 j 11:18	0°♄					
evening rise	1394 May 17 j 00:51	12°♄03'25		superior conj	1395 Apr 24 j 12:58	11°♄49'05	0°01'09
	1394 May 26 j 04:07	0°♄		minimum elong	1395 Apr 24 j 12:54	11°♄48'45	0°01'08
evening max el	1394 Jun 13 j 17:38	25°♄50'08	25°44'12	behind sun begin	1395 Apr 24 j 07:46	11°♄20'51	
desc. node	1394 Jun 15 j 05:59	27°♄13'07		behind sun end	1395 Apr 24 j 18:02	12°♄16'41	
	1394 Jun 18 j 21:28	0°♄		evening rise	1395 May 01 j 12:31	26°♄56'11	
retrograde	1394 Jun 27 j 18:18	2°♄59'57			1395 May 02 j 23:32	0°♄	
evening set	1394 Jul 03 j 18:45	1°♄33'56			1395 May 20 j 12:19	0°♄	
	1394 Jul 06 j 14:50	30°♄		evening max el	1395 May 26 j 08:42	6°♄35'46	24°16'51
min. Earth dist.	1394 Jul 08 j 06:00	28°♄55'02	0.58474 AU	desc. node	1395 Jun 02 j 02:59	11°♄40'45	
inferior conj	1394 Jul 11 j 11:55	26°♄34'43	-4°-54'-15	retrograde	1395 Jun 09 j 05:15	13°♄34'53	
minimum elong	1394 Jul 11 j 12:30	26°♄33'38	4°54'15	evening set	1395 Jun 13 j 21:28	12°♄46'15	
morning rise	1394 Jul 19 j 09:52	22°♄12'27		min. Earth dist.	1395 Jun 19 j 19:41	9°♄49'31	0.56633 AU
direct	1394 Jul 21 j 21:32	21°♄52'36		inferior conj	1395 Jun 22 j 10:48	8°♄10'27	-4°-38'-19
morning max el	1394 Jul 30 j 03:43	25°♄47'45	18°41'35	minimum elong	1395 Jun 22 j 06:13	8°♄17'42	4°37'45
	1394 Aug 02 j 20:17	0°♄		morning rise	1395 Jun 30 j 18:36	4°♄08'28	
asc. node	1394 Aug 03 j 12:33	0°♄55'01		direct	1395 Jul 03 j 10:24	3°♄49'34	
morning set	1394 Aug 15 j 10:56	21°♄46'54		morning max el	1395 Jul 13 j 00:36	8°♄16'49	19°37'33
	1394 Aug 19 j 16:11	0°♄		asc. node	1395 Jul 21 j 09:37	19°♄10'46	
					1395 Jul 27 j 09:29	0°♄	
superior conj	1394 Aug 24 j 04:43	8°♄39'44	1°40'20	morning set	1395 Jul 30 j 12:42	6°♄12'04	
minimum elong	1394 Aug 24 j 07:00	8°♄50'28	1°40'12				
max. Earth dist.	1394 Aug 31 j 08:12	21°♄41'57	1.39539 AU	superior conj	1395 Aug 07 j 12:53	22°♄17'44	1°46'04
evening rise	1394 Sep 04 j 10:55	28°♄48'06		minimum elong	1395 Aug 07 j 13:14	22°♄19'27	1°46'03
	1394 Sep 05 j 03:58	0°♄			1395 Aug 11 j 12:12	0°♄	
desc. node	1394 Sep 11 j 05:23	9°♄53'26		max. Earth dist.	1395 Aug 13 j 12:19	3°♄46'25	1.37519 AU
	1394 Sep 24 j 17:17	0°♄		evening rise	1395 Aug 17 j 08:10	10°♄44'58	
evening max el	1394 Oct 09 j 14:20	18°♄18'30	24°04'51		1395 Aug 28 j 20:44	0°♄	
retrograde	1394 Oct 20 j 15:04	24°♄47'07		desc. node	1395 Aug 29 j 02:22	0°♄22'00	
evening set	1394 Oct 25 j 20:41	22°♄36'59			1395 Sep 20 j 04:20	0°♄	
asc. node	1394 Oct 30 j 11:46	17°♄18'50		evening max el	1395 Sep 22 j 02:18	1°♄57'16	25°20'26
min. Earth dist.	1394 Oct 30 j 16:14	17°♄03'47	0.67619 AU	retrograde	1395 Oct 04 j 02:24	8°♄52'22	
inferior conj	1394 Oct 31 j 07:35	16°♄11'52	0°17'03	evening set	1395 Oct 09 j 22:38	6°♄26'03	
minimum elong	1394 Oct 31 j 07:10	16°♄13'16	0°16'52	min. Earth dist.	1395 Oct 14 j 09:57	1°♄28'06	0.67125 AU
morning rise	1394 Nov 05 j 17:53	10°♄04'21		inferior conj	1395 Oct 15 j 12:05	0°♄03'24	0°-38'-32
direct	1394 Nov 09 j 14:36	8°♄39'27		minimum elong	1395 Oct 15 j 13:04	0°♄00'13	0°38'07
morning max el	1394 Nov 17 j 15:03	13°♄17'14	20°34'09		1395 Oct 15 j 13:08	30°♄	
greatest brilliancy	1394 Nov 23 j 18:14	20°♄31'56	-0.5m	asc. node	1395 Oct 17 j 08:49	27°♄42'16	
	1394 Nov 30 j 13:53	0°♄		morning rise	1395 Oct 21 j 04:09	24°♄03'38	
desc. node	1394 Dec 08 j 04:38	11°♄16'09		direct	1395 Oct 24 j 13:01	22°♄58'06	
morning set	1394 Dec 16 j 05:24	23°♄33'27		morning max el	1395 Oct 31 j 18:31	27°♄03'20	19°29'45
	1394 Dec 20 j 08:14	0°♄			1395 Nov 03 j 10:06	0°♄	
max. Earth dist.	1394 Dec 25 j 15:18	8°♄26'43	1.43247 AU	greatest brilliancy	1395 Nov 09 j 12:55	8°♄11'26	-0.7m
					1395 Nov 23 j 22:51	0°♄	
superior conj	1395 Jan 01 j 01:53	19°♄00'43	-1°-59'-51	morning set	1395 Nov 25 j 03:53	1°♄52'22	
minimum elong	1394 Dec 31 j 22:09	18°♄45'10	1°59'44	desc. node	1395 Nov 25 j 01:41	1°♄43'51	
	1395 Jan 07 j 13:13	0°♄		max. Earth dist.	1395 Dec 08 j 04:59	22°♄16'23	1.44511 AU
evening rise	1395 Jan 13 j 08:36	10°♄08'28					
	1395 Jan 25 j 01:43	0°♄		superior conj	1395 Dec 11 j 23:33	28°♄16'45	-1°-38'-3
asc. node	1395 Jan 26 j 11:04	2°♄01'43		minimum elong	1395 Dec 11 j 15:19	27°♄43'47	1°37'20
evening max el	1395 Jan 30 j 13:40	7°♄02'18	18°08'03		1395 Dec 13 j 01:19	0°♄	
retrograde	1395 Feb 06 j 02:03	10°♄26'15		evening rise	1395 Dec 26 j 03:02	21°♄27'23	
evening set	1395 Feb 08 j 19:44	9°♄49'34			1395 Dec 31 j 05:25	0°♄	
inferior conj	1395 Feb 15 j 05:32	4°♄40'33	3°43'40	asc. node	1396 Jan 13 j 08:06	19°♄34'31	
minimum elong	1395 Feb 15 j 06:16	4°♄38'38	3°43'39	evening max el	1396 Jan 14 j 02:10	20°♄22'12	18°22'13
min. Earth dist.	1395 Feb 18 j 03:27	1°♄42'40	0.62129 AU	retrograde	1396 Jan 20 j 14:04	23°♄54'09	
	1395 Feb 19 j 23:50	30°♄		evening set	1396 Jan 23 j 12:41	23°♄07'04	
morning rise	1395 Feb 21 j 14:28	28°♄43'13		inferior conj	1396 Jan 29 j 12:50	17°♄38'19	3°42'53
direct	1395 Feb 28 j 12:49	26°♄12'04		minimum elong	1396 Jan 29 j 11:48	17°♄41'16	3°42'49
desc. node	1395 Mar 06 j 03:45	27°♄39'21		min. Earth dist.	1396 Jan 31 j 19:49	15°♄01'38	0.64005 AU
	1395 Mar 09 j 21:49	0°♄		morning rise	1396 Feb 04 j 09:22	11°♄31'51	
morning max el	1395 Mar 14 j 14:16	4°♄06'03	27°49'02	direct	1396 Feb 11 j 06:40	8°♄44'08	
	1395 Apr 02 j 21:32	0°♄		desc. node	1396 Feb 21 j 00:50	13°♄03'50	
morning set	1395 Apr 17 j 01:05	25°♄57'44		morning max el	1396 Feb 24 j 22:50	16°♄36'25	27°32'55
	1395 Apr 19 j 00:10	0°♄			1396 Mar 07 j 01:27	0°♄	

	1396 Mar 25 j 15:42	0°Υ		morning set	1397 Mar 14 j 05:31	23°κ20'07	
morning set	1396 Mar 30 j 20:40	9°Υ56'43			1397 Mar 17 j 15:53	0°Υ	
max. Earth dist.	1396 Apr 04 j 21:50	20°Υ13'05	1.33298 AU	max. Earth dist.	1397 Mar 18 j 13:58	1°Υ49'48	1.34476 AU
superior conj	1396 Apr 07 j 19:18	26°Υ20'05	0°-26'-7	superior conj	1397 Mar 22 j 20:00	10°Υ29'53	0°-53'-43
minimum elong	1396 Apr 07 j 20:36	26°Υ26'57	0°25'52	minimum elong	1397 Mar 22 j 22:41	10°Υ43'45	0°53'14
	1396 Apr 09 j 12:23	0°Ϡ		asc. node	1397 Mar 28 j 04:26	21°Υ42'56	
asc. node	1396 Apr 10 j 07:25	1°Ϡ42'12		evening rise	1397 Mar 30 j 09:39	26°Υ21'02	
evening rise	1396 Apr 15 j 00:05	11°Ϡ44'03			1397 Apr 01 j 04:14	0°Ϡ	
	1396 Apr 24 j 09:47	0°Π		evening max el	1397 Apr 18 j 21:12	27°Ϡ52'15	21°10'49
evening max el	1396 May 06 j 23:21	17°Π05'34	22°40'52		1397 Apr 21 j 07:47	0°Π	
desc. node	1396 May 19 j 00:00	23°Π35'22		retrograde	1397 Apr 30 j 17:59	3°Π39'08	
retrograde	1396 May 20 j 03:54	23°Π38'26		evening set	1397 May 03 j 00:50	3°Π27'01	
evening set	1396 May 23 j 09:27	23°Π15'29		desc. node	1397 May 05 j 21:02	2°Π40'49	
min. Earth dist.	1396 May 31 j 07:25	19°Π47'28	0.55351 AU		1397 May 11 j 10:38	30°RϠ	
inferior conj	1396 Jun 01 j 14:58	19°Π02'25	-3°-36'-16	inferior conj	1397 May 12 j 09:13	29°Ϡ28'16	-1°-51'-59
minimum elong	1396 Jun 01 j 07:15	19°Π13'27	3°34'18	minimum elong	1397 May 12 j 04:01	29°Ϡ35'37	1°50'10
morning rise	1396 Jun 10 j 07:42	15°Π10'29		min. Earth dist.	1397 May 12 j 19:58	29°Ϡ13'07	0.54925 AU
direct	1396 Jun 13 j 05:02	14°Π51'13		morning rise	1397 May 21 j 07:04	25°Ϡ27'40	
morning max el	1396 Jun 24 j 10:22	20°Π03'42	20°54'17	direct	1397 May 24 j 14:48	25°Ϡ03'46	
	1396 Jul 02 j 11:32	0°Ϣ			1397 Jun 05 j 02:32	0°Π	
asc. node	1396 Jul 07 j 06:40	8°Ϣ04'10		morning max el	1397 Jun 06 j 09:30	1°Π08'50	22°27'49
morning set	1396 Jul 13 j 19:47	20°Ϣ53'37		asc. node	1397 Jun 24 j 03:42	27°Π25'58	
	1396 Jul 18 j 04:57	0°Ω			1397 Jun 25 j 10:44	0°Ϣ	
				morning set	1397 Jun 28 j 06:06	5°Ϣ45'48	
superior conj	1396 Jul 21 j 08:13	6°Ω29'41	1°43'42	superior conj	1397 Jul 05 j 11:14	21°Ϣ05'07	1°34'53
minimum elong	1396 Jul 21 j 07:04	6°Ω23'47	1°43'40	minimum elong	1397 Jul 05 j 09:09	20°Ϣ54'10	1°34'42
max. Earth dist.	1396 Jul 25 j 20:54	15°Ω36'52	1.35705 AU	max. Earth dist.	1397 Jul 08 j 14:05	27°Ϣ37'03	1.34248 AU
evening rise	1396 Jul 30 j 01:16	23°Ω39'04			1397 Jul 09 j 17:55	0°Ω	
	1396 Aug 02 j 12:25	0°൬		evening rise	1397 Jul 13 j 09:37	7°Ω18'19	
desc. node	1396 Aug 14 j 23:21	20°൬34'08			1397 Jul 26 j 02:22	0°൬	
	1396 Aug 21 j 12:07	0°Δ		desc. node	1397 Aug 01 j 20:22	10°൬22'32	
evening max el	1396 Sep 03 j 14:09	15°Δ35'03	26°24'04	evening max el	1397 Aug 17 j 02:10	29°൬04'37	27°08'09
retrograde	1396 Sep 16 j 08:49	22°Δ46'49			1397 Aug 18 j 01:52	0°Δ	
evening set	1396 Sep 22 j 19:03	20°Δ08'12		retrograde	1397 Aug 30 j 09:55	6°Δ23'13	
min. Earth dist.	1396 Sep 26 j 22:42	15°Δ47'02	0.66289 AU	evening set	1397 Sep 06 j 07:34	3°Δ39'38	
inferior conj	1396 Sep 28 j 12:24	13°Δ52'15	-1°-36'-2	min. Earth dist.	1397 Sep 10 j 04:16	29°൬55'16	0.65096 AU
minimum elong	1396 Sep 28 j 14:55	13°Δ44'34	1°35'01		1397 Sep 10 j 02:33	30°R൬	
asc. node	1396 Oct 03 j 05:53	8°Δ53'09		inferior conj	1397 Sep 12 j 06:22	27°൬34'38	-2°-33'-28
morning rise	1396 Oct 04 j 11:56	8°Δ03'05		minimum elong	1397 Sep 12 j 10:22	27°൬23'24	2°32'02
direct	1396 Oct 07 j 11:04	7°Δ13'19		morning rise	1397 Sep 18 j 14:53	21°൬59'07	
morning max el	1396 Oct 14 j 04:41	10°Δ56'33	18°40'38	asc. node	1397 Sep 20 j 02:55	21°൬28'28	
	1396 Oct 27 j 20:10	0°ℳ		direct	1397 Sep 21 j 06:44	21°൬21'13	
morning set	1396 Nov 03 j 23:01	11°ℳ17'24		morning max el	1397 Sep 27 j 19:10	24°൬51'38	18°08'03
desc. node	1396 Nov 10 j 22:41	22°ℳ21'21			1397 Oct 02 j 01:06	0°Δ	
	1396 Nov 15 j 19:12	0°♄		morning set	1397 Oct 15 j 23:15	22°Δ08'58	
superior conj	1396 Nov 20 j 02:42	6°♄46'30	0°-58'-30		1397 Oct 20 j 17:31	0°ℳ	
minimum elong	1396 Nov 19 j 19:27	6°♄18'04	0°57'37	desc. node	1397 Oct 28 j 19:41	13°ℳ05'14	
max. Earth dist.	1396 Nov 19 j 22:41	6°♄30'44	1.45087 AU				
	1396 Dec 04 j 19:09	0°ϣ		superior conj	1397 Oct 30 j 07:20	15°ℳ27'16	0°-9'-55
evening rise	1396 Dec 05 j 22:09	1°ϣ47'50		minimum elong	1397 Oct 30 j 06:05	15°ℳ22'16	0°09'45
	1396 Dec 24 j 06:50	0°≈		behind sun begin	1397 Oct 29 j 21:20	14°ℳ47'28	
evening max el	1396 Dec 27 j 12:45	3°≈48'02	18°54'29	behind sun end	1397 Oct 30 j 14:50	15°ℳ57'02	
asc. node	1396 Dec 30 j 05:08	6°≈08'13		max. Earth dist.	1397 Nov 02 j 17:18	20°ℳ51'38	1.44925 AU
retrograde	1397 Jan 03 j 08:15	7°≈38'56			1397 Nov 08 j 13:14	0°♄	
evening set	1397 Jan 06 j 12:45	6°≈40'21		evening rise	1397 Nov 15 j 19:10	11°♄16'04	
inferior conj	1397 Jan 12 j 06:07	0°≈54'16	3°26'25		1397 Nov 27 j 23:46	0°ϣ	
minimum elong	1397 Jan 12 j 03:57	1°≈01'01	3°26'03	greatest brilliancy	1397 Dec 03 j 02:24	7°ϣ31'03	-0.6m
	1397 Jan 12 j 23:31	30°Rϣ		evening max el	1397 Dec 10 j 19:26	17°ϣ16'36	19°43'14
min. Earth dist.	1397 Jan 13 j 21:44	28°ϣ51'11	0.65519 AU	asc. node	1397 Dec 17 j 02:10	21°ϣ28'03	
morning rise	1397 Jan 17 j 18:07	24°ϣ42'27		retrograde	1397 Dec 18 j 05:24	21°ϣ35'12	
direct	1397 Jan 24 j 07:23	21°ϣ52'22		evening set	1397 Dec 21 j 17:22	20°ϣ23'35	
morning max el	1397 Feb 06 j 08:45	29°ϣ32'49	26°45'04	inferior conj	1397 Dec 27 j 06:18	14°ϣ22'55	2°58'17
desc. node	1397 Feb 06 j 21:52	0°≈06'11		minimum elong	1397 Dec 27 j 03:39	14°ϣ31'40	2°57'36
	1397 Feb 06 j 19:28	0°≈		min. Earth dist.	1397 Dec 28 j 07:41	12°ϣ59'08	0.66640 AU
	1397 Feb 28 j 22:37	0°κ		morning rise	1398 Jan 01 j 13:14	8°ϣ08'21	

direct	1398 Jan 07 j 14:04	5°☿28'01		minimum elong	1398 Dec 11 j 08:18	28°♄09'50	2°20'23
morning max el	1398 Jan 19 j 17:46	12°☿42'07	25°33'42	min. Earth dist.	1398 Dec 11 j 23:32	27°♄17'46	0.67371 AU
desc. node	1398 Jan 24 j 18:54	18°☿17'55		morning rise	1398 Dec 16 j 15:42	21°♄45'48	
	1398 Feb 02 j 17:05	0°≈		direct	1398 Dec 22 j 01:50	19°♄23'36	
	1398 Feb 21 j 15:55	0°✕		morning max el	1399 Jan 02 j 02:03	25°♄57'33	24°08'54
morning set	1398 Feb 24 j 23:01	5°✕53'30			1399 Jan 05 j 19:01	0°☿	
max. Earth dist.	1398 Feb 28 j 18:07	12°✕56'34	1.36109 AU	desc. node	1399 Jan 11 j 15:57	7°☿19'08	
					1399 Jan 27 j 06:42	0°≈	
superior conj	1398 Mar 06 j 12:20	24°✕09'53	-1°-20'-5	morning set	1399 Feb 06 j 19:24	17°≈20'58	
minimum elong	1398 Mar 06 j 16:07	24°✕28'52	1°19'31	max. Earth dist.	1399 Feb 10 j 14:17	24°≈01'03	1.38110 AU
	1398 Mar 09 j 09:44	0°♑			1399 Feb 13 j 21:08	0°✕	
evening rise	1398 Mar 14 j 15:07	10°♑39'40		superior conj	1399 Feb 17 j 16:52	7°✕11'11	-1°-42'-54
asc. node	1398 Mar 15 j 01:28	11°♑32'08		minimum elong	1399 Feb 17 j 21:00	7°✕30'57	1°42'29
	1398 Mar 25 j 01:20	0°♄		evening rise	1399 Feb 26 j 14:02	24°✕33'27	
evening max el	1398 Apr 01 j 06:25	9°♄14'30	19°55'51		1399 Mar 01 j 08:59	0°♑	
retrograde	1398 Apr 11 j 09:37	14°♄07'33		asc. node	1399 Mar 01 j 22:31	1°♑04'56	
evening set	1398 Apr 13 j 10:43	13°♄56'29		evening max el	1399 Mar 15 j 02:43	21°♑15'41	18°59'57
inferior conj	1398 Apr 22 j 07:38	9°♄56'18	0°07'32	retrograde	1399 Mar 23 j 15:31	25°♑23'37	
minimum elong	1398 Apr 22 j 07:59	9°♄55'47	0°07'25	evening set	1399 Mar 25 j 20:02	25°♑08'26	
transit middle	1398 Apr 22 j 07:59	9°♄55'47	0°07'25	inferior conj	1399 Apr 02 j 22:28	20°♑53'15	1°49'37
transit begin	1398 Apr 22 j 04:27	10°♄01'09		minimum elong	1399 Apr 03 j 02:14	20°♑46'37	1°48'27
transit end	1398 Apr 22 j 11:30	9°♄50'25		min. Earth dist.	1399 Apr 06 j 01:28	18°♑42'37	0.56865 AU
desc. node	1398 Apr 22 j 18:04	9°♄40'22		desc. node	1399 Apr 09 j 15:06	16°♑34'42	
min. Earth dist.	1398 Apr 24 j 09:49	8°♄40'03	0.55472 AU	morning rise	1399 Apr 11 j 04:13	15°♑52'28	
morning rise	1398 May 01 j 02:12	5°♄29'11		direct	1399 Apr 16 j 09:20	14°♑48'09	
direct	1398 May 05 j 05:45	4°♄51'16		morning max el	1399 Apr 30 j 16:01	22°♑11'20	25°45'16
morning max el	1398 May 19 j 01:23	11°♄42'55	24°09'25		1399 May 07 j 13:14	0°♄	
	1398 Jun 01 j 21:45	0°♄			1399 May 25 j 12:06	0°♄	
asc. node	1398 Jun 11 j 00:44	17°♄07'55		morning set	1399 May 28 j 05:28	5°♄37'57	
morning set	1398 Jun 12 j 17:52	20°♄42'14		asc. node	1399 May 28 j 21:47	7°♄04'12	
	1398 Jun 17 j 01:50	0°♄					
superior conj	1398 Jun 19 j 19:11	5°♄54'34	1°20'50	superior conj	1399 Jun 04 j 05:58	20°♄51'07	1°02'32
minimum elong	1398 Jun 19 j 16:46	5°♄41'26	1°20'31	minimum elong	1399 Jun 04 j 03:42	20°♄38'37	1°02'08
max. Earth dist.	1398 Jun 21 j 16:26	9°♄58'18	1.33191 AU	max. Earth dist.	1399 Jun 05 j 01:37	22°♄38'41	1.32528 AU
evening rise	1398 Jun 27 j 04:58	21°♄29'49			1399 Jun 08 j 11:03	0°♄	
	1398 Jul 01 j 13:05	0°♄		evening rise	1399 Jun 11 j 08:00	6°♄03'25	
desc. node	1398 Jul 19 j 17:24	29°♄36'33			1399 Jun 24 j 03:07	0°♄	
	1398 Jul 20 j 00:20	0°♄		desc. node	1399 Jul 06 j 14:25	18°♄01'54	
evening max el	1398 Jul 30 j 13:04	12°♄14'15	27°25'49	evening max el	1399 Jul 12 j 20:18	24°♄50'15	27°11'47
retrograde	1398 Aug 13 j 04:55	19°♄32'26			1399 Jul 19 j 14:20	0°♄	
evening set	1398 Aug 20 j 09:10	16°♄54'28		retrograde	1399 Jul 26 j 16:53	2°♄05'19	
min. Earth dist.	1398 Aug 24 j 00:39	13°♄43'42	0.63548 AU		1399 Aug 02 j 10:48	30°♄00'06	0.61693 AU
inferior conj	1398 Aug 26 j 15:26	11°♄04'35	-3°-27'-58	evening set	1399 Aug 02 j 19:52	29°♄45'47	
minimum elong	1398 Aug 26 j 20:28	10°♄51'48	3°26'31	min. Earth dist.	1399 Aug 06 j 10:30	27°♄00'06	0.61693 AU
morning rise	1398 Sep 02 j 10:02	5°♄45'58		inferior conj	1399 Aug 09 j 12:28	24°♄14'14	-4°-14'-58
direct	1398 Sep 04 j 21:16	5°♄16'22		minimum elong	1399 Aug 09 j 17:26	24°♄03'04	4°13'58
asc. node	1398 Sep 06 j 23:57	5°♄38'25		morning rise	1399 Aug 16 j 17:48	19°♄16'03	
morning max el	1398 Sep 11 j 11:14	8°♄42'07	17°53'00	direct	1399 Aug 19 j 03:14	18°♄51'47	
	1398 Sep 25 j 14:33	0°♄		asc. node	1399 Aug 24 j 21:00	21°♄15'49	
morning set	1398 Sep 28 j 01:22	4°♄15'31		morning max el	1399 Aug 26 j 01:53	22°♄20'53	17°56'21
					1399 Sep 01 j 00:16	0°♄	
superior conj	1398 Oct 10 j 08:32	25°♄10'41	0°35'31	morning set	1399 Sep 10 j 22:59	17°♄17'44	
minimum elong	1398 Oct 10 j 12:06	25°♄25'23	0°35'02		1399 Sep 17 j 23:44	0°♄	
	1398 Oct 13 j 07:12	0°♄		superior conj	1399 Sep 21 j 12:57	6°♄14'10	1°10'15
desc. node	1398 Oct 15 j 16:43	3°♄52'19		minimum elong	1399 Sep 21 j 17:37	6°♄34'24	1°09'43
max. Earth dist.	1398 Oct 16 j 10:30	5°♄03'37	1.44054 AU	max. Earth dist.	1399 Sep 28 j 23:38	18°♄48'52	1.42583 AU
evening rise	1398 Oct 26 j 03:43	20°♄18'20		desc. node	1399 Oct 02 j 13:45	24°♄38'53	
	1398 Nov 01 j 12:11	0°♄		evening rise	1399 Oct 05 j 16:25	29°♄35'50	
greatest brilliancy	1398 Nov 18 j 04:39	24°♄03'10	-0.5m		1399 Oct 05 j 22:33	0°♄	
	1398 Nov 23 j 03:10	0°☿			1399 Oct 26 j 03:58	0°♄	
evening max el	1398 Nov 23 j 20:56	0°☿46'46	20°46'02	greatest brilliancy	1399 Nov 01 j 23:01	8°♄55'15	-0.3m
retrograde	1398 Dec 02 j 03:09	5°☿39'46		evening max el	1399 Nov 06 j 16:46	14°♄17'23	21°59'31
asc. node	1398 Dec 03 j 23:12	5°☿20'51		retrograde	1399 Nov 15 j 23:39	19°♄48'53	
evening set	1398 Dec 06 j 00:28	4°☿13'16		evening set	1399 Nov 20 j 08:16	18°♄05'51	
	1398 Dec 09 j 23:32	30°♄01'03		asc. node	1399 Nov 20 j 20:16	17°♄40'34	
inferior conj	1398 Dec 11 j 10:52	28°♄01'03	2°21'13				

inferior conj	1399 Nov 25 j 17:45	11° \mathring{A} 45'25	1°37'09		1400 Nov 05 j 15:08	30° \mathring{R} \mathring{M}	
minimum elong	1399 Nov 25 j 15:43	11° \mathring{A} 52'27	1°36'23	asc. node	1400 Nov 06 j 17:18	28° \mathring{M} 41'07	
min. Earth dist.	1399 Nov 25 j 18:58	11° \mathring{A} 41'14	0.67734 AU	min. Earth dist.	1400 Nov 08 j 15:40	26° \mathring{M} 06'49	0.67754 AU
morning rise	1399 Nov 30 j 22:59	5° \mathring{A} 31'30		inferior conj	1400 Nov 09 j 01:06	25° \mathring{M} 34'24	0°47'35
direct	1399 Dec 05 j 17:51	3° \mathring{A} 31'35		minimum elong	1400 Nov 09 j 00:00	25° \mathring{M} 38'10	0°47'08
morning max el	1399 Dec 15 j 12:13	9° \mathring{A} 18'20	22°40'41	morning rise	1400 Nov 14 j 08:58	19° \mathring{M} 23'53	
greatest brilliancy	1399 Dec 20 j 02:38	14° \mathring{A} 26'34	-0.3m	direct	1400 Nov 18 j 13:16	17° \mathring{M} 46'50	
desc. node	1399 Dec 29 j 12:59	26° \mathring{A} 55'17		morning max el	1400 Nov 27 j 03:46	22° \mathring{M} 47'59	21°17'23
	1399 Dec 31 j 16:51	0° \mathring{C}		greatest brilliancy	1400 Dec 02 j 09:09	28° \mathring{M} 47'31	-0.4m
morning set	1400 Jan 18 j 12:35	27° \mathring{C} 27'12			1400 Dec 03 j 07:57	0° \mathring{A}	
	1400 Jan 20 j 01:35	0° \mathring{A}		desc. node	1400 Dec 15 j 10:03	16° \mathring{A} 56'42	
max. Earth dist.	1400 Jan 23 j 10:17	5° \mathring{A} 39'42	1.40258 AU		1400 Dec 24 j 01:21	0° \mathring{C}	
				morning set	1400 Dec 28 j 01:16	6° \mathring{C} 13'47	
superior conj	1400 Jan 31 j 05:05	19° \mathring{A} 21'46	-1°-58'-58	max. Earth dist.	1401 Jan 04 j 12:02	18° \mathring{C} 11'52	1.42261 AU
minimum elong	1400 Jan 31 j 07:59	19° \mathring{A} 34'55	1°58'50				
	1400 Feb 05 j 23:03	0° \mathring{H}		superior conj	1401 Jan 11 j 19:43	0° \mathring{A} 29'22	-2°-3'-57
evening rise	1400 Feb 10 j 03:20	7° \mathring{H} 54'20		minimum elong	1401 Jan 11 j 19:00	0° \mathring{A} 26'19	2°03'58
asc. node	1400 Feb 16 j 19:34	20° \mathring{H} 14'59			1401 Jan 11 j 12:52	0° \mathring{A}	
	1400 Feb 23 j 00:18	0° \mathring{Y}		evening rise	1401 Jan 23 j 03:22	20° \mathring{A} 34'14	
evening max el	1400 Feb 26 j 07:29	3° \mathring{Y} 49'19	18°24'11		1401 Jan 28 j 09:12	0° \mathring{H}	
retrograde	1400 Mar 04 j 16:38	7° \mathring{Y} 28'09		asc. node	1401 Feb 02 j 16:36	8° \mathring{H} 55'02	
evening set	1400 Mar 07 j 02:25	7° \mathring{Y} 05'56		evening max el	1401 Feb 08 j 17:37	16° \mathring{H} 47'15	18°08'20
inferior conj	1400 Mar 14 j 10:30	2° \mathring{Y} 30'13	2°58'27	retrograde	1401 Feb 15 j 10:41	20° \mathring{H} 12'44	
minimum elong	1400 Mar 14 j 14:15	2° \mathring{Y} 22'28	2°57'39	evening set	1401 Feb 18 j 01:28	19° \mathring{H} 41'47	
	1400 Mar 17 j 11:53	30° \mathring{R} \mathring{H}		inferior conj	1401 Feb 24 j 18:22	14° \mathring{H} 44'50	3°34'47
min. Earth dist.	1400 Mar 17 j 21:01	29° \mathring{H} 42'05	0.58798 AU	minimum elong	1401 Feb 24 j 20:19	14° \mathring{H} 40'12	3°34'36
morning rise	1400 Mar 21 j 22:10	27° \mathring{H} 00'05		min. Earth dist.	1401 Feb 27 j 23:16	11° \mathring{H} 43'14	0.60929 AU
desc. node	1400 Mar 26 j 12:09	25° \mathring{H} 26'45		morning rise	1401 Mar 03 j 12:10	8° \mathring{H} 54'44	
direct	1400 Mar 28 j 02:10	25° \mathring{H} 20'09		direct	1401 Mar 10 j 06:40	6° \mathring{H} 39'30	
	1400 Apr 08 j 00:52	0° \mathring{Y}		desc. node	1401 Mar 13 j 09:12	7° \mathring{H} 06'03	
morning max el	1400 Apr 11 j 10:54	3° \mathring{Y} 02'15	26°59'58	morning max el	1401 Mar 24 j 12:09	14° \mathring{H} 32'03	27°41'49
	1400 Apr 30 j 23:46	0° \mathring{B}			1401 Apr 05 j 23:52	0° \mathring{Y}	
morning set	1400 May 11 j 15:17	20° \mathring{B} 27'25			1401 Apr 23 j 09:25	0° \mathring{B}	
asc. node	1400 May 14 j 18:51	27° \mathring{B} 09'42		morning set	1401 Apr 25 j 21:23	5° \mathring{B} 03'30	
	1400 May 16 j 02:12	0° \mathring{H}		asc. node	1401 May 01 j 15:53	17° \mathring{B} 19'11	
				max. Earth dist.	1401 May 02 j 01:35	18° \mathring{B} 12'01	1.32327 AU
superior conj	1400 May 18 j 17:47	5° \mathring{H} 48'48	0°40'46				
minimum elong	1400 May 18 j 16:05	5° \mathring{H} 39'30	0°40'26	superior conj	1401 May 03 j 04:51	20° \mathring{B} 41'01	0°16'15
max. Earth dist.	1400 May 18 j 14:00	5° \mathring{H} 27'59	1.32238 AU	minimum elong	1401 May 03 j 04:07	20° \mathring{B} 36'58	0°16'04
evening rise	1400 May 25 j 16:05	20° \mathring{H} 50'36			1401 May 07 j 11:04	0° \mathring{H}	
	1400 May 30 j 03:57	0° \mathring{C}		evening rise	1401 May 10 j 02:59	5° \mathring{H} 43'14	
	1400 Jun 17 j 18:57	0° \mathring{Q}			1401 May 22 j 23:10	0° \mathring{C}	
desc. node	1400 Jun 22 j 11:26	5° \mathring{Q} 18'40		evening max el	1401 Jun 05 j 15:03	17° \mathring{C} 47'57	25°09'01
evening max el	1400 Jun 23 j 21:14	6° \mathring{Q} 42'08	26°24'40	desc. node	1401 Jun 09 j 08:27	20° \mathring{C} 58'07	
retrograde	1400 Jul 07 j 20:54	13° \mathring{Q} 54'37		retrograde	1401 Jun 19 j 15:10	24° \mathring{C} 55'24	
evening set	1400 Jul 14 j 11:07	12° \mathring{Q} 06'11		evening set	1401 Jun 25 j 03:01	23° \mathring{C} 45'46	
min. Earth dist.	1400 Jul 18 j 10:16	9° \mathring{Q} 30'32	0.59648 AU	min. Earth dist.	1401 Jun 30 j 02:43	21° \mathring{C} 01'11	0.57640 AU
inferior conj	1400 Jul 21 j 18:00	6° \mathring{Q} 54'50	-4°-46'-57	inferior conj	1401 Jul 03 j 04:34	18° \mathring{C} 55'59	-4°-52'-33
minimum elong	1400 Jul 21 j 20:54	6° \mathring{Q} 49'08	4°46'42	minimum elong	1401 Jul 03 j 03:01	18° \mathring{C} 58'36	4°52'30
morning rise	1400 Jul 29 j 10:03	2° \mathring{Q} 19'42		morning rise	1401 Jul 11 j 06:50	14° \mathring{C} 43'26	
direct	1400 Jul 31 j 20:19	1° \mathring{Q} 58'41		direct	1401 Jul 13 j 19:57	14° \mathring{C} 24'14	
morning max el	1400 Aug 08 j 12:09	5° \mathring{Q} 40'44	18°19'14	morning max el	1401 Jul 22 j 14:48	18° \mathring{C} 31'18	19°02'50
asc. node	1400 Aug 10 j 18:04	8° \mathring{Q} 06'46		asc. node	1401 Jul 28 j 15:08	25° \mathring{C} 55'15	
	1400 Aug 23 j 21:53	0° \mathring{M}			1401 Jul 31 j 04:33	0° \mathring{Q}	
morning set	1400 Aug 24 j 10:39	1° \mathring{M} 00'42		morning set	1401 Aug 08 j 08:09	15° \mathring{Q} 12'23	
					1401 Aug 15 j 20:19	0° \mathring{M}	
superior conj	1400 Sep 02 j 17:54	18° \mathring{M} 30'36	1°32'38				
minimum elong	1400 Sep 02 j 21:18	18° \mathring{M} 46'09	1°32'20	superior conj	1401 Aug 16 j 17:38	1° \mathring{M} 42'54	1°43'52
	1400 Sep 09 j 04:50	0° \mathring{A}		minimum elong	1401 Aug 16 j 19:04	1° \mathring{M} 49'46	1°43'48
max. Earth dist.	1400 Sep 10 j 07:10	1° \mathring{A} 53'15	1.40702 AU	max. Earth dist.	1401 Aug 23 j 10:36	14° \mathring{M} 13'17	1.38661 AU
evening rise	1400 Sep 14 j 23:59	9° \mathring{A} 46'26		evening rise	1401 Aug 27 j 07:49	21° \mathring{M} 04'54	
desc. node	1400 Sep 18 j 10:47	15° \mathring{A} 21'51			1401 Sep 01 j 15:00	0° \mathring{A}	
	1400 Sep 27 j 23:11	0° \mathring{M}		desc. node	1401 Sep 05 j 07:48	5° \mathring{A} 56'40	
evening max el	1400 Oct 19 j 07:50	27° \mathring{M} 49'58	23°18'51		1401 Sep 21 j 23:59	0° \mathring{M}	
	1400 Oct 21 j 15:17	0° \mathring{A}		evening max el	1401 Oct 01 j 20:10	11° \mathring{M} 25'48	24°37'59
retrograde	1400 Oct 29 j 17:32	3° \mathring{A} 59'39		retrograde	1401 Oct 13 j 07:37	18° \mathring{M} 07'43	
evening set	1400 Nov 03 j 15:08	1° \mathring{A} 59'12		evening set	1401 Oct 18 j 19:22	15° \mathring{M} 50'19	

min. Earth dist.	1401 Oct 23 j 11:15	10° \mathbb{M} 31'45	0.67443 AU		1402 Aug 07 j 17:02	0° \mathbb{M}	
inferior conj	1401 Oct 24 j 07:09	9° \mathbb{M} 25'25	0°-6'-11	evening rise	1402 Aug 09 j 14:08	3° \mathbb{M} 27'43	
minimum elong	1401 Oct 24 j 07:18	9° \mathbb{M} 24'55	0°06'08	desc. node	1402 Aug 23 j 04:47	26° \mathbb{M} 18'42	
transit middle	1401 Oct 24 j 07:18	9° \mathbb{M} 24'55	0°06'08		1402 Aug 25 j 15:03	0° \mathbb{M}	
transit begin	1401 Oct 24 j 04:46	9° \mathbb{M} 33'24		evening max el	1402 Sep 14 j 08:02	25° \mathbb{M} 04'45	25°49'31
transit end	1401 Oct 24 j 09:51	9° \mathbb{M} 16'27			1402 Sep 20 j 09:12	0° \mathbb{M}	
asc. node	1401 Oct 24 j 14:21	9° \mathbb{M} 01'29		retrograde	1402 Sep 26 j 16:58	2° \mathbb{M} 08'24	
morning rise	1401 Oct 29 j 19:40	3° \mathbb{M} 20'47			1402 Oct 02 j 07:36	30° \mathbb{R} \mathbb{M}	
direct	1401 Nov 02 j 11:00	2° \mathbb{M} 04'40		evening set	1402 Oct 02 j 19:11	29° \mathbb{M} 36'29	
morning max el	1401 Nov 10 j 02:45	6° \mathbb{M} 27'50	20°04'58	min. Earth dist.	1402 Oct 07 j 03:15	24° \mathbb{M} 53'43	0.66806 AU
greatest brilliancy	1401 Nov 17 j 03:36	15° \mathbb{M} 00'08	-0.6m	inferior conj	1402 Oct 08 j 10:07	23° \mathbb{M} 16'01	-1°-2'-48
	1401 Nov 27 j 12:01	0° \mathbb{M}		minimum elong	1402 Oct 08 j 11:44	23° \mathbb{M} 10'52	1°02'07
desc. node	1401 Dec 02 j 07:05	7° \mathbb{M} 16'07		asc. node	1402 Oct 11 j 11:24	19° \mathbb{M} 38'33	
morning set	1401 Dec 06 j 21:42	14° \mathbb{M} 21'00		morning rise	1402 Oct 14 j 05:07	17° \mathbb{M} 20'06	
	1401 Dec 16 j 21:21	0° \mathbb{M}		direct	1402 Oct 17 j 09:33	16° \mathbb{M} 21'41	
max. Earth dist.	1401 Dec 17 j 21:07	1° \mathbb{M} 34'48	1.43852 AU	morning max el	1402 Oct 24 j 09:10	20° \mathbb{M} 16'35	19°06'49
					1402 Nov 01 j 01:30	0° \mathbb{M}	
superior conj	1401 Dec 23 j 08:23	10° \mathbb{M} 25'18	-1°-52'-59	morning set	1402 Nov 16 j 02:44	23° \mathbb{M} 01'30	
minimum elong	1401 Dec 23 j 02:24	10° \mathbb{M} 00'48	1°52'38	desc. node	1402 Nov 19 j 04:05	27° \mathbb{M} 48'00	
	1402 Jan 04 j 00:12	0° \mathbb{M}			1402 Nov 20 j 13:52	0° \mathbb{M}	
evening rise	1402 Jan 05 j 09:48	2° \mathbb{M} 24'35		max. Earth dist.	1402 Nov 30 j 12:29	15° \mathbb{M} 35'30	1.44840 AU
asc. node	1402 Jan 20 j 13:38	26° \mathbb{M} 55'54					
	1402 Jan 23 j 05:28	0° \mathbb{M}		superior conj	1402 Dec 02 j 20:24	19° \mathbb{M} 16'13	-1°-23'-7
evening max el	1402 Jan 23 j 06:06	0° \mathbb{M} 01'36	18°11'52	minimum elong	1402 Dec 02 j 11:42	18° \mathbb{M} 41'51	1°22'13
retrograde	1402 Jan 29 j 17:20	3° \mathbb{M} 27'34			1402 Dec 09 j 13:58	0° \mathbb{M}	
evening set	1402 Feb 01 j 12:58	2° \mathbb{M} 46'44		evening rise	1402 Dec 17 j 18:27	13° \mathbb{M} 17'52	
	1402 Feb 05 j 07:37	30° \mathbb{R} \mathbb{M}			1402 Dec 28 j 00:15	0° \mathbb{M}	
inferior conj	1402 Feb 07 j 18:18	27° \mathbb{M} 29'23	3°45'34	evening max el	1403 Jan 06 j 18:07	13° \mathbb{M} 24'42	18°33'56
minimum elong	1402 Feb 07 j 18:13	27° \mathbb{M} 29'35	3°45'34	asc. node	1403 Jan 07 j 10:41	14° \mathbb{M} 05'15	
min. Earth dist.	1402 Feb 10 j 10:15	24° \mathbb{M} 38'08	0.62960 AU	retrograde	1403 Jan 13 j 08:15	17° \mathbb{M} 03'10	
morning rise	1402 Feb 13 j 21:27	21° \mathbb{M} 27'29		evening set	1403 Jan 16 j 09:17	16° \mathbb{M} 11'18	
direct	1402 Feb 20 j 20:27	18° \mathbb{M} 47'08		inferior conj	1403 Jan 22 j 06:14	10° \mathbb{M} 35'09	3°37'32
desc. node	1402 Feb 28 j 06:15	21° \mathbb{M} 18'34		minimum elong	1403 Jan 22 j 04:38	10° \mathbb{M} 39'53	3°37'21
morning max el	1402 Mar 06 j 18:36	26° \mathbb{M} 42'16	27°46'26	min. Earth dist.	1403 Jan 24 j 06:41	8° \mathbb{M} 11'36	0.64697 AU
	1402 Mar 09 j 21:00	0° \mathbb{M}		morning rise	1403 Jan 27 j 22:42	4° \mathbb{M} 26'18	
	1402 Mar 30 j 14:03	0° \mathbb{M}		direct	1403 Feb 03 j 17:27	1° \mathbb{M} 35'41	
morning set	1402 Apr 09 j 21:36	19° \mathbb{M} 18'58		desc. node	1403 Feb 15 j 03:17	7° \mathbb{M} 28'12	
	1402 Apr 15 j 01:24	0° \mathbb{M}		morning max el	1403 Feb 17 j 03:47	9° \mathbb{M} 24'05	27°16'01
max. Earth dist.	1402 Apr 15 j 08:26	0° \mathbb{M} 37'28	1.32819 AU		1403 Mar 05 j 07:17	0° \mathbb{M}	
					1403 Mar 22 j 22:53	0° \mathbb{M}	
superior conj	1402 Apr 17 j 13:30	5° \mathbb{M} 22'09	0°-10'-17	morning set	1403 Mar 24 j 13:03	3° \mathbb{M} 03'58	
minimum elong	1402 Apr 17 j 14:00	5° \mathbb{M} 24'50	0°10'12	max. Earth dist.	1403 Mar 29 j 06:48	12° \mathbb{M} 33'05	1.33745 AU
behind sun begin	1402 Apr 17 j 09:57	5° \mathbb{M} 02'59					
behind sun end	1402 Apr 17 j 18:03	5° \mathbb{M} 46'41		superior conj	1403 Apr 01 j 17:45	19° \mathbb{M} 45'08	0°-37'-51
asc. node	1402 Apr 18 j 12:56	7° \mathbb{M} 28'47		minimum elong	1403 Apr 01 j 19:38	19° \mathbb{M} 55'04	0°37'29
evening rise	1402 Apr 24 j 14:51	20° \mathbb{M} 35'00		asc. node	1403 Apr 05 j 09:58	27° \mathbb{M} 33'47	
	1402 Apr 29 j 05:11	0° \mathbb{M}			1403 Apr 06 j 13:25	0° \mathbb{M}	
evening max el	1402 May 18 j 05:06	28° \mathbb{M} 23'40	23°36'11	evening rise	1403 Apr 09 j 01:47	5° \mathbb{M} 18'57	
	1402 May 19 j 23:27	0° \mathbb{M}			1403 Apr 22 j 13:56	0° \mathbb{M}	
desc. node	1402 May 27 j 05:27	4° \mathbb{M} 24'59		evening max el	1403 Apr 29 j 22:11	8° \mathbb{M} 57'40	22°01'09
retrograde	1402 May 31 j 21:08	5° \mathbb{M} 14'13		retrograde	1403 May 12 j 14:45	15° \mathbb{M} 12'08	
evening set	1402 Jun 04 j 21:42	4° \mathbb{M} 38'39		desc. node	1403 May 14 j 02:28	15° \mathbb{M} 07'09	
min. Earth dist.	1402 Jun 11 j 15:35	1° \mathbb{M} 29'50	0.56001 AU	evening set	1403 May 15 j 08:39	14° \mathbb{M} 55'23	
inferior conj	1402 Jun 13 j 19:00	0° \mathbb{M} 12'44	-4°-17'-58	min. Earth dist.	1403 May 24 j 03:27	11° \mathbb{M} 10'09	0.55063 AU
minimum elong	1402 Jun 13 j 12:32	0° \mathbb{M} 22'28	4°16'48	inferior conj	1403 May 24 j 17:27	10° \mathbb{M} 50'32	-2°-56'-6
	1402 Jun 14 j 03:28	30° \mathbb{R} \mathbb{M}		minimum elong	1403 May 24 j 10:05	11° \mathbb{M} 00'51	2°53'52
morning rise	1402 Jun 22 j 06:46	26° \mathbb{M} 16'27		morning rise	1403 Jun 02 j 13:03	6° \mathbb{M} 57'14	
direct	1402 Jun 25 j 00:26	25° \mathbb{M} 57'45		direct	1403 Jun 05 j 14:11	6° \mathbb{M} 36'33	
	1402 Jul 04 j 11:41	0° \mathbb{M}		morning max el	1403 Jun 17 j 11:58	12° \mathbb{M} 11'14	21°32'17
morning max el	1402 Jul 05 j 07:07	0° \mathbb{M} 43'20	20°07'40		1403 Jun 30 j 10:28	0° \mathbb{M}	
asc. node	1402 Jul 15 j 12:10	14° \mathbb{M} 28'13		asc. node	1403 Jul 02 j 09:12	3° \mathbb{M} 34'43	
morning set	1402 Jul 23 j 12:26	29° \mathbb{M} 44'56		morning set	1403 Jul 07 j 21:09	14° \mathbb{M} 31'48	
	1402 Jul 23 j 15:24	0° \mathbb{M}					
superior conj	1402 Jul 31 j 07:02	15° \mathbb{M} 36'29	1°45'56	superior conj	1403 Jul 15 j 06:00	29° \mathbb{M} 59'24	1°40'39
minimum elong	1402 Jul 31 j 06:41	15° \mathbb{M} 34'43	1°45'56	minimum elong	1403 Jul 15 j 04:23	29° \mathbb{M} 51'01	1°40'34
					1403 Jul 15 j 06:07	0° \mathbb{M}	
max. Earth dist.	1402 Aug 05 j 15:34	26° \mathbb{M} 06'49	1.36715 AU	max. Earth dist.	1403 Jul 19 j 03:50	8° \mathbb{M} 00'24	1.35046 AU

evening rise	1403 Jul 23 j 14:19	16°Ω42'49			1404 Jul 05 j 20:21	0°Ω	
	1403 Jul 30 j 21:40	0°ྐ		evening rise	1404 Jul 06 j 03:47	0°Ω36'58	
desc. node	1403 Aug 10 j 01:47	16°ྐ21'52			1404 Jul 22 j 21:40	0°ྐ	
	1403 Aug 20 j 00:37	0°Ω		desc. node	1404 Jul 26 j 22:49	5°ྐ57'17	
evening max el	1403 Aug 27 j 20:18	8°Ω41'18	26°45'42	evening max el	1404 Aug 09 j 08:04	22°ྐ03'54	27°19'11
retrograde	1403 Sep 09 j 21:02	15°Ω56'09		retrograde	1404 Aug 22 j 19:23	29°ྐ22'27	
evening set	1403 Sep 16 j 12:32	13°Ω14'39		evening set	1404 Aug 29 j 20:50	26°ྐ39'40	
min. Earth dist.	1403 Sep 20 j 13:16	9°Ω09'08	0.65827 AU	min. Earth dist.	1404 Sep 02 j 14:59	23°ྐ10'31	0.64484 AU
inferior conj	1403 Sep 22 j 08:02	7°Ω03'03	-2°00'32	inferior conj	1404 Sep 04 j 22:34	20°ྐ40'56	-2°-57'-9
minimum elong	1403 Sep 22 j 11:12	6°Ω53'41	1°59'18	minimum elong	1404 Sep 05 j 03:05	20°ྐ28'44	2°55'39
morning rise	1403 Sep 28 j 11:12	1°Ω19'07		morning rise	1404 Sep 11 j 11:17	15°ྐ12'22	
asc. node	1403 Sep 28 j 08:26	1°Ω22'47		direct	1404 Sep 14 j 00:55	14°ྐ38'20	
direct	1403 Oct 01 j 07:02	0°Ω34'40		asc. node	1404 Sep 14 j 05:28	14°ྐ38'31	
morning max el	1403 Oct 07 j 21:28	4°Ω11'11	18°24'42	morning max el	1404 Sep 20 j 13:02	18°ྐ05'24	17°59'31
	1403 Oct 25 j 12:41	0°ྐ			1404 Sep 29 j 05:52	0°Ω	
morning set	1403 Oct 27 j 10:16	3°ྐ04'07		morning set	1404 Oct 07 j 22:14	14°Ω29'55	
desc. node	1403 Nov 06 j 01:06	18°ྐ28'40			1404 Oct 17 j 05:15	0°ྐ	
superior conj	1403 Nov 11 j 21:22	27°ྐ42'38	0°-38'-13	superior conj	1404 Oct 21 j 09:03	6°ྐ45'22	0°10'22
minimum elong	1403 Nov 11 j 16:24	27°ྐ23'06	0°37'35	minimum elong	1404 Oct 21 j 10:16	6°ྐ50'17	0°10'12
	1403 Nov 13 j 08:18	0°Ω		behind sun begin	1404 Oct 21 j 02:07	6°ྐ17'27	
max. Earth dist.	1403 Nov 13 j 07:31	29°ྐ56'54	1.45111 AU	behind sun end	1404 Oct 21 j 18:25	7°ྐ23'04	
evening rise	1403 Nov 28 j 03:39	23°Ω14'35		desc. node	1404 Oct 22 j 22:07	9°ྐ14'17	
	1403 Dec 02 j 10:40	0°Ω		max. Earth dist.	1404 Oct 26 j 02:19	14°ྐ17'40	1.44639 AU
greatest brilliancy	1403 Dec 11 j 06:37	13°Ω43'00	-0.7m		1404 Nov 05 j 03:28	0°Ω	
evening max el	1403 Dec 21 j 03:19	26°Ω52'04	19°13'21	evening rise	1404 Nov 06 j 17:42	2°Ω27'32	
asc. node	1403 Dec 25 j 07:43	0°Ω09'21			1404 Nov 25 j 02:25	0°Ω	
	1403 Dec 25 j 00:34	0°Ω		greatest brilliancy	1404 Nov 26 j 14:52	2°Ω06'32	-0.6m
retrograde	1403 Dec 28 j 04:00	0°Ω53'25		evening max el	1404 Dec 03 j 07:51	10°Ω20'45	20°08'21
evening set	1403 Dec 31 j 11:34	29°Ω49'17		retrograde	1404 Dec 11 j 01:45	14°Ω53'31	
	1403 Dec 31 j 04:36	30°RΩ		asc. node	1404 Dec 11 j 04:45	14°Ω53'25	
inferior conj	1404 Jan 06 j 02:46	23°Ω56'34	3°15'43	evening set	1404 Dec 14 j 17:30	13°Ω35'37	
minimum elong	1404 Jan 06 j 00:20	24°Ω04'23	3°15'13	inferior conj	1404 Dec 20 j 05:06	7°Ω29'21	2°43'31
min. Earth dist.	1404 Jan 07 j 12:04	22°Ω10'08	0.66047 AU	minimum elong	1404 Dec 20 j 02:26	7°Ω38'22	2°42'45
morning rise	1404 Jan 11 j 12:15	17°Ω43'34		min. Earth dist.	1404 Dec 21 j 00:49	6°Ω23'07	0.66995 AU
direct	1404 Jan 17 j 20:40	14°Ω56'35		morning rise	1404 Dec 25 j 10:48	1°Ω14'13	
morning max el	1404 Jan 30 j 13:25	22°Ω26'46	26°17'05		1404 Dec 27 j 01:10	30°RΩ	
desc. node	1404 Feb 02 j 00:20	25°Ω02'37		direct	1404 Dec 31 j 05:25	28°Ω41'09	
	1404 Feb 06 j 05:20	0°Ω			1405 Jan 04 j 20:06	0°Ω	
	1404 Feb 26 j 13:47	0°Ω		morning max el	1405 Jan 11 j 22:12	5°Ω39'41	24°58'45
morning set	1404 Mar 06 j 15:58	16°Ω07'14		desc. node	1405 Jan 18 j 21:22	13°Ω37'10	
max. Earth dist.	1404 Mar 10 j 17:58	23°Ω55'53	1.35123 AU		1405 Jan 30 j 18:04	0°Ω	
	1404 Mar 13 j 19:18	0°Ω		morning set	1405 Feb 17 j 01:19	28°Ω14'41	
superior conj	1404 Mar 15 j 15:14	3°Ω42'56	-1°-5'-10		1405 Feb 18 j 00:50	0°Ω	
minimum elong	1404 Mar 15 j 18:26	3°Ω59'19	1°04'37	max. Earth dist.	1405 Feb 20 j 18:16	4°Ω58'36	1.36920 AU
asc. node	1404 Mar 22 j 07:00	17°Ω30'04		superior conj	1405 Feb 27 j 03:01	17°Ω07'27	-1°-30'-21
evening rise	1404 Mar 23 j 09:53	19°Ω48'50		minimum elong	1405 Feb 27 j 07:06	17°Ω27'28	1°29'50
	1404 Mar 28 j 12:33	0°Ω			1405 Mar 05 j 13:37	0°Ω	
evening max el	1404 Apr 11 j 00:34	19°Ω57'32	20°36'40	evening rise	1405 Mar 07 j 12:55	3°Ω58'00	
retrograde	1404 Apr 22 j 03:47	25°Ω21'25		asc. node	1405 Mar 09 j 04:03	7°Ω13'08	
evening set	1404 Apr 24 j 06:42	25°Ω10'27			1405 Mar 23 j 01:33	0°Ω	
desc. node	1404 Apr 29 j 23:31	23°Ω08'36		evening max el	1405 Mar 24 j 14:39	1°Ω36'36	19°29'41
inferior conj	1404 May 03 j 11:35	21°Ω12'49	-1°00'-59	retrograde	1405 Apr 03 j 00:52	6°Ω09'26	
minimum elong	1404 May 03 j 08:41	21°Ω16'58	0°59'56	evening set	1405 Apr 05 j 02:38	5°Ω57'12	
min. Earth dist.	1404 May 04 j 16:06	20°Ω31'45	0.55047 AU	inferior conj	1405 Apr 13 j 16:00	1°Ω51'31	0°54'21
morning rise	1404 May 12 j 09:20	17°Ω03'10		minimum elong	1405 Apr 13 j 18:14	1°Ω47'55	0°53'34
direct	1404 May 16 j 00:29	16°Ω34'46		min. Earth dist.	1405 Apr 16 j 06:43	0°Ω10'52	0.55966 AU
morning max el	1404 May 29 j 07:19	23°Ω00'15	23°10'49	desc. node	1405 Apr 16 j 20:34	29°Ω49'26	
	1404 Jun 04 j 12:14	0°Ω			1405 Apr 16 j 13:41	30°RΩ	
asc. node	1404 Jun 18 j 06:14	23°Ω05'57		morning rise	1405 Apr 22 j 06:05	27°Ω10'01	
morning set	1404 Jun 21 j 08:19	29°Ω26'40		direct	1405 Apr 26 j 19:53	26°Ω22'40	
	1404 Jun 21 j 14:39	0°Ω			1405 May 06 j 17:26	0°Ω	
superior conj	1404 Jun 28 j 11:24	14°Ω41'39	1°29'30	morning max el	1405 May 10 j 22:11	3°Ω29'51	24°51'54
minimum elong	1404 Jun 28 j 09:07	14°Ω29'26	1°29'15		1405 May 29 j 14:28	0°Ω	
max. Earth dist.	1404 Jul 01 j 01:20	20°Ω10'20	1.33751 AU	asc. node	1405 Jun 05 j 03:18	12°Ω55'18	
				morning set	1405 Jun 05 j 20:16	14°Ω24'23	

superior conj	1405 Jun 12 j 20:52	29° Π 35'51	1°13'35	superior conj	1406 May 28 j 08:18	14° Π 33'47	0°53'43
minimum elong	1405 Jun 12 j 18:27	29° Π 22'40	1°13'12	minimum elong	1406 May 28 j 06:13	14° Π 22'22	0°53'19
	1405 Jun 13 j 01:18	0° \mathfrak{S}		max. Earth dist.	1406 May 28 j 17:46	15° Π 25'46	1.32353 AU
max. Earth dist.	1405 Jun 14 j 06:59	2° \mathfrak{S} 41'07	1.32858 AU	evening rise	1406 Jun 04 j 08:16	29° Π 39'52	
evening rise	1405 Jun 20 j 02:49	14° \mathfrak{S} 59'33			1406 Jun 04 j 12:08	0° \mathfrak{S}	
	1405 Jun 27 j 21:23	0° Ω			1406 Jun 21 j 01:52	0° Ω	
desc. node	1405 Jul 13 j 19:51	24° Ω 53'17		desc. node	1406 Jun 30 j 16:53	12° Ω 52'36	
	1405 Jul 17 j 23:34	0° \mathfrak{M}		evening max el	1406 Jul 04 j 22:18	17° Ω 18'41	26°55'41
evening max el	1405 Jul 22 j 17:33	5° \mathfrak{M} 00'30	27°23'45	retrograde	1406 Jul 18 j 20:49	24° Ω 33'14	
retrograde	1405 Aug 05 j 11:44	12° \mathfrak{M} 18'09		evening set	1406 Jul 25 j 19:44	22° Ω 25'33	
evening set	1405 Aug 12 j 16:41	9° \mathfrak{M} 45'57		min. Earth dist.	1406 Jul 29 j 12:27	19° Ω 46'05	0.60836 AU
min. Earth dist.	1405 Aug 16 j 06:51	6° \mathfrak{M} 47'33	0.62797 AU	inferior conj	1406 Aug 01 j 17:49	17° Ω 02'02	-4°-30'-58
inferior conj	1405 Aug 19 j 02:56	4° \mathfrak{M} 03'27	-3°-49'-11	minimum elong	1406 Aug 01 j 22:12	16° Ω 52'42	4°30'17
minimum elong	1405 Aug 19 j 08:07	3° \mathfrak{M} 50'55	3°47'51	morning rise	1406 Aug 09 j 03:46	12° Ω 13'24	
	1405 Aug 23 j 21:59	30° \mathfrak{R} Ω		direct	1406 Aug 11 j 13:04	11° Ω 50'53	
morning rise	1405 Aug 26 j 02:07	28° Ω 53'29		asc. node	1406 Aug 18 j 23:34	15° Ω 37'54	
direct	1405 Aug 28 j 12:11	28° Ω 26'33		morning max el	1406 Aug 18 j 18:08	15° Ω 24'35	18°03'31
asc. node	1405 Sep 01 j 02:31	29° Ω 27'26			1406 Aug 28 j 21:01	0° \mathfrak{M}	
	1405 Sep 01 j 23:23	0° \mathfrak{M}		morning set	1406 Sep 03 j 13:34	10° \mathfrak{M} 23'19	
morning max el	1405 Sep 04 j 04:58	1° \mathfrak{M} 52'37	17°52'06				
morning set	1405 Sep 20 j 09:22	27° \mathfrak{M} 02'11		superior conj	1406 Sep 13 j 13:16	28° \mathfrak{M} 39'31	1°21'13
	1405 Sep 22 j 01:29	0° \mathfrak{A}		minimum elong	1406 Sep 13 j 17:34	28° \mathfrak{M} 58'37	1°20'45
					1406 Sep 14 j 07:27	0° \mathfrak{A}	
superior conj	1405 Oct 01 j 21:49	17° \mathfrak{A} 03'16	0°51'45	max. Earth dist.	1406 Sep 21 j 03:56	11° \mathfrak{A} 46'13	1.41822 AU
minimum elong	1405 Oct 02 j 02:16	17° \mathfrak{A} 21'58	0°51'10	evening rise	1406 Sep 26 j 21:13	21° \mathfrak{A} 07'30	
max. Earth dist.	1405 Oct 08 j 17:40	28° \mathfrak{A} 18'56	1.43493 AU	desc. node	1406 Sep 26 j 16:12	20° \mathfrak{A} 47'23	
desc. node	1405 Oct 09 j 19:10	0° \mathfrak{M} 01'40			1406 Oct 02 j 12:53	0° \mathfrak{M}	
	1405 Oct 09 j 18:45	0° \mathfrak{M}			1406 Oct 23 j 14:38	0° \mathfrak{A}	
evening rise	1405 Oct 17 j 01:47	11° \mathfrak{M} 30'30		greatest brilliancy	1406 Oct 25 j 04:59	1° \mathfrak{A} 58'31	-0.3m
	1405 Oct 29 j 07:23	0° \mathfrak{A}		evening max el	1406 Oct 30 j 00:26	7° \mathfrak{A} 22'11	22°32'56
greatest brilliancy	1405 Nov 11 j 03:07	17° \mathfrak{A} 52'05	-0.4m	retrograde	1406 Nov 08 j 18:50	13° \mathfrak{A} 10'26	
evening max el	1405 Nov 16 j 06:47	23° \mathfrak{A} 50'26	21°16'12	evening set	1406 Nov 13 j 08:41	11° \mathfrak{A} 20'18	
retrograde	1405 Nov 24 j 23:18	29° \mathfrak{A} 00'07		asc. node	1406 Nov 14 j 22:49	9° \mathfrak{A} 49'47	
asc. node	1405 Nov 28 j 01:48	28° \mathfrak{A} 06'25		inferior conj	1406 Nov 18 j 18:14	4° \mathfrak{A} 57'37	1°16'44
evening set	1405 Nov 29 j 01:06	27° \mathfrak{A} 26'52		minimum elong	1406 Nov 18 j 16:33	5° \mathfrak{A} 03'26	1°16'04
inferior conj	1405 Dec 04 j 10:55	21° \mathfrak{A} 10'30	2°03'17	min. Earth dist.	1406 Nov 18 j 14:56	5° \mathfrak{A} 09'01	0.67783 AU
minimum elong	1405 Dec 04 j 08:32	21° \mathfrak{A} 18'45	2°02'27		1406 Nov 22 j 16:11	30° \mathfrak{R} \mathfrak{M}	
min. Earth dist.	1405 Dec 04 j 18:35	20° \mathfrak{A} 44'02	0.67566 AU	morning rise	1406 Nov 24 j 00:18	28° \mathfrak{M} 44'39	
morning rise	1405 Dec 09 j 15:36	14° \mathfrak{A} 55'18		direct	1406 Nov 28 j 12:52	26° \mathfrak{M} 54'20	
direct	1405 Dec 14 j 19:08	12° \mathfrak{A} 42'20			1406 Dec 05 j 05:38	0° \mathfrak{A}	
morning max el	1405 Dec 25 j 06:57	18° \mathfrak{A} 57'20	23°31'10	morning max el	1406 Dec 07 j 18:52	2° \mathfrak{A} 21'15	22°04'08
	1406 Jan 03 j 14:19	0° \mathfrak{B}		greatest brilliancy	1406 Dec 12 j 11:13	7° \mathfrak{A} 37'15	-0.4m
desc. node	1406 Jan 05 j 18:25	2° \mathfrak{B} 54'33		desc. node	1406 Dec 23 j 15:28	22° \mathfrak{A} 42'48	
	1406 Jan 23 j 21:50	0° \mathfrak{A}			1406 Dec 28 j 14:37	0° \mathfrak{B}	
morning set	1406 Jan 29 j 10:46	9° \mathfrak{A} 08'58		morning set	1407 Jan 09 j 15:22	18° \mathfrak{B} 39'29	
max. Earth dist.	1406 Feb 02 j 12:58	16° \mathfrak{A} 11'42	1.39012 AU	max. Earth dist.	1407 Jan 15 j 10:30	28° \mathfrak{B} 10'42	1.41144 AU
					1407 Jan 16 j 12:30	0° \mathfrak{A}	
superior conj	1406 Feb 10 j 01:10	29° \mathfrak{A} 48'06	-1°-50'-47				
minimum elong	1406 Feb 10 j 05:02	0° \mathfrak{H} 06'09	1°50'30	superior conj	1407 Jan 23 j 04:55	11° \mathfrak{A} 33'56	-2°-2'-44
	1406 Feb 10 j 03:43	0° \mathfrak{H}		minimum elong	1407 Jan 23 j 06:35	11° \mathfrak{A} 41'22	2°02'43
evening rise	1406 Feb 19 j 08:09	17° \mathfrak{H} 38'20			1407 Feb 02 j 07:06	0° \mathfrak{H}	
asc. node	1406 Feb 24 j 01:07	26° \mathfrak{H} 36'54		evening rise	1407 Feb 02 j 16:18	0° \mathfrak{H} 42'46	
	1406 Feb 25 j 21:48	0° \mathfrak{Y}		asc. node	1407 Feb 10 j 22:10	15° \mathfrak{H} 35'17	
evening max el	1406 Mar 07 j 14:55	13° \mathfrak{Y} 52'24	18°42'23	evening max el	1407 Feb 18 j 22:26	26° \mathfrak{H} 37'53	18°15'05
retrograde	1406 Mar 15 j 14:40	17° \mathfrak{Y} 45'58			1407 Feb 24 j 12:56	0° \mathfrak{Y}	
evening set	1406 Mar 17 j 21:17	17° \mathfrak{Y} 28'12		retrograde	1407 Feb 25 j 23:11	0° \mathfrak{Y} 08'44	
inferior conj	1406 Mar 25 j 15:41	13° \mathfrak{Y} 05'00	2°23'03		1407 Feb 27 j 09:52	30° \mathfrak{R} \mathfrak{H}	
minimum elong	1406 Mar 25 j 19:48	12° \mathfrak{Y} 57'17	2°21'56	evening set	1407 Feb 28 j 11:17	29° \mathfrak{H} 42'53	
min. Earth dist.	1406 Mar 29 j 00:01	10° \mathfrak{Y} 35'27	0.57630 AU	inferior conj	1407 Mar 07 j 12:27	24° \mathfrak{H} 58'19	3°17'26
morning rise	1406 Apr 02 j 13:58	7° \mathfrak{Y} 50'26		minimum elong	1407 Mar 07 j 15:34	24° \mathfrak{H} 51'31	3°16'55
desc. node	1406 Apr 03 j 17:37	7° \mathfrak{Y} 21'48		min. Earth dist.	1407 Mar 10 j 22:00	22° \mathfrak{H} 01'18	0.59703 AU
direct	1406 Apr 08 j 05:34	6° \mathfrak{Y} 31'23		morning rise	1407 Mar 14 j 16:18	19° \mathfrak{H} 18'49	
morning max el	1406 Apr 22 j 14:10	14° \mathfrak{Y} 04'59	26°20'28	direct	1407 Mar 21 j 03:58	17° \mathfrak{H} 22'55	
	1406 May 05 j 05:53	0° \mathfrak{B}		desc. node	1407 Mar 21 j 14:39	17° \mathfrak{H} 23'27	
morning set	1406 May 21 j 07:18	29° \mathfrak{B} 18'04		morning max el	1407 Apr 04 j 11:25	25° \mathfrak{H} 10'06	27°22'11
	1406 May 21 j 15:16	0° \mathfrak{H}			1407 Apr 08 j 22:21	0° \mathfrak{Y}	
asc. node	1406 May 23 j 00:21	2° \mathfrak{H} 56'05			1407 Apr 28 j 13:01	0° \mathfrak{B}	

morning set	1407 May 05 j 15:44	14°♄02'01		morning max el	1408 Mar 16 j 15:00	6°♄56'51	27°48'24
asc. node	1407 May 09 j 21:25	23°♄03'35			1408 Apr 03 j 03:12	0°♄	
				morning set	1408 Apr 18 j 19:36	28°♄29'55	
superior conj	1407 May 12 j 19:59	29°♄29'33	0°30'41		1408 Apr 19 j 13:10	0°♄	
minimum elong	1407 May 12 j 18:39	29°♄22'15	0°30'23	max. Earth dist.	1408 Apr 24 j 16:20	10°♄51'41	1.32487 AU
max. Earth dist.	1407 May 12 j 06:08	28°♄13'30	1.32229 AU	asc. node	1408 Apr 25 j 18:29	13°♄13'32	
	1407 May 13 j 01:31	0°♄					
evening rise	1407 May 19 j 17:46	14°♄30'01		superior conj	1408 Apr 26 j 06:13	14°♄17'24	0°05'11
	1407 May 27 j 12:57	0°♄		minimum elong	1408 Apr 26 j 05:58	14°♄16'04	0°05'08
evening max el	1407 Jun 16 j 20:19	28°♄50'52	25°55'34	behind sun begin	1408 Apr 26 j 01:06	13°♄49'31	
desc. node	1407 Jun 17 j 13:54	29°♄31'55		behind sun end	1408 Apr 26 j 10:51	14°♄42'39	
	1407 Jun 18 j 02:23	0°♄		evening rise	1408 May 03 j 05:18	29°♄23'04	
retrograde	1407 Jun 30 j 20:46	6°♄01'13			1408 May 03 j 12:16	0°♄	
evening set	1407 Jul 07 j 01:15	4°♄29'21			1408 May 20 j 07:46	0°♄	
min. Earth dist.	1407 Jul 11 j 08:51	1°♄51'54	0.58773 AU	evening max el	1408 May 28 j 11:57	9°♄41'09	24°30'49
	1407 Jul 13 j 21:54	30°♄		desc. node	1408 Jun 03 j 10:55	14°♄19'52	
inferior conj	1407 Jul 14 j 15:37	29°♄27'02	-4°-53'-23	retrograde	1408 Jun 11 j 09:39	16°♄42'55	
minimum elong	1407 Jul 14 j 16:53	29°♄24'41	4°53'22	evening set	1408 Jun 16 j 07:15	15°♄49'02	
morning rise	1407 Jul 22 j 12:03	25°♄01'25		min. Earth dist.	1408 Jun 21 j 23:00	12°♄56'01	0.56876 AU
direct	1407 Jul 24 j 23:21	24°♄41'15		inferior conj	1408 Jun 24 j 17:32	11°♄09'39	-4°-43'-33
morning max el	1407 Aug 02 j 01:25	28°♄32'37	18°35'06	minimum elong	1408 Jun 24 j 13:44	11°♄15'47	4°43'11
	1407 Aug 03 j 11:28	0°♄		morning rise	1408 Jul 02 j 23:56	7°♄05'18	
asc. node	1407 Aug 05 j 20:37	2°♄54'53		direct	1408 Jul 05 j 15:02	6°♄46'20	
morning set	1407 Aug 18 j 05:51	24°♄19'53		morning max el	1408 Jul 14 j 23:53	11°♄07'46	19°27'54
	1407 Aug 21 j 04:03	0°♄		asc. node	1408 Jul 22 j 17:41	21°♄03'59	
					1408 Jul 27 j 19:42	0°♄	
superior conj	1407 Aug 27 j 02:50	11°♄21'20	1°38'38	morning set	1408 Aug 01 j 06:37	8°♄42'12	
minimum elong	1407 Aug 27 j 05:25	11°♄33'23	1°38'28				
max. Earth dist.	1407 Sep 03 j 09:31	24°♄32'02	1.39845 AU	superior conj	1408 Aug 09 j 09:00	24°♄53'37	1°45'44
	1407 Sep 06 j 13:41	0°♄		minimum elong	1408 Aug 09 j 09:37	24°♄56'40	1°45'44
evening rise	1407 Sep 07 j 15:00	1°♄46'45			1408 Aug 12 j 00:12	0°♄	
desc. node	1407 Sep 13 j 13:12	11°♄27'32		max. Earth dist.	1408 Aug 15 j 13:26	6°♄40'52	1.37809 AU
	1407 Sep 25 j 20:55	0°♄		evening rise	1408 Aug 19 j 08:54	13°♄34'16	
evening max el	1407 Oct 12 j 14:13	20°♄56'48	23°53'00		1408 Aug 29 j 04:11	0°♄	
retrograde	1407 Oct 23 j 11:02	27°♄20'30		desc. node	1408 Aug 30 j 10:13	1°♄58'15	
evening set	1407 Oct 28 j 14:35	25°♄12'50			1408 Sep 19 j 19:13	0°♄	
asc. node	1407 Nov 01 j 19:52	20°♄26'56		evening max el	1408 Sep 24 j 02:12	4°♄34'56	25°09'40
min. Earth dist.	1407 Nov 02 j 11:23	19°♄34'41	0.67668 AU	retrograde	1408 Oct 05 j 23:05	11°♄26'56	
inferior conj	1407 Nov 03 j 01:13	18°♄47'45	0°25'12	evening set	1408 Oct 11 j 17:11	9°♄02'43	
minimum elong	1407 Nov 03 j 00:36	18°♄49'47	0°24'57	min. Earth dist.	1408 Oct 16 j 05:38	3°♄59'27	0.67224 AU
morning rise	1407 Nov 08 j 10:49	12°♄39'27		inferior conj	1408 Oct 17 j 06:10	2°♄39'18	0°-29'-55
direct	1407 Nov 12 j 09:29	11°♄11'27		minimum elong	1408 Oct 17 j 06:56	2°♄36'50	0°29'37
morning max el	1407 Nov 20 j 13:18	15°♄54'47	20°44'57	asc. node	1408 Oct 18 j 16:53	0°♄47'52	
greatest brilliancy	1407 Nov 26 j 09:58	22°♄46'38	-0.5m		1408 Oct 19 j 08:35	30°♄	
	1407 Dec 01 j 17:14	0°♄		morning rise	1408 Oct 22 j 21:16	26°♄38'17	
desc. node	1407 Dec 10 j 12:28	12°♄52'39		direct	1408 Oct 26 j 07:43	25°♄30'10	
morning set	1407 Dec 19 j 18:31	27°♄01'06		morning max el	1408 Nov 02 j 15:40	29°♄39'37	19°38'20
	1407 Dec 21 j 16:18	0°♄			1408 Nov 02 j 23:39	0°♄	
max. Earth dist.	1407 Dec 28 j 15:47	11°♄07'19	1.43011 AU	greatest brilliancy	1408 Nov 10 j 20:55	9°♄57'35	-0.6m
					1408 Nov 24 j 06:01	0°♄	
superior conj	1408 Jan 04 j 08:49	22°♄11'40	-2°-1'-31	desc. node	1408 Nov 26 j 09:29	3°♄18'14	
minimum elong	1408 Jan 04 j 05:55	21°♄59'26	2°01'26	morning set	1408 Nov 27 j 15:33	5°♄14'21	
	1408 Jan 08 j 22:50	0°♄		max. Earth dist.	1408 Dec 10 j 04:19	24°♄50'26	1.44364 AU
evening rise	1408 Jan 16 j 09:19	13°♄02'21			1408 Dec 13 j 09:58	0°♄	
	1408 Jan 26 j 04:40	0°♄					
asc. node	1408 Jan 28 j 19:11	3°♄59'45		superior conj	1408 Dec 14 j 10:09	1°♄37'01	-1°-42'-35
evening max el	1408 Feb 02 j 09:54	9°♄43'31	18°07'28	minimum elong	1408 Dec 14 j 02:20	1°♄05'39	1°41'57
retrograde	1408 Feb 08 j 23:10	13°♄07'28		evening rise	1408 Dec 28 j 06:55	24°♄29'21	
evening set	1408 Feb 11 j 16:06	12°♄32'16			1408 Dec 31 j 13:14	0°♄	
inferior conj	1408 Feb 18 j 03:37	7°♄26'12	3°42'03	asc. node	1409 Jan 14 j 16:13	21°♄40'09	
minimum elong	1408 Feb 18 j 04:40	7°♄23'32	3°41'59	evening max el	1409 Jan 15 j 22:25	23°♄01'53	18°18'58
min. Earth dist.	1408 Feb 21 j 03:28	4°♄26'44	0.61826 AU	retrograde	1409 Jan 22 j 09:57	26°♄32'05	
morning rise	1408 Feb 24 j 14:45	1°♄30'30		evening set	1409 Jan 25 j 07:45	25°♄46'41	
	1408 Feb 27 j 05:18	30°♄		inferior conj	1409 Jan 31 j 09:07	20°♄20'47	3°44'07
direct	1408 Mar 02 j 12:22	29°♄03'13		minimum elong	1409 Jan 31 j 08:19	20°♄23'03	3°44'04
desc. node	1408 Mar 07 j 11:40	0°♄11'25		min. Earth dist.	1409 Feb 02 j 18:27	17°♄39'50	0.63743 AU
	1408 Mar 07 j 00:51	0°♄		morning rise	1409 Feb 06 j 07:14	14°♄15'15	

direct	1409 Feb 13 j 05:09	11° \approx 29'00		1410 Feb 06 j 23:40	0° \approx	
desc. node	1409 Feb 22 j 08:42	15° \approx 18'07		desc. node	1410 Feb 09 j 05:44	2° \approx 07'52
morning max el	1409 Feb 26 j 23:11	19° \approx 22'39	27°37'31	morning max el	1410 Feb 09 j 08:59	2° \approx 16'01 26°53'53
	1409 Mar 08 j 00:32	0° X			1410 Mar 02 j 05:13	0° X
	1409 Mar 27 j 01:50	0° Y		morning set	1410 Mar 17 j 03:09	26° X 03'19
morning set	1409 Apr 02 j 16:27	12° Y 33'36			1410 Mar 19 j 04:00	0° Y
max. Earth dist.	1409 Apr 07 j 20:11	23° Y 06'20	1.33157 AU	max. Earth dist.	1410 Mar 21 j 13:57	4° Y 47'55 1.34271 AU
superior conj	1409 Apr 10 j 13:12	28° Y 51'17	0°-21'-56	superior conj	1410 Mar 25 j 14:55	13° Y 04'59 0°-49'-35
minimum elong	1409 Apr 10 j 14:17	28° Y 57'03	0°21'43	minimum elong	1410 Mar 25 j 17:23	13° Y 17'51 0°49'06
	1409 Apr 11 j 02:02	0° Z		asc. node	1410 Mar 30 j 12:33	23° Y 23'50
asc. node	1409 Apr 12 j 15:31	3° Z 21'35		evening rise	1410 Apr 02 j 02:59	28° Y 51'18
evening rise	1409 Apr 17 j 16:59	14° Z 12'10			1410 Apr 02 j 16:13	0° Z
	1409 Apr 25 j 16:47	0° II			1410 Apr 21 j 01:02	0° II
evening max el	1409 May 10 j 02:06	20° II 11'14	22°55'09	evening max el	1410 Apr 21 j 22:34	0° II 53'59 21°23'26
desc. node	1409 May 21 j 07:57	26° II 39'39		retrograde	1410 May 04 j 00:56	6° II 48'21
retrograde	1409 May 23 j 10:16	26° II 49'41		evening set	1410 May 06 j 10:01	6° II 35'24
evening set	1409 May 26 j 20:25	26° II 23'57		desc. node	1410 May 08 j 04:57	6° II 09'39
min. Earth dist.	1409 Jun 03 j 10:58	23° II 01'17	0.55490 AU	inferior conj	1410 May 15 j 19:02	2° II 35'40 -2°-9'-37
inferior conj	1409 Jun 05 j 00:08	22° II 07'37	-3°-48'-49	minimum elong	1410 May 15 j 13:07	2° II 43'59 2°07'37
minimum elong	1409 Jun 04 j 16:34	22° II 18'35	3°47'01	min. Earth dist.	1410 May 15 j 23:26	2° II 29'30 0.54931 AU
morning rise	1409 Jun 13 j 15:39	18° II 15'10			1410 May 20 j 17:42	30° RZ
direct	1409 Jun 16 j 11:49	17° II 56'12		morning rise	1410 May 24 j 16:30	28° Z 37'27
morning max el	1409 Jun 27 j 11:23	23° II 01'26	20°41'39	direct	1410 May 27 j 22:17	28° Z 14'36
	1409 Jul 03 j 11:11	0° S			1410 Jun 03 j 17:14	0° II
asc. node	1409 Jul 09 j 14:43	9° S 52'15		morning max el	1410 Jun 09 j 11:55	4° II 12'05 22°13'04
morning set	1409 Jul 16 j 13:03	23° S 21'35		asc. node	1410 Jun 26 j 11:47	29° II 10'15
	1409 Jul 19 j 18:05	0° Q			1410 Jun 26 j 21:59	0° S
				morning set	1410 Jun 30 j 22:59	8° S 12'10
superior conj	1409 Jul 24 j 02:56	9° Q 01'17	1°44'30	superior conj	1410 Jul 08 j 04:58	23° S 33'27 1°36'35
minimum elong	1409 Jul 24 j 01:58	8° Q 56'24	1°44'29	minimum elong	1410 Jul 08 j 03:00	23° S 23'05 1°36'25
max. Earth dist.	1409 Jul 28 j 20:46	18° Q 30'36	1.35955 AU		1410 Jul 11 j 07:06	0° Q
evening rise	1409 Aug 01 j 23:22	26° Q 20'43			1410 Jul 11 j 12:30	0° Q 27'44 1.34442 AU
	1409 Aug 03 j 23:07	0° P		max. Earth dist.	1410 Jul 16 j 05:44	9° Q 53'52
desc. node	1409 Aug 17 j 07:15	22° P 13'24		evening rise	1410 Jul 27 j 10:04	0° P
	1409 Aug 22 j 14:26	0° A		desc. node	1410 Aug 04 j 04:17	12° P 05'50
evening max el	1409 Sep 06 j 13:58	18° A 13'11	26°15'37		1410 Aug 18 j 08:00	0° A
retrograde	1409 Sep 19 j 06:24	25° A 23'29		evening max el	1410 Aug 20 j 02:08	1° A 44'56 27°03'10
evening set	1409 Sep 25 j 14:34	22° A 46'22		retrograde	1410 Sep 02 j 08:20	9° A 02'53
min. Earth dist.	1409 Sep 29 j 19:20	18° A 19'33	0.66434 AU	evening set	1410 Sep 09 j 04:27	6° A 19'39
inferior conj	1409 Oct 01 j 07:15	16° A 28'58	-1°-27'-14	min. Earth dist.	1410 Sep 13 j 02:11	2° A 29'44 0.65292 AU
minimum elong	1409 Oct 01 j 09:32	16° A 21'56	1°26'19	inferior conj	1410 Sep 15 j 02:20	0° A 12'45 -2°-24'-53
asc. node	1409 Oct 05 j 13:55	11° A 48'45		minimum elong	1410 Sep 15 j 06:07	0° A 01'56 2°23'29
morning rise	1409 Oct 07 j 05:34	10° A 37'59			1410 Sep 15 j 06:48	30° R P
direct	1409 Oct 10 j 05:57	9° A 46'09		morning rise	1410 Sep 21 j 09:24	24° P 34'50
morning max el	1409 Oct 17 j 00:58	13° A 32'13	18°46'53	asc. node	1410 Sep 22 j 10:58	24° P 09'55
	1409 Oct 29 j 02:10	0° M		direct	1410 Sep 24 j 02:11	23° P 55'22
morning set	1409 Nov 07 j 06:43	14° M 27'23		morning max el	1410 Sep 30 j 14:58	27° P 27'15 18°11'50
desc. node	1409 Nov 13 j 06:31	23° M 54'44			1410 Oct 02 j 21:25	0° A
	1409 Nov 17 j 03:26	0° J		morning set	1410 Oct 19 j 02:45	25° A 06'48
max. Earth dist.	1409 Nov 22 j 21:21	9° J 01'31	1.45046 AU		1410 Oct 22 j 02:12	0° M
superior conj	1409 Nov 23 j 15:07	10° J 11'20	-1°-5'-21	desc. node	1410 Oct 31 j 03:34	14° M 38'02
minimum elong	1409 Nov 23 j 07:16	9° J 40'31	1°04'27	superior conj	1410 Nov 02 j 18:10	18° M 46'49 0°-17'-20
	1409 Dec 06 j 03:10	0° C		minimum elong	1410 Nov 02 j 15:56	18° M 38'00 0°17'02
evening rise	1409 Dec 09 j 05:37	4° C 58'45		max. Earth dist.	1410 Nov 05 j 16:11	23° M 23'19 1.44996 AU
	1409 Dec 25 j 04:37	0° \approx			1410 Nov 09 j 21:19	0° J
evening max el	1409 Dec 30 j 09:28	6° \approx 27'32	18°48'38	evening rise	1410 Nov 19 j 05:36	14° J 33'59
asc. node	1410 Jan 01 j 13:13	8° \approx 23'59			1410 Nov 29 j 04:57	0° C
retrograde	1410 Jan 06 j 03:24	10° \approx 14'59		greatest brilliancy	1410 Dec 05 j 13:35	9° C 30'51 -0.7m
evening set	1410 Jan 09 j 06:56	9° \approx 18'15		evening max el	1410 Dec 13 j 16:55	19° C 56'20 19°35'01
inferior conj	1410 Jan 15 j 01:09	3° \approx 34'45	3°29'44	asc. node	1410 Dec 19 j 10:16	23° C 56'13
minimum elong	1410 Jan 14 j 23:07	3° \approx 41'01	3°29'25	retrograde	1410 Dec 21 j 00:15	24° C 10'04
min. Earth dist.	1410 Jan 16 j 19:05	1° \approx 25'59	0.65318 AU	evening set	1410 Dec 24 j 11:02	23° C 00'27
	1410 Jan 18 j 00:21	30° R C		inferior conj	1410 Dec 30 j 00:30	17° C 01'53 3°03'08
morning rise	1410 Jan 20 j 14:12	27° C 23'34		minimum elong	1410 Dec 29 j 21:53	17° C 10'26 3°02'31
direct	1410 Jan 27 j 05:03	24° C 32'48				

min. Earth dist.	1410 Dec 31 j 03:55	15°☿32'06	0.66502 AU	inferior conj	1411 Dec 14 j 04:35	0°☿38'55	2°27'19
morning rise	1411 Jan 04 j 08:00	10°☿47'41		minimum elong	1411 Dec 14 j 01:58	0°☿47'49	2°26'30
direct	1411 Jan 10 j 10:57	8°☿05'16			1411 Dec 14 j 16:00	30°☿47'49	
morning max el	1411 Jan 22 j 18:08	15°☿23'51	25°45'24	min. Earth dist.	1411 Dec 14 j 19:00	29°☿49'49	0.67291 AU
desc. node	1411 Jan 27 j 02:46	20°☿10'36		morning rise	1411 Dec 19 j 09:34	24°☿23'45	
	1411 Feb 03 j 18:56	0°☿		direct	1411 Dec 24 j 21:57	21°☿58'36	
	1411 Feb 23 j 01:35	0°☿		morning max el	1412 Jan 05 j 02:29	28°☿38'54	24°21'59
morning set	1411 Feb 27 j 23:17	8°☿44'58			1412 Jan 06 j 09:42	0°☿	
max. Earth dist.	1411 Mar 03 j 19:47	15°☿57'51	1.35842 AU	desc. node	1412 Jan 13 j 23:49	9°☿05'26	
					1412 Jan 28 j 13:33	0°☿	
superior conj	1411 Mar 09 j 08:41	26°☿50'03	-1°-16'-15	morning set	1412 Feb 09 j 23:13	20°☿23'16	
minimum elong	1411 Mar 09 j 12:21	27°☿08'28	1°15'41	max. Earth dist.	1412 Feb 13 j 16:51	27°☿01'04	1.37800 AU
	1411 Mar 10 j 22:16	0°☿			1412 Feb 15 j 08:08	0°☿	
evening rise	1411 Mar 17 j 09:12	13°☿13'05					
asc. node	1411 Mar 17 j 09:36	13°☿15'09		superior conj	1412 Feb 20 j 15:14	9°☿57'43	-1°-39'-47
	1411 Mar 26 j 05:05	0°☿		minimum elong	1412 Feb 20 j 19:24	10°☿17'47	1°39'21
evening max el	1411 Apr 04 j 06:02	12°☿10'27	20°05'49	evening rise	1412 Feb 29 j 09:16	27°☿11'10	
retrograde	1411 Apr 14 j 15:22	17°☿11'06			1412 Mar 01 j 19:33	0°☿	
evening set	1411 Apr 16 j 16:36	17°☿00'14		asc. node	1412 Mar 03 j 06:38	2°☿50'48	
desc. node	1411 Apr 25 j 01:59	13°☿21'59		evening max el	1412 Mar 17 j 00:46	24°☿05'49	19°06'58
inferior conj	1411 Apr 25 j 15:54	13°☿01'13	0°-10'-3	retrograde	1412 Mar 25 j 18:45	28°☿19'46	
minimum elong	1411 Apr 25 j 15:26	13°☿01'55	0°09'55	evening set	1412 Mar 27 j 22:30	28°☿05'27	
transit middle	1411 Apr 25 j 15:26	13°☿01'55	0°09'55	inferior conj	1412 Apr 05 j 03:46	23°☿52'48	1°36'08
transit begin	1411 Apr 25 j 12:18	13°☿06'37		minimum elong	1412 Apr 05 j 07:16	23°☿46'49	1°35'02
transit end	1411 Apr 25 j 18:34	12°☿57'13		min. Earth dist.	1412 Apr 08 j 04:07	21°☿49'35	0.56612 AU
min. Earth dist.	1411 Apr 27 j 12:54	11°☿53'59	0.55336 AU	desc. node	1412 Apr 10 j 23:02	20°☿08'08	
morning rise	1411 May 04 j 11:37	8°☿39'05		morning rise	1412 Apr 13 j 11:55	18°☿57'02	
direct	1411 May 08 j 11:50	8°☿03'57		direct	1412 Apr 18 j 13:01	17°☿57'34	
morning max el	1411 May 22 j 04:27	14°☿49'08	23°54'18	morning max el	1412 May 02 j 18:55	25°☿16'50	25°32'05
	1411 Jun 03 j 02:07	0°☿			1412 May 07 j 04:20	0°☿	
asc. node	1411 Jun 13 j 08:52	18°☿49'56			1412 May 25 j 23:41	0°☿	
morning set	1411 Jun 15 j 10:40	23°☿08'32		morning set	1412 May 29 j 22:24	8°☿05'05	
	1411 Jun 18 j 15:42	0°☿		asc. node	1412 May 30 j 05:55	8°☿44'45	
superior conj	1411 Jun 22 j 12:21	8°☿21'21	1°23'16	superior conj	1412 Jun 05 j 22:49	23°☿17'31	1°05'34
minimum elong	1411 Jun 22 j 09:56	8°☿08'22	1°22'57	minimum elong	1412 Jun 05 j 20:30	23°☿04'46	1°05'10
max. Earth dist.	1411 Jun 24 j 13:46	12°☿46'40	1.33324 AU	max. Earth dist.	1412 Jun 06 j 22:12	25°☿25'16	1.32599 AU
evening rise	1411 Jun 29 j 23:41	24°☿01'26			1412 Jun 09 j 00:48	0°☿	
	1411 Jul 03 j 00:29	0°☿		evening rise	1412 Jun 13 j 01:45	8°☿32'29	
	1411 Jul 21 j 00:33	0°☿			1412 Jun 24 j 10:09	0°☿	
desc. node	1411 Jul 22 j 01:19	1°☿26'04		desc. node	1412 Jul 07 j 22:21	20°☿00'13	
evening max el	1411 Aug 02 j 13:27	14°☿58'58	27°25'09	evening max el	1412 Jul 14 j 21:20	27°☿40'44	27°15'59
retrograde	1411 Aug 16 j 04:12	22°☿17'06			1412 Jul 17 j 12:29	0°☿	
evening set	1411 Aug 23 j 07:56	19°☿37'35		retrograde	1412 Jul 28 j 17:14	4°☿56'23	
min. Earth dist.	1411 Aug 27 j 00:03	16°☿22'13	0.63799 AU	evening set	1412 Aug 04 j 21:09	2°☿33'04	
inferior conj	1411 Aug 29 j 12:57	13°☿45'24	-3°-20'-7		1412 Aug 08 j 04:22	30°☿	
minimum elong	1411 Aug 29 j 17:53	13°☿32'40	3°18'37	min. Earth dist.	1412 Aug 08 j 11:22	29°☿44'40	0.61987 AU
morning rise	1411 Sep 05 j 05:59	8°☿24'00		inferior conj	1412 Aug 11 j 12:00	26°☿58'44	-4°-8'-39
direct	1411 Sep 07 j 17:47	7°☿53'17		minimum elong	1412 Aug 11 j 17:05	26°☿47'05	4°07'33
asc. node	1411 Sep 09 j 08:02	8°☿06'03		morning rise	1412 Aug 18 j 15:44	21°☿57'28	
morning max el	1411 Sep 14 j 07:00	11°☿19'06	17°54'08	direct	1412 Aug 21 j 01:17	21°☿32'33	
	1411 Sep 26 j 23:01	0°☿		asc. node	1412 Aug 26 j 05:06	23°☿31'17	
morning set	1411 Oct 01 j 01:26	7°☿03'51		morning max el	1412 Aug 27 j 22:05	25°☿00'27	17°54'38
					1412 Sep 01 j 01:12	0°☿	
superior conj	1411 Oct 13 j 15:34	28°☿19'04	0°29'13	morning set	1412 Sep 12 j 20:29	19°☿58'48	
minimum elong	1411 Oct 13 j 18:38	28°☿31'39	0°28'47		1412 Sep 18 j 10:06	0°☿	
	1411 Oct 14 j 16:15	0°☿					
desc. node	1411 Oct 18 j 00:36	5°☿25'04		superior conj	1412 Sep 23 j 15:56	9°☿10'55	1°05'48
max. Earth dist.	1411 Oct 19 j 10:04	7°☿39'01	1.44227 AU	minimum elong	1412 Sep 23 j 20:38	9°☿31'07	1°05'13
evening rise	1411 Oct 29 j 15:07	23°☿38'16		max. Earth dist.	1412 Sep 30 j 23:57	21°☿29'26	1.42834 AU
	1411 Nov 02 j 18:52	0°☿		desc. node	1412 Oct 03 j 21:38	26°☿12'02	
greatest brilliancy	1411 Nov 20 j 21:26	26°☿22'50	-0.5m		1412 Oct 06 j 06:47	0°☿	
	1411 Nov 23 j 17:53	0°☿		evening rise	1412 Oct 08 j 02:04	2°☿50'34	
evening max el	1411 Nov 26 j 19:17	3°☿26'34	20°35'51		1412 Oct 26 j 06:34	0°☿	
retrograde	1411 Dec 04 j 22:04	8°☿14'00		greatest brilliancy	1412 Nov 03 j 20:31	11°☿28'28	-0.4m
asc. node	1411 Dec 06 j 07:18	8°☿03'13		evening max el	1412 Nov 08 j 15:52	16°☿56'51	21°48'00
evening set	1411 Dec 08 j 17:55	6°☿49'42		retrograde	1412 Nov 17 j 18:55	22°☿22'44	

evening set	1412 Nov 22 j 01:43	20° ♄ 42'11		evening max el	1413 Oct 22 j 07:26	0° ♄ 28'36	23°06'55
asc. node	1412 Nov 22 j 04:20	20° ♄ 36'57		retrograde	1413 Nov 01 j 13:17	6° ♄ 33'10	
inferior conj	1412 Nov 27 j 11:14	14° ♄ 22'36	1°44'14	evening set	1413 Nov 06 j 08:47	4° ♄ 35'24	
minimum elong	1412 Nov 27 j 09:06	14° ♄ 30'00	1°43'26	asc. node	1413 Nov 09 j 01:23	1° ♄ 47'20	
min. Earth dist.	1412 Nov 27 j 14:03	14° ♄ 12'50	0.67702 AU		1413 Nov 10 j 10:40	30° ♄	
morning rise	1412 Dec 02 j 16:15	8° ♄ 08'18		inferior conj	1413 Nov 11 j 18:36	28° ♄ 10'54	0°55'25
direct	1412 Dec 07 j 13:19	6° ♄ 05'05		minimum elong	1413 Nov 11 j 17:20	28° ♄ 15'15	0°54'53
morning max el	1412 Dec 17 j 12:14	11° ♄ 59'10	22°53'41	min. Earth dist.	1413 Nov 11 j 10:44	28° ♄ 37'59	0.67769 AU
greatest brilliancy	1412 Dec 22 j 04:57	17° ♄ 13'47	-0.3m	morning rise	1413 Nov 17 j 01:55	21° ♄ 59'37	
desc. node	1412 Dec 30 j 20:52	28° ♄ 37'05		direct	1413 Nov 21 j 08:17	20° ♄ 19'13	
	1412 Dec 31 j 20:28	0° ♄		morning max el	1413 Nov 30 j 02:43	25° ♄ 27'04	21°29'10
	1413 Jan 20 j 10:27	0° ♄			1413 Dec 04 j 04:19	0° ♄	
morning set	1413 Jan 20 j 20:49	0° ♄ 42'50		greatest brilliancy	1413 Dec 05 j 03:52	1° ♄ 12'23	-0.4m
max. Earth dist.	1413 Jan 25 j 12:29	8° ♄ 33'21	1.39936 AU	desc. node	1413 Dec 17 j 17:53	18° ♄ 35'07	
					1413 Dec 25 j 08:22	0° ♄	
superior conj	1413 Feb 02 j 06:13	22° ♄ 16'58	-1°-57'-8	morning set	1413 Dec 31 j 13:21	9° ♄ 39'51	
minimum elong	1413 Feb 02 j 09:27	22° ♄ 31'44	1°56'59	max. Earth dist.	1414 Jan 07 j 12:50	20° ♄ 56'05	1.41978 AU
	1413 Feb 06 j 09:59	0° ♄			1414 Jan 12 j 22:28	0° ♄	
evening rise	1413 Feb 12 j 00:16	10° ♄ 38'00					
asc. node	1413 Feb 18 j 03:40	22° ♄ 05'05		superior conj	1414 Jan 15 j 00:23	3° ♄ 34'44	-2°-4'-8
	1413 Feb 22 j 22:11	0° ♄		minimum elong	1414 Jan 15 j 00:23	3° ♄ 34'43	2°04'09
evening max el	1413 Feb 28 j 04:28	6° ♄ 35'34	18°28'13	evening rise	1414 Jan 26 j 02:31	23° ♄ 24'32	
retrograde	1413 Mar 07 j 17:05	10° ♄ 17'52			1414 Jan 29 j 17:32	0° ♄	
evening set	1413 Mar 10 j 02:00	9° ♄ 56'54		asc. node	1414 Feb 05 j 00:42	10° ♄ 50'21	
inferior conj	1413 Mar 17 j 12:40	5° ♄ 24'28	2°50'11	evening max el	1414 Feb 11 j 14:01	19° ♄ 30'42	18°09'29
minimum elong	1413 Mar 17 j 16:35	5° ♄ 16'34	2°49'18	retrograde	1414 Feb 18 j 08:46	22° ♄ 57'08	
min. Earth dist.	1413 Mar 20 j 23:04	2° ♄ 40'20	0.58483 AU	evening set	1414 Feb 20 j 22:50	22° ♄ 27'35	
morning rise	1413 Mar 25 j 03:06	29° ♄ 57'55		inferior conj	1414 Feb 27 j 17:46	17° ♄ 33'57	3°31'05
	1413 Mar 25 j 01:29	30° ♄		minimum elong	1414 Feb 27 j 20:02	17° ♄ 28'40	3°30'48
desc. node	1413 Mar 28 j 20:03	28° ♄ 37'42		min. Earth dist.	1414 Mar 03 j 00:12	14° ♄ 32'38	0.60610 AU
direct	1413 Mar 31 j 04:02	28° ♄ 23'33		morning rise	1414 Mar 06 j 14:05	11° ♄ 46'17	
	1413 Apr 06 j 10:45	0° ♄		direct	1414 Mar 13 j 07:09	9° ♄ 35'39	
morning max el	1413 Apr 14 j 13:05	6° ♄ 03'57	26°50'46	desc. node	1414 Mar 15 j 17:05	9° ♄ 51'39	
	1413 May 02 j 06:31	0° ♄		morning max el	1414 Mar 27 j 13:18	17° ♄ 27'21	27°37'54
morning set	1413 May 14 j 08:35	22° ♄ 56'21			1414 Apr 06 j 23:40	0° ♄	
asc. node	1413 May 17 j 02:57	28° ♄ 49'30			1414 Apr 24 j 20:55	0° ♄	
	1413 May 17 j 16:00	0° ♄		morning set	1414 Apr 28 j 15:21	7° ♄ 34'48	
superior conj	1413 May 21 j 10:35	8° ♄ 15'54	0°44'17	asc. node	1414 May 03 j 23:59	18° ♄ 58'42	
minimum elong	1413 May 21 j 08:47	8° ♄ 05'58	0°43'55	max. Earth dist.	1414 May 04 j 22:06	20° ♄ 59'15	1.32288 AU
max. Earth dist.	1413 May 21 j 10:17	8° ♄ 14'15	1.32254 AU	superior conj	1414 May 05 j 21:52	23° ♄ 09'22	0°20'07
evening rise	1413 May 28 j 09:13	23° ♄ 18'27		minimum elong	1414 May 05 j 20:58	23° ♄ 04'25	0°19'55
	1413 May 31 j 15:25	0° ♄			1414 May 09 j 00:47	0° ♄	
	1413 Jun 18 j 13:21	0° ♄		evening rise	1414 May 12 j 19:48	8° ♄ 10'40	
desc. node	1413 Jun 24 j 19:21	7° ♄ 29'10			1414 May 24 j 04:18	0° ♄	
evening max el	1413 Jun 26 j 23:11	9° ♄ 39'25	26°33'40	evening max el	1414 Jun 08 j 17:59	20° ♄ 51'42	25°21'44
retrograde	1413 Jul 10 j 22:39	16° ♄ 52'41		desc. node	1414 Jun 11 j 16:21	23° ♄ 25'25	
evening set	1413 Jul 17 j 15:34	14° ♄ 58'49		retrograde	1414 Jun 22 j 18:31	28° ♄ 00'16	
min. Earth dist.	1413 Jul 21 j 12:31	12° ♄ 22'50	0.59959 AU	evening set	1414 Jun 28 j 10:59	26° ♄ 44'57	
inferior conj	1413 Jul 24 j 20:01	9° ♄ 44'13	-4°-43'-32	min. Earth dist.	1414 Jul 03 j 05:57	24° ♄ 02'39	0.57925 AU
minimum elong	1413 Jul 24 j 23:23	9° ♄ 37'27	4°43'11	inferior conj	1414 Jul 06 j 09:31	21° ♄ 51'46	-4°-54'-1
morning rise	1413 Aug 01 j 10:32	5° ♄ 05'40		minimum elong	1414 Jul 06 j 08:46	21° ♄ 53'05	4°54'01
direct	1413 Aug 03 j 20:25	4° ♄ 44'21		morning rise	1414 Jul 14 j 10:18	17° ♄ 35'54	
morning max el	1413 Aug 11 j 09:12	8° ♄ 23'51	18°14'29	direct	1414 Jul 16 j 22:50	17° ♄ 16'33	
asc. node	1413 Aug 13 j 02:10	10° ♄ 12'09		morning max el	1414 Jul 25 j 13:07	21° ♄ 19'16	18°54'57
	1413 Aug 25 j 08:26	0° ♄		asc. node	1414 Jul 30 j 23:12	27° ♄ 52'51	
morning set	1413 Aug 27 j 06:18	3° ♄ 36'12			1414 Aug 01 j 08:47	0° ♄	
				morning set	1414 Aug 11 j 02:33	17° ♄ 44'18	
superior conj	1413 Sep 05 j 17:31	21° ♄ 17'17	1°29'58		1414 Aug 17 j 08:21	0° ♄	
minimum elong	1413 Sep 05 j 21:11	21° ♄ 33'55	1°29'40	superior conj	1414 Aug 19 j 14:47	4° ♄ 22'14	1°42'46
	1413 Sep 10 j 15:05	0° ♄		minimum elong	1414 Aug 19 j 16:31	4° ♄ 30'29	1°42'42
max. Earth dist.	1413 Sep 13 j 07:57	4° ♄ 39'06	1.41000 AU	max. Earth dist.	1414 Aug 26 j 11:37	17° ♄ 04'51	1.38967 AU
evening rise	1413 Sep 18 j 06:09	12° ♄ 51'21		evening rise	1414 Aug 30 j 10:23	23° ♄ 59'58	
desc. node	1413 Sep 20 j 18:39	16° ♄ 55'42			1414 Sep 02 j 23:49	0° ♄	
	1413 Sep 29 j 05:15	0° ♄		desc. node	1414 Sep 07 j 15:40	7° ♄ 32'17	
greatest brilliancy	1413 Oct 16 j 12:08	23° ♄ 55'54	-0.2m		1414 Sep 23 j 00:14	0° ♄	
	1413 Oct 21 j 20:11	0° ♄					

evening max el	1414 Oct 04 j 20:05	14° \mathbb{M} 04'25	24°26'34	superior conj	1415 Aug 03 j 02:26	18° \mathbb{Q} 10'36	1°46'07
retrograde	1414 Oct 16 j 03:56	20° \mathbb{M} 41'58		minimum elong	1415 Aug 03 j 02:19	18° \mathbb{Q} 10'02	1°46'08
evening set	1414 Oct 21 j 13:30	18° \mathbb{M} 27'10		max. Earth dist.	1415 Aug 08 j 16:15	29° \mathbb{Q} 02'05	1.36991 AU
min. Earth dist.	1414 Oct 26 j 06:39	13° \mathbb{M} 03'22	0.67510 AU		1415 Aug 09 j 04:31	0° \mathbb{M}	
asc. node	1414 Oct 26 j 22:25	12° \mathbb{M} 10'35		evening rise	1415 Aug 12 j 13:37	6° \mathbb{M} 14'03	
inferior conj	1414 Oct 27 j 00:57	12° \mathbb{M} 02'05	0°02'11	desc. node	1415 Aug 25 j 12:42	27° \mathbb{M} 56'58	
minimum elong	1414 Oct 27 j 00:54	12° \mathbb{M} 02'15	0°02'10		1415 Aug 26 j 20:44	0° \mathbb{Q}	
transit middle	1414 Oct 27 j 00:54	12° \mathbb{M} 02'15	0°02'10	evening max el	1415 Sep 17 j 08:01	27° \mathbb{Q} 43'39	25°39'39
transit begin	1414 Oct 26 j 22:11	12° \mathbb{M} 11'22			1415 Sep 19 j 19:34	0° \mathbb{M}	
transit end	1414 Oct 27 j 03:37	11° \mathbb{M} 53'09		retrograde	1415 Sep 29 j 13:57	4° \mathbb{M} 44'21	
morning rise	1414 Nov 01 j 12:38	5° \mathbb{M} 56'18		evening set	1415 Oct 05 j 14:05	2° \mathbb{M} 14'22	
direct	1414 Nov 05 j 05:49	4° \mathbb{M} 37'10			1415 Oct 07 j 20:18	30° \mathbb{R} \mathbb{Q}	
morning max el	1414 Nov 13 j 00:28	9° \mathbb{M} 05'17	20°14'52	min. Earth dist.	1415 Oct 09 j 23:19	27° \mathbb{Q} 26'15	0.66926 AU
greatest brilliancy	1414 Nov 19 j 17:14	17° \mathbb{M} 08'20	-0.6m	inferior conj	1415 Oct 11 j 04:29	25° \mathbb{Q} 53'06	0°-54'-5
	1414 Nov 28 j 17:21	0° \mathbb{Q}		minimum elong	1415 Oct 11 j 05:53	25° \mathbb{Q} 48'39	0°53'30
desc. node	1414 Dec 04 j 14:54	8° \mathbb{Q} 52'17		asc. node	1415 Oct 13 j 19:28	22° \mathbb{Q} 41'41	
morning set	1414 Dec 10 j 10:41	17° \mathbb{Q} 48'17		morning rise	1415 Oct 16 j 22:26	19° \mathbb{Q} 55'44	
	1414 Dec 18 j 05:35	0° \mathbb{Q}		direct	1415 Oct 20 j 04:23	18° \mathbb{Q} 54'51	
max. Earth dist.	1414 Dec 20 j 20:48	4° \mathbb{Q} 12'07	1.43651 AU	morning max el	1415 Oct 27 j 05:53	22° \mathbb{Q} 53'06	19°14'28
					1415 Nov 02 j 02:19	0° \mathbb{M}	
superior conj	1414 Dec 26 j 17:02	13° \mathbb{Q} 41'36	-1°-55'-51	greatest brilliancy	1415 Nov 06 j 15:30	6° \mathbb{M} 31'48	-0.7m
minimum elong	1414 Dec 26 j 11:49	13° \mathbb{Q} 20'08	1°55'35	morning set	1415 Nov 19 j 12:56	26° \mathbb{M} 19'46	
	1415 Jan 05 j 09:14	0° \mathbb{Q}		desc. node	1415 Nov 21 j 11:55	29° \mathbb{M} 22'41	
evening rise	1415 Jan 08 j 11:48	5° \mathbb{Q} 22'32			1415 Nov 21 j 21:30	0° \mathbb{Q}	
asc. node	1415 Jan 22 j 21:44	28° \mathbb{Q} 57'50		max. Earth dist.	1415 Dec 03 j 11:43	18° \mathbb{Q} 09'33	1.44742 AU
	1415 Jan 23 j 16:54	0° \mathbb{H}					
evening max el	1415 Jan 26 j 02:21	2° \mathbb{H} 43'12	18°10'10	superior conj	1415 Dec 06 j 08:08	22° \mathbb{Q} 40'17	-1°-28'-47
retrograde	1415 Feb 01 j 13:46	6° \mathbb{H} 08'06		minimum elong	1415 Dec 05 j 23:27	22° \mathbb{Q} 05'50	1°27'56
evening set	1415 Feb 04 j 08:44	5° \mathbb{H} 28'43			1415 Dec 10 j 22:17	0° \mathbb{Q}	
inferior conj	1415 Feb 10 j 15:33	0° \mathbb{H} 14'20	3°45'15	evening rise	1415 Dec 20 j 23:52	16° \mathbb{Q} 24'27	
minimum elong	1415 Feb 10 j 15:46	0° \mathbb{H} 13'47	3°45'15		1415 Dec 29 j 05:47	0° \mathbb{Q}	
	1415 Feb 10 j 20:58	30° \mathbb{R} \mathbb{Q}		evening max el	1416 Jan 09 j 14:35	16° \mathbb{Q} 05'07	18°29'31
min. Earth dist.	1415 Feb 13 j 09:42	27° \mathbb{Q} 20'20	0.62676 AU	asc. node	1416 Jan 09 j 18:46	16° \mathbb{Q} 15'38	
morning rise	1415 Feb 16 j 20:40	24° \mathbb{Q} 13'58		retrograde	1416 Jan 16 j 03:44	19° \mathbb{Q} 41'01	
direct	1415 Feb 23 j 19:40	21° \mathbb{Q} 36'29		evening set	1416 Jan 19 j 03:57	18° \mathbb{Q} 50'47	
desc. node	1415 Mar 02 j 14:06	23° \mathbb{Q} 43'02		inferior conj	1416 Jan 25 j 01:56	13° \mathbb{Q} 17'09	3°39'41
morning max el	1415 Mar 09 j 18:59	29° \mathbb{Q} 31'19	27°48'03	minimum elong	1416 Jan 25 j 00:32	13° \mathbb{Q} 21'17	3°39'34
	1415 Mar 10 j 06:23	0° \mathbb{H}		min. Earth dist.	1416 Jan 27 j 04:40	10° \mathbb{Q} 48'52	0.64463 AU
	1415 Mar 31 j 21:55	0° \mathbb{Y}		morning rise	1416 Jan 30 j 19:46	7° \mathbb{Q} 09'08	
morning set	1415 Apr 12 j 16:34	21° \mathbb{Y} 53'31		direct	1416 Feb 06 j 15:33	4° \mathbb{Q} 19'18	
	1415 Apr 16 j 14:44	0° \mathbb{Q}		desc. node	1416 Feb 17 j 11:07	9° \mathbb{Q} 37'03	
max. Earth dist.	1415 Apr 18 j 05:54	3° \mathbb{Q} 28'04	1.32722 AU	morning max el	1416 Feb 20 j 03:59	12° \mathbb{Q} 09'08	27°22'34
					1416 Mar 05 j 10:21	0° \mathbb{H}	
superior conj	1415 Apr 20 j 06:59	7° \mathbb{Q} 52'21	0°-6'-10		1416 Mar 23 j 09:59	0° \mathbb{Y}	
minimum elong	1415 Apr 20 j 07:17	7° \mathbb{Q} 53'57	0°06'07	morning set	1416 Mar 26 j 09:33	5° \mathbb{Y} 43'40	
behind sun begin	1415 Apr 20 j 02:27	7° \mathbb{Q} 27'49		max. Earth dist.	1416 Mar 31 j 05:52	15° \mathbb{Y} 29'11	1.33578 AU
behind sun end	1415 Apr 20 j 12:07	8° \mathbb{Q} 20'06					
asc. node	1415 Apr 20 j 21:02	9° \mathbb{Q} 08'24		superior conj	1416 Apr 03 j 12:02	22° \mathbb{Y} 18'28	0°-33'-39
evening rise	1415 Apr 27 j 07:37	23° \mathbb{Q} 02'53		minimum elong	1416 Apr 03 j 13:42	22° \mathbb{Y} 27'19	0°33'19
	1415 Apr 30 j 16:14	0° \mathbb{H}		asc. node	1416 Apr 06 j 18:05	29° \mathbb{Y} 14'29	
	1415 May 19 j 20:29	0° \mathbb{Q}			1416 Apr 07 j 02:36	0° \mathbb{Q}	
evening max el	1415 May 21 j 08:18	1° \mathbb{Q} 30'23	23°50'29	evening rise	1416 Apr 10 j 18:51	7° \mathbb{Q} 48'37	
desc. node	1415 May 29 j 13:23	7° \mathbb{Q} 14'36			1416 Apr 22 j 14:38	0° \mathbb{H}	
retrograde	1415 Jun 04 j 02:13	8° \mathbb{Q} 24'07		evening max el	1416 May 02 j 00:28	12° \mathbb{H} 02'50	22°14'54
evening set	1415 Jun 08 j 08:12	7° \mathbb{Q} 44'21		retrograde	1416 May 14 j 21:28	18° \mathbb{H} 24'03	
min. Earth dist.	1415 Jun 14 j 19:03	4° \mathbb{Q} 40'00	0.56208 AU	desc. node	1416 May 15 j 10:23	18° \mathbb{H} 23'24	
inferior conj	1415 Jun 17 j 02:50	3° \mathbb{Q} 15'04	-4°-26'-17	evening set	1416 May 17 j 19:13	18° \mathbb{H} 05'24	
minimum elong	1415 Jun 16 j 20:58	3° \mathbb{Q} 24'03	4°25'21	min. Earth dist.	1416 May 26 j 06:49	14° \mathbb{H} 26'33	0.55145 AU
	1415 Jun 23 j 05:51	30° \mathbb{R} \mathbb{H}		inferior conj	1416 May 27 j 03:10	13° \mathbb{H} 57'55	-3°-11'-17
morning rise	1415 Jun 25 j 13:13	29° \mathbb{H} 16'58		minimum elong	1416 May 26 j 19:32	14° \mathbb{H} 08'40	3°09'06
direct	1415 Jun 28 j 06:14	28° \mathbb{H} 58'12		morning rise	1416 Jun 04 j 21:50	10° \mathbb{H} 05'34	
	1415 Jul 03 j 00:14	0° \mathbb{Q}		direct	1416 Jun 07 j 21:35	9° \mathbb{H} 45'27	
morning max el	1415 Jul 08 j 07:02	3° \mathbb{Q} 37'14	19°56'43	morning max el	1416 Jun 19 j 13:37	15° \mathbb{H} 12'04	21°18'40
asc. node	1415 Jul 17 j 20:15	16° \mathbb{Q} 19'52			1416 Jun 30 j 17:05	0° \mathbb{Q}	
	1415 Jul 25 j 03:18	0° \mathbb{Q}		asc. node	1416 Jul 03 j 17:19	5° \mathbb{Q} 22'13	
morning set	1415 Jul 26 j 06:01	2° \mathbb{Q} 14'28		morning set	1416 Jul 09 j 14:15	17° \mathbb{Q} 00'05	
					1416 Jul 15 j 19:21	0° \mathbb{Q}	

superior conj	1416 Jul 17 j 00:15	2°♌30'18	1°41'53	superior conj	1417 Jul 01 j 04:54	17°♍10'24	1°31'33
minimum elong	1416 Jul 16 j 22:48	2°♌22'45	1°41'48	minimum elong	1417 Jul 01 j 02:41	16°♍58'35	1°31'18
max. Earth dist.	1416 Jul 21 j 03:19	10°♌55'01	1.35270 AU	max. Earth dist.	1417 Jul 03 j 23:18	23°♍01'13	1.33917 AU
evening rise	1416 Jul 25 j 11:30	19°♌22'30			1417 Jul 07 j 08:51	0°♌	
	1416 Jul 31 j 07:10	0°♍		evening rise	1417 Jul 08 j 23:16	3°♌11'34	
desc. node	1416 Aug 11 j 09:45	18°♍03'53			1417 Jul 24 j 02:51	0°♍	
	1416 Aug 19 j 22:13	0°♎		desc. node	1417 Jul 29 j 06:47	7°♍44'08	
evening max el	1416 Aug 29 j 20:12	11°♎21'07	26°38'31	evening max el	1417 Aug 12 j 08:03	24°♍46'12	27°15'51
retrograde	1416 Sep 11 j 18:49	18°♎34'54			1417 Aug 19 j 00:47	0°♎	
evening set	1416 Sep 18 j 08:35	15°♎54'15		retrograde	1417 Aug 25 j 18:12	2°♎04'58	
min. Earth dist.	1416 Sep 22 j 10:20	11°♎43'18	0.65999 AU		1417 Aug 31 j 21:28	30°♎	
inferior conj	1416 Sep 24 j 03:19	9°♎41'05	-1°-51'-47	evening set	1417 Sep 01 j 18:26	29°♎21'35	
minimum elong	1416 Sep 24 j 06:15	9°♎32'18	1°50'38	min. Earth dist.	1417 Sep 05 j 13:25	25°♎47'15	0.64707 AU
asc. node	1416 Sep 29 j 16:30	4°♎13'41		inferior conj	1417 Sep 07 j 19:07	23°♎20'34	-2°-48'-49
morning rise	1416 Sep 30 j 05:12	3°♎55'18		minimum elong	1417 Sep 07 j 23:28	23°♎08'40	2°47'18
direct	1416 Oct 03 j 02:09	3°♎09'03		morning rise	1417 Sep 14 j 06:21	17°♎49'35	
morning max el	1416 Oct 09 j 17:30	6°♎47'35	18°29'55	direct	1417 Sep 16 j 20:41	17°♎14'17	
	1416 Oct 25 j 20:06	0°♏		asc. node	1417 Sep 16 j 13:33	17°♎14'45	
morning set	1416 Oct 29 j 16:06	6°♏09'25		morning max el	1417 Sep 23 j 08:48	20°♎42'21	18°02'10
desc. node	1416 Nov 07 j 09:00	20°♏02'35			1417 Sep 30 j 10:16	0°♏	
	1416 Nov 13 j 16:29	0°♐		morning set	1417 Oct 11 j 00:06	17°♏23'42	
					1417 Oct 18 j 14:05	0°♐	
superior conj	1416 Nov 14 j 09:27	1°♐06'41	0°-45'-34	superior conj	1417 Oct 24 j 18:23	10°♐01'11	0°03'17
minimum elong	1416 Nov 14 j 03:35	0°♐43'40	0°44'49	minimum elong	1417 Oct 24 j 18:47	10°♐02'45	0°03'13
max. Earth dist.	1416 Nov 15 j 06:29	2°♐29'18	1.45122 AU	behind sun begin	1417 Oct 24 j 08:24	9°♐21'06	
evening rise	1416 Nov 30 j 12:32	26°♐29'27		behind sun end	1417 Oct 25 j 05:10	10°♐44'20	
	1416 Dec 02 j 17:45	0°♑		desc. node	1417 Oct 25 j 06:05	10°♐47'59	
greatest brilliancy	1416 Dec 11 j 22:15	14°♑26'22	-0.8m	max. Earth dist.	1417 Oct 29 j 01:18	16°♐50'39	1.44752 AU
evening max el	1416 Dec 23 j 00:18	29°♑31'49	19°06'25		1417 Nov 06 j 11:02	0°♑	
	1416 Dec 23 j 11:31	0°♒		evening rise	1417 Nov 10 j 04:50	5°♑47'31	
asc. node	1416 Dec 26 j 15:48	2°♒30'30			1417 Nov 26 j 04:28	0°♒	
retrograde	1416 Dec 29 j 23:02	3°♒29'22		greatest brilliancy	1417 Nov 29 j 04:50	4°♒17'18	-0.6m
evening set	1417 Jan 02 j 05:31	2°♒27'11		evening max el	1417 Dec 06 j 05:37	13°♒00'47	19°59'15
	1417 Jan 05 j 01:24	30°♒		retrograde	1417 Dec 13 j 20:40	17°♒28'34	
inferior conj	1417 Jan 07 j 21:25	26°♒36'39	3°19'42	asc. node	1417 Dec 13 j 12:49	17°♒27'58	
minimum elong	1417 Jan 07 j 19:03	26°♒44'07	3°19'16	evening set	1417 Dec 17 j 11:02	16°♒12'56	
min. Earth dist.	1417 Jan 09 j 08:52	24°♒44'21	0.65871 AU	inferior conj	1417 Dec 22 j 23:04	10°♒08'32	2°48'57
morning rise	1417 Jan 13 j 07:42	20°♒23'59		minimum elong	1417 Dec 22 j 20:23	10°♒17'28	2°48'13
direct	1417 Jan 19 j 17:51	17°♒35'47		min. Earth dist.	1417 Dec 23 j 20:44	8°♒56'06	0.66878 AU
morning max el	1417 Feb 01 j 13:48	25°♒09'50	26°27'19	morning rise	1417 Dec 28 j 05:08	3°♒53'28	
desc. node	1417 Feb 03 j 08:10	27°♒00'23		direct	1418 Jan 03 j 01:56	1°♒17'43	
	1417 Feb 05 j 23:50	0°♓		morning max el	1418 Jan 14 j 22:44	8°♒22'09	25°11'12
	1417 Feb 26 j 21:50	0°♈		desc. node	1418 Jan 21 j 05:14	15°♒27'31	
morning set	1417 Mar 09 j 14:39	18°♈54'09			1418 Jan 31 j 22:30	0°♓	
max. Earth dist.	1417 Mar 13 j 18:51	26°♈56'53	1.34885 AU		1418 Feb 19 j 11:05	0°♈	
	1417 Mar 15 j 07:44	0°♉		morning set	1418 Feb 20 j 03:01	1°♈11'15	
				max. Earth dist.	1418 Feb 23 j 20:26	8°♈00'30	1.36629 AU
superior conj	1417 Mar 18 j 10:42	6°♉20'26	-1°-1'-7	superior conj	1418 Mar 02 j 00:10	19°♈50'36	-1°-26'-47
minimum elong	1417 Mar 18 j 13:44	6°♉35'59	1°00'35	minimum elong	1418 Mar 02 j 04:10	20°♈10'22	1°26'14
asc. node	1417 Mar 24 j 15:08	19°♉12'24			1418 Mar 07 j 01:40	0°♉	
evening rise	1417 Mar 26 j 03:31	22°♉21'04		evening rise	1418 Mar 10 j 07:28	6°♉33'41	
	1417 Mar 29 j 22:24	0°♊		asc. node	1418 Mar 11 j 12:11	8°♉57'40	
evening max el	1417 Apr 14 j 01:10	22°♊57'29	20°48'18		1418 Mar 23 j 15:27	0°♊	
retrograde	1417 Apr 25 j 10:42	28°♊29'43		evening max el	1418 Mar 27 j 13:32	4°♊30'26	19°38'25
evening set	1417 Apr 27 j 14:39	28°♊18'30		retrograde	1418 Apr 06 j 05:39	9°♊10'10	
desc. node	1417 May 02 j 07:25	26°♊46'28		evening set	1418 Apr 08 j 06:58	8°♊58'28	
inferior conj	1417 May 06 j 21:02	24°♊20'44	-1°-19'-18	inferior conj	1418 Apr 16 j 23:06	4°♊55'00	0°38'07
minimum elong	1417 May 06 j 17:17	24°♊26'06	1°17'59	minimum elong	1418 Apr 17 j 00:43	4°♊52'26	0°37'33
min. Earth dist.	1417 May 07 j 19:24	23°♊48'50	0.54982 AU	desc. node	1418 Apr 19 j 04:25	3°♊30'57	
morning rise	1417 May 15 j 19:00	20°♊14'40		min. Earth dist.	1418 Apr 19 j 09:47	3°♊22'40	0.55775 AU
direct	1417 May 19 j 07:18	19°♊48'07		morning rise	1418 Apr 25 j 14:55	0°♊18'32	
morning max el	1417 Jun 01 j 10:14	26°♊06'33	22°55'41		1418 Apr 26 j 16:48	30°♊	
	1417 Jun 05 j 02:55	0°♋		direct	1418 Apr 30 j 01:02	29°♊34'45	
asc. node	1417 Jun 20 j 14:22	24°♋50'20			1418 May 03 j 08:48	0°♋	
	1417 Jun 23 j 03:16	0°♌		morning max el	1418 May 14 j 01:21	6°♋37'02	24°37'15
morning set	1417 Jun 24 j 01:10	1°♌54'10					

	1418 May 30 j 22:52	0°♂			1419 May 06 j 06:27	0°♂		
asc. node	1418 Jun 07 j 11:27	14°♂37'08			1419 May 23 j 04:09	0°♂		
morning set	1418 Jun 08 j 13:04	16°♂51'15		morning set	1419 May 24 j 00:19	1°♂45'31		
	1418 Jun 14 j 15:17	0°♂		asc. node	1419 May 25 j 08:30	4°♂36'16		
superior conj	1418 Jun 15 j 13:51	2°♂02'50	1°16'16	superior conj	1419 May 31 j 01:05	17°♂00'18	0°56'56	
minimum elong	1418 Jun 15 j 11:25	1°♂49'37	1°15'54	minimum elong	1419 May 30 j 22:55	16°♂48'27	0°56'33	
max. Earth dist.	1418 Jun 17 j 03:46	5°♂28'13	1.32965 AU	max. Earth dist.	1419 May 31 j 14:00	18°♂11'15	1.32403 AU	
evening rise	1418 Jun 22 j 21:02	17°♂30'10			1419 Jun 06 j 01:12	0°♂		
	1418 Jun 29 j 07:20	0°♂		evening rise	1419 Jun 07 j 01:40	2°♂08'14		
desc. node	1418 Jul 16 j 03:47	26°♂46'34			1419 Jun 22 j 05:31	0°♂		
	1418 Jul 18 j 16:09	0°♂		desc. node	1419 Jul 03 j 00:46	14°♂55'40		
evening max el	1418 Jul 25 j 18:02	7°♂47'18	27°25'09	evening max el	1419 Jul 07 j 23:46	20°♂12'22	27°02'06	
retrograde	1418 Aug 08 j 11:32	15°♂05'20		retrograde	1419 Jul 21 j 21:43	27°♂27'03		
evening set	1418 Aug 15 j 16:23	12°♂30'50		evening set	1419 Jul 28 j 22:16	25°♂15'02		
min. Earth dist.	1418 Aug 19 j 06:55	9°♂28'16	0.63065 AU	min. Earth dist.	1419 Aug 01 j 14:03	22°♂33'42	0.61137 AU	
inferior conj	1418 Aug 22 j 01:11	6°♂45'36	-3°-41'-52	inferior conj	1419 Aug 04 j 18:20	19°♂48'40	-4°-25'-41	
minimum elong	1418 Aug 22 j 06:20	6°♂32'54	3°40'28	minimum elong	1419 Aug 04 j 22:58	19°♂38'36	4°24'53	
morning rise	1418 Aug 28 j 22:46	1°♂32'32		morning rise	1419 Aug 12 j 02:40	14°♂56'34		
direct	1418 Aug 31 j 09:08	1°♂04'47		direct	1419 Aug 14 j 11:56	14°♂33'29		
asc. node	1418 Sep 03 j 10:37	1°♂49'42		asc. node	1419 Aug 21 j 07:41	17°♂49'00		
morning max el	1418 Sep 07 j 00:49	4°♂30'38	17°52'00	morning max el	1419 Aug 21 j 14:35	18°♂05'27	18°00'33	
morning set	1418 Sep 23 j 08:10	29°♂46'56			1419 Aug 30 j 04:09	0°♂		
	1418 Sep 23 j 11:08	0°♂		morning set	1419 Sep 06 j 10:11	13°♂02'09		
					1419 Sep 15 j 17:54	0°♂		
superior conj	1418 Oct 05 j 02:58	20°♂06'25	0°46'13	superior conj	1419 Sep 16 j 14:40	1°♂31'42	1°17'32	
minimum elong	1418 Oct 05 j 07:10	20°♂24'00	0°45'39	minimum elong	1419 Sep 16 j 19:08	1°♂51'23	1°17'03	
	1418 Oct 11 j 03:29	0°♂		max. Earth dist.	1419 Sep 24 j 04:28	14°♂29'17	1.42098 AU	
max. Earth dist.	1418 Oct 11 j 17:09	0°♂55'10	1.43699 AU	desc. node	1419 Sep 29 j 00:06	22°♂21'19		
desc. node	1418 Oct 12 j 03:06	1°♂35'08		evening rise	1419 Sep 30 j 05:29	24°♂18'42		
evening rise	1418 Oct 20 j 12:37	14°♂48'48			1419 Oct 03 j 20:18	0°♂		
	1418 Oct 30 j 12:48	0°♂			1419 Oct 24 j 13:04	0°♂		
greatest brilliancy	1418 Nov 13 j 21:56	20°♂18'23	-0.5m	greatest brilliancy	1419 Oct 28 j 06:22	4°♂43'02	-0.3m	
evening max el	1418 Nov 19 j 05:26	26°♂30'26	21°05'29	evening max el	1419 Nov 01 j 23:52	10°♂01'56	22°21'09	
	1418 Nov 23 j 07:16	0°♂		retrograde	1419 Nov 11 j 14:09	15°♂44'12		
retrograde	1418 Nov 27 j 18:19	1°♂34'18		evening set	1419 Nov 16 j 02:09	13°♂56'35		
asc. node	1418 Nov 30 j 09:51	0°♂55'07		asc. node	1419 Nov 17 j 06:53	12°♂51'01		
evening set	1418 Dec 01 j 18:29	0°♂03'30		inferior conj	1419 Nov 21 j 11:39	7°♂34'42	1°24'10	
	1418 Dec 01 j 20:18	30°♂		minimum elong	1419 Nov 21 j 09:51	7°♂40'58	1°23'27	
inferior conj	1418 Dec 07 j 04:28	23°♂48'32	2°09'51	min. Earth dist.	1419 Nov 21 j 09:56	7°♂40'38	0.67776 AU	
minimum elong	1418 Dec 07 j 02:00	23°♂57'01	2°09'00	morning rise	1419 Nov 26 j 17:23	1°♂21'21		
min. Earth dist.	1418 Dec 07 j 13:52	23°♂16'10	0.67505 AU		1419 Nov 28 j 20:20	30°♂		
morning rise	1418 Dec 12 j 09:08	17°♂33'14		direct	1419 Dec 01 j 08:10	29°♂27'37		
direct	1418 Dec 17 j 15:01	15°♂16'53			1419 Dec 03 j 23:44	0°♂		
morning max el	1418 Dec 28 j 07:11	21°♂38'44	23°44'23	morning max el	1419 Dec 10 j 18:21	5°♂01'13	22°16'44	
	1419 Jan 04 j 12:55	0°♂		greatest brilliancy	1419 Dec 15 j 08:53	10°♂11'01	-0.3m	
desc. node	1419 Jan 08 j 02:17	4°♂39'21		desc. node	1419 Dec 25 j 23:19	24°♂23'26		
	1419 Jan 25 j 05:38	0°♂			1419 Dec 29 j 19:59	0°♂		
morning set	1419 Feb 01 j 16:23	12°♂17'19		morning set	1420 Jan 13 j 01:20	21°♂59'59		
max. Earth dist.	1419 Feb 05 j 15:18	19°♂09'04	1.38696 AU		1420 Jan 17 j 21:45	0°♂		
	1419 Feb 11 j 14:46	0°♂		max. Earth dist.	1420 Jan 18 j 12:12	1°♂00'43	1.40841 AU	
superior conj	1419 Feb 13 j 00:37	2°♂38'35	-1°-48'-9	superior conj	1420 Jan 26 j 07:24	14°♂33'16	-2°-1'-40	
minimum elong	1419 Feb 13 j 04:37	2°♂57'25	1°47'48	minimum elong	1420 Jan 26 j 09:34	14°♂42'58	2°01'37	
evening rise	1419 Feb 22 j 04:01	20°♂18'39			1420 Feb 03 j 17:24	0°♂		
asc. node	1419 Feb 26 j 09:12	28°♂24'32		evening rise	1420 Feb 05 j 14:02	3°♂28'52		
	1419 Feb 27 j 05:43	0°♂		asc. node	1420 Feb 13 j 06:12	17°♂27'01		
evening max el	1419 Mar 10 j 12:29	16°♂41'10	18°48'06	evening max el	1420 Feb 21 j 19:05	29°♂22'38	18°17'50	
retrograde	1419 Mar 18 j 16:31	20°♂39'17			1420 Feb 22 j 11:05	0°♂		
evening set	1419 Mar 20 j 22:23	20°♂22'29		retrograde	1420 Feb 28 j 22:28	2°♂55'54		
inferior conj	1419 Mar 28 j 19:35	16°♂02'14	2°11'48	evening set	1420 Mar 02 j 09:49	2°♂31'18		
minimum elong	1419 Mar 28 j 23:38	15°♂54'47	2°10'40		1420 Mar 06 j 21:29	30°♂		
min. Earth dist.	1419 Apr 01 j 02:28	13°♂38'51	0.57354 AU	inferior conj	1420 Mar 09 j 13:19	27°♂49'46	3°11'17	
morning rise	1419 Apr 05 j 20:33	10°♂52'23		minimum elong	1420 Mar 09 j 16:41	27°♂42'33	3°10'39	
desc. node	1419 Apr 06 j 01:26	10°♂47'07		min. Earth dist.	1420 Mar 12 j 23:27	24°♂55'23	0.59386 AU	
direct	1419 Apr 11 j 08:39	9°♂38'33		morning rise	1420 Mar 16 j 19:53	22°♂13'24		
morning max el	1419 Apr 25 j 16:40	17°♂08'47	26°08'42					

desc. node	1420 Mar 22 j 22:28	20° Υ 23'15		morning rise	1421 Feb 26 j 15:26	4° Υ 19'31	
direct	1420 Mar 23 j 05:05	20° Υ 23'03		direct	1421 Mar 05 j 12:07	1° Υ 56'18	
morning max el	1420 Apr 06 j 13:00	28° Υ 08'24	27°15'10	desc. node	1421 Mar 09 j 19:30	2° Υ 47'30	
	1420 Apr 08 j 08:35	0° Υ		morning max el	1421 Mar 19 j 15:53	9° Υ 49'42	27°46'56
	1420 Apr 28 j 22:20	0° Υ			1421 Apr 04 j 07:26	0° Υ	
morning set	1420 May 07 j 09:14	16° Υ 31'20			1421 Apr 21 j 01:42	0° Υ	
asc. node	1420 May 11 j 05:32	24° Υ 42'49		morning set	1421 Apr 21 j 13:58	1° Υ 02'34	
	1420 May 13 j 15:36	0° Π		max. Earth dist.	1421 Apr 27 j 13:20	13° Υ 40'56	1.32424 AU
max. Earth dist.	1420 May 14 j 02:29	0° Π 59'50	1.32223 AU	asc. node	1421 Apr 28 j 02:33	14° Υ 52'43	
superior conj	1420 May 14 j 12:49	1° Π 56'38	0°34'20	superior conj	1421 Apr 28 j 23:24	16° Υ 46'22	0°09'11
minimum elong	1420 May 14 j 11:21	1° Π 48'34	0°34'02	minimum elong	1421 Apr 28 j 22:59	16° Υ 44'03	0°09'06
evening rise	1420 May 21 j 10:43	16° Π 57'24		behind sun begin	1421 Apr 28 j 18:46	16° Υ 21'05	
	1420 May 27 j 22:33	0° Θ		behind sun end	1421 Apr 29 j 03:11	17° Υ 07'02	
	1420 Jun 17 j 02:21	0° Ω			1421 May 05 j 01:18	0° Π	
desc. node	1420 Jun 18 j 21:46	1° Ω 48'46		evening rise	1421 May 05 j 22:06	1° Π 50'42	
evening max el	1420 Jun 18 j 22:50	1° Ω 51'19	26°06'21		1421 May 21 j 06:46	0° Θ	
retrograde	1420 Jul 02 j 23:00	9° Ω 02'17		evening max el	1421 May 31 j 15:05	12° Θ 46'27	24°44'26
evening set	1420 Jul 09 j 07:13	7° Ω 24'30		desc. node	1421 Jun 05 j 18:47	16° Θ 55'49	
min. Earth dist.	1420 Jul 13 j 11:29	4° Ω 48'09	0.59076 AU	retrograde	1421 Jun 14 j 13:46	19° Θ 50'31	
inferior conj	1420 Jul 16 j 18:52	2° Ω 19'08	-4°-51'-48	evening set	1421 Jun 19 j 16:35	18° Θ 51'12	
minimum elong	1420 Jul 16 j 20:46	2° Ω 15'31	4°51'43	min. Earth dist.	1421 Jun 25 j 02:19	16° Θ 01'27	0.57136 AU
	1420 Jul 20 j 00:51	30° Υ 50'11		inferior conj	1421 Jun 27 j 23:48	14° Θ 08'08	-4°-47'-46
morning rise	1420 Jul 24 j 13:46	27° Θ 50'11		minimum elong	1421 Jun 27 j 20:47	14° Θ 13'04	4°47'32
direct	1420 Jul 27 j 00:42	27° Θ 29'43		morning rise	1421 Jul 06 j 04:47	10° Θ 01'09	
	1420 Aug 02 j 11:09	0° Ω		direct	1421 Jul 08 j 19:11	9° Θ 42'08	
morning max el	1420 Aug 03 j 22:56	1° Ω 17'32	18°29'07	morning max el	1421 Jul 17 j 22:55	13° Θ 58'07	19°18'43
asc. node	1420 Aug 07 j 04:45	4° Ω 56'48		asc. node	1421 Jul 25 j 01:48	22° Θ 58'38	
morning set	1420 Aug 20 j 00:58	26° Ω 54'13			1421 Jul 29 j 04:48	0° Ω	
	1420 Aug 21 j 15:32	0° Υ		morning set	1421 Aug 04 j 00:39	11° Ω 12'48	
superior conj	1420 Aug 29 j 01:21	14° Υ 04'59	1°36'41	superior conj	1421 Aug 12 j 05:23	27° Ω 30'29	1°45'14
minimum elong	1420 Aug 29 j 04:14	14° Υ 18'20	1°36'29	minimum elong	1421 Aug 12 j 06:17	27° Ω 34'52	1°45'13
max. Earth dist.	1420 Sep 05 j 10:53	27° Υ 22'20	1.40149 AU		1421 Aug 13 j 12:15	0° Υ	
	1420 Sep 06 j 23:29	0° Ω		max. Earth dist.	1421 Aug 18 j 14:28	9° Υ 34'16	1.38105 AU
evening rise	1420 Sep 09 j 19:39	4° Ω 47'48		evening rise	1421 Aug 22 j 10:06	16° Υ 25'03	
desc. node	1420 Sep 14 j 21:07	13° Ω 02'29			1421 Aug 30 j 12:06	0° Ω	
	1420 Sep 26 j 01:10	0° Υ		desc. node	1421 Sep 01 j 18:08	3° Ω 34'33	
evening max el	1420 Oct 14 j 14:03	23° Υ 35'46	23°41'03		1421 Sep 20 j 13:47	0° Υ	
retrograde	1420 Oct 25 j 06:56	29° Υ 54'32		evening max el	1421 Sep 27 j 02:03	7° Υ 12'46	24°58'44
evening set	1420 Oct 30 j 08:25	27° Υ 49'20		retrograde	1421 Oct 08 j 19:44	14° Υ 01'34	
asc. node	1420 Nov 03 j 03:56	23° Υ 35'23		evening set	1421 Oct 14 j 11:38	11° Υ 39'36	
inferior conj	1420 Nov 04 j 18:48	21° Υ 24'15	0°33'18	min. Earth dist.	1421 Oct 19 j 01:15	6° Υ 31'00	0.67309 AU
minimum elong	1420 Nov 04 j 18:01	21° Υ 26'56	0°32'58	inferior conj	1421 Oct 20 j 00:11	5° Υ 15'32	0°-21'-24
min. Earth dist.	1420 Nov 04 j 06:29	22° Υ 06'14	0.67709 AU	minimum elong	1421 Oct 20 j 00:43	5° Υ 13'46	0°21'10
morning rise	1420 Nov 10 j 03:46	15° Υ 15'13		asc. node	1421 Oct 21 j 00:59	3° Υ 54'42	
direct	1420 Nov 14 j 04:23	13° Υ 44'06			1421 Oct 24 j 13:59	30° Υ 50'11	
morning max el	1420 Nov 22 j 11:46	18° Υ 33'19	20°56'01	morning rise	1421 Oct 25 j 14:21	29° Ω 13'13	
greatest brilliancy	1420 Nov 28 j 02:31	25° Υ 04'43	-0.5m	direct	1421 Oct 29 j 02:26	28° Ω 02'26	
	1420 Dec 01 j 19:12	0° Υ			1421 Nov 02 j 23:20	0° Υ	
desc. node	1420 Dec 11 j 20:21	14° Υ 30'17		morning max el	1421 Nov 05 j 13:00	2° Υ 16'28	19°47'20
morning set	1420 Dec 22 j 07:28	0° Θ 29'05		greatest brilliancy	1421 Nov 13 j 07:15	11° Υ 52'59	-0.6m
	1420 Dec 22 j 00:01	0° Θ			1421 Nov 25 j 12:47	0° Υ	
max. Earth dist.	1420 Dec 30 j 16:21	13° Θ 49'16	1.42758 AU	desc. node	1421 Nov 28 j 17:23	4° Υ 53'37	
superior conj	1421 Jan 06 j 15:09	25° Θ 21'28	-2°-2'-45	morning set	1421 Dec 01 j 03:44	8° Υ 38'30	
minimum elong	1421 Jan 06 j 13:03	25° Θ 12'35	2°02'44	max. Earth dist.	1421 Dec 13 j 03:40	27° Υ 25'17	1.44197 AU
	1421 Jan 09 j 08:23	0° \approx			1421 Dec 14 j 18:29	0° Θ	
evening rise	1421 Jan 18 j 09:35	15° \approx 55'44		superior conj	1421 Dec 17 j 20:21	4° Θ 56'56	-1°-46'-41
	1421 Jan 26 j 09:40	0° Υ		minimum elong	1421 Dec 17 j 13:06	4° Θ 27'38	1°46'10
asc. node	1421 Jan 30 j 03:13	5° Υ 57'14		evening rise	1421 Dec 31 j 10:21	27° Θ 30'47	
evening max el	1421 Feb 04 j 06:09	12° Υ 25'49	18°07'24		1422 Jan 01 j 21:27	0° \approx	
retrograde	1421 Feb 10 j 20:34	15° Υ 50'05		asc. node	1422 Jan 17 j 00:16	23° \approx 45'01	
evening set	1421 Feb 13 j 12:44	15° Υ 16'24		evening max el	1422 Jan 18 j 18:42	25° \approx 42'32	18°16'09
inferior conj	1421 Feb 20 j 02:03	10° Υ 13'26	3°39'56	retrograde	1422 Jan 25 j 06:01	29° \approx 11'09	
minimum elong	1421 Feb 20 j 03:25	10° Υ 10'03	3°39'49	evening set	1422 Jan 28 j 03:01	28° \approx 27'23	
min. Earth dist.	1421 Feb 23 j 03:44	7° Υ 12'48	0.61511 AU	inferior conj	1422 Feb 03 j 05:42	23° \approx 04'27	3°44'57

minimum elong	1422 Feb 03 j 05:09	23° \approx 06'00	3°44'56	minimum elong	1423 Jan 17 j 18:30	6° \approx 21'27	3°32'28
min. Earth dist.	1422 Feb 05 j 17:24	20° \approx 19'31	0.63472 AU	min. Earth dist.	1423 Jan 19 j 16:38	4° \approx 01'29	0.65111 AU
morning rise	1422 Feb 09 j 05:29	17° \approx 00'02		morning rise	1423 Jan 23 j 10:34	0° \approx 05'14	
direct	1422 Feb 16 j 03:54	14° \approx 15'30			1423 Jan 23 j 13:01	30° \approx 03'	
desc. node	1422 Feb 24 j 16:34	17° \approx 35'20		direct	1423 Jan 30 j 02:56	27° \approx 03'14	10
morning max el	1422 Mar 01 j 23:34	22° \approx 10'08	27°41'23		1423 Feb 06 j 13:07	0° \approx	
	1422 Mar 08 j 21:02	0° \approx		desc. node	1423 Feb 11 j 13:36	4° \approx 11'15	
	1422 Mar 28 j 11:22	0° \approx		morning max el	1423 Feb 12 j 09:13	4° \approx 59'35	27°02'07
morning set	1422 Apr 05 j 12:04	15° \approx 10'26			1423 Mar 03 j 11:05	0° \approx	
max. Earth dist.	1422 Apr 10 j 18:19	25° \approx 59'22	1.33028 AU	morning set	1423 Mar 20 j 00:30	28° \approx 45'23	
	1422 Apr 12 j 15:35	0° \approx			1423 Mar 20 j 15:56	0° \approx	
				max. Earth dist.	1423 Mar 24 j 13:38	7° \approx 45'04	1.34076 AU
superior conj	1422 Apr 13 j 07:01	1° \approx 22'41	0°-17'-44				
minimum elong	1422 Apr 13 j 07:53	1° \approx 27'21	0°17'35	superior conj	1423 Mar 28 j 09:39	15° \approx 39'29	0°-45'-23
asc. node	1422 Apr 14 j 23:35	5° \approx 01'09		minimum elong	1423 Mar 28 j 11:55	15° \approx 51'20	0°44'58
evening rise	1422 Apr 20 j 09:52	16° \approx 40'35		asc. node	1423 Apr 01 j 20:38	25° \approx 04'12	
	1422 Apr 27 j 01:11	0° \approx			1423 Apr 04 j 04:43	0° \approx	
evening max el	1422 May 13 j 05:01	23° \approx 17'35	23°09'28	evening rise	1423 Apr 04 j 20:14	1° \approx 21'08	
desc. node	1422 May 23 j 15:49	29° \approx 40'01			1423 Apr 21 j 10:09	0° \approx	
	1422 May 26 j 01:43	0° \approx		evening max el	1423 Apr 25 j 00:13	3° \approx 56'37	21°36'24
retrograde	1422 May 26 j 16:22	0° \approx 00'51		retrograde	1423 May 07 j 07:51	9° \approx 58'11	
	1422 May 27 j 07:03	30° \approx 11'		evening set	1423 May 09 j 19:37	9° \approx 44'10	
evening set	1422 May 30 j 07:22	29° \approx 32'01		desc. node	1423 May 10 j 12:50	9° \approx 35'10	
min. Earth dist.	1422 Jun 06 j 14:35	26° \approx 14'23	0.55653 AU	inferior conj	1423 May 19 j 04:55	5° \approx 43'02	-2°-26'-45
inferior conj	1422 Jun 08 j 09:02	25° \approx 12'19	-4°00'-15	minimum elong	1423 May 18 j 22:22	5° \approx 52'13	2°24'37
minimum elong	1422 Jun 08 j 01:45	25° \approx 23'01	3°58'40	min. Earth dist.	1423 May 19 j 02:52	5° \approx 45'55	0.54957 AU
morning rise	1422 Jun 16 j 23:16	21° \approx 18'50		morning rise	1423 May 28 j 01:50	1° \approx 46'53	
direct	1422 Jun 19 j 18:28	21° \approx 00'02		direct	1423 May 31 j 05:52	1° \approx 24'53	
morning max el	1422 Jun 30 j 12:10	25° \approx 58'16	20°29'23	morning max el	1423 Jun 12 j 14:07	7° \approx 14'31	21°58'32
	1422 Jul 04 j 05:41	0° \approx			1423 Jun 28 j 08:20	0° \approx	
asc. node	1422 Jul 11 j 22:51	11° \approx 41'27		asc. node	1423 Jun 28 j 19:54	0° \approx 55'18	
morning set	1422 Jul 19 j 06:23	25° \approx 49'42		morning set	1423 Jul 03 j 15:55	10° \approx 38'49	
	1422 Jul 21 j 07:04	0° \approx					
superior conj	1422 Jul 26 j 21:49	11° \approx 33'19	1°45'10	superior conj	1423 Jul 10 j 22:49	26° \approx 02'10	1°38'10
minimum elong	1422 Jul 26 j 21:04	11° \approx 29'30	1°45'08	minimum elong	1423 Jul 10 j 20:58	25° \approx 52'27	1°38'01
max. Earth dist.	1422 Jul 31 j 20:44	21° \approx 02'40	1.36213 AU		1423 Jul 12 j 20:25	0° \approx	
evening rise	1422 Aug 04 j 21:49	29° \approx 03'21		max. Earth dist.	1423 Jul 14 j 11:14	3° \approx 19'31	1.34645 AU
	1422 Aug 05 j 10:07	0° \approx		evening rise	1423 Jul 19 j 02:06	12° \approx 03'01	16
desc. node	1422 Aug 19 j 15:11	23° \approx 52'14			1423 Jul 28 j 18:23	0° \approx	
	1422 Aug 23 j 17:58	0° \approx		desc. node	1423 Aug 06 j 12:12	13° \approx 48'31	
evening max el	1422 Sep 09 j 13:53	20° \approx 51'29	26°06'52		1423 Aug 18 j 20:45	0° \approx	
retrograde	1422 Sep 22 j 03:54	27° \approx 59'53		evening max el	1423 Aug 23 j 02:08	4° \approx 25'07	26°57'37
evening set	1422 Sep 28 j 09:58	25° \approx 24'30		retrograde	1423 Sep 05 j 06:34	11° \approx 42'07	
min. Earth dist.	1422 Oct 02 j 15:52	20° \approx 52'03	0.66569 AU	evening set	1423 Sep 12 j 01:07	8° \approx 59'23	
inferior conj	1422 Oct 04 j 02:00	19° \approx 05'51	-1°-18'-30	min. Earth dist.	1423 Sep 15 j 23:55	5° \approx 03'59	0.65484 AU
minimum elong	1422 Oct 04 j 04:03	18° \approx 59'28	1°17'39	inferior conj	1423 Sep 17 j 22:08	2° \approx 50'46	-2°-16'-15
asc. node	1422 Oct 07 j 22:03	14° \approx 46'23		minimum elong	1423 Sep 20 j 01:43	2° \approx 40'26	2°14'54
morning rise	1422 Oct 09 j 23:08	13° \approx 13'04			1423 Sep 28 j 12:17	30° \approx 03'	
direct	1422 Oct 13 j 00:52	12° \approx 19'02		morning rise	1423 Sep 24 j 03:48	27° \approx 10'35	
morning max el	1422 Oct 19 j 21:23	16° \approx 08'07	18°53'31	asc. node	1423 Sep 24 j 19:07	26° \approx 53'45	
	1422 Oct 30 j 07:11	0° \approx		direct	1423 Sep 26 j 21:35	26° \approx 29'27	
morning set	1422 Nov 10 j 15:09	17° \approx 39'47			1423 Oct 03 j 09:42	0° \approx	
desc. node	1422 Nov 15 j 14:27	25° \approx 28'43		morning max el	1423 Oct 03 j 10:49	0° \approx 02'49	18°15'58
	1422 Nov 18 j 11:33	0° \approx		morning set	1423 Oct 22 j 06:50	28° \approx 06'21	
max. Earth dist.	1422 Nov 25 j 20:10	11° \approx 33'11	1.44990 AU		1423 Oct 23 j 10:40	0° \approx	
				desc. node	1423 Nov 02 j 11:29	16° \approx 11'05	
superior conj	1422 Nov 27 j 03:32	13° \approx 36'35	-1°-11'-58	superior conj	1423 Nov 06 j 05:24	22° \approx 07'34	0°-24'-47
minimum elong	1422 Nov 26 j 19:15	13° \approx 03'58	1°11'02	minimum elong	1423 Nov 06 j 02:11	21° \approx 54'51	0°24'22
	1422 Dec 07 j 11:19	0° \approx		max. Earth dist.	1423 Nov 08 j 15:09	25° \approx 55'10	1.45054 AU
evening rise	1422 Dec 12 j 12:37	8° \approx 08'46			1423 Nov 11 j 05:31	0° \approx	
	1422 Dec 26 j 05:39	0° \approx		evening rise	1423 Nov 22 j 15:43	17° \approx 51'10	
evening max el	1423 Jan 02 j 06:11	9° \approx 07'32	18°43'08		1423 Nov 30 j 10:54	0° \approx	
asc. node	1423 Jan 03 j 21:19	10° \approx 38'23		greatest brilliancy	1423 Dec 07 j 23:10	11° \approx 24'13	-0.7m
retrograde	1423 Jan 08 j 22:38	12° \approx 51'34		evening max el	1423 Dec 16 j 14:18	22° \approx 35'58	19°27'05
evening set	1423 Jan 12 j 01:16	11° \approx 56'36		asc. node	1423 Dec 21 j 18:22	26° \approx 22'22	
inferior conj	1423 Jan 17 j 20:24	6° \approx 15'41	3°32'42	retrograde	1423 Dec 23 j 19:07	26° \approx 45'03	

evening set	1423 Dec 27 j 04:46	25°☾37'21		inferior conj	1424 Dec 15 j 22:18	3°☾16'18	2°33'16
inferior conj	1424 Jan 01 j 18:48	19°☾40'49	3°07'47	minimum elong	1424 Dec 15 j 19:39	3°☾25'17	2°32'27
minimum elong	1424 Jan 01 j 16:14	19°☾49'09	3°07'13	min. Earth dist.	1424 Dec 16 j 14:31	2°☾21'17	0.67198 AU
min. Earth dist.	1424 Jan 03 j 00:15	18°☾05'10	0.66357 AU		1424 Dec 18 j 09:37	30°☾☿	
morning rise	1424 Jan 07 j 02:57	13°☾27'03		morning rise	1424 Dec 21 j 03:29	27°☾01'09	
direct	1424 Jan 13 j 07:54	10°☾42'49		direct	1424 Dec 26 j 18:04	24°☾33'11	
morning max el	1424 Jan 25 j 18:29	18°☾05'32	25°56'46		1425 Jan 05 j 18:09	0°☾	
desc. node	1424 Jan 29 j 10:39	22°☾04'15		morning max el	1425 Jan 07 j 02:56	1°☾19'54	24°34'58
	1424 Feb 04 j 19:26	0°☾		desc. node	1425 Jan 15 j 07:43	10°☾52'10	
	1424 Feb 24 j 10:57	0°☾			1425 Jan 28 j 19:57	0°☾	
morning set	1424 Mar 01 j 23:06	11°☾34'47		morning set	1425 Feb 12 j 02:28	23°☾23'37	
max. Earth dist.	1424 Mar 05 j 21:14	18°☾58'43	1.35583 AU		1425 Feb 15 j 19:05	0°☾	
				max. Earth dist.	1425 Feb 15 j 19:28	0°☾01'45	1.37489 AU
superior conj	1424 Mar 11 j 04:48	29°☾29'11	-1°-12'-21	superior conj	1425 Feb 22 j 13:16	12°☾42'57	-1°-36'-34
minimum elong	1424 Mar 11 j 08:19	29°☾46'57	1°11'47	minimum elong	1425 Feb 22 j 17:26	13°☾03'09	1°36'04
	1424 Mar 11 j 10:54	0°☾		evening rise	1425 Mar 03 j 04:20	29°☾48'03	
asc. node	1424 Mar 18 j 17:41	14°☾57'24			1425 Mar 03 j 06:44	0°☾	
evening rise	1424 Mar 19 j 03:09	15°☾45'52		asc. node	1425 Mar 05 j 14:43	4°☾35'46	
	1424 Mar 26 j 11:16	0°☾		evening max el	1425 Mar 19 j 22:59	26°☾56'31	19°14'26
evening max el	1424 Apr 06 j 05:54	15°☾07'08	20°16'15		1425 Mar 24 j 00:55	0°☾	
retrograde	1424 Apr 16 j 21:26	20°☾15'47		retrograde	1425 Mar 28 j 22:29	1°☾16'54	
evening set	1424 Apr 18 j 23:03	20°☾04'59		evening set	1425 Mar 31 j 01:25	1°☾03'23	
desc. node	1424 Apr 26 j 09:50	17°☾03'06			1425 Apr 03 j 03:40	30°☾☿	
inferior conj	1424 Apr 28 j 00:30	16°☾06'49	0°-28'-4	inferior conj	1425 Apr 08 j 09:34	26°☾53'15	1°21'54
minimum elong	1424 Apr 27 j 23:12	16°☾08'45	0°27'35	minimum elong	1425 Apr 08 j 12:41	26°☾48'01	1°20'52
min. Earth dist.	1424 Apr 29 j 16:00	15°☾08'43	0.55212 AU	min. Earth dist.	1425 Apr 11 j 06:52	24°☾57'41	0.56370 AU
morning rise	1424 May 06 j 21:08	11°☾49'27		desc. node	1425 Apr 13 j 06:51	23°☾44'06	
direct	1424 May 10 j 18:04	11°☾16'54		morning rise	1425 Apr 16 j 19:55	22°☾02'28	
morning max el	1424 May 24 j 07:29	17°☾55'19	23°39'08	direct	1425 Apr 21 j 17:01	21°☾07'35	
	1424 Jun 03 j 04:03	0°☾		morning max el	1425 May 05 j 21:58	28°☾22'52	25°18'28
asc. node	1424 Jun 14 j 16:57	20°☾32'20			1425 May 07 j 12:44	0°☾	
morning set	1424 Jun 17 j 03:28	25°☾35'07			1425 May 27 j 10:36	0°☾	
	1424 Jun 19 j 05:20	0°☾		morning set	1425 Jun 01 j 15:17	10°☾32'03	
superior conj	1424 Jun 24 j 05:33	10°☾48'29	1°25'36	asc. node	1425 Jun 01 j 13:59	10°☾25'09	
minimum elong	1424 Jun 24 j 03:11	10°☾35'42	1°25'18	superior conj	1425 Jun 08 j 15:42	25°☾43'53	1°08'30
max. Earth dist.	1424 Jun 26 j 11:19	15°☾35'59	1.33465 AU	minimum elong	1425 Jun 08 j 13:19	25°☾30'55	1°08'07
evening rise	1424 Jul 01 j 18:34	26°☾33'40		max. Earth dist.	1425 Jun 09 j 18:50	28°☾11'57	1.32679 AU
	1424 Jul 03 j 12:16	0°☾			1425 Jun 10 j 14:43	0°☾	
	1424 Jul 21 j 02:33	0°☾		evening rise	1425 Jun 15 j 19:35	11°☾01'39	
desc. node	1424 Jul 23 j 09:12	3°☾14'28			1425 Jun 25 j 18:12	0°☾	
evening max el	1424 Aug 04 j 13:42	17°☾42'41	27°23'41	desc. node	1425 Jul 10 j 06:11	21°☾56'33	
retrograde	1424 Aug 18 j 03:14	25°☾00'48			1425 Jul 17 j 09:47	0°☾	
evening set	1424 Aug 25 j 06:20	22°☾19'56		evening max el	1425 Jul 17 j 22:08	0°☾29'39	27°19'23
min. Earth dist.	1424 Aug 28 j 23:08	18°☾59'51	0.64049 AU	retrograde	1425 Jul 31 j 17:23	7°☾45'58	
inferior conj	1424 Aug 31 j 10:10	16°☾25'26	-3°-12'-3	evening set	1425 Aug 07 j 21:57	5°☾19'08	
minimum elong	1424 Aug 31 j 14:58	16°☾12'50	3°10'32	min. Earth dist.	1425 Aug 11 j 11:58	2°☾27'36	0.62278 AU
morning rise	1424 Sep 07 j 01:40	11°☾01'25		inferior conj	1425 Aug 14 j 11:07	29°☾41'58	-4°-1'-59
direct	1424 Sep 09 j 14:06	10°☾29'34		minimum elong	1425 Aug 14 j 16:16	29°☾29'55	4°00'48
asc. node	1424 Sep 10 j 16:09	10°☾35'35			1425 Aug 14 j 03:26	30°☾☿	
morning max el	1424 Sep 16 j 02:43	13°☾55'34	17°55'37	morning rise	1425 Aug 21 j 13:16	24°☾37'37	
	1424 Sep 27 j 06:51	0°☾		direct	1425 Aug 23 j 22:57	24°☾12'04	
morning set	1424 Oct 03 j 01:52	9°☾52'48		asc. node	1425 Aug 28 j 13:12	25°☾48'02	
	1424 Oct 15 j 01:24	0°☾		morning max el	1425 Aug 30 j 18:09	27°☾39'03	17°53'20
superior conj	1424 Oct 15 j 23:08	1°☾28'38	0°22'42		1425 Sep 01 j 21:06	0°☾	
minimum elong	1424 Oct 16 j 01:37	1°☾38'46	0°22'20	morning set	1425 Sep 15 j 18:14	22°☾39'56	
desc. node	1424 Oct 19 j 08:32	6°☾57'39			1425 Sep 19 j 20:29	0°☾	
max. Earth dist.	1424 Oct 21 j 09:30	10°☾13'14	1.44388 AU	superior conj	1425 Sep 26 j 19:25	12°☾08'31	1°01'02
evening rise	1424 Nov 01 j 02:30	26°☾57'38		minimum elong	1425 Sep 27 j 00:05	12°☾28'26	1°00'27
	1424 Nov 03 j 02:00	0°☾		max. Earth dist.	1425 Oct 03 j 23:55	24°☾07'42	1.43074 AU
greatest brilliancy	1424 Nov 22 j 13:26	28°☾39'23	-0.5m	desc. node	1425 Oct 06 j 05:33	27°☾44'42	
	1424 Nov 23 j 13:52	0°☾			1425 Oct 07 j 15:21	0°☾	
evening max el	1424 Nov 28 j 17:26	6°☾05'35	20°25'56	evening rise	1425 Oct 11 j 12:00	6°☾05'26	
retrograde	1424 Dec 06 j 16:57	10°☾47'41			1425 Oct 27 j 10:19	0°☾	
asc. node	1424 Dec 07 j 15:24	10°☾42'45		greatest brilliancy	1425 Nov 06 j 17:06	13°☾58'36	-0.4m
evening set	1424 Dec 10 j 11:21	9°☾25'36					

evening max el	1425 Nov 11 j 14:46	19°♂35'31	21°36'44	evening max el	1426 Oct 25 j 06:59	3°♂06'57	22°55'03
retrograde	1425 Nov 20 j 14:06	24°♂55'52		retrograde	1426 Nov 04 j 08:55	9°♂06'06	
evening set	1425 Nov 24 j 19:07	23°♂17'52		evening set	1426 Nov 09 j 02:23	7°♂11'03	
asc. node	1425 Nov 24 j 12:25	23°♂30'35		asc. node	1426 Nov 11 j 09:29	4°♂51'53	
inferior conj	1425 Nov 30 j 04:42	16°♂59'16	1°51'13	min. Earth dist.	1426 Nov 14 j 05:48	1°♂08'41	0.67778 AU
minimum elong	1425 Nov 30 j 02:27	17°♂07'00	1°50'22	inferior conj	1426 Nov 14 j 12:04	0°♂47'04	1°03'09
min. Earth dist.	1425 Nov 30 j 09:10	16°♂43'47	0.67659 AU	minimum elong	1426 Nov 14 j 10:39	0°♂51'57	1°02'34
morning rise	1425 Dec 05 j 09:32	10°♂44'37			1426 Nov 15 j 01:44	30°♂	
direct	1425 Dec 10 j 08:49	8°♂37'59		morning rise	1426 Nov 19 j 18:54	24°♂35'04	
morning max el	1425 Dec 20 j 12:20	14°♂39'36	23°06'48	direct	1426 Nov 24 j 03:24	22°♂51'13	
greatest brilliancy	1425 Dec 25 j 10:03	20°♂08'49	-0.3m	morning max el	1426 Dec 03 j 01:49	28°♂05'45	21°41'12
	1426 Jan 01 j 23:13	0°♂			1426 Dec 04 j 20:55	0°♂	
desc. node	1426 Jan 02 j 04:46	0°♂19'12		greatest brilliancy	1426 Dec 07 j 23:20	3°♂38'59	-0.4m
	1426 Jan 21 j 19:10	0°♂		desc. node	1426 Dec 20 j 01:48	20°♂13'45	
morning set	1426 Jan 24 j 04:22	3°♂56'06			1426 Dec 26 j 15:12	0°♂	
max. Earth dist.	1426 Jan 28 j 14:42	11°♂27'27	1.39613 AU	morning set	1427 Jan 04 j 00:56	13°♂04'03	
				max. Earth dist.	1427 Jan 10 j 13:46	23°♂40'47	1.41691 AU
superior conj	1426 Feb 05 j 06:53	25°♂10'17	-1°-55'-5		1427 Jan 14 j 08:07	0°♂	
minimum elong	1426 Feb 05 j 10:23	25°♂26'27	1°54'52				
	1426 Feb 07 j 21:08	0°♂		superior conj	1427 Jan 18 j 04:27	6°♂37'52	-2°-3'-57
evening rise	1426 Feb 14 j 20:55	13°♂20'14		minimum elong	1427 Jan 18 j 05:06	6°♂40'41	2°03'58
asc. node	1426 Feb 20 j 11:44	23°♂53'51		evening rise	1427 Jan 29 j 01:17	26°♂12'59	
	1426 Feb 24 j 00:30	0°♂			1427 Jan 31 j 02:46	0°♂	
evening max el	1426 Mar 03 j 01:34	9°♂21'53	18°32'43	asc. node	1427 Feb 07 j 08:47	12°♂44'01	
retrograde	1426 Mar 10 j 17:53	13°♂07'50		evening max el	1427 Feb 14 j 10:30	22°♂13'56	18°11'04
evening set	1426 Mar 13 j 01:57	12°♂48'04		retrograde	1427 Feb 21 j 07:09	25°♂41'35	
inferior conj	1426 Mar 20 j 15:17	8°♂18'56	2°41'11	evening set	1427 Feb 23 j 20:31	25°♂13'22	
minimum elong	1426 Mar 20 j 19:19	8°♂10'59	2°40'11	inferior conj	1427 Mar 02 j 17:34	20°♂22'58	3°26'43
min. Earth dist.	1426 Mar 24 j 01:16	5°♂39'22	0.58180 AU	minimum elong	1427 Mar 02 j 20:09	20°♂17'05	3°26'21
morning rise	1426 Mar 28 j 08:29	2°♂56'15		min. Earth dist.	1427 Mar 06 j 01:19	17°♂22'35	0.60295 AU
desc. node	1426 Mar 31 j 03:53	1°♂52'00		morning rise	1427 Mar 09 j 16:28	14°♂37'59	
direct	1426 Apr 03 j 06:16	1°♂27'19		direct	1427 Mar 16 j 07:53	12°♂32'16	
morning max el	1426 Apr 17 j 15:23	9°♂05'43	26°40'46	desc. node	1427 Mar 18 j 00:56	12°♂40'16	
	1426 May 03 j 12:09	0°♂		morning max el	1427 Mar 30 j 14:32	20°♂22'36	27°33'05
morning set	1426 May 17 j 01:47	25°♂24'06			1427 Apr 07 j 21:13	0°♂	
asc. node	1426 May 19 j 11:02	0°♂28'28			1427 Apr 26 j 08:06	0°♂	
	1426 May 19 j 05:44	0°♂		morning set	1427 May 01 j 09:11	10°♂04'39	
superior conj	1426 May 24 j 03:22	10°♂42'04	0°47'43	asc. node	1427 May 06 j 08:04	20°♂37'09	
minimum elong	1426 May 24 j 01:28	10°♂31'33	0°47'21	max. Earth dist.	1427 May 07 j 18:31	23°♂45'09	1.32260 AU
max. Earth dist.	1426 May 24 j 06:28	10°♂59'04	1.32280 AU	superior conj	1427 May 08 j 14:51	25°♂36'37	0°23'57
evening rise	1426 May 31 j 02:22	25°♂45'31		minimum elong	1427 May 08 j 13:48	25°♂30'48	0°23'43
	1426 Jun 02 j 03:36	0°♂			1427 May 10 j 14:50	0°♂	
	1426 Jun 19 j 11:24	0°♂		evening rise	1427 May 15 j 12:39	10°♂37'18	
desc. node	1426 Jun 27 j 03:10	9°♂36'36			1427 May 25 j 11:13	0°♂	
evening max el	1426 Jun 30 j 00:57	12°♂34'46	26°42'01	evening max el	1427 Jun 11 j 20:55	23°♂54'10	25°34'03
retrograde	1426 Jul 14 j 00:11	19°♂48'44		desc. node	1427 Jun 14 j 00:11	25°♂49'02	
evening set	1426 Jul 20 j 19:29	17°♂49'45			1427 Jun 20 j 16:41	0°♂	
min. Earth dist.	1426 Jul 24 j 14:37	15°♂12'57	0.60266 AU	retrograde	1427 Jun 25 j 21:40	1°♂03'32	
inferior conj	1426 Jul 27 j 21:34	12°♂31'56	-4°-39'-36		1427 Jul 01 j 02:01	30°♂	
minimum elong	1426 Jul 28 j 01:22	12°♂24'10	4°39'08	evening set	1427 Jul 01 j 18:30	29°♂42'29	
morning rise	1426 Aug 04 j 10:32	7°♂49'56		min. Earth dist.	1427 Jul 06 j 09:07	27°♂02'12	0.58214 AU
direct	1426 Aug 06 j 20:07	7°♂28'16		inferior conj	1427 Jul 09 j 14:04	24°♂46'04	-4°-54'-41
morning max el	1426 Aug 14 j 06:03	11°♂05'32	18°10'13	minimum elong	1427 Jul 09 j 14:05	24°♂46'04	4°54'41
asc. node	1426 Aug 15 j 10:15	12°♂18'16		morning rise	1427 Jul 17 j 13:20	20°♂26'48	
	1426 Aug 26 j 18:29	0°♂		direct	1427 Jul 20 j 01:21	20°♂07'12	
morning set	1426 Aug 30 j 02:09	6°♂11'44		morning max el	1427 Jul 28 j 11:15	24°♂05'52	18°47'35
				asc. node	1427 Aug 02 j 07:19	29°♂51'02	
superior conj	1426 Sep 08 j 17:33	24°♂04'33	1°27'05		1427 Aug 02 j 09:50	0°♂	
minimum elong	1426 Sep 08 j 21:28	24°♂22'11	1°26'43	morning set	1427 Aug 13 j 21:10	20°♂16'28	
	1426 Sep 12 j 01:34	0°♂			1427 Aug 18 j 20:28	0°♂	
max. Earth dist.	1426 Sep 16 j 08:32	7°♂23'02	1.41291 AU				
evening rise	1426 Sep 21 j 12:51	15°♂57'13		superior conj	1427 Aug 22 j 12:19	7°♂02'13	1°41'29
desc. node	1426 Sep 23 j 02:32	18°♂29'01		minimum elong	1427 Aug 22 j 14:21	7°♂11'51	1°41'23
	1426 Sep 30 j 11:56	0°♂		max. Earth dist.	1427 Aug 29 j 12:52	19°♂56'09	1.39274 AU
greatest brilliancy	1426 Oct 20 j 01:24	27°♂14'50	-0.3m	evening rise	1427 Sep 02 j 13:33	26°♂56'18	
	1426 Oct 22 j 09:28	0°♂			1427 Sep 04 j 09:04	0°♂	

desc. node	1427 Sep 09 j 23:33	9°♄07'12		superior conj	1428 Aug 04 j 22:09	20°♄45'10	1°46'09
	1427 Sep 24 j 02:05	0°♄		minimum elong	1428 Aug 04 j 22:18	20°♄45'52	1°46'08
evening max el	1427 Oct 07 j 20:05	16°♄42'52	24°14'55		1428 Aug 09 j 16:21	0°♄	
retrograde	1427 Oct 19 j 00:08	23°♄15'40		max. Earth dist.	1428 Aug 10 j 17:14	1°♄57'19	1.37273 AU
evening set	1427 Oct 24 j 07:33	21°♄03'25		evening rise	1428 Aug 14 j 13:38	9°♄01'19	
min. Earth dist.	1427 Oct 29 j 02:00	15°♄34'31	0.67574 AU	desc. node	1428 Aug 26 j 20:35	29°♄34'09	
asc. node	1427 Oct 29 j 06:32	15°♄19'17			1428 Aug 27 j 03:15	0°♄	
inferior conj	1427 Oct 29 j 18:42	14°♄38'14	0°10'30		1428 Sep 18 j 23:07	0°♄	
minimum elong	1427 Oct 29 j 18:27	14°♄39'06	0°10'24	evening max el	1428 Sep 19 j 08:03	0°♄22'01	25°29'24
transit middle	1427 Oct 29 j 18:27	14°♄39'06	0°10'24	retrograde	1428 Oct 01 j 10:51	7°♄19'41	
transit begin	1427 Oct 29 j 16:21	14°♄46'11		evening set	1428 Oct 07 j 08:54	4°♄51'40	
transit end	1427 Oct 29 j 20:33	14°♄32'01			1428 Oct 11 j 18:43	30°♄	
morning rise	1427 Nov 04 j 05:37	8°♄31'28		min. Earth dist.	1428 Oct 11 j 19:16	29°♄58'15	0.67041 AU
direct	1427 Nov 08 j 00:42	7°♄09'13		inferior conj	1428 Oct 12 j 22:48	28°♄29'38	0°-45'-24
morning max el	1427 Nov 15 j 22:23	11°♄42'24	20°25'04	minimum elong	1428 Oct 12 j 23:58	28°♄25'53	0°44'55
greatest brilliancy	1427 Nov 22 j 07:40	19°♄18'37	-0.5m	asc. node	1428 Oct 15 j 03:35	25°♄45'43	
	1427 Nov 29 j 22:10	0°♄		morning rise	1428 Oct 18 j 15:43	22°♄30'57	
desc. node	1427 Dec 06 j 22:51	10°♄28'33		direct	1428 Oct 21 j 23:14	21°♄27'34	
morning set	1427 Dec 13 j 23:47	21°♄15'22		morning max el	1428 Oct 29 j 02:47	25°♄29'23	19°22'30
	1427 Dec 19 j 13:55	0°♄			1428 Nov 02 j 00:28	0°♄	
max. Earth dist.	1427 Dec 23 j 20:48	6°♄50'07	1.43441 AU	greatest brilliancy	1428 Nov 07 j 11:29	7°♄32'13	-0.7m
				morning set	1428 Nov 21 j 23:47	29°♄39'25	
superior conj	1427 Dec 30 j 01:05	16°♄55'28	-1°-58'-16		1428 Nov 22 j 05:05	0°♄	
minimum elong	1427 Dec 29 j 20:41	16°♄37'11	1°58'05	desc. node	1428 Nov 22 j 19:53	0°♄57'28	
	1428 Jan 06 j 18:39	0°♄		max. Earth dist.	1428 Dec 05 j 11:05	20°♄43'28	1.44627 AU
evening rise	1428 Jan 11 j 13:20	8°♄18'23					
	1428 Jan 24 j 13:23	0°♄		superior conj	1428 Dec 08 j 19:37	26°♄03'05	-1°-34'-5
asc. node	1428 Jan 25 j 05:50	0°♄57'40		minimum elong	1428 Dec 08 j 11:07	25°♄29'11	1°33'18
evening max el	1428 Jan 28 j 22:37	5°♄24'08	18°08'52		1428 Dec 11 j 06:52	0°♄	
retrograde	1428 Feb 04 j 10:26	8°♄48'20		evening rise	1428 Dec 23 j 04:48	19°♄29'19	
evening set	1428 Feb 07 j 04:44	8°♄10'23			1428 Dec 29 j 12:27	0°♄	
inferior conj	1428 Feb 13 j 13:07	2°♄58'55	3°44'27	asc. node	1429 Jan 11 j 02:52	18°♄23'55	
minimum elong	1428 Feb 13 j 13:37	2°♄57'36	3°44'27	evening max el	1429 Jan 11 j 11:00	18°♄44'58	18°25'29
	1428 Feb 16 j 10:23	30°♄		retrograde	1429 Jan 17 j 23:24	22°♄18'39	
min. Earth dist.	1428 Feb 16 j 09:20	0°♄02'38	0.62384 AU	evening set	1429 Jan 20 j 22:46	21°♄30'06	
morning rise	1428 Feb 19 j 20:16	27°♄00'06		inferior conj	1429 Jan 26 j 21:52	15°♄59'03	3°41'33
direct	1428 Feb 26 j 19:00	24°♄25'56		minimum elong	1429 Jan 26 j 20:40	16°♄02'32	3°41'28
desc. node	1428 Mar 03 j 22:00	26°♄09'37		min. Earth dist.	1429 Jan 29 j 02:53	13°♄26'09	0.64215 AU
	1428 Mar 09 j 07:23	0°♄		morning rise	1429 Feb 01 j 17:07	9°♄51'52	
morning max el	1428 Mar 11 j 19:29	2°♄20'23	27°48'55	direct	1429 Feb 08 j 13:46	7°♄03'05	
	1428 Apr 01 j 05:08	0°♄		desc. node	1429 Feb 18 j 19:04	11°♄47'42	
morning set	1428 Apr 14 j 11:24	24°♄26'50		morning max el	1429 Feb 22 j 04:17	14°♄54'23	27°28'32
	1428 Apr 17 j 04:05	0°♄			1429 Mar 06 j 12:14	0°♄	
max. Earth dist.	1428 Apr 20 j 03:17	6°♄17'46	1.32633 AU		1429 Mar 24 j 20:49	0°♄	
				morning set	1429 Mar 29 j 05:51	8°♄22'20	
superior conj	1428 Apr 22 j 00:26	10°♄21'38	0°-2'-4	max. Earth dist.	1429 Apr 03 j 04:48	18°♄24'34	1.33419 AU
minimum elong	1428 Apr 22 j 00:32	10°♄22'09	0°02'04				
behind sun begin	1428 Apr 21 j 19:23	9°♄54'17		superior conj	1429 Apr 06 j 06:13	24°♄50'56	0°-29'-26
behind sun end	1428 Apr 22 j 05:40	10°♄50'02		minimum elong	1429 Apr 06 j 07:41	24°♄58'41	0°29'09
asc. node	1428 Apr 22 j 05:09	10°♄47'13			1429 Apr 08 j 16:04	0°♄	
evening rise	1428 Apr 29 j 00:27	25°♄30'10		asc. node	1429 Apr 09 j 02:10	0°♄54'11	
	1428 May 01 j 04:06	0°♄		evening rise	1429 Apr 13 j 11:54	10°♄17'40	
	1428 May 19 j 05:46	0°♄			1429 Apr 23 j 18:20	0°♄	
evening max el	1428 May 23 j 11:38	4°♄36'40	24°04'44	evening max el	1429 May 05 j 02:57	15°♄08'00	22°28'51
desc. node	1428 May 30 j 21:14	10°♄00'10		desc. node	1429 May 17 j 18:16	21°♄35'21	
retrograde	1428 Jun 06 j 07:03	11°♄33'21		retrograde	1429 May 18 j 04:08	21°♄35'44	
evening set	1428 Jun 10 j 18:35	10°♄48'55		evening set	1429 May 21 j 06:01	21°♄14'51	
min. Earth dist.	1428 Jun 16 j 22:31	7°♄48'49	0.56431 AU	min. Earth dist.	1429 May 29 j 10:16	17°♄42'01	0.55251 AU
inferior conj	1428 Jun 19 j 10:23	6°♄16'13	-4°-33'-30	inferior conj	1429 May 30 j 12:47	17°♄04'27	-3°-25'-36
minimum elong	1428 Jun 19 j 05:12	6°♄24'18	4°32'48	minimum elong	1429 May 30 j 05:03	17°♄15'26	3°23'31
morning rise	1428 Jun 27 j 19:22	2°♄16'06		morning rise	1429 Jun 08 j 06:26	13°♄12'32	
direct	1428 Jun 30 j 11:45	1°♄57'16		direct	1429 Jun 11 j 04:52	12°♄52'54	
morning max el	1428 Jul 10 j 06:46	6°♄29'51	19°46'14	morning max el	1429 Jun 22 j 15:06	18°♄11'42	21°05'18
asc. node	1428 Jul 19 j 04:22	18°♄11'52			1429 Jul 01 j 21:47	0°♄	
	1428 Jul 25 j 14:46	0°♄		asc. node	1429 Jul 06 j 01:25	7°♄09'34	
morning set	1428 Jul 27 j 23:46	4°♄44'07		morning set	1429 Jul 12 j 07:24	19°♄27'48	
					1429 Jul 17 j 08:42	0°♄	

superior conj	1429 Jul 19 j 18:40	5°00'56	1°42'56	superior conj	1430 Jul 03 j 22:26	19°38'29	1°33'26
minimum elong	1429 Jul 19 j 17:23	4°05'418	1°42'53	minimum elong	1430 Jul 03 j 20:18	19°27'08	1°33'15
max. Earth dist.	1429 Jul 24 j 02:55	13°048'40	1.35506 AU	max. Earth dist.	1430 Jul 06 j 21:22	23°51'25	1.34092 AU
evening rise	1429 Jul 28 j 08:59	22°02'12			1430 Jul 08 j 21:42	0°0	
	1429 Aug 01 j 17:18	0°0		evening rise	1430 Jul 11 j 18:55	5°045'55	
desc. node	1429 Aug 13 j 17:36	19°044'00			1430 Jul 25 j 09:12	0°0	
	1429 Aug 20 j 22:06	0°0		desc. node	1430 Jul 31 j 14:36	9°028'52	
evening max el	1429 Sep 01 j 20:03	13°059'37	26°30'53	evening max el	1430 Aug 15 j 07:59	27°027'13	27°11'57
retrograde	1429 Sep 14 j 16:33	21°012'21			1430 Aug 18 j 04:49	0°0	
evening set	1429 Sep 21 j 04:27	18°032'44		retrograde	1430 Aug 28 j 16:55	4°046'02	
min. Earth dist.	1429 Sep 25 j 07:13	14°016'20	0.66160 AU	evening set	1430 Sep 04 j 15:47	2°022'25	
inferior conj	1429 Sep 26 j 22:26	12°018'02	-1°-43'-2		1430 Sep 06 j 22:23	30°00	
minimum elong	1429 Sep 27 j 01:09	12°009'50	1°41'57	min. Earth dist.	1430 Sep 08 j 11:40	28°022'44	0.64919 AU
asc. node	1429 Oct 02 j 00:38	7°005'36		inferior conj	1430 Sep 10 j 15:26	25°059'13	-2°-40'-21
morning rise	1429 Oct 02 j 23:03	6°030'27		minimum elong	1430 Sep 10 j 19:36	25°047'39	2°38'53
direct	1429 Oct 05 j 21:09	5°042'21		morning rise	1430 Sep 17 j 01:12	20°025'47	
morning max el	1429 Oct 12 j 13:38	9°023'15	18°35'30	asc. node	1430 Sep 18 j 21:40	19°052'22	
	1429 Oct 27 j 03:12	0°0		direct	1430 Sep 19 j 16:18	19°049'09	
morning set	1429 Nov 01 j 22:35	9°015'54		morning max el	1430 Sep 26 j 04:33	23°018'27	18°05'09
desc. node	1429 Nov 09 j 16:55	21°036'08			1430 Oct 01 j 12:38	0°0	
	1429 Nov 15 j 00:47	0°0		morning set	1430 Oct 14 j 02:28	20°018'18	
					1430 Oct 19 j 22:58	0°0	
superior conj	1429 Nov 17 j 21:44	4°030'54	0°-52'-46	desc. node	1430 Oct 27 j 13:56	12°020'51	
minimum elong	1429 Nov 17 j 15:04	4°004'43	0°51'57				
max. Earth dist.	1429 Nov 18 j 05:21	5°000'51	1.45111 AU	superior conj	1430 Oct 28 j 04:13	13°017'57	0°-3'-59
evening rise	1429 Dec 03 j 20:57	29°042'48		minimum elong	1430 Oct 28 j 03:43	13°015'56	0°03'56
	1429 Dec 04 j 01:17	0°0		behind sun begin	1430 Oct 27 j 17:16	12°034'14	
	1429 Dec 23 j 22:13	0°0		behind sun end	1430 Oct 28 j 14:10	13°057'35	
evening max el	1429 Dec 25 j 21:11	2°011'14	18°59'50	max. Earth dist.	1430 Nov 01 j 00:08	19°022'30	1.44850 AU
asc. node	1429 Dec 28 j 23:54	4°049'27			1430 Nov 07 j 18:52	0°0	
retrograde	1430 Jan 01 j 18:06	6°005'09		evening rise	1430 Nov 13 j 15:44	9°006'27	
evening set	1430 Jan 04 j 23:31	5°004'53			1430 Nov 27 j 07:59	0°0	
	1430 Jan 10 j 02:20	30°00		greatest brilliancy	1430 Dec 01 j 18:09	6°025'13	-0.6m
inferior conj	1430 Jan 10 j 16:10	29°016'43	3°23'31	evening max el	1430 Dec 09 j 03:16	15°040'21	19°50'28
minimum elong	1430 Jan 10 j 13:55	29°023'48	3°23'07	asc. node	1430 Dec 15 j 20:56	19°059'48	
min. Earth dist.	1430 Jan 12 j 05:52	27°018'32	0.65684 AU	retrograde	1430 Dec 16 j 15:33	20°003'09	
morning rise	1430 Jan 16 j 03:21	23°004'26		evening set	1430 Dec 20 j 04:34	18°049'43	
direct	1430 Jan 22 j 15:10	20°015'08		inferior conj	1430 Dec 25 j 17:04	12°047'16	2°54'12
morning max el	1430 Feb 04 j 14:10	27°052'51	26°37'07	minimum elong	1430 Dec 25 j 14:24	12°056'08	2°53'30
desc. node	1430 Feb 05 j 16:07	28°059'38		min. Earth dist.	1430 Dec 26 j 16:43	11°028'42	0.66756 AU
	1430 Feb 06 j 14:40	0°0		morning rise	1430 Dec 30 j 23:34	6°032'25	
	1430 Feb 28 j 05:26	0°0		direct	1431 Jan 05 j 22:34	3°054'06	
morning set	1430 Mar 12 j 12:57	21°039'30		morning max el	1431 Jan 17 j 23:09	11°003'58	25°23'23
	1430 Mar 16 j 20:07	0°0		desc. node	1431 Jan 23 j 13:09	17°018'37	
max. Earth dist.	1430 Mar 16 j 19:28	29°056'46	1.34658 AU		1431 Feb 02 j 02:09	0°0	
					1431 Feb 20 j 21:09	0°0	
superior conj	1430 Mar 21 j 05:57	8°056'45	0°-57'-1	morning set	1431 Feb 23 j 04:07	4°005'28	
minimum elong	1430 Mar 21 j 08:47	9°011'23	0°56'31	max. Earth dist.	1431 Feb 26 j 22:17	11°001'21	1.36348 AU
asc. node	1430 Mar 26 j 23:12	20°053'31					
evening rise	1430 Mar 28 j 21:01	24°052'13		superior conj	1431 Mar 04 j 20:57	22°032'09	-1°-23'-7
	1430 Mar 31 j 09:16	0°0		minimum elong	1431 Mar 05 j 00:51	22°051'32	1°22'33
evening max el	1430 Apr 17 j 02:00	25°057'40	21°00'17		1431 Mar 08 j 14:00	0°0	
	1430 Apr 22 j 11:24	0°0		evening rise	1431 Mar 13 j 01:47	9°007'58	
retrograde	1430 Apr 28 j 17:43	1°037'58		asc. node	1431 Mar 13 j 20:14	10°040'58	
evening set	1430 Apr 30 j 23:03	1°026'21			1431 Mar 24 j 12:47	0°0	
desc. node	1430 May 04 j 15:18	0°021'07		evening max el	1431 Mar 30 j 12:38	7°024'29	19°47'35
	1430 May 05 j 11:03	30°00		retrograde	1431 Apr 09 j 10:41	12°011'16	
inferior conj	1430 May 10 j 06:39	27°028'12	-1°-37'-33	evening set	1431 Apr 11 j 11:46	12°000'00	
minimum elong	1430 May 10 j 02:04	27°034'42	1°35'56	inferior conj	1431 Apr 20 j 06:33	7°058'26	0°21'25
min. Earth dist.	1430 May 10 j 22:45	27°005'23	0.54942 AU	minimum elong	1431 Apr 20 j 07:29	7°056'59	0°21'05
morning rise	1430 May 19 j 04:37	23°025'18		desc. node	1431 Apr 21 j 12:19	7°012'14	
direct	1430 May 22 j 14:22	23°000'16		min. Earth dist.	1431 Apr 22 j 12:49	6°034'40	0.55603 AU
morning max el	1430 Jun 04 j 13:01	29°011'34	22°40'36	morning rise	1431 Apr 28 j 23:53	3°027'03	
	1430 Jun 05 j 09:10	0°0		direct	1431 May 03 j 06:27	2°046'30	
asc. node	1430 Jun 22 j 22:28	26°034'08		morning max el	1431 May 17 j 04:24	9°043'19	24°22'26
	1430 Jun 24 j 15:31	0°0			1431 Jun 01 j 06:03	0°0	
morning set	1430 Jun 26 j 18:00	4°020'44		asc. node	1431 Jun 09 j 19:30	16°018'14	

morning set	1431 Jun 11 j 05:49	19° Π 17'29		morning set	1432 May 25 j 17:17	4° Π 12'56	
	1431 Jun 16 j 05:17	0° \mathfrak{E}		asc. node	1432 May 26 j 16:32	6° Π 16'06	
superior conj	1431 Jun 18 j 06:51	4° \mathfrak{E} 29'23	1°18'51	superior conj	1432 Jun 01 j 17:53	19° Π 26'52	1°00'07
minimum elong	1431 Jun 18 j 04:25	4° \mathfrak{E} 16'12	1°18'31	minimum elong	1432 Jun 01 j 15:39	19° Π 14'38	0°59'43
max. Earth dist.	1431 Jun 20 j 00:40	8° \mathfrak{E} 15'12	1.33080 AU	max. Earth dist.	1432 Jun 02 j 10:23	20° Π 57'23	1.32461 AU
evening rise	1431 Jun 25 j 15:23	20° \mathfrak{E} 00'49			1432 Jun 06 j 14:33	0° \mathfrak{E}	
	1431 Jun 30 j 17:55	0° \mathcal{O}		evening rise	1432 Jun 08 j 19:12	4° \mathfrak{E} 37'01	
desc. node	1431 Jul 18 j 11:37	28° \mathcal{O} 38'03			1432 Jun 22 j 10:38	0° \mathcal{O}	
	1431 Jul 19 j 12:19	0° \mathfrak{M}		desc. node	1432 Jul 04 j 08:37	16° \mathcal{O} 56'51	
evening max el	1431 Jul 28 j 18:27	10° \mathfrak{M} 33'13	27°25'51	evening max el	1432 Jul 10 j 01:06	23° \mathcal{O} 05'02	27°07'41
retrograde	1431 Aug 11 j 11:09	17° \mathfrak{M} 51'27			1432 Jul 21 j 03:58	0° \mathfrak{M}	
evening set	1431 Aug 18 j 15:44	15° \mathfrak{M} 14'59		retrograde	1432 Jul 23 j 22:20	0° \mathfrak{M} 19'51	
min. Earth dist.	1431 Aug 22 j 06:44	12° \mathfrak{M} 08'04	0.63327 AU		1432 Jul 26 j 15:15	30° \mathcal{R} \mathcal{O}	
inferior conj	1431 Aug 24 j 23:09	9° \mathfrak{M} 27'11	-3°-34'-19	evening set	1432 Jul 31 j 00:18	28° \mathcal{O} 03'40	
minimum elong	1431 Aug 25 j 04:15	9° \mathfrak{M} 14'24	3°32'52	min. Earth dist.	1432 Aug 03 j 15:22	25° \mathcal{O} 20'09	0.61439 AU
morning rise	1431 Aug 31 j 19:08	4° \mathfrak{M} 11'06		inferior conj	1432 Aug 06 j 18:27	22° \mathcal{O} 34'32	-4°-20'-1
direct	1431 Sep 03 j 05:54	3° \mathfrak{M} 42'24		minimum elong	1432 Aug 06 j 23:18	22° \mathcal{O} 23'48	4°19'05
asc. node	1431 Sep 05 j 18:43	4° \mathfrak{M} 13'43		morning rise	1432 Aug 14 j 01:11	17° \mathcal{O} 39'04	
morning max el	1431 Sep 09 j 20:36	7° \mathfrak{M} 08'09	17°52'19	direct	1432 Aug 16 j 10:30	17° \mathcal{O} 15'22	
	1431 Sep 24 j 20:26	0° \mathfrak{A}		asc. node	1432 Aug 22 j 15:46	20° \mathcal{O} 01'27	
morning set	1431 Sep 26 j 07:22	2° \mathfrak{A} 32'47		morning max el	1432 Aug 23 j 10:55	20° \mathcal{O} 45'45	17°58'03
					1432 Aug 30 j 09:34	0° \mathfrak{M}	
superior conj	1431 Oct 08 j 08:45	23° \mathfrak{A} 11'13	0°40'23	morning set	1432 Sep 08 j 07:08	15° \mathfrak{M} 41'48	
minimum elong	1431 Oct 08 j 12:38	23° \mathfrak{A} 27'20	0°39'52		1432 Sep 16 j 04:22	0° \mathfrak{A}	
	1431 Oct 12 j 12:22	0° \mathcal{M}		superior conj	1432 Sep 18 j 16:37	4° \mathfrak{A} 25'27	1°13'35
desc. node	1431 Oct 14 j 10:55	3° \mathcal{M} 07'57		minimum elong	1432 Sep 18 j 21:13	4° \mathfrak{A} 45'30	1°13'04
max. Earth dist.	1431 Oct 14 j 16:36	3° \mathcal{M} 30'45	1.43897 AU	max. Earth dist.	1432 Sep 26 j 05:01	17° \mathfrak{A} 11'45	1.42369 AU
evening rise	1431 Oct 23 j 23:42	18° \mathcal{M} 07'41		desc. node	1432 Sep 30 j 07:57	23° \mathfrak{A} 54'39	
	1431 Oct 31 j 18:49	0° \mathfrak{A}		evening rise	1432 Oct 02 j 14:17	27° \mathfrak{A} 31'11	
greatest brilliancy	1431 Nov 16 j 16:04	22° \mathfrak{A} 42'21	-0.5m		1432 Oct 04 j 04:05	0° \mathcal{M}	
evening max el	1431 Nov 22 j 03:58	29° \mathfrak{A} 10'11	20°54'55		1432 Oct 24 j 13:29	0° \mathfrak{A}	
	1431 Nov 22 j 23:59	0° \mathfrak{E}		greatest brilliancy	1432 Oct 30 j 06:00	7° \mathfrak{A} 22'15	-0.3m
retrograde	1431 Nov 30 j 13:13	4° \mathfrak{E} 08'11		evening max el	1432 Nov 03 j 23:10	12° \mathfrak{A} 41'25	22°09'26
asc. node	1431 Dec 02 j 17:59	3° \mathfrak{E} 41'06		retrograde	1432 Nov 13 j 09:26	18° \mathfrak{A} 17'47	
evening set	1431 Dec 04 j 11:51	2° \mathfrak{E} 39'43		evening set	1432 Nov 17 j 19:36	16° \mathfrak{A} 32'38	
	1431 Dec 07 j 04:38	30° \mathcal{R} \mathfrak{A}		asc. node	1432 Nov 18 j 15:01	15° \mathfrak{A} 50'09	
inferior conj	1431 Dec 09 j 22:03	26° \mathfrak{A} 26'14	2°16'13	inferior conj	1432 Nov 23 j 05:06	10° \mathfrak{A} 11'29	1°31'26
minimum elong	1431 Dec 09 j 19:31	26° \mathfrak{A} 34'54	2°15'23	minimum elong	1432 Nov 23 j 03:09	10° \mathfrak{A} 18'11	1°30'41
min. Earth dist.	1431 Dec 10 j 09:12	25° \mathfrak{A} 47'58	0.67440 AU	min. Earth dist.	1432 Nov 23 j 04:56	10° \mathfrak{A} 12'02	0.67762 AU
morning rise	1431 Dec 15 j 02:46	20° \mathfrak{A} 10'56		morning rise	1432 Nov 28 j 10:32	3° \mathfrak{A} 57'51	
direct	1431 Dec 20 j 10:57	17° \mathfrak{A} 51'22		direct	1432 Dec 03 j 03:31	2° \mathfrak{A} 00'47	
morning max el	1431 Dec 31 j 07:26	24° \mathfrak{A} 19'45	23°57'32	morning max el	1432 Dec 12 j 18:02	7° \mathfrak{A} 41'19	22°29'29
	1432 Jan 05 j 09:20	0° \mathfrak{E}		greatest brilliancy	1432 Dec 17 j 07:57	12° \mathfrak{A} 48'35	-0.3m
desc. node	1432 Jan 10 j 10:11	6° \mathfrak{E} 24'38		desc. node	1432 Dec 27 j 07:13	26° \mathfrak{A} 04'24	
	1432 Jan 26 j 13:08	0° \approx			1432 Dec 30 j 00:48	0° \mathfrak{E}	
morning set	1432 Feb 04 j 21:19	15° \approx 23'14		morning set	1433 Jan 15 j 10:41	25° \mathfrak{E} 18'35	
max. Earth dist.	1432 Feb 08 j 17:41	22° \approx 07'09	1.38381 AU		1433 Jan 18 j 06:56	0° \approx	
	1432 Feb 13 j 01:48	0° \mathfrak{H}		max. Earth dist.	1433 Jan 20 j 14:08	3° \approx 52'07	1.40529 AU
superior conj	1432 Feb 15 j 23:39	5° \mathfrak{H} 27'29	-1°-45'-20	superior conj	1433 Jan 28 j 09:24	17° \approx 30'59	-2°00'-19
minimum elong	1432 Feb 16 j 03:44	5° \mathfrak{H} 46'56	1°44'57	minimum elong	1433 Jan 28 j 12:00	17° \approx 42'42	2°00'14
evening rise	1432 Feb 24 j 23:38	22° \mathfrak{H} 57'48			1433 Feb 04 j 04:00	0° \mathfrak{H}	
asc. node	1432 Feb 28 j 17:16	0° \mathfrak{Y} 11'19		evening rise	1433 Feb 07 j 11:28	6° \mathfrak{H} 14'02	
	1432 Feb 28 j 14:53	0° \mathfrak{Y}		asc. node	1433 Feb 14 j 14:19	19° \mathfrak{H} 18'19	
evening max el	1432 Mar 12 j 10:10	19° \mathfrak{Y} 30'17	18°54'16		1433 Feb 21 j 16:50	0° \mathfrak{Y}	
retrograde	1432 Mar 20 j 18:47	23° \mathfrak{Y} 33'30		evening max el	1433 Feb 23 j 15:51	2° \mathfrak{Y} 07'56	18°21'04
evening set	1432 Mar 22 j 23:55	23° \mathfrak{Y} 17'36		retrograde	1433 Mar 02 j 22:12	5° \mathfrak{Y} 44'03	
inferior conj	1432 Mar 30 j 23:55	19° \mathfrak{Y} 00'08	1°59'49	evening set	1433 Mar 05 j 08:44	5° \mathfrak{Y} 20'44	
minimum elong	1432 Mar 31 j 03:51	18° \mathfrak{Y} 53'06	1°58'39	inferior conj	1433 Mar 12 j 14:39	0° \mathfrak{Y} 42'19	3°04'23
min. Earth dist.	1432 Apr 03 j 04:56	16° \mathfrak{Y} 43'24	0.57083 AU	minimum elong	1433 Mar 12 j 18:15	0° \mathfrak{Y} 34'46	3°03'40
desc. node	1432 Apr 07 j 09:20	14° \mathfrak{Y} 15'24			1433 Mar 13 j 10:44	30° \mathcal{R} \mathfrak{H}	
morning rise	1432 Apr 08 j 03:30	13° \mathfrak{Y} 55'10		min. Earth dist.	1433 Mar 16 j 01:06	27° \mathfrak{H} 51'05	0.59065 AU
direct	1432 Apr 13 j 11:54	12° \mathfrak{Y} 46'30		morning rise	1433 Mar 19 j 23:58	25° \mathfrak{H} 09'12	
morning max el	1432 Apr 27 j 19:16	20° \mathfrak{Y} 13'05	25°56'27	desc. node	1433 Mar 25 j 06:24	23° \mathfrak{H} 27'10	
	1432 May 06 j 04:12	0° \mathfrak{B}		direct	1433 Mar 26 j 06:26	23° \mathfrak{H} 24'30	
	1432 May 23 j 16:35	0° Π					

	1433 Apr 08 j 10:08	0°Υ		desc. node	1434 Mar 12 j 03:26	5°κ27'09	
morning max el	1433 Apr 09 j 14:51	1°Υ08'08	27°07'24	morning max el	1434 Mar 22 j 16:55	12°κ43'44	27°44'33
	1433 Apr 30 j 06:43	0°Ϡ			1434 Apr 05 j 10:15	0°Υ	
morning set	1433 May 10 j 02:41	19°Ϡ00'45			1434 Apr 22 j 13:51	0°Ϡ	
asc. node	1433 May 13 j 13:34	26°Ϡ22'06		morning set	1434 Apr 24 j 08:11	3°Ϡ34'48	
	1433 May 15 j 05:35	0°Π		asc. node	1434 Apr 30 j 10:38	16°Ϡ32'03	
				max. Earth dist.	1434 Apr 30 j 10:09	16°Ϡ29'26	1.32369 AU
superior conj	1433 May 17 j 05:39	4°Π23'54	0°37'59				
minimum elong	1433 May 17 j 04:04	4°Π15'07	0°37'38	superior conj	1434 May 01 j 16:32	19°Ϡ15'08	0°13'09
max. Earth dist.	1433 May 16 j 22:52	3°Π46'34	1.32225 AU	minimum elong	1434 May 01 j 15:56	19°Ϡ11'50	0°13'01
evening rise	1433 May 24 j 03:44	19°Π25'09		behind sun begin	1434 May 01 j 13:01	18°Ϡ55'52	
	1433 May 29 j 08:56	0°Ϟ		behind sun end	1434 May 01 j 18:51	19°Ϡ27'48	
	1433 Jun 17 j 12:00	0°Ω			1434 May 06 j 14:41	0°Π	
desc. node	1433 Jun 21 j 05:40	4°Ω03'21		evening rise	1434 May 08 j 14:54	4°Π18'12	
evening max el	1433 Jun 22 j 01:09	4°Ω50'46	26°16'30		1434 May 22 j 08:35	0°Ϟ	
retrograde	1433 Jul 06 j 01:00	12°Ω02'29		evening max el	1434 Jun 03 j 18:09	15°Ϟ51'09	24°57'46
evening set	1433 Jul 12 j 12:38	10°Ω18'51		desc. node	1434 Jun 08 j 02:41	19°Ϟ28'30	
min. Earth dist.	1433 Jul 16 j 13:59	7°Ω43'06	0.59384 AU	retrograde	1434 Jun 17 j 17:40	22°Ϟ57'12	
inferior conj	1433 Jul 19 j 21:40	5°Ω10'20	-4°-49'-31	evening set	1434 Jun 23 j 01:29	21°Ϟ52'20	
minimum elong	1433 Jul 20 j 00:09	5°Ω05'32	4°49'20	min. Earth dist.	1434 Jun 28 j 05:37	19°Ϟ05'30	0.57404 AU
morning rise	1433 Jul 27 j 15:04	0°Ω38'03		inferior conj	1434 Jul 01 j 05:36	17°Ϟ05'38	-4°-50'-55
direct	1433 Jul 30 j 01:37	0°Ω17'18		minimum elong	1434 Jul 01 j 03:24	17°Ϟ09'19	4°50'49
morning max el	1433 Aug 06 j 20:18	4°Ω01'52	18°23'36	morning rise	1434 Jul 09 j 09:08	12°Ϟ55'45	
asc. node	1433 Aug 09 j 12:49	6°Ω59'46		direct	1434 Jul 11 j 22:51	12°Ϟ36'39	
morning set	1433 Aug 22 j 20:16	29°Ω29'02		morning max el	1434 Jul 20 j 21:43	16°Ϟ47'43	19°10'00
	1433 Aug 23 j 02:45	0°η		asc. node	1434 Jul 27 j 09:51	24°Ϟ54'07	
					1434 Jul 30 j 12:29	0°Ω	
superior conj	1433 Sep 01 j 00:16	16°η49'47	1°34'31	morning set	1434 Aug 06 j 18:48	13°Ω43'53	
minimum elong	1433 Sep 01 j 03:26	17°η04'22	1°34'15				
	1433 Sep 08 j 09:29	0°♄		superior conj	1434 Aug 15 j 02:02	0°η08'17	1°44'32
max. Earth dist.	1433 Sep 08 j 12:03	0°♄11'04	1.40451 AU	minimum elong	1434 Aug 15 j 03:13	0°η14'03	1°44'30
evening rise	1433 Sep 13 j 00:51	7°♄50'13			1434 Aug 15 j 00:19	0°η	
desc. node	1433 Sep 17 j 04:59	14°♄36'54		max. Earth dist.	1434 Aug 21 j 15:26	12°η26'56	1.38401 AU
	1433 Sep 27 j 06:10	0°♍		evening rise	1434 Aug 25 j 11:45	19°η17'23	
evening max el	1433 Oct 17 j 13:48	26°♍14'42	23°29'07		1434 Aug 31 j 20:23	0°♄	
	1433 Oct 21 j 21:08	0°♂		desc. node	1434 Sep 04 j 02:01	5°♄10'41	
retrograde	1433 Oct 28 j 02:49	2°♂28'40			1434 Sep 21 j 10:55	0°♍	
evening set	1433 Nov 02 j 02:14	0°♂25'59		evening max el	1434 Sep 30 j 01:58	9°♍51'16	24°47'40
	1433 Nov 02 j 14:04	30°♁♍		retrograde	1434 Oct 11 j 16:22	16°♍36'35	
asc. node	1433 Nov 05 j 12:04	26°♍43'26		evening set	1434 Oct 17 j 06:01	14°♍17'03	
min. Earth dist.	1433 Nov 07 j 01:36	24°♍37'55	0.67738 AU	min. Earth dist.	1434 Oct 21 j 20:50	9°♍03'06	0.67384 AU
inferior conj	1433 Nov 07 j 12:23	24°♍01'01	0°41'17	inferior conj	1434 Oct 22 j 18:09	7°♍52'26	0°-12'-53
minimum elong	1433 Nov 07 j 11:25	24°♍04'18	0°40'54	minimum elong	1434 Oct 22 j 18:28	7°♍51'23	0°12'46
morning rise	1433 Nov 12 j 20:44	17°♍51'12		transit middle	1434 Oct 22 j 18:28	7°♍51'23	0°12'46
direct	1433 Nov 16 j 23:19	16°♍16'56		transit begin	1434 Oct 22 j 16:46	7°♍57'02	
morning max el	1433 Nov 25 j 10:28	21°♍12'26	21°07'22	transit end	1434 Oct 22 j 20:11	7°♍45'44	
greatest brilliancy	1433 Nov 30 j 19:56	27°♍25'44	-0.5m	asc. node	1434 Oct 23 j 09:06	7°♍03'06	
	1433 Dec 02 j 19:28	0°♂		morning rise	1434 Oct 28 j 07:25	1°♍48'52	
desc. node	1433 Dec 14 j 04:15	16°♂08'30		direct	1434 Oct 31 j 21:13	0°♍35'17	
	1433 Dec 23 j 07:25	0°♂		morning max el	1434 Nov 08 j 10:31	4°♍54'07	19°56'39
morning set	1433 Dec 25 j 20:15	3°♂57'05		greatest brilliancy	1434 Nov 15 j 19:03	13°♍54'31	-0.6m
max. Earth dist.	1434 Jan 02 j 17:03	16°♂32'25	1.42494 AU		1434 Nov 26 j 18:59	0°♂	
				desc. node	1434 Dec 01 j 01:17	6°♂29'46	
superior conj	1434 Jan 09 j 20:55	28°♂30'02	-2°-3'-37	morning set	1434 Dec 04 j 16:21	12°♂04'41	
minimum elong	1434 Jan 09 j 19:36	28°♂24'25	2°03'36	max. Earth dist.	1434 Dec 16 j 03:10	0°♂01'35	1.44019 AU
	1434 Jan 10 j 17:56	0°≈			1434 Dec 16 j 02:47	0°♂	
evening rise	1434 Jan 21 j 09:30	18°≈48'24					
	1434 Jan 27 j 16:13	0°κ		superior conj	1434 Dec 21 j 06:07	8°♂16'26	-1°-50'-22
asc. node	1434 Feb 01 j 11:23	7°κ54'27		minimum elong	1434 Dec 20 j 23:31	7°♂49'38	1°49'56
evening max el	1434 Feb 07 j 02:29	15°κ08'44	18°07'44		1435 Jan 03 j 05:56	0°≈	
retrograde	1434 Feb 13 j 18:16	18°κ33'35		evening rise	1435 Jan 03 j 13:21	0°≈31'42	
evening set	1434 Feb 16 j 09:40	18°κ01'24		asc. node	1435 Jan 19 j 08:26	25°≈49'31	
inferior conj	1434 Feb 23 j 00:52	13°κ01'39	3°37'12	evening max el	1435 Jan 21 j 15:00	28°≈24'02	18°13'39
minimum elong	1434 Feb 23 j 02:33	12°κ57'33	3°37'03		1435 Jan 23 j 10:10	0°κ	
min. Earth dist.	1434 Feb 26 j 04:19	10°κ00'17	0.61197 AU	retrograde	1435 Jan 28 j 02:12	1°κ51'08	
morning rise	1434 Mar 01 j 16:36	7°κ09'40		evening set	1435 Jan 30 j 22:27	1°κ08'58	
direct	1434 Mar 08 j 12:10	4°κ50'41			1435 Feb 01 j 18:32	30°℞≈	

inferior conj	1435 Feb 06 j 02:32	25° \approx 49'03	3°45'22	evening max el	1436 Jan 05 j 02:48	11° \approx 48'08	18°37'58
minimum elong	1435 Feb 06 j 02:14	25° \approx 49'51	3°45'22	asc. node	1436 Jan 06 j 05:27	12° \approx 51'51	
min. Earth dist.	1435 Feb 08 j 16:34	23° \approx 00'29	0.63201 AU	retrograde	1436 Jan 11 j 17:55	15° \approx 28'58	
morning rise	1435 Feb 12 j 04:06	19° \approx 45'54		evening set	1436 Jan 14 j 19:41	14° \approx 35'41	
direct	1435 Feb 19 j 02:52	17° \approx 03'27		inferior conj	1436 Jan 20 j 15:46	8° \approx 57'21	3°35'27
desc. node	1435 Feb 27 j 00:29	19° \approx 55'28		minimum elong	1436 Jan 20 j 14:02	9° \approx 02'33	3°35'14
morning max el	1435 Mar 04 j 23:58	24° \approx 58'34	27°44'24	min. Earth dist.	1436 Jan 22 j 14:17	6° \approx 37'59	0.64897 AU
	1435 Mar 09 j 14:16	0° \approx		morning rise	1436 Jan 26 j 07:09	2° \approx 47'42	
	1435 Mar 29 j 20:17	0° \approx			1436 Feb 01 j 01:47	30° \approx	
morning set	1435 Apr 08 j 07:27	17° \approx 46'41		direct	1436 Feb 02 j 00:53	29° \approx 56'44	
max. Earth dist.	1435 Apr 13 j 16:09	28° \approx 51'28	1.32911 AU		1436 Feb 03 j 00:23	0° \approx	
	1435 Apr 14 j 05:03	0° \approx		desc. node	1436 Feb 13 j 21:32	6° \approx 17'02	
				morning max el	1436 Feb 15 j 09:22	7° \approx 43'53	27°09'48
superior conj	1435 Apr 16 j 00:43	3° \approx 53'56	0°-13'-35		1436 Mar 03 j 15:52	0° \approx	
minimum elong	1435 Apr 16 j 01:23	3° \approx 57'29	0°13'27		1436 Mar 21 j 03:29	0° \approx	
behind sun begin	1435 Apr 15 j 22:33	3° \approx 42'14		morning set	1436 Mar 21 j 21:32	1° \approx 27'01	
behind sun end	1435 Apr 16 j 04:13	4° \approx 12'44		max. Earth dist.	1436 Mar 26 j 13:03	10° \approx 42'04	1.33891 AU
asc. node	1435 Apr 17 j 07:42	6° \approx 41'08					
evening rise	1435 Apr 23 j 02:43	19° \approx 08'59		superior conj	1436 Mar 30 j 04:14	18° \approx 14'04	0°-41'-13
	1435 Apr 28 j 10:45	0° \approx		minimum elong	1436 Mar 30 j 06:17	18° \approx 24'52	0°40'48
evening max el	1435 May 16 j 08:05	26° \approx 22'28	23°23'50	asc. node	1436 Apr 03 j 04:44	26° \approx 45'18	
	1435 May 20 j 16:31	0° \approx			1436 Apr 04 j 17:26	0° \approx	
desc. node	1435 May 25 j 23:42	2° \approx 36'38		evening rise	1436 Apr 06 j 13:24	3° \approx 51'21	
retrograde	1435 May 29 j 22:11	3° \approx 11'53			1436 Apr 21 j 03:18	0° \approx	
evening set	1435 Jun 02 j 18:13	2° \approx 39'36		evening max el	1436 Apr 27 j 02:06	7° \approx 00'42	21°49'38
	1435 Jun 08 j 19:07	30° \approx		retrograde	1436 May 09 j 14:41	13° \approx 09'20	
min. Earth dist.	1435 Jun 09 j 18:11	29° \approx 26'49	0.55830 AU	desc. node	1436 May 11 j 20:44	12° \approx 57'57	
inferior conj	1435 Jun 11 j 17:36	28° \approx 16'36	-4°-10'-37	evening set	1436 May 12 j 05:35	12° \approx 53'58	
minimum elong	1435 Jun 11 j 10:43	28° \approx 26'50	4°09'16	inferior conj	1436 May 21 j 14:46	8° \approx 51'03	-2°-43'-22
morning rise	1435 Jun 20 j 06:30	24° \approx 21'45		minimum elong	1436 May 21 j 07:42	9° \approx 00'56	2°41'08
direct	1435 Jun 23 j 00:50	24° \approx 03'01		min. Earth dist.	1436 May 21 j 06:16	9° \approx 02'57	0.55002 AU
morning max el	1435 Jul 03 j 12:39	28° \approx 54'27	20°17'34	morning rise	1436 May 30 j 10:59	4° \approx 56'38	
	1435 Jul 04 j 15:32	0° \approx		direct	1436 Jun 02 j 13:25	4° \approx 35'23	
asc. node	1435 Jul 14 j 06:55	13° \approx 31'43		morning max el	1436 Jun 14 j 16:07	10° \approx 16'58	21°44'18
morning set	1435 Jul 21 j 23:47	28° \approx 18'41			1436 Jun 28 j 17:20	0° \approx	
	1435 Jul 22 j 19:37	0° \approx		asc. node	1436 Jun 30 j 03:57	2° \approx 41'42	
				morning set	1436 Jul 05 j 08:53	13° \approx 06'39	
superior conj	1435 Jul 29 j 16:52	14° \approx 06'29	1°45'38				
minimum elong	1435 Jul 29 j 16:20	14° \approx 03'48	1°45'38	superior conj	1436 Jul 12 j 16:46	28° \approx 32'09	1°39'36
max. Earth dist.	1435 Aug 03 j 20:59	24° \approx 01'51	1.36476 AU	minimum elong	1436 Jul 12 j 15:03	28° \approx 23'09	1°39'29
	1435 Aug 06 j 21:14	0° \approx			1436 Jul 13 j 09:37	0° \approx	
evening rise	1435 Aug 07 j 20:37	1° \approx 47'47		max. Earth dist.	1436 Jul 16 j 10:14	6° \approx 13'05	1.34856 AU
desc. node	1435 Aug 21 j 23:02	25° \approx 31'04		evening rise	1436 Jul 20 j 22:42	15° \approx 08'23	
	1435 Aug 24 j 22:20	0° \approx			1436 Jul 29 j 03:02	0° \approx	
evening max el	1435 Sep 12 j 13:50	23° \approx 30'34	25°57'42	desc. node	1436 Aug 07 j 20:02	15° \approx 31'10	
	1435 Sep 21 j 18:45	0° \approx			1436 Aug 18 j 13:38	0° \approx	
retrograde	1435 Sep 25 j 01:13	0° \approx 36'35		evening max el	1436 Aug 25 j 02:05	7° \approx 05'43	26°51'27
	1435 Sep 28 j 02:40	30° \approx		retrograde	1436 Sep 07 j 04:35	14° \approx 21'35	
evening set	1435 Oct 01 j 05:10	28° \approx 03'03		evening set	1436 Sep 13 j 21:31	11° \approx 39'30	
min. Earth dist.	1435 Oct 05 j 12:14	23° \approx 25'01	0.66699 AU	min. Earth dist.	1436 Sep 17 j 21:21	7° \approx 38'37	0.65672 AU
inferior conj	1435 Oct 06 j 20:36	21° \approx 43'20	-1°-9'-43	inferior conj	1436 Sep 19 j 17:42	5° \approx 29'14	-2°-7'-32
minimum elong	1435 Oct 06 j 22:25	21° \approx 37'38	1°08'59	minimum elong	1436 Sep 19 j 21:03	5° \approx 19'25	2°06'15
asc. node	1435 Oct 10 j 06:08	17° \approx 46'39		morning rise	1436 Sep 25 j 22:01	29° \approx 46'57	
morning rise	1435 Oct 12 j 16:35	15° \approx 48'48			1436 Sep 25 j 12:24	30° \approx	
direct	1435 Oct 15 j 19:44	14° \approx 52'27		asc. node	1436 Sep 26 j 03:10	29° \approx 40'39	
morning max el	1435 Oct 22 j 17:53	18° \approx 44'37	19°00'31	direct	1436 Sep 28 j 16:53	29° \approx 04'04	
	1435 Oct 31 j 10:48	0° \approx			1436 Oct 01 j 22:42	0° \approx	
morning set	1435 Nov 14 j 00:14	20° \approx 54'48		morning max el	1436 Oct 05 j 06:40	2° \approx 39'01	18°20'30
desc. node	1435 Nov 17 j 22:20	27° \approx 03'22			1436 Oct 23 j 18:39	0° \approx	
	1435 Nov 19 j 19:26	0° \approx		morning set	1436 Oct 24 j 11:29	1° \approx 08'19	
max. Earth dist.	1435 Nov 28 j 19:06	14° \approx 06'00	1.44921 AU	desc. node	1436 Nov 03 j 19:20	17° \approx 44'40	
superior conj	1435 Nov 30 j 15:49	17° \approx 02'13	-1°-18'-16	superior conj	1436 Nov 08 j 16:57	25° \approx 29'59	0°-32'-14
minimum elong	1435 Nov 30 j 07:14	16° \approx 28'21	1°17'22	minimum elong	1436 Nov 08 j 12:45	25° \approx 13'27	0°31'42
	1435 Dec 08 j 19:27	0° \approx		max. Earth dist.	1436 Nov 10 j 14:04	28° \approx 27'33	1.45094 AU
evening rise	1435 Dec 15 j 19:05	11° \approx 18'08			1436 Nov 11 j 13:36	0° \approx	
	1435 Dec 27 j 08:46	0° \approx		evening rise	1436 Nov 25 j 01:23	21° \approx 08'03	

	1436 Nov 30 j 17:13	0°☿		evening rise	1437 Nov 04 j 13:43	0°♄17'16	
greatest brilliancy	1436 Dec 09 j 06:16	13°☿08'35	-0.7m		1437 Nov 24 j 12:46	0°☿	
evening max el	1436 Dec 18 j 11:31	25°☿16'13	19°19'32	greatest brilliancy	1437 Nov 25 j 04:41	0°☿54'17	-0.6m
asc. node	1436 Dec 23 j 02:28	28°☿47'19		evening max el	1437 Dec 01 j 15:23	8°☿45'15	20°16'23
retrograde	1436 Dec 25 j 14:01	29°☿21'01		retrograde	1437 Dec 09 j 11:50	13°☿22'16	
evening set	1436 Dec 28 j 22:33	28°☿15'12		asc. node	1437 Dec 09 j 23:30	13°☿20'57	
inferior conj	1437 Jan 03 j 13:11	22°☿20'43	3°12'16	evening set	1437 Dec 13 j 04:48	12°☿02'26	
minimum elong	1437 Jan 03 j 10:41	22°☿28'46	3°11'43	inferior conj	1437 Dec 18 j 16:05	5°☿54'42	2°39'01
min. Earth dist.	1437 Jan 04 j 20:43	20°☿39'13	0.66195 AU	minimum elong	1437 Dec 18 j 13:25	6°☿03'42	2°38'14
morning rise	1437 Jan 08 j 22:02	16°☿07'22		min. Earth dist.	1437 Dec 19 j 10:08	4°☿53'42	0.67090 AU
direct	1437 Jan 15 j 04:53	13°☿21'33		morning rise	1437 Dec 23 j 21:30	29°♄39'33	
morning max el	1437 Jan 27 j 18:50	20°☿48'21	26°07'54		1437 Dec 23 j 12:40	30°♄♄	
desc. node	1437 Jan 30 j 18:34	24°☿00'08		direct	1437 Dec 29 j 14:16	27°♄08'50	
	1437 Feb 04 j 17:53	0°♁			1438 Jan 05 j 13:53	0°☿	
	1437 Feb 24 j 19:39	0°♂		morning max el	1438 Jan 10 j 03:27	4°☿02'01	24°47'53
morning set	1437 Mar 04 j 22:32	14°♂24'31		desc. node	1438 Jan 17 j 15:35	12°☿40'40	
max. Earth dist.	1437 Mar 08 j 22:40	22°♂01'18	1.35329 AU		1438 Jan 30 j 01:31	0°♁	
	1437 Mar 12 j 23:18	0°♂		morning set	1438 Feb 15 j 05:10	26°♁23'23	
					1438 Feb 17 j 05:37	0°♂	
superior conj	1437 Mar 14 j 00:42	2°♂08'41	-1°-8'-23	max. Earth dist.	1438 Feb 18 j 22:01	3°♂04'05	1.37182 AU
minimum elong	1437 Mar 14 j 04:03	2°♂25'43	1°07'49				
asc. node	1437 Mar 21 j 01:47	16°♂40'34		superior conj	1438 Feb 25 j 10:58	15°♂28'09	-1°-33'-10
evening rise	1437 Mar 21 j 21:00	18°♂19'25		minimum elong	1438 Feb 25 j 15:06	15°♂48'20	1°32'40
	1437 Mar 27 j 18:59	0°♄			1438 Mar 04 j 18:11	0°♂	
evening max el	1437 Apr 09 j 06:01	18°♄05'45	20°27'05	evening rise	1438 Mar 05 j 23:12	2°♂25'19	
retrograde	1437 Apr 20 j 03:51	23°♄22'40		asc. node	1438 Mar 07 j 22:49	6°♂21'27	
evening set	1437 Apr 22 j 06:04	23°♄11'50		evening max el	1438 Mar 22 j 21:28	29°♂49'10	19°22'24
desc. node	1437 Apr 28 j 17:45	20°♄44'12			1438 Mar 23 j 02:00	0°♄	
inferior conj	1437 May 01 j 09:29	19°♄14'07	0°-46'-17	retrograde	1438 Apr 01 j 02:40	4°♄16'09	
minimum elong	1437 May 01 j 07:18	19°♄17'18	0°45'30	evening set	1438 Apr 03 j 04:54	4°♄03'23	
min. Earth dist.	1437 May 02 j 19:08	18°♄25'15	0.55113 AU	inferior conj	1438 Apr 11 j 15:53	29°♂55'41	1°06'54
morning rise	1437 May 10 j 06:48	15°♄01'08		minimum elong	1438 Apr 11 j 18:33	29°♂51'18	1°05'59
direct	1437 May 14 j 00:33	14°♄30'57			1438 Apr 11 j 13:16	30°♄♂	
morning max el	1437 May 27 j 10:32	21°♄02'24	23°23'51	min. Earth dist.	1438 Apr 14 j 09:46	28°♂08'04	0.56147 AU
	1437 Jun 04 j 02:40	0°♂		desc. node	1438 Apr 15 j 14:48	27°♂23'14	
asc. node	1437 Jun 17 j 01:01	22°♂15'50		morning rise	1438 Apr 20 j 04:19	25°♂09'54	
morning set	1437 Jun 19 j 20:15	28°♂02'27		direct	1438 Apr 24 j 21:29	24°♂19'12	
	1437 Jun 20 j 18:31	0°♁			1438 May 07 j 09:29	0°♄	
				morning max el	1438 May 09 j 01:08	1°♄30'15	25°04'20
superior conj	1437 Jun 26 j 22:50	13°♁16'32	1°27'49		1438 May 28 j 20:35	0°♂	
minimum elong	1437 Jun 26 j 20:30	13°♁04'02	1°27'33	asc. node	1438 Jun 03 j 22:04	12°♂06'26	
max. Earth dist.	1437 Jun 29 j 09:00	18°♁26'19	1.33617 AU	morning set	1438 Jun 04 j 08:09	12°♂59'26	
evening rise	1437 Jul 04 j 13:37	29°♁07'01					
	1437 Jul 05 j 00:17	0°♂		superior conj	1438 Jun 11 j 08:37	28°♂10'55	1°11'23
	1437 Jul 22 j 05:50	0°♄		minimum elong	1438 Jun 11 j 06:13	27°♂57'49	1°10'59
desc. node	1437 Jul 25 j 17:03	5°♄02'23			1438 Jun 12 j 04:39	0°♁	
evening max el	1437 Aug 07 j 13:48	20°♄26'00	27°21'29	max. Earth dist.	1438 Jun 12 j 15:30	0°♁59'02	1.32771 AU
retrograde	1437 Aug 21 j 02:07	27°♄44'12		evening rise	1438 Jun 18 j 13:34	13°♁31'43	
evening set	1437 Aug 28 j 04:24	25°♄02'11			1438 Jun 27 j 03:01	0°♂	
min. Earth dist.	1437 Aug 31 j 21:54	21°♄37'17	0.64290 AU	desc. node	1438 Jul 12 j 14:05	23°♂52'08	
inferior conj	1437 Sep 03 j 07:05	19°♄05'24	-3°-3'-53		1438 Jul 17 j 17:21	0°♄	
minimum elong	1437 Sep 03 j 11:45	18°♄52'59	3°02'22	evening max el	1438 Jul 20 j 22:46	3°♄17'56	27°22'02
morning rise	1437 Sep 09 j 21:06	13°♄38'54		retrograde	1438 Aug 03 j 17:27	10°♄35'01	
direct	1437 Sep 12 j 10:09	13°♄05'53		evening set	1438 Aug 10 j 22:21	8°♄05'08	
asc. node	1437 Sep 13 j 00:13	13°♄07'40		min. Earth dist.	1438 Aug 14 j 12:22	5°♄10'02	0.62560 AU
morning max el	1437 Sep 18 j 22:24	16°♄32'19	17°57'30	inferior conj	1438 Aug 17 j 09:55	2°♄25'05	-3°-55'-7
	1437 Sep 28 j 13:35	0°♂		minimum elong	1438 Aug 17 j 15:07	2°♄12'43	3°53'49
morning set	1437 Oct 06 j 02:42	12°♂43'23			1438 Aug 20 j 01:54	30°♄♂	
	1437 Oct 16 j 10:22	0°♂		morning rise	1438 Aug 24 j 10:29	27°♂17'43	
				direct	1438 Aug 26 j 20:19	26°♂51'29	
superior conj	1437 Oct 19 j 07:13	4°♂40'22	0°15'57	asc. node	1438 Aug 30 j 21:16	28°♂07'05	
minimum elong	1437 Oct 19 j 09:02	4°♂47'44	0°15'43		1438 Sep 02 j 06:45	0°♄	
behind sun begin	1437 Oct 19 j 06:34	4°♂37'43		morning max el	1438 Sep 02 j 14:09	0°♄17'52	17°52'28
behind sun end	1437 Oct 19 j 11:31	4°♂57'44		morning set	1438 Sep 18 j 16:21	25°♄22'41	
desc. node	1437 Oct 21 j 16:20	8°♂30'25			1438 Sep 21 j 06:34	0°♂	
max. Earth dist.	1437 Oct 24 j 08:43	12°♂47'12	1.44529 AU				
	1437 Nov 04 j 09:14	0°♄		superior conj	1438 Sep 29 j 23:29	15°♂08'30	0°56'00

minimum elong	1438 Sep 30 j 04:03	15° Ω 27'50	0°55'25		1439 Sep 13 j 12:01	0° Ω	
max. Earth dist.	1438 Oct 06 j 23:40	26° Ω 45'26	1.43303 AU	max. Earth dist.	1439 Sep 19 j 09:09	10° Ω 07'07	1.41581 AU
desc. node	1438 Oct 08 j 13:22	29° Ω 17'37		evening rise	1439 Sep 24 j 20:12	19° Ω 05'43	
	1438 Oct 08 j 23:55	0° \mathbb{M}		desc. node	1439 Sep 25 j 10:24	20° Ω 02'42	
evening rise	1438 Oct 14 j 22:18	9° \mathbb{M} 22'01			1439 Oct 01 j 18:53	0° \mathbb{M}	
	1438 Oct 28 j 14:43	0° \mathcal{A}			1439 Oct 23 j 03:19	0° \mathcal{A}	
greatest brilliancy	1438 Nov 09 j 12:58	16° \mathcal{A} 27'25	-0.4m	greatest brilliancy	1439 Oct 23 j 07:41	0° \mathcal{A} 13'18	-0.3m
evening max el	1438 Nov 14 j 13:34	22° \mathcal{A} 14'52	21°25'38	evening max el	1439 Oct 28 j 06:33	5° \mathcal{A} 46'13	22°43'07
retrograde	1438 Nov 23 j 09:14	27° \mathcal{A} 29'37		retrograde	1439 Nov 07 j 04:27	11° \mathcal{A} 39'33	
asc. node	1438 Nov 26 j 20:32	26° \mathcal{A} 22'43		evening set	1439 Nov 11 j 19:57	9° \mathcal{A} 47'12	
evening set	1438 Nov 27 j 12:30	25° \mathcal{A} 54'09		asc. node	1439 Nov 13 j 17:35	7° \mathcal{A} 55'41	
inferior conj	1438 Dec 02 j 22:11	19° \mathcal{A} 36'41	1°57'58	inferior conj	1439 Nov 17 j 05:33	3° \mathcal{A} 23'50	1°10'45
minimum elong	1438 Dec 02 j 19:51	19° \mathcal{A} 44'44	1°57'09	minimum elong	1439 Nov 17 j 03:59	3° \mathcal{A} 29'15	1°10'08
min. Earth dist.	1438 Dec 03 j 04:22	19° \mathcal{A} 15'20	0.67610 AU	min. Earth dist.	1439 Nov 17 j 00:53	3° \mathcal{A} 39'59	0.67786 AU
morning rise	1438 Dec 08 j 02:54	13° \mathcal{A} 21'43			1439 Nov 19 j 18:52	30° \mathbb{M}	
direct	1438 Dec 13 j 04:28	11° \mathcal{A} 11'38		morning rise	1439 Nov 22 j 11:57	27° \mathbb{M} 11'16	
morning max el	1438 Dec 23 j 12:29	17° \mathcal{A} 20'34	23°19'55	direct	1439 Nov 26 j 22:38	25° \mathbb{M} 23'55	
greatest brilliancy	1438 Dec 28 j 20:19	23° \mathcal{A} 20'04	-0.2m		1439 Dec 05 j 06:46	0° \mathcal{A}	
	1439 Jan 03 j 00:36	0° \mathcal{B}		morning max el	1439 Dec 06 j 01:04	0° \mathcal{A} 45'03	21°53'23
desc. node	1439 Jan 04 j 12:37	2° \mathcal{B} 02'17		greatest brilliancy	1439 Dec 10 j 19:34	6° \mathcal{A} 08'16	-0.4m
	1439 Jan 23 j 03:30	0° \approx		desc. node	1439 Dec 22 j 09:38	21° \mathcal{A} 52'59	
morning set	1439 Jan 27 j 11:11	7° \approx 07'43			1439 Dec 27 j 21:32	0° \mathcal{B}	
max. Earth dist.	1439 Jan 31 j 16:51	14° \approx 22'28	1.39290 AU	morning set	1440 Jan 07 j 11:58	16° \mathcal{B} 26'59	
				max. Earth dist.	1440 Jan 13 j 14:56	26° \mathcal{B} 27'07	1.41399 AU
					1440 Jan 15 j 17:38	0° \approx	
superior conj	1439 Feb 08 j 07:04	28° \approx 02'40	-1°-52'-48				
minimum elong	1439 Feb 08 j 10:48	28° \approx 19'59	1°52'33				
	1439 Feb 09 j 08:14	0° \mathcal{H}		superior conj	1440 Jan 21 j 07:57	9° \approx 39'35	-2°-3'-27
evening rise	1439 Feb 17 j 17:15	16° \mathcal{H} 01'55		minimum elong	1440 Jan 21 j 09:12	9° \approx 45'03	2°03'26
asc. node	1439 Feb 22 j 19:52	25° \mathcal{H} 42'43		evening rise	1440 Jan 31 j 23:38	29° \approx 00'26	
	1439 Feb 25 j 05:32	0° \mathcal{Y}			1440 Feb 01 j 12:31	0° \mathcal{H}	
evening max el	1439 Mar 05 j 22:51	12° \mathcal{Y} 09'25	18°37'42	asc. node	1440 Feb 09 j 16:55	14° \mathcal{H} 37'13	
retrograde	1439 Mar 13 j 19:04	15° \mathcal{Y} 59'18		evening max el	1440 Feb 17 j 07:03	24° \mathcal{H} 57'47	18°13'05
evening set	1439 Mar 16 j 02:19	15° \mathcal{Y} 40'39		retrograde	1440 Feb 24 j 05:47	28° \mathcal{H} 27'00	
inferior conj	1439 Mar 23 j 18:22	11° \mathcal{Y} 14'44	2°31'21	evening set	1440 Feb 26 j 18:29	28° \mathcal{H} 00'03	
minimum elong	1439 Mar 23 j 22:28	11° \mathcal{Y} 06'51	2°30'18	inferior conj	1440 Mar 04 j 17:44	23° \mathcal{H} 12'50	3°21'45
min. Earth dist.	1439 Mar 27 j 03:38	8° \mathcal{Y} 40'18	0.57883 AU	minimum elong	1440 Mar 04 j 20:36	23° \mathcal{H} 06'25	3°21'18
morning rise	1439 Mar 31 j 14:19	5° \mathcal{Y} 56'16		min. Earth dist.	1440 Mar 08 j 02:34	20° \mathcal{H} 13'59	0.59972 AU
desc. node	1439 Apr 02 j 11:50	5° \mathcal{Y} 10'39		morning rise	1440 Mar 11 j 19:16	17° \mathcal{H} 30'43	
direct	1439 Apr 06 j 08:50	4° \mathcal{Y} 32'39		direct	1440 Mar 18 j 08:46	15° \mathcal{H} 30'13	
morning max el	1439 Apr 20 j 17:45	12° \mathcal{Y} 08'36	26°30'07	desc. node	1440 Mar 19 j 08:52	15° \mathcal{H} 32'57	
	1439 May 04 j 16:05	0° \mathcal{B}		morning max el	1440 Apr 01 j 15:52	23° \mathcal{H} 19'00	27°27'38
morning set	1439 May 19 j 18:58	27° \mathcal{B} 52'13			1440 Apr 07 j 15:29	0° \mathcal{Y}	
	1439 May 20 j 19:09	0° \mathbb{I}			1440 Apr 26 j 18:35	0° \mathcal{B}	
asc. node	1439 May 21 j 19:08	2° \mathbb{I} 08'11		morning set	1440 May 03 j 02:57	12° \mathcal{B} 34'56	
				asc. node	1440 May 07 j 16:12	22° \mathcal{B} 16'27	
superior conj	1439 May 26 j 20:12	13° \mathbb{I} 08'54	0°51'07	max. Earth dist.	1440 May 09 j 15:00	26° \mathcal{B} 32'02	1.32236 AU
minimum elong	1439 May 26 j 18:12	12° \mathbb{I} 57'52	0°50'43				
max. Earth dist.	1439 May 27 j 02:40	13° \mathbb{I} 44'25	1.32314 AU	superior conj	1440 May 10 j 07:50	28° \mathcal{B} 04'29	0°27'45
evening rise	1439 Jun 02 j 19:40	28° \mathbb{I} 13'35		minimum elong	1440 May 10 j 06:38	27° \mathcal{B} 57'49	0°27'29
	1439 Jun 03 j 16:08	0° \mathcal{E}			1440 May 11 j 04:52	0° \mathbb{I}	
	1439 Jun 20 j 11:54	0° \mathcal{Q}		evening rise	1440 May 17 j 05:35	13° \mathbb{I} 04'54	
desc. node	1439 Jun 29 j 11:07	11° \mathcal{Q} 43'04			1440 May 25 j 19:13	0° \mathcal{E}	
evening max el	1439 Jul 03 j 02:39	15° \mathcal{Q} 30'04	26°49'42	evening max el	1440 Jun 13 j 23:49	26° \mathcal{E} 56'52	25°45'54
retrograde	1439 Jul 17 j 01:34	22° \mathcal{Q} 44'27		desc. node	1440 Jun 15 j 08:09	28° \mathcal{E} 11'03	
evening set	1439 Jul 23 j 22:55	20° \mathcal{Q} 40'41			1440 Jun 17 j 13:34	0° \mathcal{Q}	
min. Earth dist.	1439 Jul 27 j 16:37	18° \mathcal{Q} 02'38	0.60571 AU	retrograde	1440 Jun 28 j 00:28	4° \mathcal{Q} 06'43	
inferior conj	1439 Jul 30 j 22:48	15° \mathcal{Q} 19'47	-4°-35'-9	evening set	1440 Jul 04 j 01:32	2° \mathcal{Q} 39'49	
minimum elong	1439 Jul 31 j 02:56	15° \mathcal{Q} 11'06	4°34'34	min. Earth dist.	1440 Jul 08 j 12:12	0° \mathcal{Q} 01'14	0.58513 AU
morning rise	1439 Aug 07 j 10:10	10° \mathcal{Q} 34'13			1440 Jul 08 j 12:54	30° \mathcal{R} \mathcal{E}	
direct	1439 Aug 09 j 19:32	10° \mathcal{Q} 12'09		inferior conj	1440 Jul 11 j 18:14	27° \mathcal{E} 40'15	-4°-54'-24
morning max el	1439 Aug 17 j 02:49	13° \mathcal{Q} 47'28	18°06'26	minimum elong	1440 Jul 11 j 18:58	27° \mathcal{E} 38'56	4°54'25
asc. node	1439 Aug 17 j 18:20	14° \mathcal{Q} 26'28		morning rise	1440 Jul 19 j 15:59	23° \mathcal{E} 17'32	
	1439 Aug 28 j 03:36	0° \mathcal{M}		direct	1440 Jul 22 j 03:35	22° \mathcal{E} 57'39	
morning set	1439 Sep 01 j 22:21	8° \mathcal{M} 49'01		morning max el	1440 Jul 30 j 09:12	26° \mathcal{E} 52'19	18°40'39
					1440 Aug 02 j 05:34	0° \mathcal{Q}	
superior conj	1439 Sep 11 j 18:08	26° \mathcal{M} 54'08	1°23'55	asc. node	1440 Aug 03 j 15:23	1° \mathcal{Q} 50'44	
minimum elong	1439 Sep 11 j 22:16	27° \mathcal{M} 12'38	1°23'30	morning set	1440 Aug 15 j 15:59	22° \mathcal{Q} 49'45	

	1440 Aug 19 j 08:22	0°♍		asc. node	1441 Jul 21 j 12:26	20°♌04'51	
					1441 Jul 27 j 01:27	0°♌	
superior conj	1440 Aug 24 j 10:12	9°♍43'43	1°39'58	morning set	1441 Jul 30 j 17:36	7°♌14'13	
minimum elong	1440 Aug 24 j 12:32	9°♍54'43	1°39'49				
max. Earth dist.	1440 Aug 31 j 14:15	22°♍47'34	1.39585 AU	superior conj	1441 Aug 07 j 18:04	23°♌20'35	1°45'58
evening rise	1440 Sep 04 j 17:16	29°♍54'34		minimum elong	1441 Aug 07 j 18:28	23°♌22'35	1°45'58
	1440 Sep 04 j 18:33	0°♌			1441 Aug 11 j 04:17	0°♍	
desc. node	1440 Sep 11 j 07:27	10°♌42'17		max. Earth dist.	1441 Aug 13 j 18:16	4°♍52'10	1.37564 AU
	1440 Sep 24 j 05:00	0°♌		evening rise	1441 Aug 17 j 14:01	11°♍49'47	
evening max el	1440 Oct 09 j 20:03	19°♌21'39	24°03'06		1441 Aug 28 j 10:20	0°♌	
retrograde	1440 Oct 20 j 20:13	25°♌49'29		desc. node	1441 Aug 29 j 04:30	1°♌11'09	
evening set	1440 Oct 26 j 01:32	23°♌39'43			1441 Sep 19 j 10:44	0°♌	
asc. node	1440 Oct 30 j 14:36	18°♌28'13		evening max el	1441 Sep 22 j 08:00	3°♌00'03	25°18'52
min. Earth dist.	1440 Oct 30 j 21:15	18°♌05'49	0.67634 AU	retrograde	1441 Oct 04 j 07:39	9°♌54'43	
inferior conj	1440 Oct 31 j 12:25	17°♌14'33	0°18'45	evening set	1441 Oct 10 j 03:35	7°♌28'44	
minimum elong	1440 Oct 31 j 11:58	17°♌16'05	0°18'33	min. Earth dist.	1441 Oct 14 j 15:04	2°♌30'01	0.67144 AU
morning rise	1440 Nov 05 j 22:37	11°♌06'56		inferior conj	1441 Oct 15 j 16:59	1°♌05'54	0°-36'-43
direct	1440 Nov 09 j 19:37	9°♌41'34		minimum elong	1441 Oct 15 j 17:55	1°♌02'53	0°36'21
morning max el	1440 Nov 17 j 20:30	14°♌20'00	20°35'33		1441 Oct 16 j 13:27	30°♌♌	
greatest brilliancy	1440 Nov 23 j 22:47	21°♌31'28	-0.5m	asc. node	1441 Oct 17 j 11:37	28°♌50'56	
	1440 Nov 30 j 02:06	0°♌		morning rise	1441 Oct 21 j 08:54	25°♌05'59	
desc. node	1440 Dec 08 j 06:41	12°♌04'59		direct	1441 Oct 24 j 17:59	24°♌00'06	
morning set	1440 Dec 16 j 12:53	24°♌42'51		morning max el	1441 Oct 31 j 23:48	28°♌05'49	19°30'51
	1440 Dec 19 j 22:04	0°♌			1441 Nov 02 j 18:08	0°♌	
max. Earth dist.	1440 Dec 25 j 21:00	9°♌29'24	1.43217 AU	greatest brilliancy	1441 Nov 09 j 16:14	9°♌06'20	-0.7m
					1441 Nov 23 j 12:21	0°♌	
superior conj	1441 Jan 01 j 08:31	20°♌07'44	-2°00'-16	morning set	1441 Nov 25 j 11:08	3°♌00'52	
minimum elong	1441 Jan 01 j 04:55	19°♌52'46	2°00'08	desc. node	1441 Nov 25 j 03:44	2°♌32'14	
	1441 Jan 07 j 04:09	0°♌		max. Earth dist.	1441 Dec 08 j 10:30	23°♌18'01	1.44493 AU
evening rise	1441 Jan 13 j 14:22	11°♌13'09					
	1441 Jan 24 j 14:24	0°♌		superior conj	1441 Dec 12 j 06:42	29°♌25'06	-1°-38'-57
asc. node	1441 Jan 26 j 13:57	2°♌56'39		minimum elong	1441 Dec 11 j 22:31	28°♌52'20	1°38'16
evening max el	1441 Jan 30 j 18:50	8°♌05'18	18°08'00		1441 Dec 12 j 15:25	0°♌	
retrograde	1441 Feb 06 j 07:19	11°♌29'12		evening rise	1441 Dec 26 j 09:15	22°♌33'11	
evening set	1441 Feb 09 j 00:54	10°♌52'43			1441 Dec 30 j 19:47	0°♌	
inferior conj	1441 Feb 15 j 10:55	5°♌44'08	3°43'16	asc. node	1442 Jan 13 j 10:57	20°♌30'53	
minimum elong	1441 Feb 15 j 11:44	5°♌42'04	3°43'13	evening max el	1442 Jan 14 j 07:19	21°♌24'56	18°21'46
min. Earth dist.	1441 Feb 18 j 09:08	2°♌45'58	0.62081 AU	retrograde	1442 Jan 20 j 19:10	24°♌56'38	
morning rise	1441 Feb 21 j 20:11	29°♌46'59		evening set	1442 Jan 23 j 17:41	24°♌09'46	
	1441 Feb 21 j 13:06	30°♌♌		inferior conj	1442 Jan 29 j 17:58	18°♌41'26	3°43'04
direct	1441 Feb 28 j 18:25	27°♌16'26		minimum elong	1442 Jan 29 j 16:59	18°♌44'15	3°42'59
desc. node	1441 Mar 06 j 05:53	28°♌39'22		min. Earth dist.	1442 Feb 01 j 01:19	16°♌04'04	0.63964 AU
	1441 Mar 08 j 14:41	0°♌		morning rise	1442 Feb 04 j 14:43	12°♌35'05	
morning max el	1441 Mar 14 j 20:04	5°♌10'30	27°49'06	direct	1442 Feb 11 j 12:05	9°♌47'34	
	1441 Apr 02 j 11:20	0°♌		desc. node	1442 Feb 21 j 02:55	14°♌00'21	
morning set	1441 Apr 17 j 06:04	27°♌00'01		morning max el	1442 Feb 25 j 04:34	17°♌40'13	27°33'43
	1441 Apr 18 j 17:07	0°♌			1442 Mar 07 j 12:30	0°♌	
max. Earth dist.	1441 Apr 23 j 00:33	9°♌07'35	1.32547 AU		1442 Mar 26 j 07:13	0°♌	
				morning set	1442 Apr 01 j 01:49	10°♌59'42	
superior conj	1441 Apr 24 j 17:46	12°♌50'53	0°02'01	max. Earth dist.	1442 Apr 06 j 03:22	21°♌18'30	1.33272 AU
minimum elong	1441 Apr 24 j 17:40	12°♌50'21	0°02'00				
behind sun begin	1441 Apr 24 j 12:33	12°♌22'34		superior conj	1442 Apr 09 j 00:11	27°♌22'19	0°-25'-16
behind sun end	1441 Apr 24 j 22:46	13°♌18'10		minimum elong	1442 Apr 09 j 01:26	27°♌28'57	0°25'00
asc. node	1441 Apr 24 j 13:14	12°♌26'16			1442 Apr 10 j 05:39	0°♌	
evening rise	1441 May 01 j 17:14	27°♌57'45		asc. node	1442 Apr 11 j 10:17	2°♌33'46	
	1441 May 02 j 16:26	0°♌		evening rise	1442 Apr 16 j 04:48	12°♌45'50	
	1441 May 19 j 21:54	0°♌			1442 Apr 25 j 00:16	0°♌	
evening max el	1441 May 26 j 14:57	7°♌43'10	24°18'55	evening max el	1442 May 08 j 05:29	18°♌12'55	22°42'57
desc. node	1441 Jun 02 j 05:11	12°♌42'50		desc. node	1442 May 20 j 02:10	24°♌42'31	
retrograde	1441 Jun 09 j 11:39	14°♌42'39		retrograde	1442 May 21 j 10:35	24°♌46'41	
evening set	1441 Jun 14 j 04:44	13°♌53'11		evening set	1442 May 24 j 16:51	24°♌23'19	
min. Earth dist.	1441 Jun 20 j 01:56	10°♌57'04	0.56668 AU	min. Earth dist.	1442 Jun 01 j 13:40	20°♌56'06	0.55372 AU
inferior conj	1441 Jun 22 j 17:34	9°♌16'56	-4°-39'-38	inferior conj	1442 Jun 02 j 22:05	20°♌09'45	-3°-38'-58
minimum elong	1441 Jun 22 j 13:07	9°♌23'58	4°39'08	minimum elong	1442 Jun 02 j 14:22	20°♌20'48	3°37'01
morning rise	1441 Jul 01 j 01:09	5°♌14'36		morning rise	1442 Jun 11 j 14:36	16°♌17'46	
direct	1441 Jul 03 j 16:52	4°♌55'41		direct	1442 Jun 14 j 11:49	15°♌58'31	
morning max el	1441 Jul 13 j 06:17	9°♌22'03	19°36'07	morning max el	1442 Jun 25 j 16:17	21°♌09'52	20°52'24

	1442 Jul 02 j 23:45	0°☿			1443 Jun 04 j 23:19	0°♊	
asc. node	1442 Jul 08 j 09:30	8°☿57'13		morning max el	1443 Jun 07 j 15:32	2°♊15'02	22°25'48
morning set	1442 Jul 15 j 00:34	21°☿55'19		asc. node	1443 Jun 25 j 06:34	28°♊18'08	
	1442 Jul 18 j 21:57	0°♊		morning set	1443 Jun 26 j 03:12	0°☿	
					1443 Jun 29 j 10:50	6°☿47'03	
superior conj	1442 Jul 22 j 13:11	7°♊31'48	1°43'52				
minimum elong	1442 Jul 22 j 12:05	7°♊26'07	1°43'49	superior conj	1443 Jul 06 j 16:03	22°☿06'36	1°35'15
max. Earth dist.	1442 Jul 27 j 02:36	16°♊42'07	1.35745 AU	minimum elong	1443 Jul 06 j 14:01	21°☿55'47	1°35'04
evening rise	1442 Jul 31 j 06:44	24°♊42'36		max. Earth dist.	1443 Jul 09 j 19:36	28°☿41'51	1.34272 AU
	1442 Aug 03 j 03:50	0°♊			1443 Jul 10 j 10:47	0°♊	
desc. node	1442 Aug 16 j 01:30	21°♊23'45		evening rise	1443 Jul 14 j 14:46	8°♊20'51	
	1442 Aug 21 j 23:36	0°♊			1443 Jul 26 j 16:24	0°♊	
evening max el	1442 Sep 04 j 19:51	16°♊37'48	26°22'51	desc. node	1443 Aug 02 j 22:30	11°♊13'01	
retrograde	1442 Sep 17 j 14:13	23°♊49'21			1443 Aug 18 j 04:35	0°♊	
evening set	1442 Sep 24 j 00:07	21°♊10'58		evening max el	1443 Aug 18 j 07:55	0°♊07'59	27°07'31
min. Earth dist.	1442 Sep 28 j 03:57	16°♊49'01	0.66311 AU	retrograde	1443 Aug 31 j 15:28	7°♊26'32	
inferior conj	1442 Sep 29 j 17:24	14°♊54'46	-1°-34'-16	evening set	1443 Sep 07 j 12:53	4°♊43'01	
minimum elong	1442 Sep 29 j 19:53	14°♊47'12	1°33'16	min. Earth dist.	1443 Sep 11 j 09:45	0°♊57'50	0.65123 AU
asc. node	1442 Oct 04 j 08:40	9°♊59'32			1443 Sep 12 j 06:29	30°♊	
morning rise	1442 Oct 05 j 16:46	9°♊05'22		inferior conj	1443 Sep 13 j 11:34	28°♊37'44	-2°-31'-50
direct	1442 Oct 08 j 16:04	8°♊15'19		minimum elong	1443 Sep 13 j 15:32	28°♊26'33	2°30'23
morning max el	1442 Oct 15 j 09:51	11°♊58'55	18°41'27	morning rise	1443 Sep 19 j 19:53	23°♊01'51	
	1442 Oct 28 j 09:42	0°♊		asc. node	1443 Sep 21 j 05:44	22°♊32'15	
morning set	1442 Nov 05 j 05:44	12°♊24'17		direct	1443 Sep 22 j 11:50	22°♊23'46	
desc. node	1442 Nov 12 j 00:46	23°♊09'34		morning max el	1443 Sep 29 j 00:19	25°♊54'23	18°08'33
	1442 Nov 16 j 09:02	0°♊			1443 Oct 02 j 11:45	0°♊	
				morning set	1443 Oct 17 j 05:26	23°♊14'35	
superior conj	1442 Nov 21 j 10:08	7°♊55'40	0°-59'-49		1443 Oct 21 j 07:47	0°♊	
minimum elong	1442 Nov 21 j 02:46	7°♊26'43	0°58'56	desc. node	1443 Oct 29 j 21:47	13°♊53'33	
max. Earth dist.	1442 Nov 21 j 04:11	7°♊32'17	1.45083 AU				
	1442 Dec 05 j 09:07	0°♊		superior conj	1443 Oct 31 j 14:36	16°♊36'07	0°-11'-21
evening rise	1442 Dec 07 j 04:55	2°♊55'02		minimum elong	1443 Oct 31 j 13:10	16°♊30'23	0°11'09
	1442 Dec 24 j 17:04	0°♊		behind sun begin	1443 Oct 31 j 05:12	15°♊58'43	
evening max el	1442 Dec 28 j 17:58	4°♊50'42	18°53'36	behind sun end	1443 Oct 31 j 21:08	17°♊02'02	
asc. node	1442 Dec 31 j 07:58	7°♊06'33		max. Earth dist.	1443 Nov 03 j 22:54	21°♊53'45	1.44938 AU
retrograde	1443 Jan 04 j 13:14	8°♊41'02			1443 Nov 09 j 02:55	0°♊	
evening set	1443 Jan 07 j 17:37	7°♊42'42		evening rise	1443 Nov 17 j 02:24	12°♊24'38	
inferior conj	1443 Jan 13 j 11:04	1°♊57'00	3°27'00		1443 Nov 28 j 12:40	0°♊	
minimum elong	1443 Jan 13 j 08:56	2°♊03'39	3°26'39	greatest brilliancy	1443 Dec 04 j 06:28	8°♊29'02	-0.6m
min. Earth dist.	1443 Jan 15 j 03:02	29°♊53'02	0.65494 AU	evening max el	1443 Dec 12 j 00:49	18°♊19'39	19°41'59
	1443 Jan 15 j 00:46	30°♊		asc. node	1443 Dec 18 j 05:00	22°♊29'11	
morning rise	1443 Jan 18 j 23:13	25°♊45'13		retrograde	1443 Dec 19 j 10:23	22°♊37'30	
direct	1443 Jan 25 j 12:42	22°♊55'02		evening set	1443 Dec 22 j 22:11	21°♊26'08	
	1443 Feb 06 j 23:58	0°♊		inferior conj	1443 Dec 28 j 11:11	15°♊25'46	2°59'12
morning max el	1443 Feb 07 j 14:28	0°♊35'56	26°46'19	minimum elong	1443 Dec 28 j 08:32	15°♊34'28	2°58'33
desc. node	1443 Feb 07 j 23:57	0°♊59'58		min. Earth dist.	1443 Dec 29 j 12:51	14°♊01'07	0.66627 AU
	1443 Mar 01 j 12:30	0°♊		morning rise	1444 Jan 02 j 18:11	9°♊11'13	
morning set	1443 Mar 15 j 10:52	24°♊23'15		direct	1444 Jan 08 j 19:21	6°♊30'34	
	1443 Mar 18 j 08:23	0°♊		morning max el	1444 Jan 20 j 23:31	13°♊45'17	25°35'17
max. Earth dist.	1443 Mar 19 j 19:38	2°♊54'56	1.34446 AU	desc. node	1444 Jan 25 j 21:00	19°♊10'05	
					1444 Feb 03 j 04:51	0°♊	
superior conj	1443 Mar 24 j 00:59	11°♊31'55	0°-52'-54		1444 Feb 22 j 07:03	0°♊	
minimum elong	1443 Mar 24 j 03:37	11°♊45'35	0°52'25	morning set	1444 Feb 26 j 04:45	6°♊57'47	
asc. node	1443 Mar 29 j 07:18	22°♊34'17		max. Earth dist.	1444 Feb 29 j 23:58	14°♊01'50	1.36074 AU
evening rise	1443 Mar 31 j 14:23	27°♊22'20					
	1443 Apr 01 j 20:57	0°♊		superior conj	1444 Mar 06 j 17:31	25°♊12'35	-1°-19'-21
evening max el	1443 Apr 20 j 03:02	28°♊57'59	21°12'34	minimum elong	1444 Mar 06 j 21:18	25°♊31'28	1°18'48
	1443 Apr 21 j 05:51	0°♊			1444 Mar 09 j 02:32	0°♊	
retrograde	1443 May 02 j 00:40	4°♊46'01		evening rise	1444 Mar 14 j 19:59	11°♊41'24	
evening set	1443 May 04 j 07:46	4°♊33'48		asc. node	1444 Mar 15 j 04:20	12°♊23'47	
desc. node	1443 May 06 j 23:10	3°♊51'52			1444 Mar 24 j 14:38	0°♊	
inferior conj	1443 May 13 j 16:17	0°♊34'58	-1°-55'-26	evening max el	1444 Apr 01 j 12:00	10°♊19'12	19°57'11
minimum elong	1443 May 13 j 10:55	0°♊42'31	1°53'35	retrograde	1444 Apr 11 j 16:05	15°♊13'21	
min. Earth dist.	1443 May 14 j 02:07	0°♊21'07	0.54922 AU	evening set	1444 Apr 13 j 17:08	15°♊02'21	
	1443 May 14 j 17:09	30°♊		inferior conj	1444 Apr 22 j 14:25	11°♊02'21	0°04'11
morning rise	1443 May 22 j 14:01	26°♊34'47		minimum elong	1444 Apr 22 j 14:36	11°♊02'04	0°04'06
direct	1443 May 25 j 21:33	26°♊11'00		transit middle	1444 Apr 22 j 14:36	11°♊02'04	0°04'06

transit begin	1444 Apr 22 j 10:46	11°♄07'55		inferior conj	1445 Apr 03 j 04:54	21°♃59'04	1°46'56
transit end	1444 Apr 22 j 18:27	10°♄56'13		minimum elong	1445 Apr 03 j 08:36	21°♃52'34	1°45'47
desc. node	1444 Apr 22 j 20:12	10°♄53'33		min. Earth dist.	1445 Apr 06 j 07:33	19°♃49'30	0.56823 AU
min. Earth dist.	1444 Apr 24 j 15:55	9°♄47'22	0.55448 AU	desc. node	1445 Apr 09 j 17:14	17°♃46'53	
morning rise	1444 May 01 j 09:06	6°♄36'01		morning rise	1445 Apr 11 j 10:58	16°♃59'02	
direct	1444 May 05 j 12:13	5°♄58'29		direct	1445 Apr 16 j 15:30	15°♃55'27	
morning max el	1444 May 19 j 07:27	12°♄49'15	24°07'27	morning max el	1445 Apr 30 j 22:07	23°♃18'08	25°43'34
	1444 Jun 01 j 11:39	0°♄			1445 May 06 j 22:24	0°♄	
asc. node	1444 Jun 11 j 03:37	17°♄59'43			1445 May 25 j 04:36	0°♄	
morning set	1444 Jun 12 j 22:35	21°♄43'30		morning set	1445 May 28 j 10:15	6°♄39'48	
	1444 Jun 16 j 19:16	0°♄		asc. node	1445 May 29 j 00:40	7°♄56'04	
superior conj	1444 Jun 19 j 23:56	6°♄55'52	1°21'22	superior conj	1445 Jun 04 j 10:43	21°♄52'51	1°03'12
minimum elong	1444 Jun 19 j 21:31	6°♄42'46	1°21'02	minimum elong	1445 Jun 04 j 08:26	21°♄40'18	1°02'48
max. Earth dist.	1444 Jun 21 j 21:47	11°♄02'44	1.33202 AU	max. Earth dist.	1445 Jun 05 j 06:55	23°♄43'26	1.32532 AU
evening rise	1444 Jun 27 j 09:55	22°♄31'47			1445 Jun 08 j 04:18	0°♄	
	1444 Jul 01 j 05:04	0°♄		evening rise	1445 Jun 11 j 12:51	7°♄05'30	
	1444 Jul 19 j 11:13	0°♄			1445 Jun 23 j 17:10	0°♄	
desc. node	1444 Jul 19 j 19:32	0°♄28'25		desc. node	1445 Jul 06 j 16:34	18°♄55'48	
evening max el	1444 Jul 30 j 18:53	13°♄18'28	27°25'49	evening max el	1445 Jul 13 j 02:15	25°♄55'44	27°12'27
retrograde	1444 Aug 13 j 10:36	20°♄36'39			1445 Jul 18 j 01:54	0°♄	
evening set	1444 Aug 20 j 14:46	17°♄58'29		retrograde	1445 Jul 26 j 22:43	3°♄10'49	
min. Earth dist.	1444 Aug 24 j 06:21	14°♄47'04	0.63584 AU	evening set	1445 Aug 03 j 01:52	0°♄50'40	
inferior conj	1444 Aug 26 j 20:52	12°♄08'15	-3°-26'-35		1445 Aug 04 j 07:13	30°♄	
minimum elong	1444 Aug 27 j 01:54	11°♄55'28	3°25'05	min. Earth dist.	1445 Aug 06 j 16:26	28°♄04'39	0.61738 AU
morning rise	1444 Sep 02 j 15:17	6°♄49'14		inferior conj	1445 Aug 09 j 18:13	25°♄18'46	-4°-13'-57
direct	1444 Sep 05 j 02:34	6°♄19'29		minimum elong	1445 Aug 09 j 23:13	25°♄07'29	4°12'55
asc. node	1444 Sep 07 j 02:49	6°♄39'32		morning rise	1445 Aug 16 j 23:21	20°♄20'06	
morning max el	1444 Sep 11 j 16:24	9°♄45'14	17°53'05	direct	1445 Aug 19 j 08:46	19°♄55'46	
	1444 Sep 25 j 05:19	0°♄		asc. node	1445 Aug 24 j 23:52	22°♄14'43	
morning set	1444 Sep 28 j 07:04	5°♄19'50		morning max el	1445 Aug 26 j 07:08	23°♄24'42	17°56'01
					1445 Aug 31 j 12:44	0°♄	
superior conj	1444 Oct 10 j 15:13	26°♄17'46	0°34'18	morning set	1445 Sep 11 j 04:21	18°♄21'22	
minimum elong	1444 Oct 10 j 18:41	26°♄32'04	0°33'49		1445 Sep 17 j 14:58	0°♄	
	1444 Oct 12 j 21:28	0°♄					
desc. node	1444 Oct 15 j 18:49	4°♄40'31		superior conj	1445 Sep 21 j 19:06	7°♄19'57	1°09'22
max. Earth dist.	1444 Oct 16 j 16:09	6°♄06'04	1.44085 AU	minimum elong	1445 Sep 21 j 23:46	7°♄40'10	1°08'49
evening rise	1444 Oct 26 j 11:01	21°♄26'57		max. Earth dist.	1445 Sep 29 j 05:27	19°♄52'29	1.42626 AU
	1444 Nov 01 j 01:21	0°♄		desc. node	1445 Oct 02 j 15:52	25°♄27'20	
greatest brilliancy	1444 Nov 18 j 09:26	25°♄03'29	-0.5m	evening rise	1445 Oct 05 j 23:31	0°♄44'04	
	1444 Nov 22 j 09:56	0°♄			1445 Oct 05 j 12:20	0°♄	
evening max el	1444 Nov 24 j 02:26	1°♄49'37	20°44'34		1445 Oct 25 j 15:31	0°♄	
retrograde	1444 Dec 02 j 08:09	6°♄41'49		greatest brilliancy	1445 Nov 02 j 04:26	9°♄57'31	-0.4m
asc. node	1444 Dec 04 j 02:03	6°♄24'42		evening max el	1445 Nov 06 j 22:22	15°♄20'20	21°57'52
evening set	1444 Dec 06 j 05:17	5°♄15'36		retrograde	1445 Nov 16 j 04:43	20°♄51'02	
	1444 Dec 10 j 23:08	30°♄		evening set	1445 Nov 20 j 13:05	19°♄08'20	
inferior conj	1444 Dec 11 j 15:43	29°♄03'35	2°22'26	asc. node	1445 Nov 20 j 23:07	18°♄47'23	
minimum elong	1444 Dec 11 j 13:08	29°♄12'24	2°21'37	inferior conj	1445 Nov 25 j 22:34	12°♄47'58	1°38'37
min. Earth dist.	1444 Dec 12 j 04:37	28°♄19'28	0.67365 AU	minimum elong	1445 Nov 25 j 20:31	12°♄55'04	1°37'50
morning rise	1444 Dec 16 j 20:32	22°♄48'21		min. Earth dist.	1445 Nov 25 j 23:59	12°♄43'03	0.67735 AU
direct	1444 Dec 22 j 07:01	20°♄25'43		morning rise	1445 Dec 01 j 03:46	6°♄34'01	
morning max el	1445 Jan 02 j 07:49	27°♄00'32	24°10'41	direct	1445 Dec 05 j 22:57	4°♄33'37	
	1445 Jan 05 j 02:48	0°♄		morning max el	1445 Dec 15 j 17:56	10°♄21'22	22°42'25
desc. node	1445 Jan 11 j 18:02	8°♄09'56		greatest brilliancy	1445 Dec 20 j 08:32	15°♄30'04	-0.3m
	1445 Jan 26 j 20:20	0°♄		desc. node	1445 Dec 29 j 15:04	27°♄45'13	
morning set	1445 Feb 07 j 01:41	18°♄27'04			1445 Dec 31 j 05:05	0°♄	
max. Earth dist.	1445 Feb 10 j 20:19	25°♄06'34	1.38065 AU	morning set	1446 Jan 18 j 19:29	28°♄35'14	
	1445 Feb 13 j 12:53	0°♄			1446 Jan 19 j 16:02	0°♄	
				max. Earth dist.	1446 Jan 23 j 16:17	6°♄44'30	1.40211 AU
superior conj	1445 Feb 17 j 22:22	8°♄15'04	-1°-42'-20				
minimum elong	1445 Feb 18 j 02:31	8°♄34'57	1°41'56	superior conj	1446 Jan 31 j 10:58	20°♄26'55	-1°-58'-42
evening rise	1445 Feb 26 j 19:06	25°♄36'09		minimum elong	1446 Jan 31 j 13:56	20°♄40'26	1°58'34
	1445 Mar 01 j 01:02	0°♄			1446 Feb 05 j 14:55	0°♄	
asc. node	1445 Mar 02 j 01:23	1°♄57'23		evening rise	1446 Feb 10 j 08:40	8°♄58'01	
evening max el	1445 Mar 15 j 08:08	22°♄20'03	19°00'55	asc. node	1446 Feb 16 j 22:26	21°♄08'22	
retrograde	1445 Mar 23 j 21:40	26°♄28'55			1446 Feb 22 j 10:52	0°♄	
evening set	1445 Mar 26 j 02:02	26°♄13'52		evening max el	1446 Feb 26 j 12:46	4°♄53'17	18°24'43

retrograde	1446 Mar 05 j 22:24	8°♄32'36		asc. node	1447 Feb 03 j 19:28	9°♄49'39	
evening set	1446 Mar 08 j 08:02	8°♄10'36		evening max el	1447 Feb 09 j 22:49	17°♄50'59	18°08'28
inferior conj	1446 Mar 15 j 16:29	3°♄35'21	2°56'45	retrograde	1447 Feb 16 j 16:07	21°♄16'35	
minimum elong	1446 Mar 15 j 20:16	3°♄27'34	2°55'55	evening set	1447 Feb 19 j 06:47	20°♄45'50	
min. Earth dist.	1446 Mar 19 j 02:59	0°♄47'46	0.58750 AU	inferior conj	1447 Feb 25 j 23:58	15°♄49'23	3°33'58
	1446 Mar 20 j 04:25	30°♄		minimum elong	1447 Feb 26 j 01:59	15°♄44'36	3°33'44
morning rise	1446 Mar 23 j 04:33	28°♄05'40		min. Earth dist.	1447 Mar 01 j 05:06	12°♄47'45	0.60883 AU
desc. node	1446 Mar 27 j 14:16	26°♄34'33		morning rise	1447 Mar 04 j 18:09	9°♄59'33	
direct	1446 Mar 29 j 08:06	26°♄26'34		direct	1447 Mar 11 j 12:24	7°♄44'59	
	1446 Apr 07 j 19:36	0°♄		desc. node	1447 Mar 14 j 11:18	8°♄09'01	
morning max el	1446 Apr 12 j 16:54	4°♄08'29	26°58'46	morning max el	1447 Mar 25 j 18:00	15°♄37'28	27°41'19
	1446 May 01 j 14:18	0°♄			1447 Apr 06 j 11:36	0°♄	
morning set	1446 May 12 j 20:05	21°♄29'12			1447 Apr 24 j 01:47	0°♄	
asc. node	1446 May 15 j 21:43	28°♄01'10		morning set	1447 Apr 27 j 02:15	6°♄05'33	
	1446 May 16 j 19:38	0°♄		asc. node	1447 May 02 j 18:45	18°♄10'39	
				max. Earth dist.	1447 May 03 j 06:47	19°♄16'12	1.32321 AU
superior conj	1446 May 19 j 22:30	6°♄50'20	0°41'31	superior conj	1447 May 04 j 09:36	21°♄42'41	0°17'03
minimum elong	1446 May 19 j 20:47	6°♄40'54	0°41'11	minimum elong	1447 May 04 j 08:49	21°♄38'27	0°16'53
max. Earth dist.	1446 May 19 j 19:12	6°♄32'10	1.32239 AU		1447 May 08 j 04:27	0°♄	
evening rise	1446 May 26 j 20:50	21°♄52'10		evening rise	1447 May 11 j 07:41	6°♄44'41	
	1446 May 30 j 20:14	0°♄			1447 May 23 j 12:48	0°♄	
	1446 Jun 18 j 03:58	0°♄		evening max el	1447 Jun 06 j 21:09	18°♄54'31	25°10'49
desc. node	1446 Jun 23 j 13:35	6°♄14'38		desc. node	1447 Jun 10 j 10:36	21°♄57'17	
evening max el	1446 Jun 25 j 03:14	7°♄47'56	26°25'58	retrograde	1447 Jun 20 j 21:20	26°♄02'06	
retrograde	1446 Jul 09 j 02:51	15°♄00'30		evening set	1447 Jun 26 j 09:53	24°♄51'37	
evening set	1446 Jul 15 j 17:30	13°♄11'14		min. Earth dist.	1447 Jul 01 j 08:52	22°♄07'24	0.57679 AU
min. Earth dist.	1446 Jul 19 j 16:20	10°♄35'34	0.59692 AU	inferior conj	1447 Jul 04 j 10:56	20°♄01'25	-4°-53'-10
inferior conj	1446 Jul 23 j 00:00	7°♄59'30	-4°-46'-34	minimum elong	1447 Jul 04 j 09:33	20°♄03'48	4°53'08
minimum elong	1446 Jul 23 j 03:00	7°♄53'34	4°46'19	morning rise	1447 Jul 12 j 13:01	15°♄48'25	
morning rise	1446 Jul 30 j 15:52	3°♄23'54		direct	1447 Jul 15 j 02:03	15°♄29'12	
direct	1446 Aug 02 j 02:03	3°♄02'51		morning max el	1447 Jul 23 j 20:16	19°♄35'44	19°01'44
morning max el	1446 Aug 09 j 17:28	6°♄44'34	18°18'32	asc. node	1447 Jul 29 j 17:58	26°♄50'13	
asc. node	1446 Aug 11 j 20:55	9°♄03'16			1447 Jul 31 j 18:23	0°♄	
	1446 Aug 24 j 13:45	0°♄		morning set	1447 Aug 09 j 13:04	16°♄14'38	
morning set	1446 Aug 25 j 15:45	2°♄03'25			1447 Aug 16 j 12:31	0°♄	
superior conj	1446 Sep 03 j 23:32	19°♄34'51	1°32'04	superior conj	1447 Aug 17 j 22:54	2°♄46'09	1°43'37
minimum elong	1446 Sep 04 j 02:59	19°♄50'36	1°31'47	minimum elong	1447 Aug 18 j 00:24	2°♄53'17	1°43'34
	1446 Sep 09 j 19:49	0°♄		max. Earth dist.	1447 Aug 24 j 16:26	15°♄18'26	1.38702 AU
max. Earth dist.	1446 Sep 11 j 13:00	2°♄57'30	1.40745 AU	evening rise	1447 Aug 28 j 13:51	22°♄10'28	
evening rise	1446 Sep 16 j 06:33	10°♄53'18			1447 Sep 02 j 05:11	0°♄	
desc. node	1446 Sep 19 j 12:54	16°♄10'36		desc. node	1447 Sep 06 j 09:56	6°♄46'00	
	1446 Sep 28 j 11:59	0°♄			1447 Sep 22 j 10:19	0°♄	
evening max el	1446 Oct 20 j 13:29	28°♄53'03	23°17'10	evening max el	1447 Oct 03 j 01:51	12°♄29'08	24°36'23
	1446 Oct 21 j 17:01	0°♄		retrograde	1447 Oct 14 j 12:50	19°♄10'29	
retrograde	1446 Oct 30 j 22:39	5°♄02'07		evening set	1447 Oct 20 j 00:14	16°♄53'30	
evening set	1446 Nov 04 j 19:58	3°♄02'03		min. Earth dist.	1447 Oct 24 j 16:17	11°♄34'14	0.67455 AU
asc. node	1446 Nov 07 j 20:08	29°♄50'17		inferior conj	1447 Oct 25 j 11:59	10°♄28'32	0°-4'-26
	1446 Nov 07 j 17:02	30°♄		minimum elong	1447 Oct 25 j 12:06	10°♄28'10	0°04'25
inferior conj	1446 Nov 10 j 05:55	26°♄37'15	0°49'14	transit middle	1447 Oct 25 j 12:06	10°♄28'10	0°04'25
minimum elong	1446 Nov 10 j 04:47	26°♄41'09	0°48'45	transit begin	1447 Oct 25 j 09:27	10°♄37'00	
min. Earth dist.	1446 Nov 09 j 20:41	27°♄08'58	0.67758 AU	transit end	1447 Oct 25 j 14:45	10°♄19'21	
morning rise	1446 Nov 15 j 13:42	20°♄26'38		asc. node	1447 Oct 25 j 17:10	10°♄11'19	
direct	1446 Nov 19 j 18:17	18°♄49'07		morning rise	1447 Oct 31 j 00:23	4°♄23'45	
morning max el	1446 Nov 28 j 09:20	23°♄51'09	21°19'00	direct	1447 Nov 03 j 15:59	3°♄07'11	
greatest brilliancy	1446 Dec 03 j 14:07	29°♄48'37	-0.4m	morning max el	1447 Nov 11 j 08:07	7°♄30'59	20°06'18
	1446 Dec 03 j 17:44	0°♄		greatest brilliancy	1447 Nov 18 j 07:52	15°♄59'11	-0.6m
desc. node	1446 Dec 16 j 12:07	17°♄46'15			1447 Nov 28 j 00:51	0°♄	
	1446 Dec 24 j 14:44	0°♄		desc. node	1447 Dec 03 j 09:09	8°♄05'19	
morning set	1446 Dec 29 j 08:43	7°♄23'40		morning set	1447 Dec 08 j 05:11	15°♄30'51	
max. Earth dist.	1447 Jan 05 j 17:50	19°♄15'35	1.42222 AU		1447 Dec 17 j 11:11	0°♄	
	1447 Jan 12 j 03:40	0°♄		max. Earth dist.	1447 Dec 19 j 02:45	2°♄37'39	1.43830 AU
superior conj	1447 Jan 13 j 02:06	1°♄36'14	-2°-4'-5	superior conj	1447 Dec 24 j 15:17	11°♄33'32	-1°-53'-36
minimum elong	1447 Jan 13 j 01:32	1°♄33'47	2°04'05	minimum elong	1447 Dec 24 j 09:25	11°♄09'33	1°53'16
evening rise	1447 Jan 24 j 09:00	21°♄39'06			1448 Jan 04 j 14:56	0°♄	
	1447 Jan 29 j 00:06	0°♄					

evening rise	1448 Jan 06 j 15:46	3°≈30'13		max. Earth dist.	1448 Nov 30 j 18:04	16°≈38'15	1.44834 AU
asc. node	1448 Jan 21 j 16:29	27°≈51'37					
	1448 Jan 23 j 10:53	0°≈		superior conj	1448 Dec 03 j 03:46	20°≈26'05	-1°-24'-14
evening max el	1448 Jan 24 j 11:15	1°≈04'44	18°11'35	minimum elong	1448 Dec 02 j 19:03	19°≈51'37	1°23'21
retrograde	1448 Jan 30 j 22:28	4°≈30'28			1448 Dec 09 j 03:50	0°≈	
evening set	1448 Feb 02 j 18:01	3°≈49'49		evening rise	1448 Dec 18 j 00:55	14°≈25'07	
	1448 Feb 07 j 14:28	30°≈			1448 Dec 27 j 13:38	0°≈	
inferior conj	1448 Feb 08 j 23:33	28°≈32'55	3°45'23	evening max el	1449 Jan 06 j 23:18	14°≈28'01	18°33'15
minimum elong	1448 Feb 08 j 23:32	28°≈32'58	3°45'23	asc. node	1449 Jan 07 j 13:29	15°≈02'57	
min. Earth dist.	1448 Feb 11 j 15:51	25°≈41'10	0.62923 AU	retrograde	1449 Jan 13 j 13:16	18°≈06'03	
morning rise	1448 Feb 15 j 03:00	22°≈31'10		evening set	1449 Jan 16 j 14:12	17°≈14'23	
direct	1448 Feb 22 j 02:00	19°≈51'13		inferior conj	1449 Jan 22 j 11:16	11°≈38'35	3°37'51
desc. node	1448 Feb 29 j 08:19	22°≈16'59		minimum elong	1449 Jan 22 j 09:43	11°≈43'11	3°37'42
morning max el	1448 Mar 07 j 00:20	27°≈46'25	27°46'44	min. Earth dist.	1449 Jan 24 j 12:04	9°≈14'18	0.64668 AU
	1448 Mar 09 j 03:33	0°≈		morning rise	1449 Jan 28 j 03:57	5°≈29'48	
	1448 Mar 30 j 04:44	0°≈		direct	1449 Feb 03 j 22:51	2°≈39'18	
morning set	1448 Apr 10 j 02:36	20°≈21'23		desc. node	1449 Feb 15 j 05:21	8°≈23'51	
	1448 Apr 14 j 18:33	0°≈		morning max el	1449 Feb 17 j 09:29	10°≈27'56	27°16'58
max. Earth dist.	1448 Apr 15 j 13:45	1°≈42'00	1.32800 AU		1449 Mar 04 j 19:44	0°≈	
					1449 Mar 22 j 14:49	0°≈	
superior conj	1448 Apr 17 j 18:18	6°≈24'02	0°-9'-27	morning set	1449 Mar 24 j 18:16	4°≈07'16	
minimum elong	1448 Apr 17 j 18:45	6°≈26'30	0°09'21	max. Earth dist.	1449 Mar 29 j 12:19	13°≈38'28	1.33716 AU
behind sun begin	1448 Apr 17 j 14:29	6°≈03'29					
behind sun end	1448 Apr 17 j 23:01	6°≈49'31		superior conj	1449 Apr 01 j 22:39	20°≈47'39	0°-37'00
asc. node	1448 Apr 18 j 15:48	8°≈20'20		minimum elong	1449 Apr 02 j 00:30	20°≈57'23	0°36'39
evening rise	1448 Apr 24 j 19:31	21°≈36'31		asc. node	1449 Apr 05 j 12:49	28°≈25'42	
	1448 Apr 28 j 21:24	0°≈			1449 Apr 06 j 06:31	0°≈	
evening max el	1448 May 18 j 11:17	29°≈31'07	23°38'18	evening rise	1449 Apr 09 j 06:30	6°≈20'57	
	1448 May 18 j 23:27	0°≈			1449 Apr 22 j 01:45	0°≈	
desc. node	1448 May 27 j 07:35	5°≈29'04		evening max el	1449 Apr 30 j 04:12	10°≈05'02	22°03'10
retrograde	1448 Jun 01 j 03:37	6°≈22'10		retrograde	1449 May 12 j 21:27	16°≈20'37	
evening set	1448 Jun 05 j 04:59	5°≈46'00		desc. node	1449 May 14 j 04:36	16°≈16'49	
min. Earth dist.	1448 Jun 11 j 21:47	2°≈37'54	0.56025 AU	evening set	1449 May 15 j 15:55	16°≈03'35	
inferior conj	1448 Jun 14 j 01:51	1°≈19'40	-4°-19'-54	min. Earth dist.	1449 May 24 j 09:39	12°≈19'22	0.55070 AU
minimum elong	1448 Jun 13 j 19:29	1°≈29'17	4°18'46	inferior conj	1449 May 25 j 00:35	11°≈58'25	-2°-59'-11
	1448 Jun 16 j 07:58	30°≈		minimum elong	1449 May 24 j 17:09	12°≈08'51	2°56'58
morning rise	1448 Jun 22 j 13:23	27°≈23'11		morning rise	1449 Jun 02 j 20:00	8°≈05'20	
direct	1448 Jun 25 j 06:59	27°≈04'27		direct	1449 Jun 05 j 20:58	7°≈44'44	
	1448 Jul 03 j 08:15	0°≈		morning max el	1449 Jun 17 j 17:56	13°≈18'12	21°30'20
morning max el	1448 Jul 05 j 12:50	1°≈49'09	20°06'07		1449 Jun 30 j 01:04	0°≈	
asc. node	1448 Jul 15 j 15:01	15°≈22'31		asc. node	1449 Jul 02 j 12:04	4°≈28'23	
	1448 Jul 23 j 07:54	0°≈		morning set	1449 Jul 08 j 01:55	15°≈34'13	
morning set	1448 Jul 23 j 17:16	0°≈47'26			1449 Jul 14 j 22:59	0°≈	
superior conj	1448 Jul 31 j 12:05	16°≈39'34	1°45'58	superior conj	1449 Jul 15 j 10:53	1°≈02'04	1°40'55
minimum elong	1448 Jul 31 j 11:47	16°≈38'03	1°45'58	minimum elong	1449 Jul 15 j 09:19	0°≈53'53	1°40'49
max. Earth dist.	1448 Aug 05 j 21:27	27°≈13'19	1.36752 AU	max. Earth dist.	1449 Jul 19 j 09:30	9°≈06'42	1.35078 AU
	1448 Aug 07 j 08:44	0°≈		evening rise	1449 Jul 23 j 19:38	17°≈46'46	
evening rise	1448 Aug 09 j 19:46	4°≈32'38			1449 Jul 30 j 12:23	0°≈	
desc. node	1448 Aug 23 j 06:57	27°≈09'02		desc. node	1449 Aug 10 j 03:58	17°≈12'52	
	1448 Aug 25 j 03:45	0°≈			1449 Aug 19 j 09:56	0°≈	
evening max el	1448 Sep 14 j 13:46	26°≈08'37	25°48'06	evening max el	1449 Aug 28 j 02:01	9°≈45'08	26°44'40
	1448 Sep 19 j 01:17	0°≈		retrograde	1449 Sep 10 j 02:27	16°≈59'49	
retrograde	1448 Sep 26 j 22:17	3°≈11'52		evening set	1449 Sep 16 j 17:41	14°≈18'28	
evening set	1448 Oct 03 j 00:10	0°≈40'16		min. Earth dist.	1449 Sep 20 j 18:34	10°≈12'11	0.65853 AU
	1448 Oct 03 j 18:10	30°≈		inferior conj	1449 Sep 22 j 13:06	8°≈06'37	-1°-58'-50
min. Earth dist.	1448 Oct 07 j 08:25	25°≈56'45	0.66827 AU	minimum elong	1449 Sep 22 j 16:14	7°≈57'21	1°57'36
inferior conj	1448 Oct 08 j 15:03	24°≈19'40	-1°-1'-1	asc. node	1449 Sep 28 j 11:15	2°≈28'58	
minimum elong	1448 Oct 08 j 16:38	24°≈14'39	1°00'21	morning rise	1449 Sep 28 j 16:05	2°≈22'27	
asc. node	1448 Oct 11 j 14:11	20°≈47'35		direct	1449 Oct 01 j 12:04	1°≈37'46	
morning rise	1448 Oct 14 j 09:54	18°≈23'32		morning max el	1449 Oct 08 j 02:36	5°≈14'31	18°25'22
direct	1448 Oct 17 j 14:33	17°≈24'46			1449 Oct 25 j 02:28	0°≈	
morning max el	1448 Oct 24 j 14:24	21°≈20'05	19°07'49	morning set	1449 Oct 27 j 16:43	4°≈11'16	
	1448 Oct 31 j 13:04	0°≈		desc. node	1449 Nov 06 j 03:15	19°≈18'02	
morning set	1448 Nov 16 j 09:50	24°≈10'31					
desc. node	1448 Nov 19 j 06:11	28°≈37'21		superior conj	1449 Nov 12 j 04:46	28°≈52'39	0°-39'-38
	1448 Nov 20 j 03:21	0°≈		minimum elong	1449 Nov 11 j 23:38	28°≈32'26	0°38'58

	1449 Nov 12 j 21:54	0°♊		superior conj	1450 Oct 22 j 16:00	7°♌53'58	0°09'02
max. Earth dist.	1449 Nov 13 j 13:03	0°♊59'32	1.45114 AU	minimum elong	1450 Oct 22 j 17:04	7°♌58'15	0°08'52
evening rise	1449 Nov 28 j 10:37	24°♊23'21		behind sun begin	1450 Oct 22 j 08:16	7°♌22'50	
	1449 Dec 02 j 00:06	0°♋		behind sun end	1450 Oct 23 j 01:51	8°♌33'36	
greatest brilliancy	1449 Dec 11 j 09:05	14°♋35'35	-0.7m	desc. node	1450 Oct 24 j 00:17	10°♌03'34	
evening max el	1449 Dec 21 j 08:37	27°♋55'56	19°12'20	max. Earth dist.	1450 Oct 27 j 07:51	15°♌20'22	1.44655 AU
	1449 Dec 23 j 15:21	0°♌			1450 Nov 05 j 16:47	0°♊	
asc. node	1449 Dec 25 j 10:31	1°♌09'52		evening rise	1450 Nov 08 j 00:55	3°♊36'46	
retrograde	1449 Dec 28 j 09:00	1°♌56'43			1450 Nov 25 j 13:54	0°♋	
evening set	1449 Dec 31 j 16:26	0°♌52'50		greatest brilliancy	1450 Nov 27 j 19:19	3°♋06'50	-0.6m
	1450 Jan 01 j 20:45	30°♌♋		evening max el	1450 Dec 04 j 13:15	11°♋24'41	20°07'04
inferior conj	1450 Jan 06 j 07:42	25°♋00'27	3°16'27	retrograde	1450 Dec 12 j 06:46	15°♋56'46	
minimum elong	1450 Jan 06 j 05:17	25°♋08'12	3°15'59	asc. node	1450 Dec 12 j 07:35	15°♋56'46	
min. Earth dist.	1450 Jan 07 j 17:20	23°♋13'07	0.66023 AU	evening set	1450 Dec 15 j 22:18	14°♋39'11	
morning rise	1450 Jan 11 j 17:18	18°♋47'28		inferior conj	1450 Dec 21 j 09:57	8°♋33'11	2°44'36
direct	1450 Jan 18 j 01:57	16°♋00'18		minimum elong	1450 Dec 21 j 07:17	8°♋42'10	2°43'51
morning max el	1450 Jan 30 j 19:12	23°♋31'06	26°18'35	min. Earth dist.	1450 Dec 22 j 05:56	7°♋26'05	0.66979 AU
desc. node	1450 Feb 02 j 02:24	25°♋56'44		morning rise	1450 Dec 26 j 15:42	2°♋18'04	
	1450 Feb 05 j 14:11	0°♌			1450 Dec 30 j 13:24	30°♌♊	
	1450 Feb 26 j 04:00	0°♋		direct	1451 Jan 01 j 10:37	29°♊44'35	
morning set	1450 Mar 07 j 21:32	17°♋12'18			1451 Jan 03 j 09:55	0°♋	
max. Earth dist.	1450 Mar 11 j 23:51	25°♋02'59	1.35089 AU	morning max el	1451 Jan 13 j 04:00	6°♋44'03	25°00'32
	1450 Mar 14 j 11:47	0°♌		desc. node	1451 Jan 19 j 23:27	14°♋29'52	
					1451 Jan 31 j 06:30	0°♌	
superior conj	1450 Mar 16 j 20:21	4°♌46'42	-1°-4'-21	morning set	1451 Feb 18 j 07:18	29°♌21'04	
minimum elong	1450 Mar 16 j 23:32	5°♌02'56	1°03'49		1451 Feb 18 j 16:01	0°♋	
asc. node	1450 Mar 23 j 09:52	18°♌22'44		max. Earth dist.	1451 Feb 22 j 00:20	6°♋05'45	1.36882 AU
evening rise	1450 Mar 24 j 14:44	20°♌51'51					
	1450 Mar 29 j 04:13	0°♍		superior conj	1451 Feb 28 j 08:21	18°♋11'53	-1°-29'-41
evening max el	1450 Apr 12 j 06:22	21°♍04'21	20°38'16	minimum elong	1451 Feb 28 j 12:25	18°♋31'54	1°29'09
retrograde	1450 Apr 23 j 10:30	26°♍29'31			1451 Mar 06 j 06:04	0°♌	
evening set	1450 Apr 25 j 13:31	26°♍18'32		evening rise	1451 Mar 08 j 17:54	5°♌01'24	
desc. node	1450 May 01 j 01:36	24°♍22'48		asc. node	1451 Mar 10 j 06:55	8°♌06'06	
inferior conj	1450 May 04 j 18:39	22°♍20'53	-1°-4'-34		1451 Mar 23 j 08:27	0°♍	
minimum elong	1450 May 04 j 15:36	22°♍25'17	1°03'28	evening max el	1451 Mar 25 j 20:09	2°♍42'08	19°30'48
min. Earth dist.	1450 May 05 j 22:17	21°♍41'11	0.55035 AU	retrograde	1451 Apr 04 j 07:12	7°♍15'54	
morning rise	1450 May 13 j 16:24	18°♍11'50		evening set	1451 Apr 06 j 08:50	7°♍03'47	
direct	1450 May 17 j 07:11	17°♍43'42		inferior conj	1451 Apr 14 j 22:38	2°♍58'24	0°51'11
morning max el	1450 May 30 j 13:28	24°♍08'08	23°08'42	minimum elong	1451 Apr 15 j 00:45	2°♍54'59	0°50'28
	1450 Jun 04 j 21:15	0°♎		min. Earth dist.	1451 Apr 17 j 12:48	1°♍18'53	0.55940 AU
asc. node	1450 Jun 19 j 09:09	23°♎59'15		desc. node	1451 Apr 17 j 22:38	1°♍03'39	
	1450 Jun 22 j 07:31	0°♏			1451 Apr 19 j 18:09	30°♌♌	
morning set	1450 Jun 22 j 13:04	0°♏29'07		morning rise	1451 Apr 23 j 12:56	28°♌17'36	
				direct	1451 Apr 28 j 02:17	27°♌30'44	
superior conj	1450 Jun 29 j 16:13	15°♏44'12	1°29'56		1451 May 06 j 06:02	0°♍	
minimum elong	1450 Jun 29 j 13:57	15°♏32'04	1°29'41	morning max el	1451 May 12 j 04:18	4°♍37'13	24°49'57
max. Earth dist.	1450 Jul 02 j 06:49	21°♏16'08	1.33774 AU		1451 May 30 j 05:42	0°♎	
	1450 Jul 06 j 12:46	0°♐		asc. node	1451 Jun 06 j 06:13	13°♎47'53	
evening rise	1450 Jul 07 j 08:53	1°♐40'17		morning set	1451 Jun 07 j 01:00	15°♎26'25	
	1450 Jul 23 j 10:31	0°♑			1451 Jun 13 j 18:39	0°♏	
desc. node	1450 Jul 28 j 00:58	6°♑49'11		superior conj	1451 Jun 14 j 01:36	0°♏37'52	1°14'08
evening max el	1450 Aug 10 j 13:48	23°♑08'09	27°18'44	minimum elong	1451 Jun 13 j 23:11	0°♏24'41	1°13'46
	1450 Aug 21 j 00:30	0°♒		max. Earth dist.	1451 Jun 15 j 12:13	3°♏45'49	1.32867 AU
retrograde	1450 Aug 24 j 00:57	0°♒26'41		evening rise	1451 Jun 21 j 07:42	16°♏02'01	
	1450 Aug 26 j 22:19	30°♌♑			1451 Jun 28 j 12:37	0°♐	
evening set	1450 Aug 31 j 02:13	27°♑43'48		desc. node	1451 Jul 14 j 21:59	25°♐46'30	
min. Earth dist.	1450 Sep 03 j 20:30	24°♑13'54	0.64518 AU		1451 Jul 18 j 07:06	0°♑	
inferior conj	1450 Sep 06 j 03:49	21°♑44'44	-2°-55'-37	evening max el	1451 Jul 23 j 23:21	6°♑05'38	27°24'05
minimum elong	1450 Sep 06 j 08:19	21°♑32'34	2°54'06	retrograde	1451 Aug 06 j 17:29	13°♑23'26	
morning rise	1450 Sep 12 j 16:20	16°♑15'49		evening set	1451 Aug 13 j 22:26	10°♑50'54	
direct	1450 Sep 15 j 06:03	15°♑41'38		min. Earth dist.	1451 Aug 17 j 12:38	7°♑51'56	0.62831 AU
asc. node	1450 Sep 15 j 08:20	15°♑41'41		inferior conj	1451 Aug 20 j 08:28	5°♑08'01	-3°-47'-55
morning max el	1450 Sep 21 j 18:09	19°♑08'49	17°59'49	minimum elong	1451 Aug 20 j 13:40	4°♑55'26	3°46'35
	1450 Sep 29 j 19:09	0°♒		morning rise	1451 Aug 27 j 07:27	29°♐57'37	
morning set	1450 Oct 09 j 04:07	15°♒35'19			1451 Aug 27 j 04:54	30°♌♐	
	1450 Oct 17 j 19:23	0°♓		direct	1451 Aug 29 j 17:31	29°♐30'37	

	1451 Sep 01 j 05:18	0°♈		direct	1452 Aug 11 j 18:40	12°♌55'41	
asc. node	1451 Sep 02 j 05:25	0°♈28'17		morning max el	1452 Aug 18 j 23:25	16°♌29'12	18°03'04
morning max el	1451 Sep 05 j 10:08	2°♈56'40	17°52'02	asc. node	1452 Aug 19 j 02:28	16°♌36'38	
morning set	1451 Sep 21 j 14:54	28°♈06'56			1452 Aug 28 j 11:31	0°♈	
	1451 Sep 22 j 16:25	0°♌		morning set	1452 Sep 03 j 18:49	11°♈27'30	
superior conj	1451 Oct 03 j 04:14	18°♌10'38	0°50'40	superior conj	1452 Sep 13 j 19:11	29°♈45'31	1°20'27
minimum elong	1451 Oct 03 j 08:38	18°♌29'06	0°50'05	minimum elong	1452 Sep 13 j 23:31	0°♌04'44	1°20'00
max. Earth dist.	1451 Oct 09 j 23:19	29°♌22'34	1.43523 AU		1452 Sep 13 j 22:27	0°♌	
	1451 Oct 10 j 08:36	0°♍		max. Earth dist.	1452 Sep 21 j 09:48	12°♌51'14	1.41865 AU
desc. node	1451 Oct 10 j 21:19	0°♍51'13		desc. node	1452 Sep 26 j 18:21	21°♌37'05	
evening rise	1451 Oct 18 j 09:01	12°♍39'58		evening rise	1452 Sep 27 j 04:07	22°♌16'11	
	1451 Oct 29 j 19:47	0°♎			1452 Oct 02 j 02:05	0°♍	
greatest brilliancy	1451 Nov 12 j 08:11	18°♎54'34	-0.4m		1452 Oct 23 j 00:12	0°♎	
evening max el	1451 Nov 17 j 12:19	24°♎54'34	21°14'41	greatest brilliancy	1452 Oct 25 j 10:56	3°♎03'18	-0.3m
	1451 Nov 25 j 08:42	0°♏		evening max el	1452 Oct 30 j 06:04	8°♎26'07	22°31'13
retrograde	1451 Nov 26 j 04:19	0°♏03'29		retrograde	1452 Nov 08 j 23:53	14°♎13'27	
	1451 Nov 26 j 23:36	30°♎♎		evening set	1452 Nov 13 j 13:28	12°♎23'41	
asc. node	1451 Nov 29 j 04:38	29°♎12'52		asc. node	1452 Nov 15 j 01:40	10°♎58'26	
evening set	1451 Nov 30 j 05:54	28°♎30'33		inferior conj	1452 Nov 18 j 23:01	6°♎01'04	1°18'17
inferior conj	1451 Dec 05 j 15:44	22°♎14'22	2°04'39	minimum elong	1452 Nov 18 j 21:19	6°♎06'58	1°17'36
minimum elong	1451 Dec 05 j 13:20	22°♎22'41	2°03'48	min. Earth dist.	1452 Nov 18 j 19:56	6°♎11'44	0.67789 AU
min. Earth dist.	1451 Dec 05 j 23:39	21°♎47'05	0.67560 AU		1452 Nov 23 j 23:23	30°♎♍	
morning rise	1451 Dec 10 j 20:24	15°♎59'10		morning rise	1452 Nov 24 j 05:02	29°♍48'03	
direct	1451 Dec 16 j 00:16	13°♎45'41		direct	1452 Nov 28 j 17:56	27°♍57'14	
morning max el	1451 Dec 26 j 12:42	20°♎01'38	23°33'00		1452 Dec 04 j 02:02	0°♎	
	1452 Jan 04 j 00:27	0°♏		morning max el	1452 Dec 08 j 00:28	3°♎24'59	22°05'47
desc. node	1452 Jan 06 j 20:31	3°♏46'16		greatest brilliancy	1452 Dec 12 j 16:32	8°♎40'01	-0.4m
	1452 Jan 24 j 11:34	0°♐		desc. node	1452 Dec 23 j 17:34	23°♎33'28	
morning set	1452 Jan 30 j 17:19	10°♐17'12			1452 Dec 28 j 03:15	0°♏	
max. Earth dist.	1452 Feb 03 j 19:00	17°♐18'10	1.38969 AU	morning set	1453 Jan 09 j 22:28	19°♏48'57	
	1452 Feb 10 j 19:20	0°♑		max. Earth dist.	1453 Jan 15 j 16:21	29°♏15'34	1.41100 AU
superior conj	1452 Feb 11 j 06:49	0°♑53'42	-1°-50'-20		1453 Jan 16 j 02:57	0°♐	
minimum elong	1452 Feb 11 j 10:43	1°♑11'58	1°50'02	superior conj	1453 Jan 23 j 10:56	12°♐40'24	-2°-2'-37
evening rise	1452 Feb 20 j 13:19	18°♑42'33		minimum elong	1453 Jan 23 j 12:43	12°♐48'18	2°02'36
asc. node	1452 Feb 25 j 03:56	27°♑30'34			1453 Feb 01 j 22:35	0°♑	
	1452 Feb 26 j 12:33	0°♒		evening rise	1453 Feb 02 j 21:41	1°♑47'30	
evening max el	1452 Mar 07 j 20:16	14°♒57'33	18°43'08	asc. node	1453 Feb 11 j 00:58	16°♑29'43	
retrograde	1452 Mar 15 j 20:36	18°♒51'45		evening max el	1453 Feb 19 j 03:40	27°♑42'33	18°15'30
evening set	1452 Mar 18 j 03:05	18°♒34'08			1453 Feb 22 j 01:22	0°♒	
inferior conj	1452 Mar 25 j 21:54	14°♒11'20	2°20'48	retrograde	1453 Feb 26 j 04:47	1°♒13'46	
minimum elong	1452 Mar 26 j 02:00	14°♒03'39	2°19'40	evening set	1453 Feb 28 j 16:46	0°♒48'06	
min. Earth dist.	1452 Mar 29 j 06:04	11°♒42'38	0.57591 AU		1453 Mar 02 j 12:10	30°♒♑	
morning rise	1452 Apr 02 j 20:35	8°♒57'25		inferior conj	1453 Mar 07 j 18:16	26°♒04'00	3°16'09
desc. node	1452 Apr 03 j 19:41	8°♒33'14		minimum elong	1453 Mar 07 j 21:25	25°♒57'07	3°15'36
direct	1452 Apr 08 j 11:41	7°♒39'07		min. Earth dist.	1453 Mar 11 j 03:54	23°♒07'20	0.59651 AU
morning max el	1452 Apr 22 j 20:12	15°♒12'12	26°18'53	morning rise	1453 Mar 14 j 22:30	20°♒24'56	
	1452 May 04 j 18:01	0°♓		direct	1453 Mar 21 j 09:48	18°♒29'54	
	1452 May 21 j 08:11	0°♔		desc. node	1453 Mar 21 j 16:42	18°♒30'07	
morning set	1452 May 21 j 12:03	0°♔20'19		morning max el	1453 Apr 04 j 17:20	26°♒16'55	27°21'20
asc. node	1452 May 23 j 03:14	3°♔48'22			1453 Apr 08 j 05:15	0°♓	
superior conj	1452 May 28 j 13:01	15°♔35'56	0°54'24	morning set	1453 Apr 28 j 04:15	0°♓	
minimum elong	1452 May 28 j 10:55	15°♔24'25	0°54'01	asc. node	1453 May 05 j 20:34	15°♓05'06	
max. Earth dist.	1452 May 28 j 22:56	16°♔30'23	1.32357 AU	max. Earth dist.	1453 May 10 j 00:16	23°♓55'59	
	1452 Jun 04 j 04:58	0°♕			1453 May 12 j 11:24	29°♓19'08	1.32225 AU
evening rise	1452 Jun 04 j 13:03	0°♕42'13			1453 May 12 j 18:50	0°♔	
	1452 Jun 20 j 14:25	0°♌		superior conj	1453 May 13 j 00:43	0°♔32'21	0°31'28
desc. node	1452 Jun 30 j 19:01	13°♌47'54		minimum elong	1453 May 12 j 23:21	0°♔24'53	0°31'11
evening max el	1452 Jul 05 j 04:17	18°♌25'01	26°56'43	evening rise	1453 May 19 j 22:30	15°♔32'49	
retrograde	1452 Jul 19 j 02:44	25°♌39'34			1453 May 27 j 04:10	0°♕	
evening set	1452 Jul 26 j 01:54	23°♌31'14		evening max el	1453 Jun 17 j 02:29	29°♕58'35	25°57'09
min. Earth dist.	1452 Jul 29 j 18:28	20°♌51'34	0.60876 AU		1453 Jun 17 j 03:05	0°♌	
inferior conj	1452 Aug 01 j 23:40	18°♌07'24	-4°-30'-11	desc. node	1453 Jun 17 j 16:00	0°♌30'17	
minimum elong	1452 Aug 02 j 04:07	17°♌57'54	4°29'30	retrograde	1453 Jul 01 j 02:50	7°♌08'53	
morning rise	1452 Aug 09 j 09:25	13°♌18'15		evening set	1453 Jul 07 j 07:57	5°♌36'04	

min. Earth dist.	1453 Jul 11 j 15:01	2°♌58'50	0.58820 AU	retrograde	1454 Jun 12 j 15:55	17°♏51'05	
inferior conj	1453 Jul 14 j 21:52	0°♌33'24	-4°-53'-24	evening set	1454 Jun 17 j 14:22	16°♏56'21	
minimum elong	1453 Jul 14 j 23:16	0°♌30'47	4°53'21	min. Earth dist.	1454 Jun 23 j 05:12	14°♏03'50	0.56918 AU
	1453 Jul 15 j 15:58	30°♋♏		inferior conj	1454 Jun 26 j 00:10	12°♏16'27	-4°-44'-42
morning rise	1453 Jul 22 j 18:06	26°♏07'15		minimum elong	1454 Jun 25 j 20:30	12°♏22'22	4°44'21
direct	1453 Jul 25 j 05:20	25°♏47'04		morning rise	1454 Jul 04 j 06:22	8°♏11'44	
morning max el	1453 Aug 02 j 06:51	29°♏37'53	18°34'11	direct	1454 Jul 06 j 21:23	7°♏52'45	
	1453 Aug 02 j 15:57	0°♌		morning max el	1454 Jul 16 j 05:29	12°♏13'21	19°26'32
asc. node	1453 Aug 05 j 23:30	3°♌51'49		asc. node	1454 Jul 23 j 20:32	21°♏59'06	
morning set	1453 Aug 18 j 10:54	25°♌23'28			1454 Jul 28 j 11:08	0°♌	
	1453 Aug 20 j 20:01	0°♎		morning set	1454 Aug 02 j 11:29	9°♌44'47	
superior conj	1453 Aug 27 j 08:21	12°♎26'10	1°38'13	superior conj	1454 Aug 10 j 14:10	25°♌56'59	1°45'38
minimum elong	1453 Aug 27 j 10:59	12°♎38'29	1°38'03	minimum elong	1454 Aug 10 j 14:51	26°♌00'19	1°45'37
max. Earth dist.	1453 Sep 03 j 15:30	25°♎37'59	1.39893 AU		1454 Aug 12 j 16:14	0°♎	
	1453 Sep 06 j 04:14	0°♏		max. Earth dist.	1454 Aug 16 j 19:15	7°♎46'30	1.37854 AU
evening rise	1453 Sep 07 j 21:25	2°♏54'07		evening rise	1454 Aug 20 j 14:46	14°♎39'38	
desc. node	1453 Sep 13 j 15:22	12°♏17'25			1454 Aug 29 j 17:51	0°♏	
	1453 Sep 25 j 08:47	0°♎		desc. node	1454 Aug 31 j 12:22	2°♏48'04	
evening max el	1453 Oct 12 j 19:55	22°♎00'39	23°51'16		1454 Sep 20 j 03:01	0°♎	
retrograde	1453 Oct 23 j 16:10	28°♎23'38		evening max el	1454 Sep 25 j 07:53	5°♎38'27	25°08'10
evening set	1453 Oct 28 j 19:25	26°♎16'19		retrograde	1454 Oct 07 j 04:21	12°♎30'04	
asc. node	1453 Nov 01 j 22:42	21°♎37'02		evening set	1454 Oct 12 j 22:07	10°♎06'12	
min. Earth dist.	1453 Nov 02 j 16:24	20°♎37'29	0.67679 AU	min. Earth dist.	1454 Oct 17 j 10:43	5°♎02'13	0.67235 AU
inferior conj	1453 Nov 03 j 06:02	19°♎51'11	0°26'54	inferior conj	1454 Oct 18 j 11:03	3°♎42'39	0°-28'-11
minimum elong	1453 Nov 03 j 05:23	19°♎53'22	0°26'37	minimum elong	1454 Oct 18 j 11:46	3°♎40'20	0°27'53
morning rise	1453 Nov 08 j 15:32	13°♎42'49		asc. node	1454 Oct 19 j 19:45	1°♎57'25	
direct	1453 Nov 12 j 14:29	12°♎14'21			1454 Oct 21 j 11:36	30°♋♏	
morning max el	1453 Nov 20 j 18:46	16°♎58'24	20°46'25	morning rise	1454 Oct 24 j 02:00	27°♏41'29	
greatest brilliancy	1453 Nov 26 j 14:33	23°♎47'10	-0.5m	direct	1454 Oct 27 j 12:42	26°♏33'00	
	1453 Dec 01 j 04:47	0°♎			1454 Nov 03 j 03:19	0°♎	
desc. node	1453 Dec 10 j 14:37	13°♎42'50		morning max el	1454 Nov 03 j 21:00	0°♎43'04	19°39'35
morning set	1453 Dec 20 j 02:01	28°♎11'30		greatest brilliancy	1454 Nov 12 j 00:34	10°♎54'40	-0.6m
	1453 Dec 21 j 05:49	0°♏			1454 Nov 24 j 19:10	0°♎	
max. Earth dist.	1453 Dec 28 j 21:28	12°♏10'57	1.42976 AU	desc. node	1454 Nov 27 j 11:39	4°♎08'05	
superior conj	1454 Jan 04 j 15:24	23°♏19'29	-2°-1'-50	morning set	1454 Nov 28 j 22:59	6°♎24'32	
minimum elong	1454 Jan 04 j 12:38	23°♏07'52	2°01'47	max. Earth dist.	1454 Dec 11 j 09:58	25°♎53'42	1.44341 AU
	1454 Jan 08 j 13:33	0°♏			1454 Dec 13 j 23:47	0°♏	
evening rise	1454 Jan 16 j 15:03	14°♏07'56		superior conj	1454 Dec 15 j 17:21	2°♏46'42	-1°-43'-26
	1454 Jan 25 j 18:04	0°♎		minimum elong	1454 Dec 15 j 09:37	2°♏15'38	1°42'50
asc. node	1454 Jan 28 j 21:59	4°♎55'11		evening rise	1454 Dec 29 j 13:09	25°♏36'26	
evening max el	1454 Feb 02 j 15:04	10°♎47'33	18°07'28		1455 Jan 01 j 03:32	0°♏	
retrograde	1454 Feb 09 j 04:29	14°♎11'32		asc. node	1455 Jan 15 j 19:01	22°♏37'14	
evening set	1454 Feb 11 j 21:18	13°♎36'34		evening max el	1455 Jan 17 j 03:37	24°♏05'49	18°18'30
inferior conj	1454 Feb 18 j 09:03	8°♎30'57	3°41'32	retrograde	1455 Jan 23 j 15:05	27°♏35'44	
minimum elong	1454 Feb 18 j 10:10	8°♎28'08	3°41'27	evening set	1455 Jan 26 j 12:46	26°♏50'33	
min. Earth dist.	1454 Feb 21 j 09:11	5°♎31'15	0.61775 AU	inferior conj	1455 Feb 01 j 14:19	21°♏25'06	3°44'10
morning rise	1454 Feb 24 j 20:30	2°♎35'28		minimum elong	1455 Feb 01 j 13:34	21°♏27'12	3°44'08
direct	1454 Mar 03 j 17:58	0°♎08'48		min. Earth dist.	1455 Feb 04 j 00:01	18°♏43'28	0.63706 AU
desc. node	1454 Mar 08 j 13:45	1°♎13'06		morning rise	1455 Feb 07 j 12:41	15°♏19'39	
morning max el	1454 Mar 17 j 20:48	8°♎02'31	27°48'21	direct	1455 Feb 14 j 10:39	12°♏33'39	
	1454 Apr 03 j 16:17	0°♎		desc. node	1455 Feb 23 j 10:48	16°♏16'04	
morning set	1454 Apr 20 j 00:31	29°♎33'08		morning max el	1455 Feb 28 j 04:57	20°♏27'30	27°38'08
	1454 Apr 20 j 05:47	0°♏			1455 Mar 08 j 10:31	0°♎	
max. Earth dist.	1454 Apr 25 j 21:39	11°♏57'21	1.32475 AU		1455 Mar 27 j 17:01	0°♎	
asc. node	1454 Apr 26 j 21:17	14°♏05'36		morning set	1455 Apr 03 j 21:33	13°♎37'00	
superior conj	1454 Apr 27 j 10:58	15°♏20'08	0°06'03	max. Earth dist.	1455 Apr 09 j 01:38	24°♎12'00	1.33136 AU
minimum elong	1454 Apr 27 j 10:41	15°♏18'36	0°05'59	superior conj	1455 Apr 11 j 18:03	29°♎53'57	0°-21'-4
behind sun begin	1454 Apr 27 j 05:55	14°♏52'36		minimum elong	1455 Apr 11 j 19:05	29°♎59'29	0°20'52
behind sun end	1454 Apr 27 j 15:28	15°♏44'37			1455 Apr 11 j 19:11	0°♏	
evening rise	1454 May 04 j 09:59	0°♎25'33		asc. node	1455 Apr 13 j 18:19	4°♏13'24	
	1454 May 04 j 05:10	0°♎		evening rise	1455 Apr 18 j 21:41	15°♏14'19	
	1454 May 20 j 18:38	0°♏			1455 Apr 26 j 07:46	0°♎	
evening max el	1454 May 29 j 18:06	10°♏49'01	24°32'45	evening max el	1455 May 11 j 08:12	21°♎18'48	22°57'10
desc. node	1454 Jun 04 j 12:59	15°♏21'43		desc. node	1455 May 22 j 10:00	27°♎46'04	

retrograde	1455 May 24 j 16:52	27°II57'59		evening set	1456 May 06 j 17:04	7°II43'09	
evening set	1455 May 28 j 03:43	27°II31'50		desc. node	1456 May 08 j 07:02	7°II20'59	
min. Earth dist.	1455 Jun 04 j 17:09	24°II09'55	0.55513 AU	inferior conj	1456 May 16 j 02:09	3°II43'18	-2°-13'-2
inferior conj	1455 Jun 06 j 07:07	23°II15'01	-3°-51'-14	minimum elong	1456 May 15 j 20:06	3°II51'48	2°11'00
minimum elong	1455 Jun 05 j 23:35	23°II25'58	3°49'29	min. Earth dist.	1456 May 16 j 05:37	3°II38'27	0.54927 AU
morning rise	1455 Jun 14 j 22:25	19°II22'28			1456 May 24 j 01:09	30°R8	
direct	1455 Jun 17 j 18:30	19°II03'30		morning rise	1456 May 24 j 23:28	29°845'29	
morning max el	1455 Jun 28 j 17:14	24°II07'43	20°39'53	direct	1456 May 28 j 05:02	29°822'44	
	1455 Jul 03 j 21:32	0°☾			1456 Jun 01 j 05:58	0°II	
asc. node	1455 Jul 10 j 17:35	10°☾46'12		morning max el	1456 Jun 09 j 17:57	5°II19'09	22°11'05
morning set	1455 Jul 17 j 17:48	24°☾23'44		asc. node	1456 Jun 26 j 14:39	0°☾03'28	
	1455 Jul 20 j 10:55	0°♄			1456 Jun 26 j 13:56	0°☾	
				morning set	1456 Jul 01 j 03:45	9°☾14'32	
superior conj	1455 Jul 25 j 07:53	10°♄03'53	1°44'38	superior conj	1456 Jul 08 j 09:50	24°☾36'02	1°36'55
minimum elong	1455 Jul 25 j 06:58	9°♄59'14	1°44'36	minimum elong	1456 Jul 08 j 07:54	24°☾25'49	1°36'45
max. Earth dist.	1455 Jul 30 j 02:28	19°♄36'23	1.35992 AU		1456 Jul 10 j 23:52	0°♄	
evening rise	1455 Aug 03 j 04:50	27°♄24'49		max. Earth dist.	1456 Jul 11 j 18:07	1°♄33'56	1.34467 AU
	1455 Aug 04 j 14:32	0°♍		evening rise	1456 Jul 16 j 10:57	10°♄57'35	
desc. node	1455 Aug 18 j 09:22	23°♍03'30			1456 Jul 27 j 00:10	0°♍	
	1455 Aug 23 j 02:12	0°♊		desc. node	1456 Aug 04 j 06:23	12°♍56'58	
evening max el	1455 Sep 07 j 19:40	19°♊16'38	26°14'26		1456 Aug 17 j 13:21	0°♊	
retrograde	1455 Sep 20 j 11:47	26°♊26'42		evening max el	1456 Aug 20 j 07:53	2°♊49'09	27°02'23
evening set	1455 Sep 26 j 19:38	23°♊49'51		retrograde	1456 Sep 02 j 13:51	10°♊06'56	
min. Earth dist.	1455 Oct 01 j 00:34	19°♊22'15	0.66454 AU	evening set	1456 Sep 09 j 09:44	7°♊23'49	
inferior conj	1455 Oct 02 j 12:14	17°♊32'15	-1°-25'-32	min. Earth dist.	1456 Sep 13 j 07:38	3°♊33'06	0.65325 AU
minimum elong	1455 Oct 02 j 14:29	17°♊25'20	1°24'36	inferior conj	1456 Sep 15 j 07:31	1°♊16'37	-2°-23'-12
asc. node	1455 Oct 06 j 16:49	12°♊56'05		minimum elong	1456 Sep 15 j 11:16	1°♊05'53	2°21'48
morning rise	1455 Oct 08 j 10:24	11°♊41'00			1456 Sep 16 j 10:42	30°R♍	
direct	1455 Oct 11 j 10:57	10°♊48'53		morning rise	1456 Sep 21 j 14:25	25°♍38'22	
morning max el	1455 Oct 18 j 06:10	14°♊35'20	18°47'45	asc. node	1456 Sep 22 j 13:52	25°♍14'56	
	1455 Oct 29 j 15:12	0°♌		direct	1456 Sep 24 j 07:19	24°♍58'41	
morning set	1455 Nov 08 j 13:32	15°♌35'16		morning max el	1456 Sep 30 j 20:08	28°♍30'41	18°12'19
desc. node	1455 Nov 14 j 08:40	24°♌43'56			1456 Oct 02 j 05:15	0°♊	
	1455 Nov 17 j 17:04	0°♌		morning set	1456 Oct 19 j 08:58	26°♊13'01	
max. Earth dist.	1455 Nov 24 j 02:53	10°♌03'57	1.45041 AU		1456 Oct 21 j 16:18	0°♌	
superior conj	1455 Nov 24 j 22:32	11°♌21'11	-1°-6'-38	desc. node	1456 Oct 31 j 05:43	15°♌27'02	
minimum elong	1455 Nov 24 j 14:36	10°♌49'59	1°05'42	superior conj	1456 Nov 03 j 01:25	19°♌56'02	0°-18'-45
	1455 Dec 06 j 17:00	0°♎		minimum elong	1456 Nov 02 j 23:01	19°♌46'28	0°18'26
evening rise	1455 Dec 10 j 12:18	6°♎06'27		max. Earth dist.	1456 Nov 05 j 21:42	24°♌25'29	1.45012 AU
	1455 Dec 25 j 16:06	0°♏			1456 Nov 09 j 10:56	0°♌	
evening max el	1455 Dec 31 j 14:43	7°♏30'58	18°47'49	evening rise	1456 Nov 19 j 12:43	15°♌42'33	
asc. node	1456 Jan 02 j 16:05	9°♏22'43			1456 Nov 28 j 18:04	0°♎	
retrograde	1456 Jan 07 j 08:26	11°♏17'51		greatest brilliancy	1456 Dec 05 j 17:32	10°♎28'35	-0.7m
evening set	1456 Jan 10 j 11:50	10°♏21'21		evening max el	1456 Dec 13 j 22:17	20°♎59'35	19°33'52
inferior conj	1456 Jan 16 j 06:10	4°♏38'12	3°30'13	asc. node	1456 Dec 19 j 13:09	24°♎57'12	
minimum elong	1456 Jan 16 j 04:10	4°♏44'22	3°29'56	retrograde	1456 Dec 21 j 05:13	25°♎12'36	
min. Earth dist.	1456 Jan 18 j 00:26	2°♏28'37	0.65294 AU	evening set	1456 Dec 24 j 15:52	24°♎03'12	
	1456 Jan 20 j 04:42	30°R♎		inferior conj	1456 Dec 30 j 05:24	18°♎04'56	3°04'02
morning rise	1456 Jan 21 j 19:22	28°♎27'04		minimum elong	1456 Dec 30 j 02:48	18°♎13'26	3°03'25
direct	1456 Jan 28 j 10:27	25°♎36'14		min. Earth dist.	1456 Dec 31 j 09:07	16°♎34'17	0.66486 AU
	1456 Feb 06 j 23:35	0°♏		morning rise	1457 Jan 04 j 12:59	11°♎50'47	
desc. node	1456 Feb 10 j 07:51	3°♏02'40		direct	1457 Jan 10 j 16:13	9°♎08'04	
morning max el	1456 Feb 10 j 14:43	3°♏19'49	26°55'02	morning max el	1457 Jan 22 j 23:52	16°♎27'14	25°46'59
	1456 Mar 01 j 18:41	0°♐		desc. node	1457 Jan 27 j 04:54	21°♎03'24	
morning set	1456 Mar 17 j 08:29	27°♐06'55			1457 Feb 03 j 06:05	0°♏	
	1456 Mar 18 j 20:18	0°♑			1457 Feb 22 j 16:27	0°♐	
max. Earth dist.	1456 Mar 21 j 19:32	5°♑53'15	1.34240 AU	morning set	1457 Feb 28 j 04:59	9°♐49'39	
				max. Earth dist.	1457 Mar 04 j 01:39	17°♐03'47	1.35803 AU
superior conj	1456 Mar 25 j 19:53	14°♑07'35	0°-48'-44	superior conj	1457 Mar 09 j 13:53	27°♐53'17	-1°-15'-31
minimum elong	1456 Mar 25 j 22:19	14°♑20'16	0°48'17	minimum elong	1457 Mar 09 j 17:31	28°♐11'36	1°14'56
asc. node	1456 Mar 30 j 15:23	24°♑15'27			1457 Mar 10 j 14:59	0°♑	
evening rise	1456 Apr 02 j 07:44	29°♑53'12		evening rise	1457 Mar 17 j 14:05	14°♑15'26	
	1456 Apr 02 j 09:02	0°♒		asc. node	1457 Mar 17 j 12:26	14°♑07'04	
	1456 Apr 20 j 06:07	0°II			1457 Mar 25 j 19:16	0°♒	
evening max el	1456 Apr 22 j 04:29	2°II00'42	21°25'17				
retrograde	1456 May 04 j 07:40	7°II56'13					

evening max el	1457 Apr 04 j 11:42	13°♄16'07	20°07'16	evening rise	1458 Mar 01 j 14:20	28°♄14'18	
retrograde	1457 Apr 14 j 21:54	18°♄17'59			1458 Mar 02 j 11:45	0°♄	
evening set	1457 Apr 16 j 23:10	18°♄07'09		asc. node	1458 Mar 04 j 09:29	3°♄43'25	
desc. node	1457 Apr 25 j 04:05	14°♄36'08		evening max el	1458 Mar 18 j 06:14	25°♄10'48	19°07'59
inferior conj	1457 Apr 25 j 22:48	14°♄08'19	0°-13'-33	retrograde	1458 Mar 27 j 01:00	29°♄25'42	
minimum elong	1457 Apr 25 j 22:10	14°♄09'15	0°13'20	evening set	1458 Mar 29 j 04:35	29°♄11'31	
transit middle	1457 Apr 25 j 22:10	14°♄09'15	0°13'20	inferior conj	1458 Apr 06 j 10:18	24°♄59'13	1°33'20
transit begin	1457 Apr 25 j 19:59	14°♄12'31		minimum elong	1458 Apr 06 j 13:43	24°♄53'22	1°32'14
transit end	1457 Apr 26 j 00:21	14°♄05'58		min. Earth dist.	1458 Apr 09 j 10:12	22°♄57'07	0.56574 AU
min. Earth dist.	1457 Apr 27 j 19:02	13°♄02'23	0.55311 AU	desc. node	1458 Apr 12 j 01:06	21°♄21'21	
morning rise	1457 May 04 j 18:35	9°♄46'56		morning rise	1458 Apr 14 j 18:44	20°♄04'10	
direct	1457 May 08 j 18:23	9°♄12'09		direct	1458 Apr 19 j 19:18	19°♄05'22	
morning max el	1457 May 22 j 10:34	15°♄56'24	23°52'17	morning max el	1458 May 04 j 01:04	26°♄24'03	25°30'15
	1457 Jun 02 j 14:59	0°♄			1458 May 07 j 11:19	0°♄	
asc. node	1457 Jun 13 j 11:42	19°♄42'14			1458 May 26 j 15:54	0°♄	
morning set	1457 Jun 15 j 15:25	24°♄10'38		morning set	1458 May 31 j 03:10	9°♄06'56	
	1457 Jun 18 j 08:57	0°♄		asc. node	1458 May 31 j 08:45	9°♄36'27	
superior conj	1457 Jun 22 j 17:08	9°♄23'28	1°23'46	superior conj	1458 Jun 07 j 03:34	24°♄19'14	1°06'12
minimum elong	1457 Jun 22 j 14:44	9°♄10'32	1°23'28	minimum elong	1458 Jun 07 j 01:14	24°♄06'26	1°05'48
max. Earth dist.	1457 Jun 24 j 19:12	13°♄52'08	1.33340 AU	max. Earth dist.	1458 Jun 08 j 03:28	26°♄29'55	1.32608 AU
evening rise	1457 Jun 30 j 04:41	25°♄04'16			1458 Jun 09 j 18:08	0°♄	
	1457 Jul 02 j 16:32	0°♄		evening rise	1458 Jun 14 j 06:36	9°♄34'32	
	1457 Jul 20 j 12:03	0°♄			1458 Jun 25 j 00:38	0°♄	
desc. node	1457 Jul 22 j 03:25	2°♄18'04		desc. node	1458 Jul 09 j 00:25	20°♄53'24	
evening max el	1457 Aug 02 j 19:15	16°♄03'26	27°24'57	evening max el	1458 Jul 16 j 03:11	28°♄45'37	27°16'30
retrograde	1457 Aug 16 j 09:48	23°♄21'27			1458 Jul 17 j 11:42	0°♄	
evening set	1457 Aug 23 j 13:26	20°♄41'46		retrograde	1458 Jul 29 j 22:57	6°♄01'17	
min. Earth dist.	1457 Aug 27 j 05:41	17°♄25'43	0.63839 AU	evening set	1458 Aug 06 j 03:01	3°♄37'25	
inferior conj	1457 Aug 29 j 18:19	14°♄49'13	-3°-18'-36	min. Earth dist.	1458 Aug 09 j 17:12	0°♄48'35	0.62030 AU
minimum elong	1457 Aug 29 j 23:14	14°♄36'30	3°17'06		1458 Aug 10 j 14:50	30°♄	
morning rise	1457 Sep 05 j 11:10	9°♄27'25		inferior conj	1458 Aug 12 j 17:37	28°♄02'43	-4°-7'-32
direct	1457 Sep 07 j 23:01	8°♄56'35		minimum elong	1458 Aug 12 j 22:43	27°♄50'58	4°06'25
asc. node	1457 Sep 09 j 10:55	9°♄07'50		morning rise	1458 Aug 19 j 21:09	23°♄01'00	
morning max el	1457 Sep 14 j 12:08	12°♄22'23	17°54'15	direct	1458 Aug 22 j 06:41	22°♄36'02	
	1457 Sep 26 j 13:30	0°♄		asc. node	1458 Aug 27 j 07:57	24°♄30'14	
morning set	1457 Oct 01 j 07:09	8°♄08'22		morning max el	1458 Aug 29 j 03:16	26°♄03'47	17°54'24
					1458 Sep 01 j 11:57	0°♄	
superior conj	1457 Oct 13 j 22:17	29°♄26'26	0°27'58	morning set	1458 Sep 14 j 01:50	21°♄02'12	
minimum elong	1457 Oct 14 j 01:15	29°♄38'34	0°27'33		1458 Sep 19 j 01:21	0°♄	
	1457 Oct 14 j 06:29	0°♄		superior conj	1458 Sep 24 j 22:06	10°♄16'36	1°04'51
desc. node	1457 Oct 18 j 02:45	6°♄13'42		minimum elong	1458 Sep 25 j 02:47	10°♄36'44	1°04'17
max. Earth dist.	1457 Oct 19 j 15:40	8°♄41'25	1.44256 AU	max. Earth dist.	1458 Oct 02 j 05:38	22°♄32'28	1.42872 AU
evening rise	1457 Oct 29 j 22:23	24°♄46'53		desc. node	1458 Oct 04 j 23:46	27°♄00'33	
	1457 Nov 02 j 08:07	0°♄			1458 Oct 06 j 20:40	0°♄	
greatest brilliancy	1457 Nov 21 j 02:05	27°♄22'54	-0.5m	evening rise	1458 Oct 09 j 09:08	3°♄58'37	
	1457 Nov 23 j 02:53	0°♄			1458 Oct 26 j 18:30	0°♄	
evening max el	1457 Nov 27 j 00:44	4°♄29'33	20°34'28	greatest brilliancy	1458 Nov 05 j 01:43	12°♄30'08	-0.4m
retrograde	1457 Dec 05 j 03:03	9°♄16'13		evening max el	1458 Nov 09 j 21:23	17°♄59'40	21°46'25
asc. node	1457 Dec 06 j 10:10	9°♄06'46		retrograde	1458 Nov 18 j 23:55	23°♄24'49	
evening set	1457 Dec 08 j 22:42	7°♄52'12		evening set	1458 Nov 23 j 06:29	21°♄44'36	
inferior conj	1457 Dec 14 j 09:24	1°♄41'37	2°28'32	asc. node	1458 Nov 23 j 07:12	21°♄43'12	
minimum elong	1457 Dec 14 j 06:47	1°♄50'32	2°27'42	inferior conj	1458 Nov 28 j 16:01	15°♄25'08	1°45'40
min. Earth dist.	1457 Dec 15 j 00:04	0°♄51'41	0.67279 AU	minimum elong	1458 Nov 28 j 13:51	15°♄32'36	1°44'52
	1457 Dec 15 j 15:24	30°♄		min. Earth dist.	1458 Nov 28 j 19:03	15°♄14'36	0.67700 AU
morning rise	1457 Dec 19 j 14:24	25°♄26'28		morning rise	1458 Dec 03 j 20:59	9°♄10'48	
direct	1457 Dec 25 j 03:06	23°♄00'54		direct	1458 Dec 08 j 18:22	7°♄07'04	
morning max el	1458 Jan 05 j 08:16	29°♄42'09	24°23'48	morning max el	1458 Dec 18 j 17:56	13°♄02'11	22°55'27
	1458 Jan 05 j 15:17	0°♄		greatest brilliancy	1458 Dec 23 j 11:11	18°♄18'21	-0.3m
desc. node	1458 Jan 14 j 01:58	9°♄56'49		desc. node	1458 Dec 31 j 23:00	29°♄27'22	
	1458 Jan 28 j 02:53	0°♄			1459 Jan 01 j 08:20	0°♄	
morning set	1458 Feb 10 j 05:27	21°♄29'37			1459 Jan 21 j 00:47	0°♄	
max. Earth dist.	1458 Feb 13 j 22:59	28°♄07'25	1.37753 AU	morning set	1459 Jan 22 j 03:34	1°♄50'26	
	1458 Feb 14 j 23:44	0°♄		max. Earth dist.	1459 Jan 26 j 18:27	9°♄38'07	1.39893 AU
superior conj	1458 Feb 20 j 20:43	11°♄01'58	-1°-39'-13	superior conj	1459 Feb 03 j 11:59	23°♄21'41	-1°-56'-50
minimum elong	1458 Feb 21 j 00:53	11°♄22'06	1°38'45				

minimum elong	1459 Feb 03 j 15:17	23° \approx 36'46	1°56'39	max. Earth dist.	1460 Jan 08 j 18:38	21° \approx 59'36	1.41944 AU
	1459 Feb 07 j 01:53	0° \approx			1460 Jan 13 j 13:16	0° \approx	
evening rise	1459 Feb 13 j 05:31	11° \approx 41'17					
asc. node	1459 Feb 19 j 06:31	22° \approx 58'03		superior conj	1460 Jan 16 j 06:38	4° \approx 40'50	-2°-4'-11
	1459 Feb 23 j 10:44	0° \approx		minimum elong	1460 Jan 16 j 06:45	4° \approx 41'22	2°04'12
evening max el	1459 Mar 01 j 09:44	7° \approx 39'15	18°28'50	evening rise	1460 Jan 27 j 08:03	24° \approx 28'36	
retrograde	1459 Mar 08 j 22:53	11° \approx 22'02			1460 Jan 30 j 08:49	0° \approx	
evening set	1459 Mar 11 j 07:38	11° \approx 01'17		asc. node	1460 Feb 06 j 03:31	11° \approx 44'08	
inferior conj	1459 Mar 18 j 18:41	6° \approx 29'17	2°48'21	evening max el	1460 Feb 12 j 19:11	20° \approx 33'45	18°09'39
minimum elong	1459 Mar 18 j 22:38	6° \approx 21'22	2°47'26	retrograde	1460 Feb 19 j 14:11	24° \approx 00'17	
min. Earth dist.	1459 Mar 22 j 05:03	3° \approx 45'46	0.58440 AU	evening set	1460 Feb 22 j 04:09	23° \approx 30'56	
morning rise	1459 Mar 26 j 09:31	1° \approx 03'14		inferior conj	1460 Feb 28 j 23:23	18° \approx 37'46	3°30'05
	1459 Mar 29 j 00:01	30° \approx		minimum elong	1460 Feb 29 j 01:42	18° \approx 32'21	3°29'48
desc. node	1459 Mar 29 j 22:09	29° \approx 45'48		min. Earth dist.	1460 Mar 03 j 06:02	15° \approx 36'29	0.60567 AU
direct	1459 Apr 01 j 10:00	29° \approx 29'39		morning rise	1460 Mar 06 j 20:05	12° \approx 50'24	
	1459 Apr 04 j 21:27	0° \approx		direct	1460 Mar 13 j 12:54	10° \approx 40'29	
morning max el	1459 Apr 15 j 19:04	7° \approx 09'46	26°49'27	desc. node	1460 Mar 15 j 19:11	10° \approx 54'33	
	1459 May 02 j 20:40	0° \approx		morning max el	1460 Mar 27 j 19:08	18° \approx 32'03	27°37'19
morning set	1459 May 15 j 13:21	23° \approx 57'34			1460 Apr 06 j 10:44	0° \approx	
asc. node	1459 May 18 j 05:47	29° \approx 40'24			1460 Apr 24 j 13:11	0° \approx	
	1459 May 18 j 09:25	0° \approx		morning set	1460 Apr 28 j 20:11	8° \approx 36'09	
				asc. node	1460 May 04 j 02:49	19° \approx 49'23	
superior conj	1459 May 22 j 15:17	9° \approx 16'54	0°45'01	max. Earth dist.	1460 May 05 j 03:16	22° \approx 02'45	1.32280 AU
minimum elong	1459 May 22 j 13:27	9° \approx 06'51	0°44'39				
max. Earth dist.	1459 May 22 j 15:25	9° \approx 17'39	1.32253 AU	superior conj	1460 May 06 j 02:36	24° \approx 10'25	0°20'56
evening rise	1459 May 29 j 13:56	24° \approx 19'29		minimum elong	1460 May 06 j 01:39	24° \approx 05'17	0°20'43
	1459 Jun 01 j 08:01	0° \approx			1460 May 08 j 18:20	0° \approx	
	1459 Jun 18 j 23:50	0° \approx		evening rise	1460 May 13 j 00:28	9° \approx 11'33	
desc. node	1459 Jun 25 j 21:25	8° \approx 24'12			1460 May 23 j 18:41	0° \approx	
evening max el	1459 Jun 28 j 05:10	10° \approx 44'49	26°34'58	evening max el	1460 Jun 09 j 00:09	21° \approx 58'07	25°23'35
retrograde	1459 Jul 12 j 04:37	17° \approx 58'14		desc. node	1460 Jun 11 j 18:26	24° \approx 23'41	
evening set	1459 Jul 18 j 21:55	16° \approx 03'35		retrograde	1460 Jun 23 j 00:44	29° \approx 06'47	
min. Earth dist.	1459 Jul 22 j 18:33	13° \approx 27'33	0.59997 AU	evening set	1460 Jun 28 j 17:53	27° \approx 50'35	
inferior conj	1459 Jul 26 j 01:58	10° \approx 48'36	-4°-43'-6	min. Earth dist.	1460 Jul 03 j 12:09	25° \approx 08'39	0.57962 AU
minimum elong	1459 Jul 26 j 05:26	10° \approx 41'37	4°42'43	inferior conj	1460 Jul 06 j 15:55	22° \approx 57'02	-4°-54'-31
morning rise	1459 Aug 02 j 16:17	6° \approx 09'35		minimum elong	1460 Jul 06 j 15:18	22° \approx 58'06	4°54'31
direct	1459 Aug 05 j 02:06	5° \approx 48'15		morning rise	1460 Jul 14 j 16:29	18° \approx 40'41	
morning max el	1459 Aug 12 j 14:30	9° \approx 27'30	18°13'53	direct	1460 Jul 17 j 04:55	18° \approx 21'18	
asc. node	1459 Aug 14 j 05:00	11° \approx 08'50		morning max el	1460 Jul 25 j 18:36	22° \approx 23'30	18°53'54
	1459 Aug 26 j 00:05	0° \approx		asc. node	1460 Jul 31 j 02:03	28° \approx 47'49	
morning set	1459 Aug 28 j 11:26	4° \approx 39'02			1460 Jul 31 j 21:30	0° \approx	
				morning set	1460 Aug 11 j 07:31	18° \approx 46'32	
superior conj	1459 Sep 06 j 23:14	22° \approx 21'47	1°29'23		1460 Aug 17 j 00:38	0° \approx	
minimum elong	1459 Sep 07 j 02:57	22° \approx 38'36	1°29'03				
	1459 Sep 11 j 06:08	0° \approx		superior conj	1460 Aug 19 j 20:09	5° \approx 25'32	1°42'31
max. Earth dist.	1459 Sep 14 j 13:49	5° \approx 43'26	1.41040 AU	minimum elong	1460 Aug 19 j 21:56	5° \approx 34'04	1°42'25
evening rise	1459 Sep 19 j 12:50	13° \approx 58'36		max. Earth dist.	1460 Aug 26 j 17:35	18° \approx 10'10	1.39010 AU
desc. node	1459 Sep 21 j 20:46	17° \approx 44'28		evening rise	1460 Aug 30 j 16:34	25° \approx 05'42	
	1459 Sep 29 j 18:14	0° \approx			1460 Sep 02 j 14:14	0° \approx	
greatest brilliancy	1459 Oct 17 j 20:21	25° \approx 06'46	-0.2m	desc. node	1460 Sep 07 j 17:46	8° \approx 21'06	
	1459 Oct 22 j 01:49	0° \approx			1460 Sep 22 j 11:16	0° \approx	
evening max el	1459 Oct 23 j 13:05	1° \approx 31'51	23°05'11	evening max el	1460 Oct 05 j 01:49	15° \approx 07'30	24°24'52
retrograde	1459 Nov 02 j 18:23	7° \approx 35'39		retrograde	1460 Oct 16 j 09:08	21° \approx 44'24	
evening set	1459 Nov 07 j 13:36	5° \approx 38'18		evening set	1460 Oct 21 j 18:22	19° \approx 29'59	
asc. node	1459 Nov 10 j 04:13	2° \approx 56'17		min. Earth dist.	1460 Oct 26 j 11:43	14° \approx 05'28	0.67524 AU
	1459 Nov 12 j 09:59	30° \approx		inferior conj	1460 Oct 27 j 05:48	13° \approx 04'49	0°03'55
inferior conj	1459 Nov 12 j 23:24	29° \approx 13'50	0°57'02	minimum elong	1460 Oct 27 j 05:42	13° \approx 05'09	0°03'52
minimum elong	1459 Nov 12 j 22:06	29° \approx 18'17	0°56'30	transit middle	1460 Oct 27 j 05:42	13° \approx 05'09	0°03'52
min. Earth dist.	1459 Nov 12 j 15:45	29° \approx 40'12	0.67776 AU	transit begin	1460 Oct 27 j 03:02	13° \approx 14'05	
morning rise	1459 Nov 18 j 06:39	23° \approx 02'27		transit end	1460 Oct 27 j 08:21	12° \approx 56'14	
direct	1459 Nov 22 j 13:19	21° \approx 21'31		asc. node	1460 Oct 27 j 01:16	13° \approx 20'02	
morning max el	1459 Dec 01 j 08:18	26° \approx 30'14	21°30'47	morning rise	1460 Nov 01 j 17:22	6° \approx 58'54	
	1459 Dec 04 j 12:46	0° \approx		direct	1460 Nov 05 j 10:49	5° \approx 39'18	
greatest brilliancy	1459 Dec 06 j 08:58	2° \approx 13'52	-0.4m	morning max el	1460 Nov 13 j 05:52	10° \approx 08'03	20°16'14
desc. node	1459 Dec 18 j 20:02	19° \approx 24'56		greatest brilliancy	1460 Nov 19 j 21:32	18° \approx 07'02	-0.6m
	1459 Dec 25 j 21:40	0° \approx			1460 Nov 28 j 06:04	0° \approx	
morning set	1460 Jan 01 j 20:41	10° \approx 49'08		desc. node	1460 Dec 04 j 17:04	9° \approx 41'29	

morning set	1460 Dec 10 j 18:13	18° $\overline{\text{A}}$ 57'51		morning max el	1461 Oct 27 j 11:08	23° $\underline{\text{A}}$ 55'39	19°15'32
	1460 Dec 17 j 19:30	0° $\overline{\text{B}}$			1461 Nov 01 j 13:10	0° $\overline{\text{M}}$	
max. Earth dist.	1460 Dec 21 j 02:27	5° $\overline{\text{B}}$ 14'34	1.43627 AU	greatest brilliancy	1461 Nov 06 j 15:49	7° $\overline{\text{M}}$ 15'19	-0.7m
				morning set	1461 Nov 19 j 20:08	27° $\overline{\text{M}}$ 28'16	
superior conj	1460 Dec 26 j 23:53	14° $\overline{\text{B}}$ 49'15	-1°-56'-23		1461 Nov 21 j 11:08	0° $\overline{\text{A}}$	
minimum elong	1460 Dec 26 j 18:48	14° $\overline{\text{B}}$ 28'20	1°56'08	desc. node	1461 Nov 21 j 14:05	0° $\overline{\text{A}}$ 11'30	
	1461 Jan 05 j 00:07	0° \approx		max. Earth dist.	1461 Dec 03 j 17:19	19° $\overline{\text{A}}$ 11'34	1.44727 AU
evening rise	1461 Jan 08 j 17:44	6° \approx 27'38					
asc. node	1461 Jan 23 j 00:33	29° \approx 52'53		superior conj	1461 Dec 06 j 15:30	23° $\overline{\text{A}}$ 49'25	-1°-29'-51
	1461 Jan 23 j 02:41	0° H		minimum elong	1461 Dec 06 j 06:50	23° $\overline{\text{A}}$ 14'59	1°29'01
evening max el	1461 Jan 26 j 07:30	3° H 46'00	18°09'56		1461 Dec 10 j 12:22	0° $\overline{\text{B}}$	
retrograde	1461 Feb 01 j 18:57	7° H 10'45		evening rise	1461 Dec 21 j 06:18	17° $\overline{\text{B}}$ 31'03	
evening set	1461 Feb 04 j 13:49	6° H 31'34			1461 Dec 28 j 19:42	0° \approx	
inferior conj	1461 Feb 10 j 20:51	1° H 17'36	3°44'59	asc. node	1462 Jan 09 j 21:37	17° \approx 12'41	
minimum elong	1461 Feb 10 j 21:07	1° H 16'53	3°44'59	evening max el	1462 Jan 09 j 19:48	17° \approx 08'05	18°28'54
	1461 Feb 12 j 02:07	30° R \approx		retrograde	1462 Jan 16 j 08:49	20° \approx 43'38	
min. Earth dist.	1461 Feb 13 j 15:19	28° \approx 23'12	0.62634 AU	evening set	1462 Jan 19 j 08:55	19° \approx 53'36	
morning rise	1461 Feb 17 j 02:16	25° \approx 17'24		inferior conj	1462 Jan 25 j 07:03	14° \approx 20'21	3°39'59
direct	1461 Feb 24 j 01:14	22° \approx 40'25		minimum elong	1462 Jan 25 j 05:41	14° \approx 24'20	3°39'52
desc. node	1461 Mar 02 j 16:15	24° \approx 41'51		min. Earth dist.	1462 Jan 27 j 10:07	11° \approx 51'20	0.64428 AU
	1461 Mar 09 j 10:21	0° H		morning rise	1462 Jan 31 j 01:04	8° \approx 12'25	
morning max el	1461 Mar 10 j 00:44	0° H 35'18	27°48'18	direct	1462 Feb 06 j 20:58	5° \approx 22'44	
	1461 Mar 31 j 12:21	0° Y		desc. node	1462 Feb 17 j 13:18	10° \approx 33'03	
morning set	1461 Apr 12 j 21:35	22° Y 55'43		morning max el	1462 Feb 20 j 09:43	13° \approx 12'49	27°23'29
	1461 Apr 16 j 07:53	0° B			1462 Mar 05 j 22:25	0° H	
max. Earth dist.	1461 Apr 18 j 11:15	4° B 32'31	1.32704 AU		1462 Mar 24 j 01:51	0° Y	
				morning set	1462 Mar 27 j 14:46	6° Y 46'34	
superior conj	1461 Apr 20 j 11:48	8° B 54'05	0°-5'-18	max. Earth dist.	1462 Apr 01 j 11:27	16° Y 34'28	1.33555 AU
minimum elong	1461 Apr 20 j 12:04	8° B 55'28	0°05'16				
behind sun begin	1461 Apr 20 j 07:08	8° B 28'46		superior conj	1462 Apr 04 j 16:57	23° Y 20'31	0°-32'-47
behind sun end	1461 Apr 20 j 17:00	9° B 22'10		minimum elong	1462 Apr 04 j 18:35	23° Y 29'09	0°32'28
asc. node	1461 Apr 20 j 23:51	9° B 59'23		asc. node	1462 Apr 07 j 20:54	0° B 05'31	
evening rise	1461 Apr 27 j 12:20	24° B 04'16			1462 Apr 07 j 19:52	0° B	
	1461 Apr 30 j 08:48	0° II		evening rise	1462 Apr 11 j 23:35	8° B 50'08	
	1461 May 19 j 01:51	0° $\overline{\text{B}}$			1462 Apr 23 j 03:50	0° II	
evening max el	1461 May 21 j 14:34	2° $\overline{\text{B}}$ 37'45	23°52'36	evening max el	1462 May 03 j 06:30	13° II 09'24	22°16'50
desc. node	1461 May 29 j 15:27	8° $\overline{\text{B}}$ 17'45		retrograde	1462 May 16 j 04:08	19° II 31'37	
retrograde	1461 Jun 04 j 08:40	9° $\overline{\text{B}}$ 31'57		desc. node	1462 May 16 j 12:30	19° II 31'21	
evening set	1461 Jun 08 j 15:33	8° $\overline{\text{B}}$ 51'28		evening set	1462 May 19 j 02:28	19° II 12'39	
min. Earth dist.	1461 Jun 15 j 01:19	5° $\overline{\text{B}}$ 47'48	0.56239 AU	min. Earth dist.	1462 May 27 j 13:01	15° II 34'43	0.55161 AU
inferior conj	1461 Jun 17 j 09:44	4° $\overline{\text{B}}$ 21'45	-4°-28'00	inferior conj	1462 May 28 j 10:15	15° II 04'47	-3°-14'-13
minimum elong	1461 Jun 17 j 03:59	4° $\overline{\text{B}}$ 30'35	4°27'07	minimum elong	1462 May 28 j 02:35	15° II 15'36	3°12'02
morning rise	1461 Jun 25 j 19:53	0° $\overline{\text{B}}$ 23'23		morning rise	1462 Jun 06 j 04:45	11° II 12'34	
direct	1461 Jun 28 j 12:51	0° $\overline{\text{B}}$ 04'35		direct	1462 Jun 09 j 04:22	10° II 52'30	
morning max el	1461 Jul 08 j 12:47	4° $\overline{\text{B}}$ 42'39	19°55'10	morning max el	1462 Jun 20 j 19:34	16° II 17'58	21°16'46
asc. node	1461 Jul 17 j 23:07	17° $\overline{\text{B}}$ 13'49			1462 Jul 01 j 07:11	0° $\overline{\text{B}}$	
	1461 Jul 24 j 19:45	0° Q		asc. node	1462 Jul 04 j 20:10	6° $\overline{\text{B}}$ 14'53	
morning set	1461 Jul 26 j 10:53	3° Q 16'30		morning set	1462 Jul 10 j 19:02	18° $\overline{\text{B}}$ 01'27	
					1462 Jul 16 j 12:27	0° Q	
superior conj	1461 Aug 03 j 07:34	19° Q 13'12	1°46'06				
minimum elong	1461 Aug 03 j 07:30	19° Q 12'55	1°46'07	superior conj	1462 Jul 18 j 05:11	3° Q 31'57	1°42'05
	1461 Aug 08 j 20:30	0° P		minimum elong	1462 Jul 18 j 03:46	3° Q 24'37	1°42'01
max. Earth dist.	1461 Aug 08 j 22:09	0° P 07'48	1.37034 AU	max. Earth dist.	1462 Jul 22 j 08:59	12° Q 00'00	1.35303 AU
evening rise	1461 Aug 12 j 19:23	7° P 18'31		evening rise	1462 Jul 26 j 16:51	20° Q 25'25	
desc. node	1461 Aug 25 j 14:46	28° P 46'00			1462 Jul 31 j 22:21	0° P	
	1461 Aug 26 j 09:57	0° $\underline{\text{A}}$		desc. node	1462 Aug 12 j 11:48	18° P 53'14	
evening max el	1461 Sep 17 j 13:46	28° $\underline{\text{A}}$ 46'36	25°38'11		1462 Aug 20 j 08:43	0° $\underline{\text{A}}$	
	1461 Sep 18 j 20:49	0° $\overline{\text{M}}$		evening max el	1462 Aug 31 j 01:55	12° $\underline{\text{A}}$ 23'54	26°37'30
retrograde	1461 Sep 29 j 19:16	5° $\overline{\text{M}}$ 46'52		retrograde	1462 Sep 13 j 00:15	19° $\underline{\text{A}}$ 37'33	
evening set	1461 Oct 05 j 19:05	3° $\overline{\text{M}}$ 17'12		evening set	1462 Sep 19 j 13:44	16° $\underline{\text{A}}$ 57'03	
	1461 Oct 08 j 22:52	30° R $\underline{\text{A}}$		min. Earth dist.	1462 Sep 23 j 15:38	12° $\underline{\text{A}}$ 45'22	0.66021 AU
min. Earth dist.	1461 Oct 10 j 04:29	28° $\underline{\text{A}}$ 28'20	0.66945 AU	inferior conj	1462 Sep 25 j 08:23	10° $\underline{\text{A}}$ 43'39	-1°-50'-4
inferior conj	1461 Oct 11 j 09:26	26° $\underline{\text{A}}$ 55'46	0°-52'-19	minimum elong	1462 Sep 25 j 11:17	10° $\underline{\text{A}}$ 34'58	1°48'55
minimum elong	1461 Oct 11 j 10:47	26° $\underline{\text{A}}$ 51'28	0°51'45	asc. node	1462 Sep 30 j 19:25	5° $\underline{\text{A}}$ 19'12	
asc. node	1461 Oct 13 j 22:20	23° $\underline{\text{A}}$ 49'53		morning rise	1462 Oct 01 j 10:05	4° $\underline{\text{A}}$ 57'38	
morning rise	1461 Oct 17 j 03:13	20° $\underline{\text{A}}$ 58'14		direct	1462 Oct 04 j 07:11	4° $\underline{\text{A}}$ 11'09	
direct	1461 Oct 20 j 09:24	19° $\underline{\text{A}}$ 57'00		morning max el	1462 Oct 10 j 22:41	7° $\underline{\text{A}}$ 49'59	18°30'39

	1462 Oct 26 j 09:59	0°♄		direct	1463 Sep 18 j 01:48	18°♄16'41	
morning set	1462 Oct 30 j 22:40	7°♄15'57		morning max el	1463 Sep 24 j 13:55	21°♄44'54	18°02'31
desc. node	1462 Nov 08 j 11:06	20°♄50'58			1463 Sep 30 j 23:02	0°♄	
	1462 Nov 14 j 06:17	0°♄		morning set	1463 Oct 12 j 06:03	18°♄28'26	
					1463 Oct 19 j 04:26	0°♄	
superior conj	1462 Nov 15 j 16:53	2°♄15'59	0°-46'-57				
minimum elong	1462 Nov 15 j 10:52	1°♄52'20	0°46'11	superior conj	1463 Oct 26 j 01:25	11°♄09'05	0°01'54
max. Earth dist.	1462 Nov 16 j 12:04	3°♄31'20	1.45118 AU	minimum elong	1463 Oct 26 j 01:38	11°♄09'58	0°01'53
evening rise	1462 Dec 01 j 19:27	27°♄37'20		behind sun begin	1463 Oct 25 j 15:07	10°♄27'49	
	1462 Dec 03 j 07:29	0°♄		behind sun end	1463 Oct 26 j 12:09	11°♄52'03	
greatest brilliancy	1462 Dec 12 j 18:27	14°♄53'43	-0.8m	desc. node	1463 Oct 26 j 08:09	11°♄36'05	
	1462 Dec 23 j 16:18	0°♄		max. Earth dist.	1463 Oct 30 j 06:48	17°♄52'19	1.44768 AU
evening max el	1462 Dec 24 j 05:37	0°♄35'07	19°05'28		1463 Nov 07 j 00:40	0°♄	
asc. node	1462 Dec 27 j 18:41	3°♄30'06		evening rise	1463 Nov 11 j 12:01	6°♄55'39	
retrograde	1462 Dec 31 j 04:04	4°♄32'07			1463 Nov 26 j 16:46	0°♄	
evening set	1463 Jan 03 j 10:25	3°♄30'11		greatest brilliancy	1463 Nov 30 j 09:13	5°♄16'19	-0.6m
	1463 Jan 07 j 04:51	30°♄		evening max el	1463 Dec 07 j 10:59	14°♄03'34	19°58'01
inferior conj	1463 Jan 09 j 02:23	27°♄40'00	3°20'27	asc. node	1463 Dec 14 j 15:44	18°♄29'44	
minimum elong	1463 Jan 09 j 00:03	27°♄47'23	3°20'00	retrograde	1463 Dec 15 j 01:39	18°♄30'41	
min. Earth dist.	1463 Jan 10 j 14:10	25°♄46'49	0.65845 AU	evening set	1463 Dec 18 j 15:50	17°♄15'19	
morning rise	1463 Jan 14 j 12:48	21°♄27'21		inferior conj	1463 Dec 24 j 03:55	11°♄11'12	2°49'59
direct	1463 Jan 20 j 23:11	18°♄38'59		minimum elong	1463 Dec 24 j 01:15	11°♄20'07	2°49'16
morning max el	1463 Feb 02 j 19:36	26°♄13'39	26°28'45	min. Earth dist.	1463 Dec 25 j 01:52	9°♄57'53	0.66864 AU
desc. node	1463 Feb 04 j 10:20	27°♄54'26		morning rise	1463 Dec 29 j 10:02	4°♄56'09	
	1463 Feb 06 j 07:37	0°♄		direct	1464 Jan 04 j 07:08	2°♄19'59	
	1463 Feb 27 j 12:00	0°♄		morning max el	1464 Jan 16 j 04:29	9°♄25'16	25°12'54
morning set	1463 Mar 10 j 20:09	19°♄58'11		desc. node	1464 Jan 22 j 07:22	16°♄19'28	
max. Earth dist.	1463 Mar 15 j 00:42	28°♄03'03	1.34856 AU		1464 Feb 01 j 10:54	0°♄	
	1463 Mar 16 j 00:18	0°♄			1464 Feb 20 j 02:20	0°♄	
				morning set	1464 Feb 21 j 08:52	2°♄16'15	
superior conj	1463 Mar 19 j 15:47	7°♄23'11	-1°00'-18	max. Earth dist.	1464 Feb 25 j 02:21	9°♄06'12	1.36588 AU
minimum elong	1463 Mar 19 j 18:46	7°♄38'34	0°59'46				
asc. node	1463 Mar 25 j 17:58	20°♄03'50		superior conj	1464 Mar 02 j 05:25	20°♄53'49	-1°-26'-6
evening rise	1463 Mar 27 j 08:21	23°♄23'02		minimum elong	1464 Mar 02 j 09:24	21°♄13'33	1°25'33
	1463 Mar 30 j 14:38	0°♄			1464 Mar 06 j 18:21	0°♄	
evening max el	1463 Apr 15 j 06:57	24°♄03'11	20°49'52	evening rise	1464 Mar 10 j 12:23	7°♄35'55	
retrograde	1463 Apr 26 j 17:23	29°♄36'33		asc. node	1464 Mar 11 j 15:01	9°♄49'37	
evening set	1463 Apr 28 j 21:28	29°♄25'18			1464 Mar 23 j 01:52	0°♄	
desc. node	1463 May 03 j 09:33	27°♄58'40		evening max el	1464 Mar 27 j 19:04	5°♄35'22	19°39'41
inferior conj	1463 May 08 j 04:04	25°♄27'28	-1°-22'-51	retrograde	1464 Apr 06 j 12:03	10°♄16'09	
minimum elong	1463 May 08 j 00:08	25°♄33'04	1°21'27	evening set	1464 Apr 08 j 13:16	10°♄04'33	
min. Earth dist.	1463 May 09 j 01:32	24°♄56'52	0.54978 AU	inferior conj	1464 Apr 17 j 05:49	6°♄01'23	0°34'55
morning rise	1463 May 17 j 01:59	21°♄21'54		minimum elong	1464 Apr 17 j 07:19	5°♄59'01	0°34'22
direct	1463 May 20 j 13:59	20°♄55'31		desc. node	1464 Apr 19 j 06:33	4°♄44'40	
morning max el	1463 Jun 02 j 16:19	27°♄12'54	22°53'36	min. Earth dist.	1464 Apr 19 j 15:53	4°♄30'15	0.55747 AU
	1463 Jun 05 j 09:41	0°♄		morning rise	1464 Apr 25 j 21:49	1°♄25'40	
asc. node	1463 Jun 21 j 17:12	25°♄42'06		direct	1464 Apr 30 j 07:27	0°♄42'21	
	1463 Jun 23 j 20:09	0°♄		morning max el	1464 May 14 j 07:27	7°♄43'52	24°35'15
morning set	1463 Jun 25 j 05:53	2°♄55'16			1464 May 30 j 13:43	0°♄	
				asc. node	1464 Jun 07 j 14:15	15°♄28'37	
superior conj	1463 Jul 02 j 09:41	18°♄11'38	1°31'56	morning set	1464 Jun 08 j 17:47	17°♄52'46	
minimum elong	1463 Jul 02 j 07:29	17°♄59'55	1°31'43		1464 Jun 14 j 08:43	0°♄	
max. Earth dist.	1463 Jul 05 j 04:44	24°♄05'35	1.33939 AU				
	1463 Jul 08 j 01:36	0°♄		superior conj	1464 Jun 15 j 18:36	3°♄04'24	1°16'50
evening rise	1463 Jul 10 j 04:21	4°♄13'40		minimum elong	1464 Jun 15 j 16:10	2°♄51'11	1°16'28
	1463 Jul 24 j 16:23	0°♄		max. Earth dist.	1464 Jun 17 j 09:03	6°♄32'37	1.32977 AU
desc. node	1463 Jul 30 j 08:51	8°♄34'30		evening rise	1464 Jun 23 j 01:57	18°♄32'18	
evening max el	1463 Aug 13 j 13:46	25°♄49'22	27°15'23		1464 Jun 28 j 22:56	0°♄	
	1463 Aug 18 j 14:41	0°♄		desc. node	1464 Jul 16 j 05:52	27°♄38'52	
retrograde	1463 Aug 26 j 23:46	3°♄08'12			1464 Jul 18 j 01:20	0°♄	
evening set	1463 Sep 02 j 23:48	0°♄24'48		evening max el	1464 Jul 25 j 23:51	8°♄51'52	27°25'19
	1463 Sep 03 j 12:07	30°♄		retrograde	1464 Aug 08 j 17:16	16°♄09'57	
min. Earth dist.	1463 Sep 06 j 18:55	26°♄49'43	0.64736 AU	evening set	1464 Aug 15 j 22:04	13°♄35'11	
inferior conj	1463 Sep 09 j 00:21	24°♄23'28	-2°-47'-13	min. Earth dist.	1464 Aug 19 j 12:39	10°♄32'00	0.63102 AU
minimum elong	1463 Sep 09 j 04:40	24°♄11'36	2°45'44	inferior conj	1464 Aug 22 j 06:40	7°♄49'35	-3°-40'-31
morning rise	1463 Sep 15 j 11:23	18°♄52'08		minimum elong	1464 Aug 22 j 11:50	7°♄36'50	3°39'07
asc. node	1463 Sep 17 j 16:27	18°♄17'30		morning rise	1464 Aug 29 j 04:03	2°♄36'05	

direct	1464 Aug 31 j 14:26	2° \mathbb{M} 08'13		direct	1465 Aug 14 j 17:28	15° Ω 37'18	
asc. node	1464 Sep 03 j 13:27	2° \mathbb{M} 50'18		asc. node	1465 Aug 21 j 10:29	18° Ω 46'57	
morning max el	1464 Sep 07 j 05:59	5° \mathbb{M} 34'05	17°52'00	morning max el	1465 Aug 21 j 19:48	19° Ω 09'03	18°00'08
	1464 Sep 23 j 02:07	0° $\underline{\Omega}$			1465 Aug 29 j 18:12	0° \mathbb{M}	
morning set	1464 Sep 23 j 13:46	0° $\underline{\Omega}$ 51'16		morning set	1465 Sep 06 j 15:26	14° \mathbb{M} 05'25	
					1465 Sep 15 j 09:07	0° $\underline{\Omega}$	
superior conj	1464 Oct 05 j 09:31	21° $\underline{\Omega}$ 13'26	0°45'04	superior conj	1465 Sep 16 j 20:37	2° $\underline{\Omega}$ 36'56	1°16'46
minimum elong	1464 Oct 05 j 13:39	21° $\underline{\Omega}$ 30'43	0°44'31	minimum elong	1465 Sep 17 j 01:07	2° $\underline{\Omega}$ 56'40	1°16'15
	1464 Oct 10 j 17:35	0° \mathbb{M}			1465 Sep 17 j 01:07	2° $\underline{\Omega}$ 56'40	1°16'15
max. Earth dist.	1464 Oct 11 j 22:49	1° \mathbb{M} 58'01	1.43734 AU	max. Earth dist.	1465 Sep 24 j 10:15	15° $\underline{\Omega}$ 32'57	1.42142 AU
desc. node	1464 Oct 12 j 05:10	2° \mathbb{M} 23'34		desc. node	1465 Sep 29 j 02:12	23° $\underline{\Omega}$ 09'51	
evening rise	1464 Oct 20 j 19:55	15° \mathbb{M} 57'41		evening rise	1465 Sep 30 j 12:25	23° $\underline{\Omega}$ 26'33	
	1464 Oct 30 j 01:40	0° \mathbb{M}			1465 Oct 03 j 09:52	0° \mathbb{M}	
greatest brilliancy	1464 Nov 14 j 02:49	21° \mathbb{M} 19'16	-0.5m	greatest brilliancy	1465 Oct 23 j 23:40	0° \mathbb{M}	
evening max el	1464 Nov 19 j 10:56	27° \mathbb{M} 33'27	21°03'56	evening max el	1465 Oct 28 j 12:04	5° \mathbb{M} 46'16	-0.3m
	1464 Nov 22 j 02:30	0° \mathbb{M}			1465 Nov 02 j 05:27	11° \mathbb{M} 05'01	22°19'29
retrograde	1464 Nov 27 j 23:17	2° \mathbb{M} 36'25		retrograde	1465 Nov 11 j 19:11	16° \mathbb{M} 46'28	
asc. node	1464 Nov 30 j 12:44	1° \mathbb{M} 59'46		evening set	1465 Nov 16 j 06:56	14° \mathbb{M} 59'11	
evening set	1464 Dec 01 j 23:15	1° \mathbb{M} 05'56		asc. node	1465 Nov 17 j 09:44	13° \mathbb{M} 58'29	
	1464 Dec 03 j 05:23	30° \mathbb{M}		inferior conj	1465 Nov 21 j 16:26	8° \mathbb{M} 37'22	1°25'40
inferior conj	1464 Dec 07 j 09:16	24° \mathbb{M} 51'10	2°11'07	minimum elong	1465 Nov 21 j 14:36	8° \mathbb{M} 43'44	1°24'56
minimum elong	1464 Dec 07 j 06:47	24° \mathbb{M} 59'41	2°10'17	min. Earth dist.	1465 Nov 21 j 14:56	8° \mathbb{M} 42'36	0.67777 AU
min. Earth dist.	1464 Dec 07 j 18:55	24° \mathbb{M} 17'57	0.67502 AU	morning rise	1465 Nov 26 j 22:07	2° \mathbb{M} 24'02	
morning rise	1464 Dec 12 j 13:56	18° \mathbb{M} 35'52		direct	1465 Dec 01 j 13:13	0° \mathbb{M} 29'47	
direct	1464 Dec 17 j 20:08	16° \mathbb{M} 19'02		morning max el	1465 Dec 11 j 00:00	6° \mathbb{M} 04'20	22°18'28
morning max el	1464 Dec 28 j 12:54	22° \mathbb{M} 41'45	23°46'09	greatest brilliancy	1465 Dec 15 j 14:23	11° \mathbb{M} 13'34	-0.3m
	1465 Jan 03 j 22:37	0° \mathbb{M}		desc. node	1465 Dec 26 j 01:27	25° \mathbb{M} 13'35	
desc. node	1465 Jan 08 j 04:24	5° \mathbb{M} 30'07			1465 Dec 29 j 08:35	0° \mathbb{M}	
	1465 Jan 24 j 19:29	0° \mathbb{M}		morning set	1466 Jan 13 j 08:24	23° \mathbb{M} 08'43	
morning set	1465 Feb 01 j 22:47	13° \mathbb{M} 23'58			1466 Jan 17 j 12:17	0° \mathbb{M}	
max. Earth dist.	1465 Feb 05 j 21:16	20° \mathbb{M} 14'16	1.38649 AU	max. Earth dist.	1466 Jan 18 j 18:07	2° \mathbb{M} 05'15	1.40795 AU
	1465 Feb 11 j 06:32	0° \mathbb{M}					
superior conj	1465 Feb 13 j 06:10	3° \mathbb{M} 42'50	-1°-47'-40	superior conj	1466 Jan 26 j 13:24	15° \mathbb{M} 39'01	-2°-1'-29
minimum elong	1465 Feb 13 j 10:12	4° \mathbb{M} 01'51	1°47'19	minimum elong	1466 Jan 26 j 15:40	15° \mathbb{M} 49'08	2°01'26
evening rise	1465 Feb 22 j 09:06	21° \mathbb{M} 21'37		evening rise	1466 Feb 03 j 09:07	0° \mathbb{M}	
asc. node	1465 Feb 26 j 12:03	29° \mathbb{M} 17'20		asc. node	1466 Feb 05 j 19:23	4° \mathbb{M} 32'58	
	1465 Feb 26 j 21:10	0° \mathbb{M}			1466 Feb 13 j 09:05	18° \mathbb{M} 21'01	
evening max el	1465 Mar 10 j 17:50	17° \mathbb{M} 45'37	18°48'59	evening max el	1466 Feb 21 j 13:39	0° \mathbb{M}	
retrograde	1465 Mar 18 j 22:32	21° \mathbb{M} 44'31		retrograde	1466 Feb 22 j 00:21	0° \mathbb{M} 26'49	18°18'19
evening set	1465 Mar 21 j 04:15	21° \mathbb{M} 27'51		evening set	1466 Mar 01 j 04:09	4° \mathbb{M} 00'30	
inferior conj	1465 Mar 29 j 01:52	17° \mathbb{M} 08'03	2°09'26	inferior conj	1466 Mar 03 j 15:21	3° \mathbb{M} 36'06	
minimum elong	1465 Mar 29 j 05:54	17° \mathbb{M} 00'40	2°08'16		1466 Mar 09 j 12:16	30° \mathbb{M}	
min. Earth dist.	1465 Apr 01 j 08:30	14° \mathbb{M} 45'37	0.57308 AU	minimum elong	1466 Mar 10 j 19:12	28° \mathbb{M} 55'02	3°09'48
morning rise	1465 Apr 06 j 03:12	11° \mathbb{M} 58'55		min. Earth dist.	1466 Mar 10 j 22:36	28° \mathbb{M} 47'45	3°09'10
desc. node	1465 Apr 06 j 03:35	11° \mathbb{M} 58'30		morning rise	1466 Mar 14 j 05:22	26° \mathbb{M} 01'06	0.59333 AU
direct	1465 Apr 11 j 14:46	10° \mathbb{M} 45'52		direct	1466 Mar 18 j 02:10	23° \mathbb{M} 19'08	
morning max el	1465 Apr 25 j 22:43	18° \mathbb{M} 15'38	26°07'05	desc. node	1466 Mar 24 j 10:57	21° \mathbb{M} 29'39	
	1465 May 05 j 17:43	0° \mathbb{M}		morning max el	1466 Mar 24 j 00:37	21° \mathbb{M} 30'09	
	1465 May 22 j 20:57	0° \mathbb{M}			1466 Apr 07 j 18:58	29° \mathbb{M} 14'49	27°14'12
morning set	1465 May 24 j 05:03	2° \mathbb{M} 47'28			1466 Apr 08 j 13:03	0° \mathbb{M}	
asc. node	1465 May 25 j 11:17	5° \mathbb{M} 27'44		morning set	1466 Apr 29 j 13:22	0° \mathbb{M}	
				asc. node	1466 Apr 29 j 13:22	0° \mathbb{M}	
superior conj	1465 May 31 j 05:47	18° \mathbb{M} 02'08	0°57'39		1466 May 08 j 14:03	17° \mathbb{M} 33'47	
minimum elong	1465 May 31 j 03:37	17° \mathbb{M} 50'11	0°57'14		1466 May 12 j 08:21	25° \mathbb{M} 34'35	
max. Earth dist.	1465 May 31 j 19:15	19° \mathbb{M} 15'58	1.32410 AU		1466 May 14 j 09:00	0° \mathbb{M}	
	1465 Jun 05 j 18:14	0° \mathbb{M}		superior conj	1466 May 15 j 17:32	2° \mathbb{M} 58'47	0°35'08
evening rise	1465 Jun 07 j 06:28	3° \mathbb{M} 10'20		minimum elong	1466 May 15 j 16:03	2° \mathbb{M} 50'34	0°34'49
	1465 Jun 21 j 18:47	0° \mathbb{M}		max. Earth dist.	1466 May 15 j 07:44	2° \mathbb{M} 04'51	1.32221 AU
desc. node	1465 Jul 03 j 02:53	15° Ω 50'01		evening rise	1466 May 22 j 15:26	17° \mathbb{M} 59'33	
evening max el	1465 Jul 08 j 05:42	21° Ω 17'52	27°02'54		1466 May 28 j 14:15	0° \mathbb{M}	
retrograde	1465 Jul 22 j 03:30	28° Ω 32'27			1466 Jun 17 j 07:33	0° Ω	
evening set	1465 Jul 29 j 04:18	26° Ω 19'48		desc. node	1466 Jun 19 j 23:53	2° Ω 45'58	
min. Earth dist.	1465 Aug 01 j 19:59	23° Ω 38'08	0.61185 AU	evening max el	1466 Jun 20 j 04:55	2° Ω 58'01	26°07'49
inferior conj	1465 Aug 05 j 00:04	20° Ω 53'05	-4°-24'-49	retrograde	1466 Jul 04 j 04:59	10° Ω 08'59	
minimum elong	1465 Aug 05 j 04:46	20° Ω 42'52	4°23'59	evening set	1466 Jul 10 j 13:47	8° Ω 30'17	
morning rise	1465 Aug 12 j 08:13	16° Ω 00'27		min. Earth dist.	1466 Jul 14 j 17:36	5° Ω 54'03	0.59126 AU
				inferior conj	1466 Jul 18 j 01:00	3° Ω 24'30	-4°-51'-39

minimum elong	1466 Jul 18 j 03:02	3°♂20'39	4°51'33	retrograde	1467 Jun 15 j 20:05	20°♂58'12	
	1466 Jul 23 j 03:14	30°♂♂		evening set	1467 Jun 20 j 23:41	19°♂58'02	
morning rise	1466 Jul 25 j 19:44	28°♂55'03		min. Earth dist.	1467 Jun 26 j 08:30	17°♂08'48	0.57171 AU
direct	1466 Jul 28 j 06:36	28°♂34'33		inferior conj	1467 Jun 29 j 06:23	15°♂14'31	-4°-48'-43
	1466 Aug 02 j 02:59	0°♂		minimum elong	1467 Jun 29 j 03:31	15°♂19'14	4°48'31
morning max el	1466 Aug 05 j 04:18	2°♂21'52	18°28'14	morning rise	1467 Jul 07 j 11:09	11°♂07'10	
asc. node	1466 Aug 08 j 07:32	5°♂53'00		direct	1467 Jul 10 j 01:27	10°♂48'08	
morning set	1466 Aug 21 j 05:58	27°♂56'54		morning max el	1467 Jul 19 j 04:31	15°♂03'28	19°17'27
	1466 Aug 22 j 07:33	0°♂		asc. node	1467 Jul 26 j 04:37	23°♂53'38	
					1467 Jul 29 j 19:45	0°♂	
superior conj	1466 Aug 30 j 06:51	15°♂08'58	1°36'15	morning set	1467 Aug 05 j 05:33	12°♂15'29	
minimum elong	1466 Aug 30 j 09:47	15°♂22'34	1°36'01				
max. Earth dist.	1466 Sep 06 j 16:42	28°♂26'50	1.40196 AU	superior conj	1467 Aug 13 j 10:37	28°♂34'03	1°45'04
	1466 Sep 07 j 14:17	0°♂		minimum elong	1467 Aug 13 j 11:34	28°♂38'44	1°45'03
evening rise	1466 Sep 11 j 02:03	5°♂54'17			1467 Aug 14 j 04:20	0°♂	
desc. node	1466 Sep 15 j 23:12	13°♂51'19		max. Earth dist.	1467 Aug 19 j 20:22	10°♂40'18	1.38147 AU
	1466 Sep 26 j 13:31	0°♂		evening rise	1467 Aug 23 j 16:03	17°♂30'45	
evening max el	1466 Oct 15 j 19:42	24°♂38'56	23°39'24		1467 Aug 31 j 01:57	0°♂	
	1466 Oct 22 j 18:02	0°♂		desc. node	1467 Sep 02 j 20:13	4°♂24'07	
retrograde	1466 Oct 26 j 12:04	0°♂57'07			1467 Sep 20 j 22:43	0°♂	
	1466 Oct 29 j 22:47	30°♂♂		evening max el	1467 Sep 28 j 07:46	8°♂16'29	24°57'09
evening set	1466 Oct 31 j 13:15	28°♂52'17		retrograde	1467 Oct 10 j 01:01	15°♂04'51	
asc. node	1466 Nov 04 j 06:47	24°♂44'50		evening set	1467 Oct 15 j 16:34	12°♂43'16	
inferior conj	1466 Nov 05 j 23:36	22°♂27'12	0°34'57	min. Earth dist.	1467 Oct 20 j 06:21	7°♂33'55	0.67322 AU
minimum elong	1466 Nov 05 j 22:47	22°♂30'00	0°34'36	inferior conj	1467 Oct 21 j 05:05	6°♂19'04	0°-19'-37
min. Earth dist.	1466 Nov 05 j 11:30	23°♂08'31	0.67714 AU	minimum elong	1467 Oct 21 j 05:34	6°♂17'27	0°19'25
morning rise	1466 Nov 11 j 08:28	16°♂18'05		asc. node	1467 Oct 22 j 03:50	5°♂04'45	
direct	1466 Nov 15 j 09:22	14°♂46'31		morning rise	1467 Oct 26 j 19:06	0°♂16'36	
morning max el	1466 Nov 23 j 17:16	19°♂36'33	20°57'34		1467 Oct 27 j 05:33	30°♂♂	
greatest brilliancy	1466 Nov 29 j 07:13	26°♂05'14	-0.5m	direct	1467 Oct 30 j 07:26	29°♂05'24	
	1466 Dec 02 j 06:18	0°♂			1467 Nov 02 j 13:23	0°♂	
desc. node	1466 Dec 12 j 22:28	15°♂20'05		morning max el	1467 Nov 06 j 18:22	3°♂20'05	19°48'35
	1466 Dec 22 j 13:30	0°♂		greatest brilliancy	1467 Nov 14 j 11:07	12°♂50'58	-0.6m
morning set	1466 Dec 23 j 14:59	1°♂39'21			1467 Nov 26 j 01:49	0°♂	
max. Earth dist.	1466 Dec 31 j 22:10	14°♂53'08	1.42723 AU	desc. node	1467 Nov 29 j 19:31	5°♂43'18	
				morning set	1467 Dec 02 j 11:13	9°♂48'46	
superior conj	1467 Jan 07 j 21:40	26°♂28'55	-2°-3'-1	max. Earth dist.	1467 Dec 14 j 09:21	28°♂28'41	1.44177 AU
minimum elong	1467 Jan 07 j 19:43	26°♂20'38	2°02'59		1467 Dec 15 j 08:17	0°♂	
	1467 Jan 09 j 23:09	0°♂					
evening rise	1467 Jan 19 j 15:18	17°♂01'01		superior conj	1467 Dec 19 j 03:29	6°♂06'20	-1°-47'-28
	1467 Jan 26 j 23:50	0°♂		minimum elong	1467 Dec 18 j 20:20	5°♂37'26	1°46'57
asc. node	1467 Jan 31 j 06:08	6°♂52'28		evening rise	1468 Jan 01 j 16:32	28°♂37'34	
evening max el	1467 Feb 05 j 11:21	13°♂29'31	18°07'23		1468 Jan 02 j 11:55	0°♂	
retrograde	1467 Feb 12 j 01:55	16°♂53'50		asc. node	1468 Jan 18 j 03:10	24°♂41'52	
evening set	1467 Feb 14 j 17:59	16°♂20'21		evening max el	1468 Jan 19 j 23:54	26°♂46'16	18°15'42
inferior conj	1467 Feb 21 j 07:33	11°♂17'50	3°39'15		1468 Jan 24 j 19:25	0°♂	
minimum elong	1467 Feb 21 j 08:59	11°♂14'18	3°39'09	retrograde	1468 Jan 26 j 11:10	0°♂14'34	
min. Earth dist.	1467 Feb 24 j 09:31	8°♂17'00	0.61467 AU		1468 Jan 28 j 02:50	30°♂♂	
morning rise	1467 Feb 27 j 21:17	5°♂24'06		evening set	1468 Jan 29 j 08:04	29°♂31'02	
direct	1467 Mar 06 j 17:47	3°♂01'31		inferior conj	1468 Feb 04 j 10:56	24°♂08'33	3°44'56
desc. node	1467 Mar 10 j 21:40	3°♂49'21		minimum elong	1468 Feb 04 j 10:26	24°♂09'55	3°44'54
morning max el	1467 Mar 20 j 21:43	10°♂54'57	27°46'42	min. Earth dist.	1468 Feb 06 j 22:59	21°♂22'59	0.63438 AU
	1467 Apr 04 j 20:12	0°♂		morning rise	1468 Feb 10 j 10:59	18°♂04'12	
	1467 Apr 21 j 18:18	0°♂		direct	1468 Feb 17 j 09:26	15°♂19'58	
morning set	1467 Apr 22 j 18:52	2°♂04'57		desc. node	1468 Feb 25 j 18:43	18°♂33'32	
max. Earth dist.	1467 Apr 28 j 18:35	14°♂45'32	1.32411 AU	morning max el	1468 Mar 02 j 05:20	23°♂14'45	27°41'51
asc. node	1467 Apr 29 j 05:25	15°♂44'21			1468 Mar 08 j 06:02	0°♂	
					1468 Mar 28 j 02:24	0°♂	
superior conj	1467 Apr 30 j 04:09	17°♂48'18	0°10'01	morning set	1468 Apr 05 j 17:08	16°♂13'23	
minimum elong	1467 Apr 30 j 03:41	17°♂45'46	0°09'55	max. Earth dist.	1468 Apr 10 j 23:41	27°♂04'13	1.33007 AU
behind sun begin	1467 Apr 29 j 23:41	17°♂23'54			1468 Apr 12 j 08:47	0°♂	
behind sun end	1467 Apr 30 j 07:42	18°♂07'39					
	1467 May 05 j 18:29	0°♂		superior conj	1468 Apr 13 j 11:52	2°♂25'00	0°-16'-54
evening rise	1467 May 07 j 02:46	2°♂52'23		minimum elong	1468 Apr 13 j 12:41	2°♂29'26	0°16'43
	1467 May 21 j 18:57	0°♂		asc. node	1468 Apr 15 j 02:29	5°♂53'02	
evening max el	1467 Jun 01 j 21:16	13°♂53'47	24°46'24	evening rise	1468 Apr 20 j 14:35	17°♂42'25	
desc. node	1467 Jun 06 j 20:54	17°♂56'37			1468 Apr 26 j 16:45	0°♂	

evening max el	1468 May 13 j 11:10	24° Π 25'09	23°11'33	evening rise	1469 Apr 05 j 01:01	2° \mathcal{B} 23'51	
	1468 May 21 j 10:47	0° \mathfrak{G}			1469 Apr 20 j 18:37	0° Π	
desc. node	1468 May 23 j 17:56	0° \mathfrak{G} 45'38		evening max el	1469 Apr 25 j 06:13	5° Π 04'19	21°38'18
retrograde	1468 May 26 j 22:57	1° \mathfrak{G} 09'07		retrograde	1469 May 07 j 14:36	11° Π 07'00	
evening set	1468 May 30 j 14:41	0° \mathfrak{G} 39'47		evening set	1469 May 10 j 02:48	10° Π 52'49	
	1468 Jun 01 j 15:29	30° \mathcal{R} Π		desc. node	1469 May 10 j 14:59	10° Π 46'38	
min. Earth dist.	1468 Jun 06 j 20:49	27° Π 22'56	0.55671 AU	inferior conj	1469 May 19 j 12:05	6° Π 51'31	-2°-30'-8
inferior conj	1468 Jun 08 j 15:59	26° Π 19'43	-4°-2'-33	minimum elong	1469 May 19 j 05:26	7° Π 00'50	2°27'59
minimum elong	1468 Jun 08 j 08:45	26° Π 30'21	4°01'00	min. Earth dist.	1469 May 19 j 09:06	6° Π 55'42	0.54958 AU
morning rise	1468 Jun 17 j 05:59	22° Π 26'06		morning rise	1469 May 28 j 08:50	2° Π 55'42	
direct	1468 Jun 20 j 01:04	22° Π 07'19		direct	1469 May 31 j 12:42	2° Π 33'47	
morning max el	1468 Jun 30 j 17:59	27° Π 04'38	20°27'45	morning max el	1469 Jun 12 j 20:11	8° Π 22'17	21°56'32
	1468 Jul 03 j 13:14	0° \mathfrak{G}			1469 Jun 27 j 23:45	0° \mathfrak{G}	
asc. node	1468 Jul 12 j 01:41	12° \mathfrak{G} 35'38		asc. node	1469 Jun 28 j 22:45	1° \mathfrak{G} 49'07	
morning set	1468 Jul 19 j 11:12	26° \mathfrak{G} 52'26		morning set	1469 Jul 03 j 20:42	11° \mathfrak{G} 41'48	
	1468 Jul 20 j 23:44	0° \mathcal{Q}					
superior conj	1468 Jul 27 j 02:50	12° \mathcal{Q} 36'33	1°45'14	superior conj	1469 Jul 11 j 03:43	27° \mathfrak{G} 05'23	1°38'27
minimum elong	1468 Jul 27 j 02:08	12° \mathcal{Q} 32'59	1°45'14	minimum elong	1469 Jul 11 j 01:54	26° \mathfrak{G} 55'50	1°38'19
max. Earth dist.	1468 Aug 01 j 02:34	22° \mathcal{Q} 30'48	1.36248 AU	max. Earth dist.	1469 Jul 12 j 13:09	0° \mathcal{Q}	
evening rise	1468 Aug 05 j 03:22	0° \mathfrak{M} 08'15		evening rise	1469 Jul 14 j 16:53	4° \mathcal{Q} 26'19	1.34674 AU
	1468 Aug 05 j 01:35	0° \mathfrak{M}			1469 Jul 19 j 07:22	13° \mathcal{Q} 34'40	
desc. node	1468 Aug 19 j 17:15	24° \mathfrak{M} 42'32		desc. node	1469 Jul 28 j 08:38	0° \mathfrak{M}	
	1468 Aug 23 j 06:03	0° \mathfrak{A}			1469 Aug 06 j 14:17	14° \mathfrak{M} 39'49	
evening max el	1468 Sep 09 j 19:35	21° \mathfrak{A} 55'26	26°05'32	evening max el	1469 Aug 18 j 03:54	0° \mathfrak{A}	
retrograde	1468 Sep 22 j 09:15	29° \mathfrak{A} 03'30		retrograde	1469 Aug 23 j 07:53	5° \mathfrak{A} 29'38	26°56'42
evening set	1468 Sep 28 j 15:00	26° \mathfrak{A} 28'26		retrograde	1469 Sep 05 j 12:02	12° \mathfrak{A} 46'23	
min. Earth dist.	1468 Oct 02 j 21:05	21° \mathfrak{A} 55'10	0.66593 AU	evening set	1469 Sep 12 j 06:20	10° \mathfrak{A} 03'48	
inferior conj	1468 Oct 04 j 06:59	20° \mathfrak{A} 09'33	-1°-16'-42	min. Earth dist.	1469 Sep 16 j 05:18	6° \mathfrak{A} 07'36	0.65517 AU
minimum elong	1468 Oct 04 j 08:59	20° \mathfrak{A} 03'19	1°15'53	inferior conj	1469 Sep 18 j 03:15	3° \mathfrak{A} 54'53	-2°-14'-32
asc. node	1468 Oct 08 j 00:53	15° \mathfrak{A} 54'43		minimum elong	1469 Sep 18 j 06:48	3° \mathfrak{A} 44'39	2°13'12
morning rise	1468 Oct 10 j 03:57	14° \mathfrak{A} 16'31			1469 Sep 21 j 20:21	30° \mathcal{R} \mathfrak{M}	
direct	1468 Oct 13 j 05:53	13° \mathfrak{A} 22'11		morning rise	1469 Sep 24 j 08:45	28° \mathfrak{M} 14'23	
morning max el	1468 Oct 20 j 02:36	17° \mathfrak{A} 11'35	18°54'23	asc. node	1469 Sep 24 j 21:56	27° \mathfrak{M} 59'35	
	1468 Oct 29 j 19:44	0° \mathfrak{M}		direct	1469 Sep 27 j 02:41	27° \mathfrak{M} 33'01	
morning set	1468 Nov 10 j 22:02	18° \mathfrak{M} 48'05			1469 Oct 02 j 11:30	0° \mathfrak{A}	
desc. node	1468 Nov 15 j 16:32	26° \mathfrak{M} 17'57		morning max el	1469 Oct 03 j 15:57	1° \mathfrak{A} 06'32	18°16'29
	1468 Nov 18 j 01:07	0° \mathfrak{A}		morning set	1469 Oct 22 j 13:05	29° \mathfrak{A} 13'04	
max. Earth dist.	1468 Nov 26 j 01:36	12° \mathfrak{A} 35'24	1.44986 AU		1469 Oct 23 j 00:36	0° \mathfrak{M}	
				desc. node	1469 Nov 02 j 13:33	17° \mathfrak{M} 00'10	
superior conj	1468 Nov 27 j 10:55	14° \mathfrak{A} 46'29	-1°-13'-11	superior conj	1469 Nov 06 j 12:39	23° \mathfrak{M} 17'09	0°-26'-12
minimum elong	1468 Nov 27 j 02:33	14° \mathfrak{A} 13'33	1°12'15	minimum elong	1469 Nov 06 j 09:15	23° \mathfrak{M} 03'43	0°25'45
	1468 Dec 07 j 01:09	0° \mathfrak{B}		max. Earth dist.	1469 Nov 08 j 20:37	26° \mathfrak{M} 57'39	1.45065 AU
evening rise	1468 Dec 12 j 19:12	9° \mathfrak{B} 16'21			1469 Nov 10 j 19:03	0° \mathfrak{A}	
	1468 Dec 25 j 18:02	0° \approx		evening rise	1469 Nov 22 j 22:43	18° \mathfrak{A} 59'51	
evening max el	1469 Jan 02 j 11:24	10° \approx 11'09	18°42'24		1469 Nov 30 j 00:05	0° \mathfrak{B}	
asc. node	1469 Jan 04 j 00:12	11° \approx 37'03		greatest brilliancy	1469 Dec 08 j 02:43	12° \mathfrak{B} 21'00	-0.7m
retrograde	1469 Jan 09 j 03:40	13° \approx 54'43		evening max el	1469 Dec 16 j 19:36	23° \mathfrak{B} 39'38	19°26'02
evening set	1469 Jan 12 j 06:11	12° \approx 59'58		asc. node	1469 Dec 21 j 21:13	27° \mathfrak{B} 23'25	
inferior conj	1469 Jan 18 j 01:25	7° \approx 19'26	3°33'12	retrograde	1469 Dec 24 j 00:04	27° \mathfrak{B} 48'04	
minimum elong	1469 Jan 17 j 23:34	7° \approx 25'04	3°32'57	evening set	1469 Dec 27 j 09:35	26° \mathfrak{B} 40'36	
min. Earth dist.	1469 Jan 19 j 22:00	5° \approx 04'26	0.65081 AU	inferior conj	1470 Jan 01 j 23:41	20° \mathfrak{B} 44'23	3°08'39
morning rise	1469 Jan 23 j 15:46	1° \approx 09'05		minimum elong	1470 Jan 01 j 21:08	20° \mathfrak{B} 52'39	3°08'05
	1469 Jan 25 j 03:51	30° \mathcal{R} \mathfrak{B}		min. Earth dist.	1470 Jan 03 j 05:26	19° \mathfrak{B} 07'52	0.66335 AU
direct	1469 Jan 30 j 08:19	28° \mathfrak{B} 18'01		morning rise	1470 Jan 07 j 07:55	14° \mathfrak{B} 30'39	
	1469 Feb 05 j 01:31	0° \approx		direct	1470 Jan 13 j 13:08	11° \mathfrak{B} 46'11	
desc. node	1469 Feb 11 j 15:46	5° \approx 06'52		morning max el	1470 Jan 26 j 00:13	19° \mathfrak{B} 09'35	25°58'23
morning max el	1469 Feb 12 j 14:56	6° \approx 03'47	27°03'17	desc. node	1470 Jan 29 j 12:47	22° \mathfrak{B} 57'56	
	1469 Mar 03 j 00:04	0° \mathfrak{H}			1470 Feb 04 j 05:44	0° \approx	
morning set	1469 Mar 20 j 05:51	29° \mathfrak{H} 49'41			1470 Feb 24 j 01:27	0° \mathfrak{H}	
	1469 Mar 20 j 07:59	0° \mathfrak{Y}		morning set	1470 Mar 03 j 04:45	12° \mathfrak{H} 40'07	
max. Earth dist.	1469 Mar 24 j 19:17	8° \mathfrak{Y} 51'20	1.34045 AU	max. Earth dist.	1470 Mar 07 j 03:11	20° \mathfrak{H} 05'58	1.35545 AU
superior conj	1469 Mar 28 j 14:40	16° \mathfrak{Y} 42'51	0°-44'-33	superior conj	1470 Mar 12 j 09:58	0° \mathfrak{Y} 33'09	-1°-11'-35
minimum elong	1469 Mar 28 j 16:53	16° \mathfrak{Y} 54'30	0°44'07	minimum elong	1470 Mar 12 j 13:27	0° \mathfrak{Y} 50'48	1°11'01
asc. node	1469 Apr 01 j 23:31	25° \mathfrak{Y} 56'44			1470 Mar 12 j 03:24	0° \mathfrak{Y}	
	1469 Apr 03 j 21:34	0° \mathfrak{B}		asc. node	1470 Mar 19 j 20:33	15° \mathfrak{Y} 50'16	

evening rise	1470 Mar 20 j 08:01	16°♄49'01		evening rise	1471 Mar 04 j 09:19	0°♄51'38	
	1470 Mar 27 j 02:01	0°♄		asc. node	1471 Mar 06 j 17:34	5°♄29'08	
evening max el	1470 Apr 07 j 11:37	16°♄13'45	20°17'45	evening max el	1471 Mar 21 j 04:27	28°♄02'06	19°15'31
retrograde	1470 Apr 18 j 04:03	21°♄23'37			1471 Mar 23 j 12:18	0°♄	
evening set	1470 Apr 20 j 05:42	21°♄12'50		retrograde	1471 Mar 30 j 04:46	2°♄23'27	
desc. node	1470 Apr 27 j 12:00	18°♄17'42		evening set	1471 Apr 01 j 07:33	2°♄10'04	
inferior conj	1470 Apr 29 j 07:29	17°♄14'44	0°-31'-34		1471 Apr 06 j 12:49	30°♄	
minimum elong	1470 Apr 29 j 06:00	17°♄16'54	0°31'03	inferior conj	1471 Apr 09 j 16:07	28°♄00'15	1°18'58
min. Earth dist.	1470 Apr 30 j 22:07	16°♄18'00	0.55197 AU	minimum elong	1471 Apr 09 j 19:09	27°♄55'10	1°17'58
morning rise	1470 May 08 j 04:10	12°♄58'03		min. Earth dist.	1471 Apr 12 j 12:56	26°♄05'50	0.56338 AU
direct	1470 May 12 j 00:43	12°♄25'49		desc. node	1471 Apr 14 j 09:01	24°♄58'02	
morning max el	1470 May 25 j 13:37	19°♄03'10	23°37'01	morning rise	1471 Apr 18 j 02:46	23°♄10'11	
	1470 Jun 03 j 15:43	0°♄		direct	1471 Apr 22 j 23:19	22°♄15'52	
asc. node	1470 Jun 15 j 19:47	21°♄25'10		morning max el	1471 May 07 j 04:05	29°♄30'30	25°16'32
morning set	1470 Jun 18 j 08:11	26°♄37'27			1471 May 07 j 16:13	0°♄	
	1470 Jun 19 j 22:24	0°♄			1471 May 28 j 02:24	0°♄	
				morning set	1471 Jun 02 j 20:00	11°♄34'10	
superior conj	1470 Jun 25 j 10:20	11°♄50'51	1°26'05	asc. node	1471 Jun 02 j 16:50	11°♄17'27	
minimum elong	1470 Jun 25 j 07:58	11°♄38'08	1°25'47				
max. Earth dist.	1470 Jun 27 j 16:43	16°♄41'33	1.33485 AU	superior conj	1471 Jun 09 j 20:24	26°♄45'56	1°09'08
evening rise	1470 Jul 02 j 23:34	27°♄36'46		minimum elong	1471 Jun 09 j 18:02	26°♄32'57	1°08'44
	1470 Jul 04 j 04:26	0°♄		max. Earth dist.	1471 Jun 11 j 00:03	29°♄16'41	1.32690 AU
	1470 Jul 21 j 14:34	0°♄			1471 Jun 11 j 08:01	0°♄	
desc. node	1470 Jul 24 j 11:19	4°♄06'39		evening rise	1471 Jun 17 j 00:26	12°♄04'04	
evening max el	1470 Aug 05 j 19:27	18°♄47'19	27°23'26		1471 Jun 26 j 08:57	0°♄	
retrograde	1470 Aug 19 j 08:48	26°♄05'25		desc. node	1471 Jul 11 j 08:20	22°♄50'13	
evening set	1470 Aug 26 j 11:47	23°♄24'24			1471 Jul 17 j 13:30	0°♄	
min. Earth dist.	1470 Aug 30 j 04:42	20°♄03'38	0.64082 AU	evening max el	1471 Jul 19 j 03:57	1°♄34'50	27°19'51
inferior conj	1470 Sep 01 j 15:28	17°♄29'35	-3°-10'-34	retrograde	1471 Aug 01 j 23:07	8°♄51'17	
minimum elong	1470 Sep 01 j 20:15	17°♄17'00	3°09'02	evening set	1471 Aug 09 j 03:45	6°♄24'00	
morning rise	1470 Sep 08 j 06:47	12°♄05'13		min. Earth dist.	1471 Aug 12 j 17:45	3°♄31'59	0.62314 AU
direct	1470 Sep 10 j 19:16	11°♄33'15		inferior conj	1471 Aug 15 j 16:40	0°♄46'27	-4°00'-53
asc. node	1470 Sep 11 j 18:58	11°♄38'14		minimum elong	1471 Aug 15 j 21:51	0°♄34'19	3°59'39
morning max el	1470 Sep 17 j 07:49	14°♄59'17	17°55'51		1471 Aug 16 j 12:39	30°♄	
	1470 Sep 27 j 20:51	0°♄		morning rise	1471 Aug 22 j 18:38	25°♄41'42	
morning set	1470 Oct 04 j 07:38	10°♄58'13		direct	1471 Aug 25 j 04:18	25°♄16'05	
	1470 Oct 15 j 15:28	0°♄		asc. node	1471 Aug 29 j 16:01	26°♄47'57	
				morning max el	1471 Aug 31 j 23:19	28°♄43'01	17°53'12
superior conj	1470 Oct 17 j 05:56	2°♄37'04	0°21'24		1471 Sep 02 j 04:29	0°♄	
minimum elong	1470 Oct 17 j 08:18	2°♄46'41	0°21'04	morning set	1471 Sep 16 j 23:39	23°♄44'22	
desc. node	1470 Oct 20 j 10:35	7°♄46'42			1471 Sep 20 j 11:31	0°♄	
max. Earth dist.	1470 Oct 22 j 15:07	11°♄16'32	1.44410 AU				
evening rise	1470 Nov 02 j 09:44	28°♄07'08		superior conj	1471 Sep 28 j 01:41	13°♄15'25	1°00'03
	1470 Nov 03 j 15:07	0°♄		minimum elong	1471 Sep 28 j 06:20	13°♄35'13	0°59'28
greatest brilliancy	1470 Nov 23 j 17:57	29°♄40'00	-0.5m	max. Earth dist.	1471 Oct 05 j 05:38	25°♄11'39	1.43107 AU
	1470 Nov 23 j 23:56	0°♄		desc. node	1471 Oct 07 j 07:37	28°♄33'51	
evening max el	1470 Nov 29 j 22:50	7°♄09'29	20°24'34		1471 Oct 08 j 05:06	0°♄	
retrograde	1470 Dec 07 j 21:55	11°♄50'52		evening rise	1471 Oct 12 j 19:10	7°♄14'42	
asc. node	1470 Dec 08 j 18:14	11°♄46'50			1471 Oct 27 j 22:19	0°♄	
evening set	1470 Dec 11 j 16:07	10°♄29'05		greatest brilliancy	1471 Nov 07 j 22:11	15°♄00'54	-0.4m
inferior conj	1470 Dec 17 j 03:07	4°♄19'59	2°34'24	evening max el	1471 Nov 12 j 20:17	20°♄39'21	21°35'06
minimum elong	1470 Dec 17 j 00:28	4°♄28'58	2°33'36	retrograde	1471 Nov 21 j 19:06	25°♄58'54	
min. Earth dist.	1470 Dec 17 j 19:35	3°♄24'08	0.67186 AU	evening set	1471 Nov 25 j 23:53	24°♄21'15	
	1470 Dec 20 j 11:37	30°♄		asc. node	1471 Nov 25 j 15:16	24°♄37'26	
morning rise	1470 Dec 22 j 08:19	28°♄04'50		inferior conj	1471 Dec 01 j 09:28	18°♄02'46	1°52'34
direct	1470 Dec 27 j 23:13	25°♄36'27		minimum elong	1471 Dec 01 j 07:13	18°♄10'35	1°51'45
	1471 Jan 05 j 19:34	0°♄		min. Earth dist.	1471 Dec 01 j 14:10	17°♄46'29	0.67659 AU
morning max el	1471 Jan 08 j 08:42	2°♄24'06	24°36'46	morning rise	1471 Dec 06 j 14:17	11°♄48'03	
desc. node	1471 Jan 16 j 09:48	11°♄44'29		direct	1471 Dec 11 j 13:54	9°♄40'56	
	1471 Jan 29 j 08:49	0°♄		morning max el	1471 Dec 21 j 18:01	15°♄43'29	23°08'32
morning set	1471 Feb 13 j 08:33	24°♄30'19		greatest brilliancy	1471 Dec 26 j 16:52	21°♄16'02	-0.3m
	1471 Feb 16 j 10:23	0°♄			1472 Jan 02 j 10:25	0°♄	
max. Earth dist.	1471 Feb 17 j 01:31	1°♄08'47	1.37447 AU	desc. node	1472 Jan 03 j 06:49	1°♄10'10	
					1472 Jan 22 j 09:12	0°♄	
superior conj	1471 Feb 23 j 18:38	13°♄47'35	-1°-35'-56	morning set	1472 Jan 25 j 10:59	5°♄03'59	
minimum elong	1471 Feb 23 j 22:48	14°♄07'49	1°35'27	max. Earth dist.	1472 Jan 29 j 20:35	12°♄32'43	1.39572 AU
	1471 Mar 03 j 22:57	0°♄					

superior conj	1472 Feb 06 j 12:33	26° \approx 15'22	-1°-54'-43		1473 Jan 13 j 22:42	0° \approx	
minimum elong	1472 Feb 06 j 16:06	26° \approx 31'47	1°54'30				
	1472 Feb 08 j 12:52	0° H		superior conj	1473 Jan 18 j 10:38	7° \approx 44'31	-2°-3'-57
evening rise	1472 Feb 16 j 02:04	14° H 23'53		minimum elong	1473 Jan 18 j 11:24	7° \approx 47'52	2°03'57
asc. node	1472 Feb 21 j 14:36	24° H 47'31		evening rise	1473 Jan 29 j 06:45	27° \approx 17'39	
	1472 Feb 24 j 14:06	0° Y			1473 Jan 30 j 18:05	0° H	
evening max el	1472 Mar 03 j 06:49	10° Y 26'13	18°33'24	asc. node	1473 Feb 07 j 11:38	13° H 38'33	
retrograde	1472 Mar 10 j 23:41	14° Y 12'44		evening max el	1473 Feb 14 j 15:41	23° H 17'52	18°11'18
evening set	1472 Mar 13 j 07:36	13° Y 53'10		retrograde	1473 Feb 21 j 12:35	26° H 45'40	
inferior conj	1472 Mar 20 j 21:19	9° Y 24'30	2°39'12	evening set	1473 Feb 24 j 01:51	26° H 17'38	
minimum elong	1472 Mar 21 j 01:22	9° Y 16'34	2°38'12	inferior conj	1473 Mar 02 j 23:13	21° H 27'43	3°25'39
min. Earth dist.	1472 Mar 24 j 07:15	6° Y 45'36	0.58133 AU	minimum elong	1473 Mar 03 j 01:51	21° H 21'43	3°25'17
morning rise	1472 Mar 28 j 14:55	4° Y 02'24		min. Earth dist.	1473 Mar 06 j 07:09	18° H 27'27	0.60246 AU
desc. node	1472 Mar 31 j 06:02	3° Y 01'28		morning rise	1473 Mar 09 j 22:30	15° H 43'05	
direct	1472 Apr 03 j 12:13	2° Y 34'15		direct	1473 Mar 16 j 13:39	13° H 38'07	
morning max el	1472 Apr 17 j 21:21	10° Y 12'26	26°39'27	desc. node	1473 Mar 18 j 03:04	13° H 44'46	
	1472 May 03 j 01:30	0° B		morning max el	1473 Mar 30 j 20:22	21° H 28'21	27°32'30
morning set	1472 May 17 j 06:34	26° B 26'30			1473 Apr 07 j 06:55	0° Y	
	1472 May 18 j 22:51	0° II			1473 Apr 25 j 23:54	0° B	
asc. node	1472 May 19 j 13:53	1° II 20'39		morning set	1473 May 01 j 14:02	11° B 07'16	
				asc. node	1473 May 06 j 10:56	21° B 29'15	
superior conj	1472 May 24 j 08:05	11° II 44'19	0°48'27	max. Earth dist.	1473 May 07 j 23:44	24° B 50'05	1.32250 AU
minimum elong	1472 May 24 j 06:09	11° II 33'41	0°48'05				
max. Earth dist.	1472 May 24 j 11:39	12° II 03'55	1.32278 AU	superior conj	1473 May 08 j 19:35	26° B 38'57	0°24'46
evening rise	1472 May 31 j 07:08	26° II 47'53		minimum elong	1473 May 08 j 18:30	26° B 32'56	0°24'32
	1472 Jun 01 j 20:10	0° E			1473 May 10 j 08:12	0° II	
	1472 Jun 18 j 22:36	0° O		evening rise	1473 May 15 j 17:21	11° II 39'31	
desc. node	1472 Jun 27 j 05:21	10° O 32'48			1473 May 25 j 01:50	0° E	
evening max el	1472 Jun 30 j 06:59	13° O 41'30	26°43'14	evening max el	1473 Jun 12 j 03:06	25° E 01'48	25°35'51
retrograde	1472 Jul 14 j 06:11	20° O 55'30		desc. node	1473 Jun 14 j 02:23	26° E 48'16	
evening set	1472 Jul 21 j 01:48	18° O 55'46			1473 Jun 18 j 14:47	0° O	
min. Earth dist.	1472 Jul 24 j 20:41	16° O 18'51	0.60307 AU	retrograde	1473 Jun 26 j 03:49	2° O 11'12	
inferior conj	1472 Jul 28 j 03:32	13° O 37'35	-4°-39'-1	evening set	1473 Jul 02 j 01:21	0° O 49'14	
minimum elong	1472 Jul 28 j 07:24	13° O 29'37	4°38'32		1473 Jul 03 j 16:28	30° R E	
morning rise	1472 Aug 04 j 16:17	8° O 55'03		min. Earth dist.	1473 Jul 06 j 15:21	28° E 09'16	0.58258 AU
direct	1472 Aug 07 j 01:48	8° O 33'21		inferior conj	1473 Jul 09 j 20:27	25° E 52'27	-4°-54'-56
morning max el	1472 Aug 14 j 11:23	12° O 10'24	18°09'39	minimum elong	1473 Jul 09 j 20:36	25° E 52'10	4°54'57
asc. node	1472 Aug 15 j 13:05	13° O 16'20		morning rise	1473 Jul 17 j 19:31	21° E 32'39	
	1472 Aug 26 j 09:39	0° P		direct	1473 Jul 20 j 07:28	21° E 13'01	
morning set	1472 Aug 30 j 07:22	7° P 15'50		morning max el	1473 Jul 28 j 16:44	25° E 11'06	18°46'31
					1473 Aug 01 j 20:32	0° O	
superior conj	1472 Sep 08 j 23:23	25° P 10'24	1°26'26	asc. node	1473 Aug 02 j 10:09	0° O 47'11	
minimum elong	1472 Sep 09 j 03:20	25° P 28'11	1°26'03	morning set	1473 Aug 14 j 02:10	21° O 19'35	
	1472 Sep 11 j 16:29	0° A			1473 Aug 18 j 12:35	0° P	
max. Earth dist.	1472 Sep 16 j 14:26	8° A 28'19	1.41335 AU				
evening rise	1472 Sep 21 j 19:40	17° A 05'49		superior conj	1473 Aug 22 j 17:43	8° P 06'22	1°41'09
desc. node	1472 Sep 23 j 04:39	19° A 18'36		minimum elong	1473 Aug 22 j 19:48	8° P 16'16	1°41'03
	1472 Sep 30 j 00:53	0° M		max. Earth dist.	1473 Aug 29 j 18:47	21° P 01'46	1.39322 AU
greatest brilliancy	1472 Oct 20 j 08:16	28° M 22'24	-0.3m	evening rise	1473 Sep 02 j 19:47	28° P 02'52	
	1472 Oct 21 j 16:59	0° J			1473 Sep 03 j 23:29	0° A	
evening max el	1472 Oct 25 j 12:39	4° J 11'04	22°53'17	desc. node	1473 Sep 10 j 01:41	9° A 56'45	
retrograde	1472 Nov 04 j 14:01	10° J 09'21			1473 Sep 23 j 13:26	0° M	
evening set	1472 Nov 09 j 07:12	8° J 14'42		evening max el	1473 Oct 08 j 01:48	17° M 46'33	24°13'16
asc. node	1472 Nov 11 j 12:18	6° J 01'25		retrograde	1473 Oct 19 j 05:20	24° M 18'41	
inferior conj	1472 Nov 14 j 16:53	1° J 50'44	1°04'45	evening set	1473 Oct 24 j 12:27	22° M 06'49	
minimum elong	1472 Nov 14 j 15:26	1° J 55'45	1°04'09	asc. node	1473 Oct 29 j 09:22	16° M 29'31	
min. Earth dist.	1472 Nov 14 j 10:50	2° J 11'39	0.67786 AU	inferior conj	1473 Oct 29 j 23:34	15° M 41'37	0°12'14
	1472 Nov 16 j 01:20	30° R M		minimum elong	1473 Oct 29 j 23:16	15° M 42'37	0°12'06
morning rise	1472 Nov 19 j 23:38	25° M 38'41		transit middle	1473 Oct 29 j 23:16	15° M 42'37	0°12'06
direct	1472 Nov 24 j 08:28	23° M 54'17		transit begin	1473 Oct 29 j 21:27	15° M 48'47	
morning max el	1472 Dec 03 j 07:25	29° M 09'41	21°42'49	transit end	1473 Oct 30 j 01:06	15° M 36'28	
	1472 Dec 04 j 02:55	0° J		min. Earth dist.	1473 Oct 29 j 07:04	16° M 37'14	0.67584 AU
greatest brilliancy	1472 Dec 08 j 04:29	4° J 41'21	-0.4m	morning rise	1473 Nov 04 j 10:22	9° M 34'45	
desc. node	1472 Dec 20 j 03:52	21° J 04'05		direct	1473 Nov 08 j 05:43	8° M 12'03	
	1472 Dec 26 j 04:10	0° Z		morning max el	1473 Nov 16 j 03:49	12° M 45'53	20°26'29
morning set	1473 Jan 04 j 08:12	14° Z 13'51		greatest brilliancy	1473 Nov 22 j 12:01	20° M 18'15	-0.5m
max. Earth dist.	1473 Jan 10 j 19:35	24° Z 45'08	1.41654 AU		1473 Nov 29 j 10:23	0° J	

desc. node	1473 Dec 07 j 00:55	11°♄18'17		direct	1474 Oct 23 j 04:14	22°♄30'09	
morning set	1473 Dec 14 j 07:23	22°♄26'02		morning max el	1474 Oct 30 j 08:03	26°♄32'26	19°23'36
	1473 Dec 19 j 03:33	0°♄			1474 Nov 02 j 09:40	0°♄	
max. Earth dist.	1473 Dec 24 j 02:31	7°♄53'46	1.43409 AU	greatest brilliancy	1474 Nov 08 j 14:02	8°♄24'50	-0.7m
					1474 Nov 22 j 18:28	0°♄	
superior conj	1473 Dec 30 j 07:54	18°♄04'03	-1°-58'-44	morning set	1474 Nov 23 j 07:02	0°♄48'41	
minimum elong	1473 Dec 30 j 03:38	17°♄46'22	1°58'34	desc. node	1474 Nov 23 j 21:57	1°♄46'34	
	1474 Jan 06 j 09:20	0°♄		max. Earth dist.	1474 Dec 06 j 16:44	21°♄46'25	1.44607 AU
evening rise	1474 Jan 11 j 19:15	9°♄24'32					
	1474 Jan 24 j 00:57	0°♄		superior conj	1474 Dec 10 j 02:54	27°♄12'39	-1°-35'-3
asc. node	1474 Jan 25 j 08:42	1°♄53'44		minimum elong	1474 Dec 09 j 18:26	26°♄38'52	1°34'18
evening max el	1474 Jan 29 j 03:49	6°♄28'12	18°08'42		1474 Dec 11 j 20:46	0°♄	
retrograde	1474 Feb 04 j 15:41	9°♄52'19		evening rise	1474 Dec 24 j 11:11	20°♄36'26	
evening set	1474 Feb 07 j 09:53	9°♄14'34			1474 Dec 30 j 02:28	0°♄	
inferior conj	1474 Feb 13 j 18:29	4°♄03'30	3°44'07	asc. node	1475 Jan 12 j 05:44	19°♄21'26	
minimum elong	1474 Feb 13 j 19:03	4°♄02'02	3°44'06	evening max el	1475 Jan 12 j 16:13	19°♄48'41	18°24'54
min. Earth dist.	1474 Feb 16 j 15:01	1°♄06'53	0.62340 AU	retrograde	1475 Jan 19 j 04:31	23°♄22'02	
	1474 Feb 17 j 18:51	30°♄		evening set	1475 Jan 22 j 03:46	22°♄33'41	
morning rise	1474 Feb 20 j 01:58	28°♄04'53		inferior conj	1475 Jan 28 j 03:00	17°♄03'02	3°41'44
direct	1474 Feb 27 j 00:37	25°♄31'15		minimum elong	1475 Jan 28 j 01:51	17°♄06'22	3°41'39
desc. node	1474 Mar 05 j 00:06	27°♄10'09		min. Earth dist.	1475 Jan 30 j 08:22	14°♄29'26	0.64182 AU
	1474 Mar 09 j 05:54	0°♄		morning rise	1475 Feb 02 j 22:29	10°♄55'53	
morning max el	1474 Mar 13 j 01:16	3°♄25'39	27°49'03	direct	1475 Feb 09 j 19:13	8°♄07'19	
	1474 Apr 01 j 18:59	0°♄		desc. node	1475 Feb 19 j 21:08	12°♄44'33	
morning set	1474 Apr 15 j 16:23	25°♄29'52		morning max el	1475 Feb 23 j 10:01	15°♄58'50	27°29'17
	1474 Apr 17 j 20:57	0°♄			1475 Mar 06 j 23:33	0°♄	
max. Earth dist.	1474 Apr 21 j 08:37	7°♄23'07	1.32619 AU		1475 Mar 25 j 12:23	0°♄	
				morning set	1475 Mar 30 j 10:59	9°♄25'23	
superior conj	1474 Apr 23 j 05:14	11°♄24'09	0°-1'-13	max. Earth dist.	1475 Apr 04 j 10:17	19°♄29'52	1.33401 AU
minimum elong	1474 Apr 23 j 05:17	11°♄24'26	0°01'13				
behind sun begin	1474 Apr 23 j 00:08	10°♄56'29		superior conj	1475 Apr 07 j 11:05	25°♄53'10	0°-28'-35
behind sun end	1474 Apr 23 j 10:26	11°♄52'25		minimum elong	1475 Apr 07 j 12:30	26°♄00'42	0°28'18
asc. node	1474 Apr 23 j 08:00	11°♄39'13			1475 Apr 09 j 09:17	0°♄	
evening rise	1474 Apr 30 j 05:09	26°♄32'23		asc. node	1475 Apr 10 j 05:03	1°♄45'57	
	1474 May 01 j 20:45	0°♄		evening rise	1475 Apr 14 j 16:36	11°♄19'23	
	1474 May 19 j 13:52	0°♄			1475 Apr 24 j 08:22	0°♄	
evening max el	1474 May 24 j 17:51	5°♄44'31	24°06'46	evening max el	1475 May 06 j 08:57	16°♄14'42	22°30'45
desc. node	1474 May 31 j 23:23	11°♄03'14		desc. node	1475 May 18 j 20:23	22°♄42'30	
retrograde	1474 Jun 07 j 13:27	12°♄41'35		retrograde	1475 May 19 j 10:43	22°♄43'19	
evening set	1474 Jun 12 j 01:51	11°♄56'24		evening set	1475 May 22 j 13:12	22°♄22'06	
min. Earth dist.	1474 Jun 18 j 04:44	8°♄56'56	0.56466 AU	min. Earth dist.	1475 May 30 j 16:24	18°♄50'05	0.55265 AU
inferior conj	1474 Jun 20 j 17:10	7°♄23'14	-4°-35'-1	inferior conj	1475 May 31 j 19:45	18°♄11'17	-3°-28'-22
minimum elong	1474 Jun 20 j 12:06	7°♄31'08	4°34'20	minimum elong	1475 May 31 j 11:59	18°♄22'19	3°26'17
morning rise	1474 Jun 29 j 01:56	3°♄22'50		morning rise	1475 Jun 09 j 13:11	14°♄19'26	
direct	1474 Jul 01 j 18:16	3°♄03'57		direct	1475 Jun 12 j 11:29	13°♄59'50	
morning max el	1474 Jul 11 j 12:28	7°♄35'38	19°44'44	morning max el	1475 Jun 23 j 20:57	19°♄17'36	21°03'34
asc. node	1474 Jul 20 j 07:13	19°♄06'33			1475 Jul 02 j 10:46	0°♄	
	1474 Jul 26 j 06:50	0°♄		asc. node	1475 Jul 07 j 04:17	8°♄02'54	
morning set	1474 Jul 29 j 04:37	5°♄46'36		morning set	1475 Jul 13 j 12:10	20°♄29'45	
					1475 Jul 18 j 01:38	0°♄	
superior conj	1474 Aug 06 j 03:16	21°♄48'16	1°46'05				
minimum elong	1474 Aug 06 j 03:28	21°♄49'14	1°46'05	superior conj	1475 Jul 20 j 23:36	6°♄03'18	1°43'08
	1474 Aug 10 j 08:19	0°♄		minimum elong	1475 Jul 20 j 22:21	5°♄56'52	1°43'04
max. Earth dist.	1474 Aug 11 j 23:06	3°♄03'17	1.37317 AU	max. Earth dist.	1475 Jul 25 j 08:37	14°♄54'31	1.35534 AU
evening rise	1474 Aug 15 j 19:23	10°♄06'16		evening rise	1475 Jul 29 j 14:22	23°♄05'58	
desc. node	1474 Aug 27 j 22:43	0°♄23'55			1475 Aug 02 j 08:30	0°♄	
	1474 Aug 27 j 16:35	0°♄		desc. node	1475 Aug 14 j 19:44	20°♄34'26	
	1474 Sep 19 j 03:54	0°♄			1475 Aug 21 j 09:01	0°♄	
evening max el	1474 Sep 20 j 13:46	1°♄25'22	25°27'57	evening max el	1475 Sep 03 j 01:45	15°♄03'14	26°29'48
retrograde	1474 Oct 02 j 16:09	8°♄22'37		retrograde	1475 Sep 15 j 21:58	22°♄15'52	
evening set	1474 Oct 08 j 13:53	5°♄54'55		evening set	1475 Sep 22 j 09:35	19°♄36'27	
min. Earth dist.	1474 Oct 13 j 00:24	1°♄00'46	0.67056 AU	min. Earth dist.	1475 Sep 26 j 12:30	15°♄19'15	0.66182 AU
	1474 Oct 13 j 19:17	30°♄		inferior conj	1475 Sep 28 j 03:29	13°♄21'29	-1°-41'-17
inferior conj	1474 Oct 14 j 03:44	29°♄32'42	0°-43'-38	minimum elong	1475 Sep 28 j 06:09	13°♄13'25	1°40'13
minimum elong	1474 Oct 14 j 04:51	29°♄29'07	0°43'10	asc. node	1475 Oct 03 j 03:27	8°♄12'34	
asc. node	1474 Oct 16 j 06:26	26°♄54'42		morning rise	1475 Oct 04 j 03:56	7°♄33'38	
morning rise	1474 Oct 19 j 20:30	23°♄33'54		direct	1475 Oct 07 j 02:11	6°♄45'18	

morning max el	1475 Oct 13 j 18:50	10° Ω 26'31	18°36'17	morning rise	1476 Sep 17 j 06:12	21° η 28'58	
	1475 Oct 27 j 16:44	0° \mathbb{M}		asc. node	1476 Sep 19 j 00:29	20° η 56'13	
morning set	1475 Nov 03 j 05:15	10° \mathbb{M} 23'24		direct	1476 Sep 19 j 21:24	20° η 52'09	
desc. node	1475 Nov 10 j 19:00	22° \mathbb{M} 25'02		morning max el	1476 Sep 26 j 09:40	24° η 21'36	18°05'35
	1475 Nov 15 j 14:27	0° \mathcal{A}			1476 Oct 01 j 00:07	0° Ω	
				morning set	1476 Oct 14 j 08:32	21° Ω 23'55	
superior conj	1475 Nov 19 j 05:12	5° \mathcal{A} 40'49	0°-54'-8		1476 Oct 19 j 13:13	0° \mathbb{M}	
minimum elong	1475 Nov 18 j 22:23	5° \mathcal{A} 14'05	0°53'17	desc. node	1476 Oct 27 j 16:02	13° \mathbb{M} 09'27	
max. Earth dist.	1475 Nov 19 j 10:55	6° \mathcal{A} 03'16	1.45110 AU				
	1475 Dec 04 j 15:01	0° \mathcal{Z}		superior conj	1476 Oct 28 j 11:22	14° \mathbb{M} 26'35	0°-5'-24
evening rise	1475 Dec 05 j 03:48	0° \mathcal{Z} 50'54		minimum elong	1476 Oct 28 j 10:41	14° \mathbb{M} 23'55	0°05'19
	1475 Dec 24 j 06:55	0° \approx		behind sun begin	1476 Oct 28 j 00:29	13° \mathbb{M} 43'11	
evening max el	1475 Dec 27 j 02:27	3° \approx 14'38	18°58'55	behind sun end	1476 Oct 28 j 20:54	15° \mathbb{M} 04'36	
asc. node	1475 Dec 30 j 02:45	5° \approx 48'46		max. Earth dist.	1476 Nov 01 j 05:37	20° \mathbb{M} 24'25	1.44870 AU
retrograde	1476 Jan 02 j 23:08	7° \approx 08'01			1476 Nov 07 j 08:29	0° \mathcal{A}	
evening set	1476 Jan 06 j 04:25	6° \approx 08'00		evening rise	1476 Nov 13 j 22:54	10° \mathcal{A} 14'53	
inferior conj	1476 Jan 11 j 21:09	0° \approx 20'11	3°24'07		1476 Nov 26 j 20:39	0° \mathcal{Z}	
minimum elong	1476 Jan 11 j 18:56	0° \approx 27'10	3°23'45	greatest brilliancy	1476 Dec 01 j 22:15	7° \mathcal{Z} 23'25	-0.6m
	1476 Jan 12 j 03:35	30° $\mathcal{R}\mathcal{Z}$		evening max el	1476 Dec 09 j 08:36	16° \mathcal{Z} 43'14	19°49'15
min. Earth dist.	1476 Jan 13 j 11:11	28° \mathcal{Z} 21'07	0.65661 AU	asc. node	1476 Dec 15 j 23:45	21° \mathcal{Z} 01'09	
morning rise	1476 Jan 17 j 08:28	24° \mathcal{Z} 07'56		retrograde	1476 Dec 16 j 20:30	21° \mathcal{Z} 05'19	
direct	1476 Jan 23 j 20:32	21° \mathcal{Z} 18'29		evening set	1476 Dec 20 j 09:23	19° \mathcal{Z} 52'08	
morning max el	1476 Feb 05 j 19:55	28° \mathcal{Z} 56'43	26°38'25	inferior conj	1476 Dec 25 j 21:56	13° \mathcal{Z} 50'01	2°55'10
desc. node	1476 Feb 06 j 18:10	29° \mathcal{Z} 53'46		minimum elong	1476 Dec 25 j 19:16	13° \mathcal{Z} 58'50	2°54'29
	1476 Feb 06 j 20:33	0° \approx		min. Earth dist.	1476 Dec 26 j 21:53	12° \mathcal{Z} 30'31	0.66740 AU
	1476 Feb 28 j 19:19	0° \mathcal{H}		morning rise	1476 Dec 31 j 04:29	7° \mathcal{Z} 35'11	
morning set	1476 Mar 12 j 18:22	22° \mathcal{H} 43'25		direct	1477 Jan 06 j 03:48	4° \mathcal{Z} 56'30	
	1476 Mar 16 j 12:33	0° \mathcal{Y}		morning max el	1477 Jan 18 j 04:54	12° \mathcal{Z} 07'08	25°25'04
max. Earth dist.	1476 Mar 17 j 01:11	1° \mathcal{Y} 02'33	1.34628 AU	desc. node	1477 Jan 23 j 15:13	18° \mathcal{Z} 10'38	
					1477 Feb 01 j 14:08	0° \approx	
superior conj	1476 Mar 21 j 10:59	9° \mathcal{Y} 59'28	0°-56'-12		1477 Feb 20 j 12:15	0° \mathcal{H}	
minimum elong	1476 Mar 21 j 13:47	10° \mathcal{Y} 13'56	0°55'42	morning set	1477 Feb 23 j 09:57	5° \mathcal{H} 10'35	
asc. node	1476 Mar 27 j 02:04	21° \mathcal{Y} 45'24		max. Earth dist.	1477 Feb 27 j 04:13	12° \mathcal{H} 07'26	1.36302 AU
evening rise	1476 Mar 29 j 01:48	25° \mathcal{Y} 54'12					
	1476 Mar 31 j 01:45	0° \mathcal{B}		superior conj	1477 Mar 05 j 02:12	23° \mathcal{H} 35'38	-1°-22'-24
evening max el	1476 Apr 17 j 07:48	27° \mathcal{B} 03'42	21°01'57	minimum elong	1477 Mar 05 j 06:05	23° \mathcal{H} 54'57	1°21'51
	1476 Apr 20 j 21:15	0° \mathbb{I}			1477 Mar 08 j 06:40	0° \mathcal{Y}	
retrograde	1476 Apr 29 j 00:22	2° \mathbb{I} 45'10		evening rise	1477 Mar 13 j 06:42	10° \mathcal{Y} 10'30	
evening set	1476 May 01 j 05:54	2° \mathbb{I} 33'29		asc. node	1477 Mar 13 j 23:05	11° \mathcal{Y} 33'14	
desc. node	1476 May 04 j 17:24	1° \mathbb{I} 33'00			1477 Mar 24 j 01:01	0° \mathcal{B}	
	1476 May 08 j 00:25	30° $\mathcal{R}\mathcal{B}$		evening max el	1477 Mar 30 j 18:16	8° \mathcal{B} 30'14	19°49'00
inferior conj	1476 May 10 j 13:40	28° \mathcal{B} 35'14	-1°-41'00	retrograde	1477 Apr 09 j 17:13	13° \mathcal{B} 18'10	
minimum elong	1476 May 10 j 08:56	28° \mathcal{B} 41'57	1°39'21	evening set	1477 Apr 11 j 18:15	13° \mathcal{B} 06'57	
min. Earth dist.	1476 May 11 j 04:54	28° \mathcal{B} 13'41	0.54936 AU	inferior conj	1477 Apr 20 j 13:25	9° \mathcal{B} 05'40	0°18'00
morning rise	1476 May 19 j 11:32	24° \mathcal{B} 32'45		minimum elong	1477 Apr 20 j 14:13	9° \mathcal{B} 04'27	0°17'43
direct	1476 May 22 j 21:01	24° \mathcal{B} 07'52		desc. node	1477 Apr 21 j 14:25	8° \mathcal{B} 27'00	
	1476 Jun 04 j 11:11	0° \mathbb{I}		min. Earth dist.	1477 Apr 22 j 18:59	7° \mathcal{B} 43'14	0.55574 AU
morning max el	1476 Jun 04 j 19:02	0° \mathbb{I} 18'08	22°38'36	morning rise	1477 Apr 29 j 06:56	4° \mathcal{B} 35'05	
asc. node	1476 Jun 23 j 01:18	27° \mathbb{I} 26'37		direct	1477 May 03 j 13:02	3° \mathcal{B} 54'58	
	1476 Jun 24 j 08:03	0° \mathcal{E}		morning max el	1477 May 17 j 10:35	10° \mathcal{B} 50'54	24°20'19
morning set	1476 Jun 26 j 22:42	5° \mathcal{E} 22'23			1477 May 31 j 20:11	0° \mathbb{I}	
				asc. node	1477 Jun 09 j 22:22	17° \mathbb{I} 10'32	
superior conj	1476 Jul 04 j 03:14	20° \mathcal{E} 40'21	1°33'50	morning set	1477 Jun 11 j 10:33	20° \mathbb{I} 19'24	
minimum elong	1476 Jul 04 j 01:07	20° \mathcal{E} 29'06	1°33'37		1477 Jun 15 j 22:38	0° \mathcal{E}	
max. Earth dist.	1476 Jul 07 j 02:49	26° \mathcal{E} 56'28	1.34113 AU				
	1476 Jul 08 j 14:26	0° \mathcal{Q}		superior conj	1477 Jun 18 j 11:37	5° \mathcal{E} 31'20	1°19'24
evening rise	1476 Jul 12 j 00:01	6° \mathcal{Q} 48'44		minimum elong	1477 Jun 18 j 09:11	5° \mathcal{E} 18'10	1°19'03
	1476 Jul 24 j 22:55	0° η		max. Earth dist.	1477 Jun 20 j 06:02	9° \mathcal{E} 20'19	1.33097 AU
desc. node	1476 Jul 31 j 16:45	10° η 20'04		evening rise	1477 Jun 25 j 20:20	21° \mathcal{E} 03'22	
evening max el	1476 Aug 15 j 13:41	28° η 31'01	27°11'23		1477 Jun 30 j 09:42	0° \mathcal{Q}	
	1476 Aug 17 j 04:25	0° Ω		desc. node	1477 Jul 18 j 13:46	29° \mathcal{Q} 30'23	
retrograde	1476 Aug 28 j 22:27	5° Ω 49'51			1477 Jul 18 j 22:35	0° η	
evening set	1476 Sep 04 j 21:06	3° Ω 06'17		evening max el	1477 Jul 29 j 00:16	11° η 37'42	27°25'50
	1476 Sep 08 j 04:24	30° $\mathcal{R}\eta$		retrograde	1477 Aug 11 j 16:48	18° η 55'47	
min. Earth dist.	1476 Sep 08 j 17:07	29° η 25'49	0.64948 AU	evening set	1477 Aug 18 j 21:20	16° η 19'05	
inferior conj	1476 Sep 10 j 20:37	27° η 02'44	-2°-38'-44	min. Earth dist.	1477 Aug 22 j 12:26	13° η 11'29	0.63368 AU
minimum elong	1476 Sep 11 j 00:45	26° η 51'14	2°37'16	inferior conj	1477 Aug 25 j 04:34	10° η 30'55	-3°-32'-56

minimum elong	1477 Aug 25 j 09:40	10° \cap 18'07	3°31'28	min. Earth dist.	1478 Aug 04 j 21:16	26° Ω 23'49	0.61484 AU
morning rise	1477 Sep 01 j 00:21	5° \cap 14'22		inferior conj	1478 Aug 08 j 00:09	23° Ω 38'13	-4°-19'-3
direct	1477 Sep 03 j 11:10	4° \cap 45'34		minimum elong	1478 Aug 08 j 05:02	23° Ω 27'21	4°18'07
asc. node	1477 Sep 05 j 21:32	5° \cap 14'29		morning rise	1478 Aug 15 j 06:41	18° Ω 42'16	
morning max el	1477 Sep 10 j 01:44	8° \cap 11'18	17°52'21	direct	1478 Aug 17 j 16:00	18° Ω 18'30	
	1477 Sep 24 j 11:18	0° $\underline{\Omega}$		asc. node	1478 Aug 23 j 18:37	20° Ω 59'16	
morning set	1477 Sep 26 j 12:59	3° $\underline{\Omega}$ 36'59		morning max el	1478 Aug 24 j 16:06	21° Ω 48'39	17°57'42
					1478 Aug 30 j 22:53	0° \cap	
superior conj	1477 Oct 08 j 15:20	24° $\underline{\Omega}$ 18'11	0°39'13	morning set	1478 Sep 09 j 12:23	16° \cap 44'35	
minimum elong	1477 Oct 08 j 19:09	24° $\underline{\Omega}$ 33'57	0°38'42		1478 Sep 16 j 19:43	0° $\underline{\Omega}$	
	1477 Oct 12 j 02:34	0° \cap					
desc. node	1477 Oct 14 j 13:04	3° \cap 56'29		superior conj	1478 Sep 19 j 22:37	5° $\underline{\Omega}$ 30'19	1°12'45
max. Earth dist.	1477 Oct 14 j 22:14	4° \cap 33'18	1.43929 AU	minimum elong	1478 Sep 20 j 03:13	5° $\underline{\Omega}$ 50'24	1°12'14
evening rise	1477 Oct 24 j 06:59	19° \cap 16'21		max. Earth dist.	1478 Sep 27 j 10:45	18° $\underline{\Omega}$ 14'44	1.42406 AU
	1477 Oct 31 j 07:52	0° \nearrow		desc. node	1478 Oct 01 j 10:06	24° $\underline{\Omega}$ 43'01	
greatest brilliancy	1477 Nov 16 j 20:51	23° \nearrow 42'49	-0.5m	evening rise	1478 Oct 03 j 21:14	28° $\underline{\Omega}$ 38'42	
	1477 Nov 22 j 04:22	0° $\overline{\Omega}$			1478 Oct 04 j 17:52	0° \cap	
evening max el	1477 Nov 22 j 09:27	0° $\overline{\Omega}$ 13'06	20°53'26		1478 Oct 25 j 00:45	0° \nearrow	
retrograde	1477 Nov 30 j 18:12	5° $\overline{\Omega}$ 10'15		greatest brilliancy	1478 Oct 31 j 11:36	8° \nearrow 24'59	-0.3m
asc. node	1477 Dec 02 j 20:47	4° $\overline{\Omega}$ 45'21		evening max el	1478 Nov 05 j 04:45	13° \nearrow 44'21	22°07'48
evening set	1477 Dec 04 j 16:37	3° $\overline{\Omega}$ 42'04		retrograde	1478 Nov 14 j 14:29	19° \nearrow 19'58	
	1477 Dec 08 j 05:39	30° \cap \nearrow		evening set	1478 Nov 19 j 00:24	17° \nearrow 35'09	
inferior conj	1477 Dec 10 j 02:51	27° \nearrow 28'47	2°17'29	asc. node	1478 Nov 19 j 17:50	16° \nearrow 57'22	
minimum elong	1477 Dec 10 j 00:19	27° \nearrow 37'28	2°16'39	inferior conj	1478 Nov 24 j 09:53	11° \nearrow 14'07	1°32'57
min. Earth dist.	1477 Dec 10 j 14:15	26° \nearrow 49'42	0.67433 AU	minimum elong	1478 Nov 24 j 07:55	11° \nearrow 20'54	1°32'11
morning rise	1477 Dec 15 j 07:34	21° \nearrow 13'30		min. Earth dist.	1478 Nov 24 j 09:56	11° \nearrow 13'55	0.67759 AU
direct	1477 Dec 20 j 16:06	18° \nearrow 53'27		morning rise	1478 Nov 29 j 15:16	5° \nearrow 00'28	
morning max el	1477 Dec 31 j 13:11	25° \nearrow 22'44	23°59'21	direct	1478 Dec 04 j 08:35	3° \nearrow 02'53	
	1478 Jan 04 j 17:59	0° $\overline{\Omega}$		morning max el	1478 Dec 13 j 23:43	8° \nearrow 44'24	22°31'18
desc. node	1478 Jan 10 j 12:16	7° $\overline{\Omega}$ 15'21		greatest brilliancy	1478 Dec 18 j 13:34	13° \nearrow 51'21	-0.3m
	1478 Jan 26 j 02:51	0° \approx		desc. node	1478 Dec 28 j 09:19	26° \nearrow 54'24	
morning set	1478 Feb 05 j 03:39	16° \approx 29'36			1478 Dec 30 j 13:12	0° $\overline{\Omega}$	
max. Earth dist.	1478 Feb 08 j 23:43	23° \approx 12'39	1.38335 AU	morning set	1479 Jan 16 j 17:42	26° $\overline{\Omega}$ 27'02	
	1478 Feb 12 j 17:33	0° \cap			1479 Jan 18 j 21:26	0° \approx	
				max. Earth dist.	1479 Jan 21 j 20:11	4° \approx 56'59	1.40487 AU
superior conj	1478 Feb 16 j 05:11	6° \cap 31'34	-1°-44'-49				
minimum elong	1478 Feb 16 j 09:18	6° \cap 51'09	1°44'25	superior conj	1479 Jan 29 j 15:22	18° \approx 36'21	-2°00'-5
evening rise	1478 Feb 25 j 04:43	24° \cap 00'40		minimum elong	1479 Jan 29 j 18:03	18° \approx 48'27	1°59'59
	1478 Feb 28 j 06:44	0° \cap			1479 Feb 04 j 19:51	0° \cap	
asc. node	1478 Feb 28 j 20:07	1° \cap 03'49		evening rise	1479 Feb 08 j 16:50	7° \cap 17'47	
evening max el	1478 Mar 13 j 15:36	20° \cap 34'48	18°55'13	asc. node	1479 Feb 15 j 17:10	20° \cap 11'29	
retrograde	1478 Mar 22 j 00:55	24° \cap 38'52			1479 Feb 22 j 01:37	0° \cap	
evening set	1478 Mar 24 j 05:54	24° \cap 23'06		evening max el	1479 Feb 24 j 21:08	3° \cap 11'32	18°21'30
inferior conj	1478 Apr 01 j 06:20	20° \cap 06'02	1°57'15	retrograde	1479 Mar 04 j 03:56	6° \cap 48'05	
minimum elong	1478 Apr 01 j 10:13	19° \cap 59'06	1°56'05	evening set	1479 Mar 06 j 14:17	6° \cap 24'59	
min. Earth dist.	1478 Apr 04 j 11:00	17° \cap 50'22	0.57041 AU	inferior conj	1479 Mar 13 j 20:35	1° \cap 46'59	3°02'48
desc. node	1478 Apr 08 j 11:27	15° \cap 27'26		minimum elong	1479 Mar 14 j 00:12	1° \cap 39'23	3°02'03
morning rise	1478 Apr 09 j 10:16	15° \cap 01'48			1479 Mar 15 j 23:36	30° \cap \cap	
direct	1478 Apr 14 j 18:07	13° \cap 53'54		min. Earth dist.	1479 Mar 17 j 07:03	28° \cap 56'12	0.59021 AU
morning max el	1478 Apr 29 j 01:22	21° \cap 19'55	25°54'41	morning rise	1479 Mar 21 j 06:18	26° \cap 14'18	
	1478 May 06 j 14:21	0° \cap		desc. node	1479 Mar 26 j 08:29	24° \cap 33'59	
	1478 May 24 j 09:16	0° \cap		direct	1479 Mar 27 j 12:20	24° \cap 30'25	
morning set	1478 May 26 j 22:02	5° \cap 14'27			1479 Apr 08 j 10:26	0° \cap	
asc. node	1478 May 27 j 19:25	7° \cap 07'42		morning max el	1479 Apr 10 j 20:50	2° \cap 13'50	27°06'17
					1479 Apr 30 j 21:36	0° \cap	
superior conj	1478 Jun 02 j 22:36	20° \cap 28'12	1°00'47	morning set	1479 May 11 j 07:30	20° \cap 02'09	
minimum elong	1478 Jun 02 j 20:21	20° \cap 15'55	1°00'23	asc. node	1479 May 14 j 16:29	27° \cap 13'16	
max. Earth dist.	1478 Jun 03 j 15:38	22° \cap 01'37	1.32472 AU		1479 May 15 j 23:09	0° \cap	
	1478 Jun 07 j 07:48	0° $\overline{\Omega}$					
evening rise	1478 Jun 10 j 00:00	5° $\overline{\Omega}$ 38'39		superior conj	1479 May 18 j 10:23	5° \cap 25'01	0°38'43
	1478 Jun 23 j 00:33	0° Ω		minimum elong	1479 May 18 j 08:46	5° \cap 16'05	0°38'24
desc. node	1478 Jul 05 j 10:46	17° Ω 50'25		max. Earth dist.	1479 May 18 j 04:04	4° \cap 50'17	1.32224 AU
evening max el	1478 Jul 11 j 07:00	24° Ω 09'44	27°08'23	evening rise	1479 May 25 j 08:28	20° \cap 26'16	
	1478 Jul 19 j 08:47	0° \cap			1479 May 30 j 01:09	0° $\overline{\Omega}$	
retrograde	1478 Jul 25 j 04:04	1° \cap 24'28			1479 Jun 17 j 20:03	0° Ω	
	1478 Jul 30 j 17:32	30° \cap Ω		desc. node	1479 Jun 22 j 07:47	4° Ω 59'09	
evening set	1478 Aug 01 j 06:15	29° Ω 07'43		evening max el	1479 Jun 23 j 07:11	5° Ω 56'20	26°17'54

retrograde	1479 Jul 07 j 07:00	13°♌08'06		evening max el	1480 Jun 04 j 00:21	16°♍57'55	24°59'45
evening set	1479 Jul 13 j 19:07	11°♌23'36		desc. node	1480 Jun 08 j 04:48	20°♍28'06	
min. Earth dist.	1479 Jul 17 j 20:03	8°♌47'56	0.59428 AU	retrograde	1480 Jun 18 j 00:00	24°♍04'16	
inferior conj	1479 Jul 21 j 03:44	6°♌14'42	-4°-49'-15	evening set	1480 Jun 23 j 08:33	22°♍58'33	
minimum elong	1479 Jul 21 j 06:20	6°♌09'40	4°49'04	min. Earth dist.	1480 Jun 28 j 11:51	20°♍12'12	0.57438 AU
morning rise	1479 Jul 28 j 20:57	1°♌41'57		inferior conj	1480 Jul 01 j 12:09	18°♍11'26	-4°-51'-45
direct	1479 Jul 31 j 07:25	1°♌21'10		minimum elong	1480 Jul 01 j 10:07	18°♍14'52	4°51'39
morning max el	1479 Aug 08 j 01:38	5°♌05'21	18°22'50	morning rise	1480 Jul 09 j 15:29	14°♍01'09	
asc. node	1479 Aug 10 j 15:42	7°♌55'46		direct	1480 Jul 12 j 05:05	13°♍42'03	
	1479 Aug 23 j 18:47	0°♎		morning max el	1480 Jul 21 j 03:19	17°♍52'30	19°08'47
morning set	1479 Aug 24 j 01:19	0°♎31'10		asc. node	1480 Jul 27 j 12:46	25°♍49'05	
					1480 Jul 30 j 02:52	0°♌	
superior conj	1479 Sep 02 j 05:49	17°♎53'21	1°34'00	morning set	1480 Aug 06 j 23:45	14°♌46'08	
minimum elong	1479 Sep 02 j 09:02	18°♎08'09	1°33'45		1480 Aug 14 j 16:34	0°♎	
	1479 Sep 09 j 00:31	0°♏					
max. Earth dist.	1479 Sep 09 j 17:55	1°♏15'06	1.40493 AU	superior conj	1480 Aug 15 j 07:19	1°♎11'28	1°44'20
evening rise	1479 Sep 14 j 07:19	8°♏56'20		minimum elong	1480 Aug 15 j 08:34	1°♎17'30	1°44'17
desc. node	1479 Sep 18 j 07:07	15°♏25'20		max. Earth dist.	1480 Aug 21 j 21:24	13°♎32'28	1.38446 AU
	1479 Sep 27 j 18:55	0°♐		evening rise	1480 Aug 25 j 17:48	20°♎22'46	
evening max el	1479 Oct 18 j 19:27	27°♐17'20	23°27'26		1480 Aug 31 j 10:35	0°♏	
	1479 Oct 21 j 18:23	0°♑		desc. node	1480 Sep 04 j 04:09	5°♏59'41	
retrograde	1479 Oct 29 j 07:57	3°♑30'39			1480 Sep 20 j 20:58	0°♐	
evening set	1479 Nov 03 j 07:03	1°♑28'20		evening max el	1480 Sep 30 j 07:39	10°♐54'03	24°46'01
	1479 Nov 04 j 19:52	30°♑		retrograde	1480 Oct 11 j 21:35	17°♐38'48	
asc. node	1479 Nov 06 j 14:54	27°♐52'08		evening set	1480 Oct 17 j 10:55	15°♐19'39	
inferior conj	1479 Nov 08 j 17:11	25°♐03'20	0°42'57	min. Earth dist.	1480 Oct 22 j 01:54	10°♐04'55	0.67401 AU
minimum elong	1479 Nov 08 j 16:11	25°♐06'45	0°42'31	inferior conj	1480 Oct 22 j 23:01	8°♐54'55	0°-11'-9
min. Earth dist.	1479 Nov 08 j 06:36	25°♐39'36	0.67744 AU	minimum elong	1480 Oct 22 j 23:17	8°♐54'00	0°11'02
morning rise	1479 Nov 14 j 01:27	18°♐53'27		transit middle	1480 Oct 22 j 23:17	8°♐54'00	0°11'02
direct	1479 Nov 18 j 04:19	17°♐18'42		transit begin	1480 Oct 22 j 21:16	9°♐00'42	
morning max el	1479 Nov 26 j 15:59	22°♐15'04	21°08'56	transit end	1480 Oct 23 j 01:19	8°♐47'18	
greatest brilliancy	1479 Dec 02 j 00:44	28°♐25'57	-0.5m	asc. node	1480 Oct 23 j 11:57	8°♐12'09	
	1479 Dec 03 j 06:01	0°♑		morning rise	1480 Oct 28 j 12:09	2°♐51'10	
desc. node	1479 Dec 15 j 06:21	16°♑57'35		direct	1480 Nov 01 j 02:12	1°♐37'09	
	1479 Dec 23 j 20:59	0°♒		morning max el	1480 Nov 08 j 15:51	5°♐56'35	19°57'52
morning set	1479 Dec 27 j 03:42	5°♒06'22		greatest brilliancy	1480 Nov 15 j 23:08	14°♐52'17	-0.6m
max. Earth dist.	1480 Jan 03 j 22:52	17°♒35'36	1.42460 AU		1480 Nov 26 j 08:07	0°♑	
				desc. node	1480 Dec 01 j 03:23	7°♑18'23	
superior conj	1480 Jan 11 j 03:20	29°♒36'20	-2°-3'-47	morning set	1480 Dec 04 j 23:45	13°♑13'32	
minimum elong	1480 Jan 11 j 02:09	29°♒31'19	2°03'47		1480 Dec 15 j 16:49	0°♒	
	1480 Jan 11 j 08:52	0°♓		max. Earth dist.	1480 Dec 16 j 08:42	1°♒03'16	1.43997 AU
evening rise	1480 Jan 22 j 15:09	19°♓52'36					
	1480 Jan 28 j 07:02	0°♈		superior conj	1480 Dec 21 j 13:03	9°♒24'04	-1°-51'-3
asc. node	1480 Feb 02 j 14:12	8°♈48'18		minimum elong	1480 Dec 21 j 06:34	8°♒57'43	1°50'38
evening max el	1480 Feb 08 j 07:39	16°♈11'27	18°07'46		1481 Jan 02 j 20:45	0°♓	
retrograde	1480 Feb 14 j 23:36	19°♈36'20		evening rise	1481 Jan 03 j 19:21	1°♓36'47	
evening set	1480 Feb 17 j 14:54	19°♈04'22		asc. node	1481 Jan 19 j 11:14	26°♓44'47	
inferior conj	1480 Feb 24 j 06:22	14°♈05'05	3°36'28	evening max el	1481 Jan 21 j 20:09	29°♓26'35	18°13'21
minimum elong	1480 Feb 24 j 08:07	14°♈00'51	3°36'17		1481 Jan 22 j 09:57	0°♈	
min. Earth dist.	1480 Feb 27 j 10:06	11°♈03'35	0.61153 AU	retrograde	1481 Jan 28 j 07:20	2°♈53'26	
morning rise	1480 Mar 01 j 22:28	8°♈13'19		evening set	1481 Jan 31 j 03:29	2°♈11'29	
direct	1480 Mar 08 j 17:50	5°♈54'59			1481 Feb 03 j 05:49	30°♈	
desc. node	1480 Mar 12 j 05:31	6°♈28'32		inferior conj	1481 Feb 06 j 07:45	26°♈52'00	3°45'15
morning max el	1480 Mar 22 j 22:46	13°♈48'06	27°44'15	minimum elong	1481 Feb 06 j 07:31	26°♈52'39	3°45'16
	1480 Apr 04 j 22:39	0°♉		min. Earth dist.	1481 Feb 08 j 22:07	24°♈02'54	0.63161 AU
	1480 Apr 22 j 06:27	0°♊		morning rise	1481 Feb 12 j 09:36	20°♈48'59	
morning set	1480 Apr 24 j 13:06	4°♊36'23		direct	1481 Feb 19 j 08:24	18°♈06'53	
max. Earth dist.	1480 Apr 30 j 15:24	17°♊33'06	1.32355 AU	desc. node	1481 Feb 27 j 02:33	20°♈53'00	
asc. node	1480 Apr 30 j 13:32	17°♊22'58		morning max el	1481 Mar 05 j 05:41	26°♈02'08	27°44'51
					1481 Mar 08 j 22:09	0°♈	
superior conj	1480 May 01 j 21:18	20°♊16'19	0°13'58		1481 Mar 29 j 11:13	0°♉	
minimum elong	1480 May 01 j 20:40	20°♊12'49	0°13'50	morning set	1481 Apr 08 j 12:29	18°♉48'48	
behind sun begin	1480 May 01 j 18:10	19°♊59'10			1481 Apr 13 j 22:19	0°♊	
behind sun end	1480 May 01 j 23:10	20°♊26'28		max. Earth dist.	1481 Apr 13 j 21:30	29°♉55'39	1.32890 AU
	1480 May 06 j 08:07	0°♋					
evening rise	1480 May 08 j 19:35	5°♋19'10		superior conj	1481 Apr 16 j 05:33	4°♋55'30	0°-12'-43
	1480 May 21 j 21:51	0°♌		minimum elong	1481 Apr 16 j 06:10	4°♋58'49	0°12'36

behind sun begin	1481 Apr 16 j 02:56	4°♄41'24		superior conj	1482 Mar 31 j 09:11	19°♃16'27	0°-40'-21
behind sun end	1481 Apr 16 j 09:24	5°♄16'15		minimum elong	1482 Mar 31 j 11:11	19°♃27'02	0°39'58
asc. node	1481 Apr 17 j 10:33	7°♄32'05		asc. node	1482 Apr 04 j 07:34	27°♃36'43	
evening rise	1481 Apr 23 j 07:25	20°♄10'09			1482 Apr 05 j 10:33	0°♄	
	1481 Apr 28 j 02:52	0°♄		evening rise	1482 Apr 07 j 18:09	4°♄53'07	
evening max el	1481 May 16 j 14:16	27°♄31'29	23°25'57		1482 Apr 21 j 14:17	0°♄	
	1481 May 19 j 10:05	0°♄		evening max el	1482 Apr 28 j 08:06	8°♄07'23	21°51'32
desc. node	1481 May 26 j 01:49	3°♄40'53		retrograde	1482 May 10 j 21:21	14°♄17'02	
retrograde	1481 May 30 j 04:43	4°♄19'30		desc. node	1482 May 12 j 22:48	14°♄07'29	
evening set	1481 Jun 03 j 01:34	3°♄46'40		evening set	1482 May 13 j 12:46	14°♄01'27	
min. Earth dist.	1481 Jun 10 j 00:27	0°♄34'38	0.55855 AU	inferior conj	1482 May 22 j 21:53	9°♄58'12	-2°-46'-31
	1481 Jun 10 j 23:54	30°♄♄		minimum elong	1482 May 22 j 14:44	10°♄08'12	2°44'18
inferior conj	1481 Jun 12 j 00:32	29°♄23'15	-4°-12'-42	min. Earth dist.	1482 May 22 j 12:26	10°♄11'25	0.55012 AU
minimum elong	1481 Jun 11 j 17:44	29°♄33'24	4°11'23	morning rise	1482 May 31 j 17:56	6°♄04'02	
morning rise	1481 Jun 20 j 13:12	25°♄28'13		direct	1482 Jun 03 j 20:14	5°♄42'49	
direct	1481 Jun 23 j 07:29	25°♄09'28		morning max el	1482 Jun 15 j 22:06	11°♄23'12	21°42'20
	1481 Jul 03 j 18:27	0°♄			1482 Jun 29 j 08:30	0°♄	
morning max el	1481 Jul 03 j 18:26	29°♄59'59	20°15'55	asc. node	1482 Jul 01 j 06:50	3°♄34'27	
asc. node	1481 Jul 14 j 09:48	14°♄25'25		morning set	1482 Jul 06 j 13:38	14°♄08'11	
morning set	1481 Jul 22 j 04:37	29°♄20'32					
	1481 Jul 22 j 12:21	0°♄		superior conj	1482 Jul 13 j 21:40	29°♄33'57	1°39'53
				minimum elong	1482 Jul 13 j 19:59	29°♄25'08	1°39'45
superior conj	1481 Jul 29 j 21:55	15°♄08'49	1°45'42		1482 Jul 14 j 02:39	0°♄	
minimum elong	1481 Jul 29 j 21:26	15°♄06'23	1°45'41	max. Earth dist.	1482 Jul 17 j 15:52	7°♄18'21	1.34888 AU
max. Earth dist.	1481 Aug 04 j 02:48	25°♄24'23	1.36517 AU	evening rise	1482 Jul 22 j 04:00	16°♄11'24	
	1481 Aug 06 j 13:03	0°♄			1482 Jul 29 j 17:51	0°♄	
evening rise	1481 Aug 08 j 02:13	2°♄51'49		desc. node	1482 Aug 08 j 22:12	16°♄21'20	
desc. node	1481 Aug 22 j 01:11	26°♄20'31			1482 Aug 18 j 22:35	0°♄	
	1481 Aug 24 j 11:05	0°♄		evening max el	1482 Aug 26 j 07:49	8°♄08'49	26°50'30
evening max el	1481 Sep 12 j 19:32	24°♄33'19	25°56'19	retrograde	1482 Sep 08 j 10:00	15°♄24'28	
	1481 Sep 19 j 18:02	0°♄		evening set	1482 Sep 15 j 02:41	12°♄42'32	
retrograde	1481 Sep 25 j 06:31	1°♄38'55		min. Earth dist.	1482 Sep 19 j 02:41	8°♄40'53	0.65699 AU
	1481 Sep 30 j 05:43	30°♄♄		inferior conj	1482 Sep 20 j 22:47	6°♄32'01	-2°-5'-51
evening set	1481 Oct 01 j 10:10	29°♄05'43		minimum elong	1482 Sep 21 j 02:06	6°♄22'18	2°04'34
min. Earth dist.	1481 Oct 05 j 17:25	24°♄26'54	0.66722 AU	morning rise	1482 Sep 27 j 02:55	0°♄49'29	
inferior conj	1481 Oct 07 j 01:33	22°♄45'49	-1°-7'-59	asc. node	1482 Sep 27 j 06:01	0°♄45'36	
minimum elong	1481 Oct 07 j 03:19	22°♄40'15	1°07'14	direct	1482 Sep 29 j 21:55	0°♄06'21	
asc. node	1481 Oct 10 j 08:59	18°♄54'05		morning max el	1482 Oct 06 j 11:48	3°♄41'30	18°21'07
morning rise	1481 Oct 12 j 21:22	16°♄51'04			1482 Oct 24 j 08:44	0°♄	
direct	1481 Oct 16 j 00:44	15°♄54'23		morning set	1482 Oct 25 j 17:50	2°♄14'17	
morning max el	1481 Oct 22 j 23:04	19°♄46'53	19°01'25	desc. node	1482 Nov 04 j 21:29	18°♄33'11	
	1481 Oct 30 j 23:06	0°♄					
morning set	1481 Nov 14 j 07:10	22°♄02'13		superior conj	1482 Nov 10 j 00:16	26°♄38'47	0°-33'-38
desc. node	1481 Nov 18 j 00:27	27°♄51'47		minimum elong	1482 Nov 09 j 19:53	26°♄21'33	0°33'04
	1481 Nov 19 j 09:12	0°♄		max. Earth dist.	1482 Nov 11 j 19:37	29°♄29'23	1.45100 AU
max. Earth dist.	1481 Nov 29 j 00:33	15°♄07'19	1.44910 AU		1482 Nov 12 j 03:25	0°♄	
				evening rise	1482 Nov 26 j 08:21	22°♄15'46	
superior conj	1481 Nov 30 j 23:08	18°♄10'55	-1°-19'-26		1482 Dec 01 j 06:46	0°♄	
minimum elong	1481 Nov 30 j 14:30	17°♄36'52	1°18'31	greatest brilliancy	1482 Dec 10 j 09:20	14°♄02'37	-0.7m
	1481 Dec 08 j 09:30	0°♄		evening max el	1482 Dec 19 j 16:48	26°♄18'57	19°18'29
evening rise	1481 Dec 16 j 01:33	12°♄24'30		asc. node	1482 Dec 24 j 05:17	29°♄47'02	
	1481 Dec 26 j 22:00	0°♄			1482 Dec 24 j 17:52	0°♄	
evening max el	1482 Jan 05 j 08:00	12°♄50'55	18°37'19	retrograde	1482 Dec 26 j 18:58	0°♄23'08	
asc. node	1482 Jan 06 j 08:15	13°♄49'16			1482 Dec 28 j 18:47	30°♄♄	
retrograde	1482 Jan 11 j 22:55	16°♄31'20		evening set	1482 Dec 30 j 03:22	29°♄17'34	
evening set	1482 Jan 15 j 00:36	15°♄38'15		inferior conj	1483 Jan 04 j 18:04	23°♄23'21	3°13'02
inferior conj	1482 Jan 20 j 20:47	10°♄00'18	3°35'50	minimum elong	1483 Jan 04 j 15:36	23°♄31'20	3°12'31
minimum elong	1482 Jan 20 j 19:06	10°♄05'22	3°35'39	min. Earth dist.	1483 Jan 06 j 01:53	21°♄41'01	0.66175 AU
min. Earth dist.	1482 Jan 22 j 19:39	7°♄40'10	0.64863 AU	morning rise	1483 Jan 10 j 03:01	17°♄10'03	
morning rise	1482 Jan 26 j 12:21	3°♄50'46		direct	1483 Jan 16 j 10:08	14°♄24'02	
direct	1482 Feb 02 j 06:14	0°♄59'51		morning max el	1483 Jan 29 j 00:32	21°♄51'26	26°09'23
desc. node	1482 Feb 13 j 23:35	7°♄12'00		desc. node	1483 Jan 31 j 20:38	24°♄52'56	
morning max el	1482 Feb 15 j 15:03	8°♄47'19	27°10'54		1483 Feb 05 j 03:42	0°♄	
	1482 Mar 04 j 04:39	0°♄			1483 Feb 25 j 10:13	0°♄	
	1482 Mar 21 j 19:32	0°♄		morning set	1483 Mar 06 j 04:03	15°♄28'14	
morning set	1482 Mar 23 j 02:47	2°♄30'15		max. Earth dist.	1483 Mar 10 j 04:28	23°♄06'54	1.35297 AU
max. Earth dist.	1482 Mar 27 j 18:42	11°♄47'42	1.33865 AU		1483 Mar 13 j 15:59	0°♄	

superior conj	1483 Mar 15 j 05:46	3°♈11'06	-1°-7'-36	max. Earth dist.	1484 Feb 20 j 03:58	4°♋09'46	1.37142 AU
minimum elong	1483 Mar 15 j 09:05	3°♈28'01	1°07'03				
asc. node	1483 Mar 22 j 04:36	17°♈32'00		superior conj	1484 Feb 26 j 16:17	16°♋31'31	-1°-32'-33
evening rise	1483 Mar 23 j 01:48	19°♈21'04		minimum elong	1484 Feb 26 j 20:24	16°♋51'42	1°32'01
	1483 Mar 28 j 10:34	0°♋			1484 Mar 04 j 10:43	0°♈	
evening max el	1483 Apr 10 j 11:41	19°♋10'56	20°28'36	evening rise	1484 Mar 06 j 04:09	3°♈27'38	
retrograde	1483 Apr 21 j 10:25	24°♋29'04		asc. node	1484 Mar 08 j 01:38	7°♈13'28	
evening set	1483 Apr 23 j 12:41	24°♋18'14			1484 Mar 22 j 05:39	0°♋	
desc. node	1483 Apr 29 j 19:48	21°♋56'58		evening max el	1484 Mar 23 j 02:55	0°♋53'41	19°23'33
inferior conj	1483 May 02 j 16:23	20°♋20'31	0°-49'-48	retrograde	1484 Apr 01 j 08:57	5°♋21'43	
minimum elong	1483 May 02 j 14:02	20°♋23'56	0°48'57	evening set	1484 Apr 03 j 11:02	5°♋09'03	
min. Earth dist.	1483 May 04 j 01:11	19°♋32'57	0.55100 AU	inferior conj	1484 Apr 11 j 22:28	1°♋01'42	1°03'51
morning rise	1483 May 11 j 13:42	16°♋08'09		minimum elong	1484 Apr 12 j 01:01	0°♋57'30	1°02'59
direct	1483 May 15 j 07:06	15°♋38'13			1484 Apr 13 j 12:03	30°♋♈	
morning max el	1483 May 28 j 16:34	22°♋08'39	23°21'51	min. Earth dist.	1484 Apr 14 j 15:51	29°♈15'13	0.56112 AU
	1483 Jun 04 j 13:15	0°♊		desc. node	1484 Apr 15 j 16:51	28°♈36'31	
asc. node	1483 Jun 18 j 03:53	23°♊07'48		morning rise	1484 Apr 20 j 11:08	26°♈16'39	
morning set	1483 Jun 21 j 00:57	29°♊03'41		direct	1484 Apr 25 j 03:45	25°♈26'30	
	1483 Jun 21 j 11:39	0°♊			1484 May 06 j 07:09	0°♋	
				morning max el	1484 May 09 j 07:13	2°♋36'58	25°02'27
superior conj	1483 Jun 28 j 03:36	14°♊17'52	1°28'16		1484 May 28 j 12:09	0°♊	
minimum elong	1483 Jun 28 j 01:17	14°♊05'27	1°28'00	asc. node	1484 Jun 04 j 00:55	12°♊58'14	
max. Earth dist.	1483 Jun 30 j 14:23	19°♊30'47	1.33634 AU	morning set	1484 Jun 04 j 12:51	14°♊00'57	
evening rise	1483 Jul 05 j 18:38	0°♊09'10					
	1483 Jul 05 j 16:48	0°♊		superior conj	1484 Jun 11 j 13:20	29°♊12'25	1°11'57
	1483 Jul 22 j 18:36	0°♊		minimum elong	1484 Jun 11 j 10:55	28°♊59'18	1°11'35
desc. node	1483 Jul 26 j 19:11	5°♊53'39			1484 Jun 11 j 22:03	0°♊	
evening max el	1483 Aug 08 j 19:33	21°♊29'49	27°21'13	max. Earth dist.	1484 Jun 12 j 20:45	2°♊03'22	1.32779 AU
retrograde	1483 Aug 22 j 07:43	28°♊48'10		evening rise	1484 Jun 18 j 18:25	14°♊33'39	
evening set	1483 Aug 29 j 09:51	26°♊06'04			1484 Jun 26 j 18:11	0°♊	
min. Earth dist.	1483 Sep 02 j 03:28	22°♊40'28	0.64318 AU	desc. node	1484 Jul 12 j 16:11	24°♊45'03	
inferior conj	1483 Sep 04 j 12:23	20°♊08'57	-3°-2'-21		1484 Jul 16 j 23:53	0°♊	
minimum elong	1483 Sep 04 j 17:02	19°♊56'34	3°00'49	evening max el	1484 Jul 21 j 04:37	4°♊22'47	27°22'27
morning rise	1483 Sep 11 j 02:12	14°♊42'08		retrograde	1484 Aug 03 j 23:15	11°♊40'00	
direct	1483 Sep 13 j 15:19	14°♊09'00		evening set	1484 Aug 11 j 04:08	9°♊09'42	
asc. node	1483 Sep 14 j 03:05	14°♊10'14		min. Earth dist.	1484 Aug 14 j 18:11	6°♊14'06	0.62596 AU
morning max el	1483 Sep 20 j 03:33	17°♊35'31	17°57'50	inferior conj	1484 Aug 17 j 15:29	3°♊29'17	-3°-53'-52
	1483 Sep 29 j 03:20	0°♊		minimum elong	1484 Aug 17 j 20:41	3°♊16'51	3°52'34
morning set	1483 Oct 07 j 08:38	13°♊48'42			1484 Aug 21 j 16:09	30°♊♊	
	1483 Oct 17 j 00:37	0°♊		morning rise	1484 Aug 24 j 15:51	28°♊21'29	
				direct	1484 Aug 27 j 01:41	27°♊55'10	
superior conj	1483 Oct 20 j 14:14	5°♊48'53	0°14'37	asc. node	1484 Aug 31 j 00:09	29°♊07'10	
minimum elong	1483 Oct 20 j 15:54	5°♊55'39	0°14'22		1484 Sep 01 j 06:33	0°♊	
behind sun begin	1483 Oct 20 j 11:08	5°♊36'22		morning max el	1484 Sep 02 j 19:21	1°♊21'33	17°52'23
behind sun end	1483 Oct 20 j 20:40	6°♊14'55		morning set	1484 Sep 18 j 21:51	26°♊26'56	
desc. node	1483 Oct 22 j 18:32	9°♊19'27			1484 Sep 20 j 21:41	0°♊	
max. Earth dist.	1483 Oct 25 j 14:24	13°♊50'04	1.44550 AU				
	1483 Nov 04 j 22:37	0°♊		superior conj	1484 Sep 30 j 05:53	16°♊15'20	0°54'56
evening rise	1483 Nov 05 j 21:04	1°♊26'34		minimum elong	1484 Sep 30 j 10:25	16°♊34'30	0°54'22
	1483 Nov 24 j 23:58	0°♊		max. Earth dist.	1484 Oct 07 j 05:25	27°♊48'56	1.43337 AU
greatest brilliancy	1483 Nov 26 j 09:05	1°♊53'50	-0.6m	desc. node	1484 Oct 08 j 15:33	0°♊06'45	
evening max el	1483 Dec 02 j 20:49	9°♊48'33	20°14'58		1484 Oct 08 j 13:52	0°♊	
retrograde	1483 Dec 10 j 16:49	14°♊24'49		evening rise	1484 Oct 15 j 05:34	10°♊31'04	
asc. node	1483 Dec 11 j 02:19	14°♊23'57			1484 Oct 28 j 03:08	0°♊	
evening set	1483 Dec 14 j 09:36	13°♊05'17		greatest brilliancy	1484 Nov 09 j 18:04	17°♊29'16	-0.4m
inferior conj	1483 Dec 19 j 20:55	6°♊57'47	2°40'09	evening max el	1484 Nov 14 j 19:08	23°♊18'22	21°24'02
minimum elong	1483 Dec 19 j 18:15	7°♊06'47	2°39'22	retrograde	1484 Nov 23 j 14:17	28°♊32'17	
min. Earth dist.	1483 Dec 20 j 15:15	5°♊55'54	0.67083 AU	asc. node	1484 Nov 26 j 23:23	27°♊28'51	
morning rise	1483 Dec 25 j 02:23	0°♊42'36		evening set	1484 Nov 27 j 17:18	26°♊57'11	
	1483 Dec 25 j 22:54	30°♊♊		inferior conj	1484 Dec 03 j 03:00	20°♊39'52	1°59'23
direct	1483 Dec 30 j 19:27	28°♊11'28		minimum elong	1484 Dec 03 j 00:40	20°♊47'58	1°58'32
	1484 Jan 05 j 06:15	0°♊		min. Earth dist.	1484 Dec 03 j 09:25	20°♊17'42	0.67609 AU
morning max el	1484 Jan 11 j 09:14	5°♊05'30	24°49'35	morning rise	1484 Dec 08 j 07:42	14°♊24'52	
desc. node	1484 Jan 18 j 17:43	13°♊32'28		direct	1484 Dec 13 j 09:37	12°♊14'16	
	1484 Jan 30 j 14:22	0°♊		morning max el	1484 Dec 23 j 18:15	18°♊24'12	23°21'41
morning set	1484 Feb 16 j 11:08	27°♊28'45		greatest brilliancy	1484 Dec 29 j 04:23	24°♊30'39	-0.2m
	1484 Feb 17 j 21:02	0°♊			1485 Jan 02 j 11:23	0°♊	

desc. node	1485 Jan 04 j 14:47	2°♄53'22		greatest brilliancy	1485 Dec 11 j 00:41	7°♄10'13	-0.4m
	1485 Jan 22 j 17:30	0°♄		desc. node	1485 Dec 22 j 11:49	22°♄43'36	
morning set	1485 Jan 27 j 17:48	8°♄15'20			1485 Dec 27 j 10:21	0°♄	
max. Earth dist.	1485 Jan 31 j 22:49	15°♄27'47	1.39245 AU	morning set	1486 Jan 07 j 19:15	17°♄36'49	
				max. Earth dist.	1486 Jan 13 j 20:49	27°♄31'51	1.41357 AU
superior conj	1485 Feb 08 j 12:45	29°♄07'34	-1°-52'-24		1486 Jan 15 j 08:10	0°♄	
minimum elong	1485 Feb 08 j 16:32	29°♄25'08	1°52'08				
	1485 Feb 09 j 00:01	0°♄		superior conj	1486 Jan 21 j 14:09	10°♄46'23	-2°-3'-22
evening rise	1485 Feb 17 j 22:26	17°♄05'25		minimum elong	1486 Jan 21 j 15:30	10°♄52'21	2°03'22
asc. node	1485 Feb 22 j 22:41	26°♄35'44		evening rise	1486 Feb 01 j 05:09	0°♄05'22	
	1485 Feb 24 j 20:02	0°♄			1486 Feb 01 j 03:59	0°♄	
evening max el	1485 Mar 06 j 04:10	13°♄13'51	18°38'27	asc. node	1486 Feb 09 j 19:44	15°♄31'32	
retrograde	1485 Mar 14 j 00:58	17°♄04'21		evening max el	1486 Feb 17 j 12:17	26°♄02'07	18°13'21
evening set	1485 Mar 16 j 08:04	16°♄45'53		retrograde	1486 Feb 24 j 11:20	29°♄31'33	
inferior conj	1485 Mar 24 j 00:32	12°♄20'28	2°29'16	evening set	1486 Feb 26 j 23:54	29°♄04'49	
minimum elong	1485 Mar 24 j 04:38	12°♄12'37	2°28'10	inferior conj	1486 Mar 05 j 23:28	24°♄18'02	3°20'32
min. Earth dist.	1485 Mar 27 j 09:40	9°♄46'49	0.57835 AU	minimum elong	1486 Mar 06 j 02:24	24°♄11'31	3°20'04
morning rise	1485 Mar 31 j 20:53	7°♄02'39		min. Earth dist.	1486 Mar 09 j 08:26	21°♄19'27	0.59927 AU
desc. node	1485 Apr 02 j 13:54	6°♄21'03		morning rise	1486 Mar 13 j 01:25	18°♄36'20	
direct	1485 Apr 06 j 14:54	5°♄39'49		direct	1486 Mar 19 j 14:36	16°♄36'37	
morning max el	1485 Apr 20 j 23:48	13°♄15'29	26°28'41	desc. node	1486 Mar 20 j 10:58	16°♄38'34	
	1485 May 04 j 04:47	0°♄		morning max el	1486 Apr 02 j 21:45	24°♄25'08	27°26'49
morning set	1485 May 19 j 23:44	28°♄54'29			1486 Apr 07 j 23:44	0°♄	
	1485 May 20 j 12:10	0°♄			1486 Apr 27 j 10:09	0°♄	
asc. node	1485 May 21 j 21:59	3°♄00'13		morning set	1486 May 04 j 07:47	13°♄37'16	
				asc. node	1486 May 08 j 19:02	23°♄08'09	
superior conj	1485 May 27 j 00:55	14°♄11'01	0°51'49	max. Earth dist.	1486 May 10 j 20:11	27°♄36'38	1.32234 AU
minimum elong	1485 May 26 j 22:54	13°♄59'52	0°51'26				
max. Earth dist.	1485 May 27 j 07:53	14°♄49'19	1.32316 AU	superior conj	1486 May 11 j 12:33	29°♄06'31	0°28'32
evening rise	1485 Jun 03 j 00:27	29°♄15'52		minimum elong	1486 May 11 j 11:19	28°♄59'41	0°28'16
	1485 Jun 03 j 08:54	0°♄			1486 May 11 j 22:17	0°♄	
	1485 Jun 20 j 00:02	0°♄		evening rise	1486 May 18 j 10:17	14°♄06'51	
desc. node	1485 Jun 29 j 13:11	12°♄38'20			1486 May 26 j 10:21	0°♄	
evening max el	1485 Jul 03 j 08:40	16°♄36'21	26°50'46	evening max el	1486 Jun 15 j 05:54	28°♄03'40	25°47'31
retrograde	1485 Jul 17 j 07:29	23°♄50'41		desc. node	1486 Jun 16 j 10:12	29°♄08'55	
evening set	1485 Jul 24 j 05:10	21°♄46'12			1486 Jun 17 j 09:56	0°♄	
min. Earth dist.	1485 Jul 27 j 22:41	19°♄07'56	0.60617 AU	retrograde	1486 Jun 29 j 06:30	5°♄13'31	
inferior conj	1485 Jul 31 j 04:42	16°♄24'54	-4°-34'-27	evening set	1486 Jul 05 j 08:13	3°♄45'44	
minimum elong	1485 Jul 31 j 08:55	16°♄16'03	4°33'50	min. Earth dist.	1486 Jul 09 j 18:19	1°♄07'24	0.58558 AU
morning rise	1485 Aug 07 j 15:52	11°♄38'48			1486 Jul 11 j 07:59	30°♄	
direct	1485 Aug 10 j 01:11	11°♄16'41		inferior conj	1486 Jul 13 j 00:28	28°♄45'49	-4°-54'-35
morning max el	1485 Aug 17 j 08:06	14°♄51'44	18°05'51	minimum elong	1486 Jul 13 j 01:20	28°♄44'14	4°54'34
asc. node	1485 Aug 17 j 21:14	15°♄24'33		morning rise	1486 Jul 20 j 22:01	24°♄22'36	
	1485 Aug 27 j 18:29	0°♄		direct	1486 Jul 23 j 09:34	24°♄02'40	
morning set	1485 Sep 02 j 03:33	9°♄52'29		morning max el	1486 Jul 31 j 14:35	27°♄56'50	18°39'41
					1486 Aug 02 j 13:25	0°♄	
superior conj	1485 Sep 11 j 23:58	27°♄59'22	1°23'12	asc. node	1486 Aug 04 j 18:16	2°♄46'52	
minimum elong	1485 Sep 12 j 04:08	28°♄18'00	1°22'47	morning set	1486 Aug 16 j 20:57	23°♄52'28	
	1485 Sep 13 j 03:07	0°♄			1486 Aug 20 j 00:29	0°♄	
max. Earth dist.	1485 Sep 19 j 14:56	11°♄11'20	1.41625 AU				
evening rise	1485 Sep 25 j 03:02	20°♄13'40		superior conj	1486 Aug 25 j 15:35	10°♄47'33	1°39'36
desc. node	1485 Sep 25 j 12:33	20°♄51'55		minimum elong	1486 Aug 25 j 17:59	10°♄58'48	1°39'27
	1485 Oct 01 j 08:08	0°♄		max. Earth dist.	1486 Sep 01 j 20:05	23°♄52'35	1.39629 AU
	1485 Oct 22 j 12:22	0°♄			1486 Sep 05 j 09:08	0°♄	
greatest brilliancy	1485 Oct 23 j 14:09	1°♄19'11	-0.3m	evening rise	1486 Sep 05 j 23:30	1°♄00'50	
evening max el	1485 Oct 28 j 12:12	6°♄49'50	22°41'27	desc. node	1486 Sep 12 j 09:34	11°♄31'32	
retrograde	1485 Nov 07 j 09:33	12°♄42'22			1486 Sep 24 j 16:46	0°♄	
evening set	1485 Nov 12 j 00:47	10°♄50'23		evening max el	1486 Oct 11 j 01:45	20°♄25'14	24°01'30
asc. node	1485 Nov 13 j 20:27	9°♄04'24		retrograde	1486 Oct 22 j 01:23	26°♄52'27	
inferior conj	1485 Nov 17 j 10:22	4°♄27'08	1°12'20	evening set	1486 Oct 27 j 06:24	24°♄43'02	
minimum elong	1485 Nov 17 j 08:47	4°♄32'39	1°11'41	asc. node	1486 Oct 31 j 17:30	19°♄38'05	
min. Earth dist.	1485 Nov 17 j 05:55	4°♄42'31	0.67789 AU	min. Earth dist.	1486 Nov 01 j 02:17	19°♄08'30	0.67639 AU
	1485 Nov 20 j 21:14	30°♄		inferior conj	1486 Nov 01 j 17:15	18°♄17'51	0°20'25
morning rise	1485 Nov 22 j 16:41	28°♄14'31		minimum elong	1486 Nov 01 j 16:45	18°♄19'32	0°20'13
direct	1485 Nov 27 j 03:42	26°♄26'38		morning rise	1486 Nov 07 j 03:20	12°♄10'11	
	1485 Dec 04 j 08:40	0°♄		direct	1486 Nov 11 j 00:37	10°♄44'22	
morning max el	1485 Dec 06 j 06:42	1°♄48'40	21°55'05	morning max el	1486 Nov 19 j 01:57	15°♄23'33	20°37'04

greatest brilliancy	1486 Nov 25 j 03:14	22° \mathbb{M} 31'30	-0.5m		1487 Oct 18 j 14:34	30° \mathbb{R} $\underline{\Omega}$	
	1486 Nov 30 j 13:55	0° \mathbb{Z}		morning rise	1487 Oct 22 j 13:38	26° $\underline{\Omega}$ 09'09	
desc. node	1486 Dec 09 j 08:50	12° \mathbb{Z} 55'14		direct	1487 Oct 25 j 22:57	25° $\underline{\Omega}$ 02'54	
morning set	1486 Dec 17 j 20:32	25° \mathbb{Z} 53'54		morning max el	1487 Nov 02 j 05:05	29° $\underline{\Omega}$ 09'09	19°32'00
	1486 Dec 20 j 11:35	0° \mathbb{Z}			1487 Nov 03 j 00:37	0° \mathbb{M}	
max. Earth dist.	1486 Dec 27 j 02:51	10° \mathbb{Z} 33'49	1.43181 AU	greatest brilliancy	1487 Nov 10 j 19:37	10° \mathbb{M} 02'19	-0.7m
					1487 Nov 24 j 01:36	0° \mathbb{Z}	
superior conj	1487 Jan 02 j 15:17	21° \mathbb{Z} 16'29	-2°00'-39	desc. node	1487 Nov 26 j 05:51	3° \mathbb{Z} 21'48	
minimum elong	1487 Jan 02 j 11:50	21° \mathbb{Z} 02'07	2°00'33	morning set	1487 Nov 26 j 18:25	4° \mathbb{Z} 10'24	
	1487 Jan 07 j 18:47	0° \approx		max. Earth dist.	1487 Dec 09 j 16:05	24° \mathbb{Z} 21'00	1.44474 AU
evening rise	1487 Jan 14 j 20:16	12° \approx 19'35			1487 Dec 13 j 05:15	0° \mathbb{Z}	
	1487 Jan 25 j 03:11	0° \mathbb{X}					
asc. node	1487 Jan 27 j 16:47	3° \mathbb{X} 52'38		superior conj	1487 Dec 13 j 13:51	0° \mathbb{Z} 34'25	-1°-39'-52
evening max el	1487 Feb 01 j 00:04	9° \mathbb{X} 09'44	18°07'51	minimum elong	1487 Dec 13 j 05:43	0° \mathbb{Z} 01'53	1°39'11
retrograde	1487 Feb 07 j 12:38	12° \mathbb{X} 33'36		evening rise	1487 Dec 27 j 15:28	23° \mathbb{Z} 40'00	
evening set	1487 Feb 10 j 06:07	11° \mathbb{X} 57'20			1487 Dec 31 j 09:58	0° \approx	
inferior conj	1487 Feb 16 j 16:22	6° \mathbb{X} 49'10	3°42'46	asc. node	1488 Jan 14 j 13:49	21° \approx 28'12	
minimum elong	1487 Feb 16 j 17:14	6° \mathbb{X} 46'57	3°42'43	evening max el	1488 Jan 15 j 12:30	22° \approx 28'41	18°21'19
min. Earth dist.	1487 Feb 19 j 14:52	3° \mathbb{X} 50'43	0.62040 AU	retrograde	1488 Jan 22 j 00:17	26° \approx 00'07	
morning rise	1487 Feb 23 j 01:58	0° \mathbb{X} 52'10		evening set	1488 Jan 24 j 22:42	25° \approx 13'29	
	1487 Feb 24 j 09:54	30° \mathbb{R} \approx		inferior conj	1488 Jan 30 j 23:08	19° \approx 45'34	3°43'09
direct	1487 Mar 02 j 00:03	28° \approx 22'13		minimum elong	1488 Jan 30 j 22:12	19° \approx 48'13	3°43'07
desc. node	1487 Mar 07 j 08:00	29° \approx 40'50		min. Earth dist.	1488 Feb 02 j 06:49	17° \approx 07'32	0.63927 AU
	1487 Mar 07 j 23:30	0° \mathbb{X}		morning rise	1488 Feb 05 j 20:07	13° \approx 39'16	
morning max el	1487 Mar 16 j 01:53	6° \mathbb{X} 16'14	27°49'01	direct	1488 Feb 12 j 17:33	10° \approx 52'00	
	1487 Apr 03 j 00:44	0° \mathbb{Y}		desc. node	1488 Feb 22 j 05:02	14° \approx 57'56	
morning set	1487 Apr 18 j 11:00	28° \mathbb{Y} 02'52		morning max el	1488 Feb 26 j 10:20	18° \approx 44'58	27°34'25
	1487 Apr 19 j 09:53	0° \mathbb{Z}			1488 Mar 06 j 23:01	0° \mathbb{X}	
max. Earth dist.	1487 Apr 24 j 05:51	10° \mathbb{Z} 12'41	1.32539 AU		1488 Mar 25 j 22:30	0° \mathbb{Y}	
				morning set	1488 Apr 01 j 06:57	12° \mathbb{Y} 03'18	
superior conj	1487 Apr 25 j 22:32	13° \mathbb{Z} 53'12	0°02'52	max. Earth dist.	1488 Apr 06 j 08:50	22° \mathbb{Y} 24'18	1.33249 AU
minimum elong	1487 Apr 25 j 22:24	13° \mathbb{Z} 52'29	0°02'50				
behind sun begin	1487 Apr 25 j 17:20	13° \mathbb{Z} 24'53		superior conj	1488 Apr 09 j 05:04	28° \mathbb{Y} 25'11	0°-24'-23
behind sun end	1487 Apr 26 j 03:28	14° \mathbb{Z} 20'06		minimum elong	1488 Apr 09 j 06:16	28° \mathbb{Y} 31'37	0°24'09
asc. node	1487 Apr 25 j 16:03	13° \mathbb{Z} 17'56			1488 Apr 09 j 22:47	0° \mathbb{Z}	
evening rise	1487 May 02 j 21:55	28° \mathbb{Z} 59'47		asc. node	1488 Apr 11 j 13:05	3° \mathbb{Z} 25'41	
	1487 May 03 j 09:19	0° \mathbb{H}		evening rise	1488 Apr 16 j 09:31	13° \mathbb{Z} 48'13	
	1487 May 20 j 08:02	0° \mathbb{Z}			1488 Apr 24 j 14:51	0° \mathbb{H}	
evening max el	1487 May 27 j 21:05	8° \mathbb{Z} 50'25	24°20'48	evening max el	1488 May 08 j 11:35	19° \mathbb{H} 20'45	22°44'59
desc. node	1487 Jun 03 j 07:14	13° \mathbb{Z} 44'35		desc. node	1488 May 20 j 04:14	25° \mathbb{H} 49'59	
retrograde	1487 Jun 10 j 17:55	15° \mathbb{Z} 50'13		retrograde	1488 May 21 j 17:13	25° \mathbb{H} 55'24	
evening set	1487 Jun 15 j 11:48	14° \mathbb{Z} 59'58		evening set	1488 May 25 j 00:10	25° \mathbb{H} 31'38	
min. Earth dist.	1487 Jun 21 j 08:04	12° \mathbb{Z} 04'24	0.56703 AU	min. Earth dist.	1488 Jun 01 j 19:54	22° \mathbb{H} 05'14	0.55389 AU
inferior conj	1487 Jun 24 j 00:09	10° \mathbb{Z} 23'17	-4°-40'-55	inferior conj	1488 Jun 03 j 05:07	21° \mathbb{H} 17'38	-3°-41'-32
minimum elong	1487 Jun 23 j 19:51	10° \mathbb{Z} 30'08	4°40'27	minimum elong	1488 Jun 02 j 21:25	21° \mathbb{H} 28'42	3°39'38
morning rise	1487 Jul 02 j 07:32	6° \mathbb{Z} 20'39		morning rise	1488 Jun 11 j 21:24	17° \mathbb{H} 25'38	
direct	1487 Jul 04 j 23:11	6° \mathbb{Z} 01'43		direct	1488 Jun 14 j 18:30	17° \mathbb{H} 06'25	
morning max el	1487 Jul 14 j 11:52	10° \mathbb{Z} 27'17	19°34'47	morning max el	1488 Jun 25 j 22:10	22° \mathbb{H} 16'44	20°50'38
asc. node	1487 Jul 22 j 15:18	20° \mathbb{Z} 59'40			1488 Jul 02 j 11:06	0° \mathbb{Z}	
	1487 Jul 27 j 17:10	0° \mathbb{Q}		asc. node	1488 Jul 08 j 12:19	9° \mathbb{Z} 51'19	
morning set	1487 Jul 31 j 22:26	8° \mathbb{Q} 16'41		morning set	1488 Jul 15 j 05:21	22° \mathbb{Z} 58'09	
					1488 Jul 18 j 14:43	0° \mathbb{Q}	
superior conj	1487 Aug 08 j 23:11	24° \mathbb{Q} 23'46	1°45'54				
minimum elong	1487 Aug 08 j 23:38	24° \mathbb{Q} 26'02	1°45'53	superior conj	1488 Jul 22 j 18:09	8° \mathbb{Q} 35'04	1°44'01
	1487 Aug 11 j 20:17	0° \mathbb{H}		minimum elong	1488 Jul 22 j 17:06	8° \mathbb{Q} 29'37	1°43'58
max. Earth dist.	1487 Aug 15 j 00:07	5° \mathbb{H} 58'13	1.37602 AU	max. Earth dist.	1488 Jul 27 j 08:21	17° \mathbb{Q} 48'47	1.35778 AU
evening rise	1487 Aug 18 j 19:46	12° \mathbb{H} 54'53		evening rise	1488 Jul 31 j 12:12	25° \mathbb{Q} 47'22	
	1487 Aug 28 j 23:51	0° $\underline{\Omega}$			1488 Aug 02 j 19:02	0° \mathbb{H}	
desc. node	1487 Aug 30 j 06:34	2° $\underline{\Omega}$ 00'50		desc. node	1488 Aug 16 j 03:35	22° \mathbb{H} 14'30	
	1487 Sep 19 j 17:34	0° \mathbb{M}			1488 Aug 21 j 10:53	0° $\underline{\Omega}$	
evening max el	1487 Sep 23 j 13:39	4° \mathbb{M} 03'35	25°17'24	evening max el	1488 Sep 05 j 01:32	17° $\underline{\Omega}$ 41'56	26°21'38
retrograde	1487 Oct 05 j 12:53	10° \mathbb{M} 57'52		retrograde	1488 Sep 17 j 19:36	24° $\underline{\Omega}$ 53'19	
evening set	1487 Oct 11 j 08:30	8° \mathbb{M} 32'11		evening set	1488 Sep 24 j 05:12	22° $\underline{\Omega}$ 15'12	
min. Earth dist.	1487 Oct 15 j 20:08	3° \mathbb{M} 32'46	0.67159 AU	min. Earth dist.	1488 Sep 28 j 09:11	17° $\underline{\Omega}$ 52'26	0.66335 AU
inferior conj	1487 Oct 16 j 21:52	2° \mathbb{M} 09'13	0°-35'-2	inferior conj	1488 Sep 29 j 22:24	15° $\underline{\Omega}$ 58'43	-1°-32'-30
minimum elong	1487 Oct 16 j 22:45	2° \mathbb{M} 06'20	0°34'39	minimum elong	1488 Sep 30 j 00:50	15° $\underline{\Omega}$ 51'17	1°31'31
asc. node	1487 Oct 18 j 14:31	0° \mathbb{M} 00'08		asc. node	1488 Oct 04 j 11:32	11° $\underline{\Omega}$ 07'19	

morning rise	1488 Oct 05 j 21:37	10°♂09'04		inferior conj	1489 Sep 13 j 16:43	29°♂41'36	-2°-30'-9
direct	1488 Oct 08 j 21:04	9°♂18'45		minimum elong	1489 Sep 13 j 20:39	29°♂30'31	2°28'44
morning max el	1488 Oct 15 j 15:02	13°♂02'39	18°42'14	morning rise	1489 Sep 20 j 00:50	24°♂05'23	
	1488 Oct 27 j 22:49	0°♂		asc. node	1489 Sep 21 j 08:35	23°♂36'54	
morning set	1488 Nov 05 j 12:26	13°♂32'18		direct	1489 Sep 22 j 16:54	23°♂27'05	
desc. node	1488 Nov 12 j 02:53	23°♂59'06		morning max el	1489 Sep 29 j 05:26	26°♂57'53	18°09'01
	1488 Nov 15 j 22:35	0°♂			1489 Oct 01 j 21:16	0°♂	
superior conj	1488 Nov 21 j 17:32	9°♂05'43	-1°-1'-7	morning set	1489 Oct 17 j 11:33	24°♂20'50	
minimum elong	1488 Nov 21 j 10:02	8°♂36'19	1°00'14		1489 Oct 20 j 21:51	0°♂	
max. Earth dist.	1488 Nov 21 j 09:36	8°♂34'34	1.45084 AU	desc. node	1489 Oct 29 j 23:57	14°♂42'59	
	1488 Dec 04 j 22:49	0°♂		superior conj	1489 Oct 31 j 21:47	17°♂45'29	0°-12'-44
evening rise	1488 Dec 07 j 11:35	4°♂02'56		minimum elong	1489 Oct 31 j 20:10	17°♂39'02	0°12'32
	1488 Dec 24 j 03:39	0°♂		behind sun begin	1489 Oct 31 j 13:11	17°♂11'20	
evening max el	1488 Dec 28 j 23:12	5°♂54'15	18°52'48	behind sun end	1489 Nov 01 j 03:08	18°♂06'44	
asc. node	1488 Dec 31 j 10:50	8°♂05'46		max. Earth dist.	1489 Nov 04 j 04:23	22°♂56'19	1.44951 AU
retrograde	1489 Jan 04 j 18:13	9°♂44'06			1489 Nov 08 j 16:24	0°♂	
evening set	1489 Jan 07 j 22:29	8°♂45'59		evening rise	1489 Nov 17 j 09:30	13°♂33'39	
inferior conj	1489 Jan 13 j 16:03	3°♂00'40	3°27'35		1489 Nov 28 j 01:26	0°♂	
minimum elong	1489 Jan 13 j 13:57	3°♂07'12	3°27'15	greatest brilliancy	1489 Dec 04 j 10:27	9°♂27'36	-0.6m
min. Earth dist.	1489 Jan 15 j 08:22	0°♂55'48	0.65466 AU	evening max el	1489 Dec 12 j 06:09	19°♂23'26	19°40'50
	1489 Jan 16 j 02:58	30°♂		asc. node	1489 Dec 18 j 07:52	23°♂31'01	
morning rise	1489 Jan 19 j 04:21	26°♂48'56		retrograde	1489 Dec 19 j 15:20	23°♂40'33	
direct	1489 Jan 25 j 18:02	23°♂58'38		evening set	1489 Dec 23 j 02:59	22°♂29'27	
	1489 Feb 06 j 02:45	0°♂		inferior conj	1489 Dec 28 j 16:02	16°♂29'23	3°00'11
morning max el	1489 Feb 07 j 20:11	1°♂40'03	26°47'36	minimum elong	1489 Dec 28 j 13:24	16°♂38'03	2°59'31
desc. node	1489 Feb 08 j 02:05	1°♂54'57		min. Earth dist.	1489 Dec 29 j 18:01	15°♂03'50	0.66608 AU
	1489 Mar 01 j 01:59	0°♂		morning rise	1490 Jan 02 j 23:07	10°♂14'54	
morning set	1489 Mar 15 j 16:15	25°♂27'47		direct	1490 Jan 09 j 00:35	7°♂33'55	
	1489 Mar 18 j 00:35	0°♂		morning max el	1490 Jan 21 j 05:17	14°♂49'21	25°36'59
max. Earth dist.	1489 Mar 20 j 01:21	4°♂01'32	1.34410 AU	desc. node	1490 Jan 25 j 23:09	20°♂03'27	
					1490 Feb 02 j 16:06	0°♂	
superior conj	1489 Mar 24 j 06:00	12°♂35'25	0°-52'-4		1490 Feb 21 j 21:48	0°♂	
minimum elong	1489 Mar 24 j 08:36	12°♂48'55	0°51'35	morning set	1490 Feb 26 j 10:32	8°♂03'38	
asc. node	1489 Mar 29 j 10:08	23°♂26'40		max. Earth dist.	1490 Mar 02 j 05:56	15°♂08'59	1.36031 AU
evening rise	1489 Mar 31 j 19:11	28°♂25'11					
	1489 Apr 01 j 13:30	0°♂		superior conj	1490 Mar 07 j 22:45	26°♂16'54	-1°-18'-37
	1489 Apr 20 j 06:40	0°♂		minimum elong	1490 Mar 08 j 02:31	26°♂35'43	1°18'03
evening max el	1489 Apr 20 j 08:59	0°♂05'39	21°14'26		1490 Mar 09 j 19:03	0°♂	
retrograde	1489 May 02 j 07:27	5°♂54'52		evening rise	1490 Mar 16 j 00:54	12°♂44'48	
evening set	1489 May 04 j 14:52	5°♂42'33		asc. node	1490 Mar 16 j 07:11	13°♂16'45	
desc. node	1489 May 07 j 01:16	5°♂04'50			1490 Mar 25 j 03:59	0°♂	
inferior conj	1489 May 13 j 23:29	1°♂43'36	-1°-58'-58	evening max el	1490 Apr 02 j 17:42	11°♂25'58	19°58'38
minimum elong	1489 May 13 j 17:58	1°♂51'22	1°57'05	retrograde	1490 Apr 12 j 22:41	16°♂21'17	
min. Earth dist.	1489 May 14 j 08:21	1°♂31'07	0.54920 AU	evening set	1490 Apr 14 j 23:42	16°♂10'20	
	1489 May 17 j 02:59	30°♂		inferior conj	1490 Apr 23 j 21:22	12°♂10'32	0°00'40
morning rise	1489 May 22 j 21:05	27°♂43'50		minimum elong	1490 Apr 23 j 21:24	12°♂10'29	0°00'40
direct	1489 May 26 j 04:23	27°♂20'10		transit middle	1490 Apr 23 j 21:24	12°♂10'29	0°00'40
	1489 Jun 03 j 13:54	0°♂		transit begin	1490 Apr 23 j 17:25	12°♂16'31	
morning max el	1489 Jun 07 j 21:38	3°♂23'05	22°23'40	transit end	1490 Apr 24 j 01:23	12°♂04'27	
asc. node	1489 Jun 25 j 09:22	29°♂11'30		desc. node	1490 Apr 23 j 22:18	12°♂09'08	
	1489 Jun 25 j 19:16	0°♂		min. Earth dist.	1490 Apr 25 j 22:04	10°♂56'56	0.55425 AU
morning set	1489 Jun 29 j 15:35	7°♂49'46		morning rise	1490 May 02 j 16:11	7°♂45'00	
				direct	1490 May 06 j 18:51	7°♂07'50	
superior conj	1489 Jul 06 j 20:54	23°♂09'32	1°35'35	morning max el	1490 May 20 j 13:39	13°♂57'37	24°05'19
minimum elong	1489 Jul 06 j 18:53	22°♂58'51	1°35'25		1490 Jun 02 j 00:53	0°♂	
max. Earth dist.	1489 Jul 10 j 01:09	29°♂48'07	1.34302 AU	asc. node	1490 Jun 12 j 06:27	18°♂52'37	
	1489 Jul 10 j 03:27	0°♂		morning set	1490 Jun 14 j 03:21	22°♂46'12	
evening rise	1489 Jul 14 j 19:58	9°♂24'48			1490 Jun 17 j 12:27	0°♂	
	1489 Jul 26 j 06:18	0°♂		superior conj	1490 Jun 21 j 04:44	7°♂58'34	1°21'52
desc. node	1489 Aug 03 j 00:37	12°♂04'28		minimum elong	1490 Jun 21 j 02:19	7°♂45'30	1°21'33
	1489 Aug 17 j 08:16	0°♂		max. Earth dist.	1490 Jun 23 j 03:12	12°♂08'40	1.33224 AU
evening max el	1489 Aug 18 j 13:38	1°♂12'15	27°06'45	evening rise	1490 Jun 28 j 14:55	23°♂35'09	
retrograde	1489 Aug 31 j 20:58	8°♂30'37			1490 Jul 01 j 20:56	0°♂	
evening set	1489 Sep 07 j 18:08	5°♂47'13			1490 Jul 19 j 22:11	0°♂	
min. Earth dist.	1489 Sep 11 j 15:10	2°♂01'12	0.65155 AU	desc. node	1490 Jul 20 j 21:37	1°♂20'52	
	1489 Sep 13 j 10:13	30°♂					

evening max el	1490 Aug 01 j 00:41	14° \mathring{M} 23'19	27°25'40	evening max el	1491 Jul 14 j 08:10	27° \mathring{O} 01'33	27°13'09
retrograde	1490 Aug 14 j 16:12	21° \mathring{M} 41'21			1491 Jul 17 j 19:14	0° \mathring{M}	
evening set	1490 Aug 21 j 20:18	19° \mathring{M} 02'59		retrograde	1491 Jul 28 j 04:32	4° \mathring{M} 16'42	
min. Earth dist.	1490 Aug 25 j 12:01	15° \mathring{M} 50'51	0.63624 AU	evening set	1491 Aug 04 j 07:51	1° \mathring{M} 55'59	
inferior conj	1490 Aug 28 j 02:15	13° \mathring{M} 12'25	-3°-25'-7		1491 Aug 06 j 22:31	30° \mathring{R} \mathring{O}	
minimum elong	1490 Aug 28 j 07:16	12° \mathring{M} 59'37	3°23'38	min. Earth dist.	1491 Aug 07 j 22:19	29° \mathring{O} 09'38	0.61779 AU
morning rise	1490 Sep 03 j 20:27	7° \mathring{M} 52'58		inferior conj	1491 Aug 10 j 23:55	26° \mathring{O} 23'44	-4°-12'-55
direct	1490 Sep 06 j 07:48	7° \mathring{M} 23'06		minimum elong	1491 Aug 11 j 04:58	26° \mathring{O} 12'20	4°11'52
asc. node	1490 Sep 08 j 05:40	7° \mathring{M} 41'15		morning rise	1491 Aug 18 j 04:51	21° \mathring{O} 24'39	
morning max el	1490 Sep 12 j 21:30	10° \mathring{M} 48'48	17°53'10	direct	1491 Aug 20 j 14:16	21° \mathring{O} 00'15	
	1490 Sep 25 j 19:52	0° \mathring{O}		asc. node	1491 Aug 26 j 02:44	23° \mathring{O} 14'16	
morning set	1490 Sep 29 j 12:42	6° \mathring{O} 24'38		morning max el	1491 Aug 27 j 12:22	24° \mathring{O} 29'01	17°55'43
					1491 Sep 01 j 00:24	0° \mathring{M}	
superior conj	1490 Oct 11 j 21:51	27° \mathring{O} 25'25	0°33'05	morning set	1491 Sep 12 j 09:41	19° \mathring{M} 25'39	
minimum elong	1490 Oct 12 j 01:13	27° \mathring{O} 39'18	0°32'38		1491 Sep 18 j 06:03	0° \mathring{O}	
	1490 Oct 13 j 11:33	0° \mathring{M}					
desc. node	1490 Oct 16 j 20:57	5° \mathring{M} 29'45		superior conj	1491 Sep 23 j 01:13	8° \mathring{O} 26'26	1°08'27
max. Earth dist.	1490 Oct 17 j 21:44	7° \mathring{M} 09'01	1.44111 AU	minimum elong	1491 Sep 23 j 05:53	8° \mathring{O} 46'37	1°07'54
evening rise	1490 Oct 27 j 18:16	22° \mathring{M} 36'11		max. Earth dist.	1491 Sep 30 j 11:14	20° \mathring{O} 56'51	1.42664 AU
	1490 Nov 01 j 14:20	0° \mathring{O}		desc. node	1491 Oct 03 j 17:58	26° \mathring{O} 16'40	
greatest brilliancy	1490 Nov 19 j 14:12	26° \mathring{O} 04'43	-0.5m		1491 Oct 06 j 01:56	0° \mathring{M}	
	1490 Nov 22 j 17:24	0° \mathring{O}		evening rise	1491 Oct 07 j 06:35	1° \mathring{M} 53'05	
evening max el	1490 Nov 25 j 07:53	2° \mathring{O} 53'24	20°43'08		1491 Oct 26 j 02:57	0° \mathring{O}	
retrograde	1490 Dec 03 j 13:06	7° \mathring{O} 44'50		greatest brilliancy	1491 Nov 03 j 09:50	11° \mathring{O} 00'41	-0.4m
asc. node	1490 Dec 05 j 04:56	7° \mathring{O} 29'23		evening max el	1491 Nov 08 j 03:57	16° \mathring{O} 24'16	21°56'12
evening set	1490 Dec 07 j 10:03	6° \mathring{O} 18'53		retrograde	1491 Nov 17 j 09:45	21° \mathring{O} 54'10	
inferior conj	1490 Dec 12 j 20:30	0° \mathring{O} 07'04	2°23'41	evening set	1491 Nov 21 j 17:52	20° \mathring{O} 11'48	
minimum elong	1490 Dec 12 j 17:55	0° \mathring{O} 15'54	2°22'51	asc. node	1491 Nov 22 j 01:59	19° \mathring{O} 55'01	
	1490 Dec 12 j 22:35	30° \mathring{R} \mathring{O}		inferior conj	1491 Nov 27 j 03:22	13° \mathring{O} 51'32	1°40'04
min. Earth dist.	1490 Dec 13 j 09:39	29° \mathring{O} 22'09	0.67356 AU	minimum elong	1491 Nov 27 j 01:17	13° \mathring{O} 58'43	1°39'17
morning rise	1490 Dec 18 j 01:21	23° \mathring{O} 51'52		min. Earth dist.	1491 Nov 27 j 05:00	13° \mathring{O} 45'52	0.67735 AU
direct	1490 Dec 23 j 12:08	21° \mathring{O} 28'46		morning rise	1491 Dec 02 j 08:30	7° \mathring{O} 37'32	
morning max el	1491 Jan 03 j 13:33	28° \mathring{O} 04'27	24°12'31	direct	1491 Dec 07 j 04:01	5° \mathring{O} 36'39	
	1491 Jan 05 j 09:31	0° \mathring{O}		morning max el	1491 Dec 16 j 23:38	11° \mathring{O} 25'22	22°44'10
desc. node	1491 Jan 12 j 20:12	9° \mathring{O} 02'00		greatest brilliancy	1491 Dec 21 j 14:27	16° \mathring{O} 34'38	-0.3m
	1491 Jan 27 j 09:37	0° \mathring{O}		desc. node	1491 Dec 30 j 17:14	28° \mathring{O} 36'22	
morning set	1491 Feb 08 j 07:55	19° \mathring{O} 33'57			1491 Dec 31 j 16:55	0° \mathring{O}	
max. Earth dist.	1491 Feb 12 j 02:21	26° \mathring{O} 13'00	1.38024 AU	morning set	1492 Jan 20 j 02:20	29° \mathring{O} 43'56	
	1491 Feb 14 j 04:23	0° \mathring{O}			1492 Jan 20 j 06:14	0° \mathring{O}	
				max. Earth dist.	1492 Jan 24 j 22:17	7° \mathring{O} 50'05	1.40171 AU
superior conj	1491 Feb 19 j 03:50	9° \mathring{O} 19'42	-1°-41'-48				
minimum elong	1491 Feb 19 j 08:00	9° \mathring{O} 39'41	1°41'22	superior conj	1492 Feb 01 j 16:48	21° \mathring{O} 32'37	-1°-58'-24
evening rise	1491 Feb 28 j 00:08	26° \mathring{O} 39'34		minimum elong	1492 Feb 01 j 19:51	21° \mathring{O} 46'28	1°58'16
	1491 Mar 01 j 17:00	0° \mathring{O}			1492 Feb 06 j 06:38	0° \mathring{O}	
asc. node	1491 Mar 03 j 04:14	2° \mathring{O} 50'30		evening rise	1492 Feb 11 j 13:56	10° \mathring{O} 02'08	
evening max el	1491 Mar 16 j 13:31	23° \mathring{O} 25'01	19°01'51	asc. node	1492 Feb 18 j 01:17	22° \mathring{O} 02'09	
retrograde	1491 Mar 25 j 03:47	27° \mathring{O} 34'44			1492 Feb 22 j 22:11	0° \mathring{O}	
evening set	1491 Mar 27 j 08:00	27° \mathring{O} 19'51		evening max el	1492 Feb 27 j 18:00	5° \mathring{O} 57'26	18°25'14
inferior conj	1491 Apr 04 j 11:17	23° \mathring{O} 05'22	1°44'19	retrograde	1492 Mar 06 j 04:05	9° \mathring{O} 37'13	
minimum elong	1491 Apr 04 j 14:56	22° \mathring{O} 59'00	1°43'10	evening set	1492 Mar 08 j 13:35	9° \mathring{O} 15'24	
min. Earth dist.	1491 Apr 07 j 13:34	20° \mathring{O} 56'50	0.56785 AU	inferior conj	1492 Mar 15 j 22:24	4° \mathring{O} 40'36	2°55'02
desc. node	1491 Apr 10 j 19:21	18° \mathring{O} 59'35		minimum elong	1492 Mar 16 j 02:13	4° \mathring{O} 32'47	2°54'11
morning rise	1491 Apr 12 j 17:41	18° \mathring{O} 06'04		min. Earth dist.	1492 Mar 19 j 08:55	1° \mathring{O} 53'30	0.58705 AU
direct	1491 Apr 17 j 21:40	17° \mathring{O} 03'09			1492 Mar 22 j 01:12	30° \mathring{R} \mathring{O}	
morning max el	1491 May 02 j 04:11	24° \mathring{O} 25'18	25°41'51	morning rise	1492 Mar 23 j 10:52	29° \mathring{O} 11'22	
	1491 May 07 j 06:45	0° \mathring{O}		desc. node	1492 Mar 27 j 16:24	27° \mathring{O} 42'31	
	1491 May 25 j 20:55	0° \mathring{O}		direct	1492 Mar 29 j 13:59	27° \mathring{O} 33'03	
morning set	1491 May 29 j 15:00	7° \mathring{O} 42'01			1492 Apr 06 j 09:00	0° \mathring{O}	
asc. node	1491 May 30 j 03:31	8° \mathring{O} 48'12		morning max el	1492 Apr 12 j 22:52	5° \mathring{O} 14'48	26°57'38
					1492 May 01 j 04:35	0° \mathring{O}	
superior conj	1491 Jun 05 j 15:27	22° \mathring{O} 54'57	1°03'50	morning set	1492 May 13 j 00:52	22° \mathring{O} 31'22	
minimum elong	1491 Jun 05 j 13:09	22° \mathring{O} 42'21	1°03'27	asc. node	1492 May 16 j 00:33	28° \mathring{O} 52'52	
max. Earth dist.	1491 Jun 06 j 12:09	24° \mathring{O} 48'19	1.32536 AU		1492 May 16 j 12:57	0° \mathring{O}	
	1491 Jun 08 j 21:30	0° \mathring{O}					
evening rise	1491 Jun 12 j 17:41	8° \mathring{O} 07'55		superior conj	1492 May 20 j 03:12	7° \mathring{O} 52'16	0°42'17
	1491 Jun 24 j 07:18	0° \mathring{O}		minimum elong	1492 May 20 j 01:28	7° \mathring{O} 42'41	0°41'55
desc. node	1491 Jul 07 j 18:38	19° \mathring{O} 49'52		max. Earth dist.	1492 May 20 j 00:22	7° \mathring{O} 36'41	1.32233 AU

evening rise	1492 May 27 j 01:33	22°II54'09		evening rise	1493 May 07 j 21:46	0°II	
	1492 May 30 j 12:30	0°☿			1493 May 11 j 12:23	7°II46'49	
	1492 Jun 17 j 13:19	0°♂			1493 May 23 j 02:32	0°☿	
desc. node	1492 Jun 23 j 15:40	7°♂11'09		evening max el	1493 Jun 07 j 03:21	20°☿02'16	25°12'44
evening max el	1492 Jun 25 j 09:18	8°♂54'46	26°27'25	desc. node	1493 Jun 10 j 12:40	22°☿57'14	
retrograde	1492 Jul 09 j 08:54	16°♂07'29		retrograde	1493 Jun 21 j 03:36	27°☿10'01	
evening set	1492 Jul 16 j 00:00	14°♂17'21		evening set	1493 Jun 26 j 16:54	25°☿58'40	
min. Earth dist.	1492 Jul 19 j 22:26	11°♂41'44	0.59733 AU	min. Earth dist.	1493 Jul 01 j 15:07	23°☿14'50	0.57719 AU
inferior conj	1492 Jul 23 j 06:05	9°♂05'14	-4°-46'-14	inferior conj	1493 Jul 04 j 17:26	21°☿08'02	-4°-53'-47
minimum elong	1492 Jul 23 j 09:12	8°♂59'05	4°45'56	minimum elong	1493 Jul 04 j 16:12	21°☿10'10	4°53'45
morning rise	1492 Jul 30 j 21:46	4°♂29'09		morning rise	1493 Jul 12 j 19:18	16°☿54'33	
direct	1492 Aug 02 j 07:51	4°♂08'06		direct	1493 Jul 15 j 08:15	16°☿35'18	
morning max el	1492 Aug 09 j 22:50	7°♂49'29	18°17'49	morning max el	1493 Jul 24 j 01:49	20°☿41'14	19°00'34
asc. node	1492 Aug 11 j 23:47	10°♂00'47		asc. node	1493 Jul 29 j 20:48	27°☿45'59	
	1492 Aug 24 j 05:22	0°♂			1493 Jul 31 j 07:37	0°♂	
morning set	1492 Aug 25 j 20:52	3°♂07'03		morning set	1493 Aug 09 j 18:02	17°♂17'46	
					1493 Aug 16 j 04:40	0°♂	
superior conj	1492 Sep 04 j 05:13	20°♂40'01	1°31'31	superior conj	1493 Aug 18 j 04:16	3°♂50'15	1°43'22
minimum elong	1492 Sep 04 j 08:42	20°♂55'58	1°31'13	minimum elong	1493 Aug 18 j 05:49	3°♂57'40	1°43'18
	1492 Sep 09 j 10:40	0°♂		max. Earth dist.	1493 Aug 24 j 22:22	16°♂24'22	1.38750 AU
max. Earth dist.	1492 Sep 11 j 18:56	4°♂02'54	1.40793 AU	evening rise	1493 Aug 28 j 20:01	23°♂16'51	
evening rise	1492 Sep 16 j 13:11	12°♂01'03			1493 Sep 01 j 19:23	0°♂	
desc. node	1492 Sep 19 j 14:59	16°♂59'50		desc. node	1493 Sep 06 j 11:59	7°♂35'18	
	1492 Sep 28 j 00:42	0°♂			1493 Sep 21 j 20:51	0°♂	
	1492 Oct 20 j 20:29	0°♂		evening max el	1493 Oct 03 j 07:34	13°♂32'36	24°34'42
evening max el	1492 Oct 20 j 19:07	29°♂56'35	23°15'25	retrograde	1493 Oct 14 j 18:01	20°♂13'17	
retrograde	1492 Oct 31 j 03:46	6°♂04'54		evening set	1493 Oct 20 j 05:07	17°♂56'42	
evening set	1492 Nov 05 j 00:46	4°♂05'12		min. Earth dist.	1493 Oct 24 j 21:22	12°♂36'40	0.67471 AU
asc. node	1492 Nov 07 j 23:01	0°♂59'31		inferior conj	1493 Oct 25 j 16:51	11°♂31'38	0°-2'-44
	1492 Nov 08 j 17:33	30°♂		minimum elong	1493 Oct 25 j 16:55	11°♂31'25	0°02'42
inferior conj	1492 Nov 10 j 10:43	27°♂40'24	0°50'49	transit middle	1493 Oct 25 j 16:55	11°♂31'25	0°02'42
minimum elong	1492 Nov 10 j 09:33	27°♂44'25	0°50'21	transit begin	1493 Oct 25 j 14:13	11°♂40'28	
min. Earth dist.	1492 Nov 10 j 01:42	28°♂11'25	0.67768 AU	transit end	1493 Oct 25 j 19:38	11°♂22'23	
morning rise	1492 Nov 15 j 18:25	21°♂29'41		asc. node	1493 Oct 25 j 20:02	11°♂21'00	
direct	1492 Nov 19 j 23:18	19°♂51'39		morning rise	1493 Oct 31 j 05:07	5°♂26'41	
morning max el	1492 Nov 28 j 14:51	24°♂54'34	21°20'31	direct	1493 Nov 03 j 20:59	4°♂09'42	
	1492 Dec 03 j 02:57	0°♂		morning max el	1493 Nov 11 j 13:29	8°♂34'03	20°07'34
greatest brilliancy	1492 Dec 03 j 19:01	0°♂49'55	-0.4m	greatest brilliancy	1493 Nov 18 j 12:07	16°♂58'12	-0.6m
desc. node	1492 Dec 16 j 14:15	18°♂36'19			1493 Nov 27 j 13:37	0°♂	
	1492 Dec 24 j 03:59	0°♂		desc. node	1493 Dec 03 j 11:16	8°♂54'42	
morning set	1492 Dec 29 j 16:03	8°♂33'23		morning set	1493 Dec 08 j 12:38	16°♂40'31	
max. Earth dist.	1493 Jan 05 j 23:32	20°♂19'12	1.42184 AU		1493 Dec 17 j 01:01	0°♂	
	1493 Jan 11 j 18:21	0°♂		max. Earth dist.	1493 Dec 19 j 08:16	3°♂40'03	1.43804 AU
superior conj	1493 Jan 13 j 08:24	2°♂43'01	-2°-4'-11	superior conj	1493 Dec 24 j 22:08	12°♂41'42	-1°-54'-12
minimum elong	1493 Jan 13 j 07:58	2°♂41'07	2°04'13	minimum elong	1493 Dec 24 j 16:24	12°♂18'13	1°53'53
evening rise	1493 Jan 24 j 14:34	22°♂43'54			1494 Jan 04 j 05:38	0°♂	
	1493 Jan 28 j 15:03	0°♂		evening rise	1494 Jan 06 j 21:44	4°♂35'53	
asc. node	1493 Feb 03 j 22:18	10°♂44'25		asc. node	1494 Jan 21 j 19:20	28°♂47'37	
evening max el	1493 Feb 10 j 03:59	18°♂54'49	18°08'38		1494 Jan 22 j 18:19	0°♂	
retrograde	1493 Feb 16 j 21:31	22°♂20'31		evening max el	1494 Jan 24 j 16:24	2°♂08'11	18°11'21
evening set	1493 Feb 19 j 12:04	21°♂50'00		retrograde	1494 Jan 31 j 03:38	5°♂33'45	
inferior conj	1493 Feb 26 j 05:31	16°♂54'01	3°33'04	evening set	1494 Feb 02 j 23:06	4°♂53'18	
minimum elong	1493 Feb 26 j 07:36	16°♂49'06	3°32'51		1494 Feb 08 j 20:08	30°♂	
min. Earth dist.	1493 Mar 01 j 10:54	13°♂52'22	0.60834 AU	inferior conj	1494 Feb 09 j 04:49	29°♂36'49	3°45'12
morning rise	1493 Mar 05 j 00:04	11°♂04'30		minimum elong	1494 Feb 09 j 04:51	29°♂36'43	3°45'12
direct	1493 Mar 11 j 18:07	8°♂50'35		min. Earth dist.	1494 Feb 11 j 21:27	26°♂44'38	0.62879 AU
desc. node	1493 Mar 14 j 13:26	9°♂12'17		morning rise	1494 Feb 15 j 08:33	23°♂35'15	
morning max el	1493 Mar 25 j 23:50	16°♂43'05	27°40'55	direct	1494 Feb 22 j 07:31	20°♂55'45	
	1493 Apr 05 j 22:55	0°♂		desc. node	1494 Mar 01 j 10:28	23°♂16'06	
	1493 Apr 23 j 17:57	0°♂		morning max el	1494 Mar 08 j 06:02	28°♂50'59	27°47'03
morning set	1493 Apr 27 j 07:08	7°♂08'15			1494 Mar 09 j 09:04	0°♂	
asc. node	1493 May 02 j 21:34	19°♂02'24			1494 Mar 30 j 19:11	0°♂	
max. Earth dist.	1493 May 03 j 12:01	20°♂21'03	1.32310 AU	morning set	1494 Apr 11 j 07:35	21°♂24'07	
superior conj	1493 May 04 j 14:21	22°♂45'01	0°17'54		1494 Apr 15 j 11:36	0°♂	
minimum elong	1493 May 04 j 13:32	22°♂40'35	0°17'43	max. Earth dist.	1494 Apr 16 j 19:06	2°♂47'02	1.32785 AU

superior conj	1494 Apr 18 j 23:05	7°♄26'13	0°-8'-34	morning set	1495 Mar 25 j 23:27	5°♃10'18	
minimum elong	1494 Apr 18 j 23:30	7°♄28'27	0°08'30	max. Earth dist.	1495 Mar 30 j 17:53	14°♃43'48	1.33694 AU
behind sun begin	1494 Apr 18 j 19:03	7°♄04'26					
behind sun end	1494 Apr 19 j 03:57	7°♄52'29		superior conj	1495 Apr 03 j 03:33	21°♃49'51	0°-36'-9
asc. node	1494 Apr 19 j 18:36	9°♄11'45		minimum elong	1495 Apr 03 j 05:21	21°♃59'22	0°35'48
evening rise	1494 Apr 26 j 00:12	22°♄38'17		asc. node	1495 Apr 06 j 15:39	29°♃17'04	
	1494 Apr 29 j 13:42	0°♄			1495 Apr 06 j 23:42	0°♄	
	1494 May 19 j 01:51	0°♄		evening rise	1495 Apr 10 j 11:13	7°♄22'34	
evening max el	1494 May 19 j 17:25	0°♄38'22	23°40'17		1495 Apr 22 j 14:14	0°♄	
desc. node	1494 May 28 j 09:42	6°♄32'44		evening max el	1495 May 01 j 10:11	11°♄11'30	22°05'02
retrograde	1494 Jun 02 j 10:01	7°♄29'48		retrograde	1495 May 14 j 04:02	17°♄28'01	
evening set	1494 Jun 06 j 12:12	6°♄53'01		desc. node	1495 May 15 j 06:44	17°♄25'13	
min. Earth dist.	1494 Jun 13 j 03:58	3°♄45'34	0.56056 AU	evening set	1495 May 16 j 23:03	17°♄10'43	
inferior conj	1494 Jun 15 j 08:39	2°♄26'14	-4°-21'-43	min. Earth dist.	1495 May 25 j 15:46	13°♄27'23	0.55082 AU
minimum elong	1494 Jun 15 j 02:23	2°♄35'44	4°20'38	inferior conj	1495 May 26 j 07:36	13°♄05'09	-3°-2'-13
	1494 Jun 19 j 16:51	30°♄		minimum elong	1495 May 26 j 00:06	13°♄15'41	2°59'59
morning rise	1494 Jun 23 j 19:57	28°♄29'29		morning rise	1495 Jun 04 j 02:50	9°♄12'14	
direct	1494 Jun 26 j 13:31	28°♄10'42		direct	1495 Jun 07 j 03:41	8°♄51'40	
	1494 Jul 02 j 22:01	0°♄		morning max el	1495 Jun 18 j 23:50	14°♄23'56	21°28'28
morning max el	1494 Jul 06 j 18:33	2°♄54'29	20°04'36		1495 Jun 30 j 15:36	0°♄	
asc. node	1494 Jul 16 j 17:50	16°♄16'16		asc. node	1495 Jul 03 j 14:53	5°♄20'52	
	1494 Jul 24 j 00:26	0°♄		morning set	1495 Jul 09 j 06:38	16°♄35'35	
morning set	1494 Jul 24 j 22:05	1°♄49'28			1495 Jul 15 j 16:02	0°♄	
superior conj	1494 Aug 01 j 17:09	17°♄42'11	1°45'59	superior conj	1495 Jul 16 j 15:46	2°♄03'43	1°41'09
minimum elong	1494 Aug 01 j 16:54	17°♄40'55	1°45'59	minimum elong	1495 Jul 16 j 14:13	1°♄55'42	1°41'04
max. Earth dist.	1494 Aug 07 j 03:16	28°♄18'58	1.36790 AU	max. Earth dist.	1495 Jul 20 j 15:07	10°♄11'47	1.35106 AU
	1494 Aug 08 j 00:36	0°♄		evening rise	1495 Jul 25 j 00:55	18°♄49'41	
evening rise	1494 Aug 11 j 01:26	5°♄37'03			1495 Jul 31 j 03:24	0°♄	
desc. node	1494 Aug 24 j 09:00	27°♄58'25		desc. node	1495 Aug 11 j 06:02	18°♄02'44	
	1494 Aug 25 j 16:43	0°♄			1495 Aug 19 j 19:50	0°♄	
evening max el	1494 Sep 15 j 19:30	27°♄12'01	25°46'45	evening max el	1495 Aug 29 j 07:43	10°♄48'21	26°43'45
	1494 Sep 18 j 22:17	0°♄		retrograde	1495 Sep 11 j 07:52	18°♄02'58	
retrograde	1494 Sep 28 j 03:36	4°♄14'52		evening set	1495 Sep 17 j 22:52	15°♄21'46	
evening set	1494 Oct 04 j 05:11	1°♄43'34		min. Earth dist.	1495 Sep 21 j 23:53	11°♄14'44	0.65874 AU
	1494 Oct 06 j 00:17	30°♄		inferior conj	1495 Sep 23 j 18:10	9°♄09'41	-1°-57'-5
min. Earth dist.	1494 Oct 08 j 13:36	26°♄59'19	0.66844 AU	minimum elong	1495 Sep 23 j 21:16	9°♄00'32	1°55'53
inferior conj	1494 Oct 09 j 20:00	25°♄22'49	0°-59'-14	morning rise	1495 Sep 29 j 20:59	3°♄25'16	
minimum elong	1494 Oct 09 j 21:32	25°♄17'57	0°58'36	asc. node	1495 Sep 29 j 14:07	3°♄34'41	
asc. node	1494 Oct 12 j 17:04	21°♄56'03		direct	1495 Oct 02 j 17:07	2°♄40'21	
morning rise	1494 Oct 15 j 14:42	19°♄26'30		morning max el	1495 Oct 09 j 07:46	6°♄17'20	18°26'06
direct	1494 Oct 18 j 19:34	18°♄27'23			1495 Oct 25 j 16:23	0°♄	
morning max el	1494 Oct 25 j 19:40	22°♄23'07	19°08'52	morning set	1495 Oct 28 j 23:14	5°♄17'59	
	1494 Nov 01 j 00:26	0°♄		desc. node	1495 Nov 07 j 05:19	20°♄06'29	
morning set	1494 Nov 17 j 16:59	25°♄19'17			1495 Nov 13 j 11:40	0°♄	
desc. node	1494 Nov 20 j 08:18	29°♄26'21		superior conj	1495 Nov 13 j 12:11	0°♄02'04	0°-41'-2
	1494 Nov 20 j 16:55	0°♄		minimum elong	1495 Nov 13 j 06:53	29°♄41'10	0°40'21
max. Earth dist.	1494 Dec 01 j 23:42	17°♄40'56	1.44822 AU	max. Earth dist.	1495 Nov 14 j 18:40	2°♄01'49	1.45119 AU
superior conj	1494 Dec 04 j 11:09	21°♄35'44	-1°-25'-21	evening rise	1495 Nov 29 j 17:35	25°♄31'20	
minimum elong	1494 Dec 04 j 02:25	21°♄01'12	1°24'28		1495 Dec 02 j 13:45	0°♄	
	1494 Dec 09 j 17:47	0°♄		greatest brilliancy	1495 Dec 12 j 11:11	15°♄25'52	-0.7m
evening rise	1494 Dec 19 j 07:24	15°♄32'14		evening max el	1495 Dec 22 j 13:54	28°♄58'46	19°11'17
	1494 Dec 28 j 03:13	0°♄			1495 Dec 23 j 15:00	0°♄	
evening max el	1495 Jan 08 j 04:32	15°♄31'23	18°32'35	asc. node	1495 Dec 26 j 13:25	2°♄09'22	
asc. node	1495 Jan 08 j 16:22	16°♄00'41		retrograde	1495 Dec 29 j 13:59	2°♄58'58	
retrograde	1495 Jan 14 j 18:19	19°♄08'58		evening set	1496 Jan 01 j 21:17	1°♄55'19	
evening set	1495 Jan 17 j 19:09	18°♄17'31			1496 Jan 04 j 04:25	30°♄	
inferior conj	1495 Jan 23 j 16:22	12°♄42'04	3°38'12	inferior conj	1496 Jan 07 j 12:38	26°♄03'13	3°17'12
minimum elong	1495 Jan 23 j 14:51	12°♄46'33	3°38'03	minimum elong	1496 Jan 07 j 10:14	26°♄10'53	3°16'43
min. Earth dist.	1495 Jan 25 j 17:29	10°♄17'04	0.64637 AU	min. Earth dist.	1496 Jan 08 j 22:35	24°♄15'02	0.66005 AU
morning rise	1495 Jan 29 j 09:14	6°♄33'22		morning rise	1496 Jan 12 j 22:21	19°♄50'14	
direct	1495 Feb 05 j 04:17	3°♄43'00		direct	1496 Jan 19 j 07:15	17°♄02'54	
desc. node	1495 Feb 16 j 07:31	9°♄19'49		morning max el	1496 Feb 01 j 00:56	24°♄34'13	26°19'57
morning max el	1495 Feb 18 j 15:13	11°♄31'52	27°17'53	desc. node	1496 Feb 03 j 04:33	26°♄49'58	
	1495 Mar 05 j 08:01	0°♄			1496 Feb 05 j 22:59	0°♄	
	1495 Mar 23 j 06:43	0°♄			1496 Feb 26 j 18:23	0°♄	

morning set	1496 Mar 08 j 03:01	18° Υ 15'47		desc. node	1497 Jan 20 j 01:36	15° \eth 21'36	
max. Earth dist.	1496 Mar 12 j 05:36	26° Υ 08'12	1.35054 AU		1497 Jan 30 j 19:08	0° \approx	
	1496 Mar 14 j 04:26	0° Υ			1497 Feb 18 j 07:23	0° Υ	
superior conj	1496 Mar 17 j 01:24	5° Υ 48'56	-1°-3'-35	morning set	1497 Feb 18 j 13:14	0° Υ 26'05	
minimum elong	1496 Mar 17 j 04:33	6° Υ 05'01	1°03'02	max. Earth dist.	1497 Feb 22 j 06:17	7° Υ 11'15	1.36841 AU
asc. node	1496 Mar 23 j 12:44	19° Υ 14'11		superior conj	1497 Feb 28 j 13:40	19° Υ 15'01	-1°-29'-1
evening rise	1496 Mar 24 j 19:31	21° Υ 53'22		minimum elong	1497 Feb 28 j 17:44	19° Υ 35'01	1°28'29
	1496 Mar 28 j 20:15	0° \eth			1497 Mar 05 j 22:45	0° Υ	
evening max el	1496 Apr 12 j 12:06	22° \eth 09'51	20°39'55	evening rise	1497 Mar 08 j 22:51	6° Υ 03'31	
retrograde	1496 Apr 23 j 17:11	27° \eth 36'21		asc. node	1497 Mar 10 j 09:47	8° Υ 58'03	
evening set	1496 Apr 25 j 20:18	27° \eth 25'21			1497 Mar 22 j 17:10	0° \eth	
desc. node	1496 May 01 j 03:46	25° \eth 35'29		evening max el	1497 Mar 26 j 01:40	3° \eth 46'45	19°32'00
inferior conj	1496 May 05 j 01:40	23° \eth 27'44	-1°-8'-8	retrograde	1497 Apr 04 j 13:34	8° \eth 21'34	
minimum elong	1496 May 04 j 22:26	23° \eth 32'22	1°06'58	evening set	1497 Apr 06 j 15:04	8° \eth 09'33	
min. Earth dist.	1496 May 06 j 04:24	22° \eth 49'21	0.55020 AU	inferior conj	1497 Apr 15 j 05:18	4° \eth 04'33	0°48'04
morning rise	1496 May 13 j 23:22	19° \eth 19'16		minimum elong	1497 Apr 15 j 07:18	4° \eth 01'20	0°47'22
direct	1496 May 17 j 13:47	18° \eth 51'22		min. Earth dist.	1497 Apr 17 j 18:54	2° \eth 26'14	0.55906 AU
morning max el	1496 May 30 j 19:34	25° \eth 14'50	23°06'39	desc. node	1497 Apr 18 j 00:48	2° \eth 17'05	
	1496 Jun 04 j 05:43	0° Π			1497 Apr 22 j 06:53	30° \eth Υ	
asc. node	1496 Jun 19 j 11:57	24° Π 51'13		morning rise	1497 Apr 23 j 19:50	29° Υ 24'32	
	1496 Jun 22 j 00:26	0° \eth		direct	1497 Apr 28 j 08:40	28° Υ 38'10	
morning set	1496 Jun 22 j 17:47	1° \eth 30'40			1497 May 04 j 08:45	0° \eth	
superior conj	1496 Jun 29 j 21:01	16° \eth 45'53	1°30'22	morning max el	1497 May 12 j 10:26	5° \eth 44'03	24°47'59
minimum elong	1496 Jun 29 j 18:45	16° \eth 33'50	1°30'07		1497 May 29 j 20:52	0° Π	
max. Earth dist.	1496 Jul 02 j 12:16	22° \eth 21'07	1.33793 AU	asc. node	1497 Jun 06 j 09:01	14° Π 39'19	
	1496 Jul 06 j 05:22	0° Ω		morning set	1497 Jun 07 j 05:43	16° Π 27'51	
evening rise	1496 Jul 07 j 13:57	2° Ω 42'47			1497 Jun 13 j 12:07	0° \eth	
	1496 Jul 22 j 23:42	0° \eth		superior conj	1497 Jun 14 j 06:20	1° \eth 39'16	1°14'44
desc. node	1496 Jul 28 j 03:04	7° \eth 40'17		minimum elong	1497 Jun 14 j 03:54	1° \eth 26'04	1°14'21
evening max el	1496 Aug 10 j 19:34	24° \eth 11'59	27°18'18	max. Earth dist.	1497 Jun 15 j 17:31	4° \eth 50'16	1.32880 AU
	1496 Aug 18 j 13:57	0° \eth		evening rise	1497 Jun 21 j 12:35	17° \eth 03'53	
retrograde	1496 Aug 24 j 06:33	1° \eth 30'34			1497 Jun 28 j 04:07	0° Ω	
	1496 Aug 29 j 12:56	30° \eth \eth		desc. node	1497 Jul 15 j 00:06	26° Ω 38'45	
evening set	1496 Aug 31 j 07:38	28° \eth 47'36			1497 Jul 17 j 15:35	0° \eth	
min. Earth dist.	1496 Sep 04 j 02:02	25° \eth 16'58	0.64549 AU	evening max el	1497 Jul 24 j 05:08	7° \eth 09'43	27°24'17
inferior conj	1496 Sep 06 j 09:05	22° \eth 48'11	-2°-54'-1	retrograde	1497 Aug 06 j 23:09	14° \eth 27'28	
minimum elong	1496 Sep 06 j 13:34	22° \eth 36'04	2°52'31	evening set	1497 Aug 14 j 04:06	11° \eth 54'36	
morning rise	1496 Sep 12 j 21:25	17° \eth 18'56		min. Earth dist.	1497 Aug 17 j 18:23	8° \eth 55'00	0.62873 AU
direct	1496 Sep 15 j 11:12	16° \eth 44'35		inferior conj	1497 Aug 20 j 13:56	6° \eth 11'19	-3°-46'-40
asc. node	1496 Sep 15 j 11:10	16° \eth 44'35		minimum elong	1497 Aug 20 j 19:08	5° \eth 58'40	3°45'17
morning max el	1496 Sep 21 j 23:17	20° \eth 11'54	18°00'09	morning rise	1497 Aug 27 j 12:43	1° \eth 00'27	
	1496 Sep 29 j 08:19	0° \eth		direct	1497 Aug 29 j 22:48	0° \eth 33'22	
morning set	1496 Oct 09 j 10:05	16° \eth 40'32		asc. node	1497 Sep 02 j 08:13	1° \eth 27'49	
	1496 Oct 17 j 09:41	0° \eth		morning max el	1497 Sep 05 j 15:16	3° \eth 59'22	17°51'57
superior conj	1496 Oct 22 j 23:04	9° \eth 02'23	0°07'39	morning set	1497 Sep 21 j 20:22	29° \eth 10'13	
minimum elong	1496 Oct 22 j 23:59	9° \eth 06'02	0°07'32		1497 Sep 22 j 07:36	0° \eth	
behind sun begin	1496 Oct 22 j 14:39	8° \eth 28'32		superior conj	1497 Oct 03 j 10:36	19° \eth 16'31	0°49'35
behind sun end	1496 Oct 23 j 09:18	9° \eth 43'29		minimum elong	1497 Oct 03 j 14:57	19° \eth 34'46	0°49'01
desc. node	1496 Oct 24 j 02:22	10° \eth 51'56			1497 Oct 09 j 22:48	0° \eth	
max. Earth dist.	1496 Oct 27 j 13:28	16° \eth 22'44	1.44675 AU	max. Earth dist.	1497 Oct 10 j 04:53	0° \eth 24'36	1.43555 AU
	1496 Nov 05 j 06:20	0° \eth		desc. node	1497 Oct 10 j 23:24	1° \eth 39'11	
evening rise	1496 Nov 08 j 08:14	4° \eth 45'38		evening rise	1497 Oct 18 j 16:11	13° \eth 47'55	
	1496 Nov 25 j 01:50	0° \eth			1497 Oct 29 j 08:37	0° \eth	
greatest brilliancy	1496 Nov 27 j 23:40	4° \eth 05'53	-0.6m	greatest brilliancy	1497 Nov 12 j 13:16	19° \eth 55'48	-0.4m
evening max el	1496 Dec 04 j 18:40	12° \eth 27'41	20°05'43	evening max el	1497 Nov 17 j 17:50	25° \eth 57'22	21°13'12
retrograde	1496 Dec 12 j 11:45	16° \eth 59'00			1497 Nov 22 j 16:48	0° \eth	
asc. node	1496 Dec 12 j 10:28	16° \eth 58'59		retrograde	1497 Nov 26 j 09:20	1° \eth 05'30	
evening set	1496 Dec 16 j 03:07	15° \eth 41'43		asc. node	1497 Nov 29 j 07:30	0° \eth 17'51	
inferior conj	1496 Dec 21 j 14:49	9° \eth 35'58	2°45'40		1497 Nov 29 j 19:23	30° \eth \eth	
minimum elong	1496 Dec 21 j 12:09	9° \eth 44'56	2°44'55	evening set	1497 Nov 30 j 10:41	29° \eth 32'54	
min. Earth dist.	1496 Dec 22 j 11:05	8° \eth 27'57	0.66969 AU	inferior conj	1497 Dec 05 j 20:32	23° \eth 16'55	2°05'58
morning rise	1496 Dec 26 j 20:36	3° \eth 20'49		minimum elong	1497 Dec 05 j 18:07	23° \eth 25'16	2°05'08
direct	1497 Jan 01 j 15:51	0° \eth 46'56		min. Earth dist.	1497 Dec 06 j 04:41	22° \eth 48'48	0.67551 AU
morning max el	1497 Jan 13 j 09:47	7° \eth 47'14	25°02'13	morning rise	1497 Dec 11 j 01:11	17° \eth 01'44	

direct	1497 Dec 16 j 05:24	14° ♄ 47'42		direct	1498 Nov 29 j 22:57	28° ♄ 58'57	
morning max el	1497 Dec 26 j 18:27	21° ♄ 04'42	23°34'53		1498 Dec 03 j 15:08	0° ♄	
	1498 Jan 03 j 10:41	0° ♄		morning max el	1498 Dec 09 j 06:04	4° ♄ 27'37	22°07'34
desc. node	1498 Jan 06 j 22:38	4° ♄ 36'54		greatest brilliancy	1498 Dec 13 j 21:46	9° ♄ 41'28	-0.4m
	1498 Jan 24 j 01:31	0° ♄		desc. node	1498 Dec 24 j 19:38	24° ♄ 23'01	
morning set	1498 Jan 30 j 23:54	11° ♄ 24'26			1498 Dec 28 j 16:04	0° ♄	
max. Earth dist.	1498 Feb 04 j 01:04	18° ♄ 23'36	1.38923 AU	morning set	1499 Jan 11 j 05:37	20° ♄ 57'42	
	1498 Feb 10 j 11:09	0° ♄			1499 Jan 16 j 17:34	0° ♄	
				max. Earth dist.	1499 Jan 16 j 22:20	0° ♄ 20'01	1.41056 AU
superior conj	1498 Feb 11 j 12:31	1° ♄ 58'20	-1°-49'-52				
minimum elong	1498 Feb 11 j 16:27	2° ♄ 16'49	1°49'34	superior conj	1499 Jan 24 j 17:01	13° ♄ 46'06	-2°-2'-30
evening rise	1498 Feb 20 j 18:30	19° ♄ 45'49		minimum elong	1499 Jan 24 j 18:54	13° ♄ 54'28	2°02'27
asc. node	1498 Feb 25 j 06:50	28° ♄ 23'30			1499 Feb 02 j 14:19	0° ♄	
	1498 Feb 26 j 03:45	0° ♄		evening rise	1499 Feb 04 j 03:06	2° ♄ 51'25	
evening max el	1498 Mar 09 j 01:38	16° ♄ 01'47	18°43'53	asc. node	1499 Feb 12 j 03:52	17° ♄ 23'26	
retrograde	1498 Mar 17 j 02:34	19° ♄ 56'37		evening max el	1499 Feb 20 j 08:54	28° ♄ 46'05	18°15'51
evening set	1498 Mar 19 j 08:54	19° ♄ 39'10			1499 Feb 21 j 18:09	0° ♄	
inferior conj	1498 Mar 27 j 04:08	15° ♄ 16'48	2°18'29	retrograde	1499 Feb 27 j 10:22	2° ♄ 17'37	
minimum elong	1498 Mar 27 j 08:13	15° ♄ 09'10	2°17'22	evening set	1499 Mar 01 j 22:14	1° ♄ 52'08	
min. Earth dist.	1498 Mar 30 j 12:06	12° ♄ 48'58	0.57550 AU		1499 Mar 05 j 10:46	30° ♄	
morning rise	1498 Apr 04 j 03:12	10° ♄ 03'34		inferior conj	1499 Mar 09 j 00:04	27° ♄ 08'26	3°14'45
desc. node	1498 Apr 04 j 21:49	9° ♄ 43'52		minimum elong	1499 Mar 09 j 03:16	27° ♄ 01'28	3°14'12
direct	1498 Apr 09 j 17:49	8° ♄ 46'00		min. Earth dist.	1499 Mar 12 j 09:47	24° ♄ 12'07	0.59607 AU
morning max el	1498 Apr 24 j 02:15	16° ♄ 18'35	26°17'18	morning rise	1499 Mar 16 j 04:43	21° ♄ 29'45	
	1498 May 05 j 06:04	0° ♄		direct	1499 Mar 22 j 15:38	19° ♄ 35'32	
	1498 May 22 j 01:12	0° ♄		desc. node	1499 Mar 22 j 18:51	19° ♄ 35'35	
morning set	1498 May 22 j 16:48	1° ♄ 21'42		morning max el	1499 Apr 05 j 23:15	27° ♄ 22'16	27°20'22
asc. node	1498 May 24 j 06:05	4° ♄ 39'35			1499 Apr 08 j 11:50	0° ♄	
					1499 Apr 28 j 19:43	0° ♄	
superior conj	1498 May 29 j 17:43	16° ♄ 37'11	0°55'07	morning set	1499 May 07 j 01:22	16° ♄ 06'20	
minimum elong	1498 May 29 j 15:37	16° ♄ 25'34	0°54'42	asc. node	1499 May 11 j 03:08	24° ♄ 46'52	
max. Earth dist.	1498 May 30 j 04:07	17° ♄ 34'15	1.32363 AU	max. Earth dist.	1499 May 13 j 16:34	0° ♄ 22'36	1.32223 AU
	1498 Jun 04 j 22:03	0° ♄			1499 May 13 j 12:27	0° ♄	
evening rise	1498 Jun 05 j 17:49	1° ♄ 43'37					
	1498 Jun 21 j 03:28	0° ♄		superior conj	1499 May 14 j 05:26	1° ♄ 33'18	0°32'15
desc. node	1498 Jul 01 j 21:07	14° ♄ 41'54		minimum elong	1499 May 14 j 04:02	1° ♄ 25'40	0°31'57
evening max el	1498 Jul 06 j 10:12	19° ♄ 29'56	26°57'37	evening rise	1499 May 21 j 03:12	16° ♄ 33'44	
retrograde	1498 Jul 20 j 08:33	26° ♄ 44'23			1499 May 27 j 19:54	0° ♄	
evening set	1498 Jul 27 j 07:59	24° ♄ 35'25			1499 Jun 17 j 06:20	0° ♄	
min. Earth dist.	1498 Jul 31 j 00:24	21° ♄ 55'29	0.60922 AU	evening max el	1499 Jun 18 j 08:34	1° ♄ 04'26	25°58'44
inferior conj	1498 Aug 03 j 05:27	19° ♄ 11'12	-4°-29'-26	desc. node	1499 Jun 18 j 18:08	1° ♄ 26'58	
minimum elong	1498 Aug 03 j 09:57	19° ♄ 01'32	4°28'41	retrograde	1499 Jul 02 j 08:53	8° ♄ 14'49	
morning rise	1498 Aug 10 j 15:00	14° ♄ 21'32		evening set	1499 Jul 08 j 14:34	6° ♄ 41'07	
direct	1498 Aug 13 j 00:13	13° ♄ 58'54		min. Earth dist.	1499 Jul 12 j 21:07	4° ♄ 04'07	0.58860 AU
morning max el	1498 Aug 20 j 04:37	17° ♄ 32'10	18°02'34	inferior conj	1499 Jul 16 j 04:03	1° ♄ 38'07	-4°-53'-24
asc. node	1498 Aug 20 j 05:16	17° ♄ 33'45		minimum elong	1499 Jul 16 j 05:35	1° ♄ 35'16	4°53'21
	1498 Aug 29 j 02:06	0° ♄			1499 Jul 18 j 10:27	30° ♄	
morning set	1498 Sep 04 j 23:58	12° ♄ 29'50		morning rise	1499 Jul 24 j 00:05	27° ♄ 11'32	
	1498 Sep 14 j 13:48	0° ♄		direct	1499 Jul 26 j 11:14	26° ♄ 51'18	
					1499 Aug 02 j 17:51	0° ♄	
superior conj	1498 Sep 15 j 00:59	0° ♄ 49'38	1°19'44	morning max el	1499 Aug 03 j 12:14	0° ♄ 41'42	18°33'20
minimum elong	1498 Sep 15 j 05:21	1° ♄ 08'56	1°19'15	asc. node	1499 Aug 07 j 02:19	4° ♄ 47'18	
max. Earth dist.	1498 Sep 22 j 15:28	13° ♄ 53'56	1.41906 AU	morning set	1499 Aug 19 j 15:55	26° ♄ 25'50	
desc. node	1498 Sep 27 j 20:24	22° ♄ 24'56			1499 Aug 21 j 12:11	0° ♄	
evening rise	1498 Sep 28 j 10:53	23° ♄ 22'55					
	1498 Oct 02 j 15:43	0° ♄		superior conj	1499 Aug 28 j 13:50	13° ♄ 29'46	1°37'48
	1498 Oct 23 j 10:29	0° ♄		minimum elong	1499 Aug 28 j 16:31	13° ♄ 42'20	1°37'37
greatest brilliancy	1498 Oct 26 j 16:57	4° ♄ 06'57	-0.3m	max. Earth dist.	1499 Sep 04 j 21:28	26° ♄ 42'55	1.39936 AU
evening max el	1498 Oct 31 j 11:39	9° ♄ 28'40	22°29'38		1499 Sep 06 j 19:03	0° ♄	
retrograde	1498 Nov 10 j 04:55	15° ♄ 15'15		evening rise	1499 Sep 09 j 03:46	4° ♄ 00'15	
evening set	1498 Nov 14 j 18:15	13° ♄ 25'49		desc. node	1499 Sep 14 j 17:26	13° ♄ 05'55	
asc. node	1498 Nov 16 j 04:31	12° ♄ 05'42			1499 Sep 25 j 21:02	0° ♄	
inferior conj	1498 Nov 20 j 03:47	7° ♄ 03'19	1°19'47	evening max el	1499 Oct 14 j 01:36	23° ♄ 03'34	23°49'34
minimum elong	1498 Nov 20 j 02:03	7° ♄ 09'19	1°19'07	retrograde	1499 Oct 24 j 21:18	29° ♄ 25'53	
min. Earth dist.	1498 Nov 20 j 00:55	7° ♄ 13'15	0.67786 AU	evening set	1499 Oct 30 j 00:15	27° ♄ 18'54	
morning rise	1498 Nov 25 j 09:44	0° ♄ 50'17		asc. node	1499 Nov 03 j 01:31	22° ♄ 46'15	
	1498 Nov 26 j 13:39	30° ♄		inferior conj	1499 Nov 04 j 10:50	20° ♄ 53'44	0°28'35

minimum elong	1499 Nov 04 j 10:10	20° \mathbb{M} 56'03	0°28'17	inferior conj	1500 Oct 18 j 15:56	4° \mathbb{M} 45'17	0°-26'-23
min. Earth dist.	1499 Nov 03 j 21:24	21° \mathbb{M} 39'24	0.67689 AU	minimum elong	1500 Oct 18 j 16:36	4° \mathbb{M} 43'07	0°26'08
morning rise	1499 Nov 09 j 20:15	14° \mathbb{M} 45'17		asc. node	1500 Oct 19 j 22:33	3° \mathbb{M} 06'28	
direct	1499 Nov 13 j 19:29	13° \mathbb{M} 16'22			1500 Oct 22 j 17:02	30° \mathbb{R} \mathbb{A}	
morning max el	1499 Nov 22 j 00:14	18° \mathbb{M} 01'10	20°47'54	morning rise	1500 Oct 24 j 06:45	28° \mathbb{A} 43'56	
greatest brilliancy	1499 Nov 27 j 19:11	24° \mathbb{M} 46'58	-0.5m	direct	1500 Oct 27 j 17:40	27° \mathbb{A} 35'05	
	1499 Dec 01 j 16:23	0° \mathbb{A}			1500 Nov 02 j 04:12	0° \mathbb{M}	
desc. node	1499 Dec 11 j 16:40	14° \mathbb{A} 31'49		morning max el	1500 Nov 04 j 02:18	1° \mathbb{M} 45'41	19°40'44
morning set	1499 Dec 21 j 09:31	29° \mathbb{A} 21'06		greatest brilliancy	1500 Nov 12 j 04:22	11° \mathbb{M} 51'28	-0.6m
	1499 Dec 21 j 19:30	0° \mathbb{A}			1500 Nov 24 j 08:32	0° \mathbb{A}	
max. Earth dist.	1499 Dec 30 j 03:16	13° \mathbb{A} 14'08	1.42943 AU	desc. node	1500 Nov 27 j 13:43	4° \mathbb{A} 56'38	
				morning set	1500 Nov 29 j 06:19	7° \mathbb{A} 33'18	
superior conj	1500 Jan 05 j 21:57	24° \mathbb{A} 26'26	-2°-2'-9	max. Earth dist.	1500 Dec 11 j 15:27	26° \mathbb{A} 55'18	1.44321 AU
minimum elong	1500 Jan 05 j 19:20	24° \mathbb{A} 15'25	2°02'05		1500 Dec 13 j 13:50	0° \mathbb{A}	
	1500 Jan 09 j 04:26	0° \mathbb{A}					
evening rise	1500 Jan 17 j 20:47	15° \mathbb{A} 12'41		superior conj	1500 Dec 16 j 00:25	3° \mathbb{A} 54'50	-1°-44'-15
	1500 Jan 26 j 07:58	0° \mathbb{A}		minimum elong	1500 Dec 15 j 16:46	3° \mathbb{A} 24'05	1°43'40
asc. node	1500 Jan 30 j 00:52	5° \mathbb{A} 49'56		evening rise	1500 Dec 29 j 19:17	26° \mathbb{A} 42'00	
evening max el	1500 Feb 03 j 20:15	11° \mathbb{A} 50'41	18°07'27		1500 Dec 31 j 18:06	0° \mathbb{A}	
retrograde	1500 Feb 10 j 09:49	15° \mathbb{A} 14'40		asc. node	1501 Jan 15 j 21:52	23° \mathbb{A} 33'18	
evening set	1500 Feb 13 j 02:32	14° \mathbb{A} 39'54		evening max el	1501 Jan 17 j 08:46	25° \mathbb{A} 08'35	18°18'08
inferior conj	1500 Feb 19 j 14:30	9° \mathbb{A} 34'44	3°40'58	retrograde	1501 Jan 23 j 20:13	28° \mathbb{A} 38'17	
minimum elong	1500 Feb 19 j 15:42	9° \mathbb{A} 31'46	3°40'53	evening set	1501 Jan 26 j 17:48	27° \mathbb{A} 53'19	
min. Earth dist.	1500 Feb 22 j 14:54	6° \mathbb{A} 34'49	0.61731 AU	inferior conj	1501 Feb 01 j 19:30	22° \mathbb{A} 28'19	3°44'15
morning rise	1500 Feb 26 j 02:19	3° \mathbb{A} 39'25		minimum elong	1501 Feb 01 j 18:48	22° \mathbb{A} 30'16	3°44'13
direct	1500 Mar 03 j 23:37	1° \mathbb{A} 13'22		min. Earth dist.	1501 Feb 04 j 05:34	19° \mathbb{A} 46'02	0.63663 AU
desc. node	1500 Mar 08 j 15:52	2° \mathbb{A} 13'52		morning rise	1501 Feb 07 j 18:06	16° \mathbb{A} 22'59	
morning max el	1500 Mar 18 j 02:37	9° \mathbb{A} 07'08	27°48'12	direct	1501 Feb 14 j 16:06	13° \mathbb{A} 37'14	
	1500 Apr 03 j 05:30	0° \mathbb{A}		desc. node	1501 Feb 23 j 12:55	17° \mathbb{A} 13'12	
	1500 Apr 19 j 22:35	0° \mathbb{A}		morning max el	1501 Feb 28 j 10:42	21° \mathbb{A} 31'26	27°38'50
morning set	1500 Apr 20 j 05:27	0° \mathbb{A} 34'59			1501 Mar 07 j 20:22	0° \mathbb{A}	
max. Earth dist.	1500 Apr 26 j 02:56	13° \mathbb{A} 01'26	1.32464 AU		1501 Mar 27 j 08:14	0° \mathbb{A}	
asc. node	1500 Apr 27 j 00:10	14° \mathbb{A} 56'40		morning set	1501 Apr 04 j 02:42	14° \mathbb{A} 40'05	
				max. Earth dist.	1501 Apr 09 j 07:09	25° \mathbb{A} 17'25	1.33111 AU
superior conj	1500 Apr 27 j 15:45	16° \mathbb{A} 21'34	0°06'53				
minimum elong	1500 Apr 27 j 15:26	16° \mathbb{A} 19'48	0°06'49	superior conj	1501 Apr 11 j 22:57	0° \mathbb{A} 56'21	0°-20'-12
behind sun begin	1500 Apr 27 j 10:47	15° \mathbb{A} 54'27		minimum elong	1501 Apr 11 j 23:56	1° \mathbb{A} 01'39	0°19'59
behind sun end	1500 Apr 27 j 20:05	16° \mathbb{A} 45'11			1501 Apr 11 j 12:25	0° \mathbb{A}	
	1500 May 03 j 22:23	0° \mathbb{A}		asc. node	1501 Apr 13 j 21:13	5° \mathbb{A} 05'08	
evening rise	1500 May 04 j 14:41	1° \mathbb{A} 26'43		evening rise	1501 Apr 19 j 02:25	16° \mathbb{A} 16'17	
	1500 May 20 j 06:20	0° \mathbb{A}			1501 Apr 25 j 23:04	0° \mathbb{A}	
evening max el	1500 May 30 j 00:18	11° \mathbb{A} 55'48	24°34'43	evening max el	1501 May 11 j 14:25	22° \mathbb{A} 26'33	22°59'17
desc. node	1500 Jun 04 j 15:09	16° \mathbb{A} 22'27		desc. node	1501 May 22 j 12:10	28° \mathbb{A} 52'33	
retrograde	1500 Jun 12 j 22:15	18° \mathbb{A} 58'13		retrograde	1501 May 24 j 23:34	29° \mathbb{A} 06'31	
evening set	1500 Jun 17 j 21:31	18° \mathbb{A} 02'39		evening set	1501 May 28 j 11:10	28° \mathbb{A} 39'53	
min. Earth dist.	1500 Jun 23 j 11:25	15° \mathbb{A} 10'40	0.56951 AU	min. Earth dist.	1501 Jun 04 j 23:28	25° \mathbb{A} 18'47	0.55536 AU
inferior conj	1500 Jun 26 j 06:48	13° \mathbb{A} 22'19	-4°-45'-47	inferior conj	1501 Jun 06 j 14:14	24° \mathbb{A} 22'37	-3°-53'-45
minimum elong	1500 Jun 26 j 03:16	13° \mathbb{A} 28'01	4°45'29	minimum elong	1501 Jun 06 j 06:43	24° \mathbb{A} 33'31	3°52'00
morning rise	1500 Jul 04 j 12:46	9° \mathbb{A} 17'15		morning rise	1501 Jun 15 j 05:18	20° \mathbb{A} 29'56	
direct	1500 Jul 07 j 03:43	8° \mathbb{A} 58'16		direct	1501 Jun 18 j 01:17	20° \mathbb{A} 10'58	
morning max el	1500 Jul 16 j 11:06	13° \mathbb{A} 18'08	19°25'14	morning max el	1501 Jun 28 j 23:09	25° \mathbb{A} 14'09	20°38'04
asc. node	1500 Jul 23 j 23:21	22° \mathbb{A} 53'18			1501 Jul 03 j 07:01	0° \mathbb{A}	
	1500 Jul 28 j 02:33	0° \mathbb{A}		asc. node	1501 Jul 10 j 20:27	11° \mathbb{A} 39'51	
morning set	1500 Aug 02 j 16:23	10° \mathbb{A} 46'54		morning set	1501 Jul 17 j 22:38	25° \mathbb{A} 25'56	
					1501 Jul 20 j 03:47	0° \mathbb{A}	
superior conj	1500 Aug 10 j 19:23	26° \mathbb{A} 59'56	1°45'29				
minimum elong	1500 Aug 10 j 20:08	27° \mathbb{A} 03'33	1°45'29	superior conj	1501 Jul 25 j 12:56	11° \mathbb{A} 06'34	1°44'44
	1500 Aug 12 j 08:25	0° \mathbb{A}		minimum elong	1501 Jul 25 j 12:04	11° \mathbb{A} 02'09	1°44'43
max. Earth dist.	1500 Aug 17 j 01:12	8° \mathbb{A} 52'10	1.37896 AU	max. Earth dist.	1501 Jul 30 j 08:15	20° \mathbb{A} 42'13	1.36032 AU
evening rise	1500 Aug 20 j 20:41	15° \mathbb{A} 44'39		evening rise	1501 Aug 03 j 10:24	28° \mathbb{A} 29'03	
	1500 Aug 29 j 07:45	0° \mathbb{A}			1501 Aug 04 j 06:06	0° \mathbb{A}	
desc. node	1500 Aug 31 j 14:28	3° \mathbb{A} 37'07		desc. node	1501 Aug 18 j 11:29	23° \mathbb{A} 53'15	
	1500 Sep 19 j 11:31	0° \mathbb{A}			1501 Aug 22 j 14:17	0° \mathbb{A}	
evening max el	1500 Sep 25 j 13:34	6° \mathbb{A} 41'19	25°06'33	evening max el	1501 Sep 08 j 01:24	20° \mathbb{A} 19'48	26°13'07
retrograde	1500 Oct 07 j 09:35	13° \mathbb{A} 32'31		retrograde	1501 Sep 20 j 17:11	27° \mathbb{A} 29'33	
evening set	1500 Oct 13 j 03:02	11° \mathbb{A} 09'00		evening set	1501 Sep 27 j 00:42	24° \mathbb{A} 53'00	
min. Earth dist.	1500 Oct 17 j 15:48	6° \mathbb{A} 04'15	0.67253 AU	min. Earth dist.	1501 Oct 01 j 05:48	20° \mathbb{A} 24'35	0.66478 AU

inferior conj	1501 Oct 02 j 17:14	18°♄35'10	-1°-23'-44	inferior conj	1502 Sep 16 j 12:40	2°♄19'44	-2°-21'-33
minimum elong	1501 Oct 02 j 19:26	18°♄28'23	1°22'50	minimum elong	1502 Sep 16 j 16:23	2°♄09'05	2°20'09
asc. node	1501 Oct 06 j 19:37	14°♄03'23			1502 Sep 18 j 15:16	30°♄	
morning rise	1501 Oct 08 j 15:13	12°♄43'40		morning rise	1502 Sep 22 j 19:22	26°♄41'09	
direct	1501 Oct 11 j 15:58	11°♄51'15		asc. node	1502 Sep 23 j 16:42	26°♄19'21	
morning max el	1501 Oct 18 j 11:22	15°♄38'04	18°48'36	direct	1502 Sep 25 j 12:23	26°♄01'16	
	1501 Oct 29 j 04:14	0°♄		morning max el	1502 Oct 02 j 01:15	29°♄33'27	18°12'50
morning set	1501 Nov 08 j 20:21	16°♄42'44			1502 Oct 02 j 11:35	0°♄	
desc. node	1501 Nov 14 j 10:46	25°♄32'27		morning set	1502 Oct 20 j 15:11	27°♄18'55	
	1501 Nov 17 j 06:50	0°♄			1502 Oct 22 j 06:28	0°♄	
max. Earth dist.	1501 Nov 24 j 08:22	11°♄05'35	1.45037 AU	desc. node	1502 Nov 01 j 07:47	16°♄15'32	
superior conj	1501 Nov 25 j 05:58	12°♄30'32	-1°-7'-53	superior conj	1502 Nov 04 j 08:41	21°♄05'05	0°-20'-11
minimum elong	1501 Nov 24 j 21:56	11°♄58'56	1°06'59	minimum elong	1502 Nov 04 j 06:05	20°♄54'47	0°19'49
	1501 Dec 06 j 06:58	0°♄		max. Earth dist.	1502 Nov 07 j 03:15	25°♄27'42	1.45020 AU
evening rise	1501 Dec 10 j 18:58	7°♄13'33			1502 Nov 10 j 00:36	0°♄	
	1501 Dec 25 j 04:07	0°♄		evening rise	1502 Nov 20 j 19:50	16°♄51'08	
evening max el	1501 Dec 31 j 19:57	8°♄33'53	18°47'02		1502 Nov 29 j 07:13	0°♄	
asc. node	1502 Jan 02 j 18:55	10°♄20'51		greatest brilliancy	1502 Dec 06 j 21:22	11°♄26'05	-0.7m
retrograde	1502 Jan 07 j 13:26	12°♄20'14		evening max el	1502 Dec 15 j 03:37	22°♄02'59	19°32'42
evening set	1502 Jan 10 j 16:44	11°♄23'58		asc. node	1502 Dec 20 j 15:58	25°♄58'15	
inferior conj	1502 Jan 16 j 11:09	5°♄41'14	3°30'46	retrograde	1502 Dec 22 j 10:12	26°♄15'19	
minimum elong	1502 Jan 16 j 09:11	5°♄47'16	3°30'29	evening set	1502 Dec 25 j 20:42	25°♄06'10	
min. Earth dist.	1502 Jan 18 j 05:46	3°♄30'47	0.65263 AU	inferior conj	1502 Dec 31 j 10:17	19°♄08'11	3°04'55
	1502 Jan 21 j 11:16	30°♄		minimum elong	1502 Dec 31 j 07:42	19°♄16'38	3°04'19
morning rise	1502 Jan 22 j 00:31	29°♄30'10		min. Earth dist.	1503 Jan 01 j 14:17	17°♄36'41	0.66469 AU
direct	1502 Jan 28 j 15:49	26°♄39'17		morning rise	1503 Jan 05 j 17:57	12°♄54'05	
	1502 Feb 05 j 20:49	0°♄		direct	1503 Jan 11 j 21:29	10°♄11'06	
desc. node	1502 Feb 10 j 09:59	3°♄57'16		morning max el	1503 Jan 24 j 05:37	17°♄30'52	25°48'35
morning max el	1502 Feb 10 j 20:27	4°♄23'20	26°56'17	desc. node	1503 Jan 28 j 07:00	21°♄56'23	
	1502 Mar 02 j 08:02	0°♄			1503 Feb 03 j 16:56	0°♄	
morning set	1502 Mar 18 j 13:51	28°♄10'35			1503 Feb 23 j 07:12	0°♄	
	1502 Mar 19 j 12:32	0°♄		morning set	1503 Mar 01 j 10:40	10°♄54'22	
max. Earth dist.	1502 Mar 23 j 01:14	6°♄59'04	1.34208 AU	max. Earth dist.	1503 Mar 05 j 07:32	18°♄09'57	1.35768 AU
superior conj	1502 Mar 27 j 00:53	15°♄10'15	0°-47'-54	superior conj	1503 Mar 10 j 19:02	28°♄56'32	-1°-14'-45
minimum elong	1502 Mar 27 j 03:16	15°♄22'44	0°47'27	minimum elong	1503 Mar 10 j 22:39	29°♄14'45	1°14'11
asc. node	1502 Mar 31 j 18:16	25°♄07'17			1503 Mar 11 j 07:37	0°♄	
	1502 Apr 03 j 01:55	0°♄		evening rise	1503 Mar 18 j 18:56	15°♄17'46	
evening rise	1502 Apr 03 j 12:30	0°♄55'11		asc. node	1503 Mar 18 j 15:18	14°♄59'13	
	1502 Apr 20 j 12:48	0°♄			1503 Mar 26 j 09:46	0°♄	
evening max el	1502 Apr 23 j 10:26	3°♄07'31	21°27'09	evening max el	1503 Apr 05 j 17:21	14°♄21'41	20°08'42
retrograde	1502 May 05 j 14:25	9°♄04'07		retrograde	1503 Apr 16 j 04:27	19°♄24'44	
evening set	1502 May 08 j 00:11	8°♄50'55		evening set	1503 Apr 18 j 05:42	19°♄13'55	
desc. node	1502 May 09 j 09:12	8°♄32'09		desc. node	1503 Apr 26 j 06:14	15°♄49'55	
inferior conj	1502 May 17 j 09:19	4°♄50'53	-2°-16'-27	inferior conj	1503 Apr 27 j 05:41	15°♄15'12	0°-17'00
minimum elong	1502 May 17 j 03:08	4°♄59'34	2°14'23	minimum elong	1503 Apr 27 j 04:53	15°♄16'22	0°16'44
min. Earth dist.	1502 May 17 j 11:49	4°♄47'23	0.54930 AU	min. Earth dist.	1503 Apr 29 j 01:08	14°♄10'35	0.55292 AU
morning rise	1502 May 26 j 06:30	0°♄53'25		morning rise	1503 May 06 j 01:33	10°♄54'34	
direct	1502 May 29 j 11:54	0°♄30'44		direct	1503 May 10 j 00:55	10°♄20'08	
morning max el	1502 Jun 11 j 00:01	6°♄26'00	22°09'00	morning max el	1503 May 23 j 16:40	17°♄03'21	23°50'13
	1502 Jun 27 j 05:50	0°♄			1503 Jun 03 j 03:32	0°♄	
asc. node	1502 Jun 27 j 17:32	0°♄56'13		asc. node	1503 Jun 14 j 14:34	20°♄34'32	
morning set	1502 Jul 02 j 08:30	10°♄16'14		morning set	1503 Jun 16 j 20:08	25°♄12'16	
					1503 Jun 19 j 02:12	0°♄	
superior conj	1502 Jul 09 j 14:42	25°♄37'57	1°37'14	superior conj	1503 Jun 23 j 21:53	10°♄25'08	1°24'16
minimum elong	1502 Jul 09 j 12:47	25°♄27'52	1°37'05	minimum elong	1503 Jun 23 j 19:30	10°♄12'15	1°23'57
	1502 Jul 11 j 16:49	0°♄		max. Earth dist.	1503 Jun 26 j 00:33	14°♄56'56	1.33357 AU
max. Earth dist.	1502 Jul 12 j 23:41	2°♄39'12	1.34498 AU	evening rise	1503 Jul 01 j 09:40	26°♄06'38	
evening rise	1502 Jul 17 j 16:10	12°♄00'35			1503 Jul 03 j 08:44	0°♄	
	1502 Jul 27 j 14:34	0°♄			1503 Jul 20 j 23:53	0°♄	
desc. node	1502 Aug 05 j 08:31	13°♄47'26		desc. node	1503 Jul 23 j 05:33	3°♄09'54	
	1502 Aug 17 j 19:50	0°♄		evening max el	1503 Aug 04 j 01:02	17°♄07'38	27°24'49
evening max el	1502 Aug 21 j 13:38	3°♄52'33	27°01'37	retrograde	1503 Aug 17 j 15:25	24°♄25'39	
retrograde	1502 Sep 03 j 19:20	11°♄10'11		evening set	1503 Aug 24 j 18:58	21°♄45'47	
evening set	1502 Sep 10 j 14:59	8°♄27'11		min. Earth dist.	1503 Aug 28 j 11:18	18°♄29'05	0.63874 AU
min. Earth dist.	1502 Sep 14 j 13:04	4°♄35'40	0.65352 AU				

inferior conj	1503 Aug 30 j 23:41	15° $\mathring{\text{M}}$ 52'55	-3°-17'-11	retrograde	1504 Jul 30 j 04:45	7° $\mathring{\text{M}}$ 07'07	
minimum elong	1503 Aug 31 j 04:35	15° $\mathring{\text{M}}$ 40'12	3°15'39	evening set	1504 Aug 06 j 08:56	4° $\mathring{\text{M}}$ 42'43	
morning rise	1503 Sep 06 j 16:20	10° $\mathring{\text{M}}$ 30'45		min. Earth dist.	1504 Aug 09 j 23:04	1° $\mathring{\text{M}}$ 53'28	0.62071 AU
direct	1503 Sep 09 j 04:15	9° $\mathring{\text{M}}$ 59'47			1504 Aug 12 j 00:43	30° $\mathring{\text{R}}$ 0	
asc. node	1503 Sep 10 j 13:46	10° $\mathring{\text{M}}$ 09'37		inferior conj	1504 Aug 12 j 23:17	29° $\mathring{\text{O}}$ 07'38	-4°-6'-26
morning max el	1503 Sep 15 j 17:15	13° $\mathring{\text{M}}$ 25'35	17°54'23	minimum elong	1504 Aug 13 j 04:25	28° $\mathring{\text{O}}$ 55'47	4°05'17
	1503 Sep 27 j 03:52	0° $\mathring{\text{A}}$		morning rise	1504 Aug 20 j 02:37	24° $\mathring{\text{O}}$ 05'28	
morning set	1503 Oct 02 j 12:51	9° $\mathring{\text{A}}$ 13'00		direct	1504 Aug 22 j 12:08	23° $\mathring{\text{O}}$ 40'26	
	1503 Oct 14 j 20:42	0° $\mathring{\text{M}}$		asc. node	1504 Aug 27 j 10:48	25° $\mathring{\text{O}}$ 30'06	
				morning max el	1504 Aug 29 j 08:29	27° $\mathring{\text{O}}$ 08'04	17°54'10
superior conj	1503 Oct 15 j 05:00	0° $\mathring{\text{M}}$ 33'59	0°26'42		1504 Aug 31 j 21:28	0° $\mathring{\text{M}}$	
minimum elong	1503 Oct 15 j 07:51	0° $\mathring{\text{M}}$ 45'38	0°26'19	morning set	1504 Sep 14 j 07:14	22° $\mathring{\text{M}}$ 06'33	
desc. node	1503 Oct 19 j 04:49	7° $\mathring{\text{M}}$ 02'12			1504 Sep 18 j 16:27	0° $\mathring{\text{A}}$	
max. Earth dist.	1503 Oct 20 j 21:18	9° $\mathring{\text{M}}$ 44'10	1.44282 AU				
evening rise	1503 Oct 31 j 05:38	25° $\mathring{\text{M}}$ 55'45		superior conj	1504 Sep 25 j 04:20	11° $\mathring{\text{A}}$ 23'15	1°03'53
	1503 Nov 02 j 21:20	0° $\mathring{\text{A}}$		minimum elong	1504 Sep 25 j 09:00	11° $\mathring{\text{A}}$ 43'19	1°03'19
greatest brilliancy	1503 Nov 22 j 06:44	28° $\mathring{\text{A}}$ 23'15	-0.5m	max. Earth dist.	1504 Oct 02 j 11:26	23° $\mathring{\text{A}}$ 36'31	1.42913 AU
	1503 Nov 23 j 12:24	0° $\mathring{\text{B}}$		desc. node	1504 Oct 05 j 01:51	27° $\mathring{\text{A}}$ 49'33	
evening max el	1503 Nov 28 j 06:09	5° $\mathring{\text{B}}$ 32'46	20°33'01		1504 Oct 06 j 10:26	0° $\mathring{\text{M}}$	
retrograde	1503 Dec 06 j 08:00	10° $\mathring{\text{B}}$ 18'40		evening rise	1504 Oct 09 j 16:17	5° $\mathring{\text{M}}$ 07'36	
asc. node	1503 Dec 07 j 13:01	10° $\mathring{\text{B}}$ 10'27			1504 Oct 26 j 06:24	0° $\mathring{\text{A}}$	
evening set	1503 Dec 10 j 03:29	8° $\mathring{\text{B}}$ 54'56		greatest brilliancy	1504 Nov 05 j 06:58	13° $\mathring{\text{A}}$ 32'28	-0.4m
inferior conj	1503 Dec 15 j 14:12	2° $\mathring{\text{B}}$ 44'33	2°29'40	evening max el	1504 Nov 10 j 02:56	19° $\mathring{\text{A}}$ 03'05	21°44'45
minimum elong	1503 Dec 15 j 11:35	2° $\mathring{\text{B}}$ 53'29	2°28'52	retrograde	1504 Nov 19 j 04:56	24° $\mathring{\text{A}}$ 27'25	
min. Earth dist.	1503 Dec 16 j 05:07	1° $\mathring{\text{B}}$ 53'48	0.67272 AU	evening set	1504 Nov 23 j 11:16	22° $\mathring{\text{A}}$ 47'33	
	1503 Dec 17 j 15:22	30° $\mathring{\text{R}}$ 0		asc. node	1504 Nov 23 j 10:02	22° $\mathring{\text{A}}$ 49'58	
morning rise	1503 Dec 20 j 19:13	26° $\mathring{\text{A}}$ 29'23		inferior conj	1504 Nov 28 j 20:48	16° $\mathring{\text{A}}$ 28'11	1°47'04
direct	1503 Dec 26 j 08:14	24° $\mathring{\text{A}}$ 03'26		minimum elong	1504 Nov 28 j 18:37	16° $\mathring{\text{A}}$ 35'43	1°46'16
	1504 Jan 05 j 19:35	0° $\mathring{\text{B}}$		min. Earth dist.	1504 Nov 29 j 00:03	16° $\mathring{\text{A}}$ 16'53	0.67702 AU
morning max el	1504 Jan 06 j 13:59	0° $\mathring{\text{B}}$ 45'32	24°25'32	morning rise	1504 Dec 04 j 01:44	10° $\mathring{\text{A}}$ 13'48	
desc. node	1504 Jan 15 j 04:01	10° $\mathring{\text{B}}$ 48'12		direct	1504 Dec 08 j 23:26	8° $\mathring{\text{A}}$ 09'34	
	1504 Jan 28 j 16:04	0° $\mathring{\text{A}}$		morning max el	1504 Dec 18 j 23:37	14° $\mathring{\text{A}}$ 05'42	22°57'10
morning set	1504 Feb 11 j 11:33	22° $\mathring{\text{A}}$ 35'33		greatest brilliancy	1504 Dec 23 j 17:26	19° $\mathring{\text{A}}$ 23'27	-0.3m
max. Earth dist.	1504 Feb 15 j 04:57	29° $\mathring{\text{A}}$ 13'15	1.37712 AU		1504 Dec 31 j 19:55	0° $\mathring{\text{B}}$	
	1504 Feb 15 j 15:15	0° $\mathring{\text{H}}$		desc. node	1505 Jan 01 j 01:03	0° $\mathring{\text{B}}$ 17'52	
					1505 Jan 20 j 14:57	0° $\mathring{\text{A}}$	
superior conj	1504 Feb 22 j 02:06	12° $\mathring{\text{H}}$ 05'48	-1°-38'-37	morning set	1505 Jan 22 j 10:17	2° $\mathring{\text{A}}$ 58'23	
minimum elong	1504 Feb 22 j 06:17	12° $\mathring{\text{H}}$ 26'00	1°38'10	max. Earth dist.	1505 Jan 27 j 00:21	10° $\mathring{\text{A}}$ 43'08	1.39848 AU
evening rise	1504 Mar 01 j 19:19	29° $\mathring{\text{H}}$ 17'02					
	1504 Mar 02 j 04:00	0° $\mathring{\text{Y}}$		superior conj	1505 Feb 03 j 17:45	24° $\mathring{\text{A}}$ 26'49	-1°-56'-30
asc. node	1504 Mar 04 j 12:20	4° $\mathring{\text{Y}}$ 36'03		minimum elong	1505 Feb 03 j 21:06	24° $\mathring{\text{A}}$ 42'12	1°56'19
evening max el	1504 Mar 18 j 11:37	26° $\mathring{\text{Y}}$ 15'19	19°09'00		1505 Feb 06 j 17:39	0° $\mathring{\text{H}}$	
	1504 Mar 24 j 04:41	0° $\mathring{\text{B}}$		evening rise	1505 Feb 13 j 10:44	12° $\mathring{\text{H}}$ 45'00	
retrograde	1504 Mar 27 j 07:09	0° $\mathring{\text{B}}$ 31'12		asc. node	1505 Feb 19 j 09:22	23° $\mathring{\text{H}}$ 51'37	
evening set	1504 Mar 29 j 10:34	0° $\mathring{\text{B}}$ 17'09			1505 Feb 22 j 23:40	0° $\mathring{\text{Y}}$	
	1504 Mar 30 j 12:29	30° $\mathring{\text{R}}$ 0		evening max el	1505 Mar 01 j 14:59	8° $\mathring{\text{Y}}$ 43'28	18°29'26
inferior conj	1504 Apr 06 j 16:43	26° $\mathring{\text{Y}}$ 05'13	1°30'32	retrograde	1505 Mar 09 j 04:38	12° $\mathring{\text{Y}}$ 26'47	
minimum elong	1504 Apr 06 j 20:03	25° $\mathring{\text{Y}}$ 59'31	1°29'28	evening set	1505 Mar 11 j 13:14	12° $\mathring{\text{Y}}$ 06'13	
min. Earth dist.	1504 Apr 09 j 16:12	24° $\mathring{\text{Y}}$ 04'10	0.56534 AU	inferior conj	1505 Mar 19 j 00:40	7° $\mathring{\text{Y}}$ 34'43	2°46'30
desc. node	1504 Apr 12 j 03:13	22° $\mathring{\text{Y}}$ 34'01		minimum elong	1505 Mar 19 j 04:38	7° $\mathring{\text{Y}}$ 26'48	2°45'34
morning rise	1504 Apr 15 j 01:27	21° $\mathring{\text{Y}}$ 10'55		min. Earth dist.	1505 Mar 22 j 10:59	4° $\mathring{\text{Y}}$ 51'49	0.58391 AU
direct	1504 Apr 20 j 01:27	20° $\mathring{\text{Y}}$ 12'46		morning rise	1505 Mar 26 j 15:54	2° $\mathring{\text{Y}}$ 09'12	
morning max el	1504 May 04 j 07:08	27° $\mathring{\text{Y}}$ 30'59	25°28'32	desc. node	1505 Mar 30 j 00:15	0° $\mathring{\text{Y}}$ 54'40	
	1504 May 06 j 17:18	0° $\mathring{\text{B}}$		direct	1505 Apr 01 j 15:56	0° $\mathring{\text{Y}}$ 36'23	
	1504 May 26 j 07:57	0° $\mathring{\text{H}}$		morning max el	1505 Apr 16 j 01:02	8° $\mathring{\text{Y}}$ 16'23	26°48'13
morning set	1504 May 31 j 07:54	10° $\mathring{\text{H}}$ 09'04			1505 May 02 j 10:23	0° $\mathring{\text{B}}$	
asc. node	1504 May 31 j 11:37	10° $\mathring{\text{H}}$ 28'38		morning set	1505 May 15 j 18:07	24° $\mathring{\text{B}}$ 59'56	
				asc. node	1505 May 18 j 08:38	0° $\mathring{\text{H}}$ 32'28	
					1505 May 18 j 02:36	0° $\mathring{\text{H}}$	
superior conj	1504 Jun 07 j 08:17	25° $\mathring{\text{H}}$ 21'16	1°06'51				
minimum elong	1504 Jun 07 j 05:56	25° $\mathring{\text{H}}$ 08'26	1°06'26	superior conj	1505 May 22 j 19:59	10° $\mathring{\text{H}}$ 19'05	0°45'46
max. Earth dist.	1504 Jun 08 j 08:44	27° $\mathring{\text{H}}$ 34'56	1.32611 AU	minimum elong	1505 May 22 j 18:08	10° $\mathring{\text{H}}$ 08'54	0°45'23
	1504 Jun 09 j 11:24	0° $\mathring{\text{B}}$		max. Earth dist.	1505 May 22 j 20:36	10° $\mathring{\text{H}}$ 22'27	1.32251 AU
evening rise	1504 Jun 14 j 11:26	10° $\mathring{\text{B}}$ 36'58		evening rise	1505 May 29 j 18:40	25° $\mathring{\text{H}}$ 21'44	
	1504 Jun 24 j 15:09	0° $\mathring{\text{O}}$			1505 Jun 01 j 00:29	0° $\mathring{\text{B}}$	
desc. node	1504 Jul 09 j 02:34	21° $\mathring{\text{O}}$ 47'29			1505 Jun 18 j 10:26	0° $\mathring{\text{O}}$	
evening max el	1504 Jul 16 j 09:05	29° $\mathring{\text{O}}$ 51'21	27°17'06		1505 Jun 25 j 23:35	9° $\mathring{\text{O}}$ 20'36	
	1504 Jul 16 j 12:45	0° $\mathring{\text{M}}$		desc. node			

evening max el	1505 Jun 28 j 11:09	11°Ω51'22	26°36'13	evening max el	1506 Jun 10 j 06:18	23°☿05'32	25°25'20
retrograde	1505 Jul 12 j 10:34	19°Ω04'52		desc. node	1506 Jun 12 j 20:35	25°☿23'05	
evening set	1505 Jul 19 j 04:15	17°Ω09'26			1506 Jun 21 j 20:02	0°Ω	
min. Earth dist.	1505 Jul 23 j 00:36	14°Ω33'18	0.60042 AU	retrograde	1506 Jun 24 j 06:54	0°Ω14'15	
inferior conj	1505 Jul 26 j 07:56	11°Ω54'02	-4°-42'-34		1506 Jun 26 j 17:36	30°☿☿	
minimum elong	1505 Jul 26 j 11:29	11°Ω46'50	4°42'11	evening set	1506 Jun 30 j 00:43	28°☿57'11	
morning rise	1505 Aug 02 j 22:04	7°Ω14'31		min. Earth dist.	1506 Jul 04 j 18:19	26°☿15'34	0.58005 AU
direct	1505 Aug 05 j 07:49	6°Ω53'09		inferior conj	1506 Jul 07 j 22:16	24°☿03'13	-4°-54'-55
morning max el	1505 Aug 12 j 19:49	10°Ω32'07	18°13'15	minimum elong	1506 Jul 07 j 21:49	24°☿04'02	4°54'56
asc. node	1505 Aug 14 j 07:50	12°Ω06'27		morning rise	1506 Jul 15 j 22:38	19°☿46'22	
	1505 Aug 25 j 15:31	0°☿		direct	1506 Jul 18 j 11:00	19°☿26'56	
morning set	1505 Aug 28 j 16:34	5°☿42'35		morning max el	1506 Jul 27 j 00:04	23°☿28'37	18°52'50
				asc. node	1506 Aug 01 j 04:53	29°☿43'43	
superior conj	1505 Sep 07 j 04:57	23°☿26'56	1°28'46		1506 Aug 01 j 09:22	0°Ω	
minimum elong	1505 Sep 07 j 08:43	23°☿43'57	1°28'26	morning set	1506 Aug 12 j 12:28	19°Ω49'33	
	1505 Sep 10 j 21:05	0°Ω			1506 Aug 17 j 16:46	0°☿	
max. Earth dist.	1505 Sep 14 j 19:36	6°Ω48'00	1.41087 AU	superior conj	1506 Aug 21 j 01:29	6°☿29'35	1°42'13
evening rise	1505 Sep 19 j 19:30	15°Ω06'20		minimum elong	1506 Aug 21 j 03:20	6°☿38'23	1°42'07
desc. node	1505 Sep 21 j 22:54	18°Ω33'48		max. Earth dist.	1506 Aug 27 j 23:28	19°☿15'51	1.39054 AU
	1505 Sep 29 j 07:11	0°☿		evening rise	1506 Aug 31 j 22:43	26°☿12'07	
greatest brilliancy	1505 Oct 18 j 04:10	26°☿16'50	-0.2m		1506 Sep 03 j 04:33	0°Ω	
	1505 Oct 21 j 08:17	0°☿		desc. node	1506 Sep 08 j 19:56	9°Ω10'58	
evening max el	1505 Oct 23 j 18:43	2°☿35'21	23°03'30		1506 Sep 22 j 22:17	0°☿	
retrograde	1505 Nov 02 j 23:29	8°☿38'26		evening max el	1506 Oct 06 j 07:31	16°☿11'20	24°23'16
evening set	1505 Nov 07 j 18:24	6°☿41'28		retrograde	1506 Oct 17 j 14:20	22°☿47'34	
asc. node	1505 Nov 10 j 07:03	4°☿05'30		evening set	1506 Oct 22 j 23:15	20°☿33'33	
inferior conj	1505 Nov 13 j 04:12	0°☿17'02	0°58'39	min. Earth dist.	1506 Oct 27 j 16:46	15°☿08'21	0.67534 AU
minimum elong	1505 Nov 13 j 02:53	0°☿21'37	0°58'05	inferior conj	1506 Oct 28 j 10:39	14°☿08'20	0°05'39
min. Earth dist.	1505 Nov 12 j 20:46	0°☿42'40	0.67781 AU	minimum elong	1506 Oct 28 j 10:31	14°☿08'48	0°05'35
	1505 Nov 13 j 09:09	30°☿☿		transit middle	1506 Oct 28 j 10:31	14°☿08'48	0°05'35
morning rise	1505 Nov 18 j 11:22	24°☿05'34		transit begin	1506 Oct 28 j 07:57	14°☿17'27	
direct	1505 Nov 22 j 18:21	22°☿24'09		transit end	1506 Oct 28 j 13:05	14°☿00'11	
morning max el	1505 Dec 01 j 13:52	27°☿33'44	21°32'23	asc. node	1506 Oct 28 j 04:06	14°☿30'23	
	1505 Dec 03 j 20:21	0°☿		morning rise	1506 Nov 02 j 22:06	8°☿02'19	
greatest brilliancy	1505 Dec 06 j 14:02	3°☿15'42	-0.4m	direct	1506 Nov 06 j 15:50	6°☿42'16	
desc. node	1505 Dec 18 j 22:06	20°☿14'55		morning max el	1506 Nov 14 j 11:17	11°☿11'38	20°17'36
	1505 Dec 25 j 10:45	0°☿		greatest brilliancy	1506 Nov 21 j 01:55	19°☿06'54	-0.6m
morning set	1506 Jan 02 j 04:00	11°☿59'03			1506 Nov 28 j 18:27	0°☿	
max. Earth dist.	1506 Jan 09 j 00:23	23°☿03'40	1.41903 AU	desc. node	1506 Dec 05 j 19:09	10°☿31'13	
	1506 Jan 13 j 03:52	0°☿		morning set	1506 Dec 12 j 01:44	20°☿08'17	
superior conj	1506 Jan 16 j 12:53	5°☿47'46	-2°-4'-14		1506 Dec 18 j 09:09	0°☿	
minimum elong	1506 Jan 16 j 13:09	5°☿48'51	2°04'15	max. Earth dist.	1506 Dec 22 j 08:10	6°☿18'13	1.43600 AU
evening rise	1506 Jan 27 j 13:35	25°☿33'37		superior conj	1506 Dec 28 j 06:41	15°☿57'47	-1°-56'-55
	1506 Jan 29 j 23:58	0°☿		minimum elong	1506 Dec 28 j 01:45	15°☿37'25	1°56'41
asc. node	1506 Feb 06 j 06:23	12°☿39'04			1507 Jan 05 j 14:46	0°☿	
evening max el	1506 Feb 13 j 00:24	21°☿38'04	18°09'53	evening rise	1507 Jan 09 j 23:39	7°☿33'40	
retrograde	1506 Feb 19 j 19:39	25°☿04'47			1507 Jan 23 j 13:09	0°☿	
evening set	1506 Feb 22 j 09:30	24°☿35'38		asc. node	1507 Jan 24 j 03:25	0°☿48'59	
inferior conj	1506 Mar 01 j 05:02	19°☿42'57	3°29'07	evening max el	1507 Jan 27 j 12:41	4°☿49'52	18°09'44
minimum elong	1506 Mar 01 j 07:25	19°☿37'25	3°28'48	retrograde	1507 Feb 03 j 00:10	8°☿14'26	
min. Earth dist.	1506 Mar 04 j 11:54	16°☿41'46	0.60518 AU	evening set	1507 Feb 05 j 18:57	7°☿35'27	
morning rise	1506 Mar 08 j 02:07	13°☿55'56		inferior conj	1507 Feb 12 j 02:11	2°☿21'54	3°44'41
direct	1506 Mar 14 j 18:40	11°☿46'46		minimum elong	1507 Feb 12 j 02:31	2°☿21'02	3°44'40
desc. node	1506 Mar 16 j 21:16	11°☿58'59			1507 Feb 14 j 08:05	30°☿☿	
morning max el	1506 Mar 29 j 01:00	19°☿38'12	27°36'43	min. Earth dist.	1507 Feb 14 j 20:57	29°☿27'07	0.62595 AU
	1506 Apr 06 j 21:02	0°☿		morning rise	1507 Feb 18 j 07:55	26°☿21'51	
	1506 Apr 25 j 05:06	0°☿		direct	1507 Feb 25 j 06:49	23°☿45'23	
morning set	1506 Apr 30 j 01:02	9°☿38'56		desc. node	1507 Mar 03 j 18:18	25°☿41'36	
asc. node	1506 May 05 j 05:41	20°☿41'36			1507 Mar 09 j 12:28	0°☿	
max. Earth dist.	1506 May 06 j 08:29	23°☿07'46	1.32274 AU	morning max el	1507 Mar 11 j 06:29	1°☿40'14	27°48'26
					1507 Apr 01 j 02:26	0°☿	
superior conj	1506 May 07 j 07:20	25°☿12'52	0°21'44	morning set	1507 Apr 14 j 02:32	23°☿58'24	
minimum elong	1506 May 07 j 06:21	25°☿07'32	0°21'32		1507 Apr 17 j 00:50	0°☿	
	1506 May 09 j 11:40	0°☿		max. Earth dist.	1507 Apr 19 j 16:32	5°☿37'22	1.32690 AU
evening rise	1506 May 14 j 05:10	10°☿13'50					
	1506 May 24 j 09:00	0°☿					

superior conj	1507 Apr 21 j 16:35	9°♄56'18	0°-4'-28	max. Earth dist.	1508 Apr 01 j 16:56	17°♄39'55	1.33531 AU
minimum elong	1507 Apr 21 j 16:48	9°♄57'27	0°04'26				
behind sun begin	1507 Apr 21 j 11:47	9°♄30'18		superior conj	1508 Apr 04 j 21:50	24°♄23'06	0°-31'-56
behind sun end	1507 Apr 21 j 21:48	10°♄24'36		minimum elong	1508 Apr 04 j 23:25	24°♄31'32	0°31'38
asc. node	1507 Apr 22 j 02:45	10°♄51'23		asc. node	1508 Apr 07 j 23:48	0°♄57'39	
evening rise	1507 Apr 28 j 17:00	25°♄06'08			1508 Apr 07 j 13:01	0°♄	
	1507 May 01 j 01:20	0°♄		evening rise	1508 Apr 12 j 04:18	9°♄52'14	
	1507 May 19 j 08:19	0°♄			1508 Apr 22 j 17:15	0°♄	
evening max el	1507 May 22 j 20:43	3°♄45'18	23°54'38	evening max el	1508 May 03 j 12:31	14°♄16'42	22°18'49
desc. node	1507 May 30 j 17:35	9°♄21'04		retrograde	1508 May 16 j 10:46	20°♄39'58	
retrograde	1507 Jun 05 j 15:03	10°♄39'55		desc. node	1508 May 16 j 14:36	20°♄39'54	
evening set	1507 Jun 09 j 22:46	9°♄58'44		evening set	1508 May 19 j 09:42	20°♄20'41	
min. Earth dist.	1507 Jun 16 j 07:30	6°♄55'44	0.56268 AU	min. Earth dist.	1508 May 27 j 19:10	16°♄43'40	0.55170 AU
inferior conj	1507 Jun 18 j 16:29	5°♄28'38	-4°-29'-42	inferior conj	1508 May 28 j 17:18	16°♄12'27	-3°-17'-7
minimum elong	1507 Jun 18 j 10:50	5°♄37'18	4°28'50	minimum elong	1508 May 28 j 09:35	16°♄23'20	3°14'57
morning rise	1507 Jun 27 j 02:24	1°♄30'01		morning rise	1508 Jun 06 j 11:35	12°♄20'23	
direct	1507 Jun 29 j 19:18	1°♄11'11		direct	1508 Jun 09 j 11:04	12°♄00'22	
morning max el	1507 Jul 09 j 18:27	5°♄48'23	19°53'44	morning max el	1508 Jun 21 j 01:28	17°♄24'44	21°14'56
asc. node	1507 Jul 19 j 01:58	18°♄08'30			1508 Jun 30 j 20:38	0°♄	
	1507 Jul 25 j 11:54	0°♄		asc. node	1508 Jul 04 j 23:02	7°♄08'51	
morning set	1507 Jul 27 j 15:44	4°♄19'18		morning set	1508 Jul 10 j 23:47	19°♄04'02	
					1508 Jul 16 j 05:17	0°♄	
superior conj	1507 Aug 04 j 12:39	20°♄16'38	1°46'06	superior conj	1508 Jul 18 j 10:05	4°♄34'53	1°42'18
minimum elong	1507 Aug 04 j 12:39	20°♄16'37	1°46'06	minimum elong	1508 Jul 18 j 08:42	4°♄27'44	1°42'14
	1507 Aug 09 j 12:20	0°♄		max. Earth dist.	1508 Jul 22 j 14:40	13°♄06'28	1.35333 AU
max. Earth dist.	1507 Aug 10 j 04:04	1°♄14'32	1.37070 AU	evening rise	1508 Jul 26 j 22:12	21°♄29'41	
evening rise	1507 Aug 14 j 01:06	8°♄23'53			1508 Jul 31 j 13:18	0°♄	
desc. node	1507 Aug 26 j 16:58	29°♄36'39		desc. node	1508 Aug 12 j 13:58	19°♄44'25	
	1507 Aug 26 j 22:59	0°♄			1508 Aug 19 j 19:04	0°♄	
	1507 Sep 18 j 23:15	0°♄		evening max el	1508 Aug 31 j 07:37	13°♄28'06	26°36'26
evening max el	1507 Sep 18 j 19:31	29°♄50'56	25°36'46	retrograde	1508 Sep 13 j 05:41	20°♄41'39	
retrograde	1507 Oct 01 j 00:35	6°♄50'50		evening set	1508 Sep 19 j 18:52	18°♄01'20	
evening set	1507 Oct 07 j 00:05	4°♄21'29		min. Earth dist.	1508 Sep 23 j 20:55	13°♄48'52	0.66045 AU
	1507 Oct 11 j 00:44	30°♄		inferior conj	1508 Sep 25 j 13:26	11°♄47'40	-1°-48'-20
min. Earth dist.	1507 Oct 11 j 09:39	29°♄31'53	0.66962 AU	minimum elong	1508 Sep 25 j 16:17	11°♄39'06	1°47'11
inferior conj	1507 Oct 12 j 14:23	27°♄59'55	0°-50'-30	asc. node	1508 Sep 30 j 22:13	6°♄26'24	
minimum elong	1507 Oct 12 j 15:41	27°♄55'45	0°49'58	morning rise	1508 Oct 01 j 14:57	6°♄01'24	
asc. node	1507 Oct 15 j 01:08	24°♄59'52		direct	1508 Oct 04 j 12:13	5°♄14'40	
morning rise	1507 Oct 18 j 08:01	22°♄02'12		morning max el	1508 Oct 11 j 03:51	8°♄53'47	18°31'24
direct	1507 Oct 21 j 14:25	21°♄00'36			1508 Oct 25 j 23:30	0°♄	
morning max el	1507 Oct 28 j 16:26	24°♄59'42	19°16'39	morning set	1508 Oct 31 j 05:15	8°♄23'50	
	1507 Nov 01 j 23:08	0°♄		desc. node	1508 Nov 08 j 13:16	21°♄40'41	
greatest brilliancy	1507 Nov 07 j 16:57	8°♄03'19	-0.7m		1508 Nov 13 j 19:50	0°♄	
morning set	1507 Nov 21 j 03:25	28°♄38'18		superior conj	1508 Nov 16 j 00:21	3°♄26'27	0°-48'-20
	1507 Nov 22 j 00:25	0°♄		minimum elong	1508 Nov 15 j 18:10	3°♄02'11	0°47'33
desc. node	1507 Nov 22 j 16:13	1°♄01'28		max. Earth dist.	1508 Nov 16 j 17:37	4°♄34'14	1.45121 AU
max. Earth dist.	1507 Dec 04 j 23:00	20°♄15'10	1.44718 AU	evening rise	1508 Dec 02 j 02:21	28°♄46'08	
superior conj	1507 Dec 07 j 22:53	24°♄59'51	-1°-30'-53		1508 Dec 02 j 21:00	0°♄	
minimum elong	1507 Dec 07 j 14:13	24°♄25'27	1°30'05		1508 Dec 22 j 22:49	0°♄	
	1507 Dec 11 j 02:08	0°♄		evening max el	1508 Dec 24 j 10:53	1°♄38'59	19°04'29
evening rise	1507 Dec 22 j 12:45	18°♄38'48		asc. node	1508 Dec 27 j 21:29	4°♄30'08	
	1507 Dec 29 j 09:28	0°♄		retrograde	1508 Dec 31 j 09:04	5°♄35'26	
evening max el	1508 Jan 11 j 01:01	18°♄11'56	18°28'14	evening set	1509 Jan 03 j 15:16	4°♄33'44	
asc. node	1508 Jan 11 j 00:27	18°♄10'31			1509 Jan 08 j 07:01	30°♄	
retrograde	1508 Jan 17 j 13:53	21°♄47'04		inferior conj	1509 Jan 09 j 07:20	28°♄43'54	3°21'07
evening set	1508 Jan 20 j 13:53	20°♄57'17		minimum elong	1509 Jan 09 j 05:02	28°♄51'12	3°20'42
inferior conj	1508 Jan 26 j 12:09	15°♄24'21	3°40'13	min. Earth dist.	1509 Jan 10 j 19:28	26°♄49'48	0.65822 AU
minimum elong	1508 Jan 26 j 10:50	15°♄28'12	3°40'06	morning rise	1509 Jan 14 j 17:53	22°♄31'15	
min. Earth dist.	1508 Jan 28 j 15:33	12°♄54'38	0.64401 AU	direct	1509 Jan 21 j 04:30	19°♄42'44	
morning rise	1508 Feb 01 j 06:24	9°♄16'27		morning max el	1509 Feb 03 j 01:22	27°♄17'59	26°30'09
direct	1508 Feb 08 j 02:25	6°♄26'57		desc. node	1509 Feb 04 j 12:26	28°♄48'56	
desc. node	1508 Feb 18 j 15:22	11°♄29'36			1509 Feb 05 j 14:33	0°♄	
morning max el	1508 Feb 21 j 15:27	14°♄17'13	27°24'17		1509 Feb 27 j 01:54	0°♄	
	1508 Mar 05 j 10:05	0°♄		morning set	1509 Mar 11 j 01:39	21°♄02'59	
	1508 Mar 23 j 17:30	0°♄		max. Earth dist.	1509 Mar 15 j 06:31	29°♄09'46	1.34820 AU
morning set	1508 Mar 27 j 19:55	7°♄49'56					

	1509 Mar 15 j 16:39	0°♄		desc. node	1510 Jan 22 j 09:28	17°♄12'26	
					1510 Jan 31 j 22:51	0°♄	
superior conj	1509 Mar 19 j 20:51	8°♄26'46	0°-59'-29		1510 Feb 19 j 17:18	0°♄	
minimum elong	1509 Mar 19 j 23:49	8°♄41'59	0°58'58	morning set	1510 Feb 21 j 14:46	3°♄22'25	
asc. node	1509 Mar 25 j 20:50	20°♄56'27		max. Earth dist.	1510 Feb 25 j 08:21	10°♄13'16	1.36548 AU
evening rise	1509 Mar 27 j 13:10	24°♄25'52					
	1509 Mar 30 j 06:47	0°♄		superior conj	1510 Mar 03 j 10:43	21°♄58'11	-1°-25'-23
evening max el	1509 Apr 15 j 12:46	25°♄10'13	20°51'35	minimum elong	1510 Mar 03 j 14:41	22°♄17'52	1°24'51
	1509 Apr 22 j 18:45	0°♄			1510 Mar 07 j 10:51	0°♄	
retrograde	1509 Apr 27 j 00:08	0°♄44'53		evening rise	1510 Mar 11 j 17:20	8°♄39'16	
evening set	1509 Apr 29 j 04:22	0°♄33'36		asc. node	1510 Mar 12 j 17:51	10°♄42'27	
	1509 May 01 j 10:12	30°♄			1510 Mar 23 j 12:53	0°♄	
desc. node	1509 May 03 j 11:37	29°♄12'26		evening max el	1510 Mar 29 j 00:38	6°♄41'18	19°40'55
inferior conj	1509 May 08 j 11:10	26°♄35'46	-1°-26'-26	retrograde	1510 Apr 07 j 18:28	11°♄23'05	
minimum elong	1509 May 08 j 07:05	26°♄41'35	1°24'59	evening set	1510 Apr 09 j 19:35	11°♄11'33	
min. Earth dist.	1509 May 09 j 07:43	26°♄06'31	0.54966 AU	inferior conj	1510 Apr 18 j 12:34	7°♄08'39	0°31'37
morning rise	1509 May 17 j 09:02	22°♄30'45		minimum elong	1510 Apr 18 j 13:55	7°♄06'30	0°31'08
direct	1509 May 20 j 20:42	22°♄04'34		desc. node	1510 Apr 20 j 08:39	5°♄59'24	
morning max el	1509 Jun 02 j 22:27	28°♄20'57	22°51'29	min. Earth dist.	1510 Apr 20 j 22:00	5°♄38'46	0.55723 AU
	1509 Jun 04 j 14:30	0°♄		morning rise	1510 Apr 27 j 04:45	2°♄33'42	
asc. node	1509 Jun 21 j 20:07	26°♄35'45		direct	1510 May 01 j 13:56	1°♄50'48	
	1509 Jun 23 j 12:40	0°♄		morning max el	1510 May 15 j 13:35	8°♄51'29	24°33'12
morning set	1509 Jun 25 j 10:37	3°♄57'57			1510 May 31 j 04:11	0°♄	
				asc. node	1510 Jun 08 j 17:08	16°♄21'14	
superior conj	1509 Jul 02 j 14:30	19°♄14'28	1°32'20	morning set	1510 Jun 09 j 22:29	18°♄54'46	
minimum elong	1509 Jul 02 j 12:19	19°♄02'51	1°32'07		1510 Jun 15 j 02:03	0°♄	
max. Earth dist.	1509 Jul 05 j 10:14	25°♄11'50	1.33963 AU				
	1509 Jul 07 j 18:07	0°♄		superior conj	1510 Jun 16 j 23:19	4°♄06'22	1°17'22
evening rise	1509 Jul 10 j 09:27	5°♄17'21		minimum elong	1510 Jun 16 j 20:53	3°♄53'11	1°17'01
	1509 Jul 24 j 05:43	0°♄		max. Earth dist.	1510 Jun 18 j 14:18	7°♄37'25	1.32992 AU
desc. node	1509 Jul 30 j 10:58	9°♄26'23		evening rise	1510 Jun 24 j 06:50	19°♄34'47	
evening max el	1509 Aug 13 j 19:28	26°♄53'49	27°14'49		1510 Jun 29 j 14:33	0°♄	
	1509 Aug 17 j 09:12	0°♄		desc. node	1510 Jul 17 j 07:58	28°♄23'32	
retrograde	1509 Aug 27 j 05:18	4°♄12'37			1510 Jul 18 j 10:53	0°♄	
evening set	1509 Sep 03 j 05:08	1°♄29'11		evening max el	1510 Jul 27 j 05:37	9°♄56'30	27°25'28
	1509 Sep 04 j 22:25	30°♄		retrograde	1510 Aug 09 j 22:55	17°♄14'34	
min. Earth dist.	1509 Sep 07 j 00:24	27°♄53'19	0.64769 AU	evening set	1510 Aug 17 j 03:41	14°♄39'33	
inferior conj	1509 Sep 09 j 05:33	25°♄27'30	-2°-45'-38	min. Earth dist.	1510 Aug 20 j 18:21	11°♄35'45	0.63139 AU
minimum elong	1509 Sep 09 j 09:51	25°♄15'42	2°44'08	inferior conj	1510 Aug 23 j 12:05	8°♄53'35	-3°-39'-13
morning rise	1509 Sep 15 j 16:24	19°♄55'48		minimum elong	1510 Aug 23 j 17:15	8°♄40'49	3°37'47
asc. node	1509 Sep 17 j 19:17	19°♄21'26		morning rise	1510 Aug 30 j 09:16	3°♄39'40	
direct	1509 Sep 18 j 06:54	19°♄20'12		direct	1510 Sep 01 j 19:42	3°♄11'42	
morning max el	1509 Sep 24 j 19:01	22°♄48'34	18°02'51	asc. node	1510 Sep 04 j 16:20	3°♄51'06	
	1509 Sep 30 j 11:07	0°♄		morning max el	1510 Sep 08 j 11:06	6°♄37'32	17°51'58
morning set	1509 Oct 12 j 12:01	19°♄34'16			1510 Sep 23 j 16:58	0°♄	
	1509 Oct 18 j 18:32	0°♄		morning set	1510 Sep 24 j 19:16	1°♄55'36	
superior conj	1509 Oct 26 j 08:26	12°♄18'05	0°00'31	superior conj	1510 Oct 06 j 15:56	22°♄20'26	0°43'56
minimum elong	1509 Oct 26 j 08:30	12°♄18'21	0°00'30	minimum elong	1510 Oct 06 j 20:01	22°♄37'26	0°43'24
behind sun begin	1509 Oct 25 j 21:56	11°♄36'00			1510 Oct 11 j 07:36	0°♄	
behind sun end	1509 Oct 26 j 19:05	13°♄00'38		max. Earth dist.	1510 Oct 13 j 04:21	3°♄00'52	1.43761 AU
desc. node	1509 Oct 26 j 10:16	12°♄25'23		desc. node	1510 Oct 13 j 07:17	3°♄12'41	
max. Earth dist.	1509 Oct 30 j 12:17	18°♄54'59	1.44784 AU	evening rise	1510 Oct 22 j 03:06	17°♄06'39	
	1509 Nov 06 j 14:03	0°♄			1510 Oct 30 j 14:24	0°♄	
evening rise	1509 Nov 11 j 19:12	8°♄04'56		greatest brilliancy	1510 Nov 15 j 07:48	22°♄21'15	-0.5m
	1509 Nov 26 j 04:56	0°♄		evening max el	1510 Nov 20 j 16:25	28°♄37'19	21°02'29
greatest brilliancy	1509 Nov 30 j 13:31	6°♄16'09	-0.6m		1510 Nov 22 j 02:25	0°♄	
evening max el	1509 Dec 07 j 16:21	15°♄07'29	19°56'47	retrograde	1510 Nov 29 j 04:16	3°♄39'30	
asc. node	1509 Dec 14 j 18:31	19°♄32'28		asc. node	1510 Dec 01 j 15:33	3°♄05'24	
retrograde	1509 Dec 15 j 06:38	19°♄33'54		evening set	1510 Dec 03 j 04:02	2°♄09'19	
evening set	1509 Dec 18 j 20:38	18°♄18'49			1510 Dec 05 j 10:05	30°♄	
inferior conj	1509 Dec 24 j 08:46	12°♄14'59	2°51'01	inferior conj	1510 Dec 08 j 14:04	25°♄54'47	2°12'27
minimum elong	1509 Dec 24 j 06:06	12°♄23'53	2°50'19	minimum elong	1510 Dec 08 j 11:34	26°♄03'20	2°11'36
min. Earth dist.	1509 Dec 25 j 07:00	11°♄00'47	0.66847 AU	min. Earth dist.	1510 Dec 08 j 23:58	25°♄20'44	0.67492 AU
morning rise	1509 Dec 29 j 14:55	5°♄59'58		morning rise	1510 Dec 13 j 18:43	19°♄39'30	
direct	1510 Jan 04 j 12:22	3°♄23'24		direct	1510 Dec 19 j 01:16	17°♄22'10	
morning max el	1510 Jan 16 j 10:15	10°♄29'32	25°14'39	morning max el	1510 Dec 29 j 18:38	23°♄45'50	23°48'02

	1511 Jan 04 j 07:36	0°☿		desc. node	1511 Dec 27 j 03:32	26°☿03'55	
desc. node	1511 Jan 09 j 06:29	6°☿21'52			1511 Dec 29 j 21:00	0°☿	
	1511 Jan 25 j 09:00	0°☿		morning set	1512 Jan 14 j 15:23	24°☿17'27	
morning set	1511 Feb 03 j 05:14	14°☿31'50			1512 Jan 18 j 02:42	0°☿	
max. Earth dist.	1511 Feb 07 j 03:22	21°☿21'06	1.38606 AU	max. Earth dist.	1512 Jan 20 j 00:03	3°☿10'08	1.40752 AU
	1511 Feb 11 j 22:04	0°☿					
superior conj	1511 Feb 14 j 11:47	4°☿48'13	-1°-47'-10	superior conj	1512 Jan 27 j 19:21	16°☿44'46	-2°-1'-19
minimum elong	1511 Feb 14 j 15:50	5°☿07'24	1°46'48	minimum elong	1512 Jan 27 j 21:42	16°☿55'18	2°01'14
evening rise	1511 Feb 23 j 14:15	22°☿25'39		evening rise	1512 Feb 07 j 00:43	5°☿37'03	
asc. node	1511 Feb 27 j 14:52	0°☿10'42		asc. node	1512 Feb 14 j 11:54	19°☿14'46	
	1511 Feb 27 j 12:35	0°☿			1512 Feb 21 j 19:17	0°☿	
evening max el	1511 Mar 11 j 23:13	18°☿50'46	18°49'48	evening max el	1512 Feb 23 j 05:34	1°☿30'52	18°18'46
retrograde	1511 Mar 20 j 04:32	22°☿50'22		retrograde	1512 Mar 01 j 09:47	5°☿04'58	
evening set	1511 Mar 22 j 10:08	22°☿33'51		evening set	1512 Mar 03 j 20:51	4°☿40'46	
inferior conj	1511 Mar 30 j 08:10	18°☿14'23	2°07'00	inferior conj	1512 Mar 11 j 01:02	0°☿00'08	3°08'22
minimum elong	1511 Mar 30 j 12:10	18°☿07'05	2°05'50	minimum elong	1512 Mar 11 j 04:29	29°☿52'47	3°07'42
min. Earth dist.	1511 Apr 02 j 14:32	15°☿52'54	0.57273 AU		1512 Mar 11 j 01:06	30°☿	
morning rise	1511 Apr 07 j 09:53	13°☿05'55		min. Earth dist.	1512 Mar 14 j 11:16	27°☿06'36	0.59284 AU
desc. node	1511 Apr 07 j 05:40	13°☿10'33		morning rise	1512 Mar 18 j 08:25	24°☿24'38	
direct	1511 Apr 12 j 20:56	11°☿53'35		desc. node	1512 Mar 24 j 02:41	22°☿36'56	
morning max el	1511 Apr 27 j 04:46	19°☿22'43	26°05'22	direct	1512 Mar 24 j 16:48	22°☿36'00	
	1511 May 06 j 04:33	0°☿			1512 Apr 07 j 16:16	0°☿	
	1511 May 23 j 13:41	0°☿		morning max el	1512 Apr 08 j 00:54	0°☿21'01	27°13'14
morning set	1511 May 25 j 09:47	3°☿49'16			1512 Apr 29 j 04:18	0°☿	
asc. node	1511 May 26 j 14:09	6°☿19'39		morning set	1512 May 08 j 18:53	18°☿36'02	
				asc. node	1512 May 12 j 11:12	26°☿26'15	
superior conj	1511 Jun 01 j 10:30	19°☿03'48	0°58'18		1512 May 14 j 02:26	0°☿	
minimum elong	1511 Jun 01 j 08:18	18°☿51'47	0°57'54	superior conj	1512 May 15 j 22:17	4°☿00'46	0°35'54
max. Earth dist.	1511 Jun 02 j 00:25	20°☿20'11	1.32418 AU	minimum elong	1512 May 15 j 20:46	3°☿52'24	0°35'36
	1511 Jun 06 j 11:22	0°☿		max. Earth dist.	1512 May 15 j 12:58	3°☿09'30	1.32218 AU
evening rise	1511 Jun 08 j 11:15	4°☿12'15		evening rise	1512 May 22 j 20:11	19°☿01'34	
	1511 Jun 22 j 08:17	0°☿			1512 May 28 j 06:08	0°☿	
desc. node	1511 Jul 04 j 05:00	16°☿44'15			1512 Jun 16 j 13:50	0°☿	
evening max el	1511 Jul 09 j 11:37	22°☿23'18	27°03'45	desc. node	1512 Jun 20 j 02:00	3°☿43'06	
retrograde	1511 Jul 23 j 09:19	29°☿37'49		evening max el	1512 Jun 20 j 11:01	4°☿04'48	26°09'19
evening set	1511 Jul 30 j 10:19	27°☿24'35		retrograde	1512 Jul 04 j 11:00	11°☿15'49	
min. Earth dist.	1511 Aug 03 j 01:54	24°☿42'38	0.61224 AU	evening set	1512 Jul 10 j 20:22	9°☿36'12	
inferior conj	1511 Aug 06 j 05:48	21°☿57'33	-4°-23'-57	min. Earth dist.	1512 Jul 14 j 23:44	7°☿00'06	0.59168 AU
minimum elong	1511 Aug 06 j 10:33	21°☿47'11	4°23'06	inferior conj	1512 Jul 18 j 07:10	4°☿30'03	-4°-51'-30
morning rise	1511 Aug 13 j 13:45	17°☿04'26		minimum elong	1512 Jul 18 j 09:19	4°☿25'58	4°51'23
direct	1511 Aug 15 j 22:58	16°☿41'14		morning rise	1512 Jul 26 j 01:42	0°☿00'08	
asc. node	1511 Aug 22 j 13:23	19°☿45'23			1512 Jul 26 j 01:53	30°☿	
morning max el	1511 Aug 23 j 01:00	20°☿12'49	17°59'46	direct	1512 Jul 28 j 12:29	29°☿39'36	
	1511 Aug 30 j 07:54	0°☿			1512 Jul 30 j 21:34	0°☿	
morning set	1511 Sep 07 j 20:41	15°☿09'01		morning max el	1512 Aug 05 j 09:42	3°☿26'29	18°27'27
	1511 Sep 16 j 00:18	0°☿		asc. node	1512 Aug 08 j 10:26	6°☿49'42	
superior conj	1511 Sep 18 j 02:34	3°☿42'27	1°15'56	morning set	1512 Aug 21 j 11:04	29°☿00'10	
minimum elong	1511 Sep 18 j 07:04	4°☿02'15	1°15'27		1512 Aug 21 j 23:31	0°☿	
max. Earth dist.	1511 Sep 25 j 16:04	16°☿37'12	1.42180 AU	superior conj	1512 Aug 30 j 12:27	16°☿13'36	1°35'46
desc. node	1511 Sep 30 j 04:19	23°☿58'55		minimum elong	1512 Aug 30 j 15:26	16°☿27'26	1°35'32
evening rise	1511 Oct 01 j 19:20	26°☿34'44		max. Earth dist.	1512 Sep 06 j 22:41	29°☿32'18	1.40241 AU
	1511 Oct 03 j 23:23	0°☿			1512 Sep 07 j 05:06	0°☿	
	1511 Oct 24 j 10:24	0°☿		evening rise	1512 Sep 11 j 08:34	7°☿01'28	
greatest brilliancy	1511 Oct 29 j 17:45	6°☿49'51	-0.3m	desc. node	1512 Sep 16 j 01:22	14°☿40'41	
evening max el	1511 Nov 03 j 11:02	12°☿08'28	22°17'49		1512 Sep 26 j 01:55	0°☿	
retrograde	1511 Nov 13 j 00:13	17°☿49'04		evening max el	1512 Oct 16 j 01:22	25°☿42'18	23°37'38
evening set	1511 Nov 17 j 11:42	16°☿02'08			1512 Oct 21 j 03:27	0°☿	
asc. node	1511 Nov 18 j 12:36	15°☿06'14		retrograde	1512 Oct 26 j 17:11	1°☿59'47	
inferior conj	1511 Nov 22 j 21:12	9°☿40'23	1°27'10	evening set	1512 Oct 31 j 18:05	29°☿55'17	
minimum elong	1511 Nov 22 j 19:21	9°☿46'50	1°26'26		1512 Oct 31 j 15:49	30°☿	
min. Earth dist.	1511 Nov 22 j 19:54	9°☿44'55	0.67780 AU	asc. node	1512 Nov 04 j 09:38	25°☿54'17	
morning rise	1511 Nov 28 j 02:50	3°☿27'02		min. Earth dist.	1512 Nov 05 j 16:31	24°☿10'50	0.67726 AU
direct	1511 Dec 02 j 18:16	1°☿32'17		inferior conj	1512 Nov 06 j 04:25	23°☿30'09	0°36'37
morning max el	1511 Dec 12 j 05:37	7°☿07'44	22°20'11	minimum elong	1512 Nov 06 j 03:34	23°☿33'06	0°36'15
greatest brilliancy	1511 Dec 16 j 19:53	12°☿16'29	-0.3m				

morning rise	1512 Nov 11 j 13:12	17° M 20'56		asc. node	1513 Oct 22 j 06:42	6° M 13'51	
direct	1512 Nov 15 j 14:23	15° M 48'55		morning rise	1513 Oct 26 j 23:51	1° M 19'08	
morning max el	1512 Nov 23 j 22:46	20° M 39'43	20°59'03	direct	1513 Oct 30 j 12:25	0° M 07'34	
greatest brilliancy	1512 Nov 29 j 12:00	27° M 05'51	-0.5m	morning max el	1513 Nov 06 j 23:42	4° M 22'50	19°49'49
	1512 Dec 01 j 17:11	0° J		greatest brilliancy	1513 Nov 14 j 15:03	13° M 48'29	-0.6m
desc. node	1512 Dec 13 j 00:36	16° J 09'40			1513 Nov 25 j 14:58	0° J	
	1512 Dec 22 j 03:01	0° J		desc. node	1513 Nov 29 j 21:40	6° J 32'28	
morning set	1512 Dec 23 j 22:25	2° J 48'56		morning set	1513 Dec 02 j 18:39	10° J 58'12	
max. Earth dist.	1513 Jan 01 j 03:50	15° J 56'08	1.42688 AU	max. Earth dist.	1513 Dec 14 j 14:56	29° J 31'00	1.44152 AU
					1513 Dec 14 j 22:13	0° J	
superior conj	1513 Jan 08 j 04:07	27° J 35'40	-2°-3'-15	superior conj	1513 Dec 19 j 10:32	7° J 14'52	-1°-48'-13
minimum elong	1513 Jan 08 j 02:18	27° J 28'00	2°03'14	minimum elong	1513 Dec 19 j 03:29	6° J 46'21	1°47'44
	1513 Jan 09 j 13:59	0° J		evening rise	1514 Jan 01 j 22:39	29° J 43'32	
evening rise	1513 Jan 19 j 20:57	18° J 05'39			1514 Jan 02 j 02:31	0° J	
	1513 Jan 26 j 14:15	0° J		asc. node	1514 Jan 18 j 05:59	25° J 38'00	
asc. node	1513 Jan 31 j 08:56	7° J 46'59		evening max el	1514 Jan 20 j 05:05	27° J 49'32	18°15'21
evening max el	1513 Feb 05 j 16:30	14° J 32'48	18°07'28		1514 Jan 22 j 19:29	0° J	
retrograde	1513 Feb 12 j 07:16	17° J 57'12		retrograde	1514 Jan 26 j 16:18	1° J 17'35	
evening set	1513 Feb 14 j 23:12	17° J 23'57		evening set	1514 Jan 29 j 13:06	0° J 34'16	
inferior conj	1513 Feb 21 j 13:01	12° J 21'54	3°38'36		1514 Jan 30 j 12:57	30° R	
minimum elong	1513 Feb 21 j 14:31	12° J 18'13	3°38'29	inferior conj	1514 Feb 04 j 16:09	25° J 12'14	3°44'52
min. Earth dist.	1513 Feb 24 j 15:16	9° J 20'54	0.61416 AU	minimum elong	1514 Feb 04 j 15:42	25° J 13'27	3°44'52
morning rise	1513 Feb 28 j 03:06	6° J 28'24		min. Earth dist.	1514 Feb 07 j 04:34	22° J 26'03	0.63397 AU
direct	1513 Mar 06 j 23:24	4° J 06'27		morning rise	1514 Feb 10 j 16:28	19° J 08'01	
desc. node	1513 Mar 10 j 23:45	4° J 50'59		direct	1514 Feb 17 j 14:57	16° J 24'06	
morning max el	1513 Mar 21 j 03:32	11° J 59'59	27°46'32	desc. node	1514 Feb 25 j 20:48	19° J 31'24	
	1513 Apr 04 j 08:44	0° Y		morning max el	1514 Mar 03 j 11:05	24° J 19'05	27°42'23
	1513 Apr 21 j 10:49	0° Y			1514 Mar 08 j 14:37	0° J	
morning set	1513 Apr 22 j 23:48	3° Y 07'30			1514 Mar 28 j 17:20	0° Y	
max. Earth dist.	1513 Apr 28 j 23:53	15° Y 50'28	1.32397 AU	morning set	1514 Apr 06 j 22:13	17° Y 16'20	
asc. node	1513 Apr 29 j 08:14	16° Y 35'50		max. Earth dist.	1514 Apr 12 j 05:07	28° Y 09'31	1.32987 AU
					1514 Apr 13 j 01:57	0° Y	
superior conj	1513 Apr 30 j 08:55	18° Y 50'25	0°10'52	superior conj	1514 Apr 14 j 16:43	3° Y 27'18	0°-16'-1
minimum elong	1513 Apr 30 j 08:25	18° Y 47'41	0°10'45	minimum elong	1514 Apr 14 j 17:29	3° Y 31'30	0°15'52
behind sun begin	1513 Apr 30 j 04:39	18° Y 27'05		behind sun begin	1514 Apr 14 j 17:05	3° Y 29'19	
behind sun end	1513 Apr 30 j 12:12	19° Y 08'17		behind sun end	1514 Apr 14 j 17:54	3° Y 33'41	
	1513 May 05 j 11:42	0° II		asc. node	1514 Apr 16 j 05:18	6° Y 44'28	
evening rise	1513 May 07 j 07:28	3° II 54'16		evening rise	1514 Apr 21 j 19:17	18° Y 44'15	
	1513 May 21 j 07:30	0° J			1514 Apr 27 j 08:30	0° II	
evening max el	1513 Jun 02 j 03:27	15° J 01'14	24°48'22	evening max el	1514 May 14 j 17:21	25° II 32'39	23°13'38
desc. node	1513 Jun 06 j 23:01	18° J 57'21			1514 May 20 j 10:49	0° J	
retrograde	1513 Jun 16 j 02:24	22° J 05'54		desc. node	1514 May 24 j 20:01	1° J 50'55	
evening set	1513 Jun 21 j 06:48	21° J 04'53		retrograde	1514 May 28 j 05:33	2° J 17'12	
min. Earth dist.	1513 Jun 26 j 14:44	18° J 16'07	0.57212 AU	evening set	1514 May 31 j 22:03	1° J 47'22	
inferior conj	1513 Jun 29 j 12:59	16° J 20'51	-4°-49'-38		1514 Jun 05 j 10:24	30° R II	
minimum elong	1513 Jun 29 j 10:17	16° J 25'20	4°49'27	min. Earth dist.	1514 Jun 08 j 03:04	28° II 31'15	0.55699 AU
morning rise	1513 Jul 07 j 17:33	12° J 13'05		inferior conj	1514 Jun 09 j 22:59	27° II 26'49	-4°-4'-46
direct	1513 Jul 10 j 07:47	11° J 54'02		minimum elong	1514 Jun 09 j 15:48	27° II 37'23	4°03'15
morning max el	1513 Jul 19 j 10:08	16° J 08'38	19°16'08	morning rise	1514 Jun 18 j 12:45	23° II 33'00	
asc. node	1513 Jul 26 j 07:30	24° J 48'34		direct	1514 Jun 21 j 07:46	23° II 14'11	
	1513 Jul 29 j 10:32	0° R		morning max el	1514 Jul 01 j 23:49	28° II 10'29	20°25'59
morning set	1513 Aug 05 j 10:27	13° R 17'46			1514 Jul 03 j 19:30	0° J	
				asc. node	1514 Jul 13 j 04:33	13° J 29'17	
superior conj	1513 Aug 13 j 15:51	29° R 37'10	1°44'55	morning set	1514 Jul 20 j 15:59	27° J 54'10	
minimum elong	1513 Aug 13 j 16:52	29° R 42'07	1°44'52		1514 Jul 21 j 16:33	0° R	
	1513 Aug 13 j 20:33	0° R		superior conj	1514 Jul 28 j 07:50	13° R 38'46	1°45'20
max. Earth dist.	1513 Aug 20 j 02:13	11° R 45'24	1.38194 AU	minimum elong	1514 Jul 28 j 07:11	13° R 35'27	1°45'18
evening rise	1513 Aug 23 j 22:01	18° R 35'55		max. Earth dist.	1514 Aug 02 j 08:19	23° R 36'07	1.36290 AU
	1513 Aug 30 j 16:02	0° J			1514 Aug 05 j 17:20	0° R	
desc. node	1513 Sep 02 j 22:24	5° J 13'25		evening rise	1514 Aug 06 j 08:55	1° R 12'05	
	1513 Sep 20 j 08:14	0° M		desc. node	1514 Aug 20 j 19:24	25° R 32'02	
evening max el	1513 Sep 28 j 13:28	9° M 19'24	24°55'36		1514 Aug 23 j 18:37	0° J	
retrograde	1513 Oct 10 j 06:17	16° M 07'18		evening max el	1514 Sep 11 j 01:18	22° J 58'13	26°04'16
evening set	1513 Oct 15 j 21:29	13° M 46'05			1514 Sep 22 j 07:34	0° M	
min. Earth dist.	1513 Oct 20 j 11:26	8° M 36'00	0.67335 AU				
inferior conj	1513 Oct 21 j 09:57	7° M 21'45	0°-17'-53				
minimum elong	1513 Oct 21 j 10:24	7° M 20'17	0°17'42				

retrograde	1514 Sep 23 j 14:36	0°♄05'56		evening max el	1515 Aug 24 j 13:37	6°♄33'00	26°55'53
	1514 Sep 24 j 20:49	30°♄		retrograde	1515 Sep 06 j 17:30	13°♄49'36	
evening set	1514 Sep 29 j 20:02	27°♄31'09		evening set	1515 Sep 13 j 11:34	11°♄07'09	
min. Earth dist.	1514 Oct 04 j 02:18	22°♄57'06	0.66613 AU	min. Earth dist.	1515 Sep 17 j 10:41	7°♄10'10	0.65544 AU
inferior conj	1514 Oct 05 j 11:57	21°♄12'06	-1°-14'-59	inferior conj	1515 Sep 19 j 08:23	4°♄57'57	-2°-12'-50
minimum elong	1514 Oct 05 j 13:54	21°♄05'59	1°14'10	minimum elong	1515 Sep 19 j 11:53	4°♄47'49	2°11'30
asc. node	1514 Oct 09 j 03:46	17°♄01'49			1515 Sep 24 j 09:06	30°♄	
morning rise	1514 Oct 11 j 08:45	15°♄18'48		morning rise	1515 Sep 25 j 13:42	29°♄17'10	
direct	1514 Oct 14 j 10:52	14°♄24'09		asc. node	1515 Sep 26 j 00:49	29°♄04'26	
morning max el	1514 Oct 21 j 07:47	18°♄13'57	18°55'17	direct	1515 Sep 28 j 07:46	28°♄35'34	
	1514 Oct 30 j 08:22	0°♄			1515 Oct 02 j 08:08	0°♄	
morning set	1514 Nov 12 j 04:55	19°♄55'36		morning max el	1515 Oct 04 j 21:05	2°♄09'14	18°17'05
desc. node	1514 Nov 16 j 18:41	27°♄06'39		morning set	1515 Oct 23 j 19:25	0°♄19'07	
	1514 Nov 18 j 14:53	0°♄			1515 Oct 23 j 14:44	0°♄	
max. Earth dist.	1514 Nov 27 j 07:09	13°♄37'18	1.44977 AU	desc. node	1515 Nov 03 j 15:43	17°♄48'48	
superior conj	1514 Nov 28 j 18:19	15°♄55'41	-1°-14'-24	superior conj	1515 Nov 07 j 20:00	24°♄26'09	0°-27'-37
minimum elong	1514 Nov 28 j 09:53	15°♄22'28	1°13'28	minimum elong	1515 Nov 07 j 16:24	24°♄11'59	0°27'09
	1514 Dec 07 j 15:08	0°♄		max. Earth dist.	1515 Nov 10 j 02:11	27°♄59'34	1.45075 AU
evening rise	1514 Dec 14 j 01:48	10°♄23'18			1515 Nov 11 j 08:50	0°♄	
	1514 Dec 26 j 06:51	0°♄		evening rise	1515 Nov 24 j 05:47	20°♄07'59	
evening max el	1515 Jan 03 j 16:38	11°♄14'02	18°41'37		1515 Nov 30 j 13:32	0°♄	
asc. node	1515 Jan 05 j 03:02	12°♄34'50		greatest brilliancy	1515 Dec 09 j 06:18	13°♄17'01	-0.7m
retrograde	1515 Jan 10 j 08:40	14°♄57'04		evening max el	1515 Dec 18 j 00:55	24°♄42'29	19°24'54
evening set	1515 Jan 13 j 11:04	14°♄02'31		asc. node	1515 Dec 23 j 00:04	28°♄23'32	
inferior conj	1515 Jan 19 j 06:25	8°♄22'21	3°33'37	retrograde	1515 Dec 25 j 05:02	28°♄50'16	
minimum elong	1515 Jan 19 j 04:36	8°♄27'52	3°33'23	evening set	1515 Dec 28 j 14:25	27°♄43'02	
min. Earth dist.	1515 Jan 21 j 03:19	6°♄06'35	0.65055 AU	inferior conj	1516 Jan 03 j 04:35	21°♄47'05	3°09'29
morning rise	1515 Jan 24 j 20:57	2°♄12'04		minimum elong	1516 Jan 03 j 02:03	21°♄55'17	3°08'55
	1515 Jan 28 j 07:49	30°♄		min. Earth dist.	1516 Jan 04 j 10:38	20°♄09'43	0.66318 AU
direct	1515 Jan 31 j 13:41	29°♄21'00		morning rise	1516 Jan 08 j 12:55	15°♄33'24	
	1515 Feb 04 j 00:31	0°♄		direct	1516 Jan 14 j 18:24	12°♄48'41	
desc. node	1515 Feb 12 j 17:51	6°♄01'31		morning max el	1516 Jan 27 j 05:56	20°♄12'36	25°59'53
morning max el	1515 Feb 13 j 20:37	7°♄07'02	27°04'21	desc. node	1516 Jan 30 j 14:54	23°♄50'38	
	1515 Mar 03 j 13:09	0°♄			1516 Feb 04 j 16:05	0°♄	
morning set	1515 Mar 21 j 11:05	0°♄52'25			1516 Feb 24 j 16:10	0°♄	
	1515 Mar 21 j 00:11	0°♄		morning set	1516 Mar 03 j 10:20	13°♄43'56	
max. Earth dist.	1515 Mar 26 j 00:48	9°♄55'57	1.34019 AU	max. Earth dist.	1516 Mar 07 j 09:01	21°♄11'21	1.35511 AU
					1516 Mar 11 j 20:09	0°♄	
superior conj	1515 Mar 29 j 19:35	17°♄44'41	0°-43'-43	superior conj	1516 Mar 12 j 15:04	1°♄35'34	-1°-10'-49
minimum elong	1515 Mar 29 j 21:46	17°♄56'08	0°43'18	minimum elong	1516 Mar 12 j 18:32	1°♄53'06	1°10'15
asc. node	1515 Apr 03 j 02:20	26°♄47'43		asc. node	1516 Mar 19 j 23:22	16°♄41'31	
	1515 Apr 04 j 14:41	0°♄		evening rise	1516 Mar 20 j 12:50	17°♄50'35	
evening rise	1515 Apr 06 j 05:43	3°♄25'01			1516 Mar 26 j 17:20	0°♄	
	1515 Apr 21 j 04:29	0°♄		evening max el	1516 Apr 07 j 17:15	17°♄18'39	20°19'12
evening max el	1515 Apr 26 j 12:07	6°♄10'14	21°40'08	retrograde	1516 Apr 18 j 10:34	22°♄29'46	
retrograde	1515 May 08 j 21:13	12°♄14'00		evening set	1516 Apr 20 j 12:16	22°♄19'00	
evening set	1515 May 11 j 09:50	11°♄59'38		desc. node	1516 Apr 27 j 14:03	19°♄30'37	
desc. node	1515 May 11 j 17:01	11°♄56'06		inferior conj	1516 Apr 29 j 14:21	18°♄21'00	0°-35'-5
inferior conj	1515 May 20 j 19:07	7°♄58'08	-2°-33'-23	minimum elong	1516 Apr 29 j 12:42	18°♄23'25	0°34'29
minimum elong	1515 May 20 j 12:21	8°♄07'37	2°31'12	min. Earth dist.	1516 May 01 j 04:11	17°♄25'33	0.55177 AU
min. Earth dist.	1515 May 20 j 15:14	8°♄03'35	0.54960 AU	morning rise	1516 May 08 j 11:04	14°♄05'01	
morning rise	1515 May 29 j 15:42	4°♄02'39		direct	1516 May 12 j 07:13	13°♄33'05	
direct	1515 Jun 01 j 19:24	3°♄40'48		morning max el	1516 May 25 j 19:41	20°♄09'31	23°35'02
morning max el	1515 Jun 14 j 02:07	9°♄28'10	21°54'37		1516 Jun 03 j 03:13	0°♄	
	1515 Jun 28 j 15:15	0°♄		asc. node	1516 Jun 15 j 22:38	22°♄17'01	
asc. node	1515 Jun 30 j 01:36	2°♄41'39		morning set	1516 Jun 18 j 12:54	27°♄38'50	
morning set	1515 Jul 05 j 01:26	12°♄43'14			1516 Jun 19 j 15:36	0°♄	
superior conj	1515 Jul 12 j 08:34	28°♄07'02	1°38'45	superior conj	1516 Jun 25 j 15:05	12°♄52'17	1°26'32
minimum elong	1515 Jul 12 j 06:47	27°♄57'39	1°38'37	minimum elong	1516 Jun 25 j 12:44	12°♄39'39	1°26'15
	1515 Jul 13 j 06:10	0°♄		max. Earth dist.	1516 Jun 27 j 22:07	17°♄46'20	1.33499 AU
max. Earth dist.	1515 Jul 15 j 22:29	5°♄31'31	1.34700 AU	evening rise	1516 Jul 03 j 04:34	28°♄38'58	
evening rise	1515 Jul 20 j 12:36	14°♄37'31			1516 Jul 03 j 20:50	0°♄	
	1515 Jul 28 j 23:17	0°♄			1516 Jul 21 j 03:01	0°♄	
desc. node	1515 Aug 07 j 16:23	15°♄30'01		desc. node	1516 Jul 24 j 13:23	4°♄57'53	
	1515 Aug 18 j 12:02	0°♄					

evening max el	1516 Aug 06 j 01:13	19° \mathbb{M} 51'13	27°23'10		1517 Jun 25 j 23:58	0° Ω	
retrograde	1516 Aug 19 j 14:23	27° \mathbb{M} 09'18		desc. node	1517 Jul 11 j 10:23	23° Ω 42'56	
evening set	1516 Aug 26 j 17:15	24° \mathbb{M} 28'08			1517 Jul 16 j 18:37	0° \mathbb{M}	
min. Earth dist.	1516 Aug 30 j 10:16	21° \mathbb{M} 06'42	0.64118 AU	evening max el	1517 Jul 19 j 09:47	2° \mathbb{M} 39'29	27°20'15
inferior conj	1516 Sep 01 j 20:48	18° \mathbb{M} 32'59	-3°-9'-1	retrograde	1517 Aug 02 j 04:52	9° \mathbb{M} 56'02	
minimum elong	1516 Sep 02 j 01:34	18° \mathbb{M} 20'26	3°07'30	evening set	1517 Aug 09 j 09:34	7° \mathbb{M} 28'17	
morning rise	1516 Sep 08 j 11:55	13° \mathbb{M} 08'16		min. Earth dist.	1517 Aug 12 j 23:35	4° \mathbb{M} 35'45	0.62358 AU
direct	1516 Sep 11 j 00:28	12° \mathbb{M} 36'09		inferior conj	1517 Aug 15 j 22:16	1° \mathbb{M} 50'19	-3°-59'-40
asc. node	1516 Sep 11 j 21:51	12° \mathbb{M} 40'12		minimum elong	1517 Aug 16 j 03:28	1° \mathbb{M} 38'07	3°58'26
morning max el	1516 Sep 17 j 12:58	16° \mathbb{M} 02'12	17°56'03		1517 Aug 17 j 22:42	30° \mathbb{R} Ω	
	1516 Sep 27 j 10:58	0° $\underline{\mathbb{A}}$		morning rise	1517 Aug 23 j 00:02	26° Ω 45'08	
morning set	1516 Oct 04 j 13:26	12° $\underline{\mathbb{A}}$ 02'40		direct	1517 Aug 25 j 09:41	26° Ω 19'27	
	1516 Oct 15 j 05:50	0° \mathbb{M}		asc. node	1517 Aug 29 j 18:53	27° Ω 47'19	
				morning max el	1517 Sep 01 j 04:30	29° Ω 46'17	17°53'01
superior conj	1516 Oct 17 j 12:46	3° \mathbb{M} 44'27	0°20'06		1517 Sep 01 j 10:00	0° \mathbb{M}	
minimum elong	1516 Oct 17 j 15:00	3° \mathbb{M} 53'32	0°19'47	morning set	1517 Sep 17 j 05:04	24° \mathbb{M} 47'48	
desc. node	1516 Oct 20 j 12:43	8° \mathbb{M} 35'01			1517 Sep 20 j 02:48	0° $\underline{\mathbb{A}}$	
max. Earth dist.	1516 Oct 22 j 20:43	12° \mathbb{M} 18'37	1.44437 AU				
evening rise	1516 Nov 02 j 17:00	29° \mathbb{M} 15'24		superior conj	1517 Sep 28 j 07:57	14° $\underline{\mathbb{A}}$ 21'16	0°59'02
	1516 Nov 03 j 04:35	0° \mathbb{Z}		minimum elong	1517 Sep 28 j 12:35	14° $\underline{\mathbb{A}}$ 40'56	0°58'28
	1516 Nov 23 j 10:49	0° \mathbb{Z}		max. Earth dist.	1517 Oct 05 j 11:17	26° $\underline{\mathbb{A}}$ 14'15	1.43146 AU
greatest brilliancy	1516 Nov 23 j 22:28	0° \mathbb{Z} 39'17	-0.5m	desc. node	1517 Oct 07 j 09:44	29° $\underline{\mathbb{A}}$ 22'08	
evening max el	1516 Nov 30 j 04:14	8° \mathbb{Z} 12'03	20°23'13		1517 Oct 07 j 19:10	0° \mathbb{M}	
retrograde	1516 Dec 08 j 02:54	12° \mathbb{Z} 52'42		evening rise	1517 Oct 13 j 02:18	8° \mathbb{M} 22'43	
asc. node	1516 Dec 08 j 21:06	12° \mathbb{Z} 49'28			1517 Oct 27 j 10:45	0° \mathbb{Z}	
evening set	1516 Dec 11 j 20:55	11° \mathbb{Z} 31'12		greatest brilliancy	1517 Nov 08 j 03:18	16° \mathbb{Z} 02'02	-0.4m
inferior conj	1516 Dec 17 j 07:56	5° \mathbb{Z} 22'18	2°35'34	evening max el	1517 Nov 13 j 01:49	21° \mathbb{Z} 41'55	21°33'33
minimum elong	1516 Dec 17 j 05:17	5° \mathbb{Z} 31'17	2°34'46	retrograde	1517 Nov 22 j 00:07	27° \mathbb{Z} 00'44	
min. Earth dist.	1516 Dec 18 j 00:40	4° \mathbb{Z} 25'37	0.67174 AU	asc. node	1517 Nov 25 j 18:08	25° \mathbb{Z} 42'57	
	1516 Dec 21 j 15:15	30° \mathbb{R} \mathbb{Z}		evening set	1517 Nov 26 j 04:40	25° \mathbb{Z} 23'24	
morning rise	1516 Dec 22 j 13:10	29° \mathbb{Z} 07'09		inferior conj	1517 Dec 01 j 14:16	19° \mathbb{Z} 05'04	1°53'59
direct	1516 Dec 28 j 04:23	26° \mathbb{Z} 38'22		minimum elong	1517 Dec 01 j 12:00	19° \mathbb{Z} 12'56	1°53'09
	1517 Jan 04 j 19:06	0° \mathbb{Z}		min. Earth dist.	1517 Dec 01 j 19:13	18° \mathbb{Z} 47'58	0.67655 AU
morning max el	1517 Jan 08 j 14:29	3° \mathbb{Z} 27'00	24°38'33	morning rise	1517 Dec 06 j 19:03	12° \mathbb{Z} 50'19	
desc. node	1517 Jan 16 j 11:57	12° \mathbb{Z} 35'43		direct	1517 Dec 11 j 19:00	10° \mathbb{Z} 42'39	
	1517 Jan 28 j 21:55	0° \approx		morning max el	1517 Dec 21 j 23:45	16° \mathbb{Z} 46'14	23°10'19
morning set	1517 Feb 13 j 14:39	25° \approx 35'51		greatest brilliancy	1517 Dec 26 j 23:44	22° \mathbb{Z} 22'12	-0.3m
	1517 Feb 16 j 01:55	0° \mathbb{H}			1518 Jan 01 j 21:45	0° \mathbb{Z}	
max. Earth dist.	1517 Feb 17 j 07:34	2° \mathbb{H} 14'34	1.37401 AU	desc. node	1518 Jan 03 j 09:00	2° \mathbb{Z} 00'27	
					1518 Jan 21 j 23:24	0° \approx	
superior conj	1517 Feb 24 j 00:02	14° \mathbb{H} 51'07	-1°-35'-19	morning set	1518 Jan 25 j 17:39	6° \approx 11'12	
minimum elong	1517 Feb 24 j 04:12	15° \mathbb{H} 11'23	1°34'49	max. Earth dist.	1518 Jan 30 j 02:33	13° \approx 37'23	1.39524 AU
	1517 Mar 03 j 15:26	0° \mathbb{Y}					
evening rise	1517 Mar 04 j 14:19	1° \mathbb{Y} 54'07		superior conj	1518 Feb 06 j 18:17	27° \approx 19'52	-1°-54'-21
asc. node	1517 Mar 06 j 20:24	6° \mathbb{Y} 21'08		minimum elong	1518 Feb 06 j 21:54	27° \approx 36'34	1°54'07
evening max el	1517 Mar 21 j 09:56	29° \mathbb{Y} 06'45	19°16'39		1518 Feb 08 j 04:46	0° \mathbb{H}	
	1517 Mar 22 j 09:10	0° \mathbb{Z}		evening rise	1518 Feb 16 j 07:17	15° \mathbb{H} 27'03	
retrograde	1517 Mar 30 j 11:04	3° \mathbb{Z} 29'06		asc. node	1518 Feb 21 j 17:26	25° \mathbb{H} 40'15	
evening set	1517 Apr 01 j 13:42	3° \mathbb{Z} 15'52			1518 Feb 24 j 04:15	0° \mathbb{Y}	
	1517 Apr 08 j 14:08	30° \mathbb{R} \mathbb{Y}		evening max el	1518 Mar 04 j 12:09	11° \mathbb{Y} 30'11	18°34'06
inferior conj	1517 Apr 09 j 22:43	29° \mathbb{Y} 06'24	1°16'01	retrograde	1518 Mar 12 j 05:35	15° \mathbb{Y} 17'17	
minimum elong	1517 Apr 10 j 01:39	29° \mathbb{Y} 01'30	1°15'01	evening set	1518 Mar 14 j 13:20	14° \mathbb{Y} 57'54	
min. Earth dist.	1517 Apr 12 j 19:02	27° \mathbb{Y} 13'09	0.56300 AU	inferior conj	1518 Mar 22 j 03:28	10° \mathbb{Y} 29'41	2°37'12
desc. node	1517 Apr 14 j 11:05	26° \mathbb{Y} 11'22		minimum elong	1518 Mar 22 j 07:31	10° \mathbb{Y} 21'46	2°36'10
morning rise	1517 Apr 18 j 09:37	24° \mathbb{Y} 17'06		min. Earth dist.	1518 Mar 25 j 13:17	7° \mathbb{Y} 51'32	0.58088 AU
direct	1517 Apr 23 j 05:38	23° \mathbb{Y} 23'23		morning rise	1518 Mar 29 j 21:27	5° \mathbb{Y} 08'11	
	1517 May 06 j 18:17	0° \mathbb{Z}		desc. node	1518 Apr 01 j 08:09	4° \mathbb{Y} 10'46	
morning max el	1517 May 07 j 10:14	0° \mathbb{Z} 37'28	25°14'39	direct	1518 Apr 04 j 18:17	3° \mathbb{Y} 40'47	
	1517 May 27 j 18:12	0° \mathbb{H}		morning max el	1518 Apr 19 j 03:23	11° \mathbb{Y} 18'37	26°37'59
asc. node	1517 Jun 02 j 19:40	12° \mathbb{H} 09'03			1518 May 03 j 14:49	0° \mathbb{Z}	
morning set	1517 Jun 03 j 00:45	12° \mathbb{H} 35'49		morning set	1518 May 18 j 11:19	27° \mathbb{Z} 27'48	
					1518 May 19 j 16:07	0° \mathbb{H}	
superior conj	1517 Jun 10 j 01:09	27° \mathbb{H} 47'30	1°09'44	asc. node	1518 May 20 j 16:43	2° \mathbb{H} 11'34	
minimum elong	1517 Jun 09 j 22:46	27° \mathbb{H} 34'28	1°09'21				
max. Earth dist.	1517 Jun 11 j 05:20	0° \mathbb{Z} 21'14	1.32699 AU	superior conj	1518 May 25 j 12:48	12° \mathbb{H} 45'26	0°49'10
	1517 Jun 11 j 01:26	0° \mathbb{Z}		minimum elong	1518 May 25 j 10:51	12° \mathbb{H} 34'41	0°48'48
evening rise	1517 Jun 17 j 05:18	13° \mathbb{Z} 06'02		max. Earth dist.	1518 May 25 j 16:49	13° \mathbb{H} 07'31	1.32283 AU

evening rise	1518 Jun 01 j 11:54	27° Π 49'06		minimum elong	1519 May 09 j 23:12	27° U 33'55	0°25'19
	1518 Jun 02 j 13:03	0° S			1519 May 11 j 01:48	0° Π	
	1518 Jun 19 j 10:32	0° Ω		evening rise	1519 May 16 j 22:04	12° Π 40'34	
desc. node	1518 Jun 28 j 07:25	11° Ω 27'14			1519 May 25 j 16:57	0° S	
evening max el	1518 Jul 01 j 12:56	14° Ω 46'35	26°44'20	evening max el	1519 Jun 13 j 09:13	26° S 07'51	25°37'31
retrograde	1518 Jul 15 j 12:05	22° Ω 00'36		desc. node	1519 Jun 15 j 04:27	27° S 45'40	
evening set	1518 Jul 22 j 08:02	20° Ω 00'10			1519 Jun 18 j 02:25	0° Ω	
min. Earth dist.	1518 Jul 26 j 02:42	17° Ω 23'05	0.60350 AU	retrograde	1519 Jun 27 j 09:54	3° Ω 17'13	
inferior conj	1518 Jul 29 j 09:25	14° Ω 41'36	-4°-38'-26	evening set	1519 Jul 03 j 08:05	1° Ω 54'23	
minimum elong	1518 Jul 29 j 13:22	14° Ω 33'27	4°37'55		1519 Jul 06 j 18:15	30° R S	
morning rise	1518 Aug 05 j 21:58	9° Ω 58'33		min. Earth dist.	1519 Jul 07 j 21:29	29° S 14'40	0.58298 AU
direct	1518 Aug 08 j 07:26	9° Ω 36'49		inferior conj	1519 Jul 11 j 02:43	26° S 57'14	-4°-55'-14
morning max el	1518 Aug 15 j 16:39	13° Ω 13'40	18°09'06	minimum elong	1519 Jul 11 j 03:01	26° S 56'43	4°55'15
asc. node	1518 Aug 16 j 15:56	14° Ω 13'09		morning rise	1519 Jul 19 j 01:35	22° S 36'57	
	1518 Aug 27 j 00:59	0° M		direct	1519 Jul 21 j 13:27	22° S 17'17	
morning set	1518 Aug 31 j 12:32	8° M 18'24		morning max el	1519 Jul 29 j 22:09	26° S 14'52	18°45'33
					1519 Aug 02 j 06:35	0° Ω	
superior conj	1518 Sep 10 j 05:09	26° M 14'42	1°25'46	asc. node	1519 Aug 03 j 13:00	1° Ω 42'14	
minimum elong	1518 Sep 10 j 09:09	26° M 32'39	1°25'23	morning set	1519 Aug 15 j 07:08	22° Ω 21'38	
	1518 Sep 12 j 07:43	0° A			1519 Aug 19 j 04:53	0° M	
max. Earth dist.	1518 Sep 17 j 20:13	9° A 31'54	1.41376 AU				
evening rise	1518 Sep 23 j 02:25	18° A 12'52		superior conj	1519 Aug 23 j 23:06	9° M 09'33	1°40'50
desc. node	1518 Sep 24 j 06:46	20° A 07'00		minimum elong	1519 Aug 24 j 01:14	9° M 19'43	1°40'42
	1518 Sep 30 j 14:13	0° M		max. Earth dist.	1519 Aug 31 j 00:43	22° M 06'40	1.39363 AU
greatest brilliancy	1518 Oct 21 j 14:57	29° M 28'21	-0.3m	evening rise	1519 Sep 04 j 02:00	29° M 08'31	
	1518 Oct 22 j 01:27	0° A			1519 Sep 04 j 14:09	0° A	
evening max el	1518 Oct 26 j 18:19	5° A 14'03	22°51'36	desc. node	1519 Sep 11 j 03:47	10° A 45'24	
retrograde	1518 Nov 05 j 19:07	11° A 11'33			1519 Sep 24 j 01:08	0° M	
evening set	1518 Nov 10 j 12:01	9° A 17'18		evening max el	1519 Oct 09 j 07:30	18° M 49'34	24°11'36
asc. node	1518 Nov 12 j 15:11	7° A 09'43		retrograde	1519 Oct 20 j 10:29	25° M 21'03	
inferior conj	1518 Nov 15 j 21:41	2° A 53'25	1°06'19	evening set	1519 Oct 25 j 17:18	23° M 09'32	
minimum elong	1518 Nov 15 j 20:13	2° A 58'31	1°05'43	min. Earth dist.	1519 Oct 30 j 12:06	17° M 39'17	0.67595 AU
min. Earth dist.	1518 Nov 15 j 15:51	3° A 13'35	0.67789 AU	asc. node	1519 Oct 30 j 12:14	17° M 38'50	
	1518 Nov 18 j 01:22	30° R M		inferior conj	1519 Oct 31 j 04:24	16° M 44'19	0°13'55
morning rise	1518 Nov 21 j 04:22	26° M 41'17		minimum elong	1519 Oct 31 j 04:03	16° M 45'28	0°13'47
direct	1518 Nov 25 j 13:32	24° M 56'22		transit middle	1519 Oct 31 j 04:03	16° M 45'28	0°13'47
	1518 Dec 04 j 07:59	0° A		transit begin	1519 Oct 31 j 02:36	16° M 50'21	
morning max el	1518 Dec 04 j 13:02	0° A 12'39	21°44'30	transit end	1519 Oct 31 j 05:30	16° M 40'34	
greatest brilliancy	1518 Dec 09 j 09:40	5° A 42'54	-0.4m	morning rise	1519 Nov 05 j 15:05	10° M 37'21	
desc. node	1518 Dec 21 j 06:03	21° A 53'57		direct	1519 Nov 09 j 10:43	9° M 14'12	
	1518 Dec 26 j 17:16	0° S		morning max el	1519 Nov 17 j 09:15	13° M 48'42	20°27'55
morning set	1519 Jan 05 j 15:30	15° S 23'03		greatest brilliancy	1519 Nov 23 j 16:25	21° M 17'23	-0.5m
max. Earth dist.	1519 Jan 12 j 01:28	25° S 49'04	1.41616 AU		1519 Nov 29 j 22:41	0° A	
	1519 Jan 14 j 13:25	0° \approx		desc. node	1519 Dec 08 j 03:04	12° A 07'34	
				morning set	1519 Dec 15 j 14:55	23° A 35'42	
superior conj	1519 Jan 19 j 16:52	8° \approx 50'36	-2°-3'-55		1519 Dec 19 j 17:22	0° S	
minimum elong	1519 Jan 19 j 17:45	8° \approx 54'28	2°03'56	max. Earth dist.	1519 Dec 25 j 08:14	8° S 56'36	1.43384 AU
evening rise	1519 Jan 30 j 12:17	28° \approx 21'48					
	1519 Jan 31 j 09:37	0° H		superior conj	1519 Dec 31 j 14:37	19° S 11'24	-1°-59'-11
asc. node	1519 Feb 08 j 14:29	14° H 32'19		minimum elong	1519 Dec 31 j 10:30	18° S 54'18	1°59'01
evening max el	1519 Feb 15 j 20:55	24° H 21'20	18°11'33		1520 Jan 07 j 00:12	0° \approx	
retrograde	1519 Feb 22 j 18:05	27° H 49'17		evening rise	1520 Jan 13 j 01:05	10° \approx 29'26	
evening set	1519 Feb 25 j 07:15	27° H 21'27			1520 Jan 24 j 13:23	0° H	
inferior conj	1519 Mar 04 j 04:55	22° H 31'59	3°24'31	asc. node	1520 Jan 26 j 11:32	2° H 48'32	
minimum elong	1519 Mar 04 j 07:37	22° H 25'53	3°24'07	evening max el	1520 Jan 30 j 08:57	7° H 30'58	18°08'32
min. Earth dist.	1519 Mar 07 j 13:02	19° H 31'54	0.60201 AU	retrograde	1520 Feb 05 j 20:54	10° H 54'58	
morning rise	1519 Mar 11 j 04:37	16° H 47'42		evening set	1520 Feb 08 j 15:00	10° H 17'26	
direct	1519 Mar 17 j 19:28	14° H 43'31		inferior conj	1520 Feb 14 j 23:49	5° H 06'46	3°43'43
desc. node	1519 Mar 19 j 05:12	14° H 48'55		minimum elong	1520 Feb 15 j 00:27	5° H 05'08	3°43'42
morning max el	1519 Apr 01 j 02:16	22° H 33'32	27°31'46	min. Earth dist.	1520 Feb 17 j 20:39	2° H 09'48	0.62299 AU
	1519 Apr 07 j 16:24	0° Y			1520 Feb 20 j 05:12	30° R \approx	
	1519 Apr 26 j 15:49	0° S		morning rise	1520 Feb 21 j 07:37	29° \approx 08'19	
morning set	1519 May 02 j 18:52	12° S 08'44		direct	1520 Feb 28 j 06:10	26° \approx 35'14	
asc. node	1519 May 07 j 13:46	22° S 19'59		desc. node	1520 Mar 05 j 02:15	28° \approx 09'34	
max. Earth dist.	1519 May 09 j 04:56	25° S 53'47	1.32247 AU		1520 Mar 08 j 01:51	0° H	
				morning max el	1520 Mar 13 j 07:01	4° H 29'40	27°49'10
superior conj	1519 May 10 j 00:20	27° S 40'07	0°25'34		1520 Apr 01 j 08:55	0° Y	

morning set	1520 Apr 15 j 21:22	26° Υ 31'53		morning max el	1521 Feb 23 j 15:45	17° \approx 02'35	27°30'05
	1520 Apr 17 j 13:57	0° B			1521 Mar 06 j 10:46	0° H	
max. Earth dist.	1520 Apr 21 j 13:55	8° B 27'20	1.32600 AU		1521 Mar 25 j 03:57	0° Υ	
superior conj	1520 Apr 23 j 10:01	12° B 25'41	0°00'-21	morning set	1521 Mar 30 j 16:08	10° Υ 28'16	
minimum elong	1520 Apr 23 j 10:02	12° B 25'48	0°00'22	max. Earth dist.	1521 Apr 04 j 15:47	20° Υ 35'03	1.33375 AU
behind sun begin	1520 Apr 23 j 04:53	11° B 57'49		superior conj	1521 Apr 07 j 15:57	26° Υ 55'18	0°-27'-43
behind sun end	1520 Apr 23 j 15:11	12° B 53'47		minimum elong	1521 Apr 07 j 17:20	27° Υ 02'37	0°27'27
asc. node	1520 Apr 23 j 10:49	12° B 30'07			1521 Apr 09 j 02:32	0° B	
evening rise	1520 Apr 30 j 09:50	27° B 33'39		asc. node	1521 Apr 10 j 07:51	2° B 37'12	
	1520 May 01 j 13:39	0° II		evening rise	1521 Apr 14 j 21:18	12° B 21'03	
	1520 May 18 j 23:00	0° B			1521 Apr 23 j 22:41	0° II	
evening max el	1520 May 25 j 00:04	6° B 51'46	24°08'52	evening max el	1521 May 06 j 15:02	17° II 21'54	22°32'49
desc. node	1520 Jun 01 j 01:28	12° B 05'31		desc. node	1521 May 18 j 22:30	23° II 50'07	
retrograde	1520 Jun 07 j 19:50	13° B 49'19		retrograde	1521 May 19 j 17:25	23° II 51'31	
evening set	1520 Jun 12 j 09:07	13° B 03'21		evening set	1521 May 22 j 20:33	23° II 29'58	
min. Earth dist.	1520 Jun 18 j 10:58	10° B 04'34	0.56496 AU	min. Earth dist.	1521 May 30 j 22:35	19° II 58'51	0.55280 AU
inferior conj	1520 Jun 20 j 23:57	8° B 29'46	-4°-36'-30	inferior conj	1521 Jun 01 j 02:50	19° II 18'42	-3°-31'-7
minimum elong	1520 Jun 20 j 19:01	8° B 37'29	4°35'52	minimum elong	1521 May 31 j 19:04	19° II 29'46	3°29'04
morning rise	1520 Jun 29 j 08:30	4° B 29'06		morning rise	1521 Jun 09 j 20:04	15° II 26'57	
direct	1520 Jul 02 j 00:45	4° B 10'12		direct	1521 Jun 12 j 18:15	15° II 07'22	
morning max el	1520 Jul 11 j 18:09	8° B 40'59	19°43'16	morning max el	1521 Jun 24 j 02:53	20° II 24'04	21°01'41
asc. node	1520 Jul 20 j 10:04	20° B 00'49			1521 Jul 01 j 23:12	0° B	
	1520 Jul 25 j 22:49	0° Q		asc. node	1521 Jul 07 j 07:06	8° B 56'14	
morning set	1520 Jul 29 j 09:29	6° Q 48'53		morning set	1521 Jul 13 j 16:56	21° B 31'46	
					1521 Jul 17 j 18:35	0° Q	
superior conj	1520 Aug 06 j 08:24	22° Q 51'12	1°46'02	superior conj	1521 Jul 21 j 04:32	7° Q 05'39	1°43'18
minimum elong	1520 Aug 06 j 08:39	22° Q 52'26	1°46'02	minimum elong	1521 Jul 21 j 03:19	6° Q 59'27	1°43'15
	1520 Aug 10 j 00:21	0° P		max. Earth dist.	1521 Jul 25 j 14:20	16° Q 00'17	1.35571 AU
max. Earth dist.	1520 Aug 12 j 05:01	4° P 09'19	1.37358 AU	evening rise	1521 Jul 29 j 19:46	24° Q 09'40	
evening rise	1520 Aug 16 j 01:10	11° P 11'08			1521 Aug 01 j 23:48	0° P	
	1520 Aug 27 j 06:04	0° A		desc. node	1521 Aug 14 j 21:48	21° P 24'15	
desc. node	1520 Aug 28 j 00:47	1° A 13'14			1521 Aug 20 j 20:16	0° A	
	1520 Sep 18 j 09:42	0° M		evening max el	1521 Sep 03 j 07:25	16° A 06'20	26°28'39
evening max el	1520 Sep 20 j 19:29	2° M 28'37	25°26'26	retrograde	1521 Sep 16 j 03:21	23° A 18'47	
retrograde	1520 Oct 02 j 21:25	9° M 25'27		evening set	1521 Sep 22 j 14:40	20° A 39'34	
evening set	1520 Oct 08 j 18:50	6° M 58'04		min. Earth dist.	1521 Sep 26 j 17:44	16° A 21'35	0.66206 AU
min. Earth dist.	1520 Oct 13 j 05:31	2° M 03'11	0.67075 AU	inferior conj	1521 Sep 28 j 08:29	14° A 24'21	-1°-39'-32
inferior conj	1520 Oct 14 j 08:38	0° M 35'42	0°-41'-52	minimum elong	1521 Sep 28 j 11:07	14° A 16'24	1°38'30
minimum elong	1520 Oct 14 j 09:42	0° M 32'15	0°41'25	asc. node	1521 Oct 03 j 06:19	9° A 18'55	
	1520 Oct 14 j 19:44	30° R A		morning rise	1521 Oct 04 j 08:46	8° A 36'16	
asc. node	1520 Oct 16 j 09:17	28° A 03'33		direct	1521 Oct 07 j 07:10	7° A 47'40	
morning rise	1520 Oct 20 j 01:15	24° A 36'44		morning max el	1521 Oct 13 j 23:59	11° A 29'14	18°37'02
direct	1520 Oct 23 j 09:13	23° A 32'39			1521 Oct 27 j 06:14	0° M	
morning max el	1520 Oct 30 j 13:19	27° A 35'23	19°24'42	morning set	1521 Nov 03 j 11:51	11° M 30'23	
	1520 Nov 01 j 18:04	0° M		desc. node	1521 Nov 10 j 21:06	23° M 13'50	
greatest brilliancy	1520 Nov 08 j 16:49	9° M 18'10	-0.7m		1521 Nov 15 j 04:09	0° A	
	1520 Nov 22 j 07:55	0° A		superior conj	1521 Nov 19 j 12:35	6° A 50'20	0°-55'-28
morning set	1520 Nov 23 j 14:17	1° A 57'40		minimum elong	1521 Nov 19 j 05:38	6° A 23'02	0°54'37
desc. node	1520 Nov 24 j 00:05	2° A 35'40		max. Earth dist.	1521 Nov 19 j 16:24	7° A 05'16	1.45106 AU
max. Earth dist.	1520 Dec 06 j 22:18	22° A 48'43	1.44594 AU		1521 Dec 04 j 04:46	0° B	
superior conj	1520 Dec 10 j 10:09	28° A 21'42	-1°-36'-2	evening rise	1521 Dec 05 j 10:35	1° B 58'42	
minimum elong	1520 Dec 10 j 01:43	27° A 48'04	1°35'17		1521 Dec 23 j 16:29	0° \approx	
	1520 Dec 11 j 10:45	0° B		evening max el	1521 Dec 27 j 07:42	4° \approx 18'06	18°58'02
evening rise	1520 Dec 24 j 17:29	21° B 42'53		asc. node	1521 Dec 30 j 05:36	6° \approx 48'08	
	1520 Dec 29 j 16:40	0° \approx		retrograde	1522 Jan 03 j 04:08	8° \approx 10'57	
asc. node	1521 Jan 12 j 08:34	20° \approx 18'10		evening set	1522 Jan 06 j 09:17	7° \approx 11'12	
evening max el	1521 Jan 12 j 21:23	20° \approx 51'37	18°24'20	inferior conj	1522 Jan 12 j 02:07	1° \approx 23'46	3°24'47
retrograde	1521 Jan 19 j 09:34	24° \approx 24'38		minimum elong	1522 Jan 11 j 23:55	1° \approx 30'39	3°24'24
evening set	1521 Jan 22 j 08:43	23° \approx 36'31			1522 Jan 13 j 04:49	30° R B	
inferior conj	1521 Jan 28 j 08:06	18° \approx 06'15	3°41'56	min. Earth dist.	1522 Jan 13 j 16:28	29° B 23'50	0.65633 AU
minimum elong	1521 Jan 28 j 07:00	18° \approx 09'27	3°41'51	morning rise	1522 Jan 17 j 13:34	29° B 11'33	
min. Earth dist.	1521 Jan 30 j 13:49	15° \approx 31'56	0.64148 AU	direct	1522 Jan 24 j 01:51	22° B 21'58	
morning rise	1521 Feb 03 j 03:48	11° \approx 59'10		morning max el	1522 Feb 06 j 01:41	0° \approx 00'48	26°39'47
direct	1521 Feb 10 j 00:37	9° \approx 10'47			1522 Feb 06 j 01:22	0° \approx	
desc. node	1521 Feb 19 j 23:18	13° \approx 41'02					

desc. node	1522 Feb 06 j 20:19	0°♊48'26		min. Earth dist.	1522 Dec 28 j 03:02	13°♊32'59	0.66723 AU
	1522 Feb 28 j 09:01	0°♋		morning rise	1523 Jan 01 j 09:24	8°♊38'34	
morning set	1522 Mar 13 j 23:49	23°♋47'46		direct	1523 Jan 07 j 09:01	5°♊59'32	
	1522 Mar 17 j 04:52	0°♌		morning max el	1523 Jan 19 j 10:38	13°♊10'54	25°26'45
max. Earth dist.	1522 Mar 18 j 06:57	2°♌09'00	1.34598 AU	desc. node	1523 Jan 24 j 17:20	19°♊03'31	
					1523 Feb 02 j 01:45	0°♍	
superior conj	1522 Mar 22 j 16:01	11°♌02'40	0°-55'-23		1523 Feb 21 j 03:09	0°♋	
minimum elong	1522 Mar 22 j 18:47	11°♌16'57	0°54'52	morning set	1523 Feb 24 j 15:44	6°♋16'00	
asc. node	1522 Mar 28 j 04:54	22°♌37'24		max. Earth dist.	1523 Feb 28 j 10:09	13°♋13'58	1.36266 AU
evening rise	1522 Mar 30 j 06:37	26°♌56'39					
	1522 Mar 31 j 18:15	0°♎		superior conj	1523 Mar 06 j 07:26	24°♋39'22	-1°-21'-42
evening max el	1522 Apr 18 j 13:39	28°♎10'23	21°03'40	minimum elong	1523 Mar 06 j 11:18	24°♋58'38	1°21'07
	1522 Apr 20 j 15:06	0°♏			1523 Mar 08 j 23:15	0°♌	
retrograde	1522 Apr 30 j 07:06	3°♏52'58		evening rise	1523 Mar 14 j 11:36	11°♌13'16	
evening set	1522 May 02 j 12:50	3°♏41'14		asc. node	1523 Mar 15 j 01:56	12°♌25'43	
desc. node	1522 May 05 j 19:31	2°♏45'28			1523 Mar 24 j 13:49	0°♎	
	1522 May 11 j 08:39	30°♏♌		evening max el	1523 Mar 31 j 23:49	9°♎35'43	19°50'16
inferior conj	1522 May 11 j 20:46	29°♎42'53	-1°-44'-33	retrograde	1523 Apr 10 j 23:37	14°♎24'43	
minimum elong	1522 May 11 j 15:52	29°♎49'49	1°42'50	evening set	1523 Apr 13 j 00:36	14°♎13'33	
min. Earth dist.	1522 May 12 j 11:05	29°♎22'39	0.54934 AU	inferior conj	1523 Apr 21 j 20:10	10°♎12'29	0°14'41
morning rise	1522 May 20 j 18:32	25°♎40'50		minimum elong	1523 Apr 21 j 20:49	10°♎11'29	0°14'27
direct	1522 May 24 j 03:46	25°♎16'05		transit middle	1523 Apr 21 j 20:49	10°♎11'29	0°14'27
	1522 Jun 04 j 10:20	0°♐		transit begin	1523 Apr 21 j 19:09	10°♎14'04	
morning max el	1522 Jun 06 j 01:07	1°♐25'17	22°36'30	transit end	1523 Apr 21 j 22:30	10°♎08'54	
asc. node	1522 Jun 24 j 04:08	28°♐19'14		desc. node	1523 Apr 22 j 16:32	9°♎41'03	
	1522 Jun 25 j 00:27	0°♑		min. Earth dist.	1523 Apr 24 j 01:05	8°♎51'16	0.55553 AU
morning set	1522 Jun 28 j 03:27	6°♑24'19		morning rise	1523 Apr 30 j 13:49	5°♎42'38	
				direct	1523 May 04 j 19:29	5°♎02'55	
superior conj	1522 Jul 05 j 08:04	21°♑42'27	1°34'11	morning max el	1523 May 18 j 16:40	11°♎57'58	24°18'19
minimum elong	1522 Jul 05 j 05:58	21°♑31'20	1°34'00		1523 Jun 01 j 10:05	0°♒	
max. Earth dist.	1522 Jul 08 j 08:18	28°♑01'47	1.34139 AU	asc. node	1523 Jun 11 j 01:11	18°♒02'33	
	1522 Jul 09 j 07:12	0°♓		morning set	1523 Jun 12 j 15:16	21°♒21'14	
evening rise	1522 Jul 13 j 05:09	7°♓51'48			1523 Jun 16 j 15:59	0°♑	
	1522 Jul 25 j 12:48	0°♑					
desc. node	1522 Aug 01 j 18:49	11°♑10'52		superior conj	1523 Jun 19 j 16:22	6°♑33'14	1°19'56
evening max el	1522 Aug 16 j 19:22	29°♑34'39	27°10'45	minimum elong	1523 Jun 19 j 13:57	6°♑20'05	1°19'35
	1522 Aug 17 j 06:05	0°♒		max. Earth dist.	1523 Jun 21 j 11:19	10°♑25'02	1.33110 AU
retrograde	1522 Aug 30 j 03:57	6°♒53'25		evening rise	1523 Jun 27 j 01:17	22°♑05'53	
evening set	1522 Sep 06 j 02:23	4°♒09'55			1523 Jul 01 j 01:34	0°♓	
min. Earth dist.	1522 Sep 09 j 22:34	0°♒28'38	0.64979 AU		1523 Jul 19 j 09:08	0°♑	
	1522 Sep 10 j 09:00	30°♒♑		desc. node	1523 Jul 19 j 15:50	0°♑22'46	
inferior conj	1522 Sep 12 j 01:48	28°♑06'02	-2°-37'-6	evening max el	1523 Jul 30 j 06:06	12°♑42'36	27°25'56
minimum elong	1522 Sep 12 j 05:54	27°♑54'36	2°35'38	retrograde	1523 Aug 12 j 22:30	20°♑00'43	
morning rise	1522 Sep 18 j 11:12	22°♑31'55		evening set	1523 Aug 20 j 02:58	17°♑23'48	
asc. node	1522 Sep 20 j 03:21	21°♑59'54		min. Earth dist.	1523 Aug 23 j 18:09	14°♑15'35	0.63401 AU
direct	1522 Sep 21 j 02:29	21°♑54'55		inferior conj	1523 Aug 26 j 10:00	11°♑35'19	-3°-31'-32
morning max el	1522 Sep 27 j 14:46	25°♑24'31	18°05'59	minimum elong	1523 Aug 26 j 15:06	11°♑22'29	3°30'04
	1522 Oct 01 j 11:01	0°♓		morning rise	1523 Sep 02 j 05:35	6°♑18'21	
morning set	1522 Oct 15 j 14:33	22°♓29'17		direct	1523 Sep 04 j 16:27	5°♑49'25	
	1522 Oct 20 j 03:26	0°♑		asc. node	1523 Sep 07 j 00:24	6°♑16'02	
desc. node	1522 Oct 28 j 18:07	13°♑58'05		morning max el	1523 Sep 11 j 06:55	9°♑15'11	17°52'27
					1523 Sep 25 j 01:58	0°♓	
superior conj	1522 Oct 29 j 18:26	15°♑35'09	0°-6'-47	morning set	1523 Sep 27 j 18:40	4°♓42'07	
minimum elong	1522 Oct 29 j 17:35	15°♑31'45	0°06'40				
behind sun begin	1522 Oct 29 j 07:42	14°♑52'21		superior conj	1523 Oct 09 j 21:59	25°♓26'05	0°38'00
behind sun end	1522 Oct 30 j 03:28	16°♑11'07		minimum elong	1523 Oct 10 j 01:42	25°♓41'29	0°37'30
max. Earth dist.	1522 Nov 02 j 11:03	21°♑26'20	1.44882 AU		1523 Oct 12 j 16:38	0°♑	
	1522 Nov 07 j 22:03	0°♒		desc. node	1523 Oct 15 j 15:09	4°♑45'34	
evening rise	1522 Nov 15 j 06:01	11°♒23'26		max. Earth dist.	1523 Oct 16 j 03:56	5°♑36'52	1.43959 AU
	1522 Nov 27 j 09:19	0°♓		evening rise	1523 Oct 25 j 14:19	20°♑25'56	
greatest brilliancy	1522 Dec 03 j 02:30	8°♓22'35	-0.6m		1523 Oct 31 j 20:46	0°♒	
evening max el	1522 Dec 10 j 13:57	17°♓46'41	19°48'05	greatest brilliancy	1523 Nov 18 j 01:39	24°♒44'08	-0.5m
asc. node	1522 Dec 17 j 02:39	22°♓03'03			1523 Nov 22 j 10:05	0°♓	
retrograde	1522 Dec 18 j 01:28	22°♓08'05		evening max el	1523 Nov 23 j 14:57	1°♓16'55	20°51'56
evening set	1522 Dec 21 j 14:11	20°♓55'10		retrograde	1523 Dec 01 j 23:11	6°♓13'11	
inferior conj	1522 Dec 27 j 02:47	14°♓53'21	2°56'09	asc. node	1523 Dec 03 j 23:40	5°♓50'19	
minimum elong	1522 Dec 27 j 00:08	15°♓02'08	2°55'29	evening set	1523 Dec 05 j 21:25	4°♓45'18	

	1523 Dec 10 j 05:50	30° RA		evening set	1524 Nov 19 j 05:12	18° A 38'27	
inferior conj	1523 Dec 11 j 07:40	28° A 32'13	2°18'44	asc. node	1524 Nov 19 j 20:42	18° A 05'07	
minimum elong	1523 Dec 11 j 05:07	28° A 40'56	2°17'54	inferior conj	1524 Nov 24 j 14:41	12° A 17'29	1°34'24
min. Earth dist.	1523 Dec 11 j 19:18	27° A 52'19	0.67428 AU	minimum elong	1524 Nov 24 j 12:42	12° A 24'21	1°33'39
morning rise	1523 Dec 16 j 12:24	22° A 16'57		min. Earth dist.	1524 Nov 24 j 14:57	12° A 16'34	0.67762 AU
direct	1523 Dec 21 j 21:15	19° A 56'27		morning rise	1524 Nov 29 j 20:02	6° A 03'48	
morning max el	1524 Jan 01 j 18:56	26° A 26'36	24°01'08	direct	1524 Dec 04 j 13:40	4° A 05'44	
	1524 Jan 05 j 01:48	0° C		morning max el	1524 Dec 14 j 05:24	9° A 48'12	22°33'01
desc. node	1524 Jan 11 j 14:24	8° C 07'04		greatest brilliancy	1524 Dec 18 j 19:19	14° A 55'13	-0.3m
	1524 Jan 26 j 16:16	0° \approx		desc. node	1524 Dec 28 j 11:28	27° A 45'15	
morning set	1524 Feb 06 j 09:57	17° \approx 36'38			1524 Dec 30 j 01:17	0° C	
max. Earth dist.	1524 Feb 10 j 05:46	24° \approx 18'59	1.38291 AU	morning set	1525 Jan 17 j 00:38	27° C 35'52	
	1524 Feb 13 j 09:06	0° K			1525 Jan 18 j 11:41	0° \approx	
				max. Earth dist.	1525 Jan 22 j 02:05	6° \approx 02'04	1.40440 AU
superior conj	1524 Feb 17 j 10:41	7° K 36'19	-1°-44'-17				
minimum elong	1524 Feb 17 j 14:50	7° K 56'01	1°43'53	superior conj	1525 Jan 29 j 21:16	19° \approx 42'15	-1°-59'-50
evening rise	1524 Feb 26 j 09:47	25° K 04'10		minimum elong	1525 Jan 30 j 00:02	19° \approx 54'45	1°59'45
	1524 Feb 28 j 22:32	0° Y			1525 Feb 04 j 11:30	0° K	
asc. node	1524 Feb 29 j 22:59	1° Y 57'07		evening rise	1525 Feb 08 j 22:08	8° K 22'09	
evening max el	1524 Mar 13 j 20:59	21° Y 39'50	18°56'08	asc. node	1525 Feb 15 j 20:02	21° K 05'46	
retrograde	1524 Mar 22 j 07:00	25° Y 44'43			1525 Feb 21 j 11:20	0° Y	
evening set	1524 Mar 24 j 11:50	25° Y 29'06		evening max el	1525 Feb 25 j 02:23	4° Y 16'13	18°22'04
inferior conj	1524 Apr 01 j 12:42	21° Y 12'24	1°54'42	retrograde	1525 Mar 04 j 09:40	7° Y 53'17	
minimum elong	1524 Apr 01 j 16:32	21° Y 05'34	1°53'32	evening set	1525 Mar 06 j 19:52	7° Y 30'24	
min. Earth dist.	1524 Apr 04 j 17:01	18° Y 57'46	0.57001 AU	inferior conj	1525 Mar 14 j 02:31	2° Y 52'53	3°01'10
desc. node	1524 Apr 08 j 13:35	16° Y 39'54		minimum elong	1525 Mar 14 j 06:11	2° Y 45'14	3°00'25
morning rise	1524 Apr 09 j 16:59	16° Y 08'54		min. Earth dist.	1525 Mar 17 j 13:01	0° Y 02'37	0.58967 AU
direct	1524 Apr 15 j 00:18	15° Y 01'44			1525 Mar 17 j 14:21	30° RK	
morning max el	1524 Apr 29 j 07:27	22° Y 27'12	25°52'59	morning rise	1525 Mar 21 j 12:39	27° K 20'42	
	1524 May 05 j 23:46	0° B		desc. node	1525 Mar 26 j 10:38	25° K 42'16	
	1524 May 24 j 01:42	0° II		direct	1525 Mar 27 j 18:14	25° K 37'40	
morning set	1524 May 27 j 02:46	6° II 16'43			1525 Apr 07 j 07:25	0° Y	
asc. node	1524 May 27 j 22:14	7° II 59'42		morning max el	1525 Apr 11 j 02:49	3° Y 20'57	27°05'13
					1525 Apr 30 j 11:58	0° B	
superior conj	1524 Jun 03 j 03:19	21° II 30'22	1°01'27	morning set	1525 May 11 j 12:19	21° B 05'12	
minimum elong	1524 Jun 03 j 01:03	21° II 18'00	1°01'02	asc. node	1525 May 14 j 19:18	28° B 05'39	
max. Earth dist.	1524 Jun 03 j 20:53	23° II 06'39	1.32477 AU		1525 May 15 j 16:22	0° II	
	1524 Jun 07 j 00:57	0° S					
evening rise	1524 Jun 10 j 04:50	6° S 41'09		superior conj	1525 May 18 j 15:07	6° II 27'49	0°39'30
	1524 Jun 22 j 14:25	0° Q		minimum elong	1525 May 18 j 13:28	6° II 18'45	0°39'10
desc. node	1524 Jul 05 j 12:53	18° Q 44'54		max. Earth dist.	1525 May 18 j 09:19	5° II 55'56	1.32222 AU
evening max el	1524 Jul 11 j 12:56	25° Q 15'46	27°09'09	evening rise	1525 May 25 j 13:13	21° II 29'06	
	1524 Jul 17 j 13:40	0° M			1525 May 29 j 17:09	0° S	
retrograde	1524 Jul 25 j 09:54	2° M 30'30			1525 Jun 17 j 04:15	0° Q	
evening set	1524 Aug 01 j 12:17	0° M 13'09		desc. node	1525 Jun 22 j 09:54	5° Q 56'29	
	1524 Aug 01 j 20:25	30° RQ		evening max el	1525 Jun 23 j 13:16	7° Q 03'39	26°19'18
min. Earth dist.	1524 Aug 05 j 03:12	27° Q 28'56	0.61526 AU	retrograde	1525 Jul 07 j 13:00	14° Q 15'30	
inferior conj	1524 Aug 08 j 05:53	24° Q 43'19	-4°-18'-5	evening set	1525 Jul 14 j 01:39	12° Q 30'06	
minimum elong	1524 Aug 08 j 10:49	24° Q 32'20	4°17'07	min. Earth dist.	1525 Jul 18 j 02:10	9° Q 54'28	0.59477 AU
morning rise	1524 Aug 15 j 12:13	19° Q 46'55		inferior conj	1525 Jul 21 j 09:52	7° Q 20'45	-4°-48'-58
direct	1524 Aug 17 j 21:31	19° Q 23'05		minimum elong	1525 Jul 21 j 12:34	7° Q 15'30	4°48'45
asc. node	1524 Aug 23 j 21:27	21° Q 58'29		morning rise	1525 Jul 29 j 02:53	2° Q 47'30	
morning max el	1524 Aug 24 j 21:20	22° Q 53'03	17°57'24	direct	1525 Jul 31 j 13:17	2° Q 26'42	
	1524 Aug 30 j 11:26	0° M		morning max el	1525 Aug 08 j 07:01	6° Q 10'27	18°22'01
morning set	1524 Sep 09 j 17:44	17° M 48'56		asc. node	1525 Aug 10 j 18:31	8° Q 53'04	
	1524 Sep 16 j 10:49	0° A			1525 Aug 23 j 10:31	0° M	
				morning set	1525 Aug 24 j 06:24	1° M 34'47	
superior conj	1524 Sep 20 j 04:43	6° A 36'46	1°11'54				
minimum elong	1524 Sep 20 j 09:20	6° A 56'51	1°11'21	superior conj	1525 Sep 02 j 11:26	18° M 58'25	1°33'29
max. Earth dist.	1524 Sep 27 j 16:37	19° A 19'26	1.42448 AU	minimum elong	1525 Sep 02 j 14:43	19° M 13'26	1°33'13
desc. node	1524 Oct 01 j 12:12	25° A 32'17			1525 Sep 08 j 15:20	0° A	
evening rise	1524 Oct 04 j 04:18	29° A 47'42		max. Earth dist.	1525 Sep 09 j 23:46	2° A 20'15	1.40541 AU
	1524 Oct 04 j 07:25	0° M		evening rise	1525 Sep 14 j 13:53	10° A 03'58	
	1524 Oct 24 j 11:56	0° A		desc. node	1525 Sep 18 j 09:13	16° A 14'45	
greatest brilliancy	1524 Oct 31 j 17:05	9° A 28'17	-0.3m		1525 Sep 27 j 07:28	0° M	
evening max el	1524 Nov 05 j 10:21	14° A 48'09	22°06'07	evening max el	1525 Oct 19 j 01:07	28° M 21'09	23°25'43
retrograde	1524 Nov 14 j 19:31	20° A 22'57			1525 Oct 20 j 18:32	0° A	

retrograde	1525 Oct 29 j 13:05	4°♄33'47			1526 Sep 21 j 07:01	0°♍	
evening set	1525 Nov 03 j 11:53	2°♄31'51		evening max el	1526 Oct 01 j 13:21	11°♍57'51	24°44'27
	1525 Nov 05 j 23:01	30°♍		retrograde	1526 Oct 13 j 02:49	18°♍42'06	
asc. node	1525 Nov 06 j 17:45	29°♍02'00		evening set	1526 Oct 18 j 15:48	16°♍23'21	
inferior conj	1525 Nov 08 j 22:00	26°♍06'50	0°44'35	min. Earth dist.	1526 Oct 23 j 06:58	11°♍07'54	0.67411 AU
minimum elong	1525 Nov 08 j 20:58	26°♍10'22	0°44'09	inferior conj	1526 Oct 24 j 03:52	9°♍58'32	0°-9'-24
min. Earth dist.	1525 Nov 08 j 11:37	26°♍42'25	0.67751 AU	minimum elong	1526 Oct 24 j 04:06	9°♍57'46	0°09'19
morning rise	1525 Nov 14 j 06:10	19°♍56'50		transit middle	1526 Oct 24 j 04:06	9°♍57'46	0°09'19
direct	1525 Nov 18 j 09:19	18°♍21'38		transit begin	1526 Oct 24 j 01:51	10°♍05'15	
morning max el	1525 Nov 26 j 21:31	23°♍18'50	21°10'29	transit end	1526 Oct 24 j 06:21	9°♍50'17	
greatest brilliancy	1525 Dec 02 j 05:35	29°♍27'22	-0.4m	asc. node	1526 Oct 29 j 14:47	9°♍22'23	
	1525 Dec 02 j 15:51	0°♄		morning rise	1526 Oct 29 j 16:52	3°♍54'38	
desc. node	1525 Dec 15 j 08:30	17°♄47'57		direct	1526 Nov 02 j 07:11	2°♍40'11	
	1525 Dec 23 j 10:13	0°♄		morning max el	1526 Nov 09 j 21:13	7°♍00'18	19°59'13
morning set	1525 Dec 27 j 11:09	6°♄16'51		greatest brilliancy	1526 Nov 17 j 03:10	15°♍51'07	-0.6m
max. Earth dist.	1526 Jan 04 j 04:37	18°♄39'42	1.42422 AU		1526 Nov 26 j 20:50	0°♄	
	1526 Jan 10 j 23:29	0°♍		desc. node	1526 Dec 02 j 05:30	8°♄08'23	
				morning set	1526 Dec 06 j 07:18	14°♄24'20	
superior conj	1526 Jan 11 j 09:46	0°♍43'54	-2°-3'-57		1526 Dec 16 j 06:28	0°♄	
minimum elong	1526 Jan 11 j 08:43	0°♍39'28	2°03'58	max. Earth dist.	1526 Dec 17 j 14:23	2°♄07'03	1.43971 AU
evening rise	1526 Jan 22 j 20:48	20°♍58'05					
	1526 Jan 27 j 21:41	0°♄		superior conj	1526 Dec 22 j 20:06	10°♄33'39	-1°-51'-44
asc. node	1526 Feb 02 j 17:05	9°♄43'41		minimum elong	1526 Dec 22 j 13:44	10°♄07'46	1°51'20
evening max el	1526 Feb 08 j 12:49	17°♄15'39	18°07'51		1527 Jan 03 j 11:14	0°♍	
retrograde	1526 Feb 15 j 04:59	20°♄40'38		evening rise	1527 Jan 05 j 01:28	2°♍43'45	
evening set	1526 Feb 17 j 20:09	20°♄08'53		asc. node	1527 Jan 20 j 14:06	27°♍41'42	
inferior conj	1526 Feb 24 j 11:53	15°♄10'06	3°35'40		1527 Jan 22 j 13:27	0°♄	
minimum elong	1526 Feb 24 j 13:43	15°♄05'43	3°35'30	evening max el	1527 Jan 23 j 01:21	0°♄30'46	18°12'59
min. Earth dist.	1526 Feb 27 j 15:54	12°♄08'28	0.61105 AU	retrograde	1527 Jan 29 j 12:29	3°♄57'20	
morning rise	1526 Mar 03 j 04:21	9°♄18'34		evening set	1527 Feb 01 j 08:33	3°♄15'35	
direct	1526 Mar 09 j 23:30	7°♄00'54			1527 Feb 05 j 14:02	30°♄	
desc. node	1526 Mar 13 j 07:41	7°♄31'43		inferior conj	1527 Feb 07 j 13:00	27°♍56'33	3°45'09
morning max el	1526 Mar 24 j 04:35	14°♄54'03	27°43'54	minimum elong	1527 Feb 07 j 12:49	27°♍57'02	3°45'08
	1526 Apr 05 j 10:21	0°♄		min. Earth dist.	1527 Feb 10 j 03:43	25°♍06'55	0.63125 AU
	1526 Apr 22 j 22:40	0°♄		morning rise	1527 Feb 13 j 15:08	21°♍53'39	
morning set	1526 Apr 25 j 17:58	5°♄39'20		direct	1527 Feb 20 j 13:58	19°♍11'55	
asc. node	1526 May 01 j 16:21	18°♄15'04		desc. node	1527 Feb 28 j 04:43	21°♍52'14	
max. Earth dist.	1526 May 01 j 20:38	18°♄38'23	1.32345 AU	morning max el	1527 Mar 06 j 11:26	27°♍07'13	27°45'11
					1527 Mar 09 j 04:52	0°♄	
superior conj	1526 May 03 j 02:02	21°♄18'51	0°14'48		1527 Mar 30 j 01:46	0°♄	
minimum elong	1526 May 03 j 01:21	21°♄15'09	0°14'39	morning set	1527 Apr 09 j 17:30	19°♄51'56	
behind sun begin	1526 May 02 j 23:25	21°♄04'31			1527 Apr 14 j 15:21	0°♄	
behind sun end	1526 May 03 j 03:18	21°♄25'47		max. Earth dist.	1527 Apr 15 j 02:49	1°♄00'47	1.32873 AU
	1526 May 07 j 01:19	0°♄					
evening rise	1526 May 10 j 00:15	6°♄21'28		superior conj	1527 Apr 17 j 10:21	5°♄58'01	0°-11'-52
	1526 May 22 j 11:07	0°♄		minimum elong	1527 Apr 17 j 10:55	6°♄01'07	0°11'45
evening max el	1526 Jun 05 j 06:30	18°♄05'34	25°01'37	behind sun begin	1527 Apr 17 j 07:21	5°♄41'54	
desc. node	1526 Jun 09 j 06:54	21°♄28'30		behind sun end	1527 Apr 17 j 14:29	6°♄20'21	
retrograde	1526 Jun 19 j 06:14	25°♄12'04		asc. node	1527 Apr 18 j 13:23	8°♄24'05	
evening set	1526 Jun 24 j 15:32	24°♄05'30		evening rise	1527 Apr 24 j 12:05	21°♄12'11	
min. Earth dist.	1526 Jun 29 j 18:01	21°♄19'34	0.57480 AU		1527 Apr 28 j 18:54	0°♄	
inferior conj	1526 Jul 02 j 18:38	19°♄17'56	-4°-52'-27	evening max el	1527 May 17 j 20:22	28°♄39'05	23°27'58
minimum elong	1526 Jul 02 j 16:44	19°♄21'08	4°52'23		1527 May 19 j 07:34	0°♄	
morning rise	1526 Jul 10 j 21:45	15°♄07'11		desc. node	1527 May 27 j 03:56	4°♄45'33	
direct	1526 Jul 13 j 11:15	14°♄48'04		retrograde	1527 May 31 j 11:09	5°♄27'37	
morning max el	1526 Jul 22 j 08:50	18°♄57'54	19°07'34	evening set	1527 Jun 04 j 08:47	4°♄54'12	
asc. node	1526 Jul 28 j 15:34	26°♄44'33		min. Earth dist.	1527 Jun 11 j 06:37	1°♄42'52	0.55881 AU
	1526 Jul 30 j 16:43	0°♄		inferior conj	1527 Jun 13 j 07:22	0°♄30'24	-4°-14'-43
morning set	1526 Aug 08 j 04:37	15°♄48'57		minimum elong	1527 Jun 13 j 00:38	0°♄40'27	4°13'27
	1526 Aug 15 j 08:41	0°♄			1527 Jun 14 j 03:51	30°♄	
superior conj	1526 Aug 16 j 12:33	2°♄15'13	1°44'07	morning rise	1527 Jun 21 j 19:48	26°♄35'09	
minimum elong	1526 Aug 16 j 13:52	2°♄21'32	1°44'04	direct	1527 Jun 24 j 14:00	26°♄16'23	
max. Earth dist.	1526 Aug 23 j 03:14	14°♄38'11	1.38491 AU		1527 Jul 03 j 17:54	0°♄	
evening rise	1526 Aug 26 j 23:47	21°♄28'43		morning max el	1527 Jul 05 j 00:09	1°♄05'57	20°14'19
	1526 Sep 01 j 00:39	0°♄		asc. node	1527 Jul 15 j 12:36	15°♄19'41	
desc. node	1526 Sep 05 j 06:13	6°♄49'16		morning set	1527 Jul 23 j 09:23	0°♄23'00	
					1527 Jul 23 j 04:52	0°♄	

superior conj	1527 Jul 31 j 02:54	16°♌11'48	1°45'44	superior conj	1528 Jul 14 j 02:33	0°♌37'00	1°40'08
minimum elong	1527 Jul 31 j 02:28	16°♌09'37	1°45'44	minimum elong	1528 Jul 14 j 00:54	0°♌28'22	1°40'02
max. Earth dist.	1527 Aug 05 j 08:34	26°♌30'37	1.36555 AU	max. Earth dist.	1528 Jul 17 j 21:34	8°♌25'08	1.34916 AU
	1527 Aug 07 j 04:43	0°♍		evening rise	1528 Jul 22 j 09:17	17°♌15'42	
evening rise	1527 Aug 09 j 07:46	3°♍56'33			1528 Jul 29 j 08:28	0°♍	
desc. node	1527 Aug 23 j 03:13	27°♍10'32		desc. node	1528 Aug 09 j 00:16	17°♍12'27	
	1527 Aug 24 j 23:42	0°♎			1528 Aug 18 j 07:33	0°♎	
evening max el	1527 Sep 14 j 01:12	25°♎37'04	25°55'00	evening max el	1528 Aug 26 j 13:33	9°♎13'13	26°49'31
	1527 Sep 19 j 06:39	0°♏		retrograde	1528 Sep 08 j 15:26	16°♎28'39	
retrograde	1527 Sep 26 j 11:48	2°♏42'18		evening set	1528 Sep 15 j 07:52	13°♎46'51	
evening set	1527 Oct 02 j 15:09	0°♏09'25		min. Earth dist.	1528 Sep 19 j 08:02	9°♎44'26	0.65730 AU
	1527 Oct 02 j 19:34	30°♑♎		inferior conj	1528 Sep 21 j 03:53	7°♎36'03	-2°-4'-6
min. Earth dist.	1527 Oct 06 j 22:35	25°♎29'50	0.66742 AU	minimum elong	1528 Sep 21 j 07:10	7°♎26'27	2°02'50
inferior conj	1527 Oct 08 j 06:29	23°♎49'21	-1°-6'-12	morning rise	1528 Sep 27 j 07:51	1°♎53'14	
minimum elong	1527 Oct 08 j 08:12	23°♎43'56	1°05'30	asc. node	1528 Sep 27 j 08:51	1°♎51'58	
asc. node	1527 Oct 11 j 11:49	20°♎02'37		direct	1528 Sep 30 j 03:00	1°♎09'53	
morning rise	1527 Oct 14 j 02:09	17°♎54'23		morning max el	1528 Oct 06 j 16:56	4°♎45'12	18°21'42
direct	1527 Oct 17 j 05:43	16°♎57'22			1528 Oct 23 j 22:33	0°♏	
morning max el	1527 Oct 24 j 04:16	20°♎50'14	19°02'23	morning set	1528 Oct 26 j 00:12	3°♏21'14	
	1527 Oct 31 j 10:50	0°♏		desc. node	1528 Nov 04 j 23:31	19°♏22'09	
morning set	1527 Nov 15 j 14:08	23°♏10'52					
desc. node	1527 Nov 19 j 02:30	28°♏41'00		superior conj	1528 Nov 10 j 07:34	27°♏48'28	0°-35'-3
	1527 Nov 19 j 22:41	0°♐		minimum elong	1528 Nov 10 j 03:01	27°♏30'32	0°34'27
max. Earth dist.	1527 Nov 30 j 06:03	16°♐09'56	1.44903 AU		1528 Nov 11 j 17:00	0°♐	
				max. Earth dist.	1528 Nov 12 j 01:08	0°♐31'58	1.45110 AU
superior conj	1527 Dec 02 j 06:27	19°♐20'46	-1°-20'-35	evening rise	1528 Nov 26 j 15:17	23°♐24'13	
minimum elong	1527 Dec 01 j 21:47	18°♐46'33	1°19'40		1528 Nov 30 j 20:10	0°♑	
	1527 Dec 08 j 23:18	0°♑		greatest brilliancy	1528 Dec 10 j 12:22	14°♑57'11	-0.7m
evening rise	1527 Dec 17 j 08:02	13°♑31'56		evening max el	1528 Dec 19 j 22:05	17°♑22'27	19°17'28
	1527 Dec 27 j 11:11	0°♒			1528 Dec 22 j 23:05	0°♒	
evening max el	1528 Jan 06 j 13:12	13°♒54'31	18°36'38	asc. node	1528 Dec 24 j 08:10	0°♒47'30	
asc. node	1528 Jan 07 j 11:08	14°♒47'34		retrograde	1528 Dec 26 j 23:57	1°♒26'01	
retrograde	1528 Jan 13 j 03:56	17°♒34'28		evening set	1528 Dec 30 j 08:13	0°♒20'41	
evening set	1528 Jan 16 j 05:31	16°♒41'34			1528 Dec 30 j 20:08	30°♒♑	
inferior conj	1528 Jan 22 j 01:49	11°♒03'59	3°36'14	inferior conj	1529 Jan 04 j 22:59	24°♑26'46	3°13'48
minimum elong	1528 Jan 22 j 00:10	11°♒08'56	3°36'02	minimum elong	1529 Jan 04 j 20:32	24°♑34'41	3°13'18
min. Earth dist.	1528 Jan 24 j 01:01	8°♒43'06	0.64834 AU	min. Earth dist.	1529 Jan 06 j 07:07	22°♑43'34	0.66153 AU
morning rise	1528 Jan 27 j 17:35	4°♒54'31		morning rise	1529 Jan 10 j 08:02	18°♑13'28	
direct	1528 Feb 03 j 11:37	2°♒03'41		direct	1529 Jan 16 j 15:23	15°♑27'17	
desc. node	1528 Feb 15 j 01:44	8°♒07'54		morning max el	1529 Jan 29 j 06:17	22°♑55'18	26°10'52
morning max el	1528 Feb 16 j 20:44	9°♒51'22	27°11'55	desc. node	1529 Jan 31 j 22:45	25°♑46'39	
	1528 Mar 03 j 17:06	0°♓			1529 Feb 04 j 12:54	0°♓	
	1528 Mar 21 j 11:25	0°♓			1529 Feb 25 j 00:30	0°♓	
morning set	1528 Mar 23 j 08:01	3°♓33'55		morning set	1529 Mar 06 j 09:37	16°♓33'00	
max. Earth dist.	1528 Mar 28 j 00:14	12°♓53'22	1.33836 AU	max. Earth dist.	1529 Mar 10 j 10:20	24°♓13'32	1.35259 AU
					1529 Mar 13 j 08:29	0°♓	
superior conj	1528 Mar 31 j 14:06	20°♓19'16	0°-39'-31				
minimum elong	1528 Mar 31 j 16:05	20°♓29'39	0°39'07	superior conj	1529 Mar 15 j 10:53	4°♓14'36	-1°-6'-50
asc. node	1528 Apr 04 j 10:26	28°♓28'52		minimum elong	1529 Mar 15 j 14:10	4°♓31'22	1°06'16
	1528 Apr 05 j 03:34	0°♔		asc. node	1529 Mar 22 j 07:29	18°♓24'34	
evening rise	1528 Apr 07 j 22:52	5°♔55'21		evening rise	1529 Mar 23 j 06:38	20°♓23'49	
	1528 Apr 21 j 01:42	0°♕			1529 Mar 28 j 02:10	0°♔	
evening max el	1528 Apr 28 j 14:05	9°♕14'43	21°53'28	evening max el	1529 Apr 10 j 17:27	20°♔17'29	20°30'11
retrograde	1528 May 11 j 04:01	15°♕25'29		retrograde	1529 Apr 21 j 17:07	25°♔36'52	
desc. node	1528 May 13 j 00:58	15°♕17'35		evening set	1529 Apr 23 j 19:27	25°♔26'03	
evening set	1528 May 13 j 19:56	15°♕09'40		desc. node	1529 Apr 29 j 22:00	23°♔11'01	
inferior conj	1528 May 23 j 04:59	11°♕06'11	-2°-49'-44	inferior conj	1529 May 02 j 23:24	21°♔28'20	0°-53'-20
minimum elong	1528 May 22 j 21:44	11°♕16'19	2°47'29	minimum elong	1529 May 02 j 20:53	21°♔32'00	0°52'26
min. Earth dist.	1528 May 22 j 18:36	11°♕20'42	0.55014 AU	min. Earth dist.	1529 May 04 j 07:19	20°♔42'08	0.55084 AU
morning rise	1528 Jun 01 j 00:51	7°♕12'18		morning rise	1529 May 11 j 20:44	17°♔16'37	
direct	1528 Jun 04 j 03:01	6°♕51'10		direct	1529 May 15 j 13:45	16°♔46'57	
morning max el	1528 Jun 16 j 04:04	12°♕30'25	21°40'26	morning max el	1529 May 28 j 22:42	23°♔16'22	23°19'46
	1528 Jun 28 j 23:11	0°♖			1529 Jun 03 j 22:49	0°♕	
asc. node	1528 Jul 01 j 09:39	4°♖28'08		asc. node	1529 Jun 18 j 06:42	24°♕00'35	
morning set	1528 Jul 06 j 18:24	15°♖11'00		morning set	1529 Jun 21 j 05:42	0°♖06'06	
	1528 Jul 13 j 19:29	0°♗			1529 Jun 21 j 04:32	0°♖	

superior conj	1529 Jun 28 j 08:24	15°☿20'21	1°28'43		1530 May 29 j 03:28	0°♊	
minimum elong	1529 Jun 28 j 06:06	15°☿08'01	1°28'27	asc. node	1530 Jun 05 j 03:47	13°♊50'25	
max. Earth dist.	1529 Jun 30 j 19:51	20°☿36'39	1.33655 AU	morning set	1530 Jun 05 j 17:36	15°♊03'01	
	1529 Jul 05 j 09:12	0°♊					
evening rise	1529 Jul 05 j 23:42	1°♊12'26		superior conj	1530 Jun 12 j 18:05	0°☿14'26	1°12'34
	1529 Jul 22 j 07:22	0°♊		minimum elong	1530 Jun 12 j 15:41	0°☿01'18	1°12'10
desc. node	1529 Jul 26 j 21:19	6°♊45'38			1530 Jun 12 j 15:26	0°☿	
evening max el	1529 Aug 09 j 01:16	22°♊34'11	27°20'48	max. Earth dist.	1530 Jun 14 j 02:00	3°☿08'05	1.32792 AU
retrograde	1529 Aug 22 j 13:15	29°♊52'31		evening rise	1530 Jun 19 j 23:19	15°☿36'04	
evening set	1529 Aug 29 j 15:15	27°♊10'18			1530 Jun 27 j 09:26	0°♊	
min. Earth dist.	1529 Sep 02 j 09:00	23°♊43'58	0.64355 AU	desc. node	1530 Jul 13 j 18:21	25°♊38'10	
inferior conj	1529 Sep 04 j 17:39	21°♊12'50	-3°00'-48		1530 Jul 17 j 07:09	0°♊	
minimum elong	1529 Sep 04 j 22:16	21°♊00'30	2°59'16	evening max el	1530 Jul 22 j 10:25	5°♊27'31	27°22'45
morning rise	1529 Sep 11 j 07:17	15°♊45'40		retrograde	1530 Aug 05 j 04:57	12°♊44'48	
direct	1529 Sep 13 j 20:28	15°♊12'24		evening set	1530 Aug 12 j 09:52	10°♊14'07	
asc. node	1529 Sep 14 j 05:53	15°♊13'12		min. Earth dist.	1530 Aug 15 j 23:56	7°♊17'57	0.62635 AU
morning max el	1529 Sep 20 j 08:40	18°♊38'59	17°58'05	inferior conj	1530 Aug 18 j 20:59	4°♊33'18	-3°-52'-39
	1529 Sep 28 j 16:47	0°♊		minimum elong	1530 Aug 19 j 02:13	4°♊20'48	3°51'20
morning set	1529 Oct 07 j 14:28	14°♊53'53			1530 Aug 24 j 13:56	30°♊♊	
	1529 Oct 16 j 14:49	0°♊		morning rise	1530 Aug 25 j 21:10	29°♊25'04	
				direct	1530 Aug 28 j 07:00	28°♊58'40	
superior conj	1529 Oct 20 j 21:07	6°♊57'06	0°13'17		1530 Aug 31 j 22:02	0°♊	
minimum elong	1529 Oct 20 j 22:39	7°♊03'18	0°13'04	asc. node	1530 Sep 01 j 02:57	0°♊07'04	
behind sun begin	1529 Oct 20 j 16:31	6°♊38'32		morning max el	1530 Sep 04 j 00:30	2°♊25'01	17°52'17
behind sun end	1529 Oct 21 j 04:46	7°♊28'02		morning set	1530 Sep 20 j 03:19	27°♊30'58	
desc. node	1529 Oct 22 j 20:35	10°♊08'11			1530 Sep 21 j 12:47	0°♊	
max. Earth dist.	1529 Oct 25 j 19:55	14°♊52'34	1.44572 AU				
	1529 Nov 04 j 11:59	0°♊		superior conj	1530 Oct 01 j 12:13	17°♊21'53	0°53'54
evening rise	1529 Nov 06 j 04:17	2°♊35'26		minimum elong	1530 Oct 01 j 16:43	17°♊40'52	0°53'19
	1529 Nov 24 j 11:22	0°♊		max. Earth dist.	1530 Oct 08 j 11:01	28°♊51'55	1.43370 AU
greatest brilliancy	1529 Nov 26 j 13:31	2°♊53'40	-0.6m		1530 Oct 09 j 03:52	0°♊	
evening max el	1529 Dec 03 j 02:11	10°♊51'53	20°13'40	desc. node	1530 Oct 09 j 17:38	0°♊55'27	
retrograde	1529 Dec 10 j 21:48	15°♊27'30		evening rise	1530 Oct 16 j 12:44	11°♊39'47	
asc. node	1529 Dec 11 j 05:11	15°♊26'58			1530 Oct 28 j 15:38	0°♊	
evening set	1529 Dec 14 j 14:23	14°♊08'14		greatest brilliancy	1530 Nov 10 j 23:04	18°♊30'51	-0.4m
inferior conj	1529 Dec 20 j 01:45	8°♊00'58	2°41'13	evening max el	1530 Nov 16 j 00:38	24°♊21'42	21°22'29
minimum elong	1529 Dec 19 j 23:05	8°♊09'58	2°40'28	retrograde	1530 Nov 24 j 19:16	29°♊34'48	
min. Earth dist.	1529 Dec 20 j 20:21	6°♊58'13	0.67069 AU	asc. node	1530 Nov 28 j 02:13	28°♊34'40	
morning rise	1529 Dec 25 j 07:15	1°♊45'48		evening set	1530 Nov 28 j 22:04	28°♊00'02	
	1529 Dec 27 j 20:02	30°♊♊		inferior conj	1530 Dec 04 j 07:47	21°♊42'54	2°00'42
direct	1529 Dec 31 j 00:37	29°♊14'14		minimum elong	1530 Dec 04 j 05:26	21°♊51'03	1°59'53
	1530 Jan 03 j 11:19	0°♊		min. Earth dist.	1530 Dec 04 j 14:26	21°♊19'55	0.67605 AU
morning max el	1530 Jan 11 j 15:01	6°♊09'15	24°51'21	morning rise	1530 Dec 09 j 12:28	15°♊27'52	
desc. node	1530 Jan 18 j 19:48	14°♊24'33		direct	1530 Dec 14 j 14:43	13°♊16'46	
	1530 Jan 30 j 02:58	0°♊		morning max el	1530 Dec 24 j 23:57	19°♊27'38	23°23'28
morning set	1530 Feb 16 j 17:10	28°♊34'57		greatest brilliancy	1530 Dec 30 j 12:52	25°♊42'32	-0.2m
	1530 Feb 17 j 12:16	0°♊			1531 Jan 02 j 21:55	0°♊	
max. Earth dist.	1530 Feb 20 j 10:01	5°♊16'27	1.37097 AU	desc. node	1531 Jan 05 j 16:50	3°♊44'06	
					1531 Jan 23 j 07:26	0°♊	
superior conj	1530 Feb 26 j 21:39	17°♊35'47	-1°-31'-53	morning set	1531 Jan 29 j 00:20	9°♊22'38	
minimum elong	1530 Feb 27 j 01:46	17°♊55'59	1°31'22	max. Earth dist.	1531 Feb 02 j 04:47	16°♊33'05	1.39203 AU
	1530 Mar 05 j 03:10	0°♊					
evening rise	1530 Mar 07 j 09:09	4°♊30'56		superior conj	1531 Feb 09 j 18:23	0°♊12'13	-1°-51'-59
asc. node	1530 Mar 09 j 04:33	8°♊06'35		minimum elong	1531 Feb 09 j 22:12	0°♊29'59	1°51'42
	1530 Mar 22 j 11:23	0°♊			1531 Feb 09 j 15:46	0°♊	
evening max el	1530 Mar 24 j 08:27	1°♊59'18	19°24'43	evening rise	1531 Feb 19 j 03:34	18°♊08'40	
retrograde	1530 Apr 02 j 15:20	6°♊28'20		asc. node	1531 Feb 24 j 01:35	27°♊28'59	
evening set	1530 Apr 04 j 17:16	6°♊15'48			1531 Feb 25 j 10:50	0°♊	
inferior conj	1530 Apr 13 j 05:08	2°♊08'46	1°00'46	evening max el	1531 Mar 07 j 09:28	14°♊17'58	18°39'10
minimum elong	1530 Apr 13 j 07:35	2°♊04'46	0°59'56	retrograde	1531 Mar 15 j 06:50	18°♊09'04	
min. Earth dist.	1530 Apr 15 j 21:59	0°♊23'28	0.56081 AU	evening set	1531 Mar 17 j 13:48	17°♊50'46	
desc. node	1530 Apr 16 j 19:01	29°♊50'51		inferior conj	1531 Mar 25 j 06:40	13°♊25'46	2°27'05
	1530 Apr 16 j 13:01	30°♊♊		minimum elong	1531 Mar 25 j 10:46	13°♊17'58	2°26'00
morning rise	1530 Apr 21 j 18:02	27°♊24'26		min. Earth dist.	1531 Mar 28 j 15:40	10°♊52'54	0.57793 AU
direct	1530 Apr 26 j 10:08	26°♊34'48		morning rise	1531 Apr 02 j 03:24	8°♊08'35	
	1530 May 06 j 00:30	0°♊		desc. node	1531 Apr 03 j 16:03	7°♊31'00	
morning max el	1530 May 10 j 13:23	3°♊44'35	25°00'29	direct	1531 Apr 07 j 20:57	6°♊46'30	

morning max el	1531 Apr 22 j 05:48	14° Υ 21'47	26°27'13	morning rise	1532 Mar 13 j 07:31	19° Υ 40'53	
	1531 May 04 j 17:19	0° Υ		direct	1532 Mar 19 j 20:23	17° Υ 41'59	
morning set	1531 May 21 j 04:29	29° Υ 56'07		desc. node	1532 Mar 20 j 13:04	17° Υ 43'18	
	1531 May 21 j 05:14	0° Π		morning max el	1532 Apr 03 j 03:36	25° Υ 30'18	27°26'04
asc. node	1531 May 23 j 00:52	3° Π 51'49			1532 Apr 07 j 07:37	0° Υ	
					1532 Apr 27 j 01:43	0° Υ	
superior conj	1531 May 28 j 05:38	15° Π 12'30	0°52'31	morning set	1532 May 04 j 12:35	14° Υ 38'54	
minimum elong	1531 May 28 j 03:35	15° Π 01'16	0°52'08	asc. node	1532 May 08 j 21:54	23° Υ 59'31	
max. Earth dist.	1531 May 28 j 13:03	15° Π 53'20	1.32316 AU	max. Earth dist.	1532 May 11 j 01:21	28° Υ 40'32	1.32226 AU
evening rise	1531 Jun 04 j 05:12	0° Σ 17'30					
	1531 Jun 04 j 01:51	0° Σ		superior conj	1532 May 11 j 17:15	0° Π 07'54	0°29'19
	1531 Jun 20 j 12:35	0° Ω		minimum elong	1532 May 11 j 15:59	0° Π 00'54	0°29'03
desc. node	1531 Jun 30 j 15:21	13° Ω 33'20			1532 May 11 j 15:49	0° Π	
evening max el	1531 Jul 04 j 14:39	17° Ω 42'09	26°51'54	evening rise	1532 May 18 j 14:57	15° Π 08'11	
retrograde	1531 Jul 18 j 13:25	24° Ω 56'29			1532 May 26 j 01:46	0° Σ	
evening set	1531 Jul 25 j 11:23	22° Ω 51'18		evening max el	1532 Jun 15 j 12:03	29° Σ 10'22	25°49'15
min. Earth dist.	1531 Jul 29 j 04:42	20° Ω 12'51	0.60656 AU		1532 Jun 16 j 09:23	0° Ω	
inferior conj	1531 Aug 01 j 10:35	17° Ω 29'40	-4°-33'-45	desc. node	1532 Jun 16 j 12:22	0° Ω 06'43	
minimum elong	1531 Aug 01 j 14:52	17° Ω 20'38	4°33'07	retrograde	1532 Jun 29 j 12:35	6° Ω 20'17	
morning rise	1531 Aug 08 j 21:31	12° Ω 43'02		evening set	1532 Jul 05 j 14:58	4° Ω 51'35	
direct	1531 Aug 11 j 06:47	12° Ω 20'52		min. Earth dist.	1532 Jul 10 j 00:29	2° Ω 13'32	0.58598 AU
morning max el	1531 Aug 18 j 13:22	15° Ω 55'45	18°05'23	inferior conj	1532 Jul 13 j 06:45	29° Σ 51'18	-4°-54'-40
asc. node	1531 Aug 19 j 00:02	16° Ω 22'16		minimum elong	1532 Jul 13 j 07:45	29° Σ 49'28	4°54'40
	1531 Aug 28 j 09:13	0° η			1532 Jul 13 j 02:01	30° Υ Σ	
morning set	1531 Sep 03 j 08:46	10° η 56'02		morning rise	1532 Jul 21 j 04:06	25° Σ 27'37	
				direct	1532 Jul 23 j 15:35	25° Σ 07'39	
superior conj	1531 Sep 13 j 05:50	29° η 04'46	1°22'30	morning max el	1532 Jul 31 j 20:01	29° Σ 01'16	18°38'44
minimum elong	1531 Sep 13 j 10:02	29° η 23'31	1°22'04		1532 Aug 01 j 19:29	0° Ω	
	1531 Sep 13 j 18:15	0° Δ		asc. node	1532 Aug 04 j 21:06	3° Ω 42'40	
max. Earth dist.	1531 Sep 20 j 20:50	12° Δ 16'02	1.41665 AU	morning set	1532 Aug 17 j 01:57	24° Ω 55'10	
evening rise	1531 Sep 26 j 09:54	21° Δ 21'52			1532 Aug 19 j 16:39	0° η	
desc. node	1531 Sep 26 j 14:40	21° Δ 41'01					
	1531 Oct 01 j 21:26	0° \mathbb{M}		superior conj	1532 Aug 25 j 21:02	11° η 51'24	1°39'12
	1531 Oct 22 j 21:47	0° \mathbb{M}		minimum elong	1532 Aug 25 j 23:29	12° η 02'55	1°39'04
greatest brilliancy	1531 Oct 24 j 20:25	2° \mathbb{M} 24'34	-0.3m	max. Earth dist.	1532 Sep 02 j 02:02	24° η 57'53	1.39674 AU
evening max el	1531 Oct 29 j 17:52	7° \mathbb{M} 53'33	22°39'42		1532 Sep 04 j 23:50	0° Δ	
retrograde	1531 Nov 08 j 14:37	13° \mathbb{M} 45'13		evening rise	1532 Sep 06 j 05:49	2° Δ 07'13	
evening set	1531 Nov 13 j 05:34	11° \mathbb{M} 53'36		desc. node	1532 Sep 12 j 11:41	12° Δ 20'36	
asc. node	1531 Nov 14 j 23:15	10° \mathbb{M} 13'13			1532 Sep 24 j 04:45	0° \mathbb{M}	
inferior conj	1531 Nov 18 j 15:10	5° \mathbb{M} 30'25	1°13'55	evening max el	1532 Oct 11 j 07:26	21° \mathbb{M} 28'27	23°59'47
minimum elong	1531 Nov 18 j 13:32	5° \mathbb{M} 36'02	1°13'15	retrograde	1532 Oct 22 j 06:31	27° \mathbb{M} 55'00	
min. Earth dist.	1531 Nov 18 j 10:55	5° \mathbb{M} 45'05	0.67795 AU	evening set	1532 Oct 27 j 11:15	25° \mathbb{M} 45'56	
	1531 Nov 23 j 02:23	30° \mathbb{R} \mathbb{M}		asc. node	1532 Oct 31 j 20:17	20° \mathbb{M} 47'46	
morning rise	1531 Nov 23 j 21:25	29° \mathbb{M} 17'44		inferior conj	1532 Nov 01 j 22:04	19° \mathbb{M} 20'43	0°22'09
direct	1531 Nov 28 j 08:46	27° \mathbb{M} 29'20		minimum elong	1532 Nov 01 j 21:32	19° \mathbb{M} 22'31	0°21'54
	1531 Dec 04 j 07:24	0° \mathbb{M}		min. Earth dist.	1532 Nov 01 j 07:19	20° \mathbb{M} 10'42	0.67650 AU
morning max el	1531 Dec 07 j 12:18	2° \mathbb{M} 52'12	21°56'45	morning rise	1532 Nov 07 j 08:02	13° \mathbb{M} 12'57	
greatest brilliancy	1531 Dec 12 j 05:57	8° \mathbb{M} 12'30	-0.4m	direct	1532 Nov 11 j 05:37	11° \mathbb{M} 46'41	
desc. node	1531 Dec 23 j 13:53	23° \mathbb{M} 33'40		morning max el	1532 Nov 19 j 07:23	16° \mathbb{M} 26'32	20°38'31
	1531 Dec 27 j 23:09	0° \mathbb{Z}		greatest brilliancy	1532 Nov 25 j 07:40	23° \mathbb{M} 30'59	-0.5m
morning set	1532 Jan 09 j 02:24	18° \mathbb{Z} 45'54			1532 Nov 30 j 01:45	0° \mathbb{M}	
max. Earth dist.	1532 Jan 15 j 02:41	28° \mathbb{Z} 36'07	1.41322 AU	desc. node	1532 Dec 09 j 10:55	13° \mathbb{M} 44'32	
	1532 Jan 15 j 22:44	0° \approx		morning set	1532 Dec 18 j 04:04	27° \mathbb{M} 03'51	
					1532 Dec 20 j 01:15	0° \mathbb{Z}	
superior conj	1532 Jan 22 j 20:14	11° \approx 52'17	-2°-3'-18	max. Earth dist.	1532 Dec 27 j 08:33	11° \mathbb{Z} 36'55	1.43150 AU
minimum elong	1532 Jan 22 j 21:41	11° \approx 58'44	2°03'17				
	1532 Feb 01 j 19:36	0° \mathbb{H}		superior conj	1533 Jan 02 j 21:56	22° \mathbb{Z} 23'58	-2°-1'-2
evening rise	1532 Feb 02 j 10:33	1° \mathbb{H} 09'21		minimum elong	1533 Jan 02 j 18:39	22° \mathbb{Z} 10'13	2°00'56
asc. node	1532 Feb 10 j 22:36	16° \mathbb{H} 25'19			1533 Jan 07 j 09:35	0° \approx	
evening max el	1532 Feb 18 j 17:28	27° \mathbb{H} 05'29	18°13'38	evening rise	1533 Jan 15 j 02:04	13° \approx 24'43	
	1532 Feb 22 j 20:43	0° Υ			1533 Jan 24 j 16:33	0° \mathbb{H}	
retrograde	1532 Feb 25 j 16:49	0° Υ 35'08		asc. node	1533 Jan 27 j 19:36	4° \mathbb{H} 47'36	
evening set	1532 Feb 28 j 05:16	0° Υ 08'35		evening max el	1533 Feb 01 j 05:12	10° \mathbb{H} 12'58	18°07'44
	1532 Feb 28 j 14:35	30° \mathbb{R} \mathbb{H}		retrograde	1533 Feb 07 j 17:54	13° \mathbb{H} 36'49	
inferior conj	1532 Mar 06 j 05:09	25° \mathbb{H} 22'14	3°19'18	evening set	1533 Feb 10 j 11:15	13° \mathbb{H} 00'45	
minimum elong	1532 Mar 06 j 08:08	25° \mathbb{H} 15'37	3°18'49	inferior conj	1533 Feb 16 j 21:44	7° \mathbb{H} 53'01	3°42'19
min. Earth dist.	1532 Mar 09 j 14:16	22° \mathbb{H} 23'53	0.59882 AU	minimum elong	1533 Feb 16 j 22:40	7° \mathbb{H} 50'38	3°42'15

min. Earth dist.	1533 Feb 19 j 20:32	4° ✕ 54'16	0.61995 AU	retrograde	1534 Jan 22 j 05:24	27° ≈ 03'02	
morning rise	1533 Feb 23 j 07:40	1° ✕ 56'12		evening set	1534 Jan 25 j 03:42	26° ≈ 16'37	
	1533 Feb 26 j 22:57	30° ℞		inferior conj	1534 Jan 31 j 04:17	20° ≈ 49'09	3°43'18
direct	1533 Mar 02 j 05:37	29° ≈ 26'50		minimum elong	1534 Jan 31 j 03:24	20° ≈ 51'39	3°43'14
	1533 Mar 05 j 15:33	0° ✕		min. Earth dist.	1534 Feb 02 j 12:20	18° ≈ 10'26	0.63889 AU
desc. node	1533 Mar 07 j 10:06	0° ✕ 41'18		morning rise	1534 Feb 06 j 01:31	14° ≈ 42'55	
morning max el	1533 Mar 16 j 07:40	7° ✕ 20'53	27°49'02	direct	1534 Feb 12 j 23:01	11° ≈ 55'53	
	1533 Apr 02 j 14:08	0° Υ		desc. node	1534 Feb 22 j 07:07	15° ≈ 54'57	
morning set	1533 Apr 18 j 15:57	29° Υ 05'14		morning max el	1534 Feb 26 j 16:05	19° ≈ 49'07	27°35'06
	1533 Apr 19 j 02:41	0° ♄			1534 Mar 07 j 09:24	0° ✕	
max. Earth dist.	1533 Apr 24 j 11:10	11° ♄ 17'24	1.32524 AU		1534 Mar 26 j 13:51	0° Υ	
asc. node	1533 Apr 25 j 18:55	14° ♄ 09'30		morning set	1534 Apr 02 j 12:03	13° Υ 06'01	
				max. Earth dist.	1534 Apr 07 j 14:19	23° Υ 29'19	1.33232 AU
superior conj	1533 Apr 26 j 03:19	14° ♄ 55'06	0°03'43				
minimum elong	1533 Apr 26 j 03:08	14° ♄ 54'08	0°03'41	superior conj	1534 Apr 10 j 09:55	29° Υ 27'09	0°-23'-31
behind sun begin	1533 Apr 25 j 22:07	14° ♄ 26'50		minimum elong	1534 Apr 10 j 11:05	29° Υ 33'20	0°23'17
behind sun end	1533 Apr 26 j 08:09	15° ♄ 21'28			1534 Apr 10 j 16:04	0° ♄	
evening rise	1533 May 03 j 02:36	0° ♁ 01'25		asc. node	1534 Apr 12 j 15:57	4° ♄ 17'00	
	1533 May 03 j 02:20	0° ♁		evening rise	1534 Apr 17 j 14:13	14° ♄ 49'39	
	1533 May 19 j 18:46	0° ♁			1534 Apr 25 j 05:54	0° ♁	
evening max el	1533 May 28 j 03:18	9° ♁ 57'51	24°22'51	evening max el	1534 May 09 j 17:39	20° ♁ 27'18	22°46'55
desc. node	1533 Jun 03 j 09:22	14° ♁ 46'26		desc. node	1534 May 21 j 06:23	26° ♁ 55'54	
retrograde	1533 Jun 11 j 00:18	16° ♁ 58'03		retrograde	1534 May 22 j 23:48	27° ♁ 02'42	
evening set	1533 Jun 15 j 19:03	16° ♁ 07'00		evening set	1534 May 26 j 07:24	26° ♁ 38'32	
min. Earth dist.	1533 Jun 21 j 14:17	13° ♁ 12'02	0.56739 AU	min. Earth dist.	1534 Jun 03 j 02:03	23° ♁ 12'53	0.55411 AU
inferior conj	1533 Jun 24 j 06:54	11° ♁ 29'49	-4°-42'-14	inferior conj	1534 Jun 04 j 12:04	22° ♁ 24'06	-3°-44'-6
minimum elong	1533 Jun 24 j 02:43	11° ♁ 36'28	4°41'46	minimum elong	1534 Jun 04 j 04:22	22° ♁ 35'09	3°42'12
morning rise	1533 Jul 02 j 14:04	7° ♁ 26'53		morning rise	1534 Jun 13 j 04:08	18° ♁ 32'02	
direct	1533 Jul 05 j 05:38	7° ♁ 07'55		direct	1534 Jun 16 j 01:07	18° ♁ 12'49	
morning max el	1533 Jul 14 j 17:32	11° ♁ 32'39	19°33'21	morning max el	1534 Jun 27 j 04:00	23° ♁ 22'08	20°48'53
asc. node	1533 Jul 22 j 18:09	21° ♁ 54'11			1534 Jul 02 j 22:09	0° ♁	
	1533 Jul 27 j 08:48	0° ♁		asc. node	1534 Jul 09 j 15:12	10° ♁ 44'20	
morning set	1533 Aug 01 j 03:18	9° ♁ 18'55		morning set	1534 Jul 16 j 10:08	23° ♁ 59'32	
					1534 Jul 19 j 07:44	0° ♁	
superior conj	1533 Aug 09 j 04:21	25° ♁ 26'43	1°45'47				
minimum elong	1533 Aug 09 j 04:52	25° ♁ 29'16	1°45'47	superior conj	1534 Jul 23 j 23:07	9° ♁ 36'53	1°44'09
	1533 Aug 11 j 12:26	0° ♁		minimum elong	1534 Jul 23 j 22:06	9° ♁ 31'39	1°44'07
max. Earth dist.	1533 Aug 15 j 06:02	7° ♁ 03'51	1.37648 AU	max. Earth dist.	1534 Jul 28 j 14:03	18° ♁ 53'47	1.35812 AU
evening rise	1533 Aug 19 j 01:38	13° ♁ 59'45		evening rise	1534 Aug 01 j 17:38	26° ♁ 50'38	
	1533 Aug 28 j 13:38	0° ♁			1534 Aug 03 j 10:38	0° ♁	
desc. node	1533 Aug 30 j 08:41	2° ♁ 50'01		desc. node	1534 Aug 17 j 05:43	23° ♁ 03'57	
	1533 Sep 19 j 01:18	0° ♁			1534 Aug 21 j 22:47	0° ♁	
evening max el	1533 Sep 23 j 19:22	5° ♁ 06'29	25°15'52	evening max el	1534 Sep 06 j 07:13	18° ♁ 44'41	26°20'30
retrograde	1533 Oct 05 j 18:09	12° ♁ 00'18		retrograde	1534 Sep 19 j 00:59	25° ♁ 55'54	
evening set	1533 Oct 11 j 13:26	9° ♁ 34'56		evening set	1534 Sep 25 j 10:17	23° ♁ 18'03	
min. Earth dist.	1533 Oct 16 j 01:14	4° ♁ 34'47	0.67174 AU	min. Earth dist.	1534 Sep 29 j 14:26	18° ♁ 54'28	0.66354 AU
inferior conj	1533 Oct 17 j 02:45	3° ♁ 11'49	0°-33'-15	inferior conj	1534 Oct 01 j 03:25	17° ♁ 01'20	-1°-30'-46
minimum elong	1533 Oct 17 j 03:36	3° ♁ 09'04	0°32'54	minimum elong	1534 Oct 01 j 05:48	16° ♁ 54'01	1°29'48
asc. node	1533 Oct 18 j 17:21	1° ♁ 08'56		asc. node	1534 Oct 05 j 14:24	12° ♁ 13'53	
	1533 Oct 19 j 16:37	30° ℞		morning rise	1534 Oct 07 j 02:27	11° ♁ 11'25	
morning rise	1533 Oct 22 j 18:23	27° ♁ 11'36		direct	1534 Oct 10 j 02:05	10° ♁ 20'50	
direct	1533 Oct 26 j 03:56	26° ♁ 04'58		morning max el	1534 Oct 16 j 20:14	14° ♁ 05'06	18°43'06
	1533 Nov 02 j 05:40	0° ♁			1534 Oct 28 j 12:09	0° ♁	
morning max el	1533 Nov 02 j 10:23	0° ♁ 11'46	19°33'10	morning set	1534 Nov 06 j 19:12	14° ♁ 39'27	
greatest brilliancy	1533 Nov 10 j 22:54	10° ♁ 57'18	-0.6m	desc. node	1534 Nov 13 j 04:58	24° ♁ 47'23	
	1533 Nov 23 j 15:00	0° ♁			1534 Nov 16 j 12:23	0° ♁	
desc. node	1533 Nov 26 j 07:56	4° ♁ 10'31		max. Earth dist.	1534 Nov 22 j 15:07	9° ♁ 36'18	1.45076 AU
morning set	1533 Nov 27 j 01:45	5° ♁ 19'24					
max. Earth dist.	1533 Dec 09 j 21:42	25° ♁ 23'18	1.44451 AU	superior conj	1534 Nov 23 j 00:59	10° ♁ 15'06	-1°-2'-26
	1533 Dec 12 j 19:15	0° ♁		minimum elong	1534 Nov 22 j 17:23	9° ♁ 45'13	1°01'32
					1534 Dec 05 j 12:44	0° ♁	
superior conj	1533 Dec 13 j 21:03	1° ♁ 43'16	-1°-40'-46	evening rise	1534 Dec 08 j 18:21	5° ♁ 10'22	
minimum elong	1533 Dec 13 j 13:00	1° ♁ 10'59	1°40'06		1534 Dec 24 j 14:57	0° ≈	
evening rise	1533 Dec 27 j 21:44	24° ♁ 46'21		evening max el	1534 Dec 30 j 04:28	6° ≈ 57'27	18°51'58
	1533 Dec 31 j 00:21	0° ≈		asc. node	1535 Jan 01 j 13:40	9° ≈ 04'25	
asc. node	1534 Jan 14 j 16:38	22° ≈ 24'47		retrograde	1535 Jan 05 j 23:17	10° ≈ 46'47	
evening max el	1534 Jan 15 j 17:42	23° ≈ 31'54	18°20'50	evening set	1535 Jan 09 j 03:25	9° ≈ 48'54	

inferior conj	1535 Jan 14 j 21:05	4° \approx 03'58	3°28'09		1535 Nov 28 j 14:36	0° $\overline{\text{C}}$	
minimum elong	1535 Jan 14 j 19:00	4° \approx 10'24	3°27'50	greatest brilliancy	1535 Dec 05 j 14:26	10° $\overline{\text{C}}$ 25'00	-0.7m
min. Earth dist.	1535 Jan 16 j 13:43	1° \approx 58'16	0.65438 AU	evening max el	1535 Dec 13 j 11:30	20° $\overline{\text{C}}$ 26'02	19°39'41
	1535 Jan 18 j 06:14	30° $\overline{\text{R}}$ $\overline{\text{C}}$		asc. node	1535 Dec 19 j 10:43	24° $\overline{\text{C}}$ 31'35	
morning rise	1535 Jan 20 j 09:31	27° $\overline{\text{C}}$ 52'18		retrograde	1535 Dec 20 j 20:18	24° $\overline{\text{C}}$ 42'26	
direct	1535 Jan 26 j 23:27	25° $\overline{\text{C}}$ 01'53		evening set	1535 Dec 24 j 07:49	23° $\overline{\text{C}}$ 31'34	
	1535 Feb 06 j 04:00	0° \approx		inferior conj	1535 Dec 29 j 20:56	17° $\overline{\text{C}}$ 31'49	3°01'04
morning max el	1535 Feb 09 j 01:57	2° \approx 43'45	26°48'52	minimum elong	1535 Dec 29 j 18:19	17° $\overline{\text{C}}$ 40'25	3°00'26
desc. node	1535 Feb 09 j 04:10	2° \approx 49'19		min. Earth dist.	1535 Dec 30 j 23:12	16° $\overline{\text{C}}$ 05'23	0.66592 AU
	1535 Mar 01 j 15:32	0° $\overline{\text{H}}$		morning rise	1536 Jan 04 j 04:05	11° $\overline{\text{C}}$ 17'21	
morning set	1535 Mar 16 j 21:39	26° $\overline{\text{H}}$ 31'22		direct	1536 Jan 10 j 05:50	8° $\overline{\text{C}}$ 36'04	
	1535 Mar 18 j 16:55	0° $\overline{\text{Y}}$		morning max el	1536 Jan 22 j 11:01	15° $\overline{\text{C}}$ 52'09	25°38'36
max. Earth dist.	1535 Mar 21 j 07:03	5° $\overline{\text{Y}}$ 07'09	1.34384 AU	desc. node	1536 Jan 27 j 01:12	20° $\overline{\text{C}}$ 55'20	
					1536 Feb 03 j 03:31	0° \approx	
superior conj	1535 Mar 25 j 11:01	13° $\overline{\text{Y}}$ 37'52	0°-51'-14		1536 Feb 22 j 12:47	0° $\overline{\text{H}}$	
minimum elong	1535 Mar 25 j 13:34	13° $\overline{\text{Y}}$ 51'11	0°50'46	morning set	1536 Feb 27 j 16:16	9° $\overline{\text{H}}$ 07'57	
asc. node	1535 Mar 30 j 12:59	24° $\overline{\text{Y}}$ 18'07		max. Earth dist.	1536 Mar 02 j 11:50	16° $\overline{\text{H}}$ 14'35	1.35990 AU
evening rise	1535 Apr 01 j 23:58	29° $\overline{\text{Y}}$ 26'54					
	1535 Apr 02 j 06:21	0° $\overline{\text{B}}$		superior conj	1536 Mar 08 j 03:57	27° $\overline{\text{H}}$ 19'43	-1°-17'-53
	1535 Apr 20 j 10:38	0° $\overline{\text{II}}$		minimum elong	1536 Mar 08 j 07:41	27° $\overline{\text{H}}$ 38'27	1°17'19
evening max el	1535 Apr 21 j 14:50	1° $\overline{\text{II}}$ 11'31	21°16'08		1536 Mar 09 j 11:48	0° $\overline{\text{Y}}$	
retrograde	1535 May 03 j 14:05	7° $\overline{\text{II}}$ 01'47		evening rise	1536 Mar 16 j 05:46	13° $\overline{\text{Y}}$ 46'42	
evening set	1535 May 05 j 21:48	6° $\overline{\text{II}}$ 49'22		asc. node	1536 Mar 16 j 10:03	14° $\overline{\text{Y}}$ 08'28	
desc. node	1535 May 08 j 03:25	6° $\overline{\text{II}}$ 15'33			1536 Mar 24 j 18:03	0° $\overline{\text{B}}$	
inferior conj	1535 May 15 j 06:32	2° $\overline{\text{II}}$ 50'16	-2°-2'-21	evening max el	1536 Apr 02 j 23:21	12° $\overline{\text{B}}$ 31'15	20°00'06
minimum elong	1535 May 15 j 00:53	2° $\overline{\text{II}}$ 58'13	2°00'26	retrograde	1536 Apr 13 j 05:14	17° $\overline{\text{B}}$ 27'46	
min. Earth dist.	1535 May 15 j 14:31	2° $\overline{\text{II}}$ 39'02	0.54923 AU	evening set	1536 Apr 15 j 06:14	17° $\overline{\text{B}}$ 16'52	
	1535 May 20 j 17:55	30° $\overline{\text{R}}$ $\overline{\text{B}}$		inferior conj	1536 Apr 24 j 04:16	13° $\overline{\text{B}}$ 17'15	0°-2'-46
morning rise	1535 May 24 j 04:01	28° $\overline{\text{B}}$ 50'51		minimum elong	1536 Apr 24 j 04:09	13° $\overline{\text{B}}$ 17'26	0°02'44
direct	1535 May 27 j 11:07	28° $\overline{\text{B}}$ 27'17		transit middle	1536 Apr 24 j 04:09	13° $\overline{\text{B}}$ 17'26	0°02'44
	1535 Jun 02 j 20:22	0° $\overline{\text{II}}$		transit begin	1536 Apr 24 j 00:13	13° $\overline{\text{B}}$ 23'22	
morning max el	1535 Jun 09 j 03:39	4° $\overline{\text{II}}$ 29'04	22°21'38	transit end	1536 Apr 24 j 08:04	13° $\overline{\text{B}}$ 11'29	
	1535 Jun 26 j 11:30	0° $\overline{\text{C}}$		desc. node	1536 Apr 24 j 00:25	13° $\overline{\text{B}}$ 23'04	
asc. node	1535 Jun 26 j 12:15	0° $\overline{\text{C}}$ 03'36		min. Earth dist.	1536 Apr 26 j 04:12	12° $\overline{\text{B}}$ 04'59	0.55400 AU
morning set	1535 Jun 30 j 20:18	8° $\overline{\text{C}}$ 50'48		morning rise	1536 May 02 j 23:11	8° $\overline{\text{B}}$ 52'30	
				direct	1536 May 07 j 01:26	8° $\overline{\text{B}}$ 15'43	
superior conj	1535 Jul 08 j 01:44	24° $\overline{\text{C}}$ 10'46	1°35'57	morning max el	1536 May 20 j 19:47	15° $\overline{\text{B}}$ 04'33	24°03'14
minimum elong	1535 Jul 07 j 23:44	24° $\overline{\text{C}}$ 00'13	1°35'45		1536 Jun 01 j 14:04	0° $\overline{\text{II}}$	
	1535 Jul 10 j 20:27	0° $\overline{\Omega}$		asc. node	1536 Jun 12 j 09:18	19° $\overline{\text{II}}$ 44'32	
max. Earth dist.	1535 Jul 11 j 06:36	0° $\overline{\Omega}$ 52'25	1.34327 AU	morning set	1536 Jun 14 j 08:05	23° $\overline{\text{II}}$ 47'44	
evening rise	1535 Jul 16 j 01:07	10° $\overline{\Omega}$ 27'05			1536 Jun 17 j 05:48	0° $\overline{\text{C}}$	
	1535 Jul 26 j 20:38	0° $\overline{\text{H}}$					
desc. node	1535 Aug 04 j 02:46	12° $\overline{\text{H}}$ 54'46		superior conj	1536 Jun 21 j 09:30	9° $\overline{\text{C}}$ 00'08	1°22'24
	1535 Aug 17 j 13:29	0° $\overline{\text{B}}$		minimum elong	1536 Jun 21 j 07:05	8° $\overline{\text{C}}$ 47'07	1°22'04
evening max el	1535 Aug 19 j 19:21	2° $\overline{\text{B}}$ 15'24	27°06'06	max. Earth dist.	1536 Jun 23 j 08:36	13° $\overline{\text{C}}$ 13'30	1.33241 AU
retrograde	1535 Sep 02 j 02:29	9° $\overline{\text{B}}$ 33'43		evening rise	1536 Jun 28 j 19:55	24° $\overline{\text{C}}$ 37'26	
evening set	1535 Sep 08 j 23:26	6° $\overline{\text{B}}$ 50'25			1536 Jul 01 j 13:05	0° $\overline{\Omega}$	
min. Earth dist.	1535 Sep 12 j 20:37	3° $\overline{\text{B}}$ 03'39	0.65181 AU		1536 Jul 19 j 09:42	0° $\overline{\text{H}}$	
inferior conj	1535 Sep 14 j 21:54	0° $\overline{\text{B}}$ 44'31	-2°-28'-32	desc. node	1536 Jul 20 j 23:48	2° $\overline{\text{H}}$ 12'46	
minimum elong	1535 Sep 15 j 01:47	0° $\overline{\text{B}}$ 33'30	2°27'06	evening max el	1536 Aug 01 j 06:31	15° $\overline{\text{H}}$ 27'30	27°25'34
	1535 Sep 15 j 13:44	30° $\overline{\text{R}}$ $\overline{\text{H}}$		retrograde	1536 Aug 14 j 21:50	22° $\overline{\text{H}}$ 45'28	
morning rise	1535 Sep 21 j 05:50	25° $\overline{\text{H}}$ 07'58		evening set	1536 Aug 22 j 01:52	20° $\overline{\text{H}}$ 06'53	
asc. node	1535 Sep 22 j 11:27	24° $\overline{\text{H}}$ 40'43		min. Earth dist.	1536 Aug 25 j 17:41	16° $\overline{\text{H}}$ 54'05	0.63662 AU
direct	1535 Sep 23 j 22:01	24° $\overline{\text{H}}$ 29'29		inferior conj	1536 Aug 28 j 07:39	14° $\overline{\text{H}}$ 16'00	-3°-23'-41
morning max el	1535 Sep 30 j 10:34	28° $\overline{\text{H}}$ 00'27	18°09'30	minimum elong	1536 Aug 28 j 12:39	14° $\overline{\text{H}}$ 03'13	3°22'10
	1535 Oct 02 j 06:02	0° $\overline{\text{B}}$		morning rise	1536 Sep 04 j 01:39	8° $\overline{\text{H}}$ 56'09	
morning set	1535 Oct 18 j 17:43	25° $\overline{\text{B}}$ 26'10		direct	1536 Sep 06 j 13:03	8° $\overline{\text{H}}$ 26'09	
	1535 Oct 21 j 12:11	0° $\overline{\text{H}}$		asc. node	1536 Sep 08 j 08:30	8° $\overline{\text{H}}$ 42'28	
desc. node	1535 Oct 31 j 02:01	15° $\overline{\text{H}}$ 30'58		morning max el	1536 Sep 13 j 02:39	11° $\overline{\text{H}}$ 51'52	17°53'17
					1536 Sep 25 j 10:30	0° $\overline{\text{B}}$	
superior conj	1535 Nov 02 j 04:59	18° $\overline{\text{H}}$ 53'51	0°-14'-10	morning set	1536 Sep 29 j 18:25	7° $\overline{\text{B}}$ 29'01	
minimum elong	1535 Nov 02 j 03:11	18° $\overline{\text{H}}$ 46'41	0°13'55				
behind sun begin	1535 Nov 01 j 21:31	18° $\overline{\text{H}}$ 24'12		superior conj	1536 Oct 12 j 04:35	28° $\overline{\text{B}}$ 32'40	0°31'51
behind sun end	1535 Nov 02 j 08:51	19° $\overline{\text{H}}$ 09'09		minimum elong	1536 Oct 12 j 07:51	28° $\overline{\text{B}}$ 46'07	0°31'23
max. Earth dist.	1535 Nov 05 j 09:55	23° $\overline{\text{H}}$ 57'57	1.44966 AU		1536 Oct 13 j 01:52	0° $\overline{\text{H}}$	
	1535 Nov 09 j 06:10	0° $\overline{\text{B}}$		desc. node	1536 Oct 16 j 23:05	6° $\overline{\text{H}}$ 18'03	
evening rise	1535 Nov 18 j 16:37	14° $\overline{\text{B}}$ 41'33		max. Earth dist.	1536 Oct 18 j 03:26	8° $\overline{\text{H}}$ 11'38	1.44143 AU

evening rise	1536 Oct 28 j 01:36	23° \mathbb{M} 44'51		max. Earth dist.	1537 Sep 30 j 16:55	21° \mathbb{L} 59'31	1.42703 AU
	1536 Nov 01 j 03:37	0° \mathbb{Z}		desc. node	1537 Oct 03 j 20:08	27° \mathbb{L} 05'02	
greatest brilliancy	1536 Nov 19 j 18:53	27° \mathbb{Z} 04'39	-0.5m		1537 Oct 05 j 15:53	0° \mathbb{M}	
	1536 Nov 22 j 02:06	0° \mathbb{Z}		evening rise	1537 Oct 07 j 13:37	3° \mathbb{M} 00'44	
evening max el	1536 Nov 25 j 13:21	3° \mathbb{Z} 56'04	20°41'39		1537 Oct 25 j 14:51	0° \mathbb{Z}	
retrograde	1536 Dec 03 j 18:05	8° \mathbb{Z} 46'39		greatest brilliancy	1537 Nov 03 j 15:09	12° \mathbb{Z} 02'29	-0.4m
asc. node	1536 Dec 05 j 07:45	8° \mathbb{Z} 32'49		evening max el	1537 Nov 08 j 09:29	17° \mathbb{Z} 26'56	21°54'35
evening set	1536 Dec 07 j 14:50	7° \mathbb{Z} 20'59		retrograde	1537 Nov 17 j 14:46	22° \mathbb{Z} 56'07	
inferior conj	1536 Dec 13 j 01:19	1° \mathbb{Z} 09'20	2°24'52	evening set	1537 Nov 21 j 22:38	21° \mathbb{Z} 14'06	
minimum elong	1536 Dec 12 j 22:44	1° \mathbb{Z} 18'11	2°24'03	asc. node	1537 Nov 22 j 04:47	21° \mathbb{Z} 01'31	
min. Earth dist.	1536 Dec 13 j 14:43	0° \mathbb{Z} 23'36	0.67351 AU	inferior conj	1537 Nov 27 j 08:08	14° \mathbb{Z} 53'56	1°41'32
	1536 Dec 13 j 21:39	30° \mathbb{R} \mathbb{Z}		minimum elong	1537 Nov 27 j 06:02	15° \mathbb{Z} 01'12	1°40'44
morning rise	1536 Dec 18 j 06:10	24° \mathbb{Z} 54'09		min. Earth dist.	1537 Nov 27 j 09:59	14° \mathbb{Z} 47'30	0.67732 AU
direct	1536 Dec 23 j 17:18	22° \mathbb{Z} 30'37		morning rise	1537 Dec 02 j 13:14	8° \mathbb{Z} 39'54	
morning max el	1537 Jan 03 j 19:18	29° \mathbb{Z} 07'11	24°14'16	direct	1537 Dec 07 j 09:03	6° \mathbb{Z} 38'32	
	1537 Jan 04 j 15:50	0° \mathbb{Z}		morning max el	1537 Dec 17 j 05:19	12° \mathbb{Z} 28'17	22°45'59
desc. node	1537 Jan 12 j 22:16	9° \mathbb{Z} 52'32		greatest brilliancy	1537 Dec 21 j 20:23	17° \mathbb{Z} 38'13	-0.3m
	1537 Jan 26 j 23:07	0° \mathbb{Z}		desc. node	1537 Dec 30 j 19:19	29° \mathbb{Z} 26'19	
morning set	1537 Feb 08 j 14:08	20° \mathbb{Z} 39'37			1537 Dec 31 j 04:54	0° \mathbb{Z}	
max. Earth dist.	1537 Feb 12 j 08:19	27° \mathbb{Z} 18'02	1.37976 AU		1538 Jan 19 j 20:35	0° \mathbb{Z}	
	1537 Feb 13 j 20:05	0° \mathbb{X}		morning set	1538 Jan 20 j 09:13	0° \mathbb{Z} 51'56	
				max. Earth dist.	1538 Jan 25 j 04:16	8° \mathbb{Z} 54'44	1.40124 AU
superior conj	1537 Feb 19 j 09:17	10° \mathbb{X} 23'14	-1°-41'-14	superior conj	1538 Feb 01 j 22:40	22° \mathbb{Z} 37'38	-1°-58'-8
minimum elong	1537 Feb 19 j 13:29	10° \mathbb{X} 43'18	1°40'48	minimum elong	1538 Feb 02 j 01:47	22° \mathbb{Z} 51'51	1°57'58
evening rise	1537 Feb 28 j 05:10	27° \mathbb{X} 41'59			1538 Feb 05 j 22:29	0° \mathbb{X}	
	1537 Mar 01 j 09:14	0° \mathbb{Y}		evening rise	1538 Feb 11 j 19:14	11° \mathbb{X} 05'40	
asc. node	1537 Mar 03 j 07:05	3° \mathbb{Y} 42'41		asc. node	1538 Feb 18 j 04:07	22° \mathbb{X} 55'17	
evening max el	1537 Mar 16 j 18:57	24° \mathbb{Y} 29'21	19°02'54		1538 Feb 22 j 10:21	0° \mathbb{Y}	
retrograde	1537 Mar 25 j 09:59	28° \mathbb{Y} 40'02		evening max el	1538 Feb 27 j 23:16	7° \mathbb{Y} 01'14	18°25'48
evening set	1537 Mar 27 j 14:01	28° \mathbb{Y} 25'18		retrograde	1538 Mar 07 j 09:52	10° \mathbb{Y} 41'32	
inferior conj	1537 Apr 04 j 17:44	24° \mathbb{Y} 11'12	1°41'35	evening set	1538 Mar 09 j 19:11	10° \mathbb{Y} 19'56	
minimum elong	1537 Apr 04 j 21:20	24° \mathbb{Y} 04'57	1°40'27	inferior conj	1538 Mar 17 j 04:23	5° \mathbb{Y} 45'36	2°53'17
min. Earth dist.	1537 Apr 07 j 19:37	22° \mathbb{Y} 03'47	0.56740 AU	minimum elong	1538 Mar 17 j 08:14	5° \mathbb{Y} 37'46	2°52'25
desc. node	1537 Apr 10 j 21:27	20° \mathbb{Y} 12'02		min. Earth dist.	1538 Mar 20 j 14:55	2° \mathbb{Y} 59'03	0.58655 AU
morning rise	1537 Apr 13 j 00:27	19° \mathbb{Y} 12'41		morning rise	1538 Mar 24 j 17:15	0° \mathbb{Y} 16'52	
direct	1537 Apr 18 j 03:51	18° \mathbb{Y} 10'29			1538 Mar 25 j 06:44	30° \mathbb{R} \mathbb{X}	
morning max el	1537 May 02 j 10:17	25° \mathbb{Y} 32'06	25°40'06	desc. node	1538 Mar 28 j 18:28	28° \mathbb{X} 50'30	
	1537 May 06 j 14:28	0° \mathbb{Z}		direct	1538 Mar 30 j 19:54	28° \mathbb{X} 39'23	
	1537 May 25 j 13:12	0° \mathbb{II}			1538 Apr 05 j 12:55	0° \mathbb{Y}	
morning set	1537 May 29 j 19:44	8° \mathbb{II} 43'41		morning max el	1538 Apr 14 j 04:52	6° \mathbb{Y} 20'58	26°56'26
asc. node	1537 May 30 j 06:22	9° \mathbb{II} 39'50			1538 May 01 j 18:45	0° \mathbb{Z}	
superior conj	1537 Jun 05 j 20:10	23° \mathbb{II} 56'29	1°04'30	morning set	1538 May 14 j 05:39	23° \mathbb{Z} 33'09	
minimum elong	1537 Jun 05 j 17:51	23° \mathbb{II} 43'50	1°04'06	asc. node	1538 May 17 j 03:25	29° \mathbb{Z} 44'24	
max. Earth dist.	1537 Jun 06 j 17:26	25° \mathbb{II} 52'55	1.32546 AU		1538 May 17 j 06:18	0° \mathbb{II}	
	1537 Jun 08 j 14:50	0° \mathbb{Z}		superior conj	1538 May 21 j 07:55	8° \mathbb{II} 53'47	0°43'01
evening rise	1537 Jun 12 j 22:31	9° \mathbb{Z} 09'48		minimum elong	1538 May 21 j 06:09	8° \mathbb{II} 44'04	0°42'40
	1537 Jun 23 j 21:45	0° \mathbb{Q}		max. Earth dist.	1538 May 21 j 05:35	8° \mathbb{II} 40'57	1.32232 AU
desc. node	1537 Jul 07 j 20:48	20° \mathbb{Q} 43'20		evening rise	1538 May 28 j 06:16	23° \mathbb{II} 55'41	
evening max el	1537 Jul 14 j 14:02	28° \mathbb{Q} 06'15	27°13'42		1538 May 31 j 04:58	0° \mathbb{Z}	
	1537 Jul 16 j 16:52	0° \mathbb{P}			1538 Jun 17 j 23:25	0° \mathbb{Q}	
retrograde	1537 Jul 28 j 10:15	5° \mathbb{P} 21'23		desc. node	1538 Jun 24 j 17:47	8° \mathbb{Q} 06'50	
evening set	1537 Aug 04 j 13:44	3° \mathbb{P} 00'07		evening max el	1538 Jun 26 j 15:17	10° \mathbb{Q} 00'31	26°28'42
min. Earth dist.	1537 Aug 08 j 04:10	0° \mathbb{P} 13'19	0.61826 AU	retrograde	1538 Jul 10 j 14:51	17° \mathbb{Q} 13'15	
	1537 Aug 08 j 10:15	30° \mathbb{R} \mathbb{Q}		evening set	1538 Jul 17 j 06:22	15° \mathbb{Q} 22'17	
inferior conj	1537 Aug 11 j 05:33	27° \mathbb{Q} 27'27	-4°-11'-50	min. Earth dist.	1538 Jul 21 j 04:27	12° \mathbb{Q} 46'39	0.59780 AU
minimum elong	1537 Aug 11 j 10:37	27° \mathbb{Q} 15'57	4°10'46	inferior conj	1538 Jul 24 j 12:05	10° \mathbb{Q} 09'45	-4°-45'-48
morning rise	1537 Aug 18 j 10:18	22° \mathbb{Q} 27'54		minimum elong	1538 Jul 24 j 15:17	10° \mathbb{Q} 03'23	4°45'29
direct	1537 Aug 20 j 19:42	22° \mathbb{Q} 03'27		morning rise	1538 Aug 01 j 03:34	5° \mathbb{Q} 33'09	
asc. node	1537 Aug 26 j 05:33	24° \mathbb{Q} 12'36		direct	1538 Aug 03 j 13:34	5° \mathbb{Q} 12'04	
morning max el	1537 Aug 27 j 17:32	25° \mathbb{Q} 32'01	17°55'25	morning max el	1538 Aug 11 j 04:08	8° \mathbb{Q} 53'07	18°17'04
	1537 Aug 31 j 11:40	0° \mathbb{P}		asc. node	1538 Aug 13 j 02:37	10° \mathbb{Q} 57'15	
morning set	1537 Sep 12 j 15:00	20° \mathbb{P} 28'36			1538 Aug 24 j 21:08	0° \mathbb{P}	
	1537 Sep 17 j 21:25	0° \mathbb{L}		morning set	1538 Aug 27 j 01:54	4° \mathbb{P} 09'20	
superior conj	1537 Sep 23 j 07:19	9° \mathbb{L} 31'36	1°07'34	superior conj	1538 Sep 05 j 10:48	21° \mathbb{P} 43'50	1°30'57
minimum elong	1537 Sep 23 j 11:59	9° \mathbb{L} 51'46	1°07'00				

minimum elong	1538 Sep 05 j 14:21	21° \mathbb{M} 59'59	1°30'39	superior conj	1539 Aug 19 j 09:34	4° \mathbb{M} 53'45	1°43'07
	1538 Sep 10 j 01:48	0° \mathbb{A}		minimum elong	1539 Aug 19 j 11:10	5° \mathbb{M} 01'27	1°43'03
max. Earth dist.	1538 Sep 13 j 00:41	5° \mathbb{A} 06'32	1.40837 AU	max. Earth dist.	1539 Aug 26 j 04:19	17° \mathbb{M} 30'02	1.38794 AU
evening rise	1538 Sep 17 j 19:42	13° \mathbb{A} 07'26		evening rise	1539 Aug 30 j 02:06	24° \mathbb{M} 22'42	
desc. node	1538 Sep 20 j 17:07	17° \mathbb{A} 48'26			1539 Sep 02 j 09:43	0° \mathbb{A}	
	1538 Sep 28 j 13:45	0° \mathbb{M}		desc. node	1539 Sep 07 j 14:08	8° \mathbb{A} 24'44	
	1538 Oct 21 j 01:39	0° \mathbb{A}			1539 Sep 22 j 07:40	0° \mathbb{M}	
evening max el	1538 Oct 22 j 00:44	0° \mathbb{A} 59'16	23°13'46	evening max el	1539 Oct 04 j 13:16	14° \mathbb{M} 35'56	24°33'03
retrograde	1538 Nov 01 j 08:52	7° \mathbb{A} 06'56		retrograde	1539 Oct 15 j 23:13	21° \mathbb{M} 16'01	
evening set	1538 Nov 06 j 05:34	5° \mathbb{A} 07'38		evening set	1539 Oct 21 j 10:00	18° \mathbb{M} 59'49	
asc. node	1538 Nov 09 j 01:49	2° \mathbb{A} 08'09		min. Earth dist.	1539 Oct 26 j 02:26	13° \mathbb{M} 39'04	0.67486 AU
	1538 Nov 10 j 16:59	30° \mathbb{R} \mathbb{M}		inferior conj	1539 Oct 26 j 21:42	12° \mathbb{M} 34'41	0°00'-58
inferior conj	1538 Nov 11 j 15:30	28° \mathbb{M} 42'51	0°52'28	minimum elong	1539 Oct 26 j 21:44	12° \mathbb{M} 34'37	0°00'59
minimum elong	1538 Nov 11 j 14:18	28° \mathbb{M} 46'59	0°51'57	transit middle	1539 Oct 26 j 21:44	12° \mathbb{M} 34'37	0°00'59
min. Earth dist.	1538 Nov 11 j 06:40	29° \mathbb{M} 13'11	0.67771 AU	transit begin	1539 Oct 26 j 18:59	12° \mathbb{M} 43'46	
morning rise	1538 Nov 16 j 23:06	22° \mathbb{M} 32'03		transit end	1539 Oct 27 j 00:28	12° \mathbb{M} 25'28	
direct	1538 Nov 21 j 04:17	20° \mathbb{M} 53'32		asc. node	1539 Oct 26 j 22:51	12° \mathbb{M} 30'52	
morning max el	1538 Nov 29 j 20:23	25° \mathbb{M} 57'22	21°22'08	morning rise	1539 Nov 01 j 09:51	6° \mathbb{M} 29'36	
	1538 Dec 03 j 11:49	0° \mathbb{A}		direct	1539 Nov 05 j 01:59	5° \mathbb{M} 12'10	
greatest brilliancy	1538 Dec 04 j 23:57	1° \mathbb{A} 50'41	-0.4m	morning max el	1539 Nov 12 j 18:51	9° \mathbb{M} 37'07	20°08'52
desc. node	1538 Dec 17 j 16:20	19° \mathbb{A} 25'44		greatest brilliancy	1539 Nov 19 j 16:19	17° \mathbb{M} 56'58	-0.6m
	1538 Dec 24 j 17:19	0° \mathbb{A}			1539 Nov 28 j 02:18	0° \mathbb{A}	
morning set	1538 Dec 30 j 23:26	9° \mathbb{A} 42'48		desc. node	1539 Dec 04 j 13:23	9° \mathbb{A} 44'01	
max. Earth dist.	1539 Jan 07 j 05:22	21° \mathbb{A} 22'52	1.42148 AU	morning set	1539 Dec 09 j 20:07	17° \mathbb{A} 50'19	
	1539 Jan 12 j 09:07	0° \mathbb{A}			1539 Dec 17 j 14:49	0° \mathbb{A}	
				max. Earth dist.	1539 Dec 20 j 13:53	4° \mathbb{A} 42'45	1.43781 AU
superior conj	1539 Jan 14 j 14:43	3° \mathbb{A} 49'23	-2°-4'-18				
minimum elong	1539 Jan 14 j 14:25	3° \mathbb{A} 48'04	2°04'18	superior conj	1539 Dec 26 j 05:01	13° \mathbb{A} 49'51	-1°-54'-47
evening rise	1539 Jan 25 j 20:09	23° \mathbb{A} 48'14		minimum elong	1539 Dec 25 j 23:25	13° \mathbb{A} 26'54	1°54'30
	1539 Jan 29 j 06:13	0° \mathbb{A}			1540 Jan 04 j 20:22	0° \mathbb{A}	
asc. node	1539 Feb 05 j 01:08	11° \mathbb{A} 38'27		evening rise	1540 Jan 08 j 03:42	5° \mathbb{A} 41'30	
evening max el	1539 Feb 11 j 09:09	19° \mathbb{A} 57'56	18°08'44	asc. node	1540 Jan 22 j 22:09	29° \mathbb{A} 43'09	
retrograde	1539 Feb 18 j 02:53	23° \mathbb{A} 23'42			1540 Jan 23 j 03:20	0° \mathbb{A}	
evening set	1539 Feb 20 j 17:20	22° \mathbb{A} 53'23		evening max el	1540 Jan 25 j 21:34	3° \mathbb{A} 11'20	18°11'04
inferior conj	1539 Feb 27 j 11:05	17° \mathbb{A} 57'52	3°32'11	retrograde	1540 Feb 01 j 08:49	6° \mathbb{A} 36'41	
minimum elong	1539 Feb 27 j 13:12	17° \mathbb{A} 52'50	3°31'56	evening set	1540 Feb 04 j 04:11	5° \mathbb{A} 56'26	
min. Earth dist.	1539 Mar 02 j 16:41	14° \mathbb{A} 56'12	0.60791 AU	inferior conj	1540 Feb 10 j 10:06	0° \mathbb{A} 40'22	3°44'58
morning rise	1539 Mar 06 j 06:00	12° \mathbb{A} 08'36		minimum elong	1540 Feb 10 j 10:12	0° \mathbb{A} 40'06	3°44'58
direct	1539 Mar 12 j 23:50	9° \mathbb{A} 55'23			1540 Feb 11 j 01:08	30° \mathbb{R} \mathbb{A}	
desc. node	1539 Mar 15 j 15:30	10° \mathbb{A} 14'47		min. Earth dist.	1540 Feb 13 j 03:02	27° \mathbb{A} 47'44	0.62843 AU
morning max el	1539 Mar 27 j 05:40	17° \mathbb{A} 47'49	27°40'26	morning rise	1540 Feb 16 j 14:08	24° \mathbb{A} 38'56	
	1539 Apr 06 j 10:11	0° \mathbb{Y}		direct	1540 Feb 23 j 13:05	21° \mathbb{A} 59'52	
	1539 Apr 24 j 10:13	0° \mathbb{A}		desc. node	1540 Mar 01 j 12:32	24° \mathbb{A} 14'42	
morning set	1539 Apr 28 j 11:59	8° \mathbb{A} 09'50		morning max el	1540 Mar 08 j 11:45	29° \mathbb{A} 55'04	27°47'17
asc. node	1539 May 04 j 00:27	19° \mathbb{A} 53'34			1540 Mar 08 j 13:44	0° \mathbb{A}	
max. Earth dist.	1539 May 04 j 17:10	21° \mathbb{A} 24'40	1.32298 AU		1540 Mar 30 j 09:38	0° \mathbb{Y}	
				morning set	1540 Apr 11 j 12:35	22° \mathbb{Y} 26'19	
superior conj	1539 May 05 j 19:04	23° \mathbb{A} 46'15	0°18'41		1540 Apr 15 j 04:44	0° \mathbb{A}	
minimum elong	1539 May 05 j 18:13	23° \mathbb{A} 41'38	0°18'31	max. Earth dist.	1540 Apr 17 j 00:23	3° \mathbb{A} 51'12	1.32767 AU
	1539 May 08 j 15:15	0° \mathbb{II}					
evening rise	1539 May 12 j 17:02	8° \mathbb{II} 47'51		superior conj	1540 Apr 19 j 03:54	8° \mathbb{A} 27'57	0°-7'-43
	1539 May 23 j 16:44	0° \mathbb{A}		minimum elong	1540 Apr 19 j 04:16	8° \mathbb{A} 29'57	0°07'40
evening max el	1539 Jun 08 j 09:30	21° \mathbb{A} 09'01	25°14'39	behind sun begin	1540 Apr 18 j 23:40	8° \mathbb{A} 05'04	
desc. node	1539 Jun 11 j 14:46	23° \mathbb{A} 56'12		behind sun end	1540 Apr 19 j 08:53	8° \mathbb{A} 54'51	
retrograde	1539 Jun 22 j 09:49	28° \mathbb{A} 16'58		asc. node	1540 Apr 19 j 21:29	10° \mathbb{A} 03'05	
evening set	1539 Jun 27 j 23:50	27° \mathbb{A} 04'44		evening rise	1540 Apr 26 j 04:53	23° \mathbb{A} 39'39	
min. Earth dist.	1539 Jul 02 j 21:19	24° \mathbb{A} 21'20	0.57754 AU		1540 Apr 29 j 06:13	0° \mathbb{II}	
inferior conj	1539 Jul 05 j 23:53	22° \mathbb{A} 13'45	-4°-54'-24		1540 May 18 j 06:05	0° \mathbb{A}	
minimum elong	1539 Jul 05 j 22:48	22° \mathbb{A} 15'37	4°54'22	evening max el	1540 May 19 j 23:37	1° \mathbb{A} 45'38	23°42'23
morning rise	1539 Jul 14 j 01:32	17° \mathbb{A} 59'48		desc. node	1540 May 28 j 11:47	7° \mathbb{A} 36'20	
direct	1539 Jul 16 j 14:22	17° \mathbb{A} 40'34		retrograde	1540 Jun 02 j 16:29	8° \mathbb{A} 37'37	
morning max el	1539 Jul 25 j 07:20	21° \mathbb{A} 45'56	18°59'27	evening set	1540 Jun 06 j 19:31	8° \mathbb{A} 00'12	
asc. node	1539 Jul 30 j 23:40	28° \mathbb{A} 41'19		min. Earth dist.	1540 Jun 13 j 10:12	4° \mathbb{A} 53'30	0.56079 AU
	1539 Jul 31 j 20:31	0° \mathbb{A}		inferior conj	1540 Jun 15 j 15:30	3° \mathbb{A} 33'04	-4°-23'-36
morning set	1539 Aug 10 j 22:58	18° \mathbb{A} 20'15		minimum elong	1540 Jun 15 j 09:20	3° \mathbb{A} 42'25	4°22'33
	1539 Aug 16 j 20:53	0° \mathbb{M}			1540 Jun 22 j 16:12	30° \mathbb{R} \mathbb{II}	
				morning rise	1540 Jun 24 j 02:34	29° \mathbb{II} 36'07	

direct	1540 Jun 26 j 20:05	29°II17'19		direct	1541 Jun 07 j 10:30	9°II59'49	
	1540 Jun 30 j 19:41	0°☿		morning max el	1541 Jun 19 j 05:49	15°II30'56	21°26'35
morning max el	1540 Jul 07 j 00:17	4°☿00'14	20°03'05		1541 Jun 30 j 05:38	0°☿	
asc. node	1540 Jul 16 j 20:43	17°☿10'41		asc. node	1541 Jul 03 j 17:48	6°☿14'41	
	1540 Jul 23 j 16:49	0°♌		morning set	1541 Jul 09 j 11:27	17°☿38'10	
morning set	1540 Jul 25 j 02:57	2°♌52'00			1541 Jul 15 j 08:58	0°♌	
superior conj	1540 Aug 01 j 22:15	18°♌45'16	1°46'00	superior conj	1541 Jul 16 j 20:43	3°♌06'36	1°41'23
minimum elong	1540 Aug 01 j 22:03	18°♌44'16	1°45'59	minimum elong	1541 Jul 16 j 19:13	2°♌58'46	1°41'18
max. Earth dist.	1540 Aug 07 j 09:11	29°♌25'26	1.36829 AU	max. Earth dist.	1541 Jul 20 j 20:53	11°♌18'16	1.35138 AU
	1540 Aug 07 j 16:28	0°♍		evening rise	1541 Jul 25 j 06:18	19°♌53'51	
evening rise	1540 Aug 11 j 07:07	6°♍41'58			1541 Jul 30 j 18:21	0°♍	
desc. node	1540 Aug 24 j 11:10	28°♍48'29		desc. node	1541 Aug 11 j 08:11	18°♍53'32	
	1540 Aug 25 j 05:44	0°♎			1541 Aug 19 j 05:51	0°♎	
evening max el	1540 Sep 16 j 01:14	28°♎15'35	25°45'17	evening max el	1541 Aug 29 j 13:28	11°♎52'18	26°42'42
	1540 Sep 17 j 22:08	0°♏		retrograde	1541 Sep 11 j 13:18	19°♎06'43	
retrograde	1540 Sep 28 j 08:54	5°♏17'57		evening set	1541 Sep 18 j 04:01	16°♎25'40	
evening set	1540 Oct 04 j 10:10	2°♏46'59		min. Earth dist.	1541 Sep 22 j 05:13	12°♎17'51	0.65903 AU
	1540 Oct 07 j 03:59	30°♐		inferior conj	1541 Sep 23 j 23:15	10°♎13'19	-1°-55'-22
min. Earth dist.	1540 Oct 08 j 18:46	28°♐01'59	0.66867 AU	minimum elong	1541 Sep 24 j 02:18	10°♎04'17	1°54'10
inferior conj	1540 Oct 10 j 00:57	26°♐26'03	0°-57'-28	asc. node	1541 Sep 29 j 16:59	4°♎41'04	
minimum elong	1540 Oct 10 j 02:26	26°♐21'20	0°56'50	morning rise	1541 Sep 30 j 01:54	4°♎28'38	
asc. node	1540 Oct 12 j 19:54	23°♐04'42		direct	1541 Oct 02 j 22:10	3°♎43'29	
morning rise	1540 Oct 15 j 19:30	20°♐29'33		morning max el	1541 Oct 09 j 12:56	7°♎20'42	18°26'45
direct	1540 Oct 19 j 00:35	19°♐30'05			1541 Oct 25 j 06:09	0°♏	
morning max el	1540 Oct 26 j 00:54	23°♐26'09	19°09'50	morning set	1541 Oct 29 j 05:42	6°♏24'59	
	1540 Oct 31 j 11:24	0°♐		desc. node	1541 Nov 07 j 07:29	20°♏55'43	
morning set	1540 Nov 18 j 00:02	26°♐27'43			1541 Nov 13 j 01:20	0°♑	
desc. node	1540 Nov 20 j 10:26	0°♑15'29		superior conj	1541 Nov 13 j 19:34	1°♑11'42	0°-42'-26
	1540 Nov 20 j 06:28	0°♑		minimum elong	1541 Nov 13 j 14:05	0°♑50'10	0°41'44
max. Earth dist.	1540 Dec 02 j 05:13	18°♑43'02	1.44812 AU	max. Earth dist.	1541 Nov 15 j 00:12	3°♑04'12	1.45124 AU
superior conj	1540 Dec 04 j 18:27	22°♑44'58	-1°-26'-26	evening rise	1541 Nov 30 j 00:29	26°♑39'32	
minimum elong	1540 Dec 04 j 09:42	22°♑10'21	1°25'34		1541 Dec 02 j 03:19	0°♒	
	1540 Dec 09 j 07:43	0°♓		greatest brilliancy	1541 Dec 12 j 13:09	16°♓16'10	-0.7m
evening rise	1540 Dec 19 j 13:49	16°♓39'00			1541 Dec 22 j 18:20	0°♓	
	1540 Dec 27 j 16:55	0°♓		evening max el	1541 Dec 22 j 19:10	0°♓02'10	19°10'19
evening max el	1541 Jan 08 j 09:44	16°♓34'38	18°31'58	asc. node	1541 Dec 26 j 16:14	3°♓09'16	
asc. node	1541 Jan 08 j 19:11	16°♓58'08		retrograde	1541 Dec 29 j 18:58	4°♓01'48	
retrograde	1541 Jan 14 j 23:22	20°♓11'50		evening set	1542 Jan 02 j 02:08	2°♓58'25	
evening set	1541 Jan 18 j 00:06	19°♓20'36			1542 Jan 05 j 08:49	30°♒♓	
inferior conj	1541 Jan 23 j 21:26	13°♓45'32	3°38'30	inferior conj	1542 Jan 07 j 17:34	27°♓06'38	3°17'55
minimum elong	1541 Jan 23 j 19:58	13°♓49'53	3°38'22	minimum elong	1542 Jan 07 j 15:11	27°♓14'13	3°17'28
min. Earth dist.	1541 Jan 25 j 22:54	11°♓19'48	0.64603 AU	min. Earth dist.	1542 Jan 09 j 03:49	25°♓17'34	0.65980 AU
morning rise	1541 Jan 29 j 14:30	7°♓36'55		morning rise	1542 Jan 13 j 03:24	20°♓53'41	
direct	1541 Feb 05 j 09:39	4°♓46'41		direct	1542 Jan 19 j 12:32	18°♓06'10	
desc. node	1541 Feb 16 j 09:36	10°♓15'45		morning max el	1542 Feb 01 j 06:42	25°♓38'09	26°21'25
morning max el	1541 Feb 18 j 20:56	12°♓35'54	27°18'53	desc. node	1542 Feb 03 j 06:39	27°♓43'55	
	1541 Mar 04 j 20:03	0°♔			1542 Feb 05 j 07:00	0°♓	
	1541 Mar 22 j 22:28	0°♕			1542 Feb 26 j 08:28	0°♔	
morning set	1541 Mar 26 j 04:42	6°♕13'56		morning set	1542 Mar 09 j 08:32	19°♔20'21	
max. Earth dist.	1541 Mar 30 j 23:30	15°♕49'48	1.33668 AU	max. Earth dist.	1542 Mar 13 j 11:27	27°♔14'51	1.35021 AU
					1542 Mar 14 j 20:52	0°♕	
superior conj	1541 Apr 03 j 08:30	22°♕52'42	0°-35'-17	superior conj	1542 Mar 18 j 06:28	6°♕52'14	-1°-2'-46
minimum elong	1541 Apr 03 j 10:16	23°♕02'00	0°34'57	minimum elong	1542 Mar 18 j 09:35	7°♕08'11	1°02'14
asc. node	1541 Apr 06 j 18:31	0°♖09'02		asc. node	1542 Mar 24 j 15:33	20°♕06'19	
	1541 Apr 06 j 16:50	0°♖		evening rise	1542 Mar 26 j 00:20	22°♕55'57	
evening rise	1541 Apr 10 j 16:00	8°♖24'53			1542 Mar 29 j 12:16	0°♖	
	1541 Apr 22 j 03:01	0°♗		evening max el	1542 Apr 13 j 17:51	23°♖16'13	20°41'30
evening max el	1541 May 01 j 16:15	12°♗18'59	22°06'59	retrograde	1542 Apr 24 j 23:52	28°♖43'56	
retrograde	1541 May 14 j 10:46	18°♗36'33		evening set	1542 Apr 27 j 03:05	28°♖32'55	
desc. node	1541 May 15 j 08:48	18°♗34'38		desc. node	1542 May 02 j 05:51	26°♖48'51	
evening set	1541 May 17 j 06:20	18°♗18'59		inferior conj	1542 May 06 j 08:41	24°♖35'14	-1°-11'-41
min. Earth dist.	1541 May 25 j 21:58	14°♗36'36	0.55092 AU	minimum elong	1542 May 06 j 05:18	24°♖40'06	1°10'27
inferior conj	1541 May 26 j 14:45	14°♗13'03	-3°-5'-16	min. Earth dist.	1542 May 07 j 10:33	23°♖58'10	0.55013 AU
minimum elong	1541 May 26 j 07:11	14°♗23'40	3°03'03	morning rise	1542 May 15 j 06:22	20°♖27'18	
morning rise	1541 Jun 04 j 09:46	10°♗20'21					

direct	1542 May 18 j 20:26	19°♄59'37		min. Earth dist.	1543 Apr 19 j 00:59	3°♄34'17	0.55880 AU
morning max el	1542 Jun 01 j 01:39	26°♄22'00	23°04'33	desc. node	1543 Apr 19 j 02:52	3°♄31'21	
	1542 Jun 04 j 13:03	0°♄		morning rise	1543 Apr 25 j 02:42	0°♄32'07	
asc. node	1542 Jun 20 j 14:51	25°♄44'01			1543 Apr 27 j 04:07	30°♄	
	1542 Jun 22 j 17:13	0°♄		direct	1543 Apr 29 j 15:03	29°♄46'14	
morning set	1542 Jun 23 j 22:31	2°♄32'33			1543 May 02 j 01:48	0°♄	
				morning max el	1543 May 13 j 16:32	6°♄51'22	24°45'58
superior conj	1542 Jul 01 j 01:48	17°♄47'52	1°30'46		1543 May 30 j 11:42	0°♄	
minimum elong	1542 Jun 30 j 23:34	17°♄35'55	1°30'32	asc. node	1543 Jun 07 j 11:53	15°♄31'35	
max. Earth dist.	1542 Jul 03 j 17:40	23°♄26'08	1.33814 AU	morning set	1543 Jun 08 j 10:24	17°♄29'37	
	1542 Jul 06 j 21:59	0°♄			1543 Jun 14 j 05:28	0°♄	
evening rise	1542 Jul 08 j 19:00	3°♄45'36					
	1542 Jul 23 j 12:58	0°♄		superior conj	1543 Jun 15 j 11:02	2°♄41'02	1°15'16
desc. node	1542 Jul 29 j 05:12	8°♄31'45		minimum elong	1543 Jun 15 j 08:36	2°♄27'51	1°14'55
evening max el	1542 Aug 12 j 01:16	25°♄16'04	27°17'55	max. Earth dist.	1543 Jun 16 j 22:44	5°♄54'45	1.32893 AU
	1542 Aug 17 j 22:33	0°♄		evening rise	1543 Jun 22 j 17:26	18°♄06'09	
retrograde	1542 Aug 25 j 12:08	2°♄34'46			1543 Jun 28 j 19:37	0°♄	
	1542 Sep 01 j 08:43	30°♄		desc. node	1543 Jul 16 j 02:12	27°♄31'34	
evening set	1542 Sep 01 j 13:01	29°♄51'46			1543 Jul 18 j 00:23	0°♄	
min. Earth dist.	1542 Sep 05 j 07:32	26°♄20'25	0.64576 AU	evening max el	1543 Jul 25 j 10:57	8°♄14'34	27°24'34
inferior conj	1542 Sep 07 j 14:20	23°♄52'01	-2°-52'-28	retrograde	1543 Aug 08 j 04:53	15°♄32'23	
minimum elong	1542 Sep 07 j 18:47	23°♄39'57	2°50'57	evening set	1543 Aug 15 j 09:48	12°♄59'13	
morning rise	1542 Sep 14 j 02:28	18°♄22'27		min. Earth dist.	1543 Aug 19 j 00:07	9°♄59'03	0.62906 AU
direct	1542 Sep 16 j 16:20	17°♄47'58		inferior conj	1543 Aug 21 j 19:25	7°♄15'35	-3°-45'-22
asc. node	1542 Sep 16 j 14:03	17°♄48'01		minimum elong	1543 Aug 22 j 00:37	7°♄02'54	3°44'00
morning max el	1542 Sep 23 j 04:25	21°♄15'26	18°00'31	morning rise	1543 Aug 28 j 17:59	2°♄04'17	
	1542 Sep 29 j 21:02	0°♄		direct	1543 Aug 31 j 04:04	1°♄37'07	
morning set	1542 Oct 10 j 16:02	17°♄46'19		asc. node	1543 Sep 03 j 11:06	2°♄28'33	
	1542 Oct 17 j 23:49	0°♄		morning max el	1543 Sep 06 j 20:24	5°♄03'10	17°51'56
					1543 Sep 22 j 22:31	0°♄	
superior conj	1542 Oct 24 j 06:06	10°♄11'25	0°06'17	morning set	1543 Sep 23 j 01:53	0°♄14'55	
minimum elong	1542 Oct 24 j 06:51	10°♄14'25	0°06'10				
behind sun begin	1542 Oct 23 j 21:06	9°♄35'13		superior conj	1543 Oct 04 j 17:03	20°♄23'55	0°48'29
behind sun end	1542 Oct 24 j 16:36	10°♄53'33		minimum elong	1543 Oct 04 j 21:20	20°♄41'55	0°47'55
desc. node	1542 Oct 25 j 04:31	11°♄41'21			1543 Oct 10 j 12:44	0°♄	
max. Earth dist.	1542 Oct 28 j 19:02	17°♄25'40	1.44691 AU	max. Earth dist.	1543 Oct 11 j 10:35	1°♄28'23	1.43584 AU
	1542 Nov 05 j 19:41	0°♄		desc. node	1543 Oct 12 j 01:32	2°♄28'38	
evening rise	1542 Nov 09 j 15:30	5°♄55'09		evening rise	1543 Oct 19 j 23:26	14°♄57'27	
	1542 Nov 25 j 13:42	0°♄			1543 Oct 29 j 21:11	0°♄	
greatest brilliancy	1542 Nov 29 j 03:58	5°♄05'43	-0.6m	greatest brilliancy	1543 Nov 13 j 18:16	20°♄57'56	-0.4m
evening max el	1542 Dec 06 j 00:03	13°♄31'32	20°04'23	evening max el	1543 Nov 18 j 23:20	27°♄01'19	21°11'37
retrograde	1542 Dec 13 j 16:44	18°♄02'10			1543 Nov 22 j 07:19	0°♄	
asc. node	1542 Dec 13 j 13:17	18°♄02'03		retrograde	1543 Nov 27 j 14:20	2°♄08'35	
evening set	1542 Dec 17 j 07:55	16°♄45'09		asc. node	1543 Nov 30 j 10:19	1°♄23'49	
inferior conj	1542 Dec 22 j 19:40	10°♄39'40	2°46'45	evening set	1543 Dec 01 j 15:27	0°♄36'19	
minimum elong	1542 Dec 22 j 17:00	10°♄48'38	2°46'00		1543 Dec 02 j 08:52	30°♄	
min. Earth dist.	1542 Dec 23 j 16:12	9°♄30'46	0.66957 AU	inferior conj	1543 Dec 07 j 01:19	24°♄20'32	2°07'19
morning rise	1542 Dec 28 j 01:29	4°♄24'31		minimum elong	1543 Dec 06 j 22:53	24°♄28'55	2°06'28
direct	1543 Jan 02 j 21:03	1°♄50'13		min. Earth dist.	1543 Dec 07 j 09:42	23°♄51'36	0.67550 AU
morning max el	1543 Jan 14 j 15:33	8°♄51'21	25°03'55	morning rise	1543 Dec 12 j 05:57	18°♄05'18	
desc. node	1543 Jan 21 j 03:43	16°♄14'20		direct	1543 Dec 17 j 10:31	15°♄50'47	
	1543 Jan 31 j 07:21	0°♄		morning max el	1543 Dec 28 j 00:09	22°♄08'40	23°36'38
	1543 Feb 18 j 22:27	0°♄			1544 Jan 03 j 20:18	0°♄	
morning set	1543 Feb 19 j 19:08	1°♄32'00		desc. node	1544 Jan 08 j 00:45	5°♄28'29	
max. Earth dist.	1543 Feb 23 j 12:15	8°♄17'55	1.36802 AU		1544 Jan 24 j 15:11	0°♄	
				morning set	1544 Feb 01 j 06:19	12°♄31'50	
superior conj	1543 Mar 01 j 18:56	20°♄19'03	-1°-28'-21	max. Earth dist.	1544 Feb 05 j 06:59	19°♄29'17	1.38882 AU
minimum elong	1543 Mar 01 j 22:59	20°♄39'01	1°27'48		1544 Feb 11 j 02:45	0°♄	
	1543 Mar 06 j 15:15	0°♄					
evening rise	1543 Mar 10 j 03:46	7°♄06'31		superior conj	1544 Feb 12 j 18:04	3°♄03'12	-1°-49'-25
asc. node	1543 Mar 11 j 12:35	9°♄50'35		minimum elong	1544 Feb 12 j 22:03	3°♄21'51	1°49'05
	1543 Mar 23 j 02:47	0°♄		evening rise	1544 Feb 21 j 23:35	20°♄49'18	
evening max el	1543 Mar 27 j 07:10	4°♄52'11	19°33'12	asc. node	1544 Feb 26 j 09:37	29°♄16'36	
retrograde	1543 Apr 05 j 19:54	9°♄28'01			1544 Feb 26 j 18:58	0°♄	
evening set	1543 Apr 07 j 21:18	9°♄16'06		evening max el	1544 Mar 09 j 06:56	17°♄06'25	18°44'41
inferior conj	1543 Apr 16 j 11:58	5°♄11'24	0°44'53	retrograde	1544 Mar 17 j 08:28	21°♄01'54	
minimum elong	1543 Apr 16 j 13:51	5°♄08'23	0°44'13	evening set	1544 Mar 19 j 14:39	20°♄44'37	

inferior conj	1544 Mar 27 j 10:18	16° Υ 22'41	2°16'15		1545 Mar 07 j 03:05	30° \Re X	
minimum elong	1544 Mar 27 j 14:22	16° Υ 15'07	2°15'06	inferior conj	1545 Mar 09 j 05:49	28° X 13'41	3°13'26
min. Earth dist.	1544 Mar 30 j 18:05	13° Υ 55'43	0.57506 AU	minimum elong	1545 Mar 09 j 09:03	28° X 06'39	3°12'51
morning rise	1544 Apr 04 j 09:45	11° Υ 10'09		min. Earth dist.	1545 Mar 12 j 15:39	25° X 17'42	0.59559 AU
desc. node	1544 Apr 04 j 23:53	10° Υ 55'02		morning rise	1545 Mar 16 j 10:52	22° X 35'26	
direct	1544 Apr 09 j 23:52	9° Υ 53'21		direct	1545 Mar 22 j 21:25	20° X 42'02	
morning max el	1544 Apr 24 j 08:14	17° Υ 25'33	26°15'47	desc. node	1545 Mar 22 j 20:56	20° X 42'02	
	1544 May 04 j 17:30	0° B		morning max el	1545 Apr 06 j 05:07	28° X 28'33	27°19'32
	1544 May 21 j 17:56	0° II			1545 Apr 07 j 17:03	0° Υ	
morning set	1544 May 22 j 21:32	2° II 24'04			1545 Apr 28 j 10:45	0° B	
asc. node	1544 May 24 j 08:55	5° II 31'47		morning set	1545 May 07 j 06:10	17° B 09'00	
				asc. node	1545 May 11 j 05:56	25° B 38'51	
					1545 May 13 j 05:47	0° II	
superior conj	1544 May 29 j 22:25	17° II 39'25	0°55'47				
minimum elong	1544 May 29 j 20:17	17° II 27'43	0°55'24	superior conj	1545 May 14 j 10:08	2° II 35'40	0°33'02
max. Earth dist.	1544 May 30 j 09:18	18° II 39'15	1.32365 AU	minimum elong	1545 May 14 j 08:43	2° II 27'53	0°32'44
	1544 Jun 04 j 14:59	0° B		max. Earth dist.	1545 May 13 j 21:45	1° II 27'41	1.32218 AU
evening rise	1544 Jun 05 j 22:34	2° B 46'06		evening rise	1545 May 21 j 07:54	17° II 36'05	
	1544 Jun 20 j 16:28	0° Q			1545 May 27 j 11:28	0° B	
desc. node	1544 Jul 01 j 23:12	15° Q 37'05			1545 Jun 16 j 10:30	0° Q	
evening max el	1544 Jul 06 j 16:09	20° Q 36'18	26°58'36	evening max el	1545 Jun 18 j 14:38	2° Q 11'37	26°00'17
retrograde	1544 Jul 20 j 14:23	27° Q 50'43		desc. node	1545 Jun 18 j 20:12	2° Q 24'48	
evening set	1544 Jul 27 j 14:07	25° Q 41'06		retrograde	1545 Jul 02 j 14:53	9° Q 22'01	
min. Earth dist.	1544 Jul 31 j 06:24	23° Q 00'53	0.60966 AU	evening set	1545 Jul 08 j 21:10	7° Q 47'24	
inferior conj	1544 Aug 03 j 11:16	20° Q 16'31	-4°-28'-36	min. Earth dist.	1545 Jul 13 j 03:12	5° Q 10'36	0.58907 AU
minimum elong	1544 Aug 03 j 15:50	20° Q 06'42	4°27'51	inferior conj	1545 Jul 16 j 10:13	2° Q 44'01	-4°-53'-22
morning rise	1544 Aug 10 j 20:37	15° Q 26'20		minimum elong	1545 Jul 16 j 11:53	2° Q 40'55	4°53'18
direct	1544 Aug 13 j 05:48	15° Q 03'39			1545 Jul 20 j 09:21	30° \Re B	
asc. node	1544 Aug 20 j 08:09	18° Q 32'32		morning rise	1545 Jul 24 j 06:05	28° B 16'57	
morning max el	1544 Aug 20 j 09:52	18° Q 36'40	18°02'06	direct	1545 Jul 26 j 17:10	27° B 56'41	
	1544 Aug 28 j 16:08	0° P			1545 Aug 01 j 14:07	0° Q	
morning set	1544 Sep 05 j 05:12	13° P 33'55		morning max el	1545 Aug 03 j 17:37	1° Q 46'34	18°32'25
	1544 Sep 14 j 04:52	0° A		asc. node	1545 Aug 07 j 05:11	5° Q 44'04	
				morning set	1545 Aug 19 j 20:54	27° Q 28'57	
superior conj	1544 Sep 15 j 06:54	1° A 55'37	1°18'57		1545 Aug 21 j 04:10	0° P	
minimum elong	1544 Sep 15 j 11:18	2° A 15'00	1°18'30				
max. Earth dist.	1544 Sep 22 j 21:17	14° A 58'39	1.41949 AU	superior conj	1545 Aug 28 j 19:17	14° P 34'06	1°37'22
desc. node	1544 Sep 27 j 22:33	23° A 14'33		minimum elong	1545 Aug 28 j 22:02	14° P 46'54	1°37'11
evening rise	1544 Sep 28 j 17:48	24° A 31'37		max. Earth dist.	1545 Sep 05 j 03:17	27° P 48'00	1.39983 AU
	1544 Oct 02 j 05:03	0° M			1545 Sep 06 j 09:46	0° A	
	1544 Oct 22 j 20:40	0° J		evening rise	1545 Sep 09 j 10:06	5° A 06'59	
greatest brilliancy	1544 Oct 26 j 22:56	5° J 11'53	-0.3m	desc. node	1545 Sep 14 j 19:33	13° A 55'24	
evening max el	1544 Oct 31 j 17:17	10° J 32'40	22°27'56		1545 Sep 25 j 09:12	0° M	
retrograde	1544 Nov 10 j 09:57	16° J 18'24		evening max el	1545 Oct 14 j 07:16	24° M 07'13	23°47'57
evening set	1544 Nov 14 j 23:02	14° J 29'19			1545 Oct 22 j 11:03	0° J	
asc. node	1544 Nov 16 j 07:22	13° J 14'19		retrograde	1545 Oct 25 j 02:27	0° J 28'54	
inferior conj	1544 Nov 20 j 08:34	8° J 06'54	1°21'20		1545 Oct 27 j 14:05	30° \Re M	
minimum elong	1544 Nov 20 j 06:49	8° J 13'00	1°20'38	evening set	1545 Oct 30 j 05:06	28° M 22'17	
min. Earth dist.	1544 Nov 20 j 05:55	8° J 16'07	0.67790 AU	asc. node	1545 Nov 03 j 04:25	23° M 56'03	
morning rise	1544 Nov 25 j 14:27	1° J 53'50		min. Earth dist.	1545 Nov 04 j 02:25	22° M 42'07	0.67693 AU
direct	1544 Nov 30 j 04:00	0° J 01'59		inferior conj	1545 Nov 04 j 15:40	21° M 57'05	0°30'14
morning max el	1544 Dec 09 j 11:41	5° J 31'32	22°09'16	minimum elong	1545 Nov 04 j 14:57	21° M 59'32	0°29'56
greatest brilliancy	1544 Dec 14 j 03:02	10° J 44'11	-0.4m	morning rise	1545 Nov 10 j 00:58	15° M 48'35	
desc. node	1544 Dec 24 j 21:47	25° J 13'59		direct	1545 Nov 14 j 00:29	14° M 19'13	
	1544 Dec 28 j 04:31	0° B		morning max el	1545 Nov 22 j 05:43	19° M 04'50	20°49'27
morning set	1545 Jan 11 j 12:44	22° B 07'15		greatest brilliancy	1545 Nov 27 j 23:46	25° M 47'35	-0.5m
	1545 Jan 16 j 07:55	0° \approx			1545 Dec 01 j 03:31	0° J	
max. Earth dist.	1545 Jan 17 j 04:12	1° \approx 24'57	1.41016 AU	desc. node	1545 Dec 11 j 18:49	15° J 22'13	
					1545 Dec 21 j 08:52	0° B	
superior conj	1545 Jan 24 j 23:03	14° \approx 52'34	-2°-2'-21	morning set	1545 Dec 21 j 17:07	0° B 32'09	
minimum elong	1545 Jan 25 j 01:02	15° \approx 01'23	2°02'19	max. Earth dist.	1545 Dec 30 j 09:06	14° B 18'41	1.42903 AU
	1545 Feb 02 j 05:51	0° X					
evening rise	1545 Feb 04 j 08:30	3° X 56'06		superior conj	1546 Jan 06 j 04:36	25° B 34'55	-2°-2'-27
asc. node	1545 Feb 12 j 06:39	18° X 17'37		minimum elong	1546 Jan 06 j 02:08	25° B 24'31	2°02'25
evening max el	1545 Feb 20 j 14:06	29° X 50'23	18°16'12		1546 Jan 08 j 19:00	0° \approx	
	1545 Feb 20 j 18:05	0° Υ		evening rise	1546 Jan 18 j 02:36	16° \approx 18'58	
retrograde	1545 Feb 27 j 15:55	3° Υ 22'15			1546 Jan 25 j 21:47	0° X	
evening set	1545 Mar 02 j 03:38	2° Υ 56'58					

asc. node	1546 Jan 30 j 03:42	6° H 45'52		evening rise	1546 Dec 31 j 01:28	27° Z 48'52	
evening max el	1546 Feb 04 j 01:28	12° H 55'20	18°07'25		1547 Jan 01 j 08:27	0° \approx	
retrograde	1546 Feb 10 j 15:10	16° H 19'21		asc. node	1547 Jan 17 j 00:46	24° \approx 30'34	
evening set	1546 Feb 13 j 07:46	15° H 44'48		evening max el	1547 Jan 18 j 13:59	26° \approx 12'37	18°17'44
inferior conj	1546 Feb 19 j 20:00	10° H 40'04	3°40'21	retrograde	1547 Jan 25 j 01:23	29° \approx 42'03	
minimum elong	1546 Feb 19 j 21:15	10° H 36'58	3°40'16	evening set	1547 Jan 27 j 22:51	28° \approx 57'19	
min. Earth dist.	1546 Feb 22 j 20:41	7° H 39'57	0.61684 AU	inferior conj	1547 Feb 03 j 00:43	23° \approx 32'44	3°44'13
morning rise	1546 Feb 26 j 08:09	4° H 44'57		minimum elong	1547 Feb 03 j 00:05	23° \approx 34'32	3°44'13
direct	1546 Mar 05 j 05:17	2° H 19'32		min. Earth dist.	1547 Feb 05 j 11:08	20° \approx 49'51	0.63626 AU
desc. node	1546 Mar 09 j 17:58	3° H 16'17		morning rise	1547 Feb 08 j 23:35	17° \approx 27'30	
morning max el	1546 Mar 19 j 08:29	10° H 13'19	27°48'02	direct	1547 Feb 15 j 21:38	14° \approx 42'01	
	1546 Apr 03 j 18:09	0° Y		desc. node	1547 Feb 24 j 15:01	18° \approx 11'26	
	1546 Apr 20 j 15:04	0° B		morning max el	1547 Mar 01 j 16:28	22° \approx 36'24	27°39'22
morning set	1546 Apr 21 j 10:24	1° B 38'13			1547 Mar 08 j 05:31	0° H	
max. Earth dist.	1546 Apr 27 j 08:14	14° B 07'01	1.32455 AU		1547 Mar 27 j 23:12	0° Y	
asc. node	1546 Apr 28 j 02:59	15° B 48'42		morning set	1547 Apr 05 j 07:47	15° Y 43'23	
				max. Earth dist.	1547 Apr 10 j 12:33	26° Y 22'47	1.33093 AU
superior conj	1546 Apr 28 j 20:32	17° B 24'17	0°07'44		1547 Apr 12 j 05:33	0° B	
minimum elong	1546 Apr 28 j 20:10	17° B 22'19	0°07'39	superior conj	1547 Apr 13 j 03:48	1° B 58'57	0°-19'-19
behind sun begin	1546 Apr 28 j 15:39	16° B 57'43		minimum elong	1547 Apr 13 j 04:45	2° B 04'02	0°19'08
behind sun end	1546 Apr 29 j 00:41	17° B 46'56		asc. node	1547 Apr 15 j 00:03	5° B 56'56	
	1546 May 04 j 15:25	0° II		evening rise	1547 Apr 20 j 07:08	17° B 18'24	
evening rise	1546 May 05 j 19:23	2° II 29'10			1547 Apr 26 j 14:29	0° II	
	1546 May 20 j 18:09	0° S		evening max el	1547 May 12 j 20:30	23° II 34'01	23°01'17
evening max el	1546 May 31 j 06:28	13° S 03'33	24°36'38	desc. node	1547 May 23 j 14:14	29° II 58'32	
desc. node	1546 Jun 05 j 17:13	17° S 23'55			1547 May 23 j 17:12	0° S	
retrograde	1546 Jun 14 j 04:33	20° S 06'13		retrograde	1547 May 26 j 06:06	0° S 14'41	
evening set	1546 Jun 19 j 04:36	19° S 09'50			1547 May 28 j 19:52	30° R II	
min. Earth dist.	1546 Jun 24 j 17:35	16° S 18'22	0.56990 AU	evening set	1547 May 29 j 18:25	29° II 47'36	
inferior conj	1546 Jun 27 j 13:23	14° S 29'02	-4°-46'-51	min. Earth dist.	1547 Jun 06 j 05:41	26° II 27'13	0.55556 AU
minimum elong	1546 Jun 27 j 10:01	14° S 34'31	4°46'34	inferior conj	1547 Jun 07 j 21:10	25° II 29'54	-3°-56'-4
morning rise	1546 Jul 05 j 19:10	10° S 23'36		minimum elong	1547 Jun 07 j 13:41	25° II 40'47	3°54'23
direct	1546 Jul 08 j 10:00	10° S 04'36		morning rise	1547 Jun 16 j 11:59	21° II 37'06	
morning max el	1546 Jul 17 j 16:42	14° S 23'42	19°23'54	direct	1547 Jun 19 j 07:53	21° II 18'09	
asc. node	1546 Jul 25 j 02:13	23° S 48'34		morning max el	1547 Jun 30 j 04:57	26° II 20'23	20°36'25
	1546 Jul 28 j 17:35	0° Q			1547 Jul 03 j 15:22	0° S	
morning set	1546 Aug 03 j 21:15	11° Q 49'36		asc. node	1547 Jul 11 j 23:17	12° S 33'49	
superior conj	1546 Aug 12 j 00:34	28° Q 03'26	1°45'22	morning set	1547 Jul 19 j 03:26	26° S 28'29	
minimum elong	1546 Aug 12 j 01:22	28° Q 07'19	1°45'20		1547 Jul 20 j 20:31	0° Q	
	1546 Aug 13 j 00:30	0° P		superior conj	1547 Jul 26 j 17:55	12° Q 09'37	1°44'52
max. Earth dist.	1546 Aug 18 j 07:03	9° P 58'06	1.37940 AU	minimum elong	1547 Jul 26 j 17:06	12° Q 05'26	1°44'50
evening rise	1546 Aug 22 j 02:33	16° P 50'07		max. Earth dist.	1547 Jul 31 j 14:00	21° Q 48'30	1.36065 AU
	1546 Aug 29 j 21:35	0° A		evening rise	1547 Aug 04 j 15:54	29° Q 33'42	
desc. node	1546 Sep 01 j 16:35	4° A 26'51			1547 Aug 04 j 21:35	0° P	
	1546 Sep 19 j 20:15	0° M		desc. node	1547 Aug 19 j 13:36	24° P 43'46	
evening max el	1546 Sep 26 j 19:14	7° M 44'49	25°05'03		1547 Aug 23 j 02:18	0° A	
retrograde	1546 Oct 08 j 14:50	14° M 35'37		evening max el	1547 Sep 09 j 07:07	21° A 23'53	26°11'53
evening set	1546 Oct 14 j 07:58	12° M 12'26		retrograde	1547 Sep 21 j 22:34	28° A 33'23	
min. Earth dist.	1546 Oct 18 j 20:54	7° M 06'57	0.67265 AU	evening set	1547 Sep 28 j 05:46	25° A 57'09	
inferior conj	1546 Oct 19 j 20:49	5° M 48'35	0°-24'-41	min. Earth dist.	1547 Oct 02 j 11:02	21° A 27'56	0.66499 AU
minimum elong	1546 Oct 19 j 21:27	5° M 46'33	0°24'26	inferior conj	1547 Oct 03 j 22:14	19° A 39'04	-1°-21'-58
asc. node	1546 Oct 21 j 01:28	4° M 15'55		minimum elong	1547 Oct 04 j 00:23	19° A 32'25	1°21'05
morning rise	1546 Oct 25 j 11:30	29° A 47'05		asc. node	1547 Oct 07 j 22:30	15° A 11'38	
	1546 Oct 25 j 04:05	30° R A		morning rise	1547 Oct 09 j 20:04	13° A 47'19	
direct	1546 Oct 28 j 22:39	28° A 37'51		direct	1547 Oct 12 j 21:00	12° A 54'36	
	1546 Nov 01 j 23:01	0° M		morning max el	1547 Oct 19 j 16:35	16° A 41'45	18°49'28
morning max el	1546 Nov 05 j 07:38	2° M 49'03	19°41'56		1547 Oct 29 j 16:54	0° M	
greatest brilliancy	1546 Nov 13 j 08:06	12° M 48'51	-0.6m	morning set	1547 Nov 10 j 03:13	17° M 51'11	
	1546 Nov 24 j 21:38	0° A		desc. node	1547 Nov 15 j 12:55	26° M 22'03	
desc. node	1546 Nov 28 j 15:51	5° A 46'20			1547 Nov 17 j 20:23	0° A	
morning set	1546 Nov 30 j 13:41	8° A 43'10		max. Earth dist.	1547 Nov 25 j 13:51	12° A 08'07	1.45034 AU
max. Earth dist.	1546 Dec 12 j 21:04	27° A 58'29	1.44297 AU				
	1546 Dec 14 j 03:37	0° Z		superior conj	1547 Nov 26 j 13:25	13° A 40'45	-1°-9'-9
superior conj	1546 Dec 17 j 07:31	5° Z 04'10	-1°-45'-5	minimum elong	1547 Nov 26 j 05:17	13° A 08'48	1°08'14
minimum elong	1546 Dec 16 j 23:57	4° Z 33'45	1°44'30		1547 Dec 06 j 20:44	0° Z	

evening rise	1547 Dec 12 j 01:38	8°☾21'27			1548 Nov 09 j 14:12	0°☿	
	1547 Dec 25 j 16:16	0°☿		evening rise	1548 Nov 21 j 02:55	17°☿59'50	
evening max el	1548 Jan 02 j 01:12	9°☿37'33	18°46'14		1548 Nov 28 j 20:22	0°☾	
asc. node	1548 Jan 03 j 21:48	11°☿19'45		greatest brilliancy	1548 Dec 07 j 01:04	12°☾23'13	-0.7m
retrograde	1548 Jan 08 j 18:27	13°☿23'23		evening max el	1548 Dec 15 j 08:56	23°☾06'22	19°31'35
evening set	1548 Jan 11 j 21:39	12°☿27'19		asc. node	1548 Dec 20 j 18:49	26°☾59'13	
inferior conj	1548 Jan 17 j 16:11	6°☿44'58	3°31'15	retrograde	1548 Dec 22 j 15:09	27°☾18'01	
minimum elong	1548 Jan 17 j 14:15	6°☿50'54	3°30'59	evening set	1548 Dec 26 j 01:30	26°☾09'06	
min. Earth dist.	1548 Jan 19 j 11:09	4°☿33'41	0.65237 AU	inferior conj	1548 Dec 31 j 15:09	20°☾11'25	3°05'50
morning rise	1548 Jan 23 j 05:43	0°☿33'58		minimum elong	1548 Dec 31 j 12:35	20°☾19'48	3°05'13
	1548 Jan 23 j 22:14	30°☿☾		min. Earth dist.	1549 Jan 01 j 19:28	18°☾39'02	0.66449 AU
direct	1548 Jan 29 j 21:12	27°☾43'03		morning rise	1549 Jan 05 j 22:55	13°☾57'22	
	1548 Feb 05 j 13:14	0°☿		direct	1549 Jan 12 j 02:44	11°☾14'07	
desc. node	1548 Feb 11 j 12:05	4°☿52'30		morning max el	1549 Jan 24 j 11:23	18°☾34'34	25°50'13
morning max el	1548 Feb 12 j 02:10	5°☿27'26	26°57'27	desc. node	1549 Jan 28 j 09:10	22°☾49'37	
	1548 Mar 01 j 21:07	0°☿			1549 Feb 03 j 03:31	0°☿	
morning set	1548 Mar 18 j 19:11	29°☿14'39			1549 Feb 22 j 21:49	0°☿	
	1548 Mar 19 j 04:37	0°☿		morning set	1549 Mar 01 j 16:22	11°☿59'34	
max. Earth dist.	1548 Mar 23 j 06:52	8°☿05'08	1.34177 AU	max. Earth dist.	1549 Mar 05 j 13:27	19°☿16'36	1.35726 AU
superior conj	1548 Mar 27 j 05:52	16°☿13'21	0°-47'-4	superior conj	1549 Mar 11 j 00:14	0°☿00'19	-1°-14'00
minimum elong	1548 Mar 27 j 08:14	16°☿25'38	0°46'37	minimum elong	1549 Mar 11 j 03:49	0°☿18'26	1°13'25
asc. node	1548 Mar 31 j 21:06	25°☿59'20			1549 Mar 11 j 00:10	0°☿	
	1548 Apr 02 j 18:46	0°☿		evening rise	1549 Mar 18 j 23:49	16°☿20'41	
evening rise	1548 Apr 03 j 17:16	1°☿57'36		asc. node	1549 Mar 18 j 18:08	15°☿51'43	
	1548 Apr 19 j 20:38	0°☿			1549 Mar 26 j 00:25	0°☿	
evening max el	1548 Apr 23 j 16:23	4°☿14'42	21°29'00	evening max el	1549 Apr 05 j 23:04	15°☿28'16	20°10'14
retrograde	1548 May 05 j 21:07	10°☿12'23		retrograde	1549 Apr 16 j 11:07	20°☿32'35	
evening set	1548 May 08 j 07:16	9°☿15'03		evening set	1549 Apr 18 j 12:22	20°☿21'48	
desc. node	1548 May 09 j 11:16	9°☿14'34		desc. node	1549 Apr 26 j 08:18	17°☿05'03	
inferior conj	1548 May 17 j 16:27	5°☿15'50	-2°-19'-51	inferior conj	1549 Apr 27 j 12:41	16°☿23'13	0°-20'-36
minimum elong	1548 May 17 j 10:08	6°☿07'42	2°17'45	minimum elong	1549 Apr 27 j 11:44	16°☿24'38	0°20'16
min. Earth dist.	1548 May 17 j 18:00	5°☿15'39	0.54930 AU	min. Earth dist.	1549 Apr 29 j 07:17	15°☿20'01	0.55270 AU
morning rise	1548 May 26 j 13:28	2°☿01'44		morning rise	1549 May 06 j 08:39	12°☿03'22	
direct	1548 May 29 j 18:42	1°☿13'08		direct	1549 May 10 j 07:35	11°☿29'17	
morning max el	1548 Jun 11 j 06:02	7°☿13'15	22°06'59	morning max el	1549 May 23 j 22:50	18°☿11'28	23°48'04
	1548 Jun 26 j 21:25	0°☿			1549 Jun 02 j 15:27	0°☿	
asc. node	1548 Jun 27 j 20:20	1°☿49'23		asc. node	1549 Jun 14 j 17:24	21°☿12'18	
morning set	1548 Jul 02 j 13:14	11°☿18'38		morning set	1549 Jun 17 j 00:52	26°☿14'45	
					1549 Jun 18 j 19:17	0°☿	
superior conj	1548 Jul 09 j 19:33	26°☿40'35	1°37'33	superior conj	1549 Jun 24 j 02:39	11°☿27'37	1°24'44
minimum elong	1548 Jul 09 j 17:40	26°☿30'40	1°37'24	minimum elong	1549 Jun 24 j 00:16	11°☿14'47	1°24'27
	1548 Jul 11 j 09:38	0°☿		max. Earth dist.	1549 Jun 26 j 06:00	16°☿02'50	1.33378 AU
max. Earth dist.	1548 Jul 13 j 05:16	3°☿45'20	1.34525 AU	evening rise	1549 Jul 01 j 14:40	27°☿09'50	
evening rise	1548 Jul 17 j 21:23	13°☿04'22			1549 Jul 03 j 00:54	0°☿	
	1548 Jul 27 j 04:53	0°☿			1549 Jul 20 j 11:50	0°☿	
desc. node	1548 Aug 05 j 10:37	14°☿38'34		desc. node	1549 Jul 23 j 07:36	4°☿01'50	
	1548 Aug 17 j 02:45	0°☿		evening max el	1549 Aug 04 j 06:47	18°☿12'07	27°24'33
evening max el	1548 Aug 21 j 19:22	4°☿56'46	27°00'48	retrograde	1549 Aug 17 j 20:58	25°☿30'01	
retrograde	1548 Sep 04 j 00:49	12°☿14'12		evening set	1549 Aug 25 j 00:26	22°☿49'59	
evening set	1548 Sep 10 j 20:13	9°☿31'20		min. Earth dist.	1549 Aug 28 j 16:54	19°☿32'33	0.63914 AU
min. Earth dist.	1548 Sep 14 j 18:27	5°☿39'00	0.65382 AU	inferior conj	1549 Aug 31 j 05:00	16°☿56'46	-3°-15'-39
inferior conj	1548 Sep 16 j 17:48	3°☿23'35	-2°-19'-49	minimum elong	1549 Aug 31 j 09:53	16°☿44'04	3°14'08
minimum elong	1548 Sep 16 j 21:28	3°☿13'02	2°18'27	morning rise	1549 Sep 06 j 21:27	11°☿34'13	
	1548 Sep 19 j 22:00	30°☿☿		direct	1549 Sep 09 j 09:27	11°☿03'06	
morning rise	1548 Sep 23 j 00:18	27°☿44'40		asc. node	1549 Sep 10 j 16:36	11°☿11'37	
asc. node	1548 Sep 23 j 19:33	27°☿24'34		morning max el	1549 Sep 15 j 22:21	14°☿28'52	17°54'32
direct	1548 Sep 25 j 17:28	27°☿04'33			1549 Sep 26 j 18:05	0°☿	
	1548 Oct 01 j 15:07	0°☿		morning set	1549 Oct 02 j 18:33	10°☿17'43	
morning max el	1548 Oct 02 j 06:23	0°☿36'55	18°13'22		1549 Oct 14 j 10:55	0°☿	
morning set	1548 Oct 20 j 21:26	28°☿25'25					
	1548 Oct 21 j 20:30	0°☿		superior conj	1549 Oct 15 j 11:44	1°☿41'38	0°25'26
desc. node	1548 Nov 01 j 09:57	17°☿04'48		minimum elong	1549 Oct 15 j 14:28	1°☿52'48	0°25'04
superior conj	1548 Nov 04 j 15:58	22°☿14'33	0°-21'-35	desc. node	1549 Oct 19 j 06:57	7°☿51'05	
minimum elong	1548 Nov 04 j 13:11	22°☿03'31	0°21'14	max. Earth dist.	1549 Oct 21 j 02:51	10°☿46'41	1.44307 AU
max. Earth dist.	1548 Nov 07 j 08:46	26°☿30'11	1.45034 AU	evening rise	1549 Oct 31 j 12:53	27°☿04'39	

	1549 Nov 02 j 10:34	0°♊		minimum elong	1550 Sep 26 j 15:08	12°♊49'03	1°02'22
greatest brilliancy	1549 Nov 22 j 11:18	29°♊23'30	-0.5m	max. Earth dist.	1550 Oct 03 j 17:05	24°♊39'38	1.42947 AU
	1549 Nov 22 j 22:22	0°♋		desc. node	1550 Oct 06 j 03:56	28°♊38'07	
evening max el	1549 Nov 28 j 11:34	6°♋36'02	20°31'38		1550 Oct 07 j 00:21	0°♌	
retrograde	1549 Dec 06 j 12:57	11°♋21'12		evening rise	1550 Oct 10 j 23:21	6°♌15'50	
asc. node	1549 Dec 07 j 15:51	11°♋14'09			1550 Oct 26 j 18:30	0°♍	
evening set	1549 Dec 10 j 08:14	9°♋57'45		greatest brilliancy	1550 Nov 06 j 12:14	14°♍34'42	-0.4m
inferior conj	1549 Dec 15 j 19:00	3°♋47'34	2°30'53	evening max el	1550 Nov 11 j 08:28	20°♍06'23	21°43'10
minimum elong	1549 Dec 15 j 16:22	3°♋56'30	2°30'04	retrograde	1550 Nov 20 j 09:58	25°♍29'58	
min. Earth dist.	1549 Dec 16 j 10:10	2°♋55'58	0.67261 AU	evening set	1550 Nov 24 j 16:02	23°♍50'27	
	1549 Dec 18 j 16:21	30°♌♊		asc. node	1550 Nov 24 j 12:53	23°♍56'35	
morning rise	1549 Dec 21 j 00:01	27°♌32'25		inferior conj	1550 Nov 30 j 01:34	17°♌31'12	1°48'30
direct	1549 Dec 26 j 13:21	25°♌06'01		minimum elong	1550 Nov 29 j 23:22	17°♌38'49	1°47'42
	1550 Jan 04 j 22:19	0°♍		min. Earth dist.	1550 Nov 30 j 05:03	17°♌19'07	0.67697 AU
morning max el	1550 Jan 06 j 19:44	1°♍49'03	24°27'22	morning rise	1550 Dec 05 j 06:28	11°♌16'46	
desc. node	1550 Jan 15 j 06:12	11°♍40'05		direct	1550 Dec 10 j 04:30	9°♌12'02	
	1550 Jan 28 j 05:08	0°♎		morning max el	1550 Dec 20 j 05:20	15°♌09'14	22°59'00
morning set	1550 Feb 11 j 17:42	23°♎41'55		greatest brilliancy	1550 Dec 24 j 23:43	20°♌28'39	-0.3m
	1550 Feb 15 j 06:41	0°♏			1551 Jan 01 j 07:20	0°♐	
max. Earth dist.	1550 Feb 15 j 11:01	0°♏19'36	1.37667 AU	desc. node	1551 Jan 02 j 03:13	1°♐08'46	
					1551 Jan 21 j 05:03	0°♑	
superior conj	1550 Feb 22 j 07:31	13°♏10'00	-1°-38'-2	morning set	1551 Jan 23 j 17:04	4°♑06'34	
minimum elong	1550 Feb 22 j 11:43	13°♏30'16	1°37'33	max. Earth dist.	1551 Jan 28 j 06:24	11°♑48'41	1.39806 AU
	1550 Mar 02 j 20:17	0°♒					
evening rise	1550 Mar 03 j 00:20	0°♒20'08		superior conj	1551 Feb 04 j 23:32	25°♑32'03	-1°-56'-9
asc. node	1550 Mar 05 j 15:09	5°♒28'41		minimum elong	1551 Feb 05 j 02:57	25°♑47'45	1°55'58
evening max el	1550 Mar 19 j 17:03	27°♒20'19	19°10'03		1551 Feb 07 j 09:25	0°♓	
	1550 Mar 23 j 02:27	0°♓		evening rise	1551 Feb 14 j 15:59	13°♓48'44	
retrograde	1550 Mar 28 j 13:25	1°♓37'11		asc. node	1551 Feb 20 j 12:11	24°♓44'50	
evening set	1550 Mar 30 j 16:39	1°♓23'17			1551 Feb 23 j 13:08	0°♑	
	1550 Apr 03 j 10:06	30°♒♒		evening max el	1551 Mar 02 j 20:15	9°♒47'30	18°30'01
inferior conj	1550 Apr 07 j 23:14	27°♒11'42	1°27'43	retrograde	1551 Mar 10 j 10:25	13°♒31'18	
minimum elong	1550 Apr 08 j 02:30	27°♒06'08	1°26'39	evening set	1551 Mar 12 j 18:52	13°♒10'55	
min. Earth dist.	1550 Apr 10 j 22:17	25°♒11'46	0.56498 AU	inferior conj	1551 Mar 20 j 06:42	8°♒39'53	2°44'37
desc. node	1550 Apr 13 j 05:21	23°♒47'22		minimum elong	1551 Mar 20 j 10:41	8°♒31'57	2°43'40
morning rise	1550 Apr 16 j 08:16	22°♒18'07		min. Earth dist.	1551 Mar 23 j 16:58	5°♒57'35	0.58349 AU
direct	1550 Apr 21 j 07:41	21°♒20'38		morning rise	1551 Mar 27 j 22:20	3°♒14'52	
morning max el	1550 May 05 j 13:15	28°♒38'14	25°26'39	desc. node	1551 Mar 31 j 02:23	2°♒03'20	
	1550 May 06 j 22:04	0°♔		direct	1551 Apr 02 j 21:55	1°♒42'50	
	1550 May 26 j 23:53	0°♕		morning max el	1551 Apr 17 j 07:03	9°♒22'34	26°46'53
morning set	1550 Jun 01 j 12:37	11°♕10'51			1551 May 03 j 00:03	0°♖	
asc. node	1550 Jun 01 j 14:26	11°♕20'25		morning set	1551 May 16 j 22:53	26°♖01'29	
					1551 May 18 j 19:54	0°♗	
superior conj	1550 Jun 08 j 12:59	26°♕22'56	1°07'27	asc. node	1551 May 19 j 11:28	1°♕23'38	
minimum elong	1550 Jun 08 j 10:38	26°♕10'03	1°07'04				
max. Earth dist.	1550 Jun 09 j 13:58	28°♕39'26	1.32622 AU	superior conj	1551 May 24 j 00:42	11°♕20'25	0°46'30
	1550 Jun 10 j 04:46	0°♘		minimum elong	1551 May 23 j 22:49	11°♕10'07	0°46'07
evening rise	1550 Jun 15 j 16:15	11°♘38'57		max. Earth dist.	1551 May 24 j 01:46	11°♕26'18	1.32251 AU
	1550 Jun 25 j 05:57	0°♙		evening rise	1551 May 30 j 23:24	26°♕23'08	
desc. node	1550 Jul 10 j 04:36	22°♙40'30			1551 Jun 01 j 17:12	0°♘	
	1550 Jul 16 j 15:48	0°♑			1551 Jun 18 j 21:41	0°♙	
evening max el	1550 Jul 17 j 14:55	0°♑56'09	27°17'36	desc. node	1551 Jun 27 j 01:38	10°♙15'42	
retrograde	1550 Jul 31 j 10:30	8°♑11'59		evening max el	1551 Jun 29 j 17:09	12°♙57'03	26°37'28
evening set	1550 Aug 07 j 14:46	5°♑47'03		retrograde	1551 Jul 13 j 16:31	20°♙10'37	
min. Earth dist.	1550 Aug 11 j 04:52	2°♑57'22	0.62113 AU	evening set	1551 Jul 20 j 10:35	18°♙14'24	
inferior conj	1550 Aug 14 j 04:52	0°♑11'35	-4°-5'-20	min. Earth dist.	1551 Jul 24 j 06:39	15°♙38'12	0.60084 AU
minimum elong	1550 Aug 14 j 10:02	29°♙59'39	4°04'09	inferior conj	1551 Jul 27 j 13:54	12°♙58'37	-4°-42'-6
	1550 Aug 14 j 09:53	30°♒♙		minimum elong	1551 Jul 27 j 17:33	12°♙51'13	4°41'40
morning rise	1550 Aug 21 j 08:01	25°♙08'59		morning rise	1551 Aug 04 j 03:50	8°♙18'36	
direct	1550 Aug 23 j 17:31	24°♙43'54		direct	1551 Aug 06 j 13:30	7°♙57'13	
asc. node	1550 Aug 28 j 13:39	26°♙29'14		morning max el	1551 Aug 14 j 01:07	11°♙35'54	18°12'37
morning max el	1550 Aug 30 j 13:39	28°♙11'25	17°53'55	asc. node	1551 Aug 15 j 10:42	13°♙03'26	
	1550 Sep 01 j 05:51	0°♑			1551 Aug 26 j 06:59	0°♒	
morning set	1550 Sep 15 j 12:34	23°♑10'00		morning set	1551 Aug 29 j 21:41	6°♑45'22	
	1550 Sep 19 j 07:41	0°♓					
superior conj	1550 Sep 26 j 10:28	12°♓29'04	1°02'56	superior conj	1551 Sep 08 j 10:39	24°♑31'21	1°28'09
				minimum elong	1551 Sep 08 j 14:28	24°♑48'32	1°27'48

	1551 Sep 11 j 12:14	0°♄			1552 Aug 17 j 09:02	0°♎		
max. Earth dist.	1551 Sep 16 j 01:26	7°♄52'09	1.41130 AU					
evening rise	1551 Sep 21 j 02:10	16°♄13'24		superior conj	1552 Aug 21 j 06:55	7°♎33'23	1°41'54	
desc. node	1551 Sep 23 j 00:57	19°♄22'11		minimum elong	1552 Aug 21 j 08:49	7°♎42'28	1°41'48	
	1551 Sep 29 j 20:22	0°♌		max. Earth dist.	1552 Aug 28 j 05:28	20°♎21'25	1.39103 AU	
greatest brilliancy	1551 Oct 19 j 11:58	27°♌26'12	-0.2m	evening rise	1552 Sep 01 j 04:58	27°♎18'19		
	1551 Oct 21 j 15:45	0°♊			1552 Sep 02 j 19:05	0°♄		
evening max el	1551 Oct 25 j 00:20	3°♊38'15	23°01'48	desc. node	1552 Sep 08 j 21:59	9°♄59'42		
retrograde	1551 Nov 04 j 04:34	9°♊40'35			1552 Sep 22 j 09:42	0°♌		
evening set	1551 Nov 08 j 23:12	7°♊44'00		evening max el	1552 Oct 06 j 13:15	17°♌14'22	24°21'32	
asc. node	1551 Nov 11 j 09:56	5°♊13'48		retrograde	1552 Oct 17 j 19:30	23°♌49'51		
inferior conj	1551 Nov 14 j 08:59	1°♊19'36	1°00'12	evening set	1552 Oct 23 j 04:07	21°♌36'13		
minimum elong	1551 Nov 14 j 07:38	1°♊24'17	0°59'39	min. Earth dist.	1552 Oct 27 j 21:50	16°♌10'18	0.67551 AU	
min. Earth dist.	1551 Nov 14 j 01:46	1°♊44'31	0.67788 AU	asc. node	1552 Oct 28 j 06:59	15°♌39'35		
	1551 Nov 15 j 08:14	30°♌		inferior conj	1552 Oct 28 j 15:30	15°♌10'57	0°07'20	
morning rise	1551 Nov 19 j 16:04	25°♌08'02		minimum elong	1552 Oct 28 j 15:19	15°♌11'34	0°07'16	
direct	1551 Nov 23 j 23:22	23°♌26'05		transit middle	1552 Oct 28 j 15:19	15°♌11'34	0°07'16	
morning max el	1551 Dec 02 j 19:25	28°♌36'33	21°33'59	transit begin	1552 Oct 28 j 12:53	15°♌19'47		
	1551 Dec 04 j 03:16	0°♊		transit end	1552 Oct 28 j 17:46	15°♌03'20		
greatest brilliancy	1551 Dec 07 j 19:01	4°♊16'39	-0.4m	morning rise	1552 Nov 03 j 02:51	9°♌04'47		
desc. node	1551 Dec 20 j 00:14	21°♊04'33		direct	1552 Nov 06 j 20:51	7°♌44'17		
	1551 Dec 25 j 23:58	0°♄		morning max el	1552 Nov 14 j 16:41	12°♌14'13	20°18'54	
morning set	1552 Jan 03 j 11:17	13°♄08'01		greatest brilliancy	1552 Nov 21 j 06:18	20°♌05'49	-0.5m	
max. Earth dist.	1552 Jan 10 j 06:07	24°♄06'56	1.41865 AU		1552 Nov 28 j 07:01	0°♊		
	1552 Jan 13 j 18:36	0°♌		desc. node	1552 Dec 05 j 21:16	11°♊20'06		
				morning set	1552 Dec 12 j 09:12	21°♊17'25		
superior conj	1552 Jan 17 j 19:06	6°♌53'41	-2°-4'-16		1552 Dec 17 j 23:02	0°♄		
minimum elong	1552 Jan 17 j 19:29	6°♌55'19	2°04'17	max. Earth dist.	1552 Dec 22 j 13:45	7°♄20'16	1.43573 AU	
evening rise	1552 Jan 28 j 19:06	26°♌37'36						
	1552 Jan 30 j 15:23	0°♋		superior conj	1552 Dec 28 j 13:27	17°♄05'01	-1°-57'-26	
asc. node	1552 Feb 07 j 09:14	13°♋32'57		minimum elong	1552 Dec 28 j 08:38	16°♄45'12	1°57'12	
evening max el	1552 Feb 14 j 05:35	22°♋41'14	18°10'06		1553 Jan 05 j 05:38	0°♌		
retrograde	1552 Feb 21 j 01:05	26°♋08'05		evening rise	1553 Jan 10 j 05:31	8°♌38'28		
evening set	1552 Feb 23 j 14:49	25°♋39'08			1553 Jan 23 j 00:39	0°♋		
inferior conj	1552 Mar 01 j 10:38	20°♋46'54	3°28'05	asc. node	1553 Jan 24 j 06:18	1°♋44'03		
minimum elong	1552 Mar 01 j 13:05	20°♋41'15	3°27'46	evening max el	1553 Jan 27 j 17:51	5°♋52'39	18°09'34	
min. Earth dist.	1552 Mar 04 j 17:42	17°♋45'48	0.60471 AU	retrograde	1553 Feb 03 j 05:21	9°♋17'07		
morning rise	1552 Mar 08 j 08:06	15°♋00'14		evening set	1553 Feb 06 j 00:03	8°♋38'19		
direct	1552 Mar 15 j 00:25	12°♋51'45		inferior conj	1553 Feb 12 j 07:30	3°♋25'11	3°44'23	
desc. node	1552 Mar 16 j 23:25	13°♋02'18		minimum elong	1553 Feb 12 j 07:53	3°♋24'10	3°44'22	
morning max el	1552 Mar 29 j 06:50	20°♋43'07	27°36'12	min. Earth dist.	1553 Feb 15 j 02:35	0°♋30'00	0.62550 AU	
	1552 Apr 06 j 07:17	0°♑			1553 Feb 15 j 14:39	30°♌		
	1552 Apr 24 j 21:07	0°♄		morning rise	1553 Feb 18 j 13:31	27°♌25'19		
morning set	1552 Apr 30 j 05:56	10°♄40'50		direct	1553 Feb 25 j 12:21	24°♌49'21		
asc. node	1552 May 05 j 08:31	21°♄32'38		desc. node	1553 Mar 03 j 20:29	26°♌40'42		
max. Earth dist.	1552 May 06 j 13:42	24°♄11'47	1.32263 AU		1553 Mar 08 j 13:06	0°♋		
				morning max el	1553 Mar 11 j 12:13	2°♋44'15	27°48'41	
superior conj	1552 May 07 j 12:06	26°♄14'29	0°22'35		1553 Mar 31 j 16:34	0°♑		
minimum elong	1552 May 07 j 11:06	26°♄08'58	0°22'21	morning set	1553 Apr 14 j 07:32	25°♑00'39		
	1552 May 09 j 05:11	0°♒			1553 Apr 16 j 17:52	0°♄		
evening rise	1552 May 14 j 09:54	11°♒15'19		max. Earth dist.	1553 Apr 19 j 21:54	6°♄41'59	1.32673 AU	
	1552 May 23 j 23:44	0°♄						
evening max el	1552 Jun 10 j 12:30	24°♄12'36	25°27'12	superior conj	1553 Apr 21 j 21:23	10°♄58'02	0°-3'-36	
desc. node	1552 Jun 12 j 22:40	26°♄21'46		minimum elong	1553 Apr 21 j 21:34	10°♄58'59	0°03'35	
	1552 Jun 18 j 15:07	0°♑		behind sun begin	1553 Apr 21 j 16:29	10°♄31'29		
retrograde	1552 Jun 24 j 13:08	1°♑21'26		behind sun end	1553 Apr 22 j 02:38	11°♄26'29		
evening set	1552 Jun 30 j 07:39	0°♑03'30		asc. node	1553 Apr 22 j 05:34	11°♄42'22		
	1552 Jun 30 j 10:49	30°♌		evening rise	1553 Apr 28 j 21:42	26°♄07'34		
min. Earth dist.	1552 Jul 05 j 00:34	27°♄22'15	0.58043 AU		1553 Apr 30 j 18:07	0°♒		
inferior conj	1552 Jul 08 j 04:43	25°♄09'10	-4°-55'-21		1553 May 18 j 16:01	0°♄		
minimum elong	1552 Jul 08 j 04:24	25°♄09'43	4°55'22	evening max el	1553 May 23 j 02:57	4°♄52'32	23°56'42	
morning rise	1552 Jul 16 j 04:52	20°♄51'49		desc. node	1553 May 30 j 19:43	10°♄23'52		
direct	1552 Jul 18 j 17:10	20°♄32'22		retrograde	1553 Jun 05 j 21:30	11°♄47'33		
morning max el	1552 Jul 27 j 05:37	24°♄33'30	18°51'45	evening set	1553 Jun 10 j 06:04	11°♄05'40		
	1552 Jul 31 j 20:38	0°♑		min. Earth dist.	1553 Jun 16 j 13:43	8°♄03'20	0.56300 AU	
asc. node	1552 Aug 01 j 07:45	0°♑39'17		inferior conj	1553 Jun 18 j 23:19	6°♄35'06	-4°-31'-17	
morning set	1552 Aug 12 j 17:30	20°♑52'21		minimum elong	1553 Jun 18 j 17:47	6°♄43'37	4°30'29	

morning rise	1553 Jun 27 j 09:01	2° \mathfrak{G} 36'13		morning rise	1554 Jun 07 j 18:27	13° \mathbb{I} 27'18	
direct	1553 Jun 30 j 01:51	2° \mathfrak{G} 17'21		direct	1554 Jun 10 j 17:49	13° \mathbb{I} 07'18	
morning max el	1553 Jul 10 j 00:11	6° \mathfrak{G} 53'39	19°52'13	morning max el	1554 Jun 22 j 07:22	18° \mathbb{I} 30'30	21°13'04
asc. node	1553 Jul 19 j 04:48	19° \mathfrak{G} 02'18			1554 Jul 01 j 09:57	0° \mathfrak{G}	
	1553 Jul 25 j 04:10	0° \mathcal{Q}		asc. node	1554 Jul 06 j 01:50	8° \mathfrak{G} 01'19	
morning set	1553 Jul 27 j 20:36	5° \mathcal{Q} 21'16		morning set	1554 Jul 12 j 04:32	20° \mathfrak{G} 05'25	
					1554 Jul 16 j 22:23	0° \mathcal{Q}	
superior conj	1553 Aug 04 j 17:47	21° \mathcal{Q} 19'12	1°46'04	superior conj	1554 Jul 19 j 15:00	5° \mathcal{Q} 36'35	1°42'30
minimum elong	1553 Aug 04 j 17:50	21° \mathcal{Q} 19'27	1°46'04	minimum elong	1554 Jul 19 j 13:40	5° \mathcal{Q} 29'39	1°42'26
	1553 Aug 09 j 04:26	0° \mathfrak{M}		max. Earth dist.	1554 Jul 23 j 20:20	14° \mathcal{Q} 11'31	1.35366 AU
max. Earth dist.	1553 Aug 10 j 09:59	2° \mathfrak{M} 20'11	1.37113 AU	evening rise	1554 Jul 28 j 03:34	22° \mathcal{Q} 32'44	
evening rise	1553 Aug 14 j 06:51	9° \mathfrak{M} 28'17			1554 Aug 01 j 04:40	0° \mathfrak{M}	
desc. node	1553 Aug 26 j 19:02	0° \mathfrak{A} 25'37		desc. node	1554 Aug 13 j 16:04	20° \mathfrak{M} 33'57	
	1553 Aug 26 j 12:27	0° \mathfrak{A}			1554 Aug 20 j 06:06	0° \mathfrak{A}	
	1553 Sep 18 j 03:40	0° \mathfrak{M}		evening max el	1554 Sep 01 j 13:19	14° \mathfrak{A} 30'53	26°35'22
evening max el	1553 Sep 19 j 01:15	0° \mathfrak{M} 53'45	25°35'18	retrograde	1554 Sep 14 j 11:05	21° \mathfrak{A} 44'20	
retrograde	1553 Oct 01 j 05:52	7° \mathfrak{M} 53'11		evening set	1554 Sep 21 j 00:00	19° \mathfrak{A} 04'13	
evening set	1553 Oct 07 j 05:04	5° \mathfrak{M} 24'08		min. Earth dist.	1554 Sep 25 j 02:11	14° \mathfrak{A} 50'59	0.66068 AU
min. Earth dist.	1553 Oct 11 j 14:48	0° \mathfrak{M} 33'49	0.66982 AU	inferior conj	1554 Sep 26 j 18:28	12° \mathfrak{A} 50'17	-1°-46'-34
	1553 Oct 12 j 01:23	30° \mathfrak{R} \mathfrak{A}		minimum elong	1554 Sep 26 j 21:17	12° \mathfrak{A} 41'51	1°45'27
inferior conj	1553 Oct 12 j 19:19	29° \mathfrak{A} 02'25	0°-48'-44	asc. node	1554 Oct 02 j 01:03	7° \mathfrak{A} 32'14	
minimum elong	1553 Oct 12 j 20:34	28° \mathfrak{A} 58'24	0°48'13	morning rise	1554 Oct 02 j 19:49	7° \mathfrak{A} 03'48	
asc. node	1553 Oct 15 j 04:01	26° \mathfrak{A} 08'02		direct	1554 Oct 05 j 17:14	6° \mathfrak{A} 16'50	
morning rise	1553 Oct 18 j 12:48	23° \mathfrak{A} 04'34		morning max el	1554 Oct 12 j 09:01	9° \mathfrak{A} 56'14	18°32'08
direct	1553 Oct 21 j 19:26	22° \mathfrak{A} 02'37			1554 Oct 26 j 13:16	0° \mathfrak{M}	
morning max el	1553 Oct 28 j 21:42	26° \mathfrak{A} 02'08	19°17'41	morning set	1554 Nov 01 j 11:50	9° \mathfrak{M} 30'22	
	1553 Nov 01 j 08:55	0° \mathfrak{M}		desc. node	1554 Nov 09 j 15:20	22° \mathfrak{M} 28'53	
greatest brilliancy	1553 Nov 07 j 18:34	8° \mathfrak{M} 51'41	-0.7m		1554 Nov 14 j 09:40	0° \mathfrak{A}	
morning set	1553 Nov 21 j 10:34	29° \mathfrak{M} 46'27		superior conj	1554 Nov 17 j 07:46	4° \mathfrak{A} 35'32	0°-49'-42
	1553 Nov 21 j 14:03	0° \mathfrak{A}		minimum elong	1554 Nov 17 j 01:26	4° \mathfrak{A} 10'39	0°48'55
desc. node	1553 Nov 22 j 18:18	1° \mathfrak{A} 49'52		max. Earth dist.	1554 Nov 17 j 23:09	5° \mathfrak{A} 35'55	1.45123 AU
max. Earth dist.	1553 Dec 05 j 04:34	21° \mathfrak{A} 17'01	1.44702 AU	evening rise	1554 Dec 03 j 09:13	29° \mathfrak{A} 53'34	
					1554 Dec 03 j 10:51	0° \mathfrak{B}	
superior conj	1553 Dec 08 j 06:08	26° \mathfrak{A} 08'27	-1°-31'-55		1554 Dec 23 j 07:09	0° \approx	
minimum elong	1553 Dec 07 j 21:30	25° \mathfrak{A} 34'07	1°31'06	evening max el	1554 Dec 25 j 16:07	2° \approx 41'29	19°03'29
	1553 Dec 10 j 16:12	0° \mathfrak{B}		asc. node	1554 Dec 29 j 00:22	5° \approx 28'55	
evening rise	1553 Dec 22 j 19:06	19° \mathfrak{B} 44'56		retrograde	1555 Jan 01 j 14:02	6° \approx 37'23	
	1553 Dec 28 j 23:35	0° \approx		evening set	1555 Jan 04 j 20:06	5° \approx 35'55	
asc. node	1554 Jan 11 j 03:20	19° \approx 07'23			1555 Jan 10 j 07:58	30° \mathfrak{R} \mathfrak{B}	
evening max el	1554 Jan 11 j 06:12	19° \approx 14'43	18°27'41	inferior conj	1555 Jan 10 j 12:15	29° \mathfrak{B} 46'26	3°21'47
retrograde	1554 Jan 17 j 18:58	22° \approx 49'31		minimum elong	1555 Jan 10 j 09:59	29° \mathfrak{B} 53'38	3°21'22
evening set	1554 Jan 20 j 18:51	21° \approx 59'56		min. Earth dist.	1555 Jan 12 j 00:42	27° \mathfrak{B} 51'27	0.65801 AU
inferior conj	1554 Jan 26 j 17:15	16° \approx 27'23	3°40'29	morning rise	1555 Jan 15 j 22:56	23° \mathfrak{B} 33'47	
minimum elong	1554 Jan 26 j 15:59	16° \approx 31'06	3°40'22	direct	1555 Jan 22 j 09:46	20° \mathfrak{B} 45'06	
min. Earth dist.	1554 Jan 28 j 20:59	13° \approx 56'58	0.64363 AU	morning max el	1555 Feb 04 j 07:04	28° \mathfrak{B} 20'52	26°31'27
morning rise	1554 Feb 01 j 11:42	10° \approx 19'34		desc. node	1555 Feb 05 j 14:32	29° \mathfrak{B} 42'14	
direct	1554 Feb 08 j 07:49	7° \approx 30'14			1555 Feb 05 j 21:12	0° \approx	
desc. node	1554 Feb 18 j 17:30	12° \approx 25'36			1555 Feb 27 j 15:59	0° \mathfrak{H}	
morning max el	1554 Feb 21 j 21:12	15° \approx 20'51	27°25'11	morning set	1555 Mar 12 j 07:02	22° \mathfrak{H} 06'01	
	1554 Mar 05 j 21:42	0° \mathfrak{H}			1555 Mar 16 j 09:13	0° \mathfrak{Y}	
	1554 Mar 24 j 09:11	0° \mathfrak{Y}		max. Earth dist.	1555 Mar 16 j 12:11	0° \mathfrak{Y} 14'40	1.34789 AU
morning set	1554 Mar 29 j 01:06	8° \mathfrak{Y} 52'45					
max. Earth dist.	1554 Apr 02 j 22:30	18° \mathfrak{Y} 45'11	1.33507 AU	superior conj	1555 Mar 21 j 01:50	9° \mathfrak{Y} 28'36	0°-58'-42
				minimum elong	1555 Mar 21 j 04:45	9° \mathfrak{Y} 43'39	0°58'10
superior conj	1554 Apr 06 j 02:44	25° \mathfrak{Y} 25'09	0°-31'-5	asc. node	1555 Mar 26 j 23:40	21° \mathfrak{Y} 47'34	
minimum elong	1554 Apr 06 j 04:16	25° \mathfrak{Y} 33'21	0°30'46	evening rise	1555 Mar 28 j 17:54	25° \mathfrak{Y} 27'00	
	1554 Apr 08 j 06:17	0° \mathfrak{B}			1555 Mar 30 j 23:19	0° \mathfrak{B}	
asc. node	1554 Apr 09 j 02:37	1° \mathfrak{B} 48'50		evening max el	1555 Apr 16 j 18:30	26° \mathfrak{B} 15'26	20°53'16
evening rise	1554 Apr 13 j 09:01	10° \mathfrak{B} 53'45			1555 Apr 21 j 15:29	0° \mathbb{I}	
	1554 Apr 23 j 07:10	0° \mathbb{I}		retrograde	1555 Apr 28 j 06:46	1° \mathbb{I} 51'20	
evening max el	1554 May 04 j 18:34	15° \mathbb{I} 23'23	22°20'47	evening set	1555 Apr 30 j 11:10	1° \mathbb{I} 40'01	
retrograde	1554 May 17 j 17:25	21° \mathbb{I} 47'35		desc. node	1555 May 04 j 13:44	0° \mathbb{I} 24'00	
desc. node	1554 May 17 j 16:44	21° \mathbb{I} 47'35			1555 May 05 j 11:01	30° \mathfrak{R} \mathfrak{B}	
evening set	1554 May 20 j 16:58	21° \mathbb{I} 27'58		inferior conj	1555 May 09 j 18:09	27° \mathfrak{B} 42'09	-1°-29'-57
min. Earth dist.	1554 May 29 j 01:20	17° \mathbb{I} 51'48	0.55186 AU	minimum elong	1555 May 09 j 13:54	27° \mathfrak{B} 48'11	1°28'26
inferior conj	1554 May 30 j 00:22	17° \mathbb{I} 19'17	-3°-20'00				
minimum elong	1554 May 29 j 16:38	17° \mathbb{I} 30'14	3°17'51				

min. Earth dist.	1555 May 10 j 13:49	27°♄14'11	0.54956 AU	inferior conj	1556 Apr 18 j 19:14	8°♄14'32	0°28'24
morning rise	1555 May 18 j 15:56	23°♄37'37		minimum elong	1556 Apr 18 j 20:28	8°♄12'36	0°27'57
direct	1555 May 22 j 03:18	23°♄11'37		desc. node	1556 Apr 20 j 10:46	7°♄12'33	
morning max el	1555 Jun 04 j 04:28	29°♄27'02	22°49'29	min. Earth dist.	1556 Apr 21 j 04:04	6°♄45'53	0.55692 AU
	1555 Jun 04 j 18:18	0°♄		morning rise	1556 Apr 27 j 11:36	3°♄40'23	
asc. node	1555 Jun 22 j 22:54	27°♄27'26		direct	1556 May 01 j 20:19	2°♄57'54	
	1555 Jun 24 j 05:20	0°♄		morning max el	1556 May 15 j 19:39	9°♄57'54	24°31'16
morning set	1555 Jun 26 j 15:19	4°♄59'06			1556 May 30 j 18:36	0°♄	
				asc. node	1556 Jun 08 j 19:56	17°♄12'42	
superior conj	1555 Jul 03 j 19:17	20°♄15'48	1°32'43	morning set	1556 Jun 10 j 03:11	19°♄56'04	
minimum elong	1555 Jul 03 j 17:07	20°♄04'18	1°32'31		1556 Jun 14 j 19:28	0°♄	
max. Earth dist.	1555 Jul 06 j 15:39	26°♄16'20	1.33982 AU				
	1555 Jul 08 j 10:57	0°♄		superior conj	1556 Jun 17 j 04:01	5°♄07'42	1°17'55
evening rise	1555 Jul 11 j 14:31	6°♄19'36		minimum elong	1556 Jun 17 j 01:36	4°♄54'31	1°17'34
	1555 Jul 24 j 19:30	0°♄		max. Earth dist.	1556 Jun 18 j 19:36	8°♄41'52	1.33002 AU
desc. node	1555 Jul 31 j 13:04	10°♄17'04		evening rise	1556 Jun 24 j 11:43	20°♄36'41	
evening max el	1555 Aug 15 j 01:13	27°♄57'23	27°14'20		1556 Jun 29 j 06:22	0°♄	
	1555 Aug 17 j 07:34	0°♄		desc. node	1556 Jul 17 j 10:04	29°♄23'39	
retrograde	1555 Aug 28 j 10:54	5°♄16'15			1556 Jul 17 j 21:00	0°♄	
evening set	1555 Sep 04 j 10:30	2°♄32'50		evening max el	1556 Jul 27 j 11:25	11°♄00'50	27°25'37
	1555 Sep 07 j 05:35	30°♄		retrograde	1556 Aug 10 j 04:36	18°♄18'54	
min. Earth dist.	1555 Sep 08 j 05:53	28°♄56'12	0.64797 AU	evening set	1556 Aug 17 j 09:20	15°♄43'36	
inferior conj	1555 Sep 10 j 10:47	26°♄30'49	-2°-43'-59	min. Earth dist.	1556 Aug 21 j 00:05	12°♄39'08	0.63177 AU
minimum elong	1555 Sep 10 j 15:03	26°♄19'04	2°42'30	inferior conj	1556 Aug 23 j 17:33	9°♄57'16	-3°-37'-52
morning rise	1555 Sep 16 j 21:26	20°♄58'47		minimum elong	1556 Aug 23 j 22:43	9°♄44'27	3°36'25
asc. node	1555 Sep 18 j 22:05	20°♄24'47		morning rise	1556 Aug 30 j 14:31	4°♄42'53	
direct	1555 Sep 19 j 12:01	20°♄23'00		direct	1556 Sep 02 j 00:58	4°♄14'49	
morning max el	1555 Sep 26 j 00:10	23°♄51'34	18°03'17	asc. node	1556 Sep 04 j 19:08	4°♄51'32	
	1555 Sep 30 j 22:56	0°♄		morning max el	1556 Sep 08 j 16:14	7°♄40'39	17°51'59
morning set	1555 Oct 13 j 18:05	20°♄39'49			1556 Sep 23 j 07:56	0°♄	
	1555 Oct 19 j 08:51	0°♄		morning set	1556 Sep 25 j 00:51	2°♄59'39	
superior conj	1555 Oct 27 j 15:39	13°♄26'59	0°00'-55	superior conj	1556 Oct 06 j 22:29	23°♄27'14	0°42'47
minimum elong	1555 Oct 27 j 15:31	13°♄26'30	0°00'54	minimum elong	1556 Oct 07 j 02:29	23°♄43'55	0°42'15
behind sun begin	1555 Oct 27 j 04:56	12°♄44'06			1556 Oct 10 j 21:49	0°♄	
behind sun end	1555 Oct 28 j 02:07	14°♄08'50		desc. node	1556 Oct 13 j 09:22	4°♄00'59	
desc. node	1555 Oct 27 j 12:22	13°♄13'51		max. Earth dist.	1556 Oct 13 j 09:59	4°♄03'28	1.43793 AU
max. Earth dist.	1555 Oct 31 j 17:55	19°♄57'24	1.44803 AU	evening rise	1556 Oct 22 j 10:23	18°♄15'20	
	1555 Nov 07 j 03:39	0°♄			1556 Oct 30 j 03:24	0°♄	
evening rise	1555 Nov 13 j 02:31	9°♄13'52		greatest brilliancy	1556 Nov 15 j 12:45	23°♄22'18	-0.5m
	1555 Nov 26 j 17:28	0°♄		evening max el	1556 Nov 20 j 21:56	29°♄40'24	21°00'58
greatest brilliancy	1555 Dec 01 j 17:42	7°♄14'39	-0.6m		1556 Nov 21 j 05:40	0°♄	
evening max el	1555 Dec 08 j 21:44	16°♄10'28	19°55'25	retrograde	1556 Nov 29 j 09:16	4°♄41'47	
asc. node	1555 Dec 15 j 21:23	20°♄34'07		asc. node	1556 Dec 01 j 18:24	4°♄10'05	
retrograde	1555 Dec 16 j 11:36	20°♄36'05		evening set	1556 Dec 03 j 08:49	3°♄11'53	
evening set	1555 Dec 20 j 01:26	19°♄21'18			1556 Dec 06 j 11:56	30°♄	
inferior conj	1555 Dec 25 j 13:36	13°♄17'45	2°52'02	inferior conj	1556 Dec 08 j 18:53	26°♄57'34	2°13'44
minimum elong	1555 Dec 25 j 10:57	13°♄26'37	2°51'19	minimum elong	1556 Dec 08 j 16:23	27°♄06'09	2°12'54
min. Earth dist.	1555 Dec 26 j 12:08	12°♄02'38	0.66838 AU	min. Earth dist.	1556 Dec 09 j 05:01	26°♄22'42	0.67487 AU
morning rise	1555 Dec 30 j 19:50	7°♄02'43		morning rise	1556 Dec 13 j 23:32	20°♄42'18	
direct	1556 Jan 05 j 17:36	4°♄25'46		direct	1556 Dec 19 j 06:25	18°♄24'28	
morning max el	1556 Jan 17 j 16:01	11°♄32'38	25°16'16	morning max el	1556 Dec 30 j 00:24	24°♄49'05	23°49'52
desc. node	1556 Jan 23 j 11:35	18°♄04'22			1557 Jan 03 j 16:27	0°♄	
	1556 Feb 01 j 10:59	0°♄		desc. node	1557 Jan 09 j 08:37	7°♄12'52	
	1556 Feb 20 j 08:30	0°♄			1557 Jan 24 j 22:42	0°♄	
morning set	1556 Feb 22 j 20:35	4°♄26'53		morning set	1557 Feb 03 j 11:40	15°♄38'39	
max. Earth dist.	1556 Feb 26 j 14:13	11°♄18'23	1.36511 AU	max. Earth dist.	1557 Feb 07 j 09:23	22°♄26'32	1.38561 AU
					1557 Feb 11 j 13:47	0°♄	
superior conj	1556 Mar 03 j 15:55	23°♄00'53	-1°-24'-42	superior conj	1557 Feb 14 j 17:22	5°♄52'37	-1°-46'-39
minimum elong	1556 Mar 03 j 19:53	23°♄20'32	1°24'09	minimum elong	1557 Feb 14 j 21:28	6°♄11'57	1°46'18
	1556 Mar 07 j 03:36	0°♄		evening rise	1557 Feb 23 j 19:22	23°♄28'44	
evening rise	1556 Mar 11 j 22:12	9°♄40'58			1557 Feb 27 j 04:20	0°♄	
asc. node	1556 Mar 12 j 20:42	11°♄34'07		asc. node	1557 Feb 27 j 17:44	1°♄03'29	
	1556 Mar 23 j 00:58	0°♄		evening max el	1557 Mar 12 j 04:36	19°♄55'10	18°50'39
evening max el	1556 Mar 29 j 06:08	7°♄45'43	19°42'11	retrograde	1557 Mar 20 j 10:34	23°♄55'30	
retrograde	1556 Apr 08 j 00:49	12°♄28'34		evening set	1557 Mar 22 j 16:01	23°♄39'09	
evening set	1556 Apr 10 j 01:51	12°♄17'07					

inferior conj	1557 Mar 30 j 14:29	19° Υ 20'05	2°04'32	retrograde	1558 Mar 02 j 15:28	6° Υ 09'31	
minimum elong	1557 Mar 30 j 18:27	19° Υ 12'53	2°03'22	evening set	1558 Mar 05 j 02:24	5° Υ 45'32	
min. Earth dist.	1557 Apr 02 j 20:35	16° Υ 59'35	0.57230 AU	inferior conj	1558 Mar 12 j 06:57	1° Υ 05'19	3°06'48
desc. node	1557 Apr 07 j 07:49	14° Υ 22'04		minimum elong	1558 Mar 12 j 10:26	0° Υ 57'54	3°06'08
morning rise	1557 Apr 07 j 16:34	14° Υ 12'22			1558 Mar 13 j 13:32	30° \Re \mathcal{H}	
direct	1557 Apr 13 j 03:05	13° Υ 00'48		min. Earth dist.	1558 Mar 15 j 17:13	28° \mathcal{H} 12'14	0.59241 AU
morning max el	1557 Apr 27 j 10:50	20° Υ 29'25	26°03'44	morning rise	1558 Mar 19 j 14:44	25° \mathcal{H} 30'14	
	1557 May 05 j 15:01	0° \mathcal{B}		desc. node	1558 Mar 25 j 04:51	23° \mathcal{H} 43'56	
	1557 May 23 j 06:21	0° Π		direct	1558 Mar 25 j 22:41	23° \mathcal{H} 42'27	
morning set	1557 May 25 j 14:32	4° Π 51'04			1558 Apr 07 j 17:51	0° Υ	
asc. node	1557 May 26 j 17:00	7° Π 11'18		morning max el	1558 Apr 09 j 06:53	1° Υ 27'11	27°12'08
					1558 Apr 29 j 19:09	0° \mathcal{B}	
superior conj	1557 Jun 01 j 15:12	20° Π 05'28	0°58'59	morning set	1558 May 09 j 23:41	19° \mathcal{B} 37'45	
minimum elong	1557 Jun 01 j 13:00	19° Π 53'23	0°58'35	asc. node	1558 May 13 j 14:04	27° \mathcal{B} 17'36	
max. Earth dist.	1557 Jun 02 j 05:39	21° Π 24'42	1.32422 AU		1558 May 14 j 19:55	0° Π	
	1557 Jun 06 j 04:32	0° \mathcal{B}					
evening rise	1557 Jun 08 j 16:03	5° \mathcal{B} 14'11		superior conj	1558 May 17 j 03:00	5° Π 02'12	0°36'41
	1557 Jun 21 j 22:00	0° \mathcal{Q}		minimum elong	1558 May 17 j 01:27	4° Π 53'40	0°36'21
desc. node	1557 Jul 04 j 07:05	17° \mathcal{Q} 38'22		max. Earth dist.	1558 May 16 j 18:09	4° Π 13'33	1.32219 AU
evening max el	1557 Jul 09 j 17:34	23° \mathcal{Q} 28'46	27°04'34	evening rise	1558 May 24 j 00:54	20° Π 02'59	
	1557 Jul 19 j 12:12	0° \mathcal{M}			1558 May 28 j 22:14	0° \mathcal{B}	
retrograde	1557 Jul 23 j 15:08	0° \mathcal{M} 43'13			1558 Jun 16 j 21:15	0° \mathcal{Q}	
	1557 Jul 27 j 15:05	30° \Re \mathcal{Q}		desc. node	1558 Jun 21 j 04:07	4° \mathcal{Q} 39'28	
evening set	1557 Jul 30 j 16:23	28° \mathcal{Q} 29'21		evening max el	1558 Jun 21 j 17:04	5° \mathcal{Q} 10'45	26°10'45
min. Earth dist.	1557 Aug 03 j 07:51	25° \mathcal{Q} 47'06	0.61271 AU	retrograde	1558 Jul 05 j 17:00	12° \mathcal{Q} 21'50	
inferior conj	1557 Aug 06 j 11:35	23° \mathcal{Q} 01'56	-4°-23'-4	evening set	1558 Jul 12 j 02:53	10° \mathcal{Q} 41'20	
minimum elong	1557 Aug 06 j 16:22	22° \mathcal{Q} 51'25	4°22'11	min. Earth dist.	1558 Jul 16 j 05:47	8° \mathcal{Q} 05'23	0.59210 AU
morning rise	1557 Aug 13 j 19:20	18° \mathcal{Q} 08'19		inferior conj	1558 Jul 19 j 13:16	5° \mathcal{Q} 34'51	-4°-51'-21
direct	1557 Aug 16 j 04:32	17° \mathcal{Q} 45'02		minimum elong	1558 Jul 19 j 15:32	5° \mathcal{Q} 30'32	4°51'13
asc. node	1557 Aug 22 j 16:12	20° \mathcal{Q} 43'30		morning rise	1558 Jul 27 j 07:36	1° \mathcal{Q} 04'28	
morning max el	1557 Aug 23 j 06:14	21° \mathcal{Q} 16'22	17°59'20	direct	1558 Jul 29 j 18:18	0° \mathcal{Q} 43'56	
	1557 Aug 29 j 21:19	0° \mathcal{M}		morning max el	1558 Aug 06 j 15:03	4° \mathcal{Q} 30'24	18°26'40
morning set	1557 Sep 08 j 01:56	16° \mathcal{M} 12'08		asc. node	1558 Aug 09 j 13:16	7° \mathcal{Q} 45'46	
	1557 Sep 15 j 15:36	0° \mathcal{Q}		morning set	1558 Aug 22 j 16:06	0° \mathcal{M} 02'45	
					1558 Aug 22 j 15:32	0° \mathcal{M}	
superior conj	1557 Sep 18 j 08:31	4° \mathcal{Q} 47'31	1°15'09	superior conj	1558 Aug 31 j 17:59	17° \mathcal{M} 17'34	1°35'17
minimum elong	1557 Sep 18 j 13:02	5° \mathcal{Q} 07'21	1°14'38	minimum elong	1558 Aug 31 j 21:01	17° \mathcal{M} 31'38	1°35'04
max. Earth dist.	1557 Sep 25 j 21:48	17° \mathcal{Q} 40'31	1.42222 AU		1558 Sep 07 j 20:02	0° \mathcal{Q}	
desc. node	1557 Sep 30 j 06:23	24° \mathcal{Q} 47'13		max. Earth dist.	1558 Sep 08 j 04:36	0° \mathcal{Q} 37'04	1.40283 AU
evening rise	1557 Oct 02 j 02:15	27° \mathcal{Q} 42'23		evening rise	1558 Sep 12 j 15:00	8° \mathcal{Q} 07'58	
	1557 Oct 03 j 13:05	0° \mathcal{M}		desc. node	1558 Sep 17 j 03:25	15° \mathcal{Q} 29'19	
	1557 Oct 23 j 21:30	0° \mathcal{J}			1558 Sep 26 j 14:29	0° \mathcal{M}	
greatest brilliancy	1557 Oct 29 j 23:30	7° \mathcal{J} 53'09	-0.3m	evening max el	1558 Oct 17 j 07:03	26° \mathcal{M} 45'36	23°35'59
evening max el	1557 Nov 03 j 16:39	13° \mathcal{J} 11'35	22°16'13		1558 Oct 20 j 21:54	0° \mathcal{J}	
retrograde	1557 Nov 13 j 05:17	18° \mathcal{J} 51'25		retrograde	1558 Oct 27 j 22:21	3° \mathcal{J} 02'27	
evening set	1557 Nov 17 j 16:31	17° \mathcal{J} 04'48		evening set	1558 Nov 01 j 22:56	0° \mathcal{J} 58'20	
asc. node	1557 Nov 18 j 15:27	16° \mathcal{J} 13'43			1558 Nov 03 j 00:11	30° \Re \mathcal{M}	
inferior conj	1557 Nov 23 j 02:01	10° \mathcal{J} 43'09	1°28'39	asc. node	1558 Nov 05 j 12:29	27° \mathcal{M} 03'48	
minimum elong	1557 Nov 23 j 00:08	10° \mathcal{J} 49'41	1°27'56	inferior conj	1558 Nov 07 j 09:15	24° \mathcal{M} 33'10	0°38'16
min. Earth dist.	1557 Nov 23 j 00:55	10° \mathcal{J} 46'57	0.67777 AU	minimum elong	1558 Nov 07 j 08:21	24° \mathcal{M} 36'14	0°37'54
morning rise	1557 Nov 28 j 07:35	4° \mathcal{J} 29'47		min. Earth dist.	1558 Nov 06 j 21:32	25° \mathcal{M} 13'12	0.67730 AU
direct	1557 Dec 02 j 23:20	2° \mathcal{J} 34'33		morning rise	1558 Nov 12 j 17:55	18° \mathcal{M} 23'53	
morning max el	1557 Dec 12 j 11:17	8° \mathcal{J} 10'58	22°21'58	direct	1558 Nov 16 j 19:24	16° \mathcal{M} 51'24	
greatest brilliancy	1557 Dec 17 j 01:20	13° \mathcal{J} 19'00	-0.3m	morning max el	1558 Nov 25 j 04:18	21° \mathcal{M} 43'05	21°00'38
desc. node	1557 Dec 27 j 05:38	26° \mathcal{J} 54'07		greatest brilliancy	1558 Nov 30 j 16:45	28° \mathcal{M} 06'29	-0.5m
	1557 Dec 29 j 09:23	0° \mathcal{B}			1558 Dec 02 j 03:44	0° \mathcal{J}	
morning set	1558 Jan 14 j 22:29	25° \mathcal{B} 26'30		desc. node	1558 Dec 14 j 02:41	16° \mathcal{J} 59'22	
	1558 Jan 17 j 17:06	0° \approx			1558 Dec 22 j 16:25	0° \mathcal{B}	
max. Earth dist.	1558 Jan 20 j 06:07	4° \approx 15'24	1.40707 AU	morning set	1558 Dec 25 j 06:00	3° \mathcal{B} 59'26	
				max. Earth dist.	1559 Jan 02 j 09:43	17° \mathcal{B} 00'23	1.42651 AU
superior conj	1558 Jan 28 j 01:23	17° \approx 50'48	-2°-1'-6				
minimum elong	1558 Jan 28 j 03:50	18° \approx 01'45	2°01'02	superior conj	1559 Jan 09 j 10:41	28° \mathcal{B} 43'21	-2°-3'-29
	1558 Feb 03 j 16:30	0° \mathcal{H}		minimum elong	1559 Jan 09 j 09:01	28° \mathcal{B} 36'17	2°03'28
evening rise	1558 Feb 07 j 06:09	6° \mathcal{H} 41'26			1559 Jan 10 j 04:41	0° \approx	
asc. node	1558 Feb 14 j 14:48	20° \mathcal{H} 08'44		evening rise	1559 Jan 21 j 02:43	19° \approx 11'13	
	1558 Feb 21 j 03:00	0° Υ			1559 Jan 27 j 04:43	0° \mathcal{H}	
evening max el	1558 Feb 23 j 10:51	2° Υ 35'01	18°19'10				

asc. node	1559 Feb 01 j 11:50	8° Υ 42'16		minimum elong	1559 Dec 20 j 10:35	7° Υ 55'14	1°48'28
evening max el	1559 Feb 06 j 21:44	15° Υ 36'49	18°07'28		1560 Jan 02 j 17:06	0° \approx	
retrograde	1559 Feb 13 j 12:40	19° Υ 01'15		evening rise	1560 Jan 03 j 04:43	0° \approx 49'25	
evening set	1559 Feb 16 j 04:30	18° Υ 28'14		asc. node	1560 Jan 19 j 08:51	26° \approx 34'18	
inferior conj	1559 Feb 22 j 18:34	13° Υ 26'39	3°37'53	evening max el	1560 Jan 21 j 10:14	28° \approx 52'48	18°15'02
minimum elong	1559 Feb 22 j 20:08	13° Υ 22'49	3°37'45		1560 Jan 22 j 15:06	0° Υ	
min. Earth dist.	1559 Feb 25 j 21:04	10° Υ 25'31	0.61374 AU	retrograde	1560 Jan 27 j 21:26	2° Υ 20'38	
morning rise	1559 Mar 01 j 09:01	7° Υ 33'21		evening set	1560 Jan 30 j 18:09	1° Υ 37'31	
direct	1559 Mar 08 j 05:09	5° Υ 12'02			1560 Feb 02 j 03:57	30° \approx	
desc. node	1559 Mar 12 j 01:54	5° Υ 53'21		inferior conj	1560 Feb 05 j 21:22	26° \approx 15'56	3°44'51
morning max el	1559 Mar 22 j 09:25	13° Υ 05'34	27°46'11	minimum elong	1560 Feb 05 j 20:58	26° \approx 17'01	3°44'50
	1559 Apr 04 j 21:01	0° Υ		min. Earth dist.	1560 Feb 08 j 10:08	23° \approx 29'11	0.63356 AU
	1559 Apr 22 j 03:17	0° Υ		morning rise	1560 Feb 11 j 21:57	20° \approx 11'53	
morning set	1559 Apr 24 j 04:42	4° Υ 09'47		direct	1560 Feb 18 j 20:27	17° \approx 28'17	
max. Earth dist.	1559 Apr 30 j 05:08	16° Υ 54'50	1.32392 AU	desc. node	1560 Feb 26 j 22:55	20° \approx 29'32	
asc. node	1559 Apr 30 j 11:07	17° Υ 27'20		morning max el	1560 Mar 03 j 16:50	25° \approx 23'28	27°42'55
					1560 Mar 07 j 22:36	0° Υ	
superior conj	1559 May 01 j 13:42	19° Υ 52'16	0°11'42		1560 Mar 28 j 08:07	0° Υ	
minimum elong	1559 May 01 j 13:10	19° Υ 49'19	0°11'35	morning set	1560 Apr 07 j 03:18	18° Υ 19'31	
behind sun begin	1559 May 01 j 09:39	19° Υ 30'10		max. Earth dist.	1560 Apr 12 j 10:33	29° Υ 14'54	1.32964 AU
behind sun end	1559 May 01 j 16:40	20° Υ 08'27			1560 Apr 12 j 19:03	0° Υ	
	1559 May 06 j 05:01	0° Υ					
evening rise	1559 May 08 j 12:11	4° Υ 55'50		superior conj	1560 Apr 14 j 21:34	4° Υ 29'52	0°-15'-9
	1559 May 21 j 20:31	0° Υ		minimum elong	1560 Apr 14 j 22:18	4° Υ 33'50	0°15'00
evening max el	1559 Jun 03 j 09:35	16° Υ 07'55	24°50'11	behind sun begin	1560 Apr 14 j 20:31	4° Υ 24'17	
desc. node	1559 Jun 08 j 01:10	19° Υ 57'20		behind sun end	1560 Apr 15 j 00:05	4° Υ 43'24	
retrograde	1559 Jun 17 j 08:37	23° Υ 12'50		asc. node	1560 Apr 16 j 08:10	7° Υ 36'26	
evening set	1559 Jun 22 j 13:47	22° Υ 10'59		evening rise	1560 Apr 21 j 23:59	19° Υ 46'23	
min. Earth dist.	1559 Jun 27 j 20:54	19° Υ 22'38	0.57248 AU		1560 Apr 27 j 00:21	0° Υ	
inferior conj	1559 Jun 30 j 19:28	17° Υ 26'32	-4°-50'-30	evening max el	1560 May 14 j 23:32	26° Υ 40'35	23°15'44
minimum elong	1559 Jun 30 j 16:54	17° Υ 30'46	4°50'21		1560 May 18 j 22:44	0° Υ	
morning rise	1559 Jul 08 j 23:50	13° Υ 18'23		desc. node	1560 May 24 j 22:11	2° Υ 56'34	
direct	1559 Jul 11 j 13:57	12° Υ 59'19		retrograde	1560 May 28 j 12:09	3° Υ 25'47	
morning max el	1559 Jul 20 j 15:39	17° Υ 13'18	19°14'57	evening set	1560 Jun 01 j 05:25	2° Υ 55'26	
asc. node	1559 Jul 27 j 10:19	25° Υ 43'13			1560 Jun 07 j 19:29	30° \approx Υ	
	1559 Jul 30 j 01:03	0° Ω		min. Earth dist.	1560 Jun 08 j 09:19	29° Υ 40'05	0.55724 AU
morning set	1559 Aug 06 j 15:20	14° Ω 20'02		inferior conj	1560 Jun 10 j 05:58	28° Υ 34'27	-4°-7'00
				minimum elong	1560 Jun 09 j 22:52	28° Υ 44'57	4°05'31
superior conj	1559 Aug 14 j 21:04	0° Υ 40'20	1°44'43	morning rise	1560 Jun 18 j 19:30	24° Υ 40'29	
minimum elong	1559 Aug 14 j 22:09	0° Υ 45'35	1°44'42	direct	1560 Jun 21 j 14:27	24° Υ 21'39	
	1559 Aug 14 j 12:46	0° Υ		morning max el	1560 Jul 02 j 05:38	29° Υ 16'59	20°24'16
max. Earth dist.	1559 Aug 21 j 08:05	12° Υ 50'54	1.38233 AU		1560 Jul 02 j 23:36	0° Υ	
evening rise	1559 Aug 25 j 03:57	19° Υ 41'14		asc. node	1560 Jul 13 j 07:22	14° Υ 23'29	
	1559 Aug 31 j 06:08	0° Ω		morning set	1560 Jul 20 j 20:47	28° Υ 56'47	
desc. node	1559 Sep 04 j 00:28	6° Ω 02'37			1560 Jul 21 j 09:09	0° Ω	
	1559 Sep 20 j 17:57	0° Ω					
evening max el	1559 Sep 29 j 19:07	10° Ω 22'39	24°54'02	superior conj	1560 Jul 28 j 12:52	14° Ω 41'54	1°45'24
retrograde	1559 Oct 11 j 11:29	17° Ω 10'07		minimum elong	1560 Jul 28 j 12:15	14° Ω 38'49	1°45'23
evening set	1559 Oct 17 j 02:23	14° Ω 49'17		max. Earth dist.	1560 Aug 02 j 14:07	24° Ω 42'29	1.36329 AU
min. Earth dist.	1559 Oct 21 j 16:30	9° Ω 38'27	0.67349 AU		1560 Aug 05 j 08:58	0° Ω	
inferior conj	1559 Oct 22 j 14:49	8° Ω 24'49	0°-16'-8	evening rise	1560 Aug 06 j 14:30	2° Ω 16'53	
minimum elong	1559 Oct 22 j 15:13	8° Ω 23'30	0°15'59	desc. node	1560 Aug 20 j 21:30	26° Ω 22'14	
transit middle	1559 Oct 22 j 15:13	8° Ω 23'30	0°15'59		1560 Aug 23 j 07:04	0° Ω	
transit begin	1559 Oct 22 j 14:44	8° Ω 25'06		evening max el	1560 Sep 11 j 07:00	24° Ω 01'59	26°02'55
transit end	1559 Oct 22 j 15:42	8° Ω 21'54			1560 Sep 19 j 05:46	0° Ω	
asc. node	1559 Oct 23 j 09:31	7° Ω 23'26		retrograde	1560 Sep 23 j 19:56	1° Ω 09'19	
morning rise	1559 Oct 28 j 04:34	2° Ω 22'02			1560 Sep 28 j 00:44	30° \approx Ω	
direct	1559 Oct 31 j 17:23	1° Ω 10'03		evening set	1560 Sep 30 j 01:03	28° Ω 34'52	
morning max el	1559 Nov 08 j 05:02	5° Ω 25'55	19°51'03	min. Earth dist.	1560 Oct 04 j 07:29	24° Ω 00'01	0.66635 AU
greatest brilliancy	1559 Nov 15 j 19:06	14° Ω 46'42	-0.6m	inferior conj	1560 Oct 05 j 16:54	22° Ω 15'37	-1°-13'-11
	1559 Nov 26 j 04:00	0° Ω		minimum elong	1560 Oct 05 j 18:48	22° Ω 09'38	1°12'24
desc. node	1559 Nov 30 j 23:43	7° Ω 21'31		asc. node	1560 Oct 09 j 06:33	18° Ω 10'10	
morning set	1559 Dec 04 j 02:03	12° Ω 07'42		morning rise	1560 Oct 11 j 13:32	16° Ω 22'05	
	1559 Dec 15 j 12:04	0° Υ		direct	1560 Oct 14 j 15:51	15° Ω 27'06	
max. Earth dist.	1559 Dec 15 j 20:26	0° Υ 33'18	1.44131 AU	morning max el	1560 Oct 21 j 12:58	19° Ω 17'16	18°56'12
					1560 Oct 29 j 20:33	0° Ω	
superior conj	1559 Dec 20 j 17:31	8° Υ 23'19	-1°-48'-57	morning set	1560 Nov 12 j 11:50	21° Ω 03'54	

desc. node	1560 Nov 16 j 20:45	27° \mathbb{M} 55'41		desc. node	1561 Nov 03 j 17:47	18° \mathbb{M} 37'45	
	1560 Nov 18 j 04:26	0° \mathbb{X}					
max. Earth dist.	1560 Nov 27 j 12:38	14° \mathbb{X} 39'35	1.44972 AU	superior conj	1561 Nov 08 j 03:15	25° \mathbb{M} 35'33	0°-29'-2
				minimum elong	1561 Nov 07 j 23:29	25° \mathbb{M} 20'41	0°28'32
superior conj	1560 Nov 29 j 01:41	17° \mathbb{X} 05'25	-1°-15'-35	max. Earth dist.	1561 Nov 10 j 07:39	29° \mathbb{M} 01'56	1.45081 AU
minimum elong	1560 Nov 28 j 17:11	16° \mathbb{X} 31'57	1°14'40		1561 Nov 10 j 22:26	0° \mathbb{X}	
	1560 Dec 07 j 04:58	0° \mathbb{Z}		evening rise	1561 Nov 24 j 12:46	21° \mathbb{X} 16'35	
evening rise	1560 Dec 14 j 08:20	11° \mathbb{Z} 30'36			1561 Nov 30 j 02:48	0° \mathbb{Z}	
	1560 Dec 25 j 19:44	0° \mathbb{X}		greatest brilliancy	1561 Dec 09 j 09:47	14° \mathbb{Z} 13'34	-0.7m
evening max el	1561 Jan 03 j 21:49	12° \mathbb{X} 17'23	18°40'54	evening max el	1561 Dec 18 j 06:12	25° \mathbb{Z} 46'09	19°23'50
asc. node	1561 Jan 05 j 05:52	13° \mathbb{X} 33'05		asc. node	1561 Dec 23 j 02:53	29° \mathbb{Z} 24'26	
retrograde	1561 Jan 10 j 13:38	15° \mathbb{X} 59'55		retrograde	1561 Dec 25 j 09:59	29° \mathbb{Z} 53'20	
evening set	1561 Jan 13 j 15:57	15° \mathbb{X} 05'35		evening set	1561 Dec 28 j 19:13	28° \mathbb{Z} 46'19	
inferior conj	1561 Jan 19 j 11:25	9° \mathbb{X} 25'49	3°34'05	inferior conj	1562 Jan 03 j 09:27	22° \mathbb{Z} 50'39	3°10'18
minimum elong	1561 Jan 19 j 09:38	9° \mathbb{X} 31'12	3°33'51	minimum elong	1562 Jan 03 j 06:56	22° \mathbb{Z} 58'48	3°09'46
min. Earth dist.	1561 Jan 21 j 08:40	7° \mathbb{X} 09'13	0.65024 AU	min. Earth dist.	1562 Jan 04 j 15:48	21° \mathbb{Z} 12'26	0.66296 AU
morning rise	1561 Jan 25 j 02:07	3° \mathbb{X} 15'36		morning rise	1562 Jan 08 j 17:52	16° \mathbb{Z} 37'01	
direct	1561 Jan 31 j 19:03	0° \mathbb{X} 24'33		direct	1562 Jan 14 j 23:37	13° \mathbb{Z} 52'04	
desc. node	1561 Feb 12 j 19:57	6° \mathbb{X} 56'55		morning max el	1562 Jan 27 j 11:39	21° \mathbb{Z} 16'37	26°01'29
morning max el	1561 Feb 14 j 02:18	8° \mathbb{X} 10'57	27°05'31	desc. node	1562 Jan 30 j 16:58	24° \mathbb{Z} 44'15	
	1561 Mar 03 j 01:51	0° \mathbb{X}			1562 Feb 04 j 01:47	0° \mathbb{X}	
	1561 Mar 20 j 16:07	0° \mathbb{Y}			1562 Feb 24 j 06:30	0° \mathbb{X}	
morning set	1561 Mar 21 j 16:23	1° \mathbb{Y} 56'26		morning set	1562 Mar 04 j 15:57	14° \mathbb{X} 49'07	
max. Earth dist.	1561 Mar 26 j 06:26	11° \mathbb{Y} 02'11	1.33986 AU	max. Earth dist.	1562 Mar 08 j 14:53	22° \mathbb{X} 18'16	1.35473 AU
					1562 Mar 12 j 12:36	0° \mathbb{Y}	
superior conj	1561 Mar 30 j 00:32	18° \mathbb{Y} 47'50	0°-42'-52				
minimum elong	1561 Mar 30 j 02:40	18° \mathbb{Y} 59'05	0°42'27	superior conj	1562 Mar 13 j 20:12	2° \mathbb{Y} 39'23	-1°-10'-2
asc. node	1561 Apr 03 j 05:12	27° \mathbb{Y} 40'04		minimum elong	1562 Mar 13 j 23:38	2° \mathbb{Y} 56'48	1°09'29
	1561 Apr 04 j 07:36	0° \mathbb{Z}		asc. node	1562 Mar 21 j 02:14	17° \mathbb{Y} 34'21	
evening rise	1561 Apr 06 j 10:28	4° \mathbb{Z} 27'33		evening rise	1562 Mar 21 j 17:41	18° \mathbb{Y} 53'36	
	1561 Apr 20 j 14:43	0° \mathbb{II}			1562 Mar 27 j 08:34	0° \mathbb{Z}	
evening max el	1561 Apr 26 j 18:08	7° \mathbb{II} 18'00	21°42'05	evening max el	1562 Apr 08 j 22:58	18° \mathbb{Z} 25'17	20°20'45
retrograde	1561 May 09 j 03:59	13° \mathbb{II} 22'52		retrograde	1562 Apr 19 j 17:13	23° \mathbb{Z} 37'40	
evening set	1561 May 11 j 17:03	13° \mathbb{II} 08'18		evening set	1562 Apr 21 j 18:57	23° \mathbb{Z} 26'55	
desc. node	1561 May 11 j 19:12	13° \mathbb{II} 07'17		desc. node	1562 Apr 28 j 16:12	20° \mathbb{Z} 45'11	
inferior conj	1561 May 21 j 02:19	9° \mathbb{II} 06'32	-2°-36'-42	inferior conj	1562 Apr 30 j 21:21	19° \mathbb{Z} 28'57	0°-38'-37
minimum elong	1561 May 20 j 19:26	9° \mathbb{II} 16'10	2°34'30	minimum elong	1562 Apr 30 j 19:32	19° \mathbb{Z} 31'37	0°37'59
min. Earth dist.	1561 May 20 j 21:26	9° \mathbb{II} 13'23	0.54966 AU	min. Earth dist.	1562 May 02 j 10:19	18° \mathbb{Z} 34'53	0.55161 AU
morning rise	1561 May 29 j 22:45	5° \mathbb{II} 11'22		morning rise	1562 May 09 j 18:06	15° \mathbb{Z} 13'40	
direct	1561 Jun 02 j 02:16	4° \mathbb{II} 49'36		direct	1562 May 13 j 13:50	14° \mathbb{Z} 42'03	
morning max el	1561 Jun 14 j 08:09	10° \mathbb{II} 35'43	21°52'32	morning max el	1562 May 27 j 01:48	21° \mathbb{Z} 17'25	23°32'55
	1561 Jun 28 j 06:18	0° \mathbb{Z}			1562 Jun 03 j 13:49	0° \mathbb{II}	
asc. node	1561 Jun 30 j 04:26	3° \mathbb{Z} 35'08		asc. node	1562 Jun 17 j 01:29	23° \mathbb{II} 10'02	
morning set	1561 Jul 05 j 06:10	13° \mathbb{Z} 45'42		morning set	1562 Jun 19 j 17:37	28° \mathbb{II} 41'15	
					1562 Jun 20 j 08:33	0° \mathbb{Z}	
superior conj	1561 Jul 12 j 13:26	29° \mathbb{Z} 09'42	1°39'02				
minimum elong	1561 Jul 12 j 11:40	29° \mathbb{Z} 00'29	1°38'54	superior conj	1562 Jun 26 j 19:52	13° \mathbb{Z} 54'45	1°27'00
	1561 Jul 12 j 23:02	0° \mathbb{Q}		minimum elong	1562 Jun 26 j 17:32	13° \mathbb{Z} 42'11	1°26'43
max. Earth dist.	1561 Jul 16 j 04:06	6° \mathbb{Q} 37'46	1.34735 AU	max. Earth dist.	1562 Jun 29 j 03:32	18° \mathbb{Z} 52'02	1.33521 AU
evening rise	1561 Jul 20 j 17:51	15° \mathbb{Q} 41'22		evening rise	1562 Jul 04 j 09:36	29° \mathbb{Z} 42'10	
	1561 Jul 28 j 13:53	0° \mathbb{Q}			1562 Jul 04 j 13:10	0° \mathbb{Q}	
desc. node	1561 Aug 07 j 18:31	16° \mathbb{Q} 21'02			1562 Jul 21 j 15:31	0° \mathbb{Q}	
	1561 Aug 17 j 20:29	0° \mathbb{Q}		desc. node	1562 Jul 25 j 15:32	5° \mathbb{Q} 50'02	
evening max el	1561 Aug 24 j 19:19	7° \mathbb{Q} 36'46	26°54'57	evening max el	1562 Aug 07 j 06:57	20° \mathbb{Q} 55'36	27°22'50
retrograde	1561 Sep 06 j 22:54	14° \mathbb{Q} 53'08		retrograde	1562 Aug 20 j 19:57	28° \mathbb{Q} 13'40	
evening set	1561 Sep 13 j 16:43	12° \mathbb{Q} 10'50		evening set	1562 Aug 27 j 22:41	25° \mathbb{Q} 32'22	
min. Earth dist.	1561 Sep 17 j 16:01	8° \mathbb{Q} 13'02	0.65574 AU	min. Earth dist.	1562 Aug 31 j 15:49	22° \mathbb{Q} 10'14	0.64155 AU
inferior conj	1561 Sep 19 j 13:27	6° \mathbb{Q} 01'24	-2°-11'-8	inferior conj	1562 Sep 03 j 02:05	19° \mathbb{Q} 36'52	-3°-7'-32
minimum elong	1561 Sep 19 j 16:55	5° \mathbb{Q} 51'21	2°09'49	minimum elong	1562 Sep 03 j 06:50	19° \mathbb{Q} 24'20	3°05'59
morning rise	1561 Sep 25 j 18:35	0° \mathbb{Q} 20'19		morning rise	1562 Sep 09 j 17:01	14° \mathbb{Q} 11'48	
asc. node	1561 Sep 26 j 03:36	0° \mathbb{Q} 09'46		direct	1562 Sep 12 j 05:38	13° \mathbb{Q} 39'33	
	1561 Sep 26 j 13:24	30° \mathbb{R} \mathbb{Q}		asc. node	1562 Sep 13 j 00:40	13° \mathbb{Q} 42'46	
direct	1561 Sep 28 j 12:47	29° \mathbb{Q} 38'29		morning max el	1562 Sep 18 j 18:03	17° \mathbb{Q} 05'38	17°56'14
	1561 Sep 30 j 12:40	0° \mathbb{Q}			1562 Sep 28 j 00:44	0° \mathbb{Q}	
morning max el	1561 Oct 05 j 02:10	3° \mathbb{Q} 12'20	18°17'38	morning set	1562 Oct 05 j 19:11	13° \mathbb{Q} 07'42	
	1561 Oct 23 j 04:41	0° \mathbb{M}			1562 Oct 15 j 20:00	0° \mathbb{M}	
morning set	1561 Oct 24 j 01:40	1° \mathbb{M} 25'31					



























































































































superior conj	1562 Oct 18 j 19:33	4°♄52'31	0°18'48	morning max el	1563 Sep 02 j 09:44	0°♄50'50	17°52'51
minimum elong	1562 Oct 18 j 21:39	5°♄01'04	0°18'31	morning set	1563 Sep 18 j 10:33	25°♄52'40	
desc. node	1562 Oct 21 j 14:48	9°♄24'00			1563 Sep 20 j 17:48	0°♄	
max. Earth dist.	1562 Oct 24 j 02:15	13°♄21'22	1.44458 AU				
	1562 Nov 03 j 17:50	0°♄		superior conj	1563 Sep 29 j 14:17	15°♄28'36	0°58'01
evening rise	1562 Nov 04 j 00:12	0°♄24'31		minimum elong	1563 Sep 29 j 18:53	15°♄48'07	0°57'26
	1562 Nov 23 j 21:40	0°♄		max. Earth dist.	1563 Oct 06 j 17:03	27°♄18'33	1.43184 AU
greatest brilliancy	1562 Nov 25 j 02:59	1°♄39'41	-0.5m	desc. node	1563 Oct 08 j 11:51	0°♄11'38	
evening max el	1562 Dec 01 j 09:38	9°♄15'41	20°21'51		1563 Oct 08 j 08:57	0°♄	
retrograde	1562 Dec 09 j 07:51	13°♄55'38		evening rise	1563 Oct 14 j 09:31	9°♄32'18	
asc. node	1562 Dec 09 j 23:56	13°♄53'07			1563 Oct 27 j 22:55	0°♄	
evening set	1562 Dec 13 j 01:41	12°♄34'25		greatest brilliancy	1563 Nov 09 j 08:28	17°♄04'40	-0.4m
inferior conj	1562 Dec 18 j 12:44	6°♄25'45	2°36'40	evening max el	1563 Nov 14 j 07:21	22°♄45'54	21°31'55
minimum elong	1562 Dec 18 j 10:05	6°♄34'43	2°35'53	retrograde	1563 Nov 23 j 05:09	28°♄03'53	
min. Earth dist.	1562 Dec 19 j 05:43	5°♄28'12	0.67163 AU	asc. node	1563 Nov 26 j 20:58	26°♄49'50	
morning rise	1562 Dec 23 j 17:59	0°♄10'35		evening set	1563 Nov 27 j 09:27	26°♄26'55	
	1562 Dec 23 j 22:48	30°♄		inferior conj	1563 Dec 02 j 19:04	20°♄08'43	1°55'21
direct	1562 Dec 29 j 09:30	27°♄41'24		minimum elong	1563 Dec 02 j 16:47	20°♄16'38	1°54'31
	1563 Jan 04 j 14:09	0°♄		min. Earth dist.	1563 Dec 03 j 00:15	19°♄50'49	0.67656 AU
morning max el	1563 Jan 09 j 20:13	4°♄30'56	24°40'19	morning rise	1563 Dec 07 j 23:50	13°♄53'55	
desc. node	1563 Jan 17 j 14:00	13°♄27'48		direct	1563 Dec 13 j 00:06	11°♄45'45	
	1563 Jan 29 j 10:37	0°♄		morning max el	1563 Dec 23 j 05:28	17°♄50'19	23°12'03
morning set	1563 Feb 14 j 20:40	26°♄42'07		greatest brilliancy	1563 Dec 28 j 06:42	23°♄29'57	-0.3m
	1563 Feb 16 j 17:10	0°♄			1564 Jan 02 j 08:30	0°♄	
max. Earth dist.	1563 Feb 18 j 13:35	3°♄21'11	1.37360 AU	desc. node	1564 Jan 04 j 11:03	2°♄51'36	
					1564 Jan 22 j 13:16	0°♄	
superior conj	1563 Feb 25 j 05:23	15°♄55'20	-1°-34'-41	morning set	1564 Jan 27 j 00:17	7°♄19'18	
minimum elong	1563 Feb 25 j 09:33	16°♄15'38	1°34'12	max. Earth dist.	1564 Jan 31 j 08:29	14°♄42'59	1.39482 AU
	1563 Mar 04 j 07:47	0°♄					
evening rise	1563 Mar 05 j 19:17	2°♄57'16		superior conj	1564 Feb 07 j 23:59	28°♄25'11	-1°-53'-58
asc. node	1563 Mar 07 j 23:16	7°♄14'11		minimum elong	1564 Feb 08 j 03:38	28°♄42'08	1°53'43
	1563 Mar 22 j 10:30	0°♄			1564 Feb 08 j 20:25	0°♄	
evening max el	1563 Mar 22 j 15:20	0°♄11'50	19°17'43	evening rise	1564 Feb 17 j 12:28	16°♄30'57	
retrograde	1563 Mar 31 j 17:17	4°♄35'10		asc. node	1564 Feb 22 j 20:18	26°♄33'59	
evening set	1563 Apr 02 j 19:46	4°♄22'03			1564 Feb 24 j 18:30	0°♄	
inferior conj	1563 Apr 11 j 05:12	0°♄12'57	1°13'04	evening max el	1564 Mar 04 j 17:26	12°♄34'44	18°34'46
minimum elong	1563 Apr 11 j 08:03	0°♄08'12	1°12'07	retrograde	1564 Mar 12 j 11:24	16°♄22'22	
	1563 Apr 11 j 12:58	30°♄		evening set	1564 Mar 14 j 19:00	16°♄03'09	
min. Earth dist.	1563 Apr 14 j 01:04	28°♄20'46	0.56265 AU	inferior conj	1564 Mar 22 j 09:31	11°♄35'24	2°35'09
desc. node	1563 Apr 15 j 13:12	27°♄24'53		minimum elong	1564 Mar 22 j 13:35	11°♄27'30	2°34'08
morning rise	1563 Apr 19 j 16:22	25°♄24'21		min. Earth dist.	1564 Mar 25 j 19:16	8°♄57'55	0.58043 AU
direct	1563 Apr 24 j 11:51	24°♄31'13		morning rise	1564 Mar 30 j 03:54	6°♄14'28	
	1563 May 06 j 17:58	0°♄		desc. node	1564 Apr 01 j 10:15	5°♄20'37	
morning max el	1563 May 08 j 16:19	1°♄44'47	25°12'52	direct	1564 Apr 05 j 00:17	4°♄47'48	
	1563 May 28 j 09:43	0°♄		morning max el	1564 Apr 19 j 09:22	12°♄25'22	26°36'40
asc. node	1563 Jun 03 j 22:33	13°♄01'38			1564 May 03 j 03:40	0°♄	
morning set	1563 Jun 04 j 05:30	13°♄38'11		morning set	1564 May 18 j 16:06	28°♄30'14	
					1564 May 19 j 09:08	0°♄	
superior conj	1563 Jun 11 j 05:53	28°♄49'49	1°10'21	asc. node	1564 May 20 j 19:36	3°♄03'56	
minimum elong	1563 Jun 11 j 03:30	28°♄36'46	1°09'58				
	1563 Jun 11 j 18:45	0°♄		superior conj	1564 May 25 j 17:31	13°♄47'45	0°49'54
max. Earth dist.	1563 Jun 12 j 10:37	1°♄26'24	1.32704 AU	minimum elong	1564 May 25 j 15:33	13°♄36'53	0°49'31
evening rise	1563 Jun 18 j 10:10	14°♄08'45		max. Earth dist.	1564 May 25 j 21:59	14°♄12'20	1.32279 AU
	1563 Jun 26 j 14:56	0°♄		evening rise	1564 Jun 01 j 16:39	28°♄51'32	
desc. node	1563 Jul 12 j 12:33	24°♄36'57			1564 Jun 02 j 05:46	0°♄	
	1563 Jul 17 j 00:20	0°♄			1564 Jun 18 j 22:23	0°♄	
evening max el	1563 Jul 20 j 15:40	3°♄45'17	27°20'44	desc. node	1564 Jun 28 j 09:35	12°♄23'30	
retrograde	1563 Aug 03 j 10:40	11°♄01'58		evening max el	1564 Jul 01 j 18:57	15°♄53'28	26°45'34
evening set	1563 Aug 10 j 15:25	8°♄33'45		retrograde	1564 Jul 15 j 18:04	23°♄07'34	
min. Earth dist.	1563 Aug 14 j 05:26	5°♄40'46	0.62396 AU	evening set	1564 Jul 22 j 14:21	21°♄06'25	
inferior conj	1563 Aug 17 j 03:53	2°♄55'26	-3°-58'-29	min. Earth dist.	1564 Jul 26 j 08:47	18°♄29'11	0.60391 AU
minimum elong	1563 Aug 17 j 09:06	2°♄43'08	3°57'13	inferior conj	1564 Jul 29 j 15:23	15°♄47'27	-4°-37'-47
	1563 Aug 20 j 11:45	30°♄		minimum elong	1564 Jul 29 j 19:25	15°♄39'06	4°37'15
morning rise	1563 Aug 24 j 05:27	27°♄49'48		morning rise	1564 Aug 06 j 03:44	11°♄03'54	
direct	1563 Aug 26 j 15:05	27°♄24'03		direct	1564 Aug 08 j 13:08	10°♄42'08	
asc. node	1563 Aug 30 j 21:44	28°♄47'56		morning max el	1564 Aug 15 j 21:59	14°♄18'44	18°08'31
	1563 Sep 01 j 11:45	0°♄		asc. node	1564 Aug 16 j 18:48	15°♄11'37	

	1564 Aug 26 j 15:52	0°♎		direct	1565 Jul 21 j 19:32	23°♎23'18	
morning set	1564 Aug 31 j 17:45	9°♎22'37		morning max el	1565 Jul 30 j 03:37	27°♎20'21	18°44'32
					1565 Aug 01 j 14:58	0°♏	
superior conj	1564 Sep 10 j 10:59	27°♎20'35	1°25'05	asc. node	1565 Aug 03 j 15:51	2°♏38'48	
minimum elong	1564 Sep 10 j 15:01	27°♎38'41	1°24'42	morning set	1565 Aug 15 j 12:08	23°♏25'11	
	1564 Sep 11 j 22:43	0°♏			1565 Aug 18 j 20:57	0°♎	
max. Earth dist.	1564 Sep 18 j 02:05	10°♏37'01	1.41424 AU				
evening rise	1564 Sep 23 j 09:13	19°♏21'23		superior conj	1565 Aug 24 j 04:32	10°♎14'12	1°40'28
desc. node	1564 Sep 24 j 08:54	20°♏56'39		minimum elong	1565 Aug 24 j 06:45	10°♎24'39	1°40'21
	1564 Sep 30 j 03:19	0°♎		max. Earth dist.	1565 Aug 31 j 06:41	23°♎12'50	1.39411 AU
	1564 Oct 21 j 10:06	0°♎		evening rise	1565 Sep 04 j 08:18	0°♏15'38	
greatest brilliancy	1564 Oct 21 j 21:32	0°♎34'54	-0.3m		1565 Sep 04 j 04:38	0°♏	
evening max el	1564 Oct 26 j 23:57	6°♎17'55	22°49'52	desc. node	1565 Sep 11 j 05:56	11°♏35'21	
retrograde	1564 Nov 06 j 00:12	12°♎14'35			1565 Sep 23 j 12:42	0°♎	
evening set	1564 Nov 10 j 16:50	10°♎20'42		evening max el	1565 Oct 09 j 13:14	19°♎53'31	24°09'54
asc. node	1564 Nov 12 j 18:01	8°♎18'54		retrograde	1565 Oct 20 j 15:40	26°♎24'16	
inferior conj	1564 Nov 16 j 02:30	3°♎56'53	1°07'55	evening set	1565 Oct 25 j 22:10	24°♎13'07	
minimum elong	1564 Nov 16 j 01:00	4°♎02'06	1°07'17	min. Earth dist.	1565 Oct 30 j 17:09	18°♎42'11	0.67609 AU
min. Earth dist.	1564 Nov 15 j 20:53	4°♎16'19	0.67797 AU	asc. node	1565 Oct 30 j 15:03	18°♎49'12	
	1564 Nov 19 j 02:56	30°♎		inferior conj	1565 Oct 31 j 09:15	17°♎47'51	0°15'39
morning rise	1564 Nov 21 j 09:07	27°♎44'41		minimum elong	1565 Oct 31 j 08:52	17°♎49'08	0°15'29
direct	1564 Nov 25 j 18:35	25°♎59'15		transit middle	1565 Oct 31 j 08:52	17°♎49'08	0°15'29
	1564 Dec 03 j 10:57	0°♎		transit begin	1565 Oct 31 j 08:02	17°♎51'58	
morning max el	1564 Dec 04 j 18:37	1°♎16'21	21°46'05	transit end	1565 Oct 31 j 09:42	17°♎46'18	
greatest brilliancy	1564 Dec 09 j 14:49	6°♎45'09	-0.4m	morning rise	1565 Nov 05 j 19:49	11°♎40'47	
desc. node	1564 Dec 21 j 08:07	22°♎44'15		direct	1565 Nov 09 j 15:45	10°♎17'10	
	1564 Dec 26 j 06:06	0°♏		morning max el	1565 Nov 17 j 14:41	14°♎52'20	20°29'18
morning set	1565 Jan 05 j 22:43	16°♏32'44		greatest brilliancy	1565 Nov 23 j 20:53	22°♎17'30	-0.5m
max. Earth dist.	1565 Jan 12 j 07:13	26°♏53'18	1.41574 AU		1565 Nov 29 j 10:37	0°♎	
	1565 Jan 14 j 03:53	0°♎		desc. node	1565 Dec 08 j 05:09	12°♎57'25	
				morning set	1565 Dec 15 j 22:26	24°♎46'06	
superior conj	1565 Jan 19 j 23:01	9°♎57'17	-2°-3'-54		1565 Dec 19 j 06:55	0°♏	
minimum elong	1565 Jan 20 j 00:01	10°♎01'41	2°03'54	max. Earth dist.	1565 Dec 25 j 13:57	10°♏00'16	1.43353 AU
evening rise	1565 Jan 30 j 17:44	29°♎26'39					
	1565 Jan 31 j 00:59	0°♎		superior conj	1565 Dec 31 j 21:20	20°♏19'39	-1°-59'-37
asc. node	1565 Feb 08 j 17:20	15°♎27'04		minimum elong	1565 Dec 31 j 17:22	20°♏03'08	1°59'28
evening max el	1565 Feb 16 j 02:08	25°♎25'45	18°11'51		1566 Jan 06 j 14:51	0°♎	
retrograde	1565 Feb 22 j 23:35	28°♎53'57		evening rise	1566 Jan 13 j 06:56	11°♎35'19	
evening set	1565 Feb 25 j 12:39	28°♎26'19			1566 Jan 24 j 01:59	0°♎	
inferior conj	1565 Mar 04 j 10:37	23°♎37'18	3°23'23	asc. node	1566 Jan 26 j 14:22	3°♎44'20	
minimum elong	1565 Mar 04 j 13:22	23°♎31'06	3°22'59	evening max el	1566 Jan 30 j 14:08	8°♎34'55	18°08'23
min. Earth dist.	1565 Mar 07 j 18:54	20°♎37'25	0.60151 AU	retrograde	1566 Feb 06 j 02:09	11°♎58'50	
morning rise	1565 Mar 11 j 10:42	17°♎53'25		evening set	1566 Feb 08 j 20:08	11°♎21'30	
direct	1565 Mar 18 j 01:15	15°♎50'00		inferior conj	1566 Feb 15 j 05:10	6°♎11'15	3°43'20
desc. node	1565 Mar 19 j 07:17	15°♎54'17		minimum elong	1566 Feb 15 j 05:52	6°♎09'29	3°43'18
morning max el	1565 Apr 01 j 08:08	23°♎39'52	27°31'06	min. Earth dist.	1566 Feb 18 j 02:18	3°♎13'59	0.62255 AU
	1565 Apr 07 j 00:57	0°♎		morning rise	1566 Feb 21 j 13:17	0°♎12'59	
	1565 Apr 26 j 07:20	0°♎			1566 Feb 21 j 20:33	30°♎	
morning set	1565 May 02 j 23:44	13°♎11'42		direct	1566 Feb 28 j 11:44	27°♎40'29	
asc. node	1565 May 07 j 16:39	23°♎12'28		desc. node	1566 Mar 06 j 04:19	29°♎10'13	
max. Earth dist.	1565 May 09 j 10:10	26°♎59'07	1.32240 AU		1566 Mar 07 j 16:10	0°♎	
				morning max el	1566 Mar 14 j 12:46	5°♎34'55	27°49'13
superior conj	1565 May 10 j 05:04	28°♎42'48	0°26'22		1566 Apr 01 j 22:24	0°♎	
minimum elong	1565 May 10 j 03:54	28°♎36'25	0°26'08	morning set	1566 Apr 17 j 02:17	27°♎34'41	
	1565 May 10 j 19:08	0°♎			1566 Apr 18 j 06:42	0°♎	
evening rise	1565 May 17 j 02:47	13°♎43'09		max. Earth dist.	1566 Apr 22 j 19:13	9°♎32'28	1.32589 AU
	1565 May 25 j 07:53	0°♎					
evening max el	1565 Jun 13 j 15:24	27°♎15'44	25°39'16	superior conj	1566 Apr 24 j 14:46	13°♎28'02	0°00'29
desc. node	1565 Jun 15 j 06:35	28°♎44'51		minimum elong	1566 Apr 24 j 14:44	13°♎27'53	0°00'29
	1565 Jun 16 j 19:16	0°♏		behind sun begin	1566 Apr 24 j 09:35	12°♎59'55	
retrograde	1565 Jun 27 j 16:03	4°♏25'05		behind sun end	1566 Apr 24 j 19:53	13°♎55'53	
evening set	1565 Jul 03 j 14:55	3°♏01'21		asc. node	1566 Apr 24 j 13:41	13°♎22'07	
min. Earth dist.	1565 Jul 08 j 03:41	0°♏21'57	0.58342 AU	evening rise	1566 May 01 j 14:29	28°♎35'39	
	1565 Jul 08 j 16:20	30°♎			1566 May 02 j 06:28	0°♎	
inferior conj	1565 Jul 11 j 09:04	28°♎03'49	-4°-55'-27		1566 May 19 j 08:40	0°♎	
minimum elong	1565 Jul 11 j 09:30	28°♎03'02	4°55'28	evening max el	1566 May 26 j 06:12	7°♎59'10	24°10'49
morning rise	1565 Jul 19 j 07:43	23°♎43'01		desc. node	1566 Jun 02 j 03:35	13°♎07'52	

retrograde	1566 Jun 09 j 02:07	14° ☿ 57'02		retrograde	1567 May 20 j 23:58	24° II 59'20	
evening set	1566 Jun 13 j 16:15	14° ☿ 10'18		evening set	1567 May 24 j 03:44	24° II 37'24	
min. Earth dist.	1566 Jun 19 j 17:06	11° ☿ 12'05	0.56530 AU	min. Earth dist.	1567 Jun 01 j 04:43	21° II 07'04	0.55296 AU
inferior conj	1566 Jun 22 j 06:36	9° ☿ 36'17	-4°-37'-56	inferior conj	1567 Jun 02 j 09:48	20° II 25'42	-3°-33'-48
minimum elong	1566 Jun 22 j 01:48	9° ☿ 43'49	4°37'19	minimum elong	1567 Jun 02 j 02:00	20° II 36'48	3°31'46
morning rise	1566 Jun 30 j 14:56	5° ☿ 35'18		morning rise	1567 Jun 11 j 02:48	16° II 33'58	
direct	1566 Jul 03 j 07:07	5° ☿ 16'23		direct	1567 Jun 14 j 00:53	16° II 14'25	
morning max el	1566 Jul 12 j 23:45	9° ☿ 46'18	19°41'54	morning max el	1567 Jun 25 j 08:42	21° II 30'03	20°59'55
asc. node	1566 Jul 21 j 12:54	20° ☿ 55'27			1567 Jul 02 j 11:06	0° ☿	
	1566 Jul 26 j 14:37	0° ♊		asc. node	1567 Jul 08 j 09:57	9° ☿ 49'44	
morning set	1566 Jul 30 j 14:19	7° ♊ 51'22		morning set	1567 Jul 14 j 21:39	22° ☿ 33'40	
					1567 Jul 18 j 11:30	0° ♊	
superior conj	1566 Aug 07 j 13:31	23° ♊ 54'23	1°45'58	superior conj	1567 Jul 22 j 09:25	8° ♊ 07'58	1°43'28
minimum elong	1566 Aug 07 j 13:49	23° ♊ 55'54	1°45'58	minimum elong	1567 Jul 22 j 08:15	8° ♊ 01'57	1°43'25
	1566 Aug 10 j 16:23	0° ♊		max. Earth dist.	1567 Jul 26 j 19:57	17° ♊ 05'49	1.35600 AU
max. Earth dist.	1566 Aug 13 j 10:53	5° ♊ 15'26	1.37396 AU	evening rise	1567 Jul 31 j 01:06	25° ♊ 13'22	
evening rise	1566 Aug 17 j 06:55	12° ♊ 16'17			1567 Aug 02 j 15:09	0° ♊	
	1566 Aug 27 j 19:33	0° ♊		desc. node	1567 Aug 15 j 23:57	22° ♊ 14'42	
desc. node	1566 Aug 29 j 02:57	2° ♊ 03'21			1567 Aug 21 j 07:37	0° ♊	
	1566 Sep 18 j 16:05	0° ♊		evening max el	1567 Sep 04 j 13:06	17° ♊ 09'58	26°27'35
evening max el	1566 Sep 22 j 01:11	3° ♊ 32'27	25°24'59	retrograde	1567 Sep 17 j 08:45	24° ♊ 22'20	
retrograde	1566 Oct 04 j 02:41	10° ♊ 28'57		evening set	1567 Sep 23 j 19:45	21° ♊ 43'20	
evening set	1566 Oct 09 j 23:48	8° ♊ 01'53		min. Earth dist.	1567 Sep 27 j 22:58	17° ♊ 24'36	0.66225 AU
min. Earth dist.	1566 Oct 14 j 10:38	3° ♊ 06'17	0.67088 AU	inferior conj	1567 Sep 29 j 13:30	15° ♊ 27'51	-1°-37'-49
inferior conj	1566 Oct 15 j 13:32	1° ♊ 39'23	0°-40'-5	minimum elong	1567 Sep 29 j 16:04	15° ♊ 20'02	1°36'46
minimum elong	1566 Oct 15 j 14:34	1° ♊ 36'05	0°39'39	asc. node	1567 Oct 04 j 09:08	10° ♊ 26'04	
	1566 Oct 16 j 20:46	30° ♊		morning rise	1567 Oct 05 j 13:35	9° ♊ 39'33	
asc. node	1566 Oct 17 j 12:05	29° ♊ 13'20		direct	1567 Oct 08 j 12:10	8° ♊ 50'40	
morning rise	1566 Oct 21 j 06:00	25° ♊ 40'16		morning max el	1567 Oct 15 j 05:09	12° ♊ 32'35	18°37'52
direct	1566 Oct 24 j 14:12	24° ♊ 35'49			1567 Oct 27 j 19:33	0° ♊	
morning max el	1566 Oct 31 j 18:38	28° ♊ 39'04	19°25'53	morning set	1567 Nov 04 j 18:34	12° ♊ 38'15	
	1566 Nov 02 j 01:08	0° ♊		desc. node	1567 Nov 11 j 23:13	24° ♊ 03'06	
greatest brilliancy	1566 Nov 09 j 19:44	10° ♊ 12'40	-0.7m		1567 Nov 15 j 17:46	0° ♊	
	1566 Nov 22 j 21:09	0° ♊		superior conj	1567 Nov 20 j 20:04	8° ♊ 00'31	0°-56'-50
morning set	1566 Nov 24 j 21:38	3° ♊ 07'43		minimum elong	1567 Nov 20 j 12:59	7° ♊ 32'41	0°55'57
desc. node	1566 Nov 25 j 02:12	3° ♊ 25'24		max. Earth dist.	1567 Nov 20 j 21:57	8° ♊ 07'55	1.45106 AU
max. Earth dist.	1566 Dec 08 j 03:59	23° ♊ 52'06	1.44578 AU		1567 Dec 04 j 18:28	0° ☿	
				evening rise	1567 Dec 06 j 17:24	3° ☿ 06'54	
superior conj	1566 Dec 11 j 17:27	29° ♊ 31'45	-1°-36'-59		1567 Dec 24 j 02:47	0° ☿	
minimum elong	1566 Dec 11 j 09:04	28° ♊ 58'17	1°36'16	evening max el	1567 Dec 28 j 12:57	5° ☿ 21'28	18°57'06
	1566 Dec 12 j 00:32	0° ☿		asc. node	1567 Dec 31 j 08:25	7° ☿ 47'15	
evening rise	1566 Dec 25 j 23:51	22° ☿ 50'17		retrograde	1568 Jan 04 j 09:08	9° ☿ 13'45	
	1566 Dec 30 j 06:45	0° ☿		evening set	1568 Jan 07 j 14:09	8° ☿ 14'14	
asc. node	1567 Jan 13 j 11:23	21° ☿ 15'31		inferior conj	1568 Jan 13 j 07:05	2° ☿ 27'09	3°25'22
evening max el	1567 Jan 14 j 02:34	21° ☿ 55'22	18°23'45	minimum elong	1568 Jan 13 j 04:55	2° ☿ 33'57	3°25'01
retrograde	1567 Jan 20 j 14:39	25° ☿ 28'03		min. Earth dist.	1568 Jan 14 j 21:47	0° ☿ 26'20	0.65611 AU
evening set	1567 Jan 23 j 13:41	24° ☿ 40'10			1568 Jan 15 j 06:24	30° ☿	
inferior conj	1567 Jan 29 j 13:14	19° ☿ 10'17	3°42'05	morning rise	1568 Jan 18 j 18:40	26° ☿ 14'57	
minimum elong	1567 Jan 29 j 12:10	19° ☿ 13'19	3°42'01	direct	1568 Jan 25 j 07:12	23° ☿ 25'15	
min. Earth dist.	1567 Jan 31 j 19:17	16° ☿ 35'16	0.64117 AU		1568 Feb 06 j 05:06	0° ☿	
morning rise	1567 Feb 04 j 09:10	13° ☿ 03'14		morning max el	1568 Feb 07 j 07:25	1° ☿ 04'34	26°41'03
direct	1567 Feb 11 j 06:04	10° ☿ 15'03		desc. node	1568 Feb 07 j 22:24	1° ☿ 42'43	
desc. node	1567 Feb 21 j 01:21	14° ☿ 38'07			1568 Feb 28 j 22:41	0° ☿	
morning max el	1567 Feb 24 j 21:29	18° ☿ 07'04	27°30'47	morning set	1568 Mar 14 j 05:12	24° ☿ 51'36	
	1567 Mar 06 j 21:31	0° ☿			1568 Mar 16 j 21:11	0° ☿	
	1567 Mar 25 j 19:18	0° ☿		max. Earth dist.	1568 Mar 18 j 12:37	3° ☿ 14'40	1.34564 AU
morning set	1567 Mar 31 j 21:14	11° ☿ 31'22					
max. Earth dist.	1567 Apr 05 j 21:14	21° ☿ 40'20	1.33354 AU	superior conj	1568 Mar 22 j 21:01	12° ☿ 05'22	0°-54'-33
				minimum elong	1568 Mar 22 j 23:45	12° ☿ 19'29	0°54'04
superior conj	1567 Apr 08 j 20:47	27° ☿ 57'37	0°-26'-52	asc. node	1568 Mar 28 j 07:44	23° ☿ 29'14	
minimum elong	1567 Apr 08 j 22:07	28° ☿ 04'42	0°26'36	evening rise	1568 Mar 30 j 11:22	27° ☿ 58'38	
	1567 Apr 09 j 19:43	0° ☿			1568 Mar 31 j 10:53	0° ☿	
asc. node	1567 Apr 11 j 10:42	3° ☿ 29'00		evening max el	1568 Apr 18 j 19:29	29° ☿ 16'53	21°05'27
evening rise	1567 Apr 16 j 01:58	13° ☿ 22'51			1568 Apr 19 j 13:51	0° ☿	
	1567 Apr 24 j 13:15	0° ☿		retrograde	1568 Apr 30 j 13:50	5° ☿ 00'43	
evening max el	1567 May 07 j 21:02	18° ☿ 28'49	22°34'46				
desc. node	1567 May 20 j 00:35	24° ☿ 57'10					

evening set	1568 May 02 j 19:48	4° Π 48'54		asc. node	1569 Mar 15 j 04:47	13° Υ 17'52	
desc. node	1568 May 05 j 21:36	3° Π 57'45			1569 Mar 24 j 03:08	0° \mathcal{B}	
inferior conj	1568 May 12 j 03:52	0° Π 50'32	-1°-48'-3	evening max el	1569 Apr 01 j 05:27	10° \mathcal{B} 41'19	19°51'37
minimum elong	1568 May 11 j 22:49	0° Π 57'40	1°46'18	retrograde	1569 Apr 11 j 06:07	15° \mathcal{B} 31'25	
min. Earth dist.	1568 May 12 j 17:15	0° Π 31'38	0.54925 AU	evening set	1569 Apr 13 j 07:02	15° \mathcal{B} 20'19	
	1568 May 13 j 15:48	30° \mathcal{R} \mathcal{B}		inferior conj	1569 Apr 22 j 03:00	11° \mathcal{B} 19'29	0°11'17
morning rise	1568 May 21 j 01:32	26° \mathcal{B} 48'58		minimum elong	1569 Apr 22 j 03:31	11° \mathcal{B} 18'42	0°11'06
direct	1568 May 24 j 10:31	26° \mathcal{B} 24'22		transit middle	1569 Apr 22 j 03:31	11° \mathcal{B} 18'42	0°11'06
	1568 Jun 03 j 05:40	0° Π		transit begin	1569 Apr 22 j 00:40	11° \mathcal{B} 23'04	
morning max el	1568 Jun 06 j 07:12	2° Π 32'33	22°34'26	transit end	1569 Apr 22 j 06:21	11° \mathcal{B} 14'20	
asc. node	1568 Jun 24 j 07:00	29° Π 12'20		desc. node	1569 Apr 22 j 18:38	10° \mathcal{B} 55'25	
	1568 Jun 24 j 16:40	0° \mathcal{B}		min. Earth dist.	1569 Apr 24 j 07:13	9° \mathcal{B} 59'34	0.55528 AU
morning set	1568 Jun 28 j 08:10	7° \mathcal{B} 26'28		morning rise	1569 Apr 30 j 20:49	6° \mathcal{B} 50'26	
				direct	1569 May 05 j 02:01	6° \mathcal{B} 11'07	
superior conj	1568 Jul 05 j 12:52	22° \mathcal{B} 44'47	1°34'34	morning max el	1569 May 18 j 22:48	13° \mathcal{B} 05'15	24°16'15
minimum elong	1568 Jul 05 j 10:48	22° \mathcal{B} 33'48	1°34'22		1569 May 31 j 23:42	0° Π	
max. Earth dist.	1568 Jul 08 j 13:49	29° \mathcal{B} 07'35	1.34163 AU	asc. node	1569 Jun 11 j 04:04	18° Π 54'50	
	1568 Jul 08 j 23:57	0° \mathcal{Q}		morning set	1569 Jun 12 j 20:00	22° Π 23'03	
evening rise	1568 Jul 13 j 10:17	8° \mathcal{Q} 55'07			1569 Jun 16 j 09:19	0° \mathcal{B}	
	1568 Jul 25 j 02:44	0° \mathcal{M}					
desc. node	1568 Aug 01 j 20:58	12° \mathcal{M} 02'13		superior conj	1569 Jun 19 j 21:07	7° \mathcal{B} 35'03	1°20'28
	1568 Aug 16 j 09:09	0° \mathcal{A}		minimum elong	1569 Jun 19 j 18:42	7° \mathcal{B} 21'56	1°20'07
evening max el	1568 Aug 17 j 01:06	0° \mathcal{A} 38'44	27°10'07	max. Earth dist.	1569 Jun 21 j 16:40	11° \mathcal{B} 30'00	1.33127 AU
retrograde	1568 Aug 30 j 09:29	7° \mathcal{A} 57'25		evening rise	1569 Jun 27 j 06:14	23° \mathcal{B} 08'19	
evening set	1568 Sep 06 j 07:42	5° \mathcal{A} 13'57			1569 Jun 30 j 17:33	0° \mathcal{Q}	
min. Earth dist.	1568 Sep 10 j 04:03	1° \mathcal{A} 31'50	0.65010 AU		1569 Jul 18 j 20:08	0° \mathcal{M}	
	1568 Sep 11 j 13:05	30° \mathcal{R} \mathcal{M}		desc. node	1569 Jul 19 j 17:59	1° \mathcal{M} 14'56	
inferior conj	1568 Sep 12 j 07:00	29° \mathcal{M} 09'44	-2°-35'-29	evening max el	1569 Jul 30 j 11:52	13° \mathcal{M} 46'48	27°25'53
minimum elong	1568 Sep 12 j 11:04	28° \mathcal{M} 58'22	2°34'00	retrograde	1569 Aug 13 j 04:07	21° \mathcal{M} 04'47	
morning rise	1568 Sep 18 j 16:11	23° \mathcal{M} 35'14		evening set	1569 Aug 20 j 08:32	18° \mathcal{M} 27'39	
asc. node	1568 Sep 20 j 06:12	23° \mathcal{M} 04'04		min. Earth dist.	1569 Aug 23 j 23:49	15° \mathcal{M} 18'45	0.63441 AU
direct	1568 Sep 21 j 07:35	22° \mathcal{M} 58'04		inferior conj	1569 Aug 26 j 15:24	12° \mathcal{M} 38'49	-3°-30'-8
morning max el	1568 Sep 27 j 19:53	26° \mathcal{M} 27'49	18°06'24	minimum elong	1569 Aug 26 j 20:30	12° \mathcal{M} 25'58	3°28'39
	1568 Sep 30 j 21:05	0° \mathcal{A}		morning rise	1569 Sep 02 j 10:47	7° \mathcal{M} 21'25	
morning set	1568 Oct 15 j 20:38	23° \mathcal{A} 35'08		direct	1569 Sep 04 j 21:42	6° \mathcal{M} 52'21	
	1568 Oct 19 j 17:38	0° \mathcal{M}		asc. node	1569 Sep 07 j 03:16	7° \mathcal{M} 16'49	
desc. node	1568 Oct 28 j 20:15	14° \mathcal{M} 47'04		morning max el	1569 Sep 11 j 12:01	10° \mathcal{M} 18'05	17°52'28
					1569 Sep 24 j 16:45	0° \mathcal{A}	
superior conj	1568 Oct 30 j 01:37	16° \mathcal{M} 44'11	0°-8'-11	morning set	1569 Sep 28 j 00:15	5° \mathcal{A} 46'02	
minimum elong	1568 Oct 30 j 00:35	16° \mathcal{M} 40'05	0°08'03				
behind sun begin	1568 Oct 29 j 15:09	16° \mathcal{M} 02'29		superior conj	1569 Oct 10 j 04:32	26° \mathcal{A} 32'45	0°36'50
behind sun end	1568 Oct 30 j 10:01	17° \mathcal{M} 17'38		minimum elong	1569 Oct 10 j 08:10	26° \mathcal{A} 47'47	0°36'20
max. Earth dist.	1568 Nov 02 j 16:35	22° \mathcal{M} 28'42	1.44897 AU		1569 Oct 12 j 06:54	0° \mathcal{M}	
	1568 Nov 07 j 11:37	0° \mathcal{A}		desc. node	1569 Oct 15 j 17:18	5° \mathcal{M} 34'06	
evening rise	1568 Nov 15 j 13:12	12° \mathcal{A} 32'18		max. Earth dist.	1569 Oct 16 j 09:28	6° \mathcal{M} 38'58	1.43986 AU
	1568 Nov 26 j 22:05	0° \mathcal{B}		evening rise	1569 Oct 25 j 21:31	21° \mathcal{M} 34'20	
greatest brilliancy	1568 Dec 03 j 06:39	9° \mathcal{B} 21'22	-0.6m		1569 Oct 31 j 09:53	0° \mathcal{A}	
evening max el	1568 Dec 10 j 19:19	18° \mathcal{B} 50'07	19°46'52	greatest brilliancy	1569 Nov 18 j 06:32	25° \mathcal{A} 45'08	-0.5m
asc. node	1568 Dec 17 j 05:28	23° \mathcal{B} 04'45			1569 Nov 21 j 17:13	0° \mathcal{B}	
retrograde	1568 Dec 18 j 06:27	23° \mathcal{B} 10'46		evening max el	1569 Nov 23 j 20:26	2° \mathcal{B} 20'08	20°50'32
evening set	1568 Dec 21 j 19:00	21° \mathcal{B} 58'07		retrograde	1569 Dec 02 j 04:11	7° \mathcal{B} 15'39	
inferior conj	1568 Dec 27 j 07:39	15° \mathcal{B} 56'35	2°57'07	asc. node	1569 Dec 04 j 02:30	6° \mathcal{B} 54'47	
minimum elong	1568 Dec 27 j 05:01	16° \mathcal{B} 05'20	2°56'27	evening set	1569 Dec 06 j 02:13	5° \mathcal{B} 48'03	
min. Earth dist.	1568 Dec 28 j 08:12	14° \mathcal{B} 35'20	0.66708 AU		1569 Dec 11 j 05:14	30° \mathcal{R} \mathcal{A}	
morning rise	1569 Jan 01 j 14:21	9° \mathcal{B} 41'50		inferior conj	1569 Dec 11 j 12:29	29° \mathcal{A} 35'11	2°20'00
direct	1569 Jan 07 j 14:17	7° \mathcal{B} 02'26		minimum elong	1569 Dec 11 j 09:56	29° \mathcal{A} 43'56	2°19'10
morning max el	1569 Jan 19 j 16:24	14° \mathcal{B} 14'30	25°28'25	min. Earth dist.	1569 Dec 12 j 00:22	28° \mathcal{A} 54'27	0.67415 AU
desc. node	1569 Jan 24 j 19:26	19° \mathcal{B} 56'05		morning rise	1569 Dec 16 j 17:13	23° \mathcal{A} 19'57	
	1569 Feb 01 j 13:17	0° \approx		direct	1569 Dec 22 j 02:24	20° \mathcal{A} 58'58	
	1569 Feb 20 j 18:04	0° \mathcal{H}		morning max el	1570 Jan 02 j 00:42	27° \mathcal{A} 30'04	24°03'03
morning set	1569 Feb 24 j 21:33	7° \mathcal{H} 21'10			1570 Jan 04 j 09:07	0° \mathcal{B}	
max. Earth dist.	1569 Feb 28 j 16:04	14° \mathcal{H} 20'04	1.36226 AU	desc. node	1570 Jan 11 j 16:29	8° \mathcal{B} 58'20	
					1570 Jan 26 j 05:41	0° \approx	
superior conj	1569 Mar 06 j 12:41	25° \mathcal{H} 42'56	-1°-20'-57	morning set	1570 Feb 06 j 16:22	18° \approx 43'49	
minimum elong	1569 Mar 06 j 16:32	26° \mathcal{H} 02'07	1°20'24	max. Earth dist.	1570 Feb 10 j 11:56	25° \approx 25'33	1.38245 AU
	1569 Mar 08 j 15:54	0° \mathcal{Y}			1570 Feb 13 j 00:39	0° \mathcal{H}	
evening rise	1569 Mar 14 j 16:31	12° \mathcal{Y} 15'52					

superior conj	1570 Feb 17 j 16:17	8° Υ 41'09	-1°-43'-44	superior conj	1571 Jan 31 j 03:10	20° \approx 47'28	-1°-59'-36
minimum elong	1570 Feb 17 j 20:27	9° Υ 00'58	1°43'19	minimum elong	1571 Jan 31 j 06:00	21° \approx 00'20	1°59'28
evening rise	1570 Feb 26 j 14:56	26° Υ 07'44			1571 Feb 05 j 03:18	0° Υ	
	1570 Feb 28 j 14:30	0° Υ		evening rise	1571 Feb 10 j 03:27	9° Υ 25'47	
asc. node	1570 Mar 02 j 01:50	2° Υ 50'00		asc. node	1571 Feb 16 j 22:52	21° Υ 58'59	
evening max el	1570 Mar 15 j 02:26	22° Υ 44'45	18°57'01		1571 Feb 21 j 22:21	0° Υ	
retrograde	1570 Mar 23 j 13:07	26° Υ 50'27		evening max el	1571 Feb 26 j 07:39	5° Υ 19'55	18°22'34
evening set	1570 Mar 25 j 17:49	26° Υ 34'59		retrograde	1571 Mar 05 j 15:23	8° Υ 57'25	
inferior conj	1570 Apr 02 j 19:07	22° Υ 18'38	1°52'04	evening set	1571 Mar 08 j 01:26	8° Υ 34'43	
minimum elong	1570 Apr 02 j 22:55	22° Υ 11'54	1°50'54	inferior conj	1571 Mar 15 j 08:27	3° Υ 57'38	2°59'32
min. Earth dist.	1570 Apr 05 j 23:06	20° Υ 05'02	0.56965 AU	minimum elong	1571 Mar 15 j 12:09	3° Υ 49'57	2°58'45
desc. node	1570 Apr 09 j 15:40	17° Υ 52'27		min. Earth dist.	1571 Mar 18 j 18:57	1° Υ 07'53	0.58922 AU
morning rise	1570 Apr 10 j 23:45	17° Υ 15'49			1571 Mar 20 j 07:10	30° Υ	
direct	1570 Apr 16 j 06:31	16° Υ 09'22		morning rise	1571 Mar 22 j 18:59	28° Υ 25'53	
morning max el	1570 Apr 30 j 13:34	23° Υ 34'13	25°51'12	desc. node	1571 Mar 27 j 12:41	26° Υ 49'27	
	1570 May 06 j 08:43	0° Υ		direct	1571 Mar 29 j 00:08	26° Υ 43'41	
	1570 May 24 j 18:11	0° Υ			1571 Apr 07 j 01:17	0° Υ	
morning set	1570 May 28 j 07:32	7° Υ 18'20		morning max el	1571 Apr 12 j 08:48	4° Υ 26'45	27°04'05
asc. node	1570 May 29 j 01:07	8° Υ 51'23			1571 May 01 j 02:29	0° Υ	
				morning set	1571 May 12 j 17:07	22° Υ 06'40	
superior conj	1570 Jun 04 j 08:03	22° Υ 31'49	1°02'06	asc. node	1571 May 15 j 22:10	28° Υ 56'47	
minimum elong	1570 Jun 04 j 05:47	22° Υ 19'24	1°01'42		1571 May 16 j 09:51	0° Υ	
max. Earth dist.	1570 Jun 05 j 02:07	24° Υ 10'52	1.32487 AU				
	1570 Jun 07 j 18:17	0° Υ		superior conj	1571 May 19 j 19:50	7° Υ 29'01	0°40'15
evening rise	1570 Jun 11 j 09:40	7° Υ 42'54		minimum elong	1571 May 19 j 18:10	7° Υ 19'48	0°39'55
	1570 Jun 23 j 04:40	0° Υ		max. Earth dist.	1571 May 19 j 14:30	6° Υ 59'40	1.32220 AU
desc. node	1570 Jul 06 j 15:00	19° Υ 38'22		evening rise	1571 May 26 j 17:57	22° Υ 30'18	
evening max el	1570 Jul 12 j 18:50	26° Υ 20'35	27°09'49		1571 May 30 j 09:34	0° Υ	
	1570 Jul 17 j 04:13	0° Υ			1571 Jun 17 j 13:33	0° Υ	
retrograde	1570 Jul 26 j 15:39	3° Υ 35'16		desc. node	1571 Jun 23 j 12:00	6° Υ 52'20	
evening set	1570 Aug 02 j 18:13	1° Υ 17'19		evening max el	1571 Jun 24 j 19:19	8° Υ 09'28	26°20'43
	1570 Aug 04 j 14:12	30° Υ		retrograde	1571 Jul 08 j 19:01	15° Υ 21'27	
min. Earth dist.	1570 Aug 06 j 09:04	28° Υ 32'46	0.61569 AU	evening set	1571 Jul 15 j 08:08	13° Υ 35'11	
inferior conj	1570 Aug 09 j 11:34	25° Υ 47'09	-4°-17'-5	min. Earth dist.	1571 Jul 19 j 08:16	10° Υ 59'38	0.59516 AU
minimum elong	1570 Aug 09 j 16:32	25° Υ 36'02	4°16'06	inferior conj	1571 Jul 22 j 15:56	8° Υ 25'29	-4°-48'-40
morning rise	1570 Aug 16 j 17:42	20° Υ 50'17		minimum elong	1571 Jul 22 j 18:45	8° Υ 20'00	4°48'26
direct	1570 Aug 19 j 02:59	20° Υ 26'24		morning rise	1571 Jul 30 j 08:46	3° Υ 51'47	
asc. node	1570 Aug 25 j 00:20	22° Υ 56'43		direct	1571 Aug 01 j 19:04	3° Υ 30'58	
morning max el	1570 Aug 26 j 02:32	23° Υ 56'11	17°57'03	morning max el	1571 Aug 09 j 12:22	7° Υ 14'22	18°21'18
	1570 Aug 30 j 23:43	0° Υ		asc. node	1571 Aug 11 j 21:23	9° Υ 49'31	
morning set	1570 Sep 10 j 23:00	18° Υ 51'53			1571 Aug 24 j 02:23	0° Υ	
	1570 Sep 17 j 02:11	0° Υ		morning set	1571 Aug 25 j 11:29	2° Υ 37'33	
superior conj	1570 Sep 21 j 10:43	7° Υ 41'46	1°11'02	superior conj	1571 Sep 03 j 17:04	20° Υ 02'42	1°32'57
minimum elong	1570 Sep 21 j 15:20	8° Υ 01'51	1°10'30	minimum elong	1571 Sep 03 j 20:23	20° Υ 17'57	1°32'41
max. Earth dist.	1570 Sep 28 j 22:21	20° Υ 22'34	1.42485 AU		1571 Sep 09 j 06:22	0° Υ	
desc. node	1570 Oct 02 j 14:20	26° Υ 20'42		max. Earth dist.	1571 Sep 11 j 05:42	3° Υ 25'03	1.40584 AU
	1570 Oct 04 j 21:17	0° Υ		evening rise	1571 Sep 15 j 20:26	11° Υ 10'53	
evening rise	1570 Oct 05 j 11:14	0° Υ 55'12		desc. node	1571 Sep 19 j 11:22	17° Υ 03'41	
	1570 Oct 24 j 23:34	0° Υ			1571 Sep 27 j 20:18	0° Υ	
greatest brilliancy	1570 Nov 01 j 22:35	10° Υ 30'43	-0.3m	evening max el	1571 Oct 20 j 06:45	29° Υ 24'08	23°23'58
evening max el	1570 Nov 06 j 15:55	15° Υ 50'56	22°04'31		1571 Oct 20 j 21:18	0° Υ	
retrograde	1570 Nov 16 j 00:33	21° Υ 24'59		retrograde	1571 Oct 30 j 18:11	5° Υ 36'06	
evening set	1570 Nov 20 j 09:59	19° Υ 40'48		evening set	1571 Nov 04 j 16:41	3° Υ 34'33	
asc. node	1570 Nov 20 j 23:33	19° Υ 11'53		asc. node	1571 Nov 07 j 20:35	0° Υ 11'01	
inferior conj	1570 Nov 25 j 19:28	13° Υ 19'55	1°35'53		1571 Nov 08 j 00:02	30° Υ	
minimum elong	1570 Nov 25 j 17:27	13° Υ 26'52	1°35'06	min. Earth dist.	1571 Nov 09 j 16:37	27° Υ 44'24	0.67761 AU
min. Earth dist.	1570 Nov 25 j 19:56	13° Υ 18'17	0.67759 AU	inferior conj	1571 Nov 10 j 02:48	27° Υ 09'30	0°46'14
morning rise	1570 Dec 01 j 00:45	7° Υ 06'13		minimum elong	1571 Nov 10 j 01:44	27° Υ 13'10	0°45'47
direct	1570 Dec 05 j 18:43	5° Υ 07'39		morning rise	1571 Nov 15 j 10:52	20° Υ 59'23	
morning max el	1570 Dec 15 j 11:04	10° Υ 51'08	22°34'48	direct	1571 Nov 19 j 14:19	19° Υ 23'42	
greatest brilliancy	1570 Dec 20 j 01:01	15° Υ 58'10	-0.3m	morning max el	1571 Nov 28 j 03:02	24° Υ 21'43	21°12'01
desc. node	1570 Dec 29 j 13:32	28° Υ 35'09			1571 Dec 03 j 01:32	0° Υ	
	1570 Dec 30 j 13:27	0° Υ		greatest brilliancy	1571 Dec 03 j 10:29	0° Υ 28'07	-0.4m
morning set	1571 Jan 18 j 07:34	28° Υ 44'04		desc. node	1571 Dec 16 j 10:36	18° Υ 37'15	
	1571 Jan 19 j 02:04	0° Υ			1571 Dec 23 j 23:40	0° Υ	
max. Earth dist.	1571 Jan 23 j 08:07	7° Υ 07'01	1.40396 AU	morning set	1571 Dec 28 j 18:32	7° Υ 26'03	

max. Earth dist.	1572 Jan 05 j 10:18	19°  42'33	1.42387 AU		1572 Nov 26 j 09:49	0° 	
	1572 Jan 11 j 14:19	0° 		desc. node	1572 Dec 02 j 07:39	8°  57'19	
				morning set	1572 Dec 06 j 14:44	15°  33'26	
superior conj	1572 Jan 12 j 16:06	1°  50'05	-2°-4'-6		1572 Dec 15 j 20:25	0° 	
minimum elong	1572 Jan 12 j 15:12	1°  46'14	2°04'07	max. Earth dist.	1572 Dec 17 j 19:55	3°  08'52	1.43947 AU
evening rise	1572 Jan 24 j 02:23	22°  02'12					
	1572 Jan 28 j 12:42	0° 		superior conj	1572 Dec 23 j 03:01	11°  41'24	-1°-52'-23
asc. node	1572 Feb 03 j 19:53	10°  37'38		minimum elong	1572 Dec 22 j 20:47	11°  16'00	1°52'01
evening max el	1572 Feb 09 j 17:58	18°  18'35	18°07'59		1573 Jan 03 j 02:01	0° 	
retrograde	1572 Feb 16 j 10:21	21°  43'41		evening rise	1573 Jan 05 j 07:27	3°  48'56	
evening set	1572 Feb 19 j 01:25	21°  12'08		asc. node	1573 Jan 20 j 16:53	28°  36'59	
inferior conj	1572 Feb 25 j 17:25	16°  13'49	3°34'53		1573 Jan 21 j 20:04	0° 	
minimum elong	1572 Feb 25 j 19:18	16°  09'18	3°34'41	evening max el	1573 Jan 23 j 06:29	1°  33'32	18°12'42
min. Earth dist.	1572 Feb 28 j 21:41	13°  12'06	0.61057 AU	retrograde	1573 Jan 29 j 17:37	4°  59'52	
morning rise	1572 Mar 03 j 10:14	10°  22'34		evening set	1573 Feb 01 j 13:35	4°  18'20	
direct	1572 Mar 10 j 05:10	8°  05'31			1573 Feb 06 j 19:45	30° 	
desc. node	1572 Mar 13 j 09:44	8°  33'38		inferior conj	1573 Feb 07 j 18:13	28°  59'45	3°45'00
morning max el	1572 Mar 24 j 10:24	15°  58'41	27°43'34	minimum elong	1573 Feb 07 j 18:06	29°  00'05	3°45'00
	1572 Apr 04 j 22:07	0° 		min. Earth dist.	1573 Feb 10 j 09:17	26°  09'35	0.63081 AU
	1572 Apr 22 j 15:02	0° 		morning rise	1573 Feb 13 j 20:38	22°  57'01	
morning set	1572 Apr 25 j 22:51	6°  41'09		direct	1573 Feb 20 j 19:28	20°  15'41	
asc. node	1572 May 01 j 19:11	19°  06'05		desc. node	1573 Feb 28 j 06:47	22°  50'13	
max. Earth dist.	1572 May 02 j 01:52	19°  42'23	1.32332 AU	morning max el	1573 Mar 06 j 17:09	28°  11'09	27°45'39
					1573 Mar 08 j 11:11	0° 	
superior conj	1572 May 03 j 06:47	22°  20'17	0°15'38		1573 Mar 29 j 16:23	0° 	
minimum elong	1572 May 03 j 06:04	22°  16'23	0°15'29	morning set	1573 Apr 09 j 22:33	20°  54'31	
behind sun begin	1572 May 03 j 04:59	22°  10'25			1573 Apr 14 j 08:28	0° 	
behind sun end	1572 May 03 j 07:09	22°  22'20		max. Earth dist.	1573 Apr 15 j 08:13	2°  05'42	1.32852 AU
	1572 May 06 j 18:46	0° 					
evening rise	1572 May 10 j 04:57	7°  22'42		superior conj	1573 Apr 17 j 15:10	7°  00'03	0°-10'-59
	1572 May 22 j 00:54	0° 		minimum elong	1573 Apr 17 j 15:42	7°  02'55	0°10'53
evening max el	1572 Jun 05 j 12:41	19°  12'28	25°03'34	behind sun begin	1573 Apr 17 j 11:51	6°  42'08	
desc. node	1572 Jun 09 j 09:00	22°  27'59		behind sun end	1573 Apr 17 j 19:34	7°  23'43	
retrograde	1572 Jun 19 j 12:31	26°  19'12		asc. node	1573 Apr 18 j 16:13	9°  15'20	
evening set	1572 Jun 24 j 22:35	25°  11'45		evening rise	1573 Apr 24 j 16:47	22°  13'49	
min. Earth dist.	1572 Jun 30 j 00:15	22°  26'16	0.57518 AU		1573 Apr 28 j 11:12	0° 	
inferior conj	1572 Jul 03 j 01:10	20°  23'44	-4°-53'-12	evening max el	1573 May 18 j 02:37	29°  11'46'43	23°30'07
minimum elong	1572 Jul 02 j 23:26	20°  26'41	4°53'07		1573 May 18 j 08:10	0° 	
morning rise	1572 Jul 11 j 04:05	16°  12'33		desc. node	1573 May 27 j 05:59	5°  49'57	
direct	1572 Jul 13 j 17:29	15°  53'25		retrograde	1573 May 31 j 17:43	6°  35'46	
morning max el	1572 Jul 22 j 14:24	20°  02'37	19°06'21	evening set	1573 Jun 04 j 16:11	6°  01'44	
asc. node	1572 Jul 28 j 18:25	27°  39'27		min. Earth dist.	1573 Jun 11 j 12:54	2°  51'09	0.55910 AU
	1572 Jul 30 j 06:22	0° 		inferior conj	1573 Jun 13 j 14:21	1°  37'28	-4°-16'-45
morning set	1572 Aug 08 j 09:33	16°  05'1'09		minimum elong	1573 Jun 13 j 07:42	1°  47'25	4°15'31
	1572 Aug 15 j 01:00	0° 			1573 Jun 16 j 09:48	30° 	
superior conj	1572 Aug 16 j 17:50	3°  18'21	1°43'54	morning rise	1573 Jun 22 j 02:33	27°  11'41'59	
minimum elong	1572 Aug 16 j 19:13	3°  24'57	1°43'50	direct	1573 Jun 24 j 20:41	27°  11'23'11	
max. Earth dist.	1572 Aug 23 j 09:08	15°  43'22	1.38537 AU		1573 Jul 02 j 12:42	0° 	
evening rise	1572 Aug 27 j 05:51	22°  34'06		morning max el	1573 Jul 05 j 05:57	2°  11'45	20°12'38
	1572 Aug 31 j 15:01	0° 		asc. node	1573 Jul 15 j 15:29	16°  13'35	
desc. node	1572 Sep 05 j 08:23	7°  38'20			1573 Jul 22 j 21:28	0° 	
	1572 Sep 20 j 17:36	0° 		morning set	1573 Jul 23 j 14:13	1°  24'57	
evening max el	1572 Oct 01 j 19:02	13°  00'39	24°42'47	superior conj	1573 Jul 31 j 07:58	17°  14'18	1°45'47
retrograde	1572 Oct 13 j 08:02	19°  44'19		minimum elong	1573 Jul 31 j 07:35	17°  12'22	1°45'46
evening set	1572 Oct 18 j 20:41	17°  25'58		max. Earth dist.	1573 Aug 05 j 14:26	27°  13'6'19	1.36599 AU
min. Earth dist.	1572 Oct 23 j 12:02	12°  09'46	0.67427 AU		1573 Aug 06 j 20:40	0° 	
inferior conj	1572 Oct 24 j 08:43	11°  01'02	0°-7'-39	evening rise	1573 Aug 09 j 13:26	5°  10'0'46	
minimum elong	1572 Oct 24 j 08:54	11°  00'25	0°07'36	desc. node	1573 Aug 23 j 05:22	27°  10'59'54	
transit middle	1572 Oct 24 j 08:54	11°  00'25	0°07'36		1573 Aug 24 j 12:44	0° 	
transit begin	1572 Oct 24 j 06:28	11°  08'30		evening max el	1573 Sep 14 j 06:56	26°  39'54	25°53'35
transit end	1572 Oct 24 j 11:20	10°  52'20			1573 Sep 18 j 01:58	0° 	
asc. node	1572 Oct 24 j 17:36	10°  31'32		retrograde	1573 Sep 26 j 17:07	3°  14'44'42	
morning rise	1572 Oct 29 j 21:34	4°  56'59		evening set	1573 Oct 02 j 20:09	1°  11'2'08	
direct	1572 Nov 02 j 12:09	3° 14'2'07			1573 Oct 04 j 03:16	30°	
morning max el	1572 Nov 10 j 02:33	8° 14'02'49	20°00'28	min. Earth dist.	1573 Oct 07 j 03:46	26° 31'45	0.66763 AU
greatest brilliancy	1572 Nov 17 j 07:18	16° 49'09	-0.6m	inferior conj	1573 Oct 08 j 11:26	24° 45'51'54	-1°-4'-27

minimum elong	1573 Oct 08 j 13:06	24° Ω 46'37	1°03'45	morning rise	1574 Sep 28 j 12:46	2° Ω 55'47	
asc. node	1573 Oct 11 j 14:40	21° Ω 10'15		direct	1574 Oct 01 j 08:04	2° Ω 12'11	
morning rise	1573 Oct 14 j 06:56	18° Ω 56'42		morning max el	1574 Oct 07 j 22:06	5° Ω 47'43	18°22'21
direct	1573 Oct 17 j 10:42	17° Ω 59'21			1574 Oct 24 j 12:35	0° \mathbb{M}	
morning max el	1573 Oct 24 j 09:28	21° Ω 52'36	19°03'21	morning set	1574 Oct 27 j 06:38	4° \mathbb{M} 27'30	
	1573 Oct 30 j 22:34	0° \mathbb{M}		desc. node	1574 Nov 06 j 01:42	20° \mathbb{M} 10'48	
morning set	1573 Nov 15 j 21:09	24° \mathbb{M} 18'42					
desc. node	1573 Nov 19 j 04:41	29° \mathbb{M} 29'45		superior conj	1574 Nov 11 j 14:58	28° \mathbb{M} 57'38	0°-36'-27
	1573 Nov 19 j 12:25	0° \mathcal{A}		minimum elong	1574 Nov 11 j 10:14	28° \mathbb{M} 39'00	0°35'51
max. Earth dist.	1573 Nov 30 j 11:36	17° \mathcal{A} 11'42	1.44892 AU		1574 Nov 12 j 06:49	0° \mathcal{A}	
				max. Earth dist.	1574 Nov 13 j 06:44	1° \mathcal{A} 34'00	1.45114 AU
superior conj	1573 Dec 02 j 13:50	20° \mathcal{A} 29'51	-1°-21'-44	evening rise	1574 Nov 27 j 22:18	24° \mathcal{A} 32'18	
minimum elong	1573 Dec 02 j 05:08	19° \mathcal{A} 55'28	1°20'50		1574 Dec 01 j 09:46	0° \mathcal{B}	
	1573 Dec 08 j 13:20	0° \mathcal{B}		greatest brilliancy	1574 Dec 11 j 15:23	15° \mathcal{B} 51'09	-0.7m
evening rise	1573 Dec 17 j 14:33	14° \mathcal{B} 38'36		evening max el	1574 Dec 21 j 03:24	28° \mathcal{B} 25'32	19°16'24
	1573 Dec 27 j 00:44	0° \approx			1574 Dec 22 j 19:28	0° \approx	
evening max el	1574 Jan 06 j 18:24	14° \approx 57'20	18°35'55	asc. node	1574 Dec 25 j 11:00	1° \approx 47'23	
asc. node	1574 Jan 07 j 13:56	15° \approx 44'50		retrograde	1574 Dec 28 j 04:57	2° \approx 28'31	
retrograde	1574 Jan 13 j 08:57	18° \approx 36'50		evening set	1574 Dec 31 j 13:05	1° \approx 23'25	
evening set	1574 Jan 16 j 10:25	17° \approx 44'09			1575 Jan 02 j 06:46	30° \mathbb{R} \mathcal{B}	
inferior conj	1574 Jan 22 j 06:51	12° \approx 06'55	3°36'36	inferior conj	1575 Jan 06 j 03:55	25° \mathcal{B} 29'49	3°14'36
minimum elong	1574 Jan 22 j 05:14	12° \approx 11'44	3°36'25	minimum elong	1575 Jan 06 j 01:29	25° \mathcal{B} 37'39	3°14'06
min. Earth dist.	1574 Jan 24 j 06:23	9° \approx 45'18	0.64803 AU	min. Earth dist.	1575 Jan 07 j 12:21	23° \mathcal{B} 45'45	0.66133 AU
morning rise	1574 Jan 27 j 22:48	5° \approx 57'32		morning rise	1575 Jan 11 j 13:04	19° \mathcal{B} 16'32	
direct	1574 Feb 03 j 17:00	3° \approx 06'47		direct	1575 Jan 17 j 20:40	16° \mathcal{B} 30'09	
desc. node	1574 Feb 15 j 03:50	9° \approx 03'05		morning max el	1575 Jan 30 j 12:03	23° \mathcal{B} 58'43	26°12'20
morning max el	1574 Feb 17 j 02:26	10° \approx 54'44	27°12'57	desc. node	1575 Feb 02 j 00:54	26° \mathcal{B} 40'01	
	1574 Mar 04 j 05:35	0° \mathcal{H}			1575 Feb 04 j 21:53	0° \approx	
	1574 Mar 22 j 03:24	0° \mathcal{Y}			1575 Feb 25 j 14:52	0° \mathcal{H}	
morning set	1574 Mar 24 j 13:15	4° \mathcal{Y} 36'46		morning set	1575 Mar 07 j 15:10	17° \mathcal{H} 36'53	
max. Earth dist.	1574 Mar 29 j 05:48	13° \mathcal{Y} 58'23	1.33811 AU	max. Earth dist.	1575 Mar 11 j 16:11	25° \mathcal{H} 19'20	1.35228 AU
					1575 Mar 14 j 01:06	0° \mathcal{Y}	
superior conj	1574 Apr 01 j 19:01	21° \mathcal{Y} 21'15	0°-38'-39				
minimum elong	1574 Apr 01 j 20:57	21° \mathcal{Y} 31'25	0°38'17	superior conj	1575 Mar 16 j 15:58	5° \mathcal{Y} 17'08	-1°-6'-2
asc. node	1574 Apr 05 j 13:14	29° \mathcal{Y} 19'53		minimum elong	1575 Mar 16 j 19:14	5° \mathcal{Y} 33'46	1°05'29
	1574 Apr 05 j 20:47	0° \mathcal{B}		asc. node	1575 Mar 23 j 10:17	19° \mathcal{Y} 15'48	
evening rise	1574 Apr 09 j 03:35	6° \mathcal{B} 56'44		evening rise	1575 Mar 24 j 11:28	21° \mathcal{Y} 25'33	
	1574 Apr 21 j 13:56	0° \mathbb{I}			1575 Mar 28 j 18:07	0° \mathcal{B}	
evening max el	1574 Apr 29 j 20:02	10° \mathbb{I} 20'59	21°55'21	evening max el	1575 Apr 11 j 23:08	21° \mathcal{B} 22'39	20°31'42
retrograde	1574 May 12 j 10:39	16° \mathbb{I} 32'46		retrograde	1575 Apr 22 j 23:42	26° \mathcal{B} 43'17	
desc. node	1574 May 14 j 03:01	16° \mathbb{I} 26'24		evening set	1575 Apr 25 j 02:06	26° \mathcal{B} 32'27	
evening set	1574 May 15 j 03:05	16° \mathbb{I} 16'43		desc. node	1575 May 01 j 00:04	24° \mathcal{B} 23'37	
min. Earth dist.	1574 May 24 j 00:45	12° \mathbb{I} 28'44	0.55024 AU	inferior conj	1575 May 04 j 06:20	22° \mathcal{B} 34'46	0°-56'-53
inferior conj	1574 May 24 j 12:03	12° \mathbb{I} 12'55	-2°-52'-50	minimum elong	1575 May 04 j 03:39	22° \mathcal{B} 38'40	0°55'54
minimum elong	1574 May 24 j 04:44	12° \mathbb{I} 23'10	2°50'36	min. Earth dist.	1575 May 05 j 13:24	21° \mathcal{B} 49'51	0.55071 AU
morning rise	1574 Jun 02 j 07:44	8° \mathbb{I} 19'17		morning rise	1575 May 13 j 03:39	18° \mathcal{B} 23'39	
direct	1574 Jun 05 j 09:45	7° \mathbb{I} 58'12		direct	1575 May 16 j 20:19	17° \mathcal{B} 54'15	
morning max el	1574 Jun 17 j 10:00	13° \mathbb{I} 36'15	21°38'30	morning max el	1575 May 30 j 04:46	24° \mathcal{B} 22'41	23°17'45
	1574 Jun 29 j 13:53	0° \mathcal{E}			1575 Jun 04 j 08:00	0° \mathbb{I}	
asc. node	1574 Jul 02 j 12:32	5° \mathcal{E} 20'47		asc. node	1575 Jun 19 j 09:34	24° \mathbb{I} 52'31	
morning set	1574 Jul 07 j 23:09	16° \mathcal{E} 12'19			1575 Jun 21 j 21:34	0° \mathcal{E}	
	1574 Jul 14 j 12:36	0° \mathcal{Q}		morning set	1575 Jun 22 j 10:25	1° \mathcal{E} 07'18	
superior conj	1574 Jul 15 j 07:26	1° \mathcal{Q} 38'34	1°40'23	superior conj	1575 Jun 29 j 13:11	16° \mathcal{E} 21'38	1°29'08
minimum elong	1574 Jul 15 j 05:49	1° \mathcal{Q} 30'06	1°40'17	minimum elong	1575 Jun 29 j 10:54	16° \mathcal{E} 09'24	1°28'53
max. Earth dist.	1574 Jul 19 j 03:11	9° \mathcal{Q} 30'07	1.34945 AU	max. Earth dist.	1575 Jul 02 j 01:16	21° \mathcal{E} 41'09	1.33671 AU
evening rise	1574 Jul 23 j 14:34	18° \mathcal{Q} 18'30			1575 Jul 06 j 01:52	0° \mathcal{Q}	
	1574 Jul 29 j 23:30	0° \mathbb{N}		evening rise	1575 Jul 07 j 04:43	2° \mathcal{Q} 14'30	
desc. node	1574 Aug 10 j 02:22	18° \mathbb{N} 02'14			1575 Jul 22 j 20:32	0° \mathbb{N}	
	1574 Aug 18 j 17:21	0° \mathcal{A}		desc. node	1575 Jul 27 j 23:23	7° \mathbb{N} 36'30	
evening max el	1574 Aug 27 j 19:16	10° \mathcal{A} 16'13	26°48'37	evening max el	1575 Aug 10 j 07:01	23° \mathbb{N} 37'51	27°20'30
retrograde	1574 Sep 09 j 20:53	17° \mathcal{A} 31'32			1575 Aug 19 j 07:57	0° \mathcal{A}	
evening set	1574 Sep 16 j 13:03	14° \mathcal{A} 49'53		retrograde	1575 Aug 23 j 18:52	0° \mathcal{A} 56'16	
min. Earth dist.	1574 Sep 20 j 13:22	10° \mathcal{A} 46'43	0.65754 AU		1575 Aug 27 j 23:27	30° \mathbb{R} \mathbb{N}	
inferior conj	1574 Sep 22 j 08:59	8° \mathcal{A} 38'50	-2°-2'-24	evening set	1575 Aug 30 j 20:42	28° \mathbb{N} 13'56	
minimum elong	1574 Sep 22 j 12:13	8° \mathcal{A} 29'20	2°01'09	min. Earth dist.	1575 Sep 03 j 14:33	24° \mathbb{N} 46'56	0.64385 AU
asc. node	1574 Sep 28 j 11:45	2° \mathcal{A} 57'06		inferior conj	1575 Sep 05 j 22:58	22° \mathbb{N} 16'09	-2°-59'-15

minimum elong	1575 Sep 06 j 03:33	22° \mathbb{M} 03'51	2°57'43	evening set	1576 Aug 12 j 15:39	11° \mathbb{M} 18'44	
morning rise	1575 Sep 12 j 12:23	16° \mathbb{M} 48'39		min. Earth dist.	1576 Aug 16 j 05:45	8° \mathbb{M} 22'00	0.62675 AU
direct	1575 Sep 15 j 01:39	16° \mathbb{M} 15'14		inferior conj	1576 Aug 19 j 02:33	5° \mathbb{M} 37'30	-3°-51'-22
asc. node	1575 Sep 15 j 08:49	16° \mathbb{M} 15'42		minimum elong	1576 Aug 19 j 07:47	5° \mathbb{M} 24'57	3°50'03
morning max el	1575 Sep 21 j 13:49	19° \mathbb{M} 41'56	17°58'22	morning rise	1576 Aug 26 j 02:31	0° \mathbb{M} 28'50	
	1575 Sep 29 j 06:09	0° \mathbb{A}		direct	1576 Aug 28 j 12:21	0° \mathbb{M} 02'22	
morning set	1575 Oct 08 j 20:21	15° \mathbb{A} 58'39		asc. node	1576 Sep 01 j 05:51	1° \mathbb{M} 07'19	
	1575 Oct 17 j 05:10	0° \mathbb{M}		morning max el	1576 Sep 04 j 05:41	3° \mathbb{M} 28'39	17°52'10
				morning set	1576 Sep 20 j 08:49	28° \mathbb{M} 35'01	
					1576 Sep 21 j 03:54	0° \mathbb{A}	
superior conj	1575 Oct 22 j 04:03	8° \mathbb{M} 04'57	0°11'57				
minimum elong	1575 Oct 22 j 05:26	8° \mathbb{M} 10'33	0°11'45	superior conj	1576 Oct 01 j 18:37	18° \mathbb{A} 28'28	0°52'49
behind sun begin	1575 Oct 21 j 22:16	7° \mathbb{M} 41'37		minimum elong	1576 Oct 01 j 23:04	18° \mathbb{A} 47'15	0°52'15
behind sun end	1575 Oct 22 j 12:35	8° \mathbb{M} 39'26		max. Earth dist.	1576 Oct 08 j 16:40	29° \mathbb{A} 54'48	1.43408 AU
desc. node	1575 Oct 23 j 22:43	10° \mathbb{M} 56'36			1576 Oct 08 j 17:57	0° \mathbb{M}	
max. Earth dist.	1575 Oct 27 j 01:33	15° \mathbb{M} 54'53	1.44594 AU	desc. node	1576 Oct 09 j 19:45	1° \mathbb{M} 44'05	
	1575 Nov 05 j 01:31	0° \mathbb{A}		evening rise	1576 Oct 16 j 19:57	12° \mathbb{M} 48'25	
evening rise	1575 Nov 07 j 11:32	3° \mathbb{A} 43'57			1576 Oct 28 j 04:18	0° \mathbb{A}	
	1575 Nov 24 j 23:10	0° \mathbb{B}		greatest brilliancy	1576 Nov 11 j 04:07	19° \mathbb{A} 32'11	-0.4m
greatest brilliancy	1575 Nov 27 j 17:59	3° \mathbb{B} 53'02	-0.6m	evening max el	1576 Nov 16 j 06:08	25° \mathbb{A} 24'38	21°20'54
evening max el	1575 Dec 04 j 07:36	11° \mathbb{B} 54'44	20°12'20		1576 Nov 22 j 06:27	0° \mathbb{B}	
retrograde	1575 Dec 12 j 02:48	16° \mathbb{B} 29'38		retrograde	1576 Nov 25 j 00:16	0° \mathbb{B} 36'55	
asc. node	1575 Dec 12 j 08:04	16° \mathbb{B} 29'22			1576 Nov 27 j 14:21	30° \mathbb{R} \mathbb{A}	
evening set	1575 Dec 15 j 19:12	15° \mathbb{B} 10'40		asc. node	1576 Nov 28 j 05:07	29° \mathbb{A} 39'56	
inferior conj	1575 Dec 21 j 06:36	9° \mathbb{B} 03'38	2°42'20	evening set	1576 Nov 29 j 02:51	29° \mathbb{A} 02'29	
minimum elong	1575 Dec 21 j 03:56	9° \mathbb{B} 12'37	2°41'34	inferior conj	1576 Dec 04 j 12:35	22° \mathbb{A} 45'31	2°02'03
min. Earth dist.	1575 Dec 22 j 01:28	8° \mathbb{B} 00'02	0.67058 AU	minimum elong	1576 Dec 04 j 10:13	22° \mathbb{A} 53'43	2°01'13
morning rise	1575 Dec 26 j 12:08	2° \mathbb{B} 48'27		min. Earth dist.	1576 Dec 04 j 19:29	22° \mathbb{A} 21'41	0.67604 AU
direct	1576 Jan 01 j 05:49	0° \mathbb{B} 16'30		morning rise	1576 Dec 09 j 17:15	16° \mathbb{A} 30'26	
morning max el	1576 Jan 12 j 20:48	7° \mathbb{B} 12'25	24°53'03	direct	1576 Dec 14 j 19:49	14° \mathbb{A} 18'49	
desc. node	1576 Jan 19 j 21:56	15° \mathbb{B} 16'14		morning max el	1576 Dec 25 j 05:39	20° \mathbb{A} 30'39	23°25'13
	1576 Jan 30 j 15:38	0° \mathbb{A}		greatest brilliancy	1576 Dec 30 j 21:35	26° \mathbb{A} 54'44	-0.2m
morning set	1576 Feb 17 j 23:09	29° \mathbb{A} 40'14			1577 Jan 02 j 08:18	0° \mathbb{B}	
	1576 Feb 18 j 03:36	0° \mathbb{H}		desc. node	1577 Jan 05 j 18:59	4° \mathbb{B} 34'47	
max. Earth dist.	1576 Feb 21 j 15:59	6° \mathbb{H} 22'08	1.37055 AU		1577 Jan 22 j 21:22	0° \mathbb{A}	
				morning set	1577 Jan 29 j 06:52	10° \mathbb{A} 29'41	
superior conj	1576 Feb 28 j 02:58	18° \mathbb{H} 39'10	-1°-31'-15	max. Earth dist.	1577 Feb 02 j 10:41	17° \mathbb{A} 37'52	1.39156 AU
minimum elong	1576 Feb 28 j 07:06	18° \mathbb{H} 59'22	1°30'43		1577 Feb 09 j 07:32	0° \mathbb{H}	
	1576 Mar 04 j 19:46	0° \mathbb{Y}					
evening rise	1576 Mar 07 j 14:06	5° \mathbb{Y} 33'17		superior conj	1577 Feb 10 j 00:02	1° \mathbb{H} 16'42	-1°-51'-34
asc. node	1576 Mar 09 j 07:21	8° \mathbb{Y} 58'27		minimum elong	1577 Feb 10 j 03:54	1° \mathbb{H} 34'42	1°51'16
	1576 Mar 21 j 19:09	0° \mathbb{B}		evening rise	1577 Feb 19 j 08:44	19° \mathbb{H} 11'51	
evening max el	1576 Mar 24 j 13:56	3° \mathbb{B} 04'01	19°25'53	asc. node	1577 Feb 24 j 04:24	28° \mathbb{H} 21'46	
retrograde	1576 Apr 02 j 21:40	7° \mathbb{B} 34'03			1577 Feb 25 j 01:52	0° \mathbb{Y}	
evening set	1576 Apr 04 j 23:28	7° \mathbb{B} 21'39		evening max el	1577 Mar 07 j 14:47	15° \mathbb{Y} 22'13	18°39'56
inferior conj	1576 Apr 13 j 11:45	3° \mathbb{B} 14'58	0°57'42	retrograde	1577 Mar 15 j 12:44	19° \mathbb{Y} 13'58	
minimum elong	1576 Apr 13 j 14:06	3° \mathbb{B} 11'09	0°56'53	evening set	1577 Mar 17 j 19:33	18° \mathbb{Y} 55'50	
min. Earth dist.	1576 Apr 16 j 04:04	1° \mathbb{B} 30'50	0.56047 AU	inferior conj	1577 Mar 25 j 12:49	14° \mathbb{Y} 31'18	2°24'56
desc. node	1576 Apr 16 j 21:06	1° \mathbb{B} 04'22		minimum elong	1577 Mar 25 j 16:55	14° \mathbb{Y} 23'32	2°23'50
	1576 Apr 18 j 17:41	30° \mathbb{R} \mathbb{Y}		min. Earth dist.	1577 Mar 28 j 21:41	11° \mathbb{Y} 59'15	0.57748 AU
morning rise	1576 Apr 22 j 00:53	28° \mathbb{Y} 31'25		morning rise	1577 Apr 02 j 09:57	9° \mathbb{Y} 14'47	
direct	1576 Apr 26 j 16:29	27° \mathbb{Y} 42'18		desc. node	1577 Apr 03 j 18:08	8° \mathbb{Y} 41'23	
	1576 May 04 j 12:04	0° \mathbb{B}		direct	1577 Apr 08 j 02:59	7° \mathbb{Y} 53'28	
morning max el	1576 May 10 j 19:30	4° \mathbb{B} 51'30	24°58'35	morning max el	1577 Apr 22 j 11:47	15° \mathbb{Y} 28'21	26°25'43
	1576 May 28 j 18:41	0° \mathbb{H}			1577 May 04 j 05:28	0° \mathbb{B}	
asc. node	1576 Jun 05 j 06:37	14° \mathbb{H} 42'10			1577 May 20 j 22:10	0° \mathbb{H}	
morning set	1576 Jun 05 j 22:21	16° \mathbb{H} 04'46		morning set	1577 May 21 j 09:14	0° \mathbb{H} 57'57	
	1576 Jun 12 j 08:52	0° \mathbb{B}		asc. node	1577 May 23 j 03:39	4° \mathbb{H} 43'13	
superior conj	1576 Jun 12 j 22:50	1° \mathbb{B} 16'10	1°13'09	superior conj	1577 May 28 j 10:20	16° \mathbb{H} 14'13	0°53'14
minimum elong	1576 Jun 12 j 20:25	1° \mathbb{B} 03'01	1°12'46	minimum elong	1577 May 28 j 08:16	16° \mathbb{H} 02'52	0°52'50
max. Earth dist.	1576 Jun 14 j 07:18	4° \mathbb{B} 12'45	1.32800 AU	max. Earth dist.	1577 May 28 j 18:14	16° \mathbb{H} 57'40	1.32321 AU
evening rise	1576 Jun 20 j 04:12	16° \mathbb{B} 38'16			1577 Jun 03 j 18:50	0° \mathbb{B}	
	1576 Jun 27 j 00:50	0° \mathbb{A}		evening rise	1577 Jun 04 j 09:58	1° \mathbb{B} 19'23	
desc. node	1576 Jul 13 j 20:25	26° \mathbb{A} 30'56			1577 Jun 20 j 01:23	0° \mathbb{A}	
	1576 Jul 16 j 15:05	0° \mathbb{M}		desc. node	1577 Jun 30 j 17:26	14° \mathbb{A} 28'01	
evening max el	1576 Jul 22 j 16:15	6° \mathbb{M} 32'25	27°23'05	evening max el	1577 Jul 04 j 20:35	18° \mathbb{A} 47'44	26°52'52
retrograde	1576 Aug 05 j 10:43	13° \mathbb{M} 49'47					

retrograde	1577 Jul 18 j 19:16	26°01'59			1578 May 26 j 17:15	0°☿	
evening set	1577 Jul 25 j 17:30	23°05'09			1578 Jun 16 j 11:04	0°♊	
min. Earth dist.	1577 Jul 29 j 10:40	21°01'28	0.60701 AU	evening max el	1578 Jun 16 j 18:08	0°♊16'59	25°50'49
inferior conj	1577 Aug 01 j 16:23	18°03'09	-4°-33'-1	desc. node	1578 Jun 17 j 14:26	1°♊04'15	
minimum elong	1577 Aug 01 j 20:45	18°02'456	4°32'21	retrograde	1578 Jun 30 j 18:35	7°♊26'50	
morning rise	1577 Aug 09 j 03:08	13°02'46'59		evening set	1578 Jul 06 j 21:35	5°♊57'14	
direct	1577 Aug 11 j 12:22	13°02'44'46		min. Earth dist.	1578 Jul 11 j 06:34	3°♊19'23	0.58643 AU
morning max el	1577 Aug 18 j 18:36	16°05'26	18°04'53	inferior conj	1578 Jul 14 j 12:56	0°♊56'36	-4°-54'-46
asc. node	1577 Aug 19 j 02:52	17°01'54		minimum elong	1578 Jul 14 j 14:04	0°♊54'31	4°54'44
	1577 Aug 27 j 23:49	0°♎			1578 Jul 15 j 20:12	30°♎☿	
morning set	1577 Sep 03 j 13:57	11°05'08		morning rise	1578 Jul 22 j 10:05	26°♎32'24	
				direct	1578 Jul 24 j 21:30	26°♎12'24	
superior conj	1577 Sep 13 j 11:39	0°♎09'39	1°21'47		1578 Aug 01 j 23:02	0°♏	
minimum elong	1577 Sep 13 j 15:54	0°♎28'31	1°21'20	morning max el	1578 Aug 02 j 01:22	0°♏05'31	18°37'48
	1577 Sep 13 j 09:29	0°♎		asc. node	1578 Aug 05 j 23:54	4°♏38'30	
max. Earth dist.	1577 Sep 21 j 02:35	13°♎19'46	1.41708 AU	morning set	1578 Aug 18 j 06:54	25°♏57'46	
evening rise	1577 Sep 26 j 16:41	22°♎29'25			1578 Aug 20 j 08:46	0°♐	
desc. node	1577 Sep 26 j 16:47	22°♎29'46					
	1577 Oct 01 j 10:53	0°♑		superior conj	1578 Aug 27 j 02:26	12°♐55'11	1°38'50
	1577 Oct 22 j 07:41	0°♑		minimum elong	1578 Aug 27 j 04:57	13°♐06'57	1°38'40
greatest brilliancy	1577 Oct 25 j 02:31	3°♑29'06	-0.3m	max. Earth dist.	1578 Sep 03 j 07:55	26°♐02'56	1.39718 AU
evening max el	1577 Oct 29 j 23:28	8°♑56'46	22°38'03		1578 Sep 05 j 14:34	0°♑	
retrograde	1577 Nov 08 j 19:40	14°♑47'35		evening rise	1578 Sep 07 j 12:05	3°♑13'29	
evening set	1577 Nov 13 j 10:21	12°♑56'20		desc. node	1578 Sep 13 j 13:46	13°♑09'43	
asc. node	1577 Nov 15 j 02:07	11°♑21'14			1578 Sep 24 j 16:49	0°♒	
inferior conj	1577 Nov 18 j 19:57	6°♑33'14	1°15'27	evening max el	1578 Oct 12 j 13:05	22°♒31'51	23°58'09
minimum elong	1577 Nov 18 j 18:18	6°♑38'57	1°14'47	retrograde	1578 Oct 23 j 11:38	28°♒57'46	
min. Earth dist.	1577 Nov 18 j 15:55	6°♑47'11	0.67797 AU	evening set	1578 Oct 28 j 16:04	26°♒49'03	
morning rise	1577 Nov 24 j 02:08	0°♑20'32		asc. node	1578 Nov 01 j 23:09	21°♒57'26	
	1577 Nov 24 j 12:40	30°♒♑		min. Earth dist.	1578 Nov 02 j 12:18	21°♒13'10	0.67658 AU
direct	1577 Nov 28 j 13:48	28°♒31'37		inferior conj	1578 Nov 03 j 02:52	20°♒23'50	0°23'48
	1577 Dec 03 j 00:41	0°♑		minimum elong	1578 Nov 03 j 02:18	20°♒25'46	0°23'34
morning max el	1577 Dec 07 j 17:54	3°♑55'23	21°58'28	morning rise	1578 Nov 08 j 12:43	14°♒15'59	
greatest brilliancy	1577 Dec 12 j 11:13	9°♑14'35	-0.4m	direct	1578 Nov 12 j 10:35	12°♒49'15	
desc. node	1577 Dec 23 j 16:02	24°♑23'54		morning max el	1578 Nov 20 j 12:49	17°♒29'51	20°40'01
	1577 Dec 27 j 11:54	0°♑		greatest brilliancy	1578 Nov 26 j 12:12	24°♒31'04	-0.5m
morning set	1578 Jan 09 j 09:36	19°♑55'13			1578 Nov 30 j 13:19	0°♑	
max. Earth dist.	1578 Jan 15 j 08:35	29°♑40'38	1.41278 AU	desc. node	1578 Dec 10 j 13:03	14°♑34'23	
	1578 Jan 15 j 13:13	0°♑		morning set	1578 Dec 19 j 11:35	28°♑14'07	
					1578 Dec 20 j 14:47	0°♑	
superior conj	1578 Jan 23 j 02:21	12°♑58'34	-2°-3'-12	max. Earth dist.	1578 Dec 28 j 14:19	12°♑40'37	1.43120 AU
minimum elong	1578 Jan 23 j 03:55	13°♑05'31	2°03'11				
	1578 Feb 01 j 11:09	0°♑		superior conj	1579 Jan 04 j 04:33	23°♑31'40	-2°-1'-23
evening rise	1578 Feb 02 j 16:00	2°♑13'49		minimum elong	1579 Jan 04 j 01:24	23°♑18'31	2°01'18
asc. node	1578 Feb 11 j 01:26	17°♑19'30			1579 Jan 08 j 00:17	0°♑	
evening max el	1578 Feb 18 j 22:42	28°♑09'39	18°13'59	evening rise	1579 Jan 16 j 07:50	14°♑30'06	
	1578 Feb 21 j 03:30	0°♑			1579 Jan 25 j 06:09	0°♑	
retrograde	1578 Feb 25 j 22:22	1°♑39'36		asc. node	1579 Jan 28 j 22:28	5°♑42'53	
evening set	1578 Feb 28 j 10:43	1°♑13'14		evening max el	1579 Feb 02 j 10:21	11°♑16'26	18°07'38
	1578 Mar 02 j 22:33	30°♒♑		retrograde	1579 Feb 08 j 23:10	14°♑40'15	
inferior conj	1578 Mar 07 j 10:56	26°♑27'21	3°18'01	evening set	1579 Feb 11 j 16:25	14°♑04'24	
minimum elong	1578 Mar 07 j 13:57	26°♑20'38	3°17'32	inferior conj	1579 Feb 18 j 03:08	8°♑57'04	3°41'46
min. Earth dist.	1578 Mar 10 j 20:09	23°♑29'19	0.59833 AU	minimum elong	1579 Feb 18 j 04:07	8°♑54'32	3°41'44
morning rise	1578 Mar 14 j 13:41	20°♑46'24		min. Earth dist.	1579 Feb 21 j 02:12	5°♑58'04	0.61953 AU
direct	1578 Mar 21 j 02:12	18°♑48'21		morning rise	1579 Feb 24 j 13:24	3°♑00'25	
desc. node	1578 Mar 21 j 15:10	18°♑49'08		direct	1579 Mar 03 j 11:13	0°♑31'38	
morning max el	1578 Apr 04 j 09:31	26°♑36'27	27°25'13	desc. node	1579 Mar 08 j 12:13	1°♑42'04	
	1578 Apr 07 j 14:30	0°♑		morning max el	1579 Mar 17 j 13:26	8°♑25'42	27°48'58
	1578 Apr 27 j 17:02	0°♑			1579 Apr 03 j 03:19	0°♑	
morning set	1578 May 05 j 17:23	15°♑41'09		morning set	1579 Apr 19 j 20:51	0°♑07'33	
asc. node	1578 May 10 j 00:41	24°♑50'58			1579 Apr 19 j 19:22	0°♑	
	1578 May 12 j 09:15	0°♑		max. Earth dist.	1579 Apr 25 j 16:24	12°♑21'55	1.32510 AU
				asc. node	1579 Apr 26 j 21:44	15°♑00'53	
superior conj	1578 May 12 j 21:58	1°♑09'51	0°30'07				
minimum elong	1578 May 12 j 20:39	1°♑02'40	0°29'50	superior conj	1579 Apr 27 j 08:03	15°♑56'57	0°04'33
max. Earth dist.	1578 May 12 j 06:33	29°♑45'12	1.32225 AU	minimum elong	1579 Apr 27 j 07:50	15°♑55'47	0°04'30
evening rise	1578 May 19 j 19:39	16°♑10'03		behind sun begin	1579 Apr 27 j 02:53	15°♑28'51	

behind sun end	1579 Apr 27 j 12:47	16°♄22'44		minimum elong	1580 Apr 10 j 15:54	0°♄35'36	0°22'26
	1579 May 03 j 19:24	0°♄		asc. node	1580 Apr 12 j 18:47	5°♄08'46	
evening rise	1579 May 04 j 07:15	1°♄03'01		evening rise	1580 Apr 17 j 18:55	15°♄51'41	
	1579 May 20 j 05:59	0°♄			1580 Apr 24 j 21:01	0°♄	
evening max el	1579 May 29 j 09:27	11°♄05'12	24°24'53	evening max el	1580 May 09 j 23:46	21°♄35'02	22°49'01
desc. node	1579 Jun 04 j 11:26	15°♄48'05		desc. node	1580 May 21 j 08:28	28°♄02'58	
retrograde	1579 Jun 12 j 06:37	18°♄05'51		retrograde	1580 May 23 j 06:29	28°♄11'21	
evening set	1579 Jun 17 j 02:12	17°♄13'59		evening set	1580 May 26 j 14:45	27°♄46'47	
min. Earth dist.	1579 Jun 22 j 20:27	14°♄19'37	0.56770 AU	min. Earth dist.	1580 Jun 03 j 08:17	24°♄22'00	0.55426 AU
inferior conj	1579 Jun 25 j 13:33	12°♄36'22	-4°-43'-27	inferior conj	1580 Jun 04 j 19:07	23°♄31'56	-3°-46'-39
minimum elong	1579 Jun 25 j 09:31	12°♄42'49	4°43'02	minimum elong	1580 Jun 04 j 11:27	23°♄42'59	3°44'48
morning rise	1579 Jul 03 j 20:30	8°♄33'08		morning rise	1580 Jun 13 j 10:58	19°♄39'52	
direct	1579 Jul 06 j 11:59	8°♄14'10		direct	1580 Jun 16 j 07:49	19°♄20'40	
morning max el	1579 Jul 15 j 23:09	12°♄38'07	19°32'00	morning max el	1580 Jun 27 j 09:54	24°♄29'00	20°47'06
asc. node	1579 Jul 23 j 20:58	22°♄48'58			1580 Jul 02 j 08:02	0°♄	
	1579 Jul 28 j 00:09	0°♄		asc. node	1580 Jul 09 j 18:01	11°♄38'25	
morning set	1579 Aug 02 j 08:09	10°♄21'37		morning set	1580 Jul 16 j 14:55	25°♄02'16	
					1580 Jul 19 j 00:29	0°♄	
superior conj	1579 Aug 10 j 09:30	26°♄30'11	1°45'41	superior conj	1580 Jul 24 j 04:06	10°♄40'05	1°44'17
minimum elong	1579 Aug 10 j 10:05	26°♄33'01	1°45'41	minimum elong	1580 Jul 24 j 03:07	10°♄35'05	1°44'15
	1579 Aug 12 j 04:30	0°♄		max. Earth dist.	1580 Jul 28 j 19:50	20°♄00'29	1.35848 AU
max. Earth dist.	1579 Aug 16 j 11:55	8°♄10'09	1.37687 AU	evening rise	1580 Aug 01 j 23:06	27°♄55'20	
evening rise	1579 Aug 20 j 07:28	15°♄05'17			1580 Aug 03 j 02:02	0°♄	
	1579 Aug 29 j 03:18	0°♄		desc. node	1580 Aug 17 j 07:48	23°♄54'27	
desc. node	1579 Aug 31 j 10:47	3°♄39'57			1580 Aug 21 j 10:33	0°♄	
	1579 Sep 19 j 09:13	0°♄		evening max el	1580 Sep 06 j 12:56	19°♄48'40	26°19'16
evening max el	1579 Sep 25 j 01:05	6°♄10'24	25°14'19	retrograde	1580 Sep 19 j 06:23	26°♄59'39	
retrograde	1579 Oct 06 j 23:25	13°♄03'52		evening set	1580 Sep 25 j 15:22	24°♄22'03	
evening set	1579 Oct 12 j 18:23	10°♄38'51		min. Earth dist.	1580 Sep 29 j 19:41	19°♄57'40	0.66378 AU
min. Earth dist.	1579 Oct 17 j 06:20	5°♄37'58	0.67189 AU	inferior conj	1580 Oct 01 j 08:25	18°♄05'05	-1°-28'-59
inferior conj	1579 Oct 18 j 07:39	4°♄15'34	0°-31'-28	minimum elong	1580 Oct 01 j 10:46	17°♄57'54	1°28'02
minimum elong	1579 Oct 18 j 08:27	4°♄12'58	0°31'08	asc. node	1580 Oct 05 j 17:14	13°♄21'39	
asc. node	1579 Oct 19 j 20:11	2°♄18'53		morning rise	1580 Oct 07 j 07:17	12°♄14'55	
	1579 Oct 21 j 21:10	30°♄		direct	1580 Oct 10 j 07:05	11°♄24'02	
morning rise	1579 Oct 23 j 23:08	28°♄15'11		morning max el	1580 Oct 17 j 01:25	15°♄08'41	18°43'55
direct	1579 Oct 27 j 08:54	27°♄08'12			1580 Oct 28 j 01:05	0°♄	
	1579 Nov 02 j 07:43	0°♄		morning set	1580 Nov 07 j 01:58	15°♄47'36	
morning max el	1579 Nov 03 j 15:42	1°♄15'32	19°34'21	desc. node	1580 Nov 13 j 07:07	25°♄37'02	
greatest brilliancy	1579 Nov 12 j 02:20	11°♄53'51	-0.6m		1580 Nov 16 j 01:56	0°♄	
	1579 Nov 24 j 04:07	0°♄		superior conj	1580 Nov 23 j 08:27	11°♄25'28	-1°-3'-44
desc. node	1579 Nov 27 j 10:05	5°♄00'28		minimum elong	1580 Nov 23 j 00:44	10°♄55'08	1°02'50
morning set	1579 Nov 28 j 09:08	6°♄29'33		max. Earth dist.	1580 Nov 22 j 20:36	10°♄38'56	1.45072 AU
max. Earth dist.	1579 Dec 11 j 03:20	26°♄26'33	1.44435 AU		1580 Dec 05 j 02:25	0°♄	
	1579 Dec 13 j 09:01	0°♄		evening rise	1580 Dec 09 j 01:05	6°♄18'41	
superior conj	1579 Dec 15 j 04:16	2°♄53'00	-1°-41'-39		1580 Dec 24 j 02:25	0°♄	
minimum elong	1579 Dec 14 j 20:17	2°♄20'58	1°41'00	evening max el	1580 Dec 30 j 09:44	8°♄01'28	18°51'08
evening rise	1579 Dec 29 j 04:00	25°♄53'24		asc. node	1581 Jan 01 j 16:32	10°♄03'52	
	1579 Dec 31 j 14:37	0°♄		retrograde	1581 Jan 06 j 04:18	11°♄50'16	
asc. node	1580 Jan 15 j 19:30	23°♄21'54		evening set	1581 Jan 09 j 08:19	10°♄52'37	
evening max el	1580 Jan 16 j 22:52	24°♄35'33	18°20'19	inferior conj	1581 Jan 15 j 02:04	5°♄08'05	3°28'44
retrograde	1580 Jan 23 j 10:30	28°♄06'22		minimum elong	1581 Jan 15 j 00:02	5°♄14'24	3°28'25
evening set	1580 Jan 26 j 08:41	27°♄20'10		min. Earth dist.	1581 Jan 16 j 19:04	3°♄01'31	0.65409 AU
inferior conj	1580 Feb 01 j 09:27	21°♄53'06	3°43'22		1581 Jan 19 j 11:38	30°♄	
minimum elong	1580 Feb 01 j 08:37	21°♄55'28	3°43'19	morning rise	1581 Jan 20 j 14:40	28°♄56'29	
min. Earth dist.	1580 Feb 03 j 17:51	19°♄13'41	0.63856 AU	direct	1581 Jan 27 j 04:50	26°♄05'58	
morning rise	1580 Feb 07 j 06:55	15°♄46'55			1581 Feb 05 j 02:28	0°♄	
direct	1580 Feb 14 j 04:29	13°♄00'07		desc. node	1581 Feb 09 j 06:20	3°♄44'51	
desc. node	1580 Feb 23 j 09:16	16°♄52'30		morning max el	1581 Feb 09 j 07:43	3°♄48'21	26°50'10
morning max el	1580 Feb 27 j 21:50	20°♄53'34	27°35'44		1581 Mar 01 j 04:42	0°♄	
	1580 Mar 06 j 19:20	0°♄		morning set	1581 Mar 17 j 03:04	27°♄36'09	
	1580 Mar 26 j 05:00	0°♄			1581 Mar 18 j 08:59	0°♄	
morning set	1580 Apr 02 j 17:10	14°♄09'12		max. Earth dist.	1581 Mar 21 j 12:47	6°♄13'52	1.34352 AU
max. Earth dist.	1580 Apr 07 j 19:44	24°♄34'37	1.33207 AU				
	1580 Apr 10 j 09:14	0°♄		superior conj	1581 Mar 25 j 16:04	14°♄41'36	0°-50'-24
superior conj	1580 Apr 10 j 14:47	0°♄29'38	0°-22'-40	minimum elong	1581 Mar 25 j 18:35	14°♄54'43	0°49'55

asc. node	1581 Mar 30 j 15:51	25°♈10'41		max. Earth dist.	1582 Mar 03 j 17:50	17°♋22'07	1.35953 AU
	1581 Apr 01 j 23:02	0°♌					
evening rise	1581 Apr 02 j 04:47	0°♌29'55		superior conj	1582 Mar 09 j 09:11	28°♋24'09	-1°-17'-8
	1581 Apr 19 j 15:55	0°♍		minimum elong	1582 Mar 09 j 12:54	28°♋42'48	1°16'33
evening max el	1581 Apr 21 j 20:48	2°♍19'10	21°17'56		1582 Mar 10 j 04:15	0°♎	
retrograde	1581 May 03 j 20:52	8°♍10'34		evening rise	1582 Mar 17 j 10:41	14°♎50'11	
evening set	1581 May 06 j 04:53	7°♍58'02		asc. node	1582 Mar 17 j 12:54	15°♎01'27	
desc. node	1581 May 08 j 05:30	7°♍28'09			1582 Mar 25 j 08:11	0°♏	
inferior conj	1581 May 15 j 13:42	3°♍58'49	-2°-5'-53	evening max el	1582 Apr 04 j 04:59	13°♏37'42	20°01'26
minimum elong	1581 May 15 j 07:55	4°♍06'58	2°03'55	retrograde	1582 Apr 14 j 11:43	18°♏35'19	
min. Earth dist.	1581 May 15 j 20:45	3°♍48'55	0.54921 AU	evening set	1582 Apr 16 j 12:45	18°♏24'27	
morning rise	1581 May 24 j 11:04	29°♏59'48		inferior conj	1582 Apr 25 j 11:09	14°♏24'58	0°-6'-13
	1581 May 24 j 10:44	30°♏		minimum elong	1582 Apr 25 j 10:52	14°♏25'24	0°06'08
direct	1581 May 27 j 17:57	29°♏36'21		transit middle	1582 Apr 25 j 10:52	14°♏25'24	0°06'08
	1581 May 30 j 23:26	0°♐		transit begin	1582 Apr 25 j 07:11	14°♏30'57	
morning max el	1581 Jun 09 j 09:45	5°♐37'01	22°19'34	transit end	1582 Apr 25 j 14:33	14°♏19'50	
	1581 Jun 26 j 03:17	0°♑		desc. node	1582 Apr 25 j 02:33	14°♏37'54	
asc. node	1581 Jun 26 j 15:06	0°♑57'13		min. Earth dist.	1582 Apr 27 j 10:20	13°♏14'00	0.55383 AU
morning set	1581 Jul 01 j 01:05	9°♑53'40		morning rise	1582 May 04 j 06:11	10°♏00'57	
				direct	1582 May 08 j 08:01	9°♏24'31	
superior conj	1581 Jul 08 j 06:36	25°♑13'49	1°36'15	morning max el	1582 May 22 j 01:55	16°♏12'19	24°01'08
minimum elong	1581 Jul 08 j 04:38	25°♑03'25	1°36'06		1582 Jun 02 j 02:42	0°♒	
	1581 Jul 10 j 13:12	0°♓		asc. node	1582 Jun 13 j 12:09	20°♒37'08	
max. Earth dist.	1581 Jul 11 j 12:12	1°♓58'56	1.34355 AU	morning set	1582 Jun 15 j 12:48	24°♒49'59	
evening rise	1581 Jul 16 j 06:20	11°♓13'12			1582 Jun 17 j 22:59	0°♈	
	1581 Jul 26 j 10:45	0°♉					
desc. node	1581 Aug 04 j 04:49	13°♉46'03		superior conj	1582 Jun 22 j 14:15	10°♈02'24	1°22'53
	1581 Aug 16 j 19:10	0°♊		minimum elong	1582 Jun 22 j 11:51	9°♈49'26	1°22'34
evening max el	1581 Aug 20 j 01:05	3°♊19'46	27°05'20	max. Earth dist.	1582 Jun 24 j 13:55	14°♈18'43	1.33257 AU
retrograde	1581 Sep 02 j 07:59	10°♊37'54		evening rise	1582 Jun 30 j 00:53	25°♈40'21	
evening set	1581 Sep 09 j 04:42	7°♊54'43			1582 Jul 02 j 05:10	0°♋	
min. Earth dist.	1581 Sep 13 j 02:03	4°♊07'07	0.65214 AU		1582 Jul 19 j 21:15	0°♌	
inferior conj	1581 Sep 15 j 03:03	1°♊48'30	-2°-26'-50	desc. node	1582 Jul 22 j 01:51	3°♌05'01	
minimum elong	1581 Sep 15 j 06:55	1°♊37'34	2°25'25	evening max el	1582 Aug 02 j 12:18	16°♌32'24	27°25'31
	1581 Sep 16 j 18:16	30°♌		retrograde	1582 Aug 16 j 03:29	23°♌50'20	
morning rise	1581 Sep 21 j 10:49	26°♌11'36		evening set	1582 Aug 23 j 07:25	21°♌11'35	
asc. node	1581 Sep 22 j 14:19	25°♌45'40		min. Earth dist.	1582 Aug 26 j 23:20	17°♌58'09	0.63696 AU
direct	1581 Sep 24 j 03:07	25°♌32'55		inferior conj	1582 Aug 29 j 13:02	15°♌20'23	-3°-22'-14
morning max el	1581 Sep 30 j 15:41	29°♌04'00	18°09'56	minimum elong	1582 Aug 29 j 18:01	15°♌07'35	3°20'43
	1581 Oct 01 j 12:58	0°♍		morning rise	1582 Sep 05 j 06:50	10°♌00'08	
morning set	1581 Oct 18 j 23:50	26°♍32'26		direct	1582 Sep 07 j 18:17	9°♌30'01	
	1581 Oct 21 j 02:14	0°♎		asc. node	1582 Sep 09 j 11:22	9°♌44'39	
desc. node	1581 Oct 31 j 04:08	16°♎20'15		morning max el	1582 Sep 14 j 07:47	12°♌55'45	17°53'24
					1582 Sep 26 j 00:48	0°♏	
superior conj	1581 Nov 02 j 12:10	20°♎03'12	0°-15'-33	morning set	1582 Oct 01 j 00:06	8°♏34'16	
minimum elong	1581 Nov 02 j 10:10	19°♎55'19	0°15'18				
behind sun begin	1581 Nov 02 j 06:30	19°♎40'44		superior conj	1582 Oct 23 11:15	29°♏40'46	0°30'36
behind sun end	1581 Nov 02 j 13:51	20°♎09'54		minimum elong	1582 Oct 23 14:25	29°♏53'47	0°30'10
max. Earth dist.	1581 Nov 05 j 15:20	25°♎00'18	1.44977 AU		1582 Oct 23 15:56	0°♐	
	1581 Nov 08 j 19:40	0°♑		desc. node	1582 Oct 28 01:09	7°♐07'15	
evening rise	1581 Nov 18 j 23:42	15°♑50'35		max. Earth dist.	1582 Oct 29 09:04	9°♐15'10	1.44168 AU
	1581 Nov 28 j 03:30	0°♒		evening rise	1582 Nov 08 08:51	24°♐54'27	
greatest brilliancy	1581 Dec 05 j 18:31	11°♒24'03	-0.7m		1582 Nov 11 16:36	0°♓	
evening max el	1581 Dec 13 j 16:51	21°♒30'05	19°38'33	greatest brilliancy	1582 Nov 30 23:36	28°♓06'01	-0.5m
asc. node	1581 Dec 19 j 13:35	25°♒33'35			1582 Dec 02 10:59	0°♈	
retrograde	1581 Dec 21 j 01:17	25°♒45'49		evening max el	1582 Dec 06 18:48	5°♈00'12	20°40'13
evening set	1581 Dec 24 j 12:39	24°♒35'11		retrograde	1582 Dec 14 23:04	9°♈50'00	
inferior conj	1581 Dec 30 j 01:49	18°♒35'46	3°02'01	asc. node	1582 Dec 16 10:38	9°♈37'41	
minimum elong	1581 Dec 29 j 23:12	18°♒44'20	3°01'23	evening set	1582 Dec 18 19:37	8°♈24'37	
min. Earth dist.	1581 Dec 31 j 04:23	17°♒08'27	0.66571 AU	inferior conj	1582 Dec 24 06:08	2°♈13'10	2°26'06
morning rise	1582 Jan 04 j 09:03	12°♒21'22		minimum elong	1582 Dec 24 03:32	2°♒22'02	2°25'17
direct	1582 Jan 10 j 11:05	9°♒39'46		min. Earth dist.	1582 Dec 24 19:46	1°♒26'38	0.67340 AU
morning max el	1582 Jan 22 j 16:46	16°♒56'32	25°40'18		1582 Dec 25 21:33	30°♒	
desc. node	1582 Jan 27 j 03:22	21°♒49'10		morning rise	1582 Dec 29 11:00	25°♒58'00	
	1582 Feb 02 j 14:16	0°♈		direct	1583 Jan 03 22:27	23°♒34'03	
	1582 Feb 22 j 03:20	0°♉			1583 Jan 14 20:28	0°♊	
morning set	1582 Feb 27 j 22:02	10°♉13'57		morning max el	1583 Jan 15 01:04	0°♊11'33	24°16'07

desc. node	1583 Jan 24 00:24	10°☿44'56		greatest brilliancy	1584 Jan 02 02:24	18°♄43'00	-0.3m
	1583 Feb 06 12:06	0°♊		desc. node	1584 Jan 10 21:25	0°☿17'16	
morning set	1583 Feb 19 20:22	21°♊47'00			1584 Jan 10 16:29	0°☿	
max. Earth dist.	1583 Feb 23 14:27	28°♊25'24	1.37933 AU		1584 Jan 30 10:39	0°♊	
	1583 Feb 24 11:22	0°♋		morning set	1584 Jan 31 15:59	2°♊00'20	
				max. Earth dist.	1584 Feb 05 10:07	9°♊59'48	1.40079 AU
superior conj	1583 Mar 02 14:45	11°♋28'24	-1°-40'-39	superior conj	1584 Feb 13 04:26	23°♊43'10	-1°-57'-49
minimum elong	1583 Mar 02 18:58	11°♋48'33	1°40'13	minimum elong	1584 Feb 13 07:37	23°♊57'42	1°57'40
evening rise	1583 Mar 11 10:13	28°♋45'58			1584 Feb 16 14:08	0°♋	
	1583 Mar 12 01:15	0°♌		evening rise	1584 Feb 23 00:26	12°♋09'44	
asc. node	1583 Mar 14 09:56	4°♌36'14		asc. node	1584 Feb 29 06:57	23°♋49'17	
evening max el	1583 Mar 28 00:22	25°♌34'58	19°03'52		1584 Mar 03 22:54	0°♌	
retrograde	1583 Apr 05 16:09	29°♌46'31		evening max el	1584 Mar 10 04:30	8°♌05'49	18°26'25
evening set	1583 Apr 07 20:03	29°♌31'55		retrograde	1584 Mar 17 15:38	11°♌46'41	
inferior conj	1583 Apr 16 00:11	25°♌18'10	1°38'51	evening set	1584 Mar 20 00:47	11°♌25'17	
minimum elong	1583 Apr 16 03:43	25°♌12'02	1°37'44	inferior conj	1584 Mar 27 10:21	6°♌51'27	2°51'30
min. Earth dist.	1583 Apr 19 01:39	23°♌11'50	0.56706 AU	minimum elong	1584 Mar 27 14:13	6°♌43'35	2°50'38
desc. node	1583 Apr 21 23:35	21°♌25'32		min. Earth dist.	1584 Mar 30 20:52	4°♌05'28	0.58604 AU
morning rise	1583 Apr 24 07:14	20°♌20'20		morning rise	1584 Apr 03 23:37	1°♌23'15	
direct	1583 Apr 29 10:06	19°♌18'49		desc. node	1584 Apr 07 20:36	29°♌59'26	
morning max el	1583 May 13 16:23	26°♌39'47	25°38'15		1584 Apr 07 19:26	30°♌	
	1583 May 16 21:01	0°♍		direct	1584 Apr 10 01:48	29°♌46'34	
	1583 Jun 05 05:14	0°♎			1584 Apr 12 08:53	0°♌	
morning set	1583 Jun 10 00:27	9°♎45'55		morning max el	1584 Apr 24 10:50	7°♌28'01	26°55'16
asc. node	1583 Jun 10 09:11	10°♎31'59			1584 May 11 08:28	0°♍	
superior conj	1583 Jun 17 00:52	24°♎58'35	1°05'08	morning set	1584 May 24 10:26	24°♍36'01	
minimum elong	1583 Jun 16 22:33	24°♎45'53	1°04'44		1584 May 26 23:25	0°♎	
max. Earth dist.	1583 Jun 17 22:39	26°♎57'49	1.32555 AU	asc. node	1584 May 27 06:13	0°♎36'37	
	1583 Jun 19 08:06	0°♏		superior conj	1584 May 31 12:38	9°♎56'26	0°43'47
evening rise	1583 Jun 24 03:20	10°♏12'15		minimum elong	1584 May 31 10:50	9°♎46'35	0°43'25
	1583 Jul 04 12:13	0°♐		max. Earth dist.	1584 May 31 10:47	9°♎46'19	1.32229 AU
desc. node	1583 Jul 18 22:53	21°♐37'16		evening rise	1584 Jun 07 11:01	24°♎58'24	
evening max el	1583 Jul 25 19:54	29°♐11'52	27°14'20		1584 Jun 09 21:20	0°♏	
	1583 Jul 26 16:40	0°♑			1584 Jun 27 09:38	0°♐	
retrograde	1583 Aug 08 16:01	6°♑27'05		desc. node	1584 Jul 04 19:53	9°♐03'39	
evening set	1583 Aug 15 19:38	4°♑05'16		evening max el	1584 Jul 06 21:20	11°♐07'39	26°30'01
min. Earth dist.	1583 Aug 19 10:01	1°♑18'05	0.61863 AU	retrograde	1584 Jul 20 20:51	18°♐20'28	
	1583 Aug 20 20:54	30°♑		evening set	1584 Jul 27 12:49	16°♐28'40	
inferior conj	1583 Aug 22 11:12	28°♐32'17	-4°-10'-49	min. Earth dist.	1584 Jul 31 10:33	13°♐52'59	0.59826 AU
minimum elong	1583 Aug 22 16:18	28°♐20'39	4°09'43	inferior conj	1584 Aug 03 18:07	11°♐15'40	-4°-45'-22
morning rise	1583 Aug 29 15:45	23°♐32'18		minimum elong	1584 Aug 03 21:26	11°♐09'06	4°45'02
direct	1583 Sep 01 01:07	23°♐07'47		morning rise	1584 Aug 11 09:25	6°♐38'35	
asc. node	1583 Sep 06 08:23	25°♐12'11		direct	1584 Aug 13 19:21	6°♐17'28	
morning max el	1583 Sep 07 22:43	26°♐36'14	17°55'11	morning max el	1584 Aug 21 09:29	9°♐58'11	18°16'22
	1583 Sep 10 21:41	0°♒		asc. node	1584 Aug 23 05:25	11°♐54'56	
morning set	1583 Sep 23 20:21	21°♒32'59			1584 Sep 03 12:34	0°♑	
	1583 Sep 28 12:30	0°♓		morning set	1584 Sep 06 07:02	5°♑13'12	
superior conj	1583 Oct 04 13:27	10°♓38'15	1°06'38	superior conj	1584 Sep 15 16:31	22°♑49'17	1°30'22
minimum elong	1583 Oct 04 18:07	10°♓58'21	1°06'05	minimum elong	1584 Sep 15 20:06	23°♑05'38	1°30'03
max. Earth dist.	1583 Oct 11 22:43	23°♓04'02	1.42741 AU		1584 Sep 19 16:43	0°♓	
desc. node	1583 Oct 14 22:10	27°♓54'12		max. Earth dist.	1584 Sep 23 06:32	6°♓11'41	1.40884 AU
	1583 Oct 16 05:34	0°♔		evening rise	1584 Sep 28 02:23	14°♓15'31	
evening rise	1583 Oct 18 20:42	4°♔09'52		desc. node	1584 Sep 30 19:12	18°♓37'48	
	1583 Nov 05 02:33	0°♕			1584 Oct 08 02:35	0°♔	
greatest brilliancy	1583 Nov 14 20:26	13°♕05'18	-0.4m	greatest brilliancy	1584 Oct 25 17:25	24°♔36'29	-0.2m
evening max el	1583 Nov 19 15:01	18°♕30'43	21°52'54		1584 Oct 30 07:31	0°♕	
retrograde	1583 Nov 28 19:46	23°♕59'06		evening max el	1584 Nov 01 06:23	2°♕03'05	23°12'00
evening set	1583 Dec 03 03:24	22°♕17'24		retrograde	1584 Nov 11 13:58	8°♕09'59	
asc. node	1583 Dec 03 07:39	22°♕08'47		evening set	1584 Nov 16 10:22	6°♕11'05	
inferior conj	1583 Dec 08 12:54	15°♕57'21	1°42'56	asc. node	1584 Nov 19 04:40	3°♕17'40	
minimum elong	1583 Dec 08 10:47	16°♕04'40	1°42'09	inferior conj	1584 Nov 21 20:17	29°♕46'17	0°54'03
min. Earth dist.	1583 Dec 08 14:58	15°♕50'09	0.67735 AU	minimum elong	1584 Nov 21 19:03	29°♕50'32	0°53'33
morning rise	1583 Dec 13 17:57	9°♕43'15		min. Earth dist.	1584 Nov 21 11:40	0°♕15'55	0.67780 AU
direct	1583 Dec 18 14:06	7°♕41'22			1584 Nov 21 16:18	30°♕	
morning max el	1583 Dec 28 10:59	13°♕32'06	22°47'42				

morning rise	1584 Nov 27 03:48	23° \mathbb{M} 35'23		transit end	1585 Nov 06 05:17	13° \mathbb{M} 28'48	
direct	1584 Dec 01 09:18	21° \mathbb{M} 56'22		asc. node	1585 Nov 06 01:42	13° \mathbb{M} 40'46	
morning max el	1584 Dec 10 01:55	27° \mathbb{M} 01'02	21°23'41	morning rise	1585 Nov 11 14:34	7° \mathbb{M} 32'40	
	1584 Dec 12 19:46	0° \mathbb{M}		direct	1585 Nov 15 06:58	6° \mathbb{M} 14'48	
greatest brilliancy	1584 Dec 15 04:56	2° \mathbb{M} 52'28	-0.4m	morning max el	1585 Nov 23 00:14	10° \mathbb{M} 40'26	20°10'14
desc. node	1584 Dec 27 18:27	20° \mathbb{M} 15'59		greatest brilliancy	1585 Nov 29 20:31	18° \mathbb{M} 55'58	-0.6m
	1585 Jan 03 06:25	0° \mathbb{M}			1585 Dec 07 14:49	0° \mathbb{M}	
morning set	1585 Jan 10 06:47	10° \mathbb{M} 52'44		desc. node	1585 Dec 14 15:29	10° \mathbb{M} 33'39	
max. Earth dist.	1585 Jan 17 11:04	22° \mathbb{M} 26'38	1.42110 AU	morning set	1585 Dec 20 03:41	19° \mathbb{M} 00'45	
	1585 Jan 21 23:42	0° \mathbb{M}			1585 Dec 27 04:30	0° \mathbb{M}	
				max. Earth dist.	1585 Dec 30 19:35	5° \mathbb{M} 46'10	1.43752 AU
superior conj	1585 Jan 24 21:00	4° \mathbb{M} 56'17	-2°-4'-22	superior conj	1586 Jan 05 11:57	14° \mathbb{M} 58'41	-1°-55'-23
minimum elong	1585 Jan 24 20:50	4° \mathbb{M} 55'31	2°04'24	minimum elong	1586 Jan 05 06:29	14° \mathbb{M} 36'17	1°55'05
evening rise	1585 Feb 05 01:41	24° \mathbb{M} 53'06			1586 Jan 14 10:59	0° \mathbb{M}	
	1585 Feb 07 21:18	0° \mathbb{M}		evening rise	1586 Jan 18 09:43	6° \mathbb{M} 47'48	
asc. node	1585 Feb 15 03:59	12° \mathbb{M} 33'17			1586 Feb 01 13:15	0° \mathbb{M}	
evening max el	1585 Feb 21 14:19	21° \mathbb{M} 01'53	18°08'55	asc. node	1586 Feb 02 01:02	0° \mathbb{M} 39'30	
retrograde	1585 Feb 28 08:17	24° \mathbb{M} 27'47		evening max el	1586 Feb 05 02:46	4° \mathbb{M} 15'17	18°10'48
evening set	1585 Mar 02 22:37	23° \mathbb{M} 57'40		retrograde	1586 Feb 11 14:00	7° \mathbb{M} 40'26	
inferior conj	1585 Mar 09 16:38	19° \mathbb{M} 02'40	3°31'16	evening set	1586 Feb 14 09:17	7° \mathbb{M} 00'22	
minimum elong	1585 Mar 09 18:50	18° \mathbb{M} 57'30	3°31'01	inferior conj	1586 Feb 20 15:24	1° \mathbb{M} 44'44	3°44'45
min. Earth dist.	1585 Mar 12 22:30	16° \mathbb{M} 00'57	0.60740 AU	minimum elong	1586 Feb 20 15:33	1° \mathbb{M} 44'19	3°44'44
morning rise	1585 Mar 16 11:56	13° \mathbb{M} 13'44			1586 Feb 22 06:32	30° \mathbb{M}	
direct	1585 Mar 23 05:31	11° \mathbb{M} 01'13		min. Earth dist.	1586 Feb 23 08:40	28° \mathbb{M} 51'40	0.62801 AU
desc. node	1585 Mar 25 17:39	11° \mathbb{M} 18'31		morning rise	1586 Feb 26 19:44	25° \mathbb{M} 43'28	
morning max el	1585 Apr 06 11:29	18° \mathbb{M} 53'40	27°40'02	direct	1586 Mar 05 18:40	23° \mathbb{M} 04'52	
	1585 Apr 15 20:46	0° \mathbb{M}		desc. node	1586 Mar 12 14:41	25° \mathbb{M} 14'23	
	1585 May 04 02:08	0° \mathbb{M}			1586 Mar 18 16:49	0° \mathbb{M}	
morning set	1585 May 08 16:52	9° \mathbb{M} 12'48		morning max el	1586 Mar 19 17:31	1° \mathbb{M} 00'05	27°47'35
asc. node	1585 May 14 03:15	20° \mathbb{M} 45'34			1586 Apr 09 23:46	0° \mathbb{M}	
max. Earth dist.	1585 May 14 22:25	22° \mathbb{M} 30'02	1.32287 AU	morning set	1586 Apr 22 17:36	23° \mathbb{M} 29'24	
					1586 Apr 25 21:39	0° \mathbb{M}	
superior conj	1585 May 15 23:48	24° \mathbb{M} 48'52	0°19'32	max. Earth dist.	1586 Apr 28 05:44	4° \mathbb{M} 56'30	1.32751 AU
minimum elong	1585 May 15 22:55	24° \mathbb{M} 44'03	0°19'20				
	1585 May 18 08:32	0° \mathbb{M}		superior conj	1586 Apr 30 08:42	9° \mathbb{M} 30'29	0°-6'-52
evening rise	1585 May 22 21:43	9° \mathbb{M} 50'16		minimum elong	1586 Apr 30 09:02	9° \mathbb{M} 32'16	0°06'48
	1585 Jun 02 06:53	0° \mathbb{M}		behind sun begin	1586 Apr 30 04:18	9° \mathbb{M} 06'37	
evening max el	1585 Jun 18 15:41	22° \mathbb{M} 16'52	25°16'31	behind sun end	1586 Apr 30 13:47	9° \mathbb{M} 57'56	
desc. node	1585 Jun 21 16:54	24° \mathbb{M} 56'11		asc. node	1586 May 01 00:19	10° \mathbb{M} 54'59	
retrograde	1585 Jul 02 16:03	29° \mathbb{M} 24'52		evening rise	1586 May 07 09:34	24° \mathbb{M} 41'47	
evening set	1585 Jul 08 06:47	28° \mathbb{M} 11'45			1586 May 09 22:41	0° \mathbb{M}	
min. Earth dist.	1585 Jul 13 03:32	25° \mathbb{M} 28'42	0.57799 AU		1586 May 28 11:34	0° \mathbb{M}	
inferior conj	1585 Jul 16 06:21	23° \mathbb{M} 20'18	-4°-54'-53	evening max el	1586 May 31 05:49	2° \mathbb{M} 53'29	23°44'27
minimum elong	1585 Jul 16 05:24	23° \mathbb{M} 21'55	4°54'53	desc. node	1586 Jun 08 13:56	8° \mathbb{M} 40'20	
morning rise	1585 Jul 24 07:47	19° \mathbb{M} 05'49		retrograde	1586 Jun 13 22:55	9° \mathbb{M} 45'54	
direct	1585 Jul 26 20:32	18° \mathbb{M} 46'33		evening set	1586 Jun 18 02:49	9° \mathbb{M} 07'48	
morning max el	1585 Aug 04 12:51	22° \mathbb{M} 51'18	18°58'15	min. Earth dist.	1586 Jun 24 16:26	6° \mathbb{M} 01'47	0.56111 AU
asc. node	1585 Aug 10 02:28	29° \mathbb{M} 36'59		inferior conj	1586 Jun 26 22:22	4° \mathbb{M} 40'14	-4°-25'-22
	1585 Aug 10 08:42	0° \mathbb{M}		minimum elong	1586 Jun 26 16:18	4° \mathbb{M} 49'27	4°24'22
morning set	1585 Aug 21 03:54	19° \mathbb{M} 23'07		morning rise	1586 Jul 05 09:13	0° \mathbb{M} 43'01	
	1585 Aug 26 13:05	0° \mathbb{M}		direct	1586 Jul 08 02:40	0° \mathbb{M} 24'11	
superior conj	1585 Aug 29 14:53	5° \mathbb{M} 57'35	1°42'51	morning max el	1586 Jul 18 06:01	5° \mathbb{M} 06'07	20°01'29
minimum elong	1585 Aug 29 16:33	6° \mathbb{M} 05'34	1°42'46	asc. node	1586 Jul 27 23:32	18° \mathbb{M} 04'54	
max. Earth dist.	1585 Sep 05 10:10	18° \mathbb{M} 35'31	1.38842 AU		1586 Aug 03 09:06	0° \mathbb{M}	
evening rise	1585 Sep 09 08:13	25° \mathbb{M} 28'48		morning set	1586 Aug 05 07:46	3° \mathbb{M} 54'20	
	1585 Sep 12 00:05	0° \mathbb{M}					
desc. node	1585 Sep 17 16:13	9° \mathbb{M} 14'01		superior conj	1586 Aug 13 03:18	19° \mathbb{M} 48'08	1°45'59
	1585 Oct 01 18:39	0° \mathbb{M}		minimum elong	1586 Aug 13 03:09	19° \mathbb{M} 47'24	1°46'00
evening max el	1585 Oct 14 18:58	15° \mathbb{M} 39'25	24°31'27		1586 Aug 18 08:24	0° \mathbb{M}	
retrograde	1585 Oct 26 04:26	22° \mathbb{M} 18'53		max. Earth dist.	1586 Aug 18 15:00	0° \mathbb{M} 31'24	1.36872 AU
evening set	1585 Oct 31 14:53	20° \mathbb{M} 03'05		evening rise	1586 Aug 22 12:47	7° \mathbb{M} 46'38	
min. Earth dist.	1585 Nov 05 07:30	14° \mathbb{M} 41'37	0.67496 AU	desc. node	1586 Sep 04 13:15	29° \mathbb{M} 38'06	
inferior conj	1585 Nov 06 02:33	13° \mathbb{M} 37'54	0°00'44		1586 Sep 04 18:54	0° \mathbb{M}	
minimum elong	1585 Nov 06 02:32	13° \mathbb{M} 37'58	0°00'43	evening max el	1586 Sep 27 06:57	29° \mathbb{M} 18'56	25°43'55
transit middle	1585 Nov 06 02:32	13° \mathbb{M} 37'58	0°00'43		1586 Sep 28 00:05	0° \mathbb{M}	
transit begin	1585 Nov 05 23:48	13° \mathbb{M} 47'08		retrograde	1586 Oct 09 14:12	6° \mathbb{M} 20'54	

evening set	1586 Oct 15 15:11	3° \mathbb{M} 50'15		min. Earth dist.	1587 Oct 03 10:32	13° \mathbb{A} 21'01	0.65930 AU
	1586 Oct 19 06:06	30° \mathbb{R} \mathbb{A}		inferior conj	1587 Oct 05 04:21	11° \mathbb{A} 16'58	-1°-53'-35
min. Earth dist.	1586 Oct 19 23:56	29° \mathbb{A} 04'30	0.66885 AU	minimum elong	1587 Oct 05 07:22	11° \mathbb{A} 08'02	1°52'25
inferior conj	1586 Oct 21 05:54	27° \mathbb{A} 29'09	0°-55'-41	asc. node	1587 Oct 10 19:48	5° \mathbb{A} 47'38	
minimum elong	1586 Oct 21 07:20	27° \mathbb{A} 24'34	0°55'05	morning rise	1587 Oct 11 06:49	5° \mathbb{A} 32'02	
asc. node	1586 Oct 23 22:46	24° \mathbb{A} 13'15		direct	1587 Oct 14 03:15	4° \mathbb{A} 46'38	
morning rise	1586 Oct 27 00:18	21° \mathbb{A} 32'29		morning max el	1587 Oct 20 18:07	8° \mathbb{A} 24'04	18°27'26
direct	1586 Oct 30 05:36	20° \mathbb{A} 32'40			1587 Nov 04 19:53	0° \mathbb{M}	
morning max el	1586 Nov 06 06:09	24° \mathbb{A} 29'07	19°10'52	morning set	1587 Nov 09 12:14	7° \mathbb{M} 32'03	
	1586 Nov 10 21:55	0° \mathbb{M}		desc. node	1587 Nov 18 09:33	21° \mathbb{M} 44'27	
morning set	1586 Nov 29 07:08	27° \mathbb{M} 36'23			1587 Nov 23 15:02	0° \mathbb{A}	
	1586 Nov 30 19:59	0° \mathbb{A}					
desc. node	1586 Dec 01 12:30	1° \mathbb{A} 04'23		superior conj	1587 Nov 25 02:59	2° \mathbb{A} 21'23	0°-43'-49
max. Earth dist.	1586 Dec 13 10:48	19° \mathbb{A} 45'34	1.44799 AU	minimum elong	1587 Nov 24 21:20	1° \mathbb{A} 59'11	0°43'06
				max. Earth dist.	1587 Nov 26 05:47	4° \mathbb{A} 06'40	1.45131 AU
superior conj	1586 Dec 16 01:46	23° \mathbb{A} 54'27	-1°-27'-31	evening rise	1587 Dec 11 07:25	27° \mathbb{A} 47'43	
minimum elong	1586 Dec 15 17:01	23° \mathbb{A} 19'48	1°26'39		1587 Dec 12 16:57	0° \mathbb{B}	
	1586 Dec 19 21:37	0° \mathbb{B}		greatest brilliancy	1587 Dec 23 14:55	17° \mathbb{B} 05'20	-0.7m
evening rise	1586 Dec 30 20:16	17° \mathbb{B} 46'04			1588 Jan 02 00:10	0° \mathbb{A}	
	1587 Jan 07 06:42	0° \mathbb{A}		evening max el	1588 Jan 03 00:27	1° \mathbb{A} 05'18	19°09'17
evening max el	1587 Jan 19 14:57	17° \mathbb{A} 37'59	18°31'19	asc. node	1588 Jan 06 19:08	4° \mathbb{A} 08'55	
asc. node	1587 Jan 19 22:06	17° \mathbb{A} 55'52		retrograde	1588 Jan 09 23:58	5° \mathbb{A} 04'21	
retrograde	1587 Jan 26 04:25	21° \mathbb{A} 14'48		evening set	1588 Jan 13 07:00	4° \mathbb{A} 01'12	
evening set	1587 Jan 29 05:04	20° \mathbb{A} 23'45			1588 Jan 17 11:12	30° \mathbb{R} \mathbb{B}	
inferior conj	1587 Feb 04 02:31	14° \mathbb{A} 49'02	3°38'48	inferior conj	1588 Jan 18 22:31	28° \mathbb{B} 09'43	3°18'38
minimum elong	1587 Feb 04 01:05	14° \mathbb{A} 53'14	3°38'40	minimum elong	1588 Jan 18 20:09	28° \mathbb{B} 17'13	3°18'11
min. Earth dist.	1587 Feb 06 04:19	12° \mathbb{A} 22'34	0.64573 AU	min. Earth dist.	1588 Jan 20 09:05	26° \mathbb{B} 19'47	0.65960 AU
morning rise	1587 Feb 09 19:48	8° \mathbb{A} 40'27		morning rise	1588 Jan 24 08:27	21° \mathbb{B} 56'45	
direct	1587 Feb 16 15:04	5° \mathbb{A} 50'22		direct	1588 Jan 30 17:49	19° \mathbb{B} 09'05	
desc. node	1587 Feb 27 11:43	11° \mathbb{A} 11'46		morning max el	1588 Feb 12 12:27	26° \mathbb{B} 41'39	26°22'48
morning max el	1587 Mar 02 02:39	13° \mathbb{A} 39'45	27°19'46	desc. node	1588 Feb 14 08:46	28° \mathbb{B} 37'30	
	1587 Mar 15 07:56	0° \mathbb{H}			1588 Feb 15 14:35	0° \mathbb{A}	
	1587 Apr 02 14:13	0° \mathbb{Y}			1588 Mar 07 22:35	0° \mathbb{H}	
morning set	1587 Apr 06 09:53	7° \mathbb{Y} 16'54		morning set	1588 Mar 19 14:01	20° \mathbb{H} 24'13	
max. Earth dist.	1587 Apr 11 05:00	16° \mathbb{Y} 54'52	1.33643 AU	max. Earth dist.	1588 Mar 23 17:13	28° \mathbb{H} 20'30	1.34987 AU
					1588 Mar 24 13:23	0° \mathbb{Y}	
superior conj	1587 Apr 14 13:24	23° \mathbb{Y} 54'51	0°-34'-27	superior conj	1588 Mar 28 11:33	7° \mathbb{Y} 54'52	-1°-1'-59
minimum elong	1587 Apr 14 15:07	24° \mathbb{Y} 03'56	0°34'06	minimum elong	1588 Mar 28 14:37	8° \mathbb{Y} 10'40	1°01'26
	1587 Apr 17 10:02	0° \mathbb{B}		asc. node	1588 Apr 03 18:27	20° \mathbb{Y} 58'09	
asc. node	1587 Apr 17 21:24	1° \mathbb{B} 00'39		evening rise	1588 Apr 05 05:09	23° \mathbb{Y} 57'50	
evening rise	1587 Apr 21 20:42	9° \mathbb{B} 26'29			1588 Apr 08 04:32	0° \mathbb{B}	
	1587 May 02 16:20	0° \mathbb{I}		evening max el	1588 Apr 23 23:36	24° \mathbb{B} 21'59	20°43'07
evening max el	1587 May 12 22:14	13° \mathbb{I} 25'41	22°08'56	retrograde	1588 May 05 06:33	29° \mathbb{B} 50'57	
retrograde	1587 May 25 17:25	19° \mathbb{I} 44'20		evening set	1588 May 07 09:51	29° \mathbb{B} 39'55	
desc. node	1587 May 26 10:57	19° \mathbb{I} 43'07		desc. node	1588 May 12 07:59	28° \mathbb{B} 01'29	
evening set	1587 May 28 13:32	19° \mathbb{I} 26'29		inferior conj	1588 May 16 15:41	25° \mathbb{B} 42'15	-1°-15'-12
min. Earth dist.	1587 Jun 06 04:07	15° \mathbb{I} 45'05	0.55098 AU	minimum elong	1588 May 16 12:07	25° \mathbb{B} 47'21	1°13'56
inferior conj	1587 Jun 06 21:48	15° \mathbb{I} 20'15	-3°-8'-18	min. Earth dist.	1588 May 17 16:39	25° \mathbb{B} 06'30	0.54998 AU
minimum elong	1587 Jun 06 14:11	15° \mathbb{I} 30'58	3°06'04	morning rise	1588 May 25 13:18	21° \mathbb{B} 34'54	
morning rise	1587 Jun 15 16:38	11° \mathbb{I} 27'46		direct	1588 May 29 03:02	21° \mathbb{B} 07'25	
direct	1587 Jun 18 17:14	11° \mathbb{I} 07'17		morning max el	1588 Jun 11 07:44	27° \mathbb{B} 28'53	23°02'34
morning max el	1587 Jun 30 11:45	16° \mathbb{I} 37'20	21°24'45		1588 Jun 13 19:17	0° \mathbb{I}	
	1587 Jul 10 19:24	0° \mathbb{B}		asc. node	1588 Jun 30 17:40	26° \mathbb{I} 36'22	
asc. node	1587 Jul 14 20:36	7° \mathbb{B} 07'51			1588 Jul 02 09:55	0° \mathbb{B}	
morning set	1587 Jul 20 16:14	18° \mathbb{B} 40'24		morning set	1588 Jul 04 03:15	3° \mathbb{B} 34'30	
	1587 Jul 26 01:56	0° \mathbb{Q}					
superior conj	1587 Jul 28 01:38	4° \mathbb{Q} 09'08	1°41'37	superior conj	1588 Jul 11 06:36	18° \mathbb{B} 49'57	1°31'12
minimum elong	1587 Jul 28 00:10	4° \mathbb{Q} 01'30	1°41'32	minimum elong	1588 Jul 11 04:23	18° \mathbb{B} 38'06	1°30'57
max. Earth dist.	1587 Aug 01 02:35	12° \mathbb{Q} 24'28	1.35165 AU	max. Earth dist.	1588 Jul 13 23:09	24° \mathbb{B} 31'40	1.33832 AU
evening rise	1587 Aug 05 11:38	20° \mathbb{Q} 57'42			1588 Jul 16 14:39	0° \mathbb{Q}	
	1587 Aug 10 09:24	0° \mathbb{M}		evening rise	1588 Jul 19 00:05	4° \mathbb{Q} 48'33	
desc. node	1587 Aug 22 10:17	19° \mathbb{M} 44'06			1588 Aug 02 02:24	0° \mathbb{M}	
	1587 Aug 29 16:12	0° \mathbb{A}		desc. node	1588 Aug 08 07:18	9° \mathbb{M} 23'11	
evening max el	1587 Sep 09 19:12	12° \mathbb{A} 56'13	26°41'40	evening max el	1588 Aug 22 07:00	26° \mathbb{M} 20'07	27°17'25
retrograde	1587 Sep 22 18:45	20° \mathbb{A} 10'29			1588 Aug 26 14:44	0° \mathbb{A}	
evening set	1587 Sep 29 09:13	17° \mathbb{A} 29'35		retrograde	1588 Sep 04 17:41	3° \mathbb{A} 38'52	

evening set	1588 Sep 11 18:24	0°♄55'49		evening max el	1589 Aug 04 16:45	9°♄19'05	27°24'45
	1588 Sep 12 21:20	30°♄		retrograde	1589 Aug 18 10:35	16°♄36'53	
min. Earth dist.	1588 Sep 15 13:03	27°♄23'42	0.64612 AU	evening set	1589 Aug 25 15:28	14°♄03'25	
inferior conj	1588 Sep 17 19:35	24°♄55'42	-2°-50'-51	min. Earth dist.	1589 Aug 29 05:51	11°♄02'37	0.62947 AU
minimum elong	1588 Sep 18 00:01	24°♄43'41	2°49'19	inferior conj	1589 Sep 01 00:53	8°♄19'23	-3°-44'-4
morning rise	1588 Sep 24 07:32	19°♄25'46		minimum elong	1589 Sep 01 06:06	8°♄06'39	3°42'40
direct	1588 Sep 26 21:28	18°♄51'08		morning rise	1589 Sep 07 23:15	3°♄07'37	
asc. node	1588 Sep 26 16:50	18°♄51'20		direct	1589 Sep 10 09:22	2°♄40'21	
morning max el	1588 Oct 03 09:33	22°♄18'42	18°00'50	asc. node	1589 Sep 13 13:53	3°♄28'42	
	1588 Oct 09 09:30	0°♄		morning max el	1589 Sep 17 01:32	6°♄06'22	17°51'53
morning set	1588 Oct 20 21:58	18°♄51'30			1589 Oct 02 13:34	0°♄	
	1588 Oct 27 14:08	0°♄		morning set	1589 Oct 03 07:24	1°♄18'48	
superior conj	1588 Nov 03 13:07	11°♄19'42	0°04'54	superior conj	1589 Oct 14 23:29	21°♄30'25	0°47'23
minimum elong	1588 Nov 03 13:42	11°♄22'02	0°04'50	minimum elong	1589 Oct 15 03:43	21°♄48'09	0°46'48
behind sun begin	1588 Nov 03 03:38	10°♄41'35			1589 Oct 20 02:55	0°♄	
behind sun end	1588 Nov 03 23:46	12°♄02'26		max. Earth dist.	1589 Oct 21 16:09	2°♄30'48	1.43619 AU
desc. node	1588 Nov 04 06:35	12°♄29'43		desc. node	1589 Oct 22 03:36	3°♄16'55	
max. Earth dist.	1588 Nov 08 00:32	18°♄27'38	1.44715 AU	evening rise	1589 Oct 30 06:39	16°♄05'54	
	1588 Nov 15 09:15	0°♄			1589 Nov 08 10:05	0°♄	
evening rise	1588 Nov 19 22:43	7°♄03'39		greatest brilliancy	1589 Nov 23 23:09	21°♄58'42	-0.4m
	1588 Dec 05 01:59	0°♄		evening max el	1589 Nov 29 04:49	28°♄04'11	21°10'06
greatest brilliancy	1588 Dec 09 08:17	6°♄04'41	-0.6m		1589 Dec 01 05:39	0°♄	
evening max el	1588 Dec 16 05:24	14°♄34'22	20°03'07	retrograde	1589 Dec 07 19:18	3°♄10'35	
retrograde	1588 Dec 23 21:42	19°♄04'17		asc. node	1589 Dec 10 13:08	2°♄28'36	
asc. node	1588 Dec 23 16:08	19°♄03'59		evening set	1589 Dec 11 20:12	1°♄38'39	
evening set	1588 Dec 27 12:42	17°♄47'34			1589 Dec 13 14:54	30°♄	
inferior conj	1589 Jan 02 00:30	11°♄42'22	2°47'47	inferior conj	1589 Dec 17 06:06	25°♄23'03	2°08'37
minimum elong	1589 Jan 01 21:50	11°♄51'17	2°47'03	minimum elong	1589 Dec 17 03:39	25°♄31'29	2°07'47
min. Earth dist.	1589 Jan 02 21:20	10°♄32'32	0.66943 AU	min. Earth dist.	1589 Dec 17 14:44	24°♄53'17	0.67545 AU
morning rise	1589 Jan 07 06:23	5°♄27'12		morning rise	1589 Dec 22 10:43	19°♄07'50	
direct	1589 Jan 13 02:15	2°♄52'30		direct	1589 Dec 27 15:38	16°♄52'48	
morning max el	1589 Jan 24 21:19	9°♄54'31	25°05'39	morning max el	1590 Jan 07 05:52	23°♄11'36	23°38'27
desc. node	1589 Jan 31 05:48	17°♄06'08			1590 Jan 13 05:51	0°♄	
	1589 Feb 09 19:39	0°♄		desc. node	1590 Jan 18 02:50	6°♄19'01	
	1589 Feb 28 13:37	0°♄			1590 Feb 03 04:59	0°♄	
morning set	1589 Mar 02 01:05	2°♄37'23		morning set	1590 Feb 11 12:46	13°♄38'33	
max. Earth dist.	1589 Mar 05 18:13	9°♄23'49	1.36757 AU	max. Earth dist.	1590 Feb 15 13:00	20°♄34'33	1.38837 AU
					1590 Feb 20 18:29	0°♄	
superior conj	1589 Mar 12 00:15	21°♄22'36	-1°-27'-40	superior conj	1590 Feb 22 23:40	4°♄07'25	-1°-48'-56
minimum elong	1589 Mar 12 04:18	21°♄42'34	1°27'07	minimum elong	1590 Feb 23 03:40	4°♄26'15	1°48'37
	1589 Mar 16 07:52	0°♄		evening rise	1590 Mar 04 04:42	21°♄52'11	
evening rise	1589 Mar 20 08:43	8°♄09'07			1590 Mar 08 10:30	0°♄	
asc. node	1589 Mar 21 15:29	10°♄43'02		asc. node	1590 Mar 08 12:29	0°♄09'20	
	1589 Apr 01 13:28	0°♄		evening max el	1590 Mar 20 12:17	18°♄10'32	18°45'30
evening max el	1589 Apr 06 12:43	5°♄57'28	19°34'29	retrograde	1590 Mar 28 14:26	22°♄06'42	
retrograde	1589 Apr 16 02:20	10°♄34'22		evening set	1590 Mar 30 20:29	21°♄49'33	
evening set	1589 Apr 18 03:37	10°♄22'32		inferior conj	1590 Apr 07 16:33	17°♄28'02	2°13'53
inferior conj	1589 Apr 26 18:42	6°♄18'10	0°41'39	minimum elong	1590 Apr 07 20:36	17°♄20'33	2°12'45
minimum elong	1589 Apr 26 20:28	6°♄15'22	0°41'02	min. Earth dist.	1590 Apr 11 00:06	15°♄02'00	0.57466 AU
desc. node	1589 Apr 29 05:00	4°♄45'35		morning rise	1590 Apr 15 16:23	12°♄16'11	
min. Earth dist.	1589 Apr 29 07:08	4°♄42'16	0.55848 AU	desc. node	1590 Apr 16 02:02	12°♄05'46	
morning rise	1589 May 05 09:38	1°♄39'39		direct	1590 Apr 21 06:00	11°♄00'08	
direct	1589 May 09 21:29	0°♄54'14		morning max el	1590 May 05 14:16	18°♄31'48	26°14'09
morning max el	1589 May 23 22:40	7°♄58'38	24°43'57		1590 May 15 04:49	0°♄	
	1589 Jun 09 02:23	0°♄			1590 Jun 01 10:49	0°♄	
asc. node	1589 Jun 17 14:43	16°♄23'32		morning set	1590 Jun 03 02:15	3°♄25'10	
morning set	1589 Jun 18 15:08	18°♄31'24		asc. node	1590 Jun 04 11:46	6°♄22'57	
	1589 Jun 23 22:53	0°♄					
superior conj	1589 Jun 25 15:46	3°♄42'49	1°15'51	superior conj	1590 Jun 10 03:05	18°♄40'24	0°56'29
minimum elong	1589 Jun 25 13:21	3°♄29'37	1°15'29	minimum elong	1590 Jun 10 00:57	18°♄28'37	0°56'05
max. Earth dist.	1589 Jun 27 04:01	6°♄59'25	1.32906 AU	max. Earth dist.	1590 Jun 10 14:28	19°♄42'52	1.32371 AU
evening rise	1589 Jul 02 22:21	19°♄08'24			1590 Jun 15 08:12	0°♄	
	1589 Jul 08 11:17	0°♄		evening rise	1590 Jun 17 03:20	3°♄47'18	
desc. node	1589 Jul 26 04:19	28°♄24'04			1590 Jul 01 06:02	0°♄	
	1589 Jul 27 09:46	0°♄		desc. node	1590 Jul 13 01:20	16°♄30'57	

evening max el	1590 Jul 17 22:05	21°041'12	26°59'32		1591 Jun 26 16:26	0°0	
retrograde	1590 Jul 31 20:13	28°055'34		desc. node	1591 Jun 29 22:21	3°021'13	
evening set	1590 Aug 07 20:11	26°045'18		evening max el	1591 Jun 29 20:42	3°017'18	26°01'51
min. Earth dist.	1590 Aug 11 12:21	24°004'50	0.61006 AU	retrograde	1591 Jul 13 20:53	10°027'45	
inferior conj	1590 Aug 14 17:01	21°020'24	-4°-27'-48	evening set	1591 Jul 20 03:46	8°052'15	
minimum elong	1590 Aug 14 21:39	21°010'26	4°27'01	min. Earth dist.	1591 Jul 24 09:18	6°015'38	0.58946 AU
morning rise	1590 Aug 22 02:10	16°029'43		inferior conj	1591 Jul 27 16:22	3°048'31	-4°-53'-18
direct	1590 Aug 24 11:19	16°006'59		minimum elong	1591 Jul 27 18:09	3°045'10	4°53'14
asc. node	1590 Aug 31 10:56	19°029'55			1591 Aug 02 16:27	30°R	
morning max el	1590 Aug 31 15:04	19°039'50	18°01'43	morning rise	1591 Aug 04 12:01	29°020'59	
	1590 Sep 08 06:08	0°		direct	1591 Aug 06 23:03	29°000'41	
morning set	1590 Sep 16 10:25	14°036'53			1591 Aug 11 00:52	0°0	
	1590 Sep 24 20:12	0°		morning max el	1591 Aug 14 22:58	2°050'07	18°31'36
				asc. node	1591 Aug 18 08:01	6°039'31	
superior conj	1590 Sep 26 12:49	3°000'33	1°18'11	morning set	1591 Aug 31 01:55	28°031'08	
minimum elong	1590 Sep 26 17:14	3°020'01	1°17'43		1591 Aug 31 20:20	0°	
max. Earth dist.	1590 Oct 04 03:07	16°002'31	1.41987 AU				
desc. node	1590 Oct 09 00:38	24°002'59		superior conj	1591 Sep 09 00:47	15°037'35	1°36'56
evening rise	1590 Oct 10 00:42	25°039'22		minimum elong	1591 Sep 09 03:35	15°050'39	1°36'45
	1590 Oct 12 18:40	0°		max. Earth dist.	1591 Sep 16 09:13	28°052'38	1.40024 AU
	1590 Nov 02 07:20	0°			1591 Sep 17 00:45	0°	
greatest brilliancy	1590 Nov 07 04:51	6°015'49	-0.3m	evening rise	1591 Sep 20 16:29	6°013'04	
evening max el	1590 Nov 11 22:55	11°035'57	22°26'14	desc. node	1591 Sep 25 21:39	14°043'55	
retrograde	1590 Nov 21 15:01	17°020'51			1591 Oct 05 21:42	0°	
evening set	1590 Nov 26 03:50	15°032'07		evening max el	1591 Oct 25 12:56	25°010'08	23°46'14
asc. node	1590 Nov 27 10:10	14°022'19			1591 Oct 31 11:32	0°	
inferior conj	1590 Dec 01 13:22	9°009'48	1°22'53	retrograde	1591 Nov 05 07:35	1°031'11	
minimum elong	1590 Dec 01 11:34	9°015'59	1°22'10		1591 Nov 09 15:56	30°R	
min. Earth dist.	1590 Dec 01 10:55	9°018'17	0.67793 AU	evening set	1591 Nov 10 09:57	29°024'56	
morning rise	1590 Dec 06 19:11	2°056'42		asc. node	1591 Nov 14 07:13	25°005'21	
direct	1590 Dec 11 09:04	1°004'20		inferior conj	1591 Nov 15 20:28	22°059'42	0°31'55
morning max el	1590 Dec 20 17:20	6°034'48	22°11'01	minimum elong	1591 Nov 15 19:43	23°002'16	0°31'36
greatest brilliancy	1590 Dec 25 08:26	11°046'32	-0.3m	min. Earth dist.	1591 Nov 15 07:26	23°044'06	0.67702 AU
desc. node	1591 Jan 04 23:52	26°003'53		morning rise	1591 Nov 21 05:40	16°051'06	
	1591 Jan 07 17:05	0°		direct	1591 Nov 25 05:28	15°021'18	
morning set	1591 Jan 22 19:50	23°015'59		morning max el	1591 Dec 03 11:12	20°007'39	20°50'57
	1591 Jan 26 22:25	0°		greatest brilliancy	1591 Dec 09 04:24	26°047'25	-0.5m
max. Earth dist.	1591 Jan 28 10:11	2°029'31	1.40978 AU		1591 Dec 11 14:40	0°	
				desc. node	1591 Dec 22 20:54	16°011'17	
superior conj	1591 Feb 05 05:05	15°058'08	-2°-2'-11		1591 Dec 31 22:28	0°	
minimum elong	1591 Feb 05 07:10	16°007'24	2°02'09	morning set	1592 Jan 02 00:38	1°041'45	
	1591 Feb 12 21:35	0°		max. Earth dist.	1592 Jan 10 14:50	15°021'37	1.42873 AU
evening rise	1591 Feb 15 13:53	4°059'53					
asc. node	1591 Feb 23 09:30	19°011'00		superior conj	1592 Jan 17 11:09	26°041'43	-2°-2'-45
	1591 Mar 02 22:26	0°		minimum elong	1592 Jan 17 08:50	26°031'57	2°02'42
evening max el	1591 Mar 03 19:19	0°053'44	18°16'33		1592 Jan 19 09:52	0°	
retrograde	1591 Mar 10 21:30	4°025'54		evening rise	1592 Jan 29 08:20	17°023'31	
evening set	1591 Mar 13 09:06	4°000'49			1592 Feb 05 12:10	0°	
	1591 Mar 19 15:59	30°R		asc. node	1592 Feb 10 06:33	7°040'09	
inferior conj	1591 Mar 20 11:37	29°017'56	3°12'01	evening max el	1592 Feb 15 06:36	13°058'05	18°07'21
minimum elong	1591 Mar 20 14:54	29°010'49	3°11'25	retrograde	1592 Feb 21 20:28	17°022'07	
min. Earth dist.	1591 Mar 23 21:31	26°022'20	0.59516 AU	evening set	1592 Feb 24 12:57	16°047'47	
morning rise	1591 Mar 27 17:05	23°040'05		inferior conj	1592 Mar 02 01:25	11°043'30	3°39'47
desc. node	1591 Apr 02 23:04	21°047'35		minimum elong	1592 Mar 02 02:44	11°040'15	3°39'40
direct	1591 Apr 03 03:15	21°047'30		min. Earth dist.	1592 Mar 05 02:24	8°043'07	0.61640 AU
morning max el	1591 Apr 17 11:02	29°033'45	27°18'34	morning rise	1592 Mar 08 13:55	5°048'34	
	1591 Apr 17 21:36	0°		direct	1592 Mar 15 10:53	3°023'45	
	1591 May 09 01:57	0°		desc. node	1592 Mar 19 20:06	4°016'59	
morning set	1591 May 18 10:57	18°010'07		morning max el	1592 Mar 29 14:17	11°017'37	27°47'55
asc. node	1591 May 22 08:49	26°029'46			1592 Apr 13 07:00	0°	
	1591 May 23 23:23	0°			1592 Apr 30 07:45	0°	
max. Earth dist.	1591 May 25 02:55	2°031'04	1.32215 AU	morning set	1592 May 01 15:20	2°040'05	
				max. Earth dist.	1592 May 07 13:32	15°011'07	1.32439 AU
superior conj	1591 May 25 14:50	3°036'32	0°33'48	asc. node	1592 May 08 05:52	16°039'49	
minimum elong	1591 May 25 13:23	3°028'35	0°33'30				
evening rise	1591 Jun 01 12:35	18°036'55		superior conj	1592 May 09 01:18	18°025'42	0°08'34
	1591 Jun 07 03:30	0°		minimum elong	1592 May 09 00:55	18°023'31	0°08'29

behind sun begin	1592 May 08 20:34	17°♄59'48		1593 Apr 21 22:47	0°♄	
behind sun end	1592 May 09 05:15	18°♄47'15				
	1592 May 14 08:45	0°♄	superior conj	1593 Apr 23 08:40	3°♄00'56	0°-18'-27
evening rise	1592 May 16 00:05	3°♄30'21	minimum elong	1593 Apr 23 09:34	3°♄05'48	0°18'17
	1592 May 30 06:38	0°♄	asc. node	1593 Apr 25 02:54	6°♄48'13	
evening max el	1592 Jun 10 12:41	14°♄10'34	24°38'40	evening rise	1593 Apr 30 11:51	18°♄19'54
desc. node	1592 Jun 15 19:23	18°♄24'38			1593 May 06 06:14	0°♄
retrograde	1592 Jun 24 10:56	21°♄13'38		evening max el	1593 May 23 02:39	24°♄41'05 23°03'20
evening set	1592 Jun 29 11:47	20°♄16'25			1593 May 30 12:27	0°♄
min. Earth dist.	1592 Jul 04 23:48	17°♄25'30	0.57024 AU	desc. node	1593 Jun 02 16:25	1°♄03'59
inferior conj	1592 Jul 07 20:03	15°♄35'08	-4°-47'-56	retrograde	1593 Jun 05 12:43	1°♄22'27
minimum elong	1592 Jul 07 16:50	15°♄40'24	4°47'40	evening set	1593 Jun 09 01:46	0°♄54'54
morning rise	1592 Jul 16 01:38	11°♄29'21			1593 Jun 11 18:42	30°♄♄
direct	1592 Jul 18 16:22	11°♄10'21		min. Earth dist.	1593 Jun 16 11:56	27°♄35'17 0.55580 AU
morning max el	1592 Jul 27 22:21	15°♄28'44	19°22'35	inferior conj	1593 Jun 18 04:10	26°♄36'47 -3°-58'-27
asc. node	1592 Aug 04 05:06	24°♄43'07		minimum elong	1593 Jun 17 20:45	26°♄47'37 3°56'47
	1592 Aug 07 08:33	0°♄		morning rise	1593 Jun 26 18:47	22°♄43'50
morning set	1592 Aug 14 02:09	12°♄51'46		direct	1593 Jun 29 14:33	22°♄24'53
				morning max el	1593 Jul 10 10:49	27°♄26'08 20°34'39
superior conj	1592 Aug 22 05:48	29°♄06'24	1°45'12		1593 Jul 12 22:40	0°♄
minimum elong	1592 Aug 22 06:39	29°♄10'34	1°45'11	asc. node	1593 Jul 22 02:09	13°♄27'12
	1592 Aug 22 16:47	0°♄		morning set	1593 Jul 29 08:14	27°♄30'08
max. Earth dist.	1592 Aug 28 12:59	11°♄03'36	1.37983 AU		1593 Jul 30 13:24	0°♄
evening rise	1592 Sep 01 08:29	17°♄55'08				
	1592 Sep 08 11:41	0°♄		superior conj	1593 Aug 05 22:55	13°♄11'42 1°44'57
desc. node	1592 Sep 11 18:41	5°♄15'49		minimum elong	1593 Aug 05 22:09	13°♄07'45 1°44'56
	1592 Sep 29 05:36	0°♄		max. Earth dist.	1593 Aug 10 19:45	22°♄53'47 1.36104 AU
evening max el	1592 Oct 07 00:57	8°♄47'41	25°03'29	evening rise	1593 Aug 14 21:25	0°♄37'20
retrograde	1592 Oct 18 20:06	15°♄38'01			1593 Aug 14 13:22	0°♄
evening set	1592 Oct 24 12:54	13°♄15'11		desc. node	1593 Aug 29 15:44	25°♄33'10
min. Earth dist.	1592 Oct 29 02:00	8°♄08'58	0.67281 AU		1593 Sep 01 14:49	0°♄
inferior conj	1592 Oct 30 01:43	6°♄51'13	0°-22'-55	evening max el	1593 Sep 19 12:48	22°♄26'32 26°10'39
minimum elong	1592 Oct 30 02:17	6°♄49'19	0°22'41	retrograde	1593 Oct 02 03:55	29°♄35'47
asc. node	1592 Oct 31 04:17	5°♄24'59		evening set	1593 Oct 08 10:49	26°♄59'50
morning rise	1592 Nov 04 16:15	0°♄49'32		min. Earth dist.	1593 Oct 12 16:16	22°♄29'48 0.66519 AU
	1592 Nov 06 06:39	30°♄♄		inferior conj	1593 Oct 14 03:14	20°♄41'32 -1°-20'-12
direct	1592 Nov 08 03:38	29°♄39'55		minimum elong	1593 Oct 14 05:20	20°♄35'01 1°19'21
	1592 Nov 10 02:05	0°♄		asc. node	1593 Oct 18 01:20	16°♄18'32
morning max el	1592 Nov 15 12:58	3°♄51'43	19°43'09	morning rise	1593 Oct 20 00:53	14°♄49'33
greatest brilliancy	1592 Nov 23 11:49	13°♄45'22	-0.6m	direct	1593 Oct 23 02:00	13°♄56'32
	1592 Dec 04 10:53	0°♄		morning max el	1593 Oct 29 21:46	17°♄44'03 18°50'20
desc. node	1592 Dec 08 17:55	6°♄34'58			1593 Nov 08 05:41	0°♄
morning set	1592 Dec 10 21:06	9°♄52'21		morning set	1593 Nov 20 10:02	18°♄58'23
max. Earth dist.	1592 Dec 23 02:40	29°♄00'43	1.44275 AU	desc. node	1593 Nov 25 14:58	27°♄10'16
	1592 Dec 23 17:35	0°♄			1593 Nov 27 10:09	0°♄
				max. Earth dist.	1593 Dec 05 19:18	13°♄09'37 1.45023 AU
superior conj	1592 Dec 27 14:39	6°♄12'44	-1°-45'-53			
minimum elong	1592 Dec 27 07:11	5°♄42'40	1°45'20	superior conj	1593 Dec 06 20:48	14°♄49'54 -1°-10'-25
evening rise	1593 Jan 10 07:40	28°♄54'51		minimum elong	1593 Dec 06 12:35	14°♄17'35 1°09'28
	1593 Jan 10 23:03	0°♄			1593 Dec 16 10:40	0°♄
asc. node	1593 Jan 27 03:36	25°♄26'37		evening rise	1593 Dec 22 08:15	9°♄28'32
evening max el	1593 Jan 28 19:10	27°♄15'38	18°17'19		1594 Jan 04 04:50	0°♄
	1593 Feb 01 08:37	0°♄		evening max el	1594 Jan 12 06:26	10°♄40'47 18°45'29
retrograde	1593 Feb 04 06:30	0°♄44'46		asc. node	1594 Jan 14 00:38	12°♄18'03
evening set	1593 Feb 07 03:53	0°♄00'16		retrograde	1594 Jan 18 23:29	14°♄26'09
	1593 Feb 07 04:05	30°♄♄		evening set	1594 Jan 22 02:34	13°♄30'18
inferior conj	1593 Feb 13 05:55	24°♄36'08	3°44'16	inferior conj	1594 Jan 27 21:12	7°♄48'21 3°31'44
minimum elong	1593 Feb 13 05:20	24°♄37'47	3°44'15	minimum elong	1594 Jan 27 19:18	7°♄54'09 3°31'29
min. Earth dist.	1593 Feb 15 16:41	21°♄52'36	0.63587 AU	min. Earth dist.	1594 Jan 29 16:30	5°♄36'15 0.65205 AU
morning rise	1593 Feb 19 05:02	18°♄31'00		morning rise	1594 Feb 02 10:54	1°♄37'27
direct	1593 Feb 26 03:09	15°♄45'48			1594 Feb 04 17:03	30°♄♄
desc. node	1593 Mar 06 17:08	19°♄08'49		direct	1594 Feb 09 02:35	28°♄46'30
morning max el	1593 Mar 11 22:14	23°♄40'26	27°39'58		1594 Feb 13 21:27	0°♄
	1593 Mar 17 14:30	0°♄		desc. node	1594 Feb 21 14:09	5°♄47'23
	1593 Apr 06 14:14	0°♄		morning max el	1594 Feb 22 07:54	6°♄31'15 26°58'40
morning set	1593 Apr 15 12:54	16°♄46'03			1594 Mar 12 10:08	0°♄
max. Earth dist.	1593 Apr 20 18:00	27°♄27'40	1.33073 AU		1594 Mar 29 20:42	0°♄

morning set	1594 Mar 30 00:31	0° Υ 18'22		morning set	1595 Mar 12 21:59	13° X 03'56	
max. Earth dist.	1594 Apr 03 12:34	9° Υ 11'03	1.34151 AU	max. Earth dist.	1595 Mar 16 19:20	20° X 22'40	1.35689 AU
					1595 Mar 21 16:47	0° Υ	
superior conj	1594 Apr 07 10:52	17° Υ 16'04	0°-46'-12	superior conj	1595 Mar 22 05:21	1° Υ 03'17	-1°-13'-14
minimum elong	1594 Apr 07 13:11	17° Υ 28'09	0°45'46	minimum elong	1595 Mar 22 08:55	1° Υ 21'17	1°12'40
asc. node	1594 Apr 11 23:57	26° Υ 51'04		asc. node	1595 Mar 29 20:59	16° Υ 43'41	
	1594 Apr 13 11:45	0° B		evening rise	1595 Mar 30 04:38	17° Υ 22'47	
evening rise	1594 Apr 14 22:03	2° B 59'37			1595 Apr 05 15:28	0° B	
	1594 Apr 30 05:44	0° II		evening max el	1595 Apr 17 04:42	16° B 33'42	20°11'41
evening max el	1594 May 04 22:19	5° II 21'12	21°30'46	retrograde	1595 Apr 27 17:38	21° B 39'14	
retrograde	1594 May 17 03:45	11° II 19'54		evening set	1595 Apr 29 18:55	21° B 28'29	
evening set	1594 May 19 14:19	11° II 06'24		desc. node	1595 May 07 10:23	18° B 18'41	
desc. node	1594 May 20 13:25	10° II 53'59		inferior conj	1595 May 08 19:34	17° B 29'59	0°-24'-5
inferior conj	1594 May 28 23:32	7° II 05'59	-2°-23'-9	minimum elong	1595 May 08 18:27	17° B 31'39	0°23'41
minimum elong	1594 May 28 17:06	7° II 15'00	2°21'03	min. Earth dist.	1595 May 10 13:21	16° B 28'08	0.55252 AU
min. Earth dist.	1594 May 29 00:11	7° II 05'04	0.54938 AU	morning rise	1595 May 17 15:36	13° B 10'52	
morning rise	1594 Jun 06 20:25	3° II 09'10		direct	1595 May 21 14:08	12° B 37'07	
direct	1594 Jun 10 01:30	2° II 46'39		morning max el	1595 Jun 04 04:55	19° B 18'19	23°46'01
morning max el	1594 Jun 22 12:02	8° II 39'34	22°04'57		1595 Jun 13 03:09	0° II	
	1594 Jul 07 13:01	0° S		asc. node	1595 Jun 25 20:14	22° II 19'25	
asc. node	1594 Jul 08 23:12	2° S 41'53		morning set	1595 Jun 28 05:34	27° II 16'22	
morning set	1594 Jul 13 17:58	12° S 20'00			1595 Jun 29 12:27	0° S	
superior conj	1594 Jul 21 00:24	27° S 42'10	1°37'52	superior conj	1595 Jul 05 07:25	12° S 29'17	1°25'14
minimum elong	1594 Jul 20 22:32	27° S 32'24	1°37'42	minimum elong	1595 Jul 05 05:02	12° S 16'31	1°24'56
	1594 Jul 22 02:41	0° Q		max. Earth dist.	1595 Jul 07 11:23	17° S 07'43	1.33395 AU
max. Earth dist.	1594 Jul 24 10:47	4° Q 50'07	1.34554 AU	evening rise	1595 Jul 12 19:40	28° S 12'16	
evening rise	1594 Jul 29 02:35	14° Q 07'04			1595 Jul 13 17:16	0° Q	
	1594 Aug 06 19:33	0° np		desc. node	1595 Jul 31 00:09	0° np	
desc. node	1594 Aug 16 12:46	15° np 28'52		evening max el	1595 Aug 03 09:46	4° np 53'46	
	1594 Aug 27 10:38	0° A		retrograde	1595 Aug 15 12:34	19° np 16'26	27°24'22
evening max el	1594 Sep 02 01:05	5° A 59'56	27°00'02	evening set	1595 Aug 29 02:34	26° np 34'22	
retrograde	1594 Sep 15 06:17	13° A 17'11		min. Earth dist.	1595 Sep 05 05:56	23° np 54'10	
evening set	1594 Sep 22 01:26	10° A 34'26		inferior conj	1595 Sep 08 22:30	20° np 36'04	0.63947 AU
min. Earth dist.	1594 Sep 25 23:50	6° A 41'21	0.65409 AU	minimum elong	1595 Sep 11 10:20	18° np 00'39	-3°-14'-10
inferior conj	1594 Sep 27 22:55	4° A 26'26	-2°-18'-10	morning rise	1595 Sep 11 15:13	17° np 47'58	3°12'38
minimum elong	1594 Sep 28 02:34	4° A 15'58	2°16'48	direct	1595 Sep 18 02:36	12° np 37'44	
	1594 Oct 02 07:59	30° R np		asc. node	1595 Sep 20 14:39	12° np 06'29	
morning rise	1594 Oct 04 05:15	28° np 47'12		morning max el	1595 Sep 21 19:25	12° np 13'46	
asc. node	1594 Oct 04 22:23	28° np 28'54			1595 Sep 27 03:29	15° np 32'18	17°54'46
direct	1594 Oct 06 22:32	28° np 06'52			1595 Oct 07 08:11	0° A	
	1594 Oct 11 14:53	0° A		morning set	1595 Oct 14 00:21	11° A 22'51	
morning max el	1594 Oct 13 11:29	1° A 39'24	18°13'54		1595 Oct 25 01:10	0° M	
morning set	1594 Nov 01 03:38	29° A 30'58		superior conj	1595 Oct 26 18:35	2° M 49'46	0°24'09
	1594 Nov 01 10:43	0° M		minimum elong	1595 Oct 26 21:11	3° M 00'25	0°23'47
desc. node	1594 Nov 12 12:00	17° M 52'57		desc. node	1595 Oct 30 09:04	8° M 39'56	
superior conj	1594 Nov 15 23:11	23° M 23'05	0°-23'00	max. Earth dist.	1595 Nov 01 08:34	11° M 49'51	1.44335 AU
minimum elong	1594 Nov 15 20:12	23° M 11'20	0°22'36	evening rise	1595 Nov 11 20:14	28° M 13'56	
max. Earth dist.	1594 Nov 18 14:16	27° M 31'54	1.45043 AU		1595 Nov 12 23:50	0° X	
	1594 Nov 20 03:58	0° X			1595 Dec 03 08:48	0° B	
evening rise	1594 Dec 02 09:56	19° X 07'43		greatest brilliancy	1595 Dec 03 15:51	0° B 23'32	-0.5m
	1594 Dec 09 09:43	0° B		evening max el	1595 Dec 09 16:59	7° B 39'15	20°30'09
greatest brilliancy	1594 Dec 18 04:51	13° B 20'05	-0.7m	retrograde	1595 Dec 17 17:55	12° B 23'37	
evening max el	1594 Dec 26 14:14	24° B 09'16	19°30'29	asc. node	1595 Dec 18 18:40	12° B 17'39	
asc. node	1594 Dec 31 21:40	27° B 59'39		evening set	1595 Dec 21 13:00	11° B 00'27	
retrograde	1595 Jan 02 20:05	28° B 20'14		inferior conj	1595 Dec 26 23:48	4° B 50'27	2°32'02
evening set	1595 Jan 06 06:19	27° B 11'34		minimum elong	1595 Dec 26 21:10	4° B 59'23	2°31'14
inferior conj	1595 Jan 11 20:01	21° B 14'10	3°06'38	min. Earth dist.	1595 Dec 27 15:13	3° B 58'01	0.67255 AU
minimum elong	1595 Jan 11 17:28	21° B 22'31	3°06'05		1595 Dec 30 18:57	30° R X	
min. Earth dist.	1595 Jan 13 00:37	19° B 40'57	0.66430 AU	morning rise	1596 Jan 01 04:51	28° X 35'17	
morning rise	1595 Jan 17 03:52	15° B 00'10		direct	1596 Jan 06 18:31	26° X 08'28	
direct	1595 Jan 23 07:57	12° B 16'40			1596 Jan 14 23:01	0° B	
morning max el	1595 Feb 04 17:05	19° B 37'45	25°51'48	morning max el	1596 Jan 18 01:29	2° B 52'24	24°29'07
desc. node	1595 Feb 08 11:10	23° B 42'06		desc. node	1596 Jan 26 08:14	12° B 31'19	
	1595 Feb 13 13:55	0° \approx			1596 Feb 07 18:10	0° \approx	
	1595 Mar 05 12:26	0° X					

morning max el	1597 Dec 13 01:00	29° \mathbb{M} 40'07	21°35'38	transit begin	1598 Nov 08 17:52	16° \mathbb{M} 22'58	
	1597 Dec 13 08:49	0° \mathbb{X}		transit end	1598 Nov 08 22:25	16° \mathbb{M} 07'38	
greatest brilliancy	1597 Dec 18 00:03	5° \mathbb{X} 18'24	-0.4m	morning rise	1598 Nov 14 07:34	10° \mathbb{M} 08'17	
desc. node	1597 Dec 30 02:21	21° \mathbb{X} 54'50		direct	1598 Nov 18 01:52	8° \mathbb{M} 47'19	
	1598 Jan 04 12:56	0° \mathbb{Z}		morning max el	1598 Nov 25 22:06	13° \mathbb{M} 17'55	20°20'19
morning set	1598 Jan 13 18:39	14° \mathbb{Z} 18'06		greatest brilliancy	1598 Dec 02 10:36	21° \mathbb{M} 05'29	-0.5m
max. Earth dist.	1598 Jan 20 12:00	25° \mathbb{Z} 11'30	1.41825 AU		1598 Dec 08 19:09	0° \mathbb{X}	
	1598 Jan 23 09:07	0° \approx		desc. node	1598 Dec 16 23:24	12° \mathbb{X} 10'15	
				morning set	1598 Dec 23 16:48	22° \mathbb{X} 28'19	
superior conj	1598 Jan 28 01:24	8° \approx 00'43	-2°-4'-17		1598 Dec 28 12:36	0° \mathbb{Z}	
minimum elong	1598 Jan 28 01:54	8° \approx 02'54	2°04'18	max. Earth dist.	1599 Jan 02 19:29	8° \mathbb{Z} 24'12	1.43545 AU
evening rise	1598 Feb 08 00:40	27° \approx 42'40					
	1598 Feb 09 06:40	0° \mathbb{X}		superior conj	1599 Jan 08 20:19	18° \mathbb{Z} 13'57	-1°-57'-55
asc. node	1598 Feb 17 12:05	14° \mathbb{X} 27'33		minimum elong	1599 Jan 08 15:40	17° \mathbb{Z} 54'44	1°57'44
evening max el	1598 Feb 24 10:48	23° \mathbb{X} 45'27	18°10'17		1599 Jan 15 20:13	0° \approx	
retrograde	1598 Mar 03 06:33	27° \mathbb{X} 12'25		evening rise	1599 Jan 21 11:30	9° \approx 44'55	
evening set	1598 Mar 05 20:10	26° \mathbb{X} 43'39			1599 Feb 02 12:27	0° \mathbb{X}	
inferior conj	1598 Mar 12 16:18	21° \mathbb{X} 51'54	3°27'04	asc. node	1599 Feb 04 09:07	2° \mathbb{X} 40'07	
minimum elong	1598 Mar 12 18:48	21° \mathbb{X} 46'08	3°26'43	evening max el	1599 Feb 07 23:03	6° \mathbb{X} 56'46	18°09'19
min. Earth dist.	1598 Mar 15 23:33	18° \mathbb{X} 50'54	0.60425 AU	retrograde	1599 Feb 14 10:35	10° \mathbb{X} 21'04	
morning rise	1598 Mar 19 14:09	16° \mathbb{X} 05'33		evening set	1599 Feb 17 05:12	9° \mathbb{X} 42'27	
direct	1598 Mar 26 06:13	13° \mathbb{X} 57'49		inferior conj	1599 Feb 23 12:50	4° \mathbb{X} 29'43	3°44'02
desc. node	1598 Mar 28 01:30	14° \mathbb{X} 06'46		minimum elong	1599 Feb 23 13:17	4° \mathbb{X} 28'32	3°44'01
morning max el	1598 Apr 09 12:42	21° \mathbb{X} 49'02	27°35'35	min. Earth dist.	1599 Feb 26 08:14	1° \mathbb{X} 34'11	0.62513 AU
	1598 Apr 16 16:49	0° \mathbb{Y}			1599 Feb 27 23:36	30° \mathbb{R} \approx	
	1598 May 05 12:52	0° \mathbb{B}		morning rise	1599 Mar 01 19:11	28° \approx 30'00	
morning set	1598 May 11 10:46	11° \mathbb{B} 43'15		direct	1599 Mar 08 17:57	25° \approx 54'33	
asc. node	1598 May 16 11:24	22° \mathbb{B} 24'36		desc. node	1599 Mar 14 22:33	27° \approx 40'54	
max. Earth dist.	1598 May 17 18:54	25° \mathbb{B} 16'24	1.32257 AU		1599 Mar 18 10:42	0° \mathbb{X}	
				morning max el	1599 Mar 22 17:58	3° \mathbb{X} 49'20	27°48'48
superior conj	1598 May 18 16:50	27° \mathbb{B} 16'35	0°23'22		1599 Apr 11 06:21	0° \mathbb{Y}	
minimum elong	1598 May 18 15:47	27° \mathbb{B} 10'53	0°23'09	morning set	1599 Apr 25 12:31	26° \mathbb{Y} 03'27	
	1598 May 19 22:36	0° \mathbb{I}			1599 Apr 27 10:43	0° \mathbb{B}	
evening rise	1598 May 25 14:35	12° \mathbb{I} 17'15		max. Earth dist.	1599 May 01 03:11	7° \mathbb{B} 46'50	1.32659 AU
	1598 Jun 03 14:31	0° \mathbb{S}					
evening max el	1598 Jun 21 18:39	25° \mathbb{S} 19'49	25°28'59	superior conj	1599 May 03 02:12	12° \mathbb{B} 00'22	0°-2'-45
desc. node	1598 Jun 24 00:47	27° \mathbb{S} 20'39		minimum elong	1599 May 03 02:19	12° \mathbb{B} 01'03	0°02'44
	1598 Jun 27 17:58	0° \mathbb{Q}		behind sun begin	1599 May 02 21:12	11° \mathbb{B} 33'18	
retrograde	1598 Jul 05 19:16	2° \mathbb{Q} 28'43		behind sun end	1599 May 03 07:26	12° \mathbb{B} 28'49	
evening set	1598 Jul 11 14:30	1° \mathbb{Q} 09'54		asc. node	1599 May 03 08:27	12° \mathbb{B} 34'16	
	1598 Jul 13 21:04	30° \mathbb{R} \mathbb{S}		evening rise	1599 May 10 02:23	27° \mathbb{B} 09'31	
min. Earth dist.	1598 Jul 16 06:46	28° \mathbb{S} 28'59	0.58085 AU		1599 May 11 10:51	0° \mathbb{I}	
inferior conj	1598 Jul 19 11:05	26° \mathbb{S} 15'12	-4°-55'-44		1599 May 29 00:26	0° \mathbb{S}	
minimum elong	1598 Jul 19 10:55	26° \mathbb{S} 15'30	4°55'45	evening max el	1599 Jun 03 09:06	6° \mathbb{S} 00'04	23°58'42
morning rise	1598 Jul 27 11:02	21° \mathbb{S} 57'23		desc. node	1599 Jun 10 21:48	11° \mathbb{S} 26'53	
direct	1598 Jul 29 23:14	21° \mathbb{S} 37'54		retrograde	1599 Jun 17 03:51	12° \mathbb{S} 55'32	
morning max el	1598 Aug 07 11:04	25° \mathbb{S} 38'29	18°50'41	evening set	1599 Jun 21 13:16	12° \mathbb{S} 12'57	
	1598 Aug 11 06:55	0° \mathbb{Q}		min. Earth dist.	1599 Jun 27 19:54	9° \mathbb{S} 11'18	0.56327 AU
asc. node	1598 Aug 12 10:37	1° \mathbb{Q} 35'22		inferior conj	1599 Jun 30 06:03	7° \mathbb{S} 42'00	-4°-32'-55
morning set	1598 Aug 23 22:26	21° \mathbb{Q} 55'17		minimum elong	1599 Jun 30 00:38	7° \mathbb{S} 50'21	4°32'08
	1598 Aug 28 01:11	0° \mathbb{P}		morning rise	1599 Jul 08 15:31	3° \mathbb{S} 42'53	
				direct	1599 Jul 11 08:19	3° \mathbb{S} 24'00	
superior conj	1598 Sep 01 12:15	8° \mathbb{P} 37'23	1°41'35	morning max el	1599 Jul 21 05:51	7° \mathbb{S} 59'26	19°50'48
minimum elong	1598 Sep 01 14:13	8° \mathbb{P} 46'44	1°41'30	asc. node	1599 Jul 30 07:41	19° \mathbb{S} 57'15	
max. Earth dist.	1598 Sep 08 11:22	21° \mathbb{P} 27'08	1.39148 AU		1599 Aug 04 20:07	0° \mathbb{Q}	
evening rise	1598 Sep 12 11:08	28° \mathbb{P} 24'44		morning set	1599 Aug 08 01:27	6° \mathbb{Q} 24'04	
	1598 Sep 13 09:33	0° \mathbb{L}					
desc. node	1598 Sep 20 00:08	10° \mathbb{L} 49'28		superior conj	1599 Aug 15 22:53	22° \mathbb{Q} 22'38	1°46'02
	1598 Oct 02 21:04	0° \mathbb{M}		minimum elong	1599 Aug 15 22:59	22° \mathbb{Q} 23'09	1°46'02
evening max el	1598 Oct 17 18:58	18° \mathbb{M} 18'13	24°19'54		1599 Aug 19 20:22	0° \mathbb{P}	
retrograde	1598 Oct 29 00:42	24° \mathbb{M} 53'05		max. Earth dist.	1599 Aug 21 15:53	3° \mathbb{P} 26'51	1.37150 AU
evening set	1598 Nov 03 09:01	22° \mathbb{M} 39'50		evening rise	1599 Aug 25 12:33	10° \mathbb{P} 33'36	
min. Earth dist.	1598 Nov 08 02:54	17° \mathbb{M} 13'14	0.67561 AU		1599 Sep 06 01:44	0° \mathbb{L}	
asc. node	1598 Nov 08 09:49	16° \mathbb{M} 50'02		desc. node	1599 Sep 06 21:09	1° \mathbb{L} 15'54	
inferior conj	1598 Nov 08 20:22	16° \mathbb{M} 14'33	0°09'05		1599 Sep 28 08:41	0° \mathbb{M}	
minimum elong	1598 Nov 08 20:08	16° \mathbb{M} 15'18	0°08'59	evening max el	1599 Sep 30 06:57	1° \mathbb{M} 57'43	25°33'49
transit middle	1598 Nov 08 20:08	16° \mathbb{M} 15'18	0°08'59	retrograde	1599 Oct 12 11:08	8° \mathbb{M} 56'43	

evening set	1599 Oct 18 10:02	6° \mathbb{M} 27'59		evening set	1600 Oct 01 05:07	20° \mathbb{A} 08'35	
min. Earth dist.	1599 Oct 22 19:55	1° \mathbb{M} 36'56	0.67002 AU	min. Earth dist.	1600 Oct 05 07:28	15° \mathbb{A} 54'34	0.66096 AU
inferior conj	1599 Oct 24 00:14	0° \mathbb{M} 06'06	0°-46'-59	inferior conj	1600 Oct 06 23:30	13° \mathbb{A} 54'23	-1°-44'-50
minimum elong	1599 Oct 24 01:26	0° \mathbb{M} 02'13	0°46'28	minimum elong	1600 Oct 07 02:17	13° \mathbb{A} 46'03	1°43'43
	1599 Oct 24 02:08	30° \mathbb{R} \mathbb{A}		asc. node	1600 Oct 12 03:54	8° \mathbb{A} 39'36	
asc. node	1599 Oct 26 06:52	27° \mathbb{A} 17'26		morning rise	1600 Oct 13 00:42	8° \mathbb{A} 07'38	
morning rise	1599 Oct 29 17:35	24° \mathbb{A} 08'05		direct	1600 Oct 15 22:15	7° \mathbb{A} 20'25	
direct	1599 Nov 02 00:26	23° \mathbb{A} 05'47		morning max el	1600 Oct 22 14:10	11° \mathbb{A} 00'04	18°32'50
morning max el	1599 Nov 09 02:57	27° \mathbb{A} 05'43	19°18'44		1600 Nov 05 02:39	0° \mathbb{M}	
	1599 Nov 11 17:35	0° \mathbb{M}		morning set	1600 Nov 11 18:22	10° \mathbb{M} 37'59	
greatest brilliancy	1599 Nov 18 20:33	9° \mathbb{M} 42'33	-0.7m	desc. node	1600 Nov 19 17:27	23° \mathbb{M} 18'25	
	1599 Dec 02 03:21	0° \mathbb{A}			1600 Nov 23 23:14	0° \mathbb{A}	
morning set	1599 Dec 02 17:43	0° \mathbb{A} 55'46					
desc. node	1599 Dec 03 20:25	2° \mathbb{A} 39'31		superior conj	1600 Nov 27 15:08	5° \mathbb{A} 45'34	0°-51'-4
max. Earth dist.	1599 Dec 16 10:08	22° \mathbb{A} 19'54	1.44691 AU	minimum elong	1600 Nov 27 08:39	5° \mathbb{A} 20'06	0°50'15
				max. Earth dist.	1600 Nov 28 04:36	6° \mathbb{A} 38'28	1.45127 AU
superior conj	1599 Dec 19 13:22	27° \mathbb{A} 18'04	-1°-32'-55		1600 Dec 13 00:25	0° \mathbb{B}	
minimum elong	1599 Dec 19 04:45	26° \mathbb{A} 43'48	1°32'07	evening rise	1600 Dec 13 16:00	1° \mathbb{B} 01'49	
	1599 Dec 21 06:00	0° \mathbb{B}			1601 Jan 01 16:09	0° \approx	
evening rise	1600 Jan 03 01:26	20° \mathbb{B} 52'02		evening max el	1601 Jan 04 21:20	3° \approx 45'03	19°02'35
	1600 Jan 08 13:32	0° \approx		asc. node	1601 Jan 08 03:10	6° \approx 28'34	
asc. node	1600 Jan 22 06:09	20° \approx 04'53					
evening max el	1600 Jan 22 11:23	20° \approx 18'21	18°27'06				
retrograde	1600 Jan 29 00:01	23° \approx 52'49					
evening set	1600 Jan 31 23:48	23° \approx 03'27					
inferior conj	1600 Feb 06 22:20	17° \approx 31'17	3°40'41				
minimum elong	1600 Feb 06 21:07	17° \approx 34'51	3°40'36				
min. Earth dist.	1600 Feb 09 02:26	15° \approx 00'08	0.64329 AU				
morning rise	1600 Feb 12 17:01	11° \approx 23'31					
direct	1600 Feb 19 13:13	8° \approx 34'22					
desc. node	1600 Feb 29 19:35	13° \approx 22'24					
morning max el	1600 Mar 04 02:55	16° \approx 25'19	27°26'04				
	1600 Mar 15 08:51	0° \mathbb{X}					
	1600 Apr 03 00:36	0° \mathbb{Y}					
morning set	1600 Apr 08 06:17	9° \mathbb{Y} 56'30					
max. Earth dist.	1600 Apr 13 04:02	19° \mathbb{Y} 51'10	1.33480 AU				
superior conj	1600 Apr 16 07:38	26° \mathbb{Y} 28'07	0°-30'-13				
minimum elong	1600 Apr 16 09:08	26° \mathbb{Y} 36'06	0°29'55				
	1600 Apr 17 23:23	0° \mathbb{Z}					
asc. node	1600 Apr 19 05:28	2° \mathbb{Z} 41'00					
evening rise	1600 Apr 23 13:45	11° \mathbb{Z} 56'12					
	1600 May 02 21:10	0° \mathbb{I}					
evening max el	1600 May 15 00:39	16° \mathbb{I} 31'15	22°22'48				
desc. node	1600 May 27 18:49	22° \mathbb{I} 56'22					
retrograde	1600 May 28 00:08	22° \mathbb{I} 56'28					
evening set	1600 May 31 00:16	22° \mathbb{I} 36'33					
min. Earth dist.	1600 Jun 08 07:31	19° \mathbb{I} 01'18	0.55196 AU				
inferior conj	1600 Jun 09 07:28	18° \mathbb{I} 27'28	-3°-22'-52				
minimum elong	1600 Jun 08 23:41	18° \mathbb{I} 38'29	3°20'44				
morning rise	1600 Jun 18 01:19	14° \mathbb{I} 35'38					
direct	1600 Jun 21 00:33	14° \mathbb{I} 15'40					
morning max el	1600 Jul 02 13:19	19° \mathbb{I} 37'48	21°11'14				
	1600 Jul 10 22:27	0° \mathbb{O}					
asc. node	1600 Jul 16 04:43	8° \mathbb{O} 55'43					
morning set	1600 Jul 22 09:20	21° \mathbb{O} 08'29					
	1600 Jul 26 15:11	0° \mathbb{Q}					
superior conj	1600 Jul 29 19:57	6° \mathbb{Q} 40'01	1°42'42				
minimum elong	1600 Jul 29 18:39	6° \mathbb{Q} 33'17	1°42'38				
max. Earth dist.	1600 Aug 03 02:06	15° \mathbb{Q} 18'39	1.35397 AU				
evening rise	1600 Aug 07 08:57	23° \mathbb{Q} 37'31					
	1600 Aug 10 19:45	0° \mathbb{P}					
desc. node	1600 Aug 23 18:10	21° \mathbb{P} 25'07					
	1600 Aug 29 16:55	0° \mathbb{A}					
evening max el	1600 Sep 11 19:01	15° \mathbb{A} 35'15	26°34'13				
retrograde	1600 Sep 24 16:28	22° \mathbb{A} 48'31					

superior conj	2100 Apr 18 17:10	28° Υ 46'06	0°-36'-48			2101 Mar 27 04:04	0° Υ	
minimum elong	2100 Apr 18 19:02	28° Υ 55'53	0°36'26	max. Earth dist.		2101 Mar 28 11:51	2° Υ 33'23	1.35293 AU
	2100 Apr 19 07:12	0° 8						
asc. node	2100 Apr 22 07:01	6° 8 21'03		superior conj		2101 Apr 02 13:38	12° Υ 39'49	-1°-4'-35
evening rise	2100 Apr 26 02:02	14° 8 22'31		minimum elong		2101 Apr 02 16:53	12° Υ 56'22	1°04'02
	2100 May 04 00:59	0° II		asc. node		2101 Apr 09 04:03	26° Υ 17'17	
evening max el	2100 May 16 15:43	17° II 37'48	21°51'22	evening rise		2101 Apr 10 09:44	28° Υ 50'13	
retrograde	2100 May 29 05:04	23° II 48'17				2101 Apr 10 23:22	0° 8	
desc. node	2100 May 30 12:27	23° II 44'24		evening max el		2101 Apr 28 19:09	28° 8 39'46	20°28'19
evening set	2100 May 31 20:39	23° II 32'36				2101 Apr 30 06:33	0° II	
inferior conj	2100 Jun 10 05:34	19° II 29'31	-2°-58'-51	retrograde		2101 May 09 18:15	3° II 59'06	
minimum elong	2100 Jun 09 22:01	19° II 40'04	2°56'33	evening set		2101 May 11 19:58	3° II 48'29	
min. Earth dist.	2100 Jun 09 19:52	19° II 43'04	0.54991 AU	desc. node		2101 May 17 09:29	1° II 50'18	
morning rise	2100 Jun 19 00:39	15° II 36'07		inferior conj		2101 May 20 23:57	29° 8 50'41	-1°-3'-4
direct	2100 Jun 22 03:59	15° II 14'22		minimum elong		2101 May 20 20:58	29° 8 55'01	1°01'59
morning max el	2100 Jul 04 05:46	20° II 54'24	21°43'09			2101 May 20 17:32	30° R 8	
	2100 Jul 11 20:20	0° 8		min. Earth dist.		2101 May 22 08:27	29° 8 03'32	0.55068 AU
asc. node	2100 Jul 19 06:17	12° 8 26'43		morning rise		2101 May 29 20:20	25° 8 39'01	
morning set	2100 Jul 24 22:00	23° 8 43'07		direct		2101 Jun 02 14:29	25° 8 08'36	
	2100 Jul 27 21:49	0° 9				2101 Jun 14 03:11	0° II	
				morning max el		2101 Jun 16 00:02	1° II 38'43	23°23'05
superior conj	2100 Aug 01 05:44	9° 9 07'45	1°40'49			2101 Jul 05 03:44	0° 8	
minimum elong	2100 Aug 01 04:14	8° 9 59'52	1°40'43	asc. node		2101 Jul 06 03:20	1° 8 57'07	
max. Earth dist.	2100 Aug 05 00:24	16° 9 54'39	1.34870 AU	morning set		2101 Jul 09 09:20	8° 8 38'08	
evening rise	2100 Aug 09 12:08	25° 9 45'50						
	2100 Aug 11 17:56	0° 10		superior conj		2101 Jul 16 11:43	23° 8 51'30	1°30'09
desc. node	2100 Aug 26 11:50	24° 10 46'18		minimum elong		2101 Jul 16 09:30	23° 8 39'36	1°29'54
	2100 Aug 30 01:42	0° 11		max. Earth dist.		2101 Jul 18 22:45	29° 8 05'53	1.33601 AU
evening max el	2100 Sep 13 15:55	17° 11 42'08	26°50'29			2101 Jul 19 09:01	0° 9	
retrograde	2100 Sep 26 18:06	24° 11 57'38		evening rise		2101 Jul 24 02:40	9° 9 42'48	
evening set	2100 Oct 03 10:34	22° 11 16'18				2101 Aug 04 03:22	0° 10	
min. Earth dist.	2100 Oct 07 10:43	18° 11 14'43	0.65712 AU	desc. node		2101 Aug 13 08:51	14° 10 22'16	
inferior conj	2100 Oct 09 07:01	16° 11 05'23	-1°-59'-9			2101 Aug 26 01:46	0° 11	
minimum elong	2100 Oct 09 10:13	15° 11 56'02	1°57'54	evening max el		2101 Aug 27 03:38	1° 11 03'11	27°21'17
morning rise	2100 Oct 15 11:17	10° 11 23'03		retrograde		2101 Sep 09 15:51	8° 11 21'27	
asc. node	2100 Oct 15 05:27	10° 11 30'47		evening set		2101 Sep 16 17:47	5° 11 39'45	
direct	2100 Oct 18 06:08	9° 11 40'10		min. Earth dist.		2101 Sep 20 11:34	2° 11 14'03	0.64323 AU
morning max el	2100 Oct 24 19:47	13° 11 14'37	18°20'25	inferior conj		2101 Sep 22 20:35	29° 10 42'25	-2°-57'-3
	2100 Nov 05 19:08	0° 12		minimum elong		2101 Sep 23 01:13	29° 10 30'05	2°55'28
morning set	2100 Nov 13 01:03	11° 12 43'09				2101 Sep 22 14:01	30° R 10	
desc. node	2100 Nov 22 11:08	26° 12 51'49		morning rise		2101 Sep 29 10:41	24° 10 15'42	
	2100 Nov 24 10:32	0° 13		direct		2101 Oct 01 23:28	23° 10 42'58	
				asc. node		2101 Oct 02 02:32	23° 10 43'03	
superior conj	2100 Nov 28 07:37	6° 13 07'37	0°-38'-34	morning max el		2101 Oct 08 11:41	27° 10 09'19	17°57'15
minimum elong	2100 Nov 28 02:38	5° 13 48'01	0°37'55			2101 Oct 10 23:48	0° 13	
max. Earth dist.	2100 Nov 30 03:16	8° 13 59'20	1.45135 AU	morning set		2101 Oct 25 15:59	23° 13 18'21	
	2100 Dec 13 13:08	0° 14				2101 Oct 29 14:58	0° 14	
evening rise	2100 Dec 14 15:16	1° 14 42'25						
greatest brilliancy	2100 Dec 28 18:37	23° 14 37'20	-0.7m	superior conj		2101 Nov 07 21:48	15° 14 18'58	0°09'41
	2101 Jan 02 05:41	0° 15		minimum elong		2101 Nov 07 22:55	15° 14 23'29	0°09'31
evening max el	2101 Jan 07 00:31	5° 15 47'17	19°18'25	behind sun begin		2101 Nov 07 14:33	14° 14 49'38	
asc. node	2101 Jan 11 04:43	9° 15 05'12		behind sun end		2101 Nov 08 07:17	15° 14 57'16	
retrograde	2101 Jan 14 02:38	9° 15 51'11		desc. node		2101 Nov 09 08:09	17° 14 37'28	
evening set	2101 Jan 17 11:19	8° 15 45'08		max. Earth dist.		2101 Nov 12 21:57	23° 14 19'52	1.44584 AU
inferior conj	2101 Jan 23 01:45	2° 15 50'56	3°15'25			2101 Nov 17 03:33	0° 15	
minimum elong	2101 Jan 22 23:24	2° 15 58'30	3°14'58	evening rise		2101 Nov 24 04:02	10° 15 53'42	
min. Earth dist.	2101 Jan 24 09:40	1° 15 08'10	0.66212 AU			2101 Dec 06 18:15	0° 16	
	2101 Jan 25 07:25	30° R 16		greatest brilliancy		2101 Dec 14 17:25	11° 16 25'02	-0.6m
morning rise	2101 Jan 28 10:42	26° 16 37'12		evening max el		2101 Dec 21 04:26	19° 16 17'00	20°15'01
direct	2101 Feb 03 17:40	23° 16 51'15		retrograde		2101 Dec 29 00:34	23° 16 53'25	
	2101 Feb 14 23:45	0° 17		asc. node		2101 Dec 29 01:47	23° 16 53'24	
morning max el	2101 Feb 16 08:11	1° 17 19'10	26°08'52	evening set		2102 Jan 01 17:35	22° 16 33'25	
desc. node	2101 Feb 18 10:18	3° 17 30'57		inferior conj		2102 Jan 07 04:44	16° 16 25'54	2°44'18
	2101 Mar 09 21:52	0° 18		minimum elong		2102 Jan 07 02:06	16° 16 34'46	2°43'35
morning set	2101 Mar 24 11:34	24° 18 55'35		min. Earth dist.		2102 Jan 07 23:05	15° 16 23'53	0.67128 AU

morning rise	2102 Jan 12 10:05	10°☿10'33		morning rise	2102 Dec 27 15:28	23°♄53'43	
direct	2102 Jan 18 03:10	7°☿39'09		direct	2103 Jan 01 17:31	21°♄42'42	
morning max el	2102 Jan 29 16:55	14°☿33'28	24°48'45	morning max el	2103 Jan 12 01:50	27°♄52'09	23°20'35
desc. node	2102 Feb 05 07:21	22°☿04'05			2103 Jan 14 02:11	0°☿	
	2102 Feb 11 08:00	0°♊		greatest brilliancy	2103 Jan 17 10:54	3°☿55'20	-0.2m
	2102 Mar 02 18:42	0°♋		desc. node	2103 Jan 23 04:24	11°☿20'10	
morning set	2102 Mar 06 18:33	6°♋55'53			2103 Feb 05 00:49	0°♊	
max. Earth dist.	2102 Mar 10 11:15	13°♋36'05	1.37146 AU	morning set	2103 Feb 16 01:02	17°♊41'44	
				max. Earth dist.	2103 Feb 20 05:55	24°♊53'26	1.39263 AU
					2103 Feb 23 03:23	0°♋	
superior conj	2102 Mar 16 23:59	25°♋59'28	-1°-30'-20				
minimum elong	2102 Mar 17 04:11	26°♋20'00	1°29'48	superior conj	2103 Feb 27 20:11	8°♋34'08	-1°-51'-20
	2102 Mar 19 00:54	0°♌		minimum elong	2103 Feb 28 00:12	8°♋52'53	1°51'01
evening rise	2102 Mar 25 12:07	12°♌56'43		evening rise	2103 Mar 09 06:20	26°♋33'41	
asc. node	2102 Mar 27 01:06	16°♌00'35			2103 Mar 11 01:14	0°♌	
	2102 Apr 03 15:12	0°♍		asc. node	2103 Mar 13 22:09	5°♌24'59	
evening max el	2102 Apr 11 10:26	10°♍21'56	19°23'18	evening max el	2103 Mar 25 11:46	22°♌41'07	18°38'14
retrograde	2102 Apr 20 16:43	14°♍50'42		retrograde	2103 Apr 02 08:30	26°♌31'48	
evening set	2102 Apr 22 18:06	14°♍38'23		evening set	2103 Apr 04 15:09	26°♌13'36	
inferior conj	2102 May 01 05:57	10°♍31'07	0°51'45	inferior conj	2103 Apr 12 07:51	21°♌48'09	2°19'46
minimum elong	2102 May 01 08:04	10°♍27'40	0°51'02	minimum elong	2103 Apr 12 11:51	21°♌40'31	2°18'40
min. Earth dist.	2102 May 03 23:11	8°♍44'53	0.56076 AU	min. Earth dist.	2103 Apr 15 16:59	19°♌14'34	0.57804 AU
desc. node	2102 May 04 06:31	8°♍33'20		morning rise	2103 Apr 20 04:11	16°♌30'26	
morning rise	2102 May 09 18:06	5°♍46'29		desc. node	2103 Apr 21 03:34	16°♌05'04	
direct	2102 May 14 11:07	4°♍55'57		direct	2103 Apr 25 22:11	15°♌07'37	
morning max el	2102 May 28 14:38	12°♍06'32	25°03'53	morning max el	2103 May 10 07:05	22°♌43'31	26°30'07
	2102 Jun 11 08:57	0°♎			2103 May 16 18:17	0°♍	
asc. node	2102 Jun 23 00:24	21°♎45'36			2103 Jun 04 04:37	0°♎	
morning set	2102 Jun 23 21:15	23°♎34'59		morning set	2103 Jun 08 08:00	8°♎26'57	
	2102 Jun 26 21:06	0°☿		asc. node	2103 Jun 09 21:27	11°♎45'36	
superior conj	2102 Jun 30 21:32	8°☿46'10	1°14'38	superior conj	2103 Jun 15 09:07	23°♎43'45	0°55'05
minimum elong	2102 Jun 30 19:08	8°☿33'04	1°14'16	minimum elong	2103 Jun 15 07:01	23°♎32'10	0°54'41
max. Earth dist.	2102 Jul 02 04:57	11°☿37'13	1.32737 AU	max. Earth dist.	2103 Jun 15 15:53	24°♎20'57	1.32270 AU
evening rise	2102 Jul 08 02:25	24°☿06'57			2103 Jun 18 05:44	0°☿	
	2102 Jul 11 00:40	0°♏		evening rise	2103 Jun 22 08:22	8°☿47'53	
	2102 Jul 28 19:24	0°♐			2103 Jul 03 10:02	0°♏	
desc. node	2102 Jul 31 05:52	3°♐19'03		desc. node	2103 Jul 18 02:52	21°♏19'30	
evening max el	2102 Aug 09 12:47	13°♐56'48	27°22'40	evening max el	2103 Jul 22 16:55	26°♏10'32	26°51'11
retrograde	2102 Aug 23 07:26	21°♐13'36			2103 Jul 27 08:23	0°♐	
evening set	2102 Aug 30 12:17	18°♐43'28		retrograde	2103 Aug 05 15:34	3°♐23'59	
min. Earth dist.	2102 Sep 03 02:27	15°♐47'37	0.62597 AU	evening set	2103 Aug 12 13:34	1°♐19'12	
inferior conj	2102 Sep 05 23:38	13°♐03'11	-3°-50'-38		2103 Aug 14 13:44	30°♑	
minimum elong	2102 Sep 06 05:01	12°♐50'21	3°49'13	min. Earth dist.	2103 Aug 16 07:02	28°♏41'01	0.60612 AU
morning rise	2102 Sep 13 00:25	7°♐55'15		inferior conj	2103 Aug 19 12:46	25°♏58'43	-4°-34'-1
direct	2102 Sep 15 09:47	7°♐29'22		minimum elong	2103 Aug 19 17:22	25°♏49'03	4°33'18
asc. node	2102 Sep 18 23:37	8°♐28'50		morning rise	2103 Aug 27 00:21	21°♏12'22	
morning max el	2102 Sep 22 03:37	10°♐56'02	17°51'54	direct	2103 Aug 29 09:15	20°♏50'33	
	2102 Oct 04 20:53	0°♑		morning max el	2103 Sep 05 16:24	24°♏26'12	18°05'35
morning set	2102 Oct 08 05:28	5°♑58'11		asc. node	2103 Sep 05 20:40	24°♏36'36	
					2103 Sep 10 06:04	0°♐	
superior conj	2102 Oct 19 13:39	25°♑46'44	0°50'39	morning set	2103 Sep 21 11:27	19°♐25'24	
minimum elong	2102 Oct 19 17:56	26°♑04'50	0°50'06		2103 Sep 27 04:04	0°♑	
	2102 Oct 22 02:00	0°♒					
max. Earth dist.	2102 Oct 26 12:58	7°♒19'13	1.43374 AU	superior conj	2103 Oct 01 07:50	7°♑31'53	1°19'58
desc. node	2102 Oct 27 05:11	8°♒24'50		minimum elong	2103 Oct 01 12:03	7°♑50'40	1°19'31
evening rise	2102 Nov 03 12:59	20°♒00'31		max. Earth dist.	2103 Oct 08 22:54	20°♑43'56	1.41657 AU
	2102 Nov 10 01:35	0°♓		evening rise	2103 Oct 14 11:00	29°♑46'03	
greatest brilliancy	2102 Nov 29 02:03	26°♓59'42	-0.4m	desc. node	2103 Oct 14 02:13	29°♑10'44	
	2102 Dec 01 13:35	0°☿			2103 Oct 14 14:28	0°♒	
evening max el	2102 Dec 04 02:43	2°☿47'20	21°24'09		2103 Nov 03 15:22	0°♓	
retrograde	2102 Dec 12 22:04	8°☿01'28		greatest brilliancy	2103 Nov 11 21:36	10°♓48'46	-0.3m
asc. node	2102 Dec 15 22:51	7°☿10'36		evening max el	2103 Nov 16 19:52	16°♓20'00	22°41'31
evening set	2102 Dec 17 01:17	6°☿26'03		retrograde	2103 Nov 26 17:23	22°♓12'41	
inferior conj	2102 Dec 22 10:56	0°☿08'37	2°04'58	evening set	2103 Dec 01 08:43	20°♓20'34	
minimum elong	2102 Dec 22 08:32	0°☿16'53	2°04'08	asc. node	2103 Dec 02 19:53	18°♓57'41	
min. Earth dist.	2102 Dec 22 17:15	29°♓46'44	0.67661 AU	inferior conj	2103 Dec 06 18:24	13°♓57'01	1°19'02
	2102 Dec 22 13:25	30°♒♓					

minimum elong	2103 Dec 06 16:41	14° ♂ 02'57	1°18'21	asc. node	2104 Nov 18 16:55	29° ♂ 37'33	
min. Earth dist.	2103 Dec 06 13:45	14° ♂ 13'07	0.67841 AU	min. Earth dist.	2104 Nov 19 10:05	28° ♂ 40'04	0.67686 AU
morning rise	2103 Dec 12 00:34	7° ♂ 44'43		inferior conj	2104 Nov 20 01:20	27° ♂ 48'26	0°27'47
direct	2103 Dec 16 11:44	5° ♂ 56'30		minimum elong	2104 Nov 20 00:40	27° ♂ 50'41	0°27'30
morning max el	2103 Dec 25 14:18	11° ♂ 17'26	21°53'55	morning rise	2104 Nov 25 11:18	21° ♂ 41'09	
greatest brilliancy	2103 Dec 30 08:12	16° ♂ 38'31	-0.4m	direct	2104 Nov 29 08:42	20° ♂ 15'11	
	2104 Jan 09 06:40	0° ♂		morning max el	2104 Dec 07 09:36	24° ♂ 53'10	20°35'54
desc. node	2104 Jan 10 01:26	1° ♂ 07'15			2104 Dec 11 21:09	0° ♂	
morning set	2104 Jan 27 02:24	27° ♂ 03'19		greatest brilliancy	2104 Dec 13 11:02	2° ♂ 01'10	-0.5m
	2104 Jan 28 22:15	0° ♂		desc. node	2104 Dec 26 22:27	21° ♂ 16'20	
max. Earth dist.	2104 Feb 02 04:06	6° ♂ 58'37	1.41384 AU		2105 Jan 01 16:33	0° ♂	
				morning set	2105 Jan 05 03:34	5° ♂ 20'10	
superior conj	2104 Feb 09 21:18	20° ♂ 12'16	-2°-3'-41	max. Earth dist.	2105 Jan 14 10:13	20° ♂ 01'05	1.43213 AU
minimum elong	2104 Feb 09 23:05	20° ♂ 20'07	2°03'39				
	2104 Feb 15 08:23	0° ♂		superior conj	2105 Jan 20 22:08	0° ♂ 41'21	-2°-2'-29
evening rise	2104 Feb 20 12:55	9° ♂ 33'11		minimum elong	2105 Jan 20 19:08	0° ♂ 28'46	2°02'25
asc. node	2104 Feb 28 19:12	24° ♂ 24'10			2105 Jan 20 12:14	0° ♂	
	2104 Mar 03 08:42	0° ♂		evening rise	2105 Feb 02 03:46	21° ♂ 46'19	
evening max el	2104 Mar 07 19:59	5° ♂ 29'07	18°13'12		2105 Feb 06 20:02	0° ♂	
retrograde	2104 Mar 14 18:51	8° ♂ 58'26		asc. node	2105 Feb 14 16:13	12° ♂ 49'33	
evening set	2104 Mar 17 07:13	8° ♂ 31'49		evening max el	2105 Feb 19 07:45	18° ♂ 36'09	18°07'45
inferior conj	2104 Mar 24 06:47	3° ♂ 44'56	3°14'01	retrograde	2105 Feb 25 20:10	21° ♂ 59'43	
minimum elong	2104 Mar 24 09:51	3° ♂ 38'05	3°13'29	evening set	2105 Feb 28 13:37	21° ♂ 23'25	
min. Earth dist.	2104 Mar 27 15:49	0° ♂ 46'07	0.59903 AU	inferior conj	2105 Mar 06 23:41	16° ♂ 15'16	3°39'08
	2104 Mar 28 14:19	30° ♂		minimum elong	2105 Mar 07 00:49	16° ♂ 12'24	3°39'04
morning rise	2104 Mar 31 08:59	28° ♂ 02'44		min. Earth dist.	2105 Mar 09 22:22	13° ♂ 16'09	0.62028 AU
direct	2104 Apr 06 21:45	26° ♂ 03'36		morning rise	2105 Mar 13 09:33	10° ♂ 17'24	
desc. node	2104 Apr 07 00:35	26° ♂ 03'38		direct	2105 Mar 20 07:08	7° ♂ 48'05	
	2104 Apr 16 18:06	0° ♂		desc. node	2105 Mar 24 21:36	8° ♂ 47'25	
morning max el	2104 Apr 21 05:06	3° ♂ 52'37	27°28'00	morning max el	2105 Apr 03 09:22	15° ♂ 43'15	27°49'49
	2104 May 10 09:47	0° ♂			2105 Apr 15 01:52	0° ♂	
morning set	2104 May 22 15:54	23° ♂ 08'25			2105 May 02 23:41	0° ♂	
	2104 May 25 21:39	0° ♂		morning set	2105 May 06 18:59	7° ♂ 32'47	
asc. node	2104 May 26 18:29	1° ♂ 52'29		max. Earth dist.	2105 May 12 13:36	19° ♂ 41'32	1.32495 AU
max. Earth dist.	2104 May 29 04:03	7° ♂ 06'48	1.32190 AU	asc. node	2105 May 13 15:31	22° ♂ 01'51	
superior conj	2104 May 29 20:43	8° ♂ 38'24	0°32'11	superior conj	2105 May 14 06:40	23° ♂ 24'13	0°06'40
minimum elong	2104 May 29 19:20	8° ♂ 30'46	0°31'54	minimum elong	2105 May 14 06:21	23° ♂ 22'30	0°06'37
evening rise	2104 Jun 05 18:10	23° ♂ 37'57		behind sun begin	2105 May 14 01:38	22° ♂ 56'53	
	2104 Jun 08 19:55	0° ♂		behind sun end	2105 May 14 11:03	23° ♂ 48'08	
	2104 Jun 26 19:30	0° ♂			2105 May 17 07:12	0° ♂	
evening max el	2104 Jul 03 14:09	7° ♂ 37'32	25°47'54	evening rise	2105 May 21 05:48	8° ♂ 30'07	
desc. node	2104 Jul 03 23:53	8° ♂ 00'28			2105 Jun 01 10:08	0° ♂	
retrograde	2104 Jul 17 14:21	14° ♂ 46'32		evening max el	2105 Jun 15 05:08	18° ♂ 23'33	24°21'07
evening set	2104 Jul 23 16:55	13° ♂ 17'52		desc. node	2105 Jun 20 20:52	22° ♂ 51'09	
min. Earth dist.	2104 Jul 28 02:29	10° ♂ 40'11	0.58553 AU	retrograde	2105 Jun 29 01:51	25° ♂ 23'24	
inferior conj	2104 Jul 31 08:25	8° ♂ 19'08	-4°-57'-41	evening set	2105 Jul 03 20:42	24° ♂ 32'16	
minimum elong	2104 Jul 31 09:49	8° ♂ 16'36	4°57'38	min. Earth dist.	2105 Jul 09 16:00	21° ♂ 37'27	0.56692 AU
morning rise	2104 Aug 08 06:13	3° ♂ 55'52		inferior conj	2105 Jul 12 08:05	19° ♂ 56'23	-4°-48'-4
direct	2104 Aug 10 17:37	3° ♂ 36'03		minimum elong	2105 Jul 12 04:10	20° ♂ 02'37	4°47'40
morning max el	2104 Aug 18 22:51	7° ♂ 30'44	18°39'35	morning rise	2105 Jul 20 15:16	15° ♂ 54'02	
asc. node	2104 Aug 22 17:42	11° ♂ 51'12		direct	2105 Jul 23 07:09	15° ♂ 34'59	
	2104 Sep 02 10:20	0° ♂		morning max el	2105 Aug 01 20:04	20° ♂ 00'55	19°34'55
morning set	2104 Sep 04 05:02	3° ♂ 26'21		asc. node	2105 Aug 09 14:44	29° ♂ 58'23	
					2105 Aug 09 15:08	0° ♂	
superior conj	2104 Sep 12 23:31	20° ♂ 20'33	1°37'34	morning set	2105 Aug 19 06:41	17° ♂ 51'31	
minimum elong	2104 Sep 13 02:07	20° ♂ 32'45	1°37'23		2105 Aug 25 07:20	0° ♂	
	2104 Sep 18 05:43	0° ♂					
max. Earth dist.	2104 Sep 20 04:26	3° ♂ 27'13	1.39652 AU	superior conj	2105 Aug 27 07:12	3° ♂ 57'36	1°45'05
evening rise	2104 Sep 24 07:42	10° ♂ 34'36		minimum elong	2105 Aug 27 07:55	4° ♂ 01'06	1°45'04
desc. node	2104 Sep 29 23:13	19° ♂ 51'11		max. Earth dist.	2105 Sep 02 08:38	15° ♂ 34'10	1.37612 AU
	2104 Oct 06 12:07	0° ♂		evening rise	2105 Sep 06 04:04	22° ♂ 29'41	
	2104 Oct 29 11:05	0° ♂			2105 Sep 10 11:52	0° ♂	
evening max el	2104 Oct 29 09:28	29° ♂ 56'00	24°01'29	desc. node	2105 Sep 16 20:15	10° ♂ 22'07	
retrograde	2104 Nov 09 09:16	6° ♂ 23'27			2105 Sep 30 08:14	0° ♂	
evening set	2104 Nov 14 14:17	4° ♂ 14'09		evening max el	2105 Oct 11 21:31	13° ♂ 35'19	25°17'17
	2104 Nov 18 10:06	30° ♂		retrograde	2105 Oct 23 20:56	20° ♂ 29'58	

evening set	2105 Oct 29 16:22	18° \mathbb{M} 04'42		evening max el	2106 Sep 24 09:29	27° $\underline{\mathbb{A}}$ 14'01	26°21'37
min. Earth dist.	2105 Nov 03 04:00	13° \mathbb{M} 05'35	0.67193 AU		2106 Sep 27 11:47	0° \mathbb{M}	
inferior conj	2105 Nov 04 06:02	11° \mathbb{M} 41'03	0°-27'-27	retrograde	2106 Oct 07 03:46	4° \mathbb{M} 25'34	
minimum elong	2105 Nov 04 06:44	11° \mathbb{M} 38'47	0°27'10	evening set	2106 Oct 13 13:04	1° \mathbb{M} 48'09	
asc. node	2105 Nov 05 13:55	9° \mathbb{M} 59'04			2106 Oct 15 10:50	30° \mathbb{R} $\underline{\mathbb{A}}$	
morning rise	2105 Nov 09 21:46	5° \mathbb{M} 41'16		min. Earth dist.	2106 Oct 17 17:10	27° $\underline{\mathbb{A}}$ 25'23	0.66353 AU
direct	2105 Nov 13 07:04	4° \mathbb{M} 35'04		inferior conj	2106 Oct 19 06:37	25° $\underline{\mathbb{A}}$ 31'02	-1°-25'-21
morning max el	2105 Nov 20 12:53	8° \mathbb{M} 40'20	19°30'58	minimum elong	2106 Oct 19 08:53	25° $\underline{\mathbb{A}}$ 24'06	1°24'25
greatest brilliancy	2105 Nov 29 03:49	19° \mathbb{M} 34'13	-0.7m	asc. node	2106 Oct 23 10:58	20° $\underline{\mathbb{A}}$ 58'00	
	2105 Dec 06 04:37	0° \mathbb{A}		morning rise	2106 Oct 25 05:53	19° $\underline{\mathbb{A}}$ 41'31	
desc. node	2105 Dec 13 19:31	11° \mathbb{A} 41'35		direct	2106 Oct 28 05:14	18° $\underline{\mathbb{A}}$ 51'23	
morning set	2105 Dec 15 01:27	13° \mathbb{A} 37'19		morning max el	2106 Nov 03 22:56	22° $\underline{\mathbb{A}}$ 34'35	18°41'24
	2105 Dec 25 13:30	0° \mathbb{B}			2106 Nov 09 22:32	0° \mathbb{M}	
max. Earth dist.	2105 Dec 27 23:27	3° \mathbb{B} 48'42	1.44508 AU	morning set	2106 Nov 24 19:32	22° \mathbb{M} 59'46	
					2106 Nov 29 05:41	0° \mathbb{A}	
superior conj	2105 Dec 31 20:45	10° \mathbb{B} 00'07	-1°-43'-13	desc. node	2106 Nov 30 16:35	2° \mathbb{A} 17'45	
minimum elong	2105 Dec 31 12:43	9° \mathbb{B} 27'57	1°42'35	max. Earth dist.	2106 Dec 10 16:54	18° \mathbb{A} 02'30	1.45115 AU
	2106 Jan 13 02:09	0° \mathbb{A}					
evening rise	2106 Jan 14 22:42	3° \mathbb{A} 06'18		superior conj	2106 Dec 11 00:43	18° \mathbb{A} 33'10	-1°-5'-40
	2106 Feb 01 02:30	0° \mathbb{H}		minimum elong	2106 Dec 10 16:48	18° \mathbb{A} 02'06	1°04'44
asc. node	2106 Feb 01 13:13	0° \mathbb{H} 31'27			2106 Dec 18 07:12	0° \mathbb{B}	
evening max el	2106 Feb 02 20:13	1° \mathbb{H} 55'24	18°21'13	evening rise	2106 Dec 26 18:34	13° \mathbb{B} 28'54	
retrograde	2106 Feb 09 07:50	5° \mathbb{H} 26'22			2107 Jan 06 03:07	0° \mathbb{A}	
evening set	2106 Feb 12 06:23	4° \mathbb{H} 39'30		evening max el	2107 Jan 17 06:57	15° \mathbb{A} 21'56	18°52'44
	2106 Feb 17 13:31	30° \mathbb{R} \mathbb{A}		asc. node	2107 Jan 19 10:15	17° \mathbb{A} 17'41	
inferior conj	2106 Feb 18 06:33	29° \mathbb{A} 11'46	3°42'06	retrograde	2107 Jan 24 01:49	19° \mathbb{A} 11'15	
minimum elong	2106 Feb 18 05:52	29° \mathbb{A} 13'44	3°42'05	evening set	2107 Jan 27 06:21	18° \mathbb{A} 12'43	
min. Earth dist.	2106 Feb 20 14:30	26° \mathbb{A} 32'50	0.63937 AU	inferior conj	2107 Feb 01 23:38	12° \mathbb{A} 27'39	3°28'48
morning rise	2106 Feb 24 03:44	23° \mathbb{A} 04'38		minimum elong	2107 Feb 01 21:43	12° \mathbb{A} 33'37	3°28'32
direct	2106 Mar 03 00:49	20° \mathbb{A} 17'41		min. Earth dist.	2107 Feb 03 16:10	10° \mathbb{A} 22'03	0.65495 AU
desc. node	2106 Mar 11 18:39	23° \mathbb{A} 50'21		morning rise	2107 Feb 07 12:01	6° \mathbb{A} 15'25	
morning max el	2106 Mar 16 17:53	28° \mathbb{A} 11'54	27°34'37	direct	2107 Feb 14 01:35	3° \mathbb{A} 25'09	
	2106 Mar 18 11:32	0° \mathbb{H}		desc. node	2107 Feb 26 15:44	10° \mathbb{A} 37'18	
	2106 Apr 08 20:16	0° \mathbb{Y}		morning max el	2107 Feb 27 03:46	11° \mathbb{A} 07'16	26°47'20
morning set	2106 Apr 20 14:44	21° \mathbb{Y} 31'41			2107 Mar 14 04:19	0° \mathbb{H}	
	2106 Apr 24 19:00	0° \mathbb{B}			2107 Apr 01 08:55	0° \mathbb{Y}	
max. Earth dist.	2106 Apr 25 16:20	1° \mathbb{B} 51'07	1.33219 AU	morning set	2107 Apr 03 23:54	4° \mathbb{Y} 55'27	
				max. Earth dist.	2107 Apr 08 08:39	13° \mathbb{Y} 27'21	1.34398 AU
superior conj	2106 Apr 28 13:06	7° \mathbb{B} 54'54	0°-20'-40				
minimum elong	2106 Apr 28 14:08	8° \mathbb{B} 00'23	0°20'28	superior conj	2107 Apr 12 13:58	22° \mathbb{Y} 04'30	0°-48'-42
asc. node	2106 Apr 30 12:32	12° \mathbb{B} 09'15		minimum elong	2107 Apr 12 16:27	22° \mathbb{Y} 17'20	0°48'14
evening rise	2106 May 05 17:23	23° \mathbb{B} 17'27			2107 Apr 16 08:44	0° \mathbb{B}	
	2106 May 08 23:20	0° \mathbb{I}		asc. node	2107 Apr 17 09:35	2° \mathbb{B} 10'54	
evening max el	2106 May 27 19:19	28° \mathbb{I} 51'43	22°45'01	evening rise	2107 Apr 20 03:07	7° \mathbb{B} 54'07	
	2106 May 29 00:44	0° \mathbb{B}			2107 May 02 01:19	0° \mathbb{I}	
desc. node	2106 Jun 07 17:53	5° \mathbb{B} 14'52		evening max el	2107 May 09 16:33	9° \mathbb{I} 35'06	21°14'12
retrograde	2106 Jun 10 01:10	5° \mathbb{B} 27'00		retrograde	2107 May 21 15:11	15° \mathbb{I} 25'02	
evening set	2106 Jun 13 08:31	5° \mathbb{B} 02'59		evening set	2107 May 23 22:26	15° \mathbb{I} 12'48	
min. Earth dist.	2106 Jun 21 03:36	1° \mathbb{B} 37'03	0.55370 AU	desc. node	2107 May 25 14:53	14° \mathbb{I} 49'13	
inferior conj	2106 Jun 22 12:53	0° \mathbb{B} 49'20	-3°-52'-21	inferior conj	2107 Jun 02 07:07	11° \mathbb{I} 14'05	-2°-12'00
minimum elong	2106 Jun 22 05:05	1° \mathbb{B} 00'32	3°50'29	minimum elong	2107 Jun 02 01:04	11° \mathbb{I} 22'37	2°09'56
	2106 Jun 23 23:35	30° \mathbb{R} \mathbb{I}		min. Earth dist.	2107 Jun 02 15:50	11° \mathbb{I} 01'50	0.54897 AU
morning rise	2106 Jul 01 04:23	26° \mathbb{I} 57'43		morning rise	2107 Jun 11 03:41	7° \mathbb{I} 14'56	
direct	2106 Jul 04 02:11	26° \mathbb{I} 38'06		direct	2107 Jun 14 12:06	6° \mathbb{I} 50'36	
	2106 Jul 13 02:13	0° \mathbb{B}		morning max el	2107 Jun 27 05:13	12° \mathbb{I} 53'20	22°24'38
morning max el	2106 Jul 15 06:05	1° \mathbb{B} 48'43	20°51'09		2107 Jul 09 23:49	0° \mathbb{B}	
asc. node	2106 Jul 27 11:47	18° \mathbb{B} 45'12		asc. node	2107 Jul 14 08:52	8° \mathbb{B} 01'55	
	2106 Aug 02 07:49	0° \mathbb{Q}		morning set	2107 Jul 18 23:58	17° \mathbb{B} 23'53	
morning set	2106 Aug 03 13:41	2° \mathbb{Q} 32'40			2107 Jul 24 22:21	0° \mathbb{Q}	
superior conj	2106 Aug 11 02:13	18° \mathbb{Q} 08'35	1°44'21	superior conj	2107 Jul 26 05:01	2° \mathbb{Q} 42'46	1°36'57
minimum elong	2106 Aug 11 01:22	18° \mathbb{Q} 04'15	1°44'19	minimum elong	2107 Jul 26 03:08	2° \mathbb{Q} 32'51	1°36'48
max. Earth dist.	2106 Aug 15 16:46	27° \mathbb{Q} 24'11	1.35772 AU	max. Earth dist.	2107 Jul 29 09:31	9° \mathbb{Q} 22'57	1.34279 AU
	2106 Aug 17 00:44	0° \mathbb{P}		evening rise	2107 Aug 03 04:04	18° \mathbb{Q} 58'28	
evening rise	2106 Aug 19 20:23	5° \mathbb{P} 21'39			2107 Aug 09 01:18	0° \mathbb{P}	
	2106 Sep 03 07:32	0° $\underline{\mathbb{A}}$		desc. node	2107 Aug 21 14:15	20° \mathbb{P} 30'08	
desc. node	2106 Sep 03 17:16	0° $\underline{\mathbb{A}}$ 37'26			2107 Aug 28 10:42	0° $\underline{\mathbb{A}}$	

evening max el	2107 Sep 06 21:45	10° Ω 45'07	27°06'49	evening rise	2108 Jul 16 22:56	3° Ω 07'56	
retrograde	2107 Sep 20 05:08	18° Ω 03'07			2108 Jul 31 20:27	0° \mathbb{M}	
evening set	2107 Sep 27 02:02	15° Ω 20'28		desc. node	2108 Aug 07 11:16	9° \mathbb{M} 50'48	
min. Earth dist.	2107 Sep 30 23:18	11° Ω 34'16	0.65163 AU	evening max el	2108 Aug 19 08:56	23° \mathbb{M} 56'55	27°25'54
inferior conj	2107 Oct 03 00:56	9° Ω 14'30	-2°-23'-59		2108 Aug 27 18:24	0° Ω	
minimum elong	2107 Oct 03 04:47	9° Ω 03'38	2°22'33	retrograde	2108 Sep 02 00:19	1° Ω 14'24	
morning rise	2107 Oct 09 09:16	3° Ω 38'16			2108 Sep 06 22:37	30° \mathbb{R} \mathbb{M}	
asc. node	2107 Oct 10 08:04	3° Ω 16'02		evening set	2108 Sep 09 04:21	28° \mathbb{M} 36'25	
direct	2107 Oct 12 01:06	3° Ω 00'15		min. Earth dist.	2108 Sep 12 20:14	25° \mathbb{M} 24'10	0.63623 AU
morning max el	2107 Oct 18 13:28	6° Ω 30'35	18°08'19	inferior conj	2108 Sep 15 10:28	22° \mathbb{M} 45'57	-3°-20'-35
	2107 Nov 03 11:20	0° \mathbb{M}		minimum elong	2108 Sep 15 15:32	22° \mathbb{M} 33'01	3°19'01
morning set	2107 Nov 05 18:47	3° \mathbb{M} 49'14		morning rise	2108 Sep 22 05:01	17° \mathbb{M} 26'29	
desc. node	2107 Nov 17 13:36	23° \mathbb{M} 00'40		direct	2108 Sep 24 16:01	16° \mathbb{M} 56'57	
				asc. node	2108 Sep 26 05:09	17° \mathbb{M} 08'51	
superior conj	2107 Nov 20 05:11	27° \mathbb{M} 14'03	0°-17'-45	morning max el	2108 Oct 01 05:42	20° \mathbb{M} 22'33	17°52'41
minimum elong	2107 Nov 20 02:56	27° \mathbb{M} 05'06	0°17'28		2108 Oct 08 10:36	0° Ω	
	2107 Nov 21 23:05	0° \mathbb{X}		morning set	2108 Oct 17 20:14	15° Ω 55'04	
max. Earth dist.	2107 Nov 23 11:49	2° \mathbb{X} 24'53	1.44988 AU		2108 Oct 26 01:34	0° \mathbb{M}	
evening rise	2107 Dec 06 16:20	22° \mathbb{X} 59'29					
	2107 Dec 11 05:00	0° \mathbb{Z}		superior conj	2108 Oct 30 05:34	6° \mathbb{M} 56'03	0°28'20
greatest brilliancy	2107 Dec 23 19:20	19° \mathbb{Z} 00'09	-0.6m	minimum elong	2108 Oct 30 08:30	7° \mathbb{M} 08'06	0°27'56
evening max el	2107 Dec 31 13:51	28° \mathbb{Z} 51'19	19°40'52	desc. node	2108 Nov 03 10:36	13° \mathbb{M} 47'26	
	2108 Jan 01 18:01	0° \approx		max. Earth dist.	2108 Nov 05 05:32	16° \mathbb{M} 39'45	1.44148 AU
asc. node	2108 Jan 06 07:19	2° \approx 53'06			2108 Nov 13 17:16	0° \mathbb{X}	
retrograde	2108 Jan 07 22:58	3° \approx 08'07		evening rise	2108 Nov 15 01:30	2° \mathbb{X} 04'24	
evening set	2108 Jan 11 10:56	1° \approx 56'28			2108 Dec 03 19:50	0° \mathbb{Z}	
	2108 Jan 13 16:05	30° \mathbb{R} \mathbb{Z}		greatest brilliancy	2108 Dec 07 22:21	5° \mathbb{Z} 35'09	-0.5m
inferior conj	2108 Jan 16 23:45	25° \mathbb{Z} 56'31	3°03'21	evening max el	2108 Dec 13 15:32	12° \mathbb{Z} 22'00	20°43'09
minimum elong	2108 Jan 16 21:14	26° \mathbb{Z} 04'51	3°02'45	retrograde	2108 Dec 21 20:50	17° \mathbb{Z} 13'28	
min. Earth dist.	2108 Jan 18 01:48	24° \mathbb{Z} 30'42	0.66652 AU	asc. node	2108 Dec 23 04:22	17° \mathbb{Z} 03'49	
morning rise	2108 Jan 22 06:49	19° \mathbb{Z} 41'51		evening set	2108 Dec 25 18:02	15° \mathbb{Z} 47'00	
direct	2108 Jan 28 08:16	17° \mathbb{Z} 00'46		inferior conj	2108 Dec 31 04:22	9° \mathbb{Z} 35'02	2°28'31
morning max el	2108 Feb 09 12:50	24° \mathbb{Z} 16'14	25°36'18	minimum elong	2108 Dec 31 01:47	9° \mathbb{Z} 43'52	2°27'42
desc. node	2108 Feb 13 12:48	28° \mathbb{Z} 37'54		min. Earth dist.	2108 Dec 31 17:27	8° \mathbb{Z} 50'20	0.67409 AU
	2108 Feb 14 16:34	0° \approx		morning rise	2109 Jan 05 09:06	3° \mathbb{Z} 19'53	
	2108 Mar 06 14:30	0° \mathbb{H}		direct	2109 Jan 10 19:57	0° \mathbb{Z} 56'35	
morning set	2108 Mar 16 17:57	17° \mathbb{H} 30'03		morning max el	2109 Jan 21 21:11	7° \mathbb{Z} 31'58	24°11'33
max. Earth dist.	2108 Mar 20 13:09	24° \mathbb{H} 34'14	1.36036 AU	desc. node	2109 Jan 30 09:50	17° \mathbb{Z} 30'57	
	2108 Mar 23 08:49	0° \mathbb{Y}			2109 Feb 08 10:24	0° \approx	
				morning set	2109 Feb 26 15:12	28° \approx 59'58	
superior conj	2108 Mar 26 06:32	5° \mathbb{Y} 44'40	-1°-15'-54		2109 Feb 27 05:01	0° \mathbb{H}	
minimum elong	2108 Mar 26 10:17	6° \mathbb{Y} 03'23	1°15'20	max. Earth dist.	2109 Mar 02 09:41	5° \mathbb{H} 39'02	1.38038 AU
evening rise	2108 Apr 03 08:49	22° \mathbb{Y} 13'05					
asc. node	2108 Apr 03 06:37	22° \mathbb{Y} 01'55		superior conj	2109 Mar 09 11:24	18° \mathbb{H} 46'25	-1°-40'-2
	2108 Apr 07 06:36	0° \mathbb{B}		minimum elong	2109 Mar 09 15:43	19° \mathbb{H} 07'06	1°39'34
evening max el	2108 Apr 21 01:10	20° \mathbb{B} 53'44	19°58'18		2109 Mar 15 05:38	0° \mathbb{Y}	
retrograde	2108 May 01 06:17	25° \mathbb{B} 49'55		evening rise	2109 Mar 18 08:04	6° \mathbb{Y} 07'41	
evening set	2108 May 03 06:47	25° \mathbb{B} 39'11		asc. node	2109 Mar 21 03:40	11° \mathbb{Y} 37'37	
desc. node	2108 May 11 11:57	22° \mathbb{B} 04'44			2109 Apr 01 06:43	0° \mathbb{B}	
inferior conj	2108 May 12 04:49	21° \mathbb{B} 39'16	0°-12'-17	evening max el	2109 Apr 03 21:01	2° \mathbb{B} 51'52	19°01'33
minimum elong	2108 May 12 04:16	21° \mathbb{B} 40'07	0°12'05	retrograde	2109 Apr 12 11:27	7° \mathbb{B} 02'19	
transit middle	2108 May 12 04:16	21° \mathbb{B} 40'07	0°12'05	evening set	2109 Apr 14 15:01	6° \mathbb{B} 47'45	
transit begin	2108 May 12 01:40	21° \mathbb{B} 44'04		inferior conj	2109 Apr 22 18:39	2° \mathbb{B} 33'06	1°33'15
transit end	2108 May 12 06:52	21° \mathbb{B} 36'11		minimum elong	2109 Apr 22 22:00	2° \mathbb{B} 27'15	1°32'10
min. Earth dist.	2108 May 14 05:16	20° \mathbb{B} 26'06	0.55395 AU	min. Earth dist.	2109 Apr 25 20:44	0° \mathbb{B} 24'50	0.56751 AU
morning rise	2108 May 20 22:52	17° \mathbb{B} 14'34			2109 Apr 26 11:50	30° \mathbb{R} \mathbb{Y}	
direct	2108 May 25 02:19	16° \mathbb{B} 36'52		desc. node	2109 Apr 28 09:00	28° \mathbb{Y} 51'19	
morning max el	2108 Jun 07 20:56	23° \mathbb{B} 26'05	24°06'43	morning rise	2109 May 01 00:45	27° \mathbb{Y} 34'03	
	2108 Jun 13 18:33	0° \mathbb{I}		direct	2109 May 06 04:48	26° \mathbb{Y} 31'04	
asc. node	2108 Jun 30 05:56	27° \mathbb{I} 40'13			2109 May 15 19:27	0° \mathbb{B}	
	2108 Jul 01 09:03	0° \mathbb{S}		morning max el	2109 May 20 11:29	3° \mathbb{B} 53'11	25°43'21
morning set	2108 Jul 02 11:44	2° \mathbb{S} 19'37			2109 Jun 08 04:24	0° \mathbb{I}	
				morning set	2109 Jun 16 23:18	17° \mathbb{I} 14'28	
superior conj	2108 Jul 09 12:52	17° \mathbb{S} 31'22	1°24'06	asc. node	2109 Jun 17 02:57	17° \mathbb{I} 33'45	
minimum elong	2108 Jul 09 10:31	17° \mathbb{S} 18'36	1°23'49		2109 Jun 22 20:46	0° \mathbb{S}	
max. Earth dist.	2108 Jul 11 11:30	21° \mathbb{S} 42'32	1.33185 AU				
	2108 Jul 15 10:05	0° \mathbb{Q}		superior conj	2109 Jun 23 23:36	2° \mathbb{S} 27'12	1°06'47

minimum elong	2109 Jun 23 21:16	2°☿14'25	1°06'23	superior conj	2110 Jun 08 11:23	17°♄24'28	0°45'44
max. Earth dist.	2109 Jun 24 20:18	4°☿20'37	1.32492 AU	minimum elong	2110 Jun 08 09:32	17°♄14'17	0°45'22
evening rise	2109 Jul 01 01:36	17°☿39'40		max. Earth dist.	2110 Jun 08 08:21	17°♄07'46	1.32186 AU
	2109 Jul 07 07:16	0°♄			2110 Jun 14 06:00	0°☿	
desc. node	2109 Jul 25 08:17	28°♄25'37		evening rise	2110 Jun 15 09:27	2°☿25'29	
	2109 Jul 26 14:49	0°♄			2110 Jun 30 06:36	0°♄	
evening max el	2109 Aug 01 16:22	6°♄34'47	27°13'27	desc. node	2110 Jul 12 05:18	15°♄55'42	
retrograde	2109 Aug 15 12:32	13°♄49'28		evening max el	2110 Jul 14 17:28	18°♄28'12	26°27'47
evening set	2109 Aug 22 16:03	11°♄28'32		retrograde	2110 Jul 28 16:57	25°♄40'24	
min. Earth dist.	2109 Aug 26 06:31	8°♄42'15	0.61774 AU	evening set	2110 Aug 04 08:32	23°♄49'35	
inferior conj	2109 Aug 29 08:00	5°♄56'48	-4°-10'-47	min. Earth dist.	2110 Aug 08 06:41	21°♄14'15	0.59731 AU
minimum elong	2109 Aug 29 13:18	5°♄44'49	4°09'36	inferior conj	2110 Aug 11 14:05	18°♄38'16	-4°-47'-14
morning rise	2109 Sep 05 13:23	0°♄57'41		minimum elong	2110 Aug 11 17:39	18°♄31'13	4°46'50
direct	2109 Sep 07 22:21	0°♄33'41		morning rise	2110 Aug 19 06:09	14°♄02'05	
asc. node	2109 Sep 13 02:12	2°♄30'55		direct	2110 Aug 21 15:50	13°♄41'20	
morning max el	2109 Sep 14 20:38	4°♄02'46	17°55'24	morning max el	2110 Aug 29 07:10	17°♄23'24	18°17'35
morning set	2109 Sep 30 17:26	28°♄57'04		asc. node	2110 Aug 30 23:12	19°♄08'54	
	2109 Oct 01 07:16	0°♄			2110 Sep 07 07:48	0°♄	
				morning set	2110 Sep 14 04:49	12°♄39'40	
superior conj	2109 Oct 11 09:03	17°♄57'53	1°04'34		2110 Sep 23 10:26	0°♄	
minimum elong	2109 Oct 11 13:36	18°♄17'34	1°04'02				
	2109 Oct 18 12:16	0°♄		superior conj	2110 Sep 23 13:07	0°♄12'13	1°28'47
max. Earth dist.	2109 Oct 18 19:10	0°♄28'19	1.42696 AU	minimum elong	2110 Sep 23 16:44	0°♄28'44	1°28'27
desc. node	2109 Oct 21 07:37	4°♄34'23		max. Earth dist.	2110 Oct 01 02:52	13°♄34'59	1.40820 AU
evening rise	2109 Oct 25 14:15	11°♄23'17		evening rise	2110 Oct 05 21:14	21°♄33'23	
	2109 Nov 06 20:06	0°♄		desc. node	2110 Oct 08 04:38	25°♄18'12	
greatest brilliancy	2109 Nov 21 17:24	20°♄29'33	-0.4m		2110 Oct 11 03:34	0°♄	
evening max el	2109 Nov 26 11:31	25°♄53'04	21°56'15		2110 Oct 31 23:43	0°♄	
	2109 Dec 01 10:17	0°♄		evening max el	2110 Nov 09 02:44	9°♄26'07	23°15'30
retrograde	2109 Dec 05 17:34	1°♄23'25		retrograde	2110 Nov 19 11:41	15°♄34'56	
	2109 Dec 09 15:43	30°♄		evening set	2110 Nov 24 08:41	13°♄35'19	
evening set	2109 Dec 10 01:50	29°♄40'47		asc. node	2110 Nov 26 22:27	10°♄55'43	
asc. node	2109 Dec 10 01:25	29°♄41'36		inferior conj	2110 Nov 29 18:46	7°♄10'03	0°57'51
inferior conj	2109 Dec 15 11:19	23°♄20'11	1°46'11	minimum elong	2110 Nov 29 17:27	7°♄14'34	0°57'19
minimum elong	2109 Dec 15 09:10	23°♄27'38	1°45'24	min. Earth dist.	2110 Nov 29 09:31	7°♄41'50	0.67814 AU
min. Earth dist.	2109 Dec 15 12:47	23°♄15'04	0.67787 AU	morning rise	2110 Dec 05 02:18	0°♄59'33	
morning rise	2109 Dec 20 16:18	17°♄06'19			2110 Dec 06 15:26	30°♄	
direct	2109 Dec 25 11:54	15°♄05'10		direct	2110 Dec 09 07:19	29°♄21'13	
morning max el	2110 Jan 04 07:17	20°♄53'21	22°43'02		2110 Dec 12 03:13	0°♄	
greatest brilliancy	2110 Jan 08 21:54	26°♄01'55	-0.3m	morning max el	2110 Dec 17 22:30	4°♄23'15	21°19'20
	2110 Jan 12 01:54	0°♄		greatest brilliancy	2110 Dec 23 02:49	10°♄18'52	-0.4m
desc. node	2110 Jan 17 06:52	7°♄01'09		desc. node	2111 Jan 04 03:53	26°♄58'16	
	2110 Feb 01 16:57	0°♄			2111 Jan 06 05:08	0°♄	
morning set	2110 Feb 07 09:33	9°♄10'01		morning set	2111 Jan 17 23:11	17°♄59'25	
max. Earth dist.	2110 Feb 12 05:33	17°♄16'07	1.40188 AU		2111 Jan 25 10:19	0°♄	
	2110 Feb 19 11:14	0°♄		max. Earth dist.	2111 Jan 25 06:41	29°♄45'03	1.42211 AU
superior conj	2110 Feb 20 00:06	0°♄58'19	-1°-57'-54	superior conj	2111 Feb 01 15:26	12°♄07'56	-2°-5'-8
minimum elong	2110 Feb 20 03:29	1°♄13'43	1°57'43	minimum elong	2111 Feb 01 15:27	12°♄08'01	2°05'09
evening rise	2110 Mar 01 21:47	19°♄29'57			2111 Feb 11 17:22	0°♄	
	2110 Mar 07 13:02	0°♄		evening rise	2111 Feb 12 22:14	2°♄10'54	
asc. node	2110 Mar 08 00:42	0°♄52'16		asc. node	2111 Feb 22 21:44	19°♄38'18	
evening max el	2110 Mar 18 01:36	15°♄24'06	18°25'05	evening max el	2111 Mar 01 11:41	28°♄21'06	18°08'31
retrograde	2110 Mar 25 11:43	19°♄04'05			2111 Mar 03 09:44	0°♄	
evening set	2110 Mar 27 20:46	18°♄42'35		retrograde	2111 Mar 08 05:01	1°♄46'28	
inferior conj	2110 Apr 04 05:45	14°♄07'50	2°46'47	evening set	2111 Mar 10 19:27	1°♄16'01	
minimum elong	2110 Apr 04 09:35	13°♄59'59	2°45'53		2111 Mar 13 04:22	30°♄	
min. Earth dist.	2110 Apr 07 16:18	11°♄20'34	0.58670 AU	inferior conj	2111 Mar 17 12:50	26°♄20'10	3°27'48
morning rise	2110 Apr 11 18:19	8°♄38'17		minimum elong	2111 Mar 17 15:07	26°♄14'46	3°27'31
desc. node	2110 Apr 15 06:01	7°♄18'26		min. Earth dist.	2111 Mar 20 18:25	23°♄17'59	0.60815 AU
direct	2110 Apr 17 21:08	7°♄00'13		morning rise	2111 Mar 24 07:39	20°♄30'01	
morning max el	2110 May 02 06:18	14°♄42'50	26°58'58	direct	2111 Mar 31 01:20	18°♄16'34	
	2110 May 14 13:11	0°♄		desc. node	2111 Apr 02 03:04	18°♄28'32	
	2110 May 31 09:23	0°♄		morning max el	2111 Apr 14 07:15	26°♄10'02	27°41'53
morning set	2110 Jun 01 09:05	2°♄03'15			2111 Apr 17 21:18	0°♄	
asc. node	2110 Jun 03 23:58	7°♄37'28			2111 May 08 00:52	0°♄	
				morning set	2111 May 16 15:12	16°♄38'29	

asc. node	2111 May 21 20:59	27°♄45'58		morning max el	2112 Mar 26 13:30	8°♄17'45	27°47'32
	2111 May 22 21:36	0°♄			2112 Apr 12 07:01	0°♄	
max. Earth dist.	2111 May 22 19:44	29°♄49'50	1.32266 AU		2112 Apr 29 04:54	0°♄	
				morning set	2112 Apr 29 15:30	0°♄53'08	
superior conj	2111 May 23 22:29	2°♄16'10	0°21'39	max. Earth dist.	2112 May 05 02:41	12°♄14'28	1.32753 AU
minimum elong	2111 May 23 21:31	2°♄10'51	0°21'26				
evening rise	2111 May 30 20:14	17°♄17'01		superior conj	2112 May 07 07:12	16°♄56'36	0°-4'-45
	2111 Jun 06 03:09	0°♄		minimum elong	2112 May 07 07:26	16°♄57'51	0°04'44
evening max el	2111 Jun 26 11:29	29°♄35'16	25°13'06	behind sun begin	2112 May 07 02:25	16°♄30'45	
	2111 Jun 26 21:57	0°♄		behind sun end	2112 May 07 12:27	17°♄24'58	
desc. node	2111 Jun 29 02:18	1°♄53'54		asc. node	2112 May 07 18:02	17°♄55'10	
retrograde	2111 Jul 10 11:34	6°♄42'22			2112 May 13 08:02	0°♄	
evening set	2111 Jul 16 01:41	5°♄30'12		evening rise	2112 May 14 08:05	2°♄07'57	
min. Earth dist.	2111 Jul 20 23:18	2°♄46'58	0.57713 AU		2112 May 29 15:47	0°♄	
inferior conj	2111 Jul 24 01:21	0°♄40'38	-4°-58'-34	evening max el	2112 Jun 07 01:24	10°♄10'27	23°40'26
minimum elong	2111 Jul 24 00:37	0°♄41'54	4°58'34	desc. node	2112 Jun 14 23:20	15°♄46'15	
	2111 Jul 25 01:14	30°♄		retrograde	2112 Jun 20 17:48	17°♄01'46	
morning rise	2111 Aug 01 03:16	26°♄27'02		evening set	2112 Jun 24 20:53	16°♄24'20	
direct	2111 Aug 03 16:10	26°♄07'49		min. Earth dist.	2112 Jul 01 11:50	13°♄17'38	0.56047 AU
	2111 Aug 12 03:49	0°♄		inferior conj	2112 Jul 03 16:30	11°♄58'23	-4°-30'-28
morning max el	2111 Aug 12 10:04	0°♄14'29	19°00'31	minimum elong	2112 Jul 03 10:26	12°♄07'33	4°29'30
asc. node	2111 Aug 17 20:13	6°♄47'13		morning rise	2112 Jul 12 03:21	8°♄01'55	
morning set	2111 Aug 29 02:10	26°♄51'17		direct	2112 Jul 14 21:30	7°♄42'49	
	2111 Aug 30 16:21	0°♄		morning max el	2112 Jul 25 02:35	12°♄26'49	20°04'51
				asc. node	2112 Aug 03 17:16	25°♄12'26	
superior conj	2111 Sep 06 12:12	13°♄22'52	1°41'53		2112 Aug 06 10:20	0°♄	
minimum elong	2111 Sep 06 13:59	13°♄31'25	1°41'47	morning set	2112 Aug 12 06:21	11°♄23'40	
max. Earth dist.	2111 Sep 13 06:35	25°♄58'08	1.38768 AU				
	2111 Sep 15 13:02	0°♄		superior conj	2112 Aug 20 01:08	27°♄15'09	1°45'40
evening rise	2111 Sep 17 04:14	2°♄50'32		minimum elong	2112 Aug 20 01:08	27°♄15'07	1°45'40
desc. node	2111 Sep 25 01:39	15°♄54'59			2112 Aug 21 10:10	0°♄	
	2111 Oct 04 08:16	0°♄		max. Earth dist.	2112 Aug 25 11:46	7°♄54'29	1.36796 AU
evening max el	2111 Oct 22 15:22	23°♄03'29	24°34'45	evening rise	2112 Aug 29 09:39	15°♄11'05	
retrograde	2111 Nov 03 02:02	29°♄44'20			2112 Sep 06 23:38	0°♄	
evening set	2111 Nov 08 13:00	27°♄28'08		desc. node	2112 Sep 10 22:40	6°♄19'48	
min. Earth dist.	2111 Nov 13 05:15	22°♄08'28	0.67508 AU		2112 Sep 27 23:33	0°♄	
asc. node	2111 Nov 13 19:28	21°♄21'03		evening max el	2112 Oct 04 03:28	6°♄43'39	25°46'42
inferior conj	2111 Nov 14 01:00	21°♄02'35	0°04'46	retrograde	2112 Oct 16 11:37	13°♄46'23	
minimum elong	2111 Nov 14 00:53	21°♄02'58	0°04'43	evening set	2112 Oct 22 13:01	11°♄15'38	
transit middle	2111 Nov 14 00:53	21°♄02'58	0°04'43	min. Earth dist.	2112 Oct 26 21:30	6°♄31'40	0.66873 AU
transit begin	2111 Nov 13 22:15	21°♄11'45		inferior conj	2112 Oct 28 04:12	4°♄54'21	0°-51'-48
transit end	2111 Nov 14 03:30	20°♄54'12		minimum elong	2112 Oct 28 05:32	4°♄50'05	0°51'14
morning rise	2111 Nov 19 13:09	14°♄57'55		asc. node	2112 Oct 30 16:31	1°♄51'37	
direct	2111 Nov 23 05:08	13°♄40'44			2112 Nov 01 13:28	30°♄	
morning max el	2111 Nov 30 21:11	18°♄03'56	20°06'30	morning rise	2112 Nov 02 22:53	28°♄58'21	
greatest brilliancy	2111 Dec 07 20:05	26°♄28'32	-0.6m	direct	2112 Nov 06 03:45	27°♄59'16	
	2111 Dec 10 09:10	0°♄			2112 Nov 11 00:33	0°♄	
desc. node	2111 Dec 22 00:56	17°♄15'00		morning max el	2112 Nov 13 03:27	1°♄53'54	19°07'55
morning set	2111 Dec 27 19:46	26°♄07'12			2112 Dec 02 22:35	0°♄	
	2111 Dec 30 07:50	0°♄		morning set	2112 Dec 06 00:00	4°♄45'55	
max. Earth dist.	2112 Jan 07 15:36	13°♄07'15	1.43835 AU	desc. node	2112 Dec 07 21:57	7°♄45'08	
				max. Earth dist.	2112 Dec 20 07:10	27°♄08'51	1.44855 AU
superior conj	2112 Jan 13 05:07	22°♄07'15	-1°-56'-43		2112 Dec 22 02:32	0°♄	
minimum elong	2112 Jan 12 23:42	21°♄45'08	1°56'26				
	2112 Jan 17 23:19	0°♄		superior conj	2112 Dec 22 18:06	1°♄01'32	-1°-29'-16
evening rise	2112 Jan 26 05:11	14°♄02'37		minimum elong	2112 Dec 22 09:14	0°♄26'28	1°28'24
	2112 Feb 04 14:10	0°♄		evening rise	2113 Jan 06 14:29	24°♄57'56	
asc. node	2112 Feb 09 18:46	7°♄47'11			2113 Jan 09 15:59	0°♄	
evening max el	2112 Feb 13 00:12	11°♄35'06	18°11'14	evening max el	2113 Jan 26 12:18	24°♄58'23	18°32'31
retrograde	2112 Feb 19 11:09	15°♄00'04		asc. node	2113 Jan 26 15:49	25°♄07'16	
evening set	2112 Feb 22 06:44	14°♄19'25		retrograde	2113 Feb 02 01:53	28°♄35'30	
inferior conj	2112 Feb 28 12:13	9°♄03'02	3°42'40	evening set	2113 Feb 05 02:58	27°♄43'40	
minimum elong	2112 Feb 28 12:32	9°♄02'14	3°42'40	inferior conj	2113 Feb 10 23:52	22°♄08'17	3°38'09
min. Earth dist.	2112 Mar 02 05:04	6°♄10'10	0.62881 AU	minimum elong	2113 Feb 10 22:35	22°♄12'05	3°38'02
morning rise	2112 Mar 05 16:14	3°♄00'43		min. Earth dist.	2113 Feb 13 01:09	19°♄42'36	0.64654 AU
direct	2112 Mar 12 14:50	0°♄21'49		morning rise	2113 Feb 16 16:53	15°♄58'53	
desc. node	2112 Mar 19 00:06	2°♄16'13		direct	2113 Feb 23 11:36	13°♄08'55	

desc. node	2113 Mar 05 21:09	18° \approx 07'23			2114 Feb 14 20:35	0° \approx	
morning max el	2113 Mar 08 22:46	20° \approx 58'37	27°17'57	morning max el	2114 Feb 19 08:36	4° \approx 01'29	26°19'33
	2113 Mar 16 18:34	0° \mathbb{H}		desc. node	2114 Feb 20 18:13	5° \approx 28'41	
	2113 Apr 05 09:41	0° \mathbb{Y}			2114 Mar 11 03:53	0° \mathbb{H}	
morning set	2113 Apr 13 07:12	14° \mathbb{Y} 38'20		morning set	2114 Mar 27 10:35	27° \mathbb{H} 43'04	
max. Earth dist.	2113 Apr 18 01:23	24° \mathbb{Y} 10'32	1.33670 AU		2114 Mar 28 15:39	0° \mathbb{Y}	
	2113 Apr 20 20:32	0° \mathbb{B}		max. Earth dist.	2114 Mar 31 13:01	5° \mathbb{Y} 34'29	1.35045 AU
superior conj	2113 Apr 21 11:36	1° \mathbb{B} 19'25	0°-32'-32	superior conj	2114 Apr 05 09:19	15° \mathbb{Y} 17'33	-1°00'-27
minimum elong	2113 Apr 21 13:14	1° \mathbb{B} 28'05	0°32'13	minimum elong	2114 Apr 05 12:22	15° \mathbb{Y} 33'12	0°59'55
asc. node	2113 Apr 24 15:06	8° \mathbb{B} 00'56		asc. node	2114 Apr 11 12:10	27° \mathbb{Y} 58'51	
evening rise	2113 Apr 28 19:09	16° \mathbb{B} 51'54			2114 Apr 12 11:32	0° \mathbb{B}	
	2113 May 05 09:02	0° \mathbb{II}		evening rise	2114 Apr 13 03:29	1° \mathbb{B} 22'19	
evening max el	2113 May 19 17:53	20° \mathbb{II} 42'09	22°04'59		2114 Apr 30 05:29	0° \mathbb{II}	
retrograde	2113 Jun 01 11:55	26° \mathbb{II} 59'38		evening max el	2114 May 01 19:35	1° \mathbb{II} 38'40	20°39'39
desc. node	2113 Jun 01 20:21	26° \mathbb{II} 59'21		retrograde	2114 May 13 01:03	7° \mathbb{II} 06'19	
evening set	2113 Jun 04 07:11	26° \mathbb{II} 42'12		evening set	2114 May 15 03:39	6° \mathbb{II} 55'32	
min. Earth dist.	2113 Jun 12 23:17	22° \mathbb{II} 59'22	0.55060 AU	desc. node	2114 May 19 17:24	5° \mathbb{II} 26'55	
inferior conj	2113 Jun 13 15:24	22° \mathbb{II} 36'46	-3°-14'-16	inferior conj	2114 May 24 09:16	2° \mathbb{II} 57'55	-1°-21'-27
minimum elong	2113 Jun 13 07:34	22° \mathbb{II} 47'45	3°11'59	minimum elong	2114 May 24 05:25	3° \mathbb{II} 03'27	1°20'04
morning rise	2113 Jun 22 09:42	18° \mathbb{II} 44'37		min. Earth dist.	2114 May 25 11:45	2° \mathbb{II} 19'54	0.54989 AU
direct	2113 Jun 25 11:29	18° \mathbb{II} 23'33			2114 May 29 22:59	30° \mathbb{R} \mathbb{B}	
morning max el	2113 Jul 07 07:38	23° \mathbb{II} 55'36	21°29'11	morning rise	2114 Jun 02 05:59	28° \mathbb{B} 50'05	
	2113 Jul 12 17:18	0° \mathbb{E}		direct	2114 Jun 05 21:13	28° \mathbb{B} 21'39	
asc. node	2113 Jul 21 14:20	14° \mathbb{E} 13'32			2114 Jun 12 12:31	0° \mathbb{II}	
morning set	2113 Jul 27 15:03	26° \mathbb{E} 10'39		morning max el	2114 Jun 19 03:05	4° \mathbb{II} 44'58	23°07'50
	2113 Jul 29 11:01	0° \mathbb{Q}			2114 Jul 06 14:08	0° \mathbb{E}	
superior conj	2113 Aug 03 23:53	11° \mathbb{Q} 37'39	1°41'56	asc. node	2114 Jul 08 11:24	3° \mathbb{E} 40'35	
minimum elong	2113 Aug 03 22:32	11° \mathbb{Q} 30'38	1°41'52	morning set	2114 Jul 12 02:12	11° \mathbb{E} 05'03	
max. Earth dist.	2113 Aug 07 23:44	19° \mathbb{Q} 48'18	1.35093 AU	superior conj	2114 Jul 19 05:09	26° \mathbb{E} 19'29	1°32'06
evening rise	2113 Aug 12 09:07	28° \mathbb{Q} 24'15		minimum elong	2114 Jul 19 03:00	26° \mathbb{E} 08'01	1°31'54
	2113 Aug 13 05:19	0° \mathbb{N}			2114 Jul 20 22:36	0° \mathbb{Q}	
desc. node	2113 Aug 28 19:41	26° \mathbb{N} 27'03		max. Earth dist.	2114 Jul 21 20:37	1° \mathbb{Q} 56'04	1.33762 AU
	2113 Aug 31 05:02	0° \mathbb{A}		evening rise	2114 Jul 26 22:01	12° \mathbb{Q} 16'27	
evening max el	2113 Sep 16 15:47	20° \mathbb{A} 21'07	26°43'37		2114 Aug 05 11:48	0° \mathbb{N}	
retrograde	2113 Sep 29 15:59	27° \mathbb{A} 35'43		desc. node	2114 Aug 15 16:42	16° \mathbb{N} 07'58	
evening set	2113 Oct 06 06:44	24° \mathbb{A} 55'06			2114 Aug 26 12:19	0° \mathbb{A}	
min. Earth dist.	2113 Oct 10 07:53	20° \mathbb{A} 48'07	0.65894 AU	evening max el	2114 Aug 30 03:37	3° \mathbb{A} 45'04	27°18'21
inferior conj	2113 Oct 12 02:24	18° \mathbb{A} 42'29	-1°-50'-14	retrograde	2114 Sep 12 14:45	11° \mathbb{A} 03'39	
minimum elong	2113 Oct 12 05:22	18° \mathbb{A} 33'45	1°49'04	evening set	2114 Sep 19 15:34	8° \mathbb{A} 21'12	
asc. node	2113 Oct 17 13:34	13° \mathbb{A} 21'08		min. Earth dist.	2114 Sep 23 10:08	4° \mathbb{A} 50'24	0.64555 AU
morning rise	2113 Oct 18 05:21	12° \mathbb{A} 58'17		inferior conj	2114 Sep 25 17:18	2° \mathbb{A} 21'28	-2°-48'-26
direct	2113 Oct 21 01:19	12° \mathbb{A} 13'39		minimum elong	2114 Sep 25 21:44	2° \mathbb{A} 09'27	2°46'54
morning max el	2113 Oct 27 15:44	15° \mathbb{A} 49'54	18°25'18		2114 Sep 27 23:41	30° \mathbb{R} \mathbb{N}	
	2113 Nov 07 01:06	0° \mathbb{M}		morning rise	2114 Oct 02 05:54	26° \mathbb{N} 52'15	
morning set	2113 Nov 16 06:21	14° \mathbb{M} 45'51		asc. node	2114 Oct 04 10:37	26° \mathbb{N} 19'00	
desc. node	2113 Nov 24 19:00	28° \mathbb{M} 24'48		direct	2114 Oct 04 19:20	26° \mathbb{N} 18'19	
	2113 Nov 25 19:00	0° \mathbb{J}		morning max el	2114 Oct 11 07:25	29° \mathbb{N} 45'27	17°59'31
superior conj	2113 Dec 01 19:26	9° \mathbb{J} 29'49	0°-45'-52		2114 Oct 11 13:09	0° \mathbb{A}	
minimum elong	2113 Dec 01 13:33	9° \mathbb{J} 06'42	0°45'08	morning set	2114 Oct 28 17:23	26° \mathbb{A} 09'43	
max. Earth dist.	2113 Dec 03 02:10	11° \mathbb{J} 30'32	1.45155 AU		2114 Oct 31 00:07	0° \mathbb{M}	
	2113 Dec 14 20:57	0° \mathbb{Z}		superior conj	2114 Nov 11 06:37	18° \mathbb{M} 32'04	0°02'40
evening rise	2113 Dec 18 00:28	4° \mathbb{Z} 57'04		minimum elong	2114 Nov 11 06:56	18° \mathbb{M} 33'21	0°02'38
greatest brilliancy	2113 Dec 30 21:32	25° \mathbb{Z} 04'10	-0.7m	behind sun begin	2114 Nov 10 20:37	17° \mathbb{M} 51'51	
	2114 Jan 03 05:37	0° \approx		behind sun end	2114 Nov 11 17:14	19° \mathbb{M} 14'46	
evening max el	2114 Jan 09 21:36	8° \approx 26'17	19°11'15	desc. node	2114 Nov 11 16:02	19° \mathbb{M} 09'55	
asc. node	2114 Jan 13 12:53	11° \approx 25'17		max. Earth dist.	2114 Nov 15 20:53	25° \mathbb{M} 51'45	1.44711 AU
retrograde	2114 Jan 16 21:38	12° \approx 26'15			2114 Nov 18 11:52	0° \mathbb{J}	
evening set	2114 Jan 20 05:12	11° \approx 22'09		evening rise	2114 Nov 27 15:09	14° \mathbb{J} 12'15	
inferior conj	2114 Jan 25 20:17	5° \approx 30'08	3°19'18		2114 Dec 07 23:31	0° \mathbb{Z}	
minimum elong	2114 Jan 25 18:02	5° \approx 37'20	3°18'53	greatest brilliancy	2114 Dec 17 08:06	13° \mathbb{Z} 37'14	-0.6m
min. Earth dist.	2114 Jan 27 06:21	3° \approx 41'22	0.66037 AU	evening max el	2114 Dec 24 02:16	21° \mathbb{Z} 55'51	20°05'47
	2114 Jan 30 11:32	30° \mathbb{R} \mathbb{Z}		asc. node	2114 Dec 31 09:54	26° \mathbb{Z} 26'17	
morning rise	2114 Jan 31 06:00	29° \mathbb{Z} 16'39		retrograde	2114 Dec 31 19:28	26° \mathbb{Z} 27'10	
direct	2114 Feb 06 14:44	26° \mathbb{Z} 29'21		evening set	2115 Jan 04 11:05	25° \mathbb{Z} 09'27	

inferior conj	2115 Jan 09 22:35	19°☿03'46	2°49'37	minimum elong	2115 Dec 25 01:57	2°☿53'51	2°10'33
minimum elong	2115 Jan 09 19:58	19°☿12'34	2°48'54	min. Earth dist.	2115 Dec 25 12:29	2°☿17'31	0.67607 AU
min. Earth dist.	2115 Jan 10 18:54	17°☿55'31	0.67012 AU		2115 Dec 27 05:17	30°☿☿	
morning rise	2115 Jan 15 04:17	12°☿48'27		morning rise	2115 Dec 30 08:55	26°☿30'18	
direct	2115 Jan 20 23:34	10°☿14'16		direct	2116 Jan 04 13:16	24°☿15'55	
morning max el	2115 Feb 01 17:26	17°☿14'52	25°01'26		2116 Jan 14 13:00	0°☿	
desc. node	2115 Feb 07 15:16	23°☿53'59		morning max el	2116 Jan 15 01:59	0°☿32'18	23°33'47
	2115 Feb 12 09:11	0°☿		desc. node	2116 Jan 25 12:16	13°☿04'18	
	2115 Mar 04 03:45	0°☿			2116 Feb 06 07:17	0°☿	
morning set	2115 Mar 09 20:40	9°☿53'07		morning set	2116 Feb 19 07:04	20°☿50'28	
max. Earth dist.	2115 Mar 13 13:30	16°☿37'08	1.36844 AU	max. Earth dist.	2116 Feb 23 08:07	27°☿48'58	1.38941 AU
					2116 Feb 24 13:48	0°☿	
superior conj	2115 Mar 19 21:23	28°☿42'56	-1°-26'-41				
minimum elong	2115 Mar 20 01:30	29°☿03'10	1°26'07	superior conj	2116 Mar 01 19:55	11°☿24'46	-1°-48'-37
	2115 Mar 20 13:02	0°☿		minimum elong	2116 Mar 02 00:05	11°☿44'18	1°48'16
evening rise	2115 Mar 28 06:48	15°☿32'22		evening rise	2116 Mar 11 02:21	29°☿13'48	
asc. node	2115 Mar 29 09:13	17°☿44'30			2116 Mar 11 11:52	0°☿	
	2115 Apr 04 20:32	0°☿		asc. node	2116 Mar 15 06:15	7°☿11'59	
evening max el	2115 Apr 14 09:11	13°☿14'58	19°31'46	evening max el	2116 Mar 27 09:12	25°☿28'58	18°43'42
retrograde	2115 Apr 23 21:15	17°☿50'28		retrograde	2116 Apr 04 10:06	29°☿24'06	
evening set	2115 Apr 25 22:08	17°☿38'45		evening set	2116 Apr 06 15:57	29°☿06'56	
inferior conj	2115 May 04 12:48	13°☿33'50	0°35'40	inferior conj	2116 Apr 14 11:28	24°☿44'28	2°08'35
minimum elong	2115 May 04 14:18	13°☿31'25	0°35'07	minimum elong	2116 Apr 14 15:23	24°☿37'08	2°07'27
desc. node	2115 May 06 14:25	12°☿14'20		min. Earth dist.	2116 Apr 17 19:21	22°☿16'49	0.57517 AU
min. Earth dist.	2115 May 07 02:14	11°☿55'49	0.55874 AU	morning rise	2116 Apr 22 10:27	19°☿31'28	
morning rise	2115 May 13 02:44	8°☿54'21		desc. node	2116 Apr 22 11:27	19°☿30'20	
direct	2115 May 17 16:07	8°☿07'30		direct	2116 Apr 28 01:04	18°☿13'55	
morning max el	2115 May 31 17:47	15°☿13'16	24°49'22	morning max el	2116 May 12 09:29	25°☿46'32	26°18'46
	2115 Jun 12 12:10	0°☿			2116 May 16 08:30	0°☿	
asc. node	2115 Jun 25 08:28	23°☿26'30			2116 Jun 04 15:35	0°☿	
morning set	2115 Jun 26 14:04	26°☿01'29		morning set	2116 Jun 10 01:04	10°☿54'16	
	2115 Jun 28 10:49	0°☿		asc. node	2116 Jun 11 05:30	13°☿25'00	
superior conj	2115 Jul 03 14:30	11°☿12'35	1°17'16	superior conj	2116 Jun 17 01:53	26°☿09'56	0°58'17
minimum elong	2115 Jul 03 12:05	10°☿59'28	1°16'55	minimum elong	2116 Jun 16 23:42	25°☿57'57	0°57'53
max. Earth dist.	2115 Jul 05 01:41	14°☿23'41	1.32840 AU	max. Earth dist.	2116 Jun 17 12:09	27°☿06'19	1.32316 AU
evening rise	2115 Jul 10 20:34	26°☿36'51			2116 Jun 18 19:48	0°☿	
	2115 Jul 12 12:46	0°☿		evening rise	2116 Jun 24 01:43	11°☿15'47	
	2115 Jul 29 20:50	0°☿			2116 Jul 03 18:03	0°☿	
desc. node	2115 Aug 02 13:42	5°☿11'19		desc. node	2116 Jul 19 10:43	23°☿21'40	
evening max el	2115 Aug 12 13:20	16°☿43'33	27°24'32	evening max el	2116 Jul 24 18:31	29°☿04'26	26°58'04
retrograde	2115 Aug 26 07:20	24°☿00'48			2116 Jul 25 18:37	0°☿	
evening set	2115 Sep 02 12:12	21°☿28'14		retrograde	2116 Aug 07 16:37	6°☿18'00	
min. Earth dist.	2115 Sep 06 02:40	18°☿28'23	0.62871 AU	evening set	2116 Aug 14 16:23	4°☿08'44	
inferior conj	2115 Sep 08 22:05	15°☿45'06	-3°-43'-3	min. Earth dist.	2116 Aug 18 08:45	1°☿28'55	0.60917 AU
minimum elong	2115 Sep 09 03:26	15°☿32'07	3°41'34		2116 Aug 20 02:55	30°☿☿	
morning rise	2115 Sep 15 21:16	10°☿34'03		inferior conj	2116 Aug 21 13:33	28°☿45'19	-4°-28'-32
direct	2115 Sep 18 06:54	10°☿07'23		minimum elong	2116 Aug 21 18:24	28°☿34'55	4°27'40
asc. node	2115 Sep 21 07:40	10°☿50'55		morning rise	2116 Aug 28 23:31	23°☿55'27	
morning max el	2115 Sep 24 23:29	13°☿33'37	17°51'28	direct	2116 Aug 31 08:21	23°☿33'07	
	2115 Oct 06 05:25	0°☿		asc. node	2116 Sep 07 04:42	26°☿47'19	
morning set	2115 Oct 11 03:57	8°☿41'17		morning max el	2116 Sep 07 12:55	27°☿06'52	18°02'17
					2116 Sep 10 02:47	0°☿	
superior conj	2115 Oct 22 18:20	28°☿47'45	0°45'09	morning set	2116 Sep 23 07:51	22°☿03'00	
minimum elong	2115 Oct 22 22:23	29°☿04'43	0°44'37		2116 Sep 27 15:01	0°☿	
	2115 Oct 23 11:35	0°☿					
max. Earth dist.	2115 Oct 29 12:28	9°☿54'58	1.43593 AU	superior conj	2116 Oct 03 08:54	10°☿22'30	1°16'18
desc. node	2115 Oct 29 13:01	9°☿57'12		minimum elong	2116 Oct 03 13:16	10°☿41'48	1°15'48
evening rise	2115 Nov 06 23:33	23°☿17'07		max. Earth dist.	2116 Oct 10 23:33	23°☿27'11	1.41940 AU
	2115 Nov 11 08:33	0°☿			2116 Oct 14 23:12	0°☿	
greatest brilliancy	2115 Dec 01 21:18	29°☿26'15	-0.4m	desc. node	2116 Oct 15 10:02	0°☿43'46	
	2115 Dec 02 08:00	0°☿		evening rise	2116 Oct 16 18:52	2°☿55'33	
evening max el	2115 Dec 07 01:24	5°☿26'12	21°13'16		2116 Nov 03 18:32	0°☿	
retrograde	2115 Dec 15 17:03	10°☿34'23		greatest brilliancy	2116 Nov 14 00:27	13°☿36'51	-0.3m
asc. node	2115 Dec 18 06:56	9°☿57'30		evening max el	2116 Nov 18 19:20	18°☿59'00	22°29'36
evening set	2115 Dec 19 18:37	9°☿01'26		retrograde	2116 Nov 28 12:43	24°☿45'42	
inferior conj	2115 Dec 25 04:24	2°☿45'22	2°11'23	evening set	2116 Dec 03 02:11	22°☿56'04	

asc. node	2116 Dec 04 03:56	21°♊57'42		evening set	2117 Nov 17 08:10	6°♊50'14	
inferior conj	2116 Dec 08 11:47	16°♊33'15	1°26'21	asc. node	2117 Nov 21 00:58	2°♊45'31	
minimum elong	2116 Dec 08 09:57	16°♊39'38	1°25'39	min. Earth dist.	2117 Nov 22 05:12	1°♊11'11	0.67734 AU
min. Earth dist.	2116 Dec 08 08:42	16°♊43'54	0.67844 AU	inferior conj	2117 Nov 22 18:56	0°♊24'30	0°35'51
morning rise	2116 Dec 13 17:35	10°♊20'32		minimum elong	2117 Nov 22 18:05	0°♊27'23	0°35'30
direct	2116 Dec 18 06:58	8°♊28'53			2117 Nov 23 02:09	30°♊	
morning max el	2116 Dec 27 13:40	13°♊56'30	22°06'22	morning rise	2117 Nov 28 04:13	24°♊16'26	
greatest brilliancy	2117 Jan 01 05:12	19°♊09'38	-0.4m	direct	2117 Dec 02 03:33	22°♊47'22	
	2117 Jan 09 09:57	0°♊		morning max el	2117 Dec 10 07:56	27°♊31'07	20°46'46
desc. node	2117 Jan 11 09:17	2°♊47'20			2117 Dec 12 15:05	0°♊	
	2117 Jan 29 06:47	0°♊		greatest brilliancy	2117 Dec 16 03:00	4°♊16'56	-0.5m
morning set	2117 Jan 29 12:44	0°♊23'58		desc. node	2117 Dec 29 06:20	22°♊53'42	
max. Earth dist.	2117 Feb 04 05:37	9°♊46'46	1.41086 AU		2118 Jan 02 23:28	0°♊	
				morning set	2118 Jan 08 16:40	8°♊48'03	
superior conj	2117 Feb 12 00:09	23°♊11'47	-2°-2'-34	max. Earth dist.	2118 Jan 17 10:39	22°♊41'45	1.42972 AU
minimum elong	2117 Feb 12 02:27	23°♊21'58	2°02'31		2118 Jan 21 21:27	0°♊	
	2117 Feb 15 18:55	0°♊					
evening rise	2117 Feb 22 10:51	12°♊19'07		superior conj	2118 Jan 24 04:55	3°♊51'57	-2°-3'-45
asc. node	2117 Mar 02 03:16	26°♊15'09		minimum elong	2118 Jan 24 02:45	3°♊42'50	2°03'43
	2117 Mar 04 09:53	0°♊		evening rise	2118 Feb 05 04:23	24°♊40'13	
evening max el	2117 Mar 10 16:31	8°♊12'41	18°15'40		2118 Feb 08 04:27	0°♊	
retrograde	2117 Mar 17 17:53	11°♊44'15		asc. node	2118 Feb 17 00:17	14°♊46'28	
evening set	2117 Mar 20 05:27	11°♊18'58		evening max el	2118 Feb 22 03:57	21°♊17'33	18°07'19
inferior conj	2117 Mar 27 07:20	6°♊35'08	3°07'48	retrograde	2118 Feb 28 17:22	24°♊41'16	
minimum elong	2117 Mar 27 10:38	6°♊27'54	3°07'11	evening set	2118 Mar 03 10:00	24°♊06'32	
min. Earth dist.	2117 Mar 30 17:05	3°♊38'37	0.59580 AU	inferior conj	2118 Mar 09 21:50	19°♊01'27	3°36'54
morning rise	2117 Apr 03 12:11	0°♊55'59		minimum elong	2118 Mar 09 23:16	18°♊57'52	3°36'47
	2117 Apr 05 08:49	30°♊		min. Earth dist.	2118 Mar 12 22:26	16°♊00'50	0.61716 AU
desc. node	2117 Apr 09 08:29	29°♊03'14		morning rise	2118 Mar 16 09:54	13°♊05'17	
direct	2117 Apr 09 22:40	29°♊02'18		direct	2118 Mar 23 06:43	10°♊39'48	
	2117 Apr 14 16:14	0°♊		desc. node	2118 Mar 27 05:32	11°♊23'29	
morning max el	2117 Apr 24 06:34	6°♊49'39	27°21'40	morning max el	2118 Apr 06 10:08	18°♊34'52	27°49'03
	2117 May 11 15:54	0°♊			2118 Apr 16 01:05	0°♊	
morning set	2117 May 25 09:30	25°♊37'44			2118 May 04 10:37	0°♊	
	2117 May 27 11:15	0°♊		morning set	2118 May 09 13:29	10°♊05'37	
asc. node	2117 May 29 02:32	3°♊31'10		max. Earth dist.	2118 May 15 10:42	22°♊30'54	1.32420 AU
max. Earth dist.	2117 Jun 01 00:29	9°♊53'14	1.32176 AU	asc. node	2118 May 15 23:35	23°♊40'46	
superior conj	2117 Jun 01 13:34	11°♊05'17	0°35'52	superior conj	2118 May 16 23:54	25°♊53'09	0°10'42
minimum elong	2117 Jun 01 12:03	10°♊56'54	0°35'32	minimum elong	2118 May 16 23:24	25°♊50'26	0°10'35
evening rise	2117 Jun 08 11:04	26°♊04'59		behind sun begin	2118 May 16 19:34	25°♊29'29	
	2117 Jun 10 08:05	0°♊		behind sun end	2118 May 17 03:15	26°♊11'24	
	2117 Jun 27 15:25	0°♊			2118 May 18 21:04	0°♊	
desc. node	2117 Jul 06 07:45	10°♊16'41		evening rise	2118 May 23 22:34	10°♊57'32	
evening max el	2117 Jul 06 16:47	10°♊38'26	25°59'08		2118 Jun 02 16:20	0°♊	
retrograde	2117 Jul 20 16:44	17°♊48'08		evening max el	2118 Jun 18 08:21	21°♊29'18	24°35'03
evening set	2117 Jul 26 23:15	16°♊13'30		desc. node	2118 Jun 23 04:46	25°♊26'37	
min. Earth dist.	2117 Jul 31 05:16	13°♊37'08	0.58855 AU	retrograde	2118 Jul 02 06:14	28°♊31'41	
inferior conj	2117 Aug 03 12:01	11°♊11'37	-4°-55'-57	evening set	2118 Jul 07 06:24	27°♊35'15	
minimum elong	2117 Aug 03 14:04	11°♊07'49	4°55'51	min. Earth dist.	2118 Jul 12 19:25	24°♊43'57	0.56943 AU
morning rise	2117 Aug 11 08:21	6°♊45'01		inferior conj	2118 Jul 15 14:43	22°♊55'43	-4°-52'-17
direct	2117 Aug 13 19:17	6°♊24'58		minimum elong	2118 Jul 15 11:38	23°♊00'43	4°52'04
morning max el	2117 Aug 21 20:31	10°♊15'51	18°33'13	morning rise	2118 Jul 23 20:36	18°♊50'51	
asc. node	2117 Aug 25 01:44	13°♊52'46		direct	2118 Jul 26 11:39	18°♊31'48	
	2117 Sep 03 20:45	0°♊		morning max el	2118 Aug 04 19:21	22°♊52'10	19°25'18
morning set	2117 Sep 06 23:58	5°♊59'41			2118 Aug 10 16:57	0°♊	
				asc. node	2118 Aug 11 22:48	1°♊53'01	
superior conj	2117 Sep 15 21:46	23°♊02'55	1°35'35	morning set	2118 Aug 22 00:36	20°♊21'41	
minimum elong	2117 Sep 16 00:38	23°♊16'21	1°35'22		2118 Aug 26 19:52	0°♊	
	2117 Sep 19 16:40	0°♊					
max. Earth dist.	2117 Sep 23 05:46	6°♊17'25	1.39959 AU	superior conj	2118 Aug 30 03:24	6°♊33'46	1°44'30
evening rise	2117 Sep 27 11:57	13°♊33'59		minimum elong	2118 Aug 30 04:23	6°♊38'36	1°44'28
desc. node	2117 Oct 02 07:04	21°♊25'22		max. Earth dist.	2118 Sep 05 09:34	18°♊27'32	1.37909 AU
	2117 Oct 07 18:42	0°♊		evening rise	2118 Sep 09 04:57	25°♊19'22	
	2117 Oct 29 22:34	0°♊			2118 Sep 11 21:31	0°♊	
evening max el	2117 Nov 01 09:18	2°♊34'25	23°49'34	desc. node	2118 Sep 19 04:05	11°♊57'54	
retrograde	2117 Nov 12 05:13	8°♊57'09			2118 Oct 01 09:39	0°♊	

evening max el	2118 Oct 14 21:22	16° \mathbb{M} 12'52	25°06'32		2119 Sep 04 14:11	0° \mathbb{L}	
retrograde	2118 Oct 26 17:39	23° \mathbb{M} 04'30		desc. node	2119 Sep 06 01:07	2° \mathbb{L} 16'08	
evening set	2118 Nov 01 10:55	20° \mathbb{M} 41'24		evening max el	2119 Sep 27 09:22	29° \mathbb{L} 52'29	26°13'08
min. Earth dist.	2118 Nov 05 23:41	15° \mathbb{M} 36'56	0.67285 AU		2119 Sep 27 12:29	0° \mathbb{M}	
inferior conj	2118 Nov 07 00:06	14° \mathbb{M} 17'01	0°-18'-52	retrograde	2119 Oct 10 01:21	7° \mathbb{M} 02'18	
minimum elong	2118 Nov 07 00:35	14° \mathbb{M} 15'28	0°18'41	evening set	2119 Oct 16 08:35	4° \mathbb{M} 26'29	
asc. node	2118 Nov 07 22:01	13° \mathbb{M} 05'53		min. Earth dist.	2119 Oct 20 13:48	29° \mathbb{L} 58'06	0.66497 AU
morning rise	2118 Nov 12 14:51	8° \mathbb{M} 15'56			2119 Oct 20 13:11	30° \mathbb{R} \mathbb{L}	
direct	2118 Nov 16 01:47	7° \mathbb{M} 07'04		inferior conj	2119 Oct 22 01:28	28° \mathbb{L} 08'01	-1°-16'-27
morning max el	2118 Nov 23 10:05	11° \mathbb{M} 16'44	19°39'41	minimum elong	2119 Oct 22 03:29	28° \mathbb{L} 01'46	1°15'37
greatest brilliancy	2118 Dec 01 12:35	21° \mathbb{M} 23'29	-0.6m	asc. node	2119 Oct 25 19:05	23° \mathbb{L} 56'13	
	2118 Dec 07 10:06	0° \mathbb{J}		morning rise	2119 Oct 27 23:29	22° \mathbb{L} 16'40	
desc. node	2118 Dec 16 03:22	13° \mathbb{J} 16'44		direct	2119 Oct 31 00:10	21° \mathbb{L} 24'21	
morning set	2118 Dec 18 13:21	17° \mathbb{J} 00'22		morning max el	2119 Nov 06 19:15	25° \mathbb{L} 10'22	18°47'42
	2118 Dec 26 21:39	0° \mathbb{Z}			2119 Nov 10 21:39	0° \mathbb{M}	
max. Earth dist.	2118 Dec 30 22:44	6° \mathbb{Z} 23'02	1.44352 AU	morning set	2119 Nov 28 03:26	26° \mathbb{M} 10'34	
					2119 Nov 30 13:36	0° \mathbb{J}	
superior conj	2119 Jan 04 07:19	13° \mathbb{Z} 20'49	-1°-47'-24	desc. node	2119 Dec 03 00:24	3° \mathbb{J} 51'30	
minimum elong	2119 Jan 03 23:50	12° \mathbb{Z} 50'45	1°46'51	max. Earth dist.	2119 Dec 13 15:40	20° \mathbb{J} 33'58	1.45070 AU
	2119 Jan 14 10:51	0° \mathbb{W}					
evening rise	2119 Jan 18 02:36	6° \mathbb{W} 08'50		superior conj	2119 Dec 14 13:05	21° \mathbb{J} 58'08	-1°-12'-17
	2119 Feb 01 20:55	0° \mathbb{X}		minimum elong	2119 Dec 14 04:42	21° \mathbb{J} 25'09	1°11'21
asc. node	2119 Feb 03 21:20	2° \mathbb{X} 36'05			2119 Dec 19 15:22	0° \mathbb{Z}	
evening max el	2119 Feb 05 16:31	4° \mathbb{X} 35'48	18°18'02	evening rise	2119 Dec 30 01:57	16° \mathbb{Z} 39'57	
retrograde	2119 Feb 12 03:45	8° \mathbb{X} 04'58			2120 Jan 07 08:45	0° \mathbb{W}	
evening set	2119 Feb 15 01:29	7° \mathbb{X} 19'48		evening max el	2120 Jan 20 03:43	18° \mathbb{W} 02'02	18°46'59
inferior conj	2119 Feb 21 02:56	1° \mathbb{X} 55'01	3°42'49	asc. node	2120 Jan 21 18:23	19° \mathbb{W} 32'00	
minimum elong	2119 Feb 21 02:29	1° \mathbb{X} 56'15	3°42'47	retrograde	2120 Jan 26 21:00	21° \mathbb{W} 47'47	
	2119 Feb 22 19:47	30° \mathbb{R} \mathbb{W}		evening set	2120 Jan 30 00:35	20° \mathbb{W} 51'04	
min. Earth dist.	2119 Feb 23 13:16	29° \mathbb{W} 11'51	0.63672 AU	inferior conj	2120 Feb 04 18:44	15° \mathbb{W} 08'32	3°31'39
morning rise	2119 Feb 27 01:45	25° \mathbb{W} 48'53		minimum elong	2120 Feb 04 16:58	15° \mathbb{W} 13'59	3°31'25
direct	2119 Mar 05 23:25	23° \mathbb{W} 03'28		min. Earth dist.	2120 Feb 06 13:32	12° \mathbb{W} 57'25	0.65292 AU
desc. node	2119 Mar 14 02:35	26° \mathbb{W} 08'01		morning rise	2120 Feb 10 08:12	8° \mathbb{W} 56'58	
	2119 Mar 18 18:10	0° \mathbb{X}		direct	2120 Feb 16 23:20	6° \mathbb{W} 06'15	
morning max el	2119 Mar 19 18:14	0° \mathbb{X} 58'49	27°39'04	desc. node	2120 Feb 28 23:37	12° \mathbb{W} 41'23	
	2119 Apr 10 03:31	0° \mathbb{Y}		morning max el	2120 Mar 01 03:59	13° \mathbb{W} 50'50	26°56'02
morning set	2119 Apr 23 10:31	24° \mathbb{Y} 09'01			2120 Mar 14 06:42	0° \mathbb{X}	
	2119 Apr 26 07:55	0° \mathbb{Z}			2120 Apr 01 19:25	0° \mathbb{Y}	
max. Earth dist.	2119 Apr 28 14:37	4° \mathbb{Z} 44'32	1.33081 AU	morning set	2120 Apr 05 21:28	7° \mathbb{Y} 38'37	
				max. Earth dist.	2120 Apr 10 08:31	16° \mathbb{Y} 25'16	1.34197 AU
superior conj	2119 May 01 07:00	10° \mathbb{Z} 26'35	0°-16'-26				
minimum elong	2119 May 01 07:49	10° \mathbb{Z} 30'56	0°16'17	superior conj	2120 Apr 14 08:51	24° \mathbb{Y} 39'49	0°-44'-28
asc. node	2119 May 02 20:38	13° \mathbb{Z} 48'52		minimum elong	2120 Apr 14 11:06	24° \mathbb{Y} 51'35	0°44'02
evening rise	2119 May 08 10:17	25° \mathbb{Z} 45'53			2120 Apr 16 21:50	0° \mathbb{Z}	
	2119 May 10 11:00	0° \mathbb{I}		asc. node	2120 Apr 18 17:42	3° \mathbb{Z} 51'46	
	2119 May 29 00:19	0° \mathbb{S}		evening rise	2120 Apr 21 20:25	10° \mathbb{Z} 24'31	
evening max el	2119 May 30 22:11	1° \mathbb{S} 58'03	22°59'20		2120 May 02 03:48	0° \mathbb{I}	
desc. node	2119 Jun 10 01:49	8° \mathbb{S} 14'29		evening max el	2120 May 11 18:01	12° \mathbb{I} 37'29	21°26'54
retrograde	2119 Jun 13 07:28	8° \mathbb{S} 38'22		retrograde	2120 May 23 22:03	18° \mathbb{I} 34'44	
evening set	2119 Jun 16 19:33	8° \mathbb{S} 11'27		evening set	2120 May 26 07:48	18° \mathbb{I} 21'33	
min. Earth dist.	2119 Jun 24 07:14	4° \mathbb{S} 50'51	0.55519 AU	desc. node	2120 May 26 22:51	18° \mathbb{I} 13'57	
inferior conj	2119 Jun 25 21:59	3° \mathbb{S} 54'42	-4°-4'-1	inferior conj	2120 Jun 04 16:55	14° \mathbb{I} 21'45	-2°-29'-14
minimum elong	2119 Jun 25 14:28	4° \mathbb{S} 05'38	4°02'22	minimum elong	2120 Jun 04 10:13	14° \mathbb{I} 31'08	2°27'02
morning rise	2119 Jul 04 12:20	0° \mathbb{S} 02'19		min. Earth dist.	2120 Jun 04 19:15	14° \mathbb{I} 18'29	0.54909 AU
	2119 Jul 04 16:40	30° \mathbb{R} \mathbb{I}		morning rise	2120 Jun 13 13:05	10° \mathbb{I} 24'57	
direct	2119 Jul 07 09:01	29° \mathbb{I} 42'58		direct	2120 Jun 16 19:35	10° \mathbb{I} 01'38	
	2119 Jul 09 23:44	0° \mathbb{S}		morning max el	2120 Jun 29 07:33	15° \mathbb{I} 56'36	22°09'56
morning max el	2119 Jul 18 07:06	4° \mathbb{S} 46'33	20°38'33		2120 Jul 10 05:06	0° \mathbb{S}	
asc. node	2119 Jul 29 19:53	20° \mathbb{S} 34'34		asc. node	2120 Jul 15 16:56	9° \mathbb{S} 47'13	
	2119 Aug 03 19:31	0° \mathbb{Q}		morning set	2120 Jul 20 16:51	19° \mathbb{S} 50'50	
morning set	2119 Aug 06 06:58	5° \mathbb{Q} 00'46			2120 Jul 25 11:58	0° \mathbb{Q}	
superior conj	2119 Aug 13 20:58	20° \mathbb{Q} 40'23	1°44'54	superior conj	2120 Jul 27 22:46	5° \mathbb{Q} 11'34	1°38'26
minimum elong	2119 Aug 13 20:19	20° \mathbb{Q} 37'07	1°44'54	minimum elong	2120 Jul 27 21:00	5° \mathbb{Q} 02'19	1°38'19
max. Earth dist.	2119 Aug 18 16:38	0° \mathbb{P} 17'54	1.36026 AU	max. Earth dist.	2120 Jul 31 08:06	12° \mathbb{Q} 14'49	1.34476 AU
	2119 Aug 18 12:58	0° \mathbb{P}		evening rise	2120 Aug 05 00:15	21° \mathbb{Q} 34'46	
evening rise	2119 Aug 22 18:35	8° \mathbb{P} 03'46			2120 Aug 09 11:39	0° \mathbb{P}	

desc. node	2120 Aug 22 22:09	22° \cap 13'08			2121 Aug 02 02:33	0° \cap		
	2120 Aug 28 09:53	0° $\underline{\cap}$			2121 Aug 09 19:10	11° \cap 39'51		
evening max el	2120 Sep 08 21:44	13° $\underline{\cap}$ 25'57	27°01'40		2121 Aug 22 09:12	26° \cap 41'44	27°24'55	
retrograde	2120 Sep 22 03:27	20° $\underline{\cap}$ 43'12			2121 Aug 26 05:59	0° $\underline{\cap}$		
evening set	2120 Sep 28 22:51	18° $\underline{\cap}$ 00'55			2121 Sep 04 23:29	3° $\underline{\cap}$ 59'20		
min. Earth dist.	2120 Oct 02 21:08	14° $\underline{\cap}$ 09'19	0.65363 AU		2121 Sep 12 02:56	1° $\underline{\cap}$ 19'50		
inferior conj	2120 Oct 04 20:52	11° $\underline{\cap}$ 53'07	-2°-15'-8		2121 Sep 13 18:09	30° \cap \cap		
minimum elong	2120 Oct 05 00:30	11° $\underline{\cap}$ 42'46	2°13'46		2121 Sep 15 19:26	28° \cap 03'01	0.63877 AU	
morning rise	2120 Oct 11 03:45	6° $\underline{\cap}$ 14'36			2121 Sep 18 07:51	25° \cap 26'58	-3°-12'-19	
asc. node	2120 Oct 11 16:09	6° $\underline{\cap}$ 00'58			2121 Sep 18 12:47	25° \cap 14'11	3°10'44	
direct	2120 Oct 13 20:35	5° $\underline{\cap}$ 34'58			2121 Sep 25 00:50	20° \cap 04'52		
morning max el	2120 Oct 20 09:14	9° $\underline{\cap}$ 06'33	18°12'08		2121 Sep 27 12:26	19° \cap 34'14		
	2120 Nov 03 19:01	0° \cap			2121 Sep 28 13:10	19° \cap 39'36		
morning set	2120 Nov 07 22:23	6° \cap 47'46			2121 Oct 04 01:24	22° \cap 59'51	17°53'54	
desc. node	2120 Nov 18 21:24	24° \cap 33'45			2121 Oct 09 13:36	0° $\underline{\cap}$		
	2120 Nov 22 07:28	0° \propto			2121 Oct 20 20:19	18° $\underline{\cap}$ 43'44		
					2121 Oct 27 10:53	0° \cap		
superior conj	2120 Nov 22 16:02	0° \propto 33'55	0°-25'-10		2121 Nov 02 12:41	10° \cap 05'00	0°21'52	
minimum elong	2120 Nov 22 12:48	0° \propto 21'08	0°24'44		2121 Nov 02 15:03	10° \cap 14'39	0°21'33	
max. Earth dist.	2120 Nov 25 10:44	4° \propto 57'04	1.45058 AU		2121 Nov 05 18:27	15° \cap 20'29		
evening rise	2120 Dec 09 02:39	26° \propto 17'24			2121 Nov 08 05:03	19° \cap 15'10	1.44320 AU	
	2120 Dec 11 11:55	0° \propto			2121 Nov 15 00:58	0° \propto		
greatest brilliancy	2120 Dec 25 06:17	20° \propto 59'15	-0.7m		2121 Nov 18 12:47	5° \propto 24'06		
	2121 Jan 01 01:46	0° \approx			2121 Dec 04 22:26	0° \propto		
evening max el	2121 Jan 02 11:18	1° \approx 31'13	19°32'43		2121 Dec 10 14:48	7° \propto 53'51	-0.5m	
asc. node	2121 Jan 07 15:26	5° \approx 19'08			2121 Dec 16 13:45	15° \propto 01'36	20°33'01	
retrograde	2121 Jan 09 17:47	5° \approx 43'14			2121 Dec 25 15:42	19° \propto 47'35		
evening set	2121 Jan 13 04:37	4° \approx 33'31			2121 Dec 25 12:27	19° \propto 43'24		
	2121 Jan 17 15:51	30° \cap \propto			2121 Dec 28 11:26	18° \propto 23'22		
inferior conj	2121 Jan 18 17:57	28° \propto 35'35	3°07'49		2122 Jan 02 22:00	12° \propto 12'49	2°34'16	
minimum elong	2121 Jan 18 15:28	28° \propto 43'41	3°07'16		2122 Jan 02 19:24	12° \propto 21'42	2°33'30	
min. Earth dist.	2121 Jan 19 22:01	27° \propto 03'48	0.66510 AU		2122 Jan 03 12:52	11° \propto 22'10	0.67323 AU	
morning rise	2121 Jan 24 01:36	22° \propto 21'16			2122 Jan 08 02:54	5° \propto 57'37		
direct	2121 Jan 30 05:04	19° \propto 38'16			2122 Jan 13 15:57	3° \propto 31'27		
morning max el	2121 Feb 11 13:09	26° \propto 58'10	25°47'59		2122 Jan 24 21:37	10° \propto 13'30	24°24'38	
	2121 Feb 14 09:15	0° \approx			2122 Feb 01 17:39	19° \propto 18'20		
desc. node	2121 Feb 14 20:38	0° \approx 32'12			2122 Feb 09 14:19	0° \approx		
	2121 Mar 07 21:58	0° \propto			2122 Feb 28 14:41	0° \propto		
morning set	2121 Mar 19 18:06	20° \propto 21'27			2122 Mar 01 18:50	2° \propto 02'10		
max. Earth dist.	2121 Mar 23 14:48	27° \propto 36'01	1.35768 AU		2122 Mar 05 12:16	8° \propto 39'45	1.37722 AU	
	2121 Mar 24 20:41	0° \cap						
superior conj	2121 Mar 29 02:50	8° \cap 25'03	-1°-11'-56		2122 Mar 12 09:40	21° \propto 33'08	-1°-36'-42	
minimum elong	2121 Mar 29 06:25	8° \cap 43'05	1°11'21		2122 Mar 12 13:58	21° \propto 53'55	1°36'12	
asc. node	2121 Apr 05 14:45	23° \cap 44'59			2122 Mar 16 17:20	0° \cap		
evening rise	2121 Apr 06 02:51	24° \cap 46'49			2122 Mar 21 03:14	8° \cap 45'43		
	2121 Apr 08 17:01	0° \propto			2122 Mar 23 11:46	13° \cap 23'33		
evening max el	2121 Apr 24 00:49	23° \propto 50'23	20°08'24		2122 Apr 02 01:12	0° \propto		
retrograde	2121 May 04 12:08	28° \propto 54'30			2122 Apr 06 19:04	5° \propto 42'53	19°08'45	
evening set	2121 May 06 12:51	28° \propto 43'54			2122 Apr 15 14:51	9° \propto 59'33		
desc. node	2121 May 13 19:51	25° \propto 45'41			2122 Apr 17 17:34	9° \propto 45'51		
inferior conj	2121 May 15 13:10	24° \propto 45'03	0°-30'-9		2122 Apr 26 00:06	5° \propto 33'50	1°19'06	
minimum elong	2121 May 15 11:46	24° \propto 47'08	0°29'39		2122 Apr 26 03:05	5° \propto 28'44	1°18'07	
min. Earth dist.	2121 May 17 08:18	23° \propto 40'56	0.55260 AU		2122 Apr 28 23:23	3° \propto 33'02	0.56498 AU	
morning rise	2121 May 24 08:13	20° \propto 25'15			2122 Apr 30 16:52	2° \propto 28'04		
direct	2121 May 28 08:20	19° \propto 50'20			2122 May 04 08:27	0° \propto 39'48		
morning max el	2121 Jun 11 00:00	26° \propto 33'01	23°51'34		2122 May 06 13:18	30° \cap \cap		
	2121 Jun 14 07:32	0° \cap			2122 May 09 08:35	29° \cap 41'28		
asc. node	2121 Jul 02 13:59	29° \cap 23'09			2122 May 12 04:01	0° \propto		
	2121 Jul 02 21:13	0° \propto			2122 May 23 14:27	6° \propto 59'48	25°30'01	
morning set	2121 Jul 05 04:30	4° \propto 46'45			2122 Jun 09 11:45	0° \cap		
					2122 Jun 19 11:00	19° \cap 15'04		
superior conj	2121 Jul 12 06:00	19° \propto 58'54	1°26'23		2122 Jun 19 16:11	19° \cap 42'22		
minimum elong	2121 Jul 12 03:41	19° \propto 46'23	1°26'05		2122 Jun 24 10:42	0° \propto		
max. Earth dist.	2121 Jul 14 08:55	24° \propto 32'09	1.33321 AU					
	2121 Jul 16 23:09	0° \cap			2122 Jun 26 16:25	4° \propto 54'18	1°09'41	
evening rise	2121 Jul 19 17:40	5° \cap 40'25			2122 Jun 26 14:03	4° \propto 41'21	1°09'17	

max. Earth dist.	2122 Jun 27 16:52	7°☿08'02	1.32567 AU	minimum elong	2123 Jun 11 02:12	19°♄40'59	0°48'46
evening rise	2122 Jul 03 19:20	20°☿09'27		max. Earth dist.	2123 Jun 11 04:32	19°♄53'49	1.32206 AU
	2122 Jul 08 17:52	0°♄			2123 Jun 15 19:26	0°☿	
	2122 Jul 27 09:07	0°♄		evening rise	2123 Jun 18 02:33	4°☿53'30	
desc. node	2122 Jul 27 16:12	0°♄22'49			2123 Jul 01 11:08	0°♄	
evening max el	2122 Aug 04 17:12	9°♄25'02	27°17'22	desc. node	2123 Jul 14 13:12	18°♄04'01	
retrograde	2122 Aug 18 12:48	16°♄40'30		evening max el	2123 Jul 17 19:20	21°♄25'13	26°36'36
evening set	2122 Aug 25 17:04	14°♄15'58		retrograde	2123 Jul 31 18:38	28°♄38'05	
min. Earth dist.	2122 Aug 29 07:15	11°♄26'42	0.62067 AU	evening set	2123 Aug 07 12:45	26°♄42'07	
inferior conj	2122 Sep 01 07:21	8°♄41'16	-4°-3'-54	min. Earth dist.	2123 Aug 11 08:54	24°♄06'10	0.60038 AU
minimum elong	2122 Sep 01 12:43	8°♄28'54	4°02'37	inferior conj	2123 Aug 14 15:56	21°♄27'30	-4°-43'-4
morning rise	2122 Sep 08 11:08	3°♄39'04		minimum elong	2123 Aug 14 19:56	21°♄19'26	4°42'34
direct	2122 Sep 10 20:11	3°♄14'28		morning rise	2123 Aug 22 06:28	16°♄47'48	
asc. node	2122 Sep 15 10:11	4°♄48'48		direct	2123 Aug 24 15:47	16°♄26'45	
morning max el	2122 Sep 17 16:44	6°♄42'26	17°53'48	morning max el	2123 Sep 01 04:07	20°♄06'25	18°12'59
	2122 Oct 02 17:09	0°♄		asc. node	2123 Sep 02 07:14	21°♄16'06	
morning set	2122 Oct 03 14:55	1°♄38'17			2123 Sep 08 13:41	0°♄	
				morning set	2123 Sep 17 00:28	15°♄15'25	
superior conj	2122 Oct 14 12:07	20°♄55'12	0°59'52		2123 Sep 24 21:26	0°♄	
minimum elong	2122 Oct 14 16:38	21°♄14'33	0°59'17	superior conj	2123 Sep 26 12:48	2°♄59'23	1°25'52
	2122 Oct 19 21:27	0°♄		minimum elong	2123 Sep 26 16:40	3°♄16'50	1°25'29
max. Earth dist.	2122 Oct 21 19:11	3°♄07'56	1.42944 AU	max. Earth dist.	2123 Oct 04 03:28	16°♄20'16	1.41115 AU
desc. node	2122 Oct 23 15:29	6°♄07'51		evening rise	2123 Oct 09 03:30	24°♄38'53	
evening rise	2122 Oct 28 23:52	14°♄38'02		desc. node	2123 Oct 10 12:31	26°♄52'28	
	2122 Nov 08 01:40	0°♄			2123 Oct 12 11:28	0°♄	
greatest brilliancy	2122 Nov 24 14:38	23°♄02'25	-0.4m		2123 Oct 12 11:28	0°♄	
evening max el	2122 Nov 29 10:29	28°♄32'34	21°44'50		2123 Nov 01 23:09	0°♄	
	2122 Nov 30 22:34	0°♄		greatest brilliancy	2123 Nov 06 10:49	5°♄44'04	-0.2m
retrograde	2122 Dec 08 12:46	3°♄57'23		evening max el	2123 Nov 12 02:20	12°♄05'28	23°03'36
asc. node	2122 Dec 12 09:27	2°♄35'43		retrograde	2123 Nov 22 07:23	18°♄08'54	
evening set	2122 Dec 12 19:14	2°♄17'16		evening set	2123 Nov 27 02:20	16°♄11'58	
	2122 Dec 15 02:45	30°♄		asc. node	2123 Nov 29 06:28	14°♄01'13	
inferior conj	2122 Dec 18 04:44	25°♄57'37	1°53'02	min. Earth dist.	2123 Dec 02 04:36	10°♄13'31	0.67829 AU
minimum elong	2122 Dec 18 02:29	26°♄05'24	1°52'14	inferior conj	2123 Dec 02 12:15	9°♄47'10	1°05'34
min. Earth dist.	2122 Dec 18 07:52	25°♄46'46	0.67751 AU	minimum elong	2123 Dec 02 10:47	9°♄52'13	1°04'58
morning rise	2122 Dec 23 09:31	19°♄43'21		morning rise	2123 Dec 07 19:15	3°♄35'56	
direct	2122 Dec 28 07:20	17°♄38'46		direct	2123 Dec 12 02:23	1°♄54'10	
morning max el	2123 Jan 07 07:18	23°♄34'31	22°56'06	morning max el	2123 Dec 20 21:29	7°♄02'47	21°31'13
greatest brilliancy	2123 Jan 12 00:52	28°♄51'30	-0.3m	greatest brilliancy	2123 Dec 25 21:41	12°♄44'41	-0.4m
	2123 Jan 12 23:18	0°♄		desc. node	2124 Jan 06 11:44	28°♄37'54	
desc. node	2123 Jan 19 14:42	8°♄44'06			2124 Jan 07 10:12	0°♄	
	2123 Feb 03 00:14	0°♄		morning set	2124 Jan 21 11:10	21°♄25'41	
morning set	2123 Feb 10 17:34	12°♄25'27			2124 Jan 26 18:59	0°♄	
max. Earth dist.	2123 Feb 15 07:36	20°♄09'51	1.39866 AU	max. Earth dist.	2124 Jan 28 07:32	2°♄30'07	1.41930 AU
	2123 Feb 20 21:41	0°♄					
superior conj	2123 Feb 23 01:06	3°♄53'32	-1°-55'-46	superior conj	2124 Feb 04 19:59	15°♄13'28	-2°-4'-57
minimum elong	2123 Feb 23 04:46	4°♄10'21	1°55'33	minimum elong	2124 Feb 04 20:41	15°♄16'31	2°04'57
evening rise	2123 Mar 04 18:37	22°♄13'39			2124 Feb 13 03:13	0°♄	
	2123 Mar 08 21:24	0°♄		evening rise	2124 Feb 15 21:19	5°♄01'19	
asc. node	2123 Mar 10 08:48	2°♄42'00		asc. node	2124 Feb 25 05:50	21°♄32'52	
evening max el	2123 Mar 20 22:35	18°♄10'54	18°29'17		2124 Mar 02 07:14	0°♄	
retrograde	2123 Mar 28 12:15	21°♄54'22		evening max el	2124 Mar 03 08:06	1°♄05'00	18°09'45
evening set	2123 Mar 30 20:24	21°♄34'07		retrograde	2124 Mar 10 03:09	4°♄31'22	
inferior conj	2123 Apr 07 08:02	17°♄02'41	2°37'46	evening set	2124 Mar 12 16:51	4°♄02'18	
minimum elong	2123 Apr 07 11:58	16°♄54'49	2°36'48		2124 Mar 18 14:22	30°♄	
min. Earth dist.	2123 Apr 10 18:24	14°♄19'40	0.58359 AU	inferior conj	2124 Mar 19 12:21	29°♄09'39	3°23'23
morning rise	2123 Apr 14 23:20	11°♄36'58		minimum elong	2124 Mar 19 14:55	29°♄03'41	3°23'01
desc. node	2123 Apr 17 13:53	10°♄34'06		min. Earth dist.	2124 Mar 22 19:22	26°♄08'04	0.60500 AU
direct	2123 Apr 20 23:10	10°♄04'17		morning rise	2124 Mar 26 09:42	23°♄22'06	
morning max el	2123 May 05 08:26	17°♄44'55	26°49'31	direct	2124 Apr 02 01:54	21°♄13'25	
	2123 May 15 12:49	0°♄		desc. node	2124 Apr 03 10:55	21°♄18'40	
	2123 Jun 01 21:36	0°♄		morning max el	2124 Apr 16 08:22	29°♄05'34	27°37'45
morning set	2123 Jun 04 02:20	4°♄32'16			2124 Apr 17 05:57	0°♄	
asc. node	2123 Jun 06 08:04	9°♄17'42			2124 May 08 09:25	0°♄	
				morning set	2124 May 18 09:08	19°♄09'46	
superior conj	2123 Jun 11 04:09	19°♄51'43	0°49'09	asc. node	2124 May 23 05:08	29°♄25'45	
					2124 May 23 11:26	0°♄	

max. Earth dist.	2124 May 24 16:15	2° Π 37'13	1.32230 AU	morning max el	2125 Mar 29 13:56	11° X 07'17	27°49'02
					2125 Apr 13 10:32	0° Υ	
superior conj	2124 May 25 15:30	4° Π 44'36	0°25'28		2125 Apr 30 16:52	0° B	
minimum elong	2124 May 25 14:22	4° Π 38'25	0°25'14	morning set	2125 May 02 10:29	3° B 27'54	
evening rise	2124 Jun 01 13:03	19° Π 44'41		max. Earth dist.	2125 May 08 00:11	15° B 05'30	1.32655 AU
	2124 Jun 06 13:30	0° B					
	2124 Jun 26 00:21	0° Ω		superior conj	2125 May 10 00:43	19° B 27'07	0°00'-38
evening max el	2124 Jun 28 14:31	2° Ω 39'24	25°25'46	minimum elong	2125 May 10 00:45	19° B 27'14	0°00'38
desc. node	2124 Jun 30 10:13	4° Ω 18'15		behind sun begin	2125 May 09 19:34	18° B 59'09	
retrograde	2124 Jul 12 14:52	9° Ω 47'18		behind sun end	2125 May 10 05:56	19° B 55'21	
evening set	2124 Jul 18 09:32	8° Ω 29'26		asc. node	2125 May 10 02:12	19° B 35'08	
min. Earth dist.	2124 Jul 23 02:34	5° Ω 48'27	0.57998 AU		2125 May 14 21:17	0° Π	
inferior conj	2124 Jul 26 06:15	3° Ω 36'38	-4°-59'-7	evening rise	2125 May 17 00:54	4° Π 36'14	
minimum elong	2124 Jul 26 06:18	3° Ω 36'31	4°59'09		2125 May 30 16:04	0° B	
	2124 Aug 01 07:15	30° R B		evening max el	2125 Jun 10 04:43	13° B 17'47	23°54'47
morning rise	2124 Aug 03 06:44	29° B 19'38		desc. node	2125 Jun 17 07:14	18° B 32'06	
direct	2124 Aug 05 19:01	29° B 00'15		retrograde	2125 Jun 23 22:49	20° B 12'18	
	2124 Aug 10 01:25	0° Ω		evening set	2125 Jun 28 07:29	19° B 30'22	
morning max el	2124 Aug 14 08:21	3° Ω 02'37	18°52'45	min. Earth dist.	2125 Jul 04 15:21	16° B 28'08	0.56258 AU
asc. node	2124 Aug 19 04:19	8° Ω 46'30		inferior conj	2125 Jul 07 00:20	15° B 01'06	-4°-37'-52
morning set	2124 Aug 30 20:37	29° Ω 23'45		minimum elong	2125 Jul 06 18:58	15° B 09'21	4°37'07
	2124 Aug 31 04:00	0° M		morning rise	2125 Jul 15 09:53	11° B 02'48	
				direct	2125 Jul 18 03:17	10° B 43'43	
superior conj	2124 Sep 08 09:27	16° M 02'50	1°40'31	morning max el	2125 Jul 28 02:32	15° B 21'07	19°53'58
minimum elong	2124 Sep 08 11:31	16° M 12'43	1°40'24	asc. node	2125 Aug 06 01:24	27° B 05'34	
max. Earth dist.	2124 Sep 15 07:47	28° M 50'34	1.39075 AU		2125 Aug 07 18:11	0° Ω	
	2124 Sep 15 23:25	0° B		morning set	2125 Aug 15 00:00	13° Ω 53'47	
evening rise	2124 Sep 19 06:59	5° B 46'26					
desc. node	2124 Sep 26 09:33	17° B 30'48		superior conj	2125 Aug 22 20:39	29° Ω 49'55	1°45'36
	2124 Oct 04 13:06	0° M		minimum elong	2125 Aug 22 20:54	29° Ω 51'07	1°45'36
evening max el	2124 Oct 24 15:21	25° M 42'41	24°23'15		2125 Aug 22 22:40	0° M	
	2124 Oct 29 16:47	0° X		max. Earth dist.	2125 Aug 28 12:36	10° M 50'23	1.37076 AU
retrograde	2124 Nov 04 22:18	2° X 18'59		evening rise	2125 Sep 01 09:19	17° M 58'09	
evening set	2124 Nov 10 07:09	0° X 05'15			2125 Sep 08 08:04	0° B	
	2124 Nov 10 09:36	30° R M		desc. node	2125 Sep 13 06:34	7° B 57'50	
min. Earth dist.	2124 Nov 15 00:38	24° M 40'28	0.67577 AU		2125 Sep 28 19:51	0° M	
asc. node	2124 Nov 15 03:31	24° M 30'51		evening max el	2125 Oct 07 03:25	9° M 22'33	25°36'43
inferior conj	2124 Nov 15 18:48	23° M 39'34	0°13'08	retrograde	2125 Oct 19 08:34	16° M 22'30	
minimum elong	2124 Nov 15 18:28	23° M 40'39	0°12'59	evening set	2125 Oct 25 07:56	13° M 53'36	
transit middle	2124 Nov 15 18:28	23° M 40'39	0°12'59	min. Earth dist.	2125 Oct 29 17:31	9° M 04'20	0.66993 AU
transit begin	2124 Nov 15 16:49	23° M 46'11		inferior conj	2125 Oct 30 22:33	7° M 31'28	0°-43'-1
transit end	2124 Nov 15 20:07	23° M 35'08		minimum elong	2125 Oct 30 23:40	7° M 27'54	0°42'34
morning rise	2124 Nov 21 06:07	17° M 33'53		asc. node	2125 Nov 02 00:35	4° M 56'39	
direct	2124 Nov 24 23:59	16° M 13'38		morning rise	2125 Nov 05 16:10	1° M 34'07	
morning max el	2124 Dec 02 18:58	20° M 41'46	20°16'30	direct	2125 Nov 08 22:35	0° M 32'34	
greatest brilliancy	2124 Dec 09 09:43	28° M 37'00	-0.6m	morning max el	2125 Nov 16 00:13	4° M 30'34	19°15'40
	2124 Dec 10 10:19	0° X		greatest brilliancy	2125 Nov 26 01:16	17° M 35'25	-0.7m
desc. node	2124 Dec 23 08:48	18° X 52'08			2125 Dec 04 05:17	0° X	
morning set	2124 Dec 30 08:52	29° X 35'14		morning set	2125 Dec 09 10:24	8° X 04'58	
	2124 Dec 30 15:16	0° B		desc. node	2125 Dec 10 05:49	9° X 20'26	
max. Earth dist.	2125 Jan 09 15:33	15° B 45'54	1.43633 AU		2125 Dec 23 10:43	0° B	
				max. Earth dist.	2125 Dec 23 06:26	29° X 43'07	1.44749 AU
superior conj	2125 Jan 15 13:39	25° B 23'32	-1°-59'-11				
minimum elong	2125 Jan 15 09:05	25° B 04'43	1°58'59	superior conj	2125 Dec 26 05:47	4° B 25'32	-1°-34'-36
	2125 Jan 18 08:17	0° \approx		minimum elong	2125 Dec 25 21:04	3° B 50'56	1°33'49
evening rise	2125 Jan 28 07:09	17° \approx 00'49		evening rise	2126 Jan 09 19:52	28° B 04'47	
	2125 Feb 04 19:49	0° X			2126 Jan 10 23:44	0° \approx	
asc. node	2125 Feb 11 02:52	9° X 47'51		asc. node	2126 Jan 28 23:53	27° \approx 16'06	
evening max el	2125 Feb 14 20:28	14° X 16'56	18°09'35	evening max el	2126 Jan 29 08:46	27° \approx 39'05	18°28'11
retrograde	2125 Feb 21 07:40	17° X 41'00			2126 Feb 01 04:08	0° X	
evening set	2125 Feb 24 02:32	17° X 01'51		retrograde	2126 Feb 04 21:29	1° X 13'50	
inferior conj	2125 Mar 02 09:34	11° X 48'19	3°41'47	evening set	2126 Feb 07 21:40	0° X 23'43	
minimum elong	2125 Mar 02 10:09	11° X 46'46	3°41'45		2126 Feb 08 13:22	30° R \approx	
min. Earth dist.	2125 Mar 05 04:31	8° X 52'55	0.62593 AU	inferior conj	2126 Feb 13 19:38	24° \approx 50'54	3°39'51
morning rise	2125 Mar 08 15:34	5° X 47'29		minimum elong	2126 Feb 13 18:33	24° \approx 54'04	3°39'46
direct	2125 Mar 15 14:02	3° X 11'40		min. Earth dist.	2126 Feb 15 23:14	22° \approx 20'25	0.64409 AU
desc. node	2125 Mar 21 07:59	4° X 44'20		morning rise	2126 Feb 19 14:02	18° \approx 42'15	

direct	2126 Feb 26 09:42	15° \approx 53'09		minimum elong	2127 Jan 28 12:46	8° \approx 17'11	3°22'33
desc. node	2126 Mar 08 05:01	20° \approx 19'19		min. Earth dist.	2127 Jan 30 03:12	6° \approx 15'38	0.65851 AU
morning max el	2126 Mar 11 23:03	23° \approx 44'31	27°24'28	morning rise	2127 Feb 03 01:29	1° \approx 57'13	
	2126 Mar 17 13:47	0° \approx			2127 Feb 05 21:35	30° \approx	
	2126 Apr 06 18:27	0° \approx		direct	2127 Feb 09 11:56	29° \approx 08'42	
morning set	2126 Apr 16 03:43	17° \approx 18'39			2127 Feb 13 09:05	0° \approx	
max. Earth dist.	2126 Apr 21 00:32	27° \approx 07'33	1.33505 AU	morning max el	2127 Feb 22 08:57	6° \approx 44'51	26°29'46
	2126 Apr 22 09:40	0° \approx		desc. node	2127 Feb 23 02:02	7° \approx 28'32	
					2127 Mar 12 08:54	0° \approx	
superior conj	2126 Apr 24 05:54	3° \approx 53'14	0°-28'-16	morning set	2127 Mar 30 09:11	0° \approx 30'05	
minimum elong	2126 Apr 24 07:19	4° \approx 00'45	0°27'59		2127 Mar 30 02:47	0° \approx	
asc. node	2126 Apr 26 23:14	9° \approx 41'40		max. Earth dist.	2127 Apr 03 13:49	8° \approx 35'35	1.34809 AU
evening rise	2126 May 01 12:14	19° \approx 22'02					
	2126 May 06 18:13	0° \approx		superior conj	2127 Apr 08 04:44	17° \approx 55'13	0°-56'-16
evening max el	2126 May 22 20:14	23° \approx 14'44	22°18'45	minimum elong	2127 Apr 08 07:35	18° \approx 09'54	0°55'46
	2126 Jun 02 12:07	0° \approx		asc. node	2127 Apr 13 20:15	29° \approx 40'47	
desc. node	2126 Jun 04 04:16	0° \approx 11'05			2127 Apr 13 23:56	0° \approx	
retrograde	2126 Jun 04 18:40	0° \approx 11'54		evening rise	2127 Apr 15 21:03	3° \approx 54'31	
	2126 Jun 07 02:10	30° \approx			2127 Apr 30 17:47	0° \approx	
evening set	2126 Jun 07 17:55	29° \approx 52'26		evening max el	2127 May 04 20:14	4° \approx 39'05	20°51'22
min. Earth dist.	2126 Jun 16 02:44	26° \approx 15'50	0.55152 AU	retrograde	2127 May 16 07:58	10° \approx 14'44	
inferior conj	2126 Jun 17 01:06	25° \approx 14'19	-3°-28'-46	evening set	2127 May 18 11:46	10° \approx 03'38	
minimum elong	2126 Jun 16 17:08	25° \approx 55'33	3°26'35	desc. node	2127 May 22 01:17	9° \approx 01'24	
morning rise	2126 Jun 25 18:30	21° \approx 52'52		inferior conj	2127 May 27 18:46	6° \approx 05'54	-1°-39'-40
direct	2126 Jun 28 18:50	21° \approx 32'24		minimum elong	2127 May 27 14:04	6° \approx 12'35	1°38'01
morning max el	2126 Jul 10 09:19	26° \approx 56'40	21°15'32	min. Earth dist.	2127 May 28 15:06	5° \approx 36'57	0.54939 AU
	2126 Jul 13 08:00	0° \approx		morning rise	2127 Jun 05 15:35	2° \approx 01'27	
asc. node	2126 Jul 23 22:28	16° \approx 01'49		direct	2127 Jun 09 04:12	1° \approx 34'40	
morning set	2126 Jul 30 08:09	28° \approx 38'51		morning max el	2127 Jun 22 05:58	7° \approx 50'58	22°52'34
	2126 Jul 30 23:48	0° \approx			2127 Jul 07 23:26	0° \approx	
				asc. node	2127 Jul 10 19:30	5° \approx 25'02	
superior conj	2126 Aug 06 18:09	14° \approx 08'35	1°42'55	morning set	2127 Jul 14 18:59	13° \approx 31'58	
minimum elong	2126 Aug 06 16:59	14° \approx 02'29	1°42'52				
max. Earth dist.	2126 Aug 10 23:10	22° \approx 42'24	1.35323 AU	superior conj	2127 Jul 21 22:36	28° \approx 47'43	1°33'57
	2126 Aug 14 16:54	0° \approx		minimum elong	2127 Jul 21 20:32	28° \approx 36'45	1°33'45
evening rise	2126 Aug 15 06:22	1° \approx 03'58			2127 Jul 22 12:11	0° \approx	
desc. node	2126 Aug 31 03:35	28° \approx 07'59		max. Earth dist.	2127 Jul 24 18:31	4° \approx 46'16	1.33935 AU
	2126 Sep 01 09:18	0° \approx		evening rise	2127 Jul 29 17:30	14° \approx 50'47	
evening max el	2126 Sep 19 15:35	23° \approx 00'14	26°36'20		2127 Aug 06 20:50	0° \approx	
	2126 Sep 30 12:28	0° \approx		desc. node	2127 Aug 18 00:37	17° \approx 53'16	
retrograde	2126 Oct 02 13:46	0° \approx 13'54			2127 Aug 27 03:50	0° \approx	
	2126 Oct 04 13:13	30° \approx		evening max el	2127 Sep 02 03:31	6° \approx 26'36	27°14'53
evening set	2126 Oct 09 02:42	27° \approx 34'10		retrograde	2127 Sep 15 13:30	13° \approx 45'20	
min. Earth dist.	2126 Oct 13 04:51	23° \approx 21'46	0.66064 AU	evening set	2127 Sep 22 13:02	11° \approx 02'34	
inferior conj	2126 Oct 14 21:37	21° \approx 19'54	-1°-41'-22	min. Earth dist.	2127 Sep 26 08:29	7° \approx 26'27	0.64773 AU
minimum elong	2126 Oct 15 00:20	21° \approx 11'47	1°40'16	inferior conj	2127 Sep 28 13:44	5° \approx 00'30	-2°-39'-49
asc. node	2126 Oct 19 21:39	16° \approx 13'59		minimum elong	2127 Sep 28 17:59	4° \approx 48'50	2°38'18
morning rise	2126 Oct 20 23:15	15° \approx 33'52			2127 Oct 04 01:10	30° \approx	
direct	2126 Oct 23 20:21	14° \approx 47'23		morning rise	2127 Oct 05 00:50	29° \approx 28'49	
morning max el	2126 Oct 30 11:46	18° \approx 25'48	18°30'33	asc. node	2127 Oct 06 18:41	28° \approx 57'23	
	2126 Nov 08 05:45	0° \approx		direct	2127 Oct 07 15:01	28° \approx 53'34	
morning set	2126 Nov 19 12:16	17° \approx 50'56			2127 Oct 11 05:09	0° \approx	
desc. node	2126 Nov 27 02:50	29° \approx 58'32		morning max el	2127 Oct 14 03:06	2° \approx 21'43	18°02'14
	2126 Nov 27 03:12	0° \approx		morning set	2127 Oct 31 19:18	29° \approx 03'10	
					2127 Nov 01 08:53	0° \approx	
superior conj	2126 Dec 05 07:27	12° \approx 53'24	0°-53'-4	desc. node	2127 Nov 13 23:52	20° \approx 43'01	
minimum elong	2126 Dec 05 00:45	12° \approx 27'06	0°52'13				
max. Earth dist.	2126 Dec 06 00:57	14° \approx 02'06	1.45154 AU	superior conj	2127 Nov 14 15:58	21° \approx 47'29	0°-4'-32
	2126 Dec 16 04:47	0° \approx		minimum elong	2127 Nov 14 15:24	21° \approx 45'14	0°04'28
evening rise	2126 Dec 21 09:09	8° \approx 11'16		behind sun begin	2127 Nov 14 05:10	21° \approx 04'15	
greatest brilliancy	2127 Jan 01 08:26	25° \approx 29'00	-0.8m	behind sun end	2127 Nov 15 01:38	22° \approx 26'10	
	2127 Jan 04 07:38	0° \approx		max. Earth dist.	2127 Nov 18 19:40	28° \approx 23'39	1.44820 AU
evening max el	2127 Jan 12 18:32	11° \approx 06'00	19°04'29		2127 Nov 19 20:06	0° \approx	
asc. node	2127 Jan 15 20:55	13° \approx 44'10		evening rise	2127 Dec 01 02:05	17° \approx 31'11	
retrograde	2127 Jan 19 16:40	15° \approx 02'11			2127 Dec 09 05:15	0° \approx	
evening set	2127 Jan 22 23:08	14° \approx 00'04		greatest brilliancy	2127 Dec 19 22:04	15° \approx 47'41	-0.6m
inferior conj	2127 Jan 28 14:55	8° \approx 10'23	3°22'54	evening max el	2127 Dec 26 23:58	24° \approx 35'18	19°56'48

asc. node	2128 Jan 02 17:57	28°♄57'32		asc. node	2128 Dec 19 14:58	12°♄42'46	
retrograde	2128 Jan 03 14:16	29°♄01'31		evening set	2128 Dec 21 11:57	11°♄37'17	
evening set	2128 Jan 07 04:33	27°♄45'59		inferior conj	2128 Dec 26 21:54	5°♄22'40	2°17'37
inferior conj	2128 Jan 12 16:29	21°♄42'15	2°54'39	minimum elong	2128 Dec 26 19:24	5°♄31'18	2°16'49
minimum elong	2128 Jan 12 13:53	21°♄50'55	2°54'01	min. Earth dist.	2128 Dec 27 07:44	4°♄48'53	0.67548 AU
min. Earth dist.	2128 Jan 13 14:47	20°♄27'45	0.66893 AU		2128 Dec 31 04:30	30°♄	
morning rise	2128 Jan 17 22:35	15°♄27'04		morning rise	2129 Jan 01 02:26	29°♄07'31	
direct	2128 Jan 23 20:03	12°♄50'14		direct	2129 Jan 06 09:06	26°♄49'52	
morning max el	2128 Feb 04 17:49	19°♄56'31	25°13'52		2129 Jan 13 13:08	0°♄	
desc. node	2128 Feb 09 23:03	25°♄45'05		morning max el	2129 Jan 17 02:10	3°♄12'54	23°46'58
	2128 Feb 13 08:35	0°♄		desc. node	2129 Jan 26 20:05	14°♄49'19	
	2128 Mar 04 12:21	0°♄			2129 Feb 06 13:06	0°♄	
morning set	2128 Mar 11 22:07	12°♄48'43		morning set	2129 Feb 21 12:25	23°♄57'22	
max. Earth dist.	2128 Mar 15 15:26	19°♄38'09	1.36552 AU		2129 Feb 25 00:02	0°♄	
	2128 Mar 21 01:02	0°♄		max. Earth dist.	2129 Feb 25 10:27	0°♄46'02	1.38622 AU
superior conj	2128 Mar 21 18:24	1°♄25'34	-1°-22'-55	superior conj	2129 Mar 04 19:13	14°♄14'19	-1°-45'-44
minimum elong	2128 Mar 21 22:23	1°♄45'21	1°22'21	minimum elong	2129 Mar 04 23:28	14°♄34'25	1°45'19
evening rise	2128 Mar 30 01:13	18°♄07'25			2129 Mar 12 22:55	0°♄	
asc. node	2128 Mar 30 17:16	19°♄28'11		evening rise	2129 Mar 13 22:05	1°♄53'11	
	2128 Apr 05 03:47	0°♄		asc. node	2129 Mar 17 14:18	8°♄58'26	
evening max el	2128 Apr 16 08:07	16°♄09'02	19°40'40	evening max el	2129 Mar 30 06:44	28°♄17'28	18°49'35
retrograde	2128 Apr 26 02:04	20°♄51'31			2129 Apr 01 06:42	0°♄	
evening set	2128 Apr 28 02:37	20°♄40'16		retrograde	2129 Apr 07 12:05	2°♄17'33	
inferior conj	2128 May 06 20:00	16°♄37'24	0°19'00	evening set	2129 Apr 09 17:09	2°♄01'20	
minimum elong	2128 May 06 20:50	16°♄36'06	0°18'42		2129 Apr 14 06:32	30°♄	
desc. node	2128 May 07 22:17	15°♄56'03		inferior conj	2129 Apr 17 15:29	27°♄41'44	1°56'38
min. Earth dist.	2128 May 09 05:15	15°♄07'53	0.55690 AU	minimum elong	2129 Apr 17 19:16	27°♄34'49	1°55'31
morning rise	2128 May 15 11:32	12°♄03'07		min. Earth dist.	2129 Apr 20 21:42	25°♄20'31	0.57234 AU
direct	2128 May 19 21:22	11°♄19'41		desc. node	2129 Apr 24 19:16	22°♄58'52	
morning max el	2128 Jun 02 20:51	18°♄20'04	24°34'35	morning rise	2129 Apr 25 17:03	22°♄33'35	
	2128 Jun 12 12:46	0°♄		direct	2129 May 01 04:07	21°♄21'18	
asc. node	2128 Jun 26 16:32	25°♄08'07		morning max el	2129 May 15 12:00	28°♄50'26	26°06'57
morning set	2128 Jun 28 06:49	28°♄28'02			2129 May 16 15:54	0°♄	
	2128 Jun 29 00:11	0°♄			2129 Jun 06 01:42	0°♄	
superior conj	2128 Jul 05 07:27	13°♄39'17	1°19'49	morning set	2129 Jun 12 18:05	13°♄21'58	
minimum elong	2128 Jul 05 05:03	13°♄26'14	1°19'28	asc. node	2129 Jun 13 13:35	15°♄05'13	
max. Earth dist.	2128 Jul 06 22:29	17°♄10'46	1.32955 AU	superior conj	2129 Jun 19 18:40	28°♄36'33	1°01'25
evening rise	2128 Jul 12 14:49	29°♄07'30		minimum elong	2129 Jun 19 16:26	28°♄24'13	1°01'01
	2128 Jul 13 01:09	0°♄			2129 Jun 20 09:52	0°♄	
	2128 Jul 29 23:52	0°♄		max. Earth dist.	2129 Jun 20 08:33	29°♄52'48	1.32370 AU
desc. node	2128 Aug 03 21:38	7°♄03'01		evening rise	2129 Jun 26 19:11	13°♄44'30	
evening max el	2128 Aug 14 13:48	19°♄29'58	27°25'41		2129 Jul 05 02:52	0°♄	
retrograde	2128 Aug 28 07:03	26°♄47'23		desc. node	2129 Jul 21 18:38	25°♄22'42	
evening set	2128 Sep 04 11:43	24°♄12'44			2129 Jul 25 20:40	0°♄	
min. Earth dist.	2128 Sep 08 02:37	21°♄08'40	0.63138 AU	evening max el	2129 Jul 27 19:57	1°♄57'41	27°04'08
inferior conj	2128 Sep 10 20:14	18°♄26'55	-3°-35'-16	retrograde	2129 Aug 10 17:20	9°♄11'21	
minimum elong	2128 Sep 11 01:30	18°♄13'52	3°33'44	evening set	2129 Aug 17 18:41	6°♄57'47	
morning rise	2128 Sep 17 17:46	13°♄12'48		min. Earth dist.	2129 Aug 21 10:14	4°♄15'58	0.61224 AU
direct	2128 Sep 20 03:48	12°♄45'13		inferior conj	2129 Aug 24 13:56	1°♄31'28	-4°-22'-33
asc. node	2128 Sep 22 15:43	13°♄15'16		minimum elong	2129 Aug 24 19:00	1°♄20'25	4°21'35
morning max el	2128 Sep 26 19:16	16°♄11'11	17°51'31		2129 Aug 26 08:53	30°♄	
	2128 Oct 06 12:53	0°♄		morning rise	2129 Aug 31 22:19	26°♄38'12	
morning set	2128 Oct 13 02:50	11°♄26'09		direct	2129 Sep 03 07:09	26°♄15'19	
	2128 Oct 23 21:06	0°♄		asc. node	2129 Sep 09 12:47	28°♄59'55	
superior conj	2128 Oct 24 23:40	1°♄51'08	0°39'24	morning max el	2129 Sep 10 09:19	29°♄47'13	17°59'26
minimum elong	2128 Oct 25 03:23	2°♄06'39	0°38'53		2129 Sep 10 14:30	0°♄	
desc. node	2128 Oct 30 20:55	11°♄30'16		morning set	2129 Sep 26 04:32	24°♄41'29	
max. Earth dist.	2128 Oct 31 12:00	12°♄31'02	1.43799 AU		2129 Sep 29 01:47	0°♄	
evening rise	2128 Nov 09 10:25	26°♄35'13		superior conj	2129 Oct 06 10:28	13°♄14'41	1°12'21
	2128 Nov 11 15:40	0°♄		minimum elong	2129 Oct 06 14:56	13°♄34'18	1°11'50
	2128 Dec 02 05:40	0°♄		max. Earth dist.	2129 Oct 14 00:08	26°♄09'42	1.42217 AU
greatest brilliancy	2128 Dec 03 15:52	1°♄51'23	-0.5m		2129 Oct 16 08:09	0°♄	
evening max el	2128 Dec 09 00:01	8°♄05'46	21°02'31	desc. node	2129 Oct 17 17:59	2°♄17'10	
retrograde	2128 Dec 17 11:56	13°♄07'55		evening rise	2129 Oct 20 03:14	6°♄06'20	

	2129 Nov 04 22:35	0°♊			2130 Oct 30 15:20	0°♊	
greatest brilliancy	2129 Nov 17 01:18	16°♊19'07	-0.3m	evening max el	2130 Nov 04 09:04	5°♊12'33	23°37'40
evening max el	2129 Nov 21 18:41	21°♊38'01	22°17'49	retrograde	2130 Nov 15 01:09	11°♊30'37	
retrograde	2129 Dec 01 08:01	27°♊18'51		evening set	2130 Nov 20 02:02	9°♊26'11	
evening set	2129 Dec 05 19:39	25°♊31'38		asc. node	2130 Nov 23 09:03	5°♊52'46	
asc. node	2129 Dec 06 11:59	24°♊56'09		min. Earth dist.	2130 Nov 25 00:20	3°♊42'07	0.67769 AU
inferior conj	2129 Dec 11 05:12	19°♊09'32	1°33'35	inferior conj	2130 Nov 25 12:32	3°♊00'31	0°43'52
minimum elong	2129 Dec 11 03:14	19°♊16'20	1°32'49	minimum elong	2130 Nov 25 11:31	3°♊03'59	0°43'25
min. Earth dist.	2129 Dec 11 03:41	19°♊14'47	0.67836 AU		2130 Nov 27 19:16	30°♋	
morning rise	2129 Dec 16 10:40	12°♊56'28		morning rise	2130 Nov 30 21:09	26°♋51'35	
direct	2129 Dec 21 02:14	11°♊01'28		direct	2130 Dec 04 22:25	25°♋19'24	
morning max el	2129 Dec 30 13:15	16°♊36'01	22°19'01		2130 Dec 13 02:46	0°♋	
greatest brilliancy	2130 Jan 04 03:18	21°♊43'56	-0.3m	morning max el	2130 Dec 13 06:29	0°♋09'19	20°57'55
	2130 Jan 10 12:10	0°♋		greatest brilliancy	2130 Dec 18 19:49	6°♋35'26	-0.5m
desc. node	2130 Jan 13 17:10	4°♋28'01		desc. node	2130 Dec 31 14:14	24°♋31'29	
	2130 Jan 30 15:04	0°♋			2131 Jan 04 06:02	0°♋	
morning set	2130 Feb 01 22:33	3°♋43'21		morning set	2131 Jan 12 05:39	12°♋15'55	
max. Earth dist.	2130 Feb 07 07:25	12°♋36'37	1.40778 AU	max. Earth dist.	2131 Jan 20 11:14	25°♋23'32	1.42714 AU
					2131 Jan 23 06:36	0°♋	
superior conj	2130 Feb 15 02:33	26°♋10'09	-2°-1'-11				
minimum elong	2130 Feb 15 05:17	26°♋22'25	2°01'04	superior conj	2131 Jan 27 11:10	7°♋01'16	-2°-4'-37
	2130 Feb 17 05:31	0°♌		minimum elong	2131 Jan 27 09:49	6°♋55'33	2°04'37
evening rise	2130 Feb 25 08:31	15°♌04'30		evening rise	2131 Feb 08 04:39	27°♋33'21	
asc. node	2130 Mar 04 11:20	28°♌05'35			2131 Feb 09 13:26	0°♌	
	2130 Mar 05 14:07	0°♌		asc. node	2131 Feb 19 08:22	16°♌42'38	
evening max el	2130 Mar 13 13:10	10°♌57'02	18°18'33	evening max el	2131 Feb 25 00:14	23°♌59'35	18°07'18
retrograde	2130 Mar 20 17:21	14°♌31'14		retrograde	2131 Mar 03 14:50	27°♌23'41	
evening set	2130 Mar 23 04:03	14°♌07'18		evening set	2131 Mar 06 06:41	26°♌50'31	
inferior conj	2130 Mar 30 08:19	9°♌26'34	3°00'57	inferior conj	2131 Mar 12 20:23	21°♌48'36	3°34'06
minimum elong	2130 Mar 30 11:51	9°♌19'01	3°00'14	minimum elong	2131 Mar 12 22:07	21°♌44'20	3°33'56
min. Earth dist.	2130 Apr 02 18:34	6°♌32'49	0.59255 AU	min. Earth dist.	2131 Mar 15 22:51	18°♌46'54	0.61403 AU
morning rise	2130 Apr 06 15:51	3°♌50'35		morning rise	2131 Mar 19 10:44	15°♌54'15	
desc. node	2130 Apr 11 16:19	2°♌07'02		direct	2131 Mar 26 06:36	13°♌32'47	
direct	2130 Apr 12 23:49	2°♌02'24		desc. node	2131 Mar 29 13:22	14°♌02'55	
morning max el	2130 Apr 27 08:17	9°♌48'10	27°14'35	morning max el	2131 Apr 09 11:04	21°♌27'33	27°47'21
	2130 May 12 20:39	0°♍			2131 Apr 16 21:48	0°♍	
morning set	2130 May 28 03:03	28°♍07'13			2131 May 05 21:03	0°♍	
	2130 May 29 00:33	0°♍		morning set	2131 May 12 07:50	12°♍37'41	
asc. node	2130 May 31 10:38	5°♍10'27		asc. node	2131 May 18 07:42	25°♍19'36	
				max. Earth dist.	2131 May 18 07:37	25°♍19'11	1.32356 AU
superior conj	2130 Jun 04 06:26	13°♍32'25	0°39'27				
minimum elong	2130 Jun 04 04:47	13°♍23'20	0°39'08	superior conj	2131 May 19 17:05	28°♍21'30	0°14'39
max. Earth dist.	2130 Jun 03 20:54	12°♍39'59	1.32167 AU	minimum elong	2131 May 19 16:24	28°♍17'49	0°14'31
evening rise	2130 Jun 11 04:03	28°♍32'26		behind sun begin	2131 May 19 14:20	28°♍06'31	
	2130 Jun 11 20:42	0°♎		behind sun end	2131 May 19 18:28	28°♍29'07	
	2130 Jun 28 14:30	0°♎			2131 May 20 11:05	0°♎	
desc. node	2130 Jul 08 15:39	12°♎30'45		evening rise	2131 May 26 15:21	13°♎24'27	
evening max el	2130 Jul 09 19:14	13°♎38'28	26°09'47		2131 Jun 04 00:07	0°♎	
retrograde	2130 Jul 23 18:58	20°♎49'01		evening max el	2131 Jun 21 11:30	24°♎34'00	24°48'41
evening set	2130 Jul 30 05:04	19°♎08'30		desc. node	2131 Jun 25 12:39	27°♎58'11	
min. Earth dist.	2130 Aug 03 07:55	16°♎32'59	0.59163 AU		2131 Jun 28 21:02	0°♎	
inferior conj	2130 Aug 06 15:12	14°♎03'22	-4°-53'-29	retrograde	2131 Jul 05 10:23	1°♎38'30	
minimum elong	2130 Aug 06 17:51	13°♎58'20	4°53'18	evening set	2131 Jul 10 15:38	0°♎36'39	
morning rise	2130 Aug 14 10:04	9°♎33'27			2131 Jul 12 01:45	30°♏	
direct	2130 Aug 16 20:33	9°♎13'10		min. Earth dist.	2131 Jul 15 22:48	27°♏48'30	0.57202 AU
morning max el	2130 Aug 24 18:02	13°♎00'35	18°27'16	inferior conj	2131 Jul 18 20:52	25°♏53'31	-4°-55'-33
asc. node	2130 Aug 27 09:51	15°♎55'59		minimum elong	2131 Jul 18 18:38	25°♏57'13	4°55'25
	2130 Sep 05 06:22	0°♐		morning rise	2131 Jul 27 01:23	21°♏45'49	
morning set	2130 Sep 09 19:06	8°♐33'30		direct	2131 Jul 29 15:38	21°♏26'46	
				morning max el	2131 Aug 07 18:21	25°♏42'04	19°16'12
superior conj	2130 Sep 18 20:23	25°♐46'22	1°33'21		2131 Aug 11 14:21	0°♐	
minimum elong	2130 Sep 18 23:32	26°♐00'58	1°33'06	asc. node	2131 Aug 14 06:56	3°♐48'31	
	2130 Sep 21 03:43	0°♑		morning set	2131 Aug 24 18:38	22°♐51'51	
max. Earth dist.	2130 Sep 26 06:53	9°♑05'55	1.40267 AU		2131 Aug 28 08:22	0°♑	
evening rise	2130 Sep 30 16:43	16°♑34'36					
desc. node	2130 Oct 04 15:01	22°♑59'34		superior conj	2131 Sep 01 23:50	9°♑10'23	1°43'43
	2130 Oct 09 01:49	0°♒		minimum elong	2131 Sep 02 01:06	9°♑16'32	1°43'41

max. Earth dist.	2131 Sep 08 10:30	21° $\overline{\text{m}}$ 20'01	1.38207 AU		2132 Aug 04 06:32	0° Ω	
evening rise	2131 Sep 12 06:16	28° $\overline{\text{m}}$ 10'07		morning set	2132 Aug 08 00:17	7° Ω 28'46	
	2131 Sep 13 07:31	0° $\underline{\text{a}}$					
desc. node	2131 Sep 21 12:01	13° $\underline{\text{a}}$ 33'35		superior conj	2132 Aug 15 15:51	23° Ω 12'20	1°45'19
	2131 Oct 02 12:20	0° $\overline{\text{m}}$		minimum elong	2132 Aug 15 15:26	23° Ω 10'11	1°45'19
evening max el	2131 Oct 17 21:15	18° $\overline{\text{m}}$ 50'29	24°55'35		2132 Aug 19 01:24	0° $\overline{\text{m}}$	
retrograde	2131 Oct 29 14:21	25° $\overline{\text{m}}$ 38'45		max. Earth dist.	2132 Aug 20 16:46	3° $\overline{\text{m}}$ 11'52	1.36286 AU
evening set	2131 Nov 04 05:22	23° $\overline{\text{m}}$ 17'59		evening rise	2132 Aug 24 17:08	10° $\overline{\text{m}}$ 46'43	
min. Earth dist.	2131 Nov 08 19:19	18° $\overline{\text{m}}$ 08'09	0.67371 AU		2132 Sep 04 21:30	0° $\underline{\text{a}}$	
inferior conj	2131 Nov 09 18:07	16° $\overline{\text{m}}$ 53'00	0°-10'-20	desc. node	2132 Sep 07 09:01	3° $\underline{\text{a}}$ 54'22	
minimum elong	2131 Nov 09 18:22	16° $\overline{\text{m}}$ 52'09	0°10'14		2132 Sep 26 22:14	0° $\overline{\text{m}}$	
transit middle	2131 Nov 09 18:22	16° $\overline{\text{m}}$ 52'09	0°10'14	evening max el	2132 Sep 29 09:17	2° $\overline{\text{m}}$ 30'47	26°04'14
transit begin	2131 Nov 09 16:14	16° $\overline{\text{m}}$ 59'13		retrograde	2132 Oct 11 22:42	9° $\overline{\text{m}}$ 38'25	
transit end	2131 Nov 09 20:31	16° $\overline{\text{m}}$ 45'05		evening set	2132 Oct 18 03:53	7° $\overline{\text{m}}$ 04'21	
asc. node	2131 Nov 10 06:07	16° $\overline{\text{m}}$ 13'32		min. Earth dist.	2132 Oct 22 10:16	2° $\overline{\text{m}}$ 30'25	0.66637 AU
morning rise	2131 Nov 15 07:55	10° $\overline{\text{m}}$ 50'37		inferior conj	2132 Oct 23 20:09	0° $\overline{\text{m}}$ 44'45	-1°-7'-36
direct	2131 Nov 18 20:32	9° $\overline{\text{m}}$ 38'57		minimum elong	2132 Oct 23 21:56	0° $\overline{\text{m}}$ 39'12	1°06'51
morning max el	2131 Nov 26 07:26	13° $\overline{\text{m}}$ 53'14	19°48'42		2132 Oct 24 10:34	30° $\overline{\text{R}}$ $\underline{\text{a}}$	
greatest brilliancy	2131 Dec 03 23:16	23° $\overline{\text{m}}$ 19'59	-0.6m	asc. node	2132 Oct 27 03:10	26° $\underline{\text{a}}$ 56'06	
	2131 Dec 08 14:48	0° $\overline{\text{a}}$		morning rise	2132 Oct 29 16:58	24° $\underline{\text{a}}$ 51'37	
desc. node	2131 Dec 18 11:17	14° $\overline{\text{a}}$ 52'12		direct	2132 Nov 01 19:03	23° $\underline{\text{a}}$ 57'02	
morning set	2131 Dec 22 01:40	20° $\overline{\text{a}}$ 24'38		morning max el	2132 Nov 08 15:37	27° $\underline{\text{a}}$ 45'52	18°54'24
	2131 Dec 28 05:44	0° $\overline{\text{a}}$			2132 Nov 10 16:31	0° $\overline{\text{m}}$	
max. Earth dist.	2132 Jan 02 22:07	8° $\overline{\text{a}}$ 57'48	1.44184 AU	morning set	2132 Nov 30 12:00	29° $\overline{\text{m}}$ 23'10	
					2132 Nov 30 21:23	0° $\overline{\text{a}}$	
superior conj	2132 Jan 07 17:25	16° $\overline{\text{a}}$ 40'17	-1°-51'-7	desc. node	2132 Dec 04 08:19	5° $\overline{\text{a}}$ 25'31	
minimum elong	2132 Jan 07 10:36	16° $\overline{\text{a}}$ 12'42	1°50'42	max. Earth dist.	2132 Dec 15 14:30	23° $\overline{\text{a}}$ 05'26	1.45015 AU
	2132 Jan 15 19:46	0° \approx					
evening rise	2132 Jan 21 05:59	9° \approx 09'57		superior conj	2132 Dec 17 01:23	25° $\overline{\text{a}}$ 22'42	-1°-18'-39
	2132 Feb 02 20:29	0° $\overline{\text{H}}$		minimum elong	2132 Dec 16 16:40	24° $\overline{\text{a}}$ 48'23	1°17'42
asc. node	2132 Feb 06 05:25	4° $\overline{\text{H}}$ 39'18			2132 Dec 19 23:41	0° $\overline{\text{a}}$	
evening max el	2132 Feb 08 12:50	7° $\overline{\text{H}}$ 16'21	18°15'16	evening rise	2133 Jan 01 08:49	19° $\overline{\text{a}}$ 49'19	
retrograde	2132 Feb 14 23:49	10° $\overline{\text{H}}$ 43'48			2133 Jan 07 15:20	0° \approx	
evening set	2132 Feb 17 20:45	10° $\overline{\text{H}}$ 00'17		evening max el	2133 Jan 22 00:23	20° \approx 41'33	18°41'33
inferior conj	2132 Feb 23 23:33	4° $\overline{\text{H}}$ 38'28	3°43'03	asc. node	2133 Jan 23 02:26	21° \approx 44'01	
minimum elong	2132 Feb 23 23:22	4° $\overline{\text{H}}$ 38'59	3°43'03	retrograde	2133 Jan 28 16:11	24° \approx 23'58	
min. Earth dist.	2132 Feb 26 12:13	1° $\overline{\text{H}}$ 51'29	0.63403 AU	evening set	2133 Jan 31 18:53	23° \approx 28'59	
	2132 Feb 28 08:18	30° $\overline{\text{R}}$ \approx		inferior conj	2133 Feb 06 13:56	17° \approx 48'59	3°34'10
morning rise	2132 Mar 01 00:06	28° \approx 33'31		minimum elong	2133 Feb 06 12:20	17° \approx 53'52	3°34'00
direct	2132 Mar 07 22:17	25° \approx 49'59		min. Earth dist.	2133 Feb 08 11:02	15° \approx 32'33	0.65080 AU
desc. node	2132 Mar 15 10:25	28° \approx 27'42		morning rise	2133 Feb 12 04:35	11° \approx 38'08	
	2132 Mar 17 13:46	0° $\overline{\text{H}}$		direct	2133 Feb 18 21:07	8° \approx 47'22	
morning max el	2132 Mar 21 18:34	3° $\overline{\text{H}}$ 45'58	27°42'42	desc. node	2133 Mar 02 07:28	14° \approx 46'31	
	2132 Apr 10 10:03	0° $\overline{\text{Y}}$		morning max el	2133 Mar 04 04:06	16° \approx 33'55	27°04'13
morning set	2132 Apr 25 06:03	26° $\overline{\text{Y}}$ 45'04			2133 Mar 15 07:47	0° $\overline{\text{H}}$	
	2132 Apr 26 20:43	0° $\overline{\text{B}}$			2133 Apr 03 05:39	0° $\overline{\text{Y}}$	
max. Earth dist.	2132 Apr 30 12:35	7° $\overline{\text{B}}$ 36'19	1.32956 AU	morning set	2133 Apr 08 18:43	10° $\overline{\text{Y}}$ 20'12	
				max. Earth dist.	2133 Apr 13 08:09	19° $\overline{\text{Y}}$ 22'10	1.34003 AU
superior conj	2132 May 03 00:47	12° $\overline{\text{B}}$ 57'23	0°-12'-14				
minimum elong	2132 May 03 01:23	13° $\overline{\text{B}}$ 00'37	0°12'07	superior conj	2133 Apr 17 03:33	27° $\overline{\text{Y}}$ 14'05	0°-40'-12
behind sun begin	2132 May 02 21:55	12° $\overline{\text{B}}$ 42'01		minimum elong	2133 Apr 17 05:35	27° $\overline{\text{Y}}$ 24'45	0°39'49
behind sun end	2132 May 03 04:50	13° $\overline{\text{B}}$ 19'13			2133 Apr 18 11:06	0° $\overline{\text{B}}$	
asc. node	2132 May 04 04:44	15° $\overline{\text{B}}$ 27'58		asc. node	2133 Apr 21 01:45	5° $\overline{\text{B}}$ 31'48	
evening rise	2132 May 10 03:08	28° $\overline{\text{B}}$ 13'37		evening rise	2133 Apr 24 13:36	12° $\overline{\text{B}}$ 54'09	
	2132 May 10 23:22	0° $\overline{\text{II}}$			2133 May 03 08:59	0° $\overline{\text{II}}$	
	2132 May 28 11:29	0° $\overline{\text{a}}$		evening max el	2133 May 14 19:43	15° $\overline{\text{II}}$ 40'16	21°39'56
evening max el	2132 Jun 02 01:10	5° $\overline{\text{a}}$ 04'06	23°13'41	retrograde	2133 May 27 04:52	21° $\overline{\text{II}}$ 44'45	
desc. node	2132 Jun 11 09:38	11° $\overline{\text{a}}$ 09'24		desc. node	2133 May 29 06:39	21° $\overline{\text{II}}$ 35'00	
retrograde	2132 Jun 15 13:25	11° $\overline{\text{a}}$ 48'45		evening set	2133 May 29 17:36	21° $\overline{\text{II}}$ 30'20	
evening set	2132 Jun 19 06:30	11° $\overline{\text{a}}$ 18'33		inferior conj	2133 Jun 08 02:45	17° $\overline{\text{II}}$ 29'00	-2°-45'-55
min. Earth dist.	2132 Jun 26 10:52	8° $\overline{\text{a}}$ 03'01	0.55683 AU	minimum elong	2133 Jun 07 19:32	17° $\overline{\text{II}}$ 39'06	2°43'39
inferior conj	2132 Jun 28 06:44	6° $\overline{\text{a}}$ 58'41	-4°-14'-34	min. Earth dist.	2133 Jun 07 22:39	17° $\overline{\text{II}}$ 34'45	0.54940 AU
minimum elong	2132 Jun 27 23:38	7° $\overline{\text{a}}$ 09'09	4°13'09	morning rise	2133 Jun 16 22:21	13° $\overline{\text{II}}$ 34'14	
morning rise	2132 Jul 06 19:52	3° $\overline{\text{a}}$ 05'09		direct	2133 Jun 20 03:08	13° $\overline{\text{II}}$ 11'48	
direct	2132 Jul 09 15:34	2° $\overline{\text{a}}$ 45'56		morning max el	2133 Jul 02 09:42	18° $\overline{\text{II}}$ 58'47	21°55'28
morning max el	2132 Jul 20 07:46	7° $\overline{\text{a}}$ 42'40	20°26'25		2133 Jul 11 08:02	0° $\overline{\text{a}}$	
asc. node	2132 Jul 31 03:59	22° $\overline{\text{a}}$ 24'28		asc. node	2133 Jul 18 01:01	11° $\overline{\text{a}}$ 33'01	

morning set	2133 Jul 23 09:46	22°☿17'37			2134 Jun 14 11:40	0°♊	
	2133 Jul 27 01:31	0°♊			2134 Jul 04 08:53	0°☿	
				asc. node	2134 Jul 04 22:03	1°☿05'59	
superior conj	2133 Jul 30 16:36	7°♊40'20	1°39'49	morning set	2134 Jul 07 21:16	7°☿13'14	
minimum elong	2133 Jul 30 14:59	7°♊31'50	1°39'42				
max. Earth dist.	2133 Aug 03 06:55	15°♊07'07	1.34681 AU	superior conj	2134 Jul 14 23:12	22°☿25'53	1°28'31
evening rise	2133 Aug 07 20:40	24°♊11'26		minimum elong	2134 Jul 14 20:56	22°☿13'41	1°28'16
	2133 Aug 10 22:29	0°♊		max. Earth dist.	2134 Jul 17 06:29	27°☿21'26	1.33468 AU
desc. node	2133 Aug 25 06:01	23°♊54'59			2134 Jul 18 12:33	0°♊	
	2133 Aug 29 11:00	0°♊		evening rise	2134 Jul 22 12:35	8°♊12'34	
evening max el	2133 Sep 11 21:41	16°♊05'57	26°55'53		2134 Aug 03 09:47	0°♊	
retrograde	2133 Sep 25 01:33	23°♊22'15		desc. node	2134 Aug 12 03:01	13°♊26'50	
evening set	2133 Oct 01 19:23	20°♊40'28		evening max el	2134 Aug 25 09:19	29°♊24'34	27°23'13
min. Earth dist.	2133 Oct 05 18:41	16°♊43'29	0.65556 AU		2134 Aug 26 00:26	0°♊	
inferior conj	2133 Oct 07 16:34	14°♊30'55	-2°-6'-17	retrograde	2134 Sep 07 22:26	6°♊42'26	
minimum elong	2133 Oct 07 19:57	14°♊21'07	2°04'58	evening set	2134 Sep 15 01:10	4°♊01'38	
morning rise	2133 Oct 13 22:02	8°♊50'18		min. Earth dist.	2134 Sep 18 18:21	0°♊40'05	0.64123 AU
asc. node	2133 Oct 14 00:12	8°♊47'38			2134 Sep 19 09:52	30°♊	
direct	2133 Oct 16 15:56	8°♊08'56		inferior conj	2134 Sep 21 04:56	28°♊06'21	-3°-3'-55
morning max el	2133 Oct 23 05:02	11°♊41'56	18°16'23	minimum elong	2134 Sep 21 09:43	27°♊53'47	3°02'20
	2133 Nov 05 02:14	0°♊		morning rise	2134 Sep 27 20:22	22°♊41'44	
morning set	2133 Nov 11 02:35	9°♊47'37		direct	2134 Sep 30 08:35	22°♊10'00	
desc. node	2133 Nov 21 05:19	26°♊06'55		asc. node	2134 Sep 30 21:15	22°♊11'25	
	2133 Nov 23 15:58	0°♊		morning max el	2134 Oct 06 21:03	25°♊35'52	17°55'31
					2134 Oct 10 13:39	0°♊	
superior conj	2133 Nov 26 03:18	3°♊54'36	0°-32'-35	morning set	2134 Oct 23 20:47	21°♊32'29	
minimum elong	2133 Nov 25 23:05	3°♊38'00	0°32'02		2134 Oct 28 20:17	0°♊	
max. Earth dist.	2133 Nov 28 09:44	7°♊28'57	1.45112 AU				
evening rise	2133 Dec 12 12:36	29°♊34'03		superior conj	2134 Nov 05 20:21	13°♊14'43	0°15'13
	2133 Dec 12 19:15	0°♊		minimum elong	2134 Nov 05 22:03	13°♊21'39	0°14'58
greatest brilliancy	2133 Dec 27 15:14	22°♊50'09	-0.7m	behind sun begin	2134 Nov 05 18:12	13°♊05'58	
	2134 Jan 01 18:51	0°♊		behind sun end	2134 Nov 06 01:55	13°♊37'19	
evening max el	2134 Jan 05 08:36	4°♊10'28	19°24'53	desc. node	2134 Nov 08 02:21	16°♊53'01	
asc. node	2134 Jan 09 23:28	7°♊42'36		max. Earth dist.	2134 Nov 11 04:20	21°♊48'47	1.44470 AU
retrograde	2134 Jan 12 12:38	8°♊17'59			2134 Nov 16 09:05	0°♊	
evening set	2134 Jan 15 22:19	7°♊10'12		evening rise	2134 Nov 22 00:01	8°♊42'53	
inferior conj	2134 Jan 21 12:13	1°♊14'17	3°12'06		2134 Dec 06 02:18	0°♊	
minimum elong	2134 Jan 21 09:49	1°♊22'05	3°11'36	greatest brilliancy	2134 Dec 13 06:35	10°♊09'50	-0.5m
	2134 Jan 22 11:05	30°♊		evening max el	2134 Dec 19 11:49	17°♊40'30	20°23'14
min. Earth dist.	2134 Jan 22 18:21	29°♊36'32	0.66355 AU	retrograde	2134 Dec 27 10:35	22°♊21'17	
morning rise	2134 Jan 26 20:33	25°♊00'16		asc. node	2134 Dec 27 20:30	22°♊20'20	
direct	2134 Feb 02 01:55	22°♊15'37		evening set	2134 Dec 31 04:51	20°♊59'19	
morning max el	2134 Feb 14 13:31	29°♊39'56	25°59'24	inferior conj	2135 Jan 05 15:43	14°♊50'20	2°39'55
	2134 Feb 14 21:25	0°♊		minimum elong	2135 Jan 05 13:05	14°♊59'13	2°39'10
desc. node	2134 Feb 17 04:30	2°♊27'23		min. Earth dist.	2135 Jan 06 08:26	13°♊53'38	0.67222 AU
	2134 Mar 09 04:57	0°♊		morning rise	2135 Jan 10 20:50	8°♊35'03	
morning set	2134 Mar 22 17:49	23°♊11'13		direct	2135 Jan 16 12:03	6°♊06'03	
	2134 Mar 26 08:30	0°♊		morning max el	2135 Jan 27 22:07	12°♊54'49	24°37'39
max. Earth dist.	2134 Mar 26 16:23	0°♊37'56	1.35505 AU	desc. node	2135 Feb 04 01:33	21°♊06'27	
					2135 Feb 10 17:26	0°♊	
superior conj	2134 Mar 31 22:54	11°♊04'17	-1°-7'-52		2135 Mar 02 00:12	0°♊	
minimum elong	2134 Apr 01 02:18	11°♊21'32	1°07'18	morning set	2135 Mar 04 21:56	5°♊02'22	
asc. node	2134 Apr 07 22:46	25°♊26'59		max. Earth dist.	2135 Mar 08 14:48	11°♊40'36	1.37410 AU
evening rise	2134 Apr 08 20:46	27°♊19'48					
	2134 Apr 10 04:15	0°♊		superior conj	2135 Mar 15 07:37	24°♊18'23	-1°-33'-15
evening max el	2134 Apr 27 00:44	26°♊47'41	20°18'58	minimum elong	2135 Mar 15 11:53	24°♊39'06	1°32'43
	2134 May 01 02:14	0°♊			2135 Mar 18 05:18	0°♊	
retrograde	2134 May 07 18:23	2°♊00'01		evening rise	2135 Mar 23 22:14	11°♊22'40	
evening set	2134 May 09 19:33	1°♊49'28		asc. node	2135 Mar 25 19:48	15°♊08'06	
	2134 May 15 01:06	30°♊			2135 Apr 03 01:23	0°♊	
desc. node	2134 May 16 03:41	29°♊25'35		evening max el	2135 Apr 09 17:23	8°♊34'18	19°16'24
inferior conj	2134 May 18 21:56	27°♊51'18	0°-48'-23	retrograde	2135 Apr 18 18:46	12°♊57'25	
minimum elong	2134 May 18 19:40	27°♊54'38	0°47'33	evening set	2135 Apr 20 20:41	12°♊44'32	
min. Earth dist.	2134 May 20 11:24	26°♊56'23	0.55147 AU	inferior conj	2135 Apr 29 06:06	8°♊35'06	1°04'12
morning rise	2134 May 27 17:46	23°♊36'05		minimum elong	2135 Apr 29 08:38	8°♊30'52	1°03'20
direct	2134 May 31 14:40	23°♊03'42		min. Earth dist.	2135 May 02 02:15	6°♊42'05	0.56264 AU
morning max el	2134 Jun 14 03:06	29°♊39'37	23°36'14	desc. node	2135 May 03 00:43	6°♊06'43	

morning rise	2135 May 07 16:33	3°♄46'08		morning rise	2136 Apr 17 04:48	14°♃35'54	
direct	2135 May 12 12:50	2°♄52'07		desc. node	2136 Apr 18 21:45	13°♃52'46	
morning max el	2135 May 26 17:34	10°♄06'23	25°16'07	direct	2136 Apr 23 01:31	13°♃08'33	
	2135 Jun 10 17:54	0°♄		morning max el	2136 May 07 10:42	20°♃46'49	26°39'23
asc. node	2135 Jun 21 19:05	20°♄55'48			2136 May 15 09:53	0°♄	
morning set	2135 Jun 22 09:04	22°♄09'15			2136 Jun 02 09:33	0°♄	
	2135 Jun 26 00:41	0°♄		morning set	2136 Jun 05 19:34	7°♄00'15	
				asc. node	2136 Jun 07 16:09	10°♄56'58	
superior conj	2135 Jun 29 09:17	7°♄20'39	1°12'29	superior conj	2136 Jun 12 20:58	22°♄18'12	0°52'29
minimum elong	2135 Jun 29 06:54	7°♄07'36	1°12'07	minimum elong	2136 Jun 12 18:56	22°♄06'58	0°52'06
max. Earth dist.	2135 Jun 30 13:28	9°♄54'25	1.32655 AU	max. Earth dist.	2136 Jun 13 00:45	22°♄39'02	1.32235 AU
evening rise	2135 Jul 06 13:14	22°♄38'40			2136 Jun 16 09:16	0°♄	
	2135 Jul 10 05:15	0°♄		evening rise	2136 Jun 19 19:47	7°♄21'05	
	2135 Jul 28 06:53	0°♄			2136 Jul 01 17:20	0°♄	
desc. node	2135 Jul 30 00:03	2°♄17'24		desc. node	2136 Jul 15 21:04	20°♄09'34	
evening max el	2135 Aug 07 17:55	12°♄13'10	27°20'31	evening max el	2136 Jul 19 21:09	24°♄20'49	26°44'46
retrograde	2135 Aug 21 13:01	19°♄29'26			2136 Jul 27 14:54	0°♄	
evening set	2135 Aug 28 17:42	17°♄01'43		retrograde	2136 Aug 02 20:10	1°♄34'03	
min. Earth dist.	2135 Sep 01 07:48	14°♄09'03	0.62352 AU		2136 Aug 08 20:49	30°♄	
inferior conj	2135 Sep 04 06:22	11°♄24'00	-3°-56'-43	evening set	2136 Aug 09 16:29	29°♄33'13	
minimum elong	2135 Sep 04 11:46	11°♄11'20	3°55'23	min. Earth dist.	2136 Aug 13 11:02	26°♄56'16	0.60345 AU
morning rise	2135 Sep 11 08:33	6°♄18'46		inferior conj	2136 Aug 16 17:27	24°♄15'26	-4°-38'-24
direct	2135 Sep 13 17:44	5°♄53'31		minimum elong	2136 Aug 16 21:49	24°♄06'26	4°37'46
asc. node	2135 Sep 17 18:18	7°♄07'37		morning rise	2136 Aug 24 06:25	19°♄32'09	
morning max el	2135 Sep 20 12:45	9°♄20'42	17°52'38	direct	2136 Aug 26 15:27	19°♄10'44	
	2135 Oct 04 02:48	0°♄		morning max el	2136 Sep 03 00:57	22°♄48'14	18°08'49
morning set	2135 Oct 06 12:44	4°♄19'25		asc. node	2136 Sep 03 15:22	23°♄24'19	
					2136 Sep 08 17:18	0°♄	
superior conj	2135 Oct 17 15:45	23°♄53'11	0°54'51	morning set	2136 Sep 18 20:25	17°♄51'22	
minimum elong	2135 Oct 17 20:10	24°♄11'56	0°54'17		2136 Sep 25 08:36	0°♄	
	2135 Oct 21 06:57	0°♄		superior conj	2136 Sep 28 13:00	5°♄47'13	1°22'40
max. Earth dist.	2135 Oct 24 18:57	5°♄45'21	1.43177 AU	minimum elong	2136 Sep 28 17:03	6°♄05'28	1°22'16
desc. node	2135 Oct 25 23:24	7°♄40'36		max. Earth dist.	2136 Oct 06 04:06	19°♄04'21	1.41407 AU
evening rise	2135 Nov 01 09:51	17°♄52'58		evening rise	2136 Oct 11 10:22	27°♄45'21	
	2135 Nov 09 07:58	0°♄		desc. node	2136 Oct 11 20:25	28°♄25'54	
greatest brilliancy	2135 Nov 27 11:10	25°♄32'38	-0.4m		2136 Oct 12 19:52	0°♄	
	2135 Dec 01 06:17	0°♄		greatest brilliancy	2136 Nov 02 00:25	0°♄	
evening max el	2135 Dec 02 09:23	1°♄11'28	21°33'36	evening max el	2136 Nov 08 22:19	8°♄57'50	-0.3m
retrograde	2135 Dec 11 07:56	6°♄30'37		retrograde	2136 Nov 14 01:57	14°♄44'17	22°51'42
asc. node	2135 Dec 14 17:32	5°♄26'56		evening set	2136 Nov 24 02:59	20°♄42'00	
evening set	2135 Dec 15 12:37	4°♄53'02		asc. node	2136 Nov 28 19:56	18°♄47'43	
	2135 Dec 19 21:20	30°♄		inferior conj	2136 Nov 30 14:36	17°♄04'13	
inferior conj	2135 Dec 20 22:11	28°♄34'31	1°59'46	minimum elong	2136 Dec 04 05:43	12°♄23'31	1°13'08
minimum elong	2135 Dec 20 19:52	28°♄42'35	1°58'56	min. Earth dist.	2136 Dec 04 04:06	12°♄29'04	1°12'29
min. Earth dist.	2135 Dec 21 03:02	28°♄17'45	0.67707 AU	morning rise	2136 Dec 03 23:40	12°♄44'23	0.67840 AU
morning rise	2135 Dec 26 02:49	22°♄19'51		direct	2136 Dec 09 12:14	6°♄11'41	
direct	2135 Dec 31 02:54	20°♄11'48		morning max el	2136 Dec 13 21:33	4°♄26'24	
morning max el	2136 Jan 10 07:23	26°♄14'58	23°09'15	greatest brilliancy	2136 Dec 22 20:36	9°♄41'37	21°43'19
	2136 Jan 13 18:01	0°♄		desc. node	2136 Dec 27 17:09	15°♄11'26	-0.4m
greatest brilliancy	2136 Jan 15 06:54	1°♄49'28	-0.3m	desc. node	2137 Jan 07 19:39	0°♄17'28	
desc. node	2136 Jan 21 22:37	10°♄27'16			2137 Jan 07 14:49	0°♄	
	2136 Feb 04 07:21	0°♄		morning set	2137 Jan 23 22:39	24°♄49'46	
morning set	2136 Feb 14 00:55	15°♄38'12			2137 Jan 27 03:45	0°♄	
max. Earth dist.	2136 Feb 18 09:43	23°♄03'45	1.39544 AU	max. Earth dist.	2137 Jan 30 08:39	5°♄15'46	1.41642 AU
	2136 Feb 22 08:15	0°♄		superior conj	2137 Feb 06 23:58	18°♄16'36	-2°-4'-24
superior conj	2136 Feb 26 01:41	6°♄46'42	-1°-53'-26	minimum elong	2137 Feb 07 01:18	18°♄22'24	2°04'24
minimum elong	2136 Feb 26 05:34	7°♄04'41	1°53'09		2137 Feb 13 13:29	0°♄	
evening rise	2136 Mar 06 15:11	24°♄55'37		evening rise	2137 Feb 17 20:00	7°♄49'45	
	2136 Mar 09 06:57	0°♄		asc. node	2137 Feb 26 13:54	23°♄25'35	
asc. node	2136 Mar 11 16:52	4°♄29'58			2137 Mar 02 22:18	0°♄	
evening max el	2136 Mar 22 19:44	20°♄57'30	18°33'52	evening max el	2137 Mar 06 04:35	3°♄48'30	18°11'24
retrograde	2136 Mar 30 13:06	24°♄44'44		retrograde	2137 Mar 13 01:34	7°♄16'14	
evening set	2136 Apr 01 20:25	24°♄25'37		evening set	2137 Mar 15 14:33	6°♄48'31	
inferior conj	2136 Apr 09 10:47	19°♄57'27	2°28'03	inferior conj	2137 Mar 22 12:12	1°♄59'00	3°18'22
minimum elong	2136 Apr 09 14:46	19°♄49'40	2°27'00				
min. Earth dist.	2136 Apr 12 20:39	17°♄19'14	0.58058 AU				

minimum elong	2137 Mar 22 15:04	1° Υ 52'31	3°17'55	evening set	2138 Feb 26 22:32	19° X 44'16	
	2137 Mar 24 16:31	30° R X		inferior conj	2138 Mar 05 07:09	14° X 33'35	3°40'24
min. Earth dist.	2137 Mar 25 20:26	28° X 58'37	0.60179 AU	minimum elong	2138 Mar 05 08:02	14° X 31'18	3°40'22
morning rise	2137 Mar 29 12:10	26° X 14'14		min. Earth dist.	2138 Mar 08 04:09	11° X 36'02	0.62290 AU
direct	2137 Apr 05 02:39	24° X 10'36		morning rise	2138 Mar 11 15:13	8° X 34'19	
desc. node	2137 Apr 05 18:48	24° X 11'51		direct	2138 Mar 18 13:18	6° X 01'54	
	2137 Apr 17 05:37	0° Υ		desc. node	2138 Mar 23 15:51	7° X 15'02	
morning max el	2137 Apr 19 09:36	2° Υ 01'13	27°32'56	morning max el	2138 Apr 01 14:27	13° X 57'16	27°49'51
	2137 May 09 17:13	0° B			2138 Apr 14 12:40	0° Υ	
morning set	2137 May 21 03:00	21° B 40'17			2138 May 02 04:28	0° B	
	2137 May 25 01:16	0° II		morning set	2138 May 05 05:17	6° B 01'59	
asc. node	2137 May 25 13:13	1° II 04'43		max. Earth dist.	2138 May 10 21:37	17° B 56'16	1.32564 AU
max. Earth dist.	2137 May 27 12:46	5° II 24'13	1.32199 AU	asc. node	2138 May 12 10:14	21° B 14'09	
superior conj	2137 May 28 08:30	7° II 12'31	0°29'15	superior conj	2138 May 12 18:07	21° B 56'59	0°03'29
minimum elong	2137 May 28 07:14	7° II 05'30	0°28'59	minimum elong	2138 May 12 17:57	21° B 56'05	0°03'26
evening rise	2137 Jun 04 05:57	22° II 12'08		behind sun begin	2138 May 12 12:53	21° B 28'35	
	2137 Jun 08 00:40	0° S		behind sun end	2138 May 12 23:01	22° B 23'36	
	2137 Jun 26 11:50	0° Ω			2138 May 16 10:48	0° II	
evening max el	2137 Jul 01 17:31	5° Ω 42'37	25°38'00	evening rise	2138 May 19 17:41	7° II 04'15	
desc. node	2137 Jul 02 18:04	6° Ω 39'30			2138 May 31 19:03	0° S	
retrograde	2137 Jul 15 17:51	12° Ω 51'09		evening max el	2138 Jun 13 08:03	16° S 24'46	24°09'03
evening set	2137 Jul 21 16:55	11° Ω 27'26		desc. node	2138 Jun 19 15:05	21° S 14'12	
min. Earth dist.	2137 Jul 26 05:44	8° Ω 48'26	0.58294 AU	retrograde	2138 Jun 27 03:38	23° S 22'17	
inferior conj	2137 Jul 29 10:45	6° Ω 31'29	-4°-58'-50	evening set	2138 Jul 01 17:52	22° S 35'30	
minimum elong	2137 Jul 29 11:34	6° Ω 30'02	4°58'49	min. Earth dist.	2138 Jul 07 18:48	19° S 37'28	0.56487 AU
morning rise	2137 Aug 06 09:48	2° Ω 11'06		inferior conj	2138 Jul 10 07:47	18° S 02'45	-4°-44'-5
direct	2137 Aug 08 21:34	1° Ω 51'31		minimum elong	2138 Jul 10 03:12	18° S 09'56	4°43'33
morning max el	2137 Aug 17 06:27	5° Ω 49'39	18°45'25	morning rise	2138 Jul 18 16:05	14° S 02'25	
asc. node	2137 Aug 21 12:26	10° Ω 46'36		direct	2138 Jul 21 08:40	13° S 43'21	
	2137 Sep 01 15:20	0° M		morning max el	2138 Jul 31 02:16	18° S 14'26	19°43'28
morning set	2137 Sep 02 15:15	1° M 56'20		asc. node	2138 Aug 08 09:29	28° S 59'07	
superior conj	2137 Sep 11 07:03	18° M 43'18	1°38'57		2138 Aug 09 00:17	0° Ω	
minimum elong	2137 Sep 11 09:25	18° M 54'28	1°38'47	morning set	2138 Aug 17 17:44	16° Ω 23'53	
	2137 Sep 17 10:08	0° A			2138 Aug 24 11:14	0° M	
max. Earth dist.	2137 Sep 18 09:05	1° A 42'01	1.39389 AU	superior conj	2138 Aug 25 16:23	2° M 25'05	1°45'22
evening rise	2137 Sep 22 10:15	8° A 43'10		minimum elong	2138 Aug 25 16:53	2° M 27'34	1°45'21
desc. node	2137 Sep 28 17:26	19° A 05'39		max. Earth dist.	2138 Aug 31 13:31	13° M 45'33	1.37366 AU
	2137 Oct 05 18:48	0° M		evening rise	2138 Sep 04 09:24	20° M 45'58	
evening max el	2137 Oct 27 15:17	28° M 21'01	24°11'34		2138 Sep 09 17:03	0° A	
	2137 Oct 29 09:03	0° J		desc. node	2138 Sep 15 14:26	9° A 34'51	
retrograde	2137 Nov 07 18:24	4° J 52'36			2138 Sep 29 18:34	0° M	
evening set	2137 Nov 13 01:11	2° J 41'14		evening max el	2138 Oct 10 03:19	12° M 00'36	25°26'22
	2137 Nov 15 15:33	30° R M		retrograde	2138 Oct 22 05:25	18° M 57'43	
asc. node	2137 Nov 17 11:39	27° M 39'10		evening set	2138 Oct 28 02:40	16° M 30'45	
min. Earth dist.	2137 Nov 17 19:55	27° M 11'27	0.67642 AU	min. Earth dist.	2138 Nov 01 13:21	11° M 36'12	0.67106 AU
inferior conj	2137 Nov 18 12:30	26° M 15'32	0°21'20	inferior conj	2138 Nov 02 16:47	10° M 07'44	0°-34'-21
minimum elong	2137 Nov 18 11:59	26° M 17'16	0°21'07	minimum elong	2138 Nov 02 17:40	10° M 04'54	0°33'58
morning rise	2137 Nov 23 23:04	20° M 08'57		asc. node	2138 Nov 04 08:41	8° M 01'53	
direct	2137 Nov 27 18:50	18° M 45'37		morning rise	2138 Nov 08 09:22	4° M 09'07	
morning max el	2137 Dec 05 16:54	23° M 18'52	20°26'45	direct	2138 Nov 11 17:19	3° M 05'06	
	2137 Dec 11 09:41	0° J		morning max el	2138 Nov 18 21:06	7° M 06'49	19°23'42
greatest brilliancy	2137 Dec 12 00:09	0° J 47'23	-0.5m	greatest brilliancy	2138 Nov 28 01:00	18° M 50'22	-0.7m
desc. node	2137 Dec 25 16:42	20° J 28'58			2138 Dec 05 11:39	0° J	
	2137 Dec 31 22:40	0° S		morning set	2138 Dec 12 21:18	11° J 25'02	
morning set	2138 Jan 02 21:58	3° S 02'37		desc. node	2138 Dec 12 13:43	10° J 55'39	
max. Earth dist.	2138 Jan 12 15:37	18° S 24'29	1.43414 AU		2138 Dec 24 18:57	0° S	
superior conj	2138 Jan 18 21:31	28° S 37'07	-2°-1'-13	max. Earth dist.	2138 Dec 26 05:43	2° S 17'13	1.44622 AU
minimum elong	2138 Jan 18 17:48	28° S 21'42	2°01'06	superior conj	2138 Dec 29 17:02	7° S 48'01	-1°-39'-34
	2138 Jan 19 17:27	0° \approx		minimum elong	2138 Dec 29 08:38	7° S 14'29	1°38'51
evening rise	2138 Jan 31 08:35	19° \approx 56'52			2139 Jan 12 07:54	0° \approx	
	2138 Feb 06 02:50	0° X		evening rise	2139 Jan 13 00:40	1° \approx 09'45	
asc. node	2138 Feb 13 10:56	11° X 46'46		asc. node	2139 Jan 31 07:58	29° \approx 23'08	
evening max el	2138 Feb 17 16:41	16° X 58'15	18°08'25		2139 Jan 31 21:37	0° X	
retrograde	2138 Feb 24 04:26	20° X 21'53		evening max el	2139 Feb 01 05:07	0° X 19'19	18°24'16

retrograde	2139 Feb 07 17:09	3° X 51'56		2140 Jan 05 11:20	0° \approx	
evening set	2139 Feb 10 16:27	3° X 03'34		evening max el	2140 Jan 15 15:22	13° \approx 45'42 18°58'02
	2139 Feb 14 10:44	30° R \approx		asc. node	2140 Jan 18 05:00	16° \approx 01'13
inferior conj	2139 Feb 16 15:34	27° \approx 33'28 3°41'10		retrograde	2140 Jan 22 11:43	17° \approx 38'10
minimum elong	2139 Feb 16 14:42	27° \approx 35'57 3°41'08		evening set	2140 Jan 25 17:07	16° \approx 38'00
min. Earth dist.	2139 Feb 18 21:30	24° \approx 58'18 0.64156 AU		inferior conj	2140 Jan 31 09:40	10° \approx 50'46 3°26'15
morning rise	2139 Feb 22 11:25	21° \approx 25'32		minimum elong	2140 Jan 31 07:39	10° \approx 57'07 3°25'56
direct	2139 Mar 01 07:53	18° \approx 37'32		min. Earth dist.	2140 Feb 02 00:14	8° \approx 50'07 0.65662 AU
desc. node	2139 Mar 10 12:53	22° \approx 33'01		morning rise	2140 Feb 05 21:10	4° \approx 38'02
morning max el	2139 Mar 14 23:20	26° \approx 30'35 27°30'16		direct	2140 Feb 12 09:20	1° \approx 48'27
	2139 Mar 18 05:37	0° X		desc. node	2140 Feb 25 09:55	9° \approx 29'52
	2139 Apr 08 02:40	0° Y		morning max el	2140 Feb 25 09:14	9° \approx 28'08 26°39'27
morning set	2139 Apr 18 23:54	19° Y 57'31			2140 Mar 12 13:04	0° X
	2139 Apr 23 22:45	0° X			2140 Mar 30 13:41	0° Y
max. Earth dist.	2139 Apr 23 23:20	0° X 03'06 1.33349 AU		morning set	2140 Apr 01 07:22	3° Y 15'32
				max. Earth dist.	2140 Apr 05 14:12	11° Y 35'05 1.34583 AU
superior conj	2139 Apr 26 23:59	6° X 25'53 0°-24'-1				
minimum elong	2139 Apr 27 01:11	6° X 32'16 0°23'47		superior conj	2140 Apr 09 23:54	20° Y 31'49 0°-52'-5
asc. node	2139 Apr 29 07:16	11° X 21'32		minimum elong	2140 Apr 10 02:33	20° Y 45'30 0°51'35
evening rise	2139 May 04 05:11	21° X 51'13			2140 Apr 14 12:39	0° X
	2139 May 08 04:30	0° II		asc. node	2140 Apr 15 04:17	1° X 22'03
evening max el	2139 May 25 22:42	26° II 53'17 22°32'44		evening rise	2140 Apr 17 14:29	6° X 25'50
	2139 May 29 15:17	0° X			2140 Apr 30 13:26	0° II
desc. node	2139 Jun 06 12:05	3° X 18'07		evening max el	2140 May 06 21:09	7° II 40'08 21°03'29
retrograde	2139 Jun 08 01:17	3° X 23'37		retrograde	2140 May 18 14:54	13° II 23'35
evening set	2139 Jun 11 04:46	3° X 01'50		evening set	2140 May 20 20:19	13° II 11'58
	2139 Jun 18 09:34	30° R II		desc. node	2140 May 23 09:06	12° II 32'38
min. Earth dist.	2139 Jun 19 06:11	29° II 31'05 0.55264 AU		inferior conj	2140 May 30 04:23	9° II 13'50 -1°-57'-44
inferior conj	2139 Jun 20 10:33	28° II 50'46 -3°-42'-16		minimum elong	2140 May 29 22:54	9° II 21'35 1°55'49
minimum elong	2139 Jun 20 02:37	29° II 02'04 3°40'15		min. Earth dist.	2140 May 30 18:30	8° II 53'52 0.54907 AU
morning rise	2139 Jun 29 02:57	24° II 59'27		morning rise	2140 Jun 08 01:06	5° II 12'23
direct	2139 Jul 02 01:55	24° II 39'28		direct	2140 Jun 11 11:22	4° II 46'59
morning max el	2139 Jul 13 10:44	29° II 56'16 21°02'17		morning max el	2140 Jun 24 08:39	10° II 56'05 22°37'31
	2139 Jul 13 12:20	0° X			2140 Jul 08 07:27	0° X
asc. node	2139 Jul 26 06:31	17° X 50'02		asc. node	2140 Jul 12 03:33	7° X 09'44
	2139 Aug 01 12:16	0° X		morning set	2140 Jul 16 11:48	15° X 59'04
morning set	2139 Aug 02 01:15	1° X 06'44			2140 Jul 23 01:46	0° X
superior conj	2139 Aug 09 12:34	16° X 39'38 1°43'46		superior conj	2140 Jul 23 16:09	1° X 16'25 1°35'40
minimum elong	2139 Aug 09 11:34	16° X 34'31 1°43'44		minimum elong	2140 Jul 23 14:11	1° X 06'01 1°35'30
max. Earth dist.	2139 Aug 13 22:43	25° X 36'10 1.35561 AU		max. Earth dist.	2140 Jul 26 16:37	7° X 37'10 1.34114 AU
	2139 Aug 16 04:47	0° X		evening rise	2140 Jul 31 13:13	17° X 26'07
evening rise	2139 Aug 18 03:55	3° X 44'20			2140 Aug 07 06:21	0° X
desc. node	2139 Sep 02 11:26	29° X 47'56		desc. node	2140 Aug 19 08:26	19° X 37'44
	2139 Sep 02 14:35	0° X			2140 Aug 26 22:49	0° X
evening max el	2139 Sep 22 15:20	25° X 38'56 26°28'36		evening max el	2140 Sep 04 03:28	9° X 08'23 27°10'50
	2139 Sep 27 20:27	0° X		retrograde	2140 Sep 17 12:10	16° X 26'57
retrograde	2139 Oct 05 11:28	2° X 51'38		evening set	2140 Sep 24 10:18	13° X 44'11
evening set	2139 Oct 11 22:29	0° X 13'03		min. Earth dist.	2140 Sep 28 06:42	10° X 02'40 0.64984 AU
	2139 Oct 12 04:40	30° R X		inferior conj	2140 Sep 30 10:00	7° X 39'55 -2°-31'-3
min. Earth dist.	2139 Oct 16 01:40	25° X 55'07 0.66224 AU		minimum elong	2140 Sep 30 14:02	7° X 28'41 2°29'35
inferior conj	2139 Oct 17 16:40	23° X 57'11 -1°-32'-28		morning rise	2140 Oct 06 19:36	2° X 05'47
minimum elong	2139 Oct 17 19:08	23° X 49'44 1°31'28		asc. node	2140 Oct 08 02:46	1° X 38'33
asc. node	2139 Oct 22 05:44	19° X 08'47		direct	2140 Oct 09 10:39	1° X 29'07
morning rise	2139 Oct 23 17:01	18° X 09'17		morning max el	2140 Oct 15 22:50	4° X 58'23 18°05'21
direct	2139 Oct 26 15:17	17° X 20'54			2140 Nov 01 17:14	0° X
morning max el	2139 Nov 02 07:53	21° X 01'48 18°36'12		morning set	2140 Nov 02 21:52	1° X 59'02
	2139 Nov 09 08:49	0° X		desc. node	2140 Nov 15 07:46	22° X 16'43
morning set	2139 Nov 22 18:53	20° X 58'10				
	2139 Nov 28 11:18	0° X		superior conj	2140 Nov 17 01:58	25° X 05'15 0°-11'-49
desc. node	2139 Nov 29 10:44	1° X 32'41		minimum elong	2140 Nov 17 00:29	24° X 59'21 0°11'38
				behind sun begin	2140 Nov 16 16:56	24° X 29'13
superior conj	2139 Dec 08 19:42	16° X 17'56 -1°00'-6		behind sun end	2140 Nov 17 08:03	25° X 29'27
minimum elong	2139 Dec 08 12:17	15° X 48'48 0°59'12			2140 Nov 20 04:19	0° X
max. Earth dist.	2139 Dec 08 23:40	16° X 33'30 1.45140 AU		max. Earth dist.	2140 Nov 20 18:29	0° X 55'55 1.44921 AU
	2139 Dec 17 12:45	0° X		evening rise	2140 Dec 03 12:56	20° X 50'31
evening rise	2139 Dec 24 17:25	11° X 24'33			2140 Dec 09 11:27	0° X

greatest brilliancy	2140 Dec 21 11:09	17°☿55'06	-0.6m	max. Earth dist.	2141 Nov 03 11:38	15°♍07'40	1.43996 AU
evening max el	2140 Dec 28 21:37	27°☿15'15	19°48'03	evening rise	2141 Nov 12 21:33	29°♍54'41	
	2141 Jan 01 01:00	0°♊			2141 Nov 12 22:56	0°♊	
asc. node	2141 Jan 04 02:02	1°♊27'04			2141 Dec 03 05:34	0°☿	
retrograde	2141 Jan 05 09:04	1°♊36'18		greatest brilliancy	2141 Dec 06 09:48	4°☿15'07	-0.5m
evening set	2141 Jan 08 22:06	0°♊22'52		evening max el	2141 Dec 11 22:34	10°☿46'02	20°51'58
	2141 Jan 09 10:28	30°♋☿		retrograde	2141 Dec 20 06:52	15°☿42'18	
inferior conj	2141 Jan 14 10:29	24°☿21'10	2°59'33	asc. node	2141 Dec 21 23:05	15°☿26'39	
minimum elong	2141 Jan 14 07:56	24°☿29'40	2°58'56	evening set	2141 Dec 24 05:22	14°☿13'56	
min. Earth dist.	2141 Jan 15 10:49	23°☿00'30	0.66772 AU	inferior conj	2141 Dec 29 15:30	8°☿00'44	2°23'45
morning rise	2141 Jan 19 17:05	18°☿06'13		minimum elong	2141 Dec 29 12:57	8°☿09'29	2°22'56
direct	2141 Jan 25 16:43	15°☿26'59		min. Earth dist.	2141 Dec 30 03:04	7°☿21'04	0.67481 AU
morning max el	2141 Feb 06 18:11	22°☿38'20	25°25'59	morning rise	2142 Jan 03 20:07	1°☿45'35	
desc. node	2141 Feb 11 06:59	27°☿37'47			2142 Jan 06 11:33	30°♋♊	
	2141 Feb 13 05:58	0°♊		direct	2142 Jan 09 05:04	29°♊24'49	
	2141 Mar 05 20:34	0°♋			2142 Jan 12 03:09	0°☿	
morning set	2141 Mar 14 23:06	15°♋42'45		morning max el	2142 Jan 20 02:31	5°☿54'30	24°00'10
max. Earth dist.	2141 Mar 18 17:14	22°♋39'14	1.36269 AU	desc. node	2142 Jan 29 04:03	16°☿36'05	
	2141 Mar 22 13:01	0°♌			2142 Feb 07 18:09	0°♊	
				morning set	2142 Feb 24 17:14	27°♊03'15	
superior conj	2141 Mar 24 15:09	4°♌07'23	-1°-19'-5		2142 Feb 26 09:59	0°♋	
minimum elong	2141 Mar 24 19:01	4°♌26'38	1°18'30	max. Earth dist.	2142 Feb 28 13:02	3°♋45'22	1.38305 AU
evening rise	2141 Apr 01 19:29	20°♌41'54					
asc. node	2141 Apr 02 01:20	21°♌11'29		superior conj	2142 Mar 07 18:13	17°♋03'35	-1°-42'-40
	2141 Apr 06 12:33	0°♌		minimum elong	2142 Mar 07 22:32	17°♋24'06	1°42'13
evening max el	2141 Apr 19 07:18	19°♌04'06	19°50'01		2142 Mar 14 10:12	0°♌	
retrograde	2141 Apr 29 07:14	23°♌53'55		evening rise	2142 Mar 16 17:42	4°♌32'49	
evening set	2141 May 01 07:40	23°♌42'59		asc. node	2142 Mar 19 22:23	10°♌45'05	
inferior conj	2141 May 10 03:38	19°♌41'54	0°01'50		2142 Apr 01 02:16	0°♌	
minimum elong	2141 May 10 03:43	19°♌41'47	0°01'48	evening max el	2142 Apr 02 04:31	1°♌07'25	18°55'53
transit middle	2141 May 10 03:43	19°♌41'47	0°01'48	retrograde	2142 Apr 10 14:38	5°♌12'57	
transit begin	2141 May 09 23:47	19°♌47'50		evening set	2142 Apr 12 18:52	4°♌57'40	
transit end	2141 May 10 07:39	19°♌35'43		inferior conj	2142 Apr 20 20:04	0°♌40'47	1°43'57
desc. node	2141 May 10 06:09	19°♌38'02		minimum elong	2142 Apr 20 23:38	0°♌34'25	1°42'49
min. Earth dist.	2141 May 12 08:18	18°♌21'07	0.55519 AU		2142 Apr 21 18:54	30°♋♌	
morning rise	2141 May 18 20:34	15°♌12'51		min. Earth dist.	2142 Apr 24 00:12	28°♌26'26	0.56964 AU
direct	2141 May 23 02:57	14°♌32'37		desc. node	2142 Apr 27 03:12	26°♌31'06	
morning max el	2141 Jun 05 23:56	21°♌27'11	24°19'42	morning rise	2142 Apr 29 00:07	25°♌37'35	
	2141 Jun 13 10:01	0°♍		direct	2142 May 04 07:28	24°♌30'24	
asc. node	2141 Jun 29 00:35	26°♍50'24			2142 May 16 11:43	0°♌	
morning set	2141 Jun 30 23:36	0°♍55'11		morning max el	2142 May 18 14:44	1°♌55'50	25°54'31
	2141 Jun 30 13:07	0°♍			2142 Jun 07 10:50	0°♍	
				morning set	2142 Jun 15 11:05	15°♍50'04	
superior conj	2141 Jul 08 00:28	16°♍06'40	1°22'15	asc. node	2142 Jun 15 21:39	16°♍45'54	
minimum elong	2141 Jul 07 22:06	15°♍53'46	1°21'56		2142 Jun 21 23:54	0°♍	
max. Earth dist.	2141 Jul 09 19:34	19°♍59'25	1.33074 AU				
	2141 Jul 14 13:46	0°♎		superior conj	2142 Jun 22 11:29	1°♍03'34	1°04'27
evening rise	2141 Jul 15 09:15	1°♎39'15		minimum elong	2142 Jun 22 09:11	0°♍50'57	1°04'04
	2141 Jul 31 04:09	0°♎		max. Earth dist.	2142 Jun 23 05:03	2°♍39'58	1.32432 AU
desc. node	2141 Aug 06 05:28	8°♎53'49		evening rise	2142 Jun 29 12:45	16°♍13'51	
evening max el	2141 Aug 17 14:18	22°♎16'35	27°26'07		2142 Jul 06 12:24	0°♎	
retrograde	2141 Aug 31 06:35	29°♎34'00		desc. node	2142 Jul 24 02:29	27°♎22'15	
evening set	2141 Sep 07 10:58	26°♎57'29			2142 Jul 26 07:06	0°♎	
min. Earth dist.	2141 Sep 11 02:23	23°♎49'02	0.63403 AU	evening max el	2142 Jul 30 21:11	4°♎50'04	27°09'26
inferior conj	2141 Sep 13 18:10	21°♎09'08	-3°-27'-14	retrograde	2142 Aug 13 17:52	12°♎04'06	
minimum elong	2141 Sep 13 23:20	20°♎56'06	3°25'41	evening set	2142 Aug 20 20:32	9°♎46'27	
morning rise	2141 Sep 20 14:06	15°♎52'03		min. Earth dist.	2142 Aug 24 11:26	7°♎02'19	0.61527 AU
direct	2141 Sep 23 00:36	15°♎23'27		inferior conj	2142 Aug 27 13:58	4°♎17'13	-4°-16'-16
asc. node	2141 Sep 24 23:49	15°♎42'27		minimum elong	2142 Aug 27 19:12	4°♎05'36	4°15'10
morning max el	2141 Sep 29 15:04	18°♎49'12	17°51'58		2142 Sep 02 07:23	30°♋♎	
	2141 Oct 07 18:58	0°♏		morning rise	2142 Sep 03 20:46	29°♏20'43	
morning set	2141 Oct 16 02:10	14°♏12'54		direct	2142 Sep 06 05:39	28°♏57'15	
	2141 Oct 25 06:30	0°♏			2142 Sep 10 00:49	0°♎	
				asc. node	2142 Sep 11 20:53	1°♎14'38	
superior conj	2141 Oct 28 05:40	4°♏57'03	0°33'21	morning max el	2142 Sep 13 05:36	2°♎27'28	17°57'01
minimum elong	2141 Oct 28 08:59	5°♏10'46	0°32'54	morning set	2142 Sep 29 01:28	27°♎21'01	
desc. node	2141 Nov 02 04:48	13°♏03'44			2142 Sep 30 12:14	0°♏	

superior conj	2142 Oct 09 12:31	16°♄08'42	1°08'08	minimum elong	2143 Sep 21 22:45	28°♄47'01	1°30'36
minimum elong	2142 Oct 09 17:03	16°♄28'25	1°07'36		2143 Sep 22 14:42	0°♄	
max. Earth dist.	2142 Oct 17 00:32	28°♄51'29	1.42482 AU	max. Earth dist.	2143 Sep 29 07:50	11°♄53'38	1.40566 AU
	2142 Oct 17 17:12	0°♄		evening rise	2143 Oct 03 21:57	19°♄37'08	
desc. node	2142 Oct 20 01:49	3°♄50'29		desc. node	2143 Oct 06 22:50	24°♄33'44	
evening rise	2142 Oct 23 12:01	9°♄18'37			2143 Oct 10 09:12	0°♄	
	2142 Nov 06 03:13	0°♄			2143 Oct 31 11:12	0°♄	
greatest brilliancy	2142 Nov 20 00:41	18°♄57'49	-0.3m	evening max el	2143 Nov 07 08:44	7°♄51'26	23°25'46
evening max el	2142 Nov 24 17:56	24°♄17'35	22°06'11	retrograde	2143 Nov 17 21:01	14°♄04'40	
retrograde	2142 Dec 04 03:19	29°♄52'49		evening set	2143 Nov 22 19:47	12°♄02'48	
evening set	2142 Dec 08 13:09	28°♄08'02		asc. node	2143 Nov 25 17:11	8°♄59'41	
asc. node	2142 Dec 08 20:09	27°♄53'30		inferior conj	2143 Nov 28 06:03	5°♄37'15	0°51'41
inferior conj	2142 Dec 13 22:38	21°♄46'42	1°40'39	minimum elong	2143 Nov 28 04:52	5°♄41'19	0°51'12
minimum elong	2142 Dec 13 20:34	21°♄53'53	1°39'52	min. Earth dist.	2143 Nov 27 19:26	6°♄13'41	0.67796 AU
min. Earth dist.	2142 Dec 13 22:43	21°♄46'26	0.67813 AU		2143 Dec 02 22:30	30°♄	
morning rise	2142 Dec 19 03:49	15°♄33'14		morning rise	2143 Dec 03 14:04	29°♄27'29	
direct	2142 Dec 23 21:33	13°♄34'55		direct	2143 Dec 07 17:20	27°♄52'02	
morning max el	2143 Jan 02 13:02	19°♄16'44	22°31'53		2143 Dec 13 00:44	0°♄	
greatest brilliancy	2143 Jan 07 02:38	24°♄22'42	-0.3m	morning max el	2143 Dec 16 05:11	2°♄48'24	21°09'19
	2143 Jan 11 12:46	0°♄		greatest brilliancy	2143 Dec 21 13:25	8°♄57'12	-0.5m
desc. node	2143 Jan 16 01:05	6°♄10'13		desc. node	2144 Jan 02 22:06	26°♄10'12	
	2143 Jan 31 22:50	0°♄			2144 Jan 05 12:00	0°♄	
morning set	2143 Feb 05 07:49	7°♄02'21		morning set	2144 Jan 15 18:19	15°♄43'45	
max. Earth dist.	2143 Feb 10 09:26	15°♄28'59	1.40463 AU	max. Earth dist.	2144 Jan 23 11:52	28°♄06'40	1.42448 AU
					2144 Jan 24 15:29	0°♄	
superior conj	2143 Feb 18 04:31	29°♄08'17	-1°-59'-29				
minimum elong	2143 Feb 18 07:38	29°♄22'24	1°59'21	superior conj	2144 Jan 30 16:47	10°♄09'31	-2°-5'-5
	2143 Feb 18 15:57	0°♄		minimum elong	2144 Jan 30 16:13	10°♄07'04	2°05'06
evening rise	2143 Feb 28 05:58	17°♄50'16			2144 Feb 10 22:45	0°♄	
asc. node	2143 Mar 06 19:26	29°♄56'30		evening rise	2144 Feb 11 04:28	0°♄25'49	
	2143 Mar 06 20:14	0°♄		asc. node	2144 Feb 21 16:29	18°♄38'44	
evening max el	2143 Mar 16 09:58	13°♄42'53	18°21'50	evening max el	2144 Feb 27 20:31	26°♄42'32	18°07'43
retrograde	2143 Mar 23 17:14	17°♄20'05			2144 Mar 04 06:55	0°♄	
evening set	2143 Mar 26 03:01	16°♄57'30		retrograde	2144 Mar 05 12:30	0°♄07'11	
inferior conj	2143 Apr 02 09:47	12°♄19'56	2°53'19		2144 Mar 06 18:17	30°♄	
minimum elong	2143 Apr 02 13:30	12°♄12'11	2°52'29	evening set	2144 Mar 08 03:34	29°♄35'30	
min. Earth dist.	2143 Apr 05 20:19	9°♄29'27	0.58938 AU	inferior conj	2144 Mar 14 19:13	24°♄36'51	3°30'43
morning rise	2143 Apr 09 20:02	6°♄47'19		minimum elong	2144 Mar 14 21:15	24°♄31'56	3°30'30
desc. node	2143 Apr 14 00:15	5°♄15'42		min. Earth dist.	2144 Mar 17 23:26	21°♄34'36	0.61091 AU
direct	2143 Apr 16 01:17	5°♄04'36		morning rise	2144 Mar 21 11:57	18°♄44'35	
morning max el	2143 Apr 30 10:11	12°♄48'43	27°06'34	direct	2144 Mar 28 06:42	16°♄27'21	
	2143 May 13 23:41	0°♄		desc. node	2144 Mar 30 21:18	16°♄46'21	
morning set	2143 May 30 20:30	0°♄36'54		morning max el	2144 Apr 11 12:02	24°♄21'35	27°44'46
	2143 May 30 13:25	0°♄			2144 Apr 16 14:59	0°♄	
asc. node	2143 Jun 02 18:42	6°♄50'06			2144 May 06 06:46	0°♄	
				morning set	2144 May 14 02:00	15°♄09'43	
superior conj	2143 Jun 06 23:16	15°♄59'51	0°43'00	asc. node	2144 May 19 15:44	26°♄58'44	
minimum elong	2143 Jun 06 21:30	15°♄50'08	0°42'38	max. Earth dist.	2144 May 20 04:19	28°♄07'09	1.32302 AU
max. Earth dist.	2143 Jun 06 17:15	15°♄26'42	1.32172 AU				
	2143 Jun 13 09:41	0°♄		superior conj	2144 May 21 10:10	0°♄50'07	0°18'35
evening rise	2143 Jun 13 21:05	1°♄00'18		minimum elong	2144 May 21 09:19	0°♄45'31	0°18'23
	2143 Jun 29 16:00	0°♄			2144 May 21 01:00	0°♄	
desc. node	2143 Jul 10 23:30	14°♄42'30		evening rise	2144 May 28 08:06	15°♄51'48	
evening max el	2143 Jul 12 21:25	16°♄37'20	26°19'44		2144 Jun 04 08:58	0°♄	
retrograde	2143 Jul 26 21:01	23°♄48'46		evening max el	2144 Jun 23 14:34	27°♄38'38	25°01'59
evening set	2143 Aug 02 10:14	22°♄02'35			2144 Jun 26 06:42	0°♄	
min. Earth dist.	2143 Aug 06 10:21	19°♄27'24	0.59468 AU	desc. node	2144 Jun 26 20:32	0°♄27'09	
inferior conj	2143 Aug 09 17:50	16°♄54'09	-4°-50'-25	retrograde	2144 Jul 07 14:13	4°♄44'43	
minimum elong	2143 Aug 09 21:01	16°♄47'58	4°50'07	evening set	2144 Jul 13 00:19	3°♄37'20	
morning rise	2143 Aug 17 11:14	12°♄20'54		min. Earth dist.	2144 Jul 18 02:08	0°♄52'01	0.57470 AU
direct	2143 Aug 19 21:15	12°♄00'23			2144 Jul 19 09:34	30°♄	
morning max el	2143 Aug 27 15:20	15°♄44'47	18°21'51	inferior conj	2144 Jul 21 02:30	28°♄50'46	-4°-57'-45
asc. node	2143 Aug 29 17:56	18°♄00'41		minimum elong	2144 Jul 21 01:06	28°♄53'07	4°57'43
	2143 Sep 06 14:50	0°♄		morning rise	2144 Jul 29 05:39	24°♄39'59	
morning set	2143 Sep 12 14:22	11°♄08'09		direct	2144 Jul 31 19:06	24°♄20'53	
				morning max el	2144 Aug 09 17:03	28°♄31'28	19°07'35
superior conj	2143 Sep 21 19:20	28°♄31'20	1°30'54		2144 Aug 11 04:03	0°♄	

asc. node	2144 Aug 15 14:58	5°♌45'23		inferior conj	2145 Jul 01 15:14	10°♍03'06	-4°-23'-58
morning set	2144 Aug 26 12:46	25°♌22'58		minimum elong	2145 Jul 01 08:40	10°♍12'55	4°22'48
	2144 Aug 28 20:32	0°♍		morning rise	2145 Jul 10 03:07	6°♍08'06	
				direct	2145 Jul 12 21:58	5°♍48'58	
superior conj	2144 Sep 03 20:29	11°♍48'20	1°42'45	morning max el	2145 Jul 23 08:10	10°♍38'49	20°14'38
minimum elong	2144 Sep 03 22:02	11°♍55'50	1°42'41	asc. node	2145 Aug 02 12:00	24°♍15'41	
max. Earth dist.	2144 Sep 10 11:27	24°♍12'33	1.38506 AU		2145 Aug 05 16:26	0°♌	
	2144 Sep 13 17:34	0°♌		morning set	2145 Aug 10 17:42	9°♌57'56	
evening rise	2144 Sep 14 08:00	1°♌02'52					
desc. node	2144 Sep 22 19:49	15°♌09'17		superior conj	2145 Aug 18 10:56	25°♌45'36	1°45'34
	2144 Oct 02 15:52	0°♍		minimum elong	2145 Aug 18 10:44	25°♌44'38	1°45'34
evening max el	2144 Oct 19 21:06	21°♍28'53	24°44'28		2145 Aug 20 13:49	0°♍	
retrograde	2144 Oct 31 10:49	28°♍13'22		max. Earth dist.	2145 Aug 23 17:06	6°♍06'53	1.36558 AU
evening set	2144 Nov 05 23:39	25°♍55'02		evening rise	2145 Aug 27 16:02	13°♍31'28	
min. Earth dist.	2144 Nov 10 14:49	20°♍39'52	0.67449 AU		2145 Sep 06 05:12	0°♌	
inferior conj	2144 Nov 11 11:59	19°♍29'39	0°-1'-54	desc. node	2145 Sep 09 16:51	5°♌32'38	
minimum elong	2144 Nov 11 12:02	19°♍29'29	0°01'53		2145 Sep 27 13:11	0°♍	
transit middle	2144 Nov 11 12:02	19°♍29'29	0°01'53	evening max el	2145 Oct 02 09:12	5°♍09'32	25°54'53
transit begin	2144 Nov 11 09:18	19°♍38'35		retrograde	2145 Oct 14 19:51	12°♍14'34	
transit end	2144 Nov 11 14:46	19°♍20'25		evening set	2145 Oct 20 23:00	9°♍42'19	
asc. node	2144 Nov 11 14:12	19°♍22'16		min. Earth dist.	2145 Oct 25 06:31	5°♍02'55	0.66772 AU
morning rise	2144 Nov 17 00:53	13°♍25'59		inferior conj	2145 Oct 26 14:40	3°♍21'42	0°-58'-45
direct	2144 Nov 20 15:17	12°♍11'23		minimum elong	2145 Oct 26 16:13	3°♍16'51	0°58'07
morning max el	2144 Nov 28 04:53	16°♍30'23	19°58'05	asc. node	2145 Oct 29 11:13	29°♌58'04	
greatest brilliancy	2144 Dec 05 11:16	25°♍22'14	-0.6m		2145 Oct 29 10:29	30°♌	
	2144 Dec 08 18:17	0°♌		morning rise	2145 Nov 01 10:20	27°♌26'57	
desc. node	2144 Dec 19 19:06	16°♌28'22		direct	2145 Nov 04 13:54	26°♌29'58	
morning set	2144 Dec 24 14:16	23°♌50'33			2145 Nov 11 03:15	0°♍	
	2144 Dec 28 13:30	0°♍		morning max el	2145 Nov 11 12:03	0°♍21'45	19°01'27
max. Earth dist.	2145 Jan 04 21:31	11°♍33'38	1.44004 AU		2145 Dec 02 04:44	0°♌	
				morning set	2145 Dec 03 21:10	2°♌38'05	
superior conj	2145 Jan 10 02:55	19°♍58'47	-1°-54'-26	desc. node	2145 Dec 06 16:08	6°♌59'58	
minimum elong	2145 Jan 09 20:51	19°♍34'04	1°54'04	max. Earth dist.	2145 Dec 18 13:26	25°♌37'58	1.44940 AU
	2145 Jan 16 04:38	0°♍					
evening rise	2145 Jan 23 08:46	12°♍10'00		superior conj	2145 Dec 20 13:27	28°♌47'12	-1°-24'-39
	2145 Feb 02 23:01	0°♌		minimum elong	2145 Dec 20 04:34	28°♌12'11	1°23'45
asc. node	2145 Feb 07 13:31	6°♌42'02			2145 Dec 21 07:53	0°♍	
evening max el	2145 Feb 10 09:04	9°♌57'34	18°12'56	evening rise	2146 Jan 04 15:03	22°♍57'46	
retrograde	2145 Feb 16 19:58	13°♌23'32			2146 Jan 08 22:23	0°♍	
evening set	2145 Feb 19 16:10	12°♌41'35		evening max el	2146 Jan 24 20:56	23°♍21'43	18°36'34
inferior conj	2145 Feb 25 20:22	7°♌22'42	3°42'55	asc. node	2146 Jan 25 10:32	23°♍55'17	
minimum elong	2145 Feb 25 20:27	7°♌22'29	3°42'56	retrograde	2146 Jan 31 11:27	27°♍01'09	
min. Earth dist.	2145 Feb 28 11:19	4°♌32'21	0.63125 AU	evening set	2146 Feb 03 13:17	26°♍07'49	
morning rise	2145 Mar 03 22:45	1°♌19'06		inferior conj	2146 Feb 09 09:18	20°♍30'18	3°36'27
	2145 Mar 05 22:05	30°♌		minimum elong	2146 Feb 09 07:52	20°♍34'36	3°36'18
direct	2145 Mar 10 21:15	28°♍37'53		min. Earth dist.	2146 Feb 11 08:40	18°♍08'47	0.64854 AU
	2145 Mar 16 05:15	0°♌		morning rise	2146 Feb 15 01:12	14°♍20'14	
desc. node	2145 Mar 17 18:19	0°♌50'37		direct	2146 Feb 21 18:58	11°♍29'46	
morning max el	2145 Mar 24 18:51	6°♌34'02	27°45'39	desc. node	2146 Mar 04 15:21	16°♍54'17	
	2145 Apr 11 15:26	0°♌		morning max el	2146 Mar 07 04:13	19°♍18'06	27°11'54
morning set	2145 Apr 28 01:22	29°♌21'10			2146 Mar 16 06:57	0°♌	
	2145 Apr 28 09:05	0°♌			2146 Apr 04 15:15	0°♌	
max. Earth dist.	2145 May 03 10:21	10°♌28'19	1.32838 AU	morning set	2146 Apr 11 15:41	13°♌01'46	
				max. Earth dist.	2146 Apr 16 07:40	22°♌19'54	1.33817 AU
superior conj	2145 May 05 18:26	15°♌28'41	0°-8'-3				
minimum elong	2145 May 05 18:50	15°♌30'47	0°07'59	superior conj	2146 Apr 19 22:05	29°♌48'43	0°-35'-56
behind sun begin	2145 May 05 14:15	15°♌06'06		minimum elong	2146 Apr 19 23:54	29°♌58'16	0°35'34
behind sun end	2145 May 05 23:24	15°♌55'29			2146 Apr 20 00:14	0°♌	
asc. node	2145 May 06 12:47	17°♌07'47		asc. node	2146 Apr 23 09:50	7°♌12'44	
	2145 May 12 12:00	0°♌		evening rise	2146 Apr 27 06:45	15°♌24'34	
evening rise	2145 May 12 19:57	0°♌42'07			2146 May 04 15:53	0°♌	
	2145 May 29 05:02	0°♍		evening max el	2146 May 17 21:43	18°♌45'00	21°53'20
evening max el	2145 Jun 05 04:21	8°♍11'37	23°28'10	retrograde	2146 May 30 11:45	24°♌56'36	
desc. node	2145 Jun 13 17:32	14°♍01'53		desc. node	2146 May 31 14:34	24°♌53'46	
retrograde	2145 Jun 18 19:00	15°♍00'05		evening set	2146 Jun 02 03:52	24°♌40'40	
evening set	2145 Jun 22 17:26	14°♍26'08		min. Earth dist.	2146 Jun 11 02:02	20°♌52'10	0.54996 AU
min. Earth dist.	2145 Jun 29 14:31	11°♍15'30	0.55869 AU	inferior conj	2146 Jun 11 12:40	20°♌37'17	-3°-2'00

minimum elong	2146 Jun 11 05:03	20°II47'57	2°59'42	minimum elong	2147 May 22 03:50	1°II02'55	1°05'33
morning rise	2146 Jun 20 07:36	16°II44'10		min. Earth dist.	2147 May 23 14:35	0°II12'35	0.55055 AU
direct	2146 Jun 23 10:47	16°II22'29			2147 May 23 23:21	30°R8	
morning max el	2146 Jul 05 11:45	22°II01'22	21°41'12	morning rise	2147 May 31 03:22	26°847'17	
	2146 Jul 12 07:28	0°☿		direct	2147 Jun 03 21:10	26°817'07	
asc. node	2146 Jul 20 09:02	13°☿19'53			2147 Jun 13 22:23	0°II	
morning set	2146 Jul 26 02:45	24°☿45'30		morning max el	2147 Jun 17 06:10	2°II46'12	23°20'57
	2146 Jul 28 14:46	0°♁			2147 Jul 05 19:45	0°☿	
				asc. node	2147 Jul 07 06:08	2°☿49'27	
superior conj	2146 Aug 02 10:37	10°♁10'23	1°41'02	morning set	2147 Jul 10 14:04	9°☿40'08	
minimum elong	2146 Aug 02 09:09	10°♁02'42	1°40'58				
max. Earth dist.	2146 Aug 06 06:04	18°♁00'57	1.34901 AU	superior conj	2147 Jul 17 16:31	24°☿53'34	1°30'34
evening rise	2146 Aug 10 17:25	26°♁49'43		minimum elong	2147 Jul 17 14:19	24°☿41'46	1°30'20
	2146 Aug 12 09:35	0°♊		max. Earth dist.	2147 Jul 20 04:11	0°♁11'13	1.33623 AU
desc. node	2146 Aug 27 13:54	25°♊36'48			2147 Jul 20 02:04	0°♁	
	2146 Aug 30 13:27	0°♊		evening rise	2147 Jul 25 07:43	10°♁45'40	
evening max el	2146 Sep 14 21:37	18°♊45'54	26°49'28		2147 Aug 04 17:45	0°♊	
retrograde	2146 Sep 27 23:30	26°♊01'12		desc. node	2147 Aug 14 10:55	15°♊13'26	
evening set	2146 Oct 04 15:42	23°♊20'00			2147 Aug 26 06:29	0°♊	
min. Earth dist.	2146 Oct 08 16:01	19°♊17'38	0.65744 AU	evening max el	2147 Aug 28 09:20	2°♊07'05	27°20'53
inferior conj	2146 Oct 10 12:04	17°♊08'47	-1°-57'-21	retrograde	2147 Sep 10 21:23	9°♊25'23	
minimum elong	2146 Oct 10 15:14	16°♊59'33	1°56'07	evening set	2147 Sep 17 23:10	6°♊43'36	
asc. node	2146 Oct 16 08:15	11°♊36'53		min. Earth dist.	2147 Sep 21 17:05	3°♊17'08	0.64357 AU
morning rise	2146 Oct 16 16:10	11°♊26'12		inferior conj	2147 Sep 24 01:50	0°♊45'54	-2°-55'-24
direct	2146 Oct 19 11:10	10°♊43'04		minimum elong	2147 Sep 24 06:26	0°♊33'36	2°53'51
morning max el	2146 Oct 26 00:54	14°♊17'42	18°21'00		2147 Sep 24 19:08	30°R♊	
	2146 Nov 06 08:37	0°♋		morning rise	2147 Sep 30 15:44	25°♊18'49	
morning set	2146 Nov 14 07:23	12°♋49'33		direct	2147 Oct 03 04:35	24°♊45'56	
desc. node	2146 Nov 23 13:11	27°♋40'27		asc. node	2147 Oct 03 05:19	24°♊45'57	
	2146 Nov 25 00:19	0°♌		morning max el	2147 Oct 09 16:46	28°♊12'22	17°57'31
					2147 Oct 11 08:14	0°♊	
superior conj	2146 Nov 29 14:54	7°♌16'48	0°-39'-57	morning set	2147 Oct 26 21:48	24°♊23'13	
minimum elong	2146 Nov 29 09:45	6°♌56'30	0°39'18		2147 Oct 30 05:28	0°♋	
max. Earth dist.	2146 Dec 01 08:45	10°♌01'18	1.45143 AU				
	2146 Dec 14 02:43	0°♍		superior conj	2147 Nov 09 04:42	16°♋26'59	0°08'20
evening rise	2146 Dec 15 22:11	2°♍50'25		minimum elong	2147 Nov 09 05:40	16°♋30'53	0°08'12
greatest brilliancy	2146 Dec 29 21:40	24°♍31'41	-0.7m	behind sun begin	2147 Nov 08 20:44	15°♋54'45	
	2147 Jan 02 16:33	0°♎		behind sun end	2147 Nov 09 14:36	17°♋06'57	
evening max el	2147 Jan 08 05:46	6°♎50'20	19°17'24	desc. node	2147 Nov 10 10:13	18°♋25'55	
asc. node	2147 Jan 12 07:33	10°♎04'55		max. Earth dist.	2147 Nov 14 03:28	24°♋22'04	1.44605 AU
retrograde	2147 Jan 15 07:34	10°♎53'39			2147 Nov 17 17:13	0°♌	
evening set	2147 Jan 18 16:07	9°♎47'50		evening rise	2147 Nov 25 11:16	12°♌02'22	
inferior conj	2147 Jan 24 06:37	3°♎53'57	3°16'10		2147 Dec 07 06:55	0°♍	
minimum elong	2147 Jan 24 04:18	4°♎01'26	3°15'43	greatest brilliancy	2147 Dec 15 21:48	12°♍24'29	-0.6m
min. Earth dist.	2147 Jan 25 14:51	2°♎10'17	0.66187 AU	evening max el	2147 Dec 22 09:47	20°♍20'00	20°13'41
	2147 Jan 27 09:29	30°R♍		retrograde	2147 Dec 30 05:30	24°♍55'41	
morning rise	2147 Jan 29 15:40	27°♍40'13		asc. node	2147 Dec 30 04:36	24°♍55'41	
direct	2147 Feb 04 22:54	24°♍54'05		evening set	2148 Jan 02 22:20	23°♍35'59	
	2147 Feb 15 01:42	0°♎		inferior conj	2148 Jan 08 09:31	17°♍28'43	2°45'22
morning max el	2147 Feb 17 13:55	2°♎22'43	26°10'26	minimum elong	2148 Jan 08 06:54	17°♍37'34	2°44'38
desc. node	2147 Feb 19 12:24	4°♎24'37		min. Earth dist.	2148 Jan 09 04:09	16°♍25'48	0.67115 AU
	2147 Mar 10 11:12	0°♏		morning rise	2148 Jan 13 14:55	11°♍13'22	
morning set	2147 Mar 25 17:08	26°♏00'12		direct	2148 Jan 19 08:19	8°♍41'32	
	2147 Mar 27 20:03	0°♐		morning max el	2148 Jan 30 22:39	15°♍36'46	24°50'30
max. Earth dist.	2147 Mar 29 17:44	3°♐40'00	1.35254 AU	desc. node	2148 Feb 06 09:27	22°♍56'02	
					2148 Feb 11 19:19	0°♎	
superior conj	2147 Apr 03 18:44	13°♐43'09	-1°-3'-47		2148 Mar 02 09:20	0°♏	
minimum elong	2147 Apr 03 21:57	13°♐59'32	1°03'13	morning set	2148 Mar 07 00:30	8°♏01'20	
asc. node	2147 Apr 10 06:54	27°♐09'27		max. Earth dist.	2148 Mar 10 17:12	14°♏41'55	1.37104 AU
evening rise	2147 Apr 11 14:34	29°♐52'46					
	2147 Apr 11 15:59	0°♑		superior conj	2148 Mar 17 05:16	27°♏02'57	-1°-29'-40
evening max el	2147 Apr 30 00:54	29°♑46'09	20°29'55	minimum elong	2148 Mar 17 09:28	27°♏23'28	1°29'07
	2147 Apr 30 06:41	0°II			2148 Mar 18 17:19	0°♐	
retrograde	2147 May 11 00:57	5°II06'45		evening rise	2148 Mar 25 17:03	13°♐59'09	
evening set	2147 May 13 02:45	4°II56'08		asc. node	2148 Mar 27 03:56	16°♐52'46	
desc. node	2147 May 18 11:35	3°II03'59			2148 Apr 03 05:03	0°♑	
inferior conj	2147 May 22 06:59	0°II58'21	-1°-6'-42	evening max el	2148 Apr 11 15:53	11°♑26'40	19°24'28

retrograde	2148 Apr 20 23:00	15°♄56'25		evening max el	2149 Mar 25 17:01	23°♃44'51	18°38'56
evening set	2148 Apr 23 00:15	15°♄44'13		retrograde	2149 Apr 02 14:19	27°♃36'07	
inferior conj	2148 May 01 12:33	11°♄37'17	0°48'39	evening set	2149 Apr 04 20:49	27°♃18'05	
minimum elong	2148 May 01 14:32	11°♄34'01	0°47'57	inferior conj	2149 Apr 12 13:57	22°♃53'04	2°17'31
min. Earth dist.	2148 May 04 05:15	9°♄52'12	0.56045 AU	minimum elong	2149 Apr 12 17:55	22°♃45'29	2°16'25
desc. node	2148 May 04 08:38	9°♄46'51		min. Earth dist.	2149 Apr 15 22:56	20°♃20'16	0.57762 AU
morning rise	2148 May 10 00:55	6°♄53'23		morning rise	2149 Apr 20 10:39	17°♃36'00	
direct	2148 May 14 17:27	6°♄03'20		desc. node	2149 Apr 21 05:41	17°♃15'08	
morning max el	2148 May 28 20:43	13°♄13'14	25°01'56	direct	2149 Apr 26 04:11	16°♃13'56	
	2148 Jun 10 22:20	0°♄		morning max el	2149 May 10 13:02	23°♃49'24	26°28'39
asc. node	2148 Jun 23 03:12	22°♄37'04			2149 May 16 03:09	0°♄	
morning set	2148 Jun 24 01:56	24°♄36'18			2149 Jun 03 20:52	0°♄	
	2148 Jun 26 14:28	0°♄		morning set	2149 Jun 08 12:42	9°♄28'11	
				asc. node	2149 Jun 10 00:14	12°♄36'41	
superior conj	2148 Jul 01 02:14	9°♄47'27	1°15'12				
minimum elong	2148 Jun 30 23:50	9°♄34'20	1°14'50	superior conj	2149 Jun 15 13:46	24°♄44'51	0°55'46
max. Earth dist.	2148 Jul 02 10:09	12°♄41'11	1.32747 AU	minimum elong	2149 Jun 15 11:39	24°♄33'10	0°55'22
evening rise	2148 Jul 08 07:15	25°♄08'39		max. Earth dist.	2149 Jun 15 21:01	25°♄24'42	1.32270 AU
	2148 Jul 10 17:02	0°♄			2149 Jun 17 23:12	0°♄	
	2148 Jul 28 06:55	0°♄		evening rise	2149 Jun 22 13:04	9°♄49'10	
desc. node	2148 Jul 31 07:56	4°♄11'20			2149 Jul 03 00:39	0°♄	
evening max el	2148 Aug 09 18:35	15°♄01'16	27°23'04	desc. node	2149 Jul 18 04:58	22°♄13'46	
retrograde	2148 Aug 23 13:10	22°♄18'11		evening max el	2149 Jul 22 22:54	27°♄16'04	26°52'19
evening set	2148 Aug 30 18:01	19°♄47'42			2149 Jul 26 02:42	0°♄	
min. Earth dist.	2148 Sep 03 08:13	16°♄51'19	0.62631 AU	retrograde	2149 Aug 05 21:28	4°♄29'29	
inferior conj	2148 Sep 06 05:09	14°♄07'02	-3°-49'-20	evening set	2149 Aug 12 19:46	2°♄24'00	
minimum elong	2148 Sep 06 10:32	13°♄54'09	3°47'54		2149 Aug 16 05:51	30°♄	
morning rise	2148 Sep 13 05:43	8°♄58'40		min. Earth dist.	2149 Aug 16 13:01	29°♄45'39	0.60653 AU
direct	2148 Sep 15 15:06	8°♄32'42		inferior conj	2149 Aug 19 18:37	27°♄03'10	-4°-33'-15
asc. node	2148 Sep 19 02:23	9°♄28'52		minimum elong	2149 Aug 19 23:17	26°♄53'20	4°32'29
morning max el	2148 Sep 22 08:45	11°♄59'22	17°51'50	morning rise	2149 Aug 27 06:00	22°♄16'16	
	2148 Oct 04 11:44	0°♄		direct	2149 Aug 29 14:51	21°♄54'26	
morning set	2148 Oct 08 10:56	7°♄02'13		asc. node	2149 Sep 05 23:27	25°♄34'14	
				morning max el	2149 Sep 05 21:39	25°♄29'51	18°05'04
superior conj	2148 Oct 19 20:01	26°♄53'24	0°49'34		2149 Sep 09 17:09	0°♄	
minimum elong	2148 Oct 20 00:15	27°♄11'17	0°49'00	morning set	2149 Sep 21 16:36	20°♄28'26	
	2148 Oct 21 16:25	0°♄			2149 Sep 26 19:39	0°♄	
max. Earth dist.	2148 Oct 26 18:38	8°♄22'28	1.43405 AU				
desc. node	2148 Oct 27 07:14	9°♄13'25		superior conj	2149 Oct 01 13:39	8°♄36'44	1°19'13
evening rise	2148 Nov 03 20:13	21°♄09'28		minimum elong	2149 Oct 01 17:53	8°♄55'37	1°18'46
	2148 Nov 09 14:37	0°♄		max. Earth dist.	2149 Oct 09 04:45	21°♄48'06	1.41699 AU
greatest brilliancy	2148 Nov 29 07:05	28°♄01'26	-0.4m	desc. node	2149 Oct 14 04:15	29°♄59'10	
	2148 Nov 30 21:38	0°♄			2149 Oct 14 04:27	0°♄	
evening max el	2148 Dec 04 08:14	3°♄50'48	21°22'31	evening rise	2149 Oct 14 17:48	0°♄53'39	
retrograde	2148 Dec 13 03:03	9°♄04'02			2149 Nov 03 02:57	0°♄	
asc. node	2148 Dec 16 01:38	8°♄16'11		greatest brilliancy	2149 Nov 12 03:57	11°♄54'00	-0.3m
evening set	2148 Dec 17 06:01	7°♄28'59		evening max el	2149 Nov 17 01:29	17°♄23'11	22°39'47
inferior conj	2148 Dec 22 15:42	1°♄11'44	2°06'18	retrograde	2149 Nov 26 22:25	23°♄15'01	
minimum elong	2148 Dec 22 13:17	1°♄20'02	2°05'28	evening set	2149 Dec 01 13:29	21°♄23'15	
min. Earth dist.	2148 Dec 22 22:16	0°♄49'00	0.67660 AU	asc. node	2149 Dec 02 22:41	20°♄05'37	
	2148 Dec 23 12:30	30°♄		inferior conj	2149 Dec 06 23:09	14°♄59'47	1°20'33
morning rise	2148 Dec 27 20:13	24°♄56'47		minimum elong	2149 Dec 06 21:24	15°♄05'48	1°19'52
direct	2149 Jan 01 22:37	22°♄45'16		min. Earth dist.	2149 Dec 06 18:42	15°♄15'09	0.67848 AU
morning max el	2149 Jan 12 07:33	28°♄55'37	23°22'22	morning rise	2149 Dec 12 05:15	8°♄47'26	
	2149 Jan 13 08:26	0°♄		direct	2149 Dec 16 16:45	6°♄58'41	
greatest brilliancy	2149 Jan 17 19:13	5°♄06'43	-0.2m	morning max el	2149 Dec 25 19:52	12°♄20'31	21°55'36
desc. node	2149 Jan 23 06:29	12°♄11'09		greatest brilliancy	2149 Dec 30 13:18	17°♄40'03	-0.4m
	2149 Feb 04 14:03	0°♄			2150 Jan 08 18:40	0°♄	
morning set	2149 Feb 16 07:33	18°♄48'55		desc. node	2150 Jan 10 03:30	1°♄57'10	
max. Earth dist.	2149 Feb 20 11:51	25°♄58'31	1.39223 AU	morning set	2150 Jan 27 09:34	28°♄12'14	
	2149 Feb 22 18:40	0°♄			2150 Jan 28 12:21	0°♄	
				max. Earth dist.	2150 Feb 02 09:56	8°♄02'40	1.41345 AU
superior conj	2149 Feb 28 01:48	9°♄38'36	-1°-50'-51				
minimum elong	2149 Feb 28 05:52	9°♄57'33	1°50'33	superior conj	2150 Feb 10 03:23	21°♄18'05	-2°-3'-32
evening rise	2149 Mar 09 11:26	27°♄36'39		minimum elong	2150 Feb 10 05:16	21°♄26'25	2°03'31
	2149 Mar 10 17:11	0°♄			2150 Feb 14 23:52	0°♄	
asc. node	2149 Mar 14 00:58	6°♄17'36		evening rise	2150 Feb 20 18:19	10°♄37'09	

asc. node	2150 Feb 28 22:00	25° Υ 17'40		minimum elong	2151 Jan 22 01:56	1° \approx 36'56	2°02'45
	2150 Mar 03 20:37	0° Υ		evening rise	2151 Feb 03 09:34	22° \approx 51'36	
evening max el	2150 Mar 09 01:08	6° Υ 32'30	18°13'30		2151 Feb 07 10:48	0° Υ	
retrograde	2150 Mar 16 00:20	10° Υ 02'05		asc. node	2151 Feb 15 19:01	13° Υ 44'28	
evening set	2150 Mar 18 12:34	9° Υ 35'41		evening max el	2151 Feb 20 12:54	19° Υ 39'31	18°07'38
inferior conj	2150 Mar 25 12:27	4° Υ 49'14	3°12'41	retrograde	2151 Feb 27 01:26	23° Υ 03'06	
minimum elong	2150 Mar 25 15:34	4° Υ 42'18	3°12'09	evening set	2151 Mar 01 18:45	22° Υ 27'01	
min. Earth dist.	2150 Mar 28 21:36	1° Υ 50'42	0.59855 AU	inferior conj	2151 Mar 08 05:03	17° Υ 19'18	3°38'35
	2150 Mar 31 06:42	30° Υ		minimum elong	2151 Mar 08 06:14	17° Υ 16'17	3°38'30
morning rise	2150 Apr 01 15:03	29° Υ 07'26		min. Earth dist.	2151 Mar 11 04:02	14° Υ 19'55	0.61982 AU
direct	2150 Apr 08 03:29	27° Υ 09'06		morning rise	2151 Mar 14 15:15	11° Υ 21'37	
desc. node	2150 Apr 08 02:42	27° Υ 09'07		direct	2151 Mar 21 12:42	8° Υ 52'53	
	2150 Apr 16 10:27	0° Υ		desc. node	2151 Mar 25 23:44	9° Υ 48'38	
morning max el	2150 Apr 22 10:57	4° Υ 57'58	27°27'16	morning max el	2151 Apr 04 15:07	16° Υ 48'05	27°49'48
	2150 May 10 23:56	0° Υ			2151 Apr 15 13:10	0° Υ	
morning set	2150 May 23 20:42	24° Υ 10'19			2151 May 03 15:41	0° Υ	
	2150 May 26 14:54	0° Υ		morning set	2151 May 07 23:54	8° Υ 35'05	
asc. node	2150 May 27 21:16	2° Υ 43'42		max. Earth dist.	2151 May 13 18:52	20° Υ 46'09	1.32485 AU
max. Earth dist.	2150 May 30 09:14	8° Υ 11'06	1.32182 AU	asc. node	2151 May 14 18:18	22° Υ 53'00	
superior conj	2150 May 31 01:25	9° Υ 40'01	0°32'59	superior conj	2151 May 15 11:24	24° Υ 25'58	0°07'32
minimum elong	2150 May 31 00:00	9° Υ 32'13	0°32'41	minimum elong	2151 May 15 11:03	24° Υ 24'03	0°07'27
evening rise	2150 Jun 06 22:50	24° Υ 39'31		behind sun begin	2151 May 15 06:29	23° Υ 59'11	
	2150 Jun 09 12:28	0° Υ		behind sun end	2151 May 15 15:37	24° Υ 48'57	
	2150 Jun 27 05:05	0° Υ			2151 May 18 00:36	0° Υ	
evening max el	2150 Jul 04 20:17	8° Υ 44'25	25°49'38	evening rise	2151 May 22 10:27	9° Υ 31'36	
desc. node	2150 Jul 05 01:58	8° Υ 57'53			2151 Jun 02 00:15	0° Υ	
retrograde	2150 Jul 18 20:25	15° Υ 53'30		evening max el	2151 Jun 16 11:15	19° Υ 30'25	24°23'04
evening set	2150 Jul 24 23:39	14° Υ 23'53		desc. node	2151 Jun 21 23:00	23° Υ 51'58	
min. Earth dist.	2150 Jul 29 08:39	11° Υ 46'28	0.58597 AU	retrograde	2151 Jun 30 08:08	26° Υ 30'36	
inferior conj	2150 Aug 01 14:42	9° Υ 24'46	-4°-57'-40	evening set	2151 Jul 05 03:48	25° Υ 38'42	
minimum elong	2150 Aug 01 16:14	9° Υ 21'59	4°57'37	min. Earth dist.	2151 Jul 10 22:09	22° Υ 44'25	0.56729 AU
morning rise	2150 Aug 09 12:19	5° Υ 01'01		inferior conj	2151 Jul 13 14:42	21° Υ 02'20	-4°-49'-10
direct	2150 Aug 11 23:38	4° Υ 41'10		minimum elong	2151 Jul 13 10:55	21° Υ 08'20	4°48'50
morning max el	2150 Aug 20 04:16	8° Υ 35'16	18°38'36	morning rise	2151 Jul 21 21:42	16° Υ 59'40	
asc. node	2150 Aug 23 20:29	12° Υ 47'11		direct	2151 Jul 24 13:29	16° Υ 40'36	
	2150 Sep 03 02:12	0° Υ		morning max el	2151 Aug 03 01:40	21° Υ 05'46	19°33'32
morning set	2150 Sep 05 10:01	4° Υ 28'58			2151 Aug 10 04:08	0° Υ	
				asc. node	2151 Aug 10 17:31	0° Υ 52'33	
superior conj	2150 Sep 14 04:57	21° Υ 24'20	1°37'08	morning set	2151 Aug 20 11:31	18° Υ 53'22	
minimum elong	2150 Sep 14 07:36	21° Υ 36'47	1°36'57		2151 Aug 25 23:53	0° Υ	
	2150 Sep 18 21:05	0° Υ		superior conj	2151 Aug 28 12:20	5° Υ 00'12	1°44'56
max. Earth dist.	2150 Sep 21 10:20	4° Υ 32'14	1.39701 AU	minimum elong	2151 Aug 28 13:06	5° Υ 03'59	1°44'55
evening rise	2150 Sep 25 14:00	11° Υ 40'50		max. Earth dist.	2151 Sep 03 14:26	16° Υ 39'17	1.37655 AU
desc. node	2150 Oct 01 01:15	20° Υ 39'44		evening rise	2151 Sep 07 09:51	23° Υ 34'12	
	2150 Oct 07 01:10	0° Υ			2151 Sep 11 02:34	0° Υ	
	2150 Oct 29 15:58	0° Υ		desc. node	2151 Sep 17 22:17	11° Υ 10'53	
evening max el	2150 Oct 30 15:08	0° Υ 58'56	23°59'47		2151 Sep 30 19:08	0° Υ	
retrograde	2150 Nov 10 14:23	7° Υ 25'44		evening max el	2151 Oct 13 03:10	14° Υ 38'05	25°15'49
evening set	2150 Nov 15 19:06	5° Υ 16'46		retrograde	2151 Oct 25 02:10	21° Υ 32'21	
asc. node	2150 Nov 19 19:43	0° Υ 46'47		evening set	2151 Oct 30 21:17	19° Υ 07'24	
	2150 Nov 20 09:45	30° Υ		min. Earth dist.	2151 Nov 04 09:04	14° Υ 07'34	0.67206 AU
min. Earth dist.	2150 Nov 20 15:05	29° Υ 42'00	0.67696 AU	inferior conj	2151 Nov 05 10:54	12° Υ 43'36	0°-25'-41
inferior conj	2150 Nov 21 06:08	28° Υ 51'01	0°29'28	minimum elong	2151 Nov 05 11:34	12° Υ 41'29	0°25'25
minimum elong	2150 Nov 21 05:26	28° Υ 53'24	0°29'10	asc. node	2151 Nov 06 16:44	11° Υ 07'56	
morning rise	2150 Nov 26 15:59	22° Υ 43'39		morning rise	2151 Nov 11 02:29	6° Υ 43'41	
direct	2150 Nov 30 13:40	21° Υ 17'14		direct	2151 Nov 14 12:01	5° Υ 37'06	
morning max el	2150 Dec 08 15:01	25° Υ 55'56	20°37'22	morning max el	2151 Nov 21 18:10	9° Υ 42'56	19°32'09
	2150 Dec 12 06:15	0° Υ		greatest brilliancy	2151 Nov 30 07:12	20° Υ 29'35	-0.6m
greatest brilliancy	2150 Dec 14 15:27	3° Υ 00'26	-0.5m		2151 Dec 06 17:37	0° Υ	
desc. node	2150 Dec 28 00:30	22° Υ 05'31		desc. node	2151 Dec 14 21:32	12° Υ 30'13	
	2151 Jan 02 05:51	0° Υ		morning set	2151 Dec 16 08:47	14° Υ 46'27	
morning set	2151 Jan 06 11:06	6° Υ 30'06			2151 Dec 26 03:14	0° Υ	
max. Earth dist.	2151 Jan 15 15:55	21° Υ 04'09	1.43179 AU	max. Earth dist.	2151 Dec 29 05:02	4° Υ 51'09	1.44484 AU
	2151 Jan 21 02:41	0° Υ					
superior conj	2151 Jan 22 04:48	1° Υ 48'53	-2°-2'-50	superior conj	2152 Jan 02 03:56	11° Υ 09'06	-1°-44'-5

minimum elong	2152 Jan 01 19:59	10°☿37'15	1°43'28	superior conj	2152 Dec 11 08:05	19°♄42'28	-1°-6'-57
	2152 Jan 13 16:31	0°♊		minimum elong	2152 Dec 11 00:04	19°♄10'58	1°06'00
evening rise	2152 Jan 16 04:58	4°♊12'51		max. Earth dist.	2152 Dec 10 22:22	19°♄04'18	1.45113 AU
	2152 Feb 01 11:07	0°♋			2152 Dec 17 20:59	0°♌	
asc. node	2152 Feb 02 16:04	1°♋28'10		evening rise	2152 Dec 27 01:15	14°♌36'11	
evening max el	2152 Feb 04 01:25	2°♋58'55	18°20'45		2153 Jan 05 16:27	0°♍	
retrograde	2152 Feb 10 12:57	6°♋29'35		evening max el	2153 Jan 17 12:10	16°♍24'53	18°51'55
evening set	2152 Feb 13 11:24	5°♋42'58		asc. node	2153 Jan 19 13:06	18°♍15'59	
inferior conj	2152 Feb 19 11:43	0°♋15'42	3°42'09	retrograde	2153 Jan 24 06:49	20°♍13'41	
minimum elong	2152 Feb 19 11:06	0°♋17'29	3°42'08	evening set	2153 Jan 27 11:13	19°♍15'23	
	2152 Feb 19 17:14	30°♌		inferior conj	2153 Feb 02 04:37	13°♍30'41	3°29'17
min. Earth dist.	2152 Feb 21 20:01	27°♌36'05	0.63898 AU	minimum elong	2153 Feb 02 02:43	13°♌36'32	3°29'02
morning rise	2152 Feb 25 09:09	24°♌08'37		min. Earth dist.	2153 Feb 03 21:28	11°♌24'15	0.65469 AU
direct	2152 Mar 03 06:18	21°♌21'56		morning rise	2153 Feb 07 17:08	7°♌18'30	
desc. node	2152 Mar 11 20:45	24°♌48'07		direct	2153 Feb 14 06:55	4°♌28'09	
morning max el	2152 Mar 16 23:39	29°♌16'26	27°35'18	desc. node	2153 Feb 26 17:47	11°♌31'48	
	2152 Mar 17 16:48	0°♍		morning max el	2153 Feb 27 09:28	12°♌10'43	26°48'34
	2152 Apr 08 10:28	0°♎			2153 Mar 13 16:25	0°♏	
morning set	2152 Apr 20 19:50	22°♎34'46			2153 Apr 01 00:30	0°♐	
	2152 Apr 24 11:51	0°♑		morning set	2153 Apr 04 05:14	5°♐59'02	
max. Earth dist.	2152 Apr 25 21:48	2°♑56'31	1.33202 AU	max. Earth dist.	2153 Apr 08 14:16	14°♐32'51	1.34366 AU
superior conj	2152 Apr 28 17:57	8°♑57'13	0°-19'-47	superior conj	2153 Apr 12 18:56	23°♐07'04	0°-47'-52
minimum elong	2152 Apr 28 18:56	9°♑02'28	0°19'35	minimum elong	2153 Apr 12 21:22	23°♐19'42	0°47'23
asc. node	2152 Apr 30 15:21	13°♑00'43			2153 Apr 16 01:46	0°♒	
evening rise	2152 May 05 22:05	24°♑19'12		asc. node	2153 Apr 17 12:25	3°♒02'39	
	2152 May 08 15:49	0°♓		evening rise	2153 Apr 20 07:51	8°♒56'00	
evening max el	2152 May 28 01:22	29°♓58'37	22°46'57		2153 May 01 13:55	0°♓	
	2152 May 28 01:56	0°♈		evening max el	2153 May 09 22:25	10°♓41'41	21°16'02
desc. node	2152 Jun 07 20:01	6°♈20'26		retrograde	2153 May 21 21:52	16°♓32'47	
retrograde	2152 Jun 10 07:43	6°♈34'35		evening set	2153 May 24 05:27	16°♓20'25	
evening set	2152 Jun 13 15:45	6°♈10'09		desc. node	2153 May 25 17:01	16°♓00'15	
min. Earth dist.	2152 Jun 21 09:46	2°♈44'58	0.55394 AU	inferior conj	2153 Jun 02 14:13	12°♓21'37	-2°-15'-25
inferior conj	2152 Jun 22 19:49	1°♈56'04	-3°-54'-49	minimum elong	2153 Jun 02 08:01	12°♓30'19	2°13'20
minimum elong	2152 Jun 22 12:03	2°♈07'15	3°52'59	min. Earth dist.	2153 Jun 02 22:00	12°♓10'40	0.54894 AU
	2152 Jun 26 08:20	30°♉		morning rise	2153 Jun 11 10:39	8°♓22'52	
morning rise	2152 Jul 01 11:07	28°♓04'21		direct	2153 Jun 14 18:51	7°♓58'39	
direct	2152 Jul 04 08:48	27°♓44'45		morning max el	2153 Jun 27 11:14	14°♓00'16	22°22'35
	2152 Jul 11 17:33	0°♊			2153 Jul 09 13:56	0°♈	
morning max el	2152 Jul 15 11:54	2°♊54'20	20°49'23	asc. node	2153 Jul 14 11:38	8°♊54'37	
asc. node	2152 Jul 27 14:34	19°♊38'15		morning set	2153 Jul 19 04:41	18°♊25'52	
	2152 Aug 02 00:23	0°♋			2153 Jul 24 15:28	0°♌	
morning set	2152 Aug 03 18:25	3°♋34'11		superior conj	2153 Jul 26 09:49	3°♋44'58	1°37'16
superior conj	2152 Aug 11 07:08	19°♋10'33	1°44'27	minimum elong	2153 Jul 26 07:59	3°♋35'11	1°37'07
minimum elong	2152 Aug 11 06:20	19°♋06'26	1°44'26	max. Earth dist.	2153 Jul 29 15:02	10°♋28'33	1.34305 AU
max. Earth dist.	2152 Aug 15 22:24	28°♋29'17	1.35806 AU	evening rise	2153 Aug 03 09:14	20°♋01'47	
	2152 Aug 16 16:59	0°♍			2153 Aug 08 16:31	0°♎	
evening rise	2152 Aug 20 01:47	6°♍25'06		desc. node	2153 Aug 21 16:23	21°♍21'07	
	2152 Sep 02 20:52	0°♎			2153 Aug 27 20:46	0°♏	
desc. node	2152 Sep 03 19:20	1°♎26'58		evening max el	2153 Sep 07 03:29	11°♎49'09	27°06'06
evening max el	2152 Sep 24 15:08	28°♎17'03	26°20'29	retrograde	2153 Sep 20 10:38	19°♎07'03	
	2152 Sep 26 11:40	0°♏		evening set	2153 Sep 27 07:18	16°♎24'30	
retrograde	2152 Oct 07 09:08	5°♏28'28		min. Earth dist.	2153 Oct 01 04:43	12°♎37'31	0.65193 AU
evening set	2152 Oct 13 18:07	2°♏51'19		inferior conj	2153 Oct 03 06:06	10°♎18'14	-2°-22'-14
	2152 Oct 16 14:59	30°♐		minimum elong	2153 Oct 03 09:54	10°♎07'28	2°20'49
min. Earth dist.	2152 Oct 17 22:23	28°♐27'46	0.66373 AU	morning rise	2153 Oct 09 14:13	4°♎41'40	
inferior conj	2152 Oct 19 11:36	26°♐33'58	-1°-23'-33	asc. node	2153 Oct 10 10:49	4°♎21'06	
minimum elong	2152 Oct 19 13:49	26°♐27'10	1°22'39	direct	2153 Oct 12 06:11	4°♎03'26	
asc. node	2152 Oct 23 13:47	22°♐05'14		morning max el	2153 Oct 18 18:34	7°♎33'55	18°08'49
morning rise	2152 Oct 25 10:41	20°♐44'12			2153 Nov 03 01:24	0°♑	
direct	2152 Oct 28 10:13	19°♐53'46		morning set	2153 Nov 06 00:57	4°♑55'28	
morning max el	2152 Nov 04 04:06	23°♐37'20	18°42'14	desc. node	2153 Nov 17 15:39	23°♑49'24	
	2152 Nov 09 09:49	0°♒		superior conj	2153 Nov 20 12:26	28°♒23'21	0°-19'-11
morning set	2152 Nov 25 02:14	24°♒07'02		minimum elong	2153 Nov 20 09:59	28°♒13'40	0°18'51
	2152 Nov 28 19:26	0°♓			2153 Nov 21 12:49	0°♔	
desc. node	2152 Nov 30 18:34	3°♓06'04					

max. Earth dist.	2153 Nov 23 17:22	3°♂27'22	1.45005 AU		2154 Oct 26 16:03	0°♂	
evening rise	2153 Dec 06 23:30	24°♂08'18					
	2153 Dec 10 18:18	0°♂		superior conj	2154 Oct 31 12:13	8°♂03'33	0°27'06
greatest brilliancy	2153 Dec 23 23:15	19°♂57'58	-0.6m	minimum elong	2154 Oct 31 15:02	8°♂15'08	0°26'42
	2153 Dec 31 21:19	0°♂		desc. node	2154 Nov 04 12:42	14°♂36'15	
evening max el	2153 Dec 31 19:10	29°♂54'30	19°39'38	max. Earth dist.	2154 Nov 06 11:07	17°♂42'31	1.44177 AU
asc. node	2154 Jan 06 10:08	3°♂53'54			2154 Nov 14 06:40	0°♂	
retrograde	2154 Jan 08 03:53	4°♂10'32		evening rise	2154 Nov 16 08:44	3°♂13'22	
evening set	2154 Jan 11 15:43	2°♂59'07			2154 Dec 04 07:27	0°♂	
	2154 Jan 14 19:26	30°♂		greatest brilliancy	2154 Dec 09 03:02	6°♂35'51	-0.5m
inferior conj	2154 Jan 17 04:36	26°♂59'27	3°04'11	evening max el	2154 Dec 14 20:57	13°♂25'23	20°41'42
minimum elong	2154 Jan 17 02:05	27°♂07'45	3°03'37	retrograde	2154 Dec 23 01:46	18°♂16'04	
min. Earth dist.	2154 Jan 18 06:57	25°♂32'44	0.66638 AU	asc. node	2154 Dec 24 07:08	18°♂07'42	
morning rise	2154 Jan 22 11:44	20°♂44'48		evening set	2154 Dec 26 22:47	16°♂49'54	
direct	2154 Jan 28 13:28	18°♂03'26		inferior conj	2155 Jan 01 09:08	10°♂38'07	2°29'40
morning max el	2154 Feb 09 18:32	25°♂19'31	25°37'55	minimum elong	2155 Jan 01 06:33	10°♂46'57	2°28'53
desc. node	2154 Feb 13 14:50	29°♂30'32		min. Earth dist.	2155 Jan 01 22:27	9°♂52'35	0.67399 AU
	2154 Feb 14 00:57	0°♂		morning rise	2155 Jan 06 13:52	4°♂22'59	
	2154 Mar 07 04:30	0°♂		direct	2155 Jan 12 01:03	1°♂59'14	
morning set	2154 Mar 17 23:39	18°♂34'48		morning max el	2155 Jan 23 02:55	8°♂35'37	24°13'24
max. Earth dist.	2154 Mar 21 19:00	25°♂40'10	1.35993 AU	desc. node	2155 Jan 31 11:53	18°♂22'35	
	2154 Mar 24 01:04	0°♂			2155 Feb 08 22:38	0°♂	
				morning set	2155 Feb 27 21:27	0°♂06'47	
superior conj	2154 Mar 27 11:42	6°♂47'58	-1°-15'-9		2155 Feb 27 19:53	0°♂	
minimum elong	2154 Mar 27 15:25	7°♂06'35	1°14'34	max. Earth dist.	2155 Mar 03 15:42	6°♂45'22	1.37991 AU
asc. node	2154 Apr 04 09:28	22°♂54'11					
evening rise	2154 Apr 04 13:40	23°♂15'27		superior conj	2155 Mar 10 16:52	19°♂51'03	-1°-39'-25
	2154 Apr 07 22:34	0°♂		minimum elong	2155 Mar 10 21:12	20°♂11'48	1°38'57
evening max el	2154 Apr 22 06:47	21°♂59'33	19°59'46		2155 Mar 15 21:52	0°♂	
retrograde	2154 May 02 12:49	26°♂57'00		evening rise	2155 Mar 19 13:06	7°♂11'08	
evening set	2154 May 04 13:18	26°♂46'18		asc. node	2155 Mar 22 06:30	12°♂30'45	
desc. node	2154 May 12 14:03	23°♂19'06			2155 Apr 01 15:38	0°♂	
inferior conj	2154 May 13 11:41	22°♂46'36	0°-15'-45	evening max el	2155 Apr 05 02:25	3°♂57'07	19°02'34
minimum elong	2154 May 13 10:58	22°♂47'42	0°15'31	retrograde	2155 Apr 13 17:38	8°♂08'31	
transit middle	2154 May 13 10:58	22°♂47'42	0°15'31	evening set	2155 Apr 15 21:00	7°♂54'07	
transit begin	2154 May 13 10:03	22°♂49'05		inferior conj	2155 Apr 24 01:05	3°♂39'52	1°30'25
transit end	2154 May 13 11:53	22°♂46'19		minimum elong	2155 Apr 24 04:22	3°♂34'09	1°29'22
min. Earth dist.	2154 May 15 11:21	21°♂34'48	0.55368 AU	min. Earth dist.	2155 Apr 27 02:46	1°♂32'42	0.56708 AU
morning rise	2154 May 22 05:50	18°♂22'44		desc. node	2155 Apr 29 11:04	0°♂05'02	
direct	2154 May 26 08:51	17°♂45'26			2155 Apr 29 14:37	30°♂	
morning max el	2154 Jun 09 03:03	24°♂33'44	24°04'38	morning rise	2155 May 02 07:30	28°♂41'36	
	2154 Jun 14 02:59	0°♂		direct	2155 May 07 10:59	27°♂39'17	
asc. node	2154 Jul 01 08:43	28°♂32'45			2155 May 15 07:00	0°♂	
	2154 Jul 02 01:43	0°♂		morning max el	2155 May 21 17:34	5°♂00'54	25°41'34
morning set	2154 Jul 03 16:25	3°♂21'52			2155 Jun 08 19:07	0°♂	
				morning set	2155 Jun 18 04:01	18°♂16'59	
superior conj	2154 Jul 10 17:35	18°♂33'38	1°24'36	asc. node	2155 Jun 18 05:47	18°♂26'17	
minimum elong	2154 Jul 10 15:15	18°♂20'55	1°24'18		2155 Jun 23 14:05	0°♂	
max. Earth dist.	2154 Jul 12 16:53	22°♂48'15	1.33203 AU				
	2154 Jul 16 02:49	0°♂		superior conj	2155 Jun 25 04:17	3°♂29'32	1°07'25
evening rise	2154 Jul 18 03:53	4°♂10'54		minimum elong	2155 Jun 25 01:56	3°♂16'43	1°07'01
	2154 Aug 01 09:48	0°♂		max. Earth dist.	2155 Jun 26 01:32	5°♂25'59	1.32500 AU
desc. node	2154 Aug 08 13:24	10°♂43'07		evening rise	2155 Jul 02 06:24	18°♂42'19	
evening max el	2154 Aug 20 14:41	25°♂01'32	27°25'44		2155 Jul 07 22:51	0°♂	
	2154 Aug 26 23:01	0°♂		desc. node	2155 Jul 26 10:23	29°♂19'35	
retrograde	2154 Sep 03 05:53	2°♂18'55			2155 Jul 26 23:16	0°♂	
	2154 Sep 09 23:00	30°♂		evening max el	2155 Aug 02 22:11	7°♂40'19	27°14'01
evening set	2154 Sep 10 09:50	29°♂40'43		retrograde	2155 Aug 16 18:15	14°♂55'03	
min. Earth dist.	2154 Sep 14 01:51	26°♂27'46	0.63665 AU	evening set	2155 Aug 23 21:55	12°♂33'34	
inferior conj	2154 Sep 16 15:48	23°♂49'54	-3°-19'-4	min. Earth dist.	2155 Aug 27 12:20	9°♂46'51	0.61821 AU
minimum elong	2154 Sep 16 20:51	23°♂36'59	3°17'29	inferior conj	2155 Aug 30 13:37	7°♂01'24	-4°-9'-38
morning rise	2154 Sep 23 10:09	18°♂30'01		minimum elong	2155 Aug 30 18:57	6°♂49'19	4°08'26
direct	2154 Sep 25 21:13	18°♂00'22		morning rise	2155 Sep 06 18:49	2°♂01'51	
asc. node	2154 Sep 27 07:53	18°♂10'46		direct	2155 Sep 09 03:46	1°♂37'47	
morning max el	2154 Oct 02 10:47	21°♂25'56	17°52'46	asc. node	2155 Sep 14 04:57	3°♂30'22	
	2154 Oct 08 23:32	0°♂		morning max el	2155 Sep 16 01:46	5°♂06'40	17°55'04
morning set	2154 Oct 19 01:51	16°♂59'40		morning set	2155 Oct 01 22:40	0°♂00'45	

	2155 Oct 01 22:30	0°♄				2156 Sep 06 21:55	0°♍	
				morning set		2156 Sep 14 09:52	13°♍43'13	
superior conj	2155 Oct 12 15:04	19°♄03'48	1°03'39			2156 Sep 23 01:47	0°♄	
minimum elong	2155 Oct 12 19:37	19°♄23'24	1°03'05					
	2155 Oct 19 02:29	0°♌		superior conj	2156 Sep 23 18:43	1°♄17'22	1°28'10	
max. Earth dist.	2155 Oct 20 00:45	1°♌31'40	1.42735 AU	minimum elong	2156 Sep 23 22:23	1°♄34'04	1°27'50	
desc. node	2155 Oct 22 09:42	5°♌23'23		max. Earth dist.	2156 Oct 01 08:41	14°♄40'13	1.40863 AU	
evening rise	2155 Oct 26 21:13	12°♌31'35		evening rise	2156 Oct 06 03:48	22°♄41'12		
	2155 Nov 07 08:36	0°♊		desc. node	2156 Oct 08 06:43	26°♄07'48		
greatest brilliancy	2155 Nov 22 22:44	21°♊32'17	-0.4m		2156 Oct 10 17:00	0°♌		
evening max el	2155 Nov 27 17:00	26°♊56'30	21°54'39		2156 Oct 31 09:34	0°♊		
	2155 Dec 01 02:44	0°♋		evening max el	2156 Nov 09 08:21	10°♊30'08	23°13'47	
retrograde	2155 Dec 06 22:33	2°♋26'09		retrograde	2156 Nov 19 16:46	16°♊38'13		
evening set	2155 Dec 11 06:34	0°♋43'51		evening set	2156 Nov 24 13:28	14°♊38'59		
asc. node	2155 Dec 11 04:10	0°♋48'34		asc. node	2156 Nov 27 01:12	12°♊05'34		
	2155 Dec 12 02:40	30°♊♊		inferior conj	2156 Nov 29 23:32	8°♊13'45	0°59'29	
inferior conj	2155 Dec 16 16:03	24°♊23'22	1°47'37	minimum elong	2156 Nov 29 22:11	8°♊18'22	0°58'56	
minimum elong	2155 Dec 16 13:52	24°♊30'54	1°46'49	min. Earth dist.	2156 Nov 29 14:30	8°♊44'50	0.67821 AU	
min. Earth dist.	2155 Dec 16 17:44	24°♊17'29	0.67783 AU	morning rise	2156 Dec 05 06:58	2°♊03'09		
morning rise	2155 Dec 21 20:59	18°♊09'28		direct	2156 Dec 09 12:19	0°♊24'19		
direct	2155 Dec 26 16:54	16°♊07'49		morning max el	2156 Dec 18 04:01	5°♊27'13	21°20'55	
morning max el	2156 Jan 05 12:56	21°♊57'04	22°44'51	greatest brilliancy	2156 Dec 23 07:43	11°♊20'46	-0.4m	
greatest brilliancy	2156 Jan 10 03:45	27°♊06'14	-0.3m	desc. node	2157 Jan 04 05:56	27°♊48'46		
	2156 Jan 12 11:45	0°♋			2157 Jan 05 17:36	0°♋		
desc. node	2156 Jan 18 08:54	7°♋52'01		morning set	2157 Jan 18 06:33	19°♋09'52		
	2156 Feb 02 06:27	0°♌			2157 Jan 25 00:22	0°♌		
morning set	2156 Feb 08 16:23	10°♌18'46		max. Earth dist.	2157 Jan 25 12:28	0°♌49'38	1.42176 AU	
max. Earth dist.	2156 Feb 13 11:31	18°♌21'42	1.40144 AU					
	2156 Feb 20 02:31	0°♎		superior conj	2157 Feb 01 21:44	13°♌15'20	-2°-5'-11	
				minimum elong	2157 Feb 01 21:53	13°♌16'00	2°05'12	
superior conj	2156 Feb 21 05:55	2°♎04'05	-1°-57'-34		2157 Feb 11 08:32	0°♎		
minimum elong	2156 Feb 21 09:22	2°♎19'49	1°57'22	evening rise	2157 Feb 13 03:48	3°♎16'15		
evening rise	2156 Mar 02 03:02	20°♎34'11		asc. node	2157 Feb 23 00:32	20°♎33'09		
	2156 Mar 07 04:00	0°♏		evening max el	2157 Mar 01 16:50	29°♎25'14	18°08'38	
asc. node	2156 Mar 08 03:31	1°♏46'03			2157 Mar 02 07:33	0°♏		
evening max el	2156 Mar 18 06:49	16°♏28'27	18°25'36	retrograde	2157 Mar 08 10:22	2°♏50'40		
retrograde	2156 Mar 25 17:25	20°♏08'55		evening set	2157 Mar 11 00:41	2°♏20'26		
evening set	2156 Mar 28 02:18	19°♏47'37			2157 Mar 14 20:37	30°♎♎		
inferior conj	2156 Apr 04 11:40	15°♏13'19	2°44'56	inferior conj	2157 Mar 17 18:23	27°♎25'01	3°26'49	
minimum elong	2156 Apr 04 15:31	15°♏05'28	2°44'01	minimum elong	2157 Mar 17 20:43	27°♎19'30	3°26'31	
min. Earth dist.	2156 Apr 07 22:14	12°♏26'35	0.58626 AU	min. Earth dist.	2157 Mar 21 00:11	24°♎22'51	0.60773 AU	
morning rise	2156 Apr 12 00:38	9°♏44'15		morning rise	2157 Mar 24 13:35	21°♎35'10		
desc. node	2156 Apr 15 08:05	8°♏27'24		direct	2157 Mar 31 07:03	19°♎22'24		
direct	2156 Apr 18 03:01	8°♏06'57		desc. node	2157 Apr 02 05:07	19°♎32'39		
morning max el	2156 May 02 12:14	15°♏49'20	26°57'45	morning max el	2157 Apr 14 13:02	27°♎15'44	27°41'23	
	2156 May 14 01:00	0°♐			2157 Apr 17 03:45	0°♏		
	2156 May 31 02:03	0°♑			2157 May 07 15:52	0°♐		
morning set	2156 Jun 01 13:49	3°♑05'23		morning set	2157 May 16 20:01	17°♐40'57		
asc. node	2156 Jun 04 02:49	8°♑29'32		asc. node	2157 May 21 23:51	28°♐37'58		
					2157 May 22 14:55	0°♑		
superior conj	2156 Jun 08 16:03	18°♑26'22	0°46'28	max. Earth dist.	2157 May 23 00:53	0°♑54'19	1.32256 AU	
minimum elong	2156 Jun 08 14:10	18°♑16'04	0°46'06					
max. Earth dist.	2156 Jun 08 13:28	18°♑12'10	1.32183 AU	superior conj	2157 May 24 03:12	3°♑18'18	0°22'27	
	2156 Jun 13 23:06	0°♒		minimum elong	2157 May 24 02:11	3°♑12'47	0°22'14	
evening rise	2156 Jun 15 14:07	3°♒27'25		evening rise	2157 May 31 00:53	18°♑18'57		
	2156 Jun 29 19:40	0°♑			2157 Jun 05 18:53	0°♒		
desc. node	2156 Jul 12 07:24	16°♑51'49			2157 Jun 26 00:05	0°♑		
evening max el	2156 Jul 14 23:27	19°♑34'45	26°29'10	evening max el	2157 Jun 26 17:38	0°♑42'52	25°15'00	
retrograde	2156 Jul 28 22:56	26°♑47'04		desc. node	2157 Jun 29 04:25	2°♑53'17		
evening set	2156 Aug 04 14:55	24°♑55'28		retrograde	2157 Jul 10 17:46	7°♑50'07		
min. Earth dist.	2156 Aug 08 12:42	22°♑20'09	0.59771 AU	evening set	2157 Jul 16 08:36	6°♑37'05		
inferior conj	2156 Aug 11 20:04	19°♑43'46	-4°-46'-43	min. Earth dist.	2157 Jul 21 05:29	3°♑54'16	0.57748 AU	
minimum elong	2156 Aug 11 23:44	19°♑36'30	4°46'19	inferior conj	2157 Jul 24 07:46	1°♑47'11	-4°-59'-3	
morning rise	2156 Aug 19 11:57	15°♑07'06		minimum elong	2157 Jul 27 07:11	1°♑48'11	4°59'03	
direct	2156 Aug 21 21:32	14°♑46'20			2157 Jul 27 00:33	30°♎♒		
morning max el	2156 Aug 29 12:27	18°♑28'07	18°16'53	morning rise	2157 Aug 01 09:29	27°♒33'07		
asc. node	2156 Aug 31 02:00	20°♑06'34		direct	2157 Aug 03 22:16	27°♒13'54		

	2157 Aug 11 02:19	0°♎		evening set	2158 Jun 26 04:13	17°♊32'42	
morning max el	2157 Aug 12 15:33	1°♎20'01	18°59'25	min. Earth dist.	2158 Jul 02 18:04	14°♊26'42	0.56074 AU
asc. node	2157 Aug 17 23:03	7°♎43'29		inferior conj	2158 Jul 04 23:23	13°♊06'20	-4°-32'-16
morning set	2157 Aug 29 07:05	27°♎54'42		minimum elong	2158 Jul 04 17:26	13°♊15'21	4°31'19
	2157 Aug 30 08:29	0°♏		morning rise	2158 Jul 13 10:00	9°♊09'39	
				direct	2158 Jul 16 04:06	8°♊50'31	
superior conj	2157 Sep 06 17:30	14°♏27'16	1°41'34	morning max el	2158 Jul 26 08:20	13°♊33'36	20°03'18
minimum elong	2157 Sep 06 19:20	14°♏36'06	1°41'29	asc. node	2158 Aug 04 20:07	26°♊07'48	
max. Earth dist.	2157 Sep 13 12:32	27°♏04'46	1.38812 AU		2158 Aug 07 01:14	0°♋	
	2157 Sep 15 03:54	0°♌		morning set	2158 Aug 13 11:13	12°♋27'07	
evening rise	2157 Sep 17 10:20	3°♌57'19					
desc. node	2157 Sep 25 03:45	16°♌45'02		superior conj	2158 Aug 21 06:14	28°♋19'10	1°45'38
	2157 Oct 03 20:20	0°♍		minimum elong	2158 Aug 21 06:17	28°♋19'24	1°45'38
evening max el	2157 Oct 22 21:03	24°♍07'34	24°33'04		2158 Aug 22 02:25	0°♎	
	2157 Oct 30 18:15	0°♎		max. Earth dist.	2158 Aug 26 17:41	9°♎01'45	1.36837 AU
retrograde	2157 Nov 03 07:11	0°♎47'46		evening rise	2158 Aug 30 15:21	16°♎16'56	
	2157 Nov 06 13:41	30°♏♍			2158 Sep 07 13:31	0°♌	
evening set	2157 Nov 08 17:51	28°♏31'57		desc. node	2158 Sep 12 00:47	7°♌10'29	
min. Earth dist.	2157 Nov 13 10:17	23°♏11'33	0.67525 AU		2158 Sep 28 07:57	0°♍	
asc. node	2157 Nov 13 22:14	22°♏31'40		evening max el	2158 Oct 05 09:11	7°♍48'01	25°45'14
inferior conj	2157 Nov 14 05:49	22°♏06'19	0°06'32	retrograde	2158 Oct 17 16:54	14°♍50'18	
minimum elong	2157 Nov 14 05:40	22°♏06'52	0°06'27	evening set	2158 Oct 23 18:00	12°♍19'51	
transit middle	2157 Nov 14 05:40	22°♏06'52	0°06'27	min. Earth dist.	2158 Oct 28 02:38	7°♍35'08	0.66895 AU
transit begin	2157 Nov 14 03:08	22°♏15'17		inferior conj	2158 Oct 29 09:07	5°♍58'23	0°-49'-59
transit end	2157 Nov 14 08:11	21°♏58'27		minimum elong	2158 Oct 29 10:25	5°♍54'16	0°49'26
morning rise	2157 Nov 19 17:51	16°♏01'30		asc. node	2158 Oct 31 19:18	3°♏01'25	
direct	2157 Nov 23 10:06	14°♏43'53		morning rise	2158 Nov 04 03:39	0°♏02'13	
morning max el	2157 Dec 01 02:31	19°♏07'39	20°07'47		2158 Nov 04 05:07	30°♏♌	
greatest brilliancy	2157 Dec 08 00:17	27°♏28'02	-0.6m	direct	2158 Nov 07 08:45	29°♌02'47	
	2157 Dec 09 20:30	0°♎			2158 Nov 10 15:37	0°♍	
desc. node	2157 Dec 22 02:59	18°♎04'55		morning max el	2158 Nov 14 08:40	2°♍57'46	19°08'55
morning set	2157 Dec 28 03:12	27°♎17'30			2158 Dec 03 11:45	0°♎	
	2157 Dec 29 21:09	0°♏		morning set	2158 Dec 07 07:04	5°♎55'16	
max. Earth dist.	2158 Jan 07 21:08	14°♏10'22	1.43811 AU	desc. node	2158 Dec 09 00:02	8°♎34'55	
				max. Earth dist.	2158 Dec 21 12:41	28°♎11'51	1.44845 AU
superior conj	2158 Jan 13 11:56	23°♏15'56	-1°-57'-15		2158 Dec 22 16:06	0°♏	
minimum elong	2158 Jan 13 06:40	22°♏54'23	1°57'00				
	2158 Jan 17 13:36	0°♏		superior conj	2158 Dec 24 01:23	2°♏11'36	-1°-30'-19
evening rise	2158 Jan 26 11:06	15°♏08'49		minimum elong	2158 Dec 23 16:31	1°♏36'31	1°29'28
	2158 Feb 04 03:43	0°♐		evening rise	2159 Jan 07 20:54	26°♏05'32	
asc. node	2158 Feb 09 21:33	8°♐43'17			2159 Jan 10 05:54	0°♏	
evening max el	2158 Feb 13 05:20	12°♐39'01	18°11'00	evening max el	2159 Jan 27 17:28	26°♏02'17	18°31'53
retrograde	2158 Feb 19 16:18	16°♐03'50		asc. node	2159 Jan 27 18:35	26°♏05'08	
evening set	2158 Feb 22 11:47	15°♐23'24		retrograde	2159 Feb 03 06:54	29°♏39'02	
inferior conj	2158 Feb 28 17:28	10°♐07'26	3°42'24	evening set	2159 Feb 06 07:52	28°♏47'25	
minimum elong	2158 Feb 28 17:50	10°♐06'28	3°42'23	inferior conj	2159 Feb 12 04:54	23°♏12'25	3°38'23
min. Earth dist.	2158 Mar 03 10:37	7°♐14'08	0.62838 AU	minimum elong	2159 Feb 12 03:39	23°♏16'05	3°38'17
morning rise	2158 Mar 06 21:46	4°♐05'18		min. Earth dist.	2159 Feb 14 06:32	20°♏45'58	0.64619 AU
direct	2158 Mar 13 20:20	1°♐26'51		morning rise	2159 Feb 17 22:07	17°♏03'05	
desc. node	2158 Mar 20 02:09	3°♐16'17		direct	2159 Feb 24 16:57	14°♏13'16	
morning max el	2158 Mar 27 19:12	9°♐22'51	27°47'53	desc. node	2159 Mar 06 23:12	19°♏04'21	
	2158 Apr 12 19:42	0°♑		morning max el	2159 Mar 10 04:28	22°♏03'19	27°18'57
	2158 Apr 29 21:12	0°♒			2159 Mar 17 03:53	0°♐	
morning set	2158 Apr 30 20:30	1°♒56'39			2159 Apr 06 00:22	0°♑	
max. Earth dist.	2158 May 06 08:02	13°♒20'11	1.32734 AU	morning set	2159 Apr 14 12:23	15°♑42'29	
				max. Earth dist.	2159 Apr 19 06:58	25°♑17'11	1.33645 AU
superior conj	2158 May 08 12:01	17°♒59'37	0°-3'-54		2159 Apr 21 13:23	0°♒	
minimum elong	2158 May 08 12:12	18°♒00'38	0°03'52				
behind sun begin	2158 May 08 07:07	17°♒33'08		superior conj	2159 Apr 22 16:29	2°♒22'45	0°-31'-40
behind sun end	2158 May 08 17:17	18°♒28'09		minimum elong	2159 Apr 22 18:05	2°♒31'11	0°31'21
asc. node	2158 May 08 20:54	18°♒47'42		asc. node	2159 Apr 25 17:55	8°♒53'23	
	2158 May 14 01:02	0°♓		evening rise	2159 Apr 29 23:51	17°♒54'40	
evening rise	2158 May 15 12:46	3°♓10'36			2159 May 06 00:19	0°♓	
	2158 May 30 03:12	0°♈		evening max el	2159 May 20 23:53	21°♓49'57	22°06'54
evening max el	2158 Jun 08 07:37	11°♈18'59	23°42'32	retrograde	2159 Jun 02 18:33	28°♓08'25	
desc. node	2158 Jun 16 01:25	16°♈50'28		desc. node	2159 Jun 02 22:27	28°♓08'21	
retrograde	2158 Jun 22 00:15	18°♈10'47		evening set	2159 Jun 05 14:23	27°♓50'41	

min. Earth dist.	2159 Jun 14 05:25	24° Π 08'46	0.55074 AU	desc. node	2160 May 19 19:28	6° Π 40'13	
inferior conj	2159 Jun 14 22:27	23° Π 44'51	-3°-17'-11	inferior conj	2160 May 24 16:15	4° Π 05'49	-1°-24'-58
minimum elong	2159 Jun 14 14:35	23° Π 55'55	3°14'56	minimum elong	2160 May 24 12:14	4° Π 11'35	1°23'32
morning rise	2159 Jun 23 16:35	19° Π 52'51		min. Earth dist.	2160 May 25 17:51	3° Π 29'06	0.54982 AU
direct	2159 Jun 26 18:14	19° Π 31'51			2160 Jun 02 10:34	30° \mathbb{R} 8	
morning max el	2159 Jul 08 13:34	25° Π 02'43	21°27'16	morning rise	2160 Jun 02 12:55	29° \mathbb{R} 58'29	
	2159 Jul 13 02:19	0° \mathfrak{S}		direct	2160 Jun 06 03:50	29° \mathbb{R} 30'15	
asc. node	2159 Jul 22 17:11	15° \mathfrak{S} 07'31			2160 Jun 09 19:21	0° Π	
morning set	2159 Jul 28 19:47	27° \mathfrak{S} 13'11		morning max el	2160 Jun 19 09:08	5° Π 52'31	23°05'42
	2159 Jul 30 03:49	0° \mathcal{Q}			2160 Jul 06 05:40	0° \mathfrak{S}	
				asc. node	2160 Jul 08 14:14	4° \mathfrak{S} 33'43	
superior conj	2159 Aug 05 04:45	12° \mathcal{Q} 40'29	1°42'09	morning set	2160 Jul 12 06:51	12° \mathfrak{S} 07'11	
minimum elong	2159 Aug 05 03:26	12° \mathcal{Q} 33'40	1°42'04				
max. Earth dist.	2159 Aug 09 05:21	20° \mathcal{Q} 54'30	1.35124 AU	superior conj	2160 Jul 19 09:53	27° \mathfrak{S} 21'43	1°32'30
evening rise	2159 Aug 13 14:24	29° \mathcal{Q} 28'20		minimum elong	2160 Jul 19 07:45	27° \mathfrak{S} 10'21	1°32'17
	2159 Aug 13 21:04	0° \mathfrak{M}			2160 Jul 20 15:36	0° \mathcal{Q}	
desc. node	2159 Aug 29 21:49	27° \mathfrak{M} 18'04		max. Earth dist.	2160 Jul 22 01:58	3° \mathcal{Q} 01'21	1.33785 AU
	2159 Aug 31 17:09	0° \mathfrak{A}		evening rise	2160 Jul 27 03:01	13° \mathcal{Q} 19'32	
evening max el	2159 Sep 17 21:27	21° \mathfrak{A} 25'15	26°42'40		2160 Aug 05 02:22	0° \mathfrak{M}	
retrograde	2159 Sep 30 21:23	28° \mathfrak{A} 39'45		desc. node	2160 Aug 15 18:50	16° \mathfrak{M} 59'42	
evening set	2159 Oct 07 11:52	25° \mathfrak{A} 59'18			2160 Aug 25 19:03	0° \mathfrak{A}	
min. Earth dist.	2159 Oct 11 13:09	21° \mathfrak{A} 51'34	0.65917 AU	evening max el	2160 Aug 30 09:17	4° \mathfrak{A} 49'21	27°17'58
inferior conj	2159 Oct 13 07:27	19° \mathfrak{A} 46'25	-1°-48'-29	retrograde	2160 Sep 12 20:17	12° \mathfrak{A} 08'02	
minimum elong	2159 Oct 13 10:21	19° \mathfrak{A} 37'48	1°47'20	evening set	2160 Sep 19 20:55	9° \mathfrak{A} 25'34	
asc. node	2159 Oct 18 16:22	14° \mathfrak{A} 28'12		min. Earth dist.	2160 Sep 23 15:36	5° \mathfrak{A} 54'01	0.64582 AU
morning rise	2159 Oct 19 10:12	14° \mathfrak{A} 02'00		inferior conj	2160 Sep 25 22:30	3° \mathfrak{A} 25'28	-2°-46'-51
direct	2159 Oct 22 06:18	13° \mathfrak{A} 17'07		minimum elong	2160 Sep 26 02:54	3° \mathfrak{A} 13'30	2°45'17
morning max el	2159 Oct 28 20:52	16° \mathfrak{A} 53'38	18°26'00		2160 Sep 29 08:27	30° \mathbb{R} 11	
	2159 Nov 07 14:01	0° \mathfrak{M}		morning rise	2160 Oct 02 10:53	27° \mathfrak{M} 55'57	
morning set	2159 Nov 17 12:49	15° \mathfrak{M} 53'30		asc. node	2160 Oct 04 13:26	27° \mathfrak{M} 22'57	
desc. node	2159 Nov 25 21:05	29° \mathfrak{M} 14'28		direct	2160 Oct 05 00:25	27° \mathfrak{M} 21'51	
	2159 Nov 26 08:34	0° \mathfrak{J}			2160 Oct 10 15:43	0° \mathfrak{A}	
				morning max el	2160 Oct 11 12:29	0° \mathfrak{A} 49'07	17°59'53
superior conj	2159 Dec 03 02:49	10° \mathfrak{J} 40'14	0°-47'-16	morning set	2160 Oct 28 23:17	27° \mathfrak{A} 15'41	
minimum elong	2159 Dec 02 20:46	10° \mathfrak{J} 16'29	0°46'29		2160 Oct 30 14:21	0° \mathfrak{M}	
max. Earth dist.	2159 Dec 04 07:42	12° \mathfrak{J} 33'43	1.45156 AU				
	2159 Dec 15 10:21	0° \mathfrak{S}		superior conj	2160 Nov 11 13:36	19° \mathfrak{M} 41'19	0°01'17
evening rise	2159 Dec 19 07:22	6° \mathfrak{S} 06'08		minimum elong	2160 Nov 11 13:45	19° \mathfrak{M} 41'53	0°01'16
greatest brilliancy	2159 Dec 31 23:38	25° \mathfrak{S} 55'48	-0.7m	behind sun begin	2160 Nov 11 03:20	19° \mathfrak{M} 00'02	
	2160 Jan 03 17:12	0° \approx		behind sun end	2160 Nov 12 00:09	20° \mathfrak{M} 23'41	
evening max el	2160 Jan 11 02:51	9° \approx 30'24	19°10'15	desc. node	2160 Nov 11 18:09	19° \mathfrak{M} 59'35	
asc. node	2160 Jan 14 15:38	12° \approx 25'34		max. Earth dist.	2160 Nov 16 02:24	26° \mathfrak{M} 54'55	1.44727 AU
retrograde	2160 Jan 18 02:36	13° \approx 29'47			2160 Nov 18 01:20	0° \mathfrak{J}	
evening set	2160 Jan 21 10:01	12° \approx 25'57		evening rise	2160 Nov 27 22:23	15° \mathfrak{J} 21'58	
inferior conj	2160 Jan 27 01:11	6° \approx 34'16	3°19'57		2160 Dec 07 12:10	0° \mathfrak{S}	
minimum elong	2160 Jan 26 22:57	6° \approx 41'22	3°19'33	greatest brilliancy	2160 Dec 17 12:25	14° \mathfrak{S} 37'28	-0.6m
min. Earth dist.	2160 Jan 28 11:34	4° \approx 44'37	0.66014 AU	evening max el	2160 Dec 24 07:37	22° \mathfrak{S} 59'52	20°04'26
morning rise	2160 Feb 01 11:01	0° \approx 20'48		asc. node	2160 Dec 31 12:40	27° \mathfrak{S} 29'07	
	2160 Feb 01 20:41	30° \mathbb{R} 3		retrograde	2161 Jan 01 00:23	27° \mathfrak{S} 30'26	
direct	2160 Feb 07 20:00	27° \mathfrak{S} 33'18		evening set	2161 Jan 04 15:49	26° \mathfrak{S} 13'00	
	2160 Feb 14 14:15	0° \approx		inferior conj	2161 Jan 10 03:23	20° \mathfrak{S} 07'35	2°50'35
morning max el	2160 Feb 20 14:20	5° \approx 06'05	26°20'59	minimum elong	2161 Jan 10 00:46	20° \mathfrak{S} 16'21	2°49'54
desc. node	2160 Feb 21 20:15	6° \approx 23'27		min. Earth dist.	2161 Jan 10 23:59	18° \mathfrak{S} 58'25	0.67003 AU
	2160 Mar 10 16:41	0° \mathfrak{H}		morning rise	2161 Jan 15 09:07	13° \mathfrak{S} 52'15	
morning set	2160 Mar 27 16:03	28° \mathfrak{H} 48'03		direct	2161 Jan 21 04:43	11° \mathfrak{S} 17'40	
	2160 Mar 28 07:21	0° \mathfrak{Y}		morning max el	2161 Feb 01 23:08	18° \mathfrak{S} 19'02	25°03'07
max. Earth dist.	2160 Mar 31 18:47	6° \mathfrak{Y} 41'24	1.35012 AU	desc. node	2161 Feb 07 17:17	24° \mathfrak{S} 46'53	
					2161 Feb 11 19:38	0° \approx	
superior conj	2160 Apr 05 14:20	16° \mathfrak{Y} 21'14	0°-59'-37		2161 Mar 03 18:02	0° \mathfrak{H}	
minimum elong	2160 Apr 05 17:21	16° \mathfrak{Y} 36'43	0°59'06	morning set	2161 Mar 10 02:30	10° \mathfrak{H} 58'58	
asc. node	2160 Apr 11 14:57	28° \mathfrak{Y} 51'25		max. Earth dist.	2161 Mar 13 19:21	17° \mathfrak{H} 43'28	1.36805 AU
	2160 Apr 12 04:09	0° \mathbb{R}					
evening rise	2160 Apr 13 08:14	2° \mathbb{R} 25'14		superior conj	2161 Mar 20 02:36	29° \mathfrak{H} 46'57	-1°-25'-58
	2160 Apr 29 11:46	0° Π		minimum elong	2161 Mar 20 06:42	0° \mathfrak{Y} 07'07	1°25'25
evening max el	2160 May 02 01:17	2° Π 45'26	20°41'16		2161 Mar 20 05:15	0° \mathfrak{Y}	
retrograde	2160 May 13 07:41	8° Π 14'16		evening rise	2161 Mar 28 11:40	16° \mathfrak{Y} 35'19	
evening set	2160 May 15 10:24	8° Π 03'27		asc. node	2161 Mar 29 12:00	18° \mathfrak{Y} 37'08	

	2161 Apr 04 11:03	0°♄		asc. node	2162 Mar 16 09:01	8°♃05'11	
evening max el	2161 Apr 14 14:37	14°♄20'26	19°32'58	evening max el	2162 Mar 28 14:28	26°♃33'45	18°44'27
retrograde	2161 Apr 24 03:32	18°♄56'59			2162 Apr 02 19:06	0°♄	
evening set	2161 Apr 26 04:18	18°♄45'22		retrograde	2162 Apr 05 15:58	0°♄29'34	
inferior conj	2161 May 04 19:24	14°♄40'48	0°32'26	evening set	2162 Apr 07 21:40	0°♄12'33	
minimum elong	2161 May 04 20:46	14°♄38'35	0°31'57		2162 Apr 08 15:12	30°♄	
desc. node	2161 May 06 16:27	13°♄28'46		inferior conj	2162 Apr 15 17:36	25°♃50'30	2°06'14
min. Earth dist.	2161 May 07 08:16	13°♄03'57	0.55842 AU	minimum elong	2162 Apr 15 21:30	25°♃43'14	2°05'05
morning rise	2161 May 13 09:31	10°♄02'07		min. Earth dist.	2162 Apr 19 01:16	23°♃23'44	0.57473 AU
direct	2161 May 17 22:25	9°♄15'44		morning rise	2162 Apr 23 16:57	20°♃38'12	
morning max el	2161 May 31 23:50	16°♄20'50	24°47'25	desc. node	2162 Apr 23 13:29	20°♃42'08	
	2161 Jun 12 00:24	0°♂		direct	2162 Apr 29 07:06	19°♃21'24	
asc. node	2161 Jun 25 11:16	24°♂19'13		morning max el	2162 May 13 15:27	26°♃53'35	26°17'16
morning set	2161 Jun 26 18:44	27°♂03'51			2162 May 16 14:54	0°♄	
	2161 Jun 28 03:52	0°♄			2162 Jun 05 07:18	0°♂	
				morning set	2162 Jun 11 05:46	11°♂56'43	
superior conj	2161 Jul 03 19:10	12°♄14'57	1°17'49	asc. node	2162 Jun 12 08:18	14°♂17'18	
minimum elong	2161 Jul 03 16:46	12°♄01'52	1°17'28				
max. Earth dist.	2161 Jul 05 06:55	15°♄29'03	1.32851 AU	superior conj	2162 Jun 18 06:32	27°♂12'13	0°58'57
evening rise	2161 Jul 11 01:24	27°♄39'46		minimum elong	2162 Jun 18 04:21	27°♂00'09	0°58'34
	2161 Jul 12 05:04	0°♂		max. Earth dist.	2162 Jun 18 17:19	28°♂11'28	1.32318 AU
	2161 Jul 29 08:44	0°♄			2162 Jun 19 13:05	0°♄	
desc. node	2161 Aug 02 15:49	6°♄04'39		evening rise	2162 Jun 25 06:27	12°♄18'19	
evening max el	2161 Aug 12 19:07	17°♄49'03	27°24'48		2162 Jul 04 08:47	0°♂	
retrograde	2161 Aug 26 13:03	25°♄06'18		desc. node	2162 Jul 20 12:49	24°♂16'40	
evening set	2161 Sep 02 17:52	22°♄33'25			2162 Jul 25 19:55	0°♄	
min. Earth dist.	2161 Sep 06 08:24	19°♄32'58	0.62909 AU	evening max el	2162 Jul 26 00:25	0°♄10'43	26°59'00
inferior conj	2161 Sep 09 03:34	16°♄49'54	-3°-41'-39	retrograde	2162 Aug 08 22:23	7°♄24'13	
minimum elong	2161 Sep 09 08:54	16°♄36'53	3°40'10	evening set	2162 Aug 15 22:26	5°♄14'18	
morning rise	2161 Sep 16 02:31	11°♄38'23		min. Earth dist.	2162 Aug 19 14:42	2°♄34'12	0.60963 AU
direct	2161 Sep 18 12:11	11°♄11'36		inferior conj	2162 Aug 22 19:19	29°♂50'30	-4°-27'-35
asc. node	2161 Sep 21 10:28	11°♄52'21		minimum elong	2162 Aug 23 00:14	29°♂39'56	4°26'42
morning max el	2161 Sep 25 04:37	14°♄37'51	17°51'26		2162 Aug 22 14:54	30°♄	
	2161 Oct 05 19:44	0°♂		morning rise	2162 Aug 30 05:06	25°♂00'06	
morning set	2161 Oct 11 09:27	9°♂46'17		direct	2162 Sep 01 13:54	24°♂37'43	
				asc. node	2162 Sep 08 07:31	27°♂46'08	
superior conj	2161 Oct 23 00:47	29°♂55'25	0°44'02	morning max el	2162 Sep 08 18:07	28°♂11'10	18°01'48
minimum elong	2161 Oct 23 04:45	0°♂12'06	0°43'29		2162 Sep 10 10:46	0°♄	
	2161 Oct 23 01:52	0°♂		morning set	2162 Sep 24 13:01	23°♄06'40	
desc. node	2161 Oct 29 15:09	10°♂46'52			2162 Sep 28 06:26	0°♂	
max. Earth dist.	2161 Oct 29 18:08	10°♂58'53	1.43626 AU				
evening rise	2161 Nov 07 06:48	24°♂26'51		superior conj	2162 Oct 04 14:44	11°♂28'00	1°15'30
	2161 Nov 10 21:31	0°♄		minimum elong	2162 Oct 04 19:07	11°♂47'21	1°15'01
	2161 Dec 01 17:20	0°♄		max. Earth dist.	2162 Oct 12 05:14	24°♂31'14	1.41984 AU
greatest brilliancy	2161 Dec 02 02:19	0°♄28'40	-0.4m		2162 Oct 15 13:10	0°♂	
evening max el	2161 Dec 07 06:54	6°♄30'21	21°11'41	desc. node	2162 Oct 16 12:10	1°♂33'08	
retrograde	2161 Dec 15 22:01	11°♄37'37		evening rise	2162 Oct 18 01:40	4°♂03'36	
asc. node	2161 Dec 18 09:42	11°♄03'17			2162 Nov 04 06:20	0°♄	
evening set	2161 Dec 19 23:22	10°♄04'59		greatest brilliancy	2162 Nov 15 06:26	14°♄41'32	-0.3m
inferior conj	2161 Dec 25 09:10	3°♄49'06	2°12'41	evening max el	2162 Nov 20 00:54	20°♄02'40	22°27'59
minimum elong	2161 Dec 25 06:42	3°♄57'37	2°11'51	retrograde	2162 Nov 29 17:44	25°♄48'35	
min. Earth dist.	2161 Dec 25 17:29	3°♄20'25	0.67605 AU	evening set	2162 Dec 04 06:58	23°♄59'16	
	2161 Dec 28 06:21	30°♄		asc. node	2162 Dec 05 06:44	23°♄05'50	
morning rise	2161 Dec 30 13:39	27°♄34'02		inferior conj	2162 Dec 09 16:33	17°♄36'33	1°27'53
direct	2162 Jan 04 18:22	25°♄19'07		minimum elong	2162 Dec 09 14:41	17°♄43'02	1°27'09
	2162 Jan 13 15:40	0°♄		min. Earth dist.	2162 Dec 09 13:41	17°♄46'29	0.67843 AU
morning max el	2162 Jan 15 07:41	1°♄36'26	23°35'35	morning rise	2162 Dec 14 22:17	11°♄23'49	
desc. node	2162 Jan 25 14:20	13°♄56'04		direct	2162 Dec 19 11:58	9°♄31'40	
	2162 Feb 05 20:06	0°♄		morning max el	2162 Dec 28 19:16	15°♄00'15	22°08'09
morning set	2162 Feb 19 13:31	21°♄58'12		greatest brilliancy	2163 Jan 02 10:25	20°♄12'06	-0.4m
max. Earth dist.	2162 Feb 23 14:04	28°♄55'00	1.38898 AU		2163 Jan 09 21:22	0°♄	
	2162 Feb 24 04:49	0°♄		desc. node	2163 Jan 12 11:23	3°♄38'10	
					2163 Jan 29 20:34	0°♄	
superior conj	2162 Mar 03 01:30	12°♄29'58	-1°-48'-7	morning set	2163 Jan 30 19:54	1°♄33'54	
minimum elong	2162 Mar 03 05:42	12°♄49'40	1°47'45	max. Earth dist.	2163 Feb 05 11:34	10°♄52'13	1.41039 AU
evening rise	2162 Mar 12 07:26	0°♄17'35					
	2162 Mar 12 03:49	0°♄		superior conj	2163 Feb 13 06:14	24°♄18'41	-2°-2'-23

minimum elong	2163 Feb 13 08:38	24° \approx 29'19	2°02'19	superior conj	2164 Jan 25 11:29	4° \approx 59'49	-2°-4'00
	2163 Feb 16 10:11	0° H		minimum elong	2164 Jan 25 09:28	4° \approx 51'20	2°03'59
evening rise	2163 Feb 23 16:17	13° H 24'16		evening rise	2164 Feb 06 10:08	25° \approx 45'57	
asc. node	2163 Mar 03 06:03	27° H 09'33			2164 Feb 08 19:18	0° H	
	2163 Mar 04 22:53	0° Y		asc. node	2164 Feb 18 03:06	15° H 41'46	
evening max el	2163 Mar 11 21:45	9° Y 17'33	18°16'02	evening max el	2164 Feb 23 09:08	22° H 21'41	18°07'18
retrograde	2163 Mar 18 23:30	12° Y 49'28		retrograde	2164 Feb 29 22:42	25° H 45'26	
evening set	2163 Mar 21 10:55	12° Y 24'24		evening set	2164 Mar 03 15:13	25° H 10'56	
inferior conj	2163 Mar 28 13:08	7° Y 41'00	3°06'21	inferior conj	2164 Mar 10 03:19	20° H 06'18	3°36'12
minimum elong	2163 Mar 28 16:30	7° Y 33'42	3°05'42	minimum elong	2164 Mar 10 04:48	20° H 02'35	3°36'05
min. Earth dist.	2163 Mar 31 22:59	4° Y 44'51	0.59531 AU	min. Earth dist.	2164 Mar 13 04:11	17° H 05'29	0.61671 AU
morning rise	2163 Apr 04 18:24	2° Y 02'16		morning rise	2164 Mar 16 15:43	14° H 10'18	
desc. node	2163 Apr 10 10:31	0° Y 10'56		direct	2164 Mar 23 12:22	11° H 45'26	
direct	2163 Apr 11 04:30	0° Y 09'24		desc. node	2164 Mar 27 07:34	12° H 25'53	
morning max el	2163 Apr 25 12:30	7° Y 56'31	27°20'44	morning max el	2164 Apr 06 15:58	19° H 40'30	27°48'51
	2163 May 12 05:19	0° B			2164 Apr 15 11:23	0° Y	
morning set	2163 May 26 14:18	26° B 40'31			2164 May 04 02:19	0° B	
	2163 May 28 04:14	0° II		morning set	2164 May 09 18:22	11° B 08'12	
asc. node	2163 May 30 05:21	4° II 23'20		max. Earth dist.	2164 May 15 15:57	23° B 35'42	1.32412 AU
max. Earth dist.	2163 Jun 02 05:41	10° II 58'26	1.32174 AU	asc. node	2164 May 16 02:24	24° B 32'22	
superior conj	2163 Jun 02 18:17	12° II 07'44	0°36'38	superior conj	2164 May 17 04:38	26° B 55'14	0°11'32
minimum elong	2163 Jun 02 16:43	11° II 59'12	0°36'19	minimum elong	2164 May 17 04:06	26° B 52'19	0°11'25
evening rise	2163 Jun 09 15:46	27° II 07'24		behind sun begin	2164 May 17 00:31	26° B 32'47	
	2163 Jun 11 00:43	0° E		behind sun end	2164 May 17 07:41	27° B 11'51	
	2163 Jun 28 02:11	0° L			2164 May 18 14:27	0° II	
desc. node	2163 Jul 07 09:49	11° L 13'59		evening rise	2164 May 24 03:14	11° II 59'19	
evening max el	2163 Jul 07 22:51	11° L 45'30	26°00'40		2164 Jun 02 06:59	0° E	
retrograde	2163 Jul 21 22:45	18° L 55'14		evening max el	2164 Jun 18 14:29	22° E 36'25	24°36'57
evening set	2163 Jul 28 05:50	17° L 19'42		desc. node	2164 Jun 23 06:49	26° E 26'56	
min. Earth dist.	2163 Aug 01 11:21	14° L 43'30	0.58901 AU	retrograde	2164 Jul 02 12:30	29° E 39'05	
inferior conj	2163 Aug 04 18:11	12° L 17'25	-4°-55'-47	evening set	2164 Jul 07 13:27	28° E 41'50	
minimum elong	2163 Aug 04 20:21	12° L 13'21	4°55'40	min. Earth dist.	2164 Jul 13 01:34	25° E 51'01	0.56978 AU
morning rise	2163 Aug 12 14:20	7° L 50'21		inferior conj	2164 Jul 15 21:16	24° E 01'52	-4°-53'-17
direct	2163 Aug 15 01:12	7° L 30'15		minimum elong	2164 Jul 15 18:20	24° E 06'38	4°53'03
morning max el	2163 Aug 23 01:53	11° L 20'39	18°32'18	morning rise	2164 Jul 24 02:56	19° E 56'37	
asc. node	2163 Aug 26 04:34	14° L 49'35		direct	2164 Jul 26 17:53	19° E 37'34	
	2163 Sep 04 12:14	0° M		morning max el	2164 Aug 05 00:54	23° E 57'16	19°24'02
morning set	2163 Sep 08 04:56	7° M 02'42			2164 Aug 10 04:16	0° L	
superior conj	2163 Sep 17 03:12	24° M 07'11	1°35'07	asc. node	2164 Aug 12 01:38	2° L 48'00	
minimum elong	2163 Sep 17 06:08	24° M 20'50	1°34'53	morning set	2164 Aug 22 05:27	21° L 24'09	
	2163 Sep 20 07:59	0° A			2164 Aug 26 12:18	0° M	
max. Earth dist.	2163 Sep 24 11:35	7° A 22'27	1.40006 AU	superior conj	2164 Aug 30 08:34	7° M 37'07	1°44'20
evening rise	2163 Sep 28 18:16	14° A 40'38		minimum elong	2164 Aug 30 09:36	7° M 42'12	1°44'17
desc. node	2163 Oct 03 09:11	22° A 14'43		max. Earth dist.	2164 Sep 05 15:26	19° M 33'27	1.37949 AU
	2163 Oct 08 07:49	0° M		evening rise	2164 Sep 09 10:49	26° M 24'48	
	2163 Oct 30 05:36	0° J			2164 Sep 11 12:13	0° A	
evening max el	2163 Nov 02 14:56	3° J 37'47	23°47'55	desc. node	2164 Sep 19 06:13	12° A 47'36	
retrograde	2163 Nov 13 10:20	9° J 59'53			2164 Sep 30 20:51	0° M	
evening set	2163 Nov 18 12:59	7° J 53'19		evening max el	2164 Oct 15 03:02	17° M 16'28	25°04'59
asc. node	2163 Nov 22 03:47	3° J 55'01		retrograde	2164 Oct 26 22:54	24° M 07'42	
inferior conj	2163 Nov 23 23:44	1° J 27'33	0°37'31	evening set	2164 Nov 01 15:50	21° M 44'57	
minimum elong	2163 Nov 23 22:51	1° J 30'33	0°37'09	min. Earth dist.	2164 Nov 06 04:46	16° M 39'44	0.67300 AU
min. Earth dist.	2163 Nov 23 10:12	2° J 13'35	0.67740 AU	inferior conj	2164 Nov 07 04:59	15° M 20'25	0°-17'-5
	2163 Nov 25 01:42	30° R M		minimum elong	2164 Nov 07 05:24	15° M 19'01	0°16'55
morning rise	2163 Nov 29 08:54	25° M 19'23		asc. node	2164 Nov 08 00:50	14° M 15'50	
direct	2163 Dec 03 08:31	23° M 49'52		morning rise	2164 Nov 12 19:35	9° M 19'09	
morning max el	2163 Dec 11 13:23	28° M 34'25	20°48'16	direct	2164 Nov 16 06:45	8° M 09'54	
	2163 Dec 12 21:57	0° J		morning max el	2164 Nov 23 15:24	12° M 20'09	19°40'54
greatest brilliancy	2163 Dec 17 07:38	5° J 17'24	-0.5m	greatest brilliancy	2164 Dec 01 16:21	22° M 20'57	-0.6m
desc. node	2163 Dec 30 08:25	23° J 43'37			2164 Dec 06 22:41	0° J	
	2164 Jan 03 12:30	0° E		desc. node	2164 Dec 16 05:30	14° J 06'20	
morning set	2164 Jan 10 00:11	9° E 58'30		morning set	2164 Dec 18 20:46	18° J 10'14	
max. Earth dist.	2164 Jan 18 16:26	23° E 45'47	1.42934 AU		2164 Dec 26 11:14	0° E	
	2164 Jan 22 11:43	0° \approx		max. Earth dist.	2164 Dec 31 04:19	7° E 25'51	1.44332 AU

superior conj	2165 Jan 04 14:26	14°☿29'59	-1°-48'-10	desc. node	2165 Dec 03 02:32	4°♄40'37	
minimum elong	2165 Jan 04 07:03	14°☿00'17	1°47'39	max. Earth dist.	2165 Dec 13 21:06	21°♄35'50	1.45069 AU
	2165 Jan 14 01:12	0°♊					
evening rise	2165 Jan 18 08:47	7°♊15'25		superior conj	2165 Dec 14 20:29	23°♄07'43	-1°-13'-32
	2165 Feb 01 07:52	0°♋		minimum elong	2165 Dec 14 12:01	22°♄34'25	1°12'35
asc. node	2165 Feb 04 00:08	3°♋32'29			2165 Dec 19 05:07	0°☿	
evening max el	2165 Feb 05 21:42	5°♋39'20	18°17'37	evening rise	2165 Dec 30 08:35	17°☿47'13	
retrograde	2165 Feb 12 08:53	9°♋08'12			2166 Jan 06 22:22	0°♊	
evening set	2165 Feb 15 06:30	8°♋23'15		evening max el	2166 Jan 20 08:55	19°♊05'01	18°46'11
inferior conj	2165 Feb 21 08:07	2°♋58'53	3°42'43	asc. node	2166 Jan 21 21:09	20°♊29'51	
minimum elong	2165 Feb 21 07:44	2°♋59'59	3°42'43	retrograde	2166 Jan 27 01:57	22°♊50'14	
min. Earth dist.	2165 Feb 23 18:48	0°♋15'07	0.63635 AU	evening set	2166 Jan 30 05:26	21°♊53'44	
	2165 Feb 24 00:24	30°♋		inferior conj	2166 Feb 04 23:42	16°♊11'36	3°32'05
morning rise	2165 Feb 27 07:11	26°♊52'51		minimum elong	2166 Feb 04 21:57	16°♊16'55	3°31'52
direct	2165 Mar 06 04:56	24°♊07'43		min. Earth dist.	2166 Feb 06 18:51	13°♊59'36	0.65262 AU
desc. node	2165 Mar 14 04:38	27°♊06'05		morning rise	2166 Feb 10 13:20	10°♊00'05	
	2165 Mar 17 20:03	0°♋		direct	2166 Feb 17 04:39	7°♊09'20	
morning max el	2165 Mar 19 23:58	2°♋03'15	27°39'38	desc. node	2166 Mar 01 01:42	13°♊36'21	
	2165 Apr 09 17:25	0°♌		morning max el	2166 Mar 02 09:40	14°♊54'19	26°57'17
morning set	2165 Apr 23 15:35	25°♌12'01			2166 Mar 14 18:15	0°♋	
	2165 Apr 26 00:40	0°♌			2166 Apr 02 10:49	0°♌	
max. Earth dist.	2165 Apr 28 20:00	5°♌49'36	1.33060 AU	morning set	2166 Apr 07 02:49	8°♌42'24	
				max. Earth dist.	2166 Apr 11 14:10	17°♌31'07	1.34161 AU
superior conj	2165 May 01 11:50	11°♌28'54	0°-15'-33				
minimum elong	2165 May 01 12:36	11°♌33'01	0°15'25	superior conj	2166 Apr 15 13:49	25°♌42'39	0°-43'-35
behind sun begin	2165 May 01 11:15	11°♌25'46		minimum elong	2166 Apr 15 16:02	25°♌54'13	0°43'10
behind sun end	2165 May 01 13:57	11°♌40'16			2166 Apr 17 14:51	0°♌	
asc. node	2165 May 02 23:26	14°♌40'21		asc. node	2166 Apr 19 20:29	4°♌43'23	
evening rise	2165 May 08 14:58	26°♌47'42		evening rise	2166 Apr 23 01:09	11°♌26'40	
	2165 May 10 03:43	0°♍			2166 May 02 17:26	0°♍	
	2165 May 28 06:23	0°☿		evening max el	2166 May 12 23:58	13°♍44'43	21°28'50
evening max el	2165 May 31 04:17	3°☿05'25	23°01'23	retrograde	2166 May 25 04:48	19°♍43'09	
desc. node	2165 Jun 10 03:51	9°☿19'38		evening set	2166 May 27 14:59	19°♍29'48	
retrograde	2165 Jun 13 14:01	9°☿46'23		desc. node	2166 May 28 00:52	19°♍24'58	
evening set	2165 Jun 17 02:51	9°☿18'59		inferior conj	2166 Jun 06 00:07	15°♍29'50	-2°-32'-39
min. Earth dist.	2165 Jun 24 13:27	5°☿59'09	0.55540 AU	minimum elong	2166 Jun 05 17:18	15°♍39'22	2°30'25
inferior conj	2165 Jun 26 04:56	5°☿01'50	-4°-6'-18	min. Earth dist.	2166 Jun 06 01:27	15°♍27'57	0.54908 AU
minimum elong	2165 Jun 25 21:28	5°☿12'42	4°04'42	morning rise	2166 Jun 14 20:08	11°♍33'26	
morning rise	2165 Jul 04 19:03	1°☿09'19		direct	2166 Jun 18 02:27	11°♍10'13	
direct	2165 Jul 07 15:38	0°☿49'57		morning max el	2166 Jun 30 13:37	17°♍04'00	22°07'49
morning max el	2165 Jul 18 12:54	5°☿52'34	20°36'49		2166 Jul 10 18:17	0°☿	
asc. node	2165 Jul 29 22:41	21°☿28'23		asc. node	2166 Jul 16 19:45	10°☿40'30	
	2165 Aug 03 11:43	0°♎		morning set	2166 Jul 21 21:35	20°☿53'03	
morning set	2165 Aug 06 11:43	6°♎02'53			2166 Jul 26 05:02	0°♎	
superior conj	2165 Aug 14 01:55	21°♎42'58	1°44'59	superior conj	2166 Jul 29 03:36	6°♎13'59	1°38'43
minimum elong	2165 Aug 14 01:19	21°♎39'57	1°44'58	minimum elong	2166 Jul 29 01:52	6°♎04'54	1°38'36
	2165 Aug 18 05:13	0°♏		max. Earth dist.	2166 Aug 01 13:41	13°♎20'53	1.34508 AU
max. Earth dist.	2165 Aug 18 22:22	1°♏23'46	1.36062 AU	evening rise	2166 Aug 06 05:28	22°♎38'20	
evening rise	2165 Aug 23 00:04	9°♏08'00			2166 Aug 10 03:03	0°♏	
	2165 Sep 04 03:40	0°♐		desc. node	2166 Aug 24 00:12	23°♏03'38	
desc. node	2165 Sep 06 03:13	3°♐06'06			2166 Aug 28 20:46	0°♐	
	2165 Sep 26 16:25	0°♑		evening max el	2166 Sep 10 03:27	14°♐29'37	27°00'47
evening max el	2165 Sep 27 15:02	0°♑55'57	26°11'52	retrograde	2166 Sep 23 08:52	21°♐46'37	
retrograde	2165 Oct 10 06:41	8°♑05'28		evening set	2166 Sep 30 04:02	19°♐04'27	
evening set	2165 Oct 16 13:35	5°♑29'58		min. Earth dist.	2166 Oct 04 02:29	15°♐12'02	0.65396 AU
min. Earth dist.	2165 Oct 20 18:59	1°♑00'48	0.66520 AU	inferior conj	2166 Oct 06 01:58	12°♐56'21	-2°-13'-24
	2165 Oct 21 14:43	30°♑		minimum elong	2166 Oct 06 05:32	12°♐46'06	2°12'02
inferior conj	2165 Oct 22 06:25	29°♐11'17	-1°-14'-40	morning rise	2166 Oct 12 08:39	7°♐17'30	
minimum elong	2165 Oct 22 08:23	29°♐05'11	1°13'51	asc. node	2166 Oct 12 18:57	7°♐05'56	
asc. node	2165 Oct 25 21:53	25°♐04'10		direct	2166 Oct 15 01:37	6°♐37'38	
morning rise	2165 Oct 28 04:16	23°♐19'41		morning max el	2166 Oct 21 14:18	10°♐09'22	18°12'38
direct	2165 Oct 31 05:08	22°♐27'04			2166 Nov 04 08:59	0°♑	
morning max el	2165 Nov 07 00:24	26°♐13'23	18°48'35	morning set	2166 Nov 09 04:33	7°♑53'33	
	2165 Nov 10 07:22	0°♒		desc. node	2166 Nov 19 23:32	25°♑22'30	
morning set	2165 Nov 28 10:15	27°♑18'26			2166 Nov 22 21:18	0°♒	
	2165 Nov 30 03:15	0°♒					

superior conj	2166 Nov 23 23:14	1° \mathbb{A} 42'43	0°-26'-34	morning set	2167 Oct 22 01:57	19° \mathbb{A} 47'47	
minimum elong	2166 Nov 23 19:49	1° \mathbb{A} 29'12	0°26'07		2167 Oct 28 01:29	0° \mathbb{M}	
max. Earth dist.	2166 Nov 26 16:14	5° \mathbb{A} 59'00	1.45070 AU				
evening rise	2166 Dec 10 09:41	27° \mathbb{A} 25'33		superior conj	2167 Nov 03 19:21	11° \mathbb{M} 12'03	0°20'36
	2166 Dec 12 01:23	0° \mathbb{B}		minimum elong	2167 Nov 03 21:35	11° \mathbb{M} 21'11	0°20'17
greatest brilliancy	2166 Dec 26 09:58	21° \mathbb{B} 55'58	-0.7m	desc. node	2167 Nov 06 20:33	16° \mathbb{M} 08'52	
	2167 Jan 01 09:37	0° \mathbb{A}		max. Earth dist.	2167 Nov 09 10:33	20° \mathbb{M} 17'11	1.44342 AU
evening max el	2167 Jan 03 16:34	2° \mathbb{A} 34'08	19°31'35		2167 Nov 15 14:35	0° \mathbb{A}	
asc. node	2167 Jan 08 18:11	6° \mathbb{A} 19'17		evening rise	2167 Nov 19 19:58	6° \mathbb{A} 32'27	
retrograde	2167 Jan 10 22:41	6° \mathbb{A} 45'28			2167 Dec 05 10:36	0° \mathbb{B}	
evening set	2167 Jan 14 09:23	5° \mathbb{A} 35'59		greatest brilliancy	2167 Dec 11 19:25	8° \mathbb{B} 53'58	-0.5m
inferior conj	2167 Jan 19 22:46	29° \mathbb{B} 38'20	3°08'39	evening max el	2167 Dec 17 19:08	16° \mathbb{B} 04'33	20°31'38
minimum elong	2167 Jan 19 20:19	29° \mathbb{B} 46'22	3°08'07	retrograde	2167 Dec 25 20:38	20° \mathbb{B} 49'51	
	2167 Jan 19 16:08	30° \mathbb{R} \mathbb{B}		asc. node	2167 Dec 26 15:14	20° \mathbb{B} 46'29	
min. Earth dist.	2167 Jan 21 03:08	28° \mathbb{B} 05'40	0.66490 AU	evening set	2167 Dec 29 16:10	19° \mathbb{B} 25'54	
morning rise	2167 Jan 25 06:31	23° \mathbb{B} 24'02		inferior conj	2168 Jan 04 02:46	13° \mathbb{B} 15'36	2°35'26
direct	2167 Jan 31 10:15	20° \mathbb{B} 40'47		minimum elong	2168 Jan 04 00:09	13° \mathbb{B} 24'28	2°34'39
morning max el	2167 Feb 12 18:52	28° \mathbb{B} 01'23	25°49'38	min. Earth dist.	2168 Jan 04 17:54	12° \mathbb{B} 24'05	0.67310 AU
	2167 Feb 14 16:05	0° \mathbb{A}		morning rise	2168 Jan 09 07:41	7° \mathbb{B} 00'23	
desc. node	2167 Feb 15 22:45	1° \mathbb{A} 25'13		direct	2168 Jan 14 21:02	4° \mathbb{B} 33'47	
	2167 Mar 08 11:45	0° \mathbb{H}		morning max el	2168 Jan 26 03:20	11° \mathbb{B} 16'49	24°26'29
morning set	2167 Mar 20 23:45	21° \mathbb{H} 26'01		desc. node	2168 Feb 02 19:46	20° \mathbb{B} 10'04	
max. Earth dist.	2167 Mar 24 20:40	28° \mathbb{H} 42'09	1.35728 AU		2168 Feb 10 02:18	0° \mathbb{A}	
	2167 Mar 25 12:52	0° \mathbb{Y}			2168 Feb 29 05:30	0° \mathbb{H}	
				morning set	2168 Mar 02 00:58	3° \mathbb{H} 08'16	
superior conj	2167 Mar 30 07:59	9° \mathbb{Y} 28'12	-1°-11'-8	max. Earth dist.	2168 Mar 05 18:19	9° \mathbb{H} 45'55	1.37679 AU
minimum elong	2167 Mar 30 11:32	9° \mathbb{Y} 46'05	1°10'34				
asc. node	2167 Apr 06 17:30	24° \mathbb{Y} 36'36		superior conj	2168 Mar 12 15:04	22° \mathbb{H} 37'05	-1°-36'-4
evening rise	2167 Apr 07 07:41	25° \mathbb{Y} 49'05		minimum elong	2168 Mar 12 19:22	22° \mathbb{H} 57'53	1°35'34
	2167 Apr 09 09:19	0° \mathbb{B}			2168 Mar 16 09:42	0° \mathbb{Y}	
evening max el	2167 Apr 25 06:28	24° \mathbb{B} 56'09	20°09'54	evening rise	2168 Mar 21 08:13	9° \mathbb{Y} 48'32	
	2167 May 05 00:32	0° \mathbb{I}		asc. node	2168 Mar 23 14:31	14° \mathbb{Y} 15'36	
retrograde	2167 May 05 18:43	0° \mathbb{I} 01'31			2168 Apr 01 12:48	0° \mathbb{B}	
	2167 May 06 13:04	30° \mathbb{R} \mathbb{B}		evening max el	2168 Apr 07 00:28	6° \mathbb{B} 47'26	19°09'45
evening set	2167 May 07 19:27	29° \mathbb{B} 50'57		retrograde	2168 Apr 15 21:03	11° \mathbb{B} 05'02	
desc. node	2167 May 14 21:54	26° \mathbb{B} 59'39		evening set	2168 Apr 17 23:36	10° \mathbb{B} 51'30	
inferior conj	2167 May 16 20:06	25° \mathbb{B} 52'13	0°-33'-43	inferior conj	2168 Apr 26 06:34	6° \mathbb{B} 39'49	1°16'13
minimum elong	2167 May 16 18:32	25° \mathbb{B} 54'33	0°33'09	minimum elong	2168 Apr 26 09:28	6° \mathbb{B} 34'53	1°15'14
min. Earth dist.	2167 May 18 14:24	24° \mathbb{B} 49'29	0.55240 AU	min. Earth dist.	2168 Apr 29 05:26	4° \mathbb{B} 40'07	0.56464 AU
morning rise	2167 May 25 15:13	21° \mathbb{B} 33'11		desc. node	2168 Apr 30 18:56	3° \mathbb{B} 41'12	
direct	2167 May 29 14:55	20° \mathbb{B} 58'36		morning rise	2168 May 04 15:12	1° \mathbb{B} 46'30	
morning max el	2167 Jun 12 06:07	27° \mathbb{B} 40'15	23°49'26	direct	2168 May 09 14:48	0° \mathbb{B} 48'46	
	2167 Jun 14 13:22	0° \mathbb{I}		morning max el	2168 May 23 20:32	8° \mathbb{B} 06'30	25°28'09
asc. node	2167 Jul 03 16:47	0° \mathbb{B} 15'17			2168 Jun 09 02:10	0° \mathbb{I}	
	2167 Jul 03 13:46	0° \mathbb{B}		morning set	2168 Jun 19 20:53	20° \mathbb{I} 43'43	
morning set	2167 Jul 06 09:11	5° \mathbb{B} 48'23		asc. node	2168 Jun 19 13:48	20° \mathbb{I} 06'24	
					2168 Jun 24 04:10	0° \mathbb{B}	
superior conj	2167 Jul 13 10:43	21° \mathbb{B} 00'30	1°26'49	superior conj	2168 Jun 26 21:06	5° \mathbb{B} 55'33	1°10'17
minimum elong	2167 Jul 13 08:25	20° \mathbb{B} 48'03	1°26'33	minimum elong	2168 Jun 26 18:44	5° \mathbb{B} 42'34	1°09'54
max. Earth dist.	2167 Jul 15 14:17	25° \mathbb{B} 37'06	1.33341 AU	max. Earth dist.	2168 Jun 27 22:04	8° \mathbb{B} 12'02	1.32576 AU
	2167 Jul 17 16:06	0° \mathbb{Q}		evening rise	2168 Jul 04 00:09	21° \mathbb{B} 11'02	
evening rise	2167 Jul 20 22:38	6° \mathbb{Q} 42'44			2168 Jul 08 09:55	0° \mathbb{Q}	
	2167 Aug 02 16:27	0° \mathbb{M}			2168 Jul 26 19:10	0° \mathbb{M}	
desc. node	2167 Aug 10 21:13	12° \mathbb{M} 30'57		desc. node	2168 Jul 27 18:14	1° \mathbb{M} 15'18	
evening max el	2167 Aug 23 14:54	27° \mathbb{M} 45'26	27°24'42	evening max el	2168 Aug 04 23:01	10° \mathbb{M} 29'30	27°17'53
	2167 Aug 26 03:24	0° \mathbb{A}		retrograde	2168 Aug 18 18:33	17° \mathbb{M} 45'04	
retrograde	2167 Sep 06 05:00	5° \mathbb{A} 03'01		evening set	2168 Aug 25 22:53	15° \mathbb{M} 20'02	
evening set	2167 Sep 13 08:22	2° \mathbb{A} 23'22		min. Earth dist.	2168 Aug 29 13:02	12° \mathbb{M} 30'20	0.62107 AU
	2167 Sep 16 03:01	30° \mathbb{R} \mathbb{M}		inferior conj	2168 Sep 01 12:55	9° \mathbb{M} 44'56	-4°-2'-41
min. Earth dist.	2167 Sep 17 00:59	29° \mathbb{M} 05'51	0.63915 AU	minimum elong	2168 Sep 01 18:19	9° \mathbb{M} 32'29	4°01'24
inferior conj	2167 Sep 19 13:08	26° \mathbb{M} 30'07	-3°-10'-45	morning rise	2168 Sep 08 16:31	4° \mathbb{M} 42'18	
minimum elong	2167 Sep 19 18:03	26° \mathbb{M} 17'22	3°09'10	direct	2168 Sep 11 01:32	4° \mathbb{M} 17'39	
morning rise	2167 Sep 26 05:55	21° \mathbb{M} 07'39		asc. node	2168 Sep 15 13:02	5° \mathbb{M} 47'59	
direct	2167 Sep 28 17:35	20° \mathbb{M} 36'55		morning max el	2168 Sep 17 21:52	7° \mathbb{M} 45'31	17°53'35
asc. node	2167 Sep 29 16:00	20° \mathbb{M} 41'19			2168 Oct 02 08:25	0° \mathbb{A}	
morning max el	2167 Oct 05 06:27	24° \mathbb{M} 02'30	17°54'02	morning set	2168 Oct 03 20:14	2° \mathbb{A} 41'28	
	2167 Oct 10 01:35	0° \mathbb{A}					

superior conj	2168 Oct 14 18:15	22°♄00'44	0°58'51		2169 Sep 24 13:00	0°♄	
minimum elong	2168 Oct 14 22:45	22°♄19'57	0°58'18				
	2168 Oct 19 11:54	0°♄		superior conj	2169 Sep 26 18:34	4°♄04'17	1°25'11
max. Earth dist.	2168 Oct 22 00:50	4°♄10'46	1.42979 AU	minimum elong	2169 Sep 26 22:28	4°♄21'52	1°24'48
desc. node	2168 Oct 23 17:33	6°♄56'06		max. Earth dist.	2169 Oct 04 09:22	17°♄24'53	1.41162 AU
evening rise	2168 Oct 29 06:54	15°♄45'54		evening rise	2169 Oct 09 10:14	25°♄46'26	
	2168 Nov 07 14:33	0°♄		desc. node	2169 Oct 10 14:36	27°♄41'10	
greatest brilliancy	2168 Nov 24 19:51	24°♄04'07	-0.4m		2169 Oct 12 01:16	0°♄	
evening max el	2168 Nov 29 15:59	29°♄35'17	21°43'14		2169 Nov 01 09:57	0°♄	
	2168 Nov 30 01:48	0°♄		greatest brilliancy	2169 Nov 06 18:37	6°♄53'36	-0.2m
retrograde	2168 Dec 08 17:45	4°♄59'19		evening max el	2169 Nov 12 07:58	13°♄08'31	23°01'50
evening set	2168 Dec 12 23:57	3°♄19'33		retrograde	2169 Nov 22 12:27	19°♄11'08	
asc. node	2168 Dec 12 12:17	3°♄41'19		evening set	2169 Nov 27 07:07	17°♄14'34	
	2168 Dec 16 03:57	30°♄		asc. node	2169 Nov 29 09:20	15°♄09'26	
inferior conj	2168 Dec 18 09:28	27°♄00'01	1°54'25	inferior conj	2169 Dec 02 17:01	10°♄49'48	1°07'08
minimum elong	2168 Dec 18 07:12	27°♄07'52	1°53'36	minimum elong	2169 Dec 02 15:32	10°♄54'57	1°06'32
min. Earth dist.	2168 Dec 18 12:50	26°♄48'22	0.67750 AU	min. Earth dist.	2169 Dec 02 09:36	11°♄15'25	0.67840 AU
morning rise	2168 Dec 23 14:13	20°♄45'42		morning rise	2169 Dec 07 23:56	4°♄38'29	
direct	2168 Dec 28 12:21	18°♄40'36		direct	2169 Dec 12 07:25	2°♄56'11	
morning max el	2169 Jan 07 12:57	24°♄37'22	22°57'51	morning max el	2169 Dec 21 03:01	8°♄05'37	21°32'47
	2169 Jan 12 08:24	0°♄		greatest brilliancy	2169 Dec 26 02:43	13°♄45'48	-0.4m
greatest brilliancy	2169 Jan 12 07:08	29°♄56'09	-0.3m	desc. node	2170 Jan 06 13:51	29°♄27'34	
desc. node	2169 Jan 19 16:48	9°♄34'27			2170 Jan 06 22:45	0°♄	
	2169 Feb 02 13:48	0°♄		morning set	2170 Jan 21 18:24	22°♄34'31	
morning set	2169 Feb 11 00:14	13°♄32'45			2170 Jan 26 09:15	0°♄	
max. Earth dist.	2169 Feb 15 13:31	21°♄14'24	1.39824 AU	max. Earth dist.	2170 Jan 28 13:14	3°♄33'12	1.41893 AU
	2169 Feb 20 13:07	0°♄					
superior conj	2169 Feb 23 06:49	4°♄58'01	-1°-55'-24	superior conj	2170 Feb 05 02:10	16°♄19'18	-2°-4'-56
minimum elong	2169 Feb 23 10:32	5°♄15'06	1°55'09	minimum elong	2170 Feb 05 03:00	16°♄22'54	2°04'56
evening rise	2169 Mar 04 23:47	23°♄16'39			2170 Feb 12 18:42	0°♄	
	2169 Mar 08 12:58	0°♄		evening rise	2170 Feb 16 02:47	6°♄05'12	
asc. node	2169 Mar 10 11:34	3°♄34'31		asc. node	2170 Feb 25 08:37	22°♄26'26	
evening max el	2169 Mar 21 03:48	19°♄14'21	18°29'52		2170 Mar 02 14:33	0°♄	
retrograde	2169 Mar 28 17:57	22°♄58'20		evening max el	2170 Mar 04 13:15	2°♄08'08	18°09'58
evening set	2169 Mar 31 01:58	22°♄38'16		retrograde	2170 Mar 11 08:33	5°♄34'41	
inferior conj	2169 Apr 07 14:00	18°♄07'18	2°35'50	evening set	2170 Mar 13 22:09	5°♄05'49	
minimum elong	2169 Apr 07 17:56	17°♄59'27	2°34'50	inferior conj	2170 Mar 20 17:56	0°♄13'37	3°22'17
min. Earth dist.	2169 Apr 11 00:19	15°♄24'53	0.58314 AU	minimum elong	2170 Mar 20 20:33	0°♄07'33	3°21'54
morning rise	2169 Apr 15 05:40	12°♄42'08			2170 Mar 20 23:48	30°♄	
desc. node	2169 Apr 17 15:57	11°♄42'50		min. Earth dist.	2170 Mar 24 01:08	27°♄12'08	0.60450 AU
direct	2169 Apr 21 05:05	11°♄10'13		morning rise	2170 Mar 27 15:40	24°♄26'26	
morning max el	2169 May 05 14:23	18°♄50'39	26°48'17	direct	2170 Apr 03 07:37	22°♄18'28	
	2169 May 14 23:54	0°♄		desc. node	2170 Apr 04 13:01	22°♄22'38	
	2169 Jun 01 14:14	0°♄			2170 Apr 17 09:53	0°♄	
morning set	2169 Jun 04 07:06	5°♄33'50		morning max el	2170 Apr 17 14:09	0°♄10'30	27°37'14
asc. node	2169 Jun 06 10:51	10°♄08'41			2170 May 09 00:13	0°♄	
				morning set	2170 May 19 13:58	20°♄11'41	
superior conj	2169 Jun 11 08:51	20°♄53'06	0°49'52	asc. node	2170 May 24 07:53	0°♄16'42	
minimum elong	2169 Jun 11 06:53	20°♄42'15	0°49'29		2170 May 24 04:49	0°♄	
max. Earth dist.	2169 Jun 11 09:42	20°♄57'43	1.32202 AU	max. Earth dist.	2170 May 25 21:26	3°♄41'22	1.32220 AU
	2169 Jun 15 12:46	0°♄					
evening rise	2169 Jun 18 07:17	5°♄54'59		superior conj	2170 May 26 20:13	5°♄46'14	0°26'18
	2169 Jul 01 00:57	0°♄		minimum elong	2170 May 26 19:03	5°♄39'51	0°26'02
desc. node	2169 Jul 14 15:15	18°♄59'04		evening rise	2170 Jun 02 17:44	20°♄46'10	
evening max el	2169 Jul 18 01:22	22°♄31'18	26°37'56		2170 Jun 07 05:40	0°♄	
retrograde	2169 Aug 01 00:38	29°♄44'14			2170 Jun 26 06:32	0°♄	
evening set	2169 Aug 07 19:06	27°♄47'31		evening max el	2170 Jun 29 20:41	3°♄46'25	25°27'37
min. Earth dist.	2169 Aug 11 14:59	25°♄11'30	0.60078 AU	desc. node	2170 Jul 01 12:17	5°♄16'28	
inferior conj	2169 Aug 14 21:56	22°♄32'31	-4°-42'-28	retrograde	2170 Jul 13 21:02	10°♄54'23	
minimum elong	2169 Aug 15 02:01	22°♄24'14	4°41'56	evening set	2170 Jul 19 16:25	9°♄35'38	
morning rise	2169 Aug 22 12:16	17°♄52'18		min. Earth dist.	2170 Jul 24 08:46	6°♄55'00	0.58039 AU
direct	2169 Aug 24 21:30	17°♄31'14		inferior conj	2170 Jul 27 12:38	4°♄42'28	-4°-59'-25
morning max el	2169 Sep 01 09:27	21°♄10'38	18°12'21	minimum elong	2170 Jul 27 12:51	4°♄42'06	4°59'26
asc. node	2169 Sep 02 10:05	22°♄13'37		morning rise	2170 Aug 04 12:56	0°♄24'59	
	2169 Sep 08 03:05	0°♄		direct	2170 Aug 07 01:09	0°♄05'34	
morning set	2169 Sep 17 05:37	16°♄18'40		morning max el	2170 Aug 15 13:51	4°♄07'22	18°51'40
				asc. node	2170 Aug 20 07:08	9°♄42'08	

	2170 Aug 31 20:12	0° $\mathring{\text{M}}$		minimum elong	2171 Jul 08 01:53	16° $\mathring{\text{C}}$ 15'50	4°38'39
morning set	2170 Sep 01 01:35	0° $\mathring{\text{M}}$ 26'22		morning rise	2171 Jul 16 16:28	12° $\mathring{\text{C}}$ 09'12	
				direct	2171 Jul 19 09:47	11° $\mathring{\text{C}}$ 50'05	
superior conj	2170 Sep 09 14:49	17° $\mathring{\text{M}}$ 06'29	1°40'11	morning max el	2171 Jul 29 08:12	16° $\mathring{\text{C}}$ 26'34	19°52'26
minimum elong	2170 Sep 09 16:57	17° $\mathring{\text{M}}$ 16'37	1°40'02	asc. node	2171 Aug 07 04:11	27° $\mathring{\text{C}}$ 59'43	
max. Earth dist.	2170 Sep 16 13:42	29° $\mathring{\text{M}}$ 55'53	1.39123 AU		2171 Aug 08 08:40	0° $\mathring{\text{Q}}$	
	2170 Sep 16 14:38	0° $\mathring{\text{A}}$		morning set	2171 Aug 16 04:49	14° $\mathring{\text{Q}}$ 55'55	
evening rise	2170 Sep 20 13:10	6° $\mathring{\text{A}}$ 52'26			2171 Aug 23 15:10	0° $\mathring{\text{M}}$	
desc. node	2170 Sep 27 11:38	18° $\mathring{\text{A}}$ 19'41					
	2170 Oct 05 01:46	0° $\mathring{\text{M}}$		superior conj	2171 Aug 24 01:44	0° $\mathring{\text{M}}$ 52'40	1°45'33
evening max el	2170 Oct 25 21:03	26° $\mathring{\text{M}}$ 45'45	24°21'34	minimum elong	2171 Aug 24 02:02	0° $\mathring{\text{M}}$ 54'09	1°45'32
	2170 Oct 29 12:02	0° $\mathring{\text{A}}$		max. Earth dist.	2171 Aug 29 18:27	11° $\mathring{\text{M}}$ 56'09	1.37118 AU
retrograde	2170 Nov 06 03:27	3° $\mathring{\text{A}}$ 21'22		evening rise	2171 Sep 02 15:02	19° $\mathring{\text{M}}$ 02'46	
evening set	2170 Nov 11 12:00	1° $\mathring{\text{A}}$ 08'00			2171 Sep 08 22:26	0° $\mathring{\text{A}}$	
	2170 Nov 12 17:00	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		desc. node	2171 Sep 14 08:39	8° $\mathring{\text{A}}$ 47'08	
min. Earth dist.	2170 Nov 16 05:40	25° $\mathring{\text{M}}$ 42'31	0.67591 AU		2171 Sep 29 05:35	0° $\mathring{\text{M}}$	
asc. node	2170 Nov 16 06:22	25° $\mathring{\text{M}}$ 40'12		evening max el	2171 Oct 08 09:07	10° $\mathring{\text{M}}$ 25'45	25°35'15
inferior conj	2170 Nov 16 23:37	24° $\mathring{\text{M}}$ 42'16	0°14'50	retrograde	2171 Oct 20 13:50	17° $\mathring{\text{M}}$ 25'19	
minimum elong	2170 Nov 16 23:15	24° $\mathring{\text{M}}$ 43'29	0°14'40	evening set	2171 Oct 26 12:53	14° $\mathring{\text{M}}$ 56'42	
transit middle	2170 Nov 16 23:15	24° $\mathring{\text{M}}$ 43'29	0°14'40	min. Earth dist.	2171 Oct 30 22:37	10° $\mathring{\text{M}}$ 06'43	0.67010 AU
transit begin	2170 Nov 16 22:05	24° $\mathring{\text{M}}$ 47'26		inferior conj	2171 Nov 01 03:27	8° $\mathring{\text{M}}$ 34'24	0°-41'-14
transit end	2170 Nov 17 00:26	24° $\mathring{\text{M}}$ 39'32		minimum elong	2171 Nov 01 04:31	8° $\mathring{\text{M}}$ 31'00	0°40'48
morning rise	2170 Nov 22 10:50	18° $\mathring{\text{M}}$ 36'28		asc. node	2171 Nov 03 03:25	6° $\mathring{\text{M}}$ 05'29	
direct	2170 Nov 26 04:58	17° $\mathring{\text{M}}$ 15'46		morning rise	2171 Nov 06 20:55	2° $\mathring{\text{M}}$ 36'54	
morning max el	2170 Dec 04 00:20	21° $\mathring{\text{M}}$ 44'30	20°17'50	direct	2171 Nov 10 03:32	1° $\mathring{\text{M}}$ 35'00	
greatest brilliancy	2170 Dec 10 14:03	29° $\mathring{\text{M}}$ 35'59	-0.5m	morning max el	2171 Nov 17 05:27	5° $\mathring{\text{M}}$ 33'28	19°16'44
	2170 Dec 10 21:14	0° $\mathring{\text{A}}$		greatest brilliancy	2171 Nov 27 02:40	18° $\mathring{\text{M}}$ 23'31	-0.7m
desc. node	2170 Dec 24 10:54	19° $\mathring{\text{A}}$ 41'25			2171 Dec 04 18:32	0° $\mathring{\text{A}}$	
	2170 Dec 31 04:45	0° $\mathring{\text{C}}$		morning set	2171 Dec 10 17:35	9° $\mathring{\text{A}}$ 13'48	
morning set	2170 Dec 31 16:21	0° $\mathring{\text{C}}$ 44'48		desc. node	2171 Dec 11 07:56	10° $\mathring{\text{A}}$ 09'35	
max. Earth dist.	2171 Jan 10 21:09	16° $\mathring{\text{C}}$ 48'26	1.43604 AU		2171 Dec 24 00:28	0° $\mathring{\text{C}}$	
				max. Earth dist.	2171 Dec 24 12:03	0° $\mathring{\text{C}}$ 45'43	1.44734 AU
superior conj	2171 Jan 16 20:25	26° $\mathring{\text{C}}$ 31'11	-1°-59'-39				
minimum elong	2171 Jan 16 16:00	26° $\mathring{\text{C}}$ 12'57	1°59'28	superior conj	2171 Dec 27 13:03	5° $\mathring{\text{C}}$ 34'48	-1°-35'-37
	2171 Jan 18 22:46	0° $\mathring{\text{A}}$		minimum elong	2171 Dec 27 04:22	5° $\mathring{\text{C}}$ 00'19	1°34'49
evening rise	2171 Jan 29 13:01	18° $\mathring{\text{A}}$ 06'05		evening rise	2172 Jan 11 02:15	29° $\mathring{\text{C}}$ 11'35	
	2171 Feb 05 10:03	0° $\mathring{\text{H}}$			2172 Jan 11 13:57	0° $\mathring{\text{A}}$	
asc. node	2171 Feb 12 05:40	10° $\mathring{\text{H}}$ 43'03		asc. node	2172 Jan 30 02:43	28° $\mathring{\text{A}}$ 13'01	
evening max el	2171 Feb 16 01:36	15° $\mathring{\text{H}}$ 20'10	18°09'25	evening max el	2172 Jan 30 13:55	28° $\mathring{\text{A}}$ 42'11	18°27'34
retrograde	2171 Feb 22 12:52	18° $\mathring{\text{H}}$ 44'09			2172 Jan 31 23:22	0° $\mathring{\text{H}}$	
evening set	2171 Feb 25 07:38	18° $\mathring{\text{H}}$ 05'13		retrograde	2172 Feb 06 02:30	2° $\mathring{\text{H}}$ 16'33	
inferior conj	2171 Mar 03 14:52	12° $\mathring{\text{H}}$ 52'07	3°41'22	evening set	2172 Feb 09 02:34	1° $\mathring{\text{H}}$ 26'40	
minimum elong	2171 Mar 03 15:31	12° $\mathring{\text{H}}$ 50'24	3°41'21		2172 Feb 11 03:21	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
min. Earth dist.	2171 Mar 06 10:07	9° $\mathring{\text{H}}$ 56'19	0.62547 AU	inferior conj	2172 Feb 15 00:41	25° $\mathring{\text{A}}$ 54'14	3°39'59
morning rise	2171 Mar 09 21:10	6° $\mathring{\text{H}}$ 51'27		minimum elong	2172 Feb 14 23:39	25° $\mathring{\text{A}}$ 57'15	3°39'55
direct	2171 Mar 16 19:33	4° $\mathring{\text{H}}$ 16'10		min. Earth dist.	2172 Feb 17 04:37	23° $\mathring{\text{A}}$ 23'01	0.64377 AU
desc. node	2171 Mar 22 10:03	5° $\mathring{\text{H}}$ 44'22		morning rise	2172 Feb 20 19:18	19° $\mathring{\text{A}}$ 45'36	
morning max el	2171 Mar 30 19:40	12° $\mathring{\text{H}}$ 11'51	27°49'16	direct	2172 Feb 27 15:04	16° $\mathring{\text{A}}$ 56'41	
	2171 Apr 13 22:52	0° $\mathring{\text{Y}}$		desc. node	2172 Mar 08 07:07	21° $\mathring{\text{A}}$ 15'55	
	2171 May 01 09:08	0° $\mathring{\text{B}}$		morning max el	2172 Mar 12 04:44	24° $\mathring{\text{A}}$ 48'22	27°25'18
morning set	2171 May 03 15:26	4° $\mathring{\text{B}}$ 30'32			2172 Mar 16 22:13	0° $\mathring{\text{H}}$	
max. Earth dist.	2171 May 09 05:32	16° $\mathring{\text{B}}$ 10'37	1.32640 AU		2172 Apr 06 09:06	0° $\mathring{\text{Y}}$	
				morning set	2172 Apr 16 08:48	18° $\mathring{\text{Y}}$ 21'23	
superior conj	2171 May 11 05:29	20° $\mathring{\text{B}}$ 29'12	0°00'14	max. Earth dist.	2172 Apr 21 05:59	28° $\mathring{\text{Y}}$ 12'32	1.33483 AU
minimum elong	2171 May 11 05:28	20° $\mathring{\text{B}}$ 29'07	0°00'14		2172 Apr 22 02:39	0° $\mathring{\text{B}}$	
behind sun begin	2171 May 11 00:18	20° $\mathring{\text{B}}$ 01'05					
behind sun end	2171 May 11 10:38	20° $\mathring{\text{B}}$ 57'11		superior conj	2172 Apr 24 10:43	4° $\mathring{\text{B}}$ 55'11	0°-27'-24
asc. node	2171 May 11 04:57	20° $\mathring{\text{B}}$ 26'17		minimum elong	2172 Apr 24 12:05	5° $\mathring{\text{B}}$ 02'29	0°27'08
	2171 May 15 14:31	0° $\mathring{\text{II}}$		asc. node	2172 Apr 27 01:59	10° $\mathring{\text{B}}$ 32'50	
evening rise	2171 May 18 05:33	5° $\mathring{\text{II}}$ 38'01		evening rise	2172 May 01 16:52	20° $\mathring{\text{B}}$ 23'27	
	2171 May 31 04:49	0° $\mathring{\text{C}}$			2172 May 06 10:09	0° $\mathring{\text{II}}$	
evening max el	2171 Jun 11 10:54	14° $\mathring{\text{C}}$ 25'17	23°56'50	evening max el	2172 May 23 02:11	24° $\mathring{\text{II}}$ 54'19	22°20'42
desc. node	2171 Jun 18 09:17	19° $\mathring{\text{C}}$ 34'30			2172 May 30 04:47	0° $\mathring{\text{C}}$	
retrograde	2171 Jun 25 05:12	21° $\mathring{\text{C}}$ 20'10		desc. node	2172 Jun 04 06:18	1° $\mathring{\text{C}}$ 18'01	
evening set	2171 Jun 29 14:45	20° $\mathring{\text{C}}$ 37'31		retrograde	2172 Jun 05 01:15	1° $\mathring{\text{C}}$ 19'26	
min. Earth dist.	2171 Jul 05 21:32	17° $\mathring{\text{C}}$ 35'55	0.56293 AU	evening set	2172 Jun 08 01:05	0° $\mathring{\text{C}}$ 59'39	
inferior conj	2171 Jul 08 07:07	16° $\mathring{\text{C}}$ 07'46	-4°-39'-21		2172 Jun 11 04:45	30° $\mathring{\text{R}}$ $\mathring{\text{II}}$	

min. Earth dist.	2172 Jun 16 08:50	27° Π 23'55	0.55166 AU	inferior conj	2173 May 28 01:43	7° Π 13'02	-1°-43'-13
inferior conj	2172 Jun 17 08:03	26° Π 51'09	-3°-31'-32	minimum elong	2173 May 27 20:52	7° Π 19'56	1°41'29
minimum elong	2172 Jun 17 00:05	27° Π 02'25	3°29'23	min. Earth dist.	2173 May 28 21:11	6° Π 45'20	0.54929 AU
morning rise	2172 Jun 26 01:16	22° Π 59'47		morning rise	2173 Jun 05 22:28	3° Π 09'04	
direct	2172 Jun 29 01:26	22° Π 39'22		direct	2173 Jun 09 10:47	2° Π 42'28	
morning max el	2172 Jul 10 15:09	28° Π 02'34	21°13'43	morning max el	2173 Jun 22 11:58	8° Π 57'49	22°50'32
	2172 Jul 12 14:05	0° \mathfrak{S}			2173 Jul 07 14:34	0° \mathfrak{S}	
asc. node	2172 Jul 24 01:14	16° \mathfrak{S} 54'48		asc. node	2173 Jul 10 22:16	6° \mathfrak{S} 17'35	
morning set	2172 Jul 30 12:50	29° \mathfrak{S} 40'33		morning set	2173 Jul 14 23:38	14° \mathfrak{S} 33'49	
	2172 Jul 30 16:36	0° \mathcal{Q}					
superior conj	2172 Aug 06 23:01	15° \mathcal{Q} 10'41	1°43'05	superior conj	2173 Jul 22 03:20	29° \mathfrak{S} 49'44	1°34'18
minimum elong	2172 Aug 06 21:52	15° \mathcal{Q} 04'47	1°43'03	minimum elong	2173 Jul 22 01:17	29° \mathfrak{S} 38'53	1°34'07
max. Earth dist.	2172 Aug 11 04:47	23° \mathcal{Q} 47'53	1.35353 AU		2173 Jul 22 05:15	0° \mathcal{Q}	
	2172 Aug 14 08:54	0° \mathfrak{P}		max. Earth dist.	2173 Jul 24 23:55	5° \mathcal{Q} 51'35	1.33955 AU
evening rise	2172 Aug 15 11:40	2° \mathfrak{P} 07'27		evening rise	2173 Jul 29 22:31	15° \mathcal{Q} 53'44	
desc. node	2172 Aug 31 05:38	28° \mathfrak{P} 58'00			2173 Aug 06 11:40	0° \mathfrak{P}	
	2172 Aug 31 21:59	0° \mathfrak{A}		desc. node	2173 Aug 18 02:38	18° \mathfrak{P} 44'17	
evening max el	2172 Sep 19 21:14	24° \mathfrak{A} 03'48	26°35'19		2173 Aug 26 12:10	0° \mathfrak{A}	
	2172 Sep 27 19:09	0° \mathfrak{M}		evening max el	2173 Sep 02 09:12	7° \mathfrak{A} 30'45	27°14'23
retrograde	2172 Oct 02 19:10	1° \mathfrak{M} 17'29		retrograde	2173 Sep 15 19:02	14° \mathfrak{A} 49'30	
	2172 Oct 07 09:06	30° \mathfrak{R} \mathfrak{A}		evening set	2173 Sep 22 18:21	12° \mathfrak{A} 06'45	
evening set	2172 Oct 09 07:49	28° \mathfrak{A} 37'58		min. Earth dist.	2173 Sep 26 13:56	8° \mathfrak{A} 29'52	0.64803 AU
min. Earth dist.	2172 Oct 13 10:06	24° \mathfrak{A} 24'47	0.66084 AU	inferior conj	2173 Sep 28 18:55	6° \mathfrak{A} 04'20	-2°-38'-7
inferior conj	2172 Oct 15 02:38	22° \mathfrak{A} 23'25	-1°-39'-34	minimum elong	2173 Sep 28 23:07	5° \mathfrak{A} 52'45	2°36'37
minimum elong	2172 Oct 15 05:18	22° \mathfrak{A} 15'26	1°38'29	morning rise	2173 Oct 05 05:48	0° \mathfrak{A} 32'18	
asc. node	2172 Oct 20 00:27	17° \mathfrak{A} 21'05		asc. node	2173 Oct 06 21:29	0° \mathfrak{A} 01'35	
morning rise	2172 Oct 21 04:05	16° \mathfrak{A} 37'09			2173 Oct 07 01:42	30° \mathfrak{R} \mathfrak{P}	
direct	2172 Oct 24 01:20	15° \mathfrak{A} 50'26		direct	2173 Oct 07 20:06	29° \mathfrak{P} 56'53	
morning max el	2172 Oct 30 16:55	19° \mathfrak{A} 29'10	18°31'21		2173 Oct 08 14:31	0° \mathfrak{A}	
	2172 Nov 07 18:15	0° \mathfrak{M}		morning max el	2173 Oct 14 08:11	3° \mathfrak{A} 25'11	18°02'37
morning set	2172 Nov 19 18:54	18° \mathfrak{M} 58'41			2173 Oct 31 23:07	0° \mathfrak{M}	
	2172 Nov 26 16:52	0° \mathfrak{X}		morning set	2173 Nov 01 01:17	0° \mathfrak{M} 09'05	
desc. node	2172 Nov 27 04:58	0° \mathfrak{X} 47'54		desc. node	2173 Nov 14 01:57	21° \mathfrak{M} 32'07	
superior conj	2172 Dec 05 14:57	14° \mathfrak{X} 03'49	0°-54'-26	superior conj	2173 Nov 14 23:03	22° \mathfrak{M} 56'34	0°-5'-56
minimum elong	2172 Dec 05 08:06	13° \mathfrak{X} 36'55	0°53'36	minimum elong	2173 Nov 14 22:19	22° \mathfrak{M} 53'40	0°05'50
max. Earth dist.	2172 Dec 06 06:31	15° \mathfrak{X} 04'54	1.45156 AU	behind sun begin	2173 Nov 14 12:21	22° \mathfrak{M} 13'47	
	2172 Dec 15 18:22	0° \mathfrak{Z}		behind sun end	2173 Nov 15 08:17	23° \mathfrak{M} 33'31	
evening rise	2172 Dec 21 16:05	9° \mathfrak{Z} 20'00		max. Earth dist.	2173 Nov 19 01:10	29° \mathfrak{M} 26'20	1.44838 AU
	2173 Jan 03 20:04	0° \mathfrak{A}			2173 Nov 19 09:42	0° \mathfrak{X}	
evening max el	2173 Jan 12 23:47	12° \mathfrak{A} 09'33	19°03'27	evening rise	2173 Dec 01 09:18	18° \mathfrak{X} 40'27	
asc. node	2173 Jan 15 23:44	14° \mathfrak{A} 43'33			2173 Dec 08 18:12	0° \mathfrak{Z}	
retrograde	2173 Jan 19 21:37	16° \mathfrak{A} 05'07		greatest brilliancy	2173 Dec 20 02:18	16° \mathfrak{Z} 47'10	-0.6m
evening set	2173 Jan 23 03:57	15° \mathfrak{A} 03'15		evening max el	2173 Dec 27 05:20	25° \mathfrak{Z} 39'01	19°55'31
inferior conj	2173 Jan 28 19:50	9° \mathfrak{A} 13'56	3°23'31	asc. node	2174 Jan 02 20:46	29° \mathfrak{Z} 59'37	
minimum elong	2173 Jan 28 17:43	9° \mathfrak{A} 20'37	3°23'10		2174 Jan 02 21:43	0° \mathfrak{A}	
min. Earth dist.	2173 Jan 30 08:27	7° \mathfrak{A} 18'16	0.65832 AU	retrograde	2174 Jan 03 19:13	0° \mathfrak{A} 04'28	
morning rise	2173 Feb 03 06:32	3° \mathfrak{A} 00'46			2174 Jan 04 16:24	30° \mathfrak{R} \mathfrak{Z}	
direct	2173 Feb 09 17:13	0° \mathfrak{A} 12'03		evening set	2174 Jan 07 09:20	28° \mathfrak{Z} 49'13	
morning max el	2173 Feb 22 14:40	7° \mathfrak{A} 48'43	26°31'05	inferior conj	2174 Jan 12 21:18	22° \mathfrak{Z} 45'47	2°55'39
desc. node	2173 Feb 23 04:10	8° \mathfrak{A} 23'07		minimum elong	2174 Jan 12 18:43	22° \mathfrak{Z} 54'25	2°55'00
	2173 Mar 11 21:35	0° \mathfrak{X}		min. Earth dist.	2174 Jan 13 19:54	21° \mathfrak{Z} 30'22	0.66880 AU
	2173 Mar 29 18:33	0° \mathfrak{Y}		morning rise	2174 Jan 18 03:28	16° \mathfrak{Z} 30'37	
morning set	2173 Mar 30 14:34	1° \mathfrak{Y} 33'57		direct	2174 Jan 24 01:16	13° \mathfrak{Z} 53'24	
max. Earth dist.	2173 Apr 03 19:28	9° \mathfrak{Y} 41'10	1.34778 AU	morning max el	2174 Feb 04 23:34	21° \mathfrak{Z} 00'29	25°15'34
				desc. node	2174 Feb 10 01:12	26° \mathfrak{Z} 38'15	
superior conj	2173 Apr 08 09:42	18° \mathfrak{Y} 57'52	0°-55'-27		2174 Feb 12 18:25	0° \mathfrak{A}	
minimum elong	2173 Apr 08 12:31	19° \mathfrak{Y} 12'22	0°54'56		2174 Mar 05 02:31	0° \mathfrak{X}	
asc. node	2173 Apr 13 23:01	0° \mathfrak{X} 32'22		morning set	2174 Mar 13 03:58	13° \mathfrak{X} 54'30	
	2173 Apr 13 16:50	0° \mathfrak{X}		max. Earth dist.	2174 Mar 16 21:22	20° \mathfrak{X} 44'41	1.36511 AU
evening rise	2173 Apr 16 01:46	4° \mathfrak{X} 56'23			2174 Mar 21 17:16	0° \mathfrak{Y}	
	2173 Apr 30 03:32	0° \mathfrak{I}		superior conj	2174 Mar 22 23:39	2° \mathfrak{Y} 29'37	-1°-22'-11
evening max el	2173 May 05 01:57	5° \mathfrak{I} 45'01	20°53'02	minimum elong	2174 Mar 23 03:38	2° \mathfrak{Y} 49'20	1°21'36
retrograde	2173 May 16 14:34	11° \mathfrak{I} 21'54		evening rise	2174 Mar 31 06:07	19° \mathfrak{Y} 10'25	
evening set	2173 May 18 18:33	11° \mathfrak{I} 10'45		asc. node	2174 Mar 31 20:04	20° \mathfrak{Y} 20'40	
desc. node	2173 May 22 03:20	10° \mathfrak{I} 13'14			2174 Apr 05 18:58	0° \mathfrak{X}	

evening max el	2174 Apr 17 13:39	17°♄14'52	19°41'58		2175 Mar 13 14:57	0°♄	
retrograde	2174 Apr 27 08:28	21°♄58'27		evening rise	2175 Mar 15 03:13	2°♄57'22	
evening set	2174 Apr 29 08:56	21°♄47'15		asc. node	2175 Mar 18 17:07	9°♄51'57	
inferior conj	2174 May 08 02:44	17°♄44'43	0°15'40	evening max el	2175 Mar 31 12:07	29°♄22'56	18°50'26
minimum elong	2174 May 08 03:26	17°♄43'38	0°15'24		2175 Apr 01 04:02	0°♄	
transit middle	2174 May 08 03:26	17°♄43'38	0°15'24	retrograde	2175 Apr 08 18:08	3°♄23'48	
transit begin	2174 May 08 02:24	17°♄45'15		evening set	2175 Apr 10 23:02	3°♄07'44	
transit end	2174 May 08 04:27	17°♄42'02			2175 Apr 17 05:31	30°♄	
desc. node	2174 May 09 00:22	17°♄10'46		inferior conj	2175 Apr 18 21:48	28°♄48'30	1°54'07
min. Earth dist.	2174 May 10 11:21	16°♄16'28	0.55660 AU	minimum elong	2175 Apr 19 01:33	28°♄41'41	1°52'58
morning rise	2174 May 16 18:27	13°♄11'16		min. Earth dist.	2175 Apr 22 03:44	26°♄28'17	0.57195 AU
direct	2174 May 21 03:49	12°♄28'17		desc. node	2175 Apr 25 21:25	24°♄11'51	
morning max el	2174 Jun 04 02:58	19°♄27'53	24°32'34	morning rise	2175 Apr 26 23:44	23°♄41'04	
	2174 Jun 12 23:53	0°♄		direct	2175 May 02 10:16	22°♄29'31	
asc. node	2174 Jun 27 19:19	26°♄00'40			2175 May 16 18:52	0°♄	
morning set	2174 Jun 29 11:31	29°♄30'28		morning max el	2175 May 16 18:03	29°♄58'02	26°05'14
	2174 Jun 29 17:06	0°♄			2175 Jun 06 17:05	0°♄	
				morning set	2175 Jun 13 22:48	14°♄24'19	
superior conj	2174 Jul 06 12:09	14°♄41'42	1°20'20	asc. node	2175 Jun 14 16:22	15°♄57'15	
minimum elong	2174 Jul 06 09:45	14°♄28'42	1°20'00				
max. Earth dist.	2174 Jul 08 03:48	18°♄16'26	1.32968 AU	superior conj	2175 Jun 20 23:21	29°♄38'44	1°02'05
evening rise	2174 Jul 13 19:42	0°♄10'31		minimum elong	2175 Jun 20 21:06	29°♄26'20	1°01'40
	2174 Jul 13 17:38	0°♄			2175 Jun 21 03:13	0°♄	
	2174 Jul 30 12:24	0°♄		max. Earth dist.	2175 Jun 21 13:44	0°♄57'43	1.32379 AU
desc. node	2174 Aug 04 23:39	7°♄55'36		evening rise	2175 Jun 27 23:57	14°♄46'56	
evening max el	2174 Aug 15 19:35	20°♄35'09	27°25'46		2175 Jul 05 18:01	0°♄	
retrograde	2174 Aug 29 12:40	27°♄52'30		desc. node	2175 Jul 22 20:42	26°♄16'54	
evening set	2174 Sep 05 17:20	25°♄17'35			2175 Jul 26 01:50	0°♄	
min. Earth dist.	2174 Sep 09 08:19	22°♄12'51	0.63180 AU	evening max el	2175 Jul 29 01:49	3°♄03'24	27°04'54
inferior conj	2174 Sep 12 01:39	19°♄31'24	-3°-33'-49	retrograde	2175 Aug 11 23:06	10°♄17'03	
minimum elong	2174 Sep 12 06:56	19°♄18'20	3°32'17	evening set	2175 Aug 19 00:38	8°♄02'54	
morning rise	2174 Sep 18 23:00	14°♄16'49		min. Earth dist.	2175 Aug 22 16:06	5°♄20'47	0.61267 AU
direct	2174 Sep 21 09:04	13°♄49'08		inferior conj	2175 Aug 25 19:38	2°♄36'13	-4°-21'-36
asc. node	2174 Sep 23 18:32	14°♄16'50		minimum elong	2175 Aug 26 00:45	2°♄25'02	4°20'35
morning max el	2174 Sep 28 00:22	17°♄15'01	17°51'28		2175 Aug 28 23:29	30°♄	
	2174 Oct 07 02:50	0°♄		morning rise	2175 Sep 02 03:49	27°♄42'30	
morning set	2174 Oct 14 08:20	12°♄30'43		direct	2175 Sep 04 12:38	27°♄19'33	
	2174 Oct 24 11:30	0°♄		asc. node	2175 Sep 10 15:35	29°♄58'50	
					2175 Sep 10 16:07	0°♄	
superior conj	2174 Oct 26 06:07	2°♄58'22	0°38'13	morning max el	2175 Sep 11 14:29	0°♄51'15	17°59'03
minimum elong	2174 Oct 26 09:46	3°♄13'33	0°37'44	morning set	2175 Sep 27 09:44	25°♄45'13	
desc. node	2174 Oct 31 22:57	12°♄19'11			2175 Sep 29 17:09	0°♄	
max. Earth dist.	2174 Nov 01 17:33	13°♄34'04	1.43832 AU				
evening rise	2174 Nov 10 17:35	27°♄44'16		superior conj	2175 Oct 07 16:22	14°♄20'24	1°11'31
	2174 Nov 12 04:51	0°♄		minimum elong	2175 Oct 07 20:51	14°♄40'02	1°10'59
	2174 Dec 02 16:07	0°♄		max. Earth dist.	2175 Oct 15 05:50	27°♄13'47	1.42256 AU
greatest brilliancy	2174 Dec 04 20:49	2°♄53'15	-0.5m		2175 Oct 16 22:12	0°♄	
evening max el	2174 Dec 10 05:29	9°♄09'31	21°01'04	desc. node	2175 Oct 18 20:00	3°♄06'07	
retrograde	2174 Dec 18 16:55	14°♄10'53		evening rise	2175 Oct 21 10:05	7°♄14'36	
asc. node	2174 Dec 20 17:49	13°♄47'47			2175 Nov 05 10:38	0°♄	
evening set	2174 Dec 22 16:44	12°♄40'32		greatest brilliancy	2175 Nov 18 06:58	17°♄23'05	-0.3m
inferior conj	2174 Dec 28 02:41	6°♄26'08	2°18'53	evening max el	2175 Nov 23 00:15	22°♄41'53	22°16'12
minimum elong	2174 Dec 28 00:10	6°♄34'47	2°18'04	retrograde	2175 Dec 02 13:02	28°♄21'59	
min. Earth dist.	2174 Dec 28 12:45	5°♄51'31	0.67539 AU	evening set	2175 Dec 07 00:26	26°♄35'06	
morning rise	2175 Jan 02 07:13	0°♄11'00		asc. node	2175 Dec 07 14:51	26°♄04'04	
	2175 Jan 02 12:17	30°♄		inferior conj	2175 Dec 12 09:58	20°♄13'06	1°35'02
direct	2175 Jan 07 14:13	27°♄52'52		minimum elong	2175 Dec 12 07:58	20°♄19'59	1°34'17
	2175 Jan 13 08:06	0°♄		min. Earth dist.	2175 Dec 12 08:40	20°♄17'36	0.67832 AU
morning max el	2175 Jan 18 07:54	4°♄16'54	23°48'50	morning rise	2175 Dec 17 15:22	14°♄00'00	
desc. node	2175 Jan 27 22:13	15°♄41'22		direct	2175 Dec 22 07:15	12°♄04'31	
	2175 Feb 07 01:41	0°♄		morning max el	2175 Dec 31 18:53	17°♄40'05	22°20'50
morning set	2175 Feb 22 18:51	25°♄05'12		greatest brilliancy	2176 Jan 05 08:46	22°♄47'25	-0.3m
	2175 Feb 25 14:56	0°♄			2176 Jan 10 23:02	0°♄	
max. Earth dist.	2175 Feb 26 16:31	1°♄52'45	1.38576 AU	desc. node	2176 Jan 14 19:15	5°♄19'12	
					2176 Jan 31 04:40	0°♄	
superior conj	2175 Mar 06 00:49	15°♄19'47	-1°-45'-10	morning set	2176 Feb 03 05:38	4°♄53'20	
minimum elong	2175 Mar 06 05:06	15°♄40'02	1°44'46	max. Earth dist.	2176 Feb 08 13:27	13°♄42'46	1.40732 AU

superior conj	2176 Feb 16 08:34	27° \approx 17'06	-2°00'-55	superior conj	2177 Jan 27 17:34	8° \approx 08'46	-2°-4'-48
minimum elong	2176 Feb 16 11:24	27° \approx 29'47	2°00'49	minimum elong	2177 Jan 27 16:22	8° \approx 03'39	2°04'47
	2176 Feb 17 20:43	0° \mathbb{H}		evening rise	2177 Feb 08 10:17	28° \approx 38'45	
evening rise	2176 Feb 26 13:55	16° \mathbb{H} 09'49			2177 Feb 09 04:25	0° \mathbb{H}	
asc. node	2176 Mar 04 14:11	29° \mathbb{H} 00'19		asc. node	2177 Feb 19 11:13	17° \mathbb{H} 37'58	
	2176 Mar 05 04:00	0° \mathbb{Y}		evening max el	2177 Feb 25 05:21	25° \mathbb{H} 03'37	18°07'22
evening max el	2176 Mar 13 18:26	12° \mathbb{Y} 02'12	18°18'59	retrograde	2177 Mar 03 20:09	28° \mathbb{H} 27'46	
retrograde	2176 Mar 20 23:02	15° \mathbb{Y} 36'50		evening set	2177 Mar 06 11:52	27° \mathbb{H} 54'49	
evening set	2176 Mar 23 09:35	15° \mathbb{Y} 13'06		inferior conj	2177 Mar 13 01:50	22° \mathbb{H} 53'24	3°33'18
inferior conj	2176 Mar 30 14:13	10° \mathbb{Y} 32'48	2°59'18	minimum elong	2177 Mar 13 03:38	22° \mathbb{H} 49'00	3°33'08
minimum elong	2176 Mar 30 17:47	10° \mathbb{Y} 25'13	2°58'34	min. Earth dist.	2177 Mar 16 04:34	19° \mathbb{H} 51'33	0.61356 AU
min. Earth dist.	2176 Apr 03 00:31	7° \mathbb{Y} 39'31	0.59210 AU	morning rise	2177 Mar 19 16:33	16° \mathbb{H} 59'17	
morning rise	2176 Apr 06 22:10	4° \mathbb{Y} 57'15		direct	2177 Mar 26 12:14	14° \mathbb{H} 38'27	
desc. node	2176 Apr 11 18:28	3° \mathbb{Y} 15'41		desc. node	2177 Mar 29 15:29	15° \mathbb{H} 05'59	
direct	2176 Apr 13 05:42	3° \mathbb{Y} 09'54		morning max el	2177 Apr 09 16:52	22° \mathbb{H} 33'19	27°47'09
morning max el	2176 Apr 27 14:15	10° \mathbb{Y} 55'24	27°13'28		2177 Apr 16 06:55	0° \mathbb{Y}	
	2176 May 12 09:29	0° \mathbb{B}			2177 May 05 12:25	0° \mathbb{B}	
morning set	2176 May 28 07:50	29° \mathbb{B} 09'56		morning set	2177 May 12 12:43	13° \mathbb{B} 40'50	
	2176 May 28 17:24	0° \mathbb{I}		asc. node	2177 May 18 10:30	26° \mathbb{B} 11'44	
asc. node	2176 May 31 13:26	6° \mathbb{I} 02'27		max. Earth dist.	2177 May 18 12:51	26° \mathbb{B} 24'32	1.32341 AU
superior conj	2176 Jun 04 11:08	14° \mathbb{I} 34'48	0°40'14	superior conj	2177 May 19 21:49	29° \mathbb{B} 24'14	0°15'30
minimum elong	2176 Jun 04 09:28	14° \mathbb{I} 25'35	0°39'53	minimum elong	2177 May 19 21:06	29° \mathbb{B} 20'21	0°15'21
max. Earth dist.	2176 Jun 04 02:06	13° \mathbb{I} 45'02	1.32170 AU	behind sun begin	2177 May 19 19:48	29° \mathbb{B} 13'16	
evening rise	2176 Jun 11 08:46	29° \mathbb{I} 34'48		behind sun end	2177 May 19 22:24	29° \mathbb{B} 27'26	
	2176 Jun 11 13:33	0° \mathbb{E}			2177 May 20 04:21	0° \mathbb{I}	
	2176 Jun 28 02:19	0° \mathbb{Q}		evening rise	2177 May 26 20:01	14° \mathbb{I} 26'56	
desc. node	2176 Jul 08 17:44	13° \mathbb{Q} 27'26			2177 Jun 03 15:06	0° \mathbb{E}	
evening max el	2176 Jul 10 01:15	14° \mathbb{Q} 45'07	26°11'10	evening max el	2177 Jun 21 17:41	25° \mathbb{E} 42'12	24°50'40
retrograde	2176 Jul 24 00:55	21° \mathbb{Q} 55'42		desc. node	2177 Jun 25 14:45	28° \mathbb{E} 59'01	
evening set	2176 Jul 30 11:30	20° \mathbb{Q} 14'19			2177 Jun 27 02:39	0° \mathbb{Q}	
min. Earth dist.	2176 Aug 03 13:57	17° \mathbb{Q} 38'53	0.59205 AU	retrograde	2177 Jul 05 16:41	2° \mathbb{Q} 46'58	
inferior conj	2176 Aug 06 21:14	15° \mathbb{Q} 08'48	-4°-53'-13	evening set	2177 Jul 10 22:43	1° \mathbb{Q} 44'15	
minimum elong	2176 Aug 07 00:00	15° \mathbb{Q} 03'32	4°53'00		2177 Jul 14 11:34	30° \mathbb{R} \mathbb{E}	
morning rise	2176 Aug 14 15:56	10° \mathbb{Q} 38'25		min. Earth dist.	2177 Jul 16 05:01	28° \mathbb{E} 56'35	0.57239 AU
direct	2176 Aug 17 02:18	10° \mathbb{Q} 18'07		inferior conj	2177 Jul 19 03:26	27° \mathbb{E} 00'41	-4°-56'-17
morning max el	2176 Aug 24 23:21	14° \mathbb{Q} 05'09	18°26'30	minimum elong	2177 Jul 19 01:21	27° \mathbb{E} 04'08	4°56'12
asc. node	2176 Aug 27 12:38	16° \mathbb{Q} 52'51		morning rise	2177 Jul 27 07:45	22° \mathbb{E} 52'34	
	2176 Sep 04 21:27	0° \mathbb{P}		direct	2177 Jul 29 21:53	22° \mathbb{E} 33'31	
morning set	2176 Sep 10 00:05	9° \mathbb{P} 36'44		morning max el	2177 Aug 07 23:55	26° \mathbb{E} 48'09	19°14'55
					2177 Aug 10 22:54	0° \mathbb{Q}	
superior conj	2176 Sep 19 01:52	26° \mathbb{P} 51'01	1°32'51	asc. node	2177 Aug 14 09:41	4° \mathbb{Q} 44'21	
minimum elong	2176 Sep 19 05:05	27° \mathbb{P} 05'49	1°32'35	morning set	2177 Aug 24 23:30	23° \mathbb{Q} 55'15	
	2176 Sep 20 19:03	0° \mathbb{A}			2177 Aug 28 00:36	0° \mathbb{P}	
max. Earth dist.	2176 Sep 26 12:44	10° \mathbb{A} 11'18	1.40308 AU				
evening rise	2176 Sep 30 23:06	17° \mathbb{A} 41'46		superior conj	2177 Sep 02 05:02	10° \mathbb{P} 14'40	1°43'30
desc. node	2176 Oct 04 17:02	23° \mathbb{A} 48'51		minimum elong	2177 Sep 02 06:22	10° \mathbb{P} 21'06	1°43'27
	2176 Oct 08 15:02	0° \mathbb{M}		max. Earth dist.	2177 Sep 08 16:22	22° \mathbb{P} 26'36	1.38251 AU
	2176 Oct 29 23:40	0° \mathbb{J}		evening rise	2177 Sep 12 12:13	29° \mathbb{P} 16'35	
evening max el	2176 Nov 04 14:39	6° \mathbb{J} 16'20	23°35'58		2177 Sep 12 22:10	0° \mathbb{A}	
retrograde	2176 Nov 15 06:14	12° \mathbb{J} 33'45		desc. node	2177 Sep 21 14:04	14° \mathbb{A} 23'37	
evening set	2176 Nov 20 06:48	10° \mathbb{J} 29'41			2177 Oct 01 23:48	0° \mathbb{M}	
asc. node	2176 Nov 23 11:53	7° \mathbb{J} 02'27		evening max el	2177 Oct 18 02:54	19° \mathbb{M} 54'36	24°53'58
min. Earth dist.	2176 Nov 25 05:18	4° \mathbb{J} 44'56	0.67777 AU	retrograde	2177 Oct 29 19:31	26° \mathbb{M} 42'22	
inferior conj	2176 Nov 25 17:17	4° \mathbb{J} 03'58	0°45'27	evening set	2177 Nov 04 10:14	24° \mathbb{M} 21'59	
minimum elong	2176 Nov 25 16:14	4° \mathbb{J} 07'35	0°45'01	min. Earth dist.	2177 Nov 09 00:21	19° \mathbb{M} 11'24	0.67387 AU
	2176 Nov 28 21:26	30° \mathbb{R} \mathbb{M}		inferior conj	2177 Nov 09 22:56	17° \mathbb{M} 56'53	0°-8'-34
morning rise	2176 Dec 01 01:49	27° \mathbb{M} 54'57		minimum elong	2177 Nov 09 23:09	17° \mathbb{M} 56'11	0°08'30
direct	2176 Dec 05 03:22	26° \mathbb{M} 22'17		transit middle	2177 Nov 09 23:09	17° \mathbb{M} 56'11	0°08'30
	2176 Dec 12 05:28	0° \mathbb{J}		transit begin	2177 Nov 09 20:48	18° \mathbb{M} 03'57	
morning max el	2176 Dec 13 11:56	1° \mathbb{J} 13'03	20°59'26	transit end	2177 Nov 10 01:30	17° \mathbb{M} 48'25	
greatest brilliancy	2176 Dec 19 00:34	7° \mathbb{J} 36'43	-0.5m	asc. node	2177 Nov 10 08:54	17° \mathbb{M} 24'04	
desc. node	2176 Dec 31 16:17	25° \mathbb{J} 21'41		morning rise	2177 Nov 15 12:36	11° \mathbb{M} 54'18	
	2177 Jan 03 18:50	0° \mathbb{C}		direct	2177 Nov 19 01:28	10° \mathbb{M} 42'14	
morning set	2177 Jan 12 13:03	13° \mathbb{C} 26'17		morning max el	2177 Nov 26 12:44	14° \mathbb{M} 57'04	19°49'56
max. Earth dist.	2177 Jan 20 16:55	26° \mathbb{C} 27'31	1.42680 AU	greatest brilliancy	2177 Dec 04 03:13	24° \mathbb{M} 18'47	-0.6m
	2177 Jan 22 20:46	0° \mathbb{A}			2177 Dec 08 02:53	0° \mathbb{J}	

desc. node	2177 Dec 18 13:19	15°♄42'08		direct	2178 Nov 03 00:00	25°♄00'09	
morning set	2177 Dec 22 09:03	21°♄34'55		morning max el	2178 Nov 09 20:45	28°♄49'20	18°55'17
	2177 Dec 27 19:07	0°♄			2178 Nov 10 23:28	0°♄	
max. Earth dist.	2178 Jan 03 03:35	10°♄00'46	1.44164 AU		2178 Dec 01 10:45	0°♄	
				morning set	2178 Dec 01 18:52	0°♄31'48	
superior conj	2178 Jan 08 00:23	17°♄49'27	-1°-51'-50	desc. node	2178 Dec 05 10:21	6°♄15'04	
minimum elong	2178 Jan 07 17:41	17°♄22'22	1°51'24	max. Earth dist.	2178 Dec 16 19:57	24°♄08'12	1.45006 AU
	2178 Jan 15 10:00	0°♄					
evening rise	2178 Jan 21 12:01	10°♄16'30		superior conj	2178 Dec 18 08:43	26°♄32'53	-1°-19'-48
	2178 Feb 02 08:42	0°♄		minimum elong	2178 Dec 17 23:57	25°♄58'21	1°18'53
asc. node	2178 Feb 06 08:14	5°♄35'57			2178 Dec 20 13:14	0°♄	
evening max el	2178 Feb 08 17:56	8°♄20'08	18°14'55	evening rise	2179 Jan 02 15:20	20°♄57'15	
retrograde	2178 Feb 15 04:53	11°♄47'20			2179 Jan 08 04:57	0°♄	
evening set	2178 Feb 18 01:43	11°♄04'01		evening max el	2179 Jan 23 05:33	21°♄45'34	18°40'49
inferior conj	2178 Feb 24 04:42	5°♄42'38	3°42'56	asc. node	2179 Jan 24 05:14	22°♄42'40	
minimum elong	2178 Feb 24 04:34	5°♄43'00	3°42'56	retrograde	2179 Jan 29 21:08	25°♄27'29	
min. Earth dist.	2178 Feb 26 17:44	2°♄55'03	0.63362 AU	evening set	2179 Feb 01 23:44	24°♄32'42	
	2178 Mar 01 18:34	30°♄		inferior conj	2179 Feb 07 18:54	18°♄53'04	3°34'35
morning rise	2178 Mar 02 05:31	29°♄37'50		minimum elong	2179 Feb 07 17:20	18°♄57'50	3°34'24
direct	2178 Mar 09 03:43	26°♄54'37		min. Earth dist.	2179 Feb 09 16:20	16°♄35'51	0.65048 AU
desc. node	2178 Mar 16 12:31	29°♄26'46		morning rise	2179 Feb 13 09:43	12°♄42'18	
	2178 Mar 17 08:26	0°♄		direct	2179 Feb 20 02:26	9°♄51'35	
morning max el	2178 Mar 23 00:14	4°♄50'46	27°43'15	desc. node	2179 Mar 03 09:33	15°♄42'55	
	2178 Apr 10 23:25	0°♄		morning max el	2179 Mar 05 09:46	17°♄38'29	27°05'23
morning set	2178 Apr 26 11:05	27°♄48'47			2179 Mar 15 18:25	0°♄	
	2178 Apr 27 13:11	0°♄			2179 Apr 03 20:38	0°♄	
max. Earth dist.	2178 May 01 17:57	8°♄42'14	1.32931 AU	morning set	2179 Apr 09 23:59	11°♄24'42	
				max. Earth dist.	2179 Apr 14 13:46	20°♄28'54	1.33973 AU
superior conj	2178 May 04 05:35	14°♄00'30	0°-11'-22				
minimum elong	2178 May 04 06:08	14°♄03'30	0°11'15	superior conj	2179 Apr 18 08:28	28°♄17'42	0°-39'-21
behind sun begin	2178 May 04 02:22	13°♄43'13		minimum elong	2179 Apr 18 10:28	28°♄28'09	0°38'57
behind sun end	2178 May 04 09:54	14°♄23'47			2179 Apr 19 03:56	0°♄	
asc. node	2178 May 05 07:31	16°♄20'19		asc. node	2179 Apr 22 04:34	6°♄24'30	
evening rise	2178 May 11 07:48	29°♄16'18		evening rise	2179 Apr 25 18:19	13°♄57'08	
	2178 May 11 16:04	0°♄			2179 May 03 23:15	0°♄	
	2178 May 28 20:01	0°♄		evening max el	2179 May 16 01:41	16°♄48'20	21°41'52
evening max el	2178 Jun 03 07:22	6°♄12'53	23°15'52	retrograde	2179 May 28 11:35	22°♄53'54	
desc. node	2178 Jun 12 11:46	12°♄15'15		desc. node	2179 May 30 08:46	22°♄45'52	
retrograde	2178 Jun 16 20:00	12°♄58'10		evening set	2179 May 31 00:47	22°♄39'17	
evening set	2178 Jun 20 13:55	12°♄27'25		inferior conj	2179 Jun 09 09:54	18°♄37'40	-2°-49'-13
min. Earth dist.	2178 Jun 27 17:07	9°♄12'42	0.55708 AU	minimum elong	2179 Jun 09 02:35	18°♄47'54	2°46'55
inferior conj	2178 Jun 29 13:45	8°♄07'08	-4°-16'-41	min. Earth dist.	2179 Jun 09 04:48	18°♄44'48	0.54947 AU
minimum elong	2178 Jun 29 06:43	8°♄17'30	4°15'19	morning rise	2179 Jun 18 05:21	14°♄43'14	
morning rise	2178 Jul 08 02:39	4°♄13'25		direct	2179 Jun 21 09:58	14°♄20'52	
direct	2178 Jul 10 22:16	3°♄54'12		morning max el	2179 Jul 03 15:42	20°♄06'37	21°53'25
morning max el	2178 Jul 21 13:35	8°♄49'55	20°24'38		2179 Jul 11 19:52	0°♄	
asc. node	2178 Aug 01 06:44	23°♄19'14		asc. node	2179 Jul 19 03:48	12°♄26'52	
	2178 Aug 04 22:11	0°♄		morning set	2179 Jul 24 14:30	23°♄20'31	
morning set	2178 Aug 09 05:03	8°♄31'55			2179 Jul 27 18:25	0°♄	
superior conj	2178 Aug 16 20:50	24°♄15'57	1°45'21	superior conj	2179 Jul 31 21:27	8°♄43'26	1°40'03
minimum elong	2178 Aug 16 20:28	24°♄14'03	1°45'21	minimum elong	2179 Jul 31 19:52	8°♄35'07	1°39'58
	2178 Aug 19 17:33	0°♄		max. Earth dist.	2179 Aug 04 12:33	16°♄13'50	1.34715 AU
max. Earth dist.	2178 Aug 21 22:32	4°♄18'47	1.36329 AU	evening rise	2179 Aug 09 01:55	25°♄15'44	
evening rise	2178 Aug 25 22:41	11°♄52'00			2179 Aug 11 13:56	0°♄	
	2178 Sep 05 11:04	0°♄		desc. node	2179 Aug 26 08:05	24°♄46'07	
desc. node	2178 Sep 08 11:05	4°♄44'50			2179 Aug 29 22:19	0°♄	
	2178 Sep 27 04:22	0°♄		evening max el	2179 Sep 13 03:22	17°♄10'09	26°54'57
evening max el	2178 Sep 30 14:57	3°♄34'48	26°02'52	retrograde	2179 Sep 26 06:56	24°♄26'14	
retrograde	2178 Oct 13 04:00	10°♄42'00		evening set	2179 Oct 03 00:33	21°♄44'35	
evening set	2178 Oct 19 08:51	8°♄08'15		min. Earth dist.	2179 Oct 07 00:00	17°♄46'48	0.65587 AU
min. Earth dist.	2178 Oct 23 15:25	3°♄33'31	0.66660 AU	inferior conj	2179 Oct 08 21:38	15°♄34'45	-2°-4'-30
inferior conj	2178 Oct 25 01:04	1°♄48'26	-1°-5'-47	minimum elong	2179 Oct 09 00:59	15°♄25'04	2°03'13
minimum elong	2178 Oct 25 02:48	1°♄43'01	1°05'05	morning rise	2179 Oct 15 02:55	9°♄53'51	
	2178 Oct 26 12:26	30°♄		asc. node	2179 Oct 15 02:59	9°♄53'45	
asc. node	2178 Oct 28 05:56	28°♄04'54		direct	2179 Oct 17 20:57	9°♄12'15	
morning rise	2178 Oct 30 21:43	25°♄55'05		morning max el	2179 Oct 24 10:06	12°♄45'24	18°16'56

	2179 Nov 05 15:47	0°♄		morning rise	2180 Sep 28 01:29	23°♄45'55	
morning set	2179 Nov 12 08:49	10°♄54'18		direct	2180 Sep 30 13:46	23°♄14'03	
desc. node	2179 Nov 22 07:22	26°♄56'07		asc. node	2180 Oct 01 00:03	23°♄14'59	
	2179 Nov 24 05:36	0°♄		morning max el	2180 Oct 07 02:11	26°♄39'59	17°55'45
					2180 Oct 09 23:29	0°♄	
superior conj	2179 Nov 27 10:31	5°♄04'13	0°-33'-59	morning set	2180 Oct 24 02:36	22°♄38'17	
minimum elong	2179 Nov 27 06:08	4°♄46'55	0°33'24		2180 Oct 28 10:36	0°♄	
max. Earth dist.	2179 Nov 29 15:12	8°♄31'35	1.45118 AU				
	2179 Dec 13 08:35	0°♄		superior conj	2180 Nov 06 03:13	14°♄23'36	0°13'52
evening rise	2179 Dec 13 19:34	0°♄42'55		minimum elong	2180 Nov 06 04:47	14°♄29'56	0°13'39
greatest brilliancy	2179 Dec 28 18:46	23°♄47'10	-0.7m	behind sun begin	2180 Nov 05 23:18	14°♄07'42	
	2180 Jan 02 04:36	0°♄		behind sun end	2180 Nov 06 10:16	14°♄52'10	
evening max el	2180 Jan 06 13:51	5°♄14'19	19°23'48	desc. node	2180 Nov 08 04:24	17°♄42'18	
asc. node	2180 Jan 11 02:17	8°♄43'25		max. Earth dist.	2180 Nov 11 09:56	22°♄52'14	1.44494 AU
retrograde	2180 Jan 13 17:34	9°♄21'14			2180 Nov 15 22:29	0°♄	
evening set	2180 Jan 17 03:06	8°♄13'41		evening rise	2180 Nov 22 07:18	9°♄52'40	
inferior conj	2180 Jan 22 17:04	2°♄18'03	3°12'52		2180 Dec 05 14:32	0°♄	
minimum elong	2180 Jan 22 14:41	2°♄25'47	3°12'23	greatest brilliancy	2180 Dec 13 11:04	11°♄10'28	-0.5m
min. Earth dist.	2180 Jan 23 23:29	0°♄39'27	0.66334 AU	evening max el	2180 Dec 19 17:13	18°♄44'29	20°21'49
	2180 Jan 24 11:53	30°♄		retrograde	2180 Dec 27 15:32	23°♄24'31	
morning rise	2180 Jan 28 01:29	26°♄04'04		asc. node	2180 Dec 27 23:19	23°♄23'56	
direct	2180 Feb 03 07:07	23°♄19'11		evening set	2180 Dec 31 09:37	22°♄02'50	
	2180 Feb 15 01:24	0°♄		inferior conj	2181 Jan 05 20:31	15°♄54'05	2°40'59
morning max el	2180 Feb 15 19:12	0°♄44'08	26°00'57	minimum elong	2181 Jan 05 17:54	16°♄02'57	2°40'15
desc. node	2180 Feb 18 06:35	3°♄21'31		min. Earth dist.	2181 Jan 06 13:30	14°♄56'29	0.67213 AU
	2180 Mar 08 18:16	0°♄		morning rise	2181 Jan 11 01:40	9°♄38'45	
morning set	2180 Mar 22 23:22	24°♄16'15		direct	2181 Jan 16 17:12	7°♄09'20	
	2180 Mar 26 00:25	0°♄		morning max el	2181 Jan 28 03:52	13°♄59'00	24°39'24
max. Earth dist.	2180 Mar 26 22:12	1°♄44'42	1.35472 AU	desc. node	2181 Feb 04 03:37	21°♄59'00	
					2181 Feb 10 04:48	0°♄	
superior conj	2180 Apr 01 03:59	12°♄07'56	-1°-7'-5		2181 Mar 01 14:43	0°♄	
minimum elong	2180 Apr 01 07:21	12°♄25'02	1°06'31	morning set	2181 Mar 05 03:57	6°♄08'45	
asc. node	2180 Apr 08 01:36	26°♄19'37		max. Earth dist.	2181 Mar 08 20:48	12°♄47'16	1.37369 AU
evening rise	2180 Apr 09 01:33	28°♄22'36					
	2180 Apr 09 20:38	0°♄		superior conj	2181 Mar 15 12:57	25°♄22'43	-1°-32'-35
evening max el	2180 Apr 27 06:21	27°♄53'49	20°20'26	minimum elong	2181 Mar 15 17:13	25°♄43'26	1°32'03
	2180 Apr 29 16:51	0°♄			2181 Mar 17 21:34	0°♄	
retrograde	2180 May 08 00:55	3°♄07'23		evening rise	2181 Mar 24 03:11	12°♄25'53	
evening set	2180 May 10 02:07	2°♄56'50		asc. node	2181 Mar 25 22:39	16°♄01'04	
desc. node	2180 May 16 05:47	0°♄39'12			2181 Apr 02 14:23	0°♄	
	2180 May 17 10:23	30°♄		evening max el	2181 Apr 09 22:46	9°♄39'27	19°17'27
inferior conj	2180 May 19 04:48	28°♄58'45	0°-51'-52	retrograde	2181 Apr 19 00:58	14°♄03'31	
minimum elong	2180 May 19 02:21	29°♄02'20	0°50'59	evening set	2181 Apr 21 02:44	13°♄50'46	
min. Earth dist.	2180 May 20 17:27	28°♄05'06	0.55131 AU	inferior conj	2181 Apr 29 12:36	9°♄41'41	1°01'12
morning rise	2180 May 28 00:39	24°♄44'11		minimum elong	2181 Apr 29 15:01	9°♄37'38	1°00'22
direct	2180 May 31 21:09	24°♄12'05		min. Earth dist.	2181 May 02 08:17	7°♄49'45	0.56230 AU
	2180 Jun 13 12:35	0°♄		desc. node	2181 May 03 02:50	7°♄20'28	
morning max el	2180 Jun 14 09:09	0°♄47'03	23°34'14	morning rise	2181 May 07 23:17	4°♄53'25	
	2180 Jul 04 01:00	0°♄		direct	2181 May 12 19:04	3°♄59'57	
asc. node	2180 Jul 05 00:51	1°♄58'51		morning max el	2181 May 26 23:37	11°♄13'39	25°14'18
morning set	2180 Jul 08 01:58	8°♄15'38			2181 Jun 10 07:32	0°♄	
				asc. node	2181 Jun 21 21:54	21°♄48'06	
superior conj	2180 Jul 15 03:57	23°♄28'21	1°28'58	morning set	2181 Jun 22 13:46	23°♄11'27	
minimum elong	2180 Jul 15 01:42	23°♄16'14	1°28'42		2181 Jun 25 17:57	0°♄	
max. Earth dist.	2180 Jul 17 11:51	28°♄27'03	1.33484 AU				
	2180 Jul 18 05:27	0°♄		superior conj	2181 Jun 29 13:59	8°♄22'48	1°13'05
evening rise	2180 Jul 22 17:34	9°♄15'47		minimum elong	2181 Jun 29 11:35	8°♄09'43	1°12'42
	2180 Aug 02 23:48	0°♄		max. Earth dist.	2181 Jun 30 18:41	10°♄59'24	1.32660 AU
desc. node	2180 Aug 12 05:06	14°♄18'59		evening rise	2181 Jul 06 18:03	23°♄41'14	
	2180 Aug 25 02:49	0°♄			2181 Jul 09 21:19	0°♄	
evening max el	2180 Aug 25 15:03	0°♄29'29	27°22'59		2181 Jul 27 17:36	0°♄	
retrograde	2180 Sep 08 04:03	7°♄47'27		desc. node	2181 Jul 30 02:09	3°♄10'59	
evening set	2180 Sep 15 06:38	5°♄06'31		evening max el	2181 Aug 07 23:45	13°♄18'50	27°21'02
min. Earth dist.	2180 Sep 18 23:54	1°♄44'18	0.64155 AU	retrograde	2181 Aug 21 18:48	20°♄35'14	
	2180 Sep 20 15:43	30°♄		evening set	2181 Aug 28 23:31	18°♄07'06	
inferior conj	2180 Sep 21 10:15	29°♄10'53	-3°-2'-20	min. Earth dist.	2181 Sep 01 13:37	15°♄13'57	0.62390 AU
minimum elong	2180 Sep 21 15:00	28°♄58'21	3°00'44	inferior conj	2181 Sep 04 11:57	12°♄28'59	-3°-55'-28

minimum elong	2181 Sep 04 17:22	12° \mathbb{M} 16'15	3°54'06		2182 Aug 12 00:13	30° \mathbb{R} \mathcal{O}	
morning rise	2181 Sep 11 13:57	7° \mathbb{M} 23'17		min. Earth dist.	2182 Aug 14 17:05	28° \mathcal{O} 02'02	0.60390 AU
direct	2181 Sep 13 23:06	6° \mathbb{M} 57'58		inferior conj	2182 Aug 17 23:22	25° \mathcal{O} 20'59	-4°-37'-40
asc. node	2181 Sep 17 21:06	8° \mathbb{M} 08'22		minimum elong	2182 Aug 18 03:49	25° \mathcal{O} 11'48	4°37'00
morning max el	2181 Sep 20 17:57	10° \mathbb{M} 25'07	17°52'28	morning rise	2182 Aug 25 12:08	20° \mathcal{O} 37'09	
	2181 Oct 03 17:39	0° \mathcal{A}		direct	2182 Aug 27 21:07	20° \mathcal{O} 15'42	
morning set	2181 Oct 06 18:10	5° \mathcal{A} 24'06		morning max el	2182 Sep 04 06:14	23° \mathcal{O} 52'55	18°08'13
				asc. node	2182 Sep 04 18:09	24° \mathcal{O} 22'35	
superior conj	2181 Oct 17 22:03	25° \mathcal{A} 00'18	0°53'48		2182 Sep 09 05:15	0° \mathbb{M}	
minimum elong	2181 Oct 18 02:26	25° \mathcal{A} 18'52	0°53'13	morning set	2182 Sep 20 01:35	18° \mathbb{M} 55'11	
	2181 Oct 20 21:13	0° \mathbb{M}			2182 Sep 26 00:04	0° \mathcal{A}	
max. Earth dist.	2181 Oct 25 00:40	6° \mathbb{M} 49'21	1.43216 AU				
desc. node	2181 Oct 26 01:26	8° \mathbb{M} 29'41		superior conj	2182 Sep 29 18:48	6° \mathcal{A} 52'46	1°21'57
evening rise	2181 Nov 01 17:00	19° \mathbb{M} 02'14		minimum elong	2182 Sep 29 22:54	7° \mathcal{A} 11'08	1°21'32
	2181 Nov 08 20:47	0° \mathcal{A}		max. Earth dist.	2182 Oct 07 09:55	20° \mathcal{A} 09'01	1.41455 AU
greatest brilliancy	2181 Nov 27 16:18	26° \mathcal{A} 34'55	-0.4m	evening rise	2182 Oct 12 17:09	28° \mathcal{A} 53'34	
	2181 Nov 30 12:54	0° \mathcal{B}		desc. node	2182 Oct 12 22:29	29° \mathcal{A} 15'02	
evening max el	2181 Dec 02 14:54	2° \mathcal{B} 15'07	21°31'59		2182 Oct 13 09:39	0° \mathbb{M}	
retrograde	2181 Dec 11 12:56	7° \mathcal{B} 33'25			2182 Nov 02 11:36	0° \mathcal{A}	
asc. node	2181 Dec 14 20:22	6° \mathcal{B} 33'02		greatest brilliancy	2182 Nov 10 04:55	10° \mathcal{A} 04'13	-0.3m
evening set	2181 Dec 15 17:23	5° \mathcal{B} 56'10		evening max el	2182 Nov 15 07:34	15° \mathcal{A} 47'52	22°49'58
	2181 Dec 20 20:33	30° \mathbb{R} \mathcal{A}		retrograde	2182 Nov 25 08:01	21° \mathcal{A} 44'44	
inferior conj	2181 Dec 21 02:58	29° \mathcal{A} 37'47	2°01'05	evening set	2182 Nov 30 00:43	19° \mathcal{A} 50'48	
minimum elong	2181 Dec 21 00:37	29° \mathcal{A} 45'54	2°00'16	asc. node	2182 Dec 01 17:24	18° \mathcal{A} 12'49	
min. Earth dist.	2181 Dec 21 08:03	29° \mathcal{A} 20'12	0.67707 AU	inferior conj	2182 Dec 05 10:29	13° \mathcal{A} 26'41	1°14'40
morning rise	2181 Dec 26 07:34	23° \mathcal{A} 23'05		minimum elong	2182 Dec 05 08:51	13° \mathcal{A} 32'20	1°14'01
direct	2181 Dec 31 07:59	21° \mathcal{A} 14'29		min. Earth dist.	2182 Dec 05 04:40	13° \mathcal{A} 46'48	0.67848 AU
morning max el	2182 Jan 10 13:05	27° \mathcal{A} 18'39	23°10'58	morning rise	2182 Dec 10 16:56	7° \mathcal{A} 14'45	
	2182 Jan 13 01:26	0° \mathcal{B}		direct	2182 Dec 15 02:35	5° \mathcal{A} 28'58	
greatest brilliancy	2182 Jan 15 13:48	2° \mathcal{B} 56'44	-0.3m	morning max el	2182 Dec 24 02:10	10° \mathcal{A} 44'59	21°44'56
desc. node	2182 Jan 22 00:40	11° \mathcal{B} 18'18		greatest brilliancy	2182 Dec 28 22:16	16° \mathcal{A} 13'19	-0.4m
	2182 Feb 03 20:35	0° \approx			2183 Jan 08 02:56	0° \mathcal{B}	
morning set	2182 Feb 14 07:31	16° \approx 46'03		desc. node	2183 Jan 08 21:42	1° \mathcal{B} 07'33	
max. Earth dist.	2182 Feb 18 15:35	24° \approx 08'57	1.39498 AU	morning set	2183 Jan 25 05:51	25° \mathcal{B} 59'08	
	2182 Feb 21 23:26	0° \mathcal{H}			2183 Jan 27 17:47	0° \approx	
				max. Earth dist.	2183 Jan 31 14:24	6° \approx 19'46	1.41601 AU
superior conj	2182 Feb 26 07:21	7° \mathcal{H} 51'52	-1°-53'00				
minimum elong	2182 Feb 26 11:17	8° \mathcal{H} 10'06	1°52'43	superior conj	2183 Feb 08 06:06	19° \approx 22'57	-2°-4'-20
evening rise	2182 Mar 07 20:20	25° \mathcal{H} 59'25		minimum elong	2183 Feb 08 07:33	19° \approx 29'16	2°04'19
	2182 Mar 09 22:36	0° \mathcal{Y}			2183 Feb 14 04:51	0° \mathcal{H}	
asc. node	2182 Mar 12 19:42	5° \mathcal{Y} 23'31		evening rise	2183 Feb 19 01:27	8° \mathcal{H} 54'14	
evening max el	2182 Mar 24 01:01	22° \mathcal{Y} 02'13	18°34'36	asc. node	2183 Feb 27 16:44	24° \mathcal{H} 19'49	
retrograde	2182 Mar 31 18:56	25° \mathcal{Y} 50'01			2183 Mar 03 08:50	0° \mathcal{Y}	
evening set	2182 Apr 03 02:06	25° \mathcal{Y} 31'06		evening max el	2183 Mar 07 09:46	4° \mathcal{Y} 52'28	18°11'41
inferior conj	2182 Apr 10 16:52	21° \mathcal{Y} 03'23	2°25'53	retrograde	2183 Mar 14 07:02	8° \mathcal{Y} 20'27	
minimum elong	2182 Apr 10 20:51	20° \mathcal{Y} 55'39	2°24'51	evening set	2183 Mar 16 19:54	7° \mathcal{Y} 52'55	
min. Earth dist.	2182 Apr 14 02:37	18° \mathcal{Y} 25'56	0.58010 AU	inferior conj	2183 Mar 23 17:52	3° \mathcal{Y} 03'50	3°17'08
morning rise	2182 Apr 18 11:16	15° \mathcal{Y} 42'30		minimum elong	2183 Mar 23 20:46	2° \mathcal{Y} 57'16	3°16'40
desc. node	2182 Apr 19 23:52	15° \mathcal{Y} 03'31		min. Earth dist.	2183 Mar 27 02:14	0° \mathcal{Y} 03'40	0.60129 AU
direct	2182 Apr 24 07:33	14° \mathcal{Y} 15'53			2183 Mar 27 03:58	30° \mathbb{R} \mathcal{H}	
morning max el	2182 May 08 16:40	21° \mathcal{Y} 53'50	26°38'01	morning rise	2183 Mar 30 18:12	27° \mathcal{H} 19'28	
	2182 May 15 19:23	0° \mathcal{B}		direct	2183 Apr 06 08:22	25° \mathcal{H} 16'38	
	2182 Jun 03 01:44	0° \mathbb{I}		desc. node	2183 Apr 06 20:54	25° \mathcal{H} 17'23	
morning set	2182 Jun 07 00:18	8° \mathbb{I} 02'47			2183 Apr 17 04:08	0° \mathcal{Y}	
asc. node	2182 Jun 08 18:58	11° \mathbb{I} 49'10		morning max el	2183 Apr 20 15:24	3° \mathcal{Y} 07'01	27°32'14
					2183 May 10 07:29	0° \mathcal{B}	
superior conj	2182 Jun 14 01:40	23° \mathbb{I} 20'34	0°53'13	morning set	2183 May 22 07:47	22° \mathcal{B} 42'32	
minimum elong	2182 Jun 13 23:36	23° \mathbb{I} 09'14	0°52'49		2183 May 25 18:28	0° \mathbb{I}	
max. Earth dist.	2182 Jun 14 05:56	23° \mathbb{I} 44'04	1.32235 AU	asc. node	2183 May 26 16:00	1° \mathbb{I} 56'22	
	2182 Jun 17 02:30	0° \mathcal{B}		max. Earth dist.	2183 May 28 17:57	6° \mathbb{I} 28'51	1.32196 AU
evening rise	2182 Jun 21 00:31	8° \mathcal{B} 23'35					
	2182 Jul 02 07:27	0° \mathcal{O}		superior conj	2183 May 29 13:10	8° \mathbb{I} 14'25	0°30'03
desc. node	2182 Jul 16 23:11	21° \mathcal{O} 05'13		minimum elong	2183 May 29 11:52	8° \mathbb{I} 07'14	0°29'47
evening max el	2182 Jul 21 03:09	25° \mathcal{O} 27'29	26°45'56	evening rise	2183 Jun 05 10:36	23° \mathbb{I} 13'57	
	2182 Jul 26 20:52	0° \mathbb{M}			2183 Jun 08 17:02	0° \mathcal{B}	
retrograde	2182 Aug 04 02:06	2° \mathbb{M} 40'43			2183 Jun 26 20:20	0° \mathcal{O}	
evening set	2182 Aug 10 22:44	0° \mathbb{M} 39'10		evening max el	2183 Jul 02 23:35	6° \mathcal{O} 49'21	25°39'39

desc. node	2183 Jul 03 20:11	7°♄37'18		2184 May 31 08:43	0°♄	
retrograde	2183 Jul 16 23:52	13°♄57'50		evening max el	2184 Jun 13 14:08	17°♄31'38 24°11'02
evening set	2183 Jul 22 23:35	12°♄33'13		desc. node	2184 Jun 19 17:12	22°♄15'30
min. Earth dist.	2183 Jul 27 11:49	9°♄54'28	0.58338 AU	retrograde	2184 Jun 27 09:53	24°♄29'29
inferior conj	2183 Jul 30 16:58	7°♄36'54	-4°-58'-54	evening set	2184 Jul 02 00:58	23°♄41'55
minimum elong	2183 Jul 30 17:56	7°♄35'10	4°58'54	min. Earth dist.	2184 Jul 08 00:55	20°♄44'27 0.56521 AU
morning rise	2183 Aug 07 15:50	3°♄16'00		inferior conj	2184 Jul 10 14:24	19°♄08'43 -4°-45'-23
direct	2183 Aug 10 03:32	2°♄56'22		minimum elong	2184 Jul 10 09:57	19°♄15'41 4°44'53
morning max el	2183 Aug 18 11:49	6°♄53'59	18°44'26	morning rise	2184 Jul 18 22:30	15°♄08'03
asc. node	2183 Aug 22 15:12	11°♄42'15		direct	2184 Jul 21 15:00	14°♄48'58
	2183 Sep 02 07:19	0°♄		morning max el	2184 Jul 31 07:49	19°♄19'11 19°42'04
morning set	2183 Sep 03 20:10	2°♄58'52		asc. node	2184 Aug 08 12:15	29°♄53'09
					2184 Aug 08 13:56	0°♄
superior conj	2183 Sep 12 12:24	19°♄46'58	1°38'33	morning set	2184 Aug 17 22:29	17°♄25'37
minimum elong	2183 Sep 12 14:49	19°♄58'24	1°38'24		2184 Aug 24 03:46	0°♄
	2183 Sep 18 01:24	0°♄				
max. Earth dist.	2183 Sep 19 14:57	2°♄47'10	1.39432 AU	superior conj	2184 Aug 25 21:25	3°♄27'32 1°45'15
evening rise	2183 Sep 23 16:27	9°♄49'17		minimum elong	2184 Aug 25 21:59	3°♄30'17 1°45'15
desc. node	2183 Sep 29 19:30	19°♄54'45		max. Earth dist.	2184 Aug 31 19:18	14°♄50'52 1.37404 AU
	2183 Oct 06 07:38	0°♄		evening rise	2184 Sep 04 15:04	21°♄50'20
evening max el	2183 Oct 28 20:57	29°♄24'29	24°09'55		2184 Sep 09 07:36	0°♄
	2183 Oct 29 11:29	0°♄		desc. node	2184 Sep 15 16:31	10°♄24'07
retrograde	2183 Nov 08 23:32	5°♄55'24			2184 Sep 29 05:00	0°♄
evening set	2183 Nov 14 06:00	3°♄44'24		evening max el	2184 Oct 10 08:57	13°♄03'40 25°24'56
	2183 Nov 17 16:44	30°♄		retrograde	2184 Oct 22 10:38	20°♄00'29
asc. node	2183 Nov 18 14:25	28°♄49'06		evening set	2184 Oct 28 07:35	17°♄33'49
min. Earth dist.	2183 Nov 19 00:55	28°♄13'57	0.67650 AU	min. Earth dist.	2184 Nov 01 18:25	12°♄38'33 0.67119 AU
inferior conj	2183 Nov 19 17:18	27°♄18'39	0°23'04	inferior conj	2184 Nov 02 21:38	11°♄10'40 0°-32'-33
minimum elong	2183 Nov 19 16:45	27°♄20'32	0°22'49	minimum elong	2184 Nov 02 22:28	11°♄07'59 0°32'12
morning rise	2183 Nov 25 03:45	21°♄12'00		asc. node	2184 Nov 04 11:27	9°♄11'03
direct	2183 Nov 28 23:48	19°♄48'12		morning rise	2184 Nov 08 14:04	5°♄11'53
morning max el	2183 Dec 06 22:18	24°♄22'10	20°28'14	direct	2184 Nov 11 22:14	4°♄07'30
	2183 Dec 11 19:28	0°♄		morning max el	2184 Nov 19 02:20	8°♄09'45 19°24'53
greatest brilliancy	2183 Dec 13 04:33	1°♄47'05	-0.5m	greatest brilliancy	2184 Nov 28 03:51	19°♄44'08 -0.7m
desc. node	2183 Dec 26 18:44	21°♄18'31			2184 Dec 05 00:44	0°♄
	2184 Jan 01 11:56	0°♄		desc. node	2184 Dec 12 15:45	11°♄44'33
morning set	2184 Jan 04 05:34	4°♄13'06		morning set	2184 Dec 13 04:35	12°♄34'16
max. Earth dist.	2184 Jan 13 21:23	19°♄28'13	1.43384 AU		2184 Dec 24 08:40	0°♄
				max. Earth dist.	2184 Dec 26 11:19	3°♄19'49 1.44608 AU
superior conj	2184 Jan 20 04:16	29°♄45'17	-2°-1'-37			
minimum elong	2184 Jan 20 00:43	29°♄30'31	2°01'30	superior conj	2184 Dec 30 00:16	8°♄57'12 -1°-40'-29
	2184 Jan 20 07:49	0°♄		minimum elong	2184 Dec 29 15:55	8°♄23'55 1°39'47
evening rise	2184 Feb 01 14:27	21°♄02'37			2185 Jan 11 22:13	0°♄
	2184 Feb 06 17:21	0°♄		evening rise	2185 Jan 13 06:59	2°♄16'21
asc. node	2184 Feb 14 13:45	12°♄42'03		asc. node	2185 Jan 31 10:46	0°♄19'34
evening max el	2184 Feb 18 21:50	18°♄01'47	18°08'13		2185 Jan 31 03:52	0°♄
retrograde	2184 Feb 25 09:38	21°♄25'20		evening max el	2185 Feb 01 10:15	1°♄22'14 18°23'41
evening set	2184 Feb 28 03:38	20°♄47'56		retrograde	2185 Feb 07 22:11	4°♄54'30
inferior conj	2184 Mar 05 12:29	15°♄37'41	3°39'56	evening set	2185 Feb 10 21:22	4°♄06'22
minimum elong	2184 Mar 05 13:26	15°♄35'14	3°39'53		2185 Feb 15 15:15	30°♄
min. Earth dist.	2184 Mar 08 09:46	12°♄39'47	0.62249 AU	inferior conj	2185 Feb 16 20:38	28°♄36'39 3°41'16
morning rise	2184 Mar 11 20:53	9°♄38'32		minimum elong	2185 Feb 16 19:50	28°♄39'00 3°41'13
direct	2184 Mar 18 18:51	7°♄06'42		min. Earth dist.	2185 Feb 19 02:56	26°♄00'47 0.64125 AU
desc. node	2184 Mar 23 17:55	8°♄15'47		morning rise	2185 Feb 22 16:45	22°♄28'46
morning max el	2184 Apr 01 20:12	15°♄02'04	27°49'54	direct	2185 Mar 01 13:17	19°♄40'57
	2184 Apr 14 00:24	0°♄		desc. node	2185 Mar 10 14:56	23°♄29'44
	2184 May 01 20:34	0°♄		morning max el	2185 Mar 15 05:01	27°♄34'15 27°31'00
morning set	2184 May 05 10:11	7°♄04'14			2185 Mar 17 12:30	0°♄
max. Earth dist.	2184 May 11 02:52	19°♄00'49	1.32552 AU		2185 Apr 07 17:09	0°♄
				morning set	2185 Apr 19 04:59	21°♄00'01
superior conj	2184 May 12 22:50	22°♄58'41	0°04'19		2185 Apr 23 15:43	0°♄
minimum elong	2184 May 12 22:38	22°♄57'36	0°04'17	max. Earth dist.	2185 Apr 24 04:44	1°♄07'38 1.33324 AU
behind sun begin	2184 May 12 17:38	22°♄30'28				
behind sun end	2184 May 13 03:37	23°♄24'45		superior conj	2185 Apr 27 04:48	7°♄27'37 0°-23'-9
asc. node	2184 May 12 13:02	22°♄05'31		minimum elong	2185 Apr 27 05:58	7°♄33'47 0°22'55
	2184 May 16 04:09	0°♄		asc. node	2185 Apr 29 10:05	12°♄12'45
evening rise	2184 May 19 22:18	8°♄05'39		evening rise	2185 May 04 09:50	22°♄52'27

	2185 May 07 20:50	0°♄		asc. node	2186 Apr 16 07:08	2°♄13'33	
evening max el	2185 May 26 04:44	28°♄00'06	22°34'49	evening rise	2186 Apr 18 19:14	7°♄27'33	
	2185 May 28 10:22	0°♄			2186 May 01 01:13	0°♄	
desc. node	2185 Jun 06 14:12	4°♄24'30		evening max el	2186 May 08 02:59	8°♄46'19	21°05'14
retrograde	2185 Jun 08 07:54	4°♄31'25		retrograde	2186 May 19 21:35	14°♄30'57	
evening set	2185 Jun 11 12:03	4°♄09'15		evening set	2186 May 22 03:16	14°♄19'16	
min. Earth dist.	2185 Jun 19 12:22	0°♄39'24	0.55276 AU	desc. node	2186 May 24 11:14	13°♄43'56	
inferior conj	2185 Jun 20 17:34	29°♄57'50	-3°-44'-57	inferior conj	2186 May 31 11:27	10°♄21'06	-2°-1'-11
minimum elong	2185 Jun 20 09:38	0°♄09'08	3°42'57	minimum elong	2186 May 31 05:49	10°♄29'02	1°59'15
	2185 Jun 20 16:03	30°♄		min. Earth dist.	2186 Jun 01 00:40	10°♄02'26	0.54900 AU
morning rise	2185 Jun 29 09:45	26°♄06'33		morning rise	2186 Jun 09 08:04	6°♄20'07	
direct	2185 Jul 02 08:34	25°♄46'37		direct	2186 Jun 12 18:07	5°♄54'51	
	2185 Jul 12 12:11	0°♄		morning max el	2186 Jun 25 14:43	12°♄02'56	22°35'27
morning max el	2185 Jul 13 16:36	1°♄02'25	21°00'28		2186 Jul 08 22:03	0°♄	
asc. node	2185 Jul 26 09:18	18°♄43'23		asc. node	2186 Jul 13 06:22	8°♄02'19	
	2185 Aug 01 04:53	0°♄		morning set	2186 Jul 17 16:30	17°♄00'48	
morning set	2185 Aug 02 05:59	2°♄08'40			2186 Jul 23 18:56	0°♄	
superior conj	2185 Aug 09 17:27	17°♄41'58	1°43'54	superior conj	2186 Jul 24 20:56	2°♄18'19	1°36'01
minimum elong	2185 Aug 09 16:30	17°♄37'03	1°43'52	minimum elong	2186 Jul 24 19:00	2°♄08'03	1°35'50
max. Earth dist.	2185 Aug 14 04:24	26°♄41'56	1.35593 AU	max. Earth dist.	2186 Jul 27 22:08	8°♄42'34	1.34139 AU
	2185 Aug 15 20:53	0°♄		evening rise	2186 Aug 01 18:20	18°♄29'01	
evening rise	2185 Aug 18 09:17	4°♄48'05			2186 Aug 07 21:32	0°♄	
	2185 Sep 02 03:39	0°♄		desc. node	2186 Aug 20 10:35	20°♄28'30	
desc. node	2185 Sep 02 13:32	0°♄38'01			2186 Aug 27 08:29	0°♄	
evening max el	2185 Sep 22 21:00	26°♄42'18	26°27'27	evening max el	2186 Sep 05 09:10	10°♄11'49	27°10'09
	2185 Sep 26 15:24	0°♄		retrograde	2186 Sep 18 17:38	17°♄30'14	
retrograde	2185 Oct 05 16:52	3°♄54'50		evening set	2186 Sep 25 15:33	14°♄47'31	
evening set	2185 Oct 12 03:33	1°♄16'29		min. Earth dist.	2186 Sep 29 12:07	11°♄05'11	0.65018 AU
	2185 Oct 13 13:06	30°♄		inferior conj	2186 Oct 01 15:09	8°♄42'56	-2°-29'-22
min. Earth dist.	2185 Oct 16 06:54	26°♄57'45	0.66247 AU	minimum elong	2186 Oct 01 19:09	8°♄31'47	2°27'54
inferior conj	2185 Oct 17 21:39	25°♄00'21	-1°-30'-40	morning rise	2186 Oct 08 00:34	3°♄08'25	
minimum elong	2185 Oct 18 00:04	24°♄53'01	1°29'41	asc. node	2186 Oct 09 05:33	2°♄42'25	
asc. node	2185 Oct 22 08:29	20°♄15'59		direct	2186 Oct 10 15:42	2°♄31'33	
morning rise	2185 Oct 23 21:49	19°♄12'11		morning max el	2186 Oct 17 03:54	6°♄00'57	18°05'44
direct	2185 Oct 26 20:16	18°♄23'31			2186 Nov 02 07:34	0°♄	
morning max el	2185 Nov 02 13:01	22°♄04'44	18°36'59	morning set	2186 Nov 04 03:52	3°♄04'03	
	2185 Nov 08 20:39	0°♄		desc. node	2186 Nov 16 09:51	23°♄04'58	
morning set	2185 Nov 23 01:32	22°♄05'28					
	2185 Nov 28 01:03	0°♄		superior conj	2186 Nov 18 09:02	26°♄13'24	0°-13'-13
desc. node	2185 Nov 29 12:47	2°♄21'20		minimum elong	2186 Nov 18 07:23	26°♄06'47	0°13'00
				behind sun begin	2186 Nov 18 00:53	25°♄40'54	
superior conj	2185 Dec 09 03:08	17°♄27'35	-1°-1'-26	behind sun end	2186 Nov 18 13:53	26°♄32'39	
minimum elong	2185 Dec 08 19:35	16°♄57'57	1°00'31		2186 Nov 20 18:10	0°♄	
max. Earth dist.	2185 Dec 09 05:09	17°♄35'30	1.45141 AU	max. Earth dist.	2186 Nov 21 23:55	1°♄57'27	1.44934 AU
	2185 Dec 17 02:29	0°♄		evening rise	2186 Dec 04 20:02	21°♄58'37	
evening rise	2185 Dec 25 00:13	12°♄32'19			2186 Dec 10 00:45	0°♄	
	2186 Jan 05 00:23	0°♄		greatest brilliancy	2186 Dec 22 15:21	18°♄53'44	-0.6m
evening max el	2186 Jan 15 20:36	14°♄48'46	18°57'07	evening max el	2186 Dec 30 02:57	28°♄18'18	19°46'54
asc. node	2186 Jan 18 07:48	16°♄59'44			2186 Dec 31 21:57	0°♄	
retrograde	2186 Jan 22 16:41	18°♄40'38		asc. node	2187 Jan 05 04:49	2°♄28'06	
evening set	2186 Jan 25 21:57	17°♄40'42		retrograde	2187 Jan 06 14:01	2°♄38'39	
inferior conj	2186 Jan 31 14:37	11°♄53'51	3°26'46	evening set	2187 Jan 10 02:54	1°♄25'29	
minimum elong	2186 Jan 31 12:37	12°♄00'05	3°26'29		2187 Jan 11 19:30	30°♄	
min. Earth dist.	2186 Feb 02 05:31	9°♄52'18	0.65638 AU	inferior conj	2187 Jan 15 15:20	25°♄24'05	3°00'27
morning rise	2186 Feb 06 02:16	5°♄41'09		minimum elong	2187 Jan 15 12:47	25°♄32'33	2°59'51
direct	2186 Feb 12 14:39	2°♄51'26		min. Earth dist.	2187 Jan 16 15:57	24°♄02'32	0.66751 AU
desc. node	2186 Feb 25 11:58	10°♄24'06		morning rise	2187 Jan 20 21:59	19°♄09'11	
morning max el	2186 Feb 25 14:57	10°♄31'35	26°40'44	direct	2187 Jan 26 21:56	16°♄29'37	
	2186 Mar 13 01:28	0°♄		morning max el	2187 Feb 07 23:56	23°♄41'46	25°27'45
	2186 Mar 31 05:23	0°♄		desc. node	2187 Feb 12 09:01	28°♄30'16	
morning set	2186 Apr 02 12:45	4°♄19'06			2187 Feb 13 15:02	0°♄	
max. Earth dist.	2186 Apr 06 19:52	12°♄40'29	1.34551 AU		2187 Mar 06 10:39	0°♄	
				morning set	2187 Mar 16 04:56	16°♄48'07	
superior conj	2186 Apr 11 04:54	21°♄34'17	0°-51'-14	max. Earth dist.	2187 Mar 19 23:14	23°♄45'46	1.36229 AU
minimum elong	2186 Apr 11 07:31	21°♄47'46	0°50'45		2187 Mar 23 05:16	0°♄	
	2186 Apr 15 05:42	0°♄					

superior conj	2187 Mar 25 20:25	5°♿11'09	-1°-18'-18			2188 Feb 27 00:59	0°♿	
minimum elong	2187 Mar 26 00:16	5°♿30'18	1°17'44	max. Earth dist.		2188 Feb 29 19:07	4°♿51'25	1.38261 AU
evening rise	2187 Apr 03 00:25	21°♿44'40						
asc. node	2187 Apr 03 04:11	22°♿03'44		superior conj		2188 Mar 07 23:43	18°♿07'47	-1°-42'-5
	2187 Apr 07 04:18	0°♿		minimum elong		2188 Mar 08 04:03	18°♿28'24	1°41'38
evening max el	2187 Apr 20 12:55	20°♿09'46	19°51'20			2188 Mar 14 02:30	0°♿	
retrograde	2187 Apr 30 13:43	25°♿00'40		evening rise		2188 Mar 16 22:45	5°♿35'47	
evening set	2187 May 02 14:07	24°♿49'47		asc. node		2188 Mar 20 01:13	11°♿37'36	
inferior conj	2187 May 11 10:28	20°♿48'53	0°-1'-37			2188 Mar 31 08:55	0°♿	
minimum elong	2187 May 11 10:24	20°♿49'00	0°01'36	evening max el		2188 Apr 02 09:52	2°♿11'49	18°56'47
transit middle	2187 May 11 10:24	20°♿49'00	0°01'36	retrograde		2188 Apr 10 20:42	6°♿18'13	
transit begin	2187 May 11 06:27	20°♿55'03		evening set		2188 Apr 13 00:47	6°♿03'04	
transit end	2187 May 11 14:21	20°♿42'56		inferior conj		2188 Apr 21 02:25	1°♿46'32	1°41'14
desc. node	2187 May 11 08:14	20°♿52'20		minimum elong		2188 Apr 21 05:56	1°♿40'17	1°40'08
min. Earth dist.	2187 May 13 14:25	19°♿29'26	0.55499 AU			2188 Apr 23 14:35	30°♿♿	
morning rise	2187 May 20 03:33	16°♿20'38		min. Earth dist.		2188 Apr 24 06:12	29°♿33'13	0.56928 AU
direct	2187 May 24 09:30	15°♿40'47		desc. node		2188 Apr 27 05:15	27°♿43'29	
morning max el	2187 Jun 07 06:04	22°♿34'21	24°17'35	morning rise		2188 Apr 29 06:49	26°♿44'01	
	2187 Jun 13 19:51	0°♿		direct		2188 May 04 13:36	25°♿37'33	
asc. node	2187 Jun 30 03:27	27°♿42'28				2188 May 15 08:52	0°♿	
	2187 Jul 01 06:03	0°♿		morning max el		2188 May 18 20:47	3°♿02'22	25°52'46
morning set	2187 Jul 02 04:19	1°♿56'46				2188 Jun 07 02:03	0°♿	
				morning set		2188 Jun 15 15:48	16°♿51'21	
superior conj	2187 Jul 09 05:13	17°♿08'14	1°22'46	asc. node		2188 Jun 16 00:30	17°♿37'23	
minimum elong	2187 Jul 09 02:51	16°♿55'22	1°22'26			2188 Jun 21 17:27	0°♿	
max. Earth dist.	2187 Jul 11 00:53	21°♿04'00	1.33092 AU					
	2187 Jul 15 06:35	0°♿		superior conj		2188 Jun 22 16:10	2°♿04'42	1°05'05
evening rise	2187 Jul 16 14:11	2°♿41'26		minimum elong		2188 Jun 22 13:51	1°♿52'02	1°04'42
	2187 Jul 31 17:27	0°♿		max. Earth dist.		2188 Jun 23 10:14	3°♿43'49	1.32439 AU
desc. node	2187 Aug 07 07:36	9°♿45'32		evening rise		2188 Jun 29 17:32	17°♿15'18	
evening max el	2187 Aug 18 20:03	23°♿20'34	27°26'05			2188 Jul 06 04:04	0°♿	
	2187 Aug 28 19:05	0°♿		desc. node		2188 Jul 24 04:36	28°♿15'28	
retrograde	2187 Sep 01 12:11	0°♿37'54				2188 Jul 25 14:52	0°♿	
	2187 Sep 05 01:25	30°♿♿		evening max el		2188 Jul 31 03:03	5°♿54'55	27°10'11
evening set	2187 Sep 08 16:30	28°♿01'11		retrograde		2188 Aug 13 23:39	13°♿09'02	
min. Earth dist.	2187 Sep 12 08:00	24°♿52'05	0.63441 AU	evening set		2188 Aug 21 02:28	10°♿50'48	
inferior conj	2187 Sep 14 23:32	22°♿12'28	-3°-25'-46	min. Earth dist.		2188 Aug 24 17:17	8°♿06'22	0.61565 AU
minimum elong	2187 Sep 15 04:42	21°♿59'26	3°24'12	inferior conj		2188 Aug 27 19:39	5°♿21'14	-4°-15'-11
morning rise	2187 Sep 21 19:16	16°♿54'58		minimum elong		2188 Aug 28 00:54	5°♿09'30	4°14'05
direct	2187 Sep 24 05:50	16°♿26'15		morning rise		2188 Sep 04 02:14	0°♿24'19	
asc. node	2187 Sep 26 02:37	16°♿43'22		direct		2188 Sep 06 11:05	0°♿00'48	
morning max el	2187 Sep 30 20:08	19°♿51'56	17°52'00	asc. node		2188 Sep 11 23:41	2°♿13'16	
	2187 Oct 08 08:33	0°♿		morning max el		2188 Sep 13 10:47	3°♿30'52	17°56'44
morning set	2187 Oct 17 07:44	15°♿16'42		morning set		2188 Sep 29 06:45	28°♿24'28	
	2187 Oct 25 21:08	0°♿				2188 Sep 30 03:40	0°♿	
superior conj	2187 Oct 29 12:11	6°♿03'34	0°32'10	superior conj		2188 Oct 09 18:33	17°♿14'21	1°07'14
minimum elong	2187 Oct 29 15:25	6°♿16'53	0°31'42	minimum elong		2188 Oct 09 23:05	17°♿34'03	1°06'41
desc. node	2187 Nov 03 06:53	13°♿51'56				2188 Oct 17 07:28	0°♿	
max. Earth dist.	2187 Nov 04 17:10	16°♿09'41	1.44024 AU	max. Earth dist.		2188 Oct 17 06:22	29°♿55'26	1.42518 AU
	2187 Nov 13 12:26	0°♿		desc. node		2188 Oct 20 03:56	4°♿39'13	
evening rise	2187 Nov 14 04:43	1°♿02'50		evening rise		2188 Oct 23 19:01	10°♿26'51	
	2187 Dec 03 16:59	0°♿				2188 Nov 05 15:41	0°♿	
greatest brilliancy	2187 Dec 07 14:35	5°♿15'35	-0.5m	greatest brilliancy		2188 Nov 20 06:06	20°♿00'26	-0.3m
evening max el	2187 Dec 13 04:00	11°♿48'51	20°50'33	evening max el		2188 Nov 24 23:29	25°♿20'48	22°04'29
retrograde	2187 Dec 21 11:48	16°♿44'21				2188 Nov 30 20:56	0°♿	
asc. node	2187 Dec 23 01:52	16°♿30'21		retrograde		2188 Dec 04 08:19	0°♿55'13	
evening set	2187 Dec 25 10:07	15°♿16'15				2188 Dec 07 13:30	30°♿♿	
inferior conj	2187 Dec 30 20:16	9°♿03'16	2°24'56	evening set		2188 Dec 08 17:53	29°♿10'46	
minimum elong	2187 Dec 30 17:43	9°♿12'02	2°24'08	asc. node		2188 Dec 08 22:53	29°♿00'30	
min. Earth dist.	2187 Dec 31 08:05	8°♿22'47	0.67470 AU	inferior conj		2188 Dec 14 03:23	22°♿49'30	1°42'07
morning rise	2188 Jan 05 00:53	2°♿48'08		minimum elong		2188 Dec 14 01:17	22°♿56'46	1°41'19
direct	2188 Jan 10 10:09	0°♿26'55		min. Earth dist.		2188 Dec 14 03:40	22°♿48'31	0.67815 AU
morning max el	2188 Jan 21 08:14	6°♿57'34	24°02'02	morning rise		2188 Dec 19 08:31	16°♿36'00	
desc. node	2188 Jan 30 06:04	17°♿27'00		direct		2188 Dec 24 02:35	14°♿37'11	
	2188 Feb 08 06:41	0°♿		morning max el		2189 Jan 02 18:41	20°♿19'59	22°33'38
morning set	2188 Feb 25 23:31	28°♿09'45		greatest brilliancy		2189 Jan 07 08:26	25°♿26'17	-0.3m

	2189 Jan 10 23:17	0°☿		greatest brilliancy	2189 Dec 21 18:13	9°☿57'51	-0.4m
desc. node	2189 Jan 16 03:08	7°☿00'22		desc. node	2190 Jan 03 00:11	26°☿59'47	
	2189 Jan 31 12:34	0°☿			2190 Jan 05 00:51	0°☿	
morning set	2189 Feb 05 14:41	8°☿10'28		morning set	2190 Jan 16 01:41	16°☿53'11	
max. Earth dist.	2189 Feb 10 15:21	16°☿33'38	1.40421 AU	max. Earth dist.	2190 Jan 23 17:29	29°☿09'35	1.42412 AU
					2190 Jan 24 05:47	0°☿	
superior conj	2189 Feb 18 10:21	0°☿13'22	-1°-59'-12				
minimum elong	2189 Feb 18 13:33	0°☿27'50	1°59'02	superior conj	2190 Jan 30 23:06	11°☿15'59	-2°-5'-12
	2189 Feb 18 07:23	0°☿		minimum elong	2190 Jan 30 22:41	11°☿14'09	2°05'13
evening rise	2189 Feb 28 11:13	18°☿53'45			2190 Feb 10 14:01	0°☿	
	2189 Mar 06 11:03	0°☿		evening rise	2190 Feb 11 10:02	1°☿30'14	
asc. node	2189 Mar 06 22:13	0°☿49'33		asc. node	2190 Feb 21 19:14	19°☿32'45	
evening max el	2189 Mar 16 15:09	14°☿46'29	18°22'22	evening max el	2190 Feb 28 01:37	27°☿45'47	18°07'51
retrograde	2189 Mar 23 22:54	18°☿24'09			2190 Mar 02 20:48	0°☿	
evening set	2189 Mar 26 08:31	18°☿01'46		retrograde	2190 Mar 06 17:49	1°☿10'32	
inferior conj	2189 Apr 02 15:40	13°☿24'40	2°51'35	evening set	2190 Mar 09 08:46	0°☿39'05	
minimum elong	2189 Apr 02 19:24	13°☿16'53	2°50'45		2190 Mar 10 17:08	30°☿☿	
min. Earth dist.	2189 Apr 06 02:13	10°☿34'41	0.58890 AU	inferior conj	2190 Mar 16 00:41	25°☿40'55	3°29'53
morning rise	2189 Apr 10 02:19	7°☿52'31		minimum elong	2190 Mar 16 02:47	25°☿35'53	3°29'37
desc. node	2189 Apr 14 02:17	6°☿23'29		min. Earth dist.	2190 Mar 19 05:10	22°☿38'35	0.61040 AU
direct	2189 Apr 16 07:08	6°☿10'36		morning rise	2190 Mar 22 17:48	19°☿48'58	
morning max el	2189 Apr 30 16:07	13°☿54'33	27°05'26	direct	2190 Mar 29 12:20	17°☿32'23	
	2189 May 13 12:09	0°☿		desc. node	2190 Mar 31 23:19	17°☿49'16	
	2189 May 30 06:18	0°☿		morning max el	2190 Apr 12 17:48	25°☿26'40	27°44'29
morning set	2189 May 31 01:15	1°☿38'30			2190 Apr 16 22:48	0°☿	
asc. node	2189 Jun 02 21:32	7°☿41'30			2190 May 06 21:59	0°☿	
				morning set	2190 May 15 06:52	16°☿12'12	
superior conj	2189 Jun 07 03:56	17°☿01'13	0°43'44	asc. node	2190 May 20 18:33	27°☿50'26	
minimum elong	2189 Jun 07 02:08	16°☿51'22	0°43'23	max. Earth dist.	2190 May 21 09:33	29°☿11'58	1.32289 AU
max. Earth dist.	2189 Jun 06 22:23	16°☿30'42	1.32170 AU		2190 May 21 18:21	0°☿	
	2189 Jun 13 02:49	0°☿					
evening rise	2189 Jun 14 01:46	2°☿01'41		superior conj	2190 May 22 14:53	1°☿52'14	0°19'24
	2189 Jun 29 04:49	0°☿		minimum elong	2190 May 22 14:00	1°☿47'25	0°19'14
desc. node	2189 Jul 11 01:36	15°☿38'18		evening rise	2190 May 29 12:45	16°☿53'42	
evening max el	2189 Jul 13 03:26	17°☿43'23	26°21'10		2190 Jun 05 00:30	0°☿	
retrograde	2189 Jul 27 03:00	24°☿54'57		evening max el	2190 Jun 24 20:45	28°☿46'17	25°03'57
evening set	2189 Aug 02 16:41	23°☿07'54			2190 Jun 26 04:47	0°☿	
min. Earth dist.	2189 Aug 06 16:26	20°☿32'46	0.59510 AU	desc. node	2190 Jun 27 22:35	1°☿26'48	
inferior conj	2189 Aug 09 23:53	17°☿59'05	-4°-49'-59	retrograde	2190 Jul 08 20:29	5°☿52'32	
minimum elong	2189 Aug 10 03:11	17°☿52'40	4°49'40	evening set	2190 Jul 14 07:22	4°☿44'16	
morning rise	2189 Aug 17 17:06	13°☿25'21		min. Earth dist.	2190 Jul 19 08:22	1°☿59'23	0.57512 AU
direct	2189 Aug 20 03:01	13°☿04'49		inferior conj	2190 Jul 22 09:02	29°☿57'14	-4°-58'-22
morning max el	2189 Aug 27 20:39	16°☿48'52	18°21'06	minimum elong	2190 Jul 22 07:48	29°☿59'20	4°58'20
asc. node	2189 Aug 29 20:44	18°☿57'26			2190 Jul 22 07:25	30°☿☿	
	2189 Sep 06 05:32	0°☿		morning rise	2190 Jul 30 11:59	25°☿45'59	
morning set	2189 Sep 12 19:24	12°☿10'55		direct	2190 Aug 02 01:21	25°☿26'52	
				morning max el	2190 Aug 10 22:37	29°☿36'48	19°06'19
superior conj	2189 Sep 22 00:55	29°☿35'37	1°30'19		2190 Aug 11 08:17	0°☿	
minimum elong	2189 Sep 22 04:23	29°☿51'30	1°30'01	asc. node	2190 Aug 16 17:48	6°☿41'01	
	2189 Sep 22 06:14	0°☿		morning set	2190 Aug 27 17:39	26°☿25'36	
max. Earth dist.	2189 Sep 29 13:41	12°☿58'14	1.40610 AU		2190 Aug 29 12:52	0°☿	
evening rise	2189 Oct 04 04:28	20°☿44'01					
desc. node	2189 Oct 07 00:57	25°☿22'41		superior conj	2190 Sep 05 01:45	12°☿51'53	1°42'29
	2189 Oct 09 22:46	0°☿		minimum elong	2190 Sep 05 03:21	12°☿59'39	1°42'25
	2189 Oct 30 20:50	0°☿		max. Earth dist.	2190 Sep 11 17:18	25°☿18'00	1.38556 AU
evening max el	2189 Nov 07 14:20	8°☿54'28	23°24'00		2190 Sep 14 08:34	0°☿	
retrograde	2189 Nov 18 02:05	15°☿07'01		evening rise	2190 Sep 15 14:03	2°☿08'40	
evening set	2189 Nov 23 00:33	13°☿05'32		desc. node	2190 Sep 23 21:57	15°☿58'37	
asc. node	2189 Nov 25 19:55	10°☿08'43			2190 Oct 03 03:59	0°☿	
inferior conj	2189 Nov 28 10:48	6°☿39'59	0°53'21	evening max el	2190 Oct 21 02:46	22°☿32'04	24°42'49
minimum elong	2189 Nov 28 09:35	6°☿44'10	0°52'50	retrograde	2190 Nov 01 16:00	29°☿15'55	
min. Earth dist.	2189 Nov 28 00:23	7°☿15'42	0.67806 AU	evening set	2190 Nov 07 04:30	26°☿57'59	
morning rise	2189 Dec 03 18:43	0°☿30'06		min. Earth dist.	2190 Nov 11 19:51	21°☿42'05	0.67464 AU
	2189 Dec 04 11:36	30°☿☿		inferior conj	2190 Nov 12 16:48	20°☿32'30	0°00'-8
direct	2189 Dec 07 22:17	28°☿54'09		minimum elong	2190 Nov 12 16:48	20°☿32'30	0°00'09
	2189 Dec 11 15:35	0°☿		transit middle	2190 Nov 12 16:48	20°☿32'30	0°00'09
morning max el	2189 Dec 16 10:39	3°☿51'21	21°10'51	transit begin	2190 Nov 12 14:03	20°☿41'39	

transit end	2190 Nov 12 19:33	20° \mathbb{M} 23'21		evening set	2191 Oct 22 03:58	10° \mathbb{M} 45'27	
asc. node	2190 Nov 12 16:59	20° \mathbb{M} 31'55		min. Earth dist.	2191 Oct 26 11:40	6° \mathbb{M} 05'19	0.66790 AU
morning rise	2190 Nov 18 05:33	14° \mathbb{M} 28'42		inferior conj	2191 Oct 27 19:36	4° \mathbb{M} 24'42	0°-57'00
direct	2190 Nov 21 20:14	13° \mathbb{M} 13'40		minimum elong	2191 Oct 27 21:05	4° \mathbb{M} 20'00	0°56'22
morning max el	2190 Nov 29 10:12	17° \mathbb{M} 33'16	19°59'22	asc. node	2191 Oct 30 14:02	1° \mathbb{M} 06'26	
greatest brilliancy	2190 Dec 06 15:18	26° \mathbb{M} 20'22	-0.6m		2191 Oct 31 16:25	30° \mathbb{R} \mathbb{A}	
	2190 Dec 09 06:10	0° \mathbb{A}		morning rise	2191 Nov 02 15:05	28° \mathbb{A} 29'46	
desc. node	2190 Dec 20 21:13	17° \mathbb{A} 17'47		direct	2191 Nov 05 18:52	27° \mathbb{A} 32'27	
morning set	2190 Dec 25 21:44	25° \mathbb{A} 00'18			2191 Nov 11 04:44	0° \mathbb{M}	
	2190 Dec 29 03:02	0° \mathbb{C}		morning max el	2191 Nov 12 17:14	1° \mathbb{M} 24'37	19°02'26
max. Earth dist.	2191 Jan 06 03:05	12° \mathbb{C} 36'14	1.43978 AU		2191 Dec 02 18:10	0° \mathbb{A}	
				morning set	2191 Dec 05 04:11	3° \mathbb{A} 46'35	
superior conj	2191 Jan 11 09:52	21° \mathbb{C} 07'16	-1°-55'-2	desc. node	2191 Dec 07 18:14	7° \mathbb{A} 49'12	
minimum elong	2191 Jan 11 03:56	20° \mathbb{C} 43'05	1°54'43	max. Earth dist.	2191 Dec 19 19:00	26° \mathbb{A} 40'35	1.44927 AU
	2191 Jan 16 19:03	0° \mathbb{A}					
evening rise	2191 Jan 24 14:47	13° \mathbb{A} 15'57		superior conj	2191 Dec 21 20:48	29° \mathbb{A} 56'57	-1°-25'-47
	2191 Feb 03 12:17	0° \mathbb{H}		minimum elong	2191 Dec 21 11:55	29° \mathbb{A} 21'50	1°24'52
asc. node	2191 Feb 08 16:15	7° \mathbb{H} 37'40			2191 Dec 21 21:35	0° \mathbb{C}	
evening max el	2191 Feb 11 14:12	11° \mathbb{H} 00'56	18°12'37	evening rise	2192 Jan 05 21:35	24° \mathbb{C} 05'15	
retrograde	2191 Feb 18 01:03	14° \mathbb{H} 26'40			2192 Jan 09 12:19	0° \mathbb{A}	
evening set	2191 Feb 20 21:10	13° \mathbb{H} 44'55		evening max el	2192 Jan 26 02:08	24° \mathbb{A} 25'23	18°35'51
inferior conj	2191 Feb 27 01:34	8° \mathbb{H} 26'29	3°42'43	asc. node	2192 Jan 26 13:18	24° \mathbb{A} 53'05	
minimum elong	2191 Feb 27 01:42	8° \mathbb{H} 26'07	3°42'43	retrograde	2192 Feb 01 16:28	28° \mathbb{A} 04'22	
min. Earth dist.	2191 Mar 01 16:51	5° \mathbb{H} 35'37	0.63083 AU	evening set	2192 Feb 04 18:12	27° \mathbb{A} 11'16	
morning rise	2191 Mar 05 04:14	2° \mathbb{H} 23'02		inferior conj	2192 Feb 10 14:20	21° \mathbb{A} 34'07	3°36'44
	2191 Mar 09 18:35	30° \mathbb{R} \mathbb{A}		minimum elong	2192 Feb 10 12:57	21° \mathbb{A} 38'16	3°36'36
direct	2191 Mar 12 02:43	29° \mathbb{A} 42'14		min. Earth dist.	2192 Feb 12 14:01	19° \mathbb{A} 11'52	0.64823 AU
	2191 Mar 14 12:49	0° \mathbb{H}		morning rise	2192 Feb 16 06:25	15° \mathbb{A} 24'06	
desc. node	2191 Mar 18 20:22	1° \mathbb{H} 49'39		direct	2192 Feb 23 00:20	12° \mathbb{A} 33'45	
morning max el	2191 Mar 26 00:32	7° \mathbb{H} 38'28	27°46'05	desc. node	2192 Mar 04 17:25	17° \mathbb{A} 50'35	
	2191 Apr 12 04:33	0° \mathbb{Y}		morning max el	2192 Mar 07 09:55	20° \mathbb{A} 22'20	27°12'55
morning set	2191 Apr 29 06:21	0° \mathbb{B} 23'59			2192 Mar 15 16:58	0° \mathbb{H}	
	2191 Apr 29 01:34	0° \mathbb{B}			2192 Apr 04 06:12	0° \mathbb{Y}	
max. Earth dist.	2191 May 04 15:41	11° \mathbb{B} 33'26	1.32821 AU	morning set	2192 Apr 11 20:53	14° \mathbb{Y} 05'18	
				max. Earth dist.	2192 Apr 16 13:12	23° \mathbb{Y} 25'37	1.33794 AU
superior conj	2191 May 06 23:12	16° \mathbb{B} 30'54	0°-7'-11		2192 Apr 19 17:13	0° \mathbb{B}	
minimum elong	2191 May 06 23:33	16° \mathbb{B} 32'47	0°07'07				
behind sun begin	2191 May 06 18:50	16° \mathbb{B} 07'17		superior conj	2192 Apr 20 02:59	0° \mathbb{B} 51'22	0°-35'-3
behind sun end	2191 May 07 04:17	16° \mathbb{B} 58'18		minimum elong	2192 Apr 20 04:45	1° \mathbb{B} 00'43	0°34'43
asc. node	2191 May 07 15:34	17° \mathbb{B} 59'16		asc. node	2192 Apr 23 12:37	8° \mathbb{B} 04'22	
	2191 May 13 05:02	0° \mathbb{I}		evening rise	2192 Apr 27 11:27	16° \mathbb{B} 26'36	
evening rise	2191 May 14 00:35	1° \mathbb{I} 43'55			2192 May 04 07:00	0° \mathbb{I}	
	2191 May 29 15:47	0° \mathbb{C}		evening max el	2192 May 18 03:38	19° \mathbb{I} 51'48	21°55'11
evening max el	2191 Jun 06 10:28	9° \mathbb{C} 19'05	23°30'12	retrograde	2192 May 30 18:20	26° \mathbb{I} 04'26	
desc. node	2191 Jun 14 19:36	15° \mathbb{C} 05'35		desc. node	2192 May 31 16:38	26° \mathbb{I} 02'28	
retrograde	2191 Jun 20 01:26	16° \mathbb{C} 08'01		evening set	2192 Jun 02 10:59	25° \mathbb{I} 48'15	
evening set	2191 Jun 24 00:42	15° \mathbb{C} 33'28		inferior conj	2192 Jun 11 19:41	21° \mathbb{I} 44'34	-3°-5'-1
min. Earth dist.	2191 Jun 30 20:41	12° \mathbb{C} 23'33	0.55899 AU	minimum elong	2192 Jun 11 12:00	21° \mathbb{I} 55'20	3°02'44
inferior conj	2191 Jul 02 22:05	11° \mathbb{C} 10'00	-4°-25'-52	min. Earth dist.	2192 Jun 11 08:09	22° \mathbb{I} 00'42	0.55005 AU
minimum elong	2191 Jul 02 15:36	11° \mathbb{C} 19'42	4°24'44	morning rise	2192 Jun 20 14:26	17° \mathbb{I} 51'40	
morning rise	2191 Jul 11 09:45	7° \mathbb{C} 14'47		direct	2192 Jun 23 17:27	17° \mathbb{I} 30'03	
direct	2191 Jul 14 04:32	6° \mathbb{C} 55'38		morning max el	2192 Jul 05 17:39	23° \mathbb{I} 07'46	21°39'17
morning max el	2191 Jul 24 13:54	11° \mathbb{C} 44'31	20°12'59		2192 Jul 11 18:00	0° \mathbb{C}	
asc. node	2191 Aug 03 14:51	25° \mathbb{C} 09'54		asc. node	2192 Jul 20 11:53	14° \mathbb{C} 13'14	
	2191 Aug 06 07:53	0° \mathbb{Q}		morning set	2192 Jul 26 07:28	25° \mathbb{C} 47'26	
morning set	2191 Aug 11 22:28	10° \mathbb{Q} 59'57			2192 Jul 28 07:44	0° \mathbb{Q}	
superior conj	2191 Aug 19 15:56	26° \mathbb{Q} 48'09	1°45'34	superior conj	2192 Aug 02 15:27	11° \mathbb{Q} 12'33	1°41'16
minimum elong	2191 Aug 19 15:47	26° \mathbb{Q} 47'25	1°45'34	minimum elong	2192 Aug 02 14:00	11° \mathbb{Q} 05'03	1°41'11
	2191 Aug 21 06:15	0° \mathbb{P}		max. Earth dist.	2192 Aug 06 11:38	19° \mathbb{Q} 06'34	1.34929 AU
max. Earth dist.	2191 Aug 24 22:52	7° \mathbb{P} 12'35	1.36600 AU	evening rise	2192 Aug 10 22:39	27° \mathbb{Q} 53'07	
evening rise	2191 Aug 28 21:36	14° \mathbb{P} 35'44			2192 Aug 12 01:21	0° \mathbb{P}	
	2191 Sep 06 19:14	0° \mathbb{A}		desc. node	2192 Aug 27 15:59	26° \mathbb{P} 27'18	
desc. node	2191 Sep 10 18:58	6° \mathbb{A} 22'17			2192 Aug 30 01:27	0° \mathbb{A}	
	2191 Sep 27 21:13	0° \mathbb{M}		evening max el	2192 Sep 15 03:16	19° \mathbb{A} 49'32	26°48'34
evening max el	2191 Oct 03 14:53	6° \mathbb{M} 12'44	25°53'34	retrograde	2192 Sep 28 04:55	27° \mathbb{A} 04'46	
retrograde	2191 Oct 16 01:08	13° \mathbb{M} 17'24		evening set	2192 Oct 04 20:52	24° \mathbb{A} 23'43	

min. Earth dist.	2192 Oct 08 21:18	20° Ω 20'37	0.65769 AU	evening max el	2193 Aug 28 15:04	3° Ω 11'55	27°20'31
inferior conj	2192 Oct 10 17:09	18° Ω 12'13	-1°-55'-38	retrograde	2193 Sep 11 02:58	10° Ω 30'18	
minimum elong	2192 Oct 10 20:15	18° Ω 03'07	1°54'24	evening set	2193 Sep 18 04:35	7° Ω 48'25	
asc. node	2192 Oct 16 11:07	12° Ω 43'03		min. Earth dist.	2193 Sep 21 22:36	4° Ω 21'14	0.64391 AU
morning rise	2192 Oct 16 21:04	12° Ω 29'25		inferior conj	2193 Sep 24 07:06	1° Ω 50'21	-2°-53'-46
direct	2192 Oct 19 16:13	11° Ω 46'04		minimum elong	2193 Sep 24 11:41	1° Ω 38'06	2°52'12
morning max el	2192 Oct 26 06:01	15° Ω 20'53	18°21'38		2193 Sep 26 01:26	30° \mathbb{R} \mathbb{M}	
	2192 Nov 05 21:57	0° \mathbb{M}		morning rise	2193 Sep 30 20:49	26° \mathbb{M} 22'55	
morning set	2192 Nov 14 13:44	13° \mathbb{M} 56'15		direct	2193 Oct 03 09:44	25° \mathbb{M} 49'54	
desc. node	2192 Nov 23 15:16	28° \mathbb{M} 29'30		asc. node	2193 Oct 03 08:09	25° \mathbb{M} 49'55	
	2192 Nov 24 14:03	0° \mathbb{X}		morning max el	2193 Oct 09 21:54	29° \mathbb{M} 16'25	17°57'47
					2193 Oct 10 14:41	0° Ω	
superior conj	2192 Nov 29 22:11	8° \mathbb{X} 26'15	0°-41'-21	morning set	2193 Oct 27 03:40	25° Ω 29'01	
minimum elong	2192 Nov 29 16:52	8° \mathbb{X} 05'18	0°40'39		2193 Oct 29 19:47	0° \mathbb{M}	
max. Earth dist.	2192 Dec 01 14:15	11° \mathbb{X} 03'45	1.45149 AU				
	2192 Dec 13 16:14	0° \mathbb{Z}		superior conj	2193 Nov 09 11:38	17° \mathbb{M} 35'51	0°06'59
evening rise	2192 Dec 16 05:06	3° \mathbb{Z} 58'46		minimum elong	2193 Nov 09 12:27	17° \mathbb{M} 39'08	0°06'51
greatest brilliancy	2192 Dec 30 00:46	25° \mathbb{Z} 26'33	-0.7m	behind sun begin	2193 Nov 09 03:02	17° \mathbb{M} 01'09	
	2193 Jan 02 03:46	0° \approx		behind sun end	2193 Nov 09 21:51	18° \mathbb{M} 17'03	
evening max el	2193 Jan 08 11:02	7° \approx 53'44	19°16'22	desc. node	2193 Nov 10 12:20	19° \mathbb{M} 15'20	
asc. node	2193 Jan 12 10:22	11° \approx 04'52		max. Earth dist.	2193 Nov 14 09:02	25° \mathbb{M} 25'10	1.44631 AU
retrograde	2193 Jan 15 12:32	11° \approx 56'29			2193 Nov 17 06:43	0° \mathbb{X}	
evening set	2193 Jan 18 20:57	10° \approx 50'54		evening rise	2193 Nov 25 18:30	13° \mathbb{X} 11'47	
inferior conj	2193 Jan 24 11:31	4° \approx 57'20	3°16'50		2193 Dec 06 19:30	0° \mathbb{Z}	
minimum elong	2193 Jan 24 09:13	5° \approx 04'44	3°16'25	greatest brilliancy	2193 Dec 16 02:13	13° \mathbb{Z} 24'32	-0.6m
min. Earth dist.	2193 Jan 25 20:03	3° \approx 12'46	0.66167 AU	evening max el	2193 Dec 22 15:09	21° \mathbb{Z} 23'33	20°12'19
	2193 Jan 28 13:21	30° \mathbb{R} \mathbb{Z}		retrograde	2193 Dec 30 10:27	25° \mathbb{Z} 58'29	
morning rise	2193 Jan 29 20:41	28° \mathbb{Z} 43'35		asc. node	2193 Dec 30 07:25	25° \mathbb{Z} 58'24	
direct	2193 Feb 05 04:08	25° \mathbb{Z} 57'16		evening set	2194 Jan 03 03:06	24° \mathbb{Z} 39'05	
	2193 Feb 14 01:19	0° \approx		inferior conj	2194 Jan 08 14:19	18° \mathbb{Z} 32'04	2°46'23
morning max el	2193 Feb 17 19:38	3° \approx 26'32	26°11'53	minimum elong	2194 Jan 08 11:42	18° \mathbb{Z} 40'53	2°45'40
desc. node	2193 Feb 19 14:27	5° \approx 18'30		min. Earth dist.	2194 Jan 09 09:14	17° \mathbb{Z} 28'15	0.67106 AU
	2193 Mar 10 00:21	0° \mathbb{X}		morning rise	2194 Jan 13 19:46	12° \mathbb{Z} 16'41	
morning set	2193 Mar 25 22:39	27° \mathbb{X} 04'41		direct	2194 Jan 19 13:29	9° \mathbb{Z} 44'26	
	2193 Mar 27 11:57	0° \mathbb{Y}		morning max el	2194 Jan 31 04:24	16° \mathbb{Z} 40'36	24°52'12
max. Earth dist.	2193 Mar 29 23:32	4° \mathbb{Y} 46'17	1.35218 AU	desc. node	2194 Feb 06 11:30	23° \mathbb{Z} 48'27	
					2194 Feb 11 06:15	0° \approx	
superior conj	2193 Apr 03 23:48	14° \mathbb{Y} 46'20	-1°-2'-57		2194 Mar 02 23:44	0° \mathbb{X}	
minimum elong	2193 Apr 04 02:59	15° \mathbb{Y} 02'34	1°02'25	morning set	2194 Mar 08 06:27	9° \mathbb{X} 07'19	
asc. node	2193 Apr 10 09:41	28° \mathbb{Y} 01'27		max. Earth dist.	2194 Mar 11 23:06	15° \mathbb{X} 48'10	1.37060 AU
	2193 Apr 11 08:38	0° \mathbb{X}					
evening rise	2193 Apr 11 19:21	0° \mathbb{X} 55'11		superior conj	2194 Mar 18 10:34	28° \mathbb{X} 07'05	-1°-28'-59
	2193 Apr 29 09:48	0° \mathbb{I}		minimum elong	2194 Mar 18 14:45	28° \mathbb{X} 27'34	1°28'25
evening max el	2193 Apr 30 06:35	0° \mathbb{I} 52'19	20°31'30		2194 Mar 19 09:35	0° \mathbb{Y}	
retrograde	2193 May 11 07:33	6° \mathbb{I} 14'13		evening rise	2194 Mar 26 21:58	15° \mathbb{Y} 02'16	
evening set	2193 May 13 09:26	6° \mathbb{I} 03'35		asc. node	2194 Mar 28 06:43	17° \mathbb{Y} 45'25	
desc. node	2193 May 18 13:38	4° \mathbb{I} 17'20			2194 Apr 03 19:05	0° \mathbb{X}	
inferior conj	2193 May 22 13:56	2° \mathbb{I} 05'52	-1°-10'-15	evening max el	2194 Apr 12 21:21	12° \mathbb{X} 32'15	19°25'39
minimum elong	2193 May 22 10:36	2° \mathbb{I} 10'41	1°09'02	retrograde	2194 Apr 22 05:18	17° \mathbb{X} 03'01	
min. Earth dist.	2193 May 23 20:40	1° \mathbb{I} 21'24	0.55038 AU	evening set	2194 Apr 24 06:25	16° \mathbb{X} 50'56	
	2193 May 26 07:31	30° \mathbb{R} \mathbb{X}		inferior conj	2194 May 02 19:08	12° \mathbb{X} 44'22	0°45'29
morning rise	2193 May 31 10:17	27° \mathbb{X} 55'26		minimum elong	2194 May 02 21:01	12° \mathbb{X} 41'18	0°44'50
direct	2193 Jun 04 03:43	27° \mathbb{X} 25'31		desc. node	2194 May 05 10:40	11° \mathbb{X} 01'28	
	2193 Jun 12 11:55	0° \mathbb{I}		min. Earth dist.	2194 May 05 11:18	11° \mathbb{X} 00'28	0.56010 AU
morning max el	2193 Jun 17 12:15	3° \mathbb{I} 53'43	23°18'55	morning rise	2194 May 11 07:43	8° \mathbb{X} 01'16	
	2193 Jul 05 11:32	0° \mathbb{Z}		direct	2194 May 15 23:46	7° \mathbb{X} 11'43	
asc. node	2193 Jul 07 08:57	3° \mathbb{Z} 42'28		morning max el	2194 May 30 02:47	14° \mathbb{X} 20'59	25°00'01
morning set	2193 Jul 10 18:46	10° \mathbb{Z} 42'35			2194 Jun 11 11:06	0° \mathbb{I}	
				asc. node	2194 Jun 24 05:59	23° \mathbb{I} 29'39	
superior conj	2193 Jul 17 21:16	25° \mathbb{Z} 56'08	1°30'59	morning set	2194 Jun 25 06:37	25° \mathbb{I} 38'49	
minimum elong	2193 Jul 17 19:05	25° \mathbb{Z} 44'26	1°30'45		2194 Jun 27 07:34	0° \mathbb{Z}	
	2193 Jul 19 19:01	0° \mathbb{Q}					
max. Earth dist.	2193 Jul 20 09:37	1° \mathbb{Q} 17'08	1.33640 AU	superior conj	2194 Jul 02 06:55	10° \mathbb{Z} 49'55	1°15'46
evening rise	2193 Jul 25 12:45	11° \mathbb{Q} 49'03		minimum elong	2194 Jul 02 04:31	10° \mathbb{Z} 36'49	1°15'24
	2193 Aug 04 08:05	0° \mathbb{M}		max. Earth dist.	2194 Jul 03 15:23	13° \mathbb{Z} 46'37	1.32757 AU
desc. node	2193 Aug 14 13:01	16° \mathbb{M} 05'31		evening rise	2194 Jul 09 12:06	26° \mathbb{Z} 11'36	
	2193 Aug 25 11:51	0° Ω			2194 Jul 11 09:15	0° \mathbb{Q}	

	2194 Jul 28 18:25	0° $\mathring{\text{M}}$	evening rise	2195 Jun 23 17:48	10° $\mathring{\text{S}}$ 51'53	
desc. node	2194 Aug 01 10:01	5° $\mathring{\text{M}}$ 04'43		2195 Jul 03 15:09	0° $\mathring{\text{O}}$	
evening max el	2194 Aug 11 00:21	16° $\mathring{\text{M}}$ 06'40 27°23'21	desc. node	2195 Jul 19 07:00	23° $\mathring{\text{O}}$ 08'54	
retrograde	2194 Aug 24 18:50	23° $\mathring{\text{M}}$ 23'38	evening max el	2195 Jul 24 04:48	28° $\mathring{\text{O}}$ 22'26 26°53'18	
evening set	2194 Aug 31 23:42	20° $\mathring{\text{M}}$ 52'48		2195 Jul 26 00:06	0° $\mathring{\text{M}}$	
min. Earth dist.	2194 Sep 04 13:58	17° $\mathring{\text{M}}$ 55'48 0.62672 AU	retrograde	2195 Aug 07 03:16	5° $\mathring{\text{M}}$ 35'45	
inferior conj	2194 Sep 07 10:37	15° $\mathring{\text{M}}$ 11'43 -3°-47'-57	evening set	2195 Aug 14 01:50	3° $\mathring{\text{M}}$ 29'36	
minimum elong	2194 Sep 07 16:01	14° $\mathring{\text{M}}$ 58'47 3°46'31	min. Earth dist.	2195 Aug 17 18:57	0° $\mathring{\text{M}}$ 51'01 0.60698 AU	
morning rise	2194 Sep 14 11:00	10° $\mathring{\text{M}}$ 02'54		2195 Aug 18 19:45	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$	
direct	2194 Sep 16 20:23	9° $\mathring{\text{M}}$ 36'50	inferior conj	2195 Aug 21 00:24	28° $\mathring{\text{O}}$ 08'23 -4°-32'-23	
asc. node	2194 Sep 20 05:11	10° $\mathring{\text{M}}$ 29'51	minimum elong	2195 Aug 21 05:08	27° $\mathring{\text{O}}$ 58'24 4°31'36	
morning max el	2194 Sep 23 13:52	13° $\mathring{\text{M}}$ 03'27 17°51'43	morning rise	2195 Aug 28 11:34	23° $\mathring{\text{O}}$ 20'58	
	2194 Oct 05 02:18	0° $\mathring{\text{A}}$	direct	2195 Aug 30 20:23	22° $\mathring{\text{O}}$ 59'03	
morning set	2194 Oct 09 16:22	8° $\mathring{\text{A}}$ 06'48	morning max el	2195 Sep 07 02:49	26° $\mathring{\text{O}}$ 34'14 18°04'34	
			asc. node	2195 Sep 07 02:14	26° $\mathring{\text{O}}$ 32'49	
superior conj	2194 Oct 21 02:20	28° $\mathring{\text{A}}$ 00'32 0°48'29		2195 Sep 10 03:02	0° $\mathring{\text{M}}$	
minimum elong	2194 Oct 21 06:31	28° $\mathring{\text{A}}$ 18'10 0°47'55	morning set	2195 Sep 22 21:44	21° $\mathring{\text{M}}$ 32'14	
	2194 Oct 22 06:45	0° $\mathring{\text{M}}$		2195 Sep 27 11:02	0° $\mathring{\text{A}}$	
max. Earth dist.	2194 Oct 28 00:12	9° $\mathring{\text{M}}$ 25'49 1.43441 AU	superior conj	2195 Oct 02 19:26	9° $\mathring{\text{A}}$ 42'21 1°18'28	
desc. node	2194 Oct 28 09:22	10° $\mathring{\text{M}}$ 02'56	minimum elong	2195 Oct 02 23:41	10° $\mathring{\text{A}}$ 01'19 1°18'00	
evening rise	2194 Nov 05 03:22	22° $\mathring{\text{M}}$ 18'39	max. Earth dist.	2195 Oct 10 10:28	22° $\mathring{\text{A}}$ 52'39 1.41740 AU	
	2194 Nov 10 03:33	0° $\mathring{\text{A}}$		2195 Oct 14 18:17	0° $\mathring{\text{M}}$	
greatest brilliancy	2194 Nov 30 12:04	29° $\mathring{\text{A}}$ 03'30 -0.4m	desc. node	2195 Oct 15 06:22	0° $\mathring{\text{M}}$ 48'51	
	2194 Dec 01 06:11	0° $\mathring{\text{S}}$	evening rise	2195 Oct 16 00:33	2° $\mathring{\text{M}}$ 01'57	
evening max el	2194 Dec 05 13:41	4° $\mathring{\text{S}}$ 54'33 21°20'58		2195 Nov 03 14:25	0° $\mathring{\text{A}}$	
retrograde	2194 Dec 14 08:00	10° $\mathring{\text{S}}$ 06'58	greatest brilliancy	2195 Nov 13 10:02	12° $\mathring{\text{A}}$ 59'26 -0.3m	
asc. node	2194 Dec 17 04:25	9° $\mathring{\text{S}}$ 21'59	evening max el	2195 Nov 18 07:04	18° $\mathring{\text{A}}$ 27'14 22°38'07	
evening set	2194 Dec 18 10:45	8° $\mathring{\text{S}}$ 32'14	retrograde	2195 Nov 28 03:25	24° $\mathring{\text{A}}$ 18'14	
inferior conj	2194 Dec 23 20:26	2° $\mathring{\text{S}}$ 15'11 2°07'38	evening set	2195 Dec 02 18:13	22° $\mathring{\text{A}}$ 26'50	
minimum elong	2194 Dec 23 18:01	2° $\mathring{\text{S}}$ 23'32 2°06'47	asc. node	2195 Dec 04 01:27	21° $\mathring{\text{A}}$ 14'21	
min. Earth dist.	2194 Dec 24 03:16	1° $\mathring{\text{S}}$ 51'36 0.67656 AU	inferior conj	2195 Dec 08 03:53	16° $\mathring{\text{A}}$ 03'26 1°22'06	
	2194 Dec 25 12:03	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	minimum elong	2195 Dec 08 02:07	16° $\mathring{\text{A}}$ 09'34 1°21'24	
morning rise	2194 Dec 29 00:57	26° $\mathring{\text{A}}$ 00'14	min. Earth dist.	2195 Dec 07 23:39	16° $\mathring{\text{A}}$ 18'06 0.67850 AU	
direct	2195 Jan 03 03:41	23° $\mathring{\text{A}}$ 48'11	morning rise	2195 Dec 13 09:55	9° $\mathring{\text{A}}$ 51'04	
morning max el	2195 Jan 13 13:13	29° $\mathring{\text{A}}$ 59'31 23°24'12	direct	2195 Dec 17 21:45	8° $\mathring{\text{A}}$ 01'49	
	2195 Jan 13 13:25	0° $\mathring{\text{S}}$	morning max el	2195 Dec 27 01:26	13° $\mathring{\text{A}}$ 24'31 21°57'19	
greatest brilliancy	2195 Jan 19 03:47	6° $\mathring{\text{S}}$ 19'25 -0.2m	greatest brilliancy	2195 Dec 31 18:32	18° $\mathring{\text{A}}$ 42'54 -0.4m	
desc. node	2195 Jan 24 08:34	13° $\mathring{\text{S}}$ 02'47		2196 Jan 09 06:15	0° $\mathring{\text{S}}$	
	2195 Feb 05 02:59	0° $\mathring{\text{A}}$	desc. node	2196 Jan 11 05:36	2° $\mathring{\text{S}}$ 48'16	
morning set	2195 Feb 17 14:06	19° $\mathring{\text{A}}$ 57'04	morning set	2196 Jan 28 16:42	29° $\mathring{\text{S}}$ 22'08	
max. Earth dist.	2195 Feb 21 17:47	27° $\mathring{\text{A}}$ 04'29 1.39175 AU		2196 Jan 29 02:07	0° $\mathring{\text{A}}$	
	2195 Feb 23 09:41	0° $\mathring{\text{H}}$	max. Earth dist.	2196 Feb 03 15:51	9° $\mathring{\text{A}}$ 08'01 1.41306 AU	
superior conj	2195 Mar 01 07:27	10° $\mathring{\text{H}}$ 44'12 -1°-50'-24	superior conj	2196 Feb 11 09:26	22° $\mathring{\text{A}}$ 24'53 -2°-3'-24	
minimum elong	2195 Mar 01 11:33	11° $\mathring{\text{H}}$ 03'20 1°50'04	minimum elong	2196 Feb 11 11:26	22° $\mathring{\text{A}}$ 33'42 2°03'22	
evening rise	2195 Mar 10 16:35	28° $\mathring{\text{H}}$ 40'52		2196 Feb 15 15:06	0° $\mathring{\text{H}}$	
	2195 Mar 11 08:58	0° $\mathring{\text{Y}}$	evening rise	2196 Feb 21 23:42	11° $\mathring{\text{H}}$ 42'05	
asc. node	2195 Mar 15 03:45	7° $\mathring{\text{Y}}$ 11'16	asc. node	2196 Mar 01 00:46	26° $\mathring{\text{H}}$ 12'03	
evening max el	2195 Mar 26 22:19	24° $\mathring{\text{Y}}$ 50'10 18°39'43		2196 Mar 03 08:53	0° $\mathring{\text{Y}}$	
retrograde	2195 Apr 03 20:14	28° $\mathring{\text{Y}}$ 42'07	evening max el	2196 Mar 09 06:18	7° $\mathring{\text{Y}}$ 36'54 18°13'48	
evening set	2195 Apr 06 02:34	28° $\mathring{\text{Y}}$ 24'16	retrograde	2196 Mar 16 05:49	11° $\mathring{\text{Y}}$ 06'46	
inferior conj	2195 Apr 13 20:07	23° $\mathring{\text{Y}}$ 59'40 2°15'15	evening set	2196 Mar 18 17:56	10° $\mathring{\text{Y}}$ 40'34	
minimum elong	2195 Apr 14 00:05	23° $\mathring{\text{Y}}$ 52'09 2°14'08	inferior conj	2196 Mar 25 18:09	5° $\mathring{\text{Y}}$ 54'32 3°11'20	
min. Earth dist.	2195 Apr 17 04:56	21° $\mathring{\text{Y}}$ 27'45 0.57717 AU	minimum elong	2196 Mar 25 21:19	5° $\mathring{\text{Y}}$ 47'32 3°10'46	
morning rise	2195 Apr 21 17:13	18° $\mathring{\text{Y}}$ 43'19	min. Earth dist.	2196 Mar 29 03:25	2° $\mathring{\text{Y}}$ 56'17 0.59810 AU	
desc. node	2195 Apr 22 07:42	18° $\mathring{\text{Y}}$ 27'17	morning rise	2196 Apr 01 21:09	0° $\mathring{\text{Y}}$ 13'07	
direct	2195 Apr 27 10:15	17° $\mathring{\text{Y}}$ 22'02		2196 Apr 02 06:13	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$	
morning max el	2195 May 11 19:01	24° $\mathring{\text{Y}}$ 57'01 26°27'07	direct	2196 Apr 08 09:15	28° $\mathring{\text{H}}$ 15'37	
	2195 May 16 10:49	0° $\mathring{\text{S}}$	desc. node	2196 Apr 08 04:44	28° $\mathring{\text{H}}$ 15'42	
	2195 Jun 04 12:42	0° $\mathring{\text{II}}$		2196 Apr 14 18:58	0° $\mathring{\text{Y}}$	
morning set	2195 Jun 09 17:25	10° $\mathring{\text{II}}$ 30'54	morning max el	2196 Apr 22 16:47	6° $\mathring{\text{Y}}$ 04'14 27°26'25	
asc. node	2195 Jun 11 03:02	13° $\mathring{\text{II}}$ 29'10		2196 May 10 13:42	0° $\mathring{\text{S}}$	
superior conj	2195 Jun 16 18:26	25° $\mathring{\text{II}}$ 47'24 0°56'27	morning set	2196 May 24 01:28	25° $\mathring{\text{S}}$ 12'46	
minimum elong	2195 Jun 16 16:17	25° $\mathring{\text{II}}$ 35'38 0°56'04		2196 May 26 07:58	0° $\mathring{\text{II}}$	
max. Earth dist.	2195 Jun 17 02:10	26° $\mathring{\text{II}}$ 29'58 1.32275 AU	asc. node	2196 May 28 00:04	3° $\mathring{\text{II}}$ 35'41	
	2195 Jun 18 16:26	0° $\mathring{\text{S}}$	max. Earth dist.	2196 May 30 14:22	9° $\mathring{\text{II}}$ 15'53 1.32177 AU	

superior conj	2196 May 31 06:04	10°II42'09	0°33'45	superior conj	2197 May 15 16:08	25°828'24	0°08'22
minimum elong	2196 May 31 04:37	10°II34'11	0°33'27	minimum elong	2197 May 15 15:44	25°826'16	0°08'17
evening rise	2196 Jun 07 03:28	25°II41'36		behind sun begin	2197 May 15 11:19	25°802'14	
	2196 Jun 09 04:59	0°☿		behind sun end	2197 May 15 20:09	25°850'19	
	2196 Jun 26 15:03	0°♌			2197 May 17 17:53	0°♌	
evening max el	2196 Jul 05 02:20	9°♌51'36	25°51'18	evening rise	2197 May 22 15:05	10°II33'44	
desc. node	2196 Jul 05 04:00	9°♌55'32			2197 Jun 01 14:24	0°☿	
retrograde	2196 Jul 19 02:25	17°♌00'45		evening max el	2197 Jun 16 17:24	20°☿38'22	24°25'07
evening set	2196 Jul 25 06:17	15°♌30'13		desc. node	2197 Jun 22 01:01	24°☿53'35	
min. Earth dist.	2196 Jul 29 14:44	12°♌53'03	0.58637 AU	retrograde	2197 Jun 30 14:28	27°☿39'00	
inferior conj	2196 Aug 01 20:53	10°♌30'46	-4°-57'-40	evening set	2197 Jul 05 10:58	26°☿46'18	
minimum elong	2196 Aug 01 22:33	10°♌27'43	4°57'36	min. Earth dist.	2197 Jul 11 04:20	23°☿52'36	0.56760 AU
morning rise	2196 Aug 09 18:18	6°♌06'33		inferior conj	2197 Jul 13 21:21	22°☿09'29	-4°-50'-20
direct	2196 Aug 12 05:32	5°♌46'40		minimum elong	2197 Jul 13 17:43	22°☿15'17	4°50'00
morning max el	2196 Aug 20 09:37	9°♌40'17	18°37'42	morning rise	2197 Jul 22 04:09	18°☿06'31	
asc. node	2196 Aug 23 23:17	13°♌44'00		direct	2197 Jul 24 19:49	17°☿47'27	
	2196 Sep 02 17:46	0°♍		morning max el	2197 Aug 03 07:17	22°☿11'52	19°32'10
morning set	2196 Sep 05 14:57	5°♍32'24			2197 Aug 09 16:16	0°♌	
				asc. node	2197 Aug 10 20:21	1°♌48'09	
superior conj	2196 Sep 14 10:20	22°♍29'01	1°36'43	morning set	2197 Aug 20 16:21	19°♌56'33	
minimum elong	2196 Sep 14 13:03	22°♍41'42	1°36'31		2197 Aug 25 16:12	0°♍	
	2196 Sep 18 12:14	0°♎		superior conj	2197 Aug 28 17:27	6°♍04'08	1°44'48
max. Earth dist.	2196 Sep 21 16:15	5°♎38'25	1.39742 AU	minimum elong	2197 Aug 28 18:17	6°♍08'11	1°44'46
evening rise	2196 Sep 25 20:16	12°♎48'03		max. Earth dist.	2197 Sep 03 20:18	17°♍45'58	1.37696 AU
desc. node	2196 Oct 01 03:22	21°♎29'49		evening rise	2197 Sep 07 15:40	24°♍40'07	
	2196 Oct 06 13:58	0°♏			2197 Sep 10 17:02	0°♎	
	2196 Oct 28 21:21	0°♏		desc. node	2197 Sep 18 00:22	12°♎01'08	
evening max el	2196 Oct 30 20:48	2°♏03'21	23°58'06		2197 Sep 30 05:52	0°♏	
retrograde	2196 Nov 10 19:30	8°♏29'33		evening max el	2197 Oct 13 08:50	15°♏42'10	25°14'16
evening set	2196 Nov 15 23:56	6°♏20'56		retrograde	2197 Oct 25 07:24	22°♏36'03	
asc. node	2196 Nov 19 22:29	1°♏57'37		evening set	2197 Oct 31 02:12	20°♏11'26	
inferior conj	2196 Nov 21 10:55	29°♏55'09	0°31'10	min. Earth dist.	2197 Nov 04 14:09	15°♏10'51	0.67222 AU
minimum elong	2196 Nov 21 10:10	29°♏57'40	0°30'51	inferior conj	2197 Nov 05 15:46	13°♏47'28	0°-23'-56
min. Earth dist.	2196 Nov 20 20:04	0°♏45'30	0.67705 AU	minimum elong	2197 Nov 05 16:22	13°♏45'29	0°23'40
	2196 Nov 21 09:29	30°♏		asc. node	2197 Nov 06 19:34	12°♏18'05	
morning rise	2196 Nov 26 20:39	23°♏47'41		morning rise	2197 Nov 11 07:12	7°♏47'23	
direct	2196 Nov 30 18:37	22°♏20'48		direct	2197 Nov 14 16:58	6°♏40'25	
morning max el	2196 Dec 08 20:27	27°♏00'16	20°38'52	morning max el	2197 Nov 21 23:25	10°♏46'48	19°33'19
	2196 Dec 11 14:10	0°♏		greatest brilliancy	2197 Nov 30 10:35	21°♏26'15	-0.6m
greatest brilliancy	2196 Dec 14 19:54	4°♏01'17	-0.5m		2197 Dec 06 06:14	0°♏	
desc. node	2196 Dec 28 02:39	22°♏56'27		desc. node	2197 Dec 14 23:41	13°♏20'31	
	2197 Jan 01 18:45	0°♐		morning set	2197 Dec 16 16:07	15°♏56'42	
morning set	2197 Jan 06 18:40	7°♐41'28			2197 Dec 25 16:40	0°♐	
max. Earth dist.	2197 Jan 15 21:42	22°♐08'49	1.43150 AU	max. Earth dist.	2197 Dec 29 10:34	5°♐54'23	1.44464 AU
	2197 Jan 20 16:49	0°♑					
superior conj	2197 Jan 22 11:27	2°♑57'36	-2°-3'-7	superior conj	2198 Jan 02 11:06	12°♐19'04	-1°-44'-56
minimum elong	2197 Jan 22 08:45	2°♑46'17	2°03'05	minimum elong	2198 Jan 02 03:14	11°♐47'32	1°44'19
evening rise	2197 Feb 03 15:22	23°♑57'57			2198 Jan 13 06:39	0°♑	
	2197 Feb 07 01:24	0°♒		evening rise	2198 Jan 16 11:12	5°♑20'17	
asc. node	2197 Feb 15 21:47	14°♒40'06			2198 Jan 31 20:35	0°♒	
evening max el	2197 Feb 20 18:01	20°♒43'43	18°07'30	asc. node	2198 Feb 02 18:50	2°♒25'27	
retrograde	2197 Feb 27 06:40	24°♒07'14		evening max el	2198 Feb 04 06:34	4°♒03'07	18°20'16
evening set	2197 Mar 01 23:52	23°♒31'24		retrograde	2198 Feb 10 18:02	7°♒33'30	
inferior conj	2197 Mar 08 10:26	18°♒24'05	3°37'58	evening set	2198 Feb 13 16:22	6°♒47'06	
minimum elong	2197 Mar 08 11:40	18°♒20'55	3°37'53	inferior conj	2198 Feb 19 16:52	1°♒20'16	3°42'10
min. Earth dist.	2197 Mar 11 09:41	15°♒24'25	0.61942 AU	minimum elong	2198 Feb 19 16:17	1°♒21'55	3°42'08
morning rise	2197 Mar 14 20:58	12°♒26'33			2198 Feb 20 21:00	30°♒	
direct	2197 Mar 21 18:17	9°♒58'23		min. Earth dist.	2198 Feb 22 01:32	28°♒39'58	0.63860 AU
desc. node	2197 Mar 26 01:48	10°♒50'35		morning rise	2198 Feb 25 14:31	25°♒13'17	
morning max el	2197 Apr 04 20:53	17°♒53'35	27°49'43	direct	2198 Mar 04 11:45	22°♒26'49	
	2197 Apr 15 00:00	0°♓		desc. node	2198 Mar 12 22:51	25°♒46'42	
	2197 May 03 07:27	0°♓			2198 Mar 17 20:41	0°♒	
morning set	2197 May 08 04:47	9°♓37'58		morning max el	2198 Mar 18 05:23	0°♒21'35	27°36'01
max. Earth dist.	2197 May 14 00:05	21°♓51'08	1.32470 AU		2198 Apr 09 00:21	0°♓	
asc. node	2197 May 14 21:06	23°♓44'55		morning set	2198 Apr 22 00:58	23°♓38'50	
					2198 Apr 25 04:29	0°♓	

max. Earth dist.	2198 Apr 27 03:16	4°♄02'47	1.33178 AU	morning set	2199 Apr 05 10:36	7°♃03'55	
				max. Earth dist.	2199 Apr 09 19:59	15°♃39'52	1.34336 AU
superior conj	2198 Apr 29 22:50	10°♄00'33	0°-18'-53	superior conj	2199 Apr 13 23:56	24°♃10'53	0°-46'-59
minimum elong	2198 Apr 29 23:46	10°♄05'34	0°18'43	minimum elong	2199 Apr 14 02:20	24°♃23'19	0°46'32
asc. node	2198 May 01 18:09	13°♄52'59			2199 Apr 16 18:36	0°♄	
evening rise	2198 May 07 02:48	25°♄22'02		asc. node	2199 Apr 18 15:11	3°♄54'58	
	2198 May 09 08:12	0°♂		evening rise	2199 Apr 21 12:37	9°♄59'04	
	2198 May 28 04:50	0°♂			2199 May 02 02:45	0°♂	
evening max el	2198 May 29 07:30	1°♂07'03	22°49'01	evening max el	2199 May 11 04:19	11°♂49'10	21°17'46
desc. node	2198 Jun 08 22:03	7°♂27'23		retrograde	2199 May 23 04:32	17°♂41'17	
retrograde	2198 Jun 11 14:24	7°♂43'48		evening set	2199 May 25 12:27	17°♂28'48	
evening set	2198 Jun 14 23:07	7°♂18'58		desc. node	2199 May 26 19:06	17°♂11'54	
min. Earth dist.	2198 Jun 22 16:00	3°♂54'37	0.55412 AU	inferior conj	2199 Jun 03 21:19	13°♂29'49	-2°-18'-50
inferior conj	2198 Jun 24 02:53	3°♂04'29	-3°-57'-17	minimum elong	2199 Jun 03 14:59	13°♂38'43	2°16'42
minimum elong	2198 Jun 23 19:09	3°♂15'38	3°55'29	min. Earth dist.	2199 Jun 04 04:10	13°♂20'11	0.54899 AU
	2198 Jun 30 04:12	30°♂♂		morning rise	2199 Jun 12 17:38	9°♂31'26	
morning rise	2198 Jul 02 17:58	29°♂12'43		direct	2199 Jun 16 01:37	9°♂07'19	
direct	2198 Jul 05 15:32	28°♂53'08		morning max el	2199 Jun 28 17:16	15°♂07'44	22°20'29
	2198 Jul 10 19:58	0°♂			2199 Jul 10 03:38	0°♂	
morning max el	2198 Jul 16 17:49	4°♂01'45	20°47'34	asc. node	2199 Jul 15 14:27	9°♂47'55	
asc. node	2198 Jul 28 17:25	20°♂33'00		morning set	2199 Jul 20 09:23	19°♂28'12	
	2198 Aug 02 16:35	0°♂			2199 Jul 25 08:31	0°♂	
morning set	2198 Aug 04 23:13	4°♂37'20					
superior conj	2198 Aug 12 12:06	20°♂14'08	1°44'33	superior conj	2199 Jul 27 14:38	4°♂47'28	1°37'33
minimum elong	2198 Aug 12 11:21	20°♂10'16	1°44'32	minimum elong	2199 Jul 27 12:49	4°♂37'50	1°37'25
max. Earth dist.	2198 Aug 17 04:10	29°♂36'16	1.35844 AU	max. Earth dist.	2199 Jul 30 20:31	11°♂34'17	1.34334 AU
	2198 Aug 17 09:01	0°♂		evening rise	2199 Aug 04 14:23	21°♂05'20	
evening rise	2198 Aug 21 07:16	7°♂30'11			2199 Aug 09 07:46	0°♂	
	2198 Sep 03 10:01	0°♂		desc. node	2199 Aug 22 18:25	22°♂12'01	
desc. node	2198 Sep 04 21:23	2°♂17'31			2199 Aug 28 07:06	0°♂	
evening max el	2198 Sep 25 20:49	29°♂21'10	26°19'13	evening max el	2199 Sep 08 09:10	12°♂53'15	27°05'24
	2198 Sep 26 13:08	0°♂		retrograde	2199 Sep 21 16:06	20°♂11'02	
retrograde	2198 Oct 08 14:29	6°♂32'16		evening set	2199 Sep 28 12:32	17°♂28'37	
evening set	2198 Oct 14 23:10	3°♂55'22		min. Earth dist.	2199 Oct 02 10:07	13°♂40'51	0.65222 AU
	2198 Oct 18 17:57	30°♂♂		inferior conj	2199 Oct 04 11:14	11°♂22'03	-2°-20'-32
min. Earth dist.	2198 Oct 19 03:36	29°♂31'00	0.66398 AU	minimum elong	2199 Oct 04 15:00	11°♂11'23	2°19'07
inferior conj	2198 Oct 20 16:35	27°♂37'46	-1°-21'-47	morning rise	2199 Oct 10 19:10	5°♂45'10	
minimum elong	2198 Oct 20 18:45	27°♂31'06	1°20'53	asc. node	2199 Oct 11 13:41	5°♂26'15	
asc. node	2198 Oct 24 16:38	23°♂13'18		direct	2199 Oct 13 11:15	5°♂06'44	
morning rise	2198 Oct 26 15:29	21°♂47'43		morning max el	2199 Oct 19 23:39	8°♂37'20	18°09'17
direct	2198 Oct 29 15:11	20°♂57'00			2199 Nov 03 15:21	0°♂	
morning max el	2198 Nov 05 09:15	24°♂40'53	18°43'01	morning set	2199 Nov 07 07:03	6°♂01'42	
	2198 Nov 09 20:20	0°♂		desc. node	2199 Nov 18 17:43	24°♂38'36	
morning set	2198 Nov 26 08:56	25°♂15'03					
	2198 Nov 29 08:58	0°♂		superior conj	2199 Nov 21 19:34	29°♂32'39	0°-20'-35
desc. node	2198 Dec 01 20:42	3°♂55'45		minimum elong	2199 Nov 21 16:57	29°♂22'14	0°20'15
max. Earth dist.	2198 Dec 12 03:47	20°♂06'47	1.45107 AU		2199 Nov 22 02:28	0°♂	
				max. Earth dist.	2199 Nov 24 22:48	4°♂29'53	1.45015 AU
superior conj	2198 Dec 12 15:27	20°♂52'37	-1°-8'-13	evening rise	2199 Dec 08 06:33	25°♂17'16	
minimum elong	2198 Dec 12 07:20	20°♂20'44	1°07'16		2199 Dec 11 07:29	0°♂	
	2198 Dec 18 10:32	0°♂		greatest brilliancy	2199 Dec 25 03:14	20°♂56'44	-0.7m
evening rise	2198 Dec 28 07:55	15°♂44'22			2200 Jan 01 02:35	0°♂	
	2199 Jan 06 05:39	0°♂		evening max el	2200 Jan 02 00:29	0°♂58'26	19°38'31
evening max el	2199 Jan 18 17:24	17°♂29'00	18°51'08	asc. node	2200 Jan 07 12:57	4°♂55'26	
asc. node	2199 Jan 20 15:54	19°♂15'13		retrograde	2200 Jan 09 08:48	5°♂13'47	
retrograde	2199 Jan 25 11:48	21°♂17'15		evening set	2200 Jan 12 20:31	4°♂02'35	
evening set	2199 Jan 28 16:06	20°♂19'11			2200 Jan 16 21:16	30°♂♂	
inferior conj	2199 Feb 03 09:34	14°♂34'53	3°29'48	inferior conj	2200 Jan 18 09:26	28°♂03'14	3°05'04
minimum elong	2199 Feb 03 07:43	14°♂40'37	3°29'33	minimum elong	2200 Jan 18 06:56	28°♂11'28	3°04'30
min. Earth dist.	2199 Feb 05 02:46	12°♂27'36	0.65436 AU	min. Earth dist.	2200 Jan 19 12:05	26°♂35'38	0.66617 AU
morning rise	2199 Feb 08 22:15	8°♂22'47		morning rise	2200 Jan 23 16:39	21°♂48'38	
direct	2199 Feb 15 12:16	5°♂32'21		direct	2200 Jan 29 18:40	19°♂06'58	
desc. node	2199 Feb 27 19:54	12°♂27'45		morning max el	2200 Feb 11 00:15	26°♂23'44	25°39'37
morning max el	2199 Feb 28 15:11	13°♂15'24	26°49'54		2200 Feb 14 08:27	0°♂	
	2199 Mar 14 03:59	0°♂		desc. node	2200 Feb 14 16:56	0°♂24'20	
	2199 Apr 01 15:45	0°♂			2200 Mar 07 18:09	0°♂	

morning set	2200 Mar 19 05:22	19° ✕ 40'35			2201 Feb 28 10:40	0° ✕	
max. Earth dist.	2200 Mar 23 00:57	26° ✕ 47'33	1.35955 AU	morning set	2201 Mar 01 03:33	1° ✕ 13'04	
	2200 Mar 24 17:04	0° Υ		max. Earth dist.	2201 Mar 04 21:39	7° ✕ 51'17	1.37946 AU
superior conj	2200 Mar 28 16:52	7° Υ 52'12	-1°-14'-22	superior conj	2201 Mar 11 22:14	20° ✕ 55'11	-1°-38'-50
minimum elong	2200 Mar 28 20:34	8° Υ 10'42	1°13'47	minimum elong	2201 Mar 12 02:34	21° ✕ 15'59	1°38'21
evening rise	2200 Apr 05 18:31	24° Υ 18'45			2201 Mar 16 14:07	0° Υ	
asc. node	2200 Apr 05 12:13	23° Υ 46'45		evening rise	2201 Mar 20 18:03	8° Υ 14'08	
	2200 Apr 08 14:30	0° ♄		asc. node	2201 Mar 23 09:16	13° Υ 23'24	
evening max el	2200 Apr 23 12:23	23° ♄ 05'56	20°01'09		2201 Apr 02 01:44	0° ♄	
retrograde	2200 May 03 19:18	28° ♄ 04'32		evening max el	2201 Apr 06 07:45	5° ♄ 02'01	19°03'37
evening set	2200 May 05 19:48	27° ♄ 53'52		retrograde	2201 Apr 14 23:45	9° ♄ 14'22	
desc. node	2200 May 13 16:07	24° ♄ 33'48		evening set	2201 Apr 17 02:58	9° ♄ 00'07	
inferior conj	2200 May 14 18:33	23° ♄ 54'17	0°-19'-16	inferior conj	2201 Apr 25 07:28	4° ♄ 46'15	1°27'39
minimum elong	2200 May 14 17:40	23° ♄ 55'37	0°18'57	minimum elong	2201 Apr 25 10:41	4° ♄ 40'41	1°26'36
min. Earth dist.	2200 May 16 17:26	22° ♄ 43'48	0.55351 AU	min. Earth dist.	2201 Apr 28 08:45	2° ♄ 40'10	0.56665 AU
morning rise	2200 May 23 12:48	19° ♄ 31'07		desc. node	2201 Apr 30 13:08	1° ♄ 18'20	
direct	2200 May 27 15:24	18° ♄ 54'11			2201 May 03 03:10	30° ♄	
morning max el	2200 Jun 10 09:08	25° ♄ 41'24	24°02'29	morning rise	2201 May 03 14:11	29° Υ 48'44	
	2200 Jun 14 10:32	0° ♁		direct	2201 May 08 17:07	28° Υ 47'06	
asc. node	2200 Jul 02 11:29	29° ♁ 25'06			2201 May 14 07:25	0° ♄	
	2200 Jul 02 18:19	0° ♄		morning max el	2201 May 22 23:37	6° ♄ 08'14	25°39'50
morning set	2200 Jul 04 21:05	4° ♄ 23'51			2201 Jun 09 09:39	0° ♁	
superior conj	2200 Jul 11 22:18	19° ♄ 35'37	1°25'04	morning set	2201 Jun 19 08:43	19° ♁ 19'17	
minimum elong	2200 Jul 11 19:57	19° ♄ 22'58	1°24'47	asc. node	2201 Jun 19 08:31	19° ♁ 18'14	
max. Earth dist.	2200 Jul 13 22:11	23° ♄ 53'15	1.33223 AU		2201 Jun 24 07:25	0° ♄	
	2200 Jul 16 19:38	0° ♁		superior conj	2201 Jun 26 08:57	4° ♄ 31'43	1°08'02
evening rise	2200 Jul 19 08:48	5° ♁ 13'34		minimum elong	2201 Jun 26 06:36	4° ♄ 18'51	1°07'39
	2200 Aug 01 23:23	0° ♄		max. Earth dist.	2201 Jun 27 06:46	6° ♄ 31'12	1.32506 AU
desc. node	2200 Aug 09 15:26	11° ♄ 34'55		evening rise	2201 Jul 03 11:11	19° ♄ 44'52	
evening max el	2200 Aug 21 20:26	26° ♄ 06'01	27°25'39		2201 Jul 08 14:34	0° ♁	
	2200 Aug 26 13:02	0° ♁			2201 Jul 27 08:16	0° ♄	
retrograde	2200 Sep 04 11:28	3° ♁ 23'23		desc. node	2201 Jul 27 12:26	0° ♄ 13'18	
evening set	2200 Sep 11 15:19	0° ♁ 45'00		evening max el	2201 Aug 04 04:02	8° ♄ 46'00	27°14'38
	2200 Sep 12 14:29	30° ♄		retrograde	2201 Aug 18 00:00	16° ♄ 00'48	
min. Earth dist.	2200 Sep 15 07:25	27° ♄ 31'26	0.63698 AU	evening set	2201 Aug 25 03:49	13° ♄ 38'46	
inferior conj	2200 Sep 17 21:07	24° ♄ 53'52	-3°-17'-32	min. Earth dist.	2201 Aug 28 18:11	10° ♄ 51'37	0.61863 AU
minimum elong	2200 Sep 18 02:10	24° ♄ 40'57	3°15'58	inferior conj	2201 Aug 31 19:16	8° ♄ 06'12	-4°-8'-27
morning rise	2200 Sep 24 15:16	19° ♄ 33'37		minimum elong	2201 Sep 01 00:37	7° ♄ 54'01	4°07'14
direct	2200 Sep 27 02:23	19° ♄ 03'50		morning rise	2201 Sep 08 00:15	3° ♄ 06'11	
asc. node	2200 Sep 28 10:43	19° ♄ 12'54		direct	2201 Sep 10 09:11	2° ♄ 42'04	
morning max el	2200 Oct 03 15:51	22° ♄ 29'25	17°52'55	asc. node	2201 Sep 15 07:44	4° ♄ 30'08	
	2200 Oct 09 12:03	0° ♁		morning max el	2201 Sep 17 06:57	6° ♄ 10'47	17°54'48
morning set	2200 Oct 20 07:30	18° ♁ 04'35			2201 Oct 02 13:42	0° ♁	
	2200 Oct 27 06:30	0° ♄		morning set	2201 Oct 03 04:00	1° ♁ 04'52	
superior conj	2200 Nov 01 18:52	9° ♄ 11'21	0°25'50	superior conj	2201 Oct 13 21:13	20° ♁ 10'15	1°02'41
minimum elong	2200 Nov 01 21:34	9° ♄ 22'28	0°25'28	minimum elong	2201 Oct 14 01:45	20° ♁ 29'45	1°02'07
desc. node	2200 Nov 05 14:45	15° ♄ 25'11			2201 Oct 19 16:44	0° ♄	
max. Earth dist.	2200 Nov 07 16:46	18° ♄ 45'50	1.44204 AU	max. Earth dist.	2201 Oct 21 06:30	2° ♄ 35'39	1.42776 AU
	2200 Nov 14 20:03	0° ♄		desc. node	2201 Oct 23 11:46	6° ♄ 12'24	
evening rise	2200 Nov 17 15:58	4° ♄ 22'35		evening rise	2201 Oct 28 04:18	13° ♄ 40'27	
	2200 Dec 04 19:11	0° ♄			2201 Nov 07 21:11	0° ♄	
greatest brilliancy	2200 Dec 10 07:38	7° ♄ 36'25	-0.5m	greatest brilliancy	2201 Nov 24 04:01	22° ♄ 34'48	-0.4m
evening max el	2200 Dec 16 02:21	14° ♄ 28'48	20°40'13	evening max el	2201 Nov 28 22:31	27° ♄ 59'54	21°52'57
retrograde	2200 Dec 24 06:40	19° ♄ 18'40			2201 Dec 01 01:14	0° ♄	
asc. node	2200 Dec 25 09:58	19° ♄ 11'27		retrograde	2201 Dec 08 03:31	3° ♄ 28'45	
evening set	2200 Dec 28 03:30	17° ♄ 52'47		evening set	2201 Dec 12 11:17	1° ♄ 46'47	
inferior conj	2201 Jan 02 13:52	11° ♄ 41'11	2°30'49	asc. node	2201 Dec 12 07:00	1° ♄ 55'10	
minimum elong	2201 Jan 02 11:17	11° ♄ 50'01	2°30'02		2201 Dec 14 07:55	30° ♄	
min. Earth dist.	2201 Jan 03 03:26	10° ♄ 54'49	0.67393 AU	inferior conj	2201 Dec 17 20:47	25° ♄ 26'23	1°49'01
morning rise	2201 Jan 07 18:38	5° ♄ 26'01		minimum elong	2201 Dec 17 18:35	25° ♄ 33'59	1°48'12
direct	2201 Jan 13 06:07	3° ♄ 01'51		min. Earth dist.	2201 Dec 17 22:42	25° ♄ 19'43	0.67787 AU
morning max el	2201 Jan 24 08:36	9° ♄ 39'07	24°15'09	morning rise	2201 Dec 23 01:41	19° ♄ 12'26	
desc. node	2201 Feb 01 13:58	19° ♄ 14'21		direct	2201 Dec 27 21:55	17° ♄ 10'15	
	2201 Feb 09 10:45	0° ♄		morning max el	2202 Jan 06 18:35	23° ♄ 00'30	22°46'35

greatest brilliancy	2202 Jan 11 09:45	28° ♄ 10'37	-0.3m	desc. node	2203 Jan 06 08:04	28° ♄ 38'46	
	2202 Jan 12 21:21	0° ♄			2203 Jan 07 06:12	0° ♄	
desc. node	2202 Jan 19 11:01	8° ♄ 42'47		morning set	2203 Jan 20 13:56	20° ♄ 19'40	
	2202 Feb 02 19:59	0° ♄			2203 Jan 26 14:33	0° ♄	
morning set	2202 Feb 09 23:08	11° ♄ 26'42		max. Earth dist.	2203 Jan 27 18:13	1° ♄ 53'21	1.42136 AU
max. Earth dist.	2202 Feb 14 17:19	19° ♄ 26'08	1.40100 AU				
	2202 Feb 20 17:52	0° ♄		superior conj	2203 Feb 04 04:03	14° ♄ 22'08	-2°-5'-13
				minimum elong	2203 Feb 04 04:21	14° ♄ 23'23	2°05'15
superior conj	2202 Feb 22 11:40	3° ♄ 09'06	-1°-57'-13		2203 Feb 12 23:50	0° ♄	
minimum elong	2202 Feb 22 15:11	3° ♄ 25'09	1°57'01	evening rise	2203 Feb 15 09:22	4° ♄ 21'01	
evening rise	2202 Mar 04 08:14	21° ♄ 37'41		asc. node	2203 Feb 25 03:21	21° ♄ 27'31	
	2202 Mar 08 19:13	0° ♄			2203 Mar 03 10:33	0° ♄	
asc. node	2202 Mar 10 06:18	2° ♄ 39'13		evening max el	2203 Mar 03 22:00	0° ♄ 28'59	18°08'47
evening max el	2202 Mar 20 12:00	17° ♄ 32'20	18°26'12	retrograde	2203 Mar 10 15:45	3° ♄ 54'31	
retrograde	2202 Mar 27 23:07	21° ♄ 13'20		evening set	2203 Mar 13 05:58	3° ♄ 24'29	
evening set	2202 Mar 30 07:50	20° ♄ 52'15			2203 Mar 18 08:30	30° ♄	
inferior conj	2202 Apr 06 17:35	16° ♄ 18'27	2°43'06	inferior conj	2203 Mar 19 23:56	28° ♄ 29'34	3°25'47
minimum elong	2202 Apr 06 21:27	16° ♄ 10'35	2°42'10	minimum elong	2203 Mar 20 02:20	28° ♄ 23'56	3°25'28
min. Earth dist.	2202 Apr 10 04:09	13° ♄ 32'16	0.58573 AU	min. Earth dist.	2203 Mar 23 05:59	25° ♄ 27'24	0.60724 AU
morning rise	2202 Apr 14 06:56	10° ♄ 49'56		morning rise	2203 Mar 26 19:31	22° ♄ 40'02	
desc. node	2202 Apr 17 10:11	9° ♄ 36'11		direct	2203 Apr 02 12:45	20° ♄ 27'58	
direct	2202 Apr 20 08:52	9° ♄ 13'24		desc. node	2203 Apr 04 07:14	20° ♄ 36'42	
morning max el	2202 May 04 18:08	16° ♄ 55'39	26°56'38	morning max el	2203 Apr 16 18:52	28° ♄ 21'13	27°40'56
	2202 May 15 12:29	0° ♄			2203 Apr 18 09:23	0° ♄	
	2202 Jun 01 18:37	0° ♄			2203 May 09 06:47	0° ♄	
morning set	2202 Jun 03 18:34	4° ♄ 07'43		morning set	2203 May 19 00:52	18° ♄ 43'20	
asc. node	2202 Jun 06 05:33	9° ♄ 21'06		asc. node	2203 May 24 02:37	29° ♄ 29'21	
					2203 May 24 08:15	0° ♄	
superior conj	2202 Jun 10 20:43	19° ♄ 28'27	0°47'13	max. Earth dist.	2203 May 25 06:05	1° ♄ 59'01	1.32246 AU
minimum elong	2202 Jun 10 18:49	19° ♄ 18'01	0°46'50				
max. Earth dist.	2202 Jun 10 18:38	19° ♄ 16'59	1.32179 AU	superior conj	2203 May 26 07:54	4° ♄ 20'18	0°23'17
	2202 Jun 15 16:13	0° ♄		minimum elong	2203 May 26 06:52	4° ♄ 14'36	0°23'03
evening rise	2202 Jun 17 18:49	4° ♄ 29'32		evening rise	2203 Jun 02 05:32	19° ♄ 20'46	
	2202 Jul 01 08:57	0° ♄			2203 Jun 07 10:48	0° ♄	
desc. node	2202 Jul 14 09:27	17° ♄ 47'43			2203 Jun 27 04:01	0° ♄	
evening max el	2202 Jul 17 05:26	20° ♄ 41'15	26°30'30	evening max el	2203 Jun 28 23:48	1° ♄ 50'09	25°16'53
retrograde	2202 Jul 31 04:52	27° ♄ 53'37		desc. node	2203 Jul 01 06:28	3° ♄ 52'06	
evening set	2202 Aug 06 21:17	26° ♄ 01'13		retrograde	2203 Jul 12 23:57	8° ♄ 57'25	
min. Earth dist.	2202 Aug 10 18:45	23° ♄ 25'49	0.59819 AU	evening set	2203 Jul 18 15:31	7° ♄ 43'30	
inferior conj	2202 Aug 14 02:04	20° ♄ 49'02	-4°-46'-11	min. Earth dist.	2203 Jul 23 11:40	5° ♄ 01'04	0.57791 AU
minimum elong	2202 Aug 14 05:50	20° ♄ 41'33	4°45'44	inferior conj	2203 Jul 26 14:12	2° ♄ 53'11	-4°-59'-27
morning rise	2202 Aug 21 17:46	16° ♄ 11'50		minimum elong	2203 Jul 26 13:46	2° ♄ 53'55	4°59'28
direct	2202 Aug 24 03:16	15° ♄ 51'03			2203 Jul 31 04:46	30° ♄	
morning max el	2202 Aug 31 17:46	19° ♄ 32'29	18°16'09	morning rise	2203 Aug 03 15:43	28° ♄ 38'35	
asc. node	2202 Sep 02 04:47	21° ♄ 03'50		direct	2203 Aug 06 04:25	28° ♄ 19'21	
	2202 Sep 08 11:51	0° ♄			2203 Aug 11 18:19	0° ♄	
morning set	2202 Sep 16 14:55	14° ♄ 46'10		morning max el	2203 Aug 14 21:02	2° ♄ 24'51	18°58'14
	2202 Sep 24 17:20	0° ♄		asc. node	2203 Aug 20 01:50	8° ♄ 38'51	
				morning set	2203 Aug 31 11:58	28° ♄ 57'01	
superior conj	2202 Sep 26 00:21	2° ♄ 21'51	1°27'34		2203 Sep 01 00:45	0° ♄	
minimum elong	2202 Sep 26 04:03	2° ♄ 38'43	1°27'12				
max. Earth dist.	2202 Oct 03 14:25	15° ♄ 44'12	1.40912 AU	superior conj	2203 Sep 08 22:46	15° ♄ 30'34	1°41'16
evening rise	2202 Oct 08 10:22	23° ♄ 48'14		minimum elong	2203 Sep 09 00:40	15° ♄ 39'39	1°41'10
desc. node	2202 Oct 10 08:47	26° ♄ 56'31		max. Earth dist.	2203 Sep 15 18:23	28° ♄ 09'53	1.38861 AU
	2202 Oct 12 06:43	0° ♄			2203 Sep 16 19:05	0° ♄	
	2202 Nov 01 19:58	0° ♄		evening rise	2203 Sep 19 16:24	5° ♄ 02'52	
evening max el	2202 Nov 11 13:58	11° ♄ 33'12	23°12'06	desc. node	2203 Sep 27 05:48	17° ♄ 33'48	
retrograde	2202 Nov 21 21:51	17° ♄ 40'33			2203 Oct 05 08:50	0° ♄	
evening set	2202 Nov 26 18:15	15° ♄ 41'43		evening max el	2203 Oct 25 02:43	25° ♄ 10'32	24°31'28
asc. node	2202 Nov 29 04:02	13° ♄ 14'10			2203 Oct 30 23:58	0° ♄	
inferior conj	2202 Dec 02 04:18	9° ♄ 16'30	1°01'04	retrograde	2203 Nov 05 12:21	1° ♄ 50'06	
minimum elong	2202 Dec 02 02:55	9° ♄ 21'15	1°00'30		2203 Nov 10 10:09	30° ♄	
min. Earth dist.	2202 Dec 01 19:28	9° ♄ 46'52	0.67826 AU	evening set	2203 Nov 10 22:43	29° ♄ 34'38	
morning rise	2202 Dec 07 11:39	3° ♄ 05'50		min. Earth dist.	2203 Nov 15 15:19	24° ♄ 13'33	0.67537 AU
direct	2202 Dec 11 17:18	1° ♄ 26'29		inferior conj	2203 Nov 16 10:39	23° ♄ 08'58	0°08'14
morning max el	2202 Dec 20 09:32	6° ♄ 30'17	21°22'32	minimum elong	2203 Nov 16 10:27	23° ♄ 09'39	0°08'09
greatest brilliancy	2202 Dec 25 12:38	12° ♄ 21'49	-0.4m	transit middle	2203 Nov 16 10:27	23° ♄ 09'39	0°08'09

transit begin	2203 Nov 16 08:04	23° \mathbb{M} 17'35		min. Earth dist.	2204 Oct 29 07:47	8° \mathbb{M} 37'40	0.66915 AU
transit end	2203 Nov 16 12:49	23° \mathbb{M} 01'43		inferior conj	2204 Oct 30 14:03	7° \mathbb{M} 01'29	0°-48'-10
asc. node	2203 Nov 16 01:05	23° \mathbb{M} 40'58		minimum elong	2204 Oct 30 15:18	6° \mathbb{M} 57'29	0°47'39
morning rise	2203 Nov 21 22:33	17° \mathbb{M} 04'01		asc. node	2204 Nov 01 22:07	4° \mathbb{M} 10'15	
direct	2203 Nov 25 15:04	15° \mathbb{M} 45'57		morning rise	2204 Nov 05 08:26	1° \mathbb{M} 05'07	
morning max el	2203 Dec 03 07:52	20° \mathbb{M} 10'21	20°09'06	direct	2204 Nov 08 13:44	0° \mathbb{M} 05'20	
greatest brilliancy	2203 Dec 10 04:25	28° \mathbb{M} 26'23	-0.6m	morning max el	2204 Nov 15 13:54	4° \mathbb{M} 00'42	19°09'56
	2203 Dec 11 07:53	0° \mathbb{X}			2204 Dec 04 01:08	0° \mathbb{X}	
desc. node	2203 Dec 24 05:05	18° \mathbb{X} 54'09		morning set	2204 Dec 08 14:11	7° \mathbb{X} 03'52	
morning set	2203 Dec 30 10:41	28° \mathbb{X} 27'11		desc. node	2204 Dec 10 02:07	9° \mathbb{X} 23'50	
	2203 Dec 31 10:40	0° \mathbb{Z}		max. Earth dist.	2204 Dec 22 18:16	29° \mathbb{X} 14'11	1.44836 AU
max. Earth dist.	2204 Jan 10 02:49	15° \mathbb{Z} 13'17	1.43785 AU		2204 Dec 23 05:54	0° \mathbb{Z}	
superior conj	2204 Jan 15 18:48	24° \mathbb{Z} 24'00	-1°-57'-48	superior conj	2204 Dec 25 08:43	3° \mathbb{Z} 20'53	-1°-31'-22
minimum elong	2204 Jan 15 13:40	24° \mathbb{Z} 03'01	1°57'33	minimum elong	2204 Dec 24 23:52	2° \mathbb{Z} 45'51	1°30'32
	2204 Jan 19 04:04	0° \mathbb{A}		evening rise	2205 Jan 09 03:21	27° \mathbb{Z} 12'22	
evening rise	2204 Jan 28 17:05	16° \mathbb{A} 14'27			2205 Jan 10 20:05	0° \mathbb{A}	
	2204 Feb 05 17:40	0° \mathbb{H}		asc. node	2205 Jan 28 21:27	27° \mathbb{A} 02'10	
asc. node	2204 Feb 12 00:24	9° \mathbb{H} 38'46		evening max el	2205 Jan 28 22:39	27° \mathbb{A} 05'14	18°31'12
evening max el	2204 Feb 15 10:29	13° \mathbb{H} 42'13	18°10'43		2205 Feb 01 17:29	0° \mathbb{H}	
retrograde	2204 Feb 21 21:27	17° \mathbb{H} 06'49		retrograde	2205 Feb 04 11:56	0° \mathbb{H} 41'35	
evening set	2204 Feb 24 16:51	16° \mathbb{H} 26'35			2205 Feb 07 05:24	30° \mathbb{R}	
inferior conj	2204 Mar 01 22:44	11° \mathbb{H} 11'01	3°42'03	evening set	2205 Feb 07 12:47	29° \mathbb{A} 50'11	
minimum elong	2204 Mar 01 23:09	11° \mathbb{H} 09'53	3°42'02	inferior conj	2205 Feb 13 09:57	24° \mathbb{A} 15'32	3°38'37
min. Earth dist.	2204 Mar 04 16:11	8° \mathbb{H} 17'19	0.62800 AU	minimum elong	2205 Feb 13 08:45	24° \mathbb{A} 19'04	3°38'30
morning rise	2204 Mar 08 03:20	5° \mathbb{H} 09'00		min. Earth dist.	2205 Feb 15 11:56	21° \mathbb{A} 48'21	0.64590 AU
direct	2204 Mar 15 01:52	2° \mathbb{H} 31'02		morning rise	2205 Feb 19 03:23	18° \mathbb{A} 06'14	
desc. node	2204 Mar 21 04:16	4° \mathbb{H} 15'38		direct	2205 Feb 25 22:20	15° \mathbb{A} 16'33	
morning max el	2204 Mar 29 00:54	10° \mathbb{H} 26'59	27°48'06	desc. node	2205 Mar 08 01:19	20° \mathbb{A} 00'25	
	2204 Apr 13 08:28	0° \mathbb{Y}		morning max el	2205 Mar 11 10:09	23° \mathbb{A} 06'50	27°19'50
	2204 Apr 30 13:39	0° \mathbb{B}			2205 Mar 17 13:10	0° \mathbb{H}	
morning set	2204 May 02 01:27	2° \mathbb{B} 58'38			2205 Apr 06 15:15	0° \mathbb{Y}	
max. Earth dist.	2204 May 07 13:17	14° \mathbb{B} 24'12	1.32718 AU	morning set	2205 Apr 15 17:33	16° \mathbb{Y} 45'07	
				max. Earth dist.	2205 Apr 20 12:28	26° \mathbb{Y} 21'56	1.33621 AU
					2205 Apr 22 06:29	0° \mathbb{B}	
superior conj	2204 May 09 16:46	19° \mathbb{B} 01'06	0°-3'-2	superior conj	2205 Apr 23 21:22	3° \mathbb{B} 24'33	0°-30'-48
minimum elong	2204 May 09 16:55	19° \mathbb{B} 01'52	0°03'01	minimum elong	2205 Apr 23 22:55	3° \mathbb{B} 32'46	0°30'29
behind sun begin	2204 May 09 11:47	18° \mathbb{B} 34'05		asc. node	2205 Apr 26 20:44	9° \mathbb{B} 44'23	
behind sun end	2204 May 09 22:03	19° \mathbb{B} 29'41		evening rise	2205 May 01 04:33	18° \mathbb{B} 55'56	
asc. node	2204 May 09 23:41	19° \mathbb{B} 38'27			2205 May 06 16:06	0° \mathbb{H}	
	2204 May 14 18:19	0° \mathbb{H}		evening max el	2205 May 22 05:50	22° \mathbb{H} 56'11	22°08'48
evening rise	2204 May 16 17:24	4° \mathbb{H} 11'40		retrograde	2205 Jun 04 01:09	29° \mathbb{H} 15'42	
	2204 May 30 15:27	0° \mathbb{E}		desc. node	2205 Jun 04 00:32	29° \mathbb{H} 15'42	
evening max el	2204 Jun 09 13:44	12° \mathbb{E} 25'47	23°44'36	evening set	2205 Jun 06 21:33	28° \mathbb{H} 57'42	
desc. node	2204 Jun 17 03:29	17° \mathbb{E} 52'51		min. Earth dist.	2205 Jun 15 11:32	25° \mathbb{H} 16'42	0.55080 AU
retrograde	2204 Jun 23 06:37	19° \mathbb{E} 18'05		inferior conj	2205 Jun 16 05:27	24° \mathbb{H} 51'33	-3°-20'-9
evening set	2204 Jun 27 11:26	18° \mathbb{E} 39'19		minimum elong	2205 Jun 15 21:32	25° \mathbb{H} 02'40	3°17'53
min. Earth dist.	2204 Jul 04 00:14	15° \mathbb{E} 34'02	0.56099 AU	morning rise	2205 Jun 24 23:23	20° \mathbb{H} 59'45	
inferior conj	2204 Jul 06 06:09	14° \mathbb{E} 12'36	-4°-33'-55	direct	2205 Jun 28 00:53	20° \mathbb{H} 38'47	
minimum elong	2204 Jul 06 00:19	14° \mathbb{E} 21'28	4°33'02	morning max el	2205 Jul 09 19:27	26° \mathbb{H} 08'38	21°25'27
morning rise	2204 Jul 14 16:33	10° \mathbb{E} 15'43			2205 Jul 13 10:39	0° \mathbb{E}	
direct	2204 Jul 17 10:34	9° \mathbb{E} 56'34		asc. node	2205 Jul 23 19:57	16° \mathbb{E} 00'15	
morning max el	2204 Jul 27 14:00	14° \mathbb{E} 38'45	20°01'48	morning set	2205 Jul 30 00:31	28° \mathbb{E} 14'56	
asc. node	2204 Aug 05 22:54	27° \mathbb{E} 01'35			2205 Jul 30 20:44	0° \mathbb{H}	
	2204 Aug 07 16:11	0° \mathbb{Q}		superior conj	2205 Aug 06 09:37	13° \mathbb{Q} 42'34	1°42'19
morning set	2204 Aug 14 16:01	13° \mathbb{Q} 29'08		minimum elong	2205 Aug 06 08:21	13° \mathbb{Q} 35'57	1°42'16
				max. Earth dist.	2205 Aug 10 11:00	22° \mathbb{Q} 00'12	1.35151 AU
superior conj	2204 Aug 22 11:16	29° \mathbb{Q} 21'45	1°45'36	evening rise	2205 Aug 14 19:42	0° \mathbb{H} 31'44	
minimum elong	2204 Aug 22 11:22	29° \mathbb{Q} 22'15	1°45'36		2205 Aug 14 13:02	0° \mathbb{H}	
	2204 Aug 22 18:55	0° \mathbb{H}		desc. node	2205 Aug 30 23:51	28° \mathbb{H} 07'58	
max. Earth dist.	2204 Aug 27 23:32	10° \mathbb{H} 07'41	1.36874 AU		2205 Sep 01 05:39	0° \mathbb{E}	
evening rise	2204 Aug 31 21:00	17° \mathbb{H} 21'22		evening max el	2205 Sep 19 03:07	22° \mathbb{E} 28'39	26°41'38
	2204 Sep 08 03:46	0° \mathbb{E}		retrograde	2205 Oct 02 02:46	29° \mathbb{E} 43'03	
desc. node	2204 Sep 13 02:49	7° \mathbb{E} 59'47		evening set	2205 Oct 08 16:59	27° \mathbb{E} 02'44	
	2204 Sep 28 17:06	0° \mathbb{M}		min. Earth dist.	2205 Oct 12 18:25	22° \mathbb{E} 54'16	0.65944 AU
evening max el	2204 Oct 06 14:52	8° \mathbb{M} 51'20	25°43'50				
retrograde	2204 Oct 18 22:11	15° \mathbb{M} 53'15					
evening set	2204 Oct 24 22:59	13° \mathbb{M} 23'07					

inferior conj	2205 Oct 14 12:29	20° Ω 49'35	-1°-46'-41	min. Earth dist.	2206 Sep 25 21:04	6° Ω 56'54	0.64616 AU
minimum elong	2205 Oct 14 15:21	20° Ω 41'05	1°45'32	inferior conj	2206 Sep 28 03:41	4° Ω 28'47	-2°-45'-10
asc. node	2205 Oct 19 19:09	15° Ω 34'35		minimum elong	2206 Sep 28 08:04	4° Ω 16'52	2°43'37
morning rise	2205 Oct 20 15:04	15° Ω 04'54			2206 Oct 02 21:28	30° \mathbb{R} \mathbb{M}	
direct	2205 Oct 23 11:19	14° Ω 19'46		morning rise	2206 Oct 04 15:53	28° \mathbb{M} 58'53	
morning max el	2205 Oct 30 02:00	17° Ω 56'32	18°26'41	asc. node	2206 Oct 06 16:12	28° \mathbb{M} 26'15	
	2205 Nov 08 03:01	0° \mathbb{M}		direct	2206 Oct 07 05:29	28° \mathbb{M} 24'38	
morning set	2205 Nov 18 19:17	17° \mathbb{M} 00'03			2206 Oct 11 13:28	0° Ω	
desc. node	2205 Nov 26 23:08	0° \mathbb{M} 02'53		morning max el	2206 Oct 13 17:33	1° Ω 52'01	18°00'12
	2205 Nov 26 22:25	0° \mathbb{M}		morning set	2206 Oct 31 05:10	28° Ω 20'34	
					2206 Nov 01 04:49	0° \mathbb{M}	
superior conj	2205 Dec 04 10:10	11° \mathbb{M} 49'20	0°-48'-38				
minimum elong	2205 Dec 04 03:58	11° \mathbb{M} 24'58	0°47'51	superior conj	2206 Nov 13 20:33	20° \mathbb{M} 49'17	0°00'-6
max. Earth dist.	2205 Dec 05 13:12	13° \mathbb{M} 35'29	1.45163 AU	minimum elong	2206 Nov 13 20:33	20° \mathbb{M} 49'15	0°00'06
	2205 Dec 16 00:05	0° \mathbb{Z}		behind sun begin	2206 Nov 13 10:13	20° \mathbb{M} 07'44	
evening rise	2205 Dec 20 14:14	7° \mathbb{Z} 13'43		behind sun end	2206 Nov 14 06:53	21° \mathbb{M} 30'43	
greatest brilliancy	2206 Jan 02 01:34	26° \mathbb{Z} 45'22	-0.7m	desc. node	2206 Nov 13 20:08	20° \mathbb{M} 47'38	
	2206 Jan 04 05:26	0° \approx		max. Earth dist.	2206 Nov 18 07:50	27° \mathbb{M} 56'37	1.44748 AU
evening max el	2206 Jan 12 08:04	10° \approx 33'03	19°09'16		2206 Nov 19 15:06	0° \mathbb{M}	
asc. node	2206 Jan 15 18:27	13° \approx 24'27		evening rise	2206 Nov 30 05:32	16° \mathbb{M} 30'15	
retrograde	2206 Jan 19 07:32	14° \approx 31'52			2206 Dec 09 01:11	0° \mathbb{Z}	
evening set	2206 Jan 22 14:49	13° \approx 28'17		greatest brilliancy	2206 Dec 19 16:41	15° \mathbb{Z} 36'16	-0.6m
inferior conj	2206 Jan 28 06:04	7° \approx 36'56	3°20'38	evening max el	2206 Dec 26 12:56	24° \mathbb{Z} 02'33	20°03'09
minimum elong	2206 Jan 28 03:52	7° \approx 43'57	3°20'14	asc. node	2207 Jan 02 15:28	28° \mathbb{Z} 30'33	
min. Earth dist.	2206 Jan 29 16:47	5° \approx 46'23	0.65990 AU	retrograde	2207 Jan 03 05:17	28° \mathbb{Z} 32'23	
morning rise	2206 Feb 02 16:02	1° \approx 23'28		evening set	2207 Jan 06 20:33	27° \mathbb{Z} 15'13	
	2206 Feb 04 11:53	30° \mathbb{R} \mathbb{Z}		inferior conj	2207 Jan 12 08:10	21° \mathbb{Z} 10'05	2°51'36
direct	2206 Feb 09 01:15	28° \mathbb{Z} 35'48		minimum elong	2207 Jan 12 05:33	21° \mathbb{Z} 18'49	2°50'55
	2206 Feb 14 01:40	0° \approx		min. Earth dist.	2207 Jan 13 05:03	20° \mathbb{Z} 00'00	0.66988 AU
morning max el	2206 Feb 21 20:03	6° \approx 09'17	26°22'27	morning rise	2207 Jan 17 13:57	14° \mathbb{Z} 54'47	
desc. node	2206 Feb 22 22:22	7° \approx 17'08		direct	2207 Jan 23 09:52	12° \mathbb{Z} 19'46	
	2206 Mar 12 05:42	0° \mathbb{H}		morning max el	2207 Feb 04 04:50	19° \mathbb{Z} 22'00	25°04'51
morning set	2206 Mar 29 21:32	29° \mathbb{H} 51'58		desc. node	2207 Feb 09 19:23	25° \mathbb{Z} 38'53	
	2206 Mar 29 23:15	0° \mathbb{Y}			2207 Feb 13 06:10	0° \approx	
max. Earth dist.	2206 Apr 03 00:33	7° \mathbb{Y} 47'13	1.34975 AU		2207 Mar 05 08:27	0° \mathbb{H}	
				morning set	2207 Mar 12 08:22	12° \mathbb{H} 04'04	
superior conj	2206 Apr 07 19:23	17° \mathbb{Y} 23'56	0°-58'-48	max. Earth dist.	2207 Mar 16 01:15	18° \mathbb{H} 49'13	1.36762 AU
minimum elong	2206 Apr 07 22:22	17° \mathbb{Y} 39'14	0°58'16		2207 Mar 21 21:37	0° \mathbb{Y}	
asc. node	2206 Apr 13 17:46	29° \mathbb{Y} 42'59					
	2206 Apr 13 21:02	0° \mathbb{Z}		superior conj	2207 Mar 22 07:51	0° \mathbb{Y} 50'16	-1°-25'-16
evening rise	2206 Apr 15 13:01	3° \mathbb{Z} 27'09		minimum elong	2207 Mar 22 11:56	1° \mathbb{Y} 10'23	1°24'42
	2206 Apr 30 19:47	0° \mathbb{I}		evening rise	2207 Mar 30 16:33	17° \mathbb{Y} 37'38	
evening max el	2206 May 04 07:03	3° \mathbb{I} 51'29	20°42'56	asc. node	2207 Mar 31 14:48	19° \mathbb{Y} 29'06	
retrograde	2206 May 15 14:24	9° \mathbb{I} 21'33			2207 Apr 06 02:01	0° \mathbb{Z}	
evening set	2206 May 17 17:13	9° \mathbb{I} 10'44		evening max el	2207 Apr 16 20:07	15° \mathbb{Z} 25'28	19°34'14
desc. node	2206 May 21 21:33	7° \mathbb{I} 52'47		retrograde	2207 Apr 26 09:53	20° \mathbb{Z} 03'04	
inferior conj	2206 May 26 23:17	5° \mathbb{I} 13'06	-1°-28'-35	evening set	2207 Apr 28 10:34	19° \mathbb{Z} 51'32	
minimum elong	2206 May 26 19:06	5° \mathbb{I} 19'06	1°27'05	inferior conj	2207 May 07 02:05	15° \mathbb{Z} 47'15	0°29'12
min. Earth dist.	2206 May 27 23:59	4° \mathbb{I} 37'44	0.54971 AU	minimum elong	2207 May 07 03:20	15° \mathbb{Z} 45'16	0°28'44
morning rise	2206 Jun 04 19:55	1° \mathbb{I} 06'20		desc. node	2207 May 08 18:36	14° \mathbb{Z} 42'39	
direct	2206 Jun 08 10:30	0° \mathbb{I} 38'18		min. Earth dist.	2207 May 09 14:21	14° \mathbb{Z} 11'41	0.55815 AU
morning max el	2206 Jun 21 15:14	6° \mathbb{I} 59'34	23°03'35	morning rise	2207 May 15 16:24	11° \mathbb{Z} 09'21	
	2206 Jul 07 21:09	0° \mathbb{S}		direct	2207 May 20 04:49	10° \mathbb{Z} 23'27	
asc. node	2206 Jul 10 17:00	5° \mathbb{S} 25'56		morning max el	2207 Jun 03 05:55	17° \mathbb{Z} 27'43	24°45'21
morning set	2206 Jul 14 11:32	13° \mathbb{S} 08'55			2207 Jun 13 12:29	0° \mathbb{I}	
				asc. node	2207 Jun 27 14:02	25° \mathbb{I} 10'38	
superior conj	2206 Jul 21 14:38	28° \mathbb{S} 23'35	1°32'52	morning set	2207 Jun 28 23:23	28° \mathbb{I} 05'02	
minimum elong	2206 Jul 21 12:32	28° \mathbb{S} 12'20	1°32'40		2207 Jun 29 21:04	0° \mathbb{S}	
	2206 Jul 22 08:44	0° \mathbb{Q}					
max. Earth dist.	2206 Jul 24 07:24	4° \mathbb{Q} 06'34	1.33807 AU	superior conj	2207 Jul 05 23:50	13° \mathbb{S} 16'07	1°18'22
evening rise	2206 Jul 29 08:04	14° \mathbb{Q} 22'16		minimum elong	2207 Jul 05 21:26	13° \mathbb{S} 03'03	1°18'01
	2206 Aug 06 17:10	0° \mathbb{M}		max. Earth dist.	2207 Jul 07 12:06	16° \mathbb{S} 32'59	1.32867 AU
desc. node	2206 Aug 17 20:51	17° \mathbb{M} 50'27		evening rise	2207 Jul 13 06:14	28° \mathbb{S} 41'26	
	2206 Aug 27 02:40	0° Ω			2207 Jul 13 21:42	0° \mathbb{Q}	
evening max el	2206 Sep 01 14:58	5° Ω 53'02	27°17'28		2207 Jul 30 21:15	0° \mathbb{M}	
retrograde	2206 Sep 15 01:47	13° Ω 11'44		desc. node	2207 Aug 04 17:53	6° \mathbb{M} 56'21	
evening set	2206 Sep 22 02:14	10° Ω 29'15		evening max el	2207 Aug 15 00:52	18° \mathbb{M} 52'58	27°25'00

retrograde	2207 Aug 28 18:41	26° $\mathring{\text{M}}$ 10'13		desc. node	2208 Jul 21 14:54	25° $\mathring{\text{O}}$ 10'18	
evening set	2207 Sep 04 23:28	23° $\mathring{\text{M}}$ 37'06			2208 Jul 25 23:24	0° $\mathring{\text{M}}$	
min. Earth dist.	2207 Sep 08 14:04	20° $\mathring{\text{M}}$ 36'01	0.62945 AU	evening max el	2208 Jul 27 06:19	1° $\mathring{\text{M}}$ 15'41	26°59'54
inferior conj	2207 Sep 11 08:58	17° $\mathring{\text{M}}$ 53'12	-3°-40'-18	retrograde	2208 Aug 10 04:10	8° $\mathring{\text{M}}$ 29'06	
minimum elong	2207 Sep 11 14:19	17° $\mathring{\text{M}}$ 40'09	3°38'48	evening set	2208 Aug 17 04:27	6° $\mathring{\text{M}}$ 18'34	
morning rise	2207 Sep 18 07:43	12° $\mathring{\text{M}}$ 41'16		min. Earth dist.	2208 Aug 20 20:36	3° $\mathring{\text{M}}$ 38'12	0.61004 AU
direct	2207 Sep 20 17:24	12° $\mathring{\text{M}}$ 14'23		inferior conj	2208 Aug 24 01:03	0° $\mathring{\text{M}}$ 54'26	-4°-26'-43
asc. node	2207 Sep 23 13:14	12° $\mathring{\text{M}}$ 52'25		minimum elong	2208 Aug 24 06:01	0° $\mathring{\text{M}}$ 43'43	4°25'47
morning max el	2207 Sep 27 09:41	15° $\mathring{\text{M}}$ 40'37	17°51'25		2208 Aug 25 02:36	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$	
	2207 Oct 07 10:10	0° $\mathring{\text{A}}$		morning rise	2208 Aug 31 10:37	26° $\mathring{\text{O}}$ 03'32	
morning set	2207 Oct 13 14:55	10° $\mathring{\text{A}}$ 49'58		direct	2208 Sep 02 19:23	25° $\mathring{\text{O}}$ 41'07	
	2207 Oct 24 16:26	0° $\mathring{\text{M}}$		asc. node	2208 Sep 09 10:18	28° $\mathring{\text{O}}$ 43'51	
				morning max el	2208 Sep 09 23:17	29° $\mathring{\text{O}}$ 14'21	18°01'23
					2208 Sep 10 17:14	0° $\mathring{\text{M}}$	
superior conj	2207 Oct 25 07:10	1° $\mathring{\text{M}}$ 01'49	0°42'53	morning set	2208 Sep 25 18:11	24° $\mathring{\text{M}}$ 09'34	
minimum elong	2207 Oct 25 11:05	1° $\mathring{\text{M}}$ 18'13	0°42'22		2208 Sep 28 22:01	0° $\mathring{\text{A}}$	
desc. node	2207 Oct 31 17:10	11° $\mathring{\text{M}}$ 35'05					
max. Earth dist.	2207 Oct 31 23:42	12° $\mathring{\text{M}}$ 01'28	1.43654 AU	superior conj	2208 Oct 05 20:35	12° $\mathring{\text{A}}$ 32'51	1°14'42
evening rise	2207 Nov 09 13:58	25° $\mathring{\text{M}}$ 35'22		minimum elong	2208 Oct 06 00:59	12° $\mathring{\text{A}}$ 52'15	1°14'12
	2207 Nov 12 10:46	0° $\mathring{\text{A}}$		max. Earth dist.	2208 Oct 13 11:02	25° $\mathring{\text{A}}$ 35'05	1.42021 AU
	2207 Dec 03 03:20	0° $\mathring{\text{B}}$			2208 Oct 16 03:20	0° $\mathring{\text{M}}$	
greatest brilliancy	2207 Dec 04 07:15	1° $\mathring{\text{B}}$ 29'58	-0.4m	desc. node	2208 Oct 17 14:11	2° $\mathring{\text{M}}$ 21'26	
evening max el	2207 Dec 09 12:23	7° $\mathring{\text{B}}$ 33'36	21°10'09	evening rise	2208 Oct 19 08:30	5° $\mathring{\text{M}}$ 11'10	
retrograde	2207 Dec 18 02:57	12° $\mathring{\text{B}}$ 40'01			2208 Nov 04 18:23	0° $\mathring{\text{A}}$	
asc. node	2207 Dec 20 12:29	12° $\mathring{\text{B}}$ 08'07		greatest brilliancy	2208 Nov 16 12:20	15° $\mathring{\text{A}}$ 45'33	-0.3m
evening set	2207 Dec 22 04:06	11° $\mathring{\text{B}}$ 07'42		evening max el	2208 Nov 21 06:29	21° $\mathring{\text{A}}$ 05'51	22°26'18
inferior conj	2207 Dec 27 13:54	4° $\mathring{\text{B}}$ 52'03	2°13'57	retrograde	2208 Nov 30 22:44	26° $\mathring{\text{A}}$ 50'59	
minimum elong	2207 Dec 27 11:26	5° $\mathring{\text{B}}$ 00'34	2°13'08	evening set	2208 Dec 05 11:42	25° $\mathring{\text{A}}$ 02'00	
min. Earth dist.	2207 Dec 27 22:28	4° $\mathring{\text{B}}$ 22'31	0.67598 AU	asc. node	2208 Dec 06 09:32	24° $\mathring{\text{A}}$ 13'19	
	2207 Dec 31 08:53	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		inferior conj	2208 Dec 10 21:17	18° $\mathring{\text{A}}$ 39'22	1°29'21
morning rise	2208 Jan 01 18:24	28° $\mathring{\text{A}}$ 36'57		minimum elong	2208 Dec 10 19:23	18° $\mathring{\text{A}}$ 45'55	1°28'38
direct	2208 Jan 06 23:27	26° $\mathring{\text{A}}$ 21'33		min. Earth dist.	2208 Dec 10 18:37	18° $\mathring{\text{A}}$ 48'35	0.67846 AU
	2208 Jan 14 16:29	0° $\mathring{\text{B}}$		morning rise	2208 Dec 16 02:57	12° $\mathring{\text{A}}$ 26'36	
morning max el	2208 Jan 17 13:22	2° $\mathring{\text{B}}$ 39'46	23°37'26	direct	2208 Dec 20 16:58	10° $\mathring{\text{A}}$ 33'57	
desc. node	2208 Jan 27 16:25	14° $\mathring{\text{B}}$ 47'13		morning max el	2208 Dec 30 00:52	16° $\mathring{\text{A}}$ 03'28	22°09'52
	2208 Feb 07 08:59	0° $\mathring{\text{A}}$		greatest brilliancy	2209 Jan 03 15:42	21° $\mathring{\text{A}}$ 14'15	-0.3m
morning set	2208 Feb 21 19:58	23° $\mathring{\text{A}}$ 05'18			2209 Jan 10 08:47	0° $\mathring{\text{B}}$	
	2208 Feb 25 19:56	0° $\mathring{\text{H}}$		desc. node	2209 Jan 13 13:26	4° $\mathring{\text{B}}$ 28'19	
max. Earth dist.	2208 Feb 25 20:06	0° $\mathring{\text{H}}$ 00'44	1.38856 AU		2209 Jan 30 10:28	0° $\mathring{\text{A}}$	
				morning set	2209 Feb 01 02:56	2° $\mathring{\text{A}}$ 42'33	
superior conj	2208 Mar 04 07:04	13° $\mathring{\text{H}}$ 34'32	-1°-47'-35	max. Earth dist.	2209 Feb 06 17:27	11° $\mathring{\text{A}}$ 56'37	1.41001 AU
minimum elong	2208 Mar 04 11:18	13° $\mathring{\text{H}}$ 54'23	1°47'14				
	2208 Mar 12 19:56	0° $\mathring{\text{Y}}$		superior conj	2209 Feb 14 12:13	25° $\mathring{\text{A}}$ 24'15	-2°-2'-11
evening rise	2208 Mar 13 12:32	1° $\mathring{\text{Y}}$ 20'44		minimum elong	2209 Feb 14 14:42	25° $\mathring{\text{A}}$ 35'18	2°02'06
asc. node	2208 Mar 17 11:49	8° $\mathring{\text{Y}}$ 57'54			2209 Feb 17 01:38	0° $\mathring{\text{H}}$	
evening max el	2208 Mar 29 19:46	27° $\mathring{\text{Y}}$ 38'00	18°45'15	evening rise	2209 Feb 24 21:37	14° $\mathring{\text{H}}$ 28'03	
	2208 Apr 01 19:06	0° $\mathring{\text{B}}$		asc. node	2209 Mar 04 08:52	28° $\mathring{\text{H}}$ 02'58	
retrograde	2208 Apr 06 21:54	1° $\mathring{\text{B}}$ 34'30			2209 Mar 05 12:35	0° $\mathring{\text{Y}}$	
evening set	2208 Apr 09 03:27	1° $\mathring{\text{B}}$ 17'38		evening max el	2209 Mar 13 02:54	10° $\mathring{\text{Y}}$ 20'54	18°16'23
	2208 Apr 12 08:54	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$		retrograde	2209 Mar 20 05:01	13° $\mathring{\text{Y}}$ 53'10	
inferior conj	2208 Apr 16 23:49	26° $\mathring{\text{Y}}$ 55'59	2°03'48	evening set	2209 Mar 22 16:18	13° $\mathring{\text{Y}}$ 28'18	
minimum elong	2208 Apr 17 03:41	26° $\mathring{\text{Y}}$ 48'48	2°02'40	inferior conj	2209 Mar 29 18:51	8° $\mathring{\text{Y}}$ 45'19	3°04'52
min. Earth dist.	2208 Apr 20 07:15	24° $\mathring{\text{Y}}$ 30'08	0.57434 AU	minimum elong	2209 Mar 29 22:15	8° $\mathring{\text{Y}}$ 37'58	3°04'13
morning rise	2208 Apr 24 23:32	21° $\mathring{\text{Y}}$ 44'22		min. Earth dist.	2209 Apr 02 04:47	5° $\mathring{\text{Y}}$ 49'31	0.59484 AU
desc. node	2208 Apr 24 15:37	21° $\mathring{\text{Y}}$ 53'25		morning rise	2209 Apr 06 00:31	3° $\mathring{\text{Y}}$ 07'00	
direct	2208 Apr 30 13:11	20° $\mathring{\text{Y}}$ 28'20		desc. node	2209 Apr 11 12:39	1° $\mathring{\text{Y}}$ 17'08	
morning max el	2208 May 14 21:27	27° $\mathring{\text{Y}}$ 59'57	26°15'38	direct	2209 Apr 12 10:15	1° $\mathring{\text{Y}}$ 14'57	
	2208 May 16 20:35	0° $\mathring{\text{B}}$		morning max el	2209 Apr 26 18:21	9° $\mathring{\text{Y}}$ 01'55	27°19'54
	2208 Jun 05 23:06	0° $\mathring{\text{II}}$			2209 May 12 18:47	0° $\mathring{\text{B}}$	
morning set	2208 Jun 12 10:28	12° $\mathring{\text{II}}$ 58'01		morning set	2209 May 27 19:06	27° $\mathring{\text{B}}$ 42'23	
asc. node	2208 Jun 13 11:05	15° $\mathring{\text{II}}$ 08'29			2209 May 28 21:20	0° $\mathring{\text{II}}$	
				asc. node	2209 May 31 08:10	5° $\mathring{\text{II}}$ 14'38	
superior conj	2208 Jun 19 11:12	28° $\mathring{\text{II}}$ 13'21	0°59'38				
minimum elong	2208 Jun 19 08:59	28° $\mathring{\text{II}}$ 01'13	0°59'13	superior conj	2209 Jun 03 22:58	13° $\mathring{\text{II}}$ 09'19	0°37'25
max. Earth dist.	2208 Jun 19 22:28	29° $\mathring{\text{II}}$ 15'20	1.32325 AU	minimum elong	2209 Jun 03 21:23	13° $\mathring{\text{II}}$ 00'38	0°37'05
	2208 Jun 20 06:36	0° $\mathring{\text{B}}$		max. Earth dist.	2209 Jun 03 10:51	12° $\mathring{\text{II}}$ 02'38	1.32166 AU
evening rise	2208 Jun 26 11:11	13° $\mathring{\text{B}}$ 19'42		evening rise	2209 Jun 10 20:27	28° $\mathring{\text{II}}$ 08'59	
	2208 Jul 04 23:57	0° $\mathring{\text{O}}$					

	2209 Jun 11 17:34	0°☿		behind sun end	2210 May 19 12:05	28°♄12'07	
	2209 Jun 28 13:30	0°♌			2210 May 20 07:49	0°♈	
desc. node	2209 Jul 08 11:56	12°♌10'55		evening rise	2210 May 26 07:54	13°♈01'13	
evening max el	2209 Jul 09 04:56	12°♌52'13	26°02'18		2210 Jun 03 21:48	0°☿	
retrograde	2209 Jul 23 04:47	20°♌02'06		evening max el	2210 Jun 20 20:40	23°☿44'04	24°38'59
evening set	2209 Jul 29 12:28	18°♌25'39		desc. node	2210 Jun 25 08:59	27°☿27'46	
min. Earth dist.	2209 Aug 02 17:28	15°♌49'40	0.58943 AU		2210 Jun 30 06:25	0°♌	
inferior conj	2209 Aug 06 00:22	13°♌23'00	-4°-55'-36	retrograde	2210 Jul 04 18:51	0°♌47'04	
minimum elong	2209 Aug 06 02:40	13°♌18'41	4°55'28		2210 Jul 09 08:12	30°☿☿	
morning rise	2209 Aug 13 20:21	8°♌55'28		evening set	2210 Jul 09 20:36	29°☿49'00	
direct	2209 Aug 16 07:07	8°♌35'22		min. Earth dist.	2210 Jul 15 07:47	26°☿58'44	0.57014 AU
morning max el	2209 Aug 24 07:17	12°♌25'17	18°31'25	inferior conj	2210 Jul 18 03:54	25°☿08'34	-4°-54'-10
asc. node	2209 Aug 27 07:22	15°♌46'04		minimum elong	2210 Jul 18 01:07	25°☿13'06	4°54'00
	2209 Sep 05 03:38	0°♍		morning rise	2210 Jul 26 09:23	21°☿02'57	
morning set	2209 Sep 09 09:57	8°♍05'40		direct	2210 Jul 29 00:12	20°☿43'55	
				morning max el	2210 Aug 07 06:31	25°☿02'55	19°22'40
superior conj	2209 Sep 18 08:42	25°♍11'27	1°34'38		2210 Aug 11 14:41	0°♌	
minimum elong	2209 Sep 18 11:41	25°♍25'20	1°34'24	asc. node	2210 Aug 14 04:25	3°♌43'07	
	2209 Sep 20 23:24	0°♊		morning set	2210 Aug 24 10:19	22°♌26'48	
max. Earth dist.	2209 Sep 25 17:29	8°♊27'38	1.40053 AU		2210 Aug 28 04:44	0°♍	
evening rise	2209 Sep 30 00:39	15°♊47'23					
desc. node	2209 Oct 04 11:13	23°♊03'35		superior conj	2210 Sep 01 13:45	8°♍40'33	1°44'07
	2209 Oct 08 21:04	0°♋		minimum elong	2210 Sep 01 14:51	8°♍45'55	1°44'06
	2209 Oct 30 13:19	0°♊		max. Earth dist.	2210 Sep 07 21:18	20°♍39'17	1.37995 AU
evening max el	2209 Nov 03 20:35	4°♊41'05	23°46'12	evening rise	2210 Sep 11 16:42	27°♍30'14	
retrograde	2209 Nov 14 15:27	11°♊02'34			2210 Sep 13 03:00	0°♊	
evening set	2209 Nov 19 17:48	8°♊56'22		desc. node	2210 Sep 21 08:16	13°♊36'55	
asc. node	2209 Nov 23 06:36	5°♊04'33			2210 Oct 02 08:19	0°♋	
min. Earth dist.	2209 Nov 24 15:11	3°♊15'56	0.67750 AU	evening max el	2210 Oct 17 08:42	18°♋19'40	25°03'26
inferior conj	2209 Nov 25 04:31	2°♊30'33	0°39'10	retrograde	2210 Oct 29 04:08	25°♋10'26	
minimum elong	2209 Nov 25 03:36	2°♊33'41	0°38'47	evening set	2210 Nov 03 20:44	22°♋48'02	
	2209 Nov 27 01:51	30°♋♋		min. Earth dist.	2210 Nov 08 09:50	17°♋42'05	0.67315 AU
morning rise	2209 Nov 30 13:35	26°♋22'17		inferior conj	2210 Nov 09 09:50	16°♋23'23	0°-15'-19
direct	2209 Dec 04 13:28	24°♋52'20		minimum elong	2210 Nov 09 10:13	16°♋22'07	0°15'11
morning max el	2209 Dec 12 18:50	29°♋37'40	20°49'46	transit middle	2210 Nov 09 10:13	16°♋22'07	0°15'11
	2209 Dec 13 03:37	0°♊		transit begin	2210 Nov 09 09:14	16°♋25'18	
greatest brilliancy	2209 Dec 18 12:13	6°♊17'38	-0.5m	transit end	2210 Nov 09 11:11	16°♋18'56	
desc. node	2209 Dec 31 10:28	24°♊33'16		asc. node	2210 Nov 10 03:38	15°♋25'19	
	2210 Jan 04 01:32	0°♋		morning rise	2210 Nov 15 00:17	10°♋21'57	
morning set	2210 Jan 11 07:41	11°♋08'40		direct	2210 Nov 18 11:42	9°♋12'18	
max. Earth dist.	2210 Jan 19 22:08	24°♋49'13	1.42900 AU	morning max el	2210 Nov 25 20:41	13°♋23'09	19°42'04
	2210 Jan 23 02:02	0°♌		greatest brilliancy	2210 Dec 03 20:03	23°♋18'00	-0.6m
					2210 Dec 08 11:13	0°♊	
superior conj	2210 Jan 26 18:02	6°♌07'16	-2°-4'-15	desc. node	2210 Dec 18 07:30	14°♊55'28	
minimum elong	2210 Jan 26 16:10	5°♌59'24	2°04'13	morning set	2210 Dec 21 04:05	19°♊19'45	
evening rise	2210 Feb 07 15:52	26°♌51'13			2210 Dec 28 00:48	0°♋	
	2210 Feb 09 10:17	0°♈		max. Earth dist.	2211 Jan 02 09:50	8°♋28'29	1.44306 AU
asc. node	2210 Feb 19 05:55	16°♈36'40					
evening max el	2210 Feb 24 14:15	23°♈25'12	18°07'16	superior conj	2211 Jan 06 21:29	15°♋39'01	-1°-48'-57
retrograde	2210 Mar 03 03:58	26°♈48'59		minimum elong	2211 Jan 06 14:13	15°♋09'44	1°48'26
evening set	2210 Mar 05 20:23	26°♈14'42			2211 Jan 15 15:30	0°♌	
inferior conj	2210 Mar 12 08:43	21°♈10'31	3°35'31	evening rise	2211 Jan 20 14:55	8°♌22'01	
minimum elong	2210 Mar 12 10:16	21°♈06'40	3°35'23		2211 Feb 02 19:21	0°♈	
min. Earth dist.	2210 Mar 15 09:53	18°♈09'28	0.61624 AU	asc. node	2211 Feb 06 02:58	4°♈29'19	
morning rise	2210 Mar 18 21:28	15°♈14'43		evening max el	2211 Feb 08 02:52	6°♈43'15	18°17'15
direct	2210 Mar 25 17:57	12°♈50'27		retrograde	2211 Feb 14 14:00	10°♈11'51	
desc. node	2210 Mar 29 09:41	13°♈27'56		evening set	2211 Feb 17 11:30	9°♈27'08	
morning max el	2210 Apr 08 21:44	20°♈45'36	27°48'45	inferior conj	2211 Feb 23 13:18	4°♈03'15	3°42'41
	2210 Apr 16 21:24	0°♉		minimum elong	2211 Feb 23 12:58	4°♈04'10	3°42'40
	2210 May 05 17:56	0°♄		min. Earth dist.	2211 Feb 26 00:20	1°♈18'51	0.63593 AU
morning set	2210 May 11 23:17	12°♄10'48			2211 Feb 27 06:30	30°☿☿	
max. Earth dist.	2210 May 17 21:13	24°♄40'35	1.32397 AU	morning rise	2211 Mar 01 12:37	27°☿57'20	
asc. node	2210 May 18 05:12	25°♄23'57		direct	2211 Mar 08 10:25	25°☿12'29	
				desc. node	2211 Mar 16 06:42	28°☿04'51	
superior conj	2210 May 19 09:23	27°♄57'22	0°12'23		2211 Mar 18 19:41	0°♈	
minimum elong	2210 May 19 08:48	27°♄54'14	0°12'15	morning max el	2211 Mar 22 05:42	3°♈08'15	27°40'15
behind sun begin	2210 May 19 05:32	27°♄36'23			2211 Apr 11 07:01	0°♉	

morning set	2211 Apr 25 20:39	26° Υ 15'37		2212 Mar 15 05:23	0° X	
	2211 Apr 27 17:14	0° B		2212 Apr 03 01:59	0° Υ	
max. Earth dist.	2211 May 01 01:26	6° B 55'29	1.33042 AU	morning set	2212 Apr 08 08:03	9° Υ 46'24
				max. Earth dist.	2212 Apr 12 19:45	18° Υ 37'14 1.34134 AU
superior conj	2211 May 03 16:40	12° B 31'50	0°-14'-41	superior conj	2212 Apr 16 18:44	26° Υ 45'42 0°-42'-45
minimum elong	2211 May 03 17:23	12° B 35'43	0°14'32	minimum elong	2212 Apr 16 20:54	26° Υ 57'03 0°42'19
behind sun begin	2211 May 03 15:12	12° B 23'57			2212 Apr 18 07:46	0° B
behind sun end	2211 May 03 19:35	12° B 47'29		asc. node	2212 Apr 20 23:18	5° B 35'40
asc. node	2211 May 05 02:15	15° B 32'30		evening rise	2212 Apr 24 05:50	12° B 29'02
evening rise	2211 May 10 19:39	27° B 50'07			2212 May 03 07:22	0° II
	2211 May 11 20:23	0° II		evening max el	2212 May 14 05:50	14° II 51'42 21°30'38
	2211 May 29 13:29	0° B		retrograde	2212 May 26 11:22	20° II 51'11
evening max el	2211 Jun 02 10:25	4° B 13'18	23°03'24	evening set	2212 May 28 21:58	20° II 37'39
desc. node	2211 Jun 12 05:59	10° B 25'10		desc. node	2212 May 29 02:58	20° II 35'18
retrograde	2211 Jun 15 20:33	10° B 54'51		inferior conj	2212 Jun 07 07:08	16° II 37'30 -2°-35'-57
evening set	2211 Jun 19 10:09	10° B 26'58		minimum elong	2212 Jun 07 00:12	16° II 47'12 2°33'41
min. Earth dist.	2211 Jun 26 19:40	7° B 07'51	0.55566 AU	min. Earth dist.	2212 Jun 07 07:34	16° II 36'53 0.54913 AU
inferior conj	2211 Jun 28 11:53	6° B 09'23	-4°-8'-34	morning rise	2212 Jun 16 02:59	12° II 41'26
minimum elong	2211 Jun 28 04:29	6° B 20'11	4°06'59	direct	2212 Jun 19 09:10	12° II 18'18
morning rise	2211 Jul 07 01:48	2° B 16'41		morning max el	2212 Jul 01 19:33	18° II 10'55 22°05'51
direct	2211 Jul 09 22:16	1° B 57'19			2212 Jul 11 07:01	0° B
morning max el	2211 Jul 20 18:42	6° B 58'56	20°35'04	asc. node	2212 Jul 17 22:31	11° B 33'40
asc. node	2211 Aug 01 01:28	22° B 22'20		morning set	2212 Jul 23 02:16	21° B 55'17
	2211 Aug 05 03:45	0° Q			2212 Jul 26 22:03	0° Q
morning set	2211 Aug 08 16:28	7° Q 05'14				
superior conj	2211 Aug 16 06:53	22° Q 45'48	1°45'03	superior conj	2212 Jul 30 08:23	7° Q 16'27 1°39'00
minimum elong	2211 Aug 16 06:20	22° Q 43'01	1°45'02	minimum elong	2212 Jul 30 06:42	7° Q 07'32 1°38'53
	2211 Aug 19 21:28	0° P		max. Earth dist.	2212 Aug 02 19:11	14° Q 26'41 1.34533 AU
max. Earth dist.	2211 Aug 21 04:05	2° P 29'48	1.36101 AU	evening rise	2212 Aug 07 10:37	23° Q 41'58
evening rise	2211 Aug 25 05:34	10° P 12'26			2212 Aug 10 18:28	0° P
	2211 Sep 05 17:15	0° Q		desc. node	2212 Aug 25 02:19	23° P 54'50
desc. node	2211 Sep 08 05:19	3° Q 56'11			2212 Aug 29 07:45	0° Q
	2211 Sep 27 21:24	0° P		evening max el	2212 Sep 11 09:09	15° Q 34'01 27°00'02
evening max el	2211 Sep 29 20:42	1° P 59'29	26°10'37	retrograde	2212 Sep 24 14:20	22° Q 50'55
retrograde	2211 Oct 12 11:59	9° P 08'43		evening set	2212 Oct 01 09:14	20° Q 08'52
evening set	2211 Oct 18 18:36	6° P 33'30		min. Earth dist.	2212 Oct 05 07:50	16° Q 15'43 0.65421 AU
min. Earth dist.	2211 Oct 23 00:10	2° P 03'32	0.66542 AU	inferior conj	2212 Oct 07 07:04	14° Q 00'31 -2°-11'-39
inferior conj	2211 Oct 24 11:22	0° P 14'37	-1°-12'-51	minimum elong	2212 Oct 07 10:36	13° Q 50'22 2°10'18
minimum elong	2211 Oct 24 13:17	0° P 08'38	1°12'04	morning rise	2212 Oct 13 13:33	8° Q 21'23
	2211 Oct 24 16:05	30° R 11		asc. node	2212 Oct 13 21:41	8° Q 12'03
asc. node	2211 Oct 28 00:40	26° Q 12'17		direct	2212 Oct 16 06:40	7° Q 41'17
morning rise	2211 Oct 30 09:02	24° Q 22'46		morning max el	2212 Oct 22 19:25	11° Q 13'12 18°13'14
direct	2211 Nov 02 10:06	23° Q 29'50			2212 Nov 04 22:40	0° P
morning max el	2211 Nov 09 05:33	27° Q 16'28	18°49'26	morning set	2212 Nov 10 10:49	9° P 00'42
	2211 Nov 11 16:12	0° P		desc. node	2212 Nov 21 01:36	26° P 11'55
morning set	2211 Nov 30 17:01	28° P 26'21			2212 Nov 23 10:54	0° P
	2211 Dec 01 16:48	0° X				
desc. node	2211 Dec 05 04:33	5° X 29'34		superior conj	2212 Nov 25 06:33	2° X 52'53 0°-28'00
max. Earth dist.	2211 Dec 16 02:31	22° X 38'02	1.45062 AU	minimum elong	2212 Nov 25 02:57	2° X 38'38 0°27'32
				max. Earth dist.	2212 Nov 27 21:49	7° X 02'16 1.45083 AU
superior conj	2211 Dec 17 03:49	24° X 17'25	-1°-14'-45	evening rise	2212 Dec 11 16:47	28° X 34'58
minimum elong	2211 Dec 16 19:16	23° X 43'50	1°13'48		2212 Dec 12 14:38	0° B
	2211 Dec 20 18:46	0° B		greatest brilliancy	2212 Dec 27 13:34	22° B 53'20 -0.7m
evening rise	2212 Jan 01 15:09	18° B 54'50			2213 Jan 01 18:11	0° \approx
	2212 Jan 08 11:56	0° \approx		evening max el	2213 Jan 04 21:52	3° \approx 38'00 19°30'23
evening max el	2212 Jan 22 14:06	20° \approx 08'37	18°45'25	asc. node	2213 Jan 09 20:59	7° \approx 20'19
asc. node	2212 Jan 23 23:59	21° \approx 28'23		retrograde	2213 Jan 12 03:36	7° \approx 48'36
retrograde	2212 Jan 29 06:55	23° \approx 53'21		evening set	2213 Jan 15 14:09	6° \approx 39'22
evening set	2212 Feb 01 10:17	22° \approx 57'03		inferior conj	2213 Jan 21 03:37	0° \approx 42'00 3°09'26
inferior conj	2212 Feb 07 04:39	17° \approx 15'17	3°32'29	minimum elong	2213 Jan 21 01:10	0° \approx 49'58 3°08'55
minimum elong	2212 Feb 07 02:57	17° \approx 20'29	3°32'17		2213 Jan 21 16:27	30° R 13
min. Earth dist.	2212 Feb 09 00:08	15° \approx 02'31	0.65233 AU	min. Earth dist.	2213 Jan 22 08:17	29° B 08'27 0.66475 AU
morning rise	2212 Feb 12 18:27	11° \approx 03'52		morning rise	2213 Jan 26 11:27	24° B 27'43
direct	2212 Feb 19 09:58	8° \approx 13'07		direct	2213 Feb 01 15:28	21° B 44'14
desc. node	2212 Mar 02 03:43	14° \approx 31'56		morning max el	2213 Feb 14 00:34	29° B 05'27 25°51'11
morning max el	2212 Mar 03 15:18	15° \approx 58'26	26°58'27		2213 Feb 14 21:47	0° \approx

desc. node	2213 Feb 17 00:46	2° \approx 18'51		direct	2214 Jan 16 02:10	5° Z 36'57	
	2213 Mar 09 01:14	0° X		morning max el	2214 Jan 27 09:05	12° Z 20'57	24°28'16
morning set	2213 Mar 22 05:20	22° X 31'04		desc. node	2214 Feb 03 21:50	21° Z 02'24	
max. Earth dist.	2213 Mar 26 02:30	29° X 48'47	1.35690 AU		2214 Feb 10 13:55	0° \approx	
	2213 Mar 26 04:50	0° Y			2214 Mar 01 20:04	0° X	
				morning set	2214 Mar 04 07:04	4° X 15'04	
superior conj	2213 Mar 31 13:04	10° Y 31'50	-1°-10'-21	max. Earth dist.	2214 Mar 08 00:16	10° X 52'26	1.37633 AU
minimum elong	2213 Mar 31 16:35	10° Y 49'36	1°09'47				
asc. node	2213 Apr 07 20:19	25° Y 29'18		superior conj	2214 Mar 14 20:27	23° X 41'47	-1°-35'-25
evening rise	2213 Apr 08 12:27	26° Y 51'50		minimum elong	2214 Mar 15 00:45	24° X 02'38	1°34'55
	2213 Apr 10 01:34	0° Z			2214 Mar 18 01:54	0° Y	
evening max el	2213 Apr 26 12:03	26° Z 02'21	20°11'23	evening rise	2214 Mar 23 13:11	10° Y 52'09	
	2213 May 02 00:26	0° II		asc. node	2214 Mar 25 17:21	15° Y 08'58	
retrograde	2213 May 07 01:14	1° II 09'00			2214 Apr 03 00:49	0° Z	
evening set	2213 May 09 01:59	0° II 58'27		evening max el	2214 Apr 09 05:53	7° Z 53'12	19°10'52
	2213 May 12 09:46	30° R Z		retrograde	2214 Apr 18 03:19	12° Z 11'50	
desc. node	2213 May 15 23:59	28° Z 13'53		evening set	2214 Apr 20 05:41	11° Z 58'27	
inferior conj	2213 May 18 02:57	26° Z 59'50	0°-37'-14	inferior conj	2214 Apr 28 13:05	7° Z 47'10	1°13'14
minimum elong	2213 May 18 01:13	27° Z 02'24	0°36'36	minimum elong	2214 Apr 28 15:54	7° Z 42'25	1°12'17
min. Earth dist.	2213 May 19 20:26	25° Z 58'26	0.55219 AU	min. Earth dist.	2214 May 01 11:30	5° Z 48'37	0.56422 AU
morning rise	2213 May 26 22:08	22° Z 41'32		desc. node	2214 May 02 21:01	4° Z 55'51	
direct	2213 May 30 21:26	22° Z 07'17		morning rise	2214 May 06 21:59	2° Z 54'40	
morning max el	2213 Jun 13 12:10	28° Z 48'00	23°47'22	direct	2214 May 11 21:02	1° Z 57'34	
	2213 Jun 14 17:34	0° II		morning max el	2214 May 26 02:38	9° Z 14'47	25°26'18
	2213 Jul 04 06:00	0° Z			2214 Jun 10 16:00	0° II	
asc. node	2213 Jul 04 19:34	1° Z 08'17		asc. node	2214 Jun 21 16:38	20° II 59'32	
morning set	2213 Jul 07 13:51	6° Z 50'52		morning set	2214 Jun 22 01:36	21° II 46'47	
					2214 Jun 25 21:20	0° Z	
superior conj	2213 Jul 14 15:25	22° Z 03'01	1°27'17	superior conj	2214 Jun 29 01:47	6° Z 58'30	1°10'54
minimum elong	2213 Jul 14 13:08	21° Z 50'39	1°27'01	minimum elong	2214 Jun 28 23:25	6° Z 45'30	1°10'31
max. Earth dist.	2213 Jul 16 19:39	26° Z 43'00	1.33358 AU	max. Earth dist.	2214 Jun 30 03:19	9° Z 18'04	1.32584 AU
	2213 Jul 18 08:54	0° Q		evening rise	2214 Jul 06 04:58	22° Z 14'21	
evening rise	2213 Jul 22 03:34	7° Q 46'00			2214 Jul 10 01:44	0° Q	
	2213 Aug 03 06:15	0° P			2214 Jul 28 05:09	0° P	
desc. node	2213 Aug 11 23:20	13° P 23'28		desc. node	2214 Jul 29 20:20	2° P 09'34	
evening max el	2213 Aug 24 20:38	28° P 50'26	27°24'30	evening max el	2214 Aug 07 04:50	11° P 35'35	27°18'22
	2213 Aug 26 02:50	0° Q		retrograde	2214 Aug 21 00:17	18° P 51'12	
retrograde	2213 Sep 07 10:33	6° Q 08'02		evening set	2214 Aug 28 04:43	16° P 25'42	
evening set	2213 Sep 14 13:49	3° Q 28'12		min. Earth dist.	2214 Aug 31 18:51	13° P 35'29	0.62153 AU
	2213 Sep 18 10:30	30° R P		inferior conj	2214 Sep 03 18:31	10° P 50'08	-4°-1'-27
min. Earth dist.	2213 Sep 18 06:33	0° Q 10'00	0.63950 AU	minimum elong	2214 Sep 03 23:56	10° P 37'36	4°00'08
inferior conj	2213 Sep 20 18:26	27° P 34'37	-3°-9'-12	morning rise	2214 Sep 10 21:55	5° P 47'03	
minimum elong	2213 Sep 20 23:20	27° P 21'53	3°07'36	direct	2214 Sep 13 06:56	5° P 22'19	
morning rise	2213 Sep 27 11:01	22° P 11'47		asc. node	2214 Sep 17 15:49	6° P 48'33	
direct	2213 Sep 29 22:44	21° P 40'55		morning max el	2214 Sep 20 03:02	8° P 50'03	17°53'19
asc. node	2213 Sep 30 18:44	21° P 44'26			2214 Oct 03 23:22	0° Q	
morning max el	2213 Oct 06 11:32	25° P 06'32	17°54'14	morning set	2214 Oct 06 01:33	3° Q 45'56	
	2213 Oct 10 12:37	0° Q					
morning set	2213 Oct 23 07:41	20° Q 53'23		superior conj	2214 Oct 17 00:25	23° Q 07'35	0°57'52
	2213 Oct 28 15:49	0° R		minimum elong	2214 Oct 17 04:53	23° Q 26'40	0°57'18
superior conj	2213 Nov 05 02:08	12° R 20'40	0°19'18		2214 Oct 21 02:06	0° R	
minimum elong	2213 Nov 05 04:14	12° R 29'16	0°19'00	max. Earth dist.	2214 Oct 24 06:25	5° R 14'28	1.43018 AU
desc. node	2213 Nov 07 22:37	16° R 58'17		desc. node	2214 Oct 25 19:38	7° R 45'35	
max. Earth dist.	2213 Nov 10 16:10	21° R 20'45	1.44369 AU	evening rise	2214 Oct 31 13:58	16° R 55'01	
	2213 Nov 16 03:57	0° Z			2214 Nov 09 03:13	0° Z	
evening rise	2213 Nov 21 03:14	7° Z 42'10		greatest brilliancy	2214 Nov 27 01:04	25° Z 06'57	-0.4m
	2213 Dec 05 22:37	0° Z			2214 Dec 01 06:22	0° Z	
greatest brilliancy	2213 Dec 12 23:56	9° Z 54'42	-0.5m	evening max el	2214 Dec 01 21:29	0° Z 39'14	21°41'38
evening max el	2213 Dec 19 00:32	17° Z 08'26	20°30'12	retrograde	2214 Dec 10 22:44	6° Z 02'30	
retrograde	2213 Dec 27 01:34	21° Z 52'58		asc. node	2214 Dec 14 15:03	4° Z 48'14	
asc. node	2213 Dec 27 18:00	21° Z 50'21		evening set	2214 Dec 15 04:43	4° Z 23'04	
evening set	2213 Dec 30 20:55	20° Z 29'19			2214 Dec 19 04:15	30° R Z	
inferior conj	2214 Jan 05 07:32	14° Z 19'12	2°36'32	inferior conj	2214 Dec 20 14:14	28° Z 03'42	1°55'48
minimum elong	2214 Jan 05 04:56	14° Z 28'04	2°35'47	minimum elong	2214 Dec 20 11:57	28° Z 11'35	1°54'59
min. Earth dist.	2214 Jan 05 22:56	13° Z 26'50	0.67301 AU	min. Earth dist.	2214 Dec 20 17:50	27° Z 51'13	0.67746 AU
morning rise	2214 Jan 10 12:29	8° Z 03'58		morning rise	2214 Dec 25 18:56	21° Z 49'18	

direct	2214 Dec 30 17:24	19° $\overline{\text{A}}$ 43'42		min. Earth dist.	2215 Dec 04 14:34	12° $\overline{\text{A}}$ 18'26	0.67842 AU
morning max el	2215 Jan 09 18:37	25° $\overline{\text{A}}$ 41'30	22°59'40	morning rise	2215 Dec 10 04:37	5° $\overline{\text{A}}$ 42'10	
	2215 Jan 13 16:37	0° $\overline{\text{B}}$		direct	2215 Dec 14 12:25	3° $\overline{\text{A}}$ 59'19	
greatest brilliancy	2215 Jan 14 13:26	1° $\overline{\text{B}}$ 02'07	-0.3m	morning max el	2215 Dec 23 08:34	9° $\overline{\text{A}}$ 09'42	21°34'27
desc. node	2215 Jan 21 18:52	10° $\overline{\text{B}}$ 25'55		greatest brilliancy	2215 Dec 28 07:40	14° $\overline{\text{A}}$ 47'56	-0.4m
	2215 Feb 04 03:00	0° \approx			2216 Jan 08 10:50	0° $\overline{\text{B}}$	
morning set	2215 Feb 13 06:58	14° \approx 41'36		desc. node	2216 Jan 08 15:54	0° $\overline{\text{B}}$ 18'23	
max. Earth dist.	2215 Feb 17 19:28	22° \approx 20'23	1.39777 AU	morning set	2216 Jan 24 01:45	23° $\overline{\text{B}}$ 45'14	
	2215 Feb 22 04:13	0° H			2216 Jan 27 23:08	0° \approx	
				max. Earth dist.	2216 Jan 30 19:07	4° \approx 38'29	1.41854 AU
superior conj	2215 Feb 25 12:35	6° H 04'03	-1°-55'00				
minimum elong	2215 Feb 25 16:22	6° H 21'24	1°54'45	superior conj	2216 Feb 07 08:27	17° \approx 26'57	-2°-4'-54
evening rise	2215 Mar 07 05:01	24° H 21'13		minimum elong	2216 Feb 07 09:24	17° \approx 31'06	2°04'54
	2215 Mar 10 04:21	0° Y			2216 Feb 14 09:52	0° H	
asc. node	2215 Mar 12 14:24	4° Y 28'34		evening rise	2216 Feb 18 08:21	7° H 10'52	
evening max el	2215 Mar 23 09:04	20° Y 19'25	18°30'30	asc. node	2216 Feb 27 11:26	23° H 21'28	
retrograde	2215 Mar 30 23:45	24° Y 03'57			2216 Mar 02 23:04	0° Y	
evening set	2215 Apr 02 07:36	23° Y 44'04		evening max el	2216 Mar 05 18:27	3° Y 12'50	18°10'08
inferior conj	2215 Apr 09 20:02	19° Y 13'35	2°33'48	retrograde	2216 Mar 12 13:59	6° Y 39'29	
minimum elong	2215 Apr 09 23:59	19° Y 05'45	2°32'48	evening set	2216 Mar 15 03:28	6° Y 10'49	
min. Earth dist.	2215 Apr 13 06:18	16° Y 31'50	0.58268 AU	inferior conj	2216 Mar 21 23:33	1° Y 19'03	3°21'09
morning rise	2215 Apr 17 12:06	13° Y 49'00		minimum elong	2216 Mar 22 02:14	1° Y 12'52	3°20'45
desc. node	2215 Apr 19 18:03	12° Y 53'26			2216 Mar 23 09:41	30° R H	
direct	2215 Apr 23 11:03	12° Y 17'51		min. Earth dist.	2216 Mar 25 06:56	28° H 17'42	0.60407 AU
morning max el	2215 May 07 20:21	19° Y 57'59	26°46'56	morning rise	2216 Mar 28 21:41	25° H 32'12	
	2215 May 16 10:09	0° B		direct	2216 Apr 04 13:23	23° H 24'58	
	2215 Jun 03 06:30	0° II		desc. node	2216 Apr 05 15:05	23° H 28'09	
morning set	2215 Jun 06 11:50	6° II 36'33			2216 Apr 17 11:50	0° Y	
asc. node	2215 Jun 08 13:41	11° II 01'14		morning max el	2216 Apr 18 19:59	1° Y 16'46	27°36'36
					2216 May 09 14:40	0° B	
superior conj	2215 Jun 13 13:32	21° II 55'36	0°50'35	morning set	2216 May 20 18:48	21° B 14'23	
minimum elong	2215 Jun 13 11:32	21° II 44'38	0°50'12		2216 May 24 22:01	0° II	
max. Earth dist.	2215 Jun 13 14:51	22° II 02'52	1.32204 AU	asc. node	2216 May 25 10:44	1° II 08'54	
	2215 Jun 17 05:55	0° B		max. Earth dist.	2216 May 27 02:35	4° II 46'10	1.32214 AU
evening rise	2215 Jun 20 11:59	6° B 57'33					
	2215 Jul 02 14:44	0° Q		superior conj	2216 May 28 00:55	6° II 48'36	0°27'05
desc. node	2215 Jul 16 17:22	19° Q 55'04		minimum elong	2216 May 27 23:44	6° II 42'03	0°26'50
evening max el	2215 Jul 20 07:19	23° Q 37'57	26°39'07	evening rise	2216 Jun 03 22:23	21° II 48'23	
	2215 Jul 29 17:27	0° H			2216 Jun 07 21:48	0° B	
retrograde	2215 Aug 03 06:33	0° H 50'52			2216 Jun 26 13:30	0° Q	
	2215 Aug 07 17:11	30° R Q		evening max el	2216 Jul 01 02:47	4° Q 53'47	25°29'21
evening set	2215 Aug 10 01:21	28° Q 53'25		desc. node	2216 Jul 02 14:23	6° Q 15'10	
min. Earth dist.	2215 Aug 13 20:59	26° Q 17'16	0.60123 AU	retrograde	2216 Jul 15 03:06	12° Q 01'47	
inferior conj	2215 Aug 17 03:50	23° Q 38'01	-4°-41'-48	evening set	2216 Jul 20 23:10	10° Q 42'09	
minimum elong	2215 Aug 17 08:00	23° Q 29'32	4°41'15	min. Earth dist.	2216 Jul 25 14:54	8° Q 01'51	0.58078 AU
morning rise	2215 Aug 24 17:59	18° Q 57'16		inferior conj	2216 Jul 28 18:56	5° Q 48'39	-4°-59'-40
direct	2215 Aug 27 03:08	18° Q 36'10		minimum elong	2216 Jul 28 19:17	5° Q 48'01	4°59'41
morning max el	2215 Sep 03 14:42	22° Q 15'18	18°11'42	morning rise	2216 Aug 05 19:02	1° Q 30'41	
asc. node	2215 Sep 04 12:53	23° Q 11'43		direct	2216 Aug 08 07:10	1° Q 11'16	
	2215 Sep 09 15:52	0° H		morning max el	2216 Aug 16 19:15	5° Q 12'30	18°50'38
morning set	2215 Sep 19 10:41	17° H 22'16		asc. node	2216 Aug 21 09:57	10° Q 38'29	
	2215 Sep 26 04:26	0° B			2216 Sep 01 12:10	0° H	
				morning set	2216 Sep 02 06:29	1° H 29'32	
superior conj	2215 Sep 29 00:13	5° B 09'32	1°24'31				
minimum elong	2215 Sep 29 04:09	5° B 27'16	1°24'08	superior conj	2216 Sep 10 20:07	18° H 10'41	1°39'49
max. Earth dist.	2215 Oct 06 15:06	18° B 29'38	1.41205 AU	minimum elong	2216 Sep 10 22:18	18° H 21'05	1°39'42
evening rise	2215 Oct 11 16:50	26° B 54'20			2216 Sep 17 05:42	0° B	
desc. node	2215 Oct 12 16:41	28° B 30'44		max. Earth dist.	2216 Sep 17 19:35	1° B 01'57	1.39167 AU
	2215 Oct 13 14:55	0° M		evening rise	2216 Sep 21 19:17	7° B 59'02	
	2215 Nov 02 20:41	0° $\overline{\text{A}}$		desc. node	2216 Sep 28 13:42	19° B 09'30	
greatest brilliancy	2215 Nov 09 02:23	8° $\overline{\text{A}}$ 04'00	-0.2m		2216 Oct 05 14:15	0° M	
evening max el	2215 Nov 14 13:35	14° $\overline{\text{A}}$ 12'35	23°00'11	evening max el	2216 Oct 27 02:41	27° M 49'39	24°19'55
retrograde	2215 Nov 24 17:31	20° $\overline{\text{A}}$ 14'26			2216 Oct 29 10:42	0° $\overline{\text{A}}$	
evening set	2215 Nov 29 11:54	18° $\overline{\text{A}}$ 18'15		retrograde	2216 Nov 07 08:33	4° $\overline{\text{A}}$ 24'37	
asc. node	2215 Dec 01 12:06	16° $\overline{\text{A}}$ 18'55		evening set	2216 Nov 12 16:49	2° $\overline{\text{A}}$ 11'36	
inferior conj	2215 Dec 04 21:47	11° $\overline{\text{A}}$ 53'32	1°08'43		2216 Nov 14 21:09	30° R M	
minimum elong	2215 Dec 04 20:16	11° $\overline{\text{A}}$ 58'48	1°08'06	asc. node	2216 Nov 17 09:09	26° M 50'31	

min. Earth dist.	2216 Nov 17 10:40	26° \mathbb{M} 45'27	0.67604 AU	min. Earth dist.	2217 Nov 01 03:42	11° \mathbb{M} 10'00	0.67033 AU
inferior conj	2216 Nov 18 04:24	25° \mathbb{M} 45'50	0°16'33	inferior conj	2217 Nov 02 08:20	9° \mathbb{M} 38'14	0°-39'-26
minimum elong	2216 Nov 18 04:00	25° \mathbb{M} 47'12	0°16'22	minimum elong	2217 Nov 02 09:21	9° \mathbb{M} 34'58	0°39'01
morning rise	2216 Nov 23 15:30	19° \mathbb{M} 39'55		asc. node	2217 Nov 04 06:10	7° \mathbb{M} 15'23	
direct	2216 Nov 27 09:55	18° \mathbb{M} 18'47		morning rise	2217 Nov 08 01:39	3° \mathbb{M} 40'34	
morning max el	2216 Dec 05 05:41	22° \mathbb{M} 48'07	20°19'12	direct	2217 Nov 11 08:30	2° \mathbb{M} 38'19	
	2216 Dec 11 07:33	0° \mathbb{M}		morning max el	2217 Nov 18 10:40	6° \mathbb{M} 37'11	19°17'46
greatest brilliancy	2216 Dec 11 18:21	0° \mathbb{M} 35'46	-0.5m	greatest brilliancy	2217 Nov 28 04:39	19° \mathbb{M} 14'42	-0.7m
desc. node	2216 Dec 25 12:56	20° \mathbb{M} 31'19			2217 Dec 05 07:33	0° \mathbb{M}	
	2216 Dec 31 17:57	0° \mathbb{M}		morning set	2217 Dec 12 00:41	10° \mathbb{M} 23'06	
morning set	2217 Jan 01 23:48	1° \mathbb{M} 55'12		desc. node	2217 Dec 12 09:58	10° \mathbb{M} 59'09	
max. Earth dist.	2217 Jan 12 02:46	17° \mathbb{M} 51'54	1.43578 AU		2217 Dec 24 14:02	0° \mathbb{M}	
				max. Earth dist.	2217 Dec 25 17:32	1° \mathbb{M} 48'28	1.44723 AU
superior conj	2217 Jan 18 03:08	27° \mathbb{M} 39'34	-2°00'-6	superior conj	2217 Dec 28 20:13	6° \mathbb{M} 44'18	-1°-36'-34
minimum elong	2217 Jan 17 22:52	27° \mathbb{M} 21'56	1°59'56	minimum elong	2217 Dec 28 11:34	6° \mathbb{M} 09'57	1°35'48
	2217 Jan 19 13:01	0° \mathbb{M}		evening rise	2218 Jan 12 08:31	0° \mathbb{M} 18'33	
evening rise	2217 Jan 30 18:52	19° \mathbb{M} 12'03			2218 Jan 12 04:02	0° \mathbb{M}	
	2217 Feb 06 00:15	0° \mathbb{M}		asc. node	2218 Jan 31 05:28	29° \mathbb{M} 10'12	
asc. node	2217 Feb 13 08:28	11° \mathbb{M} 38'49		evening max el	2218 Jan 31 19:02	29° \mathbb{M} 45'39	18°27'01
evening max el	2217 Feb 17 06:43	16° \mathbb{M} 23'57	18°09'14		2218 Feb 01 00:46	0° \mathbb{M}	
retrograde	2217 Feb 23 18:02	19° \mathbb{M} 47'50		retrograde	2218 Feb 07 07:30	3° \mathbb{M} 19'40	
evening set	2217 Feb 26 12:42	19° \mathbb{M} 09'06		evening set	2218 Feb 10 07:28	2° \mathbb{M} 30'01	
inferior conj	2217 Mar 04 20:08	13° \mathbb{M} 56'23	3°40'59		2218 Feb 13 11:35	30° \mathbb{R}	
minimum elong	2217 Mar 04 20:50	13° \mathbb{M} 54'31	3°40'57	inferior conj	2218 Feb 16 05:43	26° \mathbb{M} 57'58	3°40'08
min. Earth dist.	2217 Mar 07 15:42	11° \mathbb{M} 00'14	0.62505 AU	minimum elong	2218 Feb 16 04:44	27° \mathbb{M} 00'50	3°40'05
morning rise	2217 Mar 11 02:45	7° \mathbb{M} 55'53		min. Earth dist.	2218 Feb 18 10:01	24° \mathbb{M} 26'00	0.64341 AU
direct	2217 Mar 18 01:03	5° \mathbb{M} 21'07		morning rise	2218 Feb 22 00:33	20° \mathbb{M} 49'22	
desc. node	2217 Mar 23 12:06	6° \mathbb{M} 44'55		direct	2218 Feb 28 20:24	18° \mathbb{M} 00'38	
morning max el	2217 Apr 01 01:21	13° \mathbb{M} 16'48	27°49'29	desc. node	2218 Mar 10 09:08	22° \mathbb{M} 12'55	
	2217 Apr 14 10:52	0° \mathbb{M}		morning max el	2218 Mar 14 10:24	25° \mathbb{M} 52'40	27°26'11
	2217 May 02 01:13	0° \mathbb{M}			2218 Mar 18 05:55	0° \mathbb{M}	
morning set	2217 May 04 20:23	5° \mathbb{M} 33'35			2218 Apr 07 23:31	0° \mathbb{M}	
max. Earth dist.	2217 May 10 10:49	17° \mathbb{M} 15'49	1.32621 AU	morning set	2218 Apr 18 13:56	19° \mathbb{M} 25'00	
				max. Earth dist.	2218 Apr 23 11:28	29° \mathbb{M} 18'31	1.33455 AU
superior conj	2217 May 12 10:14	21° \mathbb{M} 31'43	0°01'05		2218 Apr 23 19:28	0° \mathbb{M}	
minimum elong	2217 May 12 10:11	21° \mathbb{M} 31'27	0°01'05	superior conj	2218 Apr 26 15:34	5° \mathbb{M} 58'02	0°-26'-32
behind sun begin	2217 May 12 05:01	21° \mathbb{M} 03'24		minimum elong	2218 Apr 26 16:53	6° \mathbb{M} 05'06	0°26'16
behind sun end	2217 May 12 15:22	21° \mathbb{M} 59'31		asc. node	2218 Apr 29 04:48	11° \mathbb{M} 24'58	
asc. node	2217 May 12 07:47	21° \mathbb{M} 18'22		evening rise	2218 May 03 21:32	21° \mathbb{M} 25'48	
	2217 May 16 07:42	0° \mathbb{M}			2218 May 08 02:05	0° \mathbb{M}	
evening rise	2217 May 19 10:12	6° \mathbb{M} 40'14		evening max el	2218 May 25 08:13	26° \mathbb{M} 02'08	22°22'44
	2217 May 31 17:46	0° \mathbb{M}			2218 May 30 07:52	0° \mathbb{M}	
evening max el	2217 Jun 12 17:04	15° \mathbb{M} 33'23	23°58'56	desc. node	2218 Jun 06 08:24	2° \mathbb{M} 26'02	
desc. node	2217 Jun 19 11:23	20° \mathbb{M} 37'33		retrograde	2218 Jun 07 07:55	2° \mathbb{M} 28'14	
retrograde	2217 Jun 26 11:36	22° \mathbb{M} 28'47		evening set	2218 Jun 10 08:23	2° \mathbb{M} 08'06	
evening set	2217 Jun 30 22:00	21° \mathbb{M} 45'24			2218 Jun 15 22:59	30° \mathbb{R}	
min. Earth dist.	2217 Jul 07 03:43	18° \mathbb{M} 44'30	0.56320 AU	min. Earth dist.	2218 Jun 18 15:00	28° \mathbb{M} 33'16	0.55178 AU
inferior conj	2217 Jul 09 13:53	17° \mathbb{M} 15'15	-4°-40'-53	inferior conj	2218 Jun 19 15:07	27° \mathbb{M} 59'11	-3°-34'-19
minimum elong	2217 Jul 09 08:46	17° \mathbb{M} 23'08	4°40'12	minimum elong	2218 Jun 19 07:07	28° \mathbb{M} 10'29	3°32'11
morning rise	2217 Jul 17 23:02	13° \mathbb{M} 16'27		morning rise	2218 Jun 28 08:07	24° \mathbb{M} 07'54	
direct	2217 Jul 20 16:16	12° \mathbb{M} 57'20		direct	2218 Jul 01 08:09	23° \mathbb{M} 47'31	
morning max el	2217 Jul 30 13:53	17° \mathbb{M} 32'58	19°50'58	morning max el	2218 Jul 12 21:04	29° \mathbb{M} 09'39	21°11'50
asc. node	2217 Aug 08 07:00	28° \mathbb{M} 55'02			2218 Jul 13 18:03	0° \mathbb{M}	
	2217 Aug 08 22:36	0° \mathbb{M}		asc. node	2218 Jul 26 04:02	17° \mathbb{M} 48'49	
morning set	2217 Aug 17 09:38	15° \mathbb{M} 59'12			2218 Aug 01 09:12	0° \mathbb{M}	
	2217 Aug 24 07:29	0° \mathbb{M}		morning set	2218 Aug 01 17:34	0° \mathbb{M} 43'12	
superior conj	2217 Aug 25 06:49	1° \mathbb{M} 56'36	1°45'28	superior conj	2218 Aug 09 03:54	16° \mathbb{M} 13'41	1°43'16
minimum elong	2217 Aug 25 07:10	1° \mathbb{M} 58'20	1°45'28	minimum elong	2218 Aug 09 02:48	16° \mathbb{M} 08'00	1°43'12
max. Earth dist.	2217 Aug 31 00:21	13° \mathbb{M} 03'19	1.37158 AU	max. Earth dist.	2218 Aug 13 10:27	24° \mathbb{M} 54'23	1.35387 AU
evening rise	2217 Sep 03 20:45	20° \mathbb{M} 08'34			2218 Aug 16 00:51	0° \mathbb{M}	
	2217 Sep 09 12:37	0° \mathbb{M}		evening rise	2218 Aug 17 17:01	3° \mathbb{M} 11'48	
desc. node	2217 Sep 15 10:45	9° \mathbb{M} 37'40		desc. node	2218 Sep 02 07:46	29° \mathbb{M} 48'52	
	2217 Sep 29 15:16	0° \mathbb{M}			2218 Sep 02 10:41	0° \mathbb{M}	
evening max el	2217 Oct 09 14:47	11° \mathbb{M} 29'54	25°33'43	evening max el	2218 Sep 22 02:53	25° \mathbb{M} 07'39	26°34'11
retrograde	2217 Oct 21 19:04	18° \mathbb{M} 29'02					
evening set	2217 Oct 27 17:48	16° \mathbb{M} 00'44					

	2218 Sep 28 03:13	0°♄		retrograde	2219 Sep 18 00:32	15°♄53'24	
retrograde	2218 Oct 05 00:31	2°♄21'11		evening set	2219 Sep 24 23:38	13°♄10'42	
	2218 Oct 11 03:50	30°♄		min. Earth dist.	2219 Sep 28 19:22	9°♄33'02	0.64832 AU
evening set	2218 Oct 11 12:53	29°♄41'52		inferior conj	2219 Oct 01 00:04	7°♄07'57	-2°-36'-28
min. Earth dist.	2218 Oct 15 15:20	25°♄27'53	0.66110 AU	minimum elong	2219 Oct 01 04:15	6°♄56'26	2°34'58
inferior conj	2218 Oct 17 07:37	23°♄27'03	-1°-37'-47	morning rise	2219 Oct 07 10:46	1°♄35'34	
minimum elong	2218 Oct 17 10:14	23°♄19'11	1°36'44	asc. node	2219 Oct 09 00:16	1°♄05'41	
asc. node	2218 Oct 22 03:12	18°♄28'22		direct	2219 Oct 10 01:09	0°♄59'58	
morning rise	2218 Oct 23 08:53	17°♄40'31		morning max el	2219 Oct 16 13:14	4°♄28'24	18°03'02
direct	2218 Oct 26 06:17	16°♄53'32			2219 Nov 02 13:22	0°♄	
morning max el	2218 Nov 01 22:01	20°♄32'35	18°32'04	morning set	2219 Nov 03 07:16	1°♄14'47	
	2218 Nov 09 06:27	0°♄		desc. node	2219 Nov 16 04:04	22°♄21'18	
morning set	2218 Nov 22 01:24	20°♄06'03					
	2218 Nov 28 06:30	0°♄		superior conj	2219 Nov 17 06:07	24°♄05'32	0°-7'-19
desc. node	2218 Nov 29 07:02	1°♄37'12		minimum elong	2219 Nov 17 05:12	24°♄01'54	0°07'13
				behind sun begin	2219 Nov 16 19:36	23°♄23'31	
superior conj	2218 Dec 07 22:18	15°♄13'41	0°-55'-47	behind sun end	2219 Nov 17 14:48	24°♄40'15	
minimum elong	2218 Dec 07 15:18	14°♄46'14	0°54'55		2219 Nov 20 23:21	0°♄	
max. Earth dist.	2218 Dec 08 11:56	16°♄07'14	1.45157 AU	max. Earth dist.	2219 Nov 21 06:39	0°♄28'46	1.44853 AU
	2218 Dec 17 07:55	0°♄		evening rise	2219 Dec 03 16:28	19°♄49'33	
evening rise	2218 Dec 23 22:52	10°♄28'10			2219 Dec 10 07:14	0°♄	
	2219 Jan 05 08:39	0°♄		greatest brilliancy	2219 Dec 22 06:29	17°♄46'23	-0.6m
evening max el	2219 Jan 15 04:58	13°♄13'02	19°02'32	evening max el	2219 Dec 29 10:39	26°♄42'33	19°54'14
asc. node	2219 Jan 18 02:29	15°♄42'49			2220 Jan 02 09:50	0°♄	
retrograde	2219 Jan 22 02:33	17°♄08'04		asc. node	2220 Jan 04 23:31	1°♄01'24	
evening set	2219 Jan 25 08:44	16°♄06'28		retrograde	2220 Jan 06 00:07	1°♄07'13	
inferior conj	2219 Jan 31 00:42	10°♄17'30	3°24'05		2220 Jan 09 09:31	30°♄	
minimum elong	2219 Jan 30 22:37	10°♄24'05	3°23'46	evening set	2220 Jan 09 14:04	29°♄52'14	
min. Earth dist.	2219 Feb 01 13:40	8°♄20'56	0.65806 AU	inferior conj	2220 Jan 15 02:06	23°♄49'06	2°56'35
morning rise	2219 Feb 05 11:33	4°♄04'21		minimum elong	2220 Jan 14 23:31	23°♄57'42	2°55'56
direct	2219 Feb 11 22:29	1°♄15'29		min. Earth dist.	2220 Jan 16 01:00	22°♄32'47	0.66867 AU
morning max el	2219 Feb 24 20:21	8°♄52'45	26°32'29	morning rise	2220 Jan 20 08:20	17°♄33'56	
desc. node	2219 Feb 25 06:10	9°♄17'40		direct	2220 Jan 26 06:26	14°♄56'22	
	2219 Mar 13 09:59	0°♄		morning max el	2220 Feb 07 05:15	22°♄04'07	25°17'14
	2219 Mar 31 10:06	0°♄		desc. node	2220 Feb 12 03:13	27°♄30'54	
morning set	2219 Apr 01 19:58	2°♄38'29			2220 Feb 14 03:58	0°♄	
max. Earth dist.	2219 Apr 06 01:11	10°♄47'39	1.34743 AU		2220 Mar 05 16:39	0°♄	
				morning set	2220 Mar 14 09:44	14°♄59'38	
superior conj	2219 Apr 10 14:42	20°♄01'13	0°-54'-36	max. Earth dist.	2220 Mar 18 03:13	21°♄50'43	1.36474 AU
minimum elong	2219 Apr 10 17:28	20°♄15'33	0°54'06		2220 Mar 22 09:30	0°♄	
	2219 Apr 15 09:38	0°♄					
asc. node	2219 Apr 16 01:50	1°♄24'42		superior conj	2220 Mar 24 04:50	3°♄33'03	-1°-21'-27
evening rise	2219 Apr 18 06:31	5°♄59'01		minimum elong	2220 Mar 24 08:47	3°♄52'41	1°20'53
	2219 May 01 13:56	0°♄		evening rise	2220 Apr 01 10:57	20°♄12'48	
evening max el	2219 May 07 07:45	6°♄51'58	20°54'46	asc. node	2220 Apr 01 22:51	21°♄12'48	
retrograde	2219 May 18 21:15	12°♄30'01			2220 Apr 06 10:26	0°♄	
evening set	2219 May 21 01:26	12°♄18'48		evening max el	2220 Apr 18 19:07	18°♄19'56	19°43'13
desc. node	2219 May 24 05:23	11°♄25'56		retrograde	2220 Apr 28 14:46	23°♄04'34	
inferior conj	2219 May 30 08:47	8°♄21'01	-1°-46'-44	evening set	2220 Apr 30 15:12	22°♄53'27	
minimum elong	2219 May 30 03:47	8°♄28'08	1°44'58	inferior conj	2220 May 09 09:24	18°♄51'10	0°12'19
min. Earth dist.	2219 May 31 03:21	7°♄54'39	0.54924 AU	minimum elong	2220 May 09 09:56	18°♄50'19	0°12'09
morning rise	2219 Jun 08 05:27	4°♄17'30		transit middle	2220 May 09 09:56	18°♄50'19	0°12'09
direct	2219 Jun 11 17:30	3°♄51'04		transit begin	2220 May 09 07:23	18°♄54'18	
morning max el	2219 Jun 24 18:02	10°♄05'18	22°48'24	transit end	2220 May 09 12:30	18°♄46'19	
	2219 Jul 09 05:26	0°♄		desc. node	2220 May 10 02:24	18°♄24'34	
asc. node	2219 Jul 13 01:05	7°♄10'37		min. Earth dist.	2220 May 11 17:22	17°♄24'08	0.55634 AU
morning set	2219 Jul 17 04:19	15°♄35'55		morning rise	2220 May 18 01:15	14°♄18'30	
	2219 Jul 23 22:21	0°♄		direct	2220 May 22 10:13	13°♄35'55	
				morning max el	2220 Jun 05 09:00	20°♄34'42	24°30'36
superior conj	2219 Jul 24 08:06	0°♄52'00	1°34'40		2220 Jun 13 10:42	0°♄	
minimum elong	2219 Jul 24 06:05	0°♄41'16	1°34'28	asc. node	2220 Jun 28 22:10	26°♄52'51	
max. Earth dist.	2219 Jul 27 05:20	6°♄56'57	1.33981 AU		2220 Jun 30 10:06	0°♄	
evening rise	2219 Aug 01 03:36	16°♄56'56		morning set	2220 Jun 30 16:11	0°♄32'06	
	2219 Aug 08 02:39	0°♄					
desc. node	2219 Aug 20 04:46	19°♄35'36		superior conj	2220 Jul 07 16:50	15°♄43'20	1°20'51
	2219 Aug 27 21:01	0°♄		minimum elong	2220 Jul 07 14:27	15°♄30'21	1°20'32
evening max el	2219 Sep 04 14:53	8°♄34'42	27°13'49	max. Earth dist.	2220 Jul 09 09:03	19°♄21'01	1.32979 AU

	2220 Jul 14 10:19	0°♄		superior conj	2221 Jun 22 04:00	0°♄40'08	1°02'43
evening rise	2220 Jul 15 00:34	1°♄12'44		minimum elong	2221 Jun 22 01:44	0°♄27'41	1°02'19
	2220 Jul 31 01:18	0°♄		max. Earth dist.	2221 Jun 22 18:54	2°♄01'56	1.32379 AU
desc. node	2220 Aug 06 01:46	8°♄47'55		evening rise	2221 Jun 29 04:41	15°♄48'38	
evening max el	2220 Aug 17 01:23	21°♄39'54	27°25'58		2221 Jul 06 09:25	0°♄	
retrograde	2220 Aug 30 18:21	28°♄57'14		desc. node	2221 Jul 23 22:47	27°♄10'49	
evening set	2220 Sep 06 22:57	26°♄22'04			2221 Jul 26 08:07	0°♄	
min. Earth dist.	2220 Sep 10 14:01	23°♄16'43	0.63213 AU	evening max el	2221 Jul 30 07:43	4°♄08'53	27°05'48
inferior conj	2220 Sep 13 07:06	20°♄35'32	-3°-32'-22	retrograde	2221 Aug 13 04:53	11°♄22'35	
minimum elong	2220 Sep 13 12:21	20°♄22'27	3°30'50	evening set	2221 Aug 20 06:41	9°♄07'50	
morning rise	2220 Sep 20 04:13	15°♄20'32		min. Earth dist.	2221 Aug 23 22:01	6°♄25'25	0.61308 AU
direct	2220 Sep 22 14:20	14°♄52'43		inferior conj	2221 Aug 27 01:23	3°♄40'47	-4°-20'-34
asc. node	2220 Sep 24 21:21	15°♄18'11		minimum elong	2221 Aug 27 06:33	3°♄29'27	4°19'32
morning max el	2220 Sep 29 05:30	18°♄18'37	17°51'32		2221 Aug 31 19:00	30°♄	
	2220 Oct 07 16:38	0°♄		morning rise	2221 Sep 03 09:23	28°♄46'35	
morning set	2220 Oct 15 13:56	13°♄35'30		direct	2221 Sep 05 18:10	28°♄23'35	
	2220 Oct 25 01:58	0°♄			2221 Sep 10 12:04	0°♄	
				asc. node	2221 Sep 11 18:26	0°♄57'36	
superior conj	2220 Oct 27 12:41	4°♄06'00	0°37'02	morning max el	2221 Sep 12 19:41	1°♄55'01	17°58'39
minimum elong	2220 Oct 27 16:15	4°♄20'48	0°36'32	morning set	2221 Sep 28 14:58	26°♄48'39	
desc. node	2220 Nov 02 01:06	13°♄08'29			2221 Sep 30 08:37	0°♄	
max. Earth dist.	2220 Nov 02 23:17	14°♄37'46	1.43860 AU				
evening rise	2220 Nov 12 00:54	28°♄53'51		superior conj	2221 Oct 08 22:20	15°♄25'51	1°10'39
	2220 Nov 12 18:04	0°♄		minimum elong	2221 Oct 09 02:49	15°♄45'29	1°10'08
	2220 Dec 03 02:51	0°♄		max. Earth dist.	2221 Oct 16 11:36	28°♄17'41	1.42296 AU
greatest brilliancy	2220 Dec 06 01:43	3°♄54'57	-0.5m		2221 Oct 17 12:25	0°♄	
evening max el	2220 Dec 11 11:00	10°♄13'24	20°59'29	desc. node	2221 Oct 19 22:07	3°♄55'01	
retrograde	2220 Dec 19 21:53	15°♄13'52		evening rise	2221 Oct 22 17:00	8°♄22'37	
asc. node	2220 Dec 21 20:34	14°♄52'49			2221 Nov 05 22:56	0°♄	
evening set	2220 Dec 23 21:29	13°♄43'50		greatest brilliancy	2221 Nov 19 12:41	18°♄26'36	-0.3m
inferior conj	2220 Dec 29 07:28	7°♄29'36	2°20'09	evening max el	2221 Nov 24 05:50	23°♄45'09	22°14'33
minimum elong	2220 Dec 29 04:57	7°♄38'16	2°19'19	retrograde	2221 Dec 03 18:04	29°♄24'30	
min. Earth dist.	2220 Dec 29 17:46	6°♄54'11	0.67537 AU	evening set	2221 Dec 08 05:13	27°♄37'56	
morning rise	2221 Jan 03 12:00	1°♄14'29		asc. node	2221 Dec 08 17:38	27°♄11'25	
	2221 Jan 05 03:58	30°♄		inferior conj	2221 Dec 13 14:44	21°♄16'01	1°36'32
direct	2221 Jan 08 19:21	28°♄55'52		minimum elong	2221 Dec 13 12:43	21°♄22'58	1°35'45
	2221 Jan 12 18:55	0°♄		min. Earth dist.	2221 Dec 13 13:39	21°♄19'46	0.67833 AU
morning max el	2221 Jan 19 13:38	5°♄20'46	23°50'38	morning rise	2221 Dec 18 20:05	15°♄02'53	
desc. node	2221 Jan 29 00:18	16°♄32'57		direct	2221 Dec 23 12:17	13°♄06'54	
	2221 Feb 07 14:15	0°♄		morning max el	2222 Jan 02 00:32	18°♄43'27	22°22'35
morning set	2221 Feb 24 01:11	26°♄12'04		greatest brilliancy	2222 Jan 06 14:11	23°♄50'01	-0.3m
	2221 Feb 26 05:56	0°♄			2222 Jan 11 09:54	0°♄	
max. Earth dist.	2221 Feb 27 22:31	2°♄58'36	1.38538 AU	desc. node	2222 Jan 15 21:21	6°♄09'39	
					2222 Jan 31 18:24	0°♄	
superior conj	2221 Mar 07 06:20	16°♄24'13	-1°-44'-38	morning set	2222 Feb 04 12:38	6°♄02'11	
minimum elong	2221 Mar 07 10:38	16°♄44'34	1°44'13	max. Earth dist.	2222 Feb 09 19:22	14°♄47'37	1.40688 AU
	2221 Mar 14 07:10	0°♄					
evening rise	2221 Mar 16 08:16	4°♄00'26		superior conj	2222 Feb 17 14:32	28°♄22'55	-2°00'-40
asc. node	2221 Mar 19 19:54	10°♄44'25		minimum elong	2222 Feb 17 17:26	28°♄35'59	2°00'33
	2221 Apr 01 06:30	0°♄			2222 Feb 18 12:06	0°♄	
evening max el	2221 Apr 01 17:24	0°♄27'04	18°51'13	evening rise	2222 Feb 27 19:16	17°♄13'58	
retrograde	2221 Apr 10 00:04	4°♄28'40		asc. node	2222 Mar 06 16:56	29°♄53'42	
evening set	2221 Apr 12 04:49	4°♄12'45			2222 Mar 06 18:23	0°♄	
inferior conj	2221 Apr 20 04:01	29°♄53'52	1°51'36	evening max el	2222 Mar 15 23:38	13°♄06'10	18°19'25
minimum elong	2221 Apr 20 07:43	29°♄47'10	1°50'28	retrograde	2222 Mar 23 04:41	16°♄41'15	
	2221 Apr 20 00:37	30°♄		evening set	2222 Mar 25 15:03	16°♄17'44	
min. Earth dist.	2221 Apr 23 09:40	27°♄34'35	0.57156 AU	inferior conj	2222 Apr 01 20:03	11°♄37'52	2°57'42
desc. node	2221 Apr 26 23:27	25°♄23'29		minimum elong	2222 Apr 01 23:39	11°♄30'15	2°56'56
morning rise	2221 Apr 28 06:17	24°♄47'09		min. Earth dist.	2222 Apr 05 06:25	8°♄45'01	0.59162 AU
direct	2221 May 03 16:20	23°♄36'18		morning rise	2222 Apr 09 04:24	6°♄02'46	
	2221 May 16 20:35	0°♄		desc. node	2222 Apr 13 20:30	4°♄23'19	
morning max el	2221 May 18 00:02	1°♄04'18	26°03'39	direct	2222 Apr 15 11:32	4°♄16'13	
	2221 Jun 07 08:30	0°♄		morning max el	2222 Apr 29 20:10	12°♄01'33	27°12'27
morning set	2221 Jun 15 03:30	15°♄25'53			2222 May 13 22:17	0°♄	
asc. node	2221 Jun 15 19:12	16°♄48'56			2222 May 30 10:19	0°♄	
	2221 Jun 21 20:42	0°♄		morning set	2222 May 30 12:37	0°♄12'00	
				asc. node	2222 Jun 02 16:14	6°♄54'02	

superior conj	2222 Jun 06 15:49	15° Π 36'34	0°40'59		2223 May 21 21:47	0° Π	
minimum elong	2222 Jun 06 14:07	15° Π 27'13	0°40'39				
max. Earth dist.	2222 Jun 06 07:16	14° Π 49'30	1.32166 AU	superior conj	2223 May 22 02:31	0° Π 25'55	0°16'20
	2222 Jun 13 06:32	0° \mathfrak{S}		minimum elong	2223 May 22 01:46	0° Π 21'50	0°16'10
evening rise	2222 Jun 13 13:27	0° \mathfrak{S} 36'34		evening rise	2223 May 29 00:39	15° Π 28'19	
	2222 Jun 29 14:34	0° Ω			2223 Jun 05 06:31	0° \mathfrak{S}	
desc. node	2222 Jul 10 19:47	14° Ω 23'44		evening max el	2223 Jun 23 23:45	26° \mathfrak{S} 48'39	24°52'28
evening max el	2222 Jul 12 07:17	15° Ω 51'37	26°12'40	desc. node	2223 Jun 27 16:47	29° \mathfrak{S} 58'01	
retrograde	2222 Jul 26 06:57	23° Ω 02'17			2223 Jun 27 17:52	0° Ω	
evening set	2222 Aug 01 18:02	21° Ω 20'01		retrograde	2223 Jul 07 22:50	3° Ω 53'31	
min. Earth dist.	2222 Aug 05 20:01	18° Ω 44'42	0.59250 AU	evening set	2223 Jul 13 05:37	2° Ω 49'59	
inferior conj	2222 Aug 09 03:21	16° Ω 14'06	-4°-52'-54	min. Earth dist.	2223 Jul 18 11:09	0° Ω 02'43	0.57279 AU
minimum elong	2222 Aug 09 06:14	16° Ω 08'35	4°52'39		2223 Jul 18 12:51	30° \mathfrak{R} \mathfrak{S}	
morning rise	2222 Aug 16 21:52	11° Ω 43'13		inferior conj	2223 Jul 21 09:51	28° \mathfrak{S} 06'00	-4°-57'-2
direct	2222 Aug 19 08:09	11° Ω 22'54		minimum elong	2223 Jul 21 07:55	28° \mathfrak{S} 09'12	4°56'57
morning max el	2222 Aug 27 04:42	15° Ω 09'31	18°25'39	morning rise	2223 Jul 29 13:59	23° \mathfrak{S} 57'25	
asc. node	2222 Aug 29 15:29	17° Ω 49'38		direct	2223 Aug 01 04:00	23° \mathfrak{S} 38'22	
	2222 Sep 06 12:28	0° \mathfrak{M}		morning max el	2223 Aug 10 05:24	27° \mathfrak{S} 52'23	19°13'42
morning set	2222 Sep 12 05:06	10° \mathfrak{M} 39'27			2223 Aug 12 06:34	0° Ω	
				asc. node	2223 Aug 16 12:30	5° Ω 38'56	
superior conj	2222 Sep 21 07:24	27° \mathfrak{M} 55'06	1°32'18	morning set	2223 Aug 27 04:20	24° Ω 56'57	
minimum elong	2222 Sep 21 10:39	28° \mathfrak{M} 10'07	1°32'03		2223 Aug 29 17:07	0° \mathfrak{M}	
	2222 Sep 22 10:34	0° \mathfrak{A}					
max. Earth dist.	2222 Sep 28 18:34	11° \mathfrak{A} 15'48	1.40356 AU	superior conj	2223 Sep 04 10:13	11° \mathfrak{M} 17'17	1°43'17
evening rise	2222 Oct 03 05:32	18° \mathfrak{A} 48'18		minimum elong	2223 Sep 04 11:35	11° \mathfrak{M} 23'59	1°43'13
desc. node	2222 Oct 06 19:08	24° \mathfrak{A} 37'39		max. Earth dist.	2223 Sep 10 22:09	23° \mathfrak{M} 31'18	1.38293 AU
	2222 Oct 10 04:33	0° \mathfrak{M}		evening rise	2223 Sep 14 18:07	0° \mathfrak{A} 21'20	
	2222 Oct 31 08:47	0° \mathfrak{A}			2223 Sep 14 13:14	0° \mathfrak{A}	
evening max el	2222 Nov 06 20:17	7° \mathfrak{A} 19'15	23°34'18	desc. node	2223 Sep 23 16:09	15° \mathfrak{A} 12'24	
retrograde	2222 Nov 17 11:20	13° \mathfrak{A} 36'00			2223 Oct 03 11:49	0° \mathfrak{M}	
evening set	2222 Nov 22 11:37	11° \mathfrak{A} 32'17		evening max el	2223 Oct 20 08:31	20° \mathfrak{M} 57'19	24°52'26
asc. node	2222 Nov 25 14:41	8° \mathfrak{A} 11'21		retrograde	2223 Nov 01 00:42	27° \mathfrak{M} 44'38	
inferior conj	2222 Nov 27 22:04	5° \mathfrak{A} 06'33	0°47'06	evening set	2223 Nov 06 15:05	25° \mathfrak{M} 24'37	
minimum elong	2222 Nov 27 20:59	5° \mathfrak{A} 10'16	0°46'39	min. Earth dist.	2223 Nov 11 05:23	20° \mathfrak{M} 13'17	0.67398 AU
min. Earth dist.	2222 Nov 27 10:17	5° \mathfrak{A} 46'50	0.67784 AU	inferior conj	2223 Nov 12 03:45	18° \mathfrak{M} 59'24	0°-6'-50
	2222 Dec 02 01:53	30° \mathfrak{R} \mathfrak{M}		minimum elong	2223 Nov 12 03:55	18° \mathfrak{M} 58'51	0°06'46
morning rise	2222 Dec 03 06:29	28° \mathfrak{M} 57'26		transit middle	2223 Nov 12 03:55	18° \mathfrak{M} 58'51	0°06'46
direct	2222 Dec 07 08:20	27° \mathfrak{M} 24'17		transit begin	2223 Nov 12 01:25	19° \mathfrak{M} 07'09	
	2222 Dec 13 05:37	0° \mathfrak{A}		transit end	2223 Nov 12 06:26	18° \mathfrak{M} 50'34	
morning max el	2222 Dec 15 17:25	2° \mathfrak{A} 15'54	21°00'58	asc. node	2223 Nov 12 11:43	18° \mathfrak{M} 33'10	
greatest brilliancy	2222 Dec 21 05:17	8° \mathfrak{A} 36'57	-0.5m	morning rise	2223 Nov 17 17:17	12° \mathfrak{M} 56'40	
desc. node	2223 Jan 02 18:23	26° \mathfrak{A} 11'15		direct	2223 Nov 21 06:25	11° \mathfrak{M} 44'10	
	2223 Jan 05 07:47	0° \mathfrak{S}		morning max el	2223 Nov 28 18:02	15° \mathfrak{M} 59'38	19°51'13
morning set	2223 Jan 14 20:32	14° \mathfrak{S} 36'11		greatest brilliancy	2223 Dec 06 07:10	25° \mathfrak{M} 16'18	-0.6m
max. Earth dist.	2223 Jan 22 22:40	27° \mathfrak{S} 31'00	1.42639 AU		2223 Dec 09 15:10	0° \mathfrak{A}	
	2223 Jan 24 11:04	0° \approx		desc. node	2223 Dec 20 15:25	16° \mathfrak{A} 31'10	
				morning set	2223 Dec 24 16:29	22° \mathfrak{A} 44'22	
superior conj	2223 Jan 30 00:03	9° \approx 15'57	-2°-4'-58		2223 Dec 29 08:45	0° \mathfrak{S}	
minimum elong	2223 Jan 29 23:00	9° \approx 11'28	2°04'58	max. Earth dist.	2224 Jan 05 09:09	11° \mathfrak{S} 03'06	1.44137 AU
evening rise	2223 Feb 10 15:58	29° \approx 43'52					
	2223 Feb 10 19:34	0° \mathfrak{H}		superior conj	2224 Jan 10 07:24	18° \mathfrak{S} 57'55	-1°-52'-31
asc. node	2223 Feb 21 13:58	18° \mathfrak{H} 32'28		minimum elong	2224 Jan 10 00:49	18° \mathfrak{S} 31'17	1°52'06
evening max el	2223 Feb 27 10:31	26° \mathfrak{H} 07'21	18°07'24		2224 Jan 17 00:27	0° \approx	
retrograde	2223 Mar 06 01:29	29° \mathfrak{H} 31'34		evening rise	2224 Jan 23 18:06	11° \approx 22'27	
evening set	2223 Mar 08 17:06	28° \mathfrak{H} 58'50			2224 Feb 03 21:29	0° \mathfrak{H}	
inferior conj	2223 Mar 15 07:20	23° \mathfrak{H} 57'54	3°32'30	asc. node	2224 Feb 08 11:00	6° \mathfrak{H} 31'45	
minimum elong	2223 Mar 15 09:11	23° \mathfrak{H} 53'22	3°32'19	evening max el	2224 Feb 10 23:06	9° \mathfrak{H} 23'27	18°14'35
min. Earth dist.	2223 Mar 18 10:19	20° \mathfrak{H} 55'56	0.61309 AU	retrograde	2224 Feb 17 10:01	12° \mathfrak{H} 50'24	
morning rise	2223 Mar 21 22:24	18° \mathfrak{H} 04'02		evening set	2224 Feb 20 06:45	12° \mathfrak{H} 07'18	
direct	2223 Mar 28 17:53	15° \mathfrak{H} 43'51		inferior conj	2224 Feb 26 09:55	6° \mathfrak{H} 46'21	3°42'46
desc. node	2223 Mar 31 17:32	16° \mathfrak{H} 08'48		minimum elong	2224 Feb 26 09:50	6° \mathfrak{H} 46'33	3°42'46
morning max el	2223 Apr 11 22:40	23° \mathfrak{H} 38'42	27°46'49	min. Earth dist.	2224 Feb 28 23:17	3° \mathfrak{H} 58'15	0.63322 AU
	2223 Apr 17 15:41	0° \mathfrak{Y}		morning rise	2224 Mar 03 11:00	0° \mathfrak{H} 41'41	
	2223 May 07 03:48	0° \mathfrak{S}			2224 Mar 04 09:45	30° \mathfrak{R} \approx	
morning set	2223 May 14 17:34	14° \mathfrak{S} 42'59		direct	2224 Mar 10 09:14	27° \approx 58'50	
asc. node	2223 May 20 13:16	27° \mathfrak{S} 02'50			2224 Mar 16 21:51	0° \mathfrak{H}	
max. Earth dist.	2223 May 20 18:04	27° \mathfrak{S} 28'55	1.32337 AU	desc. node	2224 Mar 17 14:34	0° \mathfrak{H} 25'18	

morning max el	2224 Mar 24 05:57	5° X 55'03	27°43'43	desc. node	2225 Mar 04 11:37	16° \approx 37'55	
	2224 Apr 11 12:50	0° Y		morning max el	2225 Mar 06 15:26	18° \approx 41'39	27°06'30
morning set	2224 Apr 27 16:06	28° Y 51'19			2225 Mar 16 05:11	0° X	
	2224 Apr 28 05:47	0° X			2225 Apr 04 11:50	0° Y	
max. Earth dist.	2224 May 02 23:18	9° X 46'58	1.32916 AU	morning set	2225 Apr 11 05:13	12° Y 27'47	
				max. Earth dist.	2225 Apr 15 19:20	21° Y 34'11	1.33941 AU
superior conj	2224 May 05 10:22	15° X 02'24	0°-10'-29				
minimum elong	2224 May 05 10:53	15° X 05'10	0°10'23	superior conj	2225 Apr 19 13:23	29° Y 19'55	0°-38'-28
behind sun begin	2224 May 05 06:51	14° X 43'28		minimum elong	2225 Apr 19 15:20	29° Y 30'09	0°38'05
behind sun end	2224 May 05 14:55	15° X 26'52			2225 Apr 19 21:01	0° X	
asc. node	2224 May 06 10:17	17° X 11'21		asc. node	2225 Apr 23 07:20	7° X 15'39	
	2224 May 12 09:06	0° II		evening rise	2225 Apr 26 23:00	14° X 58'43	
evening rise	2224 May 12 12:27	0° II 17'43			2225 May 04 14:04	0° II	
	2224 May 29 05:50	0° X		evening max el	2225 May 17 07:39	17° II 55'08	21°43'50
evening max el	2224 Jun 04 13:26	7° X 19'35	23°17'50	retrograde	2225 May 29 18:17	24° II 01'51	
desc. node	2224 Jun 13 13:48	13° X 18'46		desc. node	2225 May 31 10:48	23° II 55'23	
retrograde	2224 Jun 18 02:22	14° X 05'20		evening set	2225 Jun 01 07:59	23° II 47'01	
evening set	2224 Jun 21 21:06	13° X 34'01		inferior conj	2225 Jun 10 17:02	19° II 45'09	-2°-52'-26
min. Earth dist.	2224 Jun 28 23:16	10° X 19'59	0.55737 AU	minimum elong	2225 Jun 10 09:38	19° II 55'31	2°50'08
inferior conj	2224 Jun 30 20:34	9° X 13'19	-4°-18'-41	min. Earth dist.	2225 Jun 10 10:57	19° II 53'40	0.54950 AU
minimum elong	2224 Jun 30 13:36	9° X 23'36	4°17'21	morning rise	2225 Jun 19 12:19	15° II 51'03	
morning rise	2224 Jul 09 09:15	5° X 19'24		direct	2225 Jun 22 16:46	15° II 28'46	
direct	2224 Jul 12 04:49	5° X 00'09		morning max el	2225 Jul 04 21:42	21° II 13'20	21°51'23
morning max el	2224 Jul 22 19:16	9° X 54'54	20°22'59		2225 Jul 12 07:26	0° X	
asc. node	2224 Aug 02 09:32	24° X 12'32		asc. node	2225 Jul 20 06:35	13° X 19'50	
	2224 Aug 05 14:01	0° X		morning set	2225 Jul 25 19:12	24° X 22'23	
morning set	2224 Aug 10 09:46	9° X 33'11			2225 Jul 28 11:28	0° X	
superior conj	2224 Aug 18 01:46	25° X 17'43	1°45'23	superior conj	2225 Aug 02 02:17	9° X 45'32	1°40'19
minimum elong	2224 Aug 18 01:26	25° X 16'04	1°45'23	minimum elong	2225 Aug 02 00:44	9° X 37'24	1°40'13
	2224 Aug 20 10:03	0° X		max. Earth dist.	2225 Aug 05 18:10	17° X 19'39	1.34746 AU
max. Earth dist.	2224 Aug 23 04:11	5° X 23'33	1.36366 AU	evening rise	2225 Aug 10 07:09	26° X 19'03	
evening rise	2224 Aug 27 04:09	12° X 55'27			2225 Aug 12 05:39	0° X	
	2224 Sep 06 01:05	0° X		desc. node	2225 Aug 27 10:10	25° X 36'22	
desc. node	2224 Sep 09 13:09	5° X 33'59			2225 Aug 30 10:06	0° X	
	2224 Sep 27 11:37	0° X		evening max el	2225 Sep 14 09:04	18° X 13'36	26°54'01
evening max el	2224 Oct 01 20:35	4° X 37'34	26°01'37	retrograde	2225 Sep 27 12:21	25° X 29'29	
retrograde	2224 Oct 14 09:16	11° X 44'27		evening set	2225 Oct 04 05:42	22° X 47'57	
evening set	2224 Oct 20 13:49	9° X 11'01		min. Earth dist.	2225 Oct 08 05:19	18° X 49'24	0.65617 AU
min. Earth dist.	2224 Oct 24 20:32	4° X 35'32	0.66678 AU	inferior conj	2225 Oct 10 02:42	16° X 37'52	-2°-2'-46
inferior conj	2224 Oct 26 05:58	2° X 51'02	-1°-4'-2	minimum elong	2225 Oct 10 06:00	16° X 28'16	2°01'28
minimum elong	2224 Oct 26 07:39	2° X 45'46	1°03'19	morning rise	2225 Oct 16 07:47	10° X 56'40	
	2224 Oct 28 15:01	30° X		asc. node	2225 Oct 16 05:47	10° X 59'12	
asc. node	2224 Oct 29 08:45	29° X 12'31		direct	2225 Oct 19 01:59	10° X 14'50	
morning rise	2224 Nov 01 02:27	26° X 57'28		morning max el	2225 Oct 25 15:12	13° X 48'09	18°17'32
direct	2224 Nov 04 04:57	26° X 02'12			2225 Nov 06 05:27	0° X	
morning max el	2224 Nov 11 01:54	29° X 51'44	18°56'15	morning set	2225 Nov 13 15:06	12° X 00'22	
	2224 Nov 11 05:10	0° X		desc. node	2225 Nov 23 09:29	27° X 44'48	
	2224 Dec 02 00:24	0° X			2225 Nov 24 19:29	0° X	
morning set	2224 Dec 03 01:46	1° X 39'30		superior conj	2225 Nov 28 17:49	6° X 13'11	0°-35'-23
desc. node	2224 Dec 06 12:27	7° X 03'42		minimum elong	2225 Nov 28 13:15	5° X 55'11	0°34'47
max. Earth dist.	2224 Dec 18 01:27	25° X 09'59	1.44999 AU	max. Earth dist.	2225 Nov 30 20:44	9° X 33'36	1.45129 AU
superior conj	2224 Dec 19 16:03	27° X 41'53	-1°-20'-59		2225 Dec 13 22:12	0° X	
minimum elong	2224 Dec 19 07:14	27° X 07'11	1°20'03	evening rise	2225 Dec 15 02:34	1° X 50'53	
	2224 Dec 21 03:04	0° X		greatest brilliancy	2225 Dec 29 22:06	24° X 42'19	-0.7m
evening rise	2225 Jan 03 21:50	22° X 03'53			2226 Jan 02 15:15	0° \approx	
	2225 Jan 08 18:56	0° \approx		evening max el	2226 Jan 07 19:07	6° \approx 17'04	19°22'42
evening max el	2225 Jan 24 10:43	22° \approx 48'12	18°40'06	asc. node	2226 Jan 12 05:04	9° \approx 42'57	
asc. node	2225 Jan 25 08:01	23° \approx 39'51		retrograde	2226 Jan 14 22:29	10° \approx 23'19	
retrograde	2225 Jan 31 02:06	26° \approx 29'39		evening set	2226 Jan 18 07:54	9° \approx 16'01	
evening set	2225 Feb 03 04:36	25° \approx 35'03		inferior conj	2226 Jan 23 21:55	3° \approx 20'39	3°13'37
inferior conj	2225 Feb 08 23:53	19° \approx 55'48	3°34'54	minimum elong	2226 Jan 23 19:33	3° \approx 28'18	3°13'09
minimum elong	2225 Feb 08 22:21	20° \approx 00'26	3°34'45	min. Earth dist.	2226 Jan 25 04:39	1° \approx 41'11	0.66314 AU
min. Earth dist.	2225 Feb 10 21:39	17° \approx 37'46	0.65018 AU		2226 Jan 26 13:06	30° X	
morning rise	2225 Feb 14 14:53	13° \approx 45'06		morning rise	2226 Jan 29 06:27	27° X 06'40	
direct	2225 Feb 21 07:45	10° \approx 54'25		direct	2226 Feb 04 12:21	24° X 21'34	

	2226 Feb 15 04:29	0°♊		inferior conj	2227 Jan 08 01:17	16°♊56'49	2°42'06
morning max el	2226 Feb 17 00:55	1°♊47'11	26°02'30	minimum elong	2227 Jan 07 22:40	17°♊05'40	2°41'21
desc. node	2226 Feb 19 08:41	4°♊14'33		min. Earth dist.	2227 Jan 08 18:33	15°♊58'18	0.67198 AU
	2226 Mar 10 07:45	0°♋		morning rise	2227 Jan 13 06:28	10°♊41'28	
morning set	2226 Mar 25 04:57	25°♋20'20		direct	2227 Jan 18 22:18	8°♊11'37	
	2226 Mar 27 16:30	0°♌		morning max el	2227 Jan 30 09:36	15°♊02'17	24°41'14
max. Earth dist.	2226 Mar 29 04:00	2°♌50'21	1.35431 AU	desc. node	2227 Feb 06 05:44	22°♊50'56	
					2227 Feb 11 16:13	0°♋	
superior conj	2226 Apr 03 09:04	13°♌10'42	-1°-6'-16		2227 Mar 03 05:19	0°♋	
minimum elong	2226 Apr 03 12:25	13°♌27'39	1°05'43	morning set	2227 Mar 07 10:03	7°♋14'49	
asc. node	2226 Apr 10 04:23	27°♌11'04		max. Earth dist.	2227 Mar 11 02:49	13°♋53'28	1.37323 AU
evening rise	2226 Apr 11 06:21	29°♌24'35					
	2226 Apr 11 13:17	0°♌		superior conj	2227 Mar 17 18:21	26°♋26'45	-1°-31'-55
evening max el	2226 Apr 29 12:03	28°♌59'42	20°22'02	minimum elong	2227 Mar 17 22:36	26°♋47'28	1°31'22
	2226 Apr 30 14:11	0°♍			2227 Mar 19 13:55	0°♌	
retrograde	2226 May 10 07:36	4°♍14'36		evening rise	2227 Mar 26 08:10	13°♌28'50	
evening set	2226 May 12 08:49	4°♍04'04		asc. node	2227 Mar 28 01:26	16°♌53'20	
desc. node	2226 May 18 07:51	1°♍52'51			2227 Apr 04 03:56	0°♍	
inferior conj	2226 May 21 11:48	0°♍06'04	0°-55'-30	evening max el	2227 Apr 12 04:14	10°♍44'34	19°18'35
minimum elong	2226 May 21 09:11	0°♍09'53	0°54'32	retrograde	2227 Apr 21 07:16	15°♍09'40	
	2226 May 21 15:56	30°♍8		evening set	2227 Apr 23 08:53	14°♍57'02	
min. Earth dist.	2226 May 22 23:34	29°♍13'49	0.55110 AU	inferior conj	2227 May 01 19:11	10°♍48'19	0°58'07
morning rise	2226 May 30 07:40	25°♍52'13		minimum elong	2227 May 01 21:31	10°♍44'28	0°57'19
direct	2226 Jun 03 03:44	25°♍20'25		min. Earth dist.	2227 May 04 14:23	8°♍57'32	0.56194 AU
	2226 Jun 14 10:51	0°♍		desc. node	2227 May 05 04:53	8°♍34'38	
morning max el	2226 Jun 16 15:17	1°♍54'24	23°32'06	morning rise	2227 May 10 06:07	6°♍00'50	
	2226 Jul 05 17:05	0°♎		direct	2227 May 15 01:23	5°♍07'55	
asc. node	2226 Jul 07 03:39	2°♎51'11		morning max el	2227 May 29 05:45	12°♎21'01	25°12'22
morning set	2226 Jul 10 06:40	9°♎17'32			2227 Jun 11 20:58	0°♍	
				asc. node	2227 Jun 24 00:43	22°♍40'00	
superior conj	2226 Jul 17 08:42	24°♎30'17	1°29'23	morning set	2227 Jun 24 18:29	24°♍13'24	
minimum elong	2226 Jul 17 06:28	24°♎18'16	1°29'09		2227 Jun 27 11:15	0°♎	
max. Earth dist.	2226 Jul 19 17:17	29°♎32'28	1.33506 AU				
	2226 Jul 19 22:30	0°♏		superior conj	2227 Jul 01 18:42	9°♎24'39	1°13'39
evening rise	2226 Jul 24 22:35	10°♏18'30		minimum elong	2227 Jul 01 16:18	9°♎11'35	1°13'17
	2226 Aug 04 14:09	0°♐		max. Earth dist.	2227 Jul 02 23:57	12°♎04'09	1.32672 AU
desc. node	2226 Aug 14 07:11	15°♐10'11		evening rise	2227 Jul 08 22:54	24°♎43'29	
	2226 Aug 26 06:59	0°♑			2227 Jul 11 13:35	0°♏	
evening max el	2226 Aug 27 20:44	1°♑33'10	27°22'35		2227 Jul 29 04:52	0°♐	
retrograde	2226 Sep 10 09:33	8°♑51'08		desc. node	2227 Aug 01 04:12	4°♐03'35	
evening set	2226 Sep 17 12:01	6°♑10'06		evening max el	2227 Aug 10 05:32	14°♐23'32	27°21'23
min. Earth dist.	2226 Sep 21 05:25	2°♑47'08	0.64194 AU	retrograde	2227 Aug 24 00:31	21°♐39'56	
inferior conj	2226 Sep 23 15:30	0°♑14'04	-3°00'-42	evening set	2227 Aug 31 05:15	19°♐11'24	
minimum elong	2226 Sep 23 20:14	0°♑01'35	2°59'07	min. Earth dist.	2227 Sep 03 19:23	16°♐17'42	0.62433 AU
	2226 Sep 23 20:50	30°♐8		inferior conj	2227 Sep 06 17:29	13°♐32'52	-3°-54'-9
morning rise	2226 Sep 30 06:33	24°♐48'45		minimum elong	2227 Sep 06 22:54	13°♐20'04	3°52'46
direct	2226 Oct 02 18:53	24°♐16'46		morning rise	2227 Sep 13 19:16	8°♐26'42	
asc. node	2226 Oct 03 02:51	24°♐17'19		direct	2227 Sep 16 04:25	8°♐01'19	
morning max el	2226 Oct 09 07:15	27°♐42'42	17°55'55	asc. node	2227 Sep 19 23:56	9°♐08'13	
	2226 Oct 11 08:37	0°♑		morning max el	2227 Sep 22 23:04	11°♐28'23	17°52'16
morning set	2226 Oct 26 08:19	23°♑42'31			2227 Oct 05 08:36	0°♑	
	2226 Oct 30 01:12	0°♒		morning set	2227 Oct 08 23:30	6°♑27'31	
superior conj	2226 Nov 08 09:59	15°♒30'54	0°12'34	superior conj	2227 Oct 20 04:15	26°♑06'09	0°52'45
minimum elong	2226 Nov 08 11:25	15°♒36'41	0°12'21	minimum elong	2227 Oct 20 08:35	26°♑24'32	0°52'11
behind sun begin	2226 Nov 08 04:48	15°♒09'51			2227 Oct 22 11:43	0°♒	
behind sun end	2226 Nov 08 18:02	16°♒03'28		max. Earth dist.	2227 Oct 27 06:13	7°♒51'54	1.43252 AU
desc. node	2226 Nov 10 06:32	18°♒30'48		desc. node	2227 Oct 28 03:32	9°♒18'15	
max. Earth dist.	2226 Nov 13 15:23	23°♒53'54	1.44516 AU	evening rise	2227 Nov 04 00:03	20°♒10'17	
	2226 Nov 17 12:12	0°♓			2227 Nov 10 09:52	0°♓	
evening rise	2226 Nov 24 14:28	11°♓00'55		greatest brilliancy	2227 Nov 29 21:26	27°♓36'38	-0.4m
	2226 Dec 07 03:10	0°♑			2227 Dec 01 20:37	0°♑	
greatest brilliancy	2226 Dec 15 15:36	12°♑10'12	-0.5m	evening max el	2227 Dec 04 20:22	3°♑18'04	21°30'27
evening max el	2226 Dec 21 22:35	19°♑47'20	20°20'29	retrograde	2227 Dec 13 17:54	8°♑35'34	
retrograde	2226 Dec 29 20:29	24°♑26'41		asc. node	2227 Dec 16 23:10	7°♑38'24	
asc. node	2226 Dec 30 02:07	24°♑26'23		evening set	2227 Dec 17 22:07	6°♑58'40	
evening set	2227 Jan 02 14:22	23°♑05'18		inferior conj	2227 Dec 23 07:42	0°♑40'28	2°02'26

minimum elong	2227 Dec 23 05:20	0°☿48'38	2°01'36	evening set	2228 Dec 01 05:28	20°♂53'51	
min. Earth dist.	2227 Dec 23 13:01	0°☿22'04	0.67703 AU	asc. node	2228 Dec 02 20:12	19°♂21'13	
	2227 Dec 23 19:24	30°♂♂		inferior conj	2228 Dec 06 15:14	14°♂29'49	1°16'13
morning rise	2227 Dec 28 12:16	24°♂25'44		minimum elong	2228 Dec 06 13:34	14°♂35'34	1°15'34
direct	2228 Jan 02 13:02	22°♂16'38		min. Earth dist.	2228 Dec 06 09:37	14°♂49'12	0.67856 AU
morning max el	2228 Jan 12 18:44	28°♂21'50	23°12'47	morning rise	2228 Dec 11 21:37	8°♂17'50	
	2228 Jan 14 08:13	0°☿		direct	2228 Dec 16 07:35	6°♂31'31	
greatest brilliancy	2228 Jan 17 20:42	4°☿03'39	-0.3m	morning max el	2228 Dec 25 07:42	11°♂48'23	21°46'33
desc. node	2228 Jan 24 02:46	12°☿09'13		greatest brilliancy	2228 Dec 30 03:21	17°♂15'09	-0.4m
	2228 Feb 05 09:49	0°♂			2229 Jan 08 14:54	0°☿	
morning set	2228 Feb 16 14:07	17°♂53'34		desc. node	2229 Jan 09 23:48	1°☿57'57	
max. Earth dist.	2228 Feb 20 21:33	25°♂14'15	1.39455 AU	morning set	2229 Jan 26 13:00	27°☿08'21	
	2228 Feb 23 14:39	0°♂			2229 Jan 28 07:46	0°♂	
				max. Earth dist.	2229 Feb 01 20:10	7°♂23'50	1.41565 AU
superior conj	2228 Feb 28 13:01	8°♂56'41	-1°-52'-34				
minimum elong	2228 Feb 28 17:01	9°♂15'09	1°52'16	superior conj	2229 Feb 09 12:12	20°♂29'08	-2°-4'-14
evening rise	2228 Mar 09 01:29	27°♂02'46		minimum elong	2229 Feb 09 13:45	20°♂35'57	2°04'13
	2228 Mar 10 14:26	0°♂			2229 Feb 14 20:12	0°♂	
asc. node	2228 Mar 13 22:28	6°♂16'20		evening rise	2229 Feb 20 06:51	9°♂58'31	
evening max el	2228 Mar 25 06:16	23°♂06'12	18°35'15	asc. node	2229 Feb 28 19:30	25°♂13'38	
retrograde	2228 Apr 02 00:43	26°♂54'33			2229 Mar 03 20:16	0°♂	
evening set	2228 Apr 04 07:44	26°♂35'48		evening max el	2229 Mar 08 14:54	5°♂56'06	18°11'57
inferior conj	2228 Apr 11 22:54	22°♂08'32	2°23'47	retrograde	2229 Mar 15 12:28	9°♂24'19	
minimum elong	2228 Apr 12 02:53	22°♂00'50	2°22'43	evening set	2229 Mar 18 01:13	8°♂56'59	
min. Earth dist.	2228 Apr 15 08:33	19°♂31'49	0.57968 AU	inferior conj	2229 Mar 24 23:29	4°♂08'19	3°15'53
morning rise	2228 Apr 19 17:41	16°♂48'14		minimum elong	2229 Mar 25 02:26	4°♂01'39	3°15'24
desc. node	2228 Apr 21 01:56	16°♂13'32		min. Earth dist.	2229 Mar 28 08:00	1°♂08'22	0.60084 AU
direct	2228 Apr 25 13:32	15°♂22'22			2229 Mar 29 17:27	30°♂♂	
morning max el	2228 May 09 22:38	22°♂59'58	26°36'38	morning rise	2229 Apr 01 00:13	28°♂24'19	
	2228 May 16 04:37	0°♂		direct	2229 Apr 07 14:05	26°♂22'14	
	2228 Jun 03 17:58	0°♂		desc. node	2229 Apr 07 22:58	26°♂22'37	
morning set	2228 Jun 08 05:03	9°♂04'26			2229 Apr 16 23:40	0°♂	
asc. node	2228 Jun 09 21:46	12°♂40'31		morning max el	2229 Apr 21 21:12	4°♂12'23	27°31'33
					2229 May 10 21:40	0°♂	
superior conj	2228 Jun 15 06:20	24°♂22'02	0°53'54	morning set	2229 May 23 12:34	23°♂44'31	
minimum elong	2228 Jun 15 04:16	24°♂10'37	0°53'31		2229 May 26 11:41	0°♂	
max. Earth dist.	2228 Jun 15 11:04	24°♂48'03	1.32233 AU	asc. node	2229 May 27 18:47	2°♂47'40	
	2228 Jun 17 19:54	0°♂		max. Earth dist.	2229 May 29 23:04	7°♂33'02	1.32187 AU
evening rise	2228 Jun 22 05:14	9°♂25'11					
	2228 Jul 02 21:54	0°♂		superior conj	2229 May 30 17:51	9°♂16'09	0°30'51
desc. node	2228 Jul 18 01:12	21°♂59'55		minimum elong	2229 May 30 16:31	9°♂08'48	0°30'34
evening max el	2228 Jul 22 09:07	26°♂33'28	26°47'09	evening rise	2229 Jun 06 15:15	24°♂15'37	
	2228 Jul 26 11:36	0°♂			2229 Jun 09 09:31	0°♂	
retrograde	2228 Aug 05 08:00	3°♂46'45			2229 Jun 27 05:27	0°♂	
evening set	2228 Aug 12 04:58	1°♂44'30		evening max el	2229 Jul 04 05:42	7°♂56'30	25°41'27
	2228 Aug 14 19:40	30°♂♂		desc. node	2229 Jul 04 22:13	8°♂35'08	
min. Earth dist.	2228 Aug 15 23:06	29°♂07'13	0.60429 AU	retrograde	2229 Jul 18 05:58	15°♂05'06	
inferior conj	2228 Aug 19 05:16	26°♂25'58	-4°-36'-56	evening set	2229 Jul 24 06:21	13°♂39'36	
minimum elong	2228 Aug 19 09:47	26°♂16'36	4°36'14	min. Earth dist.	2229 Jul 28 17:57	11°♂01'11	0.58375 AU
morning rise	2228 Aug 26 17:50	21°♂41'38		inferior conj	2229 Jul 31 23:16	8°♂42'56	-4°-59'-3
direct	2228 Aug 29 02:44	21°♂20'09		minimum elong	2229 Aug 01 00:22	8°♂40'57	4°59'01
morning max el	2228 Sep 05 11:29	24°♂57'08	18°07'40	morning rise	2229 Aug 08 21:56	4°♂21'36	
asc. node	2228 Sep 05 20:59	25°♂20'37		direct	2229 Aug 11 09:33	4°♂01'56	
	2228 Sep 09 16:36	0°♂		morning max el	2229 Aug 19 17:15	7°♂59'03	18°43'28
morning set	2228 Sep 21 06:43	19°♂58'40		asc. node	2229 Aug 23 18:00	12°♂38'41	
	2228 Sep 26 15:35	0°♂			2229 Sep 02 23:07	0°♂	
				morning set	2229 Sep 05 01:08	4°♂02'08	
superior conj	2228 Oct 01 00:34	7°♂58'00	1°21'14				
minimum elong	2228 Oct 01 04:41	8°♂16'27	1°20'48	superior conj	2229 Sep 13 17:48	20°♂51'22	1°38'10
max. Earth dist.	2228 Oct 08 15:45	21°♂13'43	1.41498 AU	minimum elong	2229 Sep 13 20:16	21°♂03'03	1°37'59
evening rise	2228 Oct 13 23:53	0°♂01'30			2229 Sep 18 16:37	0°♂	
	2228 Oct 13 23:31	0°♂		max. Earth dist.	2229 Sep 20 20:55	3°♂53'15	1.39479 AU
desc. node	2228 Oct 14 00:33	0°♂04'09		evening rise	2229 Sep 24 22:42	10°♂56'09	
	2228 Nov 02 22:56	0°♂		desc. node	2229 Sep 30 21:34	20°♂44'11	
greatest brilliancy	2228 Nov 11 11:29	11°♂10'33	-0.3m		2229 Oct 06 20:26	0°♂	
evening max el	2228 Nov 16 13:10	16°♂51'24	22°48'13		2229 Oct 29 15:24	0°♂	
retrograde	2228 Nov 26 13:02	22°♂47'26		evening max el	2229 Oct 30 02:37	0°♂28'07	24°08'10

retrograde	2229 Nov 10 04:38	6°♄58'19		2230 Sep 30 15:29	0°♄	
evening set	2229 Nov 15 10:49	4°♄47'41		evening max el	2230 Oct 12 14:38	14°♄07'31 25°23'22
asc. node	2229 Nov 19 17:13	29°♄58'55		retrograde	2230 Oct 24 15:52	21°♄03'55
	2229 Nov 19 16:54	30°♄		evening set	2230 Oct 30 12:30	18°♄37'33
min. Earth dist.	2229 Nov 20 05:53	29°♄16'32	0.67667 AU	min. Earth dist.	2230 Nov 03 23:29	13°♄41'33 0.67138 AU
inferior conj	2229 Nov 20 22:05	28°♄21'53	0°24'44	inferior conj	2230 Nov 05 02:30	12°♄14'14 0°-30'-46
minimum elong	2229 Nov 20 21:29	28°♄23'53	0°24'29	minimum elong	2230 Nov 05 03:17	12°♄11'41 0°30'27
morning rise	2229 Nov 26 08:26	22°♄15'07		asc. node	2230 Nov 06 14:15	10°♄20'47
direct	2229 Nov 30 04:46	20°♄50'53		morning rise	2230 Nov 10 18:47	6°♄15'17
morning max el	2229 Dec 08 03:41	25°♄25'28	20°29'35	direct	2230 Nov 14 03:11	5°♄10'32
	2229 Dec 12 04:42	0°♄		morning max el	2230 Nov 21 07:35	9°♄13'17 19°25'59
greatest brilliancy	2229 Dec 14 09:00	2°♄47'02	-0.5m	greatest brilliancy	2230 Nov 30 06:53	20°♄39'01 -0.7m
desc. node	2229 Dec 27 20:50	22°♄08'27			2230 Dec 06 13:36	0°♄
	2230 Jan 02 01:07	0°♄		desc. node	2230 Dec 14 17:52	12°♄34'20
morning set	2230 Jan 05 12:59	5°♄23'04		morning set	2230 Dec 15 11:49	13°♄43'49
max. Earth dist.	2230 Jan 15 02:59	20°♄31'19	1.43354 AU		2230 Dec 25 22:13	0°♄
	2230 Jan 20 22:07	0°♄		max. Earth dist.	2230 Dec 28 16:51	4°♄22'38 1.44591 AU
superior conj	2230 Jan 21 10:53	0°♄53'00	-2°-1'-59	superior conj	2231 Jan 01 07:26	10°♄06'43 -1°-41'-23
minimum elong	2230 Jan 21 07:28	0°♄38'49	2°01'53	minimum elong	2230 Dec 31 23:10	9°♄33'41 1°40'42
evening rise	2230 Feb 02 20:12	22°♄08'02			2231 Jan 13 12:23	0°♄
	2230 Feb 07 07:55	0°♄		evening rise	2231 Jan 15 13:14	3°♄23'20
asc. node	2230 Feb 15 16:31	13°♄37'18			2231 Feb 01 11:37	0°♄
evening max el	2230 Feb 20 02:55	19°♄05'22	18°08'08	asc. node	2231 Feb 02 13:33	1°♄16'38
retrograde	2230 Feb 26 14:50	22°♄28'55		evening max el	2231 Feb 03 15:22	2°♄25'52 18°23'10
evening set	2230 Mar 01 08:44	21°♄51'43		retrograde	2231 Feb 10 03:13	5°♄57'50
inferior conj	2230 Mar 07 17:48	16°♄41'54	3°39'25	evening set	2231 Feb 13 02:18	5°♄09'57
minimum elong	2230 Mar 07 18:48	16°♄39'18	3°39'22		2231 Feb 18 18:59	30°♄
min. Earth dist.	2230 Mar 10 15:23	13°♄43'40	0.62201 AU	inferior conj	2231 Feb 19 01:43	29°♄40'39 3°41'20
morning rise	2230 Mar 14 02:30	10°♄42'57		minimum elong	2231 Feb 19 00:57	29°♄42'51 3°41'18
direct	2230 Mar 21 00:20	8°♄11'41		min. Earth dist.	2231 Feb 21 08:22	27°♄04'05 0.64087 AU
desc. node	2230 Mar 25 20:00	9°♄16'55		morning rise	2231 Feb 24 22:03	23°♄32'51
morning max el	2230 Apr 04 01:56	16°♄07'10	27°50'01	direct	2231 Mar 03 18:40	20°♄45'14
	2230 Apr 15 11:44	0°♄		desc. node	2231 Mar 12 17:03	24°♄27'34
	2230 May 03 12:26	0°♄		morning max el	2231 Mar 17 10:43	28°♄38'53 27°31'46
morning set	2230 May 07 15:07	8°♄07'19			2231 Mar 18 18:13	0°♄
max. Earth dist.	2230 May 13 08:11	20°♄06'21	1.32536 AU		2231 Apr 09 07:15	0°♄
asc. node	2230 May 14 15:48	22°♄57'19		morning set	2231 Apr 21 10:04	22°♄03'37
					2231 Apr 25 08:26	0°♄
superior conj	2230 May 15 03:35	24°♄01'18	0°05'12	max. Earth dist.	2231 Apr 26 10:11	2°♄13'32 1.33302 AU
minimum elong	2230 May 15 03:20	23°♄59'57	0°05'08			
behind sun begin	2230 May 14 22:25	23°♄33'17		superior conj	2231 Apr 29 09:37	8°♄30'27 0°-22'-16
behind sun end	2230 May 15 08:14	24°♄26'40		minimum elong	2231 Apr 29 10:44	8°♄36'23 0°22'03
	2230 May 17 21:23	0°♄		asc. node	2231 May 01 12:50	13°♄04'36
evening rise	2230 May 22 02:58	9°♄07'59		evening rise	2231 May 06 14:29	23°♄54'45
	2230 Jun 01 22:27	0°♄			2231 May 09 13:06	0°♄
evening max el	2230 Jun 15 20:20	18°♄39'49	24°13'06	evening max el	2231 May 28 10:45	29°♄07'43 22°36'48
desc. node	2230 Jun 21 19:13	23°♄17'45			2231 May 29 09:02	0°♄
retrograde	2230 Jun 29 16:16	25°♄38'03		desc. node	2231 Jun 08 16:15	5°♄31'21
evening set	2230 Jul 04 08:13	24°♄49'42		retrograde	2231 Jun 10 14:28	5°♄39'50
min. Earth dist.	2230 Jul 10 07:06	21°♄52'49	0.56555 AU	evening set	2231 Jun 13 19:18	5°♄17'17
inferior conj	2230 Jul 12 21:08	20°♄16'01	-4°-46'-40	min. Earth dist.	2231 Jun 21 18:31	1°♄48'13 0.55296 AU
minimum elong	2230 Jul 12 16:49	20°♄22'47	4°46'12	inferior conj	2231 Jun 23 00:32	1°♄05'26 -3°-47'-31
morning rise	2230 Jul 21 05:01	16°♄15'02		minimum elong	2231 Jun 22 16:37	1°♄16'44 3°45'33
direct	2230 Jul 23 21:26	15°♄55'56			2231 Jun 24 23:06	30°♄
morning max el	2230 Aug 02 13:29	20°♄25'19	19°40'38	morning rise	2231 Jul 01 16:31	27°♄14'06
	2230 Aug 10 02:54	0°♄		direct	2231 Jul 04 15:13	26°♄54'11
asc. node	2230 Aug 10 15:03	0°♄48'21			2231 Jul 13 07:37	0°♄
morning set	2230 Aug 20 03:20	18°♄28'41		morning max el	2231 Jul 15 22:26	2°♄08'57 20°58'39
	2230 Aug 25 20:09	0°♄		asc. node	2231 Jul 28 12:05	19°♄37'08
					2231 Aug 02 21:20	0°♄
superior conj	2230 Aug 28 02:34	4°♄31'20	1°45'09	morning set	2231 Aug 04 10:42	3°♄10'58
minimum elong	2230 Aug 28 03:11	4°♄34'21	1°45'08			
max. Earth dist.	2230 Sep 03 01:13	15°♄57'35	1.37447 AU	superior conj	2231 Aug 11 22:21	18°♄44'41 1°44'01
evening rise	2230 Sep 06 20:53	22°♄56'04		minimum elong	2231 Aug 11 21:27	18°♄40'00 1°44'00
	2230 Sep 10 22:03	0°♄		max. Earth dist.	2231 Aug 16 10:00	27°♄47'45 1.35627 AU
desc. node	2230 Sep 17 18:34	11°♄13'59			2231 Aug 17 12:59	0°♄

evening rise	2231 Aug 20 14:39	5° \cap 52'14			2232 Aug 08 12:40	0° \cap	
	2231 Sep 03 16:44	0° $\underline{\cap}$		desc. node	2232 Aug 21 12:36	21° \cap 19'34	
desc. node	2231 Sep 04 15:35	1° $\underline{\cap}$ 28'15			2232 Aug 27 18:16	0° $\underline{\cap}$	
evening max el	2231 Sep 25 02:39	27° $\underline{\cap}$ 46'11	26°26'23	evening max el	2232 Sep 06 14:52	11° $\underline{\cap}$ 16'10	27°09'36
	2231 Sep 27 13:32	0° \cap		retrograde	2232 Sep 19 23:09	18° $\underline{\cap}$ 34'32	
retrograde	2231 Oct 07 22:15	4° \cap 58'40		evening set	2232 Sep 26 20:50	15° $\underline{\cap}$ 51'54	
evening set	2231 Oct 14 08:38	2° \cap 20'34		min. Earth dist.	2232 Sep 30 17:33	12° $\underline{\cap}$ 08'48	0.65043 AU
	2231 Oct 16 18:45	30° \cap $\underline{\cap}$		inferior conj	2232 Oct 02 20:19	9° $\underline{\cap}$ 47'00	-2°-27'-40
min. Earth dist.	2231 Oct 18 12:08	28° $\underline{\cap}$ 01'03	0.66265 AU	minimum elong	2232 Oct 03 00:17	9° $\underline{\cap}$ 35'56	2°26'12
inferior conj	2231 Oct 20 02:39	26° $\underline{\cap}$ 04'11	-1°-28'-52	morning rise	2232 Oct 09 05:31	4° $\underline{\cap}$ 12'10	
minimum elong	2231 Oct 20 05:01	25° $\underline{\cap}$ 56'59	1°27'54	asc. node	2232 Oct 10 08:23	3° $\underline{\cap}$ 47'26	
asc. node	2231 Oct 24 11:19	21° $\underline{\cap}$ 23'50		direct	2232 Oct 11 20:46	3° $\underline{\cap}$ 35'06	
morning rise	2231 Oct 26 02:38	20° $\underline{\cap}$ 15'47		morning max el	2232 Oct 18 08:59	7° $\underline{\cap}$ 04'41	18°06'13
direct	2231 Oct 29 01:14	19° $\underline{\cap}$ 26'51			2232 Nov 02 21:34	0° \cap	
morning max el	2231 Nov 04 18:10	23° $\underline{\cap}$ 08'25	18°37'50	morning set	2232 Nov 05 09:57	4° \cap 10'35	
	2231 Nov 10 07:54	0° \cap		desc. node	2232 Nov 17 11:55	23° \cap 54'27	
morning set	2231 Nov 25 08:16	23° \cap 13'51					
	2231 Nov 29 14:35	0° \mathcal{A}		superior conj	2232 Nov 19 16:12	27° \cap 23'08	0°-14'-38
desc. node	2231 Dec 01 14:54	3° \mathcal{A} 11'07		minimum elong	2232 Nov 19 14:21	27° \cap 15'48	0°14'23
				behind sun begin	2232 Nov 19 09:20	26° \cap 55'49	
superior conj	2231 Dec 11 10:37	18° \mathcal{A} 38'22	-1°-2'-45	behind sun end	2232 Nov 19 19:22	27° \cap 35'46	
minimum elong	2231 Dec 11 02:56	18° \mathcal{A} 08'16	1°01'51		2232 Nov 21 07:43	0° \mathcal{A}	
max. Earth dist.	2231 Dec 11 10:40	18° \mathcal{A} 38'33	1.45137 AU	max. Earth dist.	2232 Nov 23 05:29	3° \mathcal{A} 00'47	1.44947 AU
	2231 Dec 18 15:59	0° \mathcal{B}		evening rise	2232 Dec 06 03:12	23° \mathcal{A} 08'15	
evening rise	2231 Dec 27 07:03	13° \mathcal{B} 41'12			2232 Dec 10 13:48	0° \mathcal{B}	
	2232 Jan 06 13:18	0° \approx		greatest brilliancy	2232 Dec 23 19:27	19° \mathcal{B} 53'08	-0.6m
evening max el	2232 Jan 18 01:50	15° \approx 52'55	18°56'10	evening max el	2232 Dec 31 08:18	29° \mathcal{B} 22'28	19°45'38
asc. node	2232 Jan 20 10:36	17° \approx 59'19			2232 Dec 31 23:17	0° \approx	
retrograde	2232 Jan 24 21:39	19° \approx 44'13		asc. node	2233 Jan 06 07:40	3° \approx 30'07	
evening set	2232 Jan 28 02:48	18° \approx 44'32		retrograde	2233 Jan 07 18:57	3° \approx 42'01	
inferior conj	2232 Feb 02 19:33	12° \approx 58'03	3°27'20	evening set	2233 Jan 11 07:41	2° \approx 29'07	
minimum elong	2232 Feb 02 17:36	13° \approx 04'11	3°27'02		2233 Jan 14 00:26	30° \cap \mathcal{B}	
min. Earth dist.	2232 Feb 04 10:48	10° \approx 55'36	0.65615 AU	inferior conj	2233 Jan 16 20:10	26° \mathcal{B} 28'00	3°01'22
morning rise	2232 Feb 08 07:22	6° \approx 45'23		minimum elong	2233 Jan 16 17:38	26° \mathcal{B} 36'25	3°00'45
direct	2232 Feb 14 19:58	3° \approx 55'34		min. Earth dist.	2233 Jan 17 21:04	25° \mathcal{B} 05'35	0.66739 AU
desc. node	2232 Feb 27 14:07	11° \approx 19'45		morning rise	2233 Jan 22 02:54	20° \mathcal{B} 13'07	
morning max el	2232 Feb 27 20:40	11° \approx 36'08	26°42'00	direct	2233 Jan 28 03:09	17° \mathcal{B} 33'14	
	2232 Mar 13 13:22	0° \mathcal{H}		morning max el	2233 Feb 09 05:39	24° \mathcal{B} 46'01	25°29'22
	2232 Mar 31 20:46	0° \mathcal{Y}		desc. node	2233 Feb 13 11:09	29° \mathcal{B} 23'59	
morning set	2232 Apr 03 18:06	5° \mathcal{Y} 23'35			2233 Feb 13 23:22	0° \approx	
max. Earth dist.	2232 Apr 08 01:31	13° \mathcal{Y} 46'55	1.34522 AU		2233 Mar 07 00:28	0° \mathcal{H}	
				morning set	2233 Mar 17 10:39	17° \mathcal{H} 53'40	
superior conj	2232 Apr 12 09:52	22° \mathcal{Y} 37'37	0°-50'-23	max. Earth dist.	2233 Mar 21 05:04	24° \mathcal{H} 52'19	1.36191 AU
minimum elong	2232 Apr 12 12:26	22° \mathcal{Y} 50'55	0°49'55		2233 Mar 23 21:21	0° \mathcal{Y}	
	2232 Apr 15 22:33	0° \mathcal{B}					
asc. node	2232 Apr 17 09:53	3° \mathcal{B} 05'43		superior conj	2233 Mar 27 01:35	6° \mathcal{Y} 15'07	-1°-17'-34
evening rise	2232 Apr 19 23:57	8° \mathcal{B} 30'06		minimum elong	2233 Mar 27 05:25	6° \mathcal{Y} 34'11	1°16'58
	2232 May 01 13:20	0° \cap		evening rise	2233 Apr 04 05:15	22° \mathcal{Y} 47'39	
evening max el	2232 May 09 08:46	9° \cap 53'10	21°06'57	asc. node	2233 Apr 04 06:58	22° \mathcal{Y} 56'20	
retrograde	2232 May 21 04:11	15° \cap 38'55			2233 Apr 07 20:04	0° \mathcal{B}	
evening set	2232 May 23 10:10	15° \cap 27'08		evening max el	2233 Apr 21 18:27	21° \mathcal{B} 15'47	19°52'41
desc. node	2232 May 25 13:18	14° \cap 55'40		retrograde	2233 May 01 20:09	26° \mathcal{B} 07'49	
inferior conj	2232 Jun 01 18:28	11° \cap 28'54	-2°-4'-40	evening set	2233 May 03 20:29	25° \mathcal{B} 57'00	
minimum elong	2232 Jun 01 12:42	11° \cap 37'03	2°02'40	desc. node	2233 May 12 10:20	22° \mathcal{B} 06'52	
min. Earth dist.	2232 Jun 02 06:47	11° \cap 11'32	0.54899 AU	inferior conj	2233 May 12 17:13	21° \mathcal{B} 56'20	0°-5'00
morning rise	2232 Jun 10 14:59	7° \cap 28'21		minimum elong	2233 May 12 16:59	21° \mathcal{B} 56'41	0°04'56
direct	2232 Jun 14 00:48	7° \cap 03'13		transit middle	2233 May 12 16:59	21° \mathcal{B} 56'41	0°04'56
morning max el	2232 Jun 26 20:42	13° \cap 10'12	22°33'22	transit begin	2233 May 12 13:13	22° \mathcal{B} 02'28	
	2232 Jul 09 12:14	0° \mathcal{E}		transit end	2233 May 12 20:46	21° \mathcal{B} 50'54	
asc. node	2232 Jul 14 09:09	8° \mathcal{E} 55'21		min. Earth dist.	2233 May 14 20:28	20° \mathcal{B} 38'10	0.55471 AU
morning set	2232 Jul 18 21:10	18° \mathcal{E} 02'56		morning rise	2233 May 21 10:25	17° \mathcal{B} 28'56	
	2232 Jul 24 12:00	0° \mathcal{Q}		direct	2233 May 25 15:56	16° \mathcal{B} 49'28	
				morning max el	2233 Jun 08 12:08	23° \mathcal{B} 42'11	24°15'35
superior conj	2232 Jul 26 01:41	3° \mathcal{Q} 20'38	1°36'19		2233 Jun 14 04:43	0° \cap	
minimum elong	2232 Jul 25 23:47	3° \mathcal{Q} 10'30	1°36'10	asc. node	2233 Jul 01 06:12	28° \cap 35'17	
max. Earth dist.	2232 Jul 29 03:32	9° \mathcal{Q} 48'05	1.34164 AU		2233 Jul 01 22:40	0° \mathcal{E}	
evening rise	2232 Aug 02 23:25	19° \mathcal{Q} 32'21		morning set	2233 Jul 03 09:00	2° \mathcal{E} 59'28	

superior conj	2233 Jul 10 09:55	18°☿10'56	1°23'15	asc. node	2234 Jun 18 03:14	18°♄29'45	
minimum elong	2233 Jul 10 07:33	17°☿58'07	1°22'57		2234 Jun 23 10:43	0°☿	
max. Earth dist.	2233 Jul 12 06:14	22°☿10'04	1.33105 AU				
	2233 Jul 15 23:12	0°♄		superior conj	2234 Jun 24 20:49	3°☿07'18	1°05'44
evening rise	2233 Jul 17 19:06	3°♄44'50		minimum elong	2234 Jun 24 18:30	2°☿54'36	1°05'20
	2233 Aug 01 06:35	0°♅		max. Earth dist.	2234 Jun 25 15:26	4°☿49'20	1.32445 AU
desc. node	2233 Aug 08 09:38	10°♅38'19		evening rise	2234 Jul 01 22:18	18°☿18'12	
evening max el	2233 Aug 20 01:50	24°♅26'05	27°26'05		2234 Jul 07 19:32	0°♄	
	2233 Aug 27 11:45	0°♁		desc. node	2234 Jul 26 06:39	29°♄09'52	
retrograde	2233 Sep 02 17:48	1°♁43'22			2234 Jul 26 22:49	0°♅	
	2233 Sep 08 13:38	30°♅♅		evening max el	2234 Aug 02 08:53	7°♅00'57	27°10'51
evening set	2233 Sep 09 22:04	29°♅06'25		retrograde	2234 Aug 16 05:22	14°♅15'06	
min. Earth dist.	2233 Sep 13 13:41	25°♅56'40	0.63480 AU	evening set	2234 Aug 23 08:22	11°♅56'18	
inferior conj	2233 Sep 16 04:56	23°♅17'20	-3°-24'-15	min. Earth dist.	2234 Aug 26 23:06	9°♅11'30	0.61611 AU
minimum elong	2233 Sep 16 10:05	23°♅04'19	3°22'41	inferior conj	2234 Aug 30 01:17	6°♅26'20	-4°-14'-5
morning rise	2233 Sep 23 00:28	17°♅59'25		minimum elong	2234 Aug 30 06:35	6°♅14'29	4°12'57
direct	2233 Sep 25 11:05	17°♅30'35		morning rise	2234 Sep 06 07:41	1°♅28'58	
asc. node	2233 Sep 27 05:26	17°♅45'56		direct	2234 Sep 08 16:31	1°♅05'23	
morning max el	2233 Oct 02 01:15	20°♅56'12	17°52'03	asc. node	2234 Sep 14 02:27	3°♅12'58	
	2233 Oct 08 21:28	0°♁		morning max el	2234 Sep 15 15:56	4°♅35'15	17°56'23
morning set	2233 Oct 18 13:19	16°♁22'01		morning set	2234 Oct 01 11:59	29°♅28'31	
	2233 Oct 26 11:29	0°♂			2234 Oct 01 18:52	0°♁	
superior conj	2233 Oct 30 18:47	7°♂11'42	0°30'55	superior conj	2234 Oct 12 00:32	18°♁20'31	1°06'20
minimum elong	2233 Oct 30 21:54	7°♂24'36	0°30'30	minimum elong	2234 Oct 12 05:04	18°♁40'09	1°05'47
desc. node	2233 Nov 04 08:56	14°♂41'20			2234 Oct 18 21:36	0°♂	
max. Earth dist.	2233 Nov 05 22:46	17°♂13'21	1.44055 AU	max. Earth dist.	2234 Oct 19 11:59	0°♂59'19	1.42559 AU
	2233 Nov 14 01:38	0°♂		desc. node	2234 Oct 22 05:58	5°♂28'23	
evening rise	2233 Nov 15 11:58	2°♂12'36		evening rise	2234 Oct 26 01:55	11°♂35'23	
	2233 Dec 04 04:15	0°♂			2234 Nov 07 04:02	0°♂	
greatest brilliancy	2233 Dec 08 19:25	6°♂17'29	-0.5m	greatest brilliancy	2234 Nov 22 11:31	21°♂03'46	-0.3m
evening max el	2233 Dec 14 09:27	12°♂53'00	20°49'03	evening max el	2234 Nov 27 05:00	26°♂24'36	22°02'54
retrograde	2233 Dec 22 16:45	17°♂47'42			2234 Dec 01 08:08	0°♂	
asc. node	2233 Dec 24 04:43	17°♂35'11		retrograde	2234 Dec 06 13:18	1°♂58'16	
evening set	2233 Dec 26 14:53	16°♂19'52		evening set	2234 Dec 10 22:38	0°♂14'09	
inferior conj	2234 Jan 01 01:03	10°♂07'04	2°26'08	asc. node	2234 Dec 11 01:43	0°♂07'52	
minimum elong	2233 Dec 31 22:29	10°♂15'51	2°25'20		2234 Dec 11 05:29	30°♅♅	
min. Earth dist.	2234 Jan 01 13:06	9°♂25'45	0.67463 AU	inferior conj	2234 Dec 16 08:07	23°♂53'00	1°43'31
morning rise	2234 Jan 06 05:40	3°♂51'56		minimum elong	2234 Dec 16 06:00	24°♂00'19	1°42'45
direct	2234 Jan 11 15:15	1°♂30'16		min. Earth dist.	2234 Dec 16 08:38	23°♂51'14	0.67811 AU
morning max el	2234 Jan 22 13:57	8°♂01'50	24°03'51	morning rise	2234 Dec 21 13:12	17°♂39'27	
desc. node	2234 Jan 31 08:11	18°♂19'26		direct	2234 Dec 26 07:35	15°♂40'08	
	2234 Feb 08 18:49	0°♁		morning max el	2235 Jan 05 00:20	21°♂24'02	22°35'27
morning set	2234 Feb 27 05:48	29°♁17'16		greatest brilliancy	2235 Jan 09 14:07	26°♂30'26	-0.3m
	2234 Feb 27 15:42	0°♂			2235 Jan 12 09:13	0°♂	
max. Earth dist.	2234 Mar 03 01:07	5°♂58'07	1.38216 AU	desc. node	2235 Jan 18 05:12	7°♂51'40	
					2235 Feb 02 01:57	0°♁	
superior conj	2234 Mar 10 05:13	19°♂13'02	-1°-41'-30	morning set	2235 Feb 07 21:38	9°♁20'08	
minimum elong	2234 Mar 10 09:34	19°♂33'44	1°41'02	max. Earth dist.	2235 Feb 12 21:21	17°♁39'50	1.40371 AU
	2234 Mar 15 18:36	0°♅			2235 Feb 19 22:30	0°♂	
evening rise	2234 Mar 19 03:48	6°♅39'48		superior conj	2235 Feb 20 16:16	1°♂20'05	-1°-58'-53
asc. node	2234 Mar 22 04:01	12°♅31'05		minimum elong	2235 Feb 20 19:32	1°♂34'54	1°58'44
	2234 Apr 01 16:54	0°♅		evening rise	2235 Mar 02 16:32	19°♂58'55	
evening max el	2234 Apr 04 15:13	3°♅17'16	18°57'41		2235 Mar 08 01:44	0°♅	
retrograde	2234 Apr 13 02:46	7°♅24'32		asc. node	2235 Mar 09 01:03	1°♅44'14	
evening set	2234 Apr 15 06:41	7°♅09'33		evening max el	2235 Mar 18 20:24	15°♅51'48	18°22'53
inferior conj	2234 Apr 23 08:44	2°♅53'23	1°38'35	retrograde	2235 Mar 26 04:37	19°♅29'58	
minimum elong	2234 Apr 23 12:12	2°♅47'16	1°37'28	evening set	2235 Mar 28 14:05	19°♅07'47	
min. Earth dist.	2234 Apr 26 12:11	0°♅41'05	0.56887 AU	inferior conj	2235 Apr 04 21:37	14°♅31'10	2°49'46
	2234 Apr 27 13:11	30°♅♅		minimum elong	2235 Apr 05 01:22	14°♅23'22	2°48'56
desc. node	2234 Apr 29 07:22	28°♅56'56		min. Earth dist.	2235 Apr 08 08:10	11°♅41'43	0.58842 AU
morning rise	2234 May 01 13:27	27°♅51'36		morning rise	2235 Apr 12 08:40	8°♅59'29	
direct	2234 May 06 19:42	26°♅45'50		desc. node	2235 Apr 16 04:23	7°♅33'10	
	2234 May 16 01:15	0°♅		direct	2235 Apr 18 13:02	7°♅18'23	
morning max el	2234 May 21 02:49	4°♅10'08	25°51'03	morning max el	2235 May 02 22:06	15°♅02'07	27°04'15
	2234 Jun 08 16:46	0°♄			2235 May 14 23:55	0°♅	
morning set	2234 Jun 17 20:29	17°♄54'06					

	2235 May 31 22:51	0°♊		morning max el	2236 Apr 13 23:36	26°♎32'33	27°44'04
morning set	2235 Jun 02 06:00	2°♊41'29			2236 Apr 17 05:42	0°♎	
asc. node	2235 Jun 05 00:17	8°♊33'45			2236 May 07 12:58	0°♎	
				morning set	2236 May 16 11:41	17°♎14'56	
superior conj	2235 Jun 09 08:36	18°♊03'52	0°44'30	asc. node	2236 May 21 21:20	28°♎42'21	
minimum elong	2235 Jun 09 06:48	17°♊53'54	0°44'08		2236 May 22 11:37	0°♊	
max. Earth dist.	2235 Jun 09 03:33	17°♊36'04	1.32172 AU	max. Earth dist.	2236 May 22 14:42	0°♊16'47	1.32280 AU
	2235 Jun 14 19:47	0°♎					
evening rise	2235 Jun 16 06:27	3°♎04'20		superior conj	2236 May 23 19:34	2°♊54'35	0°20'14
	2235 Jun 30 17:37	0°♎		minimum elong	2236 May 23 18:40	2°♊49'34	0°20'02
desc. node	2235 Jul 13 03:40	16°♎34'49		evening rise	2236 May 30 17:24	17°♊55'49	
evening max el	2235 Jul 15 09:24	18°♎50'12	26°22'29		2236 Jun 05 16:08	0°♎	
retrograde	2235 Jul 29 08:55	26°♎01'47		evening max el	2236 Jun 26 02:52	29°♎53'51	25°05'50
evening set	2235 Aug 04 23:02	24°♎13'55			2236 Jun 26 05:27	0°♎	
min. Earth dist.	2235 Aug 08 22:26	21°♎38'45	0.59556 AU	desc. node	2236 Jun 29 00:40	2°♎26'27	
inferior conj	2235 Aug 12 05:51	19°♎04'40	-4°-49'-33	retrograde	2236 Jul 10 02:39	7°♎00'14	
minimum elong	2235 Aug 12 09:15	18°♎58'02	4°49'12	evening set	2236 Jul 15 14:17	5°♎51'07	
morning rise	2235 Aug 19 22:53	14°♎30'26		min. Earth dist.	2236 Jul 20 14:32	3°♎06'38	0.57549 AU
direct	2235 Aug 22 08:42	14°♎09'54		inferior conj	2236 Jul 23 15:28	1°♎03'42	-4°-58'-54
morning max el	2235 Aug 30 01:55	17°♎53'36	18°20'21	minimum elong	2236 Jul 23 14:22	1°♎05'32	4°58'53
asc. node	2235 Aug 31 23:29	19°♎54'49			2236 Jul 25 05:41	30°♎♎	
	2235 Sep 07 19:47	0°♎		morning rise	2236 Jul 31 18:12	26°♎51'58	
morning set	2235 Sep 15 00:24	13°♎14'17		direct	2236 Aug 03 07:28	26°♎32'50	
	2235 Sep 23 21:37	0°♎			2236 Aug 11 09:18	0°♎	
				morning max el	2236 Aug 12 04:05	0°♎42'12	19°05'09
superior conj	2235 Sep 24 06:27	0°♎40'30	1°29'46	asc. node	2236 Aug 17 20:32	7°♎36'42	
minimum elong	2235 Sep 24 09:57	0°♎56'34	1°29'26	morning set	2236 Aug 28 22:31	27°♎28'41	
max. Earth dist.	2235 Oct 01 19:27	14°♎03'14	1.40655 AU		2236 Aug 30 05:04	0°♎	
evening rise	2235 Oct 06 10:55	21°♎51'25					
desc. node	2235 Oct 09 02:58	26°♎12'00		superior conj	2236 Sep 06 06:59	13°♎55'58	1°42'13
	2235 Oct 11 12:13	0°♎		minimum elong	2236 Sep 06 08:39	14°♎04'00	1°42'08
	2235 Nov 01 06:32	0°♎		max. Earth dist.	2236 Sep 12 23:09	26°♎24'08	1.38598 AU
evening max el	2235 Nov 09 19:54	9°♎58'10	23°22'21		2236 Sep 14 23:28	0°♎	
retrograde	2235 Nov 20 07:08	16°♎10'03		evening rise	2236 Sep 16 20:03	3°♎15'04	
evening set	2235 Nov 25 05:19	14°♎08'55		desc. node	2236 Sep 25 00:00	16°♎48'25	
asc. node	2235 Nov 27 22:44	11°♎18'08			2236 Oct 03 16:01	0°♎	
min. Earth dist.	2235 Nov 30 05:20	8°♎18'24	0.67811 AU	evening max el	2236 Oct 22 08:26	23°♎36'10	24°41'11
inferior conj	2235 Nov 30 15:33	7°♎43'23	0°54'55		2236 Oct 31 15:38	0°♎	
minimum elong	2235 Nov 30 14:18	7°♎47'41	0°54'25	retrograde	2236 Nov 02 21:10	0°♎19'27	
morning rise	2235 Dec 05 23:22	1°♎33'24			2236 Nov 05 00:04	30°♎♎	
	2235 Dec 09 09:04	30°♎♎		evening set	2236 Nov 08 09:21	28°♎01'56	
direct	2235 Dec 10 03:14	29°♎56'57		min. Earth dist.	2236 Nov 13 00:53	22°♎45'17	0.67479 AU
	2235 Dec 10 21:44	0°♎		inferior conj	2236 Nov 13 21:37	21°♎36'22	0°01'37
morning max el	2235 Dec 18 16:08	4°♎55'02	21°12'26	minimum elong	2236 Nov 13 21:35	21°♎36'30	0°01'35
greatest brilliancy	2235 Dec 23 23:05	10°♎59'28	-0.4m	transit middle	2236 Nov 13 21:35	21°♎36'30	0°01'35
desc. node	2236 Jan 05 02:13	27°♎50'04		transit begin	2236 Nov 13 18:50	21°♎45'37	
	2236 Jan 06 13:24	0°♎		transit end	2236 Nov 14 00:19	21°♎27'24	
morning set	2236 Jan 18 09:03	18°♎03'31		asc. node	2236 Nov 13 19:45	21°♎42'36	
	2236 Jan 25 19:49	0°♎		morning rise	2236 Nov 19 10:15	15°♎32'24	
max. Earth dist.	2236 Jan 25 23:11	0°♎13'48	1.42374 AU	direct	2236 Nov 23 01:11	14°♎16'55	
				morning max el	2236 Nov 30 15:31	18°♎37'05	20°00'40
superior conj	2236 Feb 02 05:26	12°♎23'23	-2°-5'-18	greatest brilliancy	2236 Dec 07 19:25	27°♎19'44	-0.6m
minimum elong	2236 Feb 02 05:08	12°♎22'08	2°05'18		2236 Dec 09 17:38	0°♎	
	2236 Feb 12 05:07	0°♎		desc. node	2236 Dec 21 23:16	18°♎07'45	
evening rise	2236 Feb 13 15:36	2°♎35'36		morning set	2236 Dec 27 05:11	26°♎10'49	
asc. node	2236 Feb 23 22:04	20°♎28'01			2236 Dec 29 16:22	0°♎	
evening max el	2236 Mar 01 06:46	28°♎50'03	18°07'59	max. Earth dist.	2237 Jan 07 08:39	13°♎39'30	1.43958 AU
	2236 Mar 02 13:46	0°♎					
retrograde	2236 Mar 07 23:10	2°♎14'53		superior conj	2237 Jan 12 16:46	22°♎16'14	-1°-55'-38
evening set	2236 Mar 10 14:00	1°♎43'39		minimum elong	2237 Jan 12 10:58	21°♎52'36	1°55'19
	2236 Mar 13 13:37	30°♎♎			2237 Jan 17 09:18	0°♎	
inferior conj	2236 Mar 17 06:13	26°♎45'57	3°28'55	evening rise	2237 Jan 25 20:46	14°♎22'18	
minimum elong	2236 Mar 17 08:22	26°♎40'47	3°28'40		2237 Feb 04 01:42	0°♎	
min. Earth dist.	2236 Mar 20 10:56	23°♎43'36	0.60994 AU	asc. node	2237 Feb 09 19:05	8°♎33'56	
morning rise	2236 Mar 23 23:41	20°♎54'17		evening max el	2237 Feb 12 19:20	12°♎04'39	18°12'19
direct	2236 Mar 30 18:02	18°♎38'21		retrograde	2237 Feb 19 06:10	15°♎30'10	
desc. node	2236 Apr 02 01:25	18°♎53'15		evening set	2237 Feb 22 02:11	14°♎48'37	

inferior conj	2237 Feb 28 06:47	9° K 30'35	3°42'28	evening set	2238 Feb 05 23:05	28° \approx 14'33	
minimum elong	2237 Feb 28 06:59	9° K 30'03	3°42'28	inferior conj	2238 Feb 11 19:20	22° \approx 37'46	3°37'03
min. Earth dist.	2237 Mar 02 22:25	6° K 39'12	0.63045 AU	minimum elong	2238 Feb 11 17:59	22° \approx 41'48	3°36'55
morning rise	2237 Mar 06 09:44	3° K 27'16		min. Earth dist.	2238 Feb 13 19:22	20° \approx 14'44	0.64790 AU
direct	2237 Mar 13 08:13	0° K 46'52		morning rise	2238 Feb 17 11:37	16° \approx 27'49	
desc. node	2237 Mar 19 22:28	2° K 49'08		direct	2238 Feb 24 05:41	13° \approx 37'34	
morning max el	2237 Mar 27 06:13	8° K 43'07	27°46'27	desc. node	2238 Mar 06 19:32	18° \approx 46'59	
	2237 Apr 12 17:25	0° Y		morning max el	2238 Mar 09 15:37	21° \approx 26'31	27°14'00
	2237 Apr 29 17:56	0° B			2238 Mar 17 02:40	0° K	
morning set	2237 Apr 30 11:21	1° B 27'02			2238 Apr 05 21:01	0° Y	
max. Earth dist.	2237 May 05 21:00	12° B 38'38	1.32800 AU	morning set	2238 Apr 14 02:08	15° Y 09'12	
				max. Earth dist.	2238 Apr 18 18:47	24° Y 31'43	1.33763 AU
					2238 Apr 21 10:08	0° B	
superior conj	2237 May 08 03:59	17° B 33'25	0°-6'-19				
minimum elong	2237 May 08 04:18	17° B 35'04	0°06'16	superior conj	2238 Apr 22 07:55	1° B 54'27	0°-34'-12
behind sun begin	2237 May 07 23:27	17° B 08'53		minimum elong	2238 Apr 22 09:38	2° B 03'33	0°33'51
behind sun end	2237 May 08 09:09	18° B 01'16		asc. node	2238 Apr 25 15:27	8° B 56'34	
asc. node	2237 May 08 18:24	18° B 51'14		evening rise	2238 Apr 29 16:11	17° B 29'05	
	2237 May 13 22:04	0° II			2238 May 05 22:15	0° II	
evening rise	2237 May 15 05:14	2° II 46'02		evening max el	2238 May 20 09:40	20° II 59'35	21°57'10
	2237 May 30 02:58	0° B		retrograde	2238 Jun 02 01:05	27° II 13'19	
evening max el	2237 Jun 07 16:39	10° B 27'10	23°32'21	desc. node	2238 Jun 02 18:44	27° II 12'05	
desc. node	2237 Jun 15 21:42	16° B 09'49		evening set	2238 Jun 04 18:16	26° II 56'53	
retrograde	2237 Jun 21 07:55	17° B 16'37		min. Earth dist.	2238 Jun 13 14:20	23° II 10'23	0.55012 AU
evening set	2237 Jun 25 08:02	16° B 41'27		inferior conj	2238 Jun 14 02:51	22° II 52'52	-3°-8'-12
min. Earth dist.	2237 Jul 02 02:53	13° B 32'18	0.55923 AU	minimum elong	2238 Jun 13 19:05	23° II 03'44	3°05'53
inferior conj	2237 Jul 04 04:59	12° B 17'35	-4°-27'-44	morning rise	2238 Jun 22 21:25	19° II 00'14	
minimum elong	2237 Jul 03 22:36	12° B 27'08	4°26'39	direct	2238 Jun 26 00:16	18° II 38'41	
morning rise	2237 Jul 12 16:25	8° B 22'10		morning max el	2238 Jul 07 23:39	24° II 15'12	21°37'17
direct	2237 Jul 15 11:09	8° B 02'59			2238 Jul 13 03:33	0° B	
morning max el	2237 Jul 25 19:38	12° B 50'56	20°11'22	asc. node	2238 Jul 22 14:42	15° B 06'59	
asc. node	2237 Aug 04 17:36	26° B 04'26		morning set	2238 Jul 28 12:13	26° B 50'06	
	2237 Aug 06 22:58	0° Q			2238 Jul 30 00:35	0° Q	
morning set	2237 Aug 13 03:15	12° Q 02'47					
superior conj	2237 Aug 20 20:57	27° Q 51'31	1°45'33	superior conj	2238 Aug 04 20:20	12° Q 15'27	1°41'28
minimum elong	2237 Aug 20 20:51	27° Q 51'03	1°45'33	minimum elong	2238 Aug 04 18:56	12° Q 08'09	1°41'24
	2237 Aug 21 22:34	0° P		max. Earth dist.	2238 Aug 08 17:20	20° Q 13'12	1.34963 AU
max. Earth dist.	2237 Aug 26 04:43	8° P 19'21	1.36640 AU	evening rise	2238 Aug 13 03:57	28° Q 57'16	
evening rise	2237 Aug 30 03:13	15° P 40'53			2238 Aug 13 17:07	0° P	
	2237 Sep 07 09:12	0° A		desc. node	2238 Aug 29 18:02	27° P 17'51	
desc. node	2237 Sep 11 21:01	7° A 12'24			2238 Aug 31 13:34	0° A	
	2237 Sep 28 05:30	0° M		evening max el	2238 Sep 17 08:57	20° A 53'19	26°47'32
evening max el	2237 Oct 04 20:35	7° M 16'40	25°52'09	retrograde	2238 Sep 30 10:17	28° A 08'21	
retrograde	2237 Oct 17 06:24	14° M 20'53		evening set	2238 Oct 07 01:59	25° A 27'26	
evening set	2237 Oct 23 08:56	11° M 49'14		min. Earth dist.	2238 Oct 11 02:36	21° A 23'33	0.65799 AU
min. Earth dist.	2237 Oct 27 16:48	7° M 08'20	0.66813 AU	inferior conj	2238 Oct 12 22:11	19° A 15'39	-1°-53'-50
inferior conj	2237 Oct 29 00:30	5° M 28'19	0°-55'-10	minimum elong	2238 Oct 13 01:15	19° A 06'39	1°52'38
minimum elong	2237 Oct 29 01:57	5° M 23'45	0°54'34	asc. node	2238 Oct 18 13:53	13° A 49'20	
asc. node	2237 Oct 31 16:48	2° M 15'36		morning rise	2238 Oct 19 01:55	13° A 32'34	
	2237 Nov 03 03:44	30° R A		direct	2238 Oct 21 21:13	12° A 48'59	
morning rise	2237 Nov 03 19:50	29° A 33'10		morning max el	2238 Oct 28 11:06	16° A 23'58	18°22'14
direct	2237 Nov 06 23:50	28° A 35'30			2238 Nov 07 11:09	0° M	
	2237 Nov 11 00:24	0° M		morning set	2238 Nov 16 20:04	15° M 02'46	
morning max el	2237 Nov 13 22:25	2° M 28'02	19°03'24	desc. node	2238 Nov 25 17:19	29° M 18'19	
	2237 Dec 03 07:29	0° J			2238 Nov 26 03:49	0° J	
morning set	2237 Dec 06 11:11	4° J 55'27		superior conj	2238 Dec 02 05:28	9° J 35'35	0°-42'-44
desc. node	2237 Dec 08 20:19	8° J 38'37		minimum elong	2238 Dec 01 23:59	9° J 13'58	0°42'01
max. Earth dist.	2237 Dec 21 00:33	27° J 43'22	1.44919 AU	max. Earth dist.	2238 Dec 03 19:41	12° J 05'47	1.45154 AU
	2237 Dec 22 11:13	0° B			2238 Dec 15 05:47	0° B	
superior conj	2237 Dec 23 04:09	1° B 06'50	-1°-26'-52	evening rise	2238 Dec 18 12:01	5° B 06'57	
minimum elong	2237 Dec 22 19:14	0° B 31'39	1°26'00	greatest brilliancy	2239 Jan 01 03:47	26° B 20'58	-0.7m
evening rise	2238 Jan 07 04:03	25° B 12'43			2239 Jan 03 15:20	0° \approx	
	2238 Jan 10 02:14	0° \approx		evening max el	2239 Jan 10 16:16	8° \approx 57'00	19°15'20
evening max el	2238 Jan 27 07:18	25° \approx 28'55	18°35'09	asc. node	2239 Jan 14 13:10	12° \approx 04'39	
asc. node	2238 Jan 27 16:07	25° \approx 50'53		retrograde	2239 Jan 17 17:28	12° \approx 59'12	
retrograde	2238 Feb 02 21:27	29° \approx 07'27		evening set	2239 Jan 21 01:44	11° \approx 53'52	

inferior conj	2239 Jan 26 16:23	6° \approx 00'37	3°17'34		2239 Dec 08 08:16	0° \approx	
minimum elong	2239 Jan 26 14:06	6° \approx 07'56	3°17'08	greatest brilliancy	2239 Dec 18 06:38	14° \approx 24'23	-0.6m
min. Earth dist.	2239 Jan 28 01:14	4° \approx 15'10	0.66143 AU	evening max el	2239 Dec 24 20:30	22° \approx 26'54	20°11'01
	2239 Jan 31 19:52	30° \approx		asc. node	2240 Jan 01 10:12	27° \approx 00'51	
morning rise	2239 Feb 01 01:39	29° \approx 46'54		retrograde	2240 Jan 01 15:23	27° \approx 01'06	
direct	2239 Feb 07 09:20	27° \approx 00'22		evening set	2240 Jan 05 07:51	25° \approx 42'00	
	2239 Feb 14 21:49	0° \approx		inferior conj	2240 Jan 10 19:06	19° \approx 35'14	2°47'25
morning max el	2239 Feb 20 01:20	4° \approx 30'18	26°13'25	minimum elong	2240 Jan 10 16:30	19° \approx 44'03	2°46'43
desc. node	2239 Feb 21 16:34	6° \approx 12'35		min. Earth dist.	2240 Jan 11 14:18	18° \approx 30'32	0.67091 AU
	2239 Mar 11 13:23	0° \approx		morning rise	2240 Jan 16 00:35	13° \approx 19'52	
morning set	2239 Mar 28 04:10	28° \approx 09'14		direct	2240 Jan 21 18:37	10° \approx 47'12	
	2239 Mar 29 03:48	0° \approx		morning max el	2240 Feb 02 10:07	17° \approx 44'16	24°53'58
max. Earth dist.	2239 Apr 01 05:21	5° \approx 52'41	1.35183 AU	desc. node	2240 Feb 08 13:34	24° \approx 40'49	
					2240 Feb 12 17:00	0° \approx	
superior conj	2239 Apr 06 04:51	15° \approx 49'33	-1°-2'-8		2240 Mar 03 14:07	0° \approx	
minimum elong	2239 Apr 06 08:00	16° \approx 05'37	1°01'36	morning set	2240 Mar 09 12:23	10° \approx 13'08	
asc. node	2239 Apr 12 12:29	28° \approx 53'31		max. Earth dist.	2240 Mar 13 05:06	16° \approx 54'39	1.37021 AU
	2239 Apr 13 01:20	0° \approx					
evening rise	2239 Apr 14 00:08	1° \approx 57'35		superior conj	2240 Mar 19 15:51	29° \approx 10'56	-1°-28'-16
	2239 Apr 30 15:09	0° \approx		minimum elong	2240 Mar 19 20:02	29° \approx 31'24	1°27'44
evening max el	2239 May 02 12:16	1° \approx 58'24	20°33'03		2240 Mar 20 01:52	0° \approx	
retrograde	2239 May 13 14:11	7° \approx 21'32		evening rise	2240 Mar 28 02:53	16° \approx 05'01	
evening set	2239 May 15 16:08	7° \approx 10'54		asc. node	2240 Mar 29 09:31	18° \approx 37'45	
desc. node	2239 May 20 15:47	5° \approx 30'18			2240 Apr 04 09:33	0° \approx	
inferior conj	2239 May 24 20:54	3° \approx 13'12	-1°-13'-46	evening max el	2240 Apr 14 02:47	13° \approx 37'11	19°26'46
minimum elong	2239 May 24 17:24	3° \approx 18'15	1°12'31	retrograde	2240 Apr 23 11:32	18° \approx 08'54	
min. Earth dist.	2239 May 26 02:47	2° \approx 30'02	0.55026 AU	evening set	2240 Apr 25 12:33	17° \approx 56'55	
	2239 May 30 23:24	30° \approx		inferior conj	2240 May 04 01:42	13° \approx 50'40	0°42'22
morning rise	2239 Jun 02 17:14	29° \approx 03'20		minimum elong	2240 May 04 03:28	13° \approx 47'48	0°41'44
direct	2239 Jun 06 10:18	28° \approx 33'41		min. Earth dist.	2240 May 06 17:20	12° \approx 07'56	0.55983 AU
	2239 Jun 12 15:35	0° \approx		desc. node	2240 May 06 12:48	12° \approx 15'05	
morning max el	2239 Jun 19 18:20	5° \approx 00'52	23°16'49	morning rise	2240 May 12 14:30	9° \approx 08'18	
	2239 Jul 07 03:15	0° \approx		direct	2240 May 17 06:06	8° \approx 19'14	
asc. node	2239 Jul 09 11:45	4° \approx 34'53		morning max el	2240 May 31 08:50	15° \approx 27'48	24°58'03
morning set	2239 Jul 12 23:28	11° \approx 44'21			2240 Jun 11 23:48	0° \approx	
				asc. node	2240 Jun 25 08:47	24° \approx 21'15	
superior conj	2239 Jul 20 02:01	26° \approx 57'58	1°31'23	morning set	2240 Jun 26 11:17	26° \approx 24'10	
minimum elong	2239 Jul 19 23:51	26° \approx 46'22	1°31'09		2240 Jun 28 00:49	0° \approx	
	2239 Jul 21 12:07	0° \approx					
max. Earth dist.	2239 Jul 22 14:58	2° \approx 22'04	1.33660 AU	superior conj	2240 Jul 03 11:35	11° \approx 51'15	1°16'20
evening rise	2239 Jul 27 17:45	12° \approx 51'39		minimum elong	2240 Jul 03 09:11	11° \approx 38'09	1°15'57
	2239 Aug 05 22:44	0° \approx		max. Earth dist.	2240 Jul 04 20:34	14° \approx 50'42	1.32768 AU
desc. node	2239 Aug 16 15:04	16° \approx 56'37		evening rise	2240 Jul 10 16:55	27° \approx 13'24	
	2239 Aug 26 18:23	0° \approx			2240 Jul 12 01:45	0° \approx	
evening max el	2239 Aug 30 20:45	4° \approx 15'44	27°20'09		2240 Jul 29 06:28	0° \approx	
retrograde	2239 Sep 13 08:31	11° \approx 34'10		desc. node	2240 Aug 02 12:06	5° \approx 57'02	
evening set	2239 Sep 20 09:57	8° \approx 52'12		evening max el	2240 Aug 12 06:07	17° \approx 11'06	27°23'42
min. Earth dist.	2239 Sep 24 04:05	5° \approx 24'19	0.64423 AU	retrograde	2240 Aug 26 00:32	24° \approx 28'08	
inferior conj	2239 Sep 26 12:20	2° \approx 53'47	-2°-52'-10	evening set	2240 Sep 02 05:23	21° \approx 56'58	
minimum elong	2239 Sep 26 16:53	2° \approx 41'35	2°50'35	min. Earth dist.	2240 Sep 05 19:42	18° \approx 59'25	0.62708 AU
	2239 Sep 29 08:59	30° \approx		inferior conj	2240 Sep 08 16:06	16° \approx 15'30	-3°-46'-40
morning rise	2239 Oct 03 01:51	27° \approx 26'00		minimum elong	2240 Sep 08 21:30	16° \approx 02'31	3°45'12
asc. node	2239 Oct 05 10:56	26° \approx 52'59		morning rise	2240 Sep 15 16:16	11° \approx 06'14	
direct	2239 Oct 05 14:50	26° \approx 52'51		direct	2240 Sep 18 01:39	10° \approx 40'06	
	2239 Oct 11 19:01	0° \approx		asc. node	2240 Sep 21 07:59	11° \approx 30'02	
morning max el	2239 Oct 12 02:58	0° \approx 19'28	17°58'03	morning max el	2240 Sep 24 18:59	14° \approx 06'40	17°51'38
morning set	2239 Oct 29 09:28	26° \approx 33'54			2240 Oct 05 16:56	0° \approx	
	2239 Oct 31 10:14	0° \approx		morning set	2240 Oct 10 21:47	9° \approx 10'35	
superior conj	2239 Nov 11 18:30	18° \approx 43'53	0°05'37	superior conj	2240 Oct 22 08:39	29° \approx 06'51	0°47'23
minimum elong	2239 Nov 11 19:09	18° \approx 46'33	0°05'32	minimum elong	2240 Oct 22 12:46	29° \approx 24'14	0°46'50
behind sun begin	2239 Nov 11 09:23	18° \approx 07'07			2240 Oct 22 21:16	0° \approx	
behind sun end	2239 Nov 12 04:55	19° \approx 25'54		max. Earth dist.	2240 Oct 29 05:49	10° \approx 28'45	1.43475 AU
desc. node	2239 Nov 12 14:20	20° \approx 03'46		desc. node	2240 Oct 29 11:22	10° \approx 51'10	
max. Earth dist.	2239 Nov 16 14:30	26° \approx 27'24	1.44648 AU	evening rise	2240 Nov 06 10:29	23° \approx 27'02	
	2239 Nov 18 20:22	0° \approx			2240 Nov 10 16:44	0° \approx	
evening rise	2239 Nov 28 01:40	14° \approx 20'29		greatest brilliancy	2240 Dec 01 17:06	0° \approx 04'55	-0.4m

	2240 Dec 01 15:33	0°☿		desc. node	2241 Oct 16 08:25	1°☿37'23	
evening max el	2240 Dec 06 19:08	5°☿57'27	21°19'24	evening rise	2241 Oct 17 07:24	3°☿09'50	
retrograde	2240 Dec 15 12:55	11°☿09'01			2241 Nov 04 02:16	0°☿	
asc. node	2240 Dec 18 07:14	10°☿26'46		greatest brilliancy	2241 Nov 14 16:01	14°☿03'30	-0.3m
evening set	2240 Dec 19 15:28	9°☿34'36		evening max el	2241 Nov 19 12:39	19°☿30'15	22°36'22
inferior conj	2240 Dec 25 01:10	3°☿17'43	2°08'52	retrograde	2241 Nov 29 08:24	25°☿20'21	
minimum elong	2240 Dec 24 22:44	3°☿26'05	2°08'04	evening set	2241 Dec 03 22:58	23°☿29'16	
min. Earth dist.	2240 Dec 25 08:13	2°☿53'19	0.67655 AU	asc. node	2241 Dec 05 04:15	22°☿21'50	
	2240 Dec 27 12:07	30°☿☿		inferior conj	2241 Dec 09 08:38	17°☿05'57	1°23'35
morning rise	2240 Dec 30 05:40	27°☿02'43		minimum elong	2241 Dec 09 06:50	17°☿12'10	1°22'53
direct	2241 Jan 04 08:44	24°☿50'11		min. Earth dist.	2241 Dec 09 04:36	17°☿19'52	0.67858 AU
	2241 Jan 13 17:23	0°☿		morning rise	2241 Dec 14 14:36	10°☿53'31	
morning max el	2241 Jan 14 18:51	1°☿02'25	23°25'56	direct	2241 Dec 19 02:45	9°☿03'45	
greatest brilliancy	2241 Jan 20 12:49	7°☿32'43	-0.2m	morning max el	2241 Dec 28 06:58	14°☿27'16	21°58'57
desc. node	2241 Jan 25 10:35	13°☿53'17		greatest brilliancy	2242 Jan 01 23:46	19°☿44'35	-0.4m
	2241 Feb 05 16:05	0°☿			2242 Jan 09 18:02	0°☿	
morning set	2241 Feb 18 20:31	21°☿03'42		desc. node	2242 Jan 12 07:37	3°☿37'49	
max. Earth dist.	2241 Feb 22 23:37	28°☿09'04	1.39132 AU	morning set	2242 Jan 29 23:45	0°☿30'27	
	2241 Feb 24 00:53	0°☿			2242 Jan 29 16:10	0°☿	
				max. Earth dist.	2242 Feb 04 21:36	10°☿11'30	1.41265 AU
superior conj	2241 Mar 02 13:00	11°☿48'19	-1°-49'-55				
minimum elong	2241 Mar 02 17:08	12°☿07'39	1°49'35	superior conj	2242 Feb 12 15:26	23°☿30'11	-2°-3'-16
evening rise	2241 Mar 11 21:38	29°☿43'38		minimum elong	2242 Feb 12 17:32	23°☿39'27	2°03'13
	2241 Mar 12 01:01	0°☿			2242 Feb 16 06:35	0°☿	
asc. node	2241 Mar 16 06:33	8°☿03'52		evening rise	2242 Feb 23 05:03	12°☿45'37	
evening max el	2241 Mar 28 03:34	25°☿53'59	18°40'28	asc. node	2242 Mar 03 03:35	27°☿05'25	
retrograde	2241 Apr 05 02:03	29°☿46'34			2242 Mar 04 21:58	0°☿	
evening set	2241 Apr 07 08:15	29°☿28'53		evening max el	2242 Mar 11 11:26	8°☿40'08	18°14'10
inferior conj	2241 Apr 15 02:12	25°☿04'42	2°12'57	retrograde	2242 Mar 18 11:19	12°☿10'22	
minimum elong	2241 Apr 15 06:08	24°☿57'15	2°11'51	evening set	2242 Mar 20 23:17	11°☿44'21	
min. Earth dist.	2241 Apr 18 10:50	22°☿33'37	0.57672 AU	inferior conj	2242 Mar 27 23:50	6°☿58'46	3°09'58
morning rise	2241 Apr 22 23:39	19°☿49'02		minimum elong	2242 Mar 28 03:02	6°☿51'41	3°09'23
desc. node	2241 Apr 23 09:48	19°☿37'43		min. Earth dist.	2242 Mar 31 09:13	4°☿00'49	0.59758 AU
direct	2241 Apr 28 16:14	18°☿28'28		morning rise	2242 Apr 04 03:13	1°☿17'46	
morning max el	2241 May 13 00:56	26°☿03'02	26°25'41		2242 Apr 06 21:06	30°☿☿	
	2241 May 16 18:11	0°☿		desc. node	2242 Apr 10 06:49	29°☿21'23	
	2241 Jun 05 04:39	0°☿		direct	2242 Apr 10 14:56	29°☿21'04	
morning set	2241 Jun 10 22:08	11°☿32'29			2242 Apr 14 11:27	0°☿	
asc. node	2241 Jun 12 05:49	14°☿20'29		morning max el	2242 Apr 24 22:36	7°☿09'33	27°25'40
					2242 May 12 03:27	0°☿	
superior conj	2241 Jun 17 23:06	26°☿48'52	0°57'09	morning set	2242 May 26 06:14	26°☿14'36	
minimum elong	2241 Jun 17 20:56	26°☿37'01	0°56'45		2242 May 28 01:07	0°☿	
max. Earth dist.	2241 Jun 18 07:19	27°☿34'04	1.32276 AU	asc. node	2242 May 30 02:51	4°☿26'53	
	2241 Jun 19 09:52	0°☿					
evening rise	2241 Jun 24 22:32	11°☿53'34		superior conj	2242 Jun 02 10:44	11°☿43'40	0°34'33
	2241 Jul 04 06:01	0°☿		minimum elong	2242 Jun 02 09:15	11°☿35'33	0°34'14
desc. node	2241 Jul 20 09:07	24°☿03'27		max. Earth dist.	2242 Jun 01 19:33	10°☿20'14	1.32171 AU
evening max el	2241 Jul 25 10:45	29°☿28'13	26°54'22	evening rise	2242 Jun 09 08:08	26°☿43'07	
	2241 Jul 26 00:22	0°☿			2242 Jun 10 21:44	0°☿	
retrograde	2241 Aug 08 09:08	6°☿41'32			2242 Jun 28 01:45	0°☿	
evening set	2241 Aug 15 07:59	4°☿34'44		desc. node	2242 Jul 07 06:08	10°☿52'38	
min. Earth dist.	2241 Aug 19 00:56	1°☿55'55	0.60740 AU	evening max el	2242 Jul 07 08:25	10°☿58'05	25°52'54
	2241 Aug 21 08:15	30°☿☿		retrograde	2242 Jul 21 08:26	18°☿07'14	
inferior conj	2241 Aug 22 06:14	29°☿13'09	-4°-31'-32	evening set	2242 Jul 27 12:55	16°☿35'47	
minimum elong	2241 Aug 22 11:01	29°☿03'00	4°30'43	min. Earth dist.	2242 Jul 31 20:49	13°☿58'51	0.58682 AU
morning rise	2241 Aug 29 17:12	24°☿25'13		inferior conj	2242 Aug 04 03:05	11°☿35'57	-4°-57'-33
direct	2241 Sep 01 01:59	24°☿03'15		minimum elong	2242 Aug 04 04:52	11°☿32'39	4°57'29
asc. node	2241 Sep 08 05:00	27°☿30'50		morning rise	2242 Aug 12 00:19	7°☿11'14	
morning max el	2241 Sep 08 08:04	27°☿38'12	18°04'05	direct	2242 Aug 14 11:28	6°☿51'20	
	2241 Sep 10 11:53	0°☿		morning max el	2242 Aug 22 15:00	10°☿44'27	18°36'46
morning set	2241 Sep 24 02:56	22°☿35'40		asc. node	2242 Aug 26 02:03	14°☿39'43	
	2241 Sep 28 02:37	0°☿			2242 Sep 04 09:28	0°☿	
				morning set	2242 Sep 07 19:56	6°☿34'49	
superior conj	2241 Oct 04 01:18	10°☿47'36	1°17'42				
minimum elong	2241 Oct 04 05:35	11°☿06'38	1°17'13	superior conj	2242 Sep 16 15:47	23°☿32'40	1°36'16
max. Earth dist.	2241 Oct 11 16:17	23°☿56'49	1.41786 AU	minimum elong	2242 Sep 16 18:33	23°☿45'35	1°36'04
	2241 Oct 15 08:22	0°☿			2242 Sep 20 03:44	0°☿	

max. Earth dist.	2242 Sep 23 22:09	6°♄43'10	1.39788 AU	superior conj	2243 Aug 30 22:34	7°♄06'37	1°44'38
evening rise	2242 Sep 28 02:35	13°♄54'07		minimum elong	2243 Aug 30 23:27	7°♄10'57	1°44'37
desc. node	2242 Oct 03 05:27	22°♄18'28		max. Earth dist.	2243 Sep 06 02:06	18°♄50'56	1.37739 AU
	2242 Oct 08 03:13	0°♄		evening rise	2243 Sep 09 21:28	25°♄44'36	
	2242 Oct 30 04:09	0°♄			2243 Sep 12 07:54	0°♄	
evening max el	2242 Nov 02 02:27	3°♄06'13	23°56'24	desc. node	2243 Sep 20 02:29	12°♄50'06	
retrograde	2242 Nov 13 00:37	9°♄31'46			2243 Oct 01 17:12	0°♄	
evening set	2242 Nov 18 04:45	7°♄23'30		evening max el	2243 Oct 15 14:29	16°♄44'55	25°12'47
asc. node	2242 Nov 22 01:16	3°♄06'50		retrograde	2243 Oct 27 12:39	23°♄38'29	
min. Earth dist.	2242 Nov 23 01:03	1°♄47'23	0.67714 AU	evening set	2243 Nov 02 07:07	21°♄14'12	
inferior conj	2242 Nov 23 15:42	0°♄57'40	0°32'52	min. Earth dist.	2243 Nov 06 19:13	16°♄12'53	0.67235 AU
minimum elong	2242 Nov 23 14:56	1°♄00'19	0°32'31	inferior conj	2243 Nov 07 20:38	14°♄50'06	0°-22'-7
	2242 Nov 24 08:48	30°♄		minimum elong	2243 Nov 07 21:12	14°♄48'16	0°21'55
morning rise	2242 Nov 29 01:20	24°♄50'08		asc. node	2243 Nov 08 22:20	13°♄27'15	
direct	2242 Dec 02 23:36	23°♄22'48		morning rise	2243 Nov 13 11:55	8°♄49'50	
morning max el	2242 Dec 11 01:54	28°♄03'02	20°40'21	direct	2243 Nov 16 21:54	7°♄42'30	
	2242 Dec 12 21:46	0°♄		morning max el	2243 Nov 24 04:42	11°♄49'28	19°34'30
greatest brilliancy	2242 Dec 17 00:28	5°♄00'59	-0.5m	greatest brilliancy	2243 Dec 02 14:03	22°♄22'00	-0.6m
desc. node	2242 Dec 30 04:40	23°♄45'29			2243 Dec 07 19:05	0°♄	
	2243 Jan 03 08:00	0°♄		desc. node	2243 Dec 17 01:43	14°♄09'14	
morning set	2243 Jan 09 02:11	8°♄51'12		morning set	2243 Dec 18 23:28	17°♄05'53	
max. Earth dist.	2243 Jan 18 03:26	23°♄11'56	1.43116 AU		2243 Dec 27 06:23	0°♄	
	2243 Jan 22 07:14	0°♄		max. Earth dist.	2243 Dec 31 16:09	6°♄56'43	1.44445 AU
superior conj	2243 Jan 24 18:03	4°♄04'47	-2°-3'-27	superior conj	2244 Jan 04 18:16	13°♄27'51	-1°-45'-45
minimum elong	2243 Jan 24 15:30	3°♄54'07	2°03'23	minimum elong	2244 Jan 04 10:29	12°♄56'40	1°45'10
evening rise	2243 Feb 05 21:07	25°♄02'54			2244 Jan 14 21:04	0°♄	
	2243 Feb 08 16:20	0°♄		evening rise	2244 Jan 18 17:26	6°♄26'29	
asc. node	2243 Feb 18 00:37	15°♄34'47			2244 Feb 02 07:19	0°♄	
evening max el	2243 Feb 22 23:09	21°♄46'53	18°07'27	asc. node	2244 Feb 04 21:40	3°♄21'29	
retrograde	2243 Mar 01 11:56	25°♄10'25		evening max el	2244 Feb 06 11:43	5°♄05'57	18°19'46
evening set	2243 Mar 04 05:01	24°♄34'48		retrograde	2244 Feb 12 23:06	8°♄36'01	
inferior conj	2243 Mar 10 15:49	19°♄27'57	3°37'22	evening set	2244 Feb 15 21:19	7°♄49'51	
minimum elong	2243 Mar 10 17:07	19°♄24'38	3°37'16	inferior conj	2244 Feb 21 21:59	2°♄23'25	3°42'09
min. Earth dist.	2243 Mar 13 15:22	16°♄28'01	0.61895 AU	minimum elong	2244 Feb 21 21:27	2°♄24'55	3°42'07
morning rise	2243 Mar 17 02:41	13°♄30'35			2244 Feb 24 00:39	30°♄	
direct	2243 Mar 23 23:52	11°♄03'02		min. Earth dist.	2244 Feb 24 07:00	29°♄42'28	0.63827 AU
desc. node	2243 Mar 28 03:51	11°♄51'47		morning rise	2244 Feb 27 19:54	26°♄16'31	
morning max el	2243 Apr 07 02:40	18°♄58'20	27°49'41	direct	2244 Mar 05 17:11	23°♄30'16	
	2243 Apr 16 10:42	0°♄		desc. node	2244 Mar 14 00:54	26°♄43'50	
	2243 May 04 23:16	0°♄			2244 Mar 17 23:49	0°♄	
morning set	2243 May 10 09:41	10°♄40'10		morning max el	2244 Mar 19 11:04	1°♄25'12	27°36'36
max. Earth dist.	2243 May 16 05:22	22°♄55'44	1.32458 AU		2244 Apr 09 14:27	0°♄	
asc. node	2243 May 16 23:55	24°♄36'12		morning set	2244 Apr 23 06:00	24°♄40'59	
					2244 Apr 25 21:21	0°♄	
superior conj	2243 May 17 20:51	26°♄30'05	0°09'13	max. Earth dist.	2244 Apr 28 08:37	5°♄06'56	1.33157 AU
minimum elong	2243 May 17 20:25	26°♄27'44	0°09'08				
behind sun begin	2243 May 17 16:11	26°♄04'42		superior conj	2244 May 01 03:36	11°♄01'59	0°-18'-3
behind sun end	2243 May 18 00:39	26°♄50'48		minimum elong	2244 May 01 04:30	11°♄06'46	0°17'51
	2243 May 19 11:18	0°♄		asc. node	2244 May 02 20:59	14°♄44'04	
evening rise	2243 May 24 19:44	11°♄35'08		evening rise	2244 May 08 07:25	26°♄22'58	
	2243 Jun 03 05:00	0°♄			2244 May 10 00:58	0°♄	
evening max el	2243 Jun 18 23:33	21°♄45'16	24°27'06		2244 May 28 10:06	0°♄	
desc. node	2243 Jun 24 03:09	25°♄54'08		evening max el	2244 May 30 13:32	2°♄13'33	22°51'05
retrograde	2243 Jul 02 20:44	28°♄46'13		desc. node	2244 Jun 10 00:09	8°♄32'20	
evening set	2243 Jul 07 18:05	27°♄52'40		retrograde	2244 Jun 12 20:57	8°♄51'06	
min. Earth dist.	2243 Jul 13 10:30	24°♄59'30	0.56798 AU	evening set	2244 Jun 16 06:22	8°♄25'50	
inferior conj	2243 Jul 16 03:58	23°♄15'23	-4°-51'-23	min. Earth dist.	2244 Jun 23 22:09	5°♄02'19	0.55429 AU
minimum elong	2243 Jul 16 00:29	23°♄20'57	4°51'05	inferior conj	2244 Jun 25 09:49	4°♄10'59	-3°-59'-44
morning rise	2243 Jul 24 10:34	19°♄12'02		minimum elong	2244 Jun 25 02:06	4°♄22'06	3°57'57
direct	2243 Jul 27 02:08	18°♄52'58		morning rise	2244 Jul 04 00:40	0°♄19'10	
morning max el	2243 Aug 05 12:51	23°♄16'34	19°30'46	direct	2244 Jul 06 22:08	29°♄59'35	
	2243 Aug 11 04:06	0°♄			2244 Jul 06 12:11	30°♄	
asc. node	2243 Aug 12 23:07	2°♄42'17			2244 Jul 07 08:02	0°♄	
morning set	2243 Aug 22 21:09	20°♄58'14		morning max el	2244 Jul 17 23:36	5°♄07'17	20°45'49
	2243 Aug 27 08:48	0°♄		asc. node	2244 Jul 29 20:12	21°♄26'11	
					2244 Aug 03 08:55	0°♄	

morning set	2244 Aug 06 03:56	5°♎38'55			2245 Jul 26 01:40	0°♎	
superior conj	2244 Aug 13 17:01	21°♎16'11	1°44'38	superior conj	2245 Jul 28 19:24	5°♎49'20	1°37'52
minimum elong	2244 Aug 13 16:18	21°♎12'32	1°44'38	minimum elong	2245 Jul 28 17:37	5°♎39'52	1°37'43
	2244 Aug 18 01:21	0°♐		max. Earth dist.	2245 Aug 01 02:02	12°♎39'49	1.34357 AU
max. Earth dist.	2244 Aug 18 09:50	0°♐41'36	1.35877 AU	evening rise	2245 Aug 05 19:30	22°♎08'19	
evening rise	2244 Aug 22 12:41	8°♐33'48			2245 Aug 09 23:12	0°♐	
	2244 Sep 03 23:35	0°♑		desc. node	2245 Aug 23 20:31	23°♐02'43	
desc. node	2244 Sep 05 23:30	3°♑07'20			2245 Aug 28 17:52	0°♑	
	2244 Sep 26 16:30	0°♒		evening max el	2245 Sep 09 14:50	13°♑56'52	27°04'40
evening max el	2244 Sep 27 02:31	0°♒24'29	26°18'04	retrograde	2245 Sep 22 21:32	21°♑14'31	
retrograde	2244 Oct 09 19:53	7°♒35'23		evening set	2245 Sep 29 17:45	18°♑32'10	
evening set	2244 Oct 16 04:14	4°♒58'46		min. Earth dist.	2245 Oct 03 15:30	14°♑43'37	0.65253 AU
min. Earth dist.	2244 Oct 20 08:50	0°♒33'37	0.66418 AU	inferior conj	2245 Oct 05 16:20	12°♑25'19	-2°-18'-49
	2244 Oct 20 19:52	30°♒♑		minimum elong	2245 Oct 05 20:04	12°♑14'45	2°17'24
inferior conj	2244 Oct 21 21:34	28°♑40'56	-1°-19'-57	morning rise	2245 Oct 12 00:04	6°♑48'06	
minimum elong	2244 Oct 21 23:41	28°♑34'24	1°19'05	asc. node	2245 Oct 12 16:26	6°♑31'00	
asc. node	2244 Oct 25 19:23	24°♑21'05		direct	2245 Oct 14 16:18	6°♑09'27	
morning rise	2244 Oct 27 20:17	22°♑50'39		morning max el	2245 Oct 21 04:43	9°♑40'11	18°09'45
direct	2244 Oct 30 20:11	21°♑59'37			2245 Nov 04 05:24	0°♒	
morning max el	2244 Nov 06 14:25	25°♑43'52	18°43'54	morning set	2245 Nov 08 13:10	7°♒07'22	
	2244 Nov 10 06:27	0°♒		desc. node	2245 Nov 19 19:48	25°♒27'11	
morning set	2244 Nov 27 15:45	26°♒22'57			2245 Nov 22 16:18	0°♓	
	2244 Nov 29 22:39	0°♓					
desc. node	2244 Dec 02 22:46	4°♓44'37		superior conj	2245 Nov 23 02:44	0°♓41'23	0°-22'00
				minimum elong	2245 Nov 22 23:56	0°♓30'14	0°21'38
superior conj	2244 Dec 13 22:57	22°♓02'37	-1°-9'-30	max. Earth dist.	2245 Nov 26 04:17	5°♓31'50	1.45028 AU
minimum elong	2244 Dec 13 14:44	21°♓30'20	1°08'33	evening rise	2245 Dec 09 13:37	26°♓25'37	
max. Earth dist.	2244 Dec 13 09:20	21°♓09'09	1.45105 AU		2245 Dec 11 20:53	0°♔	
	2244 Dec 19 00:16	0°♔		greatest brilliancy	2245 Dec 26 07:12	21°♔54'40	-0.7m
evening rise	2244 Dec 29 14:42	16°♔52'15			2246 Jan 01 09:43	0°♕	
	2245 Jan 06 19:08	0°♕		evening max el	2246 Jan 03 05:47	2°♕01'37	19°37'22
evening max el	2245 Jan 19 22:38	18°♕32'12	18°50'12	asc. node	2246 Jan 08 15:42	5°♕56'06	
asc. node	2245 Jan 21 18:41	20°♕13'25		retrograde	2246 Jan 10 13:45	6°♕16'16	
retrograde	2245 Jan 26 16:46	22°♕19'50		evening set	2246 Jan 14 01:18	5°♕05'20	
evening set	2245 Jan 29 20:57	21°♕22'00			2246 Jan 18 21:51	30°♒♔	
inferior conj	2245 Feb 04 14:32	15°♕38'04	3°30'14	inferior conj	2246 Jan 19 14:17	29°♔06'16	3°05'55
minimum elong	2245 Feb 04 12:43	15°♕43'41	3°30'00	minimum elong	2246 Jan 19 11:47	29°♔14'26	3°05'22
min. Earth dist.	2245 Feb 06 08:04	13°♕29'56	0.65415 AU	min. Earth dist.	2246 Jan 20 17:13	27°♔37'48	0.66597 AU
morning rise	2245 Feb 10 03:23	9°♕25'59		morning rise	2246 Jan 24 21:34	22°♔51'43	
direct	2245 Feb 16 17:37	6°♕35'31		direct	2246 Jan 30 23:53	20°♔09'46	
desc. node	2245 Feb 28 21:57	13°♕22'25		morning max el	2246 Feb 12 05:59	27°♔27'16	25°41'18
morning max el	2245 Mar 01 20:53	14°♕18'54	26°51'04		2246 Feb 14 15:36	0°♕	
	2245 Mar 14 15:42	0°♖		desc. node	2246 Feb 15 18:59	1°♕17'16	
	2245 Apr 02 07:14	0°♗			2246 Mar 08 07:54	0°♖	
morning set	2245 Apr 06 15:55	8°♗07'06		morning set	2246 Mar 20 11:06	20°♖45'41	
max. Earth dist.	2245 Apr 11 01:34	16°♗44'50	1.34308 AU	max. Earth dist.	2246 Mar 24 06:52	27°♖53'58	1.35915 AU
					2246 Mar 25 09:11	0°♘	
superior conj	2245 Apr 15 04:53	25°♗13'03	0°-46'-8				
minimum elong	2245 Apr 15 07:14	25°♗25'16	0°45'42	superior conj	2246 Mar 29 22:04	8°♗55'47	-1°-13'-34
	2245 Apr 17 11:42	0°♙		minimum elong	2246 Mar 30 01:44	9°♗14'10	1°13'00
asc. node	2245 Apr 19 18:01	4°♙46'22		evening rise	2246 Apr 06 23:23	25°♗21'24	
evening rise	2245 Apr 22 17:19	11°♙00'28		asc. node	2246 Apr 06 15:03	24°♗38'58	
	2245 May 02 16:21	0°♚			2246 Apr 09 06:41	0°♙	
evening max el	2245 May 12 10:08	12°♚55'06	21°19'32	evening max el	2246 Apr 24 18:00	24°♙11'47	20°02'34
retrograde	2245 May 24 11:09	18°♚48'21		retrograde	2246 May 05 01:50	29°♙11'35	
evening set	2245 May 26 19:23	18°♚35'45		evening set	2246 May 07 02:18	29°♙00'58	
desc. node	2245 May 27 21:10	18°♚21'57		desc. node	2246 May 14 18:11	25°♙48'00	
inferior conj	2245 Jun 05 04:19	14°♚36'41	-2°-22'-11	inferior conj	2246 May 16 01:25	25°♙01'31	0°-22'-47
minimum elong	2245 Jun 04 21:51	14°♚45'45	2°20'02	minimum elong	2246 May 16 00:22	25°♙03'06	0°22'25
min. Earth dist.	2245 Jun 05 10:16	14°♚28'19	0.54894 AU	min. Earth dist.	2246 May 17 23:32	23°♙52'23	0.55329 AU
morning rise	2245 Jun 14 00:30	10°♚38'44		morning rise	2246 May 24 19:45	20°♙39'08	
direct	2245 Jun 17 08:18	10°♚14'44		direct	2246 May 28 21:55	20°♙02'35	
morning max el	2245 Jun 29 23:13	16°♚14'07	22°18'31	morning max el	2246 Jun 11 15:14	26°♙48'48	24°00'24
	2245 Jul 10 17:09	0°♛			2246 Jun 14 17:10	0°♚	
asc. node	2245 Jul 16 17:16	10°♛40'36			2246 Jul 03 10:50	0°♛	
morning set	2245 Jul 21 14:04	20°♛29'52		asc. node	2246 Jul 03 14:19	0°♛17'40	

morning set	2246 Jul 06 01:46	5°☿25'52			2247 Jun 10 00:04	0°♊	
				asc. node	2247 Jun 20 11:20	20°♊10'13	
superior conj	2246 Jul 13 03:01	20°☿37'36	1°25'33	morning set	2247 Jun 20 13:24	20°♊21'02	
minimum elong	2246 Jul 13 00:41	20°☿25'01	1°25'15		2247 Jun 25 00:49	0°☿	
max. Earth dist.	2246 Jul 15 03:32	24°☿58'32	1.33240 AU				
	2246 Jul 17 12:31	0°♊		superior conj	2247 Jun 27 13:37	5°☿33'18	1°08'39
evening rise	2246 Jul 20 13:44	6°♊16'15		minimum elong	2247 Jun 27 11:16	5°☿20'25	1°08'16
	2246 Aug 02 13:06	0°♊		max. Earth dist.	2247 Jun 28 11:57	7°☿35'34	1.32518 AU
desc. node	2246 Aug 10 17:31	12°♊26'49		evening rise	2247 Jul 04 15:58	20°☿46'48	
evening max el	2246 Aug 23 02:08	27°♊10'22	27°25'30		2247 Jul 09 06:30	0°♊	
	2246 Aug 26 08:08	0°♊			2247 Jul 27 17:58	0°♊	
retrograde	2246 Sep 05 17:01	4°♊27'42		desc. node	2247 Jul 28 14:32	1°♊06'30	
evening set	2246 Sep 12 20:47	1°♊49'08		evening max el	2247 Aug 05 09:50	9°♊50'50	27°15'12
	2246 Sep 15 01:26	30°♊		retrograde	2247 Aug 19 05:43	17°♊05'43	
min. Earth dist.	2246 Sep 16 12:59	28°♊34'54	0.63738 AU	evening set	2247 Aug 26 09:37	14°♊43'10	
inferior conj	2246 Sep 19 02:26	25°♊57'37	-3°-16'-1	min. Earth dist.	2247 Aug 29 23:57	11°♊55'37	0.61902 AU
minimum elong	2246 Sep 19 07:28	25°♊44'44	3°14'25	inferior conj	2247 Sep 02 00:49	9°♊10'15	-4°-7'-18
morning rise	2246 Sep 25 20:23	20°♊37'00		minimum elong	2247 Sep 02 06:12	8°♊57'58	4°06'04
direct	2246 Sep 28 07:35	20°♊07'05		morning rise	2247 Sep 09 05:38	4°♊09'48	
asc. node	2246 Sep 29 13:29	20°♊14'51		direct	2247 Sep 11 14:31	3°♊45'38	
morning max el	2246 Oct 04 20:55	23°♊32'37	17°53'00	asc. node	2247 Sep 16 10:31	5°♊29'23	
	2246 Oct 10 00:11	0°♊		morning max el	2247 Sep 18 12:04	7°♊14'15	17°54'35
morning set	2246 Oct 21 13:06	19°♊08'55			2247 Oct 03 04:56	0°♊	
	2246 Oct 27 21:04	0°♊		morning set	2247 Oct 04 09:17	2°♊08'30	
superior conj	2246 Nov 03 01:28	10°♊18'32	0°24'35	superior conj	2247 Oct 15 03:18	21°♊16'11	1°01'44
minimum elong	2246 Nov 03 04:03	10°♊29'10	0°24'13	minimum elong	2247 Oct 15 07:49	21°♊35'36	1°01'10
desc. node	2246 Nov 06 16:49	16°♊13'45			2247 Oct 20 07:03	0°♊	
max. Earth dist.	2246 Nov 08 22:15	19°♊48'06	1.44232 AU	max. Earth dist.	2247 Oct 22 12:11	3°♊39'16	1.42810 AU
	2246 Nov 15 09:34	0°♊		desc. node	2247 Oct 24 13:51	7°♊01'18	
evening rise	2246 Nov 18 23:07	5°♊31'05		evening rise	2247 Oct 29 11:18	14°♊48'50	
	2246 Dec 05 07:10	0°♊			2247 Nov 08 09:51	0°♊	
greatest brilliancy	2246 Dec 11 12:15	8°♊36'44	-0.5m	greatest brilliancy	2247 Nov 25 09:17	23°♊37'22	-0.4m
evening max el	2246 Dec 17 07:44	15°♊31'54	20°38'50	evening max el	2247 Nov 30 04:02	29°♊03'22	21°51'20
retrograde	2246 Dec 25 11:36	20°♊21'02			2247 Dec 01 02:58	0°♊	
asc. node	2246 Dec 26 12:43	20°♊14'56		retrograde	2247 Dec 09 08:30	4°♊31'28	
evening set	2246 Dec 29 08:14	18°♊55'26		asc. node	2247 Dec 13 09:44	3°♊01'58	
inferior conj	2247 Jan 03 18:38	12°♊44'03	2°31'59	evening set	2247 Dec 13 16:01	2°♊49'50	
minimum elong	2247 Jan 03 16:02	12°♊52'54	2°31'12		2247 Dec 16 10:17	30°♊	
min. Earth dist.	2247 Jan 04 08:28	11°♊56'49	0.67379 AU	inferior conj	2247 Dec 19 01:31	26°♊29'34	1°50'26
morning rise	2247 Jan 08 23:24	6°♊28'53		minimum elong	2247 Dec 18 23:18	26°♊37'13	1°49'37
direct	2247 Jan 14 11:12	4°♊04'19		min. Earth dist.	2247 Dec 19 03:40	26°♊22'07	0.67784 AU
morning max el	2247 Jan 25 14:19	10°♊42'36	24°17'02	morning rise	2247 Dec 24 06:22	20°♊15'33	
desc. node	2247 Feb 02 16:00	20°♊05'58		direct	2247 Dec 29 02:56	18°♊12'51	
	2247 Feb 09 22:44	0°♊		morning max el	2248 Jan 08 00:15	24°♊04'13	22°48'24
	2247 Mar 01 01:23	0°♊		greatest brilliancy	2248 Jan 12 15:48	29°♊15'24	-0.3m
morning set	2247 Mar 02 09:46	2°♊19'51			2248 Jan 13 06:28	0°♊	
max. Earth dist.	2247 Mar 06 03:45	8°♊58'04	1.37899 AU	desc. node	2248 Jan 20 13:03	9°♊33'36	
					2248 Feb 03 09:22	0°♊	
superior conj	2247 Mar 13 03:41	21°♊59'48	-1°-38'-12	morning set	2248 Feb 11 05:56	12°♊35'19	
minimum elong	2247 Mar 13 08:01	22°♊20'39	1°37'43	max. Earth dist.	2248 Feb 15 23:18	20°♊31'47	1.40055 AU
	2247 Mar 17 06:21	0°♊			2248 Feb 21 09:04	0°♊	
evening rise	2247 Mar 21 23:04	9°♊17'36					
asc. node	2247 Mar 24 12:04	14°♊16'17		superior conj	2248 Feb 23 17:28	4°♊14'49	-1°-56'-52
	2247 Apr 02 12:44	0°♊		minimum elong	2248 Feb 23 21:03	4°♊31'09	1°56'39
evening max el	2247 Apr 07 13:10	6°♊07'13	19°04'36	evening rise	2248 Mar 04 13:28	22°♊41'54	
retrograde	2247 Apr 16 05:56	10°♊20'31			2248 Mar 08 10:28	0°♊	
evening set	2247 Apr 18 08:59	10°♊06'25		asc. node	2248 Mar 10 09:05	3°♊32'51	
inferior conj	2247 Apr 26 13:56	5°♊52'53	1°24'46	evening max el	2248 Mar 20 17:15	18°♊36'57	18°26'48
minimum elong	2247 Apr 26 17:04	5°♊47'29	1°23'44	retrograde	2248 Mar 28 04:52	22°♊18'26	
min. Earth dist.	2247 Apr 29 14:47	3°♊47'56	0.56631 AU	evening set	2248 Mar 30 13:26	21°♊57'33	
desc. node	2247 May 01 15:12	2°♊32'03		inferior conj	2248 Apr 06 23:35	17°♊24'14	2°41'11
morning rise	2247 May 04 20:58	0°♊56'05		minimum elong	2248 Apr 07 03:28	17°♊16'22	2°40'14
	2247 May 08 12:59	30°♊		min. Earth dist.	2248 Apr 10 10:06	14°♊38'41	0.58529 AU
direct	2247 May 09 23:20	29°♊55'07		morning rise	2248 Apr 14 13:20	11°♊56'14	
	2247 May 11 09:45	0°♊		desc. node	2248 Apr 17 12:13	10°♊45'50	
morning max el	2247 May 24 05:43	7°♊15'37	25°37'55	direct	2248 Apr 20 14:50	10°♊20'30	

morning max el	2248 May 05 00:07	18° Υ 02'28	26°55'19	desc. node	2249 Apr 04 09:16	21° Υ 40'53	
	2248 May 14 23:34	0° Υ		morning max el	2249 Apr 17 00:38	29° Υ 26'46	27°40'31
	2248 Jun 01 11:07	0° Π			2249 Apr 17 13:55	0° Υ	
morning set	2248 Jun 03 23:19	5° Π 09'49			2249 May 08 21:28	0° Υ	
asc. node	2248 Jun 06 08:23	10° Π 13'01		morning set	2249 May 19 05:44	19° Υ 46'08	
				asc. node	2249 May 24 05:27	0° Π 21'28	
superior conj	2248 Jun 11 01:23	20° Π 30'19	0°47'56		2249 May 24 01:29	0° Π	
minimum elong	2248 Jun 10 23:28	20° Π 19'47	0°47'34	max. Earth dist.	2249 May 25 11:18	3° Π 04'04	1.32234 AU
max. Earth dist.	2248 Jun 10 23:46	20° Π 21'23	1.32182 AU				
	2248 Jun 15 09:27	0° Σ		superior conj	2249 May 26 12:38	5° Π 22'47	0°24'05
evening rise	2248 Jun 17 23:31	5° Σ 31'27		minimum elong	2249 May 26 11:34	5° Π 16'54	0°23'52
	2248 Jun 30 22:35	0° Ω		evening rise	2249 Jun 02 10:13	20° Π 23'06	
desc. node	2248 Jul 14 11:33	18° Ω 43'16			2249 Jun 07 02:45	0° Σ	
evening max el	2248 Jul 17 11:23	21° Ω 47'16	26°31'45		2249 Jun 26 09:05	0° Ω	
retrograde	2248 Jul 31 10:47	28° Ω 59'41		evening max el	2249 Jun 29 05:59	2° Ω 58'09	25°18'47
evening set	2248 Aug 07 03:35	27° Ω 06'30		desc. node	2249 Jul 01 08:33	4° Ω 51'34	
min. Earth dist.	2248 Aug 11 00:47	24° Ω 31'01	0.59860 AU	retrograde	2249 Jul 13 06:11	10° Ω 05'31	
inferior conj	2248 Aug 14 08:00	21° Ω 53'56	-4°-45'-36	evening set	2249 Jul 18 22:28	8° Ω 50'43	
minimum elong	2248 Aug 14 11:51	21° Ω 46'14	4°45'09	min. Earth dist.	2249 Jul 23 17:53	6° Ω 08'41	0.57832 AU
morning rise	2248 Aug 21 23:30	17° Ω 16'14		inferior conj	2249 Jul 26 20:39	4° Ω 00'00	-4°-59'-51
direct	2248 Aug 24 08:55	16° Ω 55'26		minimum elong	2249 Jul 26 20:23	4° Ω 00'28	4°59'52
morning max el	2248 Aug 31 23:01	20° Ω 36'35	18°15'30		2249 Aug 03 01:05	30° Υ	
asc. node	2248 Sep 02 07:35	22° Ω 01'10		morning rise	2249 Aug 03 21:59	29° Σ 44'55	
	2248 Sep 08 01:24	0° Υ		direct	2249 Aug 06 10:35	29° Σ 25'39	
morning set	2248 Sep 16 19:58	15° Υ 49'18			2249 Aug 09 17:03	0° Ω	
	2248 Sep 24 08:52	0° Ω		morning max el	2249 Aug 15 02:33	3° Ω 30'35	18°57'04
				asc. node	2249 Aug 20 04:40	9° Ω 35'18	
superior conj	2248 Sep 26 05:58	3° Ω 26'37	1°26'55	morning set	2249 Aug 31 16:54	0° Υ 00'22	
minimum elong	2248 Sep 26 09:43	3° Ω 43'39	1°26'35		2249 Aug 31 16:50	0° Υ	
max. Earth dist.	2248 Oct 03 20:11	16° Ω 48'50	1.40953 AU				
evening rise	2248 Oct 08 16:56	24° Ω 55'39		superior conj	2249 Sep 09 04:05	16° Υ 34'55	1°40'56
desc. node	2248 Oct 10 10:53	27° Ω 45'49		minimum elong	2249 Sep 09 06:02	16° Υ 44'16	1°40'50
	2248 Oct 11 20:24	0° Υ		max. Earth dist.	2249 Sep 16 00:18	29° Υ 16'06	1.38909 AU
	2248 Nov 01 06:27	0° Υ			2249 Sep 16 10:07	0° Ω	
greatest brilliancy	2248 Nov 05 11:37	5° Υ 25'42	-0.2m	evening rise	2249 Sep 19 22:32	6° Ω 09'33	
evening max el	2248 Nov 11 19:33	12° Υ 36'47	23°10'23	desc. node	2249 Sep 27 07:55	18° Ω 23'45	
retrograde	2248 Nov 22 02:54	18° Υ 43'25			2249 Oct 04 21:13	0° Υ	
evening set	2248 Nov 26 23:00	16° Υ 44'58		evening max el	2249 Oct 25 08:25	26° Υ 14'27	24°29'47
asc. node	2248 Nov 29 06:47	14° Υ 23'22			2249 Oct 29 15:54	0° Υ	
inferior conj	2248 Dec 02 09:02	10° Υ 19'47	1°02'41	retrograde	2249 Nov 05 17:31	2° Υ 53'19	
minimum elong	2248 Dec 02 07:38	10° Υ 24'38	1°02'06	evening set	2249 Nov 11 03:33	0° Υ 38'15	
min. Earth dist.	2248 Dec 02 00:26	10° Υ 49'25	0.67834 AU		2249 Nov 11 20:32	30° Υ	
morning rise	2248 Dec 07 16:18	4° Υ 09'01		min. Earth dist.	2249 Nov 15 20:20	25° Υ 16'26	0.67552 AU
direct	2248 Dec 11 22:16	2° Υ 29'09		asc. node	2249 Nov 16 03:51	24° Υ 51'19	
morning max el	2248 Dec 20 15:01	7° Υ 33'46	21°24'07	inferior conj	2249 Nov 16 15:27	24° Υ 12'30	0°09'58
greatest brilliancy	2248 Dec 25 17:34	13° Υ 23'22	-0.4m	minimum elong	2249 Nov 16 15:12	24° Υ 13'19	0°09'52
desc. node	2249 Jan 06 10:06	29° Υ 28'54		transit middle	2249 Nov 16 15:12	24° Υ 13'19	0°09'52
	2249 Jan 06 18:37	0° Σ		transit begin	2249 Nov 16 13:02	24° Υ 20'37	
morning set	2249 Jan 20 21:13	21° Σ 29'23		transit end	2249 Nov 16 17:23	24° Υ 06'02	
	2249 Jan 26 04:37	0° Σ		morning rise	2249 Nov 22 03:14	18° Υ 07'26	
max. Earth dist.	2249 Jan 27 23:52	2° Σ 56'58	1.42100 AU	direct	2249 Nov 25 20:02	16° Υ 48'55	
				morning max el	2249 Dec 03 13:12	21° Υ 13'54	20°10'26
superior conj	2249 Feb 04 10:17	15° Σ 28'49	-2°-5'-15	greatest brilliancy	2249 Dec 10 08:36	29° Υ 25'43	-0.6m
minimum elong	2249 Feb 04 10:42	15° Σ 30'38	2°05'16		2249 Dec 10 18:45	0° Υ	
	2249 Feb 12 15:06	0° Υ		desc. node	2249 Dec 24 07:10	19° Υ 44'08	
evening rise	2249 Feb 15 14:52	5° Υ 25'40		morning set	2249 Dec 30 18:09	29° Υ 37'32	
asc. node	2249 Feb 25 06:07	22° Υ 21'49			2249 Dec 30 23:58	0° Σ	
	2249 Mar 02 16:29	0° Υ		max. Earth dist.	2250 Jan 10 08:25	16° Σ 16'34	1.43760 AU
evening max el	2249 Mar 04 03:07	1° Υ 32'42	18°08'58				
retrograde	2249 Mar 10 21:07	4° Υ 58'23		superior conj	2250 Jan 16 01:37	25° Σ 32'36	-1°-58'-18
evening set	2249 Mar 13 11:12	4° Υ 28'34		minimum elong	2250 Jan 15 20:38	25° Σ 12'12	1°58'05
	2249 Mar 19 18:23	30° Υ			2250 Jan 18 18:20	0° Σ	
inferior conj	2249 Mar 20 05:28	29° Υ 34'06	3°24'48	evening rise	2250 Jan 28 23:00	17° Σ 20'32	
minimum elong	2249 Mar 20 07:55	29° Υ 28'21	3°24'27		2250 Feb 05 07:37	0° Υ	
min. Earth dist.	2249 Mar 23 11:45	26° Υ 31'58	0.60675 AU	asc. node	2250 Feb 12 03:09	10° Υ 34'29	
morning rise	2249 Mar 27 01:25	23° Υ 44'56		evening max el	2250 Feb 15 15:36	14° Υ 45'55	18°10'28
direct	2249 Apr 02 18:25	21° Υ 33'35		retrograde	2250 Feb 22 02:34	18° Υ 10'21	

evening set	2250 Feb 24 21:52	17° K 30'18		evening set	2251 Feb 08 17:41	0° K 54'03	
inferior conj	2250 Mar 03 03:57	12° K 15'10	3°41'44		2251 Feb 10 02:02	30° R \approx	
minimum elong	2250 Mar 03 04:26	12° K 13'53	3°41'43	inferior conj	2251 Feb 14 14:58	25° \approx 19'47	3°38'48
min. Earth dist.	2250 Mar 05 21:44	9° K 21'01	0.62757 AU	minimum elong	2251 Feb 14 13:50	25° \approx 23'10	3°38'43
morning rise	2250 Mar 09 08:51	6° K 13'18		min. Earth dist.	2251 Feb 16 17:18	22° \approx 51'52	0.64554 AU
direct	2250 Mar 16 07:20	3° K 35'49		morning rise	2251 Feb 20 08:37	19° \approx 10'32	
desc. node	2250 Mar 22 06:19	5° K 15'40		direct	2251 Feb 27 03:40	16° \approx 21'00	
morning max el	2250 Mar 30 06:36	11° K 31'52	27°48'27	desc. node	2251 Mar 09 03:21	20° \approx 57'37	
	2250 Apr 13 20:47	0° Y		morning max el	2251 Mar 12 15:50	24° \approx 11'36	27°20'49
	2250 May 01 05:48	0° B			2251 Mar 17 21:34	0° K	
morning set	2250 May 03 06:26	4° B 01'57			2251 Apr 07 05:42	0° Y	
max. Earth dist.	2250 May 08 18:37	15° B 29'52	1.32698 AU	morning set	2251 Apr 16 22:43	17° Y 49'14	
				max. Earth dist.	2251 Apr 21 18:00	27° Y 28'22	1.33596 AU
					2251 Apr 22 23:15	0° B	
superior conj	2250 May 10 21:33	20° B 03'53	0°-2'-10				
minimum elong	2250 May 10 21:39	20° B 04'27	0°02'10	superior conj	2251 Apr 25 02:14	4° B 27'50	0°-29'-55
behind sun begin	2250 May 10 16:28	19° B 36'28		minimum elong	2251 Apr 25 03:44	4° B 35'48	0°29'37
behind sun end	2250 May 11 02:49	20° B 32'28		asc. node	2251 Apr 27 23:31	10° B 36'42	
asc. node	2250 May 11 02:29	20° B 30'37		evening rise	2251 May 02 09:14	19° B 58'39	
	2250 May 15 11:24	0° II			2251 May 07 07:44	0° II	
evening rise	2250 May 17 22:03	5° II 14'07		evening max el	2251 May 23 11:49	24° II 04'01	22°10'46
	2250 May 31 03:45	0° S			2251 Jun 02 01:40	0° S	
evening max el	2250 Jun 10 19:57	13° S 34'17	23°46'44	retrograde	2251 Jun 05 07:47	0° S 24'34	
desc. node	2250 Jun 18 05:35	18° S 56'43		desc. node	2251 Jun 05 02:35	0° S 24'28	
retrograde	2250 Jun 24 13:05	20° S 27'03		evening set	2251 Jun 08 04:46	0° S 06'16	
evening set	2250 Jun 28 18:46	19° S 47'35			2251 Jun 08 15:56	30° R II	
min. Earth dist.	2250 Jul 05 06:27	16° S 43'03	0.56131 AU	min. Earth dist.	2251 Jun 16 17:41	26° II 26'11	0.55093 AU
inferior conj	2250 Jul 07 13:01	15° S 20'26	-4°-35'-36	inferior conj	2251 Jun 17 12:30	25° II 59'44	-3°-23'-1
minimum elong	2250 Jul 07 07:18	15° S 29'08	4°34'45	minimum elong	2251 Jun 17 04:33	26° II 10'56	3°20'48
morning rise	2250 Jul 15 23:14	11° S 23'19		morning rise	2251 Jun 26 06:15	22° II 08'05	
direct	2250 Jul 18 17:09	11° S 04'09		direct	2251 Jun 29 07:36	21° II 47'11	
morning max el	2250 Jul 28 19:44	15° S 45'22	20°00'10	morning max el	2251 Jul 11 01:22	27° II 15'53	21°23'31
asc. node	2250 Aug 07 01:44	27° S 56'49			2251 Jul 13 17:20	0° S	
	2250 Aug 08 06:36	0° Q		asc. node	2251 Jul 24 22:47	16° S 54'24	
morning set	2250 Aug 15 20:49	14° Q 32'06		morning set	2251 Jul 31 05:14	29° S 17'37	
	2250 Aug 23 11:16	0° M			2251 Jul 31 13:24	0° Q	
superior conj	2250 Aug 23 16:19	0° M 25'15	1°45'33				
minimum elong	2250 Aug 23 16:28	0° M 26'01	1°45'33	superior conj	2251 Aug 07 14:29	14° Q 45'32	1°42'31
max. Earth dist.	2250 Aug 29 05:23	11° M 14'24	1.36919 AU	minimum elong	2251 Aug 07 13:15	14° Q 39'07	1°42'27
evening rise	2250 Sep 02 02:39	18° M 26'39		max. Earth dist.	2251 Aug 11 16:37	23° Q 06'33	1.35185 AU
	2250 Sep 08 17:55	0° A			2251 Aug 15 04:54	0° M	
desc. node	2250 Sep 14 04:57	8° A 50'06		evening rise	2251 Aug 16 00:59	1° M 35'59	
	2250 Sep 29 02:26	0° M		desc. node	2251 Sep 01 01:57	28° M 58'55	
evening max el	2250 Oct 07 20:32	9° M 55'03	25°42'24		2251 Sep 01 18:07	0° A	
retrograde	2250 Oct 20 03:25	16° M 56'34		evening max el	2251 Sep 20 08:46	23° A 32'36	26°40'36
evening set	2250 Oct 26 03:55	14° M 26'43			2251 Sep 29 11:30	0° M	
min. Earth dist.	2250 Oct 30 12:54	9° M 40'32	0.66935 AU	retrograde	2251 Oct 03 08:08	0° M 46'53	
inferior conj	2250 Oct 31 18:56	8° M 04'55	0°-46'-24		2251 Oct 06 22:40	30° R A	
minimum elong	2250 Oct 31 20:08	8° M 01'05	0°45'53	evening set	2251 Oct 09 22:05	28° A 06'44	
asc. node	2250 Nov 03 00:55	5° M 19'28		min. Earth dist.	2251 Oct 13 23:40	23° A 57'30	0.65970 AU
morning rise	2250 Nov 06 13:09	2° M 08'24		inferior conj	2251 Oct 15 17:30	21° A 53'17	-1°-44'-56
direct	2250 Nov 09 18:41	1° M 08'17		minimum elong	2251 Oct 15 20:19	21° A 44'54	1°43'48
morning max el	2250 Nov 16 19:05	5° M 04'03	19°10'56	asc. node	2251 Oct 20 21:58	16° A 41'34	
	2250 Dec 04 14:17	0° J		morning rise	2251 Oct 21 19:54	16° A 08'22	
morning set	2250 Dec 09 21:14	8° J 12'56		direct	2251 Oct 24 16:18	15° A 23'00	
desc. node	2250 Dec 11 04:12	10° J 13'33		morning max el	2251 Oct 31 07:05	19° A 00'00	18°27'20
	2250 Dec 23 19:27	0° Z			2251 Nov 08 15:36	0° M	
max. Earth dist.	2250 Dec 23 23:47	0° Z 17'06	1.44820 AU	morning set	2251 Nov 20 01:41	18° M 07'15	
					2251 Nov 27 12:01	0° J	
superior conj	2250 Dec 26 15:58	4° Z 30'47	-1°-32'-24	desc. node	2251 Nov 28 01:14	0° J 52'26	
minimum elong	2250 Dec 26 07:08	3° Z 55'46	1°31'35				
evening rise	2251 Jan 10 09:44	28° Z 19'57		superior conj	2251 Dec 05 17:27	12° J 59'14	0°-50'00
	2251 Jan 11 10:02	0° \approx		minimum elong	2251 Dec 05 11:06	12° J 34'16	0°49'11
evening max el	2251 Jan 30 03:48	28° \approx 09'15	18°30'35	max. Earth dist.	2251 Dec 06 18:38	14° J 38'06	1.45164 AU
asc. node	2251 Jan 30 00:12	28° \approx 00'00			2251 Dec 16 13:33	0° Z	
	2251 Feb 01 05:40	0° K		evening rise	2251 Dec 21 21:04	8° Z 22'15	
retrograde	2251 Feb 05 16:57	1° K 45'14		greatest brilliancy	2252 Jan 03 03:33	27° Z 36'18	-0.7m

	2252 Jan 04 17:35	0°♊		max. Earth dist.	2252 Nov 18 13:24	29°♌00'03	1.44769 AU
evening max el	2252 Jan 13 13:17	11°♊36'51	19°08'17		2252 Nov 19 04:34	0°♌	
asc. node	2252 Jan 16 21:14	14°♊24'21		evening rise	2252 Nov 30 12:46	17°♌40'06	
retrograde	2252 Jan 20 12:28	15°♊35'06			2252 Dec 08 13:56	0°♌	
evening set	2252 Jan 23 19:37	14°♊31'45		greatest brilliancy	2252 Dec 19 20:59	16°♌36'24	-0.6m
inferior conj	2252 Jan 29 10:56	8°♊40'46	3°21'13	evening max el	2252 Dec 26 18:16	25°♌06'35	20°01'49
minimum elong	2252 Jan 29 08:45	8°♊47'41	3°20'52	asc. node	2253 Jan 02 18:15	29°♌33'11	
min. Earth dist.	2252 Jan 30 21:59	6°♊49'18	0.65967 AU	retrograde	2253 Jan 03 10:13	29°♌35'38	
morning rise	2252 Feb 03 21:01	2°♊27'17		evening set	2253 Jan 07 01:18	28°♌18'45	
	2252 Feb 07 23:29	30°♋		inferior conj	2253 Jan 12 12:57	22°♌13'54	2°52'34
direct	2252 Feb 10 06:27	29°♋39'27		minimum elong	2253 Jan 12 10:22	22°♌22'35	2°51'54
	2252 Feb 12 16:10	0°♋		min. Earth dist.	2253 Jan 13 10:08	21°♌02'54	0.66979 AU
morning max el	2252 Feb 23 01:43	7°♋13'31	26°23'50	morning rise	2253 Jan 17 18:49	15°♌58'34	
desc. node	2252 Feb 24 00:23	8°♋11'47		direct	2253 Jan 23 15:03	13°♌23'10	
	2252 Mar 11 18:15	0°♋		morning max el	2253 Feb 04 10:33	20°♌26'12	25°06'31
	2252 Mar 29 14:51	0°♋		desc. node	2253 Feb 09 21:26	26°♌31'57	
morning set	2252 Mar 30 02:56	0°♋56'32			2253 Feb 12 16:04	0°♋	
max. Earth dist.	2252 Apr 03 06:15	8°♋53'40	1.34944 AU		2253 Mar 04 22:32	0°♋	
				morning set	2253 Mar 12 14:11	13°♋09'56	
superior conj	2252 Apr 08 00:22	18°♋27'16	0°-57'-58	max. Earth dist.	2253 Mar 16 07:06	19°♋55'37	1.36722 AU
minimum elong	2252 Apr 08 03:19	18°♋42'23	0°57'27		2253 Mar 21 13:45	0°♋	
asc. node	2252 Apr 13 20:32	0°♌35'15					
	2252 Apr 13 13:47	0°♌		superior conj	2253 Mar 22 13:03	1°♋54'21	-1°-24'-33
evening rise	2252 Apr 15 17:45	4°♌29'42		minimum elong	2253 Mar 22 17:08	2°♋14'25	1°23'59
	2252 Apr 30 04:43	0°♌		evening rise	2253 Mar 30 21:24	18°♋40'41	
evening max el	2252 May 04 12:43	4°♌57'49	20°44'31	asc. node	2253 Mar 31 17:34	20°♋21'46	
retrograde	2252 May 15 20:57	10°♌29'05			2253 Apr 05 17:02	0°♌	
evening set	2252 May 17 23:54	10°♌18'14		evening max el	2253 Apr 17 01:34	16°♌31'04	19°35'27
desc. node	2252 May 21 23:34	9°♌05'25		retrograde	2253 Apr 26 16:10	21°♌09'40	
inferior conj	2252 May 27 06:11	6°♌20'37	-1°-32'-4	evening set	2253 Apr 28 16:45	20°♌58'13	
minimum elong	2252 May 27 01:50	6°♌26'51	1°30'31	inferior conj	2253 May 07 08:40	16°♌54'14	0°25'56
min. Earth dist.	2252 May 28 06:02	5°♌46'31	0.54959 AU	minimum elong	2253 May 07 09:47	16°♌52'28	0°25'33
morning rise	2252 Jun 05 02:44	2°♌14'23		desc. node	2253 May 08 20:36	15°♌57'04	
direct	2252 Jun 08 17:03	1°♌46'33		min. Earth dist.	2253 May 09 20:21	15°♌19'51	0.55785 AU
morning max el	2252 Jun 21 21:13	8°♌06'55	23°01'37	morning rise	2253 May 15 23:10	12°♌17'07	
	2252 Jul 07 12:17	0°♌		direct	2253 May 20 11:09	11°♌31'38	
asc. node	2252 Jul 10 19:49	6°♌19'11		morning max el	2253 Jun 03 11:55	18°♌35'10	24°43'27
morning set	2252 Jul 14 16:13	14°♌11'23			2253 Jun 12 23:54	0°♌	
				asc. node	2253 Jun 27 16:50	26°♌03'20	
superior conj	2252 Jul 21 19:23	29°♌26'13	1°33'15	morning set	2253 Jun 29 04:03	29°♌07'27	
minimum elong	2252 Jul 21 17:18	29°♌15'06	1°33'03		2253 Jun 29 13:59	0°♌	
	2252 Jul 22 01:43	0°♌					
max. Earth dist.	2252 Jul 24 12:48	5°♌12'27	1.33824 AU	superior conj	2253 Jul 06 04:31	14°♌18'33	1°18'53
evening rise	2252 Jul 29 13:05	15°♌25'49		minimum elong	2253 Jul 06 02:07	14°♌05'29	1°18'33
	2252 Aug 06 07:51	0°♍		max. Earth dist.	2253 Jul 07 17:20	17°♌38'22	1.32876 AU
desc. node	2252 Aug 17 22:57	18°♍42'30		evening rise	2253 Jul 13 11:05	29°♌44'26	
	2252 Aug 26 10:29	0°♍			2253 Jul 13 14:08	0°♍	
evening max el	2252 Sep 01 20:40	6°♍57'58	27°17'02		2253 Jul 30 09:36	0°♍	
retrograde	2252 Sep 15 07:21	14°♍16'44		desc. node	2253 Aug 04 19:57	7°♍49'35	
evening set	2252 Sep 22 07:35	11°♍34'14		evening max el	2253 Aug 15 06:38	19°♍58'32	27°25'14
min. Earth dist.	2252 Sep 26 02:33	8°♍01'09	0.64646 AU	retrograde	2253 Aug 29 00:21	27°♍15'50	
inferior conj	2252 Sep 28 08:54	5°♍33'25	-2°-43'-30	evening set	2253 Sep 05 05:07	24°♍42'27	
minimum elong	2252 Sep 28 13:15	5°♍21'34	2°41'57	min. Earth dist.	2253 Sep 08 19:47	21°♍40'46	0.62982 AU
morning rise	2252 Oct 04 20:54	0°♍03'10		inferior conj	2253 Sep 11 14:25	18°♍58'10	-3°-38'-52
	2252 Oct 04 23:50	30°♎		minimum elong	2253 Sep 11 19:45	18°♍45'06	3°37'22
asc. node	2252 Oct 06 19:00	29°♎30'58		morning rise	2253 Sep 18 12:57	13°♎45'47	
direct	2252 Oct 07 10:36	29°♎28'45		direct	2253 Sep 20 22:41	13°♎18'48	
	2252 Oct 09 21:27	0°♎		asc. node	2253 Sep 23 16:03	13°♎54'13	
morning max el	2252 Oct 13 22:40	2°♎56'17	18°00'34	morning max el	2253 Sep 27 14:48	16°♎44'59	17°51'24
morning set	2252 Oct 31 11:07	29°♎27'00			2253 Oct 07 00:09	0°♎	
	2252 Oct 31 18:58	0°♎		morning set	2253 Oct 13 20:26	11°♎55'09	
desc. node	2252 Nov 13 22:16	21°♎37'30			2253 Oct 24 06:47	0°♎	
superior conj	2252 Nov 14 03:36	21°♎58'56	0°-1°-30	superior conj	2253 Oct 25 13:37	2°♎09'36	0°41'44
minimum elong	2252 Nov 14 03:25	21°♎58'09	0°01'30	minimum elong	2253 Oct 25 17:28	2°♎25'40	0°41'13
behind sun begin	2252 Nov 13 16:58	21°♎16'12		desc. node	2253 Oct 31 19:18	12°♎24'49	
behind sun end	2252 Nov 14 13:52	22°♎40'03		max. Earth dist.	2253 Nov 01 05:18	13°♎05'11	1.43690 AU

evening rise	2253 Nov 09 21:11	26° \mathbb{M} 45'00		superior conj	2254 Oct 07 02:30	13° \mathbb{A} 38'58	1°13'52
	2253 Nov 11 23:49	0° \mathbb{A}		minimum elong	2254 Oct 07 06:55	13° \mathbb{A} 58'24	1°13'23
	2253 Dec 02 13:29	0° \mathbb{B}		max. Earth dist.	2254 Oct 14 16:49	26° \mathbb{A} 39'49	1.42064 AU
greatest brilliancy	2253 Dec 04 12:07	2° \mathbb{B} 31'51	-0.4m		2254 Oct 16 17:19	0° \mathbb{M}	
evening max el	2253 Dec 09 17:50	8° \mathbb{B} 37'31	21°08'37	desc. node	2254 Oct 18 16:19	3° \mathbb{M} 11'07	
retrograde	2253 Dec 18 07:53	13° \mathbb{B} 43'03		evening rise	2254 Oct 20 15:23	6° \mathbb{M} 19'53	
asc. node	2253 Dec 20 15:17	13° \mathbb{B} 13'30			2254 Nov 05 06:18	0° \mathbb{A}	
evening set	2253 Dec 22 08:50	12° \mathbb{B} 11'02		greatest brilliancy	2254 Nov 17 18:06	16° \mathbb{A} 49'56	-0.3m
inferior conj	2253 Dec 27 18:40	5° \mathbb{B} 55'34	2°15'14	evening max el	2254 Nov 22 12:05	22° \mathbb{A} 09'54	22°24'37
minimum elong	2253 Dec 27 16:11	6° \mathbb{B} 04'08	2°14'24	retrograde	2254 Dec 02 03:46	27° \mathbb{A} 54'11	
min. Earth dist.	2253 Dec 28 03:29	5° \mathbb{B} 25'12	0.67596 AU	evening set	2254 Dec 06 16:28	26° \mathbb{A} 05'32	
morning rise	2254 Jan 01 23:09	29° \mathbb{A} 40'29		asc. node	2254 Dec 07 12:20	25° \mathbb{A} 21'38	
	2254 Jan 01 14:35	30° \mathbb{R} \mathbb{A}		inferior conj	2254 Dec 12 02:03	19° \mathbb{A} 42'58	1°30'52
direct	2254 Jan 07 04:33	27° \mathbb{A} 24'36		minimum elong	2254 Dec 12 00:08	19° \mathbb{A} 49'36	1°30'07
	2254 Jan 13 13:43	0° \mathbb{B}		min. Earth dist.	2254 Dec 11 23:36	19° \mathbb{A} 51'28	0.67848 AU
morning max el	2254 Jan 17 19:04	3° \mathbb{B} 43'42	23°39'13	morning rise	2254 Dec 17 07:40	13° \mathbb{A} 30'10	
desc. node	2254 Jan 27 18:30	15° \mathbb{B} 39'03		direct	2254 Dec 21 22:01	11° \mathbb{A} 37'01	
	2254 Feb 06 21:36	0° \mathbb{A}		morning max el	2254 Dec 31 06:29	17° \mathbb{A} 07'27	22°11'36
morning set	2254 Feb 22 02:22	24° \mathbb{A} 12'56		greatest brilliancy	2255 Jan 04 21:08	22° \mathbb{A} 17'34	-0.3m
	2254 Feb 25 10:49	0° \mathbb{H}			2255 Jan 10 19:49	0° \mathbb{B}	
max. Earth dist.	2254 Feb 26 02:01	1° \mathbb{H} 06'46	1.38809 AU	desc. node	2255 Jan 14 15:34	5° \mathbb{B} 19'26	
					2255 Jan 31 00:07	0° \mathbb{A}	
superior conj	2254 Mar 05 12:37	14° \mathbb{H} 39'46	-1°-47'-5	morning set	2255 Feb 02 10:00	3° \mathbb{A} 52'09	
minimum elong	2254 Mar 05 16:53	14° \mathbb{H} 59'47	1°46'42	max. Earth dist.	2255 Feb 07 23:24	13° \mathbb{A} 02'07	1.40958 AU
	2254 Mar 13 11:54	0° \mathbb{Y}					
evening rise	2254 Mar 14 17:36	2° \mathbb{Y} 24'40		superior conj	2255 Feb 15 18:13	26° \mathbb{A} 30'48	-2°-1'-58
asc. node	2254 Mar 18 14:36	9° \mathbb{Y} 51'19		minimum elong	2255 Feb 15 20:48	26° \mathbb{A} 42'17	2°01'53
evening max el	2254 Mar 31 01:05	28° \mathbb{Y} 43'19	18°46'07		2255 Feb 17 16:52	0° \mathbb{H}	
	2254 Apr 01 11:41	0° \mathbb{B}		evening rise	2255 Feb 26 02:59	15° \mathbb{H} 32'54	
retrograde	2254 Apr 08 03:52	2° \mathbb{B} 40'36		asc. node	2255 Mar 05 11:39	28° \mathbb{H} 57'09	
evening set	2254 Apr 10 09:16	2° \mathbb{B} 23'53			2255 Mar 06 02:22	0° \mathbb{Y}	
	2254 Apr 15 11:21	30° \mathbb{R} \mathbb{Y}		evening max el	2255 Mar 14 08:07	11° \mathbb{Y} 25'30	18°16'47
inferior conj	2254 Apr 18 06:03	28° \mathbb{Y} 02'38	2°01'22	retrograde	2255 Mar 21 10:37	14° \mathbb{Y} 58'08	
minimum elong	2254 Apr 18 09:53	27° \mathbb{Y} 55'33	2°00'14	evening set	2255 Mar 23 21:45	14° \mathbb{Y} 33'29	
min. Earth dist.	2254 Apr 21 13:15	25° \mathbb{Y} 37'45	0.57388 AU	inferior conj	2255 Mar 31 00:40	9° \mathbb{Y} 50'57	3°03'22
desc. node	2254 Apr 25 17:38	23° \mathbb{Y} 06'11		minimum elong	2255 Mar 31 04:05	9° \mathbb{Y} 43'32	3°02'41
morning rise	2254 Apr 26 06:08	22° \mathbb{Y} 51'45		min. Earth dist.	2255 Apr 03 10:39	6° \mathbb{Y} 55'32	0.59437 AU
direct	2254 May 01 19:15	21° \mathbb{Y} 36'30		morning rise	2255 Apr 07 06:43	4° \mathbb{Y} 13'02	
morning max el	2254 May 16 03:27	29° \mathbb{Y} 07'36	26°14'03	desc. node	2255 Apr 12 14:42	2° \mathbb{Y} 24'50	
	2254 May 17 00:35	0° \mathbb{B}		direct	2255 Apr 13 16:04	2° \mathbb{Y} 21'49	
	2254 Jun 06 14:28	0° \mathbb{I}		morning max el	2255 Apr 28 00:16	10° \mathbb{Y} 08'34	27°18'55
morning set	2254 Jun 13 15:10	14° \mathbb{I} 00'47			2255 May 13 07:48	0° \mathbb{B}	
asc. node	2254 Jun 14 13:53	16° \mathbb{I} 01'04		morning set	2255 May 28 23:51	28° \mathbb{B} 44'49	
					2255 May 29 14:13	0° \mathbb{I}	
superior conj	2254 Jun 20 15:52	29° \mathbb{I} 15'58	1°00'17	asc. node	2255 Jun 01 10:56	6° \mathbb{I} 06'31	
minimum elong	2254 Jun 20 13:39	29° \mathbb{I} 03'46	0°59'54	max. Earth dist.	2255 Jun 04 16:00	13° \mathbb{I} 07'31	1.32166 AU
	2254 Jun 20 23:53	0° \mathbb{B}					
max. Earth dist.	2254 Jun 21 03:40	0° \mathbb{B} 20'48	1.32330 AU	superior conj	2255 Jun 05 03:37	14° \mathbb{I} 11'26	0°38'10
evening rise	2254 Jun 27 15:56	14° \mathbb{B} 22'34		minimum elong	2255 Jun 05 02:01	14° \mathbb{I} 02'36	0°37'50
	2254 Jul 05 14:58	0° \mathbb{Q}		evening rise	2255 Jun 12 01:06	29° \mathbb{I} 11'03	
desc. node	2254 Jul 22 16:57	26° \mathbb{Q} 05'10			2255 Jun 12 10:23	0° \mathbb{B}	
	2254 Jul 26 03:39	0° \mathbb{M}			2255 Jun 29 01:08	0° \mathbb{Q}	
evening max el	2254 Jul 28 12:15	2° \mathbb{M} 22'10	27°00'48	desc. node	2255 Jul 09 13:58	13° \mathbb{Q} 07'41	
retrograde	2254 Aug 11 09:58	9° \mathbb{M} 35'31		evening max el	2255 Jul 10 10:56	13° \mathbb{Q} 58'50	26°03'47
evening set	2254 Aug 18 10:30	7° \mathbb{M} 24'20		retrograde	2255 Jul 24 10:43	21° \mathbb{Q} 08'44	
min. Earth dist.	2254 Aug 22 02:31	4° \mathbb{M} 43'41	0.61049 AU	evening set	2255 Jul 30 18:57	19° \mathbb{Q} 31'23	
inferior conj	2254 Aug 25 06:48	1° \mathbb{M} 59'49	-4°-25'-44	min. Earth dist.	2255 Aug 03 23:30	16° \mathbb{Q} 55'32	0.58986 AU
minimum elong	2254 Aug 25 11:50	1° \mathbb{M} 48'58	4°24'48	inferior conj	2255 Aug 07 06:27	14° \mathbb{Q} 28'21	-4°-55'-26
	2254 Aug 27 16:30	30° \mathbb{R} \mathbb{Q}		minimum elong	2255 Aug 07 08:52	14° \mathbb{Q} 23'48	4°55'16
morning rise	2254 Sep 01 16:11	27° \mathbb{Q} 08'25		morning rise	2255 Aug 15 02:15	10° \mathbb{Q} 00'20	
direct	2254 Sep 04 00:55	26° \mathbb{Q} 45'56		direct	2255 Aug 17 12:56	9° \mathbb{Q} 40'14	
asc. node	2254 Sep 10 13:06	29° \mathbb{Q} 43'04		morning max el	2255 Aug 25 12:35	13° \mathbb{Q} 29'42	18°30'36
	2254 Sep 10 20:32	0° \mathbb{M}		asc. node	2255 Aug 28 10:11	16° \mathbb{Q} 42'46	
morning max el	2254 Sep 11 04:29	0° \mathbb{M} 18'56	18°00'57		2255 Sep 05 18:50	0° \mathbb{M}	
morning set	2254 Sep 26 23:24	25° \mathbb{M} 13'44		morning set	2255 Sep 10 14:54	9° \mathbb{M} 08'38	
	2254 Sep 29 13:22	0° \mathbb{A}					
				superior conj	2255 Sep 19 14:08	26° \mathbb{M} 15'46	1°34'09

minimum elong	2255 Sep 19 17:11	26° \mathbb{M} 29'53	1°33'55	asc. node	2256 Aug 14 07:14	4° \mathbb{Q} 38'12	
	2255 Sep 21 14:47	0° \mathbb{A}		morning set	2256 Aug 24 15:07	23° \mathbb{Q} 29'04	
max. Earth dist.	2255 Sep 26 23:19	9° \mathbb{A} 32'51	1.40093 AU		2256 Aug 27 21:09	0° \mathbb{M}	
evening rise	2255 Oct 01 06:59	16° \mathbb{A} 54'15					
desc. node	2255 Oct 05 13:20	23° \mathbb{A} 53'06		superior conj	2256 Sep 01 18:51	9° \mathbb{M} 43'39	1°43'57
	2255 Oct 09 10:18	0° \mathbb{M}		minimum elong	2256 Sep 01 20:00	9° \mathbb{M} 49'18	1°43'54
	2255 Oct 30 21:23	0° \mathbb{A}		max. Earth dist.	2256 Sep 08 03:02	21° \mathbb{M} 44'41	1.38035 AU
evening max el	2255 Nov 05 02:13	5° \mathbb{A} 44'58	23°44'33	evening rise	2256 Sep 11 22:30	28° \mathbb{M} 35'24	
retrograde	2255 Nov 15 20:34	12° \mathbb{A} 05'54			2256 Sep 12 17:50	0° \mathbb{A}	
evening set	2255 Nov 20 22:37	10° \mathbb{A} 00'03		desc. node	2256 Sep 21 10:20	14° \mathbb{A} 26'22	
asc. node	2255 Nov 24 09:24	6° \mathbb{A} 14'42			2256 Oct 01 19:52	0° \mathbb{M}	
inferior conj	2255 Nov 26 09:18	3° \mathbb{A} 34'13	0°40'51	evening max el	2256 Oct 17 14:19	19° \mathbb{M} 23'06	25°01'56
minimum elong	2255 Nov 26 08:20	3° \mathbb{A} 37'29	0°40'27	retrograde	2256 Oct 29 09:20	26° \mathbb{M} 13'29	
min. Earth dist.	2255 Nov 25 20:10	4° \mathbb{A} 18'56	0.67755 AU	evening set	2256 Nov 04 01:36	23° \mathbb{M} 51'27	
	2255 Nov 29 03:23	30° \mathbb{R} \mathbb{M}		min. Earth dist.	2256 Nov 08 14:51	18° \mathbb{M} 44'46	0.67327 AU
morning rise	2255 Dec 01 18:15	27° \mathbb{M} 25'51		inferior conj	2256 Nov 09 14:39	17° \mathbb{M} 26'39	0°-13'-36
direct	2255 Dec 05 18:26	25° \mathbb{M} 55'25		minimum elong	2256 Nov 09 14:59	17° \mathbb{M} 25'32	0°13'27
	2255 Dec 13 07:19	0° \mathbb{A}		transit middle	2256 Nov 09 14:59	17° \mathbb{M} 25'32	0°13'27
morning max el	2255 Dec 14 00:19	0° \mathbb{A} 41'38	20°51'21	transit begin	2256 Nov 09 13:26	17° \mathbb{M} 30'37	
greatest brilliancy	2255 Dec 19 16:49	7° \mathbb{A} 18'33	-0.5m	transit end	2256 Nov 09 16:32	17° \mathbb{M} 20'28	
desc. node	2256 Jan 01 12:37	25° \mathbb{A} 23'55		asc. node	2256 Nov 10 06:27	16° \mathbb{M} 34'59	
	2256 Jan 04 14:20	0° \mathbb{C}		morning rise	2256 Nov 15 04:57	11° \mathbb{M} 25'04	
morning set	2256 Jan 12 15:15	12° \mathbb{C} 19'46		direct	2256 Nov 18 16:37	10° \mathbb{M} 15'00	
max. Earth dist.	2256 Jan 21 03:56	25° \mathbb{C} 53'43	1.42867 AU	morning max el	2256 Nov 26 01:57	14° \mathbb{M} 26'27	19°43'19
	2256 Jan 23 16:10	0° \mathbb{A}		greatest brilliancy	2256 Dec 03 23:45	24° \mathbb{M} 15'25	-0.6m
					2256 Dec 07 23:32	0° \mathbb{A}	
superior conj	2256 Jan 28 00:37	7° \mathbb{A} 15'32	-2°-4'-28	desc. node	2256 Dec 18 09:37	15° \mathbb{A} 45'15	
minimum elong	2256 Jan 27 22:54	7° \mathbb{A} 08'19	2°04'28	morning set	2256 Dec 21 11:29	20° \mathbb{A} 29'47	
evening rise	2256 Feb 08 21:38	27° \mathbb{A} 57'14			2256 Dec 27 14:17	0° \mathbb{C}	
	2256 Feb 10 01:11	0° \mathbb{H}		max. Earth dist.	2257 Jan 02 15:24	9° \mathbb{C} 31'29	1.44286 AU
asc. node	2256 Feb 20 08:42	17° \mathbb{H} 31'52					
evening max el	2256 Feb 25 19:24	24° \mathbb{H} 29'16	18°07'11	superior conj	2257 Jan 07 04:34	16° \mathbb{C} 48'17	-1°-49'-42
retrograde	2256 Mar 03 09:16	27° \mathbb{H} 53'02		minimum elong	2257 Jan 06 21:25	16° \mathbb{C} 19'25	1°49'12
evening set	2256 Mar 06 01:32	27° \mathbb{H} 18'59			2257 Jan 15 05:46	0° \mathbb{A}	
inferior conj	2256 Mar 12 14:09	22° \mathbb{H} 15'15	3°34'47	evening rise	2257 Jan 20 21:03	9° \mathbb{A} 28'40	
minimum elong	2256 Mar 12 15:45	22° \mathbb{H} 11'15	3°34'38		2257 Feb 02 07:22	0° \mathbb{H}	
min. Earth dist.	2256 Mar 15 15:36	19° \mathbb{H} 13'59	0.61584 AU	asc. node	2257 Feb 06 05:44	5° \mathbb{H} 25'42	
morning rise	2256 Mar 19 03:15	16° \mathbb{H} 19'38		evening max el	2257 Feb 08 08:00	7° \mathbb{H} 46'48	18°16'48
direct	2256 Mar 25 23:35	13° \mathbb{H} 55'57		retrograde	2257 Feb 14 19:03	11° \mathbb{H} 15'05	
desc. node	2256 Mar 29 11:46	14° \mathbb{H} 30'28		evening set	2257 Feb 17 16:28	10° \mathbb{H} 30'36	
morning max el	2256 Apr 09 03:31	21° \mathbb{H} 51'04	27°48'31	inferior conj	2257 Feb 23 18:26	5° \mathbb{H} 07'08	3°42'34
	2256 Apr 16 06:55	0° \mathbb{Y}		minimum elong	2257 Feb 23 18:10	5° \mathbb{H} 07'55	3°42'34
	2256 May 05 09:25	0° \mathbb{B}		min. Earth dist.	2257 Feb 26 05:50	2° \mathbb{H} 22'06	0.63557 AU
morning set	2256 May 12 04:09	13° \mathbb{B} 13'17			2257 Feb 28 14:32	30° \mathbb{R} \mathbb{A}	
max. Earth dist.	2256 May 18 02:24	25° \mathbb{B} 45'08	1.32386 AU	morning rise	2257 Mar 01 18:02	29° \mathbb{A} 01'20	
asc. node	2256 May 18 07:59	26° \mathbb{B} 15'27		direct	2257 Mar 08 15:53	26° \mathbb{A} 16'46	
				desc. node	2257 Mar 16 08:48	29° \mathbb{A} 03'16	
superior conj	2256 May 19 14:05	28° \mathbb{B} 59'22	0°13'13		2257 Mar 17 16:48	0° \mathbb{H}	
minimum elong	2256 May 19 13:28	28° \mathbb{B} 56'02	0°13'04	morning max el	2257 Mar 22 11:24	4° \mathbb{H} 12'42	27°40'48
behind sun begin	2256 May 19 10:33	28° \mathbb{B} 40'06			2257 Apr 10 20:36	0° \mathbb{Y}	
behind sun end	2256 May 19 16:23	29° \mathbb{B} 11'58		morning set	2257 Apr 26 01:43	27° \mathbb{Y} 18'41	
	2256 May 20 01:11	0° \mathbb{I}			2257 Apr 27 09:51	0° \mathbb{B}	
evening rise	2256 May 26 12:31	14° \mathbb{I} 02'54		max. Earth dist.	2257 May 01 06:47	8° \mathbb{B} 00'34	1.33019 AU
	2256 Jun 03 12:51	0° \mathbb{C}					
evening max el	2256 Jun 21 02:44	24° \mathbb{C} 51'07	24°40'54	superior conj	2257 May 03 21:29	13° \mathbb{B} 34'14	0°-13'-48
desc. node	2256 Jun 25 10:59	28° \mathbb{C} 27'50		minimum elong	2257 May 03 22:09	13° \mathbb{B} 37'53	0°13'41
	2256 Jun 27 23:05	0° \mathbb{Q}		behind sun begin	2257 May 03 19:25	13° \mathbb{B} 23'09	
retrograde	2256 Jul 05 01:03	1° \mathbb{Q} 54'25		behind sun end	2257 May 04 00:54	13° \mathbb{B} 52'37	
evening set	2256 Jul 10 03:35	0° \mathbb{Q} 55'32		asc. node	2257 May 05 05:01	16° \mathbb{B} 23'58	
	2256 Jul 12 06:08	30° \mathbb{R} \mathbb{C}		evening rise	2257 May 11 00:18	28° \mathbb{B} 52'00	
min. Earth dist.	2256 Jul 15 13:54	28° \mathbb{C} 05'44	0.57049 AU		2257 May 11 13:13	0° \mathbb{I}	
inferior conj	2256 Jul 18 10:23	26° \mathbb{C} 14'38	-4°-55'-5		2257 May 28 21:40	0° \mathbb{C}	
minimum elong	2256 Jul 18 07:45	26° \mathbb{C} 18'56	4°54'55	evening max el	2257 Jun 02 16:31	5° \mathbb{C} 21'00	23°05'30
morning rise	2256 Jul 26 15:41	22° \mathbb{C} 08'38		desc. node	2257 Jun 12 08:01	11° \mathbb{C} 30'22	
direct	2256 Jul 29 06:24	21° \mathbb{C} 49'36		retrograde	2257 Jun 16 03:09	12° \mathbb{C} 03'15	
morning max el	2256 Aug 07 12:02	26° \mathbb{C} 07'55	19°21'24	evening set	2257 Jun 19 17:29	11° \mathbb{C} 34'53	
	2256 Aug 11 00:10	0° \mathbb{Q}		min. Earth dist.	2257 Jun 27 01:52	8° \mathbb{C} 16'36	0.55585 AU

inferior conj	2257 Jun 28 18:51	7°☿16'55	-4°-10'-47	min. Earth dist.	2258 Jun 08 13:43	17°♄45'57	0.54917 AU
minimum elong	2257 Jun 28 11:30	7°☿27'39	4°09'16	morning rise	2258 Jun 17 09:57	13°♄49'31	
morning rise	2257 Jul 07 08:32	3°☿24'07		direct	2258 Jun 20 15:56	13°♄26'28	
direct	2257 Jul 10 04:55	3°☿04'45		morning max el	2258 Jul 03 01:32	19°♄17'53	22°03'47
morning max el	2257 Jul 21 00:30	8°☿05'26	20°33'20		2258 Jul 11 19:22	0°☿	
asc. node	2257 Aug 01 04:16	23°☿16'37		asc. node	2258 Jul 19 01:18	12°☿26'38	
	2257 Aug 04 19:36	0°♁		morning set	2258 Jul 24 06:58	22°☿57'18	
morning set	2257 Aug 08 21:13	8°♁07'45			2258 Jul 27 15:07	0°♁	
superior conj	2257 Aug 16 11:49	23°♁48'46	1°45'06	superior conj	2258 Jul 31 13:12	8°♁18'38	1°39'16
minimum elong	2257 Aug 16 11:19	23°♁46'14	1°45'05	minimum elong	2258 Jul 31 11:32	8°♁09'54	1°39'09
	2257 Aug 19 13:44	0°♂		max. Earth dist.	2258 Aug 04 00:45	15°♁32'24	1.34564 AU
max. Earth dist.	2257 Aug 21 09:50	3°♂36'16	1.36139 AU	evening rise	2258 Aug 08 15:48	24°♁45'18	
evening rise	2257 Aug 25 11:02	11°♂17'01			2258 Aug 11 10:05	0°♂	
	2257 Sep 05 06:54	0°♂		desc. node	2258 Aug 26 04:22	24°♂45'11	
desc. node	2257 Sep 08 07:20	4°♂46'09			2258 Aug 29 19:10	0°♂	
	2257 Sep 27 03:16	0°♂		evening max el	2258 Sep 12 14:48	16°♂37'26	26°59'10
evening max el	2257 Sep 30 02:21	3°♂03'05	26°09'19	retrograde	2258 Sep 25 19:42	23°♂54'07	
retrograde	2257 Oct 12 17:17	10°♂11'56		evening set	2258 Oct 02 14:23	21°♂12'12	
evening set	2257 Oct 18 23:35	7°♂37'01		min. Earth dist.	2258 Oct 06 13:09	17°♂18'15	0.65453 AU
min. Earth dist.	2257 Oct 23 05:20	3°♂06'14	0.66566 AU	inferior conj	2258 Oct 08 12:07	15°♂03'33	-2°-9'-54
inferior conj	2257 Oct 24 16:17	1°♂17'54	-1°-11'-5	minimum elong	2258 Oct 08 15:37	14°♂53'30	2°08'34
minimum elong	2257 Oct 24 18:10	1°♂12'04	1°10'18	morning rise	2258 Oct 14 18:26	9°♂24'08	
	2257 Oct 25 17:41	30°♂		asc. node	2258 Oct 15 00:30	9°♂17'01	
asc. node	2257 Oct 28 03:29	27°♂20'17		direct	2258 Oct 17 11:41	8°♂43'48	
morning rise	2257 Oct 30 13:47	25°♂25'47		morning max el	2258 Oct 24 00:27	12°♂15'49	18°13'44
direct	2257 Nov 02 15:03	24°♂32'32			2258 Nov 05 12:30	0°♂	
morning max el	2257 Nov 09 10:41	28°♂19'30	18°50'17	morning set	2258 Nov 11 16:57	10°♂06'18	
	2257 Nov 10 23:58	0°♂		desc. node	2258 Nov 22 03:40	27°♂00'29	
morning set	2257 Nov 30 23:48	29°♂34'13			2258 Nov 24 00:45	0°♂	
	2257 Dec 01 06:21	0°♂		superior conj	2258 Nov 26 13:41	4°♂01'25	0°-29'-23
desc. node	2257 Dec 05 06:38	6°♂18'44		minimum elong	2258 Nov 26 09:54	3°♂46'28	0°28'54
max. Earth dist.	2257 Dec 16 07:58	23°♂40'10	1.45056 AU	max. Earth dist.	2258 Nov 29 03:12	8°♂03'50	1.45090 AU
superior conj	2257 Dec 17 11:09	25°♂27'02	-1°-15'-58	evening rise	2258 Dec 12 23:43	29°♂42'53	
minimum elong	2257 Dec 17 02:32	24°♂53'10	1°15'00		2258 Dec 13 04:07	0°♂	
	2257 Dec 20 08:26	0°♂		greatest brilliancy	2258 Dec 28 17:20	23°♂50'31	-0.7m
evening rise	2258 Jan 01 21:43	20°♂02'16			2259 Jan 02 03:45	0°♂	
	2258 Jan 08 01:37	0°♂		evening max el	2259 Jan 06 03:07	4°♂41'09	19°29'21
evening max el	2258 Jan 22 19:17	21°♂12'01	18°44'40	asc. node	2259 Jan 10 23:47	8°♂20'40	
asc. node	2258 Jan 24 02:46	22°♂26'34		retrograde	2259 Jan 13 08:31	8°♂51'09	
retrograde	2258 Jan 29 11:53	24°♂56'15		evening set	2259 Jan 16 18:56	7°♂42'08	
evening set	2258 Feb 01 15:09	24°♂00'10		inferior conj	2259 Jan 22 08:27	1°♂45'05	3°10'16
inferior conj	2258 Feb 07 09:37	18°♂18'46	3°32'54	minimum elong	2259 Jan 22 06:01	1°♂52'59	3°09'45
minimum elong	2258 Feb 07 07:57	18°♂23'51	3°32'42	min. Earth dist.	2259 Jan 23 13:25	0°♂10'39	0.66449 AU
min. Earth dist.	2258 Feb 09 05:26	16°♂05'12	0.65202 AU		2259 Jan 23 16:44	30°♂	
morning rise	2258 Feb 12 23:35	12°♂07'25		morning rise	2259 Jan 27 16:22	25°♂30'50	
direct	2258 Feb 19 15:18	9°♂16'40		direct	2259 Feb 02 20:39	22°♂47'07	
desc. node	2258 Mar 03 05:50	15°♂27'32			2259 Feb 15 02:40	0°♂	
morning max el	2258 Mar 04 20:59	17°♂02'20	26°59'40	morning max el	2259 Feb 15 06:16	0°♂09'03	25°52'52
	2258 Mar 15 16:20	0°♂		desc. node	2259 Feb 18 02:51	3°♂12'17	
	2258 Apr 03 17:08	0°♂			2259 Mar 09 14:40	0°♂	
morning set	2258 Apr 09 13:21	10°♂50'17		morning set	2259 Mar 23 10:59	23°♂36'13	
max. Earth dist.	2258 Apr 14 01:21	19°♂43'11	1.34105 AU		2259 Mar 26 20:48	0°♂	
				max. Earth dist.	2259 Mar 27 08:28	0°♂55'53	1.35651 AU
superior conj	2258 Apr 17 23:41	27°♂48'39	0°-41'-52	superior conj	2259 Apr 01 18:13	11°♂35'34	-1°-9'-33
minimum elong	2258 Apr 18 01:49	27°♂59'47	0°41'27	minimum elong	2259 Apr 01 21:42	11°♂53'11	1°08'58
	2258 Apr 19 00:44	0°♂		asc. node	2259 Apr 08 23:05	26°♂21'25	
asc. node	2258 Apr 22 02:03	6°♂27'16		evening rise	2259 Apr 09 17:19	27°♂54'42	
evening rise	2258 Apr 25 10:34	13°♂31'18			2259 Apr 10 17:57	0°♂	
	2258 May 03 21:40	0°♂		evening max el	2259 Apr 27 17:44	27°♂08'37	20°12'52
evening max el	2258 May 15 11:45	15°♂58'46	21°32'29		2259 May 01 06:15	0°♂	
retrograde	2258 May 27 18:03	21°♂59'19		retrograde	2259 May 08 07:49	2°♂16'29	
evening set	2258 May 30 05:04	21°♂45'37		evening set	2259 May 10 08:38	2°♂05'57	
desc. node	2258 May 30 05:02	21°♂45'38			2259 May 16 02:23	30°♂	
inferior conj	2258 Jun 08 14:14	17°♂45'14	-2°-39'-14	desc. node	2259 May 17 02:03	29°♂28'08	
minimum elong	2258 Jun 08 07:12	17°♂55'05	2°36'58				

inferior conj	2259 May 19 09:55	28°♄07'23	0°-40'-50	inferior conj	2260 Apr 28 19:34	8°♄53'13	1°10'17
minimum elong	2259 May 19 08:00	28°♄10'13	0°40'09	minimum elong	2260 Apr 28 22:17	8°♄48'37	1°09'22
min. Earth dist.	2259 May 21 02:33	27°♄07'22	0.55205 AU	min. Earth dist.	2260 May 01 17:31	6°♄55'48	0.56386 AU
morning rise	2259 May 28 05:09	23°♄49'45		desc. node	2260 May 02 23:04	6°♄09'10	
direct	2259 Jun 01 04:03	23°♄15'51		morning rise	2260 May 07 04:45	4°♄01'27	
	2259 Jun 14 20:14	0°♄		direct	2260 May 12 03:17	3°♄04'56	
morning max el	2259 Jun 14 18:18	29°♄55'27	23°45'11	morning max el	2260 May 26 08:43	10°♄21'37	25°24'27
	2259 Jul 04 22:18	0°♄			2260 Jun 10 05:56	0°♄	
asc. node	2259 Jul 05 22:20	2°♄00'20		asc. node	2260 Jun 21 19:24	21°♄50'58	
morning set	2259 Jul 08 18:32	7°♄52'36		morning set	2260 Jun 22 06:19	22°♄48'20	
					2260 Jun 25 14:44	0°♄	
superior conj	2259 Jul 15 20:10	23°♄04'45	1°27'44	superior conj	2260 Jun 29 06:29	7°♄59'57	1°11'29
minimum elong	2259 Jul 15 17:54	22°♄52'28	1°27'28	minimum elong	2260 Jun 29 04:06	7°♄46'56	1°11'07
max. Earth dist.	2259 Jul 18 01:00	27°♄47'50	1.33381 AU	max. Earth dist.	2260 Jun 30 08:33	10°♄22'21	1.32593 AU
	2259 Jul 19 01:58	0°♄		evening rise	2260 Jul 06 09:47	23°♄16'12	
evening rise	2259 Jul 23 08:33	8°♄48'27			2260 Jul 09 17:57	0°♄	
	2259 Aug 03 20:27	0°♄			2260 Jul 27 15:57	0°♄	
desc. node	2259 Aug 13 01:23	14°♄14'35		desc. node	2260 Jul 29 22:23	3°♄02'13	
evening max el	2259 Aug 26 02:20	29°♄54'12	27°24'14	evening max el	2260 Aug 07 10:40	12°♄40'19	27°18'52
	2259 Aug 26 04:47	0°♄		retrograde	2260 Aug 21 06:03	19°♄56'05	
retrograde	2259 Sep 08 16:05	7°♄11'47		evening set	2260 Aug 28 10:32	17°♄30'07	
evening set	2259 Sep 15 19:13	4°♄31'48		min. Earth dist.	2260 Sep 01 00:40	14°♄39'25	0.62190 AU
min. Earth dist.	2259 Sep 19 12:04	1°♄12'55	0.63985 AU	inferior conj	2260 Sep 04 00:06	11°♄54'10	-4°00'-12
	2259 Sep 20 16:22	30°♄		minimum elong	2260 Sep 04 05:32	11°♄41'33	3°58'52
inferior conj	2259 Sep 21 23:42	28°♄37'52	-3°-7'-36	morning rise	2260 Sep 11 03:18	6°♄50'39	
minimum elong	2259 Sep 22 04:35	28°♄25'10	3°06'01	direct	2260 Sep 13 12:17	6°♄25'52	
morning rise	2259 Sep 28 16:05	23°♄14'41		asc. node	2260 Sep 17 18:37	7°♄48'10	
direct	2259 Oct 01 03:52	22°♄43'41		morning max el	2260 Sep 20 08:12	9°♄53'32	17°53'09
asc. node	2259 Oct 01 21:33	22°♄46'26			2260 Oct 03 14:28	0°♄	
morning max el	2259 Oct 07 16:36	26°♄09'20	17°54'26	morning set	2260 Oct 06 06:57	4°♄49'44	
	2259 Oct 10 23:14	0°♄					
morning set	2259 Oct 24 13:23	21°♄57'42		superior conj	2260 Oct 17 06:40	24°♄13'51	0°56'50
	2259 Oct 29 06:26	0°♄		minimum elong	2260 Oct 17 11:06	24°♄32'47	0°56'16
superior conj	2259 Nov 06 08:51	13°♄27'58	0°18'00		2260 Oct 20 16:34	0°♄	
minimum elong	2259 Nov 06 10:50	13°♄36'02	0°17'43	max. Earth dist.	2260 Oct 24 12:08	6°♄17'53	1.43054 AU
desc. node	2259 Nov 09 00:42	17°♄46'40		desc. node	2260 Oct 25 21:44	8°♄34'14	
max. Earth dist.	2259 Nov 11 21:44	22°♄23'02	1.44392 AU	evening rise	2260 Oct 31 21:07	18°♄03'38	
	2259 Nov 16 17:36	0°♄			2260 Nov 08 16:09	0°♄	
evening rise	2259 Nov 22 10:25	8°♄50'34		greatest brilliancy	2260 Nov 27 06:14	26°♄08'50	-0.4m
	2259 Dec 06 11:01	0°♄			2260 Nov 30 12:35	0°♄	
greatest brilliancy	2259 Dec 14 04:26	10°♄54'24	-0.5m	evening max el	2260 Dec 02 03:00	1°♄42'22	21°39'58
evening max el	2259 Dec 20 05:53	18°♄11'16	20°28'49	retrograde	2260 Dec 11 03:43	7°♄04'48	
retrograde	2259 Dec 28 06:29	22°♄55'02		asc. node	2260 Dec 14 17:52	5°♄54'06	
asc. node	2259 Dec 28 20:50	22°♄53'03		evening set	2260 Dec 15 09:27	5°♄25'43	
evening set	2260 Jan 01 01:38	21°♄31'41			2260 Dec 20 03:29	30°♄	
inferior conj	2260 Jan 06 12:17	15°♄21'47	2°37'39	inferior conj	2260 Dec 20 18:59	29°♄06'28	1°57'10
minimum elong	2260 Jan 06 09:41	15°♄30'39	2°36'54	minimum elong	2260 Dec 20 16:41	29°♄14'26	1°56'21
min. Earth dist.	2260 Jan 07 03:57	14°♄28'33	0.67290 AU	min. Earth dist.	2260 Dec 20 22:49	28°♄53'10	0.67748 AU
morning rise	2260 Jan 11 17:16	9°♄06'31		morning rise	2260 Dec 25 23:39	22°♄52'01	
direct	2260 Jan 17 07:15	6°♄39'05		direct	2260 Dec 30 22:28	20°♄45'52	
morning max el	2260 Jan 28 14:48	13°♄24'04	24°30'04	morning max el	2261 Jan 10 00:18	26°♄44'39	23°01'25
desc. node	2260 Feb 04 23:55	21°♄53'57			2261 Jan 13 00:36	0°♄	
	2260 Feb 11 01:38	0°♄		greatest brilliancy	2261 Jan 14 19:56	2°♄07'39	-0.3m
	2260 Mar 01 10:45	0°♄		desc. node	2261 Jan 21 20:59	11°♄16'32	
morning set	2260 Mar 04 13:08	5°♄20'49			2261 Feb 03 16:24	0°♄	
max. Earth dist.	2260 Mar 08 06:16	11°♄58'21	1.37589 AU	morning set	2261 Feb 13 13:37	15°♄48'54	
				max. Earth dist.	2261 Feb 18 01:17	23°♄24'38	1.39735 AU
superior conj	2260 Mar 15 01:47	24°♄45'27	-1°-34'-48		2261 Feb 21 19:32	0°♄	
minimum elong	2260 Mar 15 06:06	25°♄06'19	1°34'16	superior conj	2261 Feb 25 18:16	7°♄08'29	-1°-54'-36
	2260 Mar 17 18:15	0°♄		minimum elong	2261 Feb 25 22:06	7°♄26'07	1°54'21
evening rise	2260 Mar 23 18:08	11°♄54'43		evening rise	2261 Mar 07 10:10	25°♄24'11	
asc. node	2260 Mar 25 20:08	16°♄01'09			2261 Mar 09 20:06	0°♄	
	2260 Apr 02 13:41	0°♄		asc. node	2261 Mar 12 17:11	5°♄21'11	
evening max el	2260 Apr 09 11:16	8°♄57'47	19°11'57	evening max el	2261 Mar 23 14:17	21°♄23'00	18°31'10
retrograde	2260 Apr 18 09:31	13°♄17'22		retrograde	2261 Mar 31 05:30	25°♄08'05	
evening set	2260 Apr 20 11:43	13°♄04'07					

evening set	2261 Apr 02 13:12	24° Υ 48'24		evening max el	2262 Mar 06 23:35	4° Υ 16'11	18°10'22
inferior conj	2261 Apr 10 02:02	20° Υ 18'23	2°31'48	retrograde	2262 Mar 13 19:23	7° Υ 43'01	
minimum elong	2261 Apr 10 05:59	20° Υ 10'34	2°30'47	evening set	2262 Mar 16 08:45	7° Υ 14'33	
min. Earth dist.	2261 Apr 13 12:15	17° Υ 37'17	0.58220 AU	inferior conj	2262 Mar 23 05:09	2° Υ 23'15	3°20'00
morning rise	2261 Apr 17 18:29	14° Υ 54'24		minimum elong	2262 Mar 23 07:52	2° Υ 16'59	3°19'35
desc. node	2261 Apr 19 20:08	14° Υ 02'39			2262 Mar 25 19:33	30° \Re \times	
direct	2261 Apr 23 16:59	13° Υ 24'00		min. Earth dist.	2262 Mar 26 12:44	29° \times 22'01	0.60356 AU
morning max el	2261 May 08 02:17	21° Υ 03'53	26°45'40	morning rise	2262 Mar 30 03:39	26° \times 36'46	
	2261 May 15 20:18	0° \mathcal{B}		direct	2262 Apr 05 19:05	24° \times 30'19	
	2261 Jun 02 22:53	0° Π		desc. node	2262 Apr 06 17:11	24° \times 32'40	
morning set	2261 Jun 06 16:35	7° Π 38'14			2262 Apr 17 12:19	0° Υ	
asc. node	2261 Jun 08 16:27	11° Π 52'25		morning max el	2262 Apr 20 01:48	2° Υ 22'01	27°36'05
					2262 May 10 05:06	0° \mathcal{B}	
superior conj	2261 Jun 13 18:12	22° Π 57'06	0°51'19	morning set	2262 May 21 23:37	22° \mathcal{B} 16'35	
minimum elong	2261 Jun 13 16:11	22° Π 46'03	0°50'55		2262 May 25 15:16	0° Π	
max. Earth dist.	2261 Jun 13 20:00	23° Π 07'02	1.32200 AU	asc. node	2262 May 26 13:30	2° Π 00'09	
	2261 Jun 16 23:17	0° \mathfrak{S}		max. Earth dist.	2262 May 28 07:48	5° Π 50'50	1.32204 AU
evening rise	2261 Jun 20 16:42	7° \mathfrak{S} 59'11					
	2261 Jul 02 04:56	0° Ω		superior conj	2262 May 29 05:37	7° Π 50'29	0°27'54
desc. node	2261 Jul 16 19:25	20° Ω 50'03		minimum elong	2262 May 29 04:24	7° Π 43'45	0°27'38
evening max el	2261 Jul 20 13:20	24° Ω 44'01	26°40'23	evening rise	2262 Jun 05 03:03	22° Π 50'09	
	2261 Jul 27 13:05	0° \mathfrak{M}			2262 Jun 08 14:09	0° \mathfrak{S}	
retrograde	2261 Aug 03 12:31	1° \mathfrak{M} 56'58			2262 Jun 26 21:26	0° Ω	
evening set	2261 Aug 10 07:41	29° Ω 58'46		evening max el	2262 Jul 02 08:58	6° Ω 01'06	25°31'12
	2261 Aug 10 06:49	30° \Re Ω		desc. node	2262 Jul 03 16:25	7° Ω 13'20	
min. Earth dist.	2261 Aug 14 03:03	27° Ω 22'32	0.60168 AU	retrograde	2262 Jul 16 09:16	13° Ω 09'06	
inferior conj	2261 Aug 17 09:49	24° Ω 42'57	-4°-41'-8	evening set	2262 Jul 22 06:02	11° Ω 48'32	
minimum elong	2261 Aug 17 14:04	24° Ω 34'16	4°40'32	min. Earth dist.	2262 Jul 26 21:05	9° Ω 08'36	0.58124 AU
morning rise	2261 Aug 24 23:46	20° Ω 01'39		inferior conj	2262 Jul 30 01:20	6° Ω 54'38	-4°-59'-53
direct	2261 Aug 27 08:51	19° Ω 40'32		minimum elong	2262 Jul 30 01:50	6° Ω 53'45	4°59'53
morning max el	2261 Sep 03 20:00	23° Ω 19'23	18°11'02	morning rise	2262 Aug 07 01:14	2° Ω 36'10	
asc. node	2261 Sep 04 15:41	24° Ω 09'11		direct	2262 Aug 09 13:17	2° Ω 16'43	
	2261 Sep 09 04:18	0° \mathfrak{M}		morning max el	2262 Aug 18 00:43	6° Ω 17'20	18°49'30
morning set	2261 Sep 19 15:48	18° \mathfrak{M} 25'13		asc. node	2262 Aug 22 12:44	11° Ω 34'13	
	2261 Sep 25 20:04	0° $\underline{\mathfrak{A}}$			2262 Sep 02 04:14	0° \mathfrak{M}	
				morning set	2262 Sep 03 11:25	2° \mathfrak{M} 32'02	
superior conj	2261 Sep 29 05:57	6° $\underline{\mathfrak{A}}$ 14'07	1°23'51				
minimum elong	2261 Sep 29 09:54	6° $\underline{\mathfrak{A}}$ 31'58	1°23'27	superior conj	2262 Sep 12 01:28	19° \mathfrak{M} 14'14	1°39'27
max. Earth dist.	2261 Oct 06 20:53	19° $\underline{\mathfrak{A}}$ 33'38	1.41252 AU	minimum elong	2262 Sep 12 03:42	19° \mathfrak{M} 24'53	1°39'19
evening rise	2261 Oct 11 23:32	28° $\underline{\mathfrak{A}}$ 01'33			2262 Sep 17 21:03	0° $\underline{\mathfrak{A}}$	
desc. node	2261 Oct 12 18:45	29° $\underline{\mathfrak{A}}$ 19'15		max. Earth dist.	2262 Sep 19 01:30	2° $\underline{\mathfrak{A}}$ 07'10	1.39219 AU
	2261 Oct 13 04:52	0° \mathfrak{M}		evening rise	2262 Sep 23 01:28	9° $\underline{\mathfrak{A}}$ 04'56	
	2261 Nov 02 07:55	0° \mathfrak{A}		desc. node	2262 Sep 29 15:45	19° $\underline{\mathfrak{A}}$ 58'09	
greatest brilliancy	2261 Nov 09 09:46	9° \mathfrak{A} 12'11	-0.2m		2262 Oct 06 03:09	0° \mathfrak{M}	
evening max el	2261 Nov 14 19:12	15° \mathfrak{A} 15'30	22°58'27	evening max el	2262 Oct 28 08:21	28° \mathfrak{M} 52'30	24°18'14
retrograde	2261 Nov 24 22:34	21° \mathfrak{A} 16'31			2262 Oct 29 12:25	0° \mathfrak{A}	
evening set	2261 Nov 29 16:40	19° \mathfrak{A} 20'43		retrograde	2262 Nov 08 13:40	5° \mathfrak{A} 26'46	
asc. node	2261 Dec 01 14:55	17° \mathfrak{A} 26'59		evening set	2262 Nov 13 21:38	3° \mathfrak{A} 14'06	
inferior conj	2261 Dec 05 02:33	12° \mathfrak{A} 56'04	1°10'16		2262 Nov 16 22:50	30° \Re \mathfrak{M}	
minimum elong	2261 Dec 05 00:59	13° \mathfrak{A} 01'26	1°09'39	asc. node	2262 Nov 18 11:58	27° \mathfrak{M} 59'38	
min. Earth dist.	2261 Dec 04 19:33	13° \mathfrak{A} 20'13	0.67849 AU	min. Earth dist.	2262 Nov 18 15:40	27° \mathfrak{M} 47'15	0.67618 AU
morning rise	2261 Dec 10 09:18	6° \mathfrak{A} 44'37		inferior conj	2262 Nov 19 09:12	26° \mathfrak{M} 48'18	0°18'13
direct	2261 Dec 14 17:25	5° \mathfrak{A} 01'16		minimum elong	2262 Nov 19 08:46	26° \mathfrak{M} 49'47	0°18'02
morning max el	2261 Dec 23 14:05	10° \mathfrak{A} 12'28	21°36'04	morning rise	2262 Nov 24 20:11	20° \mathfrak{M} 42'17	
greatest brilliancy	2261 Dec 28 12:39	15° \mathfrak{A} 48'55	-0.4m	direct	2262 Nov 28 14:52	19° \mathfrak{M} 20'41	
	2262 Jan 07 23:10	0° \mathfrak{B}		morning max el	2262 Dec 06 11:02	23° \mathfrak{M} 50'40	20°20'33
desc. node	2262 Jan 08 18:02	1° \mathfrak{B} 08'13			2262 Dec 11 17:47	0° \mathfrak{A}	
morning set	2262 Jan 24 09:01	24° \mathfrak{B} 54'16		greatest brilliancy	2262 Dec 12 22:34	1° \mathfrak{A} 34'15	-0.5m
	2262 Jan 27 13:17	0° \approx		desc. node	2262 Dec 26 15:02	21° \mathfrak{A} 20'34	
max. Earth dist.	2262 Jan 31 00:51	5° \approx 41'51	1.41814 AU		2263 Jan 01 07:22	0° \mathfrak{B}	
				morning set	2263 Jan 03 07:17	3° \mathfrak{B} 04'47	
superior conj	2262 Feb 07 14:38	18° \approx 32'58	-2°-4'-51	max. Earth dist.	2263 Jan 13 08:25	18° \mathfrak{B} 54'38	1.43547 AU
minimum elong	2262 Feb 07 15:42	18° \approx 37'39	2°04'52				
	2262 Feb 14 01:17	0° \times		superior conj	2263 Jan 19 09:53	28° \mathfrak{B} 47'13	-2°00'-33
evening rise	2262 Feb 18 13:48	8° \times 14'54		minimum elong	2263 Jan 19 05:46	28° \mathfrak{B} 30'12	2°00'24
asc. node	2262 Feb 27 14:13	24° \times 15'07			2263 Jan 20 03:28	0° \approx	
	2262 Mar 03 09:12	0° Υ		evening rise	2263 Feb 01 00:45	20° \approx 17'21	

	2263 Feb 06 14:46	0° Υ		evening rise	2264 Jan 13 14:53	1° \approx 25'18	
asc. node	2263 Feb 14 11:16	12° Υ 33'50		asc. node	2264 Feb 01 08:17	0° Υ 07'01	
evening max el	2263 Feb 18 11:50	17° Υ 27'04	18°09'01		2264 Feb 01 05:43	0° Υ	
retrograde	2263 Feb 24 23:12	20° Υ 50'51		evening max el	2264 Feb 02 00:11	0° Υ 48'48	18°26'24
evening set	2263 Feb 27 17:45	20° Υ 12'20		retrograde	2264 Feb 08 12:33	4° Υ 22'29	
inferior conj	2263 Mar 06 01:24	15° Υ 00'01	3°40'33	evening set	2264 Feb 11 12:23	3° Υ 33'04	
minimum elong	2263 Mar 06 02:10	14° Υ 58'00	3°40'31		2264 Feb 15 16:54	30° Υ	
min. Earth dist.	2263 Mar 08 21:15	12° Υ 03'31	0.62462 AU	inferior conj	2264 Feb 17 10:47	28° \approx 01'25	3°40'17
morning rise	2263 Mar 12 08:20	8° Υ 59'40		minimum elong	2264 Feb 17 09:51	28° \approx 04'09	3°40'13
direct	2263 Mar 19 06:33	6° Υ 25'25		min. Earth dist.	2264 Feb 19 15:26	25° \approx 28'43	0.64308 AU
desc. node	2263 Mar 24 14:14	7° Υ 45'02		morning rise	2264 Feb 23 05:51	21° \approx 52'51	
morning max el	2263 Apr 02 07:03	14° Υ 21'07	27°49'39	direct	2264 Mar 01 01:47	19° \approx 04'18	
	2263 Apr 14 22:48	0° Υ		desc. node	2264 Mar 10 11:16	23° \approx 09'50	
	2263 May 02 17:22	0° Υ		morning max el	2264 Mar 14 16:06	26° \approx 56'36	27°26'59
morning set	2263 May 06 01:18	6° Υ 35'44			2264 Mar 17 13:07	0° Υ	
max. Earth dist.	2263 May 11 16:05	18° Υ 20'11	1.32607 AU		2264 Apr 07 13:58	0° Υ	
asc. node	2263 May 13 10:32	22° Υ 09'16		morning set	2264 Apr 18 19:02	20° Υ 27'46	
				max. Earth dist.	2264 Apr 23 16:56	0° Υ 23'30	1.33434 AU
superior conj	2263 May 13 14:58	22° Υ 33'23	0°01'58		2264 Apr 23 12:24	0° Υ	
minimum elong	2263 May 13 14:53	22° Υ 32'51	0°01'56				
behind sun begin	2263 May 13 09:43	22° Υ 04'55		superior conj	2264 Apr 26 20:23	6° Υ 59'58	0°-25'-40
behind sun end	2263 May 13 20:02	23° Υ 00'49		minimum elong	2264 Apr 26 21:40	7° Υ 06'48	0°25'24
	2263 May 17 01:03	0° Π		asc. node	2264 Apr 29 07:34	12° Υ 15'59	
evening rise	2263 May 20 14:50	7° Π 41'31		evening rise	2264 May 04 02:12	22° Υ 27'11	
	2263 Jun 01 07:17	0° Υ			2264 May 07 18:21	0° Π	
evening max el	2263 Jun 13 23:10	16° Υ 40'15	24°00'56	evening max el	2264 May 25 14:10	27° Π 08'32	22°24'40
desc. node	2263 Jun 20 13:26	21° Υ 39'09			2264 May 28 22:26	0° Υ	
retrograde	2263 Jun 27 17:53	23° Υ 36'03		desc. node	2264 Jun 06 10:28	3° Υ 32'26	
evening set	2263 Jul 02 05:09	22° Υ 51'56		retrograde	2264 Jun 07 14:27	3° Υ 35'33	
min. Earth dist.	2263 Jul 08 09:51	19° Υ 51'39	0.56351 AU	evening set	2264 Jun 10 15:32	3° Υ 15'06	
inferior conj	2263 Jul 10 20:34	18° Υ 21'22	-4°-42'-17		2264 Jun 18 07:37	30° Υ	
minimum elong	2263 Jul 10 15:35	18° Υ 29'03	4°41'40	min. Earth dist.	2264 Jun 18 21:05	29° Π 41'06	0.55191 AU
morning rise	2263 Jul 19 05:31	14° Υ 22'18		inferior conj	2264 Jun 19 22:03	29° Π 05'47	-3°-37'-3
direct	2263 Jul 21 22:40	14° Υ 03'10		minimum elong	2264 Jun 19 14:02	29° Π 17'08	3°34'56
morning max el	2263 Jul 31 19:30	18° Υ 37'56	19°49'31	morning rise	2264 Jun 28 14:51	25° Π 14'35	
asc. node	2263 Aug 09 09:46	29° Υ 48'58		direct	2264 Jul 01 14:45	24° Π 54'14	
	2263 Aug 09 12:27	0° Ω			2264 Jul 12 20:10	0° Υ	
morning set	2263 Aug 18 14:25	17° Ω 01'02		morning max el	2264 Jul 13 02:53	0° Υ 15'22	21°10'03
	2263 Aug 25 00:03	0° Υ		asc. node	2264 Jul 26 06:47	18° Υ 41'42	
					2264 Aug 01 01:54	0° Ω	
superior conj	2263 Aug 26 11:52	2° Υ 59'04	1°45'23	morning set	2264 Aug 01 22:17	1° Ω 44'49	
minimum elong	2263 Aug 26 12:16	3° Υ 01'05	1°45'23				
max. Earth dist.	2263 Sep 01 06:10	14° Υ 08'46	1.37199 AU	superior conj	2264 Aug 09 08:46	17° Ω 15'41	1°43'24
evening rise	2263 Sep 05 02:25	21° Υ 12'56		minimum elong	2264 Aug 09 07:42	17° Ω 10'13	1°43'22
	2263 Sep 10 03:11	0° Ω		max. Earth dist.	2264 Aug 13 16:04	25° Ω 59'45	1.35415 AU
desc. node	2263 Sep 16 12:45	10° Ω 26'35			2264 Aug 15 17:00	0° Υ	
	2263 Sep 30 01:37	0° Ω		evening rise	2264 Aug 17 22:19	4° Υ 15'10	
evening max el	2263 Oct 10 20:26	12° Ω 32'51	25°32'17		2264 Sep 01 23:43	0° Ω	
retrograde	2263 Oct 23 00:19	19° Ω 31'39		desc. node	2264 Sep 02 09:46	0° Ω 38'31	
evening set	2263 Oct 28 22:44	17° Ω 03'40		evening max el	2264 Sep 22 08:31	26° Ω 10'57	26°33'08
min. Earth dist.	2263 Nov 02 08:47	12° Ω 12'13	0.67049 AU		2264 Sep 26 19:41	0° Ω	
inferior conj	2263 Nov 03 13:12	10° Ω 41'00	0°-37'-39	retrograde	2264 Oct 05 05:53	3° Ω 24'24	
minimum elong	2263 Nov 03 14:11	10° Ω 37'53	0°37'15	evening set	2264 Oct 11 17:57	0° Ω 45'16	
asc. node	2263 Nov 05 09:00	8° Ω 24'06			2264 Oct 12 14:36	30° Ω	
morning rise	2263 Nov 09 06:22	4° Ω 43'11		min. Earth dist.	2264 Oct 15 20:33	26° Ω 30'33	0.66133 AU
direct	2263 Nov 12 13:27	3° Ω 40'36		inferior conj	2264 Oct 17 12:37	24° Ω 30'12	-1°-35'-59
morning max el	2263 Nov 19 15:53	7° Ω 39'54	19°18'51	minimum elong	2264 Oct 17 15:11	24° Ω 22'27	1°34'57
greatest brilliancy	2263 Nov 29 06:46	20° Ω 05'25	-0.7m	asc. node	2264 Oct 22 06:01	19° Ω 35'11	
	2263 Dec 05 20:44	0° Υ		morning rise	2264 Oct 23 13:43	18° Ω 43'24	
morning set	2263 Dec 13 07:53	11° Υ 31'56		direct	2264 Oct 26 11:16	17° Ω 56'10	
desc. node	2263 Dec 13 12:03	11° Υ 48'05		morning max el	2264 Nov 02 03:09	21° Ω 35'31	18°32'48
	2263 Dec 25 03:46	0° Υ			2264 Nov 08 18:30	0° Ω	
max. Earth dist.	2263 Dec 26 23:06	2° Υ 50'48	1.44707 AU	morning set	2264 Nov 22 07:58	21° Ω 13'01	
					2264 Nov 27 20:17	0° Υ	
superior conj	2263 Dec 30 03:29	7° Υ 53'29	-1°-37'-33	desc. node	2264 Nov 29 09:03	2° Υ 25'44	
minimum elong	2263 Dec 29 18:53	7° Υ 19'18	1°36'47				
	2264 Jan 12 18:17	0° \approx		superior conj	2264 Dec 08 05:39	16° Υ 23'01	0°-57'-7

minimum elong	2264 Dec 07 22:31	15° ♄ 55'02	0°56'15		2265 Nov 20 13:04	0° ♄	
max. Earth dist.	2264 Dec 08 17:26	17° ♄ 09'16	1.45161 AU	max. Earth dist.	2265 Nov 21 12:07	1° ♄ 31'03	1.44875 AU
	2264 Dec 16 21:38	0° ♄		evening rise	2265 Dec 03 23:38	20° ♄ 58'22	
evening rise	2264 Dec 24 05:38	11° ♄ 35'45			2265 Dec 09 20:22	0° ♄	
	2265 Jan 04 21:35	0° ♄		greatest brilliancy	2265 Dec 22 10:39	18° ♄ 45'11	-0.6m
evening max el	2265 Jan 15 10:11	14° ♄ 15'54	19°01'36	evening max el	2265 Dec 29 15:58	27° ♄ 45'41	19°52'59
asc. node	2265 Jan 18 05:19	16° ♄ 41'29			2266 Jan 01 02:45	0° ♄	
retrograde	2265 Jan 22 07:30	18° ♄ 10'21		asc. node	2266 Jan 05 02:22	2° ♄ 02'45	
evening set	2265 Jan 25 13:33	17° ♄ 08'59		retrograde	2266 Jan 06 05:02	2° ♄ 09'35	
inferior conj	2265 Jan 31 05:37	11° ♄ 20'23	3°24'41	evening set	2266 Jan 09 18:50	0° ♄ 54'52	
minimum elong	2265 Jan 31 03:34	11° ♄ 26'52	3°24'21		2266 Jan 10 22:12	30° ♄	
min. Earth dist.	2265 Feb 01 18:55	9° ♄ 22'56	0.65783 AU	inferior conj	2266 Jan 15 06:55	24° ♄ 52'01	2°57'30
morning rise	2265 Feb 05 16:36	5° ♄ 07'15		minimum elong	2266 Jan 15 04:21	25° ♄ 00'34	2°56'53
direct	2265 Feb 12 03:46	2° ♄ 18'15		min. Earth dist.	2266 Jan 16 06:06	23° ♄ 34'48	0.66855 AU
morning max el	2265 Feb 25 02:03	9° ♄ 56'07	26°33'49	morning rise	2266 Jan 20 13:13	18° ♄ 36'53	
desc. node	2265 Feb 25 08:17	10° ♄ 11'53		direct	2266 Jan 26 11:38	15° ♄ 58'57	
	2265 Mar 12 22:26	0° ♄		morning max el	2266 Feb 07 10:57	23° ♄ 07'25	25°18'53
	2265 Mar 31 01:46	0° ♄		desc. node	2266 Feb 12 05:20	28° ♄ 23'28	
morning set	2265 Apr 02 01:22	3° ♄ 42'12			2266 Feb 13 13:15	0° ♄	
max. Earth dist.	2265 Apr 06 06:51	11° ♄ 53'10	1.34708 AU		2266 Mar 06 06:44	0° ♄	
				morning set	2266 Mar 15 15:31	16° ♄ 04'45	
superior conj	2265 Apr 10 19:41	21° ♄ 03'49	0°-53'-47	max. Earth dist.	2266 Mar 19 09:04	22° ♄ 56'34	1.36432 AU
minimum elong	2265 Apr 10 22:25	21° ♄ 17'57	0°53'16		2266 Mar 23 01:43	0° ♄	
	2265 Apr 15 02:36	0° ♄					
asc. node	2265 Apr 16 04:37	2° ♄ 16'15		superior conj	2266 Mar 25 10:02	4° ♄ 36'33	-1°-20'-44
evening rise	2265 Apr 18 11:15	7° ♄ 00'51		minimum elong	2266 Mar 25 13:59	4° ♄ 56'08	1°20'08
	2265 May 01 01:15	0° ♄		evening rise	2266 Apr 02 15:49	21° ♄ 15'23	
evening max el	2265 May 07 13:32	7° ♄ 58'13	20°56'30	asc. node	2266 Apr 03 01:41	22° ♄ 05'05	
retrograde	2265 May 19 03:57	13° ♄ 37'28			2266 Apr 07 02:04	0° ♄	
evening set	2265 May 21 08:19	13° ♄ 26'13		evening max el	2266 Apr 20 00:41	19° ♄ 25'35	19°44'34
desc. node	2265 May 24 07:30	12° ♄ 37'47		retrograde	2266 Apr 29 21:13	24° ♄ 11'22	
inferior conj	2265 May 30 15:49	9° ♄ 28'24	-1°-50'-17	evening set	2266 May 01 21:34	24° ♄ 00'18	
minimum elong	2265 May 30 10:39	9° ♄ 35'44	1°48'28	inferior conj	2266 May 10 16:10	19° ♄ 58'17	0°08'59
min. Earth dist.	2265 May 31 09:28	9° ♄ 03'20	0.54914 AU	minimum elong	2266 May 10 16:34	19° ♄ 57'40	0°08'50
morning rise	2265 Jun 08 12:23	5° ♄ 25'24		transit middle	2266 May 10 16:34	19° ♄ 57'40	0°08'50
direct	2265 Jun 12 00:10	4° ♄ 59'06		transit begin	2266 May 10 13:16	20° ♄ 02'47	
morning max el	2265 Jun 25 00:04	11° ♄ 12'22	22°46'22	transit end	2266 May 10 19:51	19° ♄ 52'33	
	2265 Jul 08 20:05	0° ♄		desc. node	2266 May 11 04:32	19° ♄ 38'59	
asc. node	2265 Jul 13 03:50	8° ♄ 03'11		min. Earth dist.	2266 May 12 23:28	18° ♄ 32'33	0.55606 AU
morning set	2265 Jul 17 09:01	16° ♄ 38'02		morning rise	2266 May 19 08:10	15° ♄ 26'26	
	2265 Jul 23 15:27	0° ♄		direct	2266 May 23 16:40	14° ♄ 44'18	
				morning max el	2266 Jun 06 15:05	21° ♄ 42'12	24°28'33
superior conj	2265 Jul 24 12:53	1° ♄ 54'17	1°35'01		2266 Jun 13 20:49	0° ♄	
minimum elong	2265 Jul 24 10:54	1° ♄ 43'41	1°34'50	asc. node	2266 Jun 30 00:54	27° ♄ 44'56	
max. Earth dist.	2265 Jul 27 10:49	8° ♄ 02'42	1.34002 AU		2266 Jul 01 02:57	0° ♄	
evening rise	2265 Aug 01 08:42	18° ♄ 00'13		morning set	2266 Jul 01 20:52	1° ♄ 34'08	
	2265 Aug 07 17:42	0° ♄					
desc. node	2265 Aug 20 06:48	20° ♄ 26'42		superior conj	2266 Jul 08 21:33	16° ♄ 45'22	1°21'22
	2265 Aug 27 06:15	0° ♄		minimum elong	2266 Jul 08 19:10	16° ♄ 32'26	1°21'03
evening max el	2265 Sep 04 20:35	9° ♄ 38'56	27°13'15	max. Earth dist.	2266 Jul 10 14:21	20° ♄ 26'09	1.32996 AU
retrograde	2265 Sep 18 06:04	16° ♄ 57'38			2266 Jul 15 03:01	0° ♄	
evening set	2265 Sep 25 04:56	14° ♄ 14'59		evening rise	2266 Jul 16 05:28	2° ♄ 15'24	
min. Earth dist.	2265 Sep 29 00:50	10° ♄ 36'31	0.64865 AU		2266 Jul 31 14:22	0° ♄	
inferior conj	2265 Oct 01 05:16	8° ♄ 11'52	-2°-34'-44	desc. node	2266 Aug 07 03:51	9° ♄ 40'11	
minimum elong	2265 Oct 01 09:24	8° ♄ 00'26	2°33'14	evening max el	2266 Aug 18 07:09	22° ♄ 44'34	27°26'00
morning rise	2265 Oct 07 15:45	2° ♄ 39'08			2266 Aug 31 04:45	0° ♄	
asc. node	2265 Oct 09 03:03	2° ♄ 10'11		retrograde	2266 Aug 31 23:58	0° ♄ 01'50	
direct	2265 Oct 10 06:15	2° ♄ 03'21			2266 Sep 01 19:00	30° ♄	
morning max el	2265 Oct 16 18:20	5° ♄ 31'54	18°03'24	evening set	2266 Sep 08 04:30	27° ♄ 26'26	
	2265 Nov 02 03:36	0° ♄		min. Earth dist.	2266 Sep 11 19:40	24° ♄ 20'26	0.63252 AU
morning set	2265 Nov 03 13:16	2° ♄ 20'35		inferior conj	2266 Sep 14 12:28	21° ♄ 39'32	-3°-30'-55
desc. node	2265 Nov 16 06:06	23° ♄ 09'58		minimum elong	2266 Sep 14 17:44	21° ♄ 26'27	3°29'22
				morning rise	2266 Sep 21 09:24	16° ♄ 24'06	
superior conj	2265 Nov 17 13:12	25° ♄ 14'25	0°-8'-44	direct	2266 Sep 23 19:33	15° ♄ 56'10	
minimum elong	2265 Nov 17 12:07	25° ♄ 10'05	0°08'35	asc. node	2266 Sep 26 00:06	16° ♄ 19'27	
behind sun begin	2265 Nov 17 03:00	24° ♄ 33'40		morning max el	2266 Sep 30 10:34	19° ♄ 22'02	17°51'34
behind sun end	2265 Nov 17 21:14	25° ♄ 46'28			2266 Oct 08 06:13	0° ♄	

morning set	2266 Oct 16 19:28	14°♂39'59		direct	2267 Sep 06 23:36	29°♂27'33	
	2266 Oct 25 16:29	0°♂			2267 Sep 09 17:34	0°♂	
				asc. node	2267 Sep 12 21:10	1°♂56'20	
superior conj	2266 Oct 28 19:12	5°♂13'14	0°35'50	morning max el	2267 Sep 14 00:49	2°♂58'47	17°58'18
minimum elong	2266 Oct 28 22:40	5°♂27'40	0°35'21	morning set	2267 Sep 29 20:10	27°♂52'15	
desc. node	2266 Nov 03 03:09	13°♂57'14			2267 Sep 30 23:59	0°♂	
max. Earth dist.	2266 Nov 04 04:51	15°♂40'45	1.43890 AU				
evening rise	2266 Nov 13 08:07	0°♂02'54		superior conj	2267 Oct 10 04:15	16°♂31'32	1°09'48
	2266 Nov 13 07:22	0°♂		minimum elong	2267 Oct 10 08:44	16°♂51'09	1°09'16
	2266 Dec 03 13:53	0°♂		max. Earth dist.	2267 Oct 17 17:20	29°♂21'46	1.42333 AU
greatest brilliancy	2266 Dec 07 06:31	4°♂56'11	-0.5m		2267 Oct 18 02:36	0°♂	
evening max el	2266 Dec 12 16:27	11°♂16'59	20°57'59	desc. node	2267 Oct 21 00:10	4°♂43'58	
retrograde	2266 Dec 21 02:49	16°♂16'36		evening rise	2267 Oct 23 23:53	9°♂30'54	
asc. node	2266 Dec 22 23:23	15°♂57'25			2267 Nov 06 11:11	0°♂	
evening set	2266 Dec 25 02:13	14°♂46'51		greatest brilliancy	2267 Nov 20 18:17	19°♂30'23	-0.3m
inferior conj	2266 Dec 30 12:13	8°♂32'51	2°21'22	evening max el	2267 Nov 25 11:22	24°♂48'55	22°12'54
minimum elong	2266 Dec 30 09:42	8°♂41'32	2°20'33		2267 Dec 02 12:48	0°♂	
min. Earth dist.	2266 Dec 30 22:46	7°♂56'35	0.67529 AU	retrograde	2267 Dec 04 23:03	0°♂27'31	
morning rise	2267 Jan 04 16:45	2°♂17'43			2267 Dec 07 06:09	30°♂	
	2267 Jan 09 11:23	30°♂		evening set	2267 Dec 09 09:57	28°♂41'16	
direct	2267 Jan 10 00:26	29°♂58'39		asc. node	2267 Dec 09 20:26	28°♂19'07	
	2267 Jan 10 13:41	0°♂		inferior conj	2267 Dec 14 19:28	22°♂19'26	1°37'58
morning max el	2267 Jan 20 19:21	6°♂24'30	23°52'29	minimum elong	2267 Dec 14 17:26	22°♂26'29	1°37'13
desc. node	2267 Jan 30 02:23	17°♂24'37		min. Earth dist.	2267 Dec 14 18:35	22°♂22'29	0.67833 AU
	2267 Feb 08 02:41	0°♂		morning rise	2267 Dec 20 00:45	16°♂06'17	
morning set	2267 Feb 25 07:33	27°♂19'21		direct	2267 Dec 24 17:17	14°♂09'47	
	2267 Feb 26 20:47	0°♂		morning max el	2268 Jan 03 06:09	19°♂47'21	22°24'22
max. Earth dist.	2267 Mar 01 04:35	4°♂04'59	1.38493 AU	greatest brilliancy	2268 Jan 07 19:42	24°♂53'28	-0.3m
					2268 Jan 11 20:21	0°♂	
superior conj	2267 Mar 08 11:52	17°♂29'10	-1°-44'-4	desc. node	2268 Jan 16 23:24	7°♂00'33	
minimum elong	2267 Mar 08 16:12	17°♂49'39	1°43'38		2268 Feb 01 07:57	0°♂	
	2267 Mar 14 23:17	0°♂		morning set	2268 Feb 05 19:35	7°♂11'17	
evening rise	2267 Mar 17 13:21	5°♂04'06		max. Earth dist.	2268 Feb 11 01:19	15°♂53'02	1.40649 AU
asc. node	2267 Mar 20 22:44	11°♂37'45					
	2267 Apr 01 11:36	0°♂		superior conj	2268 Feb 18 20:26	29°♂28'55	-2°00'-24
evening max el	2267 Apr 02 22:45	1°♂32'07	18°52'06	minimum elong	2268 Feb 18 23:25	29°♂42'22	2°00'17
retrograde	2267 Apr 11 06:06	5°♂34'33			2268 Feb 19 03:20	0°♂	
evening set	2267 Apr 13 10:42	5°♂18'48		evening rise	2268 Feb 29 00:33	18°♂18'18	
inferior conj	2267 Apr 21 10:20	1°♂00'19	1°48'59		2268 Mar 06 08:55	0°♂	
minimum elong	2267 Apr 21 13:59	0°♂53'43	1°47'52	asc. node	2268 Mar 06 19:46	0°♂47'41	
	2267 Apr 22 19:39	30°♂		evening max el	2268 Mar 16 04:48	14°♂10'11	18°19'49
min. Earth dist.	2267 Apr 24 15:40	28°♂42'03	0.57116 AU	retrograde	2268 Mar 23 10:16	17°♂45'39	
desc. node	2267 Apr 28 01:34	26°♂36'18		evening set	2268 Mar 25 20:29	17°♂22'21	
morning rise	2267 Apr 29 12:57	25°♂54'18		inferior conj	2268 Apr 02 01:51	12°♂42'56	2°56'02
direct	2267 May 04 22:27	24°♂44'14		minimum elong	2268 Apr 02 05:28	12°♂35'16	2°55'16
	2267 May 16 19:38	0°♂		min. Earth dist.	2268 Apr 05 12:15	9°♂50'30	0.59118 AU
morning max el	2267 May 19 06:05	2°♂11'42	26°01'57	morning rise	2268 Apr 09 10:35	7°♂08'16	
	2267 Jun 07 23:35	0°♂		desc. node	2268 Apr 13 22:36	5°♂30'59	
morning set	2267 Jun 16 08:12	16°♂28'05		direct	2268 Apr 15 17:20	5°♂22'29	
asc. node	2267 Jun 16 21:59	17°♂40'57		morning max el	2268 Apr 30 02:03	13°♂07'38	27°11'26
	2267 Jun 22 14:05	0°♂			2268 May 13 10:47	0°♂	
					2268 May 30 03:06	0°♂	
superior conj	2267 Jun 23 08:40	1°♂42'08	1°03'22	morning set	2268 May 30 17:21	1°♂14'07	
minimum elong	2267 Jun 23 06:24	1°♂29'37	1°02'58	asc. node	2268 Jun 02 19:03	7°♂45'50	
max. Earth dist.	2267 Jun 24 00:06	3°♂06'51	1.32388 AU				
evening rise	2267 Jun 30 09:27	16°♂50'56		superior conj	2268 Jun 06 20:28	16°♂38'24	0°41'44
	2267 Jul 07 00:52	0°♂		minimum elong	2268 Jun 06 18:44	16°♂28'55	0°41'23
desc. node	2267 Jul 25 00:52	28°♂04'47		max. Earth dist.	2268 Jun 06 12:22	15°♂53'51	1.32160 AU
	2267 Jul 26 15:11	0°♂			2268 Jun 12 23:32	0°♂	
evening max el	2267 Jul 31 13:34	5°♂14'24	27°06'33	evening rise	2268 Jun 13 18:06	1°♂38'24	
retrograde	2267 Aug 14 10:36	12°♂28'03			2268 Jun 29 03:02	0°♂	
evening set	2267 Aug 21 12:36	10°♂12'41		desc. node	2268 Jul 10 21:52	15°♂20'23	
min. Earth dist.	2267 Aug 25 03:52	7°♂29'56	0.61351 AU	evening max el	2268 Jul 12 13:17	16°♂58'20	26°14'12
inferior conj	2267 Aug 28 07:03	4°♂45'16	-4°-19'-34	retrograde	2268 Jul 26 12:56	24°♂09'12	
minimum elong	2267 Aug 28 12:15	4°♂33'49	4°18'30	evening set	2268 Aug 02 00:31	22°♂26'04	
	2267 Sep 04 04:02	30°♂		min. Earth dist.	2268 Aug 06 02:04	19°♂50'52	0.59290 AU
morning rise	2267 Sep 04 14:50	29°♂50'37		inferior conj	2268 Aug 09 09:25	17°♂19'45	-4°-52'-34

minimum elong	2268 Aug 09 12:25	17° Ω 14'00	4°52'19	evening set	2269 Jul 13 12:39	3° Ω 57'19	
morning rise	2268 Aug 17 03:45	12° Ω 48'26		min. Earth dist.	2269 Jul 18 17:19	1° Ω 10'34	0.57313 AU
direct	2268 Aug 19 13:57	12° Ω 28'06			2269 Jul 20 12:13	30° \mathbb{R} \mathfrak{E}	
morning max el	2268 Aug 27 10:01	16° Ω 14'20	18°24'52	inferior conj	2269 Jul 21 16:23	29° \mathfrak{E} 12'55	-4°-57'-44
asc. node	2268 Aug 29 18:14	18° Ω 46'47		minimum elong	2269 Jul 21 14:36	29° \mathfrak{E} 15'52	4°57'40
	2268 Sep 06 03:06	0° \mathbb{M}		morning rise	2269 Jul 29 20:19	25° \mathfrak{E} 03'56	
morning set	2268 Sep 12 10:05	11° \mathbb{M} 42'53		direct	2269 Aug 01 10:12	24° \mathfrak{E} 44'53	
				morning max el	2269 Aug 10 10:57	28° \mathfrak{E} 58'18	19°12'27
superior conj	2268 Sep 21 12:54	28° \mathbb{M} 59'59	1°31'47		2269 Aug 11 11:54	0° Ω	
minimum elong	2268 Sep 21 16:12	29° \mathbb{M} 15'12	1°31'30	asc. node	2269 Aug 16 15:16	6° Ω 34'49	
	2268 Sep 22 01:56	0° \mathfrak{A}		morning set	2269 Aug 27 09:12	26° Ω 00'12	
max. Earth dist.	2268 Sep 29 00:24	12° \mathfrak{A} 21'15	1.40397 AU		2269 Aug 29 09:21	0° \mathbb{M}	
evening rise	2268 Oct 03 11:57	19° \mathfrak{A} 55'45					
desc. node	2268 Oct 06 21:11	25° \mathfrak{A} 27'10		superior conj	2269 Sep 04 15:25	12° \mathbb{M} 21'26	1°43'02
	2268 Oct 09 17:52	0° \mathbb{M}		minimum elong	2269 Sep 04 16:51	12° \mathbb{M} 28'24	1°42'59
	2268 Oct 30 17:53	0° \mathfrak{A}		max. Earth dist.	2269 Sep 11 04:02	24° \mathbb{M} 37'49	1.38338 AU
evening max el	2268 Nov 07 01:54	8° \mathfrak{A} 23'20	23°32'35		2269 Sep 14 04:03	0° \mathfrak{A}	
retrograde	2268 Nov 17 16:26	14° \mathfrak{A} 39'28		evening rise	2269 Sep 15 00:03	1° \mathfrak{A} 27'39	
evening set	2268 Nov 22 16:24	12° \mathfrak{A} 36'08		desc. node	2269 Sep 23 18:12	16° \mathfrak{A} 02'20	
asc. node	2268 Nov 25 17:27	9° \mathfrak{A} 21'35			2269 Oct 02 23:38	0° \mathbb{M}	
min. Earth dist.	2268 Nov 27 15:15	6° \mathfrak{A} 49'58	0.67791 AU	evening max el	2269 Oct 20 14:11	22° \mathbb{M} 01'16	24°50'50
inferior conj	2268 Nov 28 02:50	6° \mathfrak{A} 10'22	0°48'45	retrograde	2269 Nov 01 05:53	28° \mathbb{M} 48'00	
minimum elong	2268 Nov 28 01:42	6° \mathfrak{A} 14'13	0°48'17	evening set	2269 Nov 06 19:57	26° \mathbb{M} 28'22	
morning rise	2268 Dec 03 11:09	0° \mathfrak{A} 01'08		min. Earth dist.	2269 Nov 11 10:25	21° \mathbb{M} 16'17	0.67414 AU
	2268 Dec 03 11:44	30° \mathbb{R} \mathbb{M}		inferior conj	2269 Nov 12 08:34	20° \mathbb{M} 03'03	0°-5'-4
direct	2268 Dec 07 13:17	28° \mathbb{M} 27'31		minimum elong	2269 Nov 12 08:42	20° \mathbb{M} 02'38	0°05'02
	2268 Dec 11 23:51	0° \mathfrak{A}		transit middle	2269 Nov 12 08:42	20° \mathbb{M} 02'38	0°05'02
morning max el	2268 Dec 15 22:53	3° \mathfrak{A} 19'58	21°02'32	transit begin	2269 Nov 12 06:04	20° \mathbb{M} 11'19	
greatest brilliancy	2268 Dec 21 09:59	9° \mathfrak{A} 38'23	-0.5m	transit end	2269 Nov 12 11:19	19° \mathbb{M} 53'58	
desc. node	2269 Jan 02 20:25	27° \mathfrak{A} 01'46		asc. node	2269 Nov 12 14:29	19° \mathbb{M} 43'31	
	2269 Jan 04 20:23	0° \mathfrak{E}		morning rise	2269 Nov 17 21:57	14° \mathbb{M} 00'09	
morning set	2269 Jan 15 03:59	15° \mathfrak{E} 47'03		direct	2269 Nov 21 11:21	12° \mathbb{M} 47'12	
max. Earth dist.	2269 Jan 23 04:24	28° \mathfrak{E} 35'23	1.42607 AU	morning max el	2269 Nov 28 23:18	17° \mathbb{M} 03'17	19°52'27
	2269 Jan 24 01:05	0° \approx		greatest brilliancy	2269 Dec 06 11:03	26° \mathbb{M} 14'45	-0.6m
					2269 Dec 09 02:58	0° \mathfrak{A}	
superior conj	2269 Jan 30 06:29	10° \approx 23'50	-2°-5'-7	desc. node	2269 Dec 20 17:27	17° \mathfrak{A} 21'02	
minimum elong	2269 Jan 30 05:35	10° \approx 19'57	2°05'07	morning set	2269 Dec 24 23:53	23° \mathfrak{A} 54'44	
	2269 Feb 10 10:34	0° \mathfrak{H}			2269 Dec 28 22:05	0° \mathfrak{E}	
evening rise	2269 Feb 10 21:37	0° \mathfrak{H} 49'34		max. Earth dist.	2270 Jan 05 14:40	12° \mathfrak{E} 06'25	1.44112 AU
asc. node	2269 Feb 21 16:47	19° \mathfrak{H} 27'43					
evening max el	2269 Feb 27 15:37	27° \mathfrak{H} 11'23	18°07'24	superior conj	2270 Jan 10 14:22	20° \mathfrak{E} 07'20	-1°-53'-11
	2269 Mar 03 13:14	0° \mathbb{Y}		minimum elong	2270 Jan 10 07:55	19° \mathfrak{E} 41'12	1°52'48
retrograde	2269 Mar 06 06:46	0° \mathbb{Y} 35'37			2270 Jan 16 14:37	0° \approx	
evening set	2269 Mar 08 22:15	0° \mathbb{Y} 03'06		evening rise	2270 Jan 24 00:08	12° \approx 29'21	
	2269 Mar 09 01:16	30° \mathbb{R} \mathfrak{H}			2270 Feb 03 10:19	0° \mathfrak{H}	
inferior conj	2269 Mar 15 12:46	25° \mathfrak{H} 02'37	3°31'40	asc. node	2270 Feb 08 13:48	7° \mathfrak{H} 28'41	
minimum elong	2269 Mar 15 14:40	24° \mathfrak{H} 57'58	3°31'28	evening max el	2270 Feb 11 04:14	10° \mathfrak{H} 27'48	18°14'16
min. Earth dist.	2269 Mar 18 16:02	22° \mathfrak{H} 00'30	0.61267 AU	retrograde	2270 Feb 17 15:07	13° \mathfrak{H} 54'30	
morning rise	2269 Mar 22 04:12	19° \mathfrak{H} 08'58		evening set	2270 Feb 20 11:46	13° \mathfrak{H} 11'37	
direct	2269 Mar 28 23:30	16° \mathfrak{H} 49'24		inferior conj	2270 Feb 26 15:06	7° \mathfrak{H} 51'07	3°42'37
desc. node	2269 Mar 31 19:38	17° \mathfrak{H} 11'59		minimum elong	2270 Feb 26 15:05	7° \mathfrak{H} 51'10	3°42'37
morning max el	2269 Apr 12 04:25	24° \mathfrak{H} 44'14	27°46'30	min. Earth dist.	2270 Mar 01 04:48	5° \mathfrak{H} 02'29	0.63280 AU
	2269 Apr 16 23:46	0° \mathbb{Y}		morning rise	2270 Mar 04 16:28	1° \mathfrak{H} 46'36	
	2269 May 06 18:59	0° \mathfrak{E}			2270 Mar 07 12:38	30° \mathbb{R} \approx	
morning set	2269 May 14 22:25	15° \mathfrak{E} 45'38		direct	2270 Mar 11 14:44	29° \approx 04'08	
asc. node	2269 May 20 16:04	27° \mathfrak{E} 54'47			2270 Mar 15 23:02	0° \mathfrak{H}	
max. Earth dist.	2269 May 20 23:13	28° \mathfrak{E} 33'39	1.32324 AU	desc. node	2270 Mar 18 16:39	1° \mathfrak{H} 25'04	
	2269 May 21 15:04	0° \mathbb{I}		morning max el	2270 Mar 25 11:39	7° \mathfrak{H} 00'29	27°44'12
					2270 Apr 12 01:47	0° \mathbb{Y}	
superior conj	2269 May 22 07:13	1° \mathbb{I} 28'10	0°17'10	morning set	2270 Apr 28 21:08	29° \mathbb{Y} 55'13	
minimum elong	2269 May 22 06:26	1° \mathbb{I} 23'53	0°16'59		2270 Apr 28 22:05	0° \mathfrak{E}	
evening rise	2269 May 29 05:16	16° \mathbb{I} 30'21		max. Earth dist.	2270 May 04 04:40	10° \mathfrak{E} 53'04	1.32899 AU
	2269 Jun 04 21:54	0° \mathfrak{E}					
evening max el	2269 Jun 24 05:54	27° \mathfrak{E} 56'32	24°54'29	superior conj	2270 May 06 15:11	16° \mathfrak{E} 05'43	0°-9'-36
	2269 Jun 26 13:13	0° Ω		minimum elong	2270 May 06 15:39	16° \mathfrak{E} 08'14	0°09'31
desc. node	2269 Jun 27 18:54	0° Ω 58'25		behind sun begin	2270 May 06 11:23	15° \mathfrak{E} 45'18	
retrograde	2269 Jul 08 05:08	5° Ω 01'41		behind sun end	2270 May 06 19:55	16° \mathfrak{E} 31'12	

asc. node	2270 May 07 13:06	18°♄03'55		asc. node	2271 Apr 24 10:08	8°♄08'20	
	2270 May 13 01:56	0°♄		evening rise	2271 Apr 28 03:44	16°♄01'43	
evening rise	2270 May 13 17:07	1°♄20'34			2271 May 05 04:54	0°♄	
	2270 May 29 15:54	0°♄		evening max el	2271 May 18 13:34	19°♄02'45	21°45'39
evening max el	2270 Jun 05 19:36	8°♄28'06	23°19'53	retrograde	2271 May 31 00:51	25°♄10'28	
desc. node	2270 Jun 14 15:54	14°♄23'59		desc. node	2271 Jun 01 12:56	25°♄05'20	
retrograde	2270 Jun 19 08:52	15°♄14'22		evening set	2271 Jun 02 15:04	24°♄55'23	
evening set	2270 Jun 23 04:25	14°♄42'29		min. Earth dist.	2271 Jun 11 17:04	21°♄03'00	0.54962 AU
min. Earth dist.	2270 Jun 30 05:30	11°♄29'11	0.55765 AU	inferior conj	2271 Jun 12 00:04	20°♄53'13	-2°-55'-35
inferior conj	2270 Jul 02 03:29	10°♄21'23	-4°-20'-44	minimum elong	2271 Jun 11 16:35	21°♄03'42	2°53'16
minimum elong	2270 Jul 01 20:37	10°♄31'33	4°19'26	morning rise	2271 Jun 20 19:12	16°♄59'21	
morning rise	2270 Jul 10 15:58	6°♄27'16		direct	2271 Jun 23 23:31	16°♄37'07	
direct	2270 Jul 13 11:26	6°♄08'01		morning max el	2271 Jul 06 03:38	22°♄20'29	21°49'24
morning max el	2270 Jul 24 01:03	11°♄01'46	20°21'18		2271 Jul 12 18:13	0°♄	
asc. node	2270 Aug 03 12:19	25°♄07'22		asc. node	2271 Jul 21 09:23	14°♄13'25	
	2270 Aug 06 05:21	0°♄		morning set	2271 Jul 26 23:54	25°♄24'48	
morning set	2270 Aug 11 14:34	10°♄36'19			2271 Jul 29 04:23	0°♄	
superior conj	2270 Aug 19 06:47	26°♄21'21	1°45'24	superior conj	2271 Aug 03 07:07	10°♄48'11	1°40'33
minimum elong	2270 Aug 19 06:30	26°♄19'57	1°45'24	minimum elong	2271 Aug 03 05:36	10°♄40'14	1°40'27
	2270 Aug 21 02:19	0°♄		max. Earth dist.	2271 Aug 06 23:42	18°♄25'33	1.34775 AU
max. Earth dist.	2270 Aug 24 09:59	6°♄30'28	1.36407 AU	evening rise	2271 Aug 11 12:22	27°♄22'54	
evening rise	2270 Aug 28 09:44	14°♄00'47			2271 Aug 12 21:20	0°♄	
	2270 Sep 06 14:52	0°♄		desc. node	2271 Aug 28 12:16	26°♄27'22	
desc. node	2270 Sep 10 15:13	6°♄24'28			2271 Aug 30 21:52	0°♄	
	2270 Sep 27 19:03	0°♄		evening max el	2271 Sep 15 14:45	19°♄17'50	26°53'10
evening max el	2270 Oct 03 02:15	5°♄41'36	26°00'15	retrograde	2271 Sep 28 17:46	26°♄33'38	
retrograde	2270 Oct 15 14:32	12°♄48'05		evening set	2271 Oct 05 10:52	23°♄52'14	
evening set	2270 Oct 21 18:47	10°♄14'57		min. Earth dist.	2271 Oct 09 10:37	19°♄52'57	0.65640 AU
min. Earth dist.	2270 Oct 26 01:41	5°♄38'41	0.66702 AU	inferior conj	2271 Oct 11 07:46	17°♄41'53	-2°-1'00
inferior conj	2270 Oct 27 10:53	3°♄54'46	-1°-2'-13	minimum elong	2271 Oct 11 11:01	17°♄32'25	1°59'44
minimum elong	2270 Oct 27 12:31	3°♄49'39	1°01'32	asc. node	2271 Oct 17 08:34	12°♄05'46	
asc. node	2270 Oct 30 11:31	0°♄21'31		morning rise	2271 Oct 17 12:40	12°♄00'28	
	2270 Oct 30 19:59	30°♄		direct	2271 Oct 20 07:01	11°♄18'24	
morning rise	2270 Nov 02 07:12	28°♄00'59		morning max el	2271 Oct 26 20:18	14°♄51'56	18°18'10
direct	2270 Nov 05 09:55	27°♄05'23			2271 Nov 06 18:44	0°♄	
	2270 Nov 11 07:57	0°♄		morning set	2271 Nov 14 21:27	13°♄07'43	
morning max el	2270 Nov 12 07:03	0°♄55'14	18°57'09	desc. node	2271 Nov 24 11:31	28°♄34'15	
	2270 Dec 02 13:44	0°♄			2271 Nov 25 09:04	0°♄	
morning set	2270 Dec 04 08:38	2°♄48'05		superior conj	2271 Nov 30 01:08	7°♄23'26	0°-36'-48
desc. node	2270 Dec 07 14:28	7°♄53'08		minimum elong	2271 Nov 29 20:23	7°♄04'43	0°36'11
max. Earth dist.	2270 Dec 19 06:51	26°♄12'30	1.44989 AU	max. Earth dist.	2271 Dec 02 02:18	10°♄36'53	1.45134 AU
superior conj	2270 Dec 20 23:20	28°♄51'52	-1°-22'-7		2271 Dec 14 11:30	0°♄	
minimum elong	2270 Dec 20 14:29	28°♄17'00	1°21'12	evening rise	2271 Dec 16 09:34	3°♄00'09	
	2270 Dec 21 16:37	0°♄		greatest brilliancy	2271 Dec 31 01:23	25°♄38'40	-0.7m
evening rise	2271 Jan 05 04:19	23°♄11'39			2272 Jan 03 01:58	0°♄	
	2271 Jan 09 08:39	0°♄		evening max el	2272 Jan 09 00:23	7°♄21'14	19°21'38
evening max el	2271 Jan 25 15:54	23°♄52'19	18°39'26	asc. node	2272 Jan 13 07:52	10°♄43'52	
asc. node	2271 Jan 26 10:49	24°♄38'27		retrograde	2272 Jan 16 03:26	11°♄26'52	
retrograde	2271 Feb 01 07:05	27°♄33'20		evening set	2272 Jan 19 12:42	10°♄19'49	
evening set	2271 Feb 04 09:29	26°♄38'57		inferior conj	2272 Jan 25 02:48	4°♄24'45	3°14'21
inferior conj	2271 Feb 10 04:52	21°♄00'04	3°35'16	minimum elong	2272 Jan 25 00:27	4°♄32'20	3°13'54
minimum elong	2271 Feb 10 03:23	21°♄04'34	3°35'07	min. Earth dist.	2272 Jan 26 09:50	2°♄44'23	0.66292 AU
min. Earth dist.	2271 Feb 12 02:59	18°♄41'17	0.64983 AU		2272 Jan 28 16:08	30°♄	
morning rise	2271 Feb 15 20:04	14°♄49'27		morning rise	2272 Jan 30 11:25	28°♄10'46	
direct	2271 Feb 22 13:05	11°♄58'51		direct	2272 Feb 05 17:34	25°♄25'28	
desc. node	2271 Mar 05 13:41	17°♄34'35			2272 Feb 15 05:04	0°♄	
morning max el	2271 Mar 07 21:05	19°♄46'23	27°07'40	morning max el	2272 Feb 18 06:40	2°♄51'46	26°04'03
	2271 Mar 16 15:11	0°♄		desc. node	2272 Feb 20 10:44	5°♄08'58	
	2271 Apr 05 02:36	0°♄			2272 Mar 09 20:45	0°♄	
morning set	2271 Apr 12 10:28	13°♄32'20		morning set	2272 Mar 25 10:30	26°♄25'45	
max. Earth dist.	2271 Apr 17 00:58	22°♄41'08	1.33916 AU		2272 Mar 27 08:14	0°♄	
superior conj	2271 Apr 20 18:18	0°♄23'33	0°-37'-36	max. Earth dist.	2272 Mar 29 09:53	3°♄57'45	1.35395 AU
minimum elong	2271 Apr 20 20:12	0°♄33'34	0°37'13	superior conj	2272 Apr 03 14:09	14°♄14'44	-1°-5'-28
	2271 Apr 20 13:49	0°♄		minimum elong	2272 Apr 03 17:28	14°♄31'32	1°04'54

asc. node	2272 Apr 10 07:11	28° Υ 03'59		max. Earth dist.	2273 Mar 11 08:40	14° Υ 59'36	1.37279 AU
evening rise	2272 Apr 11 11:09	0° Υ 27'47					
	2272 Apr 11 05:44	0° Υ		superior conj	2273 Mar 17 23:38	27° Υ 30'57	-1°-31'-15
evening max el	2272 Apr 29 17:43	0° Π 06'28	20°23'35	minimum elong	2273 Mar 18 03:53	27° Υ 51'40	1°30'42
	2272 Apr 29 15:04	0° Π			2273 Mar 19 06:07	0° Υ	
retrograde	2272 May 10 14:12	5° Π 22'36		evening rise	2273 Mar 26 13:04	14° Υ 32'00	
evening set	2272 May 12 15:29	5° Π 12'04		asc. node	2273 Mar 28 04:15	17° Υ 46'21	
desc. node	2272 May 18 09:58	3° Π 07'00			2273 Apr 03 17:44	0° Υ	
inferior conj	2272 May 21 18:45	1° Π 14'05	0°-59'-2	evening max el	2273 Apr 12 09:39	11° Υ 50'08	19°19'46
minimum elong	2272 May 21 15:57	1° Π 18'09	0°58'02	retrograde	2273 Apr 21 13:32	16° Υ 16'17	
min. Earth dist.	2272 May 23 05:38	0° Π 23'11	0.55097 AU	evening set	2273 Apr 23 15:00	16° Υ 03'47	
	2272 May 23 21:48	30° Υ		inferior conj	2273 May 02 01:44	11° Υ 55'28	0°55'02
morning rise	2272 May 30 14:38	27° Υ 00'52		minimum elong	2273 May 02 03:57	11° Υ 51'48	0°54'16
direct	2272 Jun 03 10:21	26° Υ 29'20		min. Earth dist.	2273 May 04 20:26	10° Υ 05'50	0.56155 AU
	2272 Jun 13 04:52	0° Π		desc. node	2273 May 05 06:58	9° Υ 49'10	
morning max el	2272 Jun 16 21:22	3° Π 02'17	23°29'58	morning rise	2273 May 10 12:54	7° Υ 08'46	
	2272 Jul 05 08:54	0° Υ		direct	2273 May 15 07:38	6° Υ 16'24	
asc. node	2272 Jul 07 06:27	3° Υ 44'14		morning max el	2273 May 29 11:49	13° Υ 28'57	25°10'30
morning set	2272 Jul 10 11:19	10° Υ 19'52			2273 Jun 11 09:53	0° Π	
				asc. node	2273 Jun 24 03:30	23° Π 32'53	
superior conj	2272 Jul 17 13:25	25° Υ 32'40	1°29'49	morning set	2273 Jun 24 23:11	25° Π 16'10	
minimum elong	2272 Jul 17 11:12	25° Υ 20'45	1°29'34		2273 Jun 27 04:19	0° Υ	
	2272 Jul 19 15:27	0° Ω					
max. Earth dist.	2272 Jul 19 22:38	0° Ω 38'02	1.33527 AU	superior conj	2273 Jul 01 23:23	10° Υ 27'23	1°14'14
evening rise	2272 Jul 25 03:33	11° Ω 21'40		minimum elong	2273 Jul 01 20:59	10° Υ 14'18	1°13'52
	2272 Aug 04 04:29	0° Π		max. Earth dist.	2273 Jul 03 05:11	13° Υ 09'52	1.32680 AU
desc. node	2272 Aug 14 09:18	16° Π 02'16		evening rise	2273 Jul 09 03:44	25° Υ 46'39	
	2272 Aug 25 11:53	0° Ω			2273 Jul 11 05:45	0° Ω	
evening max el	2272 Aug 28 02:26	2° Ω 37'48	27°22'18		2273 Jul 28 16:08	0° Π	
retrograde	2272 Sep 10 15:07	9° Ω 55'51		desc. node	2273 Aug 01 06:19	4° Π 57'28	
evening set	2272 Sep 17 17:25	7° Ω 14'42		evening max el	2273 Aug 10 11:21	15° Π 29'21	27°21'45
min. Earth dist.	2272 Sep 21 10:56	3° Ω 51'03	0.64225 AU	retrograde	2273 Aug 24 06:14	22° Π 45'49	
inferior conj	2272 Sep 23 20:46	1° Ω 18'20	-2°-59'-8	evening set	2273 Aug 31 11:01	20° Π 16'53	
minimum elong	2272 Sep 24 01:28	1° Ω 05'53	2°57'32	min. Earth dist.	2273 Sep 04 01:10	17° Π 22'37	0.62476 AU
	2272 Sep 25 02:49	30° Υ		inferior conj	2273 Sep 06 23:01	14° Π 37'54	-3°-52'-51
morning rise	2272 Sep 30 11:37	25° Π 52'41		minimum elong	2273 Sep 07 04:27	14° Π 25'02	3°51'26
direct	2272 Oct 03 00:01	25° Π 20'33		morning rise	2273 Sep 14 00:37	9° Π 31'16	
asc. node	2272 Oct 03 05:39	25° Π 20'50		direct	2273 Sep 16 09:46	9° Π 05'48	
morning max el	2272 Oct 09 12:20	28° Π 46'35	17°56'12	asc. node	2273 Sep 20 02:42	10° Π 09'10	
	2272 Oct 10 15:57	0° Ω		morning max el	2273 Sep 23 04:12	12° Π 32'47	17°52'05
morning set	2272 Oct 26 14:07	24° Ω 48'14			2273 Oct 04 23:14	0° Ω	
	2272 Oct 29 15:32	0° Π		morning set	2273 Oct 09 04:54	7° Ω 32'09	
superior conj	2272 Nov 08 16:51	16° Π 39'44	0°11'13	superior conj	2273 Oct 20 10:32	27° Ω 13'17	0°51'42
minimum elong	2272 Nov 08 18:08	16° Π 44'55	0°11'02	minimum elong	2273 Oct 20 14:49	27° Ω 31'28	0°51'07
behind sun begin	2272 Nov 08 10:38	16° Π 14'29			2273 Oct 22 02:02	0° Π	
behind sun end	2272 Nov 09 01:38	17° Π 15'18		max. Earth dist.	2273 Oct 27 11:49	8° Π 55'31	1.43290 AU
desc. node	2272 Nov 10 08:34	19° Π 20'05		desc. node	2273 Oct 28 05:36	10° Π 07'35	
max. Earth dist.	2272 Nov 13 20:59	24° Π 57'24	1.44539 AU	evening rise	2273 Nov 04 07:12	21° Π 19'36	
	2272 Nov 17 01:39	0° Υ			2273 Nov 09 22:45	0° Υ	
evening rise	2272 Nov 24 21:43	12° Υ 10'35		greatest brilliancy	2273 Nov 30 02:32	28° Υ 39'03	-0.4m
	2272 Dec 06 15:35	0° Υ			2273 Dec 01 04:48	0° Υ	
greatest brilliancy	2272 Dec 15 20:02	13° Υ 10'41	-0.6m	evening max el	2273 Dec 05 01:52	4° Υ 21'51	21°28'50
evening max el	2272 Dec 22 03:56	20° Υ 51'09	20°19'04	retrograde	2273 Dec 13 22:51	9° Υ 38'29	
retrograde	2272 Dec 30 01:25	25° Υ 29'45		asc. node	2273 Dec 17 01:57	8° Υ 44'30	
asc. node	2272 Dec 30 04:54	25° Υ 29'38		evening set	2273 Dec 18 02:50	8° Υ 01'56	
evening set	2273 Jan 02 19:07	24° Υ 08'40		inferior conj	2273 Dec 23 12:26	1° Υ 43'55	2°03'44
inferior conj	2273 Jan 08 06:04	18° Υ 00'23	2°43'08	minimum elong	2273 Dec 23 10:04	1° Υ 52'06	2°02'55
minimum elong	2273 Jan 08 03:27	18° Υ 09'13	2°42'24	min. Earth dist.	2273 Dec 23 18:00	1° Υ 24'38	0.67702 AU
min. Earth dist.	2273 Jan 08 23:36	17° Υ 01'00	0.67191 AU		2273 Dec 24 18:41	30° Υ	
morning rise	2273 Jan 13 11:17	11° Υ 45'01		morning rise	2273 Dec 28 16:59	25° Υ 29'07	
direct	2273 Jan 19 03:26	9° Υ 14'44		direct	2274 Jan 02 18:05	23° Υ 19'30	
morning max el	2273 Jan 30 15:20	16° Υ 06'18	24°42'57	morning max el	2274 Jan 13 00:24	29° Υ 25'38	23°14'33
desc. node	2273 Feb 06 07:46	23° Υ 43'21			2274 Jan 13 13:50	0° Υ	
	2273 Feb 11 03:13	0° \approx		greatest brilliancy	2274 Jan 18 03:47	5° Υ 11'44	-0.2m
	2273 Mar 02 19:41	0° Υ		desc. node	2274 Jan 24 04:48	13° Υ 00'30	
morning set	2273 Mar 07 16:00	8° Υ 20'59			2274 Feb 04 22:50	0° \approx	

morning set	2274 Feb 16 20:41	19° \approx 01'32		desc. node	2275 Jan 11 01:50	2° \approx 48'21	
max. Earth dist.	2274 Feb 21 03:24	26° \approx 19'36	1.39410 AU	morning set	2275 Jan 27 20:14	28° \approx 18'17	
	2274 Feb 23 05:42	0° \approx			2275 Jan 28 21:37	0° \approx	
				max. Earth dist.	2275 Feb 03 02:03	8° \approx 28'46	1.41522 AU
superior conj	2274 Feb 28 18:41	10° \approx 01'59	-1°-52'-7	superior conj	2275 Feb 10 18:21	21° \approx 36'02	-2°-4'-9
minimum elong	2274 Feb 28 22:43	10° \approx 20'40	1°51'49	minimum elong	2275 Feb 10 20:01	21° \approx 43'22	2°04'07
evening rise	2274 Mar 10 06:37	28° \approx 06'37			2275 Feb 15 11:27	0° \approx	
	2274 Mar 11 06:13	0° \approx		evening rise	2275 Feb 21 12:19	11° \approx 03'33	
asc. node	2274 Mar 15 01:17	7° \approx 09'50		asc. node	2275 Mar 01 22:18	26° \approx 08'07	
evening max el	2274 Mar 26 11:30	24° \approx 10'54	18°35'58		2275 Mar 04 08:14	0° \approx	
retrograde	2274 Apr 03 06:31	27° \approx 59'52		evening max el	2275 Mar 09 20:05	7° \approx 00'29	18°12'12
evening set	2274 Apr 05 13:22	27° \approx 41'17		retrograde	2275 Mar 16 17:56	10° \approx 28'54	
inferior conj	2274 Apr 13 04:57	23° \approx 14'30	2°21'36	evening set	2275 Mar 19 06:33	10° \approx 01'47	
minimum elong	2274 Apr 13 08:55	23° \approx 06'50	2°20'32	inferior conj	2275 Mar 26 05:09	5° \approx 13'32	3°14'37
min. Earth dist.	2274 Apr 16 14:30	20° \approx 38'31	0.57919 AU	minimum elong	2275 Mar 26 08:09	5° \approx 06'48	3°14'06
morning rise	2274 Apr 21 00:06	17° \approx 54'52		min. Earth dist.	2275 Mar 29 13:48	2° \approx 13'50	0.60037 AU
desc. node	2274 Apr 22 04:00	17° \approx 24'32			2275 Apr 01 11:28	30° \approx	
direct	2274 Apr 26 19:30	16° \approx 29'46		morning rise	2275 Apr 02 06:17	29° \approx 29'55	
morning max el	2274 May 11 04:34	24° \approx 07'03	26°35'16	direct	2275 Apr 08 19:51	27° \approx 28'39	
	2274 May 16 12:54	0° \approx		desc. node	2275 Apr 09 01:01	27° \approx 28'46	
	2274 Jun 04 09:53	0° \approx			2275 Apr 16 13:54	0° \approx	
morning set	2274 Jun 09 09:46	10° \approx 07'04		morning max el	2275 Apr 23 03:02	5° \approx 18'35	27°30'49
asc. node	2274 Jun 11 00:33	13° \approx 32'52			2275 May 11 11:33	0° \approx	
superior conj	2274 Jun 16 10:59	25° \approx 24'30	0°54'37	morning set	2275 May 24 17:22	24° \approx 47'03	
minimum elong	2274 Jun 16 08:54	25° \approx 12'59	0°54'13		2275 May 27 04:47	0° \approx	
max. Earth dist.	2274 Jun 16 16:14	25° \approx 53'20	1.32234 AU	asc. node	2275 May 28 21:35	3° \approx 39'38	
	2274 Jun 18 13:08	0° \approx		max. Earth dist.	2275 May 31 04:14	8° \approx 37'51	1.32182 AU
evening rise	2274 Jun 23 09:56	10° \approx 27'48					
	2274 Jul 03 12:20	0° \approx		superior conj	2275 May 31 22:32	10° \approx 18'20	0°31'38
desc. node	2274 Jul 19 03:19	22° \approx 55'31		minimum elong	2275 May 31 21:09	10° \approx 10'48	0°31'21
evening max el	2274 Jul 23 15:04	27° \approx 40'01	26°48'14	evening rise	2275 Jun 07 19:53	25° \approx 17'41	
	2274 Jul 26 06:47	0° \approx			2275 Jun 10 02:01	0° \approx	
retrograde	2274 Aug 06 13:51	4° \approx 53'10			2275 Jun 27 15:07	0° \approx	
evening set	2274 Aug 13 11:08	2° \approx 50'13		evening max el	2275 Jul 05 11:46	9° \approx 03'34	25°43'07
min. Earth dist.	2274 Aug 17 05:05	0° \approx 12'44	0.60477 AU	desc. node	2275 Jul 06 00:19	9° \approx 33'04	
	2274 Aug 17 11:27	30° \approx		retrograde	2275 Jul 19 11:57	16° \approx 12'09	
inferior conj	2274 Aug 20 11:06	27° \approx 31'16	-4°-36'-6	evening set	2275 Jul 25 13:01	14° \approx 45'45	
minimum elong	2274 Aug 20 15:41	27° \approx 21'44	4°35'24	min. Earth dist.	2275 Jul 30 00:03	12° \approx 07'36	0.58419 AU
morning rise	2274 Aug 27 23:29	22° \approx 46'21		inferior conj	2275 Aug 02 05:29	9° \approx 48'42	-4°-59'-4
direct	2274 Aug 30 08:20	22° \approx 24'50		minimum elong	2275 Aug 02 06:43	9° \approx 46'28	4°59'03
morning max el	2274 Sep 06 16:42	26° \approx 01'32	18°07'04	morning rise	2275 Aug 10 03:58	5° \approx 26'53	
asc. node	2274 Sep 06 23:44	26° \approx 18'50		direct	2275 Aug 12 15:31	5° \approx 07'11	
	2274 Sep 10 03:00	0° \approx		morning max el	2275 Aug 20 22:37	9° \approx 03'43	18°42'28
morning set	2274 Sep 22 11:48	21° \approx 02'05		asc. node	2275 Aug 24 20:47	13° \approx 34'50	
	2274 Sep 27 07:05	0° \approx			2275 Sep 03 14:52	0° \approx	
				morning set	2275 Sep 06 06:02	5° \approx 04'52	
superior conj	2274 Oct 02 06:17	9° \approx 03'07	1°20'31	superior conj	2275 Sep 14 23:07	21° \approx 55'11	1°37'45
minimum elong	2274 Oct 02 10:26	9° \approx 21'41	1°20'05	minimum elong	2275 Sep 15 01:39	22° \approx 07'07	1°37'35
max. Earth dist.	2274 Oct 09 21:27	22° \approx 17'55	1.41544 AU		2275 Sep 19 07:57	0° \approx	
	2274 Oct 14 13:26	0° \approx		max. Earth dist.	2275 Sep 22 02:44	4° \approx 58'26	1.39525 AU
evening rise	2274 Oct 15 06:34	1° \approx 09'14		evening rise	2275 Sep 26 04:52	12° \approx 02'21	
desc. node	2274 Oct 15 02:38	0° \approx 53'21		desc. node	2275 Oct 01 23:39	21° \approx 33'29	
	2274 Nov 03 10:26	0° \approx			2275 Oct 07 09:25	0° \approx	
greatest brilliancy	2274 Nov 12 18:03	12° \approx 16'55	-0.3m		2275 Oct 29 20:37	0° \approx	
evening max el	2274 Nov 17 18:44	17° \approx 54'55	22°46'35	evening max el	2275 Oct 31 08:13	1° \approx 31'24	24°06'32
retrograde	2274 Nov 27 18:03	23° \approx 50'08		retrograde	2275 Nov 11 09:42	8° \approx 00'58	
evening set	2274 Dec 02 10:13	21° \approx 56'55		evening set	2275 Nov 16 15:37	5° \approx 50'40	
asc. node	2274 Dec 03 22:58	20° \approx 29'41		asc. node	2275 Nov 20 19:59	1° \approx 08'35	
inferior conj	2274 Dec 07 19:58	15° \approx 32'57	1°17'46	min. Earth dist.	2275 Nov 21 10:51	0° \approx 18'51	0.67676 AU
minimum elong	2274 Dec 07 18:16	15° \approx 38'48	1°17'05		2275 Nov 21 16:27	30° \approx	
min. Earth dist.	2274 Dec 07 14:34	15° \approx 51'37	0.67858 AU	inferior conj	2275 Nov 22 02:51	29° \approx 24'50	0°26'26
morning rise	2274 Dec 13 02:16	9° \approx 20'57		minimum elong	2275 Nov 22 02:13	29° \approx 26'58	0°26'09
direct	2274 Dec 17 12:34	7° \approx 34'07		morning rise	2275 Nov 27 13:05	23° \approx 17'59	
morning max el	2274 Dec 26 13:14	12° \approx 51'54	21°48'16	direct	2275 Dec 01 09:42	21° \approx 53'18	
greatest brilliancy	2274 Dec 31 08:23	18° \approx 17'01	-0.4m	morning max el	2275 Dec 09 09:03	26° \approx 28'34	20°31'01
	2275 Jan 09 02:41	0° \approx					

	2275 Dec 12 13:22	0°♊		morning max el	2276 Nov 21 12:51	10°♌16'38	19°27'05
greatest brilliancy	2275 Dec 15 13:24	3°♊46'42	-0.5m	greatest brilliancy	2276 Nov 30 10:01	21°♌34'07	-0.7m
desc. node	2275 Dec 28 22:51	22°♊57'57			2276 Dec 06 02:28	0°♊	
	2276 Jan 02 14:17	0°♊		desc. node	2276 Dec 14 19:55	13°♊23'35	
morning set	2276 Jan 06 20:27	6°♊33'08		morning set	2276 Dec 15 19:04	14°♊53'08	
max. Earth dist.	2276 Jan 16 08:40	21°♊34'45	1.43324 AU		2276 Dec 25 11:50	0°♊	
	2276 Jan 21 12:25	0°♊		max. Earth dist.	2276 Dec 28 22:24	5°♊25'15	1.44578 AU
superior conj	2276 Jan 22 17:30	2°♋00'45	-2°-2'-21	superior conj	2277 Jan 01 14:36	11°♋15'50	-1°-42'-16
minimum elong	2276 Jan 22 14:15	1°♋47'13	2°02'15	minimum elong	2277 Jan 01 06:24	10°♋43'03	1°41'36
evening rise	2276 Feb 04 01:59	23°♋13'31			2277 Jan 13 02:39	0°♋	
	2276 Feb 07 22:36	0°♋		evening rise	2277 Jan 15 19:29	4°♋29'53	
asc. node	2276 Feb 16 19:19	14°♋32'30			2277 Jan 31 20:51	0°♋	
evening max el	2276 Feb 21 08:02	20°♋08'49	18°07'59	asc. node	2277 Feb 02 16:21	2°♋13'07	
retrograde	2276 Feb 27 20:03	23°♋32'20		evening max el	2277 Feb 03 20:31	3°♋29'00	18°22'39
evening set	2276 Mar 01 13:50	22°♋55'21		retrograde	2277 Feb 10 08:17	7°♋00'38	
inferior conj	2276 Mar 07 23:08	17°♋45'55	3°38'53	evening set	2277 Feb 13 07:15	6°♋12'58	
minimum elong	2276 Mar 08 00:11	17°♋43'11	3°38'49	inferior conj	2277 Feb 19 06:49	0°♋44'04	3°41'22
min. Earth dist.	2276 Mar 10 21:00	14°♋47'24	0.62161 AU	minimum elong	2277 Feb 19 06:06	0°♋46'08	3°41'21
morning rise	2276 Mar 14 08:09	11°♋47'07			2277 Feb 19 22:07	30°♋	
direct	2276 Mar 21 05:52	9°♋16'24		min. Earth dist.	2277 Feb 21 13:49	28°♋06'48	0.64053 AU
desc. node	2276 Mar 25 22:02	10°♋17'48		morning rise	2277 Feb 25 03:23	24°♋36'18	
morning max el	2276 Apr 04 07:39	17°♋11'51	27°50'01	direct	2277 Mar 04 00:05	21°♋48'55	
	2276 Apr 14 22:55	0°♌		desc. node	2277 Mar 12 19:04	25°♋24'36	
	2276 May 03 04:21	0°♌		morning max el	2277 Mar 17 16:25	29°♋42'51	27°32'29
morning set	2276 May 07 20:00	9°♌09'33			2277 Mar 17 23:14	0°♌	
max. Earth dist.	2276 May 13 13:24	21°♌10'42	1.32521 AU		2277 Apr 08 21:26	0°♌	
asc. node	2276 May 14 18:38	23°♌48'47		morning set	2277 Apr 21 15:09	23°♌06'23	
					2277 Apr 25 01:16	0°♌	
superior conj	2276 May 15 08:18	25°♌03'01	0°06'01	max. Earth dist.	2277 Apr 26 15:36	3°♌18'25	1.33278 AU
minimum elong	2276 May 15 08:01	25°♌01'28	0°05'58				
behind sun begin	2276 May 15 03:12	24°♌35'20		superior conj	2277 Apr 29 14:27	9°♌32'30	0°-21'-25
behind sun end	2276 May 15 12:49	25°♌27'37		minimum elong	2277 Apr 29 15:32	9°♌38'12	0°21'12
	2276 May 17 14:46	0°♍		asc. node	2277 May 01 15:41	13°♌56'05	
evening rise	2276 May 22 07:35	10°♍09'26		evening rise	2277 May 06 19:09	24°♌56'18	
	2276 Jun 01 12:38	0°♍			2277 May 09 05:39	0°♍	
evening max el	2276 Jun 16 02:27	19°♍46'58	24°15'09		2277 May 28 10:46	0°♍	
desc. node	2276 Jun 21 21:19	24°♍19'07		evening max el	2277 May 28 16:48	0°♍14'46	22°38'50
retrograde	2276 Jun 29 22:35	26°♍45'41		desc. node	2277 Jun 08 18:20	6°♍37'31	
evening set	2276 Jul 04 15:22	25°♍56'34		retrograde	2277 Jun 10 21:07	6°♍47'45	
min. Earth dist.	2276 Jul 10 13:14	23°♍00'19	0.56582 AU	evening set	2277 Jun 14 02:35	6°♍24'50	
inferior conj	2276 Jul 13 03:47	21°♍22'28	-4°-47'-57	min. Earth dist.	2277 Jun 22 00:42	2°♍56'36	0.55309 AU
minimum elong	2276 Jul 12 23:37	21°♍29'01	4°47'30	inferior conj	2277 Jun 23 07:32	2°♍12'35	-3°-50'-6
morning rise	2276 Jul 21 11:28	17°♍21'14		minimum elong	2277 Jun 22 23:38	2°♍23'54	3°48'10
direct	2276 Jul 24 03:46	17°♍02'08			2277 Jun 27 09:59	30°♌	
morning max el	2276 Aug 02 19:05	21°♍30'46	19°39'17	morning rise	2277 Jul 01 23:17	28°♌21'16	
	2276 Aug 09 15:29	0°♎		direct	2277 Jul 04 21:50	28°♌01'22	
asc. node	2276 Aug 10 17:50	1°♎43'05			2277 Jul 11 20:20	0°♎	
morning set	2276 Aug 20 08:10	19°♎31'17		morning max el	2277 Jul 16 04:17	3°♎15'10	20°56'53
	2276 Aug 25 12:36	0°♏		asc. node	2277 Jul 28 14:54	20°♎30'46	
					2277 Aug 02 13:45	0°♎	
superior conj	2276 Aug 28 07:41	5°♏34'41	1°45'02	morning set	2277 Aug 04 15:27	4°♎13'10	
minimum elong	2276 Aug 28 08:21	5°♏37'58	1°45'01				
max. Earth dist.	2276 Sep 03 07:06	17°♏03'56	1.37486 AU	superior conj	2277 Aug 12 03:17	19°♎47'19	1°44'09
evening rise	2276 Sep 07 02:39	24°♏01'23		minimum elong	2277 Aug 12 02:25	19°♎42'52	1°44'07
	2276 Sep 10 12:38	0°♐		max. Earth dist.	2277 Aug 16 15:44	28°♎53'55	1.35659 AU
desc. node	2276 Sep 17 20:41	12°♐03'56			2277 Aug 17 05:11	0°♐	
	2276 Sep 30 02:15	0°♐		evening rise	2277 Aug 20 20:04	6°♐56'23	
evening max el	2276 Oct 12 20:18	15°♐11'12	25°21'51		2277 Sep 03 06:01	0°♐	
retrograde	2276 Oct 24 21:07	22°♐07'11		desc. node	2277 Sep 04 17:43	2°♐18'35	
evening set	2276 Oct 30 17:25	19°♐41'09		evening max el	2277 Sep 25 08:19	28°♐49'43	26°25'10
min. Earth dist.	2276 Nov 04 04:34	14°♐44'25	0.67157 AU		2277 Sep 26 14:17	0°♐	
inferior conj	2276 Nov 05 07:23	13°♐17'38	0°-28'-57	retrograde	2277 Oct 08 03:37	6°♐02'00	
minimum elong	2276 Nov 05 08:07	13°♐15'15	0°28'39	evening set	2277 Oct 14 13:41	3°♐24'09	
asc. node	2276 Nov 06 17:01	11°♐30'36			2277 Oct 17 22:20	30°♌	
morning rise	2276 Nov 10 23:31	7°♐18'32		min. Earth dist.	2277 Oct 18 17:21	29°♐03'49	0.66291 AU
direct	2276 Nov 14 08:09	6°♐13'24		inferior conj	2277 Oct 20 07:38	27°♐07'29	-1°-27'-4

minimum elong	2277 Oct 20 09:57	27°♂00'25	1°26'07	asc. node	2278 Oct 11 11:09	4°♂51'49	
asc. node	2277 Oct 24 14:04	22°♂31'20		direct	2278 Oct 13 01:50	4°♂37'51	
morning rise	2277 Oct 26 07:27	21°♂18'49		morning max el	2278 Oct 19 14:03	8°♂07'33	18°06'39
direct	2277 Oct 29 06:13	20°♂29'36			2278 Nov 03 11:45	0°♂	
morning max el	2277 Nov 04 23:19	24°♂11'28	18°38'36	morning set	2278 Nov 06 16:00	5°♂16'07	
	2277 Nov 09 18:53	0°♂		desc. node	2278 Nov 18 14:01	24°♂43'07	
morning set	2277 Nov 25 14:55	24°♂21'07					
	2277 Nov 29 04:19	0°♂		superior conj	2278 Nov 20 23:20	28°♂31'48	0°-16'-2
desc. node	2277 Dec 01 16:59	3°♂59'58		minimum elong	2278 Nov 20 21:19	28°♂23'45	0°15'47
				behind sun begin	2278 Nov 20 18:48	28°♂13'47	
superior conj	2277 Dec 11 18:00	19°♂47'49	-1°-4'-4	behind sun end	2278 Nov 20 23:49	28°♂33'42	
minimum elong	2277 Dec 11 10:12	19°♂17'15	1°03'08		2278 Nov 21 21:33	0°♂	
max. Earth dist.	2277 Dec 11 16:04	19°♂40'16	1.45138 AU	max. Earth dist.	2278 Nov 24 10:57	4°♂02'40	1.44962 AU
	2277 Dec 18 05:43	0°♂		evening rise	2278 Dec 07 10:19	24°♂16'41	
evening rise	2277 Dec 27 13:45	14°♂48'39			2278 Dec 11 03:08	0°♂	
	2278 Jan 06 02:36	0°♂		greatest brilliancy	2278 Dec 24 23:27	20°♂51'10	-0.6m
evening max el	2278 Jan 18 07:02	16°♂55'50	18°55'19		2279 Jan 01 03:52	0°♂	
asc. node	2278 Jan 20 13:22	18°♂57'34		evening max el	2279 Jan 01 13:36	0°♂25'28	19°44'26
retrograde	2278 Jan 25 02:36	20°♂46'35		asc. node	2279 Jan 07 10:24	4°♂30'52	
evening set	2278 Jan 28 07:38	19°♂47'09		retrograde	2279 Jan 08 23:51	4°♂44'16	
inferior conj	2278 Feb 03 00:29	14°♂01'03	3°27'50	evening set	2279 Jan 12 12:26	3°♂31'36	
minimum elong	2278 Feb 02 22:33	14°♂07'03	3°27'33		2279 Jan 16 02:32	30°♂	
min. Earth dist.	2278 Feb 04 16:04	11°♂57'43	0.65588 AU	inferior conj	2279 Jan 18 00:58	27°♂30'49	3°02'15
morning rise	2278 Feb 08 12:26	7°♂48'26		minimum elong	2279 Jan 17 22:27	27°♂39'09	3°01'39
direct	2278 Feb 15 01:17	4°♂58'29		min. Earth dist.	2279 Jan 19 02:10	26°♂07'28	0.66722 AU
desc. node	2278 Feb 27 16:09	12°♂14'07		morning rise	2279 Jan 23 07:46	21°♂15'56	
morning max el	2278 Feb 28 02:21	12°♂39'35	26°43'21	direct	2279 Jan 29 08:20	18°♂35'44	
	2278 Mar 14 01:21	0°♂		morning max el	2279 Feb 10 11:20	25°♂49'12	25°31'03
	2278 Apr 01 12:15	0°♂			2279 Feb 14 07:31	0°♂	
morning set	2278 Apr 04 23:30	6°♂27'29		desc. node	2279 Feb 14 13:12	0°♂16'30	
max. Earth dist.	2278 Apr 09 07:12	14°♂52'43	1.34487 AU		2279 Mar 07 14:24	0°♂	
				morning set	2279 Mar 18 16:22	18°♂58'24	
superior conj	2278 Apr 13 14:52	23°♂40'28	0°-49'-32	max. Earth dist.	2279 Mar 22 10:59	25°♂58'23	1.36153 AU
minimum elong	2278 Apr 13 17:24	23°♂53'33	0°49'04		2279 Mar 24 13:32	0°♂	
	2278 Apr 16 15:33	0°♂					
asc. node	2278 Apr 18 12:43	3°♂57'32		superior conj	2279 Mar 28 06:45	7°♂18'17	-1°-16'-47
evening rise	2278 Apr 21 04:43	9°♂32'14		minimum elong	2279 Mar 28 10:33	7°♂37'14	1°16'13
	2278 May 02 02:06	0°♂		evening rise	2279 Apr 05 10:05	23°♂49'48	
evening max el	2278 May 10 14:39	10°♂59'55	21°08'46	asc. node	2279 Apr 05 09:45	23°♂48'05	
retrograde	2278 May 22 10:54	16°♂46'49			2279 Apr 08 12:08	0°♂	
evening set	2278 May 24 17:10	16°♂34'56		evening max el	2279 Apr 23 00:01	22°♂20'59	19°54'02
desc. node	2278 May 26 15:21	16°♂07'16		retrograde	2279 May 03 02:34	27°♂14'10	
inferior conj	2278 Jun 03 01:36	12°♂36'37	-2°-8'-9	evening set	2279 May 05 02:53	27°♂03'24	
minimum elong	2278 Jun 02 19:41	12°♂44'58	2°06'08	desc. node	2279 May 13 12:23	23°♂20'37	
min. Earth dist.	2278 Jun 03 12:59	12°♂20'34	0.54895 AU	inferior conj	2279 May 14 00:01	23°♂02'55	0°-8'-27
morning rise	2278 Jun 11 22:00	8°♂36'30		minimum elong	2279 May 13 23:38	23°♂03'30	0°08'19
direct	2278 Jun 15 07:35	8°♂11'30		transit middle	2279 May 13 23:38	23°♂03'30	0°08'19
morning max el	2278 Jun 28 02:46	14°♂17'21	22°31'16	transit begin	2279 May 13 20:14	23°♂08'40	
	2278 Jul 10 02:12	0°♂		transit end	2279 May 14 03:01	22°♂58'19	
asc. node	2278 Jul 15 11:59	9°♂48'18		min. Earth dist.	2279 May 16 02:31	21°♂46'04	0.55450 AU
morning set	2278 Jul 20 01:53	19°♂04'52		morning rise	2279 May 22 17:21	18°♂36'16	
	2278 Jul 25 05:09	0°♂		direct	2279 May 26 22:27	17°♂57'12	
				morning max el	2279 Jun 09 18:12	24°♂48'57	24°13'29
superior conj	2278 Jul 27 06:30	4°♂22'44	1°36'39		2279 Jun 14 13:12	0°♂	
minimum elong	2278 Jul 27 04:37	4°♂12'46	1°36'29	asc. node	2279 Jul 02 09:03	29°♂27'12	
max. Earth dist.	2278 Jul 30 09:02	10°♂53'30	1.34191 AU		2279 Jul 02 15:27	0°♂	
evening rise	2278 Aug 04 04:33	20°♂35'30		morning set	2279 Jul 04 13:39	4°♂00'38	
	2278 Aug 09 04:01	0°♂					
desc. node	2278 Aug 22 14:43	22°♂10'20		superior conj	2279 Jul 11 14:36	19°♂12'04	1°23'44
	2278 Aug 28 04:35	0°♂		minimum elong	2279 Jul 11 12:15	18°♂59'19	1°23'26
evening max el	2278 Sep 07 20:33	12°♂19'50	27°08'54	max. Earth dist.	2279 Jul 13 11:30	23°♂14'17	1.33122 AU
retrograde	2278 Sep 21 04:38	19°♂38'04			2279 Jul 16 16:10	0°♂	
evening set	2278 Sep 28 02:04	16°♂55'32		evening rise	2279 Jul 18 23:59	4°♂46'36	
min. Earth dist.	2278 Oct 01 22:57	13°♂11'38	0.65075 AU		2279 Aug 01 20:16	0°♂	
inferior conj	2278 Oct 04 01:27	10°♂50'19	-2°-25'-58	desc. node	2279 Aug 09 11:43	11°♂29'41	
minimum elong	2278 Oct 04 05:22	10°♂39'20	2°24'30	evening max el	2279 Aug 21 07:35	25°♂29'55	27°26'06
morning rise	2278 Oct 10 10:27	5°♂15'07			2279 Aug 26 21:49	0°♂	

retrograde	2279 Sep 03 23:23	2°♄47'11			2280 Jul 26 07:51	0°♄	
evening set	2279 Sep 11 03:35	0°♄10'01		evening max el	2280 Aug 02 14:42	8°♄05'32	27°11'35
	2279 Sep 11 09:01	30°♄		retrograde	2280 Aug 16 11:06	15°♄19'46	
min. Earth dist.	2279 Sep 14 19:17	26°♄59'37	0.63514 AU	evening set	2280 Aug 23 14:16	13°♄00'25	
inferior conj	2279 Sep 17 10:16	24°♄20'37	-3°-22'-47	min. Earth dist.	2280 Aug 27 04:56	10°♄15'16	0.61649 AU
minimum elong	2279 Sep 17 15:25	24°♄07'36	3°21'12	inferior conj	2280 Aug 30 06:55	7°♄30'04	-4°-12'-59
morning rise	2279 Sep 24 05:36	19°♄02'19		minimum elong	2280 Aug 30 12:15	7°♄18'07	4°11'49
direct	2279 Sep 26 16:16	18°♄33'21		morning rise	2280 Sep 06 13:07	2°♄32'17	
asc. node	2279 Sep 28 08:14	18°♄47'04		direct	2280 Sep 08 21:56	2°♄08'39	
morning max el	2279 Oct 03 06:18	21°♄58'59	17°52'10	asc. node	2280 Sep 14 05:17	4°♄11'35	
	2279 Oct 09 10:22	0°♄		morning max el	2280 Sep 15 21:04	5°♄38'20	17°56'05
morning set	2279 Oct 19 18:55	17°♄26'11			2280 Oct 01 10:18	0°♄	
	2279 Oct 27 02:06	0°♄		morning set	2280 Oct 01 17:13	0°♄31'33	
superior conj	2279 Nov 01 01:22	8°♄18'48	0°29'42	superior conj	2280 Oct 12 06:32	19°♄25'45	1°05'24
minimum elong	2279 Nov 01 04:23	8°♄31'16	0°29'16	minimum elong	2280 Oct 12 11:03	19°♄45'20	1°04'52
desc. node	2279 Nov 05 11:02	15°♄29'57			2280 Oct 18 12:01	0°♄	
max. Earth dist.	2279 Nov 07 04:25	18°♄16'14	1.44079 AU	max. Earth dist.	2280 Oct 19 17:41	2°♄02'35	1.42595 AU
	2279 Nov 14 15:07	0°♄		desc. node	2280 Oct 22 08:03	6°♄16'51	
evening rise	2279 Nov 16 19:13	3°♄21'27		evening rise	2280 Oct 26 08:52	12°♄43'09	
	2279 Dec 04 15:56	0°♄			2280 Nov 06 16:42	0°♄	
greatest brilliancy	2279 Dec 10 00:10	7°♄18'18	-0.5m	greatest brilliancy	2280 Nov 22 16:58	22°♄06'21	-0.3m
evening max el	2279 Dec 15 14:54	13°♄56'21	20°47'33	evening max el	2280 Nov 27 10:31	27°♄27'33	22°01'14
retrograde	2279 Dec 23 21:42	18°♄50'14			2280 Nov 30 04:30	0°♄	
asc. node	2279 Dec 25 07:27	18°♄39'13		retrograde	2280 Dec 06 18:17	3°♄00'30	
evening set	2279 Dec 27 19:37	17°♄22'41		evening set	2280 Dec 11 03:22	1°♄16'43	
inferior conj	2280 Jan 02 05:48	11°♄10'04	2°27'21	asc. node	2280 Dec 11 04:29	1°♄14'27	
minimum elong	2280 Jan 02 03:14	11°♄18'52	2°26'33		2280 Dec 12 12:39	30°♄	
min. Earth dist.	2280 Jan 02 18:06	10°♄27'57	0.67456 AU	inferior conj	2280 Dec 16 12:51	24°♄55'40	1°44'58
morning rise	2280 Jan 07 10:26	4°♄54'57		minimum elong	2280 Dec 16 10:43	25°♄03'03	1°44'10
direct	2280 Jan 12 20:21	2°♄32'50		min. Earth dist.	2280 Dec 16 13:35	24°♄53'07	0.67812 AU
morning max el	2280 Jan 23 19:40	9°♄05'21	24°05'42	morning rise	2280 Dec 21 17:53	18°♄42'03	
desc. node	2280 Feb 01 10:14	19°♄10'52		direct	2280 Dec 26 12:34	16°♄42'14	
	2280 Feb 09 07:02	0°♄		morning max el	2281 Jan 05 05:57	22°♄27'08	22°37'13
	2280 Feb 28 06:33	0°♄		greatest brilliancy	2281 Jan 09 19:47	27°♄33'34	-0.3m
morning set	2280 Feb 28 12:02	0°♄23'37			2281 Jan 11 19:08	0°♄	
max. Earth dist.	2280 Mar 03 07:08	7°♄04'01	1.38177 AU	desc. node	2281 Jan 18 07:16	8°♄41'57	
					2281 Feb 01 15:34	0°♄	
superior conj	2280 Mar 10 10:40	20°♄17'04	-1°-40'-54	morning set	2281 Feb 08 04:29	10°♄28'11	
minimum elong	2280 Mar 10 15:01	20°♄37'50	1°40'26	max. Earth dist.	2281 Feb 13 03:14	18°♄44'18	1.40329 AU
	2280 Mar 15 10:54	0°♄			2281 Feb 19 13:52	0°♄	
evening rise	2280 Mar 19 08:49	7°♄42'34					
asc. node	2280 Mar 22 06:45	13°♄23'10		superior conj	2281 Feb 20 22:05	2°♄25'07	-1°-58'-35
	2280 Apr 01 02:36	0°♄		minimum elong	2281 Feb 21 01:26	2°♄40'17	1°58'24
evening max el	2280 Apr 04 20:32	4°♄21'21	18°58'34	evening rise	2281 Mar 02 21:47	21°♄02'22	
retrograde	2280 Apr 13 08:48	8°♄29'26			2281 Mar 07 16:55	0°♄	
evening set	2280 Apr 15 12:33	8°♄14'36		asc. node	2281 Mar 09 03:47	2°♄36'59	
inferior conj	2280 Apr 23 15:03	3°♄58'47	1°35'52	evening max el	2281 Mar 19 01:34	16°♄55'15	18°23'22
minimum elong	2280 Apr 23 18:26	3°♄52'47	1°34'47	retrograde	2281 Mar 26 10:15	20°♄33'53	
min. Earth dist.	2280 Apr 26 18:08	1°♄47'31	0.56851 AU	evening set	2281 Mar 28 19:33	20°♄11'55	
desc. node	2280 Apr 29 09:24	0°♄09'04		inferior conj	2281 Apr 05 03:28	15°♄35'46	2°48'03
	2280 Apr 29 15:58	30°♄		minimum elong	2281 Apr 05 07:14	15°♄27'57	2°47'10
morning rise	2280 May 01 20:05	28°♄57'43		min. Earth dist.	2281 Apr 08 14:03	12°♄46'47	0.58795 AU
direct	2280 May 07 01:48	27°♄52'37		morning rise	2281 Apr 12 14:54	10°♄04'33	
	2280 May 14 12:01	0°♄		desc. node	2281 Apr 16 06:25	8°♄41'02	
morning max el	2280 May 21 08:49	5°♄16'20	25°49'19	direct	2281 Apr 18 18:51	8°♄24'14	
	2280 Jun 08 07:38	0°♄		morning max el	2281 May 03 03:59	16°♄07'49	27°03'09
morning set	2280 Jun 18 01:09	18°♄55'11			2281 May 14 11:47	0°♄	
asc. node	2280 Jun 18 06:04	19°♄21'07			2281 May 31 15:34	0°♄	
	2280 Jun 23 04:14	0°♄		morning set	2281 Jun 02 10:45	3°♄43'09	
				asc. node	2281 Jun 05 03:05	9°♄25'00	
superior conj	2280 Jun 25 01:27	4°♄08'13	1°06'21				
minimum elong	2280 Jun 24 23:08	3°♄55'28	1°05'57	superior conj	2281 Jun 09 13:16	19°♄05'18	0°45'14
max. Earth dist.	2280 Jun 25 20:34	5°♄53'03	1.32451 AU	minimum elong	2281 Jun 09 11:26	18°♄55'12	0°44'52
evening rise	2280 Jul 02 03:02	19°♄19'26		max. Earth dist.	2281 Jun 09 08:42	18°♄40'06	1.32166 AU
	2280 Jul 07 11:26	0°♄			2281 Jun 14 13:01	0°♄	
desc. node	2280 Jul 26 08:44	0°♄02'46		evening rise	2281 Jun 16 11:08	4°♄05'48	

	2281 Jun 30 06:56	0°♊				2282 Jun 06 08:03	0°♊	
desc. node	2281 Jul 13 05:44	17°♊30'31				2282 Jun 26 08:20	0°♊	
evening max el	2281 Jul 15 15:25	19°♊56'25	26°23'55	evening max el	2282 Jun 27 09:00	1°♊00'49	25°07'42	
retrograde	2281 Jul 29 14:56	27°♊08'08		desc. node	2282 Jun 30 02:45	3°♊25'19		
evening set	2281 Aug 05 05:30	25°♊19'26		retrograde	2282 Jul 11 08:50	8°♊07'16		
min. Earth dist.	2281 Aug 09 04:30	22°♊44'19	0.59599 AU	evening set	2282 Jul 16 21:12	6°♊57'18		
inferior conj	2281 Aug 12 11:55	20°♊09'47	-4°-49'-4	min. Earth dist.	2282 Jul 21 20:43	4°♊13'11	0.57591 AU	
minimum elong	2281 Aug 12 15:25	20°♊02'55	4°48'43	inferior conj	2282 Jul 24 21:54	2°♊09'28	-4°-59'-25	
morning rise	2281 Aug 20 04:45	15°♊35'02		minimum elong	2282 Jul 24 20:58	2°♊11'04	4°59'25	
direct	2281 Aug 22 14:29	15°♊14'29			2282 Jul 28 06:25	30°♊♊		
morning max el	2281 Aug 30 07:15	18°♊57'51	18°19'36	morning rise	2282 Aug 02 00:27	27°♊57'15		
asc. node	2281 Sep 01 02:19	20°♊51'54		direct	2282 Aug 04 13:36	27°♊38'07		
	2281 Sep 07 09:56	0°♊			2282 Aug 11 05:55	0°♊		
morning set	2281 Sep 15 05:27	14°♊17'09		morning max el	2282 Aug 13 09:35	1°♊46'52	19°03'58	
	2281 Sep 23 13:14	0°♊		asc. node	2282 Aug 18 23:22	8°♊31'56		
				morning set	2282 Aug 30 03:25	28°♊30'54		
superior conj	2281 Sep 24 12:03	1°♊44'51	1°29'09		2282 Aug 30 21:26	0°♊		
minimum elong	2281 Sep 24 15:37	2°♊01'06	1°28'50					
max. Earth dist.	2281 Oct 02 01:17	15°♊07'40	1.40703 AU	superior conj	2282 Sep 07 12:14	14°♊59'07	1°41'56	
evening rise	2281 Oct 06 17:28	22°♊58'18		minimum elong	2282 Sep 07 13:58	15°♊07'25	1°41'51	
desc. node	2281 Oct 09 05:04	27°♊00'44		max. Earth dist.	2282 Sep 14 05:00	27°♊29'13	1.38645 AU	
	2281 Oct 11 01:57	0°♊			2282 Sep 15 14:41	0°♊		
	2281 Oct 31 16:49	0°♊		evening rise	2282 Sep 18 02:05	4°♊20'26		
evening max el	2281 Nov 10 01:31	11°♊01'06	23°20'38	desc. node	2282 Sep 26 02:07	17°♊37'24		
retrograde	2281 Nov 20 12:13	17°♊12'14			2282 Oct 04 04:29	0°♊		
evening set	2281 Nov 25 10:06	15°♊11'30		evening max el	2282 Oct 23 14:05	24°♊39'01	24°39'36	
asc. node	2281 Nov 28 01:32	12°♊26'46			2282 Oct 30 08:57	0°♊		
inferior conj	2281 Nov 30 20:19	8°♊45'57	0°56'33	retrograde	2282 Nov 04 02:20	1°♊21'43		
minimum elong	2281 Nov 30 19:01	8°♊50'22	0°56'01		2282 Nov 08 08:45	30°♊♊		
min. Earth dist.	2281 Nov 30 10:19	9°♊20'16	0.67819 AU	evening set	2282 Nov 09 14:13	29°♊04'34		
morning rise	2281 Dec 06 04:02	2°♊35'53		min. Earth dist.	2282 Nov 14 05:56	23°♊47'13	0.67491 AU	
direct	2281 Dec 10 08:13	0°♊58'55		asc. node	2282 Nov 14 22:34	22°♊51'51		
morning max el	2281 Dec 18 21:37	5°♊57'53	21°13'59	inferior conj	2282 Nov 15 02:27	22°♊38'57	0°03'20	
greatest brilliancy	2281 Dec 24 03:55	12°♊00'04	-0.4m	minimum elong	2282 Nov 15 02:22	22°♊39'13	0°03'18	
desc. node	2282 Jan 05 04:18	28°♊39'40		transit middle	2282 Nov 15 02:22	22°♊39'13	0°03'18	
	2282 Jan 06 02:07	0°♊		transit begin	2282 Nov 14 23:40	22°♊48'11		
morning set	2282 Jan 18 16:26	19°♊13'04		transit end	2282 Nov 15 05:03	22°♊30'16		
	2282 Jan 25 10:02	0°♊		morning rise	2282 Nov 20 14:57	16°♊34'50		
max. Earth dist.	2282 Jan 26 04:54	1°♊17'08	1.42335 AU	direct	2282 Nov 24 06:09	15°♊18'56		
				morning max el	2282 Dec 01 20:51	19°♊39'42	20°01'57	
superior conj	2282 Feb 02 11:47	13°♊30'02	-2°-5'-22	greatest brilliancy	2282 Dec 08 23:33	28°♊17'57	-0.6m	
minimum elong	2282 Feb 02 11:38	13°♊29'23	2°05'23		2282 Dec 10 05:12	0°♊		
	2282 Feb 11 20:24	0°♊		desc. node	2282 Dec 23 01:21	18°♊56'53		
evening rise	2282 Feb 13 21:11	3°♊40'13		morning set	2282 Dec 28 12:39	27°♊20'23		
asc. node	2282 Feb 24 00:49	21°♊22'04			2282 Dec 30 05:53	0°♊		
evening max el	2282 Mar 02 11:55	29°♊53'33	18°08'06	max. Earth dist.	2283 Jan 08 14:12	14°♊41'56	1.43928 AU	
	2282 Mar 02 14:33	0°♊						
retrograde	2282 Mar 09 04:31	3°♊18'28		superior conj	2283 Jan 13 23:40	23°♊24'29	-1°-56'-13	
evening set	2282 Mar 11 19:14	2°♊47'27		minimum elong	2283 Jan 13 18:01	23°♊01'24	1°55'56	
	2282 Mar 16 02:57	30°♊♊			2283 Jan 17 23:42	0°♊		
inferior conj	2282 Mar 18 11:44	27°♊50'14	3°28'00	evening rise	2283 Jan 27 02:46	15°♊28'07		
minimum elong	2282 Mar 18 13:57	27°♊44'57	3°27'44		2283 Feb 04 15:25	0°♊		
min. Earth dist.	2282 Mar 21 16:41	24°♊47'51	0.60945 AU	asc. node	2283 Feb 10 21:52	9°♊29'40		
morning rise	2282 Mar 25 05:34	21°♊58'52		evening max el	2283 Feb 14 00:30	13°♊08'15	18°12'05	
direct	2282 Mar 31 23:43	19°♊43'38		retrograde	2283 Feb 20 11:21	16°♊33'36		
desc. node	2282 Apr 03 03:28	19°♊56'38		evening set	2283 Feb 23 07:16	15°♊52'15		
morning max el	2282 Apr 15 05:24	27°♊37'48	27°43'41	inferior conj	2283 Mar 01 12:03	10°♊34'39	3°42'11	
	2282 Apr 17 12:01	0°♊		minimum elong	2283 Mar 01 12:18	10°♊33'58	3°42'12	
	2282 May 08 03:57	0°♊		min. Earth dist.	2283 Mar 04 04:00	7°♊42'51	0.63000 AU	
morning set	2282 May 17 16:33	18°♊17'09		morning rise	2283 Mar 07 15:18	4°♊31'32		
asc. node	2282 May 23 00:06	29°♊33'31		direct	2283 Mar 14 13:45	1°♊51'35		
	2282 May 23 04:59	0°♊		desc. node	2283 Mar 21 00:30	3°♊48'38		
max. Earth dist.	2282 May 23 19:54	1°♊21'14	1.32271 AU	morning max el	2283 Mar 28 11:57	9°♊47'52	27°46'50	
					2283 Apr 13 06:07	0°♊		
superior conj	2282 May 25 00:17	3°♊56'24	0°21'04		2283 Apr 30 10:15	0°♊		
minimum elong	2282 May 24 23:20	3°♊51'12	0°20'52	morning set	2283 May 01 16:21	2°♊29'59		
evening rise	2282 May 31 22:03	18°♊57'25		max. Earth dist.	2283 May 07 02:22	13°♊43'57	1.32786 AU	

superior conj	2283 May 09 08:47	18°♄35'47	0°-5'-26	morning set	2284 Apr 14 07:18	16°♃12'21	
minimum elong	2283 May 09 09:03	18°♄37'12	0°05'24	max. Earth dist.	2284 Apr 19 00:19	25°♃37'11	1.33737 AU
behind sun begin	2283 May 09 04:05	18°♄10'26			2284 Apr 21 03:06	0°♄	
behind sun end	2283 May 09 14:00	19°♄04'00					
asc. node	2283 May 09 21:10	19°♄42'41		superior conj	2284 Apr 22 12:46	2°♄56'45	0°-33'-19
	2283 May 14 15:12	0°♂		minimum elong	2284 Apr 22 14:27	3°♄05'39	0°32'59
evening rise	2283 May 16 09:55	3°♂47'59		asc. node	2284 Apr 25 18:13	9°♄48'00	
	2283 May 30 14:47	0°♄		evening rise	2284 Apr 29 20:50	18°♄30'49	
evening max el	2283 Jun 08 22:48	11°♄34'33	23°34'20		2284 May 05 13:49	0°♂	
desc. node	2283 Jun 16 23:45	17°♄13'05		evening max el	2284 May 20 15:37	22°♂06'26	21°59'07
retrograde	2283 Jun 22 14:17	18°♄24'23		retrograde	2284 Jun 02 07:43	28°♂21'14	
evening set	2283 Jun 26 15:17	17°♄48'35		desc. node	2284 Jun 02 20:45	28°♂20'34	
min. Earth dist.	2283 Jul 03 09:04	14°♄40'06	0.55957 AU	evening set	2284 Jun 05 01:26	28°♂04'33	
inferior conj	2283 Jul 05 11:48	13°♄24'16	-4°-29'-31	inferior conj	2284 Jun 14 09:53	24°♂00'12	-3°-11'-12
minimum elong	2283 Jul 05 05:31	13°♄33'41	4°28'28	minimum elong	2284 Jun 14 02:04	24°♂11'09	3°08'54
morning rise	2283 Jul 13 23:03	9°♄28'37		min. Earth dist.	2284 Jun 13 20:26	24°♂19'02	0.55020 AU
direct	2283 Jul 16 17:43	9°♄09'24		morning rise	2284 Jun 23 04:16	20°♂07'48	
morning max el	2283 Jul 27 01:20	13°♄56'21	20°09'44	direct	2284 Jun 26 06:59	19°♂46'19	
asc. node	2283 Aug 05 20:25	26°♄58'20		morning max el	2284 Jul 08 05:33	25°♂21'42	21°35'22
	2283 Aug 07 14:01	0°♂			2284 Jul 12 12:22	0°♄	
morning set	2283 Aug 14 08:01	13°♂04'36		asc. node	2284 Jul 22 17:29	16°♄00'12	
				morning set	2284 Jul 28 16:55	27°♄52'08	
superior conj	2283 Aug 22 01:57	28°♂53'51	1°45'33		2284 Jul 29 17:27	0°♂	
minimum elong	2283 Aug 22 01:54	28°♂53'39	1°45'32				
	2283 Aug 22 15:07	0°♂		superior conj	2284 Aug 05 01:10	13°♂17'46	1°41'41
max. Earth dist.	2283 Aug 27 10:26	9°♂24'39	1.36680 AU	minimum elong	2284 Aug 04 23:48	13°♂10'39	1°41'37
evening rise	2283 Aug 31 08:48	16°♂44'59		max. Earth dist.	2284 Aug 08 22:57	21°♂19'06	1.34992 AU
	2283 Sep 07 23:28	0°♄		evening rise	2284 Aug 13 09:12	0°♂00'52	
desc. node	2283 Sep 12 23:08	8°♄01'54			2284 Aug 13 09:01	0°♂	
	2283 Sep 28 14:30	0°♂		desc. node	2284 Aug 29 20:08	28°♂08'25	
evening max el	2283 Oct 06 02:15	8°♂19'46	25°50'49		2284 Aug 31 01:54	0°♄	
retrograde	2283 Oct 18 11:41	15°♂23'38		evening max el	2284 Sep 17 14:38	21°♄57'10	26°46'35
evening set	2283 Oct 24 13:54	12°♂52'17		retrograde	2284 Sep 30 15:42	29°♄12'07	
min. Earth dist.	2283 Oct 28 21:55	8°♂10'40	0.66830 AU	evening set	2284 Oct 07 07:08	26°♄31'21	
inferior conj	2283 Oct 30 05:25	6°♂31'11	0°-53'-24	min. Earth dist.	2284 Oct 11 07:53	22°♄26'42	0.65824 AU
minimum elong	2283 Oct 30 06:49	6°♂26'47	0°52'49	inferior conj	2284 Oct 13 03:14	20°♄19'18	-1°-52'-4
asc. node	2283 Nov 01 19:38	3°♂23'57		minimum elong	2284 Oct 13 06:15	20°♄10'26	1°50'52
morning rise	2283 Nov 05 00:35	0°♂35'54		asc. node	2284 Oct 18 16:41	14°♄55'56	
	2283 Nov 06 05:42	30°♂♄		morning rise	2284 Oct 19 06:47	14°♄35'58	
direct	2283 Nov 08 04:48	29°♄37'53		direct	2284 Oct 22 02:13	13°♄52'09	
	2283 Nov 10 05:08	0°♂		morning max el	2284 Oct 28 16:14	17°♄27'23	18°22'56
morning max el	2283 Nov 15 03:37	3°♂30'47	19°04'24		2284 Nov 07 00:09	0°♂	
	2283 Dec 03 20:55	0°♄		morning set	2284 Nov 17 02:31	16°♂09'59	
morning set	2283 Dec 07 18:12	6°♄03'44		desc. node	2284 Nov 25 19:28	0°♄07'44	
desc. node	2283 Dec 09 22:24	9°♄27'37			2284 Nov 25 17:31	0°♄	
max. Earth dist.	2283 Dec 22 06:06	28°♄45'40	1.44908 AU				
	2283 Dec 23 00:58	0°♄		superior conj	2284 Dec 02 12:53	10°♄45'37	0°-44'-8
superior conj	2283 Dec 24 11:26	2°♄16'05	-1°-27'-58	minimum elong	2284 Dec 02 07:13	10°♄23'21	0°43'25
minimum elong	2283 Dec 24 02:31	1°♄40'51	1°27'05	max. Earth dist.	2284 Dec 04 01:18	13°♄08'42	1.45162 AU
evening rise	2284 Jan 08 10:30	26°♄19'36			2284 Dec 14 19:18	0°♄	
	2284 Jan 10 16:19	0°♂		evening rise	2284 Dec 18 19:01	6°♄15'42	
evening max el	2284 Jan 28 12:29	26°♂32'01	18°34'29	greatest brilliancy	2285 Jan 01 06:30	27°♄14'20	-0.7m
asc. node	2284 Jan 28 18:55	26°♂48'10			2285 Jan 03 03:11	0°♂	
	2284 Feb 02 18:01	0°♂		evening max el	2285 Jan 10 21:31	10°♂00'23	19°14'14
retrograde	2284 Feb 04 02:27	0°♂10'08		asc. node	2285 Jan 14 15:57	13°♂04'21	
	2284 Feb 05 10:37	30°♂♂		retrograde	2285 Jan 17 22:24	14°♂01'55	
evening set	2284 Feb 07 03:58	29°♂17'27		evening set	2285 Jan 21 06:31	12°♂56'51	
inferior conj	2284 Feb 13 00:21	23°♂41'02	3°37'16	inferior conj	2285 Jan 26 21:15	7°♂03'54	3°18'14
minimum elong	2284 Feb 12 23:03	23°♂44'55	3°37'10	minimum elong	2285 Jan 26 19:00	7°♂11'07	3°17'49
min. Earth dist.	2284 Feb 15 00:44	21°♂17'14	0.64759 AU	min. Earth dist.	2285 Jan 28 06:25	5°♂17'33	0.66126 AU
morning rise	2284 Feb 18 16:50	17°♂31'07		morning rise	2285 Feb 01 06:38	0°♂50'09	
direct	2284 Feb 25 11:00	14°♂41'00			2285 Feb 02 07:06	30°♂♄	
desc. node	2284 Mar 06 21:33	19°♂42'53		direct	2285 Feb 07 14:35	28°♄03'26	
morning max el	2284 Mar 09 21:17	22°♂30'15	27°14'59		2285 Feb 13 13:16	0°♂	
	2284 Mar 16 12:05	0°♂		morning max el	2285 Feb 20 07:03	5°♂33'59	26°14'51
	2284 Apr 05 11:49	0°♂		desc. node	2285 Feb 21 18:38	7°♂06'28	
					2285 Mar 11 02:19	0°♂	

morning set	2285 Mar 28 09:39	29° K 13'25		direct	2286 Jan 21 23:44	11° Z 50'02	
	2285 Mar 28 19:36	0° Y		morning max el	2286 Feb 02 15:50	18° Z 48'01	24°55'45
max. Earth dist.	2285 Apr 01 11:03	6° Y 58'28	1.35147 AU	desc. node	2286 Feb 08 15:42	25° Z 33'31	
					2286 Feb 12 03:27	0° \approx	
superior conj	2285 Apr 06 09:53	16° Y 52'27	-1°-1'-20		2286 Mar 04 04:22	0° K	
minimum elong	2285 Apr 06 13:00	17° Y 08'22	1°00'47	morning set	2286 Mar 10 18:20	11° K 19'16	
asc. node	2285 Apr 12 15:16	29° Y 45'17		max. Earth dist.	2286 Mar 14 11:01	18° K 01'06	1.36975 AU
	2285 Apr 12 18:06	0° B					
evening rise	2285 Apr 14 04:53	2° B 59'44		superior conj	2286 Mar 20 21:09	0° Y 15'11	-1°-27'-35
	2285 Apr 29 22:09	0° II		minimum elong	2286 Mar 21 01:19	0° Y 35'37	1°27'01
evening max el	2285 May 02 17:57	3° II 04'28	20°34'41		2286 Mar 20 18:03	0° Y	
retrograde	2285 May 13 20:50	8° II 28'55		evening rise	2286 Mar 29 07:48	17° Y 08'13	
evening set	2285 May 15 22:51	8° II 18'17		asc. node	2286 Mar 30 12:17	19° Y 30'21	
desc. node	2285 May 20 17:47	6° II 43'25			2286 Apr 05 00:11	0° B	
inferior conj	2285 May 25 03:51	4° II 20'38	-1°-17'-23	evening max el	2286 Apr 15 08:15	14° B 42'56	19°27'59
minimum elong	2285 May 25 00:11	4° II 25'55	1°16'03	retrograde	2286 Apr 24 17:52	19° B 15'43	
min. Earth dist.	2285 May 26 08:52	3° II 38'48	0.55009 AU	evening set	2286 Apr 26 18:46	19° B 03'51	
morning rise	2285 Jun 03 00:09	0° II 11'24		inferior conj	2286 May 05 08:21	14° B 57'59	0°39'08
	2285 Jun 03 19:44	30° R B		minimum elong	2286 May 05 09:59	14° B 55'20	0°38'33
direct	2285 Jun 06 16:50	29° B 42'00		desc. node	2286 May 07 14:49	13° B 30'03	
	2285 Jun 09 12:58	0° II		min. Earth dist.	2286 May 07 23:26	13° B 16'27	0.55948 AU
morning max el	2285 Jun 20 00:23	6° II 08'15	23°14'45	morning rise	2286 May 13 21:22	10° B 16'26	
	2285 Jul 06 18:41	0° Z		direct	2286 May 18 12:27	9° B 27'54	
asc. node	2285 Jul 09 14:32	5° Z 27'45		morning max el	2286 Jun 01 14:57	16° B 35'49	24°56'04
morning set	2285 Jul 13 04:07	12° Z 46'35			2286 Jun 12 11:50	0° II	
				asc. node	2286 Jun 26 11:34	25° II 13'58	
superior conj	2285 Jul 20 06:45	28° Z 00'19	1°31'46	morning set	2286 Jun 27 15:58	27° II 42'46	
minimum elong	2285 Jul 20 04:36	27° Z 48'49	1°31'34		2286 Jun 28 17:49	0° Z	
	2285 Jul 21 05:09	0° Q					
max. Earth dist.	2285 Jul 22 20:23	3° Q 27'50	1.33680 AU	superior conj	2286 Jul 04 16:16	12° Z 53'48	1°16'52
evening rise	2285 Jul 27 22:45	13° Q 54'50		minimum elong	2286 Jul 04 13:52	12° Z 40'43	1°16'32
	2285 Aug 05 13:21	0° P		max. Earth dist.	2286 Jul 06 01:50	15° Z 56'18	1.32781 AU
desc. node	2285 Aug 16 17:08	17° P 48'12		evening rise	2286 Jul 11 21:46	28° Z 16'26	
	2285 Aug 26 01:27	0° A			2286 Jul 12 18:07	0° Q	
evening max el	2285 Aug 31 02:24	5° A 20'00	27°19'42		2286 Jul 29 18:31	0° P	
retrograde	2285 Sep 13 14:02	12° A 38'29		desc. node	2286 Aug 03 14:07	6° P 50'02	
evening set	2285 Sep 20 15:17	9° A 56'28		evening max el	2286 Aug 13 11:53	18° P 16'27	27°23'56
min. Earth dist.	2285 Sep 24 09:33	6° A 27'49	0.64459 AU	retrograde	2286 Aug 27 06:12	25° P 33'25	
inferior conj	2285 Sep 26 17:33	3° A 57'38	-2°-50'-30	evening set	2286 Sep 03 11:03	23° P 01'56	
minimum elong	2285 Sep 26 22:04	3° A 45'30	2°48'56	min. Earth dist.	2286 Sep 07 01:25	20° P 03'46	0.62752 AU
	2285 Sep 30 19:59	30° R P		inferior conj	2286 Sep 09 21:34	17° P 20'03	-3°-45'-15
morning rise	2285 Oct 03 06:52	28° P 29'31		minimum elong	2286 Sep 10 02:58	17° P 07'02	3°43'47
direct	2285 Oct 05 19:55	27° P 56'12		morning rise	2286 Sep 16 21:32	12° P 10'18	
asc. node	2285 Oct 05 13:44	27° P 56'33		direct	2286 Sep 19 06:55	11° P 44'05	
	2285 Oct 10 19:15	0° A		asc. node	2286 Sep 22 10:47	12° P 31'03	
morning max el	2285 Oct 12 08:01	1° A 22'54	17°58'19	morning max el	2286 Sep 26 00:04	15° P 10'35	17°51'29
morning set	2285 Oct 29 15:17	27° A 39'11			2286 Oct 06 07:17	0° A	
	2285 Oct 31 00:37	0° M		morning set	2286 Oct 12 03:10	10° A 14'49	
					2286 Oct 23 11:41	0° M	
superior conj	2285 Nov 12 01:24	19° M 52'19	0°04'16				
minimum elong	2285 Nov 12 01:53	19° M 54'19	0°04'12	superior conj	2286 Oct 23 14:55	0° M 13'37	0°46'16
behind sun begin	2285 Nov 11 15:51	19° M 13'48		minimum elong	2286 Oct 23 19:00	0° M 30'45	0°45'44
behind sun end	2285 Nov 12 11:56	20° M 34'46		max. Earth dist.	2286 Oct 30 11:20	11° M 31'45	1.43510 AU
desc. node	2285 Nov 12 16:28	20° M 52'59		desc. node	2286 Oct 30 13:28	11° M 40'23	
max. Earth dist.	2285 Nov 16 19:56	27° M 29'39	1.44670 AU	evening rise	2286 Nov 07 17:34	24° M 35'51	
	2285 Nov 18 10:00	0° J			2286 Nov 11 05:49	0° J	
evening rise	2285 Nov 28 08:51	15° J 29'27			2286 Dec 02 01:08	0° Z	
	2285 Dec 07 21:02	0° Z		greatest brilliancy	2286 Dec 02 22:08	1° Z 07'02	-0.4m
greatest brilliancy	2285 Dec 18 11:00	15° Z 24'15	-0.6m	evening max el	2286 Dec 08 00:36	7° Z 01'05	21°17'55
evening max el	2285 Dec 25 01:50	23° Z 30'18	20°09'42	retrograde	2286 Dec 16 17:52	12° Z 11'48	
retrograde	2286 Jan 01 20:18	28° Z 03'48		asc. node	2286 Dec 19 10:01	11° Z 32'17	
asc. node	2286 Jan 01 12:58	28° Z 03'17		evening set	2286 Dec 20 20:11	10° Z 37'43	
evening set	2286 Jan 05 12:35	26° Z 44'59		inferior conj	2286 Dec 26 05:54	4° Z 21'01	2°10'12
inferior conj	2286 Jan 10 23:53	20° Z 38'31	2°48'28	minimum elong	2286 Dec 26 03:28	4° Z 29'27	2°09'22
minimum elong	2286 Jan 10 21:16	20° Z 47'17	2°47'46	min. Earth dist.	2286 Dec 26 13:12	3° Z 55'48	0.67648 AU
min. Earth dist.	2286 Jan 11 19:22	19° Z 32'52	0.67078 AU		2286 Dec 29 13:48	30° R J	
morning rise	2286 Jan 16 05:24	14° Z 23'07		morning rise	2286 Dec 31 10:23	28° J 06'03	

direct	2287 Jan 05 13:47	25°♂53'00		inferior conj	2287 Dec 10 13:22	18°♂09'34	1°25'07
	2287 Jan 13 19:11	0°♂		minimum elong	2287 Dec 10 11:33	18°♂15'52	1°24'24
morning max el	2287 Jan 16 00:32	2°♂06'16	23°27'48	min. Earth dist.	2287 Dec 10 09:33	18°♂22'45	0.67860 AU
greatest brilliancy	2287 Jan 21 22:46	8°♂49'41	-0.2m	morning rise	2287 Dec 15 19:16	11°♂57'06	
desc. node	2287 Jan 26 12:43	14°♂45'07		direct	2287 Dec 20 07:45	10°♂06'50	
	2287 Feb 06 04:50	0°♂		morning max el	2287 Dec 29 12:33	15°♂31'15	22°00'41
morning set	2287 Feb 20 03:03	22°♂11'48		greatest brilliancy	2288 Jan 03 04:56	20°♂47'13	-0.4m
max. Earth dist.	2287 Feb 24 05:38	29°♂15'30	1.39086 AU		2288 Jan 10 05:18	0°♂	
	2287 Feb 24 15:47	0°♂		desc. node	2288 Jan 13 09:45	4°♂29'01	
					2288 Jan 30 05:49	0°♂	
superior conj	2287 Mar 03 18:38	12°♂53'52	-1°-49'-26	morning set	2288 Jan 31 06:52	1°♂40'21	
minimum elong	2287 Mar 03 22:48	13°♂13'23	1°49'05	max. Earth dist.	2288 Feb 06 03:29	11°♂16'54	1.41224 AU
	2287 Mar 12 16:54	0°♂					
evening rise	2287 Mar 13 02:46	0°♂47'47		superior conj	2288 Feb 13 21:30	24°♂37'02	-2°-3'-5
asc. node	2287 Mar 17 09:19	8°♂57'16		minimum elong	2288 Feb 13 23:42	24°♂46'47	2°03'02
evening max el	2287 Mar 29 08:52	26°♂59'06	18°41'13		2288 Feb 16 21:45	0°♂	
	2287 Apr 02 13:14	0°♂		evening rise	2288 Feb 24 10:27	13°♂50'42	
retrograde	2287 Apr 06 07:56	0°♂52'19		asc. node	2288 Mar 03 06:21	27°♂59'49	
evening set	2287 Apr 08 13:59	0°♂34'48			2288 Mar 04 11:09	0°♂	
	2287 Apr 10 06:47	30°♂		evening max el	2288 Mar 11 16:38	9°♂44'43	18°14'29
inferior conj	2287 Apr 16 08:22	26°♂11'01	2°10'40	retrograde	2288 Mar 18 16:51	13°♂15'15	
minimum elong	2287 Apr 16 12:17	26°♂03'38	2°09'32	evening set	2288 Mar 21 04:41	12°♂49'27	
min. Earth dist.	2287 Apr 19 16:48	23°♂40'49	0.57632 AU	inferior conj	2288 Mar 28 05:34	8°♂04'15	3°08'33
morning rise	2287 Apr 24 06:12	20°♂56'02		minimum elong	2288 Mar 28 08:49	7°♂57'06	3°07'57
desc. node	2287 Apr 24 11:52	20°♂49'39		min. Earth dist.	2288 Mar 31 15:03	5°♂06'38	0.59715 AU
direct	2287 Apr 29 22:19	19°♂36'13		morning rise	2288 Apr 04 09:21	2°♂23'37	
morning max el	2287 May 14 06:56	27°♂10'17	26°24'07	desc. node	2288 Apr 10 08:54	0°♂28'24	
	2287 May 17 00:19	0°♂		direct	2288 Apr 10 20:44	0°♂27'44	
	2287 Jun 05 20:19	0°♂		morning max el	2288 Apr 25 04:28	8°♂15'55	27°24'48
morning set	2287 Jun 12 02:50	12°♂34'46			2288 May 11 16:50	0°♂	
asc. node	2287 Jun 13 08:36	15°♂12'31		morning set	2288 May 26 11:01	27°♂17'04	
					2288 May 27 18:06	0°♂	
superior conj	2287 Jun 19 03:45	27°♂50'58	0°57'49	asc. node	2288 May 30 05:38	5°♂18'41	
minimum elong	2287 Jun 19 01:35	27°♂39'02	0°57'25	max. Earth dist.	2288 Jun 02 00:42	11°♂24'54	1.32168 AU
max. Earth dist.	2287 Jun 19 12:27	28°♂38'49	1.32281 AU				
	2287 Jun 20 03:13	0°♂		superior conj	2288 Jun 02 15:25	12°♂45'51	0°35'19
evening rise	2287 Jun 26 03:15	12°♂55'52		minimum elong	2288 Jun 02 13:55	12°♂37'35	0°35'00
	2287 Jul 04 20:55	0°♂		evening rise	2288 Jun 09 12:48	27°♂45'15	
desc. node	2287 Jul 21 11:08	24°♂58'05			2288 Jun 10 14:27	0°♂	
	2287 Jul 26 02:24	0°♂		desc. node	2288 Jun 27 12:42	0°♂	
evening max el	2287 Jul 26 16:39	0°♂34'17	26°55'21	evening max el	2288 Jul 07 08:10	11°♂49'59	
retrograde	2287 Aug 09 14:56	7°♂47'34		retrograde	2288 Jul 07 14:28	12°♂05'08	25°54'31
evening set	2287 Aug 16 14:04	5°♂40'08		evening set	2288 Jul 21 14:27	19°♂14'22	
min. Earth dist.	2287 Aug 20 06:52	3°♂01'05	0.60782 AU	min. Earth dist.	2288 Jul 27 19:31	17°♂42'03	
inferior conj	2287 Aug 23 12:00	0°♂18'12	-4°-30'-41	inferior conj	2288 Aug 01 02:52	15°♂05'21	0.58720 AU
minimum elong	2287 Aug 23 16:52	0°♂07'53	4°29'50	minimum elong	2288 Aug 04 09:15	12°♂41'51	-4°-57'-31
	2287 Aug 23 20:36	30°♂			2288 Aug 04 11:10	12°♂38'19	4°57'25
morning rise	2287 Aug 30 22:47	25°♂29'46		morning rise	2288 Aug 12 06:18	8°♂16'43	
direct	2287 Sep 02 07:31	25°♂07'46		direct	2288 Aug 14 17:22	7°♂56'48	
asc. node	2287 Sep 09 07:49	28°♂29'30		morning max el	2288 Aug 22 20:22	11°♂49'28	18°35'54
morning max el	2287 Sep 09 13:15	28°♂42'28	18°03'35	asc. node	2288 Aug 26 04:52	15°♂36'38	
	2287 Sep 10 18:58	0°♂			2288 Sep 04 00:50	0°♂	
morning set	2287 Sep 25 08:04	23°♂39'24		morning set	2288 Sep 08 00:54	7°♂38'17	
	2287 Sep 28 18:02	0°♂					
superior conj	2287 Oct 05 07:05	11°♂53'10	1°16'55	superior conj	2288 Sep 16 21:13	24°♂37'23	1°35'49
minimum elong	2287 Oct 05 11:24	12°♂12'16	1°16'27	minimum elong	2288 Sep 17 00:02	24°♂50'33	1°35'37
max. Earth dist.	2287 Oct 12 22:02	25°♂01'24	1.41827 AU		2288 Sep 19 19:02	0°♂	
	2287 Oct 15 22:19	0°♂		max. Earth dist.	2288 Sep 24 04:03	7°♂49'11	1.39832 AU
desc. node	2287 Oct 17 10:29	2°♂26'48		evening rise	2288 Sep 28 08:53	15°♂01'19	
evening rise	2287 Oct 18 14:09	4°♂18'05		desc. node	2288 Oct 03 07:30	23°♂08'07	
	2287 Nov 04 14:00	0°♂			2288 Oct 07 16:15	0°♂	
greatest brilliancy	2287 Nov 15 22:07	15°♂08'52	-0.3m		2288 Oct 29 11:16	0°♂	
evening max el	2287 Nov 20 18:13	20°♂34'13	22°34'42	evening max el	2288 Nov 02 08:04	4°♂10'12	23°54'41
retrograde	2287 Nov 30 13:24	26°♂23'32		retrograde	2288 Nov 13 05:43	10°♂35'05	
evening set	2287 Dec 05 03:43	24°♂32'47		evening set	2288 Nov 18 09:32	8°♂27'10	
asc. node	2287 Dec 06 07:03	23°♂30'19		asc. node	2288 Nov 22 04:06	4°♂16'51	
				inferior conj	2288 Nov 23 20:29	2°♂01'17	0°34'30

minimum elong	2288 Nov 23 19:40	2°♂04'03	0°34'10	min. Earth dist.	2289 Nov 07 00:17	17°♂16'15	0.67255 AU
min. Earth dist.	2288 Nov 23 06:01	2°♂50'23	0.67726 AU	inferior conj	2289 Nov 08 01:29	15°♂54'04	0°-20'-22
	2288 Nov 25 08:50	30°♂♂		minimum elong	2289 Nov 08 02:00	15°♂52'23	0°20'09
morning rise	2288 Nov 29 06:00	25°♂53'39		asc. node	2289 Nov 09 01:09	14°♂37'35	
direct	2288 Dec 03 04:33	24°♂25'52		morning rise	2289 Nov 13 16:37	9°♂53'37	
morning max el	2288 Dec 11 07:18	29°♂06'49	20°41'47	direct	2289 Nov 17 02:51	8°♂45'54	
	2288 Dec 12 03:52	0°♂		morning max el	2289 Nov 24 09:59	12°♂53'24	19°35'38
greatest brilliancy	2288 Dec 17 05:04	6°♂01'50	-0.5m	greatest brilliancy	2289 Dec 02 17:39	23°♂19'29	-0.6m
desc. node	2288 Dec 30 06:47	24°♂35'54			2289 Dec 07 07:31	0°♂	
	2289 Jan 02 20:54	0°♂		desc. node	2289 Dec 17 03:49	14°♂59'19	
morning set	2289 Jan 09 09:37	10°♂01'37		morning set	2289 Dec 19 06:44	18°♂15'52	
max. Earth dist.	2289 Jan 18 09:05	24°♂15'40	1.43085 AU		2289 Dec 26 19:49	0°♂	
	2289 Jan 21 21:23	0°♂		max. Earth dist.	2289 Dec 31 21:38	7°♂59'41	1.44428 AU
superior conj	2289 Jan 25 00:34	5°♂12'38	-2°-3'-43	superior conj	2290 Jan 05 01:20	14°♂37'18	-1°-46'-34
minimum elong	2289 Jan 24 22:10	5°♂02'35	2°03'40	minimum elong	2290 Jan 04 17:39	14°♂06'28	1°45'59
evening rise	2289 Feb 06 02:49	26°♂08'32			2290 Jan 14 11:13	0°♂	
	2289 Feb 08 07:07	0°♂		evening rise	2290 Jan 18 23:35	7°♂33'21	
asc. node	2289 Feb 18 03:24	16°♂30'12			2290 Feb 01 18:24	0°♂	
evening max el	2289 Feb 23 04:16	22°♂50'50	18°07'25	asc. node	2290 Feb 05 00:27	4°♂18'26	
retrograde	2289 Mar 01 17:11	26°♂14'23		evening max el	2290 Feb 06 16:49	6°♂09'44	18°19'20
evening set	2289 Mar 04 10:09	25°♂39'00		retrograde	2290 Feb 13 04:09	9°♂39'30	
inferior conj	2289 Mar 10 21:11	20°♂32'36	3°36'43	evening set	2290 Feb 16 02:16	8°♂53'34	
minimum elong	2289 Mar 10 22:33	20°♂29'09	3°36'38	inferior conj	2290 Feb 22 03:05	3°♂27'34	3°42'07
min. Earth dist.	2289 Mar 13 21:01	17°♂32'23	0.61847 AU	minimum elong	2290 Feb 22 02:37	3°♂28'55	3°42'07
morning rise	2289 Mar 17 08:23	14°♂35'25		min. Earth dist.	2290 Feb 24 12:28	0°♂45'56	0.63788 AU
direct	2289 Mar 24 05:24	12°♂08'27			2290 Feb 25 05:33	30°♂♂	
desc. node	2289 Mar 28 05:57	12°♂53'56		morning rise	2290 Feb 28 01:15	27°♂20'46	
morning max el	2289 Apr 07 08:26	20°♂03'54	27°49'40	direct	2290 Mar 06 22:36	24°♂34'46	
	2289 Apr 15 20:48	0°♂		desc. node	2290 Mar 15 03:00	27°♂42'18	
	2289 May 04 14:47	0°♂			2290 Mar 18 00:47	0°♂	
morning set	2289 May 10 14:37	11°♂43'29		morning max el	2290 Mar 20 16:45	2°♂30'00	27°37'19
max. Earth dist.	2289 May 16 10:39	24°♂01'22	1.32441 AU		2290 Apr 10 04:04	0°♂	
asc. node	2289 May 17 02:41	25°♂28'15		morning set	2290 Apr 24 11:04	25°♂44'50	
					2290 Apr 26 13:52	0°♂	
superior conj	2289 May 18 01:37	27°♂32'57	0°10'05	max. Earth dist.	2290 Apr 29 14:01	6°♂13'01	1.33132 AU
minimum elong	2289 May 18 01:09	27°♂30'23	0°09'58	superior conj	2290 May 02 08:25	12°♂05'09	0°-17'-9
behind sun begin	2289 May 17 21:07	27°♂08'27		minimum elong	2290 May 02 09:16	12°♂09'42	0°17'00
behind sun end	2289 May 18 05:10	27°♂52'19		asc. node	2290 May 03 23:44	15°♂36'11	
	2289 May 19 04:33	0°♂		evening rise	2290 May 09 12:04	27°♂25'37	
evening rise	2289 May 25 00:24	12°♂37'44			2290 May 10 17:32	0°♂	
	2289 Jun 02 19:34	0°♂			2290 May 28 16:10	0°♂	
evening max el	2289 Jun 19 05:45	22°♂53'44	24°29'09	evening max el	2290 May 31 19:38	3°♂21'56	22°53'11
desc. node	2289 Jun 24 05:11	26°♂55'55		desc. node	2290 Jun 11 02:14	9°♂38'54	
retrograde	2289 Jul 03 03:07	29°♂55'03		retrograde	2290 Jun 14 03:32	10°♂00'13	
evening set	2289 Jul 08 01:17	29°♂00'41		evening set	2290 Jun 17 13:43	9°♂34'29	
min. Earth dist.	2289 Jul 13 16:42	26°♂08'05	0.56831 AU	min. Earth dist.	2290 Jun 25 04:23	6°♂11'45	0.55451 AU
inferior conj	2289 Jul 16 10:38	24°♂22'57	-4°-52'-27	inferior conj	2290 Jun 26 16:49	5°♂19'13	-4°-2'-5
minimum elong	2289 Jul 16 07:19	24°♂28'17	4°52'11	minimum elong	2290 Jun 26 09:10	5°♂30'17	4°00'22
morning rise	2289 Jul 24 17:03	20°♂19'15		morning rise	2290 Jul 05 07:28	1°♂27'16	
direct	2289 Jul 27 08:29	20°♂00'11		direct	2290 Jul 08 04:49	1°♂07'42	
morning max el	2289 Aug 05 18:30	24°♂23'04	19°29'26	morning max el	2290 Jul 19 05:27	6°♂14'21	20°44'00
	2289 Aug 10 14:45	0°♂		asc. node	2290 Jul 30 22:58	22°♂20'34	
asc. node	2289 Aug 13 01:55	3°♂38'09			2290 Aug 04 00:55	0°♂	
morning set	2289 Aug 23 02:02	22°♂01'50		morning set	2290 Aug 07 08:41	6°♂41'45	
	2289 Aug 27 01:05	0°♂					
superior conj	2289 Aug 31 03:46	8°♂11'03	1°44'29	superior conj	2290 Aug 14 21:57	22°♂19'27	1°44'43
minimum elong	2289 Aug 31 04:42	8°♂15'39	1°44'27	minimum elong	2290 Aug 14 21:17	22°♂16'03	1°44'42
max. Earth dist.	2289 Sep 06 08:03	19°♂58'09	1.37783 AU		2290 Aug 18 17:31	0°♂	
evening rise	2289 Sep 10 03:21	26°♂51'04		max. Earth dist.	2290 Aug 19 15:30	1°♂48'01	1.35915 AU
	2289 Sep 11 22:29	0°♂		evening rise	2290 Aug 23 18:08	9°♂38'36	
desc. node	2289 Sep 20 04:32	13°♂40'19			2290 Sep 04 13:01	0°♂	
	2289 Oct 01 04:17	0°♂		desc. node	2290 Sep 07 01:33	3°♂57'47	
evening max el	2289 Oct 15 20:09	17°♂49'10	25°11'10		2290 Sep 26 20:45	0°♂	
retrograde	2289 Oct 27 17:52	24°♂42'17		evening max el	2290 Sep 28 08:10	1°♂28'30	26°16'51
evening set	2289 Nov 02 12:01	22°♂18'20		retrograde	2290 Oct 11 01:13	8°♂39'10	

evening set	2290 Oct 17 09:15	6°♄02'51		min. Earth dist.	2291 Oct 04 20:51	15°♄47'00	0.65280 AU
min. Earth dist.	2290 Oct 21 14:01	1°♄36'54	0.66440 AU	inferior conj	2291 Oct 06 21:26	13°♄29'11	-2°-17'-4
	2290 Oct 22 21:34	30°♄		minimum elong	2291 Oct 07 01:07	13°♄18'43	2°15'41
inferior conj	2290 Oct 23 02:31	29°♄44'47	-1°-18'-9	morning rise	2291 Oct 13 04:58	7°♄51'39	
minimum elong	2290 Oct 23 04:35	29°♄38'23	1°17'18	asc. node	2291 Oct 13 19:14	7°♄36'25	
asc. node	2290 Oct 26 22:11	25°♄29'24		direct	2291 Oct 15 21:19	7°♄12'47	
morning rise	2290 Oct 29 01:04	23°♄54'16		morning max el	2291 Oct 22 09:46	10°♄43'41	18°10'17
direct	2290 Nov 01 01:08	23°♄02'55			2291 Nov 04 19:11	0°♄	
morning max el	2290 Nov 07 19:32	26°♄47'30	18°44'44	morning set	2291 Nov 09 19:18	8°♄13'58	
	2290 Nov 10 15:34	0°♄		desc. node	2291 Nov 20 21:51	26°♄16'36	
morning set	2290 Nov 28 22:29	27°♄31'21			2291 Nov 23 05:55	0°♄	
	2290 Nov 30 12:06	0°♄					
desc. node	2290 Dec 04 00:51	5°♄34'20		superior conj	2291 Nov 24 09:56	1°♄51'08	0°-23'-25
max. Earth dist.	2290 Dec 14 14:45	22°♄11'50	1.45100 AU	minimum elong	2291 Nov 24 06:56	1°♄39'16	0°23'01
				max. Earth dist.	2291 Nov 27 09:50	6°♄35'00	1.45038 AU
superior conj	2290 Dec 15 06:20	23°♄13'03	-1°-10'-45	evening rise	2291 Dec 10 20:43	27°♄35'01	
minimum elong	2290 Dec 14 22:02	22°♄40'25	1°09'49		2291 Dec 12 10:04	0°♄	
	2290 Dec 19 13:45	0°♄		greatest brilliancy	2291 Dec 27 11:03	22°♄53'04	-0.7m
evening rise	2290 Dec 30 21:21	18°♄00'36			2292 Jan 01 17:42	0°♄	
	2291 Jan 07 08:28	0°♄		evening max el	2292 Jan 04 11:05	3°♄05'37	19°36'09
evening max el	2291 Jan 21 03:49	19°♄36'14	18°49'23	asc. node	2292 Jan 09 18:31	6°♄57'31	
asc. node	2291 Jan 22 21:29	21°♄12'33		retrograde	2292 Jan 11 18:38	7°♄19'31	
retrograde	2291 Jan 27 21:42	23°♄23'20		evening set	2292 Jan 15 06:02	6°♄08'50	
evening set	2291 Jan 31 01:46	22°♄25'43		inferior conj	2292 Jan 20 19:05	0°♄10'03	3°06'45
inferior conj	2291 Feb 05 19:28	16°♄42'10	3°30'43	minimum elong	2292 Jan 20 16:36	0°♄18'10	3°06'12
minimum elong	2291 Feb 05 17:41	16°♄47'40	3°30'28		2292 Jan 20 22:08	30°♄	
min. Earth dist.	2291 Feb 07 13:21	14°♄33'11	0.65387 AU	min. Earth dist.	2292 Jan 21 22:18	28°♄40'43	0.66583 AU
morning rise	2291 Feb 11 08:29	10°♄30'10		morning rise	2292 Jan 26 02:28	23°♄55'31	
direct	2291 Feb 17 22:55	7°♄39'38		direct	2292 Feb 01 05:04	21°♄13'19	
desc. node	2291 Mar 02 00:02	14°♄18'22		morning max el	2292 Feb 13 11:39	28°♄31'24	25°42'53
morning max el	2291 Mar 03 02:32	15°♄23'23	26°52'19		2292 Feb 14 21:43	0°♄	
	2291 Mar 15 02:50	0°♄		desc. node	2292 Feb 16 21:04	2°♄11'06	
	2291 Apr 02 22:19	0°♄			2292 Mar 07 21:24	0°♄	
morning set	2291 Apr 07 21:12	9°♄11'40		morning set	2292 Mar 20 16:41	21°♄50'44	
max. Earth dist.	2291 Apr 12 07:11	17°♄51'31	1.34278 AU	max. Earth dist.	2292 Mar 24 12:39	29°♄00'23	1.35882 AU
					2292 Mar 25 01:08	0°♄	
superior conj	2291 Apr 16 09:49	26°♄16'36	0°-45'-17				
minimum elong	2291 Apr 16 12:07	26°♄28'37	0°44'50	superior conj	2292 Mar 30 03:09	9°♄59'22	-1°-12'-49
	2291 Apr 18 04:31	0°♄		minimum elong	2292 Mar 30 06:47	10°♄17'38	1°12'14
asc. node	2291 Apr 20 20:46	5°♄38'46		asc. node	2292 Apr 06 17:49	25°♄31'21	
evening rise	2291 Apr 23 22:01	12°♄03'18		evening rise	2292 Apr 07 04:09	26°♄24'02	
	2291 May 03 05:58	0°♄			2292 Apr 08 22:53	0°♄	
evening max el	2291 May 13 16:00	14°♄02'39	21°21'22	evening max el	2292 Apr 24 23:32	25°♄17'31	20°03'56
retrograde	2291 May 25 17:47	19°♄56'58			2292 May 02 17:46	0°♄	
evening set	2291 May 28 02:25	19°♄44'13		retrograde	2292 May 05 08:15	0°♄18'30	
desc. node	2291 May 28 23:14	19°♄33'25		evening set	2292 May 07 08:42	0°♄07'55	
inferior conj	2291 Jun 06 11:24	15°♄45'00	-2°-25'-36		2292 May 08 00:39	30°♄	
minimum elong	2291 Jun 06 04:49	15°♄54'14	2°23'24	desc. node	2292 May 14 20:15	27°♄01'50	
min. Earth dist.	2291 Jun 06 16:24	15°♄37'59	0.54897 AU	inferior conj	2292 May 16 08:10	26°♄08'38	0°-26'-14
morning rise	2291 Jun 15 07:28	11°♄47'25		minimum elong	2292 May 16 06:57	26°♄10'27	0°25'48
direct	2291 Jun 18 15:05	11°♄23'30		min. Earth dist.	2292 May 18 05:31	25°♄00'47	0.55307 AU
morning max el	2291 Jul 01 05:13	17°♄21'42	22°16'25	morning rise	2292 May 25 02:35	21°♄47'01	
	2291 Jul 11 06:02	0°♄		direct	2292 May 29 04:20	21°♄10'48	
asc. node	2291 Jul 17 20:01	11°♄33'56		morning max el	2292 Jun 11 21:15	27°♄56'08	23°58'25
morning set	2291 Jul 22 18:44	21°♄32'15			2292 Jun 13 22:33	0°♄	
	2291 Jul 26 18:40	0°♄			2292 Jul 03 03:10	0°♄	
				asc. node	2292 Jul 03 17:03	1°♄10'13	
superior conj	2291 Jul 30 00:11	6°♄51'54	1°38'09	morning set	2292 Jul 06 06:26	6°♄28'09	
minimum elong	2291 Jul 29 22:25	6°♄42'36	1°38'01				
max. Earth dist.	2291 Aug 02 07:31	13°♄45'43	1.34387 AU	superior conj	2292 Jul 13 07:42	21°♄39'53	1°26'00
evening rise	2291 Aug 07 00:37	23°♄11'59		minimum elong	2292 Jul 13 05:23	21°♄27'21	1°25'44
	2291 Aug 10 14:36	0°♄		max. Earth dist.	2292 Jul 15 08:51	26°♄04'07	1.33253 AU
desc. node	2291 Aug 24 22:34	23°♄53'43			2292 Jul 17 05:22	0°♄	
	2291 Aug 29 04:45	0°♄		evening rise	2292 Jul 20 18:39	7°♄19'16	
evening max el	2291 Sep 10 20:31	15°♄01'05	27°03'58		2292 Aug 02 02:53	0°♄	
retrograde	2291 Sep 24 02:58	22°♄18'34		desc. node	2292 Aug 10 19:34	13°♄19'04	
evening set	2291 Sep 30 22:57	19°♄36'19		evening max el	2292 Aug 23 07:53	28°♄15'23	27°25'26

	2292 Aug 25 06:10	0°♄		evening max el	2293 Aug 05 15:40	10°♎56'37	27°15'50
retrograde	2292 Sep 05 22:35	5°♄32'46		retrograde	2293 Aug 19 11:29	18°♎11'37	
evening set	2292 Sep 13 02:17	2°♄54'01		evening set	2293 Aug 26 15:29	15°♎48'32	
	2292 Sep 16 10:09	30°♎		min. Earth dist.	2293 Aug 30 05:46	13°♎00'35	0.61944 AU
min. Earth dist.	2292 Sep 16 18:35	29°♎39'06	0.63772 AU	inferior conj	2293 Sep 02 06:27	10°♎15'11	-4°-6'-6
inferior conj	2292 Sep 19 07:47	27°♎02'09	-3°-14'-27	minimum elong	2293 Sep 02 11:52	10°♎02'50	4°04'50
minimum elong	2292 Sep 19 12:47	26°♎49'16	3°12'51	morning rise	2293 Sep 09 11:04	5°♎14'18	
morning rise	2292 Sep 26 01:31	21°♎41'09		direct	2293 Sep 11 19:56	4°♎50'05	
direct	2292 Sep 28 12:46	21°♎11'06		asc. node	2293 Sep 16 13:19	6°♎29'28	
asc. node	2292 Sep 29 16:16	21°♎17'42		morning max el	2293 Sep 18 17:15	8°♎18'33	17°54'18
morning max el	2292 Oct 05 02:00	24°♎36'37	17°53'10		2293 Oct 02 20:01	0°♄	
	2292 Oct 09 11:33	0°♄		morning set	2293 Oct 04 14:36	3°♄12'40	
morning set	2292 Oct 21 18:47	20°♄14'25					
	2292 Oct 27 11:27	0°♌		superior conj	2293 Oct 15 09:25	22°♄22'36	1°00'45
				minimum elong	2293 Oct 15 13:54	22°♄41'55	1°00'11
superior conj	2292 Nov 03 08:11	11°♌27'00	0°23'18		2293 Oct 19 21:21	0°♌	
minimum elong	2292 Nov 03 10:40	11°♌37'10	0°22'57	max. Earth dist.	2293 Oct 22 17:50	4°♌42'59	1.42850 AU
desc. node	2292 Nov 06 18:53	17°♌03'09		desc. node	2293 Oct 24 15:54	7°♌50'16	
max. Earth dist.	2292 Nov 09 03:54	20°♌51'48	1.44258 AU	evening rise	2293 Oct 29 18:19	15°♌57'31	
	2292 Nov 14 22:55	0°♊			2293 Nov 07 22:32	0°♊	
evening rise	2292 Nov 19 06:25	6°♊40'59		greatest brilliancy	2293 Nov 25 14:35	24°♊40'05	-0.4m
	2292 Dec 04 19:03	0°♊			2293 Nov 30 06:50	0°♊	
greatest brilliancy	2292 Dec 11 16:55	9°♊38'05	-0.5m	evening max el	2293 Nov 30 09:33	0°♊06'57	21°49'45
evening max el	2292 Dec 17 13:09	16°♊36'00	20°37'20	retrograde	2293 Dec 09 13:31	5°♊34'17	
retrograde	2292 Dec 25 16:33	21°♊24'21		evening set	2293 Dec 13 20:47	3°♊53'00	
asc. node	2292 Dec 26 15:33	21°♊19'14		asc. node	2293 Dec 13 12:35	4°♊08'41	
evening set	2292 Dec 29 12:59	19°♊59'02			2293 Dec 17 11:00	30°♎♊	
inferior conj	2293 Jan 03 23:24	13°♊47'51	2°33'08	inferior conj	2293 Dec 19 06:17	27°♊32'51	1°51'49
minimum elong	2293 Jan 03 20:49	13°♊56'41	2°32'21	minimum elong	2293 Dec 19 04:03	27°♊40'34	1°51'00
min. Earth dist.	2293 Jan 04 13:29	12°♊59'46	0.67373 AU	min. Earth dist.	2293 Dec 19 08:39	27°♊24'36	0.67780 AU
morning rise	2293 Jan 09 04:11	7°♊32'39		morning rise	2293 Dec 24 11:05	21°♊18'47	
direct	2293 Jan 14 16:18	5°♊07'39		direct	2293 Dec 29 07:59	19°♊15'35	
morning max el	2293 Jan 25 20:03	11°♊46'50	24°18'49	morning max el	2294 Jan 08 05:56	25°♊08'01	22°50'12
desc. node	2293 Feb 02 18:07	20°♊58'27			2294 Jan 12 15:07	0°♊	
	2293 Feb 09 10:25	0°♐		greatest brilliancy	2294 Jan 12 21:52	0°♊20'17	-0.3m
	2293 Feb 28 15:57	0°♐		desc. node	2294 Jan 20 15:09	10°♊24'47	
morning set	2293 Mar 02 15:55	3°♐26'40			2294 Feb 02 22:38	0°♐	
max. Earth dist.	2293 Mar 06 09:43	10°♐04'31	1.37859 AU	morning set	2294 Feb 11 12:46	13°♐44'12	
				max. Earth dist.	2294 Feb 16 05:16	21°♐37'33	1.40006 AU
superior conj	2293 Mar 13 09:05	23°♐04'23	-1°-37'-35		2294 Feb 21 00:11	0°♐	
minimum elong	2293 Mar 13 13:26	23°♐25'18	1°37'05				
	2293 Mar 16 22:32	0°♑		superior conj	2294 Feb 23 23:18	5°♐20'49	-1°-56'-29
evening rise	2293 Mar 22 04:03	10°♑21'01		minimum elong	2294 Feb 24 02:57	5°♐37'28	1°56'17
asc. node	2293 Mar 24 14:51	15°♑09'13		evening rise	2294 Mar 05 18:44	23°♐46'24	
	2293 Apr 02 00:30	0°♑			2294 Mar 09 01:48	0°♑	
evening max el	2293 Apr 07 18:29	7°♑12'09	19°05'33	asc. node	2294 Mar 11 11:54	4°♑26'50	
retrograde	2293 Apr 16 12:02	11°♑26'21		evening max el	2294 Mar 21 22:32	19°♑41'54	18°27'24
evening set	2293 Apr 18 14:54	11°♑12'24		retrograde	2294 Mar 29 10:39	23°♑23'55	
inferior conj	2293 Apr 26 20:18	6°♑59'15	1°21'59	evening set	2294 Mar 31 19:03	23°♑03'13	
minimum elong	2293 Apr 26 23:21	6°♑53'59	1°20'58	inferior conj	2294 Apr 08 05:36	18°♑30'24	2°39'12
min. Earth dist.	2293 Apr 29 20:46	4°♑55'18	0.56593 AU	minimum elong	2294 Apr 08 09:30	18°♑22'32	2°38'16
desc. node	2293 May 01 17:18	3°♑45'19		min. Earth dist.	2294 Apr 11 16:05	15°♑45'28	0.58481 AU
morning rise	2293 May 05 03:36	2°♑03'09		morning rise	2294 Apr 15 19:45	13°♑02'57	
direct	2293 May 10 05:27	1°♑02'49		desc. node	2294 Apr 18 14:20	11°♑55'59	
morning max el	2293 May 24 11:44	8°♑22'49	25°36'12	direct	2294 Apr 21 20:49	11°♑28'01	
	2293 Jun 09 14:11	0°♒		morning max el	2294 May 06 06:07	19°♑09'45	26°54'01
morning set	2293 Jun 20 18:05	21°♒23'20			2294 May 15 10:09	0°♑	
asc. node	2293 Jun 20 14:05	21°♒02'18			2294 Jun 02 03:27	0°♒	
	2293 Jun 24 18:06	0°♑		morning set	2294 Jun 05 04:04	6°♒12'29	
				asc. node	2294 Jun 07 11:09	11°♒05'01	
superior conj	2293 Jun 27 18:17	6°♑35'29	1°09'16				
minimum elong	2293 Jun 27 15:55	6°♑22'34	1°08'52	superior conj	2294 Jun 12 06:05	21°♒32'44	0°48'41
max. Earth dist.	2293 Jun 28 17:08	8°♑40'37	1.32521 AU	minimum elong	2294 Jun 12 04:09	21°♒22'05	0°48'17
evening rise	2293 Jul 04 20:44	21°♑49'19		max. Earth dist.	2294 Jun 12 04:57	21°♒26'31	1.32183 AU
	2293 Jul 08 22:24	0°♓			2294 Jun 16 02:38	0°♑	
	2293 Jul 27 03:51	0°♑		evening rise	2294 Jun 19 04:15	6°♑33'56	
desc. node	2293 Jul 28 16:35	2°♑00'20			2294 Jul 01 12:20	0°♓	

desc. node	2294 Jul 15 13:36	19°♄39'09		minimum elong	2295 May 27 16:14	6°♄18'45	0°24'40
evening max el	2294 Jul 18 17:24	22°♄53'57	26°33'01	evening rise	2295 Jun 03 14:53	21°♄24'56	
	2294 Jul 31 02:31	0°♄			2295 Jun 07 18:56	0°♄	
retrograde	2294 Aug 01 16:44	0°♄06'22			2295 Jun 26 15:34	0°♄	
	2294 Aug 03 06:40	30°♄		evening max el	2295 Jun 30 12:05	4°♄04'58	25°20'31
evening set	2294 Aug 08 09:56	28°♄12'24		desc. node	2295 Jul 02 10:38	5°♄49'55	
min. Earth dist.	2294 Aug 12 06:50	25°♄36'50	0.59906 AU	retrograde	2295 Jul 14 12:16	11°♄12'20	
inferior conj	2294 Aug 15 13:58	22°♄59'25	-4°-45'-2	evening set	2295 Jul 20 05:15	9°♄56'41	
minimum elong	2294 Aug 15 17:56	22°♄51'31	4°44'32	min. Earth dist.	2295 Jul 25 00:02	7°♄14'57	0.57874 AU
morning rise	2294 Aug 23 05:18	18°♄21'10		inferior conj	2295 Jul 28 02:59	5°♄05'35	-5°00'-10
direct	2294 Aug 25 14:38	18°♄00'21		minimum elong	2295 Jul 28 02:51	5°♄05'48	5°00'12
morning max el	2294 Sep 02 04:19	21°♄41'11	18°14'48	morning rise	2295 Aug 05 04:07	0°♄50'01	
asc. node	2294 Sep 03 10:22	22°♄58'49		direct	2295 Aug 07 16:39	0°♄30'43	
	2294 Sep 08 14:29	0°♄		morning max el	2295 Aug 16 07:59	4°♄35'05	18°55'59
morning set	2294 Sep 18 01:03	16°♄52'38		asc. node	2295 Aug 21 07:25	10°♄30'35	
	2294 Sep 25 00:24	0°♄			2295 Sep 01 09:00	0°♄	
				morning set	2295 Sep 01 21:48	1°♄02'47	
superior conj	2294 Sep 27 11:38	4°♄31'33	1°26'18	superior conj	2295 Sep 10 09:22	17°♄38'21	1°40'37
minimum elong	2294 Sep 27 15:25	4°♄48'44	1°25'55	minimum elong	2295 Sep 10 11:23	17°♄47'58	1°40'31
max. Earth dist.	2294 Oct 05 01:58	17°♄53'25	1.41000 AU		2295 Sep 17 01:23	0°♄	
evening rise	2294 Oct 09 23:32	26°♄03'09			2295 Sep 17 06:07	0°♄21'16	1.38951 AU
desc. node	2294 Oct 11 12:55	28°♄34'43		max. Earth dist.	2295 Sep 21 04:37	7°♄15'22	
	2294 Oct 12 10:10	0°♄		evening rise	2295 Sep 28 09:57	19°♄12'44	
	2294 Nov 01 17:13	0°♄		desc. node	2295 Oct 05 09:51	0°♄	
greatest brilliancy	2294 Nov 06 23:04	6°♄46'56	-0.2m		2295 Oct 26 14:05	27°♄17'54	24°28'10
evening max el	2294 Nov 13 01:10	13°♄40'09	23°08'42	evening max el	2295 Oct 29 13:09	0°♄	
retrograde	2294 Nov 23 07:58	19°♄46'01			2295 Nov 06 22:40	3°♄56'10	
evening set	2294 Nov 28 03:48	17°♄47'56		retrograde	2295 Nov 12 08:24	1°♄41'28	
asc. node	2294 Nov 30 09:37	15°♄32'08		evening set	2295 Nov 14 02:01	30°♄	
min. Earth dist.	2294 Dec 03 05:26	11°♄51'41	0.67839 AU		2295 Nov 17 01:21	26°♄18'58	0.67563 AU
inferior conj	2294 Dec 03 13:49	11°♄22'47	1°04'14	min. Earth dist.	2295 Nov 17 06:39	26°♄01'17	
minimum elong	2294 Dec 03 12:23	11°♄27'45	1°03'40	asc. node	2295 Nov 17 20:16	25°♄15'40	0°11'42
morning rise	2294 Dec 08 21:00	5°♄11'55		inferior conj	2295 Nov 17 19:59	25°♄16'38	0°11'35
direct	2294 Dec 13 03:16	3°♄31'32		minimum elong	2295 Nov 17 19:59	25°♄16'38	0°11'35
morning max el	2294 Dec 21 20:33	8°♄37'03	21°25'43	transit middle	2295 Nov 17 18:03	25°♄23'05	
greatest brilliancy	2294 Dec 26 22:30	14°♄24'42	-0.4m	transit begin	2295 Nov 17 21:54	25°♄10'12	
	2295 Jan 07 06:59	0°♄		transit end	2295 Nov 23 07:55	19°♄10'29	
desc. node	2295 Jan 07 12:11	0°♄18'59		morning rise	2295 Nov 27 01:00	17°♄51'31	
morning set	2295 Jan 22 04:34	22°♄39'17		direct	2295 Dec 04 18:33	22°♄17'07	20°11'49
	2295 Jan 26 18:39	0°♄		morning max el	2295 Dec 11 05:25	0°♄	
max. Earth dist.	2295 Jan 29 05:38	4°♄01'01	1.42058 AU		2295 Dec 11 12:51	0°♄24'52	-0.6m
				greatest brilliancy	2295 Dec 25 09:14	20°♄33'40	
superior conj	2295 Feb 05 16:34	16°♄35'47	-2°-5'-16	desc. node	2295 Dec 31 13:19	0°♄	
minimum elong	2295 Feb 05 17:07	16°♄38'10	2°05'17		2296 Jan 01 01:42	0°♄47'49	
	2295 Feb 13 06:21	0°♄		morning set	2296 Jan 11 14:04	17°♄19'45	1.43733 AU
evening rise	2295 Feb 16 20:25	6°♄30'42		max. Earth dist.			
asc. node	2295 Feb 26 08:57	23°♄16'33					
	2295 Mar 03 00:18	0°♄		superior conj	2296 Jan 17 08:29	26°♄41'02	-1°-58'-50
evening max el	2295 Mar 05 08:19	2°♄36'56	18°09'10	minimum elong	2296 Jan 17 03:39	26°♄21'13	1°58'36
retrograde	2295 Mar 12 02:33	6°♄02'46			2296 Jan 19 08:40	0°♄	
evening set	2295 Mar 14 16:32	5°♄33'09		evening rise	2296 Jan 30 04:57	18°♄26'26	
inferior conj	2295 Mar 21 11:05	0°♄39'08	3°23'42		2296 Feb 05 21:48	0°♄	
minimum elong	2295 Mar 21 13:36	0°♄33'17	3°23'21	asc. node	2296 Feb 13 05:59	11°♄30'09	
	2295 Mar 22 03:45	30°♄		evening max el	2296 Feb 16 20:45	15°♄49'25	18°10'13
min. Earth dist.	2295 Mar 24 17:34	27°♄37'07	0.60627 AU	retrograde	2296 Feb 23 07:44	19°♄13'42	
morning rise	2295 Mar 28 07:26	24°♄50'19		evening set	2296 Feb 26 02:56	18°♄33'52	
direct	2295 Apr 04 00:11	22°♄39'41		inferior conj	2296 Mar 03 09:14	13°♄19'07	3°41'23
desc. node	2295 Apr 05 11:23	22°♄45'41		minimum elong	2296 Mar 03 09:46	13°♄17'41	3°41'21
	2295 Apr 17 17:04	0°♄		min. Earth dist.	2296 Mar 06 03:20	10°♄24'33	0.62716 AU
morning max el	2295 Apr 18 06:28	0°♄32'41	27°39'57	morning rise	2296 Mar 09 14:26	7°♄17'25	
	2295 May 09 12:02	0°♄		direct	2296 Mar 16 12:52	4°♄40'25	
morning set	2295 May 20 10:33	20°♄48'31		desc. node	2296 Mar 22 08:26	6°♄15'38	
	2295 May 24 18:45	0°♄		morning max el	2296 Mar 30 12:19	12°♄36'26	27°48'41
asc. node	2295 May 25 08:13	1°♄12'58			2296 Apr 13 09:01	0°♄	
max. Earth dist.	2295 May 26 16:28	4°♄08'39	1.32231 AU		2296 Apr 30 22:01	0°♄	
				morning set	2296 May 03 11:23	5°♄04'28	
superior conj	2295 May 27 17:20	6°♄24'49	0°24'55	max. Earth dist.	2296 May 08 23:56	16°♄34'41	1.32683 AU

superior conj	2296 May 11 02:18	21°♄05'53	0°-1'-18	max. Earth dist.	2297 Apr 21 23:30	28°♄33'31	1.33565 AU
minimum elong	2296 May 11 02:22	21°♄06'11	0°01'18		2297 Apr 22 16:12	0°♄	
behind sun begin	2296 May 10 21:10	20°♄38'05					
behind sun end	2296 May 11 07:33	21°♄34'19		superior conj	2297 Apr 25 07:06	5°♄30'01	0°-29'-3
asc. node	2296 May 11 05:17	21°♄22'00		minimum elong	2297 Apr 25 08:33	5°♄37'46	0°28'45
	2296 May 15 04:40	0°♄		asc. node	2297 Apr 28 02:19	11°♄28'05	
evening rise	2296 May 18 02:42	6°♄15'43		evening rise	2297 May 02 13:54	21°♄00'17	
	2296 May 30 16:41	0°♄			2297 May 06 23:44	0°♄	
evening max el	2296 Jun 11 02:05	14°♄41'27	23°48'45	evening max el	2297 May 23 17:51	25°♄11'14	22°12'50
desc. node	2296 Jun 18 07:39	19°♄59'09			2297 May 30 06:58	0°♄	
retrograde	2296 Jun 24 19:26	21°♄34'37		desc. node	2297 Jun 05 04:41	1°♄32'30	
evening set	2296 Jun 29 01:58	20°♄54'28		retrograde	2297 Jun 05 14:30	1°♄32'53	
min. Earth dist.	2296 Jul 05 12:35	17°♄50'35	0.56161 AU	evening set	2297 Jun 08 12:05	1°♄14'16	
inferior conj	2296 Jul 07 19:46	16°♄26'52	-4°-37'-11		2297 Jun 12 06:49	30°♄♄	
minimum elong	2296 Jul 07 14:10	16°♄35'24	4°36'23	min. Earth dist.	2297 Jun 16 23:51	27°♄35'12	0.55101 AU
morning rise	2296 Jul 16 05:46	12°♄29'29		inferior conj	2297 Jun 17 19:37	27°♄07'24	-3°-26'-1
direct	2296 Jul 18 23:37	12°♄10'19		minimum elong	2297 Jun 17 11:38	27°♄18'39	3°23'47
morning max el	2296 Jul 29 01:23	16°♄50'36	19°58'38	morning rise	2297 Jun 26 13:10	23°♄15'55	
asc. node	2296 Aug 07 04:29	28°♄50'42		direct	2297 Jun 29 14:20	22°♄55'05	
	2296 Aug 07 20:56	0°♄		morning max el	2297 Jul 11 07:19	28°♄22'40	21°21'34
morning set	2296 Aug 16 01:34	15°♄34'00			2297 Jul 12 22:42	0°♄	
	2296 Aug 23 03:49	0°♄		asc. node	2297 Jul 25 01:32	17°♄47'43	
				morning set	2297 Jul 31 09:57	0°♄19'49	
					2297 Jul 31 06:07	0°♄	
superior conj	2296 Aug 23 21:19	1°♄27'46	1°45'30				
minimum elong	2296 Aug 23 21:31	1°♄28'48	1°45'30				
max. Earth dist.	2296 Aug 29 11:11	12°♄20'06	1.36958 AU	superior conj	2297 Aug 07 19:21	15°♄48'02	1°42'41
evening rise	2296 Sep 02 08:15	19°♄31'00		minimum elong	2297 Aug 07 18:09	15°♄41'50	1°42'38
	2296 Sep 08 08:21	0°♄		max. Earth dist.	2297 Aug 11 22:18	24°♄12'46	1.35219 AU
desc. node	2296 Sep 14 06:58	9°♄39'19			2297 Aug 14 20:56	0°♄	
	2296 Sep 28 12:17	0°♄		evening rise	2297 Aug 16 06:18	2°♄39'48	
evening max el	2296 Oct 08 02:11	10°♄58'13	25°40'58	desc. node	2297 Sep 01 03:59	29°♄48'56	
retrograde	2296 Oct 20 08:39	17°♄59'22			2297 Sep 01 06:53	0°♄	
evening set	2296 Oct 26 08:50	15°♄29'48		evening max el	2297 Sep 20 14:24	24°♄35'55	26°39'28
min. Earth dist.	2296 Oct 30 17:58	10°♄42'53	0.66954 AU		2297 Sep 27 12:14	0°♄	
inferior conj	2296 Oct 31 23:48	9°♄07'51	0°-44'-36	retrograde	2297 Oct 03 13:29	1°♄50'04	
minimum elong	2296 Nov 01 00:57	9°♄04'09	0°44'07		2297 Oct 09 00:40	30°♄♄	
asc. node	2296 Nov 03 03:41	6°♄28'13		evening set	2297 Oct 10 03:09	29°♄10'06	
morning rise	2296 Nov 06 17:52	3°♄11'10		min. Earth dist.	2297 Oct 14 04:54	25°♄00'02	0.66000 AU
direct	2296 Nov 09 23:36	2°♄10'41		inferior conj	2297 Oct 15 22:29	22°♄56'21	-1°-43'-8
morning max el	2296 Nov 17 00:17	6°♄06'53	19°12'00	minimum elong	2297 Oct 16 01:16	22°♄48'05	1°42'01
greatest brilliancy	2296 Nov 27 17:17	20°♄12'30	-0.7m	asc. node	2297 Oct 21 00:43	17°♄48'01	
	2296 Dec 04 03:33	0°♄		morning rise	2297 Oct 22 00:43	17°♄11'09	
morning set	2296 Dec 10 04:20	9°♄21'34		direct	2297 Oct 24 21:16	16°♄25'33	
desc. node	2296 Dec 11 06:15	11°♄02'23		morning max el	2297 Oct 31 12:11	20°♄02'47	18°28'00
	2296 Dec 23 09:11	0°♄			2297 Nov 08 04:09	0°♄	
max. Earth dist.	2296 Dec 24 05:22	1°♄19'29	1.44810 AU	morning set	2297 Nov 20 08:07	19°♄13'44	
					2297 Nov 27 01:51	0°♄	
				desc. node	2297 Nov 28 03:15	1°♄40'49	
superior conj	2296 Dec 26 23:14	5°♄39'56	-1°-33'-26				
minimum elong	2296 Dec 26 14:25	5°♄05'00	1°32'37				
evening rise	2297 Jan 10 16:07	29°♄26'34		superior conj	2297 Dec 06 00:46	14°♄08'20	0°-51'-21
	2297 Jan 11 00:14	0°♄		minimum elong	2297 Dec 05 18:16	13°♄42'46	0°50'32
asc. node	2297 Jan 30 03:00	28°♄56'46		max. Earth dist.	2297 Dec 07 00:02	15°♄39'40	1.45169 AU
evening max el	2297 Jan 30 08:56	29°♄12'02	18°29'57		2297 Dec 16 03:16	0°♄	
	2297 Jan 31 04:46	0°♄		evening rise	2297 Dec 22 03:53	9°♄29'51	
retrograde	2297 Feb 05 21:57	2°♄47'37		greatest brilliancy	2298 Jan 03 04:56	28°♄23'56	-0.7m
evening set	2297 Feb 08 22:34	1°♄56'40			2298 Jan 04 06:13	0°♄	
	2297 Feb 11 12:07	30°♄♄		evening max el	2298 Jan 13 18:28	12°♄39'32	19°07'18
inferior conj	2297 Feb 14 19:59	26°♄22'45	3°39'02	asc. node	2298 Jan 17 00:02	15°♄23'07	
minimum elong	2297 Feb 14 18:53	26°♄26'00	3°38'56	retrograde	2298 Jan 20 17:23	16°♄37'14	
min. Earth dist.	2297 Feb 16 22:39	23°♄54'05	0.64521 AU	evening set	2298 Jan 24 00:23	15°♄34'08	
morning rise	2297 Feb 20 13:50	20°♄13'32		inferior conj	2298 Jan 29 15:48	9°♄43'29	3°21'53
direct	2297 Feb 27 09:01	17°♄24'10		minimum elong	2298 Jan 29 13:39	9°♄50'18	3°21'30
desc. node	2297 Mar 09 05:28	21°♄53'48		min. Earth dist.	2298 Jan 31 03:10	7°♄51'06	0.65943 AU
morning max el	2297 Mar 12 21:31	25°♄15'08	27°21'46	morning rise	2298 Feb 04 02:00	3°♄30'00	
	2297 Mar 17 05:53	0°♄		direct	2298 Feb 10 11:40	0°♄41'59	
	2297 Apr 06 20:20	0°♄		morning max el	2298 Feb 23 07:23	8°♄16'39	26°25'16
morning set	2297 Apr 17 03:53	18°♄52'14		desc. node	2298 Feb 24 02:29	9°♄05'35	

	2298 Mar 12 06:58	0°♂		morning max el	2299 Feb 05 16:16	21°♂29'24	25°08'17
	2298 Mar 30 06:36	0°♀		desc. node	2299 Feb 10 23:30	27°♂24'07	
morning set	2298 Mar 31 08:23	2°♀00'22			2299 Feb 13 01:57	0°≈	
max. Earth dist.	2298 Apr 04 11:59	9°♀59'16	1.34906 AU		2299 Mar 05 12:45	0°♂	
				morning set	2299 Mar 13 20:03	14°♂15'16	
superior conj	2298 Apr 09 05:23	19°♀29'52	0°-57'-9	max. Earth dist.	2299 Mar 17 13:04	21°♂01'48	1.36681 AU
minimum elong	2298 Apr 09 08:17	19°♀44'49	0°56'38		2299 Mar 22 06:01	0°♀	
	2298 Apr 14 06:42	0°♂					
asc. node	2298 Apr 14 23:20	1°♂26'47		superior conj	2299 Mar 23 18:20	2°♀57'55	-1°-23'-49
evening rise	2298 Apr 16 22:30	5°♂31'33		minimum elong	2299 Mar 23 22:23	3°♀17'55	1°23'15
	2298 Apr 30 14:48	0°♂		evening rise	2299 Apr 01 02:19	19°♀43'12	
evening max el	2298 May 05 18:28	6°♂03'56	20°46'14	asc. node	2299 Apr 01 20:23	21°♀13'53	
retrograde	2298 May 17 03:39	11°♂36'30			2299 Apr 06 08:25	0°♂	
evening set	2298 May 19 06:45	11°♂25'36		evening max el	2299 Apr 18 07:05	17°♂36'13	19°36'41
desc. node	2298 May 23 01:43	10°♂17'48		retrograde	2299 Apr 27 22:31	22°♂15'49	
inferior conj	2298 May 28 13:14	7°♂28'01	-1°-35'-38	evening set	2299 Apr 29 23:01	22°♂04'27	
minimum elong	2298 May 28 08:44	7°♂34'27	1°34'02	inferior conj	2299 May 08 15:22	18°♂00'45	0°22'40
min. Earth dist.	2298 May 29 12:11	6°♂55'14	0.54947 AU	minimum elong	2299 May 08 16:21	17°♂59'12	0°22'18
morning rise	2298 Jun 06 09:44	3°♂22'19		desc. node	2299 May 09 22:44	17°♂10'59	
direct	2298 Jun 09 23:42	2°♂54'42		min. Earth dist.	2299 May 11 02:26	16°♂27'37	0.55758 AU
morning max el	2298 Jun 23 03:19	9°♂14'04	22°59'28	morning rise	2299 May 17 06:03	13°♂24'25	
	2298 Jul 08 03:20	0°♂		direct	2299 May 21 17:36	12°♂39'22	
asc. node	2298 Jul 11 22:34	7°♂11'28		morning max el	2299 Jun 04 18:01	19°♂42'06	24°41'26
morning set	2298 Jul 15 20:54	15°♂13'08			2299 Jun 13 11:06	0°♂	
	2298 Jul 22 18:54	0°♂		asc. node	2299 Jun 28 19:38	26°♂54'56	
				morning set	2299 Jun 30 08:45	0°♂08'55	
					2299 Jun 30 07:04	0°♂	
superior conj	2298 Jul 23 00:09	0°♂28'04	1°33'38				
minimum elong	2298 Jul 22 22:05	0°♂17'04	1°33'26	superior conj	2299 Jul 07 09:13	15°♂19'59	1°19'26
max. Earth dist.	2298 Jul 25 18:13	6°♂17'36	1.33849 AU	minimum elong	2299 Jul 07 06:50	15°♂06'58	1°19'05
evening rise	2298 Jul 30 18:09	16°♂28'32		max. Earth dist.	2299 Jul 08 22:36	18°♂42'46	1.32890 AU
	2298 Aug 06 22:54	0°♂			2299 Jul 14 06:53	0°♂	
desc. node	2298 Aug 19 01:01	19°♂33'13		evening rise	2299 Jul 14 15:58	0°♂46'25	
	2298 Aug 26 19:15	0°♂			2299 Jul 30 22:32	0°♂	
evening max el	2298 Sep 03 02:20	8°♂01'23	27°16'29	desc. node	2299 Aug 05 22:03	8°♂41'32	
retrograde	2298 Sep 16 12:52	15°♂20'06		evening max el	2299 Aug 16 12:24	21°♂02'44	27°25'25
evening set	2298 Sep 23 12:52	12°♂37'36		retrograde	2299 Aug 30 05:59	28°♂19'59	
min. Earth dist.	2298 Sep 27 07:59	9°♂03'44	0.64681 AU	evening set	2299 Sep 06 10:44	25°♂46'19	
inferior conj	2298 Sep 29 14:05	6°♂36'25	-2°-41'-49	min. Earth dist.	2299 Sep 10 01:29	22°♂44'00	0.63020 AU
minimum elong	2298 Sep 29 18:24	6°♂24'38	2°40'17	inferior conj	2299 Sep 12 19:51	20°♂01'40	-3°-37'-29
morning rise	2298 Oct 06 01:53	1°♂05'48		minimum elong	2299 Sep 13 01:11	19°♂48'34	3°35'57
asc. node	2298 Oct 07 21:46	0°♂34'09		morning rise	2299 Sep 19 18:11	14°♂48'50	
direct	2298 Oct 08 15:40	0°♂31'13		direct	2299 Sep 22 03:56	14°♂21'45	
morning max el	2298 Oct 15 03:42	3°♂58'52	18°00'51	asc. node	2299 Sep 24 18:49	14°♂54'37	
	2298 Nov 01 09:27	0°♂		morning max el	2299 Sep 28 19:53	17°♂47'53	17°51'21
morning set	2298 Nov 01 16:58	0°♂31'34			2299 Oct 07 14:14	0°♂	
				morning set	2299 Oct 15 01:54	12°♂58'47	
					2299 Oct 24 21:26	0°♂	
superior conj	2298 Nov 15 10:30	23°♂06'35	0°-2'-53				
minimum elong	2298 Nov 15 10:10	23°♂05'13	0°02'51	superior conj	2299 Oct 26 20:01	3°♂15'52	0°40'35
behind sun begin	2298 Nov 14 23:47	22°♂23'33		minimum elong	2299 Oct 26 23:47	3°♂31'37	0°40'04
behind sun end	2298 Nov 15 20:33	23°♂46'48		desc. node	2299 Nov 01 21:19	13°♂12'52	
desc. node	2298 Nov 15 00:17	22°♂25'33		max. Earth dist.	2299 Nov 02 10:53	14°♂07'38	1.43722 AU
	2298 Nov 19 18:25	0°♂		evening rise	2299 Nov 11 04:20	27°♂53'12	
max. Earth dist.	2298 Nov 19 18:47	0°♂01'29	1.44787 AU		2299 Nov 12 13:13	0°♂	
evening rise	2298 Dec 01 19:52	18°♂48'10			2299 Dec 03 00:16	0°♂	
	2298 Dec 09 03:05	0°♂		greatest brilliancy	2299 Dec 05 17:04	3°♂32'49	-0.4m
greatest brilliancy	2298 Dec 21 01:18	17°♂35'27	-0.6m	evening max el	2299 Dec 10 23:17	9°♂40'18	21°07'05
evening max el	2298 Dec 27 23:36	26°♂09'24	20°00'35	retrograde	2299 Dec 19 12:49	14°♂45'01	
	2299 Jan 01 23:06	0°≈		asc. node	2299 Dec 21 18:06	14°♂17'40	
asc. node	2299 Jan 03 21:03	0°≈34'35		evening set	2299 Dec 23 13:33	13°♂13'17	
retrograde	2299 Jan 04 15:08	0°≈37'44		inferior conj	2299 Dec 28 23:24	6°♂58'02	2°16'26
	2299 Jan 07 04:17	30°♂		minimum elong	2299 Dec 28 20:55	7°♂06'37	2°15'38
evening set	2299 Jan 08 06:03	29°♂21'08		min. Earth dist.	2299 Dec 29 08:28	6°♂26'51	0.67592 AU
inferior conj	2299 Jan 13 17:44	23°♂16'35	2°53'32	morning rise	2300 Jan 03 03:53	0°♂42'56	
minimum elong	2299 Jan 13 15:09	23°♂25'15	2°52'53		2300 Jan 04 01:09	30°♂	
min. Earth dist.	2299 Jan 14 15:13	22°♂04'41	0.66961 AU	direct	2300 Jan 08 09:37	28°♂26'34	
morning rise	2299 Jan 18 23:39	17°♂01'17					
direct	2299 Jan 24 20:12	14°♂25'30					

	2300 Jan 13 05:50	0°☿		min. Earth dist.	2300 Dec 13 04:33	20°☿53'30	0.67855 AU
morning max el	2300 Jan 19 00:44	4°☿46'36	23°41'00	morning rise	2300 Dec 18 12:22	14°☿32'53	
desc. node	2300 Jan 28 20:32	16°☿29'42		direct	2300 Dec 23 03:02	12°☿39'15	
	2300 Feb 07 10:23	0°≈		morning max el	2301 Jan 01 12:05	18°☿10'33	22°13'15
morning set	2300 Feb 23 08:43	25°≈19'19		greatest brilliancy	2301 Jan 06 02:36	23°☿20'07	-0.3m
	2300 Feb 26 01:53	0°☿			2301 Jan 11 06:53	0°☿	
max. Earth dist.	2300 Feb 27 07:57	2°☿11'48	1.38768 AU	desc. node	2301 Jan 15 17:35	6°☿09'18	
					2301 Jan 31 13:57	0°≈	
superior conj	2300 Mar 06 18:09	15°☿43'45	-1°-46'-33	morning set	2301 Feb 03 16:58	5°≈00'22	
minimum elong	2300 Mar 06 22:26	16°☿03'54	1°46'10	max. Earth dist.	2301 Feb 09 05:15	14°≈06'09	1.40920 AU
	2300 Mar 14 04:08	0°☿					
evening rise	2300 Mar 15 22:39	3°☿27'19		superior conj	2301 Feb 17 00:08	27°≈35'58	-2°-1'-45
asc. node	2300 Mar 19 17:26	10°☿43'44		minimum elong	2301 Feb 17 02:48	27°≈47'51	2°01'39
	2300 Apr 01 11:47	0°☿			2301 Feb 18 08:17	0°☿	
evening max el	2300 Apr 01 06:22	29°☿47'03	18°46'53	evening rise	2301 Feb 27 08:17	16°☿36'22	
retrograde	2300 Apr 09 09:45	3°☿45'02		asc. node	2301 Mar 06 14:28	29°☿50'24	
evening set	2300 Apr 11 15:01	3°☿28'29			2301 Mar 06 16:41	0°☿	
	2300 Apr 18 07:19	30°☿		evening max el	2301 Mar 15 13:15	12°☿28'43	18°17'11
inferior conj	2300 Apr 19 12:13	29°☿07'35	1°58'55	retrograde	2301 Mar 22 16:10	16°☿01'47	
minimum elong	2300 Apr 19 16:01	29°☿00'36	1°57'47	evening set	2301 Mar 25 03:09	15°☿37'20	
min. Earth dist.	2300 Apr 22 19:10	26°☿43'36	0.57348 AU	inferior conj	2301 Apr 01 06:24	10°☿55'13	3°01'49
desc. node	2300 Apr 26 19:45	24°☿17'04		minimum elong	2301 Apr 01 09:52	10°☿47'45	3°01'08
morning rise	2300 Apr 27 12:39	23°☿57'24		min. Earth dist.	2301 Apr 04 16:29	8°☿00'10	0.59389 AU
direct	2300 May 03 01:17	22°☿42'51		morning rise	2301 Apr 08 12:51	5°☿17'43	
	2300 May 17 03:49	0°☿		desc. node	2301 Apr 13 16:47	3°☿31'15	
morning max el	2300 May 17 09:24	0°☿13'26	26°12'32	direct	2301 Apr 14 21:48	3°☿27'18	
	2300 Jun 07 06:01	0°☿		morning max el	2301 Apr 29 06:06	11°☿13'54	27°18'01
morning set	2300 Jun 14 19:54	15°☿02'04			2301 May 13 20:51	0°☿	
asc. node	2300 Jun 15 16:42	16°☿52'13		morning set	2301 May 30 04:37	29°☿46'28	
					2301 May 30 07:12	0°☿	
superior conj	2300 Jun 21 20:33	0°☿17'08	1°00'58	asc. node	2301 Jun 02 13:45	6°☿57'45	
minimum elong	2300 Jun 21 18:19	0°☿04'52	1°00'33				
	2300 Jun 21 17:26	0°☿		superior conj	2301 Jun 06 08:17	15°☿12'47	0°38'56
max. Earth dist.	2300 Jun 22 08:49	1°☿24'34	1.32330 AU	minimum elong	2301 Jun 06 06:39	15°☿03'48	0°38'36
evening rise	2300 Jun 28 20:41	15°☿24'00		max. Earth dist.	2301 Jun 05 21:10	14°☿11'33	1.32158 AU
	2300 Jul 06 06:23	0°☿		evening rise	2301 Jun 13 05:46	0°☿12'26	
desc. node	2300 Jul 23 19:04	26°☿59'07			2301 Jun 13 03:25	0°☿	
	2300 Jul 26 09:24	0°☿			2301 Jun 29 13:15	0°☿	
evening max el	2300 Jul 29 18:11	3°☿27'36	27°01'47	desc. node	2301 Jul 10 16:06	14°☿04'20	
retrograde	2300 Aug 12 15:49	10°☿41'01		evening max el	2301 Jul 11 17:01	15°☿05'21	26°05'24
evening set	2300 Aug 19 16:35	8°☿29'13		retrograde	2301 Jul 25 16:46	22°☿15'23	
min. Earth dist.	2300 Aug 23 08:27	5°☿48'20	0.61087 AU	evening set	2301 Aug 01 01:33	20°☿37'07	
inferior conj	2300 Aug 26 12:35	3°☿04'22	-4°-24'-47	min. Earth dist.	2301 Aug 05 05:36	18°☿01'28	0.59026 AU
minimum elong	2300 Aug 26 17:40	2°☿53'22	4°23'49	inferior conj	2301 Aug 08 12:37	15°☿33'43	-4°-55'-10
	2300 Aug 30 09:18	30°☿		minimum elong	2301 Aug 08 15:09	15°☿28'56	4°55'01
morning rise	2300 Sep 02 21:46	28°☿12'30		morning rise	2301 Aug 16 08:13	11°☿05'14	
direct	2300 Sep 05 06:29	27°☿49'57		direct	2301 Aug 18 18:48	10°☿45'07	
	2300 Sep 10 19:52	0°☿		morning max el	2301 Aug 26 17:58	14°☿34'10	18°29'46
asc. node	2300 Sep 11 15:53	0°☿41'25		asc. node	2301 Aug 29 12:57	17°☿39'10	
morning max el	2300 Sep 12 09:43	1°☿22'46	18°00'34		2301 Sep 06 09:56	0°☿	
morning set	2300 Sep 28 04:39	26°☿17'19		morning set	2301 Sep 11 19:56	10°☿11'36	
	2300 Sep 30 04:53	0°☿					
superior conj	2300 Oct 08 08:28	14°☿44'31	1°13'03	superior conj	2301 Sep 20 19:40	27°☿20'06	1°33'38
minimum elong	2300 Oct 08 12:53	15°☿03'58	1°12'32	minimum elong	2301 Sep 20 22:45	27°☿34'26	1°33'24
max. Earth dist.	2300 Oct 15 22:41	27°☿44'08	1.42106 AU		2301 Sep 22 06:19	0°☿	
	2300 Oct 17 07:33	0°☿		max. Earth dist.	2301 Sep 28 05:16	10°☿38'11	1.40139 AU
desc. node	2300 Oct 19 18:22	3°☿59'45		evening rise	2301 Oct 02 13:24	18°☿01'05	
evening rise	2300 Oct 21 22:19	7°☿28'04		desc. node	2301 Oct 06 15:25	24°☿42'04	
	2300 Nov 05 18:32	0°☿			2301 Oct 09 23:44	0°☿	
greatest brilliancy	2300 Nov 18 23:47	17°☿53'16	-0.3m		2301 Oct 31 06:09	0°☿	
evening max el	2300 Nov 23 17:39	23°☿13'08	22°22'52	evening max el	2301 Nov 06 07:51	6°☿48'12	23°42'48
retrograde	2300 Dec 03 08:45	28°☿56'33		retrograde	2301 Nov 17 01:40	13°☿08'27	
evening set	2300 Dec 07 21:13	27°☿08'14		evening set	2301 Nov 22 03:25	11°☿02'57	
asc. node	2300 Dec 08 15:07	26°☿29'01		asc. node	2301 Nov 25 12:09	7°☿24'09	
inferior conj	2300 Dec 13 06:48	20°☿45'43	1°32'20	min. Earth dist.	2301 Nov 27 01:09	5°☿21'09	0.67766 AU
minimum elong	2300 Dec 13 04:52	20°☿52'27	1°31'36	inferior conj	2301 Nov 27 14:04	4°☿37'05	0°42'31
				minimum elong	2301 Nov 27 13:05	4°☿40'28	0°42'06

	2301 Dec 01 06:41	30° \mathbb{M}		min. Earth dist.	2302 Nov 10 19:54	19° \mathbb{M} 47'09	0.67341 AU
morning rise	2301 Dec 02 22:56	28° \mathbb{M} 28'37		inferior conj	2302 Nov 11 19:29	18° \mathbb{M} 29'41	0°-11'-48
direct	2301 Dec 06 23:24	26° \mathbb{M} 57'43		minimum elong	2302 Nov 11 19:46	18° \mathbb{M} 28'43	0°11'42
	2301 Dec 13 08:53	0° \mathbb{A}		transit middle	2302 Nov 11 19:46	18° \mathbb{M} 28'43	0°11'42
morning max el	2301 Dec 15 05:46	1° \mathbb{A} 44'43	20°52'49	transit begin	2302 Nov 11 17:51	18° \mathbb{M} 35'01	
greatest brilliancy	2301 Dec 20 21:30	8° \mathbb{A} 18'56	-0.5m	transit end	2302 Nov 11 21:41	18° \mathbb{M} 22'25	
desc. node	2302 Jan 02 14:38	26° \mathbb{A} 13'19		asc. node	2302 Nov 12 09:11	17° \mathbb{M} 44'47	
	2302 Jan 05 03:18	0° \mathbb{B}		morning rise	2302 Nov 17 09:39	12° \mathbb{M} 27'55	
morning set	2302 Jan 13 22:41	13° \mathbb{B} 29'32		direct	2302 Nov 20 21:33	11° \mathbb{M} 17'27	
max. Earth dist.	2302 Jan 22 09:36	26° \mathbb{B} 56'52	1.42833 AU	morning max el	2302 Nov 28 07:13	15° \mathbb{M} 29'29	19°44'33
	2302 Jan 24 06:26	0° \approx		greatest brilliancy	2302 Dec 06 03:32	25° \mathbb{M} 12'47	-0.6m
					2302 Dec 09 11:48	0° \mathbb{A}	
superior conj	2302 Jan 29 07:04	8° \approx 22'32	-2°-4'-41	desc. node	2302 Dec 20 11:40	16° \mathbb{A} 34'29	
minimum elong	2302 Jan 29 05:31	8° \approx 15'56	2°04'40	morning set	2302 Dec 23 18:52	21° \mathbb{A} 39'28	
evening rise	2302 Feb 10 03:17	29° \approx 02'05			2302 Dec 29 03:49	0° \mathbb{B}	
	2302 Feb 10 16:16	0° \mathbb{H}		max. Earth dist.	2303 Jan 04 20:55	10° \mathbb{B} 33'58	1.44264 AU
asc. node	2302 Feb 21 11:29	18° \mathbb{H} 26'29					
evening max el	2302 Feb 27 00:30	25° \mathbb{H} 32'37	18°07'12	superior conj	2303 Jan 09 11:38	17° \mathbb{B} 57'11	-1°-50'-25
retrograde	2302 Mar 05 14:33	28° \mathbb{H} 56'25		minimum elong	2303 Jan 09 04:35	17° \mathbb{B} 28'47	1°49'58
evening set	2302 Mar 08 06:42	28° \mathbb{H} 22'37			2303 Jan 16 20:06	0° \approx	
inferior conj	2302 Mar 14 19:34	23° \mathbb{H} 19'22	3°34'04	evening rise	2303 Jan 23 03:11	10° \approx 35'00	
minimum elong	2302 Mar 14 21:14	23° \mathbb{H} 15'14	3°33'54		2303 Feb 03 19:52	0° \mathbb{H}	
min. Earth dist.	2302 Mar 17 21:17	20° \mathbb{H} 17'55	0.61535 AU	asc. node	2303 Feb 08 08:30	6° \mathbb{H} 21'51	
morning rise	2302 Mar 21 09:01	17° \mathbb{H} 23'59		evening max el	2303 Feb 10 13:06	8° \mathbb{H} 50'07	18°16'22
direct	2302 Mar 28 05:10	15° \mathbb{H} 00'56		retrograde	2303 Feb 17 00:07	12° \mathbb{H} 18'07	
desc. node	2302 Mar 31 13:48	15° \mathbb{H} 32'38		evening set	2303 Feb 19 21:25	11° \mathbb{H} 33'51	
morning max el	2302 Apr 11 09:18	22° \mathbb{H} 56'11	27°48'21	inferior conj	2303 Feb 25 23:34	6° \mathbb{H} 10'50	3°42'29
	2302 Apr 17 16:01	0° \mathbb{Y}		minimum elong	2303 Feb 25 23:20	6° \mathbb{H} 11'27	3°42'28
	2302 May 07 00:48	0° \mathbb{B}		min. Earth dist.	2303 Feb 28 11:19	3° \mathbb{H} 25'12	0.63520 AU
morning set	2302 May 14 09:01	14° \mathbb{B} 15'46		morning rise	2303 Mar 03 23:26	0° \mathbb{H} 05'09	
asc. node	2302 May 20 10:48	27° \mathbb{B} 07'09			2303 Mar 04 02:03	30° \mathbb{R} \approx	
max. Earth dist.	2302 May 20 07:38	26° \mathbb{B} 49'58	1.32374 AU	direct	2303 Mar 10 21:18	27° \approx 20'54	
				desc. node	2303 Mar 18 10:50	0° \mathbb{H} 01'34	
superior conj	2302 May 21 18:47	0° \mathbb{I} 01'24	0°14'03		2303 Mar 18 09:53	0° \mathbb{H}	
minimum elong	2302 May 21 18:09	29° \mathbb{B} 57'52	0°13'55	morning max el	2303 Mar 24 17:02	5° \mathbb{H} 16'56	27°41'19
behind sun begin	2302 May 21 15:40	29° \mathbb{B} 44'22			2303 Apr 12 10:01	0° \mathbb{Y}	
behind sun end	2302 May 21 20:37	0° \mathbb{I} 11'22		morning set	2303 Apr 28 06:41	28° \mathbb{Y} 21'23	
	2302 May 21 18:32	0° \mathbb{I}			2303 Apr 29 02:23	0° \mathbb{B}	
evening rise	2302 May 28 17:09	15° \mathbb{I} 04'41		max. Earth dist.	2303 May 03 12:06	9° \mathbb{B} 05'28	1.33002 AU
	2302 Jun 05 04:04	0° \mathbb{B}					
evening max el	2302 Jun 23 08:53	25° \mathbb{B} 58'33	24°42'53	superior conj	2303 May 06 02:13	14° \mathbb{B} 36'16	0°-12'-57
desc. node	2302 Jun 27 13:05	29° \mathbb{B} 28'07		minimum elong	2303 May 06 02:52	14° \mathbb{B} 39'41	0°12'49
	2302 Jun 28 07:46	0° \mathbb{Q}		behind sun begin	2303 May 05 23:41	14° \mathbb{B} 22'37	
retrograde	2302 Jul 07 07:20	3° \mathbb{Q} 02'05		behind sun end	2303 May 06 06:02	14° \mathbb{B} 56'45	
evening set	2302 Jul 12 10:40	2° \mathbb{Q} 02'21		asc. node	2303 May 07 07:49	17° \mathbb{B} 15'34	
	2302 Jul 16 13:28	30° \mathbb{R} \mathbb{B}		evening rise	2303 May 13 04:55	29° \mathbb{B} 53'34	
min. Earth dist.	2302 Jul 17 20:06	29° \mathbb{B} 13'01	0.57089 AU		2303 May 13 06:08	0° \mathbb{I}	
inferior conj	2302 Jul 20 16:57	27° \mathbb{B} 21'00	-4°-55'-56		2303 May 30 06:51	0° \mathbb{B}	
minimum elong	2302 Jul 20 14:29	27° \mathbb{B} 25'02	4°55'47	evening max el	2303 Jun 04 22:33	6° \mathbb{B} 28'00	23°07'30
morning rise	2302 Jul 28 22:03	23° \mathbb{B} 14'34		desc. node	2303 Jun 14 10:05	12° \mathbb{B} 34'45	
direct	2302 Jul 31 12:39	22° \mathbb{B} 55'31		retrograde	2303 Jun 18 09:35	13° \mathbb{B} 10'49	
morning max el	2302 Aug 09 17:35	27° \mathbb{B} 13'08	19°20'05	evening set	2303 Jun 22 00:40	12° \mathbb{B} 41'58	
	2302 Aug 12 08:25	0° \mathbb{Q}		min. Earth dist.	2303 Jun 29 08:00	9° \mathbb{B} 24'26	0.55610 AU
asc. node	2302 Aug 16 10:00	5° \mathbb{Q} 33'07		inferior conj	2303 Jul 01 01:41	8° \mathbb{B} 23'37	-4°-12'-59
morning set	2302 Aug 26 19:57	24° \mathbb{Q} 31'28		minimum elong	2303 Jun 30 18:24	8° \mathbb{B} 34'16	4°11'28
	2302 Aug 29 13:36	0° \mathbb{M}		morning rise	2303 Jul 09 15:10	4° \mathbb{B} 30'39	
				direct	2303 Jul 12 11:28	4° \mathbb{B} 11'17	
superior conj	2302 Sep 04 00:02	10° \mathbb{M} 46'56	1°43'44	morning max el	2303 Jul 23 06:13	9° \mathbb{B} 11'01	20°31'38
minimum elong	2302 Sep 04 01:15	10° \mathbb{M} 52'51	1°43'42	asc. node	2303 Aug 03 07:03	24° \mathbb{B} 10'16	
max. Earth dist.	2302 Sep 10 08:52	22° \mathbb{M} 50'12	1.38079 AU		2303 Aug 06 11:24	0° \mathbb{Q}	
evening rise	2302 Sep 14 04:25	29° \mathbb{M} 40'48		morning set	2303 Aug 11 01:56	9° \mathbb{Q} 09'30	
	2302 Sep 14 08:48	0° \mathbb{A}					
desc. node	2302 Sep 23 12:26	15° \mathbb{A} 15'43		superior conj	2303 Aug 18 16:44	24° \mathbb{Q} 51'02	1°45'09
	2302 Oct 03 07:41	0° \mathbb{M}		minimum elong	2303 Aug 18 16:17	24° \mathbb{Q} 48'44	1°45'09
evening max el	2302 Oct 19 19:58	20° \mathbb{M} 26'20	25°00'21		2303 Aug 21 06:08	0° \mathbb{M}	
retrograde	2302 Oct 31 14:32	27° \mathbb{M} 16'16		max. Earth dist.	2303 Aug 23 15:28	4° \mathbb{M} 41'35	1.36174 AU
evening set	2302 Nov 06 06:28	24° \mathbb{M} 54'36		evening rise	2303 Aug 27 16:28	12° \mathbb{M} 20'54	

	2303 Sep 06 20:46	0°♄		desc. node	2304 Aug 27 06:27	25°♄35'59	
desc. node	2303 Sep 10 09:26	5°♄35'59			2304 Aug 30 06:44	0°♄	
	2303 Sep 28 09:56	0°♄		evening max el	2304 Sep 13 20:27	17°♄41'20	26°58'24
evening max el	2303 Oct 02 08:02	4°♄06'35	26°08'08	retrograde	2304 Sep 27 01:07	24°♄57'55	
retrograde	2303 Oct 14 22:37	11°♄15'12		evening set	2304 Oct 03 19:34	22°♄16'07	
evening set	2303 Oct 21 04:36	8°♄40'34		min. Earth dist.	2304 Oct 07 18:29	18°♄21'25	0.65478 AU
min. Earth dist.	2303 Oct 25 10:30	4°♄09'03	0.66581 AU	inferior conj	2304 Oct 09 17:12	16°♄07'12	-2°-8'-12
inferior conj	2303 Oct 26 21:13	2°♄21'17	-1°-9'-16	minimum elong	2304 Oct 09 20:40	15°♄57'16	2°06'51
minimum elong	2303 Oct 26 23:03	2°♄15'35	1°08'31	morning rise	2304 Oct 15 23:19	10°♄27'30	
	2303 Oct 28 20:07	30°♄		asc. node	2304 Oct 16 03:17	10°♄22'46	
asc. node	2303 Oct 30 06:14	28°♄28'42		direct	2304 Oct 18 16:43	9°♄46'57	
morning rise	2303 Nov 01 18:32	26°♄28'57		morning max el	2304 Oct 25 05:32	13°♄19'08	18°14'20
direct	2303 Nov 04 20:01	25°♄35'22			2304 Nov 06 02:05	0°♄	
morning max el	2303 Nov 11 15:50	29°♄22'45	18°51'16	morning set	2304 Nov 12 23:12	11°♄12'58	
	2303 Nov 12 06:14	0°♄		desc. node	2304 Nov 23 05:43	27°♄49'36	
	2303 Dec 02 19:49	0°♄			2304 Nov 24 14:27	0°♄	
morning set	2303 Dec 03 06:44	0°♄42'57		superior conj	2304 Nov 27 20:57	5°♄11'06	0°-30'-49
desc. node	2303 Dec 07 08:42	7°♄08'06		minimum elong	2304 Nov 27 16:59	4°♄55'25	0°30'17
max. Earth dist.	2303 Dec 18 13:33	24°♄43'15	1.45047 AU	max. Earth dist.	2304 Nov 30 08:44	9°♄06'43	1.45098 AU
					2304 Dec 13 17:27	0°♄	
superior conj	2303 Dec 19 18:38	26°♄37'34	-1°-17'-11	evening rise	2304 Dec 14 06:46	0°♄51'54	
minimum elong	2303 Dec 19 09:57	26°♄03'26	1°16'14	greatest brilliancy	2304 Dec 29 21:00	24°♄47'57	-0.7m
	2303 Dec 21 22:01	0°♄			2305 Jan 02 13:46	0°♄	
evening rise	2304 Jan 04 04:24	21°♄10'34		evening max el	2305 Jan 07 08:25	5°♄44'59	19°28'13
	2304 Jan 09 15:15	0°♄		asc. node	2305 Jan 12 02:34	9°♄21'31	
evening max el	2304 Jan 25 00:30	22°♄15'58	18°43'49	retrograde	2305 Jan 14 13:29	9°♄54'20	
asc. node	2304 Jan 26 05:32	23°♄25'04		evening set	2305 Jan 17 23:44	8°♄45'34	
retrograde	2304 Jan 31 16:51	25°♄59'36		inferior conj	2305 Jan 23 13:19	2°♄48'47	3°11'01
evening set	2304 Feb 03 20:00	25°♄03'45		minimum elong	2305 Jan 23 10:55	2°♄56'36	3°10'32
inferior conj	2304 Feb 09 14:35	19°♄22'44	3°33'17	min. Earth dist.	2305 Jan 24 18:35	1°♄13'30	0.66430 AU
minimum elong	2304 Feb 09 12:58	19°♄27'41	3°33'06		2305 Jan 25 17:45	30°♄	
min. Earth dist.	2304 Feb 11 10:45	17°♄08'21	0.65177 AU	morning rise	2305 Jan 28 21:20	26°♄34'34	
morning rise	2304 Feb 15 04:45	13°♄11'25		direct	2305 Feb 04 01:52	23°♄50'36	
direct	2304 Feb 21 20:39	10°♄20'42			2305 Feb 15 06:08	0°♄	
desc. node	2304 Mar 04 07:53	16°♄23'25		morning max el	2305 Feb 16 12:00	1°♄13'11	25°54'27
morning max el	2304 Mar 06 02:40	18°♄06'37	27°00'46	desc. node	2305 Feb 19 04:54	4°♄06'05	
	2304 Mar 16 02:58	0°♄			2305 Mar 10 03:57	0°♄	
	2304 Apr 04 08:10	0°♄		morning set	2305 Mar 24 16:37	24°♄41'23	
morning set	2304 Apr 10 18:35	11°♄53'59			2305 Mar 27 12:41	0°♄	
max. Earth dist.	2304 Apr 15 06:55	20°♄48'55	1.34081 AU	max. Earth dist.	2305 Mar 28 14:19	2°♄02'33	1.35614 AU
				superior conj	2305 Apr 02 23:20	12°♄39'18	-1°-8'-45
superior conj	2304 Apr 19 04:35	28°♄51'23	0°-41'00	minimum elong	2305 Apr 03 02:48	12°♄56'48	1°08'11
minimum elong	2304 Apr 19 06:40	29°♄02'18	0°40'36	asc. node	2305 Apr 10 01:54	27°♄13'56	
	2304 Apr 19 17:41	0°♄		evening rise	2305 Apr 10 22:08	28°♄57'35	
asc. node	2304 Apr 23 04:51	7°♄19'12			2305 Apr 11 10:22	0°♄	
evening rise	2304 Apr 26 15:15	14°♄33'18		evening max el	2305 Apr 28 23:22	28°♄14'54	20°14'20
	2304 May 04 12:16	0°♄			2305 Apr 30 23:03	0°♄	
evening max el	2304 May 16 17:36	17°♄05'22	21°34'16	retrograde	2305 May 09 14:24	3°♄24'03	
retrograde	2304 May 29 00:38	23°♄06'58		evening set	2305 May 11 15:12	3°♄13'33	
desc. node	2304 May 31 07:07	22°♄55'17		desc. node	2305 May 18 04:08	0°♄42'17	
evening set	2304 May 31 12:03	22°♄53'06			2305 May 19 10:08	30°♄	
inferior conj	2304 Jun 09 21:13	18°♄52'31	-2°-42'-27	inferior conj	2305 May 20 16:49	29°♄15'05	0°-44'-22
minimum elong	2304 Jun 09 14:04	19°♄02'30	2°40'10	minimum elong	2305 May 20 14:44	29°♄18'10	0°43'37
min. Earth dist.	2304 Jun 09 19:47	18°♄54'31	0.54921 AU	min. Earth dist.	2305 May 22 08:38	28°♄16'23	0.55185 AU
morning rise	2304 Jun 18 16:48	14°♄57'09		morning rise	2305 May 29 12:06	24°♄58'11	
direct	2304 Jun 21 22:36	14°♄34'11		direct	2305 Jun 02 10:33	24°♄24'37	
morning max el	2304 Jul 04 07:27	20°♄24'27	22°01'49		2305 Jun 14 20:29	0°♄	
	2304 Jul 12 07:13	0°♄		morning max el	2305 Jun 16 00:24	1°♄03'17	23°43'07
asc. node	2304 Jul 20 04:06	13°♄19'50			2305 Jul 05 14:18	0°♄	
morning set	2304 Jul 25 11:37	23°♄59'11		asc. node	2305 Jul 07 01:09	2°♄53'29	
	2304 Jul 28 08:08	0°♄		morning set	2305 Jul 09 23:14	8°♄55'12	
				superior conj	2305 Jul 17 00:54	24°♄07'23	1°28'11
superior conj	2304 Aug 01 17:58	9°♄20'44	1°39'32	minimum elong	2305 Jul 16 22:38	23°♄55'10	1°27'55
minimum elong	2304 Aug 01 16:20	9°♄12'09	1°39'25	max. Earth dist.	2305 Jul 19 06:23	28°♄53'49	1.33398 AU
max. Earth dist.	2304 Aug 05 06:15	16°♄38'04	1.34590 AU				
evening rise	2304 Aug 09 20:56	25°♄48'34					
	2304 Aug 12 01:43	0°♄					

	2305 Jul 19 18:52	0°♎		max. Earth dist.	2306 Jul 02 13:47	11°♊27'51	1.32606 AU
evening rise	2305 Jul 24 13:31	9°♎51'50		evening rise	2306 Jul 08 14:37	24°♊19'09	
	2305 Aug 04 10:33	0°♏			2306 Jul 11 10:03	0°♎	
desc. node	2305 Aug 14 03:29	15°♏07'00			2306 Jul 29 02:49	0°♏	
	2305 Aug 26 07:47	0°♏		desc. node	2306 Aug 01 00:31	3°♏56'01	
evening max el	2305 Aug 27 08:04	0°♏59'08	27°23'59	evening max el	2306 Aug 09 16:27	13°♏45'49	27°19'17
retrograde	2305 Sep 09 21:39	8°♏16'46		retrograde	2306 Aug 23 11:45	21°♏01'37	
evening set	2305 Sep 17 00:40	5°♏36'37		evening set	2306 Aug 30 16:17	18°♏35'13	
min. Earth dist.	2305 Sep 20 17:37	2°♏17'04	0.64024 AU	min. Earth dist.	2306 Sep 03 06:26	15°♏44'00	0.62233 AU
	2305 Sep 22 22:16	30°♏		inferior conj	2306 Sep 06 05:38	12°♏58'51	-3°-58'-56
inferior conj	2305 Sep 23 05:01	29°♏42'18	-3°-6'-2	minimum elong	2306 Sep 06 11:05	12°♏46'11	3°57'35
minimum elong	2305 Sep 23 09:52	29°♏29'38	3°04'26	morning rise	2306 Sep 13 08:38	7°♏54'53	
morning rise	2305 Sep 29 21:12	24°♏18'46		direct	2306 Sep 15 17:36	7°♏30'03	
direct	2305 Oct 02 09:03	23°♏47'38		asc. node	2306 Sep 19 21:24	8°♏48'32	
asc. node	2305 Oct 03 00:20	23°♏49'42		morning max el	2306 Sep 22 13:19	10°♏57'38	17°52'56
morning max el	2305 Oct 08 21:42	27°♏13'16	17°54'35		2306 Oct 05 05:19	0°♏	
	2305 Oct 11 08:34	0°♏		morning set	2306 Oct 08 12:17	5°♏53'58	
morning set	2305 Oct 25 19:05	23°♏03'00					
	2305 Oct 29 20:50	0°♐		superior conj	2306 Oct 19 12:50	25°♏20'29	0°55'50
superior conj	2305 Nov 07 15:35	14°♐36'14	0°16'42	minimum elong	2306 Oct 19 17:14	25°♏39'15	0°55'15
minimum elong	2305 Nov 07 17:26	14°♐43'45	0°16'26		2306 Oct 22 06:53	0°♐	
desc. node	2305 Nov 10 02:46	18°♐35'53		max. Earth dist.	2306 Oct 26 17:44	7°♐21'29	1.43091 AU
max. Earth dist.	2305 Nov 13 03:14	23°♐25'57	1.44418 AU	desc. node	2306 Oct 27 23:50	9°♐23'36	
	2305 Nov 17 07:04	0°♑		evening rise	2306 Nov 03 04:09	19°♐12'30	
evening rise	2305 Nov 23 17:37	9°♑59'52			2306 Nov 10 04:57	0°♑	
	2305 Dec 06 23:18	0°♑		greatest brilliancy	2306 Nov 29 11:25	27°♑11'32	-0.4m
greatest brilliancy	2305 Dec 15 09:00	11°♑55'09	-0.5m		2306 Dec 01 19:32	0°♑	
evening max el	2305 Dec 21 11:17	19°♑15'03	20°27'27	evening max el	2306 Dec 04 08:29	2°♑46'10	21°38'25
retrograde	2305 Dec 29 11:27	23°♑58'07		retrograde	2306 Dec 13 08:42	8°♑07'51	
asc. node	2305 Dec 29 23:37	23°♑56'41		asc. node	2306 Dec 16 20:38	7°♑00'41	
evening set	2306 Jan 02 06:25	22°♑35'02		evening set	2306 Dec 17 14:12	6°♑29'06	
inferior conj	2306 Jan 07 17:06	16°♑25'21	2°38'45	inferior conj	2306 Dec 22 23:43	0°♑10'01	1°58'32
minimum elong	2306 Jan 07 14:29	16°♑34'13	2°38'00	minimum elong	2306 Dec 22 21:25	0°♑18'01	1°57'43
min. Earth dist.	2306 Jan 08 09:01	15°♑31'14	0.67276 AU	min. Earth dist.	2306 Dec 23 03:48	29°♑55'53	0.67742 AU
morning rise	2306 Jan 12 22:05	10°♑10'04			2306 Dec 23 02:37	30°♑	
direct	2306 Jan 18 12:22	7°♑42'13		morning rise	2306 Dec 28 04:22	23°♑55'32	
morning max el	2306 Jan 29 20:33	14°♑28'12	24°31'53	direct	2307 Jan 02 03:30	21°♑48'51	
desc. node	2306 Feb 06 01:57	22°♑46'19		morning max el	2307 Jan 12 05:59	27°♑48'45	23°03'16
	2306 Feb 11 12:54	0°♒			2307 Jan 14 07:32	0°♑	
	2306 Mar 03 01:09	0°♒		greatest brilliancy	2307 Jan 17 02:23	3°♑14'02	-0.3m
morning set	2306 Mar 06 19:16	6°♒27'52		desc. node	2307 Jan 23 23:00	12°♑07'55	
max. Earth dist.	2306 Mar 10 12:19	13°♒05'32	1.37541 AU		2307 Feb 05 05:25	0°♒	
				morning set	2307 Feb 15 20:22	16°♒57'56	
superior conj	2306 Mar 17 07:12	25°♒50'28	-1°-34'-8	max. Earth dist.	2307 Feb 20 07:17	24°♒30'57	1.39685 AU
minimum elong	2306 Mar 17 11:31	26°♒11'21	1°33'37		2307 Feb 23 10:30	0°♒	
	2306 Mar 19 10:23	0°♓		superior conj	2307 Feb 28 00:03	8°♒14'46	-1°-54'-12
evening rise	2306 Mar 25 23:09	12°♓58'38		minimum elong	2307 Feb 28 03:56	8°♒32'39	1°53'55
asc. node	2306 Mar 27 22:57	16°♓54'29		evening rise	2307 Mar 09 15:24	26°♒29'01	
	2306 Apr 04 02:45	0°♔			2307 Mar 11 11:36	0°♓	
evening max el	2306 Apr 11 16:44	10°♔03'46	19°13'02	asc. node	2307 Mar 14 20:00	6°♓15'27	
retrograde	2306 Apr 20 15:47	14°♔24'21		evening max el	2307 Mar 25 19:36	22°♓28'34	18°31'51
evening set	2306 Apr 22 17:50	14°♔11'14		retrograde	2307 Apr 02 11:21	26°♓14'13	
inferior conj	2306 May 01 02:08	10°♔00'42	1°07'15	evening set	2307 Apr 04 18:53	25°♓54'43	
minimum elong	2306 May 01 04:45	9°♔56'18	1°06'22	inferior conj	2307 Apr 12 08:08	21°♓25'10	2°29'40
min. Earth dist.	2306 May 03 23:36	8°♔04'26	0.56350 AU	minimum elong	2307 Apr 12 12:05	21°♓17'23	2°28'39
desc. node	2306 May 05 01:10	7°♔24'00		min. Earth dist.	2307 Apr 15 18:15	18°♓44'50	0.58174 AU
morning rise	2306 May 09 11:34	5°♔09'41		morning rise	2307 Apr 20 00:59	16°♓01'49	
direct	2306 May 14 09:34	4°♔13'46		desc. node	2307 Apr 21 22:10	15°♓14'09	
morning max el	2306 May 28 14:51	11°♔29'51	25°22'31	direct	2307 Apr 25 23:02	14°♓32'11	
	2306 Jun 11 19:18	0°♕		morning max el	2307 May 10 08:18	22°♓11'42	26°44'14
asc. node	2306 Jun 23 22:13	22°♕43'42			2307 May 17 05:28	0°♔	
morning set	2306 Jun 24 11:00	23°♕51'00			2307 Jun 04 14:54	0°♕	
	2306 Jun 27 07:53	0°♖		morning set	2307 Jun 08 21:19	8°♕41'08	
				asc. node	2307 Jun 10 19:16	12°♕45'02	
superior conj	2306 Jul 01 11:10	9°♖02'31	1°12'05				
minimum elong	2306 Jul 01 08:48	8°♖49'30	1°11'42	superior conj	2307 Jun 15 22:53	23°♕59'46	0°52'01

minimum elong	2307 Jun 15 20:51	23°II48'37	0°51'38			2308 May 26 08:21	0°II	
max. Earth dist.	2307 Jun 16 01:09	24°II12'17	1.32207 AU	asc. node		2308 May 27 16:20	2°II52'32	
	2307 Jun 18 16:29	0°☿		max. Earth dist.		2308 May 29 12:58	6°II55'59	1.32194 AU
evening rise	2307 Jun 22 21:26	9°☿01'55						
	2307 Jul 03 19:08	0°♊		superior conj		2308 May 30 10:18	8°II53'01	0°28'41
desc. node	2307 Jul 18 21:31	21°♊45'48		minimum elong		2308 May 30 09:03	8°II46'07	0°28'26
evening max el	2307 Jul 22 19:15	25°♊50'26	26°41'29	evening rise		2308 Jun 06 07:42	23°II52'34	
	2307 Jul 27 22:40	0°♋				2308 Jun 09 06:26	0°☿	
retrograde	2307 Aug 05 18:21	3°♋03'19				2308 Jun 27 05:53	0°♊	
evening set	2307 Aug 12 13:52	1°♋04'25		evening max el		2308 Jul 03 15:06	7°♊08'59	25°33'01
	2307 Aug 14 06:58	30°♋♊		desc. node		2308 Jul 04 18:30	8°♊12'15	
min. Earth dist.	2307 Aug 16 09:02	28°♋27'59	0.60213 AU	retrograde		2308 Jul 17 15:23	14°♊17'03	
inferior conj	2307 Aug 19 15:39	25°♋48'11	-4°-40'-24	evening set		2308 Jul 23 12:51	12°♊55'35	
minimum elong	2307 Aug 19 19:59	25°♋39'20	4°39'48	min. Earth dist.		2308 Jul 28 03:14	10°♊16'00	0.58164 AU
morning rise	2307 Aug 27 05:25	21°♋06'23		inferior conj		2308 Jul 31 07:40	8°♊01'19	-5°00'-4
direct	2307 Aug 29 14:26	20°♋45'13		minimum elong		2308 Jul 31 08:19	8°♊00'10	5°00'05
morning max el	2307 Sep 06 01:12	24°♋23'48	18°10'26	morning rise		2308 Aug 08 07:23	3°♋42'21	
asc. node	2307 Sep 06 18:27	25°♋07'14		direct		2308 Aug 10 19:19	3°♋22'53	
	2307 Sep 10 15:54	0°♌		morning max el		2308 Aug 19 06:09	7°♋22'58	18°48'27
morning set	2307 Sep 21 20:52	19°♌28'45		asc. node		2308 Aug 23 15:31	12°♋30'59	
	2307 Sep 27 11:33	0°♍		morning set		2308 Sep 02 19:58	0°♋	
						2308 Sep 04 16:19	3°♋35'37	
superior conj	2307 Oct 01 11:36	7°♍19'19	1°23'10					
minimum elong	2307 Oct 01 15:36	7°♍37'19	1°22'46	superior conj		2308 Sep 13 06:47	20°♌18'54	1°39'05
max. Earth dist.	2307 Oct 09 02:34	20°♍38'11	1.41294 AU	minimum elong		2308 Sep 13 09:05	20°♌29'49	1°38'57
evening rise	2307 Oct 14 06:08	29°♍09'26				2308 Sep 18 12:10	0°♍	
desc. node	2307 Oct 14 20:51	0°♌08'54		max. Earth dist.		2308 Sep 20 07:25	3°♍13'38	1.39264 AU
	2307 Oct 14 18:39	0°♌		evening rise		2308 Sep 24 07:38	10°♍12'02	
	2307 Nov 03 19:01	0°♎		desc. node		2308 Sep 30 17:52	20°♍48'27	
greatest brilliancy	2307 Nov 11 16:50	10°♎20'29	-0.2m			2308 Oct 06 15:47	0°♌	
evening max el	2307 Nov 17 00:45	16°♎19'24	22°56'46	evening max el		2308 Oct 29 14:01	29°♌56'50	24°16'31
retrograde	2307 Nov 27 03:34	22°♎19'38				2308 Oct 29 15:17	0°♎	
evening set	2307 Dec 01 21:24	20°♎24'13		retrograde		2308 Nov 09 18:47	6°♎30'25	
asc. node	2307 Dec 03 17:40	18°♎36'06		evening set		2308 Nov 15 02:27	4°♎18'06	
inferior conj	2307 Dec 07 07:16	13°♎59'39	1°11'51			2308 Nov 18 23:41	30°♌♌	
minimum elong	2307 Dec 07 05:41	14°♎05'07	1°11'12	asc. node		2308 Nov 19 14:42	29°♌10'27	
min. Earth dist.	2307 Dec 07 00:29	14°♎23'03	0.67854 AU	min. Earth dist.		2308 Nov 19 20:38	28°♌50'35	0.67632 AU
morning rise	2307 Dec 12 13:56	7°♎48'07		inferior conj		2308 Nov 20 13:58	27°♌52'16	0°19'58
direct	2307 Dec 16 22:22	6°♎04'15		minimum elong		2308 Nov 20 13:29	27°♌53'53	0°19'45
morning max el	2307 Dec 25 19:35	11°♎16'17	21°37'43	morning rise		2308 Nov 26 00:50	21°♌46'09	
greatest brilliancy	2307 Dec 30 17:40	16°♎51'08	-0.4m	direct		2308 Nov 29 19:49	20°♌24'05	
	2308 Jan 09 11:04	0°☿		morning max el		2308 Dec 07 16:24	24°♌54'44	20°21'57
desc. node	2308 Jan 10 20:03	1°☿58'48				2308 Dec 12 03:05	0°♎	
morning set	2308 Jan 26 16:13	26°☿04'16		greatest brilliancy		2308 Dec 14 02:51	2°♎34'27	-0.5m
	2308 Jan 29 03:07	0°♏		desc. node		2308 Dec 27 17:06	22°♎10'59	
max. Earth dist.	2308 Feb 02 06:35	6°♏46'21	1.41776 AU			2309 Jan 01 20:25	0°☿	
				morning set		2309 Jan 04 14:46	4°☿15'39	
superior conj	2308 Feb 09 20:46	19°♏39'54	-2°-4'-49	max. Earth dist.		2309 Jan 14 14:06	19°☿58'40	1.43523 AU
minimum elong	2308 Feb 09 21:58	19°♏45'07	2°04'48					
	2308 Feb 15 16:27	0°♐		superior conj		2309 Jan 20 16:36	29°☿55'53	-2°00'-58
evening rise	2308 Feb 20 19:15	9°♐19'54		minimum elong		2309 Jan 20 12:38	29°☿39'29	2°00'50
asc. node	2308 Feb 29 17:00	25°♐09'46				2309 Jan 20 17:35	0°♏	
	2308 Mar 03 20:00	0°♑		evening rise		2309 Feb 02 06:34	21°♏23'33	
evening max el	2308 Mar 08 04:43	5°♑20'27	18°10'37			2309 Feb 07 05:07	0°♐	
retrograde	2308 Mar 15 00:47	8°♑47'30		asc. node		2309 Feb 15 14:00	13°♐29'33	
evening set	2308 Mar 17 14:02	8°♑19'13		evening max el		2309 Feb 19 16:56	18°♐30'58	18°08'49
inferior conj	2308 Mar 24 10:44	3°♑28'22	3°18'51	retrograde		2309 Feb 26 04:20	21°♐54'38	
minimum elong	2308 Mar 24 13:31	3°♑21'59	3°18'24	evening set		2309 Feb 28 22:47	21°♐16'19	
min. Earth dist.	2308 Mar 27 18:31	0°♑27'16	0.60308 AU	inferior conj		2309 Mar 07 06:39	16°♐04'25	3°40'06
	2308 Mar 28 07:17	30°♐♐		minimum elong		2309 Mar 07 07:29	16°♐02'15	3°40'04
morning rise	2308 Mar 31 09:38	27°♐42'15		min. Earth dist.		2309 Mar 10 02:50	13°♐07'32	0.62420 AU
direct	2308 Apr 07 00:47	25°♐36'33		morning rise		2309 Mar 13 13:54	10°♐04'13	
desc. node	2308 Apr 07 19:12	25°♐38'11		direct		2309 Mar 20 12:02	7°♐30'29	
	2308 Apr 17 09:53	0°♒		desc. node		2309 Mar 25 16:14	8°♐45'53	
morning max el	2308 Apr 21 07:35	3°♒28'03	27°35'29	morning max el		2309 Apr 03 12:45	15°♐26'16	27°49'50
	2308 May 10 19:11	0°♓				2309 Apr 15 10:15	0°♑	
morning set	2308 May 23 04:26	23°♓19'27				2309 May 03 09:14	0°♓	

morning set	2309 May 07 06:14	7°♄38'55		2310 Mar 18 19:15	0°♄	
max. Earth dist.	2309 May 12 21:21	19°♄25'38	1.32587 AU	2310 Apr 09 04:02	0°♄	
				morning set	2310 Apr 21 00:11	21°♄31'54
superior conj	2309 May 14 19:42	23°♄36'04	0°02'49	2310 Apr 25 05:03	0°♄	
minimum elong	2309 May 14 19:34	23°♄35'20	0°02'47	max. Earth dist.	2310 Apr 25 22:25	1°♄29'51 1.33407 AU
behind sun begin	2309 May 14 14:27	23°♄07'36				
behind sun end	2309 May 15 00:41	24°♄03'06		superior conj	2310 Apr 29 01:15	8°♄03'19 0°-24'-47
asc. node	2309 May 14 13:20	23°♄01'33		minimum elong	2310 Apr 29 02:30	8°♄09'55 0°24'32
	2309 May 17 18:14	0°♄		asc. node	2310 May 01 10:22	13°♄08'26
evening rise	2309 May 21 19:27	8°♄43'56		evening rise	2310 May 06 06:53	23°♄30'01
	2309 Jun 01 20:48	0°♄			2310 May 09 10:29	0°♄
evening max el	2309 Jun 15 05:22	17°♄48'49	24°03'07	evening max el	2310 May 27 20:14	28°♄16'53 22°26'43
desc. node	2309 Jun 21 15:30	22°♄42'16			2310 May 29 17:47	0°♄
retrograde	2309 Jun 29 00:18	24°♄45'07		desc. node	2310 Jun 08 12:30	4°♄40'39
evening set	2309 Jul 03 12:28	24°♄00'13		retrograde	2310 Jun 09 21:09	4°♄44'53
min. Earth dist.	2309 Jul 09 16:02	21°♄00'39	0.56381 AU	evening set	2310 Jun 12 22:53	4°♄24'04
inferior conj	2309 Jul 12 03:22	19°♄29'13	-4°-43'-46	min. Earth dist.	2310 Jun 21 03:18	0°♄50'59 0.55205 AU
minimum elong	2309 Jul 11 22:32	19°♄36'43	4°43'10	inferior conj	2310 Jun 22 05:09	0°♄14'22 -3°-39'-48
morning rise	2309 Jul 20 12:06	15°♄29'53		minimum elong	2310 Jun 21 21:08	0°♄25'44 3°37'43
direct	2309 Jul 23 05:08	15°♄10'45			2310 Jun 22 15:18	30°♄
morning max el	2309 Aug 02 01:11	19°♄44'36	19°47'59	morning rise	2310 Jun 30 21:45	26°♄23'13
	2309 Aug 10 01:32	0°♄		direct	2310 Jul 03 21:30	26°♄02'55
asc. node	2309 Aug 10 12:34	0°♄44'35			2310 Jul 13 18:23	0°♄
morning set	2309 Aug 19 19:14	18°♄04'23		morning max el	2310 Jul 15 08:50	1°♄22'59 21°08'09
	2309 Aug 25 16:22	0°♄		asc. node	2310 Jul 28 09:38	19°♄36'19
					2310 Aug 02 18:17	0°♄
superior conj	2309 Aug 27 16:56	4°♄03'04	1°45'18	morning set	2310 Aug 04 03:02	2°♄47'56
minimum elong	2309 Aug 27 17:24	4°♄05'21	1°45'17			
max. Earth dist.	2309 Sep 02 12:04	15°♄16'00	1.37243 AU	superior conj	2310 Aug 11 13:42	18°♄19'09 1°43'33
evening rise	2309 Sep 06 08:09	22°♄18'48		minimum elong	2310 Aug 11 12:41	18°♄13'55 1°43'30
	2309 Sep 10 17:32	0°♄		max. Earth dist.	2310 Aug 15 21:46	27°♄06'36 1.35452 AU
desc. node	2309 Sep 17 14:52	11°♄17'10			2310 Aug 17 09:00	0°♄
	2309 Sep 30 11:53	0°♄		evening rise	2310 Aug 20 03:43	5°♄20'01
evening max el	2309 Oct 12 02:05	13°♄36'51	25°30'45		2310 Sep 03 12:40	0°♄
retrograde	2309 Oct 24 05:31	20°♄35'13		desc. node	2310 Sep 04 11:52	1°♄29'28
evening set	2309 Oct 30 03:38	18°♄07'32		evening max el	2310 Sep 24 14:11	27°♄15'03 26°31'58
min. Earth dist.	2309 Nov 03 13:51	13°♄15'20	0.67071 AU		2310 Sep 27 16:10	0°♄
inferior conj	2309 Nov 04 18:04	11°♄44'42	0°-35'-52	retrograde	2310 Oct 07 11:16	4°♄28'17
minimum elong	2309 Nov 04 18:59	11°♄41'44	0°35'29	evening set	2310 Oct 13 23:02	1°♄49'22
asc. node	2309 Nov 06 11:45	9°♄33'56			2310 Oct 15 21:42	30°♄
morning rise	2309 Nov 10 11:04	5°♄46'43		min. Earth dist.	2310 Oct 18 01:47	27°♄33'50 0.66161 AU
direct	2309 Nov 13 18:22	4°♄43'46		inferior conj	2310 Oct 19 17:37	25°♄33'59 -1°-34'-13
morning max el	2309 Nov 20 21:05	8°♄43'32	19°19'54	minimum elong	2310 Oct 19 20:08	25°♄26'23 1°33'11
greatest brilliancy	2309 Nov 30 09:02	20°♄57'42	-0.7m	asc. node	2310 Oct 24 08:49	20°♄42'47
	2309 Dec 06 09:36	0°♄		morning rise	2310 Oct 25 18:32	19°♄46'56
morning set	2309 Dec 14 15:01	12°♄41'28		direct	2310 Oct 28 16:15	18°♄59'27
desc. node	2309 Dec 14 14:09	12°♄38'05		morning max el	2310 Nov 04 08:16	22°♄39'03 18°33'30
	2309 Dec 25 17:15	0°♄			2310 Nov 10 06:01	0°♄
max. Earth dist.	2309 Dec 28 04:35	3°♄53'46	1.44691 AU	morning set	2310 Nov 24 14:29	22°♄20'32
					2310 Nov 29 09:53	0°♄
superior conj	2309 Dec 31 10:40	9°♄03'20	-1°-38'-29	desc. node	2310 Dec 01 11:10	3°♄15'22
minimum elong	2309 Dec 31 02:07	8°♄29'19	1°37'45			
	2310 Jan 13 08:19	0°♄		superior conj	2310 Dec 10 12:59	17°♄33'00 0°-58'-27
evening rise	2310 Jan 14 21:10	2°♄32'44		minimum elong	2310 Dec 10 05:43	17°♄04'30 0°57'33
	2310 Feb 01 12:31	0°♄		max. Earth dist.	2310 Dec 10 22:49	18°♄11'36 1.45160 AU
asc. node	2310 Feb 02 11:01	1°♄04'26			2310 Dec 18 11:09	0°♄
evening max el	2310 Feb 03 05:19	1°♄52'44	18°25'50	evening rise	2310 Dec 26 12:24	12°♄44'05
retrograde	2310 Feb 09 17:34	5°♄26'06			2311 Jan 06 10:25	0°♄
evening set	2310 Feb 12 17:17	4°♄36'55		evening max el	2311 Jan 17 15:23	15°♄19'45 19°00'42
	2310 Feb 17 20:58	30°♄		asc. node	2311 Jan 20 08:04	17°♄40'56
inferior conj	2310 Feb 18 15:50	29°♄05'39	3°40'24	retrograde	2311 Jan 24 12:27	19°♄13'39
minimum elong	2310 Feb 18 14:56	29°♄08'15	3°40'21	evening set	2311 Jan 27 18:22	18°♄12'32
min. Earth dist.	2310 Feb 20 20:49	26°♄32'15	0.64272 AU	inferior conj	2311 Feb 02 10:31	12°♄24'19 3°25'14
morning rise	2310 Feb 24 11:06	22°♄57'10		minimum elong	2311 Feb 02 08:30	12°♄30'41 3°24'55
direct	2310 Mar 03 07:08	20°♄08'46		min. Earth dist.	2311 Feb 04 00:10	10°♄25'57 0.65756 AU
desc. node	2310 Mar 12 13:17	24°♄07'30		morning rise	2311 Feb 07 21:38	6°♄11'12
morning max el	2310 Mar 16 21:47	28°♄01'26	27°27'52	direct	2311 Feb 14 09:02	3°♄22'04

desc. node	2311 Feb 27 10:20	11° \approx 07'02		morning rise	2312 Jan 22 18:07	19° Z 40'39	
morning max el	2311 Feb 27 07:45	11° \approx 00'29	26°35'11	direct	2312 Jan 28 16:50	17° Z 02'22	
	2311 Mar 14 10:26	0° X		morning max el	2312 Feb 09 16:41	24° Z 11'34	25°20'33
	2311 Apr 01 17:09	0° Y		desc. node	2312 Feb 14 07:24	29° Z 16'46	
morning set	2311 Apr 04 06:46	4° Y 46'52			2312 Feb 14 21:53	0° \approx	
max. Earth dist.	2311 Apr 08 12:34	12° Y 59'52	1.34678 AU		2312 Mar 06 20:35	0° X	
				morning set	2312 Mar 16 21:17	17° X 10'24	
superior conj	2311 Apr 13 00:41	22° Y 07'18	0°-52'-55	max. Earth dist.	2312 Mar 20 14:58	24° X 03'13	1.36395 AU
minimum elong	2311 Apr 13 03:23	22° Y 21'14	0°52'26		2312 Mar 23 17:47	0° Y	
	2311 Apr 16 19:26	0° Z					
asc. node	2311 Apr 18 07:24	3° Z 08'29		superior conj	2312 Mar 26 15:14	5° Y 40'32	-1°-19'-58
evening rise	2311 Apr 20 16:00	8° Z 03'33		minimum elong	2312 Mar 26 19:10	6° Y 00'01	1°19'24
	2311 May 02 13:02	0° II		evening rise	2312 Apr 03 20:41	22° Y 18'20	
evening max el	2311 May 09 19:17	9° II 04'58	20°58'09	asc. node	2312 Apr 04 04:26	22° Y 57'26	
retrograde	2311 May 21 10:33	14° II 45'19			2312 Apr 07 17:47	0° Z	
evening set	2311 May 23 15:08	14° II 34'00		evening max el	2312 Apr 21 06:12	20° Z 31'13	19°45'49
desc. node	2311 May 26 09:32	13° II 49'54		retrograde	2312 May 01 03:34	25° Z 18'00	
inferior conj	2311 Jun 01 22:48	10° II 36'08	-1°-53'-44	evening set	2312 May 03 03:52	25° Z 07'01	
minimum elong	2311 Jun 01 17:29	10° II 43'41	1°51'53	inferior conj	2312 May 11 22:51	21° Z 05'11	0°05'36
min. Earth dist.	2311 Jun 02 15:35	10° II 12'21	0.54910 AU	minimum elong	2312 May 11 23:06	21° Z 04'48	0°05'31
morning rise	2311 Jun 10 19:18	6° II 33'36		transit middle	2312 May 11 23:06	21° Z 04'48	0°05'31
direct	2311 Jun 14 06:51	6° II 07'26		transit begin	2312 May 11 19:24	21° Z 10'33	
morning max el	2311 Jun 27 06:06	12° II 19'41	22°44'20	transit end	2312 May 12 02:49	20° Z 59'03	
	2311 Jul 10 10:27	0° S		desc. node	2312 May 12 06:34	20° Z 53'12	
asc. node	2311 Jul 15 06:41	8° S 56'25		min. Earth dist.	2312 May 14 05:30	19° Z 40'43	0.55584 AU
morning set	2311 Jul 19 13:44	17° S 40'17		morning rise	2312 May 20 15:01	16° Z 34'07	
	2311 Jul 25 08:33	0° Q		direct	2312 May 24 23:05	15° Z 52'21	
				morning max el	2312 Jun 07 21:07	22° Z 49'20	24°26'33
superior conj	2311 Jul 26 17:40	2° Q 56'43	1°35'21		2312 Jun 14 06:22	0° II	
minimum elong	2311 Jul 26 15:42	2° Q 46'16	1°35'11	asc. node	2312 Jul 01 03:43	28° II 37'17	
max. Earth dist.	2311 Jul 29 16:15	9° Q 08'18	1.34024 AU		2312 Jul 01 19:44	0° S	
evening rise	2311 Aug 03 13:47	19° Q 03'37		morning set	2312 Jul 03 01:32	2° S 36'00	
	2311 Aug 09 08:50	0° P					
desc. node	2311 Aug 22 08:54	21° P 18'05		superior conj	2312 Jul 10 02:14	17° S 47'15	1°21'52
	2311 Aug 28 15:51	0° A		minimum elong	2312 Jul 09 23:51	17° S 34'21	1°21'33
evening max el	2311 Sep 07 02:17	10° A 43'22	27°12'44	max. Earth dist.	2312 Jul 11 19:35	21° S 30'58	1.33008 AU
retrograde	2311 Sep 20 11:36	18° A 02'03			2312 Jul 15 19:47	0° Q	
evening set	2311 Sep 27 10:15	15° A 19'26		evening rise	2312 Jul 17 10:21	3° Q 17'54	
min. Earth dist.	2311 Oct 01 06:18	11° A 40'12	0.64893 AU		2312 Aug 01 03:36	0° P	
inferior conj	2311 Oct 03 10:28	9° A 16'00	-2°-33'-4	desc. node	2312 Aug 08 05:55	10° P 32'34	
minimum elong	2311 Oct 03 14:34	9° A 04'38	2°31'34	evening max el	2312 Aug 19 12:56	23° P 49'31	27°26'09
morning rise	2311 Oct 09 20:45	3° A 42'54			2312 Aug 28 05:49	0° A	
asc. node	2311 Oct 11 05:53	3° A 14'58		retrograde	2312 Sep 02 05:38	1° A 06'49	
direct	2311 Oct 12 11:21	3° A 06'56			2312 Sep 06 22:51	30° R P	
morning max el	2311 Oct 18 23:27	6° A 35'39	18°03'49	evening set	2312 Sep 09 10:07	28° P 31'11	
	2311 Nov 03 17:43	0° M		min. Earth dist.	2312 Sep 13 01:21	25° P 24'36	0.63286 AU
morning set	2311 Nov 05 19:18	3° M 26'48		inferior conj	2312 Sep 15 17:54	22° P 43'57	-3°-29'-26
desc. node	2311 Nov 18 08:13	23° M 59'28		minimum elong	2312 Sep 15 23:09	22° P 30'51	3°27'53
				morning rise	2312 Sep 22 14:37	17° P 28'06	
superior conj	2311 Nov 19 20:18	26° M 23'47	0°-10'-8	direct	2312 Sep 25 00:49	17° P 00'03	
minimum elong	2311 Nov 19 19:02	26° M 18'45	0°09'59	asc. node	2312 Sep 27 02:57	17° P 21'18	
behind sun begin	2311 Nov 19 10:33	25° M 44'51		morning max el	2312 Oct 01 15:41	20° P 25'53	17°51'37
behind sun end	2311 Nov 20 03:31	26° M 52'37			2312 Oct 08 19:27	0° A	
	2311 Nov 22 02:41	0° X		morning set	2312 Oct 18 01:04	15° A 44'54	
max. Earth dist.	2311 Nov 23 17:39	2° X 34'05	1.44890 AU		2312 Oct 26 06:58	0° M	
evening rise	2311 Dec 06 06:49	22° X 07'47					
	2311 Dec 11 09:24	0° Z		superior conj	2312 Oct 30 01:44	6° M 20'51	0°34'38
greatest brilliancy	2311 Dec 24 14:52	19° Z 44'51	-0.6m	minimum elong	2312 Oct 30 05:07	6° M 34'54	0°34'10
evening max el	2311 Dec 31 21:19	28° Z 49'39	19°51'44	desc. node	2312 Nov 04 05:15	14° M 46'26	
	2312 Jan 02 02:10	0° \approx		max. Earth dist.	2312 Nov 05 10:30	16° M 44'14	1.43922 AU
asc. node	2312 Jan 07 05:08	3° \approx 04'49			2312 Nov 13 20:39	0° X	
retrograde	2312 Jan 08 09:58	3° \approx 12'47		evening rise	2312 Nov 14 15:21	1° X 12'15	
evening set	2312 Jan 11 23:37	1° \approx 58'20			2312 Dec 04 01:08	0° Z	
	2312 Jan 14 04:43	30° R Z		greatest brilliancy	2312 Dec 08 11:18	5° Z 57'25	-0.5m
inferior conj	2312 Jan 17 11:45	25° Z 55'47	2°58'26	evening max el	2312 Dec 13 21:54	12° Z 20'31	20°56'27
minimum elong	2312 Jan 17 09:11	26° Z 04'16	2°57'49	retrograde	2312 Dec 22 07:44	17° Z 19'16	
min. Earth dist.	2312 Jan 18 11:13	24° Z 37'40	0.66841 AU	asc. node	2312 Dec 24 02:11	17° Z 01'53	

evening set	2312 Dec 26 06:58	15°☿49'48			2313 Dec 10 06:33	30°☿☿	
inferior conj	2312 Dec 31 16:59	9°☿35'58	2°22'35	evening set	2313 Dec 10 14:41	29°☿44'12	
minimum elong	2312 Dec 31 14:27	9°☿44'41	2°21'46	asc. node	2313 Dec 10 23:13	29°☿26'20	
min. Earth dist.	2313 Jan 01 03:47	8°☿58'53	0.67527 AU	inferior conj	2313 Dec 16 00:12	23°☿22'27	1°39'26
morning rise	2313 Jan 05 21:31	3°☿20'50		minimum elong	2313 Dec 15 22:09	23°☿29'33	1°38'40
direct	2313 Jan 11 05:32	1°☿01'19		min. Earth dist.	2313 Dec 15 23:32	23°☿24'44	0.67837 AU
morning max el	2313 Jan 22 01:02	7°☿28'00	23°54'14	morning rise	2313 Dec 21 05:27	17°☿09'13	
desc. node	2313 Jan 31 04:27	18°☿16'08		direct	2313 Dec 25 22:18	15°☿12'14	
	2313 Feb 08 15:03	0°☿		morning max el	2314 Jan 04 11:47	20°☿50'45	22°26'04
morning set	2313 Feb 26 13:48	28°☿26'02		greatest brilliancy	2314 Jan 09 01:20	25°☿56'47	-0.3m
	2313 Feb 27 11:38	0°☿			2314 Jan 12 06:42	0°☿	
max. Earth dist.	2313 Mar 02 10:29	5°☿10'37	1.38448 AU	desc. node	2314 Jan 18 01:29	7°☿51'05	
					2314 Feb 01 21:34	0°☿	
superior conj	2313 Mar 09 17:20	18°☿33'34	-1°-43'-31	morning set	2314 Feb 07 02:29	8°☿19'44	
minimum elong	2313 Mar 09 21:40	18°☿54'09	1°43'04	max. Earth dist.	2314 Feb 12 07:11	16°☿57'38	1.40605 AU
	2313 Mar 15 15:27	0°☿			2314 Feb 19 18:39	0°☿	
evening rise	2313 Mar 18 18:21	6°☿07'15					
asc. node	2313 Mar 22 01:29	12°☿30'22		superior conj	2314 Feb 20 02:18	0°☿34'23	-2°00'-8
	2313 Apr 01 18:51	0°☿		minimum elong	2314 Feb 20 05:22	0°☿48'12	2°00'00
evening max el	2313 Apr 04 04:04	2°☿36'48	18°53'01	evening rise	2314 Mar 02 05:49	19°☿22'09	
retrograde	2313 Apr 12 12:06	6°☿40'06			2314 Mar 07 23:43	0°☿	
evening set	2313 Apr 14 16:33	6°☿24'30		asc. node	2314 Mar 08 22:31	1°☿40'57	
inferior conj	2313 Apr 22 16:36	2°☿06'24	1°46'25	evening max el	2314 Mar 18 09:58	15°☿14'06	18°20'18
minimum elong	2313 Apr 22 20:12	1°☿59'55	1°45'17	retrograde	2314 Mar 25 15:53	18°☿50'01	
	2313 Apr 25 15:19	30°☿☿		evening set	2314 Mar 28 01:56	18°☿26'56	
min. Earth dist.	2313 Apr 25 21:38	29°☿49'08	0.57072 AU	inferior conj	2314 Apr 04 07:40	13°☿48'00	2°54'25
desc. node	2313 Apr 29 03:36	27°☿48'54		minimum elong	2314 Apr 04 11:19	13°☿40'18	2°53'36
morning rise	2313 Apr 30 19:33	27°☿01'08		min. Earth dist.	2314 Apr 07 18:06	10°☿56'01	0.59067 AU
direct	2313 May 06 04:30	25°☿51'47		morning rise	2314 Apr 11 16:48	8°☿13'47	
	2313 May 16 15:47	0°☿		desc. node	2314 Apr 16 00:38	6°☿38'53	
morning max el	2313 May 20 12:05	3°☿18'45	26°00'18	direct	2314 Apr 17 23:07	6°☿28'50	
	2313 Jun 08 14:31	0°☿		morning max el	2314 May 02 07:56	14°☿13'52	27°10'24
morning set	2313 Jun 17 12:54	17°☿30'17			2314 May 14 22:58	0°☿	
asc. node	2313 Jun 18 00:46	18°☿32'57			2314 May 31 19:48	0°☿	
	2313 Jun 23 07:27	0°☿		morning set	2314 Jun 01 22:05	2°☿16'15	
				asc. node	2314 Jun 04 21:47	8°☿37'18	
superior conj	2313 Jun 24 13:20	2°☿44'12	1°04'01	max. Earth dist.	2314 Jun 08 17:32	16°☿58'30	1.32159 AU
minimum elong	2313 Jun 24 11:03	2°☿31'38	1°03'37				
max. Earth dist.	2313 Jun 25 05:18	4°☿11'51	1.32392 AU	superior conj	2314 Jun 09 01:06	17°☿40'14	0°42'29
evening rise	2313 Jul 01 14:13	17°☿53'19		minimum elong	2314 Jun 08 23:22	17°☿30'37	0°42'08
	2313 Jul 07 16:24	0°☿			2314 Jun 14 16:37	0°☿	
desc. node	2313 Jul 26 02:55	28°☿58'56		evening rise	2314 Jun 15 22:45	2°☿40'14	
	2313 Jul 26 22:52	0°☿			2314 Jun 30 15:52	0°☿	
evening max el	2313 Aug 01 19:29	6°☿20'23	27°07'22	desc. node	2314 Jul 12 23:55	16°☿16'27	
retrograde	2313 Aug 15 16:24	13°☿34'03		evening max el	2314 Jul 14 19:15	18°☿04'34	26°15'36
evening set	2313 Aug 22 18:36	11°☿18'03		retrograde	2314 Jul 28 18:50	25°☿15'28	
min. Earth dist.	2313 Aug 26 09:45	8°☿35'00	0.61394 AU	evening set	2314 Aug 04 06:56	23°☿31'28	
inferior conj	2313 Aug 29 12:46	5°☿50'16	-4°-18'-28	min. Earth dist.	2314 Aug 08 08:06	20°☿56'17	0.59336 AU
minimum elong	2313 Aug 29 18:00	5°☿38'42	4°17'23	inferior conj	2314 Aug 11 15:26	18°☿24'43	-4°-52'-12
morning rise	2313 Sep 05 20:21	0°☿55'08		minimum elong	2314 Aug 11 18:33	18°☿18'45	4°51'55
direct	2313 Sep 08 05:06	0°☿32'01		morning rise	2314 Aug 19 09:36	13°☿52'54	
asc. node	2313 Sep 13 23:59	2°☿55'40		direct	2314 Aug 21 19:41	13°☿32'34	
morning max el	2313 Sep 15 06:01	4°☿03'02	17°57'57	morning max el	2314 Aug 29 15:18	17°☿18'23	18°24'05
morning set	2313 Oct 01 01:26	28°☿56'16		asc. node	2314 Aug 31 21:01	19°☿43'25	
	2313 Oct 01 15:20	0°☿			2314 Sep 07 17:41	0°☿	
				morning set	2314 Sep 14 15:04	12°☿45'30	
superior conj	2313 Oct 11 10:17	17°☿37'40	1°08'53				
minimum elong	2313 Oct 11 14:46	17°☿57'16	1°08'22	superior conj	2314 Sep 23 18:25	0°☿04'05	1°31'14
	2313 Oct 18 16:49	0°☿		minimum elong	2314 Sep 23 21:46	0°☿19'30	1°30'57
max. Earth dist.	2313 Oct 18 23:09	0°☿26'11	1.42376 AU		2314 Sep 23 17:32	0°☿	
desc. node	2313 Oct 22 02:16	5°☿33'09		max. Earth dist.	2314 Oct 01 06:10	13°☿25'38	1.40442 AU
evening rise	2313 Oct 25 06:53	10°☿39'34		evening rise	2314 Oct 05 18:22	21°☿02'24	
	2313 Nov 06 23:34	0°☿		desc. node	2314 Oct 08 23:17	26°☿16'06	
greatest brilliancy	2313 Nov 21 23:47	20°☿33'32	-0.3m		2314 Oct 11 07:30	0°☿	
evening max el	2313 Nov 26 16:56	25°☿52'23	22°11'10		2314 Nov 01 03:36	0°☿	
	2313 Dec 01 15:24	0°☿		evening max el	2314 Nov 09 07:30	9°☿26'29	23°30'55
retrograde	2313 Dec 06 04:03	1°☿30'07		retrograde	2314 Nov 19 21:31	15°☿42'02	

evening set	2314 Nov 24 21:11	13°♂39°03		desc. node	2315 Sep 25 20:16	16°♂51°11	
asc. node	2314 Nov 27 20:15	10°♂30°44			2315 Oct 04 11:54	0°♂	
inferior conj	2314 Nov 30 07:35	7°♂13°17	0°50'24	evening max el	2315 Oct 22 19:49	23°♂04°11	24°49'19
minimum elong	2314 Nov 30 06:25	7°♂17°16	0°49'55	retrograde	2315 Nov 03 11:05	29°♂50°27	
min. Earth dist.	2314 Nov 29 20:13	7°♂52°12	0.67795 AU	evening set	2315 Nov 09 00:48	27°♂31°11	
morning rise	2314 Dec 05 15:48	1°♂03°58		min. Earth dist.	2315 Nov 13 15:26	22°♂18°24	0.67423 AU
	2314 Dec 07 10:04	30°♂		inferior conj	2315 Nov 14 13:23	21°♂05°48	0°-3'-21
direct	2314 Dec 09 18:14	29°♂29°51		minimum elong	2315 Nov 14 13:28	21°♂05°31	0°03'19
	2314 Dec 12 05:25	0°♂		transit middle	2315 Nov 14 13:28	21°♂05°31	0°03'19
morning max el	2314 Dec 18 04:22	4°♂23°12	21°04'08	transit begin	2315 Nov 14 10:46	21°♂14°28	
greatest brilliancy	2314 Dec 23 14:44	10°♂39°07	-0.5m	transit end	2315 Nov 14 16:10	20°♂56°35	
desc. node	2315 Jan 04 22:32	27°♂51°43		asc. node	2315 Nov 14 17:18	20°♂52°50	
	2315 Jan 06 09:09	0°♂		morning rise	2315 Nov 20 02:37	15°♂02°45	
morning set	2315 Jan 17 11:29	16°♂57°16		direct	2315 Nov 23 16:17	13°♂49°23	
max. Earth dist.	2315 Jan 25 10:08	29°♂39°03	1.42569 AU	morning max el	2315 Dec 01 04:36	18°♂06°04	19°53'46
	2315 Jan 25 15:15	0°♂		greatest brilliancy	2315 Dec 08 15:00	27°♂12°32	-0.6m
					2315 Dec 10 14:50	0°♂	
superior conj	2315 Feb 01 12:56	11°♂31°06	-2°-5'-15	desc. node	2315 Dec 22 19:33	18°♂10°21	
minimum elong	2315 Feb 01 12:11	11°♂27°51	2°05'16	morning set	2315 Dec 27 07:21	25°♂04°31	
	2315 Feb 12 01:43	0°♂			2315 Dec 30 11:36	0°♂	
evening rise	2315 Feb 13 03:16	1°♂54°41		max. Earth dist.	2316 Jan 07 20:18	13°♂09°12	1.44089 AU
asc. node	2315 Feb 23 19:33	20°♂22°11					
evening max el	2315 Mar 01 20:45	28°♂14°59	18°07'27	superior conj	2316 Jan 12 21:22	21°♂15°56	-1°-53'-51
	2315 Mar 03 22:03	0°♂		minimum elong	2316 Jan 12 15:03	20°♂50°19	1°53'28
retrograde	2315 Mar 08 12:05	1°♂39°17			2316 Jan 18 05:00	0°♂	
evening set	2315 Mar 11 03:27	1°♂07°00		evening rise	2316 Jan 26 06:13	13°♂35°22	
	2315 Mar 13 05:16	30°♂			2316 Feb 04 23:42	0°♂	
inferior conj	2315 Mar 17 18:14	26°♂06°59	3°30'48	asc. node	2316 Feb 10 16:35	8°♂24°21	
minimum elong	2315 Mar 17 20:12	26°♂02°12	3°30'36	evening max el	2316 Feb 13 09:22	11°♂30°56	18°13'52
min. Earth dist.	2315 Mar 20 21:47	23°♂04°45	0.61221 AU	retrograde	2316 Feb 19 20:12	14°♂57°20	
morning rise	2315 Mar 24 10:02	20°♂13°36		evening set	2316 Feb 22 16:45	14°♂14°39	
direct	2315 Mar 31 05:09	17°♂54°39		inferior conj	2316 Feb 28 20:18	8°♂54°34	3°42'23
desc. node	2315 Apr 02 21:40	18°♂14°55		minimum elong	2316 Feb 28 20:20	8°♂54°28	3°42'23
morning max el	2315 Apr 14 10:12	25°♂49°26	27°46'11	min. Earth dist.	2316 Mar 02 10:20	6°♂05°24	0.63245 AU
	2315 Apr 18 07:21	0°♂		morning rise	2316 Mar 05 21:57	2°♂50°10	
	2315 May 08 10:08	0°♂		direct	2316 Mar 12 20:14	0°♂08°03	
morning set	2315 May 17 03:15	16°♂47°48		desc. node	2316 Mar 19 18:43	2°♂23°31	
asc. node	2315 May 22 18:49	28°♂45°57		morning max el	2316 Mar 26 17:20	8°♂04°25	27°44'35
max. Earth dist.	2315 May 23 04:24	29°♂38°01	1.32314 AU		2316 Apr 12 14:56	0°♂	
	2315 May 23 08:26	0°♂			2316 Apr 29 14:37	0°♂	
				morning set	2316 Apr 30 02:06	0°♂57°19	
superior conj	2315 May 24 11:54	2°♂29°52	0°17'59	max. Earth dist.	2316 May 05 09:57	11°♂57°12	1.32879 AU
minimum elong	2315 May 24 11:04	2°♂25°24	0°17'48				
evening rise	2315 May 31 09:53	17°♂31°47		superior conj	2316 May 07 19:56	17°♂07°14	0°-8'-44
	2315 Jun 06 13:36	0°♂		minimum elong	2316 May 07 20:22	17°♂09°32	0°08'40
evening max el	2315 Jun 26 11:59	29°♂03°18	24°56'22	behind sun begin	2316 May 07 15:55	16°♂45°33	
	2315 Jun 27 12:22	0°♂		behind sun end	2316 May 08 00:49	17°♂33°32	
desc. node	2315 Jun 29 20:55	1°♂57°29		asc. node	2316 May 08 15:52	18°♂54°45	
retrograde	2315 Jul 10 11:18	6°♂08°35			2316 May 13 19:07	0°♂	
evening set	2315 Jul 15 19:35	5°♂03°22		evening rise	2316 May 14 21:44	2°♂21°37	
min. Earth dist.	2315 Jul 20 23:27	2°♂17°02	0.57354 AU		2316 May 30 03:01	0°♂	
inferior conj	2315 Jul 23 22:49	0°♂18°31	-4°-58'-25	evening max el	2316 Jun 07 01:42	9°♂35°01	23°21'59
minimum elong	2315 Jul 23 21:12	0°♂21°13	4°58'21	desc. node	2316 Jun 15 17:56	15°♂27°27	
	2315 Jul 24 09:56	30°♂		retrograde	2316 Jun 20 15:21	16°♂21°51	
morning rise	2315 Aug 01 02:34	26°♂09°04		evening set	2316 Jun 24 11:41	15°♂49°25	
direct	2315 Aug 03 16:21	25°♂50°00		min. Earth dist.	2316 Jul 01 11:40	12°♂36°54	0.55786 AU
morning max el	2315 Aug 12 16:25	0°♂02°46	19°11'12	inferior conj	2316 Jul 03 10:20	11°♂27°57	-4°-22'-42
	2315 Aug 12 15:14	0°♂		minimum elong	2316 Jul 03 03:34	11°♂38°00	4°21'28
asc. node	2315 Aug 18 18:04	7°♂29°37		morning rise	2316 Jul 11 22:36	7°♂33°41	
morning set	2315 Aug 29 14:00	27°♂01°59		direct	2316 Jul 14 17:59	7°♂14°25	
	2315 Aug 31 01:47	0°♂		morning max el	2316 Jul 25 06:47	12°♂07°16	20°19'41
				asc. node	2316 Aug 04 15:07	26°♂01°08	
superior conj	2315 Sep 06 20:33	13°♂24°06	1°42'48		2316 Aug 06 20:44	0°♂	
minimum elong	2315 Sep 06 22:03	13°♂31°20	1°42'44	morning set	2316 Aug 12 19:19	11°♂38°13	
max. Earth dist.	2315 Sep 13 09:45	25°♂42°24	1.38381 AU				
	2315 Sep 15 19:12	0°♂		superior conj	2316 Aug 20 11:45	27°♂23°46	1°45'25
evening rise	2315 Sep 17 05:56	2°♂32°29		minimum elong	2316 Aug 20 11:31	27°♂22°38	1°45'25

	2316 Aug 21 18:49	0° $\mathring{\text{M}}$		max. Earth dist.	2317 Aug 08 05:20	19° $\mathring{\text{O}}$ 31'19	1.34804 AU
max. Earth dist.	2316 Aug 25 15:47	7° $\mathring{\text{M}}$ 36'23	1.36444 AU	evening rise	2317 Aug 12 17:36	28° $\mathring{\text{O}}$ 26'10	
evening rise	2316 Aug 29 15:15	15° $\mathring{\text{M}}$ 04'56			2317 Aug 13 13:14	0° $\mathring{\text{M}}$	
	2316 Sep 07 04:59	0° $\mathring{\text{L}}$		desc. node	2317 Aug 29 14:19	27° $\mathring{\text{M}}$ 17'29	
desc. node	2316 Sep 11 17:17	7° $\mathring{\text{L}}$ 13'59			2317 Aug 31 10:04	0° $\mathring{\text{L}}$	
	2316 Sep 28 03:18	0° $\mathring{\text{M}}$		evening max el	2317 Sep 16 20:24	20° $\mathring{\text{L}}$ 21'08	26°52'13
evening max el	2316 Oct 04 07:57	6° $\mathring{\text{M}}$ 44'56	25°58'56	retrograde	2317 Sep 29 23:09	27° $\mathring{\text{L}}$ 36'46	
retrograde	2316 Oct 16 19:50	13° $\mathring{\text{M}}$ 51'04		evening set	2317 Oct 06 16:00	24° $\mathring{\text{L}}$ 55'29	
evening set	2316 Oct 22 23:47	11° $\mathring{\text{M}}$ 18'13		min. Earth dist.	2317 Oct 10 15:55	20° $\mathring{\text{L}}$ 55'26	0.65672 AU
min. Earth dist.	2316 Oct 27 06:51	6° $\mathring{\text{M}}$ 41'11	0.66722 AU	inferior conj	2317 Oct 12 12:49	18° $\mathring{\text{L}}$ 44'51	-1°-59'-14
inferior conj	2316 Oct 28 15:49	4° $\mathring{\text{M}}$ 57'52	-1°00'-25	minimum elong	2317 Oct 12 16:02	18° $\mathring{\text{L}}$ 35'29	1°57'58
minimum elong	2316 Oct 28 17:24	4° $\mathring{\text{M}}$ 52'54	0°59'45	asc. node	2317 Oct 18 11:23	13° $\mathring{\text{L}}$ 11'16	
asc. node	2316 Oct 31 14:20	1° $\mathring{\text{M}}$ 29'52		morning rise	2317 Oct 18 17:33	13° $\mathring{\text{L}}$ 03'09	
	2316 Nov 02 04:26	30° $\mathring{\text{R}}$ $\mathring{\text{L}}$		direct	2317 Oct 21 12:02	12° $\mathring{\text{L}}$ 20'51	
morning rise	2316 Nov 03 11:58	29° $\mathring{\text{L}}$ 03'52		morning max el	2317 Oct 28 01:23	15° $\mathring{\text{L}}$ 54'31	18°18'44
direct	2316 Nov 06 14:53	28° $\mathring{\text{L}}$ 07'56			2317 Nov 07 08:12	0° $\mathring{\text{M}}$	
	2316 Nov 11 06:52	0° $\mathring{\text{M}}$		morning set	2317 Nov 16 03:43	14° $\mathring{\text{M}}$ 13'32	
morning max el	2316 Nov 13 12:14	1° $\mathring{\text{M}}$ 58'08	18°58'07	desc. node	2317 Nov 25 13:38	29° $\mathring{\text{M}}$ 22'46	
	2316 Dec 03 03:14	0° $\mathring{\text{J}}$			2317 Nov 25 22:59	0° $\mathring{\text{J}}$	
morning set	2316 Dec 05 15:37	3° $\mathring{\text{J}}$ 56'24					
desc. node	2316 Dec 08 16:35	8° $\mathring{\text{J}}$ 42'13		superior conj	2317 Dec 01 08:22	8° $\mathring{\text{J}}$ 32'06	0°-38'-11
max. Earth dist.	2316 Dec 20 12:27	27° $\mathring{\text{J}}$ 14'58	1.44981 AU	minimum elong	2317 Dec 01 03:27	8° $\mathring{\text{J}}$ 12'42	0°37'33
				max. Earth dist.	2317 Dec 03 07:43	11° $\mathring{\text{J}}$ 38'21	1.45141 AU
superior conj	2316 Dec 22 06:45	0° $\mathring{\text{O}}$ 01'33	-1°-23'-17		2317 Dec 15 01:08	0° $\mathring{\text{O}}$	
minimum elong	2316 Dec 21 21:52	29° $\mathring{\text{J}}$ 26'32	1°22'22	evening rise	2317 Dec 17 16:30	4° $\mathring{\text{O}}$ 07'52	
	2316 Dec 22 06:21	0° $\mathring{\text{O}}$		greatest brilliancy	2318 Jan 01 04:47	26° $\mathring{\text{O}}$ 34'10	-0.7m
evening rise	2317 Jan 06 10:54	24° $\mathring{\text{O}}$ 19'01			2318 Jan 03 13:27	0° $\mathring{\approx}$	
	2317 Jan 09 22:37	0° $\mathring{\approx}$		evening max el	2318 Jan 10 05:39	8° $\mathring{\approx}$ 24'09	19°20'37
evening max el	2317 Jan 26 21:07	24° $\mathring{\approx}$ 55'32	18°38'40	asc. node	2318 Jan 14 10:40	11° $\mathring{\approx}$ 43'30	
asc. node	2317 Jan 27 13:38	25° $\mathring{\approx}$ 36'01		retrograde	2318 Jan 17 08:24	12° $\mathring{\approx}$ 29'13	
retrograde	2317 Feb 02 12:06	28° $\mathring{\approx}$ 36'04		evening set	2318 Jan 20 17:31	11° $\mathring{\approx}$ 22'24	
evening set	2317 Feb 05 14:23	27° $\mathring{\approx}$ 41'54		inferior conj	2318 Jan 26 07:40	5° $\mathring{\approx}$ 27'39	3°15'07
inferior conj	2317 Feb 11 09:54	22° $\mathring{\approx}$ 03'21	3°35'34	minimum elong	2318 Jan 26 05:21	5° $\mathring{\approx}$ 35'10	3°14'40
minimum elong	2317 Feb 11 08:27	22° $\mathring{\approx}$ 07'43	3°35'25	min. Earth dist.	2318 Jan 27 15:01	3° $\mathring{\approx}$ 46'24	0.66266 AU
min. Earth dist.	2317 Feb 13 08:20	19° $\mathring{\approx}$ 43'49	0.64955 AU		2318 Jan 30 20:51	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$	
morning rise	2317 Feb 17 01:17	15° $\mathring{\approx}$ 52'47		morning rise	2318 Jan 31 16:24	29° $\mathring{\text{O}}$ 13'42	
direct	2317 Feb 23 18:28	13° $\mathring{\approx}$ 02'15		direct	2318 Feb 06 22:47	26° $\mathring{\text{O}}$ 28'12	
desc. node	2317 Mar 06 15:47	18° $\mathring{\approx}$ 30'14			2318 Feb 15 03:36	0° $\mathring{\approx}$	
morning max el	2317 Mar 09 02:48	20° $\mathring{\approx}$ 50'02	27°08'42	morning max el	2318 Feb 19 12:24	3° $\mathring{\approx}$ 55'14	26°05'41
	2317 Mar 17 01:14	0° $\mathring{\text{H}}$		desc. node	2318 Feb 21 12:50	6° $\mathring{\approx}$ 02'32	
	2317 Apr 05 17:36	0° $\mathring{\text{Y}}$			2318 Mar 11 09:54	0° $\mathring{\text{H}}$	
morning set	2317 Apr 13 15:43	14° $\mathring{\text{Y}}$ 35'23		morning set	2318 Mar 27 16:08	27° $\mathring{\text{H}}$ 30'30	
max. Earth dist.	2317 Apr 18 06:31	23° $\mathring{\text{Y}}$ 46'10	1.33890 AU		2318 Mar 29 00:07	0° $\mathring{\text{Y}}$	
	2317 Apr 21 06:52	0° $\mathring{\text{O}}$		max. Earth dist.	2318 Mar 31 15:49	5° $\mathring{\text{Y}}$ 04'27	1.35356 AU
superior conj	2317 Apr 21 23:13	1° $\mathring{\text{O}}$ 25'44	0°-36'-43	superior conj	2318 Apr 05 19:18	15° $\mathring{\text{Y}}$ 18'08	-1°-4'-38
minimum elong	2317 Apr 22 01:05	1° $\mathring{\text{O}}$ 35'32	0°36'22	minimum elong	2318 Apr 05 22:35	15° $\mathring{\text{Y}}$ 34'47	1°04'05
asc. node	2317 Apr 25 12:55	8° $\mathring{\text{O}}$ 59'24		asc. node	2318 Apr 12 09:59	28° $\mathring{\text{Y}}$ 55'49	
evening rise	2317 Apr 29 08:27	17° $\mathring{\text{O}}$ 03'16			2318 Apr 12 22:26	0° $\mathring{\text{O}}$	
	2317 May 05 20:15	0° $\mathring{\text{I}}$		evening rise	2318 Apr 13 16:00	1° $\mathring{\text{O}}$ 30'22	
evening max el	2317 May 19 19:30	20° $\mathring{\text{I}}$ 09'11	21°47'31		2318 Apr 30 19:00	0° $\mathring{\text{I}}$	
retrograde	2317 Jun 01 07:31	26° $\mathring{\text{I}}$ 17'59		evening max el	2318 May 01 23:27	1° $\mathring{\text{I}}$ 12'39	20°25'07
desc. node	2317 Jun 02 14:58	26° $\mathring{\text{I}}$ 14'05		retrograde	2318 May 12 20:51	6° $\mathring{\text{I}}$ 30'04	
evening set	2317 Jun 03 22:12	26° $\mathring{\text{I}}$ 02'42		evening set	2318 May 14 22:13	6° $\mathring{\text{I}}$ 19'32	
inferior conj	2317 Jun 13 07:08	22° $\mathring{\text{I}}$ 00'17	-2°-58'-44	desc. node	2318 May 20 12:00	4° $\mathring{\text{I}}$ 20'42	
minimum elong	2317 Jun 12 23:33	22° $\mathring{\text{I}}$ 10'52	2°56'25	inferior conj	2318 May 24 01:46	2° $\mathring{\text{I}}$ 21'36	-1°-2'-41
min. Earth dist.	2317 Jun 12 23:13	22° $\mathring{\text{I}}$ 11'21	0.54965 AU	minimum elong	2318 May 23 22:48	2° $\mathring{\text{I}}$ 25'55	1°01'36
morning rise	2317 Jun 22 02:05	18° $\mathring{\text{I}}$ 06'43		min. Earth dist.	2318 May 25 11:47	1° $\mathring{\text{I}}$ 32'03	0.55084 AU
direct	2317 Jun 25 06:13	17° $\mathring{\text{I}}$ 44'34			2318 May 28 06:43	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$	
morning max el	2317 Jul 07 09:34	23° $\mathring{\text{I}}$ 26'47	21°47'28	morning rise	2318 Jun 01 21:40	28° $\mathring{\text{O}}$ 09'00	
	2317 Jul 13 04:32	0° $\mathring{\text{O}}$		direct	2318 Jun 05 17:00	27° $\mathring{\text{O}}$ 37'46	
asc. node	2317 Jul 22 12:10	15° $\mathring{\text{O}}$ 06'12			2318 Jun 13 17:06	0° $\mathring{\text{I}}$	
morning set	2317 Jul 28 04:38	26° $\mathring{\text{O}}$ 26'38		morning max el	2318 Jun 19 03:31	4° $\mathring{\text{I}}$ 09'41	23°27'49
	2317 Jul 29 21:23	0° $\mathring{\text{O}}$			2318 Jul 07 00:42	0° $\mathring{\text{O}}$	
superior conj	2317 Aug 04 11:57	11° $\mathring{\text{O}}$ 50'13	1°40'47	asc. node	2318 Jul 09 09:14	4° $\mathring{\text{O}}$ 36'27	
minimum elong	2317 Aug 04 10:28	11° $\mathring{\text{O}}$ 42'27	1°40'41	morning set	2318 Jul 12 16:02	11° $\mathring{\text{O}}$ 21'41	

superior conj	2318 Jul 19 18:11	26°☿34'31	1°30'13	morning set	2319 Jun 27 03:51	26°♄17'35	
minimum elong	2318 Jul 19 15:59	26°☿22'42	1°29'59		2319 Jun 28 21:35	0°☿	
	2318 Jul 21 08:36	0°♄					
max. Earth dist.	2318 Jul 22 04:02	1°♄43'06	1.33549 AU	superior conj	2319 Jul 04 04:03	11°☿28'43	1°14'48
evening rise	2318 Jul 27 08:35	12°♄24'15		minimum elong	2319 Jul 04 01:40	11°☿15'38	1°14'26
	2318 Aug 05 19:07	0°♄		max. Earth dist.	2319 Jul 05 10:22	14°☿13'58	1.32695 AU
desc. node	2318 Aug 16 11:19	16°♄53'11		evening rise	2319 Jul 11 08:33	26°☿48'24	
	2318 Aug 26 18:02	0°♄			2319 Jul 12 22:15	0°♄	
evening max el	2318 Aug 30 08:07	3°♄41'32	27°21'56		2319 Jul 30 04:06	0°♄	
retrograde	2318 Sep 12 20:38	10°♄59'35		desc. node	2319 Aug 03 08:20	5°♄49'33	
evening set	2318 Sep 19 22:47	8°♄18'19		evening max el	2319 Aug 12 17:06	16°♄33'36	27°22'08
min. Earth dist.	2318 Sep 23 16:26	4°♄53'57	0.64261 AU	retrograde	2319 Aug 26 11:55	23°♄50'10	
inferior conj	2318 Sep 26 02:00	2°♄21'35	-2°-57'-29	evening set	2319 Sep 02 16:43	21°♄20'53	
minimum elong	2318 Sep 26 06:41	2°♄09'10	2°55'54	min. Earth dist.	2319 Sep 06 06:54	18°♄26'03	0.62513 AU
	2318 Sep 28 09:35	30°♄		inferior conj	2319 Sep 09 04:30	15°♄41'30	-3°-51'-32
morning rise	2318 Oct 02 16:39	26°♄55'34		minimum elong	2319 Sep 09 09:57	15°♄28'35	3°50'06
direct	2318 Oct 05 05:07	26°♄23'18		morning rise	2319 Sep 16 05:53	10°♄34'26	
asc. node	2318 Oct 05 08:26	26°♄23'24		direct	2319 Sep 18 15:02	10°♄08'55	
morning max el	2318 Oct 11 17:24	29°♄49'24	17°56'25	asc. node	2319 Sep 22 05:29	11°♄08'57	
	2318 Oct 11 21:37	0°♄		morning max el	2319 Sep 25 09:18	13°♄35'51	17°51'59
morning set	2318 Oct 28 19:52	25°♄52'40			2319 Oct 06 13:59	0°♄	
	2318 Oct 31 06:08	0°♄		morning set	2319 Oct 11 10:18	8°♄35'48	
superior conj	2318 Nov 10 23:39	17°♄47'12	0°09'53	superior conj	2319 Oct 22 16:48	28°♄19'31	0°50'37
minimum elong	2318 Nov 11 00:47	17°♄51'48	0°09'44	minimum elong	2319 Oct 22 21:02	28°♄37'29	0°50'04
behind sun begin	2318 Nov 10 16:34	17°♄18'29			2319 Oct 23 16:35	0°♄	
behind sun end	2318 Nov 11 09:00	18°♄25'03		max. Earth dist.	2319 Oct 29 17:25	9°♄58'28	1.43321 AU
desc. node	2318 Nov 12 10:39	20°♄08'28		desc. node	2319 Oct 30 07:40	10°♄56'09	
max. Earth dist.	2318 Nov 16 02:27	25°♄59'14	1.44561 AU	evening rise	2319 Nov 06 14:19	22°♄28'06	
	2318 Nov 18 15:25	0°♄			2319 Nov 11 11:52	0°♄	
evening rise	2318 Nov 27 04:52	13°♄18'48		greatest brilliancy	2319 Dec 02 07:35	29°♄40'46	-0.4m
	2318 Dec 08 04:22	0°♄			2319 Dec 02 13:45	0°♄	
greatest brilliancy	2318 Dec 18 00:28	14°♄10'07	-0.6m	evening max el	2319 Dec 07 07:20	5°♄25'05	21°27'14
evening max el	2318 Dec 24 09:17	21°♄53'56	20°17'46	retrograde	2319 Dec 16 03:48	10°♄40'54	
retrograde	2319 Jan 01 06:20	26°♄31'50		asc. node	2319 Dec 19 04:43	9°♄49'57	
asc. node	2319 Jan 01 07:42	26°♄31'49		evening set	2319 Dec 20 07:33	9°♄04'40	
evening set	2319 Jan 04 23:51	25°♄11'02		inferior conj	2319 Dec 25 17:10	2°♄46'49	2°05'05
inferior conj	2319 Jan 10 10:50	19°♄03'01	2°44'13	minimum elong	2319 Dec 25 14:47	2°♄55'04	2°04'16
minimum elong	2319 Jan 10 08:14	19°♄11'50	2°43'29	min. Earth dist.	2319 Dec 25 22:58	2°♄26'43	0.67700 AU
min. Earth dist.	2319 Jan 11 04:39	18°♄02'44	0.67174 AU		2319 Dec 27 18:24	30°♄	
morning rise	2319 Jan 15 16:05	12°♄47'38		morning rise	2319 Dec 30 21:41	26°♄32'00	
direct	2319 Jan 21 08:33	10°♄16'56		direct	2320 Jan 04 23:08	24°♄21'51	
morning max el	2319 Feb 01 21:04	17°♄09'33	24°44'47		2320 Jan 14 18:25	0°♄	
desc. node	2319 Feb 08 09:53	24°♄35'18		morning max el	2320 Jan 15 06:03	0°♄28'58	23°16'22
	2319 Feb 12 14:12	0°♄		greatest brilliancy	2320 Jan 20 11:07	6°♄20'05	-0.2m
	2319 Mar 04 10:07	0°♄		desc. node	2320 Jan 26 06:55	13°♄51'33	
morning set	2319 Mar 09 22:02	9°♄26'55			2320 Feb 06 11:53	0°♄	
max. Earth dist.	2319 Mar 13 14:43	16°♄06'03	1.37233 AU	morning set	2320 Feb 19 03:14	20°♄08'56	
				max. Earth dist.	2320 Feb 23 09:18	27°♄24'39	1.39366 AU
					2320 Feb 24 20:48	0°♄	
superior conj	2319 Mar 20 04:58	28°♄34'54	-1°-30'-34				
minimum elong	2319 Mar 20 09:13	28°♄55'36	1°30'01	superior conj	2320 Mar 02 00:18	11°♄06'41	-1°-51'-40
	2319 Mar 20 22:23	0°♄		minimum elong	2320 Mar 02 04:23	11°♄25'35	1°51'21
evening rise	2319 Mar 28 18:01	15°♄34'52		evening rise	2320 Mar 11 11:44	29°♄09'53	
asc. node	2319 Mar 30 07:01	18°♄38'34			2320 Mar 11 22:08	0°♄	
	2319 Apr 05 08:00	0°♄		asc. node	2320 Mar 16 04:02	8°♄02'34	
evening max el	2319 Apr 14 15:07	12°♄55'19	19°20'56	evening max el	2320 Mar 27 16:45	25°♄15'02	18°36'41
retrograde	2319 Apr 23 19:51	17°♄22'26		retrograde	2320 Apr 04 12:20	29°♄04'37	
evening set	2319 Apr 25 21:10	17°♄10'03		evening set	2320 Apr 06 19:03	28°♄46'13	
inferior conj	2319 May 04 08:21	13°♄02'05	0°51'55	inferior conj	2320 Apr 14 11:03	24°♄19'51	2°19'25
minimum elong	2319 May 04 10:27	12°♄58'37	0°51'10	minimum elong	2320 Apr 14 15:00	24°♄12'14	2°18'20
min. Earth dist.	2319 May 07 02:31	11°♄13'40	0.56125 AU	min. Earth dist.	2320 Apr 17 20:28	21°♄44'40	0.57876 AU
desc. node	2319 May 07 09:02	11°♄03'20		morning rise	2320 Apr 22 06:35	19°♄00'53	
morning rise	2319 May 12 19:46	8°♄16'09		desc. node	2320 Apr 23 06:04	18°♄35'05	
direct	2319 May 17 14:01	7°♄24'19		direct	2320 Apr 28 01:30	17°♄36'33	
morning max el	2319 May 31 17:56	14°♄36'09	25°08'27	morning max el	2320 May 12 10:31	25°♄13'22	26°33'48
	2319 Jun 12 22:45	0°♄			2320 May 16 20:45	0°♄	
asc. node	2319 Jun 26 06:17	24°♄24'22					

	2320 Jun 05 01:52	0°♄		desc. node	2321 Apr 10 03:07	28°♄34'20	
morning set	2320 Jun 10 14:27	11°♄08'40			2321 Apr 15 19:48	0°♄	
asc. node	2320 Jun 12 03:18	14°♄24'08		morning max el	2321 Apr 24 08:51	6°♄24'09	27°30'11
					2321 May 12 01:18	0°♄	
superior conj	2320 Jun 17 15:38	26°♄25'56	0°55'18	morning set	2321 May 25 22:11	25°♄49'29	
minimum elong	2320 Jun 17 13:32	26°♄14'20	0°54'54		2321 May 27 21:51	0°♄	
max. Earth dist.	2320 Jun 17 21:21	26°♄57'22	1.32238 AU	asc. node	2321 May 30 00:20	4°♄31'08	
	2320 Jun 19 06:34	0°♄		max. Earth dist.	2321 Jun 01 09:27	9°♄42'48	1.32172 AU
evening rise	2320 Jun 24 14:38	11°♄29'25					
	2320 Jul 04 03:10	0°♄		superior conj	2321 Jun 02 03:13	11°♄20'28	0°32'27
desc. node	2320 Jul 20 05:20	23°♄49'49		minimum elong	2321 Jun 02 01:49	11°♄12'47	0°32'08
evening max el	2320 Jul 24 21:00	28°♄45'38	26°49'20	evening rise	2321 Jun 09 00:34	26°♄19'48	
	2320 Jul 26 05:34	0°♄			2321 Jun 10 18:38	0°♄	
retrograde	2320 Aug 07 19:43	5°♄58'45			2321 Jun 28 01:17	0°♄	
evening set	2320 Aug 14 17:18	3°♄55'07		evening max el	2321 Jul 06 17:56	10°♄11'09	25°44'53
min. Earth dist.	2320 Aug 18 11:03	1°♄17'28	0.60520 AU	desc. node	2321 Jul 07 02:21	10°♄31'01	
	2320 Aug 20 00:51	30°♄		retrograde	2321 Jul 20 18:04	17°♄19'47	
inferior conj	2320 Aug 21 16:57	28°♄35'48	-4°-35'-21	evening set	2321 Jul 26 19:48	15°♄52'25	
minimum elong	2320 Aug 21 21:36	28°♄26'05	4°34'35	min. Earth dist.	2321 Jul 31 06:13	13°♄14'35	0.58464 AU
morning rise	2320 Aug 29 05:07	23°♄50'22		inferior conj	2321 Aug 03 11:49	10°♄55'00	-4°-59'-7
direct	2320 Aug 31 13:55	23°♄28'48		minimum elong	2321 Aug 03 13:12	10°♄52'30	4°59'04
morning max el	2320 Sep 07 21:55	27°♄05'15	18°06'31	morning rise	2321 Aug 11 10:07	6°♄32'40	
asc. node	2320 Sep 08 02:32	27°♄16'33		direct	2321 Aug 13 21:34	6°♄12'58	
	2320 Sep 10 12:31	0°♄		morning max el	2321 Aug 22 04:04	10°♄08'55	18°41'26
morning set	2320 Sep 23 16:55	22°♄05'07		asc. node	2321 Aug 25 23:35	14°♄31'21	
	2320 Sep 27 22:42	0°♄			2321 Sep 04 06:30	0°♄	
				morning set	2321 Sep 07 11:01	6°♄08'01	
superior conj	2320 Oct 03 12:02	10°♄07'55	1°19'47				
minimum elong	2320 Oct 03 16:12	10°♄26'34	1°19'20	superior conj	2321 Sep 16 04:33	22°♄59'30	1°37'20
max. Earth dist.	2320 Oct 11 03:13	23°♄21'59	1.41586 AU	minimum elong	2321 Sep 16 07:08	23°♄11'40	1°37'09
	2320 Oct 15 03:30	0°♄			2321 Sep 19 23:20	0°♄	
desc. node	2320 Oct 16 04:40	1°♄41'57		max. Earth dist.	2321 Sep 23 08:41	6°♄04'12	1.39576 AU
evening rise	2320 Oct 16 13:18	2°♄16'44		evening rise	2321 Sep 27 11:10	13°♄09'04	
	2320 Nov 03 22:09	0°♄		desc. node	2321 Oct 03 01:40	22°♄22'30	
greatest brilliancy	2320 Nov 14 00:27	13°♄22'29	-0.3m		2321 Oct 07 22:30	0°♄	
evening max el	2320 Nov 19 00:19	18°♄58'09	22°44'51		2321 Oct 30 02:48	0°♄	
retrograde	2320 Nov 28 23:02	24°♄52'30		evening max el	2321 Nov 01 13:53	2°♄34'45	24°04'47
evening set	2320 Dec 03 14:56	22°♄59'39		retrograde	2321 Nov 12 14:49	9°♄03'39	
asc. node	2320 Dec 05 01:46	21°♄37'35		evening set	2321 Nov 17 20:25	6°♄53'41	
inferior conj	2320 Dec 09 00:41	16°♄35'46	1°19'17	asc. node	2321 Nov 21 22:49	2°♄18'05	
minimum elong	2320 Dec 08 22:58	16°♄41'42	1°18'36	min. Earth dist.	2321 Nov 22 15:50	1°♄21'10	0.67689 AU
min. Earth dist.	2320 Dec 08 19:30	16°♄53'42	0.67864 AU	inferior conj	2321 Nov 23 07:38	0°♄27'48	0°28'05
morning rise	2320 Dec 14 06:55	10°♄23'42		minimum elong	2321 Nov 23 06:57	0°♄30'04	0°27'49
direct	2320 Dec 18 17:32	8°♄36'21			2321 Nov 23 15:52	30°♄	
morning max el	2320 Dec 27 18:45	13°♄54'58	21°49'55	morning rise	2321 Nov 28 17:45	24°♄20'51	
greatest brilliancy	2321 Jan 01 13:28	19°♄18'38	-0.4m	direct	2321 Dec 02 14:38	22°♄55'43	
	2321 Jan 09 14:28	0°♄		morning max el	2321 Dec 10 14:26	27°♄31'42	20°32'26
desc. node	2321 Jan 12 03:56	3°♄38'34			2321 Dec 12 21:17	0°♄	
morning set	2321 Jan 29 03:22	29°♄27'15		greatest brilliancy	2321 Dec 16 17:46	4°♄46'13	-0.5m
	2321 Jan 29 11:33	0°♄		desc. node	2321 Dec 30 00:58	23°♄47'43	
max. Earth dist.	2321 Feb 04 07:48	9°♄32'38	1.41483 AU		2322 Jan 03 03:26	0°♄	
				morning set	2322 Jan 08 03:56	7°♄43'13	
superior conj	2321 Feb 12 00:25	22°♄41'56	-2°-4'-1	max. Earth dist.	2322 Jan 17 14:20	22°♄37'58	1.43292 AU
minimum elong	2321 Feb 12 02:12	22°♄49'45	2°04'00		2322 Jan 22 02:42	0°♄	
	2321 Feb 16 02:48	0°♄					
evening rise	2321 Feb 22 17:42	12°♄07'33		superior conj	2322 Jan 24 00:09	3°♄08'30	-2°-2'-41
asc. node	2321 Mar 03 01:04	27°♄01'43		minimum elong	2322 Jan 23 21:03	2°♄55'35	2°02'36
	2321 Mar 04 20:56	0°♄		evening rise	2322 Feb 05 07:47	24°♄18'59	
evening max el	2321 Mar 11 01:12	8°♄03'59	18°12'30		2322 Feb 08 13:21	0°♄	
retrograde	2321 Mar 17 23:22	11°♄32'42		asc. node	2322 Feb 17 22:06	15°♄27'37	
evening set	2321 Mar 20 11:52	11°♄05'46		evening max el	2322 Feb 22 13:09	21°♄12'19	18°07'52
inferior conj	2321 Mar 27 10:47	6°♄18'00	3°13'19	retrograde	2322 Mar 01 01:16	24°♄35'47	
minimum elong	2321 Mar 27 13:50	6°♄11'10	3°12'48	evening set	2322 Mar 03 18:55	23°♄59'02	
min. Earth dist.	2321 Mar 30 19:35	3°♄18'31	0.59985 AU	inferior conj	2322 Mar 10 04:26	18°♄50'02	3°38'21
morning rise	2321 Apr 03 12:18	0°♄34'47		minimum elong	2322 Mar 10 05:34	18°♄47'09	3°38'16
	2321 Apr 04 13:06	30°♄		min. Earth dist.	2322 Mar 13 02:37	15°♄51'12	0.62113 AU
direct	2321 Apr 10 01:32	28°♄34'19		morning rise	2322 Mar 16 13:47	12°♄51'25	

direct	2322 Mar 23 11:23	10° ✕ 21'15		min. Earth dist.	2323 Feb 23 19:18	29° ≈ 10'16	0.64015 AU
desc. node	2322 Mar 28 00:10	11° ✕ 19'04		morning rise	2323 Feb 27 08:44	25° ≈ 40'33	
morning max el	2322 Apr 06 13:23	18° ✕ 16'50	27°50'08	direct	2323 Mar 06 05:30	22° ≈ 53'23	
	2322 Apr 16 09:42	0° Υ		desc. node	2323 Mar 14 21:12	26° ≈ 22'43	
	2322 May 04 20:05	0° ♄			2323 Mar 19 02:46	0° ✕	
morning set	2322 May 10 00:56	10° ♄ 12'26		morning max el	2323 Mar 19 22:08	0° ✕ 47'36	27°33'14
max. Earth dist.	2322 May 15 18:41	22° ♄ 15'56	1.32504 AU		2323 Apr 10 11:18	0° Υ	
asc. node	2322 May 16 21:23	24° ♄ 40'17		morning set	2323 Apr 23 20:16	24° Υ 10'00	
					2323 Apr 26 17:55	0° ♄	
superior conj	2322 May 17 13:02	26° ♄ 05'24	0°06'54	max. Earth dist.	2323 Apr 28 21:04	4° ♄ 24'20	1.33256 AU
minimum elong	2322 May 17 12:43	26° ♄ 03'38	0°06'49				
behind sun begin	2322 May 17 08:02	25° ♄ 38'10		superior conj	2323 May 01 19:18	10° ♄ 35'21	0°-20'-32
behind sun end	2322 May 17 17:24	26° ♄ 29'08		minimum elong	2323 May 01 20:19	10° ♄ 40'49	0°20'19
	2322 May 19 08:04	0° ♄		asc. node	2323 May 03 18:26	14° ♄ 47'54	
evening rise	2322 May 24 12:14	11° ♄ 11'31		evening rise	2323 May 08 23:50	25° ♄ 58'36	
	2322 Jun 03 02:57	0° ♄			2323 May 10 22:09	0° ♄	
evening max el	2322 Jun 18 08:37	20° ♄ 54'50	24°17'12		2323 May 29 14:22	0° ♄	
desc. node	2322 Jun 23 23:24	25° ♄ 20'55		evening max el	2323 May 30 22:52	1° ♄ 22'25	22°40'51
retrograde	2322 Jul 02 04:56	27° ♄ 53'58		desc. node	2323 Jun 10 20:26	7° ♄ 44'05	
evening set	2322 Jul 06 22:34	27° ♄ 04'02		retrograde	2323 Jun 13 03:42	7° ♄ 56'13	
min. Earth dist.	2322 Jul 12 19:26	24° ♄ 08'23	0.56619 AU	evening set	2323 Jun 16 09:51	7° ♄ 32'54	
inferior conj	2322 Jul 15 10:29	22° ♄ 29'28	-4°-49'-7	min. Earth dist.	2323 Jun 24 06:52	4° ♄ 05'30	0.55329 AU
minimum elong	2322 Jul 15 06:28	22° ♄ 35'49	4°48'44	inferior conj	2323 Jun 25 14:32	3° ♄ 20'15	-3°-52'-37
morning rise	2322 Jul 23 17:59	18° ♄ 27'55		minimum elong	2323 Jun 25 06:39	3° ♄ 31'32	3°50'43
direct	2322 Jul 26 10:11	18° ♄ 08'49			2323 Jul 02 10:02	30° ♄	
morning max el	2322 Aug 05 00:45	22° ♄ 36'37	19°37'49	morning rise	2323 Jul 04 06:05	29° ♄ 28'53	
	2322 Aug 11 03:27	0° ♄		direct	2323 Jul 07 04:30	29° ♄ 09'01	
asc. node	2322 Aug 12 20:37	2° ♄ 38'00			2323 Jul 11 17:52	0° ♄	
morning set	2322 Aug 22 12:59	20° ♄ 33'54		morning max el	2323 Jul 18 10:09	4° ♄ 21'49	20°55'04
	2322 Aug 27 05:05	0° ♄		asc. node	2323 Jul 30 17:40	21° ♄ 24'32	
					2323 Aug 04 06:00	0° ♄	
superior conj	2322 Aug 30 12:48	6° ♄ 38'00	1°44'53	morning set	2323 Aug 06 20:12	5° ♄ 15'33	
minimum elong	2322 Aug 30 13:31	6° ♄ 41'34	1°44'52				
max. Earth dist.	2322 Sep 05 12:56	18° ♄ 09'52	1.37532 AU	superior conj	2323 Aug 14 08:12	20° ♄ 50'08	1°44'15
evening rise	2322 Sep 09 08:26	25° ♄ 06'37		minimum elong	2323 Aug 14 07:23	20° ♄ 45'54	1°44'14
	2322 Sep 12 03:21	0° ♄			2323 Aug 18 21:24	0° ♄	
desc. node	2322 Sep 19 22:42	12° ♄ 53'17		max. Earth dist.	2323 Aug 18 21:24	0° ♄ 00'00	1.35695 AU
	2322 Oct 01 13:18	0° ♄		evening rise	2323 Aug 23 01:28	8° ♄ 00'39	
evening max el	2322 Oct 15 01:57	16° ♄ 14'30	25°20'20		2323 Sep 04 19:23	0° ♄	
retrograde	2322 Oct 27 02:21	23° ♄ 10'08		desc. node	2323 Sep 06 19:45	3° ♄ 08'42	
evening set	2322 Nov 01 22:20	20° ♄ 44'25		evening max el	2323 Sep 27 13:59	29° ♄ 53'29	26°24'02
min. Earth dist.	2322 Nov 06 09:38	15° ♄ 46'56	0.67173 AU		2323 Sep 27 16:41	0° ♄	
inferior conj	2322 Nov 07 12:15	14° ♄ 20'45	0°-27'-12	retrograde	2323 Oct 10 09:00	7° ♄ 05'35	
minimum elong	2322 Nov 07 12:57	14° ♄ 18'29	0°26'55	evening set	2323 Oct 16 18:45	4° ♄ 27'59	
asc. node	2322 Nov 08 19:52	12° ♄ 39'52		min. Earth dist.	2323 Oct 20 22:35	0° ♄ 06'52	0.66314 AU
morning rise	2322 Nov 13 04:14	8° ♄ 21'28			2323 Oct 21 00:52	30° ♄	
direct	2322 Nov 16 13:06	7° ♄ 16'00		inferior conj	2323 Oct 22 12:38	28° ♄ 11'04	-1°-25'-16
morning max el	2322 Nov 23 18:06	11° ♄ 19'45	19°28'12	minimum elong	2323 Oct 22 14:54	28° ♄ 04'08	1°24'20
greatest brilliancy	2322 Dec 02 13:13	22° ♄ 29'21	-0.7m	asc. node	2323 Oct 26 16:55	23° ♄ 39'06	
	2322 Dec 07 15:16	0° ♄		morning rise	2323 Oct 28 12:16	22° ♄ 22'09	
desc. node	2322 Dec 16 21:59	14° ♄ 12'58		direct	2323 Oct 31 11:12	21° ♄ 32'39	
morning set	2322 Dec 18 02:18	16° ♄ 02'30		morning max el	2323 Nov 07 04:28	25° ♄ 14'52	18°39'22
	2322 Dec 27 01:24	0° ♄			2323 Nov 11 05:13	0° ♄	
max. Earth dist.	2322 Dec 31 03:55	6° ♄ 27'52	1.44556 AU	morning set	2323 Nov 27 21:33	25° ♄ 28'48	
					2323 Nov 30 17:55	0° ♄	
superior conj	2323 Jan 03 21:46	12° ♄ 25'11	-1°-43'-9	desc. node	2323 Dec 03 19:01	4° ♄ 49'06	
minimum elong	2323 Jan 03 13:38	11° ♄ 52'41	1°42'30				
	2323 Jan 14 16:51	0° ♄		superior conj	2323 Dec 14 01:20	20° ♄ 57'42	-1°-5'-21
evening rise	2323 Jan 18 01:44	5° ♄ 36'50		minimum elong	2323 Dec 13 17:27	20° ♄ 26'42	1°04'25
	2323 Feb 02 06:51	0° ♄		max. Earth dist.	2323 Dec 13 21:32	20° ♄ 42'46	1.45137 AU
asc. node	2323 Feb 04 19:10	3° ♄ 10'16			2323 Dec 19 19:18	0° ♄	
evening max el	2323 Feb 06 01:40	4° ♄ 32'48	18°22'10	evening rise	2323 Dec 29 20:28	15° ♄ 56'39	
retrograde	2323 Feb 12 13:21	8° ♄ 04'08			2324 Jan 07 15:52	0° ♄	
evening set	2323 Feb 15 12:12	7° ♄ 16'42		evening max el	2324 Jan 20 12:15	17° ♄ 59'25	18°54'27
inferior conj	2323 Feb 21 11:56	1° ♄ 48'16	3°41'26	asc. node	2324 Jan 22 16:13	19° ♄ 56'34	
minimum elong	2323 Feb 21 11:16	1° ♄ 50'09	3°41'24	retrograde	2324 Jan 27 07:33	21° ♄ 49'35	
	2323 Feb 23 01:38	30° ♄		evening set	2324 Jan 30 12:27	20° ♄ 50'23	

inferior conj	2324 Feb 05 05:24	15° \approx 04'39	3°28'20	inferior conj	2325 Jan 19 05:47	28° \approx 34'22	3°03'06
minimum elong	2324 Feb 05 03:31	15° \approx 10'33	3°28'03	minimum elong	2325 Jan 19 03:16	28° \approx 42'40	3°02'31
min. Earth dist.	2324 Feb 06 21:20	13° \approx 00'28	0.65563 AU	min. Earth dist.	2325 Jan 20 07:17	27° \approx 10'08	0.66710 AU
morning rise	2324 Feb 10 17:31	8° \approx 52'04		morning rise	2325 Jan 24 12:40	22° \approx 19'32	
direct	2324 Feb 17 06:35	6° \approx 02'02		direct	2325 Jan 30 13:31	19° \approx 39'01	
desc. node	2324 Feb 29 18:14	13° \approx 09'19		morning max el	2325 Feb 11 17:01	26° \approx 53'05	25°32'38
morning max el	2324 Mar 01 08:01	13° \approx 43'35	26°44'35		2325 Feb 14 14:51	0° \approx	
	2324 Mar 14 12:58	0° \approx		desc. node	2325 Feb 15 15:16	1° \approx 09'53	
	2324 Apr 02 03:33	0° \approx			2325 Mar 08 04:03	0° \approx	
morning set	2324 Apr 06 04:48	7° \approx 31'30		morning set	2325 Mar 19 22:03	20° \approx 03'40	
max. Earth dist.	2324 Apr 10 12:47	15° \approx 58'32	1.34456 AU	max. Earth dist.	2325 Mar 23 16:47	27° \approx 04'41	1.36113 AU
					2325 Mar 25 05:31	0° \approx	
superior conj	2324 Apr 14 19:49	24° \approx 43'26	0°-48'-42	superior conj	2325 Mar 29 11:54	8° \approx 22'02	-1°-16'-3
minimum elong	2324 Apr 14 22:18	24° \approx 56'19	0°48'13	minimum elong	2325 Mar 29 15:40	8° \approx 40'54	1°15'27
	2324 Apr 17 08:27	0° \approx		evening rise	2325 Apr 06 14:54	24° \approx 52'38	
asc. node	2324 Apr 19 15:31	4° \approx 49'34		asc. node	2325 Apr 06 12:33	24° \approx 40'45	
evening rise	2324 Apr 22 09:25	10° \approx 34'28			2325 Apr 09 04:09	0° \approx	
	2324 May 02 15:15	0° \approx		evening max el	2325 Apr 24 05:33	23° \approx 26'58	19°55'25
evening max el	2324 May 11 20:27	12° \approx 06'38	21°10'31	retrograde	2325 May 04 08:59	28° \approx 21'20	
retrograde	2324 May 23 17:32	17° \approx 54'40		evening set	2325 May 06 09:17	28° \approx 10'37	
evening set	2324 May 26 00:04	17° \approx 42'41		desc. node	2325 May 14 14:28	24° \approx 35'02	
desc. node	2324 May 27 17:26	17° \approx 18'34		inferior conj	2325 May 15 06:46	24° \approx 10'20	0°-11'-52
inferior conj	2324 Jun 04 08:35	13° \approx 44'18	-2°-11'-36	minimum elong	2325 May 15 06:13	24° \approx 11'10	0°11'41
minimum elong	2324 Jun 04 02:32	13° \approx 52'50	2°09'31	transit middle	2325 May 15 06:13	24° \approx 11'10	0°11'41
min. Earth dist.	2324 Jun 04 19:05	13° \approx 29'31	0.54889 AU	transit begin	2325 May 15 03:31	24° \approx 15'17	
morning rise	2324 Jun 13 04:52	9° \approx 44'37		transit end	2325 May 15 08:55	24° \approx 07'03	
direct	2324 Jun 16 14:14	9° \approx 19'44		min. Earth dist.	2325 May 17 08:33	22° \approx 54'47	0.55423 AU
morning max el	2324 Jun 29 08:45	15° \approx 24'34	22°29'17	morning rise	2325 May 24 00:11	19° \approx 44'30	
	2324 Jul 10 15:43	0° \approx		direct	2325 May 28 04:51	19° \approx 05'49	
asc. node	2324 Jul 16 14:43	10° \approx 41'22		morning max el	2325 Jun 11 00:14	25° \approx 56'40	24°11'30
morning set	2324 Jul 21 06:35	20° \approx 07'24			2325 Jun 14 20:24	0° \approx	
	2324 Jul 25 22:11	0° \approx		asc. node	2325 Jul 03 11:46	0° \approx 19'53	
superior conj	2324 Jul 28 11:17	5° \approx 25'29	1°36'57		2325 Jul 03 07:52	0° \approx	
minimum elong	2324 Jul 28 09:26	5° \approx 15'40	1°36'49	morning set	2325 Jul 05 18:19	5° \approx 03'16	
max. Earth dist.	2324 Jul 31 14:32	11° \approx 05'44	1.34212 AU	superior conj	2325 Jul 12 19:17	20° \approx 14'43	1°24'14
evening rise	2324 Aug 05 09:41	21° \approx 03'22		minimum elong	2325 Jul 12 16:57	20° \approx 02'00	1°23'56
	2324 Aug 09 19:16	0° \approx		max. Earth dist.	2325 Jul 14 16:49	24° \approx 20'11	1.33135 AU
desc. node	2324 Aug 23 16:46	23° \approx 01'52			2325 Jul 17 08:54	0° \approx	
	2324 Aug 28 14:55	0° \approx		evening rise	2325 Jul 20 04:52	5° \approx 49'56	
evening max el	2324 Sep 09 02:16	13° \approx 24'39	27°08'15		2325 Aug 02 09:45	0° \approx	
retrograde	2324 Sep 22 10:08	20° \approx 42'50		desc. node	2325 Aug 10 13:47	12° \approx 22'29	
evening set	2324 Sep 29 07:21	18° \approx 00'24		evening max el	2325 Aug 22 13:20	26° \approx 35'20	27°26'04
min. Earth dist.	2324 Oct 03 04:23	14° \approx 15'43	0.65105 AU		2325 Aug 26 13:48	0° \approx	
inferior conj	2324 Oct 05 06:37	11° \approx 54'52	-2°-24'-11	retrograde	2325 Sep 05 04:58	3° \approx 52'35	
minimum elong	2324 Oct 05 10:30	11° \approx 43'58	2°22'45	evening set	2325 Sep 12 09:05	1° \approx 15'11	
morning rise	2324 Oct 11 15:25	6° \approx 19'20			2325 Sep 13 22:53	30° \approx	
asc. node	2324 Oct 12 13:56	5° \approx 57'34		min. Earth dist.	2325 Sep 16 00:53	28° \approx 04'09	0.63552 AU
direct	2324 Oct 14 06:56	5° \approx 41'51		inferior conj	2325 Sep 18 15:37	25° \approx 25'27	-3°-21'-14
morning max el	2324 Oct 20 19:10	9° \approx 11'41	18°07'07	minimum elong	2325 Sep 18 20:45	25° \approx 12'26	3°19'39
	2324 Nov 04 01:37	0° \approx		morning rise	2325 Sep 25 10:44	20° \approx 06'44	
morning set	2324 Nov 07 22:08	6° \approx 22'58		direct	2325 Sep 27 21:28	19° \approx 37'39	
desc. node	2324 Nov 19 16:04	25° \approx 32'33		asc. node	2325 Sep 29 10:57	19° \approx 49'44	
superior conj	2324 Nov 22 06:32	29° \approx 41'42	0°-17'-28	morning max el	2325 Oct 04 11:23	23° \approx 03'15	17°52'15
minimum elong	2324 Nov 22 04:19	29° \approx 32'55	0°17'11		2325 Oct 09 22:30	0° \approx	
	2324 Nov 22 11:08	0° \approx		morning set	2325 Oct 21 00:32	18° \approx 31'40	
max. Earth dist.	2324 Nov 25 16:28	5° \approx 05'48	1.44982 AU		2325 Oct 27 16:29	0° \approx	
evening rise	2324 Dec 08 17:29	25° \approx 26'15		superior conj	2325 Nov 02 08:00	9° \approx 27'07	0°28'26
	2324 Dec 11 16:15	0° \approx		minimum elong	2325 Nov 02 10:55	9° \approx 39'08	0°28'02
greatest brilliancy	2324 Dec 26 03:28	21° \approx 50'03	-0.6m	desc. node	2325 Nov 06 13:05	16° \approx 19'22	
	2325 Jan 01 09:59	0° \approx		max. Earth dist.	2325 Nov 08 10:02	19° \approx 19'55	1.44111 AU
evening max el	2325 Jan 02 18:55	1° \approx 29'16	19°43'10		2325 Nov 15 04:23	0° \approx	
asc. node	2325 Jan 08 13:14	5° \approx 32'25		evening rise	2325 Nov 18 02:28	4° \approx 31'15	
retrograde	2325 Jan 10 04:45	5° \approx 47'18			2325 Dec 05 03:33	0° \approx	
evening set	2325 Jan 13 17:11	4° \approx 34'53		greatest brilliancy	2325 Dec 11 04:47	8° \approx 19'27	-0.5m
	2325 Jan 18 03:35	30° \approx					

evening max el	2325 Dec 16 20:19	15°☾00'19	20°46'04	evening max el	2326 Nov 29 16:02	28°♂31'41	21°59'36
retrograde	2325 Dec 25 02:37	19°☾53'22			2326 Dec 01 04:31	0°☾	
asc. node	2325 Dec 26 10:14	19°☾43'42		retrograde	2326 Dec 08 23:17	4°☾03'54	
evening set	2325 Dec 29 00:20	18°☾26'08		evening set	2326 Dec 13 08:06	2°☾20'26	
inferior conj	2326 Jan 03 10:33	12°☾13'42	2°28'31	asc. node	2326 Dec 13 07:16	2°☾22'07	
minimum elong	2326 Jan 03 07:59	12°☾22'30	2°27'43		2326 Dec 15 16:24	30°♂♂	
min. Earth dist.	2326 Jan 03 23:06	11°☾30'44	0.67449 AU	inferior conj	2326 Dec 18 17:35	25°♂59'30	1°46'23
morning rise	2326 Jan 08 15:12	5°☾58'34		minimum elong	2326 Dec 18 15:26	26°♂06'58	1°45'36
direct	2326 Jan 14 01:27	3°☾36'02		min. Earth dist.	2326 Dec 18 18:32	25°♂56'11	0.67810 AU
morning max el	2326 Jan 25 01:23	10°☾09'29	24°07'30	morning rise	2326 Dec 23 22:34	19°♂45'50	
desc. node	2326 Feb 02 12:19	20°☾03'08		direct	2326 Dec 28 17:35	17°♂45'31	
	2326 Feb 09 18:55	0°♂		morning max el	2327 Jan 07 11:37	23°♂31'29	22°39'01
	2326 Feb 28 21:08	0°♂		greatest brilliancy	2327 Jan 12 01:37	28°♂38'20	-0.3m
morning set	2326 Mar 01 18:16	1°♂30'55			2327 Jan 13 04:18	0°☾	
max. Earth dist.	2326 Mar 05 13:09	8°♂10'46	1.38130 AU	desc. node	2327 Jan 20 09:20	9°☾33'26	
					2327 Feb 03 04:48	0°♂	
superior conj	2326 Mar 12 16:07	21°♂22'09	-1°-40'-18	morning set	2327 Feb 10 11:21	11°♂♂37'30	
minimum elong	2326 Mar 12 20:29	21°♂43'00	1°39'50	max. Earth dist.	2327 Feb 15 09:11	19°♂♂50'17	1.40287 AU
	2326 Mar 17 02:58	0°♂			2327 Feb 21 04:56	0°♂	
evening rise	2326 Mar 21 13:49	8°♂46'27					
asc. node	2326 Mar 24 09:35	14°♂16'47		superior conj	2327 Feb 23 03:55	3°♂31'26	-1°-58'-14
	2326 Apr 02 12:55	0°♂		minimum elong	2327 Feb 23 07:21	3°♂46'56	1°58'04
evening max el	2326 Apr 07 01:53	5°♂27'01	18°59'34	evening rise	2327 Mar 05 03:02	22°♂07'07	
retrograde	2326 Apr 15 14:56	9°♂36'02			2327 Mar 09 07:58	0°♂	
evening set	2326 Apr 17 18:30	9°♂21'22		asc. node	2327 Mar 11 06:36	3°♂31'18	
inferior conj	2326 Apr 25 21:26	5°♂05'56	1°33'06	evening max el	2327 Mar 21 06:47	18°♂00'04	18°23'53
minimum elong	2326 Apr 26 00:46	5°♂00'06	1°32'02	retrograde	2327 Mar 28 15:56	21°♂39'09	
min. Earth dist.	2326 Apr 29 00:09	2°♂55'46	0.56808 AU	evening set	2327 Mar 31 01:04	21°♂17'24	
desc. node	2326 May 01 11:29	1°♂23'05		inferior conj	2327 Apr 07 09:22	16°♂41'42	2°46'12
morning rise	2326 May 04 02:47	0°♂05'38		minimum elong	2327 Apr 07 13:10	16°♂33'53	2°45'19
	2326 May 04 08:29	30°♂♂		min. Earth dist.	2327 Apr 10 19:58	13°♂53'16	0.58751 AU
direct	2326 May 09 07:58	29°♂01'15		morning rise	2327 Apr 14 21:13	11°♂10'59	
	2326 May 14 08:00	0°♂		desc. node	2327 Apr 18 08:32	9°♂50'23	
morning max el	2326 May 23 14:53	6°♂24'28	25°47'33	direct	2327 Apr 21 00:45	9°♂31'27	
	2326 Jun 09 21:55	0°♂		morning max el	2327 May 05 09:55	17°♂14'47	27°01'56
morning set	2326 Jun 20 05:51	19°♂58'05			2327 May 15 23:00	0°♂	
asc. node	2326 Jun 20 08:50	20°♂13'50			2327 Jun 02 08:00	0°♂	
	2326 Jun 24 21:27	0°♂		morning set	2327 Jun 04 15:28	4°♂45'39	
				asc. node	2327 Jun 07 05:53	10°♂17'13	
superior conj	2326 Jun 27 06:07	5°♂10'56	1°06'59				
minimum elong	2326 Jun 27 03:47	4°♂58'09	1°06'35	superior conj	2327 Jun 11 17:55	20°♂07'32	0°45'58
max. Earth dist.	2326 Jun 28 01:48	6°♂58'51	1.32459 AU	minimum elong	2327 Jun 11 16:03	19°♂57'19	0°45'36
evening rise	2326 Jul 04 07:48	20°♂22'30		max. Earth dist.	2327 Jun 11 13:48	19°♂44'52	1.32165 AU
	2326 Jul 09 03:07	0°♂			2327 Jun 16 06:07	0°♂	
	2326 Jul 27 16:55	0°♂		evening rise	2327 Jun 18 15:47	5°♂08'02	
desc. node	2326 Jul 28 10:47	0°♂57'07			2327 Jul 01 20:18	0°♂	
evening max el	2326 Aug 04 20:32	9°♂11'41	27°12'14	desc. node	2327 Jul 15 07:48	18°♂26'49	
retrograde	2326 Aug 18 16:48	16°♂25'57		evening max el	2327 Jul 17 21:22	21°♂03'04	26°25'18
evening set	2326 Aug 25 20:08	14°♂06'01		retrograde	2327 Jul 31 20:52	28°♂14'54	
min. Earth dist.	2326 Aug 29 10:45	11°♂20'27	0.61693 AU	evening set	2327 Aug 07 11:51	26°♂25'24	
inferior conj	2326 Sep 01 12:33	8°♂35'15	-4°-11'-52	min. Earth dist.	2327 Aug 11 10:31	23°♂50'16	0.59640 AU
minimum elong	2326 Sep 01 17:54	8°♂23'12	4°10'40	inferior conj	2327 Aug 14 17:53	21°♂15'19	-4°-48'-37
morning rise	2326 Sep 08 18:33	3°♂37'00		minimum elong	2327 Aug 14 21:29	21°♂08'14	4°48'13
direct	2326 Sep 11 03:20	3°♂13'19		morning rise	2327 Aug 22 10:32	16°♂40'06	
asc. node	2326 Sep 16 08:00	5°♂11'29		direct	2327 Aug 24 20:11	16°♂19'32	
morning max el	2326 Sep 18 02:12	6°♂42'49	17°55'46	morning max el	2327 Sep 01 12:31	20°♂02'36	18°18'54
	2326 Oct 03 01:24	0°♂		asc. node	2327 Sep 03 05:04	21°♂49'29	
morning set	2326 Oct 03 22:28	1°♂35'56			2327 Sep 08 23:33	0°♂	
				morning set	2327 Sep 17 10:28	15°♂20'43	
superior conj	2326 Oct 14 12:34	20°♂32'22	1°04'30		2327 Sep 25 04:40	0°♂	
minimum elong	2326 Oct 14 17:05	20°♂51'53	1°03'56				
	2326 Oct 20 02:11	0°♂		superior conj	2327 Sep 26 17:37	2°♂50'00	1°28'34
max. Earth dist.	2326 Oct 21 23:22	3°♂06'59	1.42634 AU	minimum elong	2327 Sep 26 21:13	3°♂06'25	1°28'14
desc. node	2326 Oct 24 10:05	7°♂06'19		max. Earth dist.	2327 Oct 04 07:02	16°♂12'50	1.40742 AU
evening rise	2326 Oct 28 15:51	13°♂52'16		evening rise	2327 Oct 08 23:57	24°♂06'06	
	2326 Nov 08 05:07	0°♂		desc. node	2327 Oct 11 07:06	27°♂50'20	
greatest brilliancy	2326 Nov 24 22:20	23°♂09'48	-0.3m		2327 Oct 12 15:29	0°♂	

	2327 Nov 02 02:56	0°♊		evening rise	2328 Sep 19 08:05	5°♊26'51	
evening max el	2327 Nov 12 07:09	12°♊05'31	23°18'57	desc. node	2328 Sep 27 04:08	18°♊27'10	
retrograde	2327 Nov 22 17:19	18°♊16'00			2328 Oct 04 16:46	0°♋	
evening set	2327 Nov 27 14:54	16°♊15'39		evening max el	2328 Oct 24 19:46	25°♋43'09	24°38'00
asc. node	2327 Nov 30 04:18	13°♊37'06			2328 Oct 29 20:52	0°♋	
min. Earth dist.	2327 Dec 02 15:18	10°♊23'44	0.67822 AU	retrograde	2328 Nov 05 07:31	2°♋25'15	
inferior conj	2327 Dec 03 01:05	9°♊50'08	0°58'10	evening set	2328 Nov 10 19:04	0°♋08'28	
minimum elong	2327 Dec 02 23:46	9°♊54'40	0°57'38		2328 Nov 10 23:00	30°♌	
morning rise	2327 Dec 08 08:42	3°♋39'57		min. Earth dist.	2328 Nov 15 10:57	24°♌50'23	0.67504 AU
direct	2327 Dec 12 13:12	2°♋02'29		inferior conj	2328 Nov 16 07:16	23°♌42'46	0°05'05
morning max el	2327 Dec 21 03:08	7°♋02'21	21°15'38	minimum elong	2328 Nov 16 07:08	23°♌43'11	0°05'01
greatest brilliancy	2327 Dec 26 08:44	13°♋02'11	-0.4m	transit middle	2328 Nov 16 07:08	23°♌43'11	0°05'01
desc. node	2328 Jan 07 06:22	29°♋30'41		transit begin	2328 Nov 16 04:31	23°♌51'54	
	2328 Jan 07 14:21	0°♌		transit end	2328 Nov 16 09:45	23°♌34'29	
morning set	2328 Jan 20 23:55	20°♌24'23		asc. node	2328 Nov 16 01:22	24°♌02'27	
	2328 Jan 26 23:53	0°♍		morning rise	2328 Nov 21 19:37	17°♌38'31	
max. Earth dist.	2328 Jan 28 10:44	2°♍22'20	1.42300 AU	direct	2328 Nov 25 11:06	16°♌22'09	
				morning max el	2328 Dec 03 02:10	20°♌43'32	20°03'17
superior conj	2328 Feb 04 18:11	14°♍38'15	-2°-5'-26	greatest brilliancy	2328 Dec 10 03:35	29°♌17'05	-0.6m
minimum elong	2328 Feb 04 18:11	14°♍38'12	2°05'27		2328 Dec 10 16:10	0°♎	
	2328 Feb 13 11:26	0°♏		desc. node	2328 Dec 24 03:23	19°♎46'56	
evening rise	2328 Feb 16 02:49	4°♏46'17		morning set	2328 Dec 29 20:08	28°♎31'10	
asc. node	2328 Feb 26 03:39	22°♏17'28			2328 Dec 30 19:07	0°♏	
	2328 Mar 02 18:46	0°♐		max. Earth dist.	2329 Jan 09 19:50	15°♏45'40	1.43903 AU
evening max el	2328 Mar 03 17:05	0°♐58'07	18°08'09				
retrograde	2328 Mar 10 09:52	4°♐23'05		superior conj	2329 Jan 15 06:36	24°♏33'47	-1°-56'-48
evening set	2328 Mar 13 00:28	3°♐52'15		minimum elong	2329 Jan 15 01:05	24°♏11'16	1°56'31
	2328 Mar 18 13:45	30°♑			2329 Jan 18 13:51	0°♑	
inferior conj	2328 Mar 19 17:16	28°♑55'29	3°27'01	evening rise	2329 Jan 28 08:46	16°♑34'54	
minimum elong	2328 Mar 19 19:32	28°♑50'05	3°26'43		2329 Feb 05 05:09	0°♒	
min. Earth dist.	2328 Mar 22 22:28	25°♑53'04	0.60905 AU	asc. node	2329 Feb 12 00:41	10°♒26'12	
morning rise	2328 Mar 26 11:29	23°♑04'24		evening max el	2329 Feb 15 05:39	14°♒12'30	18°11'47
direct	2328 Apr 02 05:25	20°♑49'49		retrograde	2329 Feb 21 16:29	17°♒37'37	
desc. node	2328 Apr 04 05:35	21°♑01'05		evening set	2329 Feb 24 12:18	16°♒56'29	
morning max el	2328 Apr 16 11:12	28°♑43'49	27°43'11	inferior conj	2329 Mar 02 17:17	11°♒39'18	3°41'56
	2328 Apr 17 17:08	0°♓		minimum elong	2329 Mar 02 17:36	11°♒38'28	3°41'55
	2328 May 08 18:40	0°♔		min. Earth dist.	2329 Mar 05 09:33	8°♒47'02	0.62960 AU
morning set	2328 May 18 21:23	19°♔19'51		morning rise	2329 Mar 08 20:50	5°♒36'20	
	2328 May 23 22:13	0°♕		direct	2329 Mar 15 19:17	2°♒56'50	
asc. node	2328 May 24 02:56	0°♕25'36		desc. node	2329 Mar 22 02:37	4°♒48'55	
max. Earth dist.	2328 May 25 01:03	2°♕25'57	1.32263 AU	morning max el	2329 Mar 29 17:40	10°♒53'10	27°47'11
					2329 Apr 13 18:28	0°♖	
superior conj	2328 May 26 04:59	4°♕58'43	0°21'53		2329 May 01 02:24	0°♗	
minimum elong	2328 May 26 04:00	4°♕53'20	0°21'40	morning set	2329 May 02 21:22	3°♗33'32	
evening rise	2328 Jun 02 02:42	19°♕59'31		max. Earth dist.	2329 May 08 07:43	14°♗49'35	1.32768 AU
	2328 Jun 06 23:58	0°♘					
	2328 Jun 26 12:32	0°♙		superior conj	2329 May 10 13:36	19°♘38'49	0°-4'-34
evening max el	2328 Jun 28 15:08	2°♙08'25	25°09'35	minimum elong	2329 May 10 13:49	19°♘40'00	0°04'32
desc. node	2328 Jul 01 04:51	4°♙24'48		behind sun begin	2329 May 10 08:47	19°♘12'45	
retrograde	2328 Jul 12 15:02	9°♙15'00		behind sun end	2329 May 10 18:52	20°♘07'16	
evening set	2328 Jul 18 04:06	8°♙04'11		asc. node	2329 May 11 00:00	20°♘34'58	
min. Earth dist.	2328 Jul 23 02:52	5°♙20'29	0.57626 AU		2329 May 15 08:16	0°♚	
inferior conj	2328 Jul 26 04:18	3°♙15'59	-4°-59'-55	evening rise	2329 May 17 14:36	4°♚50'35	
minimum elong	2328 Jul 26 03:32	3°♙17'19	4°59'55		2329 May 31 02:51	0°♛	
	2328 Jul 31 15:09	30°♜		evening max el	2329 Jun 10 04:59	12°♛42'58	23°36'25
morning rise	2328 Aug 03 06:40	29°♛03'18		desc. node	2329 Jun 18 01:53	18°♛17'21	
direct	2328 Aug 05 19:42	28°♛44'09		retrograde	2329 Jun 23 20:45	19°♛33'20	
	2328 Aug 10 17:02	0°♞		evening set	2329 Jun 27 22:36	18°♛56'52	
morning max el	2328 Aug 14 15:04	2°♞52'22	19°02'50	min. Earth dist.	2329 Jul 04 15:19	15°♛49'07	0.55983 AU
asc. node	2328 Aug 20 02:09	9°♞27'58		inferior conj	2329 Jul 06 18:41	14°♛32'11	-4°-31'-19
morning set	2328 Aug 31 08:17	29°♞34'04		minimum elong	2329 Jul 06 12:31	14°♛41'28	4°30'19
	2328 Aug 31 13:33	0°♟		morning rise	2329 Jul 15 05:43	10°♛36'20	
				direct	2329 Jul 18 00:18	10°♛17'06	
superior conj	2328 Sep 08 17:28	16°♟03'14	1°41'38	morning max el	2329 Jul 28 07:05	15°♛03'07	20°08'08
minimum elong	2328 Sep 08 19:15	16°♟11'49	1°41'34	asc. node	2329 Aug 06 23:12	27°♛53'24	
max. Earth dist.	2328 Sep 15 10:53	28°♟35'32	1.38687 AU		2329 Aug 08 04:33	0°♠	
	2328 Sep 16 05:42	0°♠		morning set	2329 Aug 15 12:50	14°♠07'53	

superior conj	2329 Aug 23 07:00	29°♄57'40	1°45'30	superior conj	2330 Aug 07 06:01	14°♄20'27	1°41'53
minimum elong	2329 Aug 23 07:00	29°♄57'43	1°45'31	minimum elong	2330 Aug 07 04:42	14°♄13'33	1°41'49
	2329 Aug 23 07:28	0°♄		max. Earth dist.	2330 Aug 11 04:32	22°♄25'06	1.35025 AU
max. Earth dist.	2329 Aug 28 16:19	10°♄31'52	1.36720 AU		2330 Aug 15 00:57	0°♄	
evening rise	2329 Sep 01 14:26	17°♄50'34		evening rise	2330 Aug 15 14:28	1°♄04'47	
	2329 Sep 08 13:33	0°♄		desc. node	2330 Aug 31 22:13	28°♄59'06	
desc. node	2329 Sep 14 01:11	8°♄52'15			2330 Sep 01 14:22	0°♄	
	2329 Sep 28 23:32	0°♄		evening max el	2330 Sep 19 20:17	23°♄00'56	26°45'36
evening max el	2329 Oct 07 07:55	9°♄23'52	25°49'22		2330 Sep 30 15:59	0°♄	
retrograde	2329 Oct 19 16:55	16°♄27'17		retrograde	2330 Oct 02 21:04	0°♄15'47	
evening set	2329 Oct 25 18:51	13°♄56'13			2330 Oct 05 00:05	30°♄	
min. Earth dist.	2329 Oct 30 03:03	9°♄13'51	0.66853 AU	evening set	2330 Oct 09 12:14	27°♄35'09	
inferior conj	2329 Oct 31 10:19	7°♄34'57	0°-51'-35	min. Earth dist.	2330 Oct 13 13:08	23°♄29'45	0.65850 AU
minimum elong	2329 Oct 31 11:40	7°♄30'41	0°51'01	inferior conj	2330 Oct 15 08:15	21°♄22'49	-1°-50'-17
asc. node	2329 Nov 02 22:25	4°♄33'22		minimum elong	2330 Oct 15 11:13	21°♄14'04	1°49'07
morning rise	2329 Nov 06 05:20	1°♄39'27		asc. node	2330 Oct 20 19:26	16°♄02'32	
direct	2329 Nov 09 09:46	0°♄41'05		morning rise	2330 Oct 21 11:37	15°♄39'15	
morning max el	2329 Nov 16 08:47	4°♄34'19	19°05'22	direct	2330 Oct 24 07:12	14°♄55'12	
	2329 Dec 04 10:07	0°♄		morning max el	2330 Oct 30 21:19	18°♄30'39	18°23'34
morning set	2329 Dec 09 01:11	7°♄12'38			2330 Nov 08 12:56	0°♄	
desc. node	2329 Dec 11 00:25	10°♄16'57		morning set	2330 Nov 19 08:52	17°♄16'51	
max. Earth dist.	2329 Dec 23 11:32	29°♄48'15	1.44897 AU		2330 Nov 27 07:13	0°♄	
	2329 Dec 23 14:31	0°♄		desc. node	2330 Nov 27 21:28	0°♄56'39	
superior conj	2329 Dec 25 18:42	3°♄25'55	-1°-29'-2	superior conj	2330 Dec 04 20:09	11°♄55'13	0°-45'-31
minimum elong	2329 Dec 25 09:47	2°♄50'39	1°28'10	minimum elong	2330 Dec 04 14:19	11°♄32'18	0°44'46
evening rise	2330 Jan 09 16:55	27°♄27'05		max. Earth dist.	2330 Dec 06 06:44	14°♄11'07	1.45164 AU
	2330 Jan 11 06:13	0°♄			2330 Dec 16 08:47	0°♄	
evening max el	2330 Jan 29 17:38	27°♄35'53	18°33'52	evening rise	2330 Dec 21 01:51	7°♄24'03	
asc. node	2330 Jan 29 21:43	27°♄46'10		greatest brilliancy	2331 Jan 03 09:12	28°♄07'59	-0.7m
	2330 Feb 01 14:26	0°♄			2331 Jan 04 15:13	0°♄	
retrograde	2330 Feb 05 07:28	1°♄13'38		evening max el	2331 Jan 13 02:44	11°♄04'01	19°13'16
evening set	2330 Feb 08 08:53	0°♄21'10		asc. node	2331 Jan 16 18:44	14°♄04'21	
	2330 Feb 08 22:39	30°♄		retrograde	2331 Jan 20 03:20	15°♄05'00	
inferior conj	2330 Feb 14 05:22	24°♄45'07	3°37'34	evening set	2331 Jan 23 11:19	14°♄00'11	
minimum elong	2330 Feb 14 04:07	24°♄48'52	3°37'27	inferior conj	2331 Jan 29 02:06	8°♄07'34	3°18'54
min. Earth dist.	2330 Feb 16 06:05	22°♄20'34	0.64722 AU	minimum elong	2331 Jan 28 23:53	8°♄14'42	3°18'31
morning rise	2330 Feb 19 22:03	18°♄35'17		min. Earth dist.	2331 Jan 30 11:36	6°♄20'19	0.66098 AU
direct	2330 Feb 26 16:21	15°♄45'16		morning rise	2331 Feb 03 11:36	1°♄53'50	
desc. node	2330 Mar 08 23:38	20°♄39'50			2331 Feb 06 04:50	30°♄	
morning max el	2330 Mar 12 02:58	23°♄34'52	27°16'03	direct	2331 Feb 09 19:47	29°♄06'55	
	2330 Mar 17 20:47	0°♄			2331 Feb 13 17:48	0°♄	
	2330 Apr 07 02:18	0°♄		morning max el	2331 Feb 22 12:46	6°♄38'12	26°16'24
morning set	2330 Apr 16 12:32	17°♄16'39		desc. node	2331 Feb 23 20:39	8°♄00'49	
max. Earth dist.	2330 Apr 21 05:56	26°♄43'58	1.33711 AU		2331 Mar 12 14:57	0°♄	
	2330 Apr 22 19:52	0°♄			2331 Mar 30 11:11	0°♄	
superior conj	2330 Apr 24 17:41	4°♄00'11	0°-32'-26	morning set	2331 Mar 30 15:09	0°♄18'30	
minimum elong	2330 Apr 24 19:19	4°♄08'51	0°32'07	max. Earth dist.	2331 Apr 03 16:54	8°♄05'42	1.35110 AU
asc. node	2330 Apr 27 21:01	10°♄40'24		superior conj	2331 Apr 08 14:56	17°♄56'14	-1°00'-30
evening rise	2330 May 02 01:34	19°♄33'41		minimum elong	2331 Apr 08 18:00	18°♄11'58	0°59'57
	2330 May 07 05:22	0°♄			2331 Apr 14 10:46	0°♄	
evening max el	2330 May 22 21:36	23°♄14'16	22°01'02	asc. node	2331 Apr 14 18:04	0°♄37'55	
retrograde	2330 Jun 04 14:22	29°♄30'05		evening rise	2331 Apr 16 09:40	4°♄02'43	
desc. node	2330 Jun 04 22:55	29°♄29'48			2331 May 01 06:16	0°♄	
evening set	2330 Jun 07 08:39	29°♄13'07		evening max el	2331 May 04 23:41	4°♄11'21	20°36'19
min. Earth dist.	2330 Jun 16 02:36	25°♄28'33	0.55034 AU	retrograde	2331 May 16 03:29	9°♄37'00	
inferior conj	2330 Jun 16 16:59	25°♄08'24	-3°-14'-13	evening set	2331 May 18 05:38	9°♄26'21	
minimum elong	2330 Jun 16 09:06	25°♄19'26	3°11'56	desc. node	2331 May 22 19:54	7°♄57'00	
morning rise	2330 Jun 25 11:12	21°♄16'11		inferior conj	2331 May 27 10:52	5°♄28'40	-1°-20'-56
direct	2330 Jun 28 13:46	20°♄54'45		minimum elong	2331 May 27 07:03	5°♄34'11	1°19'34
morning max el	2330 Jul 10 11:31	26°♄28'57	21°33'22	min. Earth dist.	2331 May 28 14:58	4°♄48'12	0.55002 AU
	2330 Jul 13 19:57	0°♄		morning rise	2331 Jun 05 07:09	1°♄19'59	
asc. node	2330 Jul 24 20:15	16°♄53'48		direct	2331 Jun 08 23:31	0°♄50'47	
morning set	2330 Jul 30 21:38	28°♄54'34		morning max el	2331 Jun 22 06:28	7°♄15'57	23°12'33
	2330 Jul 31 10:13	0°♄			2331 Jul 08 09:58	0°♄	
				asc. node	2331 Jul 11 17:18	6°♄20'25	

morning set	2331 Jul 15 08:47	13° $\overline{54}$ 8'36			2332 Jun 12 23:39	0° $\overline{\text{II}}$	
				asc. node	2332 Jun 27 14:21	26° $\overline{\text{II}}$ 06'06	
superior conj	2331 Jul 22 11:29	29° $\overline{50}$ 2'24	1°32'10	morning set	2332 Jun 28 20:38	28° $\overline{\text{II}}$ 44'41	
minimum elong	2331 Jul 22 09:21	28° $\overline{55}$ 1'01	1°31'57		2332 Jun 29 10:51	0° $\overline{55}$	
	2331 Jul 22 22:15	0° $\overline{\Omega}$					
max. Earth dist.	2331 Jul 25 01:44	4° $\overline{\Omega}$ 33'03	1.33706 AU	superior conj	2332 Jul 05 20:57	13° $\overline{55}$ 5'43	1°17'26
evening rise	2331 Jul 30 03:46	14° $\overline{\Omega}$ 57'46		minimum elong	2332 Jul 05 18:33	13° $\overline{54}$ 2'39	1°17'05
	2331 Aug 07 04:12	0° $\overline{\text{II}}$		max. Earth dist.	2332 Jul 07 07:03	17° $\overline{50}$ 1'07	1.32791 AU
desc. node	2331 Aug 18 19:15	18° $\overline{\text{II}}$ 39'37		evening rise	2332 Jul 13 02:36	29° $\overline{51}$ 8'52	
	2331 Aug 27 09:17	0° $\overline{\Omega}$			2332 Jul 13 10:39	0° $\overline{\Omega}$	
evening max el	2331 Sep 02 08:04	6° $\overline{\Omega}$ 23'53	27°19'17		2332 Jul 30 06:57	0° $\overline{\text{II}}$	
retrograde	2331 Sep 15 19:32	13° $\overline{\Omega}$ 42'25		desc. node	2332 Aug 04 16:14	7° $\overline{\text{II}}$ 42'56	
evening set	2331 Sep 22 20:37	11° $\overline{\Omega}$ 00'22		evening max el	2332 Aug 14 17:41	19° $\overline{\text{II}}$ 21'27	27°24'13
min. Earth dist.	2331 Sep 26 15:01	7° $\overline{\Omega}$ 30'57	0.64489 AU	retrograde	2332 Aug 28 11:54	26° $\overline{\text{II}}$ 38'27	
inferior conj	2331 Sep 28 22:44	5° $\overline{\Omega}$ 01'11	-2°-48'-53	evening set	2332 Sep 04 16:44	24° $\overline{\text{II}}$ 06'40	
minimum elong	2331 Sep 29 03:13	4° $\overline{\Omega}$ 49'06	2°47'19	min. Earth dist.	2332 Sep 08 07:09	21° $\overline{\text{II}}$ 07'54	0.62790 AU
	2331 Oct 04 14:11	30° $\overline{\text{R}}$		inferior conj	2332 Sep 11 03:03	18° $\overline{\text{II}}$ 24'22	-3°-43'-53
morning rise	2331 Oct 05 11:51	29° $\overline{\text{II}}$ 32'43		minimum elong	2332 Sep 11 08:27	18° $\overline{\text{II}}$ 11'19	3°42'23
asc. node	2331 Oct 07 16:28	28° $\overline{\text{II}}$ 59'55		morning rise	2332 Sep 18 02:48	13° $\overline{\text{II}}$ 14'09	
direct	2331 Oct 08 00:59	28° $\overline{\text{II}}$ 59'16		direct	2332 Sep 20 12:13	12° $\overline{\text{II}}$ 47'50	
	2331 Oct 11 11:42	0° $\overline{\Omega}$		asc. node	2332 Sep 23 13:32	13° $\overline{\text{II}}$ 31'50	
morning max el	2331 Oct 14 13:04	2° $\overline{\Omega}$ 26'06	17°58'39	morning max el	2332 Sep 27 05:11	16° $\overline{\text{II}}$ 14'18	17°51'25
morning set	2331 Oct 31 21:07	28° $\overline{\Omega}$ 44'28			2332 Oct 06 21:32	0° $\overline{\Omega}$	
	2331 Nov 01 15:01	0° $\overline{\text{II}}$		morning set	2332 Oct 13 08:39	11° $\overline{\Omega}$ 19'15	
					2332 Oct 24 02:12	0° $\overline{\text{II}}$	
superior conj	2331 Nov 14 08:18	21° $\overline{\text{II}}$ 00'46	0°02'54				
minimum elong	2331 Nov 14 08:39	21° $\overline{\text{II}}$ 02'10	0°02'51	superior conj	2332 Oct 24 21:20	1° $\overline{\text{II}}$ 20'40	0°45'10
behind sun begin	2331 Nov 13 22:24	20° $\overline{\text{II}}$ 20'54		minimum elong	2332 Oct 25 01:20	1° $\overline{\text{II}}$ 37'31	0°44'36
behind sun end	2331 Nov 14 18:53	21° $\overline{\text{II}}$ 43'21		max. Earth dist.	2332 Oct 31 16:57	12° $\overline{\text{II}}$ 35'02	1.43545 AU
desc. node	2331 Nov 14 18:30	21° $\overline{\text{II}}$ 41'50		desc. node	2332 Oct 31 15:32	12° $\overline{\text{II}}$ 29'18	
max. Earth dist.	2331 Nov 19 01:26	28° $\overline{\text{II}}$ 32'16	1.44688 AU	evening rise	2332 Nov 09 00:47	25° $\overline{\text{II}}$ 45'00	
	2331 Nov 19 23:38	0° $\overline{\text{II}}$			2332 Nov 11 18:59	0° $\overline{\text{II}}$	
evening rise	2331 Nov 30 16:02	16° $\overline{\text{II}}$ 38'29			2332 Dec 02 11:12	0° $\overline{\Omega}$	
	2331 Dec 09 09:52	0° $\overline{\Omega}$		greatest brilliancy	2332 Dec 04 03:07	2° $\overline{\Omega}$ 08'42	-0.4m
greatest brilliancy	2331 Dec 20 15:20	16° $\overline{\Omega}$ 23'55	-0.6m	evening max el	2332 Dec 09 06:05	8° $\overline{\Omega}$ 04'32	21°16'18
evening max el	2331 Dec 27 07:08	24° $\overline{\Omega}$ 33'36	20°08'21	retrograde	2332 Dec 17 22:48	13° $\overline{\Omega}$ 14'21	
asc. node	2332 Jan 03 15:45	29° $\overline{\Omega}$ 05'30		asc. node	2332 Dec 20 12:46	12° $\overline{\Omega}$ 37'27	
retrograde	2332 Jan 04 01:11	29° $\overline{\Omega}$ 06'21		evening set	2332 Dec 22 00:55	11° $\overline{\Omega}$ 40'35	
evening set	2332 Jan 07 17:17	27° $\overline{\Omega}$ 47'49		inferior conj	2332 Dec 27 10:38	5° $\overline{\Omega}$ 24'05	2°11'28
inferior conj	2332 Jan 13 04:38	21° $\overline{\Omega}$ 41'36	2°49'26	minimum elong	2332 Dec 27 08:11	5° $\overline{\Omega}$ 32'32	2°10'39
minimum elong	2332 Jan 13 02:02	21° $\overline{\Omega}$ 50'21	2°48'45	min. Earth dist.	2332 Dec 27 18:11	4° $\overline{\Omega}$ 58'01	0.67648 AU
min. Earth dist.	2332 Jan 14 00:24	20° $\overline{\Omega}$ 35'02	0.67067 AU		2332 Dec 31 17:40	30° $\overline{\text{R}}$	
morning rise	2332 Jan 18 10:12	15° $\overline{\Omega}$ 26'11		morning rise	2333 Jan 01 15:06	29° $\overline{\text{II}}$ 09'04	
direct	2332 Jan 24 04:52	12° $\overline{\Omega}$ 52'40		direct	2333 Jan 06 18:52	26° $\overline{\text{II}}$ 55'30	
morning max el	2332 Feb 04 21:31	19° $\overline{\Omega}$ 51'30	24°57'27		2333 Jan 13 18:30	0° $\overline{\Omega}$	
desc. node	2332 Feb 10 17:41	26° $\overline{\Omega}$ 25'39		morning max el	2333 Jan 17 06:11	3° $\overline{\Omega}$ 09'38	23°29'33
	2332 Feb 13 13:42	0° $\overline{\approx}$		greatest brilliancy	2333 Jan 23 12:16	10° $\overline{\Omega}$ 17'17	-0.2m
	2332 Mar 04 18:36	0° $\overline{\text{II}}$		desc. node	2333 Jan 27 14:44	15° $\overline{\Omega}$ 36'03	
morning set	2332 Mar 12 00:11	12° $\overline{\text{II}}$ 24'38			2333 Feb 06 17:40	0° $\overline{\approx}$	
max. Earth dist.	2332 Mar 15 16:50	19° $\overline{\text{II}}$ 06'45	1.36934 AU	morning set	2333 Feb 21 09:29	23° $\overline{\approx}$ 18'45	
	2332 Mar 21 10:17	0° $\overline{\text{II}}$			2333 Feb 25 06:50	0° $\overline{\text{II}}$	
				max. Earth dist.	2333 Feb 25 11:31	0° $\overline{\text{II}}$ 20'28	1.39044 AU
superior conj	2332 Mar 22 02:22	1° $\overline{\text{II}}$ 18'41	-1°-26'-53				
minimum elong	2332 Mar 22 06:31	1° $\overline{\text{II}}$ 39'04	1°26'19	superior conj	2333 Mar 05 00:11	13° $\overline{\text{II}}$ 58'15	-1°-48'-56
evening rise	2332 Mar 30 12:39	18° $\overline{\text{II}}$ 10'40		minimum elong	2333 Mar 05 04:24	14° $\overline{\text{II}}$ 17'56	1°48'35
asc. node	2332 Mar 31 15:05	20° $\overline{\text{II}}$ 22'45			2333 Mar 13 09:00	0° $\overline{\text{II}}$	
	2332 Apr 05 15:10	0° $\overline{\Omega}$		evening rise	2333 Mar 14 07:50	1° $\overline{\text{II}}$ 50'44	
evening max el	2332 Apr 16 13:40	15° $\overline{\Omega}$ 47'57	19°29'13	asc. node	2333 Mar 18 12:07	9° $\overline{\text{II}}$ 49'59	
retrograde	2332 Apr 26 00:08	20° $\overline{\Omega}$ 21'46		evening max el	2333 Mar 30 14:06	28° $\overline{\text{II}}$ 03'05	18°41'59
evening set	2332 Apr 28 00:55	20° $\overline{\Omega}$ 10'00			2333 Apr 01 22:15	0° $\overline{\Omega}$	
inferior conj	2332 May 06 14:55	16° $\overline{\Omega}$ 04'29	0°35'56	retrograde	2333 Apr 07 13:46	1° $\overline{\Omega}$ 56'59	
minimum elong	2332 May 06 16:26	16° $\overline{\Omega}$ 02'03	0°35'24	evening set	2333 Apr 09 19:41	1° $\overline{\Omega}$ 39'37	
desc. node	2332 May 08 16:53	14° $\overline{\Omega}$ 43'59			2333 Apr 13 15:27	30° $\overline{\text{R}}$	
min. Earth dist.	2332 May 09 05:27	14° $\overline{\Omega}$ 24'09	0.55915 AU	inferior conj	2333 Apr 17 14:28	27° $\overline{\text{II}}$ 16'17	2°08'19
morning rise	2332 May 15 04:08	11° $\overline{\Omega}$ 23'44		minimum elong	2333 Apr 17 18:22	27° $\overline{\text{II}}$ 08'58	2°07'12
direct	2332 May 19 18:44	10° $\overline{\Omega}$ 35'40		min. Earth dist.	2333 Apr 20 22:44	24° $\overline{\text{II}}$ 46'54	0.57585 AU
morning max el	2332 Jun 02 20:59	17° $\overline{\Omega}$ 42'55	24°54'09	morning rise	2333 Apr 25 12:39	22° $\overline{\text{II}}$ 01'59	

desc. node	2333 Apr 25 13:55	22° Υ 00'33		min. Earth dist.	2334 Apr 02 20:53	6° Υ 11'49	0.59664 AU
direct	2333 May 01 04:17	20° Υ 42'56		morning rise	2334 Apr 06 15:29	3° Υ 28'54	
morning max el	2333 May 15 12:52	28° Υ 16'36	26°22'42	desc. node	2334 Apr 12 10:58	1° Υ 34'58	
	2333 May 17 05:41	0° \mathcal{B}		direct	2334 Apr 13 02:31	1° Υ 33'49	
	2333 Jun 06 11:56	0° Π		morning max el	2334 Apr 27 10:21	9° Υ 21'50	27°24'00
morning set	2333 Jun 13 07:33	13° Π 36'43			2334 May 13 06:06	0° \mathcal{B}	
asc. node	2333 Jun 14 11:24	16° Π 04'19		morning set	2334 May 28 15:50	28° \mathcal{B} 19'18	
					2334 May 29 11:05	0° Π	
superior conj	2333 Jun 20 08:24	28° Π 52'45	0°58'30	asc. node	2334 Jun 01 08:28	6° Π 10'23	
minimum elong	2333 Jun 20 06:13	28° Π 40'45	0°58'06	max. Earth dist.	2334 Jun 04 05:54	12° Π 29'34	1.32162 AU
max. Earth dist.	2333 Jun 20 17:38	29° Π 43'30	1.32280 AU				
	2333 Jun 20 20:38	0° \mathcal{B}		superior conj	2334 Jun 04 20:07	13° Π 47'45	0°36'06
evening rise	2333 Jun 27 07:58	13° \mathcal{B} 57'54		minimum elong	2334 Jun 04 18:35	13° Π 39'19	0°35'47
	2333 Jul 05 12:01	0° \mathcal{Q}		evening rise	2334 Jun 11 17:29	28° Π 47'07	
desc. node	2333 Jul 22 13:15	25° \mathcal{Q} 52'50			2334 Jun 12 07:19	0° \mathcal{B}	
	2333 Jul 26 06:02	0° \mathcal{M}			2334 Jun 29 00:09	0° \mathcal{Q}	
evening max el	2333 Jul 27 22:37	1° \mathcal{M} 40'21	26°56'23	desc. node	2334 Jul 09 10:16	12° \mathcal{Q} 47'09	
retrograde	2333 Aug 10 20:46	8° \mathcal{M} 53'34		evening max el	2334 Jul 09 20:34	13° \mathcal{Q} 11'59	25°56'09
evening set	2333 Aug 17 20:12	6° \mathcal{M} 45'26		retrograde	2334 Jul 23 20:28	20° \mathcal{Q} 21'16	
min. Earth dist.	2333 Aug 21 12:51	4° \mathcal{M} 06'10	0.60828 AU	evening set	2334 Jul 30 02:11	18° \mathcal{Q} 48'01	
inferior conj	2333 Aug 24 17:50	1° \mathcal{M} 23'08	-4°-29'-45	min. Earth dist.	2334 Aug 03 09:00	16° \mathcal{Q} 11'31	0.58767 AU
minimum elong	2333 Aug 24 22:45	1° \mathcal{M} 12'40	4°28'53	inferior conj	2334 Aug 06 15:28	13° \mathcal{Q} 47'25	-4°-57'-21
	2333 Aug 26 09:44	30° \mathcal{R} \mathcal{Q}		minimum elong	2334 Aug 06 17:31	13° \mathcal{Q} 43'37	4°57'15
morning rise	2333 Sep 01 04:25	26° \mathcal{Q} 34'09		morning rise	2334 Aug 14 12:20	9° \mathcal{Q} 21'47	
direct	2333 Sep 03 13:07	26° \mathcal{Q} 12'06		direct	2334 Aug 16 23:20	9° \mathcal{Q} 01'51	
asc. node	2333 Sep 10 10:36	29° \mathcal{Q} 27'47		morning max el	2334 Aug 25 01:45	12° \mathcal{Q} 53'58	18°34'56
	2333 Sep 10 23:57	0° \mathcal{M}		asc. node	2334 Aug 28 07:40	16° \mathcal{Q} 32'54	
morning max el	2333 Sep 10 18:29	29° \mathcal{Q} 46'31	18°03'04		2334 Sep 05 16:13	0° \mathcal{M}	
morning set	2333 Sep 26 13:14	24° \mathcal{M} 42'43		morning set	2334 Sep 10 05:52	8° \mathcal{M} 40'53	
	2333 Sep 29 09:36	0° \mathcal{A}					
superior conj	2333 Oct 06 12:56	12° \mathcal{A} 58'18	1°16'08	superior conj	2334 Sep 19 02:39	25° \mathcal{M} 41'12	1°35'21
minimum elong	2333 Oct 06 17:16	13° \mathcal{A} 17'28	1°15'39	minimum elong	2334 Sep 19 05:31	25° \mathcal{M} 54'35	1°35'09
max. Earth dist.	2333 Oct 14 03:49	26° \mathcal{A} 05'23	1.41874 AU		2334 Sep 21 10:34	0° \mathcal{A}	
	2333 Oct 16 12:31	0° \mathcal{M}		max. Earth dist.	2334 Sep 26 09:55	8° \mathcal{A} 53'58	1.39881 AU
desc. node	2333 Oct 18 12:34	3° \mathcal{M} 15'33		evening rise	2334 Sep 30 15:12	16° \mathcal{A} 07'32	
evening rise	2333 Oct 19 20:59	5° \mathcal{M} 25'48		desc. node	2334 Oct 05 09:37	23° \mathcal{A} 56'57	
	2333 Nov 05 02:05	0° \mathcal{A}			2334 Oct 09 05:39	0° \mathcal{M}	
greatest brilliancy	2333 Nov 17 04:13	16° \mathcal{A} 13'22	-0.3m		2334 Oct 30 19:22	0° \mathcal{A}	
evening max el	2333 Nov 21 23:49	21° \mathcal{A} 37'21	22°33'02	evening max el	2334 Nov 04 13:42	5° \mathcal{A} 13'02	23°53'00
retrograde	2333 Dec 01 18:26	27° \mathcal{A} 25'50		retrograde	2334 Nov 15 10:49	11° \mathcal{A} 37'18	
evening set	2333 Dec 06 08:29	25° \mathcal{A} 35'25		evening set	2334 Nov 20 14:22	9° \mathcal{A} 29'43	
asc. node	2333 Dec 07 09:49	24° \mathcal{A} 37'59		asc. node	2334 Nov 24 06:53	5° \mathcal{A} 26'01	
inferior conj	2333 Dec 11 18:07	19° \mathcal{A} 12'16	1°26'38	min. Earth dist.	2334 Nov 25 11:00	3° \mathcal{A} 52'15	0.67736 AU
minimum elong	2333 Dec 11 16:17	19° \mathcal{A} 18'40	1°25'54	inferior conj	2334 Nov 26 01:16	3° \mathcal{A} 03'48	0°36'11
min. Earth dist.	2333 Dec 11 14:31	19° \mathcal{A} 24'45	0.67863 AU	minimum elong	2334 Nov 26 00:25	3° \mathcal{A} 06'42	0°35'49
morning rise	2333 Dec 16 23:58	12° \mathcal{A} 59'48			2334 Nov 28 09:26	30° \mathcal{R} \mathcal{M}	
direct	2333 Dec 21 12:46	11° \mathcal{A} 09'01		morning rise	2334 Dec 01 10:41	26° \mathcal{M} 56'04	
morning max el	2333 Dec 30 18:08	16° \mathcal{A} 34'23	22°02'23	direct	2334 Dec 05 09:30	25° \mathcal{M} 27'51	
greatest brilliancy	2334 Jan 04 10:09	21° \mathcal{A} 49'05	-0.4m		2334 Dec 13 08:55	0° \mathcal{A}	
	2334 Jan 10 16:41	0° \mathcal{B}		morning max el	2334 Dec 13 12:44	0° \mathcal{A} 09'32	20°43'14
desc. node	2334 Jan 14 11:47	5° \mathcal{B} 19'02		greatest brilliancy	2334 Dec 19 09:36	7° \mathcal{A} 01'28	-0.5m
	2334 Jan 30 19:40	0° \approx		desc. node	2335 Jan 01 08:50	25° \mathcal{A} 25'08	
morning set	2334 Feb 01 14:01	2° \approx 49'26			2335 Jan 04 10:01	0° \mathcal{B}	
max. Earth dist.	2334 Feb 07 09:23	12° \approx 21'23	1.41181 AU	morning set	2335 Jan 11 17:06	11° \mathcal{B} 11'21	
				max. Earth dist.	2335 Jan 20 14:48	25° \mathcal{B} 18'47	1.43051 AU
					2335 Jan 23 11:43	0° \approx	
superior conj	2334 Feb 15 03:34	25° \approx 43'05	-2°-2'-55				
minimum elong	2334 Feb 15 05:52	25° \approx 53'16	2°02'51	superior conj	2335 Jan 27 07:09	6° \approx 19'52	-2°-3'-59
	2334 Feb 17 13:06	0° \mathcal{H}		minimum elong	2335 Jan 27 04:54	6° \approx 10'28	2°03'57
evening rise	2334 Feb 25 15:51	14° \mathcal{H} 54'57		evening rise	2335 Feb 08 08:35	27° \approx 13'38	
asc. node	2334 Mar 05 09:09	28° \mathcal{H} 53'32			2335 Feb 09 22:08	0° \mathcal{H}	
	2334 Mar 06 00:54	0° Υ		asc. node	2335 Feb 20 06:12	17° \mathcal{H} 24'48	
evening max el	2334 Mar 13 21:49	10° Υ 48'36	18°14'50	evening max el	2335 Feb 25 09:24	23° \mathcal{H} 54'06	18°07'20
retrograde	2334 Mar 20 22:24	14° Υ 19'28		retrograde	2335 Mar 03 22:27	27° \mathcal{H} 17'39	
evening set	2334 Mar 23 10:06	13° Υ 53'52		evening set	2335 Mar 06 15:18	26° \mathcal{H} 42'29	
inferior conj	2334 Mar 30 11:19	9° Υ 09'06	3°07'08	inferior conj	2335 Mar 13 02:35	21° \mathcal{H} 36'32	3°36'05
minimum elong	2334 Mar 30 14:36	9° Υ 01'53	3°06'31	minimum elong	2335 Mar 13 04:00	21° \mathcal{H} 32'56	3°35'58

min. Earth dist.	2335 Mar 16 02:42	18° ✕ 36'05	0.61804 AU	evening set	2336 Feb 18 07:14	9° ✕ 56'33	
morning rise	2335 Mar 19 14:06	15° ✕ 39'31		inferior conj	2336 Feb 24 08:14	4° ✕ 31'00	3°42'04
direct	2335 Mar 26 10:59	13° ✕ 13'08		minimum elong	2336 Feb 24 07:48	4° ✕ 32'12	3°42'03
desc. node	2335 Mar 30 08:00	13° ✕ 55'23		min. Earth dist.	2336 Feb 26 17:58	1° ✕ 48'44	0.63753 AU
morning max el	2335 Apr 09 14:11	21° ✕ 08'35	27°49'33		2336 Feb 28 11:48	30° ℞	
	2335 Apr 17 06:46	0° Υ		morning rise	2336 Mar 01 06:39	28° ≈ 24'16	
	2335 May 06 06:25	0° ♄		direct	2336 Mar 08 04:04	25° ≈ 38'32	
morning set	2335 May 12 19:29	12° ♄ 45'22		desc. node	2336 Mar 16 05:02	28° ≈ 39'53	
max. Earth dist.	2335 May 18 15:52	25° ♄ 05'25	1.32431 AU		2336 Mar 17 23:54	0° ✕	
asc. node	2335 May 19 05:31	26° ♄ 19'21		morning max el	2336 Mar 21 22:27	3° ✕ 33'58	27°37'53
					2336 Apr 10 17:49	0° Υ	
superior conj	2335 May 20 06:19	28° ♄ 34'19	0°10'54	morning set	2336 Apr 25 16:06	26° Υ 47'13	
minimum elong	2335 May 20 05:48	28° ♄ 31'32	0°10'48		2336 Apr 27 06:35	0° ♄	
behind sun begin	2335 May 20 02:01	28° ♄ 10'54		max. Earth dist.	2336 Apr 30 19:22	7° ♄ 17'27	1.33113 AU
behind sun end	2335 May 20 09:36	28° ♄ 52'11					
	2335 May 20 22:01	0° ♄		superior conj	2336 May 03 13:13	13° ♄ 06'50	0°-16'-17
evening rise	2335 May 27 05:01	13° ♄ 38'49		minimum elong	2336 May 03 14:02	13° ♄ 11'09	0°16'08
	2335 Jun 04 10:39	0° ♄		asc. node	2336 May 05 02:33	16° ♄ 27'17	
evening max el	2335 Jun 21 11:50	24° ♄ 00'15	24°31'06	evening rise	2336 May 10 16:43	28° ♄ 26'46	
desc. node	2335 Jun 26 07:17	27° ♄ 55'54			2336 May 11 10:27	0° ♄	
	2335 Jun 30 04:43	0° ♄			2336 May 28 23:57	0° ♄	
retrograde	2335 Jul 05 09:23	1° ♄ 01'55		evening max el	2336 Jun 02 01:40	4° ♄ 28'27	22°55'10
evening set	2335 Jul 10 08:20	0° ♄ 06'46		desc. node	2336 Jun 12 04:17	10° ♄ 43'26	
	2335 Jul 10 15:37	30° ℞		retrograde	2336 Jun 15 10:02	11° ♄ 07'25	
min. Earth dist.	2335 Jul 15 22:49	27° ♄ 14'41	0.56864 AU	evening set	2336 Jun 18 20:55	10° ♄ 41'15	
inferior conj	2335 Jul 18 17:11	25° ♄ 28'35	-4°-53'-29	min. Earth dist.	2336 Jun 26 10:31	7° ♄ 19'16	0.55469 AU
minimum elong	2335 Jul 18 14:01	25° ♄ 33'41	4°53'14	inferior conj	2336 Jun 27 23:42	6° ♄ 25'35	-4°-4'-26
morning rise	2335 Jul 26 23:23	21° ♄ 24'33		minimum elong	2336 Jun 27 16:05	6° ♄ 36'37	4°02'44
direct	2335 Jul 29 14:44	21° ♄ 05'29		morning rise	2336 Jul 06 14:07	2° ♄ 33'32	
morning max el	2335 Aug 08 00:03	25° ♄ 27'42	19°28'08	direct	2336 Jul 09 11:20	2° ♄ 13'58	
	2335 Aug 12 00:57	0° ♄		morning max el	2336 Jul 20 11:12	7° ♄ 19'42	20°42'20
asc. node	2335 Aug 15 04:43	4° ♄ 32'32		asc. node	2336 Aug 01 01:46	23° ♄ 13'51	
morning set	2335 Aug 25 06:51	23° ♄ 03'45			2336 Aug 04 17:01	0° ♄	
	2335 Aug 28 17:39	0° ♄		morning set	2336 Aug 08 13:24	7° ♄ 43'21	
superior conj	2335 Sep 02 08:54	9° ♄ 13'47	1°44'18	superior conj	2336 Aug 16 02:52	23° ♄ 21'32	1°44'48
minimum elong	2335 Sep 02 09:53	9° ♄ 18'39	1°44'17	minimum elong	2336 Aug 16 02:15	23° ♄ 18'22	1°44'47
max. Earth dist.	2335 Sep 08 13:52	21° ♄ 03'27	1.37822 AU		2336 Aug 19 09:57	0° ♄	
evening rise	2335 Sep 12 09:10	27° ♄ 55'49		max. Earth dist.	2336 Aug 20 21:12	2° ♄ 53'31	1.35946 AU
	2335 Sep 13 13:26	0° ♄		evening rise	2336 Aug 24 23:32	10° ♄ 42'17	
desc. node	2335 Sep 22 06:38	14° ♄ 29'29			2336 Sep 05 02:47	0° ♄	
	2335 Oct 02 15:55	0° ♄		desc. node	2336 Sep 08 03:39	4° ♄ 47'29	
evening max el	2335 Oct 18 01:48	18° ♄ 52'13	25°09'40		2336 Sep 27 02:18	0° ♄	
retrograde	2335 Oct 29 23:06	25° ♄ 44'57		evening max el	2336 Sep 29 13:48	2° ♄ 31'41	26°15'38
evening set	2335 Nov 04 16:55	23° ♄ 21'21		retrograde	2336 Oct 12 06:32	9° ♄ 42'07	
min. Earth dist.	2335 Nov 09 05:21	18° ♄ 18'32	0.67269 AU	evening set	2336 Oct 18 14:15	7° ♄ 06'06	
inferior conj	2335 Nov 10 06:21	16° ♄ 56'56	0°-18'-34	min. Earth dist.	2336 Oct 22 19:12	2° ♄ 39'21	0.66462 AU
minimum elong	2335 Nov 10 06:49	16° ♄ 55'24	0°18'23	inferior conj	2336 Oct 24 07:27	0° ♄ 47'47	-1°-16'-21
asc. node	2335 Nov 11 03:55	15° ♄ 47'04		minimum elong	2336 Oct 24 09:29	0° ♄ 41'32	1°15'31
morning rise	2335 Nov 15 21:20	10° ♄ 56'20			2336 Oct 24 23:03	30° ℞	
direct	2335 Nov 19 07:48	9° ♄ 48'13		asc. node	2336 Oct 28 00:57	26° ♄ 37'05	
morning max el	2335 Nov 26 15:16	13° ♄ 56'18	19°36'50	morning rise	2336 Oct 30 05:50	24° ♄ 57'01	
greatest brilliancy	2335 Dec 04 21:14	24° ♄ 15'51	-0.6m	direct	2336 Nov 02 06:06	24° ♄ 05'22	
	2335 Dec 08 20:06	0° ♄		morning max el	2336 Nov 09 00:41	27° ♄ 50'16	18°45'35
desc. node	2335 Dec 19 05:53	15° ♄ 48'18			2336 Nov 11 00:00	0° ♄	
morning set	2335 Dec 21 14:06	19° ♄ 25'13		morning set	2336 Nov 30 05:15	28° ♄ 38'49	
	2335 Dec 28 09:27	0° ♄			2336 Dec 01 01:48	0° ♄	
max. Earth dist.	2336 Jan 03 03:14	9° ♄ 02'11	1.44409 AU	desc. node	2336 Dec 05 02:54	6° ♄ 22'57	
				max. Earth dist.	2336 Dec 15 20:11	23° ♄ 13'32	1.45100 AU
superior conj	2336 Jan 07 08:28	15° ♄ 46'10	-1°-47'-22	superior conj	2336 Dec 16 13:42	24° ♄ 22'20	-1°-12'-1
minimum elong	2336 Jan 07 00:53	15° ♄ 15'43	1°46'49	minimum elong	2336 Dec 16 05:19	23° ♄ 49'21	1°11'03
	2336 Jan 16 01:35	0° ≈			2336 Dec 20 03:32	0° ♄	
evening rise	2336 Jan 21 05:48	8° ≈ 39'40		evening rise	2337 Jan 01 03:58	19° ♄ 07'40	
	2336 Feb 03 06:17	0° ✕			2337 Jan 07 22:11	0° ≈	
asc. node	2336 Feb 07 03:13	5° ✕ 14'27		evening max el	2337 Jan 22 08:59	20° ≈ 38'54	18°48'34
evening max el	2336 Feb 08 21:59	7° ✕ 12'50	18°18'51	asc. node	2337 Jan 24 00:14	22° ≈ 10'09	
retrograde	2336 Feb 15 09:14	10° ✕ 42'16					

retrograde	2337 Jan 29 02:38	24° \approx 25'28		evening set	2338 Jan 16 10:47	7° \approx 11'13	
evening set	2337 Feb 01 06:36	23° \approx 28'05		inferior conj	2338 Jan 21 23:53	1° \approx 12'44	3°07'34
inferior conj	2337 Feb 07 00:24	17° \approx 44'54	3°31'07	minimum elong	2338 Jan 21 21:26	1° \approx 20'46	3°07'02
minimum elong	2337 Feb 06 22:39	17° \approx 50'17	3°30'55		2338 Jan 22 22:03	30° \approx 30	
min. Earth dist.	2337 Feb 08 18:37	15° \approx 35'04	0.65360 AU	min. Earth dist.	2338 Jan 23 03:25	29° \approx 42'30	0.66565 AU
morning rise	2337 Feb 12 13:35	11° \approx 32'58		morning rise	2338 Jan 27 07:22	24° \approx 58'12	
direct	2337 Feb 19 04:13	8° \approx 42'24		direct	2338 Feb 02 10:14	22° \approx 15'44	
desc. node	2337 Mar 03 02:04	15° \approx 12'53		morning max el	2338 Feb 14 17:20	29° \approx 34'30	25°44'30
morning max el	2337 Mar 04 08:12	16° \approx 26'32	26°53'32		2338 Feb 15 03:21	0° \approx	
	2337 Mar 15 14:07	0° \approx		desc. node	2338 Feb 17 23:07	3° \approx 03'47	
	2337 Apr 03 13:37	0° \approx			2338 Mar 09 11:00	0° \approx	
morning set	2337 Apr 09 02:30	10° \approx 14'59		morning set	2338 Mar 22 22:20	22° \approx 15'14	
max. Earth dist.	2337 Apr 13 12:46	18° \approx 56'46	1.34245 AU		2338 Mar 26 17:11	0° \approx	
				max. Earth dist.	2338 Mar 26 18:32	0° \approx 06'28	1.35841 AU
superior conj	2337 Apr 17 14:45	27° \approx 18'57	0°-44'-25	superior conj	2338 Apr 01 08:17	11° \approx 02'27	-1°-12'-1
minimum elong	2337 Apr 17 17:01	27° \approx 30'45	0°43'59	minimum elong	2338 Apr 01 11:53	11° \approx 20'36	1°11'27
	2337 Apr 18 21:33	0° \approx		asc. node	2338 Apr 08 20:35	26° \approx 17'07	
asc. node	2337 Apr 21 23:34	6° \approx 30'09		evening rise	2338 Apr 09 08:58	27° \approx 16'14	
evening rise	2337 Apr 25 02:43	13° \approx 04'57			2338 Apr 10 15:18	0° \approx	
	2337 May 03 20:12	0° \approx		evening max el	2338 Apr 27 05:09	26° \approx 23'13	20°05'26
evening max el	2337 May 14 21:53	15° \approx 09'10	21°23'14		2338 May 02 01:24	0° \approx	
retrograde	2337 May 27 00:27	21° \approx 04'39		retrograde	2338 May 07 14:48	1° \approx 25'28	
evening set	2337 May 29 09:28	20° \approx 51'45		evening set	2338 May 09 15:16	1° \approx 14'55	
desc. node	2337 May 30 01:17	20° \approx 43'47			2338 May 13 14:00	30° \approx 30	
inferior conj	2337 Jun 07 18:29	16° \approx 52'24	-2°-28'-58	desc. node	2338 May 16 22:19	28° \approx 15'51	
minimum elong	2337 Jun 07 11:47	17° \approx 01'48	2°26'45	inferior conj	2338 May 18 15:04	27° \approx 15'46	0°-29'-47
min. Earth dist.	2337 Jun 07 22:33	16° \approx 46'42	0.54895 AU	minimum elong	2338 May 18 13:41	27° \approx 17'50	0°29'17
morning rise	2337 Jun 16 14:25	12° \approx 55'13		min. Earth dist.	2338 May 20 11:35	26° \approx 09'18	0.55286 AU
direct	2337 Jun 19 21:50	12° \approx 31'25		morning rise	2338 May 27 09:34	22° \approx 54'56	
morning max el	2337 Jul 02 11:13	18° \approx 28'28	22°14'21	direct	2338 May 31 10:54	22° \approx 19'05	
	2337 Jul 11 18:42	0° \approx		morning max el	2338 Jun 14 03:21	29° \approx 03'24	23°56'15
asc. node	2337 Jul 18 22:49	12° \approx 26'50			2338 Jun 15 02:37	0° \approx	
morning set	2337 Jul 23 23:25	22° \approx 34'05			2338 Jul 04 19:31	0° \approx	
	2337 Jul 27 11:46	0° \approx		asc. node	2338 Jul 05 19:52	2° \approx 02'26	
superior conj	2337 Jul 31 04:58	7° \approx 53'57	1°38'27	morning set	2338 Jul 08 11:05	7° \approx 29'44	
minimum elong	2337 Jul 31 03:14	7° \approx 44'49	1°38'19	superior conj	2338 Jul 15 12:24	22° \approx 41'27	1°26'28
max. Earth dist.	2337 Aug 03 13:02	14° \approx 51'18	1.34413 AU	minimum elong	2338 Jul 15 10:06	22° \approx 29'00	1°26'11
evening rise	2337 Aug 08 05:46	24° \approx 15'10		max. Earth dist.	2338 Jul 17 14:11	27° \approx 09'00	1.33274 AU
	2337 Aug 11 06:13	0° \approx			2338 Jul 18 22:24	0° \approx	
desc. node	2337 Aug 26 00:39	24° \approx 44'20		evening rise	2338 Jul 22 23:34	8° \approx 21'33	
	2337 Aug 29 16:03	0° \approx			2338 Aug 03 17:02	0° \approx	
evening max el	2337 Sep 12 02:13	16° \approx 04'48	27°03'10	desc. node	2338 Aug 12 21:40	14° \approx 10'29	
retrograde	2337 Sep 25 08:24	23° \approx 22'07		evening max el	2338 Aug 25 13:35	29° \approx 19'13	27°25'15
evening set	2337 Oct 02 04:08	20° \approx 39'59			2338 Aug 26 07:04	0° \approx	
min. Earth dist.	2337 Oct 06 02:12	16° \approx 49'52	0.65311 AU	retrograde	2338 Sep 08 04:07	6° \approx 36'34	
inferior conj	2337 Oct 08 02:32	14° \approx 32'33	-2°-15'-21	evening set	2338 Sep 15 07:43	3° \approx 57'38	
minimum elong	2337 Oct 08 06:11	14° \approx 22'10	2°13'57	min. Earth dist.	2338 Sep 19 00:08	0° \approx 42'02	0.63808 AU
morning rise	2337 Oct 14 09:52	8° \approx 54'41			2338 Sep 19 16:46	30° \approx 30	
asc. node	2337 Oct 14 21:59	8° \approx 41'27		inferior conj	2338 Sep 21 13:04	28° \approx 05'26	-3°-12'-55
direct	2337 Oct 17 02:21	8° \approx 15'35		minimum elong	2338 Sep 21 18:03	27° \approx 52'35	3°11'19
morning max el	2337 Oct 23 14:50	11° \approx 46'37	18°10'47	morning rise	2338 Sep 28 06:36	22° \approx 44'04	
	2337 Nov 05 09:04	0° \approx		direct	2338 Sep 30 17:54	22° \approx 13'54	
morning set	2337 Nov 11 01:27	9° \approx 19'50		asc. node	2338 Oct 01 19:03	22° \approx 19'25	
desc. node	2337 Nov 21 23:56	27° \approx 05'13		morning max el	2338 Oct 07 07:03	25° \approx 39'25	17°53'20
	2337 Nov 23 19:46	0° \approx			2338 Oct 10 22:32	0° \approx	
superior conj	2337 Nov 25 17:08	3° \approx 00'00	0°-24'-50	morning set	2338 Oct 24 00:25	21° \approx 18'44	
minimum elong	2337 Nov 25 13:57	2° \approx 47'25	0°24'25		2338 Oct 29 02:04	0° \approx	
max. Earth dist.	2337 Nov 28 15:18	7° \approx 36'57	1.45053 AU	superior conj	2338 Nov 05 14:51	12° \approx 34'21	0°22'02
evening rise	2337 Dec 12 03:46	28° \approx 43'17		minimum elong	2338 Nov 05 17:13	12° \approx 44'00	0°21'41
	2337 Dec 12 23:31	0° \approx		desc. node	2338 Nov 08 20:59	17° \approx 51'48	
greatest brilliancy	2337 Dec 28 14:46	23° \approx 50'00	-0.7m	max. Earth dist.	2338 Nov 11 09:29	21° \approx 54'22	1.44280 AU
	2338 Jan 02 02:55	0° \approx			2338 Nov 16 12:30	0° \approx	
evening max el	2338 Jan 05 16:21	4° \approx 08'28	19°34'59	evening rise	2338 Nov 21 13:39	7° \approx 49'45	
asc. node	2338 Jan 10 21:15	7° \approx 57'41			2338 Dec 06 07:16	0° \approx	
retrograde	2338 Jan 12 23:31	8° \approx 21'40					

greatest brilliancy	2338 Dec 13 21:33	10°☿38'31	-0.5m	evening max el	2339 Dec 02 15:03	1°☿10'17	21°48'09
evening max el	2338 Dec 19 18:34	17°☿39'18	20°35'55	retrograde	2339 Dec 11 18:30	6°☿36'53	
retrograde	2338 Dec 27 21:29	22°☿26'55		asc. node	2339 Dec 15 15:21	5°☿15'09	
asc. node	2338 Dec 28 18:17	22°☿22'43		evening set	2339 Dec 16 01:32	4°☿55'57	
evening set	2338 Dec 31 17:43	21°☿01'53			2339 Dec 20 10:37	30°☿☿	
inferior conj	2339 Jan 06 04:10	14°☿50'53	2°34'17	inferior conj	2339 Dec 21 11:01	28°☿35'56	1°53'13
minimum elong	2339 Jan 06 01:34	14°☿59'44	2°33'31	minimum elong	2339 Dec 21 08:46	28°☿43'42	1°52'24
min. Earth dist.	2339 Jan 06 18:30	14°☿01'58	0.67361 AU	min. Earth dist.	2339 Dec 21 13:38	28°☿26'52	0.67777 AU
morning rise	2339 Jan 11 08:58	8°☿35'42		morning rise	2339 Dec 26 15:47	22°☿21'48	
direct	2339 Jan 16 21:24	6°☿10'16		direct	2339 Dec 31 12:59	20°☿18'05	
morning max el	2339 Jan 28 01:48	12°☿50'28	24°20'41	morning max el	2340 Jan 10 11:35	26°☿11'33	22°52'01
desc. node	2339 Feb 04 20:09	21°☿50'09			2340 Jan 13 23:16	0°☿	
	2339 Feb 10 22:06	0°☿		greatest brilliancy	2340 Jan 15 03:53	1°☿24'52	-0.3m
	2339 Mar 02 06:34	0°☿		desc. node	2340 Jan 22 17:12	11°☿15'34	
morning set	2339 Mar 04 22:05	4°☿33'10			2340 Feb 04 11:56	0°☿	
max. Earth dist.	2339 Mar 08 15:47	11°☿10'57	1.37816 AU	morning set	2340 Feb 13 19:32	14°☿52'27	
				max. Earth dist.	2340 Feb 18 11:13	22°☿42'45	1.39965 AU
					2340 Feb 22 15:23	0°☿	
superior conj	2339 Mar 15 14:31	24°☿08'42	-1°-36'-57				
minimum elong	2339 Mar 15 18:52	24°☿29'39	1°36'27				
	2339 Mar 18 14:48	0°☿		superior conj	2340 Feb 26 05:04	6°☿26'06	-1°-56'-7
evening rise	2339 Mar 24 09:04	11°☿24'10		minimum elong	2340 Feb 26 08:47	6°☿43'02	1°55'53
asc. node	2339 Mar 26 17:38	16°☿01'43		evening rise	2340 Mar 06 23:57	24°☿50'07	
	2339 Apr 03 12:58	0°☿			2340 Mar 09 17:22	0°☿	
evening max el	2339 Apr 09 23:53	8°☿17'01	19°06'33	asc. node	2340 Mar 12 14:40	5°☿19'54	
retrograde	2339 Apr 18 18:13	12°☿32'09		evening max el	2340 Mar 23 03:43	20°☿45'47	18°27'56
evening set	2339 Apr 20 20:55	12°☿18'22		retrograde	2340 Mar 30 16:20	24°☿28'17	
inferior conj	2339 Apr 29 02:45	8°☿05'33	1°19'03	evening set	2340 Apr 02 00:35	24°☿07'47	
minimum elong	2339 Apr 29 05:43	8°☿00'27	1°18'04	inferior conj	2340 Apr 09 11:32	19°☿35'26	2°37'18
min. Earth dist.	2339 May 02 02:48	6°☿02'44	0.56558 AU	minimum elong	2340 Apr 09 15:26	19°☿27'35	2°36'19
desc. node	2339 May 03 19:20	4°☿58'50		min. Earth dist.	2340 Apr 12 22:01	16°☿51'04	0.58437 AU
morning rise	2339 May 07 10:21	3°☿10'13		morning rise	2340 Apr 17 02:04	14°☿08'31	
direct	2339 May 12 11:40	2°☿10'30		desc. node	2340 Apr 19 16:22	13°☿05'04	
morning max el	2339 May 26 17:49	9°☿29'55	25°34'20	direct	2340 Apr 23 02:42	12°☿34'20	
	2339 Jun 11 04:11	0°☿		morning max el	2340 May 07 12:03	20°☿15'50	26°52'48
morning set	2339 Jun 22 22:46	22°☿25'00			2340 May 15 20:34	0°☿	
asc. node	2339 Jun 22 16:55	21°☿54'11			2340 Jun 02 19:50	0°☿	
	2339 Jun 26 11:29	0°☿		morning set	2340 Jun 06 08:50	7°☿14'23	
				asc. node	2340 Jun 08 13:59	11°☿56'40	
superior conj	2339 Jun 29 22:57	7°☿37'01	1°09'52				
minimum elong	2339 Jun 29 20:35	7°☿24'05	1°09'29	superior conj	2340 Jun 13 10:46	22°☿34'25	0°49'23
max. Earth dist.	2339 Jun 30 22:20	9°☿44'58	1.32532 AU	minimum elong	2340 Jun 13 08:48	22°☿23'39	0°49'01
evening rise	2339 Jul 07 01:32	22°☿51'11		max. Earth dist.	2340 Jun 13 10:05	22°☿30'42	1.32179 AU
	2339 Jul 10 14:35	0°☿			2340 Jun 16 19:58	0°☿	
	2339 Jul 28 14:26	0°☿		evening rise	2340 Jun 20 08:57	7°☿35'41	
desc. node	2339 Jul 30 18:41	2°☿53'14			2340 Jul 02 02:23	0°☿	
evening max el	2339 Aug 07 21:27	12°☿01'13	27°16'22	desc. node	2340 Jul 16 15:41	20°☿34'43	
retrograde	2339 Aug 21 17:11	19°☿16'18		evening max el	2340 Jul 19 23:24	24°☿00'21	26°34'22
evening set	2339 Aug 28 21:18	16°☿52'44			2340 Jul 28 11:19	0°☿	
min. Earth dist.	2339 Sep 01 11:33	14°☿04'19	0.61985 AU	retrograde	2340 Aug 02 22:45	1°☿12'51	
inferior conj	2339 Sep 04 12:01	11°☿18'58	-4°-4'-54		2340 Aug 08 07:00	30°☿☿	
minimum elong	2339 Sep 04 17:27	11°☿06'32	4°03'37	evening set	2340 Aug 09 16:18	29°☿18'08	
morning rise	2339 Sep 11 16:26	6°☿17'39		min. Earth dist.	2340 Aug 13 12:53	26°☿42'32	0.59947 AU
direct	2339 Sep 14 01:17	5°☿53'23		inferior conj	2340 Aug 16 19:58	24°☿04'45	-4°-44'-25
asc. node	2339 Sep 18 16:08	7°☿28'39		minimum elong	2340 Aug 17 00:01	23°☿56'39	4°43'54
morning max el	2339 Sep 20 22:22	9°☿21'44	17°54'03	morning rise	2340 Aug 24 11:06	19°☿26'00	
	2339 Oct 04 11:12	0°☿		direct	2340 Aug 26 20:20	19°☿05'10	
morning set	2339 Oct 06 19:53	4°☿15'57		morning max el	2340 Sep 03 09:38	22°☿45'45	18°14'07
				asc. node	2340 Sep 04 13:12	23°☿56'38	
superior conj	2339 Oct 17 15:30	23°☿28'15	0°59'47		2340 Sep 09 03:05	0°☿	
minimum elong	2339 Oct 17 19:58	23°☿47'27	0°59'13	morning set	2340 Sep 19 06:08	17°☿56'03	
	2339 Oct 21 11:50	0°☿			2340 Sep 25 15:58	0°☿	
max. Earth dist.	2339 Oct 24 23:27	5°☿46'02	1.42883 AU				
desc. node	2339 Oct 26 18:00	8°☿39'02		superior conj	2340 Sep 28 17:18	5°☿36'33	1°25'38
evening rise	2339 Nov 01 01:18	17°☿05'37		minimum elong	2340 Sep 28 21:07	5°☿53'53	1°25'16
	2339 Nov 09 11:24	0°☿		max. Earth dist.	2340 Oct 06 07:48	18°☿58'15	1.41044 AU
greatest brilliancy	2339 Nov 27 19:53	25°☿42'35	-0.4m	evening rise	2340 Oct 11 06:09	27°☿10'47	
	2339 Dec 01 12:18	0°☿		desc. node	2340 Oct 12 15:02	29°☿24'04	

	2340 Oct 12 23:58	0°♄		evening rise	2341 Sep 22 10:44	8°♄21'51	
	2340 Nov 02 04:07	0°♄		desc. node	2341 Sep 29 12:04	20°♄02'27	
greatest brilliancy	2340 Nov 08 08:57	8°♄03'30	-0.2m		2341 Oct 05 22:31	0°♄	
evening max el	2340 Nov 14 06:47	14°♄43'49	23°06'59	evening max el	2341 Oct 27 19:44	28°♄21'27	24°26'29
retrograde	2340 Nov 24 13:03	20°♄48'54			2341 Oct 29 13:24	0°♄	
evening set	2340 Nov 29 08:35	18°♄51'12		retrograde	2341 Nov 08 03:47	4°♄59'02	
asc. node	2340 Dec 01 12:24	16°♄41'16		evening set	2341 Nov 13 13:13	2°♄44'42	
inferior conj	2340 Dec 04 18:35	12°♄26'06	1°05'51		2341 Nov 16 04:51	30°♄	
minimum elong	2340 Dec 04 17:07	12°♄31'10	1°05'15	asc. node	2341 Nov 18 09:27	27°♄11'12	
min. Earth dist.	2340 Dec 04 10:24	12°♄54'16	0.67846 AU	min. Earth dist.	2341 Nov 18 06:22	27°♄21'29	0.67578 AU
morning rise	2340 Dec 10 01:40	6°♄15'09		inferior conj	2341 Nov 19 01:04	26°♄18'52	0°13'25
direct	2340 Dec 14 08:16	4°♄34'14		minimum elong	2341 Nov 19 00:44	26°♄19'58	0°13'16
morning max el	2340 Dec 23 02:04	9°♄40'38	21°27'20	transit middle	2341 Nov 19 00:44	26°♄19'58	0°13'16
greatest brilliancy	2340 Dec 28 03:24	15°♄26'13	-0.4m	transit begin	2341 Nov 18 23:09	26°♄25'15	
	2341 Jan 07 19:10	0°♄		transit end	2341 Nov 19 02:19	26°♄14'40	
desc. node	2341 Jan 08 14:16	1°♄09'19		morning rise	2341 Nov 24 12:36	20°♄13'33	
morning set	2341 Jan 23 11:54	23°♄49'21		direct	2341 Nov 28 05:57	18°♄54'08	
	2341 Jan 27 08:36	0°♄		morning max el	2341 Dec 05 23:53	23°♄20'20	20°13'08
max. Earth dist.	2341 Jan 30 11:25	5°♄05'18	1.42020 AU		2341 Dec 11 15:41	0°♄	
				greatest brilliancy	2341 Dec 12 17:02	1°♄23'59	-0.6m
superior conj	2341 Feb 06 22:51	17°♄42'49	-2°-5'-16	desc. node	2341 Dec 26 11:19	21°♄23'31	
minimum elong	2341 Feb 06 23:31	17°♄45'46	2°05'17		2342 Jan 01 02:34	0°♄	
	2341 Feb 13 21:34	0°♄		morning set	2342 Jan 02 09:08	1°♄57'58	
evening rise	2341 Feb 18 01:57	7°♄35'41		max. Earth dist.	2342 Jan 12 19:37	18°♄22'48	1.43702 AU
asc. node	2341 Feb 27 11:42	24°♄10'52					
	2341 Mar 03 09:36	0°♄		superior conj	2342 Jan 18 15:15	27°♄49'30	-1°-59'-18
evening max el	2341 Mar 06 13:28	3°♄40'55	18°09'20	minimum elong	2342 Jan 18 10:35	27°♄30'17	1°59'07
retrograde	2341 Mar 13 07:55	7°♄06'51			2342 Jan 19 22:53	0°♄	
evening set	2341 Mar 15 21:47	6°♄37'26		evening rise	2342 Jan 31 10:50	19°♄32'34	
inferior conj	2341 Mar 22 16:39	1°♄43'53	3°22'38		2342 Feb 06 11:59	0°♄	
minimum elong	2341 Mar 22 19:12	1°♄37'55	3°22'16	asc. node	2342 Feb 14 08:44	12°♄26'05	
	2341 Mar 24 13:00	30°♄		evening max el	2342 Feb 18 01:53	16°♄53'33	18°10'03
min. Earth dist.	2341 Mar 25 23:20	28°♄41'56	0.60581 AU	retrograde	2342 Feb 24 12:55	20°♄17'45	
morning rise	2341 Mar 29 13:22	25°♄55'24		evening set	2342 Feb 27 08:01	19°♄38'07	
direct	2341 Apr 05 05:54	23°♄45'29		inferior conj	2342 Mar 05 14:30	14°♄23'48	3°41'00
desc. node	2341 Apr 06 13:25	23°♄50'17		minimum elong	2342 Mar 05 15:06	14°♄22'13	3°40'59
	2341 Apr 17 18:42	0°♄		min. Earth dist.	2342 Mar 08 08:55	11°♄28'52	0.62668 AU
morning max el	2341 Apr 19 12:16	1°♄38'20	27°39'26	morning rise	2342 Mar 11 20:01	8°♄22'18	
	2341 May 10 02:27	0°♄		direct	2342 Mar 18 18:22	5°♄45'48	
morning set	2341 May 21 15:23	21°♄51'02		desc. node	2342 Mar 24 10:26	7°♄16'24	
	2341 May 25 11:57	0°♄		morning max el	2342 Apr 01 18:01	13°♄41'52	27°49'00
asc. node	2341 May 26 11:00	2°♄04'39			2342 Apr 14 20:46	0°♄	
max. Earth dist.	2341 May 27 21:38	5°♄13'21	1.32221 AU		2342 May 02 13:56	0°♄	
				morning set	2342 May 05 16:22	6°♄08'05	
superior conj	2341 May 28 22:02	7°♄27'00	0°25'44	max. Earth dist.	2342 May 11 05:17	17°♄40'44	1.32667 AU
minimum elong	2341 May 28 20:54	7°♄20'45	0°25'29				
evening rise	2341 Jun 04 19:32	22°♄26'57		superior conj	2342 May 13 07:05	22°♄08'56	0°00'-24
	2341 Jun 08 11:11	0°♄		minimum elong	2342 May 13 07:06	22°♄09'02	0°00'25
	2341 Jun 26 22:49	0°♄		behind sun begin	2342 May 13 01:54	21°♄40'55	
evening max el	2341 Jul 01 18:15	5°♄12'37	25°22'24	behind sun end	2342 May 13 12:17	22°♄37'11	
desc. node	2341 Jul 03 12:43	6°♄48'51		asc. node	2342 May 13 08:02	22°♄14'08	
retrograde	2341 Jul 15 18:27	12°♄20'05			2342 May 16 21:47	0°♄	
evening set	2341 Jul 21 12:09	11°♄03'33		evening rise	2342 May 20 07:22	7°♄18'27	
min. Earth dist.	2341 Jul 26 06:15	8°♄22'12	0.57914 AU		2342 Jun 01 05:44	0°♄	
inferior conj	2341 Jul 29 09:24	6°♄12'06	-5°00'-31	evening max el	2342 Jun 13 08:15	15°♄49'50	23°50'47
minimum elong	2341 Jul 29 09:26	6°♄12'03	5°00'32	desc. node	2342 Jun 20 09:41	21°♄02'33	
morning rise	2341 Aug 06 10:21	1°♄56'03		retrograde	2342 Jun 27 01:48	22°♄43'24	
direct	2341 Aug 08 22:46	1°♄36'45		evening set	2342 Jul 01 09:15	22°♄02'31	
morning max el	2341 Aug 17 13:28	5°♄40'32	18°54'51	min. Earth dist.	2342 Jul 07 18:47	18°♄59'17	0.56196 AU
asc. node	2341 Aug 22 10:15	11°♄26'55		inferior conj	2342 Jul 10 02:34	17°♄34'28	-4°-38'-46
	2341 Sep 02 01:00	0°♄		minimum elong	2342 Jul 09 21:06	17°♄42'49	4°38'00
morning set	2341 Sep 03 02:43	2°♄05'57		morning rise	2342 Jul 18 12:22	13°♄36'49	
				direct	2342 Jul 21 06:10	13°♄17'37	
superior conj	2341 Sep 11 14:41	18°♄42'30	1°40'17	morning max el	2342 Jul 31 07:04	17°♄56'58	19°57'04
minimum elong	2341 Sep 11 16:45	18°♄52'23	1°40'10	asc. node	2342 Aug 09 07:17	29°♄45'45	
	2341 Sep 17 16:35	0°♄			2342 Aug 09 10:43	0°♄	
max. Earth dist.	2341 Sep 18 12:03	1°♄27'23	1.39000 AU	morning set	2342 Aug 18 06:22	16°♄36'55	

	2342 Aug 24 20:14	0°♍		asc. node	2343 Jul 27 04:19	18°♊41'35	
					2343 Aug 01 22:42	0°♊	
superior conj	2342 Aug 26 02:23	2°♍31'17	1°45'27	morning set	2343 Aug 02 14:38	1°♊22'15	
minimum elong	2342 Aug 26 02:38	2°♍32'34	1°45'26				
max. Earth dist.	2342 Aug 31 17:00	13°♍26'36	1.37001 AU	superior conj	2343 Aug 10 00:12	16°♊50'49	1°42'52
evening rise	2342 Sep 04 13:57	20°♍36'20		minimum elong	2343 Aug 09 23:03	16°♊44'50	1°42'48
	2342 Sep 09 22:43	0°♊		max. Earth dist.	2343 Aug 14 03:54	25°♊18'52	1.35251 AU
desc. node	2342 Sep 16 09:04	10°♊29'32			2343 Aug 16 12:57	0°♍	
	2342 Sep 29 22:15	0°♍		evening rise	2343 Aug 18 11:36	3°♍43'56	
evening max el	2342 Oct 10 07:51	12°♍02'01	25°39'30		2343 Sep 02 19:41	0°♊	
retrograde	2342 Oct 22 13:53	19°♍02'44		desc. node	2343 Sep 03 06:03	0°♊39'41	
evening set	2342 Oct 28 13:46	16°♍33'29		evening max el	2343 Sep 22 20:03	25°♊40'04	26°38'28
min. Earth dist.	2342 Nov 01 23:03	11°♍45'50	0.66974 AU		2343 Sep 28 00:52	0°♍	
inferior conj	2342 Nov 03 04:40	10°♍11'21	0°-42'-49	retrograde	2343 Oct 05 18:52	2°♍54'10	
minimum elong	2342 Nov 03 05:47	10°♍07'48	0°42'21	evening set	2343 Oct 12 08:15	0°♍14'23	
asc. node	2342 Nov 05 06:29	7°♍37'35			2343 Oct 12 15:07	30°♋♊	
morning rise	2342 Nov 08 22:35	4°♍14'31		min. Earth dist.	2343 Oct 16 10:09	26°♊03'34	0.66020 AU
direct	2342 Nov 12 04:33	3°♍13'41		inferior conj	2343 Oct 18 03:30	24°♊00'23	-1°-41'-21
morning max el	2342 Nov 19 05:28	7°♍10'17	19°13'01	minimum elong	2343 Oct 18 06:14	23°♊52'16	1°40'15
greatest brilliancy	2342 Nov 29 16:10	20°♍51'42	-0.7m	asc. node	2343 Oct 23 03:31	18°♊55'31	
	2342 Dec 05 16:37	0°♋		morning rise	2343 Oct 24 05:32	18°♊14'57	
morning set	2342 Dec 12 11:25	10°♋30'40		direct	2343 Oct 27 02:14	17°♊29'06	
desc. node	2342 Dec 13 08:21	11°♋52'06		morning max el	2343 Nov 02 17:19	21°♊06'40	18°28'46
	2342 Dec 24 22:45	0°♋			2343 Nov 09 16:08	0°♍	
max. Earth dist.	2342 Dec 26 10:51	2°♋22'13	1.44795 AU	morning set	2343 Nov 22 14:41	20°♍21'49	
					2343 Nov 28 15:24	0°♋	
superior conj	2342 Dec 29 06:27	6°♋49'37	-1°-34'-26	desc. node	2343 Nov 30 05:23	2°♋30'50	
minimum elong	2342 Dec 28 21:40	6°♋14'46	1°33'38				
evening rise	2343 Jan 12 22:27	0°♋33'53		superior conj	2343 Dec 08 08:13	15°♋19'07	0°-52'-44
	2343 Jan 12 14:14	0°♋		minimum elong	2343 Dec 08 01:34	14°♋52'57	0°51'54
asc. node	2343 Feb 01 05:45	29°♋54'20		max. Earth dist.	2343 Dec 09 05:36	16°♋43'03	1.45171 AU
	2343 Feb 01 07:55	0°♋			2343 Dec 17 16:40	0°♋	
evening max el	2343 Feb 01 14:04	0°♋15'52	18°29'22	evening rise	2343 Dec 24 10:48	10°♋39'03	
retrograde	2343 Feb 08 02:57	3°♋51'06		greatest brilliancy	2344 Jan 05 05:34	29°♋09'49	-0.7m
evening set	2343 Feb 11 03:28	3°♋00'23			2344 Jan 05 18:41	0°♋	
	2343 Feb 14 18:42	30°♋♋		evening max el	2344 Jan 15 23:42	13°♋43'38	19°06'17
inferior conj	2343 Feb 17 01:01	27°♋26'52	3°39'11	asc. node	2344 Jan 19 02:47	16°♋23'04	
minimum elong	2343 Feb 16 23:57	27°♋29'59	3°39'07	retrograde	2344 Jan 22 22:20	17°♋40'43	
min. Earth dist.	2343 Feb 19 04:02	24°♋57'27	0.64484 AU	evening set	2344 Jan 26 05:12	16°♋37'54	
morning rise	2343 Feb 22 19:04	21°♋17'42		inferior conj	2344 Jan 31 20:41	10°♋47'35	3°22'29
direct	2343 Mar 01 14:20	18°♋28'30		minimum elong	2344 Jan 31 18:34	10°♋54'18	3°22'08
desc. node	2343 Mar 11 07:29	22°♋51'04		min. Earth dist.	2344 Feb 02 08:24	8°♋54'18	0.65922 AU
morning max el	2343 Mar 15 03:11	26°♋19'50	27°22'43	morning rise	2344 Feb 06 07:02	4°♋34'06	
	2343 Mar 18 13:11	0°♋		direct	2344 Feb 12 16:57	1°♋45'55	
	2343 Apr 08 10:33	0°♋		morning max el	2344 Feb 25 13:07	9°♋21'11	26°26'40
morning set	2343 Apr 19 09:01	19°♋56'12		desc. node	2344 Feb 26 04:33	10°♋00'38	
max. Earth dist.	2343 Apr 24 05:02	29°♋40'00	1.33542 AU		2344 Mar 12 19:12	0°♋	
	2343 Apr 24 08:54	0°♋			2344 Mar 30 22:02	0°♋	
				morning set	2344 Apr 01 13:48	3°♋05'08	
superior conj	2343 Apr 27 11:56	6°♋33'09	0°-28'-10	max. Earth dist.	2344 Apr 05 17:40	11°♋05'49	1.34872 AU
minimum elong	2343 Apr 27 13:21	6°♋40'41	0°27'53				
asc. node	2343 Apr 30 05:03	12°♋20'14		superior conj	2344 Apr 10 10:22	20°♋33'24	0°-56'-19
evening rise	2343 May 04 18:33	22°♋02'53		minimum elong	2344 Apr 10 13:14	20°♋48'10	0°55'48
	2343 May 08 15:41	0°♋			2344 Apr 14 23:27	0°♋	
evening max el	2343 May 25 23:49	26°♋18'53	22°14'46	asc. node	2344 Apr 16 02:05	2°♋19'05	
	2343 May 30 13:06	0°♋		evening rise	2344 Apr 18 03:13	6°♋34'19	
desc. node	2343 Jun 07 06:41	2°♋40'38			2344 May 01 01:26	0°♋	
retrograde	2343 Jun 07 21:06	2°♋41'28		evening max el	2344 May 07 00:12	7°♋10'48	20°47'55
evening set	2343 Jun 10 19:16	2°♋22'32		retrograde	2344 May 18 10:17	12°♋44'35	
	2343 Jun 16 22:30	30°♋♋		evening set	2344 May 20 13:33	12°♋33'39	
min. Earth dist.	2343 Jun 19 05:57	28°♋44'20	0.55117 AU	desc. node	2344 May 24 03:43	11°♋30'47	
inferior conj	2343 Jun 20 02:37	28°♋15'15	-3°-28'-49	inferior conj	2344 May 29 20:14	8°♋36'02	-1°-39'-12
minimum elong	2343 Jun 19 18:36	28°♋26'33	3°26'37	minimum elong	2344 May 29 15:33	8°♋42'43	1°37'32
morning rise	2343 Jun 28 19:59	24°♋23'52		min. Earth dist.	2344 May 30 18:18	8°♋04'34	0.54937 AU
direct	2343 Jul 01 21:01	24°♋03'04		morning rise	2344 Jun 07 16:40	4°♋30'52	
morning max el	2343 Jul 13 13:11	29°♋29'32	21°19'40	direct	2344 Jun 11 06:19	4°♋03'25	
	2343 Jul 14 02:03	0°♋		morning max el	2344 Jun 24 09:21	10°♋21'47	22°57'23

	2344 Jul 08 17:59	0°☿		direct	2345 May 23 00:01	13°♄48'29	
asc. node	2344 Jul 13 01:22	8°♄04'50		morning max el	2345 Jun 06 00:08	20°♄50'29	24°39'26
morning set	2344 Jul 17 01:34	16°♄15'39			2345 Jun 13 21:22	0°♄	
	2344 Jul 23 11:54	0°♄		asc. node	2345 Jun 29 22:25	27°♄48'07	
					2345 Jun 30 23:46	0°♄	
superior conj	2344 Jul 24 04:53	1°♄30'44	1°33'59	morning set	2345 Jul 01 13:27	1°♄12'00	
minimum elong	2344 Jul 24 02:50	1°♄19'51	1°33'48				
max. Earth dist.	2344 Jul 26 23:36	7°♄23'31	1.33870 AU	superior conj	2345 Jul 08 13:56	16°♄23'03	1°19'57
evening rise	2344 Jul 31 23:10	17°♄32'07		minimum elong	2345 Jul 08 11:33	16°♄10'04	1°19'38
	2344 Aug 07 13:49	0°♄		max. Earth dist.	2345 Jul 10 03:55	19°♄49'05	1.32902 AU
desc. node	2344 Aug 20 03:03	20°♄24'56			2345 Jul 14 23:23	0°♄	
	2344 Aug 27 04:06	0°♄		evening rise	2345 Jul 15 20:51	1°♄50'05	
evening max el	2344 Sep 04 08:00	9°♄06'05	27°16'00		2345 Jul 31 11:15	0°♄	
retrograde	2344 Sep 17 18:23	16°♄24'50		desc. node	2345 Aug 07 00:04	9°♄34'49	
evening set	2344 Sep 24 18:11	13°♄42'22		evening max el	2345 Aug 17 18:13	22°♄08'42	27°25'33
min. Earth dist.	2344 Sep 28 13:27	10°♄07'43	0.64712 AU	retrograde	2345 Aug 31 11:40	29°♄25'52	
inferior conj	2344 Sep 30 19:17	7°♄40'48	-2°-40'-9	evening set	2345 Sep 07 16:23	26°♄51'54	
minimum elong	2344 Sep 30 23:33	7°♄29'06	2°38'37	min. Earth dist.	2345 Sep 11 07:13	23°♄48'57	0.63064 AU
morning rise	2344 Oct 07 06:53	2°♄09'51		inferior conj	2345 Sep 14 01:19	21°♄06'52	-3°-36'00
asc. node	2344 Oct 09 00:35	1°♄38'49		minimum elong	2345 Sep 14 06:39	20°♄53'44	3°34'27
direct	2344 Oct 09 20:45	1°♄35'06		morning rise	2345 Sep 20 23:27	15°♄53'32	
morning max el	2344 Oct 16 08:47	5°♄02'52	18°01'13	direct	2345 Sep 23 09:13	15°♄26'21	
	2344 Nov 01 23:35	0°♄		asc. node	2345 Sep 25 21:39	15°♄56'46	
morning set	2344 Nov 02 22:55	1°♄37'53		morning max el	2345 Sep 30 01:01	18°♄52'24	17°51'17
desc. node	2344 Nov 16 02:23	23°♄15'18			2345 Oct 08 03:46	0°♄	
				morning set	2345 Oct 16 07:25	14°♄03'56	
superior conj	2344 Nov 16 17:34	24°♄16'07	0°-4'-17		2345 Oct 25 11:49	0°♄	
minimum elong	2344 Nov 16 17:02	24°♄14'01	0°04'13				
behind sun begin	2344 Nov 16 06:48	23°♄33'00		superior conj	2345 Oct 28 02:28	4°♄23'39	0°39'25
behind sun end	2344 Nov 17 03:16	24°♄54'57		minimum elong	2345 Oct 28 06:09	4°♄39'05	0°38'55
	2344 Nov 20 07:56	0°♄		desc. node	2345 Nov 02 23:25	14°♄02'31	
max. Earth dist.	2344 Nov 21 00:17	1°♄04'37	1.44806 AU	max. Earth dist.	2345 Nov 03 16:29	15°♄11'21	1.43758 AU
evening rise	2344 Dec 03 03:05	19°♄57'54		evening rise	2345 Nov 12 11:32	29°♄02'51	
	2344 Dec 09 15:56	0°♄			2345 Nov 13 02:20	0°♄	
greatest brilliancy	2344 Dec 22 05:33	18°♄35'26	-0.6m		2345 Dec 03 10:58	0°♄	
evening max el	2344 Dec 29 04:56	27°♄13'27	19°59'16	greatest brilliancy	2345 Dec 06 22:02	4°♄35'06	-0.5m
	2345 Jan 01 08:46	0°♄		evening max el	2345 Dec 12 04:46	10°♄44'24	21°05'34
asc. node	2345 Jan 04 23:50	1°♄37'04		retrograde	2345 Dec 20 17:46	15°♄48'15	
retrograde	2345 Jan 05 20:03	1°♄41'00		asc. node	2345 Dec 22 20:55	15°♄23'04	
evening set	2345 Jan 09 10:49	0°♄24'41		evening set	2345 Dec 24 18:19	14°♄16'49	
	2345 Jan 09 23:52	30°♄		inferior conj	2345 Dec 30 04:11	8°♄01'45	2°17'43
inferior conj	2345 Jan 14 22:33	24°♄20'26	2°54'31	minimum elong	2345 Dec 30 01:41	8°♄10'21	2°16'54
minimum elong	2345 Jan 14 19:58	24°♄29'03	2°53'51	min. Earth dist.	2345 Dec 30 13:28	7°♄29'45	0.67587 AU
min. Earth dist.	2345 Jan 15 20:19	23°♄07'35	0.66951 AU	morning rise	2346 Jan 04 08:39	1°♄46'40	
morning rise	2345 Jan 20 04:31	18°♄05'07			2346 Jan 07 02:29	30°♄	
direct	2345 Jan 26 01:23	15°♄28'57		direct	2346 Jan 09 14:43	29°♄29'49	
morning max el	2345 Feb 06 21:59	22°♄33'36	25°09'58		2346 Jan 12 06:48	0°♄	
desc. node	2345 Feb 12 01:37	28°♄17'28		morning max el	2346 Jan 20 06:26	5°♄50'48	23°42'49
	2345 Feb 13 11:11	0°♄		desc. node	2346 Jan 29 22:39	17°♄21'56	
	2345 Mar 06 02:40	0°♄			2346 Feb 07 22:44	0°♄	
morning set	2345 Mar 15 01:54	15°♄21'21		morning set	2346 Feb 24 15:08	26°♄27'15	
max. Earth dist.	2345 Mar 18 18:55	22°♄08'24	1.36638 AU		2346 Feb 26 16:37	0°♄	
	2345 Mar 22 22:04	0°♄		max. Earth dist.	2346 Feb 28 13:57	3°♄18'22	1.38723 AU
superior conj	2345 Mar 24 23:34	4°♄02'16	-1°-23'-6	superior conj	2346 Mar 07 23:44	16°♄49'18	-1°-46'-2
minimum elong	2345 Mar 25 03:36	4°♄22'12	1°22'31	minimum elong	2346 Mar 08 04:02	17°♄09'35	1°45'37
evening rise	2345 Apr 02 07:11	20°♄46'31			2346 Mar 14 20:07	0°♄	
asc. node	2345 Apr 02 23:08	22°♄06'38		evening rise	2346 Mar 17 03:46	4°♄31'32	
	2345 Apr 06 23:47	0°♄		asc. node	2346 Mar 20 20:12	11°♄37'14	
evening max el	2345 Apr 19 12:36	18°♄42'26	19°38'00		2346 Apr 01 15:02	0°♄	
retrograde	2345 Apr 29 04:54	23°♄23'11		evening max el	2346 Apr 02 11:42	0°♄52'32	18°47'43
evening set	2345 May 01 05:20	23°♄11'53		retrograde	2346 Apr 10 15:44	4°♄51'16	
inferior conj	2345 May 09 22:05	19°♄08'33	0°19'19	evening set	2346 Apr 12 20:50	4°♄34'53	
minimum elong	2345 May 09 22:55	19°♄07'13	0°19'01	inferior conj	2346 Apr 20 18:27	0°♄14'24	1°56'28
desc. node	2345 May 11 00:46	18°♄26'20		minimum elong	2346 Apr 20 22:13	0°♄07'30	1°55'19
min. Earth dist.	2345 May 12 08:32	17°♄36'40	0.55724 AU		2346 Apr 21 02:18	30°♄	
morning rise	2345 May 18 12:56	14°♄33'03		min. Earth dist.	2346 Apr 24 01:09	27°♄51'22	0.57305 AU

desc. node	2346 Apr 27 21:49	25° Υ 30'04		minimum elong	2347 Apr 02 15:43	11° Υ 53'40	2°59'32
morning rise	2346 Apr 28 19:15	25° Υ 04'56		min. Earth dist.	2347 Apr 05 22:21	9° Υ 06'32	0.59344 AU
direct	2346 May 04 07:23	23° Υ 51'08		morning rise	2347 Apr 09 19:04	6° Υ 24'06	
	2346 May 17 04:29	0° \mathcal{B}		desc. node	2347 Apr 14 18:51	4° Υ 39'31	
morning max el	2346 May 18 15:25	1° \mathcal{B} 21'14	26°10'56	direct	2347 Apr 16 03:37	4° Υ 34'29	
	2346 Jun 07 21:04	0° Π		morning max el	2347 Apr 30 12:01	12° Υ 20'50	27°17'01
morning set	2346 Jun 16 00:37	16° Π 04'56			2347 May 14 09:19	0° \mathcal{B}	
asc. node	2346 Jun 16 19:28	17° Π 44'41			2347 May 30 23:55	0° Π	
	2346 Jun 22 10:42	0° \mathcal{E}		morning set	2347 May 31 09:23	0° Π 49'13	
				asc. node	2347 Jun 03 16:30	7° Π 49'44	
superior conj	2346 Jun 23 01:13	1° \mathcal{E} 19'49	1°01'37	max. Earth dist.	2347 Jun 07 02:19	15° Π 16'34	1.32157 AU
minimum elong	2346 Jun 22 22:58	1° \mathcal{E} 07'29	1°01'13				
max. Earth dist.	2346 Jun 23 14:01	2° \mathcal{E} 30'10	1.32336 AU	superior conj	2347 Jun 07 12:58	16° Π 15'12	0°39'42
evening rise	2346 Jun 30 01:26	16° \mathcal{E} 26'57		minimum elong	2347 Jun 07 11:18	16° Π 06'05	0°39'21
	2346 Jul 06 21:39	0° \mathcal{Q}			2347 Jun 13 20:20	0° \mathcal{E}	
desc. node	2346 Jul 24 21:06	27° \mathcal{Q} 53'52		evening rise	2347 Jun 14 10:26	1° \mathcal{E} 14'49	
	2346 Jul 26 15:42	0° \mathcal{M}			2347 Jun 30 01:29	0° \mathcal{Q}	
evening max el	2346 Jul 31 00:04	4° \mathcal{M} 33'58	27°02'37	desc. node	2347 Jul 11 18:07	15° \mathcal{Q} 01'14	
retrograde	2346 Aug 13 21:34	11° \mathcal{M} 47'20		evening max el	2347 Jul 12 23:00	16° \mathcal{Q} 12'16	26°06'52
evening set	2346 Aug 20 22:35	9° \mathcal{M} 34'55		retrograde	2347 Jul 26 22:43	23° \mathcal{Q} 22'22	
min. Earth dist.	2346 Aug 24 14:22	6° \mathcal{M} 53'43	0.61133 AU	evening set	2347 Aug 02 08:02	21° \mathcal{Q} 43'14	
inferior conj	2346 Aug 27 18:19	4° \mathcal{M} 09'40	-4°-23'-46	min. Earth dist.	2347 Aug 06 11:36	19° \mathcal{Q} 07'42	0.59069 AU
minimum elong	2346 Aug 27 23:27	3° \mathcal{M} 58'32	4°22'47	inferior conj	2347 Aug 09 18:41	16° \mathcal{Q} 39'26	-4°-54'-56
	2346 Sep 02 10:12	30° \mathcal{R} \mathcal{Q}		minimum elong	2347 Aug 09 21:20	16° \mathcal{Q} 34'24	4°54'45
morning rise	2346 Sep 04 03:19	29° \mathcal{Q} 17'20		morning rise	2347 Aug 17 14:06	12° \mathcal{Q} 10'29	
direct	2346 Sep 06 12:00	28° \mathcal{Q} 54'43		direct	2347 Aug 20 00:36	11° \mathcal{Q} 50'21	
	2346 Sep 10 10:14	0° \mathcal{M}		morning max el	2347 Aug 27 23:16	15° \mathcal{Q} 38'59	18°28'56
asc. node	2346 Sep 12 18:42	1° \mathcal{M} 40'44		asc. node	2347 Aug 30 15:44	18° \mathcal{Q} 36'15	
morning max el	2346 Sep 13 14:53	2° \mathcal{M} 27'15	18°00'07		2347 Sep 07 00:42	0° \mathcal{M}	
morning set	2346 Sep 29 09:49	27° \mathcal{M} 21'19		morning set	2347 Sep 13 00:53	11° \mathcal{M} 14'53	
	2346 Sep 30 20:13	0° \mathcal{A}					
				superior conj	2347 Sep 22 01:06	28° \mathcal{M} 24'44	1°33'09
superior conj	2346 Oct 09 14:20	15° \mathcal{A} 50'27	1°12'12	minimum elong	2347 Sep 22 04:15	28° \mathcal{M} 39'16	1°32'53
minimum elong	2346 Oct 09 18:46	16° \mathcal{A} 09'55	1°11'42		2347 Sep 22 21:43	0° \mathcal{A}	
max. Earth dist.	2346 Oct 17 04:23	28° \mathcal{A} 48'31	1.42148 AU	max. Earth dist.	2347 Sep 29 11:04	11° \mathcal{A} 43'30	1.40182 AU
	2346 Oct 17 21:39	0° \mathcal{M}		evening rise	2347 Oct 03 19:44	19° \mathcal{A} 08'09	
desc. node	2346 Oct 20 20:27	4° \mathcal{M} 49'14		desc. node	2347 Oct 07 17:27	25° \mathcal{A} 31'33	
evening rise	2346 Oct 23 05:09	8° \mathcal{M} 36'34			2347 Oct 10 13:04	0° \mathcal{M}	
	2346 Nov 06 06:38	0° \mathcal{A}			2347 Oct 31 15:06	0° \mathcal{A}	
greatest brilliancy	2346 Nov 20 05:33	18° \mathcal{A} 57'44	-0.3m	evening max el	2347 Nov 07 13:26	7° \mathcal{A} 51'58	23°41'07
evening max el	2346 Nov 24 23:12	24° \mathcal{A} 17'06	22°21'14	retrograde	2347 Nov 18 06:44	14° \mathcal{A} 11'34	
retrograde	2346 Dec 04 13:45	29° \mathcal{A} 59'46		evening set	2347 Nov 23 08:11	12° \mathcal{A} 06'26	
evening set	2346 Dec 09 01:59	28° \mathcal{A} 11'46		asc. node	2347 Nov 26 14:59	8° \mathcal{A} 33'48	
asc. node	2346 Dec 09 17:57	27° \mathcal{A} 37'04		inferior conj	2347 Nov 28 18:49	5° \mathcal{A} 40'31	0°44'08
inferior conj	2346 Dec 14 11:33	21° \mathcal{A} 49'22	1°33'49	minimum elong	2347 Nov 28 17:47	5° \mathcal{A} 44'02	0°43'43
minimum elong	2346 Dec 14 09:35	21° \mathcal{A} 56'10	1°33'04	min. Earth dist.	2347 Nov 28 06:05	6° \mathcal{A} 23'57	0.67774 AU
min. Earth dist.	2346 Dec 14 09:31	21° \mathcal{A} 56'23	0.67854 AU		2347 Dec 03 13:48	30° \mathcal{R} \mathcal{M}	
morning rise	2346 Dec 19 17:03	15° \mathcal{A} 36'29		morning rise	2347 Dec 04 03:34	29° \mathcal{M} 31'58	
direct	2346 Dec 24 08:02	13° \mathcal{A} 42'21		direct	2347 Dec 08 04:20	28° \mathcal{M} 00'36	
morning max el	2347 Jan 02 17:42	19° \mathcal{A} 14'38	22°15'02		2347 Dec 13 06:08	0° \mathcal{A}	
greatest brilliancy	2347 Jan 07 07:56	24° \mathcal{A} 23'18	-0.3m	morning max el	2347 Dec 16 11:12	2° \mathcal{A} 48'24	20°54'19
	2347 Jan 11 17:25	0° \mathcal{B}		greatest brilliancy	2347 Dec 22 02:12	9° \mathcal{A} 20'05	-0.5m
desc. node	2347 Jan 16 19:42	7° \mathcal{B} 00'40		desc. node	2348 Jan 03 16:42	27° \mathcal{A} 03'39	
	2347 Feb 01 03:25	0° \approx			2348 Jan 05 16:01	0° \mathcal{B}	
morning set	2347 Feb 05 00:02	6° \approx 10'19		morning set	2348 Jan 15 06:06	14° \mathcal{B} 39'55	
max. Earth dist.	2347 Feb 10 11:12	15° \approx 12'01	1.40875 AU	max. Earth dist.	2348 Jan 23 15:18	28° \mathcal{B} 00'54	1.42799 AU
					2348 Jan 24 20:29	0° \approx	
superior conj	2347 Feb 18 06:09	28° \approx 42'54	-2°-1'-31				
minimum elong	2347 Feb 18 08:55	28° \approx 55'13	2°01'25	superior conj	2348 Jan 30 13:30	9° \approx 30'08	-2°-4'-53
	2347 Feb 18 23:23	0° \mathcal{H}		minimum elong	2348 Jan 30 12:05	9° \approx 24'10	2°04'52
evening rise	2347 Feb 28 13:40	17° \mathcal{H} 41'38		evening rise	2348 Feb 11 08:55	0° \mathcal{H} 07'33	
	2347 Mar 07 06:56	0° Υ			2348 Feb 11 07:14	0° \mathcal{H}	
asc. node	2347 Mar 07 17:15	0° Υ 44'53		asc. node	2348 Feb 22 14:17	19° \mathcal{H} 21'37	
evening max el	2347 Mar 16 18:28	13° Υ 33'39	18°17'33	evening max el	2348 Feb 28 05:37	26° \mathcal{H} 36'30	18°07'13
retrograde	2347 Mar 23 21:47	17° Υ 07'06		retrograde	2348 Mar 05 19:48	0° Υ 00'20	
evening set	2347 Mar 26 08:36	16° Υ 42'52			2348 Mar 05 13:29	0° Υ	
inferior conj	2347 Apr 02 12:13	12° Υ 01'11	3°00'16		2348 Mar 06 02:09	30° \mathcal{R} \mathcal{H}	

evening set	2348 Mar 08 11:50	29° K 26'45			2349 Jan 16 10:17	0° \approx	
inferior conj	2348 Mar 15 00:58	24° K 23'58	3°33'16	evening rise	2349 Jan 23 09:14	11° \approx 41'30	
minimum elong	2348 Mar 15 02:42	24° K 19'41	3°33'07		2349 Feb 03 08:36	0° K	
min. Earth dist.	2348 Mar 18 02:59	21° K 22'19	0.61491 AU	asc. node	2349 Feb 08 11:17	7° K 18'17	
morning rise	2348 Mar 21 14:46	18° K 28'46		evening max el	2349 Feb 10 18:12	9° K 53'42	18°16'00
direct	2348 Mar 28 10:46	16° K 06'20		retrograde	2349 Feb 17 05:10	13° K 21'25	
desc. node	2348 Mar 31 15:53	16° K 35'21		evening set	2349 Feb 20 02:22	12° K 37'22	
morning max el	2348 Apr 11 15:03	24° K 01'37	27°48'09	inferior conj	2349 Feb 26 04:42	7° K 14'45	3°42'19
	2348 Apr 17 00:31	0° Y		minimum elong	2349 Feb 26 04:32	7° K 15'14	3°42'20
	2348 May 06 16:01	0° B		min. Earth dist.	2349 Feb 28 16:48	4° K 28'32	0.63482 AU
morning set	2348 May 14 13:52	15° B 18'29		morning rise	2349 Mar 04 04:50	1° K 09'11	
max. Earth dist.	2348 May 20 12:49	27° B 54'47	1.32360 AU		2349 Mar 05 20:19	30° $\text{R}\approx$	
asc. node	2348 May 20 13:33	27° B 58'47		direct	2349 Mar 11 02:46	28° \approx 25'14	
	2348 May 21 11:50	0° II			2349 Mar 16 19:48	0° K	
				desc. node	2349 Mar 18 12:55	1° K 00'15	
superior conj	2348 May 21 23:29	1° II 03'40	0°14'53	morning max el	2349 Mar 24 22:42	6° K 21'25	27°41'51
minimum elong	2348 May 21 22:48	0° II 59'55	0°14'44		2349 Apr 11 23:13	0° Y	
behind sun begin	2348 May 21 20:54	0° II 49'31		morning set	2349 Apr 28 11:42	29° Y 24'31	
behind sun end	2348 May 22 00:43	1° II 10'20			2349 Apr 28 18:48	0° B	
evening rise	2348 May 28 21:46	16° II 06'41		max. Earth dist.	2349 May 03 17:25	10° B 10'40	1.32979 AU
	2348 Jun 04 19:24	0° S					
evening max el	2348 Jun 23 15:01	27° S 06'20	24°44'54	superior conj	2349 May 06 07:00	15° B 38'48	0°-12'-4
	2348 Jun 26 23:39	0° Q		minimum elong	2349 May 06 07:36	15° B 41'59	0°11'57
desc. node	2348 Jun 27 15:07	0° Q 28'36		behind sun begin	2349 May 06 04:04	15° B 23'01	
retrograde	2348 Jul 07 13:37	4° Q 10'11		behind sun end	2349 May 06 11:08	16° B 00'58	
evening set	2348 Jul 12 17:43	3° Q 09'36		asc. node	2349 May 07 10:34	18° B 07'13	
min. Earth dist.	2348 Jul 18 02:16	0° Q 20'48	0.57121 AU		2349 May 12 23:02	0° II	
	2348 Jul 18 15:17	30° RS		evening rise	2349 May 13 09:33	0° II 55'39	
inferior conj	2348 Jul 20 23:29	28° S 27'51	-4°-56'-46		2349 May 29 16:36	0° S	
minimum elong	2348 Jul 20 21:11	28° S 31'39	4°56'39	evening max el	2349 Jun 05 04:41	7° S 35'58	23°09'38
morning rise	2348 Jul 29 04:23	24° S 21'01		desc. node	2349 Jun 14 12:09	13° S 39'56	
direct	2348 Jul 31 18:51	24° S 01'59		retrograde	2349 Jun 18 16:06	14° S 19'27	
morning max el	2348 Aug 09 23:08	28° S 18'59	19°18'50	evening set	2349 Jun 22 08:00	13° S 50'03	
	2348 Aug 11 14:52	0° Q		min. Earth dist.	2349 Jun 29 14:13	10° S 33'18	0.55632 AU
asc. node	2348 Aug 16 12:46	6° Q 28'48		inferior conj	2349 Jul 01 08:38	9° S 31'18	-4°-15'-6
morning set	2348 Aug 27 00:48	25° Q 34'43		minimum elong	2349 Jul 01 01:25	9° S 41'53	4°13'40
	2348 Aug 29 05:52	0° M		morning rise	2349 Jul 09 21:53	5° S 38'12	
				direct	2349 Jul 12 18:06	5° S 18'49	
superior conj	2348 Sep 04 05:13	11° M 51'06	1°43'32	morning max el	2349 Jul 23 12:00	10° S 17'35	20°29'56
minimum elong	2348 Sep 04 06:29	11° M 57'17	1°43'28	asc. node	2349 Aug 03 09:48	25° S 04'32	
max. Earth dist.	2348 Sep 10 14:46	23° M 56'57	1.38121 AU		2349 Aug 06 02:54	0° Q	
	2348 Sep 13 23:37	0° A		morning set	2349 Aug 11 06:41	10° Q 12'13	
evening rise	2348 Sep 14 10:20	0° A 47'08					
desc. node	2348 Sep 23 14:28	16° A 05'46		superior conj	2349 Aug 18 21:42	25° Q 54'14	1°45'12
	2348 Oct 02 19:24	0° M		minimum elong	2349 Aug 18 21:18	25° Q 52'11	1°45'11
evening max el	2348 Oct 20 01:37	21° M 30'28	24°58'44		2349 Aug 20 22:28	0° M	
retrograde	2348 Oct 31 19:43	28° M 19'55		max. Earth dist.	2349 Aug 23 21:14	5° M 48'08	1.36213 AU
evening set	2348 Nov 06 11:20	25° M 58'37		evening rise	2349 Aug 27 21:59	13° M 25'48	
min. Earth dist.	2348 Nov 11 00:57	20° M 50'24	0.67359 AU		2349 Sep 06 10:36	0° A	
inferior conj	2348 Nov 12 00:18	19° M 33'35	0°-10'-3	desc. node	2349 Sep 10 11:29	6° A 26'12	
minimum elong	2348 Nov 12 00:33	19° M 32'45	0°09'57		2349 Sep 27 17:08	0° M	
transit middle	2348 Nov 12 00:33	19° M 32'45	0°09'57	evening max el	2349 Oct 02 13:41	5° M 10'26	26°06'48
transit begin	2348 Nov 11 22:22	19° M 39'56		retrograde	2349 Oct 15 03:54	12° M 18'40	
transit end	2348 Nov 12 02:44	19° M 25'33		evening set	2349 Oct 21 09:34	9° M 44'22	
asc. node	2348 Nov 12 11:59	18° M 55'15		min. Earth dist.	2349 Oct 25 15:39	5° M 12'02	0.66605 AU
morning rise	2348 Nov 17 14:20	13° M 31'36		inferior conj	2349 Oct 27 02:08	3° M 24'51	-1°-7'-28
direct	2348 Nov 21 02:29	12° M 20'43		minimum elong	2349 Oct 27 03:55	3° M 19'18	1°06'43
morning max el	2348 Nov 28 12:30	16° M 33'19	19°45'45	asc. node	2349 Oct 30 09:01	29° A 37'15	
greatest brilliancy	2348 Dec 06 07:24	26° M 11'13	-0.6m		2349 Oct 30 00:07	30° RA	
	2348 Dec 08 23:44	0° A		morning rise	2349 Nov 01 23:17	27° A 32'18	
desc. node	2348 Dec 20 13:45	17° A 24'26		direct	2349 Nov 05 00:58	26° A 38'22	
morning set	2348 Dec 24 02:14	22° A 49'37			2349 Nov 11 10:22	0° M	
	2348 Dec 28 17:11	0° S		morning max el	2349 Nov 11 20:58	0° M 26'03	18°52'09
max. Earth dist.	2349 Jan 05 02:25	11° S 36'56	1.44246 AU		2349 Dec 02 09:17	0° A	
				morning set	2349 Dec 03 13:35	1° A 51'16	
superior conj	2349 Jan 09 18:37	19° S 06'20	-1°-51'-9	desc. node	2349 Dec 07 10:47	7° A 57'32	
minimum elong	2349 Jan 09 11:41	18° S 38'22	1°50'41	max. Earth dist.	2349 Dec 18 18:59	25° A 45'33	1.45042 AU

superior conj	2349 Dec 20 01:59	27° $\overline{\text{A}}$ 47'27	-1°-18'-22		2350 Dec 14 06:52	0° $\overline{\text{B}}$	
minimum elong	2349 Dec 19 17:14	27° $\overline{\text{A}}$ 13'05	1°17'26	evening rise	2350 Dec 15 13:49	2° $\overline{\text{B}}$ 00'40	
	2349 Dec 21 11:38	0° $\overline{\text{B}}$		greatest brilliancy	2350 Dec 31 00:33	25° $\overline{\text{B}}$ 44'45	-0.7m
evening rise	2350 Jan 04 10:57	22° $\overline{\text{B}}$ 18'09			2351 Jan 03 00:22	0° \approx	
	2350 Jan 09 04:58	0° \approx		evening max el	2351 Jan 08 13:42	6° \approx 48'33	19°27'06
evening max el	2350 Jan 25 05:40	23° \approx 19'27	18°43'04	asc. node	2351 Jan 13 05:22	10° \approx 22'03	
asc. node	2350 Jan 26 08:19	24° \approx 23'16		retrograde	2351 Jan 15 18:24	10° \approx 57'14	
retrograde	2350 Jan 31 21:47	27° \approx 02'35		evening set	2351 Jan 19 04:31	9° \approx 48'42	
evening set	2350 Feb 04 00:50	26° \approx 06'56		inferior conj	2351 Jan 24 18:09	3° \approx 52'12	3°11'50
inferior conj	2350 Feb 09 19:32	20° \approx 26'18	3°33'41	minimum elong	2351 Jan 24 15:46	3° \approx 59'58	3°11'20
minimum elong	2350 Feb 09 17:57	20° \approx 31'07	3°33'30	min. Earth dist.	2351 Jan 25 23:43	2° \approx 16'03	0.66410 AU
min. Earth dist.	2350 Feb 11 16:03	18° \approx 11'05	0.65146 AU		2351 Jan 27 19:41	30° $\overline{\text{R}}$ $\overline{\text{B}}$	
morning rise	2350 Feb 15 09:53	14° \approx 15'03		morning rise	2351 Jan 30 02:16	27° $\overline{\text{B}}$ 38'01	
direct	2350 Feb 22 01:57	11° \approx 24'22		direct	2351 Feb 05 07:05	24° $\overline{\text{B}}$ 53'49	
desc. node	2350 Mar 05 09:58	17° \approx 19'14			2351 Feb 15 08:04	0° \approx	
morning max el	2350 Mar 07 08:19	19° \approx 10'37	27°01'58	morning max el	2351 Feb 17 17:43	2° \approx 17'04	25°56'04
	2350 Mar 16 13:20	0° $\overline{\text{H}}$		desc. node	2351 Feb 20 07:02	4° \approx 59'55	
	2350 Apr 04 23:05	0° $\overline{\text{Y}}$			2351 Mar 10 17:09	0° $\overline{\text{H}}$	
morning set	2350 Apr 11 23:52	12° $\overline{\text{Y}}$ 58'02		morning set	2351 Mar 25 22:12	25° $\overline{\text{H}}$ 46'08	
max. Earth dist.	2350 Apr 16 12:32	21° $\overline{\text{Y}}$ 55'14	1.34049 AU		2351 Mar 28 04:33	0° $\overline{\text{Y}}$	
				max. Earth dist.	2351 Mar 29 20:11	3° $\overline{\text{Y}}$ 09'03	1.35579 AU
superior conj	2350 Apr 20 09:31	29° $\overline{\text{Y}}$ 54'32	0°-40'-8				
minimum elong	2350 Apr 20 11:33	0° $\overline{\text{B}}$ 05'14	0°39'44	superior conj	2351 Apr 04 04:26	13° $\overline{\text{Y}}$ 42'38	-1°-7'-57
	2350 Apr 20 10:33	0° $\overline{\text{B}}$		minimum elong	2351 Apr 04 07:52	13° $\overline{\text{Y}}$ 59'59	1°07'23
asc. node	2350 Apr 24 07:37	8° $\overline{\text{B}}$ 11'14		asc. node	2351 Apr 11 04:40	28° $\overline{\text{Y}}$ 05'56	
evening rise	2350 Apr 27 19:57	15° $\overline{\text{B}}$ 35'49		evening rise	2351 Apr 12 02:56	0° $\overline{\text{B}}$ 00'02	
	2350 May 05 03:03	0° $\overline{\text{H}}$			2351 Apr 12 02:55	0° $\overline{\text{B}}$	
evening max el	2350 May 17 23:33	18° $\overline{\text{H}}$ 12'53	21°36'11	evening max el	2351 Apr 30 04:59	29° $\overline{\text{B}}$ 20'40	20°15'48
retrograde	2350 May 30 07:19	24° $\overline{\text{H}}$ 15'36			2351 Apr 30 21:44	0° $\overline{\text{H}}$	
desc. node	2350 Jun 01 09:09	24° $\overline{\text{H}}$ 05'48		retrograde	2351 May 10 20:56	4° $\overline{\text{H}}$ 31'02	
evening set	2350 Jun 01 19:13	24° $\overline{\text{H}}$ 01'31		evening set	2351 May 12 21:46	4° $\overline{\text{H}}$ 20'33	
inferior conj	2350 Jun 11 04:21	20° $\overline{\text{H}}$ 00'41	-2°-45'-47	desc. node	2351 May 19 06:12	1° $\overline{\text{H}}$ 55'43	
minimum elong	2350 Jun 10 21:07	20° $\overline{\text{H}}$ 10'49	2°43'28	inferior conj	2351 May 21 23:42	0° $\overline{\text{H}}$ 22'09	0°-47'-55
min. Earth dist.	2350 Jun 11 01:56	20° $\overline{\text{H}}$ 04'04	0.54926 AU	minimum elong	2351 May 21 21:27	0° $\overline{\text{H}}$ 25'28	0°47'05
morning rise	2350 Jun 19 23:47	16° $\overline{\text{H}}$ 05'39			2351 May 22 14:42	30° $\overline{\text{R}}$ $\overline{\text{B}}$	
direct	2350 Jun 23 05:26	15° $\overline{\text{H}}$ 42'45		min. Earth dist.	2351 May 23 14:41	29° $\overline{\text{B}}$ 24'47	0.55169 AU
morning max el	2350 Jul 05 13:27	21° $\overline{\text{H}}$ 31'48	21°59'45	morning rise	2351 May 30 19:01	26° $\overline{\text{B}}$ 05'56	
	2350 Jul 12 18:24	0° $\overline{\text{B}}$		direct	2351 Jun 03 17:05	25° $\overline{\text{B}}$ 32'40	
asc. node	2350 Jul 21 06:52	14° $\overline{\text{B}}$ 13'07			2351 Jun 14 18:10	0° $\overline{\text{H}}$	
morning set	2350 Jul 26 16:20	25° $\overline{\text{B}}$ 01'31		morning max el	2351 Jun 17 06:28	2° $\overline{\text{H}}$ 10'19	23°41'02
	2350 Jul 29 01:06	0° $\overline{\text{Q}}$			2351 Jul 06 06:19	0° $\overline{\text{B}}$	
				asc. node	2351 Jul 08 03:57	3° $\overline{\text{B}}$ 45'41	
superior conj	2350 Aug 02 22:48	10° $\overline{\text{Q}}$ 23'15	1°39'46	morning set	2351 Jul 11 03:54	9° $\overline{\text{B}}$ 56'53	
minimum elong	2350 Aug 02 21:12	10° $\overline{\text{Q}}$ 14'51	1°39'41				
max. Earth dist.	2350 Aug 06 11:50	17° $\overline{\text{Q}}$ 44'06	1.34622 AU	superior conj	2351 Jul 18 05:37	25° $\overline{\text{B}}$ 09'04	1°28'36
evening rise	2350 Aug 11 02:09	26° $\overline{\text{Q}}$ 52'15		minimum elong	2351 Jul 18 03:22	24° $\overline{\text{B}}$ 56'57	1°28'21
	2350 Aug 12 17:27	0° $\overline{\text{H}}$			2351 Jul 20 11:58	0° $\overline{\text{Q}}$	
desc. node	2350 Aug 28 08:29	26° $\overline{\text{H}}$ 26'30		max. Earth dist.	2351 Jul 20 11:44	29° $\overline{\text{B}}$ 58'43	1.33415 AU
	2350 Aug 30 18:32	0° $\overline{\text{A}}$		evening rise	2351 Jul 25 18:29	10° $\overline{\text{Q}}$ 54'15	
evening max el	2350 Sep 15 02:09	18° $\overline{\text{A}}$ 45'11	26°57'32		2351 Aug 05 00:59	0° $\overline{\text{H}}$	
retrograde	2350 Sep 28 06:32	26° $\overline{\text{A}}$ 01'34		desc. node	2351 Aug 15 05:30	15° $\overline{\text{H}}$ 58'11	
evening set	2350 Oct 05 00:44	23° $\overline{\text{A}}$ 19'52			2351 Aug 26 12:21	0° $\overline{\text{A}}$	
min. Earth dist.	2350 Oct 08 23:49	19° $\overline{\text{A}}$ 24'23	0.65507 AU	evening max el	2351 Aug 28 13:46	2° $\overline{\text{A}}$ 03'12	27°23'48
inferior conj	2350 Oct 10 22:17	17° $\overline{\text{A}}$ 10'41	-2°-6'-25	retrograde	2351 Sep 11 03:14	9° $\overline{\text{A}}$ 20'56	
minimum elong	2350 Oct 11 01:41	17° $\overline{\text{A}}$ 00'51	2°05'06	evening set	2351 Sep 18 06:08	6° $\overline{\text{A}}$ 40'39	
morning rise	2350 Oct 17 04:12	11° $\overline{\text{A}}$ 30'42		min. Earth dist.	2351 Sep 21 23:10	3° $\overline{\text{A}}$ 20'25	0.64054 AU
asc. node	2350 Oct 17 06:05	11° $\overline{\text{A}}$ 28'24		inferior conj	2351 Sep 24 10:18	0° $\overline{\text{A}}$ 45'59	-3°-4'-26
direct	2350 Oct 19 21:44	10° $\overline{\text{A}}$ 49'54		minimum elong	2351 Sep 24 15:08	0° $\overline{\text{A}}$ 33'21	3°02'50
morning max el	2350 Oct 26 10:36	14° $\overline{\text{A}}$ 22'16	18°14'54		2351 Sep 25 04:00	30° $\overline{\text{R}}$ $\overline{\text{H}}$	
	2350 Nov 06 15:38	0° $\overline{\text{M}}$		morning rise	2351 Oct 01 02:18	25° $\overline{\text{H}}$ 22'07	
morning set	2350 Nov 14 05:26	12° $\overline{\text{M}}$ 19'24		direct	2351 Oct 03 14:13	24° $\overline{\text{H}}$ 50'51	
desc. node	2350 Nov 24 07:48	28° $\overline{\text{M}}$ 38'40		asc. node	2351 Oct 04 03:09	24° $\overline{\text{H}}$ 52'20	
	2350 Nov 25 04:13	0° $\overline{\text{A}}$		morning max el	2351 Oct 10 02:47	28° $\overline{\text{H}}$ 16'32	17°54'49
					2351 Oct 11 16:51	0° $\overline{\text{A}}$	
superior conj	2350 Nov 29 04:13	6° $\overline{\text{A}}$ 20'34	0°-32'-13	morning set	2351 Oct 27 00:50	24° $\overline{\text{A}}$ 08'01	
minimum elong	2350 Nov 29 00:04	6° $\overline{\text{A}}$ 04'10	0°31'41		2351 Oct 30 11:21	0° $\overline{\text{M}}$	
max. Earth dist.	2350 Dec 01 14:17	10° $\overline{\text{A}}$ 09'17	1.45106 AU				

superior conj	2351 Nov 08 22:24	15° ℓ 44'24	0°15'22	superior conj	2352 Oct 19 19:02	26° ♊ 26'34	0°54'47
minimum elong	2351 Nov 09 00:07	15° ℓ 51'22	0°15'08	minimum elong	2352 Oct 19 23:24	26° ♊ 45'11	0°54'14
behind sun begin	2351 Nov 08 20:34	15° ℓ 36'54			2352 Oct 21 21:24	0° ℓ	
behind sun end	2351 Nov 09 03:40	16° ℓ 05'50		max. Earth dist.	2352 Oct 26 23:23	8° ℓ 24'40	1.43127 AU
desc. node	2351 Nov 11 04:49	19° ℓ 24'43		desc. node	2352 Oct 28 01:50	10° ℓ 11'58	
max. Earth dist.	2351 Nov 14 08:51	24° ℓ 28'55	1.44438 AU	evening rise	2352 Nov 03 11:13	20° ℓ 20'51	
	2351 Nov 17 20:39	0° ♊			2352 Nov 09 18:00	0° ♊	
evening rise	2351 Nov 25 00:55	11° ♊ 09'14		greatest brilliancy	2352 Nov 29 16:39	28° ♊ 13'41	-0.4m
	2351 Dec 07 11:44	0° ♋			2352 Dec 01 03:33	0° ♋	
greatest brilliancy	2351 Dec 16 13:34	12° ♋ 55'46	-0.5m	evening max el	2352 Dec 04 14:00	3° ♋ 49'20	21°36'49
evening max el	2351 Dec 22 16:42	20° ♋ 18'46	20°26'01	retrograde	2352 Dec 13 13:42	9° ♋ 10'12	
retrograde	2351 Dec 30 16:24	25° ♋ 01'06		asc. node	2352 Dec 16 23:28	8° ♋ 06'25	
asc. node	2351 Dec 31 02:25	25° ♋ 00'08		evening set	2352 Dec 17 18:56	7° ♋ 31'48	
evening set	2352 Jan 03 11:11	23° ♋ 38'19		inferior conj	2352 Dec 23 04:28	1° ♋ 12'51	1°59'52
inferior conj	2352 Jan 08 21:53	17° ♋ 28'52	2°39'53	minimum elong	2352 Dec 23 02:09	1° ♋ 20'55	1°59'03
minimum elong	2352 Jan 08 19:17	17° ♋ 37'43	2°39'07	min. Earth dist.	2352 Dec 23 08:47	0° ♋ 57'54	0.67740 AU
min. Earth dist.	2352 Jan 09 14:04	16° ♋ 33'51	0.67267 AU		2352 Dec 24 01:34	30° ♌	
morning rise	2352 Jan 14 02:54	11° ♋ 13'33		morning rise	2352 Dec 28 09:05	24° ♌ 58'20	
direct	2352 Jan 19 17:30	8° ♋ 45'15		direct	2353 Jan 02 08:33	22° ♌ 51'07	
morning max el	2352 Jan 31 02:19	15° ♋ 32'11	24°33'41	morning max el	2353 Jan 12 11:39	28° ♌ 52'03	23°05'03
desc. node	2352 Feb 07 04:05	23° ♋ 38'45			2353 Jan 13 13:52	0° ♋	
	2352 Feb 12 00:04	0° ♌		greatest brilliancy	2353 Jan 17 08:52	4° ♋ 19'44	-0.3m
	2352 Mar 02 15:36	0° ♌		desc. node	2353 Jan 24 01:06	12° ♋ 58'46	
morning set	2352 Mar 07 01:21	7° ♌ 34'06			2353 Feb 04 18:35	0° ♌	
max. Earth dist.	2352 Mar 10 18:20	14° ♌ 11'52	1.37502 AU	morning set	2353 Feb 16 03:02	18° ♌ 05'45	
				max. Earth dist.	2353 Feb 20 13:12	25° ♌ 36'04	1.39639 AU
superior conj	2352 Mar 17 12:34	26° ♌ 54'32	-1°-33'-28		2353 Feb 23 01:38	0° ♌	
minimum elong	2352 Mar 17 16:53	27° ♌ 15'25	1°32'56	superior conj	2353 Feb 28 05:46	9° ♌ 19'49	-1°-53'-45
	2352 Mar 19 02:39	0° ♍		minimum elong	2353 Feb 28 09:42	9° ♌ 37'57	1°53'29
evening rise	2352 Mar 26 04:07	14° ♍ 01'32		evening rise	2353 Mar 09 20:35	27° ♌ 32'35	
asc. node	2352 Mar 28 01:43	17° ♍ 46'47			2353 Mar 11 03:24	0° ♍	
	2352 Apr 03 16:30	0° ♍		asc. node	2353 Mar 14 22:46	7° ♍ 08'28	
evening max el	2352 Apr 11 22:06	11° ♍ 08'21	19°14'03	evening max el	2353 Mar 26 00:50	23° ♍ 32'49	18°32'30
retrograde	2352 Apr 20 21:56	15° ♍ 29'53		retrograde	2353 Apr 02 17:08	27° ♍ 19'00	
evening set	2352 Apr 22 23:50	15° ♍ 16'53		evening set	2353 Apr 05 00:31	26° ♍ 59'41	
inferior conj	2352 May 01 08:35	11° ♍ 06'42	1°04'19	inferior conj	2353 Apr 12 14:10	22° ♍ 30'38	2°27'35
minimum elong	2352 May 01 11:06	11° ♍ 02'28	1°03'26	minimum elong	2353 Apr 12 18:07	22° ♍ 22'52	2°26'33
min. Earth dist.	2352 May 04 05:38	9° ♍ 11'29	0.56317 AU	min. Earth dist.	2353 Apr 16 00:12	19° ♍ 51'00	0.58127 AU
desc. node	2352 May 05 03:16	8° ♍ 37'12		morning rise	2353 Apr 20 07:24	17° ♍ 07'53	
morning rise	2352 May 09 18:17	6° ♍ 16'23		desc. node	2353 Apr 22 00:17	16° ♍ 24'18	
direct	2352 May 14 15:46	5° ♍ 21'02		direct	2353 Apr 26 05:01	15° ♍ 39'01	
morning max el	2352 May 28 20:53	12° ♍ 36'32	25°20'40	morning max el	2353 May 10 14:16	23° ♍ 18'14	26°42'53
	2352 Jun 11 08:42	0° ♎			2353 May 16 14:24	0° ♍	
asc. node	2352 Jun 24 00:59	23° ♎ 35'12			2353 Jun 04 07:00	0° ♎	
morning set	2352 Jun 24 15:41	24° ♎ 52'28		morning set	2353 Jun 09 02:04	9° ♎ 43'09	
	2352 Jun 27 01:12	0° ♏		asc. node	2353 Jun 10 22:01	13° ♎ 36'24	
superior conj	2352 Jul 01 15:50	10° ♏ 03'54	1°12'40	superior conj	2353 Jun 16 03:33	25° ♎ 01'36	0°52'45
minimum elong	2352 Jul 01 13:27	9° ♏ 50'52	1°12'17	minimum elong	2353 Jun 16 01:31	24° ♎ 50'20	0°52'21
max. Earth dist.	2352 Jul 02 18:56	12° ♏ 31'58	1.32611 AU	max. Earth dist.	2353 Jun 16 06:19	25° ♎ 16'47	1.32207 AU
evening rise	2352 Jul 08 19:24	25° ♏ 20'54			2353 Jun 18 09:51	0° ♏	
	2352 Jul 11 02:26	0° ♏		evening rise	2353 Jun 23 02:09	10° ♏ 03'52	
	2352 Jul 28 14:15	0° ♐			2353 Jul 03 09:39	0° ♏	
desc. node	2352 Aug 01 02:32	4° ♐ 48'40		desc. node	2353 Jul 18 23:34	22° ♏ 40'51	
evening max el	2352 Aug 09 22:15	14° ♐ 50'39	27°19'49	evening max el	2353 Jul 23 01:15	26° ♏ 56'41	26°42'42
retrograde	2352 Aug 23 17:31	22° ♐ 06'36			2353 Jul 26 15:11	0° ♐	
evening set	2352 Aug 30 22:06	19° ♐ 39'45		retrograde	2353 Aug 06 00:17	4° ♐ 09'33	
min. Earth dist.	2352 Sep 03 12:13	16° ♐ 48'04	0.62271 AU	evening set	2353 Aug 12 20:08	2° ♐ 09'55	
inferior conj	2352 Sep 06 11:13	14° ♐ 02'59	-3°-57'-41		2353 Aug 16 01:16	30° ♑	
minimum elong	2352 Sep 06 16:40	13° ♐ 50'13	3°56'18	min. Earth dist.	2353 Aug 16 15:05	29° ♑ 33'20	0.60258 AU
morning rise	2352 Sep 13 14:01	8° ♐ 58'34		inferior conj	2353 Aug 19 21:35	26° ♑ 53'17	-4°-39'-42
direct	2352 Sep 15 22:58	8° ♐ 33'40		minimum elong	2353 Aug 20 02:00	26° ♑ 44'15	4°39'03
asc. node	2352 Sep 20 00:13	9° ♐ 48'25		morning rise	2353 Aug 27 11:09	22° ♑ 10'55	
morning max el	2352 Sep 22 18:28	12° ♐ 01'10	17°52'44	direct	2353 Aug 29 20:06	21° ♑ 49'44	
	2352 Oct 04 20:14	0° ♑		morning max el	2353 Sep 06 06:29	25° ♑ 28'01	18°09'48
morning set	2352 Oct 08 17:38	6° ♑ 57'39		asc. node	2353 Sep 06 21:14	26° ♑ 04'58	

	2353 Sep 10 02:52	0° \mathbb{M}		morning max el	2354 Aug 20 11:32	8° \mathbb{Q} 27'07	18°47'25
morning set	2353 Sep 22 01:59	20° \mathbb{M} 31'56		asc. node	2354 Aug 24 18:15	13° \mathbb{Q} 26'15	
	2353 Sep 27 03:11	0° \mathbb{A}			2354 Sep 03 11:56	0° \mathbb{M}	
				morning set	2354 Sep 05 21:14	4° \mathbb{M} 37'47	
superior conj	2353 Oct 01 17:21	8° \mathbb{A} 24'12	1°22'28				
minimum elong	2353 Oct 01 21:22	8° \mathbb{A} 42'18	1°22'03	superior conj	2354 Sep 14 12:07	21° \mathbb{M} 22'08	1°38'43
max. Earth dist.	2353 Oct 09 08:23	21° \mathbb{A} 42'26	1.41343 AU	minimum elong	2354 Sep 14 14:28	21° \mathbb{M} 33'18	1°38'34
	2353 Oct 14 08:41	0° \mathbb{M}			2354 Sep 19 03:40	0° \mathbb{A}	
evening rise	2353 Oct 14 12:51	0° \mathbb{M} 16'55		max. Earth dist.	2354 Sep 21 13:13	4° \mathbb{A} 18'15	1.39310 AU
desc. node	2353 Oct 14 22:52	0° \mathbb{M} 57'21		evening rise	2354 Sep 25 13:47	11° \mathbb{A} 17'40	
	2353 Nov 03 06:33	0° \mathbb{A}		desc. node	2354 Oct 01 19:53	21° \mathbb{A} 36'55	
greatest brilliancy	2353 Nov 11 23:54	11° \mathbb{A} 27'46	-0.2m		2354 Oct 07 04:53	0° \mathbb{M}	
evening max el	2353 Nov 17 06:21	17° \mathbb{A} 22'22	22°55'03		2354 Oct 29 20:06	0° \mathbb{A}	
retrograde	2353 Nov 27 08:35	23° \mathbb{A} 21'45		evening max el	2354 Oct 30 19:39	0° \mathbb{A} 59'42	24°14'53
evening set	2353 Dec 02 02:09	21° \mathbb{A} 26'41		retrograde	2354 Nov 10 23:54	7° \mathbb{A} 32'38	
asc. node	2353 Dec 03 20:30	19° \mathbb{A} 43'59		evening set	2354 Nov 16 07:15	5° \mathbb{A} 20'41	
min. Earth dist.	2353 Dec 07 05:27	15° \mathbb{A} 24'50	0.67861 AU	asc. node	2354 Nov 20 17:30	0° \mathbb{A} 19'37	
inferior conj	2353 Dec 07 12:01	15° \mathbb{A} 02'12	1°13'22		2354 Nov 20 23:22	30° \mathbb{R} \mathbb{M}	
minimum elong	2353 Dec 07 10:24	15° \mathbb{A} 07'45	1°12'44	min. Earth dist.	2354 Nov 21 01:37	29° \mathbb{M} 52'28	0.67642 AU
morning rise	2353 Dec 12 18:37	8° \mathbb{A} 50'35		inferior conj	2354 Nov 21 18:45	28° \mathbb{M} 54'47	0°21'39
direct	2353 Dec 17 03:22	7° \mathbb{A} 06'11		minimum elong	2354 Nov 21 18:14	28° \mathbb{M} 56'33	0°21'26
morning max el	2353 Dec 26 01:06	12° \mathbb{A} 19'05	21°39'20	morning rise	2354 Nov 27 05:30	22° \mathbb{M} 48'35	
greatest brilliancy	2353 Dec 30 22:39	17° \mathbb{A} 52'09	-0.4m	direct	2354 Dec 01 00:46	21° \mathbb{M} 26'04	
	2354 Jan 08 23:08	0° \mathbb{A}		morning max el	2354 Dec 08 21:46	25° \mathbb{M} 57'23	20°23'23
desc. node	2354 Jan 10 22:07	2° \mathbb{A} 48'33			2354 Dec 12 12:16	0° \mathbb{A}	
morning set	2354 Jan 26 23:28	27° \mathbb{A} 13'24		greatest brilliancy	2354 Dec 15 07:14	3° \mathbb{A} 33'32	-0.5m
	2354 Jan 28 17:08	0° \mathbb{A}		desc. node	2354 Dec 28 19:08	23° \mathbb{A} 00'05	
max. Earth dist.	2354 Feb 02 12:19	7° \mathbb{A} 49'54	1.41733 AU		2355 Jan 02 09:44	0° \mathbb{A}	
				morning set	2355 Jan 05 22:18	5° \mathbb{A} 25'29	
superior conj	2354 Feb 10 02:57	20° \mathbb{A} 46'07	-2°-4'-45	max. Earth dist.	2355 Jan 15 19:46	21° \mathbb{A} 01'33	1.43490 AU
minimum elong	2354 Feb 10 04:16	20° \mathbb{A} 51'51	2°04'45		2355 Jan 21 07:57	0° \mathbb{A}	
	2354 Feb 15 07:48	0° \mathbb{A}					
evening rise	2354 Feb 21 00:42	10° \mathbb{A} 24'13		superior conj	2355 Jan 21 23:20	1° \mathbb{A} 03'36	-2°-1'-24
asc. node	2354 Mar 01 19:48	26° \mathbb{A} 03'44		minimum elong	2355 Jan 21 19:31	0° \mathbb{A} 47'49	2°01'15
	2354 Mar 04 07:44	0° \mathbb{Y}		evening rise	2355 Feb 03 12:25	22° \mathbb{A} 28'55	
evening max el	2354 Mar 09 09:54	6° \mathbb{Y} 24'14	18°10'54		2355 Feb 07 19:46	0° \mathbb{A}	
retrograde	2354 Mar 16 06:14	9° \mathbb{Y} 51'31		asc. node	2355 Feb 16 16:50	14° \mathbb{A} 24'45	
evening set	2354 Mar 18 19:22	9° \mathbb{Y} 23'27		evening max el	2355 Feb 20 22:04	19° \mathbb{A} 34'22	18°08'41
inferior conj	2354 Mar 25 16:23	4° \mathbb{Y} 33'02	3°17'37	retrograde	2355 Feb 27 09:33	22° \mathbb{A} 57'59	
minimum elong	2354 Mar 25 19:13	4° \mathbb{Y} 26'34	3°17'10	evening set	2355 Mar 02 03:54	22° \mathbb{A} 19'53	
min. Earth dist.	2354 Mar 29 00:18	1° \mathbb{Y} 32'10	0.60257 AU	inferior conj	2355 Mar 08 11:59	17° \mathbb{A} 08'25	3°39'38
	2354 Mar 30 21:36	30° \mathbb{R} \mathbb{A}		minimum elong	2355 Mar 08 12:52	17° \mathbb{A} 06'06	3°39'35
morning rise	2354 Apr 01 15:40	28° \mathbb{A} 47'20		min. Earth dist.	2355 Mar 11 08:28	14° \mathbb{A} 11'11	0.62373 AU
direct	2354 Apr 08 06:32	26° \mathbb{A} 42'25		morning rise	2355 Mar 14 19:33	11° \mathbb{A} 08'23	
desc. node	2354 Apr 08 21:19	26° \mathbb{A} 43'29		direct	2355 Mar 21 17:34	8° \mathbb{A} 35'14	
	2354 Apr 17 04:05	0° \mathbb{Y}		desc. node	2355 Mar 26 18:20	9° \mathbb{A} 46'34	
morning max el	2354 Apr 22 13:24	4° \mathbb{Y} 33'43	27°34'51	morning max el	2355 Apr 04 18:30	16° \mathbb{A} 31'03	27°49'58
	2354 May 11 09:14	0° \mathbb{A}			2355 Apr 15 21:34	0° \mathbb{Y}	
morning set	2354 May 24 09:14	24° \mathbb{A} 21'37			2355 May 04 01:08	0° \mathbb{A}	
	2354 May 27 01:30	0° \mathbb{II}		morning set	2355 May 08 11:10	8° \mathbb{A} 41'27	
asc. node	2354 May 28 19:03	3° \mathbb{II} 43'37		max. Earth dist.	2355 May 14 02:40	20° \mathbb{A} 30'40	1.32574 AU
max. Earth dist.	2354 May 30 18:09	8° \mathbb{II} 00'32	1.32191 AU	asc. node	2355 May 15 16:05	23° \mathbb{A} 52'41	
superior conj	2354 May 31 14:59	9° \mathbb{II} 54'51	0°29'31	superior conj	2355 May 16 00:27	24° \mathbb{A} 38'02	0°03'41
minimum elong	2354 May 31 13:42	9° \mathbb{II} 47'47	0°29'14	minimum elong	2355 May 16 00:16	24° \mathbb{A} 37'05	0°03'39
evening rise	2354 Jun 07 12:21	24° \mathbb{II} 54'17		behind sun begin	2355 May 15 19:13	24° \mathbb{A} 09'38	
	2354 Jun 09 23:00	0° \mathbb{A}		behind sun end	2355 May 16 05:19	25° \mathbb{A} 04'33	
	2354 Jun 27 15:20	0° \mathbb{Q}			2355 May 18 11:34	0° \mathbb{II}	
evening max el	2354 Jul 04 21:11	8° \mathbb{Q} 15'35	25°34'41	evening rise	2355 May 23 00:05	9° \mathbb{II} 45'35	
desc. node	2354 Jul 05 20:35	9° \mathbb{Q} 09'52			2355 Jun 02 10:51	0° \mathbb{A}	
retrograde	2354 Jul 18 21:24	15° \mathbb{Q} 23'35		evening max el	2355 Jun 16 11:31	18° \mathbb{A} 55'56	24°05'06
evening set	2354 Jul 24 19:33	14° \mathbb{Q} 01'14		desc. node	2355 Jun 22 17:36	23° \mathbb{A} 43'51	
min. Earth dist.	2354 Jul 29 09:20	11° \mathbb{Q} 21'54	0.58210 AU	retrograde	2355 Jun 30 06:37	25° \mathbb{A} 52'34	
inferior conj	2354 Aug 01 13:55	9° \mathbb{Q} 06'35	-5°00'-11	evening set	2355 Jul 04 19:38	25° \mathbb{A} 06'53	
minimum elong	2354 Aug 01 14:42	9° \mathbb{Q} 05'09	5°00'11	min. Earth dist.	2355 Jul 10 22:10	22° \mathbb{A} 07'55	0.56418 AU
morning rise	2354 Aug 09 13:27	4° \mathbb{Q} 47'07		inferior conj	2355 Jul 13 10:03	20° \mathbb{A} 35'24	-4°-45'-4
direct	2354 Aug 12 01:20	4° \mathbb{Q} 27'35		minimum elong	2355 Jul 13 05:21	20° \mathbb{A} 42'42	4°44'31

morning rise	2355 Jul 21 18:36	16°☿35'45		minimum elong	2356 Jun 22 04:11	1°☿33'01	3°40'29
direct	2355 Jul 24 11:33	16°☿16'36			2356 Jun 24 23:02	30°☿II	
morning max el	2355 Aug 03 06:47	20°☿49'32	19°46'30	morning rise	2356 Jul 01 04:35	27°II30'33	
	2355 Aug 10 14:31	0°☿		direct	2356 Jul 04 04:11	27°II10'18	
asc. node	2355 Aug 11 15:18	1°☿38'23			2356 Jul 12 12:25	0°☿	
morning set	2355 Aug 20 23:59	19°☿06'02		morning max el	2356 Jul 15 14:43	2°☿29'20	21°06'17
	2355 Aug 26 09:00	0°☿		asc. node	2356 Jul 28 12:23	20°☿29'30	
					2356 Aug 02 10:45	0°☿	
superior conj	2355 Aug 28 21:58	5°☿05'23	1°45'11	morning set	2356 Aug 04 07:46	3°☿49'58	
minimum elong	2355 Aug 28 22:29	5°☿07'56	1°45'11				
max. Earth dist.	2355 Sep 03 17:50	16°☿21'08	1.37285 AU	superior conj	2356 Aug 11 18:35	19°☿21'35	1°43'41
evening rise	2355 Sep 07 13:49	23°☿22'59		minimum elong	2356 Aug 11 17:37	19°☿16'33	1°43'39
	2355 Sep 11 08:18	0°☿		max. Earth dist.	2356 Aug 16 03:27	28°☿12'35	1.35486 AU
desc. node	2355 Sep 18 16:54	12°☿06'01			2356 Aug 17 01:15	0°☿	
	2355 Sep 30 22:47	0°☿		evening rise	2356 Aug 20 09:05	6°☿23'53	
evening max el	2355 Oct 13 07:43	14°☿39'40	25°29'19		2356 Sep 03 01:57	0°☿	
retrograde	2355 Oct 25 10:44	21°☿37'43		desc. node	2356 Sep 04 13:56	2°☿19'25	
evening set	2355 Oct 31 08:32	19°☿10'19		evening max el	2356 Sep 24 19:50	28°☿18'28	26°30'49
min. Earth dist.	2355 Nov 04 18:54	14°☿17'25	0.67085 AU		2356 Sep 26 15:50	0°☿	
inferior conj	2355 Nov 05 22:55	12°☿47'20	0°-34'-5	retrograde	2356 Oct 07 16:39	5°☿31'36	
minimum elong	2355 Nov 05 23:47	12°☿44'31	0°33'43	evening set	2356 Oct 14 04:07	2°☿52'54	
asc. node	2355 Nov 07 14:32	10°☿42'40			2356 Oct 17 02:13	30°☿☿	
morning rise	2355 Nov 11 15:46	6°☿49'12		min. Earth dist.	2356 Oct 18 07:02	28°☿36'33	0.66186 AU
direct	2355 Nov 14 23:17	5°☿45'54		inferior conj	2356 Oct 19 22:37	26°☿37'14	-1°-32'-23
morning max el	2355 Nov 22 02:19	9°☿46'11	19°21'03	minimum elong	2356 Oct 20 01:06	26°☿29'46	1°31'23
greatest brilliancy	2355 Dec 01 11:30	21°☿49'42	-0.7m	asc. node	2356 Oct 24 11:34	21°☿50'00	
	2355 Dec 06 22:41	0°☿		morning rise	2356 Oct 25 23:21	20°☿49'56	
morning set	2355 Dec 15 22:14	13°☿50'14		direct	2356 Oct 28 21:14	20°☿02'10	
desc. node	2355 Dec 15 16:10	13°☿26'42		morning max el	2356 Nov 04 13:24	23°☿42'05	18°34'16
	2355 Dec 26 06:58	0°☿			2356 Nov 09 17:17	0°☿	
max. Earth dist.	2355 Dec 29 10:11	4°☿56'09	1.44676 AU	morning set	2356 Nov 24 21:06	23°☿27'45	
					2356 Nov 28 23:39	0°☿	
superior conj	2356 Jan 01 17:53	10°☿12'13	-1°-39'-26	desc. node	2356 Dec 01 13:13	4°☿04'01	
minimum elong	2356 Jan 01 09:23	9°☿38'24	1°38'42				
	2356 Jan 13 22:37	0°☿		superior conj	2356 Dec 10 20:24	18°☿42'40	0°-59'-46
evening rise	2356 Jan 16 03:29	3°☿39'05		minimum elong	2356 Dec 10 13:01	18°☿13'38	0°58'53
	2356 Feb 01 21:12	0°☿		max. Earth dist.	2356 Dec 11 04:17	19°☿13'33	1.45163 AU
asc. node	2356 Feb 03 13:52	2°☿00'53			2356 Dec 18 00:52	0°☿	
evening max el	2356 Feb 04 10:27	2°☿55'30	18°25'16	evening rise	2356 Dec 26 19:13	13°☿51'55	
retrograde	2356 Feb 10 22:36	6°☿28'31			2357 Jan 05 23:36	0°☿	
evening set	2356 Feb 13 22:12	5°☿39'34		evening max el	2357 Jan 17 20:37	16°☿22'41	18°59'45
inferior conj	2356 Feb 19 20:54	0°☿08'42	3°40'30	asc. node	2357 Jan 20 10:54	18°☿39'31	
minimum elong	2356 Feb 19 20:03	0°☿11'08	3°40'27	retrograde	2357 Jan 24 17:24	20°☿16'00	
	2356 Feb 19 23:53	30°☿☿		evening set	2357 Jan 27 23:12	19°☿15'08	
min. Earth dist.	2356 Feb 22 02:14	27°☿34'34	0.64238 AU	inferior conj	2357 Feb 02 15:26	13°☿27'16	3°25'47
morning rise	2356 Feb 25 16:24	24°☿00'15		minimum elong	2357 Feb 02 13:27	13°☿33'32	3°25'29
direct	2356 Mar 03 12:32	21°☿12'02		min. Earth dist.	2357 Feb 04 05:25	11°☿28'01	0.65734 AU
desc. node	2356 Mar 12 15:23	25°☿04'06		morning rise	2357 Feb 08 02:42	7°☿14'11	
morning max el	2356 Mar 17 03:29	29°☿05'01	27°28'40	direct	2357 Feb 14 14:19	4°☿24'53	
	2356 Mar 18 01:00	0°☿		morning max el	2357 Feb 27 13:26	12°☿03'47	26°36'30
	2356 Apr 08 18:19	0°☿		desc. node	2357 Feb 27 12:26	12°☿01'15	
morning set	2356 Apr 21 05:18	22°☿34'31			2357 Mar 13 22:34	0°☿	
	2356 Apr 24 21:55	0°☿			2357 Apr 01 08:41	0°☿	
max. Earth dist.	2356 Apr 26 03:51	2°☿34'36	1.33380 AU	morning set	2357 Apr 04 12:10	5°☿50'29	
				max. Earth dist.	2357 Apr 08 18:13	14°☿05'09	1.34642 AU
superior conj	2356 Apr 29 06:05	9°☿05'11	0°-23'-55				
minimum elong	2356 Apr 29 07:16	9°☿11'33	0°23'40	superior conj	2357 Apr 13 05:41	23°☿09'47	0°-52'-6
asc. node	2356 May 01 13:10	13°☿59'37		minimum elong	2357 Apr 13 08:21	23°☿23'32	0°51'36
evening rise	2356 May 06 11:32	24°☿31'21			2357 Apr 16 12:27	0°☿	
	2356 May 09 02:58	0°☿		asc. node	2357 Apr 18 10:14	4°☿00'04	
evening max el	2356 May 28 02:17	29°☿23'53	22°28'49	evening rise	2357 Apr 20 20:45	9°☿05'18	
	2356 May 28 17:30	0°☿			2357 May 02 01:34	0°☿	
desc. node	2356 Jun 08 14:36	5°☿47'22		evening max el	2357 May 10 01:06	10°☿11'15	20°59'56
retrograde	2356 Jun 10 03:49	5°☿52'53		retrograde	2357 May 21 17:15	15°☿52'52	
evening set	2356 Jun 13 06:12	5°☿31'42		evening set	2357 May 23 22:04	15°☿41'29	
min. Earth dist.	2356 Jun 21 09:29	1°☿59'32	0.55217 AU	desc. node	2357 May 26 11:39	15°☿01'35	
inferior conj	2356 Jun 22 12:12	1°☿21'38	-3°-42'-33	inferior conj	2357 Jun 02 05:53	11°☿43'39	-1°-57'-17

minimum elong	2357 Jun 02 00:25	11°II51'24	1°55'23	inferior conj	2358 May 13 05:39	22°812'26	0°02'12
min. Earth dist.	2357 Jun 02 21:45	11°II21'10	0.54898 AU	minimum elong	2358 May 13 05:45	22°812'17	0°02'09
morning rise	2357 Jun 11 02:16	7°II41'38		transit middle	2358 May 13 05:45	22°812'17	0°02'09
direct	2357 Jun 14 13:33	7°II15'39		transit begin	2358 May 13 01:50	22°818'20	
morning max el	2357 Jun 27 12:10	13°II26'54	22°42'15	transit end	2358 May 13 09:40	22°806'13	
	2357 Jul 10 00:33	0°☿		desc. node	2358 May 13 08:40	22°807'45	
asc. node	2357 Jul 15 09:27	9°☿49'05		min. Earth dist.	2358 May 15 11:36	20°849'16	0.55556 AU
morning set	2357 Jul 19 18:26	18°☿42'24		morning rise	2358 May 21 21:57	17°842'12	
	2357 Jul 25 01:41	0°♂		direct	2358 May 26 05:35	17°800'52	
				morning max el	2358 Jun 09 03:15	23°856'58	24°24'30
superior conj	2357 Jul 26 22:27	3°♂59'00	1°35'42		2358 Jun 14 15:10	0°♂	
minimum elong	2357 Jul 26 20:31	3°♂48'41	1°35'32	asc. node	2358 Jul 02 06:31	29°♂29'41	
max. Earth dist.	2357 Jul 29 21:45	10°♂14'07	1.34049 AU		2358 Jul 02 12:25	0°☿	
evening rise	2357 Aug 03 18:53	20°♂06'55		morning set	2358 Jul 04 06:15	3°☿38'14	
	2357 Aug 09 00:07	0°♏					
desc. node	2357 Aug 22 10:58	22°♏09'03		superior conj	2358 Jul 11 06:57	18°☿49'26	1°22'23
	2357 Aug 28 01:55	0°♎		minimum elong	2358 Jul 11 04:35	18°☿36'35	1°22'04
evening max el	2357 Sep 07 07:59	11°♎47'17	27°12'04	max. Earth dist.	2358 Jul 13 00:56	22°☿36'24	1.33024 AU
retrograde	2357 Sep 20 17:06	19°♎05'50			2358 Jul 16 12:35	0°♂	
evening set	2357 Sep 27 15:31	16°♎23'17		evening rise	2358 Jul 18 15:16	4°♂20'43	
min. Earth dist.	2357 Oct 01 11:44	12°♎43'13	0.64930 AU		2358 Aug 01 17:02	0°♏	
inferior conj	2357 Oct 03 15:38	10°♎19'28	-2°-31'-19	desc. node	2358 Aug 09 07:59	11°♏24'48	
minimum elong	2357 Oct 03 19:42	10°♎08'12	2°29'50	evening max el	2358 Aug 20 18:41	24°♏54'14	27°26'10
morning rise	2357 Oct 10 01:43	4°♎46'00			2358 Aug 27 08:25	0°♎	
asc. node	2357 Oct 11 08:38	4°♎19'13		retrograde	2358 Sep 03 11:13	2°♎11'27	
direct	2357 Oct 12 16:25	4°♎09'51			2358 Sep 10 01:32	30°♏♏	
morning max el	2357 Oct 19 04:31	7°♎38'40	18°04'10	evening set	2358 Sep 10 15:40	29°♏35'35	
	2357 Nov 03 07:57	0°♌		min. Earth dist.	2358 Sep 14 07:00	26°♏28'20	0.63328 AU
morning set	2357 Nov 06 01:16	4°♌32'04		inferior conj	2358 Sep 16 23:17	23°♏47'59	-3°-27'-58
desc. node	2357 Nov 18 10:15	24°♌47'54		minimum elong	2358 Sep 17 04:32	23°♏34'53	3°26'23
				morning rise	2358 Sep 23 19:48	18°♏31'42	
superior conj	2357 Nov 20 03:20	27°♌32'11	0°-11'-32	direct	2358 Sep 26 06:03	18°♏03'31	
minimum elong	2357 Nov 20 01:54	27°♌26'27	0°11'21	asc. node	2358 Sep 28 05:42	18°♏22'46	
behind sun begin	2357 Nov 19 18:11	26°♌55'40		morning max el	2358 Oct 02 20:46	21°♏29'17	17°51'36
behind sun end	2357 Nov 20 09:37	27°♌57'11			2358 Oct 09 08:25	0°♎	
	2357 Nov 21 16:30	0°♊		morning set	2358 Oct 19 06:34	16°♎49'08	
max. Earth dist.	2357 Nov 23 23:04	3°♊35'50	1.44908 AU		2358 Oct 26 21:34	0°♌	
evening rise	2357 Dec 06 13:55	23°♊16'09		superior conj	2358 Oct 31 08:13	7°♌27'48	0°33'26
	2357 Dec 10 22:40	0°♋		minimum elong	2358 Oct 31 11:30	7°♌41'27	0°32'58
greatest brilliancy	2357 Dec 24 19:04	20°♋43'39	-0.6m	desc. node	2358 Nov 05 07:16	15°♌34'56	
evening max el	2358 Jan 01 02:39	29°♋52'45	19°50'31	max. Earth dist.	2358 Nov 06 16:02	17°♌46'50	1.43954 AU
	2358 Jan 01 05:28	0°♌			2358 Nov 14 10:05	0°♊	
asc. node	2358 Jan 07 07:56	4°♌05'58		evening rise	2358 Nov 15 22:31	2°♊20'53	
retrograde	2358 Jan 08 14:53	4°♌15'08			2358 Dec 04 12:39	0°♋	
evening set	2358 Jan 12 04:22	3°♌00'57		greatest brilliancy	2358 Dec 09 16:07	6°♋58'27	-0.5m
	2358 Jan 15 07:45	30°♏♋		evening max el	2358 Dec 15 03:18	13°♋23'43	20°55'00
inferior conj	2358 Jan 17 16:33	26°♋58'43	2°59'22	retrograde	2358 Dec 23 12:39	18°♋21'41	
minimum elong	2358 Jan 17 14:00	27°♋07'10	2°58'45	asc. node	2358 Dec 25 04:57	18°♋06'00	
min. Earth dist.	2358 Jan 18 16:19	25°♋39'42	0.66823 AU	evening set	2358 Dec 27 11:41	16°♋52'29	
morning rise	2358 Jan 22 22:59	20°♋43'38		inferior conj	2359 Jan 01 21:43	10°♋38'52	2°23'46
direct	2358 Jan 28 22:01	18°♋05'00		minimum elong	2359 Jan 01 19:10	10°♋47'35	2°22'58
morning max el	2358 Feb 09 22:24	25°♋15'00	25°22'18	min. Earth dist.	2359 Jan 02 08:46	10°♋00'57	0.67518 AU
desc. node	2358 Feb 14 09:29	0°♌09'28		morning rise	2359 Jan 07 02:15	4°♋23'45	
	2358 Feb 14 06:16	0°♌		direct	2359 Jan 12 10:35	2°♋03'46	
	2358 Mar 07 10:29	0°♏		morning max el	2359 Jan 23 06:42	8°♋31'25	23°56'05
morning set	2358 Mar 18 03:07	18°♏15'51		desc. node	2359 Feb 01 06:29	19°♋07'35	
max. Earth dist.	2358 Mar 21 20:54	25°♏09'39	1.36352 AU		2359 Feb 09 03:16	0°♌	
	2358 Mar 24 09:54	0°♐		morning set	2359 Feb 27 20:06	29°♌32'57	
					2359 Feb 28 02:23	0°♏	
superior conj	2358 Mar 27 20:30	6°♐44'22	-1°-19'-13	max. Earth dist.	2359 Mar 03 16:30	6°♏16'46	1.38404 AU
minimum elong	2358 Mar 28 00:24	7°♐03'45	1°18'38				
evening rise	2358 Apr 05 01:35	23°♐21'08		superior conj	2359 Mar 10 22:49	19°♏38'10	-1°-42'-56
asc. node	2358 Apr 05 07:17	23°♐49'54		minimum elong	2359 Mar 11 03:11	19°♏58'52	1°42'30
	2358 Apr 08 09:41	0°♋			2359 Mar 16 07:37	0°♐	
evening max el	2358 Apr 22 11:46	21°♋37'01	19°47'09	evening rise	2359 Mar 19 23:24	7°♐10'36	
retrograde	2358 May 02 10:01	26°♋24'56		asc. node	2359 Mar 23 04:18	13°♐23'21	
evening set	2358 May 04 10:16	26°♋14'00					

	2359 Apr 02 03:39	0°♄		minimum elong	2360 Feb 21 11:18	1°♄54'22	1°59'42
evening max el	2359 Apr 05 09:23	3°♄41'29	18°53'53	evening rise	2360 Mar 02 11:05	20°♄26'21	
retrograde	2359 Apr 13 18:07	7°♄45'35			2360 Mar 07 14:37	0°♄	
evening set	2359 Apr 15 22:23	7°♄30'08		asc. node	2360 Mar 09 01:18	2°♄34'45	
inferior conj	2359 Apr 23 22:53	3°♄12'22	1°43'46	evening max el	2360 Mar 18 15:08	16°♄18'13	18°20'46
minimum elong	2359 Apr 24 02:26	3°♄06'01	1°42'40	retrograde	2360 Mar 25 21:29	19°♄54'35	
min. Earth dist.	2359 Apr 27 03:35	0°♄56'06	0.57035 AU	evening set	2360 Mar 28 07:24	19°♄31'42	
	2359 Apr 28 13:43	30°♄♂		inferior conj	2360 Apr 04 13:30	14°♄53'12	2°52'41
desc. node	2359 Apr 30 05:42	29°♄01'20		minimum elong	2360 Apr 04 17:11	14°♄45'28	2°51'53
morning rise	2359 May 02 02:10	28°♄07'48		min. Earth dist.	2360 Apr 07 23:58	12°♄01'40	0.59022 AU
direct	2359 May 07 10:36	26°♄59'09		morning rise	2360 Apr 11 23:01	9°♄19'25	
	2359 May 16 07:39	0°♄		desc. node	2360 Apr 16 02:43	7°♄46'57	
morning max el	2359 May 21 18:05	4°♄25'32	25°58'37	direct	2360 Apr 18 04:56	7°♄35'15	
	2359 Jun 09 05:21	0°♄		morning max el	2360 May 02 13:49	15°♄20'05	27°09'19
morning set	2359 Jun 18 17:36	18°♄32'03			2360 May 14 10:53	0°♄	
asc. node	2359 Jun 19 03:34	19°♄24'44			2360 May 31 12:27	0°♄	
	2359 Jun 24 00:53	0°♄		morning set	2360 Jun 02 02:49	3°♄18'16	
				asc. node	2360 Jun 05 00:35	9°♄29'01	
superior conj	2359 Jun 25 17:59	3°♄45'48	1°04'39				
minimum elong	2359 Jun 25 15:42	3°♄33'11	1°04'15	superior conj	2360 Jun 09 05:45	18°♄41'59	0°43'14
max. Earth dist.	2359 Jun 26 10:27	5°♄16'09	1.32396 AU	minimum elong	2360 Jun 09 03:59	18°♄32'13	0°42'53
evening rise	2359 Jul 02 18:57	18°♄55'13		max. Earth dist.	2360 Jun 08 22:38	18°♄02'48	1.32155 AU
	2359 Jul 08 08:09	0°♄			2360 Jun 14 09:46	0°♄	
desc. node	2359 Jul 27 05:00	29°♄52'46		evening rise	2360 Jun 16 03:25	3°♄42'00	
	2359 Jul 27 07:20	0°♄			2360 Jun 30 04:57	0°♄	
evening max el	2359 Aug 03 01:20	7°♄25'51	27°08'11	desc. node	2360 Jul 13 02:01	17°♄12'51	
retrograde	2359 Aug 16 22:11	14°♄39'38		evening max el	2360 Jul 15 01:16	19°♄11'11	26°17'06
evening set	2359 Aug 24 00:33	12°♄23'05		retrograde	2360 Jul 29 00:51	26°♄22'14	
min. Earth dist.	2359 Aug 27 15:36	9°♄39'44	0.61433 AU	evening set	2360 Aug 04 13:24	24°♄37'23	
inferior conj	2359 Aug 30 18:27	6°♄54'55	-4°-17'-26	min. Earth dist.	2360 Aug 08 14:08	22°♄02'18	0.59374 AU
minimum elong	2359 Aug 30 23:44	6°♄43'14	4°16'19	inferior conj	2360 Aug 11 21:29	19°♄30'16	-4°-51'-49
morning rise	2359 Sep 07 01:50	1°♄59'23		minimum elong	2360 Aug 12 00:42	19°♄24'04	4°51'32
direct	2359 Sep 09 10:33	1°♄36'12		morning rise	2360 Aug 19 15:27	14°♄57'59	
asc. node	2359 Sep 15 02:44	3°♄54'46		direct	2360 Aug 22 01:26	14°♄37'39	
morning max el	2359 Sep 16 11:11	5°♄07'04	17°57'37	morning max el	2360 Aug 29 20:37	18°♄23'09	18°23'21
morning set	2359 Oct 02 06:40	0°♄00'11		asc. node	2360 Aug 31 23:47	20°♄40'38	
	2359 Oct 02 06:38	0°♄			2360 Sep 07 07:50	0°♄	
				morning set	2360 Sep 14 20:06	13°♄49'03	
superior conj	2359 Oct 12 16:15	18°♄43'42	1°08'01		2360 Sep 23 09:00	0°♄	
minimum elong	2359 Oct 12 20:45	19°♄03'16	1°07'28				
	2359 Oct 19 07:03	0°♄		superior conj	2360 Sep 23 23:59	1°♄09'09	1°30'40
max. Earth dist.	2359 Oct 20 04:54	1°♄30'31	1.42414 AU	minimum elong	2360 Sep 24 03:23	1°♄24'46	1°30'23
desc. node	2359 Oct 23 04:17	6°♄22'10		max. Earth dist.	2360 Oct 01 12:05	14°♄31'21	1.40485 AU
evening rise	2359 Oct 26 13:49	11°♄48'11		evening rise	2360 Oct 06 00:52	22°♄10'04	
	2359 Nov 07 11:58	0°♄		desc. node	2360 Oct 09 01:19	27°♄05'32	
greatest brilliancy	2359 Nov 23 05:14	21°♄36'48	-0.3m		2360 Oct 10 21:00	0°♄	
evening max el	2359 Nov 27 22:28	26°♄56'08	22°09'28		2360 Oct 31 13:25	0°♄	
	2359 Dec 01 08:15	0°♄		evening max el	2360 Nov 09 13:07	10°♄30'20	23°29'08
retrograde	2359 Dec 07 09:02	2°♄33'05		retrograde	2360 Nov 20 02:35	16°♄45'10	
evening set	2359 Dec 11 19:25	0°♄47'30		evening set	2360 Nov 25 01:57	14°♄42'35	
asc. node	2359 Dec 12 01:58	0°♄33'55		asc. node	2360 Nov 27 22:59	11°♄40'34	
	2359 Dec 12 16:55	30°♄♂		min. Earth dist.	2360 Nov 30 01:10	8°♄55'01	0.67807 AU
inferior conj	2359 Dec 17 04:56	24°♄25'49	1°40'53	inferior conj	2360 Nov 30 12:20	8°♄16'48	0°52'02
minimum elong	2359 Dec 17 02:51	24°♄33'00	1°40'06	minimum elong	2360 Nov 30 11:08	8°♄20'53	0°51'32
min. Earth dist.	2359 Dec 17 04:29	24°♄27'22	0.67840 AU	morning rise	2360 Dec 05 20:28	2°♄07'21	
morning rise	2359 Dec 22 10:08	18°♄12'32		direct	2360 Dec 09 23:12	0°♄32'44	
direct	2359 Dec 27 03:18	16°♄15'05		morning max el	2360 Dec 18 09:50	5°♄26'56	21°05'37
morning max el	2360 Jan 05 17:24	21°♄54'34	22°27'48	greatest brilliancy	2360 Dec 23 19:33	11°♄40'35	-0.5m
greatest brilliancy	2360 Jan 10 06:59	27°♄00'36	-0.3m	desc. node	2361 Jan 05 00:33	28°♄41'47	
	2360 Jan 12 16:36	0°♄			2361 Jan 05 21:42	0°♄	
desc. node	2360 Jan 19 03:31	8°♄41'50		morning set	2361 Jan 17 18:50	18°♄07'20	
	2360 Feb 02 11:01	0°♄			2361 Jan 25 05:17	0°♄	
morning set	2360 Feb 08 09:23	9°♄28'34		max. Earth dist.	2361 Jan 25 15:45	0°♄42'41	1.42536 AU
max. Earth dist.	2360 Feb 13 13:06	18°♄02'53	1.40564 AU				
	2360 Feb 20 09:49	0°♄		superior conj	2361 Feb 01 19:16	12°♄38'14	-2°-5'-23
				minimum elong	2361 Feb 01 18:39	12°♄35'36	2°05'23
superior conj	2360 Feb 21 08:09	1°♄40'11	-1°-59'-50		2361 Feb 11 16:48	0°♄	

evening rise	2361 Feb 13 08:50	2° Υ 59'45		morning set	2361 Dec 27 14:47	26° Υ 14'58	
asc. node	2361 Feb 23 22:19	21° Υ 17'01			2361 Dec 30 00:55	0° Υ	
evening max el	2361 Mar 02 01:51	29° Υ 18'48	18°07'33	max. Earth dist.	2362 Jan 08 01:48	14° Υ 12'14	1.44067 AU
	2361 Mar 02 19:22	0° Υ					
retrograde	2361 Mar 08 17:23	2° Υ 43'10		superior conj	2362 Jan 13 04:20	22° Υ 25'07	-1°-54'-29
evening set	2361 Mar 11 08:37	2° Υ 11'07		minimum elong	2362 Jan 12 22:09	22° Υ 00'01	1°54'07
	2361 Mar 14 21:20	30° Υ			2362 Jan 17 19:10	0° Υ	
inferior conj	2361 Mar 17 23:41	27° Υ 11'35	3°29'58	evening rise	2362 Jan 26 12:14	14° Υ 41'56	
minimum elong	2361 Mar 18 01:42	27° Υ 06'40	3°29'44		2362 Feb 04 13:07	0° Υ	
min. Earth dist.	2361 Mar 21 03:29	24° Υ 09'15	0.61172 AU	asc. node	2362 Feb 10 19:21	9° Υ 20'42	
morning rise	2361 Mar 24 15:50	21° Υ 18'29		evening max el	2362 Feb 13 14:29	12° Υ 34'47	18°13'32
direct	2361 Mar 31 10:46	19° Υ 00'11		retrograde	2362 Feb 20 01:17	16° Υ 00'57	
desc. node	2361 Apr 02 23:44	19° Υ 18'17		evening set	2362 Feb 22 21:44	15° Υ 18'29	
morning max el	2361 Apr 14 15:58	26° Υ 55'02	27°45'55	inferior conj	2362 Mar 01 01:28	9° Υ 58'50	3°42'12
	2361 Apr 17 14:02	0° Υ		minimum elong	2362 Mar 01 01:34	9° Υ 58'35	3°42'12
	2361 May 08 01:01	0° Υ		min. Earth dist.	2362 Mar 03 15:52	7° Υ 09'07	0.63204 AU
morning set	2361 May 17 08:06	17° Υ 50'46		morning rise	2362 Mar 07 03:24	3° Υ 54'36	
asc. node	2361 May 22 21:38	29° Υ 38'08		direct	2362 Mar 14 01:42	1° Υ 12'52	
	2361 May 23 01:39	0° Υ		desc. node	2362 Mar 20 20:47	3° Υ 23'02	
max. Earth dist.	2361 May 23 09:36	0° Υ 43'11	1.32301 AU	morning max el	2362 Mar 27 23:00	9° Υ 09'19	27°45'03
					2362 Apr 13 03:36	0° Υ	
superior conj	2361 May 24 16:36	3° Υ 32'28	0°18'49		2362 Apr 30 06:49	0° Υ	
minimum elong	2361 May 24 15:45	3° Υ 27'47	0°18'38	morning set	2362 May 01 07:06	2° Υ 00'49	
evening rise	2361 May 31 14:32	18° Υ 34'10		max. Earth dist.	2362 May 06 15:18	13° Υ 03'00	1.32860 AU
	2361 Jun 06 05:16	0° Υ					
	2361 Jun 26 13:25	0° Υ		superior conj	2362 May 09 00:43	18° Υ 10'08	0°-7'-52
evening max el	2361 Jun 26 18:10	0° Υ 11'27	24°58'22	minimum elong	2362 May 09 01:06	18° Υ 12'12	0°07'48
desc. node	2361 Jun 29 23:02	2° Υ 57'50		behind sun begin	2362 May 08 20:28	17° Υ 47'17	
retrograde	2361 Jul 10 17:34	7° Υ 16'57		behind sun end	2362 May 09 05:43	18° Υ 37'07	
evening set	2361 Jul 16 02:38	6° Υ 10'51		asc. node	2362 May 09 18:40	19° Υ 47'01	
min. Earth dist.	2361 Jul 21 05:41	3° Υ 24'57	0.57391 AU		2362 May 14 12:05	0° Υ	
inferior conj	2361 Jul 24 05:21	1° Υ 25'35	-4°-59'-2	evening rise	2362 May 16 02:23	3° Υ 24'05	
minimum elong	2361 Jul 24 03:53	1° Υ 28'01	4°59'00		2362 May 30 14:18	0° Υ	
	2361 Jul 26 09:52	30° Υ		evening max el	2362 Jun 08 07:50	10° Υ 43'13	23°24'04
morning rise	2361 Aug 01 08:53	27° Υ 15'40		desc. node	2362 Jun 16 20:03	16° Υ 32'06	
direct	2361 Aug 03 22:34	26° Υ 56'36		retrograde	2362 Jun 21 21:48	17° Υ 30'33	
	2361 Aug 11 14:24	0° Υ		evening set	2362 Jun 25 18:59	16° Υ 57'32	
morning max el	2361 Aug 12 21:58	1° Υ 08'45	19°09'59	min. Earth dist.	2362 Jul 02 17:51	13° Υ 45'44	0.55815 AU
asc. node	2361 Aug 18 20:50	8° Υ 25'40		inferior conj	2362 Jul 04 17:13	12° Υ 35'37	-4°-24'-40
morning set	2361 Aug 29 18:54	28° Υ 05'27		minimum elong	2362 Jul 04 10:32	12° Υ 45'33	4°23'27
	2361 Aug 30 17:58	0° Υ		morning rise	2362 Jul 13 05:17	8° Υ 41'08	
				direct	2362 Jul 16 00:37	8° Υ 21'51	
superior conj	2361 Sep 07 01:50	14° Υ 28'32	1°42'32	morning max el	2362 Jul 26 12:31	13° Υ 13'43	20°18'00
minimum elong	2361 Sep 07 03:23	14° Υ 36'03	1°42'28	asc. node	2362 Aug 05 17:55	26° Υ 55'45	
max. Earth dist.	2361 Sep 13 15:39	26° Υ 48'59	1.38427 AU		2362 Aug 07 11:43	0° Υ	
	2361 Sep 15 10:10	0° Υ		morning set	2362 Aug 14 00:05	12° Υ 40'52	
evening rise	2361 Sep 17 11:59	3° Υ 39'11					
desc. node	2361 Sep 25 22:21	17° Υ 41'14		superior conj	2362 Aug 21 16:44	28° Υ 26'55	1°45'25
	2361 Oct 04 00:00	0° Υ		minimum elong	2362 Aug 21 16:33	28° Υ 26'02	1°45'25
evening max el	2361 Oct 23 01:30	24° Υ 08'20	24°47'38		2362 Aug 22 11:13	0° Υ	
	2361 Oct 30 20:47	0° Υ		max. Earth dist.	2362 Aug 26 21:31	8° Υ 42'36	1.36483 AU
retrograde	2361 Nov 03 16:16	0° Υ 54'00		evening rise	2362 Aug 30 20:48	16° Υ 09'48	
	2361 Nov 07 04:26	30° Υ			2362 Sep 07 19:02	0° Υ	
evening set	2361 Nov 09 05:40	28° Υ 35'09		desc. node	2362 Sep 12 19:23	8° Υ 04'20	
min. Earth dist.	2361 Nov 13 20:29	23° Υ 21'36	0.67440 AU		2362 Sep 28 11:46	0° Υ	
inferior conj	2361 Nov 14 18:13	22° Υ 09'39	0°-1'-33	evening max el	2362 Oct 05 13:39	7° Υ 48'59	25°57'39
minimum elong	2361 Nov 14 18:15	22° Υ 09'32	0°01'34	retrograde	2362 Oct 18 01:08	14° Υ 54'46	
transit middle	2361 Nov 14 18:15	22° Υ 09'32	0°01'34	evening set	2362 Oct 24 04:47	12° Υ 22'13	
transit begin	2361 Nov 14 15:30	22° Υ 18'38		min. Earth dist.	2362 Oct 28 12:01	7° Υ 44'28	0.66739 AU
transit end	2361 Nov 14 20:59	22° Υ 00'26		inferior conj	2362 Oct 29 20:45	6° Υ 01'43	0°-58'-36
asc. node	2361 Nov 14 20:02	22° Υ 03'35		minimum elong	2362 Oct 29 22:17	5° Υ 56'53	0°57'58
morning rise	2361 Nov 20 07:19	16° Υ 06'26		asc. node	2362 Nov 01 17:06	2° Υ 39'10	
direct	2361 Nov 23 21:14	14° Υ 52'38		morning rise	2362 Nov 04 16:43	0° Υ 07'32	
morning max el	2361 Dec 01 09:55	19° Υ 09'53	19°55'01		2362 Nov 04 21:57	30° Υ	
greatest brilliancy	2361 Dec 08 19:03	28° Υ 11'36	-0.6m	direct	2362 Nov 07 19:51	29° Υ 11'15	
	2361 Dec 10 02:14	0° Υ			2362 Nov 10 20:18	0° Υ	
desc. node	2361 Dec 22 21:35	19° Υ 00'15		morning max el	2362 Nov 14 17:25	3° Υ 01'51	18°59'07

	2362 Dec 03 16:28	0°♊			2363 Nov 26 12:35	0°♊	
morning set	2362 Dec 06 22:38	5°♊05'47					
desc. node	2362 Dec 09 18:38	9°♊31'58		superior conj	2363 Dec 02 15:42	9°♊42'25	0°-39'-37
max. Earth dist.	2362 Dec 21 18:02	28°♊18'30	1.44970 AU	minimum elong	2363 Dec 02 10:36	9°♊22'21	0°38'56
	2362 Dec 22 19:49	0°♋		max. Earth dist.	2363 Dec 04 13:17	12°♊41'45	1.45145 AU
					2363 Dec 15 14:27	0°♋	
superior conj	2362 Dec 23 14:10	1°♋12'19	-1°-24'-26	evening rise	2363 Dec 18 23:30	5°♋17'18	
minimum elong	2362 Dec 23 05:15	0°♋37'09	1°23'31	greatest brilliancy	2364 Jan 02 08:05	27°♋30'35	-0.7m
evening rise	2363 Jan 07 17:29	25°♋27'28			2364 Jan 04 00:52	0°♌	
	2363 Jan 10 12:20	0°♌		evening max el	2364 Jan 11 10:56	9°♌28'24	19°19'30
evening max el	2363 Jan 28 02:19	25°♌59'55	18°37'55	asc. node	2364 Jan 15 13:28	12°♌44'20	
asc. node	2363 Jan 28 16:24	26°♌34'39		retrograde	2364 Jan 18 13:20	13°♌32'51	
retrograde	2363 Feb 03 17:06	29°♌39'57		evening set	2364 Jan 21 22:19	12°♌26'17	
evening set	2363 Feb 06 19:16	28°♌46'01		inferior conj	2364 Jan 27 12:32	6°♌31'51	3°15'48
inferior conj	2363 Feb 12 14:54	23°♌07'50	3°35'52	minimum elong	2364 Jan 27 10:14	6°♌39'15	3°15'22
minimum elong	2363 Feb 12 13:30	23°♌12'04	3°35'44	min. Earth dist.	2364 Jan 28 20:12	4°♌49'42	0.66248 AU
min. Earth dist.	2363 Feb 14 13:40	20°♌47'32	0.64925 AU	morning rise	2364 Feb 01 21:22	0°♌17'52	
morning rise	2363 Feb 18 06:29	16°♌57'19			2364 Feb 02 05:36	30°♌♋	
direct	2363 Feb 24 23:49	14°♌06'53		direct	2364 Feb 08 04:01	27°♋32'09	
desc. node	2363 Mar 07 17:49	19°♌27'06			2364 Feb 14 21:35	0°♍	
morning max el	2363 Mar 10 08:30	21°♌54'58	27°09'45	morning max el	2364 Feb 20 18:06	4°♍59'46	26°07'09
	2363 Mar 17 10:31	0°♎		desc. node	2364 Feb 22 14:51	6°♍57'00	
	2363 Apr 06 08:11	0°♏			2364 Mar 10 22:40	0°♎	
morning set	2363 Apr 14 20:55	15°♏39'39		morning set	2364 Mar 27 21:38	28°♎35'29	
max. Earth dist.	2363 Apr 19 12:05	24°♏52'41	1.33866 AU		2364 Mar 28 15:45	0°♐	
	2363 Apr 21 23:38	0°♑		max. Earth dist.	2364 Mar 31 21:34	6°♐11'04	1.35325 AU
superior conj	2363 Apr 23 04:07	2°♑29'05	0°-35'-51	superior conj	2364 Apr 06 00:20	16°♐21'45	-1°-3'-49
minimum elong	2363 Apr 23 05:56	2°♑38'39	0°35'30	minimum elong	2364 Apr 06 03:35	16°♐38'14	1°03'16
asc. node	2363 Apr 26 15:44	9°♑51'55		asc. node	2364 Apr 12 12:47	29°♐48'26	
evening rise	2363 Apr 30 13:08	18°♑05'58			2364 Apr 12 15:01	0°♒	
	2363 May 06 11:32	0°♓		evening rise	2364 Apr 13 20:46	2°♒33'09	
evening max el	2363 May 21 01:26	21°♓16'43	21°49'23		2364 Apr 30 00:48	0°♓	
retrograde	2363 Jun 02 14:08	27°♓26'33		evening max el	2364 May 02 05:03	2°♓18'54	20°26'37
desc. node	2363 Jun 03 17:05	27°♓23'41		retrograde	2364 May 13 03:23	7°♓37'34	
evening set	2363 Jun 05 05:19	27°♓11'02		evening set	2364 May 15 04:47	7°♓27'03	
min. Earth dist.	2363 Jun 14 05:19	23°♓20'42	0.54975 AU	desc. node	2364 May 20 14:04	5°♓34'06	
inferior conj	2363 Jun 14 14:10	23°♓08'18	-3°-1'-50	inferior conj	2364 May 24 08:37	3°♓29'11	-1°-6'-10
minimum elong	2363 Jun 14 06:31	23°♓19'01	2°59'31	minimum elong	2364 May 24 05:29	3°♓33'44	1°05'03
morning rise	2363 Jun 23 08:58	19°♓15'00		min. Earth dist.	2364 May 25 17:50	2°♓40'55	0.55067 AU
direct	2363 Jun 26 12:57	18°♓52'55			2364 May 31 01:07	30°♒♑	
morning max el	2363 Jul 08 15:30	24°♓33'56	21°45'29	morning rise	2364 Jun 02 04:31	29°♒17'14	
	2363 Jul 13 13:46	0°♔		direct	2364 Jun 05 23:27	28°♒46'16	
asc. node	2363 Jul 23 14:58	15°♔59'58			2364 Jun 11 17:24	0°♓	
morning set	2363 Jul 29 09:18	27°♔29'01		morning max el	2364 Jun 19 09:32	5°♓17'17	23°25'48
	2363 Jul 30 14:12	0°♕			2364 Jul 06 16:09	0°♔	
				asc. node	2364 Jul 09 12:02	5°♔29'41	
superior conj	2363 Aug 05 16:45	12°♕52'49	1°41'00	morning set	2364 Jul 12 20:42	12°♔24'16	
minimum elong	2363 Aug 05 15:18	12°♕45'14	1°40'55				
max. Earth dist.	2363 Aug 09 10:53	20°♕37'24	1.34834 AU	superior conj	2364 Jul 19 22:53	27°♔37'11	1°30'39
evening rise	2363 Aug 13 22:47	29°♕29'58		minimum elong	2364 Jul 19 20:42	27°♔25'27	1°30'24
	2363 Aug 14 05:03	0°♖			2364 Jul 21 01:34	0°♕	
desc. node	2363 Aug 30 16:25	28°♖08'32		max. Earth dist.	2364 Jul 22 09:24	2°♕49'03	1.33564 AU
	2363 Aug 31 22:15	0°♗		evening rise	2364 Jul 27 13:32	13°♕27'43	
evening max el	2363 Sep 18 02:04	21°♗25'16	26°51'23		2364 Aug 05 09:37	0°♖	
retrograde	2363 Oct 01 04:33	28°♗40'50		desc. node	2364 Aug 16 13:26	17°♖45'39	
evening set	2363 Oct 07 21:10	25°♗59'40			2364 Aug 26 00:31	0°♗	
min. Earth dist.	2363 Oct 11 21:14	21°♗58'52	0.65694 AU	evening max el	2364 Aug 30 13:49	4°♗46'33	27°21'38
inferior conj	2363 Oct 13 17:53	19°♗48'46	-1°-57'-30	retrograde	2364 Sep 13 02:12	12°♗04'42	
minimum elong	2363 Oct 13 21:03	19°♗39'31	1°56'14	evening set	2364 Sep 20 04:12	9°♗23'19	
morning rise	2363 Oct 19 22:25	14°♗06'50		min. Earth dist.	2364 Sep 23 21:56	5°♗58'15	0.64294 AU
asc. node	2363 Oct 19 14:11	14°♗17'52		inferior conj	2364 Sep 26 07:16	3°♗26'11	-2°-55'-52
direct	2363 Oct 22 17:02	13°♗24'19		minimum elong	2364 Sep 26 11:54	3°♗13'50	2°54'16
morning max el	2363 Oct 29 06:29	16°♗58'11	18°19'23		2364 Sep 29 19:23	30°♒♖	
	2363 Nov 07 21:12	0°♘		morning rise	2364 Oct 02 21:43	27°♒59'50	
morning set	2363 Nov 17 10:03	15°♘20'52		direct	2364 Oct 05 10:15	27°♒27'26	
desc. node	2363 Nov 26 15:40	0°♙		asc. node	2364 Oct 05 11:13	27°♒27'26	

	2364 Oct 10 23:38	0°♄		asc. node	2365 Sep 22 08:14	12°♍10'01	
morning max el	2364 Oct 11 22:29	0°♄53'36	17°56'40	morning max el	2365 Sep 25 14:24	14°♍40'09	17°51'50
morning set	2364 Oct 29 01:40	26°♄58'36			2365 Oct 06 04:22	0°♄	
	2364 Oct 30 20:24	0°♍		morning set	2365 Oct 11 15:41	9°♄40'25	
superior conj	2364 Nov 11 06:31	18°♍56'16	0°08'33	superior conj	2365 Oct 22 23:04	29°♄26'35	0°49'33
minimum elong	2364 Nov 11 07:30	19°♍00'14	0°08'24	minimum elong	2365 Oct 23 03:15	29°♄44'20	0°48'59
behind sun begin	2364 Nov 10 22:42	18°♍24'34			2365 Oct 23 06:58	0°♍	
behind sun end	2364 Nov 11 16:19	19°♍35'51		max. Earth dist.	2365 Oct 29 22:58	11°♍01'58	1.43358 AU
desc. node	2364 Nov 12 12:43	20°♍58'04		desc. node	2365 Oct 30 09:45	11°♍45'39	
max. Earth dist.	2364 Nov 16 07:59	27°♍02'34	1.44583 AU	evening rise	2365 Nov 06 21:24	23°♍37'13	
	2364 Nov 18 04:52	0°♁			2365 Nov 11 00:51	0°♁	
evening rise	2364 Nov 27 12:06	14°♁28'37			2365 Dec 01 22:58	0°♄	
	2364 Dec 07 16:53	0°♄		greatest brilliancy	2365 Dec 02 12:41	0°♄43'17	-0.4m
greatest brilliancy	2364 Dec 18 04:57	15°♄10'58	-0.6m	evening max el	2365 Dec 07 12:47	6°♄28'56	21°25'44
evening max el	2364 Dec 24 14:39	22°♄58'05	20°16'24	retrograde	2365 Dec 16 08:45	11°♄43'57	
retrograde	2365 Jan 01 11:16	27°♄35'14		asc. node	2365 Dec 19 07:29	10°♄56'02	
asc. node	2365 Jan 01 10:29	27°♄35'14		evening set	2365 Dec 20 12:17	10°♄08'03	
evening set	2365 Jan 05 04:36	26°♄14'44		inferior conj	2365 Dec 25 21:54	3°♄50'23	2°06'25
inferior conj	2365 Jan 10 15:37	20°♄06'58	2°45'14	minimum elong	2365 Dec 25 19:30	3°♄58'40	2°05'35
minimum elong	2365 Jan 10 13:01	20°♄15'46	2°44'32	min. Earth dist.	2365 Dec 26 03:57	3°♄29'26	0.67692 AU
min. Earth dist.	2365 Jan 11 09:43	19°♄05'46	0.67163 AU		2365 Dec 28 19:25	30°♁♁	
morning rise	2365 Jan 15 20:54	13°♄51'33		morning rise	2365 Dec 31 02:24	27°♁♁35'33	
direct	2365 Jan 21 13:41	11°♄20'26		direct	2366 Jan 05 04:11	25°♁♁24'52	
morning max el	2365 Feb 02 02:48	18°♄13'58	24°46'32		2366 Jan 13 21:08	0°♄	
desc. node	2365 Feb 08 11:53	25°♄28'08		morning max el	2366 Jan 15 11:44	1°♄33'03	23°18'14
	2365 Feb 12 00:38	0°♁		greatest brilliancy	2366 Jan 20 18:29	7°♄29'14	-0.2m
	2365 Mar 04 00:14	0°♁		desc. node	2366 Jan 26 08:56	14°♄43'09	
morning set	2365 Mar 10 04:01	10°♁33'36			2366 Feb 06 00:37	0°♁	
max. Earth dist.	2365 Mar 13 20:40	17°♁13'02	1.37191 AU	morning set	2366 Feb 19 09:51	21°♁♁17'40	
				max. Earth dist.	2366 Feb 23 15:16	28°♁♁31'06	1.39315 AU
superior conj	2365 Mar 20 10:17	29°♁39'37	-1°-29'-52		2366 Feb 24 11:38	0°♁	
minimum elong	2365 Mar 20 14:31	0°♁00'18	1°29'19				
	2365 Mar 20 14:28	0°♁		superior conj	2366 Mar 03 06:00	12°♁12'48	-1°-51'-12
evening rise	2365 Mar 28 22:57	16°♁38'29		minimum elong	2366 Mar 03 10:07	12°♁31'54	1°50'52
asc. node	2365 Mar 30 09:48	19°♁31'45		evening rise	2366 Mar 12 16:54	0°♁14'35	
	2365 Apr 04 22:24	0°♄			2366 Mar 12 13:52	0°♁	
evening max el	2365 Apr 14 20:31	14°♄01'05	19°22'02	asc. node	2366 Mar 17 06:49	8°♁56'42	
retrograde	2365 Apr 24 02:03	18°♄29'10		evening max el	2366 Mar 28 22:04	26°♁20'48	18°37'28
evening set	2365 Apr 26 03:15	18°♄16'54			2366 Apr 04 00:47	0°♄	
inferior conj	2365 May 04 14:53	14°♄09'19	0°48'47	retrograde	2366 Apr 05 18:15	0°♄11'01	
minimum elong	2365 May 04 16:52	14°♄06'02	0°48'05		2366 Apr 07 12:30	30°♁♁	
desc. node	2365 May 07 11:05	12°♄18'00		evening set	2366 Apr 08 00:48	29°♁52'48	
min. Earth dist.	2365 May 07 08:32	12°♄22'02	0.56092 AU	inferior conj	2366 Apr 15 17:13	25°♁26'52	2°17'07
morning rise	2365 May 13 02:31	9°♄24'08		minimum elong	2366 Apr 15 21:10	25°♁19'19	2°16'02
direct	2365 May 17 20:17	8°♄32'50		min. Earth dist.	2366 Apr 19 02:28	22°♁52'35	0.57830 AU
morning max el	2365 Jun 01 00:00	15°♄44'05	25°06'33	morning rise	2366 Apr 23 13:09	20°♁08'37	
	2365 Jun 12 11:00	0°♁		desc. node	2366 Apr 24 08:06	19°♁47'36	
asc. node	2365 Jun 26 09:04	25°♁17'12		direct	2366 Apr 29 07:35	18°♁45'03	
morning set	2365 Jun 27 08:31	27°♁20'14		morning max el	2366 May 13 16:32	26°♁21'24	26°32'15
	2365 Jun 28 14:34	0°♄			2366 May 17 03:18	0°♄	
superior conj	2365 Jul 04 08:43	12°♄31'19	1°15'23		2366 Jun 05 17:26	0°♁	
minimum elong	2365 Jul 04 06:19	12°♄18'14	1°15'00	morning set	2366 Jun 11 19:10	12°♁11'39	
max. Earth dist.	2365 Jul 05 15:35	15°♄19'29	1.32704 AU	asc. node	2366 Jun 13 06:06	15°♁16'54	
evening rise	2365 Jul 11 13:21	27°♄51'27		superior conj	2366 Jun 18 20:18	27°♁28'44	0°56'00
	2365 Jul 12 14:34	0°♁		minimum elong	2366 Jun 18 18:11	27°♁17'02	0°55'36
	2365 Jul 29 15:58	0°♍		max. Earth dist.	2366 Jun 19 02:30	28°♁02'53	1.32245 AU
desc. node	2365 Aug 03 10:27	6°♍43'20			2366 Jun 19 23:48	0°♄	
evening max el	2365 Aug 12 22:52	17°♍39'17	27°22'29	evening rise	2366 Jun 25 19:22	12°♄32'22	
retrograde	2365 Aug 26 17:36	24°♍55'53			2366 Jul 04 17:54	0°♁	
evening set	2365 Sep 02 22:24	22°♍26'13		desc. node	2366 Jul 21 07:26	24°♁45'18	
min. Earth dist.	2365 Sep 06 12:38	19°♍30'49	0.62554 AU	evening max el	2366 Jul 26 02:55	29°♁52'09	26°50'19
inferior conj	2365 Sep 09 09:59	16°♍46'25	-3°-50'-11		2366 Jul 26 06:14	0°♍	
minimum elong	2365 Sep 09 15:26	16°♍33'27	3°48'45	retrograde	2366 Aug 09 01:31	7°♍05'09	
morning rise	2365 Sep 16 11:10	11°♍38'53		evening set	2366 Aug 15 23:24	5°♍00'52	
direct	2365 Sep 18 20:19	11°♍13'17		min. Earth dist.	2366 Aug 19 17:00	2°♍22'56	0.60567 AU

inferior conj	2366 Aug 22 22:44	29°041'08	-4°-34'-28	retrograde	2367 Jul 22 00:05	18°026'53	
minimum elong	2366 Aug 23 03:28	29°031'16	4°33'43	evening set	2367 Jul 28 02:27	16°058'37	
	2366 Aug 22 13:46	30°00'00		min. Earth dist.	2367 Aug 01 12:18	14°021'02	0.58507 AU
morning rise	2366 Aug 30 10:44	24°055'10		inferior conj	2367 Aug 04 18:01	12°000'50	-4°-59'-6
direct	2366 Sep 01 19:29	24°033'33		minimum elong	2367 Aug 04 19:32	11°058'05	4°59'03
morning max el	2366 Sep 09 03:06	28°009'44	18°05'58	morning rise	2367 Aug 12 16:07	7°038'01	
asc. node	2366 Sep 09 05:17	28°015'03		direct	2367 Aug 15 03:30	7°018'17	
	2366 Sep 10 20:24	0°00'00		morning max el	2367 Aug 23 09:25	11°013'44	18°40'29
morning set	2366 Sep 24 22:01	23°008'50		asc. node	2367 Aug 27 02:22	15°027'49	
	2366 Sep 28 14:10	0°00'00			2367 Sep 04 21:59	0°00'00	
				morning set	2367 Sep 08 15:56	7°00'00	11°04'
superior conj	2366 Oct 04 17:46	11°013'24	1°19'02	superior conj	2367 Sep 17 09:55	24°003'45	1°36'54
minimum elong	2366 Oct 04 21:59	11°032'08	1°18'35	minimum elong	2367 Sep 17 12:33	24°016'10	1°36'44
max. Earth dist.	2366 Oct 12 08:54	24°026'25	1.41630 AU		2367 Sep 20 14:42	0°00'00	
	2366 Oct 15 17:28	0°00'00		max. Earth dist.	2367 Sep 24 14:33	7°009'52	1.39618 AU
desc. node	2366 Oct 17 06:47	2°031'32		evening rise	2367 Sep 28 17:23	14°015'48	
evening rise	2366 Oct 17 20:00	3°024'51		desc. node	2367 Oct 04 03:48	23°012'18	
	2366 Nov 04 09:49	0°00'00			2367 Oct 08 11:34	0°00'00	
greatest brilliancy	2366 Nov 15 06:41	14°028'08	-0.3m		2367 Oct 30 09:33	0°00'00	
evening max el	2366 Nov 20 05:53	20°001'57	22°43'12	evening max el	2367 Nov 02 19:32	3°038'45	24°03'07
retrograde	2366 Nov 30 04:01	25°055'29		retrograde	2367 Nov 13 19:56	10°007'01	
evening set	2366 Dec 04 19:41	24°002'57		evening set	2367 Nov 19 01:14	7°057'24	
asc. node	2366 Dec 06 04:30	22°046'12		asc. node	2367 Nov 23 01:33	3°028'35	
inferior conj	2366 Dec 10 05:25	17°039'09	1°20'50	min. Earth dist.	2367 Nov 23 20:49	2°024'13	0.67698 AU
minimum elong	2366 Dec 10 03:40	17°045'12	1°20'08	inferior conj	2367 Nov 24 12:24	1°031'29	0°29'49
min. Earth dist.	2366 Dec 10 00:27	17°056'21	0.67866 AU	minimum elong	2367 Nov 24 11:42	1°033'53	0°29'31
morning rise	2366 Dec 15 11:35	11°027'03			2367 Nov 25 15:44	30°00'00	
direct	2366 Dec 19 22:31	9°039'11		morning rise	2367 Nov 29 22:25	25°024'27	
morning max el	2366 Dec 29 00:18	14°058'40	21°51'37	direct	2367 Dec 03 19:36	23°058'51	
greatest brilliancy	2367 Jan 02 18:37	20°021'04	-0.4m	morning max el	2367 Dec 11 19:52	28°035'35	20°33'56
	2367 Jan 10 01:54	0°00'00			2367 Dec 13 03:58	0°00'00	
desc. node	2367 Jan 13 05:59	4°029'13		greatest brilliancy	2367 Dec 17 22:13	5°046'37	-0.5m
morning set	2367 Jan 30 10:32	0°037'05		desc. node	2367 Dec 31 03:03	24°038'03	
	2367 Jan 30 01:15	0°00'00			2368 Jan 03 16:22	0°00'00	
max. Earth dist.	2367 Feb 05 13:38	10°037'34	1.41440 AU	morning set	2368 Jan 09 11:30	8°054'10	
				max. Earth dist.	2368 Jan 18 20:07	23°042'14	1.43263 AU
superior conj	2367 Feb 13 06:30	23°048'45	-2°-3'-54		2368 Jan 22 16:49	0°00'00	
minimum elong	2367 Feb 13 08:23	23°057'03	2°03'52				
	2367 Feb 16 17:57	0°00'00		superior conj	2368 Jan 25 06:50	4°016'55	-2°-3'-1
evening rise	2367 Feb 23 23:06	13°012'32		minimum elong	2368 Jan 25 03:53	4°004'40	2°02'57
asc. node	2367 Mar 04 03:51	27°056'15		evening rise	2368 Feb 06 13:36	25°025'03	
	2367 Mar 05 09:53	0°00'00			2368 Feb 09 04:04	0°00'00	
evening max el	2367 Mar 12 06:23	9°008'34	18°12'50	asc. node	2368 Feb 19 00:52	16°022'59	
retrograde	2367 Mar 19 04:53	12°037'35		evening max el	2368 Feb 23 18:17	22°016'15	18°07'44
evening set	2367 Mar 21 17:15	12°010'51		retrograde	2368 Mar 01 06:30	25°039'39	
inferior conj	2367 Mar 28 16:30	7°023'29	3°12'00	evening set	2368 Mar 04 00:02	25°003'09	
minimum elong	2367 Mar 28 19:35	7°016'35	3°11'27	inferior conj	2368 Mar 10 09:48	19°054'33	3°37'47
min. Earth dist.	2367 Apr 01 01:25	4°024'18	0.59937 AU	minimum elong	2368 Mar 10 10:59	19°051'31	3°37'42
morning rise	2367 Apr 04 18:24	1°040'40		min. Earth dist.	2368 Mar 13 08:16	16°055'25	0.62070 AU
	2367 Apr 08 16:44	30°00'00		morning rise	2368 Mar 16 19:29	13°056'04	
direct	2367 Apr 11 07:18	29°041'01		direct	2368 Mar 23 16:58	11°026'28	
desc. node	2367 Apr 11 05:08	29°041'03		desc. node	2368 Mar 28 02:11	12°020'37	
	2367 Apr 13 23:14	0°00'00		morning max el	2368 Apr 06 19:09	19°022'07	27°50'09
morning max el	2367 Apr 25 14:42	7°030'36	27°29'23		2368 Apr 15 20:07	0°00'00	
	2367 May 12 14:45	0°00'00			2368 May 04 11:43	0°00'00	
morning set	2367 May 27 02:57	26°052'05		morning set	2368 May 10 05:51	11°015'15	
	2367 May 28 14:48	0°00'00		max. Earth dist.	2368 May 15 23:57	23°020'58	1.32489 AU
asc. node	2367 May 31 03:09	5°023'18		asc. node	2368 May 17 00:12	25°032'12	
max. Earth dist.	2367 Jun 02 14:36	10°047'47	1.32170 AU				
				superior conj	2368 May 17 17:47	27°007'43	0°07'44
superior conj	2367 Jun 03 07:53	12°022'44	0°33'13	minimum elong	2368 May 17 17:25	27°005'44	0°07'40
minimum elong	2367 Jun 03 06:28	12°014'53	0°32'56	behind sun begin	2368 May 17 12:53	26°041'01	
evening rise	2367 Jun 10 05:13	27°022'00		behind sun end	2368 May 17 21:58	27°030'27	
	2367 Jun 11 11:18	0°00'00			2368 May 19 01:23	0°00'00	
	2367 Jun 28 11:58	0°00'00		evening rise	2368 May 24 16:53	12°013'32	
evening max el	2367 Jul 08 00:01	11°018'16	25°46'31		2368 Jun 02 17:32	0°00'00	
desc. node	2367 Jul 08 04:26	11°028'44					

evening max el	2368 Jun 18 14:47	22°☿02'36	24°19'15		2369 May 28 19:35	0°☿	
desc. node	2368 Jun 24 01:27	26°☿22'26		evening max el	2369 May 31 04:58	2°☿30'24	22°42'58
retrograde	2368 Jul 02 11:16	29°☿02'08		desc. node	2369 Jun 10 22:28	8°☿50'50	
evening set	2368 Jul 07 05:46	28°☿11'24		retrograde	2369 Jun 13 10:24	9°☿05'06	
min. Earth dist.	2368 Jul 13 01:37	25°☿16'21	0.56651 AU	evening set	2369 Jun 16 17:15	8°☿41'22	
inferior conj	2368 Jul 15 17:10	23°☿36'23	-4°-50'-21	min. Earth dist.	2369 Jun 24 13:07	5°☿14'52	0.55343 AU
minimum elong	2368 Jul 15 13:18	23°☿42'30	4°49'58	inferior conj	2369 Jun 25 21:37	4°☿28'21	-3°-55'-12
morning rise	2368 Jul 24 00:28	19°☿34'31		minimum elong	2369 Jun 25 13:45	4°☿39'37	3°53'20
direct	2368 Jul 26 16:33	19°☿15'25		morning rise	2369 Jul 04 12:57	0°☿36'58	
morning max el	2368 Aug 05 06:21	23°☿42'24	19°36'24	direct	2369 Jul 07 11:14	0°☿17'07	
	2368 Aug 10 14:41	0°♊		morning max el	2369 Jul 18 16:04	5°☿28'56	20°53'12
asc. node	2368 Aug 12 23:27	3°♊33'14		asc. node	2369 Jul 30 20:31	22°☿18'57	
morning set	2368 Aug 22 17:48	21°♊36'39			2369 Aug 03 22:06	0°♊	
	2368 Aug 26 21:31	0°♊		morning set	2369 Aug 07 00:57	6°♊18'18	
superior conj	2368 Aug 30 17:54	7°♊41'29	1°44'45	superior conj	2369 Aug 14 13:09	21°♊53'17	1°44'21
minimum elong	2368 Aug 30 18:41	7°♊45'19	1°44'44	minimum elong	2369 Aug 14 12:22	21°♊49'17	1°44'20
max. Earth dist.	2368 Sep 05 18:48	19°♊16'15	1.37574 AU		2369 Aug 18 13:38	0°♊	
evening rise	2368 Sep 09 14:13	26°♊12'04		max. Earth dist.	2369 Aug 19 03:08	1°♊06'35	1.35732 AU
	2368 Sep 11 18:04	0°♊		evening rise	2369 Aug 23 06:55	9°♊05'16	
desc. node	2368 Sep 20 00:49	13°♊43'13			2369 Sep 04 08:52	0°♊	
	2368 Oct 01 00:28	0°♊		desc. node	2369 Sep 06 21:49	3°♊59'02	
evening max el	2368 Oct 15 07:36	17°♊18'05	25°18'48		2369 Sep 26 20:30	0°♊	
retrograde	2368 Oct 27 07:33	24°♊13'21		evening max el	2369 Sep 27 19:39	0°♊57'10	26°22'46
evening set	2368 Nov 02 03:14	21°♊47'57		retrograde	2369 Oct 10 14:20	8°♊08'57	
min. Earth dist.	2368 Nov 06 14:42	16°♊49'43	0.67192 AU	evening set	2369 Oct 16 23:47	5°♊31'37	
inferior conj	2368 Nov 07 17:06	15°♊24'07	0°-25'-25	min. Earth dist.	2369 Oct 21 03:47	1°♊09'41	0.66342 AU
minimum elong	2368 Nov 07 17:45	15°♊22'01	0°25'09		2369 Oct 22 02:42	30°♊	
asc. node	2368 Nov 08 22:38	13°♊49'37		inferior conj	2369 Oct 22 17:36	29°♊14'25	-1°-23'-29
morning rise	2368 Nov 13 08:56	9°♊24'40		minimum elong	2369 Oct 22 19:49	29°♊07'37	1°22'33
direct	2368 Nov 16 18:01	8°♊18'50		asc. node	2369 Oct 26 19:42	24°♊46'43	
morning max el	2368 Nov 23 23:21	12°♊23'07	19°29'20	morning rise	2369 Oct 28 17:03	23°♊25'13	
greatest brilliancy	2368 Dec 02 16:26	23°♊24'53	-0.7m	direct	2369 Oct 31 16:11	22°♊35'26	
	2368 Dec 07 03:55	0°♊		morning max el	2369 Nov 07 09:35	26°♊17'56	18°40'07
desc. node	2368 Dec 17 00:05	15°♊02'34			2369 Nov 10 14:55	0°♊	
morning set	2368 Dec 18 09:35	17°♊12'04		morning set	2369 Nov 28 04:10	26°♊36'07	
	2368 Dec 26 14:57	0°♊			2369 Nov 30 07:36	0°♊	
max. Earth dist.	2368 Dec 31 09:25	7°♊30'31	1.44540 AU	desc. node	2369 Dec 03 21:06	5°♊38'09	
superior conj	2369 Jan 04 04:56	13°♊34'33	-1°-44'00	superior conj	2369 Dec 14 08:40	22°♊07'11	-1°-6'-38
minimum elong	2369 Jan 03 20:53	13°♊02'20	1°43'23	minimum elong	2369 Dec 14 00:40	21°♊35'45	1°05'41
	2369 Jan 14 07:03	0°♊		max. Earth dist.	2369 Dec 14 02:54	21°♊44'31	1.45136 AU
evening rise	2369 Jan 18 07:59	6°♊43'38			2369 Dec 19 08:58	0°♊	
	2369 Feb 01 17:41	0°♊		evening rise	2369 Dec 30 03:07	17°♊04'11	
asc. node	2369 Feb 04 21:55	4°♊06'48			2370 Jan 07 05:17	0°♊	
evening max el	2369 Feb 06 06:48	5°♊36'12	18°21'39	evening max el	2370 Jan 20 17:26	19°♊02'37	18°53'36
retrograde	2369 Feb 12 18:24	9°♊07'14		asc. node	2370 Jan 22 18:57	20°♊54'56	
evening set	2369 Feb 15 17:08	8°♊20'02		retrograde	2370 Jan 27 12:29	22°♊52'14	
inferior conj	2369 Feb 21 17:01	2°♊52'00	3°41'27	evening set	2370 Jan 30 17:16	21°♊53'16	
minimum elong	2369 Feb 21 16:25	2°♊53'45	3°41'26	inferior conj	2370 Feb 05 10:19	16°♊07'55	3°28'49
min. Earth dist.	2369 Feb 24 00:45	0°♊13'18	0.63978 AU	minimum elong	2370 Feb 05 08:27	16°♊13'42	3°28'34
	2369 Feb 24 05:34	30°♊		min. Earth dist.	2370 Feb 07 02:35	14°♊02'51	0.65534 AU
morning rise	2369 Feb 27 14:04	26°♊44'22		morning rise	2370 Feb 10 22:34	9°♊55'23	
direct	2369 Mar 06 10:54	23°♊57'23		direct	2370 Feb 17 11:51	7°♊05'16	
desc. node	2369 Mar 14 23:15	27°♊20'22		desc. node	2370 Mar 01 20:17	14°♊04'12	
	2369 Mar 18 05:01	0°♊		morning max el	2370 Mar 02 13:41	14°♊47'18	26°45'55
morning max el	2369 Mar 20 03:50	1°♊51'54	27°34'01		2370 Mar 15 00:26	0°♊	
	2369 Apr 10 01:07	0°♊			2370 Apr 02 18:48	0°♊	
morning set	2369 Apr 24 01:24	25°♊13'29		morning set	2370 Apr 07 10:10	8°♊35'34	
	2369 Apr 26 10:33	0°♊		max. Earth dist.	2370 Apr 11 18:27	17°♊04'37	1.34423 AU
max. Earth dist.	2369 Apr 29 02:31	5°♊29'53	1.33228 AU				
superior conj	2369 May 02 00:09	11°♊38'04	0°-19'-38	superior conj	2370 Apr 16 00:47	25°♊46'26	0°-47'-49
minimum elong	2369 May 02 01:08	11°♊43'18	0°19'27	minimum elong	2370 Apr 16 03:14	25°♊59'08	0°47'22
asc. node	2369 May 03 21:15	15°♊39'45			2370 Apr 18 01:23	0°♊	
evening rise	2369 May 09 04:31	27°♊00'49		asc. node	2370 Apr 20 18:16	5°♊41'14	
	2369 May 10 14:47	0°♊		evening rise	2370 Apr 23 14:09	11°♊36'43	
					2370 May 03 04:49	0°♊	

evening max el	2370 May 13 02:18	13° Π 13'29	21°12'19	evening max el	2371 Apr 25 11:07	24° 8 32'32	19°56'46
retrograde	2370 May 25 00:12	19° Π 02'38		retrograde	2371 May 05 15:26	29° 8 28'01	
evening set	2370 May 27 07:04	18° Π 50'33		evening set	2371 May 07 15:42	29° 8 17'20	
desc. node	2370 May 28 19:30	18° Π 29'53		desc. node	2371 May 15 16:30	25° 8 48'57	
inferior conj	2370 Jun 05 15:41	14° Π 52'03	-2°-15'00	inferior conj	2371 May 16 13:33	25° 8 17'11	0°-15'-21
minimum elong	2370 Jun 05 09:29	15° Π 00'46	2°12'55	minimum elong	2371 May 16 12:51	25° 8 18'15	0°15'06
min. Earth dist.	2370 Jun 06 01:14	14° Π 38'36	0.54888 AU	transit middle	2371 May 16 12:51	25° 8 18'15	0°15'06
morning rise	2370 Jun 14 11:51	10° Π 52'48		transit begin	2371 May 16 11:34	25° 8 20'11	
direct	2370 Jun 17 21:01	10° Π 28'01		transit end	2371 May 16 14:08	25° 8 16'18	
morning max el	2370 Jun 30 14:47	16° Π 31'44	22°27'11	min. Earth dist.	2371 May 18 14:36	24° 8 02'56	0.55404 AU
	2370 Jul 11 04:59	0° 8		morning rise	2371 May 25 07:06	20° 8 52'05	
asc. node	2370 Jul 17 17:33	11° 8 34'22		direct	2371 May 29 11:21	20° 8 13'46	
morning set	2370 Jul 22 11:16	21° 8 09'21		morning max el	2371 Jun 12 06:17	27° 8 03'35	24°09'25
	2370 Jul 26 15:18	0° Ω			2371 Jun 15 02:54	0° Π	
					2371 Jul 04 00:24	0° 8	
superior conj	2370 Jul 29 16:04	6° Ω 27'36	1°37'16	asc. node	2371 Jul 04 14:34	1° 8 11'51	
minimum elong	2370 Jul 29 14:15	6° Ω 17'55	1°37'07	morning set	2371 Jul 06 22:59	6° 8 04'44	
max. Earth dist.	2370 Aug 01 20:01	13° Ω 05'16	1.34240 AU				
evening rise	2370 Aug 06 14:48	22° Ω 42'30		superior conj	2371 Jul 13 23:59	21° 8 16'10	1°24'42
	2370 Aug 10 10:47	0° 8		minimum elong	2371 Jul 13 21:39	21° 8 03'31	1°24'24
desc. node	2370 Aug 24 18:51	23° 8 52'32		max. Earth dist.	2371 Jul 15 22:06	25° 8 24'41	1.33152 AU
	2370 Aug 29 01:50	0° 8			2371 Jul 18 01:56	0° Ω	
evening max el	2370 Sep 10 07:56	14° 8 28'17	27°07'34	evening rise	2371 Jul 21 09:47	6° Ω 52'04	
retrograde	2370 Sep 23 15:34	21° 8 46'19			2371 Aug 02 23:42	0° 8	
evening set	2370 Sep 30 12:34	19° 8 03'58		desc. node	2371 Aug 11 15:51	13° 8 13'59	
min. Earth dist.	2370 Oct 04 09:47	15° 8 18'29	0.65137 AU	evening max el	2371 Aug 23 19:03	27° 8 39'21	27°26'02
inferior conj	2370 Oct 06 11:45	12° 8 58'08	-2°-22'-30		2371 Aug 26 10:38	0° 8	
minimum elong	2370 Oct 06 15:35	12° 8 47'19	2°21'03	retrograde	2371 Sep 06 10:33	4° 8 56'35	
morning rise	2370 Oct 12 20:21	7° 8 22'15		evening set	2371 Sep 13 14:35	2° 8 19'01	
asc. node	2370 Oct 13 16:45	7° 8 02'03			2371 Sep 16 08:37	30° 8	
direct	2370 Oct 15 11:58	6° 8 44'34		min. Earth dist.	2371 Sep 17 06:28	29° 8 07'20	0.63587 AU
morning max el	2370 Oct 22 00:13	10° 8 14'31	18°07'32	inferior conj	2371 Sep 19 20:57	26° 8 28'55	-3°-19'-43
	2370 Nov 04 15:40	0° 8		minimum elong	2371 Sep 20 02:04	26° 8 15'55	3°18'07
morning set	2370 Nov 09 04:09	7° 8 28'23		morning rise	2371 Sep 26 15:52	21° 8 09'50	
desc. node	2370 Nov 20 18:08	26° 8 21'12		direct	2371 Sep 29 02:40	20° 8 40'37	
	2370 Nov 23 00:58	0° 8		asc. node	2371 Sep 30 13:47	20° 8 51'14	
				morning max el	2371 Oct 05 16:27	24° 8 06'12	17°52'22
superior conj	2370 Nov 23 13:36	0° 8 50'12	0°-18'-52		2371 Oct 10 10:27	0° 8	
minimum elong	2370 Nov 23 11:13	0° 8 40'42	0°18'33	morning set	2371 Oct 22 06:08	19° 8 35'53	
max. Earth dist.	2370 Nov 26 21:54	6° 8 07'43	1.44994 AU		2371 Oct 28 07:08	0° 8	
evening rise	2370 Dec 10 00:31	26° 8 34'33					
	2370 Dec 12 05:35	0° 8		superior conj	2371 Nov 03 14:35	10° 8 34'10	0°27'12
greatest brilliancy	2370 Dec 27 07:31	22° 8 48'29	-0.6m	minimum elong	2371 Nov 03 17:24	10° 8 45'44	0°26'48
	2371 Jan 01 17:38	0° 8		desc. node	2371 Nov 07 15:10	17° 8 07'52	
evening max el	2371 Jan 04 00:12	2° 8 32'28	19°42'01	max. Earth dist.	2371 Nov 09 15:37	20° 8 22'31	1.44138 AU
asc. node	2371 Jan 09 15:59	6° 8 33'16			2371 Nov 15 17:57	0° 8	
retrograde	2371 Jan 11 09:39	6° 8 49'48		evening rise	2371 Nov 19 09:40	5° 8 39'49	
evening set	2371 Jan 14 21:56	5° 8 37'37			2371 Dec 05 15:35	0° 8	
inferior conj	2371 Jan 20 10:35	29° 8 37'25	3°03'58	greatest brilliancy	2371 Dec 12 09:26	9° 8 19'40	-0.5m
minimum elong	2371 Jan 20 08:05	29° 8 45'39	3°03'24	evening max el	2371 Dec 18 01:42	16° 8 03'12	20°44'35
	2371 Jan 20 03:44	30° 8		retrograde	2371 Dec 26 07:30	20° 8 55'26	
min. Earth dist.	2371 Jan 21 12:22	28° 8 12'19	0.66691 AU	asc. node	2371 Dec 27 13:01	20° 8 47'01	
morning rise	2371 Jan 25 17:33	23° 8 22'37		evening set	2371 Dec 30 05:02	19° 8 28'28	
direct	2371 Jan 31 18:41	20° 8 41'48		inferior conj	2372 Jan 04 15:17	13° 8 16'14	2°29'40
morning max el	2371 Feb 12 22:42	27° 8 56'36	25°34'20	minimum elong	2372 Jan 04 12:42	13° 8 25'02	2°28'53
	2371 Feb 14 21:38	0° 8		min. Earth dist.	2372 Jan 05 04:05	12° 8 32'26	0.67443 AU
desc. node	2371 Feb 16 17:19	2° 8 02'50		morning rise	2372 Jan 09 19:56	7° 8 01'05	
	2371 Mar 08 17:41	0° 8		direct	2372 Jan 15 06:30	4° 8 38'08	
morning set	2371 Mar 21 03:45	21° 8 08'44		morning max el	2372 Jan 26 07:03	11° 8 12'28	24°09'16
max. Earth dist.	2371 Mar 24 22:41	28° 8 11'09	1.36075 AU	desc. node	2372 Feb 03 14:21	20° 8 54'15	
	2371 Mar 25 21:32	0° 8			2372 Feb 10 06:57	0° 8	
					2372 Feb 29 11:54	0° 8	
superior conj	2371 Mar 30 17:03	9° 8 25'34	-1°-15'-16	morning set	2372 Mar 02 00:24	2° 8 36'42	
minimum elong	2371 Mar 30 20:48	9° 8 44'19	1°14'41	max. Earth dist.	2372 Mar 05 19:05	9° 8 16'08	1.38088 AU
evening rise	2371 Apr 07 19:44	25° 8 55'12					
asc. node	2371 Apr 07 15:17	25° 8 32'37		superior conj	2372 Mar 12 21:29	22° 8 25'45	-1°-39'-43
	2371 Apr 09 20:22	0° 8		minimum elong	2372 Mar 13 01:52	22° 8 46'40	1°39'13

	2372 Mar 16 19:17	0° Υ		superior conj	2373 Feb 23 09:42	4° Υ 36'07	-1°-57'-55
evening rise	2372 Mar 21 18:46	9° Υ 48'54		minimum elong	2373 Feb 23 13:11	4° Υ 51'57	1°57'43
asc. node	2372 Mar 24 12:19	15° Υ 08'45		evening rise	2373 Mar 05 08:14	23° Υ 10'16	
	2372 Apr 02 00:29	0° Υ			2373 Mar 08 23:25	0° Υ	
evening max el	2372 Apr 07 07:11	6° Υ 31'02	19°00'31	asc. node	2373 Mar 11 09:21	4° Υ 23'58	
retrograde	2372 Apr 15 20:58	10° Υ 40'59		evening max el	2373 Mar 21 11:57	19° Υ 03'30	18°24'27
evening set	2372 Apr 18 00:22	10° Υ 26'28		retrograde	2373 Mar 28 21:36	22° Υ 43'04	
inferior conj	2372 Apr 26 03:45	6° Υ 11'24	1°30'22	evening set	2373 Mar 31 06:34	22° Υ 21'31	
minimum elong	2372 Apr 26 07:00	6° Υ 05'41	1°29'19	inferior conj	2373 Apr 07 15:15	17° Υ 46'20	2°44'24
min. Earth dist.	2372 Apr 29 06:06	4° Υ 02'14	0.56768 AU	minimum elong	2373 Apr 07 19:04	17° Υ 38'29	2°43'30
desc. node	2372 May 01 13:30	2° Υ 35'23		min. Earth dist.	2373 Apr 11 01:51	14° Υ 58'25	0.58701 AU
morning rise	2372 May 04 09:23	1° Υ 11'48		morning rise	2373 Apr 15 03:28	12° Υ 16'08	
direct	2372 May 09 14:01	0° Υ 08'05		desc. node	2373 Apr 18 10:33	10° Υ 58'36	
morning max el	2372 May 23 20:53	7° Υ 30'49	25°45'52	direct	2373 Apr 21 06:36	10° Υ 37'22	
	2372 Jun 09 12:19	0° Υ		morning max el	2373 May 05 15:50	18° Υ 20'35	27°00'50
morning set	2372 Jun 20 10:32	20° Υ 59'35			2373 May 15 10:08	0° Υ	
asc. node	2372 Jun 20 11:36	21° Υ 05'13			2373 Jun 02 00:31	0° Υ	
	2372 Jun 24 14:53	0° Υ		morning set	2373 Jun 04 20:13	5° Υ 47'23	
				asc. node	2373 Jun 07 08:38	11° Υ 08'24	
superior conj	2372 Jun 27 10:47	6° Υ 12'19	1°07'36				
minimum elong	2372 Jun 27 08:26	5° Υ 59'30	1°07'13	superior conj	2373 Jun 11 22:34	21° Υ 09'02	0°46'42
max. Earth dist.	2372 Jun 28 06:59	8° Υ 03'04	1.32462 AU	minimum elong	2373 Jun 11 20:41	20° Υ 58'41	0°46'20
evening rise	2372 Jul 04 12:34	21° Υ 24'14		max. Earth dist.	2373 Jun 11 18:57	20° Υ 49'03	1.32161 AU
	2372 Jul 08 19:10	0° Υ			2373 Jun 15 23:25	0° Υ	
	2372 Jul 27 02:47	0° Υ		evening rise	2373 Jun 18 20:28	6° Υ 09'35	
desc. node	2372 Jul 28 12:51	1° Υ 50'24			2373 Jul 01 10:05	0° Υ	
evening max el	2372 Aug 05 02:25	10° Υ 16'56	27°12'57	desc. node	2373 Jul 15 09:52	19° Υ 22'20	
retrograde	2372 Aug 18 22:36	17° Υ 31'19		evening max el	2373 Jul 18 03:22	22° Υ 09'12	26°26'42
evening set	2372 Aug 26 02:04	15° Υ 10'49		retrograde	2373 Aug 01 02:50	29° Υ 21'07	
min. Earth dist.	2372 Aug 29 16:36	12° Υ 24'54	0.61732 AU	evening set	2373 Aug 07 18:16	27° Υ 30'48	
inferior conj	2372 Sep 01 18:12	9° Υ 39'41	-4°-10'-41	min. Earth dist.	2373 Aug 11 16:35	24° Υ 55'38	0.59683 AU
minimum elong	2372 Sep 01 23:36	9° Υ 27'32	4°09'29	inferior conj	2373 Aug 14 23:54	22° Υ 20'18	-4°-48'-5
morning rise	2372 Sep 09 00:00	4° Υ 41'00		minimum elong	2373 Aug 15 03:37	22° Υ 13'00	4°47'40
direct	2372 Sep 11 08:46	4° Υ 17'15		morning rise	2373 Aug 22 16:22	17° Υ 44'34	
asc. node	2372 Sep 16 10:49	6° Υ 10'49		direct	2373 Aug 25 01:55	17° Υ 23'59	
morning max el	2372 Sep 18 07:24	7° Υ 46'38	17°55'32	morning max el	2373 Sep 01 17:50	21° Υ 06'43	18°18'11
	2372 Oct 02 16:40	0° Υ		asc. node	2373 Sep 03 07:53	22° Υ 46'30	
morning set	2372 Oct 04 03:49	2° Υ 39'48			2373 Sep 08 12:59	0° Υ	
				morning set	2373 Sep 17 15:33	16° Υ 23'35	
superior conj	2372 Oct 14 18:43	21° Υ 38'31	1°03'31		2373 Sep 24 20:21	0° Υ	
minimum elong	2372 Oct 14 23:13	21° Υ 57'58	1°02'58				
	2372 Oct 19 16:37	0° Υ		superior conj	2373 Sep 26 23:15	3° Υ 54'25	1°27'57
max. Earth dist.	2372 Oct 22 05:12	4° Υ 11'00	1.42674 AU	minimum elong	2373 Sep 27 02:54	4° Υ 11'01	1°27'37
desc. node	2372 Oct 24 12:12	7° Υ 55'11		max. Earth dist.	2373 Oct 04 12:50	17° Υ 17'08	1.40788 AU
evening rise	2372 Oct 28 22:56	15° Υ 00'51		evening rise	2373 Oct 09 06:32	25° Υ 13'07	
	2372 Nov 07 17:53	0° Υ		desc. node	2373 Oct 11 09:14	28° Υ 39'10	
greatest brilliancy	2372 Nov 25 03:37	24° Υ 12'03	-0.3m		2373 Oct 12 05:21	0° Υ	
evening max el	2372 Nov 29 21:34	29° Υ 34'50	21°57'52		2373 Nov 01 13:41	0° Υ	
	2372 Nov 30 07:36	0° Υ		evening max el	2373 Nov 12 12:46	13° Υ 08'32	23°17'14
retrograde	2372 Dec 09 04:16	5° Υ 06'11		retrograde	2373 Nov 22 22:25	19° Υ 18'19	
asc. node	2372 Dec 13 10:03	3° Υ 28'35		evening set	2373 Nov 27 19:42	17° Υ 18'21	
evening set	2372 Dec 13 12:50	3° Υ 23'05		asc. node	2373 Nov 30 07:06	14° Υ 45'51	
	2372 Dec 16 17:35	30° Υ 47'39		inferior conj	2373 Dec 03 05:52	10° Υ 52'51	0°59'48
inferior conj	2372 Dec 18 22:19	27° Υ 02'13	1°47'49	minimum elong	2373 Dec 03 04:30	10° Υ 57'30	0°59'14
minimum elong	2372 Dec 18 20:09	27° Υ 09'44	1°47'01	min. Earth dist.	2373 Dec 02 20:18	11° Υ 25'44	0.67830 AU
min. Earth dist.	2372 Dec 18 23:30	26° Υ 58'08	0.67815 AU	morning rise	2373 Dec 08 13:24	4° Υ 42'35	
morning rise	2372 Dec 24 03:17	20° Υ 48'29		direct	2373 Dec 12 18:11	3° Υ 04'36	
direct	2372 Dec 28 22:37	18° Υ 47'39		morning max el	2373 Dec 21 08:40	8° Υ 05'20	21°17'13
morning max el	2373 Jan 07 17:16	24° Υ 34'35	22°40'43	greatest brilliancy	2373 Dec 26 13:38	14° Υ 03'02	-0.4m
greatest brilliancy	2373 Jan 12 07:35	29° Υ 42'16	-0.3m	desc. node	2374 Jan 07 08:29	0° Υ 20'27	
	2373 Jan 12 13:26	0° Υ			2374 Jan 07 02:54	0° Υ	
desc. node	2373 Jan 20 11:25	10° Υ 23'42		morning set	2374 Jan 21 07:18	21° Υ 33'57	
	2373 Feb 02 18:19	0° Υ			2374 Jan 26 14:01	0° Υ	
morning set	2373 Feb 10 18:07	12° Υ 45'09		max. Earth dist.	2374 Jan 28 16:26	3° Υ 25'33	1.42262 AU
max. Earth dist.	2373 Feb 15 15:02	20° Υ 54'29	1.40245 AU				
	2373 Feb 20 20:15	0° Υ		superior conj	2374 Feb 05 00:31	15° Υ 44'49	-2°-5'-29
				minimum elong	2374 Feb 05 00:39	15° Υ 45'21	2°05'31

	2374 Feb 13 02:44	0°☿		desc. node	2374 Dec 25 05:31	20°☿36'25	
evening rise	2374 Feb 16 08:23	5°☿50'47		morning set	2374 Dec 31 03:40	29°☿41'08	
asc. node	2374 Feb 26 06:24	23°☿11'26			2374 Dec 31 08:33	0°☿	
	2374 Mar 03 01:50	0°☿		max. Earth dist.	2375 Jan 11 01:30	16°☿48'40	1.43876 AU
evening max el	2374 Mar 04 22:13	2°☿01'33	18°08'17				
retrograde	2374 Mar 11 15:14	5°☿26'38		superior conj	2375 Jan 16 13:32	25°☿42'16	-1°-57'-22
evening set	2374 Mar 14 05:43	4°☿56'02		minimum elong	2375 Jan 16 08:10	25°☿20'18	1°57'06
inferior conj	2374 Mar 20 22:48	29°☿59'45	3°26'01		2375 Jan 19 04:12	0°☿	
minimum elong	2374 Mar 21 01:08	29°☿54'14	3°25'43	evening rise	2375 Jan 29 14:47	17°☿40'50	
	2374 Mar 20 22:42	30°☿☿			2375 Feb 05 19:14	0°☿	
min. Earth dist.	2374 Mar 24 04:15	26°☿57'19	0.60855 AU	asc. node	2375 Feb 13 03:28	11°☿21'37	
morning rise	2374 Mar 27 17:24	24°☿09'00		evening max el	2375 Feb 16 10:47	15°☿15'48	18°11'26
direct	2374 Apr 03 11:06	21°☿55'07		retrograde	2375 Feb 22 21:36	18°☿40'40	
desc. node	2374 Apr 05 07:36	22°☿04'44		evening set	2375 Feb 25 17:20	17°☿59'45	
morning max el	2374 Apr 17 17:00	29°☿49'02	27°42'46	inferior conj	2375 Mar 03 22:31	12°☿42'59	3°41'35
	2374 Apr 17 21:25	0°☿		minimum elong	2375 Mar 03 22:53	12°☿41'59	3°41'35
	2374 May 09 09:23	0°☿		min. Earth dist.	2375 Mar 06 15:06	9°☿50'16	0.62922 AU
morning set	2374 May 20 02:13	20°☿22'04		morning rise	2375 Mar 10 02:21	6°☿40'08	
	2374 May 24 15:30	0°☿		direct	2375 Mar 17 00:47	4°☿01'06	
asc. node	2374 May 25 05:42	1°☿16'53		desc. node	2375 Mar 23 04:40	5°☿48'13	
max. Earth dist.	2374 May 26 06:15	3°☿30'30	1.32254 AU	morning max el	2375 Mar 30 23:21	11°☿57'24	27°47'28
					2375 Apr 14 06:53	0°☿	
superior conj	2374 May 27 09:41	6°☿00'34	0°22'42		2375 May 01 18:40	0°☿	
minimum elong	2374 May 27 08:40	5°☿54'59	0°22'29	morning set	2375 May 04 02:18	4°☿35'40	
evening rise	2374 Jun 03 07:20	21°☿01'10		max. Earth dist.	2375 May 09 12:59	15°☿53'55	1.32754 AU
	2374 Jun 07 16:07	0°☿					
	2374 Jun 26 18:14	0°☿		superior conj	2375 May 11 18:20	20°☿40'23	0°-3'-42
evening max el	2374 Jun 29 21:17	3°☿15'32	25°11'28	minimum elong	2375 May 11 18:31	20°☿41'21	0°03'41
desc. node	2374 Jul 02 06:52	5°☿23'29		behind sun begin	2375 May 11 13:24	20°☿13'45	
retrograde	2374 Jul 13 21:14	10°☿22'10		behind sun end	2375 May 11 23:37	21°☿08'59	
evening set	2374 Jul 19 11:03	9°☿10'28		asc. node	2375 May 12 02:45	21°☿25'54	
min. Earth dist.	2374 Jul 24 09:04	6°☿27'09	0.57670 AU		2375 May 16 01:33	0°☿	
inferior conj	2374 Jul 27 10:45	4°☿21'50	-5°00'-24	evening rise	2375 May 18 19:12	5°☿51'45	
minimum elong	2374 Jul 27 10:08	4°☿22'54	5°00'23		2375 May 31 15:39	0°☿	
morning rise	2374 Aug 04 12:55	0°☿08'38		evening max el	2375 Jun 11 11:05	13°☿49'48	23°38'27
	2374 Aug 05 04:55	30°☿☿		desc. node	2375 Jun 19 03:52	19°☿19'49	
direct	2374 Aug 07 01:52	29°☿49'28		retrograde	2375 Jun 25 03:07	20°☿40'37	
	2374 Aug 08 21:54	0°☿		evening set	2375 Jun 29 05:48	20°☿03'31	
morning max el	2374 Aug 15 20:33	3°☿57'03	19°01'37	min. Earth dist.	2375 Jul 05 21:26	16°☿56'30	0.56011 AU
asc. node	2374 Aug 21 04:57	10°☿23'14		inferior conj	2375 Jul 08 01:27	15°☿38'27	-4°-33'-3
	2374 Sep 01 05:49	0°☿		minimum elong	2375 Jul 07 19:24	15°☿47'35	4°32'05
morning set	2374 Sep 01 13:10	0°☿36'13		morning rise	2375 Jul 16 12:17	11°☿42'23	
				direct	2375 Jul 19 06:47	11°☿23'09	
superior conj	2374 Sep 09 22:43	17°☿06'22	1°41'21	morning max el	2375 Jul 29 12:45	16°☿08'14	20°06'34
minimum elong	2374 Sep 10 00:34	17°☿15'11	1°41'15	asc. node	2375 Aug 08 02:00	28°☿47'16	
max. Earth dist.	2374 Sep 16 16:41	29°☿40'27	1.38734 AU		2375 Aug 08 19:04	0°☿	
	2374 Sep 16 21:03	0°☿		morning set	2375 Aug 16 17:34	15°☿09'37	
evening rise	2374 Sep 20 14:08	6°☿32'15					
desc. node	2374 Sep 28 06:14	19°☿16'07		superior conj	2375 Aug 24 11:58	0°☿59'58	1°45'29
	2374 Oct 05 05:28	0°☿		minimum elong	2375 Aug 24 12:02	1°☿00'17	1°45'29
evening max el	2374 Oct 26 01:27	26°☿46'13	24°36'24		2375 Aug 24 00:03	0°☿	
	2374 Oct 29 16:17	0°☿		max. Earth dist.	2375 Aug 29 22:06	11°☿37'28	1.36758 AU
retrograde	2374 Nov 06 12:42	3°☿27'43		evening rise	2375 Sep 02 20:00	18°☿54'40	
evening set	2374 Nov 11 23:56	1°☿11'19			2375 Sep 09 03:59	0°☿	
	2374 Nov 13 06:14	30°☿☿		desc. node	2375 Sep 15 03:14	9°☿41'35	
min. Earth dist.	2374 Nov 16 16:00	25°☿52'32	0.67515 AU		2375 Sep 29 09:13	0°☿	
asc. node	2374 Nov 17 04:10	25°☿11'58		evening max el	2375 Oct 08 13:36	10°☿27'09	25°48'03
inferior conj	2374 Nov 17 12:05	24°☿45'34	0°06'49	retrograde	2375 Oct 20 22:12	17°☿30'16	
minimum elong	2374 Nov 17 11:55	24°☿46'07	0°06'45	evening set	2375 Oct 26 23:50	14°☿59'29	
transit middle	2374 Nov 17 11:55	24°☿46'07	0°06'45	min. Earth dist.	2375 Oct 31 08:11	10°☿16'23	0.66869 AU
transit begin	2374 Nov 17 09:25	24°☿54'27		inferior conj	2375 Nov 01 15:14	8°☿38'04	0°-49'-48
transit end	2374 Nov 17 14:25	24°☿37'47		minimum elong	2375 Nov 01 16:32	8°☿33'57	0°49'14
morning rise	2374 Nov 23 00:19	18°☿41'10		asc. node	2375 Nov 04 01:13	5°☿42'08	
direct	2374 Nov 26 16:04	17°☿24'21		morning rise	2375 Nov 07 10:04	2°☿42'24	
morning max el	2374 Dec 04 07:31	21°☿46'22	20°04'38	direct	2375 Nov 10 14:43	1°☿43'41	
	2374 Dec 11 03:08	0°☿		morning max el	2375 Nov 17 14:00	5°☿37'21	19°06'26
greatest brilliancy	2374 Dec 11 07:39	0°☿15'18	-0.6m		2375 Dec 04 23:24	0°☿	

morning set	2375 Dec 10 08:19	8°♂21'41		direct	2376 Oct 24 12:11	15°♂57'59	
desc. node	2375 Dec 12 02:33	11°♂06'23		morning max el	2376 Oct 31 02:24	19°♂33'39	18°24'14
	2375 Dec 24 04:11	0°♂			2376 Nov 08 01:36	0°♂	
max. Earth dist.	2375 Dec 24 17:11	0°♂51'14	1.44884 AU	morning set	2376 Nov 19 15:16	18°♂23'31	
					2376 Nov 26 21:00	0°♂	
superior conj	2375 Dec 27 02:07	4°♂35'58	-1°-30'-8	desc. node	2376 Nov 27 23:33	1°♂45'35	
minimum elong	2375 Dec 26 17:12	4°♂00'42	1°29'16				
evening rise	2376 Jan 10 23:28	28°♂34'44		superior conj	2376 Dec 05 03:28	13°♂04'37	0°-46'-53
	2376 Jan 11 20:15	0°♂		minimum elong	2376 Dec 04 21:29	12°♂41'04	0°46'08
evening max el	2376 Jan 30 22:51	28°♂39'27	18°33'07	max. Earth dist.	2376 Dec 06 12:11	15°♂13'09	1.45168 AU
asc. node	2376 Jan 31 00:30	28°♂43'38			2376 Dec 15 22:23	0°♂	
	2376 Feb 01 09:26	0°♂		evening rise	2376 Dec 21 08:44	8°♂32'09	
retrograde	2376 Feb 06 12:30	2°♂16'45		greatest brilliancy	2377 Jan 03 11:53	29°♂01'05	-0.7m
evening set	2376 Feb 09 13:47	1°♂24'31			2377 Jan 04 03:34	0°♂	
	2376 Feb 11 12:30	30°♂		evening max el	2377 Jan 13 07:59	12°♂07'18	19°12'17
inferior conj	2376 Feb 15 10:24	25°♂48'48	3°37'46	asc. node	2377 Jan 16 21:31	15°♂03'52	
minimum elong	2376 Feb 15 09:12	25°♂52'25	3°37'40	retrograde	2377 Jan 20 08:17	16°♂07'43	
min. Earth dist.	2376 Feb 17 11:27	23°♂23'31	0.64694 AU	evening set	2377 Jan 23 16:08	15°♂03'09	
morning rise	2376 Feb 21 03:18	19°♂39'00		inferior conj	2377 Jan 29 07:00	9°♂10'53	3°19'36
direct	2376 Feb 27 21:44	16°♂49'07		minimum elong	2377 Jan 29 04:48	9°♂17'56	3°19'12
desc. node	2376 Mar 09 01:44	21°♂36'19		min. Earth dist.	2377 Jan 30 16:49	7°♂22'42	0.66073 AU
morning max el	2376 Mar 12 08:40	24°♂38'56	27°16'59	morning rise	2377 Feb 03 16:36	2°♂57'09	
	2376 Mar 17 05:14	0°♂		direct	2377 Feb 10 01:01	0°♂10'04	
	2376 Apr 06 16:54	0°♂		morning max el	2377 Feb 22 18:29	7°♂42'03	26°17'55
morning set	2376 Apr 16 17:42	18°♂19'42		desc. node	2377 Feb 23 22:46	8°♂55'05	
max. Earth dist.	2376 Apr 21 11:26	27°♂49'05	1.33688 AU		2377 Mar 12 03:33	0°♂	
	2376 Apr 22 12:48	0°♂			2377 Mar 30 02:48	0°♂	
				morning set	2377 Mar 30 20:40	1°♂23'10	
superior conj	2376 Apr 24 22:33	5°♂02'22	0°-31'-33	max. Earth dist.	2377 Apr 03 22:44	9°♂12'19	1.35073 AU
minimum elong	2376 Apr 25 00:09	5°♂10'48	0°31'15				
asc. node	2376 Apr 27 23:47	11°♂31'31		superior conj	2377 Apr 08 20:00	18°♂59'37	0°-59'-39
evening rise	2376 May 02 06:14	20°♂35'15		minimum elong	2377 Apr 08 23:03	19°♂15'11	0°59'07
	2376 May 06 21:19	0°♂			2377 Apr 14 03:33	0°♂	
evening max el	2376 May 23 03:31	24°♂20'39	22°02'54	asc. node	2377 Apr 14 20:48	1°♂29'46	
	2376 May 31 20:43	0°♂		evening rise	2377 Apr 16 14:27	5°♂05'18	
retrograde	2376 Jun 04 20:56	0°♂37'31			2377 Apr 30 15:37	0°♂	
desc. node	2376 Jun 05 00:54	0°♂37'27		evening max el	2377 May 05 05:25	5°♂17'53	20°37'57
evening set	2376 Jun 07 15:45	0°♂20'17		retrograde	2377 May 16 10:10	10°♂44'48	
	2376 Jun 09 00:27	30°♂		evening set	2377 May 18 12:25	10°♂34'08	
inferior conj	2376 Jun 16 23:57	26°♂15'16	-3°-17'-10	desc. node	2377 May 22 21:56	9°♂10'18	
minimum elong	2376 Jun 16 16:01	26°♂26'23	3°14'53	inferior conj	2377 May 27 17:54	6°♂36'30	-1°-24'-35
min. Earth dist.	2376 Jun 16 08:41	26°♂36'39	0.55041 AU	minimum elong	2377 May 27 13:54	6°♂42'15	1°23'08
morning rise	2376 Jun 25 17:59	22°♂23'16		min. Earth dist.	2377 May 28 21:06	5°♂57'22	0.54989 AU
direct	2376 Jun 28 20:23	22°♂01'54		morning rise	2377 Jun 05 14:09	2°♂28'24	
morning max el	2376 Jul 10 17:23	27°♂35'02	21°31'30	direct	2377 Jun 09 06:10	1°♂59'26	
	2376 Jul 13 02:31	0°♂		morning max el	2377 Jun 22 12:35	8°♂23'38	23°10'26
asc. node	2376 Jul 24 23:02	17°♂46'52			2377 Jul 08 01:01	0°♂	
morning set	2376 Jul 31 02:19	29°♂56'23		asc. node	2377 Jul 11 20:03	7°♂13'12	
	2376 Jul 31 03:01	0°♂		morning set	2377 Jul 15 13:28	14°♂50'53	
superior conj	2376 Aug 07 10:50	15°♂22'33	1°42'05	superior conj	2377 Jul 22 16:14	0°♂04'49	1°32'33
minimum elong	2376 Aug 07 09:33	15°♂15'51	1°42'01	minimum elong	2377 Jul 22 14:07	29°♂53'32	1°32'21
max. Earth dist.	2376 Aug 11 10:08	23°♂30'48	1.35052 AU		2377 Jul 22 15:20	0°♂	
	2376 Aug 14 17:00	0°♂		max. Earth dist.	2377 Jul 25 07:10	5°♂38'49	1.33728 AU
evening rise	2376 Aug 15 19:41	2°♂08'10		evening rise	2377 Jul 30 08:47	16°♂01'01	
desc. node	2376 Sep 01 00:14	29°♂49'10			2377 Aug 06 19:04	0°♂	
	2376 Sep 01 03:05	0°♂		desc. node	2377 Aug 18 21:15	19°♂30'55	
evening max el	2376 Sep 20 01:54	24°♂04'24	26°44'37		2377 Aug 26 17:32	0°♂	
	2376 Sep 27 23:56	0°♂		evening max el	2377 Sep 02 13:44	7°♂28'12	27°18'49
retrograde	2376 Oct 03 02:26	1°♂19'11		retrograde	2377 Sep 16 01:04	14°♂46'45	
	2376 Oct 07 18:46	30°♂		evening set	2377 Sep 23 01:56	12°♂04'39	
evening set	2376 Oct 09 17:20	28°♂38'42		min. Earth dist.	2377 Sep 26 20:29	8°♂34'28	0.64525 AU
min. Earth dist.	2376 Oct 13 18:22	24°♂32'33	0.65876 AU	inferior conj	2377 Sep 29 03:56	6°♂05'05	-2°-47'-11
inferior conj	2376 Oct 15 13:16	22°♂26'05	-1°-48'-31	minimum elong	2377 Sep 29 08:23	5°♂53'04	2°45'38
minimum elong	2376 Oct 15 16:12	22°♂17'27	1°47'21	morning rise	2377 Oct 05 16:52	0°♂36'15	
asc. node	2376 Oct 20 22:15	17°♂08'52		asc. node	2377 Oct 07 19:17	0°♂03'42	
morning rise	2376 Oct 21 16:27	16°♂42'16		direct	2377 Oct 08 06:04	0°♂02'39	

morning max el	2377 Oct 14 18:09	3°♂29'34	17°58'55	direct	2378 Sep 21 17:27	13°♂51'23	
morning set	2377 Nov 01 02:57	29°♂49'43		asc. node	2378 Sep 24 16:19	14°♂32'35	
	2377 Nov 01 05:23	0°♂		morning max el	2378 Sep 28 10:16	17°♂17'48	17°51'22
					2378 Oct 07 11:36	0°♂	
superior conj	2377 Nov 14 15:13	22°♂09'09	0°01'31	morning set	2378 Oct 14 14:05	12°♂23'29	
minimum elong	2377 Nov 14 15:23	22°♂09'50	0°01'30		2378 Oct 24 16:44	0°♂	
behind sun begin	2377 Nov 14 05:02	21°♂28'10					
behind sun end	2377 Nov 15 01:44	22°♂51'26		superior conj	2378 Oct 26 03:41	2°♂27'33	0°44'01
desc. node	2377 Nov 14 20:34	22°♂30'43		minimum elong	2378 Oct 26 07:37	2°♂44'07	0°43'30
max. Earth dist.	2377 Nov 19 06:52	29°♂34'29	1.44711 AU	desc. node	2378 Nov 01 17:36	13°♂18'16	
	2377 Nov 19 13:19	0°♂		max. Earth dist.	2378 Nov 01 22:30	13°♂38'06	1.43577 AU
evening rise	2377 Nov 30 23:10	17°♂47'11		evening rise	2378 Nov 10 07:56	26°♂53'58	
	2377 Dec 08 22:47	0°♂			2378 Nov 12 08:10	0°♂	
greatest brilliancy	2377 Dec 20 19:40	17°♂23'30	-0.6m		2378 Dec 02 21:31	0°♂	
evening max el	2377 Dec 27 12:28	25°♂36'51	20°07'06	greatest brilliancy	2378 Dec 05 08:04	3°♂10'34	-0.4m
	2378 Jan 02 23:30	0°♂		evening max el	2378 Dec 10 11:32	9°♂08'12	21°14'46
asc. node	2378 Jan 03 18:33	0°♂07'36		retrograde	2378 Dec 19 03:44	14°♂17'11	
retrograde	2378 Jan 04 06:06	0°♂08'53		asc. node	2378 Dec 21 15:35	13°♂42'46	
	2378 Jan 05 12:01	30°♂		evening set	2378 Dec 23 05:38	12°♂43'44	
evening set	2378 Jan 07 22:02	28°♂50'38		inferior conj	2378 Dec 28 15:22	6°♂27'26	2°12'46
inferior conj	2378 Jan 13 09:25	22°♂44'42	2°50'28	minimum elong	2378 Dec 28 12:55	6°♂35'55	2°11'57
minimum elong	2378 Jan 13 06:50	22°♂53'25	2°49'47	min. Earth dist.	2378 Dec 28 23:10	6°♂00'31	0.67642 AU
min. Earth dist.	2378 Jan 14 05:28	21°♂37'13	0.67051 AU	morning rise	2379 Jan 02 19:50	0°♂12'26	
morning rise	2378 Jan 18 15:02	16°♂29'18			2379 Jan 03 01:37	30°♂	
direct	2378 Jan 24 10:01	13°♂55'22		direct	2379 Jan 07 23:56	27°♂58'21	
morning max el	2378 Feb 05 03:14	20°♂55'10	24°59'15		2379 Jan 13 13:19	0°♂	
desc. node	2378 Feb 10 19:48	27°♂18'18		morning max el	2379 Jan 18 11:52	4°♂13'27	23°31'25
	2378 Feb 12 23:37	0°♂		desc. node	2379 Jan 28 16:50	16°♂27'48	
	2378 Mar 05 08:41	0°♂			2379 Feb 07 06:15	0°♂	
morning set	2378 Mar 13 06:08	13°♂30'49		morning set	2379 Feb 22 15:59	24°♂26'41	
max. Earth dist.	2378 Mar 16 22:49	20°♂13'34	1.36887 AU		2379 Feb 25 21:39	0°♂	
	2378 Mar 22 02:23	0°♂		max. Earth dist.	2379 Feb 26 17:30	1°♂26'41	1.38998 AU
superior conj	2378 Mar 23 07:40	2°♂23'03	-1°-26'-11	superior conj	2379 Mar 06 05:48	15°♂03'41	-1°-48'-26
minimum elong	2378 Mar 23 11:48	2°♂43'24	1°25'36	minimum elong	2379 Mar 06 10:03	15°♂23'33	1°48'04
evening rise	2378 Mar 31 17:35	19°♂14'02			2379 Mar 14 00:57	0°♂	
asc. node	2378 Apr 01 17:50	21°♂15'21		evening rise	2379 Mar 15 12:57	2°♂54'48	
	2378 Apr 06 06:16	0°♂		asc. node	2379 Mar 19 14:54	10°♂43'25	
evening max el	2378 Apr 17 19:13	16°♂54'03	19°30'29	evening max el	2379 Mar 31 19:26	29°♂08'21	18°42'48
retrograde	2378 Apr 27 06:32	21°♂28'55			2379 Apr 01 18:01	0°♂	
evening set	2378 Apr 29 07:13	21°♂17'15		retrograde	2379 Apr 08 19:43	3°♂02'58	
inferior conj	2378 May 07 21:39	17°♂12'03	0°32'40	evening set	2379 Apr 11 01:29	2°♂45'46	
minimum elong	2378 May 07 23:02	17°♂09'49	0°32'10		2379 Apr 16 14:55	30°♂	
desc. node	2378 May 09 18:58	15°♂59'10		inferior conj	2379 Apr 18 20:42	28°♂22'49	2°05'56
min. Earth dist.	2378 May 10 11:34	15°♂33'00	0.55885 AU	minimum elong	2379 Apr 19 00:34	28°♂15'35	2°04'48
morning rise	2378 May 16 11:04	12°♂32'06		min. Earth dist.	2379 Apr 22 04:45	25°♂54'22	0.57542 AU
direct	2378 May 21 01:12	11°♂44'31		morning rise	2379 Apr 26 19:16	23°♂09'14	
morning max el	2378 Jun 04 03:07	18°♂50'57	24°52'03	desc. node	2379 Apr 26 16:01	23°♂12'58	
	2378 Jun 13 10:54	0°♂		direct	2379 May 02 10:23	21°♂50'57	
asc. node	2378 Jun 28 17:06	26°♂58'16		morning max el	2379 May 16 18:53	29°♂24'04	26°21'06
morning set	2378 Jun 30 01:19	29°♂46'53			2379 May 17 09:28	0°♂	
	2378 Jun 30 03:48	0°♂			2379 Jun 07 03:18	0°♂	
superior conj	2378 Jul 07 01:38	14°♂57'52	1°17'58	morning set	2379 Jun 14 12:16	14°♂39'05	
minimum elong	2378 Jul 06 23:15	14°♂44'49	1°17'38	asc. node	2379 Jun 15 14:09	16°♂56'17	
max. Earth dist.	2378 Jul 08 12:17	18°♂06'11	1.32810 AU	superior conj	2379 Jun 21 13:05	29°♂54'58	0°59'11
evening rise	2378 Jul 14 07:28	0°♂21'31		minimum elong	2379 Jun 21 10:53	29°♂42'54	0°58'47
	2378 Jul 14 03:16	0°♂			2379 Jun 21 14:00	0°♂	
	2378 Jul 30 19:37	0°♂		max. Earth dist.	2379 Jun 21 22:48	0°♂48'27	1.32288 AU
desc. node	2378 Aug 05 18:16	8°♂35'24		evening rise	2379 Jun 28 12:44	15°♂00'20	
evening max el	2378 Aug 15 23:25	20°♂26'12	27°24'24		2379 Jul 06 03:13	0°♂	
retrograde	2378 Aug 29 17:32	27°♂43'11		desc. node	2379 Jul 23 15:18	26°♂47'14	
evening set	2378 Sep 05 22:21	25°♂11'07			2379 Jul 26 10:56	0°♂	
min. Earth dist.	2378 Sep 09 12:51	22°♂11'43	0.62830 AU	evening max el	2379 Jul 29 04:31	2°♂46'13	26°57'17
inferior conj	2378 Sep 12 08:28	19°♂28'26	-3°-42'-28	retrograde	2379 Aug 12 02:34	9°♂59'20	
minimum elong	2378 Sep 12 13:52	19°♂15'21	3°40'59	evening set	2379 Aug 19 02:14	7°♂50'34	
morning rise	2378 Sep 19 08:02	14°♂17'47		min. Earth dist.	2379 Aug 22 18:45	5°♂11'01	0.60873 AU

inferior conj	2379 Aug 25 23:35	2° \cap 27'53	-4°-28'-51	min. Earth dist.	2380 Aug 03 15:08	17° Ω 18'36	0.58808 AU
minimum elong	2379 Aug 26 04:33	2° \cap 17'16	4°27'57	inferior conj	2380 Aug 06 21:42	14° Ω 53'53	-4°-57'-14
	2379 Aug 29 00:55	30° \Re Ω		minimum elong	2380 Aug 06 23:53	14° Ω 49'50	4°57'07
morning rise	2379 Sep 02 09:58	27° Ω 38'24		morning rise	2380 Aug 14 18:23	10° Ω 27'46	
direct	2379 Sep 04 18:38	27° Ω 16'18		direct	2380 Aug 17 05:17	10° Ω 07'50	
	2379 Sep 11 01:34	0° \cap		morning max el	2380 Aug 25 07:09	13° Ω 59'26	18°34'01
asc. node	2379 Sep 11 13:23	0° \cap 26'14		asc. node	2380 Aug 28 10:27	17° Ω 30'08	
morning max el	2379 Sep 11 23:39	0° \cap 50'29	18°02'36		2380 Sep 05 07:13	0° \cap	
morning set	2379 Sep 27 18:23	25° \cap 46'13		morning set	2380 Sep 10 10:51	9° \cap 44'36	
	2379 Sep 30 01:05	0° $\underline{\Omega}$					
superior conj	2379 Oct 07 18:45	14° $\underline{\Omega}$ 03'42	1°15'20	superior conj	2380 Sep 19 08:07	26° \cap 46'12	1°34'53
minimum elong	2379 Oct 07 23:05	14° $\underline{\Omega}$ 22'55	1°14'51	minimum elong	2380 Sep 19 11:02	26° \cap 59'48	1°34'39
max. Earth dist.	2379 Oct 15 09:33	27° $\underline{\Omega}$ 09'42	1.41913 AU		2380 Sep 21 01:56	0° $\underline{\Omega}$	
	2379 Oct 17 02:39	0° \cap		max. Earth dist.	2380 Sep 26 15:51	10° $\underline{\Omega}$ 00'11	1.39928 AU
desc. node	2379 Oct 19 14:37	4° \cap 04'37		evening rise	2380 Sep 30 21:32	17° $\underline{\Omega}$ 15'01	
evening rise	2379 Oct 21 03:45	6° \cap 33'53		desc. node	2380 Oct 05 11:38	24° $\underline{\Omega}$ 46'37	
	2379 Nov 05 14:06	0° \bowtie			2380 Oct 08 18:50	0° \cap	
greatest brilliancy	2379 Nov 18 10:09	17° \bowtie 18'05	-0.3m		2380 Oct 30 03:35	0° \bowtie	
evening max el	2379 Nov 23 05:23	22° \bowtie 41'08	22°31'20	evening max el	2380 Nov 04 19:20	6° \bowtie 17'07	23°51'15
retrograde	2379 Dec 02 23:25	28° \bowtie 28'48		retrograde	2380 Nov 15 15:55	12° \bowtie 40'44	
evening set	2379 Dec 07 13:12	26° \bowtie 38'43		evening set	2380 Nov 20 19:09	10° \bowtie 33'30	
asc. node	2379 Dec 08 12:38	25° \bowtie 46'03		asc. node	2380 Nov 24 09:41	6° \bowtie 36'13	
inferior conj	2379 Dec 12 22:50	20° \bowtie 15'39	1°28'06	min. Earth dist.	2380 Nov 25 15:58	4° \bowtie 55'19	0.67748 AU
minimum elong	2379 Dec 12 20:58	20° \bowtie 22'08	1°27'23	inferior conj	2380 Nov 26 06:02	4° \bowtie 07'32	0°37'50
min. Earth dist.	2379 Dec 12 19:27	20° \bowtie 27'25	0.67866 AU	minimum elong	2380 Nov 26 05:09	4° \bowtie 10'34	0°37'28
morning rise	2379 Dec 18 04:37	14° \bowtie 03'09			2380 Nov 29 12:01	30° \cap \cap	
direct	2379 Dec 22 17:45	12° \bowtie 11'52		morning rise	2380 Dec 01 15:21	27° \cap 59'42	
morning max el	2379 Dec 31 23:42	17° \bowtie 38'08	22°04'06	direct	2380 Dec 05 14:26	26° \cap 31'02	
greatest brilliancy	2380 Jan 05 15:25	22° \bowtie 51'50	-0.4m		2380 Dec 12 11:24	0° \bowtie	
	2380 Jan 11 03:40	0° \bowtie		morning max el	2380 Dec 13 18:10	1° \bowtie 13'30	20°44'42
desc. node	2380 Jan 15 13:53	6° \bowtie 09'55		greatest brilliancy	2380 Dec 19 14:07	8° \bowtie 02'14	-0.5m
	2380 Jan 31 09:18	0° \approx		desc. node	2381 Jan 01 10:55	26° \bowtie 15'37	
morning set	2380 Feb 02 21:04	3° \approx 58'46			2381 Jan 03 22:47	0° \bowtie	
max. Earth dist.	2380 Feb 08 15:16	13° \approx 26'21	1.41143 AU	morning set	2381 Jan 12 00:35	12° \bowtie 22'07	
				max. Earth dist.	2381 Jan 20 20:28	26° \bowtie 22'48	1.43020 AU
superior conj	2380 Feb 16 09:33	26° \approx 49'19	-2°-2'-43		2381 Jan 23 01:46	0° \approx	
minimum elong	2380 Feb 16 11:57	26° \approx 59'57	2°02'40	superior conj	2381 Jan 27 13:41	7° \approx 27'56	-2°-4'-15
	2380 Feb 18 04:18	0° \bowtie		minimum elong	2381 Jan 27 11:36	7° \approx 19'10	2°04'13
evening rise	2380 Feb 26 21:12	15° \bowtie 59'23		evening rise	2381 Feb 08 14:18	28° \approx 19'27	
asc. node	2380 Mar 05 11:57	29° \bowtie 47'34			2381 Feb 09 12:58	0° \bowtie	
	2380 Mar 05 14:52	0° \cap		asc. node	2381 Feb 20 08:59	18° \bowtie 20'12	
evening max el	2380 Mar 14 02:58	11° \cap 52'37	18°15'11	evening max el	2381 Feb 25 14:29	24° \bowtie 58'01	18°07'15
retrograde	2380 Mar 21 03:54	15° \cap 23'50		retrograde	2381 Mar 04 03:41	28° \bowtie 21'34	
evening set	2380 Mar 23 15:27	14° \cap 58'27		evening set	2381 Mar 06 20:24	27° \bowtie 46'38	
inferior conj	2380 Mar 30 17:01	10° \cap 14'07	3°05'41	inferior conj	2381 Mar 13 07:56	22° \bowtie 41'07	3°35'24
minimum elong	2380 Mar 30 20:20	10° \cap 06'51	3°05'03	minimum elong	2381 Mar 13 09:25	22° \bowtie 37'23	3°35'17
min. Earth dist.	2380 Apr 03 02:42	7° \cap 17'08	0.59615 AU	min. Earth dist.	2381 Mar 16 08:21	19° \bowtie 40'24	0.61759 AU
morning rise	2380 Apr 06 21:34	4° \cap 34'19		morning rise	2381 Mar 19 19:48	16° \bowtie 44'18	
desc. node	2380 Apr 12 13:03	2° \cap 41'48		direct	2381 Mar 26 16:32	14° \bowtie 18'29	
direct	2380 Apr 13 08:14	2° \cap 40'03		desc. node	2381 Mar 30 10:06	14° \bowtie 57'42	
morning max el	2380 Apr 27 16:12	10° \cap 27'58	27°23'13	morning max el	2381 Apr 09 19:55	22° \bowtie 14'01	27°49'30
	2380 May 12 19:03	0° \bowtie			2381 Apr 16 16:02	0° \cap	
morning set	2380 May 28 20:38	29° \bowtie 22'00			2381 May 05 21:44	0° \bowtie	
	2380 May 29 03:55	0° \cap		morning set	2381 May 13 00:23	13° \bowtie 48'31	
asc. node	2380 Jun 01 11:14	7° \cap 02'17		max. Earth dist.	2381 May 18 21:06	26° \bowtie 10'46	1.32412 AU
max. Earth dist.	2380 Jun 04 11:05	13° \cap 34'41	1.32153 AU	asc. node	2381 May 19 08:16	27° \bowtie 11'20	
superior conj	2380 Jun 05 00:48	14° \cap 50'08	0°36'53	superior conj	2381 May 20 11:02	29° \bowtie 37'00	0°11'46
minimum elong	2380 Jun 04 23:14	14° \cap 41'33	0°36'33	minimum elong	2381 May 20 10:29	29° \bowtie 34'01	0°11'38
evening rise	2380 Jun 11 22:09	29° \cap 49'29		behind sun begin	2381 May 20 06:59	29° \bowtie 14'52	
	2380 Jun 12 00:09	0° \bowtie		behind sun end	2381 May 20 14:00	29° \bowtie 53'12	
	2380 Jun 28 11:48	0° Ω			2381 May 20 15:15	0° \cap	
desc. node	2380 Jul 09 12:18	13° Ω 44'49		evening rise	2381 May 27 09:39	14° \cap 41'15	
evening max el	2380 Jul 10 02:41	14° Ω 19'38	25°57'50		2381 Jun 04 01:37	0° \bowtie	
retrograde	2380 Jul 24 02:32	21° Ω 29'03		evening max el	2381 Jun 21 18:01	25° \bowtie 08'42	24°33'12
evening set	2380 Jul 30 08:52	19° Ω 54'50		desc. node	2381 Jun 26 09:21	28° \bowtie 57'30	

	2381 Jun 28 01:39	0°♊		evening rise	2382 May 11 21:22	29°♊29'34	
retrograde	2381 Jul 05 15:45	2°♊10'46			2382 May 12 03:09	0°♊	
evening set	2381 Jul 10 15:31	1°♊14'47			2382 May 29 08:09	0°♊	
	2381 Jul 13 10:17	30°♊		evening max el	2382 Jun 03 07:47	5°♊36'56	22°57'15
min. Earth dist.	2381 Jul 16 05:02	28°♊23'17	0.56898 AU	desc. node	2382 Jun 13 06:21	11°♊49'45	
inferior conj	2381 Jul 18 23:51	26°♊36'09	-4°-54'-27	retrograde	2382 Jun 16 16:38	12°♊16'36	
minimum elong	2381 Jul 18 20:50	26°♊41'01	4°54'14	evening set	2382 Jun 20 04:14	11°♊49'58	
morning rise	2381 Jul 27 05:52	22°♊31'46		min. Earth dist.	2382 Jun 27 16:44	8°♊28'48	0.55491 AU
direct	2381 Jul 29 21:05	22°♊12'42		inferior conj	2382 Jun 29 06:41	7°♊33'53	-4°-6'-45
morning max el	2381 Aug 08 05:41	26°♊34'10	19°26'44	minimum elong	2382 Jun 28 23:07	7°♊44'52	4°05'06
	2381 Aug 11 09:35	0°♊		morning rise	2382 Jul 07 20:54	3°♊41'44	
asc. node	2381 Aug 15 07:30	5°♊28'20		direct	2382 Jul 10 18:01	3°♊22'10	
morning set	2381 Aug 25 11:41	24°♊07'07		morning max el	2382 Jul 21 17:02	8°♊26'55	20°40'33
	2381 Aug 28 09:57	0°♊		asc. node	2382 Aug 02 04:32	24°♊08'26	
					2382 Aug 05 08:41	0°♊	
superior conj	2381 Sep 02 14:03	10°♊17'56	1°44'07	morning set	2382 Aug 09 18:09	8°♊46'25	
minimum elong	2381 Sep 02 15:06	10°♊23'05	1°44'05				
max. Earth dist.	2381 Sep 08 19:43	22°♊10'06	1.37869 AU	superior conj	2382 Aug 17 07:49	24°♊25'03	1°44'52
evening rise	2381 Sep 12 15:01	29°♊01'58		minimum elong	2382 Aug 17 07:14	24°♊22'08	1°44'51
	2381 Sep 13 04:12	0°♊			2382 Aug 20 02:11	0°♊	
desc. node	2381 Sep 22 08:39	15°♊19'27		max. Earth dist.	2382 Aug 22 02:55	4°♊00'20	1.35986 AU
	2381 Oct 02 03:25	0°♊		evening rise	2382 Aug 26 05:01	11°♊47'22	
evening max el	2381 Oct 18 07:26	19°♊56'03	25°08'04		2382 Sep 05 16:25	0°♊	
retrograde	2381 Oct 30 04:18	26°♊48'19		desc. node	2382 Sep 09 05:40	5°♊37'58	
evening set	2381 Nov 04 21:47	24°♊25'04			2382 Sep 27 08:21	0°♊	
min. Earth dist.	2381 Nov 09 10:23	19°♊21'30	0.67287 AU	evening max el	2382 Sep 30 19:28	3°♊35'48	26°14'23
inferior conj	2381 Nov 10 11:10	18°♊00'30	0°-16'-49	retrograde	2382 Oct 13 11:51	10°♊45'54	
minimum elong	2381 Nov 10 11:35	17°♊59'06	0°16'39	evening set	2382 Oct 19 19:16	8°♊10'09	
asc. node	2381 Nov 11 06:43	16°♊57'01		min. Earth dist.	2382 Oct 24 00:23	3°♊42'36	0.66486 AU
morning rise	2381 Nov 16 02:01	11°♊59'42		inferior conj	2382 Oct 25 12:23	1°♊51'37	-1°-14'-32
direct	2381 Nov 19 12:43	10°♊51'13		minimum elong	2382 Oct 25 14:22	1°♊45'30	1°13'44
morning max el	2381 Nov 26 20:30	14°♊59'50	19°37'57		2382 Oct 27 01:21	30°♊	
greatest brilliancy	2381 Dec 05 00:49	25°♊13'06	-0.6m	asc. node	2382 Oct 29 03:44	27°♊45'33	
	2381 Dec 08 08:19	0°♊		morning rise	2382 Oct 31 10:36	26°♊00'34	
desc. node	2381 Dec 19 07:57	16°♊38'13		direct	2382 Nov 03 11:03	25°♊08'37	
morning set	2381 Dec 21 21:22	20°♊35'04		morning max el	2382 Nov 10 05:48	28°♊53'51	18°46'24
	2381 Dec 27 22:50	0°♊			2382 Nov 11 06:53	0°♊	
max. Earth dist.	2382 Jan 03 08:40	10°♊05'03	1.44387 AU	morning set	2382 Dec 01 11:58	29°♊47'01	
					2382 Dec 01 15:15	0°♊	
superior conj	2382 Jan 07 15:30	16°♊55'36	-1°-48'-9	desc. node	2382 Dec 06 04:57	7°♊12'31	
minimum elong	2382 Jan 07 08:01	16°♊25'32	1°47'37	max. Earth dist.	2382 Dec 17 01:37	24°♊16'13	1.45093 AU
	2382 Jan 15 15:42	0°♊					
evening rise	2382 Jan 21 11:55	9°♊46'39		superior conj	2382 Dec 17 21:01	25°♊32'29	-1°-13'-14
	2382 Feb 02 18:19	0°♊		minimum elong	2382 Dec 17 12:33	24°♊59'10	1°12'17
asc. node	2382 Feb 07 06:01	6°♊11'35			2382 Dec 20 17:02	0°♊	
evening max el	2382 Feb 09 03:05	8°♊16'55	18°18'26	evening rise	2383 Jan 02 10:34	20°♊15'48	
retrograde	2382 Feb 15 14:16	11°♊46'05			2383 Jan 08 11:40	0°♊	
evening set	2382 Feb 18 12:10	11°♊00'36		evening max el	2383 Jan 23 14:10	21°♊42'56	18°47'46
inferior conj	2382 Feb 24 13:20	5°♊35'30	3°42'01	asc. node	2383 Jan 25 03:03	23°♊09'11	
minimum elong	2382 Feb 24 12:58	5°♊36'32	3°42'01	retrograde	2383 Jan 30 07:35	25°♊28'58	
min. Earth dist.	2382 Feb 26 23:26	2°♊52'34	0.63713 AU	evening set	2383 Feb 02 11:25	24°♊31'48	
	2382 Mar 01 21:05	30°♊		inferior conj	2383 Feb 08 05:19	18°♊49'00	3°31'34
morning rise	2382 Mar 02 12:00	29°♊28'53		minimum elong	2383 Feb 08 03:37	18°♊54'15	3°31'21
direct	2382 Mar 09 09:28	26°♊43'25		min. Earth dist.	2383 Feb 09 23:53	16°♊38'22	0.65331 AU
desc. node	2382 Mar 17 07:08	29°♊38'49		morning rise	2383 Feb 13 18:40	12°♊37'07	
	2382 Mar 17 19:15	0°♊		direct	2383 Feb 20 09:31	9°♊46'32	
morning max el	2382 Mar 23 04:07	4°♊39'05	27°38'33	desc. node	2383 Mar 04 04:09	16°♊09'01	
	2382 Apr 11 07:05	0°♊		morning max el	2383 Mar 05 13:50	17°♊31'03	26°54'45
morning set	2382 Apr 26 21:10	27°♊51'13			2383 Mar 16 00:44	0°♊	
	2382 Apr 27 22:56	0°♊			2383 Apr 04 04:31	0°♊	
max. Earth dist.	2382 May 02 00:47	8°♊23'42	1.33091 AU	morning set	2383 Apr 10 07:46	11°♊19'23	
				max. Earth dist.	2383 Apr 14 18:21	20°♊03'12	1.34218 AU
superior conj	2382 May 04 18:02	14°♊10'08	0°-15'-24				
minimum elong	2382 May 04 18:47	14°♊14'13	0°15'15	superior conj	2383 Apr 18 19:40	28°♊22'22	0°-43'-34
behind sun begin	2382 May 04 17:14	14°♊05'55		minimum elong	2383 Apr 18 21:53	28°♊33'57	0°43'08
behind sun end	2382 May 04 20:21	14°♊22'32			2383 Apr 19 14:21	0°♊	
asc. node	2382 May 06 05:18	17°♊19'38		asc. node	2383 Apr 23 02:20	7°♊22'31	

evening rise	2383 Apr 26 07:25	14°♄07'39		evening rise	2384 Apr 09 13:45	28°♄29'13	
	2383 May 04 10:30	0°♄			2384 Apr 10 07:37	0°♄	
evening max el	2383 May 16 03:42	16°♄16'20	21°24'59	evening max el	2384 Apr 27 10:43	27°♄29'21	20°06'50
retrograde	2383 May 28 07:01	22°♄12'51			2384 Apr 30 11:08	0°♄	
evening set	2383 May 30 16:25	21°♄59'48		retrograde	2384 May 07 21:15	2°♄32'48	
desc. node	2383 May 31 03:22	21°♄54'28		evening set	2384 May 09 21:44	2°♄22'17	
inferior conj	2383 Jun 09 01:28	18°♄00'16	-2°-32'-18		2384 May 16 02:49	30°♄	
minimum elong	2383 Jun 08 18:38	18°♄09'50	2°30'03	desc. node	2384 May 17 00:24	29°♄29'55	
min. Earth dist.	2383 Jun 09 04:38	17°♄55'50	0.54898 AU	inferior conj	2384 May 18 21:52	28°♄23'14	0°-33'-15
morning rise	2383 Jun 17 21:15	14°♄03'27		minimum elong	2384 May 18 20:19	28°♄25'32	0°32'42
direct	2383 Jun 21 04:30	13°♄39'44		min. Earth dist.	2384 May 20 17:37	27°♄18'04	0.55267 AU
morning max el	2383 Jul 03 17:08	19°♄35'39	22°12'24	morning rise	2384 May 27 16:26	24°♄03'06	
	2383 Jul 12 06:42	0°♄		direct	2384 May 31 17:21	23°♄27'36	
asc. node	2383 Jul 20 01:34	13°♄20'11			2384 Jun 14 04:43	0°♄	
morning set	2383 Jul 25 04:07	23°♄36'41		morning max el	2384 Jun 14 09:23	0°♄10'57	23°54'14
	2383 Jul 28 04:43	0°♄			2384 Jul 04 11:34	0°♄	
				asc. node	2384 Jul 05 22:37	2°♄55'08	
superior conj	2383 Aug 01 09:46	8°♄56'44	1°38'43	morning set	2384 Jul 08 15:45	8°♄32'08	
minimum elong	2383 Aug 01 08:04	8°♄47'46	1°38'36				
max. Earth dist.	2383 Aug 04 18:32	15°♄57'29	1.34438 AU	superior conj	2384 Jul 15 17:06	23°♄43'53	1°26'56
evening rise	2383 Aug 09 10:55	25°♄19'08		minimum elong	2384 Jul 15 14:48	23°♄31'30	1°26'39
	2383 Aug 11 21:45	0°♄		max. Earth dist.	2384 Jul 17 19:30	28°♄14'36	1.33288 AU
desc. node	2383 Aug 27 02:41	25°♄35'36			2384 Jul 18 15:19	0°♄	
	2383 Aug 30 03:20	0°♄		evening rise	2384 Jul 23 04:29	9°♄24'42	
evening max el	2383 Sep 13 07:54	17°♄09'31	27°02'27		2384 Aug 03 07:05	0°♄	
retrograde	2383 Sep 26 13:52	24°♄26'45		desc. node	2384 Aug 12 23:43	15°♄02'53	
evening set	2383 Oct 03 09:22	21°♄44'44			2384 Aug 25 09:09	0°♄	
min. Earth dist.	2383 Oct 07 07:35	17°♄53'52	0.65337 AU	evening max el	2384 Aug 25 19:20	0°♄24'26	27°25'09
inferior conj	2383 Oct 09 07:39	15°♄37'01	-2°-13'-33	retrograde	2384 Sep 08 09:43	7°♄41'52	
minimum elong	2383 Oct 09 11:15	15°♄26'45	2°12'11	evening set	2384 Sep 15 13:13	5°♄02'44	
morning rise	2383 Oct 15 14:48	9°♄58'52		min. Earth dist.	2384 Sep 19 05:43	1°♄46'31	0.63841 AU
asc. node	2383 Oct 16 00:46	9°♄47'45			2384 Sep 20 23:13	30°♄	
direct	2383 Oct 18 07:25	9°♄19'33		inferior conj	2384 Sep 21 18:24	29°♄10'12	-3°-11'-20
morning max el	2383 Oct 24 19:56	12°♄50'43	18°11'21	minimum elong	2384 Sep 21 23:22	28°♄57'22	3°09'44
	2383 Nov 05 22:37	0°♄		morning rise	2384 Sep 28 11:44	23°♄48'29	
morning set	2383 Nov 12 07:40	10°♄27'06		direct	2384 Sep 30 23:06	23°♄18'11	
desc. node	2383 Nov 23 01:59	27°♄54'52		asc. node	2384 Oct 01 21:49	23°♄22'42	
	2383 Nov 24 09:21	0°♄		morning max el	2384 Oct 07 12:10	26°♄43'44	17°53'31
					2384 Oct 10 08:18	0°♄	
superior conj	2383 Nov 27 00:24	4°♄10'18	0°-26'-16	morning set	2384 Oct 24 06:09	22°♄24'32	
minimum elong	2383 Nov 26 21:02	3°♄56'58	0°25'50		2384 Oct 28 16:26	0°♄	
max. Earth dist.	2383 Nov 29 20:51	8°♄40'23	1.45065 AU				
evening rise	2383 Dec 13 10:53	29°♄52'59		superior conj	2384 Nov 05 21:37	13°♄43'07	0°20'43
	2383 Dec 13 12:41	0°♄		minimum elong	2384 Nov 05 23:51	13°♄52'15	0°20'24
greatest brilliancy	2383 Dec 29 18:33	24°♄48'20	-0.7m	desc. node	2384 Nov 08 23:00	18°♄41'10	
	2384 Jan 02 12:26	0°♄		max. Earth dist.	2384 Nov 11 15:09	22°♄58'17	1.44309 AU
evening max el	2384 Jan 06 21:39	5°♄12'40	19°33'48		2384 Nov 16 01:53	0°♄	
asc. node	2384 Jan 12 00:04	8°♄59'09		evening rise	2384 Nov 21 20:55	8°♄59'41	
retrograde	2384 Jan 14 04:26	9°♄25'10			2384 Dec 05 19:23	0°♄	
evening set	2384 Jan 17 15:34	8°♄14'56		greatest brilliancy	2384 Dec 14 02:04	11°♄39'22	-0.5m
inferior conj	2384 Jan 23 04:44	2°♄16'44	3°08'23	evening max el	2384 Dec 19 23:58	18°♄43'16	20°34'27
minimum elong	2384 Jan 23 02:18	2°♄24'43	3°07'52	retrograde	2384 Dec 28 02:25	23°♄30'05	
min. Earth dist.	2384 Jan 24 08:33	0°♄45'38	0.66550 AU	asc. node	2384 Dec 28 21:06	23°♄26'42	
	2384 Jan 24 22:44	30°♄		evening set	2384 Dec 31 22:28	22°♄05'20	
morning rise	2384 Jan 28 12:18	26°♄02'14		inferior conj	2385 Jan 06 08:56	15°♄54'32	2°35'24
direct	2384 Feb 03 15:27	23°♄19'30		minimum elong	2385 Jan 06 06:21	16°♄03'22	2°34'38
	2384 Feb 15 07:24	0°♄		min. Earth dist.	2385 Jan 06 23:32	15°♄04'45	0.67355 AU
morning max el	2384 Feb 15 23:02	0°♄38'51	25°46'05	morning rise	2385 Jan 11 13:46	9°♄39'19	
desc. node	2384 Feb 19 01:12	3°♄57'53		direct	2385 Jan 17 02:32	7°♄13'27	
	2384 Mar 09 00:13	0°♄		morning max el	2385 Jan 28 07:32	13°♄54'36	24°22'26
morning set	2384 Mar 23 03:56	24°♄00'35		desc. node	2385 Feb 04 22:15	22°♄42'34	
	2384 Mar 26 08:59	0°♄			2385 Feb 10 09:28	0°♄	
max. Earth dist.	2384 Mar 27 00:22	1°♄13'21	1.35806 AU		2385 Mar 01 20:59	0°♄	
				morning set	2385 Mar 05 04:12	5°♄39'56	
superior conj	2384 Apr 01 13:23	12°♄06'20	-1°-11'-15	max. Earth dist.	2385 Mar 08 21:45	12°♄17'29	1.37769 AU
minimum elong	2384 Apr 01 16:58	12°♄24'21	1°10'40				
asc. node	2384 Apr 08 23:22	27°♄15'48		superior conj	2385 Mar 15 19:53	25°♄13'22	-1°-36'-19

minimum elong	2385 Mar 16 00:15	25° Υ 34'21	1°35'48	superior conj	2386 Feb 26 10:51	7° Υ 31'53	-1°-55'-43
	2385 Mar 18 06:55	0° Υ		minimum elong	2386 Feb 26 14:37	7° Υ 49'07	1°55'30
evening rise	2385 Mar 24 14:01	12° Υ 27'42		evening rise	2386 Mar 08 05:10	25° Υ 54'26	
asc. node	2385 Mar 26 20:26	16° Υ 54'58			2386 Mar 10 08:53	0° Υ	
	2385 Apr 03 01:49	0° Υ		asc. node	2386 Mar 13 17:29	6° Υ 13'47	
evening max el	2385 Apr 10 05:16	9° Υ 22'37	19°07'38	evening max el	2386 Mar 24 08:58	21° Υ 50'34	18°28'33
retrograde	2385 Apr 19 00:25	13° Υ 38'45		retrograde	2386 Mar 31 22:06	25° Υ 33'35	
evening set	2385 Apr 21 02:57	13° Υ 25'07		evening set	2386 Apr 03 06:11	25° Υ 13'18	
inferior conj	2385 Apr 29 09:14	9° Υ 12'42	1°16'10	inferior conj	2386 Apr 10 17:31	20° Υ 41'25	2°35'18
minimum elong	2385 Apr 29 12:07	9° Υ 07'46	1°15'12	minimum elong	2386 Apr 10 21:26	20° Υ 33'34	2°34'19
min. Earth dist.	2385 May 02 08:50	7° Υ 11'00	0.56516 AU	min. Earth dist.	2386 Apr 14 03:58	17° Υ 57'41	0.58389 AU
desc. node	2385 May 03 21:27	6° Υ 13'09		morning rise	2386 Apr 18 08:27	15° Υ 15'05	
morning rise	2385 May 07 17:06	4° Υ 18'08		desc. node	2386 Apr 20 18:30	14° Υ 15'15	
direct	2385 May 12 17:52	3° Υ 19'04		direct	2386 Apr 24 08:39	13° Υ 41'40	
morning max el	2385 May 26 23:54	10° Υ 37'59	25°32'31	morning max el	2386 May 08 17:59	21° Υ 22'54	26°51'31
	2385 Jun 10 17:41	0° Υ			2386 May 16 06:13	0° Υ	
asc. node	2385 Jun 22 19:41	22° Υ 46'49			2386 Jun 03 11:57	0° Υ	
morning set	2385 Jun 23 03:28	23° Υ 27'51		morning set	2386 Jun 07 13:33	8° Υ 16'54	
	2385 Jun 26 04:37	0° Υ		asc. node	2386 Jun 09 16:45	12° Υ 48'44	
superior conj	2385 Jun 30 03:38	8° Υ 39'45	1°10'29	superior conj	2386 Jun 14 15:24	23° Υ 36'43	0°50'07
minimum elong	2385 Jun 30 01:16	8° Υ 26'47	1°10'06	minimum elong	2386 Jun 14 13:26	23° Υ 25'50	0°49'44
max. Earth dist.	2385 Jul 01 03:34	10° Υ 50'45	1.32540 AU	max. Earth dist.	2386 Jun 14 15:13	23° Υ 35'40	1.32181 AU
evening rise	2385 Jul 07 06:20	23° Υ 54'17			2386 Jun 17 13:11	0° Υ	
	2385 Jul 10 06:37	0° Υ		evening rise	2386 Jun 21 13:38	8° Υ 38'01	
	2385 Jul 28 01:02	0° Υ			2386 Jul 02 16:32	0° Υ	
desc. node	2385 Jul 30 20:44	3° Υ 47'18		desc. node	2386 Jul 17 17:46	21° Υ 30'25	
evening max el	2385 Aug 08 03:17	13° Υ 07'18	27°16'55	evening max el	2386 Jul 21 05:20	25° Υ 06'42	26°35'35
retrograde	2385 Aug 21 22:56	20° Υ 22'29			2386 Jul 27 13:01	0° Υ	
evening set	2385 Aug 29 03:09	17° Υ 58'24		retrograde	2386 Aug 04 04:37	2° Υ 19'10	
min. Earth dist.	2385 Sep 01 17:24	15° Υ 09'31	0.62028 AU	evening set	2386 Aug 10 22:33	0° Υ 23'43	
inferior conj	2385 Sep 04 17:38	12° Υ 24'13	-4°-3'-41		2386 Aug 11 14:53	30° Υ 00	
minimum elong	2385 Sep 04 23:05	12° Υ 11'42	4°02'22	min. Earth dist.	2386 Aug 14 18:53	27° Υ 47'58	0.59993 AU
morning rise	2385 Sep 11 21:51	7° Υ 22'26		inferior conj	2386 Aug 18 01:52	25° Υ 09'54	-4°-43'-48
direct	2385 Sep 14 06:40	6° Υ 58'07		minimum elong	2386 Aug 18 06:00	25° Υ 01'35	4°43'15
asc. node	2385 Sep 18 18:53	8° Υ 29'09		morning rise	2386 Aug 25 16:49	20° Υ 30'36	
morning max el	2385 Sep 21 03:32	10° Υ 26'20	17°53'49	direct	2386 Aug 28 01:58	20° Υ 09'45	
	2385 Oct 04 02:05	0° Υ		morning max el	2386 Sep 04 14:51	23° Υ 50'02	18°13'27
morning set	2385 Oct 07 01:13	5° Υ 20'36		asc. node	2386 Sep 05 15:56	24° Υ 54'11	
					2386 Sep 09 15:05	0° Υ	
superior conj	2385 Oct 17 21:41	24° Υ 35'18	0°58'47	morning set	2386 Sep 20 11:10	18° Υ 59'15	
minimum elong	2385 Oct 18 02:08	24° Υ 54'22	0°58'13		2386 Sep 26 07:33	0° Υ	
	2385 Oct 21 02:08	0° Υ		superior conj	2386 Sep 29 22:55	6° Υ 41'23	1°25'00
max. Earth dist.	2385 Oct 25 05:09	6° Υ 50'17	1.42923 AU	minimum elong	2386 Sep 30 02:46	6° Υ 58'51	1°24'37
desc. node	2385 Oct 26 20:02	9° Υ 28'21		max. Earth dist.	2386 Oct 07 13:29	20° Υ 02'33	1.41087 AU
evening rise	2385 Nov 01 08:25	18° Υ 15'01		evening rise	2386 Oct 12 12:44	28° Υ 18'17	
	2385 Nov 09 00:08	0° Υ		desc. node	2386 Oct 13 17:04	0° Υ 13'06	
greatest brilliancy	2385 Nov 28 01:08	26° Υ 45'34	-0.4m		2386 Oct 13 13:49	0° Υ	
	2385 Nov 30 18:42	0° Υ			2386 Nov 02 15:11	0° Υ	
evening max el	2385 Dec 02 20:35	2° Υ 14'15	21°46'29		2386 Nov 09 17:57	9° Υ 17'30	-0.2m
retrograde	2385 Dec 11 23:30	7° Υ 40'04		greatest brilliancy	2386 Nov 15 12:24	15° Υ 47'39	23°05'20
asc. node	2385 Dec 15 18:10	6° Υ 22'06		evening max el	2386 Nov 25 18:07	21° Υ 52'00	
evening set	2385 Dec 16 06:17	5° Υ 59'28		retrograde	2386 Nov 30 13:21	19° Υ 54'42	
	2385 Dec 21 09:53	30° Υ 00		evening set	2386 Dec 02 15:11	17° Υ 50'33	
inferior conj	2385 Dec 21 15:46	29° Υ 39'34	1°54'35	asc. node	2386 Dec 05 23:20	13° Υ 29'40	1°07'25
minimum elong	2385 Dec 21 13:31	29° Υ 47'24	1°53'47	inferior conj	2386 Dec 05 21:50	13° Υ 34'50	1°06'49
min. Earth dist.	2385 Dec 21 18:37	29° Υ 29'42	0.67777 AU	minimum elong	2386 Dec 05 15:22	13° Υ 57'05	0.67847 AU
morning rise	2385 Dec 26 20:30	23° Υ 25'23		min. Earth dist.	2386 Dec 11 06:20	7° Υ 18'38	
direct	2385 Dec 31 18:03	21° Υ 21'07		morning rise	2386 Dec 15 13:15	5° Υ 37'11	
morning max el	2386 Jan 10 17:16	27° Υ 15'37	22°53'47	direct	2386 Dec 24 07:36	10° Υ 44'29	21°29'02
	2386 Jan 13 06:38	0° Υ		morning max el	2386 Dec 29 08:19	16° Υ 28'02	-0.4m
greatest brilliancy	2386 Jan 15 10:05	2° Υ 30'24	-0.3m	greatest brilliancy	2387 Jan 08 07:11	0° Υ	
desc. node	2386 Jan 22 19:17	12° Υ 06'55			2387 Jan 09 16:19	1° Υ 59'54	
	2386 Feb 04 01:02	0° Υ		desc. node	2387 Jan 24 19:19	25° Υ 00'01	
morning set	2386 Feb 14 02:17	16° Υ 01'06		morning set	2387 Jan 27 22:26	0° Υ	
max. Earth dist.	2386 Feb 18 17:05	23° Υ 48'10	1.39920 AU		2387 Jan 31 17:16	6° Υ 10'09	1.41981 AU
	2386 Feb 22 06:24	0° Υ		max. Earth dist.			

superior conj	2387 Feb 08 05:10	18° \approx 50'22	-2°-5'-15	desc. node	2387 Dec 27 13:18	22° \approx 13'03	
minimum elong	2387 Feb 08 05:59	18° \approx 53'53	2°05'16		2388 Jan 01 15:46	0° \approx	
	2387 Feb 14 12:42	0° \approx		morning set	2388 Jan 03 16:39	3° \approx 08'24	
evening rise	2387 Feb 19 07:32	8° \approx 41'10		max. Earth dist.	2388 Jan 14 01:20	19° \approx 26'26	1.43675 AU
asc. node	2387 Feb 28 14:32	25° \approx 05'44					
	2387 Mar 03 19:55	0° \approx		superior conj	2388 Jan 19 22:04	28° \approx 58'03	-1°-59'-48
evening max el	2387 Mar 07 18:38	4° \approx 45'15	18°09'27	minimum elong	2388 Jan 19 17:33	28° \approx 39'26	1°59'36
retrograde	2387 Mar 14 13:18	8° \approx 11'17			2388 Jan 20 13:06	0° \approx	
evening set	2387 Mar 17 03:04	7° \approx 42'04		evening rise	2388 Feb 01 16:45	20° \approx 38'38	
inferior conj	2387 Mar 23 22:14	2° \approx 48'58	3°21'30		2388 Feb 07 02:20	0° \approx	
minimum elong	2387 Mar 24 00:51	2° \approx 42'54	3°21'07	asc. node	2388 Feb 15 11:33	13° \approx 21'48	
	2387 Mar 26 23:18	30° \approx		evening max el	2388 Feb 19 07:00	17° \approx 57'10	18°09'47
min. Earth dist.	2387 Mar 27 05:07	29° \approx 47'05	0.60537 AU	retrograde	2388 Feb 25 18:04	21° \approx 21'11	
morning rise	2387 Mar 30 19:21	27° \approx 00'48		evening set	2388 Feb 28 13:04	20° \approx 41'46	
direct	2387 Apr 06 11:38	24° \approx 51'38		inferior conj	2388 Mar 05 19:46	15° \approx 27'49	3°40'37
desc. node	2387 Apr 07 15:31	24° \approx 55'23		minimum elong	2388 Mar 05 20:25	15° \approx 26'05	3°40'35
	2387 Apr 17 18:11	0° \approx		min. Earth dist.	2388 Mar 08 14:29	12° \approx 32'30	0.62629 AU
morning max el	2387 Apr 20 18:05	2° \approx 44'15	27°38'51	morning rise	2388 Mar 12 01:35	9° \approx 26'27	
	2387 May 10 16:42	0° \approx		direct	2388 Mar 18 23:53	6° \approx 50'27	
morning set	2387 May 22 20:11	22° \approx 53'26		desc. node	2388 Mar 24 12:32	8° \approx 16'38	
	2387 May 26 05:06	0° \approx		morning max el	2388 Apr 01 23:44	14° \approx 46'30	27°49'11
asc. node	2387 May 27 13:48	2° \approx 56'22			2388 Apr 14 08:31	0° \approx	
max. Earth dist.	2387 May 29 02:47	6° \approx 17'58	1.32215 AU		2388 May 02 05:57	0° \approx	
				morning set	2388 May 05 21:18	7° \approx 10'35	
superior conj	2387 May 30 02:43	8° \approx 29'02	0°26'32	max. Earth dist.	2388 May 11 10:32	18° \approx 45'17	1.32650 AU
minimum elong	2387 May 30 01:32	8° \approx 22'36	0°26'17				
evening rise	2387 Jun 06 00:09	23° \approx 28'48		superior conj	2388 May 13 11:49	23° \approx 10'54	0°00'26
	2387 Jun 09 03:32	0° \approx		minimum elong	2388 May 13 11:48	23° \approx 10'48	0°00'26
	2387 Jun 27 07:00	0° \approx		behind sun begin	2388 May 13 06:37	22° \approx 42'41	
evening max el	2387 Jul 03 00:19	6° \approx 19'39	25°24'11	behind sun end	2388 May 13 16:59	23° \approx 38'56	
desc. node	2387 Jul 04 14:47	7° \approx 47'16		asc. node	2388 May 13 10:50	23° \approx 05'31	
retrograde	2387 Jul 17 00:31	13° \approx 27'06			2388 May 16 15:05	0° \approx	
evening set	2387 Jul 22 18:55	12° \approx 09'41		evening rise	2388 May 20 11:59	8° \approx 20'04	
min. Earth dist.	2387 Jul 27 12:20	9° \approx 28'41	0.57955 AU		2388 May 31 19:17	0° \approx	
inferior conj	2387 Jul 30 15:42	7° \approx 17'51	-5°00'-46	evening max el	2388 Jun 13 14:24	16° \approx 57'18	23°52'53
minimum elong	2387 Jul 30 15:52	7° \approx 17'33	5°00'48	desc. node	2388 Jun 20 11:48	22° \approx 05'07	
morning rise	2387 Aug 07 16:28	3° \approx 01'18		retrograde	2388 Jun 27 08:11	23° \approx 51'23	
direct	2387 Aug 10 04:47	2° \approx 41'59		evening set	2388 Jul 01 16:29	23° \approx 09'47	
morning max el	2387 Aug 18 18:51	6° \approx 45'11	18°53'45	min. Earth dist.	2388 Jul 08 00:57	20° \approx 07'17	0.56222 AU
asc. node	2387 Aug 23 12:59	12° \approx 02'23		inferior conj	2388 Jul 10 09:20	18° \approx 41'22	-4°-40'-19
	2387 Sep 02 16:59	0° \approx		minimum elong	2388 Jul 10 04:00	18° \approx 49'32	4°39'35
morning set	2387 Sep 04 07:33	3° \approx 08'23		morning rise	2388 Jul 18 18:56	14° \approx 43'30	
				direct	2388 Jul 21 12:38	14° \approx 24'18	
superior conj	2387 Sep 12 19:54	19° \approx 45'56	1°39'56	morning max el	2388 Jul 31 12:44	19° \approx 02'45	19°55'34
minimum elong	2387 Sep 12 22:02	19° \approx 56'04	1°39'49	asc. node	2388 Aug 09 10:02	0° \approx 40'14	
	2387 Sep 18 07:54	0° \approx			2388 Aug 09 00:12	0° \approx	
max. Earth dist.	2387 Sep 19 17:51	2° \approx 32'38	1.39044 AU	morning set	2388 Aug 18 11:09	17° \approx 39'31	
evening rise	2387 Sep 23 16:45	9° \approx 27'36			2388 Aug 24 12:43	0° \approx	
desc. node	2387 Sep 30 14:04	20° \approx 51'28					
	2387 Oct 06 11:20	0° \approx		superior conj	2388 Aug 26 07:25	3° \approx 34'28	1°45'22
evening max el	2387 Oct 29 01:21	29° \approx 24'52	24°24'54	minimum elong	2388 Aug 26 07:44	3° \approx 36'02	1°45'22
	2387 Oct 29 15:46	0° \approx		max. Earth dist.	2388 Aug 31 22:53	14° \approx 33'11	1.37041 AU
retrograde	2387 Nov 09 08:54	6° \approx 01'51		evening rise	2388 Sep 04 19:36	21° \approx 41'24	
evening set	2387 Nov 14 18:02	3° \approx 47'52			2388 Sep 09 13:12	0° \approx	
	2387 Nov 18 06:02	30° \approx		desc. node	2388 Sep 16 11:06	11° \approx 19'18	
min. Earth dist.	2387 Nov 19 11:20	28° \approx 23'59	0.67587 AU		2388 Sep 29 08:32	0° \approx	
asc. node	2387 Nov 19 12:13	28° \approx 21'03		evening max el	2388 Oct 10 13:30	13° \approx 05'33	25°38'01
inferior conj	2387 Nov 20 05:50	27° \approx 22'00	0°15'07	retrograde	2388 Oct 22 19:07	20° \approx 05'53	
minimum elong	2387 Nov 20 05:28	27° \approx 23'15	0°14'58	evening set	2388 Oct 28 18:41	17° \approx 36'55	
transit middle	2387 Nov 20 05:28	27° \approx 23'15	0°14'58	min. Earth dist.	2388 Nov 02 04:08	12° \approx 48'32	0.66995 AU
transit begin	2387 Nov 20 04:24	27° \approx 26'49		inferior conj	2388 Nov 03 09:33	11° \approx 14'36	0°-41'00
transit end	2387 Nov 20 06:32	27° \approx 19'40		minimum elong	2388 Nov 03 10:36	11° \approx 11'12	0°40'34
morning rise	2387 Nov 25 17:14	21° \approx 16'36		asc. node	2388 Nov 05 09:14	8° \approx 46'50	
direct	2387 Nov 29 10:52	19° \approx 56'43		morning rise	2388 Nov 09 03:18	5° \approx 17'35	
morning max el	2387 Dec 07 05:13	24° \approx 23'35	20°14'32	direct	2388 Nov 12 09:30	4° \approx 16'25	
	2387 Dec 12 01:30	0° \approx		morning max el	2388 Nov 19 10:40	8° \approx 13'23	19°14'03
greatest brilliancy	2387 Dec 13 21:10	2° \approx 22'54	-0.6m	greatest brilliancy	2388 Nov 29 16:27	21° \approx 35'55	-0.7m

	2388 Dec 05 05:43	0°♊		morning rise	2389 Oct 24 10:21	19°♊17'48	
morning set	2388 Dec 12 18:30	11°♊39'30		direct	2389 Oct 27 07:13	18°♊31'41	
desc. node	2388 Dec 13 10:20	12°♊41'02		morning max el	2389 Nov 02 22:25	22°♊09'30	18°29'27
	2388 Dec 24 12:23	0°♊			2389 Nov 09 04:05	0°♊	
max. Earth dist.	2388 Dec 26 16:20	3°♊24'34	1.44782 AU	morning set	2389 Nov 22 21:08	21°♊28'23	
					2389 Nov 28 05:13	0°♊	
superior conj	2388 Dec 29 13:41	7°♊58'55	-1°-35'-26	desc. node	2389 Nov 30 07:24	3°♊19'18	
minimum elong	2388 Dec 29 04:55	7°♊24'11	1°34'38				
	2389 Jan 12 04:22	0°♊		superior conj	2389 Dec 08 15:31	16°♊28'12	0°-54'-5
evening rise	2389 Jan 13 04:48	1°♊40'46		minimum elong	2389 Dec 08 08:43	16°♊01'28	0°53'14
	2389 Jan 31 13:56	0°♊		max. Earth dist.	2389 Dec 09 10:59	17°♊44'38	1.45173 AU
asc. node	2389 Feb 01 08:34	0°♊51'27			2389 Dec 17 06:22	0°♊	
evening max el	2389 Feb 01 19:13	1°♊19'10	18°28'47	evening rise	2389 Dec 24 17:34	11°♊46'34	
retrograde	2389 Feb 08 07:59	4°♊54'04		greatest brilliancy	2390 Jan 05 05:46	29°♊53'00	-0.8m
evening set	2389 Feb 11 08:23	4°♊03'34			2390 Jan 05 07:36	0°♊	
	2389 Feb 15 23:00	30°♊		evening max el	2390 Jan 16 04:55	14°♊46'39	19°05'23
inferior conj	2389 Feb 17 06:04	28°♊30'25	3°39'22	asc. node	2390 Jan 19 05:34	17°♊21'59	
minimum elong	2389 Feb 17 05:03	28°♊33'23	3°39'18	retrograde	2390 Jan 23 03:17	18°♊43'12	
min. Earth dist.	2389 Feb 19 09:26	26°♊00'16	0.64449 AU	evening set	2390 Jan 26 10:00	17°♊40'38	
morning rise	2389 Feb 23 00:20	22°♊21'19		inferior conj	2390 Feb 01 01:35	11°♊50'41	3°23'06
direct	2389 Mar 01 19:42	19°♊32'15		minimum elong	2390 Jan 31 23:29	11°♊57'19	3°22'45
desc. node	2389 Mar 11 09:33	23°♊47'50		min. Earth dist.	2390 Feb 02 13:37	9°♊56'29	0.65893 AU
morning max el	2389 Mar 15 08:52	27°♊23'54	27°23'38	morning rise	2390 Feb 06 12:03	5°♊37'15	
	2389 Mar 17 20:03	0°♊		direct	2390 Feb 12 22:12	2°♊48'53	
	2389 Apr 08 00:51	0°♊		morning max el	2390 Feb 25 18:50	10°♊24'53	26°28'09
morning set	2389 Apr 19 14:11	20°♊59'30		desc. node	2390 Feb 26 06:35	10°♊54'47	
	2389 Apr 24 01:43	0°♊			2390 Mar 13 07:27	0°♊	
max. Earth dist.	2389 Apr 24 10:33	0°♊45'35	1.33516 AU		2390 Mar 31 13:31	0°♊	
				morning set	2390 Apr 02 19:17	4°♊09'41	
superior conj	2389 Apr 27 16:48	7°♊35'39	0°-27'-18	max. Earth dist.	2390 Apr 06 23:29	12°♊12'28	1.34835 AU
minimum elong	2389 Apr 27 18:11	7°♊42'57	0°27'01				
asc. node	2389 Apr 30 07:52	13°♊11'53		superior conj	2390 Apr 11 15:25	21°♊36'44	0°-55'-28
evening rise	2389 May 04 23:15	23°♊04'51		minimum elong	2390 Apr 11 18:15	21°♊51'19	0°54'57
	2389 May 08 07:56	0°♊			2390 Apr 15 16:19	0°♊	
evening max el	2389 May 26 05:50	27°♊26'08	22°16'46	asc. node	2390 Apr 17 04:55	3°♊11'17	
	2389 May 29 04:47	0°♊		evening rise	2390 Apr 19 08:01	7°♊36'53	
desc. node	2389 Jun 07 08:49	3°♊48'18			2390 May 01 12:54	0°♊	
retrograde	2389 Jun 08 03:45	3°♊49'44		evening max el	2390 May 08 06:02	8°♊17'40	20°49'38
evening set	2389 Jun 11 02:33	3°♊30'29		retrograde	2390 May 19 17:02	13°♊52'37	
	2389 Jun 19 07:17	30°♊		evening set	2390 May 21 20:29	13°♊41'38	
min. Earth dist.	2389 Jun 19 12:07	29°♊53'12	0.55128 AU	desc. node	2390 May 25 05:49	12°♊43'35	
inferior conj	2389 Jun 20 09:41	29°♊22'49	-3°-31'-41	inferior conj	2390 May 31 03:21	9°♊43'59	-1°-42'-48
minimum elong	2389 Jun 20 01:39	29°♊34'09	3°29'29	minimum elong	2390 May 30 22:31	9°♊50'52	1°41'05
morning rise	2389 Jun 29 02:51	25°♊31'33		min. Earth dist.	2390 Jun 01 00:29	9°♊13'52	0.54932 AU
direct	2389 Jul 02 03:44	25°♊10'48		morning rise	2390 Jun 08 23:43	5°♊39'17	
	2389 Jul 13 03:02	0°♊		direct	2390 Jun 12 13:06	5°♊12'01	
morning max el	2389 Jul 13 19:06	0°♊36'12	21°17'47	morning max el	2390 Jun 25 15:28	11°♊29'16	22°55'12
asc. node	2389 Jul 27 07:04	19°♊34'51			2390 Jul 09 08:32	0°♊	
	2389 Aug 01 15:17	0°♊		asc. node	2390 Jul 14 04:09	8°♊57'22	
morning set	2389 Aug 02 19:23	2°♊24'27		morning set	2390 Jul 18 06:16	17°♊17'34	
					2390 Jul 24 05:06	0°♊	
superior conj	2389 Aug 10 05:06	17°♊53'22	1°43'01	superior conj	2390 Jul 25 09:41	2°♊32'47	1°34'21
minimum elong	2389 Aug 10 03:59	17°♊47'35	1°42'58	minimum elong	2390 Jul 25 07:40	2°♊22'01	1°34'10
max. Earth dist.	2389 Aug 14 09:34	26°♊24'55	1.35283 AU	max. Earth dist.	2390 Jul 28 05:03	8°♊28'44	1.33898 AU
	2389 Aug 16 05:07	0°♊		evening rise	2390 Aug 02 04:16	18°♊35'05	
evening rise	2389 Aug 18 16:56	4°♊47'48			2390 Aug 08 05:05	0°♊	
	2389 Sep 02 08:45	0°♊		desc. node	2390 Aug 21 05:10	21°♊15'51	
desc. node	2389 Sep 03 08:09	1°♊29'58			2390 Aug 27 13:44	0°♊	
evening max el	2389 Sep 23 01:42	26°♊43'28	26°37'21	evening max el	2390 Sep 05 13:41	10°♊09'39	27°15'27
	2389 Sep 26 19:45	0°♊		retrograde	2390 Sep 18 23:53	17°♊28'22	
retrograde	2389 Oct 06 00:14	3°♊57'23		evening set	2390 Sep 25 23:29	14°♊45'56	
evening set	2389 Oct 12 13:19	1°♊17'47		min. Earth dist.	2390 Sep 29 18:54	11°♊10'28	0.64743 AU
	2389 Oct 13 23:43	30°♊		inferior conj	2390 Oct 02 00:27	8°♊44'01	-2°-38'-28
min. Earth dist.	2389 Oct 16 15:22	27°♊06'11	0.66049 AU	minimum elong	2390 Oct 02 04:41	8°♊32'23	2°36'56
inferior conj	2389 Oct 18 08:30	25°♊03'29	-1°-39'-32	morning rise	2390 Oct 08 11:51	3°♊12'42	
minimum elong	2389 Oct 18 11:10	24°♊55'29	1°38'28	asc. node	2390 Oct 10 03:19	2°♊42'25	
asc. node	2389 Oct 23 06:15	20°♊02'14					

direct	2390 Oct 11 01:49	2°♄37'47			2391 Sep 04 22:09	30°♄♂	
morning max el	2390 Oct 17 13:51	6°♄05'40	18°01'35	evening set	2391 Sep 08 22:00	27°♄55'57	
	2390 Nov 02 13:59	0°♄		min. Earth dist.	2391 Sep 12 12:55	24°♄52'23	0.63099 AU
morning set	2390 Nov 04 04:51	2°♄42'57		inferior conj	2391 Sep 15 06:45	22°♄10'33	-3°-34'-35
desc. node	2390 Nov 17 04:27	24°♄03'41		minimum elong	2391 Sep 15 12:05	21°♄57'25	3°33'01
				morning rise	2391 Sep 22 04:40	16°♄56'48	
superior conj	2390 Nov 18 00:34	25°♄24'20	0°-5'-40	direct	2391 Sep 24 14:29	16°♄29'29	
minimum elong	2390 Nov 17 23:52	25°♄21'34	0°05'35	asc. node	2391 Sep 27 00:24	16°♄57'31	
behind sun begin	2390 Nov 17 13:53	24°♄41'34		morning max el	2391 Oct 01 06:07	19°♄55'33	17°51'18
behind sun end	2390 Nov 18 09:51	26°♄01'30			2391 Oct 08 17:20	0°♄	
	2390 Nov 20 21:46	0°♄		morning set	2391 Oct 17 12:57	15°♄08'06	
max. Earth dist.	2390 Nov 22 05:44	2°♄06'27	1.44823 AU		2391 Oct 26 02:29	0°♄	
evening rise	2390 Dec 04 10:14	21°♄06'19					
	2390 Dec 10 05:08	0°♄		superior conj	2391 Oct 29 08:57	5°♄30'36	0°38'15
greatest brilliancy	2390 Dec 23 09:48	19°♄34'20	-0.6m	minimum elong	2391 Oct 29 12:34	5°♄45'40	0°37'44
evening max el	2390 Dec 30 10:15	28°♄16'22	19°58'00	desc. node	2391 Nov 04 01:29	14°♄51'05	
	2391 Jan 01 06:01	0°♄		max. Earth dist.	2391 Nov 04 22:09	16°♄14'23	1.43786 AU
asc. node	2391 Jan 06 02:36	2°♄38'23		evening rise	2391 Nov 13 18:47	0°♄11'49	
retrograde	2391 Jan 07 00:57	2°♄43'10			2391 Nov 13 15:44	0°♄	
evening set	2391 Jan 10 15:33	1°♄27'08			2391 Dec 03 22:08	0°♄	
	2391 Jan 12 08:14	30°♄♂		greatest brilliancy	2391 Dec 08 02:54	5°♄36'16	-0.5m
inferior conj	2391 Jan 16 03:20	25°♄23'10	2°55'27	evening max el	2391 Dec 13 10:14	11°♄47'46	21°04'00
minimum elong	2391 Jan 16 00:46	25°♄31'45	2°54'49	retrograde	2391 Dec 21 22:42	16°♄50'42	
min. Earth dist.	2391 Jan 17 01:23	24°♄09'25	0.66935 AU	asc. node	2391 Dec 23 23:39	16°♄27'38	
morning rise	2391 Jan 21 09:21	19°♄07'52		evening set	2391 Dec 25 23:02	15°♄19'34	
direct	2391 Jan 27 06:32	16°♄31'19		inferior conj	2391 Dec 31 08:56	9°♄04'42	2°18'57
morning max el	2391 Feb 08 03:40	23°♄36'45	25°11'42	minimum elong	2391 Dec 31 06:25	9°♄13'20	2°18'08
desc. node	2391 Feb 13 03:38	29°♄09'36		min. Earth dist.	2391 Dec 31 18:28	8°♄31'52	0.67584 AU
	2391 Feb 13 20:20	0°♄		morning rise	2392 Jan 05 13:24	2°♄49'36	
	2391 Mar 06 16:43	0°♄		direct	2392 Jan 10 19:48	0°♄32'17	
morning set	2391 Mar 16 07:43	16°♄26'27		morning max el	2392 Jan 21 12:07	6°♄54'07	23°44'37
max. Earth dist.	2391 Mar 20 00:49	23°♄14'16	1.36597 AU	desc. node	2392 Jan 31 00:41	18°♄12'58	
	2391 Mar 23 14:15	0°♄			2392 Feb 08 11:14	0°♄	
				morning set	2392 Feb 25 21:29	27°♄33'49	
superior conj	2391 Mar 26 04:47	5°♄05'37	-1°-22'-22		2392 Feb 27 07:33	0°♄	
minimum elong	2391 Mar 26 08:48	5°♄25'29	1°21'47	max. Earth dist.	2392 Feb 29 19:55	4°♄23'41	1.38682 AU
evening rise	2391 Apr 03 12:03	21°♄48'50					
asc. node	2391 Apr 04 01:57	22°♄58'45		superior conj	2392 Mar 08 05:14	17°♄53'25	-1°-45'-28
	2391 Apr 07 15:31	0°♄		minimum elong	2392 Mar 08 09:34	18°♄13'50	1°45'04
evening max el	2391 Apr 20 18:06	19°♄47'32	19°39'17		2392 Mar 14 12:20	0°♄	
retrograde	2391 Apr 30 11:16	24°♄29'21		evening rise	2392 Mar 17 08:48	5°♄34'16	
evening set	2391 May 02 11:37	24°♄18'08		asc. node	2392 Mar 20 22:59	12°♄29'36	
inferior conj	2391 May 11 04:48	20°♄15'03	0°15'59		2392 Mar 31 21:22	0°♄	
minimum elong	2391 May 11 05:30	20°♄13'57	0°15'44	evening max el	2392 Apr 02 16:58	1°♄56'26	18°48'32
transit middle	2391 May 11 05:30	20°♄13'57	0°15'44	retrograde	2392 Apr 10 21:39	5°♄55'57	
transit begin	2391 May 11 04:50	20°♄15'00		evening set	2392 Apr 13 02:36	5°♄39'43	
transit end	2391 May 11 06:10	20°♄12'54		inferior conj	2392 Apr 21 00:39	1°♄19'37	1°53'56
desc. node	2391 May 12 02:51	19°♄40'16		minimum elong	2392 Apr 21 04:22	1°♄12'49	1°52'49
min. Earth dist.	2391 May 13 14:37	18°♄44'26	0.55698 AU		2392 Apr 22 20:05	30°♄♂	
morning rise	2391 May 19 19:49	15°♄40'21		min. Earth dist.	2392 Apr 24 07:05	28°♄57'31	0.57263 AU
direct	2391 May 24 06:26	14°♄56'14		desc. node	2392 Apr 27 23:53	26°♄41'29	
morning max el	2391 Jun 07 06:13	21°♄57'21	24°37'24	morning rise	2392 Apr 29 01:47	26°♄10'51	
	2391 Jun 14 07:29	0°♄		direct	2392 May 04 13:25	24°♄57'49	
asc. node	2391 Jul 01 01:14	28°♄39'56			2392 May 16 03:29	0°♄	
	2391 Jul 01 16:41	0°♄		morning max el	2392 May 18 21:24	2°♄27'25	26°09'21
morning set	2391 Jul 02 18:08	2°♄13'24			2392 Jun 07 12:14	0°♄	
				morning set	2392 Jun 16 05:18	17°♄06'22	
superior conj	2391 Jul 09 18:38	17°♄24'28	1°20'29	asc. node	2392 Jun 16 22:17	18°♄36'12	
minimum elong	2391 Jul 09 16:15	17°♄11'30	1°20'09		2392 Jun 22 04:13	0°♄	
max. Earth dist.	2391 Jul 11 09:10	20°♄53'22	1.32917 AU				
	2391 Jul 15 16:16	0°♄		superior conj	2392 Jun 23 05:52	2°♄21'04	1°02'17
evening rise	2391 Jul 17 01:44	2°♄52'03		minimum elong	2392 Jun 23 03:36	2°♄08'40	1°01'53
	2391 Aug 01 00:35	0°♄		max. Earth dist.	2392 Jun 23 19:11	3°♄34'20	1.32338 AU
desc. node	2391 Aug 08 02:11	10°♄26'47		evening rise	2392 Jun 30 06:10	17°♄28'31	
evening max el	2391 Aug 19 00:00	23°♄13'01	27°25'44		2392 Jul 06 13:18	0°♄	
	2391 Aug 29 09:35	0°♄		desc. node	2392 Jul 24 23:12	28°♄47'41	
retrograde	2391 Sep 01 17:20	0°♄30'10			2392 Jul 25 23:11	0°♄	

evening max el	2392 Jul 31 05:59	5° \cap 39'24	27°03'33	evening rise	2393 Jun 14 15:06	2° \ominus 16'35	
retrograde	2392 Aug 14 03:23	12° \cap 52'47			2393 Jun 29 14:08	0° \cap	
evening set	2392 Aug 21 04:39	10° \cap 39'43		desc. node	2393 Jul 11 20:12	15° \cap 57'53	
min. Earth dist.	2392 Aug 24 20:17	7° \cap 58'16	0.61176 AU	evening max el	2393 Jul 13 05:04	17° \cap 19'03	26°08'28
inferior conj	2392 Aug 28 00:05	5° \cap 14'07	-4°-22'-46	retrograde	2393 Jul 27 04:45	24° \cap 29'17	
minimum elong	2392 Aug 28 05:16	5° \cap 02'51	4°21'45	evening set	2393 Aug 02 14:37	22° \cap 49'15	
morning rise	2392 Sep 04 08:53	0° \cap 21'17		min. Earth dist.	2393 Aug 06 17:43	20° \cap 13'51	0.59114 AU
	2392 Sep 06 03:45	30° \cap 00'		inferior conj	2393 Aug 10 00:51	17° \cap 45'01	-4°-54'-37
direct	2392 Sep 06 17:32	29° \cap 58'38		minimum elong	2393 Aug 10 03:38	17° \cap 39'44	4°54'25
	2392 Sep 07 07:15	0° \cap		morning rise	2393 Aug 17 20:06	13° \cap 15'36	
asc. node	2392 Sep 12 21:29	2° \cap 39'11		direct	2393 Aug 20 06:29	12° \cap 55'27	
morning max el	2392 Sep 13 20:05	3° \cap 30'55	17°59'41	morning max el	2393 Aug 28 04:38	16° \cap 43'37	18°28'03
morning set	2392 Sep 29 15:02	28° \cap 24'33		asc. node	2393 Aug 30 18:32	19° \cap 33'02	
	2392 Sep 30 11:44	0° \cap			2393 Sep 06 15:22	0° \cap	
				morning set	2393 Sep 13 05:53	12° \cap 17'46	
superior conj	2392 Oct 09 20:15	16° \cap 55'41	1°11'21	superior conj	2393 Sep 22 06:37	29° \cap 29'00	1°32'36
minimum elong	2392 Oct 10 00:42	17° \cap 15'09	1°10'50	minimum elong	2393 Sep 22 09:49	29° \cap 43'44	1°32'21
max. Earth dist.	2392 Oct 17 10:11	29° \cap 52'27	1.42190 AU		2393 Sep 22 13:19	0° \cap	
	2392 Oct 17 12:01	0° \cap		max. Earth dist.	2393 Sep 29 16:55	12° \cap 48'20	1.40232 AU
desc. node	2392 Oct 20 22:30	5° \cap 37'44		evening rise	2393 Oct 04 02:10	20° \cap 14'54	
evening rise	2392 Oct 23 12:03	9° \cap 44'24		desc. node	2393 Oct 07 19:31	26° \cap 20'20	
	2392 Nov 05 19:06	0° \cap			2393 Oct 10 02:41	0° \cap	
greatest brilliancy	2392 Nov 20 11:19	20° \cap 01'14	-0.3m		2393 Oct 31 00:41	0° \cap	
evening max el	2392 Nov 25 04:46	25° \cap 20'07	22°19'31	evening max el	2393 Nov 07 19:03	8° \cap 54'53	23°39'22
	2392 Dec 01 01:18	0° \cap		retrograde	2393 Nov 18 11:49	15° \cap 13'50	
retrograde	2392 Dec 04 18:45	1° \cap 01'58		evening set	2393 Nov 23 12:58	13° \cap 09'03	
	2392 Dec 08 05:04	30° \cap 00'		asc. node	2393 Nov 26 17:44	9° \cap 42'52	
evening set	2392 Dec 09 06:43	29° \cap 14'17		inferior conj	2393 Nov 28 23:34	6° \cap 43'07	0°45'48
asc. node	2392 Dec 09 20:42	28° \cap 44'11		minimum elong	2393 Nov 28 22:31	6° \cap 46'44	0°45'21
inferior conj	2392 Dec 14 16:16	22° \cap 51'56	1°35'17	min. Earth dist.	2393 Nov 28 11:03	7° \cap 25'51	0.67784 AU
minimum elong	2392 Dec 14 14:17	22° \cap 58'49	1°34'32	morning rise	2393 Dec 04 08:14	0° \cap 34'25	
min. Earth dist.	2392 Dec 14 14:27	22° \cap 58'15	0.67859 AU		2393 Dec 05 04:20	30° \cap 00'	
morning rise	2392 Dec 19 21:43	16° \cap 39'02		direct	2393 Dec 08 09:16	29° \cap 02'36	
direct	2392 Dec 24 13:01	14° \cap 44'24			2393 Dec 11 19:45	0° \cap	
morning max el	2393 Jan 02 23:17	20° \cap 17'39	22°16'45	morning max el	2393 Dec 16 16:38	3° \cap 51'13	20°55'48
greatest brilliancy	2393 Jan 07 13:17	25° \cap 25'26	-0.3m	greatest brilliancy	2393 Dec 22 06:51	10° \cap 20'11	-0.5m
	2393 Jan 11 04:02	0° \cap		desc. node	2394 Jan 03 18:45	27° \cap 53'00	
desc. node	2393 Jan 16 21:43	7° \cap 50'38			2394 Jan 05 04:54	0° \cap	
	2393 Jan 31 17:06	0° \cap		morning set	2394 Jan 15 13:32	15° \cap 49'33	
morning set	2393 Feb 05 07:01	7° \cap 18'42		max. Earth dist.	2394 Jan 23 20:56	29° \cap 03'51	1.42763 AU
max. Earth dist.	2393 Feb 10 17:04	16° \cap 16'15	1.40833 AU		2394 Jan 24 10:43	0° \cap	
				superior conj	2394 Jan 30 19:58	10° \cap 37'03	-2°-5'-4
superior conj	2393 Feb 18 12:05	29° \cap 48'14	-2°-1'-16	minimum elong	2394 Jan 30 18:42	10° \cap 31'43	2°05'04
minimum elong	2393 Feb 18 14:55	0° \cap 00'58	2°01'10		2394 Feb 10 22:23	0° \cap	
	2393 Feb 18 14:43	0° \cap		evening rise	2394 Feb 11 14:35	1° \cap 12'22	
evening rise	2393 Feb 28 18:58	18° \cap 45'17		asc. node	2394 Feb 22 17:02	20° \cap 15'57	
	2393 Mar 06 21:41	0° \cap		evening max el	2394 Feb 28 10:43	27° \cap 39'47	18°07'13
asc. node	2393 Mar 07 20:01	1° \cap 38'02			2394 Mar 03 09:44	0° \cap	
evening max el	2393 Mar 16 23:37	14° \cap 37'07	18°17'59	retrograde	2394 Mar 07 01:05	1° \cap 03'41	
retrograde	2393 Mar 24 03:21	18° \cap 10'59		evening set	2394 Mar 09 16:59	0° \cap 30'19	
evening set	2393 Mar 26 14:00	17° \cap 46'59			2394 Mar 10 18:06	30° \cap 00'	
inferior conj	2393 Apr 02 17:59	13° \cap 05'44	2°58'42	inferior conj	2394 Mar 16 06:22	25° \cap 28'00	3°32'32
minimum elong	2393 Apr 02 21:30	12° \cap 58'10	2°57'57	minimum elong	2394 Mar 16 08:10	25° \cap 23'36	3°32'20
min. Earth dist.	2393 Apr 06 04:11	10° \cap 11'29	0.59293 AU	min. Earth dist.	2394 Mar 19 08:40	22° \cap 26'10	0.61443 AU
morning rise	2393 Apr 10 01:12	7° \cap 29'06		morning rise	2394 Mar 22 20:31	19° \cap 33'02	
desc. node	2393 Apr 14 20:54	5° \cap 46'31		direct	2394 Mar 29 16:20	17° \cap 11'13	
direct	2393 Apr 16 09:22	5° \cap 40'17		desc. node	2394 Apr 01 17:56	17° \cap 37'39	
morning max el	2393 Apr 30 17:53	13° \cap 26'32	27°16'08	morning max el	2394 Apr 12 20:47	25° \cap 06'32	27°47'57
	2393 May 13 21:47	0° \cap			2394 Apr 17 08:34	0° \cap	
	2393 May 30 16:42	0° \cap		morning set	2394 May 07 07:13	0° \cap	
morning set	2393 May 31 14:09	1° \cap 51'16			2394 May 15 18:43	16° \cap 20'41	
asc. node	2393 Jun 03 19:19	8° \cap 41'19		asc. node	2394 May 21 16:20	28° \cap 50'06	
				max. Earth dist.	2394 May 21 18:01	28° \cap 59'15	1.32349 AU
superior conj	2393 Jun 07 17:38	17° \cap 16'58	0°40'28		2394 May 22 05:11	0° \cap	
minimum elong	2393 Jun 07 15:57	17° \cap 07'42	0°40'07				
max. Earth dist.	2393 Jun 07 07:29	16° \cap 21'06	1.32149 AU				
	2393 Jun 13 13:25	0° \cap					

superior conj	2394 May 23 04:11	2°II05'24	0°15'43	morning max el	2395 Mar 26 04:24	7°X25'51	27°42'21
minimum elong	2394 May 23 03:28	2°II01'28	0°15'34		2395 Apr 12 12:19	0°Y	
behind sun begin	2394 May 23 02:28	1°II56'03			2395 Apr 29 11:14	0°8	
behind sun end	2394 May 23 04:27	2°II06'53		morning set	2395 Apr 29 16:42	0°827'16	
evening rise	2394 May 30 02:23	17°II08'10		max. Earth dist.	2395 May 04 22:45	11°815'33	1.32963 AU
	2394 Jun 05 11:01	0°9					
evening max el	2394 Jun 24 21:07	28°913'16	24°46'49	superior conj	2395 May 07 11:47	16°840'54	0°-11'-12
	2394 Jun 26 20:24	0°8		minimum elong	2395 May 07 12:20	16°843'51	0°11'05
desc. node	2394 Jun 28 17:13	1°828'16		behind sun begin	2395 May 07 08:30	16°823'16	
retrograde	2394 Jul 08 19:51	5°817'20		behind sun end	2395 May 07 16:10	17°804'28	
evening set	2394 Jul 14 00:42	4°815'56		asc. node	2395 May 08 13:22	18°858'39	
min. Earth dist.	2394 Jul 19 08:24	1°827'35	0.57159 AU		2395 May 13 16:06	0°II	
	2394 Jul 21 14:04	30°R9		evening rise	2395 May 14 14:11	1°II57'14	
inferior conj	2394 Jul 22 05:59	29°933'44	-4°-57'-32		2395 May 30 03:14	0°9	
minimum elong	2394 Jul 22 03:50	29°937'17	4°57'26	evening max el	2395 Jun 06 10:45	8°942'59	23°11'38
morning rise	2394 Jul 30 10:41	25°926'28		desc. node	2395 Jun 15 14:14	14°943'58	
direct	2394 Aug 02 01:03	25°907'26		retrograde	2395 Jun 19 22:32	15°926'59	
morning max el	2394 Aug 11 04:40	29°923'48	19°17'33	evening set	2395 Jun 23 15:13	14°957'04	
	2394 Aug 11 19:38	0°8		min. Earth dist.	2395 Jun 30 20:22	11°941'02	0.55657 AU
asc. node	2394 Aug 17 15:33	7°823'38		inferior conj	2395 Jul 02 15:28	10°937'56	-4°-17'-13
morning set	2394 Aug 28 05:38	26°836'48		minimum elong	2395 Jul 02 08:20	10°948'25	4°15'48
	2394 Aug 29 22:20	0°7		morning rise	2395 Jul 11 04:30	6°944'39	
				direct	2395 Jul 14 00:38	6°925'15	
superior conj	2394 Sep 05 10:23	12°754'03	1°43'18	morning max el	2395 Jul 24 17:43	11°923'04	20°28'16
minimum elong	2394 Sep 05 11:43	13°700'31	1°43'15	asc. node	2395 Aug 04 12:36	25°958'13	
max. Earth dist.	2394 Sep 11 20:33	25°702'05	1.38165 AU		2395 Aug 06 18:22	0°8	
	2394 Sep 14 14:45	0°6		morning set	2395 Aug 12 11:25	11°814'00	
evening rise	2394 Sep 15 16:13	1°652'11					
desc. node	2394 Sep 24 16:33	16°654'50		superior conj	2395 Aug 20 02:38	26°856'31	1°45'14
	2394 Oct 03 07:35	0°7		minimum elong	2395 Aug 20 02:16	26°854'43	1°45'13
evening max el	2394 Oct 21 07:15	22°733'27	24°57'12		2395 Aug 21 14:59	0°7	
retrograde	2394 Nov 02 00:56	29°722'25		max. Earth dist.	2395 Aug 25 02:55	6°753'39	1.36248 AU
evening set	2394 Nov 07 16:12	27°701'30		evening rise	2395 Aug 29 03:27	14°729'45	
min. Earth dist.	2394 Nov 12 05:59	21°752'33	0.67372 AU		2395 Sep 07 00:42	0°6	
inferior conj	2394 Nov 13 05:08	20°736'20	0°-8'-16	desc. node	2395 Sep 11 13:35	7°615'58	
minimum elong	2394 Nov 13 05:20	20°735'39	0°08'12		2395 Sep 28 01:04	0°7	
transit middle	2394 Nov 13 05:20	20°735'39	0°08'12	evening max el	2395 Oct 03 19:20	6°713'45	26°05'34
transit begin	2394 Nov 13 02:57	20°743'31		retrograde	2395 Oct 16 09:12	13°721'44	
transit end	2394 Nov 13 07:43	20°727'48		evening set	2395 Oct 22 14:34	10°747'43	
asc. node	2394 Nov 13 14:45	20°704'42		min. Earth dist.	2395 Oct 26 20:49	6°714'38	0.66624 AU
morning rise	2394 Nov 18 19:01	14°734'13		inferior conj	2395 Oct 28 07:04	4°728'02	-1°-5'-40
direct	2394 Nov 22 07:26	13°722'54		minimum elong	2395 Oct 28 08:48	4°722'38	1°04'57
morning max el	2394 Nov 29 17:48	17°736'07	19°46'59	asc. node	2395 Oct 31 11:48	0°745'32	
greatest brilliancy	2394 Dec 07 11:16	27°708'42	-0.6m		2395 Nov 01 06:48	30°R6	
	2394 Dec 09 11:45	0°7		morning rise	2395 Nov 03 04:03	28°635'15	
desc. node	2394 Dec 21 15:47	18°713'29		direct	2395 Nov 06 05:56	27°641'01	
morning set	2394 Dec 25 09:38	23°715'09			2395 Nov 11 11:23	0°7	
	2394 Dec 29 06:43	0°6		morning max el	2395 Nov 13 02:08	1°729'02	18°53'05
max. Earth dist.	2395 Jan 06 07:58	12°639'29	1.44221 AU		2395 Dec 02 22:48	0°7	
				morning set	2395 Dec 04 20:27	2°715'21	
superior conj	2395 Jan 11 01:39	20°615'05	-1°-51'-51	desc. node	2395 Dec 08 12:49	8°746'24	
minimum elong	2395 Jan 10 18:51	19°647'35	1°51'25	max. Earth dist.	2395 Dec 20 00:29	26°747'51	1.45037 AU
	2395 Jan 17 00:36	0°≈					
evening rise	2395 Jan 24 15:21	12°≈47'44		superior conj	2395 Dec 21 09:19	28°715'02	-1°-19'-34
	2395 Feb 03 21:44	0°X		minimum elong	2395 Dec 21 00:32	28°722'26	1°18'37
asc. node	2395 Feb 09 14:04	8°X14'20			2395 Dec 22 01:19	0°6	
evening max el	2395 Feb 11 23:21	10°X57'10	18°15'37	evening rise	2396 Jan 05 17:31	23°625'28	
retrograde	2395 Feb 18 10:16	14°X24'36			2396 Jan 09 18:50	0°≈	
evening set	2395 Feb 21 07:22	13°X40'46		evening max el	2396 Jan 26 10:51	24°≈22'37	18°42'18
inferior conj	2395 Feb 27 09:53	8°X18'36	3°42'11	asc. node	2396 Jan 27 11:06	25°≈21'01	
minimum elong	2395 Feb 27 09:46	8°X18'55	3°42'11	retrograde	2396 Feb 02 02:45	28°≈05'15	
min. Earth dist.	2395 Mar 01 22:19	5°X31'50	0.63443 AU	evening set	2396 Feb 05 05:42	27°≈09'48	
morning rise	2395 Mar 05 10:17	2°X13'10		inferior conj	2396 Feb 11 00:31	21°≈29'31	3°33'59
	2395 Mar 09 07:49	30°R≈		minimum elong	2396 Feb 10 22:58	21°≈34'12	3°33'50
direct	2395 Mar 12 08:16	29°≈29'33		min. Earth dist.	2396 Feb 12 21:21	19°≈13'32	0.65120 AU
	2395 Mar 15 12:10	0°X		morning rise	2396 Feb 16 15:02	15°≈18'20	
desc. node	2395 Mar 19 14:57	1°X58'50		direct	2396 Feb 23 07:17	12°≈27'41	

desc. node	2396 Mar 05 11:59	18° \approx 14'33			2397 Feb 14 07:59	0° \approx	
morning max el	2396 Mar 07 13:58	20° \approx 14'12	27°03'03	morning max el	2397 Feb 17 23:25	3° \approx 20'40	25°57'34
	2396 Mar 15 23:31	0° H		desc. node	2397 Feb 20 09:03	5° \approx 53'17	
	2396 Apr 04 14:02	0° Y			2397 Mar 10 06:18	0° H	
morning set	2396 Apr 12 05:05	14° Y 01'18		morning set	2397 Mar 26 03:46	26° H 50'40	
max. Earth dist.	2396 Apr 16 18:04	23° Y 00'32	1.34021 AU		2397 Mar 27 20:24	0° Y	
	2396 Apr 20 03:31	0° B		max. Earth dist.	2397 Mar 30 01:59	4° Y 15'10	1.35541 AU
superior conj	2396 Apr 20 14:24	0° B 56'55	0°-39'-17	superior conj	2397 Apr 04 09:31	14° Y 45'50	-1°-7'-9
minimum elong	2396 Apr 20 16:24	1° B 07'24	0°38'53	minimum elong	2397 Apr 04 12:55	15° Y 03'03	1°06'35
asc. node	2396 Apr 24 10:25	9° B 02'49		asc. node	2397 Apr 11 07:29	28° Y 58'03	
evening rise	2396 Apr 28 00:38	16° B 37'33			2397 Apr 11 19:32	0° B	
	2396 May 04 18:12	0° II		evening rise	2397 Apr 12 07:43	1° B 02'25	
evening max el	2396 May 18 05:26	19° II 19'31	21°38'03		2397 Apr 29 23:50	0° II	
retrograde	2396 May 30 13:55	25° II 23'21		evening max el	2397 Apr 30 10:37	0° II 26'42	20°17'20
desc. node	2396 Jun 01 11:13	25° II 15'14		retrograde	2397 May 11 03:31	5° II 38'22	
evening set	2396 Jun 02 02:17	25° II 09'04		evening set	2397 May 13 04:22	5° II 27'54	
inferior conj	2396 Jun 11 11:23	21° II 08'02	-2°-48'-59	desc. node	2397 May 19 08:15	3° II 09'33	
minimum elong	2396 Jun 11 04:03	21° II 18'18	2°46'40	inferior conj	2397 May 22 06:36	1° II 29'37	0°-51'-28
min. Earth dist.	2396 Jun 11 08:03	21° II 12'41	0.54927 AU	minimum elong	2397 May 22 04:11	1° II 33'10	0°50'35
morning rise	2396 Jun 20 06:39	17° II 13'20		min. Earth dist.	2397 May 23 20:44	0° II 33'36	0.55148 AU
direct	2396 Jun 23 12:08	16° II 50'31			2397 May 24 20:08	30° R B	
morning max el	2396 Jul 05 19:23	22° II 38'27	21°57'48	morning rise	2397 May 31 01:57	27° B 14'07	
	2396 Jul 12 05:03	0° B		direct	2397 Jun 03 23:37	26° B 41'10	
asc. node	2396 Jul 21 09:40	15° B 06'19			2397 Jun 13 11:24	0° II	
morning set	2396 Jul 26 21:02	26° B 03'40		morning max el	2397 Jun 17 12:32	3° II 17'53	23°38'58
	2396 Jul 28 18:04	0° B			2397 Jul 05 22:04	0° B	
superior conj	2396 Aug 03 03:37	11° B 25'39	1°40'03	asc. node	2397 Jul 08 06:44	4° B 38'30	
minimum elong	2396 Aug 03 02:03	11° B 17'26	1°39'56	morning set	2397 Jul 11 08:34	10° B 59'08	
max. Earth dist.	2396 Aug 06 17:25	18° B 50'06	1.34647 AU	superior conj	2397 Jul 18 10:20	26° B 11'21	1°29'03
evening rise	2396 Aug 11 07:21	27° B 55'53		minimum elong	2397 Jul 18 08:06	25° B 59'19	1°28'47
	2396 Aug 12 09:15	0° B			2397 Jul 20 05:00	0° B	
desc. node	2396 Aug 28 10:37	27° B 17'33		max. Earth dist.	2397 Jul 20 17:07	1° B 04'25	1.33434 AU
	2396 Aug 30 06:29	0° B		evening rise	2397 Jul 25 23:26	11° B 57'18	
evening max el	2396 Sep 15 07:52	19° B 49'22	26°56'41		2397 Aug 04 15:26	0° B	
retrograde	2396 Sep 28 11:58	27° B 05'39		desc. node	2397 Aug 15 07:38	16° B 50'15	
evening set	2396 Oct 05 05:55	24° B 24'04			2397 Aug 25 17:44	0° B	
min. Earth dist.	2396 Oct 09 05:09	20° B 27'50	0.65535 AU	evening max el	2397 Aug 28 19:28	3° B 07'41	27°23'31
inferior conj	2396 Oct 11 03:22	18° B 14'36	-2°-4'-39	retrograde	2397 Sep 11 08:45	10° B 25'27	
minimum elong	2396 Oct 11 06:44	18° B 04'53	2°03'20	evening set	2397 Sep 18 11:31	7° B 45'01	
morning rise	2396 Oct 17 09:06	12° B 34'21		min. Earth dist.	2397 Sep 22 04:41	4° B 24'05	0.64090 AU
asc. node	2396 Oct 17 08:51	12° B 34'40		inferior conj	2397 Sep 24 15:34	1° B 50'00	-3°-2'-50
direct	2396 Oct 20 02:47	11° B 53'19		minimum elong	2397 Sep 24 20:22	1° B 37'24	3°01'14
morning max el	2396 Oct 26 15:43	15° B 25'51	18°15'29		2397 Sep 26 10:37	30° R B	
	2396 Nov 06 05:00	0° B		morning rise	2397 Oct 01 07:21	26° B 25'46	
morning set	2396 Nov 14 11:44	13° B 26'14		direct	2397 Oct 03 19:19	25° B 54'22	
desc. node	2396 Nov 24 09:54	29° B 27'54		asc. node	2397 Oct 04 05:55	25° B 55'22	
	2396 Nov 24 17:57	0° B		morning max el	2397 Oct 10 07:51	29° B 20'06	17°55'02
superior conj	2396 Nov 29 11:32	7° B 30'19	0°-33'-39		2397 Oct 10 23:17	0° B	
minimum elong	2396 Nov 29 07:12	7° B 13'13	0°33'05	morning set	2397 Oct 27 06:34	25° B 13'14	
max. Earth dist.	2396 Dec 01 19:50	11° B 12'05	1.45119 AU		2397 Oct 30 01:48	0° B	
	2396 Dec 13 20:17	0° B		superior conj	2397 Nov 09 05:12	16° B 52'43	0°14'04
evening rise	2396 Dec 15 20:52	3° B 09'29		minimum elong	2397 Nov 09 06:46	16° B 59'07	0°13'49
greatest brilliancy	2396 Dec 31 04:00	26° B 41'01	-0.7m	behind sun begin	2397 Nov 09 01:30	16° B 37'41	
	2397 Jan 02 11:26	0° \approx		behind sun end	2397 Nov 09 12:02	17° B 20'31	
evening max el	2397 Jan 08 18:59	7° \approx 51'54	19°25'57	desc. node	2397 Nov 11 06:57	20° B 14'03	
asc. node	2397 Jan 13 08:08	11° \approx 22'16		max. Earth dist.	2397 Nov 14 14:23	25° B 31'51	1.44462 AU
retrograde	2397 Jan 15 23:19	11° \approx 59'54			2397 Nov 17 10:12	0° B	
evening set	2397 Jan 19 09:18	10° \approx 51'37		evening rise	2397 Nov 25 08:09	12° B 18'33	
inferior conj	2397 Jan 24 23:00	4° \approx 55'25	3°12'33		2397 Dec 07 00:12	0° B	
minimum elong	2397 Jan 24 20:38	5° \approx 03'05	3°12'05	greatest brilliancy	2397 Dec 16 18:04	13° B 56'15	-0.5m
min. Earth dist.	2397 Jan 26 04:52	3° \approx 18'21	0.66394 AU	evening max el	2397 Dec 22 22:04	21° B 22'27	20°24'37
	2397 Jan 28 23:11	30° R B		retrograde	2397 Dec 30 21:20	26° B 04'04	
morning rise	2397 Jan 30 07:14	28° B 41'11		asc. node	2397 Dec 31 05:10	26° B 03'29	
direct	2397 Feb 05 12:18	25° B 56'47		evening set	2398 Jan 03 15:55	24° B 41'35	

inferior conj	2398 Jan 09 02:39	18°☿32'22	2°40'58	minimum elong	2398 Dec 24 06:51	2°☿24'37	2°00'25
minimum elong	2398 Jan 09 00:03	18°☿41'12	2°40'13	min. Earth dist.	2398 Dec 24 13:45	2°☿00'44	0.67734 AU
min. Earth dist.	2398 Jan 09 19:07	17°☿36'28	0.67254 AU		2398 Dec 26 01:09	30°☿17'27	
morning rise	2398 Jan 14 07:42	12°☿17'02		morning rise	2398 Dec 29 13:46	26°☿01'57	
direct	2398 Jan 19 22:37	9°☿48'19		direct	2399 Jan 03 13:35	23°☿54'13	
morning max el	2398 Jan 31 08:04	16°☿36'16	24°35'31	morning max el	2399 Jan 13 17:18	29°☿56'11	23°06'54
desc. node	2398 Feb 07 06:07	24°☿31'09			2399 Jan 13 18:49	0°☿	
	2398 Feb 11 10:58	0°☿		greatest brilliancy	2399 Jan 18 15:26	5°☿26'35	-0.3m
	2398 Mar 03 05:52	0°☿		desc. node	2399 Jan 25 03:09	13°☿50'24	
morning set	2398 Mar 08 07:27	8°☿40'53			2399 Feb 05 07:27	0°☿	
max. Earth dist.	2398 Mar 12 00:20	15°☿18'39	1.37457 AU	morning set	2399 Feb 17 09:42	19°☿14'24	
				max. Earth dist.	2399 Feb 21 19:10	26°☿42'15	1.39597 AU
					2399 Feb 23 16:32	0°☿	
superior conj	2398 Mar 18 17:57	27°☿59'15	-1°-32'-48				
minimum elong	2398 Mar 18 22:16	28°☿20'08	1°32'16				
	2398 Mar 19 18:46	0°☿		superior conj	2399 Mar 01 11:28	10°☿25'39	-1°-53'-20
evening rise	2398 Mar 27 09:05	15°☿05'09		minimum elong	2399 Mar 01 15:28	10°☿44'01	1°53'02
asc. node	2398 Mar 29 04:31	18°☿39'51		evening rise	2399 Mar 11 01:45	28°☿36'53	
	2398 Apr 04 06:26	0°☿			2399 Mar 11 19:06	0°☿	
evening max el	2398 Apr 13 03:31	12°☿14'05	19°15'09	asc. node	2399 Mar 16 01:32	8°☿02'04	
retrograde	2398 Apr 22 04:13	16°☿36'36		evening max el	2399 Mar 27 06:04	24°☿37'33	18°33'06
evening set	2398 Apr 24 05:56	16°☿23'45		retrograde	2399 Apr 03 22:52	28°☿24'17	
inferior conj	2398 May 02 15:08	12°☿13'58	1°01'12	evening set	2399 Apr 06 06:06	28°☿05'09	
minimum elong	2398 May 02 17:33	12°☿09'55	1°00'23	inferior conj	2399 Apr 13 20:11	23°☿36'31	2°25'29
min. Earth dist.	2398 May 05 11:42	10°☿19'55	0.56281 AU	minimum elong	2399 Apr 14 00:08	23°☿28'48	2°24'26
desc. node	2398 May 06 05:16	9°☿52'02		min. Earth dist.	2399 Apr 17 06:09	20°☿57'35	0.58087 AU
morning rise	2398 May 11 01:05	7°☿24'26		morning rise	2399 Apr 21 13:49	18°☿14'22	
direct	2398 May 15 22:02	6°☿29'40		desc. node	2399 Apr 23 02:18	17°☿35'02	
morning max el	2398 May 30 02:59	13°☿44'34	25°18'44	direct	2399 Apr 27 10:59	16°☿46'16	
	2398 Jun 11 21:31	0°☿		morning max el	2399 May 11 20:12	24°☿25'05	26°41'29
asc. node	2398 Jun 25 03:48	24°☿27'59			2399 May 16 22:34	0°☿	
morning set	2398 Jun 25 20:22	25°☿54'59			2399 Jun 04 22:54	0°☿	
	2398 Jun 27 18:18	0°☿		morning set	2399 Jun 10 06:45	10°☿45'19	
				asc. node	2399 Jun 12 00:50	14°☿28'38	
superior conj	2398 Jul 02 20:30	11°☿06'18	1°13'14				
minimum elong	2398 Jul 02 18:07	10°☿53'15	1°12'53	superior conj	2399 Jun 17 08:11	26°☿03'35	0°53'26
max. Earth dist.	2398 Jul 04 00:09	13°☿37'15	1.32623 AU	minimum elong	2399 Jun 17 06:07	25°☿52'13	0°53'03
evening rise	2398 Jul 10 00:12	26°☿23'40		max. Earth dist.	2399 Jun 17 11:24	26°☿21'16	1.32207 AU
	2398 Jul 11 18:43	0°☿			2399 Jun 19 03:10	0°☿	
	2398 Jul 29 01:47	0°☿		evening rise	2399 Jun 24 06:48	11°☿05'58	
desc. node	2398 Aug 02 04:37	5°☿42'04			2399 Jul 04 00:15	0°☿	
evening max el	2398 Aug 11 04:00	15°☿55'53	27°20'13	desc. node	2399 Jul 20 01:36	23°☿36'09	
retrograde	2398 Aug 24 23:11	23°☿11'53		evening max el	2399 Jul 24 07:10	28°☿03'03	26°43'55
evening set	2398 Sep 01 03:49	20°☿44'38			2399 Jul 26 11:39	0°☿	
min. Earth dist.	2398 Sep 04 17:58	17°☿52'24	0.62313 AU	retrograde	2399 Aug 07 06:10	5°☿15'55	
inferior conj	2398 Sep 07 16:42	15°☿07'24	-3°-56'-23	evening set	2399 Aug 14 02:20	3°☿15'35	
minimum elong	2398 Sep 07 22:11	14°☿54'36	3°55'00	min. Earth dist.	2399 Aug 17 21:03	0°☿38'52	0.60299 AU
morning rise	2398 Sep 14 19:19	10°☿02'33			2399 Aug 18 16:32	30°☿17'27	
direct	2398 Sep 17 04:15	9°☿37'35		inferior conj	2399 Aug 21 03:27	27°☿58'35	-4°-38'-58
asc. node	2398 Sep 21 02:59	10°☿48'43		minimum elong	2399 Aug 21 07:56	27°☿49'21	4°38'18
morning max el	2398 Sep 23 23:33	13°☿05'00	17°52'32	morning rise	2399 Aug 28 16:49	23°☿15'41	
	2398 Oct 05 10:55	0°☿		direct	2399 Aug 31 01:41	22°☿54'29	
morning set	2398 Oct 09 22:57	8°☿01'43		morning max el	2399 Sep 07 11:41	26°☿32'32	18°09'13
				asc. node	2399 Sep 08 00:03	27°☿03'18	
superior conj	2398 Oct 21 01:11	27°☿33'05	0°53'46		2399 Sep 10 12:42	0°☿	
minimum elong	2398 Oct 21 05:31	27°☿51'32	0°53'12	morning set	2399 Sep 23 07:03	21°☿35'37	
	2398 Oct 22 11:49	0°☿			2399 Sep 27 18:40	0°☿	
max. Earth dist.	2398 Oct 28 04:54	9°☿27'57	1.43160 AU				
desc. node	2398 Oct 29 03:57	11°☿01'25		superior conj	2399 Oct 02 23:01	9°☿29'34	1°21'45
evening rise	2398 Nov 04 18:15	21°☿29'42		minimum elong	2399 Oct 03 03:04	9°☿47'48	1°21'21
	2398 Nov 10 06:55	0°☿		max. Earth dist.	2399 Oct 10 14:08	22°☿47'24	1.41383 AU
greatest brilliancy	2398 Nov 30 21:49	29°☿16'24	-0.4m		2399 Oct 14 22:32	0°☿	
	2398 Dec 01 11:55	0°☿		evening rise	2399 Oct 15 19:29	1°☿25'01	
evening max el	2398 Dec 05 19:28	4°☿53'14	21°35'16	desc. node	2399 Oct 16 00:57	1°☿47'07	
retrograde	2398 Dec 14 18:39	10°☿13'20			2399 Nov 03 17:54	0°☿	
asc. node	2398 Dec 18 02:12	9°☿12'57		greatest brilliancy	2399 Nov 13 07:00	12°☿36'25	-0.3m
evening set	2398 Dec 18 23:39	8°☿35'17		evening max el	2399 Nov 18 11:57	18°☿26'41	22°53'23
inferior conj	2398 Dec 24 09:12	2°☿16'31	2°01'15	retrograde	2399 Nov 28 13:38	24°☿25'17	

evening set	2399 Dec 03 06:55	22°♂30'35		retrograde	2400 Nov 11 04:59	8°♂36'03	
asc. node	2399 Dec 04 23:14	20°♂53'28		evening set	2400 Nov 16 12:04	6°♂24'26	
inferior conj	2399 Dec 08 16:45	16°♂06'09	1°14'58	asc. node	2400 Nov 20 20:17	1°♂30'02	
minimum elong	2399 Dec 08 15:07	16°♂11'49	1°14'18	inferior conj	2400 Nov 21 23:32	29°♂58'30	0°23'21
min. Earth dist.	2399 Dec 08 10:24	16°♂28'05	0.67864 AU	minimum elong	2400 Nov 21 22:58	0°♂00'24	0°23'07
morning rise	2399 Dec 13 23:16	9°♂54'30		min. Earth dist.	2400 Nov 21 06:36	0°♂55'32	0.67655 AU
direct	2399 Dec 18 08:21	8°♂09'34			2400 Nov 21 23:05	30°♂♂♂	
morning max el	2399 Dec 27 06:38	13°♂23'23	21°41'03	morning rise	2400 Nov 27 10:10	23°♂52'11	
greatest brilliancy	2400 Jan 01 03:36	18°♂54'32	-0.4m	direct	2400 Dec 01 05:42	22°♂29'14	
	2400 Jan 09 10:41	0°♂		morning max el	2400 Dec 09 03:07	27°♂01'11	20°24'46
desc. node	2400 Jan 12 00:11	3°♂39'46			2400 Dec 11 20:22	0°♂	
morning set	2400 Jan 28 06:45	28°♂24'08		greatest brilliancy	2400 Dec 15 11:32	4°♂33'36	-0.5m
	2400 Jan 29 06:46	0°♂		desc. node	2400 Dec 28 21:13	23°♂50'31	
max. Earth dist.	2400 Feb 03 18:12	8°♂55'26	1.41695 AU		2401 Jan 01 22:42	0°♂	
				morning set	2401 Jan 06 05:46	6°♂36'17	
superior conj	2400 Feb 11 09:08	21°♂53'42	-2°-4'-40	max. Earth dist.	2401 Jan 16 01:22	22°♂05'23	1.43458 AU
minimum elong	2400 Feb 11 10:35	21°♂59'58	2°04'39		2401 Jan 20 22:00	0°♂	
	2400 Feb 15 22:51	0°♂					
evening rise	2400 Feb 22 06:11	11°♂29'49		superior conj	2401 Jan 22 06:01	2°♂12'18	-2°-1'-47
asc. node	2400 Mar 01 22:32	26°♂58'26		minimum elong	2401 Jan 22 02:22	1°♂57'09	2°01'40
	2400 Mar 03 19:51	0°♂		evening rise	2401 Feb 03 18:15	23°♂35'20	
evening max el	2400 Mar 09 15:03	7°♂28'55	18°11'05		2401 Feb 07 10:14	0°♂	
retrograde	2400 Mar 16 11:40	10°♂56'21		asc. node	2401 Feb 16 19:34	15°♂20'44	
evening set	2400 Mar 19 00:40	10°♂28'30		evening max el	2401 Feb 21 03:12	20°♂38'50	18°08'33
inferior conj	2400 Mar 25 22:00	5°♂38'29	3°16'24	retrograde	2401 Feb 27 14:47	24°♂02'26	
minimum elong	2400 Mar 26 00:53	5°♂31'56	3°15'55	evening set	2401 Mar 02 09:00	23°♂24'33	
min. Earth dist.	2400 Mar 29 06:05	2°♂37'49	0.60215 AU	inferior conj	2401 Mar 08 17:18	18°♂13'30	3°39'09
morning rise	2400 Apr 01 21:42	29°♂53'07		minimum elong	2401 Mar 08 18:15	18°♂11'02	3°39'06
	2400 Apr 01 17:18	30°♂♂		min. Earth dist.	2401 Mar 11 14:05	15°♂15'57	0.62326 AU
direct	2400 Apr 08 12:17	27°♂48'59		morning rise	2401 Mar 15 01:11	12°♂13'39	
desc. node	2400 Apr 08 23:20	27°♂49'35		direct	2401 Mar 21 23:05	9°♂41'03	
	2400 Apr 15 16:12	0°♂		desc. node	2401 Mar 26 20:23	10°♂48'24	
morning max el	2400 Apr 22 19:13	5°♂40'02	27°34'08	morning max el	2401 Apr 05 00:15	17°♂36'56	27°50'08
	2400 May 10 22:58	0°♂			2401 Apr 15 08:16	0°♂	
morning set	2400 May 24 14:01	25°♂24'15			2401 May 03 16:43	0°♂	
	2400 May 26 18:31	0°♂		morning set	2401 May 08 16:08	9°♂45'17	
asc. node	2400 May 28 21:51	4°♂35'44		max. Earth dist.	2401 May 14 08:01	21°♂36'52	1.32560 AU
max. Earth dist.	2400 May 30 23:16	9°♂05'18	1.32185 AU	asc. node	2401 May 15 18:52	24°♂45'10	
superior conj	2400 May 31 19:40	10°♂57'11	0°30'18	superior conj	2401 May 16 05:14	25°♂41'21	0°04'34
minimum elong	2400 May 31 18:20	10°♂49'57	0°30'01	minimum elong	2401 May 16 05:01	25°♂40'10	0°04'31
evening rise	2400 Jun 07 17:00	25°♂56'31		behind sun begin	2401 May 16 00:02	25°♂13'07	
	2400 Jun 09 15:32	0°♂		behind sun end	2401 May 16 10:00	26°♂07'15	
	2400 Jun 27 01:07	0°♂			2401 May 18 04:43	0°♂	
evening max el	2400 Jul 05 03:17	9°♂23'11	25°36'28	evening rise	2401 May 23 04:47	10°♂48'36	
desc. node	2400 Jul 05 22:37	10°♂08'15			2401 Jun 02 00:53	0°♂	
retrograde	2400 Jul 19 03:28	16°♂31'16		evening max el	2401 Jun 16 17:42	20°♂04'37	24°07'08
evening set	2400 Jul 25 02:18	15°♂08'02		desc. node	2401 Jun 22 19:38	24°♂46'45	
min. Earth dist.	2400 Jul 29 15:28	12°♂29'02	0.58248 AU	retrograde	2401 Jun 30 13:00	27°♂01'40	
inferior conj	2400 Aug 01 20:12	10°♂13'03	-5°00'-21	evening set	2401 Jul 05 02:53	26°♂15'13	
minimum elong	2400 Aug 01 21:09	10°♂11'22	5°00'20	min. Earth dist.	2401 Jul 11 04:23	23°♂16'52	0.56452 AU
morning rise	2400 Aug 09 19:33	5°♂53'08		inferior conj	2401 Jul 13 16:48	21°♂43'16	-4°-46'-26
direct	2400 Aug 12 07:21	5°♂33'36		minimum elong	2401 Jul 13 12:15	21°♂50'22	4°45'54
morning max el	2400 Aug 20 16:57	9°♂32'35	18°46'24	morning rise	2401 Jul 22 01:10	17°♂43'20	
asc. node	2400 Aug 24 21:05	14°♂23'10		direct	2401 Jul 24 18:02	17°♂24'11	
	2400 Sep 03 03:31	0°♂		morning max el	2401 Aug 03 12:29	21°♂56'16	19°45'01
morning set	2400 Sep 06 02:09	5°♂41'20			2401 Aug 10 02:35	0°♂	
				asc. node	2401 Aug 11 18:08	2°♂34'10	
superior conj	2400 Sep 14 17:27	22°♂26'47	1°38'19	morning set	2401 Aug 21 04:50	20°♂09'34	
minimum elong	2400 Sep 14 19:52	22°♂38'12	1°38'10		2401 Aug 26 01:21	0°♂	
	2400 Sep 18 18:54	0°♂					
max. Earth dist.	2400 Sep 21 19:09	5°♂24'41	1.39355 AU	superior conj	2401 Aug 29 03:06	6°♂09'36	1°45'05
evening rise	2400 Sep 25 19:58	12°♂24'43		minimum elong	2401 Aug 29 03:41	6°♂12'26	1°45'04
desc. node	2400 Oct 01 21:58	22°♂26'58		max. Earth dist.	2401 Sep 03 23:44	17°♂28'14	1.37329 AU
	2400 Oct 06 17:44	0°♂		evening rise	2401 Sep 07 19:36	24°♂29'06	
	2400 Oct 29 01:30	0°♂			2401 Sep 10 22:50	0°♂	
evening max el	2400 Oct 31 01:17	2°♂03'47	24°13'11	desc. node	2401 Sep 18 18:59	12°♂56'30	

	2401 Sep 30 09:29	0°♄		evening rise	2402 Aug 21 14:27	7°♄28'22	
evening max el	2401 Oct 13 13:23	15°♄43'51	25°27'46		2402 Sep 03 15:13	0°♄	
retrograde	2401 Oct 25 15:58	22°♄41'27		desc. node	2402 Sep 05 16:01	3°♄10'06	
evening set	2401 Oct 31 13:27	20°♄14'22		evening max el	2402 Sep 26 01:29	29°♄22'29	26°29'43
min. Earth dist.	2401 Nov 04 23:59	15°♄20'42	0.67106 AU		2402 Sep 26 17:16	0°♄	
inferior conj	2401 Nov 06 03:47	13°♄51'11	0°-32'-19	retrograde	2402 Oct 08 22:01	6°♄35'30	
minimum elong	2401 Nov 06 04:37	13°♄48'31	0°31'58	evening set	2402 Oct 15 09:11	3°♄57'02	
asc. node	2401 Nov 07 17:20	11°♄52'39			2402 Oct 19 05:28	30°♄	
morning rise	2401 Nov 11 20:30	7°♄52'53		min. Earth dist.	2402 Oct 19 12:15	29°♄39'54	0.66207 AU
direct	2401 Nov 15 04:14	6°♄49'13		inferior conj	2402 Oct 21 03:36	27°♄41'07	-1°-30'-37
morning max el	2401 Nov 22 07:33	10°♄49'57	19°22'06	minimum elong	2402 Oct 21 06:02	27°♄33'47	1°29'37
greatest brilliancy	2401 Dec 01 14:16	22°♄43'52	-0.7m	asc. node	2402 Oct 25 14:24	22°♄57'47	
	2401 Dec 06 11:25	0°♄		morning rise	2402 Oct 27 04:10	21°♄53'34	
desc. node	2401 Dec 15 18:16	14°♄16'44		direct	2402 Oct 30 02:12	21°♄05'33	
morning set	2401 Dec 16 05:23	14°♄59'50		morning max el	2402 Nov 05 18:32	24°♄45'48	18°35'03
	2401 Dec 25 20:25	0°♄			2402 Nov 10 03:49	0°♄	
max. Earth dist.	2401 Dec 29 15:39	5°♄59'02	1.44659 AU	morning set	2402 Nov 26 03:43	24°♄35'49	
					2402 Nov 29 13:11	0°♄	
superior conj	2402 Jan 02 01:02	11°♄21'56	-1°-40'-21	desc. node	2402 Dec 02 15:19	4°♄53'51	
minimum elong	2402 Jan 01 16:36	10°♄48'19	1°39'38				
	2402 Jan 13 12:38	0°♄		superior conj	2402 Dec 12 03:48	19°♄53'09	-1°-1'-7
evening rise	2402 Jan 16 09:44	4°♄46'21		minimum elong	2402 Dec 11 20:17	19°♄23'38	1°00'12
	2402 Feb 01 06:35	0°♄		max. Earth dist.	2402 Dec 12 09:44	20°♄16'27	1.45160 AU
asc. node	2402 Feb 03 16:36	2°♄58'21			2402 Dec 18 14:19	0°♄	
evening max el	2402 Feb 04 15:35	3°♄59'37	18°24'47	evening rise	2402 Dec 28 02:00	15°♄00'38	
retrograde	2402 Feb 11 03:39	7°♄32'21			2403 Jan 06 12:36	0°♄	
evening set	2402 Feb 14 03:09	6°♄43'38		evening max el	2403 Jan 19 01:49	17°♄26'49	18°58'51
inferior conj	2402 Feb 20 01:58	1°♄13'12	3°40'35	asc. node	2403 Jan 21 13:40	19°♄39'06	
minimum elong	2402 Feb 20 01:11	1°♄15'29	3°40'34	retrograde	2403 Jan 25 22:21	21°♄19'35	
	2402 Feb 21 03:10	30°♄		evening set	2403 Jan 29 04:01	20°♄18'58	
min. Earth dist.	2402 Feb 22 07:41	28°♄38'19	0.64196 AU	inferior conj	2403 Feb 03 20:21	14°♄31'27	3°26'19
morning rise	2402 Feb 25 21:42	25°♄04'49		minimum elong	2403 Feb 03 18:23	14°♄37'38	3°26'02
direct	2402 Mar 04 17:54	22°♄16'48		min. Earth dist.	2403 Feb 05 10:40	12°♄31'19	0.65707 AU
desc. node	2402 Mar 13 17:26	26°♄02'16		morning rise	2403 Feb 09 07:45	8°♄18'25	
	2402 Mar 18 05:06	0°♄		direct	2403 Feb 15 19:37	5°♄28'59	
morning max el	2402 Mar 18 09:11	0°♄10'12	27°29'34	desc. node	2403 Feb 28 14:29	12°♄56'46	
	2402 Apr 09 08:04	0°♄		morning max el	2403 Feb 28 19:08	13°♄08'26	26°37'53
morning set	2402 Apr 22 10:26	23°♄38'59			2403 Mar 14 10:07	0°♄	
	2402 Apr 25 14:24	0°♄			2403 Apr 01 23:50	0°♄	
max. Earth dist.	2402 Apr 27 09:24	3°♄41'35	1.33355 AU	morning set	2403 Apr 05 17:33	6°♄55'29	
				max. Earth dist.	2403 Apr 09 23:54	15°♄12'07	1.34609 AU
superior conj	2402 Apr 30 10:56	10°♄08'51	0°-23'00				
minimum elong	2402 Apr 30 12:06	10°♄14'59	0°22'47	superior conj	2403 Apr 14 10:40	24°♄13'38	0°-51'-14
asc. node	2402 May 02 15:55	14°♄52'04		minimum elong	2403 Apr 14 13:17	24°♄27'11	0°50'45
evening rise	2402 May 07 16:13	25°♄34'30			2403 Apr 17 05:12	0°♄	
	2402 May 09 19:17	0°♄		asc. node	2403 Apr 19 12:58	4°♄52'31	
	2402 May 28 19:17	0°♄		evening rise	2403 Apr 22 01:28	10°♄08'22	
evening max el	2402 May 29 08:21	0°♄32'19	22°30'49		2403 May 02 14:16	0°♄	
desc. node	2402 Jun 09 16:39	6°♄55'11		evening max el	2403 May 11 06:55	11°♄18'44	21°01'41
retrograde	2402 Jun 11 10:28	7°♄02'08		retrograde	2403 May 22 23:55	17°♄01'29	
evening set	2402 Jun 14 13:30	6°♄40'35		evening set	2403 May 25 05:00	16°♄50'00	
min. Earth dist.	2402 Jun 22 15:41	3°♄09'14	0.55239 AU	desc. node	2403 May 27 13:41	16°♄14'11	
inferior conj	2402 Jun 23 19:16	2°♄30'04	-3°-45'-9	inferior conj	2403 Jun 03 12:58	12°♄52'05	-2°00'-48
minimum elong	2402 Jun 23 11:15	2°♄41'27	3°43'08	minimum elong	2403 Jun 03 07:21	13°♄00'02	1°58'51
	2402 Jun 28 13:12	30°♄		min. Earth dist.	2403 Jun 04 03:55	12°♄30'56	0.54897 AU
morning rise	2402 Jul 02 11:27	28°♄38'56		morning rise	2403 Jun 12 09:15	8°♄50'30	
direct	2402 Jul 05 10:54	28°♄18'43		direct	2403 Jun 15 20:17	8°♄24'39	
	2402 Jul 11 21:37	0°♄		morning max el	2403 Jun 28 18:12	14°♄34'45	22°40'05
morning max el	2402 Jul 16 20:37	3°♄36'38	21°04'22		2403 Jul 10 14:12	0°♄	
asc. node	2402 Jul 29 15:11	21°♄23'49		asc. node	2403 Jul 16 12:14	10°♄42'28	
	2402 Aug 03 03:00	0°♄		morning set	2403 Jul 20 23:05	19°♄44'49	
morning set	2402 Aug 05 12:30	4°♄52'41			2403 Jul 25 18:43	0°♄	
superior conj	2402 Aug 12 23:30	20°♄24'41	1°43'49	superior conj	2403 Jul 28 03:13	5°♄01'35	1°36'01
minimum elong	2402 Aug 12 22:34	20°♄19'54	1°43'46	minimum elong	2403 Jul 28 01:18	4°♄51'24	1°35'52
max. Earth dist.	2402 Aug 17 09:05	29°♄18'49	1.35523 AU	max. Earth dist.	2403 Jul 31 03:09	11°♄19'51	1.34077 AU
	2402 Aug 17 17:25	0°♄		evening rise	2403 Aug 04 23:58	21°♄10'28	

	2403 Aug 09 15:24	0° $\mathring{\text{M}}$		superior conj	2404 Jul 11 11:39	19° $\mathring{\text{C}}$ 52'03	1°22'53
desc. node	2403 Aug 23 13:02	23° $\mathring{\text{M}}$ 00'21		minimum elong	2404 Jul 11 09:17	19° $\mathring{\text{C}}$ 39'15	1°22'35
	2403 Aug 28 12:13	0° $\mathring{\text{A}}$		max. Earth dist.	2404 Jul 13 06:15	23° $\mathring{\text{C}}$ 42'21	1.33036 AU
evening max el	2403 Sep 08 13:39	12° $\mathring{\text{A}}$ 51'34	27°11'28		2404 Jul 16 05:20	0° $\mathring{\text{Q}}$	
retrograde	2403 Sep 21 22:35	20° $\mathring{\text{A}}$ 10'02		evening rise	2404 Jul 18 20:09	5° $\mathring{\text{Q}}$ 24'00	
evening set	2403 Sep 28 20:47	17° $\mathring{\text{A}}$ 27'34			2404 Aug 01 06:28	0° $\mathring{\text{M}}$	
min. Earth dist.	2403 Oct 02 17:08	13° $\mathring{\text{A}}$ 46'44	0.64958 AU	desc. node	2404 Aug 09 10:01	12° $\mathring{\text{M}}$ 17'34	
inferior conj	2403 Oct 04 20:46	11° $\mathring{\text{A}}$ 23'26	-2°-29'-38	evening max el	2404 Aug 21 00:28	25° $\mathring{\text{M}}$ 59'44	27°26'12
minimum elong	2403 Oct 05 00:48	11° $\mathring{\text{A}}$ 12'14	2°28'09		2404 Aug 25 20:59	0° $\mathring{\text{A}}$	
morning rise	2403 Oct 11 06:40	5° $\mathring{\text{A}}$ 49'38		retrograde	2404 Sep 03 16:50	3° $\mathring{\text{A}}$ 16'53	
asc. node	2403 Oct 12 11:28	5° $\mathring{\text{A}}$ 24'01		evening set	2404 Sep 10 21:14	0° $\mathring{\text{A}}$ 40'46	
direct	2403 Oct 13 21:28	5° $\mathring{\text{A}}$ 13'17			2404 Sep 11 18:44	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
morning max el	2403 Oct 20 09:34	8° $\mathring{\text{A}}$ 42'15	18°04'35	min. Earth dist.	2404 Sep 14 12:40	27° $\mathring{\text{M}}$ 32'52	0.63368 AU
	2403 Nov 03 21:58	0° $\mathring{\text{M}}$		inferior conj	2404 Sep 17 04:42	24° $\mathring{\text{M}}$ 52'47	-3°-26'-25
morning set	2403 Nov 07 07:16	5° $\mathring{\text{M}}$ 38'15		minimum elong	2404 Sep 17 09:55	24° $\mathring{\text{M}}$ 39'42	3°24'50
desc. node	2403 Nov 19 12:20	25° $\mathring{\text{M}}$ 37'23		morning rise	2404 Sep 24 01:00	19° $\mathring{\text{M}}$ 36'04	
				direct	2404 Sep 26 11:17	19° $\mathring{\text{M}}$ 07'46	
superior conj	2403 Nov 21 10:25	28° $\mathring{\text{M}}$ 41'32	0°-12'-56	asc. node	2404 Sep 28 08:30	19° $\mathring{\text{M}}$ 25'09	
minimum elong	2403 Nov 21 08:48	28° $\mathring{\text{M}}$ 35'06	0°12'44	morning max el	2404 Oct 03 01:52	22° $\mathring{\text{M}}$ 33'29	17°51'37
behind sun begin	2403 Nov 21 02:06	28° $\mathring{\text{M}}$ 08'22			2404 Oct 08 20:50	0° $\mathring{\text{A}}$	
behind sun end	2403 Nov 21 15:30	29° $\mathring{\text{M}}$ 01'48		morning set	2404 Oct 19 12:08	17° $\mathring{\text{A}}$ 54'17	
	2403 Nov 22 06:08	0° $\mathring{\text{A}}$			2404 Oct 26 12:01	0° $\mathring{\text{M}}$	
max. Earth dist.	2403 Nov 25 04:33	4° $\mathring{\text{A}}$ 38'45	1.44922 AU				
evening rise	2403 Dec 07 21:04	24° $\mathring{\text{A}}$ 25'32		superior conj	2404 Oct 31 14:46	8° $\mathring{\text{M}}$ 35'44	0°32'12
	2403 Dec 11 11:44	0° $\mathring{\text{C}}$		minimum elong	2404 Oct 31 17:58	8° $\mathring{\text{M}}$ 48'59	0°31'46
greatest brilliancy	2403 Dec 25 23:12	21° $\mathring{\text{C}}$ 43'03	-0.6m	desc. node	2404 Nov 05 09:22	16° $\mathring{\text{M}}$ 24'23	
	2404 Jan 01 10:42	0° $\mathring{\text{A}}$		max. Earth dist.	2404 Nov 06 21:41	18° $\mathring{\text{M}}$ 50'30	1.43988 AU
evening max el	2404 Jan 02 07:57	0° $\mathring{\text{A}}$ 56'35	19°49'15		2404 Nov 13 23:23	0° $\mathring{\text{A}}$	
asc. node	2404 Jan 08 10:43	5° $\mathring{\text{A}}$ 07'44		evening rise	2404 Nov 16 05:46	3° $\mathring{\text{A}}$ 30'30	
retrograde	2404 Jan 09 19:46	5° $\mathring{\text{A}}$ 18'11			2404 Dec 04 00:12	0° $\mathring{\text{C}}$	
evening set	2404 Jan 13 09:06	4° $\mathring{\text{A}}$ 04'15		greatest brilliancy	2404 Dec 09 20:56	8° $\mathring{\text{C}}$ 00'01	-0.5m
	2404 Jan 17 09:14	30° $\mathring{\text{R}}$ $\mathring{\text{C}}$		evening max el	2404 Dec 15 08:44	14° $\mathring{\text{C}}$ 27'30	20°53'27
inferior conj	2404 Jan 18 21:20	28° $\mathring{\text{C}}$ 02'18	3°00'15	retrograde	2404 Dec 23 17:34	19° $\mathring{\text{C}}$ 24'36	
minimum elong	2404 Jan 18 18:48	28° $\mathring{\text{C}}$ 10'42	2°59'38	asc. node	2404 Dec 25 07:45	19° $\mathring{\text{C}}$ 10'32	
min. Earth dist.	2404 Jan 19 21:24	26° $\mathring{\text{C}}$ 42'23	0.66811 AU	evening set	2404 Dec 27 16:24	17° $\mathring{\text{C}}$ 55'41	
morning rise	2404 Jan 24 03:50	21° $\mathring{\text{C}}$ 47'13		inferior conj	2405 Jan 02 02:27	11° $\mathring{\text{C}}$ 42'14	2°24'58
direct	2404 Jan 30 03:11	19° $\mathring{\text{C}}$ 08'15		minimum elong	2405 Jan 01 23:54	11° $\mathring{\text{C}}$ 50'58	2°24'10
morning max el	2404 Feb 11 04:03	26° $\mathring{\text{C}}$ 18'53	25°23'56	min. Earth dist.	2405 Jan 02 13:44	11° $\mathring{\text{C}}$ 03'31	0.67515 AU
	2404 Feb 14 13:54	0° $\mathring{\text{A}}$		morning rise	2405 Jan 07 07:00	5° $\mathring{\text{C}}$ 27'07	
desc. node	2404 Feb 15 11:32	1° $\mathring{\text{A}}$ 02'44		direct	2405 Jan 12 15:39	3° $\mathring{\text{C}}$ 06'41	
	2404 Mar 07 00:09	0° $\mathring{\text{H}}$		morning max el	2405 Jan 23 12:23	9° $\mathring{\text{C}}$ 35'15	23°57'52
morning set	2404 Mar 18 08:50	19° $\mathring{\text{H}}$ 21'12		desc. node	2405 Feb 01 08:35	19° $\mathring{\text{C}}$ 59'32	
max. Earth dist.	2404 Mar 22 02:42	26° $\mathring{\text{H}}$ 15'52	1.36312 AU		2405 Feb 08 15:18	0° $\mathring{\text{A}}$	
	2404 Mar 24 01:52	0° $\mathring{\text{Y}}$			2405 Feb 27 17:03	0° $\mathring{\text{H}}$	
				morning set	2405 Feb 28 02:21	0° $\mathring{\text{H}}$ 39'52	
superior conj	2404 Mar 28 01:38	7° $\mathring{\text{Y}}$ 48'06	-1°-18'-29	max. Earth dist.	2405 Mar 03 22:26	7° $\mathring{\text{H}}$ 22'42	1.38360 AU
minimum elong	2404 Mar 28 05:31	8° $\mathring{\text{Y}}$ 07'24	1°17'53				
evening rise	2404 Apr 05 06:23	24° $\mathring{\text{Y}}$ 23'52		superior conj	2405 Mar 11 04:17	20° $\mathring{\text{H}}$ 42'48	-1°-42'-22
asc. node	2404 Apr 05 10:01	24° $\mathring{\text{Y}}$ 42'14		minimum elong	2405 Mar 11 08:39	21° $\mathring{\text{H}}$ 03'36	1°41'54
	2404 Apr 08 01:38	0° $\mathring{\text{B}}$			2405 Mar 15 23:45	0° $\mathring{\text{Y}}$	
evening max el	2404 Apr 22 17:16	22° $\mathring{\text{B}}$ 42'50	19°48'31	evening rise	2405 Mar 20 04:24	8° $\mathring{\text{Y}}$ 13'58	
retrograde	2404 May 02 16:24	27° $\mathring{\text{B}}$ 31'56		asc. node	2405 Mar 23 07:03	14° $\mathring{\text{Y}}$ 16'09	
evening set	2404 May 04 16:36	27° $\mathring{\text{B}}$ 21'04			2405 Apr 01 13:34	0° $\mathring{\text{B}}$	
desc. node	2404 May 13 10:41	23° $\mathring{\text{B}}$ 22'21		evening max el	2405 Apr 05 14:40	4° $\mathring{\text{B}}$ 46'17	18°54'46
inferior conj	2404 May 13 12:22	23° $\mathring{\text{B}}$ 19'46	0°-1'-12	retrograde	2405 Apr 14 00:07	8° $\mathring{\text{B}}$ 51'14	
minimum elong	2404 May 13 12:18	23° $\mathring{\text{B}}$ 19'51	0°01'11	evening set	2405 Apr 16 04:13	8° $\mathring{\text{B}}$ 35'57	
transit middle	2404 May 13 12:18	23° $\mathring{\text{B}}$ 19'51	0°01'11	inferior conj	2405 Apr 24 05:08	4° $\mathring{\text{B}}$ 18'35	1°41'11
transit begin	2404 May 13 08:22	23° $\mathring{\text{B}}$ 25'56		minimum elong	2405 Apr 24 08:37	4° $\mathring{\text{B}}$ 12'20	1°40'04
transit end	2404 May 13 16:15	23° $\mathring{\text{B}}$ 13'45		min. Earth dist.	2405 Apr 27 09:31	2° $\mathring{\text{B}}$ 03'19	0.56989 AU
min. Earth dist.	2404 May 15 17:37	21° $\mathring{\text{B}}$ 57'53	0.55526 AU	desc. node	2405 Apr 30 07:44	0° $\mathring{\text{B}}$ 14'10	
morning rise	2404 May 22 04:48	18° $\mathring{\text{B}}$ 50'22			2405 Apr 30 18:18	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$	
direct	2404 May 26 11:59	18° $\mathring{\text{B}}$ 09'26		morning rise	2405 May 02 08:43	29° $\mathring{\text{Y}}$ 14'46	
morning max el	2404 Jun 09 09:17	25° $\mathring{\text{B}}$ 04'44	24°22'31	direct	2405 May 07 16:39	28° $\mathring{\text{Y}}$ 06'49	
	2404 Jun 13 23:02	0° $\mathring{\text{I}}$			2405 May 14 15:55	0° $\mathring{\text{B}}$	
asc. node	2404 Jul 02 09:17	0° $\mathring{\text{C}}$ 22'30		morning max el	2405 May 22 00:04	5° $\mathring{\text{B}}$ 32'45	25°57'02
	2404 Jul 02 04:53	0° $\mathring{\text{C}}$			2405 Jun 08 19:50	0° $\mathring{\text{I}}$	
morning set	2404 Jul 04 10:55	4° $\mathring{\text{C}}$ 40'51		morning set	2405 Jun 18 22:17	19° $\mathring{\text{I}}$ 34'35	

asc. node	2405 Jun 19 06:18	20°II16'55			2406 Jun 01 04:56	0°II	
	2405 Jun 23 18:10	0°☿		morning set	2406 Jun 03 07:35	4°II20'49	
				asc. node	2406 Jun 06 03:20	10°II20'49	
superior conj	2405 Jun 25 22:38	4°☿48'10	1°05'18				
minimum elong	2405 Jun 25 20:20	4°☿35'31	1°04'54	superior conj	2406 Jun 10 10:25	19°II44'13	0°43'59
max. Earth dist.	2405 Jun 26 15:39	6°☿21'34	1.32399 AU	minimum elong	2406 Jun 10 08:38	19°II34'19	0°43'38
evening rise	2405 Jul 02 23:42	19°☿57'54		max. Earth dist.	2406 Jun 10 03:48	19°II07'44	1.32152 AU
	2405 Jul 07 23:50	0°♊			2406 Jun 15 02:53	0°☿	
	2405 Jul 26 16:09	0°♊		evening rise	2406 Jun 17 08:05	4°☿44'14	
desc. node	2405 Jul 27 07:02	0°♊47'02			2406 Jun 30 18:13	0°♊	
evening max el	2405 Aug 03 07:11	8°♊31'56	27°08'56	desc. node	2406 Jul 14 04:02	18°♊09'07	
retrograde	2405 Aug 17 03:55	15°♊45'45		evening max el	2406 Jul 16 07:16	20°♊17'56	26°18'32
evening set	2405 Aug 24 06:30	13°♊28'34		retrograde	2406 Jul 30 06:49	27°♊29'03	
min. Earth dist.	2405 Aug 27 21:27	10°♊44'53	0.61479 AU	evening set	2406 Aug 05 19:50	25°♊43'20	
inferior conj	2405 Aug 31 00:08	8°♊00'01	-4°-16'-17	min. Earth dist.	2406 Aug 09 20:10	23°♊08'18	0.59419 AU
minimum elong	2405 Aug 31 05:27	7°♊48'12	4°15'10	inferior conj	2406 Aug 13 03:32	20°♊35'47	-4°-51'-24
morning rise	2405 Sep 07 07:20	3°♊03'59		minimum elong	2406 Aug 13 06:51	20°♊29'21	4°51'05
direct	2405 Sep 09 16:02	2°♊40'45		morning rise	2406 Aug 20 21:19	16°♊02'59	
asc. node	2405 Sep 15 05:32	4°♊54'19		direct	2406 Aug 23 07:13	15°♊42'38	
morning max el	2405 Sep 16 16:21	6°♊11'21	17°57'13	morning max el	2406 Aug 31 01:56	19°♊27'46	18°22'33
	2405 Oct 01 21:54	0°♋		asc. node	2406 Sep 02 02:34	21°♊37'51	
morning set	2405 Oct 02 11:53	1°♋04'02			2406 Sep 07 21:43	0°♊	
				morning set	2406 Sep 16 01:06	14°♊52'07	
superior conj	2405 Oct 12 22:14	19°♋49'38	1°07'06		2406 Sep 24 00:35	0°♋	
minimum elong	2405 Oct 13 02:43	20°♋09'10	1°06'34				
	2405 Oct 18 21:22	0°♌		superior conj	2406 Sep 25 05:31	2°♋13'39	1°30'06
max. Earth dist.	2405 Oct 20 10:34	2°♌34'20	1.42458 AU	minimum elong	2406 Sep 25 08:57	2°♋29'27	1°29'48
desc. node	2405 Oct 23 06:22	7°♌11'17		max. Earth dist.	2406 Oct 02 17:51	15°♋36'01	1.40532 AU
evening rise	2405 Oct 26 20:44	12°♌56'31		evening rise	2406 Oct 07 07:19	23°♋17'04	
	2405 Nov 07 00:30	0°♍		desc. node	2406 Oct 10 03:23	27°♋54'35	
greatest brilliancy	2405 Nov 23 10:42	22°♍39'53	-0.3m		2406 Oct 11 10:42	0°♌	
evening max el	2405 Nov 28 03:58	27°♍59'30	22°07'50		2406 Oct 31 23:40	0°♍	
	2405 Nov 30 06:52	0°☿		evening max el	2406 Nov 10 18:42	11°♍33'37	23°27'28
retrograde	2405 Dec 07 14:00	3°☿35'42		retrograde	2406 Nov 21 07:40	17°♍47'45	
evening set	2405 Dec 12 00:09	1°☿50'27		evening set	2406 Nov 26 06:44	15°♍45'32	
asc. node	2405 Dec 12 04:46	1°☿40'57		asc. node	2406 Nov 29 01:49	12°♍49'35	
	2405 Dec 13 21:51	30°♎		inferior conj	2406 Dec 01 17:06	9°♍19'44	0°53'38
inferior conj	2405 Dec 17 09:39	25°♍28'52	1°42'19	minimum elong	2406 Dec 01 15:52	9°♍23'57	0°53'08
minimum elong	2405 Dec 17 07:34	25°♍36'07	1°41'32	min. Earth dist.	2406 Dec 01 06:08	9°♍57'17	0.67814 AU
min. Earth dist.	2405 Dec 17 09:26	25°♍29'38	0.67839 AU	morning rise	2406 Dec 07 01:07	3°♍10'12	
morning rise	2405 Dec 22 14:48	19°♍15'32		direct	2406 Dec 11 04:10	1°♍35'05	
direct	2405 Dec 27 08:17	17°♍17'35		morning max el	2406 Dec 19 15:19	6°♍30'09	21°07'10
morning max el	2406 Jan 05 23:01	22°♍58'06	22°29'35	greatest brilliancy	2406 Dec 25 00:23	12°♍41'36	-0.5m
greatest brilliancy	2406 Jan 10 12:34	28°♍03'56	-0.3m	desc. node	2407 Jan 06 02:39	29°♍31'49	
	2406 Jan 12 02:13	0°☿			2407 Jan 06 10:18	0°☿	
desc. node	2406 Jan 19 05:37	9°☿32'44		morning set	2407 Jan 19 02:13	19°☿17'15	
	2406 Feb 02 00:25	0°♏			2407 Jan 25 19:21	0°♏	
morning set	2406 Feb 08 16:19	10°♏37'34		max. Earth dist.	2407 Jan 26 21:30	1°♏46'29	1.42499 AU
max. Earth dist.	2406 Feb 13 19:00	19°♏08'05	1.40517 AU				
	2406 Feb 20 00:57	0°♐		superior conj	2407 Feb 03 01:39	13°♏45'17	-2°-5'-29
superior conj	2406 Feb 21 14:03	2°♐46'13	-1°-59'-33	minimum elong	2407 Feb 03 01:10	13°♏43'15	2°05'30
minimum elong	2406 Feb 21 17:17	3°♐00'47	1°59'24		2407 Feb 12 07:58	0°♐	
evening rise	2406 Mar 03 16:23	21°♐30'48		evening rise	2407 Feb 14 14:26	4°♐04'45	
	2406 Mar 08 05:39	0°♑		asc. node	2407 Feb 25 01:07	22°♐11'34	
asc. node	2406 Mar 10 04:05	3°♑28'34			2407 Mar 02 22:05	0°♑	
evening max el	2406 Mar 19 20:20	17°♑22'42	18°21'15	evening max el	2407 Mar 03 07:00	0°♑22'30	18°07'37
retrograde	2406 Mar 27 03:09	20°♑59'32		retrograde	2407 Mar 09 22:42	3°♑46'55	
evening set	2406 Mar 29 12:54	20°♑36'53		evening set	2407 Mar 12 13:50	3°♑15'04	
inferior conj	2406 Apr 05 19:22	15°♑58'50	2°50'58	inferior conj	2407 Mar 17 08:49	30°♒	
minimum elong	2406 Apr 05 23:04	15°♑51'05	2°50'08	minimum elong	2407 Mar 19 05:11	28°♒16'01	3°29'01
min. Earth dist.	2406 Apr 09 05:53	13°♑07'47	0.58972 AU	min. Earth dist.	2407 Mar 19 07:16	28°♒10'58	3°28'48
morning rise	2406 Apr 13 05:17	10°♑25'32		morning rise	2407 Mar 22 09:14	25°♒13'36	0.61128 AU
desc. node	2406 Apr 17 04:46	8°♑55'41		direct	2407 Mar 25 21:42	22°♒23'10	
direct	2406 Apr 19 10:46	8°♑42'10		desc. node	2407 Apr 04 01:49	20°♒21'33	
morning max el	2406 May 03 19:45	16°♑26'48	27°08'14	morning max el	2407 Apr 15 21:45	28°♒00'17	27°45'32
	2406 May 14 22:23	0°♓			2407 Apr 17 20:03	0°♑	

	2407 May 08 15:55	0°♄		min. Earth dist.	2408 Mar 03 21:24	8°♄12'17	0.63168 AU
morning set	2407 May 18 12:56	18°♄52'49		morning rise	2408 Mar 07 08:55	4°♄58'23	
	2407 May 23 19:00	0°♄		direct	2408 Mar 14 07:13	2°♄17'03	
asc. node	2407 May 24 00:23	0°♄29'15		desc. node	2408 Mar 20 22:52	4°♄21'58	
max. Earth dist.	2407 May 24 14:45	1°♄47'18	1.32292 AU	morning max el	2408 Mar 28 04:41	10°♄13'29	27°45'25
					2408 Apr 12 16:19	0°♄	
superior conj	2407 May 25 21:18	4°♄34'06	0°19'39		2408 Apr 29 23:10	0°♄	
minimum elong	2407 May 25 20:24	4°♄29'14	0°19'27	morning set	2408 May 01 12:05	3°♄03'10	
evening rise	2407 Jun 01 19:10	19°♄35'33		max. Earth dist.	2408 May 06 20:35	14°♄07'22	1.32843 AU
	2407 Jun 06 21:16	0°♄					
	2407 Jun 26 16:47	0°♄		superior conj	2408 May 09 05:29	19°♄11'56	0°-7'00
evening max el	2407 Jun 28 00:17	1°♄18'22	25°00'17	minimum elong	2408 May 09 05:50	19°♄13'46	0°06'57
desc. node	2407 Jul 01 01:03	3°♄56'48		behind sun begin	2408 May 09 01:04	18°♄48'05	
retrograde	2407 Jul 11 23:46	8°♄24'02		behind sun end	2408 May 09 10:36	19°♄39'29	
evening set	2407 Jul 17 09:34	7°♄17'06		asc. node	2408 May 09 21:27	20°♄38'04	
min. Earth dist.	2407 Jul 22 11:51	4°♄31'37	0.57426 AU		2408 May 14 05:19	0°♄	
inferior conj	2407 Jul 25 11:47	2°♄31'27	-4°-59'-40	evening rise	2408 May 16 07:01	4°♄25'27	
minimum elong	2407 Jul 25 10:29	2°♄33'38	4°59'38		2408 May 30 02:23	0°♄	
	2407 Jul 29 13:03	30°♄♄		evening max el	2408 Jun 08 13:57	11°♄50'15	23°26'07
morning rise	2407 Aug 02 15:07	28°♄21'05		desc. node	2408 Jun 16 22:05	17°♄35'23	
direct	2407 Aug 05 04:41	28°♄02'01		retrograde	2408 Jun 22 04:12	18°♄38'07	
	2407 Aug 11 08:06	0°♄		evening set	2408 Jun 26 02:14	18°♄04'30	
morning max el	2407 Aug 14 03:27	2°♄13'36	19°08'50	min. Earth dist.	2408 Jul 03 00:01	14°♄53'26	0.55838 AU
asc. node	2407 Aug 19 23:37	9°♄20'53		inferior conj	2408 Jul 05 00:03	13°♄42'14	-4°-26'-33
morning set	2407 Aug 30 23:47	29°♄08'00		minimum elong	2408 Jul 04 17:28	13°♄52'02	4°25'24
	2407 Aug 31 10:16	0°♄		morning rise	2408 Jul 13 11:53	9°♄47'34	
				direct	2408 Jul 16 07:09	9°♄28'15	
superior conj	2407 Sep 08 07:03	15°♄32'04	1°42'17	morning max el	2408 Jul 26 18:14	14°♄19'13	20°16'26
minimum elong	2407 Sep 08 08:40	15°♄39'51	1°42'12	asc. node	2408 Aug 05 20:41	27°♄49'34	
max. Earth dist.	2407 Sep 14 21:33	27°♄54'50	1.38468 AU		2408 Aug 07 02:36	0°♄	
	2407 Sep 16 01:21	0°♄		morning set	2408 Aug 14 04:51	13°♄43'01	
evening rise	2407 Sep 18 17:58	4°♄45'00					
desc. node	2407 Sep 27 00:24	18°♄30'34		superior conj	2408 Aug 21 21:43	29°♄29'36	1°45'25
	2407 Oct 04 12:23	0°♄		minimum elong	2408 Aug 21 21:36	29°♄28'58	1°45'25
evening max el	2407 Oct 24 07:10	25°♄11'58	24°46'02		2408 Aug 22 03:45	0°♄	
	2407 Oct 30 03:16	0°♄		max. Earth dist.	2408 Aug 27 03:19	9°♄48'41	1.36518 AU
retrograde	2407 Nov 04 21:28	1°♄57'06		evening rise	2408 Aug 31 02:22	17°♄14'16	
evening set	2407 Nov 10 10:32	29°♄38'37			2408 Sep 07 09:19	0°♄	
	2407 Nov 10 00:03	30°♄♄		desc. node	2408 Sep 12 21:25	8°♄53'54	
min. Earth dist.	2407 Nov 15 01:33	24°♄24'20	0.67454 AU		2408 Sep 27 20:49	0°♄	
inferior conj	2407 Nov 15 23:03	23°♄13'02	0°00'11	evening max el	2408 Oct 05 19:20	8°♄52'31	25°56'16
minimum elong	2407 Nov 15 23:02	23°♄13'03	0°00'11	retrograde	2408 Oct 18 06:25	15°♄57'55	
transit middle	2407 Nov 15 23:02	23°♄13'03	0°00'11	evening set	2408 Oct 24 09:45	13°♄25'40	
transit begin	2407 Nov 15 20:17	23°♄22'12		min. Earth dist.	2408 Oct 28 17:09	8°♄47'10	0.66761 AU
transit end	2407 Nov 16 01:48	23°♄03'55		inferior conj	2408 Oct 30 01:40	7°♄04'59	0°-56'-47
asc. node	2407 Nov 15 22:50	23°♄13'43		minimum elong	2408 Oct 30 03:09	7°♄00'18	0°56'10
morning rise	2407 Nov 21 12:01	17°♄09'39		asc. node	2408 Nov 01 19:54	3°♄47'51	
direct	2407 Nov 25 02:13	15°♄55'24		morning rise	2408 Nov 04 21:28	1°♄10'35	
morning max el	2407 Dec 02 15:15	20°♄13'15	19°56'18	direct	2408 Nov 08 00:50	0°♄13'57	
greatest brilliancy	2407 Dec 09 23:05	29°♄10'08	-0.6m	morning max el	2408 Nov 14 22:36	4°♄04'53	19°00'05
	2407 Dec 10 13:33	0°♄			2408 Dec 03 05:53	0°♄	
desc. node	2407 Dec 23 23:42	19°♄49'56		morning set	2408 Dec 07 05:37	6°♄14'07	
morning set	2407 Dec 28 22:16	27°♄25'01		desc. node	2408 Dec 09 20:44	10°♄21'03	
	2407 Dec 30 14:20	0°♄		max. Earth dist.	2408 Dec 21 23:32	29°♄20'37	1.44965 AU
max. Earth dist.	2408 Jan 09 07:24	15°♄15'10	1.44047 AU		2408 Dec 22 09:33	0°♄	
superior conj	2408 Jan 14 11:18	23°♄33'48	-1°-55'-6	superior conj	2408 Dec 23 21:31	2°♄21'43	-1°-25'-34
minimum elong	2408 Jan 14 05:15	23°♄09'14	1°54'46	minimum elong	2408 Dec 23 12:34	1°♄46'29	1°24'39
	2408 Jan 18 09:28	0°♄		evening rise	2409 Jan 07 23:59	26°♄34'25	
evening rise	2408 Jan 27 18:17	15°♄48'01			2409 Jan 10 02:22	0°♄	
	2408 Feb 05 02:53	0°♄		evening max el	2409 Jan 28 07:28	27°♄02'49	18°37'12
asc. node	2408 Feb 11 22:10	10°♄16'27		asc. node	2409 Jan 28 19:12	27°♄31'51	
evening max el	2408 Feb 14 19:38	13°♄38'06	18°13'11		2409 Feb 01 03:06	0°♄	
retrograde	2408 Feb 21 06:24	17°♄04'00		retrograde	2409 Feb 03 22:03	0°♄42'23	
evening set	2408 Feb 24 02:46	16°♄21'44			2409 Feb 06 15:47	30°♄♄	
inferior conj	2408 Mar 01 06:41	11°♄02'29	3°41'56	evening set	2409 Feb 07 00:08	29°♄48'40	
minimum elong	2408 Mar 01 06:50	11°♄02'04	3°41'56	inferior conj	2409 Feb 12 19:53	24°♄10'51	3°36'11

minimum elong	2409 Feb 12 18:31	24° \approx 14'57	3°36'03	min. Earth dist.	2410 Jan 29 01:21	5° \approx 51'39	0.66226 AU
min. Earth dist.	2409 Feb 14 19:00	21° \approx 49'45	0.64895 AU	morning rise	2410 Feb 02 02:19	1° \approx 20'44	
morning rise	2409 Feb 18 11:40	18° \approx 00'23			2410 Feb 03 20:19	30° \approx 34'49	
direct	2409 Feb 25 05:08	15° \approx 10'03		direct	2410 Feb 08 09:13	28° \approx 34'49	
desc. node	2409 Mar 07 19:56	20° \approx 22'51			2410 Feb 13 09:21	0° \approx	
morning max el	2409 Mar 10 14:10	22° \approx 58'27	27°10'50	morning max el	2410 Feb 20 23:49	6° \approx 03'08	26°08'42
	2409 Mar 16 19:50	0° \approx		desc. node	2410 Feb 22 16:59	7° \approx 50'40	
	2409 Apr 05 22:57	0° \approx			2410 Mar 11 11:35	0° \approx	
morning set	2409 Apr 15 02:09	16° \approx 42'56		morning set	2410 Mar 29 03:09	29° \approx 39'40	
max. Earth dist.	2409 Apr 19 17:40	25° \approx 58'15	1.33835 AU		2410 Mar 29 07:31	0° \approx	
	2409 Apr 21 16:35	0° \approx		max. Earth dist.	2410 Apr 02 03:23	7° \approx 17'07	1.35288 AU
superior conj	2409 Apr 23 09:01	3° \approx 31'31	0°-34'-58	superior conj	2410 Apr 07 05:23	17° \approx 24'36	-1°-3'-1
minimum elong	2409 Apr 23 10:48	3° \approx 40'52	0°34'37	minimum elong	2410 Apr 07 08:36	17° \approx 40'55	1°02'27
asc. node	2409 Apr 26 18:30	10° \approx 43'16			2410 Apr 13 07:49	0° \approx	
evening rise	2409 Apr 30 17:50	19° \approx 07'49		asc. node	2410 Apr 13 15:32	0° \approx 39'55	
	2409 May 06 03:11	0° \approx		evening rise	2410 Apr 15 01:32	3° \approx 35'12	
evening max el	2409 May 21 07:25	22° \approx 23'45	21°51'21		2410 Apr 30 08:23	0° \approx	
retrograde	2409 Jun 02 20:50	28° \approx 34'43		evening max el	2410 May 03 10:44	3° \approx 24'43	20°28'12
desc. node	2409 Jun 03 19:07	28° \approx 32'45		retrograde	2410 May 14 10:02	8° \approx 44'40	
evening set	2409 Jun 05 12:32	28° \approx 18'57		evening set	2410 May 16 11:30	8° \approx 34'09	
inferior conj	2409 Jun 14 21:18	24° \approx 15'55	-3°-5'00	desc. node	2410 May 21 16:10	6° \approx 47'06	
minimum elong	2409 Jun 14 13:34	24° \approx 26'44	3°02'40	inferior conj	2410 May 25 15:36	4° \approx 36'19	-1°-9'-47
min. Earth dist.	2409 Jun 14 11:28	24° \approx 29'41	0.54981 AU	minimum elong	2410 May 25 12:18	4° \approx 41'07	1°08'35
morning rise	2409 Jun 23 15:55	20° \approx 22'55		min. Earth dist.	2410 May 26 23:56	3° \approx 49'25	0.55055 AU
direct	2409 Jun 26 19:45	20° \approx 00'54		morning rise	2410 Jun 03 11:30	0° \approx 24'59	
morning max el	2409 Jul 08 21:29	25° \approx 40'44	21°43'28		2410 Jun 05 15:24	30° \approx	
	2409 Jul 12 22:13	0° \approx		direct	2410 Jun 07 06:03	29° \approx 54'18	
asc. node	2409 Jul 23 17:45	16° \approx 53'02			2410 Jun 08 20:25	0° \approx	
morning set	2409 Jul 29 14:01	28° \approx 31'02		morning max el	2410 Jun 20 15:37	6° \approx 24'17	23°23'37
	2409 Jul 30 07:05	0° \approx			2410 Jul 07 07:39	0° \approx	
superior conj	2409 Aug 05 21:35	13° \approx 55'04	1°41'13	asc. node	2410 Jul 10 14:47	6° \approx 21'39	
minimum elong	2409 Aug 05 20:11	13° \approx 47'41	1°41'09	morning set	2410 Jul 14 01:20	13° \approx 25'38	
max. Earth dist.	2409 Aug 09 16:30	21° \approx 43'19	1.34865 AU	superior conj	2410 Jul 21 03:36	28° \approx 38'35	1°31'02
	2409 Aug 13 21:04	0° \approx		minimum elong	2410 Jul 21 01:26	28° \approx 26'58	1°30'49
evening rise	2409 Aug 14 04:02	0° \approx 33'28			2410 Jul 21 18:47	0° \approx	
desc. node	2409 Aug 30 18:25	28° \approx 58'33		max. Earth dist.	2410 Jul 23 14:44	3° \approx 53'38	1.33588 AU
	2409 Aug 31 10:46	0° \approx		evening rise	2410 Jul 28 18:30	14° \approx 29'53	
evening max el	2409 Sep 18 07:44	22° \approx 28'46	26°50'25		2410 Aug 06 00:33	0° \approx	
retrograde	2409 Oct 01 09:56	29° \approx 44'11		desc. node	2410 Aug 17 15:26	18° \approx 36'11	
evening set	2409 Oct 08 02:17	27° \approx 03'09			2410 Aug 26 08:13	0° \approx	
min. Earth dist.	2409 Oct 12 02:30	23° \approx 01'34	0.65723 AU	evening max el	2410 Aug 31 19:27	5° \approx 49'52	27°21'17
inferior conj	2409 Oct 13 22:55	20° \approx 51'58	-1°-55'-41	retrograde	2410 Sep 14 07:43	13° \approx 08'07	
minimum elong	2409 Oct 14 02:03	20° \approx 42'50	1°54'28	evening set	2410 Sep 21 09:32	10° \approx 26'39	
asc. node	2409 Oct 19 16:57	15° \approx 23'47		min. Earth dist.	2410 Sep 25 03:24	7° \approx 00'51	0.64325 AU
morning rise	2409 Oct 20 03:16	15° \approx 09'45		inferior conj	2410 Sep 27 12:28	4° \approx 29'10	-2°-54'-14
direct	2409 Oct 22 22:02	14° \approx 26'59		minimum elong	2410 Sep 27 17:05	4° \approx 16'51	2°52'39
morning max el	2409 Oct 29 11:33	18° \approx 01'03	18°20'00		2410 Oct 02 09:17	30° \approx	
	2409 Nov 07 10:16	0° \approx		morning rise	2410 Oct 04 02:43	29° \approx 02'29	
morning set	2409 Nov 17 16:23	16° \approx 27'14		direct	2410 Oct 06 15:19	28° \approx 29'56	
	2409 Nov 26 02:26	0° \approx		asc. node	2410 Oct 06 14:00	28° \approx 29'57	
desc. node	2409 Nov 26 17:44	1° \approx 00'58			2410 Oct 10 20:49	0° \approx	
superior conj	2409 Dec 02 23:00	10° \approx 51'39	0°-41'00	morning max el	2410 Oct 13 03:31	1° \approx 56'12	17°56'57
minimum elong	2409 Dec 02 17:44	10° \approx 30'53	0°40'19	morning set	2410 Oct 30 07:25	28° \approx 03'08	
max. Earth dist.	2409 Dec 04 18:48	13° \approx 43'51	1.45152 AU		2410 Oct 31 10:58	0° \approx	
	2409 Dec 15 04:03	0° \approx		superior conj	2410 Nov 12 13:22	20° \approx 04'03	0°07'11
evening rise	2409 Dec 19 06:28	6° \approx 25'24		minimum elong	2410 Nov 12 14:12	20° \approx 07'25	0°07'05
greatest brilliancy	2410 Jan 02 11:08	28° \approx 24'57	-0.7m	behind sun begin	2410 Nov 12 04:54	19° \approx 29'50	
	2410 Jan 03 12:53	0° \approx		behind sun end	2410 Nov 12 23:29	20° \approx 44'55	
evening max el	2410 Jan 11 16:09	10° \approx 31'19	19°18'26	desc. node	2410 Nov 13 14:44	21° \approx 46'24	
asc. node	2410 Jan 15 16:14	13° \approx 43'47		max. Earth dist.	2410 Nov 17 13:27	28° \approx 04'36	1.44599 AU
retrograde	2410 Jan 18 18:15	14° \approx 35'09			2410 Nov 18 18:37	0° \approx	
evening set	2410 Jan 22 03:04	13° \approx 28'50		evening rise	2410 Nov 28 19:18	15° \approx 37'18	
inferior conj	2410 Jan 27 17:22	7° \approx 34'41	3°16'33		2410 Dec 08 05:43	0° \approx	
minimum elong	2410 Jan 27 15:06	7° \approx 42'02	3°16'06	greatest brilliancy	2410 Dec 19 09:23	16° \approx 10'50	-0.6m

evening max el	2410 Dec 25 20:01	24°☾01'20	20°15'03	retrograde	2411 Dec 17 13:42	12°☾46'05	
retrograde	2411 Jan 02 16:12	28°☾37'47		asc. node	2411 Dec 20 10:18	12°☾00'59	
asc. node	2411 Jan 02 13:16	28°☾37'42		evening set	2411 Dec 21 17:00	11°☾10'32	
evening set	2411 Jan 06 09:20	27°☾17'34		inferior conj	2411 Dec 27 02:37	4°☾53'03	2°07'41
inferior conj	2411 Jan 11 20:23	21°☾10'04	2°46'19	minimum elong	2411 Dec 27 00:13	5°☾01'22	2°06'53
minimum elong	2411 Jan 11 17:47	21°☾18'51	2°45'36	min. Earth dist.	2411 Dec 27 08:55	4°☾31'17	0.67688 AU
min. Earth dist.	2411 Jan 12 14:46	20°☾07'57	0.67149 AU		2411 Dec 30 21:53	30°☾☿	
morning rise	2411 Jan 17 01:42	14°☾54'39		morning rise	2412 Jan 01 07:06	28°☿38'12	
direct	2411 Jan 22 18:48	12°☾23'05		direct	2412 Jan 06 09:13	26°☿27'00	
morning max el	2411 Feb 03 08:31	19°☾17'33	24°48'21		2412 Jan 13 22:01	0°☾	
desc. node	2411 Feb 09 13:59	26°☾20'29		morning max el	2412 Jan 16 17:23	2°☾36'10	23°20'03
	2411 Feb 12 11:02	0°☿		greatest brilliancy	2412 Jan 22 01:59	8°☾37'57	-0.2m
	2411 Mar 04 14:30	0°☿		desc. node	2412 Jan 27 11:00	15°☾34'00	
morning set	2411 Mar 11 10:00	11°☿39'25			2412 Feb 06 13:31	0°☿	
max. Earth dist.	2411 Mar 15 02:39	18°☿19'18	1.37151 AU	morning set	2412 Feb 20 16:23	22°☿24'51	
	2411 Mar 21 06:41	0°☿		max. Earth dist.	2412 Feb 24 21:12	29°☿36'14	1.39273 AU
					2412 Feb 25 02:40	0°☿	
superior conj	2411 Mar 21 15:35	0°☿43'23	-1°-29'-11				
minimum elong	2411 Mar 21 19:49	1°☿04'03	1°28'37	superior conj	2412 Mar 03 11:37	13°☿17'21	-1°-50'-43
evening rise	2411 Mar 30 03:52	17°☿41'08		minimum elong	2412 Mar 03 15:46	13°☿36'39	1°50'23
asc. node	2411 Mar 31 12:33	20°☿23'45			2412 Mar 12 05:55	0°☿	
	2411 Apr 05 13:18	0°☿		evening rise	2412 Mar 12 22:00	1°☿17'40	
evening max el	2411 Apr 16 01:56	15°☿05'48	19°23'08	asc. node	2412 Mar 17 09:36	9°☿49'18	
retrograde	2411 Apr 25 08:17	19°☿34'51		evening max el	2412 Mar 29 03:18	27°☿24'39	18°38'09
evening set	2411 Apr 27 09:21	19°☿22'42			2412 Apr 01 12:05	0°☿	
inferior conj	2411 May 05 21:26	15°☿15'26	0°45'41	retrograde	2412 Apr 06 00:02	1°☿15'27	
minimum elong	2411 May 05 23:18	15°☿12'22	0°45'01	evening set	2412 Apr 08 06:26	0°☿57'24	
min. Earth dist.	2411 May 08 14:35	13°☿29'18	0.56063 AU		2412 Apr 10 17:58	30°☿☿	
desc. node	2411 May 08 13:11	13°☿31'32		inferior conj	2412 Apr 15 23:17	26°☿31'54	2°14'53
morning rise	2411 May 14 09:18	10°☿31'00		minimum elong	2412 Apr 16 03:12	26°☿24'24	2°13'47
direct	2411 May 19 02:35	9°☿40'13		min. Earth dist.	2412 Apr 19 08:22	23°☿58'24	0.57787 AU
morning max el	2411 Jun 02 06:03	16°☿50'46	25°04'34	morning rise	2412 Apr 23 19:35	21°☿14'18	
	2411 Jun 12 23:13	0°☿		desc. node	2412 Apr 24 10:12	20°☿57'55	
asc. node	2411 Jun 27 11:49	26°☿08'28		direct	2412 Apr 29 13:35	19°☿51'29	
morning set	2411 Jun 28 13:10	28°☿21'24		morning max el	2412 May 13 22:28	27°☿27'25	26°30'50
	2411 Jun 29 07:46	0°☿			2412 May 16 09:33	0°☿	
					2412 Jun 05 09:11	0°☿	
superior conj	2411 Jul 05 13:22	13°☿32'26	1°15'55	morning set	2412 Jun 11 23:54	13°☿13'12	
minimum elong	2411 Jul 05 10:58	13°☿19'21	1°15'34	asc. node	2412 Jun 13 08:51	16°☿07'58	
max. Earth dist.	2411 Jul 06 20:44	16°☿23'21	1.32716 AU				
evening rise	2411 Jul 12 18:09	28°☿53'00		superior conj	2412 Jun 19 00:58	28°☿30'08	0°56'42
	2411 Jul 13 07:15	0°☿		minimum elong	2412 Jun 18 22:50	28°☿18'21	0°56'17
	2411 Jul 30 04:29	0°☿		max. Earth dist.	2412 Jun 19 07:39	29°☿06'54	1.32245 AU
desc. node	2411 Aug 04 12:28	7°☿35'12			2412 Jun 19 17:18	0°☿	
evening max el	2411 Aug 14 04:37	18°☿43'21	27°22'50	evening rise	2412 Jun 26 00:06	13°☿33'58	
retrograde	2411 Aug 27 23:17	25°☿59'59			2412 Jul 04 09:03	0°☿	
evening set	2411 Sep 04 04:05	23°☿29'59		desc. node	2412 Jul 21 09:29	25°☿39'42	
min. Earth dist.	2411 Sep 07 18:20	20°☿34'01	0.62592 AU		2412 Jul 25 09:02	0°☿	
inferior conj	2411 Sep 10 15:27	17°☿49'47	-3°-48'-52	evening max el	2412 Jul 26 08:52	0°☿57'58	26°51'27
minimum elong	2411 Sep 10 20:54	17°☿36'46	3°47'24	retrograde	2412 Aug 09 07:24	8°☿10'59	
morning rise	2411 Sep 17 16:26	12°☿41'48		evening set	2412 Aug 16 05:35	6°☿06'01	
direct	2411 Sep 20 01:34	12°☿16'07		min. Earth dist.	2412 Aug 19 23:00	3°☿27'55	0.60609 AU
asc. node	2411 Sep 23 11:02	13°☿09'43		inferior conj	2412 Aug 23 04:36	0°☿45'57	-4°-33'-39
morning max el	2411 Sep 26 19:29	15°☿42'57	17°51'42	minimum elong	2412 Aug 23 09:23	0°☿35'54	4°32'51
	2411 Oct 06 18:55	0°☿			2412 Aug 24 02:42	30°☿☿	
morning set	2411 Oct 12 21:02	10°☿43'41		morning rise	2412 Aug 30 16:24	25°☿59'28	
	2411 Oct 23 21:38	0°☿		direct	2412 Sep 02 01:06	25°☿37'48	
				asc. node	2412 Sep 09 08:04	29°☿13'03	
superior conj	2411 Oct 24 05:17	0°☿32'23	0°48'28	morning max el	2412 Sep 09 08:21	29°☿13'43	18°05'26
minimum elong	2411 Oct 24 09:26	0°☿49'53	0°47'55		2412 Sep 10 02:36	0°☿	
max. Earth dist.	2411 Oct 31 04:32	12°☿04'28	1.43389 AU	morning set	2412 Sep 25 03:11	24°☿12'09	
desc. node	2411 Oct 31 11:45	12°☿33'41			2412 Sep 28 05:47	0°☿	
evening rise	2411 Nov 08 04:28	24°☿45'14					
	2411 Nov 11 14:08	0°☿		superior conj	2412 Oct 04 23:36	12°☿18'29	1°18'17
	2411 Dec 02 08:55	0°☿		minimum elong	2412 Oct 05 03:49	12°☿37'18	1°17'49
greatest brilliancy	2411 Dec 03 17:48	1°☿44'59	-0.4m	max. Earth dist.	2412 Oct 12 14:44	25°☿30'38	1.41676 AU
evening max el	2411 Dec 08 18:15	7°☿31'55	21°24'11		2412 Oct 15 07:40	0°☿	

desc. node	2412 Oct 17 08:47	3°♄20'00		desc. node	2413 Oct 04 05:50	24°♄01'03	
evening rise	2412 Oct 18 02:48	4°♄32'33			2413 Oct 08 00:54	0°♄	
	2412 Nov 03 21:49	0°♄			2413 Oct 29 17:17	0°♄	
greatest brilliancy	2412 Nov 15 13:01	15°♄33'19	-0.3m	evening max el	2413 Nov 03 01:10	4°♄41'47	24°01'25
evening max el	2412 Nov 20 11:28	21°♄05'05	22°41'28	retrograde	2413 Nov 14 01:02	11°♄09'22	
retrograde	2412 Nov 30 09:02	26°♄57'46		evening set	2413 Nov 19 06:02	9°♄00'07	
evening set	2412 Dec 05 00:26	25°♄05'34		asc. node	2413 Nov 23 04:21	4°♄37'48	
asc. node	2412 Dec 06 07:20	23°♄53'51		min. Earth dist.	2413 Nov 24 01:48	3°♄26'15	0.67710 AU
inferior conj	2412 Dec 10 10:10	18°♄41'52	1°22'19	inferior conj	2413 Nov 24 17:12	2°♄34'07	0°31'29
minimum elong	2412 Dec 10 08:23	18°♄48'00	1°21'38	minimum elong	2413 Nov 24 16:27	2°♄36'40	0°31'10
min. Earth dist.	2412 Dec 10 05:24	18°♄58'18	0.67872 AU		2413 Nov 26 15:58	30°♄	
morning rise	2412 Dec 15 16:15	12°♄29'42		morning rise	2413 Nov 30 03:06	26°♄27'02	
direct	2412 Dec 20 03:31	10°♄41'19		direct	2413 Dec 04 00:33	25°♄00'59	
morning max el	2412 Dec 29 05:51	16°♄01'41	21°53'18	morning max el	2413 Dec 12 01:15	29°♄38'25	20°35'21
greatest brilliancy	2413 Jan 02 23:44	21°♄22'35	-0.4m		2413 Dec 12 09:45	0°♄	
	2413 Jan 09 13:24	0°♄		greatest brilliancy	2413 Dec 18 02:45	6°♄46'22	-0.5m
desc. node	2413 Jan 13 08:02	5°♄19'12		desc. node	2413 Dec 31 05:06	25°♄27'24	
	2413 Jan 29 15:06	0°♄			2414 Jan 03 05:28	0°♄	
morning set	2413 Jan 30 17:41	1°♄46'06		morning set	2414 Jan 09 18:58	10°♄03'56	
max. Earth dist.	2413 Feb 05 19:26	11°♄41'35	1.41398 AU	max. Earth dist.	2414 Jan 19 01:45	24°♄45'11	1.43227 AU
					2414 Jan 22 07:05	0°♄	
superior conj	2413 Feb 13 12:35	24°♄54'46	-2°-3'-45	superior conj	2414 Jan 25 13:25	5°♄24'22	-2°-3'-21
minimum elong	2413 Feb 13 14:35	25°♄03'33	2°03'43	minimum elong	2414 Jan 25 10:38	5°♄12'44	2°03'17
	2413 Feb 16 09:15	0°♄		evening rise	2414 Feb 06 19:21	26°♄30'18	
evening rise	2413 Feb 24 04:30	14°♄16'43			2414 Feb 08 18:56	0°♄	
asc. node	2413 Mar 04 06:39	28°♄50'02		asc. node	2414 Feb 19 03:42	17°♄18'11	
	2413 Mar 04 23:25	0°♄		evening max el	2414 Feb 23 23:25	23°♄19'54	18°07'42
evening max el	2413 Mar 12 11:33	10°♄12'20	18°13'10	retrograde	2414 Mar 02 11:46	26°♄43'20	
retrograde	2413 Mar 19 10:23	13°♄41'40		evening set	2414 Mar 05 05:11	26°♄07'03	
evening set	2413 Mar 21 22:37	13°♄15'08		inferior conj	2414 Mar 11 15:11	20°♄58'56	3°37'11
inferior conj	2413 Mar 28 22:11	8°♄28'12	3°10'37	minimum elong	2414 Mar 11 16:25	20°♄55'45	3°37'06
minimum elong	2413 Mar 29 01:19	8°♄21'12	3°10'04	min. Earth dist.	2414 Mar 14 13:57	17°♄59'30	0.62019 AU
min. Earth dist.	2413 Apr 01 07:14	5°♄29'18	0.59887 AU	morning rise	2414 Mar 18 01:10	15°♄00'38	
morning rise	2413 Apr 05 00:29	2°♄45'47		direct	2414 Mar 24 22:31	12°♄31'39	
desc. node	2413 Apr 11 07:15	0°♄47'06		desc. node	2414 Mar 29 04:17	13°♄22'20	
direct	2413 Apr 11 13:03	0°♄46'56		morning max el	2414 Apr 08 00:56	20°♄27'25	27°50'12
morning max el	2413 Apr 25 20:32	8°♄36'18	27°28'39		2414 Apr 16 06:08	0°♄	
	2413 May 12 04:08	0°♄			2414 May 05 03:12	0°♄	
morning set	2413 May 27 07:45	27°♄54'17		morning set	2414 May 11 10:47	12°♄18'15	
	2413 May 28 07:48	0°♄		max. Earth dist.	2414 May 17 05:17	24°♄26'31	1.32476 AU
asc. node	2413 May 31 05:54	6°♄14'31		asc. node	2414 May 18 02:58	26°♄23'53	
max. Earth dist.	2413 Jun 02 19:48	11°♄52'24	1.32164 AU				
superior conj	2413 Jun 03 12:35	13°♄24'38	0°34'02	superior conj	2414 May 18 22:32	28°♄10'10	0°08'36
minimum elong	2413 Jun 03 11:07	13°♄16'37	0°33'42	minimum elong	2414 May 18 22:07	28°♄07'59	0°08'31
evening rise	2413 Jun 10 09:53	28°♄23'51		behind sun begin	2414 May 18 17:45	27°♄44'10	
	2413 Jun 11 04:08	0°♄		behind sun end	2414 May 19 02:30	28°♄31'48	
	2413 Jun 27 23:11	0°♄			2414 May 19 18:40	0°♄	
desc. node	2413 Jul 08 06:32	12°♄26'08		evening rise	2414 May 25 21:32	13°♄15'43	
evening max el	2413 Jul 08 06:06	12°♄25'07	25°48'11		2414 Jun 03 08:18	0°♄	
retrograde	2413 Jul 22 06:08	19°♄33'47		evening max el	2414 Jun 19 20:58	23°♄10'22	24°21'15
evening set	2413 Jul 28 09:08	18°♄04'38		desc. node	2414 Jun 25 03:32	27°♄23'49	
min. Earth dist.	2413 Aug 01 18:25	15°♄27'17	0.58552 AU		2414 Jul 01 15:09	0°♄	
inferior conj	2413 Aug 05 00:15	13°♄06'28	-4°-59'-2	retrograde	2414 Jul 03 17:36	0°♄10'11	
minimum elong	2413 Aug 05 01:55	13°♄03'27	4°58'59		2414 Jul 05 20:18	30°♄	
morning rise	2413 Aug 12 22:12	8°♄43'11		evening set	2414 Jul 08 12:56	29°♄18'37	
direct	2413 Aug 15 09:30	8°♄23'25		min. Earth dist.	2414 Jul 14 07:48	26°♄24'06	0.56690 AU
morning max el	2413 Aug 23 14:50	12°♄18'21	18°39'30	inferior conj	2414 Jul 16 23:50	24°♄43'05	-4°-51'-25
asc. node	2413 Aug 27 05:07	16°♄23'51		minimum elong	2414 Jul 16 20:07	24°♄48'59	4°51'05
	2413 Sep 04 13:27	0°♄		morning rise	2414 Jul 25 06:57	20°♄40'51	
morning set	2413 Sep 08 20:54	8°♄13'49		direct	2414 Jul 27 22:55	20°♄21'45	
				morning max el	2414 Aug 06 11:58	24°♄47'54	19°34'57
superior conj	2413 Sep 17 15:20	25°♄07'40	1°36'29		2414 Aug 11 01:12	0°♄	
minimum elong	2413 Sep 17 18:02	25°♄20'19	1°36'17	asc. node	2414 Aug 14 02:11	4°♄27'47	
	2413 Sep 20 06:15	0°♄		morning set	2414 Aug 23 22:36	22°♄38'55	
max. Earth dist.	2413 Sep 24 20:26	8°♄14'59	1.39667 AU		2414 Aug 27 14:02	0°♄	
evening rise	2413 Sep 28 23:40	15°♄22'05					

superior conj	2414 Aug 31 23:01	8° $\mathring{\text{M}}$ 44'32	1°44'36	superior conj	2415 Aug 15 18:02	22° $\mathring{\text{O}}$ 55'55	1°44'26
minimum elong	2414 Aug 31 23:51	8° $\mathring{\text{M}}$ 48'39	1°44'35	minimum elong	2415 Aug 15 17:18	22° $\mathring{\text{O}}$ 52'10	1°44'26
max. Earth dist.	2414 Sep 07 00:36	20° $\mathring{\text{M}}$ 21'51	1.37619 AU		2415 Aug 19 05:57	0° $\mathring{\text{M}}$	
evening rise	2414 Sep 10 20:00	27° $\mathring{\text{M}}$ 17'04		max. Earth dist.	2415 Aug 20 08:46	2° $\mathring{\text{M}}$ 12'30	1.35767 AU
	2414 Sep 12 08:59	0° $\mathring{\text{A}}$		evening rise	2415 Aug 24 12:18	10° $\mathring{\text{M}}$ 09'27	
desc. node	2414 Sep 21 02:52	14° $\mathring{\text{A}}$ 32'28			2415 Sep 04 22:29	0° $\mathring{\text{A}}$	
	2414 Oct 01 11:57	0° $\mathring{\text{M}}$		desc. node	2415 Sep 07 23:52	4° $\mathring{\text{A}}$ 49'09	
evening max el	2414 Oct 16 13:14	18° $\mathring{\text{M}}$ 21'14	25°17'17		2415 Sep 27 01:22	0° $\mathring{\text{M}}$	
retrograde	2414 Oct 28 12:47	25° $\mathring{\text{M}}$ 16'09		evening max el	2415 Sep 29 01:18	2° $\mathring{\text{M}}$ 00'55	26°21'37
evening set	2414 Nov 03 08:08	22° $\mathring{\text{M}}$ 51'05		retrograde	2415 Oct 11 19:42	9° $\mathring{\text{M}}$ 12'34	
min. Earth dist.	2414 Nov 07 19:45	17° $\mathring{\text{M}}$ 52'07	0.67207 AU	evening set	2415 Oct 18 04:50	6° $\mathring{\text{M}}$ 35'31	
inferior conj	2414 Nov 08 21:57	16° $\mathring{\text{M}}$ 27'06	0°-23'-38	min. Earth dist.	2415 Oct 22 08:59	22° $\mathring{\text{M}}$ 12'46	0.66362 AU
minimum elong	2414 Nov 08 22:33	16° $\mathring{\text{M}}$ 25'09	0°23'24	inferior conj	2415 Oct 23 22:33	0° $\mathring{\text{M}}$ 18'04	-1°-21'-38
asc. node	2414 Nov 10 01:24	14° $\mathring{\text{M}}$ 59'00		minimum elong	2415 Oct 24 00:44	0° $\mathring{\text{M}}$ 11'25	1°20'45
morning rise	2414 Nov 14 13:38	10° $\mathring{\text{M}}$ 27'29			2415 Oct 24 04:29	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
direct	2414 Nov 17 22:56	9° $\mathring{\text{M}}$ 21'17		asc. node	2415 Oct 27 22:27	25° $\mathring{\text{A}}$ 54'51	
morning max el	2414 Nov 25 04:36	13° $\mathring{\text{M}}$ 26'07	19°30'29	morning rise	2415 Oct 29 21:50	24° $\mathring{\text{A}}$ 28'38	
greatest brilliancy	2414 Dec 03 19:42	24° $\mathring{\text{M}}$ 20'20	-0.7m	direct	2415 Nov 01 21:08	23° $\mathring{\text{A}}$ 38'33	
	2414 Dec 07 16:32	0° $\mathring{\text{A}}$		morning max el	2415 Nov 08 14:43	27° $\mathring{\text{A}}$ 21'24	18°40'58
desc. node	2414 Dec 18 02:08	15° $\mathring{\text{A}}$ 51'44			2415 Nov 10 23:39	0° $\mathring{\text{M}}$	
morning set	2414 Dec 19 16:50	18° $\mathring{\text{A}}$ 21'20		morning set	2415 Nov 29 10:55	27° $\mathring{\text{M}}$ 44'24	
	2414 Dec 27 04:31	0° $\mathring{\text{A}}$			2415 Nov 30 21:09	0° $\mathring{\text{A}}$	
max. Earth dist.	2415 Jan 01 14:58	8° $\mathring{\text{A}}$ 33'07	1.44521 AU	desc. node	2415 Dec 04 23:10	6° $\mathring{\text{A}}$ 27'31	
superior conj	2415 Jan 05 12:04	14° $\mathring{\text{A}}$ 43'38	-1°-44'-51	superior conj	2415 Dec 15 16:08	23° $\mathring{\text{A}}$ 17'40	-1°-7'-55
minimum elong	2415 Jan 05 04:06	14° $\mathring{\text{A}}$ 11'45	1°44'14	minimum elong	2415 Dec 15 08:02	22° $\mathring{\text{A}}$ 45'49	1°06'59
	2415 Jan 14 21:17	0° $\mathring{\text{A}}$		max. Earth dist.	2415 Dec 15 08:24	22° $\mathring{\text{A}}$ 47'16	1.45134 AU
evening rise	2415 Jan 19 14:12	7° $\mathring{\text{A}}$ 50'13			2415 Dec 19 22:31	0° $\mathring{\text{A}}$	
	2415 Feb 02 05:10	0° $\mathring{\text{H}}$		evening rise	2415 Dec 31 09:54	18° $\mathring{\text{A}}$ 12'38	
asc. node	2415 Feb 06 00:44	5° $\mathring{\text{H}}$ 03'28			2416 Jan 07 18:41	0° $\mathring{\text{A}}$	
evening max el	2415 Feb 07 11:55	6° $\mathring{\text{H}}$ 39'31	18°21'09	evening max el	2416 Jan 21 22:38	20° $\mathring{\text{A}}$ 06'17	18°52'40
retrograde	2415 Feb 13 23:26	10° $\mathring{\text{H}}$ 10'14		asc. node	2416 Jan 23 21:45	21° $\mathring{\text{A}}$ 53'47	
evening set	2415 Feb 16 22:04	9° $\mathring{\text{H}}$ 23'17		retrograde	2416 Jan 28 17:25	23° $\mathring{\text{A}}$ 55'18	
inferior conj	2415 Feb 22 22:06	3° $\mathring{\text{H}}$ 55'40	3°41'28	evening set	2416 Jan 31 22:05	22° $\mathring{\text{A}}$ 56'33	
minimum elong	2415 Feb 22 21:33	3° $\mathring{\text{H}}$ 57'16	3°41'26	inferior conj	2416 Feb 06 15:14	17° $\mathring{\text{A}}$ 11'35	3°29'18
min. Earth dist.	2415 Feb 25 06:11	1° $\mathring{\text{H}}$ 16'18	0.63941 AU	minimum elong	2416 Feb 06 13:24	17° $\mathring{\text{A}}$ 17'15	3°29'02
	2415 Feb 26 10:39	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		min. Earth dist.	2416 Feb 08 07:51	15° $\mathring{\text{A}}$ 05'38	0.65513 AU
morning rise	2415 Feb 28 19:23	27° $\mathring{\text{A}}$ 48'07		morning rise	2416 Feb 12 03:39	10° $\mathring{\text{A}}$ 59'05	
direct	2415 Mar 07 16:18	25° $\mathring{\text{A}}$ 01'22		direct	2416 Feb 18 17:09	8° $\mathring{\text{A}}$ 08'52	
desc. node	2415 Mar 16 01:19	28° $\mathring{\text{A}}$ 18'07		desc. node	2416 Mar 01 22:22	14° $\mathring{\text{A}}$ 59'29	
	2415 Mar 18 05:24	0° $\mathring{\text{H}}$		morning max el	2416 Mar 02 19:21	15° $\mathring{\text{A}}$ 51'15	26°47'08
morning max el	2415 Mar 21 09:30	2° $\mathring{\text{H}}$ 56'10	27°34'43		2416 Mar 14 11:38	0° $\mathring{\text{H}}$	
	2415 Apr 10 14:47	0° $\mathring{\text{Y}}$			2416 Apr 02 09:58	0° $\mathring{\text{Y}}$	
morning set	2415 Apr 25 06:27	26° $\mathring{\text{Y}}$ 16'34		morning set	2416 Apr 07 15:28	9° $\mathring{\text{Y}}$ 39'27	
	2415 Apr 27 03:07	0° $\mathring{\text{B}}$		max. Earth dist.	2416 Apr 12 00:01	18° $\mathring{\text{Y}}$ 10'16	1.34393 AU
max. Earth dist.	2415 Apr 30 07:53	6° $\mathring{\text{B}}$ 35'08	1.33206 AU	superior conj	2416 Apr 16 05:43	26° $\mathring{\text{Y}}$ 49'16	0°-46'-59
superior conj	2415 May 03 04:57	12° $\mathring{\text{B}}$ 40'25	0°-18'-47	minimum elong	2416 Apr 16 08:07	27° $\mathring{\text{Y}}$ 01'45	0°46'31
minimum elong	2415 May 03 05:53	12° $\mathring{\text{B}}$ 45'25	0°18'35		2416 Apr 17 18:17	0° $\mathring{\text{B}}$	
asc. node	2415 May 05 00:02	16° $\mathring{\text{B}}$ 31'26		asc. node	2416 Apr 20 21:04	6° $\mathring{\text{B}}$ 33'15	
evening rise	2415 May 10 09:08	28° $\mathring{\text{B}}$ 02'38		evening rise	2416 Apr 23 18:50	12° $\mathring{\text{B}}$ 38'47	
	2415 May 11 07:30	0° $\mathring{\text{II}}$			2416 May 02 18:45	0° $\mathring{\text{II}}$	
	2415 May 29 02:17	0° $\mathring{\text{B}}$		evening max el	2416 May 13 08:05	14° $\mathring{\text{II}}$ 20'08	21°14'05
evening max el	2415 Jun 01 11:00	3° $\mathring{\text{B}}$ 37'46	22°45'02	retrograde	2416 May 25 06:48	20° $\mathring{\text{II}}$ 10'26	
desc. node	2415 Jun 12 00:32	9° $\mathring{\text{B}}$ 56'47		evening set	2416 May 27 13:59	19° $\mathring{\text{II}}$ 58'14	
retrograde	2415 Jun 14 16:57	10° $\mathring{\text{B}}$ 13'16		desc. node	2416 May 28 21:34	19° $\mathring{\text{II}}$ 40'50	
evening set	2415 Jun 18 00:30	9° $\mathring{\text{B}}$ 49'07		inferior conj	2416 Jun 05 22:41	15° $\mathring{\text{II}}$ 59'40	-2°-18'-27
min. Earth dist.	2415 Jun 25 19:17	6° $\mathring{\text{B}}$ 23'25	0.55362 AU	minimum elong	2416 Jun 05 16:21	16° $\mathring{\text{II}}$ 08'34	2°16'19
inferior conj	2415 Jun 27 04:34	5° $\mathring{\text{B}}$ 35'42	-3°-57'-42	min. Earth dist.	2416 Jun 06 07:19	15° $\mathring{\text{II}}$ 47'31	0.54882 AU
minimum elong	2415 Jun 26 20:44	5° $\mathring{\text{B}}$ 46'57	3°55'50	morning rise	2416 Jun 14 18:43	12° $\mathring{\text{II}}$ 00'53	
morning rise	2415 Jul 05 19:42	1° $\mathring{\text{B}}$ 44'15		direct	2416 Jun 18 03:41	11° $\mathring{\text{II}}$ 36'13	
direct	2415 Jul 08 17:51	1° $\mathring{\text{B}}$ 24'26		morning max el	2416 Jun 30 20:45	17° $\mathring{\text{II}}$ 38'54	22°25'11
morning max el	2415 Jul 19 21:52	6° $\mathring{\text{B}}$ 35'14	20°51'25		2416 Jul 10 17:45	0° $\mathring{\text{B}}$	
asc. node	2415 Jul 31 23:15	23° $\mathring{\text{B}}$ 12'33		asc. node	2416 Jul 17 20:18	12° $\mathring{\text{B}}$ 27'32	
	2415 Aug 04 14:08	0° $\mathring{\text{O}}$		morning set	2416 Jul 22 15:56	22° $\mathring{\text{B}}$ 11'42	
morning set	2415 Aug 08 05:40	7° $\mathring{\text{O}}$ 20'30			2416 Jul 26 08:19	0° $\mathring{\text{O}}$	

superior conj	2416 Jul 29 20:49	7°♄30'09	1°37'34	morning set	2417 Jul 07 03:41	7°♄07'37	
minimum elong	2416 Jul 29 19:01	7°♄20'37	1°37'26				
max. Earth dist.	2416 Aug 02 01:30	14°♄11'22	1.34264 AU	superior conj	2417 Jul 14 04:42	22°♄19'02	1°25'11
evening rise	2416 Aug 06 19:53	23°♄46'08		minimum elong	2417 Jul 14 02:22	22°♄06'26	1°24'54
	2416 Aug 10 02:14	0°♄		max. Earth dist.	2417 Jul 16 03:28	26°♄31'01	1.33168 AU
desc. node	2416 Aug 24 20:52	24°♄43'42			2417 Jul 17 18:45	0°♄	
	2416 Aug 28 12:49	0°♄		evening rise	2417 Jul 21 14:42	7°♄55'38	
evening max el	2416 Sep 10 13:37	15°♄32'41	27°06'52		2417 Aug 02 13:30	0°♄	
retrograde	2416 Sep 23 21:01	22°♄50'34		desc. node	2417 Aug 11 17:54	14°♄06'39	
evening set	2416 Sep 30 17:47	20°♄08'18		evening max el	2417 Aug 24 00:48	28°♄44'42	27°25'55
min. Earth dist.	2416 Oct 04 15:09	16°♄22'02	0.65168 AU		2417 Aug 25 09:38	0°♄	
inferior conj	2416 Oct 06 16:51	14°♄02'09	-2°-20'-44	retrograde	2417 Sep 06 16:06	6°♄01'54	
minimum elong	2416 Oct 06 20:39	13°♄51'26	2°19'18	evening set	2417 Sep 13 20:05	3°♄24'07	
morning rise	2416 Oct 13 01:16	8°♄25'56		min. Earth dist.	2417 Sep 17 12:05	0°♄11'46	0.63628 AU
asc. node	2416 Oct 13 19:29	8°♄07'27			2417 Sep 17 16:50	30°♄	
direct	2416 Oct 15 17:00	7°♄48'02		inferior conj	2417 Sep 20 02:18	27°♄33'39	-3°-18'-10
morning max el	2416 Oct 22 05:16	11°♄18'06	18°07'59	minimum elong	2417 Sep 20 07:24	27°♄20'39	3°16'33
	2416 Nov 04 05:29	0°♄		morning rise	2417 Sep 26 21:02	22°♄14'09	
morning set	2416 Nov 09 10:14	8°♄34'42		direct	2417 Sep 29 07:52	21°♄44'49	
desc. node	2416 Nov 20 20:10	27°♄10'17		asc. node	2417 Sep 30 16:32	21°♄54'01	
	2416 Nov 22 14:40	0°♄		morning max el	2417 Oct 05 21:31	25°♄10'18	17°52'25
					2417 Oct 09 21:28	0°♄	
superior conj	2416 Nov 23 20:44	1°♄59'35	0°-20'-17	morning set	2417 Oct 22 11:43	20°♄41'01	
minimum elong	2416 Nov 23 18:10	1°♄49'21	0°19'56		2417 Oct 27 21:34	0°♄	
max. Earth dist.	2416 Nov 27 03:22	7°♄10'23	1.45010 AU				
evening rise	2416 Dec 10 07:36	27°♄43'34		superior conj	2417 Nov 03 21:10	11°♄42'07	0°25'56
	2416 Dec 11 18:49	0°♄		minimum elong	2417 Nov 03 23:52	11°♄53'13	0°25'34
greatest brilliancy	2416 Dec 27 11:28	23°♄47'01	-0.6m	desc. node	2417 Nov 07 17:10	17°♄56'58	
	2417 Jan 01 02:08	0°♄		max. Earth dist.	2417 Nov 09 21:09	21°♄25'42	1.44169 AU
evening max el	2417 Jan 04 05:29	3°♄36'09	19°40'50		2417 Nov 15 07:20	0°♄	
asc. node	2417 Jan 09 18:46	7°♄34'30		evening rise	2417 Nov 19 16:51	6°♄49'09	
retrograde	2417 Jan 11 14:33	7°♄52'44			2417 Dec 05 03:31	0°♄	
evening set	2417 Jan 15 02:41	6°♄40'49		greatest brilliancy	2417 Dec 12 14:07	10°♄20'53	-0.5m
inferior conj	2417 Jan 20 15:23	0°♄40'54	3°04'50	evening max el	2417 Dec 18 07:05	17°♄06'57	20°43'10
minimum elong	2417 Jan 20 12:55	0°♄49'04	3°04'16	retrograde	2417 Dec 26 12:26	21°♄58'27	
	2417 Jan 21 03:47	30°♄		asc. node	2417 Dec 27 15:48	21°♄51'13	
min. Earth dist.	2417 Jan 21 17:28	29°♄14'55	0.66675 AU	evening set	2417 Dec 30 09:46	20°♄31'45	
morning rise	2417 Jan 25 22:26	24°♄26'08		inferior conj	2418 Jan 04 20:02	14°♄19'43	2°30'49
direct	2417 Jan 31 23:52	21°♄45'02		minimum elong	2418 Jan 04 17:27	14°♄28'31	2°30'02
morning max el	2417 Feb 13 04:24	29°♄00'33	25°35'59	min. Earth dist.	2418 Jan 05 09:05	13°♄35'04	0.67433 AU
	2417 Feb 14 03:28	0°♄		morning rise	2418 Jan 10 00:42	8°♄04'34	
desc. node	2417 Feb 16 19:24	2°♄56'21		direct	2418 Jan 15 11:34	5°♄41'11	
	2417 Mar 08 07:07	0°♄		morning max el	2418 Jan 26 12:45	12°♄16'29	24°11'06
morning set	2417 Mar 21 09:27	22°♄14'14		desc. node	2418 Feb 03 16:25	21°♄46'30	
max. Earth dist.	2417 Mar 25 04:32	29°♄17'49	1.36034 AU		2418 Feb 09 18:33	0°♄	
	2417 Mar 25 13:25	0°♄			2418 Mar 01 02:21	0°♄	
				morning set	2418 Mar 03 06:37	3°♄44'00	
superior conj	2417 Mar 30 22:13	10°♄29'34	-1°-14'-29	max. Earth dist.	2418 Mar 07 01:07	10°♄23'04	1.38041 AU
minimum elong	2417 Mar 31 01:57	10°♄48'13	1°13'54				
asc. node	2417 Apr 07 18:06	26°♄25'23		superior conj	2418 Mar 14 02:57	23°♄30'51	-1°-39'-5
evening rise	2417 Apr 08 00:34	26°♄58'14		minimum elong	2418 Mar 14 07:20	23°♄51'51	1°38'36
	2417 Apr 09 12:33	0°♄			2418 Mar 17 11:21	0°♄	
evening max el	2417 Apr 25 16:42	25°♄38'53	19°58'12	evening rise	2418 Mar 22 23:48	10°♄52'51	
	2417 May 02 08:09	0°♄		asc. node	2418 Mar 25 15:08	16°♄02'14	
retrograde	2417 May 05 21:56	0°♄35'36			2418 Apr 02 12:24	0°♄	
evening set	2417 May 07 22:10	0°♄24'58		evening max el	2418 Apr 08 12:34	7°♄36'39	19°01'29
	2417 May 09 15:29	30°♄		retrograde	2418 Apr 17 03:07	11°♄47'32	
desc. node	2417 May 15 18:36	27°♄03'45		evening set	2418 Apr 19 06:20	11°♄33'09	
inferior conj	2417 May 16 20:23	26°♄25'01	0°-18'-49	inferior conj	2418 Apr 27 10:09	7°♄18'27	1°27'34
minimum elong	2417 May 16 19:31	26°♄26'20	0°18'32	minimum elong	2418 Apr 27 13:20	7°♄12'53	1°26'32
min. Earth dist.	2417 May 18 20:40	25°♄12'07	0.55377 AU	min. Earth dist.	2418 Apr 30 12:07	5°♄10'22	0.56731 AU
morning rise	2417 May 25 14:02	22°♄00'46		desc. node	2418 May 02 15:38	3°♄49'21	
direct	2417 May 29 17:50	21°♄22'50		morning rise	2418 May 05 16:06	2°♄19'34	
morning max el	2417 Jun 12 12:23	28°♄11'45	24°07'22	direct	2418 May 10 20:10	1°♄16'32	
	2417 Jun 14 07:44	0°♄		morning max el	2418 May 25 02:56	8°♄38'41	25°44'04
	2417 Jul 03 16:35	0°♄			2418 Jun 10 02:14	0°♄	
asc. node	2417 Jul 04 17:20	2°♄04'59		morning set	2418 Jun 21 15:14	22°♄02'10	

asc. node	2418 Jun 21 14:23	21°II57'43			2419 Jun 02 16:46	0°II	
	2418 Jun 25 08:07	0°☿		morning set	2419 Jun 06 00:58	6°II50'00	
				asc. node	2419 Jun 08 11:27	12°II00'38	
superior conj	2418 Jun 28 15:27	7°☿14'45	1°08'14				
minimum elong	2418 Jun 28 13:06	7°☿01'54	1°07'50	superior conj	2419 Jun 13 03:15	22°II11'23	0°47'27
max. Earth dist.	2418 Jun 29 12:10	9°☿08'18	1.32471 AU	minimum elong	2419 Jun 13 01:21	22°II00'56	0°47'04
evening rise	2418 Jul 05 17:21	22°☿26'58		max. Earth dist.	2419 Jun 13 00:05	21°II53'57	1.32163 AU
	2418 Jul 09 11:08	0°♂			2419 Jun 16 16:38	0°☿	
	2418 Jul 27 12:52	0°♍		evening rise	2419 Jun 20 01:10	7°☿11'59	
desc. node	2418 Jul 29 14:57	2°♍44'28			2419 Jul 01 23:56	0°♂	
evening max el	2418 Aug 06 08:13	11°♍22'40	27°13'34	desc. node	2419 Jul 16 11:59	20°♂18'33	
retrograde	2418 Aug 20 04:20	18°♍37'08		evening max el	2419 Jul 19 09:20	23°♂15'52	26°28'00
evening set	2418 Aug 27 07:55	16°♍16'07			2419 Jul 30 00:06	0°♍	
min. Earth dist.	2418 Aug 30 22:24	13°♍29'49	0.61774 AU	retrograde	2419 Aug 02 08:46	0°♍27'49	
inferior conj	2418 Sep 02 23:49	10°♍44'35	-4°-9'-33		2419 Aug 05 16:16	30°♂♂	
minimum elong	2418 Sep 03 05:14	10°♍32'20	4°08'18	evening set	2419 Aug 09 00:35	28°♂36'44	
morning rise	2418 Sep 10 05:25	5°♍45'28		min. Earth dist.	2419 Aug 12 22:35	26°♂01'31	0.59724 AU
direct	2418 Sep 12 14:09	5°♍21'40		inferior conj	2419 Aug 16 05:51	23°♂25'50	-4°-47'-33
asc. node	2418 Sep 17 13:34	7°♍10'43		minimum elong	2419 Aug 16 09:39	23°♂18'20	4°47'07
morning max el	2418 Sep 19 12:32	8°♍50'54	17°55'14	morning rise	2419 Aug 23 22:07	18°♂49'36	
	2418 Oct 03 07:43	0°♂		direct	2419 Aug 26 07:35	18°♂29'01	
morning set	2418 Oct 05 09:04	3°♂44'00		morning max el	2419 Sep 02 23:06	22°♂11'28	18°17'31
				asc. node	2419 Sep 04 10:38	23°♂44'13	
superior conj	2418 Oct 16 00:45	22°♂44'58	1°02'35		2419 Sep 09 01:45	0°♍	
minimum elong	2418 Oct 16 05:14	23°♂04'19	1°02'01	morning set	2419 Sep 18 20:35	17°♍27'15	
	2418 Oct 20 06:54	0°♍			2419 Sep 25 11:51	0°♂	
max. Earth dist.	2418 Oct 23 10:51	5°♍15'05	1.42711 AU				
desc. node	2418 Oct 25 14:13	8°♍44'26		superior conj	2419 Sep 28 04:51	4°♂59'41	1°27'20
evening rise	2418 Oct 30 05:54	16°♍09'43		minimum elong	2419 Sep 28 08:32	5°♂16'27	1°27'00
	2418 Nov 08 06:29	0°♂		max. Earth dist.	2419 Oct 05 18:39	18°♂22'28	1.40830 AU
greatest brilliancy	2418 Nov 26 08:56	25°♂15'17	-0.4m	evening rise	2419 Oct 10 13:04	26°♂21'00	
	2418 Nov 30 12:04	0°♂		desc. node	2419 Oct 12 11:16	29°♂28'45	
evening max el	2418 Dec 01 03:05	0°♂38'51	21°56'16		2419 Oct 12 19:01	0°♍	
retrograde	2418 Dec 10 09:15	6°♂09'27			2419 Nov 02 00:18	0°♂	
evening set	2418 Dec 14 17:35	4°♂26'41		evening max el	2419 Nov 13 18:21	14°♂12'35	23°15'31
asc. node	2418 Dec 14 12:50	4°♂35'57		retrograde	2419 Nov 24 03:27	20°♂21'38	
	2418 Dec 18 17:47	30°♂♂		evening set	2419 Nov 29 00:27	18°♂22'03	
inferior conj	2418 Dec 20 03:04	28°♂05'55	1°49'12	asc. node	2419 Dec 01 09:52	15°♂55'31	
minimum elong	2418 Dec 20 00:52	28°♂13'31	1°48'25	inferior conj	2419 Dec 04 10:36	11°♂56'35	1°01'23
min. Earth dist.	2418 Dec 20 04:28	28°♂01'04	0.67811 AU	minimum elong	2419 Dec 04 09:13	12°♂01'20	1°00'49
morning rise	2418 Dec 25 07:58	21°♂52'08		min. Earth dist.	2419 Dec 04 01:15	12°♂28'45	0.67838 AU
direct	2418 Dec 30 03:38	19°♂50'49		morning rise	2419 Dec 09 18:03	5°♂46'12	
morning max el	2419 Jan 08 22:55	25°♂38'48	22°42'31	direct	2419 Dec 13 23:09	4°♂07'42	
	2419 Jan 12 21:41	0°♂		morning max el	2419 Dec 22 14:09	9°♂09'17	21°18'47
greatest brilliancy	2419 Jan 13 13:29	0°♂47'12	-0.3m	greatest brilliancy	2419 Dec 27 18:32	15°♂04'59	-0.4m
desc. node	2419 Jan 21 13:26	11°♂15'02			2420 Jan 07 15:03	0°♂	
	2419 Feb 03 07:25	0°♂		desc. node	2420 Jan 08 10:29	1°♂10'51	
morning set	2419 Feb 12 00:58	13°♂54'27		morning set	2420 Jan 22 14:36	22°♂44'10	
max. Earth dist.	2419 Feb 16 21:01	22°♂00'39	1.40200 AU		2420 Jan 27 03:52	0°♂	
	2419 Feb 21 11:12	0°♂		max. Earth dist.	2420 Jan 29 22:07	4°♂29'46	1.42227 AU
superior conj	2419 Feb 24 15:32	5°♂42'30	-1°-57'-33	superior conj	2420 Feb 06 06:46	16°♂52'01	-2°-5'-33
minimum elong	2419 Feb 24 19:05	5°♂58'39	1°57'22	minimum elong	2420 Feb 06 07:02	16°♂53'07	2°05'33
evening rise	2419 Mar 06 13:31	24°♂15'08			2420 Feb 13 17:49	0°♂	
	2419 Mar 09 14:41	0°♂		evening rise	2420 Feb 17 13:54	6°♂55'57	
asc. node	2419 Mar 12 12:11	5°♂18'20		asc. node	2420 Feb 27 09:13	24°♂06'22	
evening max el	2419 Mar 22 17:12	20°♂08'33	18°24'59		2420 Mar 02 10:19	0°♂	
retrograde	2419 Mar 30 03:19	23°♂48'36		evening max el	2420 Mar 05 03:20	3°♂05'39	18°08'27
evening set	2419 Apr 01 12:08	23°♂27'15		retrograde	2420 Mar 11 20:34	6°♂30'49	
inferior conj	2419 Apr 08 21:13	18°♂52'31	2°42'30	evening set	2420 Mar 14 10:56	6°♂00'26	
minimum elong	2419 Apr 09 01:02	18°♂44'41	2°41'35	inferior conj	2420 Mar 21 04:18	1°♂04'36	3°25'01
min. Earth dist.	2419 Apr 12 07:47	16°♂05'11	0.58657 AU	minimum elong	2420 Mar 21 06:41	0°♂58'58	3°24'42
morning rise	2419 Apr 16 09:49	13°♂22'48			2420 Mar 22 07:27	30°♂♂	
desc. node	2419 Apr 19 12:40	12°♂08'28		min. Earth dist.	2420 Mar 24 09:59	28°♂02'11	0.60808 AU
direct	2419 Apr 22 12:31	11°♂44'49		morning rise	2420 Mar 27 23:17	25°♂14'10	
morning max el	2419 May 06 21:47	19°♂27'47	26°59'35	direct	2420 Apr 03 16:46	23°♂00'58	
	2419 May 15 20:34	0°♂		desc. node	2420 Apr 05 09:41	23°♂09'06	

	2420 Apr 17 00:05	0°Υ		min. Earth dist.	2421 Mar 06 20:38	10°κ54'01	0.62880 AU
morning max el	2420 Apr 17 22:46	0°Υ54'49	27°42'22	morning rise	2421 Mar 10 07:50	7°κ44'31	
	2420 May 08 23:47	0°Ϡ		direct	2421 Mar 17 06:14	5°κ05'55	
morning set	2420 May 20 07:03	21°Ϡ24'59		desc. node	2421 Mar 23 06:43	6°κ48'16	
	2420 May 24 08:38	0°Π		morning max el	2421 Mar 31 05:00	13°κ02'16	27°47'49
asc. node	2420 May 25 08:31	2°Π09'09			2421 Apr 13 18:49	0°Υ	
max. Earth dist.	2420 May 26 11:25	4°Π35'31	1.32241 AU		2421 May 01 10:37	0°Ϡ	
				morning set	2421 May 04 07:15	5°Ϡ39'01	
superior conj	2420 May 27 14:23	7°Π03'09	0°23'31	max. Earth dist.	2421 May 09 18:17	16°Ϡ59'34	1.32732 AU
minimum elong	2420 May 27 13:20	6°Π57'23	0°23'18				
evening rise	2420 Jun 03 11:59	22°Π03'33		superior conj	2421 May 11 23:04	21°Ϡ43'11	0°-2'-51
	2420 Jun 07 08:14	0°Ϡ		minimum elong	2421 May 11 23:13	21°Ϡ43'57	0°02'49
	2420 Jun 26 00:40	0°Ω		behind sun begin	2421 May 11 18:03	21°Ϡ16'04	
evening max el	2420 Jun 30 03:26	4°Ω23'35	25°13'23	behind sun end	2421 May 12 04:22	22°Ϡ11'51	
desc. node	2420 Jul 02 08:59	6°Ω23'14		asc. node	2421 May 12 05:34	22°Ϡ18'20	
retrograde	2420 Jul 14 03:26	11°Ω30'22			2421 May 15 18:39	0°Π	
evening set	2420 Jul 19 17:59	10°Ω17'48		evening rise	2421 May 18 23:49	6°Π54'13	
min. Earth dist.	2420 Jul 24 15:16	7°Ω34'54	0.57706 AU		2421 May 31 04:28	0°Ϡ	
inferior conj	2420 Jul 27 17:11	5°Ω28'49	-5°00'-48	evening max el	2421 Jun 11 17:15	14°Ϡ58'17	23°40'36
minimum elong	2420 Jul 27 16:43	5°Ω29'37	5°00'49	desc. node	2421 Jun 19 06:00	20°Ϡ23'55	
morning rise	2420 Aug 04 19:09	1°Ω15'09		retrograde	2421 Jun 25 09:34	21°Ϡ49'36	
direct	2420 Aug 07 08:01	0°Ω55'58		evening set	2421 Jun 29 13:07	21°Ϡ11'50	
morning max el	2420 Aug 16 02:03	5°Ω03'00	19°00'29	min. Earth dist.	2421 Jul 06 03:37	18°Ϡ05'33	0.56039 AU
asc. node	2420 Aug 21 07:42	11°Ω19'40		inferior conj	2421 Jul 08 08:18	16°Ϡ46'19	-4°-34'-47
	2420 Aug 31 21:45	0°η		minimum elong	2421 Jul 08 02:22	16°Ϡ55'17	4°33'51
morning set	2420 Sep 01 18:04	1°η39'57		morning rise	2421 Jul 16 18:56	12°Ϡ50'07	
				direct	2421 Jul 19 13:21	12°Ϡ30'47	
superior conj	2420 Sep 10 04:01	18°η11'05	1°41'02	morning max el	2421 Jul 29 18:28	17°Ϡ14'55	20°04'57
minimum elong	2420 Sep 10 05:55	18°η20'11	1°40'56	asc. node	2421 Aug 08 04:46	29°Ϡ42'19	
	2420 Sep 16 12:07	0°♄			2421 Aug 08 08:58	0°Ω	
max. Earth dist.	2420 Sep 16 22:37	0°♄47'15	1.38778 AU	morning set	2421 Aug 16 22:20	16°Ω12'42	
evening rise	2420 Sep 20 20:13	7°♄39'21			2421 Aug 23 16:26	0°η	
desc. node	2420 Sep 28 08:19	20°♄06'24					
	2420 Oct 04 17:53	0°♍		superior conj	2421 Aug 24 16:59	2°η03'35	1°45'26
evening max el	2420 Oct 26 07:07	27°♍50'38	24°34'42	minimum elong	2421 Aug 24 17:06	2°η04'10	1°45'26
	2420 Oct 28 14:47	0°♂		max. Earth dist.	2421 Aug 30 03:55	12°η44'22	1.36800 AU
retrograde	2420 Nov 06 17:50	4°♂31'28		evening rise	2421 Sep 03 01:37	20°η00'05	
evening set	2420 Nov 12 04:46	2°♂15'27			2421 Sep 08 18:16	0°♄	
	2420 Nov 14 10:30	30°♍		desc. node	2421 Sep 15 05:20	10°♄32'07	
min. Earth dist.	2420 Nov 16 21:00	26°♍55'57	0.67532 AU		2421 Sep 28 18:56	0°♍	
asc. node	2420 Nov 17 06:54	26°♍22'58		evening max el	2421 Oct 08 19:16	11°♍31'14	25°46'37
inferior conj	2420 Nov 17 16:53	25°♍49'37	0°08'35	retrograde	2421 Oct 21 03:27	18°♍33'56	
minimum elong	2420 Nov 17 16:40	25°♍50'19	0°08'29	evening set	2421 Oct 27 04:46	16°♍03'27	
transit middle	2420 Nov 17 16:40	25°♍50'19	0°08'29	min. Earth dist.	2421 Oct 31 13:16	11°♍19'37	0.66890 AU
transit begin	2420 Nov 17 14:20	25°♍58'09		inferior conj	2421 Nov 01 20:06	9°♍41'52	0°-47'-57
transit end	2420 Nov 17 19:01	25°♍42'31		minimum elong	2421 Nov 01 21:21	9°♍37'54	0°47'27
morning rise	2420 Nov 23 04:59	19°♍45'05		asc. node	2421 Nov 04 03:56	6°♍51'48	
direct	2420 Nov 26 21:01	18°♍27'49		morning rise	2421 Nov 07 14:47	3°♍46'02	
morning max el	2420 Dec 04 12:50	22°♍50'23	20°05'55	direct	2421 Nov 10 19:39	2°♍46'58	
	2420 Dec 10 13:25	0°♂		morning max el	2421 Nov 17 19:09	6°♍41'02	19°07'26
greatest brilliancy	2420 Dec 11 11:51	1°♂15'06	-0.6m		2421 Dec 04 12:26	0°♂	
desc. node	2420 Dec 25 07:31	21°♂26'29		morning set	2421 Dec 10 15:21	9°♂31'02	
	2420 Dec 30 21:42	0°Ϡ		desc. node	2421 Dec 12 04:34	11°♂56'07	
morning set	2420 Dec 31 11:06	0°Ϡ51'44			2421 Dec 23 17:39	0°Ϡ	
max. Earth dist.	2421 Jan 11 07:02	17°Ϡ52'03	1.43855 AU	max. Earth dist.	2421 Dec 24 22:43	1°Ϡ54'26	1.44872 AU
superior conj	2421 Jan 16 20:21	26°Ϡ51'08	-1°-57'-54	superior conj	2421 Dec 27 09:25	5°Ϡ46'11	-1°-31'-11
minimum elong	2421 Jan 16 15:08	26°Ϡ29'46	1°57'39	minimum elong	2421 Dec 27 00:30	5°Ϡ10'55	1°30'21
	2421 Jan 18 18:18	0°≈		evening rise	2422 Jan 11 05:52	29°Ϡ42'34	
evening rise	2421 Jan 29 20:41	18°≈47'07			2422 Jan 11 10:07	0°≈	
	2421 Feb 05 09:17	0°κ		evening max el	2422 Jan 31 03:58	29°≈43'27	18°32'27
asc. node	2421 Feb 13 06:14	12°κ17'44		asc. node	2422 Jan 31 03:15	29°≈41'36	
evening max el	2421 Feb 16 15:52	16°κ19'36	18°11'11		2422 Jan 31 10:35	0°κ	
retrograde	2421 Feb 23 02:41	19°κ44'18		retrograde	2422 Feb 06 17:28	3°κ20'20	
evening set	2421 Feb 25 22:19	19°κ03'34		evening set	2422 Feb 09 18:38	2°κ28'20	
inferior conj	2421 Mar 04 03:42	13°κ47'13	3°41'18		2422 Feb 12 20:33	30°κ≈	
minimum elong	2421 Mar 04 04:08	13°κ46'03	3°41'17	inferior conj	2422 Feb 15 15:24	26°≈53'00	3°38'00

minimum elong	2422 Feb 15 14:13	26° \approx 56'28	3°37'55	retrograde	2423 Jan 21 13:13	17° \approx 11'07	
min. Earth dist.	2422 Feb 17 16:47	24° \approx 26'57	0.64660 AU	evening set	2423 Jan 24 20:54	16° \approx 06'48	
morning rise	2422 Feb 21 08:29	20° \approx 43'14		inferior conj	2423 Jan 30 11:51	10° \approx 14'53	3°20'13
direct	2422 Feb 28 03:03	17° \approx 53'30		minimum elong	2423 Jan 30 09:40	10° \approx 21'49	3°19'51
desc. node	2422 Mar 10 03:44	22° \approx 33'23		min. Earth dist.	2423 Jan 31 22:00	8° \approx 25'47	0.66051 AU
morning max el	2422 Mar 13 14:20	25° \approx 43'39	27°18'00	morning rise	2423 Feb 04 21:35	4° \approx 01'08	
	2422 Mar 17 12:53	0° \approx		direct	2423 Feb 11 06:14	1° \approx 13'50	
	2422 Apr 07 07:08	0° \approx		morning max el	2423 Feb 24 00:10	8° \approx 46'24	26°19'21
morning set	2422 Apr 17 22:51	19° \approx 23'50		desc. node	2423 Feb 25 00:46	9° \approx 49'44	
max. Earth dist.	2422 Apr 22 16:57	28° \approx 55'33	1.33661 AU		2423 Mar 12 15:52	0° \approx	
	2422 Apr 23 05:28	0° \approx			2423 Mar 30 18:16	0° \approx	
				morning set	2423 Apr 01 02:06	2° \approx 27'49	
superior conj	2422 Apr 26 03:24	6° \approx 05'39	0°-30'-42	max. Earth dist.	2423 Apr 05 04:27	10° \approx 18'46	1.35043 AU
minimum elong	2422 Apr 26 04:57	6° \approx 13'52	0°30'23				
asc. node	2422 Apr 29 02:35	12° \approx 24'07		superior conj	2423 Apr 10 01:00	20° \approx 02'56	0°-58'-50
evening rise	2422 May 03 10:53	21° \approx 37'58		minimum elong	2423 Apr 10 04:00	20° \approx 18'19	0°58'18
	2422 May 07 13:10	0° \approx			2423 Apr 14 20:18	0° \approx	
evening max el	2422 May 24 09:30	25° \approx 28'37	22°04'53	asc. node	2423 Apr 15 23:36	2° \approx 22'09	
	2422 May 30 09:43	0° \approx		evening rise	2423 Apr 17 19:11	6° \approx 07'48	
retrograde	2422 Jun 06 03:35	1° \approx 46'31			2423 May 01 01:53	0° \approx	
desc. node	2422 Jun 06 02:59	1° \approx 46'31		evening max el	2423 May 06 11:03	6° \approx 24'00	20°39'30
evening set	2422 Jun 08 22:59	1° \approx 28'59		retrograde	2423 May 17 16:41	11° \approx 52'08	
	2422 Jun 13 08:08	30° \approx		evening set	2423 May 19 19:04	11° \approx 41'26	
min. Earth dist.	2422 Jun 17 14:49	27° \approx 46'20	0.55053 AU	desc. node	2423 May 23 23:59	10° \approx 22'49	
inferior conj	2422 Jun 18 07:01	27° \approx 23'36	-3°-20'-10	inferior conj	2423 May 29 00:47	7° \approx 43'50	-1°-28'-3
minimum elong	2422 Jun 17 23:03	27° \approx 34'47	3°17'53	minimum elong	2423 May 28 20:37	7° \approx 49'49	1°26'34
morning rise	2422 Jun 27 00:53	23° \approx 31'45		min. Earth dist.	2423 May 30 03:10	7° \approx 05'56	0.54978 AU
direct	2422 Jun 30 03:07	23° \approx 10'27		morning rise	2423 Jun 06 20:59	3° \approx 36'15	
morning max el	2422 Jul 11 23:18	28° \approx 42'23	21°29'31	direct	2423 Jun 10 12:41	3° \approx 07'31	
	2422 Jul 13 07:06	0° \approx		morning max el	2423 Jun 23 18:35	9° \approx 30'46	23°08'25
asc. node	2422 Jul 26 01:49	18° \approx 40'52			2423 Jul 08 15:52	0° \approx	
	2422 Jul 31 19:36	0° \approx		asc. node	2423 Jul 12 22:52	8° \approx 06'10	
morning set	2422 Aug 01 07:00	0° \approx 58'59		morning set	2423 Jul 16 18:08	15° \approx 53'00	
					2423 Jul 23 08:26	0° \approx	
superior conj	2422 Aug 08 15:40	16° \approx 25'26	1°42'16	superior conj	2423 Jul 23 20:57	1° \approx 07'03	1°32'56
minimum elong	2422 Aug 08 14:25	16° \approx 18'55	1°42'12	minimum elong	2423 Jul 23 18:52	0° \approx 55'54	1°32'43
max. Earth dist.	2422 Aug 12 15:43	24° \approx 37'08	1.35087 AU	max. Earth dist.	2423 Jul 26 12:30	6° \approx 44'10	1.33745 AU
	2422 Aug 15 09:01	0° \approx		evening rise	2423 Jul 31 13:47	17° \approx 04'06	
evening rise	2422 Aug 17 00:57	3° \approx 12'18			2423 Aug 07 10:03	0° \approx	
	2422 Sep 01 15:50	0° \approx		desc. node	2423 Aug 19 23:21	20° \approx 22'38	
desc. node	2422 Sep 02 02:20	0° \approx 40'06			2423 Aug 27 02:15	0° \approx	
evening max el	2422 Sep 21 07:32	25° \approx 08'19	26°43'37	evening max el	2423 Sep 03 19:25	8° \approx 32'40	27°18'27
	2422 Sep 27 07:55	0° \approx		retrograde	2423 Sep 17 06:38	15° \approx 51'18	
retrograde	2422 Oct 04 07:47	2° \approx 23'00		evening set	2423 Sep 24 07:18	13° \approx 09'09	
evening set	2422 Oct 10 22:26	29° \approx 42'41		min. Earth dist.	2423 Sep 28 01:58	9° \approx 38'15	0.64553 AU
	2422 Oct 10 13:43	30° \approx		inferior conj	2423 Sep 30 09:10	7° \approx 09'14	-2°-45'-33
min. Earth dist.	2422 Oct 14 23:37	25° \approx 35'44	0.65901 AU	minimum elong	2423 Sep 30 13:35	6° \approx 57'17	2°43'59
inferior conj	2422 Oct 16 18:16	23° \approx 29'46	-1°-46'-45	morning rise	2423 Oct 06 21:53	1° \approx 40'03	
minimum elong	2422 Oct 16 21:09	23° \approx 21'16	1°45'35	asc. node	2423 Oct 08 22:03	1° \approx 07'51	
asc. node	2422 Oct 22 00:59	18° \approx 15'48		direct	2423 Oct 09 11:10	1° \approx 06'18	
morning rise	2422 Oct 22 21:16	17° \approx 45'43		morning max el	2423 Oct 15 23:14	4° \approx 33'21	17°59'15
direct	2422 Oct 25 17:09	17° \approx 01'12			2423 Nov 01 19:39	0° \approx	
morning max el	2422 Nov 01 07:28	20° \approx 37'07	18°24'55	morning set	2423 Nov 02 08:51	0° \approx 55'41	
	2422 Nov 08 13:51	0° \approx					
morning set	2422 Nov 20 21:40	19° \approx 30'51		superior conj	2423 Nov 15 22:11	23° \approx 18'16	0°00'08
	2422 Nov 27 10:38	0° \approx		minimum elong	2423 Nov 15 22:13	23° \approx 18'23	0°00'07
desc. node	2422 Nov 29 01:36	2° \approx 35'02		behind sun begin	2423 Nov 15 11:54	22° \approx 36'53	
				behind sun end	2423 Nov 16 08:32	23° \approx 59'48	
superior conj	2422 Dec 06 10:49	14° \approx 14'50	0°-48'-17	desc. node	2423 Nov 15 22:37	23° \approx 20'01	
minimum elong	2422 Dec 06 04:40	13° \approx 50'38	0°47'30		2423 Nov 20 02:54	0° \approx	
max. Earth dist.	2422 Dec 07 17:40	16° \approx 16'00	1.45169 AU	max. Earth dist.	2423 Nov 20 12:25	0° \approx 37'40	1.44728 AU
	2422 Dec 16 11:48	0° \approx		evening rise	2423 Dec 02 06:25	18° \approx 56'55	
evening rise	2422 Dec 22 15:39	9° \approx 41'09			2423 Dec 09 11:36	0° \approx	
greatest brilliancy	2423 Jan 04 14:24	29° \approx 54'17	-0.7m	greatest brilliancy	2423 Dec 22 00:03	18° \approx 23'53	-0.6m
	2423 Jan 04 15:55	0° \approx		evening max el	2423 Dec 28 17:51	26° \approx 40'59	20°05'45
evening max el	2423 Jan 14 13:12	13° \approx 11'16	19°11'14				
asc. node	2423 Jan 18 00:16	16° \approx 03'58			2424 Jan 01 17:00	0° \approx	

asc. node	2424 Jan 04 21:18	1° \approx 10'24		retrograde	2424 Dec 19 08:42	15° \approx 19'54	
retrograde	2424 Jan 05 11:03	1° \approx 12'13		asc. node	2424 Dec 21 18:21	14° \approx 47'58	
	2424 Jan 08 23:32	30° \approx 30		evening set	2424 Dec 23 10:23	13° \approx 46'45	
evening set	2424 Jan 09 02:48	29° \approx 54'16		inferior conj	2424 Dec 28 20:09	7° \approx 30'39	2°14'02
inferior conj	2424 Jan 14 14:14	23° \approx 48'38	2°51'27	minimum elong	2424 Dec 28 17:40	7° \approx 39'10	2°13'13
minimum elong	2424 Jan 14 11:39	23° \approx 57'18	2°50'47	min. Earth dist.	2424 Dec 29 04:11	7° \approx 02'54	0.67637 AU
min. Earth dist.	2424 Jan 15 10:34	22° \approx 40'14	0.67039 AU	morning rise	2425 Jan 03 00:35	1° \approx 15'39	
morning rise	2424 Jan 19 19:54	17° \approx 33'12			2425 Jan 04 17:55	30° \approx 30	
direct	2424 Jan 25 15:12	14° \approx 58'53		direct	2425 Jan 08 05:01	29° \approx 01'04	
morning max el	2424 Feb 06 08:59	21° \approx 59'30	25°00'58		2425 Jan 11 23:33	0° \approx	
desc. node	2424 Feb 11 21:49	28° \approx 11'17		morning max el	2425 Jan 18 17:34	5° \approx 17'08	23°33'14
	2424 Feb 13 09:03	0° \approx		desc. node	2425 Jan 28 18:52	17° \approx 19'08	
	2424 Mar 04 22:38	0° \approx			2425 Feb 06 18:47	0° \approx	
morning set	2424 Mar 13 12:02	14° \approx 36'55		morning set	2425 Feb 22 22:28	25° \approx 34'22	
max. Earth dist.	2424 Mar 17 04:45	21° \approx 20'16	1.36850 AU		2425 Feb 25 12:28	0° \approx	
	2424 Mar 21 18:26	0° \approx		max. Earth dist.	2425 Feb 26 23:27	2° \approx 32'34	1.38950 AU
superior conj	2424 Mar 23 12:56	3° \approx 27'15	-1°-25'-26	superior conj	2425 Mar 06 11:25	16° \approx 08'54	-1°-47'-55
minimum elong	2424 Mar 23 17:04	3° \approx 47'32	1°24'53	minimum elong	2425 Mar 06 15:41	16° \approx 28'55	1°47'32
evening rise	2424 Mar 31 22:29	20° \approx 17'06			2425 Mar 13 16:57	0° \approx	
asc. node	2424 Apr 01 20:38	22° \approx 08'00		evening rise	2425 Mar 15 18:04	3° \approx 58'39	
	2424 Apr 05 21:36	0° \approx		asc. node	2425 Mar 19 17:41	11° \approx 36'40	
evening max el	2424 Apr 18 00:39	17° \approx 59'23	19°31'38		2425 Mar 31 19:17	0° \approx	
retrograde	2424 Apr 27 12:47	22° \approx 35'12		evening max el	2425 Apr 01 00:46	0° \approx 13'27	18°43'37
evening set	2424 Apr 29 13:21	22° \approx 23'37		retrograde	2425 Apr 09 01:41	4° \approx 08'48	
inferior conj	2424 May 08 04:14	18° \approx 18'44	0°29'26	evening set	2425 Apr 11 07:17	3° \approx 51'45	
minimum elong	2424 May 08 05:29	18° \approx 16'43	0°28'59		2425 Apr 18 10:18	30° \approx 30	
desc. node	2424 May 09 21:01	17° \approx 13'16		inferior conj	2425 Apr 19 02:56	29° \approx 29'13	2°03'29
min. Earth dist.	2424 May 10 17:35	16° \approx 40'51	0.55858 AU	minimum elong	2425 Apr 19 06:46	29° \approx 22'04	2°02'22
morning rise	2424 May 16 17:51	13° \approx 39'32		min. Earth dist.	2425 Apr 22 10:45	27° \approx 01'43	0.57498 AU
direct	2424 May 21 07:33	12° \approx 52'24		desc. node	2425 Apr 26 18:03	24° \approx 25'25	
morning max el	2424 Jun 04 09:09	19° \approx 58'06	24°50'07	morning rise	2425 Apr 27 01:52	24° \approx 16'22	
	2424 Jun 12 21:48	0° \approx		direct	2425 May 02 16:29	22° \approx 58'51	
asc. node	2424 Jun 28 19:55	27° \approx 50'38			2425 May 16 11:45	0° \approx	
	2424 Jun 29 20:42	0° \approx		morning max el	2425 May 17 00:54	0° \approx 31'26	26°19'31
morning set	2424 Jun 30 05:59	0° \approx 48'50			2425 Jun 06 18:30	0° \approx	
				morning set	2425 Jun 14 16:59	15° \approx 41'31	
superior conj	2424 Jul 07 06:18	15° \approx 59'48	1°18'31	asc. node	2425 Jun 15 16:58	17° \approx 48'31	
minimum elong	2424 Jul 07 03:55	15° \approx 46'46	1°18'10		2425 Jun 21 07:22	0° \approx	
max. Earth dist.	2424 Jul 08 17:30	19° \approx 11'01	1.32818 AU				
	2424 Jul 13 19:56	0° \approx		superior conj	2425 Jun 21 17:46	0° \approx 57'14	0°59'51
evening rise	2424 Jul 14 12:17	1° \approx 23'59		minimum elong	2425 Jun 21 15:33	0° \approx 45'05	0°59'27
	2424 Jul 30 08:27	0° \approx		max. Earth dist.	2425 Jun 22 04:00	1° \approx 53'31	1.32294 AU
desc. node	2424 Aug 05 20:23	9° \approx 28'20		evening rise	2425 Jun 28 17:29	16° \approx 02'50	
evening max el	2424 Aug 16 05:12	21° \approx 31'25	27°24'44		2425 Jul 05 18:33	0° \approx	
retrograde	2424 Aug 29 23:14	28° \approx 48'27		desc. node	2425 Jul 23 17:24	27° \approx 41'57	
evening set	2424 Sep 06 04:02	26° \approx 16'04			2425 Jul 25 16:48	0° \approx	
min. Earth dist.	2424 Sep 09 18:35	23° \approx 16'06	0.62866 AU	evening max el	2425 Jul 29 10:27	3° \approx 52'23	26°58'13
inferior conj	2424 Sep 12 13:57	20° \approx 33'01	-3°-41'-5	retrograde	2425 Aug 12 08:23	11° \approx 05'25	
minimum elong	2424 Sep 12 19:22	20° \approx 19'53	3°39'34	evening set	2425 Aug 19 08:19	8° \approx 56'01	
morning rise	2424 Sep 19 13:18	15° \approx 21'54		min. Earth dist.	2425 Aug 23 00:42	6° \approx 16'12	0.60918 AU
direct	2424 Sep 21 22:45	14° \approx 55'24		inferior conj	2425 Aug 26 05:22	3° \approx 32'57	-4°-27'-52
asc. node	2424 Sep 24 19:07	15° \approx 33'51		minimum elong	2425 Aug 26 10:24	3° \approx 22'11	4°26'57
morning max el	2424 Sep 28 15:24	18° \approx 21'46	17°51'18		2425 Aug 30 21:10	30° \approx 30	
	2424 Oct 07 01:25	0° \approx		morning rise	2425 Sep 02 15:34	28° \approx 42'58	
morning set	2424 Oct 14 19:35	13° \approx 28'05		direct	2425 Sep 05 00:13	28° \approx 20'47	
	2424 Oct 24 07:16	0° \approx			2425 Sep 09 21:19	0° \approx	
				asc. node	2425 Sep 11 16:10	1° \approx 24'55	
superior conj	2424 Oct 26 10:04	3° \approx 34'41	0°42'54	morning max el	2425 Sep 12 04:51	1° \approx 54'43	18°02'08
minimum elong	2424 Oct 26 13:57	3° \approx 50'58	0°42'21	morning set	2425 Sep 27 23:34	26° \approx 49'55	
desc. node	2424 Nov 01 19:41	14° \approx 07'22			2425 Sep 29 16:35	0° \approx	
max. Earth dist.	2424 Nov 02 04:08	14° \approx 41'31	1.43612 AU				
evening rise	2424 Nov 10 15:06	28° \approx 03'02		superior conj	2425 Oct 08 00:38	15° \approx 09'17	1°14'31
	2424 Nov 11 21:24	0° \approx		minimum elong	2425 Oct 08 04:59	15° \approx 28'32	1°14'02
	2424 Dec 02 08:10	0° \approx		max. Earth dist.	2425 Oct 15 15:20	28° \approx 13'58	1.41958 AU
greatest brilliancy	2424 Dec 05 13:06	4° \approx 12'32	-0.4m		2425 Oct 16 16:52	0° \approx	
evening max el	2424 Dec 10 17:01	10° \approx 11'46	21°13'15	desc. node	2425 Oct 19 16:43	4° \approx 53'44	

evening rise	2425 Oct 21 10:37	7° \mathbb{M} 42'03			2426 Oct 09 08:22	0° \mathbb{M}	
	2425 Nov 05 02:18	0° \mathbb{X}			2426 Oct 30 12:32	0° \mathbb{X}	
greatest brilliancy	2425 Nov 18 16:01	18° \mathbb{X} 22'10	-0.3m	evening max el	2426 Nov 06 00:57	7° \mathbb{X} 20'14	23°49'37
evening max el	2425 Nov 23 10:57	23° \mathbb{X} 44'31	22°29'38	retrograde	2426 Nov 16 21:00	13° \mathbb{X} 43'16	
retrograde	2425 Dec 03 04:25	29° \mathbb{X} 31'19		evening set	2426 Nov 21 23:56	11° \mathbb{X} 36'23	
evening set	2425 Dec 07 17:58	27° \mathbb{X} 41'34		asc. node	2426 Nov 25 12:25	7° \mathbb{X} 45'40	
asc. node	2425 Dec 08 15:24	26° \mathbb{X} 53'47		inferior conj	2426 Nov 27 10:47	5° \mathbb{X} 10'23	0°39'32
inferior conj	2425 Dec 13 03:36	21° \mathbb{X} 18'34	1°29'37	minimum elong	2426 Nov 27 09:52	5° \mathbb{X} 13'32	0°39'08
minimum elong	2425 Dec 13 01:42	21° \mathbb{X} 25'08	1°28'53	min. Earth dist.	2426 Nov 26 20:55	5° \mathbb{X} 57'33	0.67753 AU
min. Earth dist.	2425 Dec 13 00:24	21° \mathbb{X} 29'36	0.67870 AU		2426 Dec 01 17:04	30° \mathbb{R} \mathbb{M}	
morning rise	2425 Dec 18 09:19	15° \mathbb{X} 06'01		morning rise	2426 Dec 02 20:00	29° \mathbb{M} 02'28	
direct	2425 Dec 22 22:46	13° \mathbb{X} 14'14		direct	2426 Dec 06 19:22	27° \mathbb{M} 33'19	
morning max el	2426 Jan 01 05:17	18° \mathbb{X} 41'23	22°05'48		2426 Dec 12 11:05	0° \mathbb{X}	
greatest brilliancy	2426 Jan 05 20:44	23° \mathbb{X} 54'09	-0.4m	morning max el	2426 Dec 14 23:36	2° \mathbb{X} 16'38	20°46'15
	2426 Jan 10 14:35	0° \mathbb{Z}		greatest brilliancy	2426 Dec 20 18:42	9° \mathbb{X} 02'22	-0.5m
desc. node	2426 Jan 15 15:56	7° \mathbb{Z} 00'08		desc. node	2427 Jan 02 12:59	27° \mathbb{X} 05'17	
	2426 Jan 30 22:58	0° \mathbb{Z}			2427 Jan 04 11:42	0° \mathbb{Z}	
morning set	2426 Feb 03 04:08	5° \mathbb{Z} 07'49		morning set	2427 Jan 13 08:07	13° \mathbb{Z} 32'24	
max. Earth dist.	2426 Feb 08 21:07	14° \mathbb{Z} 30'53	1.41097 AU	max. Earth dist.	2427 Jan 22 02:14	27° \mathbb{Z} 26'28	1.42985 AU
					2427 Jan 23 15:57	0° \mathbb{Z}	
superior conj	2426 Feb 16 15:34	27° \mathbb{Z} 55'23	-2°-2'-32	superior conj	2427 Jan 28 20:16	8° \mathbb{Z} 35'31	-2°-4'-29
minimum elong	2426 Feb 16 18:04	28° \mathbb{Z} 06'28	2°02'27	minimum elong	2427 Jan 28 18:20	8° \mathbb{Z} 27'24	2°04'28
	2426 Feb 17 19:32	0° \mathbb{H}		evening rise	2427 Feb 09 20:03	29° \mathbb{Z} 24'48	
evening rise	2426 Feb 27 02:34	17° \mathbb{H} 03'45			2427 Feb 10 03:59	0° \mathbb{H}	
	2426 Mar 06 05:07	0° \mathbb{Y}		asc. node	2427 Feb 21 11:44	19° \mathbb{H} 14'51	
asc. node	2426 Mar 06 14:43	0° \mathbb{Y} 41'21		evening max el	2427 Feb 26 19:37	26° \mathbb{H} 01'32	18°07'12
evening max el	2426 Mar 15 08:09	12° \mathbb{Y} 56'48	18°15'35	retrograde	2427 Mar 05 08:57	29° \mathbb{H} 25'05	
retrograde	2426 Mar 22 09:29	16° \mathbb{Y} 28'25		evening set	2427 Mar 08 01:32	28° \mathbb{H} 50'23	
evening set	2426 Mar 24 20:54	16° \mathbb{Y} 03'15		inferior conj	2427 Mar 14 13:19	23° \mathbb{H} 45'20	3°34'43
inferior conj	2426 Mar 31 22:48	11° \mathbb{Y} 19'22	3°04'13	minimum elong	2427 Mar 14 14:52	23° \mathbb{H} 41'28	3°34'35
minimum elong	2426 Apr 01 02:09	11° \mathbb{Y} 12'02	3°03'33	min. Earth dist.	2427 Mar 17 14:01	20° \mathbb{H} 44'24	0.61714 AU
min. Earth dist.	2426 Apr 04 08:33	8° \mathbb{Y} 22'45	0.59565 AU	morning rise	2427 Mar 21 01:32	17° \mathbb{H} 48'42	
morning rise	2426 Apr 08 03:44	5° \mathbb{Y} 39'59		direct	2427 Mar 27 22:07	15° \mathbb{H} 23'29	
desc. node	2426 Apr 13 15:05	3° \mathbb{Y} 49'03		desc. node	2427 Mar 31 12:07	15° \mathbb{H} 59'40	
direct	2426 Apr 14 14:00	3° \mathbb{Y} 46'34		morning max el	2427 Apr 11 01:42	23° \mathbb{H} 19'06	27°49'22
morning max el	2426 Apr 28 22:05	11° \mathbb{Y} 34'16	27°22'18		2427 Apr 17 01:00	0° \mathbb{Y}	
	2426 May 13 07:47	0° \mathbb{B}			2427 May 06 13:04	0° \mathbb{B}	
	2426 May 29 20:43	0° \mathbb{I}		morning set	2427 May 14 05:15	14° \mathbb{B} 50'47	
morning set	2426 May 30 01:23	0° \mathbb{I} 24'14		max. Earth dist.	2427 May 20 02:19	27° \mathbb{B} 15'16	1.32402 AU
asc. node	2426 Jun 02 14:01	7° \mathbb{I} 53'56		asc. node	2427 May 20 11:03	28° \mathbb{B} 02'39	
max. Earth dist.	2426 Jun 05 16:16	14° \mathbb{I} 39'27	1.32153 AU		2427 May 21 08:37	0° \mathbb{I}	
superior conj	2426 Jun 06 05:27	15° \mathbb{I} 52'02	0°37'39	superior conj	2427 May 21 15:44	0° \mathbb{I} 38'46	0°12'35
minimum elong	2426 Jun 06 03:52	15° \mathbb{I} 43'18	0°37'20	minimum elong	2427 May 21 15:09	0° \mathbb{I} 35'34	0°12'28
	2426 Jun 12 17:08	0° \mathbb{S}		behind sun begin	2427 May 21 11:57	0° \mathbb{I} 18'10	
evening rise	2426 Jun 13 02:49	0° \mathbb{S} 51'21		behind sun end	2427 May 21 18:20	0° \mathbb{I} 53'00	
	2426 Jun 29 00:01	0° \mathbb{Q}		evening rise	2427 May 28 14:16	15° \mathbb{I} 42'41	
desc. node	2426 Jul 10 14:24	14° \mathbb{Q} 41'27			2427 Jun 04 17:00	0° \mathbb{S}	
evening max el	2426 Jul 11 08:42	15° \mathbb{Q} 25'58	25°59'19	evening max el	2427 Jun 23 00:06	26° \mathbb{S} 15'32	24°35'09
retrograde	2426 Jul 25 08:29	22° \mathbb{Q} 35'19		desc. node	2427 Jun 27 11:23	29° \mathbb{S} 57'26	
evening set	2426 Jul 31 15:22	21° \mathbb{Q} 00'13			2427 Jun 27 12:53	0° \mathbb{Q}	
min. Earth dist.	2426 Aug 04 21:09	18° \mathbb{Q} 24'07	0.58855 AU	retrograde	2427 Jul 06 21:57	3° \mathbb{Q} 17'52	
inferior conj	2426 Aug 08 03:48	15° \mathbb{Q} 58'51	-4°-57'-1	evening set	2427 Jul 11 22:32	2° \mathbb{Q} 21'02	
minimum elong	2426 Aug 08 06:06	15° \mathbb{Q} 54'34	4°56'53		2427 Jul 16 15:40	30° \mathbb{R} \mathbb{S}	
morning rise	2426 Aug 16 00:18	11° \mathbb{Q} 32'15		min. Earth dist.	2427 Jul 17 11:10	29° \mathbb{S} 30'02	0.56936 AU
direct	2426 Aug 18 11:06	11° \mathbb{Q} 12'17		inferior conj	2427 Jul 20 06:23	27° \mathbb{S} 41'56	-4°-55'-24
morning max el	2426 Aug 26 12:28	15° \mathbb{Q} 03'25	18°33'08	minimum elong	2427 Jul 20 03:31	27° \mathbb{S} 46'34	4°55'12
asc. node	2426 Aug 29 13:13	18° \mathbb{Q} 26'10		morning rise	2427 Jul 28 12:12	23° \mathbb{S} 37'09	
	2426 Sep 05 22:17	0° \mathbb{P}		direct	2427 Jul 31 03:18	23° \mathbb{S} 18'06	
morning set	2426 Sep 11 15:46	10° \mathbb{P} 46'55		morning max el	2427 Aug 09 11:11	27° \mathbb{S} 38'49	19°25'23
superior conj	2426 Sep 20 13:31	27° \mathbb{P} 49'50	1°34'24		2427 Aug 11 17:20	0° \mathbb{Q}	
minimum elong	2426 Sep 20 16:29	28° \mathbb{P} 03'40	1°34'11	asc. node	2427 Aug 16 10:17	6° \mathbb{Q} 22'53	
	2426 Sep 21 17:34	0° \mathbb{U}		morning set	2427 Aug 26 16:27	25° \mathbb{Q} 08'50	
max. Earth dist.	2426 Sep 27 21:39	11° \mathbb{U} 04'44	1.39970 AU		2427 Aug 29 02:28	0° \mathbb{P}	
evening rise	2426 Oct 02 03:49	18° \mathbb{U} 21'07		superior conj	2427 Sep 03 19:07	11° \mathbb{P} 20'28	1°43'56
desc. node	2426 Oct 06 13:45	25° \mathbb{U} 35'33					

minimum elong	2427 Sep 03 20:13	11° \mathbb{M} 25'52	1°43'54	asc. node	2428 Aug 02 07:20	25° \mathbb{S} 02'15	
max. Earth dist.	2427 Sep 10 01:27	23° \mathbb{M} 14'58	1.37911 AU		2428 Aug 05 00:23	0° \mathbb{Q}	
evening rise	2427 Sep 13 20:47	0° \mathbb{A} 06'31		morning set	2428 Aug 09 22:52	9° \mathbb{Q} 48'25	
	2427 Sep 13 19:19	0° \mathbb{A}					
desc. node	2427 Sep 23 10:44	16° \mathbb{A} 08'28		superior conj	2428 Aug 17 12:44	25° \mathbb{Q} 27'31	1°44'56
	2427 Oct 02 15:24	0° \mathbb{M}		minimum elong	2428 Aug 17 12:12	25° \mathbb{Q} 24'50	1°44'55
evening max el	2427 Oct 19 13:01	20° \mathbb{M} 58'49	25°06'35		2428 Aug 19 18:38	0° \mathbb{M}	
retrograde	2427 Oct 31 09:28	27° \mathbb{M} 50'44		max. Earth dist.	2428 Aug 22 08:38	5° \mathbb{M} 06'14	1.36024 AU
evening set	2427 Nov 06 02:38	25° \mathbb{M} 27'50		evening rise	2428 Aug 26 10:27	12° \mathbb{M} 51'26	
min. Earth dist.	2427 Nov 10 15:24	20° \mathbb{M} 23'31	0.67299 AU		2428 Sep 05 06:23	0° \mathbb{A}	
inferior conj	2427 Nov 11 15:58	19° \mathbb{M} 03'08	0°-15'-4	desc. node	2428 Sep 09 07:45	6° \mathbb{A} 27'44	
minimum elong	2427 Nov 11 16:20	19° \mathbb{M} 01'53	0°14'55		2428 Sep 26 15:26	0° \mathbb{M}	
transit middle	2427 Nov 11 16:20	19° \mathbb{M} 01'53	0°14'55	evening max el	2428 Oct 01 01:07	4° \mathbb{M} 38'59	26°13'05
transit begin	2427 Nov 11 15:15	19° \mathbb{M} 05'27		retrograde	2428 Oct 13 17:09	11° \mathbb{M} 48'44	
transit end	2427 Nov 11 17:26	18° \mathbb{M} 58'20		evening set	2428 Oct 20 00:15	9° \mathbb{M} 13'17	
asc. node	2427 Nov 12 09:28	18° \mathbb{M} 06'08		min. Earth dist.	2428 Oct 24 05:32	4° \mathbb{M} 44'55	0.66512 AU
morning rise	2427 Nov 17 06:40	13° \mathbb{M} 02'10		inferior conj	2428 Oct 25 17:19	2° \mathbb{M} 54'30	-1°-12'-45
direct	2427 Nov 20 17:36	11° \mathbb{M} 53'17		minimum elong	2428 Oct 25 19:15	2° \mathbb{M} 48'32	1°11'57
morning max el	2427 Nov 28 01:44	16° \mathbb{M} 02'30	19°39'11		2428 Oct 28 04:28	30° \mathbb{R} \mathbb{A}	
greatest brilliancy	2427 Dec 06 04:26	26° \mathbb{M} 09'37	-0.6m	asc. node	2428 Oct 29 06:31	28° \mathbb{A} 53'12	
	2427 Dec 08 20:38	0° \mathbb{A}		morning rise	2428 Oct 31 15:21	27° \mathbb{A} 03'12	
desc. node	2427 Dec 20 09:59	17° \mathbb{A} 27'12		direct	2428 Nov 03 16:00	26° \mathbb{A} 10'56	
morning set	2427 Dec 23 04:42	21° \mathbb{A} 44'22		morning max el	2428 Nov 10 10:55	29° \mathbb{A} 56'28	18°47'14
	2427 Dec 28 12:25	0° \mathbb{S}			2428 Nov 10 12:19	0° \mathbb{M}	
max. Earth dist.	2428 Jan 04 14:11	11° \mathbb{S} 07'19	1.44367 AU		2428 Dec 01 04:55	0° \mathbb{A}	
				morning set	2428 Dec 01 18:41	0° \mathbb{A} 54'19	
superior conj	2428 Jan 08 22:35	18° \mathbb{S} 04'15	-1°-48'-55	desc. node	2428 Dec 06 07:01	8° \mathbb{A} 01'11	
minimum elong	2428 Jan 08 15:12	17° \mathbb{S} 34'35	1°48'24	max. Earth dist.	2428 Dec 17 07:02	25° \mathbb{A} 17'50	1.45091 AU
	2428 Jan 16 06:02	0° \mathbb{A}					
evening rise	2428 Jan 22 18:03	10° \mathbb{A} 52'42		superior conj	2428 Dec 18 04:21	26° \mathbb{A} 41'35	-1°-14'-28
	2428 Feb 03 07:02	0° \mathbb{H}		minimum elong	2428 Dec 17 19:48	26° \mathbb{A} 07'58	1°13'30
asc. node	2428 Feb 08 08:46	7° \mathbb{H} 07'19			2428 Dec 20 06:47	0° \mathbb{S}	
evening max el	2428 Feb 10 08:11	9° \mathbb{H} 19'45	18°17'58	evening rise	2429 Jan 02 17:09	21° \mathbb{S} 22'45	
retrograde	2428 Feb 16 19:18	12° \mathbb{H} 48'36			2429 Jan 08 01:29	0° \mathbb{A}	
evening set	2428 Feb 19 17:06	12° \mathbb{H} 03'20		evening max el	2429 Jan 23 19:20	22° \mathbb{A} 45'42	18°46'59
inferior conj	2428 Feb 25 18:26	6° \mathbb{H} 38'39	3°41'56	asc. node	2429 Jan 25 05:47	24° \mathbb{A} 06'44	
minimum elong	2428 Feb 25 18:07	6° \mathbb{H} 39'33	3°41'56	retrograde	2429 Jan 30 12:30	26° \mathbb{A} 31'09	
min. Earth dist.	2428 Feb 28 04:54	3° \mathbb{H} 55'04	0.63678 AU	evening set	2429 Feb 02 16:15	25° \mathbb{A} 34'13	
morning rise	2428 Mar 02 17:22	0° \mathbb{H} 32'08		inferior conj	2429 Feb 08 10:15	19° \mathbb{A} 51'47	3°31'57
	2428 Mar 03 10:14	30° \mathbb{R} \mathbb{A}		minimum elong	2429 Feb 08 08:35	19° \mathbb{A} 56'55	3°31'46
direct	2428 Mar 09 14:53	27° \mathbb{A} 46'54		min. Earth dist.	2429 Feb 10 05:09	17° \mathbb{A} 40'19	0.65304 AU
	2428 Mar 16 10:27	0° \mathbb{H}		morning rise	2429 Feb 13 23:46	13° \mathbb{A} 39'57	
desc. node	2428 Mar 17 09:09	0° \mathbb{H} 36'22		direct	2429 Feb 20 14:48	10° \mathbb{A} 49'21	
morning max el	2428 Mar 23 09:47	5° \mathbb{H} 42'45	27°39'09	desc. node	2429 Mar 04 06:12	17° \mathbb{A} 03'43	
	2428 Apr 10 20:33	0° \mathbb{Y}		morning max el	2429 Mar 05 19:28	18° \mathbb{A} 34'13	26°55'57
morning set	2428 Apr 27 02:12	28° \mathbb{Y} 53'39			2429 Mar 15 11:30	0° \mathbb{H}	
	2428 Apr 27 15:30	0° \mathbb{S}			2429 Apr 03 19:39	0° \mathbb{Y}	
max. Earth dist.	2428 May 02 06:06	9° \mathbb{S} 28'08	1.33066 AU	morning set	2429 Apr 10 13:03	12° \mathbb{Y} 22'35	
				max. Earth dist.	2429 Apr 14 23:56	21° \mathbb{Y} 08'21	1.34186 AU
superior conj	2428 May 04 22:49	15° \mathbb{S} 11'53	0°-14'-32				
minimum elong	2428 May 04 23:32	15° \mathbb{S} 15'44	0°14'24	superior conj	2429 Apr 19 00:36	29° \mathbb{Y} 24'38	0°-42'-41
behind sun begin	2428 May 04 21:14	15° \mathbb{S} 03'24		minimum elong	2429 Apr 19 02:47	29° \mathbb{Y} 36'01	0°42'17
behind sun end	2428 May 05 01:50	15° \mathbb{S} 28'05			2429 Apr 19 07:22	0° \mathbb{S}	
asc. node	2428 May 06 08:05	18° \mathbb{S} 10'44		asc. node	2429 Apr 23 05:07	8° \mathbb{S} 13'44	
	2428 May 11 20:10	0° \mathbb{I}		evening rise	2429 Apr 26 12:07	15° \mathbb{S} 09'14	
evening rise	2428 May 12 01:59	0° \mathbb{I} 30'50			2429 May 04 01:20	0° \mathbb{I}	
	2428 May 28 17:37	0° \mathbb{S}		evening max el	2429 May 16 09:36	17° \mathbb{I} 22'52	21°26'52
evening max el	2428 Jun 03 13:51	6° \mathbb{S} 44'03	22°59'23	retrograde	2429 May 28 13:42	23° \mathbb{I} 20'31	
desc. node	2428 Jun 13 08:23	12° \mathbb{S} 54'37		evening set	2429 May 30 23:29	23° \mathbb{I} 07'19	
retrograde	2428 Jun 16 23:12	13° \mathbb{S} 24'28		desc. node	2429 May 31 05:25	23° \mathbb{I} 04'31	
evening set	2428 Jun 20 11:34	12° \mathbb{S} 57'23		inferior conj	2429 Jun 09 08:33	19° \mathbb{I} 07'38	-2°-35'-37
min. Earth dist.	2428 Jun 27 22:55	9° \mathbb{S} 37'04	0.55509 AU	minimum elong	2429 Jun 09 01:37	19° \mathbb{I} 17'21	2°33'22
inferior conj	2428 Jun 29 13:39	8° \mathbb{S} 40'57	-4°-9'-4	min. Earth dist.	2429 Jun 09 10:46	19° \mathbb{I} 04'32	0.54896 AU
minimum elong	2428 Jun 29 06:08	8° \mathbb{S} 51'52	4°07'27	morning rise	2429 Jun 18 04:12	15° \mathbb{I} 11'14	
morning rise	2428 Jul 08 03:38	4° \mathbb{S} 48'43		direct	2429 Jun 21 11:15	14° \mathbb{I} 47'36	
direct	2428 Jul 11 00:40	4° \mathbb{S} 29'10		morning max el	2429 Jul 03 23:08	20° \mathbb{I} 42'24	22°10'21
morning max el	2428 Jul 21 22:50	9° \mathbb{S} 32'59	20°38'46		2429 Jul 11 18:23	0° \mathbb{S}	

asc. node	2429 Jul 20 04:22	14°☿13'05			2430 Jun 14 04:45	0°♊	
morning set	2429 Jul 25 08:49	24°☿38'31		morning max el	2430 Jun 15 15:30	1°♊18'11	23°52'08
	2429 Jul 27 21:49	0°♊			2430 Jul 05 03:41	0°☿	
superior conj	2429 Aug 01 14:34	9°♊58'45	1°39'00	asc. node	2430 Jul 07 01:26	3°☿47'24	
minimum elong	2429 Aug 01 12:54	9°♊49'57	1°38'52	morning set	2430 Jul 09 20:28	9°☿33'55	
max. Earth dist.	2429 Aug 05 00:08	17°♊03'14	1.34468 AU	superior conj	2430 Jul 16 21:51	24°☿45'39	1°27'23
evening rise	2429 Aug 09 16:06	26°♊22'17		minimum elong	2430 Jul 16 19:34	24°☿33'21	1°27'07
	2429 Aug 11 13:34	0°♊		max. Earth dist.	2430 Jul 19 00:52	29°☿19'35	1.33307 AU
desc. node	2429 Aug 27 04:46	26°♊26'00			2430 Jul 19 08:28	0°♊	
	2429 Aug 29 15:10	0°♊		evening rise	2430 Jul 24 09:28	10°♊27'11	
evening max el	2429 Sep 13 13:34	18°♊12'50	27°01'36		2430 Aug 03 21:31	0°♊	
retrograde	2429 Sep 26 19:15	25°♊29'51		desc. node	2430 Aug 14 01:47	15°♊54'13	
evening set	2429 Oct 03 14:32	22°♊47'56			2430 Aug 25 13:09	0°♊	
min. Earth dist.	2429 Oct 07 12:55	18°♊56'16	0.65371 AU	evening max el	2430 Aug 27 01:02	1°♊28'19	27°24'56
inferior conj	2429 Oct 09 12:44	16°♊39'56	-2°-11'-50	retrograde	2430 Sep 09 15:16	8°♊45'44	
minimum elong	2429 Oct 09 16:18	16°♊29'46	2°10'27	evening set	2430 Sep 16 18:39	6°♊06'27	
morning rise	2429 Oct 15 19:41	11°♊01'28		min. Earth dist.	2430 Sep 20 11:15	2°♊49'34	0.63878 AU
asc. node	2429 Oct 16 03:34	10°♊52'30		inferior conj	2430 Sep 22 23:41	0°♊13'32	-3°-9'-45
direct	2429 Oct 18 12:27	10°♊21'55		minimum elong	2430 Sep 23 04:38	0°♊00'44	3°08'08
morning max el	2429 Oct 25 00:59	13°♊53'12	18°11'48		2430 Sep 23 04:55	30°♊	
	2429 Nov 05 12:25	0°♊		morning rise	2430 Sep 29 16:50	24°♊51'29	
morning set	2429 Nov 12 13:46	11°♊32'22		direct	2430 Oct 02 04:16	24°♊21'03	
desc. node	2429 Nov 23 04:05	28°♊43'17		asc. node	2430 Oct 03 00:38	24°♊24'41	
	2429 Nov 23 23:18	0°♊		morning max el	2430 Oct 08 17:14	27°♊46'34	17°53'39
superior conj	2429 Nov 27 07:31	5°♊18'33	0°-27'-40		2430 Oct 10 17:20	0°♊	
minimum elong	2429 Nov 27 03:58	5°♊04'30	0°27'12	morning set	2430 Oct 25 11:48	23°♊28'42	
max. Earth dist.	2429 Nov 30 02:15	9°♊41'48	1.45076 AU		2430 Oct 29 07:07	0°♊	
	2429 Dec 13 02:14	0°♊		superior conj	2430 Nov 07 04:17	14°♊50'12	0°19'27
evening rise	2429 Dec 13 17:51	1°♊00'43		minimum elong	2430 Nov 07 06:23	14°♊58'49	0°19'08
greatest brilliancy	2429 Dec 29 22:24	25°♊45'36	-0.7m	desc. node	2430 Nov 10 01:07	19°♊29'40	
	2430 Jan 01 22:56	0°♊		max. Earth dist.	2430 Nov 12 20:39	24°♊00'19	1.44334 AU
evening max el	2430 Jan 07 02:55	6°♊15'28	19°32'43		2430 Nov 16 15:36	0°♊	
asc. node	2430 Jan 12 02:49	9°♊59'11		evening rise	2430 Nov 23 04:06	10°♊07'59	
retrograde	2430 Jan 14 09:21	10°♊27'20			2430 Dec 06 07:53	0°♊	
evening set	2430 Jan 17 20:20	9°♊17'20		greatest brilliancy	2430 Dec 15 06:37	12°♊39'11	-0.5m
inferior conj	2430 Jan 23 09:33	3°♊19'26	3°09'11	evening max el	2430 Dec 21 05:20	19°♊46'03	20°33'03
minimum elong	2430 Jan 23 07:08	3°♊27'20	3°08'40	retrograde	2430 Dec 29 07:20	24°♊32'08	
min. Earth dist.	2430 Jan 24 13:40	1°♊47'28	0.66526 AU	asc. node	2430 Dec 29 23:52	24°♊29'29	
	2430 Jan 25 23:44	30°♊		evening set	2431 Jan 02 03:12	23°♊07'40	
morning rise	2430 Jan 28 17:12	27°♊04'59		inferior conj	2431 Jan 07 13:41	16°♊57'06	2°36'31
direct	2430 Feb 03 20:37	24°♊22'00		minimum elong	2431 Jan 07 11:06	17°♊05'56	2°35'46
	2430 Feb 14 10:32	0°♊		min. Earth dist.	2431 Jan 08 04:33	16°♊06'27	0.67344 AU
morning max el	2430 Feb 16 04:44	1°♊42'05	25°47'46	morning rise	2431 Jan 12 18:32	10°♊41'50	
desc. node	2430 Feb 19 03:15	4°♊50'48		direct	2431 Jan 18 07:36	8°♊15'35	
	2430 Mar 09 13:34	0°♊		morning max el	2431 Jan 29 13:14	14°♊57'41	24°24'14
morning set	2430 Mar 24 09:37	25°♊05'24		desc. node	2431 Feb 06 00:18	23°♊34'01	
	2430 Mar 27 00:54	0°♊			2431 Feb 10 20:55	0°♊	
max. Earth dist.	2430 Mar 28 06:18	2°♊19'46	1.35766 AU		2431 Mar 02 11:31	0°♊	
superior conj	2430 Apr 02 18:33	13°♊09'44	-1°-10'-26	morning set	2431 Mar 06 10:18	6°♊45'46	
minimum elong	2430 Apr 02 22:06	13°♊27'37	1°09'52	max. Earth dist.	2431 Mar 10 03:46	13°♊23'27	1.37727 AU
asc. node	2430 Apr 10 02:09	28°♊07'40		superior conj	2431 Mar 17 01:15	26°♊17'05	-1°-35'-41
evening rise	2430 Apr 10 18:37	29°♊31'44		minimum elong	2431 Mar 17 05:37	26°♊38'06	1°35'09
	2430 Apr 11 00:10	0°♊			2431 Mar 18 23:12	0°♊	
evening max el	2430 Apr 28 16:22	28°♊35'12	20°08'17	evening rise	2431 Mar 25 18:59	13°♊30'19	
	2430 Apr 30 06:05	0°♊		asc. node	2431 Mar 27 23:12	17°♊47'00	
retrograde	2430 May 09 03:49	3°♊39'53			2431 Apr 03 15:23	0°♊	
evening set	2430 May 11 04:18	3°♊29'22		evening max el	2431 Apr 11 10:38	10°♊26'58	19°08'38
desc. node	2430 May 18 02:25	0°♊43'54		retrograde	2431 Apr 20 06:33	14°♊44'02	
	2430 May 19 08:50	30°♊		evening set	2431 Apr 22 08:55	14°♊30'31	
inferior conj	2430 May 20 04:47	29°♊30'25	0°-36'-50	inferior conj	2431 Apr 30 15:39	10°♊18'28	1°13'15
minimum elong	2430 May 20 03:04	29°♊32'59	0°36'12	minimum elong	2431 Apr 30 18:26	10°♊13'42	1°12'18
min. Earth dist.	2430 May 21 23:43	28°♊26'36	0.55248 AU	min. Earth dist.	2431 May 03 14:50	8°♊17'49	0.56482 AU
morning rise	2430 May 28 23:24	25°♊11'01		desc. node	2431 May 04 23:28	7°♊26'07	
direct	2430 Jun 01 23:54	24°♊35'51		morning rise	2431 May 08 23:47	5°♊24'35	

direct	2431 May 14 00:02	4°♄26'07		desc. node	2432 Apr 20 20:30	15°♃24'31	
morning max el	2431 May 28 05:57	11°♄44'29	25°30'43	direct	2432 Apr 24 14:34	14°♃47'54	
	2431 Jun 11 07:17	0°♄		morning max el	2432 May 08 23:54	22°♃28'52	26°50'14
asc. node	2431 Jun 23 22:30	23°♄38'18			2432 May 15 15:40	0°♄	
morning set	2431 Jun 24 08:10	24°♄29'12			2432 Jun 03 04:07	0°♄	
	2431 Jun 26 21:59	0°♄		morning set	2432 Jun 07 18:15	9°♄18'31	
				asc. node	2432 Jun 09 19:31	13°♄40'03	
superior conj	2431 Jul 01 08:18	9°♄41'00	1°11'04	superior conj	2432 Jun 14 20:03	24°♄38'08	0°50'49
minimum elong	2431 Jul 01 05:56	9°♄28'01	1°10'42	minimum elong	2432 Jun 14 18:03	24°♄27'09	0°50'27
max. Earth dist.	2431 Jul 02 08:45	11°♄54'44	1.32545 AU	max. Earth dist.	2432 Jun 14 20:18	24°♄39'35	1.32179 AU
evening rise	2431 Jul 08 11:07	24°♄55'53			2432 Jun 17 06:36	0°♄	
	2431 Jul 10 23:01	0°♄		evening rise	2432 Jun 21 18:18	9°♄39'32	
	2431 Jul 28 12:20	0°♄			2432 Jul 02 07:01	0°♄	
desc. node	2431 Jul 31 22:48	4°♄40'03		desc. node	2432 Jul 17 19:48	22°♄25'31	
evening max el	2431 Aug 09 09:07	14°♄12'08	27°17'32	evening max el	2432 Jul 21 11:18	26°♄12'46	26°36'55
retrograde	2431 Aug 23 04:43	21°♄27'30			2432 Jul 26 01:32	0°♄	
evening set	2431 Aug 30 08:59	19°♄02'56		retrograde	2432 Aug 04 10:34	3°♄25'20	
min. Earth dist.	2431 Sep 02 23:12	16°♄13'37	0.62063 AU	evening set	2432 Aug 11 04:52	1°♄29'08	
inferior conj	2431 Sep 05 23:13	13°♄28'23	-4°-2'-26		2432 Aug 13 12:54	30°♄	
minimum elong	2431 Sep 06 04:42	13°♄15'46	4°01'07	min. Earth dist.	2432 Aug 15 00:55	28°♄53'19	0.60032 AU
morning rise	2431 Sep 13 03:14	8°♄26'10		inferior conj	2432 Aug 18 07:49	26°♄14'56	-4°-43'-9
direct	2431 Sep 15 12:02	8°♄01'47		minimum elong	2432 Aug 18 12:02	26°♄06'25	4°42'34
asc. node	2431 Sep 19 21:42	9°♄28'51		morning rise	2432 Aug 25 22:33	21°♄35'08	
morning max el	2431 Sep 22 08:41	11°♄29'57	17°53'38	direct	2432 Aug 28 07:38	21°♄14'16	
	2431 Oct 04 17:04	0°♄		morning max el	2432 Sep 04 20:08	24°♄54'17	18°12'50
morning set	2431 Oct 08 06:35	6°♄24'28		asc. node	2432 Sep 05 18:45	25°♄51'51	
					2432 Sep 09 02:25	0°♄	
superior conj	2431 Oct 19 03:52	25°♄41'35	0°57'46	morning set	2432 Sep 20 16:16	20°♄02'34	
minimum elong	2431 Oct 19 08:17	26°♄00'31	0°57'12		2432 Sep 25 23:10	0°♄	
	2431 Oct 21 16:38	0°♄		superior conj	2432 Sep 30 04:36	7°♄46'22	1°24'19
max. Earth dist.	2431 Oct 26 10:54	7°♄54'03	1.42959 AU	minimum elong	2432 Sep 30 08:30	8°♄03'59	1°23'56
desc. node	2431 Oct 27 22:09	10°♄17'20		max. Earth dist.	2432 Oct 07 19:18	21°♄07'18	1.41131 AU
evening rise	2431 Nov 02 15:31	19°♄23'40		evening rise	2432 Oct 12 19:23	29°♄25'59	
	2431 Nov 09 13:05	0°♄			2432 Oct 13 03:46	0°♄	
greatest brilliancy	2431 Nov 29 06:19	27°♄47'44	-0.4m	desc. node	2432 Oct 13 19:10	1°♄02'18	
	2431 Dec 01 02:13	0°♄			2432 Nov 02 02:29	0°♄	
evening max el	2431 Dec 04 02:05	3°♄17'35	21°44'49	greatest brilliancy	2432 Nov 10 02:06	10°♄28'36	-0.2m
retrograde	2431 Dec 13 04:29	8°♄42'34		evening max el	2432 Nov 15 18:00	16°♄51'05	23°03'33
asc. node	2431 Dec 16 20:55	7°♄28'19		retrograde	2432 Nov 25 23:08	22°♄54'36	
evening set	2431 Dec 17 11:01	7°♄02'19		evening set	2432 Nov 30 18:06	20°♄57'41	
inferior conj	2431 Dec 22 20:30	0°♄42'33	1°56'00	asc. node	2432 Dec 02 17:57	18°♄59'16	
minimum elong	2431 Dec 22 18:14	0°♄50'26	1°55'10	inferior conj	2432 Dec 06 04:04	14°♄32'42	1°09'01
min. Earth dist.	2431 Dec 22 23:35	0°♄31'52	0.67779 AU	minimum elong	2432 Dec 06 02:32	14°♄37'59	1°08'24
	2431 Dec 23 08:48	30°♄		min. Earth dist.	2432 Dec 05 20:20	14°♄59'22	0.67858 AU
morning rise	2431 Dec 28 01:13	24°♄28'18		morning rise	2432 Dec 11 10:59	8°♄21'35	
direct	2432 Jan 01 23:05	22°♄23'31		direct	2432 Dec 15 18:13	6°♄39'37	
morning max el	2432 Jan 11 22:56	28°♄19'02	22°55'32	morning max el	2432 Dec 24 13:06	11°♄47'44	21°30'37
	2432 Jan 13 13:26	0°♄		greatest brilliancy	2432 Dec 29 13:16	17°♄29'27	-0.4m
greatest brilliancy	2432 Jan 16 16:24	3°♄35'42	-0.3m		2433 Jan 07 19:14	0°♄	
desc. node	2432 Jan 23 21:22	12°♄57'41		desc. node	2433 Jan 09 18:25	2°♄50'06	
	2432 Feb 04 14:14	0°♄		morning set	2433 Jan 25 02:33	26°♄09'24	
morning set	2432 Feb 15 08:57	17°♄08'45			2433 Jan 27 12:22	0°♄	
max. Earth dist.	2432 Feb 19 22:57	24°♄52'54	1.39879 AU	max. Earth dist.	2433 Jan 31 22:54	7°♄13'36	1.41944 AU
	2432 Feb 22 21:32	0°♄		superior conj	2433 Feb 08 11:20	19°♄56'44	-2°-5'-13
superior conj	2432 Feb 27 16:33	8°♄36'40	-1°-55'-21	minimum elong	2433 Feb 08 12:17	20°♄00'47	2°05'14
minimum elong	2432 Feb 27 20:22	8°♄54'10	1°55'05		2433 Feb 14 03:57	0°♄	
evening rise	2432 Mar 08 10:19	26°♄57'43		evening rise	2433 Feb 19 12:58	9°♄45'32	
	2432 Mar 10 00:37	0°♄		asc. node	2433 Feb 28 17:14	25°♄59'34	
asc. node	2432 Mar 13 20:13	7°♄06'31			2433 Mar 03 07:14	0°♄	
evening max el	2432 Mar 24 14:09	22°♄54'19	18°29'10	evening max el	2433 Mar 07 23:44	5°♄48'50	18°09'40
retrograde	2432 Apr 01 03:48	26°♄37'52		retrograde	2433 Mar 14 18:41	9°♄15'04	
evening set	2432 Apr 03 11:44	26°♄17'45		evening set	2433 Mar 17 08:18	8°♄46'04	
inferior conj	2432 Apr 10 23:28	21°♄46'21	2°33'20	inferior conj	2433 Mar 24 03:47	3°♄53'25	3°20'24
minimum elong	2432 Apr 11 03:23	21°♄38'31	2°32'20	minimum elong	2433 Mar 24 06:26	3°♄47'15	3°20'00
min. Earth dist.	2432 Apr 14 09:52	19°♄03'16	0.58344 AU				
morning rise	2432 Apr 18 14:47	16°♄20'34					

min. Earth dist.	2433 Mar 27 10:53	0°Υ51'38	0.60487 AU	inferior conj	2434 Mar 07 01:00	16°✠32'00	3°40'11
	2433 Mar 28 11:06	30°✠		minimum elong	2434 Mar 07 01:43	16°✠30'06	3°40'10
morning rise	2433 Mar 31 01:16	28°✠05'38		min. Earth dist.	2434 Mar 09 20:02	13°✠36'17	0.62586 AU
direct	2433 Apr 06 17:18	25°✠57'13		morning rise	2434 Mar 13 07:08	10°✠30'46	
desc. node	2433 Apr 07 17:32	26°✠00'03		direct	2434 Mar 20 05:21	7°✠55'19	
	2433 Apr 16 15:04	0°Υ		desc. node	2434 Mar 25 14:35	9°✠17'10	
morning max el	2433 Apr 20 23:50	3°Υ49'43	27°38'20	morning max el	2434 Apr 03 05:25	15°✠51'24	27°49'25
	2433 May 10 06:47	0°♄			2434 Apr 14 19:53	0°Υ	
morning set	2433 May 23 00:59	23°♄55'55			2434 May 02 21:47	0°♄	
	2433 May 25 22:12	0°♂		morning set	2434 May 07 02:13	8°♄13'26	
asc. node	2433 May 27 16:32	3°♂48'00		max. Earth dist.	2434 May 12 15:49	19°♄50'31	1.32636 AU
max. Earth dist.	2433 May 29 07:58	7°♂22'51	1.32205 AU				
				superior conj	2434 May 14 16:32	24°♄13'14	0°01'19
superior conj	2433 May 30 07:23	9°♂31'11	0°27'21	minimum elong	2434 May 14 16:28	24°♄12'53	0°01'18
minimum elong	2433 May 30 06:11	9°♂24'35	0°27'05	behind sun begin	2434 May 14 11:18	23°♄44'49	
evening rise	2433 Jun 06 04:47	24°♂30'51		behind sun end	2434 May 14 21:39	24°♄40'59	
	2433 Jun 08 19:59	0°♄		asc. node	2434 May 14 13:34	23°♄57'05	
	2433 Jun 26 15:48	0°♂			2434 May 17 08:19	0°♂	
evening max el	2433 Jul 03 06:29	7°♂27'13	25°26'02	evening rise	2434 May 21 16:35	9°♂22'01	
desc. node	2433 Jul 04 16:47	8°♂45'47			2434 Jun 01 09:04	0°♄	
retrograde	2433 Jul 17 06:40	14°♂34'41		evening max el	2434 Jun 14 20:30	18°♄04'54	23°54'55
evening set	2433 Jul 23 01:47	13°♂16'22		desc. node	2434 Jun 21 13:48	23°♄07'29	
min. Earth dist.	2433 Jul 27 18:30	10°♂35'43	0.57999 AU	retrograde	2434 Jun 28 14:29	24°♄59'22	
inferior conj	2433 Jul 30 22:04	8°♂24'08	-5°-1'-4	evening set	2434 Jul 02 23:40	24°♄17'02	
minimum elong	2433 Jul 30 22:24	8°♂23'33	5°01'04	min. Earth dist.	2434 Jul 09 07:04	21°♄15'10	0.56256 AU
morning rise	2433 Aug 07 22:39	4°♂07'04		inferior conj	2434 Jul 11 16:03	19°♄48'10	-4°-41'-48
direct	2433 Aug 10 10:53	3°♂47'42		minimum elong	2434 Jul 11 10:51	19°♄56'09	4°41'06
morning max el	2433 Aug 19 00:19	7°♂50'20	18°52'39	morning rise	2434 Jul 20 01:27	15°♄50'01	
asc. node	2433 Aug 23 15:48	13°♂18'40		direct	2434 Jul 22 19:03	15°♄30'49	
	2433 Sep 02 08:52	0°♄		morning max el	2434 Aug 01 18:21	20°♄08'19	19°54'02
morning set	2433 Sep 04 12:28	4°♄11'19			2434 Aug 09 13:17	0°♂	
				asc. node	2434 Aug 10 12:50	1°♂34'49	
superior conj	2433 Sep 13 01:13	20°♄49'56	1°39'36	morning set	2434 Aug 19 15:54	18°♂41'45	
minimum elong	2433 Sep 13 03:24	21°♄00'19	1°39'28		2434 Aug 25 05:15	0°♄	
	2433 Sep 17 23:15	0°♄		superior conj	2434 Aug 27 12:26	4°♄37'19	1°45'18
max. Earth dist.	2433 Sep 19 23:44	3°♄38'21	1.39091 AU	minimum elong	2434 Aug 27 12:48	4°♄39'08	1°45'17
evening rise	2433 Sep 23 22:54	10°♄33'59		max. Earth dist.	2434 Sep 02 04:38	15°♄38'58	1.37082 AU
desc. node	2433 Sep 30 16:09	21°♄40'54		evening rise	2434 Sep 06 01:13	22°♄46'03	
	2433 Oct 06 00:14	0°♄			2434 Sep 10 03:49	0°♄	
	2433 Oct 28 19:39	0°♄		desc. node	2434 Sep 17 13:09	12°♄08'52	
evening max el	2433 Oct 29 07:02	0°♄28'29	24°23'13		2434 Sep 29 19:07	0°♄	
retrograde	2433 Nov 09 14:01	7°♄04'47		evening max el	2434 Oct 11 19:09	14°♄09'03	25°36'39
evening set	2433 Nov 14 22:51	4°♄51'09		retrograde	2434 Oct 24 00:21	21°♄09'06	
	2433 Nov 19 06:17	30°♄		evening set	2434 Oct 29 23:37	18°♄40'25	
min. Earth dist.	2433 Nov 19 16:20	29°♄26'35	0.67601 AU	min. Earth dist.	2434 Nov 03 09:13	13°♄51'19	0.67008 AU
asc. node	2433 Nov 19 15:00	29°♄31'01		inferior conj	2434 Nov 04 14:25	12°♄17'58	0°-39'-14
inferior conj	2433 Nov 20 10:37	28°♄25'15	0°16'50	minimum elong	2434 Nov 04 15:26	12°♄14'43	0°38'48
minimum elong	2433 Nov 20 10:13	28°♄26'37	0°16'40	asc. node	2434 Nov 06 12:03	9°♄56'06	
morning rise	2433 Nov 25 21:54	22°♄19'44		morning rise	2434 Nov 10 08:01	6°♄20'48	
direct	2433 Nov 29 15:49	20°♄59'23		direct	2434 Nov 13 14:25	5°♄19'17	
morning max el	2433 Dec 07 10:33	25°♄26'54	20°15'55	morning max el	2434 Nov 20 15:53	9°♄16'46	19°15'11
	2433 Dec 11 10:48	0°♄		greatest brilliancy	2434 Nov 30 17:08	22°♄21'58	-0.7m
greatest brilliancy	2433 Dec 14 01:22	3°♄22'05	-0.6m		2434 Dec 05 18:40	0°♄	
desc. node	2433 Dec 27 15:26	23°♄03'03		morning set	2434 Dec 14 01:43	12°♄49'13	
	2434 Jan 01 04:58	0°♄		desc. node	2434 Dec 14 12:27	13°♄30'54	
morning set	2434 Jan 04 00:10	4°♄18'45			2434 Dec 25 01:52	0°♄	
max. Earth dist.	2434 Jan 14 06:58	20°♄29'48	1.43647 AU	max. Earth dist.	2434 Dec 27 21:58	4°♄27'59	1.44764 AU
				superior conj	2434 Dec 30 21:01	9°♄09'15	-1°-36'-27
superior conj	2434 Jan 20 04:52	0°♄06'29	-2°00'-15	minimum elong	2434 Dec 30 12:18	8°♄34'38	1°35'39
minimum elong	2434 Jan 20 00:30	29°♄48'28	2°00'05		2435 Jan 12 18:21	0°♄	
	2434 Jan 20 03:18	0°♄		evening rise	2435 Jan 14 11:14	2°♄48'41	
evening rise	2434 Feb 01 22:39	21°♄44'36			2435 Jan 31 21:29	0°♄	
	2434 Feb 06 16:47	0°♄		asc. node	2435 Feb 02 11:20	1°♄49'09	
asc. node	2434 Feb 15 14:16	14°♄17'13		evening max el	2435 Feb 03 00:24	2°♄23'18	18°28'08
evening max el	2434 Feb 19 12:06	19°♄00'49	18°09'33	retrograde	2435 Feb 09 13:02	5°♄57'51	
retrograde	2434 Feb 25 23:12	22°♄24'42					
evening set	2434 Feb 28 18:05	21°♄45'30					

evening set	2435 Feb 12 13:18	5° H 07'36		greatest brilliancy	2436 Jan 06 04:40	0° \approx 31'49	-0.8m
inferior conj	2435 Feb 18 11:08	29° \approx 34'50	3°39'30	evening max el	2436 Jan 17 10:10	15° \approx 50'35	19°04'26
minimum elong	2435 Feb 18 10:10	29° \approx 37'39	3°39'26	asc. node	2436 Jan 20 08:23	18° \approx 21'45	
	2435 Feb 18 02:31	30° R \approx		retrograde	2436 Jan 24 08:15	19° \approx 46'34	
min. Earth dist.	2435 Feb 20 14:50	27° \approx 03'57	0.64417 AU	evening set	2436 Jan 27 14:51	18° \approx 44'15	
morning rise	2435 Feb 24 05:37	23° \approx 25'46		inferior conj	2436 Feb 02 06:30	12° \approx 54'40	3°23'41
direct	2435 Mar 03 01:06	20° \approx 36'53		minimum elong	2436 Feb 02 04:26	13° \approx 01'11	3°23'21
desc. node	2435 Mar 12 11:39	24° \approx 45'34		min. Earth dist.	2436 Feb 03 18:53	10° \approx 59'34	0.65869 AU
morning max el	2435 Mar 16 14:35	28° \approx 28'47	27°24'29	morning rise	2436 Feb 07 17:06	6° \approx 41'13	
	2435 Mar 18 01:51	0° H		direct	2436 Feb 14 03:29	3° \approx 52'43	
	2435 Apr 08 14:54	0° Y		morning max el	2436 Feb 27 00:33	11° \approx 29'16	26°29'31
morning set	2435 Apr 20 19:18	22° Y 03'12		desc. node	2436 Feb 27 08:41	11° \approx 49'55	
	2435 Apr 24 18:22	0° B			2436 Mar 12 19:22	0° H	
max. Earth dist.	2435 Apr 25 16:01	1° B 51'29	1.33496 AU		2436 Mar 31 04:50	0° Y	
				morning set	2436 Apr 03 00:43	5° Y 14'23	
superior conj	2435 Apr 28 21:38	8° B 38'29	0°-26'-24	max. Earth dist.	2436 Apr 07 05:12	13° Y 19'02	1.34803 AU
minimum elong	2435 Apr 28 22:58	8° B 45'33	0°26'09				
asc. node	2435 May 01 10:36	14° B 03'36		superior conj	2436 Apr 11 20:26	22° Y 40'15	0°-54'-37
evening rise	2435 May 06 03:54	24° B 07'07		minimum elong	2436 Apr 11 23:14	22° Y 54'38	0°54'07
	2435 May 09 00:13	0° II			2436 Apr 15 09:07	0° B	
evening max el	2435 May 27 11:47	28° II 33'20	22°18'41	asc. node	2436 Apr 17 07:40	4° B 03'26	
	2435 May 29 01:36	0° B		evening rise	2436 Apr 19 12:46	8° B 39'36	
desc. node	2435 Jun 08 10:50	4° B 55'41			2436 May 01 00:54	0° II	
retrograde	2435 Jun 09 10:19	4° B 57'52		evening max el	2436 May 08 11:46	9° II 24'29	20°51'18
evening set	2435 Jun 12 09:43	4° B 38'19		retrograde	2436 May 19 23:40	15° II 00'38	
min. Earth dist.	2435 Jun 20 18:15	1° B 01'53	0.55143 AU	evening set	2436 May 22 03:17	14° II 49'37	
inferior conj	2435 Jun 21 16:39	0° B 30'16	-3°-34'-25	desc. node	2436 May 25 07:52	13° II 56'13	
minimum elong	2435 Jun 21 08:35	0° B 41'39	3°32'16	inferior conj	2436 May 31 10:21	10° II 51'59	-1°-46'-20
	2435 Jun 22 14:10	30° R II		minimum elong	2436 May 31 05:21	10° II 59'05	1°44'34
morning rise	2435 Jun 30 09:38	26° II 39'05		min. Earth dist.	2436 Jun 01 06:36	10° II 23'09	0.54922 AU
direct	2435 Jul 03 10:22	26° II 18'24		morning rise	2436 Jun 09 06:38	6° II 47'49	
	2435 Jul 13 00:31	0° B		direct	2436 Jun 12 19:45	6° II 20'43	
morning max el	2435 Jul 15 00:57	1° B 42'44	21°15'54	morning max el	2436 Jun 25 21:31	12° II 37'01	22°53'09
asc. node	2435 Jul 28 09:52	20° B 28'33			2436 Jul 08 22:39	0° B	
	2435 Aug 02 07:44	0° B		asc. node	2436 Jul 14 06:55	9° B 50'36	
morning set	2435 Aug 04 00:03	3° B 26'35		morning set	2436 Jul 18 10:57	18° B 20'15	
					2436 Jul 23 22:08	0° B	
superior conj	2435 Aug 11 09:55	18° B 55'51	1°43'10	superior conj	2436 Jul 25 14:26	3° B 35'38	1°34'42
minimum elong	2435 Aug 11 08:51	18° B 50'16	1°43'08	minimum elong	2436 Jul 25 12:27	3° B 25'01	1°34'31
max. Earth dist.	2435 Aug 15 15:07	27° B 30'40	1.35315 AU	max. Earth dist.	2436 Jul 28 10:30	9° B 34'59	1.33919 AU
	2435 Aug 16 21:18	0° B		evening rise	2436 Aug 02 09:20	19° B 38'54	
evening rise	2435 Aug 19 22:11	5° B 51'35			2436 Aug 07 20:11	0° B	
	2435 Sep 02 21:54	0° B		desc. node	2436 Aug 21 07:12	22° B 07'35	
desc. node	2435 Sep 04 10:10	2° B 20'14			2436 Aug 26 23:22	0° B	
evening max el	2435 Sep 24 07:19	27° B 47'11	26°36'21	evening max el	2436 Sep 05 19:23	11° B 14'33	27°14'55
	2435 Sep 26 17:54	0° B		retrograde	2436 Sep 19 05:25	18° B 33'14	
retrograde	2435 Oct 07 05:37	5° B 01'03		evening set	2436 Sep 26 04:48	15° B 50'49	
evening set	2435 Oct 13 18:24	2° B 21'38		min. Earth dist.	2436 Sep 30 00:22	12° B 14'34	0.64777 AU
	2435 Oct 16 05:31	30° R B		inferior conj	2436 Oct 02 05:39	9° B 48'32	-2°-36'-43
min. Earth dist.	2435 Oct 17 20:36	28° B 09'17	0.66070 AU	minimum elong	2436 Oct 02 09:51	9° B 36'58	2°35'13
inferior conj	2435 Oct 19 13:30	26° B 07'03	-1°-37'-47	morning rise	2436 Oct 08 16:51	4° B 16'50	
minimum elong	2435 Oct 19 16:07	25° B 59'11	1°36'43	asc. node	2436 Oct 10 06:08	3° B 47'23	
asc. node	2435 Oct 24 09:07	21° B 09'20		direct	2436 Oct 11 06:54	3° B 41'45	
morning rise	2435 Oct 25 15:10	20° B 21'08		morning max el	2436 Oct 17 18:57	7° B 09'45	18°01'56
direct	2435 Oct 28 12:11	19° B 34'47			2436 Nov 02 04:04	0° B	
morning max el	2435 Nov 04 03:31	23° B 12'53	18°30'11	morning set	2436 Nov 04 10:48	3° B 49'08	
	2435 Nov 09 15:28	0° B		desc. node	2436 Nov 17 06:31	24° B 53'11	
morning set	2435 Nov 24 03:38	22° B 35'52					
	2435 Nov 28 18:51	0° B		superior conj	2436 Nov 18 07:35	26° B 33'37	0°-7'-4
desc. node	2435 Dec 01 09:28	4° B 08'43		minimum elong	2436 Nov 18 06:43	26° B 30'08	0°06'57
				behind sun begin	2436 Nov 17 21:05	25° B 51'34	
superior conj	2435 Dec 09 22:52	17° B 38'18	0°-55'-26	behind sun end	2436 Nov 18 16:21	27° B 08'40	
minimum elong	2435 Dec 09 15:55	17° B 11'00	0°54'34		2436 Nov 20 11:23	0° B	
max. Earth dist.	2435 Dec 10 16:28	18° B 47'21	1.45172 AU	max. Earth dist.	2436 Nov 22 11:12	3° B 09'20	1.44844 AU
	2435 Dec 17 19:51	0° B		evening rise	2436 Dec 04 17:23	22° B 15'41	
evening rise	2435 Dec 26 00:24	12° B 55'10			2436 Dec 09 18:07	0° B	
	2436 Jan 05 20:26	0° \approx					

greatest brilliancy	2436 Dec 23 14:06	20°☿34'21	-0.6m	minimum elong	2437 Oct 29 18:56	6°♄52'54	0°36'35
evening max el	2436 Dec 30 15:36	29°☿20'16	19°56'46	desc. node	2437 Nov 04 03:34	15°♄40'34	
	2436 Dec 31 07:28	0°♊		max. Earth dist.	2437 Nov 05 03:40	17°♄17'43	1.43820 AU
asc. node	2437 Jan 06 05:26	3°♊40'35			2437 Nov 13 04:57	0°♊	
retrograde	2437 Jan 07 05:53	3°♊46'19		evening rise	2437 Nov 14 01:57	1°♊21'11	
evening set	2437 Jan 10 20:19	2°♋30'32			2437 Dec 03 09:18	0°☿	
	2437 Jan 13 12:44	30°♋☿		greatest brilliancy	2437 Dec 08 07:43	6°☿38'01	-0.5m
inferior conj	2437 Jan 16 08:09	26°☿26'51	2°56'24	evening max el	2437 Dec 13 15:40	12°☿51'38	21°02'30
minimum elong	2437 Jan 16 05:35	26°☿35'24	2°55'46	retrograde	2437 Dec 22 03:36	17°☿53'45	
min. Earth dist.	2437 Jan 17 06:30	25°☿12'12	0.66920 AU	asc. node	2437 Dec 24 02:27	17°☿32'37	
morning rise	2437 Jan 21 14:14	20°☿11'35		evening set	2437 Dec 26 03:45	16°☿22'54	
direct	2437 Jan 27 11:43	17°☿34'39		inferior conj	2437 Dec 31 13:39	10°☿08'15	2°20'12
morning max el	2437 Feb 08 09:24	24°☿40'55	25°13'25	minimum elong	2437 Dec 31 11:08	10°☿16'54	2°19'23
desc. node	2437 Feb 13 05:44	0°♌02'57		min. Earth dist.	2437 Dec 31 23:27	9°☿34'34	0.67576 AU
	2437 Feb 13 04:44	0°♌		morning rise	2438 Jan 05 18:08	3°☿53'09	
	2437 Mar 06 06:26	0°♍		direct	2438 Jan 11 00:51	1°☿35'21	
morning set	2437 Mar 16 13:34	17°♍32'41		morning max el	2438 Jan 21 17:48	7°☿58'08	23°46'29
max. Earth dist.	2437 Mar 20 06:43	24°♍21'12	1.36553 AU	desc. node	2438 Jan 31 02:47	19°☿05'08	
	2437 Mar 23 06:10	0°♎			2438 Feb 07 23:21	0°♌	
				morning set	2438 Feb 26 03:53	28°♌41'51	
superior conj	2437 Mar 26 10:02	6°♎10'11	-1°-21'-38		2438 Feb 26 22:08	0°♍	
minimum elong	2437 Mar 26 14:02	6°♎29'58	1°21'02	max. Earth dist.	2438 Mar 02 01:55	5°♍30'26	1.38631 AU
evening rise	2437 Apr 03 16:57	22°♎52'24					
asc. node	2437 Apr 04 04:44	23°♎51'40		superior conj	2438 Mar 09 10:48	18°♍59'06	-1°-44'-56
	2437 Apr 07 07:11	0°♏		minimum elong	2438 Mar 09 15:09	19°♍19'39	1°44'30
evening max el	2437 Apr 20 23:39	20°♏54'01	19°40'35		2438 Mar 15 04:17	0°♎	
retrograde	2437 Apr 30 17:41	25°♏36'55		evening rise	2438 Mar 18 13:52	6°♎38'40	
evening set	2437 May 02 17:58	25°♏25'47		asc. node	2438 Mar 22 01:46	13°♎23'26	
inferior conj	2437 May 11 11:32	21°♏22'58	0°12'37		2438 Apr 01 04:56	0°♏	
minimum elong	2437 May 11 12:05	21°♏22'06	0°12'25	evening max el	2438 Apr 03 22:19	3°♏02'21	18°49'27
transit middle	2437 May 11 12:05	21°♏22'06	0°12'25	retrograde	2438 Apr 12 03:42	7°♏02'42	
transit begin	2437 May 11 09:37	21°♏25'59		evening set	2438 Apr 14 08:29	6°♏46'38	
transit end	2437 May 11 14:34	21°♏18'13		inferior conj	2438 Apr 22 06:58	2°♏26'56	1°51'22
desc. node	2437 May 12 04:55	20°♏55'39		minimum elong	2438 Apr 22 10:39	2°♏20'15	1°50'14
min. Earth dist.	2437 May 13 20:41	19°♏53'40	0.55670 AU	min. Earth dist.	2438 Apr 25 13:06	0°♏05'52	0.57219 AU
morning rise	2437 May 20 02:43	16°♏49'07			2438 Apr 25 16:30	30°♋♎	
direct	2437 May 24 12:53	16°♏05'25		desc. node	2438 Apr 29 01:56	27°♎55'18	
morning max el	2437 Jun 07 12:18	23°♏05'40	24°35'20	morning rise	2438 Apr 30 08:28	27°♎18'56	
	2437 Jun 13 16:32	0°♐		direct	2438 May 05 19:32	26°♎06'39	
asc. node	2437 Jul 01 03:58	29°♐32'41			2438 May 15 22:16	0°♏	
	2437 Jul 01 09:15	0°♑		morning max el	2438 May 20 03:27	3°♏35'42	26°07'40
morning set	2437 Jul 02 22:48	3°♑16'13			2438 Jun 08 02:52	0°♐	
				morning set	2438 Jun 17 10:01	18°♐09'25	
superior conj	2437 Jul 09 23:19	18°♑27'16	1°21'00	asc. node	2438 Jun 18 01:01	19°♐28'49	
minimum elong	2437 Jul 09 20:57	18°♑14'20	1°20'40		2438 Jun 22 21:26	0°♑	
max. Earth dist.	2437 Jul 11 14:27	21°♑59'16	1.32934 AU				
	2437 Jul 15 08:56	0°♒		superior conj	2438 Jun 24 10:31	3°♑23'56	1°02'56
evening rise	2437 Jul 17 06:37	3°♒55'27		minimum elong	2438 Jun 24 08:16	3°♑11'29	1°02'32
	2437 Jul 31 13:47	0°♓		max. Earth dist.	2438 Jun 25 00:24	4°♑40'09	1.32348 AU
desc. node	2437 Aug 08 04:14	11°♓19'43		evening rise	2438 Jul 01 10:55	18°♑31'38	
evening max el	2437 Aug 19 05:45	24°♓18'23	27°25'47		2438 Jul 07 04:47	0°♒	
	2437 Aug 26 22:11	0°♈		desc. node	2438 Jul 26 01:13	29°♒42'16	
retrograde	2437 Sep 01 22:56	1°♈35'28			2438 Jul 26 07:00	0°♓	
	2437 Sep 07 14:39	30°♋♓		evening max el	2438 Aug 01 11:51	6°♓45'39	27°04'17
evening set	2437 Sep 09 03:34	29°♓01'01		retrograde	2438 Aug 15 09:06	13°♓58'56	
min. Earth dist.	2437 Sep 12 18:34	25°♓56'48	0.63140 AU	evening set	2438 Aug 22 10:35	11°♓45'14	
inferior conj	2437 Sep 15 12:08	23°♓15'15	-3°-33'-4	min. Earth dist.	2438 Aug 26 02:08	9°♓03'28	0.61223 AU
minimum elong	2437 Sep 15 17:27	23°♓02'06	3°31'31	inferior conj	2438 Aug 29 05:45	6°♓19'15	-4°-21'-43
morning rise	2437 Sep 22 09:51	18°♓01'03		minimum elong	2438 Aug 29 10:58	6°♓07'52	4°20'41
direct	2437 Sep 24 19:42	17°♓33'38		morning rise	2438 Sep 05 14:21	1°♓25'56	
asc. node	2437 Sep 27 03:10	17°♓59'24		direct	2438 Sep 07 22:59	1°♓03'13	
morning max el	2437 Oct 01 11:11	20°♓59'37	17°51'17	asc. node	2438 Sep 14 00:13	3°♓38'26	
	2437 Oct 08 06:19	0°♉		morning max el	2438 Sep 15 01:13	4°♓35'17	17°59'16
morning set	2437 Oct 17 18:27	16°♉13'02		morning set	2438 Sep 30 20:11	29°♓28'31	
	2437 Oct 25 16:57	0°♊			2438 Oct 01 03:01	0°♉	
superior conj	2437 Oct 29 15:24	6°♊38'10	0°37'04	superior conj	2438 Oct 11 02:08	18°♉01'39	1°10'31

minimum elong	2438 Oct 11 06:34	18° Ω 21'08	1°09'59	superior conj	2439 Sep 23 12:06	0° Ω 34'04	1°32'05
	2438 Oct 18 02:11	0° \mathbb{M}		minimum elong	2439 Sep 23 15:19	0° Ω 49'01	1°31'49
max. Earth dist.	2438 Oct 18 15:52	0° \mathbb{M} 56'49	1.42231 AU	max. Earth dist.	2439 Sep 30 22:45	13° Ω 54'08	1.40276 AU
desc. node	2438 Oct 22 00:34	6° \mathbb{M} 27'13		evening rise	2439 Oct 05 08:32	21° Ω 22'32	
evening rise	2438 Oct 24 18:52	10° \mathbb{M} 52'56		desc. node	2439 Oct 08 21:33	27° Ω 10'07	
	2438 Nov 06 07:22	0° \mathcal{A}			2439 Oct 10 16:06	0° \mathbb{M}	
greatest brilliancy	2438 Nov 21 16:54	21° \mathcal{A} 05'14	-0.3m		2439 Oct 31 10:12	0° \mathcal{A}	
evening max el	2438 Nov 26 10:16	26° \mathcal{A} 24'05	22°17'52	evening max el	2439 Nov 09 00:39	9° \mathcal{A} 59'06	23°37'39
	2438 Nov 30 13:23	0° \mathcal{B}		retrograde	2439 Nov 19 16:53	16° \mathcal{A} 17'27	
retrograde	2438 Dec 05 23:42	2° \mathcal{B} 05'09		evening set	2439 Nov 24 17:44	14° \mathcal{A} 13'02	
evening set	2438 Dec 10 11:25	0° \mathcal{B} 17'47		asc. node	2439 Nov 27 20:30	10° \mathcal{A} 53'09	
asc. node	2438 Dec 10 23:28	29° \mathcal{A} 52'04		min. Earth dist.	2439 Nov 29 16:00	8° \mathcal{A} 29'08	0.67793 AU
	2438 Dec 10 19:53	30° \mathbb{R} \mathcal{A}		inferior conj	2439 Nov 30 04:19	7° \mathcal{A} 47'04	0°47'26
inferior conj	2438 Dec 15 20:58	23° \mathcal{A} 55'31	1°36'45	minimum elong	2439 Nov 30 03:13	7° \mathcal{A} 50'49	0°46'59
minimum elong	2438 Dec 15 18:57	24° \mathcal{A} 02'29	1°35'59	morning rise	2439 Dec 05 12:52	1° \mathcal{A} 38'17	
min. Earth dist.	2438 Dec 15 19:21	24° \mathcal{A} 01'07	0.67859 AU	direct	2439 Dec 09 14:11	0° \mathcal{A} 05'59	
morning rise	2438 Dec 21 02:21	17° \mathcal{A} 42'36		morning max el	2439 Dec 17 22:05	4° \mathcal{A} 55'27	20°57'20
direct	2438 Dec 25 17:59	15° \mathcal{A} 47'28		greatest brilliancy	2439 Dec 23 11:30	11° \mathcal{A} 21'38	-0.5m
morning max el	2439 Jan 04 04:52	21° \mathcal{A} 21'42	22°18'31	desc. node	2440 Jan 04 20:50	28° \mathcal{A} 43'52	
greatest brilliancy	2439 Jan 08 18:46	26° \mathcal{A} 29'05	-0.3m		2440 Jan 05 17:22	0° \mathcal{B}	
	2439 Jan 11 14:01	0° \mathcal{B}		morning set	2440 Jan 16 20:59	17° \mathcal{B} 00'32	
desc. node	2439 Jan 17 23:49	8° \mathcal{B} 41'56		max. Earth dist.	2440 Jan 25 02:38	0° \approx 08'17	1.42731 AU
	2439 Feb 01 06:27	0° \approx			2440 Jan 25 00:36	0° \approx	
morning set	2439 Feb 06 13:58	8° \approx 28'08					
max. Earth dist.	2439 Feb 11 22:58	17° \approx 21'50	1.40791 AU	superior conj	2440 Feb 01 02:24	11° \approx 45'05	-2°-5'-13
	2439 Feb 19 05:45	0° \mathcal{H}		minimum elong	2440 Feb 01 01:17	11° \approx 40'22	2°05'14
					2440 Feb 11 13:18	0° \mathcal{H}	
superior conj	2439 Feb 19 17:59	0° \mathcal{H} 54'37	-2°-1'-1	evening rise	2440 Feb 12 20:14	2° \mathcal{H} 18'12	
minimum elong	2439 Feb 19 20:55	1° \mathcal{H} 07'45	2°00'54	asc. node	2440 Feb 23 19:49	21° \mathcal{H} 11'15	
evening rise	2439 Mar 02 00:15	19° \mathcal{H} 50'00		evening max el	2440 Feb 29 15:48	28° \mathcal{H} 43'52	18°07'12
	2439 Mar 07 12:21	0° \mathcal{Y}			2440 Mar 02 01:46	0° \mathcal{Y}	
asc. node	2439 Mar 08 22:48	2° \mathcal{Y} 32'19		retrograde	2440 Mar 07 06:20	2° \mathcal{Y} 07'47	
evening max el	2439 Mar 18 04:46	15° \mathcal{Y} 41'41	18°18'25	evening set	2440 Mar 09 22:07	1° \mathcal{Y} 34'39	
retrograde	2439 Mar 25 08:56	19° \mathcal{Y} 15'57			2440 Mar 12 14:49	30° \mathbb{R} \mathcal{H}	
evening set	2439 Mar 27 19:26	18° \mathcal{Y} 52'09		inferior conj	2440 Mar 16 11:47	26° \mathcal{H} 32'47	3°31'41
inferior conj	2439 Apr 03 23:46	14° \mathcal{Y} 11'22	2°57'04	minimum elong	2440 Mar 16 13:37	26° \mathcal{H} 28'15	3°31'30
minimum elong	2439 Apr 04 03:19	14° \mathcal{Y} 03'45	2°56'19	min. Earth dist.	2440 Mar 19 14:21	23° \mathcal{H} 30'46	0.61400 AU
min. Earth dist.	2439 Apr 07 10:01	11° \mathcal{Y} 17'31	0.59245 AU	morning rise	2440 Mar 23 02:17	20° \mathcal{H} 38'02	
morning rise	2439 Apr 11 07:23	8° \mathcal{Y} 35'09		direct	2440 Mar 29 21:56	18° \mathcal{H} 16'47	
desc. node	2439 Apr 15 22:58	6° \mathcal{Y} 54'42		desc. node	2440 Apr 01 20:01	18° \mathcal{H} 40'47	
direct	2439 Apr 17 15:09	6° \mathcal{Y} 47'09		morning max el	2440 Apr 13 02:32	26° \mathcal{H} 12'06	27°47'44
morning max el	2439 May 01 23:46	14° \mathcal{Y} 33'15	27°15'09		2440 Apr 16 15:45	0° \mathcal{Y}	
	2439 May 14 09:43	0° \mathcal{B}			2440 May 06 22:09	0° \mathcal{B}	
	2439 May 31 09:14	0° \mathbb{I}		morning set	2440 May 15 23:34	17° \mathcal{B} 23'34	
morning set	2439 Jun 01 18:54	2° \mathbb{I} 53'59		asc. node	2440 May 21 19:06	29° \mathcal{B} 42'02	
asc. node	2439 Jun 04 22:04	9° \mathbb{I} 33'25			2440 May 21 22:24	0° \mathbb{I}	
				max. Earth dist.	2440 May 21 23:11	0° \mathbb{I} 04'10	1.32333 AU
superior conj	2439 Jun 08 22:16	18° \mathbb{I} 19'21	0°41'13				
minimum elong	2439 Jun 08 20:34	18° \mathbb{I} 09'57	0°40'53	superior conj	2440 May 23 08:53	3° \mathbb{I} 07'52	0°16'33
max. Earth dist.	2439 Jun 08 12:37	17° \mathbb{I} 26'12	1.32144 AU	minimum elong	2440 May 23 08:07	3° \mathbb{I} 03'43	0°16'23
	2439 Jun 14 06:25	0° \mathcal{E}		evening rise	2440 May 30 07:00	18° \mathbb{I} 10'22	
evening rise	2439 Jun 15 19:45	3° \mathcal{E} 18'58			2440 Jun 05 02:37	0° \mathcal{E}	
	2439 Jun 30 02:55	0° \mathcal{Q}		evening max el	2440 Jun 25 03:16	29° \mathcal{E} 21'24	24°48'53
desc. node	2439 Jul 12 22:13	16° \mathcal{Q} 54'53			2440 Jun 25 19:41	0° \mathcal{Q}	
evening max el	2439 Jul 14 11:05	18° \mathcal{Q} 26'18	26°10'01	desc. node	2440 Jun 28 19:15	2° \mathcal{Q} 28'51	
retrograde	2439 Jul 28 10:44	25° \mathcal{Q} 36'40		retrograde	2440 Jul 09 02:09	6° \mathcal{Q} 25'48	
evening set	2439 Aug 03 21:08	23° \mathcal{Q} 55'44		evening set	2440 Jul 14 07:48	5° \mathcal{Q} 23'33	
min. Earth dist.	2439 Aug 07 23:46	21° \mathcal{Q} 20'28	0.59156 AU	min. Earth dist.	2440 Jul 19 14:35	2° \mathcal{Q} 35'44	0.57192 AU
inferior conj	2439 Aug 11 06:56	18° \mathcal{Q} 51'06	-4°-54'-21	inferior conj	2440 Jul 22 12:33	0° \mathcal{Q} 40'56	-4°-58'-19
minimum elong	2439 Aug 11 09:50	18° \mathcal{Q} 45'35	4°54'06	minimum elong	2440 Jul 22 10:33	0° \mathcal{Q} 44'13	4°58'14
morning rise	2439 Aug 19 02:00	14° \mathcal{Q} 21'12			2440 Jul 23 13:34	30° \mathbb{R} \mathcal{E}	
direct	2439 Aug 21 12:17	14° \mathcal{Q} 01'03		morning rise	2440 Jul 30 17:03	26° \mathcal{E} 33'16	
morning max el	2439 Aug 29 09:57	17° \mathcal{Q} 48'48	18°27'13	direct	2440 Aug 02 07:17	26° \mathcal{E} 14'14	
asc. node	2439 Aug 31 21:17	20° \mathcal{Q} 30'29			2440 Aug 10 21:02	0° \mathcal{Q}	
	2439 Sep 07 05:34	0° \mathbb{P}		morning max el	2440 Aug 11 10:13	0° \mathcal{Q} 29'58	19°16'16
morning set	2439 Sep 14 10:51	13° \mathbb{P} 21'25		asc. node	2440 Aug 17 18:19	8° \mathcal{Q} 19'41	
	2439 Sep 23 04:44	0° Ω		morning set	2440 Aug 28 10:29	27° \mathcal{Q} 40'13	

	2440 Aug 29 14:31	0°♍		morning rise	2441 Jul 11 11:16	7°♌52'45	
				direct	2441 Jul 14 07:19	7°♌33'21	
superior conj	2440 Sep 05 15:34	13°♍58'21	1°43'04	morning max el	2441 Jul 24 23:33	12°♌30'12	20°26'34
minimum elong	2440 Sep 05 16:58	14°♍05'05	1°43'01	asc. node	2441 Aug 04 15:23	26°♌53'07	
max. Earth dist.	2440 Sep 12 02:26	26°♍08'48	1.38211 AU		2441 Aug 06 09:23	0°♌	
	2440 Sep 14 05:42	0°♌		morning set	2441 Aug 12 16:13	12°♌17'16	
evening rise	2440 Sep 15 22:09	2°♌58'39					
desc. node	2440 Sep 24 18:34	17°♌44'46		superior conj	2441 Aug 20 07:39	28°♌00'16	1°45'14
	2440 Oct 02 19:35	0°♌		minimum elong	2441 Aug 20 07:20	27°♌58'43	1°45'15
evening max el	2440 Oct 21 12:54	23°♌37'30	24°55'33		2441 Aug 21 07:20	0°♍	
	2440 Oct 30 15:26	0°♍		max. Earth dist.	2441 Aug 25 08:45	8°♍00'51	1.36289 AU
retrograde	2440 Nov 02 06:07	0°♍25'54		evening rise	2441 Aug 29 09:02	15°♍35'10	
	2440 Nov 04 17:16	30°♍			2441 Sep 06 14:41	0°♌	
evening set	2440 Nov 07 21:03	28°♍05'22		desc. node	2441 Sep 11 15:35	8°♌06'13	
min. Earth dist.	2440 Nov 12 11:00	22°♍55'40	0.67390 AU		2441 Sep 27 09:15	0°♌	
inferior conj	2440 Nov 13 09:56	21°♍40'04	0°-6'-32	evening max el	2441 Oct 04 01:01	7°♍17'53	26°04'11
minimum elong	2440 Nov 13 10:06	21°♍39'32	0°06'28	retrograde	2441 Oct 16 14:29	14°♍25'25	
transit middle	2440 Nov 13 10:06	21°♍39'32	0°06'28	evening set	2441 Oct 22 19:33	11°♍51'41	
transit begin	2440 Nov 13 07:34	21°♍47'54		min. Earth dist.	2441 Oct 27 02:00	7°♍17'49	0.66650 AU
transit end	2440 Nov 13 12:38	21°♍31'11		inferior conj	2441 Oct 28 12:00	5°♍31'49	-1°-3'-51
asc. node	2440 Nov 13 17:33	21°♍15'01		minimum elong	2441 Oct 28 13:41	5°♍26'33	1°03'09
morning rise	2440 Nov 18 23:41	15°♍37'47		asc. node	2441 Oct 31 14:36	1°♍54'25	
direct	2440 Nov 22 12:21	14°♍26'03			2441 Nov 02 19:30	30°♍	
morning max el	2440 Nov 29 23:04	18°♍39'48	19°48'10	morning rise	2441 Nov 03 08:49	29°♌38'46	
greatest brilliancy	2440 Dec 07 15:08	28°♍07'08	-0.6m	direct	2441 Nov 06 10:54	28°♌44'12	
	2440 Dec 08 23:19	0°♍			2441 Nov 10 05:58	0°♌	
desc. node	2440 Dec 21 17:52	19°♍03'32		morning max el	2441 Nov 13 07:17	2°♍32'32	18°53'56
morning set	2440 Dec 25 16:58	25°♍09'18			2441 Dec 02 12:10	0°♍	
	2440 Dec 28 20:02	0°♌		morning set	2441 Dec 05 03:17	4°♍07'42	
max. Earth dist.	2441 Jan 06 13:27	13°♌42'27	1.44200 AU	desc. node	2441 Dec 08 14:53	9°♍35'51	
				max. Earth dist.	2441 Dec 20 05:55	27°♍50'19	1.45031 AU
superior conj	2441 Jan 11 08:38	21°♌24'19	-1°-52'-33				
minimum elong	2441 Jan 11 01:57	20°♌57'18	1°52'07	superior conj	2441 Dec 21 16:38	0°♌06'53	-1°-20'-43
	2441 Jan 16 14:44	0°♌		minimum elong	2441 Dec 21 07:47	29°♍32'06	1°19'47
evening rise	2441 Jan 24 21:24	13°♌54'26			2441 Dec 21 14:53	0°♌	
	2441 Feb 03 10:58	0°♍		evening rise	2442 Jan 06 00:02	24°♌33'07	
asc. node	2441 Feb 09 16:51	9°♍10'57			2442 Jan 09 08:36	0°♌	
evening max el	2441 Feb 12 04:28	12°♍01'05	18°15'15	evening max el	2442 Jan 26 16:01	25°♌26'20	18°41'35
retrograde	2441 Feb 18 15:19	15°♍28'14		asc. node	2442 Jan 27 13:54	26°♌19'19	
evening set	2441 Feb 21 12:20	14°♍44'37		retrograde	2442 Feb 02 07:43	29°♌08'30	
inferior conj	2441 Feb 27 15:01	9°♍22'54	3°42'02	evening set	2442 Feb 05 10:34	28°♌13'17	
minimum elong	2441 Feb 27 14:58	9°♍23'04	3°42'02	inferior conj	2442 Feb 11 05:28	22°♌33'21	3°34'23
min. Earth dist.	2441 Mar 02 03:49	6°♍35'32	0.63403 AU	minimum elong	2442 Feb 11 03:58	22°♌37'55	3°34'12
morning rise	2441 Mar 05 15:42	3°♍17'35		min. Earth dist.	2442 Feb 13 02:39	20°♌16'36	0.65087 AU
direct	2441 Mar 12 13:42	0°♍34'18		morning rise	2442 Feb 16 20:11	16°♌22'15	
desc. node	2441 Mar 19 17:04	2°♍58'08		direct	2442 Feb 23 12:36	13°♌31'39	
morning max el	2441 Mar 26 10:04	8°♍30'45	27°42'54	desc. node	2442 Mar 06 14:07	19°♌10'55	
	2441 Apr 12 01:04	0°♍		morning max el	2442 Mar 08 19:37	21°♌18'31	27°04'13
	2441 Apr 29 03:27	0°♍			2442 Mar 16 09:08	0°♍	
morning set	2441 Apr 29 21:45	1°♍30'57			2442 Apr 05 04:43	0°♍	
max. Earth dist.	2441 May 05 04:07	12°♍21'22	1.32940 AU	morning set	2442 Apr 13 10:20	15°♍05'28	
				max. Earth dist.	2442 Apr 17 23:40	24°♍06'53	1.33994 AU
superior conj	2441 May 07 16:36	17°♍44'00	0°-10'-18		2442 Apr 20 20:19	0°♍	
minimum elong	2441 May 07 17:06	17°♍46'43	0°10'13				
behind sun begin	2441 May 07 13:01	17°♍24'43		superior conj	2442 Apr 21 19:19	2°♍00'10	0°-38'-24
behind sun end	2441 May 07 21:12	18°♍08'43		minimum elong	2442 Apr 21 21:17	2°♍10'25	0°38'01
asc. node	2441 May 08 16:09	19°♍50'48		asc. node	2442 Apr 25 13:11	9°♍54'53	
	2441 May 13 09:03	0°♍		evening rise	2442 Apr 29 05:21	17°♍40'08	
evening rise	2441 May 14 18:51	2°♍59'52			2442 May 05 09:25	0°♍	
	2441 May 29 14:08	0°♌		evening max el	2442 May 19 11:21	20°♍26'49	21°39'53
evening max el	2441 Jun 06 16:56	9°♌51'34	23°13'46	retrograde	2442 May 31 20:32	26°♍31'41	
desc. node	2441 Jun 15 16:17	15°♌49'22		desc. node	2442 Jun 02 13:20	26°♍25'06	
retrograde	2441 Jun 20 05:07	16°♌36'11		evening set	2442 Jun 03 09:22	26°♍17'12	
evening set	2441 Jun 23 22:35	16°♌05'44		inferior conj	2442 Jun 12 18:26	22°♍15'54	-2°-52'-12
min. Earth dist.	2441 Jul 01 02:36	12°♌50'30	0.55679 AU	minimum elong	2442 Jun 12 11:00	22°♍26'18	2°49'52
inferior conj	2441 Jul 02 22:27	11°♌46'12	-4°-19'-19	min. Earth dist.	2442 Jun 12 14:11	22°♍21'51	0.54934 AU
minimum elong	2441 Jul 02 15:24	11°♌56'34	4°17'57	morning rise	2442 Jun 21 13:33	18°♍21'29	

direct	2442 Jun 24 18:52	17° Π 58'45			2443 May 28 05:25	30° \mathbb{R} 8	
morning max el	2442 Jul 07 01:20	23° Π 45'28	21°55'49	morning rise	2443 Jun 01 08:50	28° \mathbb{R} 21'55	
	2442 Jul 12 14:53	0° \mathfrak{S}		direct	2443 Jun 05 06:08	27° \mathbb{R} 49'15	
asc. node	2442 Jul 22 12:26	15° \mathfrak{S} 59'35			2443 Jun 12 22:15	0° Π	
morning set	2442 Jul 28 01:45	27° \mathfrak{S} 05'59		morning max el	2443 Jun 18 18:35	4° Π 24'57	23°36'53
	2442 Jul 29 10:58	0° \mathcal{Q}			2443 Jul 06 13:45	0° \mathfrak{S}	
				asc. node	2443 Jul 09 09:28	5° \mathfrak{S} 30'39	
superior conj	2442 Aug 04 08:26	12° \mathcal{Q} 28'08	1°40'16	morning set	2443 Jul 12 13:13	12° \mathfrak{S} 00'50	
minimum elong	2442 Aug 04 06:54	12° \mathcal{Q} 20'06	1°40'11				
max. Earth dist.	2442 Aug 07 22:58	19° \mathcal{Q} 56'01	1.34676 AU	superior conj	2443 Jul 19 15:02	27° \mathfrak{S} 13'05	1°29'28
evening rise	2442 Aug 12 12:33	28° \mathcal{Q} 59'33		minimum elong	2443 Jul 19 12:48	27° \mathfrak{S} 01'09	1°29'13
	2442 Aug 13 01:08	0° \mathfrak{P}			2443 Jul 20 22:09	0° \mathcal{Q}	
desc. node	2442 Aug 29 12:38	28° \mathfrak{P} 08'07		max. Earth dist.	2443 Jul 21 22:25	2° \mathcal{Q} 09'13	1.33451 AU
	2442 Aug 30 18:39	0° \mathfrak{A}		evening rise	2443 Jul 27 04:22	12° \mathcal{Q} 59'47	
evening max el	2442 Sep 16 13:32	20° \mathfrak{A} 53'23	26°55'52		2443 Aug 05 06:07	0° \mathfrak{P}	
retrograde	2442 Sep 29 17:23	28° \mathfrak{A} 09'34		desc. node	2443 Aug 16 09:40	17° \mathfrak{P} 41'38	
evening set	2442 Oct 06 11:06	25° \mathfrak{A} 28'06			2443 Aug 26 00:08	0° \mathfrak{A}	
min. Earth dist.	2442 Oct 10 10:29	21° \mathfrak{A} 31'08	0.65561 AU	evening max el	2443 Aug 30 01:09	4° \mathfrak{A} 11'51	27°23'18
inferior conj	2442 Oct 12 08:28	19° \mathfrak{A} 18'22	-2°-2'-52	retrograde	2443 Sep 12 14:18	11° \mathfrak{A} 29'43	
minimum elong	2442 Oct 12 11:47	19° \mathfrak{A} 08'45	2°01'34	evening set	2443 Sep 19 16:56	8° \mathfrak{A} 49'08	
asc. node	2442 Oct 18 11:39	13° \mathfrak{A} 40'48		min. Earth dist.	2443 Sep 23 10:11	5° \mathfrak{A} 27'32	0.64120 AU
morning rise	2442 Oct 18 14:00	13° \mathfrak{A} 37'51		inferior conj	2443 Sep 25 20:49	2° \mathfrak{A} 53'46	-3°-1'-14
direct	2442 Oct 21 07:49	12° \mathfrak{A} 56'36		minimum elong	2443 Sep 26 01:36	2° \mathfrak{A} 41'12	2°59'38
morning max el	2442 Oct 27 20:48	16° \mathfrak{A} 29'16	18°16'04		2443 Sep 28 18:57	30° \mathbb{R} 8	
	2442 Nov 06 18:13	0° \mathfrak{M}		morning rise	2443 Oct 02 12:24	27° \mathfrak{P} 29'12	
morning set	2442 Nov 15 17:59	14° \mathfrak{M} 32'58		direct	2443 Oct 05 00:26	26° \mathfrak{P} 57'40	
desc. node	2442 Nov 25 11:55	0° \mathfrak{X} 16'56		asc. node	2443 Oct 05 08:42	26° \mathfrak{P} 58'16	
	2442 Nov 25 07:40	0° \mathfrak{X}			2443 Oct 11 03:15	0° \mathfrak{A}	
				morning max el	2443 Oct 11 12:55	0° \mathfrak{A} 23'29	17°55'16
superior conj	2442 Nov 30 18:47	8° \mathfrak{X} 40'00	0°-35'-4	morning set	2443 Oct 28 12:18	26° \mathfrak{A} 18'18	
minimum elong	2442 Nov 30 14:16	8° \mathfrak{X} 22'11	0°34'28		2443 Oct 30 16:18	0° \mathfrak{M}	
max. Earth dist.	2442 Dec 03 01:21	12° \mathfrak{X} 14'49	1.45126 AU				
	2442 Dec 14 09:40	0° \mathfrak{Z}		superior conj	2443 Nov 10 11:59	18° \mathfrak{M} 00'51	0°12'43
evening rise	2442 Dec 17 03:51	4° \mathfrak{Z} 18'21		minimum elong	2443 Nov 10 13:25	18° \mathfrak{M} 06'40	0°12'32
greatest brilliancy	2443 Jan 01 07:30	27° \mathfrak{Z} 37'49	-0.7m	behind sun begin	2443 Nov 10 06:59	17° \mathfrak{M} 40'29	
	2443 Jan 02 22:46	0° \approx		behind sun end	2443 Nov 10 19:51	18° \mathfrak{M} 32'49	
evening max el	2443 Jan 10 00:14	8° \approx 55'38	19°24'51	desc. node	2443 Nov 12 08:56	21° \mathfrak{M} 02'41	
asc. node	2443 Jan 14 10:57	12° \approx 22'52		max. Earth dist.	2443 Nov 15 19:59	26° \mathfrak{M} 34'51	1.44485 AU
retrograde	2443 Jan 17 04:14	13° \approx 03'01			2443 Nov 17 23:49	0° \mathfrak{X}	
evening set	2443 Jan 20 14:05	11° \approx 54'58		evening rise	2443 Nov 26 15:21	13° \mathfrak{X} 27'37	
inferior conj	2443 Jan 26 03:51	5° \approx 59'04	3°13'19		2443 Dec 07 12:49	0° \mathfrak{Z}	
minimum elong	2443 Jan 26 01:30	6° \approx 06'40	3°12'51	greatest brilliancy	2443 Dec 17 22:30	14° \mathfrak{Z} 56'13	-0.5m
min. Earth dist.	2443 Jan 27 10:01	4° \approx 21'07	0.66373 AU	evening max el	2443 Dec 24 03:25	22° \mathfrak{Z} 25'41	20°23'12
	2443 Jan 31 05:33	30° \mathbb{R} 8		retrograde	2444 Jan 01 02:14	27° \mathfrak{Z} 06'31	
morning rise	2443 Jan 31 12:11	29° \mathfrak{Z} 44'51		asc. node	2444 Jan 01 07:59	27° \mathfrak{Z} 06'12	
direct	2443 Feb 06 17:29	27° \mathfrak{Z} 00'14		evening set	2444 Jan 04 20:38	25° \mathfrak{Z} 44'20	
	2443 Feb 14 04:32	0° \approx		inferior conj	2444 Jan 10 07:24	19° \mathfrak{Z} 35'19	2°42'00
morning max el	2443 Feb 19 05:07	4° \approx 24'44	25°59'07	minimum elong	2444 Jan 10 04:48	19° \mathfrak{Z} 44'09	2°41'17
desc. node	2443 Feb 21 11:09	6° \approx 47'25		min. Earth dist.	2444 Jan 11 00:07	18° \mathfrak{Z} 38'34	0.67247 AU
	2443 Mar 10 19:11	0° \mathfrak{H}		morning rise	2444 Jan 15 12:28	13° \mathfrak{Z} 19'57	
morning set	2443 Mar 27 09:19	27° \mathfrak{H} 55'35		direct	2444 Jan 21 03:43	10° \mathfrak{Z} 50'49	
	2443 Mar 28 12:05	0° \mathfrak{Y}		morning max el	2444 Feb 01 13:45	17° \mathfrak{Z} 39'40	24°37'12
max. Earth dist.	2443 Mar 31 07:51	5° \mathfrak{Y} 22'01	1.35507 AU	desc. node	2444 Feb 08 08:10	25° \mathfrak{Z} 23'06	
					2444 Feb 11 21:48	0° \approx	
superior conj	2443 Apr 05 14:35	15° \mathfrak{Y} 49'21	-1°-6'-21		2444 Mar 02 20:13	0° \mathfrak{H}	
minimum elong	2443 Apr 05 17:57	16° \mathfrak{Y} 06'24	1°05'46	morning set	2444 Mar 08 13:23	9° \mathfrak{H} 46'24	
asc. node	2443 Apr 12 10:14	29° \mathfrak{Y} 50'14		max. Earth dist.	2444 Mar 12 06:11	16° \mathfrak{H} 24'13	1.37415 AU
	2443 Apr 12 12:08	0° \mathbb{R}					
evening rise	2443 Apr 13 12:30	2° \mathbb{R} 05'04		superior conj	2444 Mar 18 23:13	29° \mathfrak{H} 02'47	-1°-32'-9
	2443 Apr 30 04:27	0° Π		minimum elong	2444 Mar 19 03:31	29° \mathfrak{H} 23'40	1°31'36
evening max el	2443 May 01 16:14	1° Π 32'38	20°18'47		2444 Mar 19 10:59	0° \mathfrak{Y}	
retrograde	2443 May 12 10:01	6° Π 45'30		evening rise	2444 Mar 27 13:58	16° \mathfrak{Y} 07'37	
evening set	2443 May 14 10:56	6° Π 35'03		asc. node	2444 Mar 29 07:17	19° \mathfrak{Y} 32'09	
desc. node	2443 May 20 10:22	4° Π 22'51			2444 Apr 03 20:52	0° \mathbb{R}	
inferior conj	2443 May 23 13:27	2° Π 36'48	0°-54'-58	evening max el	2444 Apr 13 08:52	13° \mathbb{R} 18'44	19°16'16
minimum elong	2443 May 23 10:52	2° Π 40'36	0°54'02	retrograde	2444 Apr 22 10:23	17° \mathbb{R} 42'13	
min. Earth dist.	2443 May 25 02:46	1° Π 42'05	0.55135 AU	evening set	2444 Apr 24 11:57	17° \mathbb{R} 29'30	

inferior conj	2444 May 02 21:35	13°♄20'06	0°58'14	evening set	2445 Apr 06 11:42	29°♃09'51	
minimum elong	2444 May 02 23:54	13°♄16'14	0°57'26	inferior conj	2445 Apr 14 02:11	24°♃41'42	2°23'20
min. Earth dist.	2444 May 05 17:40	11°♄27'11	0.56244 AU	minimum elong	2445 Apr 14 06:07	24°♃34'00	2°22'18
desc. node	2444 May 06 07:22	11°♄05'24		min. Earth dist.	2445 Apr 17 12:03	22°♃03'30	0.58039 AU
morning rise	2444 May 11 07:46	8°♄31'20		morning rise	2445 Apr 21 20:11	19°♃20'13	
direct	2444 May 16 04:14	7°♄37'07		desc. node	2445 Apr 23 04:24	18°♃45'07	
morning max el	2444 May 30 09:00	14°♄51'29	25°16'54	direct	2445 Apr 27 16:54	17°♃52'52	
	2444 Jun 11 10:11	0°♄		morning max el	2445 May 12 02:05	25°♃31'20	26°40'08
asc. node	2444 Jun 25 06:31	25°♄19'40			2445 May 16 06:10	0°♄	
morning set	2444 Jun 26 01:01	26°♄56'48			2445 Jun 04 14:44	0°♄	
	2444 Jun 27 11:26	0°♄		morning set	2445 Jun 10 11:26	11°♄47'12	
				asc. node	2445 Jun 12 03:34	15°♄20'02	
superior conj	2444 Jul 03 01:09	12°♄08'04	1°13'50	superior conj	2445 Jun 17 12:49	27°♄05'17	0°54'09
minimum elong	2444 Jul 02 22:45	11°♄55'01	1°13'27	minimum elong	2445 Jun 17 10:44	26°♄53'50	0°53'45
max. Earth dist.	2444 Jul 04 05:20	14°♄41'54	1.32631 AU	max. Earth dist.	2445 Jun 17 16:31	27°♄25'41	1.32208 AU
evening rise	2444 Jul 10 04:59	27°♄25'52			2445 Jun 18 20:34	0°♄	
	2444 Jul 11 11:11	0°♄		evening rise	2445 Jun 24 11:29	12°♄07'48	
	2444 Jul 28 13:42	0°♄			2445 Jul 03 15:07	0°♄	
desc. node	2444 Aug 02 06:41	6°♄35'08		desc. node	2445 Jul 20 03:41	24°♄31'02	
evening max el	2444 Aug 11 09:47	17°♄01'02	27°20'42	evening max el	2445 Jul 24 13:05	29°♄08'52	26°45'02
retrograde	2444 Aug 25 04:55	24°♄17'09			2445 Jul 25 11:12	0°♄	
evening set	2444 Sep 01 09:35	21°♄49'29		retrograde	2445 Aug 07 12:00	6°♄21'40	
min. Earth dist.	2444 Sep 04 23:44	18°♄56'43	0.62351 AU	evening set	2445 Aug 14 08:30	4°♄20'37	
inferior conj	2444 Sep 07 22:14	16°♄11'50	-3°-55'-6	min. Earth dist.	2445 Aug 18 03:00	1°♄43'43	0.60345 AU
minimum elong	2444 Sep 08 03:44	15°♄58'58	3°53'41		2445 Aug 20 05:56	30°♄	
morning rise	2444 Sep 15 00:38	11°♄06'32		inferior conj	2445 Aug 21 09:17	29°♄03'13	-4°-38'-12
direct	2444 Sep 17 09:35	10°♄41'29		minimum elong	2445 Aug 21 13:51	28°♄53'48	4°37'30
asc. node	2444 Sep 21 05:43	11°♄48'58		morning rise	2445 Aug 28 22:28	28°♄19'46	
morning max el	2444 Sep 24 04:41	14°♄08'50	17°52'24	direct	2445 Aug 31 07:16	23°♄58'31	
	2444 Oct 05 01:32	0°♄		morning max el	2445 Sep 07 16:54	27°♄36'17	18°08'37
morning set	2444 Oct 10 04:21	9°♄05'57		asc. node	2445 Sep 08 02:46	28°♄00'43	
					2445 Sep 09 21:33	0°♄	
superior conj	2444 Oct 21 07:27	28°♄39'50	0°52'42	morning set	2445 Sep 23 12:07	22°♄38'28	
minimum elong	2444 Oct 21 11:45	28°♄58'05	0°52'08		2445 Sep 27 10:21	0°♄	
	2444 Oct 22 02:20	0°♄		superior conj	2445 Oct 03 04:43	10°♄34'09	1°21'04
max. Earth dist.	2444 Oct 28 10:34	10°♄31'29	1.43197 AU	minimum elong	2445 Oct 03 08:48	10°♄52'29	1°20'37
desc. node	2444 Oct 29 05:58	11°♄50'10		max. Earth dist.	2445 Oct 10 19:50	23°♄51'07	1.41427 AU
evening rise	2444 Nov 05 01:24	22°♄38'41			2445 Oct 14 12:42	0°♄	
	2444 Nov 09 20:00	0°♄		evening rise	2445 Oct 16 02:09	2°♄32'14	
	2444 Nov 30 21:02	0°♄		desc. node	2445 Oct 16 02:59	2°♄35'38	
greatest brilliancy	2444 Dec 01 02:54	0°♄18'23	-0.4m		2445 Nov 03 05:42	0°♄	
evening max el	2444 Dec 06 00:57	5°♄56'35	21°33'36	greatest brilliancy	2445 Nov 13 13:46	13°♄42'57	-0.3m
retrograde	2444 Dec 14 23:36	11°♄15'48		evening max el	2445 Nov 18 17:33	19°♄29'49	22°51'43
asc. node	2444 Dec 18 05:00	10°♄18'38		retrograde	2445 Nov 28 18:39	25°♄27'36	
evening set	2444 Dec 19 04:22	9°♄38'05		evening set	2445 Dec 03 11:40	23°♄33'16	
inferior conj	2444 Dec 24 13:55	3°♄19'29	2°02'33	asc. node	2445 Dec 05 02:01	22°♄01'34	
minimum elong	2444 Dec 24 11:34	3°♄27'38	2°01'45	inferior conj	2445 Dec 08 21:29	17°♄08'55	1°16'30
min. Earth dist.	2444 Dec 24 18:43	3°♄02'51	0.67736 AU	minimum elong	2445 Dec 08 19:49	17°♄14'41	1°15'50
	2444 Dec 27 01:22	30°♄		min. Earth dist.	2445 Dec 08 15:21	17°♄30'07	0.67866 AU
morning rise	2444 Dec 29 18:28	27°♄04'51		morning rise	2445 Dec 14 03:55	10°♄57'13	
direct	2445 Jan 03 18:37	24°♄56'35		direct	2445 Dec 18 13:20	9°♄11'46	
	2445 Jan 12 22:41	0°♄		morning max el	2445 Dec 27 12:10	14°♄26'27	21°42'45
morning max el	2445 Jan 13 22:57	0°♄59'30	23°08'39	greatest brilliancy	2446 Jan 01 08:39	19°♄55'58	-0.4m
greatest brilliancy	2445 Jan 18 22:11	6°♄33'09	-0.3m		2446 Jan 08 22:25	0°♄	
desc. node	2445 Jan 25 05:12	14°♄41'12		desc. node	2446 Jan 12 02:14	4°♄29'43	
	2445 Feb 04 20:27	0°♄		morning set	2446 Jan 28 14:01	29°♄33'37	
morning set	2445 Feb 17 16:16	20°♄21'46			2446 Jan 28 20:38	0°♄	
max. Earth dist.	2445 Feb 22 00:58	27°♄46'47	1.39553 AU	max. Earth dist.	2446 Feb 04 00:02	9°♄59'37	1.41653 AU
	2445 Feb 23 07:35	0°♄		superior conj	2446 Feb 11 15:19	23°♄00'06	-2°-4'-35
superior conj	2445 Mar 01 17:07	11°♄30'17	-1°-52'-53	minimum elong	2446 Feb 11 16:52	23°♄06'53	2°04'34
minimum elong	2445 Mar 01 21:09	11°♄48'54	1°52'36		2446 Feb 15 14:07	0°♄	
evening rise	2445 Mar 11 06:51	29°♄40'04		evening rise	2446 Feb 22 11:39	12°♄34'15	
	2445 Mar 11 11:01	0°♄		asc. node	2446 Mar 03 01:21	27°♄52'27	
asc. node	2445 Mar 16 04:19	8°♄54'59			2446 Mar 04 08:43	0°♄	
evening max el	2445 Mar 27 11:16	25°♄41'29	18°33'48				
retrograde	2445 Apr 04 04:37	29°♄28'49					

evening max el	2446 Mar 10 20:12	8°♄32'38	18°11'20		2447 Feb 08 01:00	0°♄	
retrograde	2446 Mar 17 17:05	12°♄00'17		asc. node	2447 Feb 17 22:24	16°♄15'52	
evening set	2446 Mar 20 05:59	11°♄32'38		evening max el	2447 Feb 22 08:20	21°♄42'09	18°08'22
inferior conj	2446 Mar 27 03:38	6°♄43'05	3°15'07	retrograde	2447 Feb 28 20:00	25°♄05'39	
minimum elong	2446 Mar 27 06:34	6°♄36'26	3°14'39	evening set	2447 Mar 03 14:06	24°♄28'00	
min. Earth dist.	2446 Mar 30 11:53	3°♄42'36	0.60166 AU	inferior conj	2447 Mar 09 22:38	19°♄17'20	3°38'37
morning rise	2446 Apr 03 03:43	0°♄58'05		minimum elong	2447 Mar 09 23:38	19°♄14'43	3°38'34
	2446 Apr 04 23:02	30°♄		min. Earth dist.	2447 Mar 12 19:42	16°♄19'29	0.62286 AU
direct	2446 Apr 09 18:00	28°♄54'45		morning rise	2447 Mar 16 06:50	13°♄17'37	
desc. node	2446 Apr 10 01:25	28°♄55'01		direct	2447 Mar 23 04:39	10°♄45'34	
	2446 Apr 14 17:41	0°♄		desc. node	2447 Mar 27 22:28	11°♄49'02	
morning max el	2446 Apr 24 01:02	6°♄45'35	27°33'27	morning max el	2447 Apr 06 05:59	18°♄41'24	27°50'10
	2446 May 11 12:40	0°♄			2447 Apr 15 19:05	0°♄	
morning set	2446 May 25 18:48	26°♄26'16			2447 May 04 08:32	0°♄	
	2446 May 27 11:35	0°♄		morning set	2447 May 09 21:02	10°♄47'10	
asc. node	2446 May 30 00:37	5°♄27'04		max. Earth dist.	2447 May 15 13:14	22°♄40'52	1.32547 AU
max. Earth dist.	2446 Jun 01 04:27	10°♄09'45	1.32180 AU	asc. node	2447 May 16 21:41	25°♄36'12	
superior conj	2446 Jun 02 00:19	11°♄58'51	0°31'06	superior conj	2447 May 17 09:56	26°♄42'42	0°05'24
minimum elong	2446 Jun 01 22:58	11°♄51'27	0°30'49	minimum elong	2447 May 17 09:41	26°♄41'19	0°05'21
evening rise	2446 Jun 08 21:37	26°♄58'05		behind sun begin	2447 May 17 04:47	26°♄14'44	
	2446 Jun 10 08:17	0°♄		behind sun end	2447 May 17 14:35	27°♄07'55	
	2446 Jun 27 11:39	0°♄			2447 May 18 22:10	0°♄	
evening max el	2446 Jul 06 09:22	10°♄29'50	25°38'10	evening rise	2447 May 24 09:24	11°♄49'38	
desc. node	2446 Jul 07 00:42	11°♄05'45			2447 Jun 02 15:32	0°♄	
retrograde	2446 Jul 20 09:29	17°♄37'53		evening max el	2447 Jun 17 23:48	21°♄11'18	24°09'09
evening set	2446 Jul 26 09:00	16°♄13'43		desc. node	2447 Jun 23 21:43	25°♄47'44	
min. Earth dist.	2446 Jul 30 21:34	13°♄35'01	0.58294 AU	retrograde	2447 Jul 01 19:18	28°♄08'48	
inferior conj	2446 Aug 03 02:27	11°♄18'21	-5°00'-24	evening set	2447 Jul 06 10:02	27°♄21'37	
minimum elong	2446 Aug 03 03:32	11°♄16'25	5°00'23	min. Earth dist.	2447 Jul 12 10:31	24°♄23'53	0.56481 AU
morning rise	2446 Aug 11 01:37	6°♄57'55		inferior conj	2447 Jul 14 23:28	22°♄49'15	-4°-47'-43
direct	2446 Aug 13 13:20	6°♄38'21		minimum elong	2447 Jul 14 19:03	22°♄56'08	4°47'14
morning max el	2446 Aug 21 22:19	10°♄36'45	18°45'21	morning rise	2447 Jul 23 07:38	18°♄49'04	
asc. node	2446 Aug 25 23:49	15°♄18'35		direct	2447 Jul 26 00:23	18°♄29'55	
	2446 Sep 03 19:15	0°♄		morning max el	2447 Aug 04 18:05	23°♄01'12	19°43'36
morning set	2446 Sep 07 07:01	6°♄43'23			2447 Aug 10 14:25	0°♄	
				asc. node	2447 Aug 12 20:53	3°♄28'14	
superior conj	2446 Sep 15 22:45	23°♄29'54	1°37'56	morning set	2447 Aug 22 09:37	21°♄11'31	
minimum elong	2446 Sep 16 01:12	23°♄41'33	1°37'46		2447 Aug 26 17:58	0°♄	
	2446 Sep 19 10:30	0°♄		superior conj	2447 Aug 30 08:10	7°♄12'15	1°44'57
max. Earth dist.	2446 Sep 23 00:57	6°♄29'16	1.39401 AU	minimum elong	2447 Aug 30 08:48	7°♄15'20	1°44'57
evening rise	2446 Sep 27 02:05	13°♄30'10		max. Earth dist.	2447 Sep 05 05:33	18°♄33'51	1.37368 AU
desc. node	2446 Oct 03 00:00	23°♄15'29		evening rise	2447 Sep 09 01:19	25°♄33'39	
	2446 Oct 07 07:02	0°♄			2447 Sep 11 13:42	0°♄	
	2446 Oct 29 08:13	0°♄		desc. node	2447 Sep 19 21:02	13°♄45'39	
evening max el	2446 Nov 01 06:55	3°♄06'38	24°11'36		2447 Sep 30 20:44	0°♄	
retrograde	2446 Nov 12 10:06	9°♄38'19		evening max el	2447 Oct 14 19:02	16°♄46'56	25°26'18
evening set	2446 Nov 17 16:53	7°♄27'02		retrograde	2447 Oct 26 21:13	23°♄44'14	
asc. node	2446 Nov 21 23:04	2°♄39'18		evening set	2447 Nov 01 18:23	21°♄17'27	
min. Earth dist.	2446 Nov 22 11:35	1°♄57'28	0.67661 AU	min. Earth dist.	2447 Nov 06 05:04	16°♄23'04	0.67122 AU
inferior conj	2446 Nov 23 04:19	1°♄01'04	0°25'03	inferior conj	2447 Nov 07 08:39	14°♄54'06	0°-30'-29
minimum elong	2446 Nov 23 03:43	1°♄03'07	0°24'47	minimum elong	2447 Nov 07 09:26	14°♄51'35	0°30'11
	2446 Nov 23 22:32	30°♄		asc. node	2447 Nov 08 20:06	13°♄01'54	
morning rise	2446 Nov 28 14:49	24°♄54'42		morning rise	2447 Nov 13 01:13	8°♄55'39	
direct	2446 Dec 02 10:38	23°♄31'17		direct	2447 Nov 16 09:11	7°♄51'38	
morning max el	2446 Dec 10 08:29	28°♄03'57	20°26'14	morning max el	2447 Nov 23 12:48	11°♄52'51	19°23'14
	2446 Dec 12 03:57	0°♄		greatest brilliancy	2447 Dec 02 17:00	23°♄37'05	-0.7m
greatest brilliancy	2446 Dec 16 15:48	5°♄32'28	-0.5m		2447 Dec 07 00:17	0°♄	
desc. node	2446 Dec 29 23:15	24°♄39'44		desc. node	2447 Dec 16 20:18	15°♄05'37	
	2447 Jan 02 11:53	0°♄		morning set	2447 Dec 17 12:39	16°♄08'59	
morning set	2447 Jan 07 13:19	7°♄46'23			2447 Dec 26 10:03	0°♄	
max. Earth dist.	2447 Jan 17 07:08	23°♄08'50	1.43426 AU	max. Earth dist.	2447 Dec 30 21:14	7°♄01'34	1.44642 AU
	2447 Jan 21 12:16	0°♄					
superior conj	2447 Jan 23 12:46	3°♄20'12	-2°-2'-11	superior conj	2448 Jan 03 08:17	12°♄31'13	-1°-41'-16
minimum elong	2447 Jan 23 09:16	3°♄05'42	2°02'04	minimum elong	2448 Jan 02 23:55	11°♄57'51	1°40'35
evening rise	2447 Feb 05 00:07	24°♄40'53			2448 Jan 14 02:53	0°♄	

evening rise	2448 Jan 17 16:04	5° \approx 53'10		minimum elong	2448 Dec 12 03:29	20° \approx 32'12	1°01'30
	2448 Feb 01 17:06	0° \approx		max. Earth dist.	2448 Dec 12 15:07	21° \approx 17'52	1.45161 AU
asc. node	2448 Feb 04 19:26	3° \approx 55'02			2448 Dec 18 04:04	0° \approx	
evening max el	2448 Feb 05 20:46	5° \approx 02'52	18°24'13	evening rise	2448 Dec 28 08:42	16° \approx 07'51	
retrograde	2448 Feb 12 08:43	8° \approx 35'15			2449 Jan 06 02:01	0° \approx	
evening set	2448 Feb 15 08:06	7° \approx 46'46		evening max el	2449 Jan 19 07:01	18° \approx 29'40	18°58'00
inferior conj	2448 Feb 21 07:05	2° \approx 16'44	3°40'40	asc. node	2449 Jan 21 16:27	20° \approx 37'24	
minimum elong	2448 Feb 21 06:21	2° \approx 18'53	3°40'38	retrograde	2449 Jan 26 03:18	22° \approx 21'53	
	2448 Feb 23 06:28	30° \approx		evening set	2449 Jan 29 08:51	21° \approx 21'31	
min. Earth dist.	2448 Feb 23 13:09	29° \approx 41'09	0.64163 AU	inferior conj	2449 Feb 04 01:16	15° \approx 34'24	3°26'52
morning rise	2448 Feb 27 03:03	26° \approx 08'23		minimum elong	2449 Feb 03 23:20	15° \approx 40'27	3°26'35
direct	2448 Mar 04 23:19	23° \approx 20'34		min. Earth dist.	2449 Feb 05 15:56	13° \approx 33'21	0.65677 AU
desc. node	2448 Mar 13 19:30	26° \approx 59'25		morning rise	2449 Feb 09 12:49	9° \approx 21'25	
	2448 Mar 17 08:24	0° \approx		direct	2449 Feb 16 00:54	6° \approx 31'51	
morning max el	2448 Mar 18 14:54	1° \approx 14'12	27°30'18	desc. node	2449 Feb 28 16:33	13° \approx 51'11	
	2448 Apr 08 22:03	0° \approx		morning max el	2449 Mar 01 00:51	14° \approx 11'55	26°39'18
morning set	2448 Apr 22 15:33	24° \approx 41'43			2449 Mar 13 21:47	0° \approx	
	2448 Apr 25 07:10	0° \approx			2449 Apr 01 15:08	0° \approx	
max. Earth dist.	2448 Apr 27 14:51	4° \approx 46'26	1.33334 AU	morning set	2449 Apr 05 22:59	7° \approx 59'38	
				max. Earth dist.	2449 Apr 10 05:38	16° \approx 18'13	1.34572 AU
superior conj	2448 Apr 30 15:47	11° \approx 10'47	0°-22'-9	superior conj	2449 Apr 14 15:41	25° \approx 16'40	0°-50'-22
minimum elong	2448 Apr 30 16:54	11° \approx 16'41	0°21'55	minimum elong	2449 Apr 14 18:16	25° \approx 30'01	0°49'53
asc. node	2448 May 02 18:45	15° \approx 43'18			2449 Apr 16 22:08	0° \approx	
evening rise	2448 May 07 20:54	26° \approx 35'53		asc. node	2449 Apr 19 15:47	5° \approx 44'26	
	2448 May 09 12:01	0° \approx		evening rise	2449 Apr 22 06:14	11° \approx 10'39	
	2448 May 27 23:44	0° \approx			2449 May 02 03:38	0° \approx	
evening max el	2448 May 29 14:21	1° \approx 38'53	22°32'46	evening max el	2449 May 11 12:47	12° \approx 12'53'4	21°03'28
desc. node	2448 Jun 09 18:46	8° \approx 01'04		retrograde	2449 May 23 06:39	18° \approx 10'29	
retrograde	2448 Jun 11 17:03	8° \approx 09'35		evening set	2449 May 25 12:00	17° \approx 15'57	
evening set	2448 Jun 14 20:43	7° \approx 47'41		desc. node	2449 May 27 15:47	17° \approx 12'60'2	
min. Earth dist.	2448 Jun 22 21:49	4° \approx 17'11	0.55252 AU	inferior conj	2449 Jun 03 20:05	13° \approx 15'59'5	-2°-4'-20
inferior conj	2448 Jun 24 02:13	3° \approx 36'48	-3°-47'-48	minimum elong	2449 Jun 03 14:19	14° \approx 10'08'0	2°02'21
minimum elong	2448 Jun 23 18:13	3° \approx 48'12	3°45'48	min. Earth dist.	2449 Jun 04 10:05	13° \approx 14'40'0	0.54892 AU
	2448 Jul 01 19:40	30° \approx		morning rise	2449 Jun 12 16:16	9° \approx 15'58'4	
morning rise	2448 Jul 02 18:12	29° \approx 14'53		direct	2449 Jun 16 03:04	9° \approx 13'33'0	
direct	2448 Jul 05 17:31	29° \approx 12'53'1		morning max el	2449 Jun 29 00:17	15° \approx 14'42'0	22°37'57
	2448 Jul 09 12:03	0° \approx			2449 Jul 10 03:39	0° \approx	
morning max el	2448 Jul 17 02:28	4° \approx 42'30	21°02'36	asc. node	2449 Jul 16 15:01	11° \approx 15'35'1	
asc. node	2448 Jul 29 17:57	22° \approx 16'55		morning set	2449 Jul 21 03:47	20° \approx 14'46'4	
	2448 Aug 02 19:19	0° \approx			2449 Jul 25 11:52	0° \approx	
morning set	2448 Aug 05 17:13	5° \approx 15'43'0					
superior conj	2448 Aug 13 04:23	21° \approx 12'26'5	1°43'56	superior conj	2449 Jul 28 08:00	6° \approx 13'03'4	1°36'21
minimum elong	2448 Aug 13 03:30	21° \approx 12'22'1	1°43'54	minimum elong	2449 Jul 28 06:06	5° \approx 15'53'4	1°36'11
	2448 Aug 17 09:48	0° \approx		max. Earth dist.	2449 Jul 31 08:38	12° \approx 10'25'2	1.34104 AU
max. Earth dist.	2448 Aug 17 14:46	0° \approx	1.35553 AU	evening rise	2449 Aug 05 05:05	22° \approx 13'13'8	
evening rise	2448 Aug 21 19:49	8° \approx 13'20'2			2449 Aug 09 06:55	0° \approx	
	2448 Sep 03 04:48	0° \approx		desc. node	2449 Aug 23 15:06	23° \approx 17'51'0	
desc. node	2448 Sep 05 18:05	3° \approx 15'59'5			2449 Aug 27 22:59	0° \approx	
	2448 Sep 25 20:34	0° \approx		evening max el	2449 Sep 08 19:19	13° \approx 15'55'1	27°10'47
evening max el	2448 Sep 26 07:07	0° \approx 25'44	26°28'34	retrograde	2449 Sep 22 04:02	21° \approx 13'37	
retrograde	2448 Oct 09 03:23	7° \approx 13'38'3		evening set	2449 Sep 29 02:01	18° \approx 13'31'4	
evening set	2448 Oct 15 14:13	5° \approx 10'00'1		min. Earth dist.	2449 Oct 02 22:32	14° \approx 14'49'3	0.64992 AU
min. Earth dist.	2448 Oct 19 17:28	0° \approx 14'22'4	0.66234 AU	inferior conj	2449 Oct 05 01:54	12° \approx 15'26'4	-2°-27'-54
	2448 Oct 20 07:34	30° \approx		minimum elong	2449 Oct 05 05:53	12° \approx 15'15'3	2°26'26
inferior conj	2448 Oct 21 08:35	28° \approx 14'44'0	-1°-28'-47	morning rise	2449 Oct 11 11:36	6° \approx 15'52'3	
minimum elong	2448 Oct 21 10:57	28° \approx 13'36'5	1°27'49	asc. node	2449 Oct 12 14:11	6° \approx 12'28'2	
asc. node	2448 Oct 25 17:08	24° \approx 14'04'5		direct	2449 Oct 14 02:31	6° \approx 11'16'0	
morning rise	2448 Oct 27 08:57	22° \approx 15'56'1		morning max el	2449 Oct 20 14:37	9° \approx 14'45'0	18°04'59
direct	2448 Oct 30 07:10	22° \approx 15'08'0			2449 Nov 03 12:07	0° \approx	
morning max el	2448 Nov 05 23:39	25° \approx 14'48'3	18°35'47	morning set	2449 Nov 07 13:15	6° \approx 14'43'3	
	2448 Nov 09 14:01	0° \approx		desc. node	2449 Nov 19 14:22	26° \approx 12'25'4	
morning set	2448 Nov 26 10:17	25° \approx 14'42'3					
	2448 Nov 29 03:00	0° \approx		superior conj	2449 Nov 21 17:28	29° \approx 14'49'5	0°-14'-21
desc. node	2448 Dec 02 17:20	5° \approx 17'42'1		minimum elong	2449 Nov 21 15:40	29° \approx 14'42'4	0°14'06
				behind sun begin	2449 Nov 21 10:20	29° \approx 14'21'2	
superior conj	2448 Dec 12 11:08	21° \approx 17'02'1	-1°-2'-24	behind sun end	2449 Nov 21 21:01	0° \approx 17'04'0	

	2449 Nov 21 20:00	0°♊		morning set	2450 Oct 20 17:40	18°♊58'23	
max. Earth dist.	2449 Nov 25 09:57	5°♊40'24	1.44941 AU		2450 Oct 27 02:41	0°♊	
evening rise	2449 Dec 08 04:08	25°♊33'45					
	2449 Dec 11 01:05	0°♋		superior conj	2450 Nov 01 21:17	9°♊42'41	0°31'00
greatest brilliancy	2449 Dec 26 03:16	22°♋41'18	-0.6m	minimum elong	2450 Nov 02 00:23	9°♊55'31	0°30'33
	2449 Dec 31 17:48	0°♌		desc. node	2450 Nov 06 11:24	17°♊12'52	
evening max el	2450 Jan 02 13:13	1°♌59'24	19°48'04	max. Earth dist.	2450 Nov 08 03:15	19°♊53'13	1.44014 AU
asc. node	2450 Jan 08 13:27	6°♌08'26			2450 Nov 14 12:53	0°♊	
retrograde	2450 Jan 10 00:38	6°♌20'16		evening rise	2450 Nov 17 12:57	4°♊39'14	
evening set	2450 Jan 13 13:50	5°♌06'34			2450 Dec 04 12:02	0°♋	
	2450 Jan 18 09:26	30°♌♋		greatest brilliancy	2450 Dec 11 01:38	9°♋00'48	-0.5m
inferior conj	2450 Jan 19 02:06	29°♋04'56	3°01'08	evening max el	2450 Dec 16 14:09	15°♋30'49	20°51'57
minimum elong	2450 Jan 18 23:36	29°♋13'17	3°00'33	retrograde	2450 Dec 24 22:28	20°♋27'05	
min. Earth dist.	2450 Jan 20 02:28	27°♋44'06	0.66793 AU	asc. node	2450 Dec 26 10:28	20°♋14'35	
morning rise	2450 Jan 24 08:41	22°♋49'53		evening set	2450 Dec 28 21:06	18°♋58'28	
direct	2450 Jan 30 08:19	20°♋10'36		inferior conj	2451 Jan 03 07:10	12°♋45'12	2°26'09
morning max el	2450 Feb 11 09:44	27°♋21'59	25°25'40	minimum elong	2451 Jan 03 04:37	12°♋53'57	2°25'22
	2450 Feb 13 21:12	0°♌		min. Earth dist.	2451 Jan 03 18:42	12°♋05'39	0.67507 AU
desc. node	2450 Feb 15 13:34	1°♌55'12		morning rise	2451 Jan 08 11:44	6°♋30'06	
	2450 Mar 07 13:52	0°♍		direct	2451 Jan 13 20:43	4°♋09'13	
morning set	2450 Mar 19 14:35	20°♍26'19		morning max el	2451 Jan 24 18:04	10°♋38'43	23°59'42
max. Earth dist.	2450 Mar 23 08:36	27°♍22'10	1.36269 AU	desc. node	2451 Feb 02 10:36	20°♋50'57	
	2450 Mar 24 17:53	0°♎			2451 Feb 09 03:17	0°♌	
					2451 Feb 28 07:42	0°♍	
superior conj	2450 Mar 29 06:49	8°♎51'38	-1°-17'-42	morning set	2451 Mar 01 08:36	1°♍46'32	
minimum elong	2450 Mar 29 10:40	9°♎10'51	1°17'07	max. Earth dist.	2451 Mar 05 04:27	8°♍28'49	1.38317 AU
evening rise	2450 Apr 06 11:13	25°♎26'26					
asc. node	2450 Apr 06 12:48	25°♎34'26		superior conj	2451 Mar 12 09:44	21°♍47'10	-1°-41'-46
	2450 Apr 08 17:46	0°♏		minimum elong	2451 Mar 12 14:07	22°♍08'03	1°41'19
evening max el	2450 Apr 23 22:50	23°♏48'35	19°49'55		2451 Mar 16 15:55	0°♎	
retrograde	2450 May 03 22:52	28°♏38'51		evening rise	2451 Mar 21 09:24	9°♎17'05	
evening set	2450 May 05 23:02	28°♏28'02		asc. node	2451 Mar 24 09:49	15°♎08'50	
inferior conj	2450 May 14 19:11	24°♏26'56	0°-4'-39		2451 Apr 02 00:32	0°♏	
minimum elong	2450 May 14 18:59	24°♏27'15	0°04'35	evening max el	2451 Apr 06 19:59	5°♏50'53	18°55'41
transit middle	2450 May 14 18:59	24°♏27'15	0°04'35	retrograde	2451 Apr 15 06:09	9°♏56'42	
transit begin	2450 May 14 15:11	24°♏33'05		evening set	2451 Apr 17 10:05	9°♏41'34	
transit end	2450 May 14 22:46	24°♏21'25		inferior conj	2451 Apr 25 11:26	5°♏24'34	1°38'28
desc. node	2450 May 14 12:48	24°♏36'45		minimum elong	2451 Apr 25 14:52	5°♏18'27	1°37'23
min. Earth dist.	2450 May 16 23:43	23°♏06'24	0.55503 AU	min. Earth dist.	2451 Apr 28 15:29	3°♏10'20	0.56950 AU
morning rise	2450 May 23 11:45	19°♏58'20		desc. node	2451 May 01 09:48	1°♏26'50	
direct	2450 May 27 18:30	19°♏17'50		morning rise	2451 May 03 15:22	0°♏21'28	
morning max el	2450 Jun 10 15:23	26°♏12'07	24°20'21		2451 May 04 13:58	30°♎♏	
	2450 Jun 14 06:12	0°♐		direct	2451 May 08 22:45	29°♎14'14	
	2450 Jul 02 21:26	0°♑			2451 May 13 08:12	0°♏	
asc. node	2450 Jul 03 12:04	1°♑14'32		morning max el	2451 May 23 06:05	6°♏39'38	25°55'18
morning set	2450 Jul 05 15:34	5°♑42'26			2451 Jun 09 10:16	0°♐	
				morning set	2451 Jun 20 02:58	20°♐36'17	
superior conj	2450 Jul 12 16:19	20°♑53'37	1°23'23	asc. node	2451 Jun 20 09:06	21°♐08'43	
minimum elong	2450 Jul 12 13:58	20°♑40'51	1°23'04		2451 Jun 24 11:35	0°♑	
max. Earth dist.	2450 Jul 14 11:30	24°♑46'57	1.33056 AU				
	2450 Jul 16 22:20	0°♒		superior conj	2451 Jun 27 03:17	5°♑49'41	1°05'56
evening rise	2450 Jul 20 01:02	6°♒26'11		minimum elong	2451 Jun 27 00:58	5°♑36'59	1°05'32
	2450 Aug 01 20:22	0°♓		max. Earth dist.	2451 Jun 27 20:50	7°♑26'00	1.32406 AU
desc. node	2450 Aug 10 12:07	13°♓09'16		evening rise	2451 Jul 04 04:26	20°♑59'45	
evening max el	2450 Aug 22 06:11	27°♓03'45	27°26'11		2451 Jul 08 15:50	0°♒	
	2450 Aug 25 15:45	0°♓			2451 Jul 27 01:47	0°♓	
retrograde	2450 Sep 04 22:24	4°♓20'49		desc. node	2451 Jul 28 09:08	1°♓40'31	
evening set	2450 Sep 12 02:44	1°♓44'30		evening max el	2451 Aug 04 13:02	9°♓37'01	27°09'40
	2450 Sep 14 06:18	30°♓♒		retrograde	2451 Aug 18 09:37	16°♓50'52	
min. Earth dist.	2450 Sep 15 18:15	28°♓35'57	0.63405 AU	evening set	2451 Aug 25 12:24	14°♓33'06	
inferior conj	2450 Sep 18 10:01	25°♓56'11	-3°-24'-57	min. Earth dist.	2451 Aug 29 03:17	11°♓49'03	0.61521 AU
minimum elong	2450 Sep 18 15:14	25°♓43'05	3°23'21	inferior conj	2451 Sep 01 05:46	9°♓04'10	-4°-15'-13
morning rise	2450 Sep 25 06:07	20°♓39'03		minimum elong	2451 Sep 01 11:07	8°♓52'15	4°14'03
direct	2450 Sep 27 16:27	20°♓10'39		morning rise	2451 Sep 08 12:46	4°♓07'41	
asc. node	2450 Sep 29 11:14	20°♓26'14		direct	2451 Sep 10 21:26	3°♓44'25	
morning max el	2450 Oct 04 06:53	23°♓36'20	17°51'42	asc. node	2451 Sep 16 08:18	5°♓53'06	
	2450 Oct 09 09:02	0°♓		morning max el	2451 Sep 17 21:29	7°♓14'48	17°56'53

	2451 Oct 02 13:14	0°♄		asc. node	2452 Sep 02 05:22	22°♄35'23	
morning set	2451 Oct 03 17:06	2°♄07'21			2452 Sep 07 11:12	0°♄	
				morning set	2452 Sep 16 06:09	15°♄55'37	
superior conj	2451 Oct 14 04:11	20°♄55'06	1°06'12		2452 Sep 23 16:09	0°♄	
minimum elong	2451 Oct 14 08:40	21°♄14'35	1°05'40				
	2451 Oct 19 11:48	0°♄		superior conj	2452 Sep 25 11:06	3°♄18'38	1°29'31
max. Earth dist.	2451 Oct 21 16:17	3°♄38'02	1.42496 AU	minimum elong	2452 Sep 25 14:35	3°♄34'37	1°29'12
desc. node	2451 Oct 24 08:25	7°♄59'55		max. Earth dist.	2452 Oct 02 23:41	16°♄41'09	1.40580 AU
evening rise	2451 Oct 28 03:38	14°♄04'32		evening rise	2452 Oct 07 13:50	24°♄24'34	
	2451 Nov 07 13:11	0°♄		desc. node	2452 Oct 10 05:28	28°♄43'53	
greatest brilliancy	2451 Nov 24 16:11	23°♄42'53	-0.3m		2452 Oct 11 00:25	0°♄	
evening max el	2451 Nov 29 09:28	29°♄02'44	22°06'10		2452 Oct 31 10:05	0°♄	
	2451 Nov 30 08:43	0°♄		evening max el	2452 Nov 11 00:19	12°♄37'07	23°25'42
retrograde	2451 Dec 08 18:58	4°♄38'10		retrograde	2452 Nov 21 12:44	18°♄50'32	
evening set	2451 Dec 13 04:52	2°♄53'15		evening set	2452 Nov 26 11:30	16°♄48'42	
asc. node	2451 Dec 13 07:31	2°♄47'50		asc. node	2452 Nov 29 04:34	13°♄58'57	
	2451 Dec 15 23:55	30°♄		inferior conj	2452 Dec 01 21:51	10°♄22'54	0°55'16
inferior conj	2451 Dec 18 14:21	26°♄31'46	1°43'44	minimum elong	2452 Dec 01 20:35	10°♄27'13	0°54'44
minimum elong	2451 Dec 18 12:15	26°♄39'05	1°42'57	min. Earth dist.	2452 Dec 01 11:06	10°♄59'44	0.67824 AU
min. Earth dist.	2451 Dec 18 14:21	26°♄31'48	0.67841 AU	morning rise	2452 Dec 07 05:47	4°♄13'14	
morning rise	2451 Dec 23 19:28	20°♄18'23		direct	2452 Dec 11 09:07	2°♄37'39	
direct	2451 Dec 28 13:15	18°♄19'56		morning max el	2452 Dec 19 20:46	7°♄33'31	21°08'41
morning max el	2452 Jan 07 04:37	24°♄01'28	22°31'19	greatest brilliancy	2452 Dec 25 05:10	13°♄42'39	-0.5m
greatest brilliancy	2452 Jan 11 18:09	29°♄07'10	-0.3m		2453 Jan 05 22:46	0°♄	
	2452 Jan 12 11:29	0°♄		desc. node	2453 Jan 06 04:40	0°♄21'43	
desc. node	2452 Jan 20 07:38	10°♄23'08		morning set	2453 Jan 19 09:35	20°♄27'10	
	2452 Feb 02 13:49	0°♄			2453 Jan 25 09:21	0°♄	
morning set	2452 Feb 09 23:09	11°♄45'51		max. Earth dist.	2453 Jan 27 03:09	2°♄50'01	1.42464 AU
max. Earth dist.	2452 Feb 15 00:50	20°♄12'40	1.40477 AU				
	2452 Feb 20 16:08	0°♄		superior conj	2453 Feb 03 07:59	14°♄52'18	-2°-5'-35
				minimum elong	2453 Feb 03 07:39	14°♄50'52	2°05'36
superior conj	2452 Feb 22 19:52	3°♄51'28	-1°-59'-15		2453 Feb 11 23:07	0°♄	
minimum elong	2452 Feb 22 23:10	4°♄06'23	1°59'05	evening rise	2453 Feb 14 20:01	5°♄09'41	
evening rise	2452 Mar 03 21:37	22°♄34'29		asc. node	2453 Feb 25 03:54	23°♄06'06	
	2452 Mar 07 20:55	0°♄			2453 Mar 02 03:50	0°♄	
asc. node	2452 Mar 10 06:51	4°♄21'50		evening max el	2453 Mar 03 12:06	1°♄26'07	18°07'42
evening max el	2452 Mar 20 01:29	18°♄26'20	18°21'44	retrograde	2453 Mar 10 04:00	4°♄50'37	
retrograde	2452 Mar 27 08:45	22°♄03'37		evening set	2453 Mar 12 19:00	4°♄18'59	
evening set	2452 Mar 29 18:19	21°♄41'11			2453 Mar 18 18:04	30°♄	
inferior conj	2452 Apr 06 01:10	17°♄03'37	2°49'14	inferior conj	2453 Mar 19 10:38	29°♄20'24	3°28'09
minimum elong	2452 Apr 06 04:54	16°♄55'51	2°48'24	minimum elong	2453 Mar 19 12:46	29°♄15'14	3°27'53
min. Earth dist.	2452 Apr 09 11:43	14°♄13'01	0.58924 AU	min. Earth dist.	2453 Mar 22 14:57	26°♄17'53	0.61080 AU
morning rise	2452 Apr 13 11:28	11°♄30'48		morning rise	2453 Mar 26 03:30	23°♄27'50	
desc. node	2452 Apr 17 06:49	10°♄03'38		direct	2453 Apr 01 22:03	21°♄10'50	
direct	2452 Apr 19 16:34	9°♄48'12		desc. node	2453 Apr 04 03:51	21°♄24'57	
morning max el	2452 May 04 01:37	17°♄32'45	27°07'14	morning max el	2453 Apr 16 03:30	29°♄05'36	27°45'15
	2452 May 14 09:40	0°♄			2453 Apr 17 01:01	0°♄	
	2452 May 31 21:25	0°♄			2453 May 08 06:36	0°♄	
morning set	2452 Jun 03 12:21	5°♄23'02		morning set	2453 May 18 17:47	19°♄55'32	
asc. node	2452 Jun 06 06:10	11°♄12'41			2453 May 23 12:12	0°♄	
				asc. node	2453 May 24 03:12	1°♄21'10	
superior conj	2452 Jun 10 15:06	20°♄46'11	0°44'44	max. Earth dist.	2453 May 24 19:57	2°♄52'14	1.32278 AU
minimum elong	2452 Jun 10 13:17	20°♄36'10	0°44'22				
max. Earth dist.	2452 Jun 10 08:57	20°♄12'19	1.32144 AU	superior conj	2453 May 26 02:00	5°♄36'25	0°20'28
	2452 Jun 14 20:07	0°♄		minimum elong	2453 May 26 01:04	5°♄31'22	0°20'16
evening rise	2452 Jun 17 12:46	5°♄46'14		evening rise	2453 Jun 01 23:48	20°♄37'39	
	2452 Jun 30 07:46	0°♄			2453 Jun 06 13:16	0°♄	
desc. node	2452 Jul 14 06:08	19°♄05'36			2453 Jun 25 21:19	0°♄	
evening max el	2452 Jul 16 13:18	21°♄24'50	26°20'02	evening max el	2453 Jun 28 06:27	2°♄26'15	25°02'15
retrograde	2452 Jul 30 12:51	28°♄36'08		desc. node	2453 Jul 01 03:10	4°♄56'43	
evening set	2452 Aug 06 02:20	26°♄49'35		retrograde	2453 Jul 12 06:02	9°♄32'05	
min. Earth dist.	2452 Aug 10 02:16	24°♄14'36	0.59461 AU	evening set	2453 Jul 17 16:35	8°♄24'18	
inferior conj	2452 Aug 13 09:38	21°♄41'36	-4°-50'-56	min. Earth dist.	2453 Jul 22 18:03	5°♄39'17	0.57465 AU
minimum elong	2452 Aug 13 13:04	21°♄34'56	4°50'36	inferior conj	2453 Jul 25 18:17	3°♄38'15	-5°00'-14
morning rise	2452 Aug 21 03:13	17°♄08'19		minimum elong	2453 Jul 25 17:09	3°♄40'10	5°00'13
direct	2452 Aug 23 13:02	16°♄47'57			2453 Aug 01 04:14	30°♄	
morning max el	2452 Aug 31 07:17	20°♄32'44	18°21'46	morning rise	2453 Aug 02 21:27	29°♄27'25	

direct	2453 Aug 05 10:53	29° ☿ 08'20		retrograde	2454 Jun 23 10:37	19° ☿ 46'41	
	2453 Aug 09 12:40	0° ♊		evening set	2454 Jun 27 09:30	19° ☿ 12'27	
morning max el	2453 Aug 14 09:00	3° ♊ 19'18	19°07'35	min. Earth dist.	2454 Jul 04 06:13	16° ☿ 02'06	0.55867 AU
asc. node	2453 Aug 20 02:25	10° ♊ 16'51		inferior conj	2454 Jul 06 06:54	14° ☿ 49'47	-4°-28'-27
morning set	2453 Aug 31 04:40	0° ♋ 11'03		minimum elong	2454 Jul 06 00:25	14° ☿ 59'28	4°27'19
	2453 Aug 31 02:26	0° ♋		morning rise	2454 Jul 14 18:32	10° ☿ 54'54	
				direct	2454 Jul 17 13:43	10° ☿ 35'35	
superior conj	2453 Sep 08 12:18	16° ♋ 36'00	1°41'59	morning max el	2454 Jul 27 23:57	15° ☿ 25'33	20°14'47
minimum elong	2453 Sep 08 13:58	16° ♋ 44'03	1°41'55	asc. node	2454 Aug 06 23:28	28° ☿ 44'16	
max. Earth dist.	2453 Sep 15 03:25	29° ♋ 00'51	1.38516 AU		2454 Aug 07 17:03	0° ♌	
	2453 Sep 15 16:32	0° ♌		morning set	2454 Aug 15 09:37	14° ♌ 45'43	
evening rise	2453 Sep 18 23:59	5° ♌ 51'07			2454 Aug 22 20:13	0° ♋	
desc. node	2453 Sep 27 02:31	19° ♌ 20'18					
	2453 Oct 04 00:51	0° ♍		superior conj	2454 Aug 23 02:43	0° ♋ 32'49	1°45'25
evening max el	2453 Oct 24 12:50	26° ♍ 15'32	24°44'26	minimum elong	2454 Aug 23 02:38	0° ♋ 32'27	1°45'24
	2453 Oct 28 19:47	0° ♎		max. Earth dist.	2454 Aug 28 09:05	10° ♋ 55'07	1.36559 AU
retrograde	2453 Nov 05 02:39	3° ♎ 00'04		evening rise	2454 Sep 01 07:56	18° ♋ 19'14	
evening set	2453 Nov 10 15:24	0° ♎ 41'57			2454 Sep 07 23:34	0° ♌	
	2453 Nov 11 09:55	30° ♍		desc. node	2454 Sep 13 23:33	9° ♌ 44'17	
min. Earth dist.	2453 Nov 15 06:35	25° ♍ 26'57	0.67470 AU		2454 Sep 28 06:07	0° ♍	
inferior conj	2453 Nov 16 03:52	24° ♍ 16'17	0°01'57	evening max el	2454 Oct 07 00:59	9° ♍ 56'21	25°54'56
minimum elong	2453 Nov 16 03:49	24° ♍ 16'27	0°01'54	retrograde	2454 Oct 19 11:41	17° ♍ 01'24	
transit middle	2453 Nov 16 03:49	24° ♍ 16'27	0°01'54	evening set	2454 Oct 25 14:43	14° ♍ 29'26	
transit begin	2453 Nov 16 01:05	24° ♍ 25'32		min. Earth dist.	2454 Oct 29 22:17	9° ♍ 50'11	0.66781 AU
transit end	2453 Nov 16 06:33	24° ♍ 07'22		inferior conj	2454 Oct 31 06:35	8° ♍ 08'35	0°-54'-59
asc. node	2453 Nov 16 01:37	24° ♍ 23'47		minimum elong	2454 Oct 31 08:01	8° ♍ 04'02	0°54'23
morning rise	2453 Nov 21 16:42	18° ♍ 12'45		asc. node	2454 Nov 02 22:40	4° ♍ 57'00	
direct	2453 Nov 25 07:10	16° ♍ 58'04		morning rise	2454 Nov 06 02:13	2° ♍ 14'00	
morning max el	2453 Dec 02 20:33	21° ♍ 16'30	19°57'32	direct	2454 Nov 09 05:47	1° ♍ 17'01	
greatest brilliancy	2453 Dec 10 03:06	0° ♎ 08'39	-0.6m	morning max el	2454 Nov 16 03:46	5° ♍ 08'17	19°01'02
	2453 Dec 10 00:34	0° ♎			2454 Dec 03 19:07	0° ♎	
desc. node	2453 Dec 24 01:44	20° ♎ 39'29		morning set	2454 Dec 08 12:33	7° ♎ 22'53	
morning set	2453 Dec 29 05:39	28° ♎ 34'59		desc. node	2454 Dec 10 22:47	11° ♎ 10'33	
	2453 Dec 30 03:39	0° ☿			2454 Dec 22 23:05	0° ☿	
max. Earth dist.	2454 Jan 09 12:57	16° ☿ 18'08	1.44020 AU	max. Earth dist.	2454 Dec 23 05:02	0° ☿ 23'24	1.44955 AU
superior conj	2454 Jan 14 18:12	24° ☿ 42'36	-1°-55'-42	superior conj	2454 Dec 25 04:48	3° ☿ 31'38	-1°-26'-40
minimum elong	2454 Jan 14 12:17	24° ☿ 18'34	1°55'23	minimum elong	2454 Dec 24 19:50	2° ☿ 56'18	1°25'46
	2454 Jan 17 23:38	0° ♈		evening rise	2455 Jan 09 06:26	27° ☿ 42'03	
evening rise	2454 Jan 28 00:17	16° ♈ 54'22			2455 Jan 10 16:14	0° ♈	
	2454 Feb 04 16:41	0° ♉		evening max el	2455 Jan 29 12:37	28° ♈ 06'32	18°36'29
asc. node	2454 Feb 12 00:56	11° ♉ 12'43		asc. node	2455 Jan 29 21:58	28° ♈ 29'49	
evening max el	2454 Feb 15 00:45	14° ♉ 42'03	18°12'54		2455 Jan 31 15:37	0° ♉	
retrograde	2454 Feb 21 11:31	18° ♉ 07'44		retrograde	2455 Feb 05 03:01	1° ♉ 45'42	
evening set	2454 Feb 24 07:46	17° ♉ 25'42		evening set	2455 Feb 08 04:59	0° ♉ 52'10	
inferior conj	2454 Mar 02 11:52	12° ♉ 06'53	3°41'42		2455 Feb 09 11:38	30° ♈	
minimum elong	2454 Mar 02 12:05	12° ♉ 06'19	3°41'42	inferior conj	2455 Feb 14 00:51	25° ♈ 14'43	3°36'25
min. Earth dist.	2454 Mar 05 02:56	9° ♉ 16'12	0.63125 AU	minimum elong	2455 Feb 13 23:32	25° ♈ 18'41	3°36'18
morning rise	2454 Mar 08 14:23	6° ♉ 02'56		min. Earth dist.	2455 Feb 16 00:18	22° ♈ 52'52	0.64865 AU
direct	2454 Mar 15 12:42	3° ♉ 22'01		morning rise	2455 Feb 19 16:50	19° ♈ 04'18	
desc. node	2454 Mar 22 00:53	5° ♉ 21'43		direct	2455 Feb 26 10:26	16° ♈ 14'04	
morning max el	2454 Mar 29 10:22	11° ♉ 18'32	27°45'51	desc. node	2455 Mar 08 21:55	21° ♈ 19'16	
	2454 Apr 13 04:35	0° ♊		morning max el	2455 Mar 11 19:47	24° ♈ 02'44	27°11'51
	2454 Apr 30 15:14	0° ♊			2455 Mar 17 04:23	0° ♊	
morning set	2454 May 02 17:04	4° ♊ 06'36			2455 Apr 06 13:24	0° ♊	
max. Earth dist.	2454 May 08 01:55	15° ♊ 13'02	1.32826 AU	morning set	2455 Apr 16 07:18	17° ♊ 46'35	
				max. Earth dist.	2455 Apr 20 23:10	27° ♊ 04'07	1.33811 AU
					2455 Apr 22 09:20	0° ♊	
superior conj	2454 May 10 10:16	20° ♊ 14'47	0°-6'-8				
minimum elong	2454 May 10 10:34	20° ♊ 16'24	0°06'04	superior conj	2455 Apr 24 13:51	4° ♊ 34'19	0°-34'-7
behind sun begin	2454 May 10 05:40	19° ♊ 50'03		minimum elong	2455 Apr 24 15:35	4° ♊ 43'26	0°33'46
behind sun end	2454 May 10 15:27	20° ♊ 42'47		asc. node	2455 Apr 27 21:17	11° ♊ 35'23	
asc. node	2454 May 11 00:15	21° ♊ 30'17		evening rise	2455 May 01 22:28	20° ♊ 10'00	
	2454 May 14 22:23	0° ♋			2455 May 06 18:54	0° ♋	
evening rise	2454 May 17 11:40	5° ♋ 27'52		evening max el	2455 May 22 13:16	23° ♋ 30'45	21°53'12
	2454 May 30 14:39	0° ☿		retrograde	2455 Jun 04 03:22	29° ♋ 42'46	
evening max el	2454 Jun 09 20:05	12° ☿ 58'21	23°28'10	desc. node	2455 Jun 04 21:09	29° ♋ 41'31	
desc. node	2454 Jun 18 00:10	18° ☿ 39'35					

evening set	2455 Jun 06 19:35	29°II26'46		evening max el	2456 May 03 16:20	4°II31'01	20°29'46
min. Earth dist.	2455 Jun 15 17:31	25°II38'27	0.54987 AU	retrograde	2456 May 14 16:34	9°II52'12	
inferior conj	2455 Jun 16 04:14	25°II23'27	-3°-8'-2	evening set	2456 May 16 18:06	9°II41'41	
minimum elong	2455 Jun 15 20:27	25°II34'21	3°05'42	desc. node	2456 May 21 18:10	8°II00'24	
morning rise	2455 Jun 24 22:42	21°II30'41		inferior conj	2456 May 25 22:27	5°II43'55	-1°-13'-18
direct	2455 Jun 28 02:22	21°II08'44		minimum elong	2456 May 25 19:00	5°II48'56	1°12'03
morning max el	2455 Jul 10 03:20	26°II47'30	21°41'36	min. Earth dist.	2456 May 27 05:56	4°II58'18	0.55038 AU
	2455 Jul 13 05:26	0°☿		morning rise	2456 Jun 03 18:20	1°II33'11	
asc. node	2455 Jul 24 20:31	17°☿46'45		direct	2456 Jun 07 12:33	1°II02'45	
morning set	2455 Jul 30 18:42	29°☿33'31		morning max el	2456 Jun 20 21:37	7°II31'48	23°21'36
	2455 Jul 30 23:47	0°♁			2456 Jul 06 22:43	0°☿	
				asc. node	2456 Jul 10 17:34	7°☿14'53	
superior conj	2455 Aug 07 02:24	14°♁57'51	1°41'26	morning set	2456 Jul 14 05:59	14°☿28'06	
minimum elong	2455 Aug 07 01:01	14°♁50'39	1°41'22				
max. Earth dist.	2455 Aug 10 22:04	22°♁49'34	1.34890 AU	superior conj	2456 Jul 21 08:17	29°☿41'09	1°31'27
	2455 Aug 14 13:00	0°♊		minimum elong	2456 Jul 21 06:08	29°☿29'38	1°31'13
evening rise	2455 Aug 15 09:14	1°♊37'30			2456 Jul 21 11:48	0°♁	
desc. node	2455 Aug 31 20:33	29°♊49'54		max. Earth dist.	2456 Jul 23 20:05	4°♁59'32	1.33604 AU
	2455 Aug 31 23:13	0°♊		evening rise	2456 Jul 28 23:27	15°♁33'17	
evening max el	2455 Sep 19 13:25	23°♊33'19	26°49'31		2456 Aug 05 15:18	0°♊	
	2455 Sep 28 16:01	0°♋		desc. node	2456 Aug 17 17:32	19°♊28'28	
retrograde	2455 Oct 02 15:21	0°♋48'41			2456 Aug 25 15:59	0°♊	
	2455 Oct 06 08:25	30°♋♊		evening max el	2456 Sep 01 01:07	6°♊54'47	27°20'58
evening set	2455 Oct 09 07:26	28°♊07'47		retrograde	2456 Sep 14 13:14	14°♊13'09	
min. Earth dist.	2455 Oct 13 07:47	24°♊05'28	0.65747 AU	evening set	2456 Sep 21 14:54	11°♊31'37	
inferior conj	2455 Oct 15 03:58	21°♊56'20	-1°-53'-54	min. Earth dist.	2456 Sep 25 08:53	8°♊05'05	0.64357 AU
minimum elong	2455 Oct 15 07:03	21°♊47'19	1°52'41	inferior conj	2456 Sep 27 17:41	5°♊33'45	-2°-52'-36
asc. node	2455 Oct 20 19:42	16°♊31'06		minimum elong	2456 Sep 27 22:16	5°♊21'30	2°51'00
morning rise	2455 Oct 21 08:07	16°♊13'53		morning rise	2456 Oct 04 07:43	0°♊06'43	
direct	2455 Oct 24 03:03	15°♊30'53			2456 Oct 04 14:24	30°♋♊	
morning max el	2455 Oct 30 16:40	19°♊05'10	18°20'41	direct	2456 Oct 06 20:24	29°♊34'02	
	2455 Nov 07 22:49	0°♋		asc. node	2456 Oct 06 16:45	29°♊34'10	
morning set	2455 Nov 18 22:47	17°♋35'01			2456 Oct 09 02:20	0°♊	
	2455 Nov 26 16:00	0°♌		morning max el	2456 Oct 13 08:35	3°♊00'24	17°57'15
desc. node	2455 Nov 27 19:50	1°♌50'53		morning set	2456 Oct 30 13:15	29°♊09'16	
					2456 Oct 31 01:13	0°♋	
superior conj	2455 Dec 04 06:23	12°♌02'16	0°-42'-25	superior conj	2456 Nov 12 20:17	21°♋13'19	0°05'50
minimum elong	2455 Dec 04 00:56	11°♌40'50	0°41'43	minimum elong	2456 Nov 12 20:57	21°♋16'03	0°05'44
max. Earth dist.	2455 Dec 06 00:23	14°♌47'22	1.45161 AU	behind sun begin	2456 Nov 12 11:17	20°♋36'57	
	2455 Dec 15 17:22	0°♍		behind sun end	2456 Nov 13 06:38	21°♋55'05	
evening rise	2455 Dec 20 13:28	7°♍34'48		desc. node	2456 Nov 13 16:51	22°♋36'14	
greatest brilliancy	2456 Jan 03 14:05	29°♍19'58	-0.7m	max. Earth dist.	2456 Nov 17 18:59	29°♋08'02	1.44623 AU
	2456 Jan 04 00:51	0°♎			2456 Nov 18 08:06	0°♌	
evening max el	2456 Jan 12 21:24	11°♎35'18	19°17'19	evening rise	2456 Nov 29 02:32	16°♌47'11	
asc. node	2456 Jan 16 18:58	14°♎44'09			2456 Dec 07 18:21	0°♍	
retrograde	2456 Jan 19 23:10	15°♎38'28		greatest brilliancy	2456 Dec 19 13:44	17°♍11'15	-0.6m
evening set	2456 Jan 23 07:50	14°♎32'25		evening max el	2456 Dec 26 01:21	25°♍05'21	20°13'40
inferior conj	2456 Jan 28 22:13	8°♎38'34	3°17'12	retrograde	2457 Jan 02 21:06	29°♍41'03	
minimum elong	2456 Jan 28 19:58	8°♎45'49	3°16'47	asc. node	2457 Jan 02 15:59	29°♍40'48	
min. Earth dist.	2456 Jan 30 06:30	6°♎54'38	0.66209 AU	evening set	2457 Jan 06 14:04	28°♍21'08	
morning rise	2456 Feb 03 07:17	2°♎24'34		inferior conj	2457 Jan 12 01:09	22°♍13'54	2°47'20
	2456 Feb 07 06:43	30°♋♍		minimum elong	2457 Jan 11 22:34	22°♍22'39	2°46'38
direct	2456 Feb 09 14:26	29°♍38'28		min. Earth dist.	2457 Jan 12 19:49	21°♍10'51	0.67139 AU
	2456 Feb 12 01:01	0°♎		morning rise	2457 Jan 17 06:31	15°♍58'26	
morning max el	2456 Feb 22 05:30	7°♎07'24	26°10'08	direct	2457 Jan 22 23:56	13°♍26'27	
desc. node	2456 Feb 23 18:59	8°♎44'59		morning max el	2457 Feb 03 14:15	20°♍21'50	24°50'06
	2456 Mar 11 00:07	0°♏		desc. node	2457 Feb 09 16:02	27°♍13'25	
	2456 Mar 28 23:03	0°♐			2457 Feb 11 20:57	0°♎	
morning set	2456 Mar 29 08:37	0°♐44'23		morning set	2457 Mar 04 04:29	0°♏	
max. Earth dist.	2456 Apr 02 09:07	8°♐23'34	1.35253 AU		2457 Mar 11 15:57	12°♏45'56	
				max. Earth dist.	2457 Mar 15 08:32	19°♏25'54	1.37106 AU
superior conj	2456 Apr 07 10:24	18°♐28'00	-1°-2'-12		2457 Mar 20 22:41	0°♐	
minimum elong	2456 Apr 07 13:34	18°♐44'10	1°01'39				
	2456 Apr 13 00:29	0°♑		superior conj	2457 Mar 21 20:52	1°♐47'58	-1°-28'-29
asc. node	2456 Apr 13 18:18	1°♑32'21		minimum elong	2457 Mar 22 01:05	2°♐08'36	1°27'55
evening rise	2456 Apr 15 06:15	4°♑37'48		evening rise	2457 Mar 30 08:46	18°♐44'40	
	2456 Apr 29 17:00	0°♒					

asc. node	2457 Mar 31 15:19	21°♈16'51			2458 Mar 12 21:45	0°♈	
	2457 Apr 05 04:11	0°♈		evening rise	2458 Mar 14 03:09	2°♈22'06	
evening max el	2457 Apr 16 07:23	16°♈11'51	19°24'21	asc. node	2458 Mar 18 12:22	10°♈42'59	
retrograde	2457 Apr 25 14:36	20°♈41'57		evening max el	2458 Mar 30 08:35	28°♈29'55	18°38'51
evening set	2457 Apr 27 15:31	20°♈29'55			2458 Apr 01 02:04	0°♈	
inferior conj	2457 May 06 04:02	16°♈23'02	0°42'28	retrograde	2458 Apr 07 05:52	2°♈21'21	
minimum elong	2457 May 06 05:47	16°♈20'10	0°41'51	evening set	2458 Apr 09 12:08	2°♈03'27	
desc. node	2457 May 08 15:11	14°♈46'46			2458 Apr 13 22:00	30°♈♈	
min. Earth dist.	2457 May 08 20:39	14°♈38'06	0.56027 AU	inferior conj	2458 Apr 17 05:24	27°♈38'23	2°12'36
morning rise	2457 May 14 16:07	11°♈39'25		minimum elong	2458 Apr 17 09:19	27°♈30'57	2°11'30
direct	2457 May 19 08:54	10°♈49'09		min. Earth dist.	2458 Apr 20 14:20	25°♈05'42	0.57746 AU
morning max el	2457 Jun 02 12:08	17°♈59'02	25°02'36	morning rise	2458 Apr 25 02:05	22°♈21'26	
	2457 Jun 12 10:37	0°♈		desc. node	2458 Apr 25 12:14	22°♈09'57	
asc. node	2457 Jun 27 14:37	27°♈01'40		direct	2458 Apr 30 19:37	20°♈59'23	
morning set	2457 Jun 28 17:50	29°♈24'16		morning max el	2458 May 15 04:26	28°♈34'51	26°29'19
	2457 Jun 29 00:35	0°♈			2458 May 16 14:15	0°♈	
					2458 Jun 06 00:34	0°♈	
superior conj	2457 Jul 05 18:02	14°♈35'15	1°16'29	morning set	2458 Jun 13 04:35	14°♈15'41	
minimum elong	2457 Jul 05 15:38	14°♈22'11	1°16'08	asc. node	2458 Jun 14 11:40	17°♈00'27	
max. Earth dist.	2457 Jul 07 01:58	17°♈29'09	1.32728 AU				
evening rise	2457 Jul 12 22:58	29°♈56'17		superior conj	2458 Jun 20 05:36	29°♈32'26	0°57'22
	2457 Jul 12 23:41	0°♈		minimum elong	2458 Jun 20 03:27	29°♈20'34	0°56'58
	2457 Jul 29 16:49	0°♈			2458 Jun 20 10:37	0°♈	
desc. node	2457 Aug 04 14:31	8°♈28'47		max. Earth dist.	2458 Jun 20 12:46	0°♈11'55	1.32251 AU
evening max el	2457 Aug 14 10:23	19°♈49'07	27°23'08	evening rise	2458 Jun 27 04:47	14°♈36'26	
retrograde	2457 Aug 28 04:58	27°♈05'45			2458 Jul 05 00:09	0°♈	
evening set	2457 Sep 04 09:46	24°♈35'24		desc. node	2458 Jul 22 11:33	26°♈34'39	
min. Earth dist.	2457 Sep 08 00:04	21°♈38'51	0.62633 AU		2458 Jul 25 13:02	0°♈	
inferior conj	2457 Sep 10 20:55	18°♈54'47	-3°-47'-30	evening max el	2458 Jul 27 14:46	2°♈04'09	26°52'27
minimum elong	2457 Sep 11 02:23	18°♈41'43	3°46'01	retrograde	2458 Aug 10 13:11	9°♈17'04	
morning rise	2457 Sep 17 21:42	13°♈46'20		evening set	2458 Aug 17 11:39	7°♈11'26	
direct	2457 Sep 20 06:51	13°♈20'33		min. Earth dist.	2458 Aug 21 04:55	4°♈33'06	0.60653 AU
asc. node	2457 Sep 23 13:49	14°♈11'03		inferior conj	2458 Aug 24 10:22	1°♈51'00	-4°-32'-47
morning max el	2457 Sep 27 00:35	16°♈47'20	17°51'35	minimum elong	2458 Aug 24 15:13	1°♈40'47	4°31'58
	2457 Oct 06 08:56	0°♈			2458 Aug 26 17:01	30°♈♈	
morning set	2457 Oct 13 02:26	11°♈48'32		morning rise	2458 Aug 31 21:58	27°♈03'59	
	2457 Oct 23 12:02	0°♈		direct	2458 Sep 03 06:37	26°♈42'17	
				asc. node	2458 Sep 10 10:53	0°♈11'37	
superior conj	2457 Oct 24 11:35	1°♈39'48	0°47'22		2458 Sep 10 05:57	0°♈	
minimum elong	2457 Oct 24 15:40	1°♈57'04	0°46'50	morning max el	2458 Sep 10 13:31	0°♈17'57	18°04'55
max. Earth dist.	2457 Oct 31 10:05	13°♈08'12	1.43424 AU	morning set	2458 Sep 26 08:16	25°♈15'44	
desc. node	2457 Oct 31 13:52	13°♈23'30			2458 Sep 28 21:16	0°♈	
evening rise	2457 Nov 08 11:36	25°♈54'49					
	2457 Nov 11 03:08	0°♈		superior conj	2458 Oct 06 05:19	13°♈23'52	1°17'31
	2457 Dec 01 18:51	0°♈		minimum elong	2458 Oct 06 09:34	13°♈42'46	1°17'04
greatest brilliancy	2457 Dec 03 22:50	2°♈47'39	-0.4m	max. Earth dist.	2458 Oct 13 20:26	26°♈35'11	1.41715 AU
evening max el	2457 Dec 08 23:45	8°♈36'11	21°22'37		2458 Oct 15 21:44	0°♈	
retrograde	2457 Dec 17 18:39	13°♈49'30		desc. node	2458 Oct 18 10:53	4°♈09'37	
asc. node	2457 Dec 20 13:02	13°♈07'17		evening rise	2458 Oct 19 09:29	5°♈40'39	
evening set	2457 Dec 21 21:44	12°♈14'16			2458 Nov 04 09:40	0°♈	
inferior conj	2457 Dec 27 07:22	5°♈56'59	2°09'02	greatest brilliancy	2458 Nov 16 19:26	16°♈39'51	-0.3m
minimum elong	2457 Dec 27 04:57	6°♈05'21	2°08'12	evening max el	2458 Nov 21 17:04	22°♈09'19	22°39'51
min. Earth dist.	2457 Dec 27 13:55	5°♈34'22	0.67684 AU	retrograde	2458 Dec 01 14:04	28°♈01'15	
morning rise	2458 Jan 01 11:50	29°♈42'07		evening set	2458 Dec 06 05:12	26°♈09'23	
	2458 Jan 01 03:54	30°♈♈		asc. node	2458 Dec 07 10:06	25°♈02'50	
direct	2458 Jan 06 14:18	27°♈30'23		inferior conj	2458 Dec 11 14:54	19°♈45'46	1°23'52
	2458 Jan 12 18:56	0°♈		minimum elong	2458 Dec 11 13:06	19°♈52'00	1°23'10
morning max el	2458 Jan 16 23:04	3°♈40'31	23°21'53	min. Earth dist.	2458 Dec 11 10:21	20°♈01'30	0.67871 AU
greatest brilliancy	2458 Jan 22 10:01	9°♈49'27	-0.2m	morning rise	2458 Dec 16 20:55	13°♈33'36	
desc. node	2458 Jan 27 13:05	16°♈26'02		direct	2458 Dec 21 08:31	11°♈44'42	
	2458 Feb 06 02:01	0°♈		morning max el	2458 Dec 30 11:26	17°♈06'02	21°55'05
morning set	2458 Feb 20 22:56	23°♈33'22		greatest brilliancy	2459 Jan 04 04:48	22°♈25'16	-0.4m
	2458 Feb 24 17:23	0°♈			2459 Jan 10 00:20	0°♈	
max. Earth dist.	2458 Feb 25 03:11	0°♈42'43	1.39229 AU	desc. node	2459 Jan 14 10:07	6°♈10'33	
					2459 Jan 30 04:35	0°♈	
superior conj	2458 Mar 04 17:17	14°♈23'14	-1°-50'-14	morning set	2459 Feb 01 00:56	2°♈56'47	
minimum elong	2458 Mar 04 21:28	14°♈42'44	1°49'53	max. Earth dist.	2459 Feb 07 01:26	12°♈47'39	1.41358 AU

superior conj	2459 Feb 14 18:45	26° \approx 02'19	-2°-3'-36	superior conj	2460 Jan 26 20:02	6° \approx 32'42	-2°-3'-39
minimum elong	2459 Feb 14 20:51	26° \approx 11'36	2°03'33	minimum elong	2460 Jan 26 17:24	6° \approx 21'43	2°03'36
	2459 Feb 17 00:16	0° H		evening rise	2460 Feb 08 01:08	27° \approx 36'24	
evening rise	2459 Feb 25 09:59	15° H 22'23			2460 Feb 09 09:40	0° H	
asc. node	2459 Mar 05 09:25	29° H 44'41		asc. node	2460 Feb 20 06:27	18° H 13'41	
	2459 Mar 05 13:03	0° Y		evening max el	2460 Feb 25 04:32	24° H 24'02	18°07'36
evening max el	2459 Mar 13 16:45	11° Y 17'12	18°13'24	retrograde	2460 Mar 02 17:01	27° H 47'29	
retrograde	2459 Mar 20 15:53	14° Y 46'46		evening set	2460 Mar 05 10:18	27° H 11'25	
evening set	2459 Mar 23 04:00	14° Y 20'27		inferior conj	2460 Mar 11 20:32	22° H 03'44	3°36'34
inferior conj	2459 Mar 30 03:54	9° Y 33'55	3°09'15	minimum elong	2460 Mar 11 21:51	22° H 00'24	3°36'28
minimum elong	2459 Mar 30 07:05	9° Y 26'51	3°08'40	min. Earth dist.	2460 Mar 14 19:36	19° H 04'01	0.61976 AU
min. Earth dist.	2459 Apr 02 13:03	6° Y 35'19	0.59845 AU	morning rise	2460 Mar 18 06:52	16° H 05'36	
morning rise	2459 Apr 06 06:36	3° Y 51'51		direct	2460 Mar 25 04:04	13° H 37'10	
desc. node	2459 Apr 12 09:17	1° Y 54'14		desc. node	2460 Mar 29 06:19	14° H 24'27	
direct	2459 Apr 12 18:51	1° Y 53'48		morning max el	2460 Apr 08 06:41	21° H 32'59	27°50'11
morning max el	2459 Apr 27 02:24	9° Y 42'52	27°27'48		2460 Apr 15 15:39	0° Y	
	2459 May 12 17:09	0° B			2460 May 04 18:34	0° B	
morning set	2459 May 28 12:32	28° B 56'49		morning set	2460 May 11 15:42	13° B 21'21	
	2459 May 29 00:39	0° II		max. Earth dist.	2460 May 17 10:33	25° B 31'48	1.32462 AU
asc. node	2459 Jun 01 08:43	7° II 06'33		asc. node	2460 May 18 05:45	27° B 15'47	
max. Earth dist.	2459 Jun 04 00:56	12° II 57'04	1.32162 AU				
				superior conj	2460 May 19 03:16	29° B 12'46	0°09'27
superior conj	2459 Jun 04 17:15	14° II 26'50	0°34'47	minimum elong	2460 May 19 02:50	29° B 10'21	0°09'21
minimum elong	2459 Jun 04 15:46	14° II 18'40	0°34'29	behind sun begin	2460 May 18 22:39	28° B 47'33	
evening rise	2459 Jun 11 14:33	29° II 25'57		behind sun end	2460 May 19 07:01	29° B 33'09	
	2459 Jun 11 20:59	0° S			2460 May 19 11:56	0° II	
	2459 Jun 28 10:44	0° Q		evening rise	2460 May 26 02:11	14° II 18'00	
desc. node	2459 Jul 09 08:34	13° Q 23'31			2460 Jun 02 23:15	0° S	
evening max el	2459 Jul 09 12:08	13° Q 32'03	25°49'47	evening max el	2460 Jun 20 03:06	24° S 18'16	24°23'15
retrograde	2459 Jul 23 12:05	20° Q 40'45		desc. node	2460 Jun 25 05:35	28° S 25'17	
evening set	2459 Jul 29 15:43	19° Q 10'42			2460 Jun 28 03:17	0° Q	
min. Earth dist.	2459 Aug 03 00:28	16° Q 33'36	0.58592 AU	retrograde	2460 Jul 03 23:56	1° Q 18'29	
inferior conj	2459 Aug 06 06:25	14° Q 12'11	-4°-59'00	evening set	2460 Jul 08 20:05	0° Q 26'08	
minimum elong	2459 Aug 06 08:12	14° Q 08'55	4°58'56		2460 Jul 09 23:06	30° R S	
morning rise	2459 Aug 14 04:10	9° Q 48'27		min. Earth dist.	2460 Jul 14 13:57	27° S 32'13	0.56722 AU
direct	2459 Aug 16 15:23	9° Q 28'41		inferior conj	2460 Jul 17 06:29	25° S 50'10	-4°-52'-33
morning max el	2459 Aug 24 20:10	13° Q 23'06	18°38'35	minimum elong	2460 Jul 17 02:55	25° S 55'51	4°52'14
asc. node	2459 Aug 28 07:57	17° Q 20'34		morning rise	2460 Jul 25 13:24	21° S 47'37	
	2459 Sep 05 04:38	0° P		direct	2460 Jul 28 05:15	21° S 28'32	
morning set	2459 Sep 10 01:48	9° P 16'51		morning max el	2460 Aug 06 17:35	25° S 53'57	19°33'35
					2460 Aug 10 10:34	0° Q	
superior conj	2459 Sep 18 20:41	26° P 11'52	1°36'02	asc. node	2460 Aug 14 04:59	5° Q 23'19	
minimum elong	2459 Sep 18 23:25	26° P 24'45	1°35'50	morning set	2460 Aug 24 03:26	23° Q 42'02	
	2459 Sep 20 21:42	0° A			2460 Aug 27 06:25	0° P	
max. Earth dist.	2459 Sep 26 02:16	9° A 20'33	1.39709 AU				
evening rise	2459 Sep 30 05:51	16° A 28'42		superior conj	2460 Sep 01 04:08	9° P 48'24	1°44'27
desc. node	2459 Oct 05 07:54	24° A 50'38		minimum elong	2460 Sep 01 05:01	9° P 52'47	1°44'25
	2459 Oct 08 14:07	0° M		max. Earth dist.	2460 Sep 07 06:28	21° P 28'30	1.37660 AU
	2459 Oct 30 01:16	0° J		evening rise	2460 Sep 11 01:48	28° P 22'53	
evening max el	2459 Nov 04 06:46	5° J 45'32	23°59'48		2460 Sep 11 23:47	0° A	
retrograde	2459 Nov 15 06:07	12° J 12'33		desc. node	2460 Sep 21 04:57	15° A 22'35	
evening set	2459 Nov 20 10:50	10° J 03'37			2460 Sep 30 23:24	0° M	
asc. node	2459 Nov 24 07:10	5° J 47'46		evening max el	2460 Oct 16 18:51	19° M 25'02	25°15'43
inferior conj	2459 Nov 25 21:57	3° J 37'36	0°33'08	retrograde	2460 Oct 28 17:58	26° M 19'29	
minimum elong	2459 Nov 25 21:10	3° J 40'16	0°32'49	evening set	2460 Nov 03 13:00	23° M 54'44	
min. Earth dist.	2459 Nov 25 06:45	4° J 29'06	0.67717 AU	min. Earth dist.	2460 Nov 08 00:47	18° M 55'01	0.67227 AU
	2459 Nov 28 17:41	30° R M		inferior conj	2460 Nov 09 02:46	17° M 30'34	0°-21'-53
morning rise	2459 Dec 01 07:44	27° M 30'25		minimum elong	2460 Nov 09 03:19	17° M 28'46	0°21'39
direct	2459 Dec 05 05:28	26° M 03'56		asc. node	2460 Nov 10 04:11	16° M 08'47	
	2459 Dec 12 13:25	0° J		morning rise	2460 Nov 14 18:19	11° M 30'46	
morning max el	2459 Dec 13 06:39	0° J 42'06	20°36'49	direct	2460 Nov 18 03:52	10° M 24'11	
greatest brilliancy	2459 Dec 19 07:10	7° J 46'40	-0.5m	morning max el	2460 Nov 25 09:49	14° M 29'32	19°31'35
desc. node	2460 Jan 01 07:09	26° J 17'42		greatest brilliancy	2460 Dec 03 23:08	25° M 16'48	-0.6m
	2460 Jan 03 18:18	0° S			2460 Dec 07 04:56	0° J	
morning set	2460 Jan 11 02:28	11° S 14'45		desc. node	2460 Dec 18 04:12	16° J 41'22	
max. Earth dist.	2460 Jan 20 07:26	25° S 49'16	1.43195 AU	morning set	2460 Dec 20 00:02	19° J 30'43	
	2460 Jan 22 21:06	0° \approx			2460 Dec 26 17:58	0° S	

max. Earth dist.	2461 Jan 01 20:24	9°☾35'38	1.44502 AU	desc. node	2461 Dec 05 01:15	7°♂16'45	
superior conj	2461 Jan 05 19:06	15°☾52'41	-1°-45'-41	superior conj	2461 Dec 15 23:26	24°♂27'12	-1°-9'-11
minimum elong	2461 Jan 05 11:13	15°☾21'08	1°45'05	minimum elong	2461 Dec 15 15:14	23°♂54'59	1°08'14
	2461 Jan 14 11:26	0°≈		max. Earth dist.	2461 Dec 15 13:45	23°♂49'10	1.45130 AU
evening rise	2461 Jan 19 20:20	8°≈56'48			2461 Dec 19 12:07	0°☾	
	2461 Feb 01 17:02	0°♂		evening rise	2461 Dec 31 16:30	19°☾20'11	
asc. node	2461 Feb 06 03:28	6°♂00'08			2462 Jan 07 08:11	0°≈	
evening max el	2461 Feb 07 17:02	7°♂43'06	18°20'44	evening max el	2462 Jan 22 03:47	21°≈09'41	18°51'53
retrograde	2461 Feb 14 04:29	11°♂13'32		asc. node	2462 Jan 24 00:29	22°≈52'17	
evening set	2461 Feb 17 03:00	10°♂26'48		retrograde	2462 Jan 28 22:20	24°≈58'11	
inferior conj	2461 Feb 23 03:12	4°♂59'38	3°41'26	evening set	2462 Feb 01 02:53	23°≈59'40	
minimum elong	2461 Feb 23 02:41	5°♂01'05	3°41'26	inferior conj	2462 Feb 06 20:08	18°≈15'05	3°29'45
min. Earth dist.	2461 Feb 25 11:38	2°♂19'34	0.63900 AU	minimum elong	2462 Feb 06 18:20	18°≈20'38	3°29'31
	2461 Feb 27 17:48	30°♂≈		min. Earth dist.	2462 Feb 08 13:05	16°≈08'17	0.65481 AU
morning rise	2461 Mar 01 00:43	28°≈52'10		morning rise	2462 Feb 12 08:42	12°≈02'40	
direct	2461 Mar 07 21:42	26°≈05'39		direct	2462 Feb 18 22:25	9°≈12'22	
desc. node	2461 Mar 16 03:21	29°≈16'12		desc. node	2462 Mar 03 00:23	15°≈54'45	
	2461 Mar 17 03:05	0°♂		morning max el	2462 Mar 04 00:59	16°≈55'15	26°48'29
morning max el	2461 Mar 21 15:11	4°♂00'48	27°35'28		2462 Mar 14 22:31	0°♂	
	2461 Apr 10 04:12	0°♀			2462 Apr 03 00:56	0°♀	
morning set	2461 Apr 25 11:31	27°♀20'15		morning set	2462 Apr 08 20:48	10°♀43'56	
	2461 Apr 26 19:32	0°♂		max. Earth dist.	2462 Apr 13 05:41	19°♀16'54	1.34359 AU
max. Earth dist.	2461 Apr 30 13:20	7°♂41'09	1.33181 AU				
				superior conj	2462 Apr 17 10:40	27°♀52'43	0°-46'-6
superior conj	2461 May 03 09:46	13°♂43'24	0°-17'-52	minimum elong	2462 Apr 17 13:02	28°♀04'59	0°45'40
minimum elong	2461 May 03 10:39	13°♂48'10	0°17'42		2462 Apr 18 11:06	0°♂	
asc. node	2461 May 05 02:46	17°♂23'19		asc. node	2462 Apr 21 23:48	7°♂25'22	
evening rise	2461 May 10 13:48	29°♂05'06		evening rise	2462 Apr 24 23:33	13°♂41'31	
	2461 May 11 00:14	0°♂			2462 May 03 08:54	0°♂	
	2461 May 28 09:56	0°☾		evening max el	2462 May 14 13:59	15°♂27'37	21°15'57
evening max el	2461 Jun 01 17:06	4°☾45'51	22°47'05	retrograde	2462 May 26 13:29	21°♂19'03	
desc. node	2461 Jun 12 02:36	11°☾03'11		evening set	2462 May 28 21:02	21°♂06'42	
retrograde	2461 Jun 14 23:33	11°☾22'04		desc. node	2462 May 29 23:35	20°♂52'30	
evening set	2461 Jun 18 07:50	10°☾57'30		inferior conj	2462 Jun 07 05:49	17°♂07'59	-2°-21'-54
min. Earth dist.	2461 Jun 26 01:29	7°☾32'36	0.55384 AU	minimum elong	2462 Jun 06 23:21	17°♂17'04	2°19'44
inferior conj	2461 Jun 27 11:35	6°☾43'38	-4°00'-5	min. Earth dist.	2462 Jun 07 13:30	16°♂57'11	0.54885 AU
minimum elong	2461 Jun 27 03:47	6°☾54'51	3°58'18	morning rise	2462 Jun 16 01:44	13°♂09'34	
morning rise	2461 Jul 06 02:30	2°☾52'05		direct	2462 Jun 19 10:30	12°♂45'01	
direct	2461 Jul 09 00:31	2°☾32'17		morning max el	2462 Jul 02 02:47	18°♂46'27	22°23'00
morning max el	2461 Jul 20 03:43	7°☾42'03	20°49'33		2462 Jul 11 06:04	0°☾	
asc. node	2461 Aug 01 02:01	24°☾06'38		asc. node	2462 Jul 18 23:04	13°☾20'40	
	2461 Aug 04 05:59	0°♂		morning set	2462 Jul 23 20:36	23°☾13'49	
morning set	2461 Aug 08 10:23	8°♂22'55			2462 Jul 27 01:22	0°♂	
superior conj	2461 Aug 15 22:57	23°♂58'46	1°44'33	superior conj	2462 Jul 31 01:36	8°♂32'26	1°37'52
minimum elong	2461 Aug 15 22:16	23°♂55'15	1°44'31	minimum elong	2462 Jul 30 23:50	8°♂23'04	1°37'44
	2461 Aug 18 22:19	0°♂		max. Earth dist.	2462 Aug 03 06:58	15°♂16'56	1.34297 AU
max. Earth dist.	2461 Aug 20 14:26	3°♂18'34	1.35806 AU	evening rise	2462 Aug 08 01:01	24°♂49'30	
evening rise	2461 Aug 24 17:42	11°♂13'47			2462 Aug 10 17:54	0°♂	
	2461 Sep 04 12:14	0°♂		desc. node	2462 Aug 25 22:57	25°♂34'24	
desc. node	2461 Sep 08 01:58	5°♂39'27			2462 Aug 29 00:15	0°♂	
	2461 Sep 26 07:12	0°♂		evening max el	2462 Sep 11 19:17	16°♂36'19	27°06'07
evening max el	2461 Sep 29 06:54	3°♂04'22	26°20'24	retrograde	2462 Sep 25 02:26	23°♂54'00	
retrograde	2461 Oct 12 00:59	10°♂15'47		evening set	2462 Oct 01 22:58	21°♂11'50	
evening set	2461 Oct 18 09:49	7°♂39'00		min. Earth dist.	2462 Oct 05 20:30	17°♂24'47	0.65198 AU
min. Earth dist.	2461 Oct 22 14:09	3°♂15'26	0.66386 AU	inferior conj	2462 Oct 07 21:56	15°♂05'23	-2°-19'-1
inferior conj	2461 Oct 24 03:28	1°♂21'19	-1°-19'-52	minimum elong	2462 Oct 08 01:42	14°♂54'46	2°17'36
minimum elong	2461 Oct 24 05:36	1°♂14'47	1°18'59	morning rise	2462 Oct 14 06:09	9°♂28'50	
	2461 Oct 25 06:23	30°♂≈		asc. node	2462 Oct 14 22:16	9°♂12'07	
asc. node	2461 Oct 28 01:13	27°♂02'28		direct	2462 Oct 16 22:01	8°♂50'44	
morning rise	2461 Oct 30 02:34	25°♂31'36		morning max el	2462 Oct 23 10:18	12°♂20'56	18°08'28
direct	2461 Nov 02 02:03	24°♂41'14			2462 Nov 04 19:22	0°♂	
morning max el	2461 Nov 08 19:48	28°♂24'24	18°41'46	morning set	2462 Nov 10 16:18	9°♂40'27	
	2461 Nov 10 07:21	0°♂		desc. node	2462 Nov 21 22:16	27°♂59'17	
morning set	2461 Nov 29 17:33	28°♂51'51			2462 Nov 23 04:29	0°♂	
	2461 Nov 30 10:45	0°♂					

superior conj	2462 Nov 25 03:52	3°♌08'27	0°-21'-41	morning set	2463 Oct 23 17:22	21°♊45'45	
minimum elong	2462 Nov 25 01:06	2°♌57'30	0°21'20		2463 Oct 28 12:11	0°♌	
max. Earth dist.	2462 Nov 28 08:50	8°♌12'35	1.45021 AU				
evening rise	2462 Dec 11 14:39	28°♌52'09		superior conj	2463 Nov 05 03:51	12°♌49'48	0°24'40
	2462 Dec 12 08:10	0°♌		minimum elong	2463 Nov 05 06:26	13°♌00'25	0°24'18
greatest brilliancy	2462 Dec 28 15:23	24°♌45'02	-0.6m	desc. node	2463 Nov 08 19:17	18°♌45'57	
	2463 Jan 01 11:31	0°♌		max. Earth dist.	2463 Nov 11 02:48	22°♌28'49	1.44196 AU
evening max el	2463 Jan 05 10:45	4°♌39'24	19°39'38		2463 Nov 15 20:54	0°♌	
asc. node	2463 Jan 10 21:32	8°♌35'14		evening rise	2463 Nov 21 00:07	7°♌58'19	
retrograde	2463 Jan 12 19:24	8°♌55'15			2463 Dec 05 15:43	0°♌	
evening set	2463 Jan 16 07:25	7°♌43'33		greatest brilliancy	2463 Dec 13 18:48	11°♌21'37	-0.5m
inferior conj	2463 Jan 21 20:10	1°♌43'56	3°05'40	evening max el	2463 Dec 19 12:31	18°♌10'21	20°41'39
minimum elong	2463 Jan 21 17:42	1°♌52'03	3°05'07	retrograde	2463 Dec 27 17:22	23°♌01'02	
min. Earth dist.	2463 Jan 22 22:33	0°♌17'04	0.66658 AU	asc. node	2463 Dec 28 18:35	22°♌54'53	
	2463 Jan 23 03:47	30°♌		evening set	2463 Dec 31 14:30	21°♌34'37	
morning rise	2463 Jan 27 03:18	25°♌29'10		inferior conj	2464 Jan 06 00:47	15°♌22'46	2°32'00
direct	2463 Feb 02 05:01	22°♌47'48		minimum elong	2464 Jan 05 22:12	15°♌31'34	2°31'12
	2463 Feb 14 08:29	0°♌		min. Earth dist.	2464 Jan 06 14:05	14°♌37'17	0.67427 AU
morning max el	2463 Feb 14 10:03	0°♌03'56	25°37'37	morning rise	2464 Jan 11 05:28	9°♌07'35	
desc. node	2463 Feb 17 21:27	3°♌49'23		direct	2464 Jan 16 16:40	6°♌43'46	
	2463 Mar 08 20:34	0°♌		morning max el	2464 Jan 27 18:28	13°♌20'01	24°12'53
morning set	2463 Mar 22 15:05	23°♌18'54		desc. node	2464 Feb 04 18:31	22°♌38'15	
	2463 Mar 26 05:20	0°♌			2464 Feb 10 06:11	0°♌	
max. Earth dist.	2463 Mar 26 10:22	0°♌23'53	1.35997 AU		2464 Feb 29 16:56	0°♌	
				morning set	2464 Mar 03 12:46	4°♌50'07	
superior conj	2463 Apr 01 03:19	11°♌32'45	-1°-13'-43	max. Earth dist.	2464 Mar 07 07:04	11°♌28'44	1.38000 AU
minimum elong	2463 Apr 01 07:01	11°♌51'16	1°13'08				
asc. node	2463 Apr 08 20:50	27°♌17'11		superior conj	2464 Mar 14 08:21	24°♌34'45	-1°-38'-29
evening rise	2463 Apr 09 05:20	28°♌00'28		minimum elong	2464 Mar 14 12:44	24°♌55'48	1°37'58
	2463 Apr 10 04:57	0°♌			2464 Mar 17 03:36	0°♌	
evening max el	2463 Apr 26 22:14	26°♌44'15	19°59'35	evening rise	2464 Mar 23 04:46	11°♌55'32	
	2463 May 01 03:39	0°♌		asc. node	2464 Mar 25 17:53	16°♌54'21	
retrograde	2463 May 07 04:21	1°♌42'10			2464 Apr 02 01:12	0°♌	
evening set	2463 May 09 04:35	1°♌31'34		evening max el	2464 Apr 08 17:52	8°♌40'54	19°02'26
	2463 May 13 17:00	30°♌		retrograde	2464 Apr 17 09:11	12°♌52'41	
desc. node	2463 May 16 20:36	28°♌17'29		evening set	2464 Apr 19 12:14	12°♌38'28	
inferior conj	2463 May 18 03:09	27°♌31'47	0°-22'-20	inferior conj	2464 Apr 27 16:29	8°♌24'07	1°24'48
minimum elong	2463 May 18 02:07	27°♌33'21	0°21'57	minimum elong	2464 Apr 27 19:35	8°♌18'42	1°23'46
min. Earth dist.	2463 May 20 02:40	26°♌20'12	0.55354 AU	min. Earth dist.	2464 Apr 30 18:05	6°♌17'04	0.56690 AU
morning rise	2463 May 26 20:53	23°♌08'19		desc. node	2464 May 02 17:40	5°♌02'01	
direct	2463 May 31 00:18	22°♌30'46		morning rise	2464 May 05 22:43	3°♌25'59	
morning max el	2463 Jun 13 18:26	29°♌18'46	24°05'20	direct	2464 May 11 02:16	2°♌23'35	
	2463 Jun 14 11:29	0°♌		morning max el	2464 May 25 08:57	9°♌45'16	25°42'23
	2463 Jul 04 08:50	0°♌			2464 Jun 09 16:09	0°♌	
asc. node	2463 Jul 05 20:08	2°♌57'12		morning set	2464 Jun 21 19:55	23°♌03'56	
morning set	2463 Jul 08 08:21	8°♌09'24		asc. node	2464 Jun 21 17:10	22°♌49'23	
					2464 Jun 25 01:27	0°♌	
superior conj	2463 Jul 15 09:23	23°♌20'48	1°25'39				
minimum elong	2463 Jul 15 07:05	23°♌08'17	1°25'22	superior conj	2464 Jun 28 20:06	8°♌16'23	1°08'50
max. Earth dist.	2463 Jul 17 08:47	27°♌36'03	1.33183 AU	minimum elong	2464 Jun 28 17:45	8°♌03'30	1°08'27
	2463 Jul 18 11:48	0°♌		max. Earth dist.	2464 Jun 29 17:22	10°♌12'52	1.32473 AU
evening rise	2463 Jul 22 19:37	8°♌58'07		evening rise	2464 Jul 05 22:07	23°♌28'57	
	2463 Aug 03 03:41	0°♌			2464 Jul 09 03:19	0°♌	
desc. node	2463 Aug 12 19:56	14°♌58'19			2464 Jul 26 23:30	0°♌	
	2463 Aug 25 11:08	0°♌		desc. node	2464 Jul 29 16:58	3°♌37'44	
evening max el	2463 Aug 25 06:33	29°♌49'10	27°25'52	evening max el	2464 Aug 06 14:04	12°♌28'01	27°14'15
retrograde	2463 Sep 07 21:41	7°♌06'21		retrograde	2464 Aug 20 10:06	19°♌42'39	
evening set	2463 Sep 15 01:36	4°♌28'21		evening set	2464 Aug 27 13:50	17°♌21'04	
min. Earth dist.	2463 Sep 18 17:42	1°♌15'21	0.63663 AU	min. Earth dist.	2464 Aug 31 04:15	14°♌34'23	0.61816 AU
	2463 Sep 19 23:33	30°♌		inferior conj	2464 Sep 03 05:29	11°♌49'07	-4°-8'-20
inferior conj	2463 Sep 21 07:39	28°♌37'32	-3°-16'-36	minimum elong	2464 Sep 03 10:56	11°♌36'46	4°07'04
minimum elong	2463 Sep 21 12:44	28°♌24'34	3°14'59	morning rise	2464 Sep 10 10:54	6°♌49'33	
morning rise	2463 Sep 28 02:10	23°♌17'41		direct	2464 Sep 12 19:36	6°♌25'42	
direct	2463 Sep 30 13:04	22°♌48'12		asc. node	2464 Sep 17 16:24	8°♌10'20	
asc. node	2463 Oct 01 19:20	22°♌56'08		morning max el	2464 Sep 19 17:43	9°♌54'46	17°54'55
morning max el	2463 Oct 07 02:37	26°♌13'41	17°52'33		2464 Oct 02 22:52	0°♌	
	2463 Oct 10 07:55	0°♌		morning set	2464 Oct 05 14:22	4°♌47'39	

superior conj	2464 Oct 16 06:51	23°♄50'50	1°01'36		2465 Sep 08 14:08	0°♍	
minimum elong	2464 Oct 16 11:19	24°♄10'06	1°01'03	morning set	2465 Sep 19 01:38	18°♍30'12	
	2464 Oct 19 21:26	0°♍			2465 Sep 25 03:33	0°♄	
max. Earth dist.	2464 Oct 23 16:32	6°♍18'29	1.42753 AU				
desc. node	2464 Oct 25 16:18	9°♍33'05		superior conj	2465 Sep 28 10:29	6°♄04'11	1°26'42
evening rise	2464 Oct 30 12:54	17°♍17'54		minimum elong	2465 Sep 28 14:12	6°♄21'06	1°26'21
	2464 Nov 07 19:24	0°♂		max. Earth dist.	2465 Oct 06 00:26	19°♄26'46	1.40880 AU
greatest brilliancy	2464 Nov 26 14:17	26°♂17'34	-0.4m	evening rise	2465 Oct 10 19:39	27°♄28'03	
	2464 Nov 29 18:15	0°♄			2465 Oct 12 09:01	0°♍	
evening max el	2464 Dec 01 08:36	1°♄41'48	21°54'37	desc. node	2465 Oct 12 13:20	0°♍17'23	
retrograde	2464 Dec 10 14:14	7°♄11'38			2465 Nov 01 11:28	0°♂	
evening set	2464 Dec 14 22:20	5°♄29'12		evening max el	2465 Nov 13 23:58	15°♂15'29	23°13'48
asc. node	2464 Dec 14 15:38	5°♄42'07		retrograde	2465 Nov 24 08:32	21°♂23'44	
	2464 Dec 19 16:57	30°♂♂		evening set	2465 Nov 29 05:13	19°♂24'32	
inferior conj	2464 Dec 20 07:49	29°♂08'33	1°50'37	asc. node	2465 Dec 01 12:42	17°♂03'48	
minimum elong	2464 Dec 20 05:36	29°♂16'13	1°49'49	inferior conj	2465 Dec 04 15:21	12°♂59'05	1°02'58
min. Earth dist.	2464 Dec 20 09:26	29°♂02'53	0.67812 AU	minimum elong	2465 Dec 04 13:57	13°♂03'57	1°02'23
morning rise	2464 Dec 25 12:40	22°♂54'42		min. Earth dist.	2465 Dec 04 06:13	13°♂30'31	0.67846 AU
direct	2464 Dec 30 08:38	20°♂52'52		morning rise	2465 Dec 09 22:43	6°♂48'36	
morning max el	2465 Jan 09 04:33	26°♂41'54	22°44'16	direct	2465 Dec 14 04:08	5°♂09'35	
	2465 Jan 12 05:44	0°♄		morning max el	2465 Dec 22 19:38	10°♂12'02	21°20'19
greatest brilliancy	2465 Jan 13 19:21	1°♄50'54	-0.3m	greatest brilliancy	2465 Dec 27 23:25	16°♂05'41	-0.4m
desc. node	2465 Jan 21 15:34	12°♄05'38			2466 Jan 07 03:25	0°♄	
	2465 Feb 02 20:45	0°♁		desc. node	2466 Jan 08 12:36	2°♄00'36	
morning set	2465 Feb 12 07:46	15°♁02'28		morning set	2466 Jan 22 21:55	23°♄53'26	
max. Earth dist.	2465 Feb 17 02:53	23°♁05'12	1.40153 AU		2466 Jan 26 17:55	0°♁	
	2465 Feb 21 02:23	0°♂		max. Earth dist.	2466 Jan 30 03:49	5°♁33'01	1.42187 AU
superior conj	2465 Feb 24 21:20	6°♂47'37	-1°-57'-12	superior conj	2466 Feb 06 13:03	17°♁58'25	-2°-5'-33
minimum elong	2465 Feb 25 00:58	7°♂04'05	1°57'00	minimum elong	2466 Feb 06 13:27	18°♁00'06	2°05'35
evening rise	2465 Mar 06 18:45	25°♂18'44			2466 Feb 13 09:07	0°♂	
	2465 Mar 09 06:16	0°♂		evening rise	2466 Feb 17 19:27	8°♂00'23	
asc. node	2465 Mar 12 14:56	6°♂11'18		asc. node	2466 Feb 27 11:59	25°♂00'17	
evening max el	2465 Mar 22 22:24	21°♂12'29	18°25'33		2466 Mar 02 20:18	0°♂	
retrograde	2465 Mar 30 09:01	24°♂53'03		evening max el	2466 Mar 06 08:29	4°♂09'07	18°08'35
evening set	2465 Apr 01 17:41	24°♂31'55		retrograde	2466 Mar 13 01:55	7°♂34'23	
inferior conj	2465 Apr 09 03:08	19°♂57'40	2°40'38	evening set	2466 Mar 15 16:11	7°♂04'12	
minimum elong	2465 Apr 09 06:59	19°♂49'49	2°39'42	inferior conj	2466 Mar 22 09:50	2°♂08'51	3°23'59
min. Earth dist.	2465 Apr 12 13:43	17°♂10'52	0.58607 AU	minimum elong	2466 Mar 22 12:16	2°♂03'06	3°23'39
morning rise	2465 Apr 16 16:08	14°♂28'29			2466 Mar 24 16:19	30°♂♂	
desc. node	2465 Apr 19 14:43	13°♂17'27		min. Earth dist.	2466 Mar 25 15:44	29°♂06'28	0.60761 AU
direct	2465 Apr 22 18:24	12°♂51'16		morning rise	2466 Mar 29 05:11	26°♂18'44	
morning max el	2465 May 07 03:43	20°♂34'03	26°58'25	direct	2466 Apr 04 22:28	24°♂06'13	
	2465 May 15 06:47	0°♄		desc. node	2466 Apr 06 11:46	24°♂12'59	
	2465 Jun 02 09:02	0°♂			2466 Apr 17 01:20	0°♂	
morning set	2465 Jun 06 05:43	7°♂52'08		morning max el	2466 Apr 19 04:32	1°♂59'58	27°41'54
asc. node	2465 Jun 08 14:12	12°♂52'07			2466 May 09 14:13	0°♄	
				morning set	2466 May 21 11:51	22°♄26'52	
superior conj	2465 Jun 13 07:55	23°♂13'16	0°48'11		2466 May 25 01:53	0°♂	
minimum elong	2465 Jun 13 06:00	23°♂02'41	0°47'48	asc. node	2466 May 26 11:14	3°♂00'00	
max. Earth dist.	2465 Jun 13 05:15	22°♂58'33	1.32159 AU	max. Earth dist.	2466 May 27 16:34	5°♂39'37	1.32235 AU
	2465 Jun 16 09:58	0°♄					
evening rise	2465 Jun 20 05:52	8°♄13'55		superior conj	2466 May 28 19:04	8°♂04'39	0°24'21
	2465 Jul 01 14:05	0°♂		minimum elong	2466 May 28 17:59	7°♂58'43	0°24'06
desc. node	2465 Jul 16 13:59	21°♂14'04		evening rise	2466 Jun 04 16:36	23°♂04'51	
evening max el	2465 Jul 19 15:21	24°♂22'20	26°29'22		2466 Jun 08 00:41	0°♄	
	2465 Jul 27 08:21	0°♍			2466 Jun 26 08:29	0°♂	
retrograde	2465 Aug 02 14:46	1°♍34'20		evening max el	2466 Jul 01 09:31	5°♂30'08	25°15'12
	2465 Aug 08 17:36	30°♂♂		desc. node	2466 Jul 03 11:00	7°♂21'15	
evening set	2465 Aug 09 06:59	29°♂42'26		retrograde	2466 Jul 15 09:31	12°♂36'56	
min. Earth dist.	2465 Aug 13 04:40	27°♂07'12	0.59770 AU	evening set	2466 Jul 21 00:47	11°♂23'31	
inferior conj	2465 Aug 16 11:53	24°♂31'07	-4°-47'00	min. Earth dist.	2466 Jul 25 21:24	8°♂40'58	0.57747 AU
minimum elong	2465 Aug 16 15:47	24°♂23'23	4°46'31	inferior conj	2466 Jul 28 23:31	6°♂34'10	-5°-1'-12
morning rise	2465 Aug 24 03:58	19°♂54'20		minimum elong	2466 Jul 28 23:12	6°♂34'42	5°01'13
direct	2465 Aug 26 13:20	19°♂33'44		morning rise	2466 Aug 06 01:18	2°♂20'00	
morning max el	2465 Sep 03 04:25	23°♂15'52	18°16'46	direct	2466 Aug 08 14:03	2°♂00'48	
asc. node	2465 Sep 04 13:27	24°♂41'38		morning max el	2466 Aug 17 07:28	6°♂07'16	18°59'23

asc. node	2466 Aug 22 10:28	12°Ω14'45		inferior conj	2467 Jul 09 15:00	17°♄52'18	-4°-36'-24
	2466 Sep 01 13:55	0°♎		minimum elong	2467 Jul 09 09:11	18°♄01'07	4°35'32
morning set	2466 Sep 02 22:56	2°♎42'00		morning rise	2467 Jul 18 01:25	13°♄55'47	
				direct	2467 Jul 20 19:47	13°♄36'31	
superior conj	2466 Sep 11 09:15	19°♎14'09	1°40'44	morning max el	2467 Jul 31 00:04	18°♄19'44	20°03'27
minimum elong	2466 Sep 11 11:13	19°♎23'30	1°40'37		2467 Aug 08 22:51	0°Ω	
	2466 Sep 17 03:34	0°♊		asc. node	2467 Aug 09 07:30	0°Ω35'54	
max. Earth dist.	2466 Sep 18 04:26	1°♊52'13	1.38823 AU	morning set	2467 Aug 18 03:04	17°Ω14'19	
evening rise	2466 Sep 22 02:15	8°♊44'44			2467 Aug 24 09:06	0°♎	
desc. node	2466 Sep 29 10:20	20°♊55'04					
	2466 Oct 05 06:48	0°♌		superior conj	2467 Aug 25 21:57	3°♎05'47	1°45'24
evening max el	2466 Oct 27 12:45	28°♌53'36	24°33'05	minimum elong	2467 Aug 25 22:07	3°♎06'38	1°45'24
	2466 Oct 28 16:25	0°♈		max. Earth dist.	2467 Aug 31 09:40	13°♎49'44	1.36836 AU
retrograde	2466 Nov 07 22:58	5°♈33'51		evening rise	2467 Sep 04 07:11	21°♎04'06	
evening set	2466 Nov 13 09:35	3°♈18'12			2467 Sep 09 08:54	0°♊	
	2466 Nov 16 12:16	30°♌		desc. node	2467 Sep 16 07:20	11°♊21'11	
min. Earth dist.	2466 Nov 18 02:01	27°♌58'00	0.67544 AU		2467 Sep 29 05:16	0°♌	
asc. node	2466 Nov 18 09:43	27°♌32'20		evening max el	2467 Oct 10 00:54	12°♌34'16	25°45'14
inferior conj	2466 Nov 18 21:41	26°♌52'20	0°10'17	retrograde	2467 Oct 22 08:40	19°♌36'38	
minimum elong	2466 Nov 18 21:26	26°♌53'11	0°10'11	evening set	2467 Oct 28 09:41	17°♌06'26	
transit middle	2466 Nov 18 21:26	26°♌53'11	0°10'11	min. Earth dist.	2467 Nov 01 18:20	12°♌21'54	0.66908 AU
transit begin	2466 Nov 18 19:17	27°♌00'19		inferior conj	2467 Nov 03 00:58	10°♌44'42	0°-46'-11
transit end	2466 Nov 18 23:34	26°♌46'02		minimum elong	2467 Nov 03 02:10	10°♌40'52	0°45'41
morning rise	2466 Nov 24 09:39	20°♌47'40		asc. node	2467 Nov 05 06:44	8°♌00'18	
direct	2466 Nov 28 01:58	19°♌29'57		morning rise	2467 Nov 08 19:29	4°♌48'42	
morning max el	2466 Dec 05 18:09	23°♌53'08	20°07'16	direct	2467 Nov 12 00:35	3°♌49'17	
	2466 Dec 10 23:40	0°♈		morning max el	2467 Nov 19 00:20	7°♌43'45	19°08'29
greatest brilliancy	2466 Dec 12 16:00	2°♈13'33	-0.6m		2467 Dec 05 01:42	0°♈	
desc. node	2466 Dec 26 09:38	22°♈15'49		morning set	2467 Dec 11 22:24	10°♈39'23	
	2466 Dec 31 11:05	0°♄		desc. node	2467 Dec 13 06:38	12°♈44'58	
morning set	2467 Jan 01 18:36	2°♄01'31			2467 Dec 24 07:22	0°♄	
max. Earth dist.	2467 Jan 12 12:39	18°♄54'45	1.43828 AU	max. Earth dist.	2467 Dec 26 04:15	2°♄56'36	1.44864 AU
superior conj	2467 Jan 18 03:13	27°♄59'16	-1°-58'-26	superior conj	2467 Dec 28 16:40	6°♄55'10	-1°-32'-14
minimum elong	2467 Jan 17 22:08	27°♄38'28	1°58'11	minimum elong	2467 Dec 28 07:46	6°♄19'58	1°31'23
	2467 Jan 19 08:37	0°♊			2468 Jan 12 00:18	0°♊	
evening rise	2467 Jan 31 02:39	19°♊52'46		evening rise	2468 Jan 12 12:15	0°♊49'04	
	2467 Feb 05 23:38	0°♈			2468 Jan 31 15:38	0°♈	
asc. node	2467 Feb 14 09:01	13°♈13'00		asc. node	2468 Feb 01 06:02	0°♈38'16	
evening max el	2467 Feb 17 21:00	17°♈22'48	18°10'54	evening max el	2468 Feb 01 09:05	0°♈46'05	18°31'48
retrograde	2467 Feb 24 07:49	20°♈47'19		retrograde	2468 Feb 07 22:26	4°♈22'34	
evening set	2467 Feb 27 03:21	20°♈06'48		evening set	2468 Feb 10 23:30	3°♈30'47	
inferior conj	2467 Mar 05 08:56	14°♈50'50	3°40'56		2468 Feb 15 01:14	30°♌	
minimum elong	2467 Mar 05 09:25	14°♈49'32	3°40'56	inferior conj	2468 Feb 16 20:23	27°♊55'48	3°38'12
min. Earth dist.	2467 Mar 08 02:11	11°♈57'14	0.62840 AU	minimum elong	2468 Feb 16 19:16	27°♊59'08	3°38'07
morning rise	2467 Mar 11 13:23	8°♈48'18		min. Earth dist.	2468 Feb 18 22:08	25°♊29'00	0.64629 AU
direct	2467 Mar 18 11:44	6°♈10'11		morning rise	2468 Feb 22 13:42	21°♊46'05	
desc. node	2467 Mar 24 08:48	7°♈47'51		direct	2468 Feb 29 08:22	18°♊56'29	
morning max el	2467 Apr 01 10:41	14°♈06'28	27°48'05	desc. node	2468 Mar 10 05:50	23°♊29'22	
	2467 Apr 14 06:46	0°♑		morning max el	2468 Mar 13 20:00	26°♊46'58	27°18'56
	2467 May 02 02:43	0°♌			2468 Mar 16 20:22	0°♈	
morning set	2467 May 05 12:11	6°♌41'10			2468 Apr 06 21:35	0°♑	
max. Earth dist.	2467 May 10 23:33	18°♌03'55	1.32718 AU	morning set	2468 Apr 18 03:59	20°♑26'33	
					2468 Apr 22 22:20	0°♌	
superior conj	2467 May 13 03:48	22°♌44'49	0°-1'-58	max. Earth dist.	2468 Apr 22 22:26	0°♌00'31	1.33632 AU
minimum elong	2467 May 13 03:54	22°♌45'19	0°01'58				
behind sun begin	2467 May 12 22:42	22°♌17'15		superior conj	2468 Apr 26 08:14	7°♌07'34	0°-29'-49
behind sun end	2467 May 13 09:05	23°♌13'23		minimum elong	2468 Apr 26 09:44	7°♌15'33	0°29'31
asc. node	2467 May 13 08:16	23°♌09'00		asc. node	2468 Apr 29 05:19	13°♌15'04	
	2467 May 16 12:00	0°♐		evening rise	2468 May 03 15:32	22°♌39'21	
evening rise	2467 May 20 04:26	7°♐55'24			2468 May 07 05:25	0°♐	
	2467 May 31 17:58	0°♄		evening max el	2468 May 24 15:27	26°♐35'22	22°06'54
evening max el	2467 Jun 12 23:19	16°♄04'55	23°42'36		2468 May 28 18:57	0°♄	
desc. node	2467 Jun 20 08:01	21°♄25'57		retrograde	2468 Jun 06 10:15	2°♄54'21	
retrograde	2467 Jun 26 15:50	22°♄56'39		desc. node	2468 Jun 06 05:02	2°♄54'14	
evening set	2467 Jun 30 20:16	22°♄18'13		evening set	2468 Jun 09 06:13	2°♄36'32	
min. Earth dist.	2467 Jul 07 09:43	19°♄12'35	0.56068 AU		2468 Jun 15 21:27	30°♌	

min. Earth dist.	2468 Jun 17 20:55	28° Π 54'51	0.55060 AU	desc. node	2469 May 24 02:04	11° Π 35'27	
inferior conj	2468 Jun 18 14:04	28° Π 30'47	-3°-23'-7	inferior conj	2469 May 29 07:49	8° Π 51'18	-1°-31'-40
minimum elong	2468 Jun 18 06:04	28° Π 42'02	3°20'51	minimum elong	2469 May 29 03:29	8° Π 57'31	1°30'07
morning rise	2468 Jun 27 07:44	24° Π 39'09		min. Earth dist.	2469 May 30 09:18	8° Π 14'46	0.54964 AU
direct	2468 Jun 30 09:48	24° Π 17'55		morning rise	2469 Jun 07 03:58	4° Π 44'18	
morning max el	2468 Jul 12 05:12	29° Π 48'46	21°27'37	direct	2469 Jun 10 19:18	4° Π 15'47	
	2468 Jul 12 10:00	0° \mathfrak{D}		morning max el	2469 Jun 24 00:39	10° Π 38'03	23°06'16
asc. node	2468 Jul 26 04:33	19° \mathfrak{D} 33'52			2469 Jul 08 06:32	0° \mathfrak{D}	
	2468 Jul 31 12:14	0° \mathfrak{Q}		asc. node	2469 Jul 13 01:36	8° \mathfrak{D} 58'32	
morning set	2468 Aug 01 11:42	2° \mathfrak{Q} 00'56		morning set	2469 Jul 16 22:47	16° \mathfrak{D} 54'51	
					2469 Jul 23 01:36	0° \mathfrak{Q}	
superior conj	2468 Aug 08 20:31	17° \mathfrak{Q} 27'43	1°42'27	superior conj	2469 Jul 24 01:41	2° \mathfrak{Q} 09'01	1°33'18
minimum elong	2468 Aug 08 19:18	17° \mathfrak{Q} 21'24	1°42'24	minimum elong	2469 Jul 23 23:37	1° \mathfrak{Q} 57'59	1°33'06
max. Earth dist.	2468 Aug 12 21:22	25° \mathfrak{Q} 43'06	1.35116 AU	max. Earth dist.	2469 Jul 26 17:54	7° \mathfrak{Q} 49'27	1.33770 AU
	2468 Aug 15 01:13	0° \mathfrak{P}		evening rise	2469 Jul 31 18:48	18° \mathfrak{Q} 06'56	
evening rise	2468 Aug 17 06:13	4° \mathfrak{P} 15'55			2469 Aug 07 01:15	0° \mathfrak{P}	
	2468 Sep 01 04:52	0° \mathfrak{A}		desc. node	2469 Aug 20 01:23	21° \mathfrak{P} 13'30	
desc. node	2468 Sep 02 04:21	1° \mathfrak{A} 30'10			2469 Aug 26 11:37	0° \mathfrak{A}	
evening max el	2468 Sep 21 13:11	26° \mathfrak{A} 11'54	26°42'35	evening max el	2469 Sep 04 01:04	9° \mathfrak{A} 36'21	27°17'57
	2468 Sep 26 00:10	0° \mathfrak{M}		retrograde	2469 Sep 17 12:08	16° \mathfrak{A} 55'00	
retrograde	2468 Oct 04 13:10	3° \mathfrak{M} 26'29		evening set	2469 Sep 24 12:36	14° \mathfrak{A} 12'51	
evening set	2468 Oct 11 03:31	0° \mathfrak{M} 46'19		min. Earth dist.	2469 Sep 28 07:24	10° \mathfrak{A} 41'09	0.64587 AU
	2468 Oct 12 00:50	30° \mathfrak{R} \mathfrak{A}		inferior conj	2469 Sep 30 14:20	8° \mathfrak{A} 12'33	-2°-43'-51
min. Earth dist.	2468 Oct 15 04:52	26° \mathfrak{A} 38'37	0.65928 AU	minimum elong	2469 Sep 30 18:43	8° \mathfrak{A} 00'39	2°42'18
inferior conj	2468 Oct 16 23:17	24° \mathfrak{A} 33'08	-1°-44'-55	morning rise	2469 Oct 07 02:51	2° \mathfrak{A} 43'01	
minimum elong	2468 Oct 17 02:07	24° \mathfrak{A} 24'45	1°43'48	asc. node	2469 Oct 09 00:49	2° \mathfrak{A} 11'15	
asc. node	2468 Oct 22 03:46	19° \mathfrak{A} 22'27		direct	2469 Oct 09 16:14	2° \mathfrak{A} 09'06	
morning rise	2468 Oct 23 02:06	18° \mathfrak{A} 48'48		morning max el	2469 Oct 16 04:16	5° \mathfrak{A} 36'16	17°59'34
direct	2468 Oct 25 22:07	18° \mathfrak{A} 04'03			2469 Nov 01 10:03	0° \mathfrak{M}	
morning max el	2468 Nov 01 12:34	21° \mathfrak{A} 40'13	18°25'36	morning set	2469 Nov 02 14:42	2° \mathfrak{M} 00'42	
	2468 Nov 08 01:56	0° \mathfrak{M}					
morning set	2468 Nov 21 04:07	20° \mathfrak{M} 37'41		superior conj	2469 Nov 16 05:09	24° \mathfrak{M} 26'37	0°-1'-15
	2468 Nov 27 00:26	0° \mathfrak{J}		minimum elong	2469 Nov 16 05:00	24° \mathfrak{M} 25'59	0°01'15
desc. node	2468 Nov 29 03:39	3° \mathfrak{J} 23'51		behind sun begin	2469 Nov 15 18:35	23° \mathfrak{M} 44'09	
				behind sun end	2469 Nov 16 15:24	25° \mathfrak{M} 07'45	
superior conj	2468 Dec 06 18:10	15° \mathfrak{J} 24'20	0°-49'-39	desc. node	2469 Nov 16 00:42	24° \mathfrak{M} 08'42	
minimum elong	2468 Dec 06 11:51	14° \mathfrak{J} 59'32	0°48'52		2469 Nov 19 16:41	0° \mathfrak{J}	
max. Earth dist.	2468 Dec 07 23:09	17° \mathfrak{J} 18'08	1.45177 AU	max. Earth dist.	2469 Nov 20 17:50	1° \mathfrak{J} 39'38	1.44745 AU
	2468 Dec 16 01:26	0° \mathfrak{Z}		evening rise	2469 Dec 02 13:36	20° \mathfrak{J} 05'41	
evening rise	2468 Dec 22 22:32	10° \mathfrak{Z} 49'09			2469 Dec 09 00:39	0° \mathfrak{Z}	
	2469 Jan 04 04:41	0° \mathfrak{A}		greatest brilliancy	2469 Dec 22 04:23	19° \mathfrak{Z} 23'29	-0.6m
greatest brilliancy	2469 Jan 04 16:30	0° \mathfrak{A} 44'56	-0.7m	evening max el	2469 Dec 28 23:11	27° \mathfrak{Z} 44'20	20°04'27
evening max el	2469 Jan 14 18:24	14° \mathfrak{A} 14'08	19°10'13		2469 Dec 31 10:21	0° \mathfrak{A}	
asc. node	2469 Jan 18 03:04	17° \mathfrak{A} 02'57		asc. node	2470 Jan 05 00:06	2° \mathfrak{A} 12'25	
retrograde	2469 Jan 21 18:08	18° \mathfrak{A} 13'23		retrograde	2470 Jan 05 15:58	2° \mathfrak{A} 14'50	
evening set	2469 Jan 25 01:41	17° \mathfrak{A} 09'20		evening set	2470 Jan 09 07:33	0° \mathfrak{A} 57'10	
inferior conj	2469 Jan 30 16:43	11° \mathfrak{A} 17'43	3°20'52		2470 Jan 10 11:29	30° \mathfrak{R} \mathfrak{Z}	
minimum elong	2469 Jan 30 14:34	11° \mathfrak{A} 24'34	3°20'30	inferior conj	2470 Jan 14 19:00	24° \mathfrak{Z} 51'49	2°52'28
min. Earth dist.	2469 Feb 01 03:11	9° \mathfrak{A} 27'44	0.66031 AU	minimum elong	2470 Jan 14 16:26	25° \mathfrak{Z} 00'28	2°51'48
morning rise	2469 Feb 05 02:34	5° \mathfrak{A} 03'58		min. Earth dist.	2470 Jan 15 15:39	23° \mathfrak{Z} 42'29	0.67024 AU
direct	2469 Feb 11 11:28	2° \mathfrak{A} 16'30		morning rise	2470 Jan 20 00:43	18° \mathfrak{Z} 36'25	
morning max el	2469 Feb 24 05:52	9° \mathfrak{A} 49'43	26°20'46	direct	2470 Jan 25 20:20	16° \mathfrak{Z} 01'41	
desc. node	2469 Feb 25 02:53	10° \mathfrak{A} 43'39		morning max el	2470 Feb 06 14:42	23° \mathfrak{Z} 03'10	25°02'45
	2469 Mar 12 04:18	0° \mathfrak{H}		desc. node	2470 Feb 11 23:55	29° \mathfrak{Z} 04'01	
	2469 Mar 30 09:50	0° \mathfrak{Y}			2470 Feb 12 18:17	0° \mathfrak{A}	
morning set	2469 Apr 01 07:33	3° \mathfrak{Y} 31'41			2470 Mar 05 12:35	0° \mathfrak{H}	
max. Earth dist.	2469 Apr 05 10:09	11° \mathfrak{Y} 24'19	1.35005 AU	morning set	2470 Mar 14 17:57	15° \mathfrak{H} 42'48	
				max. Earth dist.	2470 Mar 18 10:43	22° \mathfrak{H} 26'47	1.36808 AU
superior conj	2469 Apr 10 06:00	21° \mathfrak{Y} 05'36	0°-58'-1		2470 Mar 22 10:31	0° \mathfrak{Y}	
minimum elong	2469 Apr 10 08:58	21° \mathfrak{Y} 20'48	0°57'28				
	2469 Apr 14 13:12	0° \mathfrak{B}		superior conj	2470 Mar 24 18:14	4° \mathfrak{Y} 31'18	-1°-24'-44
asc. node	2469 Apr 16 02:22	3° \mathfrak{B} 13'36		minimum elong	2470 Mar 24 22:20	4° \mathfrak{Y} 51'32	1°24'08
evening rise	2469 Apr 17 23:55	7° \mathfrak{B} 09'43		evening rise	2470 Apr 02 03:24	21° \mathfrak{Y} 20'05	
	2469 Apr 30 13:02	0° \mathfrak{I}		asc. node	2470 Apr 02 23:26	23° \mathfrak{Y} 00'25	
evening max el	2469 May 06 16:47	7° \mathfrak{I} 30'11	20°41'12		2470 Apr 06 13:10	0° \mathfrak{B}	
retrograde	2469 May 17 23:24	12° \mathfrak{I} 59'35		evening max el	2470 Apr 19 06:09	19° \mathfrak{B} 04'53	19°32'50
evening set	2469 May 20 01:52	12° \mathfrak{I} 48'52					

retrograde	2470 Apr 28 19:07	23°♄41'45		evening set	2471 Apr 12 13:00	4°♄57'01	
evening set	2470 Apr 30 19:36	23°♄30'15		inferior conj	2471 Apr 20 09:04	0°♄34'52	2°01'05
inferior conj	2470 May 09 10:54	19°♄25'42	0°26'10	minimum elong	2471 Apr 20 12:52	0°♄27'48	1°59'58
minimum elong	2470 May 09 12:01	19°♄23'54	0°25'45		2471 Apr 21 03:46	30°♄♂	
desc. node	2470 May 10 23:06	18°♄27'45		min. Earth dist.	2471 Apr 23 16:40	28°♂08'14	0.57460 AU
min. Earth dist.	2470 May 11 23:41	17°♄49'02	0.55829 AU	desc. node	2471 Apr 27 20:09	25°♂36'57	
morning rise	2470 May 18 00:43	14°♄47'18		morning rise	2471 Apr 28 08:22	25°♂22'41	
direct	2470 May 22 13:57	14°♄00'39		direct	2471 May 03 22:32	24°♂05'54	
morning max el	2470 Jun 05 15:15	21°♄05'35	24°48'05		2471 May 16 12:26	0°♄	
	2470 Jun 13 08:10	0°♄		morning max el	2471 May 18 06:52	1°♄37'58	26°17'58
asc. node	2470 Jun 29 22:41	28°♄42'39			2471 Jun 07 09:40	0°♄	
	2470 Jun 30 13:34	0°♄		morning set	2471 Jun 15 21:41	16°♄43'19	
morning set	2470 Jul 01 10:40	1°♄50'47		asc. node	2471 Jun 16 19:45	18°♄40'06	
					2471 Jun 22 00:49	0°♄	
superior conj	2470 Jul 08 11:00	17°♄01'42	1°19'02	superior conj	2471 Jun 22 22:25	1°♄58'52	1°00'31
minimum elong	2470 Jul 08 08:37	16°♄48'41	1°18'42	minimum elong	2471 Jun 22 20:11	1°♄46'39	1°00'07
max. Earth dist.	2470 Jul 09 22:45	20°♄15'53	1.32833 AU	max. Earth dist.	2471 Jun 23 09:07	2°♄57'47	1.32296 AU
	2470 Jul 14 12:43	0°♄		evening rise	2471 Jun 29 22:12	17°♄04'42	
evening rise	2470 Jul 15 17:09	2°♄26'23			2471 Jul 06 10:05	0°♄	
	2470 Jul 30 21:36	0°♄		desc. node	2471 Jul 24 19:25	28°♄36'10	
desc. node	2470 Aug 06 22:24	10°♄20'30			2471 Jul 25 23:39	0°♄	
evening max el	2470 Aug 17 10:58	22°♄36'00	27°24'55	evening max el	2471 Jul 30 16:22	4°♄58'16	26°59'14
retrograde	2470 Aug 31 04:52	29°♄52'56		retrograde	2471 Aug 13 14:12	12°♄11'22	
evening set	2470 Sep 07 09:38	27°♄20'16		evening set	2471 Aug 20 14:24	10°♄01'20	
min. Earth dist.	2470 Sep 11 00:16	24°♄19'40	0.62906 AU	min. Earth dist.	2471 Aug 24 06:38	7°♄21'18	0.60957 AU
inferior conj	2470 Sep 13 19:23	21°♄36'49	-3°-39'-40	inferior conj	2471 Aug 27 11:09	4°♄37'56	-4°-26'-57
minimum elong	2470 Sep 14 00:47	21°♄23'40	3°38'08	minimum elong	2471 Aug 27 16:14	4°♄27'00	4°26'00
morning rise	2470 Sep 20 18:31	16°♄25'14			2471 Sep 03 06:38	30°♄♂	
direct	2470 Sep 23 03:59	15°♄58'39		morning rise	2471 Sep 03 21:09	29°♄47'28	
asc. node	2470 Sep 25 21:53	16°♄34'29		direct	2471 Sep 06 05:45	29°♄25'15	
morning max el	2470 Sep 29 20:27	19°♄24'58	17°51'13		2471 Sep 09 02:59	0°♄	
	2470 Oct 07 15:06	0°♄		asc. node	2471 Sep 12 18:57	2°♄23'40	
morning set	2470 Oct 16 00:59	14°♄31'56		morning max el	2471 Sep 13 10:03	2°♄58'56	18°01'41
	2470 Oct 24 21:55	0°♄		morning set	2471 Sep 29 04:45	27°♄53'42	
					2471 Sep 30 08:01	0°♄	
superior conj	2470 Oct 27 16:24	4°♄41'11	0°41'45	superior conj	2471 Oct 09 06:29	16°♄14'57	1°13'43
minimum elong	2470 Oct 27 20:12	4°♄57'09	0°41'15	minimum elong	2471 Oct 09 10:51	16°♄34'14	1°13'12
desc. node	2470 Nov 02 21:42	14°♄55'57		max. Earth dist.	2471 Oct 16 21:06	29°♄18'33	1.41999 AU
max. Earth dist.	2470 Nov 03 09:41	15°♄44'18	1.43641 AU		2471 Oct 17 07:05	0°♄	
evening rise	2470 Nov 11 22:12	29°♄11'36		desc. node	2471 Oct 20 18:44	5°♄42'46	
	2470 Nov 12 10:43	0°♄		evening rise	2471 Oct 22 17:26	8°♄50'22	
	2470 Dec 02 19:05	0°♄			2471 Nov 05 14:30	0°♄	
greatest brilliancy	2470 Dec 06 18:07	5°♄14'26	-0.4m	greatest brilliancy	2471 Nov 19 21:56	19°♄26'55	-0.3m
evening max el	2470 Dec 11 22:29	11°♄15'18	21°11'45	evening max el	2471 Nov 24 16:31	24°♄48'21	22°27'57
retrograde	2470 Dec 20 13:38	16°♄22'36			2471 Dec 01 15:25	0°♄	
asc. node	2470 Dec 22 21:10	15°♄52'59		retrograde	2471 Dec 04 09:24	0°♄34'22	
evening set	2470 Dec 24 15:07	14°♄49'46			2471 Dec 06 23:22	30°♄♂	
inferior conj	2470 Dec 30 00:52	8°♄33'53	2°15'17	evening set	2471 Dec 08 22:42	28°♄44'55	
minimum elong	2470 Dec 29 22:24	8°♄42'25	2°14'29	asc. node	2471 Dec 09 18:12	28°♄01'50	
min. Earth dist.	2470 Dec 30 09:09	8°♄05'18	0.67630 AU	inferior conj	2471 Dec 14 08:20	22°♄22'01	1°31'05
morning rise	2471 Jan 04 05:18	2°♄18'52		minimum elong	2471 Dec 14 06:24	22°♄28'40	1°30'21
direct	2471 Jan 09 10:05	0°♄03'48		min. Earth dist.	2471 Dec 14 05:21	22°♄32'19	0.67873 AU
morning max el	2471 Jan 19 23:15	6°♄20'50	23°35'06	morning rise	2471 Dec 19 13:59	16°♄09'26	
desc. node	2471 Jan 29 20:57	18°♄10'45		direct	2471 Dec 24 03:45	14°♄17'08	
	2471 Feb 07 07:11	0°♄		morning max el	2472 Jan 02 10:52	19°♄45'14	22°07'32
morning set	2471 Feb 24 04:55	26°♄41'55		greatest brilliancy	2472 Jan 07 01:58	24°♄56'48	-0.4m
	2471 Feb 26 03:14	0°♄			2472 Jan 11 01:05	0°♄	
max. Earth dist.	2471 Feb 28 05:29	3°♄38'44	1.38909 AU	desc. node	2472 Jan 16 17:59	7°♄51'02	
					2472 Jan 31 12:27	0°♄	
superior conj	2471 Mar 07 17:00	17°♄13'55	-1°-47'-23	morning set	2472 Feb 04 11:12	6°♄17'21	
minimum elong	2471 Mar 07 21:19	17°♄34'06	1°47'00	max. Earth dist.	2472 Feb 10 03:00	15°♄36'05	1.41056 AU
	2471 Mar 14 09:01	0°♄					
evening rise	2471 Mar 16 23:10	5°♄02'16		superior conj	2472 Feb 17 21:34	29°♄01'50	-2°-2'-19
asc. node	2471 Mar 20 20:29	12°♄29'44		minimum elong	2472 Feb 18 00:09	29°♄13'21	2°02'15
	2471 Apr 01 00:02	0°♄			2472 Feb 18 10:38	0°♄	
evening max el	2471 Apr 02 06:02	1°♄17'54	18°44'20				
retrograde	2471 Apr 10 07:33	5°♄13'54					

evening rise	2472 Feb 28 07:55	18° Υ 08'27		2473 Feb 09 18:52	0° Υ	
	2472 Mar 05 19:32	0° Υ		evening rise	2473 Feb 10 01:42	0° Υ 30'23
asc. node	2472 Mar 06 17:30	1° Υ 35'31		asc. node	2473 Feb 21 14:31	20° Υ 10'17
evening max el	2472 Mar 15 13:18	14° Υ 01'04	18°15'56	evening max el	2473 Feb 27 00:43	27° Υ 05'41 18°07'14
retrograde	2472 Mar 22 15:02	17° Υ 33'03			2473 Mar 03 03:28	0° Υ
evening set	2472 Mar 25 02:17	17° Υ 08'06		retrograde	2473 Mar 05 14:13	0° Υ 29'18
inferior conj	2472 Apr 01 04:32	12° Υ 24'37	3°02'40	evening set	2473 Mar 08 06:41	29° Υ 54'50
minimum elong	2472 Apr 01 07:56	12° Υ 17'14	3°02'00		2473 Mar 08 01:35	30° Υ 18
min. Earth dist.	2472 Apr 04 14:23	9° Υ 28'23	0.59519 AU	inferior conj	2473 Mar 14 18:43	24° Υ 50'16 3°34'00
morning rise	2472 Apr 08 09:52	6° Υ 45'39		minimum elong	2473 Mar 14 20:19	24° Υ 46'16 3°33'51
desc. node	2472 Apr 13 17:11	4° Υ 56'21		min. Earth dist.	2473 Mar 17 19:42	21° Υ 49'06 0.61662 AU
direct	2472 Apr 14 19:46	4° Υ 53'01		morning rise	2473 Mar 21 07:16	18° Υ 53'51
morning max el	2472 Apr 29 03:55	12° Υ 40'29	27°21'23	direct	2473 Mar 28 03:41	16° Υ 29'16
	2472 May 12 20:16	0° Υ		desc. node	2473 Mar 31 14:12	17° Υ 02'36
	2472 May 29 13:26	0° Υ		morning max el	2473 Apr 11 07:27	24° Υ 25'01 27°49'18
morning set	2472 May 30 06:09	1° Υ 26'35			2473 Apr 16 09:07	0° Υ
asc. node	2472 Jun 02 16:46	8° Υ 45'37			2473 May 06 04:04	0° Υ
				morning set	2473 May 14 10:08	15° Υ 54'15
superior conj	2472 Jun 06 10:07	16° Υ 54'04	0°38'26	max. Earth dist.	2473 May 20 07:35	28° Υ 21'11 1.32389 AU
minimum elong	2472 Jun 06 08:30	16° Υ 45'11	0°38'05	asc. node	2473 May 20 13:48	28° Υ 54'53
max. Earth dist.	2472 Jun 05 21:24	15° Υ 44'04	1.32148 AU		2473 May 21 01:47	0° Υ
	2472 Jun 12 10:09	0° Υ				
evening rise	2472 Jun 13 07:28	1° Υ 53'23		superior conj	2473 May 21 20:27	1° Υ 41'46 0°13'27
	2472 Jun 28 12:27	0° Υ		minimum elong	2473 May 21 19:50	1° Υ 38'22 0°13'19
desc. node	2472 Jul 10 16:27	15° Υ 38'37		behind sun begin	2473 May 21 17:02	1° Υ 23'03
evening max el	2472 Jul 11 14:45	16° Υ 33'03	26°00'56	behind sun end	2473 May 21 22:38	1° Υ 53'41
retrograde	2472 Jul 25 14:31	23° Υ 42'35		evening rise	2473 May 28 18:55	16° Υ 45'26
evening set	2472 Jul 31 21:58	22° Υ 06'36			2473 Jun 04 08:19	0° Υ
min. Earth dist.	2472 Aug 05 03:14	19° Υ 30'43	0.58894 AU	evening max el	2473 Jun 23 06:16	27° Υ 23'56 24°37'08
inferior conj	2472 Aug 08 09:58	17° Υ 04'52	-4°-56'-50		2473 Jun 26 05:46	0° Υ
minimum elong	2472 Aug 08 12:23	17° Υ 00'20	4°56'41	desc. node	2473 Jun 27 13:27	0° Υ 58'42
morning rise	2472 Aug 16 06:17	12° Υ 37'49		retrograde	2473 Jul 07 04:16	4° Υ 26'31
direct	2472 Aug 18 16:59	12° Υ 17'51		evening set	2473 Jul 12 05:39	3° Υ 28'50
morning max el	2472 Aug 26 17:50	16° Υ 08'33	18°32'16	min. Earth dist.	2473 Jul 17 17:22	0° Υ 38'20 0.56976 AU
asc. node	2472 Aug 29 15:59	19° Υ 23'11			2473 Jul 18 17:27	30° Υ 18
	2472 Sep 05 12:56	0° Υ		inferior conj	2473 Jul 20 12:59	28° Υ 49'16 -4°-56'-16
morning set	2472 Sep 11 20:45	11° Υ 50'28		minimum elong	2473 Jul 20 10:17	28° Υ 53'39 4°56'06
				morning rise	2473 Jul 28 18:37	24° Υ 44'03
superior conj	2472 Sep 20 18:59	28° Υ 54'41	1°33'55	direct	2473 Jul 31 09:35	24° Υ 25'00
minimum elong	2472 Sep 20 22:00	29° Υ 08'44	1°33'40	morning max el	2473 Aug 09 16:47	28° Υ 45'00 19°24'01
	2472 Sep 21 09:02	0° Υ			2473 Aug 10 22:55	0° Υ
max. Earth dist.	2472 Sep 28 03:33	12° Υ 10'40	1.40017 AU	asc. node	2473 Aug 16 13:01	7° Υ 18'29
evening rise	2472 Oct 02 10:10	19° Υ 28'26		morning set	2473 Aug 26 21:17	26° Υ 12'02
desc. node	2472 Oct 06 15:45	26° Υ 24'58			2473 Aug 28 18:47	0° Υ
	2472 Oct 08 21:46	0° Υ				
	2472 Oct 29 21:39	0° Υ		superior conj	2473 Sep 04 00:18	12° Υ 24'32 1°43'44
evening max el	2472 Nov 06 06:34	8° Υ 23'59	23°47'51	minimum elong	2473 Sep 04 01:27	12° Υ 30'14 1°43'42
retrograde	2472 Nov 17 02:04	14° Υ 46'19		max. Earth dist.	2473 Sep 10 07:18	24° Υ 21'27 1.37957 AU
evening set	2472 Nov 22 04:43	12° Υ 39'47			2473 Sep 13 10:15	0° Υ
asc. node	2472 Nov 25 15:12	8° Υ 55'26		evening rise	2473 Sep 14 02:41	1° Υ 12'40
min. Earth dist.	2472 Nov 27 01:52	7° Υ 00'14	0.67766 AU	desc. node	2473 Sep 23 12:46	16° Υ 58'19
inferior conj	2472 Nov 27 15:32	6° Υ 13'43	0°41'10		2473 Oct 02 03:15	0° Υ
minimum elong	2472 Nov 27 14:34	6° Υ 17'00	0°40'45	evening max el	2473 Oct 19 18:39	22° Υ 02'41 25°04'59
morning rise	2472 Dec 03 00:38	0° Υ 05'42		retrograde	2473 Oct 31 14:40	28° Υ 54'08
	2472 Dec 03 03:42	30° Υ 18		evening set	2473 Nov 06 07:30	26° Υ 31'36
direct	2472 Dec 07 00:18	28° Υ 36'06		min. Earth dist.	2473 Nov 10 20:26	21° Υ 26'31 0.67317 AU
	2472 Dec 11 04:45	0° Υ		inferior conj	2473 Nov 11 20:47	20° Υ 06'45 0°-13'-17
morning max el	2472 Dec 15 05:00	3° Υ 20'10	20°47'41	minimum elong	2473 Nov 11 21:07	20° Υ 05'40 0°13'10
greatest brilliancy	2472 Dec 20 23:19	10° Υ 03'10	-0.5m	transit middle	2473 Nov 11 21:07	20° Υ 05'40 0°13'10
desc. node	2473 Jan 02 15:01	27° Υ 55'25		transit begin	2473 Nov 11 19:30	20° Υ 10'58
	2473 Jan 04 00:25	0° Υ		transit end	2473 Nov 11 22:44	20° Υ 00'21
morning set	2473 Jan 13 15:31	14° Υ 42'41		asc. node	2473 Nov 12 12:14	19° Υ 16'22
max. Earth dist.	2473 Jan 22 07:50	28° Υ 30'04	1.42949 AU	morning rise	2473 Nov 17 11:20	14° Υ 05'36
	2473 Jan 23 05:57	0° Υ		direct	2473 Nov 20 22:31	12° Υ 56'19
				morning max el	2473 Nov 28 06:59	17° Υ 06'06 19°40'22
superior conj	2473 Jan 29 02:43	9° Υ 43'13	-2°-4'-43	greatest brilliancy	2473 Dec 06 08:09	27° Υ 07'21 -0.6m
minimum elong	2473 Jan 29 00:57	9° Υ 35'43	2°04'42		2473 Dec 08 08:34	0° Υ

desc. node	2473 Dec 20 12:03	18°♄17'01		direct	2474 Nov 04 20:57	27°♂14'16	
morning set	2473 Dec 23 12:00	22°♄54'19			2474 Nov 10 14:42	0°♂	
	2473 Dec 28 01:46	0°♄		morning max el	2474 Nov 11 16:03	1°♂00'10	18°48'10
max. Earth dist.	2474 Jan 04 19:38	12°♄10'07	1.44346 AU		2474 Dec 01 18:16	0°♄	
				morning set	2474 Dec 03 01:33	2°♄03'16	
superior conj	2474 Jan 09 05:36	19°♄13'34	-1°-49'-40	desc. node	2474 Dec 07 09:04	8°♄50'55	
minimum elong	2474 Jan 08 22:20	18°♄44'19	1°49'10	max. Earth dist.	2474 Dec 18 12:33	26°♄21'05	1.45083 AU
	2474 Jan 15 20:09	0°♄					
evening rise	2474 Jan 23 00:09	11°♄59'28		superior conj	2474 Dec 19 11:47	27°♄52'25	-1°-15'-41
	2474 Feb 02 19:47	0°♄		minimum elong	2474 Dec 19 03:09	27°♄18'30	1°14'45
asc. node	2474 Feb 08 11:33	8°♄04'10			2474 Dec 20 20:14	0°♄	
evening max el	2474 Feb 10 13:17	10°♄23'40	18°17'35	evening rise	2475 Jan 03 23:50	22°♄31'25	
retrograde	2474 Feb 17 00:21	13°♄52'15			2475 Jan 08 15:00	0°♄	
evening set	2474 Feb 19 22:02	13°♄07'13		evening max el	2475 Jan 25 00:32	23°♄49'59	18°46'08
inferior conj	2474 Feb 25 23:32	7°♄42'59	3°41'52	asc. node	2475 Jan 26 08:35	25°♄05'47	
minimum elong	2474 Feb 25 23:17	7°♄43'43	3°41'51	retrograde	2475 Jan 31 17:27	27°♄34'53	
min. Earth dist.	2474 Feb 28 10:21	4°♄58'47	0.63636 AU	evening set	2475 Feb 03 21:05	26°♄38'09	
morning rise	2474 Mar 03 22:44	1°♄36'36		inferior conj	2475 Feb 09 15:12	20°♄56'06	3°32'23
	2474 Mar 06 09:08	30°♄		minimum elong	2475 Feb 09 13:34	21°♄01'06	3°32'11
direct	2474 Mar 10 20:19	28°♄51'39		min. Earth dist.	2475 Feb 11 10:27	18°♄43'48	0.65277 AU
	2474 Mar 15 15:18	0°♄		morning rise	2475 Feb 15 04:54	14°♄44'19	
desc. node	2474 Mar 18 11:15	1°♄35'23		direct	2475 Feb 21 20:08	11°♄53'43	
morning max el	2474 Mar 24 15:26	6°♄47'44	27°39'48	desc. node	2475 Mar 05 08:17	18°♄00'04	
	2474 Apr 11 09:31	0°♄		morning max el	2475 Mar 07 01:08	19°♄38'51	26°57'08
morning set	2474 Apr 28 07:13	29°♄57'28			2475 Mar 15 21:33	0°♄	
	2474 Apr 28 07:44	0°♄			2475 Apr 04 10:23	0°♄	
max. Earth dist.	2474 May 03 11:29	10°♄34'13	1.33045 AU	morning set	2475 Apr 11 18:18	13°♄26'58	
				max. Earth dist.	2475 Apr 16 05:31	22°♄14'50	1.34159 AU
superior conj	2474 May 06 03:35	16°♄15'02	0°-13'-39				
minimum elong	2474 May 06 04:16	16°♄18'39	0°13'31	superior conj	2475 Apr 20 05:30	0°♄28'02	0°-41'-50
behind sun begin	2474 May 06 01:25	16°♄03'25		minimum elong	2475 Apr 20 07:39	0°♄39'12	0°41'25
behind sun end	2474 May 06 07:06	16°♄33'53			2475 Apr 20 00:08	0°♄	
asc. node	2474 May 07 10:50	19°♄03'00		asc. node	2475 Apr 24 07:53	9°♄06'10	
	2474 May 12 12:59	0°♄		evening rise	2475 Apr 27 16:48	16°♄11'54	
evening rise	2474 May 13 06:37	1°♄33'28			2475 May 04 16:10	0°♄	
	2474 May 29 03:29	0°♄		evening max el	2475 May 17 15:27	18°♄30'11	21°28'40
evening max el	2474 Jun 04 19:56	7°♄52'14	23°01'25	retrograde	2475 May 29 20:17	24°♄28'56	
desc. node	2474 Jun 14 10:28	14°♄00'18		evening set	2475 Jun 01 06:30	24°♄15'33	
retrograde	2474 Jun 18 05:41	14°♄33'15		desc. node	2475 Jun 01 07:31	24°♄15'05	
evening set	2474 Jun 21 18:49	14°♄05'40		inferior conj	2475 Jun 10 15:35	20°♄15'41	-2°-38'-56
min. Earth dist.	2474 Jun 29 05:06	10°♄46'05	0.55536 AU	minimum elong	2475 Jun 10 08:32	20°♄25'33	2°36'38
inferior conj	2474 Jun 30 20:34	9°♄48'48	-4°-11'-18	min. Earth dist.	2475 Jun 10 16:51	20°♄13'54	0.54899 AU
minimum elong	2474 Jun 30 13:07	9°♄59'39	4°09'43	morning rise	2475 Jun 19 11:05	16°♄19'39	
morning rise	2474 Jul 09 10:21	5°♄56'24		direct	2475 Jun 22 17:59	15°♄56'06	
direct	2474 Jul 12 07:17	5°♄36'50		morning max el	2475 Jul 05 05:05	21°♄49'44	22°08'20
morning max el	2474 Jul 23 04:36	10°♄39'37	20°37'00		2475 Jul 12 05:16	0°♄	
asc. node	2474 Aug 03 10:04	25°♄56'29		asc. node	2475 Jul 21 07:08	15°♄06'35	
	2474 Aug 05 15:46	0°♄		morning set	2475 Jul 26 13:28	25°♄40'57	
morning set	2474 Aug 11 03:35	10°♄51'00			2475 Jul 28 14:42	0°♄	
superior conj	2474 Aug 18 17:39	26°♄30'33	1°44'58	superior conj	2475 Aug 02 19:20	11°♄01'23	1°39'15
minimum elong	2474 Aug 18 17:10	26°♄28'07	1°44'59	minimum elong	2475 Aug 02 17:42	10°♄52'44	1°39'09
	2474 Aug 20 11:01	0°♄		max. Earth dist.	2475 Aug 06 05:37	18°♄09'20	1.34495 AU
max. Earth dist.	2474 Aug 23 14:16	6°♄12'16	1.36062 AU	evening rise	2475 Aug 10 21:13	27°♄26'03	
evening rise	2474 Aug 27 15:54	13°♄56'05			2475 Aug 12 05:16	0°♄	
	2474 Sep 05 20:18	0°♄		desc. node	2475 Aug 28 06:49	27°♄17'05	
desc. node	2474 Sep 10 09:47	7°♄17'59			2475 Aug 30 02:57	0°♄	
	2474 Sep 26 22:52	0°♄		evening max el	2475 Sep 14 19:14	19°♄17'11	27°00'51
evening max el	2474 Oct 02 06:46	5°♄42'58	26°11'53	retrograde	2475 Sep 28 00:40	26°♄34'04	
retrograde	2474 Oct 14 22:28	12°♄52'29		evening set	2475 Oct 04 19:43	23°♄52'15	
evening set	2474 Oct 21 05:15	10°♄17'21		min. Earth dist.	2475 Oct 08 18:15	19°♄59'51	0.65398 AU
min. Earth dist.	2474 Oct 25 10:42	5°♄48'13	0.66529 AU	inferior conj	2475 Oct 10 17:49	17°♄43'59	-2°-10'-5
inferior conj	2474 Oct 26 22:15	3°♄58'23	-1°-10'-56	minimum elong	2475 Oct 10 21:20	17°♄33'55	2°08'43
minimum elong	2474 Oct 27 00:08	3°♄52'33	1°10'10	morning rise	2475 Oct 17 00:35	12°♄05'14	
asc. node	2474 Oct 30 09:17	0°♄01'57		asc. node	2475 Oct 17 06:21	11°♄58'31	
	2474 Oct 30 10:05	30°♄		direct	2475 Oct 19 17:28	11°♄25'28	
morning rise	2474 Nov 01 20:06	28°♄06'52		morning max el	2475 Oct 26 06:03	14°♄56'54	18°12'20

	2475 Nov 06 01:48	0°♄		morning rise	2476 Sep 29 21:57	25°♄55'57	
morning set	2475 Nov 13 19:56	12°♄39'10		direct	2476 Oct 02 09:27	25°♄25'24	
desc. node	2475 Nov 24 06:05	29°♄32'34		asc. node	2476 Oct 03 03:24	25°♄28'13	
	2475 Nov 24 12:57	0°♄		morning max el	2476 Oct 08 22:19	28°♄50'53	17°53'47
					2476 Oct 10 00:25	0°♄	
superior conj	2475 Nov 28 14:42	6°♄28'21	0°-29'-5	morning set	2476 Oct 25 17:28	24°♄34'17	
minimum elong	2475 Nov 28 10:59	6°♄13'36	0°28'35		2476 Oct 28 21:30	0°♄	
max. Earth dist.	2475 Dec 01 07:49	10°♄45'03	1.45087 AU				
	2475 Dec 13 15:29	0°♄		superior conj	2476 Nov 07 11:00	15°♄58'44	0°18'08
evening rise	2475 Dec 15 00:53	2°♄09'57		minimum elong	2476 Nov 07 12:58	16°♄06'49	0°17'52
greatest brilliancy	2475 Dec 31 02:08	26°♄43'30	-0.7m	desc. node	2476 Nov 10 03:08	20°♄18'58	
	2476 Jan 02 09:34	0°♄		max. Earth dist.	2476 Nov 13 02:11	25°♄03'42	1.44363 AU
evening max el	2476 Jan 08 08:11	7°♄19'26	19°31'33		2476 Nov 16 05:03	0°♄	
asc. node	2476 Jan 13 05:39	11°♄00'17		evening rise	2476 Nov 23 11:19	11°♄17'37	
retrograde	2476 Jan 15 14:16	11°♄30'36			2476 Dec 05 20:12	0°♄	
evening set	2476 Jan 19 01:06	10°♄20'50		greatest brilliancy	2476 Dec 15 11:14	13°♄40'16	-0.5m
inferior conj	2476 Jan 24 14:23	4°♄23'12	3°09'57	evening max el	2476 Dec 21 10:43	20°♄49'55	20°31'38
minimum elong	2476 Jan 24 11:59	4°♄31'02	3°09'27	retrograde	2476 Dec 29 12:16	25°♄35'16	
min. Earth dist.	2476 Jan 25 18:47	2°♄50'23	0.66511 AU	asc. node	2476 Dec 30 02:41	25°♄33'15	
	2476 Jan 28 02:23	30°♄		evening set	2477 Jan 02 07:56	24°♄11'05	
morning rise	2476 Jan 29 22:08	28°♄08'45		inferior conj	2477 Jan 07 18:27	18°♄00'43	2°37'35
direct	2476 Feb 05 01:49	25°♄25'32		minimum elong	2477 Jan 07 15:52	18°♄09'33	2°36'51
	2476 Feb 14 11:25	0°♄		min. Earth dist.	2477 Jan 08 09:34	17°♄09'12	0.67335 AU
morning max el	2476 Feb 17 10:25	2°♄46'14	25°49'19	morning rise	2477 Jan 12 23:19	11°♄45'26	
desc. node	2476 Feb 20 05:19	5°♄44'46		direct	2477 Jan 18 12:41	9°♄18'44	
	2476 Mar 09 02:35	0°♄		morning max el	2477 Jan 29 18:57	16°♄01'49	24°26'00
morning set	2476 Mar 24 15:13	26°♄10'32		desc. node	2477 Feb 06 02:21	24°♄26'28	
	2476 Mar 26 16:36	0°♄			2477 Feb 10 07:52	0°♄	
max. Earth dist.	2476 Mar 28 12:04	3°♄26'14	1.35728 AU		2477 Mar 02 01:46	0°♄	
				morning set	2477 Mar 06 16:23	7°♄52'38	
superior conj	2476 Apr 02 23:38	14°♄13'28	-1°-9'-39	max. Earth dist.	2477 Mar 10 09:42	14°♄30'00	1.37681 AU
minimum elong	2476 Apr 03 03:09	14°♄31'13	1°09'04				
asc. node	2476 Apr 10 04:58	29°♄00'21		superior conj	2477 Mar 17 06:38	27°♄21'52	-1°-35'-1
evening rise	2476 Apr 10 23:23	0°♄34'35		minimum elong	2477 Mar 17 11:00	27°♄42'55	1°34'30
	2476 Apr 10 16:37	0°♄			2477 Mar 18 15:16	0°♄	
evening max el	2476 Apr 28 21:57	29°♄41'31	20°09'46	evening rise	2477 Mar 25 23:57	14°♄33'59	
	2476 Apr 29 05:41	0°♄		asc. node	2477 Mar 28 02:01	18°♄40'21	
retrograde	2476 May 09 10:21	4°♄47'27			2477 Apr 03 05:06	0°♄	
evening set	2476 May 11 10:49	4°♄37'00		evening max el	2477 Apr 11 16:00	11°♄32'32	19°09'40
desc. node	2476 May 18 04:32	1°♄58'06		retrograde	2477 Apr 20 12:43	15°♄50'34	
inferior conj	2476 May 20 11:36	0°♄38'11	0°-40'-19	evening set	2477 Apr 22 14:55	15°♄37'12	
minimum elong	2476 May 20 09:43	0°♄40'58	0°39'39	inferior conj	2477 Apr 30 22:04	11°♄25'32	1°10'19
	2476 May 21 13:16	30°♄		minimum elong	2477 May 01 00:46	11°♄20'56	1°09'24
min. Earth dist.	2476 May 22 05:44	29°♄35'41	0.55223 AU	min. Earth dist.	2477 May 03 20:51	9°♄25'58	0.56442 AU
morning rise	2476 May 29 06:17	26°♄19'32		desc. node	2477 May 05 01:34	8°♄40'21	
direct	2476 Jun 02 06:22	25°♄44'43		morning rise	2477 May 09 06:29	6°♄32'24	
	2476 Jun 13 01:17	0°♄		direct	2477 May 14 06:11	5°♄34'33	
morning max el	2476 Jun 15 21:33	2°♄26'09	23°50'08	morning max el	2477 May 28 12:00	12°♄52'24	25°28'55
	2476 Jul 04 19:23	0°♄			2477 Jun 10 20:13	0°♄	
asc. node	2476 Jul 07 04:12	4°♄40'35		asc. node	2477 Jun 24 01:15	24°♄30'57	
morning set	2476 Jul 10 01:08	10°♄36'49		morning set	2477 Jun 24 12:51	25°♄32'00	
					2477 Jun 26 15:02	0°♄	
superior conj	2476 Jul 17 02:33	25°♄48'34	1°27'50				
minimum elong	2476 Jul 17 00:17	25°♄36'21	1°27'34	superior conj	2477 Jul 01 12:58	10°♄43'41	1°11'41
	2476 Jul 19 01:23	0°♄		minimum elong	2477 Jul 01 10:35	10°♄30'41	1°11'17
max. Earth dist.	2476 Jul 19 06:15	0°♄25'59	1.33322 AU	max. Earth dist.	2477 Jul 02 13:57	13°♄00'20	1.32552 AU
evening rise	2476 Jul 24 14:25	11°♄30'51		evening rise	2477 Jul 08 15:54	25°♄58'56	
	2476 Aug 03 11:47	0°♄			2477 Jul 10 15:14	0°♄	
desc. node	2476 Aug 14 03:51	16°♄46'53			2477 Jul 27 23:36	0°♄	
	2476 Aug 24 17:43	0°♄		desc. node	2477 Aug 01 00:53	5°♄34'08	
evening max el	2476 Aug 27 06:46	2°♄33'41	27°24'44	evening max el	2477 Aug 09 14:53	15°♄17'58	27°18'01
retrograde	2476 Sep 09 20:50	9°♄51'09		retrograde	2477 Aug 23 10:25	22°♄33'22	
evening set	2476 Sep 17 00:07	7°♄11'41		evening set	2477 Aug 30 14:46	20°♄08'20	
min. Earth dist.	2476 Sep 20 16:50	3°♄54'07	0.63917 AU	min. Earth dist.	2477 Sep 03 04:57	17°♄18'33	0.62107 AU
inferior conj	2476 Sep 23 05:01	1°♄18'23	-3°-8'-9	inferior conj	2477 Sep 06 04:46	14°♄33'20	-4°-1'-11
minimum elong	2476 Sep 23 09:56	1°♄05'37	3°06'32	minimum elong	2477 Sep 06 10:16	14°♄20'39	3°59'50
	2476 Sep 24 11:42	30°♄		morning rise	2477 Sep 13 08:35	9°♄30'40	

direct	2477 Sep 15 17:22	9° \cap 06'14		inferior conj	2478 Aug 19 13:41	27° Ω 20'16	-4°-42'-27
asc. node	2477 Sep 20 00:26	10° \cap 29'16		minimum elong	2478 Aug 19 17:58	27° Ω 11'34	4°41'52
morning max el	2477 Sep 22 13:48	12° \cap 34'16	17°53'22	morning rise	2478 Aug 27 04:14	22° Ω 39'55	
	2477 Oct 04 07:47	0° $\underline{\cap}$		direct	2478 Aug 29 13:14	22° Ω 19'01	
morning set	2477 Oct 08 11:52	7° $\underline{\cap}$ 28'45		morning max el	2478 Sep 06 01:20	25° Ω 58'46	18°12'12
				asc. node	2478 Sep 06 21:28	26° Ω 49'43	
superior conj	2477 Oct 19 09:59	26° $\underline{\cap}$ 48'10	0°56'47		2478 Sep 09 12:47	0° \cap	
minimum elong	2477 Oct 19 14:22	27° $\underline{\cap}$ 06'58	0°56'12	morning set	2478 Sep 21 21:18	21° \cap 06'01	
	2477 Oct 21 07:02	0° \cap			2478 Sep 26 14:44	0° $\underline{\cap}$	
max. Earth dist.	2477 Oct 26 16:28	8° \cap 57'40	1.42998 AU				
desc. node	2477 Oct 28 00:10	11° \cap 06'31		superior conj	2478 Oct 01 10:13	8° $\underline{\cap}$ 51'27	1°23'39
evening rise	2477 Nov 02 22:30	20° \cap 32'30		minimum elong	2478 Oct 01 14:09	9° $\underline{\cap}$ 09'12	1°23'15
	2477 Nov 09 01:58	0° \sphericalcap		max. Earth dist.	2478 Oct 09 01:01	22° $\underline{\cap}$ 11'56	1.41175 AU
greatest brilliancy	2477 Nov 29 11:30	28° \sphericalcap 50'24	-0.4m		2478 Oct 13 17:41	0° \cap	
	2477 Nov 30 10:16	0° \sphericalcap		evening rise	2478 Oct 14 01:57	0° \cap 33'39	
evening max el	2477 Dec 04 07:33	4° \sphericalcap 21'18	21°43'15	desc. node	2478 Oct 14 21:12	1° \cap 51'36	
retrograde	2477 Dec 13 09:26	9° \sphericalcap 45'29			2478 Nov 02 13:50	0° \sphericalcap	
asc. node	2477 Dec 16 23:41	8° \sphericalcap 34'50		greatest brilliancy	2478 Nov 11 09:55	11° \sphericalcap 39'02	-0.2m
evening set	2477 Dec 17 15:44	8° \sphericalcap 05'35		evening max el	2478 Nov 16 23:32	17° \sphericalcap 54'45	23°01'54
inferior conj	2477 Dec 23 01:13	1° \sphericalcap 45'58	1°57'19	retrograde	2478 Nov 27 04:08	23° \sphericalcap 57'30	
minimum elong	2477 Dec 22 22:56	1° \sphericalcap 53'54	1°56'31	evening set	2478 Dec 01 22:49	22° \sphericalcap 00'56	
min. Earth dist.	2477 Dec 23 04:32	1° \sphericalcap 34'28	0.67775 AU	asc. node	2478 Dec 03 20:42	20° \sphericalcap 08'11	
	2477 Dec 24 08:03	30° \sphericalcap		inferior conj	2478 Dec 07 08:47	15° \sphericalcap 36'01	1°10'34
morning rise	2477 Dec 28 05:54	25° \sphericalcap 31'40		minimum elong	2478 Dec 07 07:13	15° \sphericalcap 41'24	1°09'57
direct	2478 Jan 02 04:06	23° \sphericalcap 26'22		min. Earth dist.	2478 Dec 07 01:15	16° \sphericalcap 01'58	0.67862 AU
morning max el	2478 Jan 12 04:34	29° \sphericalcap 22'57	22°57'20	morning rise	2478 Dec 12 15:37	9° \sphericalcap 24'50	
	2478 Jan 12 19:02	0° \sphericalcap		direct	2478 Dec 16 23:11	7° \sphericalcap 42'21	
greatest brilliancy	2478 Jan 16 22:39	4° \sphericalcap 41'26	-0.3m	morning max el	2478 Dec 25 18:35	12° \sphericalcap 51'19	21°32'14
desc. node	2478 Jan 23 23:23	13° \sphericalcap 48'58		greatest brilliancy	2478 Dec 30 18:14	18° \sphericalcap 31'19	-0.4m
	2478 Feb 04 03:08	0° \approx			2479 Jan 08 07:01	0° \sphericalcap	
morning set	2478 Feb 15 15:40	18° \approx 17'33		desc. node	2479 Jan 10 20:24	3° \sphericalcap 40'23	
max. Earth dist.	2478 Feb 20 04:54	25° \approx 58'52	1.39831 AU	morning set	2479 Jan 26 09:46	27° \sphericalcap 19'13	
	2478 Feb 22 12:24	0° X			2479 Jan 28 02:08	0° \approx	
				max. Earth dist.	2479 Feb 02 04:38	8° \approx 17'56	1.41907 AU
superior conj	2478 Feb 27 22:18	9° X 42'42	-1°-54'-56				
minimum elong	2478 Feb 28 02:10	10° X 00'28	1°54'41	superior conj	2479 Feb 09 17:29	21° \approx 03'31	-2°-5'-12
evening rise	2478 Mar 09 15:32	28° X 02'16		minimum elong	2479 Feb 09 18:33	21° \approx 08'07	2°05'11
	2478 Mar 10 16:13	0° Υ			2479 Feb 14 19:04	0° X	
asc. node	2478 Mar 14 23:03	8° Υ 00'41		evening rise	2479 Feb 20 18:25	10° X 50'23	
evening max el	2478 Mar 25 19:24	23° Υ 59'24	18°29'47	asc. node	2479 Mar 01 20:03	26° X 54'11	
retrograde	2478 Apr 02 09:33	27° Υ 43'28			2479 Mar 03 19:08	0° Υ	
evening set	2478 Apr 04 17:19	27° Υ 23'33		evening max el	2479 Mar 09 04:51	6° Υ 52'52	18°09'53
inferior conj	2478 Apr 12 05:28	22° Υ 52'37	2°31'15	retrograde	2479 Mar 16 00:03	10° Υ 19'15	
minimum elong	2478 Apr 12 09:23	22° Υ 44'49	2°30'16	evening set	2479 Mar 18 13:34	9° Υ 50'27	
min. Earth dist.	2478 Apr 15 15:48	20° Υ 10'12	0.58298 AU	inferior conj	2479 Mar 25 09:21	4° Υ 58'13	3°19'14
morning rise	2478 Apr 19 21:10	17° Υ 27'25		minimum elong	2479 Mar 25 12:03	4° Υ 51'57	3°18'49
desc. node	2478 Apr 21 22:35	16° Υ 35'16		min. Earth dist.	2479 Mar 28 16:37	1° Υ 56'36	0.60442 AU
direct	2478 Apr 25 20:31	15° Υ 55'31			2479 Mar 31 02:20	30° \sphericalcap	
morning max el	2478 May 10 05:51	23° Υ 36'10	26°48'54	morning rise	2479 Apr 01 07:14	29° X 10'47	
	2478 May 16 00:10	0° X		direct	2479 Apr 07 23:00	27° X 03'06	
	2478 Jun 03 19:59	0° Π		desc. node	2479 Apr 08 19:36	27° X 05'09	
morning set	2478 Jun 08 22:58	10° Π 21'10			2479 Apr 16 07:48	0° Υ	
asc. node	2478 Jun 10 22:18	14° Π 32'21		morning max el	2479 Apr 22 05:36	4° Υ 55'22	27°37'44
					2479 May 10 20:41	0° X	
superior conj	2478 Jun 16 00:41	25° Π 40'33	0°51'33	morning set	2479 May 24 05:45	24° X 58'11	
minimum elong	2478 Jun 15 22:41	25° Π 29'28	0°51'09		2479 May 26 15:16	0° Π	
max. Earth dist.	2478 Jun 16 01:26	25° Π 44'35	1.32180 AU	asc. node	2479 May 28 19:21	4° Π 39'50	
	2478 Jun 17 23:51	0° S		max. Earth dist.	2479 May 30 13:04	8° Π 27'12	1.32198 AU
evening rise	2478 Jun 22 22:59	10° S 42'01					
	2478 Jul 02 21:31	0° Ω		superior conj	2479 May 31 12:02	10° Π 33'08	0°28'08
desc. node	2478 Jul 18 21:54	23° Ω 21'20		minimum elong	2479 May 31 10:48	10° Π 26'21	0°27'53
evening max el	2478 Jul 22 17:13	27° Ω 19'17	26°38'07	evening rise	2479 Jun 07 09:24	25° Π 32'39	
	2478 Jul 25 19:23	0° \cap			2479 Jun 09 12:32	0° S	
retrograde	2478 Aug 05 16:25	4° \cap 31'49			2479 Jun 27 01:18	0° Ω	
evening set	2478 Aug 12 11:04	2° \cap 34'52		evening max el	2479 Jul 04 12:33	8° Ω 34'26	25°27'51
	2478 Aug 16 06:20	30° \sphericalcap		desc. node	2479 Jul 05 18:54	9° Ω 44'14	
min. Earth dist.	2478 Aug 16 06:54	29° Ω 58'54	0.60076 AU	retrograde	2479 Jul 18 12:44	15° Ω 41'59	

evening set	2479 Jul 24 08:33	14°♂22'47		desc. node	2480 Jun 21 15:54	24°♂09'55	
min. Earth dist.	2479 Jul 29 00:37	11°♂42'30	0.58035 AU	retrograde	2480 Jun 28 20:52	26°♂07'28	
inferior conj	2479 Aug 01 04:22	9°♂30'13	-5°-1'-16	evening set	2480 Jul 03 06:54	25°♂24'25	
minimum elong	2479 Aug 01 04:50	9°♂29'23	5°01'17	min. Earth dist.	2480 Jul 09 13:13	22°♂23'13	0.56284 AU
morning rise	2479 Aug 09 04:44	5°♂12'42		inferior conj	2480 Jul 11 22:47	20°♂55'06	-4°-43'-17
direct	2479 Aug 11 16:54	4°♂53'18		minimum elong	2480 Jul 11 17:43	21°♂02'55	4°42'38
morning max el	2479 Aug 20 05:42	8°♂55'25	18°51'38	morning rise	2480 Jul 20 07:59	16°♂56'43	
asc. node	2479 Aug 24 18:31	14°♂14'44		direct	2480 Jul 23 01:30	16°♂37'30	
	2479 Sep 03 00:34	0°♂		morning max el	2480 Aug 02 00:00	21°♂14'09	19°52'34
morning set	2479 Sep 05 17:22	5°♂14'32			2480 Aug 09 01:49	0°♂	
				asc. node	2480 Aug 10 15:35	2°♂29'29	
superior conj	2479 Sep 14 06:31	21°♂54'13	1°39'14	morning set	2480 Aug 19 20:41	19°♂44'26	
minimum elong	2479 Sep 14 08:46	22°♂04'52	1°39'06		2480 Aug 24 21:45	0°♂	
	2479 Sep 18 14:34	0°♂					
max. Earth dist.	2479 Sep 21 05:38	4°♂44'33	1.39133 AU	superior conj	2480 Aug 27 17:29	5°♂40'39	1°45'12
evening rise	2479 Sep 25 05:02	11°♂40'44		minimum elong	2480 Aug 27 17:54	5°♂42'45	1°45'12
desc. node	2479 Oct 01 18:13	22°♂30'47		max. Earth dist.	2480 Sep 02 10:31	16°♂45'35	1.37121 AU
	2479 Oct 06 13:06	0°♂		evening rise	2480 Sep 06 06:54	23°♂51'17	
	2479 Oct 29 00:31	0°♂			2480 Sep 09 18:28	0°♂	
evening max el	2479 Oct 30 12:41	1°♂32'36	24°21'31	desc. node	2480 Sep 17 15:15	12°♂58'57	
retrograde	2479 Nov 10 19:08	8°♂08'14			2480 Sep 29 05:51	0°♂	
evening set	2479 Nov 16 03:40	5°♂54'58		evening max el	2480 Oct 12 00:48	15°♂12'50	25°35'10
asc. node	2479 Nov 20 17:43	0°♂41'45		retrograde	2480 Oct 24 05:35	22°♂12'29	
min. Earth dist.	2479 Nov 20 21:19	0°♂29'43	0.67615 AU	evening set	2480 Oct 30 04:32	19°♂44'05	
	2479 Nov 21 06:11	30°♂		min. Earth dist.	2480 Nov 03 14:17	14°♂54'15	0.67029 AU
inferior conj	2479 Nov 21 15:24	29°♂29'00	0°18'36	inferior conj	2480 Nov 04 19:17	13°♂21'27	0°-37'-24
minimum elong	2479 Nov 21 14:57	29°♂30'31	0°18'24	minimum elong	2480 Nov 04 20:15	13°♂18'22	0°37'00
morning rise	2479 Nov 27 02:34	23°♂23'22		asc. node	2480 Nov 06 14:46	11°♂05'48	
direct	2479 Nov 30 20:46	22°♂02'34		morning rise	2480 Nov 10 12:43	7°♂24'07	
morning max el	2479 Dec 08 15:54	26°♂30'40	20°17'18	direct	2480 Nov 13 19:21	6°♂22'14	
	2479 Dec 11 19:19	0°♂		morning max el	2480 Nov 20 21:05	10°♂20'10	19°16'15
greatest brilliancy	2479 Dec 15 05:40	4°♂22'01	-0.5m	greatest brilliancy	2480 Nov 30 18:34	23°♂10'44	-0.7m
desc. node	2479 Dec 28 17:27	23°♂53'00			2480 Dec 05 07:34	0°♂	
	2480 Jan 01 18:01	0°♂		morning set	2480 Dec 14 08:53	13°♂58'28	
morning set	2480 Jan 05 07:39	5°♂29'18		desc. node	2480 Dec 14 14:30	14°♂20'18	
max. Earth dist.	2480 Jan 15 12:37	21°♂33'22	1.43623 AU		2480 Dec 24 15:26	0°♂	
	2480 Jan 20 17:24	0°♂		max. Earth dist.	2480 Dec 28 03:31	5°♂30'44	1.44751 AU
superior conj	2480 Jan 21 11:36	1°♂14'54	-2°00'-42	superior conj	2480 Dec 31 04:16	10°♂18'50	-1°-37'-24
minimum elong	2480 Jan 21 07:23	0°♂57'31	2°00'32	minimum elong	2480 Dec 30 19:35	9°♂44'21	1°36'39
evening rise	2480 Feb 03 04:30	22°♂50'31			2481 Jan 12 08:26	0°♂	
	2480 Feb 07 07:17	0°♂		evening rise	2481 Jan 14 17:34	3°♂55'44	
asc. node	2480 Feb 16 17:03	15°♂12'46			2481 Jan 31 06:30	0°♂	
evening max el	2480 Feb 20 17:11	20°♂04'21	18°09'20	asc. node	2481 Feb 02 14:05	2°♂46'07	
retrograde	2480 Feb 27 04:20	23°♂28'07		evening max el	2481 Feb 03 05:31	3°♂26'40	18°27'32
evening set	2480 Feb 29 23:07	22°♂49'07		retrograde	2481 Feb 09 18:02	7°♂00'49	
inferior conj	2480 Mar 07 06:15	17°♂36'00	3°39'46	evening set	2481 Feb 12 18:11	6°♂10'49	
minimum elong	2480 Mar 07 07:02	17°♂33'58	3°39'43	inferior conj	2481 Feb 18 16:09	0°♂38'27	3°39'39
min. Earth dist.	2480 Mar 10 01:36	14°♂39'54	0.62547 AU	minimum elong	2481 Feb 18 15:15	0°♂41'07	3°39'36
morning rise	2480 Mar 13 12:42	11°♂34'55			2481 Feb 19 05:16	30°♂	
direct	2480 Mar 20 10:51	8°♂59'58		min. Earth dist.	2481 Feb 20 20:13	28°♂06'49	0.64381 AU
desc. node	2480 Mar 25 16:38	10°♂17'35		morning rise	2481 Feb 24 10:52	24°♂29'25	
morning max el	2480 Apr 03 11:06	16°♂56'04	27°49'34	direct	2481 Mar 03 06:27	21°♂40'42	
	2480 Apr 14 07:03	0°♂		desc. node	2481 Mar 12 13:41	25°♂42'34	
	2480 May 02 13:35	0°♂		morning max el	2481 Mar 16 20:17	29°♂32'59	27°25'23
morning set	2480 May 07 07:07	9°♂16'00			2481 Mar 17 06:57	0°♂	
max. Earth dist.	2480 May 12 21:04	20°♂55'20	1.32619 AU		2481 Apr 08 04:55	0°♂	
				morning set	2481 Apr 21 00:28	23°♂06'43	
superior conj	2480 May 14 21:15	25°♂15'16	0°02'09		2481 Apr 24 11:02	0°♂	
minimum elong	2480 May 14 21:09	25°♂14'43	0°02'09	max. Earth dist.	2481 Apr 25 21:31	2°♂57'15	1.33468 AU
behind sun begin	2480 May 14 16:00	24°♂46'47					
behind sun end	2480 May 15 02:18	25°♂42'41		superior conj	2481 Apr 29 02:30	9°♂41'13	0°-25'-32
asc. node	2480 May 14 16:23	24°♂48'50		minimum elong	2481 Apr 29 03:47	9°♂48'02	0°25'16
	2480 May 17 01:37	0°♂		asc. node	2481 May 01 13:26	14°♂55'37	
evening rise	2480 May 21 21:12	10°♂23'47		evening rise	2481 May 06 08:35	25°♂09'18	
	2480 May 31 23:10	0°♂			2481 May 08 16:38	0°♂	
evening max el	2480 Jun 15 02:39	19°♂12'32	23°57'00	evening max el	2481 May 27 17:50	29°♂41'02	22°20'44

	2481 May 28 01:44	0°☿			2482 May 01 13:34	0°♊	
desc. node	2481 Jun 08 12:55	6°☿03'26		evening max el	2482 May 09 17:31	10°♊30'42	20°52'57
retrograde	2481 Jun 09 17:01	6°☿06'35		retrograde	2482 May 21 06:17	16°♊08'00	
evening set	2481 Jun 12 17:02	5°☿46'40		evening set	2482 May 23 10:07	15°♊56'56	
min. Earth dist.	2481 Jun 21 00:26	2°☿11'10	0.55156 AU	desc. node	2482 May 26 09:57	15°♊07'58	
inferior conj	2481 Jun 21 23:45	1°☿38'14	-3°-37'-16	inferior conj	2482 Jun 01 17:21	11°♊59'16	-1°-49'-49
minimum elong	2481 Jun 21 15:41	1°☿49'39	3°35'07	minimum elong	2482 Jun 01 12:12	12°♊06'36	1°48'01
	2481 Jun 24 23:29	30°♊		min. Earth dist.	2482 Jun 02 12:43	11°♊31'44	0.54918 AU
morning rise	2481 Jun 30 16:32	27°♊47'08		morning rise	2482 Jun 10 13:35	7°♊55'36	
direct	2481 Jul 03 17:06	27°♊26'30		direct	2482 Jun 14 02:25	7°♊28'40	
	2481 Jul 11 16:30	0°☿		morning max el	2482 Jun 27 03:34	13°♊43'55	22°51'01
morning max el	2481 Jul 15 06:53	2°☿49'43	21°13'59		2482 Jul 09 12:42	0°☿	
asc. node	2481 Jul 28 12:41	21°☿22'23		asc. node	2482 Jul 15 09:45	10°☿43'13	
	2481 Aug 02 00:07	0°♊		morning set	2482 Jul 19 15:37	19°☿21'47	
morning set	2481 Aug 04 04:47	4°♊28'59			2482 Jul 24 15:21	0°♊	
superior conj	2481 Aug 11 14:49	19°♊58'34	1°43'19	superior conj	2482 Jul 26 19:11	4°♊37'18	1°35'03
minimum elong	2481 Aug 11 13:47	19°♊53'13	1°43'17	minimum elong	2482 Jul 26 17:13	4°♊26'49	1°34'52
max. Earth dist.	2481 Aug 15 20:47	28°♊36'50	1.35350 AU	max. Earth dist.	2482 Jul 29 15:52	10°♊39'46	1.33943 AU
	2481 Aug 16 13:34	0°♊		evening rise	2482 Aug 03 14:22	20°♊41'28	
evening rise	2481 Aug 20 03:33	6°♊55'40			2482 Aug 08 11:39	0°♊	
	2481 Sep 02 11:15	0°♊		desc. node	2482 Aug 22 09:18	22°♊58'17	
desc. node	2481 Sep 04 12:16	3°♊10'34			2482 Aug 27 09:44	0°♊	
evening max el	2481 Sep 24 12:58	28°♊50'43	26°35'14	evening max el	2482 Sep 07 01:03	12°♊18'03	27°14'25
	2481 Sep 25 18:34	0°♊		retrograde	2482 Sep 20 10:56	19°♊36'43	
retrograde	2481 Oct 07 10:59	6°♊04'28		evening set	2482 Sep 27 10:05	16°♊54'20	
evening set	2481 Oct 13 23:29	3°♊25'15		min. Earth dist.	2482 Oct 01 05:47	13°♊17'20	0.64805 AU
	2481 Oct 17 09:22	30°♊		inferior conj	2482 Oct 03 10:49	10°♊51'43	-2°-35'-5
min. Earth dist.	2481 Oct 18 01:50	29°♊12'04	0.66095 AU	minimum elong	2482 Oct 03 14:59	10°♊40'14	2°33'33
inferior conj	2481 Oct 19 18:29	27°♊10'22	-1°-35'-59	morning rise	2482 Oct 09 21:49	5°♊19'41	
minimum elong	2481 Oct 19 21:04	27°♊02'38	1°34'56	asc. node	2482 Oct 11 08:56	4°♊51'08	
asc. node	2481 Oct 24 11:51	22°♊16'27		direct	2482 Oct 12 11:58	4°♊44'25	
morning rise	2481 Oct 25 19:59	21°♊24'11		morning max el	2482 Oct 19 00:00	8°♊12'34	18°02'18
direct	2481 Oct 28 17:09	20°♊37'35			2482 Nov 02 18:20	0°♊	
morning max el	2481 Nov 04 08:37	24°♊15'58	18°30'55	morning set	2482 Nov 05 16:44	4°♊54'23	
	2481 Nov 09 02:29	0°♊		desc. node	2482 Nov 18 08:33	25°♊41'47	
morning set	2481 Nov 24 10:10	23°♊43'03		superior conj	2482 Nov 19 14:36	27°♊42'07	0°-8'-28
	2481 Nov 28 08:35	0°♊		minimum elong	2482 Nov 19 13:33	27°♊37'57	0°08'19
desc. node	2481 Dec 01 11:32	4°♊57'42		behind sun begin	2482 Nov 19 04:23	27°♊01'13	
superior conj	2481 Dec 10 06:16	18°♊48'05	0°-56'-47	behind sun end	2482 Nov 19 22:44	28°♊14'38	
minimum elong	2481 Dec 09 23:10	18°♊20'14	0°55'54		2482 Nov 21 01:11	0°♊	
max. Earth dist.	2481 Dec 10 21:53	19°♊49'25	1.45172 AU	max. Earth dist.	2482 Nov 23 16:40	4°♊11'34	1.44855 AU
	2481 Dec 17 09:27	0°☿		evening rise	2482 Dec 06 00:32	23°♊24'29	
evening rise	2481 Dec 26 07:15	14°☿03'22			2482 Dec 10 07:17	0°☿	
	2482 Jan 05 09:29	0°☿		greatest brilliancy	2482 Dec 24 18:23	21°☿33'51	-0.6m
evening max el	2482 Jan 17 15:22	16°☿53'58	19°03'29		2482 Dec 31 11:48	0°☿	
asc. node	2482 Jan 20 11:08	19°☿20'48		evening max el	2482 Dec 31 20:56	0°☿23'51	19°55'31
retrograde	2482 Jan 24 13:11	20°☿49'24		asc. node	2483 Jan 07 08:11	4°☿42'19	
evening set	2482 Jan 27 19:38	19°☿47'19		retrograde	2483 Jan 08 10:49	4°☿49'07	
inferior conj	2482 Feb 02 11:23	13°☿58'07	3°24'15	evening set	2483 Jan 12 01:04	3°☿33'37	
minimum elong	2482 Feb 02 09:21	14°☿04'32	3°23'56		2483 Jan 15 14:49	30°♊☿	
min. Earth dist.	2482 Feb 04 00:06	12°☿02'05	0.65843 AU	inferior conj	2483 Jan 17 12:57	27°☿30'15	2°57'20
morning rise	2482 Feb 07 22:07	7°☿44'41		minimum elong	2483 Jan 17 10:24	27°☿38'44	2°56'43
direct	2482 Feb 14 08:44	4°☿56'00		min. Earth dist.	2483 Jan 18 11:35	26°☿14'42	0.66904 AU
desc. node	2482 Feb 27 10:44	12°☿44'28		morning rise	2483 Jan 22 19:05	21°☿14'59	
morning max el	2482 Feb 27 06:14	12°☿33'07	26°30'57	direct	2483 Jan 28 16:54	18°☿37'41	
	2482 Mar 13 07:14	0°♋		morning max el	2483 Feb 09 15:07	25°☿44'44	25°15'10
	2482 Mar 31 20:10	0°♋			2483 Feb 13 12:46	0°☿	
morning set	2482 Apr 04 06:08	6°♋18'36		desc. node	2483 Feb 14 07:45	0°☿55'45	
max. Earth dist.	2482 Apr 08 10:55	14°♋25'11	1.34771 AU		2483 Mar 06 20:12	0°♋	
superior conj	2482 Apr 13 01:26	23°♋43'13	0°-53'-46	morning set	2483 Mar 17 19:24	18°♋38'09	
minimum elong	2482 Apr 13 04:12	23°♋57'25	0°53'16	max. Earth dist.	2483 Mar 21 12:40	25°♋27'44	1.36517 AU
	2482 Apr 16 02:01	0°♋			2483 Mar 23 22:12	0°♋	
asc. node	2482 Apr 18 10:28	4°♋55'18		superior conj	2483 Mar 27 15:16	7°♋13'53	-1°-20'-51
evening rise	2482 Apr 20 17:30	9°♋41'47		minimum elong	2483 Mar 27 19:14	7°♋33'36	1°20'17

evening rise	2483 Apr 04 21:49	23° Υ 55'00		superior conj	2484 Mar 09 16:17	20° Υ 03'19	-1°-44'-22
asc. node	2483 Apr 05 07:30	24° Υ 43'44		minimum elong	2484 Mar 09 20:40	20° Υ 23'58	1°43'56
	2483 Apr 07 23:09	0° Υ			2484 Mar 14 20:28	0° Υ	
evening max el	2483 Apr 22 05:08	21° Υ 59'06	19°41'47	evening rise	2484 Mar 18 18:54	7° Υ 41'35	
retrograde	2483 May 01 23:59	26° Υ 43'00		asc. node	2484 Mar 22 04:32	14° Υ 15'51	
evening set	2483 May 04 00:12	26° Υ 31'56			2484 Mar 31 14:22	0° Υ	
inferior conj	2483 May 12 18:12	22° Υ 29'21	0°09'17	evening max el	2484 Apr 04 03:36	4° Υ 06'36	18°50'18
minimum elong	2483 May 12 18:36	22° Υ 28'42	0°09'08	retrograde	2484 Apr 12 09:39	8° Υ 07'45	
transit middle	2483 May 12 18:36	22° Υ 28'42	0°09'08	evening set	2484 Apr 14 14:17	7° Υ 51'50	
transit begin	2483 May 12 15:22	22° Υ 33'45		inferior conj	2484 Apr 22 13:11	3° Υ 32'30	1°48'47
transit end	2483 May 12 21:50	22° Υ 23'39		minimum elong	2484 Apr 22 16:49	3° Υ 25'55	1°47'41
desc. node	2483 May 13 06:59	22° Υ 09'18		min. Earth dist.	2484 Apr 25 19:02	1° Υ 12'25	0.57177 AU
min. Earth dist.	2483 May 15 02:42	21° Υ 01'16	0.55648 AU		2484 Apr 27 15:11	30° Υ	
morning rise	2483 May 21 09:33	17° Υ 56'15		desc. node	2484 Apr 29 03:58	29° Υ 07'17	
direct	2483 May 25 19:18	17° Υ 12'58		morning rise	2484 Apr 30 15:01	28° Υ 25'14	
morning max el	2483 Jun 08 18:20	24° Υ 12'19	24°33'18	direct	2484 May 06 01:34	27° Υ 13'40	
	2483 Jun 14 01:21	0° Υ			2484 May 14 13:04	0° Υ	
asc. node	2483 Jul 02 06:46	0° Υ 24'30		morning max el	2484 May 20 09:25	4° Υ 42'11	26°06'03
	2483 Jul 02 02:00	0° Υ			2484 Jun 07 17:37	0° Υ	
morning set	2483 Jul 04 03:27	4° Υ 17'26		morning set	2484 Jun 17 14:42	19° Υ 11'05	
				asc. node	2484 Jun 18 03:48	20° Υ 20'22	
superior conj	2483 Jul 11 03:59	19° Υ 28'27	1°21'31		2484 Jun 22 14:53	0° Υ	
minimum elong	2483 Jul 11 01:36	19° Υ 15'34	1°21'11	superior conj	2484 Jun 24 15:10	4° Υ 25'27	1°03'35
max. Earth dist.	2483 Jul 12 19:40	23° Υ 03'25	1.32947 AU	minimum elong	2484 Jun 24 12:54	4° Υ 12'56	1°03'11
	2483 Jul 16 01:55	0° Υ		max. Earth dist.	2484 Jun 25 05:33	5° Υ 44'28	1.32352 AU
evening rise	2483 Jul 18 11:27	4° Υ 57'14		evening rise	2484 Jul 01 15:40	19° Υ 33'27	
	2483 Aug 01 03:28	0° Υ			2484 Jul 06 20:39	0° Υ	
desc. node	2483 Aug 09 06:19	12° Υ 11'31			2484 Jul 25 15:45	0° Υ	
evening max el	2483 Aug 20 11:29	25° Υ 22'32	27°25'57	desc. node	2484 Jul 26 03:20	0° Υ 36'07	
	2483 Aug 26 06:41	0° Υ		evening max el	2484 Aug 01 17:44	7° Υ 51'06	27°05'08
retrograde	2483 Sep 03 04:33	2° Υ 39'37		retrograde	2484 Aug 15 14:53	15° Υ 04'25	
evening set	2483 Sep 10 09:08	0° Υ 04'55		evening set	2484 Aug 22 16:34	12° Υ 50'07	
	2483 Sep 10 11:53	30° Υ		min. Earth dist.	2484 Aug 26 08:00	10° Υ 08'04	0.61265 AU
min. Earth dist.	2483 Sep 14 00:14	27° Υ 00'05	0.63176 AU	inferior conj	2484 Aug 29 11:28	7° Υ 23'45	-4°-20'-39
inferior conj	2483 Sep 16 17:32	24° Υ 18'47	-3°-31'-39	minimum elong	2484 Aug 29 16:44	7° Υ 12'14	4°19'35
minimum elong	2483 Sep 16 22:51	24° Υ 05'38	3°30'04	morning rise	2484 Sep 05 19:53	2° Υ 29'59	
morning rise	2483 Sep 23 15:03	19° Υ 04'10		direct	2484 Sep 08 04:29	2° Υ 07'12	
direct	2483 Sep 26 00:56	18° Υ 36'39		asc. node	2484 Sep 14 03:00	4° Υ 37'08	
asc. node	2483 Sep 28 05:59	19° Υ 00'16		morning max el	2484 Sep 15 06:24	5° Υ 39'03	17°58'53
morning max el	2483 Oct 02 16:15	22° Υ 02'35	17°51'16		2484 Sep 30 18:27	0° Υ	
	2483 Oct 08 19:14	0° Υ		morning set	2484 Oct 01 01:25	0° Υ 31'59	
morning set	2483 Oct 18 23:55	17° Υ 16'52					
	2483 Oct 26 07:40	0° Υ		superior conj	2484 Oct 11 08:06	19° Υ 07'08	1°09'38
superior conj	2483 Oct 30 21:48	7° Υ 44'41	0°35'53	minimum elong	2484 Oct 11 12:32	19° Υ 26'36	1°09'06
minimum elong	2483 Oct 31 01:15	7° Υ 59'02	0°35'24		2484 Oct 17 16:38	0° Υ	
desc. node	2483 Nov 05 05:35	16° Υ 28'50		max. Earth dist.	2484 Oct 18 21:39	2° Υ 00'40	1.42275 AU
max. Earth dist.	2483 Nov 06 09:15	18° Υ 20'20	1.43850 AU	desc. node	2484 Oct 22 02:38	7° Υ 15'50	
	2483 Nov 13 18:28	0° Υ		evening rise	2484 Oct 25 01:48	12° Υ 00'55	
evening rise	2483 Nov 15 09:05	2° Υ 29'32			2484 Nov 05 19:59	0° Υ	
	2483 Dec 03 20:56	0° Υ		greatest brilliancy	2484 Nov 21 22:26	22° Υ 07'56	-0.3m
greatest brilliancy	2483 Dec 09 12:38	7° Υ 39'07	-0.5m	evening max el	2484 Nov 26 15:48	27° Υ 26'57	22°16'09
evening max el	2483 Dec 14 21:05	13° Υ 54'36	21°01'00		2484 Nov 29 10:04	0° Υ	
retrograde	2483 Dec 23 08:31	18° Υ 55'53		retrograde	2484 Dec 06 04:40	3° Υ 07'10	
asc. node	2483 Dec 25 05:13	18° Υ 36'39		evening set	2484 Dec 10 16:08	1° Υ 20'08	
evening set	2483 Dec 27 08:28	17° Υ 25'18		asc. node	2484 Dec 11 02:13	0° Υ 58'49	
inferior conj	2484 Jan 01 18:23	11° Υ 10'50	2°21'23		2484 Dec 12 02:32	30° Υ	
minimum elong	2484 Jan 01 15:51	11° Υ 19'31	2°20'35	inferior conj	2484 Dec 16 01:41	24° Υ 57'56	1°38'12
min. Earth dist.	2484 Jan 02 04:24	10° Υ 36'21	0.67570 AU	minimum elong	2484 Dec 15 23:39	25° Υ 04'58	1°37'25
morning rise	2484 Jan 06 22:51	4° Υ 55'45		min. Earth dist.	2484 Dec 16 00:17	25° Υ 02'46	0.67863 AU
direct	2484 Jan 12 05:54	2° Υ 37'30		morning rise	2484 Dec 21 07:01	18° Υ 44'57	
morning max el	2484 Jan 22 23:27	9° Υ 01'12	23°48'18	direct	2484 Dec 25 22:58	16° Υ 49'20	
desc. node	2484 Feb 01 04:47	19° Υ 56'02		morning max el	2485 Jan 04 10:27	22° Υ 24'30	22°20'12
	2484 Feb 08 11:36	0° Υ		greatest brilliancy	2485 Jan 09 00:16	27° Υ 31'32	-0.3m
morning set	2484 Feb 27 10:11	29° Υ 48'25			2485 Jan 11 00:04	0° Υ	
	2484 Feb 27 12:54	0° Υ		desc. node	2485 Jan 18 01:49	9° Υ 31'45	
max. Earth dist.	2484 Mar 02 07:51	6° Υ 35'48	1.38587 AU		2485 Jan 31 20:03	0° Υ	

morning set	2485 Feb 06 20:53	9° \approx 36'16		max. Earth dist.	2486 Jan 25 08:19	1° \approx 11'23	1.42693 AU
max. Earth dist.	2485 Feb 12 04:47	18° \approx 25'53	1.40745 AU				
	2485 Feb 18 21:01	0° X		superior conj	2486 Feb 01 08:50	12° \approx 51'55	-2°-5'-23
				minimum elong	2486 Feb 01 07:53	12° \approx 47'50	2°05'24
superior conj	2485 Feb 19 23:52	1° X 59'48	-2°00'-46		2486 Feb 11 04:28	0° X	
minimum elong	2485 Feb 20 02:53	2° X 13'18	2°00'38	evening rise	2486 Feb 13 01:52	3° X 22'56	
evening rise	2485 Mar 02 05:31	20° X 53'34		asc. node	2486 Feb 23 22:34	22° X 05'32	
	2485 Mar 07 03:25	0° Y		evening max el	2486 Mar 01 20:56	29° X 47'16	18°07'17
asc. node	2485 Mar 09 01:32	3° Y 25'25			2486 Mar 02 02:10	0° Y	
evening max el	2485 Mar 18 09:56	16° Y 45'19	18°18'54	retrograde	2486 Mar 08 11:39	3° Y 11'15	
retrograde	2485 Mar 25 14:32	20° Y 20'04		evening set	2486 Mar 11 03:19	2° Y 38'21	
evening set	2485 Mar 28 00:52	19° Y 56'29			2486 Mar 15 03:55	30° R X	
inferior conj	2485 Apr 04 05:34	15° Y 16'10	2°55'28	inferior conj	2486 Mar 17 17:14	27° X 36'59	3°30'53
minimum elong	2485 Apr 04 09:09	15° Y 08'31	2°54'41	minimum elong	2486 Mar 17 19:08	27° X 32'19	3°30'41
min. Earth dist.	2485 Apr 07 15:53	12° Y 22'45	0.59192 AU	min. Earth dist.	2486 Mar 20 20:05	24° X 34'50	0.61350 AU
morning rise	2485 Apr 11 13:34	9° Y 40'24		morning rise	2486 Mar 24 08:06	21° X 42'30	
desc. node	2485 Apr 16 00:59	8° Y 02'15		direct	2486 Mar 31 03:34	19° X 21'53	
direct	2485 Apr 17 20:55	7° Y 53'14		desc. node	2486 Apr 02 22:01	19° X 43'29	
morning max el	2485 May 02 05:39	15° Y 39'13	27°14'11	morning max el	2486 Apr 14 08:19	27° X 17'17	27°47'31
	2485 May 13 21:33	0° Z			2486 Apr 16 22:21	0° Y	
	2485 May 31 01:50	0° II			2486 May 07 13:04	0° Z	
morning set	2485 Jun 01 23:39	3° II 56'00		morning set	2486 May 17 04:26	18° Z 25'58	
asc. node	2485 Jun 05 00:49	10° II 24'49		asc. node	2486 May 22 21:53	0° II 33'29	
max. Earth dist.	2485 Jun 08 17:48	18° II 30'47	1.32141 AU		2486 May 22 15:42	0° II	
				max. Earth dist.	2486 May 23 04:24	1° II 08'53	1.32323 AU
superior conj	2485 Jun 09 02:55	19° II 21'03	0°41'59				
minimum elong	2485 Jun 09 01:11	19° II 11'31	0°41'38	superior conj	2486 May 24 13:35	4° II 09'48	0°17'23
	2485 Jun 13 23:37	0° S		minimum elong	2486 May 24 12:47	4° II 05'27	0°17'13
evening rise	2485 Jun 16 00:24	4° S 20'41		evening rise	2486 May 31 11:38	19° II 12'01	
	2485 Jun 29 16:12	0° Q			2486 Jun 05 18:31	0° S	
desc. node	2485 Jul 13 00:19	17° Q 51'03			2486 Jun 25 21:41	0° Q	
evening max el	2485 Jul 14 17:05	19° Q 32'30	26°11'27	evening max el	2486 Jun 26 09:24	0° Q 28'31	24°50'48
retrograde	2485 Jul 28 16:41	26° Q 42'53		desc. node	2486 Jun 29 21:19	3° Q 28'20	
evening set	2485 Aug 04 03:35	25° Q 01'04		retrograde	2486 Jul 10 08:21	7° Q 33'03	
min. Earth dist.	2485 Aug 08 05:48	22° Q 25'52	0.59203 AU	evening set	2486 Jul 15 14:48	6° Q 29'56	
inferior conj	2485 Aug 11 12:59	19° Q 56'01	-4°-53'-56	min. Earth dist.	2486 Jul 20 20:46	3° Q 42'33	0.57235 AU
minimum elong	2485 Aug 11 16:00	19° Q 50'16	4°53'42	inferior conj	2486 Jul 23 19:03	1° Q 46'51	-4°-59'-2
morning rise	2485 Aug 19 07:53	15° Q 25'36		minimum elong	2486 Jul 23 17:13	1° Q 49'53	4°58'57
direct	2485 Aug 21 18:04	15° Q 05'26			2486 Jul 26 14:16	30° R S	
morning max el	2485 Aug 29 15:16	18° Q 52'45	18°26'23	morning rise	2486 Jul 31 23:22	27° S 38'43	
asc. node	2485 Sep 01 00:02	21° Q 26'47		direct	2486 Aug 03 13:30	27° S 19'40	
	2485 Sep 06 19:47	0° P			2486 Aug 10 18:45	0° Q	
morning set	2485 Sep 14 15:50	14° P 23'49		morning max el	2486 Aug 12 15:44	1° Q 34'41	19°14'57
	2485 Sep 22 20:29	0° U		asc. node	2486 Aug 18 21:06	9° Q 14'30	
				morning set	2486 Aug 29 15:17	28° Q 42'04	
superior conj	2485 Sep 23 17:35	1° U 37'53	1°31'33		2486 Aug 30 06:57	0° P	
minimum elong	2485 Sep 23 20:52	1° U 53'02	1°31'16				
max. Earth dist.	2485 Oct 01 04:33	14° U 58'21	1.40323 AU	superior conj	2486 Sep 06 20:43	15° P 01'05	1°42'50
evening rise	2485 Oct 05 14:56	22° U 28'49		minimum elong	2486 Sep 06 22:10	15° P 08'05	1°42'46
desc. node	2485 Oct 08 23:41	27° U 58'51		max. Earth dist.	2486 Sep 13 08:10	27° P 13'30	1.38257 AU
	2485 Oct 10 05:56	0° M			2486 Sep 14 21:01	0° U	
	2485 Oct 30 20:26	0° X		evening rise	2486 Sep 17 04:02	4° U 03'30	
evening max el	2485 Nov 09 06:14	11° X 01'51	23°35'58	desc. node	2486 Sep 25 20:41	18° U 33'47	
retrograde	2485 Nov 19 21:57	17° X 19'34			2486 Oct 03 08:06	0° M	
evening set	2485 Nov 24 22:31	15° X 15'31		evening max el	2486 Oct 22 18:31	24° M 40'16	24°54'02
asc. node	2485 Nov 27 23:14	12° X 02'01			2486 Oct 29 12:03	0° X	
inferior conj	2485 Nov 30 09:04	8° X 49'32	0°49'06	retrograde	2486 Nov 03 11:18	1° X 28'13	
minimum elong	2485 Nov 30 07:56	8° X 53'25	0°48'36		2486 Nov 07 22:40	30° R M	
min. Earth dist.	2485 Nov 29 20:57	9° X 30'56	0.67800 AU	evening set	2486 Nov 09 01:55	29° M 08'04	
morning rise	2485 Dec 05 17:31	2° X 40'39		min. Earth dist.	2486 Nov 13 16:02	23° M 57'37	0.67401 AU
direct	2485 Dec 09 19:08	1° X 07'51		inferior conj	2486 Nov 14 14:45	22° M 42'40	0°-4'-46
morning max el	2485 Dec 18 03:32	5° X 58'12	20°58'53	minimum elong	2486 Nov 14 14:52	22° M 42'17	0°04'44
greatest brilliancy	2485 Dec 23 16:14	12° X 21'56	-0.5m	transit middle	2486 Nov 14 14:52	22° M 42'17	0°04'44
desc. node	2486 Jan 04 22:53	29° X 33'12		transit begin	2486 Nov 14 12:14	22° M 51'01	
	2486 Jan 05 06:08	0° Z		transit end	2486 Nov 14 17:31	22° M 33'34	
morning set	2486 Jan 17 04:25	18° Z 10'09		asc. node	2486 Nov 14 20:19	22° M 24'21	
	2486 Jan 24 14:46	0° \approx		morning rise	2486 Nov 20 04:22	16° M 40'14	

direct	2486 Nov 23 17:17	15° \mathbb{M} 28'05		morning rise	2487 Nov 04 13:35	0° \mathbb{M} 41'48	
morning max el	2486 Dec 01 04:20	19° \mathbb{M} 42'26	19°49'26		2487 Nov 06 03:30	30° \mathbb{R} \mathbb{A}	
greatest brilliancy	2486 Dec 08 19:01	29° \mathbb{M} 04'35	-0.6m	direct	2487 Nov 07 15:52	29° \mathbb{A} 46'52	
	2486 Dec 09 10:56	0° \mathbb{A}			2487 Nov 09 04:55	0° \mathbb{M}	
desc. node	2486 Dec 22 19:56	19° \mathbb{A} 52'37		morning max el	2487 Nov 14 12:27	3° \mathbb{M} 35'33	18°54'52
morning set	2486 Dec 27 00:23	26° \mathbb{A} 18'46			2487 Dec 03 01:37	0° \mathbb{A}	
	2486 Dec 29 09:33	0° \mathbb{B}		morning set	2487 Dec 06 10:13	5° \mathbb{A} 16'01	
max. Earth dist.	2487 Jan 07 19:00	14° \mathbb{B} 44'52	1.44178 AU	desc. node	2487 Dec 09 16:59	10° \mathbb{A} 25'03	
				max. Earth dist.	2487 Dec 21 11:29	28° \mathbb{A} 52'51	1.45026 AU
superior conj	2487 Jan 12 15:38	22° \mathbb{B} 32'47	-1°-53'-13		2487 Dec 22 04:33	0° \mathbb{B}	
minimum elong	2487 Jan 12 09:04	22° \mathbb{B} 06'15	1°52'49				
	2487 Jan 17 05:03	0° \mathbb{A}		superior conj	2487 Dec 23 00:02	1° \mathbb{B} 16'40	-1°-21'-54
evening rise	2487 Jan 26 03:29	15° \mathbb{A} 00'21		minimum elong	2487 Dec 22 15:09	0° \mathbb{B} 41'42	1°20'58
	2487 Feb 04 00:38	0° \mathbb{H}		evening rise	2488 Jan 07 06:38	25° \mathbb{B} 40'37	
asc. node	2487 Feb 10 19:37	10° \mathbb{H} 06'31			2488 Jan 09 22:32	0° \mathbb{A}	
evening max el	2487 Feb 13 09:35	13° \mathbb{H} 04'04	18°14'51	evening max el	2488 Jan 27 21:13	26° \mathbb{A} 29'32	18°40'46
retrograde	2487 Feb 19 20:24	16° \mathbb{H} 30'57		asc. node	2488 Jan 28 16:40	27° \mathbb{A} 16'53	
evening set	2487 Feb 22 17:18	15° \mathbb{H} 47'32			2488 Feb 02 02:43	0° \mathbb{H}	
inferior conj	2487 Feb 28 20:11	10° \mathbb{H} 26'13	3°41'50	retrograde	2488 Feb 03 12:41	0° \mathbb{H} 11'09	
minimum elong	2487 Feb 28 20:10	10° \mathbb{H} 26'14	3°41'50		2488 Feb 04 22:17	30° \mathbb{R} \mathbb{A}	
min. Earth dist.	2487 Mar 03 09:19	7° \mathbb{H} 38'18	0.63368 AU	evening set	2488 Feb 06 15:25	29° \mathbb{A} 16'09	
morning rise	2487 Mar 06 21:08	4° \mathbb{H} 21'03		inferior conj	2488 Feb 12 10:27	23° \mathbb{A} 36'34	3°34'39
direct	2487 Mar 13 19:10	1° \mathbb{H} 38'06		minimum elong	2488 Feb 12 08:59	23° \mathbb{A} 41'00	3°34'31
desc. node	2487 Mar 20 19:05	3° \mathbb{H} 56'22		min. Earth dist.	2488 Feb 14 07:57	21° \mathbb{A} 19'02	0.65062 AU
morning max el	2487 Mar 27 15:44	9° \mathbb{H} 34'35	27°43'21	morning rise	2488 Feb 18 01:21	17° \mathbb{A} 25'29	
	2487 Apr 12 13:56	0° \mathbb{Y}		direct	2488 Feb 24 17:55	14° \mathbb{A} 34'58	
	2487 Apr 29 19:49	0° \mathbb{B}		desc. node	2488 Mar 06 16:08	20° \mathbb{A} 06'22	
morning set	2487 May 01 02:44	2° \mathbb{B} 33'13		morning max el	2488 Mar 09 01:17	22° \mathbb{A} 22'06	27°05'16
max. Earth dist.	2487 May 06 09:24	13° \mathbb{B} 25'39	1.32919 AU		2488 Mar 15 18:38	0° \mathbb{H}	
					2488 Apr 04 19:30	0° \mathbb{Y}	
superior conj	2487 May 08 21:21	18° \mathbb{B} 45'38	0°-9'-27	morning set	2488 Apr 13 15:33	16° \mathbb{Y} 08'33	
minimum elong	2487 May 08 21:49	18° \mathbb{B} 48'07	0°09'22	max. Earth dist.	2488 Apr 18 05:11	25° \mathbb{Y} 11'54	1.33966 AU
behind sun begin	2487 May 08 17:30	18° \mathbb{B} 24'57			2488 Apr 20 13:16	0° \mathbb{B}	
behind sun end	2487 May 09 02:08	19° \mathbb{B} 11'19					
asc. node	2487 May 09 18:57	20° \mathbb{B} 41'57		superior conj	2488 Apr 22 00:13	3° \mathbb{B} 02'23	0°-37'-32
	2487 May 14 02:15	0° \mathbb{H}		minimum elong	2488 Apr 22 02:08	3° \mathbb{B} 12'25	0°37'10
evening rise	2487 May 15 23:28	4° \mathbb{H} 01'02		asc. node	2488 Apr 25 15:59	10° \mathbb{B} 46'15	
	2487 May 30 01:55	0° \mathbb{B}		evening rise	2488 Apr 29 10:01	18° \mathbb{B} 41'41	
evening max el	2487 Jun 07 23:01	10° \mathbb{B} 58'35	23°15'52		2488 May 05 01:01	0° \mathbb{H}	
desc. node	2487 Jun 16 18:19	16° \mathbb{B} 53'08		evening max el	2488 May 19 17:14	21° \mathbb{H} 33'18	21°41'45
retrograde	2487 Jun 21 11:36	17° \mathbb{B} 43'49		retrograde	2488 Jun 01 03:10	27° \mathbb{H} 39'17	
evening set	2487 Jun 25 05:52	17° \mathbb{B} 12'50		desc. node	2488 Jun 02 15:20	27° \mathbb{H} 34'06	
min. Earth dist.	2487 Jul 02 08:45	13° \mathbb{B} 58'24	0.55700 AU	evening set	2488 Jun 03 16:27	27° \mathbb{H} 24'37	
inferior conj	2487 Jul 04 05:20	12° \mathbb{B} 52'56	-4°-21'-24	inferior conj	2488 Jun 13 01:27	23° \mathbb{H} 23'06	-2°-55'-22
minimum elong	2487 Jul 03 22:21	13° \mathbb{B} 03'13	4°20'04	minimum elong	2488 Jun 12 17:56	23° \mathbb{H} 33'37	2°53'02
morning rise	2487 Jul 12 17:56	8° \mathbb{B} 59'22		min. Earth dist.	2488 Jun 12 20:16	23° \mathbb{H} 30'21	0.54934 AU
direct	2487 Jul 15 13:54	8° \mathbb{B} 39'57		morning rise	2488 Jun 21 20:24	19° \mathbb{H} 29'04	
morning max el	2487 Jul 26 05:17	13° \mathbb{B} 35'53	20°24'54	direct	2488 Jun 25 01:32	19° \mathbb{H} 06'24	
asc. node	2487 Aug 05 18:11	27° \mathbb{B} 47'03		morning max el	2488 Jul 07 07:16	24° \mathbb{H} 52'02	21°53'54
	2487 Aug 07 00:23	0° \mathbb{Q}			2488 Jul 11 23:58	0° \mathbb{B}	
morning set	2487 Aug 13 20:57	13° \mathbb{Q} 19'16		asc. node	2488 Jul 22 15:15	16° \mathbb{B} 52'52	
				morning set	2488 Jul 28 06:27	28° \mathbb{B} 08'05	
superior conj	2487 Aug 21 12:36	29° \mathbb{Q} 02'46	1°45'16		2488 Jul 29 03:51	0° \mathbb{Q}	
minimum elong	2487 Aug 21 12:20	29° \mathbb{Q} 01'28	1°45'16				
	2487 Aug 21 23:54	0° \mathbb{H}		superior conj	2488 Aug 04 13:14	13° \mathbb{Q} 30'27	1°40'31
max. Earth dist.	2487 Aug 26 14:31	9° \mathbb{H} 06'46	1.36325 AU	minimum elong	2488 Aug 04 11:45	13° \mathbb{Q} 22'36	1°40'25
evening rise	2487 Aug 30 14:32	16° \mathbb{H} 39'24		max. Earth dist.	2488 Aug 08 04:34	21° \mathbb{Q} 02'10	1.34702 AU
	2487 Sep 07 04:57	0° \mathbb{A}		evening rise	2488 Aug 12 17:44	0° \mathbb{H} 03'06	
desc. node	2487 Sep 12 17:42	8° \mathbb{A} 56'05			2488 Aug 12 17:06	0° \mathbb{H}	
	2487 Sep 27 18:07	0° \mathbb{M}		desc. node	2488 Aug 29 14:42	28° \mathbb{H} 58'47	
evening max el	2487 Oct 05 06:43	8° \mathbb{M} 21'22	26°02'53		2488 Aug 30 07:02	0° \mathbb{A}	
retrograde	2487 Oct 17 19:48	15° \mathbb{M} 28'33		evening max el	2488 Sep 16 19:11	21° \mathbb{A} 57'09	26°54'58
evening set	2487 Oct 24 00:33	12° \mathbb{M} 55'07		retrograde	2488 Sep 29 22:46	29° \mathbb{A} 13'12	
min. Earth dist.	2487 Oct 28 07:09	8° \mathbb{M} 20'29	0.66672 AU	evening set	2488 Oct 06 16:15	26° \mathbb{A} 31'51	
inferior conj	2487 Oct 29 16:56	6° \mathbb{M} 35'02	-1°-2'-2	min. Earth dist.	2488 Oct 10 15:47	22° \mathbb{A} 34'06	0.65593 AU
minimum elong	2487 Oct 29 18:34	6° \mathbb{M} 29'56	1°01'21	inferior conj	2488 Oct 12 13:31	20° \mathbb{A} 21'49	-2°-1'-6
asc. node	2487 Nov 01 17:22	3° \mathbb{M} 02'56		minimum elong	2488 Oct 12 16:48	20° \mathbb{A} 12'19	1°59'49

morning rise	2488 Oct 18 18:52	14° Ω 41'01		min. Earth dist.	2489 Sep 23 15:41	6° Ω 31'10	0.64158 AU
asc. node	2488 Oct 18 14:26	14° Ω 46'43		inferior conj	2489 Sep 26 02:04	3° Ω 57'42	-2°-59'-36
direct	2488 Oct 21 12:50	13° Ω 59'32		minimum elong	2489 Sep 26 06:49	3° Ω 45'12	2°57'59
morning max el	2488 Oct 28 01:52	17° Ω 32'20	18°16'36		2489 Sep 30 06:51	30° \mathbb{R} \mathbb{M}	
	2488 Nov 06 07:21	0° \mathbb{M}		morning rise	2489 Oct 02 17:27	28° \mathbb{M} 32'48	
morning set	2488 Nov 16 00:13	15° \mathbb{M} 39'09		direct	2489 Oct 05 05:33	28° \mathbb{M} 01'08	
	2488 Nov 24 21:30	0° \mathbb{A}		asc. node	2489 Oct 05 11:29	28° \mathbb{M} 01'26	
desc. node	2488 Nov 25 14:01	1° \mathbb{A} 05'55			2489 Oct 10 03:00	0° Ω	
				morning max el	2489 Oct 11 17:58	1° Ω 26'58	17°55'27
superior conj	2488 Dec 01 02:00	9° \mathbb{A} 49'02	0°-36'-27	morning set	2489 Oct 28 18:00	27° Ω 23'15	
minimum elong	2488 Nov 30 21:18	9° \mathbb{A} 30'33	0°35'51		2489 Oct 30 06:47	0° \mathbb{M}	
max. Earth dist.	2488 Dec 03 06:47	13° \mathbb{A} 16'49	1.45137 AU				
	2488 Dec 13 23:12	0° \mathbb{Z}		superior conj	2489 Nov 10 18:44	19° \mathbb{M} 08'47	0°11'24
evening rise	2488 Dec 17 10:48	5° \mathbb{Z} 26'31		minimum elong	2489 Nov 10 20:01	19° \mathbb{M} 14'02	0°11'13
greatest brilliancy	2489 Jan 01 11:00	28° \mathbb{Z} 34'05	-0.7m	behind sun begin	2489 Nov 10 12:40	18° \mathbb{M} 44'10	
	2489 Jan 02 10:32	0° \approx		behind sun end	2489 Nov 11 03:22	19° \mathbb{M} 43'51	
evening max el	2489 Jan 10 05:29	9° \approx 58'46	19°23'47	desc. node	2489 Nov 12 11:02	21° \mathbb{M} 51'44	
asc. node	2489 Jan 14 13:41	13° \approx 22'43		max. Earth dist.	2489 Nov 16 01:25	27° \mathbb{M} 37'13	1.44509 AU
retrograde	2489 Jan 17 09:10	14° \approx 05'33			2489 Nov 17 13:28	0° \mathbb{A}	
evening set	2489 Jan 20 18:51	12° \approx 57'45		evening rise	2489 Nov 26 22:30	14° \mathbb{A} 36'24	
inferior conj	2489 Jan 26 08:41	7° \approx 02'08	3°14'03		2489 Dec 07 01:30	0° \mathbb{Z}	
minimum elong	2489 Jan 26 06:22	7° \approx 09'39	3°13'36	greatest brilliancy	2489 Dec 18 02:56	15° \mathbb{Z} 56'11	-0.5m
min. Earth dist.	2489 Jan 27 15:10	5° \approx 23'19	0.66351 AU	evening max el	2489 Dec 24 08:45	23° \mathbb{Z} 28'57	20°21'52
morning rise	2489 Jan 31 17:07	0° \approx 47'57		retrograde	2490 Jan 01 07:08	28° \mathbb{Z} 09'04	
	2489 Feb 01 16:18	30° \mathbb{R} \mathbb{Z}		asc. node	2490 Jan 01 10:43	28° \mathbb{Z} 08'56	
direct	2489 Feb 06 22:40	28° \mathbb{Z} 03'06		evening set	2490 Jan 05 01:20	26° \mathbb{Z} 47'10	
	2489 Feb 12 20:21	0° \approx		inferior conj	2490 Jan 10 12:08	20° \mathbb{Z} 38'25	2°43'05
morning max el	2489 Feb 19 10:49	5° \approx 28'20	26°00'43	minimum elong	2490 Jan 10 09:33	20° \mathbb{Z} 47'13	2°42'22
desc. node	2489 Feb 21 13:12	7° \approx 41'01		min. Earth dist.	2490 Jan 11 05:09	19° \mathbb{Z} 40'44	0.67233 AU
	2489 Mar 10 08:03	0° \mathbb{H}		morning rise	2490 Jan 15 17:15	14° \mathbb{Z} 23'00	
morning set	2489 Mar 27 14:55	29° \mathbb{H} 00'24		direct	2490 Jan 21 08:47	11° \mathbb{Z} 53'28	
	2489 Mar 28 03:46	0° \mathbb{Y}		morning max el	2490 Feb 01 19:27	18° \mathbb{Z} 43'18	24°39'01
max. Earth dist.	2489 Mar 31 13:41	6° \mathbb{Y} 28'29	1.35468 AU	desc. node	2490 Feb 08 10:14	26° \mathbb{Z} 15'23	
					2490 Feb 11 08:17	0° \approx	
superior conj	2489 Apr 05 19:42	16° \mathbb{Y} 52'48	-1°-5'-31		2490 Mar 03 10:22	0° \mathbb{H}	
minimum elong	2489 Apr 05 23:02	17° \mathbb{Y} 09'42	1°04'58	morning set	2490 Mar 09 19:24	10° \mathbb{H} 52'43	
	2489 Apr 12 04:49	0° \mathbb{B}		max. Earth dist.	2490 Mar 13 12:11	17° \mathbb{H} 30'57	1.37371 AU
asc. node	2489 Apr 12 13:01	0° \mathbb{B} 42'18					
evening rise	2489 Apr 13 17:19	3° \mathbb{B} 07'42		superior conj	2490 Mar 20 04:32	0° \mathbb{Y} 07'06	-1°-31'-28
	2489 Apr 29 10:53	0° \mathbb{I}		minimum elong	2490 Mar 20 08:50	0° \mathbb{Y} 27'59	1°30'55
evening max el	2489 May 01 21:53	2° \mathbb{I} 38'51	20°20'19		2490 Mar 20 03:04	0° \mathbb{Y}	
retrograde	2489 May 12 16:38	7° \mathbb{I} 53'02		evening rise	2490 Mar 28 18:54	17° \mathbb{Y} 10'51	
evening set	2489 May 14 17:34	7° \mathbb{I} 42'35		asc. node	2490 Mar 30 10:01	20° \mathbb{Y} 24'40	
desc. node	2489 May 20 12:22	5° \mathbb{I} 36'44			2490 Apr 04 11:28	0° \mathbb{B}	
inferior conj	2489 May 23 20:24	3° \mathbb{I} 44'26	0°-58'-35	evening max el	2490 Apr 14 14:17	14° \mathbb{B} 24'03	19°17'21
minimum elong	2489 May 23 17:38	3° \mathbb{I} 48'29	0°57'34	retrograde	2490 Apr 23 16:36	18° \mathbb{B} 48'30	
min. Earth dist.	2489 May 25 08:52	2° \mathbb{I} 51'03	0.55117 AU	evening set	2490 Apr 25 18:02	18° \mathbb{B} 35'55	
	2489 May 31 02:44	30° \mathbb{R} \mathbb{B}		inferior conj	2490 May 04 04:06	14° \mathbb{B} 26'52	0°55'09
morning rise	2489 Jun 01 15:47	29° \mathbb{B} 30'14		minimum elong	2490 May 04 06:19	14° \mathbb{B} 23'11	0°54'23
direct	2489 Jun 05 12:39	28° \mathbb{B} 57'53		min. Earth dist.	2490 May 06 23:41	12° \mathbb{B} 35'06	0.56214 AU
	2489 Jun 10 19:13	0° \mathbb{I}		desc. node	2490 May 07 09:24	12° \mathbb{B} 19'39	
morning max el	2489 Jun 19 00:40	5° \mathbb{I} 32'38	23°34'47	morning rise	2490 May 12 14:32	9° \mathbb{B} 38'50	
	2489 Jul 06 05:11	0° \mathbb{S}		direct	2490 May 17 10:31	8° \mathbb{B} 45'10	
asc. node	2489 Jul 09 12:17	6° \mathbb{S} 23'38		morning max el	2490 May 31 15:04	15° \mathbb{B} 58'53	25°14'56
morning set	2489 Jul 12 17:54	13° \mathbb{S} 03'11			2490 Jun 11 22:27	0° \mathbb{I}	
				asc. node	2490 Jun 26 09:19	26° \mathbb{I} 11'47	
superior conj	2489 Jul 19 19:45	28° \mathbb{S} 15'28	1°29'53	morning set	2490 Jun 27 05:40	27° \mathbb{I} 58'39	
minimum elong	2489 Jul 19 17:33	28° \mathbb{S} 03'37	1°29'39		2490 Jun 28 04:31	0° \mathbb{S}	
	2489 Jul 20 15:13	0° \mathbb{Q}					
max. Earth dist.	2489 Jul 22 03:47	3° \mathbb{Q} 14'55	1.33470 AU	superior conj	2490 Jul 04 05:47	13° \mathbb{S} 09'50	1°14'23
evening rise	2489 Jul 27 09:21	14° \mathbb{Q} 02'55		minimum elong	2490 Jul 04 03:24	12° \mathbb{S} 56'46	1°14'02
	2489 Aug 04 20:49	0° \mathbb{M}		max. Earth dist.	2490 Jul 05 10:29	15° \mathbb{S} 46'25	1.32642 AU
desc. node	2489 Aug 16 11:42	18° \mathbb{M} 33'20		evening rise	2490 Jul 11 09:46	28° \mathbb{S} 28'02	
	2489 Aug 25 07:08	0° Ω			2490 Jul 12 03:43	0° \mathbb{Q}	
evening max el	2489 Aug 30 06:49	5° Ω 16'16	27°22'59		2490 Jul 29 01:55	0° \mathbb{M}	
retrograde	2489 Sep 12 19:50	12° Ω 34'10		desc. node	2490 Aug 03 08:43	7° \mathbb{M} 27'56	
evening set	2489 Sep 19 22:19	9° Ω 53'28		evening max el	2490 Aug 12 15:32	18° \mathbb{M} 05'54	27°21'08

retrograde	2490 Aug 26 10:36	25° \cap 22'07			2491 Jul 04 06:07	0° Ω	
evening set	2490 Sep 02 15:17	22° \cap 54'04		desc. node	2491 Jul 21 05:43	25° Ω 25'52	
min. Earth dist.	2490 Sep 06 05:27	20° \cap 00'47	0.62388 AU		2491 Jul 25 12:46	0° \cap	
inferior conj	2490 Sep 09 03:43	17° \cap 16'02	-3°-53'-47	evening max el	2491 Jul 25 18:59	0° \cap 14'49	26°46'10
minimum elong	2490 Sep 09 09:13	17° \cap 03'06	3°52'21	retrograde	2491 Aug 08 17:50	7° \cap 27'37	
morning rise	2490 Sep 16 05:55	12° \cap 10'17		evening set	2491 Aug 15 14:38	5° \cap 25'56	
direct	2490 Sep 18 14:50	11° \cap 45'11		min. Earth dist.	2491 Aug 19 08:58	2° \cap 48'50	0.60384 AU
asc. node	2490 Sep 22 08:31	12° \cap 49'17		inferior conj	2491 Aug 22 15:05	0° \cap 08'10	-4°-37'-26
morning max el	2490 Sep 25 09:46	15° \cap 12'30	17°52'16	minimum elong	2491 Aug 22 19:44	29° Ω 58'34	4°36'43
	2490 Oct 05 16:00	0° $\underline{\Omega}$			2491 Aug 22 19:02	30° $\mathbb{R}\Omega$	
morning set	2490 Oct 11 09:41	10° $\underline{\Omega}$ 10'02		morning rise	2491 Aug 30 04:04	25° Ω 24'13	
				direct	2491 Sep 01 12:50	25° Ω 02'56	
superior conj	2490 Oct 22 13:39	29° $\underline{\Omega}$ 46'25	0°51'39	morning max el	2491 Sep 08 22:05	28° Ω 40'28	18°08'06
minimum elong	2490 Oct 22 17:54	0° \mathbb{M} 04'28	0°51'05	asc. node	2491 Sep 09 05:34	28° Ω 58'55	
	2490 Oct 22 16:51	0° \mathbb{M}			2491 Sep 10 04:38	0° \cap	
max. Earth dist.	2490 Oct 29 16:10	11° \mathbb{M} 34'58	1.43230 AU	morning set	2491 Sep 24 17:13	23° \cap 42'05	
desc. node	2490 Oct 30 08:03	12° \mathbb{M} 39'24			2491 Sep 28 01:54	0° $\underline{\Omega}$	
evening rise	2490 Nov 06 08:27	23° \mathbb{M} 47'31					
	2490 Nov 10 09:02	0° \mathbb{X}		superior conj	2491 Oct 04 10:26	11° $\underline{\Omega}$ 39'31	1°20'19
	2490 Dec 01 06:27	0° \mathbb{Z}		minimum elong	2491 Oct 04 14:33	11° $\underline{\Omega}$ 57'57	1°19'54
greatest brilliancy	2490 Dec 02 08:00	1° \mathbb{Z} 20'47	-0.4m	max. Earth dist.	2491 Oct 12 01:36	24° $\underline{\Omega}$ 55'54	1.41467 AU
evening max el	2490 Dec 07 06:24	7° \mathbb{Z} 00'18	21°32'02		2491 Oct 15 02:43	0° \mathbb{M}	
retrograde	2490 Dec 16 04:32	12° \mathbb{Z} 18'43		evening rise	2491 Oct 17 08:50	3° \mathbb{M} 40'20	
asc. node	2490 Dec 19 07:44	11° \mathbb{Z} 24'44		desc. node	2491 Oct 17 05:04	3° \mathbb{M} 25'07	
evening set	2490 Dec 20 09:05	10° \mathbb{Z} 41'20			2491 Nov 03 17:24	0° \mathbb{X}	
inferior conj	2490 Dec 25 18:38	4° \mathbb{Z} 22'54	2°03'55	greatest brilliancy	2491 Nov 14 20:21	14° \mathbb{X} 49'45	-0.3m
minimum elong	2490 Dec 25 16:16	4° \mathbb{Z} 31'06	2°03'05	evening max el	2491 Nov 19 23:07	20° \mathbb{X} 33'43	22°49'59
min. Earth dist.	2490 Dec 25 23:40	4° \mathbb{Z} 05'27	0.67732 AU	retrograde	2491 Nov 29 23:38	26° \mathbb{X} 30'40	
	2490 Dec 29 03:08	30° $\mathbb{R}\mathbb{X}$		evening set	2491 Dec 04 16:23	24° \mathbb{X} 36'42	
morning rise	2490 Dec 30 23:09	28° \mathbb{X} 08'15		asc. node	2491 Dec 06 04:47	23° \mathbb{X} 10'19	
direct	2491 Jan 04 23:39	25° \mathbb{X} 59'26		inferior conj	2491 Dec 10 02:12	18° \mathbb{X} 12'26	1°18'03
	2491 Jan 13 00:25	0° \mathbb{Z}		minimum elong	2491 Dec 10 00:30	18° \mathbb{X} 18'18	1°17'22
morning max el	2491 Jan 15 04:36	2° \mathbb{Z} 03'23	23°10'28	min. Earth dist.	2491 Dec 09 20:17	18° \mathbb{X} 32'54	0.67873 AU
greatest brilliancy	2491 Jan 20 05:00	7° \mathbb{Z} 40'31	-0.3m	morning rise	2491 Dec 15 08:34	12° \mathbb{X} 00'40	
desc. node	2491 Jan 26 07:16	15° \mathbb{Z} 32'44		direct	2491 Dec 19 18:18	10° \mathbb{X} 14'42	
	2491 Feb 05 09:11	0° \approx		morning max el	2491 Dec 28 17:41	15° \mathbb{X} 30'12	21°44'23
morning set	2491 Feb 18 22:51	21° \approx 29'54		greatest brilliancy	2492 Jan 02 13:43	20° \mathbb{X} 58'15	-0.4m
max. Earth dist.	2491 Feb 23 06:53	28° \approx 52'36	1.39510 AU		2492 Jan 09 09:47	0° \mathbb{Z}	
	2491 Feb 23 22:24	0° \mathbb{X}		desc. node	2492 Jan 13 04:19	5° \mathbb{Z} 20'31	
					2492 Jan 29 10:18	0° \approx	
superior conj	2491 Mar 02 22:46	12° \mathbb{X} 35'42	-1°-52'-27	morning set	2492 Jan 29 21:09	0° \approx 43'14	
minimum elong	2491 Mar 03 02:50	12° \mathbb{X} 54'32	1°52'08	max. Earth dist.	2492 Feb 05 05:46	11° \approx 03'58	1.41616 AU
evening rise	2491 Mar 12 11:59	0° \mathbb{Y} 44'03					
	2491 Mar 12 02:49	0° \mathbb{Y}		superior conj	2492 Feb 12 21:23	24° \approx 06'39	-2°-4'-28
asc. node	2491 Mar 17 07:02	9° \mathbb{Y} 48'16		minimum elong	2492 Feb 12 23:03	24° \approx 13'57	2°04'27
evening max el	2491 Mar 28 16:30	26° \mathbb{Y} 46'13	18°34'29		2492 Feb 16 05:14	0° \mathbb{X}	
	2491 Apr 02 10:21	0° \mathbb{X}		evening rise	2492 Feb 23 17:02	13° \mathbb{X} 38'53	
retrograde	2491 Apr 05 10:24	0° \mathbb{X} 34'05		asc. node	2492 Mar 03 04:05	28° \mathbb{X} 46'35	
evening set	2491 Apr 07 17:20	0° \mathbb{X} 15'18			2492 Mar 03 21:54	0° \mathbb{Y}	
	2491 Apr 08 12:56	30° $\mathbb{R}\mathbb{Y}$		evening max el	2492 Mar 11 01:19	9° \mathbb{Y} 36'40	18°11'36
inferior conj	2491 Apr 15 08:14	25° \mathbb{Y} 47'34	2°21'12	retrograde	2492 Mar 17 22:30	13° \mathbb{Y} 04'35	
minimum elong	2491 Apr 15 12:10	25° \mathbb{Y} 39'55	2°20'07	evening set	2492 Mar 20 11:16	12° \mathbb{Y} 37'08	
min. Earth dist.	2491 Apr 18 17:58	23° \mathbb{Y} 10'09	0.57998 AU	inferior conj	2492 Mar 27 09:14	7° \mathbb{Y} 48'00	3°13'53
morning rise	2491 Apr 23 02:37	20° \mathbb{Y} 26'42		minimum elong	2492 Mar 27 12:13	7° \mathbb{Y} 41'16	3°13'23
desc. node	2491 Apr 24 06:25	19° \mathbb{Y} 56'06		min. Earth dist.	2492 Mar 30 17:39	4° \mathbb{Y} 47'43	0.60117 AU
direct	2491 Apr 28 22:54	19° \mathbb{Y} 00'06		morning rise	2492 Apr 03 09:42	2° \mathbb{Y} 03'25	
morning max el	2491 May 13 08:01	26° \mathbb{Y} 38'07	26°38'41	direct	2492 Apr 09 23:40	0° \mathbb{Y} 00'51	
	2491 May 16 12:50	0° \mathbb{X}		desc. node	2492 Apr 10 03:28	0° \mathbb{Y} 00'55	
	2491 Jun 05 06:24	0° \mathbb{I}		morning max el	2492 Apr 24 06:49	7° \mathbb{Y} 51'31	27°32'50
morning set	2491 Jun 11 16:08	12° \mathbb{I} 49'11			2492 May 11 02:01	0° \mathbb{X}	
asc. node	2491 Jun 13 06:20	16° \mathbb{I} 11'51		morning set	2492 May 25 23:35	27° \mathbb{X} 29'02	
					2492 May 27 04:29	0° \mathbb{I}	
superior conj	2491 Jun 18 17:27	28° \mathbb{I} 07'06	0°54'50	asc. node	2492 May 30 03:23	6° \mathbb{I} 19'03	
minimum elong	2491 Jun 18 15:21	27° \mathbb{I} 55'33	0°54'26	max. Earth dist.	2492 Jun 01 09:37	11° \mathbb{I} 14'53	1.32171 AU
max. Earth dist.	2491 Jun 18 21:36	28° \mathbb{I} 29'57	1.32213 AU				
	2491 Jun 19 13:57	0° \mathbb{Z}		superior conj	2492 Jun 02 05:00	13° \mathbb{I} 01'20	0°31'54
evening rise	2491 Jun 25 16:10	13° \mathbb{Z} 09'45		minimum elong	2492 Jun 02 03:37	12° \mathbb{I} 53'45	0°31'36

evening rise	2492 Jun 09 02:17	28°II00'30		behind sun begin	2493 May 17 09:35	27°817'53	
	2492 Jun 10 00:58	0°☿		behind sun end	2493 May 17 19:09	28°809'55	
	2492 Jun 26 22:24	0°♊			2493 May 18 15:22	0°♊	
evening max el	2492 Jul 06 15:30	11°♊37'36	25°39'55	evening rise	2493 May 24 14:01	12°II52'08	
desc. node	2492 Jul 07 02:44	12°♊04'03			2493 Jun 02 06:05	0°☿	
retrograde	2492 Jul 20 15:35	18°♊45'42		evening max el	2493 Jun 18 05:58	22°☿19'40	24°11'14
evening set	2492 Jul 26 15:46	17°♊20'37		desc. node	2493 Jun 23 23:46	26°☿50'05	
min. Earth dist.	2492 Jul 31 03:41	14°♊42'14	0.58335 AU	retrograde	2493 Jul 02 01:39	29°☿17'34	
inferior conj	2492 Aug 03 08:45	12°♊24'53	-5°00'-30	evening set	2493 Jul 06 17:15	28°☿29'34	
minimum elong	2492 Aug 03 09:58	12°♊22'41	5°00'28	min. Earth dist.	2493 Jul 12 16:41	25°☿32'28	0.56516 AU
morning rise	2492 Aug 11 07:44	8°♊03'58		inferior conj	2493 Jul 15 06:11	23°☿56'45	-4°-48'-59
direct	2492 Aug 13 19:21	7°♊44'23		minimum elong	2493 Jul 15 01:55	24°☿03'25	4°48'32
morning max el	2492 Aug 22 03:44	11°♊42'16	18°44'21	morning rise	2493 Jul 23 14:10	19°☿56'14	
asc. node	2492 Aug 26 02:38	16°♊15'30		direct	2493 Jul 26 06:48	19°☿37'06	
	2492 Sep 03 10:36	0°♎		morning max el	2493 Aug 04 23:44	24°☿07'30	19°42'06
morning set	2492 Sep 07 11:59	7°♎47'01			2493 Aug 10 01:11	0°♊	
				asc. node	2493 Aug 12 23:42	4°♊23'40	
superior conj	2492 Sep 16 04:08	24°♎34'41	1°37'31	morning set	2493 Aug 22 14:25	22°♊14'27	
minimum elong	2492 Sep 16 06:39	24°♎46'35	1°37'21		2493 Aug 26 10:23	0°♎	
	2492 Sep 19 01:52	0°♊					
max. Earth dist.	2492 Sep 23 06:54	7°♊35'42	1.39447 AU	superior conj	2493 Aug 30 13:14	8°♎15'52	1°44'50
evening rise	2492 Sep 27 08:20	14°♊37'24		minimum elong	2493 Aug 30 13:55	8°♎19'13	1°44'49
desc. node	2492 Oct 03 02:06	24°♊05'28		max. Earth dist.	2493 Sep 05 11:21	19°♎40'13	1.37412 AU
	2492 Oct 06 20:05	0°♌		evening rise	2493 Sep 09 07:02	26°♎39'08	
	2492 Oct 28 15:12	0°♊			2493 Sep 11 04:28	0°♊	
evening max el	2492 Nov 01 12:35	4°♊10'49	24°09'52	desc. node	2493 Sep 19 23:07	14°♊35'43	
retrograde	2492 Nov 12 15:12	10°♊41'48			2493 Sep 30 07:56	0°♌	
evening set	2492 Nov 17 21:41	8°♊30'51		evening max el	2493 Oct 15 00:40	17°♌50'44	25°24'51
asc. node	2492 Nov 22 01:51	3°♊49'43		retrograde	2493 Oct 27 02:26	24°♌47'43	
min. Earth dist.	2492 Nov 22 16:33	3°♊00'37	0.67676 AU	evening set	2493 Nov 01 23:18	22°♌21'15	
inferior conj	2492 Nov 23 09:05	2°♊04'51	0°26'44	min. Earth dist.	2493 Nov 06 10:07	17°♌26'08	0.67137 AU
minimum elong	2492 Nov 23 08:27	2°♊07'01	0°26'28	inferior conj	2493 Nov 07 13:30	15°♌57'45	0°-28'-44
	2492 Nov 24 22:47	30°♌		minimum elong	2493 Nov 07 14:15	15°♌55'23	0°28'26
morning rise	2492 Nov 28 19:29	25°♌58'23		asc. node	2493 Nov 08 22:54	14°♌11'42	
direct	2492 Dec 02 15:35	24°♌34'30		morning rise	2493 Nov 13 05:54	9°♌59'08	
morning max el	2492 Dec 10 13:52	29°♌07'51	20°27'38	direct	2493 Nov 16 14:05	8°♌54'46	
	2492 Dec 11 10:01	0°♊		morning max el	2493 Nov 23 18:01	12°♌56'31	19°24'21
greatest brilliancy	2492 Dec 16 20:12	6°♊32'47	-0.5m	greatest brilliancy	2493 Dec 02 19:45	24°♌31'19	-0.7m
desc. node	2492 Dec 30 01:22	25°♊30'14			2493 Dec 06 12:48	0°♊	
	2493 Jan 02 00:47	0°☿		desc. node	2493 Dec 16 22:24	15°♊55'48	
morning set	2493 Jan 07 20:48	8°☿57'05		morning set	2493 Dec 17 19:53	17°♊18'59	
max. Earth dist.	2493 Jan 17 12:48	24°☿12'41	1.43398 AU		2493 Dec 25 23:25	0°☿	
	2493 Jan 21 02:19	0°♌		max. Earth dist.	2493 Dec 31 02:46	8°☿04'54	1.44621 AU
superior conj	2493 Jan 23 19:25	4°♌28'35	-2°-2'-32	superior conj	2494 Jan 03 15:30	13°☿41'23	-1°-42'-11
minimum elong	2493 Jan 23 16:05	4°♌14'42	2°02'26	minimum elong	2494 Jan 03 07:12	13°☿08'16	1°41'30
evening rise	2493 Feb 05 05:55	25°♌46'53			2494 Jan 13 16:51	0°♌	
	2493 Feb 07 15:39	0°♋		evening rise	2494 Jan 17 22:22	7°♌00'53	
asc. node	2493 Feb 18 01:08	17°♋11'21			2494 Feb 01 03:58	0°♋	
evening max el	2493 Feb 22 13:25	22°♋46'02	18°08'13	asc. node	2494 Feb 04 22:12	4°♋52'38	
retrograde	2493 Mar 01 01:09	26°♋09'28		evening max el	2494 Feb 06 01:54	6°♋07'11	18°23'40
evening set	2493 Mar 03 19:09	25°♋32'03		retrograde	2494 Feb 12 13:46	9°♋39'15	
inferior conj	2493 Mar 10 03:54	20°♋21'48	3°38'05	evening set	2494 Feb 15 13:01	8°♋51'01	
minimum elong	2493 Mar 10 04:58	20°♋19'02	3°38'02	inferior conj	2494 Feb 21 12:09	3°♋21'25	3°40'42
min. Earth dist.	2493 Mar 13 01:17	17°♋23'35	0.62240 AU	minimum elong	2494 Feb 21 11:28	3°♋23'24	3°40'41
morning rise	2493 Mar 16 12:25	14°♋22'15		min. Earth dist.	2494 Feb 23 18:34	0°♋45'06	0.64126 AU
direct	2493 Mar 23 10:08	11°♋50'44			2494 Feb 24 10:57	30°♋	
desc. node	2493 Mar 28 00:31	12°♋50'30		morning rise	2494 Feb 27 08:21	27°♋13'07	
morning max el	2493 Apr 06 11:42	19°♋46'43	27°50'19	direct	2494 Mar 06 04:42	24°♋25'30	
	2493 Apr 15 05:15	0°♎		desc. node	2494 Mar 14 21:34	27°♋57'52	
	2493 May 03 23:58	0°☿			2494 Mar 17 09:33	0°♋	
morning set	2493 May 10 01:56	11°☿50'28		morning max el	2494 Mar 19 20:36	2°♋19'26	27°31'07
max. Earth dist.	2493 May 15 18:31	23°☿46'34	1.32529 AU		2494 Apr 09 11:32	0°♎	
asc. node	2493 May 17 00:25	26°☿28'12		morning set	2494 Apr 23 20:39	25°♎45'52	
					2494 Apr 25 23:34	0°☿	
superior conj	2493 May 17 14:40	27°☿45'31	0°06'16	max. Earth dist.	2494 Apr 28 20:18	5°☿52'50	1.33311 AU
minimum elong	2493 May 17 14:22	27°☿43'54	0°06'12				

superior conj	2494 May 01 20:37	12°♄14'07	0°-21'-15	minimum elong	2495 Apr 15 23:10	26°♄33'15	0°49'03
minimum elong	2494 May 01 21:41	12°♄19'47	0°21'03		2495 Apr 17 14:54	0°♄	
asc. node	2494 May 03 21:29	16°♄35'35		asc. node	2495 Apr 20 18:31	6°♄36'40	
evening rise	2494 May 09 01:33	27°♄38'41		evening rise	2495 Apr 23 10:56	12°♄13'18	
	2494 May 10 04:33	0°♄			2495 May 02 17:16	0°♄	
	2494 May 28 05:12	0°♄		evening max el	2495 May 12 18:31	13°♄32'22	21°05'08
evening max el	2494 May 30 20:22	2°♄47'01	22°34'47	retrograde	2495 May 24 13:12	19°♄17'22	
desc. node	2494 Jun 10 20:47	9°♄08'18		evening set	2495 May 26 18:48	19°♄05'43	
retrograde	2494 Jun 12 23:38	9°♄18'35		desc. node	2495 May 28 17:47	18°♄37'33	
evening set	2494 Jun 16 03:59	8°♄56'18		inferior conj	2495 Jun 05 03:01	15°♄07'40	-2°-7'-46
min. Earth dist.	2494 Jun 24 03:59	5°♄26'38	0.55270 AU	minimum elong	2495 Jun 04 21:06	15°♄16'01	2°05'44
inferior conj	2494 Jun 25 09:13	4°♄45'01	-3°-50'-22	min. Earth dist.	2495 Jun 05 16:09	14°♄49'07	0.54888 AU
minimum elong	2494 Jun 25 01:14	4°♄56'24	3°48'24	morning rise	2495 Jun 13 23:06	11°♄07'00	
morning rise	2494 Jul 04 01:01	0°♄53'54		direct	2495 Jun 17 09:42	10°♄41'24	
direct	2494 Jul 07 00:12	0°♄33'45		morning max el	2495 Jun 30 06:14	16°♄49'23	22°35'57
morning max el	2494 Jul 18 08:19	5°♄49'40	21°00'43		2495 Jul 10 16:36	0°♄	
asc. node	2494 Jul 30 20:44	23°♄11'15		asc. node	2495 Jul 17 17:46	12°♄28'30	
	2494 Aug 03 11:18	0°♄		morning set	2495 Jul 22 08:27	21°♄49'19	
morning set	2494 Aug 06 21:55	6°♄57'10			2495 Jul 26 04:52	0°♄	
superior conj	2494 Aug 14 09:15	22°♄29'59	1°44'03	superior conj	2495 Jul 29 12:44	7°♄06'26	1°36'40
minimum elong	2494 Aug 14 08:25	22°♄25'38	1°44'01	minimum elong	2495 Jul 29 10:53	6°♄56'33	1°36'31
	2494 Aug 18 02:03	0°♄		max. Earth dist.	2495 Aug 01 14:04	13°♄31'30	1.34125 AU
max. Earth dist.	2494 Aug 18 20:21	1°♄30'46	1.35590 AU	evening rise	2495 Aug 06 10:09	23°♄17'24	
evening rise	2494 Aug 23 01:09	9°♄36'29			2495 Aug 09 22:19	0°♄	
	2494 Sep 03 18:18	0°♄		desc. node	2495 Aug 24 17:07	24°♄42'39	
desc. node	2494 Sep 06 20:08	4°♄50'28			2495 Aug 28 09:45	0°♄	
	2494 Sep 26 00:49	0°♄		evening max el	2495 Sep 10 01:00	15°♄00'03	27°10'13
evening max el	2494 Sep 27 12:45	1°♄29'38	26°27'27	retrograde	2495 Sep 23 09:31	22°♄18'21	
retrograde	2494 Oct 10 08:44	8°♄42'17		evening set	2495 Sep 30 07:16	19°♄36'01	
evening set	2494 Oct 16 19:16	6°♄04'17		min. Earth dist.	2495 Oct 04 03:57	15°♄53'36	0.65021 AU
min. Earth dist.	2494 Oct 20 22:39	1°♄45'35	0.66255 AU	inferior conj	2495 Oct 06 07:03	13°♄31'14	-2°-26'-9
	2494 Oct 22 09:32	30°♄		minimum elong	2495 Oct 06 11:00	13°♄20'13	2°24'42
inferior conj	2494 Oct 22 13:32	29°♄47'50	-1°-27'-1	morning rise	2495 Oct 12 16:32	7°♄56'44	
minimum elong	2494 Oct 22 15:52	29°♄40'45	1°26'04	asc. node	2495 Oct 13 16:59	7°♄33'50	
asc. node	2494 Oct 26 19:58	25°♄12'38		direct	2495 Oct 15 07:34	7°♄19'59	
morning rise	2494 Oct 28 13:44	23°♄59'45		morning max el	2495 Oct 21 19:41	10°♄49'11	18°05'25
direct	2494 Oct 31 12:07	23°♄11'11			2495 Nov 04 01:56	0°♄	
morning max el	2494 Nov 07 04:45	26°♄52'03	18°36'33	morning set	2495 Nov 08 19:18	7°♄50'14	
	2494 Nov 09 23:10	0°♄		desc. node	2495 Nov 20 16:27	27°♄15'29	
morning set	2494 Nov 27 16:52	26°♄50'32			2495 Nov 22 09:36	0°♄	
	2494 Nov 29 16:31	0°♄		superior conj	2495 Nov 23 00:35	0°♄59'40	0°-15'-45
desc. node	2494 Dec 03 19:25	6°♄31'59		minimum elong	2495 Nov 22 22:36	0°♄51'48	0°15'30
superior conj	2494 Dec 13 18:29	22°♄12'36	-1°-3'-43	behind sun begin	2495 Nov 22 19:25	0°♄39'07	
minimum elong	2494 Dec 13 10:43	21°♄42'08	1°02'48	behind sun end	2495 Nov 23 01:47	1°♄04'28	
max. Earth dist.	2494 Dec 13 20:34	22°♄20'47	1.45156 AU	max. Earth dist.	2495 Nov 26 15:27	6°♄43'38	1.44957 AU
	2494 Dec 18 17:30	0°♄		evening rise	2495 Dec 09 11:16	26°♄43'22	
evening rise	2494 Dec 29 15:27	17°♄16'33			2495 Dec 11 14:09	0°♄	
	2495 Jan 06 15:11	0°♄		greatest brilliancy	2495 Dec 27 07:24	23°♄40'58	-0.6m
evening max el	2495 Jan 20 12:14	19°♄33'53	18°57'05		2496 Jan 01 01:36	0°♄	
asc. node	2495 Jan 22 19:15	21°♄37'01		evening max el	2496 Jan 03 18:32	3°♄03'34	19°46'50
retrograde	2495 Jan 27 08:14	23°♄25'31		asc. node	2496 Jan 09 16:16	7°♄10'25	
evening set	2495 Jan 30 13:39	22°♄25'23		retrograde	2496 Jan 11 05:33	7°♄23'41	
inferior conj	2495 Feb 05 06:10	16°♄38'39	3°27'22	evening set	2496 Jan 14 18:35	6°♄10'14	
minimum elong	2495 Feb 05 04:16	16°♄44'36	3°27'06	inferior conj	2496 Jan 20 06:55	0°♄08'53	3°02'02
min. Earth dist.	2495 Feb 06 21:10	14°♄36'44	0.65653 AU	minimum elong	2496 Jan 20 04:25	0°♄17'11	3°01'26
morning rise	2495 Feb 10 17:51	10°♄25'42			2496 Jan 20 09:36	30°♄	
direct	2495 Feb 17 06:10	7°♄36'01		min. Earth dist.	2496 Jan 21 07:34	28°♄47'11	0.66778 AU
desc. node	2495 Mar 01 18:36	14°♄46'54		morning rise	2496 Jan 25 13:33	23°♄53'53	
morning max el	2495 Mar 02 06:30	15°♄16'32	26°40'35	direct	2496 Jan 31 13:30	21°♄14'15	
	2495 Mar 14 08:53	0°♄		morning max el	2496 Feb 12 15:25	28°♄26'21	25°27'20
	2495 Apr 02 06:09	0°♄		desc. node	2496 Feb 16 15:39	0°♄	
morning set	2495 Apr 07 04:18	9°♄04'12			2496 Feb 14 03:21	0°♄	
max. Earth dist.	2495 Apr 11 11:15	17°♄24'40	1.34545 AU	morning set	2496 Mar 07 03:13	0°♄	
superior conj	2495 Apr 15 20:37	26°♄20'07	0°-49'-31	max. Earth dist.	2496 Mar 19 20:18	21°♄32'11	
					2496 Mar 23 14:27	28°♄29'04	1.36230 AU

	2496 Mar 24 09:40	0°♿			2497 Feb 08 14:57	0°♿	
					2497 Feb 27 22:09	0°♿	
superior conj	2496 Mar 29 11:59	9°♿55'56	-1°-16'-57	morning set	2497 Mar 01 14:52	2°♿54'02	
minimum elong	2496 Mar 29 15:49	10°♿15'02	1°16'21	max. Earth dist.	2497 Mar 05 10:27	9°♿35'34	1.38267 AU
evening rise	2496 Apr 06 16:03	26°♿29'44					
asc. node	2496 Apr 06 15:33	26°♿27'09		superior conj	2497 Mar 12 15:12	22°♿52'25	-1°-41'-11
	2496 Apr 08 09:51	0°♿		minimum elong	2497 Mar 12 19:37	23°♿13'24	1°40'42
evening max el	2496 Apr 24 04:21	24°♿54'47	19°51'14		2497 Mar 16 07:55	0°♿	
retrograde	2496 May 04 05:15	29°♿46'09		evening rise	2497 Mar 21 14:25	10°♿21'07	
evening set	2496 May 06 05:22	29°♿35'24		asc. node	2497 Mar 24 12:35	16°♿02'17	
desc. node	2496 May 14 14:49	25°♿51'27			2497 Apr 01 12:00	0°♿	
inferior conj	2496 May 15 01:54	25°♿34'29	0°-8'-5	evening max el	2497 Apr 07 01:21	6°♿56'42	18°56'42
minimum elong	2496 May 15 01:32	25°♿35'02	0°07'57	retrograde	2497 Apr 15 12:17	11°♿03'29	
transit middle	2496 May 15 01:32	25°♿35'02	0°07'57	evening set	2497 Apr 17 16:03	10°♿48'31	
transit begin	2496 May 14 22:06	25°♿40'18		inferior conj	2497 Apr 25 17:51	6°♿31'55	1°35'44
transit end	2496 May 15 04:58	25°♿29'46		minimum elong	2497 Apr 25 21:13	6°♿25'56	1°34'39
min. Earth dist.	2496 May 17 05:44	24°♿15'14	0.55479 AU	min. Earth dist.	2497 Apr 28 21:31	4°♿18'46	0.56906 AU
morning rise	2496 May 23 18:36	21°♿06'40		desc. node	2497 May 01 11:51	2°♿41'06	
direct	2496 May 28 00:55	20°♿26'33		morning rise	2497 May 03 22:05	1°♿29'34	
morning max el	2496 Jun 10 21:24	27°♿19'54	24°18'20	direct	2497 May 09 04:54	0°♿23'05	
	2496 Jun 13 12:03	0°♿		morning max el	2497 May 23 12:10	7°♿47'56	25°53'31
	2496 Jul 02 13:40	0°♿			2497 Jun 09 00:12	0°♿	
asc. node	2496 Jul 03 14:47	2°♿07'15		morning set	2497 Jun 20 07:40	21°♿39'16	
morning set	2496 Jul 05 20:13	6°♿45'01		asc. node	2497 Jun 20 11:50	22°♿01'18	
					2497 Jun 24 04:45	0°♿	
superior conj	2496 Jul 12 20:59	21°♿56'11	1°23'52				
minimum elong	2496 Jul 12 18:39	21°♿43'29	1°23'34	superior conj	2497 Jun 27 07:57	6°♿52'30	1°06'34
max. Earth dist.	2496 Jul 14 16:46	25°♿52'40	1.33070 AU	minimum elong	2497 Jun 27 05:38	6°♿39'45	1°06'10
	2496 Jul 16 15:10	0°♿		max. Earth dist.	2497 Jun 28 02:03	8°♿31'52	1.32416 AU
evening rise	2496 Jul 20 05:54	7°♿29'26		evening rise	2497 Jul 04 09:13	22°♿02'52	
	2496 Aug 01 10:08	0°♿			2497 Jul 08 07:43	0°♿	
desc. node	2496 Aug 10 14:08	14°♿01'56			2497 Jul 26 11:33	0°♿	
evening max el	2496 Aug 22 11:55	28°♿09'07	27°26'12	desc. node	2497 Jul 28 11:08	2°♿34'43	
	2496 Aug 24 13:15	0°♿		evening max el	2497 Aug 04 18:53	10°♿43'11	27°10'18
retrograde	2496 Sep 05 03:59	5°♿26'12		retrograde	2497 Aug 18 15:21	17°♿56'59	
evening set	2496 Sep 12 08:15	2°♿49'40		evening set	2497 Aug 25 18:18	15°♿38'38	
	2496 Sep 15 15:48	30°♿		min. Earth dist.	2497 Aug 29 09:07	12°♿54'12	0.61567 AU
min. Earth dist.	2496 Sep 15 23:52	29°♿40'29	0.63442 AU	inferior conj	2497 Sep 01 11:25	10°♿09'17	-4°-14'-3
inferior conj	2496 Sep 18 15:22	27°♿00'59	-3°-23'-23	minimum elong	2497 Sep 01 16:48	9°♿57'16	4°12'52
minimum elong	2496 Sep 18 20:34	26°♿47'54	3°21'48	morning rise	2497 Sep 08 18:14	5°♿12'20	
morning rise	2496 Sep 25 11:16	21°♿43'28		direct	2497 Sep 11 02:52	4°♿49'00	
direct	2496 Sep 27 21:40	21°♿14'55		asc. node	2497 Sep 16 11:03	6°♿52'52	
asc. node	2496 Sep 29 14:00	21°♿28'48		morning max el	2497 Sep 18 02:38	8°♿19'12	17°56'32
morning max el	2496 Oct 04 11:58	24°♿40'33	17°51'46		2497 Oct 02 04:21	0°♿	
	2496 Oct 08 20:21	0°♿		morning set	2497 Oct 03 22:20	3°♿11'29	
morning set	2496 Oct 20 23:15	20°♿03'41					
	2496 Oct 26 17:09	0°♿		superior conj	2497 Oct 14 10:12	22°♿01'24	1°05'17
				minimum elong	2497 Oct 14 14:40	22°♿20'50	1°04'44
superior conj	2496 Nov 02 03:51	10°♿50'44	0°29'45		2497 Oct 19 02:09	0°♿	
minimum elong	2496 Nov 02 06:51	11°♿03'08	0°29'20	max. Earth dist.	2497 Oct 21 22:00	4°♿42'16	1.42537 AU
desc. node	2496 Nov 06 13:28	18°♿02'21		desc. node	2497 Oct 24 10:29	8°♿49'14	
max. Earth dist.	2496 Nov 08 08:49	20°♿56'43	1.44046 AU	evening rise	2497 Oct 28 10:35	15°♿13'16	
	2496 Nov 14 02:14	0°♿			2497 Nov 07 01:47	0°♿	
evening rise	2496 Nov 17 20:09	5°♿48'46		greatest brilliancy	2497 Nov 24 21:34	24°♿46'03	-0.3m
	2496 Dec 03 23:50	0°♿		evening max el	2497 Nov 29 14:59	0°♿06'29	22°04'31
greatest brilliancy	2496 Dec 11 06:20	10°♿02'03	-0.5m		2497 Nov 29 12:26	0°♿	
evening max el	2496 Dec 16 19:33	16°♿34'37	20°50'29	retrograde	2497 Dec 08 23:57	5°♿41'08	
retrograde	2496 Dec 25 03:22	21°♿30'04		evening set	2497 Dec 13 09:36	3°♿56'33	
asc. node	2496 Dec 26 13:16	21°♿19'00		asc. node	2497 Dec 13 10:19	3°♿55'06	
evening set	2496 Dec 29 01:49	20°♿01'44			2497 Dec 17 00:32	30°♿	
inferior conj	2497 Jan 03 11:55	13°♿48'40	2°27'22	inferior conj	2497 Dec 18 19:05	27°♿35'07	1°45'10
minimum elong	2497 Jan 03 09:22	13°♿57'26	2°26'34	minimum elong	2497 Dec 18 16:57	27°♿42'31	1°44'23
min. Earth dist.	2497 Jan 03 23:42	13°♿08'16	0.67499 AU	min. Earth dist.	2497 Dec 18 19:18	27°♿34'24	0.67840 AU
morning rise	2497 Jan 08 16:29	7°♿33'33		morning rise	2497 Dec 24 00:09	21°♿21'42	
direct	2497 Jan 14 01:47	5°♿12'14		direct	2497 Dec 28 18:15	19°♿22'44	
morning max el	2497 Jan 24 23:46	11°♿42'41	24°01'32	morning max el	2498 Jan 07 10:15	25°♿05'18	22°33'05
desc. node	2497 Feb 02 12:42	21°♿43'12			2498 Jan 11 20:10	0°♿	

greatest brilliancy	2498 Jan 11 23:55	0°☿11'20	-0.3m	desc. node	2499 Jan 07 06:47	1°☿12'18	
desc. node	2498 Jan 20 09:45	11°☿14'21		morning set	2499 Jan 20 17:03	21°☿37'49	
	2498 Feb 02 03:02	0°☿			2499 Jan 25 23:14	0°☿	
morning set	2498 Feb 10 06:02	12°☿54'51		max. Earth dist.	2499 Jan 28 08:54	3°☿54'17	1.42428 AU
max. Earth dist.	2498 Feb 15 06:45	21°☿18'07	1.40431 AU				
	2498 Feb 20 07:09	0°☿		superior conj	2499 Feb 04 14:24	15°☿59'55	-2°-5'-39
				minimum elong	2499 Feb 04 14:13	15°☿59'06	2°05'41
superior conj	2498 Feb 23 01:43	4°☿57'31	-1°-58'-55		2499 Feb 12 14:12	0°☿	
minimum elong	2498 Feb 23 05:06	5°☿12'47	1°58'45	evening rise	2499 Feb 16 01:40	6°☿15'10	
evening rise	2498 Mar 05 02:53	23°☿38'59		asc. node	2499 Feb 26 06:41	24°☿00'55	
	2498 Mar 08 12:09	0°☿			2499 Mar 02 11:32	0°☿	
asc. node	2498 Mar 11 09:38	5°☿15'46		evening max el	2499 Mar 04 17:15	2°☿30'08	18°07'44
evening max el	2498 Mar 21 06:42	19°☿31'04	18°22'16	retrograde	2499 Mar 11 09:20	5°☿54'41	
retrograde	2498 Mar 28 14:27	23°☿08'49		evening set	2499 Mar 14 00:13	5°☿23'16	
evening set	2498 Mar 30 23:51	22°☿46'36		inferior conj	2499 Mar 20 16:07	0°☿25'07	3°27'11
inferior conj	2498 Apr 07 07:05	18°☿09'31	2°47'27	minimum elong	2499 Mar 20 18:19	0°☿19'51	3°26'55
minimum elong	2498 Apr 07 10:50	18°☿01'44	2°46'36		2499 Mar 21 02:33	30°☿☿	
min. Earth dist.	2498 Apr 10 17:38	15°☿19'28	0.58875 AU	min. Earth dist.	2499 Mar 23 20:42	27°☿22'32	0.61037 AU
morning rise	2498 Apr 14 17:47	12°☿37'11		morning rise	2499 Mar 27 09:22	24°☿32'50	
desc. node	2498 Apr 18 08:55	11°☿12'54		direct	2499 Apr 03 03:44	22°☿16'28	
direct	2498 Apr 20 22:27	10°☿55'24		desc. node	2499 Apr 05 05:58	22°☿28'47	
morning max el	2498 May 05 07:34	18°☿39'46	27°06'05		2499 Apr 17 04:46	0°☿	
	2498 May 14 20:23	0°☿		morning max el	2499 Apr 17 09:16	0°☿11'08	27°44'52
	2498 Jun 01 13:41	0°☿			2499 May 08 21:09	0°☿	
morning set	2498 Jun 04 17:05	6°☿25'37		morning set	2499 May 19 22:38	20°☿57'59	
asc. node	2498 Jun 07 08:54	12°☿04'35			2499 May 24 05:25	0°☿	
				asc. node	2499 May 25 05:58	2°☿12'40	
superior conj	2498 Jun 11 19:45	21°☿48'28	0°45'29	max. Earth dist.	2499 May 26 01:06	3°☿56'47	1.32268 AU
minimum elong	2498 Jun 11 17:54	21°☿38'19	0°45'07				
max. Earth dist.	2498 Jun 11 14:06	21°☿17'21	1.32146 AU	superior conj	2499 May 27 06:42	6°☿38'29	0°21'18
	2498 Jun 15 13:18	0°☿		minimum elong	2499 May 27 05:44	6°☿33'13	0°21'05
evening rise	2498 Jun 18 17:26	6°☿48'31		evening rise	2499 Jun 03 04:26	21°☿39'28	
	2498 Jun 30 21:31	0°☿			2499 Jun 07 05:27	0°☿	
desc. node	2498 Jul 15 08:10	20°☿01'39			2499 Jun 26 03:16	0°☿	
evening max el	2498 Jul 17 19:16	22°☿31'23	26°21'23	evening max el	2499 Jun 29 12:33	3°☿33'29	25°04'09
retrograde	2498 Jul 31 18:46	29°☿42'43		desc. node	2499 Jul 02 05:11	5°☿55'48	
evening set	2498 Aug 07 08:43	27°☿55'19		retrograde	2499 Jul 13 12:13	10°☿39'27	
min. Earth dist.	2498 Aug 11 08:18	25°☿20'20	0.59507 AU	evening set	2499 Jul 18 23:30	9°☿30'49	
inferior conj	2498 Aug 14 15:37	22°☿46'54	-4°-50'-30	min. Earth dist.	2499 Jul 24 00:11	6°☿46'14	0.57503 AU
minimum elong	2498 Aug 14 19:09	22°☿40'01	4°50'07	inferior conj	2499 Jul 27 00:43	4°☿44'22	-5°00'-47
morning rise	2498 Aug 22 09:02	18°☿13'07		minimum elong	2499 Jul 26 23:44	4°☿46'02	5°00'46
direct	2498 Aug 24 18:45	17°☿52'45		morning rise	2499 Aug 04 03:41	0°☿33'04	
morning max el	2498 Sep 01 12:33	21°☿37'09	18°21'00	direct	2499 Aug 06 17:01	0°☿13'58	
asc. node	2498 Sep 03 08:07	23°☿32'35		morning max el	2499 Aug 15 14:28	4°☿24'21	19°06'22
	2498 Sep 08 00:17	0°☿		asc. node	2499 Aug 21 05:11	11°☿12'21	
morning set	2498 Sep 17 11:08	16°☿58'38			2499 Aug 31 18:36	0°☿	
	2498 Sep 24 07:47	0°☿		morning set	2499 Sep 01 09:30	1°☿13'34	
superior conj	2498 Sep 26 16:38	4°☿23'11	1°28'57	superior conj	2499 Sep 09 17:29	17°☿39'27	1°41'43
minimum elong	2498 Sep 26 20:09	4°☿39'21	1°28'37	minimum elong	2499 Sep 09 19:13	17°☿47'46	1°41'38
max. Earth dist.	2498 Oct 04 05:25	17°☿45'46	1.40623 AU		2499 Sep 16 07:49	0°☿	
evening rise	2498 Oct 08 20:17	25°☿31'43		max. Earth dist.	2499 Sep 16 09:13	0°☿06'22	1.38560 AU
desc. node	2498 Oct 11 07:30	29°☿32'59		evening rise	2499 Sep 20 05:56	6°☿56'49	
	2498 Oct 11 14:12	0°☿		desc. node	2499 Sep 28 04:30	20°☿09'23	
	2498 Oct 31 20:42	0°☿			2499 Oct 04 13:29	0°☿	
evening max el	2498 Nov 12 05:55	13°☿40'48	23°24'02	evening max el	2499 Oct 25 18:27	27°☿18'55	24°42'49
retrograde	2498 Nov 22 17:49	19°☿53'36			2499 Oct 28 17:09	0°☿	
evening set	2498 Nov 27 16:17	17°☿52'09		retrograde	2499 Nov 06 07:47	4°☿02'51	
asc. node	2498 Nov 30 07:22	15°☿08'28		evening set	2499 Nov 11 20:13	1°☿45'07	
min. Earth dist.	2498 Dec 02 16:04	12°☿02'28	0.67828 AU		2499 Nov 13 15:14	30°☿☿	
inferior conj	2498 Dec 03 02:36	11°☿26'22	0°56'52	min. Earth dist.	2499 Nov 16 11:34	26°☿29'23	0.67484 AU
minimum elong	2498 Dec 03 01:18	11°☿30'48	0°56'21	inferior conj	2499 Nov 17 08:39	25°☿19'22	0°03'38
morning rise	2498 Dec 08 10:26	5°☿16'36		minimum elong	2499 Nov 17 08:34	25°☿19'40	0°03'37
direct	2498 Dec 12 14:04	3°☿40'29		transit middle	2499 Nov 17 08:34	25°☿19'40	0°03'37
morning max el	2498 Dec 21 02:16	8°☿37'16	21°10'19	transit begin	2499 Nov 17 05:53	25°☿28'35	
greatest brilliancy	2498 Dec 26 09:55	14°☿43'56	-0.4m	transit end	2499 Nov 17 11:15	25°☿10'45	
	2499 Jan 06 11:03	0°☿		asc. node	2499 Nov 17 04:25	25°☿33'26	

morning rise	2499 Nov 22 21:21	19° \mathbb{M} 15'41		asc. node	2500 Nov 04 01:27	6° \mathbb{M} 05'39	
direct	2499 Nov 26 12:05	18° \mathbb{M} 00'33		morning rise	2500 Nov 07 06:57	3° \mathbb{M} 16'57	
morning max el	2499 Dec 04 01:50	22° \mathbb{M} 19'34	19°58'49	direct	2500 Nov 10 10:44	2° \mathbb{M} 19'38	
	2499 Dec 10 11:18	0° \mathbb{A}		morning max el	2500 Nov 17 08:54	6° \mathbb{M} 11'13	19°01'56
greatest brilliancy	2499 Dec 11 07:06	1° \mathbb{A} 06'59	-0.6m		2500 Dec 04 08:26	0° \mathbb{A}	
desc. node	2499 Dec 25 03:48	21° \mathbb{A} 29'01		morning set	2500 Dec 09 19:27	8° \mathbb{A} 30'55	
morning set	2499 Dec 30 13:04	29° \mathbb{A} 44'49		desc. node	2500 Dec 12 00:48	11° \mathbb{A} 59'24	
	2499 Dec 30 17:00	0° \mathbb{C}			2500 Dec 23 12:46	0° \mathbb{C}	
max. Earth dist.	2500 Jan 10 18:31	17° \mathbb{C} 20'58	1.43998 AU	max. Earth dist.	2500 Dec 24 10:28	1° \mathbb{C} 25'21	1.44948 AU
superior conj	2500 Jan 16 01:06	25° \mathbb{C} 51'04	-1°-56'-18	superior conj	2500 Dec 26 12:01	4° \mathbb{C} 40'43	-1°-27'-45
minimum elong	2500 Jan 15 19:19	25° \mathbb{C} 27'35	1°55'59	minimum elong	2500 Dec 26 03:04	4° \mathbb{C} 05'19	1°26'51
	2500 Jan 18 13:52	0° \mathbb{A}		evening rise	2501 Jan 10 12:50	28° \mathbb{C} 48'48	
evening rise	2500 Jan 29 06:16	18° \mathbb{A} 00'17			2501 Jan 11 06:17	0° \mathbb{A}	
	2500 Feb 05 06:45	0° \mathbb{H}		evening max el	2501 Jan 30 17:45	29° \mathbb{A} 09'28	18°35'49
asc. node	2500 Feb 13 03:44	12° \mathbb{H} 08'25		asc. node	2501 Jan 31 00:45	29° \mathbb{A} 27'01	
evening max el	2500 Feb 16 05:51	15° \mathbb{H} 45'18	18°12'34		2501 Jan 31 14:38	0° \mathbb{H}	
retrograde	2500 Feb 22 16:35	19° \mathbb{H} 10'44		retrograde	2501 Feb 06 07:59	2° \mathbb{H} 48'12	
evening set	2500 Feb 25 12:45	18° \mathbb{H} 28'53		evening set	2501 Feb 09 09:50	1° \mathbb{H} 54'54	
inferior conj	2500 Mar 03 17:03	13° \mathbb{H} 10'29	3°41'25		2501 Feb 11 21:23	30° \mathbb{R} \mathbb{A}	
minimum elong	2500 Mar 03 17:19	13° \mathbb{H} 09'46	3°41'25	inferior conj	2501 Feb 15 05:49	26° \mathbb{A} 17'47	3°36'42
min. Earth dist.	2500 Mar 06 08:26	10° \mathbb{H} 19'17	0.63086 AU	minimum elong	2501 Feb 15 04:32	26° \mathbb{A} 21'36	3°36'35
morning rise	2500 Mar 09 19:51	7° \mathbb{H} 06'40		min. Earth dist.	2501 Feb 17 05:36	23° \mathbb{A} 55'11	0.64832 AU
direct	2500 Mar 16 18:09	4° \mathbb{H} 26'09		morning rise	2501 Feb 20 21:59	20° \mathbb{A} 07'26	
desc. node	2500 Mar 23 03:01	6° \mathbb{H} 20'55		direct	2501 Feb 27 15:44	17° \mathbb{A} 17'17	
morning max el	2500 Mar 30 16:02	12° \mathbb{H} 22'44	27°46'17	desc. node	2501 Mar 10 00:02	22° \mathbb{A} 15'16	
	2500 Apr 13 16:50	0° \mathbb{Y}		morning max el	2501 Mar 13 01:25	25° \mathbb{A} 06'17	27°12'56
	2500 May 01 07:22	0° \mathbb{Y}			2501 Mar 17 12:42	0° \mathbb{H}	
morning set	2500 May 03 22:04	5° \mathbb{Y} 09'21			2501 Apr 07 03:54	0° \mathbb{Y}	
max. Earth dist.	2500 May 09 07:13	16° \mathbb{Y} 17'52	1.32803 AU	morning set	2501 Apr 17 12:29	18° \mathbb{Y} 49'53	
				max. Earth dist.	2501 Apr 22 04:41	28° \mathbb{Y} 09'35	1.33782 AU
superior conj	2500 May 11 15:03	21° \mathbb{Y} 17'00	0°-5'-15		2501 Apr 23 02:10	0° \mathbb{Y}	
minimum elong	2500 May 11 15:18	21° \mathbb{Y} 18'22	0°05'13	superior conj	2501 Apr 25 18:44	5° \mathbb{Y} 36'47	0°-33'-14
behind sun begin	2500 May 11 10:18	20° \mathbb{Y} 51'27		minimum elong	2501 Apr 25 20:25	5° \mathbb{Y} 45'41	0°32'54
behind sun end	2500 May 11 20:17	21° \mathbb{Y} 45'18		asc. node	2501 Apr 29 00:02	12° \mathbb{Y} 26'46	
asc. node	2500 May 12 03:01	22° \mathbb{Y} 21'38		evening rise	2501 May 03 03:09	21° \mathbb{Y} 11'54	
	2500 May 15 15:37	0° \mathbb{I}			2501 May 07 10:51	0° \mathbb{I}	
evening rise	2500 May 18 16:18	6° \mathbb{I} 29'38		evening max el	2501 May 23 19:14	24° \mathbb{I} 37'49	21°55'10
	2500 May 31 03:26	0° \mathbb{S}			2501 May 31 18:18	0° \mathbb{S}	
evening max el	2500 Jun 11 02:16	14° \mathbb{S} 06'12	23°30'20	retrograde	2501 Jun 05 10:01	0° \mathbb{S} 50'56	
desc. node	2500 Jun 19 02:13	19° \mathbb{S} 43'23		desc. node	2501 Jun 05 23:16	0° \mathbb{S} 50'14	
retrograde	2500 Jun 24 17:08	20° \mathbb{S} 55'06		evening set	2501 Jun 08 02:47	0° \mathbb{S} 34'40	
evening set	2500 Jun 28 16:51	20° \mathbb{S} 20'15			2501 Jun 10 06:30	30° \mathbb{R} \mathbb{I}	
min. Earth dist.	2500 Jul 05 12:24	17° \mathbb{S} 10'43	0.55890 AU	inferior conj	2501 Jun 17 11:19	26° \mathbb{I} 31'02	-3°-11'-7
inferior conj	2500 Jul 07 13:48	15° \mathbb{S} 57'13	-4°-30'-18	minimum elong	2501 Jun 17 03:28	26° \mathbb{I} 42'02	3°08'47
minimum elong	2500 Jul 07 07:25	16° \mathbb{S} 06'45	4°29'14	min. Earth dist.	2501 Jun 16 23:39	26° \mathbb{I} 47'22	0.54994 AU
morning rise	2500 Jul 16 01:13	12° \mathbb{S} 02'10		morning rise	2501 Jun 26 05:36	22° \mathbb{I} 38'31	
direct	2500 Jul 18 20:18	11° \mathbb{S} 42'50		direct	2501 Jun 29 09:06	22° \mathbb{I} 16'39	
morning max el	2500 Jul 29 05:42	16° \mathbb{S} 31'52	20°13'09	morning max el	2501 Jul 11 09:17	27° \mathbb{I} 54'15	21°39'38
asc. node	2500 Aug 08 02:14	29° \mathbb{S} 38'44			2501 Jul 13 11:24	0° \mathbb{S}	
	2500 Aug 08 07:14	0° \mathbb{Q}		asc. node	2501 Jul 25 23:15	18° \mathbb{S} 39'46	
morning set	2500 Aug 16 14:23	15° \mathbb{Q} 48'24		morning set	2501 Jul 31 23:24	0° \mathbb{Q} 35'35	
	2500 Aug 23 12:43	0° \mathbb{M}			2501 Jul 31 16:32	0° \mathbb{Q}	
superior conj	2500 Aug 24 07:43	1° \mathbb{M} 36'00	1°45'23	superior conj	2501 Aug 08 07:14	16° \mathbb{Q} 00'09	1°41'38
minimum elong	2500 Aug 24 07:41	1° \mathbb{M} 35'54	1°45'23	minimum elong	2501 Aug 08 05:54	15° \mathbb{Q} 53'08	1°41'34
max. Earth dist.	2500 Aug 29 14:57	12° \mathbb{M} 01'56	1.36600 AU	max. Earth dist.	2501 Aug 12 03:41	23° \mathbb{Q} 55'27	1.34922 AU
evening rise	2500 Sep 02 13:31	19° \mathbb{M} 24'11			2501 Aug 15 05:08	0° \mathbb{M}	
	2500 Sep 08 13:57	0° \mathbb{A}		evening rise	2501 Aug 16 14:29	2° \mathbb{M} 41'02	
desc. node	2500 Sep 15 01:31	10° \mathbb{A} 33'55		desc. node	2501 Sep 01 22:33	0° \mathbb{A} 39'56	
	2500 Sep 28 15:50	0° \mathbb{M}			2501 Sep 01 12:04	0° \mathbb{A}	
evening max el	2500 Oct 08 06:39	10° \mathbb{M} 59'54	25°53'29	evening max el	2501 Sep 20 19:02	24° \mathbb{A} 36'35	26°48'31
retrograde	2500 Oct 20 16:54	18° \mathbb{M} 04'28			2501 Sep 27 16:56	0° \mathbb{M}	
evening set	2500 Oct 26 19:39	15° \mathbb{M} 32'47		retrograde	2501 Oct 03 20:42	1° \mathbb{M} 51'50	
min. Earth dist.	2500 Oct 31 03:23	10° \mathbb{M} 52'47	0.66808 AU		2501 Oct 09 10:22	30° \mathbb{R} \mathbb{A}	
inferior conj	2500 Nov 01 11:27	9° \mathbb{M} 11'45	0°-53'-11	evening set	2501 Oct 10 12:31	29° \mathbb{A} 11'04	
minimum elong	2500 Nov 01 12:51	9° \mathbb{M} 07'21	0°52'36				

min. Earth dist.	2501 Oct 14 13:02	25°♄08'00	0.65777 AU	inferior conj	2502 Sep 29 22:53	6°♄36'59	-2°-50'-56
inferior conj	2501 Oct 16 08:59	22°♄59'19	-1°-52'-6	minimum elong	2502 Sep 30 03:27	6°♄24'47	2°49'21
minimum elong	2501 Oct 16 12:01	22°♄50'25	1°50'54	morning rise	2502 Oct 06 12:44	1°♄09'35	
asc. node	2501 Oct 21 22:28	17°♄37'02		asc. node	2502 Oct 08 19:30	0°♄37'05	
morning rise	2501 Oct 22 12:57	17°♄16'37		direct	2502 Oct 09 01:28	0°♄36'46	
direct	2501 Oct 25 08:02	16°♄33'24		morning max el	2502 Oct 15 13:38	4°♄03'14	17°57'31
morning max el	2501 Oct 31 21:43	20°♄07'51	18°21'16	morning set	2502 Nov 01 19:03	0°♄13'56	
	2501 Nov 08 11:27	0°♄			2502 Nov 01 15:46	0°♄	
morning set	2501 Nov 20 05:04	18°♄41'03					
	2501 Nov 27 05:53	0°♄		superior conj	2502 Nov 15 03:09	22°♄21'09	0°04'28
desc. node	2501 Nov 28 21:50	2°♄39'16		minimum elong	2502 Nov 15 03:40	22°♄23'14	0°04'24
				behind sun begin	2502 Nov 14 17:42	21°♄43'00	
superior conj	2501 Dec 05 13:36	13°♄11'04	0°-43'-47	behind sun end	2502 Nov 15 13:37	23°♄03'23	
minimum elong	2501 Dec 05 07:59	12°♄48'59	0°43'04	desc. node	2502 Nov 15 18:51	23°♄24'28	
max. Earth dist.	2501 Dec 07 05:45	15°♄48'55	1.45166 AU		2502 Nov 19 21:55	0°♄	
	2501 Dec 16 07:00	0°♄		max. Earth dist.	2502 Nov 20 00:29	0°♄10'08	1.44644 AU
evening rise	2501 Dec 21 20:18	8°♄42'30		evening rise	2502 Dec 01 09:42	17°♄55'35	
greatest brilliancy	2502 Jan 04 17:11	0°♄14'27	-0.7m		2502 Dec 09 07:22	0°♄	
	2502 Jan 04 13:19	0°♄		greatest brilliancy	2502 Dec 21 18:05	18°♄10'28	-0.6m
evening max el	2502 Jan 14 02:36	12°♄38'10	19°16'19	evening max el	2502 Dec 28 06:40	26°♄08'07	20°12'20
asc. node	2502 Jan 17 21:46	15°♄43'30			2503 Jan 02 05:07	0°♄	
retrograde	2502 Jan 21 04:04	16°♄40'47		asc. node	2503 Jan 04 18:48	0°♄42'33	
evening set	2502 Jan 24 12:36	15°♄34'59		retrograde	2503 Jan 05 02:00	0°♄43'03	
inferior conj	2502 Jan 30 03:03	9°♄41'28	3°17'54		2503 Jan 07 19:26	30°♄	
minimum elong	2502 Jan 30 00:49	9°♄48'37	3°17'29	evening set	2503 Jan 08 18:46	29°♄23'26	
min. Earth dist.	2502 Jan 31 11:39	7°♄56'36	0.66183 AU	inferior conj	2503 Jan 14 05:54	23°♄16'26	2°48'20
morning rise	2502 Feb 04 12:13	3°♄27'28		minimum elong	2503 Jan 14 03:19	23°♄25'10	2°47'39
direct	2502 Feb 10 19:35	0°♄41'10		min. Earth dist.	2503 Jan 15 00:51	22°♄12'30	0.67128 AU
morning max el	2502 Feb 23 11:10	8°♄10'48	26°11'41	morning rise	2503 Jan 19 11:19	17°♄00'58	
desc. node	2502 Feb 24 21:03	9°♄38'45		direct	2503 Jan 25 05:03	14°♄28'35	
	2502 Mar 12 12:41	0°♄		morning max el	2503 Feb 05 19:55	21°♄24'51	24°51'48
	2502 Mar 30 14:38	0°♄		desc. node	2503 Feb 11 18:05	28°♄05'14	
morning set	2502 Mar 31 14:07	1°♄48'44			2503 Feb 13 06:55	0°♄	
max. Earth dist.	2502 Apr 04 14:57	9°♄29'59	1.35217 AU		2503 Mar 05 18:40	0°♄	
				morning set	2503 Mar 13 21:49	13°♄50'54	
superior conj	2502 Apr 09 15:26	19°♄31'03	-1°-1'-23	max. Earth dist.	2503 Mar 17 14:24	20°♄31'18	1.37067 AU
minimum elong	2502 Apr 09 18:34	19°♄47'03	1°00'49		2503 Mar 22 14:54	0°♄	
	2502 Apr 14 17:18	0°♄					
asc. node	2502 Apr 15 21:04	2°♄24'08		superior conj	2503 Mar 24 02:06	2°♄51'03	-1°-27'-47
evening rise	2502 Apr 17 11:01	5°♄40'03		minimum elong	2503 Mar 24 06:18	3°♄11'39	1°27'13
	2502 May 01 02:48	0°♄		evening rise	2503 Apr 01 13:37	19°♄46'41	
evening max el	2502 May 05 22:01	5°♄37'00	20°31'21	asc. node	2503 Apr 02 18:07	22°♄08'41	
retrograde	2502 May 16 23:10	10°♄59'25			2503 Apr 06 19:35	0°♄	
evening set	2502 May 19 00:48	10°♄48'54		evening max el	2503 Apr 18 12:46	17°♄16'12	19°25'30
desc. node	2502 May 23 20:16	9°♄13'14		retrograde	2503 Apr 27 20:48	21°♄47'16	
inferior conj	2502 May 28 05:25	6°♄51'08	-1°-16'-53	evening set	2503 Apr 29 21:37	21°♄35'20	
minimum elong	2502 May 28 01:47	6°♄56'24	1°15'34	inferior conj	2503 May 08 10:33	17°♄28'48	0°39'21
min. Earth dist.	2502 May 29 12:02	6°♄06'50	0.55027 AU	minimum elong	2503 May 08 12:11	17°♄26'08	0°38'46
morning rise	2502 Jun 06 01:17	2°♄40'58		desc. node	2503 May 10 17:17	15°♄59'53	
direct	2502 Jun 09 19:09	2°♄10'46		min. Earth dist.	2503 May 11 02:38	15°♄45'02	0.55996 AU
morning max el	2502 Jun 23 03:42	8°♄38'49	23°19'29	morning rise	2503 May 16 22:50	12°♄45'57	
	2502 Jul 08 13:48	0°♄		direct	2503 May 21 15:10	11°♄56'09	
asc. node	2502 Jul 12 20:18	8°♄06'52		morning max el	2503 Jun 04 18:08	19°♄05'23	25°00'44
morning set	2502 Jul 16 10:39	15°♄29'41			2503 Jun 13 22:02	0°♄	
	2502 Jul 23 05:02	0°♄		asc. node	2503 Jun 29 17:22	27°♄52'56	
				morning set	2503 Jun 30 22:30	0°♄25'32	
superior conj	2502 Jul 23 13:01	0°♄42'50	1°31'50		2503 Jun 30 17:39	0°♄	
minimum elong	2502 Jul 23 10:54	0°♄31'25	1°31'37				
max. Earth dist.	2502 Jul 26 01:27	6°♄04'21	1.33625 AU	superior conj	2503 Jul 07 22:42	15°♄36'29	1°17'02
evening rise	2502 Jul 31 04:27	16°♄35'46		minimum elong	2503 Jul 07 20:18	15°♄23'26	1°16'41
	2502 Aug 07 06:26	0°♄		max. Earth dist.	2503 Jul 09 07:09	18°♄33'10	1.32736 AU
desc. node	2502 Aug 19 19:35	20°♄19'19			2503 Jul 14 16:30	0°♄	
	2502 Aug 27 00:43	0°♄		evening rise	2503 Jul 15 03:47	0°♄58'01	
evening max el	2502 Sep 03 06:47	7°♄58'24	27°20'35		2503 Jul 31 05:45	0°♄	
retrograde	2502 Sep 16 18:46	15°♄16'49		desc. node	2503 Aug 06 16:36	9°♄21'03	
evening set	2502 Sep 23 20:14	12°♄35'12		evening max el	2503 Aug 16 16:10	20°♄53'44	27°23'33
min. Earth dist.	2502 Sep 27 14:21	9°♄07'56	0.64390 AU	retrograde	2503 Aug 30 10:41	28°♄10'30	

evening set	2503 Sep 06 15:29	25° \cap 39'50		desc. node	2504 Jul 23 13:38	27° Ω 28'56	
min. Earth dist.	2503 Sep 10 05:50	22° \cap 42'43	0.62667 AU		2504 Jul 25 18:28	0° \cap	
inferior conj	2503 Sep 13 02:26	19° \cap 58'49	-3°-46'-8	evening max el	2504 Jul 28 20:43	3° \cap 09'51	26°53'34
minimum elong	2503 Sep 13 07:54	19° \cap 45'43	3°44'38	retrograde	2504 Aug 11 19:04	10° \cap 22'46	
morning rise	2503 Sep 20 02:59	14° \cap 49'55		evening set	2504 Aug 18 17:48	8° \cap 16'28	
direct	2503 Sep 22 12:09	14° \cap 24'04		min. Earth dist.	2504 Aug 22 10:54	5° \cap 37'57	0.60694 AU
asc. node	2503 Sep 25 16:33	15° \cap 11'29		inferior conj	2504 Aug 25 16:13	2° \cap 55'40	-4°-31'-55
morning max el	2503 Sep 29 05:43	17° \cap 50'49	17°51'32	minimum elong	2504 Aug 25 21:08	2° \cap 45'17	4°31'04
	2503 Oct 07 23:00	0° Ω			2504 Aug 29 10:23	30° \cap Ω	
morning set	2503 Oct 15 07:55	12° Ω 52'46		morning rise	2504 Sep 02 03:36	28° Ω 08'08	
	2503 Oct 25 02:42	0° \cap		direct	2504 Sep 04 12:13	27° Ω 46'23	
					2504 Sep 10 05:17	0° \cap	
superior conj	2503 Oct 26 17:59	2° \cap 46'40	0°46'15	asc. node	2504 Sep 11 13:38	1° \cap 09'35	
minimum elong	2503 Oct 26 22:01	3° \cap 03'40	0°45'42	morning max el	2504 Sep 11 18:45	1° \cap 21'49	18°04'26
max. Earth dist.	2503 Nov 02 15:46	14° \cap 11'34	1.43458 AU	morning set	2504 Sep 27 13:27	26° \cap 19'02	
desc. node	2503 Nov 02 15:54	14° \cap 12'06			2504 Sep 29 12:54	0° Ω	
evening rise	2503 Nov 10 18:50	27° \cap 03'51					
	2503 Nov 12 16:26	0° \mathcal{A}		superior conj	2504 Oct 07 11:10	14° Ω 29'01	1°16'45
	2503 Dec 03 05:23	0° \mathcal{B}		minimum elong	2504 Oct 07 15:26	14° Ω 47'58	1°16'16
greatest brilliancy	2503 Dec 06 03:49	3° \mathcal{B} 49'08	-0.4m	max. Earth dist.	2504 Oct 15 02:16	27° Ω 39'27	1.41758 AU
evening max el	2503 Dec 11 05:14	9° \mathcal{B} 39'27	21°20'58		2504 Oct 16 12:02	0° \cap	
retrograde	2503 Dec 19 23:35	14° \mathcal{B} 51'51		desc. node	2504 Oct 19 12:56	4° \cap 58'12	
asc. node	2503 Dec 22 15:49	14° \mathcal{B} 12'20		evening rise	2504 Oct 20 16:19	6° \cap 48'28	
evening set	2503 Dec 24 02:28	13° \mathcal{B} 16'57			2504 Nov 04 21:53	0° \mathcal{A}	
inferior conj	2503 Dec 29 12:07	6° \mathcal{B} 59'51	2°10'18	greatest brilliancy	2504 Nov 18 01:35	17° \mathcal{A} 44'36	-0.3m
minimum elong	2503 Dec 29 09:41	7° \mathcal{B} 08'15	2°09'29	evening max el	2504 Nov 22 22:41	23° \mathcal{A} 12'36	22°38'07
min. Earth dist.	2503 Dec 29 18:54	6° \mathcal{B} 36'23	0.67686 AU	retrograde	2504 Dec 02 19:05	29° \mathcal{A} 03'39	
morning rise	2504 Jan 03 16:34	0° \mathcal{B} 44'56		evening set	2504 Dec 07 09:58	27° \mathcal{A} 12'08	
	2504 Jan 04 15:11	30° \cap \mathcal{A}		asc. node	2504 Dec 08 12:52	26° \mathcal{A} 10'40	
direct	2504 Jan 08 19:22	28° \mathcal{A} 32'43		inferior conj	2504 Dec 12 19:40	20° \mathcal{A} 48'35	1°25'23
	2504 Jan 13 10:24	0° \mathcal{B}		minimum elong	2504 Dec 12 17:50	20° \mathcal{A} 54'55	1°24'40
morning max el	2504 Jan 19 04:44	4° \mathcal{B} 43'42	23°23'37	min. Earth dist.	2504 Dec 12 15:19	21° \mathcal{A} 03'36	0.67878 AU
greatest brilliancy	2504 Jan 24 18:40	11° \mathcal{B} 01'40	-0.2m	morning rise	2504 Dec 18 01:37	14° \mathcal{A} 36'23	
desc. node	2504 Jan 29 15:08	17° \mathcal{B} 16'51		direct	2504 Dec 22 13:32	12° \mathcal{A} 46'58	
	2504 Feb 07 14:45	0° \approx		morning max el	2504 Dec 31 17:01	18° \mathcal{A} 09'11	21°56'45
morning set	2504 Feb 23 05:23	24° \approx 40'05		greatest brilliancy	2505 Jan 05 10:00	23° \mathcal{A} 27'08	-0.4m
	2504 Feb 26 08:21	0° \mathcal{H}			2505 Jan 10 11:27	0° \mathcal{B}	
max. Earth dist.	2504 Feb 27 09:02	1° \mathcal{H} 47'15	1.39189 AU	desc. node	2505 Jan 15 12:11	7° \mathcal{B} 00'36	
					2505 Jan 30 18:20	0° \approx	
superior conj	2504 Mar 05 22:51	15° \mathcal{H} 27'21	-1°-49'-45	morning set	2505 Feb 02 08:04	4° \approx 05'43	
minimum elong	2504 Mar 06 03:04	15° \mathcal{H} 47'02	1°49'24	max. Earth dist.	2505 Feb 08 07:17	13° \approx 51'49	1.41318 AU
	2504 Mar 13 13:53	0° \mathcal{Y}					
evening rise	2504 Mar 15 08:13	3° \mathcal{Y} 24'47		superior conj	2505 Feb 16 00:48	27° \approx 08'09	-2°-3'-26
asc. node	2504 Mar 19 15:09	11° \mathcal{Y} 35'25		minimum elong	2505 Feb 16 03:01	27° \approx 17'54	2°03'23
evening max el	2504 Mar 31 13:48	29° \mathcal{Y} 33'32	18°39'35		2505 Feb 17 15:32	0° \mathcal{H}	
	2504 Apr 01 01:02	0° \mathcal{B}		evening rise	2505 Feb 26 15:22	16° \mathcal{H} 26'23	
retrograde	2504 Apr 08 11:41	3° \mathcal{B} 25'36			2505 Mar 06 03:14	0° \mathcal{Y}	
evening set	2504 Apr 10 17:48	3° \mathcal{B} 07'53		asc. node	2505 Mar 06 12:12	0° \mathcal{Y} 38'13	
	2504 Apr 16 18:00	30° \cap \mathcal{Y}		evening max el	2505 Mar 14 21:54	12° \mathcal{Y} 20'42	18°13'43
inferior conj	2504 Apr 18 11:28	28° \mathcal{Y} 43'14	2°10'18	retrograde	2505 Mar 21 21:22	15° \mathcal{Y} 50'35	
minimum elong	2504 Apr 18 15:21	28° \mathcal{Y} 35'51	2°09'12	evening set	2505 Mar 24 09:20	15° \mathcal{Y} 24'29	
min. Earth dist.	2504 Apr 21 20:15	26° \mathcal{Y} 11'21	0.57701 AU	inferior conj	2505 Mar 31 09:35	10° \mathcal{Y} 38'23	3°07'50
morning rise	2504 Apr 26 08:31	23° \mathcal{Y} 26'58		minimum elong	2505 Mar 31 12:48	10° \mathcal{Y} 31'15	3°07'15
desc. node	2504 Apr 26 14:20	23° \mathcal{Y} 20'20		min. Earth dist.	2505 Apr 03 18:51	7° \mathcal{Y} 40'04	0.59795 AU
direct	2504 May 02 01:34	22° \mathcal{Y} 05'40		morning rise	2505 Apr 07 12:41	4° \mathcal{Y} 56'44	
morning max el	2504 May 16 10:20	29° \mathcal{Y} 40'41	26°27'53	desc. node	2505 Apr 13 11:22	3° \mathcal{Y} 00'21	
	2504 May 16 18:13	0° \mathcal{B}		direct	2505 Apr 14 00:33	2° \mathcal{Y} 59'31	
	2504 Jun 06 16:02	0° Π		morning max el	2505 Apr 28 08:14	10° \mathcal{Y} 48'26	27°27'02
morning set	2504 Jun 14 09:16	15° Π 17'05			2505 May 13 06:08	0° \mathcal{B}	
asc. node	2504 Jun 15 14:25	17° Π 51'34		morning set	2505 May 29 17:18	29° \mathcal{B} 58'51	
					2505 May 29 17:32	0° Π	
superior conj	2504 Jun 21 10:14	0° \mathcal{B} 33'42	0°58'03	asc. node	2505 Jun 02 11:29	7° Π 57'56	
minimum elong	2504 Jun 21 08:04	0° \mathcal{B} 21'45	0°57'39				
	2504 Jun 21 04:07	0° \mathcal{B}		superior conj	2505 Jun 05 21:55	15° Π 28'31	0°35'35
max. Earth dist.	2504 Jun 21 17:54	1° \mathcal{B} 15'53	1.32249 AU	minimum elong	2505 Jun 05 20:24	15° Π 20'12	0°35'15
evening rise	2504 Jun 28 09:29	15° \mathcal{B} 37'55		max. Earth dist.	2505 Jun 05 06:06	14° Π 01'38	1.32155 AU
	2504 Jul 05 15:35	0° Ω		evening rise	2505 Jun 12 19:11	0° \mathcal{B} 27'37	

	2505 Jun 12 13:58	0°☿		behind sun end	2506 May 21 11:26	0°♊33'21	
	2505 Jun 28 22:45	0°♊			2506 May 21 05:19	0°♊	
desc. node	2505 Jul 10 10:38	14°♊20'37		evening rise	2506 May 28 06:47	15°♊19'16	
evening max el	2505 Jul 10 18:13	14°♊38'51	25°51'28		2506 Jun 04 14:34	0°☿	
retrograde	2505 Jul 24 18:06	21°♊47'36		evening max el	2506 Jun 22 09:09	25°☿24'56	24°25'12
evening set	2505 Jul 30 22:23	20°♊16'35		desc. node	2506 Jun 27 07:39	29°☿25'31	
min. Earth dist.	2505 Aug 04 06:35	17°♊39'43	0.58637 AU		2506 Jun 28 05:46	0°♊	
inferior conj	2505 Aug 07 12:38	15°♊17'41	-4°-58'-54	retrograde	2506 Jul 06 06:09	2°♊25'30	
minimum elong	2505 Aug 07 14:33	15°♊14'10	4°58'49	evening set	2506 Jul 11 03:07	1°♊32'23	
morning rise	2505 Aug 15 10:13	10°♊53'26			2506 Jul 14 12:31	30°☿☿	
direct	2505 Aug 17 21:20	10°♊33'39		min. Earth dist.	2506 Jul 16 20:03	28°☿38'58	0.56757 AU
morning max el	2505 Aug 26 01:32	14°♊27'30	18°37'37	inferior conj	2506 Jul 19 13:01	26°☿55'58	-4°-53'-35
asc. node	2505 Aug 29 10:42	18°♊16'35		minimum elong	2506 Jul 19 09:36	27°☿01'24	4°53'18
	2505 Sep 05 19:47	0°♎		morning rise	2506 Jul 27 19:45	22°☿53'05	
morning set	2505 Sep 11 06:44	10°♎19'21		direct	2506 Jul 30 11:30	22°☿34'00	
				morning max el	2506 Aug 08 23:07	26°☿58'41	19°32'13
superior conj	2505 Sep 20 02:04	27°♎15'35	1°35'35		2506 Aug 11 19:06	0°♊	
minimum elong	2505 Sep 20 04:52	27°♎28'42	1°35'23	asc. node	2506 Aug 16 07:44	6°♊17'37	
	2505 Sep 21 13:21	0°♎		morning set	2506 Aug 26 08:12	24°♊43'51	
max. Earth dist.	2505 Sep 27 08:08	10°♎25'29	1.39756 AU		2506 Aug 28 22:58	0°♎	
evening rise	2505 Oct 01 12:07	17°♎34'51					
desc. node	2505 Oct 06 09:57	25°♎39'18		superior conj	2506 Sep 03 09:12	10°♎51'00	1°44'16
	2505 Oct 09 03:39	0°♏		minimum elong	2506 Sep 03 10:08	10°♎55'39	1°44'15
	2505 Oct 30 10:00	0°♏		max. Earth dist.	2506 Sep 09 12:12	22°♎33'32	1.37701 AU
evening max el	2505 Nov 05 12:24	6°♏48'37	23°58'07	evening rise	2506 Sep 13 07:31	29°♎27'26	
retrograde	2505 Nov 16 11:14	13°♏15'02			2506 Sep 13 14:53	0°♎	
evening set	2505 Nov 21 15:39	11°♏06'26		desc. node	2506 Sep 23 06:57	16°♎11'30	
asc. node	2505 Nov 25 09:56	6°♏57'11			2506 Oct 02 11:16	0°♏	
min. Earth dist.	2505 Nov 26 11:44	5°♏31'13	0.67726 AU	evening max el	2506 Oct 19 00:28	20°♏28'04	25°14'17
inferior conj	2505 Nov 27 02:44	4°♏40'23	0°34'49	retrograde	2506 Oct 30 23:11	27°♏22'14	
minimum elong	2505 Nov 27 01:54	4°♏43'10	0°34'29	evening set	2506 Nov 05 17:54	24°♏57'49	
	2505 Nov 30 21:20	30°♏♏		min. Earth dist.	2506 Nov 10 05:50	19°♏57'23	0.67236 AU
morning rise	2505 Dec 02 12:24	28°♏33'06		inferior conj	2506 Nov 11 07:36	18°♏33'31	0°-20'-5
direct	2505 Dec 06 10:25	27°♏06'09		minimum elong	2506 Nov 11 08:07	18°♏31'51	0°19'53
	2505 Dec 12 14:49	0°♏		asc. node	2506 Nov 12 06:57	17°♏18'12	
morning max el	2505 Dec 14 12:03	1°♏45'06	20°38'18	morning rise	2506 Nov 16 23:00	12°♏33'34	
greatest brilliancy	2505 Dec 20 11:34	8°♏46'08	-0.5m	direct	2506 Nov 20 08:46	11°♏26'36	
desc. node	2506 Jan 02 09:12	27°♏07'12		morning max el	2506 Nov 27 15:04	15°♏32'32	19°32'49
	2506 Jan 04 07:16	0°♐		greatest brilliancy	2506 Dec 06 02:28	26°♏12'31	-0.6m
morning set	2506 Jan 12 10:00	12°♐24'58			2506 Dec 08 17:17	0°♏	
max. Earth dist.	2506 Jan 21 13:10	26°♐52'44	1.43161 AU	desc. node	2506 Dec 20 06:13	17°♏30'34	
	2506 Jan 23 11:16	0°♑		morning set	2506 Dec 22 07:24	20°♏40'33	
					2506 Dec 28 07:27	0°♐	
superior conj	2506 Jan 28 02:41	7°♑40'27	-2°-3'-57	max. Earth dist.	2507 Jan 04 02:00	10°♐38'36	1.44479 AU
minimum elong	2506 Jan 28 00:13	7°♑30'07	2°03'54				
evening rise	2506 Feb 09 06:56	28°♑41'55		superior conj	2507 Jan 08 02:19	17°♐02'19	-1°-46'-31
	2506 Feb 10 00:37	0°♑		minimum elong	2507 Jan 07 18:32	16°♐31'07	1°45'56
asc. node	2506 Feb 21 09:15	19°♑08'37			2507 Jan 16 01:36	0°♑	
evening max el	2506 Feb 26 09:39	25°♑27'28	18°07'27	evening rise	2507 Jan 22 02:36	10°♑03'55	
retrograde	2506 Mar 04 22:14	28°♑50'53			2507 Feb 03 05:20	0°♑	
evening set	2506 Mar 07 15:24	28°♑15'04		asc. node	2507 Feb 08 06:16	6°♑56'57	
inferior conj	2506 Mar 14 01:53	23°♑07'49	3°35'56	evening max el	2507 Feb 09 22:11	8°♑46'53	18°20'13
minimum elong	2506 Mar 14 03:15	23°♑04'20	3°35'49	retrograde	2507 Feb 16 09:33	12°♑16'59	
min. Earth dist.	2506 Mar 17 01:13	20°♑07'50	0.61933 AU	evening set	2507 Feb 19 07:57	11°♑30'29	
morning rise	2506 Mar 20 12:33	17°♑09'51		inferior conj	2507 Feb 25 08:19	6°♑03'46	3°41'26
direct	2506 Mar 27 09:37	14°♑42'00		minimum elong	2507 Feb 25 07:52	6°♑05'03	3°41'24
desc. node	2506 Mar 31 08:24	15°♑26'03		min. Earth dist.	2507 Feb 27 17:07	3°♑23'02	0.63866 AU
morning max el	2506 Apr 10 12:25	22°♑37'50	27°50'06	morning rise	2507 Mar 03 06:06	29°♑56'22	
	2506 Apr 17 00:57	0°♒			2507 Mar 03 04:19	30°♑♑	
	2506 May 06 09:57	0°♒		direct	2507 Mar 10 03:09	27°♑10'06	
morning set	2506 May 13 20:33	14°♒23'26			2507 Mar 17 21:00	0°♑	
max. Earth dist.	2506 May 19 15:44	26°♒36'04	1.32452 AU	desc. node	2507 Mar 18 05:26	0°♑14'28	
asc. node	2506 May 20 08:32	28°♒06'58		morning max el	2507 Mar 23 20:53	5°♑05'24	27°36'04
					2507 Apr 11 17:34	0°♒	
superior conj	2506 May 21 07:57	0°♒14'20	0°10'18	morning set	2507 Apr 27 16:34	28°♒23'10	
minimum elong	2506 May 21 07:28	0°♒11'43	0°10'11		2507 Apr 28 12:01	0°♒	
behind sun begin	2506 May 21 03:30	29°♒50'05		max. Earth dist.	2507 May 02 18:42	8°♒46'12	1.33165 AU

superior conj	2507 May 05 14:33	14°♄45'34	0°-17'00	minimum elong	2508 Apr 18 17:56	29°♁07'48	0°44'48
minimum elong	2507 May 05 15:24	14°♄50'05	0°16'50		2508 Apr 19 03:58	0°♄	
asc. node	2507 May 07 05:33	18°♄14'47		asc. node	2508 Apr 23 02:36	8°♄17'24	
evening rise	2507 May 12 18:26	0°♂06'42		evening rise	2508 Apr 26 04:15	14°♄43'49	
	2507 May 12 17:10	0°♂			2508 May 03 23:26	0°♂	
	2507 May 29 18:52	0°♄		evening max el	2508 May 15 19:50	16°♂34'36	21°17'45
evening max el	2507 Jun 03 23:04	5°♄52'31	22°49'00	retrograde	2508 May 27 20:08	22°♂27'08	
desc. node	2507 Jun 14 04:41	12°♄08'04		evening set	2508 May 30 04:02	22°♂14'39	
retrograde	2507 Jun 17 06:01	12°♄29'25		desc. node	2508 May 31 01:42	22°♂03'25	
evening set	2507 Jun 20 14:58	12°♄04'26		inferior conj	2508 Jun 08 12:53	18°♂15'49	-2°-25'-17
min. Earth dist.	2507 Jun 28 07:34	8°♄40'18	0.55404 AU	minimum elong	2508 Jun 08 06:17	18°♂25'04	2°23'06
inferior conj	2507 Jun 29 18:25	7°♄50'12	-4°-2'-28	min. Earth dist.	2508 Jun 08 19:38	18°♂06'20	0.54884 AU
minimum elong	2507 Jun 29 10:40	8°♄01'23	4°00'42	morning rise	2508 Jun 17 08:40	14°♂17'49	
morning rise	2507 Jul 08 09:08	3°♄58'35		direct	2508 Jun 20 17:13	13°♂53'23	
direct	2507 Jul 11 07:03	3°♄38'47		morning max el	2508 Jul 03 08:46	19°♂53'40	22°20'56
morning max el	2507 Jul 22 09:27	8°♄47'38	20°47'50		2508 Jul 11 17:55	0°♄	
asc. node	2507 Aug 03 04:46	24°♄59'57		asc. node	2508 Jul 20 01:49	14°♄13'44	
	2507 Aug 05 21:48	0°♂		morning set	2508 Jul 25 01:17	24°♄16'06	
morning set	2507 Aug 10 15:03	9°♂24'36			2508 Jul 27 18:23	0°♂	
superior conj	2507 Aug 18 03:48	25°♂00'54	1°44'37	superior conj	2508 Aug 01 06:23	9°♂34'54	1°38'10
minimum elong	2507 Aug 18 03:10	24°♂57'36	1°44'36	minimum elong	2508 Aug 01 04:38	9°♂25'42	1°38'01
	2507 Aug 20 14:48	0°♂		max. Earth dist.	2508 Aug 04 12:28	16°♂22'55	1.34324 AU
max. Earth dist.	2507 Aug 22 20:02	4°♂23'58	1.35838 AU	evening rise	2508 Aug 09 06:09	25°♂53'06	
evening rise	2507 Aug 26 23:03	12°♂17'26			2508 Aug 11 09:35	0°♂	
	2507 Sep 06 02:10	0°♄		desc. node	2508 Aug 27 01:02	26°♂25'30	
desc. node	2507 Sep 10 03:59	6°♄29'07			2508 Aug 29 11:47	0°♄	
	2507 Sep 27 13:52	0°♂		evening max el	2508 Sep 13 00:56	17°♄40'29	27°05'22
evening max el	2507 Oct 01 12:30	4°♂07'39	26°19'15	retrograde	2508 Sep 26 07:51	24°♄58'03	
retrograde	2507 Oct 14 06:17	11°♂18'50		evening set	2508 Oct 03 04:10	22°♄16'00	
evening set	2507 Oct 20 14:48	8°♂42'19		min. Earth dist.	2508 Oct 07 01:51	18°♄28'09	0.65230 AU
min. Earth dist.	2507 Oct 24 19:18	4°♂17'59	0.66407 AU	inferior conj	2508 Oct 09 03:02	16°♄09'14	-2°-17'-15
inferior conj	2507 Oct 26 08:24	2°♂24'24	-1°-18'-4	minimum elong	2508 Oct 09 06:45	15°♄58'43	2°15'51
minimum elong	2507 Oct 26 10:29	2°♂18'01	1°17'12	morning rise	2508 Oct 15 11:03	10°♄32'22	
	2507 Oct 28 09:05	30°♂♄		asc. node	2508 Oct 16 01:00	10°♄17'35	
asc. node	2507 Oct 30 03:58	28°♄10'05		direct	2508 Oct 18 03:03	9°♄54'03	
morning rise	2507 Nov 01 07:19	26°♄34'26		morning max el	2508 Oct 24 15:21	13°♄24'21	18°08'56
direct	2507 Nov 04 06:59	25°♄43'46			2508 Nov 05 09:04	0°♂	
morning max el	2507 Nov 11 00:54	29°♄27'16	18°42'36	morning set	2508 Nov 11 22:23	10°♂46'36	
	2507 Nov 11 13:36	0°♂		desc. node	2508 Nov 23 00:17	28°♂48'06	
morning set	2507 Dec 02 00:13	29°♂59'19			2508 Nov 23 18:16	0°♄	
	2507 Dec 02 00:23	0°♄		superior conj	2508 Nov 26 10:59	4°♄17'33	0°-23'-6
desc. node	2507 Dec 07 03:13	8°♄05'23		minimum elong	2508 Nov 26 08:03	4°♄05'53	0°22'42
superior conj	2507 Dec 18 06:45	25°♄36'41	-1°-10'-26	max. Earth dist.	2508 Nov 29 14:15	9°♄14'51	1.45037 AU
minimum elong	2507 Dec 17 22:27	25°♄04'04	1°09'29	evening rise	2508 Dec 12 21:41	0°♄00'45	
max. Earth dist.	2507 Dec 17 19:11	24°♄51'14	1.45126 AU		2508 Dec 12 21:29	0°♄	
	2507 Dec 21 01:45	0°♄		greatest brilliancy	2508 Dec 29 19:16	25°♄43'04	-0.7m
evening rise	2508 Jan 02 23:07	20°♄27'40			2509 Jan 01 21:31	0°♄	
	2508 Jan 08 21:48	0°♄		evening max el	2509 Jan 06 16:01	5°♄42'43	19°38'30
evening max el	2508 Jan 24 08:58	22°♄13'00	18°51'05	asc. node	2509 Jan 12 00:18	9°♄36'01	
asc. node	2508 Jan 26 03:17	23°♄50'41		retrograde	2509 Jan 14 00:18	9°♄57'53	
retrograde	2508 Jan 31 03:17	26°♄00'56		evening set	2509 Jan 17 12:10	8°♄46'25	
evening set	2508 Feb 03 07:43	25°♄02'40		inferior conj	2509 Jan 23 00:59	2°♄47'06	3°06'28
inferior conj	2508 Feb 09 01:04	19°♄18'27	3°30'12	minimum elong	2509 Jan 22 22:32	2°♄55'09	3°05'57
minimum elong	2508 Feb 08 23:19	19°♄23'53	3°29'59	min. Earth dist.	2509 Jan 24 03:39	1°♄19'20	0.66639 AU
min. Earth dist.	2508 Feb 10 18:21	17°♄10'49	0.65452 AU		2509 Jan 25 04:24	30°♂♄	
morning rise	2508 Feb 14 13:48	13°♄06'05		morning rise	2509 Jan 28 08:11	26°♄32'22	
direct	2508 Feb 21 03:44	10°♄15'45		direct	2509 Feb 03 10:11	23°♄50'42	
desc. node	2508 Mar 04 02:26	16°♄49'55			2509 Feb 14 12:15	0°♄	
morning max el	2508 Mar 05 06:39	17°♄59'05	26°49'45	morning max el	2509 Feb 15 15:43	1°♄07'32	25°39'18
	2508 Mar 15 09:14	0°♄		desc. node	2509 Feb 18 23:28	4°♄42'33	
	2508 Apr 03 15:55	0°♄			2509 Mar 09 09:49	0°♄	
morning set	2508 Apr 10 02:07	11°♄47'58		morning set	2509 Mar 23 20:47	24°♄24'18	
max. Earth dist.	2508 Apr 14 11:18	20°♄22'52	1.34327 AU		2509 Mar 26 21:07	0°♄	
				max. Earth dist.	2509 Mar 27 16:15	1°♄30'40	1.35953 AU
superior conj	2508 Apr 18 15:37	28°♄55'44	0°-45'-15				

superior conj	2509 Apr 02 08:29	12°♄36'42	-1°-12'-56	max. Earth dist.	2510 Mar 09 13:07	12°♄35'38	1.37953 AU
minimum elong	2509 Apr 02 12:09	12°♄55'06	1°12'21				
asc. node	2509 Apr 09 23:39	28°♄09'54		superior conj	2510 Mar 16 13:47	25°♄39'44	-1°-37'-50
evening rise	2509 Apr 10 10:11	29°♄03'32		minimum elong	2510 Mar 16 18:11	26°♄00'50	1°37'20
	2509 Apr 10 21:18	0°♄			2510 Mar 18 19:39	0°♄	
evening max el	2509 Apr 28 03:52	27°♄50'50	20°01'05	evening rise	2510 Mar 25 09:46	12°♄59'22	
	2509 Apr 30 16:24	0°♄		asc. node	2510 Mar 27 20:42	17°♄47'48	
retrograde	2509 May 08 10:55	2°♄50'01			2510 Apr 03 14:14	0°♄	
evening set	2509 May 10 11:09	2°♄39'28		evening max el	2510 Apr 10 23:16	9°♄46'36	19°03'28
	2509 May 17 03:32	30°♄		retrograde	2510 Apr 19 15:22	13°♄59'19	
desc. node	2509 May 17 22:43	29°♄32'27		evening set	2510 Apr 21 18:15	13°♄45'15	
inferior conj	2509 May 19 10:04	28°♄39'50	0°-25'-51	inferior conj	2510 Apr 29 22:56	9°♄31'19	1°21'54
minimum elong	2509 May 19 08:52	28°♄41'38	0°25'26	minimum elong	2510 Apr 30 01:58	9°♄26'03	1°20'54
min. Earth dist.	2509 May 21 08:46	27°♄29'39	0.55331 AU	min. Earth dist.	2510 May 03 00:06	7°♄25'23	0.56650 AU
morning rise	2509 May 28 03:54	24°♄17'09		desc. node	2510 May 04 19:44	6°♄16'22	
direct	2509 Jun 01 06:51	23°♄39'59		morning rise	2510 May 08 05:28	4°♄33'56	
	2509 Jun 14 12:58	0°♄		direct	2510 May 13 08:29	3°♄32'12	
morning max el	2509 Jun 15 00:33	0°♄26'58	24°03'10	morning max el	2510 May 27 15:03	10°♄53'21	25°40'33
	2509 Jul 05 00:48	0°♄			2510 Jun 11 05:34	0°♄	
asc. node	2509 Jul 06 22:53	3°♄49'58		asc. node	2510 Jun 23 19:58	23°♄42'04	
morning set	2509 Jul 09 13:01	9°♄11'52		morning set	2510 Jun 24 00:37	24°♄06'35	
					2510 Jun 26 18:37	0°♄	
superior conj	2509 Jul 16 14:06	24°♄23'16	1°26'08				
minimum elong	2509 Jul 16 11:48	24°♄10'49	1°25'50	superior conj	2510 Jul 01 00:47	9°♄18'52	1°09'27
max. Earth dist.	2509 Jul 18 14:08	28°♄41'48	1.33206 AU	minimum elong	2510 Jun 30 22:25	9°♄05'57	1°09'04
	2509 Jul 19 04:47	0°♄		max. Earth dist.	2510 Jul 01 22:35	11°♄18'21	1.32484 AU
evening rise	2509 Jul 24 00:34	10°♄01'16		evening rise	2510 Jul 08 02:54	24°♄31'46	
	2509 Aug 03 17:55	0°♄			2510 Jul 10 19:30	0°♄	
desc. node	2509 Aug 13 22:04	15°♄50'37			2510 Jul 28 10:23	0°♄	
	2509 Aug 25 14:07	0°♄		desc. node	2510 Jul 31 19:04	4°♄31'38	
evening max el	2509 Aug 26 12:15	0°♄53'44	27°25'39	evening max el	2510 Aug 08 19:51	13°♄33'30	27°14'47
retrograde	2509 Sep 09 03:14	8°♄10'51		retrograde	2510 Aug 22 15:47	20°♄48'10	
evening set	2509 Sep 16 07:02	5°♄32'40		evening set	2510 Aug 29 19:38	18°♄26'04	
min. Earth dist.	2509 Sep 19 23:14	2°♄18'59	0.63703 AU	min. Earth dist.	2510 Sep 02 10:02	15°♄38'55	0.61860 AU
	2509 Sep 22 05:45	30°♄		inferior conj	2510 Sep 05 11:03	12°♄53'42	-4°-7'-8
inferior conj	2509 Sep 22 12:56	29°♄41'30	-3°-15'-3	minimum elong	2510 Sep 05 16:31	12°♄41'16	4°05'51
minimum elong	2509 Sep 22 18:00	29°♄28'33	3°13'26	morning rise	2510 Sep 12 16:16	7°♄53'40	
morning rise	2509 Sep 29 07:15	24°♄21'16		direct	2510 Sep 15 00:57	7°♄29'47	
direct	2509 Oct 01 18:13	23°♄51'40		asc. node	2510 Sep 19 19:08	9°♄10'03	
asc. node	2509 Oct 02 22:03	23°♄58'23		morning max el	2510 Sep 21 22:49	10°♄58'40	17°54'38
morning max el	2509 Oct 08 07:39	27°♄17'08	17°52'40		2510 Oct 04 13:50	0°♄	
	2509 Oct 10 17:19	0°♄		morning set	2510 Oct 07 19:35	5°♄51'28	
morning set	2509 Oct 24 22:58	22°♄50'32					
	2509 Oct 29 02:44	0°♄		superior conj	2510 Oct 18 12:52	24°♄56'57	1°00'40
superior conj	2509 Nov 06 10:27	13°♄57'31	0°23'25	minimum elong	2510 Oct 18 17:19	25°♄16'07	1°00'06
minimum elong	2509 Nov 06 12:55	14°♄07'39	0°23'04		2510 Oct 21 11:51	0°♄	
desc. node	2509 Nov 09 21:21	19°♄34'59		max. Earth dist.	2510 Oct 25 22:08	7°♄22'07	1.42789 AU
max. Earth dist.	2509 Nov 12 08:21	23°♄31'49	1.44222 AU	desc. node	2510 Oct 27 18:22	10°♄22'19	
	2509 Nov 16 10:25	0°♄		evening rise	2510 Nov 01 19:50	18°♄26'26	
evening rise	2509 Nov 22 07:18	9°♄07'27			2510 Nov 09 08:12	0°♄	
	2509 Dec 06 03:54	0°♄		greatest brilliancy	2510 Nov 28 19:36	27°♄20'38	-0.4m
greatest brilliancy	2509 Dec 14 23:24	12°♄22'24	-0.5m		2510 Dec 01 01:06	0°♄	
evening max el	2509 Dec 20 17:53	19°♄13'59	20°40'13	evening max el	2510 Dec 03 14:03	2°♄45'31	21°53'00
retrograde	2509 Dec 28 22:16	24°♄03'54		retrograde	2510 Dec 12 19:12	8°♄14'38	
asc. node	2509 Dec 29 21:19	23°♄58'46		asc. node	2510 Dec 16 18:23	6°♄49'04	
evening set	2510 Jan 01 19:13	22°♄37'47		evening set	2510 Dec 17 03:02	6°♄32'32	
inferior conj	2510 Jan 07 05:31	16°♄26'07	2°33'07	inferior conj	2510 Dec 22 12:30	0°♄12'01	1°52'00
minimum elong	2510 Jan 07 02:56	16°♄34'56	2°32'21	minimum elong	2510 Dec 22 10:17	0°♄19'44	1°51'12
min. Earth dist.	2510 Jan 07 19:04	15°♄39'48	0.67416 AU	min. Earth dist.	2510 Dec 22 14:22	0°♄05'34	0.67810 AU
morning rise	2510 Jan 12 10:13	10°♄10'57			2510 Dec 22 15:59	30°♄	
direct	2510 Jan 17 21:44	7°♄46'42		morning rise	2510 Dec 27 17:20	23°♄58'06	
morning max el	2510 Jan 29 00:11	14°♄23'57	24°14'45	direct	2511 Jan 01 13:37	21°♄55'45	
desc. node	2510 Feb 05 20:32	23°♄30'17		morning max el	2511 Jan 11 10:11	27°♄45'51	22°46'04
	2510 Feb 10 17:29	0°♄			2511 Jan 13 12:44	0°♄	
	2510 Mar 02 07:16	0°♄		greatest brilliancy	2511 Jan 16 01:15	2°♄55'37	-0.3m
morning set	2510 Mar 05 18:58	5°♄57'16		desc. node	2511 Jan 23 17:34	12°♄56'45	
					2511 Feb 04 09:46	0°♄	

morning set	2511 Feb 14 14:31	16° \approx 11'10		morning set	2512 Jan 25 05:13	25° \approx 03'53	
max. Earth dist.	2511 Feb 19 08:45	24° \approx 10'40	1.40112 AU		2512 Jan 28 07:38	0° \approx	
	2511 Feb 22 17:19	0° \approx		max. Earth dist.	2512 Feb 01 09:31	6° \approx 37'29	1.42153 AU
superior conj	2511 Feb 27 03:06	7° \approx 53'22	-1°-56'-51	superior conj	2512 Feb 08 19:18	19° \approx 05'48	-2°-5'-35
minimum elong	2511 Feb 27 06:47	8° \approx 10'07	1°56'37	minimum elong	2512 Feb 08 19:50	19° \approx 08'04	2°05'35
evening rise	2511 Mar 08 23:56	26° \approx 22'56			2512 Feb 15 00:08	0° \approx	
	2511 Mar 10 21:47	0° \approx		evening rise	2512 Feb 20 00:57	9° \approx 05'41	
asc. node	2511 Mar 14 17:44	7° \approx 05'07		asc. node	2512 Feb 29 14:45	25° \approx 55'06	
evening max el	2511 Mar 25 03:34	22° \approx 16'52	18°26'06		2512 Mar 03 06:59	0° \approx	
retrograde	2511 Apr 01 14:41	25° \approx 57'55		evening max el	2512 Mar 07 13:34	5° \approx 13'14	18°08'42
evening set	2511 Apr 03 23:10	25° \approx 36'59		retrograde	2512 Mar 14 07:13	8° \approx 38'36	
inferior conj	2511 Apr 11 09:01	21° \approx 03'12	2°38'43	evening set	2512 Mar 16 21:22	8° \approx 08'37	
minimum elong	2511 Apr 11 12:53	20° \approx 55'21	2°37'47	inferior conj	2512 Mar 23 15:19	3° \approx 13'42	3°22'57
min. Earth dist.	2511 Apr 14 19:36	18° \approx 16'57	0.58561 AU	minimum elong	2512 Mar 23 17:48	3° \approx 07'51	3°22'35
morning rise	2511 Apr 18 22:24	15° \approx 34'33		min. Earth dist.	2512 Mar 26 21:27	0° \approx 11'19	0.60716 AU
desc. node	2511 Apr 21 16:45	14° \approx 26'56			2512 Mar 27 02:33	30° \approx	
direct	2511 Apr 25 00:16	13° \approx 58'05		morning rise	2512 Mar 30 11:02	27° \approx 23'54	
morning max el	2511 May 09 09:36	21° \approx 40'39	26°57'16	direct	2512 Apr 06 04:06	25° \approx 12'04	
	2511 May 16 16:22	0° \approx		desc. node	2512 Apr 07 13:47	25° \approx 17'35	
	2511 Jun 04 01:05	0° \approx			2512 Apr 17 00:06	0° \approx	
morning set	2511 Jun 08 10:27	8° \approx 54'41		morning max el	2512 Apr 20 10:16	3° \approx 05'41	27°41'27
asc. node	2511 Jun 10 17:02	13° \approx 44'30			2512 May 10 04:18	0° \approx	
superior conj	2511 Jun 15 12:34	24° \approx 15'35	0°48'54	morning set	2512 May 22 16:40	23° \approx 29'41	
minimum elong	2511 Jun 15 10:38	24° \approx 04'54	0°48'32		2512 May 25 18:55	0° \approx	
max. Earth dist.	2511 Jun 15 10:21	24° \approx 03'21	1.32153 AU	asc. node	2512 May 27 14:03	3° \approx 52'18	
	2511 Jun 18 03:13	0° \approx		max. Earth dist.	2512 May 28 21:42	6° \approx 44'35	1.32221 AU
evening rise	2511 Jun 22 10:32	9° \approx 16'15		superior conj	2512 May 29 23:44	9° \approx 07'08	0°25'08
	2511 Jul 03 04:17	0° \approx		minimum elong	2512 May 29 22:37	9° \approx 01'00	0°24'55
desc. node	2511 Jul 18 16:04	22° \approx 10'26		evening rise	2512 Jun 05 21:13	24° \approx 07'10	
evening max el	2511 Jul 21 21:20	25° \approx 02'29	26°30'47		2512 Jun 08 17:00	0° \approx	
	2511 Jul 27 13:59	0° \approx			2512 Jun 26 16:38	0° \approx	
retrograde	2511 Aug 04 20:45	2° \approx 41'31		evening max el	2512 Jul 02 15:41	6° \approx 03'21	25°17'10
evening set	2511 Aug 11 13:22	0° \approx 48'50		desc. node	2512 Jul 04 13:05	8° \approx 02'53	
	2511 Aug 12 22:16	30° \approx		retrograde	2512 Jul 16 15:44	13° \approx 04'51	
min. Earth dist.	2511 Aug 15 10:42	28° \approx 01'35	0.59811 AU	evening set	2512 Jul 22 07:43	12° \approx 03'05	
inferior conj	2511 Aug 18 17:53	25° \approx 03'06	-4°-46'-23	min. Earth dist.	2512 Jul 27 03:34	9° \approx 04'53	0.57784 AU
minimum elong	2511 Aug 18 21:52	25° \approx 02'09	4°45'54	inferior conj	2512 Jul 30 05:57	7° \approx 04'15	-5°-1'-34
morning rise	2511 Aug 26 09:47	20° \approx 05'49		minimum elong	2512 Jul 30 05:48	7° \approx 04'32	5°01'36
direct	2511 Aug 28 19:03	20° \approx 03'12		morning rise	2512 Aug 07 07:32	3° \approx 02'63	
morning max el	2511 Sep 05 09:43	24° \approx 02'10	18°16'02	direct	2512 Aug 09 20:11	3° \approx 07'25	
asc. node	2511 Sep 06 16:13	25° \approx 03'52		morning max el	2512 Aug 18 12:57	7° \approx 01'13	18°58'13
	2511 Sep 10 01:36	0° \approx		asc. node	2512 Aug 23 13:16	13° \approx 01'29	
morning set	2511 Sep 21 06:41	19° \approx 34'08			2512 Sep 02 05:41	0° \approx	
	2511 Sep 26 19:03	0° \approx		morning set	2512 Sep 04 03:50	3° \approx 45'41	
superior conj	2511 Sep 30 16:05	7° \approx 09'41	1°26'04	superior conj	2512 Sep 12 14:32	20° \approx 18'48	1°40'23
minimum elong	2511 Sep 30 19:51	7° \approx 26'46	1°25'42	minimum elong	2512 Sep 12 16:32	20° \approx 28'26	1°40'17
max. Earth dist.	2511 Oct 08 06:13	20° \approx 32'11	1.40925 AU		2512 Sep 17 18:46	0° \approx	
evening rise	2511 Oct 13 02:12	28° \approx 36'12		max. Earth dist.	2512 Sep 19 10:22	2° \approx 59'03	1.38871 AU
	2511 Oct 13 22:47	0° \approx		evening rise	2512 Sep 23 08:20	9° \approx 51'43	
desc. node	2511 Oct 14 15:24	1° \approx 07'15		desc. node	2512 Sep 30 12:25	21° \approx 04'51	
	2511 Nov 02 22:25	0° \approx			2512 Oct 05 19:28	0° \approx	
evening max el	2511 Nov 16 05:33	16° \approx 19'40	23°12'03		2512 Oct 28 19:20	0° \approx	
retrograde	2511 Nov 26 13:34	22° \approx 27'09		evening max el	2512 Oct 28 18:24	29° \approx 57'42	24°31'23
evening set	2511 Dec 01 09:58	20° \approx 28'20		retrograde	2512 Nov 09 04:05	6° \approx 37'15	
asc. node	2511 Dec 03 15:25	18° \approx 13'36		evening set	2512 Nov 14 14:24	4° \approx 21'57	
inferior conj	2511 Dec 06 20:05	14° \approx 02'55	1°04'35		2512 Nov 18 13:06	30° \approx	
minimum elong	2511 Dec 06 18:38	14° \approx 07'53	1°03'59	min. Earth dist.	2512 Nov 19 07:00	29° \approx 01'03	0.67562 AU
min. Earth dist.	2511 Dec 06 11:10	14° \approx 33'38	0.67855 AU	asc. node	2512 Nov 19 12:26	28° \approx 42'55	
morning rise	2511 Dec 12 03:21	7° \approx 52'21		inferior conj	2512 Nov 20 02:28	27° \approx 56'02	0°12'02
direct	2511 Dec 16 09:05	6° \approx 12'49		minimum elong	2512 Nov 20 02:10	27° \approx 57'01	0°11'54
morning max el	2511 Dec 25 01:06	11° \approx 16'05	21°21'54	transit middle	2512 Nov 20 02:10	27° \approx 57'01	0°11'54
greatest brilliancy	2511 Dec 30 04:16	17° \approx 07'41	-0.4m	transit begin	2512 Nov 20 00:18	28° \approx 03'16	
	2512 Jan 08 15:19	0° \approx		transit end	2512 Nov 20 04:02	27° \approx 50'47	
desc. node	2512 Jan 10 14:36	2° \approx 51'17		morning rise	2512 Nov 25 14:18	21° \approx 51'14	

direct	2512 Nov 29 06:53	20° \mathbb{M} 33'05		morning rise	2513 Nov 10 00:13	5° \mathbb{M} 52'24	
morning max el	2512 Dec 06 23:27	24° \mathbb{M} 56'50	20°08'32	direct	2513 Nov 13 05:32	4° \mathbb{M} 52'38	
	2512 Dec 11 09:06	0° \mathbb{M}		morning max el	2513 Nov 20 05:30	8° \mathbb{M} 47'27	19°09'28
greatest brilliancy	2512 Dec 13 20:06	3° \mathbb{M} 12'54	-0.6m		2513 Dec 05 14:38	0° \mathbb{M}	
desc. node	2512 Dec 27 11:39	23° \mathbb{M} 05'55		morning set	2513 Dec 13 05:25	11° \mathbb{M} 48'37	
	2513 Jan 01 00:09	0° \mathbb{M}		desc. node	2513 Dec 14 08:41	13° \mathbb{M} 34'47	
morning set	2513 Jan 03 01:59	3° \mathbb{M} 11'56			2513 Dec 24 20:49	0° \mathbb{M}	
max. Earth dist.	2513 Jan 13 18:11	19° \mathbb{M} 58'11	1.43802 AU	max. Earth dist.	2513 Dec 27 09:43	3° \mathbb{M} 59'30	1.44851 AU
superior conj	2513 Jan 19 09:59	29° \mathbb{M} 08'04	-1°-58'-56	superior conj	2513 Dec 29 23:53	8° \mathbb{M} 05'08	-1°-33'-15
minimum elong	2513 Jan 19 05:04	28° \mathbb{M} 47'52	1°58'43	minimum elong	2513 Dec 29 15:00	7° \mathbb{M} 29'57	1°32'26
	2513 Jan 19 22:38	0° \mathbb{M}			2514 Jan 12 14:11	0° \mathbb{M}	
evening rise	2513 Feb 01 08:32	20° \mathbb{M} 59'10		evening rise	2514 Jan 13 18:37	1° \mathbb{M} 56'41	
	2513 Feb 06 13:51	0° \mathbb{M}			2514 Jan 31 22:19	0° \mathbb{M}	
asc. node	2513 Feb 15 11:45	14° \mathbb{M} 09'10		asc. node	2514 Feb 02 08:46	1° \mathbb{M} 36'03	
evening max el	2513 Feb 19 02:05	18° \mathbb{M} 26'57	18°10'40	evening max el	2514 Feb 02 14:13	1° \mathbb{M} 50'04	18°31'11
retrograde	2513 Feb 25 12:56	21° \mathbb{M} 51'19		retrograde	2514 Feb 09 03:25	5° \mathbb{M} 26'13	
evening set	2513 Feb 28 08:22	21° \mathbb{M} 11'01		evening set	2514 Feb 12 04:22	4° \mathbb{M} 34'39	
inferior conj	2513 Mar 06 14:08	15° \mathbb{M} 55'28	3°40'36		2514 Feb 17 04:55	30° \mathbb{R}	
minimum elong	2513 Mar 06 14:41	15° \mathbb{M} 54'01	3°40'35	inferior conj	2514 Feb 18 01:23	29° \mathbb{M} 00'04	3°38'23
min. Earth dist.	2513 Mar 09 07:41	13° \mathbb{M} 01'27	0.62796 AU	minimum elong	2514 Feb 18 00:19	29° \mathbb{M} 03'15	3°38'19
morning rise	2513 Mar 12 18:53	9° \mathbb{M} 53'06		min. Earth dist.	2514 Feb 20 03:28	26° \mathbb{M} 32'30	0.64594 AU
direct	2513 Mar 19 17:11	7° \mathbb{M} 15'28		morning rise	2514 Feb 23 18:54	22° \mathbb{M} 50'23	
desc. node	2513 Mar 25 10:48	8° \mathbb{M} 48'30		direct	2514 Mar 02 13:40	20° \mathbb{M} 00'56	
morning max el	2513 Apr 02 16:21	15° \mathbb{M} 11'50	27°48'26	desc. node	2514 Mar 12 07:51	24° \mathbb{M} 26'43	
	2513 Apr 14 18:07	0° \mathbb{M}		morning max el	2514 Mar 16 01:38	27° \mathbb{M} 51'44	27°19'54
	2513 May 02 18:26	0° \mathbb{M}			2514 Mar 18 02:37	0° \mathbb{M}	
morning set	2513 May 06 17:09	7° \mathbb{M} 44'50			2514 Apr 08 11:35	0° \mathbb{M}	
max. Earth dist.	2513 May 12 04:51	19° \mathbb{M} 09'51	1.32700 AU	morning set	2514 Apr 20 09:07	21° \mathbb{M} 30'38	
					2514 Apr 24 14:55	0° \mathbb{M}	
superior conj	2513 May 14 08:33	23° \mathbb{M} 47'57	0°-1'-6	max. Earth dist.	2514 Apr 25 03:57	1° \mathbb{M} 07'00	1.33610 AU
minimum elong	2513 May 14 08:37	23° \mathbb{M} 48'14	0°01'06				
behind sun begin	2513 May 14 03:24	23° \mathbb{M} 20'05		superior conj	2514 Apr 28 13:04	8° \mathbb{M} 10'47	0°-28'-56
behind sun end	2513 May 14 13:49	24° \mathbb{M} 16'25		minimum elong	2514 Apr 28 14:32	8° \mathbb{M} 18'32	0°28'39
asc. node	2513 May 14 11:04	24° \mathbb{M} 01'35		asc. node	2514 May 01 08:06	14° \mathbb{M} 07'27	
	2513 May 17 05:05	0° \mathbb{M}		evening rise	2514 May 05 20:11	23° \mathbb{M} 42'00	
evening rise	2513 May 21 09:04	8° \mathbb{M} 58'12			2514 May 08 21:33	0° \mathbb{M}	
	2513 Jun 01 07:25	0° \mathbb{M}		evening max el	2514 May 26 21:22	27° \mathbb{M} 42'53	22°08'47
evening max el	2513 Jun 14 05:30	17° \mathbb{M} 13'38	23°44'42		2514 May 29 11:45	0° \mathbb{M}	
desc. node	2513 Jun 21 10:04	22° \mathbb{M} 29'52		desc. node	2514 Jun 08 07:05	4° \mathbb{M} 02'27	
retrograde	2513 Jun 27 22:14	24° \mathbb{M} 05'51		retrograde	2514 Jun 08 16:47	4° \mathbb{M} 02'50	
evening set	2513 Jul 02 03:34	23° \mathbb{M} 26'42		evening set	2514 Jun 11 13:20	3° \mathbb{M} 44'43	
min. Earth dist.	2513 Jul 08 15:55	20° \mathbb{M} 21'46	0.56097 AU	min. Earth dist.	2514 Jun 20 03:01	0° \mathbb{M} 03'55	0.55073 AU
inferior conj	2513 Jul 10 21:50	19° \mathbb{M} 00'22	-4°-38'-5		2514 Jun 20 05:48	30° \mathbb{R}	
minimum elong	2513 Jul 10 16:08	19° \mathbb{M} 09'00	4°37'14	inferior conj	2514 Jun 20 21:02	29° \mathbb{M} 38'36	-3°-25'-58
morning rise	2513 Jul 19 08:03	15° \mathbb{M} 03'37		minimum elong	2514 Jun 20 12:59	29° \mathbb{M} 49'55	3°23'43
direct	2513 Jul 22 02:20	14° \mathbb{M} 44'20		morning rise	2514 Jun 29 14:31	25° \mathbb{M} 47'05	
morning max el	2513 Aug 01 05:46	19° \mathbb{M} 26'36	20°01'53	direct	2514 Jul 02 16:27	25° \mathbb{M} 25'54	
	2513 Aug 09 11:55	0° \mathbb{M}			2514 Jul 13 09:58	0° \mathbb{M}	
asc. node	2513 Aug 10 10:18	1° \mathbb{M} 31'23		morning max el	2514 Jul 14 11:04	0° \mathbb{M} 55'40	21°25'46
morning set	2513 Aug 19 07:53	18° \mathbb{M} 17'45		asc. node	2514 Jul 28 07:21	20° \mathbb{M} 27'50	
	2513 Aug 25 01:30	0° \mathbb{M}			2514 Aug 02 04:42	0° \mathbb{M}	
				morning set	2514 Aug 03 16:24	3° \mathbb{M} 03'30	
superior conj	2513 Aug 27 03:00	4° \mathbb{M} 09'47	1°45'20				
minimum elong	2513 Aug 27 03:13	4° \mathbb{M} 10'53	1°45'20	superior conj	2514 Aug 11 01:22	18° \mathbb{M} 30'35	1°42'38
max. Earth dist.	2513 Sep 01 15:32	14° \mathbb{M} 56'57	1.36879 AU	minimum elong	2514 Aug 11 00:11	18° \mathbb{M} 24'30	1°42'34
evening rise	2513 Sep 05 12:51	22° \mathbb{M} 09'55		max. Earth dist.	2514 Aug 15 02:56	26° \mathbb{M} 49'14	1.35145 AU
	2513 Sep 09 23:20	0° \mathbb{M}			2514 Aug 16 17:21	0° \mathbb{M}	
desc. node	2513 Sep 17 09:26	12° \mathbb{M} 11'51		evening rise	2514 Aug 19 11:30	5° \mathbb{M} 20'04	
	2513 Sep 29 15:30	0° \mathbb{M}			2514 Sep 02 17:53	0° \mathbb{M}	
evening max el	2513 Oct 11 06:33	13° \mathbb{M} 38'28	25°43'46	desc. node	2514 Sep 04 06:27	2° \mathbb{M} 21'11	
retrograde	2513 Oct 23 13:54	20° \mathbb{M} 40'24		evening max el	2514 Sep 23 18:50	27° \mathbb{M} 16'12	26°41'37
evening set	2513 Oct 29 14:36	18° \mathbb{M} 10'30			2514 Sep 26 20:28	0° \mathbb{M}	
min. Earth dist.	2513 Nov 02 23:26	13° \mathbb{M} 25'13	0.66931 AU	retrograde	2514 Oct 06 18:34	4° \mathbb{M} 30'43	
inferior conj	2513 Nov 04 05:51	11° \mathbb{M} 48'34	0°-44'-22	evening set	2514 Oct 13 08:38	1° \mathbb{M} 50'43	
minimum elong	2513 Nov 04 07:00	11° \mathbb{M} 44'54	0°43'53		2514 Oct 15 08:20	30° \mathbb{R}	
asc. node	2513 Nov 06 09:29	9° \mathbb{M} 10'06		min. Earth dist.	2514 Oct 17 10:07	27° \mathbb{M} 42'16	0.65949 AU

inferior conj	2514 Oct 19 04:18	25°♂37'16	-1°-43'-9	minimum elong	2515 Oct 02 23:54	9°♂05'01	2°40'38
minimum elong	2514 Oct 19 07:06	25°♂29'00	1°42'01	morning rise	2515 Oct 09 07:51	3°♂46'58	
asc. node	2514 Oct 24 06:32	20°♂30'01		asc. node	2515 Oct 11 03:37	3°♂15'45	
morning rise	2514 Oct 25 06:56	19°♂52'42		direct	2515 Oct 11 21:18	3°♂12'53	
direct	2514 Oct 28 03:07	19°♂07'42		morning max el	2515 Oct 18 09:21	6°♂40'12	17°59'57
morning max el	2514 Nov 03 17:42	22°♂44'09	18°26'20		2515 Nov 03 00:14	0°♂	
	2514 Nov 09 13:26	0°♂		morning set	2515 Nov 04 20:38	3°♂06'53	
morning set	2514 Nov 23 10:37	21°♂45'36		desc. node	2515 Nov 18 02:46	24°♂58'13	
	2514 Nov 28 14:00	0°♂					
desc. node	2514 Dec 01 05:44	4°♂13'40		superior conj	2515 Nov 18 12:09	25°♂35'56	0°-2'-39
				minimum elong	2515 Nov 18 11:50	25°♂34'38	0°02'38
superior conj	2514 Dec 09 01:34	16°♂34'56	0°-51'-3	behind sun begin	2515 Nov 18 01:29	24°♂53'03	
minimum elong	2514 Dec 08 19:06	16°♂09'32	0°50'13	behind sun end	2515 Nov 18 22:11	26°♂16'10	
max. Earth dist.	2514 Dec 10 04:42	18°♂21'29	1.45179 AU		2515 Nov 21 06:16	0°♂	
	2514 Dec 17 14:48	0°♂		max. Earth dist.	2515 Nov 22 23:22	2°♂42'54	1.44765 AU
evening rise	2514 Dec 25 05:27	11°♂58'19		evening rise	2515 Dec 04 20:49	21°♂15'21	
	2515 Jan 05 17:18	0°♂			2515 Dec 10 13:34	0°♂	
greatest brilliancy	2515 Jan 06 18:29	1°♂36'09	-0.7m	greatest brilliancy	2515 Dec 24 08:41	20°♂23'31	-0.6m
evening max el	2515 Jan 16 23:38	15°♂18'17	19°09'12	evening max el	2515 Dec 31 04:31	28°♂48'11	20°03'07
asc. node	2515 Jan 20 05:48	18°♂03'01			2516 Jan 01 09:56	0°♂	
retrograde	2515 Jan 23 23:04	19°♂16'55		asc. node	2516 Jan 07 02:52	3°♂14'47	
evening set	2515 Jan 27 06:29	18°♂13'08		retrograde	2516 Jan 07 20:53	3°♂17'54	
inferior conj	2515 Feb 01 21:36	12°♂21'51	3°21'28	evening set	2516 Jan 11 12:17	2°♂00'31	
minimum elong	2515 Feb 01 19:29	12°♂28'37	3°21'07		2516 Jan 13 17:30	30°♂	
min. Earth dist.	2515 Feb 03 08:24	10°♂30'58	0.66009 AU	inferior conj	2516 Jan 16 23:48	25°♂55'27	2°53'24
morning rise	2515 Feb 07 07:35	6°♂08'06		minimum elong	2516 Jan 16 21:14	26°♂04'03	2°52'45
direct	2515 Feb 13 16:44	3°♂20'27		min. Earth dist.	2516 Jan 17 20:44	24°♂45'12	0.67015 AU
morning max el	2515 Feb 26 11:35	10°♂54'17	26°22'10	morning rise	2516 Jan 22 05:34	19°♂40'01	
desc. node	2515 Feb 27 04:54	11°♂38'36		direct	2516 Jan 28 01:30	17°♂04'53	
	2515 Mar 13 16:15	0°♂		morning max el	2516 Feb 08 20:24	24°♂07'08	25°04'25
	2515 Apr 01 01:07	0°♂		desc. node	2516 Feb 14 01:57	29°♂56'53	
morning set	2515 Apr 03 12:58	4°♂36'30			2516 Feb 14 02:59	0°♂	
max. Earth dist.	2515 Apr 07 15:53	12°♂31'04	1.34974 AU		2516 Mar 06 02:23	0°♂	
				morning set	2516 Mar 15 23:46	16°♂48'31	
superior conj	2515 Apr 12 11:00	22°♂09'09	0°-57'-10	max. Earth dist.	2516 Mar 19 16:31	23°♂32'51	1.36766 AU
minimum elong	2515 Apr 12 13:56	22°♂24'10	0°56'39		2516 Mar 23 02:30	0°♂	
	2515 Apr 16 05:57	0°♂					
asc. node	2515 Apr 18 05:08	4°♂06'00		superior conj	2516 Mar 25 23:26	5°♂35'14	-1°-24'00
evening rise	2515 Apr 20 04:39	8°♂12'27		minimum elong	2516 Mar 26 03:32	5°♂55'25	1°23'25
	2515 May 02 00:40	0°♂		evening rise	2516 Apr 03 08:15	22°♂22'59	
evening max el	2515 May 08 22:28	8°♂36'45	20°42'47	asc. node	2516 Apr 04 02:11	23°♂52'58	
retrograde	2515 May 20 05:59	14°♂07'18			2516 Apr 07 04:48	0°♂	
evening set	2515 May 22 08:35	13°♂56'33		evening max el	2516 Apr 20 11:36	20°♂10'34	19°34'06
desc. node	2515 May 26 04:07	12°♂48'08		retrograde	2516 Apr 30 01:26	24°♂48'31	
inferior conj	2515 May 31 14:44	9°♂58'58	-1°-35'-9	evening set	2516 May 02 01:49	24°♂37'07	
minimum elong	2515 May 31 10:15	10°♂05'24	1°33'33	inferior conj	2516 May 10 17:33	20°♂32'52	0°22'52
min. Earth dist.	2515 Jun 01 15:21	9°♂23'43	0.54957 AU	minimum elong	2516 May 10 18:32	20°♂31'18	0°22'31
morning rise	2515 Jun 09 10:50	5°♂52'29		desc. node	2516 May 12 01:08	19°♂42'27	
direct	2515 Jun 13 01:55	5°♂24'08		min. Earth dist.	2516 May 13 05:44	18°♂57'27	0.55796 AU
morning max el	2515 Jun 26 06:39	11°♂45'23	23°04'12	morning rise	2516 May 19 07:32	15°♂55'19	
	2515 Jul 09 20:52	0°♂		direct	2516 May 23 20:17	15°♂09'09	
asc. node	2515 Jul 15 04:24	9°♂51'37		morning max el	2516 Jun 06 21:18	22°♂13'18	24°46'07
morning set	2515 Jul 19 03:26	17°♂57'00			2516 Jun 13 17:48	0°♂	
	2515 Jul 24 18:43	0°♂		asc. node	2516 Jul 01 01:28	29°♂35'25	
					2516 Jul 01 06:13	0°♂	
superior conj	2515 Jul 26 06:24	3°♂11'18	1°33'40	morning set	2516 Jul 02 15:19	2°♂53'15	
minimum elong	2515 Jul 26 04:21	3°♂00'23	1°33'28				
max. Earth dist.	2515 Jul 28 23:15	8°♂54'51	1.33789 AU	superior conj	2516 Jul 09 15:40	18°♂04'09	1°19'34
evening rise	2515 Aug 02 23:48	19°♂10'06		minimum elong	2516 Jul 09 13:17	17°♂51'11	1°19'14
	2515 Aug 08 16:26	0°♂		max. Earth dist.	2516 Jul 11 03:59	21°♂21'22	1.32844 AU
desc. node	2515 Aug 22 03:29	22°♂05'15			2516 Jul 15 05:25	0°♂	
	2515 Aug 27 21:09	0°♂		evening rise	2516 Jul 16 21:59	3°♂29'25	
evening max el	2515 Sep 06 06:44	10°♂40'54	27°17'34		2516 Jul 31 10:45	0°♂	
retrograde	2515 Sep 19 17:40	17°♂59'39		desc. node	2516 Aug 08 00:30	11°♂13'38	
evening set	2515 Sep 26 17:57	15°♂17'30		evening max el	2516 Aug 18 16:45	23°♂41'29	27°25'08
min. Earth dist.	2515 Sep 30 12:52	11°♂45'03	0.64614 AU		2516 Aug 27 18:07	0°♂	
inferior conj	2515 Oct 02 19:32	9°♂16'50	-2°-42'-12	retrograde	2516 Sep 01 10:32	0°♂58'25	

	2516 Sep 05 21:27	30° \mathbb{R} \mathbb{M}		evening max el	2517 Jul 31 22:14	6° \mathbb{M} 04'08	27°00'06
evening set	2516 Sep 08 15:17	28° \mathbb{M} 25'28		retrograde	2517 Aug 14 19:55	13° \mathbb{M} 17'07	
min. Earth dist.	2516 Sep 12 05:59	25° \mathbb{M} 24'14	0.62945 AU	evening set	2517 Aug 21 20:23	11° \mathbb{M} 06'26	
inferior conj	2516 Sep 15 00:50	22° \mathbb{M} 41'37	-3°-38'-14	min. Earth dist.	2517 Aug 25 12:31	8° \mathbb{M} 26'06	0.61005 AU
minimum elong	2516 Sep 15 06:14	22° \mathbb{M} 28'26	3°36'41	inferior conj	2517 Aug 28 16:52	5° \mathbb{M} 42'38	-4°-25'-56
morning rise	2516 Sep 21 23:46	17° \mathbb{M} 29'34		minimum elong	2517 Aug 28 22:00	5° \mathbb{M} 31'35	4°24'58
direct	2516 Sep 24 09:15	17° \mathbb{M} 02'52		morning rise	2517 Sep 05 02:40	0° \mathbb{M} 51'40	
asc. node	2516 Sep 27 00:40	17° \mathbb{M} 36'07		direct	2517 Sep 07 11:14	0° \mathbb{M} 29'24	
morning max el	2516 Oct 01 01:33	20° \mathbb{M} 29'08	17°51'11	asc. node	2517 Sep 13 21:43	3° \mathbb{M} 22'17	
	2516 Oct 08 04:17	0° \mathbb{L}		morning max el	2517 Sep 14 15:12	4° \mathbb{M} 02'48	18°01'13
morning set	2516 Oct 17 06:29	15° \mathbb{L} 36'53		morning set	2517 Sep 30 09:52	28° \mathbb{M} 57'01	
	2516 Oct 25 12:26	0° \mathbb{M}			2517 Sep 30 23:28	0° \mathbb{L}	
superior conj	2516 Oct 28 22:50	5° \mathbb{M} 48'48	0°40'36	superior conj	2517 Oct 10 12:18	17° \mathbb{L} 20'12	1°12'53
minimum elong	2516 Oct 29 02:34	6° \mathbb{M} 04'27	0°40'05	minimum elong	2517 Oct 10 16:40	17° \mathbb{L} 39'30	1°12'23
desc. node	2516 Nov 03 23:49	15° \mathbb{M} 45'29			2517 Oct 17 21:24	0° \mathbb{M}	
max. Earth dist.	2516 Nov 04 15:18	16° \mathbb{M} 48'00	1.43676 AU	max. Earth dist.	2517 Oct 18 02:48	0° \mathbb{M} 22'27	1.42039 AU
	2516 Nov 12 23:57	0° \mathbb{X}		desc. node	2517 Oct 21 20:50	6° \mathbb{M} 31'55	
evening rise	2516 Nov 13 05:26	0° \mathbb{X} 21'14		evening rise	2517 Oct 24 00:12	9° \mathbb{M} 58'12	
	2516 Dec 03 06:07	0° \mathbb{Z}			2517 Nov 06 02:51	0° \mathbb{X}	
greatest brilliancy	2516 Dec 07 23:04	6° \mathbb{Z} 16'28	-0.4m	greatest brilliancy	2517 Nov 21 03:52	20° \mathbb{X} 31'27	-0.3m
evening max el	2516 Dec 13 03:58	12° \mathbb{Z} 19'14	21°10'09	evening max el	2517 Nov 25 22:04	25° \mathbb{X} 51'55	22°26'19
retrograde	2516 Dec 21 18:34	17° \mathbb{Z} 25'37			2517 Nov 30 20:10	0° \mathbb{Z}	
asc. node	2516 Dec 23 23:55	16° \mathbb{Z} 58'16		retrograde	2517 Dec 05 14:24	1° \mathbb{Z} 37'11	
evening set	2516 Dec 25 19:51	15° \mathbb{Z} 53'04			2517 Dec 09 21:24	30° \mathbb{R} \mathbb{X}	
inferior conj	2516 Dec 31 05:37	9° \mathbb{Z} 37'22	2°16'33	evening set	2517 Dec 10 03:27	29° \mathbb{X} 48'03	
minimum elong	2516 Dec 31 03:08	9° \mathbb{Z} 45'56	2°15'44	asc. node	2517 Dec 10 20:57	29° \mathbb{X} 09'42	
min. Earth dist.	2516 Dec 31 14:09	9° \mathbb{Z} 07'58	0.67628 AU	inferior conj	2517 Dec 15 13:03	23° \mathbb{X} 25'15	1°32'36
morning rise	2517 Jan 05 10:03	3° \mathbb{Z} 22'20		minimum elong	2517 Dec 15 11:06	23° \mathbb{X} 31'58	1°31'51
direct	2517 Jan 10 15:10	1° \mathbb{Z} 06'47		min. Earth dist.	2517 Dec 15 10:17	23° \mathbb{X} 34'49	0.67871 AU
morning max el	2517 Jan 21 04:55	7° \mathbb{Z} 24'42	23°36'53	morning rise	2517 Dec 20 18:38	17° \mathbb{X} 12'38	
desc. node	2517 Jan 30 23:00	19° \mathbb{Z} 02'24		direct	2517 Dec 25 08:43	15° \mathbb{X} 19'50	
	2517 Feb 07 19:26	0° \mathbb{W}		morning max el	2518 Jan 03 16:27	20° \mathbb{X} 48'57	22°09'20
morning set	2517 Feb 25 11:19	27° \mathbb{W} 49'24		greatest brilliancy	2518 Jan 08 07:11	25° \mathbb{X} 59'19	-0.3m
	2517 Feb 26 17:55	0° \mathbb{X}			2518 Jan 11 11:22	0° \mathbb{Z}	
max. Earth dist.	2517 Mar 01 11:25	4° \mathbb{X} 44'33	1.38865 AU	desc. node	2518 Jan 17 20:03	8° \mathbb{Z} 41'49	
					2518 Feb 01 01:54	0° \mathbb{W}	
superior conj	2517 Mar 08 22:34	18° \mathbb{X} 18'56	-1°-46'-52	morning set	2518 Feb 05 18:20	7° \mathbb{W} 27'07	
minimum elong	2517 Mar 09 02:54	18° \mathbb{X} 39'16	1°46'27	max. Earth dist.	2518 Feb 11 08:58	16° \mathbb{W} 41'34	1.41012 AU
	2517 Mar 15 01:03	0° \mathbb{Y}					
evening rise	2517 Mar 18 04:14	6° \mathbb{Y} 05'53		superior conj	2518 Feb 19 03:37	0° \mathbb{X} 08'31	-2°-2'-6
asc. node	2517 Mar 21 23:14	13° \mathbb{Y} 22'45		minimum elong	2518 Feb 19 06:18	0° \mathbb{X} 20'28	2°02'00
	2517 Apr 01 06:54	0° \mathbb{X}			2518 Feb 19 01:42	0° \mathbb{X}	
evening max el	2517 Apr 03 11:18	2° \mathbb{X} 22'40	18°45'08	evening rise	2518 Mar 01 13:19	19° \mathbb{X} 13'21	
retrograde	2517 Apr 11 13:26	6° \mathbb{X} 19'24			2518 Mar 07 10:08	0° \mathbb{Y}	
evening set	2517 Apr 13 18:44	6° \mathbb{X} 02'41		asc. node	2518 Mar 08 20:16	2° \mathbb{Y} 29'31	
inferior conj	2517 Apr 21 15:14	1° \mathbb{X} 40'58	1°58'39	evening max el	2518 Mar 17 18:29	15° \mathbb{Y} 05'30	18°16'16
minimum elong	2517 Apr 21 19:00	1° \mathbb{X} 33'59	1°57'32	retrograde	2518 Mar 24 20:35	18° \mathbb{Y} 37'49	
	2517 Apr 23 21:41	30° \mathbb{R} \mathbb{Y}		evening set	2518 Mar 27 07:41	18° \mathbb{Y} 13'05	
min. Earth dist.	2517 Apr 24 22:36	29° \mathbb{Y} 15'14	0.57415 AU	inferior conj	2518 Apr 03 10:17	13° \mathbb{Y} 30'02	3°01'10
desc. node	2517 Apr 28 22:10	26° \mathbb{Y} 49'10		minimum elong	2518 Apr 03 13:43	13° \mathbb{Y} 22'35	3°00'27
morning rise	2517 Apr 29 14:53	26° \mathbb{Y} 29'30		min. Earth dist.	2518 Apr 06 20:12	10° \mathbb{Y} 34'10	0.59473 AU
direct	2517 May 05 04:32	25° \mathbb{Y} 13'29		morning rise	2518 Apr 10 16:02	7° \mathbb{Y} 51'27	
	2517 May 16 10:20	0° \mathbb{X}		desc. node	2518 Apr 15 19:11	6° \mathbb{Y} 03'59	
morning max el	2517 May 19 12:49	2° \mathbb{X} 45'06	26°16'25	direct	2518 Apr 17 01:34	5° \mathbb{Y} 59'38	
	2517 Jun 08 00:32	0° \mathbb{I}		morning max el	2518 May 01 09:48	13° \mathbb{Y} 46'53	27°20'27
morning set	2517 Jun 17 02:22	17° \mathbb{I} 45'39			2518 May 14 08:28	0° \mathbb{X}	
asc. node	2517 Jun 17 22:31	19° \mathbb{I} 32'17			2518 May 31 06:05	0° \mathbb{I}	
	2517 Jun 22 18:08	0° \mathbb{S}		morning set	2518 Jun 01 10:54	2° \mathbb{I} 28'51	
				asc. node	2518 Jun 04 19:33	9° \mathbb{I} 37'22	
superior conj	2517 Jun 24 03:02	3° \mathbb{S} 01'00	1°01'10	max. Earth dist.	2518 Jun 08 02:31	16° \mathbb{I} 48'39	1.32146 AU
minimum elong	2517 Jun 24 00:48	2° \mathbb{S} 48'43	1°00'47				
max. Earth dist.	2517 Jun 24 14:17	4° \mathbb{S} 02'55	1.32301 AU	superior conj	2518 Jun 08 14:45	17° \mathbb{I} 55'59	0°39'11
evening rise	2517 Jul 01 02:54	18° \mathbb{S} 07'06		minimum elong	2518 Jun 08 13:07	17° \mathbb{I} 46'58	0°38'51
	2517 Jul 07 01:39	0° \mathbb{Q}			2518 Jun 14 03:13	0° \mathbb{S}	
desc. node	2517 Jul 25 21:29	29° \mathbb{Q} 30'38		evening rise	2518 Jun 15 12:06	2° \mathbb{S} 55'14	
	2517 Jul 26 07:12	0° \mathbb{M}			2518 Jun 30 01:14	0° \mathbb{Q}	

desc. node	2518 Jul 12 18:29	16°♊35'10		behind sun begin	2519 May 23 22:09	2°♊27'03	
evening max el	2518 Jul 13 20:43	17°♊39'30	26°02'27	behind sun end	2519 May 24 02:50	2°♊52'36	
retrograde	2518 Jul 27 20:26	24°♊49'06		evening rise	2519 May 30 23:31	17°♊46'48	
evening set	2518 Aug 03 04:27	23°♊12'13			2519 Jun 06 00:02	0°♊	
min. Earth dist.	2518 Aug 07 09:14	20°♊36'29	0.58939 AU	evening max el	2519 Jun 25 12:22	28°♊30'55	24°39'07
inferior conj	2518 Aug 10 16:02	18°♊10'04	-4°-56'-35		2519 Jun 27 03:22	0°♊	
minimum elong	2518 Aug 10 18:36	18°♊05'17	4°56'25	desc. node	2519 Jun 29 15:29	1°♊58'32	
morning rise	2518 Aug 18 12:12	13°♊42'33		retrograde	2519 Jul 09 10:32	5°♊33'49	
direct	2518 Aug 20 22:48	13°♊22'34		evening set	2519 Jul 14 12:42	4°♊35'21	
morning max el	2518 Aug 28 23:07	17°♊12'47	18°31'22	min. Earth dist.	2519 Jul 19 23:30	1°♊45'22	0.57007 AU
asc. node	2518 Aug 31 18:46	20°♊19'42		inferior conj	2519 Jul 22 19:30	29°♊55'22	-4°-57'-11
	2518 Sep 07 03:29	0°♊		minimum elong	2519 Jul 22 16:58	29°♊59'30	4°57'01
morning set	2518 Sep 14 01:39	12°♊52'55			2519 Jul 22 16:40	30°♊	
				morning rise	2519 Jul 31 00:57	25°♊49'47	
superior conj	2518 Sep 23 00:21	29°♊58'25	1°33'25	direct	2519 Aug 02 15:48	25°♊30'45	
minimum elong	2518 Sep 23 03:25	0°♊12'41	1°33'10	morning max el	2519 Aug 11 22:19	29°♊50'08	19°22'45
	2518 Sep 23 00:41	0°♊			2519 Aug 12 02:30	0°♊	
max. Earth dist.	2518 Sep 30 09:16	13°♊15'05	1.40061 AU	asc. node	2519 Aug 18 15:48	8°♊13'34	
evening rise	2518 Oct 04 16:24	20°♊34'33		morning set	2519 Aug 29 02:07	27°♊14'30	
desc. node	2518 Oct 08 17:50	27°♊13'56			2519 Aug 30 11:11	0°♊	
	2518 Oct 10 11:25	0°♊					
	2518 Oct 31 07:17	0°♊		superior conj	2519 Sep 06 05:26	13°♊27'52	1°43'32
evening max el	2518 Nov 08 12:07	9°♊27'02	23°46'15	minimum elong	2519 Sep 06 06:39	13°♊33'50	1°43'29
retrograde	2518 Nov 19 07:08	15°♊48'50		max. Earth dist.	2519 Sep 12 13:09	25°♊27'24	1.37998 AU
evening set	2518 Nov 24 09:29	13°♊42'39			2519 Sep 15 01:22	0°♊	
asc. node	2518 Nov 27 17:59	10°♊04'38		evening rise	2519 Sep 16 08:32	2°♊18'06	
inferior conj	2518 Nov 29 20:16	7°♊16'33	0°42'48	desc. node	2519 Sep 25 14:51	17°♊47'52	
minimum elong	2518 Nov 29 19:16	7°♊19'58	0°42'23		2519 Oct 03 15:23	0°♊	
min. Earth dist.	2518 Nov 29 06:48	8°♊02'25	0.67770 AU	evening max el	2519 Oct 22 00:18	23°♊06'06	25°03'24
morning rise	2518 Dec 05 05:16	1°♊08'27		retrograde	2519 Nov 02 19:52	29°♊57'04	
	2518 Dec 07 05:46	30°♊		evening set	2519 Nov 08 12:22	27°♊34'53	
direct	2518 Dec 09 05:12	29°♊38'24		min. Earth dist.	2519 Nov 13 01:28	22°♊29'03	0.67334 AU
	2518 Dec 11 06:43	0°♊		inferior conj	2519 Nov 14 01:36	21°♊09'54	0°-11'-31
morning max el	2518 Dec 17 10:24	4°♊23'18	20°49'14	minimum elong	2519 Nov 14 01:53	21°♊08'57	0°11'24
greatest brilliancy	2518 Dec 23 03:52	11°♊03'21	-0.5m	transit middle	2519 Nov 14 01:53	21°♊08'57	0°11'24
desc. node	2519 Jan 04 17:03	28°♊45'12		transit begin	2519 Nov 13 23:55	21°♊15'25	
	2519 Jan 05 13:09	0°♊		transit end	2519 Nov 14 03:52	21°♊02'29	
morning set	2519 Jan 15 23:00	15°♊53'00		asc. node	2519 Nov 14 15:00	20°♊26'07	
max. Earth dist.	2519 Jan 24 13:34	29°♊33'51	1.42913 AU	morning rise	2519 Nov 19 16:01	15°♊08'34	
	2519 Jan 24 20:00	0°♊		direct	2519 Nov 23 03:28	13°♊58'52	
				morning max el	2519 Nov 30 12:15	18°♊09'13	19°41'33
superior conj	2519 Jan 31 09:15	10°♊50'49	-2°-4'-56	greatest brilliancy	2519 Dec 08 11:54	28°♊04'40	-0.6m
minimum elong	2519 Jan 31 07:37	10°♊43'58	2°04'55		2519 Dec 09 20:27	0°♊	
	2519 Feb 11 09:51	0°♊		desc. node	2519 Dec 22 14:07	19°♊06'22	
evening rise	2519 Feb 12 07:25	1°♊35'50		morning set	2519 Dec 25 19:20	24°♊03'47	
asc. node	2519 Feb 23 17:17	21°♊05'06			2519 Dec 29 15:15	0°♊	
evening max el	2519 Mar 01 05:50	28°♊09'21	18°07'11	max. Earth dist.	2520 Jan 07 01:09	13°♊12'36	1.44326 AU
	2519 Mar 03 10:08	0°♊					
retrograde	2519 Mar 07 19:29	1°♊32'59		superior conj	2520 Jan 11 12:38	20°♊22'19	-1°-50'-25
evening set	2519 Mar 10 11:50	0°♊58'45		minimum elong	2520 Jan 11 05:28	19°♊53'30	1°49'56
	2519 Mar 12 07:09	30°♊			2520 Jan 17 10:23	0°♊	
inferior conj	2519 Mar 17 00:07	25°♊54'37	3°33'15	evening rise	2520 Jan 25 06:16	13°♊05'41	
minimum elong	2519 Mar 17 01:47	25°♊50'28	3°33'05		2520 Feb 04 09:00	0°♊	
min. Earth dist.	2519 Mar 20 01:24	22°♊53'14	0.61620 AU	asc. node	2520 Feb 10 14:18	9°♊00'12	
morning rise	2519 Mar 23 13:01	19°♊58'23		evening max el	2520 Feb 12 18:25	11°♊26'58	18°17'12
direct	2519 Mar 30 09:16	17°♊34'22		retrograde	2520 Feb 19 05:26	14°♊55'15	
desc. node	2519 Apr 02 16:13	18°♊04'54		evening set	2520 Feb 22 03:01	14°♊10'27	
morning max el	2519 Apr 13 13:13	25°♊30'05	27°49'05	inferior conj	2520 Feb 28 04:42	8°♊46'38	3°41'43
	2519 Apr 17 16:55	0°♊		minimum elong	2520 Feb 28 04:29	8°♊47'13	3°41'44
	2519 May 07 19:11	0°♊		min. Earth dist.	2520 Mar 01 15:51	6°♊01'50	0.63598 AU
morning set	2519 May 16 14:59	16°♊56'24		morning rise	2520 Mar 05 04:09	2°♊40'21	
max. Earth dist.	2519 May 22 12:45	29°♊25'23	1.32377 AU		2520 Mar 10 22:21	30°♊	
asc. node	2519 May 22 16:35	29°♊46'08		direct	2520 Mar 12 01:47	29°♊55'42	
	2519 May 22 19:08	0°♊			2520 Mar 13 05:44	0°♊	
				desc. node	2520 Mar 19 13:16	2°♊33'34	
superior conj	2519 May 24 01:09	2°♊43'25	0°14'17	morning max el	2520 Mar 25 21:08	7°♊51'57	27°40'22
minimum elong	2519 May 24 00:29	2°♊39'49	0°14'08		2520 Apr 11 22:33	0°♊	

	2520 Apr 29 00:07	0°♄			2521 Mar 16 07:35	0°♄		
morning set	2520 Apr 29 12:16	1°♄00'15			2521 Apr 05 01:13	0°♄		
max. Earth dist.	2520 May 04 16:50	11°♄39'05	1.33024 AU	morning set	2521 Apr 12 23:38	14°♄30'52		
				max. Earth dist.	2521 Apr 17 11:10	23°♄20'56	1.34125 AU	
superior conj	2520 May 07 08:24	17°♄17'11	0°-12'-46		2521 Apr 20 17:01	0°♄		
minimum elong	2520 May 07 09:02	17°♄20'34	0°12'39					
behind sun begin	2520 May 07 05:46	17°♄03'05		superior conj	2521 Apr 21 10:28	1°♄31'00	0°-40'-57	
behind sun end	2520 May 07 12:17	17°♄38'03		minimum elong	2521 Apr 21 12:34	1°♄41'57	0°40'33	
asc. node	2520 May 08 13:36	19°♄54'15		asc. node	2521 Apr 25 10:39	9°♄57'50		
	2520 May 13 06:05	0°♄		evening rise	2521 Apr 28 21:32	17°♄14'12		
evening rise	2520 May 14 11:17	2°♄35'07			2521 May 05 07:22	0°♄		
	2520 May 29 14:18	0°♄		evening max el	2521 May 18 21:25	19°♄37'29	21°30'35	
evening max el	2520 Jun 06 02:03	8°♄59'35	23°03'29	retrograde	2521 May 31 03:00	25°♄37'21		
desc. node	2520 Jun 15 12:30	15°♄04'56		desc. node	2521 Jun 02 09:31	25°♄25'36		
retrograde	2520 Jun 19 12:13	15°♄41'13		evening set	2521 Jun 02 13:40	25°♄23'47		
evening set	2520 Jun 23 02:08	15°♄13'08		inferior conj	2521 Jun 11 22:45	21°♄23'41	-2°-42'-17	
min. Earth dist.	2520 Jun 30 11:18	11°♄54'20	0.55556 AU	minimum elong	2521 Jun 11 15:36	21°♄33'42	2°39'58	
inferior conj	2520 Jul 02 03:30	10°♄55'53	-4°-13'-29	min. Earth dist.	2521 Jun 11 23:03	21°♄23'16	0.54904 AU	
minimum elong	2520 Jul 01 20:07	11°♄06'39	4°11'58	morning rise	2521 Jun 20 18:07	17°♄27'59		
morning rise	2520 Jul 10 17:04	7°♄03'20		direct	2521 Jun 24 00:50	17°♄04'32		
direct	2520 Jul 13 13:54	6°♄43'47		morning max el	2521 Jul 06 11:07	22°♄56'55	22°06'13	
morning max el	2520 Jul 24 10:24	11°♄45'37	20°35'17		2521 Jul 12 15:37	0°♄		
asc. node	2520 Aug 04 12:51	26°♄50'17		asc. node	2521 Jul 22 09:56	15°♄59'41		
	2520 Aug 06 07:06	0°♄		morning set	2521 Jul 27 18:11	26°♄43'00		
morning set	2520 Aug 12 08:21	11°♄53'07			2521 Jul 29 07:43	0°♄		
superior conj	2520 Aug 19 22:36	27°♄33'10	1°45'02	superior conj	2521 Aug 04 00:10	12°♄03'36	1°39'31	
minimum elong	2520 Aug 19 22:10	27°♄30'59	1°45'01	minimum elong	2521 Aug 03 22:34	11°♄55'08	1°39'24	
	2520 Aug 21 03:34	0°♄		max. Earth dist.	2521 Aug 07 11:11	19°♄15'00	1.34528 AU	
max. Earth dist.	2520 Aug 24 20:02	7°♄18'19	1.36099 AU	evening rise	2521 Aug 12 02:26	28°♄29'25		
evening rise	2520 Aug 28 21:24	15°♄00'21			2521 Aug 12 21:14	0°♄		
	2520 Sep 06 10:28	0°♄		desc. node	2521 Aug 29 08:53	28°♄07'22		
desc. node	2520 Sep 11 11:53	8°♄07'52			2521 Aug 30 15:12	0°♄		
	2520 Sep 27 07:02	0°♄		evening max el	2521 Sep 16 00:55	20°♄20'39	26°59'59	
evening max el	2520 Oct 03 12:24	6°♄46'17	26°10'34	retrograde	2521 Sep 29 06:05	27°♄37'20		
retrograde	2520 Oct 16 03:45	13°♄55'28		evening set	2521 Oct 06 00:53	24°♄55'38		
evening set	2520 Oct 22 10:14	11°♄20'38		min. Earth dist.	2521 Oct 09 23:35	21°♄02'26	0.65429 AU	
min. Earth dist.	2520 Oct 26 15:52	6°♄50'42	0.66555 AU	inferior conj	2521 Oct 11 22:53	18°♄47'05	-2°-8'-19	
inferior conj	2520 Oct 28 03:10	5°♄01'26	-1°-9'-8	minimum elong	2521 Oct 12 02:22	18°♄37'07	2°06'58	
minimum elong	2520 Oct 28 05:00	4°♄55'45	1°08'22	morning rise	2521 Oct 18 05:27	13°♄08'01		
asc. node	2520 Oct 31 12:03	1°♄09'56		asc. node	2521 Oct 18 09:08	13°♄03'40		
	2520 Nov 01 19:28	30°♄		direct	2521 Oct 20 22:29	12°♄28'01		
morning rise	2520 Nov 03 00:51	29°♄09'40		morning max el	2521 Oct 27 11:07	15°♄59'36	18°12'53	
direct	2520 Nov 06 01:55	28°♄16'45			2521 Nov 06 15:19	0°♄		
	2520 Nov 10 12:56	0°♄		morning set	2521 Nov 15 02:08	13°♄45'00		
morning max el	2520 Nov 12 21:11	2°♄02'56	18°49'00	desc. node	2521 Nov 25 08:13	0°♄21'21		
	2520 Dec 02 07:53	0°♄			2521 Nov 25 02:52	0°♄		
morning set	2520 Dec 04 08:19	3°♄10'46						
desc. node	2520 Dec 08 11:11	9°♄39'51		superior conj	2521 Nov 29 21:55	7°♄37'11	0°-30'-29	
max. Earth dist.	2520 Dec 19 17:55	27°♄22'36	1.45080 AU	minimum elong	2521 Nov 29 18:01	7°♄21'43	0°29'58	
				max. Earth dist.	2521 Dec 02 13:18	11°♄46'59	1.45098 AU	
superior conj	2520 Dec 20 19:06	29°♄01'34	-1°-16'-54		2521 Dec 14 05:01	0°♄		
minimum elong	2520 Dec 20 10:25	28°♄27'24	1°15'56	evening rise	2521 Dec 16 07:54	3°♄18'07		
	2520 Dec 21 09:58	0°♄		greatest brilliancy	2522 Jan 01 05:45	27°♄40'05	-0.7m	
evening rise	2521 Jan 05 06:23	23°♄38'22			2522 Jan 02 20:52	0°♄		
	2521 Jan 09 04:53	0°♄		evening max el	2522 Jan 09 13:27	8°♄22'21	19°30'25	
evening max el	2521 Jan 26 05:42	24°♄52'53	18°45'24	asc. node	2522 Jan 14 08:22	12°♄00'12		
asc. node	2521 Jan 27 11:19	26°♄03'22		retrograde	2522 Jan 16 19:09	12°♄32'50		
retrograde	2521 Feb 01 22:24	28°♄37'18		evening set	2522 Jan 20 05:51	11°♄23'19		
evening set	2521 Feb 05 01:55	27°♄40'47		inferior conj	2522 Jan 25 19:11	5°♄25'58	3°10'45	
inferior conj	2521 Feb 10 20:09	21°♄59'06	3°32'45	minimum elong	2522 Jan 25 16:49	5°♄33'44	3°10'16	
minimum elong	2521 Feb 10 18:33	22°♄04'00	3°32'35	min. Earth dist.	2522 Jan 26 23:54	3°♄52'15	0.66490 AU	
min. Earth dist.	2521 Feb 12 15:44	19°♄46'00	0.65244 AU		2522 Jan 30 06:44	30°♄		
morning rise	2521 Feb 16 10:01	15°♄47'25		morning rise	2522 Jan 31 03:02	29°♄11'32		
direct	2521 Feb 23 01:25	12°♄56'49		direct	2522 Feb 06 06:59	26°♄28'05		
desc. node	2521 Mar 06 10:21	18°♄55'16			2522 Feb 14 10:13	0°♄		
morning max el	2521 Mar 08 06:48	20°♄42'23	26°58'24	morning max el	2522 Feb 18 16:07	3°♄49'29	25°50'57	

desc. node	2522 Feb 21 07:24	6° \approx 37'57		direct	2523 Jan 20 17:46	10° \approx 21'11	
	2522 Mar 10 15:43	0° \approx		morning max el	2523 Feb 01 00:40	17° \approx 05'14	24°27'49
morning set	2522 Mar 26 20:49	27° \approx 15'02		desc. node	2523 Feb 08 04:27	25° \approx 18'24	
	2522 Mar 28 08:24	0° \approx			2523 Feb 11 18:51	0° \approx	
max. Earth dist.	2522 Mar 30 17:58	4° \approx 32'32	1.35690 AU		2523 Mar 03 16:08	0° \approx	
				morning set	2523 Mar 08 22:27	8° \approx 58'29	
superior conj	2522 Apr 05 04:44	15° \approx 16'32	-1°-8'-51	max. Earth dist.	2523 Mar 12 15:40	15° \approx 35'49	1.37641 AU
minimum elong	2522 Apr 05 08:14	15° \approx 34'08	1°08'16				
asc. node	2522 Apr 12 07:41	29° \approx 51'54		superior conj	2523 Mar 19 11:59	28° \approx 25'34	-1°-34'-22
	2522 Apr 12 09:16	0° \approx		minimum elong	2523 Mar 19 16:20	28° \approx 46'37	1°33'50
evening rise	2522 Apr 13 04:11	1° \approx 36'46			2523 Mar 20 07:29	0° \approx	
	2522 Apr 30 08:50	0° \approx		evening rise	2523 Mar 28 04:54	15° \approx 36'32	
evening max el	2522 May 01 03:34	0° \approx 47'06	20°11'14	asc. node	2523 Mar 30 04:43	19° \approx 32'12	
retrograde	2522 May 11 16:53	5° \approx 54'18			2523 Apr 04 19:24	0° \approx	
evening set	2522 May 13 17:23	5° \approx 43'51		evening max el	2523 Apr 13 21:20	12° \approx 36'51	19°10'41
desc. node	2522 May 20 06:34	3° \approx 11'39		retrograde	2523 Apr 22 18:52	16° \approx 55'49	
inferior conj	2522 May 22 18:30	1° \approx 45'08	0°-43'-54	evening set	2523 Apr 24 20:53	16° \approx 42'36	
minimum elong	2522 May 22 16:27	1° \approx 48'11	0°43'09	inferior conj	2523 May 03 04:29	12° \approx 31'18	1°07'23
min. Earth dist.	2522 May 24 11:48	0° \approx 44'00	0.55207 AU	minimum elong	2523 May 03 07:06	12° \approx 26'52	1°06'30
	2522 May 25 18:27	30° \approx 8		min. Earth dist.	2523 May 06 02:50	10° \approx 32'49	0.56408 AU
morning rise	2522 May 31 13:14	27° \approx 27'13		desc. node	2523 May 07 03:36	9° \approx 53'25	
direct	2522 Jun 04 12:55	26° \approx 52'43		morning rise	2523 May 11 13:10	7° \approx 38'55	
	2522 Jun 13 17:53	0° \approx		direct	2523 May 16 12:22	6° \approx 41'37	
morning max el	2522 Jun 18 03:39	3° \approx 33'08	23°47'59	morning max el	2523 May 30 18:01	13° \approx 58'55	25°27'04
	2522 Jul 06 11:13	0° \approx			2523 Jun 12 09:13	0° \approx	
asc. node	2522 Jul 09 07:00	5° \approx 32'37		asc. node	2523 Jun 26 04:01	25° \approx 12'22	
morning set	2522 Jul 12 05:48	11° \approx 38'12		morning set	2523 Jun 26 17:30	26° \approx 13'17	
					2523 Jun 28 08:18	0° \approx	
superior conj	2522 Jul 19 07:15	26° \approx 49'56	1°28'15				
minimum elong	2522 Jul 19 05:00	26° \approx 37'48	1°28'00	superior conj	2523 Jul 03 17:36	11° \approx 44'52	1°12'15
	2522 Jul 20 18:37	0° \approx		minimum elong	2523 Jul 03 15:13	11° \approx 31'51	1°11'53
max. Earth dist.	2522 Jul 21 11:35	1° \approx 30'35	1.33342 AU	max. Earth dist.	2523 Jul 04 19:06	14° \approx 04'18	1.32560 AU
evening rise	2522 Jul 26 19:21	12° \approx 32'56		evening rise	2523 Jul 10 20:40	27° \approx 00'28	
	2522 Aug 05 02:32	0° \approx			2523 Jul 12 07:48	0° \approx	
desc. node	2522 Aug 16 05:53	17° \approx 37'46			2523 Jul 29 11:32	0° \approx	
	2522 Aug 25 23:51	0° \approx		desc. node	2523 Aug 03 02:53	6° \approx 26'31	
evening max el	2522 Aug 29 12:27	3° \approx 37'19	27°24'33	evening max el	2523 Aug 11 20:39	16° \approx 22'29	27°18'34
retrograde	2522 Sep 12 02:21	10° \approx 54'49		retrograde	2523 Aug 25 16:08	23° \approx 38'02	
evening set	2522 Sep 19 05:33	8° \approx 15'11		evening set	2523 Sep 01 20:33	21° \approx 12'33	
min. Earth dist.	2522 Sep 22 22:21	4° \approx 56'56	0.63950 AU	min. Earth dist.	2523 Sep 05 10:43	18° \approx 22'18	0.62146 AU
inferior conj	2522 Sep 25 10:17	2° \approx 21'32	-3°-6'-33	inferior conj	2523 Sep 08 10:20	15° \approx 37'08	-3°-59'-55
minimum elong	2522 Sep 25 15:11	2° \approx 08'48	3°04'57	minimum elong	2523 Sep 08 15:50	15° \approx 24'22	3°58'33
	2522 Sep 27 19:02	30° \approx 8		morning rise	2523 Sep 15 13:56	10° \approx 34'02	
morning rise	2522 Oct 02 03:01	26° \approx 58'46		direct	2523 Sep 17 22:42	10° \approx 09'32	
direct	2522 Oct 04 14:34	26° \approx 28'05		asc. node	2523 Sep 22 03:15	11° \approx 28'49	
asc. node	2522 Oct 05 06:12	26° \approx 30'14		morning max el	2523 Sep 24 18:55	13° \approx 37'29	17°53'09
morning max el	2522 Oct 11 03:22	29° \approx 53'36	17°53'58		2523 Oct 05 22:37	0° \approx	
	2522 Oct 11 05:55	0° \approx		morning set	2523 Oct 10 17:09	8° \approx 32'03	
morning set	2522 Oct 27 23:08	25° \approx 38'35					
	2522 Oct 30 12:10	0° \approx		superior conj	2523 Oct 21 16:06	27° \approx 53'52	0°55'45
				minimum elong	2523 Oct 21 20:27	28° \approx 12'30	0°55'12
superior conj	2522 Nov 09 17:42	17° \approx 06'06	0°16'50		2523 Oct 22 21:41	0° \approx	
minimum elong	2522 Nov 09 19:33	17° \approx 13'39	0°16'35	max. Earth dist.	2523 Oct 28 22:03	10° \approx 00'29	1.43034 AU
desc. node	2522 Nov 12 05:13	21° \approx 07'33		desc. node	2523 Oct 30 02:13	11° \approx 54'54	
max. Earth dist.	2522 Nov 15 07:45	26° \approx 06'09	1.44384 AU	evening rise	2523 Nov 05 05:30	21° \approx 40'30	
	2522 Nov 17 18:47	0° \approx			2523 Nov 10 15:07	0° \approx	
evening rise	2522 Nov 25 18:31	12° \approx 26'16		greatest brilliancy	2523 Dec 01 16:43	29° \approx 52'19	-0.4m
	2522 Dec 07 08:49	0° \approx			2523 Dec 01 19:12	0° \approx	
greatest brilliancy	2522 Dec 17 15:47	14° \approx 40'24	-0.5m	evening max el	2523 Dec 06 13:01	5° \approx 24'09	21°41'38
evening max el	2522 Dec 23 16:05	21° \approx 53'03	20°30'12	retrograde	2523 Dec 15 14:23	10° \approx 47'34	
retrograde	2522 Dec 31 17:11	26° \approx 37'39		asc. node	2523 Dec 19 02:29	9° \approx 40'20	
asc. node	2523 Jan 01 05:26	26° \approx 36'12		evening set	2523 Dec 19 20:26	9° \approx 08'00	
evening set	2523 Jan 04 12:39	25° \approx 13'47		inferior conj	2523 Dec 25 05:56	2° \approx 48'31	1°58'41
inferior conj	2523 Jan 09 23:11	19° \approx 03'37	2°38'44	minimum elong	2523 Dec 25 03:37	2° \approx 56'31	1°57'52
minimum elong	2523 Jan 09 20:36	19° \approx 12'26	2°37'59	min. Earth dist.	2523 Dec 25 09:29	2° \approx 36'12	0.67775 AU
min. Earth dist.	2523 Jan 10 14:34	18° \approx 11'14	0.67325 AU		2523 Dec 27 07:39	30° \approx 8	
morning rise	2523 Jan 15 04:05	12° \approx 48'19		morning rise	2523 Dec 30 10:33	26° \approx 34'10	

direct	2524 Jan 04 09:05	24° ♄ 28'21		min. Earth dist.	2524 Dec 08 06:12	17° ♄ 03'49	0.67871 AU
	2524 Jan 13 23:46	0° ♄		morning rise	2524 Dec 13 20:16	10° ♄ 27'20	
morning max el	2524 Jan 14 10:10	0° ♄ 25'56	22°59'05	direct	2524 Dec 18 04:09	8° ♄ 44'19	
greatest brilliancy	2524 Jan 19 04:51	5° ♄ 46'07	-0.3m	morning max el	2524 Dec 27 00:04	13° ♄ 54'08	21°33'49
desc. node	2524 Jan 26 01:28	14° ♄ 39'37		greatest brilliancy	2524 Dec 31 23:11	19° ♄ 32'20	-0.4m
	2524 Feb 05 16:12	0° ♄			2525 Jan 08 18:54	0° ♄	
morning set	2524 Feb 17 22:18	19° ♄ 25'00		desc. node	2525 Jan 11 22:29	4° ♄ 30'18	
max. Earth dist.	2524 Feb 22 10:44	27° ♄ 03'23	1.39787 AU	morning set	2525 Jan 27 16:59	28° ♄ 28'15	
	2524 Feb 24 03:27	0° ♄			2525 Jan 28 16:02	0° ♄	
				max. Earth dist.	2525 Feb 03 10:20	9° ♄ 21'23	1.41867 AU
superior conj	2524 Mar 01 03:59	10° ♄ 47'22	-1°-54'-32				
minimum elong	2524 Mar 01 07:54	11° ♄ 05'24	1°54'15	superior conj	2525 Feb 10 23:39	22° ♄ 09'38	-2°-5'-8
evening rise	2524 Mar 10 20:40	29° ♄ 05'27		minimum elong	2525 Feb 11 00:50	22° ♄ 14'46	2°05'08
	2524 Mar 11 08:05	0° ♄			2525 Feb 15 10:20	0° ♄	
asc. node	2524 Mar 16 01:46	8° ♄ 53'15		evening rise	2525 Feb 21 23:52	11° ♄ 54'34	
evening max el	2524 Mar 27 00:34	25° ♄ 03'07	18°30'25	asc. node	2525 Mar 02 22:48	27° ♄ 47'53	
retrograde	2524 Apr 03 15:14	28° ♄ 47'44			2525 Mar 04 07:45	0° ♄	
evening set	2524 Apr 05 22:52	28° ♄ 28'00		evening max el	2525 Mar 10 09:58	7° ♄ 56'20	18°10'07
inferior conj	2524 Apr 13 11:25	23° ♄ 57'32	2°29'16	retrograde	2525 Mar 17 05:25	11° ♄ 22'54	
minimum elong	2524 Apr 13 15:20	23° ♄ 49'46	2°28'14	evening set	2525 Mar 19 18:49	10° ♄ 54'18	
min. Earth dist.	2524 Apr 16 21:42	21° ♄ 15'45	0.58251 AU	inferior conj	2525 Mar 26 14:54	6° ♄ 02'32	3°18'04
morning rise	2524 Apr 21 03:29	18° ♄ 32'57		minimum elong	2525 Mar 26 17:39	5° ♄ 56'10	3°17'39
desc. node	2524 Apr 23 00:37	17° ♄ 44'46		min. Earth dist.	2525 Mar 29 22:20	3° ♄ 01'03	0.60392 AU
direct	2524 Apr 27 02:23	17° ♄ 01'49		morning rise	2525 Apr 02 13:09	0° ♄ 15'28	
morning max el	2524 May 11 11:44	24° ♄ 42'13	26°47'39		2525 Apr 02 23:17	30° ♄	
	2524 May 16 08:22	0° ♄		direct	2525 Apr 09 04:40	28° ♄ 08'32	
	2524 Jun 04 11:54	0° ♄		desc. node	2525 Apr 09 21:40	28° ♄ 09'56	
morning set	2524 Jun 10 03:41	11° ♄ 23'03			2525 Apr 15 18:07	0° ♄	
asc. node	2524 Jun 12 01:02	15° ♄ 23'39		morning max el	2525 Apr 23 11:21	6° ♄ 00'41	27°37'12
					2525 May 11 10:28	0° ♄	
superior conj	2524 Jun 17 05:21	26° ♄ 42'15	0°52'16	morning set	2525 May 25 10:33	26° ♄ 00'22	
minimum elong	2524 Jun 17 03:19	26° ♄ 31'04	0°51'52		2525 May 27 08:19	0° ♄	
max. Earth dist.	2524 Jun 17 06:33	26° ♄ 48'57	1.32177 AU	asc. node	2525 May 29 22:03	5° ♄ 30'57	
	2524 Jun 18 17:16	0° ♄		max. Earth dist.	2525 May 31 18:13	9° ♄ 31'44	1.32190 AU
evening rise	2524 Jun 24 03:40	11° ♄ 43'51					
	2524 Jul 03 12:18	0° ♄		superior conj	2525 Jun 01 16:42	11° ♄ 35'01	0°28'57
desc. node	2524 Jul 19 23:54	24° ♄ 16'23		minimum elong	2525 Jun 01 15:26	11° ♄ 28'03	0°28'40
evening max el	2524 Jul 23 23:12	28° ♄ 25'35	26°39'23	evening rise	2525 Jun 08 14:02	26° ♄ 34'24	
	2524 Jul 25 17:00	0° ♄			2525 Jun 10 05:13	0° ♄	
retrograde	2524 Aug 06 22:21	5° ♄ 38'08			2525 Jun 27 11:26	0° ♄	
evening set	2524 Aug 13 17:22	3° ♄ 40'27		evening max el	2525 Jul 05 18:39	9° ♄ 41'28	25°29'37
min. Earth dist.	2524 Aug 17 12:56	1° ♄ 04'23	0.60121 AU	desc. node	2525 Jul 06 20:55	10° ♄ 42'12	
	2524 Aug 18 21:19	30° ♄		retrograde	2525 Jul 19 18:47	16° ♄ 49'01	
inferior conj	2524 Aug 20 19:37	28° ♄ 25'26	-4°-41'-45	evening set	2525 Jul 25 15:19	15° ♄ 28'56	
minimum elong	2524 Aug 21 00:00	28° ♄ 16'32	4°41'08	min. Earth dist.	2525 Jul 30 06:45	12° ♄ 48'57	0.58079 AU
morning rise	2524 Aug 28 09:59	23° ♄ 44'33		inferior conj	2525 Aug 02 10:40	10° ♄ 36'00	-5°-1'-27
direct	2524 Aug 30 18:54	23° ♄ 23'38		minimum elong	2525 Aug 02 11:17	10° ♄ 34'54	5°01'28
morning max el	2524 Sep 07 06:36	27° ♄ 03'05	18°11'33	morning rise	2525 Aug 10 10:52	6° ♄ 17'58	
asc. node	2524 Sep 08 00:16	27° ♄ 47'34		direct	2525 Aug 12 22:56	5° ♄ 58'34	
	2524 Sep 09 22:10	0° ♄		morning max el	2525 Aug 21 11:07	10° ♄ 00'06	18°50'34
morning set	2524 Sep 23 02:23	22° ♄ 09'13		asc. node	2525 Aug 25 21:18	15° ♄ 10'32	
	2524 Sep 27 06:25	0° ♄			2525 Sep 03 16:19	0° ♄	
				morning set	2525 Sep 06 22:16	6° ♄ 17'04	
superior conj	2524 Oct 02 15:55	9° ♄ 56'18	1°22'57				
minimum elong	2524 Oct 02 19:53	10° ♄ 14'10	1°22'33	superior conj	2525 Sep 15 11:50	22° ♄ 57'48	1°38'52
max. Earth dist.	2524 Oct 10 06:49	23° ♄ 16'20	1.41224 AU	minimum elong	2525 Sep 15 14:08	23° ♄ 08'42	1°38'43
	2524 Oct 14 07:49	0° ♄			2525 Sep 19 06:07	0° ♄	
evening rise	2524 Oct 15 08:37	1° ♄ 41'06		max. Earth dist.	2525 Sep 22 11:29	5° ♄ 49'42	1.39181 AU
desc. node	2524 Oct 15 23:14	2° ♄ 40'18		evening rise	2525 Sep 26 11:10	12° ♄ 46'38	
	2524 Nov 03 01:32	0° ♄		desc. node	2525 Oct 02 20:16	23° ♄ 19'41	
greatest brilliancy	2524 Nov 12 17:30	12° ♄ 48'00	-0.2m		2525 Oct 07 02:17	0° ♄	
evening max el	2524 Nov 18 05:08	18° ♄ 57'47	23°00'09		2525 Oct 29 06:43	0° ♄	
retrograde	2524 Nov 28 09:09	24° ♄ 59'40		evening max el	2525 Oct 31 18:19	2° ♄ 35'39	24°19'53
evening set	2524 Dec 03 03:33	23° ♄ 03'28		retrograde	2525 Nov 12 00:14	9° ♄ 10'39	
asc. node	2524 Dec 04 23:31	21° ♄ 16'09		evening set	2525 Nov 17 08:29	6° ♄ 57'44	
inferior conj	2524 Dec 08 13:30	16° ♄ 38'36	1°12'06	asc. node	2525 Nov 21 20:32	1° ♄ 51'03	
minimum elong	2524 Dec 08 11:55	16° ♄ 44'05	1°11'29	min. Earth dist.	2525 Nov 22 02:18	1° ♄ 31'48	0.67626 AU

inferior conj	2525 Nov 22 20:11	0°♂31'44	0°20'16	min. Earth dist.	2526 Nov 05 19:21	15°♂56'52	0.67045 AU
minimum elong	2525 Nov 22 19:42	0°♂33'23	0°20'04	inferior conj	2526 Nov 07 00:09	14°♂24'37	0°-35'-38
	2525 Nov 23 05:39	30°♂♂		minimum elong	2526 Nov 07 01:04	14°♂21'39	0°35'14
morning rise	2525 Nov 28 07:14	24°♂26'00		asc. node	2526 Nov 08 17:35	12°♂14'57	
direct	2525 Dec 02 01:42	23°♂04'46		morning rise	2526 Nov 12 17:27	8°♂27'08	
morning max el	2525 Dec 09 21:15	27°♂33'31	20°18'40	direct	2526 Nov 16 00:18	7°♂24'55	
	2525 Dec 12 03:21	0°♂		morning max el	2526 Nov 23 02:18	11°♂23'18	19°17'20
greatest brilliancy	2525 Dec 16 09:58	5°♂21'05	-0.5m	greatest brilliancy	2526 Dec 02 20:27	24°♂01'00	-0.7m
desc. node	2525 Dec 29 19:32	24°♂42'31			2526 Dec 06 20:27	0°♂	
	2526 Jan 02 07:13	0°♂		morning set	2526 Dec 16 16:01	15°♂07'29	
morning set	2526 Jan 06 15:07	6°♂39'11		desc. node	2526 Dec 16 16:34	15°♂09'38	
max. Earth dist.	2526 Jan 16 18:13	22°♂36'17	1.43591 AU		2526 Dec 26 05:00	0°♂	
	2526 Jan 21 07:37	0°♂		max. Earth dist.	2526 Dec 30 09:04	6°♂33'28	1.44737 AU
superior conj	2526 Jan 22 18:20	2°♂22'51	-2°-1'-8	superior conj	2527 Jan 02 11:28	11°♂28'08	-1°-38'-23
minimum elong	2526 Jan 22 14:16	2°♂06'05	2°00'59	minimum elong	2527 Jan 02 02:50	10°♂53'50	1°37'37
evening rise	2526 Feb 04 10:21	23°♂56'09			2527 Jan 13 22:33	0°♂	
	2526 Feb 07 21:54	0°♂		evening rise	2527 Jan 16 23:53	5°♂02'36	
asc. node	2526 Feb 17 19:50	16°♂08'11			2527 Feb 01 16:32	0°♂	
evening max el	2526 Feb 21 22:19	21°♂07'58	18°09'10	asc. node	2527 Feb 04 16:54	3°♂43'06	
retrograde	2526 Feb 28 09:32	24°♂31'41		evening max el	2527 Feb 05 10:39	4°♂29'57	18°26'56
evening set	2526 Mar 03 04:12	23°♂52'54		retrograde	2527 Feb 11 23:03	8°♂03'45	
inferior conj	2526 Mar 09 11:33	18°♂40'12	3°39'17	evening set	2527 Feb 14 23:05	7°♂13'58	
minimum elong	2526 Mar 09 12:23	18°♂38'00	3°39'15	inferior conj	2527 Feb 20 21:12	1°♂42'00	3°39'44
min. Earth dist.	2526 Mar 12 07:11	15°♂43'45	0.62500 AU	minimum elong	2527 Feb 20 20:20	1°♂44'32	3°39'41
morning rise	2526 Mar 15 18:18	12°♂39'17			2527 Feb 22 08:05	30°♂♂	
direct	2526 Mar 22 16:21	10°♂04'52		min. Earth dist.	2527 Feb 23 01:37	29°♂09'38	0.64348 AU
desc. node	2526 Mar 27 18:42	11°♂18'23		morning rise	2527 Feb 26 16:08	25°♂32'59	
morning max el	2526 Apr 05 16:49	18°♂01'00	27°49'46	direct	2527 Mar 05 11:48	22°♂44'27	
	2526 Apr 15 17:51	0°♂		desc. node	2527 Mar 14 15:45	26°♂39'38	
	2526 May 04 05:16	0°♂			2527 Mar 18 10:58	0°♂	
morning set	2526 May 09 12:03	10°♂18'50		morning max el	2527 Mar 19 01:57	0°♂37'03	27°26'12
max. Earth dist.	2526 May 15 02:23	22°♂00'34	1.32605 AU		2527 Apr 09 18:50	0°♂	
asc. node	2526 May 16 19:06	25°♂40'12		morning set	2527 Apr 23 05:32	24°♂09'45	
superior conj	2526 May 17 02:00	26°♂17'36	0°03'03		2527 Apr 26 03:41	0°♂	
minimum elong	2526 May 17 01:51	26°♂16'47	0°03'00	max. Earth dist.	2527 Apr 28 02:57	4°♂02'31	1.33443 AU
behind sun begin	2526 May 16 20:44	25°♂49'05		superior conj	2527 May 01 07:18	10°♂43'28	0°-24'-40
behind sun end	2526 May 17 06:58	26°♂44'32		minimum elong	2527 May 01 08:33	10°♂50'04	0°24'25
	2526 May 18 18:54	0°♂		asc. node	2527 May 03 16:11	15°♂47'02	
evening rise	2526 May 24 01:51	11°♂25'45		evening rise	2527 May 08 13:13	26°♂11'02	
	2526 Jun 02 13:32	0°♂			2527 May 10 09:12	0°♂	
evening max el	2526 Jun 17 08:46	20°♂20'00	23°59'00		2527 May 29 04:32	0°♂	
desc. node	2526 Jun 23 17:57	25°♂11'57		evening max el	2527 May 29 23:48	0°♂48'07	22°22'44
retrograde	2526 Jul 01 03:10	27°♂15'20		desc. node	2527 Jun 10 14:57	7°♂10'22	
evening set	2526 Jul 05 14:05	26°♂31'32		retrograde	2527 Jun 11 23:37	7°♂14'37	
min. Earth dist.	2526 Jul 11 19:21	23°♂30'58	0.56318 AU	evening set	2527 Jun 15 00:15	6°♂54'23	
inferior conj	2526 Jul 14 05:30	22°♂01'46	-4°-44'-39	min. Earth dist.	2527 Jun 23 06:33	3°♂19'45	0.55167 AU
minimum elong	2526 Jul 14 00:34	22°♂09'23	4°44'03	inferior conj	2527 Jun 24 06:43	2°♂45'35	-3°-39'-59
morning rise	2526 Jul 22 14:30	18°♂03'07		minimum elong	2527 Jun 23 22:38	2°♂57'01	3°37'51
direct	2526 Jul 25 07:56	17°♂43'54			2527 Jun 29 15:21	30°♂♂	
morning max el	2526 Aug 04 05:38	22°♂19'39	19°51'04	morning rise	2527 Jul 02 23:18	28°♂54'33	
	2526 Aug 10 13:52	0°♂		direct	2527 Jul 05 23:43	28°♂33'58	
asc. node	2526 Aug 12 18:20	3°♂23'52			2527 Jul 11 23:03	0°♂	
morning set	2526 Aug 22 01:28	20°♂46'41		morning max el	2527 Jul 17 12:44	3°♂56'11	21°12'10
	2526 Aug 26 14:20	0°♂		asc. node	2527 Jul 30 15:24	22°♂15'51	
superior conj	2526 Aug 29 22:31	6°♂43'33	1°45'07		2527 Aug 03 16:22	0°♂	
minimum elong	2526 Aug 29 23:00	6°♂45'54	1°45'06	morning set	2527 Aug 06 09:29	5°♂31'19	
max. Earth dist.	2526 Sep 04 16:17	17°♂51'20	1.37162 AU	superior conj	2527 Aug 13 19:41	21°♂01'19	1°43'28
evening rise	2526 Sep 08 12:35	24°♂56'02		minimum elong	2527 Aug 13 18:41	20°♂56'11	1°43'26
	2526 Sep 11 09:17	0°♂		max. Earth dist.	2527 Aug 18 02:27	29°♂43'07	1.35379 AU
desc. node	2526 Sep 19 17:18	13°♂48'25			2527 Aug 18 05:50	0°♂	
	2526 Sep 30 16:56	0°♂		evening rise	2527 Aug 22 08:52	7°♂59'50	
evening max el	2526 Oct 14 06:27	16°♂16'11	25°33'44		2527 Sep 04 00:38	0°♂	
retrograde	2526 Oct 26 10:49	23°♂15'30		desc. node	2527 Sep 06 14:18	4°♂01'05	
evening set	2526 Nov 01 09:28	20°♂47'25			2527 Sep 26 20:46	0°♂	

evening max el	2527 Sep 26 18:38	29° Ω 54'51	26°34'10	retrograde	2528 Sep 21 16:25	20° Ω 41'14	
retrograde	2527 Oct 09 16:22	7° \mathbb{M} 08'32		evening set	2528 Sep 28 15:21	17° Ω 58'54	
evening set	2527 Oct 16 04:34	4° \mathbb{M} 29'32		min. Earth dist.	2528 Oct 02 11:12	14° Ω 21'06	0.64838 AU
min. Earth dist.	2527 Oct 20 07:05	0° \mathbb{M} 15'35	0.66119 AU	inferior conj	2528 Oct 04 15:58	11° Ω 55'55	-2°-33'-19
	2527 Oct 20 12:20	30° \mathbb{R} Ω		minimum elong	2528 Oct 04 20:06	11° Ω 44'32	2°31'49
inferior conj	2527 Oct 21 23:29	28° Ω 14'24	-1°-34'-8	morning rise	2528 Oct 11 02:45	6° Ω 23'32	
minimum elong	2527 Oct 22 02:02	28° Ω 06'47	1°33'07	asc. node	2528 Oct 12 11:40	5° Ω 56'01	
asc. node	2527 Oct 26 14:37	23° Ω 24'18		direct	2528 Oct 13 17:01	5° Ω 48'05	
morning rise	2527 Oct 28 00:48	22° Ω 27'56		morning max el	2528 Oct 20 05:03	9° Ω 16'21	18°02'41
direct	2527 Oct 30 22:08	21° Ω 41'04			2528 Nov 03 08:21	0° \mathbb{M}	
morning max el	2527 Nov 06 13:46	25° Ω 19'47	18°31'41	morning set	2528 Nov 06 22:42	6° \mathbb{M} 00'34	
	2527 Nov 10 12:44	0° \mathbb{M}		desc. node	2528 Nov 19 10:38	26° \mathbb{M} 31'15	
morning set	2527 Nov 26 16:46	24° \mathbb{M} 51'01					
	2527 Nov 29 22:11	0° \mathbb{J}		superior conj	2528 Nov 20 21:40	28° \mathbb{M} 51'30	0°-9'-51
desc. node	2527 Dec 03 13:38	5° \mathbb{J} 47'20		minimum elong	2528 Nov 20 20:27	28° \mathbb{M} 46'38	0°09'43
				behind sun begin	2528 Nov 20 11:51	28° \mathbb{M} 12'18	
superior conj	2527 Dec 12 13:42	19° \mathbb{J} 58'33	0°-58'-7	behind sun end	2528 Nov 21 05:02	29° \mathbb{M} 20'55	
minimum elong	2527 Dec 12 06:28	19° \mathbb{J} 30'10	0°57'15		2528 Nov 21 14:50	0° \mathbb{J}	
max. Earth dist.	2527 Dec 13 03:25	20° \mathbb{J} 52'21	1.45177 AU	max. Earth dist.	2528 Nov 24 22:06	5° \mathbb{J} 14'17	1.44874 AU
	2527 Dec 18 22:57	0° \mathbb{C}		evening rise	2528 Dec 07 07:42	24° \mathbb{J} 33'59	
evening rise	2527 Dec 28 14:07	15° \mathbb{C} 12'03			2528 Dec 10 20:20	0° \mathbb{C}	
	2528 Jan 06 22:35	0° \approx		greatest brilliancy	2528 Dec 25 22:34	22° \mathbb{C} 33'26	-0.6m
evening max el	2528 Jan 19 20:35	17° \approx 57'32	19°02'28		2528 Dec 31 17:49	0° \approx	
asc. node	2528 Jan 22 13:56	20° \approx 20'02		evening max el	2529 Jan 02 02:15	1° \approx 27'44	19°54'14
retrograde	2528 Jan 26 18:07	21° \approx 52'20		asc. node	2529 Jan 08 10:57	5° \approx 44'19	
evening set	2528 Jan 30 00:26	20° \approx 50'32		retrograde	2529 Jan 09 15:42	5° \approx 52'13	
inferior conj	2528 Feb 04 16:16	15° \approx 01'39	3°24'49	evening set	2529 Jan 13 05:48	4° \approx 37'00	
minimum elong	2528 Feb 04 14:16	15° \approx 07'58	3°24'30		2529 Jan 17 15:39	30° \mathbb{R} \mathbb{C}	
min. Earth dist.	2528 Feb 06 05:20	13° \approx 04'44	0.65824 AU	inferior conj	2529 Jan 18 17:44	28° \mathbb{C} 33'56	2°58'18
morning rise	2528 Feb 10 03:09	8° \approx 48'14		minimum elong	2529 Jan 18 15:12	28° \mathbb{C} 42'23	2°57'40
direct	2528 Feb 16 14:01	5° \approx 59'23		min. Earth dist.	2529 Jan 19 16:40	27° \mathbb{C} 17'27	0.66890 AU
morning max el	2528 Feb 29 11:55	13° \approx 37'01	26°32'15	morning rise	2529 Jan 23 23:56	22° \mathbb{C} 18'42	
desc. node	2528 Feb 29 12:49	13° \approx 39'18		direct	2529 Jan 29 22:04	19° \mathbb{C} 41'02	
	2528 Mar 13 18:53	0° \mathbb{H}		morning max el	2529 Feb 10 20:49	26° \mathbb{C} 48'50	25°16'53
	2528 Apr 01 11:25	0° \mathbb{Y}			2529 Feb 13 20:06	0° \approx	
morning set	2528 Apr 05 11:30	7° \mathbb{Y} 22'44		desc. node	2529 Feb 15 09:52	1° \approx 49'15	
max. Earth dist.	2528 Apr 09 16:31	15° \mathbb{Y} 30'53	1.34736 AU		2529 Mar 07 09:45	0° \mathbb{H}	
				morning set	2529 Mar 19 01:13	19° \mathbb{H} 44'12	
superior conj	2528 Apr 14 06:24	24° \mathbb{Y} 46'12	0°-52'-57	max. Earth dist.	2529 Mar 22 18:34	26° \mathbb{H} 34'34	1.36474 AU
minimum elong	2528 Apr 14 09:07	25° \mathbb{Y} 00'12	0°52'26		2529 Mar 24 14:03	0° \mathbb{Y}	
	2528 Apr 16 18:52	0° \mathbb{B}					
asc. node	2528 Apr 19 13:14	5° \mathbb{B} 47'13		superior conj	2529 Mar 28 20:29	8° \mathbb{Y} 18'15	-1°-20'-7
evening rise	2528 Apr 21 22:13	10° \mathbb{B} 44'00		minimum elong	2529 Mar 29 00:27	8° \mathbb{Y} 37'52	1°19'31
	2528 May 02 02:39	0° \mathbb{I}		evening rise	2529 Apr 06 02:41	24° \mathbb{Y} 58'19	
evening max el	2528 May 10 23:15	11° \mathbb{I} 37'19	20°54'41	asc. node	2529 Apr 06 10:16	25° \mathbb{Y} 36'35	
retrograde	2528 May 22 12:56	17° \mathbb{I} 15'50			2529 Apr 08 15:05	0° \mathbb{B}	
evening set	2528 May 24 16:57	17° \mathbb{I} 04'42		evening max el	2529 Apr 23 10:39	23° \mathbb{B} 05'22	19°43'07
desc. node	2528 May 27 11:59	16° \mathbb{I} 20'06		retrograde	2529 May 03 06:23	27° \mathbb{B} 50'25	
inferior conj	2528 Jun 03 00:21	13° \mathbb{I} 07'03	-1°-53'-23	evening set	2529 May 05 06:32	27° \mathbb{B} 39'25	
minimum elong	2528 Jun 02 19:02	13° \mathbb{I} 14'35	1°51'30	inferior conj	2529 May 14 00:56	23° \mathbb{B} 37'08	0°05'53
min. Earth dist.	2528 Jun 03 18:49	12° \mathbb{I} 40'49	0.54906 AU	minimum elong	2529 May 14 01:12	23° \mathbb{B} 36'44	0°05'47
morning rise	2528 Jun 11 20:29	9° \mathbb{I} 03'54		transit middle	2529 May 14 01:12	23° \mathbb{B} 36'44	0°05'47
direct	2528 Jun 15 09:02	8° \mathbb{I} 37'08		transit begin	2529 May 13 21:31	23° \mathbb{B} 42'27	
morning max el	2528 Jun 28 09:34	14° \mathbb{I} 51'24	22°48'58	transit end	2529 May 14 04:52	23° \mathbb{B} 31'00	
	2528 Jul 10 02:13	0° \mathbb{S}		desc. node	2529 May 14 09:01	23° \mathbb{B} 24'30	
asc. node	2528 Jul 16 12:28	11° \mathbb{S} 36'14		min. Earth dist.	2529 May 16 08:47	22° \mathbb{B} 10'21	0.55618 AU
morning set	2528 Jul 20 20:17	20° \mathbb{S} 24'14		morning rise	2529 May 22 16:27	19° \mathbb{B} 04'53	
	2528 Jul 25 08:23	0° \mathbb{Q}		direct	2529 May 27 01:44	18° \mathbb{B} 22'03	
				morning max el	2529 Jun 10 00:25	25° \mathbb{B} 20'35	24°31'15
superior conj	2528 Jul 27 23:55	5° \mathbb{Q} 39'55	1°35'23		2529 Jun 14 08:53	0° \mathbb{I}	
minimum elong	2528 Jul 27 21:58	5° \mathbb{Q} 29'34	1°35'13		2529 Jul 02 18:23	0° \mathbb{S}	
max. Earth dist.	2528 Jul 30 21:17	11° \mathbb{Q} 45'47	1.33965 AU	asc. node	2529 Jul 03 09:31	1° \mathbb{S} 17'25	
evening rise	2528 Aug 04 19:24	21° \mathbb{Q} 45'04		morning set	2529 Jul 05 08:07	5° \mathbb{S} 20'12	
	2528 Aug 09 03:00	0° \mathbb{N}					
desc. node	2528 Aug 23 11:19	23° \mathbb{N} 49'43		superior conj	2529 Jul 12 08:39	20° \mathbb{S} 31'10	1°22'00
	2528 Aug 27 20:07	0° \mathbb{A}		minimum elong	2529 Jul 12 06:17	20° \mathbb{S} 18'19	1°21'42
evening max el	2528 Sep 08 06:42	13° \mathbb{A} 22'36	27°13'51	max. Earth dist.	2529 Jul 14 00:57	24° \mathbb{S} 09'23	1.32962 AU

	2529 Jul 16 18:42	0°♂		superior conj	2530 Jun 26 19:48	5°♂27'38	1°04'13
evening rise	2529 Jul 19 16:19	6°♂00'33		minimum elong	2530 Jun 26 17:31	5°♂15'04	1°03'49
	2529 Aug 01 17:01	0°♍		max. Earth dist.	2530 Jun 27 10:41	6°♂49'25	1.32358 AU
desc. node	2529 Aug 10 08:18	13°♍04'11		evening rise	2530 Jul 03 20:22	20°♂35'54	
evening max el	2529 Aug 21 17:14	26°♍27'52	27°26'01		2530 Jul 08 12:27	0°♂	
	2529 Aug 25 21:59	0°♎			2530 Jul 27 00:50	0°♍	
retrograde	2529 Sep 04 10:07	3°♎44'50		desc. node	2530 Jul 28 05:20	1°♍30'17	
evening set	2529 Sep 11 14:41	1°♎09'53		evening max el	2530 Aug 03 23:34	8°♍57'02	27°05'58
	2529 Sep 13 02:41	30°♍		retrograde	2530 Aug 17 20:36	16°♍10'24	
min. Earth dist.	2529 Sep 15 05:52	28°♍04'24	0.63217 AU	evening set	2530 Aug 24 22:31	13°♍55'31	
inferior conj	2529 Sep 17 22:54	25°♍23'23	-3°-30'-9	min. Earth dist.	2530 Aug 28 13:51	11°♍13'09	0.61306 AU
minimum elong	2529 Sep 18 04:13	25°♍10'13	3°28'33	inferior conj	2530 Aug 31 17:08	8°♍28'46	-4°-19'-38
morning rise	2529 Sep 24 20:13	20°♍08'19		minimum elong	2530 Aug 31 22:27	8°♍17'08	4°18'32
direct	2529 Sep 27 06:08	19°♍40'40		morning rise	2530 Sep 08 01:21	3°♍34'34	
asc. node	2529 Sep 29 08:43	20°♍02'13		direct	2530 Sep 10 09:56	3°♍11'44	
morning max el	2529 Oct 03 21:18	23°♍06'32	17°51'15	asc. node	2530 Sep 16 05:46	5°♍36'32	
	2529 Oct 09 07:26	0°♎		morning max el	2530 Sep 17 11:32	6°♍43'20	17°58'30
morning set	2529 Oct 20 05:23	18°♎21'41			2530 Oct 02 09:40	0°♎	
	2529 Oct 26 22:10	0°♏		morning set	2530 Oct 03 06:34	1°♎35'59	
superior conj	2529 Nov 01 04:14	8°♏52'13	0°34'42	superior conj	2530 Oct 13 13:58	20°♎13'12	1°08'46
minimum elong	2529 Nov 01 07:36	9°♏06'12	0°34'14	minimum elong	2530 Oct 13 18:25	20°♎32'39	1°08'14
desc. node	2529 Nov 06 07:37	17°♏18'08			2530 Oct 19 06:53	0°♏	
max. Earth dist.	2529 Nov 07 14:48	19°♏23'46	1.43880 AU	max. Earth dist.	2530 Oct 21 03:19	3°♏05'08	1.42312 AU
	2529 Nov 14 07:45	0°♐		desc. node	2530 Oct 24 04:38	8°♏05'08	
evening rise	2529 Nov 16 16:13	3°♐38'56		evening rise	2530 Oct 27 08:38	13°♏09'33	
	2529 Dec 04 08:25	0°♑			2530 Nov 07 08:23	0°♐	
greatest brilliancy	2529 Dec 10 17:30	8°♑41'10	-0.5m	greatest brilliancy	2530 Nov 24 04:06	23°♐12'24	-0.3m
evening max el	2529 Dec 16 02:31	14°♑58'42	20°59'32	evening max el	2530 Nov 28 21:20	28°♐31'12	22°14'31
retrograde	2529 Dec 24 13:26	19°♑59'11			2530 Nov 30 10:05	0°♑	
asc. node	2529 Dec 26 07:59	19°♑41'45		retrograde	2530 Dec 08 09:39	4°♑10'43	
evening set	2529 Dec 28 13:11	18°♑28'53		evening set	2530 Dec 12 20:53	2°♑24'00	
inferior conj	2530 Jan 02 23:06	12°♑14'37	2°22'37	asc. node	2530 Dec 13 05:01	2°♑06'57	
minimum elong	2530 Jan 02 20:35	12°♑23'19	2°21'49		2530 Dec 15 06:07	30°♑	
min. Earth dist.	2530 Jan 03 09:22	11°♑39'19	0.67561 AU	inferior conj	2530 Dec 18 06:24	26°♑01'54	1°39'38
morning rise	2530 Jan 08 03:34	5°♑59'34		minimum elong	2530 Dec 18 04:21	26°♑09'01	1°38'53
direct	2530 Jan 13 10:58	3°♑40'50		min. Earth dist.	2530 Dec 18 05:14	26°♑06'00	0.67861 AU
morning max el	2530 Jan 24 05:09	10°♑05'32	23°50'11	morning rise	2530 Dec 23 11:41	19°♑48'53	
desc. node	2530 Feb 02 06:53	20°♑48'30		direct	2530 Dec 28 03:56	17°♑52'46	
	2530 Feb 08 23:24	0°♒		morning max el	2531 Jan 06 16:03	23°♑28'58	22°22'01
	2530 Feb 28 03:20	0°♓		greatest brilliancy	2531 Jan 11 05:40	28°♑35'19	-0.3m
morning set	2530 Feb 28 16:33	0°♓56'21			2531 Jan 12 09:14	0°♑	
max. Earth dist.	2530 Mar 04 13:54	7°♓42'55	1.38543 AU	desc. node	2531 Jan 20 03:54	10°♑23'24	
					2531 Feb 02 09:10	0°♒	
superior conj	2530 Mar 11 21:49	21°♓08'52	-1°-43'-47	morning set	2531 Feb 09 03:54	10°♒46'23	
minimum elong	2530 Mar 12 02:13	21°♓29'39	1°43'21	max. Earth dist.	2531 Feb 14 10:45	19°♒32'11	1.40703 AU
	2530 Mar 16 12:25	0°♈			2531 Feb 20 11:53	0°♓	
evening rise	2530 Mar 20 23:57	8°♈45'49		superior conj	2531 Feb 22 05:49	3°♓06'49	-2°00'-28
asc. node	2530 Mar 24 07:18	15°♈09'25		minimum elong	2531 Feb 22 08:55	3°♓20'43	2°00'21
	2530 Apr 02 00:35	0°♉		evening rise	2531 Mar 04 10:51	21°♓58'55	
evening max el	2530 Apr 06 08:55	5°♉12'00	18°51'07		2531 Mar 08 18:19	0°♈	
retrograde	2530 Apr 14 15:38	9°♉13'55		asc. node	2531 Mar 11 04:20	4°♈20'02	
evening set	2530 Apr 16 20:05	8°♉58'10		evening max el	2531 Mar 20 15:07	17°♈50'22	18°19'18
inferior conj	2530 Apr 24 19:27	4°♉39'11	1°46'13	retrograde	2531 Mar 27 20:09	21°♈25'31	
minimum elong	2530 Apr 24 23:01	4°♉32'43	1°45'06	evening set	2531 Mar 30 06:20	21°♈02'09	
min. Earth dist.	2530 Apr 28 00:59	2°♉20'06	0.57140 AU	inferior conj	2531 Apr 06 11:24	16°♈22'15	2°53'45
desc. node	2530 May 01 06:04	0°♉20'25		minimum elong	2531 Apr 06 15:01	16°♈14'34	2°52'58
	2530 May 01 21:53	30°♈		min. Earth dist.	2531 Apr 09 21:45	13°♈29'17	0.59150 AU
morning rise	2530 May 02 21:37	29°♈32'37		morning rise	2531 Apr 13 19:48	10°♈46'55	
direct	2530 May 08 07:40	28°♈21'47		desc. node	2531 Apr 18 03:06	9°♈11'07	
	2530 May 14 18:47	0°♊		direct	2531 Apr 20 02:45	9°♈00'31	
morning max el	2530 May 22 15:25	5°♊49'43	26°04'21	morning max el	2531 May 04 11:33	16°♈46'14	27°13'05
	2530 Jun 09 07:59	0°♋			2531 May 15 08:50	0°♊	
morning set	2530 Jun 19 19:22	20°♋13'28			2531 Jun 01 18:13	0°♋	
asc. node	2530 Jun 20 06:33	21°♋12'36		morning set	2531 Jun 04 04:23	4°♋58'37	
	2530 Jun 24 08:10	0°♌		asc. node	2531 Jun 07 03:35	11°♋16'51	

superior conj	2531 Jun 11 07:35	20°II23'23	0°42'45	max. Earth dist.	2532 May 24 09:38	2°II14'38	1.32311 AU
minimum elong	2531 Jun 11 05:50	20°II13'42	0°42'22				
max. Earth dist.	2531 Jun 10 22:54	19°II35'35	1.32141 AU	superior conj	2532 May 25 18:19	5°II12'53	0°18'15
	2531 Jun 15 16:46	0°☿		minimum elong	2532 May 25 17:29	5°II08'21	0°18'03
evening rise	2531 Jun 18 05:04	5°☿22'59		evening rise	2532 Jun 01 16:18	20°II14'52	
	2531 Jul 01 05:34	0°♊			2532 Jun 06 10:22	0°☿	
desc. node	2531 Jul 15 02:22	18°♊47'42			2532 Jun 26 00:57	0°♊	
evening max el	2531 Jul 16 23:05	20°♊39'26	26°12'55	evening max el	2532 Jun 27 15:35	1°♊37'01	24°52'46
retrograde	2531 Jul 30 22:40	27°♊49'57		desc. node	2532 Jun 30 23:24	4°♊29'04	
evening set	2531 Aug 06 10:02	26°♊07'17		retrograde	2532 Jul 11 14:38	8°♊41'44	
min. Earth dist.	2531 Aug 10 11:49	23°♊32'12	0.59242 AU	evening set	2532 Jul 16 21:52	7°♊37'46	
inferior conj	2531 Aug 13 19:02	21°♊01'51	-4°-53'-37	min. Earth dist.	2532 Jul 22 03:00	4°♊50'50	0.57272 AU
minimum elong	2531 Aug 13 22:10	20°♊55'52	4°53'20	inferior conj	2532 Jul 25 01:36	2°♊54'16	-4°-59'-41
morning rise	2531 Aug 21 13:44	16°♊30'59		minimum elong	2532 Jul 24 23:56	2°♊57'03	4°59'38
direct	2531 Aug 23 23:50	16°♊10'49			2532 Jul 29 21:56	30°♊☿	
morning max el	2531 Aug 31 20:34	19°♊57'48	18°25'38	morning rise	2532 Aug 02 05:44	28°☿45'40	
asc. node	2531 Sep 03 02:48	22°♊24'17		direct	2532 Aug 04 19:44	28°☿26'37	
	2531 Sep 08 09:22	0°♎			2532 Aug 10 08:02	0°♊	
morning set	2531 Sep 16 20:49	15°♎27'30		morning max el	2532 Aug 13 21:18	2°♊41'01	19°13'42
	2531 Sep 24 12:00	0°♎		asc. node	2532 Aug 19 23:51	10°♊10'41	
				morning set	2532 Aug 30 20:11	29°♊45'46	
superior conj	2531 Sep 25 23:05	2°♎43'00	1°31'00		2532 Aug 30 23:03	0°♎	
minimum elong	2531 Sep 26 02:25	2°♎58'21	1°30'43				
max. Earth dist.	2531 Oct 03 10:23	16°♎04'06	1.40365 AU	superior conj	2532 Sep 08 01:58	16°♎05'41	1°42'34
evening rise	2531 Oct 07 21:20	23°♎36'27		minimum elong	2532 Sep 08 03:28	16°♎12'58	1°42'30
desc. node	2531 Oct 11 01:40	28°♎48'21		max. Earth dist.	2532 Sep 14 14:05	28°♎20'25	1.38303 AU
	2531 Oct 11 19:30	0°♏			2532 Sep 15 12:04	0°♎	
	2531 Nov 01 06:32	0°♏		evening rise	2532 Sep 18 10:02	5°♎10'19	
evening max el	2531 Nov 11 11:49	12°♏05'54	23°34'15	desc. node	2532 Sep 26 22:42	19°♎23'51	
retrograde	2531 Nov 22 03:01	18°♏22'56			2532 Oct 03 20:20	0°♏	
evening set	2531 Nov 27 03:17	16°♏19'15		evening max el	2532 Oct 24 00:11	25°♏44'31	24°52'22
asc. node	2531 Nov 30 02:03	13°♏11'52			2532 Oct 29 00:29	0°♏	
min. Earth dist.	2531 Dec 02 01:54	10°♏33'58	0.67809 AU	retrograde	2532 Nov 04 16:28	2°♏31'54	
inferior conj	2531 Dec 02 13:48	9°♏53'15	0°50'41	evening set	2532 Nov 10 06:46	0°♏12'06	
minimum elong	2531 Dec 02 12:38	9°♏57'14	0°50'12		2532 Nov 10 12:21	30°♏♏	
morning rise	2531 Dec 07 22:10	3°♏44'14		min. Earth dist.	2532 Nov 14 21:04	25°♏00'54	0.67420 AU
direct	2531 Dec 12 00:04	2°♏10'58		inferior conj	2532 Nov 15 19:34	23°♏46'36	0°-3'00
morning max el	2531 Dec 20 08:59	7°♏02'08	21°00'23	minimum elong	2532 Nov 15 19:38	23°♏46'21	0°03'00
greatest brilliancy	2531 Dec 25 20:59	13°♏23'28	-0.5m	transit middle	2532 Nov 15 19:38	23°♏46'21	0°03'00
	2532 Jan 06 18:30	0°♐		transit begin	2532 Nov 15 16:56	23°♏55'20	
desc. node	2532 Jan 07 00:55	0°♐23'43		transit end	2532 Nov 15 22:21	23°♏37'24	
morning set	2532 Jan 19 11:48	19°♐20'45		asc. node	2532 Nov 15 23:05	23°♏34'59	
	2532 Jan 26 04:35	0°♑		morning rise	2532 Nov 21 09:03	17°♏43'58	
max. Earth dist.	2532 Jan 27 13:59	2°♑15'33	1.42657 AU	direct	2532 Nov 24 22:13	16°♏31'23	
				morning max el	2532 Dec 02 09:37	20°♏46'18	19°50'39
superior conj	2532 Feb 03 15:14	13°♑59'42	-2°-5'-32		2532 Dec 09 22:00	0°♏	
minimum elong	2532 Feb 03 14:25	13°♑56'14	2°05'32	greatest brilliancy	2532 Dec 09 23:00	0°♏03'28	-0.6m
	2532 Feb 12 19:24	0°♑		desc. node	2532 Dec 23 21:58	20°♏42'34	
evening rise	2532 Feb 15 07:28	4°♑28'39		morning set	2532 Dec 28 07:44	27°♏29'00	
asc. node	2532 Feb 26 01:22	23°♑00'59			2532 Dec 29 22:47	0°♐	
	2532 Mar 02 06:09	0°♑		max. Earth dist.	2533 Jan 09 00:27	15°♐47'49	1.44157 AU
evening max el	2532 Mar 03 02:03	0°♑51'42	18°07'21				
retrograde	2532 Mar 09 16:57	4°♑15'44		superior conj	2533 Jan 13 22:33	23°♐41'53	-1°-53'-53
evening set	2532 Mar 12 08:30	3°♑43'03		minimum elong	2533 Jan 13 16:07	23°♐15'52	1°53'29
	2532 Mar 17 14:14	30°♑♑			2533 Jan 17 19:07	0°♑	
inferior conj	2532 Mar 18 22:41	28°♑42'12	3°30'02	evening rise	2533 Jan 27 09:29	16°♑06'53	
minimum elong	2532 Mar 19 00:39	28°♑37'24	3°29'49		2533 Feb 04 14:15	0°♑	
min. Earth dist.	2532 Mar 22 01:48	25°♑39'54	0.61301 AU	asc. node	2533 Feb 11 22:24	11°♑03'08	
morning rise	2532 Mar 25 13:54	22°♑47'58		evening max el	2533 Feb 14 14:41	14°♑08'02	18°14'33
direct	2532 Apr 01 09:11	20°♑28'00		retrograde	2533 Feb 21 01:28	17°♑34'41	
desc. node	2532 Apr 04 00:08	20°♑47'23		evening set	2533 Feb 23 22:17	16°♑51'29	
morning max el	2532 Apr 15 14:06	28°♑23'28	27°47'17	inferior conj	2533 Mar 02 01:20	11°♑30'37	3°41'40
	2532 Apr 17 03:42	0°♑		minimum elong	2533 Mar 02 01:23	11°♑30'28	3°41'40
	2532 May 08 03:38	0°♑		min. Earth dist.	2533 Mar 04 14:49	8°♑42'09	0.63323 AU
morning set	2532 May 18 09:19	19°♑29'28		morning rise	2533 Mar 08 02:33	5°♑25'36	
	2532 May 23 08:48	0°♑		direct	2533 Mar 15 00:37	2°♑43'01	
asc. node	2532 May 24 00:39	1°♑25'47		desc. node	2533 Mar 21 21:11	4°♑56'02	

morning max el	2533 Mar 28 21:23	10° ✕ 39'40	27°43'56	desc. node	2534 Mar 08 18:13	21° ≈ 03'00	
	2533 Apr 13 02:14	0° Υ		morning max el	2534 Mar 11 06:56	23° ≈ 26'40	27°06'26
	2533 Apr 30 11:48	0° ♄			2534 Mar 17 03:22	0° ✕	
morning set	2533 May 02 07:45	3° ♄ 37'10			2534 Apr 06 09:54	0° Υ	
max. Earth dist.	2533 May 07 14:47	14° ♄ 31'55	1.32897 AU	morning set	2534 Apr 15 20:47	17° Υ 12'57	
				max. Earth dist.	2534 Apr 20 10:47	26° Υ 18'41	1.33937 AU
					2534 Apr 22 05:56	0° ♄	
superior conj	2533 May 10 02:09	19° ♄ 49'00	0°-8'-34				
minimum elong	2533 May 10 02:34	19° ♄ 51'15	0°08'29				
behind sun begin	2533 May 09 22:04	19° ♄ 27'01		superior conj	2534 Apr 24 05:07	4° ♄ 05'53	0°-36'-40
behind sun end	2533 May 10 07:04	20° ♄ 15'30		minimum elong	2534 Apr 24 06:59	4° ♄ 15'41	0°36'17
asc. node	2533 May 10 21:42	21° ♄ 34'21		asc. node	2534 Apr 27 18:45	11° ♄ 38'46	
	2533 May 14 19:13	0° ♄		evening rise	2534 May 01 14:42	19° ♄ 44'32	
evening rise	2533 May 17 04:07	5° ♄ 03'58			2534 May 06 16:32	0° ♄	
	2533 May 30 13:47	0° ♄		evening max el	2534 May 21 23:10	22° ♄ 41'09	21°43'40
evening max el	2533 Jun 09 05:11	12° ♄ 07'20	23°17'59	retrograde	2534 Jun 03 09:49	28° ♄ 48'14	
desc. node	2533 Jun 17 20:26	17° ♄ 58'27		desc. node	2534 Jun 04 17:27	28° ♄ 44'16	
retrograde	2533 Jun 22 18:05	18° ♄ 53'06		evening set	2534 Jun 05 23:36	28° ♄ 33'20	
evening set	2533 Jun 26 13:13	18° ♄ 21'31		inferior conj	2534 Jun 15 08:33	24° ♄ 31'31	-2°-58'-35
min. Earth dist.	2533 Jul 03 15:00	15° ♄ 07'51	0.55730 AU	minimum elong	2534 Jun 15 00:56	24° ♄ 42'09	2°56'13
inferior conj	2533 Jul 05 12:17	14° ♄ 01'12	-4°-23'-23	min. Earth dist.	2534 Jun 15 02:23	24° ♄ 40'08	0.54943 AU
minimum elong	2533 Jul 05 05:24	14° ♄ 11'22	4°22'06	morning rise	2534 Jun 24 03:21	20° ♄ 37'46	
morning rise	2533 Jul 14 00:41	10° ♄ 07'25		direct	2534 Jun 27 08:20	20° ♄ 15'11	
direct	2533 Jul 16 20:35	9° ♄ 47'59		morning max el	2534 Jul 09 13:14	25° ♄ 59'36	21°51'50
morning max el	2533 Jul 27 11:04	14° ♄ 42'53	20°23'08		2534 Jul 13 07:49	0° ♄	
asc. node	2533 Aug 06 20:55	28° ♄ 41'42		asc. node	2534 Jul 24 17:59	17° ♄ 46'28	
	2533 Aug 07 14:55	0° ♄		morning set	2534 Jul 30 11:07	29° ♄ 10'36	
morning set	2533 Aug 15 01:42	14° ♄ 22'11			2534 Jul 30 20:35	0° ♄	
superior conj	2533 Aug 22 17:34	0° ♄ 06'09	1°45'16	superior conj	2534 Aug 06 18:02	14° ♄ 33'11	1°40'44
minimum elong	2533 Aug 22 17:21	0° ♄ 05'07	1°45'16	minimum elong	2534 Aug 06 16:35	14° ♄ 25'31	1°40'39
	2533 Aug 22 16:21	0° ♄		max. Earth dist.	2534 Aug 10 10:07	22° ♄ 08'25	1.34735 AU
max. Earth dist.	2533 Aug 27 20:14	10° ♄ 13'13	1.36368 AU		2534 Aug 14 09:03	0° ♄	
evening rise	2533 Aug 31 20:04	17° ♄ 44'27		evening rise	2534 Aug 14 22:56	1° ♄ 07'01	
	2533 Sep 07 19:10	0° ♄		desc. node	2534 Aug 31 16:46	29° ♄ 49'38	
desc. node	2533 Sep 13 19:45	9° ♄ 46'22			2534 Aug 31 19:31	0° ♄	
	2533 Sep 28 03:11	0° ♄		evening max el	2534 Sep 19 00:50	23° ♄ 01'09	26°54'04
evening max el	2533 Oct 06 12:22	9° ♄ 25'19	26°01'34		2534 Sep 29 20:25	0° ♄	
retrograde	2533 Oct 19 01:04	16° ♄ 32'07		retrograde	2534 Oct 02 04:08	0° ♄ 17'02	
evening set	2533 Oct 25 05:31	13° ♄ 59'00			2534 Oct 04 09:39	30° ♄ 17'02	
min. Earth dist.	2533 Oct 29 12:17	9° ♄ 23'37	0.66692 AU	evening set	2534 Oct 08 21:23	27° ♄ 35'47	
inferior conj	2533 Oct 30 21:50	7° ♄ 38'45	-1°00'-12	min. Earth dist.	2534 Oct 12 21:04	23° ♄ 37'17	0.65620 AU
minimum elong	2533 Oct 30 23:26	7° ♄ 33'47	0°59'34	inferior conj	2534 Oct 14 18:33	21° ♄ 25'29	-1°-59'-19
asc. node	2533 Nov 02 20:08	4° ♄ 11'58		minimum elong	2534 Oct 14 21:47	21° ♄ 16'06	1°58'03
morning rise	2533 Nov 05 18:19	1° ♄ 45'18		morning rise	2534 Oct 20 23:43	15° ♄ 44'25	
direct	2533 Nov 08 20:49	0° ♄ 50'03		asc. node	2534 Oct 20 17:11	15° ♄ 52'58	
morning max el	2533 Nov 15 17:35	4° ♄ 39'03	18°55'48	direct	2534 Oct 23 17:49	15° ♄ 02'43	
	2533 Dec 03 14:52	0° ♄		morning max el	2534 Oct 30 06:55	18° ♄ 35'42	18°17'12
morning set	2533 Dec 07 17:06	6° ♄ 24'50			2534 Nov 07 20:12	0° ♄	
desc. node	2533 Dec 10 19:00	11° ♄ 14'35		morning set	2534 Nov 18 06:27	16° ♄ 45'54	
max. Earth dist.	2533 Dec 22 16:57	29° ♄ 55'44	1.45016 AU		2534 Nov 26 11:12	0° ♄	
	2533 Dec 22 18:02	0° ♄		desc. node	2534 Nov 27 16:01	1° ♄ 55'02	
superior conj	2533 Dec 24 07:22	2° ♄ 26'55	-1°-23'-2	superior conj	2534 Dec 03 09:14	10° ♄ 58'45	0°-37'-52
minimum elong	2533 Dec 23 22:26	1° ♄ 51'48	1°22'07	minimum elong	2534 Dec 03 04:22	10° ♄ 39'34	0°37'13
evening rise	2534 Jan 08 13:09	26° ♄ 48'37		max. Earth dist.	2534 Dec 05 12:19	14° ♄ 19'46	1.45143 AU
	2534 Jan 10 12:16	0° ♄			2534 Dec 15 12:34	0° ♄	
evening max el	2534 Jan 29 02:22	27° ♄ 33'33	18°40'02	evening rise	2534 Dec 19 17:46	6° ♄ 35'25	
asc. node	2534 Jan 29 19:27	28° ♄ 15'22		greatest brilliancy	2535 Jan 03 14:23	29° ♄ 30'32	-0.7m
	2534 Feb 01 00:01	0° ♄			2535 Jan 03 22:24	0° ♄	
retrograde	2534 Feb 04 17:37	1° ♄ 14'41		evening max el	2535 Jan 12 10:43	11° ♄ 02'27	19°22'39
evening set	2534 Feb 07 20:15	0° ♄ 19'54		asc. node	2535 Jan 16 16:29	14° ♄ 23'08	
	2534 Feb 08 08:56	30° ♄		retrograde	2535 Jan 19 14:03	15° ♄ 08'34	
inferior conj	2534 Feb 13 15:24	24° ♄ 40'41	3°35'00	evening set	2535 Jan 22 23:35	14° ♄ 01'02	
minimum elong	2534 Feb 13 13:58	24° ♄ 44'59	3°34'51	inferior conj	2535 Jan 28 13:29	8° ♄ 05'41	3°14'45
min. Earth dist.	2534 Feb 15 13:15	22° ♄ 22'21	0.65030 AU	minimum elong	2535 Jan 28 11:11	8° ♄ 13'08	3°14'19
morning rise	2534 Feb 19 06:29	18° ♄ 29'40		min. Earth dist.	2535 Jan 29 20:16	6° ♄ 26'00	0.66333 AU
direct	2534 Feb 25 23:13	15° ♄ 39'12		morning rise	2535 Feb 02 22:01	1° ♄ 51'29	

	2535 Feb 05 13:22	30° $\text{R}\overline{\text{Z}}$		inferior conj	2536 Jan 12 16:54	21° $\overline{\text{Z}}41'49$	2°44'06
direct	2535 Feb 09 03:50	29° $\overline{\text{Z}}06'26$		minimum elong	2536 Jan 12 14:18	21° $\overline{\text{Z}}50'36$	2°43'24
	2535 Feb 13 01:27	0° \approx		min. Earth dist.	2536 Jan 13 10:10	20° $\overline{\text{Z}}43'14$	0.67225 AU
morning max el	2535 Feb 21 16:28	6° \approx 32'18	26°02'13	morning rise	2536 Jan 17 22:02	15° $\overline{\text{Z}}26'22$	
desc. node	2535 Feb 23 15:14	8° \approx 35'03		direct	2536 Jan 23 13:53	12° $\overline{\text{Z}}56'24$	
	2535 Mar 11 20:42	0° H		morning max el	2536 Feb 04 01:08	19° $\overline{\text{Z}}47'08$	24°40'44
morning set	2535 Mar 29 20:24	0° $\text{Y}04'58$		desc. node	2536 Feb 10 12:16	27° $\overline{\text{Z}}07'46$	
	2535 Mar 29 19:19	0° Y			2536 Feb 12 18:29	0° \approx	
max. Earth dist.	2535 Apr 02 19:24	7° $\text{Y}34'37$	1.35434 AU		2536 Mar 04 00:29	0° H	
				morning set	2536 Mar 11 01:21	11° $\text{H}58'42$	
superior conj	2535 Apr 08 00:42	17° $\text{Y}56'00$	-1°-4'-44	max. Earth dist.	2536 Mar 14 18:03	18° $\text{H}36'54$	1.37329 AU
minimum elong	2535 Apr 08 04:01	18° $\text{Y}12'45$	1°04'10		2536 Mar 20 19:10	0° Y	
	2535 Apr 13 21:29	0° B					
asc. node	2535 Apr 14 15:48	1° $\text{B}34'36$		superior conj	2536 Mar 21 09:49	1° $\text{Y}11'03$	-1°-30'-47
evening rise	2535 Apr 15 22:02	4° $\text{B}10'04$		minimum elong	2536 Mar 21 14:07	1° $\text{Y}31'56$	1°30'14
	2535 Apr 30 18:48	0° II		evening rise	2536 Mar 29 23:48	18° $\text{Y}13'42$	
evening max el	2535 May 04 03:27	3° $\text{II}44'46$	20°21'50	asc. node	2536 Mar 31 12:49	21° $\text{Y}17'19$	
retrograde	2535 May 14 23:10	9° $\text{II}00'13$			2536 Apr 05 02:22	0° B	
evening set	2535 May 17 00:07	8° $\text{II}49'47$		evening max el	2536 Apr 15 19:38	15° $\text{B}28'57$	19°18'26
desc. node	2535 May 22 14:26	6° $\text{II}49'56$		retrograde	2536 Apr 24 22:45	19° $\text{B}54'23$	
inferior conj	2535 May 26 03:13	4° $\text{II}51'44$	-1°-2'-5	evening set	2536 Apr 27 00:02	19° $\text{B}41'55$	
minimum elong	2535 May 26 00:17	4° $\text{II}56'01$	1°01'01	inferior conj	2536 May 05 10:33	15° $\text{B}33'15$	0°52'07
min. Earth dist.	2535 May 27 14:53	3° $\text{II}59'38$	0.55097 AU	minimum elong	2536 May 05 12:39	15° $\text{B}29'46$	0°51'22
morning rise	2535 Jun 03 22:37	0° $\text{II}38'12$		min. Earth dist.	2536 May 08 05:41	13° $\text{B}42'33$	0.56177 AU
direct	2535 Jun 07 19:06	0° $\text{II}06'08$		desc. node	2536 May 08 11:28	13° $\text{B}33'20$	
morning max el	2535 Jun 21 06:41	6° $\text{II}39'59$	23°32'47	morning rise	2536 May 13 21:12	10° $\text{B}45'58$	
	2535 Jul 07 20:23	0° E		direct	2536 May 18 16:41	9° $\text{B}52'50$	
asc. node	2535 Jul 11 15:02	7° $\text{E}16'24$		morning max el	2536 Jun 01 21:04	17° $\text{B}06'01$	25°13'08
morning set	2535 Jul 14 22:33	14° $\text{E}05'32$			2536 Jun 12 10:21	0° II	
				asc. node	2536 Jun 27 12:04	27° $\text{II}04'00$	
superior conj	2535 Jul 22 00:27	29° $\text{E}17'53$	1°30'18	morning set	2536 Jun 28 10:20	29° $\text{II}00'52$	
minimum elong	2535 Jul 21 22:16	29° $\text{E}06'08$	1°30'04		2536 Jun 28 21:30	0° E	
	2535 Jul 22 08:17	0° Ω					
max. Earth dist.	2535 Jul 24 09:09	4° $\Omega20'41$	1.33486 AU	superior conj	2536 Jul 05 10:26	14° $\text{E}12'00$	1°14'58
evening rise	2535 Jul 29 14:18	15° $\Omega06'08$		minimum elong	2536 Jul 05 08:03	13° $\text{E}58'56$	1°14'36
	2535 Aug 06 11:35	0° P		max. Earth dist.	2536 Jul 06 15:41	16° $\text{E}51'31$	1.32647 AU
desc. node	2535 Aug 18 13:46	19° $\text{P}25'22$		evening rise	2536 Jul 12 14:33	29° $\text{E}30'38$	
	2535 Aug 26 14:40	0° $\underline{\Delta}$			2536 Jul 12 20:16	0° Ω	
evening max el	2535 Sep 01 12:30	6° $\underline{\Delta}21'03$	27°22'43		2536 Jul 29 14:15	0° P	
retrograde	2535 Sep 15 01:23	13° $\underline{\Delta}39'05$		desc. node	2536 Aug 04 10:47	8° $\text{P}21'20$	
evening set	2535 Sep 22 03:44	10° $\underline{\Delta}58'15$		evening max el	2536 Aug 13 21:19	19° $\text{P}11'26$	27°21'35
min. Earth dist.	2535 Sep 25 21:12	7° $\underline{\Delta}35'15$	0.64192 AU	retrograde	2536 Aug 27 16:19	26° $\text{P}27'43$	
inferior conj	2535 Sep 28 07:20	5° $\underline{\Delta}02'06$	-2°-57'-57	evening set	2536 Sep 03 21:02	23° $\text{P}59'16$	
minimum elong	2535 Sep 28 12:03	4° $\underline{\Delta}49'38$	2°56'21	min. Earth dist.	2536 Sep 07 11:13	21° $\text{P}05'28$	0.62429 AU
	2535 Oct 04 03:12	30° RP		inferior conj	2536 Sep 10 09:15	18° $\text{P}20'49$	-3°-52'-27
morning rise	2535 Oct 04 22:31	29° $\text{P}36'51$		minimum elong	2536 Sep 10 14:46	18° $\text{P}07'49$	3°51'00
direct	2535 Oct 07 10:41	29° $\text{P}05'03$		morning rise	2536 Sep 17 11:15	13° $\text{P}14'35$	
asc. node	2535 Oct 07 14:13	29° $\text{P}05'09$		direct	2536 Sep 19 20:10	12° $\text{P}49'25$	
	2535 Oct 10 17:48	0° $\underline{\Delta}$		asc. node	2536 Sep 23 11:15	13° $\text{P}50'02$	
morning max el	2535 Oct 13 23:03	2° $\underline{\Delta}30'55$	17°55'41	morning max el	2536 Sep 26 14:54	16° $\text{P}16'40$	17°52'05
morning set	2535 Oct 30 23:46	28° $\underline{\Delta}28'50$			2536 Oct 06 06:15	0° $\underline{\Delta}$	
	2535 Oct 31 21:10	0° M		morning set	2536 Oct 12 15:04	11° $\underline{\Delta}14'23$	
					2536 Oct 23 07:24	0° M	
superior conj	2535 Nov 13 01:34	20° $\text{M}17'30$	0°10'03				
minimum elong	2535 Nov 13 02:43	20° $\text{M}22'08$	0°09'54	superior conj	2536 Oct 23 19:54	0° $\text{M}53'11$	0°50'35
behind sun begin	2535 Nov 12 18:37	19° $\text{M}49'17$		minimum elong	2536 Oct 24 00:06	1° $\text{M}11'01$	0°50'01
behind sun end	2535 Nov 13 10:49	20° $\text{M}54'55$		max. Earth dist.	2536 Oct 30 21:45	12° $\text{M}38'21$	1.43270 AU
desc. node	2535 Nov 14 13:03	22° $\text{M}40'51$		desc. node	2536 Oct 31 10:04	13° $\text{M}28'16$	
max. Earth dist.	2535 Nov 18 06:57	28° $\text{M}40'19$	1.44535 AU	evening rise	2536 Nov 07 15:33	24° $\text{M}56'23$	
	2535 Nov 19 03:03	0° A			2536 Nov 10 22:11	0° A	
evening rise	2535 Nov 29 05:45	15° $\text{A}45'57$			2536 Dec 01 16:23	0° $\overline{\text{Z}}$	
	2535 Dec 08 14:10	0° $\overline{\text{Z}}$		greatest brilliancy	2536 Dec 03 13:05	2° $\overline{\text{Z}}22'48$	-0.4m
greatest brilliancy	2535 Dec 20 07:24	16° $\overline{\text{Z}}56'39$	-0.5m	evening max el	2536 Dec 08 11:53	8° $\overline{\text{Z}}03'41$	21°30'27
evening max el	2535 Dec 26 14:06	24° $\overline{\text{Z}}32'36$	20°20'26	retrograde	2536 Dec 17 09:30	13° $\overline{\text{Z}}21'15$	
retrograde	2536 Jan 03 12:02	29° $\overline{\text{Z}}11'57$		asc. node	2536 Dec 20 10:31	12° $\overline{\text{Z}}30'20$	
asc. node	2536 Jan 03 13:30	29° $\overline{\text{Z}}11'56$		evening set	2536 Dec 21 13:48	11° $\overline{\text{Z}}44'12$	
evening set	2536 Jan 07 06:04	27° $\overline{\text{Z}}50'21$		inferior conj	2536 Dec 26 23:22	5° $\overline{\text{Z}}25'57$	2°05'12

minimum elong	2536 Dec 26 20:59	5°☾34'10	2°04'24	evening max el	2537 Nov 21 04:42	21°☾36'59	22°48'18
min. Earth dist.	2536 Dec 27 04:39	5°☾07'39	0.67730 AU	retrograde	2537 Dec 01 04:39	27°☾33'07	
	2536 Dec 31 07:10	30°☾11'15		evening set	2537 Dec 05 21:09	25°☾39'28	
morning rise	2537 Jan 01 03:52	29°☾11'15		asc. node	2537 Dec 07 07:33	24°☾18'24	
direct	2537 Jan 06 04:42	27°☾01'56		inferior conj	2537 Dec 11 06:57	19°☾15'17	1°19'34
	2537 Jan 12 23:36	0°☾		minimum elong	2537 Dec 11 05:14	19°☾21'15	1°18'53
morning max el	2537 Jan 16 10:16	3°☾06'53	23°12'15	min. Earth dist.	2537 Dec 11 01:15	19°☾35'01	0.67879 AU
greatest brilliancy	2537 Jan 21 11:58	8°☾47'55	-0.3m	morning rise	2537 Dec 16 13:15	13°☾03'28	
desc. node	2537 Jan 27 09:18	16°☾23'45		direct	2537 Dec 20 23:18	11°☾16'59	
	2537 Feb 05 21:56	0°☾		morning max el	2537 Dec 29 23:13	16°☾33'21	21°46'02
morning set	2537 Feb 20 05:26	22°☾37'45		greatest brilliancy	2538 Jan 03 18:48	21°☾59'52	-0.4m
max. Earth dist.	2537 Feb 24 12:48	29°☾58'00	1.39463 AU		2538 Jan 09 21:11	0°☾	
	2537 Feb 24 13:16	0°☾		desc. node	2538 Jan 14 06:20	6°☾10'29	
					2538 Jan 30 00:03	0°☾	
superior conj	2537 Mar 04 04:26	13°☾40'55	-1°-51'-59	morning set	2538 Jan 31 04:20	1°☾52'27	
minimum elong	2537 Mar 04 08:33	13°☾59'58	1°51'40	max. Earth dist.	2538 Feb 06 11:34	12°☾08'09	1.41575 AU
	2537 Mar 12 18:44	0°☾					
evening rise	2537 Mar 13 17:08	1°☾47'50		superior conj	2538 Feb 14 03:30	25°☾12'54	-2°-4'-22
asc. node	2537 Mar 18 09:51	10°☾41'41		minimum elong	2538 Feb 14 05:17	25°☾20'41	2°04'20
evening max el	2537 Mar 29 21:46	27°☾50'51	18°35'11		2538 Feb 16 20:27	0°☾	
	2537 Apr 01 13:23	0°☾		evening rise	2538 Feb 24 22:28	14°☾43'18	
retrograde	2537 Apr 06 16:13	1°☾39'19		asc. node	2538 Mar 05 06:54	29°☾40'35	
evening set	2537 Apr 08 23:00	1°☾20'42			2538 Mar 05 11:33	0°☾	
	2537 Apr 12 02:55	30°☾1'0		evening max el	2538 Mar 13 06:29	10°☾40'30	18°11'53
inferior conj	2537 Apr 16 14:18	26°☾53'26	2°18'57	retrograde	2538 Mar 20 03:59	14°☾08'41	
minimum elong	2537 Apr 16 18:13	26°☾45'50	2°17'54	evening set	2538 Mar 22 16:37	13°☾41'25	
min. Earth dist.	2537 Apr 19 23:55	24°☾16'47	0.57951 AU	inferior conj	2538 Mar 29 14:54	8°☾52'42	3°12'34
morning rise	2537 Apr 24 09:05	21°☾33'13		minimum elong	2538 Mar 29 17:55	8°☾45'53	3°12'03
desc. node	2537 Apr 25 08:30	21°☾07'10		min. Earth dist.	2538 Apr 01 23:26	5°☾52'41	0.60072 AU
direct	2537 Apr 30 04:55	20°☾07'23		morning rise	2538 Apr 05 15:45	3°☾08'29	
morning max el	2537 May 14 13:59	27°☾45'01	26°37'17	direct	2538 Apr 12 05:25	1°☾06'43	
	2537 May 16 18:33	0°☾		desc. node	2538 Apr 12 05:32	1°☾06'43	
	2537 Jun 05 21:54	0°☾		morning max el	2538 Apr 26 12:37	8°☾57'05	27°32'05
morning set	2537 Jun 12 20:51	13°☾51'28			2538 May 12 15:20	0°☾	
asc. node	2537 Jun 14 09:07	17°☾03'49		morning set	2538 May 28 04:21	28°☾30'50	
					2538 May 28 21:28	0°☾	
superior conj	2537 Jun 19 22:06	29°☾09'12	0°55'32	asc. node	2538 Jun 01 06:11	7°☾10'22	
minimum elong	2537 Jun 19 19:59	28°☾57'34	0°55'08	max. Earth dist.	2538 Jun 03 14:44	12°☾18'55	1.32168 AU
max. Earth dist.	2537 Jun 20 02:45	29°☾34'49	1.32214 AU				
	2537 Jun 20 07:20	0°☾		superior conj	2538 Jun 04 09:39	14°☾02'48	0°32'41
evening rise	2537 Jun 26 20:53	14°☾12'01		minimum elong	2538 Jun 04 08:15	13°☾55'03	0°32'23
	2537 Jul 04 21:13	0°☾		evening rise	2538 Jun 11 06:55	29°☾01'52	
desc. node	2537 Jul 22 07:49	26°☾20'59			2538 Jun 11 17:55	0°☾	
	2537 Jul 25 15:54	0°☾			2538 Jun 28 09:54	0°☾	
evening max el	2537 Jul 27 00:56	1°☾21'08	26°47'18	evening max el	2538 Jul 08 21:32	12°☾43'55	25°41'35
retrograde	2537 Aug 09 23:42	8°☾33'52		desc. node	2538 Jul 09 04:50	13°☾01'11	
evening set	2537 Aug 16 20:49	6°☾31'28		retrograde	2538 Jul 22 21:34	19°☾52'03	
min. Earth dist.	2537 Aug 20 14:58	3°☾54'11	0.60430 AU	evening set	2538 Jul 28 22:24	18°☾26'06	
inferior conj	2537 Aug 23 20:57	1°☾13'18	-4°-36'-37	min. Earth dist.	2538 Aug 02 09:46	15°☾47'58	0.58375 AU
minimum elong	2537 Aug 24 01:40	1°☾03'33	4°35'52	inferior conj	2538 Aug 05 14:56	13°☾30'01	-5°00'-30
	2537 Aug 25 08:58	30°☾1'0		minimum elong	2538 Aug 05 16:18	13°☾27'33	5°00'29
morning rise	2537 Aug 31 09:44	26°☾28'49		morning rise	2538 Aug 13 13:44	9°☾08'38	
direct	2537 Sep 02 18:27	26°☾07'29		direct	2538 Aug 16 01:17	8°☾49'01	
morning max el	2537 Sep 10 03:19	29°☾44'44	18°07'31	morning max el	2538 Aug 24 09:05	12°☾46'24	18°43'26
asc. node	2537 Sep 10 08:18	29°☾56'58		asc. node	2538 Aug 28 05:22	17°☾11'07	
	2537 Sep 10 09:31	0°☾			2538 Sep 05 02:02	0°☾	
morning set	2537 Sep 25 22:20	24°☾45'27		morning set	2538 Sep 09 16:54	8°☾49'29	
	2537 Sep 28 17:31	0°☾					
				superior conj	2538 Sep 18 09:29	25°☾38'20	1°37'06
superior conj	2537 Oct 05 16:11	12°☾44'36	1°19'36	minimum elong	2538 Sep 18 12:03	25°☾50'28	1°36'56
minimum elong	2537 Oct 05 20:19	13°☾03'08	1°19'09		2538 Sep 20 17:29	0°☾	
max. Earth dist.	2537 Oct 13 07:22	26°☾00'10	1.41514 AU	max. Earth dist.	2538 Sep 25 12:46	8°☾40'51	1.39488 AU
	2537 Oct 15 16:56	0°☾		evening rise	2538 Sep 29 14:31	15°☾43'30	
desc. node	2537 Oct 18 07:07	4°☾13'58		desc. node	2538 Oct 05 04:09	24°☾54'28	
evening rise	2537 Oct 18 15:33	4°☾48'01			2538 Oct 08 09:27	0°☾	
	2537 Nov 04 05:23	0°☾			2538 Oct 29 23:04	0°☾	
greatest brilliancy	2537 Nov 16 02:53	15°☾55'46	-0.3m	evening max el	2538 Nov 03 18:14	5°☾14'15	24°08'12

retrograde	2538 Nov 14 20:20	11°♄44'37			2539 Sep 12 19:29	0°♄	
evening set	2538 Nov 20 02:30	9°♄34'02		desc. node	2539 Sep 22 01:11	15°♄24'57	
asc. node	2538 Nov 24 04:35	4°♄59'41			2539 Oct 01 19:32	0°♄	
min. Earth dist.	2538 Nov 24 21:32	4°♄03'08	0.67685 AU	evening max el	2539 Oct 17 06:17	18°♄53'50	25°23'22
inferior conj	2538 Nov 25 13:52	3°♄07'58	0°28'28	retrograde	2539 Oct 29 07:38	25°♄50'29	
minimum elong	2538 Nov 25 13:11	3°♄10'16	0°28'10	evening set	2539 Nov 04 04:10	23°♄24'20	
	2538 Nov 27 23:49	30°♄		min. Earth dist.	2539 Nov 08 15:09	18°♄28'29	0.67153 AU
morning rise	2538 Dec 01 00:09	27°♄01'25		inferior conj	2539 Nov 09 18:20	17°♄00'40	0°-26'-55
direct	2538 Dec 04 20:33	25°♄37'06		minimum elong	2539 Nov 09 19:01	16°♄58'27	0°26'39
	2538 Dec 12 14:49	0°♄		asc. node	2539 Nov 11 01:38	15°♄21'02	
morning max el	2538 Dec 12 19:17	0°♄11'08	20°29'06	morning rise	2539 Nov 15 10:35	11°♄01'53	
greatest brilliancy	2538 Dec 19 00:38	7°♄32'36	-0.5m	direct	2539 Nov 18 18:59	9°♄57'08	
desc. node	2539 Jan 01 03:23	26°♄19'47		morning max el	2539 Nov 25 23:14	13°♄59'25	19°25'30
	2539 Jan 03 13:48	0°♄		greatest brilliancy	2539 Dec 04 22:43	25°♄25'29	-0.7m
morning set	2539 Jan 10 04:22	10°♄07'28			2539 Dec 08 01:28	0°♄	
max. Earth dist.	2539 Jan 19 18:33	25°♄16'15	1.43370 AU	desc. node	2539 Dec 19 00:25	16°♄44'40	
	2539 Jan 22 16:29	0°♄		morning set	2539 Dec 20 03:07	18°♄28'01	
					2539 Dec 27 13:02	0°♄	
superior conj	2539 Jan 26 02:08	5°♄36'33	-2°-2'-54	max. Earth dist.	2540 Jan 02 08:18	9°♄07'12	1.44608 AU
minimum elong	2539 Jan 25 22:57	5°♄23'20	2°02'48				
evening rise	2539 Feb 07 11:45	26°♄52'29		superior conj	2540 Jan 05 22:40	14°♄50'16	-1°-43'-3
	2539 Feb 09 06:29	0°♄		minimum elong	2540 Jan 05 14:26	14°♄17'25	1°42'24
asc. node	2539 Feb 20 03:56	18°♄06'20			2540 Jan 15 07:07	0°♄	
evening max el	2539 Feb 24 18:33	23°♄49'24	18°08'02	evening rise	2540 Jan 20 04:37	8°♄07'09	
retrograde	2539 Mar 03 06:22	27°♄12'46			2540 Feb 02 15:46	0°♄	
evening set	2539 Mar 06 00:15	26°♄35'34		asc. node	2540 Feb 07 00:57	5°♄48'40	
inferior conj	2539 Mar 12 09:14	21°♄25'44	3°37'33	evening max el	2540 Feb 08 07:00	7°♄09'53	18°23'08
minimum elong	2539 Mar 12 10:22	21°♄22'49	3°37'28	retrograde	2540 Feb 14 18:46	10°♄41'36	
min. Earth dist.	2539 Mar 15 06:55	18°♄27'12	0.62200 AU	evening set	2540 Feb 17 17:54	9°♄53'36	
morning rise	2539 Mar 18 18:05	15°♄26'19		inferior conj	2540 Feb 23 17:12	4°♄24'24	3°40'45
direct	2539 Mar 25 15:41	12°♄55'22		minimum elong	2540 Feb 23 16:34	4°♄26'15	3°40'43
desc. node	2539 Mar 30 02:35	13°♄51'27		min. Earth dist.	2540 Feb 25 23:59	1°♄47'23	0.64092 AU
morning max el	2539 Apr 08 17:26	20°♄51'20	27°50'19		2540 Feb 27 16:17	30°♄	
	2539 Apr 16 15:18	0°♄		morning rise	2540 Feb 29 13:38	28°♄16'11	
	2539 May 05 15:33	0°♄		direct	2540 Mar 07 10:05	25°♄28'45	
morning set	2539 May 12 06:49	12°♄52'28		desc. node	2540 Mar 15 23:37	28°♄54'46	
max. Earth dist.	2539 May 17 23:45	24°♄50'49	1.32517 AU		2540 Mar 17 09:18	0°♄	
asc. node	2539 May 19 03:14	27°♄19'20		morning max el	2540 Mar 21 02:16	3°♄23'01	27°31'53
					2540 Apr 10 01:16	0°♄	
superior conj	2539 May 19 19:22	28°♄46'58	0°07'06	morning set	2540 Apr 25 01:44	26°♄48'30	
minimum elong	2539 May 19 19:02	28°♄45'09	0°07'02		2540 Apr 26 16:11	0°♄	
behind sun begin	2539 May 19 14:23	28°♄19'50		max. Earth dist.	2540 Apr 30 01:41	6°♄57'33	1.33284 AU
behind sun end	2539 May 19 23:41	29°♄10'29					
	2539 May 20 08:47	0°♄		superior conj	2540 May 03 01:25	13°♄16'01	0°-20'-23
evening rise	2539 May 26 18:38	13°♄53'18		minimum elong	2540 May 03 02:26	13°♄21'27	0°20'10
	2539 Jun 03 21:09	0°♄		asc. node	2540 May 05 00:17	17°♄26'51	
evening max el	2539 Jun 20 12:03	23°♄26'16	24°13'12	evening rise	2540 May 10 06:11	28°♄40'03	
desc. node	2539 Jun 26 01:51	27°♄50'43			2540 May 10 21:24	0°♄	
	2539 Jul 01 01:27	0°♄			2540 May 28 12:23	0°♄	
retrograde	2539 Jul 04 07:55	0°♄24'31		evening max el	2540 Jun 01 02:25	3°♄54'05	22°36'53
	2539 Jul 07 15:07	30°♄		desc. node	2540 Jun 11 22:52	10°♄14'20	
evening set	2539 Jul 09 00:19	29°♄35'45		retrograde	2540 Jun 14 06:15	10°♄26'32	
min. Earth dist.	2539 Jul 14 22:46	26°♄39'13	0.56547 AU	evening set	2540 Jun 17 11:18	10°♄03'52	
inferior conj	2539 Jul 17 12:46	25°♄02'29	-4°-50'-12	min. Earth dist.	2540 Jun 25 10:10	6°♄35'05	0.55285 AU
minimum elong	2539 Jul 17 08:39	25°♄08'57	4°49'47	inferior conj	2540 Jun 26 16:14	5°♄52'12	-3°-52'-59
morning rise	2539 Jul 25 20:33	21°♄01'41		minimum elong	2540 Jun 26 08:16	6°♄03'35	3°51'02
direct	2539 Jul 28 13:05	20°♄42'31		morning rise	2540 Jul 05 07:49	2°♄01'05	
morning max el	2539 Aug 07 05:17	25°♄12'10	19°40'45	direct	2540 Jul 08 06:51	1°♄40'59	
	2539 Aug 11 11:27	0°♄		morning max el	2540 Jul 19 14:10	6°♄55'53	20°58'52
asc. node	2539 Aug 15 02:26	5°♄17'43		asc. node	2540 Jul 31 23:30	24°♄04'40	
morning set	2539 Aug 24 19:11	23°♄16'16			2540 Aug 04 03:19	0°♄	
	2539 Aug 28 02:59	0°♄		morning set	2540 Aug 08 02:37	7°♄59'03	
superior conj	2539 Sep 01 18:17	9°♄18'26	1°44'42	superior conj	2540 Aug 15 14:08	23°♄32'15	1°44'09
minimum elong	2539 Sep 01 19:01	9°♄22'03	1°44'41	minimum elong	2540 Aug 15 13:20	23°♄28'08	1°44'08
max. Earth dist.	2539 Sep 07 17:10	20°♄45'45	1.37448 AU		2540 Aug 18 18:30	0°♄	
evening rise	2539 Sep 11 12:43	27°♄43'39		max. Earth dist.	2540 Aug 20 02:00	2°♄36'28	1.35625 AU

evening rise	2540 Aug 24 06:30	10° \mathbb{M} 40'14			2541 Aug 10 14:04	0° \mathbb{M}	
	2540 Sep 04 08:07	0° \mathbb{L}		desc. node	2541 Aug 25 19:13	25° \mathbb{M} 33'04	
desc. node	2540 Sep 07 22:12	5° \mathbb{L} 40'20			2541 Aug 28 21:11	0° \mathbb{L}	
	2540 Sep 26 06:19	0° \mathbb{M}		evening max el	2541 Sep 11 06:39	16° \mathbb{L} 03'14	27°09'33
evening max el	2540 Sep 28 18:22	2° \mathbb{M} 32'49	26°26'17	retrograde	2541 Sep 24 14:56	23° \mathbb{L} 21'23	
retrograde	2540 Oct 11 14:03	9° \mathbb{M} 45'18		evening set	2541 Oct 01 12:28	20° \mathbb{L} 39'08	
evening set	2540 Oct 18 00:17	7° \mathbb{M} 07'34		min. Earth dist.	2541 Oct 05 09:19	16° \mathbb{L} 55'55	0.65052 AU
min. Earth dist.	2540 Oct 22 03:50	2° \mathbb{M} 48'01	0.66279 AU	inferior conj	2541 Oct 07 12:08	14° \mathbb{L} 34'03	-2°-24'-28
inferior conj	2540 Oct 23 18:29	0° \mathbb{M} 50'49	-1°-25'-12	minimum elong	2541 Oct 07 16:03	14° \mathbb{L} 23'06	2°23'00
minimum elong	2540 Oct 23 20:46	0° \mathbb{M} 43'53	1°24'16	morning rise	2541 Oct 13 21:26	8° \mathbb{L} 59'11	
	2540 Oct 24 11:19	30° \mathbb{R} \mathbb{L}		asc. node	2541 Oct 14 19:43	8° \mathbb{L} 37'47	
asc. node	2540 Oct 27 22:40	26° \mathbb{L} 19'55		direct	2541 Oct 16 12:34	8° \mathbb{L} 22'15	
morning rise	2540 Oct 29 18:29	25° \mathbb{L} 02'29		morning max el	2541 Oct 23 00:42	11° \mathbb{L} 51'34	18°05'51
direct	2540 Nov 01 17:02	24° \mathbb{L} 13'38			2541 Nov 04 15:59	0° \mathbb{M}	
morning max el	2540 Nov 08 09:50	27° \mathbb{L} 54'48	18°37'20	morning set	2541 Nov 10 01:16	8° \mathbb{M} 55'18	
	2540 Nov 10 07:34	0° \mathbb{M}		desc. node	2541 Nov 21 18:28	28° \mathbb{M} 03'47	
morning set	2540 Nov 28 23:28	27° \mathbb{M} 57'41			2541 Nov 22 23:31	0° \mathbb{X}	
	2540 Nov 30 06:15	0° \mathbb{X}		superior conj	2541 Nov 24 07:38	2° \mathbb{X} 07'58	0°-17'-9
desc. node	2540 Dec 04 21:26	7° \mathbb{X} 20'35		minimum elong	2541 Nov 24 05:28	1° \mathbb{X} 59'23	0°16'52
superior conj	2540 Dec 15 01:51	23° \mathbb{X} 22'03	-1°-5'-1	max. Earth dist.	2541 Nov 27 20:52	7° \mathbb{X} 45'24	1.44967 AU
minimum elong	2540 Dec 14 17:58	22° \mathbb{X} 51'07	1°04'05	evening rise	2541 Dec 10 18:20	27° \mathbb{X} 51'40	
max. Earth dist.	2540 Dec 15 01:57	23° \mathbb{X} 22'25	1.45156 AU		2541 Dec 12 03:31	0° \mathbb{Z}	
	2540 Dec 19 07:11	0° \mathbb{Z}		greatest brilliancy	2541 Dec 28 11:31	24° \mathbb{Z} 39'34	-0.6m
evening rise	2540 Dec 30 22:11	18° \mathbb{Z} 24'05			2542 Jan 01 10:36	0° \mathbb{Z}	
	2541 Jan 07 04:43	0° \mathbb{Z}		evening max el	2542 Jan 04 23:50	4° \mathbb{Z} 06'49	19°45'39
evening max el	2541 Jan 21 17:24	20° \mathbb{Z} 36'45	18°56'11	asc. node	2542 Jan 10 18:59	8° \mathbb{Z} 11'22	
asc. node	2541 Jan 23 21:58	22° \mathbb{Z} 35'09		retrograde	2542 Jan 12 10:27	8° \mathbb{Z} 26'12	
retrograde	2541 Jan 28 13:08	24° \mathbb{Z} 27'49		evening set	2542 Jan 15 23:20	7° \mathbb{Z} 13'00	
evening set	2541 Jan 31 18:26	23° \mathbb{Z} 27'55		inferior conj	2542 Jan 21 11:42	1° \mathbb{Z} 11'59	3°02'53
inferior conj	2541 Feb 06 11:03	17° \mathbb{Z} 41'34	3°27'52	minimum elong	2542 Jan 21 09:13	1° \mathbb{Z} 20'12	3°02'20
minimum elong	2541 Feb 06 09:11	17° \mathbb{Z} 47'24	3°27'36		2542 Jan 22 09:26	30° \mathbb{R} \mathbb{Z}	
min. Earth dist.	2541 Feb 08 02:24	15° \mathbb{Z} 38'44	0.65627 AU	min. Earth dist.	2542 Jan 22 12:39	29° \mathbb{Z} 49'23	0.66759 AU
morning rise	2541 Feb 11 22:53	11° \mathbb{Z} 28'39		morning rise	2542 Jan 26 18:25	24° \mathbb{Z} 56'59	
direct	2541 Feb 18 11:25	8° \mathbb{Z} 38'51		direct	2542 Feb 01 18:40	22° \mathbb{Z} 17'04	
desc. node	2541 Mar 02 20:38	15° \mathbb{Z} 41'19		morning max el	2542 Feb 13 21:07	29° \mathbb{Z} 29'54	25°29'04
morning max el	2541 Mar 03 12:09	16° \mathbb{Z} 19'49	26°41'54		2542 Feb 14 08:54	0° \mathbb{Z}	
	2541 Mar 14 20:07	0° \mathbb{H}		desc. node	2542 Feb 17 17:39	3° \mathbb{Z} 41'48	
	2541 Apr 02 21:19	0° \mathbb{Y}		morning set	2542 Mar 08 16:41	0° \mathbb{H}	
morning set	2541 Apr 08 09:39	10° \mathbb{Y} 07'50		max. Earth dist.	2542 Mar 22 02:03	22° \mathbb{H} 37'24	
max. Earth dist.	2541 Apr 12 16:53	18° \mathbb{Y} 30'14	1.34511 AU		2542 Mar 25 20:24	29° \mathbb{H} 35'39	1.36193 AU
					2542 Mar 26 01:33	0° \mathbb{Y}	
superior conj	2541 Apr 17 01:35	27° \mathbb{Y} 22'39	0°-48'-40	superior conj	2542 Mar 31 17:11	10° \mathbb{Y} 59'33	-1°-16'-9
minimum elong	2541 Apr 17 04:05	27° \mathbb{Y} 35'35	0°48'12	minimum elong	2542 Mar 31 20:59	11° \mathbb{Y} 18'33	1°15'34
	2541 Apr 18 07:51	0° \mathbb{B}		evening rise	2542 Apr 08 20:55	27° \mathbb{Y} 32'20	
asc. node	2541 Apr 21 21:18	7° \mathbb{B} 28'11		asc. node	2542 Apr 08 18:20	27° \mathbb{Y} 19'15	
evening rise	2541 Apr 24 15:38	13° \mathbb{B} 15'05			2542 Apr 10 02:11	0° \mathbb{B}	
	2541 May 03 07:26	0° \mathbb{I}		evening max el	2542 Apr 26 09:55	26° \mathbb{B} 00'16	19°52'32
evening max el	2541 May 14 00:20	14° \mathbb{I} 38'46	21°06'56		2542 May 02 04:13	0° \mathbb{I}	
retrograde	2541 May 25 19:51	20° \mathbb{I} 24'56		retrograde	2542 May 06 11:40	0° \mathbb{I} 52'43	
evening set	2541 May 28 01:45	20° \mathbb{I} 13'11		evening set	2542 May 08 11:45	0° \mathbb{I} 42'01	
desc. node	2541 May 29 19:53	19° \mathbb{I} 48'37			2542 May 11 00:47	30° \mathbb{R} \mathbb{B}	
inferior conj	2541 Jun 06 10:06	16° \mathbb{I} 15'05	-2°-11'-13	desc. node	2542 May 16 16:52	27° \mathbb{B} 05'20	
minimum elong	2541 Jun 06 04:02	16° \mathbb{I} 23'37	2°09'09	inferior conj	2542 May 17 08:41	26° \mathbb{B} 41'16	0°-11'-31
min. Earth dist.	2541 Jun 06 22:17	15° \mathbb{I} 57'53	0.54885 AU	minimum elong	2542 May 17 08:09	26° \mathbb{B} 42'04	0°11'21
morning rise	2541 Jun 15 06:05	12° \mathbb{I} 14'53		transit middle	2542 May 17 08:09	26° \mathbb{B} 42'04	0°11'21
direct	2541 Jun 18 16:26	11° \mathbb{I} 49'26		transit begin	2542 May 17 05:22	26° \mathbb{B} 46'20	
morning max el	2541 Jul 01 12:16	17° \mathbb{I} 56'19	22°33'48	transit end	2542 May 17 10:56	26° \mathbb{B} 37'48	
	2541 Jul 11 05:20	0° \mathbb{S}		min. Earth dist.	2542 May 19 11:46	25° \mathbb{B} 23'21	0.55459 AU
asc. node	2541 Jul 18 20:33	13° \mathbb{S} 21'06		morning rise	2542 May 26 01:30	22° \mathbb{B} 14'15	
morning set	2541 Jul 23 13:05	22° \mathbb{S} 50'51		direct	2542 May 30 07:24	21° \mathbb{B} 34'31	
	2541 Jul 26 22:02	0° \mathbb{Q}		morning max el	2542 Jun 13 03:29	28° \mathbb{B} 26'53	24°16'14
					2542 Jun 14 17:01	0° \mathbb{I}	
superior conj	2541 Jul 30 17:29	8° \mathbb{Q} 08'07	1°36'59		2542 Jul 04 06:02	0° \mathbb{S}	
minimum elong	2541 Jul 30 15:39	7° \mathbb{Q} 58'23	1°36'49	asc. node	2542 Jul 05 17:36	2° \mathbb{S} 59'15	
max. Earth dist.	2541 Aug 02 19:30	14° \mathbb{Q} 36'33	1.34155 AU	morning set	2542 Jul 08 00:52	7° \mathbb{S} 46'26	
evening rise	2541 Aug 07 15:13	24° \mathbb{Q} 20'05					

superior conj	2542 Jul 15 01:40	22° \mathfrak{G} 57'35	1°24'21	superior conj	2543 Jun 29 12:37	7° \mathfrak{G} 53'57	1°07'11
minimum elong	2542 Jul 14 23:21	22° \mathfrak{G} 44'56	1°24'03	minimum elong	2543 Jun 29 10:17	7° \mathfrak{G} 41'11	1°06'48
max. Earth dist.	2542 Jul 16 22:04	26° \mathfrak{G} 57'12	1.33088 AU	max. Earth dist.	2543 Jun 30 07:13	9° \mathfrak{G} 36'01	1.32420 AU
	2542 Jul 18 08:18	0° \mathfrak{Q}		evening rise	2543 Jul 06 13:59	23° \mathfrak{G} 04'39	
evening rise	2542 Jul 22 10:47	8° \mathfrak{Q} 31'28			2543 Jul 09 23:56	0° \mathfrak{Q}	
	2542 Aug 03 00:22	0° \mathfrak{P}			2543 Jul 27 22:02	0° \mathfrak{P}	
desc. node	2542 Aug 12 16:14	14° \mathfrak{P} 53'27		desc. node	2543 Jul 30 13:15	3° \mathfrak{P} 28'13	
evening max el	2542 Aug 24 17:38	29° \mathfrak{P} 12'58	27°26'11	evening max el	2543 Aug 07 00:45	11° \mathfrak{P} 48'27	27°11'04
	2542 Aug 25 13:53	0° \mathfrak{A}		retrograde	2543 Aug 20 21:09	19° \mathfrak{P} 02'25	
retrograde	2542 Sep 07 09:31	6° \mathfrak{A} 29'59		evening set	2543 Aug 28 00:14	16° \mathfrak{P} 43'31	
evening set	2542 Sep 14 13:44	3° \mathfrak{A} 53'15		min. Earth dist.	2543 Aug 31 14:58	13° \mathfrak{P} 58'46	0.61605 AU
min. Earth dist.	2542 Sep 18 05:27	0° \mathfrak{A} 43'25	0.63479 AU	inferior conj	2543 Sep 03 17:05	11° \mathfrak{P} 13'48	-4°-12'-54
	2542 Sep 18 23:00	30° \mathfrak{R} \mathfrak{P}		minimum elong	2543 Sep 03 22:31	11° \mathfrak{P} 01'40	4°11'42
inferior conj	2542 Sep 20 20:42	28° \mathfrak{P} 04'13	-3°-21'-54	morning rise	2543 Sep 10 23:43	6° \mathfrak{P} 16'26	
minimum elong	2542 Sep 21 01:53	27° \mathfrak{P} 51'08	3°20'17	direct	2543 Sep 13 08:19	5° \mathfrak{P} 53'03	
morning rise	2542 Sep 27 16:24	22° \mathfrak{P} 46'18		asc. node	2543 Sep 18 13:50	7° \mathfrak{P} 52'10	
direct	2542 Sep 30 02:51	22° \mathfrak{P} 17'38		morning max el	2543 Sep 20 07:49	9° \mathfrak{P} 23'05	17°56'15
asc. node	2542 Oct 01 16:47	22° \mathfrak{P} 29'56			2543 Oct 03 19:33	0° \mathfrak{A}	
morning max el	2542 Oct 06 17:00	25° \mathfrak{P} 43'12	17°51'50	morning set	2543 Oct 06 03:37	4° \mathfrak{A} 15'18	
	2542 Oct 10 07:22	0° \mathfrak{A}					
morning set	2542 Oct 23 04:46	21° \mathfrak{A} 07'28		superior conj	2543 Oct 16 16:15	23° \mathfrak{A} 07'24	1°04'21
	2542 Oct 28 07:55	0° \mathfrak{M}		minimum elong	2543 Oct 16 20:43	23° \mathfrak{A} 26'46	1°03'48
					2543 Oct 20 16:39	0° \mathfrak{M}	
superior conj	2542 Nov 04 10:20	11° \mathfrak{M} 57'17	0°28'33	max. Earth dist.	2543 Oct 24 03:45	5° \mathfrak{M} 46'14	1.42577 AU
minimum elong	2542 Nov 04 13:14	12° \mathfrak{M} 09'16	0°28'08	desc. node	2543 Oct 26 12:34	9° \mathfrak{M} 38'09	
desc. node	2542 Nov 08 15:30	18° \mathfrak{M} 50'35		evening rise	2543 Oct 30 17:35	16° \mathfrak{M} 21'42	
max. Earth dist.	2542 Nov 10 14:21	21° \mathfrak{M} 58'57	1.44071 AU		2543 Nov 08 14:36	0° \mathfrak{X}	
	2542 Nov 15 15:53	0° \mathfrak{X}		greatest brilliancy	2543 Nov 27 02:57	25° \mathfrak{X} 48'43	-0.3m
evening rise	2542 Nov 20 03:16	6° \mathfrak{X} 57'00			2543 Nov 30 17:51	0° \mathfrak{Z}	
	2542 Dec 05 12:00	0° \mathfrak{Z}		evening max el	2543 Dec 01 20:31	1° \mathfrak{Z} 09'47	22°02'50
greatest brilliancy	2542 Dec 13 11:07	11° \mathfrak{Z} 02'51	-0.5m	retrograde	2543 Dec 11 04:56	6° \mathfrak{Z} 43'37	
evening max el	2542 Dec 19 00:57	17° \mathfrak{Z} 37'38	20°49'03	evening set	2543 Dec 15 14:20	4° \mathfrak{Z} 59'22	
retrograde	2542 Dec 27 08:17	22° \mathfrak{Z} 32'21		asc. node	2543 Dec 15 13:04	5° \mathfrak{Z} 01'54	
asc. node	2542 Dec 28 16:02	22° \mathfrak{Z} 22'38			2543 Dec 20 00:03	30° \mathfrak{R} \mathfrak{X}	
evening set	2542 Dec 31 06:32	21° \mathfrak{Z} 04'16		inferior conj	2543 Dec 20 23:49	28° \mathfrak{X} 38'02	1°46'36
inferior conj	2543 Jan 05 16:39	14° \mathfrak{Z} 51'24	2°28'30	minimum elong	2543 Dec 20 21:40	28° \mathfrak{X} 45'29	1°45'48
minimum elong	2543 Jan 05 14:05	15° \mathfrak{Z} 00'10	2°27'44	min. Earth dist.	2543 Dec 21 00:15	28° \mathfrak{X} 36'32	0.67842 AU
min. Earth dist.	2543 Jan 06 04:40	14° \mathfrak{Z} 10'11	0.67489 AU	morning rise	2543 Dec 26 04:50	22° \mathfrak{X} 24'32	
morning rise	2543 Jan 10 21:13	8° \mathfrak{Z} 36'18		direct	2543 Dec 30 23:16	20° \mathfrak{X} 25'05	
direct	2543 Jan 16 06:50	6° \mathfrak{Z} 14'32		morning max el	2544 Jan 09 15:53	26° \mathfrak{X} 08'39	22°34'50
morning max el	2543 Jan 27 05:27	12° \mathfrak{Z} 45'58	24°03'24		2544 Jan 13 04:27	0° \mathfrak{Z}	
desc. node	2543 Feb 04 14:41	22° \mathfrak{Z} 34'25		greatest brilliancy	2544 Jan 14 05:42	1° \mathfrak{Z} 15'04	-0.3m
	2543 Feb 10 02:41	0° \mathfrak{A}		desc. node	2544 Jan 22 11:45	12° \mathfrak{Z} 04'42	
	2543 Mar 01 12:42	0° \mathfrak{H}			2544 Feb 03 16:19	0° \mathfrak{A}	
morning set	2543 Mar 03 21:06	4° \mathfrak{H} 00'33		morning set	2544 Feb 12 12:53	14° \mathfrak{A} 03'12	
max. Earth dist.	2543 Mar 07 16:28	10° \mathfrak{H} 41'34	1.38225 AU	max. Earth dist.	2544 Feb 17 12:39	22° \mathfrak{A} 22'56	1.40386 AU
					2544 Feb 21 22:14	0° \mathfrak{H}	
superior conj	2543 Mar 14 20:40	23° \mathfrak{H} 56'40	-1°-40'-34				
minimum elong	2543 Mar 15 01:05	24° \mathfrak{H} 17'42	1°40'06	superior conj	2544 Feb 25 07:33	6° \mathfrak{H} 02'54	-1°-58'-36
	2543 Mar 18 00:06	0° \mathfrak{Y}		minimum elong	2544 Feb 25 11:00	6° \mathfrak{H} 18'30	1°58'25
evening rise	2543 Mar 23 19:26	11° \mathfrak{Y} 24'08		evening rise	2544 Mar 06 08:07	24° \mathfrak{H} 42'48	
asc. node	2543 Mar 26 15:22	16° \mathfrak{Y} 54'47			2544 Mar 09 03:36	0° \mathfrak{Y}	
	2543 Apr 03 00:27	0° \mathfrak{B}		asc. node	2544 Mar 12 12:24	6° \mathfrak{Y} 09'06	
evening max el	2543 Apr 09 06:39	8° \mathfrak{B} 01'03	18°57'34	evening max el	2544 Mar 22 11:53	20° \mathfrak{Y} 35'05	18°22'49
retrograde	2543 Apr 17 18:19	12° \mathfrak{B} 08'41		retrograde	2544 Mar 29 20:06	24° \mathfrak{Y} 13'20	
evening set	2543 Apr 19 21:54	11° \mathfrak{B} 53'52		evening set	2544 Apr 01 05:22	23° \mathfrak{Y} 51'19	
inferior conj	2543 Apr 28 00:08	7° \mathfrak{B} 37'37	1°32'59	inferior conj	2544 Apr 08 12:58	19° \mathfrak{Y} 14'43	2°45'39
minimum elong	2543 Apr 28 03:26	7° \mathfrak{B} 31'46	1°31'56	minimum elong	2544 Apr 08 16:44	19° \mathfrak{Y} 06'54	2°44'47
min. Earth dist.	2543 May 01 03:29	5° \mathfrak{B} 25'28	0.56870 AU	min. Earth dist.	2544 Apr 11 23:33	16° \mathfrak{Y} 25'09	0.58825 AU
desc. node	2543 May 03 13:53	3° \mathfrak{B} 53'38		morning rise	2544 Apr 16 00:03	13° \mathfrak{Y} 42'52	
morning rise	2543 May 06 04:42	2° \mathfrak{B} 35'58		desc. node	2544 Apr 19 10:55	12° \mathfrak{Y} 21'35	
direct	2543 May 11 10:58	1° \mathfrak{B} 30'09		direct	2544 Apr 22 04:18	12° \mathfrak{Y} 01'52	
morning max el	2543 May 25 18:10	8° \mathfrak{B} 54'28	25°51'49	morning max el	2544 May 06 13:29	19° \mathfrak{Y} 46'05	27°04'58
	2543 Jun 10 14:16	0° \mathfrak{I}			2544 May 15 06:52	0° \mathfrak{B}	
morning set	2543 Jun 22 12:22	22° \mathfrak{I} 40'52			2544 Jun 02 05:58	0° \mathfrak{I}	
asc. node	2543 Jun 22 14:39	22° \mathfrak{I} 52'58		morning set	2544 Jun 05 21:50	7° \mathfrak{I} 27'46	
	2543 Jun 25 22:09	0° \mathfrak{G}		asc. node	2544 Jun 08 11:42	12° \mathfrak{I} 56'19	

superior conj	2544 Jun 13 00:25	22°II50'22	0°46'13			2545 May 24 22:30	0°II	
minimum elong	2544 Jun 12 22:33	22°II40'06	0°45'51	asc. node		2545 May 26 08:45	3°II04'47	
max. Earth dist.	2544 Jun 12 19:15	22°II21'57	1.32142 AU	max. Earth dist.		2545 May 27 06:19	5°II02'09	1.32257 AU
	2544 Jun 16 06:37	0°☿						
evening rise	2544 Jun 19 22:07	7°☿50'27		superior conj		2545 May 28 11:24	7°II41'05	0°22'07
	2544 Jul 01 11:34	0°♊		minimum elong		2545 May 28 10:24	7°II35'39	0°21'55
desc. node	2544 Jul 16 10:16	20°♊57'44		evening rise		2545 Jun 04 09:04	22°II41'52	
evening max el	2544 Jul 19 01:17	23°♊37'57	26°22'48			2545 Jun 07 21:39	0°☿	
	2544 Jul 28 12:34	0°♋				2545 Jun 26 10:03	0°♊	
retrograde	2544 Aug 02 00:47	0°♋49'23		evening max el		2545 Jun 30 18:43	4°♊41'27	25°06'04
	2544 Aug 06 11:09	30°♋♊		desc. node		2545 Jul 03 07:15	6°♊55'27	
evening set	2544 Aug 08 15:09	29°♊01'10		retrograde		2545 Jul 14 18:25	11°♊47'29	
min. Earth dist.	2544 Aug 12 14:22	26°♊26'11	0.59550 AU	evening set		2545 Jul 20 06:29	10°♊37'58	
inferior conj	2544 Aug 15 21:40	23°♊52'21	-4°-49'-57	min. Earth dist.		2545 Jul 25 06:25	7°♊53'46	0.57548 AU
minimum elong	2544 Aug 16 01:19	23°♊45'14	4°49'34	inferior conj		2545 Jul 28 07:12	5°♊51'04	-5°-1'-16
morning rise	2544 Aug 23 14:54	19°♊18'03		minimum elong		2545 Jul 28 06:23	5°♊52'27	5°01'15
direct	2544 Aug 26 00:30	18°♊57'40		morning rise		2545 Aug 05 09:59	1°♊39'15	
morning max el	2544 Sep 02 17:53	22°♊41'45	18°20'15	direct		2545 Aug 07 23:13	1°♊20'09	
asc. node	2544 Sep 04 10:54	24°♊29'54		morning max el		2545 Aug 16 19:59	5°♊29'51	19°05'06
	2544 Sep 08 12:54	0°♋		asc. node		2545 Aug 22 07:58	12°♊08'14	
morning set	2544 Sep 18 16:11	18°♋01'52				2545 Sep 01 10:40	0°♋	
	2544 Sep 24 23:28	0°♌		morning set		2545 Sep 02 14:21	2°♋16'22	
superior conj	2544 Sep 27 22:14	5°♌27'56	1°28'20	superior conj		2545 Sep 10 22:43	18°♋43'12	1°41'25
minimum elong	2544 Sep 28 01:48	5°♌44'17	1°28'00	minimum elong		2545 Sep 11 00:30	18°♋51'47	1°41'20
max. Earth dist.	2544 Oct 05 11:16	18°♌50'44	1.40671 AU			2545 Sep 16 23:09	0°♌	
evening rise	2544 Oct 10 02:49	26°♌39'01		max. Earth dist.		2545 Sep 17 15:01	1°♌11'55	1.38610 AU
desc. node	2544 Oct 12 09:37	0°♍22'16		evening rise		2545 Sep 21 11:57	8°♌02'50	
	2544 Oct 12 04:06	0°♍		desc. node		2545 Sep 29 06:38	20°♌59'03	
	2544 Nov 01 07:37	0°♎				2545 Oct 05 02:13	0°♍	
evening max el	2544 Nov 13 11:31	14°♎44'06	23°22'18	evening max el		2545 Oct 27 00:06	28°♍22'22	24°41'11
retrograde	2544 Nov 23 22:53	20°♎56'11				2545 Oct 28 17:27	0°♎	
evening set	2544 Nov 28 21:03	18°♎55'06		retrograde		2545 Nov 07 12:56	5°♎05'43	
asc. node	2544 Dec 01 10:06	16°♎17'36		evening set		2545 Nov 13 01:03	2°♎48'23	
inferior conj	2544 Dec 04 07:21	12°♎29'19	0°58'31			2545 Nov 15 18:04	30°♎♍	
minimum elong	2544 Dec 04 06:01	12°♎33'52	0°57'57	min. Earth dist.		2545 Nov 17 16:35	27°♎31'55	0.67498 AU
min. Earth dist.	2544 Dec 03 21:02	13°♎04'43	0.67838 AU	asc. node		2545 Nov 18 07:09	26°♎43'30	
morning rise	2544 Dec 09 15:05	6°♎19'26		inferior conj		2545 Nov 18 13:27	26°♎22'34	0°05'25
direct	2544 Dec 13 19:02	4°♎42'50		minimum elong		2545 Nov 18 13:19	26°♎23'00	0°05'21
morning max el	2544 Dec 22 07:44	9°♎40'28	21°11'50	transit middle		2545 Nov 18 13:19	26°♎23'00	0°05'21
greatest brilliancy	2544 Dec 27 14:46	15°♎44'57	-0.4m	transit begin		2545 Nov 18 10:43	26°♎31'39	
	2545 Jan 06 23:23	0°☿		transit end		2545 Nov 18 15:55	26°♎14'22	
desc. node	2545 Jan 08 08:50	2°☿02'09		morning rise		2545 Nov 24 02:01	20°♎18'44	
morning set	2545 Jan 22 00:24	22°☿47'32		direct		2545 Nov 27 17:01	19°♎03'10	
	2545 Jan 26 13:11	0°♏		morning max el		2545 Dec 05 07:07	23°♎22'45	20°00'07
max. Earth dist.	2545 Jan 29 14:31	4°♏57'36	1.42389 AU			2545 Dec 10 21:39	0°♎	
superior conj	2545 Feb 05 20:43	17°♏06'46	-2°-5'-44	greatest brilliancy		2545 Dec 12 11:07	2°♎05'33	-0.6m
minimum elong	2545 Feb 05 20:40	17°♏06'33	2°05'45	desc. node		2545 Dec 26 05:53	22°♎18'48	
	2545 Feb 13 05:20	0°♐				2545 Dec 31 06:16	0°☿	
evening rise	2545 Feb 17 07:12	7°♐20'00		morning set		2545 Dec 31 20:30	0°☿54'56	
asc. node	2545 Feb 27 09:25	24°♐55'21		max. Earth dist.		2546 Jan 12 00:03	18°☿23'53	1.43972 AU
	2545 Mar 02 20:43	0°♑		superior conj		2546 Jan 17 08:00	26°☿59'50	-1°-56'-52
evening max el	2545 Mar 05 22:22	3°♑34'01	18°07'55	minimum elong		2546 Jan 17 02:22	26°☿36'54	1°56'36
retrograde	2545 Mar 12 14:40	6°♑58'41				2546 Jan 19 04:01	0°♏	
evening set	2545 Mar 15 05:26	6°♑27'30		evening rise		2546 Jan 30 12:15	19°♏06'32	
inferior conj	2545 Mar 21 21:38	1°♑29'51	3°26'15			2546 Feb 05 20:52	0°♐	
minimum elong	2545 Mar 21 23:53	1°♑24'27	3°25'58	asc. node		2546 Feb 14 06:27	13°♐04'14	
	2545 Mar 23 10:56	30°♐♑		evening max el		2546 Feb 17 10:57	16°♐48'58	18°12'15
min. Earth dist.	2545 Mar 25 02:27	28°♐27'15	0.60983 AU	retrograde		2546 Feb 23 21:39	20°♐14'11	
morning rise	2545 Mar 28 15:14	25°♐37'54		evening set		2546 Feb 26 17:44	19°♐32'33	
direct	2545 Apr 04 09:23	23°♐22'13		inferior conj		2546 Mar 04 22:13	14°♐14'35	3°41'09
desc. node	2545 Apr 06 07:58	23°♐32'48		minimum elong		2546 Mar 04 22:32	14°♐13'42	3°41'08
	2545 Apr 17 06:58	0°♑		min. Earth dist.		2546 Mar 07 13:57	11°♐22'53	0.63045 AU
morning max el	2545 Apr 18 15:03	1°♑16'54	27°44'33	morning rise		2546 Mar 11 01:18	8°♐10'55	
	2545 May 09 11:28	0°♒		direct		2546 Mar 17 23:35	5°♐30'50	
morning set	2545 May 21 03:28	22°♒00'59		desc. node		2546 Mar 24 05:00	7°♐20'35	





































































































































morning max el	2546 Mar 31 21:40	13° 8 27'26	27°46'41	desc. node	2547 Mar 11 02:03	23° 8 12'04	
	2546 Apr 14 04:43	0° 7		morning max el	2547 Mar 14 07:05	26° 8 10'46	27°13'55
	2546 May 01 23:18	0° 8			2547 Mar 17 20:10	0° 8	
morning set	2546 May 05 03:01	6° 8 12'23			2547 Apr 07 18:09	0° 7	
max. Earth dist.	2546 May 10 12:31	17° 8 23'13	1.32785 AU	morning set	2547 Apr 18 17:38	19° 7 53'34	
				max. Earth dist.	2547 Apr 23 10:10	29° 7 15'22	1.33757 AU
					2547 Apr 23 18:52	0° 8	
superior conj	2546 May 12 19:46	22° 8 19'26	0°-4'-23				
minimum elong	2546 May 12 19:59	22° 8 20'35	0°04'21				
behind sun begin	2546 May 12 14:54	21° 8 53'13		superior conj	2547 Apr 26 23:35	6° 8 39'35	0°-32'-21
behind sun end	2546 May 13 01:03	22° 8 47'58		minimum elong	2547 Apr 27 01:13	6° 8 48'15	0°32'03
asc. node	2546 May 13 05:46	23° 8 13'30		asc. node	2547 Apr 30 02:47	13° 8 18'41	
	2546 May 16 08:46	0° II		evening rise	2547 May 04 07:47	22° 8 14'04	
evening rise	2546 May 19 20:54	7° II 31'40			2547 May 08 02:52	0° II	
	2546 May 31 16:31	0° III		evening max el	2547 May 25 01:07	25° II 44'56	21°57'03
evening max el	2546 Jun 12 08:21	15° III 13'54	23°32'23		2547 May 30 13:55	0° III	
desc. node	2546 Jun 20 04:14	20° III 46'53		retrograde	2547 Jun 06 16:36	1° III 59'06	
retrograde	2546 Jun 25 23:30	22° III 03'17		desc. node	2547 Jun 07 01:15	1° III 58'48	
evening set	2546 Jun 30 00:04	21° III 27'49		evening set	2547 Jun 09 09:53	1° III 42'35	
min. Earth dist.	2546 Jul 06 18:32	18° III 19'00	0.55919 AU		2547 Jun 14 07:52	30° R II	
inferior conj	2546 Jul 08 20:36	17° III 04'21	-4°-32'-7	min. Earth dist.	2547 Jun 18 05:43	27° II 56'16	0.55000 AU
minimum elong	2546 Jul 08 14:19	17° III 13'45	4°31'04	inferior conj	2547 Jun 18 18:18	27° II 38'39	-3°-14'-6
morning rise	2546 Jul 17 07:49	13° III 09'06		minimum elong	2547 Jun 18 10:23	27° II 49'44	3°11'47
direct	2546 Jul 20 02:50	12° III 49'45		morning rise	2547 Jun 27 12:24	23° II 46'23	
morning max el	2546 Jul 30 11:22	17° III 37'50	20°11'31	direct	2547 Jun 30 15:43	23° II 24'35	
	2546 Aug 08 21:05	0° II		morning max el	2547 Jul 12 15:09	29° II 01'04	21°37'44
asc. node	2546 Aug 09 05:01	0° II 33'18			2547 Jul 13 15:35	0° III	
morning set	2546 Aug 17 19:07	16° II 50'46		asc. node	2547 Jul 27 02:03	19° III 33'37	
	2546 Aug 24 05:15	0° III			2547 Aug 01 09:07	0° II	
				morning set	2547 Aug 02 04:04	1° II 38'00	
superior conj	2546 Aug 25 12:40	2° III 38'56	1°45'22				
minimum elong	2546 Aug 25 12:42	2° III 39'05	1°45'22	superior conj	2547 Aug 09 12:01	17° II 02'49	1°41'50
max. Earth dist.	2546 Aug 30 20:41	13° III 08'02	1.36640 AU	minimum elong	2547 Aug 09 10:43	16° II 56'01	1°41'46
evening rise	2546 Sep 03 19:03	20° III 28'52		max. Earth dist.	2547 Aug 13 09:15	25° II 01'47	1.34950 AU
	2546 Sep 09 04:25	0° II			2547 Aug 15 21:13	0° III	
desc. node	2546 Sep 16 03:37	11° II 24'02		evening rise	2547 Aug 17 19:40	3° III 44'58	
	2546 Sep 29 01:49	0° III			2547 Sep 02 00:53	0° II	
evening max el	2546 Oct 09 12:18	12° III 03'40	25°52'09	desc. node	2547 Sep 03 00:36	1° II 30'50	
retrograde	2546 Oct 21 22:10	19° III 07'54		evening max el	2547 Sep 22 00:39	25° II 40'42	26°47'35
evening set	2546 Oct 28 00:36	16° III 36'30			2547 Sep 27 05:29	0° III	
min. Earth dist.	2546 Nov 01 08:29	11° III 55'46	0.66825 AU	retrograde	2547 Oct 05 02:03	2° III 55'53	
inferior conj	2546 Nov 02 16:21	10° III 15'19	0°-51'-23	evening set	2547 Oct 11 17:38	0° III 15'16	
minimum elong	2546 Nov 02 17:41	10° III 11'04	0°50'49		2547 Oct 12 00:59	30° R II	
asc. node	2546 Nov 05 04:12	7° III 14'53		min. Earth dist.	2547 Oct 15 18:17	26° II 11'27	0.65804 AU
morning rise	2546 Nov 08 11:40	4° III 20'21		inferior conj	2547 Oct 17 14:00	24° II 03'14	-1°-50'-21
direct	2546 Nov 11 15:40	3° III 22'41		minimum elong	2547 Oct 17 16:59	23° II 54'27	1°49'09
morning max el	2546 Nov 18 14:04	7° III 14'42	19°02'58	asc. node	2547 Oct 23 01:15	18° II 43'56	
	2546 Dec 04 21:33	0° II		morning rise	2547 Oct 23 17:48	18° II 20'17	
morning set	2546 Dec 11 02:30	9° II 40'13		direct	2547 Oct 26 13:00	17° II 36'50	
desc. node	2546 Dec 13 02:54	12° II 49'15		morning max el	2547 Nov 02 02:48	21° II 11'29	18°21'54
	2546 Dec 24 02:15	0° III			2547 Nov 08 23:35	0° III	
max. Earth dist.	2546 Dec 25 16:05	2° III 28'45	1.44937 AU	morning set	2547 Nov 21 11:24	19° III 48'14	
					2547 Nov 27 19:32	0° II	
superior conj	2546 Dec 27 19:24	5° III 51'08	-1°-28'-51	desc. node	2547 Nov 29 23:54	3° II 28'47	
minimum elong	2546 Dec 27 10:26	5° III 15'41	1°27'58				
evening rise	2547 Jan 11 19:22	29° III 56'53		superior conj	2547 Dec 06 20:53	14° II 21'01	0°-45'-11
	2547 Jan 11 20:08	0° III		minimum elong	2547 Dec 06 15:06	13° II 58'18	0°44'26
	2547 Jan 31 17:42	0° II		max. Earth dist.	2547 Dec 08 11:13	16° II 51'41	1.45174 AU
evening max el	2547 Jan 31 22:55	0° II 13'26	18°35'04		2547 Dec 16 20:25	0° III	
asc. node	2547 Feb 01 03:28	0° II 24'55		evening rise	2547 Dec 23 03:12	9° III 51'15	
retrograde	2547 Feb 07 12:57	3° II 51'42			2548 Jan 05 01:44	0° III	
evening set	2547 Feb 10 14:41	2° II 58'37		greatest brilliancy	2548 Jan 05 20:09	1° III 09'16	-0.7m
	2547 Feb 14 03:35	30° R III		evening max el	2548 Jan 15 07:49	13° III 41'53	19°15'16
inferior conj	2547 Feb 16 10:48	27° III 21'52	3°36'55	asc. node	2548 Jan 19 00:31	16° III 43'29	
minimum elong	2547 Feb 16 09:34	27° III 25'33	3°36'49	retrograde	2548 Jan 22 08:59	17° III 43'55	
min. Earth dist.	2547 Feb 18 10:55	24° III 58'30	0.64803 AU	evening set	2548 Jan 25 17:23	16° III 38'22	
morning rise	2547 Feb 22 03:10	21° III 11'32		inferior conj	2548 Jan 31 07:54	10° III 45'09	3°18'32
direct	2547 Feb 28 21:04	18° III 21'30		minimum elong	2548 Jan 31 05:42	10° III 52'14	3°18'09

min. Earth dist.	2548 Feb 01 16:50	8° \approx 59'24	0.66163 AU	inferior conj	2549 Jan 14 10:41	24° \approx 20'05	2°49'20
morning rise	2548 Feb 05 17:11	4° \approx 31'10		minimum elong	2549 Jan 14 08:07	24° \approx 28'47	2°48'40
direct	2548 Feb 12 00:48	1° \approx 44'40		min. Earth dist.	2549 Jan 15 05:55	23° \approx 15'14	0.67116 AU
morning max el	2548 Feb 24 16:52	9° \approx 14'58	26°13'09	morning rise	2549 Jan 19 16:08	18° \approx 04'36	
desc. node	2548 Feb 25 23:05	10° \approx 33'13		direct	2549 Jan 25 10:11	15° \approx 31'49	
	2548 Mar 12 00:56	0° \approx		morning max el	2549 Feb 06 01:38	22° \approx 28'59	24°53'32
	2548 Mar 30 06:01	0° \approx		desc. node	2549 Feb 11 20:08	28° \approx 58'13	
morning set	2548 Mar 31 19:36	2° \approx 53'39			2549 Feb 12 16:11	0° \approx	
max. Earth dist.	2548 Apr 04 20:41	10° \approx 36'30	1.35179 AU		2549 Mar 05 08:29	0° \approx	
				morning set	2549 Mar 14 03:45	14° \approx 57'24	
superior conj	2548 Apr 09 20:29	20° \approx 34'40	-1°00'-32	max. Earth dist.	2549 Mar 17 20:20	21° \approx 38'15	1.37022 AU
minimum elong	2548 Apr 09 23:35	20° \approx 35'29	1°00'00		2549 Mar 22 06:49	0° \approx	
	2548 Apr 14 10:00	0° \approx					
asc. node	2548 Apr 15 23:50	3° \approx 16'28		superior conj	2549 Mar 24 07:24	3° \approx 55'43	-1°-27'-5
evening rise	2548 Apr 17 15:47	6° \approx 42'53		minimum elong	2549 Mar 24 11:35	4° \approx 16'16	1°26'30
	2548 Apr 30 13:16	0° \approx		evening rise	2549 Apr 01 18:33	20° \approx 50'19	
evening max el	2548 May 06 03:42	6° \approx 43'45	20°32'58	asc. node	2549 Apr 02 20:52	23° \approx 01'38	
retrograde	2548 May 17 05:48	12° \approx 07'29			2549 Apr 06 10:53	0° \approx	
evening set	2548 May 19 07:31	11° \approx 56'57		evening max el	2549 Apr 18 18:15	18° \approx 22'21	19°26'42
desc. node	2548 May 23 22:17	10° \approx 26'56		retrograde	2549 Apr 28 03:06	22° \approx 54'26	
inferior conj	2548 May 28 12:23	7° \approx 59'16	-1°-20'-28	evening set	2549 Apr 30 03:49	22° \approx 42'36	
minimum elong	2548 May 28 08:35	8° \approx 04'46	1°19'05	inferior conj	2549 May 08 17:10	18° \approx 36'25	0°36'07
min. Earth dist.	2548 May 29 18:09	7° \approx 16'17	0.55009 AU	minimum elong	2549 May 08 18:41	18° \approx 33'58	0°35'35
morning rise	2548 Jun 06 08:12	3° \approx 49'44		desc. node	2549 May 10 19:19	17° \approx 15'06	
direct	2548 Jun 10 01:42	3° \approx 19'48		min. Earth dist.	2549 May 11 08:43	16° \approx 53'51	0.55964 AU
morning max el	2548 Jun 23 09:46	9° \approx 46'56	23°17'25	morning rise	2549 May 17 05:40	13° \approx 54'22	
	2548 Jul 08 04:22	0° \approx		direct	2549 May 21 21:32	13° \approx 05'03	
asc. node	2548 Jul 12 23:06	9° \approx 00'27		morning max el	2549 Jun 05 00:13	20° \approx 13'36	24°58'45
morning set	2548 Jul 16 15:20	16° \approx 32'39			2549 Jun 13 08:32	0° \approx	
	2548 Jul 22 22:02	0° \approx		asc. node	2549 Jun 29 20:09	28° \approx 45'49	
					2549 Jun 30 10:23	0° \approx	
superior conj	2548 Jul 23 17:46	1° \approx 45'54	1°32'14	morning set	2549 Jul 01 03:10	1° \approx 28'18	
minimum elong	2548 Jul 23 15:39	1° \approx 34'36	1°32'01				
max. Earth dist.	2548 Jul 26 06:51	7° \approx 10'47	1.33644 AU	superior conj	2549 Jul 08 03:23	16° \approx 39'12	1°17'35
evening rise	2548 Jul 31 09:28	17° \approx 39'40		minimum elong	2549 Jul 08 00:59	16° \approx 26'10	1°17'14
	2548 Aug 06 21:22	0° \approx		max. Earth dist.	2549 Jul 09 12:23	19° \approx 38'52	1.32749 AU
desc. node	2548 Aug 19 21:38	21° \approx 11'33			2549 Jul 14 09:07	0° \approx	
	2548 Aug 26 09:28	0° \approx		evening rise	2549 Jul 15 08:38	2° \approx 01'14	
evening max el	2548 Sep 03 12:28	9° \approx 03'31	27°20'10		2549 Jul 30 18:35	0° \approx	
retrograde	2548 Sep 17 00:19	16° \approx 21'58		desc. node	2549 Aug 06 18:40	10° \approx 14'24	
evening set	2548 Sep 24 01:36	13° \approx 40'17		evening max el	2549 Aug 16 21:56	21° \approx 59'17	27°23'48
min. Earth dist.	2548 Sep 27 19:50	10° \approx 12'17	0.64426 AU	retrograde	2549 Aug 30 16:20	29° \approx 16'02	
inferior conj	2548 Sep 30 04:08	7° \approx 41'40	-2°-49'-15	evening set	2549 Sep 06 21:08	26° \approx 45'03	
minimum elong	2548 Sep 30 08:39	7° \approx 29'32	2°47'40	min. Earth dist.	2549 Sep 10 11:33	23° \approx 17'19	0.62708 AU
morning rise	2548 Oct 06 17:46	2° \approx 13'55		inferior conj	2549 Sep 13 07:53	21° \approx 03'37	-3°-44'-42
asc. node	2548 Oct 08 22:18	1° \approx 41'33		minimum elong	2549 Sep 13 13:21	20° \approx 50'29	3°43'13
direct	2548 Oct 09 06:36	1° \approx 40'56		morning rise	2549 Sep 20 08:15	15° \approx 54'16	
morning max el	2548 Oct 15 18:43	5° \approx 07'28	17°57'45	direct	2549 Sep 22 17:25	15° \approx 28'20	
	2548 Nov 01 06:00	0° \approx		asc. node	2549 Sep 25 19:21	16° \approx 12'51	
morning set	2548 Nov 02 00:51	1° \approx 19'50		morning max el	2549 Sep 29 10:48	18° \approx 55'02	17°51'26
					2549 Oct 07 12:38	0° \approx	
superior conj	2548 Nov 15 10:01	23° \approx 30'03	0°03'07	morning set	2549 Oct 15 13:20	13° \approx 57'29	
minimum elong	2548 Nov 15 10:23	23° \approx 31'33	0°03'03		2549 Oct 24 17:12	0° \approx	
behind sun begin	2548 Nov 15 00:13	22° \approx 50'32					
behind sun end	2548 Nov 15 20:33	24° \approx 12'30		superior conj	2549 Oct 27 00:17	3° \approx 53'56	0°45'08
desc. node	2548 Nov 15 20:58	24° \approx 14'11		minimum elong	2549 Oct 27 04:15	4° \approx 10'40	0°44'36
	2548 Nov 19 11:30	0° \approx		desc. node	2549 Nov 02 18:00	15° \approx 01'44	
max. Earth dist.	2548 Nov 20 05:56	1° \approx 13'06	1.44669 AU	max. Earth dist.	2549 Nov 02 21:20	15° \approx 15'13	1.43493 AU
evening rise	2548 Dec 01 16:52	19° \approx 05'03		evening rise	2549 Nov 11 01:57	28° \approx 13'10	
	2548 Dec 08 20:09	0° \approx			2549 Nov 12 05:34	0° \approx	
greatest brilliancy	2548 Dec 21 22:28	19° \approx 10'47	-0.6m		2549 Dec 02 15:56	0° \approx	
evening max el	2548 Dec 28 12:00	27° \approx 11'58	20°11'01	greatest brilliancy	2549 Dec 06 08:50	4° \approx 51'38	-0.4m
	2548 Dec 31 16:08	0° \approx		evening max el	2549 Dec 11 10:41	10° \approx 43'30	21°19'27
asc. node	2549 Jan 04 21:34	1° \approx 45'17		retrograde	2549 Dec 20 04:32	15° \approx 55'04	
retrograde	2549 Jan 05 06:55	1° \approx 46'08		asc. node	2549 Dec 22 18:36	15° \approx 18'10	
evening set	2549 Jan 08 23:31	0° \approx 26'48		evening set	2549 Dec 24 07:11	14° \approx 20'29	
	2549 Jan 09 13:23	30° \approx 30'00		inferior conj	2549 Dec 29 16:51	8° \approx 03'34	2°11'36

minimum elong	2549 Dec 29 14:24	8°☿12'00	2°10'47	evening max el	2550 Nov 24 04:13	24°♄16'43	22°36'26
min. Earth dist.	2549 Dec 29 23:53	7°☿39'17	0.67680 AU		2550 Dec 02 18:52	0°☿	
morning rise	2550 Jan 03 21:17	1°☿48'40		retrograde	2550 Dec 04 00:03	0°☿06'57	
	2550 Jan 06 18:58	30°♄			2550 Dec 05 04:25	30°♄	
direct	2550 Jan 09 00:26	29°♄35'55		evening set	2550 Dec 08 14:41	28°♄15'46	
	2550 Jan 11 08:56	0°☿		asc. node	2550 Dec 09 15:38	27°♄19'12	
morning max el	2550 Jan 19 10:25	5°☿47'55	23°25'28	inferior conj	2550 Dec 14 00:22	21°♄52'19	1°26'54
greatest brilliancy	2550 Jan 25 03:34	12°☿15'43	-0.2m	minimum elong	2550 Dec 13 22:31	21°♄58'43	1°26'10
desc. node	2550 Jan 29 17:12	18°☿08'52		min. Earth dist.	2550 Dec 13 20:14	22°♄06'36	0.67881 AU
	2550 Feb 07 03:04	0°♁		morning rise	2550 Dec 19 06:15	15°♄40'03	
morning set	2550 Feb 23 11:55	25°♁48'31		direct	2550 Dec 23 18:30	13°♄50'08	
	2550 Feb 25 22:56	0°♂		morning max el	2551 Jan 01 22:33	19°♄13'12	21°58'27
max. Earth dist.	2550 Feb 27 15:00	2°♂53'46	1.39143 AU	greatest brilliancy	2551 Jan 06 15:13	24°♄30'03	-0.4m
					2551 Jan 10 22:02	0°☿	
superior conj	2550 Mar 07 04:29	16°♂33'15	-1°-49'-15	desc. node	2551 Jan 16 14:15	7°☿51'43	
minimum elong	2550 Mar 07 08:45	16°♂53'07	1°48'53		2551 Jan 31 07:45	0°♁	
	2550 Mar 14 05:44	0°♂		morning set	2551 Feb 03 15:07	5°♁15'26	
evening rise	2550 Mar 16 13:21	4°♂29'19		max. Earth dist.	2551 Feb 09 13:07	14°♁56'57	1.41280 AU
asc. node	2550 Mar 20 17:55	12°♂29'12					
	2550 Apr 01 03:35	0°♂		superior conj	2551 Feb 17 06:48	28°♁14'47	-2°-3'-16
evening max el	2550 Apr 01 19:07	0°♂39'05	18°40'20	minimum elong	2551 Feb 17 09:06	28°♁24'59	2°03'12
retrograde	2550 Apr 09 17:35	4°♂31'48			2551 Feb 18 06:32	0°♂	
evening set	2550 Apr 11 23:33	4°♂14'15		evening rise	2551 Feb 27 20:43	17°♂31'11	
inferior conj	2550 Apr 19 17:38	29°♂49'59	2°07'58		2551 Mar 06 17:27	0°♂	
minimum elong	2550 Apr 19 21:30	29°♂42'41	2°06'51	asc. node	2551 Mar 07 14:57	1°♂32'29	
	2550 Apr 19 12:20	30°♄		evening max el	2551 Mar 16 03:01	13°♂24'59	18°14'02
min. Earth dist.	2550 Apr 23 02:13	27°♂19'01	0.57660 AU	retrograde	2551 Mar 23 02:50	16°♂55'13	
morning rise	2550 Apr 27 15:04	24°♂34'25		evening set	2551 Mar 25 14:40	16°♂29'19	
desc. node	2550 Apr 27 16:21	24°♂32'56		inferior conj	2551 Apr 01 15:15	11°♂43'38	3°06'26
direct	2550 May 03 07:39	23°♂13'52		minimum elong	2551 Apr 01 18:30	11°♂36'26	3°05'49
	2550 May 16 19:57	0°♂		min. Earth dist.	2551 Apr 05 00:38	8°♂45'36	0.59749 AU
morning max el	2550 May 17 16:19	0°♂48'21	26°26'20	morning rise	2551 Apr 08 18:44	6°♂02'22	
	2550 Jun 07 07:04	0°♂		desc. node	2551 Apr 14 13:23	4°♂07'18	
morning set	2550 Jun 15 13:59	16°♂19'47		direct	2551 Apr 15 06:15	4°♂05'57	
asc. node	2550 Jun 16 17:12	18°♂44'00		morning max el	2551 Apr 29 14:03	11°♂54'41	27°26'14
	2550 Jun 21 21:25	0°♂			2551 May 13 18:41	0°♂	
superior conj	2550 Jun 22 14:54	1°♂36'13	0°58'43	morning set	2551 May 30 10:12	0°♂	
minimum elong	2550 Jun 22 12:43	1°♂24'12	0°58'19	asc. node	2551 May 30 22:04	1°♂01'29	
max. Earth dist.	2550 Jun 22 23:02	2°♂21'01	1.32256 AU	max. Earth dist.	2551 Jun 03 14:15	8°♂49'58	
evening rise	2550 Jun 29 14:13	16°♂40'37			2551 Jun 06 11:14	15°♂06'36	1.32148 AU
	2550 Jul 06 06:56	0°♂		superior conj	2551 Jun 07 02:33	16°♂30'50	0°36'20
desc. node	2550 Jul 24 15:40	28°♂23'53		minimum elong	2551 Jun 07 01:01	16°♂22'21	0°36'02
	2550 Jul 26 00:35	0°♂			2551 Jun 13 06:54	0°♂	
evening max el	2550 Jul 30 02:36	4°♂16'10	26°54'32	evening rise	2551 Jun 13 23:49	1°♂29'54	
retrograde	2550 Aug 13 00:50	11°♂29'00			2551 Jun 29 10:54	0°♂	
evening set	2550 Aug 19 23:51	9°♂22'04		desc. node	2551 Jul 11 12:40	15°♂18'15	
min. Earth dist.	2550 Aug 23 16:48	6°♂43'18	0.60736 AU	evening max el	2551 Jul 12 00:17	15°♂46'20	25°53'09
inferior conj	2550 Aug 26 21:57	4°♂00'54	-4°-31'00	retrograde	2551 Jul 26 00:08	22°♂55'11	
minimum elong	2550 Aug 27 02:56	3°♂50'22	4°30'08	evening set	2551 Aug 01 05:02	21°♂23'16	
	2550 Sep 01 11:23	30°♄		min. Earth dist.	2551 Aug 05 12:39	18°♂46'41	0.58676 AU
morning rise	2550 Sep 03 09:09	29°♂12'52		inferior conj	2551 Aug 08 18:49	16°♂24'01	-4°-58'-48
direct	2550 Sep 05 17:44	28°♂51'03		minimum elong	2551 Aug 08 20:53	16°♂20'14	4°58'42
	2550 Sep 09 19:58	0°♂		morning rise	2551 Aug 16 16:13	11°♂59'19	
asc. node	2550 Sep 12 16:25	2°♂08'25		direct	2551 Aug 19 03:14	11°♂39'31	
morning max el	2550 Sep 12 23:54	2°♂26'15	18°03'57	morning max el	2551 Aug 27 06:54	15°♂32'55	18°36'43
morning set	2550 Sep 28 18:34	27°♂22'59		asc. node	2551 Aug 30 13:28	19°♂13'47	
	2550 Sep 30 04:18	0°♂			2551 Sep 06 10:28	0°♂	
superior conj	2550 Oct 08 16:56	15°♂34'47	1°15'57	morning set	2551 Sep 12 11:41	11°♂23'09	
minimum elong	2550 Oct 08 21:13	15°♂53'48	1°15'29	superior conj	2551 Sep 21 07:29	28°♂20'41	1°35'08
max. Earth dist.	2550 Oct 16 07:59	28°♂44'11	1.41798 AU	minimum elong	2551 Sep 21 10:20	28°♂34'01	1°34'54
	2550 Oct 17 02:10	0°♂			2551 Sep 22 04:46	0°♂	
desc. node	2550 Oct 20 15:01	5°♂47'57		max. Earth dist.	2551 Sep 28 14:04	11°♂32'03	1.39798 AU
evening rise	2550 Oct 21 23:03	7°♂56'54		evening rise	2551 Oct 02 18:25	18°♂42'28	
	2550 Nov 05 09:55	0°♂		desc. node	2551 Oct 07 12:02	26°♂29'33	
greatest brilliancy	2550 Nov 19 07:34	18°♄49'53	-0.3m		2551 Oct 09 16:54	0°♂	

	2551 Oct 30 18:42	0°♊		max. Earth dist.	2552 Sep 09 18:02	23°♎40'13	1.37744 AU
evening max el	2551 Nov 06 18:02	7°♊53'05	23°56'22		2552 Sep 13 05:48	0°♎	
retrograde	2551 Nov 17 16:19	14°♊18'51		evening rise	2552 Sep 13 13:19	0°♎33'25	
evening set	2551 Nov 22 20:26	12°♊10'35		desc. node	2552 Sep 23 09:02	17°♎01'43	
asc. node	2551 Nov 26 12:40	8°♊07'55			2552 Oct 01 23:01	0°♎	
min. Earth dist.	2551 Nov 27 16:40	6°♊34'42	0.67738 AU	evening max el	2552 Oct 19 06:05	21°♎32'02	25°12'43
inferior conj	2551 Nov 28 07:29	5°♊44'28	0°36'31	retrograde	2552 Oct 31 04:23	28°♎25'48	
minimum elong	2551 Nov 28 06:37	5°♊47'24	0°36'09	evening set	2552 Nov 05 22:45	26°♎01'45	
	2551 Dec 03 05:28	30°♋		min. Earth dist.	2552 Nov 10 10:52	21°♎00'32	0.67253 AU
morning rise	2551 Dec 03 17:03	29°♋37'06		inferior conj	2552 Nov 11 12:25	19°♎37'17	0°-18'-19
direct	2551 Dec 07 15:21	28°♋09'41		minimum elong	2552 Nov 11 12:53	19°♎35'46	0°18'08
	2551 Dec 12 11:13	0°♋		asc. node	2552 Nov 12 09:43	18°♎28'25	
morning max el	2551 Dec 15 17:28	2°♋49'23	20°39'46	morning rise	2552 Nov 17 03:39	13°♎37'08	
greatest brilliancy	2551 Dec 21 16:05	9°♋47'14	-0.5m	direct	2552 Nov 20 13:40	12°♎29'47	
desc. node	2552 Jan 03 11:17	27°♋57'59		morning max el	2552 Nov 27 20:17	16°♎36'16	19°33'59
	2552 Jan 04 19:53	0°♋		greatest brilliancy	2552 Dec 06 05:51	27°♎09'14	-0.6m
morning set	2552 Jan 13 17:28	13°♋35'57			2552 Dec 08 05:17	0°♋	
max. Earth dist.	2552 Jan 22 18:52	27°♋57'00	1.43133 AU	desc. node	2552 Dec 20 08:19	18°♋20'48	
	2552 Jan 24 01:10	0°♋		morning set	2552 Dec 22 14:42	21°♋50'43	
					2552 Dec 27 20:46	0°♋	
superior conj	2552 Jan 29 09:14	8°♋48'43	-2°-4'-13	max. Earth dist.	2553 Jan 04 07:27	11°♋41'39	1.44459 AU
minimum elong	2552 Jan 29 06:55	8°♋39'01	2°04'11				
evening rise	2552 Feb 10 12:38	29°♋47'50		superior conj	2553 Jan 08 09:26	18°♋12'07	-1°-47'-20
	2552 Feb 10 15:23	0°♋		minimum elong	2553 Jan 08 01:44	17°♋41'17	1°46'46
asc. node	2552 Feb 22 11:58	20°♋03'54			2553 Jan 15 15:37	0°♋	
evening max el	2552 Feb 27 14:43	26°♋31'23	18°07'22	evening rise	2553 Jan 22 08:47	11°♋11'10	
retrograde	2552 Mar 05 03:25	29°♋54'45			2553 Feb 02 17:50	0°♋	
evening set	2552 Mar 07 20:28	29°♋19'10		asc. node	2553 Feb 08 08:59	7°♋53'54	
inferior conj	2552 Mar 14 07:12	24°♋12'20	3°35'16	evening max el	2553 Feb 10 03:17	9°♋50'54	18°19'44
minimum elong	2552 Mar 14 08:37	24°♋08'44	3°35'09	retrograde	2553 Feb 16 14:34	13°♋20'42	
min. Earth dist.	2552 Mar 17 06:50	21°♋12'04	0.61890 AU	evening set	2553 Feb 19 12:52	12°♋34'26	
morning rise	2552 Mar 20 18:12	18°♋14'32		inferior conj	2553 Feb 25 13:24	7°♋08'09	3°41'22
direct	2552 Mar 27 15:08	15°♋47'15		minimum elong	2553 Feb 25 13:00	7°♋09'17	3°41'22
desc. node	2552 Mar 31 10:26	16°♋28'09		min. Earth dist.	2553 Feb 27 22:34	4°♋26'44	0.63828 AU
morning max el	2552 Apr 10 18:08	23°♋43'11	27°50'04	morning rise	2553 Mar 03 11:26	1°♋00'51	
	2552 Apr 16 09:33	0°♋			2553 Mar 04 20:49	30°♋	
	2552 May 06 01:03	0°♋		direct	2553 Mar 10 08:33	28°♋14'47	
morning set	2552 May 14 01:24	15°♋26'24			2553 Mar 16 08:21	0°♋	
max. Earth dist.	2552 May 19 20:56	27°♋41'15	1.32435 AU	desc. node	2553 Mar 18 07:28	1°♋13'09	
asc. node	2552 May 20 11:16	28°♋58'53		morning max el	2553 Mar 24 02:33	6°♋10'20	27°36'46
	2552 May 20 22:31	0°♋			2553 Apr 11 06:37	0°♋	
				morning set	2553 Apr 27 21:37	29°♋27'02	
superior conj	2552 May 21 12:38	1°♋16'50	0°11'08		2553 Apr 28 04:16	0°♋	
minimum elong	2552 May 21 12:07	1°♋14'00	0°11'01	max. Earth dist.	2553 May 03 00:06	9°♋52'14	1.33142 AU
behind sun begin	2552 May 21 08:23	0°♋53'42					
behind sun end	2552 May 21 15:50	1°♋34'18		superior conj	2553 May 05 19:21	15°♋48'42	0°-16'-7
evening rise	2552 May 28 11:22	16°♋21'29		minimum elong	2553 May 05 20:09	15°♋52'59	0°15'58
	2552 Jun 04 05:50	0°♋		asc. node	2553 May 07 08:18	19°♋06'55	
evening max el	2552 Jun 22 15:18	26°♋33'09	24°27'18		2553 May 12 09:58	0°♋	
	2552 Jun 26 18:01	0°♋		evening rise	2553 May 12 23:04	1°♋09'20	
desc. node	2552 Jun 27 09:40	0°♋26'57			2553 May 29 04:13	0°♋	
retrograde	2552 Jul 06 12:29	3°♋34'07		evening max el	2553 Jun 04 05:10	7°♋00'52	22°51'06
evening set	2552 Jul 11 10:16	2°♋40'09		desc. node	2553 Jun 14 06:40	13°♋14'25	
	2552 Jul 16 18:00	30°♋		retrograde	2553 Jun 17 12:37	13°♋38'31	
min. Earth dist.	2552 Jul 17 02:14	29°♋47'20	0.56790 AU	evening set	2553 Jun 20 22:19	13°♋13'05	
inferior conj	2552 Jul 19 19:39	28°♋03'18	-4°-54'-38	min. Earth dist.	2553 Jun 28 13:47	9°♋49'48	0.55425 AU
minimum elong	2552 Jul 19 16:24	28°♋08'30	4°54'23	inferior conj	2553 Jun 30 01:26	8°♋58'27	-4°-4'-51
morning rise	2552 Jul 28 02:12	24°♋00'04		minimum elong	2553 Jun 29 17:44	9°♋09'35	4°03'08
direct	2552 Jul 30 17:49	23°♋40'59		morning rise	2553 Jul 08 15:56	5°♋06'45	
morning max el	2552 Aug 09 04:43	28°♋04'54	19°30'49	direct	2553 Jul 11 13:46	4°♋46'58	
	2552 Aug 11 01:43	0°♋		morning max el	2553 Jul 22 15:18	9°♋54'47	20°46'00
asc. node	2552 Aug 16 10:31	7°♋13'19		asc. node	2553 Aug 03 07:34	25°♋54'32	
morning set	2552 Aug 26 12:59	25°♋47'01			2553 Aug 05 13:15	0°♋	
	2552 Aug 28 15:17	0°♋		morning set	2553 Aug 10 19:47	10°♋27'24	
superior conj	2552 Sep 03 14:18	11°♋54'57	1°44'07	superior conj	2553 Aug 18 08:44	26°♋04'08	1°44'41
minimum elong	2552 Sep 03 15:18	11°♋59'53	1°44'04	minimum elong	2553 Aug 18 08:08	26°♋01'05	1°44'40

	2553 Aug 20 07:11	0° $\mathring{\text{M}}$		max. Earth dist.	2554 Aug 05 17:57	17° $\mathring{\text{O}}$ 28'31	1.34349 AU
max. Earth dist.	2553 Aug 23 01:42	5° $\mathring{\text{M}}$ 30'24	1.35878 AU	evening rise	2554 Aug 10 11:16	26° $\mathring{\text{O}}$ 56'25	
evening rise	2553 Aug 27 04:29	13° $\mathring{\text{M}}$ 22'12			2554 Aug 12 01:24	0° $\mathring{\text{M}}$	
	2553 Sep 05 16:03	0° $\mathring{\text{L}}$		desc. node	2554 Aug 28 03:02	27° $\mathring{\text{M}}$ 16'08	
desc. node	2553 Sep 10 06:01	7° $\mathring{\text{L}}$ 19'26			2554 Aug 29 23:36	0° $\mathring{\text{L}}$	
	2553 Sep 26 21:01	0° $\mathring{\text{M}}$		evening max el	2554 Sep 14 06:36	18° $\mathring{\text{L}}$ 44'30	27°04'41
evening max el	2553 Oct 01 18:10	5° $\mathring{\text{M}}$ 11'32	26°18'02	retrograde	2554 Sep 27 13:18	26° $\mathring{\text{L}}$ 01'58	
retrograde	2553 Oct 14 11:37	12° $\mathring{\text{M}}$ 22'25		evening set	2554 Oct 04 09:23	23° $\mathring{\text{L}}$ 20'00	
evening set	2553 Oct 20 19:49	9° $\mathring{\text{M}}$ 46'11		min. Earth dist.	2554 Oct 08 07:14	19° $\mathring{\text{L}}$ 31'24	0.65256 AU
min. Earth dist.	2553 Oct 25 00:29	5° $\mathring{\text{M}}$ 21'02	0.66429 AU	inferior conj	2554 Oct 10 08:09	17° $\mathring{\text{L}}$ 12'58	-2°-15'-31
inferior conj	2553 Oct 26 13:20	3° $\mathring{\text{M}}$ 28'02	-1°-16'-17	minimum elong	2554 Oct 10 11:49	17° $\mathring{\text{L}}$ 02'33	2°14'07
minimum elong	2553 Oct 26 15:22	3° $\mathring{\text{M}}$ 21'47	1°15'26	morning rise	2554 Oct 16 15:58	11° $\mathring{\text{L}}$ 35'47	
	2553 Oct 29 13:38	30° $\mathring{\text{R}}$ $\mathring{\text{L}}$		asc. node	2554 Oct 17 03:50	11° $\mathring{\text{L}}$ 22'56	
asc. node	2553 Oct 30 06:47	29° $\mathring{\text{L}}$ 18'14		direct	2554 Oct 19 08:06	10° $\mathring{\text{L}}$ 57'15	
morning rise	2553 Nov 01 12:04	27° $\mathring{\text{L}}$ 37'49		morning max el	2554 Oct 25 20:25	14° $\mathring{\text{L}}$ 27'42	18°09'27
direct	2553 Nov 04 11:56	26° $\mathring{\text{L}}$ 46'49			2554 Nov 05 22:39	0° $\mathring{\text{M}}$	
	2553 Nov 10 17:28	0° $\mathring{\text{M}}$		morning set	2554 Nov 13 04:31	11° $\mathring{\text{M}}$ 52'57	
morning max el	2553 Nov 11 06:01	0° $\mathring{\text{M}}$ 30'39	18°43'26	desc. node	2554 Nov 24 02:21	29° $\mathring{\text{M}}$ 37'21	
	2553 Dec 01 13:52	0° $\mathring{\text{J}}$			2554 Nov 24 08:01	0° $\mathring{\text{J}}$	
morning set	2553 Dec 02 06:56	1° $\mathring{\text{J}}$ 07'30		superior conj	2554 Nov 27 18:10	5° $\mathring{\text{J}}$ 27'00	0°-24'-31
desc. node	2553 Dec 07 05:20	8° $\mathring{\text{J}}$ 55'05		minimum elong	2554 Nov 27 15:02	5° $\mathring{\text{J}}$ 14'36	0°24'06
max. Earth dist.	2553 Dec 18 00:37	25° $\mathring{\text{J}}$ 53'54	1.45119 AU	max. Earth dist.	2554 Nov 30 19:47	10° $\mathring{\text{J}}$ 17'42	1.45046 AU
					2554 Dec 13 10:46	0° $\mathring{\text{Z}}$	
superior conj	2553 Dec 18 14:08	26° $\mathring{\text{J}}$ 47'01	-1°-11'-42	evening rise	2554 Dec 14 04:46	1° $\mathring{\text{Z}}$ 09'54	
minimum elong	2553 Dec 18 05:45	26° $\mathring{\text{J}}$ 14'03	1°10'44	greatest brilliancy	2554 Dec 30 23:14	26° $\mathring{\text{Z}}$ 41'47	-0.7m
	2553 Dec 20 15:15	0° $\mathring{\text{Z}}$			2555 Jan 02 07:52	0° $\mathring{\text{Z}}$	
evening rise	2554 Jan 03 05:48	21° $\mathring{\text{Z}}$ 36'03		evening max el	2555 Jan 07 21:20	6° $\mathring{\text{Z}}$ 46'43	19°37'20
	2554 Jan 08 11:18	0° $\mathring{\text{Z}}$		asc. node	2555 Jan 13 03:06	10° $\mathring{\text{Z}}$ 37'21	
evening max el	2554 Jan 24 14:11	23° $\mathring{\text{Z}}$ 17'07	18°50'14	retrograde	2555 Jan 15 05:14	11° $\mathring{\text{Z}}$ 01'12	
asc. node	2554 Jan 26 06:02	24° $\mathring{\text{Z}}$ 49'42		evening set	2555 Jan 18 16:58	9° $\mathring{\text{Z}}$ 49'58	
retrograde	2554 Jan 31 08:14	27° $\mathring{\text{Z}}$ 04'29		inferior conj	2555 Jan 24 05:49	3° $\mathring{\text{Z}}$ 50'55	3°07'20
evening set	2554 Feb 03 12:33	26° $\mathring{\text{Z}}$ 06'27		minimum elong	2555 Jan 24 03:23	3° $\mathring{\text{Z}}$ 58'54	3°06'48
inferior conj	2554 Feb 09 06:00	20° $\mathring{\text{Z}}$ 22'37	3°30'39	min. Earth dist.	2555 Jan 25 08:47	2° $\mathring{\text{Z}}$ 22'18	0.66619 AU
minimum elong	2554 Feb 09 04:16	20° $\mathring{\text{Z}}$ 27'56	3°30'26		2555 Jan 27 06:15	30° $\mathring{\text{R}}$ $\mathring{\text{Z}}$	
min. Earth dist.	2554 Feb 10 23:38	18° $\mathring{\text{Z}}$ 14'09	0.65424 AU	morning rise	2555 Jan 29 13:07	27° $\mathring{\text{Z}}$ 36'14	
morning rise	2554 Feb 14 18:54	14° $\mathring{\text{Z}}$ 10'19		direct	2555 Feb 04 15:23	24° $\mathring{\text{Z}}$ 54'18	
direct	2554 Feb 21 09:02	11° $\mathring{\text{Z}}$ 19'56			2555 Feb 14 14:11	0° $\mathring{\text{Z}}$	
desc. node	2554 Mar 05 04:31	17° $\mathring{\text{Z}}$ 45'58		morning max el	2555 Feb 16 21:27	2° $\mathring{\text{Z}}$ 11'48	25°40'58
morning max el	2554 Mar 06 12:19	19° $\mathring{\text{Z}}$ 03'38	26°51'01	desc. node	2555 Feb 20 01:35	5° $\mathring{\text{Z}}$ 36'30	
	2554 Mar 15 19:28	0° $\mathring{\text{H}}$			2555 Mar 09 22:53	0° $\mathring{\text{H}}$	
	2554 Apr 04 06:42	0° $\mathring{\text{Y}}$		morning set	2555 Mar 25 02:27	25° $\mathring{\text{H}}$ 29'44	
morning set	2554 Apr 11 07:25	12° $\mathring{\text{Y}}$ 52'20			2555 Mar 27 12:49	0° $\mathring{\text{Y}}$	
max. Earth dist.	2554 Apr 15 16:56	21° $\mathring{\text{Y}}$ 29'23	1.34301 AU	max. Earth dist.	2555 Mar 28 22:10	2° $\mathring{\text{Y}}$ 37'37	1.35918 AU
				superior conj	2555 Apr 03 13:38	13° $\mathring{\text{Y}}$ 40'35	-1°-12'-8
superior conj	2554 Apr 19 20:33	29° $\mathring{\text{Y}}$ 59'04	0°-44'-22	minimum elong	2555 Apr 03 17:16	13° $\mathring{\text{Y}}$ 58'52	1°11'33
minimum elong	2554 Apr 19 22:50	0° $\mathring{\text{B}}$ 10'55	0°43'56	asc. node	2555 Apr 11 02:23	29° $\mathring{\text{Y}}$ 02'06	
	2554 Apr 19 20:44	0° $\mathring{\text{B}}$		evening rise	2555 Apr 11 15:00	0° $\mathring{\text{B}}$ 06'28	
asc. node	2554 Apr 24 05:20	9° $\mathring{\text{B}}$ 09'21			2555 Apr 11 13:44	0° $\mathring{\text{B}}$	
evening rise	2554 Apr 27 08:58	15° $\mathring{\text{B}}$ 46'22		evening max el	2555 Apr 29 09:25	28° $\mathring{\text{B}}$ 56'40	20°02'25
	2554 May 04 14:12	0° $\mathring{\text{I}}$			2555 Apr 30 13:01	0° $\mathring{\text{I}}$	
evening max el	2554 May 17 01:39	17° $\mathring{\text{I}}$ 41'26	21°19'27	retrograde	2555 May 09 17:21	3° $\mathring{\text{I}}$ 57'00	
retrograde	2554 May 29 02:42	23° $\mathring{\text{I}}$ 34'58		evening set	2555 May 11 17:35	3° $\mathring{\text{I}}$ 46'28	
evening set	2554 May 31 10:57	23° $\mathring{\text{I}}$ 22'22		desc. node	2555 May 19 00:46	0° $\mathring{\text{I}}$ 46'19	
desc. node	2554 Jun 01 03:42	23° $\mathring{\text{I}}$ 13'56			2555 May 20 08:09	30° $\mathring{\text{R}}$ $\mathring{\text{B}}$	
inferior conj	2554 Jun 09 19:51	19° $\mathring{\text{I}}$ 23'22	-2°-28'-38	inferior conj	2555 May 20 16:51	29° $\mathring{\text{B}}$ 46'56	0°-29'-21
minimum elong	2554 Jun 09 13:09	19° $\mathring{\text{I}}$ 32'47	2°26'24	minimum elong	2555 May 20 15:30	29° $\mathring{\text{B}}$ 48'58	0°28'51
min. Earth dist.	2554 Jun 10 01:42	19° $\mathring{\text{I}}$ 15'09	0.54888 AU	min. Earth dist.	2555 May 22 14:48	28° $\mathring{\text{B}}$ 38'01	0.55315 AU
morning rise	2554 Jun 18 15:32	15° $\mathring{\text{I}}$ 25'45		morning rise	2555 May 29 10:46	25° $\mathring{\text{B}}$ 24'57	
direct	2554 Jun 21 23:55	15° $\mathring{\text{I}}$ 01'24		direct	2555 Jun 02 13:19	24° $\mathring{\text{B}}$ 48'07	
morning max el	2554 Jul 04 14:43	21° $\mathring{\text{I}}$ 00'33	22°18'56		2555 Jun 14 12:26	0° $\mathring{\text{I}}$	
	2554 Jul 12 05:18	0° $\mathring{\text{G}}$		morning max el	2555 Jun 16 06:35	1° $\mathring{\text{I}}$ 34'04	24°01'06
asc. node	2554 Jul 21 04:36	15° $\mathring{\text{G}}$ 06'51			2555 Jul 05 16:46	0° $\mathring{\text{G}}$	
morning set	2554 Jul 26 05:57	25° $\mathring{\text{G}}$ 18'08		asc. node	2555 Jul 08 01:38	4° $\mathring{\text{G}}$ 42'08	
	2554 Jul 28 11:24	0° $\mathring{\text{O}}$		morning set	2555 Jul 10 17:40	10° $\mathring{\text{G}}$ 13'38	
superior conj	2554 Aug 02 11:09	10° $\mathring{\text{O}}$ 37'07	1°38'26				
minimum elong	2554 Aug 02 09:27	10° $\mathring{\text{O}}$ 28'04	1°38'19				

superior conj	2555 Jul 17 18:47	25°  25'01	1°26'34	superior conj	2556 Jul 01 05:27	10°  21'03	1°10'04
minimum elong	2555 Jul 17 16:29	25°  12'38	1°26'18	minimum elong	2556 Jul 01 03:05	10°  08'07	1°09'41
	2555 Jul 19 21:54	0° 		max. Earth dist.	2556 Jul 02 03:49	12°  23'33	1.32493 AU
max. Earth dist.	2555 Jul 19 19:24	29°  46'37	1.33221 AU	evening rise	2556 Jul 08 07:42	25°  34'19	
evening rise	2555 Jul 25 05:27	11°  03'43			2556 Jul 10 11:48	0° 	
	2555 Aug 04 08:22	0° 			2556 Jul 27 21:40	0° 	
desc. node	2555 Aug 15 00:04	16°  42'13		desc. node	2556 Jul 31 21:06	5°  25'01	
	2555 Aug 25 18:25	0° 		evening max el	2556 Aug 09 01:42	14°  39'02	27°15'21
evening max el	2555 Aug 27 17:58	1°  58'12	27°25'36	retrograde	2556 Aug 22 21:32	21°  53'44	
retrograde	2555 Sep 10 08:48	9°  15'24		evening set	2556 Aug 30 01:29	19°  31'07	
evening set	2555 Sep 17 12:31	6°  37'02		min. Earth dist.	2556 Sep 02 15:51	16°  43'31	0.61904 AU
min. Earth dist.	2555 Sep 21 04:48	3°  22'45	0.63736 AU	inferior conj	2556 Sep 05 16:39	13°  58'19	-4°-5'-53
inferior conj	2555 Sep 23 18:16	0°  45'31	-3°-13'-28	minimum elong	2556 Sep 05 22:09	13°  45'48	4°04'35
minimum elong	2555 Sep 23 23:19	0°  32'36	3°11'51	morning rise	2556 Sep 12 21:41	8°  57'50	
	2555 Sep 24 12:08	30°  R 		direct	2556 Sep 15 06:20	8°  33'53	
morning rise	2555 Sep 30 12:23	25°  42'56		asc. node	2556 Sep 19 21:55	10°  09'53	
direct	2555 Oct 02 23:25	24°  55'12		morning max el	2556 Sep 22 03:59	12°  02'39	17°54'22
asc. node	2555 Oct 04 00:53	25°  40'51			2556 Oct 04 04:45	0° 	
morning max el	2555 Oct 09 12:45	28°  40'40	17°52'48	morning set	2556 Oct 08 00:54	6°  55'24	
	2555 Oct 11 01:25	0° 					
morning set	2555 Oct 26 04:37	23°  55'23		superior conj	2556 Oct 18 19:00	26°  03'12	0°59'40
	2555 Oct 29 17:20	0° 		minimum elong	2556 Oct 18 23:26	26°  22'15	0°59'07
					2556 Oct 21 02:24	0° 	
superior conj	2555 Nov 07 17:06	15°  40'13	0°22'08	max. Earth dist.	2556 Oct 26 03:50	8°  25'50	1.42831 AU
minimum elong	2555 Nov 07 19:27	15°  14'52	0°21'48	desc. node	2556 Oct 27 20:26	11°  11'06	
desc. node	2555 Nov 10 23:23	20°  42'37		evening rise	2556 Nov 02 02:54	19°  35'02	
max. Earth dist.	2555 Nov 13 13:56	24°  44'49	1.44250 AU		2556 Nov 08 21:11	0° 	
	2555 Nov 17 00:01	0° 		greatest brilliancy	2556 Nov 29 00:51	28°  22'53	-0.4m
evening rise	2555 Nov 23 14:30	10°  21'628			2556 Nov 30 08:58	0° 	
	2555 Dec 06 16:17	0° 		evening max el	2556 Dec 03 19:33	3°  48'40	21°51'20
greatest brilliancy	2555 Dec 16 04:00	13°  22'55	-0.5m	retrograde	2556 Dec 13 00:10	9°  16'57	
evening max el	2555 Dec 21 23:17	20°  17'18	20°38'47	asc. node	2556 Dec 16 21:11	7°  35'10	
retrograde	2555 Dec 30 03:11	25°  06'27		evening set	2556 Dec 17 07:45	7°  35'12	
asc. node	2555 Dec 31 00:09	25°  02'12		inferior conj	2556 Dec 22 17:14	1°  14'47	1°53'22
evening set	2556 Jan 02 23:57	23°  40'36		minimum elong	2556 Dec 22 14:59	1°  22'33	1°52'34
inferior conj	2556 Jan 08 10:17	17°  29'08	2°34'15	min. Earth dist.	2556 Dec 22 19:19	1°  07'32	0.67812 AU
minimum elong	2556 Jan 08 07:42	17°  37'57	2°33'29		2556 Dec 23 14:53	30°  R 	
min. Earth dist.	2556 Jan 09 00:05	16°  41'56	0.67408 AU	morning rise	2556 Dec 27 22:01	25°  20'48	
morning rise	2556 Jan 13 15:00	11°  13'55		direct	2557 Jan 01 18:38	22°  27'56	
direct	2556 Jan 19 02:49	8°  49'15		morning max el	2557 Jan 11 15:49	28°  27'49'03	22°47'48
morning max el	2556 Jan 30 05:54	15°  27'29	24°16'33		2557 Jan 12 19:10	0° 	
desc. node	2556 Feb 06 22:37	24°  22'11		greatest brilliancy	2557 Jan 16 07:18	4°  00'00	-0.3m
	2556 Feb 11 04:43	0° 		desc. node	2557 Jan 23 19:40	13°  47'27	
	2556 Mar 01 21:38	0° 			2557 Feb 03 22:55	0° 	
morning set	2556 Mar 06 01:08	7°  03'49		morning set	2557 Feb 14 21:16	17°  22'16	
max. Earth dist.	2556 Mar 09 19:06	13°  41'51	1.37904 AU	max. Earth dist.	2557 Feb 19 14:35	25°  22'15'12	1.40064 AU
					2557 Feb 22 08:21	0° 	
superior conj	2556 Mar 16 19:11	26°  44'08	-1°-37'-13				
minimum elong	2556 Mar 16 23:35	27°  40'51'16	1°36'42	superior conj	2557 Feb 27 08:51	8°  58'26	-1°-56'-28
	2556 Mar 18 11:46	0° 		minimum elong	2557 Feb 27 12:36	9°  15'30	1°56'14
evening rise	2556 Mar 25 14:45	14°  02'37		evening rise	2557 Mar 09 05:08	27°  42'32	
asc. node	2556 Mar 27 23:26	18°  40'26			2557 Mar 10 13:28	0° 	
	2556 Apr 03 03:49	0° 		asc. node	2557 Mar 14 20:29	7°  58'14	
evening max el	2556 Apr 11 04:38	10°  51'48	19°04'31	evening max el	2557 Mar 25 08:46	23°  21'03	18°26'44
retrograde	2556 Apr 19 21:32	15°  05'31		retrograde	2557 Apr 01 20:24	27°  42'38	
evening set	2556 Apr 22 00:15	14°  51'36		evening set	2557 Apr 04 04:44	26°  41'54	
inferior conj	2556 Apr 30 05:23	10°  38'03	1°19'02	inferior conj	2557 Apr 11 14:58	22°  40'38	2°36'48
minimum elong	2556 Apr 30 08:20	10°  32'57	1°18'03	minimum elong	2557 Apr 11 18:50	22°  40'48	2°35'50
min. Earth dist.	2556 May 03 06:08	8°  33'13	0.56608 AU	min. Earth dist.	2557 Apr 15 01:31	19°  23'01	0.58509 AU
desc. node	2556 May 04 21:48	7°  30'18		morning rise	2557 Apr 19 04:44	16°  40'34	
morning rise	2556 May 08 12:12	5°  41'25		desc. node	2557 Apr 21 18:50	15°  36'31	
direct	2556 May 13 14:39	4°  40'21		direct	2557 Apr 25 06:09	15°  04'53	
morning max el	2556 May 27 21:08	12°  00'59	25°38'43	morning max el	2557 May 09 15:32	22°  47'16	26°56'03
	2556 Jun 10 18:47	0° 			2557 May 16 01:28	0° 	
asc. node	2556 Jun 23 22:41	24°  44'00			2557 Jun 03 17:04	0° 	
morning set	2556 Jun 24 05:19	25°  44'08'55		morning set	2557 Jun 08 15:10	9°  44'55	
	2556 Jun 26 11:47	0° 		asc. node	2557 Jun 10 19:44	14°  44'55	

superior conj	2557 Jun 15 17:13	25°II17'34	0°49'39	morning set	2558 May 23 21:28	24°831'54	
minimum elong	2557 Jun 15 15:15	25°II06'45	0°49'15		2558 May 26 12:02	0°II	
max. Earth dist.	2557 Jun 15 15:30	25°II08'07	1.32155 AU	asc. node	2558 May 28 16:46	4°II43'28	
	2557 Jun 17 20:33	0°8		max. Earth dist.	2558 May 30 02:52	7°II49'06	1.32213 AU
evening rise	2557 Jun 22 15:12	10°818'17					
	2557 Jul 02 18:48	0°8		superior conj	2558 May 31 04:24	10°II08'58	0°25'58
desc. node	2557 Jul 18 18:06	23°805'43		minimum elong	2558 May 31 03:15	10°II02'39	0°25'43
evening max el	2557 Jul 22 03:15	26°835'24	26°32'01	evening rise	2558 Jun 07 01:50	25°II08'48	
	2557 Jul 26 04:44	0°8			2558 Jun 09 09:34	0°8	
retrograde	2557 Aug 05 02:36	3°847'29			2558 Jun 27 01:49	0°8	
evening set	2557 Aug 11 19:38	1°854'03		evening max el	2558 Jul 03 21:46	7°845'16	25°18'59
	2557 Aug 14 18:29	30°88		desc. node	2558 Jul 05 15:06	9°819'04	
min. Earth dist.	2557 Aug 15 16:43	29°818'39	0.59860 AU	retrograde	2558 Jul 17 21:50	14°852'12	
inferior conj	2557 Aug 18 23:47	26°841'50	-4°-45'-46	evening set	2558 Jul 23 14:32	13°837'00	
minimum elong	2557 Aug 19 03:52	26°833'41	4°45'14	min. Earth dist.	2558 Jul 28 09:41	10°855'16	0.57828 AU
morning rise	2557 Aug 26 15:30	22°804'01		inferior conj	2558 Jul 31 12:18	8°846'52	-5°-1'-53
direct	2557 Aug 29 00:42	21°843'22		minimum elong	2558 Jul 31 12:18	8°846'52	5°01'54
morning max el	2557 Sep 05 14:56	25°824'51	18°15'20	morning rise	2558 Aug 08 13:42	4°831'43	
asc. node	2557 Sep 06 18:57	26°836'52		direct	2558 Aug 11 02:16	4°812'28	
	2557 Sep 09 12:37	0°8		morning max el	2558 Aug 19 18:22	8°817'45	18°57'03
morning set	2557 Sep 21 11:40	20°836'40		asc. node	2558 Aug 24 15:59	14°806'42	
	2557 Sep 26 10:49	0°8			2558 Sep 02 21:39	0°8	
				morning set	2558 Sep 05 08:39	4°847'41	
superior conj	2557 Sep 30 21:40	8°813'49	1°25'26				
minimum elong	2557 Oct 01 01:28	8°831'03	1°25'03	superior conj	2558 Sep 13 19:44	21°821'46	1°40'04
max. Earth dist.	2557 Oct 08 11:52	21°835'48	1.40971 AU	minimum elong	2558 Sep 13 21:48	21°831'39	1°39'56
evening rise	2557 Oct 13 08:44	29°842'55			2558 Sep 18 10:19	0°8	
	2557 Oct 13 12:55	0°8		max. Earth dist.	2558 Sep 20 16:08	4°803'43	1.38917 AU
desc. node	2557 Oct 14 17:26	1°855'45		evening rise	2558 Sep 24 14:20	10°856'57	
	2557 Nov 02 09:54	0°8		desc. node	2558 Oct 01 14:25	22°833'51	
greatest brilliancy	2557 Nov 10 01:43	10°87'01	-0.2m		2558 Oct 06 08:36	0°8	
evening max el	2557 Nov 16 11:07	17°822'37	23°10'24		2558 Oct 29 00:04	0°8	
retrograde	2557 Nov 26 18:35	23°829'23		evening max el	2558 Oct 30 00:01	1°800'32	24°29'48
evening set	2557 Dec 01 14:42	21°830'57		retrograde	2558 Nov 10 09:11	7°839'28	
asc. node	2557 Dec 03 18:12	19°821'57		evening set	2558 Nov 15 19:12	5°824'32	
min. Earth dist.	2557 Dec 06 16:06	15°835'33	0.67858 AU	min. Earth dist.	2558 Nov 20 11:58	0°802'56	0.67572 AU
inferior conj	2557 Dec 07 00:48	15°805'36	1°06'08	asc. node	2558 Nov 20 15:14	29°852'02	
minimum elong	2557 Dec 06 23:20	15°810'40	1°05'33		2558 Nov 20 12:51	30°88	
morning rise	2557 Dec 12 07:59	8°854'56		inferior conj	2558 Nov 21 07:13	28°858'33	0°13'43
direct	2557 Dec 16 14:02	7°814'53		minimum elong	2558 Nov 21 06:53	28°859'41	0°13'35
morning max el	2557 Dec 25 06:35	12°819'03	21°23'34	transit middle	2558 Nov 21 06:53	28°859'41	0°13'35
greatest brilliancy	2557 Dec 30 09:07	18°808'34	-0.4m	transit begin	2558 Nov 21 05:23	29°804'42	
	2558 Jan 08 03:23	0°8		transit end	2558 Nov 21 08:23	28°854'39	
desc. node	2558 Jan 10 16:42	3°841'17		morning rise	2558 Nov 26 18:56	22°853'39	
morning set	2558 Jan 25 12:35	26°813'37		direct	2558 Nov 30 11:48	21°835'02	
	2558 Jan 27 21:33	0°8		morning max el	2558 Dec 08 04:45	25°859'26	20°09'55
max. Earth dist.	2558 Feb 01 15:13	7°841'05	1.42113 AU		2558 Dec 11 18:19	0°8	
				greatest brilliancy	2558 Dec 15 00:13	4°811'15	-0.6m
superior conj	2558 Feb 09 01:36	20°812'32	-2°-5'-35	desc. node	2558 Dec 28 13:42	23°855'06	
minimum elong	2558 Feb 09 02:15	20°815'22	2°05'36		2559 Jan 01 13:28	0°8	
	2558 Feb 14 15:20	0°8		morning set	2559 Jan 04 09:27	4°821'37	
evening rise	2558 Feb 20 06:30	10°810'22		max. Earth dist.	2559 Jan 14 23:51	21°801'05	1.43776 AU
asc. node	2558 Mar 01 17:31	26°849'14					
	2558 Mar 03 18:38	0°8		superior conj	2559 Jan 20 16:48	0°816'00	-1°-59'-27
evening max el	2558 Mar 08 18:42	6°816'54	18°08'52	minimum elong	2559 Jan 20 12:01	29°856'23	1°59'14
retrograde	2558 Mar 15 12:35	9°842'24			2559 Jan 20 12:54	0°8	
evening set	2558 Mar 18 02:36	9°812'38		evening rise	2559 Feb 02 14:27	22°804'38	
inferior conj	2558 Mar 24 20:52	4°818'10	3°21'50		2559 Feb 07 04:24	0°8	
minimum elong	2558 Mar 24 23:24	4°812'13	3°21'29	asc. node	2559 Feb 16 14:33	15°804'18	
min. Earth dist.	2558 Mar 28 03:13	1°815'51	0.60667 AU	evening max el	2559 Feb 20 07:11	19°829'55	18°10'23
	2558 Mar 29 14:53	30°88		retrograde	2559 Feb 26 18:02	22°854'06	
morning rise	2558 Mar 31 16:58	28°828'44		evening set	2559 Mar 01 13:22	22°813'59	
direct	2558 Apr 07 09:47	26°817'37		inferior conj	2559 Mar 07 19:21	16°858'50	3°40'12
desc. node	2558 Apr 08 15:52	26°822'01		minimum elong	2559 Mar 07 19:58	16°857'13	3°40'11
	2558 Apr 16 20:00	0°8		min. Earth dist.	2559 Mar 10 13:13	14°804'24	0.62758 AU
morning max el	2558 Apr 21 16:03	4°811'04	27°40'58	morning rise	2559 Mar 14 00:24	10°856'35	
	2558 May 10 18:20	0°8		direct	2559 Mar 20 22:39	8°819'26	

desc. node	2559 Mar 26 12:54	9° ✕ 48'02		direct	2560 Mar 02 19:01	21° ≈ 04'09	
morning max el	2559 Apr 03 22:02	16° ✕ 15'49	27°48'41	desc. node	2560 Mar 12 09:56	25° ≈ 23'02	
	2559 Apr 15 05:37	0° Υ		morning max el	2560 Mar 16 07:18	28° ≈ 55'15	27°20'49
	2559 May 03 10:23	0° ♄			2560 Mar 17 08:32	0° ✕	
morning set	2559 May 07 22:04	8° ♄ 46'53			2560 Apr 08 01:47	0° Υ	
max. Earth dist.	2559 May 13 10:06	20° ♄ 14'01	1.32681 AU	morning set	2560 Apr 20 14:16	22° Υ 33'25	
					2560 Apr 24 07:42	0° ♄	
superior conj	2559 May 15 13:17	24° ♄ 49'30	0°00'-13	max. Earth dist.	2560 Apr 25 09:25	2° ♄ 11'51	1.33582 AU
minimum elong	2559 May 15 13:18	24° ♄ 49'31	0°00'14				
behind sun begin	2559 May 15 08:06	24° ♄ 21'24		superior conj	2560 Apr 28 17:56	9° ♄ 12'47	0°-28'-4
behind sun end	2559 May 15 18:29	25° ♄ 17'40		minimum elong	2560 Apr 28 19:21	9° ♄ 20'18	0°27'47
asc. node	2559 May 15 13:50	24° ♄ 52'28		asc. node	2560 May 01 10:53	14° ♄ 58'32	
	2559 May 17 22:28	0° ♄		evening rise	2560 May 06 00:52	24° ♄ 43'28	
evening rise	2559 May 22 13:40	9° ♄ 59'21			2560 May 08 14:03	0° ♄	
	2559 Jun 01 21:29	0° ♄		evening max el	2560 May 27 03:22	28° ♄ 49'41	22°10'47
evening max el	2559 Jun 15 11:38	18° ♄ 20'48	23°46'50		2560 May 28 09:42	0° ♄	
desc. node	2559 Jun 22 12:07	23° ♄ 32'10		desc. node	2560 Jun 08 09:10	5° ♄ 09'55	
retrograde	2559 Jun 29 04:39	25° ♄ 13'33		retrograde	2560 Jun 08 23:27	5° ♄ 10'44	
evening set	2559 Jul 03 10:50	24° ♄ 33'43		evening set	2560 Jun 11 20:36	4° ♄ 52'20	
min. Earth dist.	2559 Jul 09 22:04	21° ♄ 29'32	0.56122 AU	min. Earth dist.	2560 Jun 20 09:11	1° ♄ 12'30	0.55079 AU
inferior conj	2559 Jul 12 04:37	20° ♄ 07'00	-4°-39'-40	inferior conj	2560 Jun 21 04:05	0° ♄ 45'54	-3°-28'-53
minimum elong	2559 Jul 11 23:03	20° ♄ 15'28	4°38'53	minimum elong	2560 Jun 20 20:01	0° ♄ 57'16	3°26'39
morning rise	2559 Jul 20 14:38	16° ♄ 10'02			2560 Jun 22 12:58	30° ♄	
direct	2559 Jul 23 08:48	15° ♄ 50'45		morning rise	2560 Jun 29 21:23	26° ♄ 54'34	
morning max el	2559 Aug 02 11:27	20° ♄ 32'07	20°00'20	direct	2560 Jul 02 23:09	26° ♄ 33'27	
	2559 Aug 10 00:49	0° ♄			2560 Jul 12 06:22	0° ♄	
asc. node	2559 Aug 11 13:02	2° ♄ 25'29		morning max el	2560 Jul 14 16:59	2° ♄ 02'11	21°23'53
morning set	2559 Aug 20 12:39	19° ♄ 19'58		asc. node	2560 Jul 28 10:06	21° ♄ 20'58	
	2559 Aug 25 18:06	0° ♄			2560 Aug 01 21:11	0° ♄	
				morning set	2560 Aug 03 21:08	4° ♄ 05'39	
superior conj	2559 Aug 28 08:01	5° ♄ 12'36	1°45'16				
minimum elong	2559 Aug 28 08:18	5° ♄ 13'58	1°45'16	superior conj	2560 Aug 11 06:14	19° ♄ 33'04	1°42'47
max. Earth dist.	2559 Sep 02 21:24	16° ♄ 03'16	1.36919 AU	minimum elong	2560 Aug 11 05:06	19° ♄ 27'11	1°42'45
evening rise	2559 Sep 06 18:29	23° ♄ 14'35		max. Earth dist.	2560 Aug 15 08:37	27° ♄ 55'23	1.35176 AU
	2559 Sep 10 14:04	0° ♄			2560 Aug 16 09:40	0° ♄	
desc. node	2559 Sep 18 11:26	13° ♄ 01'10		evening rise	2560 Aug 19 16:49	6° ♄ 23'53	
	2559 Sep 30 02:16	0° ♄			2560 Sep 02 07:12	0° ♄	
evening max el	2559 Oct 12 12:13	14° ♄ 41'46	25°42'18	desc. node	2560 Sep 04 08:29	3° ♄ 11'11	
retrograde	2559 Oct 24 19:08	21° ♄ 43'19		evening max el	2560 Sep 24 00:29	28° ♄ 19'36	26°40'31
evening set	2559 Oct 30 19:32	19° ♄ 13'41			2560 Sep 25 20:05	0° ♄	
min. Earth dist.	2559 Nov 04 04:31	14° ♄ 27'39	0.66953 AU	retrograde	2560 Oct 06 23:56	5° ♄ 34'00	
inferior conj	2559 Nov 05 10:43	12° ♄ 51'35	0°-42'-33	evening set	2560 Oct 13 13:44	2° ♄ 54'10	
minimum elong	2559 Nov 05 11:50	12° ♄ 48'04	0°42'06		2560 Oct 16 13:03	30° ♄	
asc. node	2559 Nov 07 12:16	10° ♄ 19'01		min. Earth dist.	2560 Oct 17 15:22	28° ♄ 44'56	0.65980 AU
morning rise	2559 Nov 11 04:56	6° ♄ 55'14		inferior conj	2560 Oct 19 09:19	26° ♄ 40'23	-1°-41'-18
direct	2559 Nov 14 10:28	5° ♄ 55'07		minimum elong	2560 Oct 19 12:03	26° ♄ 32'15	1°40'13
morning max el	2559 Nov 21 10:42	9° ♄ 50'19	19°10'28	asc. node	2560 Oct 24 09:18	21° ♄ 36'38	
	2559 Dec 06 03:45	0° ♄		morning rise	2560 Oct 25 11:46	20° ♄ 55'34	
morning set	2559 Dec 14 12:29	12° ♄ 57'05		direct	2560 Oct 28 08:06	20° ♄ 10'19	
desc. node	2559 Dec 15 10:44	14° ♄ 23'39		morning max el	2560 Nov 03 22:48	23° ♄ 46'59	18°26'58
	2559 Dec 25 10:30	0° ♄			2560 Nov 09 00:49	0° ♄	
max. Earth dist.	2559 Dec 28 15:14	5° ♄ 01'42	1.44841 AU	morning set	2560 Nov 23 17:02	22° ♄ 52'01	
					2560 Nov 28 03:52	0° ♄	
superior conj	2559 Dec 31 07:08	9° ♄ 14'13	-1°-34'-16	desc. node	2560 Dec 01 07:47	5° ♄ 02'09	
minimum elong	2559 Dec 30 22:17	8° ♄ 39'08	1°33'27				
	2560 Jan 13 04:21	0° ♄		superior conj	2560 Dec 09 08:51	17° ♄ 43'57	0°-52'-23
evening rise	2560 Jan 15 01:00	3° ♄ 03'21		minimum elong	2560 Dec 09 02:14	17° ♄ 17'57	0°51'34
	2560 Feb 01 06:53	0° ♄		max. Earth dist.	2560 Dec 10 10:04	19° ♄ 22'55	1.45183 AU
asc. node	2560 Feb 03 11:35	2° ♄ 32'50			2560 Dec 17 04:30	0° ♄	
evening max el	2560 Feb 03 19:22	2° ♄ 52'55	18°30'32	evening rise	2560 Dec 25 12:16	13° ♄ 05'51	
retrograde	2560 Feb 10 08:26	6° ♄ 28'41			2561 Jan 05 06:22	0° ♄	
evening set	2560 Feb 13 09:15	5° ♄ 37'21		greatest brilliancy	2561 Jan 06 20:32	2° ♄ 26'23	-0.7m
inferior conj	2560 Feb 19 06:25	0° ♄ 03'06	3°38'34	evening max el	2561 Jan 17 04:51	16° ♄ 21'06	19°08'15
minimum elong	2560 Feb 19 05:23	0° ♄ 06'09	3°38'29	asc. node	2561 Jan 20 08:37	19° ♄ 01'52	
	2560 Feb 19 07:28	30° ♄		retrograde	2561 Jan 24 04:00	20° ♄ 19'12	
min. Earth dist.	2560 Feb 21 08:50	27° ♄ 34'49	0.64563 AU	evening set	2561 Jan 27 11:16	19° ♄ 15'39	
morning rise	2560 Feb 25 00:08	23° ♄ 53'28		inferior conj	2561 Feb 02 02:28	13° ♄ 24'45	3°22'07

minimum elong	2561 Feb 02 00:23	13° \approx 31'25	3°21'45		2562 Jan 14 20:10	30° \mathbb{R} 3	
min. Earth dist.	2561 Feb 03 13:37	11° \approx 32'56	0.65982 AU	inferior conj	2562 Jan 17 04:34	26° \mathbb{Z} 58'13	2°54'22
morning rise	2561 Feb 07 12:35	7° \approx 11'00		minimum elong	2562 Jan 17 02:00	27° \mathbb{Z} 06'47	2°53'43
direct	2561 Feb 13 21:56	4° \approx 23'11		min. Earth dist.	2562 Jan 18 01:47	25° \mathbb{Z} 47'04	0.67000 AU
morning max el	2561 Feb 26 17:17	11° \approx 57'42	26°23'40	morning rise	2562 Jan 22 10:24	20° \mathbb{Z} 42'49	
desc. node	2561 Feb 27 07:00	12° \approx 32'42		direct	2562 Jan 28 06:39	18° \mathbb{Z} 07'17	
	2561 Mar 13 04:17	0° \mathbb{H}		morning max el	2562 Feb 09 02:06	25° \mathbb{Z} 10'24	25°06'10
	2561 Mar 31 16:30	0° \mathbb{Y}		desc. node	2562 Feb 13 11:27	0° \approx	
morning set	2561 Apr 03 18:28	5° \mathbb{Y} 40'49			2562 Feb 14 04:02	0° \approx 49'18	
max. Earth dist.	2561 Apr 07 21:41	13° \mathbb{Y} 37'20	1.34937 AU		2562 Mar 06 16:14	0° \mathbb{H}	
				morning set	2562 Mar 17 05:37	17° \mathbb{H} 53'51	
superior conj	2561 Apr 12 16:03	23° \mathbb{Y} 12'15	0°-56'-20	max. Earth dist.	2562 Mar 20 22:26	24° \mathbb{H} 38'57	1.36725 AU
minimum elong	2561 Apr 12 18:57	23° \mathbb{Y} 27'05	0°55'48		2562 Mar 23 18:31	0° \mathbb{Y}	
	2561 Apr 15 22:50	0° \mathbb{B}					
asc. node	2561 Apr 18 07:56	4° \mathbb{B} 57'50		superior conj	2562 Mar 27 04:40	6° \mathbb{Y} 38'48	-1°-23'-16
evening rise	2561 Apr 20 09:27	9° \mathbb{B} 14'46		minimum elong	2562 Mar 27 08:44	6° \mathbb{Y} 58'55	1°22'41
	2561 May 01 13:02	0° \mathbb{II}		evening rise	2562 Apr 04 13:07	23° \mathbb{Y} 25'31	
evening max el	2561 May 09 04:15	9° \mathbb{II} 43'11	20°44'28	asc. node	2562 Apr 05 04:58	24° \mathbb{Y} 45'06	
retrograde	2561 May 20 12:40	15° \mathbb{II} 14'58			2562 Apr 07 20:42	0° \mathbb{B}	
evening set	2561 May 22 15:26	15° \mathbb{II} 04'11		evening max el	2562 Apr 21 17:05	21° \mathbb{B} 15'44	19°35'20
desc. node	2561 May 26 06:12	14° \mathbb{II} 00'44		retrograde	2562 May 01 07:45	25° \mathbb{B} 54'42	
inferior conj	2561 May 31 21:48	11° \mathbb{II} 06'37	-1°-38'-47	evening set	2562 May 03 08:03	25° \mathbb{B} 43'22	
minimum elong	2561 May 31 17:08	11° \mathbb{II} 13'17	1°37'07	inferior conj	2562 May 12 00:11	21° \mathbb{B} 39'24	0°19'36
min. Earth dist.	2561 Jun 01 21:30	10° \mathbb{II} 32'42	0.54946 AU	minimum elong	2562 May 12 01:02	21° \mathbb{B} 38'03	0°19'17
morning rise	2561 Jun 09 17:50	7° \mathbb{II} 00'41		desc. node	2562 May 13 03:14	20° \mathbb{B} 56'21	
direct	2561 Jun 13 08:37	6° \mathbb{II} 32'32		min. Earth dist.	2562 May 14 11:46	20° \mathbb{B} 05'13	0.55771 AU
morning max el	2561 Jun 26 12:46	12° \mathbb{II} 52'48	23°02'05	morning rise	2562 May 20 14:22	17° \mathbb{B} 02'38	
	2561 Jul 09 11:00	0° \mathbb{S}		direct	2562 May 25 02:41	16° \mathbb{B} 16'53	
asc. node	2561 Jul 15 07:10	10° \mathbb{S} 44'07		morning max el	2562 Jun 08 03:21	23° \mathbb{B} 20'12	24°44'05
morning set	2561 Jul 19 08:09	18° \mathbb{S} 59'04			2562 Jun 14 03:04	0° \mathbb{II}	
	2561 Jul 24 11:54	0° \mathbb{Q}			2562 Jul 01 22:58	0° \mathbb{S}	
				asc. node	2562 Jul 02 04:14	0° \mathbb{S} 27'04	
superior conj	2561 Jul 26 11:11	4° \mathbb{Q} 13'29	1°34'02	morning set	2562 Jul 03 19:59	3° \mathbb{S} 54'42	
minimum elong	2561 Jul 26 09:10	4° \mathbb{Q} 02'42	1°33'51				
max. Earth dist.	2561 Jul 29 04:42	10° \mathbb{Q} 00'22	1.33813 AU	superior conj	2562 Jul 10 20:20	19° \mathbb{S} 05'35	1°20'06
evening rise	2561 Aug 03 04:52	20° \mathbb{Q} 13'11		minimum elong	2562 Jul 10 17:57	18° \mathbb{S} 52'38	1°19'46
	2561 Aug 08 07:50	0° \mathbb{P}		max. Earth dist.	2562 Jul 12 09:11	22° \mathbb{S} 25'37	1.32857 AU
desc. node	2561 Aug 22 05:30	22° \mathbb{P} 56'06			2562 Jul 15 22:23	0° \mathbb{Q}	
	2561 Aug 27 07:16	0° \mathbb{A}		evening rise	2562 Jul 18 02:49	4° \mathbb{Q} 31'23	
evening max el	2561 Sep 06 12:26	11° \mathbb{A} 44'49	27°17'02		2562 Aug 01 00:20	0° \mathbb{P}	
retrograde	2561 Sep 19 23:11	19° \mathbb{A} 03'31		desc. node	2562 Aug 09 02:32	12° \mathbb{P} 05'35	
evening set	2561 Sep 26 23:15	16° \mathbb{A} 21'22		evening max el	2562 Aug 19 22:30	24° \mathbb{P} 45'58	27°25'23
min. Earth dist.	2561 Sep 30 18:20	12° \mathbb{A} 48'08	0.64649 AU		2562 Aug 26 18:24	0° \mathbb{A}	
inferior conj	2561 Oct 03 00:44	10° \mathbb{A} 20'21	-2°-40'-28	retrograde	2562 Sep 02 16:11	2° \mathbb{A} 02'57	
minimum elong	2561 Oct 03 05:03	10° \mathbb{A} 08'35	2°38'56		2562 Sep 09 02:50	30° \mathbb{R} \mathbb{P}	
morning rise	2561 Oct 09 12:50	4° \mathbb{A} 50'05		evening set	2562 Sep 09 20:54	29° \mathbb{P} 29'46	
asc. node	2561 Oct 11 06:22	4° \mathbb{A} 19'30		min. Earth dist.	2562 Sep 13 11:41	26° \mathbb{P} 27'56	0.62980 AU
direct	2561 Oct 12 02:23	4° \mathbb{A} 15'51		inferior conj	2562 Sep 16 06:15	23° \mathbb{P} 45'33	-3°-36'-48
morning max el	2561 Oct 18 14:25	7° \mathbb{A} 43'16	18°00'15	minimum elong	2562 Sep 16 11:39	23° \mathbb{P} 32'21	3°35'14
	2561 Nov 02 14:34	0° \mathbb{M}		morning rise	2562 Sep 23 04:58	18° \mathbb{P} 33'05	
morning set	2561 Nov 05 02:30	4° \mathbb{M} 11'56		direct	2562 Sep 25 14:30	18° \mathbb{P} 06'17	
desc. node	2561 Nov 18 04:48	25° \mathbb{M} 46'41		asc. node	2562 Sep 28 03:25	18° \mathbb{P} 37'04	
				morning max el	2562 Oct 02 06:38	21° \mathbb{P} 32'32	17°51'10
superior conj	2561 Nov 18 19:06	26° \mathbb{M} 44'06	0°-4'-3		2562 Oct 08 17:18	0° \mathbb{A}	
minimum elong	2561 Nov 18 18:37	26° \mathbb{M} 42'08	0°03'59	morning set	2562 Oct 18 11:58	16° \mathbb{A} 41'14	
behind sun begin	2561 Nov 18 08:24	26° \mathbb{M} 01'07			2562 Oct 26 03:05	0° \mathbb{M}	
behind sun end	2561 Nov 19 04:49	27° \mathbb{M} 23'05					
	2561 Nov 20 20:07	0° \mathbb{J}		superior conj	2562 Oct 30 05:15	6° \mathbb{M} 55'52	0°39'26
max. Earth dist.	2561 Nov 23 04:48	3° \mathbb{J} 44'48	1.44785 AU	minimum elong	2562 Oct 30 08:55	7° \mathbb{M} 11'11	0°38'56
evening rise	2561 Dec 05 03:57	22° \mathbb{J} 23'47		desc. node	2562 Nov 05 01:49	16° \mathbb{M} 34'09	
	2561 Dec 10 02:44	0° \mathbb{Z}		max. Earth dist.	2562 Nov 05 20:55	17° \mathbb{M} 51'15	1.43706 AU
greatest brilliancy	2561 Dec 24 12:58	21° \mathbb{Z} 22'39	-0.6m		2562 Nov 13 13:19	0° \mathbb{J}	
evening max el	2561 Dec 31 09:50	29° \mathbb{Z} 51'09	20°01'51	evening rise	2562 Nov 14 12:38	1° \mathbb{J} 30'20	
	2561 Dec 31 13:17	0° \approx			2562 Dec 03 17:26	0° \mathbb{Z}	
asc. node	2562 Jan 07 05:39	4° \approx 16'13		greatest brilliancy	2562 Dec 09 03:56	7° \mathbb{Z} 17'58	-0.4m
retrograde	2562 Jan 08 01:47	4° \approx 20'07		evening max el	2562 Dec 14 09:24	13° \mathbb{Z} 22'48	21°08'35
evening set	2562 Jan 11 17:01	3° \approx 03'00		retrograde	2562 Dec 22 23:28	18° \mathbb{Z} 28'18	

asc. node	2562 Dec 25 02:40	18°☾03'07		retrograde	2563 Dec 06 19:22	2°☾39'58	
evening set	2562 Dec 27 00:33	16°☾56'03		evening set	2563 Dec 11 08:09	0°☾51'11	
inferior conj	2563 Jan 01 10:20	10°☾40'34	2°17'48	asc. node	2563 Dec 11 23:42	0°☾17'25	
minimum elong	2563 Jan 01 07:51	10°☾49'09	2°16'59		2563 Dec 12 07:02	30°☾☿	
min. Earth dist.	2563 Jan 01 19:07	10°☾10'19	0.67625 AU	inferior conj	2563 Dec 16 17:45	24°☾28'25	1°34'03
morning rise	2563 Jan 06 14:46	4°☾25'31		minimum elong	2563 Dec 16 15:47	24°☾35'14	1°33'18
direct	2563 Jan 11 20:13	2°☾09'29		min. Earth dist.	2563 Dec 16 15:12	24°☾37'17	0.67878 AU
morning max el	2563 Jan 22 10:35	8°☾28'16	23°38'41	morning rise	2563 Dec 21 23:17	18°☾15'47	
desc. node	2563 Feb 01 01:04	19°☾53'53		direct	2563 Dec 26 13:42	16°☾22'29	
	2563 Feb 08 07:39	0°☾		morning max el	2564 Jan 04 22:01	21°☾52'30	22°11'01
morning set	2563 Feb 26 17:40	28°☾56'24		greatest brilliancy	2564 Jan 09 12:34	27°☾02'09	-0.3m
	2563 Feb 27 08:36	0°☾			2564 Jan 11 21:24	0°☾	
max. Earth dist.	2563 Mar 02 17:20	5°☾50'09	1.38823 AU	desc. node	2564 Jan 18 22:05	9°☾32'22	
					2564 Feb 01 15:21	0°☾	
superior conj	2563 Mar 10 04:04	19°☾23'28	-1°-46'-19	morning set	2564 Feb 07 01:18	8°☾35'56	
minimum elong	2563 Mar 10 08:25	19°☾43'56	1°45'55	max. Earth dist.	2564 Feb 12 14:48	17°☾46'08	1.40973 AU
	2563 Mar 15 17:08	0°☾			2564 Feb 19 16:48	0°☾	
evening rise	2563 Mar 19 09:15	7°☾09'02					
asc. node	2563 Mar 23 02:00	14°☾15'31		superior conj	2564 Feb 20 09:31	1°☾14'15	-2°-1'-52
	2563 Apr 01 15:32	0°☾		minimum elong	2564 Feb 20 12:18	1°☾26'37	2°01'46
evening max el	2563 Apr 04 16:33	3°☾26'57	18°45'56	evening rise	2564 Mar 01 18:35	20°☾17'22	
retrograde	2563 Apr 12 19:19	7°☾24'26			2564 Mar 07 01:00	0°☾	
evening set	2563 Apr 15 00:28	7°☾07'52		asc. node	2564 Mar 08 23:01	3°☾23'09	
inferior conj	2563 Apr 22 21:24	2°☾46'30	1°56'11	evening max el	2564 Mar 17 23:36	16°☾09'15	18°16'40
minimum elong	2563 Apr 23 01:07	2°☾39'37	1°55'04	retrograde	2564 Mar 25 02:06	19°☾41'58	
min. Earth dist.	2563 Apr 26 04:31	0°☾21'43	0.57375 AU	evening set	2564 Mar 27 13:02	19°☾17'27	
	2563 Apr 26 17:04	30°☾☿		inferior conj	2564 Apr 03 15:59	14°☾34'51	2°59'36
desc. node	2563 Apr 30 00:16	28°☾00'49		minimum elong	2564 Apr 03 19:27	14°☾27'21	2°58'54
morning rise	2563 Apr 30 21:24	27°☾35'44		min. Earth dist.	2564 Apr 07 02:00	11°☾39'20	0.59422 AU
direct	2563 May 06 10:33	26°☾20'28		morning rise	2564 Apr 10 22:07	8°☾56'42	
	2563 May 16 05:06	0°☾		desc. node	2564 Apr 15 21:17	7°☾11'09	
morning max el	2563 May 20 18:45	3°☾51'31	26°14'50	direct	2564 Apr 17 07:16	7°☾05'42	
	2563 Jun 08 15:22	0°☾		morning max el	2564 May 01 15:38	14°☾52'52	27°19'36
morning set	2563 Jun 18 07:01	18°☾47'12			2564 May 13 20:24	0°☾	
asc. node	2563 Jun 19 01:15	20°☾23'43			2564 May 30 22:38	0°☾	
	2563 Jun 23 11:34	0°☾		morning set	2564 Jun 01 15:38	3°☾31'16	
				asc. node	2564 Jun 04 22:18	10°☾29'07	
superior conj	2563 Jun 25 07:39	4°☾02'24	1°01'50				
minimum elong	2563 Jun 25 05:24	3°☾50'04	1°01'26	superior conj	2564 Jun 08 19:24	18°☾58'06	0°39'58
max. Earth dist.	2563 Jun 25 19:24	5°☾07'01	1.32304 AU	minimum elong	2564 Jun 08 17:44	18°☾48'56	0°39'37
evening rise	2563 Jul 02 07:36	19°☾08'46		max. Earth dist.	2564 Jun 08 07:41	17°☾53'36	1.32138 AU
	2563 Jul 07 17:27	0°☾			2564 Jun 13 20:19	0°☾	
desc. node	2563 Jul 26 23:33	0°☾24'33		evening rise	2564 Jun 15 16:44	3°☾57'22	
	2563 Jul 26 15:34	0°☾			2564 Jun 29 14:12	0°☾	
evening max el	2563 Aug 02 04:07	7°☾09'42	27°01'04	desc. node	2564 Jul 12 20:33	17°☾32'18	
retrograde	2563 Aug 16 01:43	14°☾22'43		evening max el	2564 Jul 14 02:47	18°☾46'45	26°04'04
evening set	2563 Aug 23 02:24	12°☾11'24		retrograde	2564 Jul 28 02:26	25°☾56'26	
min. Earth dist.	2563 Aug 26 18:23	9°☾30'51	0.61043 AU	evening set	2564 Aug 03 11:03	24°☾18'38	
inferior conj	2563 Aug 29 22:35	6°☾47'16	-4°-24'-59	min. Earth dist.	2564 Aug 07 15:20	21°☾43'04	0.58983 AU
minimum elong	2563 Aug 30 03:47	6°☾36'04	4°23'58	inferior conj	2564 Aug 10 22:12	19°☾16'05	-4°-56'-19
morning rise	2563 Sep 06 08:11	1°☾55'50		minimum elong	2564 Aug 11 00:52	19°☾11'03	4°56'08
direct	2563 Sep 08 16:43	1°☾33'30		morning rise	2564 Aug 18 18:10	14°☾48'04	
asc. node	2563 Sep 15 00:27	4°☾20'51		direct	2564 Aug 21 04:41	14°☾28'05	
morning max el	2563 Sep 15 20:21	5°☾06'43	18°00'49	morning max el	2564 Aug 29 04:28	18°☾17'50	18°30'29
morning set	2563 Oct 01 15:02	0°☾00'41		asc. node	2564 Aug 31 21:30	21°☾16'42	
	2563 Oct 01 14:54	0°☾			2564 Sep 06 17:38	0°☾	
				morning set	2564 Sep 14 06:38	13°☾56'19	
superior conj	2563 Oct 11 18:11	18°☾25'52	1°12'03		2564 Sep 22 16:16	0°☾	
minimum elong	2563 Oct 11 22:34	18°☾45'11	1°11'32				
	2563 Oct 18 11:45	0°☾		superior conj	2564 Sep 23 05:50	1°☾03'12	1°32'54
max. Earth dist.	2563 Oct 19 08:37	1°☾27'04	1.42079 AU	minimum elong	2564 Sep 23 08:57	1°☾17'40	1°32'39
desc. node	2563 Oct 22 22:50	7°☾20'45		max. Earth dist.	2564 Sep 30 15:09	14°☾20'42	1.40109 AU
evening rise	2563 Oct 25 07:04	11°☾06'34		evening rise	2564 Oct 04 22:48	21°☾41'51	
	2563 Nov 06 15:16	0°☾		desc. node	2564 Oct 08 19:51	28°☾03'12	
greatest brilliancy	2563 Nov 22 09:37	21°☾35'30	-0.3m		2564 Oct 10 01:01	0°☾	
evening max el	2563 Nov 27 03:37	26°☾55'34	22°24'34		2564 Oct 30 17:05	0°☾	
	2563 Nov 30 13:35	0°☾		evening max el	2564 Nov 08 17:44	10°☾30'47	23°44'29

retrograde	2564 Nov 19 12:13	16°♂51'57		evening rise	2565 Sep 16 14:22	3°♂23'39	
evening set	2564 Nov 24 14:16	14°♂46'07		desc. node	2565 Sep 25 16:53	18°♂37'22	
asc. node	2564 Nov 27 20:44	11°♂14'33			2565 Oct 03 03:37	0°♂	
min. Earth dist.	2564 Nov 29 11:46	9°♂05'11	0.67780 AU	evening max el	2565 Oct 22 05:56	24°♂09'42	25°01'54
inferior conj	2564 Nov 30 01:01	8°♂20'00	0°44'27		2565 Oct 29 23:12	0°♂	
minimum elong	2564 Nov 29 23:59	8°♂23'32	0°44'02	retrograde	2565 Nov 03 01:05	1°♂00'15	
morning rise	2564 Dec 05 09:54	2°♂11'46			2565 Nov 06 18:46	30°♂	
direct	2564 Dec 09 10:08	0°♂41'15		evening set	2565 Nov 08 17:15	28°♂38'27	
morning max el	2564 Dec 17 15:51	5°♂26'59	20°50'44	min. Earth dist.	2565 Nov 13 06:30	23°♂31'53	0.67344 AU
greatest brilliancy	2564 Dec 23 08:26	12°♂04'02	-0.5m	inferior conj	2565 Nov 14 06:26	22°♂13'20	0°-9'-45
desc. node	2565 Jan 04 19:06	29°♂35'19		minimum elong	2565 Nov 14 06:41	22°♂12'32	0°09'40
	2565 Jan 05 01:45	0°♂		transit middle	2565 Nov 14 06:41	22°♂12'32	0°09'40
morning set	2565 Jan 16 06:29	17°♂03'33		transit begin	2565 Nov 14 04:27	22°♂19'51	
	2565 Jan 24 09:57	0°♂		transit end	2565 Nov 14 08:54	22°♂05'14	
max. Earth dist.	2565 Jan 24 19:13	0°♂37'37	1.42880 AU	asc. node	2565 Nov 14 17:47	21°♂36'11	
				morning rise	2565 Nov 19 20:42	16°♂11'52	
superior conj	2565 Jan 31 15:45	11°♂58'37	-2°-5'-9	direct	2565 Nov 23 08:23	15°♂01'45	
minimum elong	2565 Jan 31 14:17	11°♂52'23	2°05'08	morning max el	2565 Nov 30 17:32	19°♂12'43	19°42'48
	2565 Feb 11 00:48	0°♂		greatest brilliancy	2565 Dec 08 15:36	29°♂02'18	-0.6m
evening rise	2565 Feb 12 13:06	2°♂41'25			2565 Dec 09 08:00	0°♂	
asc. node	2565 Feb 23 20:03	22°♂00'10		desc. node	2565 Dec 22 16:07	19°♂56'05	
evening max el	2565 Mar 01 10:55	29°♂13'10	18°07'09	morning set	2565 Dec 26 02:45	25°♂14'14	
	2565 Mar 02 06:55	0°♂			2565 Dec 29 04:32	0°♂	
retrograde	2565 Mar 08 00:43	2°♂36'49		max. Earth dist.	2566 Jan 07 06:43	14°♂16'02	1.44300 AU
evening set	2565 Mar 10 16:56	2°♂02'49					
	2565 Mar 13 23:10	30°♂		superior conj	2566 Jan 11 19:45	21°♂32'10	-1°-51'-9
inferior conj	2565 Mar 17 05:30	26°♂59'10	3°32'30	minimum elong	2566 Jan 11 12:42	21°♂03'49	1°50'41
minimum elong	2565 Mar 17 07:13	26°♂54'53	3°32'20		2566 Jan 17 00:25	0°♂	
min. Earth dist.	2565 Mar 20 07:03	23°♂57'34	0.61573 AU	evening rise	2566 Jan 25 12:26	14°♂13'02	
morning rise	2565 Mar 23 18:44	21°♂03'09			2566 Feb 03 22:12	0°♂	
direct	2565 Mar 30 14:50	18°♂39'44		asc. node	2566 Feb 10 17:06	9°♂57'21	
desc. node	2565 Apr 02 18:19	19°♂07'40		evening max el	2566 Feb 12 23:35	12°♂31'23	18°16'46
morning max el	2565 Apr 13 18:57	26°♂35'31	27°48'57	retrograde	2566 Feb 19 10:32	15°♂59'23	
	2565 Apr 16 23:53	0°♂		evening set	2566 Feb 22 08:01	15°♂14'47	
	2565 May 07 10:01	0°♂		inferior conj	2566 Feb 28 09:52	9°♂51'26	3°41'37
morning set	2565 May 16 19:51	17°♂59'18		minimum elong	2566 Feb 28 09:43	9°♂51'51	3°41'36
max. Earth dist.	2565 May 22 17:57	0°♂30'31	1.32363 AU	min. Earth dist.	2566 Mar 02 21:23	7°♂06'01	0.63560 AU
asc. node	2565 May 22 19:20	0°♂38'00		morning rise	2566 Mar 06 09:35	3°♂45'16	
	2565 May 22 12:19	0°♂		direct	2566 Mar 13 07:16	1°♂00'56	
				desc. node	2566 Mar 20 15:20	3°♂33'03	
superior conj	2565 May 24 05:50	3°♂45'51	0°15'08	morning max el	2566 Mar 27 02:50	8°♂57'17	27°40'54
minimum elong	2565 May 24 05:08	3°♂42'02	0°14'58		2566 Apr 12 11:09	0°♂	
behind sun begin	2565 May 24 03:26	3°♂32'43			2566 Apr 29 16:14	0°♂	
behind sun end	2565 May 24 06:51	3°♂51'22		morning set	2566 Apr 30 17:18	2°♂03'56	
evening rise	2565 May 31 04:08	18°♂48'57		max. Earth dist.	2566 May 05 22:12	12°♂44'57	1.33008 AU
	2565 Jun 05 15:44	0°♂					
evening max el	2565 Jun 25 18:29	29°♂38'41	24°41'07	superior conj	2566 May 08 13:12	18°♂20'11	0°-11'-54
	2565 Jun 26 03:27	0°♂		minimum elong	2566 May 08 13:47	18°♂23'19	0°11'47
desc. node	2565 Jun 29 17:35	2°♂59'09		behind sun begin	2566 May 08 10:10	18°♂03'58	
retrograde	2565 Jul 09 16:47	6°♂41'53		behind sun end	2566 May 08 17:23	18°♂42'42	
evening set	2565 Jul 14 19:45	5°♂42'34		asc. node	2566 May 09 16:23	20°♂46'29	
min. Earth dist.	2565 Jul 20 05:39	2°♂53'05	0.57046 AU		2566 May 13 23:03	0°♂	
inferior conj	2565 Jul 23 02:03	1°♂02'07	-4°-57'-58	evening rise	2566 May 15 15:55	3°♂37'35	
minimum elong	2565 Jul 22 23:40	1°♂06'01	4°57'51		2566 May 30 01:29	0°♂	
	2565 Jul 24 16:47	30°♂		evening max el	2566 Jun 07 08:07	10°♂07'27	23°05'29
morning rise	2565 Jul 31 07:19	26°♂56'08		desc. node	2566 Jun 16 14:37	16°♂10'00	
direct	2565 Aug 02 22:03	26°♂37'05		retrograde	2566 Jun 20 18:43	16°♂49'39	
	2565 Aug 11 02:37	0°♂		evening set	2566 Jun 24 09:22	16°♂21'05	
morning max el	2565 Aug 12 03:52	0°♂55'46	19°21'24	min. Earth dist.	2566 Jul 01 17:27	13°♂03'02	0.55581 AU
asc. node	2565 Aug 18 18:33	9°♂08'54		inferior conj	2566 Jul 03 10:23	12°♂03'26	-4°-15'-39
morning set	2565 Aug 29 06:55	28°♂17'12		minimum elong	2566 Jul 03 03:04	12°♂14'07	4°14'10
	2565 Aug 30 03:30	0°♂		morning rise	2566 Jul 11 23:45	8°♂10'44	
				direct	2566 Jul 14 20:29	7°♂51'10	
superior conj	2565 Sep 06 10:34	14°♂31'23	1°43'18	morning max el	2566 Jul 25 16:09	12°♂52'02	20°33'34
minimum elong	2565 Sep 06 11:51	14°♂37'37	1°43'16	asc. node	2566 Aug 05 15:36	27°♂44'33	
max. Earth dist.	2565 Sep 12 18:54	26°♂33'00	1.38043 AU		2566 Aug 06 22:05	0°♂	
	2565 Sep 14 16:32	0°♂		morning set	2566 Aug 13 13:04	12°♂55'37	

superior conj	2566 Aug 21 03:31	28°♄36'08	1°45'04	superior conj	2567 Aug 05 04:58	13°♄06'32	1°39'46
minimum elong	2566 Aug 21 03:08	28°♄34'12	1°45'03	minimum elong	2567 Aug 05 03:23	12°♄58'14	1°39'40
	2566 Aug 21 20:03	0°♄		max. Earth dist.	2567 Aug 08 16:43	20°♄21'29	1.34552 AU
max. Earth dist.	2566 Aug 26 01:43	8°♄24'33	1.36136 AU	evening rise	2567 Aug 13 07:36	29°♄33'34	
evening rise	2566 Aug 30 02:50	16°♄04'56			2567 Aug 13 13:04	0°♄	
	2566 Sep 07 00:36	0°♄		desc. node	2567 Aug 30 10:58	28°♄58'57	
desc. node	2566 Sep 12 13:56	8°♄58'06			2567 Aug 31 03:18	0°♄	
	2566 Sep 27 15:30	0°♄		evening max el	2567 Sep 17 06:36	21°♄25'26	26°59'12
evening max el	2566 Oct 04 18:04	7°♄50'11	26°09'22	retrograde	2567 Sep 30 11:30	28°♄42'02	
retrograde	2566 Oct 17 09:04	14°♄59'04		evening set	2567 Oct 07 06:04	26°♄00'27	
evening set	2566 Oct 23 15:14	12°♄24'30		min. Earth dist.	2567 Oct 11 04:55	22°♄06'31	0.65457 AU
min. Earth dist.	2566 Oct 27 21:03	7°♄53'48	0.66574 AU	inferior conj	2567 Oct 13 03:59	19°♄51'36	-2°-6'-31
inferior conj	2566 Oct 29 08:07	6°♄05'07	-1°-7'-19	minimum elong	2567 Oct 13 07:25	19°♄41'45	2°05'11
minimum elong	2566 Oct 29 09:54	5°♄59'35	1°06'35	morning rise	2567 Oct 19 10:22	14°♄12'16	
asc. node	2566 Nov 01 14:50	2°♄18'37		asc. node	2567 Oct 19 11:51	14°♄10'28	
morning rise	2566 Nov 04 05:37	0°♄13'07		direct	2567 Oct 22 03:33	13°♄32'03	
	2566 Nov 04 15:18	30°♄		morning max el	2567 Oct 28 16:12	17°♄03'44	18°13'26
direct	2566 Nov 07 06:52	29°♄19'53			2567 Nov 07 04:21	0°♄	
	2566 Nov 10 00:19	0°♄		morning set	2567 Nov 16 08:22	14°♄52'17	
morning max el	2566 Nov 14 02:20	3°♄06'25	18°49'53		2567 Nov 25 16:30	0°♄	
	2566 Dec 02 21:14	0°♄		desc. node	2567 Nov 26 10:14	1°♄10'53	
morning set	2566 Dec 05 15:07	4°♄19'16					
desc. node	2566 Dec 09 13:09	10°♄29'09		superior conj	2567 Dec 01 05:11	8°♄47'22	0°-31'-55
max. Earth dist.	2566 Dec 20 23:26	28°♄25'37	1.45072 AU	minimum elong	2567 Dec 01 01:05	8°♄31'11	0°31'22
	2566 Dec 21 23:26	0°♄		max. Earth dist.	2567 Dec 03 18:48	12°♄50'13	1.45111 AU
					2567 Dec 14 18:16	0°♄	
superior conj	2566 Dec 22 02:27	0°♄11'48	-1°-18'-6	evening rise	2567 Dec 17 14:57	4°♄27'32	
minimum elong	2566 Dec 21 17:41	29°♄37'23	1°17'08	greatest brilliancy	2568 Jan 02 09:25	28°♄37'50	-0.7m
evening rise	2567 Jan 06 12:59	24°♄46'33			2568 Jan 03 08:11	0°♄	
	2567 Jan 09 18:32	0°♄		evening max el	2568 Jan 10 18:43	9°♄26'21	19°29'16
evening max el	2567 Jan 27 10:54	25°♄57'01	18°44'37	asc. node	2568 Jan 15 11:10	13°♄01'12	
asc. node	2567 Jan 28 14:10	27°♄02'13		retrograde	2568 Jan 18 00:04	13°♄36'11	
retrograde	2567 Feb 03 03:23	29°♄40'55		evening set	2568 Jan 21 10:37	12°♄26'54	
evening set	2567 Feb 06 06:47	28°♄44'37		inferior conj	2568 Jan 27 00:01	6°♄29'51	3°11'29
inferior conj	2567 Feb 12 01:07	23°♄03'18	3°33'06	minimum elong	2568 Jan 26 21:40	6°♄37'32	3°11'01
minimum elong	2567 Feb 11 23:34	23°♄08'03	3°32'56	min. Earth dist.	2568 Jan 28 05:02	4°♄55'13	0.66473 AU
min. Earth dist.	2567 Feb 13 21:01	20°♄49'25	0.65217 AU	morning rise	2568 Feb 01 07:57	0°♄15'24	
morning rise	2567 Feb 17 15:10	16°♄51'39			2568 Feb 01 14:59	30°♄	
direct	2567 Feb 24 06:46	14°♄01'06		direct	2568 Feb 07 12:10	27°♄31'43	
desc. node	2567 Mar 07 12:22	19°♄51'31			2568 Feb 14 04:37	0°♄	
morning max el	2567 Mar 09 12:28	21°♄46'58	26°59'32	morning max el	2568 Feb 19 21:48	4°♄53'47	25°52'32
	2567 Mar 16 16:58	0°♄		desc. node	2568 Feb 22 09:24	7°♄31'58	
	2567 Apr 05 15:47	0°♄			2568 Mar 10 04:26	0°♄	
morning set	2567 Apr 14 04:52	15°♄35'05		morning set	2568 Mar 27 02:25	28°♄20'30	
max. Earth dist.	2567 Apr 18 16:43	24°♄27'09	1.34099 AU		2568 Mar 27 23:56	0°♄	
	2567 Apr 21 09:44	0°♄		max. Earth dist.	2568 Mar 30 23:48	5°♄39'35	1.35650 AU
superior conj	2567 Apr 22 15:23	2°♄34'17	0°-40'-5	superior conj	2568 Apr 05 09:50	16°♄20'36	-1°-8'-3
minimum elong	2567 Apr 22 17:26	2°♄45'01	0°39'41	minimum elong	2568 Apr 05 13:18	16°♄38'04	1°07'28
asc. node	2567 Apr 26 13:28	10°♄50'17		asc. node	2568 Apr 12 10:30	0°♄44'54	
evening rise	2567 Apr 30 02:13	18°♄16'48			2568 Apr 12 01:46	0°♄	
	2567 May 05 22:40	0°♄		evening rise	2568 Apr 13 08:59	2°♄39'59	
evening max el	2567 May 20 03:16	20°♄44'44	21°32'23		2568 Apr 29 13:51	0°♄	
retrograde	2567 Jun 01 09:35	26°♄45'40		evening max el	2568 May 01 09:10	1°♄53'47	20°12'44
desc. node	2567 Jun 03 11:37	26°♄35'46		retrograde	2568 May 11 23:25	7°♄02'18	
evening set	2567 Jun 03 20:40	26°♄31'55		evening set	2568 May 13 23:57	6°♄51'52	
inferior conj	2567 Jun 13 05:45	22°♄31'38	-2°-45'-32	desc. node	2568 May 20 08:38	4°♄26'11	
minimum elong	2567 Jun 12 22:29	22°♄41'47	2°43'12	inferior conj	2568 May 23 01:23	2°♄53'16	0°-47'-26
min. Earth dist.	2567 Jun 13 05:09	22°♄32'29	0.54906 AU	minimum elong	2568 May 22 23:09	2°♄56'33	0°46'38
morning rise	2567 Jun 22 00:58	18°♄36'17		min. Earth dist.	2568 May 24 17:51	1°♄53'28	0.55186 AU
direct	2567 Jun 25 07:30	18°♄12'56			2568 May 28 05:32	30°♄	
morning max el	2567 Jul 07 17:03	24°♄04'10	22°04'16	morning rise	2568 May 31 20:09	28°♄36'03	
	2567 Jul 13 01:02	0°♄		direct	2568 Jun 04 19:25	28°♄01'54	
asc. node	2567 Jul 23 12:40	16°♄53'14			2568 Jun 12 02:16	0°♄	
morning set	2567 Jul 28 22:52	27°♄45'42		morning max el	2568 Jun 18 09:43	4°♄41'22	23°45'53
	2567 Jul 30 00:30	0°♄			2568 Jul 06 02:34	0°♄	
				asc. node	2568 Jul 09 09:43	6°♄25'49	

morning set	2568 Jul 12 10:27	12°☿41'04			2569 Jun 11 21:25	0°♊	
				asc. node	2569 Jun 26 06:47	26°♊15'32	
superior conj	2568 Jul 19 11:57	27°☿52'49	1°28'43	morning set	2569 Jun 26 22:10	27°♊36'22	
minimum elong	2568 Jul 19 09:43	27°☿40'46	1°28'27		2569 Jun 28 01:12	0°☿	
	2568 Jul 20 11:35	0°♊					
max. Earth dist.	2568 Jul 21 16:56	2°♊36'47	1.33360 AU	superior conj	2569 Jul 03 22:15	12°☿47'49	1°12'51
evening rise	2568 Jul 27 00:17	13°♊36'34		minimum elong	2569 Jul 03 19:52	12°☿34'48	1°12'28
	2568 Aug 04 17:03	0°♊		max. Earth dist.	2569 Jul 05 00:19	15°☿10'18	1.32572 AU
desc. node	2568 Aug 16 07:59	18°♊30'29		evening rise	2569 Jul 11 01:27	28°☿03'48	
	2568 Aug 25 06:14	0°♊			2569 Jul 12 00:07	0°♊	
evening max el	2568 Aug 29 18:08	4°♊42'28	27°24'18		2569 Jul 28 23:22	0°♊	
retrograde	2568 Sep 12 07:53	12°♊00'00		desc. node	2569 Aug 03 04:59	7°♊20'33	
evening set	2568 Sep 19 10:56	9°♊20'13		evening max el	2569 Aug 12 02:25	17°♊28'18	27°18'59
min. Earth dist.	2568 Sep 23 03:52	6°♊01'17	0.63987 AU	retrograde	2569 Aug 25 21:48	24°♊43'53	
inferior conj	2568 Sep 25 15:32	3°♊26'12	-3°-4'-56	evening set	2569 Sep 02 02:17	22°♊17'57	
minimum elong	2568 Sep 25 20:25	3°♊13'30	3°03'19	min. Earth dist.	2569 Sep 05 16:28	19°♊27'08	0.62190 AU
	2568 Sep 29 05:33	30°♊		inferior conj	2569 Sep 08 15:50	16°♊42'04	-3°-58'-38
morning rise	2568 Oct 02 08:04	28°♊03'04		minimum elong	2569 Sep 08 21:22	16°♊29'15	3°57'14
direct	2568 Oct 04 19:41	27°♊32'14		morning rise	2569 Sep 15 19:15	11°♊38'30	
asc. node	2568 Oct 05 08:53	27°♊33'47		direct	2569 Sep 18 04:00	11°♊13'57	
	2568 Oct 10 07:34	0°♊		asc. node	2569 Sep 22 05:57	12°♊29'23	
morning max el	2568 Oct 11 08:25	0°♊57'48	17°54'10	morning max el	2569 Sep 25 00:00	14°♊41'46	17°52'55
morning set	2568 Oct 28 04:50	26°♊44'18			2569 Oct 05 13:04	0°♊	
	2568 Oct 30 02:32	0°♊		morning set	2569 Oct 10 22:26	9°♊36'24	
superior conj	2568 Nov 10 00:27	18°♊14'51	0°15'32	superior conj	2569 Oct 21 22:13	29°♊00'37	0°54'45
minimum elong	2568 Nov 10 02:10	18°♊21'50	0°15'17	minimum elong	2569 Oct 22 02:32	29°♊19'06	0°54'10
behind sun begin	2568 Nov 09 22:53	18°♊08'29			2569 Oct 22 12:08	0°♊	
behind sun end	2568 Nov 10 05:26	18°♊35'11		max. Earth dist.	2569 Oct 29 03:35	11°♊04'07	1.43070 AU
desc. node	2568 Nov 12 07:17	21°♊57'09		desc. node	2569 Oct 30 04:17	12°♊44'28	
max. Earth dist.	2568 Nov 15 13:18	27°♊09'41	1.44410 AU	evening rise	2569 Nov 05 12:30	22°♊49'32	
	2568 Nov 17 08:16	0°♊			2569 Nov 10 04:03	0°♊	
evening rise	2568 Nov 26 01:44	13°♊36'02			2569 Dec 01 04:15	0°♊	
	2568 Dec 06 21:14	0°♊		greatest brilliancy	2569 Dec 01 21:52	0°♊55'12	-0.4m
greatest brilliancy	2568 Dec 17 20:14	15°♊41'09	-0.5m	evening max el	2569 Dec 06 18:28	6°♊28'07	21°40'03
evening max el	2568 Dec 23 21:26	22°♊57'03	20°28'47	retrograde	2569 Dec 15 19:18	11°♊50'46	
retrograde	2568 Dec 31 22:05	27°♊40'53		asc. node	2569 Dec 19 05:11	10°♊47'02	
asc. node	2569 Jan 01 08:10	27°♊39'54		evening set	2569 Dec 20 01:07	10°♊11'32	
evening set	2569 Jan 04 17:22	26°♊17'18		inferior conj	2569 Dec 25 10:37	3°♊52'13	2°00'02
inferior conj	2569 Jan 10 03:56	20°♊07'21	2°39'48	minimum elong	2569 Dec 25 08:18	4°♊00'16	1°59'13
minimum elong	2569 Jan 10 01:21	20°♊16'10	2°39'04	min. Earth dist.	2569 Dec 25 14:25	3°♊39'04	0.67770 AU
min. Earth dist.	2569 Jan 10 19:35	19°♊14'05	0.67314 AU		2569 Dec 28 08:43	30°♊	
morning rise	2569 Jan 15 08:51	13°♊52'01		morning rise	2569 Dec 30 15:13	27°♊37'49	
direct	2569 Jan 20 22:51	11°♊24'28		direct	2570 Jan 04 14:05	25°♊31'28	
morning max el	2569 Feb 01 06:23	18°♊09'33	24°29'38		2570 Jan 13 02:24	0°♊	
desc. node	2569 Feb 08 06:28	26°♊11'00		morning max el	2570 Jan 14 15:48	1°♊30'06	23°00'55
	2569 Feb 11 05:19	0°♊		greatest brilliancy	2570 Jan 19 11:11	6°♊52'20	-0.3m
	2569 Mar 03 06:09	0°♊		desc. node	2570 Jan 26 03:29	15°♊31'14	
morning set	2569 Mar 09 04:33	10°♊05'38			2570 Feb 05 04:53	0°♊	
max. Earth dist.	2569 Mar 12 21:38	16°♊42'54	1.37592 AU	morning set	2570 Feb 18 04:58	20°♊33'45	
				max. Earth dist.	2570 Feb 22 16:37	28°♊09'18	1.39743 AU
					2570 Feb 23 18:10	0°♊	
superior conj	2569 Mar 19 17:21	29°♊30'39	-1°-33'-42				
minimum elong	2569 Mar 19 21:42	29°♊51'44	1°33'10	superior conj	2570 Mar 02 09:41	11°♊53'18	-1°-54'-6
	2569 Mar 19 23:25	0°♊		minimum elong	2570 Mar 02 13:39	12°♊11'34	1°53'49
evening rise	2569 Mar 28 09:50	16°♊40'31			2570 Mar 11 23:46	0°♊	
asc. node	2569 Mar 30 07:31	20°♊25'51		evening rise	2570 Mar 12 01:50	0°♊09'53	
	2569 Apr 04 09:39	0°♊		asc. node	2570 Mar 17 04:32	9°♊47'13	
evening max el	2569 Apr 14 02:45	13°♊43'03	19°11'49	evening max el	2570 Mar 28 05:47	26°♊08'07	18°31'03
retrograde	2569 Apr 23 01:07	18°♊03'02		retrograde	2570 Apr 04 20:59	29°♊53'16	
evening set	2569 Apr 25 02:58	17°♊49'57		evening set	2570 Apr 07 04:27	29°♊33'43	
inferior conj	2569 May 03 11:01	13°♊39'04	1°04'19	inferior conj	2570 Apr 14 17:25	25°♊03'43	2°27'09
minimum elong	2569 May 03 13:32	13°♊34'49	1°03'28	minimum elong	2570 Apr 14 21:20	24°♊55'58	2°26'08
min. Earth dist.	2569 May 06 08:52	11°♊41'47	0.56368 AU	min. Earth dist.	2570 Apr 18 03:38	22°♊22'39	0.58207 AU
desc. node	2569 May 07 05:39	11°♊08'41		morning rise	2570 Apr 22 09:53	19°♊39'44	
morning rise	2569 May 11 19:58	8°♊47'29		desc. node	2570 Apr 24 02:40	18°♊55'42	
direct	2569 May 16 18:38	7°♊50'49		direct	2570 Apr 28 08:20	18°♊09'22	
morning max el	2569 May 31 00:07	15°♊07'33	25°25'08				

morning max el	2570 May 12 17:39	25° Υ 49'23	26°46'17		2571 Apr 06 11:12	30° \mathcal{R} \mathcal{H}	
	2570 May 16 15:29	0° \mathcal{B}		direct	2571 Apr 10 10:23	29° \mathcal{H} 14'53	
	2570 Jun 05 03:31	0° Π		desc. node	2571 Apr 10 23:42	29° \mathcal{H} 15'45	
morning set	2570 Jun 11 08:23	12° Π 25'36			2571 Apr 14 13:01	0° Υ	
asc. node	2570 Jun 13 03:50	16° Π 16'11		morning max el	2571 Apr 24 17:09	7° Υ 06'47	27°36'34
					2571 May 11 23:56	0° \mathcal{B}	
superior conj	2570 Jun 18 09:58	27° Π 44'36	0°52'57	morning set	2571 May 26 15:21	27° \mathcal{B} 02'59	
minimum elong	2570 Jun 18 07:55	27° Π 33'18	0°52'34		2571 May 28 01:14	0° Π	
max. Earth dist.	2570 Jun 18 11:38	27° Π 53'50	1.32179 AU	asc. node	2571 May 31 00:53	6° Π 23'08	
	2570 Jun 19 10:33	0° \mathcal{E}		max. Earth dist.	2571 Jun 01 23:22	10° Π 36'32	1.32183 AU
evening rise	2570 Jun 25 08:19	12° \mathcal{E} 46'16					
	2570 Jul 04 03:07	0° \mathcal{Q}		superior conj	2571 Jun 02 21:22	12° Π 37'18	0°29'44
desc. node	2570 Jul 21 01:59	25° \mathcal{Q} 12'04		minimum elong	2571 Jun 02 20:05	12° Π 30'10	0°29'28
evening max el	2570 Jul 25 05:07	29° \mathcal{Q} 32'09	26°40'36	evening rise	2571 Jun 09 18:40	27° Π 36'34	
	2570 Jul 25 17:01	0° \mathcal{M}			2571 Jun 10 21:55	0° \mathcal{E}	
retrograde	2570 Aug 08 04:14	6° \mathcal{M} 44'42			2571 Jun 27 21:57	0° \mathcal{Q}	
evening set	2570 Aug 14 23:34	4° \mathcal{M} 46'19		evening max el	2571 Jul 07 00:46	10° \mathcal{Q} 49'00	25°31'25
min. Earth dist.	2570 Aug 18 18:54	2° \mathcal{M} 10'07	0.60164 AU	desc. node	2571 Jul 07 23:00	11° \mathcal{Q} 40'41	
	2570 Aug 21 11:17	30° \mathcal{R} \mathcal{Q}		retrograde	2571 Jul 21 00:53	17° \mathcal{Q} 56'36	
inferior conj	2570 Aug 22 01:29	29° \mathcal{Q} 30'54	-4°-41'-2	evening set	2571 Jul 26 22:05	16° \mathcal{Q} 35'37	
minimum elong	2570 Aug 22 05:57	29° \mathcal{Q} 21'49	4°40'23	min. Earth dist.	2571 Jul 31 12:52	13° \mathcal{Q} 56'01	0.58117 AU
morning rise	2570 Aug 29 15:39	24° \mathcal{Q} 49'29		inferior conj	2571 Aug 03 16:58	11° \mathcal{Q} 42'22	-5°-1'-37
direct	2570 Sep 01 00:31	24° \mathcal{Q} 28'32		minimum elong	2571 Aug 03 17:45	11° \mathcal{Q} 40'59	5°01'38
morning max el	2570 Sep 08 11:49	28° \mathcal{Q} 07'43	18°10'55	morning rise	2571 Aug 11 16:59	7° \mathcal{Q} 23'51	
asc. node	2570 Sep 09 03:01	28° \mathcal{Q} 45'48		direct	2571 Aug 14 04:57	7° \mathcal{Q} 04'27	
	2570 Sep 10 05:58	0° \mathcal{M}		morning max el	2571 Aug 22 16:32	11° \mathcal{Q} 05'25	18°49'31
morning set	2570 Sep 24 07:25	23° \mathcal{M} 12'53		asc. node	2571 Aug 27 00:05	16° \mathcal{Q} 07'07	
	2570 Sep 27 21:56	0° \mathcal{A}			2571 Sep 04 07:47	0° \mathcal{M}	
				morning set	2571 Sep 08 03:10	7° \mathcal{M} 20'22	
superior conj	2570 Oct 03 21:33	11° \mathcal{A} 01'38	1°22'16				
minimum elong	2570 Oct 04 01:33	11° \mathcal{A} 19'38	1°21'52	superior conj	2571 Sep 16 17:08	24° \mathcal{M} 02'10	1°38'28
max. Earth dist.	2570 Oct 11 12:31	24° \mathcal{A} 21'08	1.41265 AU	minimum elong	2571 Sep 16 19:29	24° \mathcal{M} 13'19	1°38'20
	2570 Oct 14 21:47	0° \mathcal{M}			2571 Sep 19 21:32	0° \mathcal{A}	
evening rise	2570 Oct 16 15:12	2° \mathcal{M} 49'08		max. Earth dist.	2571 Sep 23 17:24	6° \mathcal{A} 56'03	1.39227 AU
desc. node	2570 Oct 17 01:18	3° \mathcal{M} 29'58		evening rise	2571 Sep 27 17:17	13° \mathcal{A} 53'23	
	2570 Nov 03 13:04	0° \mathcal{J}		desc. node	2571 Oct 03 22:19	24° \mathcal{A} 09'29	
greatest brilliancy	2570 Nov 14 01:03	13° \mathcal{J} 58'00	-0.2m		2571 Oct 07 15:21	0° \mathcal{M}	
evening max el	2570 Nov 19 10:43	20° \mathcal{J} 02'01	22°58'29		2571 Oct 29 13:22	0° \mathcal{J}	
retrograde	2570 Nov 29 14:11	26° \mathcal{J} 03'07		evening max el	2571 Nov 01 23:57	3° \mathcal{J} 39'35	24°18'12
evening set	2570 Dec 04 08:18	24° \mathcal{J} 07'19		retrograde	2571 Nov 13 05:20	10° \mathcal{J} 13'54	
asc. node	2570 Dec 06 02:13	22° \mathcal{J} 25'41		evening set	2571 Nov 18 13:17	8° \mathcal{J} 01'19	
inferior conj	2570 Dec 09 18:14	17° \mathcal{J} 42'30	1°13'42	asc. node	2571 Nov 22 23:17	3° \mathcal{J} 01'22	
minimum elong	2570 Dec 09 16:37	17° \mathcal{J} 48'05	1°13'03	min. Earth dist.	2571 Nov 23 07:16	2° \mathcal{J} 34'42	0.67641 AU
min. Earth dist.	2570 Dec 09 11:08	18° \mathcal{J} 07'00	0.67874 AU	inferior conj	2571 Nov 24 00:57	1° \mathcal{J} 35'16	0°22'00
morning rise	2570 Dec 15 00:54	11° \mathcal{J} 31'11		minimum elong	2571 Nov 24 00:25	1° \mathcal{J} 37'03	0°21'46
direct	2570 Dec 19 09:07	9° \mathcal{J} 47'39			2571 Nov 25 05:38	30° \mathcal{R} \mathcal{M}	
morning max el	2570 Dec 28 05:34	14° \mathcal{J} 58'20	21°35'31	morning rise	2571 Nov 29 11:52	25° \mathcal{M} 29'26	
greatest brilliancy	2571 Jan 02 04:07	20° \mathcal{J} 34'37	-0.4m	direct	2571 Dec 03 06:38	24° \mathcal{M} 07'44	
	2571 Jan 09 06:15	0° \mathcal{Z}		morning max el	2571 Dec 11 02:35	28° \mathcal{M} 37'07	20°20'01
desc. node	2571 Jan 13 00:31	5° \mathcal{Z} 21'19			2571 Dec 12 10:06	0° \mathcal{J}	
morning set	2571 Jan 29 00:17	29° \mathcal{Z} 38'58		greatest brilliancy	2571 Dec 17 14:12	6° \mathcal{J} 20'44	-0.5m
	2571 Jan 29 05:35	0° \approx		desc. node	2571 Dec 30 21:34	25° \mathcal{J} 32'30	
max. Earth dist.	2571 Feb 04 16:11	10° \approx 26'43	1.41830 AU		2572 Jan 02 20:11	0° \mathcal{Z}	
				morning set	2572 Jan 07 22:34	7° \mathcal{Z} 49'37	
superior conj	2571 Feb 12 05:52	23° \approx 17'12	-2°-5'-5	max. Earth dist.	2572 Jan 17 23:50	23° \mathcal{Z} 39'50	1.43564 AU
minimum elong	2571 Feb 12 07:10	23° \approx 22'53	2°05'04		2572 Jan 21 21:39	0° \approx	
	2571 Feb 16 01:18	0° \mathcal{H}					
evening rise	2571 Feb 23 05:22	13° \mathcal{H} 00'06		superior conj	2572 Jan 24 01:02	3° \approx 31'14	-2°-1'-33
asc. node	2571 Mar 04 01:34	28° \mathcal{H} 42'41		minimum elong	2572 Jan 23 21:08	3° \approx 15'06	2°01'25
	2571 Mar 04 20:35	0° Υ		evening rise	2572 Feb 05 16:11	25° \approx 02'11	
evening max el	2571 Mar 11 15:07	9° Υ 00'52	18°10'17		2572 Feb 08 12:29	0° \mathcal{H}	
retrograde	2571 Mar 18 10:48	12° Υ 27'34		asc. node	2572 Feb 18 22:36	17° \mathcal{H} 03'48	
evening set	2571 Mar 21 00:06	11° Υ 59'10		evening max el	2572 Feb 23 03:25	22° \mathcal{H} 11'49	18°08'59
inferior conj	2571 Mar 27 20:29	7° Υ 07'49	3°16'53	retrograde	2572 Feb 29 14:41	25° \mathcal{H} 35'25	
minimum elong	2571 Mar 27 23:18	7° Υ 01'21	3°16'25	evening set	2572 Mar 03 09:15	24° \mathcal{H} 56'52	
min. Earth dist.	2571 Mar 31 04:07	4° Υ 06'27	0.60349 AU	inferior conj	2572 Mar 09 16:48	19° \mathcal{H} 44'33	3°38'51
morning rise	2571 Apr 03 19:08	1° Υ 21'04		minimum elong	2572 Mar 09 17:42	19° \mathcal{H} 42'13	3°38'48

min. Earth dist.	2572 Mar 12 12:45	16° ✕ 47'45	0.62456 AU	minimum elong	2573 Feb 21 01:25	2° ✕ 48'13	3°39'48
morning rise	2572 Mar 15 23:52	13° ✕ 43'48			2573 Feb 23 11:31	30° ℞	
direct	2572 Mar 22 21:51	11° ✕ 09'54		min. Earth dist.	2573 Feb 23 07:00	0° ✕ 12'42	0.64310 AU
desc. node	2572 Mar 27 20:44	12° ✕ 19'23		morning rise	2573 Feb 26 21:23	26° ≈ 36'52	
morning max el	2572 Apr 05 22:31	19° ✕ 06'06	27°50'00	direct	2573 Mar 05 17:08	23° ≈ 48'30	
	2572 Apr 15 04:17	0° Υ		desc. node	2573 Mar 14 17:47	27° ≈ 37'02	
	2572 May 03 20:47	0° ♄			2573 Mar 17 13:26	0° ✕	
morning set	2572 May 09 17:01	11° ♄ 22'04		morning max el	2573 Mar 19 07:37	1° ✕ 41'28	27°27'07
max. Earth dist.	2572 May 15 07:40	23° ♄ 05'59	1.32586 AU		2573 Apr 09 08:30	0° Υ	
asc. node	2572 May 16 21:56	26° ♄ 32'24		morning set	2573 Apr 23 10:40	25° Υ 13'32	
					2573 Apr 25 20:11	0° ♄	
superior conj	2572 May 17 06:46	27° ♄ 20'18	0°03'54	max. Earth dist.	2573 Apr 28 08:28	5° ♄ 08'42	1.33417 AU
minimum elong	2572 May 17 06:35	27° ♄ 19'18	0°03'52				
behind sun begin	2572 May 17 01:32	26° ♄ 51'54		superior conj	2573 May 01 12:09	11° ♄ 46'26	0°-23'-46
behind sun end	2572 May 17 11:38	27° ♄ 46'43		minimum elong	2573 May 01 13:21	11° ♄ 52'48	0°23'32
	2572 May 18 12:08	0° ♄		asc. node	2573 May 03 18:57	16° ♄ 39'04	
evening rise	2572 May 24 06:30	12° ♄ 28'09		evening rise	2573 May 08 17:53	27° ♄ 13'28	
	2572 Jun 02 04:01	0° ♄			2573 May 10 01:46	0° ♄	
evening max el	2572 Jun 17 14:57	21° ♄ 28'21	24°01'07		2573 May 28 09:01	0° ♄	
desc. node	2572 Jun 23 20:01	26° ♄ 14'42		evening max el	2573 May 30 05:49	1° ♄ 55'51	22°24'44
retrograde	2572 Jul 01 09:34	28° ♄ 24'10		desc. node	2573 Jun 10 17:03	8° ♄ 17'46	
evening set	2572 Jul 05 21:22	27° ♄ 39'36		retrograde	2573 Jun 12 06:15	8° ♄ 23'17	
min. Earth dist.	2572 Jul 12 01:33	24° ♄ 39'43	0.56346 AU	evening set	2573 Jun 15 07:31	8° ♄ 02'42	
inferior conj	2572 Jul 14 12:16	23° ♄ 09'26	-4°-46'-6	min. Earth dist.	2573 Jun 23 12:43	4° ♄ 28'57	0.55183 AU
minimum elong	2572 Jul 14 07:29	23° ♄ 16'50	4°45'32	inferior conj	2573 Jun 24 13:46	3° ♄ 53'29	-3°-42'-41
morning rise	2572 Jul 22 21:06	19° ♄ 10'31		minimum elong	2573 Jun 24 05:40	4° ♄ 04'57	3°40'35
direct	2572 Jul 25 14:25	18° ♄ 51'18		morning rise	2573 Jul 03 06:09	0° ♄ 02'30	
morning max el	2572 Aug 04 11:20	23° ♄ 26'11	19°49'35		2573 Jul 03 10:47	30° ℞ ♄	
	2572 Aug 10 01:01	0° ♄		direct	2573 Jul 06 06:26	29° ♄ 41'57	
asc. node	2572 Aug 12 21:09	4° ♄ 19'20			2573 Jul 09 00:23	0° ♄	
morning set	2572 Aug 22 06:18	21° ♄ 49'58		morning max el	2573 Jul 17 18:38	5° ♄ 03'08	21°10'16
	2572 Aug 26 06:46	0° ♄		asc. node	2573 Jul 30 18:12	23° ♄ 09'46	
					2573 Aug 03 08:30	0° ♄	
superior conj	2572 Aug 30 03:37	7° ♄ 47'28	1°45'00	morning set	2573 Aug 06 14:13	6° ♄ 33'43	
minimum elong	2572 Aug 30 04:09	7° ♄ 50'06	1°45'00				
max. Earth dist.	2572 Sep 04 22:11	18° ♄ 58'23	1.37205 AU	superior conj	2573 Aug 14 00:34	22° ♄ 04'05	1°43'36
evening rise	2572 Sep 08 18:19	26° ♄ 01'49		minimum elong	2573 Aug 13 23:37	21° ♄ 59'10	1°43'34
	2572 Sep 11 00:01	0° ♄			2573 Aug 17 22:11	0° ♄	
desc. node	2572 Sep 19 19:22	14° ♄ 38'40		max. Earth dist.	2573 Aug 18 08:04	0° ♄ 49'09	1.35414 AU
	2572 Sep 30 04:01	0° ♄		evening rise	2573 Aug 22 14:12	9° ♄ 03'56	
evening max el	2572 Oct 14 12:06	17° ♄ 20'03	25°32'11		2573 Sep 03 14:12	0° ♄	
retrograde	2572 Oct 26 16:02	24° ♄ 18'57		desc. node	2573 Sep 06 16:25	4° ♄ 51'34	
evening set	2572 Nov 01 14:22	21° ♄ 51'10			2573 Sep 26 00:32	0° ♄	
min. Earth dist.	2572 Nov 06 00:26	16° ♄ 59'52	0.67068 AU	evening max el	2573 Sep 27 00:15	0° ♄ 58'29	26°33'04
inferior conj	2572 Nov 07 05:01	15° ♄ 28'09	0°-33'-49	retrograde	2573 Oct 09 21:44	8° ♄ 12'02	
minimum elong	2572 Nov 07 05:53	15° ♄ 25'22	0°33'28	evening set	2573 Oct 16 09:38	5° ♄ 33'14	
asc. node	2572 Nov 08 20:20	13° ♄ 24'41		min. Earth dist.	2573 Oct 20 12:17	1° ♄ 18'30	0.66143 AU
morning rise	2572 Nov 12 22:09	9° ♄ 30'31			2573 Oct 21 14:29	30° ℞ ♄	
direct	2572 Nov 16 05:14	8° ♄ 27'56		inferior conj	2573 Oct 22 04:28	29° ♄ 17'49	-1°-32'-21
morning max el	2572 Nov 23 07:30	12° ♄ 26'43	19°18'21	minimum elong	2573 Oct 22 06:58	29° ♄ 10'20	1°31'20
greatest brilliancy	2572 Dec 02 22:42	24° ♄ 52'57	-0.7m	asc. node	2573 Oct 26 17:23	24° ♄ 31'38	
	2572 Dec 06 09:10	0° ♄		morning rise	2573 Oct 28 05:36	23° ♄ 31'07	
morning set	2572 Dec 16 23:07	16° ♄ 16'34		direct	2573 Oct 31 03:05	22° ♄ 43'59	
desc. node	2572 Dec 16 18:36	15° ♄ 59'04		morning max el	2573 Nov 06 18:52	26° ♄ 23'00	18°32'24
	2572 Dec 25 18:30	0° ♄			2573 Nov 09 22:25	0° ♄	
max. Earth dist.	2572 Dec 30 14:30	7° ♄ 35'51	1.44723 AU	morning set	2573 Nov 26 23:16	25° ♄ 58'14	
					2573 Nov 29 11:52	0° ♄	
superior conj	2573 Jan 02 18:37	12° ♄ 37'28	-1°-39'-18	desc. node	2573 Dec 03 15:40	6° ♄ 36'24	
minimum elong	2573 Jan 02 10:02	12° ♄ 03'21	1°38'34				
	2573 Jan 13 12:37	0° ≈		superior conj	2573 Dec 12 21:01	21° ♄ 08'16	0°-59'-28
evening rise	2573 Jan 17 06:09	6° ≈ 09'30		minimum elong	2573 Dec 12 13:39	20° ♄ 39'21	0°58'34
	2573 Feb 01 03:14	0° ✕		max. Earth dist.	2573 Dec 13 08:50	21° ♄ 54'36	1.45176 AU
asc. node	2573 Feb 04 19:38	4° ✕ 40'05			2573 Dec 18 12:30	0° ♄	
evening max el	2573 Feb 05 15:46	5° ✕ 33'27	18°26'24	evening rise	2573 Dec 28 20:52	16° ♄ 20'06	
retrograde	2573 Feb 12 04:03	9° ✕ 06'57			2574 Jan 06 11:48	0° ≈	
evening set	2573 Feb 15 03:59	8° ✕ 17'24		evening max el	2574 Jan 20 01:46	19° ≈ 01'02	19°01'34
inferior conj	2573 Feb 21 02:14	2° ✕ 45'50	3°39'51	asc. node	2574 Jan 22 16:40	21° ≈ 19'03	

retrograde	2574 Jan 26 23:02	22° \approx 55'15		asc. node	2575 Jan 09 13:41	6° \approx 45'32	
evening set	2574 Jan 30 05:13	21° \approx 53'42		retrograde	2575 Jan 10 20:33	6° \approx 54'38	
inferior conj	2574 Feb 04 21:09	16° \approx 05'12	3°25'20	evening set	2575 Jan 14 10:30	5° \approx 39'40	
minimum elong	2574 Feb 04 19:11	16° \approx 11'25	3°25'03	inferior conj	2575 Jan 19 22:29	29° \approx 36'54	2°59'09
min. Earth dist.	2574 Feb 06 10:33	14° \approx 07'23	0.65797 AU	minimum elong	2575 Jan 19 19:58	29° \approx 45'17	2°58'33
morning rise	2574 Feb 10 08:10	9° \approx 51'49			2575 Jan 19 15:33	30° \approx 8'3	
direct	2574 Feb 16 19:16	7° \approx 02'49		min. Earth dist.	2575 Jan 20 21:43	28° \approx 19'31	0.66879 AU
morning max el	2574 Mar 01 17:36	14° \approx 41'03	26°33'39	morning rise	2575 Jan 25 04:46	23° \approx 21'39	
desc. node	2574 Mar 01 14:48	14° \approx 34'03		direct	2575 Jan 31 03:12	20° \approx 43'39	
	2574 Mar 14 06:16	0° \approx 8'		morning max el	2575 Feb 12 02:27	27° \approx 52'06	25°18'31
	2574 Apr 02 02:31	0° \approx 9'			2575 Feb 14 03:00	0° \approx 8'	
morning set	2574 Apr 06 16:53	8° \approx 9'27'08		desc. node	2575 Feb 16 11:51	2° \approx 41'42	
max. Earth dist.	2574 Apr 10 22:13	16° \approx 9'37'19	1.34704 AU		2575 Mar 07 23:22	0° \approx 8'	
				morning set	2575 Mar 20 06:54	20° \approx 8'48'56	
superior conj	2574 Apr 15 11:22	25° \approx 9'49'25	0°-52'-4	max. Earth dist.	2575 Mar 24 00:19	27° \approx 8'40'03	1.36436 AU
minimum elong	2574 Apr 15 14:03	26° \approx 9'03'14	0°51'35		2575 Mar 25 06:00	0° \approx 9'	
	2574 Apr 17 11:41	0° \approx 8'					
asc. node	2574 Apr 20 15:59	6° \approx 8'39'15		superior conj	2575 Mar 30 01:36	9° \approx 9'21'21	-1°-19'-22
evening rise	2574 Apr 23 02:56	11° \approx 8'46'26		minimum elong	2575 Mar 30 05:33	9° \approx 9'40'53	1°18'47
	2574 May 02 16:07	0° \approx 11'		evening rise	2575 Apr 07 07:28	26° \approx 9'00'25	
evening max el	2574 May 12 05:01	12° \approx 11'43'58	20°56'23	asc. node	2575 Apr 07 13:01	26° \approx 9'28'24	
retrograde	2574 May 23 19:33	18° \approx 11'23'35			2575 Apr 09 07:16	0° \approx 8'	
evening set	2574 May 25 23:47	18° \approx 11'12'23		evening max el	2575 Apr 24 16:06	24° \approx 8'10'22	19°44'25
desc. node	2574 May 28 14:03	17° \approx 11'31'58		retrograde	2575 May 04 12:42	28° \approx 8'56'31	
inferior conj	2574 Jun 04 07:21	14° \approx 11'14'39	-1°-56'-50	evening set	2575 May 06 12:47	28° \approx 8'45'34	
minimum elong	2574 Jun 04 01:54	14° \approx 11'22'24	1°54'56	inferior conj	2575 May 15 07:35	24° \approx 8'43'32	0°02'31
min. Earth dist.	2574 Jun 05 00:56	13° \approx 11'49'43	0.54904 AU	minimum elong	2575 May 15 07:41	24° \approx 8'43'22	0°02'29
morning rise	2574 Jun 13 03:24	10° \approx 11'11'56		transit middle	2575 May 15 07:41	24° \approx 8'43'22	0°02'29
direct	2574 Jun 16 15:43	9° \approx 11'45'18		transit begin	2575 May 15 03:47	24° \approx 8'49'25	
morning max el	2574 Jun 29 15:34	15° \approx 11'58'27	22°46'51	transit end	2575 May 15 11:35	24° \approx 8'37'18	
	2574 Jul 10 15:31	0° \approx 8'		desc. node	2575 May 15 11:02	24° \approx 8'38'10	
asc. node	2574 Jul 17 15:15	12° \approx 8'28'57		min. Earth dist.	2575 May 17 14:46	23° \approx 8'18'01	0.55590 AU
morning set	2574 Jul 22 00:55	21° \approx 8'25'59		morning rise	2575 May 23 23:13	20° \approx 8'12'06	
	2574 Jul 26 01:33	0° \approx 8'		direct	2575 May 28 08:05	19° \approx 8'29'41	
				morning max el	2575 Jun 11 06:25	26° \approx 8'27'21	24°29'16
superior conj	2574 Jul 29 04:39	6° \approx 8'41'50	1°35'44		2575 Jun 14 15:52	0° \approx 11'	
minimum elong	2574 Jul 29 02:43	6° \approx 8'31'37	1°35'33		2575 Jul 03 10:50	0° \approx 8'	
max. Earth dist.	2574 Aug 01 02:40	12° \approx 8'50'52	1.33990 AU	asc. node	2575 Jul 04 12:17	2° \approx 8'09'27	
evening rise	2574 Aug 06 00:27	22° \approx 8'47'57		morning set	2575 Jul 06 12:45	6° \approx 8'21'50	
	2574 Aug 09 18:35	0° \approx 8'					
desc. node	2574 Aug 24 13:25	24° \approx 8'40'44		superior conj	2575 Jul 13 13:18	21° \approx 8'32'50	1°22'31
	2574 Aug 28 07:02	0° \approx 8'		minimum elong	2575 Jul 13 10:57	21° \approx 8'20'02	1°22'12
evening max el	2574 Sep 09 12:21	14° \approx 8'26'22	27°13'19	max. Earth dist.	2575 Jul 15 06:11	25° \approx 8'14'06	1.32974 AU
retrograde	2574 Sep 22 21:53	21° \approx 8'44'59			2575 Jul 17 11:42	0° \approx 8'	
evening set	2574 Sep 29 20:37	19° \approx 8'02'42		evening rise	2575 Jul 20 21:09	7° \approx 8'02'51	
min. Earth dist.	2574 Oct 03 16:37	15° \approx 8'24'07	0.64866 AU		2575 Aug 02 06:56	0° \approx 8'	
inferior conj	2574 Oct 05 21:06	12° \approx 8'59'23	-2°-31'-39	desc. node	2575 Aug 11 10:24	13° \approx 8'56'27	
minimum elong	2574 Oct 06 01:12	12° \approx 8'48'04	2°30'08	evening max el	2575 Aug 22 23:00	27° \approx 8'32'39	27°26'10
morning rise	2574 Oct 12 07:41	7° \approx 8'26'39			2575 Aug 25 18:01	0° \approx 8'	
asc. node	2574 Oct 13 14:26	7° \approx 8'00'15		retrograde	2575 Sep 05 15:46	4° \approx 8'49'37	
direct	2574 Oct 14 22:03	6° \approx 8'51'01		evening set	2575 Sep 12 20:15	2° \approx 8'14'25	
morning max el	2574 Oct 21 10:05	10° \approx 8'19'25	18°03'06		2575 Sep 15 13:33	30° \approx 8'8'	
	2574 Nov 03 22:27	0° \approx 8'		min. Earth dist.	2575 Sep 16 11:31	29° \approx 8'08'19	0.63252 AU
morning set	2574 Nov 08 04:39	7° \approx 8'06'09		inferior conj	2575 Sep 19 04:18	26° \approx 8'27'33	-3°-28'-38
desc. node	2574 Nov 20 12:42	27° \approx 8'20'07		minimum elong	2575 Sep 19 09:36	26° \approx 8'14'23	3°27'03
				morning rise	2575 Sep 26 01:24	21° \approx 8'12'03	
superior conj	2574 Nov 22 04:42	0° \approx 8'00'15	0°-11'-16	direct	2575 Sep 28 11:22	20° \approx 8'44'17	
minimum elong	2574 Nov 22 03:18	29° \approx 8'54'40	0°11'05	asc. node	2575 Sep 30 11:29	21° \approx 8'03'49	
behind sun begin	2574 Nov 21 19:27	29° \approx 8'23'20		morning max el	2575 Oct 05 02:23	24° \approx 8'10'08	17°51'20
behind sun end	2574 Nov 22 11:08	0° \approx 8'25'57			2575 Oct 09 19:14	0° \approx 8'	
	2574 Nov 22 04:38	0° \approx 8'		morning set	2575 Oct 21 10:58	19° \approx 8'26'28	
max. Earth dist.	2574 Nov 26 03:34	6° \approx 8'16'40	1.44891 AU		2575 Oct 27 12:49	0° \approx 8'	
evening rise	2574 Dec 08 14:50	25° \approx 8'42'48					
	2574 Dec 11 09:33	0° \approx 8'		superior conj	2575 Nov 02 10:48	9° \approx 8'59'50	0°33'29
greatest brilliancy	2574 Dec 27 02:43	23° \approx 8'32'24	-0.6m	minimum elong	2575 Nov 02 14:04	10° \approx 8'13'25	0°33'01
	2575 Jan 01 01:21	0° \approx 8'		desc. node	2575 Nov 07 09:44	18° \approx 8'07'15	
evening max el	2575 Jan 03 07:32	2° \approx 8'30'55	19°52'56	max. Earth dist.	2575 Nov 08 20:29	20° \approx 8'27'13	1.43912 AU

	2575 Nov 14 21:13	0°♄		desc. node	2576 Oct 24 06:45	8°♄53'59	
evening rise	2575 Nov 17 23:31	4°♄48'22		evening rise	2576 Oct 27 15:32	14°♄17'31	
	2575 Dec 04 20:13	0°♄			2576 Nov 06 21:07	0°♄	
greatest brilliancy	2575 Dec 11 22:16	9°♄42'15	-0.5m	greatest brilliancy	2576 Nov 24 09:43	24°♄15'39	-0.3m
evening max el	2575 Dec 17 07:58	16°♄02'11	20°57'56	evening max el	2576 Nov 29 02:53	29°♄34'24	22°12'52
retrograde	2575 Dec 25 18:21	21°♄01'45			2576 Nov 29 13:06	0°♄	
asc. node	2575 Dec 27 10:42	20°♄46'04		retrograde	2576 Dec 08 14:40	5°♄13'09	
evening set	2575 Dec 29 17:53	19°♄31'45		evening set	2576 Dec 13 01:38	3°♄26'46	
inferior conj	2576 Jan 04 03:50	13°♄17'40	2°23'50	asc. node	2576 Dec 13 07:45	3°♄14'03	
minimum elong	2576 Jan 04 01:18	13°♄26'22	2°23'02		2576 Dec 16 07:15	30°♄♄	
min. Earth dist.	2576 Jan 04 14:21	12°♄41'31	0.67560 AU	inferior conj	2576 Dec 18 11:09	27°♄04'46	1°41'08
morning rise	2576 Jan 09 08:19	7°♄02'35		minimum elong	2576 Dec 18 09:04	27°♄11'57	1°40'20
direct	2576 Jan 14 16:02	4°♄43'24		min. Earth dist.	2576 Dec 18 10:11	27°♄08'06	0.67861 AU
morning max el	2576 Jan 25 10:50	11°♄08'58	23°51'57	morning rise	2576 Dec 23 16:22	20°♄51'42	
desc. node	2576 Feb 03 08:55	21°♄39'47		direct	2576 Dec 28 08:57	18°♄55'05	
	2576 Feb 09 11:21	0°♄		morning max el	2577 Jan 06 21:42	24°♄32'19	22°23'48
	2576 Feb 28 17:59	0°♄		greatest brilliancy	2577 Jan 11 11:10	29°♄38'10	-0.3m
morning set	2576 Feb 29 22:48	2°♄02'47			2577 Jan 11 18:22	0°♄	
max. Earth dist.	2576 Mar 04 19:50	8°♄48'19	1.38502 AU	desc. node	2577 Jan 20 05:58	11°♄13'52	
					2577 Feb 01 22:33	0°♄	
superior conj	2576 Mar 12 03:16	22°♄12'56	-1°-43'-14	morning set	2577 Feb 09 10:54	11°♄55'13	
minimum elong	2576 Mar 12 07:41	22°♄33'49	1°42'46	max. Earth dist.	2577 Feb 14 16:41	20°♄37'03	1.40658 AU
	2576 Mar 16 04:36	0°♄			2577 Feb 20 03:00	0°♄	
evening rise	2576 Mar 21 04:57	9°♄48'33					
asc. node	2576 Mar 24 10:02	16°♄01'40		superior conj	2577 Feb 22 11:46	4°♄12'35	-2°00'-12
	2576 Apr 01 12:00	0°♄		minimum elong	2577 Feb 22 14:56	4°♄26'52	2°00'03
evening max el	2576 Apr 06 14:10	6°♄16'03	18°51'59	evening rise	2577 Mar 04 16:11	23°♄03'02	
retrograde	2576 Apr 14 21:34	10°♄18'48			2577 Mar 08 09:35	0°♄	
evening set	2576 Apr 17 01:52	10°♄03'13		asc. node	2577 Mar 11 07:04	5°♄13'19	
inferior conj	2576 Apr 25 01:39	5°♄44'38	1°43'37	evening max el	2577 Mar 20 20:18	18°♄54'20	18°19'45
minimum elong	2576 Apr 25 05:10	5°♄38'17	1°42'31	retrograde	2577 Mar 28 01:48	22°♄29'54	
min. Earth dist.	2576 Apr 28 06:54	3°♄26'30	0.57095 AU	evening set	2577 Mar 30 11:48	22°♄06'46	
desc. node	2576 May 01 08:04	1°♄32'25		inferior conj	2577 Apr 06 17:14	17°♄27'21	2°52'04
morning rise	2576 May 03 04:09	0°♄38'47		minimum elong	2577 Apr 06 20:53	17°♄19'38	2°51'15
	2576 May 04 23:31	30°♄♄		min. Earth dist.	2577 Apr 10 03:39	14°♄34'50	0.59101 AU
direct	2576 May 08 13:40	29°♄28'41		morning rise	2577 Apr 14 02:02	11°♄52'29	
	2576 May 12 04:27	0°♄		desc. node	2577 Apr 18 05:06	10°♄19'15	
morning max el	2576 May 22 21:22	6°♄56'10	26°02'46	direct	2577 Apr 20 08:36	10°♄06'53	
	2576 Jun 08 22:20	0°♄		morning max el	2577 May 04 17:28	17°♄52'26	27°12'03
morning set	2576 Jun 20 00:02	21°♄15'12			2577 May 14 19:59	0°♄	
asc. node	2576 Jun 20 09:19	22°♄04'18			2577 Jun 01 10:38	0°♄	
	2576 Jun 24 01:32	0°♄		morning set	2577 Jun 04 09:09	6°♄00'43	
				asc. node	2577 Jun 07 06:23	12°♄08'29	
superior conj	2576 Jun 27 00:25	6°♄29'12	1°04'51	max. Earth dist.	2577 Jun 11 04:03	20°♄40'06	1.32137 AU
minimum elong	2576 Jun 26 22:07	6°♄16'35	1°04'28				
max. Earth dist.	2576 Jun 27 15:52	7°♄54'03	1.32360 AU	superior conj	2577 Jun 11 12:14	21°♄25'10	0°43'29
evening rise	2576 Jul 04 01:05	21°♄37'48		minimum elong	2577 Jun 11 10:27	21°♄15'21	0°43'08
	2576 Jul 08 04:29	0°♄			2577 Jun 15 10:03	0°♄	
	2576 Jul 26 10:36	0°♄		evening rise	2577 Jun 18 09:44	6°♄24'45	
desc. node	2576 Jul 28 07:24	2°♄24'04			2577 Jun 30 19:18	0°♄	
evening max el	2576 Aug 04 05:25	10°♄02'29	27°06'48	desc. node	2577 Jul 15 04:24	19°♄43'41	
retrograde	2576 Aug 18 02:20	17°♄15'53		evening max el	2577 Jul 17 05:05	21°♄45'48	26°14'24
evening set	2576 Aug 25 04:28	15°♄00'22		retrograde	2577 Jul 31 04:38	28°♄56'25	
min. Earth dist.	2576 Aug 28 19:43	12°♄17'40	0.61350 AU	evening set	2577 Aug 06 16:31	27°♄12'53	
inferior conj	2576 Aug 31 22:50	9°♄33'14	-4°-18'-30	min. Earth dist.	2577 Aug 10 17:53	24°♄37'51	0.59289 AU
minimum elong	2576 Sep 01 04:11	9°♄21'28	4°17'24	inferior conj	2577 Aug 14 01:07	22°♄06'59	-4°-53'-12
morning rise	2576 Sep 08 06:51	4°♄38'32		minimum elong	2577 Aug 14 04:22	22°♄00'46	4°52'54
direct	2576 Sep 10 15:24	4°♄15'39		morning rise	2577 Aug 21 19:39	17°♄35'37	
asc. node	2576 Sep 16 08:32	6°♄35'22		direct	2577 Aug 24 05:39	17°♄15'27	
morning max el	2576 Sep 17 16:42	7°♄47'01	17°58'08	morning max el	2577 Sep 01 01:53	21°♄02'00	18°24'46
	2576 Oct 02 01:02	0°♄		asc. node	2577 Sep 03 05:36	23°♄21'02	
morning set	2576 Oct 03 11:47	2°♄39'21			2577 Sep 07 22:48	0°♄	
				morning set	2577 Sep 17 01:47	16°♄29'59	
superior conj	2576 Oct 13 19:56	21°♄18'39	1°07'52		2577 Sep 24 03:47	0°♄	
minimum elong	2576 Oct 14 00:22	21°♄38'04	1°07'20				
	2576 Oct 18 21:25	0°♄		superior conj	2577 Sep 26 04:35	3°♄46'54	1°30'26
max. Earth dist.	2576 Oct 21 09:04	4°♄08'51	1.42353 AU	minimum elong	2577 Sep 26 07:57	4°♄02'25	1°30'09

max. Earth dist.	2577 Oct 03 16:07	17°♄08'10	1.40412 AU	superior conj	2578 Sep 09 07:08	17°♄08'36	1°42'19
evening rise	2577 Oct 08 03:43	24°♄42'47		minimum elong	2578 Sep 09 08:41	17°♄16'08	1°42'15
desc. node	2577 Oct 11 03:46	29°♄37'06		max. Earth dist.	2578 Sep 15 19:53	29°♄25'34	1.38344 AU
	2577 Oct 11 09:27	0°♄			2578 Sep 16 03:29	0°♄	
	2577 Oct 31 17:14	0°♄		evening rise	2578 Sep 19 15:56	6°♄15'24	
evening max el	2577 Nov 11 17:26	13°♄08'50	23°32'37	desc. node	2578 Sep 28 00:47	20°♄12'51	
retrograde	2577 Nov 22 08:07	19°♄25'14			2578 Oct 04 09:02	0°♄	
evening set	2577 Nov 27 08:05	17°♄21'56		evening max el	2578 Oct 25 05:50	26°♄47'38	24°50'50
asc. node	2577 Nov 30 04:50	14°♄20'49			2578 Oct 28 20:03	0°♄	
inferior conj	2577 Dec 02 18:35	10°♄55'54	0°52'20	retrograde	2578 Nov 05 21:40	3°♄34'30	
minimum elong	2577 Dec 02 17:23	11°♄00'01	0°51'50	evening set	2578 Nov 11 11:38	1°♄15'04	
min. Earth dist.	2577 Dec 02 06:53	11°♄35'56	0.67813 AU		2578 Nov 12 19:25	30°♄♄	
morning rise	2577 Dec 08 02:49	4°♄46'48		min. Earth dist.	2578 Nov 16 02:07	26°♄03'08	0.67431 AU
direct	2577 Dec 12 05:01	3°♄13'03		inferior conj	2578 Nov 17 00:23	24°♄49'29	0°-1'-15
morning max el	2577 Dec 20 14:27	8°♄05'06	21°01'58	minimum elong	2578 Nov 17 00:25	24°♄49'23	0°01'15
greatest brilliancy	2577 Dec 26 01:40	14°♄23'47	-0.5m	transit middle	2578 Nov 17 00:25	24°♄49'23	0°01'15
	2578 Jan 06 07:02	0°♄		transit begin	2578 Nov 16 21:40	24°♄58'29	
desc. node	2578 Jan 07 03:00	1°♄13'28		transit end	2578 Nov 17 03:10	24°♄40'17	
morning set	2578 Jan 19 19:18	20°♄30'54		asc. node	2578 Nov 17 01:52	24°♄44'35	
	2578 Jan 25 18:36	0°♄		morning rise	2578 Nov 22 13:43	18°♄46'41	
max. Earth dist.	2578 Jan 27 19:44	3°♄19'17	1.42618 AU	direct	2578 Nov 26 03:10	17°♄33'40	
				morning max el	2578 Dec 03 14:56	21°♄49'12	19°51'57
superior conj	2578 Feb 03 21:43	15°♄07'03	-2°-5'-39		2578 Dec 10 09:01	0°♄	
minimum elong	2578 Feb 03 21:03	15°♄04'13	2°05'40	greatest brilliancy	2578 Dec 11 02:54	1°♄01'10	-0.6m
	2578 Feb 12 10:32	0°♄		desc. node	2578 Dec 25 00:03	21°♄31'57	
evening rise	2578 Feb 15 13:10	5°♄33'53		morning set	2578 Dec 29 15:13	28°♄38'53	
asc. node	2578 Feb 26 04:08	23°♄55'25			2578 Dec 30 12:12	0°♄	
	2578 Mar 02 12:59	0°♄		max. Earth dist.	2579 Jan 10 06:05	16°♄50'43	1.44131 AU
evening max el	2578 Mar 04 07:13	1°♄55'24	18°07'22				
retrograde	2578 Mar 10 22:17	5°♄19'29		superior conj	2579 Jan 15 05:35	24°♄50'45	-1°-54'-31
evening set	2578 Mar 13 13:42	4°♄47'01		minimum elong	2579 Jan 14 23:18	24°♄25'14	1°54'10
	2578 Mar 19 22:41	30°♄♄			2579 Jan 18 09:21	0°♄	
inferior conj	2578 Mar 20 04:11	29°♄46'37	3°29'08	evening rise	2579 Jan 28 15:36	17°♄13'14	
minimum elong	2578 Mar 20 06:12	29°♄41'42	3°28'54		2579 Feb 05 04:11	0°♄	
min. Earth dist.	2578 Mar 23 07:33	26°♄44'13	0.61258 AU	asc. node	2579 Feb 13 01:10	11°♄58'59	
morning rise	2578 Mar 26 19:45	23°♄52'38		evening max el	2579 Feb 15 19:51	15°♄11'37	18°14'11
direct	2578 Apr 02 14:51	21°♄33'18		retrograde	2579 Feb 22 06:36	18°♄37'58	
desc. node	2578 Apr 05 02:09	21°♄50'31		evening set	2579 Feb 25 03:18	17°♄54'59	
morning max el	2578 Apr 16 19:53	29°♄28'39	27°46'54	inferior conj	2579 Mar 03 06:33	12°♄34'33	3°41'25
	2578 Apr 17 08:23	0°♄		minimum elong	2579 Mar 03 06:39	12°♄34'15	3°41'25
	2578 May 08 18:20	0°♄		min. Earth dist.	2579 Mar 05 20:21	9°♄45'34	0.63286 AU
morning set	2578 May 19 14:09	20°♄31'23		morning rise	2579 Mar 09 08:03	6°♄29'39	
	2578 May 24 02:06	0°♄		direct	2579 Mar 16 06:09	3°♄47'26	
asc. node	2578 May 25 03:26	2°♄16'52		desc. node	2579 Mar 22 23:13	5°♄55'02	
max. Earth dist.	2578 May 25 14:48	3°♄18'39	1.32304 AU	morning max el	2579 Mar 30 03:06	11°♄44'07	27°44'20
					2579 Apr 13 14:35	0°♄	
superior conj	2578 May 26 23:00	6°♄14'21	0°19'04		2579 May 01 03:58	0°♄	
minimum elong	2578 May 26 22:08	6°♄09'37	0°18'52	morning set	2579 May 03 12:46	4°♄39'43	
evening rise	2578 Jun 02 20:56	21°♄16'04		max. Earth dist.	2579 May 08 20:06	15°♄36'34	1.32882 AU
	2578 Jun 07 02:37	0°♄					
	2578 Jun 26 06:18	0°♄		superior conj	2579 May 11 06:56	20°♄50'57	0°-7'-41
evening max el	2578 Jun 28 21:41	2°♄43'33	24°54'39	minimum elong	2579 May 11 07:19	20°♄52'58	0°07'37
desc. node	2578 Jul 02 01:25	5°♄27'45		behind sun begin	2579 May 11 02:39	20°♄27'51	
retrograde	2578 Jul 12 20:51	9°♄48'26		behind sun end	2579 May 11 11:59	21°♄18'06	
evening set	2578 Jul 18 04:47	8°♄43'40		asc. node	2579 May 12 00:28	22°♄25'27	
min. Earth dist.	2578 Jul 23 09:07	5°♄57'10	0.57309 AU		2579 May 15 12:29	0°♄	
inferior conj	2578 Jul 26 08:02	3°♄59'46	-5°00'-22	evening rise	2579 May 18 08:46	6°♄05'25	
minimum elong	2578 Jul 26 06:31	4°♄02'17	5°00'19		2579 May 31 02:29	0°♄	
	2578 Aug 02 22:04	30°♄♄		evening max el	2579 Jun 10 11:16	13°♄14'12	23°19'58
morning rise	2578 Aug 03 11:58	29°♄50'44		desc. node	2579 Jun 18 22:26	19°♄01'39	
direct	2578 Aug 06 01:51	29°♄31'42		retrograde	2579 Jun 24 00:28	20°♄00'25	
	2578 Aug 09 03:01	0°♄		evening set	2579 Jun 27 20:25	19°♄28'17	
morning max el	2578 Aug 15 02:47	3°♄45'31	19°12'29	min. Earth dist.	2579 Jul 04 21:08	16°♄15'19	0.55755 AU
asc. node	2578 Aug 21 02:40	11°♄05'38		inferior conj	2579 Jul 06 19:05	15°♄07'36	-4°-25'-19
	2578 Aug 31 15:23	0°♄		minimum elong	2579 Jul 06 12:17	15°♄17'39	4°24'05
morning set	2578 Sep 01 01:01	0°♄47'45		morning rise	2579 Jul 15 07:16	11°♄13'38	
				direct	2579 Jul 18 03:05	10°♄54'12	

morning max el	2579 Jul 28 16:45	15° $\overline{5}$ 48'09	20°21'31		2580 Jul 12 14:38	0° $\overline{5}$	
asc. node	2579 Aug 07 23:42	29° $\overline{5}$ 35'26		asc. node	2580 Jul 24 20:45	18° $\overline{5}$ 39'47	
	2579 Aug 08 05:25	0° Ω		morning set	2580 Jul 30 15:48	0° Ω 12'48	
morning set	2579 Aug 16 06:26	15° Ω 23'59			2580 Jul 30 13:20	0° Ω	
	2579 Aug 23 09:00	0° $\overline{\eta}$					
superior conj	2579 Aug 23 22:30	1° $\overline{\eta}$ 08'28	1°45'17	superior conj	2580 Aug 06 22:51	15° Ω 35'36	1°40'58
minimum elong	2579 Aug 23 22:21	1° $\overline{\eta}$ 07'41	1°45'16	minimum elong	2580 Aug 06 21:26	15° Ω 28'08	1°40'53
max. Earth dist.	2579 Aug 29 01:58	11° $\overline{\eta}$ 18'55	1.36404 AU	max. Earth dist.	2580 Aug 10 15:43	23° Ω 14'25	1.34768 AU
evening rise	2579 Sep 02 01:34	18° $\overline{\eta}$ 48'30			2580 Aug 14 01:10	0° $\overline{\eta}$	
	2579 Sep 08 09:40	0° $\underline{\Delta}$		evening rise	2580 Aug 15 04:09	2° $\overline{\eta}$ 10'39	
desc. node	2579 Sep 14 21:48	10° $\underline{\Delta}$ 35'53			2580 Aug 31 08:16	0° $\underline{\Delta}$	
	2579 Sep 28 12:50	0° $\overline{\mathcal{M}}$		desc. node	2580 Aug 31 18:48	0° $\underline{\Delta}$ 40'01	
evening max el	2579 Oct 07 18:00	10° $\overline{\mathcal{M}}$ 28'31	26°00'14	evening max el	2580 Sep 19 06:29	24° $\underline{\Delta}$ 04'48	26°53'06
retrograde	2579 Oct 20 06:19	17° $\overline{\mathcal{M}}$ 35'00			2580 Sep 27 04:52	0° $\overline{\mathcal{M}}$	
evening set	2579 Oct 26 10:28	15° $\overline{\mathcal{M}}$ 02'10		retrograde	2580 Oct 02 09:30	1° $\overline{\mathcal{M}}$ 20'31	
min. Earth dist.	2579 Oct 30 17:24	10° $\overline{\mathcal{M}}$ 26'02	0.66714 AU		2580 Oct 07 03:59	30° $\overline{\mathcal{R}}$ $\underline{\Delta}$	
inferior conj	2579 Nov 01 02:44	8° $\overline{\mathcal{M}}$ 41'44	0°-58'-26	evening set	2580 Oct 09 02:29	28° $\underline{\Delta}$ 39'25	
minimum elong	2579 Nov 01 04:16	8° $\overline{\mathcal{M}}$ 36'55	0°57'46	min. Earth dist.	2580 Oct 13 02:19	24° $\underline{\Delta}$ 40'08	0.65651 AU
asc. node	2579 Nov 03 22:54	5° $\overline{\mathcal{M}}$ 20'15		inferior conj	2580 Oct 14 23:34	22° $\underline{\Delta}$ 28'49	-1°-57'-33
morning rise	2579 Nov 06 23:02	2° $\overline{\mathcal{M}}$ 48'04		minimum elong	2580 Oct 15 02:46	22° $\underline{\Delta}$ 19'33	1°56'17
direct	2579 Nov 10 01:45	1° $\overline{\mathcal{M}}$ 52'29		asc. node	2580 Oct 20 19:57	16° $\underline{\Delta}$ 58'57	
morning max el	2579 Nov 16 22:43	5° $\overline{\mathcal{M}}$ 41'48	18°56'44	morning rise	2580 Oct 21 04:33	16° $\underline{\Delta}$ 47'30	
	2579 Dec 04 04:18	0° $\overline{\mathcal{X}}$		direct	2580 Oct 23 22:48	16° $\underline{\Delta}$ 05'33	
morning set	2579 Dec 08 23:59	7° $\overline{\mathcal{X}}$ 32'44		morning max el	2580 Oct 30 11:59	19° $\underline{\Delta}$ 38'42	18°17'47
desc. node	2579 Dec 11 21:05	12° $\overline{\mathcal{X}}$ 03'30			2580 Nov 07 08:56	0° $\overline{\mathcal{M}}$	
	2579 Dec 23 07:45	0° $\overline{\mathcal{Z}}$		morning set	2580 Nov 18 12:43	17° $\overline{\mathcal{M}}$ 52'13	
max. Earth dist.	2579 Dec 23 22:22	0° $\overline{\mathcal{Z}}$ 57'30	1.45010 AU	desc. node	2580 Nov 26 01:04	0° $\overline{\mathcal{X}}$	
					2580 Nov 27 18:07	2° $\overline{\mathcal{X}}$ 43'57	
superior conj	2579 Dec 25 14:39	3° $\overline{\mathcal{Z}}$ 36'03	-1°-24'-11	superior conj	2580 Dec 03 16:29	12° $\overline{\mathcal{X}}$ 07'54	0°-39'-15
minimum elong	2579 Dec 25 05:42	3° $\overline{\mathcal{Z}}$ 00'48	1°23'15	minimum elong	2580 Dec 03 11:26	11° $\overline{\mathcal{X}}$ 48'02	0°38'36
evening rise	2580 Jan 09 19:37	27° $\overline{\mathcal{Z}}$ 55'25		max. Earth dist.	2580 Dec 05 17:46	15° $\overline{\mathcal{X}}$ 21'47	1.45153 AU
	2580 Jan 11 02:16	0° \approx			2580 Dec 15 02:07	0° $\overline{\mathcal{Z}}$	
evening max el	2580 Jan 30 07:31	28° \approx 36'26	18°39'21	evening rise	2580 Dec 20 00:41	7° $\overline{\mathcal{Z}}$ 43'30	
asc. node	2580 Jan 30 22:11	29° \approx 12'33			2581 Jan 03 10:40	0° \approx	
	2580 Jan 31 19:23	0° $\overline{\mathcal{H}}$		greatest brilliancy	2581 Jan 03 17:36	0° \approx 25'40	-0.7m
retrograde	2580 Feb 05 22:35	2° $\overline{\mathcal{H}}$ 17'09		evening max el	2581 Jan 12 15:55	12° \approx 05'21	19°21'36
evening set	2580 Feb 09 01:06	1° $\overline{\mathcal{H}}$ 22'34		asc. node	2581 Jan 16 19:12	15° \approx 22'36	
	2580 Feb 10 21:58	30° $\overline{\mathcal{R}}$ \approx		retrograde	2581 Jan 19 18:56	16° \approx 10'51	
inferior conj	2580 Feb 14 20:22	25° \approx 43'43	3°35'17	evening set	2581 Jan 23 04:20	15° \approx 03'33	
minimum elong	2580 Feb 14 18:59	25° \approx 47'53	3°35'10	inferior conj	2581 Jan 28 18:18	9° \approx 08'31	3°15'29
min. Earth dist.	2580 Feb 16 18:33	23° \approx 24'36	0.64996 AU	minimum elong	2581 Jan 28 16:01	9° \approx 15'52	3°15'03
morning rise	2580 Feb 20 11:38	19° \approx 32'47		min. Earth dist.	2581 Jan 30 01:23	7° \approx 27'54	0.66310 AU
direct	2580 Feb 27 04:31	16° \approx 42'23		morning rise	2581 Feb 03 02:56	2° \approx 54'18	
desc. node	2580 Mar 08 20:15	21° \approx 58'38		direct	2581 Feb 09 09:00	0° \approx 09'03	
morning max el	2580 Mar 11 12:35	24° \approx 30'13	27°07'36	morning max el	2581 Feb 21 22:09	7° \approx 35'40	26°03'49
	2580 Mar 16 11:59	0° $\overline{\mathcal{H}}$		desc. node	2581 Feb 23 17:18	9° \approx 28'36	
	2580 Apr 06 00:25	0° $\overline{\mathcal{Y}}$			2581 Mar 11 09:20	0° $\overline{\mathcal{H}}$	
morning set	2580 Apr 16 02:02	18° $\overline{\mathcal{Y}}$ 16'35			2581 Mar 29 10:53	0° $\overline{\mathcal{Y}}$	
max. Earth dist.	2580 Apr 20 16:23	27° $\overline{\mathcal{Y}}$ 24'33	1.33905 AU	morning set	2581 Mar 30 01:56	1° $\overline{\mathcal{Y}}$ 09'33	
	2580 Apr 21 22:43	0° $\overline{\mathcal{B}}$		max. Earth dist.	2581 Apr 03 01:15	8° $\overline{\mathcal{Y}}$ 41'06	1.35391 AU
superior conj	2580 Apr 24 10:01	5° $\overline{\mathcal{B}}$ 08'37	0°-35'-46	superior conj	2581 Apr 08 05:46	18° $\overline{\mathcal{Y}}$ 59'16	-1°-3'-54
minimum elong	2580 Apr 24 11:51	5° $\overline{\mathcal{B}}$ 18'12	0°35'25	minimum elong	2581 Apr 08 09:02	19° $\overline{\mathcal{Y}}$ 15'52	1°03'21
asc. node	2580 Apr 27 21:29	12° $\overline{\mathcal{B}}$ 30'14			2581 Apr 13 14:12	0° $\overline{\mathcal{B}}$	
evening rise	2580 May 01 19:23	20° $\overline{\mathcal{B}}$ 46'40		asc. node	2581 Apr 14 18:30	2° $\overline{\mathcal{B}}$ 26'22	
	2580 May 06 08:23	0° $\overline{\mathcal{I}}$		evening rise	2581 Apr 16 02:48	5° $\overline{\mathcal{B}}$ 12'32	
evening max el	2580 May 22 05:08	23° $\overline{\mathcal{I}}$ 48'26	21°45'38		2581 Apr 30 03:51	0° $\overline{\mathcal{I}}$	
retrograde	2580 Jun 03 16:30	29° $\overline{\mathcal{I}}$ 56'39		evening max el	2581 May 04 09:09	4° $\overline{\mathcal{I}}$ 51'12	20°23'28
desc. node	2580 Jun 04 19:27	29° $\overline{\mathcal{I}}$ 53'46		retrograde	2581 May 15 05:50	10° $\overline{\mathcal{I}}$ 07'59	
evening set	2580 Jun 06 06:49	29° $\overline{\mathcal{I}}$ 41'31		evening set	2581 May 17 06:51	9° $\overline{\mathcal{I}}$ 57'33	
inferior conj	2580 Jun 15 15:41	25° $\overline{\mathcal{I}}$ 39'26	-3°-1'-45	desc. node	2581 May 22 16:29	8° $\overline{\mathcal{I}}$ 03'53	
minimum elong	2580 Jun 15 08:00	25° $\overline{\mathcal{I}}$ 50'11	2°59'25	inferior conj	2581 May 26 10:14	5° $\overline{\mathcal{I}}$ 59'34	-1°-5'-44
min. Earth dist.	2580 Jun 15 08:32	25° $\overline{\mathcal{I}}$ 49'25	0.54948 AU	minimum elong	2581 May 26 07:08	6° $\overline{\mathcal{I}}$ 04'06	1°04'36
morning rise	2580 Jun 24 10:19	21° $\overline{\mathcal{I}}$ 45'59		min. Earth dist.	2581 May 27 20:59	5° $\overline{\mathcal{I}}$ 08'53	0.55080 AU
direct	2580 Jun 27 15:08	21° $\overline{\mathcal{I}}$ 23'30		morning rise	2581 Jun 04 05:39	1° $\overline{\mathcal{I}}$ 46'42	
morning max el	2580 Jul 09 19:13	27° $\overline{\mathcal{I}}$ 06'42	21°49'46	direct	2581 Jun 08 01:44	1° $\overline{\mathcal{I}}$ 14'56	

morning max el	2581 Jun 21 12:48	7° Π 47'46	23°30'34	morning rise	2582 May 15 04:01	11° \mathcal{B} 53'38	
	2581 Jul 07 11:26	0° \mathfrak{E}		direct	2582 May 19 23:00	11° \mathcal{B} 01'01	
asc. node	2581 Jul 11 17:47	8° \mathfrak{E} 08'57		morning max el	2582 Jun 03 03:09	18° \mathcal{B} 13'32	25°11'11
morning set	2581 Jul 15 03:12	15° \mathfrak{E} 07'33			2582 Jun 12 21:49	0° Π	
				asc. node	2582 Jun 28 14:50	27° Π 56'06	
superior conj	2581 Jul 22 05:10	0° \mathcal{Q} 19'56	1°30'42	morning set	2582 Jun 29 15:00	0° \mathfrak{E} 02'55	
minimum elong	2581 Jul 22 03:00	0° \mathcal{Q} 08'17	1°30'29		2582 Jun 29 14:27	0° \mathfrak{E}	
	2581 Jul 22 01:27	0° \mathcal{Q}					
max. Earth dist.	2581 Jul 24 14:31	5° \mathcal{Q} 26'06	1.33511 AU	superior conj	2582 Jul 06 15:07	15° \mathfrak{E} 13'58	1°15'31
evening rise	2581 Jul 29 19:16	16° \mathcal{Q} 08'57		minimum elong	2582 Jul 06 12:44	15° \mathfrak{E} 00'55	1°15'10
	2581 Aug 06 02:37	0° \mathfrak{M}		max. Earth dist.	2582 Jul 07 20:53	17° \mathfrak{E} 56'19	1.32660 AU
desc. node	2581 Aug 18 15:48	20° \mathfrak{M} 16'35		evening rise	2582 Jul 13 19:22	0° \mathcal{Q} 33'02	
	2581 Aug 25 23:04	0° \mathfrak{A}			2582 Jul 13 12:57	0° \mathcal{Q}	
evening max el	2581 Sep 01 18:09	7° \mathfrak{A} 24'52	27°22'19		2582 Jul 30 02:58	0° \mathfrak{M}	
retrograde	2581 Sep 15 06:52	14° \mathfrak{A} 42'54		desc. node	2582 Aug 05 12:49	9° \mathfrak{M} 13'59	
evening set	2581 Sep 22 09:04	12° \mathfrak{A} 01'59		evening max el	2582 Aug 15 03:04	20° \mathfrak{M} 16'16	27°21'56
min. Earth dist.	2581 Sep 26 02:40	8° \mathfrak{A} 38'14	0.64228 AU	retrograde	2582 Aug 28 22:00	27° \mathfrak{M} 32'35	
inferior conj	2581 Sep 28 12:32	6° \mathfrak{A} 05'28	-2°-56'-18	evening set	2582 Sep 05 02:44	25° \mathfrak{M} 03'47	
minimum elong	2581 Sep 28 17:14	5° \mathfrak{A} 53'03	2°54'42	min. Earth dist.	2582 Sep 08 16:57	22° \mathfrak{M} 09'25	0.62470 AU
morning rise	2581 Oct 05 03:31	0° \mathfrak{A} 39'51		inferior conj	2582 Sep 11 14:44	19° \mathfrak{M} 24'53	-3°-51'-5
direct	2581 Oct 07 15:45	0° \mathfrak{A} 07'55		minimum elong	2582 Sep 11 20:15	19° \mathfrak{M} 11'51	3°49'38
asc. node	2581 Oct 07 16:59	0° \mathfrak{A} 07'56		morning rise	2582 Sep 18 16:32	14° \mathfrak{M} 18'13	
morning max el	2581 Oct 14 04:04	3° \mathfrak{A} 33'52	17°55'54	direct	2582 Sep 21 01:27	13° \mathfrak{M} 52'58	
morning set	2581 Oct 31 05:28	29° \mathfrak{A} 33'29		asc. node	2582 Sep 24 14:03	14° \mathfrak{M} 50'20	
	2581 Oct 31 11:42	0° \mathfrak{M}		morning max el	2582 Sep 27 19:59	17° \mathfrak{M} 20'08	17°51'54
					2582 Oct 06 20:25	0° \mathfrak{A}	
superior conj	2581 Nov 13 08:21	21° \mathfrak{M} 25'19	0°08'44	morning set	2582 Oct 13 20:24	12° \mathfrak{A} 18'10	
minimum elong	2581 Nov 13 09:21	21° \mathfrak{M} 29'22	0°08'35		2582 Oct 23 22:03	0° \mathfrak{M}	
behind sun begin	2581 Nov 13 00:39	20° \mathfrak{M} 54'07					
behind sun end	2581 Nov 13 18:02	22° \mathfrak{M} 04'33		superior conj	2582 Oct 25 02:06	1° \mathfrak{M} 59'28	0°49'30
desc. node	2581 Nov 14 15:08	23° \mathfrak{M} 29'42		minimum elong	2582 Oct 25 06:15	2° \mathfrak{M} 17'05	0°48'58
max. Earth dist.	2581 Nov 18 12:24	29° \mathfrak{M} 42'34	1.44555 AU	max. Earth dist.	2582 Nov 01 03:17	13° \mathfrak{M} 41'16	1.43304 AU
	2581 Nov 18 16:48	0° \mathfrak{A}		desc. node	2582 Nov 01 12:09	14° \mathfrak{M} 17'09	
evening rise	2581 Nov 29 12:54	16° \mathfrak{A} 54'42		evening rise	2582 Nov 08 22:36	26° \mathfrak{M} 04'55	
	2581 Dec 08 02:59	0° \mathfrak{B}			2582 Nov 11 11:25	0° \mathfrak{A}	
greatest brilliancy	2581 Dec 20 11:51	17° \mathfrak{B} 56'43	-0.5m		2582 Dec 02 02:38	0° \mathfrak{B}	
evening max el	2581 Dec 26 19:25	25° \mathfrak{B} 35'54	20°19'05	greatest brilliancy	2582 Dec 04 18:11	3° \mathfrak{B} 24'55	-0.4m
	2582 Jan 02 01:23	0° \approx		evening max el	2582 Dec 09 17:20	9° \mathfrak{B} 07'06	21°28'53
retrograde	2582 Jan 03 16:56	0° \approx 14'33		retrograde	2582 Dec 18 14:25	14° \mathfrak{B} 23'50	
asc. node	2582 Jan 03 16:14	0° \approx 14'33		asc. node	2582 Dec 21 13:18	13° \mathfrak{B} 35'51	
	2582 Jan 05 07:17	30° \mathfrak{R} \mathfrak{B}		evening set	2582 Dec 22 18:30	12° \mathfrak{B} 47'08	
evening set	2582 Jan 07 10:46	28° \mathfrak{B} 53'15		inferior conj	2582 Dec 28 04:04	6° \mathfrak{B} 29'03	2°06'32
inferior conj	2582 Jan 12 21:38	22° \mathfrak{B} 44'59	2°45'11	minimum elong	2582 Dec 28 01:41	6° \mathfrak{B} 37'20	2°05'43
minimum elong	2582 Jan 12 19:03	22° \mathfrak{B} 53'45	2°44'28	min. Earth dist.	2582 Dec 28 09:36	6° \mathfrak{B} 09'55	0.67727 AU
min. Earth dist.	2582 Jan 13 15:11	21° \mathfrak{B} 45'30	0.67212 AU	morning rise	2583 Jan 02 08:33	0° \mathfrak{B} 14'20	
morning rise	2582 Jan 18 02:48	16° \mathfrak{B} 29'32			2583 Jan 02 15:19	30° \mathfrak{R} \mathfrak{A}	
direct	2582 Jan 23 18:58	13° \mathfrak{B} 59'07		direct	2583 Jan 07 09:43	28° \mathfrak{A} 04'30	
morning max el	2582 Feb 04 06:51	20° \mathfrak{B} 50'50	24°42'34		2583 Jan 12 18:14	0° \mathfrak{B}	
desc. node	2582 Feb 10 14:20	28° \mathfrak{B} 00'12		morning max el	2583 Jan 17 15:53	4° \mathfrak{B} 10'25	23°14'03
	2582 Feb 12 04:26	0° \approx		greatest brilliancy	2583 Jan 22 18:57	9° \mathfrak{B} 55'32	-0.2m
	2582 Mar 04 14:30	0° \mathfrak{H}		desc. node	2583 Jan 28 11:23	17° \mathfrak{B} 15'06	
morning set	2582 Mar 12 07:22	13° \mathfrak{H} 04'55			2583 Feb 06 10:34	0° \approx	
max. Earth dist.	2582 Mar 16 00:00	19° \mathfrak{H} 43'18	1.37285 AU	morning set	2583 Feb 21 11:59	23° \approx 45'26	
	2582 Mar 21 11:12	0° \mathfrak{Y}			2583 Feb 25 04:03	0° \mathfrak{H}	
				max. Earth dist.	2583 Feb 25 18:41	1° \mathfrak{H} 03'22	1.39422 AU
superior conj	2582 Mar 22 15:08	2° \mathfrak{Y} 15'15	-1°-30'-6				
minimum elong	2582 Mar 22 19:25	2° \mathfrak{Y} 36'07	1°29'32	superior conj	2583 Mar 05 10:04	14° \mathfrak{H} 45'55	-1°-51'-32
evening rise	2582 Mar 31 04:43	19° \mathfrak{Y} 16'49		minimum elong	2583 Mar 05 14:13	15° \mathfrak{H} 05'11	1°51'12
asc. node	2582 Apr 01 15:33	22° \mathfrak{Y} 09'41			2583 Mar 13 10:40	0° \mathfrak{Y}	
	2582 Apr 05 17:28	0° \mathfrak{B}		evening rise	2583 Mar 14 22:14	2° \mathfrak{Y} 51'21	
evening max el	2582 Apr 17 01:04	16° \mathfrak{B} 34'21	19°19'36	asc. node	2583 Mar 19 12:36	11° \mathfrak{Y} 34'35	
retrograde	2582 Apr 26 05:02	21° \mathfrak{B} 00'47		evening max el	2583 Mar 31 02:58	28° \mathfrak{Y} 55'03	18°35'51
evening set	2582 Apr 28 06:10	20° \mathfrak{B} 48'26			2583 Apr 01 07:51	0° \mathfrak{B}	
inferior conj	2582 May 06 17:07	16° \mathfrak{B} 40'07	0°48'59	retrograde	2583 Apr 07 21:58	2° \mathfrak{B} 44'06	
minimum elong	2582 May 06 19:06	16° \mathfrak{B} 36'50	0°48'17	evening set	2583 Apr 10 04:36	2° \mathfrak{B} 25'40	
min. Earth dist.	2582 May 09 11:45	14° \mathfrak{B} 50'36	0.56143 AU		2583 Apr 15 02:22	30° \mathfrak{R} \mathfrak{Y}	
desc. node	2582 May 09 13:30	14° \mathfrak{B} 47'49		inferior conj	2583 Apr 17 20:19	27° \mathfrak{Y} 58'50	2°16'48

minimum elong	2583 Apr 18 00:13	27° Υ 51'17	2°15'42	evening set	2584 Mar 22 21:54	14° Υ 45'51	
min. Earth dist.	2583 Apr 21 05:50	25° Υ 22'55	0.57907 AU	inferior conj	2584 Mar 29 20:31	9° Υ 57'34	3°11'15
morning rise	2583 Apr 25 15:27	22° Υ 39'16		minimum elong	2584 Mar 29 23:35	9° Υ 50'40	3°10'43
desc. node	2583 Apr 26 10:32	22° Υ 17'50		min. Earth dist.	2584 Apr 02 05:11	6° Υ 57'46	0.60024 AU
direct	2583 May 01 10:50	21° Υ 14'10		morning rise	2584 Apr 05 21:45	4° Υ 13'43	
morning max el	2583 May 15 19:54	28° Υ 51'29	26°35'57	direct	2584 Apr 12 11:07	2° Υ 12'44	
	2583 May 16 23:16	0° ♄		desc. node	2584 Apr 12 07:35	2° Υ 12'47	
	2583 Jun 06 13:19	0° ♅		morning max el	2584 Apr 26 18:25	10° Υ 02'56	27°31'26
morning set	2583 Jun 14 01:35	14° ♅ 53'42			2584 May 12 04:18	0° ♄	
asc. node	2583 Jun 15 11:53	17° ♅ 55'38		morning set	2584 May 28 09:08	29° ♄ 33'27	
					2584 May 28 14:15	0° ♅	
superior conj	2583 Jun 21 02:46	0° ♄ 11'16	0°56'13	asc. node	2584 Jun 01 08:55	8° ♅ 02'06	
minimum elong	2583 Jun 21 00:39	29° ♅ 59'33	0°55'50	max. Earth dist.	2584 Jun 03 19:53	13° ♅ 23'50	1.32158 AU
	2583 Jun 21 00:43	0° ♄					
max. Earth dist.	2583 Jun 21 07:54	0° ♄ 39'31	1.32210 AU	superior conj	2584 Jun 04 14:19	15° ♅ 05'07	0°33'28
evening rise	2583 Jun 28 01:35	15° ♄ 14'16		minimum elong	2584 Jun 04 12:53	14° ♅ 57'12	0°33'10
	2583 Jul 05 12:28	0° ♄		evening rise	2584 Jun 11 11:33	0° ♄ 04'07	
desc. node	2583 Jul 23 09:50	27° ♄ 16'05			2584 Jun 11 10:46	0° ♄	
	2583 Jul 25 20:16	0° ♅			2584 Jun 27 21:30	0° ♄	
evening max el	2583 Jul 28 06:56	2° ♅ 27'50	26°48'30	evening max el	2584 Jul 09 03:39	13° ♄ 51'41	25°43'23
retrograde	2583 Aug 11 05:37	9° ♅ 40'35		desc. node	2584 Jul 09 06:52	13° ♄ 59'18	
evening set	2583 Aug 18 03:04	7° ♅ 37'29		retrograde	2584 Jul 23 03:39	20° ♄ 59'55	
min. Earth dist.	2583 Aug 21 20:59	5° ♅ 00'04	0.60471 AU	evening set	2584 Jul 29 05:10	19° ♄ 33'03	
inferior conj	2583 Aug 25 02:52	2° ♅ 18'58	-4°-35'-47	min. Earth dist.	2584 Aug 02 15:54	16° ♄ 55'15	0.58415 AU
minimum elong	2583 Aug 25 07:38	2° ♅ 09'01	4°35'00	inferior conj	2584 Aug 05 21:14	14° ♄ 36'37	-5°00'-32
	2583 Aug 28 01:18	30° ♄		minimum elong	2584 Aug 05 22:45	14° ♄ 33'53	5°00'29
morning rise	2583 Sep 01 15:27	27° ♄ 33'56		morning rise	2584 Aug 13 19:51	10° ♄ 14'47	
direct	2583 Sep 04 00:05	27° ♄ 12'35		direct	2584 Aug 16 07:19	9° ♄ 55'09	
	2583 Sep 10 10:51	0° ♅		morning max el	2584 Aug 24 14:31	13° ♄ 51'58	18°42'25
asc. node	2583 Sep 11 11:07	0° ♅ 55'46		asc. node	2584 Aug 28 08:10	18° ♄ 08'08	
morning max el	2583 Sep 11 08:35	0° ♅ 49'35	18°06'57		2584 Sep 04 17:05	0° ♅	
morning set	2583 Sep 27 03:29	25° ♅ 49'30		morning set	2584 Sep 09 21:51	9° ♅ 53'06	
	2583 Sep 29 09:01	0° ♄					
superior conj	2583 Oct 06 21:58	13° ♄ 50'24	1°18'50	superior conj	2584 Sep 18 14:53	26° ♅ 43'04	1°36'41
minimum elong	2583 Oct 07 02:08	14° ♄ 09'01	1°18'23	minimum elong	2584 Sep 18 17:30	26° ♅ 55'27	1°36'29
max. Earth dist.	2583 Oct 14 13:13	27° ♄ 05'24	1.41560 AU		2584 Sep 20 08:58	0° ♄	
	2583 Oct 16 07:03	0° ♅		max. Earth dist.	2584 Sep 25 18:42	9° ♄ 47'08	1.39537 AU
desc. node	2583 Oct 19 09:10	5° ♅ 03'26		evening rise	2584 Sep 29 20:46	16° ♄ 50'37	
evening rise	2583 Oct 19 22:19	5° ♅ 56'30		desc. node	2584 Oct 05 06:12	25° ♄ 44'09	
	2583 Nov 04 17:19	0° ♄			2584 Oct 07 22:43	0° ♅	
greatest brilliancy	2583 Nov 17 09:24	17° ♄ 02'20	-0.3m		2584 Oct 29 07:16	0° ♄	
evening max el	2583 Nov 22 10:18	22° ♄ 40'55	22°46'33	evening max el	2584 Nov 03 23:51	6° ♄ 18'04	24°06'29
retrograde	2583 Dec 02 09:39	28° ♄ 36'09		retrograde	2584 Nov 15 01:25	12° ♄ 47'47	
evening set	2583 Dec 07 01:53	26° ♄ 42'51		evening set	2584 Nov 20 07:18	10° ♄ 37'32	
asc. node	2583 Dec 08 10:21	25° ♄ 26'57		asc. node	2584 Nov 24 07:23	6° ♄ 09'41	
inferior conj	2583 Dec 12 11:41	20° ♄ 18'45	1°21'05	min. Earth dist.	2584 Nov 25 02:30	5° ♄ 05'56	0.67700 AU
minimum elong	2583 Dec 12 09:56	20° ♄ 24'48	1°20'24	inferior conj	2584 Nov 25 18:39	4° ♄ 11'25	0°30'08
min. Earth dist.	2583 Dec 12 06:11	20° ♄ 37'45	0.67888 AU	minimum elong	2584 Nov 25 17:56	4° ♄ 13'51	0°29'50
morning rise	2583 Dec 17 17:55	14° ♄ 06'53			2584 Nov 29 02:40	30° ♅	
direct	2583 Dec 22 04:18	12° ♄ 19'53		morning rise	2584 Dec 01 04:49	28° ♅ 04'46	
morning max el	2583 Dec 31 04:45	17° ♄ 37'06	21°47'39	direct	2584 Dec 05 01:29	26° ♅ 40'00	
greatest brilliancy	2584 Jan 04 23:53	23° ♄ 02'04	-0.4m		2584 Dec 11 17:16	0° ♄	
	2584 Jan 10 08:13	0° ♄		morning max el	2584 Dec 13 00:39	1° ♄ 14'43	20°30'28
desc. node	2584 Jan 15 08:26	7° ♄ 01'17		greatest brilliancy	2584 Dec 19 05:02	8° ♄ 32'44	-0.5m
	2584 Jan 30 13:38	0° ♅		desc. node	2585 Jan 01 05:29	27° ♄ 10'03	
morning set	2584 Feb 01 11:28	3° ♅ 02'02			2585 Jan 03 02:39	0° ♄	
max. Earth dist.	2584 Feb 07 17:22	13° ♅ 12'45	1.41538 AU	morning set	2585 Jan 10 11:47	11° ♄ 17'52	
				max. Earth dist.	2585 Jan 20 00:08	26° ♄ 19'46	1.43338 AU
superior conj	2584 Feb 15 09:35	26° ♅ 19'27	-2°-4'-14		2585 Jan 22 06:28	0° ♅	
minimum elong	2584 Feb 15 11:29	26° ♅ 27'44	2°04'12	superior conj	2585 Jan 26 08:44	6° ♅ 44'42	-2°-3'-13
	2584 Feb 17 11:31	0° ♄		minimum elong	2585 Jan 26 05:42	6° ♅ 32'06	2°03'09
evening rise	2584 Feb 26 03:52	15° ♄ 47'58		evening rise	2585 Feb 07 17:31	27° ♅ 58'26	
asc. node	2584 Mar 05 09:39	0° ♅ 34'39			2585 Feb 08 21:11	0° ♄	
	2584 Mar 05 01:26	0° ♅		asc. node	2585 Feb 20 06:41	19° ♄ 01'58	
evening max el	2584 Mar 13 11:37	11° ♅ 44'30	18°12'08	evening max el	2585 Feb 24 23:38	24° ♄ 53'30	18°07'56
retrograde	2584 Mar 20 09:24	15° ♅ 12'54		retrograde	2585 Mar 03 11:35	28° ♄ 16'53	

evening set	2585 Mar 06 05:20	27° ♄ 39'55		asc. node	2586 Feb 07 03:43	6° ♄ 45'58	
inferior conj	2585 Mar 12 14:33	22° ♄ 30'31	3°36'57	evening max el	2586 Feb 08 12:06	8° ♄ 13'54	18°22'36
minimum elong	2585 Mar 12 15:44	22° ♄ 27'27	3°36'53	retrograde	2586 Feb 14 23:47	11° ♄ 45'18	
min. Earth dist.	2585 Mar 15 12:31	19° ♄ 31'40	0.62152 AU	evening set	2586 Feb 17 22:48	10° ♄ 57'32	
morning rise	2585 Mar 18 23:43	16° ♄ 31'17		inferior conj	2586 Feb 23 22:16	5° ♄ 28'47	3°40'45
direct	2585 Mar 25 21:10	14° ♄ 00'54		minimum elong	2586 Feb 23 21:40	5° ♄ 30'28	3°40'44
desc. node	2585 Mar 30 04:38	14° ♄ 53'29		min. Earth dist.	2586 Feb 26 05:23	2° ♄ 51'03	0.64056 AU
morning max el	2585 Apr 08 23:09	21° ♄ 56'58	27°50'24		2586 Mar 01 00:33	30° ♄	
	2585 Apr 16 00:35	0° ♄		morning rise	2586 Mar 01 18:56	29° ♄ 20'36	
	2585 May 05 06:44	0° ♄		direct	2586 Mar 08 15:27	26° ♄ 33'25	
morning set	2585 May 12 11:44	13° ♄ 55'55		desc. node	2586 Mar 17 01:40	29° ♄ 53'10	
max. Earth dist.	2585 May 18 05:02	25° ♄ 56'38	1.32502 AU		2586 Mar 17 05:26	0° ♄	
asc. node	2585 May 19 05:58	28° ♄ 11'26		morning max el	2586 Mar 22 07:56	4° ♄ 27'58	27°32'36
					2586 Apr 10 14:31	0° ♄	
superior conj	2585 May 20 00:05	29° ♄ 49'54	0°07'58	morning set	2586 Apr 26 06:46	27° ♄ 52'10	
minimum elong	2585 May 19 23:43	29° ♄ 47'51	0°07'53		2586 Apr 27 08:30	0° ♄	
behind sun begin	2585 May 19 19:12	29° ♄ 23'20		max. Earth dist.	2586 May 01 07:04	8° ♄ 03'30	1.33265 AU
behind sun end	2585 May 20 04:13	0° ♄ 12'23					
	2585 May 20 01:57	0° ♄		superior conj	2586 May 04 06:11	14° ♄ 18'56	0°-19'-30
evening rise	2585 May 26 23:15	14° ♄ 55'57		minimum elong	2586 May 04 07:10	14° ♄ 24'08	0°19'19
	2585 Jun 03 12:07	0° ♄		asc. node	2586 May 06 02:59	18° ♄ 18'50	
evening max el	2585 Jun 20 18:12	24° ♄ 34'37	24°15'15	evening rise	2586 May 11 10:47	29° ♄ 42'25	
desc. node	2585 Jun 26 03:52	28° ♄ 52'46			2586 May 11 14:08	0° ♄	
	2585 Jun 28 04:39	0° ♄			2586 May 28 20:22	0° ♄	
retrograde	2585 Jul 04 14:15	1° ♄ 33'16		evening max el	2586 Jun 02 08:23	5° ♄ 01'39	22°38'50
evening set	2585 Jul 09 07:31	0° ♄ 43'43		desc. node	2586 Jun 13 00:52	11° ♄ 20'36	
	2585 Jul 11 03:27	30° ♄		retrograde	2586 Jun 15 12:46	11° ♄ 34'52	
min. Earth dist.	2585 Jul 15 04:56	27° ♄ 47'46	0.56582 AU	evening set	2586 Jun 18 18:27	11° ♄ 11'48	
inferior conj	2585 Jul 17 19:27	26° ♄ 09'58	-4°-51'-22	min. Earth dist.	2586 Jun 26 16:16	7° ♄ 43'48	0.55304 AU
minimum elong	2585 Jul 17 15:29	26° ♄ 16'12	4°50'59	inferior conj	2586 Jun 27 23:07	6° ♄ 59'45	-3°-55'-27
morning rise	2585 Jul 26 03:03	22° ♄ 08'50		minimum elong	2586 Jun 27 15:10	7° ♄ 11'07	3°53'32
direct	2585 Jul 28 19:28	21° ♄ 49'41		morning rise	2586 Jul 06 14:29	3° ♄ 08'35	
morning max el	2585 Aug 07 10:54	26° ♄ 18'30	19°39'19	direct	2586 Jul 09 13:24	2° ♄ 48'29	
	2585 Aug 10 20:16	0° ♄		morning max el	2586 Jul 20 19:56	8° ♄ 02'25	20°57'06
asc. node	2585 Aug 15 05:12	6° ♄ 13'10		asc. node	2586 Aug 02 02:14	24° ♄ 58'37	
morning set	2585 Aug 24 23:59	24° ♄ 19'28			2586 Aug 04 19:03	0° ♄	
	2585 Aug 27 19:22	0° ♄		morning set	2586 Aug 09 07:18	9° ♄ 01'35	
superior conj	2585 Sep 01 23:23	10° ♄ 22'22	1°44'34	superior conj	2586 Aug 16 19:00	24° ♄ 35'14	1°44'15
minimum elong	2585 Sep 02 00:11	10° ♄ 26'16	1°44'32	minimum elong	2586 Aug 16 18:14	24° ♄ 31'21	1°44'14
max. Earth dist.	2585 Sep 07 23:00	21° ♄ 52'23	1.37492 AU		2586 Aug 19 10:51	0° ♄	
evening rise	2585 Sep 11 18:30	28° ♄ 49'31		max. Earth dist.	2586 Aug 21 07:36	3° ♄ 42'41	1.35656 AU
	2585 Sep 12 10:22	0° ♄		evening rise	2586 Aug 25 11:51	11° ♄ 44'43	
desc. node	2585 Sep 22 03:13	16° ♄ 15'03			2586 Sep 04 21:50	0° ♄	
	2585 Oct 01 07:03	0° ♄		desc. node	2586 Sep 09 00:13	6° ♄ 30'53	
evening max el	2585 Oct 17 11:56	19° ♄ 57'52	25°21'51		2586 Sep 26 12:16	0° ♄	
retrograde	2585 Oct 29 12:51	26° ♄ 54'07		evening max el	2586 Sep 30 00:00	3° ♄ 37'07	26°25'12
evening set	2585 Nov 04 09:04	24° ♄ 28'16		retrograde	2586 Oct 12 19:24	10° ♄ 49'31	
min. Earth dist.	2585 Nov 08 20:12	19° ♄ 31'42	0.67171 AU	evening set	2586 Oct 19 05:19	8° ♄ 12'02	
inferior conj	2585 Nov 09 23:11	18° ♄ 04'26	0°-25'-9	min. Earth dist.	2586 Oct 23 09:02	3° ♄ 51'43	0.66298 AU
minimum elong	2585 Nov 09 23:49	18° ♄ 02'21	0°24'53	inferior conj	2586 Oct 24 23:26	1° ♄ 55'03	-1°-23'-23
asc. node	2585 Nov 11 04:25	16° ♄ 31'04		minimum elong	2586 Oct 25 01:40	1° ♄ 48'15	1°22'28
morning rise	2585 Nov 15 15:17	12° ♄ 05'29			2586 Oct 26 14:08	30° ♄	
direct	2585 Nov 18 23:55	11° ♄ 00'22		asc. node	2586 Oct 29 01:27	27° ♄ 28'27	
morning max el	2585 Nov 26 04:28	15° ♄ 03'09	19°26'36	morning rise	2586 Oct 30 23:16	26° ♄ 06'27	
greatest brilliancy	2585 Dec 05 01:48	26° ♄ 20'55	-0.7m	direct	2586 Nov 02 21:59	25° ♄ 17'19	
	2585 Dec 07 13:45	0° ♄		morning max el	2586 Nov 09 14:58	28° ♄ 58'51	18°38'12
desc. node	2585 Dec 19 02:30	17° ♄ 34'43			2586 Nov 10 14:12	0° ♄	
morning set	2585 Dec 20 10:20	19° ♄ 37'52		morning set	2586 Nov 30 06:11	29° ♄ 06'25	
	2585 Dec 27 02:23	0° ♄			2586 Nov 30 19:41	0° ♄	
max. Earth dist.	2586 Jan 02 13:48	10° ♄ 10'22	1.44590 AU	desc. node	2586 Dec 05 23:32	8° ♄ 10'42	
superior conj	2586 Jan 06 05:48	16° ♄ 00'04	-1°-43'-56	superior conj	2586 Dec 16 09:18	24° ♄ 33'04	-1°-6'-20
minimum elong	2586 Jan 05 21:39	15° ♄ 27'31	1°43'17	minimum elong	2586 Dec 16 01:19	24° ♄ 01'42	1°05'24
	2586 Jan 14 21:06	0° ♄		max. Earth dist.	2586 Dec 16 07:27	24° ♄ 25'48	1.45155 AU
evening rise	2586 Jan 20 10:50	9° ♄ 14'30			2586 Dec 19 20:34	0° ♄	
	2586 Feb 02 03:42	0° ♄		evening rise	2587 Jan 01 04:57	19° ♄ 33'07	

	2587 Jan 07 17:59	0°♊		evening max el	2588 Jan 06 05:08	5°♊11'02	19°44'24
evening max el	2587 Jan 22 22:36	21°♊40'58	18°55'15	asc. node	2588 Jan 11 21:47	9°♊13'12	
asc. node	2587 Jan 25 00:44	23°♊34'35		retrograde	2588 Jan 13 15:20	9°♊29'37	
retrograde	2587 Jan 29 18:04	25°♊31'25		evening set	2588 Jan 17 04:05	8°♊16'41	
evening set	2587 Feb 01 23:14	24°♊31'46		inferior conj	2588 Jan 22 16:30	2°♊15'56	3°03'47
inferior conj	2587 Feb 07 15:57	18°♊45'47	3°28'22	minimum elong	2588 Jan 22 14:02	2°♊24'07	3°03'12
minimum elong	2587 Feb 07 14:07	18°♊51'30	3°28'06	min. Earth dist.	2588 Jan 23 17:45	0°♊52'26	0.66744 AU
min. Earth dist.	2587 Feb 09 07:38	16°♊42'06	0.65605 AU		2588 Jan 24 09:53	30°♊	
morning rise	2587 Feb 13 03:57	12°♊32'54		morning rise	2588 Jan 27 23:18	26°♊00'58	
direct	2587 Feb 19 16:43	9°♊43'00		direct	2588 Feb 02 23:51	23°♊20'44	
desc. node	2587 Mar 03 22:44	16°♊37'11			2588 Feb 14 13:04	0°♊	
morning max el	2587 Mar 04 17:48	17°♊24'22	26°43'09	morning max el	2588 Feb 15 02:48	0°♊34'14	25°30'43
	2587 Mar 15 06:46	0°♋		desc. node	2588 Feb 18 19:46	4°♊35'47	
	2587 Apr 03 12:10	0°♌			2588 Mar 08 05:51	0°♋	
morning set	2587 Apr 09 14:56	11°♌12'15		morning set	2588 Mar 22 07:46	23°♋43'14	
max. Earth dist.	2587 Apr 13 22:27	19°♌36'27	1.34482 AU		2588 Mar 25 17:14	0°♌	
				max. Earth dist.	2588 Mar 26 02:15	0°♌42'35	1.36152 AU
superior conj	2587 Apr 18 06:29	28°♌25'59	0°-47'-49				
minimum elong	2587 Apr 18 08:57	28°♌38'43	0°47'21	superior conj	2588 Mar 31 22:20	12°♌03'50	-1°-15'-23
	2587 Apr 19 00:35	0°♍		minimum elong	2588 Apr 01 02:07	12°♌22'42	1°14'47
asc. node	2587 Apr 23 00:01	8°♍20'23		asc. node	2588 Apr 08 21:05	28°♌12'03	
evening rise	2587 Apr 25 20:18	14°♍17'40		evening rise	2588 Apr 09 01:43	28°♌35'37	
	2587 May 03 21:43	0°♎			2588 Apr 09 18:24	0°♍	
evening max el	2587 May 15 06:04	15°♎45'42	21°08'40	evening max el	2588 Apr 26 15:28	27°♍06'48	19°53'57
retrograde	2587 May 27 02:24	21°♎32'59			2588 Apr 30 06:12	0°♎	
evening set	2587 May 29 08:36	21°♎21'07		retrograde	2588 May 06 18:08	2°♎00'30	
desc. node	2587 May 30 21:54	20°♎59'58		evening set	2588 May 08 18:11	1°♎49'50	
inferior conj	2587 Jun 07 17:03	17°♎22'57	-2°-14'-39		2588 May 13 20:25	30°♎	
minimum elong	2587 Jun 07 10:51	17°♎31'40	2°12'32	desc. node	2588 May 16 18:57	28°♎20'29	
min. Earth dist.	2587 Jun 08 04:22	17°♎07'00	0.54882 AU	inferior conj	2588 May 17 15:29	27°♎49'19	0°-15'00
morning rise	2587 Jun 16 12:55	13°♎23'10		minimum elong	2588 May 17 14:48	27°♎50'22	0°14'46
direct	2587 Jun 19 23:04	12°♎57'50		transit middle	2588 May 17 14:48	27°♎50'22	0°14'46
morning max el	2587 Jul 02 18:11	19°♎03'37	22°31'46	transit begin	2588 May 17 13:18	27°♎52'39	
	2587 Jul 11 17:24	0°♏		transit end	2588 May 17 16:18	27°♎48'05	
asc. node	2587 Jul 19 23:16	14°♏14'20		min. Earth dist.	2588 May 19 17:49	26°♎32'45	0.55431 AU
morning set	2587 Jul 24 17:43	23°♏53'15		morning rise	2588 May 26 08:25	23°♎23'09	
	2587 Jul 27 14:59	0°♐		direct	2588 May 30 13:53	22°♎43'49	
				morning max el	2588 Jun 13 09:34	29°♎35'18	24°14'10
superior conj	2587 Jul 31 22:11	9°♐10'41	1°37'16		2588 Jun 13 19:52	0°♐	
minimum elong	2587 Jul 31 20:23	9°♐01'06	1°37'08		2588 Jul 03 21:58	0°♏	
max. Earth dist.	2587 Aug 04 00:53	15°♐42'25	1.34177 AU	asc. node	2588 Jul 05 20:19	3°♏52'24	
evening rise	2587 Aug 08 20:15	25°♐23'44		morning set	2588 Jul 08 05:32	8°♏49'27	
	2587 Aug 11 05:40	0°♑					
desc. node	2587 Aug 26 21:13	26°♑24'24		superior conj	2588 Jul 15 06:21	24°♏00'33	1°24'49
	2587 Aug 29 08:30	0°♒		minimum elong	2588 Jul 15 04:02	23°♏47'58	1°24'32
evening max el	2587 Sep 12 12:18	17°♒07'55	27°08'57	max. Earth dist.	2588 Jul 17 03:24	28°♏03'37	1.33104 AU
retrograde	2587 Sep 25 20:24	24°♒26'01			2588 Jul 18 01:10	0°♑	
evening set	2587 Oct 02 17:42	21°♒43'52		evening rise	2588 Jul 22 15:41	9°♑35'08	
min. Earth dist.	2587 Oct 06 14:41	17°♒59'53	0.65078 AU		2588 Aug 02 14:23	0°♑	
inferior conj	2587 Oct 08 17:15	15°♒38'27	-2°-22'-43	desc. node	2588 Aug 12 18:14	15°♑46'11	
minimum elong	2587 Oct 08 21:07	15°♒27'37	2°21'16		2588 Aug 24 15:38	0°♒	
morning rise	2587 Oct 15 02:20	10°♒03'17		evening max el	2588 Aug 24 23:23	0°♒18'33	27°26'07
asc. node	2587 Oct 15 22:29	9°♒43'28		retrograde	2588 Sep 07 15:06	7°♒35'30	
direct	2587 Oct 17 17:37	9°♒26'07		evening set	2588 Sep 14 19:15	4°♒58'31	
morning max el	2587 Oct 24 05:45	12°♒55'36	18°06'20	min. Earth dist.	2588 Sep 18 11:04	1°♒48'01	0.63520 AU
	2587 Nov 05 05:37	0°♓			2588 Sep 20 06:04	30°♓	
morning set	2587 Nov 11 07:21	10°♓02'13		inferior conj	2588 Sep 21 02:03	29°♓09'07	-3°-20'-20
desc. node	2587 Nov 22 20:32	28°♓53'33		minimum elong	2588 Sep 21 07:14	28°♓56'03	3°18'43
	2587 Nov 23 13:08	0°♈		morning rise	2588 Sep 27 21:33	23°♓50'47	
				direct	2588 Sep 30 08:03	23°♓21'59	
superior conj	2587 Nov 25 14:47	3°♈18'00	0°-18'-34	asc. node	2588 Oct 01 19:33	23°♓32'48	
minimum elong	2587 Nov 25 12:27	3°♈08'41	0°18'16	morning max el	2588 Oct 06 22:04	26°♓47'31	17°51'53
max. Earth dist.	2587 Nov 29 02:24	8°♈48'49	1.44982 AU		2588 Oct 09 17:03	0°♈	
evening rise	2587 Dec 12 01:28	29°♈01'28		morning set	2588 Oct 23 10:21	22°♈12'52	
	2587 Dec 12 16:36	0°♉			2588 Oct 27 22:22	0°♉	
greatest brilliancy	2587 Dec 29 15:29	25°♉38'44	-0.6m				
	2588 Jan 01 19:59	0°♊		superior conj	2588 Nov 04 16:55	13°♓05'35	0°27'17

minimum elong	2588 Nov 04 19:43	13° \mathbb{M} 17'06	0°26'54	max. Earth dist.	2589 Oct 24 09:20	6° \mathbb{M} 50'00	1.42614 AU
desc. node	2588 Nov 08 17:33	19° \mathbb{M} 40'06		desc. node	2589 Oct 26 14:34	10° \mathbb{M} 27'16	
max. Earth dist.	2588 Nov 10 19:57	23° \mathbb{M} 02'46	1.44101 AU	evening rise	2589 Oct 31 00:28	17° \mathbb{M} 30'13	
	2588 Nov 15 05:15	0° \mathbb{M}			2589 Nov 08 03:19	0° \mathbb{M}	
evening rise	2588 Nov 20 10:30	8° \mathbb{M} 06'52		greatest brilliancy	2589 Nov 27 08:26	26° \mathbb{M} 52'25	-0.3m
	2588 Dec 04 23:58	0° \mathbb{M}			2589 Nov 30 00:08	0° \mathbb{M}	
greatest brilliancy	2588 Dec 13 15:53	12° \mathbb{M} 04'41	-0.5m	evening max el	2589 Dec 02 02:02	2° \mathbb{M} 13'46	22°01'15
evening max el	2588 Dec 19 06:23	18° \mathbb{M} 41'54	20°47'35	retrograde	2589 Dec 11 09:55	7° \mathbb{M} 46'56	
retrograde	2588 Dec 27 13:14	23° \mathbb{M} 35'49		evening set	2589 Dec 15 19:04	6° \mathbb{M} 03'00	
asc. node	2588 Dec 28 18:50	23° \mathbb{M} 27'22		asc. node	2589 Dec 15 15:53	6° \mathbb{M} 09'19	
evening set	2588 Dec 31 11:17	22° \mathbb{M} 08'01			2589 Dec 20 23:18	30° \mathbb{R} \mathbb{M}	
inferior conj	2589 Jan 05 21:24	15° \mathbb{M} 55'20	2°29'41	inferior conj	2589 Dec 21 04:33	29° \mathbb{M} 41'47	1°47'59
minimum elong	2589 Jan 05 18:51	16° \mathbb{M} 04'07	2°28'54	minimum elong	2589 Dec 21 02:23	29° \mathbb{M} 49'19	1°47'12
min. Earth dist.	2589 Jan 06 09:41	15° \mathbb{M} 13'17	0.67480 AU	min. Earth dist.	2589 Dec 21 05:13	29° \mathbb{M} 39'30	0.67836 AU
morning rise	2589 Jan 11 01:59	9° \mathbb{M} 40'14		morning rise	2589 Dec 26 09:30	23° \mathbb{M} 28'15	
direct	2589 Jan 16 11:56	7° \mathbb{M} 18'01		direct	2589 Dec 31 04:15	21° \mathbb{M} 28'17	
morning max el	2589 Jan 27 11:11	13° \mathbb{M} 50'26	24°05'14	morning max el	2590 Jan 09 21:32	27° \mathbb{M} 12'58	22°36'42
desc. node	2589 Feb 04 16:48	23° \mathbb{M} 27'06			2590 Jan 12 11:46	0° \mathbb{M}	
	2589 Feb 09 13:57	0° \mathbb{M}		greatest brilliancy	2590 Jan 14 11:21	2° \mathbb{M} 19'19	-0.3m
	2589 Mar 01 02:57	0° \mathbb{M}		desc. node	2590 Jan 22 13:50	12° \mathbb{M} 56'19	
morning set	2589 Mar 04 03:23	5° \mathbb{M} 08'11			2590 Feb 03 05:16	0° \mathbb{M}	
max. Earth dist.	2589 Mar 07 22:30	11° \mathbb{M} 48'35	1.38179 AU	morning set	2590 Feb 12 19:51	15° \mathbb{M} 13'06	
				max. Earth dist.	2590 Feb 17 18:39	23° \mathbb{M} 29'18	1.40339 AU
superior conj	2589 Mar 15 02:09	25° \mathbb{M} 02'03	-1°-39'-58		2590 Feb 21 13:03	0° \mathbb{M}	
minimum elong	2589 Mar 15 06:34	25° \mathbb{M} 23'10	1°39'29				
	2589 Mar 17 16:04	0° \mathbb{M}		superior conj	2590 Feb 25 13:29	7° \mathbb{M} 09'47	-1°-58'-15
evening rise	2589 Mar 24 00:28	12° \mathbb{M} 28'17		minimum elong	2590 Feb 25 17:00	7° \mathbb{M} 25'44	1°58'04
asc. node	2589 Mar 26 18:08	17° \mathbb{M} 48'17		evening rise	2590 Mar 07 13:27	25° \mathbb{M} 48'05	
	2589 Apr 02 13:11	0° \mathbb{M}			2590 Mar 09 18:55	0° \mathbb{M}	
evening max el	2589 Apr 09 12:01	9° \mathbb{M} 06'44	18°58'30	asc. node	2590 Mar 13 15:12	7° \mathbb{M} 03'37	
retrograde	2589 Apr 18 00:25	13° \mathbb{M} 15'15		evening max el	2590 Mar 23 17:07	21° \mathbb{M} 40'19	18°23'18
evening set	2589 Apr 20 03:49	13° \mathbb{M} 00'36		retrograde	2590 Mar 31 01:49	25° \mathbb{M} 19'02	
inferior conj	2589 Apr 28 06:30	8° \mathbb{M} 44'43	1°30'16	evening set	2590 Apr 02 10:54	24° \mathbb{M} 57'14	
minimum elong	2589 Apr 28 09:44	8° \mathbb{M} 39'01	1°29'12	inferior conj	2590 Apr 09 18:54	20° \mathbb{M} 21'05	2°43'47
min. Earth dist.	2589 May 01 09:28	6° \mathbb{M} 33'38	0.56830 AU	minimum elong	2590 Apr 09 22:41	20° \mathbb{M} 13'16	2°42'53
desc. node	2589 May 03 16:00	5° \mathbb{M} 07'36		min. Earth dist.	2590 Apr 13 05:29	17° \mathbb{M} 32'03	0.58781 AU
morning rise	2589 May 06 11:22	3° \mathbb{M} 43'49		morning rise	2590 Apr 17 06:23	14° \mathbb{M} 49'43	
direct	2589 May 11 17:07	2° \mathbb{M} 38'41		desc. node	2590 Apr 20 13:02	13° \mathbb{M} 31'32	
morning max el	2589 May 26 00:13	10° \mathbb{M} 02'28	25°50'04	direct	2590 Apr 23 10:12	13° \mathbb{M} 09'29	
	2589 Jun 10 03:47	0° \mathbb{M}		morning max el	2590 May 07 19:27	20° \mathbb{M} 53'25	27°03'45
morning set	2589 Jun 22 17:03	23° \mathbb{M} 43'38			2590 May 15 16:39	0° \mathbb{M}	
asc. node	2589 Jun 22 17:23	23° \mathbb{M} 45'25			2590 Jun 02 22:01	0° \mathbb{M}	
	2589 Jun 25 15:17	0° \mathbb{M}		morning set	2590 Jun 07 02:35	8° \mathbb{M} 30'30	
superior conj	2589 Jun 29 17:16	8° \mathbb{M} 56'32	1°07'49	asc. node	2590 Jun 09 14:27	13° \mathbb{M} 48'22	
minimum elong	2589 Jun 29 14:56	8° \mathbb{M} 43'43	1°07'25	superior conj	2590 Jun 14 05:05	23° \mathbb{M} 52'48	0°46'58
max. Earth dist.	2589 Jun 30 12:25	10° \mathbb{M} 41'34	1.32429 AU	minimum elong	2590 Jun 14 03:12	23° \mathbb{M} 42'25	0°46'35
evening rise	2589 Jul 06 18:44	24° \mathbb{M} 07'32		max. Earth dist.	2590 Jun 14 00:23	23° \mathbb{M} 26'55	1.32143 AU
	2589 Jul 09 16:02	0° \mathbb{M}			2590 Jun 16 23:52	0° \mathbb{M}	
	2589 Jul 27 08:39	0° \mathbb{M}		evening rise	2590 Jun 21 02:48	8° \mathbb{M} 52'52	
desc. node	2589 Jul 30 15:16	4° \mathbb{M} 22'15			2590 Jul 02 01:43	0° \mathbb{M}	
evening max el	2589 Aug 07 06:32	12° \mathbb{M} 54'16	27°11'42	desc. node	2590 Jul 17 12:18	21° \mathbb{M} 53'49	
retrograde	2589 Aug 21 02:51	20° \mathbb{M} 08'17		evening max el	2590 Jul 20 07:14	24° \mathbb{M} 44'35	26°24'08
evening set	2589 Aug 28 06:05	17° \mathbb{M} 48'50			2590 Jul 27 07:00	0° \mathbb{M}	
min. Earth dist.	2589 Aug 31 20:46	15° \mathbb{M} 03'40	0.61651 AU	retrograde	2590 Aug 03 06:42	1° \mathbb{M} 56'02	
inferior conj	2589 Sep 03 22:42	12° \mathbb{M} 18'41	-4°-11'-45	evening set	2590 Aug 09 21:29	0° \mathbb{M} 07'02	
minimum elong	2589 Sep 04 04:09	12° \mathbb{M} 06'27	4°10'31		2590 Aug 10 02:40	30° \mathbb{R} \mathbb{M}	
morning rise	2589 Sep 11 05:08	7° \mathbb{M} 20'52		min. Earth dist.	2590 Aug 13 20:21	27° \mathbb{M} 32'03	0.59594 AU
direct	2589 Sep 13 13:43	6° \mathbb{M} 57'26		inferior conj	2590 Aug 17 03:37	24° \mathbb{M} 57'48	-4°-49'-28
asc. node	2589 Sep 18 16:36	8° \mathbb{M} 51'56		minimum elong	2590 Aug 17 07:22	24° \mathbb{M} 50'29	4°49'02
morning max el	2589 Sep 20 12:56	10° \mathbb{M} 27'16	17°55'54	morning rise	2590 Aug 24 20:41	20° \mathbb{M} 23'00	
	2589 Oct 03 10:34	0° \mathbb{M}		direct	2590 Aug 27 06:11	20° \mathbb{M} 02'37	
morning set	2589 Oct 06 08:49	5° \mathbb{M} 19'12		morning max el	2590 Sep 03 23:08	23° \mathbb{M} 46'22	18°19'30
				asc. node	2590 Sep 05 13:39	25° \mathbb{M} 27'25	
superior conj	2589 Oct 16 22:13	24° \mathbb{M} 13'29	1°03'25		2590 Sep 09 00:50	0° \mathbb{M}	
minimum elong	2589 Oct 17 02:40	24° \mathbb{M} 32'47	1°02'52	morning set	2590 Sep 19 21:09	19° \mathbb{M} 05'07	
	2589 Oct 20 07:04	0° \mathbb{M}			2590 Sep 25 15:05	0° \mathbb{M}	

superior conj	2590 Sep 29 03:44	6°♄32'41	1°27'44	superior conj	2591 Sep 12 03:57	19°♄47'27	1°41'07
minimum elong	2590 Sep 29 07:21	6°♄49'12	1°27'24	minimum elong	2591 Sep 12 05:48	19°♄56'18	1°41'01
max. Earth dist.	2590 Oct 06 17:00	19°♄55'32	1.40714 AU		2591 Sep 17 14:26	0°♄	
evening rise	2590 Oct 11 09:14	27°♄46'17		max. Earth dist.	2591 Sep 18 20:56	2°♄18'26	1.38654 AU
	2590 Oct 12 17:58	0°♄		evening rise	2591 Sep 22 17:58	9°♄09'24	
desc. node	2590 Oct 13 11:35	1°♄11'21		desc. node	2591 Sep 30 08:38	21°♄48'44	
	2590 Nov 01 18:35	0°♄			2591 Oct 05 14:55	0°♄	
evening max el	2590 Nov 14 17:04	15°♄47'46	23°20'38	evening max el	2591 Oct 28 05:44	29°♄26'19	24°39'30
retrograde	2590 Nov 25 03:55	21°♄59'08			2591 Oct 28 19:35	0°♄	
evening set	2590 Nov 30 01:48	19°♄58'26		retrograde	2591 Nov 08 18:03	6°♄09'01	
asc. node	2590 Dec 02 12:54	17°♄26'46		evening set	2591 Nov 14 05:52	3°♄52'03	
min. Earth dist.	2590 Dec 05 01:58	14°♄07'22	0.67843 AU		2591 Nov 17 19:26	30°♄♄	
inferior conj	2590 Dec 05 12:04	13°♄32'40	1°00'03	min. Earth dist.	2591 Nov 18 21:35	28°♄34'51	0.67516 AU
minimum elong	2590 Dec 05 10:42	13°♄37'20	0°59'31	asc. node	2591 Nov 19 09:54	27°♄53'54	
morning rise	2590 Dec 10 19:43	7°♄22'42		inferior conj	2591 Nov 19 18:14	27°♄26'09	0°07'09
direct	2590 Dec 14 23:58	5°♄45'34		minimum elong	2591 Nov 19 18:03	27°♄26'45	0°07'04
morning max el	2590 Dec 23 13:11	10°♄44'06	21°13'25	transit middle	2591 Nov 19 18:03	27°♄26'45	0°07'04
greatest brilliancy	2590 Dec 28 19:34	16°♄46'26	-0.4m	transit begin	2591 Nov 19 15:35	27°♄35'00	
	2591 Jan 07 11:27	0°♄		transit end	2591 Nov 19 20:32	27°♄18'31	
desc. node	2591 Jan 09 10:50	2°♄52'27		morning rise	2591 Nov 25 06:40	21°♄22'10	
morning set	2591 Jan 23 07:45	23°♄57'55		direct	2591 Nov 28 21:56	20°♄06'09	
	2591 Jan 27 02:57	0°♄		morning max el	2591 Dec 06 12:24	24°♄26'17	20°01'23
max. Earth dist.	2591 Jan 30 20:14	6°♄01'55	1.42351 AU		2591 Dec 11 07:27	0°♄	
				greatest brilliancy	2591 Dec 13 15:14	3°♄04'40	-0.6m
superior conj	2591 Feb 07 03:02	18°♄14'13	-2°-5'-48	desc. node	2591 Dec 27 07:53	23°♄08'28	
minimum elong	2591 Feb 07 03:07	18°♄14'35	2°05'49		2591 Dec 31 19:27	0°♄	
	2591 Feb 13 20:20	0°♄		morning set	2592 Jan 02 03:53	2°♄05'00	
evening rise	2591 Feb 18 12:45	8°♄25'24		max. Earth dist.	2592 Jan 13 05:32	19°♄26'43	1.43950 AU
asc. node	2591 Feb 28 12:14	25°♄50'25					
	2591 Mar 03 06:54	0°♄		superior conj	2592 Jan 18 14:49	28°♄08'20	-1°-57'-27
evening max el	2591 Mar 07 03:30	4°♄38'16	18°08'02	minimum elong	2592 Jan 18 09:20	27°♄45'58	1°57'10
retrograde	2591 Mar 13 20:00	8°♄02'59			2592 Jan 19 18:07	0°♄	
evening set	2591 Mar 16 10:39	7°♄32'00		evening rise	2592 Jan 31 18:09	20°♄12'30	
inferior conj	2591 Mar 23 03:08	2°♄34'50	3°25'13		2592 Feb 06 11:04	0°♄	
minimum elong	2591 Mar 23 05:26	2°♄29'19	3°24'56	asc. node	2592 Feb 15 09:14	14°♄00'12	
	2591 Mar 25 20:04	30°♄♄		evening max el	2592 Feb 18 16:02	17°♄52'32	18°12'00
min. Earth dist.	2591 Mar 26 08:11	29°♄32'12	0.60937 AU	retrograde	2592 Feb 25 02:45	21°♄17'34	
morning rise	2591 Mar 29 21:07	26°♄43'10		evening set	2592 Feb 27 22:43	20°♄36'08	
direct	2591 Apr 05 15:04	24°♄28'09		inferior conj	2592 Mar 05 03:24	15°♄18'34	3°40'51
desc. node	2591 Apr 07 10:03	24°♄37'10		minimum elong	2592 Mar 05 03:47	15°♄17'31	3°40'50
	2591 Apr 17 07:17	0°♄		min. Earth dist.	2592 Mar 07 19:27	12°♄26'24	0.63002 AU
morning max el	2591 Apr 19 20:50	2°♄22'45	27°44'09	morning rise	2592 Mar 11 06:47	9°♄15'03	
	2591 May 10 01:38	0°♄		direct	2592 Mar 18 05:03	6°♄35'24	
morning set	2591 May 22 08:18	23°♄03'45		desc. node	2592 Mar 24 07:05	8°♄20'22	
	2591 May 25 15:35	0°♄		morning max el	2592 Apr 01 03:19	14°♄32'04	27°47'06
asc. node	2591 May 27 11:30	3°♄56'34			2592 Apr 13 16:22	0°♄	
max. Earth dist.	2591 May 28 11:29	6°♄07'02	1.32247 AU		2592 May 01 15:09	0°♄	
				morning set	2592 May 05 07:59	7°♄15'32	
superior conj	2591 May 29 16:06	8°♄43'29	0°22'57	max. Earth dist.	2592 May 10 17:50	18°♄28'38	1.32764 AU
minimum elong	2591 May 29 15:04	8°♄37'50	0°22'44				
evening rise	2591 Jun 05 13:42	23°♄44'01		superior conj	2592 May 13 00:31	23°♄22'05	0°-3'-31
	2591 Jun 08 14:00	0°♄		minimum elong	2592 May 13 00:41	23°♄22'59	0°03'29
	2591 Jun 26 17:48	0°♄		behind sun begin	2592 May 12 19:33	22°♄55'16	
evening max el	2591 Jul 02 00:52	5°♄49'12	25°07'59	behind sun end	2592 May 13 05:49	23°♄50'44	
desc. node	2591 Jul 04 09:19	7°♄54'52		asc. node	2592 May 13 08:32	24°♄05'25	
retrograde	2591 Jul 16 00:37	12°♄55'21			2592 May 16 01:56	0°♄	
evening set	2591 Jul 21 13:24	11°♄44'57		evening rise	2592 May 20 01:31	8°♄33'55	
min. Earth dist.	2591 Jul 26 12:35	9°♄01'11	0.57584 AU		2592 May 31 05:55	0°♄	
inferior conj	2591 Jul 29 13:38	6°♄57'42	-5°-1'-43	evening max el	2592 Jun 12 14:32	16°♄22'11	23°34'32
minimum elong	2591 Jul 29 12:58	6°♄58'50	5°01'44	desc. node	2592 Jun 20 06:20	21°♄50'51	
morning rise	2591 Aug 06 16:13	2°♄45'25		retrograde	2592 Jun 26 05:56	23°♄12'04	
direct	2591 Aug 09 05:20	2°♄26'18		evening set	2592 Jun 30 07:25	22°♄35'55	
morning max el	2591 Aug 18 01:28	6°♄35'27	19°03'57	min. Earth dist.	2592 Jul 07 00:44	19°♄27'51	0.55947 AU
asc. node	2591 Aug 23 10:41	13°♄04'09		inferior conj	2592 Jul 09 03:29	18°♄12'02	-4°-33'-52
	2591 Sep 02 02:35	0°♄		minimum elong	2592 Jul 08 21:20	18°♄21'17	4°32'53
morning set	2591 Sep 03 19:13	3°♄19'38		morning rise	2592 Jul 17 14:30	14°♄16'34	
				direct	2592 Jul 20 09:27	13°♄57'12	

morning max el	2592 Jul 30 17:06	18° ♄ 44'17	20°09'52	direct	2593 Jun 30 22:33	24° ♄ 33'09	
	2592 Aug 08 10:30	0° ♄			2593 Jul 12 17:29	0° ♄	
asc. node	2592 Aug 09 07:43	1° ♄ 27'46		morning max el	2593 Jul 12 21:08	0° ♄ 08'25	21°35'42
morning set	2592 Aug 17 23:52	17° ♄ 53'32		asc. node	2593 Jul 27 04:48	20° ♄ 27'05	
	2592 Aug 23 21:47	0° ♄			2593 Aug 01 01:39	0° ♄	
				morning set	2593 Aug 02 08:46	2° ♄ 40'26	
superior conj	2592 Aug 25 17:40	3° ♄ 42'13	1°45'19				
minimum elong	2592 Aug 25 17:45	3° ♄ 42'38	1°45'19	superior conj	2593 Aug 09 16:53	18° ♄ 05'30	1°42'01
max. Earth dist.	2592 Aug 31 02:30	14° ♄ 14'35	1.36682 AU	minimum elong	2593 Aug 09 15:37	17° ♄ 58'54	1°41'58
evening rise	2592 Sep 04 00:40	21° ♄ 33'56		max. Earth dist.	2593 Aug 13 14:54	26° ♄ 08'02	1.34986 AU
	2592 Sep 08 18:58	0° ♄			2593 Aug 15 13:26	0° ♄	
desc. node	2592 Sep 16 05:39	12° ♄ 13'58		evening rise	2593 Aug 18 00:58	4° ♄ 48'55	
	2592 Sep 28 12:05	0° ♄			2593 Sep 01 14:00	0° ♄	
evening max el	2592 Oct 09 17:57	13° ♄ 07'19	25°50'42	desc. node	2593 Sep 03 02:40	2° ♄ 21'11	
retrograde	2592 Oct 22 03:23	20° ♄ 11'07		evening max el	2593 Sep 22 06:19	26° ♄ 44'16	26°46'32
evening set	2592 Oct 28 05:31	17° ♄ 40'01			2593 Sep 26 00:13	0° ♄	
min. Earth dist.	2592 Nov 01 13:34	12° ♄ 58'32	0.66848 AU	retrograde	2593 Oct 05 07:25	3° ♄ 59'16	
inferior conj	2592 Nov 02 21:12	11° ♄ 18'39	0°-49'-32	evening set	2593 Oct 11 22:43	1° ♄ 18'47	
minimum elong	2592 Nov 02 22:30	11° ♄ 14'33	0°49'01		2593 Oct 13 09:55	30° ♄	
asc. node	2592 Nov 05 06:55	8° ♄ 23'58		min. Earth dist.	2593 Oct 15 23:32	27° ♄ 14'10	0.65832 AU
morning rise	2592 Nov 08 16:22	5° ♄ 23'30		inferior conj	2593 Oct 17 19:01	25° ♄ 06'27	-1°-48'-31
direct	2592 Nov 11 20:35	4° ♄ 25'29		minimum elong	2593 Oct 17 21:57	24° ♄ 57'48	1°47'22
morning max el	2592 Nov 18 19:13	8° ♄ 17'50	19°03'56	asc. node	2593 Oct 23 03:59	19° ♄ 50'20	
	2592 Dec 04 10:41	0° ♄		morning rise	2593 Oct 23 22:37	19° ♄ 23'14	
morning set	2592 Dec 11 09:28	10° ♄ 48'47		direct	2593 Oct 26 17:58	18° ♄ 39'33	
desc. node	2592 Dec 13 04:55	13° ♄ 38'26		morning max el	2593 Nov 02 07:52	22° ♄ 14'26	18°22'33
	2592 Dec 23 15:50	0° ♄			2593 Nov 08 11:33	0° ♄	
max. Earth dist.	2592 Dec 25 21:32	3° ♄ 31'05	1.44927 AU	morning set	2593 Nov 21 17:46	20° ♄ 54'48	
					2593 Nov 27 09:22	0° ♄	
superior conj	2592 Dec 28 02:40	7° ♄ 00'37	-1°-29'-55	desc. node	2593 Nov 30 01:57	4° ♄ 17'34	
minimum elong	2592 Dec 27 17:41	6° ♄ 25'10	1°29'03				
	2593 Jan 11 10:07	0° ♄		superior conj	2593 Dec 07 04:11	15° ♄ 30'26	0°-46'-33
evening rise	2593 Jan 12 01:46	1° ♄ 04'00		minimum elong	2593 Dec 06 22:14	15° ♄ 07'04	0°45'48
	2593 Jan 30 23:36	0° ♄		max. Earth dist.	2593 Dec 08 16:42	17° ♄ 53'52	1.45177 AU
evening max el	2593 Feb 01 04:02	1° ♄ 16'45	18°34'24		2593 Dec 16 09:59	0° ♄	
asc. node	2593 Feb 01 06:14	1° ♄ 22'21		evening rise	2593 Dec 23 10:07	10° ♄ 59'30	
retrograde	2593 Feb 07 17:54	4° ♄ 54'37			2594 Jan 04 14:26	0° ♄	
evening set	2593 Feb 10 19:31	4° ♄ 01'45		greatest brilliancy	2594 Jan 05 22:59	2° ♄ 03'04	-0.7m
	2593 Feb 15 07:28	30° ♄		evening max el	2594 Jan 15 13:02	14° ♄ 45'06	19°14'14
inferior conj	2593 Feb 16 15:46	28° ♄ 25'23	3°37'12	asc. node	2594 Jan 19 03:17	17° ♄ 42'58	
minimum elong	2593 Feb 16 14:34	28° ♄ 28'56	3°37'05	retrograde	2594 Jan 22 13:54	18° ♄ 46'32	
min. Earth dist.	2593 Feb 18 16:14	26° ♄ 01'13	0.64767 AU	evening set	2594 Jan 25 22:09	17° ♄ 41'15	
morning rise	2593 Feb 22 08:20	22° ♄ 15'06		inferior conj	2594 Jan 31 12:44	11° ♄ 48'23	3°19'13
direct	2593 Mar 01 02:21	19° ♄ 25'12		minimum elong	2594 Jan 31 10:33	11° ♄ 55'21	3°18'49
desc. node	2593 Mar 11 04:07	24° ♄ 08'35		min. Earth dist.	2594 Feb 01 21:59	10° ♄ 01'43	0.66140 AU
morning max el	2593 Mar 14 12:44	27° ♄ 14'51	27°15'01	morning rise	2594 Feb 05 22:08	5° ♄ 34'22	
	2593 Mar 17 03:06	0° ♄		direct	2594 Feb 12 06:00	2° ♄ 47'40	
	2593 Apr 07 08:18	0° ♄		morning max el	2594 Feb 24 22:33	10° ♄ 18'39	26°14'39
morning set	2593 Apr 18 22:50	20° ♄ 57'29		desc. node	2594 Feb 26 01:10	11° ♄ 27'18	
	2593 Apr 23 11:31	0° ♄			2594 Mar 12 13:10	0° ♄	
max. Earth dist.	2593 Apr 23 15:45	0° ♄ 21'45	1.33726 AU		2594 Mar 30 21:27	0° ♄	
				morning set	2594 Apr 02 01:04	3° ♄ 57'53	
superior conj	2593 Apr 27 04:27	7° ♄ 42'38	0°-31'-29	max. Earth dist.	2594 Apr 06 02:26	11° ♄ 42'32	1.35145 AU
minimum elong	2593 Apr 27 06:03	7° ♄ 51'05	0°31'09				
asc. node	2593 Apr 30 05:34	14° ♄ 10'47		superior conj	2594 Apr 11 01:29	21° ♄ 37'35	0°-59'-43
evening rise	2593 May 04 12:28	23° ♄ 16'34		minimum elong	2594 Apr 11 04:33	21° ♄ 53'14	0°59'10
	2593 May 07 18:59	0° ♄			2594 Apr 15 02:50	0° ♄	
evening max el	2593 May 25 07:08	26° ♄ 52'48	21°59'05	asc. node	2594 Apr 17 02:36	4° ♄ 08'18	
	2593 May 29 00:39	0° ♄		evening rise	2594 Apr 18 20:31	7° ♄ 44'59	
retrograde	2593 Jun 06 23:19	3° ♄ 08'03			2594 May 01 00:41	0° ♄	
desc. node	2593 Jun 07 03:20	3° ♄ 07'59		evening max el	2594 May 07 09:21	7° ♄ 49'38	20°34'33
evening set	2593 Jun 09 17:11	2° ♄ 51'16		retrograde	2594 May 18 12:25	13° ♄ 14'35	
	2593 Jun 16 20:41	30° ♄		evening set	2594 May 20 14:12	13° ♄ 04'03	
min. Earth dist.	2593 Jun 18 11:52	29° ♄ 05'57	0.55011 AU	desc. node	2594 May 25 00:22	11° ♄ 39'23	
inferior conj	2593 Jun 19 01:27	28° ♄ 46'57	-3°-17'-13	inferior conj	2594 May 29 19:19	9° ♄ 06'24	-1°-24'-1
minimum elong	2593 Jun 18 17:29	28° ♄ 58'07	3°14'53	minimum elong	2594 May 29 15:21	9° ♄ 12'08	1°22'35
morning rise	2593 Jun 27 19:23	24° ♄ 54'53		min. Earth dist.	2594 May 31 00:13	8° ♄ 24'43	0.54997 AU

morning rise	2594 Jun 07 15:07	4°II57'26		desc. node	2595 May 11 21:25	18°828'33	
direct	2594 Jun 11 08:15	4°II27'43		min. Earth dist.	2595 May 12 14:44	18°801'05	0.55934 AU
morning max el	2594 Jun 24 15:49	10°II53'54	23°15'21	morning rise	2595 May 18 12:25	15°801'13	
	2594 Jul 08 18:58	0°☿		direct	2595 May 23 03:49	14°812'23	
asc. node	2594 Jul 14 01:52	9°☿52'46		morning max el	2595 Jun 06 06:15	21°820'14	24°56'50
morning set	2594 Jul 17 20:00	17°☿34'23			2595 Jun 13 18:54	0°II	
	2594 Jul 23 15:16	0°♁		asc. node	2595 Jun 30 22:55	29°II37'28	
					2595 Jul 01 03:15	0°☿	
superior conj	2594 Jul 24 22:30	2°♁47'43	1°32'36	morning set	2595 Jul 02 07:50	2°☿29'46	
minimum elong	2594 Jul 24 20:24	2°♁36'32	1°32'24				
max. Earth dist.	2594 Jul 27 12:13	8°♁15'48	1.33663 AU	superior conj	2595 Jul 09 08:02	17°☿40'39	1°18'08
evening rise	2594 Aug 01 14:28	18°♁42'19		minimum elong	2595 Jul 09 05:39	17°☿27'38	1°17'47
	2594 Aug 07 12:40	0°♊		max. Earth dist.	2595 Jul 10 17:35	20°☿43'10	1.32757 AU
desc. node	2594 Aug 20 23:41	22°♊02'34			2595 Jul 15 02:00	0°♁	
	2594 Aug 26 19:01	0°♊		evening rise	2595 Jul 16 13:26	3°♁03'11	
evening max el	2594 Sep 04 18:09	10°♊07'27	27°19'48		2595 Jul 31 07:53	0°♊	
retrograde	2594 Sep 18 05:52	17°♊26'00		desc. node	2595 Aug 07 20:43	11°♊06'45	
evening set	2594 Sep 25 06:59	14°♊44'16		evening max el	2595 Aug 18 03:44	23°♊04'05	27°24'10
min. Earth dist.	2594 Sep 29 01:20	11°♊15'31	0.64456 AU		2595 Aug 29 03:32	0°♊	
inferior conj	2594 Oct 01 09:22	8°♊45'16	-2°-47'-35	retrograde	2595 Aug 31 22:03	0°♊20'53	
minimum elong	2594 Oct 01 13:51	8°♊33'12	2°46'00		2595 Sep 03 14:38	30°♊♊	
morning rise	2594 Oct 07 22:48	3°♊17'11		evening set	2595 Sep 08 02:50	27°♊49'34	
direct	2594 Oct 10 11:42	2°♊44'03		min. Earth dist.	2595 Sep 11 17:18	24°♊51'18	0.62745 AU
asc. node	2594 Oct 10 01:04	2°♊45'04		inferior conj	2595 Sep 14 13:23	22°♊07'46	-3°-43'-20
morning max el	2594 Oct 16 23:48	6°♊10'41	17°58'04	minimum elong	2595 Sep 14 18:52	21°♊54'35	3°41'48
	2594 Nov 01 20:25	0°♋		morning rise	2595 Sep 21 13:32	16°♊57'56	
morning set	2594 Nov 03 06:43	2°♋25'03		direct	2595 Sep 23 22:43	16°♊31'55	
				asc. node	2595 Sep 26 22:08	17°♊13'33	
superior conj	2594 Nov 16 16:58	24°♋38'32	0°01'43	morning max el	2595 Sep 30 15:56	19°♊58'33	17°51'19
minimum elong	2594 Nov 16 17:09	24°♋39'20	0°01'42		2595 Oct 08 02:11	0°♊	
behind sun begin	2594 Nov 16 06:52	23°♋57'50		morning set	2595 Oct 16 18:46	15°♊01'31	
behind sun end	2594 Nov 17 03:27	25°♋20'45			2595 Oct 25 07:55	0°♋	
desc. node	2594 Nov 16 22:58	25°♋02'44					
	2594 Nov 20 01:17	0°♌		superior conj	2595 Oct 28 06:38	5°♋00'30	0°44'00
max. Earth dist.	2594 Nov 21 11:26	2°♌15'30	1.44687 AU	minimum elong	2595 Oct 28 10:32	5°♋16'57	0°43'29
evening rise	2594 Dec 03 00:06	20°♌14'07		desc. node	2595 Nov 03 20:00	15°♋50'03	
	2594 Dec 09 09:10	0°♍		max. Earth dist.	2595 Nov 04 02:59	16°♋18'18	1.43529 AU
greatest brilliancy	2594 Dec 23 02:52	20°♍10'39	-0.6m	evening rise	2595 Nov 12 09:06	29°♋21'47	
evening max el	2594 Dec 29 17:22	28°♍15'22	20°09'39		2595 Nov 12 18:58	0°♌	
	2594 Dec 31 13:27	0°♎			2595 Dec 03 03:02	0°♍	
retrograde	2595 Jan 06 11:50	2°♎48'46		greatest brilliancy	2595 Dec 07 13:53	5°♍53'10	-0.4m
asc. node	2595 Jan 06 00:20	2°♎47'30		evening max el	2595 Dec 12 16:10	11°♍46'33	21°17'52
evening set	2595 Jan 10 04:16	1°♎29'44		retrograde	2595 Dec 21 09:28	16°♍57'13	
	2595 Jan 11 21:25	30°♏♏		asc. node	2595 Dec 23 21:23	16°♍22'49	
inferior conj	2595 Jan 15 15:28	25°♏23'18	2°50'20	evening set	2595 Dec 25 11:54	15°♏22'57	
minimum elong	2595 Jan 15 12:54	25°♏31'58	2°49'40	inferior conj	2595 Dec 30 21:35	9°♏06'13	2°12'50
min. Earth dist.	2595 Jan 16 10:59	24°♏17'31	0.67105 AU	minimum elong	2595 Dec 30 19:08	9°♏14'41	2°12'02
morning rise	2595 Jan 20 20:58	19°♏07'47		min. Earth dist.	2595 Dec 31 04:51	8°♏41'06	0.67679 AU
direct	2595 Jan 26 15:20	16°♏34'35		morning rise	2596 Jan 05 02:00	2°♏51'17	
morning max el	2595 Feb 07 07:21	23°♏32'35	24°55'16	direct	2596 Jan 10 05:29	0°♏38'02	
desc. node	2595 Feb 12 22:12	29°♏50'38		morning max el	2596 Jan 20 16:04	6°♏50'58	23°27'14
	2595 Feb 13 01:17	0°♐		greatest brilliancy	2596 Jan 26 13:23	13°♏31'31	-0.2m
	2595 Mar 05 22:25	0°♑		desc. node	2596 Jan 30 19:13	18°♏59'36	
morning set	2595 Mar 15 09:39	16°♑02'52			2596 Feb 07 15:34	0°♐	
max. Earth dist.	2595 Mar 19 02:15	22°♑44'09	1.36984 AU	morning set	2596 Feb 24 18:22	26°♐55'25	
	2595 Mar 22 22:54	0°♒			2596 Feb 26 13:45	0°♑	
				max. Earth dist.	2596 Feb 28 20:54	3°♑58'46	1.39098 AU
superior conj	2595 Mar 25 12:39	4°♒59'16	-1°-26'-21				
minimum elong	2595 Mar 25 16:50	5°♒19'46	1°25'47	superior conj	2596 Mar 07 10:04	17°♑37'40	-1°-48'-44
evening rise	2595 Apr 02 23:26	21°♒52'44		minimum elong	2596 Mar 07 14:21	17°♑57'42	1°48'22
asc. node	2595 Apr 03 23:39	23°♒53'41			2596 Mar 13 21:51	0°♒	
	2595 Apr 07 02:35	0°♓		evening rise	2596 Mar 16 18:25	5°♒32'20	
evening max el	2595 Apr 19 23:39	19°♓27'01	19°27'50	asc. node	2596 Mar 20 20:42	13°♒21'51	
retrograde	2595 Apr 29 09:19	24°♓00'05			2596 Mar 31 09:27	0°♓	
evening set	2595 May 01 09:55	23°♓48'21		evening max el	2596 Apr 02 00:22	1°♓43'11	18°41'06
inferior conj	2595 May 09 23:43	19°♓42'30	0°32'58	retrograde	2596 Apr 09 23:26	5°♓36'35	
minimum elong	2595 May 10 01:06	19°♓40'15	0°32'27	evening set	2596 Apr 12 05:14	5°♓19'11	

inferior conj	2596 Apr 19 23:45	0°♄55'21	2°05'35			2597 Mar 06 08:06	0°♄	
minimum elong	2596 Apr 20 03:35	0°♄48'08	2°04'29	asc. node		2597 Mar 07 17:44	2°♄25'56	
	2596 Apr 21 05:00	30°♄		evening max el		2597 Mar 16 08:09	14°♄28'32	18°14'24
min. Earth dist.	2596 Apr 23 08:08	28°♄25'15	0.57614 AU	retrograde		2597 Mar 23 08:21	17°♄59'07	
morning rise	2596 Apr 27 21:32	25°♄40'30		evening set		2597 Mar 25 20:02	17°♄33'26	
desc. node	2596 Apr 27 18:26	25°♄44'06		inferior conj		2597 Apr 01 20:56	12°♄48'11	3°04'59
direct	2596 May 03 13:39	24°♄20'42		minimum elong		2597 Apr 02 00:14	12°♄40'55	3°04'21
	2596 May 15 20:11	0°♄		min. Earth dist.		2597 Apr 05 06:25	9°♄50'29	0.59699 AU
morning max el	2596 May 17 22:16	1°♄54'45	26°24'53	morning rise		2597 Apr 09 00:48	7°♄07'20	
	2596 Jun 06 22:09	0°♄		desc. node		2597 Apr 14 15:27	5°♄13'43	
morning set	2596 Jun 15 18:41	17°♄21'40		direct		2597 Apr 15 11:58	5°♄11'43	
asc. node	2596 Jun 16 19:58	19°♄35'33		morning max el		2597 Apr 29 19:51	13°♄00'15	27°25'26
	2596 Jun 21 14:51	0°♄				2597 May 13 07:09	0°♄	
						2597 May 30 02:56	0°♄	
superior conj	2596 Jun 22 19:33	2°♄37'57	0°59'25	morning set		2597 May 31 02:48	2°♄03'21	
minimum elong	2596 Jun 22 17:21	2°♄25'51	0°59'00	asc. node		2597 Jun 03 17:00	9°♄41'10	
max. Earth dist.	2596 Jun 23 04:13	3°♄25'36	1.32257 AU	max. Earth dist.		2597 Jun 06 16:23	16°♄10'53	1.32145 AU
evening rise	2596 Jun 29 18:56	17°♄42'36						
	2596 Jul 05 22:33	0°♄		superior conj		2597 Jun 07 07:12	17°♄32'22	0°37'08
desc. node	2596 Jul 24 17:45	29°♄18'21		minimum elong		2597 Jun 07 05:38	17°♄23'44	0°36'48
	2596 Jul 25 07:44	0°♄				2597 Jun 13 00:02	0°♄	
evening max el	2596 Jul 30 08:33	5°♄22'11	26°55'35	evening rise		2597 Jun 14 04:27	2°♄31'24	
retrograde	2596 Aug 13 06:41	12°♄35'00				2597 Jun 28 23:37	0°♄	
evening set	2596 Aug 20 05:59	10°♄27'24		desc. node		2597 Jul 11 14:46	16°♄14'55	
min. Earth dist.	2596 Aug 23 22:47	7°♄48'24	0.60781 AU	evening max el		2597 Jul 12 06:18	16°♄52'35	25°54'43
inferior conj	2596 Aug 27 03:47	5°♄05'50	-4°-30'-4	retrograde		2597 Jul 26 06:06	24°♄01'29	
minimum elong	2596 Aug 27 08:49	4°♄55'10	4°29'09	evening set		2597 Aug 01 11:34	22°♄28'41	
morning rise	2596 Sep 03 14:47	0°♄17'17		min. Earth dist.		2597 Aug 05 18:40	19°♄52'16	0.58720 AU
	2596 Sep 04 21:42	30°♄		inferior conj		2597 Aug 09 00:56	17°♄29'01	-4°-58'-37
direct	2596 Sep 05 23:20	29°♄55'26		minimum elong		2597 Aug 09 03:07	17°♄25'00	4°58'30
	2596 Sep 07 00:42	0°♄		morning rise		2597 Aug 16 22:09	13°♄03'52	
asc. node	2596 Sep 12 19:10	3°♄06'47		direct		2597 Aug 19 09:06	12°♄44'02	
morning max el	2596 Sep 13 05:08	3°♄30'20	18°03'26	morning max el		2597 Aug 27 12:13	16°♄36'57	18°35'49
morning set	2596 Sep 28 23:44	28°♄26'24		asc. node		2597 Aug 30 16:11	20°♄09'37	
	2596 Sep 29 19:52	0°♄				2597 Sep 06 01:14	0°♄	
				morning set		2597 Sep 12 16:37	12°♄25'31	
superior conj	2596 Oct 08 22:47	16°♄40'03	1°15'09					
minimum elong	2596 Oct 09 03:05	16°♄59'07	1°14'40	superior conj		2597 Sep 21 12:53	29°♄24'18	1°34'39
max. Earth dist.	2596 Oct 16 13:47	29°♄48'20	1.41846 AU	minimum elong		2597 Sep 21 15:47	29°♄37'52	1°34'26
	2596 Oct 16 16:35	0°♄				2597 Sep 21 20:31	0°♄	
desc. node	2596 Oct 20 17:02	6°♄36'26		max. Earth dist.		2597 Sep 28 19:52	12°♄36'37	1.39843 AU
evening rise	2596 Oct 22 05:53	9°♄04'45		evening rise		2597 Oct 03 00:40	19°♄48'31	
	2596 Nov 04 22:20	0°♄		desc. node		2597 Oct 07 14:04	27°♄18'09	
greatest brilliancy	2596 Nov 19 13:35	19°♄54'06	-0.3m			2597 Oct 09 06:36	0°♄	
evening max el	2596 Nov 24 09:47	25°♄19'43	22°34'41			2597 Oct 30 04:14	0°♄	
	2596 Nov 30 05:21	0°♄		evening max el		2597 Nov 06 23:38	8°♄56'02	23°54'42
retrograde	2596 Dec 04 05:02	1°♄09'05		retrograde		2597 Nov 17 21:23	15°♄21'10	
	2596 Dec 07 20:33	30°♄		evening set		2597 Nov 23 01:12	13°♄13'16	
evening set	2596 Dec 08 19:25	29°♄18'13		asc. node		2597 Nov 26 15:25	9°♄17'10	
asc. node	2596 Dec 09 18:25	28°♄26'31		min. Earth dist.		2597 Nov 27 21:37	7°♄36'42	0.67746 AU
inferior conj	2596 Dec 14 05:06	22°♄54'50	1°28'22	inferior conj		2597 Nov 28 12:14	6°♄47'07	0°38'12
minimum elong	2596 Dec 14 03:13	23°♄01'19	1°27'39	minimum elong		2597 Nov 28 11:20	6°♄50'10	0°37'49
min. Earth dist.	2596 Dec 14 01:11	23°♄08'22	0.67888 AU	morning rise		2597 Dec 03 21:41	0°♄39'39	
morning rise	2596 Dec 19 10:55	16°♄42'31				2597 Dec 04 21:59	30°♄	
direct	2596 Dec 23 23:29	14°♄52'06		direct		2597 Dec 07 20:17	29°♄11'48	
morning max el	2597 Jan 02 04:05	20°♄16'02	22°00'06			2597 Dec 10 23:03	0°♄	
greatest brilliancy	2597 Jan 06 20:23	25°♄31'38	-0.4m	morning max el		2597 Dec 15 22:53	3°♄52'16	20°41'16
	2597 Jan 10 08:43	0°♄		greatest brilliancy		2597 Dec 21 20:39	10°♄47'11	-0.5m
desc. node	2597 Jan 16 16:15	8°♄41'27		desc. node		2598 Jan 03 13:17	28°♄47'13	
	2597 Jan 30 21:25	0°♄				2598 Jan 04 08:46	0°♄	
morning set	2597 Feb 03 22:11	6°♄23'58		morning set		2598 Jan 14 00:59	14°♄45'55	
max. Earth dist.	2597 Feb 09 18:53	16°♄00'44	1.41237 AU	max. Earth dist.		2598 Jan 23 00:34	29°♄00'17	1.43098 AU
						2598 Jan 23 15:18	0°♄	
superior conj	2597 Feb 17 12:48	29°♄20'22	-2°-3'-5					
minimum elong	2597 Feb 17 15:13	29°♄31'00	2°03'01	superior conj		2598 Jan 29 15:48	9°♄56'07	-2°-4'-29
	2597 Feb 17 21:45	0°♄		minimum elong		2598 Jan 29 13:39	9°♄47'04	2°04'27
evening rise	2597 Feb 28 02:04	18°♄35'02				2598 Feb 10 06:23	0°♄	

evening rise	2598 Feb 10 18:22	0° Υ 53'01		superior conj	2599 Jan 09 16:31	19° Z 20'55	-1°-48'-7
asc. node	2598 Feb 22 14:45	20° Υ 58'37		minimum elong	2599 Jan 09 08:56	18° Z 50'28	1°47'35
evening max el	2598 Feb 27 19:49	27° Υ 34'44	18°07'18		2599 Jan 16 05:52	0° \approx	
	2598 Mar 02 22:06	0° Υ		evening rise	2599 Jan 23 14:57	12° \approx 17'20	
retrograde	2598 Mar 06 08:40	0° Υ 58'07			2599 Feb 03 06:56	0° Υ	
evening set	2598 Mar 09 01:35	0° Υ 22'46		asc. node	2599 Feb 09 11:46	8° Υ 49'51	
	2598 Mar 09 20:23	30° R Υ		evening max el	2599 Feb 11 08:23	10° Υ 53'46	18°19'16
inferior conj	2598 Mar 15 12:34	25° Υ 16'25	3°34'36	retrograde	2599 Feb 17 19:36	14° Υ 23'15	
minimum elong	2598 Mar 15 14:03	25° Υ 12'39	3°34'28	evening set	2599 Feb 20 17:47	13° Υ 37'13	
min. Earth dist.	2598 Mar 18 12:30	22° Υ 15'52	0.61844 AU	inferior conj	2599 Feb 26 18:30	8° Υ 11'20	3°41'18
morning rise	2598 Mar 21 23:54	19° Υ 18'47		minimum elong	2599 Feb 26 18:09	8° Υ 12'19	3°41'18
direct	2598 Mar 28 20:41	16° Υ 52'06		min. Earth dist.	2599 Mar 01 04:00	5° Υ 29'17	0.63794 AU
desc. node	2598 Apr 01 12:29	17° Υ 29'56		morning rise	2599 Mar 04 16:47	2° Υ 04'07	
morning max el	2598 Apr 11 23:53	24° Υ 48'05	27°49'59		2599 Mar 08 02:16	30° R \approx	
	2598 Apr 16 17:47	0° Υ		direct	2599 Mar 11 13:58	29° \approx 18'18	
	2598 May 06 16:12	0° B			2599 Mar 15 06:33	0° Υ	
morning set	2598 May 15 06:16	16° B 28'34		desc. node	2599 Mar 19 09:30	2° Υ 10'40	
max. Earth dist.	2598 May 21 02:09	28° B 45'45	1.32424 AU	morning max el	2599 Mar 25 08:12	7° Υ 14'03	27°37'22
asc. node	2598 May 21 14:02	29° B 50'06			2599 Apr 11 19:49	0° Υ	
	2598 May 21 15:52	0° II			2599 Apr 28 20:41	0° B	
				morning set	2599 Apr 29 02:38	0° B 29'25	
superior conj	2598 May 22 17:19	2° II 18'29	0°11'58	max. Earth dist.	2599 May 04 05:24	10° B 56'35	1.33118 AU
minimum elong	2598 May 22 16:45	2° II 15'26	0°11'51				
behind sun begin	2598 May 22 13:19	1° II 56'42		superior conj	2599 May 07 00:07	16° B 50'24	0°-15'-16
behind sun end	2598 May 22 20:12	2° II 34'11		minimum elong	2599 May 07 00:52	16° B 54'27	0°15'06
evening rise	2598 May 29 15:58	17° II 22'50		behind sun begin	2599 May 06 23:09	16° B 45'14	
	2598 Jun 04 21:30	0° S		behind sun end	2599 May 07 02:36	17° B 03'41	
evening max el	2598 Jun 23 21:22	27° S 39'53	24°29'15	asc. node	2599 May 08 11:05	19° B 58'10	
	2598 Jun 26 12:48	0° Ω			2599 May 13 03:03	0° II	
desc. node	2598 Jun 28 11:46	1° Ω 27'00		evening rise	2599 May 14 03:40	2° II 10'32	
retrograde	2598 Jul 07 18:42	4° Ω 41'08			2599 May 29 14:39	0° S	
evening set	2598 Jul 12 17:18	3° Ω 46'21		evening max el	2599 Jun 05 11:12	8° S 07'52	22°53'13
min. Earth dist.	2598 Jul 18 08:20	0° Ω 54'02	0.56826 AU	desc. node	2599 Jun 15 08:46	14° S 19'21	
	2598 Jul 19 18:29	30° R S		retrograde	2599 Jun 18 19:09	14° S 46'17	
inferior conj	2598 Jul 21 02:11	29° S 09'02	-4°-55'-35	evening set	2599 Jun 22 05:35	14° S 20'24	
minimum elong	2598 Jul 20 23:05	29° S 14'00	4°55'22	min. Earth dist.	2599 Jun 29 19:57	10° S 57'56	0.55441 AU
morning rise	2598 Jul 29 08:32	25° S 05'25		inferior conj	2599 Jul 01 08:22	10° S 05'25	-4°-7'-14
direct	2598 Aug 01 00:01	24° S 46'20		minimum elong	2599 Jul 01 00:42	10° S 16'29	4°05'32
morning max el	2598 Aug 10 10:13	29° S 09'33	19°29'30	morning rise	2599 Jul 09 22:39	6° S 13'37	
	2598 Aug 11 06:55	0° Ω		direct	2599 Jul 12 20:21	5° S 53'51	
asc. node	2598 Aug 17 13:14	8° Ω 07'33		morning max el	2599 Jul 23 21:05	11° S 00'44	20°44'15
morning set	2598 Aug 27 17:45	26° Ω 48'48		asc. node	2599 Aug 04 10:18	26° S 48'04	
	2598 Aug 29 07:49	0° mp			2599 Aug 06 04:40	0° Ω	
				morning set	2599 Aug 12 00:29	11° Ω 29'25	
superior conj	2598 Sep 04 19:22	12° mp 57'35	1°43'55				
minimum elong	2598 Sep 04 20:26	13° mp 02'47	1°43'54	superior conj	2599 Aug 19 13:38	27° Ω 06'38	1°44'45
max. Earth dist.	2598 Sep 10 23:48	24° mp 45'23	1.37784 AU	minimum elong	2599 Aug 19 13:05	27° Ω 03'49	1°44'45
	2598 Sep 13 21:02	0° A			2599 Aug 20 23:43	0° mp	
evening rise	2598 Sep 14 19:05	1° A 38'04		max. Earth dist.	2599 Aug 24 07:23	6° mp 36'18	1.35911 AU
desc. node	2598 Sep 24 11:05	17° A 50'47		evening rise	2599 Aug 28 09:54	14° mp 26'19	
	2598 Oct 02 11:12	0° M			2599 Sep 06 06:10	0° A	
evening max el	2598 Oct 20 11:42	22° M 35'03	25°11'14	desc. node	2599 Sep 11 08:07	8° A 09'34	
retrograde	2598 Nov 01 09:34	29° M 28'29			2599 Sep 27 04:50	0° M	
evening set	2598 Nov 07 03:37	27° M 04'45		evening max el	2599 Oct 02 23:49	6° M 15'12	26°16'49
min. Earth dist.	2598 Nov 11 15:53	22° M 02'49	0.67267 AU	retrograde	2599 Oct 15 16:58	13° M 25'51	
inferior conj	2598 Nov 12 17:14	20° M 40'09	0°-16'-31	evening set	2599 Oct 22 00:50	10° M 49'56	
minimum elong	2598 Nov 12 17:39	20° M 38'48	0°16'22	min. Earth dist.	2599 Oct 26 05:40	6° M 23'59	0.66451 AU
asc. node	2598 Nov 13 12:26	19° M 37'55		inferior conj	2599 Oct 27 18:17	4° M 31'32	-1°-14'-25
morning rise	2598 Nov 18 08:19	14° M 39'51		minimum elong	2599 Oct 27 20:16	4° M 25'25	1°13'36
direct	2598 Nov 21 18:34	13° M 32'06		asc. node	2599 Oct 31 09:29	0° M 26'37	
morning max el	2598 Nov 29 01:33	17° M 39'11	19°35'11		2599 Oct 31 21:13	30° R A	
greatest brilliancy	2598 Dec 07 09:23	28° M 05'36	-0.6m	morning rise	2599 Nov 02 16:50	28° A 41'04	
	2598 Dec 08 17:22	0° A		direct	2599 Nov 05 16:54	27° A 49'46	
desc. node	2598 Dec 21 10:19	19° A 09'40			2599 Nov 10 17:52	0° M	
morning set	2598 Dec 23 22:01	23° A 00'03		morning max el	2599 Nov 12 11:09	1° M 33'55	18°44'18
	2598 Dec 28 10:18	0° Z			2599 Dec 02 03:25	0° A	
max. Earth dist.	2599 Jan 05 13:01	12° Z 44'08	1.44443 AU	morning set	2599 Dec 03 13:44	2° A 15'38	

desc. node	2599 Dec 08 07:22	9°♄44'09		superior conj	2600 Nov 29 01:21	6°♄36'15	0°-25'-56
				minimum elong	2600 Nov 28 22:03	6°♄23'08	0°25'30
superior conj	2599 Dec 19 21:35	27°♄57'05	-1°-12'-57	max. Earth dist.	2600 Dec 02 01:17	11°♄20'12	1.45057 AU
minimum elong	2599 Dec 19 13:06	27°♄23'47	1°12'00		2600 Dec 14 00:07	0°♄	
max. Earth dist.	2599 Dec 19 06:05	26°♄56'15	1.45119 AU	evening rise	2600 Dec 15 11:51	2°♄18'48	
	2599 Dec 21 04:52	0°♄		greatest brilliancy	2601 Jan 01 03:06	27°♄39'51	-0.7m
evening rise	2600 Jan 04 12:31	22°♄43'56			2601 Jan 02 18:45	0°♄	
	2600 Jan 09 01:00	0°♄					
evening max el	2600 Jan 25 19:22	24°♄20'21	18°49'21				
asc. node	2600 Jan 27 08:48	25°♄47'48					
retrograde	2600 Feb 01 13:09	28°♄07'08					
evening set	2600 Feb 04 17:22	27°♄09'18					
inferior conj	2600 Feb 10 10:55	21°♄25'51	3°31'03				
minimum elong	2600 Feb 10 09:14	21°♄31'02	3°30'51				
min. Earth dist.	2600 Feb 12 04:54	19°♄16'31	0.65401 AU				
morning rise	2600 Feb 16 00:00	15°♄13'35					
direct	2600 Feb 22 14:21	12°♄23'10					
desc. node	2600 Mar 06 06:33	18°♄40'57					
morning max el	2600 Mar 07 17:58	20°♄07'10	26°52'11				
	2600 Mar 16 05:41	0°♄					
	2600 Apr 04 21:35	0°♄					
morning set	2600 Apr 12 12:42	13°♄55'48					
max. Earth dist.	2600 Apr 16 22:30	22°♄34'41	1.34270 AU				
	2600 Apr 20 13:38	0°♄					
superior conj	2600 Apr 21 01:29	1°♄01'33	0°-43'-31				
minimum elong	2600 Apr 21 03:43	1°♄13'11	0°43'05				
asc. node	2600 Apr 25 08:09	10°♄01'03					
evening rise	2600 Apr 28 13:39	16°♄48'09					
	2600 May 05 05:20	0°♄					
evening max el	2600 May 18 07:30	18°♄48'04	21°21'19				
retrograde	2600 May 30 09:20	24°♄42'48					
evening set	2600 Jun 01 17:59	24°♄30'03					
desc. node	2600 Jun 02 05:47	24°♄24'18					
inferior conj	2600 Jun 11 02:55	20°♄30'57	-2°-32'00				
minimum elong	2600 Jun 10 20:05	20°♄40'32	2°29'45				
min. Earth dist.	2600 Jun 11 07:50	20°♄24'05	0.54883 AU				
morning rise	2600 Jun 19 22:28	16°♄33'47					
direct	2600 Jun 23 06:39	16°♄09'33					
morning max el	2600 Jul 05 20:43	22°♄07'37	22°16'53				
	2600 Jul 12 16:03	0°♄					
asc. node	2600 Jul 22 07:23	15°♄59'57					
morning set	2600 Jul 27 10:37	26°♄20'14					
	2600 Jul 29 04:23	0°♄					
superior conj	2600 Aug 03 15:55	11°♄39'25	1°38'43				
minimum elong	2600 Aug 03 14:15	11°♄30'32	1°38'35				
max. Earth dist.	2600 Aug 06 23:28	18°♄34'27	1.34376 AU				
evening rise	2600 Aug 11 16:24	27°♄59'50					
	2600 Aug 12 17:17	0°♄					
desc. node	2600 Aug 29 05:09	28°♄07'05					
	2600 Aug 30 11:38	0°♄					
evening max el	2600 Sep 15 12:17	19°♄48'25	27°03'55				
retrograde	2600 Sep 28 18:43	27°♄05'42					
evening set	2600 Oct 05 14:34	24°♄23'50					
min. Earth dist.	2600 Oct 09 12:35	20°♄34'26	0.65288 AU				
inferior conj	2600 Oct 11 13:14	18°♄16'31	-2°-13'-46				
minimum elong	2600 Oct 11 16:52	18°♄06'12	2°12'22				
morning rise	2600 Oct 17 20:51	12°♄39'00					
asc. node	2600 Oct 18 06:33	12°♄28'16					
direct	2600 Oct 20 13:07	12°♄00'15					
morning max el	2600 Oct 27 01:28	15°♄30'50	18°09'56				
	2600 Nov 06 12:10	0°♄					
morning set	2600 Nov 14 10:38	12°♄59'03					
	2600 Nov 24 21:51	0°♄					
desc. node	2600 Nov 25 04:25	0°♄26'20					

superior conj	1600 Apr 16 07:38	26° Υ 28'07	0°-30'-13	max. Earth dist.	1601 Mar 26 17:56	1° Υ 21'21	1.34753 AU
minimum elong	1600 Apr 16 09:08	26° Υ 36'06	0°29'55				
	1600 Apr 17 23:23	0° 8		superior conj	1601 Mar 31 06:52	10° Υ 32'09	0°-57'-52
asc. node	1600 Apr 19 05:28	2° 8 41'00		minimum elong	1601 Mar 31 09:45	10° Υ 47'02	0°57'22
evening rise	1600 Apr 23 13:45	11° 8 56'12		asc. node	1601 Apr 06 02:29	22° Υ 39'58	
	1600 May 02 21:10	0° II		evening rise	1601 Apr 07 22:41	26° Υ 29'51	
evening max el	1600 May 15 00:39	16° II 31'15	22°22'48		1601 Apr 09 15:40	0° 8	
desc. node	1600 May 27 18:49	22° II 56'22		evening max el	1601 Apr 27 00:20	27° 8 22'35	20°55'00
retrograde	1600 May 28 00:08	22° II 56'28			1601 Apr 30 03:07	0° II	
evening set	1600 May 31 00:16	22° II 36'33		retrograde	1601 May 08 13:30	2° II 59'44	
min. Earth dist.	1600 Jun 08 07:31	19° II 01'18	0.55196 AU	evening set	1601 May 10 18:05	2° II 48'21	
inferior conj	1600 Jun 09 07:28	18° II 27'28	-3°-22'-52	desc. node	1601 May 14 15:50	1° II 37'28	
minimum elong	1600 Jun 08 23:41	18° II 38'29	3°20'44		1601 May 17 23:30	30° R 8	
morning rise	1600 Jun 18 01:19	14° II 35'38		inferior conj	1601 May 20 01:15	28° 8 50'25	-1°-33'-30
direct	1600 Jun 21 00:33	14° II 15'40		minimum elong	1601 May 19 20:51	28° 8 56'41	1°31'57
morning max el	1600 Jul 02 13:19	19° II 37'48	21°11'14	min. Earth dist.	1601 May 20 20:01	28° 8 23'46	0.54949 AU
	1600 Jul 10 22:27	0° 8		morning rise	1601 May 28 22:57	24° 8 46'21	
asc. node	1600 Jul 16 04:43	8° 8 55'43		direct	1601 Jun 01 10:01	24° 8 20'32	
morning set	1600 Jul 22 09:20	21° 8 08'29			1601 Jun 13 19:19	0° II	
	1600 Jul 26 15:11	0° 9		morning max el	1601 Jun 14 10:34	0° II 34'53	22°47'22
				asc. node	1601 Jul 03 01:45	28° II 20'46	
superior conj	1600 Jul 29 19:57	6° 9 40'01	1°42'42		1601 Jul 03 21:40	0° 8	
minimum elong	1600 Jul 29 18:39	6° 9 33'17	1°42'38	morning set	1601 Jul 06 20:03	6° 8 01'37	
max. Earth dist.	1600 Aug 03 02:06	15° 9 18'39	1.35397 AU				
evening rise	1600 Aug 07 08:57	23° 9 37'31		superior conj	1601 Jul 14 00:05	21° 8 18'28	1°33'07
	1600 Aug 10 19:45	0° II		minimum elong	1601 Jul 13 21:57	21° 8 07'05	1°32'54
desc. node	1600 Aug 23 18:10	21° II 25'07		max. Earth dist.	1601 Jul 16 21:07	27° 8 22'11	1.34007 AU
	1600 Aug 29 16:55	0° 9			1601 Jul 18 03:36	0° 9	
evening max el	1600 Sep 11 19:01	15° 9 35'15	26°34'13	evening rise	1601 Jul 21 19:38	7° 9 23'11	
retrograde	1600 Sep 24 16:28	22° 9 48'31			1601 Aug 03 09:11	0° II	
evening set	1600 Oct 01 05:07	20° 9 08'35		desc. node	1601 Aug 10 15:11	11° II 08'50	
min. Earth dist.	1600 Oct 05 07:28	15° 9 54'34	0.66096 AU	evening max el	1601 Aug 25 06:54	29° II 01'43	27°13'45
inferior conj	1600 Oct 06 23:30	13° 9 54'23	-1°-44'-50		1601 Aug 26 07:55	0° 9	
minimum elong	1600 Oct 07 02:17	13° 9 46'03	1°43'43	retrograde	1601 Sep 07 16:25	6° 9 20'35	
asc. node	1600 Oct 12 03:54	8° 9 39'36		evening set	1601 Sep 14 15:49	3° 9 37'11	
morning rise	1600 Oct 13 00:42	8° 9 07'38			1601 Sep 18 11:15	30° R II	
direct	1600 Oct 15 22:15	7° 9 20'25		min. Earth dist.	1601 Sep 18 11:20	29° II 59'46	0.64827 AU
morning max el	1600 Oct 22 14:10	11° 9 00'04	18°32'50	inferior conj	1601 Sep 20 15:58	27° II 34'49	-2°-42'-22
	1600 Nov 05 02:39	0° II		minimum elong	1601 Sep 20 20:12	27° II 23'08	2°40'53
morning set	1600 Nov 11 18:22	10° II 37'59		morning rise	1601 Sep 27 02:26	22° II 02'27	
desc. node	1600 Nov 19 17:27	23° II 18'25		asc. node	1601 Sep 29 00:56	21° II 28'55	
	1600 Nov 23 23:14	0° X		direct	1601 Sep 29 17:06	21° II 26'31	
				morning max el	1601 Oct 06 05:16	24° II 55'13	18°03'40
superior conj	1600 Nov 27 15:08	5° X 45'34	0°-51'-4		1601 Oct 10 09:59	0° 9	
minimum elong	1600 Nov 27 08:39	5° X 20'06	0°50'15	morning set	1601 Oct 24 00:04	21° 9 45'49	
max. Earth dist.	1600 Nov 28 04:36	6° X 38'28	1.45127 AU		1601 Oct 28 22:57	0° II	
	1600 Dec 13 00:25	0° 8					
evening rise	1600 Dec 13 16:00	1° 8 01'49		superior conj	1601 Nov 06 22:42	14° II 36'06	0°-2'-18
	1601 Jan 01 16:09	0° 8		minimum elong	1601 Nov 06 22:25	14° II 35'00	0°02'17
evening max el	1601 Jan 04 21:20	3° 8 45'03	19°02'35	behind sun begin	1601 Nov 06 11:52	13° II 52'46	
asc. node	1601 Jan 08 03:10	6° 8 28'34		behind sun end	1601 Nov 07 08:59	15° II 17'10	
retrograde	1601 Jan 11 19:00	7° 8 40'25		desc. node	1601 Nov 06 14:30	14° II 03'18	
evening set	1601 Jan 15 00:56	6° 8 39'13		max. Earth dist.	1601 Nov 10 23:22	21° II 00'02	1.44818 AU
inferior conj	1601 Jan 20 17:11	0° 8 50'03	3°22'25		1601 Nov 16 17:03	0° X	
minimum elong	1601 Jan 20 14:56	0° 8 57'10	3°22'02	evening rise	1601 Nov 23 09:41	10° X 23'10	
	1601 Jan 21 09:01	30° R 8			1601 Dec 06 05:52	0° 8	
min. Earth dist.	1601 Jan 22 05:58	28° 8 54'12	0.65775 AU	greatest brilliancy	1601 Dec 11 21:53	8° 8 14'09	-0.6m
morning rise	1601 Jan 26 03:59	24° 8 37'27		evening max el	1601 Dec 19 03:05	17° 8 14'20	19°54'11
direct	1601 Feb 01 15:03	21° 8 48'36		asc. node	1601 Dec 26 00:11	21° 8 36'38	
morning max el	1601 Feb 14 12:48	29° 8 25'01	26°32'51	retrograde	1601 Dec 26 16:32	21° 8 39'13	
	1601 Feb 15 02:32	0° 8		evening set	1601 Dec 30 06:13	20° 8 24'43	
desc. node	1601 Feb 15 16:37	0° 8 36'44		inferior conj	1602 Jan 04 18:27	14° 8 21'28	2°53'02
	1601 Mar 09 05:38	0° X		minimum elong	1602 Jan 04 15:47	14° 8 30'18	2°52'21
morning set	1601 Mar 22 12:29	23° X 10'43		min. Earth dist.	1602 Jan 05 17:16	13° 8 05'26	0.66822 AU
	1601 Mar 26 01:26	0° Y		morning rise	1602 Jan 10 00:44	8° 8 06'28	

direct	1602 Jan 15 22:48	5°☾29'08		direct	1602 Dec 30 11:33	19°♂27'34	
morning max el	1602 Jan 27 21:45	12°☾36'46	25°17'59	morning max el	1603 Jan 10 06:07	25°♂53'03	23°51'39
desc. node	1602 Feb 02 13:40	18°☾57'22		desc. node	1603 Jan 14 00:32	0°☾	
	1602 Feb 10 22:35	0°≈			1603 Jan 20 10:43	8°☾04'34	
	1602 Mar 01 23:18	0°✕			1603 Feb 04 12:07	0°≈	
morning set	1602 Mar 05 02:25	5°✕32'54		morning set	1603 Feb 14 18:00	16°≈45'45	
max. Earth dist.	1602 Mar 08 20:11	12°✕25'27	1.36470 AU	max. Earth dist.	1603 Feb 18 15:22	23°≈32'34	1.38522 AU
					1603 Feb 22 05:17	0°✕	
superior conj	1602 Mar 14 21:10	24°✕05'11	-1°-24'00	superior conj	1603 Feb 25 22:53	6°✕57'17	-1°-46'-10
minimum elong	1602 Mar 15 01:07	24°✕24'47	1°23'26	minimum elong	1603 Feb 26 03:00	7°✕16'46	1°45'46
	1602 Mar 17 20:03	0°♀			1603 Mar 07 00:26	24°✕32'05	
evening rise	1602 Mar 23 03:07	10°♀44'18		evening rise	1603 Mar 09 20:04	0°♀	
asc. node	1602 Mar 23 23:31	12°♀26'58		asc. node	1603 Mar 10 20:33	1°♀56'30	
	1602 Apr 02 13:17	0°♄			1603 Mar 23 09:55	20°♀59'47	18°51'29
evening max el	1602 Apr 09 11:43	8°♄51'54	19°43'30	evening max el	1603 Mar 31 16:33	25°♀00'52	
retrograde	1602 Apr 19 07:15	13°♄35'49		retrograde	1603 Apr 02 21:50	24°♀44'40	
evening set	1602 Apr 21 08:14	13°♄24'27		evening set	1603 Apr 10 20:44	20°♀25'59	2°02'06
inferior conj	1602 Apr 30 02:02	9°♄22'07	0°25'02	inferior conj	1603 Apr 11 00:40	20°♀18'52	2°00'56
minimum elong	1602 Apr 30 03:07	9°♄20'25	0°24'39	minimum elong	1603 Apr 14 02:33	18°♀06'26	0.57190 AU
desc. node	1602 May 01 12:50	8°♄27'40		desc. node	1603 Apr 18 09:52	15°♀33'51	
min. Earth dist.	1602 May 02 10:11	7°♄54'44	0.55668 AU	min. Earth dist.	1603 Apr 18 23:11	15°♀18'59	
morning rise	1602 May 08 18:34	4°♄48'43		morning rise	1603 Apr 24 09:11	14°♀08'08	
direct	1602 May 13 02:50	4°♄06'40		direct	1603 May 08 16:51	21°♀36'16	26°02'09
morning max el	1602 May 27 01:47	11°♄05'46	24°29'10	morning max el	1603 May 16 00:53	0°♄	
	1602 Jun 10 08:32	0°♂			1603 Jun 02 22:51	0°♂	
asc. node	1602 Jun 19 22:47	18°♂05'17		asc. node	1603 Jun 05 19:17	5°♂53'11	
morning set	1602 Jun 21 07:54	20°♂58'16		morning set	1603 Jun 06 19:51	8°♂03'22	
	1602 Jun 25 12:46	0°☿					
superior conj	1602 Jun 28 08:46	6°☿09'55	1°18'27	superior conj	1603 Jun 12 19:55	21°♂07'29	0°59'39
minimum elong	1602 Jun 28 06:20	5°☿56'45	1°18'07	minimum elong	1603 Jun 12 17:42	20°♂55'19	0°59'15
max. Earth dist.	1602 Jun 30 00:53	9°☿46'56	1.33019 AU	max. Earth dist.	1603 Jun 13 10:51	22°♂29'27	1.32425 AU
evening rise	1602 Jul 05 16:39	21°☿39'28		evening rise	1603 Jun 16 21:42	0°☿	
	1602 Jul 09 22:09	0°♁			1603 Jun 19 20:50	6°☿16'29	
	1602 Jul 28 07:20	0°♁			1603 Jul 02 11:48	0°♁	
desc. node	1602 Jul 28 12:12	0°♁16'23		desc. node	1603 Jul 15 09:11	18°♁33'00	
evening max el	1602 Aug 07 17:13	12°♁05'44	27°25'43	evening max el	1603 Jul 20 23:31	24°♁34'50	27°05'28
retrograde	1602 Aug 21 10:16	19°♁23'43		retrograde	1603 Jul 28 05:20	0°♁	
evening set	1602 Aug 28 14:57	16°♁48'10			1603 Aug 03 20:58	1°♁49'19	
min. Earth dist.	1602 Sep 01 05:47	13°♁43'04	0.63212 AU		1603 Aug 10 05:33	30°♁	
inferior conj	1602 Sep 03 22:58	11°♁01'30	-3°-36'-29	inferior conj	1603 Aug 10 22:27	29°♁34'50	
minimum elong	1602 Sep 04 04:08	10°♁48'40	3°35'03	minimum elong	1603 Aug 14 13:49	26°♁52'17	0.61309 AU
morning rise	1602 Sep 10 19:44	5°♁46'39		morning rise	1603 Aug 17 17:22	24°♁07'05	-4°-22'-8
direct	1602 Sep 13 06:13	5°♁18'29		direct	1603 Aug 17 22:12	23°♁56'25	4°21'14
asc. node	1602 Sep 15 22:00	5°♁52'41		asc. node	1603 Aug 25 00:54	19°♁13'00	
morning max el	1602 Sep 19 21:21	8°♁44'21	17°52'02	morning max el	1603 Aug 27 10:06	18°♁49'39	
	1602 Oct 03 22:40	0°♂			1603 Sep 02 19:05	21°♁42'35	
morning set	1602 Oct 06 06:26	4°♂04'29		morning set	1603 Sep 03 11:28	22°♁20'47	17°59'00
					1603 Sep 09 10:07	0°♁	
superior conj	1602 Oct 18 05:01	24°♂34'50	0°41'38	superior conj	1603 Sep 19 07:15	17°♁16'29	
minimum elong	1602 Oct 18 08:57	24°♂51'12	0°41'06	minimum elong	1603 Sep 26 06:44	0°♂	
	1602 Oct 21 11:52	0°♂					
desc. node	1602 Oct 24 11:32	4°♂50'28		desc. node	1603 Sep 29 14:34	5°♂53'54	1°14'18
max. Earth dist.	1602 Oct 24 15:39	5°♂07'03	1.43821 AU	max. Earth dist.	1603 Sep 29 19:06	6°♂13'47	1°13'48
evening rise	1602 Nov 02 17:39	19°♂24'52		evening rise	1603 Oct 07 03:40	18°♂45'25	1.42261 AU
	1602 Nov 09 16:12	0°♂			1603 Oct 11 08:33	25°♂36'57	
greatest brilliancy	1602 Nov 26 17:37	24°♂24'03	-0.5m	greatest brilliancy	1603 Oct 13 09:17	28°♂51'30	
	1602 Dec 01 10:30	0°☿			1603 Oct 14 02:36	0°♂	
evening max el	1602 Dec 02 03:25	0°☿44'21	20°59'27	evening max el	1603 Oct 14 02:36	0°♂	
retrograde	1602 Dec 10 14:14	5°☿44'51		retrograde	1603 Nov 03 08:29	0°♂	
asc. node	1602 Dec 12 21:14	5°☿15'30		asc. node	1603 Nov 10 05:11	8°♂57'20	-0.3m
evening set	1602 Dec 14 13:35	4°☿15'17		evening set	1603 Nov 14 22:18	14°♂15'46	22°14'29
	1602 Dec 18 12:32	30°♂			1603 Nov 24 10:20	19°♂54'46	
inferior conj	1602 Dec 19 23:40	28°♂01'09	2°15'01	inferior conj	1603 Nov 28 21:20	18°♂08'28	
minimum elong	1602 Dec 19 21:09	28°♂09'46	2°14'11	minimum elong	1603 Nov 29 18:18	17°♂22'10	
min. Earth dist.	1602 Dec 20 10:02	27°♂25'29	0.67483 AU	min. Earth dist.	1603 Dec 04 06:49	11°♂46'55	1°30'11
morning rise	1602 Dec 25 04:19	21°♂45'53		morning rise	1603 Dec 04 04:55	11°♂53'33	1°29'26
					1603 Dec 04 05:56	11°♂49'59	0.67782 AU

morning rise	1603 Dec 09 12:20	5°♂33'30		inferior conj	1604 Nov 17 14:05	25°♂36'28	0°39'56
direct	1603 Dec 14 04:25	3°♂37'46		minimum elong	1604 Nov 17 13:09	25°♂39'39	0°39'32
morning max el	1603 Dec 23 16:58	9°♂15'05	22°23'43	morning rise	1604 Nov 22 22:39	19°♂27'05	
greatest brilliancy	1603 Dec 28 06:53	14°♂22'33	-0.3m	direct	1604 Nov 27 00:24	17°♂54'08	
desc. node	1604 Jan 07 07:47	27°♂45'09		morning max el	1604 Dec 05 09:49	22°♂46'40	21°02'10
	1604 Jan 08 21:29	0°♂		greatest brilliancy	1604 Dec 10 21:28	29°♂07'20	-0.5m
morning set	1604 Jan 26 05:30	26°♂35'40			1604 Dec 11 13:52	0°♂	
	1604 Jan 28 07:21	0°♂		desc. node	1604 Dec 24 04:50	17°♂49'37	
max. Earth dist.	1604 Jan 31 12:03	5°♂20'36	1.40669 AU		1605 Jan 01 05:43	0°♂	
				morning set	1605 Jan 04 13:32	5°♂10'00	
superior conj	1604 Feb 08 07:21	18°♂56'50	-2°00'-54	max. Earth dist.	1605 Jan 12 15:31	18°♂04'32	1.42612 AU
minimum elong	1604 Feb 08 09:52	19°♂08'12	2°00'49				
	1604 Feb 14 08:08	0°♂		superior conj	1605 Jan 19 17:12	29°♂51'05	-2°-3'-41
evening rise	1604 Feb 18 11:29	7°♂45'44		minimum elong	1605 Jan 19 15:41	29°♂44'38	2°03'41
asc. node	1604 Feb 25 17:36	21°♂02'31			1605 Jan 19 19:17	0°♂	
	1604 Mar 02 12:12	0°♂		evening rise	1605 Jan 31 08:26	20°♂16'49	
evening max el	1604 Mar 05 16:03	3°♂39'02	18°19'34		1605 Feb 05 19:17	0°♂	
retrograde	1604 Mar 12 21:06	7°♂13'56		asc. node	1605 Feb 11 14:39	9°♂37'26	
evening set	1604 Mar 15 07:52	6°♂50'08		evening max el	1605 Feb 17 02:55	16°♂40'58	18°07'30
inferior conj	1604 Mar 22 12:46	2°♂10'21	3°05'19	retrograde	1605 Feb 23 18:02	20°♂05'27	
minimum elong	1604 Mar 22 16:18	2°♂02'53	3°04'37	evening set	1605 Feb 26 09:45	19°♂32'39	
	1604 Mar 25 02:20	30°♂		inferior conj	1605 Mar 05 00:05	14°♂31'33	3°37'09
min. Earth dist.	1604 Mar 25 23:07	29°♂17'39	0.59194 AU	minimum elong	1605 Mar 05 01:43	14°♂27'35	3°37'01
morning rise	1604 Mar 29 20:57	26°♂35'41		min. Earth dist.	1605 Mar 08 02:52	11°♂30'15	0.61327 AU
desc. node	1604 Apr 04 06:56	24°♂50'52		morning rise	1605 Mar 11 14:53	8°♂38'28	
direct	1604 Apr 05 04:30	24°♂48'43		direct	1605 Mar 18 10:49	6°♂17'48	
	1604 Apr 16 17:18	0°♂		desc. node	1605 Mar 22 03:59	6°♂56'00	
morning max el	1604 Apr 19 12:48	2°♂33'16	27°11'10	morning max el	1605 Apr 01 15:17	14°♂11'24	27°45'55
	1604 May 09 09:45	0°♂			1605 Apr 14 08:56	0°♂	
morning set	1604 May 20 04:29	20°♂40'02			1605 May 01 19:34	0°♂	
asc. node	1604 May 23 16:54	28°♂09'22		morning set	1605 May 04 09:37	5°♂12'38	
	1604 May 24 13:16	0°♂		max. Earth dist.	1605 May 10 10:25	17°♂59'59	1.32381 AU
				asc. node	1605 May 10 13:56	18°♂19'08	
superior conj	1604 May 27 07:42	6°♂04'12	0°37'26				
minimum elong	1604 May 27 06:08	5°♂55'32	0°37'07	superior conj	1605 May 11 18:28	20°♂54'40	0°12'33
max. Earth dist.	1604 May 26 23:21	5°♂18'14	1.32212 AU	minimum elong	1605 May 11 17:53	20°♂51'30	0°12'25
evening rise	1604 Jun 03 05:37	21°♂05'00		behind sun begin	1605 May 11 14:42	20°♂34'05	
	1604 Jun 07 14:18	0°♂		behind sun end	1605 May 11 21:05	21°♂08'56	
	1604 Jun 26 05:08	0°♂			1605 May 15 22:16	0°♂	
desc. node	1604 Jul 01 06:13	5°♂36'39		evening rise	1605 May 18 16:53	5°♂57'59	
evening max el	1604 Jul 01 23:10	6°♂17'46	26°12'18		1605 May 31 09:40	0°♂	
retrograde	1604 Jul 15 23:04	13°♂28'59		evening max el	1605 Jun 13 15:47	17°♂15'38	24°52'08
evening set	1604 Jul 22 09:29	11°♂47'34		desc. node	1605 Jun 18 03:13	20°♂57'56	
min. Earth dist.	1604 Jul 26 11:54	9°♂11'47	0.59253 AU	retrograde	1605 Jun 27 14:56	24°♂20'47	
inferior conj	1604 Jul 29 19:27	6°♂40'42	-4°-51'-10	evening set	1605 Jul 02 20:52	23°♂18'04	
minimum elong	1604 Jul 29 21:50	6°♂36'08	4°51'00	min. Earth dist.	1605 Jul 08 03:08	20°♂30'12	0.57288 AU
morning rise	1604 Aug 06 13:36	2°♂09'50		inferior conj	1605 Jul 11 02:03	18°♂33'09	-4°-51'-23
direct	1604 Aug 09 00:13	1°♂49'16		minimum elong	1605 Jul 10 23:39	18°♂37'10	4°51'14
morning max el	1604 Aug 16 20:28	5°♂35'18	18°25'50	morning rise	1605 Jul 19 06:13	14°♂24'34	
asc. node	1604 Aug 19 16:09	8°♂42'51		direct	1605 Jul 21 20:13	14°♂05'30	
	1604 Sep 01 07:22	0°♂		morning max el	1605 Jul 30 21:15	18°♂18'47	19°13'39
morning set	1604 Sep 01 21:10	1°♂06'05		asc. node	1605 Aug 06 13:12	26°♂38'39	
					1605 Aug 08 15:08	0°♂	
superior conj	1604 Sep 10 23:33	18°♂22'15	1°34'48	morning set	1605 Aug 16 20:15	15°♂22'44	
minimum elong	1604 Sep 11 02:38	18°♂36'32	1°34'34		1605 Aug 24 04:59	0°♂	
	1604 Sep 17 10:55	0°♂		superior conj	1605 Aug 25 02:19	1°♂43'55	1°44'32
max. Earth dist.	1604 Sep 18 10:30	1°♂42'21	1.40329 AU	minimum elong	1605 Aug 25 03:27	1°♂49'26	1°44'30
evening rise	1604 Sep 22 21:28	9°♂15'08		max. Earth dist.	1605 Aug 31 13:58	13°♂56'40	1.38280 AU
desc. node	1604 Sep 27 05:34	16°♂18'47		evening rise	1605 Sep 04 09:56	20°♂46'55	
	1604 Oct 06 03:03	0°♂			1605 Sep 09 20:18	0°♂	
evening max el	1604 Oct 27 12:44	27°♂49'13	23°34'18	desc. node	1605 Sep 14 02:35	6°♂52'02	
	1604 Oct 29 20:38	0°♂			1605 Sep 30 03:59	0°♂	
retrograde	1604 Nov 07 03:30	4°♂05'25		evening max el	1605 Oct 10 00:49	11°♂25'55	24°52'28
evening set	1604 Nov 12 03:48	2°♂01'39		retrograde	1605 Oct 21 16:44	18°♂12'53	
	1604 Nov 14 04:35	30°♂		evening set	1605 Oct 27 07:18	15°♂52'25	
asc. node	1604 Nov 15 15:22	28°♂13'31		min. Earth dist.	1605 Oct 31 21:36	10°♂40'49	0.67362 AU
min. Earth dist.	1604 Nov 17 02:34	26°♂15'50	0.67736 AU				

inferior conj	1605 Nov 01 19:41	9°♄27'49	0°-14'-25	evening rise	1606 Aug 17 20:02	3°♄20'54	
minimum elong	1605 Nov 01 20:03	9°♄26'39	0°14'16	desc. node	1606 Aug 31 23:34	27°♄11'47	
transit middle	1605 Nov 01 20:03	9°♄26'39	0°14'16		1606 Sep 02 19:49	0°♄	
transit begin	1605 Nov 01 18:44	9°♄31'00		evening max el	1606 Sep 22 12:42	25°♄05'16	26°01'39
transit end	1605 Nov 01 21:22	9°♄22'18			1606 Sep 28 13:40	0°♄	
asc. node	1605 Nov 02 12:25	8°♄32'51		retrograde	1606 Oct 05 01:16	2°♄12'18	
morning rise	1605 Nov 07 09:18	3°♄24'51			1606 Oct 10 19:19	30°♄	
direct	1605 Nov 10 22:22	2°♄12'28		evening set	1606 Oct 11 06:04	29°♄38'10	
morning max el	1605 Nov 18 10:22	6°♄28'57	19°52'17	min. Earth dist.	1606 Oct 15 12:40	25°♄02'33	0.66653 AU
greatest brilliancy	1605 Nov 25 23:02	15°♄44'30	-0.6m	inferior conj	1606 Oct 16 21:52	23°♄18'43	-1°-11'-26
	1605 Dec 05 16:58	0°♄		minimum elong	1606 Oct 16 23:44	23°♄12'53	1°10'39
desc. node	1605 Dec 11 01:51	8°♄11'00		asc. node	1606 Oct 20 09:26	19°♄18'01	
morning set	1605 Dec 14 09:30	13°♄17'31		morning rise	1606 Oct 22 18:20	17°♄24'58	
	1605 Dec 25 01:52	0°♄		direct	1606 Oct 25 20:52	16°♄29'39	
max. Earth dist.	1605 Dec 26 02:01	1°♄36'03	1.44103 AU	morning max el	1606 Nov 01 18:11	20°♄20'11	18°57'10
					1606 Nov 09 08:37	0°♄	
superior conj	1605 Dec 31 00:34	9°♄32'16	-1°-49'-41	morning set	1606 Nov 23 18:48	22°♄12'09	
minimum elong	1605 Dec 30 17:45	9°♄04'36	1°49'13	desc. node	1606 Nov 27 22:53	28°♄44'44	
	1606 Jan 12 07:38	0°♄			1606 Nov 28 18:05	0°♄	
evening rise	1606 Jan 13 10:50	1°♄55'53		max. Earth dist.	1606 Dec 08 18:10	15°♄41'50	1.44962 AU
asc. node	1606 Jan 29 11:42	27°♄30'53					
evening max el	1606 Jan 31 15:26	29°♄56'38	18°14'41	superior conj	1606 Dec 10 09:07	18°♄15'09	-1°-16'-48
	1606 Jan 31 16:47	0°♄		minimum elong	1606 Dec 10 00:33	17°♄41'26	1°15'52
retrograde	1606 Feb 07 02:37	3°♄24'12			1606 Dec 17 18:51	0°♄	
evening set	1606 Feb 09 23:13	2°♄41'19		evening rise	1606 Dec 25 14:55	12°♄37'57	
	1606 Feb 13 13:28	30°♄			1607 Jan 05 08:51	0°♄	
inferior conj	1606 Feb 16 02:36	27°♄20'10	3°44'44	evening max el	1607 Jan 15 03:04	13°♄20'49	18°40'11
minimum elong	1606 Feb 16 02:16	27°♄21'05	3°44'44	asc. node	1607 Jan 16 08:43	14°♄31'16	
min. Earth dist.	1606 Feb 18 15:43	24°♄32'52	0.63316 AU	retrograde	1607 Jan 21 18:40	17°♄02'52	
morning rise	1606 Feb 22 03:27	21°♄16'15		evening set	1607 Jan 24 20:53	16°♄08'43	
direct	1606 Mar 01 02:00	18°♄32'58		inferior conj	1607 Jan 30 16:28	10°♄29'20	3°34'30
desc. node	1606 Mar 09 01:01	21°♄28'07		minimum elong	1607 Jan 30 14:43	10°♄34'36	3°34'17
morning max el	1606 Mar 14 22:34	26°♄28'15	27°43'21	min. Earth dist.	1607 Feb 01 14:04	8°♄11'58	0.64994 AU
	1606 Mar 18 05:51	0°♄		morning rise	1607 Feb 05 07:21	4°♄19'12	
	1606 Apr 07 22:46	0°♄		direct	1607 Feb 12 00:27	1°♄28'12	
morning set	1606 Apr 18 08:20	19°♄22'23		desc. node	1607 Feb 23 22:04	7°♄52'20	
max. Earth dist.	1606 Apr 23 15:55	0°♄19'55	1.32951 AU	morning max el	1607 Feb 25 08:01	9°♄14'51	27°06'36
	1606 Apr 23 12:09	0°♄			1607 Mar 13 14:28	0°♄	
					1607 Mar 31 08:04	0°♄	
superior conj	1606 Apr 26 02:23	5°♄32'06	0°-14'-16	morning set	1607 Apr 01 21:39	2°♄59'52	
minimum elong	1606 Apr 26 03:05	5°♄35'50	0°14'09	max. Earth dist.	1607 Apr 06 12:04	12°♄07'52	1.33962 AU
behind sun begin	1606 Apr 26 00:38	5°♄22'45					
behind sun end	1606 Apr 26 05:31	5°♄48'56		superior conj	1607 Apr 10 05:28	19°♄50'20	0°-42'-1
asc. node	1606 Apr 27 10:58	8°♄27'47		minimum elong	1607 Apr 10 07:34	20°♄01'23	0°41'36
evening rise	1606 May 03 04:41	20°♄48'07		asc. node	1607 Apr 14 08:00	28°♄31'28	
	1606 May 07 16:26	0°♄			1607 Apr 15 00:41	0°♄	
evening max el	1606 May 26 05:37	27°♄47'29	23°17'40	evening rise	1607 Apr 17 15:12	5°♄29'23	
	1606 May 28 17:24	0°♄			1607 May 01 01:56	0°♄	
desc. node	1606 Jun 05 00:13	4°♄00'56		evening max el	1607 May 08 00:04	8°♄24'27	21°43'54
retrograde	1606 Jun 08 18:34	4°♄33'12		retrograde	1607 May 20 10:35	14°♄30'18	
evening set	1606 Jun 12 12:36	4°♄02'21		desc. node	1607 May 22 21:15	14°♄16'52	
min. Earth dist.	1606 Jun 19 15:30	0°♄47'40	0.55751 AU	evening set	1607 May 23 00:07	14°♄15'32	
	1606 Jun 20 23:55	30°♄		inferior conj	1607 Jun 01 09:22	10°♄13'29	-2°-39'-55
inferior conj	1606 Jun 21 12:48	29°♄40'57	-4°-9'-5	minimum elong	1607 Jun 01 02:23	10°♄23'15	2°37'42
minimum elong	1606 Jun 21 05:45	29°♄51'22	4°07'40	min. Earth dist.	1607 Jun 01 03:33	10°♄21'37	0.54974 AU
morning rise	1606 Jun 30 02:07	25°♄46'47		morning rise	1607 Jun 10 05:38	6°♄18'35	
direct	1606 Jul 02 21:00	25°♄27'55		direct	1607 Jun 13 09:02	5°♄56'51	
	1606 Jul 13 01:32	0°♄		morning max el	1607 Jun 25 14:05	11°♄41'47	21°50'35
morning max el	1606 Jul 13 11:22	0°♄22'20	20°22'39		1607 Jul 08 21:20	0°♄	
asc. node	1606 Jul 24 10:13	15°♄17'03		asc. node	1607 Jul 11 07:14	4°♄27'39	
morning set	1606 Aug 01 01:34	29°♄58'34		morning set	1607 Jul 16 10:53	14°♄47'07	
	1606 Aug 01 01:51	0°♄					
				superior conj	1607 Jul 23 18:16	0°♄11'23	1°39'18
superior conj	1606 Aug 08 17:51	15°♄44'14	1°45'28	minimum elong	1607 Jul 23 16:32	0°♄02'19	1°39'11
minimum elong	1606 Aug 08 17:18	15°♄41'23	1°45'27		1607 Jul 23 16:05	0°♄	
max. Earth dist.	1606 Aug 13 19:50	25°♄47'49	1.36364 AU	max. Earth dist.	1607 Jul 27 09:40	7°♄42'51	1.34762 AU
	1606 Aug 16 00:49	0°♄		evening rise	1607 Jul 31 23:03	16°♄44'15	

	1607 Aug 08 04:44	0°♍		evening rise	1608 Jul 14 14:38	0°♌44'53	
desc. node	1607 Aug 18 20:35	17°♍11'06			1608 Jul 31 04:21	0°♍	
	1607 Aug 28 05:34	0°♌		desc. node	1608 Aug 04 17:36	6°♍41'18	
evening max el	1607 Sep 05 01:01	8°♌40'10	26°54'07	evening max el	1608 Aug 17 12:42	21°♍59'32	27°22'28
retrograde	1607 Sep 18 04:20	15°♌56'23		retrograde	1608 Aug 31 01:31	29°♍17'34	
evening set	1607 Sep 24 21:54	13°♌14'12		evening set	1608 Sep 07 04:08	26°♍36'08	
min. Earth dist.	1607 Sep 28 21:22	9°♌15'40	0.65599 AU	min. Earth dist.	1608 Sep 10 21:23	23°♍13'16	0.64192 AU
inferior conj	1607 Sep 30 18:33	7°♌04'32	-2°-9'-26	inferior conj	1608 Sep 13 07:23	20°♍40'17	-3°-5'-57
minimum elong	1607 Sep 30 21:58	6°♌54'35	2°08'07	minimum elong	1608 Sep 13 12:06	20°♍27'47	3°04'25
morning rise	1607 Oct 06 23:30	1°♌23'10		morning rise	1608 Sep 19 22:07	15°♍14'52	
asc. node	1607 Oct 07 06:28	1°♌14'51		direct	1608 Sep 22 10:49	14°♍42'28	
direct	1607 Oct 09 17:50	0°♌41'07		asc. node	1608 Sep 23 03:31	14°♍44'58	
morning max el	1607 Oct 16 07:18	4°♌15'10	18°18'17	morning max el	1608 Sep 28 23:10	18°♍08'35	17°56'28
	1607 Nov 02 18:45	0°♍			1608 Oct 07 14:28	0°♌	
morning set	1607 Nov 04 08:01	2°♍31'49		morning set	1608 Oct 16 00:59	14°♌12'18	
desc. node	1607 Nov 14 19:54	19°♍26'21			1608 Oct 25 10:22	0°♍	
superior conj	1607 Nov 19 10:35	26°♍44'41	0°-30'-26	superior conj	1608 Oct 29 02:25	6°♍00'11	0°17'29
minimum elong	1607 Nov 19 06:38	26°♍29'05	0°29'56	minimum elong	1608 Oct 29 04:24	6°♍08'10	0°17'13
max. Earth dist.	1607 Nov 21 13:15	0°♌04'11	1.45091 AU	desc. node	1608 Oct 31 16:56	10°♍12'23	
	1607 Nov 21 12:12	0°♌		max. Earth dist.	1608 Nov 03 07:49	14°♍23'27	1.44483 AU
evening rise	1607 Dec 05 19:47	22°♌24'38			1608 Nov 13 07:20	0°♌	
	1607 Dec 10 16:17	0°♌		evening rise	1608 Nov 14 07:29	1°♌33'04	
greatest brilliancy	1607 Dec 20 13:05	15°♌08'33	-0.7m		1608 Dec 03 09:05	0°♌	
evening max el	1607 Dec 29 11:30	26°♌49'00	19°22'45	greatest brilliancy	1608 Dec 05 07:27	2°♌39'00	-0.5m
	1608 Jan 02 09:47	0°♌		evening max el	1608 Dec 11 15:02	10°♌18'25	20°20'28
asc. node	1608 Jan 03 05:45	0°♌24'26		retrograde	1608 Dec 19 12:49	14°♌57'39	
retrograde	1608 Jan 05 14:57	0°♌55'32		asc. node	1608 Dec 20 02:48	14°♌55'44	
	1608 Jan 08 16:54	30°♌♌		evening set	1608 Dec 23 06:28	13°♌36'42	
evening set	1608 Jan 09 00:03	29°♌48'45		inferior conj	1608 Dec 28 17:34	7°♌28'15	2°37'49
inferior conj	1608 Jan 14 14:21	23°♌53'22	3°11'08	minimum elong	1608 Dec 28 14:55	7°♌37'13	2°37'02
minimum elong	1608 Jan 14 11:51	24°♌01'26	3°10'36	min. Earth dist.	1608 Dec 29 10:49	6°♌29'50	0.67153 AU
min. Earth dist.	1608 Jan 15 21:00	22°♌14'17	0.66276 AU	morning rise	1609 Jan 02 22:51	1°♌13'04	
morning rise	1608 Jan 19 22:53	17°♌39'46			1609 Jan 04 12:46	30°♌♌	
direct	1608 Jan 26 04:54	14°♌54'36		direct	1609 Jan 08 14:40	28°♌43'27	
morning max el	1608 Feb 07 17:25	22°♌19'48	26°03'02		1609 Jan 13 02:39	0°♌	
desc. node	1608 Feb 10 19:07	25°♌37'12		morning max el	1609 Jan 20 02:00	5°♌33'54	24°42'04
	1608 Feb 14 11:26	0°♌		desc. node	1609 Jan 27 16:11	14°♌19'16	
	1608 Mar 05 20:58	0°♌			1609 Feb 07 23:30	0°♌	
morning set	1608 Mar 14 21:34	15°♌53'22		morning set	1609 Feb 25 02:45	27°♌47'35	
max. Earth dist.	1608 Mar 18 20:45	23°♌24'11	1.35432 AU		1609 Feb 26 08:35	0°♌	
	1608 Mar 22 05:11	0°♌		max. Earth dist.	1609 Feb 28 19:35	4°♌26'44	1.37314 AU
superior conj	1608 Mar 24 01:19	3°♌42'18	-1°-9'-16	superior conj	1609 Mar 07 10:45	16°♌58'48	-1°-34'-4
minimum elong	1608 Mar 24 04:44	3°♌59'35	1°08'42	minimum elong	1609 Mar 07 14:56	17°♌19'08	1°33'34
asc. node	1608 Mar 31 05:02	18°♌26'01			1609 Mar 14 00:20	0°♌	
evening rise	1608 Mar 31 22:31	19°♌55'43		evening rise	1609 Mar 16 00:17	3°♌59'43	
	1608 Apr 06 00:10	0°♌		asc. node	1609 Mar 18 02:06	8°♌06'13	
evening max el	1608 Apr 19 04:42	19°♌31'17	20°22'22		1609 Mar 31 15:03	0°♌	
retrograde	1608 Apr 29 23:56	24°♌45'00		evening max el	1609 Apr 01 20:50	1°♌16'38	19°18'54
evening set	1608 May 02 01:42	24°♌34'15		retrograde	1609 Apr 10 23:39	5°♌41'02	
desc. node	1608 May 08 18:17	21°♌59'14		evening set	1609 Apr 13 01:58	5°♌28'03	
inferior conj	1608 May 11 04:23	20°♌36'21	0°-42'-15	inferior conj	1609 Apr 21 11:51	1°♌19'20	1°10'05
minimum elong	1608 May 11 02:24	20°♌39'16	0°41'32	minimum elong	1609 Apr 21 14:36	1°♌14'46	1°09'08
min. Earth dist.	1608 May 12 16:27	19°♌43'42	0.55141 AU		1609 Apr 23 11:40	30°♌♌	
morning rise	1608 May 20 01:11	16°♌21'47		min. Earth dist.	1609 Apr 24 07:12	29°♌28'19	0.56226 AU
direct	1608 May 23 20:29	15°♌50'29		desc. node	1609 Apr 25 15:21	28°♌38'30	
morning max el	1608 Jun 06 07:58	22°♌24'48	23°30'46	morning rise	1609 Apr 29 23:16	26°♌31'30	
	1608 Jun 12 23:59	0°♌		direct	1609 May 04 18:10	25°♌38'58	
asc. node	1608 Jun 27 04:17	24°♌02'14			1609 May 15 14:52	0°♌	
morning set	1608 Jun 29 22:21	29°♌43'09		morning max el	1609 May 18 22:29	2°♌51'57	25°10'55
	1608 Jun 30 01:33	0°♌			1609 Jun 07 01:11	0°♌	
				morning set	1609 Jun 14 10:14	14°♌39'51	
superior conj	1608 Jul 07 00:39	14°♌56'41	1°27'27	asc. node	1609 Jun 14 01:21	13°♌53'07	
minimum elong	1608 Jul 06 22:19	14°♌44'11	1°27'11				
max. Earth dist.	1608 Jul 09 09:00	19°♌57'25	1.33543 AU	superior conj	1609 Jun 21 10:37	29°♌51'23	1°10'57
	1608 Jul 14 05:40	0°♌		minimum elong	1609 Jun 21 08:14	29°♌38'19	1°10'34

	1609 Jun 21 12:12	0°☿		superior conj	1610 Jun 05 22:15	14°II49'08	0°50'37
max. Earth dist.	1609 Jun 22 15:54	2°☿30'58	1.32716 AU	minimum elong	1610 Jun 05 20:16	14°II38'10	0°50'14
evening rise	1609 Jun 28 15:02	15°☿10'43		max. Earth dist.	1610 Jun 06 03:12	15°II16'20	1.32282 AU
	1609 Jul 06 06:15	0°♊		evening rise	1610 Jun 12 21:25	29°II53'01	
desc. node	1609 Jul 22 14:37	25°♊29'26			1610 Jun 12 22:45	0°☿	
	1609 Jul 26 07:22	0°♋			1610 Jun 29 10:53	0°♊	
evening max el	1609 Jul 30 21:29	4°♋49'35	27°21'03	desc. node	1610 Jul 09 11:39	13°♊17'59	
retrograde	1609 Aug 13 16:24	12°♋06'15		evening max el	1610 Jul 13 00:56	16°♊58'47	26°46'39
evening set	1609 Aug 20 21:11	9°♋37'37		retrograde	1610 Jul 26 23:58	24°♊12'50	
min. Earth dist.	1609 Aug 24 11:13	6°♋44'04	0.62440 AU	evening set	1610 Aug 02 20:35	22°♊10'57	
inferior conj	1609 Aug 27 09:26	3°♋58'52	-3°-57'-16	min. Earth dist.	1610 Aug 06 14:49	19°♊33'32	0.60437 AU
minimum elong	1609 Aug 27 14:40	3°♋46'30	3°55'59	inferior conj	1610 Aug 09 21:16	16°♊51'36	-4°-37'-9
	1609 Sep 01 04:51	30°♌♊		minimum elong	1610 Aug 10 01:23	16°♊43'03	4°36'35
morning rise	1609 Sep 03 10:48	28°♊52'47		morning rise	1610 Aug 17 09:26	12°♊07'30	
direct	1609 Sep 05 20:26	28°♊26'58		direct	1610 Aug 19 18:46	11°♊45'42	
asc. node	1609 Sep 10 00:35	29°♊47'01		morning max el	1610 Aug 27 03:14	15°♊22'02	18°07'56
	1609 Sep 10 08:29	0°♋		asc. node	1610 Aug 27 21:39	16°♊08'31	
morning max el	1609 Sep 12 14:53	1°♋53'40	17°52'40		1610 Sep 06 06:53	0°♋	
morning set	1609 Sep 28 15:56	26°♋55'43		morning set	1610 Sep 11 22:52	10°♋24'59	
	1609 Sep 30 09:07	0°♌					
superior conj	1609 Oct 09 20:32	16°♌34'06	0°57'00	superior conj	1610 Sep 21 16:43	28°♋24'40	1°24'25
minimum elong	1609 Oct 10 01:06	16°♌53'29	0°56'25	minimum elong	1610 Sep 21 20:48	28°♋42'54	1°24'01
max. Earth dist.	1609 Oct 16 22:38	28°♌20'43	1.43218 AU	max. Earth dist.	1610 Sep 22 14:04	0°♌	
	1609 Oct 17 23:09	0°♍		evening rise	1610 Sep 29 07:50	11°♌40'19	1.41467 AU
desc. node	1609 Oct 18 13:58	0°♍59'43		desc. node	1610 Oct 04 15:55	20°♌28'07	
evening rise	1609 Oct 24 16:38	10°♍40'04			1610 Oct 05 10:58	21°♌44'43	
	1609 Nov 06 11:33	0°♎			1610 Oct 10 16:50	0°♍	
greatest brilliancy	1609 Nov 19 13:39	18°♎06'06	-0.4m	greatest brilliancy	1610 Oct 31 19:34	0°♎	
evening max el	1609 Nov 24 12:53	23°♎48'37	21°30'23	evening max el	1610 Nov 02 04:11	1°♎40'30	-0.3m
retrograde	1609 Dec 03 10:11	29°♎05'52		retrograde	1610 Nov 07 05:33	7°♎20'31	22°48'13
asc. node	1609 Dec 06 23:51	27°♎55'21		evening set	1610 Nov 17 05:15	13°♎16'24	
evening set	1609 Dec 07 14:14	27°♎29'15		asc. node	1610 Nov 21 21:37	11°♎22'54	
inferior conj	1609 Dec 12 23:52	21°♎11'13	1°56'44	inferior conj	1610 Nov 23 20:54	9°♎26'33	
minimum elong	1609 Dec 12 21:33	21°♎19'11	1°55'54	minimum elong	1610 Nov 27 07:17	4°♎59'10	1°09'26
min. Earth dist.	1609 Dec 13 05:16	20°♎52'30	0.67648 AU	min. Earth dist.	1610 Nov 27 05:44	5°♎04'29	1°08'49
morning rise	1609 Dec 18 04:35	14°♎56'23			1610 Nov 27 01:52	5°♎17'51	0.67801 AU
direct	1609 Dec 23 05:12	12°♎47'41		morning rise	1610 Dec 01 06:14	30°♏♌	
morning max el	1610 Jan 02 11:12	18°♎53'21	23°13'55	direct	1610 Dec 02 13:49	28°♏46'54	
greatest brilliancy	1610 Jan 07 13:43	24°♎36'49	-0.3m		1610 Dec 06 23:36	27°♏00'57	
	1610 Jan 11 19:20	0°♏		morning max el	1610 Dec 13 11:49	0°♎	
desc. node	1610 Jan 14 13:13	3°♏42'11		greatest brilliancy	1610 Dec 16 00:10	2°♎18'56	21°47'45
	1610 Feb 01 03:18	0°♐		desc. node	1610 Dec 20 19:53	7°♎46'06	-0.4m
morning set	1610 Feb 06 07:00	8°♐26'56			1611 Jan 01 10:14	23°♎33'48	
max. Earth dist.	1610 Feb 10 14:33	15°♐48'17	1.39435 AU	morning set	1611 Jan 05 19:07	0°♏	
				max. Earth dist.	1611 Jan 17 05:56	17°♏41'27	
superior conj	1610 Feb 18 05:45	29°♐30'03	-1°-53'-34		1611 Jan 23 13:03	27°♏56'53	1.41536 AU
minimum elong	1610 Feb 18 09:28	29°♐47'16	1°53'19		1611 Jan 24 18:33	0°♐	
	1610 Feb 18 12:13	0°♑		superior conj	1611 Jan 31 05:10	11°♐02'57	-2°-3'-51
evening rise	1610 Feb 27 17:43	17°♑34'23		minimum elong	1611 Jan 31 06:17	11°♐07'51	2°03'51
asc. node	1610 Mar 04 23:10	27°♑26'53		evening rise	1611 Feb 10 23:13	0°♑30'24	
	1610 Mar 06 09:12	0°♒			1611 Feb 10 16:37	0°♑	
evening max el	1610 Mar 15 22:47	13°♒38'50	18°35'27	asc. node	1611 Feb 19 20:12	16°♑20'37	
retrograde	1610 Mar 23 17:17	17°♒27'02		evening max el	1611 Feb 27 07:19	26°♑28'48	18°12'06
evening set	1610 Mar 26 00:44	17°♒08'00		retrograde	1611 Mar 06 05:04	29°♑57'11	
inferior conj	1610 Apr 02 15:40	12°♒40'43	2°33'06	evening set	1611 Mar 08 18:00	29°♑29'44	
minimum elong	1610 Apr 02 19:44	12°♒32'50	2°32'03	inferior conj	1611 Mar 15 16:17	24°♑41'08	3°22'12
min. Earth dist.	1610 Apr 06 01:19	10°♒03'59	0.57999 AU	minimum elong	1611 Mar 15 19:05	24°♑34'50	3°21'47
morning rise	1610 Apr 10 10:27	7°♒20'23		min. Earth dist.	1611 Mar 19 00:43	21°♑41'26	0.60107 AU
desc. node	1610 Apr 12 12:23	6°♒30'19		morning rise	1611 Mar 22 16:46	18°♑57'37	
direct	1610 Apr 16 06:22	5°♒54'30		direct	1611 Mar 29 07:02	16°♑54'58	
morning max el	1610 Apr 30 15:25	13°♒31'44	26°35'14	desc. node	1611 Mar 30 09:25	16°♑58'16	
	1610 May 13 16:25	0°♓		morning max el	1611 Apr 12 13:58	24°♑44'37	27°30'25
morning set	1610 May 29 20:54	29°♓31'50			1611 Apr 17 09:24	0°♒	
	1610 May 30 02:15	0°♈			1611 May 06 23:02	0°♓	
asc. node	1610 May 31 22:25	3°♈55'00		morning set	1611 May 14 04:34	14°♓13'06	
				asc. node	1611 May 18 19:29	24°♓03'10	

max. Earth dist.	1611 May 20 15:20	28°♄02'37	1.32230 AU	morning set	1612 Apr 27 07:14	28°♄36'38	
					1612 Apr 27 23:35	0°♄	
superior conj	1611 May 21 09:48	29°♄43'55	0°27'11	max. Earth dist.	1612 May 03 00:31	10°♄36'41	1.32572 AU
minimum elong	1611 May 21 08:37	29°♄37'23	0°26'55				
	1611 May 21 12:44	0°♄		superior conj	1612 May 04 19:32	14°♄29'30	0°01'21
evening rise	1611 May 28 07:28	14°♄44'11		minimum elong	1612 May 04 19:29	14°♄29'09	0°01'20
	1611 Jun 04 23:18	0°♄		behind sun begin	1612 May 04 14:20	14°♄01'14	
evening max el	1611 Jun 24 21:34	28°♄22'15	25°41'04	behind sun end	1612 May 05 00:37	14°♄57'06	
desc. node	1611 Jun 26 08:40	29°♄42'31		asc. node	1612 May 04 16:30	14°♄12'58	
	1611 Jun 26 16:46	0°♄		evening rise	1612 May 11 19:10	29°♄36'54	
retrograde	1611 Jul 08 22:13	5°♄31'43			1612 May 11 23:32	0°♄	
evening set	1611 Jul 14 21:44	4°♄07'06			1612 May 28 19:08	0°♄	
min. Earth dist.	1611 Jul 19 09:52	1°♄28'02	0.58379 AU	evening max el	1612 Jun 05 12:25	9°♄06'24	24°12'55
	1611 Jul 21 11:23	30°♄		desc. node	1612 Jun 12 05:42	14°♄09'52	
inferior conj	1611 Jul 22 15:25	29°♄09'14	-4°-55'-41	retrograde	1612 Jun 19 08:33	16°♄04'43	
minimum elong	1611 Jul 22 15:59	29°♄08'12	4°55'42	evening set	1612 Jun 23 23:31	15°♄17'13	
morning rise	1611 Jul 30 13:51	24°♄47'58		min. Earth dist.	1612 Jun 29 23:19	12°♄19'39	0.56560 AU
direct	1611 Aug 02 01:36	24°♄28'13		inferior conj	1612 Jul 02 13:22	10°♄42'45	-4°-39'-19
morning max el	1611 Aug 10 09:05	28°♄24'47	18°43'33	minimum elong	1612 Jul 02 08:42	10°♄50'06	4°38'45
	1611 Aug 11 22:07	0°♄		morning rise	1612 Jul 10 21:29	6°♄41'30	
asc. node	1611 Aug 14 18:41	3°♄34'21		direct	1612 Jul 13 13:35	6°♄22'34	
morning set	1611 Aug 26 17:09	24°♄27'48		morning max el	1612 Jul 23 05:26	10°♄51'39	19°40'29
	1611 Aug 29 13:11	0°♄		asc. node	1612 Jul 31 15:43	21°♄49'40	
					1612 Aug 05 06:20	0°♄	
superior conj	1611 Sep 04 09:58	11°♄17'54	1°40'07	morning set	1612 Aug 09 19:12	8°♄53'44	
minimum elong	1611 Sep 04 12:14	11°♄28'37	1°39'59				
max. Earth dist.	1611 Sep 11 12:40	24°♄18'13	1.39457 AU	superior conj	1612 Aug 17 18:41	24°♄57'27	1°45'54
	1611 Sep 14 19:22	0°♄		minimum elong	1612 Aug 17 19:03	24°♄59'14	1°45'53
evening rise	1611 Sep 15 14:35	1°♄21'49			1612 Aug 20 08:32	0°♄	
desc. node	1611 Sep 22 07:59	12°♄24'04		max. Earth dist.	1612 Aug 23 16:53	6°♄21'41	1.37438 AU
	1611 Oct 04 00:40	0°♄		evening rise	1612 Aug 27 12:45	13°♄21'17	
evening max el	1611 Oct 20 18:56	20°♄56'35	24°08'10		1612 Sep 06 09:17	0°♄	
retrograde	1611 Oct 31 20:48	27°♄26'35		desc. node	1612 Sep 08 05:01	2°♄52'33	
evening set	1611 Nov 06 03:01	25°♄15'49			1612 Sep 27 23:26	0°♄	
asc. node	1611 Nov 10 17:55	19°♄58'29		evening max el	1612 Oct 02 06:54	4°♄35'31	25°23'24
min. Earth dist.	1611 Nov 10 22:10	19°♄44'11	0.67623 AU	retrograde	1612 Oct 14 07:56	11°♄31'32	
inferior conj	1611 Nov 11 14:04	18°♄50'30	0°17'20	evening set	1612 Oct 20 04:44	9°♄04'47	
minimum elong	1611 Nov 11 13:39	18°♄51'55	0°17'09	min. Earth dist.	1612 Oct 24 15:44	4°♄08'26	0.67109 AU
morning rise	1611 Nov 17 00:32	12°♄43'20		inferior conj	1612 Oct 25 18:26	2°♄42'07	0°-38'-18
direct	1611 Nov 20 20:45	11°♄19'16		minimum elong	1612 Oct 25 19:25	2°♄38'57	0°37'54
morning max el	1611 Nov 28 20:06	15°♄55'02	20°30'40	asc. node	1612 Oct 27 14:56	0°♄22'03	
greatest brilliancy	1611 Dec 05 01:20	23°♄16'48	-0.5m		1612 Oct 27 22:22	30°♄	
	1611 Dec 09 22:39	0°♄		morning rise	1612 Oct 31 10:46	26°♄42'50	
desc. node	1611 Dec 19 07:15	13°♄46'28		direct	1612 Nov 03 19:11	25°♄38'01	
morning set	1611 Dec 27 05:54	25°♄55'28		morning max el	1612 Nov 10 23:54	29°♄41'45	19°26'57
	1611 Dec 29 20:40	0°♄			1612 Nov 11 07:04	0°♄	
max. Earth dist.	1612 Jan 05 19:37	11°♄02'50	1.43326 AU	greatest brilliancy	1612 Nov 19 22:48	11°♄06'45	-0.7m
					1612 Dec 02 10:36	0°♄	
superior conj	1612 Jan 12 03:59	21°♄26'43	-2°00'-3	morning set	1612 Dec 05 04:51	4°♄16'15	
minimum elong	1612 Jan 12 00:10	21°♄10'48	1°59'54	desc. node	1612 Dec 05 04:18	4°♄14'06	
	1612 Jan 17 05:41	0°♄		max. Earth dist.	1612 Dec 18 09:31	24°♄54'00	1.44561 AU
evening rise	1612 Jan 24 12:44	12°♄40'01			1612 Dec 21 14:32	0°♄	
	1612 Feb 03 15:14	0°♄					
asc. node	1612 Feb 06 17:14	4°♄39'09		superior conj	1612 Dec 22 00:37	0°♄40'16	-1°-37'-56
evening max el	1612 Feb 10 19:16	9°♄37'41	18°08'15	minimum elong	1612 Dec 21 16:17	0°♄06'59	1°37'13
retrograde	1612 Feb 17 07:22	13°♄01'34		evening rise	1613 Jan 05 06:05	23°♄56'17	
evening set	1612 Feb 20 01:16	12°♄24'25			1613 Jan 08 21:05	0°♄	
inferior conj	1612 Feb 26 10:31	7°♄14'35	3°42'53	asc. node	1613 Jan 23 14:14	22°♄12'07	
minimum elong	1612 Feb 26 11:16	7°♄12'39	3°42'52	evening max el	1613 Jan 24 07:44	22°♄58'14	18°23'16
min. Earth dist.	1612 Feb 29 07:56	4°♄16'59	0.62212 AU	retrograde	1613 Jan 30 19:44	26°♄30'38	
morning rise	1612 Mar 03 18:57	1°♄16'28		evening set	1613 Feb 02 18:40	25°♄42'59	
	1612 Mar 05 19:52	30°♄		inferior conj	1613 Feb 08 18:21	20°♄13'30	3°42'16
direct	1612 Mar 10 17:17	28°♄44'32		minimum elong	1613 Feb 08 17:20	20°♄16'24	3°42'11
	1612 Mar 15 22:07	0°♄		min. Earth dist.	1613 Feb 11 00:45	17°♄37'48	0.64077 AU
desc. node	1612 Mar 16 06:27	0°♄09'55		morning rise	1613 Feb 14 14:30	14°♄06'33	
morning max el	1612 Mar 24 18:31	6°♄39'00	27°49'18	direct	1613 Feb 21 11:29	11°♄18'35	
	1612 Apr 11 11:59	0°♄		desc. node	1613 Mar 03 03:29	15°♄34'47	

morning max el	1613 Mar 07 03:13	19° \approx 10'59	27°31'36	desc. node	1614 Feb 18 00:32	2° \approx 37'03	
	1613 Mar 16 08:05	0° H			1614 Mar 10 12:14	0° H	
	1613 Apr 04 10:38	0° Y		morning set	1614 Mar 25 10:35	25° H 55'20	
morning set	1613 Apr 11 02:23	12° Y 34'27			1614 Mar 27 13:28	0° Y	
max. Earth dist.	1613 Apr 16 02:45	22° Y 45'49	1.33330 AU	max. Earth dist.	1614 Mar 29 18:20	4° Y 20'30	1.34534 AU
superior conj	1613 Apr 19 01:41	28° Y 59'59	0°-26'00	superior conj	1614 Apr 03 02:01	13° Y 07'58	0°-53'-45
minimum elong	1613 Apr 19 02:58	29° Y 06'51	0°25'44	minimum elong	1614 Apr 03 04:42	13° Y 21'54	0°53'14
	1613 Apr 19 12:56	0° B		asc. node	1614 Apr 08 10:35	24° Y 20'56	
asc. node	1613 Apr 21 13:32	4° B 20'30		evening rise	1614 Apr 10 16:07	29° Y 00'32	
evening rise	1613 Apr 26 06:42	14° B 24'45			1614 Apr 11 03:37	0° B	
	1613 May 04 04:05	0° II			1614 Apr 29 15:56	0° II	
evening max el	1613 May 18 03:09	19° II 36'12	22°36'49	evening max el	1614 Apr 30 01:19	0° II 23'04	21°07'10
desc. node	1613 May 30 02:42	26° II 04'32		retrograde	1614 May 11 20:30	6° II 08'02	
retrograde	1613 May 31 06:39	26° II 07'37		evening set	1614 May 14 02:43	5° II 56'08	
evening set	1613 Jun 03 11:06	25° II 45'18		desc. node	1614 May 16 23:44	5° II 09'23	
min. Earth dist.	1613 Jun 11 10:58	22° II 15'48	0.55314 AU	inferior conj	1614 May 23 10:56	1° II 57'40	-1°-51'-34
inferior conj	1613 Jun 12 16:54	21° II 33'10	-3°-36'-32	minimum elong	1614 May 23 05:43	2° II 05'01	1°49'45
minimum elong	1613 Jun 12 09:06	21° II 44'17	3°34'31	min. Earth dist.	1614 May 23 23:24	1° II 40'04	0.54924 AU
morning rise	1613 Jun 21 09:41	17° II 41'24			1614 May 27 01:04	30° R B	
direct	1613 Jun 24 07:37	17° II 21'53		morning rise	1614 Jun 01 08:29	27° B 56'31	
morning max el	1613 Jul 05 14:38	22° II 36'25	20°58'05	direct	1614 Jun 04 17:15	27° B 32'02	
	1613 Jul 11 22:23	0° E			1614 Jun 12 19:34	0° II	
asc. node	1613 Jul 18 12:46	10° E 42'58		morning max el	1614 Jun 17 13:15	3° II 39'10	22°32'23
morning set	1613 Jul 25 02:28	23° E 35'47		asc. node	1614 Jul 05 09:50	0° E 04'37	
	1613 Jul 28 04:27	0° Q			1614 Jul 05 08:53	0° E	
				morning set	1614 Jul 09 12:53	8° E 28'00	
superior conj	1613 Aug 01 14:24	9° Q 10'30	1°43'37	superior conj	1614 Jul 16 17:42	23° E 46'33	1°34'55
minimum elong	1613 Aug 01 13:17	9° Q 04'43	1°43'35	minimum elong	1614 Jul 16 15:39	23° E 35'41	1°34'44
max. Earth dist.	1613 Aug 06 01:42	18° Q 11'41	1.35636 AU		1614 Jul 19 16:53	0° Q	
evening rise	1613 Aug 10 06:35	26° Q 17'21		max. Earth dist.	1614 Jul 19 19:17	0° Q 12'25	1.34187 AU
	1613 Aug 12 06:39	0° np		evening rise	1614 Jul 24 15:25	9° Q 57'53	
desc. node	1613 Aug 26 02:02	23° np 04'32			1614 Aug 04 16:56	0° np	
	1613 Aug 30 19:18	0° A		desc. node	1614 Aug 12 23:03	12° np 52'52	
evening max el	1613 Sep 14 18:48	18° A 13'14	26°26'23		1614 Aug 26 13:35	0° A	
retrograde	1613 Sep 27 14:09	25° A 25'27		evening max el	1614 Aug 28 06:52	1° A 42'33	27°09'33
evening set	1613 Oct 04 00:51	22° A 46'41		retrograde	1614 Sep 10 15:04	9° A 01'13	
min. Earth dist.	1613 Oct 08 04:14	18° A 27'08	0.66249 AU	evening set	1614 Sep 17 13:02	6° A 17'50	
inferior conj	1613 Oct 09 18:31	16° A 30'56	-1°-36'-1	min. Earth dist.	1614 Sep 21 09:31	2° A 34'57	0.65035 AU
minimum elong	1613 Oct 09 21:03	16° A 23'14	1°35'00	inferior conj	1614 Sep 23 12:12	0° A 13'20	-2°-33'-48
asc. node	1613 Oct 14 11:58	11° A 32'53		minimum elong	1614 Sep 23 16:14	0° A 02'02	2°32'21
morning rise	1613 Oct 15 18:27	10° A 42'22			1614 Sep 23 16:58	30° R np	
direct	1613 Oct 18 17:11	9° A 53'14		morning rise	1614 Sep 29 21:12	24° np 38'30	
morning max el	1613 Oct 25 10:20	13° A 35'28	18°38'39	asc. node	1614 Oct 01 09:02	24° np 08'17	
	1613 Nov 06 08:54	0° M		direct	1614 Oct 02 12:42	24° np 01'08	
morning set	1613 Nov 15 01:15	13° M 45'26		morning max el	1614 Oct 09 01:03	27° np 31'07	18°06'54
desc. node	1613 Nov 22 01:19	24° M 51'45			1614 Oct 11 06:12	0° A	
	1613 Nov 25 07:32	0° J		morning set	1614 Oct 27 02:49	24° A 41'21	
superior conj	1613 Dec 01 03:30	9° J 10'01	0°-58'-9	desc. node	1614 Oct 30 07:49	0° M	
minimum elong	1613 Nov 30 20:17	8° J 41'39	0°57'17		1614 Nov 08 22:21	15° M 35'59	
max. Earth dist.	1613 Dec 01 03:24	9° J 09'37	1.45104 AU	superior conj	1614 Nov 10 08:53	17° M 53'40	0°-9'-37
	1613 Dec 14 08:18	0° Z		minimum elong	1614 Nov 10 07:40	17° M 48'51	0°09'28
evening rise	1613 Dec 17 00:10	4° Z 14'28		behind sun begin	1614 Nov 09 22:49	17° M 13'36	
	1614 Jan 02 13:45	0° \approx		behind sun end	1614 Nov 10 16:31	18° M 24'04	
evening max el	1614 Jan 07 18:11	6° \approx 24'29	18°56'13	max. Earth dist.	1614 Nov 13 22:12	23° M 31'32	1.44910 AU
asc. node	1614 Jan 10 11:16	8° \approx 46'03			1614 Nov 18 01:10	0° J	
retrograde	1614 Jan 14 14:07	10° \approx 16'15		evening rise	1614 Nov 26 20:28	13° J 41'38	
evening set	1614 Jan 17 19:00	9° \approx 16'59			1614 Dec 07 10:54	0° Z	
inferior conj	1614 Jan 23 12:02	3° \approx 30'17	3°26'00	greatest brilliancy	1614 Dec 14 10:43	10° Z 20'00	-0.6m
minimum elong	1614 Jan 23 09:54	3° \approx 36'57	3°25'38	evening max el	1614 Dec 22 00:43	19° Z 53'49	19°45'36
min. Earth dist.	1614 Jan 25 03:05	1° \approx 28'34	0.65584 AU	asc. node	1614 Dec 28 08:19	24° Z 06'36	
	1614 Jan 26 08:43	30° R Z		retrograde	1614 Dec 29 11:25	24° Z 13'41	
morning rise	1614 Jan 28 23:46	27° Z 18'08		evening set	1615 Jan 01 23:49	23° Z 01'19	
direct	1614 Feb 04 12:30	24° Z 28'17		inferior conj	1615 Jan 07 12:32	17° Z 00'06	2°58'06
	1614 Feb 15 07:24	0° \approx		minimum elong	1615 Jan 07 09:55	17° Z 08'47	2°57'26
morning max el	1614 Feb 17 13:09	2° \approx 08'07	26°42'21				

min. Earth dist.	1615 Jan 08 13:22	15°☿37'57	0.66695 AU	inferior conj	1615 Dec 22 17:18	0°☿38'34	2°21'14
morning rise	1615 Jan 12 19:18	10°☿45'21		minimum elong	1615 Dec 22 14:45	0°☿47'20	2°20'25
direct	1615 Jan 18 19:34	8°☿05'36		min. Earth dist.	1615 Dec 23 05:26	29°☿57'01	0.67411 AU
morning max el	1615 Jan 30 22:11	15°☿18'21	25°30'03		1615 Dec 23 04:34	30°☿☿	
desc. node	1615 Feb 04 21:36	20°☿49'02		morning rise	1615 Dec 27 22:03	24°☿23'20	
	1615 Feb 12 00:34	0°☿☿		direct	1616 Jan 02 07:34	22°☿01'54	
	1615 Mar 03 08:54	0°☿☿		morning max el	1616 Jan 13 06:28	28°☿33'51	24°04'50
morning set	1615 Mar 08 03:19	8°☿26'12			1616 Jan 14 15:32	0°☿	
max. Earth dist.	1615 Mar 11 21:59	15°☿26'13	1.36191 AU	desc. node	1616 Jan 22 18:38	9°☿50'03	
					1616 Feb 05 18:58	0°☿☿	
superior conj	1615 Mar 17 17:53	26°☿46'18	-1°-20'-14	morning set	1616 Feb 17 22:39	19°☿☿50'36	
minimum elong	1615 Mar 17 21:43	27°☿05'26	1°19'40	max. Earth dist.	1616 Feb 21 17:55	26°☿☿31'27	1.38202 AU
	1615 Mar 19 08:30	0°☿☿			1616 Feb 23 16:08	0°☿☿	
evening rise	1615 Mar 25 21:23	13°☿18'15					
asc. node	1615 Mar 26 07:38	14°☿10'05		superior conj	1616 Feb 28 21:47	9°☿45'39	-1°-43'-11
	1615 Apr 03 16:53	0°☿☿		minimum elong	1616 Feb 29 01:58	10°☿05'36	1°42'47
evening max el	1615 Apr 12 11:01	11°☿46'38	19°52'57	evening rise	1616 Mar 08 19:59	27°☿11'00	
retrograde	1615 Apr 22 12:34	16°☿37'49			1616 Mar 10 06:31	0°☿☿	
evening set	1615 Apr 24 13:26	16°☿26'47		asc. node	1616 Mar 12 04:42	3°☿43'01	
inferior conj	1615 May 03 09:48	12°☿26'10	0°07'57	evening max el	1616 Mar 25 07:48	23°☿49'34	18°57'57
minimum elong	1615 May 03 10:09	12°☿25'37	0°07'48	retrograde	1616 Apr 02 19:13	27°☿56'08	
transit middle	1615 May 03 10:09	12°☿25'37	0°07'48	evening set	1616 Apr 04 23:45	27°☿40'49	
transit begin	1615 May 03 06:41	12°☿30'55		inferior conj	1616 Apr 13 01:29	23°☿24'51	1°49'28
transit end	1615 May 03 13:37	12°☿20'19		minimum elong	1616 Apr 13 05:13	23°☿18'14	1°48'19
desc. node	1615 May 03 20:47	12°☿09'18		min. Earth dist.	1616 Apr 16 05:08	21°☿12'16	0.56922 AU
min. Earth dist.	1615 May 05 13:18	11°☿07'32	0.55504 AU	desc. node	1616 Apr 19 17:49	19°☿04'55	
morning rise	1615 May 12 03:44	7°☿57'54		morning rise	1616 Apr 21 06:27	18°☿22'48	
direct	1615 May 16 08:31	7°☿18'58		direct	1616 Apr 26 12:39	17°☿17'05	
morning max el	1615 May 30 04:53	14°☿12'13	24°14'13	morning max el	1616 May 10 19:38	24°☿41'25	25°49'32
	1615 Jun 11 13:02	0°☿☿			1616 May 15 16:50	0°☿☿	
asc. node	1615 Jun 22 06:53	19°☿46'50			1616 Jun 03 10:23	0°☿☿	
morning set	1615 Jun 24 00:42	23°☿24'41		morning set	1616 Jun 07 12:17	8°☿☿20'43	
	1615 Jun 27 02:38	0°☿☿		asc. node	1616 Jun 08 03:57	9°☿☿43'34	
superior conj	1615 Jul 01 01:51	8°☿☿36'42	1°20'58	superior conj	1616 Jun 14 12:46	23°☿☿34'05	1°02'46
minimum elong	1615 Jun 30 23:26	8°☿☿23'37	1°20'38	minimum elong	1616 Jun 14 10:29	23°☿☿21'36	1°02'21
max. Earth dist.	1615 Jul 02 21:59	12°☿☿34'43	1.33141 AU	max. Earth dist.	1616 Jun 15 07:23	25°☿☿16'06	1.32491 AU
evening rise	1615 Jul 08 11:09	24°☿☿10'37			1616 Jun 17 11:29	0°☿☿	
	1615 Jul 11 09:37	0°☿☿		evening rise	1616 Jun 21 14:28	8°☿☿45'30	
	1615 Jul 29 07:23	0°☿☿			1616 Jul 02 18:52	0°☿☿	
desc. node	1615 Jul 30 20:05	2°☿☿07'02		desc. node	1616 Jul 16 17:06	20°☿☿32'49	
evening max el	1615 Aug 10 17:41	14°☿☿51'24	27°25'58	evening max el	1616 Jul 23 00:46	27°☿☿26'39	27°10'32
retrograde	1615 Aug 24 09:48	22°☿☿09'25			1616 Jul 25 23:02	0°☿☿	
evening set	1615 Aug 31 14:09	19°☿☿32'04		retrograde	1616 Aug 05 21:29	4°☿☿41'20	
min. Earth dist.	1615 Sep 04 05:32	16°☿☿22'31	0.63475 AU	evening set	1616 Aug 13 00:14	2°☿☿22'48	
inferior conj	1615 Sep 06 20:50	13°☿☿42'54	-3°-28'-44		1616 Aug 16 04:35	30°☿☿☿	
minimum elong	1615 Sep 07 01:56	13°☿☿30'03	3°27'14	min. Earth dist.	1616 Aug 16 14:59	29°☿☿37'54	0.61614 AU
morning rise	1615 Sep 13 16:01	8°☿☿25'06		inferior conj	1616 Aug 19 17:18	26°☿☿52'14	-4°-16'-6
direct	1615 Sep 16 02:58	7°☿☿55'55		minimum elong	1616 Aug 19 22:19	26°☿☿41'00	4°15'04
asc. node	1615 Sep 18 06:06	8°☿☿18'16		morning rise	1616 Aug 26 23:15	21°☿☿54'54	
morning max el	1615 Sep 22 17:10	11°☿☿21'39	17°52'34	direct	1616 Aug 29 08:31	21°☿☿30'57	
	1615 Oct 05 07:20	0°☿☿		asc. node	1616 Sep 04 03:09	23°☿☿56'03	
morning set	1615 Oct 09 05:55	6°☿☿50'55		morning max el	1616 Sep 05 07:46	25°☿☿00'32	17°56'42
					1616 Sep 09 11:03	0°☿☿	
superior conj	1615 Oct 21 11:11	27°☿☿40'29	0°35'37	morning set	1616 Sep 21 04:19	19°☿☿56'00	
minimum elong	1615 Oct 21 14:44	27°☿☿55'08	0°35'08		1616 Sep 26 17:21	0°☿☿	
	1615 Oct 22 21:04	0°☿☿					
desc. node	1615 Oct 26 19:22	6°☿☿22'56		superior conj	1616 Oct 01 16:48	8°☿☿47'59	1°10'09
max. Earth dist.	1615 Oct 27 15:10	7°☿☿42'24	1.44014 AU	minimum elong	1616 Oct 01 21:25	9°☿☿08'04	1°09'37
evening rise	1615 Nov 06 04:51	22°☿☿43'49		max. Earth dist.	1616 Oct 09 04:07	21°☿☿26'42	1.42527 AU
	1615 Nov 10 22:54	0°☿☿		desc. node	1616 Oct 12 16:24	27°☿☿09'39	
greatest brilliancy	1615 Nov 29 11:23	26°☿☿46'29	-0.5m		1616 Oct 14 10:59	0°☿☿	
	1615 Dec 02 01:07	0°☿☿		evening rise	1616 Oct 15 18:17	2°☿☿03'58	
evening max el	1615 Dec 05 01:56	3°☿☿23'53	20°49'00		1616 Nov 03 11:05	0°☿☿	
retrograde	1615 Dec 13 09:10	8°☿☿18'33		greatest brilliancy	1616 Nov 12 04:07	11°☿☿34'04	-0.3m
asc. node	1615 Dec 15 05:22	7°☿☿59'33		evening max el	1616 Nov 16 21:31	16°☿☿54'42	22°02'51
evening set	1615 Dec 17 07:01	6°☿☿51'14		retrograde	1616 Nov 26 05:36	22°☿☿27'57	

evening set	1616 Nov 30 14:47	20° ♂ 44'07		retrograde	1617 Nov 09 23:19	6° ♂ 39'04	
asc. node	1616 Dec 01 02:25	20° ♂ 19'33		evening set	1617 Nov 14 21:31	4° ♂ 37'52	
inferior conj	1616 Dec 06 00:16	14° ♂ 23'19	1°37'19	asc. node	1617 Nov 17 23:26	1° ♂ 20'35	
minimum elong	1616 Dec 05 22:14	14° ♂ 30'21	1°36'34		1617 Nov 19 00:08	30° ♂	
min. Earth dist.	1616 Dec 06 00:57	14° ♂ 20'56	0.67759 AU	inferior conj	1617 Nov 20 07:36	28° ♂ 12'50	0°47'51
morning rise	1616 Dec 11 05:30	8° ♂ 09'35		minimum elong	1617 Nov 20 06:30	28° ♂ 16'37	0°47'23
direct	1616 Dec 15 23:47	6° ♂ 10'32		min. Earth dist.	1617 Nov 19 21:38	28° ♂ 47'02	0.67763 AU
morning max el	1616 Dec 25 16:46	11° ♂ 55'01	22°36'34	morning rise	1617 Nov 25 15:34	22° ♂ 02'38	
greatest brilliancy	1616 Dec 30 06:42	17° ♂ 01'58	-0.3m	direct	1617 Nov 29 19:19	20° ♂ 26'28	
desc. node	1617 Jan 08 15:38	29° ♂ 26'02		morning max el	1617 Dec 08 08:35	25° ♂ 25'27	21°13'38
	1617 Jan 09 01:15	0° ♂			1617 Dec 12 10:28	0° ♂	
morning set	1617 Jan 28 14:32	29° ♂ 53'12		greatest brilliancy	1617 Dec 13 15:20	1° ♂ 29'28	-0.4m
	1617 Jan 28 16:11	0° ♂		desc. node	1617 Dec 26 12:39	19° ♂ 27'25	
max. Earth dist.	1617 Feb 02 14:07	8° ♂ 12'36	1.40350 AU		1618 Jan 02 12:46	0° ♂	
				morning set	1618 Jan 08 02:03	8° ♂ 36'54	
superior conj	1617 Feb 10 09:06	21° ♂ 53'37	-1°-59'-20	max. Earth dist.	1618 Jan 15 16:09	20° ♂ 47'14	1.42345 AU
minimum elong	1617 Feb 10 12:01	22° ♂ 06'51	1°59'13		1618 Jan 21 04:48	0° ♂	
	1617 Feb 14 18:56	0° ♂					
evening rise	1617 Feb 20 08:47	10° ♂ 30'22		superior conj	1618 Jan 22 22:34	2° ♂ 58'01	-2°-4'-16
asc. node	1617 Feb 27 01:44	22° ♂ 53'11		minimum elong	1618 Jan 22 21:48	2° ♂ 54'46	2°04'16
	1617 Mar 03 09:55	0° ♂		evening rise	1618 Feb 03 08:04	23° ♂ 08'07	
evening max el	1617 Mar 08 12:54	6° ♂ 24'32	18°23'03		1618 Feb 07 03:30	0° ♂	
retrograde	1617 Mar 15 21:05	10° ♂ 02'30		asc. node	1618 Feb 13 22:46	11° ♂ 33'20	
evening set	1617 Mar 18 06:59	9° ♂ 40'01		evening max el	1618 Feb 19 23:12	19° ♂ 23'20	18°08'05
inferior conj	1617 Mar 25 14:23	5° ♂ 03'24	2°57'51	retrograde	1618 Feb 26 15:47	22° ♂ 48'30	
minimum elong	1617 Mar 25 18:06	4° ♂ 55'41	2°57'04	evening set	1618 Mar 01 06:44	22° ♂ 17'11	
min. Earth dist.	1617 Mar 29 00:54	2° ♂ 14'08	0.58874 AU	inferior conj	1618 Mar 07 23:01	17° ♂ 19'21	3°34'02
	1617 Apr 01 05:40	30° ♂		minimum elong	1618 Mar 08 00:57	17° ♂ 14'42	3°33'50
morning rise	1617 Apr 02 01:18	29° ♂ 32'07		min. Earth dist.	1618 Mar 11 03:31	14° ♂ 17'36	0.61010 AU
desc. node	1617 Apr 06 14:51	27° ♂ 57'47		morning rise	1618 Mar 14 16:13	11° ♂ 28'22	
direct	1617 Apr 08 06:01	27° ♂ 50'44		direct	1618 Mar 21 10:56	9° ♂ 12'00	
	1617 Apr 15 12:29	0° ♂		desc. node	1618 Mar 24 11:52	9° ♂ 37'32	
morning max el	1617 Apr 22 14:47	5° ♂ 33'39	27°02'57	morning max el	1618 Apr 04 16:17	17° ♂ 05'07	27°43'07
	1617 May 10 16:33	0° ♂			1618 Apr 15 09:09	0° ♂	
morning set	1617 May 22 21:55	23° ♂ 09'16			1618 May 03 07:03	0° ♂	
asc. node	1617 May 26 00:59	29° ♂ 48'48		morning set	1618 May 07 03:44	7° ♂ 44'10	
	1617 May 26 03:04	0° ♂		asc. node	1618 May 12 22:02	19° ♂ 58'14	
				max. Earth dist.	1618 May 13 07:05	20° ♂ 47'33	1.32327 AU
superior conj	1617 May 30 00:33	8° ♂ 31'18	0°41'02				
minimum elong	1617 May 29 22:51	8° ♂ 21'58	0°40'40	superior conj	1618 May 14 11:32	23° ♂ 22'53	0°16'28
max. Earth dist.	1617 May 29 19:43	8° ♂ 04'43	1.32219 AU	minimum elong	1618 May 14 10:47	23° ♂ 18'47	0°16'18
evening rise	1617 Jun 05 22:40	23° ♂ 32'38			1618 May 17 12:02	0° ♂	
	1617 Jun 09 01:52	0° ♂		evening rise	1618 May 21 09:38	8° ♂ 25'02	
	1617 Jun 26 23:05	0° ♂			1618 Jun 01 14:44	0° ♂	
desc. node	1617 Jul 03 14:08	7° ♂ 49'08		evening max el	1618 Jun 16 18:48	20° ♂ 19'54	25°05'22
evening max el	1617 Jul 05 01:20	9° ♂ 16'11	26°22'04	desc. node	1618 Jun 20 11:09	23° ♂ 28'04	
retrograde	1617 Jul 19 00:59	16° ♂ 28'12		retrograde	1618 Jun 30 18:42	27° ♂ 26'45	
evening set	1617 Jul 25 14:34	14° ♂ 41'05		evening set	1618 Jul 06 05:29	26° ♂ 18'28	
min. Earth dist.	1617 Jul 29 14:19	12° ♂ 05'34	0.59563 AU	min. Earth dist.	1618 Jul 11 06:26	23° ♂ 33'20	0.57559 AU
inferior conj	1617 Aug 01 21:58	9° ♂ 30'59	-4°-48'-19	inferior conj	1618 Jul 14 07:35	21° ♂ 30'00	-4°-53'-49
minimum elong	1617 Aug 02 00:54	9° ♂ 25'16	4°48'05	minimum elong	1618 Jul 14 06:00	21° ♂ 32'43	4°53'47
morning rise	1617 Aug 09 14:37	4° ♂ 56'47		morning rise	1618 Jul 22 10:18	17° ♂ 18'22	
direct	1617 Aug 12 00:50	4° ♂ 35'57		direct	1618 Jul 24 23:37	16° ♂ 59'13	
morning max el	1617 Aug 19 17:42	8° ♂ 18'59	18°20'33	morning max el	1618 Aug 02 19:54	21° ♂ 07'49	19°05'11
asc. node	1617 Aug 22 00:11	10° ♂ 46'34		asc. node	1618 Aug 08 21:13	28° ♂ 34'54	
	1617 Sep 02 18:02	0° ♂			1618 Aug 09 19:23	0° ♂	
morning set	1617 Sep 04 16:32	3° ♂ 40'46		morning set	1618 Aug 19 14:26	17° ♂ 53'58	
					1618 Aug 25 17:09	0° ♂	
superior conj	1617 Sep 13 22:39	21° ♂ 07'23	1°32'25				
minimum elong	1617 Sep 14 02:01	21° ♂ 22'50	1°32'08	superior conj	1618 Aug 27 23:05	4° ♂ 22'07	1°43'39
	1617 Sep 18 21:20	0° ♂		minimum elong	1618 Aug 28 00:31	4° ♂ 29'00	1°43'36
max. Earth dist.	1617 Sep 21 11:30	4° ♂ 29'50	1.40630 AU	max. Earth dist.	1618 Sep 03 14:57	16° ♂ 49'02	1.38580 AU
evening rise	1617 Sep 26 02:56	12° ♂ 18'04		evening rise	1618 Sep 07 11:51	23° ♂ 40'06	
desc. node	1617 Sep 29 13:25	17° ♂ 52'45			1618 Sep 11 05:14	0° ♂	
	1617 Oct 07 09:06	0° ♂		desc. node	1618 Sep 16 10:27	8° ♂ 27'56	
	1617 Oct 30 01:27	0° ♂			1618 Oct 01 04:08	0° ♂	
evening max el	1617 Oct 30 12:23	0° ♂ 27'43	23°22'19	evening max el	1618 Oct 13 00:42	14° ♂ 04'21	24°41'13

retrograde	1618 Oct 24 13:14	20° \mathbb{M} 47'29		minimum elong	1619 Aug 11 12:41	18° \mathbb{Q} 16'11	1°45'48
evening set	1618 Oct 30 01:33	18° \mathbb{M} 29'32		max. Earth dist.	1619 Aug 16 20:17	28° \mathbb{Q} 43'11	1.36636 AU
min. Earth dist.	1618 Nov 03 17:05	13° \mathbb{M} 12'36	0.67438 AU		1619 Aug 17 12:24	0° \mathbb{M}	
inferior conj	1618 Nov 04 13:33	12° \mathbb{M} 04'31	0°-5'-55	evening rise	1619 Aug 20 19:04	6° \mathbb{M} 06'08	
minimum elong	1618 Nov 04 13:42	12° \mathbb{M} 04'02	0°05'53	desc. node	1619 Sep 03 07:29	28° \mathbb{M} 50'33	
transit middle	1618 Nov 04 13:42	12° \mathbb{M} 04'02	0°05'53		1619 Sep 04 01:33	0° \mathbb{Q}	
transit begin	1618 Nov 04 11:08	12° \mathbb{M} 12'34		evening max el	1619 Sep 25 12:41	27° \mathbb{Q} 44'18	25°52'12
transit end	1618 Nov 04 16:16	11° \mathbb{M} 55'30			1619 Sep 28 00:03	0° \mathbb{M}	
asc. node	1618 Nov 04 20:27	11° \mathbb{M} 41'37		retrograde	1619 Oct 07 22:27	4° \mathbb{M} 48'41	
morning rise	1618 Nov 10 02:18	6° \mathbb{M} 00'18		evening set	1619 Oct 14 01:10	2° \mathbb{M} 16'27	
direct	1618 Nov 13 17:08	4° \mathbb{M} 45'00			1619 Oct 16 08:27	30° \mathbb{R} \mathbb{Q}	
morning max el	1618 Nov 21 07:54	9° \mathbb{M} 06'18	20°01'46	min. Earth dist.	1619 Oct 18 08:57	27° \mathbb{Q} 35'19	0.66784 AU
greatest brilliancy	1618 Nov 28 11:31	17° \mathbb{M} 48'28	-0.6m	inferior conj	1619 Oct 19 16:24	25° \mathbb{Q} 56'02	-1°-2'-37
	1618 Dec 06 22:27	0° \mathbb{Q}		minimum elong	1619 Oct 19 18:01	25° \mathbb{Q} 50'54	1°01'57
desc. node	1618 Dec 13 09:40	9° \mathbb{Q} 46'49		asc. node	1619 Oct 22 17:28	22° \mathbb{Q} 19'45	
morning set	1618 Dec 17 22:11	16° \mathbb{Q} 43'39		morning rise	1619 Oct 25 11:44	20° \mathbb{Q} 00'38	
	1618 Dec 26 10:04	0° \mathbb{Q}		direct	1619 Oct 28 15:43	19° \mathbb{Q} 02'56	
max. Earth dist.	1618 Dec 29 01:29	4° \mathbb{Q} 11'59	1.43922 AU	morning max el	1619 Nov 04 14:43	22° \mathbb{Q} 56'33	19°04'20
					1619 Nov 10 09:32	0° \mathbb{M}	
superior conj	1619 Jan 03 09:55	12° \mathbb{Q} 50'15	-1°-53'-2	morning set	1619 Nov 27 04:13	25° \mathbb{M} 28'01	
minimum elong	1619 Jan 03 03:49	12° \mathbb{Q} 25'21	1°52'40	desc. node	1619 Nov 30 06:44	0° \mathbb{Q} 19'19	
	1619 Jan 13 16:32	0° \mathbb{Q}			1619 Nov 30 01:48	0° \mathbb{Q}	
evening rise	1619 Jan 16 13:27	4° \mathbb{Q} 55'15		max. Earth dist.	1619 Dec 11 17:11	18° \mathbb{Q} 14'51	1.44887 AU
asc. node	1619 Jan 31 19:47	29° \mathbb{Q} 33'42					
	1619 Feb 01 04:05	0° \mathbb{K}		superior conj	1619 Dec 13 21:13	21° \mathbb{Q} 40'07	-1°-22'-52
evening max el	1619 Feb 03 11:40	2° \mathbb{K} 37'29	18°12'26	minimum elong	1619 Dec 13 12:29	21° \mathbb{Q} 05'36	1°21'58
retrograde	1619 Feb 09 22:47	6° \mathbb{K} 03'38			1619 Dec 19 03:04	0° \mathbb{Q}	
evening set	1619 Feb 12 18:41	5° \mathbb{K} 22'16		evening rise	1619 Dec 28 21:03	15° \mathbb{Q} 46'18	
inferior conj	1619 Feb 18 23:30	0° \mathbb{K} 04'08	3°44'50		1620 Jan 06 14:10	0° \mathbb{Q}	
minimum elong	1619 Feb 18 23:26	0° \mathbb{K} 04'18	3°44'50	evening max el	1620 Jan 17 23:37	16° \mathbb{Q} 01'07	18°35'14
	1619 Feb 19 01:01	30° \mathbb{R} \mathbb{Q}		asc. node	1620 Jan 18 16:48	16° \mathbb{Q} 43'09	
min. Earth dist.	1619 Feb 21 14:54	27° \mathbb{Q} 13'28	0.63041 AU	retrograde	1620 Jan 24 13:59	19° \mathbb{Q} 40'09	
morning rise	1619 Feb 25 02:12	24° \mathbb{Q} 01'34		evening set	1620 Jan 27 15:21	18° \mathbb{Q} 47'40	
direct	1619 Mar 04 01:01	21° \mathbb{Q} 20'37		inferior conj	1620 Feb 02 11:55	13° \mathbb{Q} 10'48	3°36'57
desc. node	1619 Mar 11 08:53	23° \mathbb{Q} 49'27		minimum elong	1620 Feb 02 10:20	13° \mathbb{Q} 15'29	3°36'46
morning max el	1619 Mar 17 22:53	29° \mathbb{Q} 16'07	27°46'00	min. Earth dist.	1620 Feb 04 11:46	10° \mathbb{Q} 48'25	0.64774 AU
	1619 Mar 18 16:12	0° \mathbb{K}		morning rise	1620 Feb 08 04:03	7° \mathbb{Q} 01'29	
	1619 Apr 09 06:40	0° \mathbb{Y}		direct	1620 Feb 14 22:24	4° \mathbb{Q} 10'50	
morning set	1619 Apr 21 03:34	21° \mathbb{Y} 57'46		desc. node	1620 Feb 26 05:56	9° \mathbb{Q} 59'10	
	1619 Apr 25 01:24	0° \mathbb{Q}		morning max el	1620 Feb 28 08:10	11° \mathbb{Q} 59'05	27°13'58
max. Earth dist.	1619 Apr 26 13:34	3° \mathbb{Q} 11'07	1.32833 AU		1620 Mar 13 17:37	0° \mathbb{K}	
					1620 Mar 31 19:05	0° \mathbb{Y}	
superior conj	1619 Apr 28 19:59	8° \mathbb{Q} 02'45	0°-10'-8	morning set	1620 Apr 03 18:30	5° \mathbb{Y} 40'43	
minimum elong	1619 Apr 28 20:28	8° \mathbb{Q} 05'24	0°10'02	max. Earth dist.	1620 Apr 08 11:23	15° \mathbb{Y} 04'29	1.33782 AU
behind sun begin	1619 Apr 28 16:22	7° \mathbb{Q} 43'17					
behind sun end	1619 Apr 29 00:34	8° \mathbb{Q} 27'31		superior conj	1620 Apr 11 23:58	22° \mathbb{Y} 24'24	0°-37'-49
asc. node	1619 Apr 29 19:05	10° \mathbb{Q} 07'34		minimum elong	1620 Apr 12 01:51	22° \mathbb{Y} 34'22	0°37'26
evening rise	1619 May 05 21:28	23° \mathbb{Q} 16'06		asc. node	1620 Apr 15 16:08	0° \mathbb{Q} 12'25	
	1619 May 09 03:28	0° \mathbb{II}			1620 Apr 15 13:48	0° \mathbb{Q}	
	1619 May 28 10:45	0° \mathbb{Q}		evening rise	1620 Apr 19 08:20	7° \mathbb{Q} 59'19	
evening max el	1619 May 29 08:48	0° \mathbb{Q} 54'47	23°32'12		1620 May 01 02:20	0° \mathbb{II}	
desc. node	1619 Jun 07 08:09	6° \mathbb{Q} 54'48		evening max el	1620 May 10 02:06	11° \mathbb{II} 28'55	21°57'21
retrograde	1619 Jun 12 00:14	7° \mathbb{Q} 44'20		retrograde	1620 May 22 17:25	17° \mathbb{II} 41'49	
evening set	1619 Jun 15 23:30	7° \mathbb{Q} 09'44		desc. node	1620 May 24 05:11	17° \mathbb{II} 36'48	
min. Earth dist.	1619 Jun 22 19:07	3° \mathbb{Q} 59'52	0.55936 AU	evening set	1620 May 25 10:22	17° \mathbb{II} 25'31	
inferior conj	1619 Jun 24 21:14	2° \mathbb{Q} 45'03	-4°-18'-44	inferior conj	1620 Jun 03 19:13	13° \mathbb{II} 21'25	-2°-56'-2
minimum elong	1619 Jun 24 14:41	2° \mathbb{Q} 54'53	4°17'31	minimum elong	1620 Jun 03 11:49	13° \mathbb{II} 31'47	2°53'47
	1619 Jun 29 22:34	30° \mathbb{R} \mathbb{II}		min. Earth dist.	1620 Jun 03 06:58	13° \mathbb{II} 38'35	0.55030 AU
morning rise	1619 Jul 03 09:12	28° \mathbb{II} 49'21		morning rise	1620 Jun 12 14:43	9° \mathbb{II} 28'02	
direct	1619 Jul 06 03:18	28° \mathbb{II} 30'31		direct	1620 Jun 15 16:35	9° \mathbb{II} 07'00	
	1619 Jul 11 22:21	0° \mathbb{Q}		morning max el	1620 Jun 27 16:01	14° \mathbb{II} 43'51	21°36'32
morning max el	1619 Jul 16 11:43	3° \mathbb{Q} 18'11	20°11'03		1620 Jul 09 03:57	0° \mathbb{Q}	
asc. node	1619 Jul 26 18:17	17° \mathbb{Q} 08'08		asc. node	1620 Jul 12 15:21	6° \mathbb{Q} 14'41	
	1619 Aug 02 13:47	0° \mathbb{Q}		morning set	1620 Jul 18 03:56	17° \mathbb{Q} 15'18	
morning set	1619 Aug 03 19:02	2° \mathbb{Q} 27'56			1620 Jul 24 05:26	0° \mathbb{Q}	
superior conj	1619 Aug 11 13:01	18° \mathbb{Q} 17'52	1°45'48	superior conj	1620 Jul 25 12:21	2° \mathbb{Q} 41'47	1°40'39

minimum elong	1620 Jul 25 10:46	2°♂33'31	1°40'32	minimum elong	1621 Jul 09 15:44	17°♂12'26	1°29'20
max. Earth dist.	1620 Jul 29 08:54	10°♂37'06	1.34978 AU	max. Earth dist.	1621 Jul 12 06:45	22°♂47'26	1.33694 AU
evening rise	1620 Aug 02 19:54	19°♂23'01			1621 Jul 15 18:21	0°♂	
	1620 Aug 08 14:20	0°♂		evening rise	1621 Jul 17 09:49	3°♂18'14	
desc. node	1620 Aug 20 04:31	18°♂53'38			1621 Aug 01 09:36	0°♂	
	1620 Aug 28 03:05	0°♂		desc. node	1621 Aug 07 01:32	8°♂28'42	
evening max el	1620 Sep 07 01:00	11°♂20'34	26°47'35	evening max el	1621 Aug 20 12:46	24°♂42'28	27°20'02
retrograde	1620 Sep 20 02:18	18°♂35'40			1621 Aug 27 08:44	0°♂	
evening set	1620 Sep 26 18:14	15°♂54'10		retrograde	1621 Sep 03 00:26	2°♂00'50	
min. Earth dist.	1620 Sep 30 18:43	11°♂50'12	0.65784 AU		1621 Sep 09 02:53	30°♂	
inferior conj	1620 Oct 02 14:04	9°♂42'52	-2°00'-39	evening set	1621 Sep 10 02:06	29°♂18'24	
minimum elong	1620 Oct 02 17:16	9°♂33'28	1°59'25	min. Earth dist.	1621 Sep 13 20:04	25°♂50'39	0.64422 AU
morning rise	1620 Oct 08 17:40	3°♂59'32		inferior conj	1621 Sep 16 04:14	23°♂20'15	-2°-57'-41
asc. node	1620 Oct 08 14:32	4°♂03'40		minimum elong	1621 Sep 16 08:48	23°♂07'59	2°56'08
direct	1620 Oct 11 13:07	3°♂15'42		morning rise	1621 Sep 22 17:28	17°♂52'23	
morning max el	1620 Oct 18 03:14	6°♂51'25	18°23'00	direct	1621 Sep 25 06:48	17°♂18'50	
	1620 Nov 03 02:19	0°♂		asc. node	1621 Sep 25 11:37	17°♂19'02	
morning set	1620 Nov 06 13:03	5°♂34'47		morning max el	1621 Oct 01 18:56	20°♂45'36	17°58'36
desc. node	1620 Nov 16 03:48	21°♂00'11			1621 Oct 08 19:02	0°♂	
				morning set	1621 Oct 19 02:11	17°♂04'05	
superior conj	1620 Nov 21 22:21	0°♂07'45	0°-37'-52		1621 Oct 26 19:21	0°♂	
minimum elong	1620 Nov 21 17:26	29°♂48'25	0°37'14	superior conj	1621 Nov 01 10:58	9°♂13'30	0°10'37
	1620 Nov 21 20:23	0°♂		minimum elong	1621 Nov 01 12:12	9°♂18'30	0°10'26
max. Earth dist.	1620 Nov 23 12:16	2°♂36'49	1.45120 AU	behind sun begin	1621 Nov 01 04:13	8°♂46'18	
evening rise	1620 Dec 08 05:17	25°♂41'12		behind sun end	1621 Nov 01 20:10	9°♂50'39	
	1620 Dec 10 23:09	0°♂		desc. node	1621 Nov 03 00:49	11°♂45'45	
greatest brilliancy	1620 Dec 21 18:13	16°♂45'15	-0.7m	max. Earth dist.	1621 Nov 06 07:03	16°♂57'31	1.44613 AU
evening max el	1620 Dec 31 08:41	29°♂29'21	19°15'21		1621 Nov 14 14:53	0°♂	
	1620 Dec 31 20:54	0°♂		evening rise	1621 Nov 17 18:45	4°♂53'10	
asc. node	1621 Jan 04 13:49	2°♂47'57			1621 Dec 04 10:55	0°♂	
retrograde	1621 Jan 07 09:56	3°♂31'45		greatest brilliancy	1621 Dec 07 22:24	4°♂53'10	-0.6m
evening set	1621 Jan 10 17:55	2°♂26'54		evening max el	1621 Dec 14 12:59	12°♂58'30	20°11'01
	1621 Jan 13 12:38	30°♂		retrograde	1621 Dec 22 07:46	17°♂32'42	
inferior conj	1621 Jan 16 08:50	26°♂33'36	3°15'22	asc. node	1621 Dec 22 10:52	17°♂32'36	
minimum elong	1621 Jan 16 06:25	26°♂41'22	3°14'52	evening set	1621 Dec 25 23:59	16°♂14'01	
min. Earth dist.	1621 Jan 17 17:35	24°♂48'39	0.66110 AU	inferior conj	1621 Dec 31 11:25	10°♂07'15	2°43'24
morning rise	1621 Jan 21 18:06	20°♂20'20		minimum elong	1621 Dec 31 08:46	10°♂16'13	2°42'40
direct	1621 Jan 28 01:57	17°♂33'45		min. Earth dist.	1622 Jan 01 06:34	9°♂02'44	0.67043 AU
morning max el	1621 Feb 09 17:48	25°♂02'58	26°13'52	morning rise	1622 Jan 05 17:00	3°♂52'03	
desc. node	1621 Feb 12 03:00	27°♂34'07		direct	1622 Jan 11 10:59	1°♂19'41	
	1621 Feb 14 06:05	0°♂		morning max el	1622 Jan 23 02:34	8°♂16'32	24°54'50
	1621 Mar 07 04:53	0°♂		desc. node	1622 Jan 30 00:02	16°♂08'46	
morning set	1621 Mar 17 20:46	18°♂42'07			1622 Feb 09 03:54	0°♂	
max. Earth dist.	1621 Mar 21 22:04	26°♂26'23	1.35189 AU		1622 Feb 27 18:39	0°♂	
	1621 Mar 23 17:28	0°♂		morning set	1622 Feb 28 05:09	0°♂46'32	
superior conj	1621 Mar 26 21:06	6°♂21'04	-1°-5'-14	max. Earth dist.	1622 Mar 03 22:02	7°♂29'05	1.37014 AU
minimum elong	1621 Mar 27 00:20	6°♂37'33	1°04'41	superior conj	1622 Mar 10 08:18	19°♂43'30	-1°-30'-34
asc. node	1621 Apr 02 13:12	20°♂08'49		minimum elong	1622 Mar 10 12:26	20°♂03'41	1°30'03
evening rise	1621 Apr 03 16:19	22°♂28'44			1622 Mar 15 12:12	0°♂	
	1621 Apr 07 09:58	0°♂		evening rise	1622 Mar 18 19:05	6°♂36'34	
evening max el	1621 Apr 22 04:56	22°♂29'46	20°33'20	asc. node	1622 Mar 20 10:13	9°♂51'29	
retrograde	1621 May 03 06:28	27°♂51'46			1622 Apr 01 04:03	0°♂	
evening set	1621 May 05 08:56	27°♂40'55		evening max el	1622 Apr 04 19:25	4°♂09'30	19°27'01
desc. node	1621 May 11 02:12	25°♂38'19		retrograde	1622 Apr 14 03:59	8°♂40'32	
inferior conj	1621 May 14 13:27	23°♂43'16	-1°00'-29	evening set	1622 Apr 16 05:39	8°♂28'14	
minimum elong	1621 May 14 10:35	23°♂47'24	0°59'28	inferior conj	1622 Apr 24 18:23	4°♂21'54	0°54'35
min. Earth dist.	1621 May 15 19:36	22°♂59'44	0.55055 AU	minimum elong	1622 Apr 24 20:37	4°♂18'16	0°53'49
morning rise	1621 May 23 10:45	19°♂32'47		min. Earth dist.	1622 Apr 27 10:10	2°♂38'55	0.56017 AU
direct	1621 May 27 03:01	19°♂03'39		desc. node	1622 Apr 27 23:14	2°♂18'35	
morning max el	1621 Jun 09 10:58	25°♂31'04	23°15'36		1622 May 02 09:21	30°♂	
	1621 Jun 13 15:45	0°♂		morning rise	1622 May 03 07:45	29°♂39'04	
asc. node	1621 Jun 29 12:27	25°♂45'59		direct	1622 May 07 22:51	28°♂50'28	
	1621 Jul 01 14:14	0°♂			1622 May 13 11:20	0°♂	
morning set	1621 Jul 02 15:11	2°♂10'11		morning max el	1622 May 22 01:38	5°♂59'02	24°56'38
					1622 Jun 08 09:36	0°♂	
superior conj	1621 Jul 09 18:00	17°♂24'35	1°29'35				

asc. node	1622 Jun 16 09:31	15° Π 34'41		1623 May 14 17:16	0° \mathcal{B}	
morning set	1622 Jun 17 03:04	17° Π 06'52		1623 May 31 15:02	0° Π	
	1622 Jun 23 02:13	0° \mathcal{E}		morning set	1623 Jun 01 13:58	1° Π 59'45
				asc. node	1623 Jun 03 06:32	5° Π 35'08
superior conj	1622 Jun 24 03:33	2° \mathcal{E} 18'13	1°13'44			
minimum elong	1622 Jun 24 01:09	2° \mathcal{E} 05'04	1°13'21	superior conj	1623 Jun 08 15:01	17° Π 15'55 0°53'55
max. Earth dist.	1622 Jun 25 12:33	5° \mathcal{E} 17'38	1.32810 AU	minimum elong	1623 Jun 08 12:56	17° Π 04'28 0°53'32
evening rise	1622 Jul 01 09:05	17° \mathcal{E} 40'45		max. Earth dist.	1623 Jun 08 23:22	18° Π 01'47 1.32323 AU
	1622 Jul 07 16:17	0° \mathcal{Q}			1623 Jun 14 11:52	0° \mathcal{E}
desc. node	1622 Jul 24 22:33	27° \mathcal{Q} 24'11		evening rise	1623 Jun 15 14:43	2° \mathcal{E} 21'15
	1622 Jul 26 23:32	0° \mathcal{M}			1623 Jun 30 14:25	0° \mathcal{Q}
evening max el	1622 Aug 02 22:04	7° \mathcal{M} 37'33	27°23'26	desc. node	1623 Jul 11 19:34	15° \mathcal{Q} 23'04
retrograde	1622 Aug 16 16:28	14° \mathcal{M} 55'01		evening max el	1623 Jul 16 02:33	19° \mathcal{Q} 53'40 26°53'57
evening set	1622 Aug 23 21:24	12° \mathcal{M} 23'36		retrograde	1623 Jul 30 01:10	27° \mathcal{Q} 07'58
min. Earth dist.	1622 Aug 27 11:32	9° \mathcal{M} 26'18	0.62712 AU	evening set	1623 Aug 05 23:41	25° \mathcal{Q} 01'29
inferior conj	1622 Aug 30 08:05	6° \mathcal{M} 41'59	-3°-50'-9	min. Earth dist.	1623 Aug 09 16:40	22° \mathcal{Q} 22'36 0.60741 AU
minimum elong	1622 Aug 30 13:20	6° \mathcal{M} 29'22	3°48'47	inferior conj	1623 Aug 12 22:14	19° \mathcal{Q} 39'07 -4°-32'-17
morning rise	1622 Sep 06 07:51	1° \mathcal{M} 32'52		minimum elong	1623 Aug 13 02:40	19° \mathcal{Q} 29'44 4°31'35
direct	1622 Sep 08 17:41	1° \mathcal{M} 06'20		morning rise	1623 Aug 20 08:48	14° \mathcal{Q} 51'28
asc. node	1622 Sep 12 08:41	2° \mathcal{M} 07'53		direct	1623 Aug 22 17:59	14° \mathcal{Q} 29'12
morning max el	1622 Sep 15 10:51	4° \mathcal{M} 32'36	17°52'04	morning max el	1623 Aug 29 23:51	18° \mathcal{Q} 03'39 18°04'24
morning set	1622 Oct 01 14:17	29° \mathcal{M} 39'30		asc. node	1623 Aug 30 05:44	18° \mathcal{Q} 18'05
	1622 Oct 01 18:53	0° \mathcal{A}			1623 Sep 07 14:04	0° \mathcal{M}
				morning set	1623 Sep 14 19:09	13° \mathcal{M} 02'48
					1623 Sep 24 00:40	0° \mathcal{A}
superior conj	1622 Oct 13 00:58	19° \mathcal{A} 35'32	0°51'46			
minimum elong	1622 Oct 13 05:23	19° \mathcal{A} 54'07	0°51'11			
	1622 Oct 19 07:55	0° \mathcal{M}		superior conj	1623 Sep 24 17:31	1° \mathcal{A} 15'06 1°21'02
max. Earth dist.	1622 Oct 19 22:19	0° \mathcal{M} 58'23	1.43439 AU	minimum elong	1623 Sep 24 21:47	1° \mathcal{A} 34'05 1°20'36
desc. node	1622 Oct 20 21:50	2° \mathcal{M} 33'15		max. Earth dist.	1623 Oct 02 08:25	1° \mathcal{A} 24'17 1.41751 AU
evening rise	1622 Oct 28 03:09	13° \mathcal{M} 57'40		evening rise	1623 Oct 07 23:32	23° \mathcal{A} 37'34
	1622 Nov 07 16:50	0° \mathcal{A}		desc. node	1623 Oct 07 18:52	23° \mathcal{A} 18'51
greatest brilliancy	1622 Nov 22 09:14	20° \mathcal{A} 34'36	-0.4m		1623 Oct 12 00:18	0° \mathcal{M}
evening max el	1622 Nov 27 11:40	26° \mathcal{A} 28'33	21°19'21		1623 Nov 01 17:47	0° \mathcal{A}
	1622 Dec 01 13:56	0° \mathcal{B}		greatest brilliancy	1623 Nov 05 08:37	4° \mathcal{A} 33'53 -0.3m
retrograde	1622 Dec 06 05:17	1° \mathcal{B} 40'02		evening max el	1623 Nov 10 05:05	10° \mathcal{A} 00'14 22°36'20
asc. node	1622 Dec 09 07:55	0° \mathcal{B} 46'16		retrograde	1623 Nov 20 00:42	15° \mathcal{A} 50'11
evening set	1622 Dec 10 07:38	0° \mathcal{B} 05'56		evening set	1623 Nov 24 15:08	13° \mathcal{A} 59'17
	1622 Dec 10 10:39	30° \mathcal{R} \mathcal{A}		asc. node	1623 Nov 26 04:56	12° \mathcal{A} 29'32
inferior conj	1622 Dec 15 17:23	23° \mathcal{A} 49'08	2°03'24	inferior conj	1623 Nov 30 00:43	7° \mathcal{A} 36'16 1°16'59
minimum elong	1622 Dec 15 15:00	23° \mathcal{A} 57'23	2°02'34	minimum elong	1623 Nov 29 23:02	7° \mathcal{A} 42'05 1°16'18
min. Earth dist.	1622 Dec 16 00:31	23° \mathcal{A} 24'30	0.67600 AU	min. Earth dist.	1623 Nov 29 20:54	7° \mathcal{A} 49'29 0.67804 AU
morning rise	1622 Dec 20 22:01	17° \mathcal{A} 34'03		morning rise	1623 Dec 05 06:51	1° \mathcal{A} 23'30
direct	1622 Dec 26 00:57	15° \mathcal{A} 21'54			1623 Dec 07 13:34	30° \mathcal{R} \mathcal{M}
morning max el	1623 Jan 05 11:23	21° \mathcal{A} 34'43	23°27'02	direct	1623 Dec 09 18:50	29° \mathcal{M} 34'04
greatest brilliancy	1623 Jan 11 06:57	28° \mathcal{A} 09'52	-0.2m		1623 Dec 12 03:01	0° \mathcal{A}
	1623 Jan 12 18:06	0° \mathcal{B}		morning max el	1623 Dec 18 23:28	4° \mathcal{A} 58'38 22°00'06
desc. node	1623 Jan 16 21:03	5° \mathcal{B} 26'10		greatest brilliancy	1623 Dec 23 16:27	10° \mathcal{A} 16'41 -0.4m
	1623 Feb 02 11:02	0° \approx		desc. node	1624 Jan 03 18:04	25° \mathcal{A} 13'53
morning set	1623 Feb 09 13:25	11° \approx 37'37			1624 Jan 07 00:32	0° \mathcal{B}
max. Earth dist.	1623 Feb 13 16:41	18° \approx 43'55	1.39115 AU	morning set	1624 Jan 20 16:41	21° \mathcal{B} 04'06
	1623 Feb 19 23:06	0° \mathcal{H}			1624 Jan 26 03:40	0° \approx
				max. Earth dist.	1624 Jan 26 14:23	0° \approx 44'42 1.41237 AU
superior conj	1623 Feb 21 05:41	2° \mathcal{H} 21'57	-1°-51'-7			
minimum elong	1623 Feb 21 09:36	2° \mathcal{H} 40'09	1°50'49	superior conj	1624 Feb 03 08:22	14° \approx 04'26 -2°-3'-6
evening rise	1623 Mar 02 13:53	20° \mathcal{H} 15'40		minimum elong	1624 Feb 03 10:03	14° \approx 11'51 2°03'04
asc. node	1623 Mar 07 07:14	29° \mathcal{H} 15'12			1624 Feb 12 02:44	0° \mathcal{H}
	1623 Mar 07 16:58	0° \mathcal{Y}		evening rise	1624 Feb 13 21:23	3° \mathcal{H} 17'54
evening max el	1623 Mar 18 20:06	16° \mathcal{Y} 26'48	18°40'38	asc. node	1624 Feb 22 04:16	18° \mathcal{H} 13'26
retrograde	1623 Mar 26 18:37	20° \mathcal{Y} 19'07		evening max el	1624 Mar 01 03:53	29° \mathcal{H} 13'27 18°14'21
evening set	1623 Mar 29 01:17	20° \mathcal{Y} 01'09			1624 Mar 02 00:01	0° \mathcal{Y}
inferior conj	1623 Apr 05 18:58	15° \mathcal{Y} 37'00	2°22'43	retrograde	1624 Mar 08 03:53	2° \mathcal{Y} 43'42
minimum elong	1623 Apr 05 23:03	15° \mathcal{Y} 29'17	2°21'37	evening set	1624 Mar 10 16:07	2° \mathcal{Y} 17'32
min. Earth dist.	1623 Apr 09 03:40	13° \mathcal{Y} 05'46	0.57709 AU		1624 Mar 14 17:25	30° \mathcal{R} \mathcal{H}
morning rise	1623 Apr 13 16:29	10° \mathcal{Y} 21'07		inferior conj	1624 Mar 17 16:39	27° \mathcal{H} 32'04 3°16'46
desc. node	1623 Apr 14 20:15	9° \mathcal{Y} 51'59		minimum elong	1624 Mar 17 19:43	27° \mathcal{H} 25'16 3°16'15
direct	1623 Apr 19 09:04	9° \mathcal{Y} 00'31		min. Earth dist.	1624 Mar 21 02:00	24° \mathcal{H} 34'19 0.59783 AU
morning max el	1623 May 03 17:47	16° \mathcal{Y} 34'56	26°24'13	morning rise	1624 Mar 24 19:48	21° \mathcal{H} 51'32

direct	1624 Mar 31 07:57	19° K 54'17		minimum elong	1625 Feb 28 09:36	9° K 58'26	3°41'13
desc. node	1624 Mar 31 17:15	19° K 54'41		min. Earth dist.	1625 Mar 03 07:54	7° K 01'51	0.61904 AU
morning max el	1624 Apr 14 15:22	27° K 42'11	27°24'27	morning rise	1625 Mar 06 19:08	4° K 04'39	
	1624 Apr 16 20:36	0° Y		direct	1625 Mar 13 16:48	1° K 36'29	
	1624 May 07 08:13	0° B		desc. node	1625 Mar 18 14:18	2° K 42'57	
morning set	1624 May 15 22:13	16° B 43'26		morning max el	1625 Mar 27 19:14	9° K 30'39	27°48'58
asc. node	1624 May 20 03:33	25° B 42'48			1625 Apr 12 16:17	0° Y	
	1624 May 22 02:41	0° II			1625 Apr 29 11:59	0° B	
max. Earth dist.	1624 May 22 11:46	0° II 49'52	1.32218 AU	morning set	1625 Apr 30 01:48	1° B 10'05	
				max. Earth dist.	1625 May 05 21:44	13° B 26'53	1.32497 AU
superior conj	1624 May 23 02:42	2° II 11'52	0°30'55	asc. node	1625 May 07 00:35	15° B 52'27	
minimum elong	1624 May 23 01:21	2° II 04'31	0°30'38				
evening rise	1624 May 30 00:22	17° II 12'03		superior conj	1625 May 07 12:49	16° B 59'02	0°05'24
	1624 Jun 05 08:52	0° B		minimum elong	1625 May 07 12:34	16° B 57'38	0°05'21
	1624 Jun 25 14:18	0° Q		behind sun begin	1625 May 07 07:42	16° B 31'11	
evening max el	1624 Jun 27 00:18	1° Q 24'13	25°52'29	behind sun end	1625 May 07 17:25	17° B 24'06	
desc. node	1624 Jun 27 16:35	2° Q 02'18			1625 May 13 12:31	0° II	
retrograde	1624 Jul 11 00:41	8° Q 34'06		evening rise	1625 May 14 11:57	2° II 04'49	
evening set	1624 Jul 17 04:19	7° Q 03'34			1625 May 29 17:42	0° B	
min. Earth dist.	1624 Jul 21 12:44	4° Q 25'59	0.58686 AU	evening max el	1625 Jun 08 15:38	12° B 12'30	24°26'51
inferior conj	1624 Jul 24 19:13	2° Q 02'35	-4°-54'-48	desc. node	1625 Jun 14 13:35	16° B 49'34	
minimum elong	1624 Jul 24 20:29	2° Q 00'15	4°54'47	retrograde	1625 Jun 22 12:55	19° B 13'27	
	1624 Jul 27 17:04	30° R B		evening set	1625 Jun 27 09:21	18° B 20'45	
morning rise	1624 Aug 01 16:10	27° B 37'53		min. Earth dist.	1625 Jul 03 02:39	15° B 26'54	0.56808 AU
direct	1624 Aug 04 03:30	27° B 17'51		inferior conj	1625 Jul 05 20:12	13° B 42'39	-4°-44'-38
	1624 Aug 10 22:33	0° Q		minimum elong	1625 Jul 05 16:18	13° B 48'53	4°44'15
morning max el	1624 Aug 12 06:49	1° Q 10'29	18°36'54	morning rise	1625 Jul 14 02:57	9° B 39'03	
asc. node	1624 Aug 16 02:46	5° Q 34'57		direct	1625 Jul 16 18:21	9° B 20'04	
morning set	1624 Aug 28 11:58	27° Q 01'03		morning max el	1625 Jul 26 04:47	13° B 43'12	19°30'39
	1624 Aug 30 00:51	0° R		asc. node	1625 Aug 02 23:49	23° B 43'27	
					1625 Aug 06 15:26	0° Q	
superior conj	1624 Sep 06 07:58	13° R 59'41	1°38'24	morning set	1625 Aug 12 13:03	11° Q 23'48	
minimum elong	1624 Sep 06 10:32	14° R 11'42	1°38'15				
max. Earth dist.	1624 Sep 13 13:56	27° R 08'46	1.39766 AU	superior conj	1625 Aug 20 14:42	27° Q 33'10	1°45'34
	1624 Sep 15 05:20	0° B		minimum elong	1625 Aug 20 15:20	27° Q 36'16	1°45'33
evening rise	1624 Sep 17 18:30	4° B 20'28			1625 Aug 21 20:45	0° R	
desc. node	1624 Sep 23 15:54	13° B 59'04		max. Earth dist.	1625 Aug 26 17:48	9° R 15'38	1.37730 AU
	1624 Oct 04 04:59	0° M		evening rise	1625 Aug 30 13:20	16° R 10'14	
evening max el	1624 Oct 22 18:48	23° M 35'17	23°56'23		1625 Sep 07 17:16	0° B	
	1624 Nov 02 09:13	0° A		desc. node	1625 Sep 10 12:57	4° B 29'22	
retrograde	1624 Nov 02 16:47	0° A 00'26			1625 Sep 28 17:53	0° M	
	1624 Nov 03 00:19	30° R M		evening max el	1625 Oct 05 06:46	7° M 13'28	25°12'49
evening set	1624 Nov 07 20:55	27° M 52'05		retrograde	1625 Oct 17 04:41	14° M 06'34	
asc. node	1624 Nov 12 01:58	23° M 07'07		evening set	1625 Oct 22 23:20	11° M 41'53	
min. Earth dist.	1624 Nov 12 17:20	22° M 15'30	0.67672 AU	min. Earth dist.	1625 Oct 27 11:27	6° M 40'16	0.67203 AU
inferior conj	1624 Nov 13 07:42	21° M 26'47	0°25'31	inferior conj	1625 Oct 28 12:33	5° M 18'29	0°-29'-42
minimum elong	1624 Nov 13 07:05	21° M 28'52	0°25'15	minimum elong	1625 Oct 28 13:19	5° M 16'01	0°29'23
morning rise	1624 Nov 18 17:27	15° M 18'51		asc. node	1625 Oct 29 23:01	3° M 28'06	
direct	1624 Nov 22 15:36	13° M 51'41			1625 Nov 02 05:17	30° R B	
morning max el	1624 Nov 30 18:17	18° M 32'58	20°41'26	morning rise	1625 Nov 03 03:54	29° B 17'56	
greatest brilliancy	1624 Dec 06 16:48	25° M 31'07	-0.5m	direct	1625 Nov 06 13:54	28° B 10'35	
	1624 Dec 10 00:47	0° A			1625 Nov 11 05:52	0° M	
desc. node	1624 Dec 20 15:07	15° A 23'42		morning max el	1625 Nov 13 21:02	2° M 18'29	19°35'33
morning set	1624 Dec 29 19:04	29° A 23'52		greatest brilliancy	1625 Nov 22 05:56	12° M 50'07	-0.6m
	1624 Dec 30 04:22	0° B			1625 Dec 03 17:25	0° A	
max. Earth dist.	1625 Jan 07 20:01	13° B 43'41	1.43088 AU	desc. node	1625 Dec 07 12:10	5° A 49'23	
				morning set	1625 Dec 08 16:31	7° A 38'55	
superior conj	1625 Jan 14 11:08	24° B 38'55	-2°-1'-44	max. Earth dist.	1625 Dec 21 08:56	27° A 29'00	1.44415 AU
minimum elong	1625 Jan 14 08:08	24° B 26'23	2°01'39		1625 Dec 22 22:56	0° B	
	1625 Jan 17 15:03	0° B					
evening rise	1625 Jan 26 13:35	15° B 35'06		superior conj	1625 Dec 25 11:28	4° B 01'58	-1°-42'-31
	1625 Feb 03 20:03	0° K		minimum elong	1625 Dec 25 03:33	3° B 30'14	1°41'54
asc. node	1625 Feb 08 01:17	6° K 37'49		evening rise	1626 Jan 08 10:15	26° B 59'47	
evening max el	1625 Feb 12 15:31	12° K 19'49	18°07'37		1626 Jan 10 05:03	0° B	
retrograde	1625 Feb 19 04:27	15° K 43'38		asc. node	1626 Jan 25 22:19	24° B 18'24	
evening set	1625 Feb 21 21:35	15° K 08'00		evening max el	1626 Jan 27 04:04	25° B 38'47	18°19'51
inferior conj	1625 Feb 28 08:32	10° K 01'06	3°41'18	retrograde	1626 Feb 02 15:38	29° B 09'20	

evening set	1626 Feb 05 13:43	28° \approx 23'22		minimum elong	1627 Jan 26 05:04	6° \approx 17'12	3°28'56
inferior conj	1626 Feb 11 14:38	22° \approx 56'43	3°43'26	min. Earth dist.	1627 Jan 28 00:24	4° \approx 03'35	0.65387 AU
minimum elong	1626 Feb 11 13:51	22° \approx 58'55	3°43'24	morning rise	1627 Jan 31 19:50	29° \approx 59'25	
min. Earth dist.	1626 Feb 13 23:24	20° \approx 16'38	0.63819 AU		1627 Jan 31 19:34	30° \approx 59'25	
morning rise	1626 Feb 17 12:21	16° \approx 50'38		direct	1627 Feb 07 10:12	27° \approx 08'50	
direct	1626 Feb 24 09:58	14° \approx 04'03			1627 Feb 14 22:06	0° \approx	
desc. node	1626 Mar 05 11:20	17° \approx 49'40		desc. node	1627 Feb 20 08:23	4° \approx 38'54	
morning max el	1626 Mar 10 03:36	21° \approx 57'45	27°36'23	morning max el	1627 Feb 20 13:27	4° \approx 51'34	26°51'19
	1626 Mar 17 04:57	0° \approx			1627 Mar 11 18:05	0° \approx	
	1626 Apr 05 20:07	0° \approx		morning set	1627 Mar 28 08:23	28° \approx 39'05	
morning set	1626 Apr 13 22:16	15° \approx 12'01			1627 Mar 29 01:15	0° \approx	
max. Earth dist.	1626 Apr 19 01:13	25° \approx 39'46	1.33187 AU	max. Earth dist.	1627 Apr 01 18:22	7° \approx 18'38	1.34322 AU
	1626 Apr 21 02:27	0° \approx					
superior conj	1626 Apr 21 19:38	1° \approx 31'42	0°-21'-48	superior conj	1627 Apr 05 21:01	15° \approx 43'30	0°-49'-34
minimum elong	1626 Apr 21 20:42	1° \approx 37'27	0°21'35	minimum elong	1627 Apr 05 23:30	15° \approx 56'26	0°49'06
asc. node	1626 Apr 23 21:38	6° \approx 00'12		asc. node	1627 Apr 10 18:42	26° \approx 01'52	
evening rise	1626 Apr 28 23:37	16° \approx 53'15		evening rise	1627 Apr 12 16:02	0° \approx	
	1626 May 05 12:28	0° \approx			1627 Apr 13 09:31	1° \approx 31'06	
evening max el	1626 May 21 05:51	22° \approx 41'56	22°51'02	evening max el	1627 Apr 29 23:16	0° \approx	
desc. node	1626 Jun 01 10:36	29° \approx 08'55		retrograde	1627 May 03 02:40	3° \approx 25'04	21°19'46
retrograde	1626 Jun 03 13:04	29° \approx 19'00		evening set	1627 May 15 03:34	9° \approx 17'36	
evening set	1626 Jun 06 22:03	28° \approx 54'00		desc. node	1627 May 17 11:53	9° \approx 04'58	
min. Earth dist.	1626 Jun 14 14:29	25° \approx 29'58	0.55448 AU	inferior conj	1627 May 19 07:36	8° \approx 38'47	
inferior conj	1626 Jun 16 02:07	24° \approx 38'40	-3°-49'-9	minimum elong	1627 May 26 20:47	5° \approx 05'39	-2°-9'-16
minimum elong	1626 Jun 15 18:28	24° \approx 49'43	3°47'19	min. Earth dist.	1627 May 26 14:51	5° \approx 13'59	2°07'17
morning rise	1626 Jun 24 17:44	20° \approx 46'30		morning rise	1627 May 27 02:54	4° \approx 57'03	0.54916 AU
direct	1626 Jun 27 14:30	20° \approx 27'19		direct	1627 Jun 04 18:00	1° \approx 07'03	
morning max el	1626 Jul 08 15:44	25° \approx 34'36	20°45'20	morning max el	1627 Jun 08 00:42	0° \approx 43'41	
	1626 Jul 12 17:18	0° \approx			1627 Jun 20 15:46	6° \approx 43'19	22°17'34
asc. node	1626 Jul 20 20:53	12° \approx 31'34		asc. node	1627 Jul 06 19:08	0° \approx	
morning set	1626 Jul 27 19:41	26° \approx 03'44		morning set	1627 Jul 07 17:58	1° \approx 49'42	
	1626 Jul 29 17:26	0° \approx			1627 Jul 12 05:48	10° \approx 55'09	
superior conj	1626 Aug 04 09:03	11° \approx 41'59	1°44'26	superior conj	1627 Jul 19 11:26	26° \approx 15'32	1°36'37
minimum elong	1626 Aug 04 08:07	11° \approx 37'13	1°44'23	minimum elong	1627 Jul 19 09:29	26° \approx 05'16	1°36'26
max. Earth dist.	1626 Aug 09 01:29	21° \approx 05'25	1.35883 AU	max. Earth dist.	1627 Jul 21 06:12	0° \approx	
evening rise	1626 Aug 13 04:33	28° \approx 05'43		evening rise	1627 Jul 22 17:45	3° \approx 04'09	1.34379 AU
	1626 Aug 13 17:45	0° \approx			1627 Jul 27 11:30	12° \approx 03'40	
desc. node	1626 Aug 28 09:59	24° \approx 44'12		desc. node	1627 Aug 06 01:15	0° \approx	
	1626 Aug 31 22:48	0° \approx			1627 Aug 15 06:59	14° \approx 36'49	
evening max el	1626 Sep 17 18:38	20° \approx 51'39	26°18'07	evening max el	1627 Aug 27 01:56	0° \approx	
retrograde	1626 Sep 30 11:49	28° \approx 02'28		retrograde	1627 Aug 31 06:51	4° \approx 23'26	27°04'39
evening set	1626 Oct 06 20:28	25° \approx 25'08		evening set	1627 Sep 13 13:31	11° \approx 41'28	
min. Earth dist.	1626 Oct 11 00:56	20° \approx 59'59	0.66396 AU	min. Earth dist.	1627 Sep 20 10:00	8° \approx 58'22	
inferior conj	1626 Oct 12 13:26	19° \approx 07'57	-1°-27'-15	inferior conj	1627 Sep 24 07:31	5° \approx 09'57	0.65242 AU
minimum elong	1626 Oct 12 15:44	19° \approx 00'53	1°26'18	minimum elong	1627 Sep 26 08:15	2° \approx 51'52	-2°-25'-10
asc. node	1626 Oct 16 20:05	14° \approx 28'40			1627 Sep 26 12:04	2° \approx 41'00	2°23'45
morning rise	1626 Oct 18 12:08	13° \approx 17'33		morning rise	1627 Sep 29 00:01	30° \approx 41'00	
direct	1626 Oct 21 12:07	12° \approx 26'22		asc. node	1627 Oct 02 15:48	27° \approx 14'37	
morning max el	1626 Oct 28 06:38	16° \approx 11'24	18°44'47	direct	1627 Oct 03 17:09	26° \approx 50'06	
	1626 Nov 07 14:06	0° \approx			1627 Oct 05 08:13	26° \approx 35'43	
morning set	1626 Nov 18 08:47	16° \approx 55'07		morning max el	1627 Oct 11 18:02	0° \approx	
desc. node	1626 Nov 24 09:13	26° \approx 25'37		morning set	1627 Oct 11 20:50	0° \approx 06'59	18°10'28
	1626 Nov 26 15:41	0° \approx			1627 Oct 30 06:04	27° \approx 38'27	
max. Earth dist.	1626 Dec 04 02:11	11° \approx 41'02	1.45068 AU	desc. node	1627 Oct 31 16:27	0° \approx	
					1627 Nov 11 06:17	17° \approx 08'58	
superior conj	1626 Dec 04 15:56	12° \approx 35'03	-1°-5'-3	superior conj	1627 Nov 13 19:29	21° \approx 12'24	0°-17'00
minimum elong	1626 Dec 04 08:06	12° \approx 04'17	1°04'07	minimum elong	1627 Nov 13 17:19	21° \approx 03'46	0°16'43
	1626 Dec 15 16:19	0° \approx		max. Earth dist.	1627 Nov 16 20:58	26° \approx 02'40	1.44991 AU
evening rise	1626 Dec 20 07:51	7° \approx 26'07			1627 Nov 19 09:23	0° \approx	
	1627 Jan 03 14:33	0° \approx		evening rise	1627 Nov 30 06:56	16° \approx 59'20	
evening max el	1627 Jan 10 14:59	9° \approx 04'21	18°50'15		1627 Dec 08 16:42	0° \approx	
asc. node	1627 Jan 12 19:23	11° \approx 02'06		greatest brilliancy	1627 Dec 16 22:30	12° \approx 21'43	-0.7m
retrograde	1627 Jan 17 09:18	12° \approx 52'34		evening max el	1627 Dec 24 22:13	22° \approx 33'10	19°37'19
evening set	1627 Jan 20 13:12	11° \approx 55'10		asc. node	1627 Dec 30 16:25	26° \approx 34'26	
inferior conj	1627 Jan 26 07:04	6° \approx 11'00	3°29'13	retrograde	1628 Jan 01 06:15	26° \approx 34'10	

evening set	1628 Jan 04 17:29	25°☾37'47		retrograde	1628 Dec 15 04:03	10°☾52'10	
inferior conj	1628 Jan 10 06:42	19°☾38'38	3°02'54	asc. node	1628 Dec 16 13:26	10°☾41'19	
minimum elong	1628 Jan 10 04:07	19°☾47'08	3°02'17	evening set	1628 Dec 19 00:25	9°☾27'04	
min. Earth dist.	1628 Jan 11 09:34	18°☾10'27	0.66559 AU	inferior conj	1628 Dec 24 10:57	3°☾15'50	2°27'20
morning rise	1628 Jan 15 14:01	13°☾24'16		minimum elong	1628 Dec 24 08:21	3°☾24'43	2°26'30
direct	1628 Jan 21 16:22	10°☾42'22		min. Earth dist.	1628 Dec 25 00:50	2°☾28'27	0.67328 AU
morning max el	1628 Feb 02 22:32	17°☾59'43	25°41'52		1628 Dec 26 21:51	30°☾☿	
desc. node	1628 Feb 07 05:27	22°☾41'28		morning rise	1628 Dec 29 15:50	27°☾00'40	
	1628 Feb 13 01:10	0°☾		direct	1629 Jan 04 03:36	24°☾36'17	
	1628 Mar 03 18:08	0°☾			1629 Jan 14 00:15	0°☾	
morning set	1628 Mar 10 03:45	11°☾18'10		morning max el	1629 Jan 15 06:51	1°☾14'45	24°17'59
max. Earth dist.	1628 Mar 13 23:41	18°☾27'23	1.35917 AU	desc. node	1629 Jan 24 02:30	11°☾36'05	
					1629 Feb 06 01:18	0°☾	
superior conj	1628 Mar 19 14:22	29°☾26'52	-1°-16'-23	morning set	1629 Feb 20 02:40	22°☾53'28	
minimum elong	1628 Mar 19 18:03	29°☾45'25	1°15'49	max. Earth dist.	1629 Feb 23 20:36	29°☾31'39	1.37887 AU
	1628 Mar 19 20:58	0°☾			1629 Feb 24 02:52	0°☾	
evening rise	1628 Mar 27 15:33	15°☾51'57					
asc. node	1628 Mar 27 15:45	15°☾52'57		superior conj	1629 Mar 02 20:17	12°☾32'37	-1°-40'-4
	1628 Apr 03 22:56	0°☾		minimum elong	1629 Mar 03 00:30	12°☾52'52	1°39'37
evening max el	1628 Apr 14 10:36	14°☾42'37	20°02'50	evening rise	1629 Mar 11 15:19	29°☾49'01	
retrograde	1628 Apr 24 18:14	19°☾41'25			1629 Mar 11 17:32	0°☾	
evening set	1628 Apr 26 19:13	19°☾30'35		asc. node	1629 Mar 14 12:46	5°☾28'40	
desc. node	1628 May 05 04:38	15°☾51'18		evening max el	1629 Mar 28 05:49	26°☾39'39	19°04'50
inferior conj	1628 May 05 17:59	15°☾31'17	0°-9'-40		1629 Apr 01 23:05	0°☾	
minimum elong	1628 May 05 17:32	15°☾31'57	0°09'31	retrograde	1629 Apr 05 22:21	0°☾52'09	
transit middle	1628 May 05 17:32	15°☾31'57	0°09'31	evening set	1629 Apr 08 02:05	0°☾37'42	
transit begin	1628 May 05 14:20	15°☾36'46			1629 Apr 10 02:28	30°☾☿	
transit end	1628 May 05 20:44	15°☾27'08		inferior conj	1629 Apr 16 06:41	26°☾24'18	1°36'03
min. Earth dist.	1628 May 07 16:26	14°☾21'37	0.55358 AU	minimum elong	1629 Apr 16 10:09	26°☾18'19	1°34'57
morning rise	1628 May 14 13:07	11°☾08'04		min. Earth dist.	1629 Apr 19 07:45	24°☾19'03	0.56668 AU
direct	1628 May 18 14:31	10°☾32'00		desc. node	1629 Apr 22 01:39	22°☾38'29	
morning max el	1628 Jun 01 07:59	17°☾18'54	23°59'08	morning rise	1629 Apr 24 14:03	21°☾27'13	
	1628 Jun 11 15:10	0°☾		direct	1629 Apr 29 16:20	20°☾26'23	
asc. node	1628 Jun 23 15:01	21°☾29'06		morning max el	1629 May 13 22:32	27°☾46'47	25°36'24
morning set	1628 Jun 25 17:31	25°☾51'27			1629 May 16 02:49	0°☾	
	1628 Jun 27 16:15	0°☾			1629 Jun 04 21:17	0°☾	
				morning set	1629 Jun 10 05:12	10°☾47'33	
superior conj	1628 Jul 02 19:00	11°☾03'53	1°23'24	asc. node	1629 Jun 10 12:03	11°☾23'43	
minimum elong	1628 Jul 02 16:36	10°☾50'57	1°23'05				
max. Earth dist.	1628 Jul 04 19:18	15°☾23'31	1.33272 AU	superior conj	1629 Jun 17 05:35	26°☾00'04	1°05'46
evening rise	1628 Jul 10 05:50	26°☾42'32		minimum elong	1629 Jun 17 03:15	25°☾47'19	1°05'22
	1628 Jul 11 21:28	0°☾		max. Earth dist.	1629 Jun 18 03:55	28°☾02'14	1.32563 AU
	1628 Jul 29 09:17	0°☾			1629 Jun 19 01:31	0°☾	
desc. node	1628 Aug 01 03:59	3°☾56'46		evening rise	1629 Jun 24 08:10	11°☾14'04	
evening max el	1628 Aug 12 18:04	17°☾36'23	27°25'24		1629 Jul 04 03:00	0°☾	
retrograde	1628 Aug 26 09:05	24°☾54'15		desc. node	1629 Jul 19 00:58	22°☾30'26	
evening set	1628 Sep 02 12:57	22°☾15'18			1629 Jul 25 18:48	0°☾	
min. Earth dist.	1628 Sep 06 04:57	19°☾01'11	0.63735 AU	evening max el	1629 Jul 26 01:46	0°☾16'39	27°14'54
inferior conj	1628 Sep 08 18:24	16°☾23'45	-3°-20'-45	retrograde	1629 Aug 08 21:46	7°☾31'52	
minimum elong	1628 Sep 08 23:23	16°☾10'57	3°19'14	evening set	1629 Aug 16 01:32	5°☾09'29	
morning rise	1628 Sep 15 12:00	11°☾03'06		min. Earth dist.	1629 Aug 19 15:52	2°☾21'54	0.61908 AU
direct	1628 Sep 17 23:32	10°☾32'50			1629 Aug 22 06:26	30°☾☿	
asc. node	1628 Sep 19 14:12	10°☾45'50		inferior conj	1629 Aug 22 16:50	29°☾36'07	-4°-9'-42
morning max el	1628 Sep 24 12:54	13°☾58'31	17°53'30	minimum elong	1629 Aug 22 21:59	29°☾24'24	4°08'35
	1628 Oct 05 15:16	0°☾		morning rise	1629 Aug 29 21:12	24°☾35'40	
morning set	1628 Oct 11 05:46	9°☾38'19		direct	1629 Sep 01 06:33	24°☾11'06	
	1628 Oct 23 06:20	0°☾		asc. node	1629 Sep 06 11:15	26°☾10'53	
				morning max el	1629 Sep 08 03:54	27°☾39'22	17°54'53
					1629 Sep 10 06:52	0°☾	
superior conj	1628 Oct 23 17:56	0°☾47'42	0°29'23	morning set	1629 Sep 24 01:39	22°☾36'00	
minimum elong	1628 Oct 23 21:00	1°☾00'16	0°28'56		1629 Sep 28 03:53	0°☾	
desc. node	1628 Oct 28 03:18	7°☾55'38					
max. Earth dist.	1628 Oct 29 14:39	10°☾17'10	1.44195 AU				
evening rise	1628 Nov 08 16:07	26°☾02'50		superior conj	1629 Oct 04 19:33	11°☾43'28	1°05'43
	1628 Nov 11 05:58	0°☾		minimum elong	1629 Oct 05 00:12	12°☾03'31	1°05'09
greatest brilliancy	1628 Dec 01 04:19	29°☾06'13	-0.5m	max. Earth dist.	1629 Oct 12 04:24	24°☾06'48	1.42779 AU
	1628 Dec 01 20:49	0°☾		desc. node	1629 Oct 15 00:19	28°☾42'32	
evening max el	1628 Dec 07 00:16	6°☾03'07	20°38'49		1629 Oct 15 19:37	0°☾	

evening rise	1629 Oct 19 03:42	5°♄17'27			1630 Oct 08 15:45	0°♄	
	1629 Nov 04 14:42	0°♄		greatest brilliancy	1630 Oct 27 07:12	26°♄04'31	-0.2m
greatest brilliancy	1629 Nov 15 01:47	14°♄07'12	-0.4m		1630 Oct 30 14:33	0°♄	
evening max el	1629 Nov 19 20:34	19°♄33'24	21°51'21	evening max el	1630 Nov 02 12:01	3°♄06'08	23°10'19
retrograde	1629 Nov 29 00:48	25°♄01'04		retrograde	1630 Nov 12 19:04	9°♄12'20	
evening set	1629 Dec 03 08:11	23°♄19'42		evening set	1630 Nov 17 15:11	7°♄13'50	
asc. node	1629 Dec 03 10:28	23°♄15'07		asc. node	1630 Nov 20 07:30	4°♄26'34	
inferior conj	1629 Dec 08 17:41	16°♄59'45	1°44'25	min. Earth dist.	1630 Nov 22 16:42	1°♄17'57	0.67785 AU
minimum elong	1629 Dec 08 15:33	17°♄07'09	1°43'36	inferior conj	1630 Nov 23 01:05	0°♄49'04	0°55'42
min. Earth dist.	1629 Dec 08 19:58	16°♄51'48	0.67729 AU	minimum elong	1630 Nov 22 23:49	0°♄53'26	0°55'10
morning rise	1629 Dec 13 22:42	10°♄45'38			1630 Nov 23 15:24	30°♄	
direct	1629 Dec 18 19:09	8°♄43'15		morning rise	1630 Nov 28 08:31	24°♄38'04	
morning max el	1629 Dec 28 16:41	14°♄35'05	22°49'33	direct	1630 Dec 02 14:20	22°♄58'31	
greatest brilliancy	1630 Jan 02 08:24	19°♄46'50	-0.3m	morning max el	1630 Dec 11 07:29	28°♄04'05	21°25'19
	1630 Jan 10 04:09	0°♄			1630 Dec 13 03:09	0°♄	
desc. node	1630 Jan 10 23:31	1°♄07'24		greatest brilliancy	1630 Dec 16 09:56	3°♄53'35	-0.4m
	1630 Jan 30 00:50	0°♄		desc. node	1630 Dec 28 20:35	21°♄05'38	
morning set	1630 Jan 31 22:52	3°♄08'31			1631 Jan 03 19:37	0°♄	
max. Earth dist.	1630 Feb 05 16:12	11°♄05'08	1.40032 AU	morning set	1631 Jan 11 14:11	12°♄02'20	
				max. Earth dist.	1631 Jan 18 16:51	23°♄30'14	1.42072 AU
superior conj	1630 Feb 13 10:18	24°♄48'25	-1°-57'-31		1631 Jan 22 14:23	0°♄	
minimum elong	1630 Feb 13 13:34	25°♄03'17	1°57'20				
	1630 Feb 16 05:54	0°♄		superior conj	1631 Jan 26 03:20	6°♄02'48	-2°-4'-27
evening rise	1630 Feb 23 05:45	13°♄13'31		minimum elong	1631 Jan 26 03:18	6°♄02'37	2°04'28
asc. node	1630 Mar 01 09:47	24°♄42'28		evening rise	1631 Feb 06 07:17	25°♄57'38	
	1630 Mar 04 12:08	0°♄			1631 Feb 08 12:35	0°♄	
evening max el	1630 Mar 11 09:49	9°♄09'54	18°27'00	asc. node	1631 Feb 16 06:48	13°♄27'24	
retrograde	1630 Mar 18 21:26	12°♄51'14		evening max el	1631 Feb 22 19:32	22°♄05'27	18°09'06
evening set	1630 Mar 21 06:27	12°♄30'02		retrograde	1631 Mar 01 13:45	25°♄31'29	
inferior conj	1630 Mar 28 16:25	7°♄56'40	2°49'40	evening set	1631 Mar 04 03:58	25°♄01'34	
minimum elong	1630 Mar 28 20:18	7°♄48'48	2°48'47	inferior conj	1631 Mar 10 22:17	20°♄07'01	3°30'19
min. Earth dist.	1630 Apr 01 02:52	5°♄11'19	0.58561 AU	minimum elong	1631 Mar 11 00:32	20°♄01'44	3°30'03
morning rise	1630 Apr 05 06:06	2°♄28'58		min. Earth dist.	1631 Mar 14 04:23	17°♄05'22	0.60695 AU
desc. node	1630 Apr 08 22:40	1°♄07'55		morning rise	1631 Mar 17 17:58	14°♄18'25	
direct	1630 Apr 11 07:50	0°♄53'05		direct	1631 Mar 24 11:19	12°♄06'36	
morning max el	1630 Apr 25 16:53	8°♄34'16	26°53'55	desc. node	1631 Mar 26 19:43	12°♄21'50	
	1630 May 11 22:16	0°♄		morning max el	1631 Apr 07 17:22	19°♄58'54	27°39'28
morning set	1630 May 25 15:13	25°♄37'22			1631 Apr 16 07:13	0°♄	
	1630 May 27 16:46	0°♄			1631 May 04 18:11	0°♄	
asc. node	1630 May 28 09:05	1°♄27'46		morning set	1631 May 09 21:44	10°♄14'38	
				asc. node	1631 May 15 06:07	21°♄36'42	
superior conj	1630 Jun 01 17:20	10°♄57'33	0°44'31	max. Earth dist.	1631 May 16 03:39	23°♄34'00	1.32282 AU
minimum elong	1630 Jun 01 15:31	10°♄47'34	0°44'09				
max. Earth dist.	1630 Jun 01 15:57	10°♄49'54	1.32233 AU	superior conj	1631 May 17 04:34	25°♄50'21	0°20'21
evening rise	1630 Jun 08 15:46	25°♄59'32		minimum elong	1631 May 17 03:39	25°♄45'21	0°20'09
	1630 Jun 10 14:06	0°♄			1631 May 19 02:05	0°♄	
	1630 Jun 27 20:46	0°♄		evening rise	1631 May 24 02:27	10°♄51'35	
desc. node	1630 Jul 05 21:59	9°♄58'43			1631 Jun 02 21:35	0°♄	
evening max el	1630 Jul 08 03:19	12°♄12'57	26°31'18	evening max el	1631 Jun 19 21:51	23°♄23'25	25°18'18
retrograde	1630 Jul 22 02:48	19°♄25'53		desc. node	1631 Jun 22 19:00	25°♄54'42	
evening set	1630 Jul 28 19:10	17°♄33'18			1631 Jun 30 06:21	0°♄	
min. Earth dist.	1630 Aug 01 16:36	14°♄57'34	0.59867 AU	retrograde	1631 Jul 03 22:16	0°♄31'30	
inferior conj	1630 Aug 05 00:05	12°♄19'56	-4°-44'-56		1631 Jul 07 14:01	30°♄	
minimum elong	1630 Aug 05 03:30	12°♄13'08	4°44'34	evening set	1631 Jul 09 13:41	29°♄17'32	
morning rise	1630 Aug 12 15:11	7°♄42'23		min. Earth dist.	1631 Jul 14 09:44	26°♄34'50	0.57838 AU
direct	1630 Aug 15 01:03	7°♄21'15		inferior conj	1631 Jul 17 12:45	24°♄25'41	-4°-55'-25
morning max el	1630 Aug 22 14:47	11°♄01'42	18°15'44	minimum elong	1631 Jul 17 11:58	24°♄27'04	4°55'24
asc. node	1630 Aug 24 08:18	12°♄51'30		morning rise	1631 Jul 25 13:59	20°♄10'45	
	1630 Sep 04 04:10	0°♄		direct	1631 Jul 28 02:39	19°♄51'27	
morning set	1630 Sep 07 12:08	6°♄15'46		morning max el	1631 Aug 05 18:21	23°♄55'41	18°57'10
					1631 Aug 10 20:27	0°♄	
superior conj	1630 Sep 16 22:11	23°♄53'28	1°29'47	asc. node	1631 Aug 11 05:21	0°♄32'08	
minimum elong	1630 Sep 17 01:49	24°♄10'01	1°29'28	morning set	1631 Aug 22 08:51	20°♄25'23	
	1630 Sep 20 07:55	0°♄			1631 Aug 27 05:25	0°♄	
max. Earth dist.	1630 Sep 24 12:22	7°♄15'48	1.40925 AU				
evening rise	1630 Sep 29 09:00	15°♄22'23		superior conj	1631 Aug 30 20:13	7°♄00'52	1°42'35
desc. node	1630 Oct 01 21:20	19°♄26'31		minimum elong	1631 Aug 30 21:56	7°♄09'07	1°42'30

max. Earth dist.	1631 Sep 06 16:06	19° $\overline{\text{M}}$ 40'43	1.38885 AU		1632 Aug 03 01:19	0° Ω	
evening rise	1631 Sep 10 14:21	26° $\overline{\text{M}}$ 34'29		morning set	1632 Aug 05 12:38	4° Ω 56'52	
	1631 Sep 12 14:39	0° $\underline{\text{A}}$					
desc. node	1631 Sep 18 18:22	10° $\underline{\text{A}}$ 03'07		superior conj	1632 Aug 13 08:25	20° Ω 51'14	1°45'59
	1631 Oct 02 05:56	0° $\overline{\text{M}}$		minimum elong	1632 Aug 13 08:20	20° Ω 50'46	1°45'59
evening max el	1631 Oct 16 00:41	16° $\overline{\text{M}}$ 42'35	24°29'47		1632 Aug 18 00:26	0° $\overline{\text{M}}$	
retrograde	1631 Oct 27 09:38	23° $\overline{\text{M}}$ 21'24		max. Earth dist.	1632 Aug 18 20:57	1° $\overline{\text{M}}$ 37'47	1.36916 AU
evening set	1631 Nov 01 19:46	21° $\overline{\text{M}}$ 06'00		evening rise	1632 Aug 22 18:32	8° $\overline{\text{M}}$ 51'34	
min. Earth dist.	1631 Nov 06 12:33	15° $\overline{\text{M}}$ 43'49	0.67510 AU		1632 Sep 04 08:14	0° $\underline{\text{A}}$	
inferior conj	1631 Nov 07 07:25	14° $\overline{\text{M}}$ 40'45	0°02'28	desc. node	1632 Sep 04 15:23	0° $\underline{\text{A}}$ 27'48	
minimum elong	1631 Nov 07 07:21	14° $\overline{\text{M}}$ 40'57	0°02'26		1632 Sep 27 03:38	0° $\overline{\text{M}}$	
transit middle	1631 Nov 07 07:21	14° $\overline{\text{M}}$ 40'57	0°02'26	evening max el	1632 Sep 27 12:42	0° $\overline{\text{M}}$ 22'17	25°42'25
transit begin	1631 Nov 07 04:38	14° $\overline{\text{M}}$ 50'02		retrograde	1632 Oct 09 19:30	7° $\overline{\text{M}}$ 23'46	
transit end	1631 Nov 07 10:03	14° $\overline{\text{M}}$ 31'53		evening set	1632 Oct 15 20:10	4° $\overline{\text{M}}$ 53'26	
asc. node	1631 Nov 07 04:33	14° $\overline{\text{M}}$ 50'19		min. Earth dist.	1632 Oct 20 05:06	0° $\overline{\text{M}}$ 06'55	0.66907 AU
morning rise	1631 Nov 12 19:18	8° $\overline{\text{M}}$ 35'23			1632 Oct 20 07:17	30° $\overline{\text{R}}$ $\underline{\text{A}}$	
direct	1631 Nov 16 11:59	7° $\overline{\text{M}}$ 17'03		inferior conj	1632 Oct 21 10:50	28° $\underline{\text{A}}$ 32'12	0°-53'-56
morning max el	1631 Nov 24 05:38	11° $\overline{\text{M}}$ 43'17	20°11'34	minimum elong	1632 Oct 21 12:14	28° $\underline{\text{A}}$ 27'45	0°53'20
greatest brilliancy	1631 Dec 01 00:50	19° $\overline{\text{M}}$ 54'50	-0.6m	asc. node	1632 Oct 24 01:38	25° $\underline{\text{A}}$ 21'47	
	1631 Dec 08 03:24	0° $\overline{\text{A}}$		morning rise	1632 Oct 27 05:05	22° $\underline{\text{A}}$ 35'19	
desc. node	1631 Dec 15 17:39	11° $\overline{\text{A}}$ 22'54		direct	1632 Oct 30 10:36	21° $\underline{\text{A}}$ 35'10	
morning set	1631 Dec 21 11:11	20° $\overline{\text{A}}$ 10'17		morning max el	1632 Nov 06 11:23	25° $\underline{\text{A}}$ 32'01	19°11'53
	1631 Dec 27 18:20	0° $\overline{\text{Z}}$			1632 Nov 10 07:56	0° $\overline{\text{M}}$	
max. Earth dist.	1632 Jan 01 01:11	6° $\overline{\text{Z}}$ 48'33	1.43727 AU	greatest brilliancy	1632 Nov 17 23:35	10° $\overline{\text{M}}$ 51'02	-0.7m
				morning set	1632 Nov 29 14:16	28° $\overline{\text{M}}$ 44'57	
superior conj	1632 Jan 06 18:48	16° $\overline{\text{Z}}$ 06'28	-1°-55'-56		1632 Nov 30 09:32	0° $\overline{\text{A}}$	
minimum elong	1632 Jan 06 13:29	15° $\overline{\text{Z}}$ 44'35	1°55'40	desc. node	1632 Dec 01 14:41	1° $\overline{\text{A}}$ 53'33	
	1632 Jan 15 01:46	0° \approx		max. Earth dist.	1632 Dec 13 16:22	20° $\overline{\text{A}}$ 47'46	1.44788 AU
evening rise	1632 Jan 19 15:39	7° \approx 53'01					
	1632 Feb 02 00:17	0° $\overline{\text{H}}$		superior conj	1632 Dec 16 09:06	25° $\overline{\text{A}}$ 03'44	-1°-28'-36
asc. node	1632 Feb 03 03:50	1° $\overline{\text{H}}$ 34'43		minimum elong	1632 Dec 16 00:21	24° $\overline{\text{A}}$ 29'04	1°27'44
evening max el	1632 Feb 06 07:56	5° $\overline{\text{H}}$ 18'18	18°10'36		1632 Dec 19 11:34	0° $\overline{\text{Z}}$	
retrograde	1632 Feb 12 19:11	8° $\overline{\text{H}}$ 43'17		evening rise	1632 Dec 31 02:42	18° $\overline{\text{Z}}$ 52'49	
evening set	1632 Feb 15 14:23	8° $\overline{\text{H}}$ 03'25			1633 Jan 06 20:38	0° \approx	
inferior conj	1632 Feb 21 20:41	2° $\overline{\text{H}}$ 48'14	3°44'29	evening max el	1633 Jan 19 20:08	18° \approx 41'04	18°30'41
minimum elong	1632 Feb 21 20:54	2° $\overline{\text{H}}$ 47'39	3°44'30	asc. node	1633 Jan 20 00:53	18° \approx 53'01	
min. Earth dist.	1632 Feb 24 14:18	29° \approx 54'42	0.62756 AU	retrograde	1633 Jan 26 09:28	22° \approx 17'30	
	1632 Feb 24 12:14	30° $\overline{\text{R}}$ \approx		evening set	1633 Jan 29 10:00	21° \approx 26'40	
morning rise	1632 Feb 28 01:19	26° \approx 47'09		inferior conj	1633 Feb 04 07:35	15° \approx 52'18	3°39'05
direct	1632 Mar 06 00:13	24° \approx 09'01		minimum elong	1633 Feb 04 06:12	15° \approx 56'22	3°38'58
desc. node	1632 Mar 12 16:47	26° \approx 13'16		min. Earth dist.	1633 Feb 06 09:43	13° \approx 25'07	0.64538 AU
	1632 Mar 17 18:37	0° $\overline{\text{H}}$		morning rise	1633 Feb 10 01:04	9° \approx 43'49	
morning max el	1632 Mar 19 23:17	2° $\overline{\text{H}}$ 04'21	27°47'56	direct	1633 Feb 16 20:28	6° \approx 53'51	
	1632 Apr 09 13:53	0° $\overline{\text{Y}}$		desc. node	1633 Feb 27 13:51	12° \approx 07'46	
morning set	1632 Apr 22 22:40	24° $\overline{\text{Y}}$ 32'11		morning max el	1633 Mar 02 08:22	14° \approx 43'34	27°20'47
	1632 Apr 25 14:38	0° $\overline{\text{B}}$			1633 Mar 14 19:36	0° $\overline{\text{H}}$	
max. Earth dist.	1632 Apr 28 11:09	6° $\overline{\text{B}}$ 01'36	1.32730 AU		1633 Apr 02 05:50	0° $\overline{\text{Y}}$	
				morning set	1633 Apr 06 15:07	8° $\overline{\text{Y}}$ 20'20	
superior conj	1632 Apr 30 13:34	10° $\overline{\text{B}}$ 32'47	0°-5'-59	max. Earth dist.	1633 Apr 11 10:36	18° $\overline{\text{Y}}$ 00'37	1.33615 AU
minimum elong	1632 Apr 30 13:51	10° $\overline{\text{B}}$ 34'20	0°05'56				
behind sun begin	1632 Apr 30 08:59	10° $\overline{\text{B}}$ 08'01		superior conj	1633 Apr 14 18:20	24° $\overline{\text{Y}}$ 57'28	0°-33'-34
behind sun end	1632 Apr 30 18:43	11° $\overline{\text{B}}$ 00'39		minimum elong	1633 Apr 14 20:00	25° $\overline{\text{Y}}$ 06'20	0°33'15
asc. node	1632 May 01 03:10	11° $\overline{\text{B}}$ 46'27			1633 Apr 17 03:12	0° $\overline{\text{B}}$	
evening rise	1632 May 07 14:18	25° $\overline{\text{B}}$ 43'42		asc. node	1633 Apr 18 00:12	1° $\overline{\text{B}}$ 52'10	
	1632 May 09 15:20	0° $\overline{\text{II}}$		evening rise	1633 Apr 22 01:26	10° $\overline{\text{B}}$ 28'35	
	1632 May 27 18:20	0° $\overline{\text{S}}$			1633 May 02 05:55	0° $\overline{\text{II}}$	
evening max el	1632 May 31 12:06	4° $\overline{\text{S}}$ 01'28	23°46'35	evening max el	1633 May 13 04:19	14° $\overline{\text{II}}$ 33'08	22°10'57
desc. node	1632 Jun 08 16:01	9° $\overline{\text{S}}$ 44'11		retrograde	1633 May 26 00:09	20° $\overline{\text{II}}$ 52'50	
retrograde	1632 Jun 14 05:27	10° $\overline{\text{S}}$ 54'21		desc. node	1633 May 26 13:03	20° $\overline{\text{II}}$ 52'11	
evening set	1632 Jun 18 10:13	10° $\overline{\text{S}}$ 15'34		evening set	1633 May 28 20:52	20° $\overline{\text{II}}$ 34'42	
min. Earth dist.	1632 Jun 24 22:43	7° $\overline{\text{S}}$ 10'17	0.56142 AU	min. Earth dist.	1633 Jun 06 10:20	16° $\overline{\text{II}}$ 54'16	0.55111 AU
inferior conj	1632 Jun 27 05:19	5° $\overline{\text{S}}$ 47'34	-4°-27'-10	inferior conj	1633 Jun 07 04:58	16° $\overline{\text{II}}$ 28'05	-3°-11'-17
minimum elong	1632 Jun 26 23:22	5° $\overline{\text{S}}$ 56'39	4°26'13	minimum elong	1633 Jun 06 21:18	16° $\overline{\text{II}}$ 38'53	3°09'05
morning rise	1632 Jul 05 15:56	1° $\overline{\text{S}}$ 50'06		morning rise	1633 Jun 15 23:37	12° $\overline{\text{II}}$ 35'47	
direct	1632 Jul 08 09:19	1° $\overline{\text{S}}$ 31'15		direct	1633 Jun 19 00:04	12° $\overline{\text{II}}$ 15'22	
morning max el	1632 Jul 18 11:49	6° $\overline{\text{S}}$ 12'12	19°59'52	morning max el	1633 Jun 30 17:45	17° $\overline{\text{II}}$ 44'12	21°22'46
asc. node	1632 Jul 28 02:26	18° $\overline{\text{S}}$ 59'28			1633 Jul 10 08:45	0° $\overline{\text{S}}$	

asc. node	1633 Jul 14 23:29	8° ♄ 01'22		morning max el	1634 Jun 12 13:50	28° ♄ 36'11	23°00'28
morning set	1633 Jul 20 21:00	19° ♄ 42'32			1634 Jun 13 23:59	0° ♄	
	1633 Jul 25 18:56	0° ♄		asc. node	1634 Jul 01 20:31	27° ♄ 29'04	
					1634 Jul 03 02:30	0° ♄	
superior conj	1633 Jul 28 06:33	5° ♄ 11'32	1°41'50	morning set	1634 Jul 05 07:58	4° ♄ 36'28	
minimum elong	1633 Jul 28 05:07	5° ♄ 04'06	1°41'45				
max. Earth dist.	1633 Aug 01 08:16	13° ♄ 30'18	1.35201 AU	superior conj	1634 Jul 12 11:24	19° ♄ 52'02	1°31'35
evening rise	1633 Aug 05 16:59	22° ♄ 01'22		minimum elong	1634 Jul 12 09:12	19° ♄ 40'18	1°31'22
	1633 Aug 10 00:37	0° ♄		max. Earth dist.	1634 Jul 15 04:36	25° ♄ 36'59	1.33855 AU
desc. node	1633 Aug 22 12:24	20° ♄ 34'20			1634 Jul 17 07:22	0° ♄	
	1633 Aug 29 02:58	0° ♄		evening rise	1634 Jul 20 05:10	5° ♄ 51'29	
evening max el	1633 Sep 10 00:54	13° ♄ 59'31	26°40'37		1634 Aug 02 16:01	0° ♄	
retrograde	1633 Sep 23 00:10	21° ♄ 13'38		desc. node	1634 Aug 09 09:24	10° ♄ 14'27	
evening set	1633 Sep 29 14:21	18° ♄ 32'55		evening max el	1634 Aug 23 12:43	27° ♄ 24'04	27°16'57
min. Earth dist.	1633 Oct 03 15:50	14° ♄ 23'35	0.65956 AU		1634 Aug 26 11:15	0° ♄	
inferior conj	1633 Oct 05 09:25	12° ♄ 20'02	-1°-51'-53	retrograde	1634 Sep 05 23:15	4° ♄ 42'50	
minimum elong	1633 Oct 05 12:23	12° ♄ 11'13	1°50'42	evening set	1634 Sep 12 23:46	1° ♄ 59'44	
asc. node	1633 Oct 10 22:42	6° ♄ 53'35			1634 Sep 15 06:08	30° ♄	
morning rise	1633 Oct 11 11:42	6° ♄ 34'52		min. Earth dist.	1634 Sep 16 18:33	28° ♄ 26'53	0.64643 AU
direct	1633 Oct 14 08:17	5° ♄ 49'15		inferior conj	1634 Sep 19 00:50	25° ♄ 59'18	-2°-49'-15
morning max el	1633 Oct 20 23:16	9° ♄ 26'55	18°28'06	minimum elong	1634 Sep 19 05:13	25° ♄ 47'20	2°47'44
	1633 Nov 04 09:37	0° ♄		morning rise	1634 Sep 25 12:35	20° ♄ 29'01	
morning set	1633 Nov 09 18:41	8° ♄ 38'44		asc. node	1634 Sep 27 19:45	19° ♄ 54'40	
desc. node	1633 Nov 18 11:42	22° ♄ 33'27		direct	1634 Sep 28 02:35	19° ♄ 54'14	
	1633 Nov 23 04:45	0° ♄		morning max el	1634 Oct 04 14:40	23° ♄ 21'57	18°01'08
					1634 Oct 09 21:30	0° ♄	
superior conj	1633 Nov 25 10:21	3° ♄ 30'51	0°-45'-12	morning set	1634 Oct 22 03:53	19° ♄ 56'46	
minimum elong	1633 Nov 25 04:33	3° ♄ 08'00	0°44'28		1634 Oct 28 04:23	0° ♄	
max. Earth dist.	1633 Nov 26 11:17	5° ♄ 08'45	1.45131 AU				
evening rise	1633 Dec 11 14:19	28° ♄ 55'51		superior conj	1634 Nov 04 20:06	12° ♄ 28'06	0°03'33
	1633 Dec 12 06:34	0° ♄		minimum elong	1634 Nov 04 20:31	12° ♄ 29'50	0°03'29
greatest brilliancy	1633 Dec 23 16:30	17° ♄ 54'05	-0.7m	behind sun begin	1634 Nov 04 10:13	11° ♄ 48'27	
	1634 Jan 01 07:31	0° ♄		behind sun end	1634 Nov 05 06:49	13° ♄ 11'08	
evening max el	1634 Jan 03 05:44	2° ♄ 08'46	19°08'19	desc. node	1634 Nov 05 08:43	13° ♄ 18'43	
asc. node	1634 Jan 06 21:57	5° ♄ 08'45		max. Earth dist.	1634 Nov 09 06:04	19° ♄ 30'06	1.44733 AU
retrograde	1634 Jan 10 04:58	6° ♄ 07'16			1634 Nov 15 22:45	0° ♄	
evening set	1634 Jan 13 11:51	5° ♄ 04'22		evening rise	1634 Nov 21 05:54	8° ♄ 12'29	
	1634 Jan 18 12:40	30° ♄			1634 Dec 05 14:17	0° ♄	
inferior conj	1634 Jan 19 03:26	29° ♄ 13'15	3°19'21	greatest brilliancy	1634 Dec 10 12:39	7° ♄ 04'18	-0.6m
minimum elong	1634 Jan 19 01:07	29° ♄ 20'39	3°18'54	evening max el	1634 Dec 17 10:46	15° ♄ 37'43	20°01'49
min. Earth dist.	1634 Jan 20 14:20	27° ♄ 22'24	0.65935 AU	asc. node	1634 Dec 24 19:00	20° ♄ 06'21	
morning rise	1634 Jan 24 13:30	23° ♄ 00'17		retrograde	1634 Dec 25 02:39	20° ♄ 06'55	
direct	1634 Jan 30 23:06	20° ♄ 12'26		evening set	1634 Dec 28 17:29	18° ♄ 50'29	
morning max el	1634 Feb 12 18:12	27° ♄ 45'39	26°24'16	inferior conj	1635 Jan 03 05:19	12° ♄ 45'33	2°48'49
desc. node	1634 Feb 14 10:53	29° ♄ 31'41		minimum elong	1635 Jan 03 02:40	12° ♄ 54'28	2°48'05
	1634 Feb 14 21:19	0° ♄		min. Earth dist.	1635 Jan 04 02:26	11° ♄ 34'51	0.66930 AU
	1634 Mar 08 12:27	0° ♄		morning rise	1635 Jan 08 11:15	6° ♄ 30'25	
morning set	1634 Mar 20 19:32	21° ♄ 28'45		direct	1635 Jan 14 07:26	3° ♄ 55'18	
max. Earth dist.	1634 Mar 24 23:04	29° ♄ 27'07	1.34953 AU	morning max el	1635 Jan 26 03:03	10° ♄ 58'10	25°07'20
	1634 Mar 25 05:44	0° ♄		desc. node	1635 Feb 01 07:55	17° ♄ 58'34	
					1635 Feb 10 07:39	0° ♄	
superior conj	1634 Mar 29 16:37	8° ♄ 58'07	-1°-1'-10		1635 Mar 01 04:37	0° ♄	
minimum elong	1634 Mar 29 19:39	9° ♄ 13'45	1°00'38	morning set	1635 Mar 03 06:56	3° ♄ 42'48	
asc. node	1634 Apr 04 21:14	21° ♄ 50'04		max. Earth dist.	1635 Mar 07 00:06	10° ♄ 29'51	1.36718 AU
evening rise	1634 Apr 06 09:58	25° ♄ 00'19					
	1634 Apr 08 20:48	0° ♄		superior conj	1635 Mar 13 05:29	22° ♄ 26'13	-1°-27'00
evening max el	1634 Apr 25 05:22	25° ♄ 28'22	20°44'45	minimum elong	1635 Mar 13 09:32	22° ♄ 46'09	1°26'26
	1634 May 01 18:11	0° ♄			1635 Mar 17 00:25	0° ♄	
retrograde	1634 May 06 13:14	0° ♄ 58'35		evening rise	1635 Mar 21 13:37	9° ♄ 11'43	
evening set	1634 May 08 16:40	0° ♄ 47'31		asc. node	1635 Mar 22 18:17	11° ♄ 35'17	
	1634 May 11 14:34	30° ♄			1635 Apr 02 00:56	0° ♄	
desc. node	1634 May 13 10:04	29° ♄ 14'44		evening max el	1635 Apr 07 18:12	7° ♄ 02'36	19°35'41
inferior conj	1634 May 17 22:44	26° ♄ 49'50	-1°-18'-47	retrograde	1635 Apr 17 08:39	11° ♄ 40'31	
minimum elong	1634 May 17 19:00	26° ♄ 55'10	1°17'27	evening set	1635 Apr 19 09:50	11° ♄ 28'47	
min. Earth dist.	1634 May 18 22:48	26° ♄ 15'24	0.54989 AU	inferior conj	1635 Apr 28 01:20	7° ♄ 24'44	0°38'28
morning rise	1634 May 26 20:19	22° ♄ 43'00		minimum elong	1635 Apr 28 02:58	7° ♄ 22'08	0°37'54
direct	1634 May 30 09:43	22° ♄ 15'45		desc. node	1635 Apr 30 07:04	5° ♄ 59'31	

min. Earth dist.	1635 Apr 30 13:11	5°♄50'01	0.55818 AU	morning rise	1636 Apr 15 22:57	13°♄22'49	
morning rise	1635 May 06 16:27	2°♄46'59		desc. node	1636 Apr 16 04:07	13°♄17'11	
direct	1635 May 11 03:50	2°♄02'01		direct	1636 Apr 21 12:04	12°♄07'31	
morning max el	1635 May 25 04:45	9°♄05'46	24°42'04	morning max el	1636 May 05 20:16	19°♄38'44	26°12'38
	1635 Jun 09 16:46	0°♄			1636 May 14 15:27	0°♄	
asc. node	1635 Jun 18 17:33	17°♄15'46			1636 Jun 01 03:24	0°♄	
morning set	1635 Jun 19 19:51	19°♄33'33		morning set	1636 Jun 03 07:00	4°♄27'33	
	1635 Jun 24 16:13	0°♄		asc. node	1636 Jun 04 14:34	7°♄14'58	
superior conj	1635 Jun 26 20:31	4°♄44'59	1°16'24	superior conj	1636 Jun 10 07:48	19°♄42'41	0°57'10
minimum elong	1635 Jun 26 18:05	4°♄31'48	1°16'03	minimum elong	1636 Jun 10 05:38	19°♄30'48	0°56'46
max. Earth dist.	1635 Jun 28 09:18	8°♄04'30	1.32914 AU	max. Earth dist.	1636 Jun 10 19:40	20°♄47'52	1.32372 AU
evening rise	1635 Jul 04 03:15	20°♄11'08			1636 Jun 15 01:16	0°♄	
	1635 Jul 09 02:56	0°♄		evening rise	1636 Jun 17 08:07	4°♄49'50	
desc. node	1635 Jul 27 06:24	29°♄17'09			1636 Jun 30 19:29	0°♄	
	1635 Jul 27 19:23	0°♄		desc. node	1636 Jul 13 03:25	17°♄26'04	
evening max el	1635 Aug 05 22:35	10°♄24'30	27°25'00	evening max el	1636 Jul 18 04:04	22°♄47'40	27°00'29
retrograde	1635 Aug 19 16:20	17°♄42'23			1636 Jul 31 05:08	0°♄	
evening set	1635 Aug 26 21:12	15°♄08'38		retrograde	1636 Aug 01 02:06	0°♄02'00	
min. Earth dist.	1635 Aug 30 11:38	12°♄07'14	0.62984 AU		1636 Aug 01 22:57	30°♄	
inferior conj	1635 Sep 02 06:24	9°♄24'13	-3°-42'-42	evening set	1636 Aug 08 02:19	27°♄51'06	
minimum elong	1635 Sep 02 11:38	9°♄11'26	3°41'18	min. Earth dist.	1636 Aug 11 18:20	25°♄10'22	0.61049 AU
morning rise	1635 Sep 09 04:35	4°♄12'01		inferior conj	1636 Aug 14 22:51	22°♄25'51	-4°-26'-56
direct	1635 Sep 11 14:42	3°♄44'39		minimum elong	1636 Aug 15 03:32	22°♄15'42	4°26'08
asc. node	1635 Sep 14 16:46	4°♄30'04		morning rise	1636 Aug 22 07:47	17°♄34'38	
morning max el	1635 Sep 18 06:44	7°♄10'39	17°51'51	direct	1636 Aug 24 16:55	17°♄11'50	
	1635 Oct 03 04:23	0°♄		asc. node	1636 Aug 31 13:48	20°♄28'53	
morning set	1635 Oct 04 12:59	2°♄23'52		morning max el	1636 Aug 31 20:20	20°♄44'29	18°01'17
					1636 Sep 07 19:32	0°♄	
superior conj	1635 Oct 16 06:01	22°♄38'08	0°46'13	morning set	1636 Sep 16 15:43	15°♄41'09	
minimum elong	1635 Oct 16 10:11	22°♄55'36	0°45'41		1636 Sep 24 11:21	0°♄	
	1635 Oct 20 16:56	0°♄		superior conj	1636 Sep 26 18:48	4°♄06'42	1°17'24
max. Earth dist.	1635 Oct 22 21:50	3°♄34'28	1.43655 AU	minimum elong	1636 Sep 26 23:14	4°♄26'14	1°16'55
desc. node	1635 Oct 23 05:44	4°♄06'19		max. Earth dist.	1636 Oct 04 08:58	17°♄07'16	1.42031 AU
evening rise	1635 Oct 31 13:58	17°♄15'34		desc. node	1636 Oct 09 02:46	24°♄52'29	
	1635 Nov 08 22:48	0°♄		evening rise	1636 Oct 10 07:40	26°♄48'08	
greatest brilliancy	1635 Nov 25 04:06	23°♄00'29	-0.4m		1636 Oct 12 08:09	0°♄	
evening max el	1635 Nov 30 10:20	29°♄07'56	21°08'31		1636 Nov 01 18:02	0°♄	
	1635 Dec 01 07:18	0°♄		greatest brilliancy	1636 Nov 07 10:37	7°♄19'57	-0.3m
retrograde	1635 Dec 09 00:17	4°♄13'28		evening max el	1636 Nov 12 04:33	12°♄39'51	22°24'33
asc. node	1635 Dec 11 16:01	3°♄34'07		retrograde	1636 Nov 21 20:05	18°♄23'53	
evening set	1635 Dec 13 00:59	2°♄41'50		evening set	1636 Nov 26 08:38	16°♄35'29	
	1635 Dec 15 17:57	30°♄		asc. node	1636 Nov 27 13:03	15°♄30'38	
inferior conj	1635 Dec 18 10:54	26°♄26'27	2°09'55	inferior conj	1636 Dec 01 18:11	10°♄13'14	1°24'24
minimum elong	1635 Dec 18 08:27	26°♄34'55	2°09'05	minimum elong	1636 Dec 01 16:22	10°♄19'31	1°23'41
min. Earth dist.	1635 Dec 18 19:47	25°♄55'50	0.67545 AU	min. Earth dist.	1636 Dec 01 15:56	10°♄21'01	0.67797 AU
morning rise	1635 Dec 23 15:31	20°♄11'12		morning rise	1636 Dec 06 23:57	4°♄00'08	
direct	1635 Dec 28 20:46	17°♄55'41		direct	1636 Dec 11 14:09	2°♄07'16	
morning max el	1636 Jan 08 11:35	24°♄15'20	23°40'11	morning max el	1636 Dec 20 23:00	7°♄38'38	22°12'43
	1636 Jan 13 14:46	0°♄		greatest brilliancy	1636 Dec 25 13:55	12°♄49'45	-0.3m
desc. node	1636 Jan 19 04:58	7°♄10'30		desc. node	1637 Jan 05 02:01	26°♄54'46	
	1636 Feb 03 18:33	0°♄			1637 Jan 07 05:23	0°♄	
morning set	1636 Feb 12 19:11	14°♄45'47		morning set	1637 Jan 23 02:56	24°♄25'24	
max. Earth dist.	1636 Feb 16 18:55	21°♄40'05	1.38794 AU		1637 Jan 26 12:41	0°♄	
	1636 Feb 21 10:02	0°♄		max. Earth dist.	1637 Jan 28 16:07	3°♄34'42	1.40934 AU
superior conj	1636 Feb 24 05:14	5°♄12'11	-1°-48'-29	superior conj	1637 Feb 05 11:07	17°♄04'34	-2°-2'-2
minimum elong	1636 Feb 24 09:16	5°♄31'12	1°48'08	minimum elong	1637 Feb 05 13:18	17°♄14'17	2°01'59
evening rise	1636 Mar 04 09:48	22°♄55'39			1637 Feb 12 13:08	0°♄	
	1636 Mar 08 02:02	0°♄		evening rise	1637 Feb 15 19:17	6°♄04'37	
asc. node	1636 Mar 08 15:19	1°♄02'27		asc. node	1637 Feb 23 12:21	20°♄05'27	
evening max el	1636 Mar 20 17:36	19°♄15'12	18°46'19	evening max el	1637 Mar 02 00:35	1°♄58'26	18°16'59
retrograde	1636 Mar 28 20:22	23°♄12'05		retrograde	1637 Mar 11 03:09	5°♄31'00	
evening set	1636 Mar 31 02:17	22°♄55'05		evening set	1637 Mar 13 14:37	5°♄06'07	
inferior conj	1636 Apr 07 22:46	18°♄33'59	2°11'35	inferior conj	1637 Mar 20 17:28	0°♄23'42	3°10'35
minimum elong	1636 Apr 08 02:47	18°♄26'33	2°10'26				
min. Earth dist.	1636 Apr 11 06:06	16°♄08'49	0.57421 AU				

minimum elong	1637 Mar 20 20:48	0° Υ 16'30	3°09'59	evening set	1638 Feb 24 18:11	17° X 52'15	
	1637 Mar 21 04:25	30° R X		inferior conj	1638 Mar 03 06:55	12° X 48'24	3°39'06
min. Earth dist.	1637 Mar 24 03:27	27° X 28'29	0.59465 AU	minimum elong	1638 Mar 03 08:17	12° X 45'00	3°39'00
morning rise	1637 Mar 27 23:20	24° X 46'16		min. Earth dist.	1638 Mar 06 08:09	9° X 47'51	0.61597 AU
direct	1637 Apr 03 09:07	22° X 54'34		morning rise	1638 Mar 09 19:45	6° X 53'40	
desc. node	1637 Apr 03 01:09	22° X 54'51		direct	1638 Mar 16 16:33	4° X 29'29	
	1637 Apr 17 00:08	0° Υ		desc. node	1638 Mar 20 22:13	5° X 19'14	
morning max el	1637 Apr 17 16:59	0° Υ 40'38	27°17'38	morning max el	1638 Mar 30 20:07	12° X 23'20	27°47'41
	1637 May 08 16:39	0° B			1638 Apr 13 19:18	0° Υ	
morning set	1637 May 18 15:47	19° B 13'03			1638 May 01 00:07	0° B	
asc. node	1637 May 22 11:38	27° B 21'56		morning set	1638 May 02 20:14	3° B 42'49	
	1637 May 23 16:40	0° II		max. Earth dist.	1638 May 08 18:46	16° B 16'03	1.32431 AU
				asc. node	1638 May 09 08:42	17° B 31'38	
superior conj	1637 May 25 19:34	4° II 39'10	0°34'35	superior conj	1638 May 10 06:03	19° B 27'58	0°09'24
minimum elong	1637 May 25 18:05	4° II 31'03	0°34'17	minimum elong	1638 May 10 05:37	19° B 25'35	0°09'18
max. Earth dist.	1637 May 25 08:10	3° II 36'30	1.32213 AU	behind sun begin	1638 May 10 01:27	19° B 02'51	
evening rise	1637 Jun 01 17:20	19° II 39'33		behind sun end	1638 May 10 09:47	19° B 48'19	
	1637 Jun 06 19:20	0° S			1638 May 15 01:56	0° II	
	1637 Jun 25 22:49	0° Q		evening rise	1638 May 17 04:45	4° II 32'21	
evening max el	1637 Jun 30 02:50	4° Q 24'43	26°03'23		1638 May 30 19:18	0° S	
desc. node	1637 Jun 30 00:25	4° Q 18'58		evening max el	1638 Jun 11 18:48	15° S 17'56	24°40'34
retrograde	1637 Jul 14 02:54	11° Q 35'11		desc. node	1638 Jun 16 21:26	19° S 25'32	
evening set	1637 Jul 20 10:23	9° Q 58'45		retrograde	1638 Jun 25 17:11	22° S 21'19	
min. Earth dist.	1637 Jul 24 15:27	7° Q 22'17	0.58992 AU	evening set	1638 Jun 30 18:50	21° S 23'17	
inferior conj	1637 Jul 27 22:34	4° Q 54'38	-4°-53'-14	min. Earth dist.	1638 Jul 06 05:58	18° S 32'49	0.57060 AU
minimum elong	1637 Jul 28 00:29	4° Q 51'03	4°53'08	inferior conj	1638 Jul 09 02:36	16° S 41'32	-4°-48'-56
morning rise	1637 Aug 04 18:02	0° Q 26'36		minimum elong	1638 Jul 08 23:31	16° S 46'34	4°48'41
direct	1637 Aug 07 04:59	0° Q 06'17		morning rise	1638 Jul 17 07:58	12° S 35'24	
morning max el	1637 Aug 15 04:22	3° Q 55'13	18°30'45	direct	1638 Jul 19 22:37	12° S 16'22	
asc. node	1637 Aug 18 10:51	7° Q 36'28		morning max el	1638 Jul 29 03:54	16° S 34'04	19°21'20
morning set	1637 Aug 31 06:59	29° Q 34'43		asc. node	1638 Aug 05 07:55	25° S 38'14	
	1637 Aug 31 12:13	0° P			1638 Aug 07 23:05	0° Q	
superior conj	1637 Sep 09 06:19	16° P 42'29	1°36'30	morning set	1638 Aug 15 07:02	13° Q 54'34	
minimum elong	1637 Sep 09 09:11	16° P 55'47	1°36'17	superior conj	1638 Aug 23 11:00	0° P 10'04	1°45'04
max. Earth dist.	1637 Sep 16 15:11	29° P 58'27	1.40069 AU	minimum elong	1638 Aug 23 11:54	0° P 14'31	1°45'02
	1637 Sep 16 15:32	0° A			1638 Aug 23 08:56	0° P	
evening rise	1637 Sep 20 22:56	7° A 20'30		max. Earth dist.	1638 Aug 29 18:50	12° P 09'37	1.38021 AU
desc. node	1637 Sep 25 23:47	15° A 33'39		evening rise	1638 Sep 02 14:23	19° P 00'54	
	1637 Oct 05 10:02	0° M			1638 Sep 09 01:38	0° A	
evening max el	1637 Oct 25 18:39	26° M 14'11	23°44'33	desc. node	1638 Sep 12 20:48	6° A 05'49	
	1637 Oct 30 02:14	0° J			1638 Sep 29 14:56	0° M	
retrograde	1637 Nov 05 12:45	2° J 34'36		evening max el	1638 Oct 08 06:40	9° M 51'51	25°01'58
evening set	1637 Nov 10 14:49	0° J 28'42		retrograde	1638 Oct 20 01:24	16° M 41'49	
	1637 Nov 11 03:48	30° R M		evening set	1638 Oct 25 17:51	14° M 19'21	
asc. node	1637 Nov 14 10:06	26° M 15'37		min. Earth dist.	1638 Oct 30 07:07	9° M 12'24	0.67291 AU
min. Earth dist.	1637 Nov 15 12:29	24° M 47'11	0.67710 AU	inferior conj	1638 Oct 31 06:37	7° M 55'14	0°-21'-9
inferior conj	1637 Nov 16 01:19	24° M 03'26	0°33'35	minimum elong	1638 Oct 31 07:09	7° M 53'30	0°20'56
minimum elong	1637 Nov 16 00:32	24° M 06'08	0°33'15	asc. node	1638 Nov 01 07:09	6° M 35'27	
morning rise	1637 Nov 21 10:25	17° M 54'45		morning rise	1638 Nov 05 21:00	1° M 53'25	
direct	1637 Nov 25 10:30	16° M 24'29		direct	1638 Nov 09 08:38	0° M 43'24	
morning max el	1637 Dec 03 16:44	21° M 11'38	20°52'29	morning max el	1638 Nov 16 18:20	4° M 55'49	19°44'26
greatest brilliancy	1637 Dec 09 09:07	27° M 48'33	-0.5m	greatest brilliancy	1638 Nov 24 15:37	14° M 43'33	-0.6m
	1637 Dec 11 01:15	0° J			1638 Dec 04 23:46	0° J	
desc. node	1637 Dec 22 23:04	17° J 01'48		desc. node	1638 Dec 09 20:07	7° J 25'22	
	1637 Dec 31 11:45	0° S		morning set	1638 Dec 12 04:38	11° J 03'17	
morning set	1638 Jan 02 08:11	2° S 52'37			1638 Dec 24 07:13	0° S	
max. Earth dist.	1638 Jan 10 20:39	16° S 26'00	1.42839 AU	max. Earth dist.	1638 Dec 24 08:22	0° S 04'35	1.44255 AU
superior conj	1638 Jan 17 17:44	27° S 49'49	-2°-3'00	superior conj	1638 Dec 28 21:52	7° S 22'51	-1°-46'-41
minimum elong	1638 Jan 17 15:34	27° S 40'39	2°02'59	minimum elong	1638 Dec 28 14:30	6° S 53'10	1°46'09
	1638 Jan 19 00:26	0° \approx		evening rise	1639 Jan 11 13:55	0° \approx 02'17	
evening rise	1638 Jan 29 14:06	18° \approx 29'26			1639 Jan 11 13:23	0° \approx	
	1638 Feb 05 02:26	0° X		asc. node	1639 Jan 28 06:28	26° \approx 23'49	
asc. node	1638 Feb 10 09:25	8° X 35'48		evening max el	1639 Jan 30 00:23	28° \approx 19'46	18°16'49
evening max el	1638 Feb 15 11:48	15° X 02'17	18°07'19		1639 Jan 31 21:30	0° X	
retrograde	1638 Feb 22 01:49	18° X 26'21					

retrograde	1639 Feb 05 11:39	1° K 48'35			1640 Jan 04 17:25	0° \approx	
evening set	1639 Feb 08 08:55	1° K 04'18		evening max el	1640 Jan 13 11:41	11° \approx 44'49	18°44'41
	1639 Feb 10 01:24	30° R \approx		asc. node	1640 Jan 15 03:30	13° \approx 17'06	
inferior conj	1639 Feb 14 11:08	25° \approx 40'36	3°44'14	retrograde	1640 Jan 20 04:30	15° \approx 29'38	
minimum elong	1639 Feb 14 10:36	25° \approx 42'06	3°44'13	evening set	1640 Jan 23 07:29	14° \approx 34'00	
min. Earth dist.	1639 Feb 16 22:16	22° \approx 56'26	0.63555 AU	inferior conj	1640 Jan 29 02:14	8° \approx 52'26	3°32'14
morning rise	1639 Feb 20 10:31	19° \approx 35'32		minimum elong	1640 Jan 29 00:22	8° \approx 58'07	3°31'59
direct	1639 Feb 27 08:41	16° \approx 50'37		min. Earth dist.	1640 Jan 30 21:52	6° \approx 39'31	0.65178 AU
desc. node	1639 Mar 07 19:18	20° \approx 07'19		morning rise	1640 Feb 03 16:06	2° \approx 41'36	
morning max el	1639 Mar 13 04:00	24° \approx 45'23	27°40'26		1640 Feb 08 17:30	30° R Z	
	1639 Mar 17 22:41	0° K		direct	1640 Feb 10 08:00	29° Z 50'37	
	1639 Apr 07 05:00	0° Y			1640 Feb 11 23:42	0° \approx	
morning set	1639 Apr 16 17:57	17° Y 49'14		desc. node	1640 Feb 22 16:20	6° \approx 43'15	
max. Earth dist.	1639 Apr 21 23:23	28° Y 32'55	1.33054 AU	morning max el	1640 Feb 23 13:39	7° \approx 35'44	26°59'50
	1639 Apr 22 15:51	0° B			1640 Mar 11 22:50	0° K	
					1640 Mar 29 12:36	0° Y	
superior conj	1639 Apr 24 13:29	4° B 03'26	0°-17'-36	morning set	1640 Mar 30 05:52	1° Y 22'42	
minimum elong	1639 Apr 24 14:21	4° B 08'04	0°17'26	max. Earth dist.	1640 Apr 03 18:11	10° Y 17'16	1.34121 AU
asc. node	1639 Apr 26 05:44	7° B 40'03					
evening rise	1639 May 01 16:32	19° B 21'54		superior conj	1640 Apr 07 15:52	18° Y 19'26	0°-45'-21
	1639 May 06 22:01	0° II		minimum elong	1640 Apr 07 18:08	18° Y 31'19	0°44'55
evening max el	1639 May 24 08:45	25° II 48'34	23°05'21	asc. node	1640 Apr 12 02:47	27° Y 43'18	
	1639 May 29 15:47	0° E			1640 Apr 13 04:39	0° B	
desc. node	1639 Jun 03 18:29	2° E 09'38		evening rise	1640 Apr 15 02:49	4° B 02'17	
retrograde	1639 Jun 06 19:17	2° E 30'36			1640 Apr 29 15:28	0° II	
evening set	1639 Jun 10 09:01	2° E 02'36		evening max el	1640 May 05 04:17	6° II 28'44	21°32'38
	1639 Jun 15 10:55	30° R II		retrograde	1640 May 17 10:30	12° II 28'35	
min. Earth dist.	1639 Jun 17 18:06	28° II 43'45	0.55600 AU	evening set	1640 May 19 21:27	12° II 14'55	
inferior conj	1639 Jun 19 11:05	27° II 44'04	-4°00'-44	desc. node	1640 May 20 15:31	12° II 05'29	
minimum elong	1639 Jun 19 03:42	27° II 54'51	3°59'07	inferior conj	1640 May 29 06:42	8° II 14'20	-2°-26'-34
morning rise	1639 Jun 28 01:27	23° II 51'00		minimum elong	1640 May 29 00:08	8° II 23'31	2°24'25
direct	1639 Jun 30 21:08	23° II 32'03		min. Earth dist.	1640 May 29 06:24	8° II 14'45	0.54938 AU
morning max el	1639 Jul 11 16:36	28° II 32'22	20°32'58	morning rise	1640 Jun 07 03:26	4° II 17'54	
	1639 Jul 13 04:06	0° E		direct	1640 Jun 10 08:18	3° II 55'29	
asc. node	1639 Jul 23 04:59	14° E 21'17		morning max el	1640 Jun 22 18:05	9° II 47'14	22°02'54
morning set	1639 Jul 30 13:00	28° E 32'33			1640 Jul 07 04:08	0° E	
	1639 Jul 31 06:03	0° Ω		asc. node	1640 Jul 09 02:01	3° E 35'31	
				morning set	1640 Jul 13 22:43	13° E 22'45	
superior conj	1639 Aug 07 03:53	14° Ω 14'38	1°45'03				
minimum elong	1639 Aug 07 03:09	14° Ω 10'55	1°45'02	superior conj	1640 Jul 21 05:15	28° E 45'07	1°38'09
max. Earth dist.	1639 Aug 12 01:29	24° Ω 00'01	1.36137 AU	minimum elong	1640 Jul 21 03:25	28° E 35'30	1°38'01
	1639 Aug 15 05:00	0° np			1640 Jul 21 19:31	0° Ω	
evening rise	1639 Aug 16 02:54	1° np 41'52		max. Earth dist.	1640 Jul 24 16:24	5° Ω 56'42	1.34583 AU
desc. node	1639 Aug 30 17:48	26° np 23'27		evening rise	1640 Jul 29 07:48	15° Ω 11'10	
	1639 Sep 02 03:10	0° $\underline{\text{A}}$			1640 Aug 06 10:03	0° np	
evening max el	1639 Sep 20 18:30	23° $\underline{\text{A}}$ 30'33	26°09'26	desc. node	1640 Aug 16 14:48	16° np 19'56	
	1639 Sep 29 22:50	0° ml			1640 Aug 26 18:41	0° $\underline{\text{A}}$	
retrograde	1639 Oct 03 09:17	0° ml 39'33		evening max el	1640 Sep 02 06:48	7° $\underline{\text{A}}$ 04'12	26°59'10
	1639 Oct 06 14:24	30° R $\underline{\text{A}}$		retrograde	1640 Sep 15 11:44	14° $\underline{\text{A}}$ 21'15	
evening set	1639 Oct 09 15:52	28° $\underline{\text{A}}$ 03'53		evening set	1640 Sep 22 06:39	11° $\underline{\text{A}}$ 38'37	
min. Earth dist.	1639 Oct 13 21:29	23° $\underline{\text{A}}$ 33'04	0.66538 AU	min. Earth dist.	1640 Sep 26 05:13	7° $\underline{\text{A}}$ 44'43	0.65441 AU
inferior conj	1639 Oct 15 08:12	21° $\underline{\text{A}}$ 45'23	-1°-18'-26	inferior conj	1640 Sep 28 04:02	5° $\underline{\text{A}}$ 30'19	-2°-16'-27
minimum elong	1639 Oct 15 10:16	21° $\underline{\text{A}}$ 39'00	1°17'36	minimum elong	1640 Sep 28 07:39	5° $\underline{\text{A}}$ 19'56	2°15'06
asc. node	1639 Oct 19 04:12	17° $\underline{\text{A}}$ 26'49		morning rise	1640 Oct 04 10:11	29° np 50'46	
morning rise	1639 Oct 21 05:41	15° $\underline{\text{A}}$ 53'08			1640 Oct 04 03:03	30° R np	
direct	1639 Oct 24 06:59	14° $\underline{\text{A}}$ 59'48		asc. node	1640 Oct 05 01:14	29° np 34'20	
morning max el	1639 Oct 31 02:58	18° $\underline{\text{A}}$ 47'43	18°51'15	direct	1640 Oct 07 03:36	29° np 10'13	
	1639 Nov 08 17:57	0° ml			1640 Oct 10 05:07	0° $\underline{\text{A}}$	
morning set	1639 Nov 21 16:56	20° ml 07'10		morning max el	1640 Oct 13 16:35	2° $\underline{\text{A}}$ 42'52	18°14'25
desc. node	1639 Nov 26 17:07	28° ml 00'02		morning set	1640 Nov 01 09:50	0° ml 37'28	
	1639 Nov 27 23:39	0° Z			1640 Nov 01 00:41	0° ml	
max. Earth dist.	1639 Dec 07 00:52	14° Z 12'39	1.45018 AU	desc. node	1640 Nov 12 14:06	18° ml 42'07	
superior conj	1639 Dec 08 04:17	16° Z 00'30	-1°-11'-39	superior conj	1640 Nov 16 06:25	24° ml 32'35	0°-24'-24
minimum elong	1639 Dec 07 19:59	15° Z 27'51	1°10'44	minimum elong	1640 Nov 16 03:16	24° ml 20'06	0°23'59
	1639 Dec 17 00:22	0° Z		max. Earth dist.	1640 Nov 18 19:44	28° ml 34'17	1.45052 AU
evening rise	1639 Dec 23 14:56	10° Z 36'49			1640 Nov 19 17:32	0° Z	

evening rise	1640 Dec 02 16:58	20° ♄ 16'32			1641 Dec 02 19:29	0° ♄	
	1640 Dec 08 22:54	0° ♄		greatest brilliancy	1641 Dec 03 20:29	1° ♄ 24'11	-0.5m
greatest brilliancy	1640 Dec 18 08:37	14° ♄ 17'46	-0.7m	evening max el	1641 Dec 09 22:25	8° ♄ 42'51	20°28'50
evening max el	1640 Dec 26 19:34	25° ♄ 13'06	19°29'25	retrograde	1641 Dec 17 22:54	13° ♄ 26'32	
asc. node	1641 Jan 01 00:31	29° ♄ 00'58		asc. node	1641 Dec 18 21:33	13° ♄ 21'32	
retrograde	1641 Jan 03 01:03	29° ♄ 23'26		evening set	1641 Dec 21 17:49	12° ♄ 03'39	
evening set	1641 Jan 06 11:09	28° ♄ 14'59		inferior conj	1641 Dec 27 04:37	5° ♄ 53'51	2°33'12
inferior conj	1641 Jan 12 00:55	22° ♄ 17'54	3°07'33	minimum elong	1641 Dec 27 01:59	6° ♄ 02'48	2°32'25
minimum elong	1641 Jan 11 22:23	22° ♄ 26'10	3°06'58	min. Earth dist.	1641 Dec 27 20:18	5° ♄ 00'35	0.67238 AU
min. Earth dist.	1641 Jan 13 05:49	20° ♄ 43'48	0.66407 AU	morning rise	1642 Jan 01 09:41	29° ♄ 38'43	
morning rise	1641 Jan 17 08:51	16° ♄ 03'56			1642 Jan 01 00:28	30° ♄ ♄	
direct	1641 Jan 23 13:12	13° ♄ 20'11		direct	1642 Jan 06 23:40	27° ♄ 11'28	
morning max el	1641 Feb 04 22:50	20° ♄ 41'53	25°53'27		1642 Jan 13 20:21	0° ♄	
desc. node	1641 Feb 08 13:21	24° ♄ 35'58		morning max el	1642 Jan 18 07:17	3° ♄ 56'26	24°31'01
	1641 Feb 12 23:47	0° ♄		desc. node	1642 Jan 26 10:22	13° ♄ 23'33	
	1641 Mar 05 02:46	0° ♄			1642 Feb 07 06:53	0° ♄	
morning set	1641 Mar 13 03:42	14° ♄ 09'29		morning set	1642 Feb 23 06:00	25° ♄ 54'51	
max. Earth dist.	1641 Mar 17 01:18	21° ♄ 29'57	1.35651 AU		1642 Feb 25 13:19	0° ♄	
	1641 Mar 21 09:13	0° ♄		max. Earth dist.	1642 Feb 26 23:10	2° ♄ 32'47	1.37576 AU
superior conj	1641 Mar 22 10:33	2° ♄ 07'22	-1°-12'-28	superior conj	1642 Mar 05 18:21	15° ♄ 18'45	-1°-36'-49
minimum elong	1641 Mar 22 14:05	2° ♄ 25'16	1°11'53	minimum elong	1642 Mar 05 22:34	15° ♄ 39'07	1°36'19
asc. node	1641 Mar 29 23:49	17° ♄ 36'19			1642 Mar 13 04:53	0° ♄	
evening rise	1641 Mar 30 09:32	18° ♄ 26'01		evening rise	1642 Mar 14 10:23	2° ♄ 26'42	
	1641 Apr 05 06:36	0° ♄		asc. node	1642 Mar 16 20:52	7° ♄ 14'33	
evening max el	1641 Apr 17 10:25	17° ♄ 40'16	20°13'09	evening max el	1642 Mar 31 03:58	29° ♄ 30'53	19°12'13
retrograde	1641 Apr 28 00:14	22° ♄ 47'01			1642 Mar 31 16:22	0° ♄	
evening set	1641 Apr 30 01:33	22° ♄ 36'17		retrograde	1642 Apr 09 01:58	3° ♄ 49'41	
desc. node	1641 May 07 12:33	19° ♄ 33'23		evening set	1642 Apr 11 04:53	3° ♄ 36'04	
inferior conj	1641 May 09 02:32	18° ♄ 37'53	0°-27'-37		1642 Apr 18 15:34	30° ♄ ♄	
minimum elong	1641 May 09 01:15	18° ♄ 39'47	0°27'10	inferior conj	1642 Apr 19 12:21	29° ♄ 25'10	1°21'55
min. Earth dist.	1641 May 10 19:30	17° ♄ 37'22	0.55236 AU	minimum elong	1642 Apr 19 15:27	29° ♄ 19'55	1°20'53
morning rise	1641 May 17 22:39	14° ♄ 19'28		min. Earth dist.	1642 Apr 22 10:27	27° ♄ 27'33	0.56425 AU
direct	1641 May 21 20:47	13° ♄ 46'03		desc. node	1642 Apr 24 09:35	26° ♄ 14'50	
morning max el	1641 Jun 04 11:05	20° ♄ 26'11	23°43'51	morning rise	1642 Apr 27 21:57	24° ♄ 33'04	
	1641 Jun 12 14:10	0° ♄		direct	1642 May 02 20:16	23° ♄ 36'50	
asc. node	1641 Jun 25 23:03	23° ♄ 11'59			1642 May 16 02:43	0° ♄	
morning set	1641 Jun 28 10:18	28° ♄ 18'37		morning max el	1642 May 17 01:32	0° ♄ 53'14	25°22'52
	1641 Jun 29 05:29	0° ♄			1642 Jun 06 07:15	0° ♄	
superior conj	1641 Jul 05 12:11	13° ♄ 31'32	1°25'42	morning set	1642 Jun 12 22:06	13° ♄ 15'00	
minimum elong	1641 Jul 05 09:49	13° ♄ 18'50	1°25'25	asc. node	1642 Jun 12 20:06	13° ♄ 04'30	
max. Earth dist.	1641 Jul 07 16:46	18° ♄ 13'10	1.33416 AU	superior conj	1642 Jun 19 22:27	28° ♄ 26'54	1°08'43
evening rise	1641 Jul 13 00:40	29° ♄ 15'12		minimum elong	1642 Jun 19 20:05	28° ♄ 13'57	1°08'18
	1641 Jul 13 09:37	0° ♄			1642 Jun 20 15:29	0° ♄	
	1641 Jul 30 12:36	0° ♄		max. Earth dist.	1642 Jun 21 00:30	0° ♄ 49'09	1.32643 AU
desc. node	1641 Aug 03 11:50	5° ♄ 45'35		evening rise	1642 Jun 27 01:59	13° ♄ 43'39	
evening max el	1641 Aug 15 18:19	20° ♄ 20'47	27°24'07		1642 Jul 05 11:52	0° ♄	
retrograde	1641 Aug 29 08:08	27° ♄ 38'38		desc. node	1642 Jul 21 08:52	24° ♄ 27'26	
evening set	1641 Sep 05 11:24	24° ♄ 58'16			1642 Jul 26 01:29	0° ♄	
min. Earth dist.	1641 Sep 09 04:04	21° ♄ 39'30	0.63984 AU	evening max el	1642 Jul 29 02:36	3° ♄ 06'16	27°18'31
inferior conj	1641 Sep 11 15:39	19° ♄ 04'25	-3°-12'-39	retrograde	1642 Aug 11 21:59	10° ♄ 22'16	
minimum elong	1641 Sep 11 20:30	18° ♄ 51'45	3°11'07	evening set	1642 Aug 19 02:26	7° ♄ 56'22	
morning rise	1641 Sep 18 07:43	13° ♄ 41'09		min. Earth dist.	1642 Aug 22 16:32	5° ♄ 05'44	0.62196 AU
direct	1641 Sep 20 19:50	13° ♄ 09'46		inferior conj	1642 Aug 25 16:03	2° ♄ 20'08	-4°-3'-2
asc. node	1641 Sep 21 22:16	13° ♄ 15'55		minimum elong	1642 Aug 25 21:17	2° ♄ 08'00	4°01'49
morning max el	1641 Sep 27 08:35	16° ♄ 35'35	17°54'55		1642 Aug 28 07:15	30° ♄ ♄	
	1641 Oct 06 22:08	0° ♄		morning rise	1642 Sep 01 18:50	27° ♄ 16'40	
morning set	1641 Oct 14 06:03	12° ♄ 27'33		direct	1642 Sep 04 04:18	26° ♄ 51'27	
	1641 Oct 24 15:25	0° ♄		asc. node	1642 Sep 08 19:19	28° ♄ 28'15	
superior conj	1641 Oct 27 01:18	3° ♄ 57'25	0°22'52		1642 Sep 10 16:12	0° ♄	
minimum elong	1641 Oct 27 03:47	4° ♄ 07'34	0°22'32	morning max el	1642 Sep 11 00:00	0° ♄ 18'46	17°53'32
desc. node	1641 Oct 30 11:08	9° ♄ 28'35		morning set	1642 Sep 26 23:22	25° ♄ 17'48	
max. Earth dist.	1641 Nov 01 14:06	12° ♄ 52'26	1.44357 AU		1642 Sep 29 14:07	0° ♄	
evening rise	1641 Nov 12 03:25	29° ♄ 22'46		superior conj	1642 Oct 07 22:56	14° ♄ 41'38	1°00'59
	1641 Nov 12 13:06	0° ♄		minimum elong	1642 Oct 08 03:33	15° ♄ 01'24	1°00'24

max. Earth dist.	1642 Oct 15 04:29	26° Ω 46'26	1.43020 AU	max. Earth dist.	1643 Sep 27 13:06	10° Ω 01'12	1.41222 AU
desc. node	1642 Oct 17 08:10	0° \mathbb{M} 15'47		evening rise	1643 Oct 02 15:39	18° Ω 28'57	
	1642 Oct 17 04:15	0° \mathbb{M}		desc. node	1643 Oct 04 05:13	21° Ω 00'30	
evening rise	1642 Oct 22 13:36	8° \mathbb{M} 33'03			1643 Oct 09 22:43	0° \mathbb{M}	
	1642 Nov 05 18:56	0° \mathcal{A}		greatest brilliancy	1643 Oct 31 02:41	29° \mathbb{M} 43'16	-0.2m
greatest brilliancy	1642 Nov 17 22:34	16° \mathcal{A} 38'40	-0.4m		1643 Oct 31 08:12	0° \mathcal{A}	
evening max el	1642 Nov 22 19:31	22° \mathcal{A} 12'56	21°39'57	evening max el	1643 Nov 05 11:39	5° \mathcal{A} 45'17	22°58'21
retrograde	1642 Dec 01 20:00	27° \mathcal{A} 35'01		retrograde	1643 Nov 15 14:47	11° \mathcal{A} 46'01	
asc. node	1642 Dec 05 18:35	26° \mathcal{A} 09'30		evening set	1643 Nov 20 08:50	9° \mathcal{A} 50'13	
evening set	1642 Dec 06 01:35	25° \mathcal{A} 56'11		asc. node	1643 Nov 22 15:37	7° \mathcal{A} 31'53	
inferior conj	1642 Dec 11 11:08	19° \mathcal{A} 37'11	1°51'18	inferior conj	1643 Nov 25 18:37	3° \mathcal{A} 25'54	1°03'24
minimum elong	1642 Dec 11 08:54	19° \mathcal{A} 44'55	1°50'30	minimum elong	1643 Nov 25 17:11	3° \mathcal{A} 30'49	1°02'50
min. Earth dist.	1642 Dec 11 15:06	19° \mathcal{A} 23'29	0.67693 AU	min. Earth dist.	1643 Nov 25 11:49	3° \mathcal{A} 49'22	0.67801 AU
morning rise	1642 Dec 16 15:59	13° \mathcal{A} 22'38			1643 Nov 28 08:49	30° \mathbb{R} \mathbb{M}	
direct	1642 Dec 21 14:39	11° \mathcal{A} 16'53		morning rise	1643 Dec 01 01:32	27° \mathbb{M} 14'11	
morning max el	1642 Dec 31 16:45	17° \mathcal{A} 16'06	23°02'34	direct	1643 Dec 05 09:28	25° \mathbb{M} 31'11	
greatest brilliancy	1643 Jan 05 12:41	22° \mathcal{A} 40'05	-0.3m		1643 Dec 13 12:56	0° \mathcal{A}	
	1643 Jan 11 05:39	0° \mathcal{B}		morning max el	1643 Dec 14 06:35	0° \mathcal{A} 43'23	21°37'13
desc. node	1643 Jan 13 07:24	2° \mathcal{B} 50'01		greatest brilliancy	1643 Dec 19 05:13	6° \mathcal{A} 20'11	-0.4m
	1643 Jan 31 09:06	0° \approx		desc. node	1643 Dec 31 04:28	22° \mathcal{A} 44'41	
morning set	1643 Feb 04 06:32	6° \approx 22'30			1644 Jan 05 01:58	0° \mathcal{B}	
max. Earth dist.	1643 Feb 08 18:16	13° \approx 58'47	1.39712 AU	morning set	1644 Jan 15 01:55	15° \mathcal{B} 27'17	
				max. Earth dist.	1644 Jan 21 17:44	26° \mathcal{B} 14'56	1.41788 AU
					1644 Jan 23 23:44	0° \approx	
superior conj	1643 Feb 16 11:03	27° \approx 42'19	-1°-55'-27				
minimum elong	1643 Feb 16 14:35	27° \approx 58'35	1°55'14	superior conj	1644 Jan 29 07:36	9° \approx 06'47	-2°-4'-17
	1643 Feb 17 16:51	0° \mathcal{H}		minimum elong	1644 Jan 29 08:13	9° \approx 09'29	2°04'18
evening rise	1643 Feb 26 02:25	15° \mathcal{H} 56'09		evening rise	1644 Feb 09 06:09	28° \approx 46'45	
asc. node	1643 Mar 03 17:55	26° \mathcal{H} 31'51			1644 Feb 09 22:08	0° \mathcal{H}	
	1643 Mar 05 17:03	0° \mathcal{Y}		asc. node	1644 Feb 18 14:57	15° \mathcal{H} 21'39	
evening max el	1643 Mar 14 06:51	11° \mathcal{Y} 56'17	18°31'24	evening max el	1644 Feb 25 15:59	24° \mathcal{H} 48'50	18°10'32
retrograde	1643 Mar 21 22:07	15° \mathcal{Y} 41'16		retrograde	1644 Mar 03 11:59	28° \mathcal{H} 15'58	
evening set	1643 Mar 24 06:15	15° \mathcal{Y} 21'17		evening set	1644 Mar 06 01:31	27° \mathcal{H} 47'25	
inferior conj	1643 Mar 31 18:52	10° \mathcal{Y} 51'13	2°40'43	inferior conj	1644 Mar 12 21:56	22° \mathcal{H} 56'08	3°25'59
minimum elong	1643 Mar 31 22:52	10° \mathcal{Y} 43'18	2°39'45	minimum elong	1644 Mar 13 00:30	22° \mathcal{H} 50'15	3°25'39
min. Earth dist.	1643 Apr 04 05:02	8° \mathcal{Y} 10'14	0.58249 AU	min. Earth dist.	1644 Mar 16 05:24	19° \mathcal{H} 55'13	0.60374 AU
morning rise	1643 Apr 08 11:17	5° \mathcal{Y} 27'22		morning rise	1644 Mar 19 20:10	17° \mathcal{H} 10'09	
desc. node	1643 Apr 11 06:36	4° \mathcal{Y} 22'19		direct	1644 Mar 26 11:58	15° \mathcal{H} 03'09	
direct	1643 Apr 14 09:54	3° \mathcal{Y} 56'54		desc. node	1644 Mar 28 03:39	15° \mathcal{H} 10'40	
morning max el	1643 Apr 28 19:06	11° \mathcal{Y} 36'13	26°44'17	morning max el	1644 Apr 09 18:34	22° \mathcal{H} 54'18	27°35'03
	1643 May 13 02:21	0° \mathcal{B}			1644 Apr 16 02:02	0° \mathcal{Y}	
morning set	1643 May 28 08:30	28° \mathcal{B} 06'18			1644 May 05 04:36	0° \mathcal{B}	
	1643 May 29 06:04	0° \mathbb{I}		morning set	1644 May 11 15:39	12° \mathcal{B} 45'33	
asc. node	1643 May 30 17:11	3° \mathbb{I} 07'39		asc. node	1644 May 16 14:14	23° \mathcal{B} 16'03	
				max. Earth dist.	1644 May 18 00:09	26° \mathcal{B} 21'06	1.32244 AU
superior conj	1643 Jun 04 10:10	13° \mathbb{I} 24'50	0°47'58				
minimum elong	1643 Jun 04 08:15	13° \mathbb{I} 14'17	0°47'35	superior conj	1644 May 18 21:35	28° \mathcal{B} 18'34	0°24'12
max. Earth dist.	1643 Jun 04 12:13	13° \mathbb{I} 36'05	1.32250 AU	minimum elong	1644 May 18 20:31	28° \mathcal{B} 12'41	0°23'58
evening rise	1643 Jun 11 08:57	28° \mathbb{I} 27'43			1644 May 19 16:03	0° \mathbb{I}	
	1643 Jun 12 02:38	0° \mathcal{O}		evening rise	1644 May 25 19:18	13° \mathbb{I} 19'07	
	1643 Jun 28 20:54	0° \mathcal{O}			1644 Jun 03 05:32	0° \mathcal{O}	
desc. node	1643 Jul 08 05:54	12° \mathcal{O} 07'33		evening max el	1644 Jun 22 00:53	26° \mathcal{O} 27'20	25°30'51
evening max el	1643 Jul 11 05:14	15° \mathcal{O} 10'04	26°39'54	desc. node	1644 Jun 24 02:56	28° \mathcal{O} 19'37	
retrograde	1643 Jul 25 04:31	22° \mathcal{O} 23'39			1644 Jun 26 06:50	0° \mathcal{O}	
evening set	1643 Jul 31 23:18	20° \mathcal{O} 25'54		retrograde	1644 Jul 06 01:31	3° \mathcal{O} 36'15	
min. Earth dist.	1643 Aug 04 18:50	17° \mathcal{O} 49'29	0.60176 AU	evening set	1644 Jul 11 21:26	2° \mathcal{O} 16'30	
inferior conj	1643 Aug 08 01:53	15° \mathcal{O} 09'17	-4°-40'-57		1644 Jul 15 22:37	30° \mathbb{R} \mathcal{O}	
minimum elong	1643 Aug 08 05:43	15° \mathcal{O} 01'28	4°40'28	min. Earth dist.	1644 Jul 16 13:01	29° \mathcal{O} 35'57	0.58129 AU
morning rise	1643 Aug 15 15:25	10° \mathcal{O} 28'12		inferior conj	1644 Jul 19 17:33	27° \mathcal{O} 21'24	-4°-56'-2
direct	1643 Aug 18 00:57	10° \mathcal{O} 06'45		minimum elong	1644 Jul 19 17:31	27° \mathcal{O} 21'26	4°56'04
morning max el	1643 Aug 25 11:47	13° \mathcal{O} 44'54	18°11'19	morning rise	1644 Jul 27 17:17	23° \mathcal{O} 03'03	
asc. node	1643 Aug 26 16:22	14° \mathcal{O} 58'38		direct	1644 Jul 30 05:24	22° \mathcal{O} 43'33	
	1643 Sep 05 13:19	0° \mathbb{P}		morning max el	1644 Aug 07 16:37	26° \mathcal{O} 43'32	18°49'34
morning set	1643 Sep 10 08:00	8° \mathbb{P} 52'15			1644 Aug 10 16:11	0° \mathcal{O}	
				asc. node	1644 Aug 12 13:26	2° \mathcal{O} 31'00	
superior conj	1643 Sep 19 22:11	26° \mathbb{P} 41'33	1°26'53	morning set	1644 Aug 24 03:26	22° \mathcal{O} 58'01	
minimum elong	1643 Sep 20 02:04	26° \mathbb{P} 59'04	1°26'31		1644 Aug 27 17:27	0° \mathbb{P}	
	1643 Sep 21 18:30	0° \mathcal{O}					

superior conj	1644 Sep 01 17:40	9° $\overline{\text{M}}$ 41'09	1°41'16	morning max el	1645 Jul 21 11:35	9° $\overline{\text{S}}$ 05'05	19°49'14
minimum elong	1644 Sep 01 19:41	9° $\overline{\text{M}}$ 50'46	1°41'10	asc. node	1645 Jul 30 10:30	20° $\overline{\text{S}}$ 51'25	
max. Earth dist.	1644 Sep 08 17:20	22° $\overline{\text{M}}$ 32'35	1.39198 AU		1645 Aug 04 12:04	0° $\overline{\text{Q}}$	
evening rise	1644 Sep 12 17:23	29° $\overline{\text{M}}$ 30'53		morning set	1645 Aug 08 06:18	7° $\overline{\text{Q}}$ 26'17	
	1644 Sep 13 00:13	0° $\overline{\text{Q}}$					
desc. node	1644 Sep 20 02:14	11° $\overline{\text{Q}}$ 38'24		superior conj	1645 Aug 16 04:01	23° $\overline{\text{Q}}$ 25'26	1°45'59
	1644 Oct 02 08:49	0° $\overline{\text{M}}$		minimum elong	1645 Aug 16 04:10	23° $\overline{\text{Q}}$ 26'13	1°45'59
evening max el	1644 Oct 18 00:41	19° $\overline{\text{M}}$ 21'19	24°18'12		1645 Aug 19 12:32	0° $\overline{\text{M}}$	
retrograde	1644 Oct 29 05:53	25° $\overline{\text{M}}$ 55'30		max. Earth dist.	1645 Aug 21 21:47	4° $\overline{\text{M}}$ 32'40	1.37197 AU
evening set	1644 Nov 03 13:53	23° $\overline{\text{M}}$ 42'37		evening rise	1645 Aug 25 18:20	11° $\overline{\text{M}}$ 38'17	
min. Earth dist.	1644 Nov 08 07:58	18° $\overline{\text{M}}$ 15'18	0.67575 AU		1645 Sep 05 15:23	0° $\overline{\text{Q}}$	
asc. node	1644 Nov 08 12:39	17° $\overline{\text{M}}$ 59'33		desc. node	1645 Sep 06 23:15	2° $\overline{\text{Q}}$ 05'04	
inferior conj	1644 Nov 09 01:13	17° $\overline{\text{M}}$ 17'18	0°10'48		1645 Sep 27 15:01	0° $\overline{\text{M}}$	
minimum elong	1644 Nov 09 00:57	17° $\overline{\text{M}}$ 18'11	0°10'41	evening max el	1645 Sep 30 12:41	3° $\overline{\text{M}}$ 00'35	25°32'19
transit middle	1644 Nov 09 00:57	17° $\overline{\text{M}}$ 18'11	0°10'41	retrograde	1645 Oct 12 16:25	9° $\overline{\text{M}}$ 59'08	
transit begin	1644 Nov 08 22:53	17° $\overline{\text{M}}$ 25'07		evening set	1645 Oct 18 15:00	7° $\overline{\text{M}}$ 30'43	
transit end	1644 Nov 09 03:00	17° $\overline{\text{M}}$ 11'15		min. Earth dist.	1645 Oct 23 01:03	2° $\overline{\text{M}}$ 38'55	0.67021 AU
morning rise	1644 Nov 14 12:18	11° $\overline{\text{M}}$ 10'54		inferior conj	1645 Oct 24 05:10	1° $\overline{\text{M}}$ 08'40	0°-45'-12
direct	1644 Nov 18 06:52	9° $\overline{\text{M}}$ 49'29		minimum elong	1645 Oct 24 06:19	1° $\overline{\text{M}}$ 04'56	0°44'43
morning max el	1644 Nov 26 03:31	14° $\overline{\text{M}}$ 20'45	20°21'41		1645 Oct 25 02:43	30° $\overline{\text{R}}$ $\overline{\text{Q}}$	
greatest brilliancy	1644 Dec 02 14:53	22° $\overline{\text{M}}$ 04'17	-0.5m	asc. node	1645 Oct 26 09:42	28° $\overline{\text{Q}}$ 25'51	
	1644 Dec 08 07:24	0° $\overline{\text{S}}$		morning rise	1645 Oct 29 22:21	25° $\overline{\text{Q}}$ 10'30	
desc. node	1644 Dec 17 01:31	12° $\overline{\text{S}}$ 59'27		direct	1645 Nov 02 05:25	24° $\overline{\text{Q}}$ 07'51	
morning set	1644 Dec 24 00:20	23° $\overline{\text{S}}$ 38'04		morning max el	1645 Nov 09 08:13	28° $\overline{\text{Q}}$ 08'12	19°19'47
	1644 Dec 28 02:21	0° $\overline{\text{S}}$			1645 Nov 11 01:38	0° $\overline{\text{M}}$	
max. Earth dist.	1645 Jan 03 01:10	9° $\overline{\text{S}}$ 26'58	1.43516 AU	greatest brilliancy	1645 Nov 18 22:38	10° $\overline{\text{M}}$ 32'47	-0.7m
					1645 Dec 01 16:54	0° $\overline{\text{S}}$	
superior conj	1645 Jan 09 03:07	19° $\overline{\text{S}}$ 21'44	-1°-58'-25	morning set	1645 Dec 03 00:55	2° $\overline{\text{S}}$ 04'13	
minimum elong	1645 Jan 08 22:36	19° $\overline{\text{S}}$ 03'05	1°58'13	desc. node	1645 Dec 03 22:31	3° $\overline{\text{S}}$ 28'08	
	1645 Jan 15 10:59	0° $\overline{\text{M}}$		max. Earth dist.	1645 Dec 16 15:43	23° $\overline{\text{S}}$ 21'57	1.44674 AU
evening rise	1645 Jan 21 17:24	10° $\overline{\text{M}}$ 50'15					
	1645 Feb 02 00:58	0° $\overline{\text{H}}$		superior conj	1645 Dec 19 20:40	28° $\overline{\text{S}}$ 26'58	-1°-33'-55
asc. node	1645 Feb 04 11:59	3° $\overline{\text{H}}$ 35'29		minimum elong	1645 Dec 19 12:04	27° $\overline{\text{S}}$ 52'48	1°33'08
evening max el	1645 Feb 08 04:13	8° $\overline{\text{H}}$ 00'00	18°09'08		1645 Dec 20 20:00	0° $\overline{\text{S}}$	
retrograde	1645 Feb 14 15:48	11° $\overline{\text{H}}$ 24'11		evening rise	1646 Jan 03 07:49	21° $\overline{\text{S}}$ 58'30	
evening set	1645 Feb 17 10:19	10° $\overline{\text{H}}$ 45'47			1646 Jan 08 03:44	0° $\overline{\text{M}}$	
inferior conj	1645 Feb 23 18:10	5° $\overline{\text{H}}$ 33'28	3°43'43	asc. node	1646 Jan 22 09:01	21° $\overline{\text{M}}$ 01'46	
minimum elong	1645 Feb 23 18:41	5° $\overline{\text{H}}$ 32'08	3°43'41	evening max el	1646 Jan 22 16:35	21° $\overline{\text{M}}$ 21'17	18°26'30
min. Earth dist.	1645 Feb 26 13:52	2° $\overline{\text{H}}$ 37'33	0.62467 AU	retrograde	1646 Jan 29 05:05	24° $\overline{\text{M}}$ 55'24	
	1645 Mar 01 11:15	30° $\overline{\text{R}}$ $\overline{\text{M}}$		evening set	1646 Feb 01 04:46	24° $\overline{\text{M}}$ 06'15	
morning rise	1645 Mar 02 00:49	29° $\overline{\text{M}}$ 33'57		inferior conj	1646 Feb 07 03:26	18° $\overline{\text{M}}$ 34'29	3°40'55
direct	1645 Mar 08 23:31	26° $\overline{\text{M}}$ 59'00		minimum elong	1646 Feb 07 02:15	18° $\overline{\text{M}}$ 37'54	3°40'49
desc. node	1645 Mar 15 00:42	28° $\overline{\text{M}}$ 40'36		min. Earth dist.	1646 Feb 09 07:52	16° $\overline{\text{M}}$ 02'36	0.64296 AU
	1645 Mar 17 04:58	0° $\overline{\text{H}}$		morning rise	1646 Feb 12 22:19	12° $\overline{\text{M}}$ 26'45	
morning max el	1645 Mar 22 23:45	4° $\overline{\text{H}}$ 53'51	27°49'02	direct	1646 Feb 19 18:37	9° $\overline{\text{M}}$ 37'47	
	1645 Apr 10 20:04	0° $\overline{\text{Y}}$		desc. node	1646 Mar 01 21:43	14° $\overline{\text{M}}$ 18'38	
morning set	1645 Apr 25 17:31	27° $\overline{\text{Y}}$ 06'06		morning max el	1646 Mar 05 08:38	17° $\overline{\text{M}}$ 28'57	27°26'53
	1645 Apr 27 03:34	0° $\overline{\text{S}}$			1646 Mar 15 19:57	0° $\overline{\text{H}}$	
max. Earth dist.	1645 May 01 08:33	8° $\overline{\text{S}}$ 51'49	1.32641 AU		1646 Apr 03 16:07	0° $\overline{\text{Y}}$	
				morning set	1646 Apr 09 11:26	10° $\overline{\text{Y}}$ 59'04	
superior conj	1645 May 03 07:00	13° $\overline{\text{S}}$ 02'29	0°-1'-53	max. Earth dist.	1646 Apr 14 09:32	20° $\overline{\text{Y}}$ 56'00	1.33459 AU
minimum elong	1645 May 03 07:05	13° $\overline{\text{S}}$ 02'58	0°01'52				
behind sun begin	1645 May 03 01:56	12° $\overline{\text{S}}$ 35'03		superior conj	1646 Apr 17 12:30	27° $\overline{\text{Y}}$ 29'53	0°-29'-22
behind sun end	1645 May 03 12:14	13° $\overline{\text{S}}$ 30'55		minimum elong	1646 Apr 17 13:57	27° $\overline{\text{Y}}$ 37'38	0°29'04
asc. node	1645 May 03 11:17	13° $\overline{\text{S}}$ 25'44			1646 Apr 18 16:41	0° $\overline{\text{S}}$	
evening rise	1645 May 10 07:05	28° $\overline{\text{S}}$ 11'20		asc. node	1646 Apr 20 08:19	3° $\overline{\text{S}}$ 32'08	
	1645 May 11 03:43	0° $\overline{\text{II}}$		evening rise	1646 Apr 24 18:27	12° $\overline{\text{S}}$ 57'27	
	1645 May 28 09:39	0° $\overline{\text{S}}$			1646 May 03 11:43	0° $\overline{\text{II}}$	
evening max el	1645 Jun 03 15:21	7° $\overline{\text{S}}$ 07'51	24°00'50	evening max el	1646 May 16 06:39	17° $\overline{\text{II}}$ 37'34	22°24'44
desc. node	1645 Jun 10 23:56	12° $\overline{\text{S}}$ 29'55		desc. node	1646 May 28 20:56	24° $\overline{\text{II}}$ 03'24	
retrograde	1645 Jun 17 10:17	14° $\overline{\text{S}}$ 03'44		retrograde	1646 May 29 06:44	24° $\overline{\text{II}}$ 03'46	
evening set	1645 Jun 21 20:37	13° $\overline{\text{S}}$ 20'23		evening set	1646 Jun 01 07:29	23° $\overline{\text{II}}$ 43'31	
min. Earth dist.	1645 Jun 28 02:10	10° $\overline{\text{S}}$ 19'24	0.56362 AU	min. Earth dist.	1646 Jun 09 13:40	20° $\overline{\text{II}}$ 09'08	0.55209 AU
inferior conj	1645 Jun 30 12:55	8° $\overline{\text{S}}$ 48'58	-4°-34'-29	inferior conj	1646 Jun 10 14:28	19° $\overline{\text{II}}$ 34'03	-3°-25'-43
minimum elong	1645 Jun 30 07:38	8° $\overline{\text{S}}$ 57'09	4°33'45	minimum elong	1646 Jun 10 06:40	19° $\overline{\text{II}}$ 45'06	3°23'35
morning rise	1645 Jul 08 22:11	4° $\overline{\text{S}}$ 49'33		morning rise	1646 Jun 19 08:08	15° $\overline{\text{II}}$ 42'19	
direct	1645 Jul 11 14:54	4° $\overline{\text{S}}$ 30'38		direct	1646 Jun 22 07:14	15° $\overline{\text{II}}$ 22'24	

morning max el	1646 Jul 03 19:12	20° Π 43'29	21°09'26	direct	1647 Jun 02 16:39	25° \mathcal{B} 27'38	
	1646 Jul 11 10:49	0° \mathfrak{S}			1647 Jun 13 18:12	0° Π	
asc. node	1646 Jul 17 07:32	9° \mathfrak{S} 48'27		morning max el	1647 Jun 15 16:36	1° Π 41'01	22°45'24
morning set	1646 Jul 23 14:06	22° \mathfrak{S} 10'01		asc. node	1647 Jul 04 04:35	29° Π 12'42	
	1646 Jul 27 08:14	0° \mathcal{Q}			1647 Jul 04 14:07	0° \mathfrak{S}	
				morning set	1647 Jul 08 00:46	7° \mathfrak{S} 02'54	
superior conj	1646 Jul 31 00:53	7° \mathcal{Q} 41'56	1°42'52				
minimum elong	1646 Jul 30 23:37	7° \mathcal{Q} 35'24	1°42'50	superior conj	1647 Jul 15 04:54	22° \mathfrak{S} 19'57	1°33'30
max. Earth dist.	1646 Aug 04 07:48	16° \mathcal{Q} 23'59	1.35427 AU	minimum elong	1647 Jul 15 02:46	22° \mathfrak{S} 08'40	1°33'17
evening rise	1646 Aug 08 14:20	24° \mathcal{Q} 40'47		max. Earth dist.	1647 Jul 18 02:35	28° \mathfrak{S} 26'57	1.34025 AU
	1646 Aug 11 11:13	0° \mathfrak{P}			1647 Jul 18 20:32	0° \mathcal{Q}	
desc. node	1646 Aug 24 20:15	22° \mathfrak{P} 14'48		evening rise	1647 Jul 23 00:43	8° \mathcal{Q} 25'36	
	1646 Aug 30 04:21	0° \mathfrak{A}			1647 Aug 03 23:15	0° \mathfrak{P}	
evening max el	1646 Sep 13 00:44	16° \mathfrak{A} 38'25	26°33'10	desc. node	1647 Aug 11 17:17	11° \mathfrak{P} 59'29	
retrograde	1646 Sep 25 21:55	23° \mathfrak{A} 51'34			1647 Aug 26 10:25	0° \mathfrak{A}	
evening set	1646 Oct 02 10:16	21° \mathfrak{A} 11'49		evening max el	1647 Aug 26 12:37	0° \mathfrak{A} 05'17	27°13'15
min. Earth dist.	1646 Oct 06 12:45	16° \mathfrak{A} 57'02	0.66118 AU	retrograde	1647 Sep 08 21:59	7° \mathfrak{A} 24'12	
inferior conj	1646 Oct 08 04:34	14° \mathfrak{A} 57'21	-1°-43'-3	evening set	1647 Sep 15 21:11	4° \mathfrak{A} 40'50	
minimum elong	1646 Oct 08 07:18	14° \mathfrak{A} 49'09	1°41'58	min. Earth dist.	1647 Sep 19 16:51	1° \mathfrak{A} 02'37	0.64857 AU
asc. node	1646 Oct 13 06:45	9° \mathfrak{A} 46'00			1647 Sep 20 15:43	30° \mathfrak{R} \mathfrak{P}	
morning rise	1646 Oct 14 05:35	9° \mathfrak{A} 10'22		inferior conj	1647 Sep 21 21:12	28° \mathfrak{P} 38'07	-2°-40'-44
direct	1646 Oct 17 03:17	8° \mathfrak{A} 22'53		minimum elong	1647 Sep 22 01:24	28° \mathfrak{P} 26'29	2°39'15
morning max el	1646 Oct 23 19:22	12° \mathfrak{A} 02'52	18°33'36	morning rise	1647 Sep 28 07:28	23° \mathfrak{P} 05'24	
	1646 Nov 05 16:14	0° \mathfrak{M}		asc. node	1647 Sep 30 03:47	22° \mathfrak{P} 32'26	
morning set	1646 Nov 13 01:01	11° \mathfrak{M} 44'57		direct	1647 Sep 30 22:15	22° \mathfrak{P} 29'17	
desc. node	1646 Nov 20 19:32	24° \mathfrak{M} 06'50		morning max el	1647 Oct 07 10:25	25° \mathfrak{P} 58'08	18°04'04
	1646 Nov 24 13:02	0° \mathfrak{J}			1647 Oct 10 20:36	0° \mathfrak{A}	
				morning set	1647 Oct 25 06:08	22° \mathfrak{A} 51'04	
superior conj	1646 Nov 28 22:36	6° \mathfrak{J} 55'03	0°-52'-26		1647 Oct 29 13:20	0° \mathfrak{M}	
minimum elong	1646 Nov 28 15:58	6° \mathfrak{J} 29'00	0°51'37	desc. node	1647 Nov 07 16:33	14° \mathfrak{M} 51'23	
max. Earth dist.	1646 Nov 29 10:12	7° \mathfrak{J} 40'32	1.45128 AU				
	1646 Dec 13 14:14	0° \mathfrak{Z}		superior conj	1647 Nov 08 05:50	15° \mathfrak{M} 44'29	0°-3'-43
evening rise	1646 Dec 14 22:54	2° \mathfrak{Z} 09'36		minimum elong	1647 Nov 08 05:23	15° \mathfrak{M} 42'38	0°03'39
	1647 Jan 02 02:13	0° \approx		behind sun begin	1647 Nov 07 18:56	15° \mathfrak{M} 00'55	
evening max el	1647 Jan 06 02:38	4° \approx 48'01	19°01'37	behind sun end	1647 Nov 08 15:49	16° \mathfrak{M} 24'18	
asc. node	1647 Jan 09 06:02	7° \approx 27'32		max. Earth dist.	1647 Nov 12 04:54	22° \mathfrak{M} 01'49	1.44838 AU
retrograde	1647 Jan 13 00:01	8° \approx 42'49			1647 Nov 17 06:46	0° \mathfrak{J}	
evening set	1647 Jan 16 05:49	7° \approx 41'52		evening rise	1647 Nov 24 16:53	11° \mathfrak{J} 31'25	
inferior conj	1647 Jan 21 22:09	1° \approx 53'03	3°23'05		1647 Dec 06 18:43	0° \mathfrak{Z}	
minimum elong	1647 Jan 21 19:56	2° \approx 00'04	3°22'42	greatest brilliancy	1647 Dec 13 02:07	9° \mathfrak{Z} 12'30	-0.6m
	1647 Jan 23 10:05	30° \mathfrak{R} \mathfrak{Z}		evening max el	1647 Dec 20 08:27	18° \mathfrak{Z} 16'58	19°52'57
min. Earth dist.	1647 Jan 23 11:15	29° \mathfrak{Z} 56'20	0.65754 AU	asc. node	1647 Dec 27 03:04	22° \mathfrak{Z} 37'51	
morning rise	1647 Jan 27 09:05	25° \mathfrak{Z} 40'28		retrograde	1647 Dec 27 21:31	22° \mathfrak{Z} 41'08	
direct	1647 Feb 02 20:24	22° \mathfrak{Z} 51'28		evening set	1647 Dec 31 11:02	21° \mathfrak{Z} 26'54	
	1647 Feb 15 07:09	0° \approx		inferior conj	1648 Jan 05 23:19	15° \mathfrak{Z} 23'56	2°54'00
morning max el	1647 Feb 15 18:34	0° \approx 28'26	26°34'10	minimum elong	1648 Jan 05 20:41	15° \mathfrak{Z} 32'44	2°53'20
desc. node	1647 Feb 16 18:45	1° \approx 30'35		min. Earth dist.	1648 Jan 06 22:26	14° \mathfrak{Z} 07'00	0.66809 AU
	1647 Mar 09 19:27	0° \mathfrak{H}		morning rise	1648 Jan 11 05:40	9° \mathfrak{Z} 08'57	
morning set	1647 Mar 23 17:55	24° \mathfrak{H} 14'07		direct	1648 Jan 17 04:03	6° \mathfrak{Z} 31'15	
	1647 Mar 26 17:52	0° \mathfrak{Y}		morning max el	1648 Jan 29 03:31	13° \mathfrak{Z} 39'39	25°19'38
max. Earth dist.	1647 Mar 27 23:40	2° \mathfrak{Y} 26'37	1.34724 AU	desc. node	1648 Feb 03 15:47	19° \mathfrak{Z} 49'11	
					1648 Feb 11 10:24	0° \approx	
superior conj	1647 Apr 01 11:54	11° \mathfrak{Y} 34'20	0°-57'-4		1648 Mar 01 14:21	0° \mathfrak{H}	
minimum elong	1647 Apr 01 14:45	11° \mathfrak{Y} 49'03	0°56'33	morning set	1648 Mar 05 08:16	6° \mathfrak{H} 37'37	
asc. node	1647 Apr 07 05:21	23° \mathfrak{Y} 31'17		max. Earth dist.	1648 Mar 09 02:05	13° \mathfrak{H} 30'54	1.36427 AU
evening rise	1647 Apr 09 03:28	27° \mathfrak{Y} 31'17					
	1647 Apr 10 08:23	0° \mathfrak{B}		superior conj	1648 Mar 15 02:26	25° \mathfrak{H} 08'13	-1°-23'-17
evening max el	1647 Apr 28 06:06	28° \mathfrak{B} 28'00	20°56'38	minimum elong	1648 Mar 15 06:22	25° \mathfrak{H} 27'46	1°22'44
	1647 Apr 29 22:59	0° Π			1648 Mar 17 12:46	0° \mathfrak{Y}	
retrograde	1647 May 09 20:10	4° Π 06'17		evening rise	1648 Mar 23 08:02	11° \mathfrak{Y} 46'23	
evening set	1647 May 12 00:54	3° Π 54'52		asc. node	1648 Mar 24 02:24	13° \mathfrak{Y} 18'52	
desc. node	1647 May 15 17:58	2° Π 48'52			1648 Apr 02 02:27	0° \mathfrak{B}	
inferior conj	1647 May 21 08:15	29° \mathfrak{B} 56'53	-1°-36'-59	evening max el	1648 Apr 09 17:19	9° \mathfrak{B} 56'58	19°44'51
minimum elong	1647 May 21 03:41	0° Π 03'22	1°35'23	retrograde	1648 Apr 19 13:44	14° \mathfrak{B} 42'00	
	1647 May 21 06:03	30° \mathfrak{R} \mathfrak{B}		evening set	1648 Apr 21 14:39	14° \mathfrak{B} 30'43	
min. Earth dist.	1647 May 22 02:08	29° \mathfrak{B} 31'31	0.54941 AU	inferior conj	1648 Apr 30 08:50	10° \mathfrak{B} 28'40	0°21'44
morning rise	1647 May 30 05:52	25° \mathfrak{B} 53'18		minimum elong	1648 Apr 30 09:47	10° \mathfrak{B} 27'11	0°21'23

desc. node	1648 May 01 15:00	9°♄41'36		min. Earth dist.	1649 Apr 14 08:37	19°♃13'12	0.57148 AU
min. Earth dist.	1648 May 02 16:21	9°♄02'32	0.55638 AU	desc. node	1649 Apr 18 12:03	16°♃45'34	
morning rise	1648 May 09 01:32	5°♄56'04		morning rise	1649 Apr 19 05:54	16°♃25'27	
direct	1648 May 13 09:19	5°♄14'27		direct	1649 Apr 24 15:23	15°♃15'22	
morning max el	1648 May 27 07:56	12°♄12'45	24°27'09	morning max el	1649 May 08 22:56	22°♃42'58	26°00'26
	1648 Jun 09 22:23	0°♄			1649 May 15 10:20	0°♄	
asc. node	1648 Jun 20 01:38	18°♄57'06			1649 Jun 02 15:23	0°♄	
morning set	1648 Jun 21 12:39	21°♄59'56		morning set	1649 Jun 06 00:02	6°♄54'42	
	1648 Jun 25 06:09	0°♄		asc. node	1649 Jun 06 22:42	8°♄54'44	
superior conj	1648 Jun 28 13:32	7°♄11'38	1°19'01	superior conj	1649 Jun 13 00:38	22°♄08'50	1°00'20
minimum elong	1648 Jun 28 11:07	6°♄58'29	1°18'39	minimum elong	1649 Jun 12 22:25	21°♄56'36	0°59'55
max. Earth dist.	1648 Jun 30 06:14	10°♄51'42	1.33032 AU	max. Earth dist.	1649 Jun 13 16:06	23°♄33'42	1.32434 AU
evening rise	1648 Jul 05 21:36	22°♄41'47			1649 Jun 16 15:02	0°♄	
	1648 Jul 09 14:10	0°♄		evening rise	1649 Jun 20 01:40	7°♄18'08	
	1648 Jul 27 18:09	0°♄			1649 Jul 02 02:01	0°♄	
desc. node	1648 Jul 28 14:19	1°♄08'36		desc. node	1649 Jul 15 11:21	19°♄26'43	
evening max el	1648 Aug 07 23:04	13°♄10'18	27°25'48	evening max el	1649 Jul 21 05:27	25°♄39'46	27°06'12
retrograde	1648 Aug 21 15:59	20°♄28'15			1649 Jul 26 15:01	0°♄	
evening set	1648 Aug 28 20:37	17°♄52'27		retrograde	1649 Aug 04 02:46	2°♄54'10	
min. Earth dist.	1648 Sep 01 11:32	14°♄46'42	0.63252 AU	evening set	1649 Aug 11 04:27	0°♄39'05	
inferior conj	1648 Sep 04 04:27	12°♄05'25	-3°-35'-7		1649 Aug 12 04:04	30°♄	
minimum elong	1648 Sep 04 09:37	11°♄52'33	3°33'38	min. Earth dist.	1649 Aug 14 19:44	27°♄56'12	0.61354 AU
morning rise	1648 Sep 11 01:01	6°♄50'07		inferior conj	1649 Aug 17 23:05	25°♄11'00	-4°-21'-12
direct	1648 Sep 13 11:32	6°♄21'49		minimum elong	1649 Aug 18 03:59	25°♄00'12	4°20'16
asc. node	1648 Sep 16 00:50	6°♄53'29		morning rise	1649 Aug 25 06:25	20°♄16'25	
morning max el	1648 Sep 20 02:32	9°♄47'39	17°52'02	direct	1649 Aug 27 15:36	19°♄53'01	
	1648 Oct 03 13:31	0°♄		asc. node	1649 Sep 02 21:53	22°♄40'27	
morning set	1648 Oct 06 12:04	5°♄08'42		morning max el	1649 Sep 03 16:41	23°♄23'57	17°58'39
					1649 Sep 08 22:41	0°♄	
superior conj	1648 Oct 18 11:37	25°♄41'45	0°40'27	morning set	1649 Sep 19 12:32	18°♄19'32	
minimum elong	1648 Oct 18 15:28	25°♄57'47	0°39'56		1649 Sep 25 22:08	0°♄	
	1648 Oct 21 02:11	0°♄		superior conj	1649 Sep 29 20:34	6°♄59'01	1°13'29
desc. node	1648 Oct 24 13:36	5°♄38'37		minimum elong	1649 Sep 30 01:08	7°♄18'56	1°12'57
max. Earth dist.	1648 Oct 24 21:19	6°♄09'37	1.43856 AU	max. Earth dist.	1649 Oct 07 09:29	19°♄48'54	1.42300 AU
evening rise	1648 Nov 03 00:57	20°♄33'32		desc. node	1649 Oct 11 10:39	26°♄25'14	
	1648 Nov 09 05:21	0°♄		evening rise	1649 Oct 13 16:16	29°♄59'17	
greatest brilliancy	1648 Nov 26 22:28	25°♄24'32	-0.5m		1649 Oct 13 16:27	0°♄	
	1648 Nov 30 17:10	0°♄			1649 Nov 02 19:57	0°♄	
evening max el	1648 Dec 02 08:56	1°♄47'12	20°57'56	greatest brilliancy	1649 Nov 10 10:50	10°♄00'18	-0.3m
retrograde	1648 Dec 10 19:14	6°♄46'49		evening max el	1649 Nov 15 03:54	15°♄18'51	22°12'50
asc. node	1648 Dec 13 00:06	6°♄19'41		retrograde	1649 Nov 24 15:24	20°♄57'04	
evening set	1648 Dec 14 18:23	5°♄17'32		evening set	1649 Nov 29 02:08	19°♄11'06	
	1648 Dec 19 12:00	30°♄		asc. node	1649 Nov 29 21:08	18°♄29'31	
inferior conj	1648 Dec 20 04:30	29°♄03'36	2°16'16	inferior conj	1649 Dec 04 11:38	12°♄49'39	1°31'40
minimum elong	1648 Dec 20 01:58	29°♄12'15	2°15'26	minimum elong	1649 Dec 04 09:41	12°♄56'21	1°30'56
min. Earth dist.	1648 Dec 20 15:07	28°♄27'06	0.67478 AU	min. Earth dist.	1649 Dec 04 10:57	12°♄51'59	0.67781 AU
morning rise	1648 Dec 25 09:09	22°♄48'21		morning rise	1649 Dec 09 17:05	6°♄36'13	
direct	1648 Dec 30 16:43	20°♄29'34		direct	1649 Dec 14 09:30	4°♄39'58	
morning max el	1649 Jan 10 11:53	26°♄55'54	23°53'25	morning max el	1649 Dec 23 22:40	10°♄18'16	22°25'30
	1649 Jan 13 08:26	0°♄		greatest brilliancy	1649 Dec 28 12:29	15°♄25'20	-0.3m
desc. node	1649 Jan 20 12:50	8°♄55'08		desc. node	1650 Jan 07 09:52	28°♄35'08	
	1649 Feb 04 01:43	0°♄			1650 Jan 08 09:42	0°♄	
morning set	1649 Feb 15 00:23	17°♄52'04		morning set	1650 Jan 26 12:33	27°♄44'19	
max. Earth dist.	1649 Feb 18 21:24	24°♄37'50	1.38475 AU		1650 Jan 27 21:42	0°♄	
	1649 Feb 21 20:57	0°♄		max. Earth dist.	1650 Jan 31 18:05	6°♄25'27	1.40626 AU
superior conj	1649 Feb 26 04:27	8°♄01'19	-1°-45'-38	superior conj	1650 Feb 08 13:21	20°♄02'25	-2°00'-41
minimum elong	1649 Feb 26 08:36	8°♄20'57	1°45'15	minimum elong	1650 Feb 08 15:58	20°♄14'11	2°00'35
evening rise	1649 Mar 07 05:33	25°♄34'54			1650 Feb 13 23:53	0°♄	
	1649 Mar 09 12:04	0°♄		evening rise	1650 Feb 18 16:53	8°♄49'41	
asc. node	1649 Mar 10 23:27	2°♄49'06		asc. node	1650 Feb 25 20:30	21°♄56'06	
evening max el	1649 Mar 23 15:21	22°♄04'10	18°52'24		1650 Mar 02 22:40	0°♄	
retrograde	1649 Mar 31 22:38	26°♄06'03		evening max el	1650 Mar 06 21:20	4°♄42'52	18°20'00
evening set	1649 Apr 03 03:47	25°♄50'00		retrograde	1650 Mar 14 02:48	8°♄18'10	
inferior conj	1649 Apr 11 03:06	21°♄31'44	1°59'34	evening set	1650 Mar 16 13:25	7°♄54'36	
minimum elong	1649 Apr 11 07:00	21°♄24'42	1°58'25				

inferior conj	1650 Mar 23 18:41	3°♿15'14	3°03'44	retrograde	1651 Feb 24 23:22	21°♿08'31	
minimum elong	1650 Mar 23 22:15	3°♿07'42	3°03'01	evening set	1651 Feb 27 14:57	20°♿35'56	
min. Earth dist.	1650 Mar 27 05:04	0°♿23'00	0.59148 AU	inferior conj	1651 Mar 06 05:34	15°♿35'18	3°36'26
	1650 Mar 27 16:46	30°♿		minimum elong	1651 Mar 06 07:15	15°♿31'11	3°36'17
morning rise	1650 Mar 31 03:17	27°♿41'01		min. Earth dist.	1651 Mar 09 08:38	12°♿33'48	0.61284 AU
desc. node	1650 Apr 05 09:05	25°♿57'51		morning rise	1651 Mar 12 20:44	9°♿42'25	
direct	1650 Apr 06 10:24	25°♿54'53		direct	1651 Mar 19 16:28	7°♿22'23	
	1650 Apr 16 14:01	0°♿		desc. node	1651 Mar 23 06:06	7°♿57'38	
morning max el	1650 Apr 20 18:47	3°♿39'12	27°10'05	morning max el	1651 Apr 02 21:06	15°♿16'00	27°45'38
	1650 May 10 00:18	0°♿			1651 Apr 14 20:52	0°♿	
morning set	1650 May 21 09:17	21°♿41'41			1651 May 02 11:57	0°♿	
asc. node	1650 May 24 19:46	29°♿00'41		morning set	1651 May 05 14:31	6°♿14'30	
	1650 May 25 06:43	0°♿		max. Earth dist.	1651 May 11 15:39	19°♿03'59	1.32366 AU
max. Earth dist.	1650 May 28 04:33	6°♿22'14	1.32212 AU	asc. node	1651 May 11 16:50	19°♿10'26	
superior conj	1650 May 28 12:25	7°♿05'34	0°38'12	superior conj	1651 May 12 23:12	21°♿56'06	0°13'22
minimum elong	1650 May 28 10:49	6°♿56'44	0°37'52	minimum elong	1651 May 12 22:36	21°♿52'45	0°13'14
evening rise	1650 Jun 04 10:21	22°♿06'21		behind sun begin	1651 May 12 19:46	21°♿37'20	
	1650 Jun 08 06:40	0°♿		behind sun end	1651 May 13 01:25	22°♿08'10	
	1650 Jun 26 14:03	0°♿			1651 May 16 15:41	0°♿	
desc. node	1650 Jul 02 08:23	6°♿32'47		evening rise	1651 May 19 21:33	6°♿59'12	
evening max el	1650 Jul 03 05:11	7°♿23'30	26°13'43		1651 May 31 23:17	0°♿	
retrograde	1650 Jul 17 05:01	14°♿34'46		evening max el	1651 Jun 14 21:58	18°♿22'41	24°54'08
evening set	1650 Jul 23 15:58	12°♿52'30		desc. node	1651 Jun 19 05:23	21°♿58'02	
min. Earth dist.	1650 Jul 27 17:58	10°♿16'46	0.59297 AU	retrograde	1651 Jun 28 21:16	25°♿28'10	
inferior conj	1650 Jul 31 01:31	7°♿45'13	-4°-50'-55	evening set	1651 Jul 04 03:58	24°♿24'36	
minimum elong	1650 Jul 31 04:01	7°♿40'26	4°50'45	min. Earth dist.	1651 Jul 09 09:20	21°♿37'15	0.57323 AU
morning rise	1650 Aug 07 19:29	3°♿13'54		inferior conj	1651 Jul 12 08:37	19°♿39'16	-4°-52'-12
direct	1650 Aug 10 06:02	2°♿53'19		minimum elong	1651 Jul 12 06:22	19°♿43'02	4°52'05
morning max el	1650 Aug 18 01:47	6°♿38'57	18°25'03	morning rise	1651 Jul 20 12:34	15°♿30'17	
asc. node	1650 Aug 20 18:58	9°♿38'45		direct	1651 Jul 23 02:28	15°♿11'13	
	1650 Sep 01 23:20	0°♿		morning max el	1651 Aug 01 02:50	19°♿23'53	19°12'25
morning set	1650 Sep 03 02:11	2°♿08'25		asc. node	1651 Aug 07 16:01	27°♿33'38	
					1651 Aug 09 04:54	0°♿	
superior conj	1650 Sep 12 05:05	19°♿26'01	1°34'18	morning set	1651 Aug 18 01:09	16°♿25'14	
minimum elong	1650 Sep 12 08:14	19°♿40'32	1°34'04		1651 Aug 24 21:14	0°♿	
	1650 Sep 18 02:01	0°♿		superior conj	1651 Aug 26 07:34	2°♿47'20	1°44'20
max. Earth dist.	1650 Sep 19 16:21	2°♿46'38	1.40370 AU	minimum elong	1651 Aug 26 08:45	2°♿53'08	1°44'18
evening rise	1650 Sep 24 03:55	10°♿21'30		max. Earth dist.	1651 Sep 01 19:54	15°♿02'31	1.38322 AU
desc. node	1650 Sep 28 07:40	17°♿07'23		evening rise	1651 Sep 05 15:55	21°♿52'32	
	1650 Oct 06 15:52	0°♿			1651 Sep 10 10:32	0°♿	
evening max el	1650 Oct 28 18:23	28°♿52'16	23°32'36	desc. node	1651 Sep 15 04:42	7°♿41'29	
	1650 Oct 29 22:20	0°♿			1651 Sep 30 14:16	0°♿	
retrograde	1650 Nov 08 08:38	5°♿07'53		evening max el	1651 Oct 11 06:32	12°♿29'23	24°50'51
evening set	1650 Nov 13 08:37	3°♿04'29		retrograde	1651 Oct 22 22:00	19°♿15'52	
	1650 Nov 16 06:27	30°♿		evening set	1651 Oct 28 12:13	16°♿55'47	
asc. node	1650 Nov 16 18:11	29°♿22'50		min. Earth dist.	1651 Nov 02 02:40	11°♿43'26	0.67376 AU
inferior conj	1650 Nov 18 18:53	26°♿39'17	0°41'36	inferior conj	1651 Nov 03 00:33	10°♿31'05	0°-12'-37
minimum elong	1650 Nov 18 17:55	26°♿42'36	0°41'11	minimum elong	1651 Nov 03 00:52	10°♿30'02	0°12'31
min. Earth dist.	1650 Nov 18 07:34	27°♿18'00	0.67742 AU	transit middle	1651 Nov 03 00:52	10°♿30'02	0°12'31
morning rise	1650 Nov 24 03:21	20°♿29'49		transit begin	1651 Nov 02 23:07	10°♿35'51	
direct	1650 Nov 28 05:24	18°♿56'24		transit end	1651 Nov 03 02:38	10°♿24'14	
morning max el	1650 Dec 06 15:21	23°♿49'46	21°03'45	asc. node	1651 Nov 03 15:13	9°♿42'49	
	1650 Dec 11 23:45	0°♿		morning rise	1651 Nov 08 14:02	4°♿27'57	
greatest brilliancy	1650 Dec 12 02:15	0°♿07'56	-0.5m	direct	1651 Nov 12 03:21	3°♿15'08	
desc. node	1650 Dec 25 06:54	18°♿38'59		morning max el	1651 Nov 19 15:44	7°♿32'15	19°53'33
	1651 Jan 01 19:06	0°♿		greatest brilliancy	1651 Nov 27 03:00	16°♿42'34	-0.6m
morning set	1651 Jan 05 21:01	6°♿19'51			1651 Dec 06 05:50	0°♿	
max. Earth dist.	1651 Jan 13 21:19	19°♿08'02	1.42580 AU	desc. node	1651 Dec 12 03:55	9°♿00'14	
	1651 Jan 20 10:02	0°♿		morning set	1651 Dec 15 16:59	14°♿27'29	
					1651 Dec 25 15:38	0°♿	
superior conj	1651 Jan 20 23:39	0°♿57'56	-2°-3'-54	max. Earth dist.	1651 Dec 27 07:39	2°♿38'53	1.44082 AU
minimum elong	1651 Jan 20 22:17	0°♿52'05	2°03'53				
evening rise	1651 Feb 01 14:07	21°♿21'29		superior conj	1652 Jan 01 07:37	10°♿41'07	-1°-50'-23
	1651 Feb 06 10:09	0°♿		minimum elong	1652 Jan 01 00:55	10°♿13'54	1°49'57
asc. node	1651 Feb 12 17:31	10°♿31'52			1652 Jan 12 22:13	0°♿	
evening max el	1651 Feb 18 08:04	17°♿43'59	18°07'30				

evening rise	1652 Jan 14 16:56	3°02'04		max. Earth dist.	1652 Dec 08 23:38	16°43'58	1.44952 AU
asc. node	1652 Jan 30 14:32	28°27'00					
	1652 Jan 31 22:00	0°		superior conj	1652 Dec 10 16:30	19°24'54	-1°-17'-59
evening max el	1652 Feb 01 20:36	0°59'56	18°14'18	minimum elong	1652 Dec 10 07:53	18°50'57	1°17'04
retrograde	1652 Feb 08 07:44	4°27'13			1652 Dec 17 08:41	0°	
evening set	1652 Feb 11 04:14	3°44'33		evening rise	1652 Dec 25 21:29	13°45'26	
	1652 Feb 15 20:00	30°			1653 Jan 04 22:05	0°	
inferior conj	1652 Feb 17 07:49	28°23'50	3°44'40	evening max el	1653 Jan 15 08:18	14°24'33	18°39'28
minimum elong	1652 Feb 17 07:33	28°24'36	3°44'39	asc. node	1653 Jan 16 11:33	15°29'39	
min. Earth dist.	1652 Feb 19 21:17	25°35'58	0.63280 AU	retrograde	1653 Jan 21 23:43	18°06'09	
morning rise	1652 Feb 23 08:57	22°20'02		evening set	1653 Jan 25 01:50	17°12'13	
direct	1652 Mar 01 07:33	19°37'05		inferior conj	1653 Jan 30 21:31	11°33'13	3°34'55
desc. node	1652 Mar 09 03:07	22°26'15		minimum elong	1653 Jan 30 19:48	11°38'21	3°34'43
morning max el	1652 Mar 15 04:19	27°32'30	27°43'47	min. Earth dist.	1653 Feb 01 19:27	9°15'04	0.64961 AU
	1652 Mar 17 12:34	0°		morning rise	1653 Feb 05 12:34	5°23'11	
	1652 Apr 07 13:23	0°		direct	1653 Feb 12 05:50	2°32'14	
morning set	1652 Apr 18 13:23	20°25'03		desc. node	1653 Feb 24 00:08	8°48'07	
	1652 Apr 23 05:15	0°		morning max el	1653 Feb 25 13:45	10°19'11	27°07'44
max. Earth dist.	1652 Apr 23 21:15	1°24'34	1.32930 AU		1653 Mar 13 02:46	0°	
					1653 Mar 30 23:50	0°	
superior conj	1652 Apr 26 07:13	6°34'10	0°-13'-25	morning set	1653 Apr 02 02:57	4°04'02	
minimum elong	1652 Apr 26 07:52	6°37'41	0°13'18	max. Earth dist.	1653 Apr 06 17:44	13°14'17	1.33935 AU
behind sun begin	1652 Apr 26 04:56	6°21'58					
behind sun end	1652 Apr 26 10:47	6°53'25		superior conj	1653 Apr 10 10:28	20°53'36	0°-41'-9
asc. node	1652 Apr 27 13:51	9°19'26		minimum elong	1653 Apr 10 12:31	21°04'25	0°40'45
evening rise	1652 May 03 09:22	21°49'45		asc. node	1653 Apr 14 10:53	29°23'51	
	1652 May 07 08:39	0°			1653 Apr 14 17:42	0°	
evening max el	1652 May 26 11:48	28°55'07	23°19'48	evening rise	1653 Apr 17 19:59	6°32'01	
	1652 May 27 15:43	0°			1653 Apr 30 13:34	0°	
desc. node	1652 Jun 05 02:24	5°05'59		evening max el	1653 May 08 06:04	9°31'54	21°45'46
retrograde	1652 Jun 09 01:11	5°41'29		retrograde	1653 May 20 17:16	15°38'47	
evening set	1652 Jun 12 19:59	5°10'05		desc. node	1653 May 22 23:23	15°27'21	
min. Earth dist.	1652 Jun 19 21:46	1°56'11	0.55773 AU	evening set	1653 May 23 07:19	15°23'49	
inferior conj	1652 Jun 21 19:47	0°48'17	-4°-11'-16	inferior conj	1653 Jun 01 16:31	11°21'30	-2°-43'-10
minimum elong	1652 Jun 21 12:49	0°58'38	4°09'52	minimum elong	1653 Jun 01 09:26	11°31'25	2°40'56
	1652 Jun 23 04:46	30°		min. Earth dist.	1653 Jun 01 09:46	11°30'57	0.54983 AU
morning rise	1652 Jun 30 08:52	26°53'58		morning rise	1653 Jun 10 12:37	7°26'52	
direct	1652 Jul 03 03:38	26°35'06		direct	1653 Jun 13 15:53	7°05'12	
	1652 Jul 11 23:37	0°		morning max el	1653 Jun 25 20:07	12°48'56	21°48'35
morning max el	1652 Jul 13 17:11	1°28'35	20°20'59		1653 Jul 08 11:58	0°	
asc. node	1652 Jul 24 13:04	16°11'13		asc. node	1653 Jul 11 10:08	5°21'10	
	1652 Jul 31 18:24	0°		morning set	1653 Jul 16 15:40	15°49'32	
morning set	1652 Aug 01 06:24	1°01'03			1653 Jul 23 09:04	0°	
superior conj	1652 Aug 08 22:53	16°04'11	1°45'31	superior conj	1653 Jul 23 23:10	1°04'01	1°39'35
minimum elong	1652 Aug 08 22:23	16°04'36	1°45'31	minimum elong	1653 Jul 23 21:29	1°05'08	1°39'28
max. Earth dist.	1652 Aug 14 01:41	26°05'13	1.36405 AU	max. Earth dist.	1653 Jul 27 15:19	8°04'57	1.34793 AU
	1652 Aug 15 16:38	0°		evening rise	1653 Aug 01 04:21	17°04'05	
evening rise	1652 Aug 18 01:37	4°25'33			1653 Aug 07 19:34	0°	
desc. node	1652 Sep 01 01:43	28°01'55		desc. node	1653 Aug 18 22:45	18°02'04	
	1652 Sep 02 08:38	0°			1653 Aug 27 14:54	0°	
evening max el	1652 Sep 22 18:25	26°08'43	26°00'17	evening max el	1653 Sep 05 06:46	9°44'04	26°53'11
	1652 Sep 27 06:04	0°		retrograde	1653 Sep 18 09:47	17°00'03	
retrograde	1652 Oct 05 06:36	3°15'22		evening set	1653 Sep 25 03:07	14°18'00	
evening set	1652 Oct 11 11:05	0°41'34		min. Earth dist.	1653 Sep 29 02:43	10°18'41	0.65628 AU
	1652 Oct 12 05:43	30°		inferior conj	1653 Sep 30 23:40	8°08'04	-2°-7'-44
min. Earth dist.	1652 Oct 15 17:53	26°05'07	0.66676 AU	minimum elong	1653 Oct 01 03:03	7°58'13	2°06'25
inferior conj	1652 Oct 17 02:50	24°21'55	-1°-9'-38	morning rise	1653 Oct 07 04:26	2°26'25	
minimum elong	1652 Oct 17 04:39	24°16'13	1°08'54	asc. node	1653 Oct 07 09:18	2°20'30	
asc. node	1652 Oct 20 12:15	20°26'13		direct	1653 Oct 09 22:55	1°44'08	
morning rise	1652 Oct 22 23:08	18°27'56		morning max el	1653 Oct 16 12:27	5°18'21	18°18'51
direct	1652 Oct 26 01:52	17°32'18			1653 Nov 02 08:41	0°	
morning max el	1652 Nov 01 23:23	21°23'10	18°58'04	morning set	1653 Nov 04 14:20	3°38'16	
	1652 Nov 08 20:22	0°		desc. node	1653 Nov 14 22:00	20°15'16	
morning set	1652 Nov 24 01:44	23°20'22					
desc. node	1652 Nov 28 00:58	29°33'44		superior conj	1653 Nov 19 17:52	27°54'02	0°-31'-51
	1652 Nov 28 07:40	0°		minimum elong	1653 Nov 19 13:44	27°37'44	0°31'18

	1653 Nov 21 01:52	0°♊		superior conj	1654 Oct 30 09:23	7°♍09'07	0°16'09
max. Earth dist.	1653 Nov 21 18:46	1°♊06'28	1.45097 AU	minimum elong	1654 Oct 30 11:12	7°♍16'32	0°15'53
evening rise	1653 Dec 06 02:46	23°♊33'04		behind sun begin	1654 Oct 30 09:17	7°♍08'46	
	1653 Dec 10 05:40	0°♋		behind sun end	1654 Oct 30 13:07	7°♍24'18	
greatest brilliancy	1653 Dec 20 16:29	16°♋04'37	-0.7m	desc. node	1654 Nov 01 19:04	11°♍01'47	
evening max el	1653 Dec 29 16:49	27°♋52'41	19°21'44	max. Earth dist.	1654 Nov 04 13:31	15°♍27'02	1.44504 AU
	1654 Jan 01 00:56	0°♌			1654 Nov 13 20:36	0°♊	
asc. node	1654 Jan 03 08:35	1°♌25'10		evening rise	1654 Nov 15 14:50	2°♊42'53	
retrograde	1654 Jan 05 19:56	1°♌58'37			1654 Dec 03 20:24	0°♋	
evening set	1654 Jan 09 04:55	0°♌52'04		greatest brilliancy	1654 Dec 06 11:55	3°♋39'30	-0.6m
	1654 Jan 10 08:22	30°♌♋		evening max el	1654 Dec 12 20:28	11°♋22'26	20°19'04
inferior conj	1654 Jan 14 19:16	24°♋57'00	3°11'55	retrograde	1654 Dec 20 17:50	16°♋00'56	
minimum elong	1654 Jan 14 16:47	25°♋05'00	3°11'24	asc. node	1654 Dec 21 05:37	15°♋59'35	
min. Earth dist.	1654 Jan 16 02:13	23°♋17'04	0.66252 AU	evening set	1654 Dec 24 11:17	14°♋40'17	
morning rise	1654 Jan 20 03:53	18°♋43'26		inferior conj	1654 Dec 29 22:25	8°♋32'03	2°38'56
direct	1654 Jan 26 10:10	15°♋58'05		minimum elong	1654 Dec 29 19:46	8°♋41'01	2°38'10
morning max el	1654 Feb 07 23:11	23°♋23'56	26°04'37	min. Earth dist.	1654 Dec 30 15:56	7°♋32'46	0.67142 AU
desc. node	1654 Feb 10 21:11	26°♋30'54		morning rise	1655 Jan 04 03:44	2°♋16'52	
	1654 Feb 13 20:24	0°♌			1655 Jan 08 02:25	30°♌♊	
	1654 Mar 06 11:08	0°♍		direct	1655 Jan 09 19:53	29°♊46'50	
morning set	1654 Mar 16 03:11	16°♍58'29			1655 Jan 11 15:06	0°♋	
max. Earth dist.	1654 Mar 20 02:42	24°♍31'23	1.35399 AU	morning max el	1655 Jan 21 07:49	6°♋38'13	24°43'50
	1654 Mar 22 21:35	0°♎		desc. node	1655 Jan 28 18:15	15°♋11'38	
					1655 Feb 08 11:56	0°♌	
superior conj	1654 Mar 25 06:28	4°♎46'04	-1°-8'-28	morning set	1655 Feb 26 08:48	28°♌54'06	
minimum elong	1654 Mar 25 09:50	5°♎03'13	1°07'55		1655 Feb 26 23:41	0°♍	
asc. node	1654 Apr 01 07:55	19°♎18'41		max. Earth dist.	1655 Mar 02 01:37	5°♍33'36	1.37272 AU
evening rise	1654 Apr 02 03:23	20°♎58'39					
	1654 Apr 06 15:49	0°♏		superior conj	1655 Mar 08 16:07	18°♍03'17	-1°-33'-25
evening max el	1654 Apr 20 10:25	20°♏37'35	20°23'50	minimum elong	1655 Mar 08 20:18	18°♍23'38	1°32'55
retrograde	1654 May 01 06:32	25°♏52'29			1655 Mar 14 16:42	0°♎	
evening set	1654 May 03 08:22	25°♏41'44		evening rise	1655 Mar 17 05:16	5°♎03'10	
desc. node	1654 May 09 20:24	23°♏13'11		asc. node	1655 Mar 19 04:57	8°♎59'20	
inferior conj	1654 May 12 11:21	21°♏43'50	0°-45'-46		1655 Mar 31 21:29	0°♏	
minimum elong	1654 May 12 09:11	21°♏46'59	0°45'00	evening max el	1655 Apr 03 02:19	2°♏22'12	19°20'01
min. Earth dist.	1654 May 13 22:33	20°♏52'30	0.55131 AU	retrograde	1655 Apr 12 05:59	6°♏47'35	
morning rise	1654 May 21 08:10	17°♏29'54		evening set	1655 Apr 14 08:08	6°♏34'44	
direct	1654 May 25 03:08	16°♏58'51		inferior conj	1655 Apr 22 18:27	2°♏26'21	1°07'01
morning max el	1654 Jun 07 14:05	23°♏32'07	23°28'42	minimum elong	1655 Apr 22 21:07	2°♏21'57	1°06'07
	1654 Jun 13 09:26	0°♐		min. Earth dist.	1655 Apr 25 13:18	0°♏36'30	0.56194 AU
asc. node	1654 Jun 28 07:12	24°♐55'00		desc. node	1655 Apr 26 17:26	29°♐52'48	
	1654 Jun 30 18:29	0°♑			1655 Apr 26 12:41	30°♌♎	
morning set	1654 Jul 01 03:06	0°♑45'10		morning rise	1655 May 01 06:08	27°♎39'15	
				direct	1655 May 06 00:30	26°♎47'16	
					1655 May 15 07:15	0°♏	
superior conj	1654 Jul 08 05:27	15°♑58'45	1°27'55	morning max el	1655 May 20 04:37	3°♏59'37	25°08'59
minimum elong	1654 Jul 08 03:08	15°♑46'20	1°27'38		1655 Jun 07 16:21	0°♐	
max. Earth dist.	1654 Jul 10 14:25	21°♑02'36	1.33561 AU	asc. node	1655 Jun 15 04:15	14°♐45'41	
	1654 Jul 14 22:13	0°♒		morning set	1655 Jun 15 14:58	15°♐42'02	
evening rise	1654 Jul 15 19:41	1°♒47'44			1655 Jun 22 05:33	0°♑	
	1654 Jul 31 17:17	0°♓					
desc. node	1654 Aug 05 19:46	7°♓33'19		superior conj	1655 Jun 22 15:21	0°♑53'33	1°11'33
evening max el	1654 Aug 18 18:28	23°♓04'04	27°22'14	minimum elong	1655 Jun 22 12:57	0°♑40'27	1°11'10
	1654 Aug 29 12:38	0°♈		max. Earth dist.	1655 Jun 23 21:09	3°♑35'52	1.32727 AU
retrograde	1654 Sep 01 07:08	0°♈22'12		evening rise	1655 Jun 29 19:54	16°♑13'16	
	1654 Sep 03 23:08	30°♓♓			1655 Jul 06 21:31	0°♒	
evening set	1654 Sep 08 09:36	27°♓40'39		desc. node	1655 Jul 23 16:48	26°♒23'06	
min. Earth dist.	1654 Sep 12 02:58	24°♓17'07	0.64221 AU		1655 Jul 26 14:47	0°♓	
inferior conj	1654 Sep 14 12:42	21°♓44'29	-3°-4'-27	evening max el	1655 Aug 01 03:19	5°♓54'56	27°21'29
minimum elong	1654 Sep 14 17:25	21°♓32'01	3°02'53	retrograde	1655 Aug 14 22:11	13°♓11'45	
morning rise	1654 Sep 21 03:15	16°♓18'44		evening set	1655 Aug 22 03:00	10°♓42'42	
direct	1654 Sep 23 16:00	15°♓46'13		min. Earth dist.	1655 Aug 25 17:01	7°♓48'38	0.62477 AU
asc. node	1654 Sep 24 06:22	15°♓48'04		inferior conj	1655 Aug 28 15:00	5°♓03'33	-3°-56'-3
morning max el	1654 Sep 30 04:20	19°♓12'26	17°56'46	minimum elong	1655 Aug 28 20:16	4°♓51'07	3°54'46
	1654 Oct 03 04:47	0°♉		morning rise	1655 Sep 04 16:11	29°♒57'03	
morning set	1654 Oct 17 06:53	15°♉18'07			1655 Sep 04 12:56	30°♓♒	
	1654 Oct 26 00:32	0°♊		direct	1655 Sep 07 01:48	29°♒31'10	

	1655 Sep 09 13:42	0°♍		morning rise	1656 Aug 17 15:10	13°♏12'43	
asc. node	1655 Sep 11 03:27	0°♍47'29		direct	1656 Aug 20 00:26	12°♏50'53	
morning max el	1655 Sep 13 20:04	2°♍57'50	17°52'33	morning max el	1656 Aug 27 08:33	16°♏26'56	18°07'20
morning set	1655 Sep 29 21:25	28°♍00'23		asc. node	1656 Aug 28 00:30	17°♏07'03	
	1655 Oct 01 00:10	0°♎			1656 Sep 05 21:24	0°♍	
				morning set	1656 Sep 12 04:03	11°♍28'58	
superior conj	1655 Oct 11 02:53	17°♎41'18	0°55'58				
minimum elong	1655 Oct 11 07:25	18°♎00'31	0°55'23	superior conj	1656 Sep 21 22:33	29°♍30'23	1°23'43
max. Earth dist.	1655 Oct 18 04:21	29°♎24'40	1.43252 AU	minimum elong	1656 Sep 22 02:39	29°♍48'45	1°23'19
	1655 Oct 18 13:04	0°♎			1656 Sep 22 05:10	0°♎	
desc. node	1655 Oct 19 16:07	1°♎49'13		max. Earth dist.	1656 Sep 29 13:39	12°♎45'08	1.41513 AU
evening rise	1655 Oct 25 23:51	11°♎49'31		evening rise	1656 Oct 04 22:44	21°♎36'32	
	1655 Nov 06 23:55	0°♏		desc. node	1656 Oct 05 13:08	22°♎34'26	
greatest brilliancy	1655 Nov 20 18:44	19°♏08'25	-0.4m		1656 Oct 10 06:06	0°♎	
evening max el	1655 Nov 25 18:25	24°♏52'30	21°28'45		1656 Oct 31 05:02	0°♏	
	1655 Dec 03 07:21	0°♏		greatest brilliancy	1656 Nov 02 10:48	2°♏47'13	-0.3m
retrograde	1655 Dec 04 15:12	0°♏08'55		evening max el	1656 Nov 07 11:13	8°♏24'27	22°46'31
	1655 Dec 05 22:08	30°♏♏		retrograde	1656 Nov 17 10:21	14°♏19'31	
asc. node	1655 Dec 08 02:40	29°♏01'57		evening set	1656 Nov 22 02:25	12°♏26'23	
evening set	1655 Dec 08 19:01	28°♏32'39		asc. node	1656 Nov 23 23:43	10°♏35'42	
inferior conj	1655 Dec 14 04:40	22°♏14'45	1°58'07	inferior conj	1656 Nov 27 12:05	6°♏02'43	1°11'02
minimum elong	1655 Dec 14 02:20	22°♏22'47	1°57'16	minimum elong	1656 Nov 27 10:30	6°♏08'08	1°10'23
min. Earth dist.	1655 Dec 14 10:19	21°♏55'13	0.67649 AU	min. Earth dist.	1656 Nov 27 06:53	6°♏20'40	0.67805 AU
morning rise	1655 Dec 19 09:22	15°♏59'52		morning rise	1656 Dec 02 18:32	29°♎50'24	
direct	1655 Dec 24 10:19	13°♏50'40			1656 Dec 02 13:54	30°♎♎	
morning max el	1656 Jan 03 16:56	19°♏57'17	23°15'40	direct	1656 Dec 07 04:39	28°♎03'55	
greatest brilliancy	1656 Jan 08 21:04	25°♏45'38	-0.2m		1656 Dec 12 07:53	0°♏	
	1656 Jan 12 05:38	0°♏		morning max el	1656 Dec 16 05:46	3°♏22'46	21°49'25
desc. node	1656 Jan 15 15:18	4°♏33'22		greatest brilliancy	1656 Dec 21 01:00	8°♏48'21	-0.4m
	1656 Feb 01 17:04	0°♏		desc. node	1657 Jan 01 12:21	24°♏24'27	
morning set	1656 Feb 07 13:36	9°♏34'55			1657 Jan 05 07:45	0°♏	
max. Earth dist.	1656 Feb 11 20:27	16°♏53'43	1.39390 AU	morning set	1657 Jan 17 13:12	18°♏51'25	
				max. Earth dist.	1657 Jan 23 18:53	29°♏01'37	1.41494 AU
superior conj	1656 Feb 19 11:26	0°♏35'20	-1°-53'-10		1657 Jan 24 08:54	0°♏	
minimum elong	1656 Feb 19 15:12	0°♏52'47	1°52'54				
	1656 Feb 19 03:48	0°♏		superior conj	1657 Jan 31 11:20	12°♏09'52	-2°-3'-48
evening rise	1656 Feb 28 22:53	18°♏38'16		minimum elong	1657 Jan 31 12:34	12°♏15'17	2°03'47
asc. node	1656 Mar 05 01:59	28°♏20'31			1657 Feb 10 08:01	0°♏	
	1656 Mar 05 23:55	0°♏		evening rise	1657 Feb 11 04:42	1°♏35'26	
evening max el	1656 Mar 16 04:05	14°♏43'43	18°36'12	asc. node	1657 Feb 19 23:01	17°♏15'12	
retrograde	1656 Mar 23 23:09	18°♏32'34		evening max el	1657 Feb 27 12:32	27°♏33'17	18°12'22
evening set	1656 Mar 26 06:28	18°♏13'42			1657 Mar 02 16:45	0°♏	
inferior conj	1656 Apr 02 21:48	13°♏46'56	2°31'00	retrograde	1657 Mar 06 10:34	1°♏01'54	
minimum elong	1656 Apr 03 01:52	13°♏39'05	2°29'57	evening set	1657 Mar 08 23:23	0°♏34'39	
min. Earth dist.	1656 Apr 06 07:21	11°♏10'56	0.57949 AU		1657 Mar 10 07:17	30°♏♏	
morning rise	1656 Apr 10 16:58	8°♏27'15		inferior conj	1657 Mar 15 21:59	25°♏46'31	3°21'04
desc. node	1656 Apr 12 14:28	7°♏41'05		minimum elong	1657 Mar 16 00:50	25°♏40'06	3°20'37
direct	1656 Apr 16 12:23	7°♏02'10		min. Earth dist.	1657 Mar 19 06:34	22°♏47'02	0.60056 AU
morning max el	1656 Apr 30 21:27	14°♏39'09	26°33'50	morning rise	1657 Mar 22 22:51	20°♏03'23	
	1656 May 13 04:33	0°♏		direct	1657 Mar 29 12:49	18°♏01'33	
	1656 May 29 19:03	0°♏		desc. node	1657 Mar 30 11:30	18°♏03'59	
morning set	1656 May 30 01:40	0°♏34'44		morning max el	1657 Apr 12 19:50	25°♏51'03	27°29'44
asc. node	1656 Jun 01 01:18	4°♏47'45			1657 Apr 16 16:40	0°♏	
					1657 May 06 14:16	0°♏	
superior conj	1656 Jun 06 02:58	15°♏51'53	0°51'20	morning set	1657 May 14 09:24	15°♏16'04	
minimum elong	1656 Jun 06 00:58	15°♏40'49	0°50'57	asc. node	1657 May 18 22:19	24°♏55'32	
max. Earth dist.	1656 Jun 06 08:26	16°♏21'54	1.32282 AU	max. Earth dist.	1657 May 20 20:33	29°♏07'59	1.32225 AU
	1656 Jun 12 15:33	0°♏			1657 May 21 06:02	0°♏	
evening rise	1656 Jun 13 02:12	0°♏55'56					
	1656 Jun 28 23:17	0°♏		superior conj	1657 May 21 14:31	0°♏46'35	0°27'58
desc. node	1656 Jul 09 13:48	14°♏14'08		minimum elong	1657 May 21 13:18	0°♏39'52	0°27'43
evening max el	1656 Jul 13 06:58	18°♏05'46	26°47'46	evening rise	1657 May 28 12:10	15°♏46'44	
retrograde	1656 Jul 27 05:55	25°♏19'46			1657 Jun 04 14:35	0°♏	
evening set	1656 Aug 03 02:52	23°♏17'09		evening max el	1657 Jun 25 03:41	29°♏29'50	25°42'44
min. Earth dist.	1656 Aug 06 20:53	20°♏39'32	0.60485 AU		1657 Jun 25 16:32	0°♏	
inferior conj	1656 Aug 10 03:12	17°♏57'23	-4°-36'-26	desc. node	1657 Jun 26 10:47	0°♏41'17	
minimum elong	1656 Aug 10 07:24	17°♏48'39	4°35'51	retrograde	1657 Jul 09 04:16	6°♏39'15	

evening set	1657 Jul 15 04:28	5°♂13'43			1658 May 29 05:55	0°♂	
min. Earth dist.	1657 Jul 19 16:02	2°♂34'55	0.58427 AU	evening max el	1658 Jun 06 18:34	10°♂14'06	24°14'53
inferior conj	1657 Jul 22 21:42	0°♂15'28	-4°-55'-50	desc. node	1658 Jun 13 07:48	15°♂12'15	
minimum elong	1657 Jul 22 22:25	0°♂14'11	4°55'50	retrograde	1658 Jun 20 14:51	17°♂12'47	
	1657 Jul 23 06:17	30°♂♂		evening set	1658 Jun 25 06:41	16°♂24'31	
morning rise	1657 Jul 30 19:57	25°♂53'42		min. Earth dist.	1658 Jul 01 05:28	13°♂27'33	0.56594 AU
direct	1657 Aug 02 07:38	25°♂33'55		inferior conj	1658 Jul 03 20:03	11°♂49'36	-4°-40'-41
morning max el	1657 Aug 10 14:31	29°♂29'53	18°42'31	minimum elong	1658 Jul 03 15:30	11°♂56'46	4°40'09
	1657 Aug 11 02:52	0°♂		morning rise	1658 Jul 12 03:57	7°♂48'04	
asc. node	1657 Aug 14 21:33	4°♂30'51		direct	1658 Jul 14 19:59	7°♂29'06	
morning set	1657 Aug 26 22:06	25°♂30'54		morning max el	1658 Jul 24 11:04	11°♂57'22	19°39'04
	1657 Aug 29 05:16	0°♂		asc. node	1658 Aug 01 18:35	22°♂44'43	
					1658 Aug 05 21:46	0°♂	
superior conj	1657 Sep 04 15:21	12°♂22'06	1°39'45	morning set	1658 Aug 11 00:02	9°♂56'23	
minimum elong	1657 Sep 04 17:40	12°♂33'04	1°39'37				
max. Earth dist.	1657 Sep 11 18:31	25°♂23'39	1.39504 AU	superior conj	1658 Aug 18 23:47	26°♂00'46	1°45'49
	1657 Sep 14 10:01	0°♂		minimum elong	1658 Aug 19 00:12	26°♂02'50	1°45'48
evening rise	1657 Sep 15 20:49	2°♂28'26			1658 Aug 21 00:37	0°♂	
desc. node	1657 Sep 22 10:09	13°♂13'48		max. Earth dist.	1658 Aug 24 22:43	7°♂27'47	1.37480 AU
	1657 Oct 03 12:34	0°♂		evening rise	1658 Aug 28 18:31	14°♂26'30	
evening max el	1657 Oct 21 00:37	22°♂00'19	24°06'32		1658 Sep 06 22:57	0°♂	
retrograde	1657 Nov 01 01:57	28°♂29'41		desc. node	1658 Sep 09 07:09	3°♂42'36	
evening set	1657 Nov 06 07:52	26°♂19'16			1658 Sep 28 07:08	0°♂	
asc. node	1657 Nov 10 20:45	21°♂08'39		evening max el	1658 Oct 03 12:35	5°♂39'10	25°21'57
min. Earth dist.	1657 Nov 11 03:12	20°♂46'58	0.67630 AU	retrograde	1658 Oct 15 13:12	12°♂34'48	
inferior conj	1657 Nov 11 18:54	19°♂53'56	0°19'03	evening set	1658 Oct 21 09:41	10°♂08'21	
minimum elong	1657 Nov 11 18:26	19°♂55'30	0°18'50	min. Earth dist.	1658 Oct 25 20:50	5°♂11'18	0.67124 AU
morning rise	1657 Nov 17 05:15	13°♂46'42		inferior conj	1658 Oct 26 23:20	3°♂45'31	0°-36'-34
direct	1657 Nov 21 01:44	12°♂22'10		minimum elong	1658 Oct 27 00:16	3°♂42'30	0°36'10
morning max el	1657 Nov 29 01:32	16°♂58'39	20°32'09	asc. node	1658 Oct 28 17:48	1°♂31'26	
greatest brilliancy	1657 Dec 05 05:44	24°♂16'47	-0.5m		1658 Oct 30 01:48	30°♂♂	
	1657 Dec 09 10:15	0°♂		morning rise	1658 Nov 01 15:31	27°♂46'05	
desc. node	1657 Dec 19 09:23	14°♂36'40		direct	1658 Nov 05 00:10	26°♂40'56	
morning set	1657 Dec 27 13:31	27°♂06'27			1658 Nov 11 10:35	0°♂	
	1657 Dec 29 10:06	0°♂		morning max el	1658 Nov 12 05:11	0°♂45'09	19°28'05
max. Earth dist.	1658 Jan 06 01:23	12°♂06'59	1.43292 AU	greatest brilliancy	1658 Nov 21 01:57	12°♂01'56	-0.7m
					1658 Dec 02 23:49	0°♂	
superior conj	1658 Jan 12 10:46	22°♂35'28	-2°00'-27	desc. node	1658 Dec 06 06:24	5°♂03'38	
minimum elong	1658 Jan 12 07:05	22°♂20'10	2°00'20	morning set	1658 Dec 06 12:06	5°♂25'44	
	1658 Jan 16 20:13	0°♂		max. Earth dist.	1658 Dec 19 15:08	25°♂57'05	1.44544 AU
evening rise	1658 Jan 24 18:38	13°♂46'26			1658 Dec 22 04:19	0°♂	
	1658 Feb 03 04:28	0°♂					
asc. node	1658 Feb 06 20:03	5°♂35'09		superior conj	1658 Dec 23 07:48	1°♂49'41	-1°-38'-51
evening max el	1658 Feb 11 00:28	10°♂42'03	18°08'06	minimum elong	1658 Dec 22 23:31	1°♂16'35	1°38'09
retrograde	1658 Feb 17 12:39	14°♂05'52		evening rise	1659 Jan 06 12:22	25°♂03'13	
evening set	1658 Feb 20 06:26	13°♂28'55			1659 Jan 09 11:17	0°♂	
inferior conj	1658 Feb 26 15:55	8°♂19'30	3°42'27	asc. node	1659 Jan 24 17:05	23°♂09'22	
minimum elong	1658 Feb 26 16:44	8°♂17'25	3°42'25	evening max el	1659 Jan 25 12:55	24°♂01'55	18°22'45
min. Earth dist.	1658 Mar 01 13:38	5°♂21'36	0.62169 AU	retrograde	1659 Feb 01 00:51	27°♂34'00	
morning rise	1658 Mar 05 00:40	2°♂21'33		evening set	1659 Feb 03 23:39	26°♂46'33	
	1658 Mar 10 03:58	30°♂♂		inferior conj	1659 Feb 09 23:30	21°♂17'29	3°42'21
direct	1658 Mar 11 22:53	29°♂50'10		minimum elong	1659 Feb 09 22:32	21°♂20'14	3°42'19
	1658 Mar 13 18:49	0°♂		min. Earth dist.	1659 Feb 12 06:15	18°♂41'05	0.64043 AU
desc. node	1658 Mar 17 08:32	1°♂11'10		morning rise	1659 Feb 15 19:53	15°♂10'33	
morning max el	1658 Mar 26 00:19	7°♂44'36	27°49'19	direct	1659 Feb 22 16:56	12°♂22'48	
	1658 Apr 12 01:06	0°♂		desc. node	1659 Mar 04 05:34	16°♂32'00	
morning set	1658 Apr 28 12:11	29°♂39'44		morning max el	1659 Mar 08 08:58	20°♂15'29	27°32'19
	1658 Apr 28 16:10	0°♂			1659 Mar 16 18:12	0°♂	
max. Earth dist.	1658 May 04 05:50	11°♂42'02	1.32560 AU		1659 Apr 05 01:47	0°♂	
asc. node	1658 May 05 19:20	15°♂04'58		morning set	1659 Apr 12 07:31	13°♂37'44	
				max. Earth dist.	1659 Apr 17 08:13	23°♂51'14	1.33306 AU
superior conj	1658 May 06 00:19	15°♂32'05	0°02'12				
minimum elong	1658 May 06 00:13	15°♂31'30	0°02'11	superior conj	1659 Apr 20 06:33	0°♂02'32	0°-25'-8
behind sun begin	1658 May 05 19:06	15°♂03'43		minimum elong	1659 Apr 20 07:48	0°♂09'10	0°24'54
behind sun end	1658 May 06 05:20	15°♂59'19			1659 Apr 20 06:05	0°♂	
evening rise	1658 May 12 23:51	0°♂39'09		asc. node	1659 Apr 22 16:24	5°♂12'23	
	1658 May 12 16:29	0°♂		evening rise	1659 Apr 27 11:24	15°♂26'47	

	1659 May 04 19:05	0°♊			1660 Apr 28 20:08	0°♊	
evening max el	1659 May 19 09:14	20°♊43'44	22°38'52	evening max el	1660 Apr 30 07:13	1°♊29'58	21°08'58
desc. node	1659 May 31 04:48	27°♊11'54		retrograde	1660 May 12 03:15	7°♊16'08	
retrograde	1659 Jun 01 13:20	27°♊16'06		evening set	1660 May 14 09:43	7°♊04'09	
evening set	1659 Jun 04 18:25	26°♊53'24		desc. node	1660 May 17 01:49	6°♊21'43	
min. Earth dist.	1659 Jun 12 17:10	23°♊24'46	0.55326 AU	inferior conj	1660 May 23 18:03	3°♊05'36	-1°-55'-3
inferior conj	1659 Jun 13 23:56	22°♊40'52	-3°-39'-11	minimum elong	1660 May 23 12:42	3°♊13'09	1°53'12
minimum elong	1659 Jun 13 16:08	22°♊52'00	3°37'12	min. Earth dist.	1660 May 24 05:37	2°♊49'17	0.54917 AU
morning rise	1659 Jun 22 16:29	18°♊49'09			1660 May 29 19:26	30°♊	
direct	1659 Jun 25 14:17	18°♊29'40		morning rise	1660 Jun 01 15:29	29°♊04'52	
morning max el	1659 Jul 06 20:31	23°♊43'13	20°56'20	direct	1660 Jun 05 00:00	28°♊40'32	
	1659 Jul 12 08:46	0°♊			1660 Jun 10 22:12	0°♊	
asc. node	1659 Jul 19 15:38	11°♊37'09		morning max el	1660 Jun 17 19:19	4°♊46'36	22°30'21
morning set	1659 Jul 26 07:16	24°♊38'37			1660 Jul 05 00:48	0°♊	
	1659 Jul 28 21:14	0°♊		asc. node	1660 Jul 05 12:42	0°♊57'51	
				morning set	1660 Jul 09 17:39	9°♊30'30	
superior conj	1659 Aug 02 19:23	10°♊13'46	1°43'48				
minimum elong	1659 Aug 02 18:18	10°♊08'12	1°43'45	superior conj	1660 Jul 16 22:33	24°♊49'14	1°35'17
max. Earth dist.	1659 Aug 07 07:30	19°♊18'34	1.35668 AU	minimum elong	1660 Jul 16 20:32	24°♊38'31	1°35'05
evening rise	1659 Aug 11 12:02	27°♊22'05			1660 Jul 19 09:42	0°♊	
	1659 Aug 12 22:02	0°♊		max. Earth dist.	1660 Jul 20 00:50	1°♊18'30	1.34211 AU
desc. node	1659 Aug 27 04:11	23°♊55'32		evening rise	1660 Jul 24 20:37	11°♊01'36	
	1659 Aug 31 06:56	0°♊			1660 Aug 04 07:05	0°♊	
evening max el	1659 Sep 16 00:32	19°♊17'28	26°25'11	desc. node	1660 Aug 13 01:12	13°♊44'26	
retrograde	1659 Sep 28 19:35	26°♊29'31			1660 Aug 25 18:51	0°♊	
evening set	1659 Oct 05 05:58	23°♊50'59		evening max el	1660 Aug 28 12:36	2°♊46'51	27°08'50
min. Earth dist.	1659 Oct 09 09:32	19°♊30'37	0.66275 AU	retrograde	1660 Sep 10 20:36	10°♊05'24	
inferior conj	1659 Oct 10 23:34	17°♊34'58	-1°-34'-16	evening set	1660 Sep 17 18:20	7°♊22'07	
minimum elong	1659 Oct 11 02:04	17°♊27'23	1°33'15	min. Earth dist.	1660 Sep 21 14:59	3°♊38'25	0.65068 AU
asc. node	1659 Oct 15 14:50	12°♊40'43		inferior conj	1660 Sep 23 17:24	1°♊17'16	-2°-32'-8
morning rise	1659 Oct 16 23:19	11°♊46'08		minimum elong	1660 Sep 23 21:24	1°♊06'03	2°30'41
direct	1659 Oct 19 22:13	10°♊56'44			1660 Sep 24 21:20	30°♊	
morning max el	1659 Oct 26 15:33	14°♊39'16	18°39'25	morning rise	1660 Sep 30 02:12	25°♊42'05	
	1659 Nov 06 21:56	0°♊		asc. node	1660 Oct 01 11:53	25°♊12'54	
morning set	1659 Nov 16 07:57	14°♊53'22		direct	1660 Oct 02 17:49	25°♊04'31	
desc. node	1659 Nov 23 03:28	25°♊41'13		morning max el	1660 Oct 09 06:11	28°♊34'38	18°07'20
	1659 Nov 25 21:07	0°♊			1660 Oct 10 13:56	0°♊	
				morning set	1660 Oct 27 08:55	25°♊47'23	
superior conj	1659 Dec 02 10:56	10°♊20'07	0°-59'-29		1660 Oct 29 22:00	0°♊	
minimum elong	1659 Dec 02 03:36	9°♊51'16	0°58'35	desc. node	1660 Nov 09 00:32	16°♊25'12	
max. Earth dist.	1659 Dec 02 08:54	10°♊12'08	1.45107 AU				
	1659 Dec 14 22:00	0°♊		superior conj	1660 Nov 10 16:04	19°♊02'48	0°-11'-1
evening rise	1659 Dec 18 06:57	5°♊22'31		minimum elong	1660 Nov 10 14:40	18°♊57'15	0°10'51
	1660 Jan 03 01:05	0°♊		behind sun begin	1660 Nov 10 06:33	18°♊24'57	
evening max el	1660 Jan 08 23:26	7°♊27'58	18°55'21	behind sun end	1660 Nov 10 22:47	19°♊29'32	
asc. node	1660 Jan 11 14:07	9°♊45'11		max. Earth dist.	1660 Nov 14 03:40	24°♊33'45	1.44927 AU
retrograde	1660 Jan 15 19:08	11°♊19'12			1660 Nov 17 14:45	0°♊	
evening set	1660 Jan 18 23:54	10°♊20'10		evening rise	1660 Nov 27 03:38	14°♊50'27	
inferior conj	1660 Jan 24 17:02	4°♊33'48	3°26'32		1660 Dec 06 23:50	0°♊	
minimum elong	1660 Jan 24 14:55	4°♊40'23	3°26'13	greatest brilliancy	1660 Dec 14 14:47	11°♊18'31	-0.6m
min. Earth dist.	1660 Jan 26 08:25	2°♊31'13	0.65560 AU	evening max el	1660 Dec 22 06:04	20°♊57'14	19°44'25
	1660 Jan 28 12:38	30°♊		asc. node	1660 Dec 28 11:09	25°♊08'08	
morning rise	1660 Jan 30 04:55	28°♊21'41		retrograde	1660 Dec 29 16:23	25°♊16'22	
direct	1660 Feb 05 17:53	25°♊31'42		evening set	1661 Jan 02 04:39	24°♊04'15	
	1660 Feb 15 07:36	0°♊		inferior conj	1661 Jan 07 17:25	18°♊03'20	2°59'02
morning max el	1660 Feb 18 18:53	3°♊12'02	26°43'37	minimum elong	1661 Jan 07 14:48	18°♊12'00	2°58'23
desc. node	1660 Feb 19 02:37	3°♊31'36		min. Earth dist.	1661 Jan 08 18:33	16°♊40'17	0.66678 AU
	1660 Mar 10 01:36	0°♊		morning rise	1661 Jan 13 00:15	11°♊48'39	
morning set	1660 Mar 25 16:00	26°♊59'27		direct	1661 Jan 19 00:49	9°♊08'34	
	1660 Mar 27 05:38	0°♊		morning max el	1661 Jan 31 03:57	16°♊22'01	25°31'44
max. Earth dist.	1660 Mar 30 00:01	5°♊26'24	1.34500 AU	desc. node	1661 Feb 04 23:41	21°♊41'48	
					1661 Feb 11 11:39	0°♊	
superior conj	1660 Apr 03 07:03	14°♊11'01	0°-52'-54		1661 Mar 02 23:36	0°♊	
minimum elong	1660 Apr 03 09:42	14°♊24'46	0°52'25	morning set	1661 Mar 08 09:08	9°♊31'41	
asc. node	1660 Apr 08 13:27	25°♊12'59		max. Earth dist.	1661 Mar 12 03:57	16°♊32'55	1.36148 AU
evening rise	1660 Apr 10 20:56	0°♊02'54					
	1660 Apr 10 20:22	0°♊		superior conj	1661 Mar 17 23:09	27°♊50'14	-1°-19'-30

minimum elong	1661 Mar 18 02:58	28° K 09'17	1°18'56	max. Earth dist.	1662 Feb 21 23:59	27° \approx 37'32	1.38160 AU
	1661 Mar 19 01:03	0° Y			1662 Feb 23 07:36	0° K	
evening rise	1661 Mar 26 02:19	14° Y 21'14					
asc. node	1661 Mar 26 10:30	15° Y 02'36		superior conj	1662 Mar 01 03:16	10° K 49'55	-1°-42'-39
	1661 Apr 03 06:55	0° X		minimum elong	1662 Mar 01 07:28	11° K 09'58	1°42'12
evening max el	1661 Apr 12 16:42	12° X 52'49	19°54'21	evening rise	1662 Mar 10 01:03	28° K 14'03	
retrograde	1661 Apr 22 19:06	17° X 45'09			1662 Mar 10 22:38	0° Y	
evening set	1661 Apr 24 19:58	17° X 34'10		asc. node	1662 Mar 13 07:31	4° Y 35'36	
inferior conj	1661 May 03 16:42	13° X 33'45	0°04'27	evening max el	1662 Mar 26 13:12	24° Y 54'07	18°58'52
minimum elong	1661 May 03 16:54	13° X 33'27	0°04'23	retrograde	1662 Apr 04 01:20	29° Y 01'31	
transit middle	1661 May 03 16:54	13° X 33'27	0°04'23	evening set	1662 Apr 06 05:42	28° Y 46'21	
transit begin	1661 May 03 13:05	13° X 39'17		inferior conj	1662 Apr 14 07:52	24° Y 30'43	1°46'50
transit end	1661 May 03 20:43	13° X 27'36		minimum elong	1662 Apr 14 11:33	24° Y 24'13	1°45'42
desc. node	1661 May 03 22:51	13° X 24'22		min. Earth dist.	1662 Apr 17 11:09	22° Y 19'11	0.56885 AU
min. Earth dist.	1661 May 05 19:28	12° X 16'27	0.55480 AU	desc. node	1662 Apr 20 19:53	20° Y 17'14	
morning rise	1661 May 12 10:47	9° X 06'16		morning rise	1662 Apr 22 13:11	19° Y 29'23	
direct	1661 May 16 15:08	8° X 27'43		direct	1662 Apr 27 18:50	18° Y 24'21	
morning max el	1661 May 30 11:04	15° X 20'01	24°12'07	morning max el	1662 May 12 01:42	25° Y 48'06	25°47'47
	1661 Jun 11 01:54	0° II			1662 May 16 00:22	0° X	
asc. node	1661 Jun 22 09:46	20° II 39'26			1662 Jun 04 02:37	0° II	
morning set	1661 Jun 24 05:27	24° II 26'53		morning set	1662 Jun 08 17:01	9° II 22'12	
	1661 Jun 26 19:52	0° S		asc. node	1662 Jun 09 06:49	10° II 35'12	
superior conj	1661 Jul 01 06:38	9° S 38'54	1°21'29	superior conj	1662 Jun 15 17:28	24° II 35'25	1°03'23
minimum elong	1661 Jul 01 04:13	9° S 25'51	1°21'10	minimum elong	1662 Jun 15 15:10	24° II 22'52	1°03'00
max. Earth dist.	1661 Jul 03 03:22	13° S 40'03	1.33159 AU	max. Earth dist.	1662 Jun 16 12:35	26° II 20'12	1.32497 AU
evening rise	1661 Jul 08 16:08	25° S 13'27			1662 Jun 18 04:53	0° S	
	1661 Jul 11 01:45	0° Q		evening rise	1662 Jun 22 19:16	9° S 47'08	
	1661 Jul 28 18:54	0° W			1662 Jul 03 09:26	0° Q	
desc. node	1661 Jul 30 22:12	2° W 59'18		desc. node	1662 Jul 17 19:12	21° Q 26'15	
evening max el	1661 Aug 10 23:30	15° W 56'04	27°25'54	evening max el	1662 Jul 24 06:40	28° Q 31'39	27°11'17
retrograde	1661 Aug 24 15:26	23° W 13'57			1662 Jul 25 21:36	0° W	
evening set	1661 Aug 31 19:43	20° W 36'22		retrograde	1662 Aug 07 03:15	5° W 46'25	
min. Earth dist.	1661 Sep 04 11:13	17° W 26'09	0.63513 AU	evening set	1662 Aug 14 06:12	3° W 27'18	
inferior conj	1661 Sep 07 02:14	14° W 46'53	-3°-27'-16	min. Earth dist.	1662 Aug 17 20:52	0° W 42'03	0.61652 AU
minimum elong	1661 Sep 07 07:19	14° W 34'01	3°25'47		1662 Aug 18 16:07	30° R Q	
morning rise	1661 Sep 13 21:13	9° W 28'38		inferior conj	1662 Aug 20 23:00	27° Q 56'24	-4°-15'-4
direct	1661 Sep 16 08:13	8° W 59'20		minimum elong	1662 Aug 21 04:03	27° Q 45'03	4°14'02
asc. node	1661 Sep 18 08:58	9° W 19'41		morning rise	1662 Aug 28 04:44	22° Q 58'38	
morning max el	1661 Sep 22 22:17	12° W 25'03	17°52'39	direct	1662 Aug 30 13:59	22° Q 34'37	
	1661 Oct 04 21:52	0° A		asc. node	1662 Sep 05 06:02	24° Q 54'46	
morning set	1661 Oct 09 11:34	7° A 55'32		morning max el	1662 Sep 06 12:57	26° Q 04'02	17°56'25
					1662 Sep 09 21:45	0° W	
superior conj	1661 Oct 21 17:50	28° A 47'56	0°34'25	morning set	1662 Sep 22 09:38	20° W 59'38	
minimum elong	1661 Oct 21 21:17	29° A 02'11	0°33'56		1662 Sep 27 08:38	0° A	
	1661 Oct 22 11:19	0° M		superior conj	1662 Oct 02 22:53	9° A 53'51	1°09'16
desc. node	1661 Oct 26 21:33	7° M 12'00		minimum elong	1662 Oct 03 03:30	10° A 13'55	1°08'43
max. Earth dist.	1661 Oct 27 20:49	8° M 45'22	1.44043 AU	max. Earth dist.	1662 Oct 10 09:56	22° A 30'42	1.42562 AU
evening rise	1661 Nov 06 12:09	23° M 52'54		desc. node	1662 Oct 13 18:33	27° A 58'44	
	1661 Nov 10 12:02	0° J			1662 Oct 15 00:49	0° M	
greatest brilliancy	1661 Nov 29 16:08	27° J 47'20	-0.5m	evening rise	1662 Oct 17 01:21	3° M 12'30	
	1661 Dec 01 09:51	0° Z			1662 Nov 03 22:48	0° J	
evening max el	1661 Dec 05 07:24	4° Z 27'18	20°47'32	greatest brilliancy	1662 Nov 13 09:35	12° J 37'04	-0.3m
retrograde	1661 Dec 13 14:09	9° Z 21'09		evening max el	1662 Nov 18 03:07	17° J 58'20	22°01'10
asc. node	1661 Dec 15 08:12	9° Z 03'58		retrograde	1662 Nov 27 10:39	23° J 30'49	
evening set	1661 Dec 17 11:47	7° Z 54'07		evening set	1662 Dec 01 19:35	21° J 47'19	
inferior conj	1661 Dec 22 22:06	1° Z 41'38	2°22'30	asc. node	1662 Dec 02 05:14	21° J 27'08	
minimum elong	1661 Dec 22 19:32	1° Z 50'26	2°21'40	inferior conj	1662 Dec 07 05:03	15° J 26'37	1°38'50
min. Earth dist.	1661 Dec 23 10:29	0° Z 59'18	0.67404 AU	minimum elong	1662 Dec 07 03:00	15° J 33'44	1°38'03
	1661 Dec 24 03:58	30° R J		min. Earth dist.	1662 Dec 07 05:58	15° J 23'29	0.67760 AU
morning rise	1661 Dec 28 02:51	25° J 26'27		morning rise	1662 Dec 12 10:15	9° J 12'50	
direct	1662 Jan 02 12:43	23° J 04'33		direct	1662 Dec 12 04:51	7° J 13'17	
morning max el	1662 Jan 13 12:13	29° J 37'25	24°06'39	morning max el	1662 Dec 26 22:28	12° J 58'43	22°38'21
	1662 Jan 13 21:06	0° Z		greatest brilliancy	1662 Dec 31 12:31	18° J 05'53	-0.3m
desc. node	1662 Jan 22 20:45	10° Z 41'30		desc. node	1663 Jan 09 17:48	0° Z 16'47	
	1662 Feb 05 08:12	0° \approx			1663 Jan 09 13:01	0° Z	
morning set	1662 Feb 18 04:55	20° \approx 57'10					

	1663 Jan 29 06:22	0°♊		greatest brilliancy	1663 Dec 14 20:11	2°♊30'15	-0.4m
morning set	1663 Jan 29 21:27	1°♊01'43		desc. node	1663 Dec 27 14:49	20°♊17'15	
max. Earth dist.	1663 Feb 03 20:07	9°♊17'42	1.40312 AU		1664 Jan 03 02:02	0°♋	
				morning set	1664 Jan 09 09:30	9°♋46'38	
superior conj	1663 Feb 11 14:59	22°♊59'01	-1°-59'-3	max. Earth dist.	1664 Jan 16 21:56	21°♋50'48	1.42308 AU
minimum elong	1663 Feb 11 17:59	23°♊12'37	1°58'55		1664 Jan 21 19:29	0°♌	
	1663 Feb 15 10:39	0°♋					
evening rise	1663 Feb 21 14:05	11°♋34'07		superior conj	1664 Jan 24 04:58	4°♌04'45	-2°-4'-22
asc. node	1663 Feb 28 04:32	23°♋46'18		minimum elong	1664 Jan 24 04:21	4°♌02'06	2°04'24
	1663 Mar 03 22:21	0°♌		evening rise	1664 Feb 04 13:42	24°♌12'46	
evening max el	1663 Mar 09 18:07	7°♌28'09	18°23'31		1664 Feb 07 18:37	0°♍	
retrograde	1663 Mar 17 02:47	11°♌06'34		asc. node	1664 Feb 15 01:34	12°♍27'27	
evening set	1663 Mar 19 12:31	10°♌44'18		evening max el	1664 Feb 21 04:23	20°♍26'41	18°08'11
inferior conj	1663 Mar 26 20:17	6°♌08'06	2°56'12	retrograde	1664 Feb 27 21:09	23°♍51'55	
minimum elong	1663 Mar 27 00:02	6°♌00'21	2°55'22	evening set	1664 Mar 01 11:59	23°♍20'49	
min. Earth dist.	1663 Mar 30 06:50	3°♌19'19	0.58830 AU	inferior conj	1664 Mar 08 04:34	18°♍23'28	3°33'11
morning rise	1663 Apr 03 07:37	0°♌37'15		minimum elong	1664 Mar 08 06:34	18°♍18'42	3°32'58
	1663 Apr 04 14:31	30°♌		min. Earth dist.	1664 Mar 11 09:19	15°♍21'38	0.60964 AU
desc. node	1663 Apr 07 16:56	29°♌05'08		morning rise	1664 Mar 14 22:08	12°♍32'45	
direct	1663 Apr 09 11:54	28°♌56'40		direct	1664 Mar 21 16:39	10°♍17'04	
	1663 Apr 14 12:35	0°♍		desc. node	1664 Mar 24 13:58	10°♍40'09	
morning max el	1663 Apr 23 20:44	6°♍39'22	27°01'48	morning max el	1664 Apr 04 22:08	18°♍10'12	27°42'44
	1663 May 11 06:41	0°♎			1664 Apr 14 20:12	0°♏	
morning set	1663 May 24 02:41	24°♎10'41			1664 May 02 23:11	0°♐	
	1663 May 26 20:26	0°♏		morning set	1664 May 07 08:39	8°♐46'17	
asc. node	1663 May 27 03:50	0°♏39'57		asc. node	1664 May 13 00:51	20°♐49'23	
				max. Earth dist.	1664 May 13 12:20	21°♐51'51	1.32316 AU
superior conj	1663 May 31 05:14	9°♏32'29	0°41'45				
minimum elong	1663 May 31 03:31	9°♏23'00	0°41'25	superior conj	1664 May 14 16:18	24°♐24'38	0°17'18
max. Earth dist.	1663 May 31 00:52	9°♏08'27	1.32215 AU	minimum elong	1664 May 14 15:31	24°♐20'20	0°17'08
evening rise	1663 Jun 07 03:23	24°♏33'50			1664 May 17 05:30	0°♑	
	1663 Jun 09 18:27	0°♑		evening rise	1664 May 21 14:21	9°♑26'34	
	1663 Jun 27 09:24	0°♒			1664 Jun 01 05:00	0°♒	
desc. node	1663 Jul 04 16:12	8°♒44'51		evening max el	1664 Jun 17 01:01	21°♒27'07	25°07'19
evening max el	1663 Jul 06 07:22	10°♒22'06	26°23'31	desc. node	1664 Jun 20 13:13	24°♒27'30	
retrograde	1663 Jul 20 07:01	17°♒34'16		retrograde	1664 Jul 01 01:00	28°♒34'10	
evening set	1663 Jul 26 21:03	15°♒46'17		evening set	1664 Jul 06 12:32	27°♒24'59	
min. Earth dist.	1663 Jul 30 20:23	13°♒10'50	0.59603 AU	min. Earth dist.	1664 Jul 11 12:41	24°♒40'18	0.57598 AU
inferior conj	1663 Aug 03 04:02	10°♒35'47	-4°-48'00	inferior conj	1664 Jul 14 14:08	22°♒36'07	-4°-54'-31
minimum elong	1663 Aug 03 07:04	10°♒29'51	4°47'44	minimum elong	1664 Jul 14 12:42	22°♒38'34	4°54'28
morning rise	1663 Aug 10 20:29	6°♒01'07		morning rise	1664 Jul 22 16:38	18°♒24'00	
direct	1663 Aug 13 06:37	5°♒40'16		direct	1664 Jul 25 05:51	18°♒04'50	
morning max el	1663 Aug 20 23:03	9°♒22'58	18°19'49	morning max el	1664 Aug 03 01:29	22°♒12'49	19°03'59
asc. node	1663 Aug 23 03:05	11°♒43'16		asc. node	1664 Aug 09 00:07	29°♒30'14	
	1663 Sep 03 09:45	0°♓			1664 Aug 09 08:02	0°♓	
morning set	1663 Sep 05 21:37	4°♓43'30		morning set	1664 Aug 19 19:24	18°♓56'26	
					1664 Aug 25 09:30	0°♔	
superior conj	1663 Sep 15 04:16	22°♓11'37	1°31'52				
minimum elong	1663 Sep 15 07:41	22°♓27'17	1°31'35	superior conj	1664 Aug 28 04:25	5°♔25'31	1°43'25
	1663 Sep 19 12:28	0°♕		minimum elong	1664 Aug 28 05:54	5°♔32'41	1°43'21
max. Earth dist.	1663 Sep 22 17:24	5°♕34'25	1.40672 AU	max. Earth dist.	1664 Sep 03 20:54	17°♔54'27	1.38628 AU
evening rise	1663 Sep 27 09:30	13°♕24'56		evening rise	1664 Sep 07 17:58	24°♔45'44	
desc. node	1663 Sep 30 15:33	18°♕41'35			1664 Sep 10 19:45	0°♖	
	1663 Oct 07 22:06	0°♗		desc. node	1664 Sep 16 12:33	9°♖16'49	
	1663 Oct 30 07:02	0°♘			1664 Sep 30 15:11	0°♗	
evening max el	1663 Oct 31 18:03	1°♘30'52	23°20'36	evening max el	1664 Oct 13 06:25	15°♗07'15	24°39'35
retrograde	1663 Nov 11 04:27	7°♘41'32		retrograde	1664 Oct 24 18:27	21°♗49'47	
evening set	1663 Nov 16 02:20	5°♘40'43		evening set	1664 Oct 30 06:28	19°♗32'13	
asc. node	1663 Nov 19 02:17	2°♘29'39		min. Earth dist.	1664 Nov 03 22:11	14°♗14'31	0.67452 AU
	1663 Nov 20 23:29	30°♗		inferior conj	1664 Nov 04 18:26	13°♗07'07	0°-4'-13
min. Earth dist.	1663 Nov 21 02:38	29°♗49'12	0.67770 AU	minimum elong	1664 Nov 04 18:32	13°♗06'47	0°04'10
inferior conj	1663 Nov 21 12:24	29°♗15'41	0°49'29	transit middle	1664 Nov 04 18:32	13°♗06'47	0°04'10
minimum elong	1663 Nov 21 11:16	29°♗19'35	0°49'01	transit begin	1664 Nov 04 15:53	13°♗15'38	
morning rise	1663 Nov 26 20:17	23°♗05'23		transit end	1664 Nov 04 21:11	12°♗57'56	
direct	1663 Dec 01 00:20	21°♗28'42		asc. node	1664 Nov 04 23:20	12°♗50'47	
morning max el	1663 Dec 09 14:07	26°♗28'34	21°15'12	morning rise	1664 Nov 10 07:02	7°♗02'44	
	1663 Dec 12 18:59	0°♙		direct	1664 Nov 13 22:08	5°♗47'00	

morning max el	1664 Nov 21 13:17	10° \mathbb{M} 08'56	20°03'03	min. Earth dist.	1665 Oct 18 14:09	28° \mathbb{A} 37'15	0.66802 AU
greatest brilliancy	1664 Nov 28 15:38	18° \mathbb{M} 46'27	-0.6m	inferior conj	1665 Oct 19 21:22	26° \mathbb{A} 58'33	-1°00'-53
	1664 Dec 06 11:15	0° \mathbb{A}		minimum elong	1665 Oct 19 22:57	26° \mathbb{A} 53'33	1°00'13
desc. node	1664 Dec 13 11:50	10° \mathbb{A} 35'56		asc. node	1665 Oct 22 20:24	23° \mathbb{A} 27'24	
morning set	1664 Dec 18 05:42	17° \mathbb{A} 53'09		morning rise	1665 Oct 25 16:33	21° \mathbb{A} 02'58	
	1664 Dec 25 23:55	0° \mathbb{B}		direct	1665 Oct 28 20:45	20° \mathbb{A} 04'55	
max. Earth dist.	1664 Dec 29 07:04	5° \mathbb{B} 14'15	1.43894 AU	morning max el	1665 Nov 04 19:57	23° \mathbb{A} 58'54	19°05'20
					1665 Nov 09 20:32	0° \mathbb{M}	
superior conj	1665 Jan 03 16:54	13° \mathbb{B} 58'26	-1°-53'-40	morning set	1665 Nov 27 11:17	26° \mathbb{M} 35'58	
minimum elong	1665 Jan 03 10:55	13° \mathbb{B} 34'01	1°53'19		1665 Nov 29 15:30	0° \mathbb{A}	
	1665 Jan 13 07:16	0° \mathbb{A}		desc. node	1665 Nov 30 08:53	1° \mathbb{A} 07'53	
evening rise	1665 Jan 16 19:30	6° \mathbb{A} 00'56		max. Earth dist.	1665 Dec 11 22:44	19° \mathbb{A} 16'41	1.44871 AU
asc. node	1665 Jan 31 22:37	0° \mathbb{H} 29'22					
	1665 Jan 31 13:38	0° \mathbb{H}		superior conj	1665 Dec 14 04:36	22° \mathbb{A} 49'12	-1°-24'-1
evening max el	1665 Feb 03 16:52	3° \mathbb{H} 40'48	18°12'10	minimum elong	1665 Dec 13 19:50	22° \mathbb{A} 14'35	1°23'06
retrograde	1665 Feb 10 03:59	7° \mathbb{H} 06'45			1665 Dec 18 17:05	0° \mathbb{B}	
evening set	1665 Feb 12 23:47	6° \mathbb{H} 25'36		evening rise	1665 Dec 29 03:34	16° \mathbb{B} 53'02	
inferior conj	1665 Feb 19 04:47	1° \mathbb{H} 07'53	3°44'39		1666 Jan 06 03:56	0° \mathbb{A}	
minimum elong	1665 Feb 19 04:47	1° \mathbb{H} 07'54	3°44'39	evening max el	1666 Jan 18 04:53	17° \mathbb{A} 04'21	18°34'36
	1665 Feb 20 05:49	30° \mathbb{R} \mathbb{A}		asc. node	1666 Jan 18 19:40	17° \mathbb{A} 40'44	
min. Earth dist.	1665 Feb 21 20:32	28° \mathbb{A} 16'46	0.62998 AU	retrograde	1666 Jan 24 19:04	20° \mathbb{A} 42'59	
morning rise	1665 Feb 25 07:47	25° \mathbb{A} 05'30		evening set	1666 Jan 27 20:21	19° \mathbb{A} 50'42	
direct	1665 Mar 04 06:36	22° \mathbb{A} 24'58		inferior conj	1666 Feb 02 17:01	14° \mathbb{A} 14'14	3°37'17
desc. node	1665 Mar 11 11:01	24° \mathbb{A} 48'15		minimum elong	1666 Feb 02 15:29	14° \mathbb{A} 18'47	3°37'08
	1665 Mar 17 20:21	0° \mathbb{H}		min. Earth dist.	1666 Feb 04 17:13	11° \mathbb{A} 51'06	0.64738 AU
morning max el	1665 Mar 18 04:39	0° \mathbb{H} 20'31	27°46'22	morning rise	1666 Feb 08 09:21	8° \mathbb{A} 05'00	
	1665 Apr 08 20:59	0° \mathbb{Y}		direct	1666 Feb 15 03:50	5° \mathbb{A} 14'28	
morning set	1665 Apr 21 08:37	23° \mathbb{Y} 00'22		desc. node	1666 Feb 26 08:04	10° \mathbb{A} 54'56	
	1665 Apr 24 18:27	0° \mathbb{B}		morning max el	1666 Feb 28 13:56	13° \mathbb{A} 03'00	27°15'00
max. Earth dist.	1665 Apr 26 18:58	4° \mathbb{B} 15'57	1.32819 AU		1666 Mar 14 05:37	0° \mathbb{H}	
					1666 Apr 01 10:50	0° \mathbb{Y}	
superior conj	1665 Apr 29 00:50	9° \mathbb{B} 04'47	0°-9'-14	morning set	1666 Apr 04 23:46	6° \mathbb{Y} 44'03	
minimum elong	1665 Apr 29 01:17	9° \mathbb{B} 07'12	0°09'11	max. Earth dist.	1666 Apr 09 17:03	16° \mathbb{Y} 10'20	1.33759 AU
behind sun begin	1665 Apr 28 20:58	8° \mathbb{B} 43'56					
behind sun end	1665 Apr 29 05:35	9° \mathbb{B} 30'28		superior conj	1666 Apr 13 04:55	23° \mathbb{Y} 26'52	0°-36'-55
asc. node	1665 Apr 29 21:53	10° \mathbb{B} 58'34		minimum elong	1666 Apr 13 06:46	23° \mathbb{Y} 36'36	0°36'34
evening rise	1665 May 06 02:11	24° \mathbb{B} 17'42			1666 Apr 16 07:00	0° \mathbb{B}	
	1665 May 08 20:03	0° \mathbb{II}		asc. node	1666 Apr 16 18:57	1° \mathbb{B} 03'38	
	1665 May 27 15:29	0° \mathbb{B}		evening rise	1666 Apr 20 13:06	9° \mathbb{B} 01'10	
evening max el	1665 May 29 14:59	2° \mathbb{B} 01'49	23°34'11		1666 May 01 15:27	0° \mathbb{II}	
desc. node	1665 Jun 07 10:15	7° \mathbb{B} 58'21		evening max el	1666 May 11 08:07	12° \mathbb{II} 35'31	21°59'12
retrograde	1665 Jun 12 06:40	8° \mathbb{B} 51'48		retrograde	1666 May 24 00:04	18° \mathbb{II} 49'22	
evening set	1665 Jun 16 06:47	8° \mathbb{B} 16'35		desc. node	1666 May 25 07:17	18° \mathbb{II} 45'32	
min. Earth dist.	1665 Jun 23 01:22	5° \mathbb{B} 07'24	0.55967 AU	evening set	1666 May 26 17:34	18° \mathbb{II} 32'48	
inferior conj	1665 Jun 25 04:07	3° \mathbb{B} 51'28	-4°-20'-35	min. Earth dist.	1666 Jun 04 13:08	14° \mathbb{II} 46'48	0.55045 AU
minimum elong	1665 Jun 24 21:39	4° \mathbb{B} 01'11	4°19'27	inferior conj	1666 Jun 05 02:19	14° \mathbb{II} 28'18	-2°-59'-5
	1665 Jul 03 08:17	30° \mathbb{R} \mathbb{II}		minimum elong	1666 Jun 04 18:51	14° \mathbb{II} 38'47	2°56'51
morning rise	1665 Jul 03 15:51	29° \mathbb{II} 55'32		morning rise	1666 Jun 13 21:39	10° \mathbb{II} 35'07	
direct	1665 Jul 06 09:55	29° \mathbb{II} 36'40		direct	1666 Jun 16 23:25	10° \mathbb{II} 14'08	
	1665 Jul 09 09:16	0° \mathbb{B}		morning max el	1666 Jun 28 21:58	15° \mathbb{II} 49'45	21°34'34
morning max el	1665 Jul 16 17:29	4° \mathbb{B} 23'23	20°09'27		1666 Jul 09 18:04	0° \mathbb{B}	
asc. node	1665 Jul 26 21:09	18° \mathbb{B} 01'43		asc. node	1666 Jul 13 18:12	7° \mathbb{B} 07'06	
	1665 Aug 02 06:18	0° \mathbb{Q}		morning set	1666 Jul 19 08:41	18° \mathbb{B} 16'31	
morning set	1665 Aug 03 23:53	3° \mathbb{Q} 29'36			1666 Jul 24 22:36	0° \mathbb{Q}	
superior conj	1665 Aug 11 18:06	19° \mathbb{Q} 20'02	1°45'50	superior conj	1666 Jul 26 17:14	3° \mathbb{Q} 43'16	1°40'53
minimum elong	1665 Aug 11 17:49	19° \mathbb{Q} 18'37	1°45'49	minimum elong	1666 Jul 26 15:41	3° \mathbb{Q} 35'11	1°40'47
max. Earth dist.	1665 Aug 17 02:05	29° \mathbb{Q} 48'20	1.36676 AU	max. Earth dist.	1666 Jul 30 14:31	11° \mathbb{Q} 41'55	1.35009 AU
	1665 Aug 17 04:32	0° \mathbb{H}		evening rise	1666 Aug 04 01:11	20° \mathbb{Q} 25'44	
evening rise	1665 Aug 21 00:43	7° \mathbb{H} 10'03			1666 Aug 09 05:36	0° \mathbb{H}	
desc. node	1665 Sep 03 09:35	29° \mathbb{H} 39'32		desc. node	1666 Aug 21 06:37	19° \mathbb{H} 43'14	
	1665 Sep 03 14:53	0° \mathbb{A}			1666 Aug 28 13:35	0° \mathbb{A}	
evening max el	1665 Sep 25 18:25	28° \mathbb{A} 47'05	25°50'52	evening max el	1666 Sep 08 06:43	12° \mathbb{A} 23'30	26°46'40
	1665 Sep 27 01:20	0° \mathbb{M}		retrograde	1666 Sep 21 07:45	19° \mathbb{A} 38'29	
retrograde	1665 Oct 08 03:47	5° \mathbb{M} 51'03		evening set	1666 Sep 27 23:25	16° \mathbb{A} 57'08	
evening set	1665 Oct 14 06:12	3° \mathbb{M} 19'07		min. Earth dist.	1666 Oct 02 00:03	12° \mathbb{A} 52'25	0.65807 AU
	1665 Oct 17 11:08	30° \mathbb{R} \mathbb{A}		inferior conj	1666 Oct 03 19:10	10° \mathbb{A} 45'35	-1°-58'-56

minimum elong	1666 Oct 03 22:19	10° Ω 36'18	1°57'42	min. Earth dist.	1667 Sep 15 01:38	26° \mathbb{M} 53'43	0.64455 AU
morning rise	1666 Oct 09 22:35	5° Ω 02'01		inferior conj	1667 Sep 17 09:31	24° \mathbb{M} 23'42	-2°-56'-3
asc. node	1666 Oct 09 17:27	5° Ω 08'54		minimum elong	1667 Sep 17 14:04	24° \mathbb{M} 11'29	2°54'32
direct	1666 Oct 12 18:11	4° Ω 17'57		morning rise	1667 Sep 23 22:34	18° \mathbb{M} 55'30	
morning max el	1666 Oct 19 08:24	7° Ω 53'54	18°23'40	direct	1667 Sep 26 11:58	18° \mathbb{M} 21'48	
	1666 Nov 03 16:18	0° \mathbb{M}		asc. node	1667 Sep 26 14:29	18° \mathbb{M} 21'51	
morning set	1666 Nov 07 19:30	6° \mathbb{M} 40'57		morning max el	1667 Oct 03 00:05	21° \mathbb{M} 48'40	17°58'56
desc. node	1666 Nov 17 05:55	21° \mathbb{M} 48'27			1667 Oct 09 07:47	0° Ω	
	1666 Nov 22 10:15	0° \mathcal{A}		morning set	1667 Oct 20 08:08	18° Ω 09'11	
					1667 Oct 27 09:44	0° \mathbb{M}	
superior conj	1666 Nov 23 05:43	1° \mathcal{A} 16'37	0°-39'-16	superior conj	1667 Nov 02 18:00	10° \mathbb{M} 21'48	0°09'15
minimum elong	1666 Nov 23 00:38	0° \mathcal{A} 56'37	0°38'37	minimum elong	1667 Nov 02 19:05	10° \mathbb{M} 26'10	0°09'05
max. Earth dist.	1666 Nov 24 17:52	3° \mathcal{A} 38'45	1.45125 AU	behind sun begin	1667 Nov 02 10:26	9° \mathbb{M} 51'16	
evening rise	1666 Dec 09 12:14	26° \mathcal{A} 48'48		behind sun end	1667 Nov 03 03:44	11° \mathbb{M} 01'00	
	1666 Dec 11 12:52	0° \mathcal{B}		desc. node	1667 Nov 04 02:58	12° \mathbb{M} 34'18	
greatest brilliancy	1666 Dec 22 20:58	17° \mathcal{B} 37'45	-0.7m	max. Earth dist.	1667 Nov 07 12:40	17° \mathbb{M} 59'48	1.44636 AU
	1667 Jan 01 01:49	0° \approx			1667 Nov 15 04:28	0° \mathcal{A}	
evening max el	1667 Jan 01 13:59	0° \approx 31'59	19°14'20	evening rise	1667 Nov 19 02:06	6° \mathcal{A} 02'00	
asc. node	1667 Jan 05 16:44	3° \approx 47'20			1667 Dec 04 23:05	0° \mathcal{B}	
retrograde	1667 Jan 08 14:56	4° \approx 33'47		greatest brilliancy	1667 Dec 09 02:46	5° \mathcal{B} 52'12	-0.6m
evening set	1667 Jan 11 22:47	3° \approx 29'11		evening max el	1667 Dec 15 18:23	14° \mathcal{B} 01'17	20°09'37
	1667 Jan 15 15:32	30° \mathcal{R} \mathcal{B}		retrograde	1667 Dec 23 12:44	18° \mathcal{B} 34'44	
inferior conj	1667 Jan 17 13:46	27° \mathcal{B} 36'10	3°16'06	asc. node	1667 Dec 23 13:45	18° \mathcal{B} 34'44	
minimum elong	1667 Jan 17 11:22	27° \mathcal{B} 43'51	3°15'37	evening set	1667 Dec 27 04:47	17° \mathcal{B} 16'21	
min. Earth dist.	1667 Jan 18 22:49	25° \mathcal{B} 50'22	0.66089 AU	inferior conj	1668 Jan 01 16:16	11° \mathcal{B} 09'49	2°44'29
morning rise	1667 Jan 22 23:08	21° \mathcal{B} 22'55		minimum elong	1668 Jan 01 13:36	11° \mathcal{B} 18'46	2°43'44
direct	1667 Jan 29 07:14	18° \mathcal{B} 36'09		min. Earth dist.	1668 Jan 02 11:42	10° \mathcal{B} 04'24	0.67035 AU
morning max el	1667 Feb 10 23:34	26° \mathcal{B} 06'00	26°15'20	morning rise	1668 Jan 06 21:52	4° \mathcal{B} 54'35	
desc. node	1667 Feb 13 05:07	28° \mathcal{B} 27'07		direct	1668 Jan 12 16:11	2° \mathcal{B} 21'48	
	1667 Feb 14 14:11	0° \approx		morning max el	1668 Jan 24 08:20	9° \mathcal{B} 19'29	24°56'32
	1667 Mar 07 19:06	0° \mathcal{H}		desc. node	1668 Jan 31 02:11	17° \mathcal{B} 00'22	
morning set	1667 Mar 19 02:17	19° \mathcal{H} 45'48			1668 Feb 09 16:21	0° \approx	
max. Earth dist.	1667 Mar 23 03:52	27° \mathcal{H} 31'53	1.35153 AU		1668 Feb 28 09:54	0° \mathcal{H}	
	1667 Mar 24 10:00	0° \mathcal{Y}		morning set	1668 Feb 29 11:06	1° \mathcal{H} 51'31	
superior conj	1667 Mar 28 02:11	7° \mathcal{Y} 23'29	-1°-4'-27	max. Earth dist.	1668 Mar 04 03:56	8° \mathcal{H} 34'18	1.36970 AU
minimum elong	1667 Mar 28 05:23	7° \mathcal{Y} 39'49	1°03'54	superior conj	1668 Mar 10 13:37	20° \mathcal{H} 46'35	-1°-29'-56
asc. node	1667 Apr 03 16:01	21° \mathcal{Y} 00'08		minimum elong	1668 Mar 10 17:44	21° \mathcal{H} 06'47	1°29'23
evening rise	1667 Apr 04 21:07	23° \mathcal{Y} 30'24			1668 Mar 15 04:52	0° \mathcal{Y}	
	1667 Apr 08 02:11	0° \mathcal{B}		evening rise	1668 Mar 19 00:01	7° \mathcal{Y} 38'39	
evening max el	1667 Apr 23 10:40	23° \mathcal{B} 35'24	20°34'59	asc. node	1668 Mar 20 13:03	10° \mathcal{Y} 43'17	
retrograde	1667 May 04 13:10	28° \mathcal{B} 58'42			1668 Mar 31 14:19	0° \mathcal{B}	
evening set	1667 May 06 15:44	28° \mathcal{B} 47'51		evening max el	1668 Apr 05 00:55	5° \mathcal{B} 14'11	19°28'16
desc. node	1667 May 12 04:17	26° \mathcal{B} 51'21		retrograde	1668 Apr 14 10:21	9° \mathcal{B} 46'18	
inferior conj	1667 May 15 20:29	24° \mathcal{B} 50'14	-1°-4'-6	evening set	1668 Apr 16 11:53	9° \mathcal{B} 34'07	
minimum elong	1667 May 15 17:27	24° \mathcal{B} 54'36	1°03'00	inferior conj	1668 Apr 25 01:02	5° \mathcal{B} 28'10	0°51'28
min. Earth dist.	1667 May 17 01:45	24° \mathcal{B} 08'03	0.55040 AU	minimum elong	1668 Apr 25 03:09	5° \mathcal{B} 24'45	0°50'43
morning rise	1667 May 24 17:46	20° \mathcal{B} 40'21		min. Earth dist.	1668 Apr 27 16:16	3° \mathcal{B} 46'23	0.55979 AU
direct	1667 May 28 09:38	20° \mathcal{B} 11'29		desc. node	1668 Apr 28 01:20	3° \mathcal{B} 32'17	
morning max el	1667 Jun 10 17:04	26° \mathcal{B} 37'53	23°13'31	morning rise	1668 May 03 14:37	0° \mathcal{B} 46'08	
	1667 Jun 13 22:55	0° \mathbb{I}			1668 May 07 07:16	30° \mathcal{R} \mathcal{Y}	
asc. node	1667 Jun 30 15:15	26° \mathbb{I} 37'56		direct	1668 May 08 05:11	29° \mathcal{Y} 58'05	
	1667 Jul 02 07:02	0° \mathcal{S}			1668 May 09 03:05	0° \mathcal{B}	
morning set	1667 Jul 03 19:55	3° \mathcal{S} 11'46		morning max el	1668 May 22 07:46	7° \mathcal{B} 06'04	24°54'42
					1668 Jun 08 00:24	0° \mathbb{I}	
superior conj	1667 Jul 10 22:48	18° \mathcal{S} 26'16	1°30'00	asc. node	1668 Jun 16 12:18	16° \mathbb{I} 26'19	
minimum elong	1667 Jul 10 20:33	18° \mathcal{S} 14'13	1°29'46	morning set	1668 Jun 17 07:48	18° \mathbb{I} 08'37	
max. Earth dist.	1667 Jul 13 12:13	23° \mathcal{S} 52'27	1.33715 AU		1668 Jun 22 19:38	0° \mathcal{S}	
	1667 Jul 16 11:06	0° \mathcal{Q}					
evening rise	1667 Jul 18 14:53	4° \mathcal{Q} 20'46		superior conj	1668 Jun 24 08:17	3° \mathcal{S} 19'58	1°14'18
	1667 Aug 01 23:05	0° \mathbb{M}		minimum elong	1668 Jun 24 05:52	3° \mathcal{S} 06'48	1°13'56
desc. node	1667 Aug 08 03:38	9° \mathbb{M} 19'45		max. Earth dist.	1668 Jun 25 17:51	6° \mathcal{S} 22'26	1.32821 AU
evening max el	1667 Aug 21 18:31	25° \mathbb{M} 46'16	27°19'37	evening rise	1668 Jul 01 13:58	18° \mathcal{S} 42'58	
	1667 Aug 26 21:39	0° Ω			1668 Jul 07 07:55	0° \mathcal{Q}	
retrograde	1667 Sep 04 06:02	3° Ω 04'43		desc. node	1668 Jul 25 00:38	28° \mathcal{Q} 16'43	
evening set	1667 Sep 11 07:32	0° Ω 22'12			1668 Jul 26 08:39	0° \mathbb{M}	
	1667 Sep 11 18:46	30° \mathcal{R} \mathbb{M}					

evening max el	1668 Aug 03 03:53	8° \cap 42'07	27°23'40	desc. node	1669 Jul 11 21:38	16° Ω 17'39	
retrograde	1668 Aug 16 22:11	15° \cap 59'33		evening max el	1669 Jul 16 08:31	20° Ω 59'26	26°54'56
evening set	1668 Aug 24 03:07	13° \cap 27'47		retrograde	1669 Jul 30 07:02	28° Ω 13'38	
min. Earth dist.	1668 Aug 27 17:18	10° \cap 29'53	0.62756 AU	evening set	1669 Aug 06 05:51	26° Ω 06'28	
inferior conj	1668 Aug 30 13:35	7° \cap 45'46	-3°-48'-49	min. Earth dist.	1669 Aug 09 22:41	23° Ω 27'19	0.60789 AU
minimum elong	1668 Aug 30 18:51	7° \cap 33'05	3°47'27	inferior conj	1669 Aug 13 04:05	20° Ω 43'43	-4°-31'-30
morning rise	1668 Sep 06 13:10	2° \cap 36'10		minimum elong	1669 Aug 13 08:35	20° Ω 34'10	4°30'46
direct	1668 Sep 08 23:00	2° \cap 09'32		morning rise	1669 Aug 20 14:27	15° Ω 55'31	
asc. node	1668 Sep 12 11:31	3° \cap 07'46		direct	1669 Aug 22 23:35	15° Ω 33'12	
morning max el	1668 Sep 15 16:00	5° \cap 35'46	17°51'56	morning max el	1669 Aug 30 05:06	19° Ω 07'22	18°03'50
	1668 Oct 01 10:02	0° $\underline{\cap}$		asc. node	1669 Aug 30 08:34	19° Ω 15'50	
morning set	1668 Oct 01 19:45	0° $\underline{\cap}$ 43'06			1669 Sep 07 04:10	0° \cap	
				morning set	1669 Sep 15 00:19	14° \cap 05'45	
					1669 Sep 23 16:01	0° $\underline{\cap}$	
superior conj	1668 Oct 13 07:21	20° $\underline{\cap}$ 41'42	0°50'41				
minimum elong	1668 Oct 13 11:42	21° $\underline{\cap}$ 00'04	0°50'07				
	1668 Oct 18 22:09	0° \cap		superior conj	1669 Sep 24 23:20	2° $\underline{\cap}$ 19'51	1°20'19
max. Earth dist.	1668 Oct 20 03:54	2° \cap 00'41	1.43475 AU	minimum elong	1669 Sep 25 03:38	2° $\underline{\cap}$ 38'55	1°19'52
desc. node	1668 Oct 20 23:59	3° \cap 21'39		max. Earth dist.	1669 Oct 02 14:08	15° $\underline{\cap}$ 27'46	1.41796 AU
evening rise	1668 Oct 28 10:21	15° \cap 05'55		desc. node	1669 Oct 07 20:58	24° $\underline{\cap}$ 07'22	
	1668 Nov 07 05:42	0° \nearrow		evening rise	1669 Oct 08 06:20	24° $\underline{\cap}$ 44'58	
greatest brilliancy	1668 Nov 22 14:17	21° \nearrow 35'50	-0.4m		1669 Oct 11 13:55	0° \cap	
evening max el	1668 Nov 27 17:10	27° \nearrow 31'26	21°17'50		1669 Nov 01 04:19	0° \nearrow	
	1668 Nov 30 09:33	0° $\overline{\cap}$		greatest brilliancy	1669 Nov 05 14:46	5° \nearrow 38'22	-0.3m
retrograde	1668 Dec 06 10:18	2° $\overline{\cap}$ 42'05		evening max el	1669 Nov 10 10:42	11° \nearrow 03'15	22°34'42
asc. node	1668 Dec 09 10:46	1° $\overline{\cap}$ 51'22		retrograde	1669 Nov 20 05:45	16° \nearrow 52'25	
evening set	1668 Dec 10 12:24	1° $\overline{\cap}$ 08'20		evening set	1669 Nov 24 19:55	15° \nearrow 01'52	
	1668 Dec 11 19:12	30° \cap \nearrow		asc. node	1669 Nov 26 07:49	13° \nearrow 37'18	
inferior conj	1668 Dec 15 22:10	24° \nearrow 51'44	2°04'45	inferior conj	1669 Nov 30 05:31	8° \nearrow 38'57	1°18'30
minimum elong	1668 Dec 15 19:46	25° \nearrow 00'02	2°03'55	minimum elong	1669 Nov 30 03:48	8° \nearrow 44'52	1°17'50
min. Earth dist.	1668 Dec 16 05:33	24° \nearrow 26'16	0.67594 AU	min. Earth dist.	1669 Nov 30 01:54	8° \nearrow 51'26	0.67804 AU
morning rise	1668 Dec 21 02:47	18° \nearrow 36'38		morning rise	1669 Dec 05 11:34	2° \nearrow 26'10	
direct	1668 Dec 26 06:04	16° \nearrow 23'58		direct	1669 Dec 09 23:53	0° \nearrow 36'13	
morning max el	1669 Jan 05 17:08	22° \nearrow 37'49	23°28'53	morning max el	1669 Dec 19 05:05	6° \nearrow 01'43	22°01'50
greatest brilliancy	1669 Jan 11 17:50	29° \nearrow 28'50	-0.2m	greatest brilliancy	1669 Dec 23 21:39	11° \nearrow 18'25	-0.4m
	1669 Jan 12 03:51	0° $\overline{\cap}$		desc. node	1670 Jan 03 20:14	26° \nearrow 04'07	
desc. node	1669 Jan 16 23:14	6° $\overline{\cap}$ 17'01			1670 Jan 06 13:08	0° $\overline{\cap}$	
	1669 Feb 02 00:50	0° \approx		morning set	1670 Jan 20 23:52	22° $\overline{\cap}$ 13'14	
morning set	1669 Feb 09 20:01	12° \approx 44'54			1670 Jan 25 18:06	0° \approx	
max. Earth dist.	1669 Feb 13 22:42	19° \approx 49'11	1.39068 AU	max. Earth dist.	1670 Jan 26 20:19	1° \approx 49'18	1.41196 AU
	1669 Feb 19 14:47	0° \nmid					
				superior conj	1670 Feb 03 14:29	15° \approx 10'32	-2°-2'-58
superior conj	1669 Feb 21 11:22	3° \nmid 26'38	-1°-50'-40	minimum elong	1670 Feb 03 16:16	15° \approx 18'25	2°02'57
minimum elong	1669 Feb 21 15:19	3° \nmid 45'03	1°50'22		1670 Feb 11 18:21	0° \nmid	
evening rise	1669 Mar 02 19:04	21° \nmid 18'58		evening rise	1670 Feb 14 02:50	4° \nmid 22'11	
asc. node	1669 Mar 07 10:05	0° Υ 08'05		asc. node	1670 Feb 22 07:08	19° \nmid 07'20	
	1669 Mar 07 08:21	0° Υ			1670 Mar 02 02:12	0° Υ	
evening max el	1669 Mar 19 01:27	17° Υ 31'13	18°41'26	evening max el	1670 Mar 02 09:08	0° Υ 17'14	18°14'39
retrograde	1669 Mar 27 00:34	21° Υ 24'11		retrograde	1670 Mar 09 09:28	3° Υ 47'47	
evening set	1669 Mar 29 07:05	21° Υ 06'23		evening set	1670 Mar 11 21:34	3° Υ 21'48	
inferior conj	1669 Apr 06 01:12	16° Υ 42'43	2°20'29		1670 Mar 17 07:37	30° \cap \nmid	
minimum elong	1669 Apr 06 05:15	16° Υ 35'03	2°19'22	inferior conj	1670 Mar 18 22:25	28° \nmid 36'44	3°15'25
min. Earth dist.	1669 Apr 09 09:43	14° Υ 12'19	0.57662 AU	minimum elong	1670 Mar 19 01:33	28° \nmid 29'51	3°14'53
morning rise	1669 Apr 13 23:05	11° Υ 27'31		min. Earth dist.	1670 Mar 22 07:52	25° \nmid 39'18	0.59740 AU
desc. node	1669 Apr 14 22:22	11° Υ 02'51		morning rise	1670 Mar 26 01:59	22° \nmid 56'35	
direct	1669 Apr 19 15:11	10° Υ 07'42		direct	1670 Apr 01 13:47	21° \nmid 00'08	
morning max el	1669 May 03 23:50	17° Υ 41'45	26°22'42	desc. node	1670 Apr 01 19:25	21° \nmid 00'17	
	1669 May 14 04:42	0° $\overline{\Upsilon}$		morning max el	1670 Apr 15 21:15	28° \nmid 47'45	27°23'35
	1669 May 31 07:50	0° Π			1670 Apr 17 01:50	0° Υ	
morning set	1669 Jun 01 18:44	3° Π 01'47		morning set	1670 May 07 23:23	0° $\overline{\Upsilon}$	
asc. node	1669 Jun 03 09:21	6° Π 26'43		asc. node	1670 May 17 03:02	17° $\overline{\Upsilon}$ 45'07	
					1670 May 21 06:24	26° $\overline{\Upsilon}$ 33'55	
superior conj	1669 Jun 08 19:44	18° Π 17'46	0°54'38		1670 May 22 20:11	0° Π	
minimum elong	1669 Jun 08 17:38	18° Π 06'13	0°54'14	max. Earth dist.	1670 May 23 16:56	1° Π 53'45	1.32213 AU
max. Earth dist.	1669 Jun 09 04:36	19° Π 06'28	1.32326 AU				
	1669 Jun 14 04:57	0° $\overline{\cap}$		superior conj	1670 May 24 07:24	3° Π 13'17	0°31'42
evening rise	1669 Jun 15 19:30	3° $\overline{\cap}$ 23'17		minimum elong	1670 May 24 06:02	3° Π 05'46	0°31'24
	1669 Jun 30 03:41	0° Ω		evening rise	1670 May 31 05:04	18° Π 13'25	

	1670 Jun 06 00:44	0°☿		minimum elong	1671 May 08 17:19	17°☿59'11	0°06'11
	1670 Jun 25 19:12	0°♌		behind sun begin	1671 May 08 12:33	17°☿33'18	
evening max el	1670 Jun 28 06:23	2°♌30'38	25°54'08	behind sun end	1671 May 08 22:04	18°☿25'06	
desc. node	1670 Jun 28 18:39	2°♌59'27			1671 May 14 05:46	0°♈	
retrograde	1670 Jul 12 06:45	9°♌40'36		evening rise	1671 May 15 16:39	3°♈06'21	
evening set	1670 Jul 18 10:59	8°♌09'12			1671 May 30 05:53	0°☿	
min. Earth dist.	1670 Jul 22 18:51	5°♌31'53	0.58725 AU	evening max el	1671 Jun 09 21:49	13°☿19'41	24°28'50
inferior conj	1670 Jul 26 01:26	3°♌07'52	-4°-54'-52	desc. node	1671 Jun 15 15:41	17°☿50'44	
minimum elong	1670 Jul 26 02:50	3°♌05'17	4°54'49	retrograde	1671 Jun 23 19:17	20°☿21'01	
	1670 Jul 30 18:46	30°☿☿		evening set	1671 Jun 28 16:31	19°☿27'32	
morning rise	1670 Aug 02 22:11	28°☿42'44		min. Earth dist.	1671 Jul 04 08:50	16°☿34'15	0.56838 AU
direct	1670 Aug 05 09:28	28°☿22'40		inferior conj	1671 Jul 07 02:51	14°☿49'01	-4°-45'-48
	1670 Aug 10 15:42	0°♌		minimum elong	1671 Jul 06 23:06	14°☿55'02	4°45'27
morning max el	1670 Aug 13 12:14	2°♌14'50	18°36'00	morning rise	1671 Jul 15 09:22	10°☿45'06	
asc. node	1670 Aug 17 05:37	6°♌30'57		direct	1671 Jul 18 00:41	10°☿26'07	
morning set	1670 Aug 29 16:59	28°♌03'50		morning max el	1671 Jul 27 10:24	14°☿48'32	19°29'22
	1670 Aug 30 16:57	0°♍		asc. node	1671 Aug 04 02:40	24°☿38'14	
					1671 Aug 07 06:24	0°♌	
superior conj	1670 Sep 07 13:25	15°♍03'41	1°38'01	morning set	1671 Aug 13 17:57	12°♌26'31	
minimum elong	1670 Sep 07 16:03	15°♍15'58	1°37'50				
max. Earth dist.	1670 Sep 14 19:53	28°♍14'06	1.39809 AU	superior conj	1671 Aug 21 19:54	28°♌36'40	1°45'27
	1670 Sep 15 20:12	0°♎		minimum elong	1671 Aug 21 20:36	28°♌40'04	1°45'26
evening rise	1670 Sep 19 00:50	5°♎26'59			1671 Aug 22 12:56	0°♍	
desc. node	1670 Sep 24 17:58	14°♎48'03		max. Earth dist.	1671 Aug 27 23:48	10°♍22'06	1.37769 AU
	1670 Oct 04 17:18	0°♍		evening rise	1671 Aug 31 19:14	17°♍15'47	
evening max el	1670 Oct 24 00:30	24°♍38'47	23°54'41		1671 Sep 08 07:12	0°♎	
	1670 Oct 30 21:55	0°♏		desc. node	1671 Sep 11 15:00	5°♎18'53	
retrograde	1670 Nov 03 21:56	1°♏03'16			1671 Sep 29 02:48	0°♍	
	1670 Nov 07 13:44	30°☿♍		evening max el	1671 Oct 06 12:29	8°♍17'05	25°11'14
evening set	1670 Nov 09 01:47	28°♍55'17		retrograde	1671 Oct 18 09:57	15°♍09'46	
asc. node	1670 Nov 13 04:51	24°♍16'51		evening set	1671 Oct 24 04:17	12°♍45'25	
min. Earth dist.	1670 Nov 13 22:21	23°♍18'02	0.67681 AU	min. Earth dist.	1671 Oct 28 16:34	7°♍43'03	0.67222 AU
inferior conj	1670 Nov 14 12:32	22°♍29'57	0°27'11	inferior conj	1671 Oct 29 17:28	6°♍21'50	0°-27'-56
minimum elong	1670 Nov 14 11:53	22°♍32'09	0°26'55	minimum elong	1671 Oct 29 18:10	6°♍19'32	0°27'39
morning rise	1670 Nov 19 22:11	16°♍21'56		asc. node	1671 Oct 31 01:53	4°♍37'41	
direct	1670 Nov 23 20:37	14°♍54'19		morning rise	1671 Nov 04 08:40	0°♍21'07	
morning max el	1670 Dec 01 23:46	19°♍36'19	20°42'54		1671 Nov 04 22:39	30°☿♎	
greatest brilliancy	1670 Dec 07 21:24	26°♍31'21	-0.5m	direct	1671 Nov 07 18:54	29°♎13'24	
	1670 Dec 10 11:57	0°♏			1671 Nov 10 18:23	0°♍	
desc. node	1670 Dec 21 17:16	16°♏13'35		morning max el	1671 Nov 15 02:21	3°♍21'51	19°36'41
	1670 Dec 30 17:50	0°☿		greatest brilliancy	1671 Nov 23 09:35	13°♍46'59	-0.6m
morning set	1670 Dec 31 02:37	0°☿34'08			1671 Dec 04 06:34	0°♏	
max. Earth dist.	1671 Jan 09 01:49	14°☿47'27	1.43057 AU	desc. node	1671 Dec 08 14:18	6°♏38'46	
				morning set	1671 Dec 09 23:51	8°♏48'21	
superior conj	1671 Jan 15 17:46	25°☿46'38	-2°-2'-4	max. Earth dist.	1671 Dec 22 14:29	28°♏31'32	1.44397 AU
minimum elong	1671 Jan 15 14:56	25°☿34'42	2°01'59		1671 Dec 23 12:46	0°☿	
	1671 Jan 18 05:43	0°♐					
evening rise	1671 Jan 27 19:24	16°♐40'33		superior conj	1671 Dec 26 18:35	5°☿10'56	-1°-43'-22
	1671 Feb 04 10:08	0°♑		minimum elong	1671 Dec 26 10:45	4°☿39'30	1°42'45
asc. node	1671 Feb 09 04:10	7°♑33'04		evening rise	1672 Jan 09 16:27	28°☿06'12	
evening max el	1671 Feb 13 20:42	13°♑23'24	18°07'31		1672 Jan 10 19:28	0°♐	
retrograde	1671 Feb 20 09:46	16°♑47'12		asc. node	1672 Jan 27 01:12	25°♐15'13	
evening set	1671 Feb 23 02:48	16°♑11'47		evening max el	1672 Jan 28 09:15	26°♐42'12	18°19'26
inferior conj	1671 Mar 01 13:59	11°♑05'18	3°40'42		1672 Feb 02 08:13	0°♑	
minimum elong	1671 Mar 01 15:06	11°♑02'28	3°40'39	retrograde	1672 Feb 03 20:46	0°♑12'29	
min. Earth dist.	1671 Mar 04 13:37	8°♑05'47	0.61863 AU		1672 Feb 05 09:10	30°☿♐	
morning rise	1671 Mar 08 00:54	5°♑09'00		evening set	1672 Feb 06 18:44	29°♐26'45	
direct	1671 Mar 14 22:26	2°♑41'26		inferior conj	1672 Feb 12 19:49	24°♐00'33	3°43'30
desc. node	1671 Mar 19 16:28	3°♑44'04		minimum elong	1672 Feb 12 19:05	24°♐02'37	3°43'28
morning max el	1671 Mar 29 01:03	10°♑35'35	27°48'50	min. Earth dist.	1672 Feb 15 04:56	21°♐19'49	0.63779 AU
	1671 Apr 13 05:06	0°♒		morning rise	1672 Feb 18 17:46	17°♐54'34	
	1671 Apr 30 04:36	0°♓		direct	1672 Feb 25 15:27	15°♐08'14	
morning set	1671 May 01 06:44	2°♓12'19		desc. node	1672 Mar 05 13:31	18°♐47'26	
max. Earth dist.	1671 May 07 03:01	14°♓31'16	1.32485 AU	morning max el	1672 Mar 10 09:22	23°♐02'17	27°37'05
asc. node	1671 May 08 03:27	16°♓43'44			1672 Mar 16 14:03	0°♑	
					1672 Apr 05 11:03	0°♒	
superior conj	1671 May 08 17:36	18°♓00'47	0°06'15	morning set	1672 Apr 14 03:26	16°♒15'33	

max. Earth dist.	1672 Apr 19 06:42	26° Υ 45'28	1.33163 AU	morning set	1673 Mar 28 13:45	29° Υ 43'25	
	1672 Apr 20 19:33	0° Υ			1673 Mar 28 17:13	0° Υ	
				max. Earth dist.	1673 Apr 02 00:04	8° Υ 25'08	1.34290 AU
superior conj	1672 Apr 22 00:32	2° Υ 34'32	0°-20'-55	superior conj	1673 Apr 06 02:01	16° Υ 46'49	0°-48'-44
minimum elong	1672 Apr 22 01:34	2° Υ 40'03	0°20'43	minimum elong	1673 Apr 06 04:28	16° Υ 59'33	0°48'16
asc. node	1672 Apr 24 00:30	6° Υ 52'10		asc. node	1673 Apr 10 21:33	26° Υ 54'10	
evening rise	1672 Apr 29 04:23	17° Υ 55'38			1673 Apr 12 08:52	0° Υ	
	1672 May 05 03:58	0° Υ		evening rise	1673 Apr 13 14:17	2° Υ 33'45	
evening max el	1672 May 21 12:02	23° Υ 49'58	22°53'07		1673 Apr 29 07:24	0° Υ	
	1672 May 31 08:00	0° Υ		evening max el	1673 May 03 08:36	4° Υ 32'24	21°21'35
desc. node	1672 Jun 01 12:44	0° Υ 15'52		retrograde	1673 May 15 10:17	10° Υ 26'03	
retrograde	1672 Jun 03 19:45	0° Υ 27'51		evening set	1673 May 17 18:57	10° Υ 13'16	
evening set	1672 Jun 07 05:27	0° Υ 02'25		desc. node	1673 May 19 09:46	9° Υ 50'38	
	1672 Jun 07 09:19	30° Υ		inferior conj	1673 May 27 03:56	6° Υ 13'48	-2°-12'-44
min. Earth dist.	1672 Jun 14 20:47	26° Υ 39'10	0.55467 AU	minimum elong	1673 May 26 21:52	6° Υ 22'19	2°10'41
inferior conj	1672 Jun 16 09:12	25° Υ 46'40	-3°-51'-40	min. Earth dist.	1673 May 27 09:07	6° Υ 06'32	0.54919 AU
minimum elong	1672 Jun 16 01:34	25° Υ 57'41	3°49'52	morning rise	1673 Jun 05 01:02	2° Υ 15'33	
morning rise	1672 Jun 25 00:35	21° Υ 54'25		direct	1673 Jun 08 07:32	1° Υ 52'17	
direct	1672 Jun 27 21:13	21° Υ 35'15		morning max el	1673 Jun 20 21:50	7° Υ 50'45	22°15'28
morning max el	1672 Jul 08 21:39	26° Υ 41'32	20°43'34		1673 Jul 06 10:38	0° Υ	
	1672 Jul 12 01:06	0° Υ		asc. node	1673 Jul 07 20:47	2° Υ 42'46	
asc. node	1672 Jul 20 23:44	13° Υ 25'42		morning set	1673 Jul 12 10:32	11° Υ 57'23	
morning set	1672 Jul 28 00:32	27° Υ 06'38					
	1672 Jul 29 10:10	0° Υ		superior conj	1673 Jul 19 16:17	27° Υ 17'59	1°36'55
superior conj	1672 Aug 04 14:05	12° Υ 45'21	1°44'32	minimum elong	1673 Jul 19 14:21	27° Υ 07'52	1°36'46
minimum elong	1672 Aug 04 13:12	12° Υ 40'48	1°44'31		1673 Jul 20 23:06	0° Υ	
max. Earth dist.	1672 Aug 09 07:18	22° Υ 12'06	1.35919 AU	max. Earth dist.	1673 Jul 22 23:16	4° Υ 09'50	1.34407 AU
evening rise	1672 Aug 13 10:06	0° Υ 03'37		evening rise	1673 Jul 27 16:42	13° Υ 37'31	
	1672 Aug 13 09:19	0° Υ			1673 Aug 05 15:43	0° Υ	
desc. node	1672 Aug 28 12:02	25° Υ 34'32		desc. node	1673 Aug 15 09:04	15° Υ 27'46	
	1672 Aug 31 10:56	0° Υ			1673 Aug 26 09:12	0° Υ	
evening max el	1672 Sep 18 00:21	21° Υ 55'38	26°16'50	evening max el	1673 Aug 31 12:35	5° Υ 27'32	27°03'56
retrograde	1672 Sep 30 17:12	29° Υ 06'12		retrograde	1673 Sep 13 19:01	12° Υ 45'26	
evening set	1672 Oct 07 01:32	26° Υ 29'10		evening set	1673 Sep 20 15:15	10° Υ 02'27	
min. Earth dist.	1672 Oct 11 06:11	22° Υ 03'11	0.66421 AU	min. Earth dist.	1673 Sep 24 12:56	6° Υ 13'15	0.65268 AU
inferior conj	1672 Oct 12 18:27	20° Υ 11'42	-1°-25'-26	inferior conj	1673 Sep 26 13:23	3° Υ 55'41	-2°-23'-28
minimum elong	1672 Oct 12 20:42	20° Υ 04'47	1°24'32	minimum elong	1673 Sep 26 17:11	3° Υ 44'54	2°22'04
asc. node	1672 Oct 16 22:56	15° Υ 36'38			1673 Sep 30 08:38	30° Υ	
morning rise	1672 Oct 18 16:58	14° Υ 21'03		morning rise	1673 Oct 02 20:45	28° Υ 18'06	
direct	1672 Oct 21 17:08	13° Υ 29'35		asc. node	1673 Oct 03 19:59	27° Υ 55'05	
morning max el	1672 Oct 28 11:50	17° Υ 14'56	18°45'36	direct	1673 Oct 05 13:17	27° Υ 38'59	
	1672 Nov 07 02:47	0° Υ			1673 Oct 10 19:35	0° Υ	
morning set	1672 Nov 18 15:33	18° Υ 03'08		morning max el	1673 Oct 12 01:57	1° Υ 10'27	18°10'59
desc. node	1672 Nov 24 11:20	27° Υ 14'51		morning set	1673 Oct 30 12:16	28° Υ 44'58	
	1672 Nov 26 05:17	0° Υ			1673 Oct 31 06:30	0° Υ	
				desc. node	1673 Nov 11 08:21	17° Υ 58'08	
superior conj	1672 Dec 04 23:21	13° Υ 45'00	-1°-6'-18	superior conj	1673 Nov 14 02:44	22° Υ 22'05	0°-18'-25
minimum elong	1672 Dec 04 15:25	13° Υ 13'50	1°05'24	minimum elong	1673 Nov 14 00:22	22° Υ 12'43	0°18'06
max. Earth dist.	1672 Dec 04 07:37	12° Υ 43'11	1.45067 AU	max. Earth dist.	1673 Nov 17 02:31	27° Υ 05'33	1.45001 AU
	1672 Dec 15 06:04	0° Υ			1673 Nov 18 22:54	0° Υ	
evening rise	1672 Dec 20 14:31	8° Υ 33'52		evening rise	1673 Nov 30 14:04	18° Υ 08'34	
	1673 Jan 03 02:48	0° Υ			1673 Dec 08 05:43	0° Υ	
evening max el	1673 Jan 10 20:13	10° Υ 07'50	18°49'27	greatest brilliancy	1673 Dec 17 02:21	13° Υ 19'57	-0.7m
asc. node	1673 Jan 12 22:14	12° Υ 00'58		evening max el	1673 Dec 25 03:33	23° Υ 37'10	19°36'09
retrograde	1673 Jan 17 14:18	13° Υ 55'32		asc. node	1673 Dec 30 19:16	27° Υ 36'10	
evening set	1673 Jan 20 18:05	12° Υ 58'21		retrograde	1674 Jan 01 11:13	27° Υ 51'26	
inferior conj	1673 Jan 26 12:03	7° Υ 14'36	3°29'47	evening set	1674 Jan 04 22:17	26° Υ 41'19	
minimum elong	1673 Jan 26 10:05	7° Υ 20'41	3°29'29	inferior conj	1674 Jan 10 11:34	20° Υ 42'28	3°03'49
min. Earth dist.	1673 Jan 28 05:45	5° Υ 06'17	0.65358 AU	minimum elong	1674 Jan 10 08:59	20° Υ 50'55	3°03'13
morning rise	1673 Feb 01 00:58	1° Υ 03'06		min. Earth dist.	1674 Jan 11 14:43	19° Υ 13'25	0.66541 AU
	1673 Feb 02 09:10	30° Υ		morning rise	1674 Jan 15 18:58	14° Υ 28'09	
direct	1673 Feb 07 15:33	28° Υ 12'26		direct	1674 Jan 21 21:38	11° Υ 45'58	
	1673 Feb 13 11:34	0° Υ		morning max el	1674 Feb 03 04:17	19° Υ 03'58	25°43'31
desc. node	1673 Feb 20 10:33	5° Υ 34'09		desc. node	1674 Feb 07 07:35	23° Υ 35'08	
morning max el	1673 Feb 20 19:10	5° Υ 55'37	26°52'34		1674 Feb 12 11:27	0° Υ	
	1673 Mar 11 07:03	0° Υ					

	1674 Mar 04 08:33	0°♄			1675 Jan 14 01:46	0°♄		
morning set	1674 Mar 11 09:26	12°♄23'40		morning max el	1675 Jan 16 12:35	2°♄18'52	24°19'46	
max. Earth dist.	1674 Mar 15 05:36	19°♄34'24	1.35880 AU	desc. node	1675 Jan 25 04:36	12°♄28'15		
					1675 Feb 06 14:09	0°♄		
superior conj	1674 Mar 20 19:32	0°♄30'52	-1°-15'-38	morning set	1675 Feb 21 08:48	24°♄00'06		
minimum elong	1674 Mar 20 23:12	0°♄49'19	1°15'04		1675 Feb 24 18:08	0°♄		
	1674 Mar 20 13:23	0°♄		max. Earth dist.	1675 Feb 25 02:34	0°♄37'59	1.37847 AU	
evening rise	1674 Mar 28 20:24	16°♄55'02						
asc. node	1674 Mar 28 18:35	16°♄45'45		superior conj	1675 Mar 04 01:41	13°♄37'04	-1°-39'-29	
	1674 Apr 04 13:41	0°♄		minimum elong	1675 Mar 04 05:54	13°♄57'23	1°39'01	
evening max el	1674 Apr 15 16:15	15°♄48'57	20°04'15		1675 Mar 12 09:43	0°♄		
retrograde	1674 Apr 26 00:46	20°♄48'55		evening rise	1675 Mar 12 20:18	0°♄52'18		
evening set	1674 Apr 28 01:45	20°♄38'07		asc. node	1675 Mar 15 15:37	6°♄21'49		
desc. node	1674 May 06 06:47	17°♄05'57		evening max el	1675 Mar 29 11:10	27°♄44'35	19°05'49	
inferior conj	1674 May 07 00:52	16°♄38'56	0°-13'-7		1675 Apr 01 05:26	0°♄		
minimum elong	1674 May 07 00:16	16°♄39'51	0°12'55	retrograde	1675 Apr 07 04:29	1°♄58'01		
transit middle	1674 May 07 00:16	16°♄39'51	0°12'55	evening set	1675 Apr 09 08:03	1°♄43'43		
transit begin	1674 May 06 21:56	16°♄43'21			1675 Apr 13 15:31	30°♄		
transit end	1674 May 07 02:37	16°♄36'20		inferior conj	1675 Apr 17 13:04	27°♄30'41	1°33'19	
min. Earth dist.	1674 May 08 22:31	15°♄30'38	0.55340 AU	minimum elong	1675 Apr 17 16:28	27°♄24'50	1°32'14	
morning rise	1674 May 15 20:07	12°♄16'29		min. Earth dist.	1675 Apr 20 13:45	25°♄26'29	0.56629 AU	
direct	1674 May 19 21:06	11°♄40'46		desc. node	1675 Apr 23 03:48	23°♄51'28		
morning max el	1674 Jun 02 14:06	18°♄26'37	23°57'00	morning rise	1675 Apr 25 20:45	22°♄34'20		
	1674 Jun 12 02:58	0°♄		direct	1675 Apr 30 22:27	21°♄34'10		
asc. node	1674 Jun 24 17:49	22°♄21'39		morning max el	1675 May 15 04:35	28°♄54'05	25°34'41	
morning set	1674 Jun 26 22:13	26°♄53'35			1675 May 16 07:11	0°♄		
	1674 Jun 28 09:21	0°♄			1675 Jun 05 13:02	0°♄		
				morning set	1675 Jun 11 09:56	11°♄50'00		
superior conj	1674 Jul 03 23:44	12°♄06'01	1°23'53	asc. node	1675 Jun 11 14:52	12°♄16'03		
minimum elong	1674 Jul 03 21:21	11°♄53'08	1°23'34					
max. Earth dist.	1674 Jul 06 00:39	16°♄28'48	1.33292 AU	superior conj	1675 Jun 18 10:18	27°♄02'25	1°06'25	
evening rise	1674 Jul 11 10:48	27°♄45'22		minimum elong	1675 Jun 18 07:57	26°♄49'37	1°06'00	
	1674 Jul 12 13:44	0°♄		max. Earth dist.	1675 Jun 19 09:09	29°♄07'28	1.32568 AU	
	1674 Jul 29 21:23	0°♄			1675 Jun 19 18:47	0°♄		
desc. node	1674 Aug 02 06:05	4°♄48'55		evening rise	1675 Jun 25 12:59	12°♄16'46		
evening max el	1674 Aug 13 23:50	18°♄41'01	27°25'18		1675 Jul 04 17:43	0°♄		
retrograde	1674 Aug 27 14:40	25°♄58'51		desc. node	1675 Jul 20 03:06	23°♄24'45		
evening set	1674 Sep 03 18:28	23°♄19'43			1675 Jul 25 22:00	0°♄		
min. Earth dist.	1674 Sep 07 10:35	20°♄04'56	0.63768 AU	evening max el	1675 Jul 27 07:40	1°♄22'39	27°15'32	
inferior conj	1674 Sep 09 23:45	17°♄27'51	-3°-19'-18	retrograde	1675 Aug 10 03:34	8°♄37'58		
minimum elong	1674 Sep 10 04:43	17°♄15'04	3°17'46	evening set	1675 Aug 17 07:28	6°♄15'02		
morning rise	1674 Sep 16 17:09	12°♄06'50		min. Earth dist.	1675 Aug 20 21:44	3°♄27'05	0.61949 AU	
direct	1674 Sep 19 04:44	11°♄36'26		inferior conj	1675 Aug 23 22:31	0°♄41'18	-4°-8'-37	
asc. node	1674 Sep 20 17:02	11°♄47'55		minimum elong	1675 Aug 24 03:41	0°♄29'28	4°07'28	
morning max el	1674 Sep 25 18:00	15°♄02'08	17°53'41		1675 Aug 24 16:42	30°♄		
	1674 Oct 06 05:23	0°♄		morning rise	1675 Aug 31 02:40	25°♄40'25		
morning set	1674 Oct 12 11:28	10°♄43'31		direct	1675 Sep 02 12:01	25°♄15'46		
	1674 Oct 23 20:29	0°♄		asc. node	1675 Sep 07 14:04	27°♄10'52		
				morning max el	1675 Sep 09 09:08	28°♄43'55	17°54'39	
superior conj	1674 Oct 25 00:39	1°♄55'53	0°28'07		1675 Sep 10 14:03	0°♄		
minimum elong	1674 Oct 25 03:36	2°♄08'00	0°27'43	morning set	1675 Sep 25 07:03	23°♄40'38		
desc. node	1674 Oct 29 05:22	8°♄44'45			1675 Sep 28 18:59	0°♄		
max. Earth dist.	1674 Oct 30 20:18	11°♄20'42	1.44218 AU					
evening rise	1674 Nov 09 23:25	27°♄12'32		superior conj	1675 Oct 06 01:44	12°♄50'25	1°04'46	
	1674 Nov 11 19:02	0°♄		minimum elong	1675 Oct 06 06:23	13°♄10'24	1°04'12	
	1674 Dec 02 06:45	0°♄		max. Earth dist.	1675 Oct 13 10:11	25°♄11'16	1.42817 AU	
greatest brilliancy	1674 Dec 02 09:00	0°♄07'27	-0.5m	desc. node	1675 Oct 16 02:24	29°♄31'54		
evening max el	1674 Dec 08 05:43	7°♄07'06	20°37'20		1675 Oct 16 09:23	0°♄		
retrograde	1674 Dec 16 09:01	11°♄55'23		evening rise	1675 Oct 20 10:51	6°♄26'51		
asc. node	1674 Dec 17 16:18	11°♄45'51			1675 Nov 05 02:35	0°♄		
evening set	1674 Dec 20 05:11	10°♄30'34		greatest brilliancy	1675 Nov 16 07:08	15°♄10'26	-0.4m	
inferior conj	1674 Dec 25 15:45	4°♄19'31	2°28'29	evening max el	1675 Nov 21 02:09	20°♄37'34	21°49'41	
minimum elong	1674 Dec 25 13:08	4°♄28'25	2°27'41	retrograde	1675 Nov 30 05:51	26°♄04'26		
min. Earth dist.	1674 Dec 26 05:53	3°♄31'19	0.67322 AU	evening set	1675 Dec 04 12:59	24°♄23'25		
	1674 Dec 28 23:46	30°♄		asc. node	1675 Dec 04 13:20	24°♄22'43		
morning rise	1674 Dec 30 20:38	28°♄04'22		inferior conj	1675 Dec 09 22:29	18°♄03'33	1°45'49	
direct	1675 Jan 05 08:44	25°♄39'33		minimum elong	1675 Dec 09 20:20	18°♄11'01	1°45'01	

min. Earth dist.	1675 Dec 10 01:00	17°♂54'50	0.67729 AU	min. Earth dist.	1676 Nov 22 21:45	2°♂20'43	0.67788 AU
morning rise	1675 Dec 15 03:27	11°♂49'23			1676 Nov 24 15:03	30°♂♂	
direct	1675 Dec 20 00:15	9°♂46'30		morning rise	1676 Nov 28 13:15	25°♂41'28	
morning max el	1675 Dec 29 22:25	15°♂39'21	22°51'19	direct	1676 Dec 02 19:22	24°♂01'25	
greatest brilliancy	1676 Jan 03 14:31	20°♂52'10	-0.3m	morning max el	1676 Dec 11 13:05	29°♂07'55	21°26'57
	1676 Jan 10 15:19	0°♂			1676 Dec 12 09:14	0°♂	
desc. node	1676 Jan 12 01:38	1°♂58'40		greatest brilliancy	1676 Dec 16 14:53	4°♂55'21	-0.4m
	1676 Jan 30 14:45	0°♂		desc. node	1676 Dec 28 22:40	21°♂56'01	
morning set	1676 Feb 02 05:41	4°♂17'25			1677 Jan 03 08:33	0°♂	
max. Earth dist.	1676 Feb 06 22:11	12°♂10'56	1.39989 AU	morning set	1677 Jan 11 21:38	13°♂12'58	
				max. Earth dist.	1677 Jan 18 22:41	24°♂34'54	1.42028 AU
					1677 Jan 22 04:47	0°♂	
superior conj	1676 Feb 14 16:08	25°♂54'21	-1°-57'-11				
minimum elong	1676 Feb 14 19:27	26°♂09'32	1°57'01	superior conj	1677 Jan 26 09:42	7°♂10'28	-2°-4'-31
	1676 Feb 16 21:29	0°♂		minimum elong	1677 Jan 26 09:47	7°♂10'51	2°04'32
evening rise	1676 Feb 24 11:01	14°♂17'54		evening rise	1677 Feb 06 12:54	27°♂03'20	
asc. node	1676 Mar 01 12:39	25°♂36'34			1677 Feb 08 03:42	0°♂	
	1676 Mar 04 01:36	0°♂		asc. node	1677 Feb 16 09:42	14°♂22'56	
evening max el	1676 Mar 11 15:04	10°♂14'31	18°27'33	evening max el	1677 Feb 23 00:47	23°♂10'18	18°09'18
retrograde	1676 Mar 19 03:11	13°♂56'21		retrograde	1677 Mar 01 19:14	26°♂36'28	
evening set	1676 Mar 21 12:02	13°♂35'21		evening set	1677 Mar 04 09:21	26°♂06'46	
inferior conj	1676 Mar 28 22:23	9°♂02'27	2°47'50	inferior conj	1677 Mar 11 03:57	21°♂12'42	3°29'20
minimum elong	1676 Mar 29 02:17	8°♂54'34	2°46'56	minimum elong	1677 Mar 11 06:16	21°♂07'18	3°29'03
min. Earth dist.	1676 Apr 01 08:50	6°♂17'39	0.58513 AU	min. Earth dist.	1677 Mar 14 10:15	18°♂11'07	0.60645 AU
morning rise	1676 Apr 05 12:27	3°♂35'15		morning rise	1677 Mar 18 00:01	15°♂24'26	
desc. node	1676 Apr 09 00:50	2°♂16'58		direct	1677 Mar 24 17:08	13°♂13'20	
direct	1676 Apr 11 13:45	2°♂00'10		desc. node	1677 Mar 26 21:52	13°♂26'39	
morning max el	1676 Apr 25 22:52	9°♂41'12	26°52'43	morning max el	1677 Apr 07 23:16	21°♂05'32	27°38'55
	1676 May 11 11:36	0°♂			1677 Apr 15 16:52	0°♂	
morning set	1676 May 25 20:00	26°♂40'06			1677 May 04 09:51	0°♂	
	1676 May 27 09:49	0°♂		morning set	1677 May 10 02:38	11°♂17'51	
asc. node	1676 May 28 11:55	2°♂19'59		asc. node	1677 May 15 08:59	22°♂29'07	
				max. Earth dist.	1677 May 16 08:54	24°♂39'27	1.32276 AU
superior conj	1676 Jun 01 22:03	12°♂00'03	0°45'16				
minimum elong	1676 Jun 01 20:13	11°♂49'56	0°44'54	superior conj	1677 May 17 09:20	26°♂53'13	0°21'11
max. Earth dist.	1676 Jun 01 21:09	11°♂55'06	1.32229 AU	minimum elong	1677 May 17 08:23	26°♂48'01	0°20'58
evening rise	1676 Jun 08 20:30	27°♂02'06			1677 May 18 19:23	0°♂	
	1676 Jun 10 06:40	0°♂		evening rise	1677 May 24 07:10	11°♂54'15	
	1676 Jun 27 07:51	0°♂			1677 Jun 02 12:10	0°♂	
desc. node	1676 Jul 06 00:08	10°♂55'29		evening max el	1677 Jun 20 04:02	24°♂31'16	25°20'06
evening max el	1676 Jul 08 09:21	13°♂20'02	26°32'37	desc. node	1677 Jun 22 21:09	26°♂54'31	
retrograde	1676 Jul 22 08:49	20°♂33'02			1677 Jun 27 15:03	0°♂	
evening set	1676 Jul 29 01:35	18°♂39'39		retrograde	1677 Jul 04 04:28	1°♂39'24	
min. Earth dist.	1676 Aug 01 22:42	16°♂03'53	0.59912 AU	evening set	1677 Jul 09 20:37	0°♂24'34	
inferior conj	1676 Aug 05 06:08	13°♂25'52	-4°-44'-26		1677 Jul 10 18:06	30°♂♂	
minimum elong	1676 Aug 05 09:38	13°♂18'51	4°44'04	min. Earth dist.	1677 Jul 14 15:59	27°♂42'12	0.57882 AU
morning rise	1676 Aug 12 21:03	8°♂47'47		inferior conj	1677 Jul 17 19:12	25°♂32'19	-4°-55'-50
direct	1676 Aug 15 06:48	8°♂26'38		minimum elong	1677 Jul 17 18:33	25°♂33'26	4°55'51
morning max el	1676 Aug 22 20:09	12°♂06'46	18°15'02	morning rise	1677 Jul 25 20:14	21°♂16'52	
asc. node	1676 Aug 24 11:07	13°♂49'21		direct	1677 Jul 28 08:50	20°♂57'33	
	1676 Sep 03 19:24	0°♂		morning max el	1677 Aug 05 23:53	25°♂01'11	18°56'02
morning set	1676 Sep 07 17:16	7°♂19'31			1677 Aug 10 07:08	0°♂	
				asc. node	1677 Aug 11 08:11	1°♂28'08	
superior conj	1676 Sep 17 03:53	24°♂58'46	1°29'11	morning set	1677 Aug 22 13:49	21°♂28'34	
minimum elong	1676 Sep 17 07:34	25°♂15'29	1°28'51		1677 Aug 26 21:36	0°♂	
	1676 Sep 19 22:58	0°♂					
max. Earth dist.	1676 Sep 24 18:11	8°♂20'43	1.40973 AU	superior conj	1677 Aug 31 01:34	8°♂05'02	1°42'17
evening rise	1676 Sep 29 15:38	16°♂30'13		minimum elong	1677 Aug 31 03:21	8°♂13'34	1°42'12
desc. node	1676 Oct 01 23:26	20°♂15'51		max. Earth dist.	1677 Sep 06 21:59	20°♂46'31	1.38933 AU
	1676 Oct 08 04:47	0°♂		evening rise	1677 Sep 10 20:31	27°♂40'58	
greatest brilliancy	1676 Oct 27 17:48	27°♂23'22	-0.2m		1677 Sep 12 05:07	0°♂	
	1676 Oct 29 22:02	0°♂		desc. node	1677 Sep 18 20:28	10°♂52'44	
evening max el	1676 Nov 02 17:41	4°♂09'55	23°08'39		1677 Oct 01 17:14	0°♂	
retrograde	1676 Nov 13 00:13	10°♂15'26		evening max el	1677 Oct 16 06:24	17°♂46'18	24°28'10
evening set	1676 Nov 17 20:02	8°♂17'17		retrograde	1677 Oct 27 14:51	24°♂24'28	
asc. node	1676 Nov 20 10:22	5°♂36'05		evening set	1677 Nov 02 00:40	22°♂09'28	
inferior conj	1676 Nov 23 05:55	1°♂52'34	0°57'18	min. Earth dist.	1677 Nov 06 17:39	16°♂46'33	0.67522 AU
minimum elong	1676 Nov 23 04:37	1°♂57'02	0°56'45				

asc. node	1677 Nov 07 07:25	16°♄00'28		desc. node	1678 Sep 05 17:30	1°♄17'56	
inferior conj	1677 Nov 07 12:17	15°♄44'09	0°04'12		1678 Sep 27 08:07	0°♄	
minimum elong	1677 Nov 07 12:11	15°♄44'30	0°04'09	evening max el	1678 Sep 28 18:27	1°♄26'19	25°41'01
transit middle	1677 Nov 07 12:11	15°♄44'30	0°04'09	retrograde	1678 Oct 11 00:49	8°♄27'25	
transit begin	1677 Nov 07 09:32	15°♄53'23		evening set	1678 Oct 17 01:10	5°♄57'23	
transit end	1677 Nov 07 14:50	15°♄35'37		min. Earth dist.	1678 Oct 21 10:16	1°♄10'09	0.66924 AU
morning rise	1677 Nov 13 00:03	9°♄38'39			1678 Oct 22 08:17	30°♄	
direct	1677 Nov 16 17:00	8°♄19'52		inferior conj	1678 Oct 22 15:48	29°♄36'00	0°-52'-6
morning max el	1677 Nov 24 11:02	12°♄46'42	20°12'54	minimum elong	1678 Oct 22 17:08	29°♄31'42	0°51'33
greatest brilliancy	1677 Dec 01 05:09	20°♄54'20	-0.6m	asc. node	1678 Oct 25 04:26	26°♄31'20	
	1677 Dec 07 15:42	0°♄		morning rise	1678 Oct 28 09:53	23°♄38'57	
desc. node	1677 Dec 15 19:42	12°♄12'30		direct	1678 Oct 31 15:37	22°♄38'26	
morning set	1677 Dec 21 18:43	21°♄20'39		morning max el	1678 Nov 07 16:41	26°♄35'43	19°12'57
	1677 Dec 27 07:55	0°♄			1678 Nov 10 17:02	0°♄	
max. Earth dist.	1678 Jan 01 06:51	7°♄51'56	1.43697 AU	greatest brilliancy	1678 Nov 18 08:58	10°♄39'26	-0.7m
				morning set	1678 Nov 30 21:28	29°♄54'27	
superior conj	1678 Jan 07 01:41	17°♄15'12	-1°-56'-30		1678 Nov 30 22:54	0°♄	
minimum elong	1678 Jan 06 20:29	16°♄53'52	1°56'14	desc. node	1678 Dec 02 16:46	2°♄43'00	
	1678 Jan 14 16:19	0°♄		max. Earth dist.	1678 Dec 14 22:02	21°♄50'59	1.44777 AU
evening rise	1678 Jan 19 21:38	8°♄59'19					
	1678 Feb 01 11:44	0°♄		superior conj	1678 Dec 17 16:29	26°♄13'48	-1°-29'-39
asc. node	1678 Feb 03 06:45	2°♄31'15		minimum elong	1678 Dec 17 07:44	25°♄39'09	1°28'49
evening max el	1678 Feb 06 13:09	6°♄22'30	18°10'23		1678 Dec 20 01:21	0°♄	
retrograde	1678 Feb 13 00:25	9°♄47'20		evening rise	1679 Jan 01 09:10	20°♄00'19	
evening set	1678 Feb 15 19:32	9°♄07'39			1679 Jan 07 10:30	0°♄	
inferior conj	1678 Feb 22 02:02	3°♄52'53	3°44'13	evening max el	1679 Jan 21 01:22	19°♄44'47	18°30'02
minimum elong	1678 Feb 22 02:19	3°♄52'08	3°44'13	asc. node	1679 Jan 21 03:46	19°♄50'51	
min. Earth dist.	1678 Feb 24 19:58	0°♄58'57	0.62714 AU	retrograde	1679 Jan 27 14:33	23°♄20'47	
	1678 Feb 25 19:44	30°♄		evening set	1679 Jan 30 14:58	22°♄30'10	
morning rise	1678 Feb 28 06:58	27°♄51'58		inferior conj	1679 Feb 05 12:41	16°♄56'11	3°39'22
direct	1678 Mar 07 05:49	25°♄14'19		minimum elong	1679 Feb 05 11:21	17°♄00'06	3°39'14
desc. node	1678 Mar 13 18:54	27°♄13'22		min. Earth dist.	1679 Feb 07 15:09	14°♄28'15	0.64507 AU
	1678 Mar 17 17:53	0°♄		morning rise	1679 Feb 11 06:22	10°♄47'44	
morning max el	1678 Mar 21 05:03	3°♄09'36	27°48'09	direct	1679 Feb 18 01:54	7°♄57'55	
	1678 Apr 10 03:41	0°♄		desc. node	1679 Feb 28 15:57	13°♄04'14	
morning set	1678 Apr 24 03:39	25°♄35'16		morning max el	1679 Mar 03 14:07	15°♄47'54	27°21'41
	1678 Apr 26 07:26	0°♄			1679 Mar 15 06:56	0°♄	
max. Earth dist.	1678 Apr 29 16:30	7°♄06'58	1.32718 AU		1679 Apr 02 21:19	0°♄	
				morning set	1679 Apr 07 20:19	9°♄23'49	
superior conj	1678 May 01 18:22	11°♄35'19	0°-5'-8	max. Earth dist.	1679 Apr 12 16:08	19°♄06'18	1.33589 AU
minimum elong	1678 May 01 18:37	11°♄36'39	0°05'05				
behind sun begin	1678 May 01 13:39	11°♄09'49		superior conj	1679 Apr 15 23:14	26°♄00'09	0°-32'-43
behind sun end	1678 May 01 23:34	12°♄03'30		minimum elong	1679 Apr 16 00:52	26°♄08'47	0°32'23
asc. node	1678 May 02 06:03	12°♄38'35			1679 Apr 17 20:20	0°♄	
evening rise	1678 May 08 19:00	26°♄45'53		asc. node	1679 Apr 19 03:06	2°♄44'17	
	1678 May 10 08:01	0°♄		evening rise	1679 Apr 23 06:10	11°♄30'42	
	1678 May 28 02:07	0°♄			1679 May 02 19:50	0°♄	
evening max el	1678 Jun 01 18:16	5°♄09'06	23°48'34	evening max el	1679 May 14 10:21	15°♄40'23	22°12'55
desc. node	1678 Jun 09 18:10	10°♄47'42		retrograde	1679 May 27 06:48	22°♄01'06	
retrograde	1678 Jun 15 11:51	12°♄02'22		desc. node	1679 May 27 15:11	22°♄00'49	
evening set	1678 Jun 19 17:27	11°♄22'55		evening set	1679 May 30 04:06	21°♄42'40	
min. Earth dist.	1678 Jun 26 04:55	8°♄18'16	0.56173 AU	min. Earth dist.	1679 Jun 07 16:30	18°♄03'09	0.55121 AU
inferior conj	1678 Jun 28 12:06	6°♄54'28	-4°-28'-53	inferior conj	1679 Jun 08 12:02	17°♄35'39	-3°-14'-17
minimum elong	1678 Jun 28 06:15	7°♄03'25	4°27'57	minimum elong	1679 Jun 08 04:19	17°♄46'32	3°12'04
morning rise	1678 Jul 06 22:30	2°♄56'45		morning rise	1679 Jun 17 06:28	13°♄43'30	
direct	1678 Jul 09 15:50	2°♄37'52		direct	1679 Jun 20 06:47	13°♄23'07	
morning max el	1678 Jul 19 17:30	7°♄17'55	19°58'23	morning max el	1679 Jul 01 23:40	18°♄50'48	21°20'54
asc. node	1678 Jul 29 05:15	19°♄53'50			1679 Jul 10 21:39	0°♄	
	1678 Aug 03 17:23	0°♄		asc. node	1679 Jul 16 02:18	8°♄54'48	
morning set	1678 Aug 06 17:28	5°♄59'27		morning set	1679 Jul 22 01:45	20°♄44'48	
					1679 Jul 26 11:52	0°♄	
superior conj	1678 Aug 14 13:31	21°♄54'25	1°45'58				
minimum elong	1678 Aug 14 13:28	21°♄54'13	1°45'58	superior conj	1679 Jul 29 11:27	6°♄14'07	1°42'02
	1678 Aug 18 16:26	0°♄		minimum elong	1679 Jul 29 10:03	6°♄06'53	1°41'58
max. Earth dist.	1678 Aug 20 02:50	2°♄44'09	1.36953 AU	max. Earth dist.	1679 Aug 02 13:57	14°♄36'29	1.35231 AU
evening rise	1678 Aug 24 00:13	9°♄56'38		evening rise	1679 Aug 06 22:19	23°♄05'17	
	1678 Sep 04 21:32	0°♄			1679 Aug 10 15:50	0°♄	

desc. node	1679 Aug 23 14:31	21° \cap 25'00			1680 Jul 17 00:04	0° Ω	
	1679 Aug 29 13:50	0° $\underline{\Omega}$		evening rise	1680 Jul 20 10:16	6° Ω 54'55	
evening max el	1679 Sep 11 06:36	15° $\underline{\Omega}$ 03'20	26°39'34		1680 Aug 02 05:42	0° \cap	
retrograde	1679 Sep 24 05:34	22° $\underline{\Omega}$ 17'20		desc. node	1680 Aug 09 11:31	11° \cap 06'02	
evening set	1679 Sep 30 19:29	19° $\underline{\Omega}$ 36'48		evening max el	1680 Aug 23 18:27	28° \cap 28'15	27°16'23
min. Earth dist.	1679 Oct 04 21:07	15° $\underline{\Omega}$ 26'41	0.65981 AU		1680 Aug 25 10:31	0° $\underline{\Omega}$	
inferior conj	1679 Oct 06 14:28	13° $\underline{\Omega}$ 23'38	-1°-50'-7	retrograde	1680 Sep 06 04:49	5° $\underline{\Omega}$ 46'58	
minimum elong	1679 Oct 06 17:23	13° $\underline{\Omega}$ 14'56	1°48'58	evening set	1680 Sep 13 05:08	3° $\underline{\Omega}$ 03'50	
asc. node	1679 Oct 12 01:29	8° $\underline{\Omega}$ 00'18			1680 Sep 16 12:44	30° \cap	
morning rise	1679 Oct 12 16:35	7° $\underline{\Omega}$ 38'14		min. Earth dist.	1680 Sep 17 00:03	29° \cap 30'11	0.64680 AU
direct	1679 Oct 15 13:18	6° $\underline{\Omega}$ 52'22		inferior conj	1680 Sep 19 06:04	27° \cap 03'00	-2°-47'-38
morning max el	1679 Oct 22 04:25	10° $\underline{\Omega}$ 30'18	18°28'49	minimum elong	1680 Sep 19 10:25	26° \cap 51'06	2°46'07
	1679 Nov 04 23:12	0° \cap		morning rise	1680 Sep 25 17:37	21° \cap 32'22	
morning set	1679 Nov 11 01:14	9° \cap 46'02		asc. node	1680 Sep 27 22:32	20° \cap 58'11	
desc. node	1679 Nov 19 13:47	23° \cap 22'26		direct	1680 Sep 28 07:43	20° \cap 57'25	
	1679 Nov 23 18:25	0° \sphericalangle		morning max el	1680 Oct 04 19:47	24° \cap 25'14	18°01'26
					1680 Oct 09 09:00	0° $\underline{\Omega}$	
superior conj	1679 Nov 26 17:47	4° \sphericalangle 40'44	0°-46'-35	morning set	1680 Oct 22 09:48	21° $\underline{\Omega}$ 02'03	
minimum elong	1679 Nov 26 11:49	4° \sphericalangle 17'15	0°45'50		1680 Oct 27 18:41	0° \cap	
max. Earth dist.	1679 Nov 27 16:49	6° \sphericalangle 11'10	1.45137 AU				
evening rise	1679 Dec 12 21:14	0° $\overline{\Omega}$ 04'07		superior conj	1680 Nov 05 03:08	13° \cap 36'36	0°02'10
	1679 Dec 12 20:11	0° $\overline{\Omega}$		minimum elong	1680 Nov 05 03:23	13° \cap 37'37	0°02'08
greatest brilliancy	1679 Dec 24 17:12	18° $\overline{\Omega}$ 39'17	-0.7m	behind sun begin	1680 Nov 04 16:56	12° \cap 55'40	
	1680 Jan 01 16:07	0° \approx		behind sun end	1680 Nov 05 13:50	14° \cap 19'29	
evening max el	1680 Jan 04 10:59	3° \approx 11'58	19°07'19	desc. node	1680 Nov 05 10:48	14° \cap 07'21	
asc. node	1680 Jan 08 00:47	6° \approx 08'17		max. Earth dist.	1680 Nov 09 11:33	20° \cap 32'12	1.44753 AU
retrograde	1680 Jan 11 09:56	7° \approx 09'55			1680 Nov 15 12:18	0° \sphericalangle	
evening set	1680 Jan 14 16:41	6° \approx 07'16		evening rise	1680 Nov 21 13:07	9° \sphericalangle 21'11	
inferior conj	1680 Jan 20 08:22	0° \approx 16'27	3°20'02		1680 Dec 05 02:45	0° $\overline{\Omega}$	
minimum elong	1680 Jan 20 06:04	0° \approx 23'47	3°19'37	greatest brilliancy	1680 Dec 10 16:55	8° $\overline{\Omega}$ 03'22	-0.6m
	1680 Jan 20 13:32	30° \cap $\overline{\Omega}$		evening max el	1680 Dec 17 16:07	16° $\overline{\Omega}$ 40'52	20°00'33
min. Earth dist.	1680 Jan 21 19:35	28° $\overline{\Omega}$ 24'43	0.65913 AU	asc. node	1680 Dec 24 21:48	21° $\overline{\Omega}$ 08'24	
morning rise	1680 Jan 25 18:33	24° $\overline{\Omega}$ 03'31		retrograde	1680 Dec 25 07:37	21° $\overline{\Omega}$ 09'20	
direct	1680 Feb 01 04:23	21° $\overline{\Omega}$ 15'29		evening set	1680 Dec 28 22:16	19° $\overline{\Omega}$ 53'12	
morning max el	1680 Feb 13 23:58	28° $\overline{\Omega}$ 49'19	26°25'42	inferior conj	1681 Jan 03 10:09	13° $\overline{\Omega}$ 48'32	2°49'50
	1680 Feb 15 03:23	0° \approx		minimum elong	1681 Jan 03 07:30	13° $\overline{\Omega}$ 57'25	2°49'08
desc. node	1680 Feb 15 13:00	0° \approx 25'34		min. Earth dist.	1681 Jan 04 07:33	12° $\overline{\Omega}$ 36'55	0.66916 AU
	1680 Mar 08 02:17	0° \cap		morning rise	1681 Jan 08 16:08	7° $\overline{\Omega}$ 33'24	
morning set	1680 Mar 21 01:03	22° \cap 33'06		direct	1681 Jan 14 12:38	4° $\overline{\Omega}$ 57'53	
	1680 Mar 24 22:04	0° \cap		morning max el	1681 Jan 26 08:49	12° $\overline{\Omega}$ 01'36	25°09'04
max. Earth dist.	1680 Mar 25 04:50	0° \cap 33'16	1.34914 AU	desc. node	1681 Feb 01 10:01	18° $\overline{\Omega}$ 50'44	
					1681 Feb 09 19:34	0° \approx	
superior conj	1680 Mar 29 21:41	10° \cap 01'14	-1°00'-21		1681 Feb 28 19:36	0° \cap	
minimum elong	1680 Mar 30 00:42	10° \cap 16'43	0°59'50	morning set	1681 Mar 03 12:51	4° \cap 48'17	
asc. node	1680 Apr 05 00:07	22° \cap 42'21		max. Earth dist.	1681 Mar 07 06:05	11° \cap 36'04	1.36675 AU
evening rise	1680 Apr 06 14:46	26° \cap 02'42					
	1680 Apr 08 13:11	0° $\overline{\Omega}$		superior conj	1681 Mar 13 10:47	23° \cap 29'54	-1°-26'-17
evening max el	1680 Apr 25 11:11	26° $\overline{\Omega}$ 35'05	20°46'31	minimum elong	1681 Mar 13 14:49	23° \cap 49'47	1°25'45
	1680 Apr 29 19:10	0° \cap			1681 Mar 16 17:00	0° \cap	
retrograde	1680 May 06 20:00	2° \cap 06'39		evening rise	1681 Mar 21 18:34	10° \cap 14'24	
evening set	1680 May 08 23:35	1° \cap 55'34		asc. node	1681 Mar 22 21:08	12° \cap 27'40	
desc. node	1680 May 13 12:12	0° \cap 28'21			1681 Apr 01 13:05	0° $\overline{\Omega}$	
	1680 May 14 12:08	30° \cap $\overline{\Omega}$		evening max el	1681 Apr 07 23:46	8° $\overline{\Omega}$ 08'02	19°36'58
inferior conj	1680 May 18 05:52	27° $\overline{\Omega}$ 57'53	-1°-22'-24	retrograde	1681 Apr 17 15:05	12° $\overline{\Omega}$ 47'00	
minimum elong	1680 May 18 01:58	28° $\overline{\Omega}$ 03'28	1°21'01	evening set	1681 Apr 19 16:10	12° $\overline{\Omega}$ 35'22	
min. Earth dist.	1680 May 19 05:01	27° $\overline{\Omega}$ 24'50	0.54974 AU	inferior conj	1681 Apr 28 08:06	8° $\overline{\Omega}$ 31'38	0°35'13
morning rise	1680 May 27 03:23	23° $\overline{\Omega}$ 51'38		minimum elong	1681 Apr 28 09:36	8° $\overline{\Omega}$ 29'15	0°34'41
direct	1680 May 30 16:26	23° $\overline{\Omega}$ 24'37		desc. node	1681 Apr 30 09:14	7° $\overline{\Omega}$ 13'51	
morning max el	1680 Jun 12 20:00	29° $\overline{\Omega}$ 44'02	22°58'20	min. Earth dist.	1681 Apr 30 19:20	6° $\overline{\Omega}$ 58'10	0.55788 AU
	1680 Jun 13 02:45	0° \cap		morning rise	1681 May 06 23:25	3° $\overline{\Omega}$ 54'41	
asc. node	1680 Jul 01 23:22	28° \cap 22'09		direct	1681 May 11 10:19	3° $\overline{\Omega}$ 10'11	
	1680 Jul 02 18:54	0° $\overline{\Omega}$		morning max el	1681 May 25 10:54	10° $\overline{\Omega}$ 13'10	24°40'02
morning set	1680 Jul 05 12:43	5° $\overline{\Omega}$ 38'54			1681 Jun 09 06:58	0° \cap	
				asc. node	1681 Jun 18 20:25	18° \cap 07'53	
superior conj	1680 Jul 12 16:13	20° $\overline{\Omega}$ 54'36	1°32'00	morning set	1681 Jun 20 00:35	20° \cap 35'21	
minimum elong	1680 Jul 12 14:02	20° $\overline{\Omega}$ 42'58	1°31'46		1681 Jun 24 09:36	0° $\overline{\Omega}$	
max. Earth dist.	1680 Jul 15 10:06	26° $\overline{\Omega}$ 42'57	1.33879 AU				

superior conj	1681 Jun 27 01:15	5° 5 46'46	1°16'59	superior conj	1682 Jun 11 12:32	20° II 44'00	0°57'51
minimum elong	1681 Jun 26 22:50	5° 5 33'35	1°16'36	minimum elong	1682 Jun 11 10:22	20° II 32'03	0°57'26
max. Earth dist.	1681 Jun 28 14:37	9° 5 09'17	1.32929 AU	max. Earth dist.	1682 Jun 12 00:53	21° II 51'47	1.32377 AU
evening rise	1681 Jul 04 08:10	21° 5 13'25			1682 Jun 15 18:34	0° 5	
	1681 Jul 08 18:48	0° 0		evening rise	1682 Jun 18 12:55	5° 5 51'23	
desc. node	1681 Jul 27 08:33	0° 0 09'37			1682 Jul 01 09:25	0° 0	
	1681 Jul 27 05:40	0° 0		desc. node	1682 Jul 14 05:35	18° 0 20'06	
evening max el	1681 Aug 06 04:23	11° 0 28'54	27°25'09	evening max el	1682 Jul 19 10:01	23° 0 52'48	27°01'23
retrograde	1681 Aug 19 22:00	18° 0 46'44			1682 Jul 28 03:40	0° 0	
evening set	1681 Aug 27 02:51	16° 0 12'40		retrograde	1682 Aug 02 07:57	1° 0 07'04	
min. Earth dist.	1681 Aug 30 17:23	13° 0 10'38	0.63024 AU		1682 Aug 07 07:53	30° R 0	
inferior conj	1681 Sep 02 11:52	10° 0 27'53	-3°-41'-24	evening set	1682 Aug 09 08:23	28° 0 55'33	
minimum elong	1681 Sep 02 17:06	10° 0 15'04	3°39'57	min. Earth dist.	1682 Aug 13 00:17	26° 0 14'34	0.61090 AU
morning rise	1681 Sep 09 09:50	5° 0 15'13		inferior conj	1682 Aug 16 04:38	23° 0 29'57	-4°-26'-5
direct	1681 Sep 11 19:59	4° 0 47'45		minimum elong	1682 Aug 16 09:22	23° 0 19'40	4°25'15
asc. node	1681 Sep 14 19:36	5° 0 30'20		morning rise	1682 Aug 23 13:22	18° 0 38'16	
morning max el	1681 Sep 18 11:52	8° 0 13'43	17°51'47	direct	1682 Aug 25 22:29	18° 0 15'23	
	1681 Oct 02 19:22	0° 0		asc. node	1682 Sep 01 16:40	21° 0 26'41	
morning set	1681 Oct 04 18:29	3° 0 27'38		morning max el	1682 Sep 02 01:34	21° 0 47'49	18°00'52
					1682 Sep 08 08:49	0° 0	
superior conj	1681 Oct 16 12:26	23° 0 44'32	0°45'07	morning set	1682 Sep 17 20:57	16° 0 44'09	
minimum elong	1681 Oct 16 16:33	24° 0 01'44	0°44'34		1682 Sep 25 02:45	0° 0	
	1681 Oct 20 07:12	0° 0		superior conj	1682 Sep 28 00:43	5° 0 11'35	1°16'36
max. Earth dist.	1681 Oct 23 03:24	4° 0 36'54	1.43686 AU	minimum elong	1682 Sep 28 05:10	5° 0 31'11	1°16'07
desc. node	1681 Oct 23 07:50	4° 0 54'41		max. Earth dist.	1682 Oct 05 14:46	18° 0 10'50	1.42072 AU
evening rise	1681 Oct 31 21:09	18° 0 23'58		desc. node	1682 Oct 10 04:52	25° 0 40'51	
	1681 Nov 08 11:47	0° 0		evening rise	1682 Oct 11 14:34	27° 0 55'40	
greatest brilliancy	1681 Nov 25 09:08	24° 0 01'55	-0.4m		1682 Oct 12 21:56	0° 0	
	1681 Nov 30 11:31	0° 0			1682 Nov 02 05:13	0° 0	
evening max el	1681 Nov 30 15:49	0° 0 11'05	21°07'02	greatest brilliancy	1682 Nov 08 16:24	8° 0 23'13	-0.3m
retrograde	1681 Dec 09 05:16	5° 0 15'49		evening max el	1682 Nov 13 10:09	13° 0 42'44	22°22'52
asc. node	1681 Dec 11 18:50	4° 0 39'06		retrograde	1682 Nov 23 01:06	19° 0 25'56	
evening set	1681 Dec 13 05:46	3° 0 44'30		evening set	1682 Nov 27 13:26	17° 0 37'52	
	1681 Dec 16 18:55	30° R		asc. node	1682 Nov 28 15:54	16° 0 37'56	
inferior conj	1681 Dec 18 15:42	27° 0 29'19	2°11'13	inferior conj	1682 Dec 02 22:58	11° 0 15'43	1°25'53
minimum elong	1681 Dec 18 13:14	27° 0 37'49	2°10'23	minimum elong	1682 Dec 02 21:07	11° 0 22'05	1°25'10
min. Earth dist.	1681 Dec 19 00:49	26° 0 57'53	0.67537 AU	min. Earth dist.	1682 Dec 02 20:55	11° 0 22'46	0.67800 AU
morning rise	1681 Dec 23 20:18	21° 0 14'05		morning rise	1682 Dec 08 04:40	5° 0 02'34	
direct	1681 Dec 29 01:54	18° 0 58'03		direct	1682 Dec 12 19:12	3° 0 09'12	
morning max el	1682 Jan 08 17:19	25° 0 18'42	23°42'03	morning max el	1682 Dec 22 04:37	8° 0 41'26	22°14'25
	1682 Jan 12 23:22	0° 0		greatest brilliancy	1682 Dec 26 19:19	13° 0 51'47	-0.3m
desc. node	1682 Jan 19 07:02	8° 0 01'26		desc. node	1683 Jan 06 04:04	27° 0 44'20	
	1682 Feb 03 08:07	0° 0			1683 Jan 07 17:49	0° 0	
morning set	1682 Feb 13 01:40	15° 0 52'58		morning set	1683 Jan 24 09:57	25° 0 33'35	
max. Earth dist.	1682 Feb 17 00:58	22° 0 45'54	1.38751 AU		1683 Jan 27 03:08	0° 0	
	1682 Feb 21 01:37	0° 0		max. Earth dist.	1683 Jan 29 22:03	4° 0 38'49	1.40895 AU
superior conj	1682 Feb 24 10:52	6° 0 16'53	-1°-47'-58	superior conj	1683 Feb 06 17:06	18° 0 09'43	-2°-1'-52
minimum elong	1682 Feb 24 14:56	6° 0 36'04	1°47'38	minimum elong	1683 Feb 06 19:22	18° 0 19'51	2°01'47
evening rise	1682 Mar 05 14:57	23° 0 59'00			1683 Feb 13 04:54	0° 0	
	1682 Mar 08 17:47	0° 0		evening rise	1683 Feb 17 00:38	7° 0 08'03	
asc. node	1682 Mar 09 18:11	1° 0 55'20		asc. node	1683 Feb 24 15:13	20° 0 58'40	
evening max el	1682 Mar 21 22:59	20° 0 19'38	18°47'06		1683 Mar 02 13:33	0° 0	
retrograde	1682 Mar 30 02:22	24° 0 17'10		evening max el	1683 Mar 05 05:47	3° 0 01'35	18°17'22
evening set	1682 Apr 01 08:08	24° 0 00'21		retrograde	1683 Mar 12 08:45	6° 0 34'32	
inferior conj	1682 Apr 09 05:03	19° 0 39'36	2°09'10	evening set	1683 Mar 14 20:04	6° 0 09'50	
minimum elong	1682 Apr 09 09:02	19° 0 32'15	2°08'01	inferior conj	1683 Mar 21 23:16	1° 0 27'50	3°09'10
min. Earth dist.	1682 Apr 12 12:08	17° 0 15'22	0.57383 AU	minimum elong	1683 Mar 22 02:38	1° 0 20'34	3°08'32
morning rise	1682 Apr 17 05:36	14° 0 29'07			1683 Mar 23 15:54	30° R	
desc. node	1682 Apr 17 06:15	14° 0 28'24		min. Earth dist.	1683 Mar 25 09:19	28° 0 32'59	0.59419 AU
direct	1682 Apr 22 18:13	13° 0 14'33		morning rise	1683 Mar 29 05:32	25° 0 50'48	
morning max el	1682 May 07 02:19	20° 0 45'11	26°11'01	desc. node	1683 Apr 04 03:16	24° 0 00'33	
	1682 May 15 01:51	0° 0		direct	1683 Apr 04 14:54	23° 0 59'55	
	1682 Jun 01 20:05	0° 0			1683 Apr 17 01:35	0° 0	
morning set	1682 Jun 04 11:46	5° 0 29'01		morning max el	1683 Apr 18 22:54	1° 0 45'48	27°16'45
asc. node	1682 Jun 05 17:28	8° 0 06'26			1683 May 09 07:32	0° 0	

morning set	1683 May 19 20:38	20°♄14'33			1684 Apr 30 16:37	0°♄	
asc. node	1683 May 23 14:32	28°♄13'04		morning set	1684 May 03 01:09	4°♄44'39	
	1683 May 24 10:12	0°♄		max. Earth dist.	1684 May 09 00:03	17°♄20'09	1.32416 AU
max. Earth dist.	1683 May 26 13:23	4°♄40'19	1.32205 AU	asc. node	1684 May 09 11:34	18°♄22'42	
superior conj	1683 May 27 00:18	5°♄40'24	0°35'22	superior conj	1684 May 10 10:49	20°♄29'23	0°10'14
minimum elong	1683 May 26 22:48	5°♄32'08	0°35'03	minimum elong	1684 May 10 10:20	20°♄26'48	0°10'08
evening rise	1683 Jun 02 22:04	20°♄40'48		behind sun begin	1684 May 10 06:23	20°♄05'13	
	1683 Jun 07 11:33	0°♄		behind sun end	1684 May 10 14:18	20°♄48'23	
	1683 Jun 26 06:29	0°♄			1684 May 14 19:20	0°♄	
desc. node	1683 Jul 01 02:36	5°♄15'49		evening rise	1684 May 17 09:27	5°♄33'33	
evening max el	1683 Jul 01 08:58	5°♄31'06	26°05'00		1684 May 30 08:29	0°♄	
retrograde	1683 Jul 15 09:01	12°♄41'41		evening max el	1684 Jun 12 01:01	16°♄24'54	24°42'35
evening set	1683 Jul 21 17:03	11°♄04'20		desc. node	1684 Jun 16 23:37	20°♄25'58	
min. Earth dist.	1683 Jul 25 21:35	8°♄28'06	0.59030 AU	retrograde	1684 Jun 25 23:32	23°♄28'38	
inferior conj	1683 Jul 29 04:47	5°♄59'54	-4°-53'-5	evening set	1684 Jul 01 02:00	22°♄29'44	
minimum elong	1683 Jul 29 06:50	5°♄56'03	4°53'00	min. Earth dist.	1684 Jul 06 12:13	19°♄39'48	0.57095 AU
morning rise	1683 Aug 06 00:03	1°♄31'24		inferior conj	1684 Jul 09 09:15	17°♄47'33	-4°-49'-55
direct	1683 Aug 08 10:55	1°♄11'04		minimum elong	1684 Jul 09 06:19	17°♄52'21	4°49'42
morning max el	1683 Aug 16 09:49	4°♄59'35	18°29'56	morning rise	1684 Jul 17 14:24	13°♄41'02	
asc. node	1683 Aug 19 13:44	8°♄32'42		direct	1684 Jul 20 04:57	13°♄22'00	
	1683 Sep 01 04:15	0°♄		morning max el	1684 Jul 29 09:32	17°♄39'00	19°20'02
morning set	1683 Sep 01 12:05	0°♄37'38		asc. node	1684 Aug 05 10:47	26°♄32'48	
					1684 Aug 07 13:29	0°♄	
superior conj	1683 Sep 10 11:55	17°♄46'45	1°36'01	morning set	1684 Aug 15 11:57	14°♄56'45	
minimum elong	1683 Sep 10 14:50	18°♄00'17	1°35'48		1684 Aug 23 01:17	0°♄	
	1683 Sep 17 06:34	0°♄		superior conj	1684 Aug 23 16:15	1°♄13'07	1°44'53
max. Earth dist.	1683 Sep 17 21:14	1°♄03'52	1.40115 AU	minimum elong	1684 Aug 23 17:13	1°♄17'50	1°44'52
evening rise	1683 Sep 22 05:26	8°♄27'17		max. Earth dist.	1684 Aug 30 00:47	13°♄15'08	1.38066 AU
desc. node	1683 Sep 27 01:55	16°♄22'33		evening rise	1684 Sep 02 20:22	20°♄06'02	
	1683 Oct 05 22:41	0°♄			1684 Sep 08 15:56	0°♄	
evening max el	1683 Oct 27 00:20	27°♄17'15	23°42'46	desc. node	1684 Sep 12 22:58	6°♄54'58	
	1683 Oct 29 23:25	0°♄			1684 Sep 29 00:58	0°♄	
retrograde	1683 Nov 06 17:53	3°♄36'56		evening max el	1684 Oct 08 12:22	10°♄54'39	25°00'21
evening set	1683 Nov 11 19:40	1°♄31'23		retrograde	1684 Oct 20 06:39	17°♄44'11	
	1683 Nov 13 09:33	30°♄		evening set	1684 Oct 25 22:47	15°♄22'05	
asc. node	1683 Nov 15 12:56	27°♄24'53		min. Earth dist.	1684 Oct 30 12:13	10°♄14'22	0.67307 AU
min. Earth dist.	1683 Nov 16 17:30	25°♄49'11	0.67723 AU	inferior conj	1684 Oct 31 11:30	8°♄57'49	0°-19'-22
inferior conj	1683 Nov 17 06:09	25°♄06'04	0°35'17	minimum elong	1684 Oct 31 11:59	8°♄56'13	0°19'11
minimum elong	1683 Nov 17 05:19	25°♄08'54	0°34'55	asc. node	1684 Nov 01 09:58	7°♄44'36	
morning rise	1683 Nov 22 15:09	18°♄57'17		morning rise	1684 Nov 06 01:46	2°♄55'49	
direct	1683 Nov 26 15:32	17°♄26'33		direct	1684 Nov 09 13:37	1°♄45'25	
morning max el	1683 Dec 04 22:14	22°♄14'28	20°53'55	morning max el	1684 Nov 16 23:40	5°♄58'24	19°45'37
greatest brilliancy	1683 Dec 10 13:52	28°♄48'42	-0.5m	greatest brilliancy	1684 Nov 24 19:31	15°♄40'41	-0.6m
	1683 Dec 11 11:51	0°♄			1684 Dec 04 12:57	0°♄	
desc. node	1683 Dec 24 01:07	17°♄50'44		desc. node	1684 Dec 09 22:11	8°♄13'57	
	1684 Jan 01 01:19	0°♄		morning set	1684 Dec 12 12:01	12°♄12'14	
morning set	1684 Jan 03 15:38	4°♄01'50			1684 Dec 23 21:10	0°♄	
max. Earth dist.	1684 Jan 12 02:22	17°♄28'46	1.42808 AU	max. Earth dist.	1684 Dec 24 13:53	1°♄06'18	1.44233 AU
superior conj	1684 Jan 19 00:13	28°♄56'15	-2°-3'-16	superior conj	1684 Dec 29 04:55	8°♄31'00	-1°-47'-27
minimum elong	1684 Jan 18 22:11	28°♄47'42	2°03'14	minimum elong	1684 Dec 28 21:39	8°♄01'42	1°46'56
	1684 Jan 19 15:15	0°♄			1685 Jan 11 04:02	0°♄	
evening rise	1684 Jan 30 19:46	19°♄33'42		evening rise	1685 Jan 11 20:02	1°♄07'51	
	1684 Feb 05 17:08	0°♄		asc. node	1685 Jan 28 09:16	27°♄19'35	
asc. node	1684 Feb 11 12:15	9°♄29'58		evening max el	1685 Jan 30 05:32	29°♄22'32	18°16'27
evening max el	1684 Feb 16 16:57	16°♄05'02	18°07'21		1685 Jan 30 21:00	0°♄	
retrograde	1684 Feb 23 07:08	19°♄29'07		retrograde	1685 Feb 05 16:46	2°♄51'08	
evening set	1684 Feb 25 23:23	18°♄55'15		evening set	1685 Feb 08 13:56	2°♄07'03	
inferior conj	1684 Mar 03 12:22	13°♄51'52	3°38'29		1685 Feb 11 12:32	30°♄	
minimum elong	1684 Mar 03 13:48	13°♄48'19	3°38'22	inferior conj	1685 Feb 14 16:20	26°♄43'48	3°44'12
min. Earth dist.	1684 Mar 06 13:53	10°♄51'06	0.61550 AU	minimum elong	1685 Feb 14 15:51	26°♄45'08	3°44'12
morning rise	1684 Mar 10 01:32	7°♄57'19		min. Earth dist.	1685 Feb 17 03:49	23°♄59'01	0.63514 AU
direct	1684 Mar 16 22:10	5°♄33'44		morning rise	1685 Feb 20 15:58	20°♄38'53	
desc. node	1684 Mar 21 00:18	6°♄20'08		direct	1685 Feb 27 14:10	17°♄54'14	
morning max el	1684 Mar 31 01:56	13°♄27'43	27°47'32	desc. node	1685 Mar 07 21:20	21°♄04'38	
	1684 Apr 13 07:40	0°♄					

morning max el	1685 Mar 13 09:43	25° 38 49'13	27°41'00	direct	1686 Feb 10 13:21	0° 38 53'30	
	1685 Mar 17 06:36	0° 38		desc. node	1686 Feb 22 18:22	7° 38 37'39	
	1685 Apr 06 19:49	0° 38		morning max el	1686 Feb 23 19:20	8° 38 38'54	27°00'56
morning set	1685 Apr 16 23:01	18° 38 51'47			1686 Mar 12 11:40	0° 38	
max. Earth dist.	1685 Apr 22 04:48	29° 38 37'46	1.33034 AU		1686 Mar 30 04:40	0° 38	
	1685 Apr 22 09:01	0° 38		morning set	1686 Mar 31 11:07	2° 38 25'26	
				max. Earth dist.	1686 Apr 04 23:46	11° 38 22'06	1.34096 AU
superior conj	1685 Apr 24 18:19	5° 38 05'19	0°-16'-44				
minimum elong	1685 Apr 24 19:08	5° 38 09'43	0°16'34	superior conj	1686 Apr 08 20:46	19° 38 21'14	0°-44'-31
asc. node	1685 Apr 26 08:36	8° 38 31'23		minimum elong	1686 Apr 08 23:00	19° 38 32'55	0°44'06
evening rise	1685 May 01 21:13	20° 38 23'20		asc. node	1686 Apr 13 05:37	28° 38 34'27	
	1685 May 06 14:05	0° 38			1686 Apr 13 21:48	0° 38	
evening max el	1685 May 24 14:53	26° 38 55'36	23°07'25	evening rise	1686 Apr 16 07:31	5° 38 03'24	
	1685 May 28 05:48	0° 38			1686 Apr 30 02:24	0° 38	
desc. node	1685 Jun 03 20:36	3° 38 14'40		evening max el	1686 May 06 10:09	7° 38 34'31	21°34'26
retrograde	1685 Jun 07 01:51	3° 38 38'17		retrograde	1686 May 18 17:07	13° 38 35'23	
evening set	1685 Jun 10 16:22	3° 38 09'47		evening set	1686 May 21 04:27	13° 38 21'33	
	1685 Jun 17 18:33	30° 38 11		desc. node	1686 May 21 17:35	13° 38 14'55	
min. Earth dist.	1685 Jun 18 00:20	29° 38 51'40	0.55626 AU	inferior conj	1686 May 30 13:43	9° 38 20'47	-2°-29'-49
inferior conj	1685 Jun 19 18:04	28° 38 50'47	-4°-3'-3	minimum elong	1686 May 30 07:03	9° 38 30'07	2°27'39
minimum elong	1685 Jun 19 10:44	29° 38 01'31	4°01'27	min. Earth dist.	1686 May 30 12:30	9° 38 22'29	0.54942 AU
morning rise	1685 Jun 28 08:13	24° 38 57'34		morning rise	1686 Jun 08 10:18	5° 38 24'40	
direct	1685 Jul 01 03:50	24° 38 38'34		direct	1686 Jun 11 15:01	5° 38 02'19	
morning max el	1685 Jul 11 22:26	29° 38 37'55	20°31'14	morning max el	1686 Jun 24 00:01	10° 38 52'56	22°00'56
	1685 Jul 12 07:48	0° 38			1686 Jul 07 19:22	0° 38	
asc. node	1685 Jul 23 07:50	15° 38 14'36		asc. node	1686 Jul 10 04:53	4° 38 27'52	
morning set	1685 Jul 30 17:48	29° 38 34'06		morning set	1686 Jul 15 03:26	14° 38 23'50	
	1685 Jul 30 22:51	0° 38					
superior conj	1685 Aug 07 08:53	15° 38 16'41	1°45'08	superior conj	1686 Jul 22 10:04	29° 38 46'26	1°38'27
minimum elong	1685 Aug 07 08:12	15° 38 13'12	1°45'07	minimum elong	1686 Jul 22 08:16	29° 38 36'59	1°38'19
max. Earth dist.	1685 Aug 12 07:13	25° 38 05'07	1.36176 AU		1686 Jul 22 12:39	0° 38	
	1685 Aug 14 20:56	0° 38		max. Earth dist.	1686 Jul 25 21:57	7° 38 01'26	1.34609 AU
evening rise	1685 Aug 16 08:26	2° 38 45'31		evening rise	1686 Jul 30 12:59	16° 38 13'39	
desc. node	1685 Aug 30 19:59	27° 38 12'59			1686 Aug 07 00:57	0° 38	
	1685 Sep 01 16:00	0° 38		desc. node	1686 Aug 17 16:58	17° 38 10'10	
evening max el	1685 Sep 21 00:13	24° 38 33'23	26°08'10		1686 Aug 27 03:36	0° 38	
	1685 Sep 27 22:45	0° 38		evening max el	1686 Sep 03 12:32	8° 38 07'29	26°58'26
retrograde	1685 Oct 03 14:40	1° 38 42'04		retrograde	1686 Sep 16 17:13	15° 38 24'27	
	1685 Oct 08 16:58	30° 38 11		evening set	1686 Sep 23 11:54	12° 38 41'58	
evening set	1685 Oct 09 20:55	29° 38 06'43		min. Earth dist.	1686 Sep 27 10:38	8° 38 47'17	0.65463 AU
min. Earth dist.	1685 Oct 14 02:42	24° 38 35'06	0.66558 AU	inferior conj	1686 Sep 29 09:10	6° 38 33'25	-2°-14'-47
inferior conj	1685 Oct 15 13:11	22° 38 48'00	-1°-16'-40	minimum elong	1686 Sep 29 12:44	6° 38 23'08	2°13'25
minimum elong	1685 Oct 15 15:11	22° 38 41'45	1°15'50	morning rise	1686 Oct 05 15:07	0° 38 53'35	
asc. node	1685 Oct 19 07:01	18° 38 34'06		asc. node	1686 Oct 06 04:04	0° 38 39'09	
morning rise	1685 Oct 21 10:29	16° 38 55'31		direct	1686 Oct 08 08:41	0° 38 12'48	
direct	1685 Oct 24 11:59	16° 38 01'51		morning max el	1686 Oct 14 21:44	3° 38 45'40	18°15'03
morning max el	1685 Oct 31 08:10	19° 38 50'10	18°52'10		1686 Nov 01 14:49	0° 38	
	1685 Nov 08 06:19	0° 38		morning set	1686 Nov 02 16:12	1° 38 43'51	
morning set	1685 Nov 21 23:50	21° 38 14'41		desc. node	1686 Nov 13 16:16	19° 38 30'57	
desc. node	1685 Nov 26 19:14	28° 38 14'8'32					
	1685 Nov 27 13:25	0° 38		superior conj	1686 Nov 17 13:50	25° 38 42'07	0°-25'-51
max. Earth dist.	1685 Dec 07 06:24	15° 38 14'25	1.45011 AU	minimum elong	1686 Nov 17 10:29	25° 38 28'53	0°25'25
				max. Earth dist.	1686 Nov 20 01:23	29° 38 36'53	1.45060 AU
superior conj	1685 Dec 08 11:43	17° 38 09'46	-1°-12'-54		1686 Nov 20 07:16	0° 38	
minimum elong	1685 Dec 08 03:20	16° 38 36'48	1°11'58	evening rise	1686 Dec 04 00:09	21° 38 25'22	
	1685 Dec 16 14:20	0° 38			1686 Dec 09 12:17	0° 38	
evening rise	1685 Dec 23 21:35	11° 38 43'48		greatest brilliancy	1686 Dec 19 12:14	15° 38 14'22	-0.7m
	1686 Jan 04 06:31	0° 38		evening max el	1686 Dec 28 00:55	26° 38 16'26	19°28'13
evening max el	1686 Jan 13 16:54	12° 38 47'35	18°43'53	asc. node	1687 Jan 02 03:19	0° 38 01'33	
asc. node	1686 Jan 15 06:18	14° 38 14'47			1687 Jan 02 01:42	0° 38	
retrograde	1686 Jan 20 09:29	16° 38 31'50		retrograde	1687 Jan 04 06:02	0° 38 26'04	
evening set	1686 Jan 23 12:21	15° 38 36'26			1687 Jan 06 08:46	30° 38 11	
inferior conj	1686 Jan 29 07:13	9° 38 55'15	3°32'40	evening set	1687 Jan 07 15:59	29° 38 17'51	
minimum elong	1686 Jan 29 05:23	10° 38 00'49	3°32'26	inferior conj	1687 Jan 13 05:49	23° 38 21'02	3°08'23
min. Earth dist.	1686 Jan 31 03:12	7° 38 41'31	0.65151 AU	minimum elong	1687 Jan 13 03:18	23° 38 29'15	3°07'49
morning rise	1686 Feb 03 21:16	3° 38 44'28		min. Earth dist.	1687 Jan 14 11:01	21° 38 46'06	0.66393 AU
				morning rise	1687 Jan 18 13:51	17° 38 07'08	

direct	1687 Jan 24 18:30	14°☿23'06		direct	1688 Jan 08 04:50	28°♄14'01	
morning max el	1687 Feb 06 04:36	21°☿45'20	25°54'59		1688 Jan 13 12:47	0°☿	
desc. node	1687 Feb 09 15:26	25°☿28'50		morning max el	1688 Jan 19 13:05	4°☿59'55	24°32'49
	1687 Feb 13 09:34	0°≈		desc. node	1688 Jan 27 12:29	14°☿15'09	
	1687 Mar 05 17:16	0°✠			1688 Feb 07 19:42	0°≈	
morning set	1687 Mar 14 09:19	15°✠13'34		morning set	1688 Feb 24 12:10	27°≈00'57	
max. Earth dist.	1687 Mar 18 07:08	22°✠35'30	1.35619 AU		1688 Feb 26 04:39	0°✠	
	1687 Mar 22 01:49	0°☿		max. Earth dist.	1688 Feb 28 05:15	3°✠39'00	1.37532 AU
superior conj	1687 Mar 23 15:40	3°☿10'01	-1°-11'-41	superior conj	1688 Mar 05 23:48	16°✠22'45	-1°-36'-11
minimum elong	1687 Mar 23 19:11	3°☿27'47	1°11'08	minimum elong	1688 Mar 06 04:01	16°✠43'10	1°35'42
asc. node	1687 Mar 31 02:39	18°☿27'50			1688 Mar 12 21:19	0°☿	
evening rise	1687 Mar 31 14:22	19°☿27'45		evening rise	1688 Mar 14 15:25	3°☿29'35	
	1687 Apr 05 22:11	0°♄		asc. node	1688 Mar 16 23:41	8°☿06'53	
evening max el	1687 Apr 18 16:02	18°♄45'13	20°14'34		1688 Mar 30 19:07	0°♄	
retrograde	1687 Apr 29 06:45	23°♄53'10		evening max el	1688 Mar 31 09:26	0°♄35'41	19°13'17
evening set	1687 May 01 08:05	23°♄42'27		retrograde	1688 Apr 09 08:14	4°♄55'30	
desc. node	1687 May 08 14:37	20°♄46'21		evening set	1688 Apr 11 10:59	4°♄42'01	
inferior conj	1687 May 10 09:24	19°♄44'09	0°-31'-6	inferior conj	1688 Apr 19 18:54	0°♄31'30	1°18'58
minimum elong	1687 May 10 07:56	19°♄46'17	0°30'35	minimum elong	1688 Apr 19 21:55	0°♄26'25	1°17'58
min. Earth dist.	1687 May 12 01:34	18°♄44'56	0.55217 AU		1688 Apr 20 13:32	30°♄☿	
morning rise	1687 May 19 05:33	15°♄26'27		min. Earth dist.	1688 Apr 22 16:33	28°☿34'59	0.56387 AU
direct	1687 May 23 03:16	14°♄53'21		desc. node	1688 Apr 24 11:39	27°☿28'16	
morning max el	1687 Jun 05 17:08	21°♄32'31	23°41'51	morning rise	1688 Apr 28 04:47	25°☿40'09	
	1687 Jun 13 00:55	0°♄		direct	1688 May 03 02:32	24°☿44'32	
asc. node	1687 Jun 27 01:56	24°♄04'01			1688 May 15 02:00	0°♄	
morning set	1687 Jun 29 14:59	29°♄19'51		morning max el	1688 May 17 07:41	2°♄00'26	25°21'01
	1687 Jun 29 22:36	0°♄			1688 Jun 05 22:45	0°♄	
superior conj	1687 Jul 06 16:55	14°♄32'49	1°26'10	asc. node	1688 Jun 12 22:59	13°♄56'36	
minimum elong	1687 Jul 06 14:34	14°♄20'10	1°25'53	morning set	1688 Jun 13 02:51	14°♄16'57	
max. Earth dist.	1687 Jul 08 22:08	19°♄17'43	1.33431 AU	superior conj	1688 Jun 20 03:11	29°♄28'44	1°09'19
evening rise	1687 Jul 14 05:37	0°♄17'14		minimum elong	1688 Jun 20 00:48	29°♄15'45	1°08'56
	1687 Jul 14 02:11	0°♄			1688 Jun 20 08:54	0°♄	
	1687 Jul 31 01:24	0°♄		max. Earth dist.	1688 Jun 21 05:48	1°♄54'00	1.32651 AU
desc. node	1687 Aug 04 13:58	6°♄37'01		evening rise	1688 Jun 27 06:50	14°♄45'52	
evening max el	1687 Aug 17 00:04	21°♄24'38	27°23'56		1688 Jul 05 03:03	0°♄	
retrograde	1687 Aug 30 13:45	28°♄42'33		desc. node	1688 Jul 21 10:59	25°♄20'45	
evening set	1687 Sep 06 16:53	26°♄02'02			1688 Jul 25 07:49	0°♄	
min. Earth dist.	1687 Sep 10 09:39	22°♄42'36	0.64017 AU	evening max el	1688 Jul 29 08:28	4°♄11'24	27°18'59
inferior conj	1687 Sep 12 20:59	20°♄07'50	-3°-11'-9	retrograde	1688 Aug 12 03:46	11°♄27'27	
minimum elong	1687 Sep 13 01:49	19°♄55'11	3°09'36	evening set	1688 Aug 19 08:18	9°♄01'03	
morning rise	1687 Sep 19 12:52	14°♄44'14		min. Earth dist.	1688 Aug 22 22:22	6°♄09'57	0.62240 AU
direct	1687 Sep 22 01:03	14°♄12'42		inferior conj	1688 Aug 25 21:41	3°♄24'25	-4°-1'-50
asc. node	1687 Sep 23 01:08	14°♄17'49		minimum elong	1688 Aug 26 02:56	3°♄12'12	4°00'36
morning max el	1687 Sep 28 13:43	17°♄38'34	17°55'07		1688 Aug 29 22:12	30°♄♄	
	1687 Oct 07 12:00	0°♄		morning rise	1688 Sep 02 00:16	28°♄20'29	
morning set	1687 Oct 15 11:50	13°♄32'11		direct	1688 Sep 04 09:42	27°♄55'13	
	1687 Oct 25 05:48	0°♄		asc. node	1688 Sep 08 22:12	29°♄27'55	
superior conj	1687 Oct 28 08:07	5°♄05'03	0°21'36		1688 Sep 09 15:50	0°♄	
minimum elong	1687 Oct 28 10:29	5°♄14'42	0°21'15	morning max el	1688 Sep 11 05:13	1°♄22'25	17°53'18
desc. node	1687 Oct 31 13:17	10°♄17'15		morning set	1688 Sep 27 04:45	26°♄21'29	
max. Earth dist.	1687 Nov 02 19:44	13°♄54'57	1.44381 AU		1688 Sep 29 05:22	0°♄	
evening rise	1687 Nov 13 10:44	0°♄31'34		superior conj	1688 Oct 08 05:09	15°♄47'40	0°59'59
	1687 Nov 13 02:31	0°♄		minimum elong	1688 Oct 08 09:45	16°♄07'19	0°59'25
	1687 Dec 03 06:37	0°☿		max. Earth dist.	1688 Oct 15 10:09	27°♄49'27	1.43059 AU
greatest brilliancy	1687 Dec 05 01:05	2°☿24'12	-0.5m		1688 Oct 16 18:20	0°♄	
evening max el	1687 Dec 11 03:52	9°☿46'02	20°27'26	desc. node	1688 Oct 17 10:19	1°♄04'31	
retrograde	1687 Dec 19 03:55	14°☿28'59		evening rise	1688 Oct 22 20:42	9°♄41'19	
asc. node	1687 Dec 20 00:22	14°☿24'55			1688 Nov 05 07:22	0°♄	
evening set	1687 Dec 22 22:38	13°☿06'23		greatest brilliancy	1688 Nov 18 03:51	17°♄40'48	-0.4m
inferior conj	1687 Dec 28 09:28	6°☿56'49	2°34'23	evening max el	1688 Nov 23 01:05	23°♄16'04	21°38'24
minimum elong	1687 Dec 28 06:50	7°☿05'46	2°33'35	retrograde	1688 Dec 02 01:04	28°♄37'25	
min. Earth dist.	1687 Dec 29 01:24	6°☿02'41	0.67227 AU	asc. node	1688 Dec 05 21:26	27°♄15'48	
morning rise	1688 Jan 02 14:33	0°☿41'39		evening set	1688 Dec 06 06:24	26°♄58'56	
	1688 Jan 03 10:40	30°♄♄		inferior conj	1688 Dec 11 15:58	20°♄40'03	1°52'43

minimum elong	1688 Dec 11 13:43	20° ♁ 47'51	1°51'54	minimum elong	1689 Nov 25 21:58	4° ♁ 33'57	1°04'24
min. Earth dist.	1688 Dec 11 20:09	20° ♁ 25'35	0.67688 AU	min. Earth dist.	1689 Nov 25 16:50	4° ♁ 51'38	0.67802 AU
morning rise	1688 Dec 16 20:45	14° ♁ 25'30			1689 Nov 29 11:17	30° ♁	
direct	1688 Dec 21 19:46	12° ♁ 19'13		morning rise	1689 Dec 01 06:15	28° ♁ 17'08	
morning max el	1688 Dec 31 22:30	18° ♁ 19'33	23°04'24	direct	1689 Dec 05 14:31	26° ♁ 33'38	
greatest brilliancy	1689 Jan 05 19:08	23° ♁ 45'36	-0.3m		1689 Dec 12 14:53	0° ♁	
	1689 Jan 10 16:31	0° ♁		morning max el	1689 Dec 14 12:10	1° ♁ 46'44	21°38'55
desc. node	1689 Jan 13 09:32	3° ♁ 40'44		greatest brilliancy	1689 Dec 19 10:17	7° ♁ 21'50	-0.4m
	1689 Jan 30 23:01	0° ♁		desc. node	1689 Dec 31 06:35	23° ♁ 34'51	
morning set	1689 Feb 04 13:20	7° ♁ 30'49			1690 Jan 04 14:50	0° ♁	
max. Earth dist.	1689 Feb 09 00:19	15° ♁ 04'26	1.39663 AU	morning set	1690 Jan 15 09:18	16° ♁ 37'19	
				max. Earth dist.	1690 Jan 21 23:36	27° ♁ 19'22	1.41745 AU
					1690 Jan 23 14:11	0° ♁	
superior conj	1689 Feb 16 16:53	28° ♁ 47'51	-1°-55'-5				
minimum elong	1689 Feb 16 20:28	29° ♁ 04'24	1°54'51	superior conj	1690 Jan 29 13:53	10° ♁ 13'49	-2°-4'-17
	1689 Feb 17 08:31	0° ♁		minimum elong	1690 Jan 29 14:38	10° ♁ 17'04	2°04'18
evening rise	1689 Feb 26 07:42	17° ♁ 00'16		evening rise	1690 Feb 09 11:43	29° ♁ 51'52	
asc. node	1689 Mar 03 20:45	27° ♁ 25'18			1690 Feb 09 13:30	0° ♁	
	1689 Mar 05 07:27	0° ♁		asc. node	1690 Feb 18 17:47	16° ♁ 16'16	
evening max el	1689 Mar 14 12:12	13° ♁ 01'03	18°32'03	evening max el	1690 Feb 25 21:15	25° ♁ 53'17	18°10'47
retrograde	1689 Mar 22 04:00	16° ♁ 46'34		retrograde	1690 Mar 04 17:31	29° ♁ 20'37	
evening set	1689 Mar 24 11:59	16° ♁ 26'46		evening set	1690 Mar 07 06:56	28° ♁ 52'15	
inferior conj	1689 Apr 01 01:00	11° ♁ 57'11	2°38'45	inferior conj	1690 Mar 14 03:40	24° ♁ 01'25	3°24'54
minimum elong	1689 Apr 01 05:01	11° ♁ 49'16	2°37'44	minimum elong	1690 Mar 14 06:16	23° ♁ 55'26	3°24'32
min. Earth dist.	1689 Apr 04 11:05	9° ♁ 16'56	0.58205 AU	min. Earth dist.	1690 Mar 17 11:19	21° ♁ 00'40	0.60328 AU
morning rise	1689 Apr 08 17:50	6° ♁ 33'54		morning rise	1690 Mar 21 02:18	18° ♁ 15'49	
desc. node	1689 Apr 11 08:42	5° ♁ 32'21		direct	1690 Mar 27 17:48	16° ♁ 09'36	
direct	1689 Apr 14 15:59	5° ♁ 04'14		desc. node	1690 Mar 29 05:44	16° ♁ 15'45	
morning max el	1689 Apr 29 01:10	12° ♁ 43'13	26°42'51	morning max el	1690 Apr 11 00:27	24° ♁ 00'30	27°34'21
	1689 May 12 15:07	0° ♁			1690 Apr 16 10:29	0° ♁	
morning set	1689 May 28 13:16	29° ♁ 08'22			1690 May 05 20:07	0° ♁	
	1689 May 28 23:06	0° ♁		morning set	1690 May 12 20:31	13° ♁ 48'01	
asc. node	1689 May 30 20:02	3° ♁ 59'24		asc. node	1690 May 17 17:04	24° ♁ 07'47	
				max. Earth dist.	1690 May 19 05:22	27° ♁ 25'47	1.32243 AU
superior conj	1689 Jun 04 14:54	14° ♁ 26'42	0°48'41				
minimum elong	1689 Jun 04 12:58	14° ♁ 16'02	0°48'19	superior conj	1690 May 20 02:20	29° ♁ 20'42	0°25'00
max. Earth dist.	1689 Jun 04 17:24	14° ♁ 40'30	1.32256 AU	minimum elong	1690 May 20 01:13	29° ♁ 14'37	0°24'46
evening rise	1689 Jun 11 13:43	29° ♁ 29'39			1690 May 20 09:29	0° ♁	
	1689 Jun 11 19:31	0° ♁		evening rise	1690 May 27 00:01	14° ♁ 21'05	
	1689 Jun 28 09:08	0° ♁			1690 Jun 03 20:45	0° ♁	
desc. node	1689 Jul 08 08:01	13° ♁ 02'48		evening max el	1690 Jun 23 07:00	27° ♁ 34'07	25°32'29
evening max el	1689 Jul 11 11:12	16° ♁ 15'47	26°41'01	desc. node	1690 Jun 25 05:01	29° ♁ 17'54	
retrograde	1689 Jul 25 10:25	23° ♁ 29'23			1690 Jun 26 01:29	0° ♁	
evening set	1689 Aug 01 05:34	21° ♁ 30'55		retrograde	1690 Jul 07 07:36	4° ♁ 42'58	
min. Earth dist.	1689 Aug 05 00:52	18° ♁ 54'20	0.60220 AU	evening set	1690 Jul 13 04:11	3° ♁ 22'22	
inferior conj	1689 Aug 08 07:47	16° ♁ 13'54	-4°-40'-21	min. Earth dist.	1690 Jul 17 19:09	0° ♁ 42'04	0.58172 AU
minimum elong	1689 Aug 08 11:42	16° ♁ 05'54	4°39'51		1690 Jul 18 19:29	30° ♁	
morning rise	1689 Aug 15 21:08	11° ♁ 32'19		inferior conj	1690 Jul 20 23:49	28° ♁ 26'54	-4°-56'-21
direct	1689 Aug 18 06:36	11° ♁ 10'51		minimum elong	1690 Jul 20 23:56	28° ♁ 26'40	4°56'22
morning max el	1689 Aug 25 17:04	14° ♁ 48'44	18°10'42	morning rise	1690 Jul 28 23:22	24° ♁ 08'01	
asc. node	1689 Aug 26 19:15	15° ♁ 55'59		direct	1690 Jul 31 11:25	23° ♁ 48'29	
	1689 Sep 05 04:21	0° ♁		morning max el	1690 Aug 08 22:01	27° ♁ 47'58	18°48'33
morning set	1689 Sep 10 13:08	9° ♁ 55'12			1690 Aug 11 00:09	0° ♁	
				asc. node	1690 Aug 13 16:18	3° ♁ 26'41	
superior conj	1689 Sep 20 03:54	27° ♁ 46'10	1°26'14	morning set	1690 Aug 25 08:22	24° ♁ 00'33	
minimum elong	1689 Sep 20 07:50	28° ♁ 03'50	1°25'52		1690 Aug 28 09:41	0° ♁	
	1689 Sep 21 09:45	0° ♁					
max. Earth dist.	1689 Sep 27 18:51	11° ♁ 05'07	1.41265 AU	superior conj	1690 Sep 02 23:00	10° ♁ 44'45	1°40'57
evening rise	1689 Oct 02 22:19	19° ♁ 36'13		minimum elong	1690 Sep 03 01:05	10° ♁ 54'38	1°40'50
desc. node	1689 Oct 04 07:22	21° ♁ 49'28		max. Earth dist.	1690 Sep 09 23:11	23° ♁ 37'46	1.39240 AU
	1689 Oct 09 12:04	0° ♁		evening rise	1690 Sep 13 23:32	0° ♁ 36'54	
	1689 Oct 30 17:13	0° ♁			1690 Sep 13 14:54	0° ♁	
greatest brilliancy	1689 Oct 31 09:50	0° ♁ 50'59	-0.2m	desc. node	1690 Sep 21 04:22	12° ♁ 27'48	
evening max el	1689 Nov 05 17:17	6° ♁ 48'35	22°56'43		1690 Oct 02 20:35	0° ♁	
retrograde	1689 Nov 15 19:53	12° ♁ 48'35		evening max el	1690 Oct 19 06:22	20° ♁ 24'47	24°16'34
evening set	1689 Nov 20 13:39	10° ♁ 53'10		retrograde	1690 Oct 30 11:02	26° ♁ 58'19	
asc. node	1689 Nov 22 18:28	8° ♁ 40'37		evening set	1690 Nov 04 18:43	24° ♁ 45'48	
inferior conj	1689 Nov 25 23:25	4° ♁ 28'56	1°05'00				

min. Earth dist.	1690 Nov 09 12:58	19° \mathbb{M} 17'50	0.67586 AU		1691 Sep 06 04:54	0° \mathbb{L}	
asc. node	1690 Nov 09 15:30	19° \mathbb{M} 09'19		desc. node	1691 Sep 08 01:23	2° \mathbb{L} 55'20	
inferior conj	1690 Nov 10 06:01	18° \mathbb{M} 20'26	0°12'30		1691 Sep 27 21:42	0° \mathbb{M}	
minimum elong	1690 Nov 10 05:43	18° \mathbb{M} 21'28	0°12'22	evening max el	1691 Oct 01 18:23	4° \mathbb{M} 04'30	25°30'49
transit middle	1690 Nov 10 05:43	18° \mathbb{M} 21'28	0°12'22	retrograde	1691 Oct 13 21:40	11° \mathbb{M} 02'38	
transit begin	1690 Nov 10 03:57	18° \mathbb{M} 27'27		evening set	1691 Oct 19 19:57	8° \mathbb{M} 34'31	
transit end	1690 Nov 10 07:29	18° \mathbb{M} 15'30		min. Earth dist.	1691 Oct 24 06:10	3° \mathbb{M} 41'59	0.67040 AU
morning rise	1690 Nov 15 17:00	12° \mathbb{M} 13'58		inferior conj	1691 Oct 25 10:03	2° \mathbb{M} 12'20	0°-43'-26
direct	1690 Nov 19 11:51	10° \mathbb{M} 52'05		minimum elong	1691 Oct 25 11:10	2° \mathbb{M} 08'45	0°42'58
morning max el	1690 Nov 27 08:54	15° \mathbb{M} 23'59	20°23'05		1691 Oct 27 04:14	30° \mathbb{R} \mathbb{L}	
greatest brilliancy	1690 Dec 03 19:17	23° \mathbb{M} 03'56	-0.5m	asc. node	1691 Oct 27 12:32	29° \mathbb{L} 35'22	
	1690 Dec 08 19:23	0° \mathbb{J}		morning rise	1691 Oct 31 03:06	26° \mathbb{L} 13'59	
desc. node	1690 Dec 18 03:37	13° \mathbb{J} 49'07		direct	1691 Nov 03 10:24	25° \mathbb{L} 10'59	
morning set	1690 Dec 25 07:50	24° \mathbb{J} 48'10		morning max el	1691 Nov 10 13:28	29° \mathbb{L} 11'47	19°20'53
	1690 Dec 28 15:56	0° \mathbb{Z}			1691 Nov 11 08:00	0° \mathbb{M}	
max. Earth dist.	1691 Jan 04 06:51	10° \mathbb{Z} 30'16	1.43489 AU	greatest brilliancy	1691 Nov 20 01:00	11° \mathbb{M} 25'12	-0.7m
					1691 Dec 02 06:10	0° \mathbb{J}	
superior conj	1691 Jan 10 09:51	20° \mathbb{Z} 29'42	-1°-58'-53	morning set	1691 Dec 04 08:08	3° \mathbb{J} 13'42	
minimum elong	1691 Jan 10 05:28	20° \mathbb{Z} 11'38	1°58'42	desc. node	1691 Dec 05 00:40	4° \mathbb{J} 17'53	
	1691 Jan 16 01:38	0° \mathbb{A}		max. Earth dist.	1691 Dec 17 21:18	24° \mathbb{J} 24'52	1.44662 AU
evening rise	1691 Jan 22 23:15	11° \mathbb{A} 55'47					
	1691 Feb 02 13:49	0° \mathbb{H}		superior conj	1691 Dec 21 03:54	29° \mathbb{J} 36'38	-1°-34'-55
asc. node	1691 Feb 05 14:48	4° \mathbb{H} 30'59		minimum elong	1691 Dec 20 19:21	29° \mathbb{J} 02'34	1°34'08
evening max el	1691 Feb 09 09:23	9° \mathbb{H} 03'31	18°08'58		1691 Dec 21 09:46	0° \mathbb{Z}	
retrograde	1691 Feb 15 21:01	12° \mathbb{H} 27'36		evening rise	1692 Jan 04 14:08	23° \mathbb{Z} 05'32	
evening set	1691 Feb 18 15:26	11° \mathbb{H} 49'23			1692 Jan 08 17:49	0° \mathbb{A}	
inferior conj	1691 Feb 24 23:30	6° \mathbb{H} 37'30	3°43'20	asc. node	1692 Jan 23 11:49	21° \mathbb{A} 59'02	
minimum elong	1691 Feb 25 00:04	6° \mathbb{H} 36'01	3°43'19	evening max el	1692 Jan 23 21:44	22° \mathbb{A} 24'45	18°25'55
min. Earth dist.	1691 Feb 27 19:30	3° \mathbb{H} 41'13	0.62423 AU	retrograde	1692 Jan 30 10:09	25° \mathbb{A} 58'32	
morning rise	1691 Mar 03 06:28	0° \mathbb{H} 38'08		evening set	1692 Feb 02 09:42	25° \mathbb{A} 09'37	
	1691 Mar 04 04:29	30° \mathbb{R} \mathbb{A}		inferior conj	1692 Feb 08 08:31	19° \mathbb{A} 38'12	3°41'05
direct	1691 Mar 10 05:04	28° \mathbb{A} 03'45		minimum elong	1692 Feb 08 07:23	19° \mathbb{A} 41'29	3°41'01
desc. node	1691 Mar 16 02:46	29° \mathbb{A} 40'38		min. Earth dist.	1692 Feb 10 13:18	17° \mathbb{A} 05'37	0.64262 AU
	1691 Mar 16 17:05	0° \mathbb{H}		morning rise	1692 Feb 14 03:38	13° \mathbb{A} 30'33	
morning max el	1691 Mar 24 05:30	5° \mathbb{H} 58'41	27°49'13	direct	1692 Feb 21 00:01	10° \mathbb{A} 41'45	
	1691 Apr 11 09:33	0° \mathbb{Y}		desc. node	1692 Mar 01 23:49	15° \mathbb{A} 15'27	
morning set	1691 Apr 26 22:30	28° \mathbb{Y} 09'00		morning max el	1692 Mar 05 14:21	18° \mathbb{A} 33'14	27°27'44
	1691 Apr 27 20:18	0° \mathbb{B}			1692 Mar 15 06:35	0° \mathbb{H}	
max. Earth dist.	1691 May 02 13:53	9° \mathbb{B} 57'01	1.32622 AU		1692 Apr 03 07:22	0° \mathbb{Y}	
				morning set	1692 Apr 09 16:36	12° \mathbb{Y} 02'40	
superior conj	1691 May 04 11:47	14° \mathbb{B} 04'54	0°-1'-1	max. Earth dist.	1692 Apr 14 15:02	22° \mathbb{Y} 01'50	1.33430 AU
minimum elong	1691 May 04 11:50	14° \mathbb{B} 05'10	0°01'01				
behind sun begin	1691 May 04 06:40	13° \mathbb{B} 37'09		superior conj	1692 Apr 17 17:23	28° \mathbb{Y} 32'44	0°-28'-29
behind sun end	1691 May 04 17:00	14° \mathbb{B} 33'12		minimum elong	1692 Apr 17 18:48	28° \mathbb{Y} 40'16	0°28'13
asc. node	1691 May 04 14:08	14° \mathbb{B} 17'40			1692 Apr 18 09:46	0° \mathbb{B}	
evening rise	1691 May 11 11:46	29° \mathbb{B} 13'27		asc. node	1692 Apr 20 11:08	4° \mathbb{B} 24'07	
	1691 May 11 20:35	0° \mathbb{I}		evening rise	1692 Apr 24 23:09	13° \mathbb{B} 59'50	
	1691 May 28 19:28	0° \mathbb{G}			1692 May 03 02:17	0° \mathbb{I}	
evening max el	1691 Jun 04 21:35	8° \mathbb{G} 15'55	24°02'56	evening max el	1692 May 16 12:45	18° \mathbb{I} 45'38	22°26'51
desc. node	1691 Jun 12 02:00	13° \mathbb{G} 33'06		desc. node	1692 May 28 23:01	25° \mathbb{I} 12'05	
retrograde	1691 Jun 18 16:43	15° \mathbb{G} 12'15		retrograde	1692 May 29 13:28	25° \mathbb{I} 12'54	
evening set	1691 Jun 23 03:55	14° \mathbb{G} 28'09		evening set	1692 Jun 01 14:52	24° \mathbb{I} 52'18	
min. Earth dist.	1691 Jun 29 08:23	11° \mathbb{G} 27'51	0.56393 AU	min. Earth dist.	1692 Jun 09 19:54	21° \mathbb{I} 18'51	0.55221 AU
inferior conj	1691 Jul 01 19:44	9° \mathbb{G} 56'18	-4°-36'-2	inferior conj	1692 Jun 10 21:38	20° \mathbb{I} 42'26	-3°-28'-31
minimum elong	1691 Jul 01 14:34	10° \mathbb{G} 04'19	4°35'20	minimum elong	1692 Jun 10 13:48	20° \mathbb{I} 53'31	3°26'26
morning rise	1691 Jul 10 04:46	5° \mathbb{G} 56'37		morning rise	1692 Jun 19 15:04	16° \mathbb{I} 50'48	
direct	1691 Jul 12 21:25	5° \mathbb{G} 37'41		direct	1692 Jun 22 14:01	16° \mathbb{I} 30'55	
morning max el	1691 Jul 22 17:16	10° \mathbb{G} 11'13	19°47'44	morning max el	1692 Jul 04 01:10	21° \mathbb{I} 50'53	21°07'31
asc. node	1691 Jul 31 13:21	21° \mathbb{G} 46'28			1692 Jul 10 22:13	0° \mathbb{G}	
	1691 Aug 05 03:42	0° \mathbb{Q}		asc. node	1692 Jul 17 10:24	10° \mathbb{G} 42'41	
morning set	1691 Aug 09 11:09	8° \mathbb{Q} 29'13		morning set	1692 Jul 23 18:52	23° \mathbb{G} 12'55	
					1692 Jul 27 01:03	0° \mathbb{Q}	
superior conj	1691 Aug 17 09:07	24° \mathbb{Q} 29'01	1°45'56				
minimum elong	1691 Aug 17 09:20	24° \mathbb{Q} 30'04	1°45'56	superior conj	1692 Jul 31 05:49	8° \mathbb{Q} 45'09	1°43'04
	1691 Aug 20 04:33	0° \mathbb{P}		minimum elong	1692 Jul 31 04:36	8° \mathbb{Q} 38'50	1°43'00
max. Earth dist.	1691 Aug 23 03:43	5° \mathbb{P} 39'27	1.37238 AU	max. Earth dist.	1692 Aug 04 13:32	17° \mathbb{Q} 30'43	1.35465 AU
evening rise	1691 Aug 27 00:05	12° \mathbb{P} 43'46		evening rise	1692 Aug 08 19:44	25° \mathbb{Q} 45'22	

	1692 Aug 11 02:32	0°♎			1693 Jul 18 13:16	0°♎	
desc. node	1692 Aug 24 22:23	23°♎05'39		evening rise	1693 Jul 23 05:53	9°♎29'30	
	1692 Aug 29 15:44	0°♏			1693 Aug 03 13:12	0°♎	
evening max el	1692 Sep 13 06:25	17°♏42'16	26°31'58	desc. node	1693 Aug 11 19:23	12°♎51'08	
retrograde	1692 Sep 26 03:18	24°♏55'14			1693 Aug 25 13:58	0°♏	
evening set	1692 Oct 02 15:21	22°♏15'41		evening max el	1693 Aug 26 18:22	1°♏09'43	27°12'36
min. Earth dist.	1692 Oct 06 18:00	18°♏00'05	0.66146 AU	retrograde	1693 Sep 09 03:32	8°♏28'31	
inferior conj	1692 Oct 08 09:35	16°♏00'56	-1°-41'-19	evening set	1693 Sep 16 02:30	5°♏45'11	
minimum elong	1692 Oct 08 12:16	15°♏52'51	1°40'14	min. Earth dist.	1693 Sep 19 22:20	2°♏06'10	0.64891 AU
asc. node	1692 Oct 13 09:35	10°♏53'00			1693 Sep 21 19:59	30°♎♎	
morning rise	1692 Oct 14 10:25	10°♏13'42		inferior conj	1693 Sep 22 02:25	29°♎42'07	-2°-39'-5
direct	1692 Oct 17 08:17	9°♏25'59		minimum elong	1693 Sep 22 06:35	29°♎30'34	2°37'36
morning max el	1692 Oct 24 00:30	13°♏06'14	18°34'19	morning rise	1693 Sep 28 12:30	24°♎09'02	
	1692 Nov 05 05:32	0°♎		asc. node	1693 Sep 30 06:40	23°♎36'43	
morning set	1692 Nov 13 07:34	12°♎52'23		direct	1693 Oct 01 03:21	23°♎32'45	
desc. node	1692 Nov 20 21:42	24°♎56'25		morning max el	1693 Oct 07 15:32	27°♎01'44	18°04'25
	1692 Nov 24 02:38	0°♏			1693 Oct 10 06:07	0°♏	
				morning set	1693 Oct 25 12:07	23°♏56'54	
superior conj	1692 Nov 29 05:59	8°♏05'00	0°-53'-46		1693 Oct 29 03:30	0°♎	
minimum elong	1692 Nov 28 23:13	7°♏38'24	0°52'56	desc. node	1693 Nov 07 18:43	15°♎40'51	
max. Earth dist.	1692 Nov 29 15:38	8°♏42'53	1.45126 AU				
	1692 Dec 13 03:50	0°♏		superior conj	1693 Nov 08 12:54	16°♎53'29	0°-5'-5
evening rise	1692 Dec 15 05:42	3°♏17'53		minimum elong	1693 Nov 08 12:16	16°♎50'56	0°05'01
	1693 Jan 01 12:38	0°♏		behind sun begin	1693 Nov 08 02:02	16°♎10'05	
evening max el	1693 Jan 06 07:52	5°♏51'48	19°00'43	behind sun end	1693 Nov 08 22:29	17°♎31'44	
asc. node	1693 Jan 09 08:51	8°♏27'16		max. Earth dist.	1693 Nov 12 10:22	23°♎04'18	1.44853 AU
retrograde	1693 Jan 13 05:00	9°♏46'04			1693 Nov 16 20:15	0°♏	
evening set	1693 Jan 16 10:40	8°♏45'22		evening rise	1693 Nov 25 00:02	12°♏40'28	
inferior conj	1693 Jan 22 03:06	2°♏56'56	3°23'43		1693 Dec 06 07:22	0°♏	
minimum elong	1693 Jan 22 00:54	3°♏03'51	3°23'21	greatest brilliancy	1693 Dec 13 06:24	10°♏12'14	-0.6m
min. Earth dist.	1693 Jan 23 16:32	0°♏59'18	0.65726 AU	evening max el	1693 Dec 20 13:48	19°♏20'49	19°51'45
	1693 Jan 24 11:59	30°♎♏		asc. node	1693 Dec 27 05:55	23°♏40'11	
morning rise	1693 Jan 27 14:09	26°♏44'22		retrograde	1693 Dec 28 02:30	23°♏44'16	
direct	1693 Feb 03 01:41	23°♏55'13		evening set	1693 Dec 31 15:50	22°♏30'19	
	1693 Feb 14 10:02	0°♏		inferior conj	1694 Jan 06 04:10	16°♏27'39	2°55'01
morning max el	1693 Feb 16 00:19	1°♏32'47	26°35'34	minimum elong	1694 Jan 06 01:32	16°♏36'25	2°54'20
desc. node	1693 Feb 16 20:52	2°♏25'28		min. Earth dist.	1694 Jan 07 03:34	15°♏09'50	0.66792 AU
	1693 Mar 09 08:51	0°♏		morning rise	1694 Jan 11 10:34	10°♏12'42	
morning set	1693 Mar 23 23:23	25°♏19'02		direct	1694 Jan 17 09:17	7°♏34'37	
	1693 Mar 26 09:58	0°♏		morning max el	1694 Jan 29 09:16	14°♏43'49	25°21'20
max. Earth dist.	1693 Mar 28 05:27	3°♏33'34	1.34689 AU	desc. node	1694 Feb 03 17:55	20°♏42'25	
					1694 Feb 10 21:38	0°♏	
superior conj	1693 Apr 01 16:58	12°♏38'06	0°-56'-14		1694 Mar 02 05:02	0°♏	
minimum elong	1693 Apr 01 19:47	12°♏52'38	0°55'43	morning set	1694 Mar 06 14:05	7°♏43'27	
asc. node	1693 Apr 07 08:11	24°♏23'49		max. Earth dist.	1694 Mar 10 08:02	14°♏37'44	1.36390 AU
evening rise	1693 Apr 09 08:17	28°♏34'19					
	1693 Apr 10 00:53	0°♏		superior conj	1694 Mar 16 07:41	26°♏12'22	-1°-22'-35
evening max el	1693 Apr 28 11:58	29°♏35'24	20°58'23	minimum elong	1694 Mar 16 11:36	26°♏31'50	1°22'01
	1693 Apr 28 22:18	0°♏			1694 Mar 18 05:14	0°♏	
retrograde	1693 May 10 02:57	5°♏14'55		evening rise	1694 Mar 24 12:57	12°♏49'31	
evening set	1693 May 12 07:52	5°♏03'27		asc. node	1694 Mar 25 05:13	14°♏11'33	
desc. node	1693 May 15 20:02	4°♏02'25			1694 Apr 02 15:50	0°♏	
inferior conj	1693 May 21 15:24	1°♏05'25	-1°-40'-35	evening max el	1694 Apr 10 22:53	11°♏02'47	19°46'06
minimum elong	1693 May 21 10:40	1°♏12'07	1°38'55	retrograde	1694 Apr 20 20:08	15°♏48'50	
min. Earth dist.	1693 May 22 08:20	0°♏41'24	0.54934 AU	evening set	1694 Apr 22 20:59	15°♏37'37	
	1693 May 23 13:53	30°♎♏		inferior conj	1694 May 01 15:34	11°♏35'48	0°18'24
morning rise	1693 May 30 12:55	27°♏02'19		minimum elong	1694 May 01 16:23	11°♏34'33	0°18'07
direct	1693 Jun 02 23:27	26°♏36'49		desc. node	1694 May 02 17:05	10°♏56'06	
	1693 Jun 12 12:10	0°♏		min. Earth dist.	1694 May 03 22:27	10°♏10'55	0.55615 AU
morning max el	1693 Jun 15 22:45	2°♏49'09	22°43'16	morning rise	1694 May 10 08:25	7°♏03'58	
asc. node	1693 Jul 04 07:27	0°♏06'16		direct	1694 May 14 15:46	6°♏22'45	
	1693 Jul 04 06:11	0°♏		morning max el	1694 May 28 14:01	13°♏20'13	24°25'11
morning set	1693 Jul 08 05:32	8°♏05'43			1694 Jun 10 11:47	0°♏	
				asc. node	1694 Jun 21 04:31	19°♏49'43	
superior conj	1693 Jul 15 09:45	23°♏22'55	1°33'52	morning set	1694 Jun 22 17:23	23°♏02'14	
minimum elong	1693 Jul 15 07:39	23°♏11'46	1°33'40		1694 Jun 25 23:25	0°♏	
max. Earth dist.	1693 Jul 18 08:07	29°♏33'14	1.34052 AU				

superior conj	1694 Jun 29 18:18	8°☿13'57	1°19'31	superior conj	1695 Jun 14 05:21	23°♄10'58	1°00'59
minimum elong	1694 Jun 29 15:53	8°☿00'49	1°19'12	minimum elong	1695 Jun 14 03:06	22°♄58'39	1°00'35
max. Earth dist.	1694 Jul 01 11:33	11°☿56'54	1.33044 AU	max. Earth dist.	1695 Jun 14 21:19	24°♄38'33	1.32436 AU
evening rise	1694 Jul 07 02:33	23°☿44'42			1695 Jun 17 08:16	0°☿	
	1694 Jul 10 06:08	0°♊		evening rise	1695 Jun 21 06:27	8°☿20'34	
	1694 Jul 28 05:06	0°♋			1695 Jul 02 16:09	0°♊	
desc. node	1694 Jul 29 16:24	2°♋01'23		desc. node	1695 Jul 16 13:26	20°♊21'18	
evening max el	1694 Aug 09 04:53	14°♋15'37	27°25'57	evening max el	1695 Jul 22 11:25	26°♊46'03	27°07'05
retrograde	1694 Aug 22 21:42	21°♋33'36			1695 Jul 26 06:50	0°♋	
evening set	1694 Aug 30 02:17	18°♋57'34		retrograde	1695 Aug 05 08:37	4°♋00'29	
min. Earth dist.	1694 Sep 02 17:17	15°♋51'12	0.63287 AU	evening set	1695 Aug 12 10:32	1°♋44'47	
inferior conj	1694 Sep 05 09:56	13°♋10'11	-3°-33'-42		1695 Aug 14 21:13	30°♋♊	
minimum elong	1694 Sep 05 15:05	12°♋57'18	3°32'13	min. Earth dist.	1695 Aug 16 01:41	29°♊01'38	0.61393 AU
morning rise	1694 Sep 12 06:17	7°♋54'28		inferior conj	1695 Aug 19 04:52	26°♊16'22	-4°-20'-14
direct	1694 Sep 14 16:51	7°♋26'04		minimum elong	1695 Aug 19 09:49	26°♊05'26	4°19'17
asc. node	1694 Sep 17 03:44	7°♋55'22		morning rise	1695 Aug 26 12:00	21°♊21'20	
morning max el	1694 Sep 21 07:42	10°♋51'54	17°52'05	direct	1695 Aug 28 21:09	20°♊57'52	
	1694 Oct 04 04:05	0°♌		asc. node	1695 Sep 04 00:47	23°♊39'57	
morning set	1694 Oct 07 17:42	6°♌14'01		morning max el	1695 Sep 04 21:57	24°♊28'38	17°58'17
					1695 Sep 09 10:19	0°♋	
superior conj	1694 Oct 19 18:12	26°♌49'48	0°39'16	morning set	1695 Sep 20 17:52	19°♋24'01	
minimum elong	1694 Oct 19 21:59	27°♌05'28	0°38'45		1695 Sep 26 13:18	0°♌	
	1694 Oct 21 16:15	0°♍					
desc. node	1694 Oct 25 15:45	6°♍28'16		superior conj	1695 Oct 01 02:38	8°♌05'33	1°12'37
max. Earth dist.	1694 Oct 26 02:59	7°♍13'26	1.43886 AU	minimum elong	1695 Oct 01 07:11	8°♌25'28	1°12'06
evening rise	1694 Nov 04 08:16	21°♍43'22		max. Earth dist.	1695 Oct 08 15:23	20°♌53'55	1.42342 AU
	1694 Nov 09 18:12	0°♎		desc. node	1695 Oct 12 12:46	27°♌14'46	
greatest brilliancy	1694 Nov 28 03:20	26°♎26'26	-0.5m		1695 Oct 14 06:05	0°♍	
	1694 Dec 01 00:25	0°♏		evening rise	1695 Oct 14 23:18	1°♍08'22	
evening max el	1694 Dec 03 14:26	2°♏51'20	20°56'25		1695 Nov 03 07:18	0°♎	
retrograde	1694 Dec 12 00:13	7°♏50'06		greatest brilliancy	1695 Nov 11 16:23	11°♎03'54	-0.3m
asc. node	1694 Dec 14 02:58	7°♏25'07		evening max el	1695 Nov 16 09:31	16°♎22'46	22°11'07
evening set	1694 Dec 15 23:11	6°♏21'07		retrograde	1695 Nov 25 20:26	22°♎00'07	
inferior conj	1694 Dec 21 09:19	0°♏07'23	2°17'33	evening set	1695 Nov 30 06:55	20°♎14'29	
minimum elong	1694 Dec 21 06:47	0°♏16'04	2°16'43	asc. node	1695 Dec 01 00:01	19°♎37'24	
	1694 Dec 21 11:28	30°♏♎		inferior conj	1695 Dec 05 16:25	13°♎53'04	1°33'09
min. Earth dist.	1694 Dec 21 20:11	29°♎30'04	0.67474 AU	minimum elong	1695 Dec 05 14:28	13°♎59'52	1°32'24
morning rise	1694 Dec 26 13:58	23°♎52'08		min. Earth dist.	1695 Dec 05 15:57	13°♎54'42	0.67786 AU
direct	1694 Dec 31 21:52	21°♎32'53		morning rise	1695 Dec 10 21:50	7°♎39'37	
morning max el	1695 Jan 11 17:37	28°♎00'03	23°55'12	direct	1695 Dec 15 14:34	5°♎42'53	
	1695 Jan 13 15:09	0°♏		morning max el	1695 Dec 25 04:19	11°♎22'06	22°27'11
desc. node	1695 Jan 21 14:59	9°♏47'14		greatest brilliancy	1695 Dec 29 18:08	16°♎29'02	-0.3m
	1695 Feb 04 14:55	0°♐		desc. node	1696 Jan 08 12:01	29°♎26'05	
morning set	1695 Feb 16 06:43	18°♐59'26			1696 Jan 08 21:35	0°♏	
max. Earth dist.	1695 Feb 20 03:25	25°♐44'15	1.38433 AU	morning set	1696 Jan 27 19:28	28°♏53'09	
	1695 Feb 22 12:19	0°♑			1696 Jan 28 11:50	0°♐	
				max. Earth dist.	1696 Feb 01 23:59	7°♐30'32	1.40582 AU
superior conj	1695 Feb 27 09:59	9°♑06'18	-1°-45'-7				
minimum elong	1695 Feb 27 14:09	9°♑26'04	1°44'43	superior conj	1696 Feb 09 19:14	21°♐08'19	-2°00'-27
evening rise	1695 Mar 08 10:37	26°♑38'35		minimum elong	1696 Feb 09 21:56	21°♐20'29	2°00'21
	1695 Mar 10 03:57	0°♒			1696 Feb 14 15:28	0°♑	
asc. node	1695 Mar 12 02:16	3°♒42'18		evening rise	1696 Feb 19 22:10	9°♑54'00	
evening max el	1695 Mar 24 20:42	23°♒09'07	18°53'15	asc. node	1696 Feb 26 23:18	22°♑50'06	
retrograde	1695 Apr 02 04:39	27°♒11'47			1696 Mar 02 09:48	0°♒	
evening set	1695 Apr 04 09:39	26°♒55'52		evening max el	1696 Mar 07 02:34	5°♒47'21	18°20'31
inferior conj	1695 Apr 12 09:24	22°♒37'57	1°57'06	retrograde	1696 Mar 14 08:28	9°♒23'07	
minimum elong	1695 Apr 12 13:15	22°♒31'01	1°55'56	evening set	1696 Mar 16 18:57	8°♒59'44	
min. Earth dist.	1695 Apr 15 14:37	20°♒20'22	0.57109 AU	inferior conj	1696 Mar 24 00:33	4°♒20'51	3°02'10
desc. node	1695 Apr 19 14:08	17°♒57'49		minimum elong	1696 Mar 24 04:09	4°♒13'16	3°01'26
morning rise	1695 Apr 20 12:33	17°♒32'22		min. Earth dist.	1696 Mar 27 10:58	1°♒29'05	0.59096 AU
direct	1695 Apr 25 21:30	16°♒22'59			1696 Mar 29 10:43	30°♒♑	
morning max el	1695 May 10 04:58	23°♒50'01	25°58'49	morning rise	1696 Mar 31 09:33	28°♑47'05	
	1695 May 15 18:59	0°♓		desc. node	1696 Apr 05 11:10	27°♑05'42	
	1695 Jun 03 07:39	0°♄		direct	1696 Apr 06 16:15	27°♑01'47	
morning set	1695 Jun 07 04:47	7°♄56'56			1696 Apr 15 06:04	0°♒	
asc. node	1695 Jun 08 01:32	9°♄46'51		morning max el	1696 Apr 21 00:44	4°♒45'59	27°09'05
					1696 May 09 14:26	0°♓	

morning set	1696 May 21 14:06	22°♄44'29			1697 May 02 04:02	0°♄	
asc. node	1696 May 24 22:34	29°♄52'45		morning set	1697 May 05 19:23	7°♄17'15	
	1696 May 24 23:55	0°♄		asc. node	1697 May 11 19:36	20°♄02'05	
				max. Earth dist.	1697 May 11 20:52	20°♄09'01	1.32357 AU
superior conj	1696 May 28 17:09	8°♄08'05	0°38'59	superior conj	1697 May 13 03:56	22°♄58'25	0°14'13
minimum elong	1696 May 28 15:31	7°♄59'07	0°38'38	minimum elong	1697 May 13 03:17	22°♄54'52	0°14'03
max. Earth dist.	1696 May 28 09:46	7°♄27'32	1.32208 AU	behind sun begin	1697 May 13 00:55	22°♄41'55	
evening rise	1696 Jun 04 15:04	23°♄08'55		behind sun end	1697 May 13 05:39	23°♄07'48	
	1696 Jun 07 22:53	0°♄			1697 May 16 08:58	0°♄	
	1696 Jun 25 23:09	0°♄		evening rise	1697 May 20 02:12	8°♄01'16	
desc. node	1696 Jul 02 10:26	7°♄30'01			1697 May 31 13:00	0°♄	
evening max el	1696 Jul 03 11:17	8°♄30'50	26°15'12	evening max el	1697 Jun 15 04:05	19°♄30'00	24°56'00
retrograde	1696 Jul 17 11:03	15°♄42'11		desc. node	1697 Jun 19 07:26	22°♄58'12	
evening set	1696 Jul 23 22:32	13°♄59'00		retrograde	1697 Jun 29 03:28	26°♄35'40	
min. Earth dist.	1696 Jul 28 00:06	11°♄23'22	0.59342 AU	evening set	1697 Jul 04 10:56	25°♄31'15	
inferior conj	1696 Jul 31 07:39	8°♄51'20	-4°-50'-41	min. Earth dist.	1697 Jul 09 15:30	22°♄44'17	0.57363 AU
minimum elong	1696 Jul 31 10:16	8°♄46'18	4°50'29	inferior conj	1697 Jul 12 15:06	20°♄45'26	-4°-52'-59
morning rise	1696 Aug 08 01:25	4°♄19'31		minimum elong	1697 Jul 12 12:59	20°♄48'58	4°52'53
direct	1696 Aug 10 11:54	3°♄58'55		morning rise	1697 Jul 20 18:50	16°♄36'00	
morning max el	1696 Aug 18 07:11	7°♄44'07	18°24'16	direct	1697 Jul 23 08:39	16°♄16'55	
asc. node	1696 Aug 20 21:49	10°♄36'10		morning max el	1697 Aug 01 08:21	20°♄28'57	19°11'12
	1696 Sep 01 14:59	0°♄		asc. node	1697 Aug 07 18:50	28°♄28'47	
morning set	1696 Sep 03 07:17	3°♄12'12			1697 Aug 08 18:14	0°♄	
				morning set	1697 Aug 18 06:02	17°♄27'48	
superior conj	1696 Sep 12 10:43	20°♄31'14	1°33'48		1697 Aug 24 13:30	0°♄	
minimum elong	1696 Sep 12 13:54	20°♄45'59	1°33'32	superior conj	1697 Aug 26 12:48	3°♄50'49	1°44'08
	1696 Sep 17 16:57	0°♄		minimum elong	1697 Aug 26 14:03	3°♄56'53	1°44'05
max. Earth dist.	1696 Sep 19 22:17	3°♄52'19	1.40418 AU	max. Earth dist.	1697 Sep 02 01:43	16°♄07'55	1.38365 AU
evening rise	1696 Sep 24 10:29	11°♄29'18		evening rise	1697 Sep 05 21:54	22°♄58'12	
desc. node	1696 Sep 28 09:47	17°♄56'58			1697 Sep 10 00:50	0°♄	
	1696 Oct 06 04:33	0°♄		desc. node	1697 Sep 15 06:47	8°♄30'56	
evening max el	1696 Oct 29 00:03	29°♄56'05	23°30'51		1697 Sep 30 00:44	0°♄	
	1696 Oct 29 01:38	0°♄		evening max el	1697 Oct 11 12:14	13°♄33'01	24°49'18
retrograde	1696 Nov 08 13:45	6°♄11'00		retrograde	1697 Oct 23 03:14	20°♄19'01	
evening set	1696 Nov 13 13:27	4°♄07'59		evening set	1697 Oct 28 17:07	17°♄59'19	
asc. node	1696 Nov 16 21:03	0°♄32'36		min. Earth dist.	1697 Nov 02 07:45	12°♄46'15	0.67386 AU
	1696 Nov 17 07:06	30°♄		inferior conj	1697 Nov 03 05:25	11°♄34'31	0°-10'-54
inferior conj	1696 Nov 18 23:42	27°♄42'45	0°43'13	minimum elong	1697 Nov 03 05:42	11°♄33'38	0°10'47
minimum elong	1696 Nov 18 22:41	27°♄46'11	0°42'48	transit middle	1697 Nov 03 05:42	11°♄33'38	0°10'47
min. Earth dist.	1696 Nov 18 12:35	28°♄20'47	0.67753 AU	transit begin	1697 Nov 03 03:38	11°♄40'27	
morning rise	1696 Nov 24 08:04	21°♄33'10		transit end	1697 Nov 03 07:45	11°♄26'48	
direct	1696 Nov 28 10:24	19°♄59'16		asc. node	1697 Nov 03 18:05	10°♄52'46	
morning max el	1696 Dec 06 20:52	24°♄53'28	21°05'15	morning rise	1697 Nov 08 18:46	5°♄31'14	
	1696 Dec 11 09:00	0°♄		direct	1697 Nov 12 08:21	4°♄18'00	
greatest brilliancy	1696 Dec 12 07:05	1°♄09'12	-0.5m	morning max el	1697 Nov 19 21:05	8°♄35'46	19°54'53
desc. node	1696 Dec 25 09:03	19°♄29'16		greatest brilliancy	1697 Nov 27 07:03	17°♄41'12	-0.6m
	1697 Jan 01 08:18	0°♄			1697 Dec 05 18:34	0°♄	
morning set	1697 Jan 06 04:28	7°♄30'04		desc. node	1697 Dec 12 06:05	9°♄50'06	
max. Earth dist.	1697 Jan 14 03:01	20°♄11'43	1.42544 AU	morning set	1697 Dec 16 00:31	15°♄37'58	
	1697 Jan 20 00:35	0°♄			1697 Dec 25 05:18	0°♄	
superior conj	1697 Jan 21 06:05	2°♄05'15	-2°-4'-4	max. Earth dist.	1697 Dec 27 13:18	3°♄42'13	1.44057 AU
minimum elong	1697 Jan 21 04:51	2°♄00'00	2°04'04	superior conj	1698 Jan 01 14:42	11°♄50'26	-1°-51'-6
evening rise	1697 Feb 01 19:45	22°♄26'44		minimum elong	1698 Jan 01 08:06	11°♄23'41	1°50'40
	1697 Feb 06 00:57	0°♄			1698 Jan 12 12:43	0°♄	
asc. node	1697 Feb 12 20:20	11°♄26'54		evening rise	1698 Jan 14 23:04	4°♄08'45	
evening max el	1697 Feb 18 13:13	18°♄47'55	18°07'35	asc. node	1698 Jan 30 17:22	29°♄23'34	
retrograde	1697 Feb 25 04:43	22°♄12'33			1698 Jan 31 05:12	0°♄	
evening set	1697 Feb 27 20:11	21°♄40'11		evening max el	1698 Feb 02 01:47	2°♄03'47	18°13'55
inferior conj	1697 Mar 06 11:04	16°♄40'01	3°35'40	retrograde	1698 Feb 08 12:53	5°♄30'46	
minimum elong	1697 Mar 06 12:49	16°♄35'46	3°35'30	evening set	1698 Feb 11 09:17	4°♄48'18	
min. Earth dist.	1697 Mar 09 14:24	13°♄38'25	0.61235 AU		1698 Feb 17 01:20	30°♄	
morning rise	1697 Mar 13 02:35	10°♄47'24		inferior conj	1698 Feb 17 13:04	29°♄28'03	3°44'31
direct	1697 Mar 19 22:07	8°♄28'00		minimum elong	1698 Feb 17 12:51	29°♄28'39	3°44'31
desc. node	1697 Mar 23 08:13	9°♄00'26		min. Earth dist.	1698 Feb 20 02:52	26°♄39'37	0.63243 AU
morning max el	1697 Apr 03 02:54	16°♄21'39	27°45'21				
	1697 Apr 14 08:13	0°♄					

morning rise	1698 Feb 23 14:29	23° \approx 24'22		evening set	1699 Jan 26 06:45	18° \approx 15'20	
direct	1698 Mar 02 13:06	20° \approx 41'47		inferior conj	1699 Feb 01 02:33	12° \approx 36'41	3°35'18
desc. node	1698 Mar 10 05:16	23° \approx 25'05		minimum elong	1699 Feb 01 00:53	12° \approx 41'41	3°35'06
morning max el	1698 Mar 16 10:03	28° \approx 37'15	27°44'11	min. Earth dist.	1699 Feb 03 00:49	10° \approx 17'47	0.64936 AU
	1698 Mar 17 18:16	0° \mathbb{X}		morning rise	1699 Feb 06 17:49	6° \approx 26'42	
	1698 Apr 08 03:47	0° \mathbb{Y}		direct	1699 Feb 13 11:16	3° \approx 35'48	
morning set	1698 Apr 19 18:24	21° \mathbb{Y} 27'56		desc. node	1699 Feb 25 02:18	9° \approx 43'41	
	1698 Apr 23 22:14	0° \mathbb{B}		morning max el	1699 Feb 26 19:28	11° \approx 22'59	27°08'44
max. Earth dist.	1698 Apr 25 02:36	2° \mathbb{B} 29'38	1.32913 AU		1699 Mar 13 15:04	0° \mathbb{X}	
					1699 Mar 31 15:40	0° \mathbb{Y}	
superior conj	1698 Apr 27 12:00	7° \mathbb{B} 36'25	0°-12'-33	morning set	1699 Apr 03 08:12	5° \mathbb{Y} 07'11	
minimum elong	1698 Apr 27 12:37	7° \mathbb{B} 39'43	0°12'27	max. Earth dist.	1699 Apr 07 23:16	14° \mathbb{Y} 19'20	1.33908 AU
behind sun begin	1698 Apr 27 09:18	7° \mathbb{B} 21'54					
behind sun end	1698 Apr 27 15:56	7° \mathbb{B} 57'32		superior conj	1699 Apr 11 15:23	21° \mathbb{Y} 55'53	0°-40'-18
asc. node	1698 Apr 28 16:38	10° \mathbb{B} 10'54		minimum elong	1699 Apr 11 17:25	22° \mathbb{Y} 06'30	0°39'55
evening rise	1698 May 04 14:02	22° \mathbb{B} 51'32			1699 Apr 15 10:50	0° \mathbb{B}	
	1698 May 08 00:57	0° \mathbb{I}		asc. node	1699 Apr 15 13:42	0° \mathbb{B} 15'15	
evening max el	1698 May 27 17:55	0° \mathbb{B} 02'25	23°21'49	evening rise	1699 Apr 19 00:42	7° \mathbb{B} 33'40	
	1698 May 27 16:55	0° \mathbb{B}			1699 May 01 01:54	0° \mathbb{I}	
desc. node	1698 Jun 06 04:28	6° \mathbb{B} 10'25		evening max el	1699 May 09 12:02	10° \mathbb{I} 38'36	21°47'41
retrograde	1698 Jun 10 07:38	6° \mathbb{B} 49'16		retrograde	1699 May 21 23:58	16° \mathbb{I} 46'36	
evening set	1698 Jun 14 03:14	6° \mathbb{B} 17'19		desc. node	1699 May 24 01:30	16° \mathbb{I} 37'00	
min. Earth dist.	1698 Jun 21 03:56	3° \mathbb{B} 04'07	0.55800 AU	evening set	1699 May 24 14:28	16° \mathbb{I} 31'25	
inferior conj	1698 Jun 23 02:39	1° \mathbb{B} 55'04	-4°-13'-18	inferior conj	1699 Jun 02 23:37	12° \mathbb{I} 28'53	-2°-46'-24
minimum elong	1698 Jun 22 19:44	2° \mathbb{B} 05'19	4°11'57	minimum elong	1699 Jun 02 16:27	12° \mathbb{I} 38'55	2°44'09
	1698 Jun 26 11:56	30° \mathbb{R} \mathbb{I}		min. Earth dist.	1699 Jun 02 15:56	12° \mathbb{I} 39'37	0.54984 AU
morning rise	1698 Jul 01 15:29	28° \mathbb{I} 00'31		morning rise	1699 Jun 11 19:32	8° \mathbb{I} 34'33	
direct	1698 Jul 04 10:13	27° \mathbb{I} 41'38		direct	1699 Jun 14 22:38	8° \mathbb{I} 12'58	
	1698 Jul 11 16:19	0° \mathbb{B}		morning max el	1699 Jun 27 02:05	13° \mathbb{I} 55'33	21°46'39
morning max el	1698 Jul 14 22:55	2° \mathbb{B} 34'08	20°19'20		1699 Jul 09 02:22	0° \mathbb{B}	
asc. node	1698 Jul 25 15:53	17° \mathbb{B} 04'57		asc. node	1699 Jul 12 12:56	6° \mathbb{B} 14'10	
	1698 Aug 01 10:56	0° \mathbb{Q}		morning set	1699 Jul 17 20:25	16° \mathbb{B} 51'39	
morning set	1698 Aug 02 11:09	2° \mathbb{Q} 02'54			1699 Jul 24 02:04	0° \mathbb{Q}	
superior conj	1698 Aug 10 03:51	17° \mathbb{Q} 49'34	1°45'34	superior conj	1699 Jul 25 04:02	2° \mathbb{Q} 16'21	1°39'51
minimum elong	1698 Aug 10 03:24	17° \mathbb{Q} 47'13	1°45'34	minimum elong	1699 Jul 25 02:23	2° \mathbb{Q} 07'38	1°39'44
max. Earth dist.	1698 Aug 15 07:24	27° \mathbb{Q} 59'43	1.36441 AU	max. Earth dist.	1699 Jul 28 20:58	9° \mathbb{Q} 54'59	1.34820 AU
	1698 Aug 16 08:34	0° \mathbb{P}		evening rise	1699 Aug 02 09:37	18° \mathbb{Q} 51'40	
evening rise	1698 Aug 19 07:08	5° \mathbb{P} 29'36			1699 Aug 08 10:32	0° \mathbb{P}	
desc. node	1698 Sep 02 03:47	28° \mathbb{P} 51'29		desc. node	1699 Aug 20 00:49	18° \mathbb{P} 52'33	
	1698 Sep 02 21:38	0° \mathbb{A}			1699 Aug 28 00:38	0° \mathbb{A}	
evening max el	1698 Sep 24 00:07	27° \mathbb{A} 12'08	25°59'03	evening max el	1699 Sep 06 12:30	10° \mathbb{A} 47'54	26°52'17
	1698 Sep 27 03:00	0° \mathbb{M}		retrograde	1699 Sep 19 15:15	18° \mathbb{A} 03'44	
retrograde	1698 Oct 06 11:56	4° \mathbb{M} 18'29		evening set	1699 Sep 26 08:20	15° \mathbb{A} 21'49	
evening set	1698 Oct 12 16:07	1° \mathbb{M} 44'58		min. Earth dist.	1699 Sep 30 08:06	11° \mathbb{A} 21'43	0.65656 AU
	1698 Oct 14 12:00	30° \mathbb{R} \mathbb{A}		inferior conj	1699 Oct 02 04:47	9° \mathbb{A} 11'36	-2°-5'-58
min. Earth dist.	1698 Oct 16 23:04	27° \mathbb{A} 07'47	0.66691 AU	minimum elong	1699 Oct 02 08:08	9° \mathbb{A} 01'51	2°04'42
inferior conj	1698 Oct 18 07:47	25° \mathbb{A} 25'11	-1°-7'-53	morning rise	1699 Oct 08 09:22	3° \mathbb{A} 29'41	
minimum elong	1698 Oct 18 09:33	25° \mathbb{A} 19'37	1°07'09	asc. node	1699 Oct 08 12:10	3° \mathbb{A} 26'13	
asc. node	1698 Oct 21 15:08	21° \mathbb{A} 34'20		direct	1699 Oct 11 04:00	2° \mathbb{A} 47'09	
morning rise	1698 Oct 24 03:55	19° \mathbb{A} 30'58		morning max el	1699 Oct 17 17:35	6° \mathbb{A} 21'32	18°19'27
direct	1698 Oct 27 06:51	18° \mathbb{A} 35'00			1699 Nov 02 22:37	0° \mathbb{M}	
morning max el	1698 Nov 03 04:36	22° \mathbb{A} 26'17	18°59'05	morning set	1699 Nov 05 20:43	4° \mathbb{M} 44'55	
	1698 Nov 09 07:47	0° \mathbb{M}		desc. node	1699 Nov 16 00:07	21° \mathbb{M} 04'07	
morning set	1698 Nov 25 08:45	24° \mathbb{M} 28'59					
	1698 Nov 28 21:14	0° \mathbb{J}		superior conj	1699 Nov 21 01:15	29° \mathbb{M} 03'36	0°-33'-16
desc. node	1698 Nov 29 03:05	0° \mathbb{J} 22'56		minimum elong	1699 Nov 20 20:56	28° \mathbb{M} 46'34	0°32'42
max. Earth dist.	1698 Dec 10 05:15	17° \mathbb{J} 46'46	1.44944 AU		1699 Nov 21 15:34	0° \mathbb{J}	
				max. Earth dist.	1699 Nov 23 00:20	2° \mathbb{J} 08'53	1.45105 AU
superior conj	1698 Dec 11 23:56	20° \mathbb{J} 34'54	-1°-19'-11	evening rise	1699 Dec 07 09:49	24° \mathbb{J} 41'37	
minimum elong	1698 Dec 11 15:17	20° \mathbb{J} 00'45	1°18'15		1699 Dec 10 19:09	0° \mathbb{C}	
	1698 Dec 17 22:30	0° \mathbb{C}		greatest brilliancy	1699 Dec 21 19:50	17° \mathbb{C} 00'09	-0.7m
evening rise	1698 Dec 27 04:05	14° \mathbb{C} 53'01		evening max el	1699 Dec 30 22:09	28° \mathbb{C} 56'03	19°20'38
	1699 Jan 05 11:29	0° \approx			1700 Jan 01 00:23	0° \approx	
evening max el	1699 Jan 16 13:32	15° \approx 27'59	18°38'42	asc. node	1700 Jan 04 11:29	2° \approx 25'33	
asc. node	1699 Jan 17 14:25	16° \approx 27'47		retrograde	1700 Jan 07 00:57	3° \approx 01'21	
retrograde	1699 Jan 23 04:44	19° \approx 09'03		evening set	1700 Jan 10 09:47	1° \approx 55'02	

	1700 Jan 12 15:56	30° $\text{R}\overline{\text{Z}}$		evening max el	1700 Dec 14 01:53	12° $\overline{\text{Z}}25'25''$	20°17'47"
inferior conj	1700 Jan 16 00:12	26° $\overline{\text{Z}}00'16''$	3°12'44"	retrograde	1700 Dec 21 22:50	17° $\overline{\text{Z}}03'15''$	
minimum elong	1700 Jan 15 21:45	26° $\overline{\text{Z}}08'12''$	3°12'13"	asc. node	1700 Dec 22 08:30	17° $\overline{\text{Z}}02'20''$	
min. Earth dist.	1700 Jan 17 07:27	24° $\overline{\text{Z}}19'27''$	0.66233 AU	evening set	1700 Dec 25 16:06	15° $\overline{\text{Z}}42'53''$	
morning rise	1700 Jan 21 08:56	19° $\overline{\text{Z}}46'42''$		inferior conj	1700 Dec 31 03:15	9° $\overline{\text{Z}}34'54''$	2°40'04"
direct	1700 Jan 27 15:27	17° $\overline{\text{Z}}01'08''$		minimum elong	1700 Dec 31 00:36	9° $\overline{\text{Z}}43'51''$	2°39'18"
morning max el	1700 Feb 09 04:57	24° $\overline{\text{Z}}27'33''$	26°06'07"	min. Earth dist.	1700 Dec 31 21:03	8° $\overline{\text{Z}}34'44''$	0.67125 AU
desc. node	1700 Feb 11 23:21	27° $\overline{\text{Z}}24'24''$		morning rise	1701 Jan 05 08:36	3° $\overline{\text{Z}}19'42''$	
	1700 Feb 14 05:07	0° \approx		direct	1701 Jan 11 01:03	0° $\overline{\text{Z}}49'15''$	
	1700 Mar 07 01:22	0° H		morning max el	1701 Jan 22 13:37	7° $\overline{\text{Z}}41'41''$	24°45'42"
morning set	1700 Mar 17 08:48	18° $\text{H}02'52''$		desc. node	1701 Jan 29 20:24	16° $\overline{\text{Z}}03'32''$	
max. Earth dist.	1700 Mar 21 08:35	25° $\text{H}37'31''$	1.35364 AU		1701 Feb 09 00:26	0° \approx	
	1700 Mar 23 14:06	0° Y		morning set	1701 Feb 27 14:56	0° $\text{H}00'22''$	
					1701 Feb 27 14:51	0° H	
superior conj	1700 Mar 26 11:37	5° $\text{Y}49'06''$	-1°-7'-42"	max. Earth dist.	1701 Mar 03 07:45	6° $\text{H}40'20''$	1.37226 AU
minimum elong	1700 Mar 26 14:58	6° $\text{Y}06'07''$	1°07'08"				
asc. node	1700 Apr 02 10:46	20° $\text{Y}10'29''$		superior conj	1701 Mar 09 21:34	19° $\text{H}07'32''$	-1°-32'-46"
evening rise	1700 Apr 03 08:15	22° $\text{Y}00'53''$		minimum elong	1701 Mar 10 01:44	19° $\text{H}27'54''$	1°32'15"
	1700 Apr 07 07:47	0° Z			1701 Mar 15 09:12	0° Y	
evening max el	1700 Apr 21 16:08	21° $\text{Z}43'20''$	20°25'21"	evening rise	1701 Mar 18 10:19	6° $\text{Y}06'21''$	
retrograde	1700 May 02 13:10	26° $\text{Z}59'32''$		asc. node	1701 Mar 20 07:50	9° $\text{Y}52'01''$	
evening set	1700 May 04 15:03	26° $\text{Z}48'48''$			1701 Apr 01 05:41	0° Z	
desc. node	1700 May 10 22:33	24° $\text{Z}26'38''$		evening max el	1701 Apr 04 07:52	3° $\text{Z}27'34''$	19°21'09"
inferior conj	1700 May 13 18:20	22° $\text{Z}50'58''$	0°-49'-19"	retrograde	1701 Apr 13 12:21	7° $\text{Z}53'55''$	
minimum elong	1700 May 13 16:00	22° $\text{Z}54'21''$	0°48'29"	evening set	1701 Apr 15 14:22	7° $\text{Z}41'12''$	
min. Earth dist.	1700 May 15 04:41	22° $\text{Z}00'57''$	0.55113 AU	inferior conj	1701 Apr 24 01:08	3° $\text{Z}33'09''$	1°03'57"
morning rise	1700 May 22 15:10	18° $\text{Z}37'41''$		minimum elong	1701 Apr 24 03:41	3° $\text{Z}28'57''$	1°03'04"
direct	1700 May 26 09:43	18° $\text{Z}06'57''$		min. Earth dist.	1701 Apr 26 19:26	1° $\text{Z}44'31''$	0.56163 AU
morning max el	1700 Jun 08 20:12	24° $\text{Z}39'15''$	23°26'38"	desc. node	1701 Apr 27 19:34	1° $\text{Z}06'56''$	
	1700 Jun 13 18:10	0° II			1701 Apr 29 18:47	30° RY	
asc. node	1700 Jun 29 10:00	25° $\text{II}47'07''$		morning rise	1701 May 02 13:04	28° $\text{Y}46'48''$	
	1700 Jul 01 11:22	0° S		direct	1701 May 07 06:55	27° $\text{Y}55'22''$	
morning set	1700 Jul 02 07:50	1° $\text{S}47'02''$			1701 May 14 16:56	0° Z	
				morning max el	1701 May 21 10:48	5° $\text{Z}07'03''$	25°06'58"
superior conj	1700 Jul 09 10:14	17° $\text{S}00'40''$	1°28'21"		1701 Jun 08 07:27	0° II	
minimum elong	1700 Jul 09 07:56	16° $\text{S}48'20''$	1°28'05"	asc. node	1701 Jun 16 07:04	15° $\text{II}37'18''$	
max. Earth dist.	1700 Jul 11 19:52	22° $\text{S}07'53''$	1.33580 AU	morning set	1701 Jun 16 19:42	16° $\text{II}43'46''$	
	1700 Jul 15 14:52	0° Q			1701 Jun 22 23:01	0° S	
evening rise	1700 Jul 17 00:43	2° $\text{Q}50'24''$					
	1700 Aug 01 06:28	0° P		superior conj	1701 Jun 23 20:06	1° $\text{S}55'10''$	1°12'09"
desc. node	1700 Aug 06 21:51	8° $\text{P}24'38''$		minimum elong	1701 Jun 23 17:42	1° $\text{S}42'04''$	1°11'46"
evening max el	1700 Aug 20 00:13	24° $\text{P}07'57''$	27°21'52"	max. Earth dist.	1701 Jun 25 02:25	4° $\text{S}40'19''$	1.32740 AU
	1700 Aug 27 22:42	0° A		evening rise	1701 Jul 01 00:48	17° $\text{S}15'17''$	
retrograde	1700 Sep 02 12:41	1° $\text{A}26'03''$			1701 Jul 07 13:04	0° Q	
	1700 Sep 07 17:16	30° RP		desc. node	1701 Jul 24 18:52	27° $\text{Q}15'33''$	
evening set	1700 Sep 09 15:02	28° $\text{P}44'21''$			1701 Jul 26 23:08	0° P	
min. Earth dist.	1700 Sep 13 08:31	25° $\text{P}20'06''$	0.64259 AU	evening max el	1701 Aug 02 09:07	6° $\text{P}59'16''$	27°21'48"
inferior conj	1700 Sep 15 18:00	22° $\text{P}47'50''$	-3°-2'-51"	retrograde	1701 Aug 16 03:53	14° $\text{P}16'08''$	
minimum elong	1700 Sep 15 22:41	22° $\text{P}35'23''$	3°01'19"	evening set	1701 Aug 23 08:44	11° $\text{P}46'41''$	
morning rise	1700 Sep 22 08:21	17° $\text{P}21'43''$		min. Earth dist.	1701 Aug 26 22:48	8° $\text{P}52'04''$	0.62518 AU
direct	1700 Sep 24 21:10	16° $\text{P}49'03''$		inferior conj	1701 Aug 29 20:32	6° $\text{P}07'08''$	-3°-54'-49"
asc. node	1700 Sep 25 09:13	16° $\text{P}50'21''$		minimum elong	1701 Aug 30 01:48	5° $\text{P}54'37''$	3°53'31"
morning max el	1700 Oct 01 09:27	20° $\text{P}15'19''$	17°56'58"	morning rise	1701 Sep 05 21:31	1° $\text{P}00'11''$	
	1700 Oct 08 17:04	0° A		direct	1701 Sep 08 07:07	0° $\text{P}34'14''$	
morning set	1700 Oct 18 12:40	16° $\text{A}22'33''$		asc. node	1701 Sep 12 06:16	1° $\text{P}46'53''$	
	1700 Oct 26 14:57	0° M		morning max el	1701 Sep 15 01:13	4° $\text{P}00'50''$	17°52'24"
				morning set	1701 Oct 01 02:49	29° $\text{P}03'44''$	
superior conj	1700 Oct 31 16:13	8° $\text{M}16'35''$	0°14'50"		1701 Oct 01 15:25	0° A	
minimum elong	1700 Oct 31 17:54	8° $\text{M}23'26''$	0°14'36"				
behind sun begin	1700 Oct 31 13:28	8° $\text{M}05'28''$		superior conj	1701 Oct 12 09:09	18° $\text{A}47'06''$	0°54'56"
behind sun end	1700 Oct 31 22:20	8° $\text{M}41'23''$		minimum elong	1701 Oct 12 13:38	19° $\text{A}06'08''$	0°54'21"
desc. node	1700 Nov 02 21:10	11° $\text{M}50'02''$			1701 Oct 19 03:17	0° M	
max. Earth dist.	1700 Nov 05 19:02	16° $\text{M}28'55''$	1.44525 AU	max. Earth dist.	1701 Oct 19 09:56	0° $\text{M}26'59''$	1.43286 AU
	1700 Nov 14 10:08	0° Z		desc. node	1701 Oct 20 18:11	2° $\text{M}37'19''$	
evening rise	1700 Nov 16 22:02	3° $\text{Z}51'10''$		evening rise	1701 Oct 27 06:57	12° $\text{M}57'26''$	
	1700 Dec 04 08:13	0° Z			1701 Nov 07 12:39	0° Z	
greatest brilliancy	1700 Dec 07 16:28	4° $\text{Z}39'12''$	-0.6m	greatest brilliancy	1701 Nov 21 23:49	20° $\text{Z}09'40''$	-0.4m

evening max el	1701 Nov 26 23:54	25°♂55'13	21°27'15		1702 Nov 01 15:06	0°♂	
	1701 Dec 01 23:08	0°♂		greatest brilliancy	1702 Nov 04 17:09	3°♂52'18	-0.3m
retrograde	1701 Dec 05 20:11	1°♂10'53		evening max el	1702 Nov 09 16:50	9°♂27'31	22°44'48
asc. node	1701 Dec 09 05:32	0°♂07'15		retrograde	1702 Nov 19 15:24	15°♂21'43	
	1701 Dec 09 09:58	30°♂		evening set	1702 Nov 24 07:11	13°♂28'58	
evening set	1701 Dec 09 23:47	29°♂34'56		asc. node	1702 Nov 26 02:32	11°♂43'48	
inferior conj	1701 Dec 15 09:26	23°♂17'13	1°59'27	inferior conj	1702 Nov 29 16:51	7°♂05'22	1°12'35
minimum elong	1701 Dec 15 07:06	23°♂25'18	1°58'38	minimum elong	1702 Nov 29 15:15	7°♂10'54	1°11'56
min. Earth dist.	1701 Dec 15 15:20	22°♂56'51	0.67642 AU	min. Earth dist.	1702 Nov 29 11:52	7°♂22'36	0.67811 AU
morning rise	1701 Dec 20 14:07	17°♂02'19		morning rise	1702 Dec 04 23:14	0°♂52'59	
direct	1701 Dec 25 15:24	14°♂52'35			1702 Dec 06 05:37	30°♂	
morning max el	1702 Jan 04 22:38	21°♂00'14	23°17'30	direct	1702 Dec 09 09:41	29°♂05'59	
greatest brilliancy	1702 Jan 10 04:24	26°♂53'29	-0.2m		1702 Dec 12 19:41	0°♂	
	1702 Jan 12 15:56	0°♂		morning max el	1702 Dec 18 11:21	4°♂25'40	21°51'05
desc. node	1702 Jan 16 17:25	5°♂23'51		greatest brilliancy	1702 Dec 23 06:13	9°♂50'01	-0.4m
	1702 Feb 02 06:57	0°♂		desc. node	1703 Jan 03 14:27	25°♂14'09	
morning set	1702 Feb 08 20:14	10°♂42'17			1703 Jan 06 20:34	0°♂	
max. Earth dist.	1702 Feb 13 02:27	17°♂58'51	1.39343 AU	morning set	1703 Jan 19 20:23	20°♂00'09	
	1702 Feb 19 19:30	0°♂		max. Earth dist.	1703 Jan 25 23:27	0°♂	
					1703 Jan 26 00:43	0°♂05'18	1.41456 AU
superior conj	1702 Feb 20 17:07	1°♂39'59	-1°-52'-45	superior conj	1703 Feb 02 17:26	13°♂15'28	-2°-3'-43
minimum elong	1702 Feb 20 20:56	1°♂57'41	1°52'29	minimum elong	1703 Feb 02 18:47	13°♂21'22	2°03'43
evening rise	1702 Mar 02 04:04	19°♂41'32			1703 Feb 11 23:39	0°♂	
asc. node	1702 Mar 07 04:52	29°♂13'32		evening rise	1703 Feb 13 10:07	2°♂39'07	
	1702 Mar 07 15:02	0°♂		asc. node	1703 Feb 22 01:52	18°♂08'46	
evening max el	1702 Mar 18 09:24	15°♂47'50	18°36'56	evening max el	1703 Mar 01 17:43	28°♂36'28	18°12'41
retrograde	1702 Mar 26 05:03	19°♂37'16			1703 Mar 03 07:48	0°♂	
evening set	1702 Mar 28 12:13	19°♂18'35		retrograde	1703 Mar 08 16:03	2°♂05'19	
inferior conj	1702 Apr 05 03:58	14°♂52'14	2°28'51	evening set	1703 Mar 11 04:46	1°♂38'15	
minimum elong	1702 Apr 05 08:02	14°♂44'25	2°27'47		1703 Mar 14 06:51	30°♂	
min. Earth dist.	1702 Apr 08 13:23	12°♂17'02	0.57908 AU	inferior conj	1703 Mar 18 03:41	26°♂50'33	3°19'49
morning rise	1702 Apr 12 23:32	9°♂33'11		minimum elong	1703 Mar 18 06:35	26°♂44'03	3°19'23
desc. node	1702 Apr 14 16:36	8°♂51'00		min. Earth dist.	1703 Mar 21 12:25	23°♂51'19	0.60009 AU
direct	1702 Apr 18 18:28	8°♂08'51		morning rise	1703 Mar 25 04:57	21°♂07'48	
morning max el	1702 May 03 03:28	15°♂45'23	26°32'19	direct	1703 Mar 31 18:36	19°♂06'46	
	1702 May 14 16:43	0°♂		desc. node	1703 Apr 01 13:38	19°♂08'29	
	1702 May 31 12:03	0°♂		morning max el	1703 Apr 15 01:42	26°♂56'04	27°29'00
morning set	1702 Jun 01 06:25	1°♂36'00			1703 Apr 17 23:38	0°♂	
asc. node	1702 Jun 03 04:07	5°♂38'44			1703 May 08 05:41	0°♂	
				morning set	1703 May 16 14:13	16°♂17'33	
superior conj	1702 Jun 08 07:40	16°♂53'00	0°52'03	asc. node	1703 May 21 01:09	25°♂46'26	
minimum elong	1702 Jun 08 05:39	16°♂41'49	0°51'39		1703 May 22 23:36	0°♂	
max. Earth dist.	1702 Jun 08 13:34	17°♂25'27	1.32287 AU	max. Earth dist.	1703 May 23 01:45	0°♂11'50	1.32218 AU
	1702 Jun 14 08:42	0°♂					
evening rise	1702 Jun 15 06:57	1°♂57'09		superior conj	1703 May 23 19:14	1°♂47'48	0°28'47
	1702 Jun 30 12:23	0°♂		minimum elong	1703 May 23 17:59	1°♂40'54	0°28'30
desc. node	1702 Jul 11 15:53	15°♂08'24		evening rise	1703 May 30 16:52	16°♂47'54	
evening max el	1702 Jul 15 12:55	19°♂10'54	26°48'51		1703 Jun 06 06:18	0°♂	
retrograde	1702 Jul 29 11:49	26°♂24'53			1703 Jun 26 18:55	0°♂	
evening set	1702 Aug 05 09:03	24°♂21'36		evening max el	1703 Jun 27 09:51	0°♂36'16	25°44'27
min. Earth dist.	1702 Aug 09 02:53	21°♂43'48	0.60525 AU	desc. node	1703 Jun 28 12:54	1°♂38'43	
inferior conj	1702 Aug 12 09:04	19°♂01'28	-4°-35'-47	retrograde	1703 Jul 11 10:22	7°♂45'42	
minimum elong	1702 Aug 12 13:20	18°♂52'34	4°35'09	evening set	1703 Jul 17 11:14	6°♂19'15	
morning rise	1702 Aug 19 20:49	14°♂16'18		min. Earth dist.	1703 Jul 21 22:12	3°♂40'45	0.58469 AU
direct	1702 Aug 22 06:02	13°♂54'25		inferior conj	1703 Jul 25 04:00	1°♂20'39	-4°-55'-59
morning max el	1702 Aug 29 13:48	17°♂30'18	18°06'49	minimum elong	1703 Jul 25 04:51	1°♂19'07	4°55'59
asc. node	1702 Aug 30 03:18	18°♂04'04			1703 Jul 27 01:34	30°♂	
	1702 Sep 07 11:59	0°♂		morning rise	1703 Aug 02 02:03	26°♂58'23	
morning set	1702 Sep 14 09:13	12°♂31'46		direct	1703 Aug 04 13:39	26°♂38'34	
	1702 Sep 23 20:32	0°♂			1703 Aug 12 05:03	0°♂	
				morning max el	1703 Aug 12 19:57	0°♂34'00	18°41'32
superior conj	1702 Sep 24 04:21	0°♂34'58	1°23'02	asc. node	1703 Aug 17 00:21	5°♂26'11	
minimum elong	1702 Sep 24 08:29	0°♂53'27	1°22'37	morning set	1703 Aug 29 03:05	26°♂33'11	
max. Earth dist.	1702 Oct 01 19:27	13°♂49'00	1.41553 AU		1703 Aug 30 21:31	0°♂	
evening rise	1702 Oct 07 05:31	22°♂43'53		superior conj	1703 Sep 06 20:46	13°♂25'32	1°39'23
desc. node	1702 Oct 07 15:12	23°♂22'49					
	1702 Oct 11 19:39	0°♂					

minimum elong	1703 Sep 06 23:09	13° $\overline{\text{m}}$ 36'45	1°39'14	minimum elong	1704 Aug 20 05:27	27° Ω 06'07	1°45'43
max. Earth dist.	1703 Sep 14 00:29	26° $\overline{\text{m}}$ 28'41	1.39551 AU		1704 Aug 21 16:54	0° $\overline{\text{m}}$	
	1703 Sep 16 00:57	0° $\underline{\text{a}}$		max. Earth dist.	1704 Aug 26 04:39	8° $\overline{\text{m}}$ 33'35	1.37527 AU
evening rise	1703 Sep 18 03:06	3° $\underline{\text{a}}$ 34'20		evening rise	1704 Aug 30 00:23	15° $\overline{\text{m}}$ 31'27	
desc. node	1703 Sep 24 12:13	14° $\underline{\text{a}}$ 02'18			1704 Sep 07 12:56	0° $\underline{\text{a}}$	
	1703 Oct 05 00:51	0° $\overline{\text{m}}$		desc. node	1704 Sep 10 09:13	4° $\underline{\text{a}}$ 31'32	
evening max el	1703 Oct 23 06:18	23° $\overline{\text{m}}$ 03'09	24°04'49		1704 Sep 28 15:39	0° $\overline{\text{m}}$	
retrograde	1703 Nov 03 07:05	29° $\overline{\text{m}}$ 31'49		evening max el	1704 Oct 04 18:17	6° $\overline{\text{m}}$ 41'57	25°20'21
evening set	1703 Nov 08 12:42	27° $\overline{\text{m}}$ 21'45		retrograde	1704 Oct 16 18:27	13° $\overline{\text{m}}$ 37'08	
asc. node	1703 Nov 12 23:34	22° $\overline{\text{m}}$ 17'48		evening set	1704 Oct 22 14:37	11° $\overline{\text{m}}$ 11'01	
inferior conj	1703 Nov 13 23:42	20° $\overline{\text{m}}$ 56'24	0°20'44	min. Earth dist.	1704 Oct 27 01:56	6° $\overline{\text{m}}$ 13'12	0.67144 AU
minimum elong	1703 Nov 13 23:12	20° $\overline{\text{m}}$ 58'05	0°20'31	inferior conj	1704 Oct 28 04:14	4° $\overline{\text{m}}$ 48'01	0°-34'-47
min. Earth dist.	1703 Nov 13 08:12	21° $\overline{\text{m}}$ 48'46	0.67643 AU	minimum elong	1704 Oct 28 05:07	4° $\overline{\text{m}}$ 45'09	0°34'25
morning rise	1703 Nov 19 09:56	14° $\overline{\text{m}}$ 49'03		asc. node	1704 Oct 29 20:38	2° $\overline{\text{m}}$ 40'03	
direct	1703 Nov 23 06:43	13° $\overline{\text{m}}$ 24'04			1704 Nov 01 07:47	30° $\overline{\text{R}}$ $\underline{\text{a}}$	
morning max el	1703 Dec 01 06:56	18° $\overline{\text{m}}$ 01'14	20°33'35	morning rise	1704 Nov 02 20:17	28° $\underline{\text{a}}$ 48'26	
greatest brilliancy	1703 Dec 07 10:09	25° $\overline{\text{m}}$ 15'48	-0.5m	direct	1704 Nov 06 05:08	27° $\underline{\text{a}}$ 42'55	
	1703 Dec 10 21:58	0° $\overline{\text{x}}$			1704 Nov 11 11:11	0° $\overline{\text{m}}$	
desc. node	1703 Dec 21 11:29	15° $\overline{\text{x}}$ 25'42		morning max el	1704 Nov 13 10:28	1° $\overline{\text{m}}$ 47'37	19°29'11
morning set	1703 Dec 29 21:01	28° $\overline{\text{x}}$ 15'53		greatest brilliancy	1704 Nov 22 05:08	12° $\overline{\text{m}}$ 56'23	-0.7m
	1703 Dec 30 23:48	0° $\overline{\text{z}}$			1704 Dec 03 13:15	0° $\overline{\text{x}}$	
max. Earth dist.	1704 Jan 08 07:03	13° $\overline{\text{z}}$ 09'32	1.43262 AU	desc. node	1704 Dec 07 08:30	5° $\overline{\text{x}}$ 52'15	
				morning set	1704 Dec 07 19:23	6° $\overline{\text{x}}$ 34'21	
superior conj	1704 Jan 14 17:25	23° $\overline{\text{z}}$ 42'32	-2°00'-51	max. Earth dist.	1704 Dec 20 20:40	26° $\overline{\text{x}}$ 58'54	1.44525 AU
minimum elong	1704 Jan 14 13:53	23° $\overline{\text{z}}$ 27'50	2°00'44		1704 Dec 22 18:19	0° $\overline{\text{z}}$	
	1704 Jan 18 11:02	0° \approx					
evening rise	1704 Jan 27 00:25	14° \approx 51'08		superior conj	1704 Dec 24 15:00	2° $\overline{\text{z}}$ 58'15	-1°-39'-46
	1704 Feb 04 18:18	0° $\overline{\text{H}}$		minimum elong	1704 Dec 24 06:47	2° $\overline{\text{z}}$ 25'23	1°39'05
asc. node	1704 Feb 08 22:53	6° $\overline{\text{H}}$ 29'51		evening rise	1705 Jan 07 18:38	26° $\overline{\text{z}}$ 09'16	
evening max el	1704 Feb 13 05:36	11° $\overline{\text{H}}$ 44'53	18°08'00		1705 Jan 10 01:44	0° \approx	
retrograde	1704 Feb 19 17:53	15° $\overline{\text{H}}$ 08'40		asc. node	1705 Jan 25 19:56	24° \approx 05'44	
evening set	1704 Feb 22 11:34	14° $\overline{\text{H}}$ 31'57		evening max el	1705 Jan 26 18:05	25° \approx 04'44	18°22'15
inferior conj	1704 Feb 28 21:16	9° $\overline{\text{H}}$ 22'56	3°42'01	retrograde	1705 Feb 02 05:56	28° \approx 36'31	
minimum elong	1704 Feb 28 22:08	9° $\overline{\text{H}}$ 20'42	3°41'58	evening set	1705 Feb 05 04:38	27° \approx 49'18	
min. Earth dist.	1704 Mar 02 19:17	6° $\overline{\text{H}}$ 24'44	0.62121 AU	inferior conj	1705 Feb 11 04:37	22° \approx 20'40	3°42'32
morning rise	1704 Mar 06 06:21	3° $\overline{\text{H}}$ 25'12		minimum elong	1705 Feb 11 03:43	22° \approx 23'16	3°42'28
direct	1704 Mar 13 04:27	0° $\overline{\text{H}}$ 54'23		min. Earth dist.	1705 Feb 13 11:44	19° \approx 43'32	0.64005 AU
desc. node	1704 Mar 18 10:41	2° $\overline{\text{H}}$ 11'15		morning rise	1705 Feb 17 01:14	16° \approx 13'48	
morning max el	1704 Mar 27 06:05	8° $\overline{\text{H}}$ 48'55	27°49'27	direct	1705 Feb 23 22:21	13° \approx 26'16	
	1704 Apr 12 14:16	0° $\overline{\text{Y}}$		desc. node	1705 Mar 05 07:44	17° \approx 28'47	
	1704 Apr 29 08:52	0° $\overline{\text{B}}$		morning max el	1705 Mar 09 14:42	21° \approx 19'15	27°33'06
morning set	1704 Apr 29 17:10	0° $\overline{\text{B}}$ 42'06			1705 Mar 17 04:10	0° $\overline{\text{H}}$	
max. Earth dist.	1704 May 05 11:10	12° $\overline{\text{B}}$ 46'48	1.32542 AU		1705 Apr 05 16:59	0° $\overline{\text{Y}}$	
asc. node	1704 May 06 22:11	15° $\overline{\text{B}}$ 56'19		morning set	1705 Apr 13 12:40	14° $\overline{\text{Y}}$ 40'33	
				max. Earth dist.	1705 Apr 18 13:44	24° $\overline{\text{Y}}$ 56'24	1.33282 AU
superior conj	1704 May 07 05:07	16° $\overline{\text{B}}$ 34'00	0°03'04		1705 Apr 20 23:18	0° $\overline{\text{B}}$	
minimum elong	1704 May 07 04:58	16° $\overline{\text{B}}$ 33'12	0°03'02				
behind sun begin	1704 May 06 23:54	16° $\overline{\text{B}}$ 05'39		superior conj	1705 Apr 21 11:26	1° $\overline{\text{B}}$ 04'34	0°-24'-16
behind sun end	1704 May 07 10:03	17° $\overline{\text{B}}$ 00'48		minimum elong	1705 Apr 21 12:38	1° $\overline{\text{B}}$ 10'58	0°24'02
	1704 May 13 09:37	0° $\overline{\text{II}}$		asc. node	1705 Apr 23 19:14	6° $\overline{\text{B}}$ 03'37	
evening rise	1704 May 14 04:33	1° $\overline{\text{II}}$ 40'49		evening rise	1705 Apr 28 16:07	16° $\overline{\text{B}}$ 28'20	
	1704 May 29 17:21	0° $\overline{\text{S}}$			1705 May 05 10:26	0° $\overline{\text{II}}$	
evening max el	1704 Jun 08 00:50	11° $\overline{\text{S}}$ 21'45	24°17'00	evening max el	1705 May 20 15:19	21° $\overline{\text{II}}$ 50'41	22°40'53
desc. node	1704 Jun 14 09:55	16° $\overline{\text{S}}$ 14'20		desc. node	1705 Jun 01 06:58	28° $\overline{\text{II}}$ 18'29	
retrograde	1704 Jun 21 21:17	18° $\overline{\text{S}}$ 20'52		retrograde	1705 Jun 02 19:59	28° $\overline{\text{II}}$ 23'55	
evening set	1704 Jun 26 14:00	17° $\overline{\text{S}}$ 31'47		evening set	1705 Jun 06 01:44	28° $\overline{\text{II}}$ 00'50	
min. Earth dist.	1704 Jul 02 11:45	14° $\overline{\text{S}}$ 35'27	0.56630 AU	min. Earth dist.	1705 Jun 13 23:22	24° $\overline{\text{II}}$ 33'02	0.55345 AU
inferior conj	1704 Jul 05 02:52	12° $\overline{\text{S}}$ 56'23	-4°-42'-1	inferior conj	1705 Jun 15 06:59	23° $\overline{\text{II}}$ 47'52	-3°-41'-50
minimum elong	1704 Jul 04 22:28	13° $\overline{\text{S}}$ 03'20	4°41'31	minimum elong	1705 Jun 14 23:12	23° $\overline{\text{II}}$ 59'00	3°39'52
morning rise	1704 Jul 13 10:33	8° $\overline{\text{S}}$ 54'32		morning rise	1705 Jun 23 23:20	19° $\overline{\text{II}}$ 56'08	
direct	1704 Jul 16 02:30	8° $\overline{\text{S}}$ 35'33		direct	1705 Jun 26 21:01	19° $\overline{\text{II}}$ 36'40	
morning max el	1704 Jul 25 16:47	13° $\overline{\text{S}}$ 02'55	19°37'35	morning max el	1705 Jul 08 02:26	24° $\overline{\text{II}}$ 49'11	20°54'31
asc. node	1704 Aug 02 21:25	23° $\overline{\text{S}}$ 39'08			1705 Jul 12 18:36	0° $\overline{\text{S}}$	
	1704 Aug 06 13:08	0° $\overline{\Omega}$		asc. node	1705 Jul 20 18:29	12° $\overline{\text{S}}$ 30'14	
morning set	1704 Aug 12 04:55	10° $\overline{\Omega}$ 58'42		morning set	1705 Jul 27 12:04	25° $\overline{\text{S}}$ 40'16	
					1705 Jul 29 14:13	0° $\overline{\Omega}$	
superior conj	1704 Aug 20 04:59	27° $\overline{\Omega}$ 03'47	1°45'42				

superior conj	1705 Aug 04 00:21	11°♌15'50	1°43'55	superior conj	1706 Jul 19 03:23	25°♊50'54	1°35'37
minimum elong	1705 Aug 03 23:19	11°♌10'29	1°43'54	minimum elong	1706 Jul 19 01:23	25°♊40'18	1°35'26
max. Earth dist.	1705 Aug 08 13:13	20°♌23'53	1.35704 AU		1706 Jul 21 02:44	0°♌	
evening rise	1705 Aug 12 17:29	28°♌25'33		max. Earth dist.	1706 Jul 22 06:20	2°♌23'25	1.34236 AU
	1705 Aug 13 13:46	0°♍		evening rise	1706 Jul 27 01:46	12°♌04'17	
desc. node	1705 Aug 28 06:15	24°♍44'56			1706 Aug 05 21:34	0°♍	
	1705 Aug 31 19:07	0°♎		desc. node	1706 Aug 15 03:18	14°♍34'55	
evening max el	1705 Sep 17 06:14	20°♎20'22	26°24'02		1706 Aug 27 01:14	0°♎	
retrograde	1705 Sep 30 01:00	27°♎32'13		evening max el	1706 Aug 30 18:20	3°♎50'21	27°08'13
evening set	1705 Oct 06 11:05	24°♎53'55		retrograde	1706 Sep 13 02:08	11°♎08'52	
min. Earth dist.	1705 Oct 10 14:48	20°♎32'47	0.66297 AU	evening set	1706 Sep 19 23:39	8°♎25'40	
inferior conj	1705 Oct 12 04:36	18°♎37'40	-1°-32'-29	min. Earth dist.	1706 Sep 23 20:27	4°♎41'11	0.65096 AU
minimum elong	1705 Oct 12 07:03	18°♎30'13	1°31'30	inferior conj	1706 Sep 25 22:36	2°♎20'30	-2°-30'-28
asc. node	1705 Oct 16 17:42	13°♎47'18		minimum elong	1706 Sep 26 02:34	2°♎09'21	2°29'01
morning rise	1705 Oct 18 04:11	12°♎48'35			1706 Sep 28 02:28	30°♏♍	
direct	1705 Oct 21 03:15	11°♎58'55		morning rise	1706 Oct 02 07:13	26°♏44'59	
morning max el	1705 Oct 27 20:45	15°♎41'50	18°40'12	asc. node	1706 Oct 03 14:45	26°♏16'56	
	1705 Nov 07 11:07	0°♐		direct	1706 Oct 04 22:56	26°♏07'15	
morning set	1705 Nov 17 14:38	16°♐00'19		morning max el	1706 Oct 11 11:19	29°♏37'30	18°07'45
desc. node	1705 Nov 24 05:31	26°♐29'32			1706 Oct 11 20:07	0°♑	
	1705 Nov 26 10:55	0°♑		morning set	1706 Oct 29 15:01	26°♑52'51	
					1706 Oct 31 12:17	0°♒	
superior conj	1705 Dec 03 18:22	11°♑29'24	-1°00'-47	desc. node	1706 Nov 11 02:33	17°♒13'21	
minimum elong	1705 Dec 03 10:54	11°♑00'03	0°59'54				
max. Earth dist.	1705 Dec 03 14:25	11°♑13'54	1.45102 AU	superior conj	1706 Nov 12 23:13	20°♒11'20	0°-12'-26
	1705 Dec 15 11:52	0°♒		minimum elong	1706 Nov 12 21:39	20°♒05'05	0°12'13
evening rise	1705 Dec 19 13:43	6°♒29'58		behind sun begin	1706 Nov 12 14:27	19°♒36'28	
	1706 Jan 03 12:55	0°♒		behind sun end	1706 Nov 13 04:50	20°♒33'41	
evening max el	1706 Jan 10 04:42	8°♒31'05	18°54'29	max. Earth dist.	1706 Nov 16 09:11	25°♒35'39	1.44943 AU
asc. node	1706 Jan 12 16:59	10°♒43'54			1706 Nov 19 04:28	0°♑	
retrograde	1706 Jan 17 00:10	12°♒21'47		evening rise	1706 Nov 29 10:45	15°♑58'45	
evening set	1706 Jan 20 04:48	11°♒23'00			1706 Dec 08 12:57	0°♒	
inferior conj	1706 Jan 25 22:01	5°♒37'02	3°27'08	greatest brilliancy	1706 Dec 16 18:55	12°♒16'46	-0.6m
minimum elong	1706 Jan 25 19:56	5°♒43'30	3°26'49	evening max el	1706 Dec 24 11:24	22°♒00'07	19°43'12
min. Earth dist.	1706 Jan 27 13:44	3°♒33'35	0.65533 AU	asc. node	1706 Dec 30 14:02	26°♒09'08	
	1706 Jan 30 18:44	30°♒♒		retrograde	1706 Dec 31 21:20	26°♒18'33	
morning rise	1706 Jan 31 10:03	29°♒24'58		evening set	1707 Jan 04 09:27	25°♒06'40	
direct	1706 Feb 06 23:15	26°♒34'52		inferior conj	1707 Jan 09 22:16	19°♒06'04	2°59'55
	1706 Feb 15 05:09	0°♒		minimum elong	1707 Jan 09 19:40	19°♒14'40	2°59'18
morning max el	1706 Feb 20 00:39	4°♒15'43	26°44'55	min. Earth dist.	1707 Jan 10 23:42	17°♒42'08	0.66665 AU
desc. node	1706 Feb 20 04:46	4°♒26'07		morning rise	1707 Jan 15 05:11	12°♒51'24	
	1706 Mar 11 14:55	0°♑		direct	1707 Jan 21 06:02	10°♒11'00	
morning set	1706 Mar 27 21:24	28°♑03'09		morning max el	1707 Feb 02 09:40	17°♒25'04	25°33'19
	1706 Mar 28 21:49	0°♑		desc. node	1707 Feb 07 01:47	22°♒34'07	
max. Earth dist.	1706 Apr 01 05:43	6°♑32'04	1.34471 AU		1707 Feb 12 22:38	0°♒	
					1707 Mar 04 14:21	0°♑	
superior conj	1706 Apr 05 12:04	15°♑13'36	0°-52'-5	morning set	1707 Mar 10 14:50	10°♑36'09	
minimum elong	1706 Apr 05 14:41	15°♑27'09	0°51'35	max. Earth dist.	1707 Mar 14 09:47	17°♑38'25	1.36110 AU
asc. node	1706 Apr 10 16:18	26°♑04'33					
	1706 Apr 12 13:15	0°♒		superior conj	1707 Mar 20 04:19	28°♑53'10	-1°-18'-46
evening rise	1706 Apr 13 01:42	1°♒04'43		minimum elong	1707 Mar 20 08:07	29°♑12'08	1°18'12
	1706 Apr 30 02:22	0°♒			1707 Mar 20 17:40	0°♑	
evening max el	1706 May 02 13:04	2°♒36'06	21°10'41	evening rise	1707 Mar 28 07:11	15°♑23'14	
retrograde	1706 May 14 09:57	8°♒23'21		asc. node	1707 Mar 28 13:21	15°♑54'34	
evening set	1706 May 16 16:40	8°♒11'17			1707 Apr 04 21:27	0°♒	
desc. node	1706 May 19 04:00	7°♒32'55		evening max el	1707 Apr 14 22:16	13°♒57'56	19°55'43
inferior conj	1706 May 26 01:07	4°♒12'37	-1°-58'-30	retrograde	1707 Apr 25 01:33	18°♒51'24	
minimum elong	1706 May 25 19:37	4°♒20'22	1°56'36	evening set	1707 Apr 27 02:22	18°♒40'28	
min. Earth dist.	1706 May 26 11:47	3°♒57'35	0.54915 AU	inferior conj	1707 May 05 23:29	14°♒40'17	0°01'06
morning rise	1706 Jun 03 22:27	0°♒12'17		minimum elong	1707 May 05 23:32	14°♒40'12	0°01'05
	1706 Jun 04 22:41	30°♒♒		transit middle	1707 May 05 23:32	14°♒40'12	0°01'05
direct	1706 Jun 07 06:44	29°♒48'03		transit begin	1707 May 05 19:33	14°♒46'15	
	1706 Jun 09 13:57	0°♒		transit end	1707 May 06 03:30	14°♒34'09	
morning max el	1706 Jun 20 01:22	5°♒53'04	22°28'19	desc. node	1707 May 06 01:00	14°♒37'58	
	1706 Jul 06 16:45	0°♒		min. Earth dist.	1707 May 08 01:33	13°♒24'14	0.55454 AU
asc. node	1706 Jul 07 15:32	1°♒50'07		morning rise	1707 May 14 17:40	10°♒13'35	
morning set	1706 Jul 11 22:23	10°♒31'58		direct	1707 May 18 21:35	9°♒35'25	

morning max el	1707 Jun 01 17:08	16°♄26'51	24°10'09	morning rise	1708 Apr 23 19:51	20°♊36'06	
	1707 Jun 12 14:33	0°♈		direct	1708 Apr 29 00:58	19°♊31'47	
asc. node	1707 Jun 24 12:35	21°♈31'25		morning max el	1708 May 13 07:45	26°♊55'02	25°46'06
morning set	1707 Jun 26 10:10	25°♈28'41			1708 May 16 06:53	0°♈	
	1707 Jun 28 13:07	0°♉			1708 Jun 04 18:37	0°♈	
				morning set	1708 Jun 09 21:44	10°♈24'14	
superior conj	1707 Jul 03 11:23	10°♉40'46	1°22'01	asc. node	1708 Jun 10 09:38	11°♈27'06	
minimum elong	1707 Jul 03 08:59	10°♉27'46	1°21'41				
max. Earth dist.	1707 Jul 05 08:43	14°♉45'04	1.33170 AU	superior conj	1708 Jun 16 22:09	25°♈37'19	1°04'03
evening rise	1707 Jul 10 21:05	26°♉16'01		minimum elong	1708 Jun 16 19:51	25°♈24'43	1°03'39
	1707 Jul 12 17:59	0°♊		max. Earth dist.	1708 Jun 17 17:50	27°♈25'06	1.32502 AU
	1707 Jul 30 06:41	0°♊			1708 Jun 18 22:12	0°♉	
desc. node	1707 Aug 02 00:20	3°♊51'39		evening rise	1708 Jun 24 00:04	10°♉49'23	
evening max el	1707 Aug 13 05:20	17°♊00'54	27°25'55		1708 Jul 04 00:02	0°♊	
retrograde	1707 Aug 26 21:07	24°♊18'46		desc. node	1708 Jul 18 21:21	22°♊20'22	
evening set	1707 Sep 03 01:19	21°♊40'59		evening max el	1708 Jul 25 12:32	29°♊37'11	27°11'57
min. Earth dist.	1707 Sep 06 16:54	18°♊30'07	0.63550 AU		1708 Jul 25 22:16	0°♊	
inferior conj	1707 Sep 09 07:40	15°♊51'09	-3°-25'-50	retrograde	1708 Aug 08 09:00	6°♊51'58	
minimum elong	1707 Sep 09 12:44	15°♊38'17	3°24'19	evening set	1708 Aug 15 12:07	4°♊32'16	
morning rise	1707 Sep 16 02:26	10°♊32'29		min. Earth dist.	1708 Aug 19 02:44	1°♊46'39	0.61696 AU
direct	1707 Sep 18 13:30	10°♊03'03			1708 Aug 21 02:38	30°♊	
asc. node	1707 Sep 20 11:46	10°♊21'26		inferior conj	1708 Aug 22 04:39	29°♊01'00	-4°-14'-2
morning max el	1707 Sep 25 03:27	13°♊28'46	17°52'45	minimum elong	1708 Aug 22 09:45	28°♊49'32	4°12'58
	1707 Oct 06 12:16	0°♈		morning rise	1708 Aug 29 10:12	24°♊02'47	
morning set	1707 Oct 11 17:16	9°♈00'28		direct	1708 Aug 31 19:26	23°♊38'42	
				asc. node	1708 Sep 06 08:48	25°♊53'46	
superior conj	1707 Oct 24 00:32	29°♈55'41	0°33'11	morning max el	1708 Sep 07 18:08	27°♊07'55	17°56'08
minimum elong	1707 Oct 24 03:53	0°♈09'30	0°32'43		1708 Sep 10 07:18	0°♊	
	1707 Oct 24 01:35	0°♈		morning set	1708 Sep 23 14:58	22°♊03'30	
desc. node	1707 Oct 28 23:37	8°♈00'36			1708 Sep 27 23:54	0°♈	
max. Earth dist.	1707 Oct 30 02:31	9°♈48'33	1.44076 AU				
evening rise	1707 Nov 08 19:29	25°♈02'08		superior conj	1708 Oct 04 04:59	10°♈59'54	1°08'23
	1707 Nov 12 01:12	0°♉		minimum elong	1708 Oct 04 09:36	11°♈19'56	1°07'49
greatest brilliancy	1707 Dec 01 20:51	28°♉47'52	-0.5m	max. Earth dist.	1708 Oct 11 15:42	23°♈34'34	1.42603 AU
	1707 Dec 02 19:14	0°♉		desc. node	1708 Oct 14 20:39	28°♈47'36	
evening max el	1707 Dec 07 12:52	5°♉30'31	20°46'01		1708 Oct 15 14:41	0°♈	
retrograde	1707 Dec 15 19:06	10°♉23'29		evening rise	1708 Oct 18 08:24	4°♈21'02	
asc. node	1707 Dec 17 11:03	10°♉07'58			1708 Nov 04 10:40	0°♉	
evening set	1707 Dec 19 16:33	8°♉56'45		greatest brilliancy	1708 Nov 14 14:55	13°♉39'39	-0.3m
inferior conj	1707 Dec 25 02:54	2°♉44'27	2°23'40	evening max el	1708 Nov 19 08:40	19°♉01'43	21°59'31
minimum elong	1707 Dec 25 00:20	2°♉53'15	2°22'51	retrograde	1708 Nov 28 15:40	24°♉33'26	
min. Earth dist.	1707 Dec 25 15:31	2°♉01'17	0.67401 AU	evening set	1708 Dec 03 00:21	22°♉50'16	
	1707 Dec 27 03:49	30°♊		asc. node	1708 Dec 03 08:03	22°♉34'19	
morning rise	1707 Dec 30 07:40	26°♉29'15		inferior conj	1708 Dec 08 09:50	16°♉29'40	1°40'16
direct	1708 Jan 04 17:51	24°♉06'56		minimum elong	1708 Dec 08 07:46	16°♉36'51	1°39'30
	1708 Jan 15 01:34	0°♉		min. Earth dist.	1708 Dec 08 10:57	16°♉25'47	0.67760 AU
morning max el	1708 Jan 15 17:57	0°♉40'38	24°08'22	morning rise	1708 Dec 13 14:59	10°♉15'51	
desc. node	1708 Jan 24 22:49	11°♉32'35		direct	1708 Dec 18 09:54	8°♉15'49	
	1708 Feb 06 21:24	0°♊		morning max el	1708 Dec 28 04:09	14°♉02'16	22°40'08
morning set	1708 Feb 20 11:08	22°♊03'18		greatest brilliancy	1709 Jan 01 18:24	19°♉09'56	-0.3m
max. Earth dist.	1708 Feb 24 05:57	28°♊43'04	1.38116 AU		1709 Jan 10 00:37	0°♉	
	1708 Feb 24 23:04	0°♊		desc. node	1709 Jan 10 19:51	1°♉07'15	
					1709 Jan 29 20:26	0°♊	
superior conj	1708 Mar 02 08:43	11°♊53'54	-1°-42'-5	morning set	1709 Jan 31 04:20	2°♊10'19	
minimum elong	1708 Mar 02 12:56	12°♊14'03	1°41'39	max. Earth dist.	1709 Feb 05 02:04	10°♊22'50	1.40266 AU
evening rise	1708 Mar 11 06:04	29°♊16'51					
	1708 Mar 11 14:50	0°♊		superior conj	1709 Feb 12 20:51	24°♊04'39	-1°-58'-46
asc. node	1708 Mar 14 10:23	5°♊28'22		minimum elong	1709 Feb 12 23:55	24°♊18'36	1°58'38
evening max el	1708 Mar 27 18:34	25°♊58'38	18°59'50		1709 Feb 16 02:17	0°♊	
	1708 Apr 03 20:42	0°♈		evening rise	1709 Feb 22 19:23	12°♊38'16	
retrograde	1708 Apr 05 07:26	0°♈06'57		asc. node	1709 Mar 01 07:24	24°♊40'17	
	1708 Apr 06 18:45	30°♊			1709 Mar 04 11:11	0°♊	
evening set	1708 Apr 07 11:38	29°♊51'56		evening max el	1709 Mar 10 23:23	8°♊32'35	18°24'05
inferior conj	1708 Apr 15 14:13	25°♊36'41	1°44'11	retrograde	1709 Mar 18 08:32	12°♊11'30	
minimum elong	1708 Apr 15 17:51	25°♊30'18	1°43'03	evening set	1709 Mar 20 18:06	11°♊49'26	
min. Earth dist.	1708 Apr 18 17:09	23°♊26'12	0.56842 AU	inferior conj	1709 Mar 28 02:15	7°♊13'44	2°54'26
desc. node	1708 Apr 21 22:01	21°♊29'34		minimum elong	1709 Mar 28 06:02	7°♊05'56	2°53'37

min. Earth dist.	1709 Mar 31 12:48	4° Υ 25'30	0.58781 AU	min. Earth dist.	1710 Mar 13 15:08	16° Υ 26'14	0.60921 AU
morning rise	1709 Apr 04 13:59	1° Υ 43'23		morning rise	1710 Mar 17 04:04	13° Υ 37'40	
desc. node	1709 Apr 08 19:02	0° Υ 13'39		direct	1710 Mar 23 22:22	11° Υ 22'40	
direct	1709 Apr 10 17:49	0° Υ 03'38		desc. node	1710 Mar 26 16:04	11° Υ 43'25	
morning max el	1709 Apr 25 02:43	7° Υ 46'09	27°00'37	morning max el	1710 Apr 07 03:58	19° Υ 15'44	27°42'14
	1709 May 11 20:23	0° Υ			1710 Apr 16 06:46	0° Υ	
morning set	1709 May 25 07:27	25° Υ 13'06			1710 May 04 15:08	0° Υ	
	1709 May 27 13:35	0° Υ		morning set	1710 May 09 13:29	9° Υ 48'33	
asc. node	1709 May 28 06:41	1° Υ 32'02		asc. node	1710 May 15 03:44	21° Υ 41'16	
				max. Earth dist.	1710 May 15 17:30	22° Υ 56'15	1.32307 AU
superior conj	1709 Jun 01 09:56	10° Υ 34'38	0°42'31	superior conj	1710 May 16 21:00	25° Υ 26'31	0°18'06
minimum elong	1709 Jun 01 08:11	10° Υ 25'00	0°42'10	minimum elong	1710 May 16 20:11	25° Υ 22'01	0°17'56
max. Earth dist.	1709 Jun 01 06:03	10° Υ 13'18	1.32215 AU		1710 May 18 22:54	0° Υ	
evening rise	1709 Jun 08 08:06	25° Υ 35'59		evening rise	1710 May 23 19:00	10° Υ 28'15	
	1709 Jun 10 10:58	0° Υ			1710 Jun 02 19:24	0° Υ	
	1709 Jun 27 19:57	0° Υ		evening max el	1710 Jun 19 07:09	22° Υ 34'19	25°09'12
desc. node	1709 Jul 05 18:21	9° Υ 41'18		desc. node	1710 Jun 22 15:21	25° Υ 27'07	
evening max el	1709 Jul 07 13:22	11° Υ 28'32	26°24'50	retrograde	1710 Jul 03 07:13	29° Υ 41'33	
retrograde	1709 Jul 21 12:57	18° Υ 40'45		evening set	1710 Jul 08 19:29	28° Υ 31'31	
evening set	1709 Jul 28 03:27	16° Υ 51'56		min. Earth dist.	1710 Jul 13 18:52	25° Υ 47'14	0.57635 AU
min. Earth dist.	1709 Aug 01 02:26	14° Υ 16'28	0.59648 AU	inferior conj	1710 Jul 16 20:34	23° Υ 42'15	-4°-55'-7
inferior conj	1709 Aug 04 10:03	11° Υ 41'01	-4°-47'-36	minimum elong	1710 Jul 16 19:17	23° Υ 44'27	4°55'06
minimum elong	1709 Aug 04 13:11	11° Υ 34'51	4°47'18	morning rise	1710 Jul 24 22:52	19° Υ 29'40	
morning rise	1709 Aug 12 02:18	7° Υ 05'51		direct	1710 Jul 27 11:58	19° Υ 10'30	
direct	1709 Aug 14 12:22	6° Υ 44'59		morning max el	1710 Aug 05 06:59	23° Υ 17'56	19°02'51
morning max el	1709 Aug 22 04:21	10° Υ 27'20	18°19'06		1710 Aug 10 19:56	0° Υ	
asc. node	1709 Aug 24 05:51	12° Υ 40'12		asc. node	1710 Aug 11 02:56	0° Υ 25'46	
	1709 Sep 04 01:15	0° Υ		morning set	1710 Aug 22 00:18	19° Υ 59'17	
morning set	1709 Sep 07 02:40	5° Υ 46'38			1710 Aug 27 01:42	0° Υ	
superior conj	1709 Sep 16 09:52	23° Υ 16'17	1°31'19	superior conj	1710 Aug 30 09:41	6° Υ 29'23	1°43'10
minimum elong	1709 Sep 16 13:20	23° Υ 32'09	1°31'01	minimum elong	1710 Aug 30 11:14	6° Υ 36'50	1°43'07
	1709 Sep 20 03:33	0° Υ		max. Earth dist.	1710 Sep 06 02:48	19° Υ 00'26	1.38668 AU
max. Earth dist.	1709 Sep 23 23:10	6° Υ 38'59	1.40715 AU	evening rise	1710 Sep 10 00:00	25° Υ 51'56	
evening rise	1709 Sep 28 16:02	14° Υ 32'12			1710 Sep 12 10:06	0° Υ	
desc. node	1709 Oct 01 17:40	19° Υ 30'50		desc. node	1710 Sep 18 14:41	10° Υ 06'44	
	1709 Oct 08 11:04	0° Υ			1710 Oct 02 02:06	0° Υ	
	1709 Oct 30 13:22	0° Υ		evening max el	1710 Oct 15 12:09	16° Υ 11'24	24°38'00
evening max el	1709 Nov 01 23:41	2° Υ 34'30	23°18'56	retrograde	1710 Oct 26 23:42	22° Υ 53'25	
retrograde	1709 Nov 12 09:34	8° Υ 44'31		evening set	1710 Nov 01 11:22	20° Υ 36'14	
evening set	1709 Nov 17 07:09	6° Υ 44'06		min. Earth dist.	1710 Nov 06 03:16	15° Υ 17'49	0.67463 AU
asc. node	1709 Nov 20 05:05	3° Υ 39'21		inferior conj	1710 Nov 06 23:18	14° Υ 11'04	0°-2'-25
inferior conj	1709 Nov 22 17:12	0° Υ 19'03	0°51'08	minimum elong	1710 Nov 06 23:22	14° Υ 10'52	0°02'25
minimum elong	1709 Nov 22 16:02	0° Υ 23'05	0°50'38	transit middle	1710 Nov 06 23:22	14° Υ 10'52	0°02'25
min. Earth dist.	1709 Nov 22 07:38	0° Υ 51'53	0.67774 AU	transit begin	1710 Nov 06 20:38	14° Υ 19'56	
	1709 Nov 22 22:45	30° Υ		transit end	1710 Nov 07 02:05	14° Υ 01'49	
morning rise	1709 Nov 28 00:59	24° Υ 08'40		asc. node	1710 Nov 07 02:07	14° Υ 01'39	
direct	1709 Dec 02 05:20	22° Υ 31'30		morning rise	1710 Nov 12 11:46	8° Υ 06'32	
morning max el	1709 Dec 10 19:40	27° Υ 32'15	21°16'49	direct	1710 Nov 16 03:08	6° Υ 50'21	
	1709 Dec 13 02:35	0° Υ		morning max el	1710 Nov 23 18:40	11° Υ 12'56	20°04'25
greatest brilliancy	1709 Dec 16 01:07	3° Υ 31'52	-0.4m	greatest brilliancy	1710 Nov 30 19:44	19° Υ 45'42	-0.6m
desc. node	1709 Dec 28 16:53	21° Υ 07'20			1710 Dec 07 23:37	0° Υ	
	1710 Jan 03 15:05	0° Υ		desc. node	1710 Dec 15 13:56	11° Υ 26'01	
morning set	1710 Jan 10 16:56	10° Υ 56'59		morning set	1710 Dec 20 13:18	19° Υ 04'13	
max. Earth dist.	1710 Jan 18 03:45	22° Υ 55'06	1.42273 AU		1710 Dec 27 13:27	0° Υ	
	1710 Jan 22 09:59	0° Υ		max. Earth dist.	1710 Dec 31 12:49	6° Υ 18'16	1.43871 AU
superior conj	1710 Jan 25 11:20	5° Υ 12'01	-2°-4'-30	superior conj	1711 Jan 05 23:55	15° Υ 07'56	-1°-54'-17
minimum elong	1710 Jan 25 10:51	5° Υ 09'57	2°04'30	minimum elong	1711 Jan 05 18:04	14° Υ 44'04	1°53'58
evening rise	1710 Feb 05 19:18	25° Υ 17'57			1711 Jan 14 21:44	0° Υ	
	1710 Feb 08 09:41	0° Υ		evening rise	1711 Jan 19 01:35	7° Υ 07'47	
asc. node	1710 Feb 16 04:26	13° Υ 22'27			1711 Feb 01 23:55	0° Υ	
evening max el	1710 Feb 22 09:33	21° Υ 30'35	18°08'16	asc. node	1711 Feb 03 01:28	1° Υ 25'54	
retrograde	1710 Mar 01 02:32	24° Υ 55'54		evening max el	1711 Feb 05 22:04	4° Υ 44'53	18°11'49
evening set	1710 Mar 03 17:16	24° Υ 24'59		retrograde	1711 Feb 12 09:10	8° Υ 10'33	
inferior conj	1710 Mar 10 10:07	19° Υ 28'08	3°32'18	evening set	1711 Feb 15 04:52	7° Υ 29'36	
minimum elong	1710 Mar 10 12:11	19° Υ 23'13	3°32'04				

inferior conj	1711 Feb 21 10:04	2° K 12'19	3°44'27	asc. node	1712 Jan 20 22:30	18° \approx 39'05	
minimum elong	1711 Feb 21 10:08	2° K 12'10	3°44'26	retrograde	1712 Jan 27 00:08	21° \approx 46'41	
	1711 Feb 23 11:09	30° R \approx		evening set	1712 Jan 30 01:18	20° \approx 54'36	
min. Earth dist.	1711 Feb 24 02:08	29° \approx 20'43	0.62964 AU	inferior conj	1712 Feb 04 22:06	15° \approx 18'30	3°37'38
morning rise	1711 Feb 27 13:21	26° \approx 10'03		minimum elong	1712 Feb 04 20:36	15° \approx 22'55	3°37'29
direct	1711 Mar 06 12:12	23° \approx 29'56		min. Earth dist.	1712 Feb 06 22:38	12° \approx 54'37	0.64705 AU
desc. node	1711 Mar 13 13:07	25° \approx 47'39		morning rise	1712 Feb 10 14:38	9° \approx 09'21	
	1711 Mar 18 22:54	0° K		direct	1712 Feb 17 09:14	6° \approx 18'55	
morning max el	1711 Mar 20 10:24	1° K 25'27	27°46'37	desc. node	1712 Feb 28 10:10	11° \approx 51'33	
	1711 Apr 10 11:03	0° Y		morning max el	1712 Mar 01 19:40	14° \approx 07'43	27°16'02
morning set	1711 Apr 23 13:37	24° Y 03'15			1712 Mar 14 17:10	0° K	
	1711 Apr 26 11:21	0° B			1712 Apr 02 02:18	0° Y	
max. Earth dist.	1711 Apr 29 00:16	5° B 20'46	1.32803 AU	morning set	1712 Apr 06 05:03	7° Y 48'22	
				max. Earth dist.	1712 Apr 10 22:41	17° Y 16'51	1.33732 AU
superior conj	1711 May 01 05:39	10° B 07'08	0°-8'-24	superior conj	1712 Apr 14 09:54	24° Y 30'20	0°-36'-4
minimum elong	1711 May 01 06:03	10° B 09'20	0°08'20	minimum elong	1712 Apr 14 11:42	24° Y 39'51	0°35'42
behind sun begin	1711 May 01 01:33	9° B 45'05			1712 Apr 17 00:01	0° B	
behind sun end	1711 May 01 10:32	10° B 33'35		asc. node	1712 Apr 17 21:50	1° B 56'17	
asc. node	1711 May 02 00:47	11° B 50'39		evening rise	1712 Apr 21 17:53	10° B 04'03	
evening rise	1711 May 08 06:52	25° B 19'39			1712 May 02 04:41	0° II	
	1711 May 10 12:36	0° II		evening max el	1712 May 12 14:10	13° II 43'27	22°01'07
	1711 May 28 21:21	0° E		retrograde	1712 May 25 06:47	19° II 58'22	
evening max el	1711 May 31 21:09	3° E 09'33	23°36'15	desc. node	1712 May 26 09:25	19° II 55'35	
desc. node	1711 Jun 09 12:23	9° E 02'35		evening set	1712 May 28 00:49	19° II 41'33	
retrograde	1711 Jun 14 13:08	10° E 00'04		inferior conj	1712 Jun 06 09:28	15° II 36'45	-3°-2'-12
evening set	1711 Jun 18 14:04	9° E 24'15		minimum elong	1712 Jun 06 01:56	15° II 47'19	2°59'57
min. Earth dist.	1711 Jun 25 07:35	6° E 15'47	0.55991 AU	min. Earth dist.	1712 Jun 05 19:20	15° II 56'33	0.55053 AU
inferior conj	1711 Jun 27 10:58	4° E 58'46	-4°-22'-32	morning rise	1712 Jun 15 04:37	11° II 43'49	
minimum elong	1711 Jun 27 04:36	5° E 08'22	4°21'25	direct	1712 Jun 18 06:14	11° II 22'53	
morning rise	1711 Jul 05 22:29	1° E 02'39		morning max el	1712 Jun 30 03:59	16° II 57'22	21°32'38
direct	1711 Jul 08 16:27	0° E 43'46			1712 Jul 10 07:27	0° E	
morning max el	1711 Jul 18 23:12	5° E 29'34	20°07'53	asc. node	1712 Jul 14 21:05	8° E 01'21	
asc. node	1711 Jul 29 00:01	18° E 56'26		morning set	1712 Jul 20 13:28	19° E 19'33	
	1711 Aug 03 22:28	0° Q			1712 Jul 25 15:28	0° Q	
morning set	1711 Aug 06 04:42	4° Q 32'26					
superior conj	1711 Aug 13 23:08	20° Q 23'25	1°45'50	superior conj	1712 Jul 27 22:10	4° Q 46'35	1°41'07
minimum elong	1711 Aug 13 22:54	20° Q 22'15	1°45'50	minimum elong	1712 Jul 27 20:39	4° Q 38'40	1°41'01
	1711 Aug 18 20:26	0° M		max. Earth dist.	1712 Jul 31 20:14	12° Q 48'51	1.35040 AU
max. Earth dist.	1711 Aug 19 07:57	0° M 55'07	1.36714 AU	evening rise	1712 Aug 05 06:31	21° Q 30'17	
evening rise	1711 Aug 23 06:21	8° M 15'14			1712 Aug 09 20:36	0° M	
desc. node	1711 Sep 05 11:43	0° A 30'01		desc. node	1712 Aug 22 08:44	20° M 34'30	
	1711 Sep 05 03:59	0° A			1712 Aug 28 23:55	0° A	
evening max el	1711 Sep 28 00:08	29° A 51'09	25°49'28	evening max el	1712 Sep 09 12:26	13° A 27'49	26°45'37
	1711 Sep 28 03:47	0° M		retrograde	1712 Sep 22 13:10	20° A 42'35	
retrograde	1711 Oct 10 09:06	6° M 54'43		evening set	1712 Sep 29 04:34	18° A 01'22	
evening set	1711 Oct 16 11:12	4° M 23'06		min. Earth dist.	1712 Oct 03 05:21	13° A 55'53	0.65837 AU
	1711 Oct 20 13:04	30° R A		inferior conj	1712 Oct 05 00:14	11° A 49'33	-1°-57'-12
min. Earth dist.	1711 Oct 20 19:19	29° A 40'28	0.66822 AU	minimum elong	1712 Oct 05 03:21	11° A 40'22	1°55'58
inferior conj	1711 Oct 22 02:19	28° A 02'22	0°-59'-5	asc. node	1712 Oct 10 20:16	6° A 15'33	
minimum elong	1711 Oct 22 03:51	27° A 57'31	0°58'27	morning rise	1712 Oct 11 03:29	6° A 05'43	
asc. node	1711 Oct 24 23:12	24° A 36'39		direct	1712 Oct 13 23:14	5° A 21'24	
morning rise	1711 Oct 27 21:20	22° A 06'35		morning max el	1712 Oct 20 13:32	8° A 57'33	18°24'17
direct	1711 Oct 31 01:45	21° A 08'11			1712 Nov 04 05:57	0° M	
morning max el	1711 Nov 07 01:11	25° A 02'32	19°06'20	morning set	1712 Nov 09 01:53	7° M 48'02	
	1711 Nov 11 06:38	0° M		desc. node	1712 Nov 18 08:00	22° M 37'45	
morning set	1711 Nov 29 18:21	27° M 45'12			1712 Nov 22 23:50	0° A	
	1711 Dec 01 04:53	0° A					
desc. node	1711 Dec 02 10:58	1° A 57'30		superior conj	1712 Nov 24 13:02	2° A 26'27	0°-40'-40
max. Earth dist.	1711 Dec 14 04:17	20° A 19'37	1.44860 AU	minimum elong	1712 Nov 24 07:47	2° A 05'46	0°39'58
				max. Earth dist.	1712 Nov 25 23:21	4° A 41'19	1.45129 AU
superior conj	1711 Dec 16 11:59	23° A 59'28	-1°-25'-7	evening rise	1712 Dec 10 19:08	27° A 57'22	
minimum elong	1711 Dec 16 03:12	23° A 24'45	1°24'14		1712 Dec 12 02:18	0° E	
	1711 Dec 20 06:47	0° E		greatest brilliancy	1712 Dec 23 23:40	18° E 31'24	-0.7m
evening rise	1711 Dec 31 10:04	18° E 00'53			1713 Jan 01 08:12	0° \approx	
	1712 Jan 07 17:33	0° \approx		evening max el	1713 Jan 02 19:15	1° \approx 35'54	19°13'22
evening max el	1712 Jan 20 10:06	18° \approx 08'27	18°33'56	asc. node	1713 Jan 06 19:32	4° \approx 47'51	

retrograde	1713 Jan 09 19:55	5° \approx 37'10			1713 Nov 15 17:49	0° \approx	
evening set	1713 Jan 13 03:38	4° \approx 32'48		evening rise	1713 Nov 20 09:17	7° \approx 11'18	
	1713 Jan 17 17:27	30° \approx			1713 Dec 05 11:05	0° \approx	
inferior conj	1713 Jan 18 18:41	28° \approx 40'06	3°16'50	greatest brilliancy	1713 Dec 10 07:09	6° \approx 52'26	-0.6m
minimum elong	1713 Jan 18 16:19	28° \approx 47'43	3°16'23	evening max el	1713 Dec 16 23:44	15° \approx 05'10	20°08'21
min. Earth dist.	1713 Jan 20 04:03	26° \approx 53'25	0.66061 AU	retrograde	1713 Dec 24 17:42	19° \approx 37'57	
morning rise	1713 Jan 24 04:10	22° \approx 26'53		asc. node	1713 Dec 24 16:33	19° \approx 37'56	
direct	1713 Jan 30 12:30	19° \approx 39'56		evening set	1713 Dec 28 09:33	18° \approx 19'51	
morning max el	1713 Feb 12 05:20	27° \approx 10'30	26°16'53	inferior conj	1714 Jan 02 21:05	12° \approx 13'35	2°45'32
desc. node	1713 Feb 14 07:11	29° \approx 21'31		minimum elong	1714 Jan 02 18:25	12° \approx 22'31	2°44'49
	1713 Feb 14 21:08	0° \approx		min. Earth dist.	1714 Jan 03 16:48	11° \approx 07'16	0.67018 AU
	1713 Mar 08 08:51	0° \approx		morning rise	1714 Jan 08 02:44	5° \approx 58'22	
morning set	1713 Mar 20 07:52	20° \approx 51'13		direct	1714 Jan 13 21:21	3° \approx 25'09	
max. Earth dist.	1713 Mar 24 09:48	28° \approx 39'31	1.35117 AU	morning max el	1714 Jan 25 14:06	10° \approx 23'46	24°58'19
	1713 Mar 25 02:12	0° \approx		desc. node	1714 Feb 01 04:13	17° \approx 53'04	
					1714 Feb 10 04:15	0° \approx	
superior conj	1713 Mar 29 07:18	8° \approx 27'36	-1°-3'-38		1714 Mar 01 00:43	0° \approx	
minimum elong	1713 Mar 29 10:28	8° \approx 43'48	1°03'05	morning set	1714 Mar 02 17:04	2° \approx 58'05	
asc. node	1713 Apr 04 18:52	21° \approx 53'02		max. Earth dist.	1714 Mar 06 09:57	9° \approx 41'32	1.36927 AU
evening rise	1713 Apr 06 01:58	24° \approx 53'45					
	1713 Apr 08 18:15	0° \approx		superior conj	1714 Mar 12 18:55	21° \approx 51'14	-1°-29'-14
evening max el	1713 Apr 24 16:27	24° \approx 42'28	20°36'34	minimum elong	1714 Mar 12 23:02	22° \approx 11'24	1°28'42
	1713 May 04 04:04	0° \approx			1714 Mar 16 21:13	0° \approx	
retrograde	1713 May 05 19:52	0° \approx 06'59		evening rise	1714 Mar 21 04:57	8° \approx 42'17	
evening set	1713 May 07 22:31	29° \approx 56'07		asc. node	1714 Mar 22 15:53	11° \approx 36'31	
	1713 May 07 12:21	30° \approx			1714 Apr 02 01:05	0° \approx	
desc. node	1713 May 13 06:26	28° \approx 05'31		evening max el	1714 Apr 07 06:26	6° \approx 20'16	19°29'29
inferior conj	1713 May 17 03:32	25° \approx 58'27	-1°-7'-38	retrograde	1714 Apr 16 16:44	10° \approx 53'24	
minimum elong	1713 May 17 00:20	26° \approx 03'04	1°06'30	evening set	1714 Apr 18 18:09	10° \approx 41'19	
min. Earth dist.	1713 May 18 07:53	25° \approx 17'38	0.55033 AU	inferior conj	1714 Apr 27 07:44	6° \approx 35'40	0°48'15
morning rise	1713 May 26 00:49	21° \approx 49'08		minimum elong	1714 Apr 27 09:44	6° \approx 32'26	0°47'34
direct	1713 May 29 16:21	21° \approx 20'30		min. Earth dist.	1714 Apr 29 22:23	4° \approx 55'05	0.55952 AU
morning max el	1713 Jun 11 23:12	27° \approx 45'48	23°11'21	desc. node	1714 Apr 30 03:26	4° \approx 47'14	
	1713 Jun 14 04:30	0° \approx		morning rise	1714 May 05 21:33	1° \approx 54'21	
asc. node	1713 Jul 01 18:08	27° \approx 31'07		direct	1714 May 10 11:36	1° \approx 06'47	
	1713 Jul 02 23:35	0° \approx		morning max el	1714 May 24 13:53	8° \approx 13'58	24°52'38
morning set	1713 Jul 05 00:37	4° \approx 14'07			1714 Jun 09 14:50	0° \approx	
				asc. node	1714 Jun 18 15:09	17° \approx 18'54	
superior conj	1713 Jul 12 03:35	19° \approx 28'42	1°30'26	morning set	1714 Jun 19 12:29	19° \approx 10'47	
minimum elong	1713 Jul 12 01:21	19° \approx 16'44	1°30'11		1714 Jun 24 12:57	0° \approx	
max. Earth dist.	1713 Jul 14 17:37	24° \approx 57'59	1.33738 AU				
	1713 Jul 17 03:45	0° \approx		superior conj	1714 Jun 26 13:00	4° \approx 22'06	1°14'53
evening rise	1713 Jul 19 19:56	5° \approx 23'59		minimum elong	1714 Jun 26 10:35	4° \approx 08'57	1°14'30
	1713 Aug 02 12:33	0° \approx		max. Earth dist.	1714 Jun 27 23:05	7° \approx 27'16	1.32837 AU
desc. node	1713 Aug 09 05:46	10° \approx 11'41		evening rise	1714 Jul 03 18:50	19° \approx 45'34	
evening max el	1713 Aug 23 00:13	26° \approx 50'35	27°19'12		1714 Jul 08 23:35	0° \approx	
	1713 Aug 26 15:50	0° \approx		desc. node	1714 Jul 27 02:47	29° \approx 09'52	
retrograde	1713 Sep 05 11:34	4° \approx 09'07			1714 Jul 27 18:08	0° \approx	
evening set	1713 Sep 12 12:54	1° \approx 26'33		evening max el	1714 Aug 05 09:40	9° \approx 47'03	27°23'55
	1713 Sep 14 05:42	30° \approx		retrograde	1714 Aug 19 03:53	17° \approx 04'31	
min. Earth dist.	1713 Sep 16 07:08	27° \approx 57'19	0.64486 AU	evening set	1714 Aug 26 08:48	14° \approx 32'26	
inferior conj	1713 Sep 18 14:45	25° \approx 27'42	-2°-54'-30	min. Earth dist.	1714 Aug 29 23:02	11° \approx 33'57	0.62792 AU
minimum elong	1713 Sep 18 19:16	25° \approx 15'31	2°52'58	inferior conj	1714 Sep 01 19:04	8° \approx 50'02	-3°-47'-33
morning rise	1713 Sep 25 03:36	19° \approx 59'10		minimum elong	1714 Sep 02 00:19	8° \approx 37'19	3°46'10
direct	1713 Sep 27 17:04	19° \approx 25'20		morning rise	1714 Sep 08 18:26	3° \approx 40'00	
asc. node	1713 Sep 27 17:18	19° \approx 25'20		direct	1714 Sep 11 04:17	3° \approx 13'18	
morning max el	1713 Oct 04 05:11	22° \approx 52'19	17°59'14	asc. node	1714 Sep 14 14:21	4° \approx 08'22	
	1713 Oct 09 19:55	0° \approx		morning max el	1714 Sep 17 21:08	6° \approx 39'32	17°51'53
morning set	1713 Oct 21 13:59	19° \approx 14'48			1714 Oct 03 00:58	0° \approx	
	1713 Oct 27 23:54	0° \approx		morning set	1714 Oct 04 01:14	1° \approx 47'39	
superior conj	1713 Nov 04 00:56	11° \approx 30'34	0°07'54	superior conj	1714 Oct 15 13:44	21° \approx 48'52	0°49'36
minimum elong	1713 Nov 04 01:51	11° \approx 34'18	0°07'46	minimum elong	1714 Oct 15 18:02	22° \approx 07'00	0°49'01
behind sun begin	1713 Nov 03 16:40	10° \approx 57'15			1714 Oct 20 12:11	0° \approx	
behind sun end	1713 Nov 04 11:03	12° \approx 11'17		max. Earth dist.	1714 Oct 22 09:33	3° \approx 04'15	1.43507 AU
desc. node	1713 Nov 05 05:02	13° \approx 23'31		desc. node	1714 Oct 23 02:04	4° \approx 10'55	
max. Earth dist.	1713 Nov 08 18:10	19° \approx 02'41	1.44654 AU	evening rise	1714 Oct 30 17:33	16° \approx 15'13	

	1714 Nov 08 18:21	0°♊			1715 Oct 13 03:24	0°♍		
greatest brilliancy	1714 Nov 24 19:13	22°♊37'40	-0.4m		1715 Nov 02 14:52	0°♊		
evening max el	1714 Nov 29 22:39	28°♊35'09	21°16'14	greatest brilliancy	1715 Nov 07 20:50	6°♊43'23	-0.3m	
	1714 Dec 01 09:35	0°♋		evening max el	1715 Nov 12 16:19	12°♊07'05	22°32'57	
retrograde	1714 Dec 08 15:15	3°♋44'56		retrograde	1715 Nov 22 10:48	17°♊55'22		
asc. node	1714 Dec 11 13:34	2°♋57'10		evening set	1715 Nov 27 00:42	16°♊05'10		
evening set	1714 Dec 12 17:08	2°♋11'31		asc. node	1715 Nov 28 10:37	14°♊45'52		
	1714 Dec 14 23:29	30°♌♊		inferior conj	1715 Dec 02 10:17	9°♊42'20	1°20'04	
inferior conj	1714 Dec 18 02:56	25°♌55'06	2°06'03	minimum elong	1715 Dec 02 08:33	9°♊48'20	1°19'22	
minimum elong	1714 Dec 18 00:31	26°♌03'26	2°05'13	min. Earth dist.	1715 Dec 02 06:53	9°♊54'05	0.67812 AU	
min. Earth dist.	1714 Dec 18 10:33	25°♌28'47	0.67593 AU	morning rise	1715 Dec 07 16:17	3°♌29'31		
morning rise	1714 Dec 23 07:32	19°♌39'58		direct	1715 Dec 12 04:56	1°♌39'02		
direct	1714 Dec 28 11:09	17°♌26'47		morning max el	1715 Dec 21 10:42	7°♌05'23	22°03'30	
morning max el	1715 Jan 07 22:48	23°♌41'30	23°30'37	greatest brilliancy	1715 Dec 26 02:56	12°♌20'57	-0.4m	
	1715 Jan 13 12:59	0°♌		desc. node	1716 Jan 05 22:19	26°♌54'32		
desc. node	1715 Jan 19 01:15	7°♌08'09			1716 Jan 08 01:32	0°♌		
	1715 Feb 03 14:23	0°♍		morning set	1716 Jan 23 06:58	23°♌22'23		
morning set	1715 Feb 12 02:26	13°♍52'12			1716 Jan 27 08:25	0°♍		
max. Earth dist.	1715 Feb 16 04:34	20°♍54'31	1.39025 AU	max. Earth dist.	1716 Jan 29 02:10	2°♍53'45	1.41158 AU	
	1715 Feb 21 06:18	0°♎						
				superior conj	1716 Feb 05 20:31	16°♍16'35	-2°-2'-51	
superior conj	1715 Feb 23 16:56	4°♎31'23	-1°-50'-13	minimum elong	1716 Feb 05 22:24	16°♍24'56	2°02'49	
minimum elong	1715 Feb 23 20:55	4°♎50'00	1°49'54		1716 Feb 13 09:55	0°♎		
evening rise	1715 Mar 05 00:08	22°♎22'21		evening rise	1716 Feb 16 08:13	5°♎26'25		
	1715 Mar 08 23:46	0°♏		asc. node	1716 Feb 24 09:56	20°♎01'13		
asc. node	1715 Mar 09 12:54	1°♏01'21			1716 Mar 02 07:32	0°♏		
evening max el	1715 Mar 21 06:44	18°♏35'47	18°42'14	evening max el	1716 Mar 03 14:18	1°♏21'06	18°15'00	
retrograde	1715 Mar 29 06:26	22°♏29'26		retrograde	1716 Mar 10 14:59	4°♏51'56		
evening set	1715 Mar 31 12:49	22°♏11'47		evening set	1716 Mar 13 02:58	4°♏26'10		
inferior conj	1715 Apr 08 07:21	17°♏48'35	2°18'14		1716 Mar 19 19:41	30°♐♏		
minimum elong	1715 Apr 08 11:24	17°♏40'58	2°17'07	inferior conj	1716 Mar 20 04:08	29°♏41'32	3°14'08	
min. Earth dist.	1715 Apr 11 15:42	15°♏19'02	0.57615 AU	minimum elong	1716 Mar 20 07:18	29°♏34'34	3°13'35	
morning rise	1715 Apr 16 05:37	12°♏34'04		min. Earth dist.	1716 Mar 23 13:42	26°♏44'24	0.59689 AU	
desc. node	1715 Apr 17 00:26	12°♏13'56		morning rise	1716 Mar 27 08:05	24°♏01'48		
direct	1715 Apr 21 21:13	11°♏15'01		direct	1716 Apr 02 19:33	22°♏06'10		
morning max el	1715 May 06 05:50	18°♏48'42	26°21'15	desc. node	1716 Apr 02 21:29	22°♏06'11		
	1715 May 15 15:36	0°♑		morning max el	1716 Apr 17 03:07	29°♏53'39	27°22'50	
	1715 Jun 02 00:25	0°♒			1716 Apr 17 05:42	0°♑		
morning set	1715 Jun 03 23:29	4°♒04'13			1716 May 08 14:15	0°♑		
asc. node	1715 Jun 05 12:12	7°♒19'03		morning set	1716 May 18 07:51	18°♑47'39		
				asc. node	1716 May 22 09:14	27°♑25'56		
superior conj	1715 Jun 11 00:27	19°♒20'05	0°55'19		1716 May 23 13:32	0°♒		
minimum elong	1715 Jun 10 22:20	19°♒08'27	0°54'56	max. Earth dist.	1716 May 24 22:09	2°♒58'45	1.32204 AU	
max. Earth dist.	1715 Jun 11 09:49	20°♒11'34	1.32327 AU					
	1715 Jun 15 22:00	0°♓		superior conj	1716 May 25 12:07	4°♒15'32	0°32'29	
evening rise	1715 Jun 18 00:16	4°♓25'50		minimum elong	1716 May 25 10:43	4°♒07'51	0°32'12	
	1715 Jul 01 17:02	0°♑		evening rise	1716 Jun 01 09:46	19°♒15'39		
desc. node	1715 Jul 13 23:47	17°♑13'05			1716 Jun 06 16:33	0°♓		
evening max el	1715 Jul 18 14:31	22°♑05'58	26°55'57		1716 Jun 26 00:56	0°♑		
retrograde	1715 Aug 01 12:56	29°♑20'05		evening max el	1716 Jun 29 12:31	3°♑38'01	25°55'48	
evening set	1715 Aug 08 12:01	27°♑12'15		desc. node	1716 Jun 29 20:48	3°♑57'32		
min. Earth dist.	1715 Aug 12 04:42	24°♑32'51	0.60833 AU	retrograde	1716 Jul 13 12:48	10°♑48'01		
inferior conj	1715 Aug 15 09:56	21°♑49'08	-4°-30'-40	evening set	1716 Jul 19 17:42	9°♑15'40		
minimum elong	1715 Aug 15 14:30	21°♑39'25	4°29'56	min. Earth dist.	1716 Jul 24 01:01	6°♑38'34	0.58771 AU	
morning rise	1715 Aug 22 20:06	17°♑00'22		inferior conj	1716 Jul 27 07:42	4°♑13'57	-4°-54'-50	
direct	1715 Aug 25 05:12	16°♑38'01		minimum elong	1716 Jul 27 09:14	4°♑11'07	4°54'47	
asc. node	1715 Sep 01 11:24	20°♑14'28			1716 Aug 03 12:36	30°♒♓		
morning max el	1715 Sep 01 10:22	20°♑11'57	18°03'22	morning rise	1716 Aug 04 04:16	29°♓48'19		
	1715 Sep 08 17:46	0°♒		direct	1716 Aug 06 15:29	29°♓28'13		
morning set	1715 Sep 17 05:34	15°♒09'48			1716 Aug 09 15:49	0°♑		
	1715 Sep 25 07:13	0°♓		morning max el	1716 Aug 14 17:40	3°♑19'49	18°35'02	
				asc. node	1716 Aug 18 08:28	7°♑27'35		
superior conj	1715 Sep 27 05:15	3°♓25'46	1°19'33	morning set	1716 Aug 30 22:00	29°♑06'57		
minimum elong	1715 Sep 27 09:35	3°♓44'55	1°19'06		1716 Aug 31 08:57	0°♒		
max. Earth dist.	1715 Oct 04 20:00	16°♓32'36	1.41841 AU					
desc. node	1715 Oct 09 23:07	24°♓56'55		superior conj	1716 Sep 08 18:54	16°♒07'59	1°37'35	
evening rise	1715 Oct 10 13:15	25°♓53'35		minimum elong	1716 Sep 08 21:35	16°♒20'30	1°37'24	

max. Earth dist.	1716 Sep 16 01:47	29° \cap 19'23	1.39859 AU	superior conj	1717 Aug 23 01:04	29° Ω 39'49	1°45'19
	1716 Sep 16 11:06	0° Δ		minimum elong	1717 Aug 23 01:49	29° Ω 43'29	1°45'18
evening rise	1716 Sep 20 07:12	6° Δ 33'43			1717 Aug 23 05:12	0° \cap	
desc. node	1716 Sep 25 20:09	15° Δ 37'31		max. Earth dist.	1717 Aug 29 05:39	11° \cap 27'44	1.37814 AU
	1716 Oct 05 05:42	0° \cap		evening rise	1717 Sep 02 01:05	18° \cap 20'52	
evening max el	1716 Oct 25 06:11	25° \cap 42'09	23°53'01		1717 Sep 08 21:18	0° Δ	
	1716 Oct 30 08:11	0° \nearrow		desc. node	1717 Sep 12 17:11	6° Δ 08'28	
retrograde	1716 Nov 05 03:05	2° \nearrow 06'00			1717 Sep 29 12:13	0° \cap	
evening set	1716 Nov 10 06:38	29° \cap 58'22		evening max el	1717 Oct 07 18:11	9° \cap 20'11	25°09'43
	1716 Nov 10 05:51	30° \cap		retrograde	1717 Oct 19 15:13	16° \cap 12'26	
asc. node	1716 Nov 14 07:40	25° \cap 26'37		evening set	1717 Oct 25 09:13	13° \cap 48'24	
min. Earth dist.	1716 Nov 15 03:23	24° \cap 20'27	0.67690 AU	min. Earth dist.	1717 Oct 29 21:40	8° \cap 45'19	0.67236 AU
inferior conj	1716 Nov 15 17:21	23° \cap 33'00	0°28'53	inferior conj	1717 Oct 30 22:21	7° \cap 24'40	0°-26'-11
minimum elong	1716 Nov 15 16:40	23° \cap 35'20	0°28'35	minimum elong	1717 Oct 30 23:01	7° \cap 22'31	0°25'55
morning rise	1716 Nov 21 02:54	17° \cap 24'55		asc. node	1717 Nov 01 04:45	5° \cap 46'48	
direct	1716 Nov 25 01:37	15° \cap 56'51		morning rise	1717 Nov 05 13:25	1° \cap 23'48	
morning max el	1716 Dec 03 05:14	20° \cap 39'36	20°44'23	direct	1717 Nov 08 23:52	0° \cap 15'42	
greatest brilliancy	1716 Dec 09 01:57	27° \cap 31'27	-0.5m	morning max el	1717 Nov 16 07:40	4° \cap 24'43	19°37'50
	1716 Dec 10 22:52	0° \nearrow		greatest brilliancy	1717 Nov 24 13:09	14° \cap 43'15	-0.6m
desc. node	1716 Dec 22 19:23	17° \nearrow 03'24			1717 Dec 04 19:45	0° \nearrow	
	1716 Dec 31 07:15	0° \searrow		desc. node	1717 Dec 09 16:25	7° \nearrow 27'55	
morning set	1717 Jan 01 10:10	1° \searrow 44'31		morning set	1717 Dec 11 07:10	9° \nearrow 57'33	
max. Earth dist.	1717 Jan 10 07:34	15° \searrow 51'08	1.43022 AU	max. Earth dist.	1717 Dec 23 20:06	29° \nearrow 34'08	1.44376 AU
					1717 Dec 24 02:37	0° \searrow	
superior conj	1717 Jan 17 00:24	26° \searrow 54'28	-2°-2'-23	superior conj	1717 Dec 28 01:42	6° \searrow 19'46	-1°-44'-12
minimum elong	1717 Jan 16 21:43	26° \searrow 43'10	2°02'19	minimum elong	1717 Dec 27 17:58	5° \searrow 48'38	1°43'37
	1717 Jan 18 20:20	0° \approx		evening rise	1718 Jan 10 22:40	29° \searrow 12'34	
evening rise	1717 Jan 29 01:12	17° \approx 46'10			1718 Jan 11 09:55	0° \approx	
	1717 Feb 05 00:20	0° \times		asc. node	1718 Jan 28 04:02	26° \approx 11'42	
asc. node	1717 Feb 10 06:59	8° \times 28'18		evening max el	1718 Jan 29 14:26	27° \approx 45'29	18°18'57
evening max el	1717 Feb 15 01:53	14° \times 27'12	18°07'26		1718 Feb 01 06:50	0° \times	
retrograde	1717 Feb 21 15:04	17° \times 51'01		retrograde	1718 Feb 05 01:52	1° \times 15'27	
evening set	1717 Feb 24 07:59	17° \times 15'49		evening set	1718 Feb 07 23:44	0° \times 29'57	
inferior conj	1717 Mar 02 19:24	12° \times 09'47	3°40'09		1718 Feb 08 20:17	30° \cap	
minimum elong	1717 Mar 02 20:35	12° \times 06'48	3°40'05	inferior conj	1718 Feb 14 00:59	25° \approx 04'10	3°43'30
min. Earth dist.	1717 Mar 05 19:21	9° \times 10'00	0.61817 AU	minimum elong	1718 Feb 14 00:18	25° \approx 06'04	3°43'29
morning rise	1717 Mar 09 06:40	6° \times 13'40		min. Earth dist.	1718 Feb 16 10:26	22° \approx 22'47	0.63745 AU
direct	1717 Mar 16 04:02	3° \times 46'41		morning rise	1718 Feb 19 23:11	18° \approx 58'14	
desc. node	1717 Mar 20 18:31	4° \times 45'33		direct	1718 Feb 26 20:56	16° \approx 12'10	
morning max el	1717 Mar 30 06:51	11° \times 40'53	27°48'46	desc. node	1718 Mar 07 15:34	19° \approx 44'45	
	1717 Apr 13 17:36	0° γ		morning max el	1718 Mar 12 15:06	24° \approx 06'25	27°37'39
	1717 Apr 30 21:02	0° δ			1718 Mar 17 22:46	0° \times	
morning set	1717 May 02 11:41	3° δ 15'03			1718 Apr 07 01:58	0° γ	
max. Earth dist.	1717 May 08 08:19	15° δ 36'21	1.32472 AU	morning set	1718 Apr 16 08:29	17° γ 18'02	
asc. node	1717 May 09 06:18	17° δ 35'32		max. Earth dist.	1718 Apr 21 12:05	27° γ 50'00	1.33145 AU
					1718 Apr 22 12:44	0° δ	
superior conj	1717 May 09 22:22	19° δ 03'01	0°07'05	superior conj	1718 Apr 24 05:21	3° δ 36'19	0°-20'-4
minimum elong	1717 May 09 22:02	19° δ 01'13	0°07'01	minimum elong	1718 Apr 24 06:20	3° δ 41'37	0°19'52
behind sun begin	1717 May 09 17:25	18° δ 36'01		asc. node	1718 Apr 26 03:21	7° δ 43'24	
behind sun end	1717 May 10 02:40	19° δ 26'27		evening rise	1718 May 01 09:03	18° δ 56'54	
	1717 May 14 22:57	0° Π			1718 May 06 19:48	0° Π	
evening rise	1717 May 16 21:20	4° Π 08'19		evening max el	1718 May 23 18:04	24° Π 56'34	22°55'05
	1717 May 30 18:21	0° Φ			1718 May 30 15:24	0° Φ	
evening max el	1717 Jun 11 04:01	14° Φ 27'15	24°30'50	desc. node	1718 Jun 03 14:48	1° Φ 21'11	
desc. node	1717 Jun 16 17:48	18° Φ 52'10		retrograde	1718 Jun 06 02:18	1° Φ 35'12	
retrograde	1717 Jun 25 01:38	21° Φ 28'55		evening set	1718 Jun 09 12:40	1° Φ 09'21	
evening set	1717 Jun 29 23:41	20° Φ 34'36			1718 Jun 12 20:22	30° \cap	
min. Earth dist.	1717 Jul 05 15:02	17° Φ 41'53	0.56875 AU	min. Earth dist.	1718 Jun 17 02:56	27° Π 46'52	0.55484 AU
inferior conj	1717 Jul 08 09:31	15° Φ 55'36	-4°-46'-57	inferior conj	1718 Jun 18 16:06	26° Π 53'12	-3°-54'-5
minimum elong	1717 Jul 08 05:54	16° Φ 01'24	4°46'37	minimum elong	1718 Jun 18 08:30	27° Π 04'12	3°52'19
morning rise	1717 Jul 16 15:50	11° Φ 51'20		morning rise	1718 Jun 27 07:15	23° Π 00'53	
direct	1717 Jul 19 07:03	11° Φ 32'20		direct	1718 Jun 30 03:46	22° Π 41'43	
morning max el	1717 Jul 28 16:02	15° Φ 53'57	19°27'59	morning max el	1718 Jul 11 03:27	27° Π 47'06	20°41'54
asc. node	1717 Aug 05 05:32	25° Φ 33'11			1718 Jul 13 07:51	0° Φ	
	1717 Aug 07 21:09	0° Ω		asc. node	1718 Jul 23 02:36	14° Φ 19'12	
morning set	1717 Aug 14 22:49	13° Ω 28'54					

morning set	1718 Jul 30 05:18	28°08'29"			1719 Jul 08 02:06	0°00'	
	1718 Jul 31 02:59	0°00'		asc. node	1719 Jul 09 23:38	3°03'52"	
				morning set	1719 Jul 14 15:15	12°05'58"	
superior conj	1718 Aug 06 19:03	13°02'47"	1°44'40"				
minimum elong	1718 Aug 06 18:12	13°02'43"	1°44'38"	superior conj	1719 Jul 21 21:05	28°09'45"	1°37'15"
max. Earth dist.	1718 Aug 11 13:01	23°02'17"	1.35950 AU	minimum elong	1719 Jul 21 19:12	28°09'47"	1°37'05"
	1718 Aug 15 01:05	0°00'			1719 Jul 22 16:08	0°00'	
evening rise	1718 Aug 15 15:33	1°00'07"		max. Earth dist.	1719 Jul 25 04:47	5°02'15"	1.34430 AU
desc. node	1718 Aug 30 14:11	26°00'24"		evening rise	1719 Jul 29 21:51	14°02'40"	
	1718 Sep 01 23:23	0°00'			1719 Aug 07 06:23	0°00'	
evening max el	1718 Sep 20 06:03	22°05'04"	26°15'40"	desc. node	1719 Aug 17 11:11	16°00'18"	
	1718 Oct 01 06:54	0°00'			1719 Aug 27 17:12	0°00'	
retrograde	1718 Oct 02 22:36	0°00'09"		evening max el	1719 Sep 02 18:17	6°03'31"	27°03'12"
	1718 Oct 04 13:01	30°00'00"		retrograde	1719 Sep 16 00:30	13°00'48"	
evening set	1718 Oct 09 06:37	27°00'32"		evening set	1719 Sep 22 20:29	11°00'06"	
min. Earth dist.	1718 Oct 13 11:26	23°00'55"	0.66441 AU	min. Earth dist.	1719 Sep 26 18:19	7°00'16"	0.65298 AU
inferior conj	1718 Oct 14 23:28	21°00'15"	-1°-23'-41"	inferior conj	1719 Sep 28 18:32	4°00'58"	-2°-21'-47"
minimum elong	1718 Oct 15 01:40	21°00'08"	1°22'46"	minimum elong	1719 Sep 28 22:17	4°00'48"	2°20'23"
asc. node	1718 Oct 19 01:47	16°00'44"			1719 Oct 03 22:37	30°00'00"	
morning rise	1718 Oct 20 21:49	15°00'24"		morning rise	1719 Oct 05 01:42	29°00'21"	
direct	1718 Oct 23 22:09	14°00'32"		asc. node	1719 Oct 05 22:49	28°00'59"	
morning max el	1718 Oct 30 17:02	18°00'18"	18°46'28"	direct	1719 Oct 07 18:22	28°00'41"	
	1718 Nov 08 15:22	0°00'			1719 Oct 11 15:17	0°00'	
morning set	1718 Nov 20 22:23	19°00'10"		morning max el	1719 Oct 14 07:04	2°00'13"	18°11'30"
desc. node	1718 Nov 26 13:28	28°00'03"		morning set	1719 Nov 01 18:27	29°00'50"	
	1718 Nov 27 18:58	0°00'			1719 Nov 01 20:42	0°00'	
max. Earth dist.	1718 Dec 06 13:08	13°00'45"	1.45064 AU	desc. node	1719 Nov 13 10:30	18°00'46"	
superior conj	1718 Dec 07 06:48	14°00'54"	-1°-7'-36"	superior conj	1719 Nov 16 09:58	23°00'30"	0°-19'-50"
minimum elong	1718 Dec 06 22:46	14°00'23"	1°06'40"	minimum elong	1719 Nov 16 07:25	23°00'20"	0°19'30"
	1718 Dec 16 19:55	0°00'		max. Earth dist.	1719 Nov 19 08:01	28°00'07"	1.45016 AU
evening rise	1718 Dec 22 21:14	9°00'41"			1719 Nov 20 12:39	0°00'	
	1719 Jan 04 15:25	0°00'		evening rise	1719 Dec 02 21:08	19°00'16"	
evening max el	1719 Jan 13 01:27	11°00'10"	18°48'36"		1719 Dec 09 19:03	0°00'	
asc. node	1719 Jan 15 01:04	12°00'59"		greatest brilliancy	1719 Dec 19 06:09	14°00'16"	-0.7m
retrograde	1719 Jan 19 19:18	14°00'58"		evening max el	1719 Dec 27 08:52	24°00'39"	19°35'01"
evening set	1719 Jan 22 22:58	14°00'01"		asc. node	1720 Jan 01 22:04	28°00'36"	
inferior conj	1719 Jan 28 17:03	8°00'17"	3°30'15"	retrograde	1720 Jan 03 16:08	28°00'53"	
minimum elong	1719 Jan 28 15:07	8°00'23"	3°29'59"	evening set	1720 Jan 07 03:05	27°00'43"	
min. Earth dist.	1719 Jan 30 11:05	6°00'08"	0.65334 AU	inferior conj	1720 Jan 12 16:26	21°00'45"	3°04'42"
morning rise	1719 Feb 03 06:08	2°00'06"		minimum elong	1720 Jan 12 13:52	21°00'53"	3°04'06"
	1719 Feb 06 10:49	30°00'00"		min. Earth dist.	1720 Jan 13 19:53	20°00'15"	0.66523 AU
direct	1719 Feb 09 20:55	29°00'15"		morning rise	1720 Jan 17 23:55	15°00'30"	
	1719 Feb 13 12:45	0°00'		direct	1720 Jan 24 02:51	12°00'48"	
desc. node	1719 Feb 22 12:37	6°00'28"		morning max el	1720 Feb 05 10:00	20°00'06"	25°45'07"
morning max el	1719 Feb 23 00:52	6°00'59"	26°53'43"	desc. node	1720 Feb 09 09:40	24°00'27"	
	1719 Mar 12 20:02	0°00'			1720 Feb 13 21:48	0°00'	
	1719 Mar 30 09:18	0°00'			1720 Mar 04 23:09	0°00'	
morning set	1719 Mar 30 19:04	0°00'46"		morning set	1720 Mar 12 15:08	13°00'28"	
max. Earth dist.	1719 Apr 04 05:40	9°00'30"	1.34263 AU	max. Earth dist.	1720 Mar 16 11:30	20°00'40"	1.35839 AU
					1720 Mar 21 05:58	0°00'	
superior conj	1719 Apr 08 06:59	17°00'49"	0°-47'-53"	superior conj	1720 Mar 22 00:42	1°00'33"	-1°-14'-52"
minimum elong	1719 Apr 08 09:23	18°00'01"	0°47'26"	minimum elong	1720 Mar 22 04:21	1°00'52"	1°14'18"
asc. node	1719 Apr 13 00:22	27°00'45"		asc. node	1720 Mar 29 21:24	17°00'37"	
	1719 Apr 14 01:54	0°00'		evening rise	1720 Mar 30 01:15	17°00'57"	
evening rise	1719 Apr 15 19:01	3°00'35"			1720 Apr 05 04:52	0°00'	
	1719 Apr 30 16:55	0°00'		evening max el	1720 Apr 16 21:54	16°00'54"	20°05'44"
evening max el	1719 May 05 14:26	5°00'38"	21°23'20"	retrograde	1720 Apr 27 07:20	21°00'55"	
retrograde	1719 May 17 16:53	11°00'33"		evening set	1720 Apr 29 08:19	21°00'44"	
evening set	1719 May 20 01:54	11°00'20"		desc. node	1720 May 07 08:50	18°00'20"	
desc. node	1719 May 21 11:49	11°00'00"		inferior conj	1720 May 08 07:47	17°00'45"	0°-16'-40"
inferior conj	1719 May 29 10:56	7°00'20"	-2°-16'-4"	minimum elong	1720 May 08 07:01	17°00'47"	0°16'23"
minimum elong	1719 May 29 04:45	7°00'29"	2°14'00"	min. Earth dist.	1720 May 10 04:37	16°00'38"	0.55317 AU
min. Earth dist.	1719 May 29 15:15	7°00'14"	0.54918 AU	morning rise	1720 May 17 03:07	13°00'24"	
morning rise	1719 Jun 07 07:53	3°00'22"		direct	1720 May 21 03:41	12°00'48"	
direct	1719 Jun 10 14:13	2°00'59"		morning max el	1720 Jun 03 20:14	19°00'33"	23°54'54"
morning max el	1719 Jun 23 03:47	8°00'56"	22°13'32"				

	1720 Jun 12 14:28	0°♂		direct	1721 May 02 04:42	22°♂41'35	
asc. node	1720 Jun 25 20:40	23°♂13'49			1721 May 16 10:20	0°♂	
morning set	1720 Jun 28 02:55	27°♂55'14		morning max el	1721 May 16 10:41	0°♂00'52	25°32'48
	1720 Jun 29 02:30	0°♂			1721 Jun 06 04:50	0°♂	
				morning set	1721 Jun 12 14:38	12°♂51'15	
superior conj	1720 Jul 05 04:29	13°♂07'41	1°24'22	asc. node	1721 Jun 12 17:43	13°♂07'26	
minimum elong	1720 Jul 05 02:06	12°♂54'51	1°24'04				
max. Earth dist.	1720 Jul 07 06:02	17°♂33'48	1.33309 AU	superior conj	1721 Jun 19 14:59	28°♂03'32	1°07'01
evening rise	1720 Jul 12 15:46	28°♂47'45		minimum elong	1721 Jun 19 12:38	27°♂50'42	1°06'38
	1720 Jul 13 06:11	0°♂		max. Earth dist.	1721 Jun 20 14:22	0°♂11'26	1.32580 AU
	1720 Jul 30 09:52	0°♂			1721 Jun 20 12:17	0°♂	
desc. node	1720 Aug 03 08:10	5°♂40'27		evening rise	1721 Jun 26 17:48	13°♂18'12	
evening max el	1720 Aug 15 05:36	19°♂45'06	27°25'07		1721 Jul 05 08:52	0°♂	
retrograde	1720 Aug 28 20:15	27°♂02'51		desc. node	1721 Jul 21 05:11	24°♂17'22	
evening set	1720 Sep 04 23:57	24°♂23'32			1721 Jul 26 03:04	0°♂	
min. Earth dist.	1720 Sep 08 16:11	21°♂08'04	0.63806 AU	evening max el	1721 Jul 28 13:29	2°♂26'51	27°16'03
inferior conj	1720 Sep 11 05:05	18°♂31'20	-3°-17'-48	retrograde	1721 Aug 11 09:17	9°♂42'14	
minimum elong	1720 Sep 11 10:02	18°♂18'33	3°16'16	evening set	1721 Aug 18 13:18	7°♂18'48	
morning rise	1720 Sep 17 22:17	13°♂09'55		min. Earth dist.	1721 Aug 22 03:32	4°♂30'23	0.61989 AU
direct	1720 Sep 20 09:56	12°♂39'23		inferior conj	1721 Aug 25 04:06	1°♂44'41	-4°-7'-30
asc. node	1720 Sep 21 19:52	12°♂49'26		minimum elong	1721 Aug 25 09:18	1°♂32'45	4°06'20
morning max el	1720 Sep 26 23:06	16°♂05'05	17°53'50		1721 Aug 27 03:05	30°♂	
	1720 Oct 06 19:33	0°♂		morning rise	1721 Sep 01 08:04	26°♂43'23	
morning set	1720 Oct 13 17:10	11°♂47'51		direct	1721 Sep 03 17:23	26°♂18'41	
	1720 Oct 24 10:53	0°♂		asc. node	1721 Sep 08 16:55	28°♂09'24	
				morning max el	1721 Sep 10 14:16	29°♂46'42	17°54'26
superior conj	1720 Oct 26 07:22	3°♂03'06	0°26'51		1721 Sep 10 19:37	0°♂	
minimum elong	1720 Oct 26 10:13	3°♂14'45	0°26'27	morning set	1721 Sep 26 12:22	24°♂43'39	
desc. node	1720 Oct 30 07:31	9°♂33'14			1721 Sep 29 10:23	0°♂	
max. Earth dist.	1720 Nov 01 01:55	12°♂23'02	1.44246 AU				
evening rise	1720 Nov 11 06:41	28°♂21'02		superior conj	1721 Oct 07 07:53	13°♂55'48	1°03'49
	1720 Nov 12 08:26	0°♂		minimum elong	1721 Oct 07 12:30	14°♂15'43	1°03'16
	1720 Dec 02 17:25	0°♂		max. Earth dist.	1721 Oct 14 15:52	26°♂14'05	1.42850 AU
greatest brilliancy	1720 Dec 03 13:36	1°♂07'13	-0.5m		1721 Oct 16 23:30	0°♂	
evening max el	1720 Dec 09 11:08	8°♂09'52	20°35'55	desc. node	1721 Oct 17 04:32	0°♂20'19	
retrograde	1720 Dec 17 13:58	12°♂57'22		evening rise	1721 Oct 21 17:54	7°♂34'45	
asc. node	1720 Dec 18 19:06	12°♂49'06			1721 Nov 05 14:54	0°♂	
evening set	1720 Dec 21 09:57	11°♂32'49		greatest brilliancy	1721 Nov 17 12:25	16°♂12'24	-0.4m
inferior conj	1720 Dec 26 20:32	5°♂21'57	2°29'42	evening max el	1721 Nov 22 07:42	21°♂40'34	21°48'04
minimum elong	1720 Dec 26 17:56	5°♂30'52	2°28'53	retrograde	1721 Dec 01 10:53	27°♂06'42	
min. Earth dist.	1720 Dec 27 10:55	4°♂32'57	0.67312 AU	evening set	1721 Dec 05 17:46	25°♂26'02	
	1720 Dec 31 03:22	30°♂		asc. node	1721 Dec 05 16:09	25°♂29'12	
morning rise	1721 Jan 01 01:27	29°♂06'49		inferior conj	1721 Dec 11 03:16	19°♂06'18	1°47'17
direct	1721 Jan 06 13:52	26°♂41'34		minimum elong	1721 Dec 11 01:05	19°♂13'50	1°46'28
	1721 Jan 14 01:19	0°♂		min. Earth dist.	1721 Dec 11 06:00	18°♂56'47	0.67725 AU
morning max el	1721 Jan 17 18:21	3°♂21'50	24°21'34	morning rise	1721 Dec 16 08:12	12°♂52'04	
desc. node	1721 Jan 26 06:43	13°♂19'21		direct	1721 Dec 21 05:18	10°♂48'41	
	1721 Feb 07 03:11	0°♂		morning max el	1721 Dec 31 04:07	16°♂42'34	22°53'10
morning set	1721 Feb 22 14:59	25°♂05'58		greatest brilliancy	1722 Jan 04 20:40	21°♂56'39	-0.3m
	1721 Feb 25 09:33	0°♂			1722 Jan 11 02:35	0°♂	
max. Earth dist.	1721 Feb 26 08:37	1°♂43'44	1.37801 AU	desc. node	1722 Jan 13 03:46	2°♂49'08	
					1722 Jan 31 04:49	0°♂	
superior conj	1721 Mar 05 07:07	14°♂40'48	-1°-38'-54	morning set	1722 Feb 03 12:32	5°♂25'26	
minimum elong	1721 Mar 05 11:21	15°♂01'11	1°38'25	max. Earth dist.	1722 Feb 08 04:13	13°♂16'01	1.39946 AU
	1721 Mar 13 02:07	0°♂					
evening rise	1721 Mar 14 01:19	1°♂54'56		superior conj	1722 Feb 15 21:58	26°♂59'22	-1°-56'-51
asc. node	1721 Mar 16 18:25	7°♂13'55		minimum elong	1722 Feb 16 01:21	27°♂14'53	1°56'40
evening max el	1721 Mar 30 16:36	28°♂49'08	19°06'52		1722 Feb 17 13:14	0°♂	
	1721 Apr 01 00:13	0°♂		evening rise	1722 Feb 25 16:18	15°♂21'24	
retrograde	1721 Apr 08 10:44	3°♂03'32		asc. node	1722 Mar 03 15:28	26°♂29'24	
evening set	1721 Apr 10 14:07	2°♂49'23			1722 Mar 05 15:40	0°♂	
	1721 Apr 16 17:41	30°♂		evening max el	1722 Mar 13 20:20	11°♂18'14	18°28'07
inferior conj	1721 Apr 18 19:35	28°♂36'41	1°30'30	retrograde	1722 Mar 21 08:57	15°♂00'34	
minimum elong	1721 Apr 18 22:54	28°♂30'59	1°29'25	evening set	1722 Mar 23 17:39	14°♂39'46	
min. Earth dist.	1721 Apr 21 19:49	26°♂33'38	0.56592 AU	inferior conj	1722 Mar 31 04:24	10°♂07'20	2°46'00
desc. node	1721 Apr 24 05:52	25°♂04'23		minimum elong	1722 Mar 31 08:20	9°♂59'26	2°45'03
morning rise	1721 Apr 27 03:34	23°♂41'05		min. Earth dist.	1722 Apr 03 14:50	7°♂23'07	0.58470 AU

morning rise	1722 Apr 07 18:53	4° Υ 40'37		min. Earth dist.	1723 Mar 16 16:03	19° Υ 14'54	0.60601 AU
desc. node	1722 Apr 11 02:55	3° Υ 25'19		morning rise	1723 Mar 20 05:59	16° Υ 28'29	
direct	1722 Apr 13 19:43	3° Υ 06'19		direct	1723 Mar 26 22:53	14° Υ 18'05	
morning max el	1722 Apr 28 04:52	10° Υ 47'05	26°51'24	desc. node	1723 Mar 28 23:58	14° Υ 29'38	
	1722 May 13 01:00	0° Υ		morning max el	1723 Apr 10 05:07	22° Υ 10'14	27°38'26
morning set	1722 May 28 00:46	27° Υ 41'20			1723 Apr 17 02:34	0° Υ	
	1722 May 29 03:04	0° Π			1723 May 06 01:44	0° Υ	
asc. node	1722 May 30 14:46	3° Π 10'57		morning set	1723 May 12 07:31	12° Υ 19'30	
				asc. node	1723 May 17 11:49	23° Υ 19'57	
superior conj	1722 Jun 04 02:45	13° Π 01'03	0°45'59	max. Earth dist.	1723 May 18 14:06	25° Υ 43'11	1.32264 AU
minimum elong	1722 Jun 04 00:54	12° Π 50'49	0°45'37				
max. Earth dist.	1722 Jun 04 02:19	12° Π 58'38	1.32231 AU	superior conj	1723 May 19 14:05	27° Υ 54'32	0°22'00
evening rise	1722 Jun 11 01:14	28° Π 03'08		minimum elong	1723 May 19 13:06	27° Υ 49'09	0°21'47
	1722 Jun 11 23:36	0° Υ			1723 May 20 12:57	0° Π	
	1722 Jun 28 19:45	0° Ω		evening rise	1723 May 26 11:52	12° Π 55'23	
desc. node	1722 Jul 08 02:12	11° Ω 50'12			1723 Jun 04 03:14	0° Υ	
evening max el	1722 Jul 10 15:20	14° Ω 25'11	26°33'51	evening max el	1723 Jun 22 10:14	25° Υ 38'06	25°22'00
retrograde	1722 Jul 24 14:45	21° Ω 38'13		desc. node	1723 Jun 24 23:13	27° Υ 53'00	
evening set	1722 Jul 31 07:54	19° Ω 44'02			1723 Jun 27 21:40	0° Ω	
min. Earth dist.	1722 Aug 04 04:43	17° Ω 08'12	0.59955 AU	retrograde	1723 Jul 06 10:42	2° Ω 46'22	
inferior conj	1722 Aug 07 12:04	14° Ω 29'52	-4°-43'-58	evening set	1723 Jul 12 03:34	1° Ω 30'39	
minimum elong	1722 Aug 07 15:40	14° Ω 22'38	4°43'33		1723 Jul 15 01:21	30° Υ	
morning rise	1722 Aug 15 02:48	9° Ω 51'16		min. Earth dist.	1723 Jul 16 22:13	28° Υ 48'42	0.57920 AU
direct	1722 Aug 17 12:29	9° Ω 30'07		inferior conj	1723 Jul 20 01:39	26° Υ 38'02	-4°-56'-20
morning max el	1722 Aug 25 01:26	13° Ω 09'58	18°14'23	minimum elong	1723 Jul 20 01:10	26° Υ 38'54	4°56'20
asc. node	1722 Aug 26 14:00	14° Ω 45'48		morning rise	1723 Jul 28 02:29	22° Υ 22'07	
	1722 Sep 05 10:48	0° Υ		direct	1723 Jul 30 14:58	22° Υ 02'46	
morning set	1722 Sep 09 22:20	8° Υ 21'43		morning max el	1723 Aug 08 05:24	26° Υ 05'51	18°54'54
					1723 Aug 11 17:05	0° Ω	
superior conj	1722 Sep 19 09:32	26° Υ 02'35	1°28'35	asc. node	1723 Aug 13 11:04	2° Ω 23'34	
minimum elong	1722 Sep 19 13:15	26° Υ 19'29	1°28'15	morning set	1723 Aug 24 18:46	22° Ω 30'58	
	1722 Sep 21 14:19	0° Ω			1723 Aug 28 13:56	0° Υ	
max. Earth dist.	1722 Sep 26 23:59	9° Ω 24'25	1.41012 AU				
evening rise	1722 Oct 01 22:13	17° Ω 36'42		superior conj	1723 Sep 02 06:55	9° Υ 08'26	1°42'00
desc. node	1722 Oct 04 01:33	21° Ω 04'14		minimum elong	1723 Sep 02 08:45	9° Υ 17'14	1°41'54
	1722 Oct 09 18:09	0° Ω		max. Earth dist.	1723 Sep 09 03:56	21° Υ 51'51	1.38980 AU
greatest brilliancy	1722 Oct 30 03:10	28° Ω 37'27	-0.2m	evening rise	1723 Sep 13 02:40	28° Υ 46'42	
	1722 Oct 31 06:25	0° Υ			1723 Sep 13 19:49	0° Ω	
evening max el	1722 Nov 04 23:19	5° Υ 12'45	23°06'59	desc. node	1723 Sep 20 22:34	11° Ω 41'37	
retrograde	1722 Nov 15 05:19	11° Υ 17'33			1723 Oct 03 04:55	0° Ω	
evening set	1722 Nov 20 00:50	9° Υ 19'49		evening max el	1723 Oct 18 12:06	18° Ω 49'16	24°26'30
asc. node	1722 Nov 22 13:13	6° Υ 44'31		retrograde	1723 Oct 29 20:01	25° Ω 26'47	
inferior conj	1722 Nov 25 10:42	2° Υ 55'07	0°58'54	evening set	1723 Nov 04 05:32	23° Ω 12'09	
minimum elong	1722 Nov 25 09:22	2° Υ 59'42	0°58'21	min. Earth dist.	1723 Nov 08 22:42	17° Ω 48'32	0.67536 AU
min. Earth dist.	1722 Nov 25 02:44	3° Υ 22'34	0.67792 AU	asc. node	1723 Nov 09 10:17	17° Ω 09'45	
	1722 Nov 27 15:07	30° Ω		inferior conj	1723 Nov 09 17:07	16° Ω 46'48	0°05'54
morning rise	1722 Nov 30 17:57	26° Ω 43'57		minimum elong	1723 Nov 09 16:59	16° Ω 47'18	0°05'51
direct	1722 Dec 05 00:23	25° Ω 03'22		transit middle	1723 Nov 09 16:59	16° Ω 47'18	0°05'51
	1722 Dec 13 14:19	0° Υ		transit begin	1723 Nov 09 14:25	16° Ω 55'52	
morning max el	1722 Dec 13 18:38	0° Υ 10'47	21°28'35	transit end	1723 Nov 09 19:32	16° Ω 38'44	
greatest brilliancy	1722 Dec 18 19:51	5° Υ 56'12	-0.4m	morning rise	1723 Nov 15 04:46	10° Ω 41'10	
desc. node	1722 Dec 31 00:49	22° Υ 45'40		direct	1723 Nov 18 22:00	9° Ω 21'56	
	1723 Jan 04 21:40	0° Υ		morning max el	1723 Nov 26 16:24	13° Ω 49'23	20°14'14
morning set	1723 Jan 14 05:00	14° Υ 22'15		greatest brilliancy	1723 Dec 03 09:21	21° Ω 52'48	-0.6m
max. Earth dist.	1723 Jan 21 04:30	25° Υ 38'24	1.41992 AU		1723 Dec 09 04:05	0° Υ	
	1723 Jan 23 19:26	0° \approx		desc. node	1723 Dec 17 21:50	13° Υ 01'42	
				morning set	1723 Dec 24 02:13	22° Υ 30'15	
superior conj	1723 Jan 28 16:00	8° \approx 16'37	-2°-4'-33		1723 Dec 28 21:41	0° Υ	
minimum elong	1723 Jan 28 16:13	8° \approx 17'35	2°04'34	max. Earth dist.	1724 Jan 03 12:28	8° Υ 54'24	1.43670 AU
evening rise	1723 Feb 08 18:27	28° \approx 07'27					
	1723 Feb 09 19:09	0° Υ		superior conj	1724 Jan 09 08:31	18° Υ 23'01	-1°-57'-2
asc. node	1723 Feb 18 12:31	15° Υ 16'33		minimum elong	1724 Jan 09 03:28	18° Υ 02'15	1°56'47
evening max el	1723 Feb 25 05:58	24° Υ 13'18	18°09'26		1724 Jan 16 07:03	0° \approx	
retrograde	1723 Mar 04 00:38	27° Υ 39'33		evening rise	1724 Jan 22 03:34	10° \approx 04'40	
evening set	1723 Mar 06 14:37	27° Υ 10'03			1724 Feb 02 23:59	0° Υ	
inferior conj	1723 Mar 13 09:32	22° Υ 16'28	3°28'21	asc. node	1724 Feb 05 09:34	3° Υ 26'28	
minimum elong	1723 Mar 13 11:54	22° Υ 10'56	3°28'03	evening max el	1724 Feb 08 18:19	7° Υ 25'35	18°10'09

retrograde	1724 Feb 15 05:36	10° ✕ 50'15		evening rise	1725 Jan 02 15:31	21° ☾ 06'46	
evening set	1724 Feb 18 00:37	10° ✕ 10'46			1725 Jan 08 00:34	0° ≈	
inferior conj	1724 Feb 24 07:20	4° ✕ 56'25	3°43'55	asc. node	1725 Jan 22 06:36	20° ≈ 48'06	
minimum elong	1724 Feb 24 07:40	4° ✕ 55'31	3°43'55	evening max el	1725 Jan 22 06:33	20° ≈ 48'00	18°29'29
min. Earth dist.	1724 Feb 27 01:34	2° ✕ 02'05	0.62672 AU	retrograde	1725 Jan 28 19:37	24° ≈ 23'41	
	1724 Feb 29 04:57	30° ℞		evening set	1725 Jan 31 19:56	23° ≈ 33'17	
morning rise	1724 Mar 01 12:34	28° ≈ 55'41		inferior conj	1725 Feb 06 17:46	17° ≈ 59'41	3°39'37
direct	1724 Mar 08 11:22	26° ≈ 18'30		minimum elong	1725 Feb 06 16:28	18° ≈ 03'29	3°39'30
desc. node	1724 Mar 14 21:01	28° ≈ 12'31		min. Earth dist.	1725 Feb 08 20:35	15° ≈ 31'02	0.64468 AU
	1724 Mar 17 14:47	0° ✕		morning rise	1725 Feb 12 11:39	11° ≈ 51'19	
morning max el	1724 Mar 22 10:47	4° ✕ 13'47	27°48'24	direct	1725 Feb 19 07:17	9° ≈ 01'41	
	1724 Apr 10 17:32	0° ℣		desc. node	1725 Mar 01 18:02	14° ≈ 00'35	
morning set	1724 Apr 25 08:39	26° ℣ 37'37		morning max el	1725 Mar 04 19:51	16° ≈ 52'01	27°22'40
	1724 Apr 27 00:20	0° ♄			1725 Mar 15 18:02	0° ✕	
max. Earth dist.	1724 Apr 30 21:50	8° ♄ 11'31	1.32701 AU		1725 Apr 03 12:43	0° ℣	
				morning set	1725 Apr 09 01:31	10° ℣ 27'19	
superior conj	1724 May 02 23:10	12° ♄ 37'08	0°-4'-15	max. Earth dist.	1725 Apr 13 21:45	20° ℣ 12'22	1.33566 AU
minimum elong	1724 May 02 23:23	12° ♄ 38'16	0°04'14				
behind sun begin	1724 May 02 18:21	12° ♄ 11'00		superior conj	1725 Apr 17 04:09	27° ℣ 02'50	0°-31'-50
behind sun end	1724 May 03 04:25	13° ♄ 05'33		minimum elong	1725 Apr 17 05:44	27° ℣ 11'15	0°31'31
asc. node	1724 May 03 08:51	13° ♄ 29'37			1725 Apr 18 13:29	0° ♄	
evening rise	1724 May 09 23:42	27° ♄ 47'21		asc. node	1725 Apr 20 05:53	3° ♄ 35'49	
	1724 May 11 00:54	0° ♅		evening rise	1725 Apr 24 10:54	12° ♄ 32'51	
	1724 May 28 10:56	0° ☿			1725 May 03 10:05	0° ♅	
evening max el	1724 Jun 03 00:28	6° ☿ 16'23	23°50'39	evening max el	1725 May 15 16:24	16° ♅ 47'37	22°14'51
desc. node	1724 Jun 10 20:15	11° ☿ 50'41		retrograde	1725 May 28 13:28	23° ♅ 09'15	
retrograde	1724 Jun 16 18:17	13° ☿ 10'07		desc. node	1725 May 28 17:15	23° ♅ 09'12	
evening set	1724 Jun 21 00:45	12° ☿ 29'59		evening set	1725 May 31 11:22	22° ♅ 50'30	
min. Earth dist.	1724 Jun 27 11:09	9° ☿ 26'03	0.56203 AU	min. Earth dist.	1725 Jun 08 22:40	19° ♅ 11'52	0.55139 AU
inferior conj	1724 Jun 29 18:57	8° ☿ 01'08	-4°-30'-33	inferior conj	1725 Jun 09 19:08	18° ♅ 43'03	-3°-17'-11
minimum elong	1724 Jun 29 13:13	8° ☿ 09'55	4°29'41	minimum elong	1725 Jun 09 11:22	18° ♅ 54'00	3°14'59
morning rise	1724 Jul 08 05:08	4° ☿ 03'12		morning rise	1725 Jun 18 13:22	14° ♅ 51'01	
direct	1724 Jul 10 22:25	3° ☿ 44'16		direct	1725 Jun 21 13:34	14° ♅ 30'40	
morning max el	1724 Jul 20 23:14	8° ☿ 23'25	19°56'49	morning max el	1725 Jul 03 05:36	19° ♅ 57'09	21°18'58
asc. node	1724 Jul 30 08:06	20° ☿ 47'55			1725 Jul 11 10:11	0° ☿	
	1724 Aug 04 09:25	0° ♁		asc. node	1725 Jul 17 05:08	9° ☿ 47'50	
morning set	1724 Aug 07 22:19	7° ♁ 01'32		morning set	1725 Jul 23 06:31	21° ☿ 46'37	
					1725 Jul 27 04:54	0° ♁	
superior conj	1724 Aug 15 18:36	22° ♁ 57'03	1°45'57				
minimum elong	1724 Aug 15 18:37	22° ♁ 57'07	1°45'56	superior conj	1725 Jul 30 16:22	7° ♁ 16'15	1°42'15
	1724 Aug 19 08:37	0° ♁		minimum elong	1725 Jul 30 15:01	7° ♁ 09'13	1°42'10
max. Earth dist.	1724 Aug 21 08:42	3° ♁ 49'56	1.36996 AU	max. Earth dist.	1725 Aug 03 19:37	15° ♁ 42'00	1.35265 AU
evening rise	1724 Aug 25 05:55	11° ♁ 01'03		evening rise	1725 Aug 08 03:40	24° ♁ 08'43	
	1724 Sep 05 11:09	0° ♂			1725 Aug 11 07:16	0° ♁	
desc. node	1724 Sep 06 19:36	2° ♂ 07'11		desc. node	1725 Aug 24 16:36	22° ♁ 14'56	
	1724 Sep 27 13:59	0° ♂			1725 Aug 30 01:09	0° ♂	
evening max el	1724 Sep 30 00:08	2° ♂ 29'09	25°39'33	evening max el	1725 Sep 12 12:16	16° ♂ 06'28	26°38'30
retrograde	1724 Oct 12 06:05	9° ♂ 29'47		retrograde	1725 Sep 25 10:57	23° ♂ 20'19	
evening set	1724 Oct 18 06:07	7° ♂ 00'03		evening set	1725 Oct 02 00:35	20° ♂ 39'57	
min. Earth dist.	1724 Oct 22 15:23	2° ♂ 12'04	0.66945 AU	min. Earth dist.	1725 Oct 06 02:23	16° ♂ 29'04	0.66006 AU
inferior conj	1724 Oct 23 20:42	0° ♂ 38'30	0°-50'-22	inferior conj	1725 Oct 07 19:30	14° ♂ 26'32	-1°-48'-22
minimum elong	1724 Oct 23 22:00	0° ♂ 34'21	0°49'49	minimum elong	1725 Oct 07 22:22	14° ♂ 17'57	1°47'14
	1724 Oct 24 08:48	30° ℞		asc. node	1725 Oct 13 04:21	9° ♂ 06'15	
asc. node	1724 Oct 26 07:19	27° ♂ 39'21		morning rise	1725 Oct 13 21:26	8° ♂ 40'53	
morning rise	1724 Oct 29 14:39	24° ♂ 41'18		direct	1725 Oct 16 18:18	7° ♂ 54'47	
direct	1724 Nov 01 20:36	23° ♂ 40'26		morning max el	1725 Oct 23 09:33	11° ♂ 32'58	18°29'31
morning max el	1724 Nov 08 21:53	27° ♂ 38'07	19°13'57		1725 Nov 05 12:51	0° ♂	
	1724 Nov 11 01:36	0° ♂		morning set	1725 Nov 12 07:43	10° ♂ 52'33	
greatest brilliancy	1724 Nov 19 07:57	11° ♂ 18'00	-0.7m	desc. node	1725 Nov 20 15:54	24° ♂ 11'07	
	1724 Dec 01 12:28	0° ♂			1725 Nov 24 08:12	0° ♂	
morning set	1724 Dec 02 04:32	1° ♂ 02'32					
desc. node	1724 Dec 03 18:53	3° ♂ 31'45		superior conj	1725 Nov 28 01:07	5° ♂ 49'51	0°-47'-57
max. Earth dist.	1724 Dec 16 03:32	22° ♂ 52'49	1.44760 AU	minimum elong	1725 Nov 27 19:00	5° ♂ 25'45	0°47'11
				max. Earth dist.	1725 Nov 28 22:18	7° ♂ 13'00	1.45138 AU
superior conj	1724 Dec 18 23:43	27° ♂ 22'35	-1°-30'-42		1725 Dec 13 09:54	0° ☾	
minimum elong	1724 Dec 18 14:59	26° ♂ 47'57	1°29'52	evening rise	1725 Dec 14 04:03	1° ☾ 11'45	
	1724 Dec 20 15:18	0° ☾		greatest brilliancy	1725 Dec 25 17:18	19° ☾ 21'54	-0.8m

	1726 Jan 02 01:41	0°♊		behind sun end	1726 Nov 07 20:51	15°♌28'09	
evening max el	1726 Jan 05 16:12	4°♊14'56	19°06'22	desc. node	1726 Nov 07 12:57	14°♌56'30	
asc. node	1726 Jan 09 03:37	7°♊07'34		max. Earth dist.	1726 Nov 11 17:07	21°♌34'56	1.44771 AU
retrograde	1726 Jan 12 14:54	8°♊12'21			1726 Nov 17 01:49	0°♌	
evening set	1726 Jan 15 21:31	7°♊09'57		evening rise	1726 Nov 23 20:24	10°♌30'31	
inferior conj	1726 Jan 21 13:16	1°♊19'29	3°20'43		1726 Dec 06 15:16	0°♍	
minimum elong	1726 Jan 21 10:59	1°♊26'43	3°20'18	greatest brilliancy	1726 Dec 12 21:09	9°♍02'35	-0.6m
	1726 Jan 22 14:17	30°♌		evening max el	1726 Dec 19 21:30	17°♍44'19	19°59'13
min. Earth dist.	1726 Jan 23 00:49	29°♍26'53	0.65887 AU	asc. node	1726 Dec 27 00:39	22°♍10'39	
morning rise	1726 Jan 26 23:34	25°♍06'34		retrograde	1726 Dec 27 12:34	22°♍12'01	
direct	1726 Feb 02 09:39	22°♍18'22		evening set	1726 Dec 31 03:03	20°♍56'10	
morning max el	1726 Feb 15 05:41	29°♍52'51	26°27'07	inferior conj	1727 Jan 05 14:59	14°♍51'48	2°50'52
	1726 Feb 15 08:30	0°♎		minimum elong	1727 Jan 05 12:21	15°♍00'39	2°50'09
desc. node	1726 Feb 16 15:05	1°♎19'25		min. Earth dist.	1727 Jan 06 12:41	13°♍39'15	0.66906 AU
	1726 Mar 09 15:59	0°♏		morning rise	1727 Jan 10 21:01	8°♍36'38	
morning set	1726 Mar 23 06:29	23°♏37'07		direct	1727 Jan 16 17:51	6°♍00'44	
	1726 Mar 26 14:21	0°♐		morning max el	1727 Jan 28 14:34	13°♍05'13	25°10'43
max. Earth dist.	1726 Mar 27 10:36	1°♐39'17	1.34881 AU	desc. node	1727 Feb 03 12:09	19°♍43'15	
					1727 Feb 11 07:16	0°♑	
superior conj	1726 Apr 01 02:42	11°♐04'02	0°-59'-33		1727 Mar 02 10:30	0°♑	
minimum elong	1726 Apr 01 05:40	11°♐19'20	0°59'01	morning set	1727 Mar 05 18:42	5°♑53'34	
asc. node	1726 Apr 07 02:55	23°♐34'02		max. Earth dist.	1727 Mar 09 11:59	12°♑42'00	1.36635 AU
evening rise	1726 Apr 08 19:31	27°♐04'46					
	1726 Apr 10 05:42	0°♒		superior conj	1727 Mar 15 16:01	24°♑33'23	-1°-25'-37
evening max el	1726 Apr 27 16:56	27°♒41'07	20°48'09	minimum elong	1727 Mar 15 20:02	24°♑53'14	1°25'03
	1726 Apr 30 09:42	0°♓			1727 Mar 18 09:33	0°♒	
retrograde	1726 May 09 02:40	3°♓13'54		evening rise	1727 Mar 23 23:26	11°♒16'53	
evening set	1726 May 11 06:22	3°♓02'47		asc. node	1727 Mar 24 23:57	13°♒19'52	
desc. node	1726 May 15 14:15	1°♓40'55			1727 Apr 03 01:49	0°♓	
	1726 May 18 21:57	30°♒		evening max el	1727 Apr 10 05:16	9°♓13'16	19°38'15
inferior conj	1726 May 20 12:52	29°♓05'03	-1°-25'-58	retrograde	1727 Apr 19 21:27	13°♓53'19	
minimum elong	1726 May 20 08:48	29°♓10'51	1°24'30	evening set	1727 Apr 21 22:27	13°♓41'46	
min. Earth dist.	1726 May 21 11:07	28°♓33'18	0.54967 AU	inferior conj	1727 Apr 30 14:47	9°♓38'22	0°31'58
morning rise	1726 May 29 10:20	24°♓59'17		minimum elong	1727 Apr 30 16:10	9°♓36'12	0°31'29
direct	1726 Jun 01 23:03	24°♓32'27		desc. node	1727 May 02 11:18	8°♓28'03	
	1726 Jun 14 03:35	0°♔		min. Earth dist.	1727 May 03 01:25	8°♓06'07	0.55757 AU
morning max el	1726 Jun 15 02:03	0°♔50'51	22°56'16	morning rise	1727 May 09 06:17	5°♓02'12	
asc. node	1726 Jul 04 02:10	29°♔14'27		direct	1727 May 13 16:43	4°♓18'09	
	1726 Jul 04 11:19	0°♕		morning max el	1727 May 27 17:00	11°♓20'26	24°38'03
morning set	1726 Jul 07 17:25	6°♕40'34			1727 Jun 10 20:51	0°♕	
				asc. node	1727 Jun 20 23:13	19°♕00'00	
superior conj	1726 Jul 14 21:00	21°♕56'26	1°32'23	morning set	1727 Jun 22 05:17	21°♕37'20	
minimum elong	1726 Jul 14 18:50	21°♕44'54	1°32'11		1727 Jun 26 02:54	0°♖	
max. Earth dist.	1726 Jul 17 15:31	27°♕47'52	1.33900 AU				
	1726 Jul 18 16:55	0°♗		superior conj	1727 Jun 29 05:58	6°♖48'46	1°17'31
evening rise	1726 Jul 22 15:20	7°♗57'38		minimum elong	1727 Jun 29 03:33	6°♖35'36	1°17'10
	1726 Aug 03 19:38	0°♘		max. Earth dist.	1727 Jun 30 19:54	10°♖14'18	1.32940 AU
desc. node	1726 Aug 11 13:36	11°♘57'04		evening rise	1727 Jul 06 13:03	22°♖15'59	
evening max el	1726 Aug 26 00:09	29°♘32'10	27°15'55		1727 Jul 10 10:42	0°♗	
	1726 Aug 26 11:57	0°♙			1727 Jul 28 16:10	0°♘	
retrograde	1726 Sep 08 10:23	6°♙50'59		desc. node	1727 Jul 29 10:36	1°♘02'15	
evening set	1726 Sep 15 10:29	4°♙07'52		evening max el	1727 Aug 08 10:12	12°♘33'55	27°25'20
min. Earth dist.	1726 Sep 19 05:32	0°♙33'27	0.64707 AU	retrograde	1727 Aug 22 03:43	19°♘51'44	
	1726 Sep 19 17:58	30°♒		evening set	1727 Aug 29 08:32	17°♘17'24	
inferior conj	1726 Sep 21 11:17	28°♒06'42	-2°-45'-59	min. Earth dist.	1727 Sep 01 23:08	14°♒14'44	0.63062 AU
minimum elong	1726 Sep 21 15:37	27°♒54'51	2°44'29	inferior conj	1727 Sep 04 17:21	11°♒32'14	-3°-40'-1
morning rise	1726 Sep 27 22:39	22°♒35'44		minimum elong	1727 Sep 04 22:34	11°♒19'23	3°38'34
asc. node	1726 Sep 30 01:23	22°♒01'50		morning rise	1727 Sep 11 15:07	6°♒19'06	
direct	1726 Sep 30 12:49	22°♒00'38		direct	1727 Sep 14 01:17	5°♒51'33	
morning max el	1726 Oct 07 00:55	25°♒28'37	18°01'52	asc. node	1727 Sep 16 22:27	6°♒31'22	
	1726 Oct 10 19:50	0°♓		morning max el	1727 Sep 20 17:01	9°♒17'30	17°51'46
morning set	1726 Oct 24 15:50	22°♓07'54			1727 Oct 04 10:10	0°♓	
	1726 Oct 29 08:56	0°♔		morning set	1727 Oct 07 00:03	4°♓32'15	
superior conj	1726 Nov 07 10:14	14°♔45'38	0°00'46	superior conj	1727 Oct 18 18:56	24°♓51'51	0°43'58
minimum elong	1726 Nov 07 10:20	14°♔46'02	0°00'45	minimum elong	1727 Oct 18 22:59	25°♓08'44	0°43'26
behind sun begin	1726 Nov 06 23:49	14°♔03'50			1727 Oct 21 21:21	0°♔	

desc. node	1727 Oct 25 09:57	5°♄43'45		superior conj	1728 Sep 29 06:40	6°♄17'24	1°15'48
max. Earth dist.	1727 Oct 25 09:04	5°♄40'14	1.43719 AU	minimum elong	1728 Sep 29 11:08	6°♄37'03	1°15'19
evening rise	1727 Nov 03 04:25	19°♄33'11		max. Earth dist.	1728 Oct 06 20:31	19°♄15'01	1.42117 AU
	1727 Nov 10 00:41	0°♄		desc. node	1728 Oct 11 06:58	26°♄30'00	
greatest brilliancy	1727 Nov 27 14:05	25°♄03'31	-0.5m	evening rise	1728 Oct 12 21:29	29°♄04'06	
	1727 Dec 01 17:12	0°♄			1728 Oct 13 11:34	0°♄	
evening max el	1727 Dec 02 21:20	1°♄14'41	21°05'30		1728 Nov 02 16:22	0°♄	
retrograde	1727 Dec 11 10:16	6°♄18'32		greatest brilliancy	1728 Nov 09 22:14	9°♄27'24	-0.3m
asc. node	1727 Dec 13 21:42	5°♄44'20		evening max el	1728 Nov 14 15:46	14°♄46'24	22°21'13
evening set	1727 Dec 15 10:33	4°♄47'33		retrograde	1728 Nov 24 06:09	20°♄28'48	
	1727 Dec 19 18:53	30°♄		evening set	1728 Nov 28 18:14	18°♄41'03	
inferior conj	1727 Dec 20 20:30	28°♄32'33	2°12'31	asc. node	1728 Nov 29 18:46	17°♄45'55	
minimum elong	1727 Dec 20 18:01	28°♄41'05	2°11'41	inferior conj	1728 Dec 04 03:45	12°♄19'00	1°27'23
min. Earth dist.	1727 Dec 21 05:52	28°♄00'18	0.67533 AU	minimum elong	1728 Dec 04 01:53	12°♄25'27	1°26'40
morning rise	1727 Dec 26 01:06	22°♄17'20		min. Earth dist.	1728 Dec 04 01:56	12°♄25'19	0.67801 AU
direct	1727 Dec 31 07:02	20°♄00'48		morning rise	1728 Dec 09 09:24	6°♄05'50	
morning max el	1728 Jan 10 23:04	26°♄22'22	23°43'50	direct	1728 Dec 14 00:15	4°♄11'58	
	1728 Jan 14 07:18	0°♄		morning max el	1728 Dec 23 10:15	9°♄45'07	22°16'09
desc. node	1728 Jan 21 09:13	8°♄53'01		greatest brilliancy	1728 Dec 28 00:40	14°♄54'28	-0.3m
	1728 Feb 04 21:33	0°♄		desc. node	1729 Jan 07 06:15	28°♄35'17	
morning set	1728 Feb 15 08:06	17°♄00'14			1729 Jan 08 05:55	0°♄	
max. Earth dist.	1728 Feb 19 06:57	23°♄51'37	1.38705 AU	morning set	1729 Jan 25 17:02	26°♄42'59	
	1728 Feb 22 17:05	0°♄			1729 Jan 27 17:19	0°♄	
				max. Earth dist.	1729 Jan 31 03:59	5°♄44'01	1.40850 AU
superior conj	1728 Feb 26 16:26	7°♄21'44	-1°-47'-29				
minimum elong	1728 Feb 26 20:33	7°♄41'05	1°47'08	superior conj	1729 Feb 07 23:07	19°♄16'08	-2°-1'-39
evening rise	1728 Mar 06 20:03	25°♄02'32		minimum elong	1729 Feb 08 01:29	19°♄26'42	2°01'36
	1728 Mar 09 09:31	0°♄			1729 Feb 13 20:27	0°♄	
asc. node	1728 Mar 10 21:00	2°♄48'29		evening rise	1729 Feb 18 06:03	8°♄12'48	
evening max el	1728 Mar 23 04:21	21°♄24'35	18°47'59	asc. node	1729 Feb 25 18:04	21°♄52'57	
retrograde	1728 Mar 31 08:23	25°♄22'53			1729 Mar 02 23:11	0°♄	
evening set	1728 Apr 02 13:59	25°♄06'13		evening max el	1729 Mar 06 11:02	4°♄06'06	18°17'45
inferior conj	1728 Apr 10 11:19	20°♄45'55	2°06'47	retrograde	1729 Mar 13 14:23	7°♄39'26	
minimum elong	1728 Apr 10 15:17	20°♄38'38	2°05'37	evening set	1729 Mar 16 01:34	7°♄14'57	
min. Earth dist.	1728 Apr 13 18:10	18°♄22'38	0.57336 AU	inferior conj	1729 Mar 23 05:06	2°♄33'23	3°07'41
desc. node	1728 Apr 18 08:22	15°♄40'31		minimum elong	1729 Mar 23 08:31	2°♄26'03	3°07'02
morning rise	1728 Apr 18 12:15	15°♄36'12			1729 Mar 26 04:55	30°♄	
direct	1728 Apr 24 00:21	14°♄22'24		min. Earth dist.	1729 Mar 26 15:13	29°♄38'55	0.59371 AU
morning max el	1728 May 08 08:23	21°♄52'37	26°09'27	morning rise	1729 Mar 30 11:45	26°♄56'46	
	1728 May 15 11:25	0°♄		desc. node	1729 Apr 05 05:25	25°♄07'48	
	1728 Jun 02 12:26	0°♄		direct	1729 Apr 05 20:44	25°♄06'42	
morning set	1728 Jun 05 16:32	6°♄31'42			1729 Apr 17 00:10	0°♄	
asc. node	1728 Jun 06 20:17	8°♄58'44		morning max el	1729 Apr 20 04:49	2°♄52'23	27°15'47
					1729 May 09 21:57	0°♄	
superior conj	1728 Jun 12 17:15	21°♄46'33	0°58'32	morning set	1729 May 21 01:26	21°♄17'08	
minimum elong	1728 Jun 12 15:04	21°♄34'31	0°58'08	asc. node	1729 May 24 17:20	29°♄04'56	
max. Earth dist.	1728 Jun 13 06:08	22°♄57'18	1.32381 AU		1729 May 25 03:29	0°♄	
	1728 Jun 16 11:41	0°♄					
evening rise	1728 Jun 19 17:43	6°♄54'12		superior conj	1729 May 28 05:01	6°♄42'40	0°36'09
	1728 Jul 01 23:15	0°♄		minimum elong	1729 May 28 03:29	6°♄34'15	0°35'49
desc. node	1728 Jul 15 07:37	19°♄14'59		max. Earth dist.	1729 May 27 18:35	5°♄45'18	1.32203 AU
evening max el	1728 Jul 20 16:00	24°♄59'16	27°02'15	evening rise	1729 Jun 04 02:46	21°♄43'03	
	1728 Jul 27 04:14	0°♄			1729 Jun 08 03:40	0°♄	
retrograde	1728 Aug 03 13:47	2°♄13'27			1729 Jun 26 14:37	0°♄	
evening set	1728 Aug 10 14:30	0°♄01'18		desc. node	1729 Jul 02 04:39	6°♄13'01	
	1728 Aug 10 15:20	30°♄		evening max el	1729 Jul 02 15:01	6°♄37'59	26°06'28
min. Earth dist.	1728 Aug 14 06:17	27°♄20'00	0.61139 AU	retrograde	1729 Jul 16 15:01	13°♄48'38	
inferior conj	1728 Aug 17 10:27	24°♄35'18	-4°-25'-11	evening set	1729 Jul 22 23:36	12°♄10'24	
minimum elong	1728 Aug 17 15:15	24°♄24'52	4°24'18	min. Earth dist.	1729 Jul 27 03:39	9°♄34'19	0.59076 AU
morning rise	1728 Aug 24 19:00	19°♄43'05		inferior conj	1729 Jul 30 10:55	7°♄05'34	-4°-52'-58
direct	1728 Aug 27 04:05	19°♄20'09		minimum elong	1729 Jul 30 13:05	7°♄01'29	4°52'51
asc. node	1728 Sep 02 19:30	22°♄25'39		morning rise	1729 Aug 07 06:00	2°♄36'37	
morning max el	1728 Sep 03 06:49	22°♄52'18	18°00'23	direct	1729 Aug 09 16:48	2°♄16'15	
	1728 Sep 08 21:22	0°♄		morning max el	1729 Aug 17 15:10	6°♄04'19	18°29'04
morning set	1728 Sep 19 02:11	17°♄48'04		asc. node	1729 Aug 20 16:33	9°♄29'28	
	1728 Sep 25 17:59	0°♄			1729 Sep 01 20:05	0°♄	
				morning set	1729 Sep 02 17:05	1°♄40'50	

superior conj	1729 Sep 11 17:24	18° \mathring{M} 51'14	1°35'33	morning set	1730 Aug 17 16:49	15° Ω 59'33	
minimum elong	1729 Sep 11 20:22	19° \mathring{M} 05'01	1°35'20		1730 Aug 24 17:28	0° \mathring{M}	
	1729 Sep 17 21:30	0° $\underline{\Omega}$					
max. Earth dist.	1729 Sep 19 03:04	2° $\underline{\Omega}$ 09'04	1.40160 AU	superior conj	1730 Aug 25 21:25	2° \mathring{M} 16'47	1°44'43
evening rise	1729 Sep 23 11:48	9° $\underline{\Omega}$ 34'16		minimum elong	1730 Aug 25 22:27	2° \mathring{M} 21'47	1°44'41
desc. node	1729 Sep 28 03:59	17° $\underline{\Omega}$ 11'48		max. Earth dist.	1730 Sep 01 06:38	14° \mathring{M} 21'16	1.38106 AU
	1729 Oct 06 11:16	0° \mathring{M}		evening rise	1730 Sep 05 02:14	21° \mathring{M} 11'47	
evening max el	1729 Oct 28 06:00	28° \mathring{M} 21'00	23°41'07		1730 Sep 10 06:02	0° $\underline{\Omega}$	
	1729 Oct 29 23:35	0° \mathring{M}		desc. node	1730 Sep 15 00:59	7° $\underline{\Omega}$ 44'35	
retrograde	1729 Nov 07 23:01	4° \mathring{M} 40'03			1730 Sep 30 10:56	0° \mathring{M}	
evening set	1729 Nov 13 00:30	2° \mathring{M} 34'52		evening max el	1730 Oct 10 18:01	11° \mathring{M} 58'23	24°58'48
	1729 Nov 15 12:37	30° \mathring{R} \mathring{M}		retrograde	1730 Oct 22 11:52	18° \mathring{M} 47'29	
asc. node	1729 Nov 16 15:48	28° \mathring{M} 34'43		evening set	1730 Oct 28 03:40	16° \mathring{M} 25'45	
inferior conj	1729 Nov 18 10:57	26° \mathring{M} 09'31	0°36'54	min. Earth dist.	1730 Nov 01 17:16	11° \mathring{M} 17'18	0.67322 AU
minimum elong	1729 Nov 18 10:05	26° \mathring{M} 12'28	0°36'33	inferior conj	1730 Nov 02 16:21	10° \mathring{M} 01'21	0°-17'-39
min. Earth dist.	1729 Nov 17 22:30	26° \mathring{M} 51'59	0.67728 AU	minimum elong	1730 Nov 02 16:47	9° \mathring{M} 59'54	0°17'28
morning rise	1729 Nov 23 19:51	20° \mathring{M} 00'40		asc. node	1730 Nov 03 12:49	8° \mathring{M} 54'27	
direct	1729 Nov 27 20:31	18° \mathring{M} 29'28		morning rise	1730 Nov 08 06:28	3° \mathring{M} 59'10	
morning max el	1729 Dec 06 03:44	23° \mathring{M} 18'13	20°55'28	direct	1730 Nov 11 18:34	2° \mathring{M} 48'23	
	1729 Dec 11 21:46	0° \mathring{M}		morning max el	1730 Nov 19 04:58	7° \mathring{M} 01'57	19°46'49
greatest brilliancy	1729 Dec 11 18:33	29° \mathring{M} 49'41	-0.5m	greatest brilliancy	1730 Nov 26 23:25	16° \mathring{M} 38'56	-0.6m
desc. node	1729 Dec 25 03:16	18° \mathring{M} 41'10			1730 Dec 06 01:47	0° \mathring{M}	
	1730 Jan 01 14:30	0° \mathring{M}		desc. node	1730 Dec 12 00:16	9° \mathring{M} 03'39	
morning set	1730 Jan 04 23:11	5° \mathring{M} 12'42		morning set	1730 Dec 14 19:22	13° \mathring{M} 22'08	
max. Earth dist.	1730 Jan 13 08:12	18° \mathring{M} 33'16	1.42771 AU		1730 Dec 25 10:50	0° \mathring{M}	
				max. Earth dist.	1730 Dec 26 19:25	2° \mathring{M} 09'15	1.44214 AU
superior conj	1730 Jan 20 06:46	0° \approx 04'23	-2°-3'-31				
minimum elong	1730 Jan 20 04:54	29° \mathring{M} 56'27	2°03'29	superior conj	1730 Dec 31 11:54	9° \mathring{M} 40'01	-1°-48'-13
	1730 Jan 20 05:44	0° \approx		minimum elong	1730 Dec 31 04:45	9° \mathring{M} 11'07	1°47'42
evening rise	1730 Feb 01 01:32	20° \approx 39'41			1731 Jan 12 18:26	0° \approx	
	1730 Feb 06 07:39	0° \mathring{M}		evening rise	1731 Jan 14 02:07	2° \approx 14'18	
asc. node	1730 Feb 12 15:07	10° \mathring{M} 25'36		asc. node	1731 Jan 30 12:08	28° \approx 16'23	
evening max el	1730 Feb 17 22:08	17° \mathring{M} 09'20	18°07'18		1731 Feb 01 00:32	0° \mathring{M}	
retrograde	1730 Feb 24 12:28	20° \mathring{M} 33'27		evening max el	1731 Feb 01 10:40	0° \mathring{M} 26'10	18°16'05
evening set	1730 Feb 27 04:36	19° \mathring{M} 59'48		retrograde	1731 Feb 07 21:52	3° \mathring{M} 54'30	
inferior conj	1730 Mar 05 17:50	14° \mathring{M} 56'52	3°37'46	evening set	1731 Feb 10 18:56	3° \mathring{M} 10'38	
minimum elong	1730 Mar 05 19:20	14° \mathring{M} 53'10	3°37'39		1731 Feb 14 20:09	30° \mathring{R} \approx	
min. Earth dist.	1730 Mar 08 19:38	11° \mathring{M} 55'54	0.61507 AU	inferior conj	1731 Feb 16 21:30	27° \approx 47'49	3°44'10
morning rise	1730 Mar 12 07:22	9° \mathring{M} 02'30		minimum elong	1731 Feb 16 21:05	27° \approx 49'00	3°44'09
direct	1730 Mar 19 03:49	6° \mathring{M} 39'33		min. Earth dist.	1731 Feb 19 09:20	25° \approx 02'26	0.63477 AU
desc. node	1730 Mar 23 02:28	7° \mathring{M} 22'43		morning rise	1731 Feb 22 21:24	21° \approx 43'00	
morning max el	1730 Apr 02 07:45	14° \mathring{M} 33'32	27°47'17	direct	1731 Mar 01 19:39	18° \approx 58'39	
	1730 Apr 14 19:27	0° \mathring{Y}		desc. node	1731 Mar 09 23:29	22° \approx 03'02	
	1730 May 02 08:49	0° \mathring{M}		morning max el	1731 Mar 15 15:25	26° \approx 53'50	27°41'32
morning set	1730 May 05 06:03	5° \mathring{M} 47'27			1731 Mar 18 13:36	0° \mathring{M}	
max. Earth dist.	1730 May 11 05:17	18° \mathring{M} 25'05	1.32406 AU		1731 Apr 08 10:20	0° \mathring{Y}	
asc. node	1730 May 11 14:22	19° \mathring{M} 14'27		morning set	1731 Apr 19 04:04	19° \mathring{Y} 55'02	
					1731 Apr 24 01:59	0° \mathring{M}	
superior conj	1730 May 12 15:34	21° \mathring{M} 31'43	0°11'05	max. Earth dist.	1731 Apr 24 10:09	0° \mathring{M} 43'00	1.33011 AU
minimum elong	1730 May 12 15:03	21° \mathring{M} 28'55	0°10'58				
behind sun begin	1730 May 12 11:20	21° \mathring{M} 08'38		superior conj	1731 Apr 26 23:08	6° \mathring{M} 07'57	0°-15'-52
behind sun end	1730 May 12 18:46	21° \mathring{M} 49'12		minimum elong	1731 Apr 26 23:55	6° \mathring{M} 12'07	0°15'43
	1730 May 16 12:35	0° \mathring{M}		behind sun begin	1731 Apr 26 23:05	6° \mathring{M} 07'36	
evening rise	1730 May 19 14:07	6° \mathring{M} 35'35		behind sun end	1731 Apr 27 00:46	6° \mathring{M} 16'39	
	1730 May 31 21:46	0° \mathring{M}		asc. node	1731 Apr 28 11:25	9° \mathring{M} 23'17	
evening max el	1730 Jun 14 07:08	17° \mathring{M} 32'18	24°44'29	evening rise	1731 May 04 01:54	21° \mathring{M} 25'30	
desc. node	1730 Jun 19 01:41	21° \mathring{M} 26'39			1731 May 08 06:07	0° \mathring{M}	
retrograde	1730 Jun 28 05:46	24° \mathring{M} 36'18		evening max el	1731 May 26 21:01	28° \mathring{M} 03'33	23°09'31
evening set	1730 Jul 03 09:00	23° \mathring{M} 36'35			1731 May 29 00:55	0° \mathring{M}	
min. Earth dist.	1730 Jul 08 18:21	20° \mathring{M} 47'07	0.57131 AU	desc. node	1731 Jun 05 22:42	4° \mathring{M} 20'32	
inferior conj	1730 Jul 11 15:45	18° \mathring{M} 53'58	-4°-50'-50	retrograde	1731 Jun 09 08:25	4° \mathring{M} 46'57	
minimum elong	1730 Jul 11 12:57	18° \mathring{M} 58'32	4°50'39	evening set	1731 Jun 12 23:41	4° \mathring{M} 17'57	
morning rise	1730 Jul 19 20:41	14° \mathring{M} 47'03		min. Earth dist.	1731 Jun 20 06:34	1° \mathring{M} 00'37	0.55644 AU
direct	1730 Jul 22 11:08	14° \mathring{M} 28'02		inferior conj	1731 Jun 22 01:01	29° \mathring{M} 58'34	-4°-5'-17
morning max el	1730 Jul 31 15:04	18° \mathring{M} 44'22	19°18'48	minimum elong	1731 Jun 21 17:45	0° \mathring{M} 09'14	4°03'45
asc. node	1730 Aug 07 13:35	27° \mathring{M} 28'02			1731 Jun 22 00:02	30° \mathring{R} \mathring{M}	
	1730 Aug 09 03:21	0° \mathring{M}		morning rise	1731 Jun 30 14:55	26° \mathring{M} 05'14	

direct	1731 Jul 03 10:27	25° Π 46'15		direct	1732 Jun 12 21:50	6° Π 10'57	
	1731 Jul 13 08:11	0° \mathfrak{G}		morning max el	1732 Jun 25 06:01	12° Π 00'25	21°58'56
morning max el	1731 Jul 14 04:14	0° \mathfrak{G} 44'40	20°29'34		1732 Jul 08 10:02	0° \mathfrak{G}	
asc. node	1731 Jul 25 10:37	16° \mathfrak{G} 09'00		asc. node	1732 Jul 11 07:40	5° \mathfrak{G} 21'15	
morning set	1731 Aug 01 22:35	0° Ω 37'10		morning set	1732 Jul 16 08:10	15° \mathfrak{G} 26'28	
	1731 Aug 01 15:19	0° Ω			1732 Jul 23 05:33	0° Ω	
superior conj	1731 Aug 09 13:53	16° Ω 20'15	1°45'13	superior conj	1732 Jul 23 14:55	0° Ω 49'18	1°38'44
minimum elong	1731 Aug 09 13:15	16° Ω 17'02	1°45'12	minimum elong	1732 Jul 23 13:09	0° Ω 40'00	1°38'37
max. Earth dist.	1731 Aug 14 13:00	26° Ω 12'05	1.36212 AU	max. Earth dist.	1732 Jul 27 03:33	8° Ω 07'51	1.34638 AU
	1731 Aug 16 12:36	0° \mathfrak{P}		evening rise	1732 Jul 31 18:13	17° Ω 17'41	
evening rise	1731 Aug 18 13:58	3° \mathfrak{P} 50'47			1732 Aug 07 15:41	0° \mathfrak{P}	
desc. node	1731 Sep 01 22:01	28° \mathfrak{P} 03'34		desc. node	1732 Aug 18 19:03	18° \mathfrak{P} 01'21	
	1731 Sep 03 04:33	0° \mathfrak{A}			1732 Aug 27 12:36	0° \mathfrak{A}	
evening max el	1731 Sep 23 05:54	25° \mathfrak{A} 37'43	26°06'50	evening max el	1732 Sep 04 18:14	9° \mathfrak{A} 11'46	26°57'33
	1731 Sep 28 11:10	0° \mathfrak{M}		retrograde	1732 Sep 17 22:38	16° \mathfrak{A} 28'30	
retrograde	1731 Oct 05 20:00	2° \mathfrak{M} 46'04		evening set	1732 Sep 24 17:05	13° \mathfrak{A} 46'08	
evening set	1731 Oct 12 01:56	0° \mathfrak{M} 11'02		min. Earth dist.	1732 Sep 28 15:59	9° \mathfrak{A} 50'40	0.65494 AU
	1731 Oct 12 07:06	30° \mathfrak{R} \mathfrak{A}		inferior conj	1732 Sep 30 14:16	7° \mathfrak{A} 37'20	-2°-13'-1
min. Earth dist.	1731 Oct 16 07:54	25° \mathfrak{A} 38'37	0.66582 AU	minimum elong	1732 Sep 30 17:47	7° \mathfrak{A} 27'09	2°11'42
inferior conj	1731 Oct 17 18:08	23° \mathfrak{A} 52'05	-1°-14'-51	morning rise	1732 Oct 06 20:01	1° \mathfrak{A} 57'11	
minimum elong	1731 Oct 17 20:06	23° \mathfrak{A} 45'59	1°14'03	asc. node	1732 Oct 07 06:52	1° \mathfrak{A} 44'50	
asc. node	1731 Oct 21 09:50	19° \mathfrak{A} 42'53		direct	1732 Oct 09 13:43	1° \mathfrak{A} 16'10	
morning rise	1731 Oct 23 15:17	17° \mathfrak{A} 59'22		morning max el	1732 Oct 16 02:50	4° \mathfrak{A} 49'13	18°15'36
direct	1731 Oct 26 16:59	17° \mathfrak{A} 05'23			1732 Nov 02 04:43	0° \mathfrak{M}	
morning max el	1731 Nov 02 13:21	20° \mathfrak{A} 54'00	18°53'02	morning set	1732 Nov 03 22:27	2° \mathfrak{M} 50'35	
	1731 Nov 09 18:02	0° \mathfrak{M}		desc. node	1732 Nov 14 18:20	20° \mathfrak{M} 20'10	
morning set	1731 Nov 24 06:41	22° \mathfrak{M} 23'17					
desc. node	1731 Nov 28 21:17	29° \mathfrak{M} 38'01		superior conj	1732 Nov 18 21:05	26° \mathfrak{M} 51'48	0°-27'-16
	1731 Nov 29 02:53	0° \mathfrak{J}		minimum elong	1732 Nov 18 17:33	26° \mathfrak{M} 37'51	0°26'48
max. Earth dist.	1731 Dec 09 11:49	16° \mathfrak{J} 16'57	1.45009 AU		1732 Nov 20 20:50	0° \mathfrak{J}	
superior conj	1731 Dec 10 19:05	18° \mathfrak{J} 19'52	-1°-14'-6	max. Earth dist.	1732 Nov 21 06:55	0° \mathfrak{J} 39'39	1.45071 AU
minimum elong	1731 Dec 10 10:38	17° \mathfrak{J} 46'37	1°13'11	evening rise	1732 Dec 05 07:10	22° \mathfrak{J} 34'14	
	1731 Dec 18 04:01	0° \mathfrak{Z}			1732 Dec 10 01:31	0° \mathfrak{Z}	
evening rise	1731 Dec 26 04:07	12° \mathfrak{Z} 51'30		greatest brilliancy	1732 Dec 20 15:46	16° \mathfrak{Z} 11'11	-0.7m
	1732 Jan 05 19:32	0° \mathfrak{A}		evening max el	1732 Dec 29 06:12	27° \mathfrak{Z} 20'11	19°27'07
evening max el	1732 Jan 15 22:05	13° \mathfrak{A} 51'09	18°43'08		1733 Jan 01 07:57	0° \mathfrak{A}	
asc. node	1732 Jan 17 09:09	15° \mathfrak{A} 13'24		asc. node	1733 Jan 03 06:10	1° \mathfrak{A} 02'37	
retrograde	1732 Jan 22 14:27	17° \mathfrak{A} 34'54		retrograde	1733 Jan 05 10:58	1° \mathfrak{A} 29'09	
evening set	1732 Jan 25 17:13	16° \mathfrak{A} 39'42		evening set	1733 Jan 08 20:47	0° \mathfrak{A} 21'10	
inferior conj	1732 Jan 31 12:12	10° \mathfrak{A} 58'53	3°33'07		1733 Jan 09 08:44	30° \mathfrak{R} \mathfrak{Z}	
minimum elong	1732 Jan 31 10:24	11° \mathfrak{A} 04'20	3°32'53	inferior conj	1733 Jan 14 10:41	24° \mathfrak{Z} 24'39	3°09'13
min. Earth dist.	1732 Feb 02 08:32	8° \mathfrak{A} 44'20	0.65123 AU	minimum elong	1733 Jan 14 08:10	24° \mathfrak{Z} 32'48	3°08'40
morning rise	1732 Feb 06 02:25	4° \mathfrak{A} 48'11		min. Earth dist.	1733 Jan 15 16:10	22° \mathfrak{Z} 48'51	0.66372 AU
direct	1732 Feb 12 18:42	1° \mathfrak{A} 57'12		morning rise	1733 Jan 19 18:49	18° \mathfrak{Z} 10'46	
desc. node	1732 Feb 24 20:30	8° \mathfrak{A} 33'15		direct	1733 Jan 25 23:44	15° \mathfrak{Z} 26'32	
morning max el	1732 Feb 26 01:00	9° \mathfrak{A} 42'55	27°02'04	morning max el	1733 Feb 07 10:19	22° \mathfrak{Z} 49'25	25°56'35
	1732 Mar 13 00:04	0° \mathfrak{H}		desc. node	1733 Feb 10 17:33	26° \mathfrak{Z} 22'35	
	1732 Mar 30 20:25	0° \mathfrak{Y}			1733 Feb 13 18:44	0° \mathfrak{A}	
morning set	1732 Apr 01 16:23	3° \mathfrak{Y} 29'27		morning set	1733 Mar 06 07:25	0° \mathfrak{H}	
max. Earth dist.	1732 Apr 06 05:21	12° \mathfrak{Y} 28'12	1.34064 AU		1733 Mar 15 14:56	16° \mathfrak{H} 18'50	
				max. Earth dist.	1733 Mar 19 13:02	23° \mathfrak{H} 42'29	1.35581 AU
					1733 Mar 22 18:10	0° \mathfrak{Y}	
superior conj	1732 Apr 10 01:43	20° \mathfrak{Y} 24'21	0°-43'-41				
minimum elong	1732 Apr 10 03:54	20° \mathfrak{Y} 35'50	0°43'15	superior conj	1733 Mar 24 20:49	4° \mathfrak{Y} 13'55	-1°-10'-56
asc. node	1732 Apr 14 08:27	29° \mathfrak{Y} 26'43		minimum elong	1733 Mar 25 00:18	4° \mathfrak{Y} 31'34	1°10'21
	1732 Apr 14 14:44	0° \mathfrak{Z}		asc. node	1733 Apr 01 05:30	19° \mathfrak{Y} 20'42	
evening rise	1732 Apr 17 12:14	6° \mathfrak{Z} 05'54		evening rise	1733 Apr 01 19:12	20° \mathfrak{Y} 30'50	
	1732 Apr 30 13:36	0° \mathfrak{H}			1733 Apr 06 13:41	0° \mathfrak{Z}	
evening max el	1732 May 07 16:06	8° \mathfrak{H} 42'03	21°36'21	evening max el	1733 Apr 19 21:44	19° \mathfrak{Z} 51'52	20°16'06
retrograde	1732 May 19 23:48	14° \mathfrak{H} 44'01		retrograde	1733 Apr 30 13:23	25° \mathfrak{Z} 01'04	
evening set	1732 May 22 11:35	14° \mathfrak{H} 30'01		evening set	1733 May 02 14:45	24° \mathfrak{Z} 50'22	
desc. node	1732 May 22 19:44	14° \mathfrak{H} 26'01		desc. node	1733 May 09 16:45	22° \mathfrak{Z} 01'01	
inferior conj	1732 May 31 20:51	10° \mathfrak{H} 29'01	-2°-33'-10	inferior conj	1733 May 11 16:22	20° \mathfrak{Z} 52'06	0°-34'-39
minimum elong	1732 May 31 14:04	10° \mathfrak{H} 38'31	2°30'57	minimum elong	1733 May 11 14:45	20° \mathfrak{Z} 54'30	0°34'04
min. Earth dist.	1732 May 31 18:40	10° \mathfrak{H} 32'04	0.54944 AU	min. Earth dist.	1733 May 13 07:40	19° \mathfrak{Z} 54'16	0.55200 AU
morning rise	1732 Jun 09 17:16	6° \mathfrak{H} 33'14		morning rise	1733 May 20 12:35	16° \mathfrak{Z} 35'07	

direct	1733 May 24 09:53	16°♄02'20		desc. node	1734 Apr 26 13:48	28°♃41'33	
morning max el	1733 Jun 06 23:15	22°♄40'24	23°39'43	morning rise	1734 Apr 30 11:32	26°♃47'11	
	1733 Jun 13 10:42	0°♂		direct	1734 May 05 08:44	25°♃52'10	
asc. node	1733 Jun 28 04:45	24°♂56'47			1734 May 15 22:09	0°♄	
morning set	1733 Jun 30 19:42	0°♄22'14		morning max el	1734 May 19 13:45	3°♄07'30	25°19'11
	1733 Jun 30 15:29	0°♄			1734 Jun 07 14:04	0°♂	
superior conj	1733 Jul 07 21:41	15°♄35'12	1°26'38	morning set	1734 Jun 15 07:34	15°♂18'51	
minimum elong	1733 Jul 07 19:21	15°♄22'37	1°26'21	asc. node	1734 Jun 15 01:50	14°♂48'39	
max. Earth dist.	1733 Jul 10 03:33	20°♄23'19	1.33452 AU	superior conj	1734 Jun 22 07:53	0°♄30'33	1°09'55
	1733 Jul 14 18:40	0°♂		minimum elong	1734 Jun 22 05:30	0°♄17'32	1°09'32
evening rise	1733 Jul 15 10:38	1°♂20'21			1734 Jun 22 02:18	0°♄	
	1733 Jul 31 14:13	0°♂		max. Earth dist.	1734 Jun 23 11:00	2°♄58'33	1.32657 AU
desc. node	1733 Aug 05 16:04	7°♂28'59		evening rise	1734 Jun 29 11:39	15°♄48'02	
evening max el	1733 Aug 18 05:48	22°♂29'06	27°23'41		1734 Jul 06 18:20	0°♂	
retrograde	1733 Aug 31 19:17	29°♂47'00		desc. node	1734 Jul 23 13:05	26°♂14'08	
evening set	1733 Sep 07 22:20	27°♂06'19			1734 Jul 26 14:53	0°♂	
min. Earth dist.	1733 Sep 11 15:13	23°♂46'11	0.64051 AU	evening max el	1734 Jul 31 14:18	5°♂16'36	27°19'31
inferior conj	1733 Sep 14 02:17	21°♂11'48	-3°-9'-38	retrograde	1734 Aug 14 09:33	12°♂32'47	
minimum elong	1733 Sep 14 07:06	20°♂59'10	3°08'05	evening set	1734 Aug 21 14:08	10°♂05'55	
morning rise	1733 Sep 20 17:57	15°♂47'50		min. Earth dist.	1734 Aug 25 04:10	7°♂14'22	0.62275 AU
direct	1733 Sep 23 06:13	15°♂16'10		inferior conj	1734 Aug 28 03:17	4°♂28'54	-4°00'-42
asc. node	1733 Sep 24 03:56	15°♂20'21		minimum elong	1734 Aug 28 08:33	4°♂16'36	3°59'26
morning max el	1733 Sep 29 18:49	18°♂42'04	17°55'21		1734 Sep 02 21:09	30°♂♂	
	1733 Oct 08 01:30	0°♂		morning rise	1734 Sep 04 05:39	29°♂24'33	
morning set	1733 Oct 16 17:35	14°♂37'25		direct	1734 Sep 06 15:05	28°♂59'13	
	1733 Oct 25 20:01	0°♂			1734 Sep 10 06:42	0°♂	
superior conj	1733 Oct 29 14:55	6°♂13'22	0°20'17	asc. node	1734 Sep 11 01:01	0°♂27'50	
minimum elong	1733 Oct 29 17:09	6°♂22'29	0°19'59	morning max el	1734 Sep 13 10:23	2°♂26'22	17°53'08
desc. node	1733 Nov 01 15:22	11°♂06'19		morning set	1734 Sep 29 10:10	27°♂25'48	
max. Earth dist.	1733 Nov 04 01:20	14°♂58'03	1.44401 AU		1734 Sep 30 20:29	0°♂	
	1733 Nov 13 15:47	0°♂		superior conj	1734 Oct 10 11:24	16°♂54'28	0°59'00
evening rise	1733 Nov 14 18:00	1°♂41'03		minimum elong	1734 Oct 10 15:59	17°♂13'59	0°58'25
	1733 Dec 03 17:46	0°♂		max. Earth dist.	1734 Oct 17 15:54	28°♂53'27	1.43091 AU
greatest brilliancy	1733 Dec 06 05:36	3°♂24'48	-0.5m		1734 Oct 18 08:16	0°♂	
evening max el	1733 Dec 12 09:17	10°♂49'53	20°26'01	desc. node	1734 Oct 19 12:23	1°♂53'38	
retrograde	1733 Dec 20 08:52	15°♂32'07		evening rise	1734 Oct 25 03:52	10°♂50'32	
asc. node	1733 Dec 21 03:13	15°♂28'50			1734 Nov 06 19:40	0°♂	
evening set	1733 Dec 24 03:24	14°♂09'48		greatest brilliancy	1734 Nov 20 09:05	18°♂43'34	-0.4m
inferior conj	1733 Dec 29 14:16	8°♂00'26	2°35'30	evening max el	1734 Nov 25 06:38	24°♂20'04	21°36'46
minimum elong	1733 Dec 29 11:38	8°♂09'23	2°34'44	retrograde	1734 Dec 04 06:06	29°♂40'37	
min. Earth dist.	1733 Dec 30 06:28	7°♂05'28	0.67217 AU	evening set	1734 Dec 08 11:11	28°♂02'29	
morning rise	1734 Jan 03 19:23	1°♂45'16		asc. node	1734 Dec 08 00:16	28°♂22'48	
	1734 Jan 06 08:31	30°♂♂		inferior conj	1734 Dec 13 20:45	21°♂43'44	1°54'06
direct	1734 Jan 09 09:59	29°♂17'12		minimum elong	1734 Dec 13 18:29	21°♂51'36	1°53'18
	1734 Jan 12 17:06	0°♂		min. Earth dist.	1734 Dec 14 01:10	21°♂28'29	0.67686 AU
morning max el	1734 Jan 20 18:50	6°♂04'00	24°34'36	morning rise	1734 Dec 19 01:31	15°♂29'08	
desc. node	1734 Jan 28 14:36	15°♂07'28		direct	1734 Dec 24 00:52	13°♂22'20	
	1734 Feb 08 08:12	0°♂		morning max el	1735 Jan 03 04:14	19°♂23'41	23°06'11
morning set	1734 Feb 25 18:14	28°♂07'20		greatest brilliancy	1735 Jan 08 01:47	24°♂52'24	-0.3m
	1734 Feb 26 19:45	0°♂			1735 Jan 12 02:57	0°♂	
max. Earth dist.	1734 Mar 01 11:16	4°♂45'32	1.37493 AU	desc. node	1735 Jan 15 11:38	4°♂32'03	
					1735 Feb 01 12:47	0°♂	
superior conj	1734 Mar 08 05:10	17°♂27'00	-1°-35'-34	morning set	1735 Feb 06 20:01	8°♂39'05	
minimum elong	1734 Mar 08 09:23	17°♂47'27	1°35'04	max. Earth dist.	1735 Feb 11 06:19	16°♂10'11	1.39624 AU
	1734 Mar 14 13:41	0°♂		superior conj	1735 Feb 18 22:37	29°♂53'12	-1°-54'-41
evening rise	1734 Mar 16 20:23	4°♂32'45		minimum elong	1735 Feb 19 02:16	0°♂10'02	1°54'28
asc. node	1734 Mar 19 02:33	8°♂59'53			1735 Feb 19 00:05	0°♂	
	1734 Apr 01 00:26	0°♂		evening rise	1735 Feb 28 12:55	18°♂04'07	
evening max el	1734 Apr 02 14:49	1°♂40'36	19°14'18	asc. node	1735 Mar 05 23:36	28°♂18'50	
retrograde	1734 Apr 11 14:26	6°♂01'21			1735 Mar 06 22:06	0°♂	
evening set	1734 Apr 13 17:02	5°♂48'01		evening max el	1735 Mar 16 17:26	14°♂05'13	18°32'38
inferior conj	1734 Apr 22 01:22	1°♂37'50	1°16'05	retrograde	1735 Mar 24 09:45	17°♂51'13	
minimum elong	1734 Apr 22 04:18	1°♂32'55	1°15'06	evening set	1735 Mar 26 17:35	17°♂31'37	
	1734 Apr 24 11:46	30°♂♂		inferior conj	1735 Apr 03 07:01	13°♂02'29	2°36'44
min. Earth dist.	1734 Apr 24 22:35	29°♂42'23	0.56354 AU				

minimum elong	1735 Apr 03 11:02	12° Υ 54'35	2°35'44			1736 Mar 08 08:37	30° \Re H	
min. Earth dist.	1735 Apr 06 17:02	10° Υ 22'51	0.58163 AU	evening set		1736 Mar 08 12:17	29° H 56'47	
morning rise	1735 Apr 11 00:14	7° Υ 39'45		inferior conj		1736 Mar 15 09:19	25° H 06'24	3°23'47
desc. node	1735 Apr 13 10:50	6° Υ 41'39		minimum elong		1736 Mar 15 11:59	25° H 00'19	3°23'23
direct	1735 Apr 16 21:57	6° Υ 10'49		min. Earth dist.		1736 Mar 18 17:09	22° H 05'50	0.60279 AU
morning max el	1735 May 01 07:08	13° Υ 49'32	26°41'31	morning rise		1736 Mar 22 08:21	19° H 21'11	
	1735 May 14 03:40	0° B		direct		1736 Mar 28 23:35	17° H 15'43	
morning set	1735 May 30 18:01	0° Π 10'13		desc. node		1736 Mar 30 07:52	17° H 20'42	
	1735 May 30 16:04	0° Π		morning max el		1736 Apr 12 06:18	25° H 06'27	27°33'43
asc. node	1735 Jun 01 22:52	4° Π 51'05				1736 Apr 16 18:21	0° Υ	
						1736 May 06 11:30	0° B	
superior conj	1735 Jun 06 19:35	15° Π 28'23	0°49'25	morning set		1736 May 14 01:21	14° B 50'32	
minimum elong	1735 Jun 06 17:37	15° Π 17'36	0°49'01	asc. node		1736 May 18 19:54	24° B 59'37	
max. Earth dist.	1735 Jun 06 22:32	15° Π 44'40	1.32253 AU	max. Earth dist.		1736 May 20 10:34	28° B 30'34	1.32237 AU
evening rise	1735 Jun 13 18:26	0° B 31'25						
	1735 Jun 13 12:27	0° B		superior conj		1736 May 21 07:04	0° Π 22'56	0°25'49
	1735 Jun 29 21:35	0° Ω		minimum elong		1736 May 21 05:55	0° Π 16'41	0°25'34
desc. node	1735 Jul 10 10:08	13° Ω 58'24				1736 May 21 02:53	0° Π	
evening max el	1735 Jul 13 17:11	17° Ω 22'02	26°42'17	evening rise		1736 May 28 04:43	15° Π 23'11	
retrograde	1735 Jul 27 16:23	24° Ω 35'43				1736 Jun 04 12:03	0° B	
evening set	1735 Aug 03 11:52	22° Ω 36'29		evening max el		1736 Jun 24 13:10	28° B 41'29	25°34'15
min. Earth dist.	1735 Aug 07 06:55	19° Ω 59'48	0.60261 AU			1736 Jun 25 23:28	0° Ω	
inferior conj	1735 Aug 10 13:44	17° Ω 19'05	-4°-39'-46	desc. node		1736 Jun 26 07:08	0° Ω 16'37	
minimum elong	1735 Aug 10 17:44	17° Ω 10'53	4°39'14	retrograde		1736 Jul 08 13:44	5° Ω 50'22	
morning rise	1735 Aug 18 02:54	12° Ω 36'59		evening set		1736 Jul 14 11:01	4° Ω 28'52	
direct	1735 Aug 20 12:16	12° Ω 15'29		min. Earth dist.		1736 Jul 19 01:21	1° Ω 48'54	0.58215 AU
morning max el	1735 Aug 27 22:22	15° Ω 53'06	18°10'05			1736 Jul 21 15:06	30° \Re B	
asc. node	1735 Aug 28 22:05	16° Ω 53'40		inferior conj		1736 Jul 22 06:11	29° B 33'01	-4°-56'-36
	1735 Sep 06 19:06	0° H		minimum elong		1736 Jul 22 06:27	29° B 32'32	4°56'37
morning set	1735 Sep 12 18:16	10° H 58'34		morning rise		1736 Jul 30 05:32	25° B 13'39	
				direct		1736 Aug 01 17:31	24° B 54'04	
superior conj	1735 Sep 22 09:38	28° H 51'10	1°25'35	morning max el		1736 Aug 10 03:30	28° B 52'59	18°47'29
minimum elong	1735 Sep 22 13:36	29° H 09'00	1°25'12			1736 Aug 11 06:12	0° Ω	
	1735 Sep 23 00:58	0° B		asc. node		1736 Aug 14 19:07	4° Ω 22'37	
max. Earth dist.	1735 Sep 30 00:40	12° B 09'39	1.41309 AU	morning set		1736 Aug 26 13:20	25° Ω 03'27	
evening rise	1735 Oct 05 05:01	20° B 43'51				1736 Aug 29 01:53	0° H	
desc. node	1735 Oct 06 09:25	22° B 38'22						
	1735 Oct 11 01:24	0° M		superior conj		1736 Sep 04 04:23	11° H 48'42	1°40'36
	1735 Nov 01 02:34	0° H		minimum elong		1736 Sep 04 06:32	11° H 58'51	1°40'29
greatest brilliancy	1735 Nov 02 17:02	1° H 59'02	-0.2m	max. Earth dist.		1736 Sep 11 05:06	24° H 43'14	1.39289 AU
evening max el	1735 Nov 07 22:55	7° H 52'01	22°55'02			1736 Sep 14 05:39	0° B	
retrograde	1735 Nov 18 00:57	13° H 51'14		evening rise		1736 Sep 15 05:46	1° B 43'13	
evening set	1735 Nov 22 18:27	11° H 56'12		desc. node		1736 Sep 22 06:26	13° B 16'49	
asc. node	1735 Nov 24 21:18	9° H 49'24				1736 Oct 03 08:33	0° M	
inferior conj	1735 Nov 28 04:12	5° H 32'01	1°06'34	evening max el		1736 Oct 20 12:03	21° M 27'59	24°14'53
minimum elong	1735 Nov 28 02:43	5° H 37'08	1°05'58	retrograde		1736 Oct 31 16:10	28° M 00'46	
min. Earth dist.	1735 Nov 27 21:50	5° H 53'59	0.67807 AU	evening set		1736 Nov 05 23:34	25° M 48'38	
	1735 Dec 02 16:42	30° \Re M		min. Earth dist.		1736 Nov 10 18:00	20° M 19'57	0.67598 AU
morning rise	1735 Dec 03 10:57	29° M 20'09		asc. node		1736 Nov 10 18:20	20° M 18'48	
direct	1735 Dec 07 19:32	27° M 36'07		inferior conj		1736 Nov 11 10:51	19° M 23'13	0°14'12
	1735 Dec 13 13:27	0° H		minimum elong		1736 Nov 11 10:30	19° M 24'22	0°14'03
morning max el	1735 Dec 16 17:43	2° H 50'06	21°40'33	transit middle		1736 Nov 11 10:30	19° M 24'22	0°14'03
greatest brilliancy	1735 Dec 21 15:15	8° H 23'17	-0.4m	transit begin		1736 Nov 11 09:07	19° M 29'00	
desc. node	1736 Jan 02 08:40	24° H 24'59		transit end		1736 Nov 11 11:52	19° M 19'45	
	1736 Jan 06 03:36	0° B		morning rise		1736 Nov 16 21:42	13° M 16'37	
morning set	1736 Jan 17 16:35	17° B 47'05		direct		1736 Nov 20 16:51	11° M 54'17	
max. Earth dist.	1736 Jan 24 05:23	28° B 23'33	1.41703 AU	morning max el		1736 Nov 28 14:17	16° M 26'48	20°24'27
	1736 Jan 25 04:35	0° \approx		greatest brilliancy		1736 Dec 04 23:39	24° M 03'06	-0.5m
						1736 Dec 09 07:18	0° H	
superior conj	1736 Jan 31 20:06	11° \approx 20'33	-2°-4'-16	desc. node		1736 Dec 19 05:41	14° H 38'18	
minimum elong	1736 Jan 31 20:58	11° \approx 24'20	2°04'17	morning set		1736 Dec 26 15:20	25° H 57'58	
	1736 Feb 11 04:53	0° H				1736 Dec 29 05:33	0° B	
evening rise	1736 Feb 11 17:13	0° H 56'41		max. Earth dist.		1737 Jan 05 12:29	11° B 33'07	1.43455 AU
asc. node	1736 Feb 20 20:38	17° H 10'50						
evening max el	1736 Feb 28 02:27	26° H 57'26	18°11'02	superior conj		1737 Jan 11 16:35	21° B 37'33	-1°-59'-21
	1736 Mar 03 14:24	0° Υ		minimum elong		1737 Jan 11 12:22	21° B 20'05	1°59'11
retrograde	1736 Mar 05 22:59	0° Υ 24'57				1737 Jan 16 16:17	0° \approx	

evening rise	1737 Jan 24 05:06	13° \approx 01'19			1737 Dec 21 23:41	0° \approx	
	1737 Feb 03 02:59	0° \approx					
asc. node	1737 Feb 06 17:39	5° \approx 26'37		superior conj	1737 Dec 22 11:10	0° \approx 45'43	-1°-35'-53
evening max el	1737 Feb 10 14:33	10° \approx 07'11	18°08'51	minimum elong	1737 Dec 22 02:39	0° \approx 11'48	1°35'08
retrograde	1737 Feb 17 02:15	13° \approx 31'12		evening rise	1738 Jan 05 20:28	24° \approx 12'07	
evening set	1737 Feb 19 20:34	12° \approx 53'12			1738 Jan 09 08:03	0° \approx	
inferior conj	1737 Feb 26 04:51	7° \approx 41'44	3°42'59	asc. node	1738 Jan 24 14:40	22° \approx 56'03	
minimum elong	1737 Feb 26 05:29	7° \approx 40'05	3°42'57	evening max el	1738 Jan 25 02:55	23° \approx 28'01	18°25'24
min. Earth dist.	1737 Mar 01 01:09	4° \approx 45'08	0.62377 AU	retrograde	1738 Jan 31 15:14	27° \approx 01'28	
morning rise	1737 Mar 04 12:07	1° \approx 42'34		evening set	1738 Feb 03 14:41	26° \approx 12'46	
	1737 Mar 07 10:05	30° \approx		inferior conj	1738 Feb 09 13:38	20° \approx 41'46	3°41'18
direct	1737 Mar 11 10:37	29° \approx 08'44		minimum elong	1738 Feb 09 12:33	20° \approx 44'54	3°41'13
	1737 Mar 15 16:23	0° \approx		min. Earth dist.	1738 Feb 11 18:46	18° \approx 08'28	0.64224 AU
desc. node	1737 Mar 17 04:53	0° \approx 41'02		morning rise	1738 Feb 15 08:58	14° \approx 34'10	
morning max el	1737 Mar 25 11:15	7° \approx 03'40	27°49'20	direct	1738 Feb 22 05:27	11° \approx 45'34	
	1737 Apr 11 22:49	0° \approx		desc. node	1738 Mar 04 01:55	16° \approx 12'09	
morning set	1737 Apr 28 03:27	29° \approx 11'40		morning max el	1738 Mar 07 20:06	19° \approx 37'22	27°28'34
	1737 Apr 28 12:58	0° \approx			1738 Mar 16 16:59	0° \approx	
max. Earth dist.	1737 May 03 19:14	11° \approx 02'09	1.32613 AU		1738 Apr 04 22:36	0° \approx	
				morning set	1738 Apr 11 21:44	13° \approx 05'43	
superior conj	1737 May 05 16:34	15° \approx 07'03	0°00'-9	max. Earth dist.	1738 Apr 16 20:34	23° \approx 07'17	1.33408 AU
minimum elong	1737 May 05 16:34	15° \approx 07'05	0°00'10				
behind sun begin	1737 May 05 11:25	14° \approx 39'06		superior conj	1738 Apr 19 22:15	29° \approx 34'59	0°-27'-38
behind sun end	1737 May 05 21:43	15° \approx 35'05		minimum elong	1738 Apr 19 23:37	29° \approx 42'17	0°27'21
asc. node	1737 May 05 16:56	15° \approx 09'06			1738 Apr 20 02:57	0° \approx	
evening rise	1737 May 12 16:27	0° \approx 15'16		asc. node	1738 Apr 22 13:58	5° \approx 15'38	
	1737 May 12 13:34	0° \approx		evening rise	1738 Apr 27 03:51	15° \approx 01'33	
	1737 May 29 06:04	0° \approx			1738 May 04 17:16	0° \approx	
evening max el	1737 Jun 06 03:43	9° \approx 22'59	24°04'50	evening max el	1738 May 18 18:47	19° \approx 52'26	22°28'48
desc. node	1737 Jun 13 04:09	14° \approx 35'14		desc. node	1738 May 31 01:10	26° \approx 19'10	
retrograde	1737 Jun 19 23:01	16° \approx 19'36		retrograde	1738 May 31 20:04	26° \approx 12'03	
evening set	1737 Jun 24 11:03	15° \approx 34'45		evening set	1738 Jun 03 22:06	25° \approx 15'36	
min. Earth dist.	1737 Jun 30 14:32	12° \approx 35'02	0.56430 AU	min. Earth dist.	1738 Jun 12 02:03	22° \approx 12'58	0.55241 AU
inferior conj	1737 Jul 03 02:24	11° \approx 02'27	-4°-37'-27	inferior conj	1738 Jun 13 04:38	21° \approx 14'17	-3°-31'-18
minimum elong	1737 Jul 02 21:22	11° \approx 10'16	4°36'48	minimum elong	1738 Jun 12 20:48	22° \approx 10'25	3°29'12
morning rise	1737 Jul 11 11:14	7° \approx 02'27		morning rise	1738 Jun 21 21:52	17° \approx 15'39	
direct	1737 Jul 14 03:50	6° \approx 43'29		direct	1738 Jun 24 20:42	17° \approx 13'49	
morning max el	1737 Jul 23 22:54	11° \approx 16'09	19°46'18	morning max el	1738 Jul 06 07:02	22° \approx 15'38	21°05'39
asc. node	1737 Aug 01 16:09	22° \approx 40'21			1738 Jul 12 09:20	0° \approx	
	1737 Aug 05 19:23	0° \approx		asc. node	1738 Jul 19 13:12	11° \approx 35'29	
morning set	1737 Aug 10 15:58	9° \approx 31'04		morning set	1738 Jul 25 23:36	24° \approx 14'17	
					1738 Jul 28 18:04	0° \approx	
superior conj	1737 Aug 18 14:13	25° \approx 31'32	1°45'52				
minimum elong	1737 Aug 18 14:29	25° \approx 32'51	1°45'52	superior conj	1738 Aug 02 10:43	9° \approx 46'55	1°43'14
	1737 Aug 20 20:50	0° \approx		minimum elong	1738 Aug 02 09:32	9° \approx 40'48	1°43'11
max. Earth dist.	1737 Aug 24 09:32	6° \approx 44'48	1.37279 AU	max. Earth dist.	1738 Aug 06 19:09	18° \approx 35'42	1.35498 AU
evening rise	1737 Aug 28 05:49	13° \approx 48'09		evening rise	1738 Aug 11 01:05	26° \approx 14'30	
	1737 Sep 06 18:44	0° \approx			1738 Aug 12 18:11	0° \approx	
desc. node	1737 Sep 09 03:28	3° \approx 44'28		desc. node	1738 Aug 27 00:29	23° \approx 55'19	
	1737 Sep 28 05:20	0° \approx			1738 Aug 31 03:38	0° \approx	
evening max el	1737 Oct 03 00:04	5° \approx 07'29	25°29'23	evening max el	1738 Sep 15 12:04	18° \approx 45'09	26°30'54
retrograde	1737 Oct 15 02:55	12° \approx 05'15		retrograde	1738 Sep 28 08:41	25° \approx 58'03	
evening set	1737 Oct 21 00:54	9° \approx 37'26		evening set	1738 Oct 04 20:26	23° \approx 18'43	
min. Earth dist.	1737 Oct 25 11:16	4° \approx 44'11	0.67055 AU	min. Earth dist.	1738 Oct 08 23:15	19° \approx 02'21	0.66166 AU
inferior conj	1737 Oct 26 14:57	3° \approx 15'06	0°-41'-39	inferior conj	1738 Oct 10 14:36	17° \approx 03'43	-1°-39'-34
minimum elong	1737 Oct 26 16:01	3° \approx 11'39	0°41'13	minimum elong	1738 Oct 10 17:14	16° \approx 55'45	1°38'30
asc. node	1737 Oct 28 15:21	0° \approx 44'05		asc. node	1738 Oct 15 12:24	11° \approx 59'21	
	1737 Oct 29 06:43	30° \approx		morning rise	1738 Oct 16 15:15	11° \approx 16'15	
morning rise	1737 Nov 01 07:51	27° \approx 16'36		direct	1738 Oct 19 13:17	10° \approx 28'16	
direct	1737 Nov 04 15:22	26° \approx 13'15		morning max el	1738 Oct 26 05:40	14° \approx 08'52	18°35'07
	1737 Nov 11 12:54	0° \approx			1738 Nov 06 18:55	0° \approx	
morning max el	1737 Nov 11 18:44	0° \approx 14'32	19°22'01	morning set	1738 Nov 15 14:12	13° \approx 59'16	
greatest brilliancy	1737 Nov 21 03:34	12° \approx 17'32	-0.7m	desc. node	1738 Nov 22 23:44	25° \approx 44'40	
	1737 Dec 02 19:35	0° \approx			1738 Nov 25 16:26	0° \approx	
morning set	1737 Dec 05 15:22	4° \approx 22'35					
desc. node	1737 Dec 06 02:43	5° \approx 06'35		superior conj	1738 Dec 01 13:24	9° \approx 14'16	0°-55'-7
max. Earth dist.	1737 Dec 19 02:55	25° \approx 27'20	1.44643 AU	minimum elong	1738 Dec 01 06:29	8° \approx 47'06	0°54'16

max. Earth dist.	1738 Dec 01 21:09	9°♂44'41	1.45127 AU	superior conj	1739 Nov 10 20:02	18°♂01'53	0°-6'-30
	1738 Dec 14 17:40	0°♂		minimum elong	1739 Nov 10 19:14	17°♂58'39	0°06'24
evening rise	1738 Dec 17 12:30	4°♂25'18		behind sun begin	1739 Nov 10 09:19	17°♂19'04	
	1739 Jan 02 23:53	0°♂		behind sun end	1739 Nov 11 05:09	18°♂38'12	
evening max el	1739 Jan 08 13:06	6°♂54'25	18°59'47	max. Earth dist.	1739 Nov 14 15:53	24°♂06'06	1.44873 AU
asc. node	1739 Jan 11 11:42	9°♂25'49			1739 Nov 18 09:59	0°♂	
retrograde	1739 Jan 15 09:59	10°♂48'09		evening rise	1739 Nov 27 07:14	13°♂48'48	
evening set	1739 Jan 18 15:31	9°♂47'41			1739 Dec 07 20:22	0°♂	
inferior conj	1739 Jan 24 08:02	3°♂59'35	3°24'19	greatest brilliancy	1739 Dec 15 10:35	11°♂10'29	-0.6m
minimum elong	1739 Jan 24 05:52	4°♂06'25	3°23'58	evening max el	1739 Dec 22 19:10	20°♂23'31	19°50'29
min. Earth dist.	1739 Jan 25 21:49	2°♂01'03	0.65703 AU	asc. node	1739 Dec 29 08:45	24°♂41'14	
	1739 Jan 27 14:34	30°♂♂		retrograde	1739 Dec 30 07:27	24°♂46'12	
morning rise	1739 Jan 29 19:15	27°♂47'02		evening set	1740 Jan 02 20:38	23°♂32'31	
direct	1739 Feb 05 07:00	24°♂57'43		inferior conj	1740 Jan 08 09:01	17°♂30'08	2°55'57
	1739 Feb 15 11:47	0°♂		minimum elong	1740 Jan 08 06:23	17°♂38'52	2°55'17
morning max el	1739 Feb 18 06:02	2°♂35'49	26°36'53	min. Earth dist.	1740 Jan 09 08:43	16°♂11'25	0.66780 AU
desc. node	1739 Feb 18 22:57	3°♂19'01		morning rise	1740 Jan 13 15:29	11°♂15'11	
	1739 Mar 10 22:26	0°♂		direct	1740 Jan 19 14:31	8°♂36'45	
morning set	1739 Mar 26 04:48	26°♂22'24		morning max el	1740 Jan 31 15:01	15°♂46'40	25°22'58
	1739 Mar 28 02:16	0°♂		desc. node	1740 Feb 05 20:00	21°♂34'13	
max. Earth dist.	1739 Mar 30 11:08	4°♂38'45	1.34652 AU		1740 Feb 12 09:04	0°♂	
					1740 Mar 02 19:56	0°♂	
superior conj	1739 Apr 03 21:58	13°♂40'19	0°-55'-25	morning set	1740 Mar 07 19:54	8°♂47'57	
minimum elong	1739 Apr 04 00:44	13°♂54'41	0°54'55	max. Earth dist.	1740 Mar 11 13:54	15°♂42'57	1.36348 AU
asc. node	1739 Apr 09 11:02	25°♂15'18					
evening rise	1739 Apr 11 13:02	29°♂35'49		superior conj	1740 Mar 17 12:55	27°♂15'14	-1°-21'-51
	1739 Apr 11 17:42	0°♂		minimum elong	1740 Mar 17 16:49	27°♂34'39	1°21'18
	1739 Apr 30 01:10	0°♂			1740 Mar 18 21:55	0°♂	
evening max el	1739 Apr 30 17:48	0°♂41'28	21°00'11	evening rise	1740 Mar 25 17:51	13°♂51'25	
retrograde	1739 May 12 09:42	6°♂22'17		asc. node	1740 Mar 26 08:06	15°♂03'20	
evening set	1739 May 14 14:49	6°♂10'45			1740 Apr 03 05:52	0°♂	
desc. node	1739 May 17 22:11	5°♂14'27		evening max el	1740 Apr 12 04:28	12°♂07'49	19°47'28
inferior conj	1739 May 23 22:30	2°♂12'42	-1°-44'-7	retrograde	1740 Apr 22 02:36	16°♂55'00	
minimum elong	1739 May 23 17:37	2°♂19'37	1°42'25	evening set	1740 Apr 24 03:23	16°♂43'50	
min. Earth dist.	1739 May 24 14:31	1°♂50'01	0.54924 AU	inferior conj	1740 May 02 22:22	12°♂42'20	0°15'04
	1739 May 28 00:11	30°♂♂		minimum elong	1740 May 02 23:02	12°♂41'18	0°14'49
morning rise	1739 Jun 01 19:56	28°♂10'06		transit middle	1740 May 02 23:02	12°♂41'18	0°14'49
direct	1739 Jun 05 06:11	27°♂44'46		transit begin	1740 May 02 21:34	12°♂43'34	
	1739 Jun 13 00:19	0°♂		transit end	1740 May 03 00:29	12°♂39'02	
morning max el	1739 Jun 18 04:51	3°♂56'06	22°41'11	desc. node	1740 May 03 19:13	12°♂09'57	
	1739 Jul 05 22:17	0°♂		min. Earth dist.	1740 May 05 04:33	11°♂18'44	0.55583 AU
asc. node	1739 Jul 06 10:16	0°♂58'42		morning rise	1740 May 11 15:22	8°♂11'19	
morning set	1739 Jul 10 10:16	9°♂07'28		direct	1740 May 15 22:16	7°♂30'32	
				morning max el	1740 May 29 20:09	14°♂27'12	24°23'10
superior conj	1739 Jul 17 14:34	24°♂24'52	1°34'15		1740 Jun 11 01:01	0°♂	
minimum elong	1739 Jul 17 12:29	24°♂13'50	1°34'03	asc. node	1740 Jun 22 07:21	20°♂41'37	
	1739 Jul 20 06:12	0°♂		morning set	1740 Jun 23 22:07	24°♂03'54	
max. Earth dist.	1739 Jul 20 13:38	0°♂38'36	1.34077 AU		1740 Jun 26 16:44	0°♂	
evening rise	1739 Jul 25 11:01	10°♂32'26					
	1739 Aug 05 03:29	0°♂		superior conj	1740 Jun 30 23:02	9°♂15'37	1°20'05
desc. node	1739 Aug 13 21:32	13°♂42'04		minimum elong	1740 Jun 30 20:38	9°♂02'31	1°19'44
	1739 Aug 26 18:56	0°♂		max. Earth dist.	1740 Jul 02 16:55	13°♂01'51	1.33059 AU
evening max el	1739 Aug 29 00:06	2°♂13'23	27°11'58	evening rise	1740 Jul 08 07:29	24°♂46'58	
retrograde	1739 Sep 11 09:05	9°♂32'06			1740 Jul 10 22:19	0°♂	
evening set	1739 Sep 18 07:49	6°♂48'49			1740 Jul 28 16:36	0°♂	
min. Earth dist.	1739 Sep 22 03:48	3°♂09'00	0.64925 AU	desc. node	1740 Jul 30 18:33	2°♂53'29	
inferior conj	1739 Sep 24 07:37	0°♂45'24	-2°-37'-26	evening max el	1740 Aug 10 10:41	15°♂19'45	27°25'56
minimum elong	1739 Sep 24 11:45	0°♂33'55	2°35'57	retrograde	1740 Aug 24 03:19	22°♂37'37	
	1739 Sep 25 00:04	30°♂♂		evening set	1740 Aug 31 07:52	20°♂01'21	
morning rise	1739 Sep 30 17:30	25°♂11'57		min. Earth dist.	1740 Sep 03 22:59	16°♂54'17	0.63330 AU
asc. node	1739 Oct 02 09:27	24°♂40'23		inferior conj	1740 Sep 06 15:20	14°♂13'36	-3°-32'-18
direct	1739 Oct 03 08:28	24°♂35'29		minimum elong	1740 Sep 06 20:30	14°♂00'41	3°30'48
morning max el	1739 Oct 09 20:40	28°♂04'37	18°04'48	morning rise	1740 Sep 13 11:31	8°♂57'25	
	1739 Oct 11 14:43	0°♂		direct	1740 Sep 15 22:06	8°♂28'54	
morning set	1739 Oct 27 18:10	25°♂02'09		asc. node	1740 Sep 18 06:32	8°♂55'52	
	1739 Oct 30 17:52	0°♂		morning max el	1740 Sep 22 12:49	11°♂54'40	17°52'03
desc. node	1739 Nov 09 20:48	16°♂29'04			1740 Oct 04 18:51	0°♂	

morning set	1740 Oct 08 23:15	7°♄17'36		morning max el	1741 Sep 06 03:07	25°♄31'45	17°57'54
superior conj	1740 Oct 21 00:43	27°♄56'06	0°38'06	morning set	1741 Sep 09 21:32	0°♄	
minimum elong	1740 Oct 21 04:25	28°♄11'25	0°37'35		1741 Sep 21 23:05	20°♄26'49	
	1740 Oct 22 06:41	0°♄			1741 Sep 27 04:44	0°♄	
desc. node	1740 Oct 26 17:51	7°♄16'18		superior conj	1741 Oct 02 08:35	9°♄10'21	1°11'47
max. Earth dist.	1740 Oct 27 08:32	8°♄15'18	1.43918 AU	minimum elong	1741 Oct 02 13:09	9°♄30'17	1°11'15
evening rise	1740 Nov 05 15:28	22°♄51'25		max. Earth dist.	1741 Oct 09 21:04	21°♄56'52	1.42383 AU
	1740 Nov 10 07:28	0°♄		desc. node	1741 Oct 13 14:52	28°♄02'56	
greatest brilliancy	1740 Nov 29 08:14	27°♄27'00	-0.5m		1741 Oct 14 20:04	0°♄	
	1740 Dec 01 08:58	0°♄		evening rise	1741 Oct 16 06:12	2°♄15'41	
evening max el	1740 Dec 04 19:54	3°♄53'59	20°54'58		1741 Nov 03 19:08	0°♄	
retrograde	1740 Dec 13 05:11	8°♄51'58		greatest brilliancy	1741 Nov 12 21:53	12°♄06'11	-0.3m
asc. node	1740 Dec 15 05:47	8°♄29'03		evening max el	1741 Nov 17 15:03	17°♄25'21	22°09'30
evening set	1740 Dec 17 03:57	7°♄23'15		retrograde	1741 Nov 27 01:26	23°♄01'55	
inferior conj	1740 Dec 22 14:05	1°♄09'44	2°18'47	evening set	1741 Dec 01 11:40	21°♄16'37	
minimum elong	1740 Dec 22 11:33	1°♄18'26	2°17'58	asc. node	1741 Dec 02 02:49	20°♄44'04	
min. Earth dist.	1740 Dec 23 01:13	0°♄31'35	0.67465 AU	inferior conj	1741 Dec 06 21:10	14°♄55'18	1°34'37
	1740 Dec 23 10:27	30°♄		minimum elong	1741 Dec 06 19:11	15°♄02'11	1°33'51
morning rise	1740 Dec 27 18:45	24°♄54'31		min. Earth dist.	1741 Dec 06 20:55	14°♄56'12	0.67786 AU
direct	1741 Jan 02 02:59	22°♄34'48		morning rise	1741 Dec 12 02:32	8°♄41'49	
morning max el	1741 Jan 12 23:21	29°♄02'55	23°57'04	direct	1741 Dec 16 19:35	6°♄44'37	
	1741 Jan 13 21:29	0°♄		morning max el	1741 Dec 26 09:57	12°♄24'47	22°28'56
desc. node	1741 Jan 22 17:03	10°♄37'54		greatest brilliancy	1741 Dec 30 23:43	17°♄31'32	-0.3m
	1741 Feb 05 04:19	0°♄			1742 Jan 09 09:37	0°♄	
morning set	1741 Feb 17 13:06	20°♄05'57		desc. node	1742 Jan 09 14:04	0°♄15'43	
max. Earth dist.	1741 Feb 21 09:28	26°♄49'46	1.38387 AU	morning set	1742 Jan 29 02:24	0°♄01'07	
	1741 Feb 23 03:52	0°♄			1742 Jan 29 02:07	0°♄	
				max. Earth dist.	1742 Feb 03 05:57	8°♄35'02	1.40540 AU
superior conj	1741 Feb 28 15:33	10°♄10'31	-1°-44'-34				
minimum elong	1741 Feb 28 19:44	10°♄30'24	1°44'11	superior conj	1742 Feb 11 01:08	22°♄13'17	-2°00'-13
evening rise	1741 Mar 09 15:44	27°♄41'31		minimum elong	1742 Feb 11 03:55	22°♄25'50	2°00'06
	1741 Mar 10 20:05	0°♄			1742 Feb 15 07:14	0°♄	
asc. node	1741 Mar 13 05:08	4°♄34'53		evening rise	1742 Feb 21 03:29	10°♄57'23	
evening max el	1741 Mar 26 02:05	24°♄13'27	18°54'08	asc. node	1742 Feb 28 02:09	23°♄43'12	
retrograde	1741 Apr 03 10:43	28°♄16'56			1742 Mar 03 21:59	0°♄	
evening set	1741 Apr 05 15:34	28°♄01'10		evening max el	1742 Mar 09 07:46	6°♄50'36	18°20'57
inferior conj	1741 Apr 13 15:44	23°♄43'37	1°54'30	retrograde	1742 Mar 16 14:06	10°♄26'47	
minimum elong	1741 Apr 13 19:33	23°♄36'47	1°53'22	evening set	1742 Mar 19 00:26	10°♄03'37	
min. Earth dist.	1741 Apr 16 20:39	21°♄27'02	0.57068 AU	inferior conj	1742 Mar 26 06:25	5°♄25'08	3°00'34
desc. node	1741 Apr 20 16:14	19°♄09'40		minimum elong	1742 Mar 26 10:02	5°♄17'31	2°59'49
morning rise	1741 Apr 21 19:14	18°♄38'46		min. Earth dist.	1742 Mar 29 16:51	2°♄33'48	0.59053 AU
direct	1741 Apr 27 03:39	17°♄30'07			1742 Apr 02 09:54	30°♄	
morning max el	1741 May 11 11:02	24°♄56'35	25°57'09	morning rise	1742 Apr 02 15:48	29°♄51'47	
	1741 May 16 03:08	0°♄		desc. node	1742 Apr 07 13:15	28°♄12'16	
	1741 Jun 03 23:57	0°♄		direct	1742 Apr 08 22:05	28°♄07'17	
morning set	1741 Jun 08 09:32	8°♄58'30			1742 Apr 15 16:05	0°♄	
asc. node	1741 Jun 09 04:25	10°♄38'25		morning max el	1742 Apr 23 06:39	5°♄51'17	27°08'01
					1742 May 11 04:44	0°♄	
superior conj	1741 Jun 15 10:04	24°♄12'22	1°01'39	morning set	1742 May 23 18:52	23°♄45'39	
minimum elong	1741 Jun 15 07:49	24°♄00'00	1°01'15		1742 May 26 17:20	0°♄	
max. Earth dist.	1741 Jun 16 02:33	25°♄42'46	1.32442 AU	asc. node	1742 May 27 01:27	0°♄43'49	
	1741 Jun 18 01:40	0°♄					
evening rise	1741 Jun 22 11:15	9°♄22'15		superior conj	1742 May 30 21:50	9°♄09'00	0°39'43
	1741 Jul 03 06:41	0°♄		minimum elong	1742 May 30 20:10	8°♄59'53	0°39'23
desc. node	1741 Jul 17 15:34	21°♄14'56		max. Earth dist.	1742 May 30 14:55	8°♄30'59	1.32202 AU
evening max el	1741 Jul 23 17:18	27°♄50'58	27°07'49	evening rise	1742 Jun 06 19:46	24°♄09'50	
	1741 Jul 26 03:34	0°♄			1742 Jun 09 15:29	0°♄	
retrograde	1741 Aug 06 14:23	5°♄05'21			1742 Jun 27 09:12	0°♄	
evening set	1741 Aug 13 16:30	2°♄49'03		desc. node	1742 Jul 04 12:34	8°♄25'59	
	1741 Aug 17 10:11	30°♄		evening max el	1742 Jul 05 17:19	9°♄36'39	26°16'42
min. Earth dist.	1741 Aug 17 07:34	0°♄05'35	0.61438 AU	retrograde	1742 Jul 19 17:04	16°♄48'09	
inferior conj	1741 Aug 20 10:34	27°♄20'15	-4°-19'-15	evening set	1742 Jul 26 05:02	15°♄04'05	
minimum elong	1741 Aug 20 15:33	27°♄09'12	4°18'17	min. Earth dist.	1742 Jul 30 06:09	12°♄28'36	0.59379 AU
morning rise	1741 Aug 27 17:31	22°♄24'45		inferior conj	1742 Aug 02 13:44	9°♄56'05	-4°-50'-24
direct	1741 Aug 30 02:39	22°♄01'14		minimum elong	1742 Aug 02 16:27	9°♄50'49	4°50'12
asc. node	1741 Sep 05 03:35	24°♄37'58		morning rise	1742 Aug 10 07:18	5°♄23'49	

direct	1742 Aug 12 17:41	5°♂03'12		minimum elong	1743 Jul 14 19:39	21°♂54'30	4°53'41
morning max el	1742 Aug 20 12:31	8°♂48'03	18°23'32	morning rise	1743 Jul 23 01:08	17°♂41'24	
asc. node	1742 Aug 23 00:38	11°♂32'27		direct	1743 Jul 25 14:50	17°♂22'18	
	1742 Sep 03 06:46	0°♂		morning max el	1743 Aug 03 13:54	21°♂33'45	19°10'02
morning set	1742 Sep 05 12:20	4°♂14'55		asc. node	1743 Aug 09 21:41	29°♂23'45	
					1743 Aug 10 07:09	0°♂	
superior conj	1742 Sep 14 16:17	21°♂35'26	1°33'16	morning set	1743 Aug 20 10:57	18°♂30'16	
minimum elong	1742 Sep 14 19:32	21°♂50'24	1°33'01		1743 Aug 26 05:50	0°♂	
	1742 Sep 19 08:06	0°♂					
max. Earth dist.	1742 Sep 22 04:14	4°♂57'15	1.40461 AU	superior conj	1743 Aug 28 18:04	4°♂54'14	1°43'55
evening rise	1742 Sep 26 16:59	12°♂36'05		minimum elong	1743 Aug 28 19:23	5°♂00'35	1°43'52
desc. node	1742 Sep 30 11:53	18°♂45'49		max. Earth dist.	1743 Sep 04 07:39	17°♂13'40	1.38407 AU
	1742 Oct 07 17:30	0°♂		evening rise	1743 Sep 08 03:56	24°♂03'52	
	1742 Oct 30 06:35	0°♂			1743 Sep 11 15:16	0°♂	
evening max el	1742 Oct 31 05:42	0°♂59'10	23°29'06	desc. node	1743 Sep 17 08:55	9°♂20'18	
retrograde	1742 Nov 10 18:52	7°♂13'25			1743 Oct 01 11:33	0°♂	
evening set	1742 Nov 15 18:15	5°♂10'46		evening max el	1743 Oct 13 17:54	14°♂36'12	24°47'38
asc. node	1742 Nov 18 23:49	1°♂41'53		retrograde	1743 Oct 25 08:27	21°♂21'39	
	1742 Nov 20 06:41	30°♂		evening set	1743 Oct 30 22:00	19°♂02'21	
min. Earth dist.	1742 Nov 20 17:34	29°♂22'53	0.67763 AU	min. Earth dist.	1743 Nov 04 12:49	13°♂48'31	0.67404 AU
inferior conj	1742 Nov 21 04:29	28°♂45'30	0°44'54	inferior conj	1743 Nov 05 10:16	12°♂37'26	0°-9'-7
minimum elong	1742 Nov 21 03:27	28°♂49'04	0°44'27	minimum elong	1743 Nov 05 10:30	12°♂36'41	0°09'02
morning rise	1742 Nov 26 12:46	22°♂35'49		transit middle	1743 Nov 05 10:30	12°♂36'41	0°09'02
direct	1742 Nov 30 15:24	21°♂01'27		transit begin	1743 Nov 05 08:12	12°♂44'16	
morning max el	1742 Dec 09 02:22	25°♂56'29	21°06'46	transit end	1743 Nov 05 12:47	12°♂29'06	
	1742 Dec 12 17:54	0°♂		asc. node	1743 Nov 05 20:51	12°♂02'26	
greatest brilliancy	1742 Dec 14 11:55	2°♂09'52	-0.5m	morning rise	1743 Nov 10 23:29	6°♂33'59	
desc. node	1742 Dec 27 11:06	20°♂18'32		direct	1743 Nov 14 13:19	5°♂20'19	
	1743 Jan 02 21:36	0°♂		morning max el	1743 Nov 22 02:25	9°♂38'38	19°56'06
morning set	1743 Jan 08 11:51	8°♂39'27		greatest brilliancy	1743 Nov 29 11:10	18°♂39'31	-0.6m
max. Earth dist.	1743 Jan 16 08:45	21°♂14'56	1.42512 AU		1743 Dec 07 07:23	0°♂	
	1743 Jan 21 15:16	0°♂		desc. node	1743 Dec 14 08:09	10°♂39'04	
				morning set	1743 Dec 18 07:55	16°♂47'15	
superior conj	1743 Jan 23 12:27	3°♂11'40	-2°-4'-15		1743 Dec 26 19:07	0°♂	
minimum elong	1743 Jan 23 11:22	3°♂07'02	2°04'14	max. Earth dist.	1743 Dec 29 18:47	4°♂44'10	1.44036 AU
evening rise	1743 Feb 04 01:22	23°♂31'04					
	1743 Feb 07 16:01	0°♂		superior conj	1744 Jan 03 21:37	12°♂58'29	-1°-51'-46
asc. node	1743 Feb 14 23:09	12°♂21'02		minimum elong	1744 Jan 03 15:09	12°♂32'12	1°51'22
evening max el	1743 Feb 20 18:22	19°♂50'52	18°07'39		1744 Jan 14 03:22	0°♂	
retrograde	1743 Feb 27 10:03	23°♂15'33		evening rise	1744 Jan 17 05:04	5°♂14'13	
evening set	1743 Mar 02 01:24	22°♂43'24		asc. node	1744 Feb 01 20:10	0°♂19'10	
inferior conj	1743 Mar 08 16:33	17°♂43'42	3°34'54		1744 Feb 01 14:09	0°♂	
minimum elong	1743 Mar 08 18:22	17°♂39'19	3°34'43	evening max el	1744 Feb 04 06:55	3°♂06'43	18°13'37
min. Earth dist.	1743 Mar 11 20:08	14°♂41'59	0.61192 AU	retrograde	1744 Feb 10 18:00	6°♂33'30	
morning rise	1743 Mar 15 08:26	11°♂51'18		evening set	1744 Feb 13 14:19	5°♂51'14	
direct	1743 Mar 22 03:46	9°♂32'33		inferior conj	1744 Feb 19 18:16	0°♂31'26	3°44'25
desc. node	1743 Mar 25 10:16	10°♂02'13		minimum elong	1744 Feb 19 18:06	0°♂31'53	3°44'24
morning max el	1743 Apr 05 08:41	17°♂26'13	27°45'00		1744 Feb 20 05:44	30°♂	
	1743 Apr 15 19:34	0°♂		min. Earth dist.	1744 Feb 22 08:26	27°♂42'27	0.63202 AU
	1743 May 03 20:15	0°♂		morning rise	1744 Feb 25 19:58	24°♂27'55	
morning set	1743 May 08 00:15	8°♂18'50		direct	1744 Mar 03 18:35	21°♂45'41	
asc. node	1743 May 13 22:28	20°♂53'12		desc. node	1744 Mar 11 07:19	24°♂23'11	
max. Earth dist.	1743 May 14 02:03	21°♂12'39	1.32345 AU	morning max el	1744 Mar 17 15:45	29°♂41'19	27°44'39
					1744 Mar 17 23:11	0°♂	
superior conj	1743 May 15 08:39	23°♂59'39	0°15'01		1744 Apr 08 18:07	0°♂	
minimum elong	1743 May 15 07:58	23°♂55'53	0°14'53	morning set	1744 Apr 20 23:27	22°♂30'41	
behind sun begin	1743 May 15 06:12	23°♂46'14			1744 Apr 24 15:13	0°♂	
behind sun end	1743 May 15 09:44	24°♂05'33		max. Earth dist.	1744 Apr 26 07:59	3°♂34'37	1.32893 AU
	1743 May 18 02:28	0°♂					
evening rise	1743 May 22 06:52	9°♂02'16		superior conj	1744 Apr 28 16:50	8°♂38'37	0°-11'-42
	1743 Jun 02 03:13	0°♂		minimum elong	1744 Apr 28 17:24	8°♂41'41	0°11'35
evening max el	1743 Jun 17 10:14	20°♂36'44	24°57'59	behind sun begin	1744 Apr 28 13:46	8°♂22'05	
desc. node	1743 Jun 21 09:34	23°♂57'43		behind sun end	1744 Apr 28 21:02	9°♂01'17	
retrograde	1743 Jul 01 09:44	27°♂42'42		asc. node	1744 Apr 29 19:30	11°♂02'34	
evening set	1743 Jul 06 17:58	26°♂37'27		evening rise	1744 May 05 18:44	23°♂53'19	
min. Earth dist.	1743 Jul 11 21:43	23°♂50'56	0.57396 AU		1744 May 08 17:24	0°♂	
inferior conj	1743 Jul 14 21:36	21°♂51'13	-4°-53'-46		1744 May 27 20:10	0°♂	

evening max el	1744 May 29 00:07	1°☿10'03	23°23'55		1745 May 01 14:40	0°♄	
desc. node	1744 Jun 07 06:34	7°☿15'04		evening max el	1745 May 10 18:00	11°♄45'27	21°49'33
retrograde	1744 Jun 11 14:12	7°☿57'27		retrograde	1745 May 23 06:37	17°♄54'28	
evening set	1744 Jun 15 10:35	7°☿24'56		desc. node	1745 May 25 03:36	17°♄46'32	
min. Earth dist.	1744 Jun 22 10:11	4°☿12'29	0.55826 AU	evening set	1745 May 25 21:36	17°♄39'04	
inferior conj	1744 Jun 24 09:36	3°☿02'16	-4°-15'-25	inferior conj	1745 Jun 04 06:42	13°♄36'12	-2°-49'-32
minimum elong	1744 Jun 24 02:46	3°☿12'26	4°14'05	minimum elong	1745 Jun 03 23:26	13°♄46'22	2°47'17
	1744 Jun 30 04:11	30°♄		min. Earth dist.	1745 Jun 03 22:05	13°♄48'16	0.54995 AU
morning rise	1744 Jul 02 22:12	29°♄07'31		morning rise	1745 Jun 13 02:27	9°♄42'08	
direct	1744 Jul 05 16:53	28°♄48'35		direct	1745 Jun 16 05:25	9°♄20'36	
	1744 Jul 10 22:05	0°☿		morning max el	1745 Jun 28 08:02	15°♄01'58	21°44'40
morning max el	1744 Jul 16 04:43	3°☿40'10	20°17'42		1745 Jul 09 16:31	0°☿	
asc. node	1744 Jul 26 18:45	17°☿59'06		asc. node	1745 Jul 13 15:49	7°☿07'17	
	1744 Aug 02 03:22	0°♄		morning set	1745 Jul 19 01:09	17°☿53'21	
morning set	1744 Aug 03 15:59	3°♄05'16			1745 Jul 24 19:09	0°♄	
superior conj	1744 Aug 11 08:56	18°♄52'29	1°45'37	superior conj	1745 Jul 26 08:54	3°♄18'17	1°40'07
minimum elong	1744 Aug 11 08:31	18°♄50'23	1°45'36	minimum elong	1745 Jul 26 07:16	3°♄09'45	1°40'00
max. Earth dist.	1744 Aug 16 13:15	29°♄05'51	1.36481 AU	max. Earth dist.	1745 Jul 30 02:33	11°♄00'17	1.34850 AU
	1744 Aug 17 00:33	0°♄		evening rise	1745 Aug 03 14:52	19°♄54'48	
evening rise	1744 Aug 20 12:47	6°♄34'15			1745 Aug 09 01:39	0°♄	
desc. node	1744 Sep 03 05:56	29°♄41'27		desc. node	1745 Aug 21 02:58	19°♄43'01	
	1744 Sep 03 10:45	0°♄			1745 Aug 28 10:48	0°♄	
evening max el	1744 Sep 25 05:51	28°♄15'40	25°57'40	evening max el	1745 Sep 07 18:13	11°♄51'27	26°51'26
	1744 Sep 27 02:49	0°♄		retrograde	1745 Sep 20 20:42	19°♄07'11	
retrograde	1744 Oct 07 17:16	5°♄21'34		evening set	1745 Sep 27 13:31	16°♄25'25	
evening set	1744 Oct 13 21:08	2°♄48'23		min. Earth dist.	1745 Oct 01 13:27	12°♄24'34	0.65678 AU
	1744 Oct 16 15:51	30°♄		inferior conj	1745 Oct 03 09:53	10°♄14'58	-2°-4'-17
min. Earth dist.	1744 Oct 18 04:15	28°♄10'25	0.66713 AU	minimum elong	1745 Oct 03 13:11	10°♄05'20	2°03'00
inferior conj	1744 Oct 19 12:44	26°♄28'25	-1°-6'-5	morning rise	1745 Oct 09 14:16	4°♄32'48	
minimum elong	1744 Oct 19 14:28	26°♄22'59	1°05'22	asc. node	1745 Oct 09 15:00	4°♄31'53	
asc. node	1744 Oct 22 17:55	22°♄42'43		direct	1745 Oct 12 09:03	3°♄50'03	
morning rise	1744 Oct 25 08:43	20°♄33'58		morning max el	1745 Oct 18 22:44	7°♄24'39	18°20'08
direct	1744 Oct 28 11:51	19°♄37'39			1745 Nov 03 12:29	0°♄	
morning max el	1744 Nov 04 09:48	23°♄29'18	19°00'02	morning set	1745 Nov 07 03:07	5°♄51'50	
	1744 Nov 09 18:50	0°♄		desc. node	1745 Nov 17 02:15	21°♄53'18	
morning set	1744 Nov 26 15:45	25°♄37'17		superior conj	1745 Nov 22 08:39	0°♄13'31	0°-34'-42
	1744 Nov 29 10:50	0°♄		minimum elong	1745 Nov 22 04:09	29°♄55'47	0°34'07
desc. node	1744 Nov 30 05:12	1°♄11'57			1745 Nov 22 05:13	0°♄	
max. Earth dist.	1744 Dec 11 10:47	18°♄48'58	1.44936 AU	max. Earth dist.	1745 Nov 24 05:57	3°♄11'45	1.45109 AU
superior conj	1744 Dec 13 07:20	21°♄44'28	-1°-20'-21	evening rise	1745 Dec 08 16:53	25°♄50'35	
minimum elong	1744 Dec 12 22:37	21°♄10'08	1°19'25		1745 Dec 11 08:33	0°♄	
	1744 Dec 18 12:22	0°♄		greatest brilliancy	1745 Dec 22 23:01	17°♄55'30	-0.7m
evening rise	1744 Dec 28 10:36	16°♄00'08		evening max el	1746 Jan 01 03:28	29°♄59'50	19°19'32
	1745 Jan 06 01:03	0°♄			1746 Jan 01 03:32	0°♄	
evening max el	1745 Jan 17 18:44	16°♄31'11	18°38'00	asc. node	1746 Jan 05 14:16	3°♄26'10	
asc. node	1745 Jan 18 17:12	17°♄25'29		retrograde	1746 Jan 08 05:56	4°♄04'31	
retrograde	1745 Jan 24 09:44	20°♄11'46		evening set	1746 Jan 11 14:37	2°♄58'27	
evening set	1745 Jan 27 11:38	19°♄18'15			1746 Jan 14 20:09	30°♄	
inferior conj	1745 Feb 02 07:34	13°♄39'59	3°35'40	inferior conj	1746 Jan 17 05:07	27°♄03'58	3°13'30
minimum elong	1745 Feb 02 05:57	13°♄44'52	3°35'29	minimum elong	1746 Jan 17 02:40	27°♄11'49	3°13'00
min. Earth dist.	1745 Feb 04 06:10	11°♄20'19	0.64905 AU	min. Earth dist.	1746 Jan 18 12:40	25°♄22'18	0.66213 AU
morning rise	1745 Feb 07 23:01	7°♄30'05		morning rise	1746 Jan 22 13:57	20°♄50'26	
direct	1745 Feb 14 16:37	4°♄39'17		direct	1746 Jan 28 20:44	18°♄04'39	
desc. node	1745 Feb 26 04:22	10°♄39'07		morning max el	1746 Feb 10 10:42	25°♄31'39	26°07'37
morning max el	1745 Feb 28 01:10	12°♄26'46	27°09'49	desc. node	1746 Feb 13 01:25	28°♄18'12	
	1745 Mar 14 03:07	0°♄			1746 Feb 14 13:09	0°♄	
	1745 Apr 01 07:22	0°♄			1746 Mar 07 15:22	0°♄	
morning set	1745 Apr 04 13:26	6°♄10'37		morning set	1746 Mar 18 14:21	19°♄07'29	
max. Earth dist.	1745 Apr 09 04:52	15°♄25'04	1.33883 AU	max. Earth dist.	1746 Mar 22 14:26	26°♄43'58	1.35332 AU
					1746 Mar 24 06:28	0°♄	
superior conj	1745 Apr 12 20:18	22°♄58'28	0°-39'-27	superior conj	1746 Mar 27 16:42	6°♄52'20	-1°-6'-53
minimum elong	1745 Apr 12 22:17	23°♄08'52	0°39'04	minimum elong	1746 Mar 27 20:01	7°♄09'13	1°06'21
	1745 Apr 16 03:56	0°♄		asc. node	1746 Apr 03 13:35	21°♄02'34	
asc. node	1745 Apr 16 16:32	1°♄07'01		evening rise	1746 Apr 04 13:03	23°♄03'18	
evening rise	1745 Apr 20 05:26	8°♄35'37					

	1746 Apr 07 23:47	0°♄			1747 Mar 16 01:38	0°♅		
evening max el	1746 Apr 22 21:48	22°♄49'10	20°26'51	evening rise	1747 Mar 19 15:16	7°♅09'16		
retrograde	1746 May 03 19:45	28°♄06'37		asc. node	1747 Mar 21 10:38	10°♅44'31		
evening set	1746 May 05 21:41	27°♄55'53			1747 Apr 01 15:08	0°♄		
desc. node	1746 May 12 00:38	25°♄40'01		evening max el	1747 Apr 05 13:16	4°♄32'34	19°22'15	
inferior conj	1746 May 15 01:15	23°♄58'05	0°-52'-50	retrograde	1747 Apr 14 18:35	8°♄59'55		
minimum elong	1746 May 14 22:46	24°♄01'43	0°51'57	evening set	1747 Apr 16 20:27	8°♄47'20		
min. Earth dist.	1746 May 16 10:47	23°♄09'23	0.55101 AU	inferior conj	1747 Apr 25 07:39	4°♄39'39	1°00'55	
morning rise	1746 May 23 22:07	19°♄45'25		minimum elong	1747 Apr 25 10:06	4°♄35'38	1°00'05	
direct	1746 May 27 16:16	19°♄14'59		min. Earth dist.	1747 Apr 28 01:28	2°♄52'08	0.56128 AU	
morning max el	1746 Jun 10 02:16	25°♄46'14	23°24'32	desc. node	1747 Apr 28 21:38	2°♄20'42		
	1746 Jun 14 01:59	0°♂		morning rise	1747 May 03 19:50	29°♅54'03		
asc. node	1746 Jun 30 12:52	26°♂39'44			1747 May 03 13:15	30°♅♅		
	1746 Jul 02 04:08	0°♄		direct	1747 May 08 13:10	29°♅03'10		
morning set	1746 Jul 03 12:30	2°♄48'41			1747 May 13 12:34	0°♄		
				morning max el	1747 May 22 16:53	6°♄14'20	25°05'07	
superior conj	1746 Jul 10 14:58	18°♄02'23	1°28'47		1747 Jun 08 22:15	0°♂		
minimum elong	1746 Jul 10 12:41	17°♄50'08	1°28'32	asc. node	1747 Jun 17 09:55	16°♂29'46		
max. Earth dist.	1746 Jul 13 01:13	23°♄12'43	1.33599 AU	morning set	1747 Jun 18 00:25	17°♂45'57		
	1746 Jul 16 07:33	0°♂			1747 Jun 23 16:20	0°♄		
evening rise	1746 Jul 18 05:42	3°♂52'52						
	1746 Aug 01 19:49	0°♄		superior conj	1747 Jun 25 00:48	2°♄57'20	1°12'44	
desc. node	1746 Aug 07 23:59	9°♄16'12		minimum elong	1747 Jun 24 22:23	2°♄44'13	1°12'21	
evening max el	1746 Aug 21 05:56	25°♄11'59	27°21'36	max. Earth dist.	1747 Jun 26 07:40	5°♄45'27	1.32747 AU	
	1746 Aug 27 06:21	0°♂		evening rise	1747 Jul 02 05:38	18°♄17'54		
retrograde	1746 Sep 03 18:16	2°♂30'10			1747 Jul 08 04:33	0°♂		
evening set	1746 Sep 10 20:28	29°♄48'21		desc. node	1747 Jul 25 20:59	28°♂09'07		
	1746 Sep 10 14:14	30°♅♄			1747 Jul 27 07:44	0°♄		
min. Earth dist.	1746 Sep 14 14:02	26°♄23'26	0.64288 AU	evening max el	1747 Aug 03 14:56	8°♄04'43	27°22'12	
inferior conj	1746 Sep 16 23:16	23°♄51'31	-3°-1'-21	retrograde	1747 Aug 17 09:38	15°♄21'40		
minimum elong	1746 Sep 17 03:56	23°♄39'06	2°59'47	evening set	1747 Aug 24 14:31	12°♄51'49		
morning rise	1746 Sep 23 13:26	18°♄25'05		min. Earth dist.	1747 Aug 28 04:35	9°♄56'40	0.62558 AU	
direct	1746 Sep 26 02:19	17°♄52'17		inferior conj	1747 Aug 31 02:05	7°♄11'52	-3°-53'-33	
asc. node	1746 Sep 26 12:05	17°♄53'08		minimum elong	1747 Aug 31 07:22	6°♄59'18	3°52'14	
morning max el	1746 Oct 02 14:34	21°♄18'38	17°57'15	morning rise	1747 Sep 07 02:52	2°♄04'28		
	1746 Oct 09 05:53	0°♂		direct	1747 Sep 09 12:28	1°♄38'26		
morning set	1746 Oct 19 18:29	17°♂27'49		asc. node	1747 Sep 13 09:07	2°♄47'32		
	1746 Oct 27 05:13	0°♄		morning max el	1747 Sep 16 06:23	5°♄04'59	17°52'15	
				morning set	1747 Oct 02 08:15	0°♂08'12		
superior conj	1746 Nov 01 23:06	9°♄25'01	0°13'31		1747 Oct 02 06:25	0°♂		
minimum elong	1746 Nov 02 00:39	9°♄31'17	0°13'17					
behind sun begin	1746 Nov 01 18:45	9°♄07'25		superior conj	1747 Oct 13 15:28	19°♂54'05	0°53'53	
behind sun end	1746 Nov 02 06:32	9°♄55'07		minimum elong	1747 Oct 13 19:55	20°♂12'56	0°53'18	
desc. node	1746 Nov 03 23:16	12°♄39'10			1747 Oct 19 17:18	0°♄		
max. Earth dist.	1746 Nov 07 00:39	17°♄31'58	1.44544 AU	max. Earth dist.	1747 Oct 20 15:34	1°♄30'33	1.43323 AU	
	1746 Nov 14 23:31	0°♄		desc. node	1747 Oct 21 20:19	3°♄26'40		
evening rise	1746 Nov 18 05:18	5°♄00'32		evening rise	1747 Oct 28 14:07	14°♄06'35		
	1746 Dec 04 20:00	0°♄			1747 Nov 08 01:13	0°♄		
greatest brilliancy	1746 Dec 08 20:57	5°♄39'30	-0.6m	greatest brilliancy	1747 Nov 23 05:00	21°♄12'10	-0.4m	
evening max el	1746 Dec 15 07:18	13°♄29'09	20°16'24	evening max el	1747 Nov 28 05:25	26°♄58'58	21°25'40	
retrograde	1746 Dec 23 03:48	18°♄06'14			1747 Dec 01 14:20	0°♄		
asc. node	1746 Dec 23 11:19	18°♄05'41		retrograde	1747 Dec 07 01:12	2°♄13'50		
evening set	1746 Dec 26 20:53	16°♄46'10		asc. node	1747 Dec 10 08:21	1°♄13'32		
inferior conj	1747 Jan 01 08:04	10°♄38'25	2°41'09	evening set	1747 Dec 11 04:33	0°♄38'13		
minimum elong	1747 Jan 01 05:25	10°♄47'22	2°40'23		1747 Dec 11 22:36	30°♅♄		
min. Earth dist.	1747 Jan 02 02:08	9°♄37'23	0.67115 AU	inferior conj	1747 Dec 16 14:13	24°♄20'40	2°00'49	
morning rise	1747 Jan 06 13:27	4°♄23'11		minimum elong	1747 Dec 16 11:52	24°♄28'48	1°59'59	
direct	1747 Jan 12 06:12	1°♄52'20		min. Earth dist.	1747 Dec 16 20:21	23°♄59'28	0.67639 AU	
morning max el	1747 Jan 23 19:22	8°♄45'38	24°47'25	morning rise	1747 Dec 21 18:52	18°♄05'44		
desc. node	1747 Jan 30 22:28	16°♄55'47		direct	1747 Dec 26 20:29	15°♄55'28		
	1747 Feb 09 12:40	0°♄		morning max el	1748 Jan 06 04:20	22°♄04'09	23°19'18	
	1747 Feb 28 05:52	0°♄		greatest brilliancy	1748 Jan 11 11:45	28°♄02'22	-0.2m	
morning set	1747 Feb 28 20:55	1°♄06'21			1748 Jan 13 01:37	0°♄		
max. Earth dist.	1747 Mar 04 13:43	7°♄46'39	1.37186 AU	desc. node	1748 Jan 17 19:30	6°♄15'11		
					1748 Feb 02 20:32	0°♄		
superior conj	1747 Mar 11 02:52	20°♄11'31	-1°-32'-7	morning set	1748 Feb 10 02:50	11°♄50'26		
minimum elong	1747 Mar 11 07:03	20°♄31'53	1°31'36	max. Earth dist.	1748 Feb 14 08:23	19°♄04'37	1.39297 AU	

	1748 Feb 20 10:58	0°☿		superior conj	1749 Feb 02 23:36	14°≈22'36	-2°-3'-39
				minimum elong	1749 Feb 03 01:04	14°≈29'01	2°03'38
superior conj	1748 Feb 21 22:49	2°☿45'27	-1°-52'-20		1749 Feb 11 15:01	0°☿	
minimum elong	1748 Feb 22 02:40	3°☿03'23	1°52'03	evening rise	1749 Feb 13 15:35	3°☿44'25	
evening rise	1748 Mar 02 09:14	20°☿45'36		asc. node	1749 Feb 22 04:41	19°☿03'39	
asc. node	1748 Mar 07 07:39	0°☿07'03		evening max el	1749 Mar 01 22:57	29°☿41'26	18°13'01
	1748 Mar 07 06:08	0°☿			1749 Mar 02 06:42	0°☿	
evening max el	1748 Mar 18 14:42	16°☿52'43	18°37'38	retrograde	1749 Mar 08 21:36	3°☿10'34	
retrograde	1748 Mar 26 10:54	20°☿42'43		evening set	1749 Mar 11 10:12	2°☿43'41	
evening set	1748 Mar 28 17:55	20°☿24'13			1749 Mar 15 23:38	30°☿☿	
inferior conj	1748 Apr 05 10:04	15°☿58'20	2°26'44	inferior conj	1749 Mar 18 09:26	27°☿56'27	3°18'36
minimum elong	1748 Apr 05 14:08	15°☿50'33	2°25'39	minimum elong	1749 Mar 18 12:24	27°☿49'51	3°18'07
min. Earth dist.	1748 Apr 08 19:21	13°☿23'55	0.57863 AU	min. Earth dist.	1749 Mar 21 18:19	24°☿57'29	0.59960 AU
morning rise	1748 Apr 13 06:02	10°☿39'56		morning rise	1749 Mar 25 11:07	22°☿14'07	
desc. node	1748 Apr 14 18:40	10°☿01'52		direct	1749 Apr 01 00:25	20°☿13'53	
direct	1748 Apr 19 00:29	9°☿16'20		desc. node	1749 Apr 01 15:41	20°☿15'00	
morning max el	1748 May 03 09:27	16°☿52'31	26°30'53	morning max el	1749 Apr 15 07:36	28°☿02'55	27°28'11
	1748 May 14 04:13	0°♄			1749 Apr 17 05:06	0°☿	
	1748 May 31 04:43	0°♄			1749 May 07 20:37	0°♄	
morning set	1748 Jun 01 11:09	2°♄38'29		morning set	1749 May 16 19:03	17°♄20'31	
asc. node	1748 Jun 03 06:56	6°♄30'58		asc. node	1749 May 21 03:58	26°♄38'43	
					1749 May 22 16:53	0°♄	
superior conj	1748 Jun 08 12:21	17°♄55'20	0°52'45	superior conj	1749 May 23 23:57	2°♄50'26	0°29'34
minimum elong	1748 Jun 08 10:18	17°♄44'03	0°52'22	minimum elong	1749 May 23 22:40	2°♄43'22	0°29'18
max. Earth dist.	1748 Jun 08 18:44	18°♄30'23	1.32290 AU	max. Earth dist.	1749 May 23 06:58	1°♄17'11	1.32218 AU
	1748 Jun 14 01:39	0°♄		evening rise	1749 May 30 21:34	17°♄50'27	
evening rise	1748 Jun 15 11:41	2°♄59'38			1749 Jun 05 21:53	0°♄	
	1748 Jun 30 01:23	0°♄			1749 Jun 25 22:32	0°♄	
desc. node	1748 Jul 11 17:59	16°♄03'59		evening max el	1749 Jun 27 15:56	1°♄43'30	25°46'01
evening max el	1748 Jul 15 18:50	20°♄17'13	26°49'54	desc. node	1749 Jun 28 14:59	2°♄36'58	
retrograde	1748 Jul 29 17:40	27°♄31'10		retrograde	1749 Jul 11 16:23	8°♄52'52	
evening set	1748 Aug 05 15:12	25°♄27'14		evening set	1749 Jul 17 17:52	7°♄25'31	
min. Earth dist.	1748 Aug 09 08:52	22°♄49'13	0.60571 AU	min. Earth dist.	1749 Jul 22 04:17	4°♄47'14	0.58515 AU
inferior conj	1748 Aug 12 14:54	20°♄06'43	-4°-35'-1	inferior conj	1749 Jul 25 10:12	2°♄26'33	-4°-56'-5
minimum elong	1748 Aug 12 19:14	19°♄57'38	4°34'23	minimum elong	1749 Jul 25 11:12	2°♄24'45	4°56'04
morning rise	1748 Aug 20 02:28	15°♄21'01			1749 Jul 29 00:20	30°☿☿	
direct	1748 Aug 22 11:38	14°♄59'06		morning rise	1749 Aug 02 08:04	28°☿03'46	
morning max el	1748 Aug 29 19:02	18°♄34'43	18°06'16	direct	1749 Aug 04 19:36	27°☿43'55	
asc. node	1748 Aug 30 06:09	19°♄02'22			1749 Aug 11 02:08	0°♄	
	1748 Sep 07 02:04	0°♄		morning max el	1749 Aug 13 01:19	1°♄38'50	18°40'35
morning set	1748 Sep 14 14:22	13°♄35'24		asc. node	1749 Aug 17 03:11	6°♄22'34	
	1748 Sep 23 11:45	0°♄		morning set	1749 Aug 29 08:01	27°♄36'12	
superior conj	1748 Sep 24 10:07	1°♄40'18	1°22'19		1749 Aug 30 13:34	0°♄	
minimum elong	1748 Sep 24 14:18	1°♄58'55	1°21'54	superior conj	1749 Sep 07 02:09	14°♄29'41	1°39'00
max. Earth dist.	1748 Oct 02 01:09	14°♄53'11	1.41598 AU	minimum elong	1749 Sep 07 04:35	14°♄41'10	1°38'51
evening rise	1748 Oct 07 12:15	23°♄51'50		max. Earth dist.	1749 Sep 14 06:21	27°♄34'09	1.39596 AU
desc. node	1748 Oct 07 17:20	24°♄12'16			1749 Sep 15 15:44	0°♄	
	1748 Oct 11 09:04	0°♄		evening rise	1749 Sep 18 09:20	4°♄40'55	
greatest brilliancy	1748 Nov 01 01:14	0°♄		desc. node	1749 Sep 24 14:21	14°♄52'03	
evening max el	1748 Nov 04 23:28	4°♄57'58	-0.3m		1749 Oct 04 12:59	0°♄	
evening max el	1748 Nov 09 22:26	10°♄31'10	22°43'10	evening max el	1749 Oct 23 11:57	24°♄06'51	24°03'11
retrograde	1748 Nov 19 20:26	16°♄24'34			1749 Oct 31 13:36	0°♄	
evening set	1748 Nov 24 11:58	14°♄32'11		retrograde	1749 Nov 03 12:12	0°♄34'51	
asc. node	1748 Nov 26 05:22	12°♄52'28			1749 Nov 06 06:12	30°☿☿	
inferior conj	1748 Nov 29 21:38	8°♄08'41	1°14'09	evening set	1749 Nov 08 17:31	28°♄25'08	
minimum elong	1748 Nov 29 20:00	8°♄14'19	1°13'29	asc. node	1749 Nov 13 02:24	23°♄27'45	
min. Earth dist.	1748 Nov 29 16:51	8°♄25'10	0.67812 AU	min. Earth dist.	1749 Nov 13 13:12	22°♄51'31	0.67652 AU
morning rise	1748 Dec 05 03:56	1°♄56'16		inferior conj	1749 Nov 14 04:30	21°♄59'44	0°22'25
direct	1748 Dec 09 14:43	0°♄08'44		minimum elong	1749 Nov 14 03:58	22°♄01'34	0°22'11
morning max el	1748 Dec 18 16:55	5°♄29'20	21°52'48	morning rise	1749 Nov 19 14:38	15°♄52'20	
greatest brilliancy	1748 Dec 23 11:22	10°♄52'18	-0.4m	direct	1749 Nov 23 11:42	14°♄26'54	
desc. node	1749 Jan 03 16:33	26°♄04'47		morning max el	1749 Dec 01 12:21	19°♄04'46	20°35'01
	1749 Jan 06 09:01	0°♄		greatest brilliancy	1749 Dec 07 14:41	26°♄16'09	-0.5m
morning set	1749 Jan 20 03:37	21°♄10'16			1749 Dec 10 09:12	0°♄	
	1749 Jan 25 13:40	0°≈		desc. node	1749 Dec 21 13:35	16°♄15'46	
max. Earth dist.	1749 Jan 26 06:35	1°≈10'22	1.41410 AU				

morning set	1749 Dec 30 04:30	29°♂26'20		greatest brilliancy	1750 Nov 23 08:25	13°♂52'28	-0.7m
	1749 Dec 30 13:10	0°♂			1750 Dec 04 02:17	0°♂	
max. Earth dist.	1750 Jan 08 12:48	14°♂13'29	1.43230 AU	desc. node	1750 Dec 08 10:40	6°♂42'25	
				morning set	1750 Dec 09 02:44	7°♂44'34	
superior conj	1750 Jan 15 00:03	24°♂50'38	-2°-1'-13	max. Earth dist.	1750 Dec 22 02:18	28°♂02'19	1.44510 AU
minimum elong	1750 Jan 14 20:40	24°♂36'32	2°01'07		1750 Dec 23 07:58	0°♂	
	1750 Jan 18 01:33	0°♂					
evening rise	1750 Jan 27 06:13	15°♂56'58		superior conj	1750 Dec 25 22:14	4°♂08'12	-1°-40'-40
	1750 Feb 04 08:05	0°♂		minimum elong	1750 Dec 25 14:04	3°♂35'34	1°40'00
asc. node	1750 Feb 09 01:43	7°♂25'35		evening rise	1751 Jan 09 00:56	27°♂16'35	
evening max el	1750 Feb 13 10:46	12°♂48'57	18°07'55		1751 Jan 10 15:55	0°♂	
retrograde	1750 Feb 19 23:10	16°♂12'42		asc. node	1751 Jan 26 22:45	25°♂03'00	
evening set	1750 Feb 22 16:44	15°♂36'11		evening max el	1751 Jan 27 23:16	26°♂08'34	18°21'43
inferior conj	1750 Mar 01 02:40	10°♂27'36	3°41'30	retrograde	1751 Feb 03 11:02	29°♂40'03	
minimum elong	1750 Mar 01 03:36	10°♂25'12	3°41'28	evening set	1751 Feb 06 09:37	28°♂53'04	
min. Earth dist.	1750 Mar 04 00:57	7°♂29'07	0.62077 AU	inferior conj	1751 Feb 12 09:46	23°♂24'48	3°42'35
morning rise	1750 Mar 07 12:04	4°♂30'01		minimum elong	1751 Feb 12 08:55	23°♂27'16	3°42'33
direct	1750 Mar 14 10:03	1°♂59'47		min. Earth dist.	1751 Feb 14 17:14	20°♂47'00	0.63971 AU
desc. node	1750 Mar 19 12:43	3°♂12'28		morning rise	1751 Feb 18 06:37	17°♂18'00	
morning max el	1750 Mar 28 11:52	9°♂54'21	27°49'26	direct	1751 Feb 25 03:48	14°♂30'40	
	1750 Apr 13 03:00	0°♂		desc. node	1751 Mar 06 09:48	18°♂26'21	
	1750 Apr 30 01:20	0°♂		morning max el	1751 Mar 10 20:26	22°♂23'55	27°33'47
morning set	1750 Apr 30 22:05	1°♂45'00			1751 Mar 17 13:27	0°♂	
max. Earth dist.	1750 May 06 16:27	13°♂51'59	1.32529 AU		1751 Apr 06 07:53	0°♂	
				morning set	1751 Apr 14 17:47	15°♂44'03	
superior conj	1750 May 08 09:52	17°♂36'24	0°03'55	max. Earth dist.	1751 Apr 19 19:11	26°♂02'00	1.33257 AU
minimum elong	1750 May 08 09:41	17°♂35'24	0°03'53		1751 Apr 21 16:22	0°♂	
behind sun begin	1750 May 08 04:40	17°♂08'09					
behind sun end	1750 May 08 14:42	18°♂02'41		superior conj	1751 Apr 22 16:17	2°♂07'20	0°-23'-24
asc. node	1750 May 08 01:01	16°♂48'20		minimum elong	1751 Apr 22 17:27	2°♂13'31	0°23'11
	1750 May 14 02:41	0°♂		asc. node	1751 Apr 24 22:05	6°♂55'40	
evening rise	1750 May 15 09:13	2°♂42'57		evening rise	1751 Apr 29 20:49	17°♂30'37	
	1750 May 30 05:06	0°♂			1751 May 06 01:49	0°♂	
evening max el	1750 Jun 09 06:59	12°♂29'29	24°18'59	evening max el	1751 May 21 21:25	22°♂58'30	22°42'57
desc. node	1750 Jun 15 11:58	17°♂16'24		desc. node	1751 Jun 02 09:00	29°♂25'48	
retrograde	1750 Jun 23 03:36	19°♂28'57		retrograde	1751 Jun 04 02:38	29°♂32'40	
evening set	1750 Jun 27 21:09	18°♂39'04		evening set	1751 Jun 07 09:04	29°♂09'12	
min. Earth dist.	1750 Jul 03 17:54	15°♂43'19	0.56663 AU	min. Earth dist.	1751 Jun 15 05:35	25°♂42'14	0.55360 AU
inferior conj	1750 Jul 06 09:31	14°♂03'14	-4°-43'-19	inferior conj	1751 Jun 16 14:01	24°♂55'48	-3°-44'-25
minimum elong	1750 Jul 06 05:15	14°♂09'59	4°42'50	minimum elong	1751 Jun 16 06:15	25°♂06'57	3°42'30
morning rise	1750 Jul 14 17:00	10°♂01'04		morning rise	1751 Jun 25 06:08	21°♂04'05	
direct	1750 Jul 17 08:51	9°♂42'04		direct	1751 Jun 28 03:43	20°♂44'38	
morning max el	1750 Jul 26 22:23	14°♂08'37	19°36'13	morning max el	1751 Jul 09 08:19	25°♂56'08	20°52'43
asc. node	1750 Aug 04 00:15	24°♂34'14			1751 Jul 13 03:05	0°♂	
	1750 Aug 07 04:08	0°♂		asc. node	1751 Jul 21 21:20	13°♂24'33	
morning set	1750 Aug 13 09:46	12°♂01'32		morning set	1751 Jul 28 16:50	26°♂43'04	
					1751 Jul 30 06:55	0°♂	
superior conj	1750 Aug 21 10:06	28°♂07'23	1°45'37				
minimum elong	1750 Aug 21 10:38	28°♂10'00	1°45'36	superior conj	1751 Aug 05 05:18	12°♂19'03	1°44'04
	1750 Aug 22 09:02	0°♂		minimum elong	1751 Aug 05 04:18	12°♂13'56	1°44'02
max. Earth dist.	1750 Aug 27 10:32	9°♂40'02	1.37566 AU	max. Earth dist.	1751 Aug 09 18:56	21°♂30'29	1.35739 AU
evening rise	1750 Aug 31 06:10	16°♂37'02		evening rise	1751 Aug 13 22:55	29°♂30'14	
	1750 Sep 08 02:45	0°♂			1751 Aug 14 05:17	0°♂	
desc. node	1750 Sep 11 11:22	5°♂21'53		desc. node	1751 Aug 29 08:23	25°♂35'43	
	1750 Sep 29 00:11	0°♂			1751 Sep 01 07:08	0°♂	
evening max el	1750 Oct 05 23:58	7°♂46'00	25°18'51	evening max el	1751 Sep 18 11:54	21°♂24'22	26°22'49
retrograde	1750 Oct 17 23:43	14°♂40'52		retrograde	1751 Oct 01 06:23	28°♂36'00	
evening set	1750 Oct 23 19:34	12°♂15'04		evening set	1751 Oct 07 16:08	25°♂57'58	
min. Earth dist.	1750 Oct 28 07:02	7°♂16'32	0.67159 AU	min. Earth dist.	1751 Oct 11 20:01	21°♂36'01	0.66322 AU
inferior conj	1750 Oct 29 09:08	5°♂51'56	0°-33'-1	inferior conj	1751 Oct 13 09:35	19°♂41'26	-1°-30'-44
minimum elong	1750 Oct 29 09:58	5°♂49'12	0°32'40	minimum elong	1751 Oct 13 11:59	19°♂34'07	1°29'45
asc. node	1750 Oct 30 23:27	3°♂50'09		asc. node	1751 Oct 17 20:32	14°♂54'59	
	1750 Nov 03 20:20	30°♂		morning rise	1751 Oct 19 09:00	13°♂52'06	
morning rise	1750 Nov 04 01:01	29°♂52'11		direct	1751 Oct 22 08:14	13°♂02'09	
direct	1750 Nov 07 10:06	28°♂46'18		morning max el	1751 Oct 29 01:54	16°♂45'23	18°41'00
	1750 Nov 11 04:44	0°♂			1751 Nov 07 23:53	0°♂	
morning max el	1750 Nov 14 15:46	2°♂51'33	19°30'22	morning set	1751 Nov 18 21:20	17°♂08'16	

desc. node	1751 Nov 25 07:42	27° \mathbb{M} 19'16		morning set	1752 Oct 29 21:04	27° \mathbb{L} 58'46	
	1751 Nov 27 00:29	0° \mathbb{X}			1752 Oct 31 02:24	0° \mathbb{M}	
superior conj	1751 Dec 05 01:47	12° \mathbb{X} 39'33	-1°-2'-6	desc. node	1752 Nov 11 04:42	18° \mathbb{M} 02'39	
minimum elong	1751 Dec 04 18:12	12° \mathbb{X} 09'45	1°01'12	superior conj	1752 Nov 13 06:19	21° \mathbb{M} 20'20	0°-13'-49
max. Earth dist.	1751 Dec 04 19:53	12° \mathbb{X} 16'23	1.45101 AU	minimum elong	1752 Nov 13 04:34	21° \mathbb{M} 13'21	0°13'36
	1751 Dec 16 01:32	0° \mathbb{Z}		behind sun begin	1752 Nov 12 22:35	20° \mathbb{M} 49'36	
evening rise	1751 Dec 20 20:27	7° \mathbb{Z} 38'06		behind sun end	1752 Nov 13 10:33	21° \mathbb{M} 37'06	
	1752 Jan 04 00:54	0° \mathbb{X}		max. Earth dist.	1752 Nov 16 14:36	26° \mathbb{M} 37'52	1.44957 AU
evening max el	1752 Jan 11 09:56	9° \mathbb{X} 34'47	18°53'37		1752 Nov 18 18:02	0° \mathbb{X}	
asc. node	1752 Jan 13 19:47	11° \mathbb{X} 43'04		evening rise	1752 Nov 29 17:49	17° \mathbb{X} 07'27	
retrograde	1752 Jan 18 05:08	13° \mathbb{X} 24'55			1752 Dec 08 01:58	0° \mathbb{Z}	
evening set	1752 Jan 21 09:39	12° \mathbb{X} 26'22		greatest brilliancy	1752 Dec 16 23:00	13° \mathbb{Z} 15'34	-0.6m
inferior conj	1752 Jan 27 02:58	6° \mathbb{X} 40'47	3°27'42	evening max el	1752 Dec 24 16:43	23° \mathbb{Z} 03'41	19°42'04
minimum elong	1752 Jan 27 00:56	6° \mathbb{X} 47'09	3°27'23	asc. node	1752 Dec 30 16:50	27° \mathbb{Z} 10'41	
min. Earth dist.	1752 Jan 28 19:03	4° \mathbb{X} 36'27	0.65506 AU	retrograde	1753 Jan 01 02:16	27° \mathbb{Z} 21'25	
morning rise	1752 Feb 01 15:09	0° \mathbb{X} 28'46		evening set	1753 Jan 04 14:14	26° \mathbb{Z} 09'47	
	1752 Feb 02 04:53	30° \mathbb{R} \mathbb{Z}		inferior conj	1753 Jan 10 03:07	20° \mathbb{Z} 09'29	3°00'53
direct	1752 Feb 08 04:34	27° \mathbb{Z} 38'34		minimum elong	1753 Jan 10 00:31	20° \mathbb{Z} 18'02	3°00'15
	1752 Feb 14 22:09	0° \mathbb{X}		min. Earth dist.	1753 Jan 11 04:50	18° \mathbb{Z} 44'41	0.66645 AU
desc. node	1752 Feb 21 06:53	5° \mathbb{X} 21'12		morning rise	1753 Jan 15 10:06	13° \mathbb{Z} 54'53	
morning max el	1752 Feb 21 06:22	5° \mathbb{X} 19'55	26°46'13	direct	1753 Jan 21 11:15	11° \mathbb{Z} 14'09	
	1752 Mar 11 03:55	0° \mathbb{X}		morning max el	1753 Feb 02 15:23	18° \mathbb{Z} 28'57	25°35'01
morning set	1752 Mar 28 02:49	29° \mathbb{X} 07'43		desc. node	1753 Feb 07 03:55	23° \mathbb{Z} 27'25	
	1752 Mar 28 13:46	0° \mathbb{Y}			1753 Feb 12 09:07	0° \mathbb{X}	
max. Earth dist.	1752 Apr 01 11:25	7° \mathbb{Y} 38'31	1.34436 AU		1753 Mar 04 04:49	0° \mathbb{X}	
				morning set	1753 Mar 10 20:35	11° \mathbb{X} 41'42	
superior conj	1752 Apr 05 17:06	16° \mathbb{Y} 17'06	0°-51'-14	max. Earth dist.	1753 Mar 14 15:43	18° \mathbb{X} 45'12	1.36071 AU
minimum elong	1752 Apr 05 19:40	16° \mathbb{Y} 30'28	0°50'46				
asc. node	1752 Apr 10 19:07	26° \mathbb{Y} 56'53		superior conj	1753 Mar 20 09:32	29° \mathbb{X} 57'09	-1°-18'-1
	1752 Apr 12 06:02	0° \mathbb{X}		minimum elong	1753 Mar 20 13:18	0° \mathbb{Y} 16'02	1°17'27
evening rise	1752 Apr 13 06:29	2° \mathbb{X} 07'30			1753 Mar 20 10:06	0° \mathbb{Y}	
	1752 Apr 29 09:38	0° \mathbb{II}		evening rise	1753 Mar 28 12:04	16° \mathbb{Y} 26'16	
evening max el	1752 May 02 18:58	3° \mathbb{II} 43'34	21°12'31	asc. node	1753 Mar 28 16:08	16° \mathbb{Y} 46'58	
retrograde	1752 May 14 16:44	9° \mathbb{II} 32'00			1753 Apr 04 12:04	0° \mathbb{X}	
evening set	1752 May 16 23:43	9° \mathbb{II} 19'51		evening max el	1753 Apr 15 03:53	15° \mathbb{X} 04'01	19°57'04
desc. node	1752 May 19 06:02	8° \mathbb{II} 45'37		retrograde	1753 Apr 25 08:03	19° \mathbb{X} 58'36	
inferior conj	1752 May 26 08:17	5° \mathbb{II} 21'07	-2°-2'-2	evening set	1753 Apr 27 08:50	19° \mathbb{X} 47'43	
minimum elong	1752 May 26 02:38	5° \mathbb{II} 29'04	2°00'06	inferior conj	1753 May 06 06:19	15° \mathbb{X} 47'41	0°-2'-20
min. Earth dist.	1752 May 26 18:00	5° \mathbb{II} 07'26	0.54910 AU	minimum elong	1753 May 06 06:13	15° \mathbb{X} 47'51	0°02'19
morning rise	1752 Jun 04 05:29	1° \mathbb{II} 21'15		transit middle	1753 May 06 06:13	15° \mathbb{X} 47'51	0°02'19
direct	1752 Jun 07 13:33	0° \mathbb{II} 57'08		transit begin	1753 May 06 02:16	15° \mathbb{X} 53'50	
morning max el	1752 Jun 20 07:28	7° \mathbb{II} 01'04	22°26'14	transit end	1753 May 06 10:09	15° \mathbb{X} 41'51	
	1752 Jul 06 08:15	0° \mathbb{Z}		desc. node	1753 May 06 03:05	15° \mathbb{X} 52'36	
asc. node	1752 Jul 07 18:24	2° \mathbb{Z} 43'51		min. Earth dist.	1753 May 08 07:39	14° \mathbb{X} 32'58	0.55433 AU
morning set	1752 Jul 12 03:08	11° \mathbb{Z} 34'47		morning rise	1753 May 15 00:38	11° \mathbb{X} 21'46	
				direct	1753 May 19 04:07	10° \mathbb{X} 43'58	
superior conj	1752 Jul 19 08:13	26° \mathbb{Z} 53'53	1°35'57	morning max el	1753 Jun 01 23:15	17° \mathbb{X} 34'25	24°08'03
minimum elong	1752 Jul 19 06:15	26° \mathbb{Z} 43'26	1°35'47		1753 Jun 12 02:39	0° \mathbb{II}	
	1752 Jul 20 19:33	0° \mathbb{Q}		asc. node	1753 Jun 24 15:26	22° \mathbb{II} 23'55	
max. Earth dist.	1752 Jul 22 11:54	3° \mathbb{Q} 29'57	1.34263 AU	morning set	1753 Jun 26 14:53	26° \mathbb{II} 30'45	
evening rise	1752 Jul 27 06:56	13° \mathbb{Q} 08'18			1753 Jun 28 06:15	0° \mathbb{Z}	
	1752 Aug 05 11:55	0° \mathbb{M}					
desc. node	1752 Aug 15 05:22	15° \mathbb{M} 26'18		superior conj	1753 Jul 03 16:07	11° \mathbb{Z} 42'49	1°22'30
	1752 Aug 26 08:03	0° \mathbb{L}		minimum elong	1753 Jul 03 13:43	11° \mathbb{Z} 29'51	1°22'11
evening max el	1752 Aug 31 00:02	4° \mathbb{L} 54'41	27°07'29	max. Earth dist.	1753 Jul 05 14:02	15° \mathbb{Z} 50'09	1.33188 AU
retrograde	1752 Sep 13 07:37	12° \mathbb{L} 13'01		evening rise	1753 Jul 11 02:01	27° \mathbb{Z} 18'42	
evening set	1752 Sep 20 04:54	9° \mathbb{L} 29'53			1753 Jul 12 10:15	0° \mathbb{Q}	
min. Earth dist.	1752 Sep 24 01:53	5° \mathbb{L} 44'34	0.65131 AU		1753 Jul 29 18:42	0° \mathbb{M}	
inferior conj	1752 Sep 26 03:45	3° \mathbb{L} 24'23	-2°-28'-48	desc. node	1753 Aug 02 02:23	4° \mathbb{M} 43'42	
minimum elong	1752 Sep 26 07:41	3° \mathbb{L} 13'19	2°27'21	evening max el	1753 Aug 13 11:05	18° \mathbb{M} 05'26	27°25'52
	1752 Sep 29 09:50	30° \mathbb{R} \mathbb{M}		retrograde	1753 Aug 27 02:43	25° \mathbb{M} 23'15	
morning rise	1752 Oct 02 12:10	27° \mathbb{M} 48'30		evening set	1753 Sep 03 06:51	22° \mathbb{M} 45'16	
asc. node	1752 Oct 03 17:36	27° \mathbb{M} 21'39		min. Earth dist.	1753 Sep 06 22:32	19° \mathbb{M} 33'45	0.63586 AU
direct	1752 Oct 05 04:00	27° \mathbb{M} 10'33		inferior conj	1753 Sep 09 13:02	16° \mathbb{M} 55'06	-3°-24'-22
	1752 Oct 10 23:22	0° \mathbb{L}		minimum elong	1753 Sep 09 18:05	16° \mathbb{M} 42'13	3°22'51
morning max el	1752 Oct 11 16:25	0° \mathbb{L} 40'57	18°08'10	morning rise	1753 Sep 16 07:37	11° \mathbb{M} 36'02	

direct	1753 Sep 18 18:44	11° \mathbb{M} 06'28		inferior conj	1754 Aug 23 10:18	0° \mathbb{M} 05'17	-4°-12'-59
asc. node	1753 Sep 20 14:39	11° \mathbb{M} 23'05		minimum elong	1754 Aug 23 15:26	29° \mathcal{O} 53'42	4°11'54
morning max el	1753 Sep 25 08:32	14° \mathbb{M} 32'10	17°52'49		1754 Aug 23 12:38	30° \mathcal{R} \mathcal{O}	
	1753 Oct 06 02:32	0° \mathcal{A}		morning rise	1754 Aug 30 15:39	25° \mathcal{O} 06'37	
morning set	1753 Oct 11 22:52	10° \mathcal{A} 05'04		direct	1754 Sep 02 00:52	24° \mathcal{O} 42'29	
	1753 Oct 23 15:49	0° \mathbb{M}		asc. node	1754 Sep 07 11:40	26° \mathcal{O} 52'49	
				morning max el	1754 Sep 08 23:19	28° \mathcal{O} 11'34	17°55'52
superior conj	1753 Oct 24 07:06	1° \mathbb{M} 03'05	0°31'57		1754 Sep 10 15:34	0° \mathbb{M}	
minimum elong	1753 Oct 24 10:22	1° \mathbb{M} 16'30	0°31'31	morning set	1754 Sep 24 20:16	23° \mathbb{M} 07'11	
desc. node	1753 Oct 29 01:43	8° \mathbb{M} 49'36			1754 Sep 28 15:11	0° \mathcal{A}	
max. Earth dist.	1753 Oct 30 08:04	10° \mathbb{M} 51'23	1.44102 AU				
evening rise	1753 Nov 09 02:41	26° \mathbb{M} 11'08		superior conj	1754 Oct 05 11:03	12° \mathcal{A} 05'46	1°07'27
	1753 Nov 11 14:20	0° \mathcal{A}		minimum elong	1754 Oct 05 15:40	12° \mathcal{A} 25'45	1°06'55
greatest brilliancy	1753 Dec 02 01:35	29° \mathcal{A} 48'57	-0.5m	max. Earth dist.	1754 Oct 12 21:30	24° \mathcal{A} 38'31	1.42640 AU
	1753 Dec 02 04:59	0° \mathcal{B}		desc. node	1754 Oct 15 22:43	29° \mathcal{A} 36'22	
evening max el	1753 Dec 07 18:18	6° \mathcal{B} 34'06	20°44'35		1754 Oct 16 04:36	0° \mathbb{M}	
retrograde	1753 Dec 16 00:03	11° \mathcal{B} 26'19		evening rise	1754 Oct 19 15:24	5° \mathbb{M} 29'22	
asc. node	1753 Dec 17 13:53	11° \mathcal{B} 12'24			1754 Nov 04 22:39	0° \mathcal{A}	
evening set	1753 Dec 19 21:19	9° \mathcal{B} 59'51		greatest brilliancy	1754 Nov 15 20:16	14° \mathcal{A} 42'07	-0.4m
inferior conj	1753 Dec 25 07:41	3° \mathcal{B} 47'45	2°24'55	evening max el	1754 Nov 20 14:12	20° \mathcal{A} 04'56	21°57'52
minimum elong	1753 Dec 25 05:06	3° \mathcal{B} 56'35	2°24'05	retrograde	1754 Nov 29 20:39	25° \mathcal{A} 35'50	
min. Earth dist.	1753 Dec 25 20:33	3° \mathcal{B} 03'46	0.67391 AU	evening set	1754 Dec 04 05:06	23° \mathcal{A} 53'00	
	1753 Dec 28 04:50	30° \mathcal{R} \mathcal{A}		asc. node	1754 Dec 04 10:55	23° \mathcal{A} 41'04	
morning rise	1753 Dec 30 12:27	27° \mathcal{A} 32'34		inferior conj	1754 Dec 09 14:35	17° \mathcal{A} 32'28	1°41'42
direct	1754 Jan 04 22:58	25° \mathcal{A} 09'49		minimum elong	1754 Dec 09 12:29	17° \mathcal{A} 39'43	1°40'55
	1754 Jan 14 04:15	0° \mathcal{B}		min. Earth dist.	1754 Dec 09 15:55	17° \mathcal{A} 27'51	0.67762 AU
morning max el	1754 Jan 15 23:40	1° \mathcal{B} 44'26	24°10'13	morning rise	1754 Dec 14 19:42	11° \mathcal{A} 18'36	
desc. node	1754 Jan 25 00:56	12° \mathcal{B} 24'32		direct	1754 Dec 19 14:56	9° \mathcal{A} 18'04	
	1754 Feb 06 10:20	0° \approx		morning max el	1754 Dec 29 09:48	15° \mathcal{A} 05'30	22°41'50
morning set	1754 Feb 20 17:22	23° \approx 10'13		greatest brilliancy	1755 Jan 03 00:17	20° \mathcal{A} 13'48	-0.3m
max. Earth dist.	1754 Feb 24 12:02	29° \approx 49'45	1.38074 AU		1755 Jan 10 12:08	0° \mathcal{B}	
	1754 Feb 24 14:19	0° \mathcal{H}		desc. node	1755 Jan 11 21:58	1° \mathcal{B} 57'43	
					1755 Jan 30 10:31	0° \approx	
superior conj	1754 Mar 03 14:11	12° \mathcal{H} 58'32	-1°-41'-31	morning set	1755 Feb 01 11:06	3° \approx 18'09	
minimum elong	1754 Mar 03 18:25	13° \mathcal{H} 18'47	1°41'04	max. Earth dist.	1755 Feb 06 07:57	11° \approx 27'26	1.40223 AU
evening rise	1754 Mar 12 11:06	0° \mathcal{Y} 20'18					
	1754 Mar 12 06:59	0° \mathcal{Y}		superior conj	1755 Feb 14 02:37	25° \approx 09'36	-1°-58'-29
asc. node	1754 Mar 15 13:10	6° \mathcal{Y} 21'08		minimum elong	1755 Feb 14 05:46	25° \approx 23'54	1°58'20
evening max el	1754 Mar 28 23:56	27° \mathcal{Y} 03'31	19°00'45		1755 Feb 16 17:58	0° \mathcal{H}	
	1754 Apr 01 22:07	0° \mathcal{B}		evening rise	1755 Feb 24 00:36	13° \mathcal{H} 41'42	
retrograde	1754 Apr 06 13:31	1° \mathcal{B} 12'41		asc. node	1755 Mar 02 10:12	25° \mathcal{H} 33'26	
evening set	1754 Apr 08 17:35	0° \mathcal{B} 57'48			1755 Mar 05 00:35	0° \mathcal{Y}	
	1754 Apr 11 11:42	30° \mathcal{R} \mathcal{Y}		evening max el	1755 Mar 12 04:35	9° \mathcal{Y} 36'18	18°24'38
inferior conj	1754 Apr 16 20:36	26° \mathcal{Y} 42'53	1°41'32	retrograde	1755 Mar 19 14:13	13° \mathcal{Y} 15'43	
minimum elong	1754 Apr 17 00:10	26° \mathcal{Y} 36'37	1°40'23	evening set	1755 Mar 21 23:38	12° \mathcal{Y} 53'51	
min. Earth dist.	1754 Apr 19 23:09	24° \mathcal{Y} 33'26	0.56808 AU	inferior conj	1755 Mar 29 08:09	8° \mathcal{Y} 18'37	2°52'44
desc. node	1754 Apr 23 00:06	22° \mathcal{Y} 42'16		minimum elong	1755 Mar 29 11:57	8° \mathcal{Y} 10'48	2°51'53
morning rise	1754 Apr 25 02:33	21° \mathcal{Y} 42'58		min. Earth dist.	1755 Apr 01 18:42	5° \mathcal{Y} 30'55	0.58733 AU
direct	1754 Apr 30 07:07	20° \mathcal{Y} 39'20		morning rise	1755 Apr 05 20:17	2° \mathcal{Y} 48'45	
morning max el	1754 May 14 13:48	28° \mathcal{Y} 01'59	25°44'19	desc. node	1755 Apr 09 21:08	1° \mathcal{Y} 21'28	
	1754 May 16 12:21	0° \mathcal{B}		direct	1755 Apr 11 23:40	1° \mathcal{Y} 09'47	
	1754 Jun 05 10:33	0° \mathbb{I}		morning max el	1755 Apr 26 08:39	8° \mathcal{Y} 52'11	26°59'30
morning set	1754 Jun 11 02:27	11° \mathbb{I} 25'55			1755 May 12 10:00	0° \mathcal{B}	
asc. node	1754 Jun 11 12:26	12° \mathbb{I} 18'44		morning set	1755 May 26 12:14	26° \mathcal{B} 15'03	
					1755 May 28 06:47	0° \mathbb{I}	
superior conj	1754 Jun 18 02:51	26° \mathbb{I} 38'53	1°04'41	asc. node	1755 May 29 09:29	2° \mathbb{I} 23'22	
minimum elong	1754 Jun 18 00:32	26° \mathbb{I} 26'14	1°04'17				
max. Earth dist.	1754 Jun 18 23:01	28° \mathbb{I} 29'23	1.32510 AU	superior conj	1755 Jun 02 14:38	11° \mathbb{I} 36'23	0°43'16
	1754 Jun 19 15:36	0° \mathcal{B}		minimum elong	1755 Jun 02 12:52	11° \mathbb{I} 26'37	0°42'54
evening rise	1754 Jun 25 04:52	11° \mathcal{B} 51'16		max. Earth dist.	1755 Jun 02 11:14	11° \mathbb{I} 17'38	1.32211 AU
	1754 Jul 04 14:52	0° \mathcal{O}		evening rise	1755 Jun 09 12:50	26° \mathbb{I} 37'47	
desc. node	1754 Jul 19 23:24	23° \mathcal{O} 13'48			1755 Jun 11 03:40	0° \mathcal{B}	
	1754 Jul 26 00:53	0° \mathbb{M}			1755 Jun 28 07:00	0° \mathcal{O}	
evening max el	1754 Jul 26 18:24	0° \mathbb{M} 42'19	27°12'38	desc. node	1755 Jul 06 20:25	10° \mathcal{O} 37'23	
retrograde	1754 Aug 09 14:46	7° \mathbb{M} 57'09		evening max el	1755 Jul 08 19:25	12° \mathcal{O} 34'59	26°26'14
evening set	1754 Aug 16 18:02	5° \mathbb{M} 36'53		retrograde	1755 Jul 22 18:58	19° \mathcal{O} 47'21	
min. Earth dist.	1754 Aug 20 08:35	2° \mathbb{M} 50'55	0.61734 AU	evening set	1755 Jul 29 09:54	17° \mathcal{O} 57'41	

min. Earth dist.	1755 Aug 02 08:32	15°02'21"13	0.59689 AU		1756 Jul 08 03:16	30°08'00"	
inferior conj	1755 Aug 05 16:06	12°04'46"22	-4°-47'-13	evening set	1756 Jul 09 02:26	29°05'37"50	
minimum elong	1755 Aug 05 19:21	12°03'39"59	4°46'54	min. Earth dist.	1756 Jul 14 01:04	26°05'53"56	0.57676 AU
morning rise	1755 Aug 13 08:10	8°01'10"44		inferior conj	1756 Jul 17 03:02	24°05'48"07	-4°-55'-41
direct	1755 Aug 15 18:09	7°01'49"50		minimum elong	1756 Jul 17 01:54	24°05'50"05	4°55'40
morning max el	1755 Aug 23 09:43	11°01'31"52	18°18'25	morning rise	1756 Jul 25 05:08	20°05'35"03	
asc. node	1755 Aug 25 08:43	13°01'37"25		direct	1756 Jul 27 18:09	20°05'15"51	
	1755 Sep 04 16:41	0°00'00"		morning max el	1756 Aug 05 12:31	24°05'22"43	19°01'40
morning set	1755 Sep 08 07:48	6°00'50"02			1756 Aug 10 07:16	0°00'00"	
				asc. node	1756 Aug 11 05:46	1°01'20"53	
superior conj	1755 Sep 17 15:34	24°00'21"14	1°30'45	morning set	1756 Aug 22 05:15	21°01'01"39	
minimum elong	1755 Sep 17 19:05	24°00'37"18	1°30'26		1756 Aug 26 18:05	0°00'00"	
	1755 Sep 20 18:43	0°00'00"					
max. Earth dist.	1755 Sep 25 05:06	7°01'44"00	1.40762 AU	superior conj	1756 Aug 30 15:00	7°00'32"41	1°42'55
evening rise	1755 Sep 29 22:41	15°01'39"45		minimum elong	1756 Aug 30 16:36	7°00'40"24	1°42'50
desc. node	1755 Oct 02 19:45	20°01'19"49		max. Earth dist.	1756 Sep 06 08:39	20°00'05"29	1.38715 AU
	1755 Oct 09 00:11	0°00'00"		evening rise	1756 Sep 10 06:06	26°00'57"30	
	1755 Oct 30 20:38	0°00'00"			1756 Sep 12 00:45	0°00'00"	
evening max el	1755 Nov 03 05:20	3°00'37"45	23°17'09	desc. node	1756 Sep 18 16:47	10°01'55"38	
retrograde	1755 Nov 13 14:39	9°00'47"01			1756 Oct 01 13:30	0°00'00"	
evening set	1755 Nov 18 11:57	7°00'46"59		evening max el	1756 Oct 15 17:51	17°00'14"25	24°36'22
asc. node	1755 Nov 21 07:57	4°00'48"17		retrograde	1756 Oct 27 04:55	23°00'55"49	
inferior conj	1755 Nov 23 22:00	1°00'21"56	0°52'44	evening set	1756 Nov 01 16:16	21°00'39"02	
minimum elong	1755 Nov 23 20:47	1°00'26"05	0°52'14	min. Earth dist.	1756 Nov 06 08:20	16°00'19"54	0.67475 AU
min. Earth dist.	1755 Nov 23 12:39	1°00'54"03	0.67785 AU	inferior conj	1756 Nov 07 04:10	15°00'13"47	0°00'-42
	1755 Nov 24 22:01	30°00'00"		minimum elong	1756 Nov 07 04:11	15°00'13"44	0°00'43
morning rise	1755 Nov 29 05:42	25°00'11"25		transit middle	1756 Nov 07 04:11	15°00'13"44	0°00'43
direct	1755 Dec 03 10:21	23°00'33"45		transit begin	1756 Nov 07 01:26	15°00'22"54	
morning max el	1755 Dec 12 01:11	28°00'35"20	21°18'21	transit end	1756 Nov 07 06:55	15°00'04"35	
	1755 Dec 13 09:29	0°00'00"		asc. node	1756 Nov 07 05:00	15°00'11"00	
greatest brilliancy	1755 Dec 17 06:05	4°00'32"59	-0.4m	morning rise	1756 Nov 12 16:30	9°00'09"08	
desc. node	1755 Dec 29 19:01	21°00'57"02		direct	1756 Nov 16 08:09	7°00'52"30	
	1756 Jan 04 04:16	0°00'00"		morning max el	1756 Nov 24 00:03	12°00'15"42	20°05'44
morning set	1756 Jan 12 00:16	12°00'06"13		greatest brilliancy	1756 Nov 30 23:57	20°00'44"13	-0.6m
max. Earth dist.	1756 Jan 19 09:24	23°00'58"01	1.42236 AU		1756 Dec 07 12:12	0°00'00"	
	1756 Jan 23 00:36	0°00'00"		desc. node	1756 Dec 15 16:04	12°00'15"12	
				morning set	1756 Dec 20 20:48	20°00'13"49	
superior conj	1756 Jan 26 17:37	6°00'18"14	-2°-4'-36		1756 Dec 27 03:14	0°00'00"	
minimum elong	1756 Jan 26 17:16	6°00'16"45	2°04'37	max. Earth dist.	1756 Dec 31 18:26	7°00'20"46	1.43844 AU
evening rise	1756 Feb 07 00:51	26°00'22"09					
	1756 Feb 09 00:57	0°00'00"		superior conj	1757 Jan 06 06:50	16°00'16"02	-1°-54'-54
asc. node	1756 Feb 17 07:15	14°00'16"32		minimum elong	1757 Jan 06 01:07	15°00'52"41	1°54'35
evening max el	1756 Feb 23 14:42	22°00'13"46	18°08'26		1757 Jan 14 12:25	0°00'00"	
retrograde	1756 Mar 01 07:55	25°00'15"13		evening rise	1757 Jan 19 07:34	8°00'13"19	
evening set	1756 Mar 03 22:31	25°00'18"31			1757 Feb 01 11:13	0°00'00"	
inferior conj	1756 Mar 10 15:39	20°00'13"27	3°31'24	asc. node	1757 Feb 03 04:18	2°00'11"31	
minimum elong	1756 Mar 10 17:46	20°00'17"05	3°31'10	evening max el	1757 Feb 06 03:14	5°00'14"80	18°11'33
min. Earth dist.	1756 Mar 13 20:55	17°00'13"01	0.60871 AU	retrograde	1757 Feb 12 14:19	9°00'13"31	
morning rise	1756 Mar 17 09:58	14°00'14"59		evening set	1757 Feb 15 09:56	8°00'13"24	
direct	1756 Mar 24 04:02	12°00'17"38		inferior conj	1757 Feb 21 15:20	3°00'15"55	3°44'12
desc. node	1756 Mar 26 18:11	12°00'14"62		minimum elong	1757 Feb 21 15:27	3°00'15"37	3°44'13
morning max el	1756 Apr 07 09:46	20°00'12"42	27°41'52	min. Earth dist.	1757 Feb 24 07:44	0°00'13"50	0.62921 AU
	1756 Apr 15 17:02	0°00'00"			1757 Feb 24 17:04	30°00'00"	
	1756 May 04 07:01	0°00'00"		morning rise	1757 Feb 27 18:55	27°00'13"48	
morning set	1756 May 09 18:21	10°00'15"04		direct	1757 Mar 06 17:44	24°00'13"40	
asc. node	1756 May 15 06:31	22°00'18"23		desc. node	1757 Mar 13 15:14	26°00'14"62	
max. Earth dist.	1756 May 15 22:44	24°00'00"42	1.32296 AU		1757 Mar 17 23:59	0°00'00"	
				morning max el	1757 Mar 20 16:08	2°00'12"43	27°46'58
superior conj	1756 May 17 01:44	26°00'18"19	0°18'57		1757 Apr 10 01:05	0°00'00"	
minimum elong	1756 May 17 00:53	26°00'23"37	0°18'45	morning set	1757 Apr 23 18:38	25°00'05"45	
	1756 May 18 16:21	0°00'00"			1757 Apr 26 04:16	0°00'00"	
evening rise	1756 May 23 23:40	11°00'12"29		max. Earth dist.	1757 Apr 29 05:38	6°00'25"37	1.32786 AU
	1756 Jun 02 10:05	0°00'00"					
evening max el	1756 Jun 19 13:20	23°00'54"12	25°11'05	superior conj	1757 May 01 10:26	11°00'09"04	0°-7'-32
desc. node	1756 Jun 22 17:27	26°00'26"21		minimum elong	1757 May 01 10:48	11°00'11"02	0°07'28
	1756 Jun 28 23:43	0°00'00"		behind sun begin	1757 May 01 06:09	10°00'18"45	
retrograde	1756 Jul 03 13:28	0°00'01"48		behind sun end	1757 May 01 15:27	11°00'18"36	

asc. node	1757 May 02 03:35	12°♄41'47		asc. node	1758 Apr 19 00:39	2°♄47'08	
evening rise	1757 May 08 11:33	26°♄21'10		evening rise	1758 Apr 22 22:33	11°♄05'03	
	1757 May 10 05:20	0°♄			1758 May 02 18:38	0°♄	
	1757 May 28 04:34	0°♄		evening max el	1758 May 13 20:06	14°♄49'26	22°03'02
evening max el	1757 Jun 01 03:20	4°♄16'47	23°38'19	retrograde	1758 May 26 13:23	21°♄05'25	
desc. node	1757 Jun 09 14:27	10°♄06'01		desc. node	1758 May 27 11:28	21°♄03'30	
retrograde	1757 Jun 14 19:34	11°♄07'43		evening set	1758 May 29 07:57	20°♄48'20	
evening set	1757 Jun 18 21:22	10°♄31'15		min. Earth dist.	1758 Jun 07 01:27	17°♄04'19	0.55060 AU
min. Earth dist.	1757 Jun 25 13:48	7°♄23'29	0.56023 AU	inferior conj	1758 Jun 07 16:29	16°♄43'14	-3°-5'-15
inferior conj	1757 Jun 27 17:50	6°♄05'19	-4°-24'-20	minimum elong	1758 Jun 07 08:52	16°♄53'54	3°02'59
minimum elong	1757 Jun 27 11:34	6°♄14'47	4°23'16	morning rise	1758 Jun 16 11:26	12°♄50'31	
morning rise	1757 Jul 06 05:08	2°♄08'55		direct	1758 Jun 19 12:54	12°♄29'39	
direct	1757 Jul 08 23:03	1°♄50'01		morning max el	1758 Jul 01 09:52	18°♄03'00	21°30'46
morning max el	1757 Jul 19 04:56	6°♄34'49	20°06'16		1758 Jul 10 20:47	0°♄	
asc. node	1757 Jul 29 02:49	19°♄49'59		asc. node	1758 Jul 15 23:53	8°♄53'48	
	1757 Aug 03 14:45	0°♄		morning set	1758 Jul 21 18:11	20°♄20'54	
morning set	1757 Aug 06 09:29	5°♄34'03			1758 Jul 26 08:35	0°♄	
superior conj	1757 Aug 14 04:10	21°♄25'34	1°45'51	superior conj	1758 Jul 29 03:01	5°♄48'12	1°41'20
minimum elong	1757 Aug 14 03:59	21°♄24'40	1°45'51	minimum elong	1758 Jul 29 01:32	5°♄40'29	1°41'16
	1757 Aug 18 12:38	0°♄		max. Earth dist.	1758 Aug 02 01:51	13°♄54'02	1.35068 AU
max. Earth dist.	1757 Aug 19 13:45	2°♄00'24	1.36756 AU	evening rise	1758 Aug 06 11:47	22°♄33'12	
evening rise	1757 Aug 23 11:58	9°♄19'09			1758 Aug 10 11:59	0°♄	
	1757 Sep 04 17:31	0°♄		desc. node	1758 Aug 23 10:48	21°♄24'17	
desc. node	1757 Sep 05 13:48	1°♄19'06			1758 Aug 29 10:54	0°♄	
	1757 Sep 27 08:06	0°♄		evening max el	1758 Sep 10 18:08	14°♄31'00	26°44'41
evening max el	1757 Sep 28 05:51	0°♄54'00	25°48'08	retrograde	1758 Sep 23 18:36	21°♄45'41	
retrograde	1757 Oct 10 14:24	7°♄57'12		evening set	1758 Sep 30 09:44	19°♄04'38	
evening set	1757 Oct 16 16:12	5°♄25'53		min. Earth dist.	1758 Oct 04 10:40	14°♄58'23	0.65860 AU
min. Earth dist.	1757 Oct 21 00:29	0°♄42'30	0.66839 AU	inferior conj	1758 Oct 06 05:19	12°♄52'32	-1°-55'-26
	1757 Oct 21 13:57	30°♄		minimum elong	1758 Oct 06 08:23	12°♄43'29	1°54'14
inferior conj	1757 Oct 22 07:15	29°♄05'00	0°-57'-19	asc. node	1758 Oct 11 23:06	7°♄21'20	
minimum elong	1757 Oct 22 08:44	29°♄00'18	0°56'42	morning rise	1758 Oct 12 08:22	7°♄08'29	
asc. node	1757 Oct 25 02:04	25°♄44'37		direct	1758 Oct 15 04:16	6°♄23'56	
morning rise	1757 Oct 28 02:06	23°♄09'02		morning max el	1758 Oct 21 18:41	10°♄00'19	18°24'59
direct	1757 Oct 31 06:45	22°♄10'17			1758 Nov 04 19:45	0°♄	
morning max el	1757 Nov 07 06:24	26°♄05'04	19°07'22	morning set	1758 Nov 10 08:23	8°♄54'45	
	1757 Nov 10 16:26	0°♄		desc. node	1758 Nov 19 10:07	23°♄26'27	
morning set	1757 Nov 30 01:27	28°♄53'29			1758 Nov 23 13:37	0°♄	
	1757 Nov 30 18:30	0°♄		superior conj	1758 Nov 25 20:29	3°♄36'01	0°-42'-3
desc. node	1757 Dec 02 13:06	2°♄46'16		minimum elong	1758 Nov 25 15:03	3°♄14'39	0°41'22
max. Earth dist.	1757 Dec 14 09:54	21°♄21'55	1.44849 AU	max. Earth dist.	1758 Nov 27 04:57	5°♄43'35	1.45134 AU
superior conj	1757 Dec 16 19:21	25°♄08'45	-1°-26'-14	evening rise	1758 Dec 12 02:09	29°♄05'38	
minimum elong	1757 Dec 16 10:34	24°♄33'58	1°25'21		1758 Dec 12 15:58	0°♄	
	1757 Dec 19 20:44	0°♄		greatest brilliancy	1758 Dec 25 02:12	19°♄23'27	-0.7m
evening rise	1757 Dec 31 16:34	19°♄07'43			1759 Jan 01 16:17	0°♄	
	1758 Jan 07 07:30	0°♄		evening max el	1759 Jan 04 00:33	2°♄38'57	19°12'17
evening max el	1758 Jan 20 15:18	19°♄11'20	18°33'13	asc. node	1759 Jan 07 22:24	5°♄47'26	
asc. node	1758 Jan 21 01:22	19°♄36'20		retrograde	1759 Jan 11 00:54	6°♄39'36	
retrograde	1758 Jan 27 05:09	22°♄49'07		evening set	1759 Jan 14 08:28	5°♄35'28	
evening set	1758 Jan 30 06:13	21°♄57'15		inferior conj	1759 Jan 19 23:36	29°♄43'06	3°17'35
inferior conj	1758 Feb 05 03:08	16°♄21'28	3°37'55	minimum elong	1759 Jan 19 21:15	29°♄50'37	3°17'07
minimum elong	1758 Feb 05 01:41	16°♄25'45	3°37'47		1759 Jan 19 18:19	30°♄	
min. Earth dist.	1758 Feb 07 04:00	13°♄56'53	0.64677 AU	min. Earth dist.	1759 Jan 21 09:17	27°♄55'31	0.66043 AU
morning rise	1758 Feb 10 19:52	10°♄12'22		morning rise	1759 Jan 25 09:12	23°♄29'51	
direct	1758 Feb 17 14:38	7°♄22'04		direct	1759 Jan 31 17:47	20°♄42'43	
desc. node	1758 Feb 28 12:17	12°♄47'03		morning max el	1759 Feb 13 11:05	28°♄13'50	26°18'18
morning max el	1758 Mar 03 01:21	15°♄11'03	27°16'58	desc. node	1759 Feb 15 09:20	0°♄15'01	
	1758 Mar 15 04:50	0°♄			1759 Feb 15 03:47	0°♄	
	1758 Apr 02 17:59	0°♄			1759 Mar 08 22:50	0°♄	
morning set	1758 Apr 07 10:13	8°♄50'46		morning set	1759 Mar 21 13:21	21°♄54'48	
max. Earth dist.	1758 Apr 12 04:09	18°♄21'19	1.33709 AU	max. Earth dist.	1759 Mar 25 15:34	29°♄44'53	1.35085 AU
					1759 Mar 25 18:40	0°♄	
superior conj	1758 Apr 15 14:45	25°♄31'54	0°-35'-13	superior conj	1759 Mar 30 12:21	9°♄29'52	-1°-2'-50
minimum elong	1758 Apr 15 16:31	25°♄41'13	0°34'52	minimum elong	1759 Mar 30 15:29	9°♄45'54	1°02'17
	1758 Apr 17 17:17	0°♄					

asc. node	1759 Apr 05 21:41	22° Υ 44'14		max. Earth dist.	1760 Mar 06 15:58	10° Υ 47'39	1.36882 AU
evening rise	1759 Apr 07 06:45	25° Υ 35'13					
	1759 Apr 09 10:45	0° Υ		superior conj	1760 Mar 13 00:15	22° Υ 54'53	-1°-28'-33
evening max el	1759 Apr 25 22:07	25° Υ 47'34	20°38'06	minimum elong	1760 Mar 13 04:22	23° Υ 15'02	1°28'01
	1759 May 01 18:37	0° Π			1760 Mar 16 13:48	0° Υ	
retrograde	1759 May 07 02:27	1° Π 13'20		evening rise	1760 Mar 21 09:56	9° Υ 44'55	
evening set	1759 May 09 05:11	1° Π 02'28		asc. node	1760 Mar 22 18:43	12° Υ 28'39	
	1759 May 12 18:27	30° \Re			1760 Apr 01 12:54	0° Υ	
desc. node	1759 May 14 08:31	29° Υ 17'38		evening max el	1760 Apr 07 11:58	7° Υ 25'24	19°30'42
inferior conj	1759 May 18 10:27	27° Υ 04'49	-1°-11'-11	retrograde	1760 Apr 16 23:08	11° Υ 59'34	
minimum elong	1759 May 18 07:05	27° Υ 09'40	1°09'58	evening set	1760 Apr 19 00:25	11° Υ 47'36	
min. Earth dist.	1759 May 19 13:57	26° Υ 25'17	0.55017 AU	inferior conj	1760 Apr 27 14:26	7° Υ 42'17	0°45'05
morning rise	1759 May 27 07:42	22° Υ 56'06		minimum elong	1760 Apr 27 16:19	7° Υ 39'15	0°44'24
direct	1759 May 30 22:53	22° Υ 27'42		min. Earth dist.	1760 Apr 30 04:31	6° Υ 02'56	0.55920 AU
morning max el	1759 Jun 13 05:15	28° Υ 52'06	23°09'22	desc. node	1760 Apr 30 05:33	6° Υ 01'20	
	1759 Jun 14 09:08	0° Π		morning rise	1760 May 06 04:28	3° Υ 01'45	
asc. node	1759 Jul 02 20:55	28° Π 22'56		direct	1760 May 10 18:02	2° Υ 14'40	
	1759 Jul 03 16:13	0° Θ		morning max el	1760 May 24 20:02	9° Υ 21'10	24°50'38
morning set	1759 Jul 06 05:19	5° Θ 15'28			1760 Jun 09 05:12	0° Π	
				asc. node	1760 Jun 18 17:57	18° Π 10'33	
superior conj	1759 Jul 13 08:20	20° Θ 30'10	1°30'50	morning set	1760 Jun 19 17:13	20° Π 12'28	
minimum elong	1759 Jul 13 06:07	20° Θ 18'18	1°30'36		1760 Jun 24 06:22	0° Θ	
max. Earth dist.	1759 Jul 15 23:03	26° Θ 02'50	1.33755 AU				
	1759 Jul 17 20:36	0° Ω		superior conj	1760 Jun 26 17:43	5° Θ 23'45	1°15'27
evening rise	1759 Jul 21 00:57	6° Ω 26'16		minimum elong	1760 Jun 26 15:18	5° Θ 10'35	1°15'05
	1759 Aug 03 02:21	0° \P		max. Earth dist.	1760 Jun 28 04:21	8° Θ 31'50	1.32849 AU
desc. node	1759 Aug 10 07:49	11° \P 02'29		evening rise	1760 Jul 03 23:43	20° Θ 47'41	
evening max el	1759 Aug 24 05:54	27° \P 54'10	27°18'47		1760 Jul 08 15:27	0° Ω	
	1759 Aug 26 13:56	0° Ω		desc. node	1760 Jul 27 04:49	0° \P 02'07	
retrograde	1759 Sep 06 17:07	5° Ω 12'44			1760 Jul 27 04:11	0° \P	
evening set	1759 Sep 13 18:16	2° Ω 30'05		evening max el	1760 Aug 05 15:27	10° \P 51'29	27°24'09
	1759 Sep 16 13:20	30° \Re \P		retrograde	1760 Aug 19 09:34	18° \P 08'59	
min. Earth dist.	1759 Sep 17 12:37	29° \P 00'07	0.64520 AU	evening set	1760 Aug 26 14:29	15° \P 36'35	
inferior conj	1759 Sep 19 19:59	26° \P 30'52	-2°-52'-53	min. Earth dist.	1760 Aug 30 04:47	12° \P 37'28	0.62833 AU
minimum elong	1759 Sep 20 00:29	26° \P 18'45	2°51'21	inferior conj	1760 Sep 02 00:33	9° \P 53'46	-3°-46'-14
morning rise	1759 Sep 26 08:39	21° \P 01'59		minimum elong	1760 Sep 02 05:49	9° \P 40'59	3°44'49
direct	1759 Sep 28 22:11	20° \P 28'00		morning rise	1760 Sep 08 23:44	4° \P 43'17	
asc. node	1759 Sep 28 20:08	20° \P 28'03		direct	1760 Sep 11 09:35	4° \P 16'29	
morning max el	1759 Oct 05 10:17	23° \P 55'06	17°59'31	asc. node	1760 Sep 14 17:10	5° \P 08'24	
	1759 Oct 10 07:50	0° Ω		morning max el	1760 Sep 18 02:16	7° \P 42'39	17°51'47
morning set	1759 Oct 22 19:52	20° Ω 19'27			1760 Oct 02 16:02	0° Ω	
	1759 Oct 28 14:21	0° \mathbb{M}		morning set	1760 Oct 04 06:41	2° Ω 51'15	
superior conj	1759 Nov 05 07:52	12° \mathbb{M} 38'18	0°06'32	superior conj	1760 Oct 15 20:06	22° Ω 55'01	0°48'30
minimum elong	1759 Nov 05 08:38	12° \mathbb{M} 41'25	0°06'26	minimum elong	1760 Oct 16 00:21	23° Ω 12'53	0°47'56
behind sun begin	1759 Nov 04 23:01	12° \mathbb{M} 02'40			1760 Oct 20 02:30	0° \mathbb{M}	
behind sun end	1759 Nov 05 18:16	13° \mathbb{M} 20'07		max. Earth dist.	1760 Oct 22 15:05	4° \mathbb{M} 06'24	1.43542 AU
desc. node	1759 Nov 06 07:07	14° \mathbb{M} 11'42		desc. node	1760 Oct 23 04:08	4° \mathbb{M} 59'02	
max. Earth dist.	1759 Nov 09 23:40	20° \mathbb{M} 04'25	1.44675 AU	evening rise	1760 Oct 31 00:42	17° \mathbb{M} 23'19	
	1759 Nov 16 07:28	0° \mathbb{M}			1760 Nov 08 07:21	0° \mathbb{M}	
evening rise	1759 Nov 21 16:28	8° \mathbb{M} 19'30		greatest brilliancy	1760 Nov 25 00:12	23° \mathbb{M} 38'36	-0.4m
	1759 Dec 05 23:33	0° \mathbb{M}		evening max el	1760 Nov 30 04:08	29° \mathbb{M} 37'51	21°14'45
greatest brilliancy	1759 Dec 11 11:33	7° \mathbb{M} 51'33	-0.6m		1760 Nov 30 12:54	0° \mathbb{M}	
evening max el	1759 Dec 18 05:07	16° \mathbb{M} 07'56	20°07'05	retrograde	1760 Dec 08 20:13	4° \mathbb{M} 46'50	
retrograde	1759 Dec 25 22:41	20° \mathbb{M} 40'01		asc. node	1760 Dec 11 16:26	4° \mathbb{M} 01'54	
asc. node	1759 Dec 25 19:25	20° \mathbb{M} 39'55		evening set	1760 Dec 12 21:54	3° \mathbb{M} 13'44	
evening set	1759 Dec 29 14:21	19° \mathbb{M} 22'13			1760 Dec 16 01:02	30° \Re \mathbb{M}	
inferior conj	1760 Jan 04 01:55	13° \mathbb{M} 16'14	2°46'37	inferior conj	1760 Dec 18 07:43	26° \mathbb{M} 57'31	2°07'22
minimum elong	1760 Jan 03 23:16	13° \mathbb{M} 25'08	2°45'53	minimum elong	1760 Dec 18 05:17	27° \mathbb{M} 05'54	2°06'32
min. Earth dist.	1760 Jan 04 21:54	12° \mathbb{M} 09'01	0.67003 AU	min. Earth dist.	1760 Dec 18 15:35	26° \mathbb{M} 30'21	0.67586 AU
morning rise	1760 Jan 09 07:36	7° \mathbb{M} 01'01		morning rise	1760 Dec 23 12:18	20° \mathbb{M} 42'23	
direct	1760 Jan 15 02:33	4° \mathbb{M} 27'23		direct	1760 Dec 28 16:15	18° \mathbb{M} 28'42	
morning max el	1760 Jan 26 19:53	11° \mathbb{M} 26'59	25°00'06	morning max el	1761 Jan 08 04:30	24° \mathbb{M} 44'24	23°32'28
desc. node	1760 Feb 02 06:22	18° \mathbb{M} 45'01			1761 Jan 12 21:58	0° \mathbb{M}	
	1760 Feb 10 16:19	0° \approx		desc. node	1761 Jan 19 03:23	7° \mathbb{M} 58'52	
	1760 Feb 29 15:45	0° Υ			1761 Feb 03 04:02	0° \approx	
morning set	1760 Mar 02 23:03	4° Υ 03'38		morning set	1761 Feb 12 08:59	14° \approx 59'23	

max. Earth dist.	1761 Feb 16 10:35	21° \approx 59'57	1.38976 AU	morning set	1762 Jan 23 14:07	24° \approx 31'21	
	1761 Feb 20 21:52	0° \approx			1762 Jan 26 22:46	0° \approx	
				max. Earth dist.	1762 Jan 29 08:07	3° \approx 58'21	1.41116 AU
superior conj	1761 Feb 23 22:35	5° \approx 36'03	-1°-49'-45	superior conj	1762 Feb 06 02:35	17° \approx 22'29	-2°-2'-42
minimum elong	1761 Feb 24 02:36	5° \approx 54'53	1°49'26	minimum elong	1762 Feb 06 04:35	17° \approx 31'18	2°02'40
evening rise	1761 Mar 05 05:18	23° \approx 25'43			1762 Feb 13 01:33	0° \approx	
	1761 Mar 08 15:24	0° \approx		evening rise	1762 Feb 16 13:38	6° \approx 30'33	
asc. node	1761 Mar 09 15:45	1° \approx 54'17		asc. node	1762 Feb 24 12:48	20° \approx 55'03	
evening max el	1761 Mar 21 12:07	19° \approx 40'22	18°43'03		1762 Mar 02 15:06	0° \approx	
retrograde	1761 Mar 29 12:26	23° \approx 34'42		evening max el	1762 Mar 04 19:33	2° \approx 24'57	18°15'22
evening set	1761 Mar 31 18:41	23° \approx 17'13		retrograde	1762 Mar 11 20:35	5° \approx 56'07	
inferior conj	1761 Apr 08 13:37	18° \approx 54'25	2°15'54	evening set	1762 Mar 14 08:26	5° \approx 30'32	
minimum elong	1761 Apr 08 17:39	18° \approx 46'52	2°14'47	inferior conj	1762 Mar 21 09:57	0° \approx 46'20	3°12'43
min. Earth dist.	1761 Apr 11 21:45	16° \approx 25'47	0.57574 AU	minimum elong	1762 Mar 21 13:10	0° \approx 39'18	3°12'10
morning rise	1761 Apr 16 12:17	13° \approx 40'36			1762 Mar 22 07:03	30° \approx	
desc. node	1761 Apr 17 02:35	13° \approx 25'07		min. Earth dist.	1762 Mar 24 19:36	27° \approx 49'34	0.59643 AU
direct	1761 Apr 22 03:22	12° \approx 22'19		morning rise	1762 Mar 28 14:18	25° \approx 07'00	
morning max el	1761 May 06 11:53	19° \approx 55'26	26°19'35	desc. node	1762 Apr 03 23:38	23° \approx 12'14	
	1761 May 15 02:15	0° \approx		direct	1762 Apr 04 01:24	23° \approx 12'13	
	1761 Jun 01 17:06	0° \approx			1762 Apr 17 08:12	0° \approx	
morning set	1761 Jun 04 04:13	5° \approx 10'54		morning max el	1762 Apr 18 09:03	0° \approx 59'28	27°21'55
asc. node	1761 Jun 05 15:00	8° \approx 10'12			1762 May 09 05:05	0° \approx	
superior conj	1761 Jun 11 05:09	20° \approx 21'25	0°56'01	morning set	1762 May 19 12:40	19° \approx 49'26	
minimum elong	1761 Jun 11 03:01	20° \approx 09'41	0°55'37	asc. node	1762 May 23 12:04	28° \approx 17'05	
max. Earth dist.	1761 Jun 11 14:59	21° \approx 15'30	1.32337 AU		1762 May 24 07:00	0° \approx	
	1761 Jun 15 15:17	0° \approx		max. Earth dist.	1762 May 26 03:22	4° \approx 10'55	1.32204 AU
evening rise	1761 Jun 18 05:03	5° \approx 27'21					
	1761 Jul 01 06:54	0° \approx		superior conj	1762 May 26 16:51	5° \approx 17'01	0°33'17
desc. node	1761 Jul 14 01:51	18° \approx 06'58		minimum elong	1762 May 26 15:25	5° \approx 09'10	0°32'58
evening max el	1761 Jul 18 20:27	23° \approx 10'58	26°56'51	evening rise	1762 Jun 02 14:29	20° \approx 17'06	
	1761 Jul 29 15:31	0° \approx			1762 Jun 07 08:42	0° \approx	
retrograde	1761 Aug 01 18:46	0° \approx 25'00			1762 Jun 26 08:03	0° \approx	
	1761 Aug 04 20:24	30° \approx		desc. node	1762 Jun 30 22:53	4° \approx 54'18	
evening set	1761 Aug 08 18:05	28° \approx 16'31		evening max el	1762 Jun 30 18:36	4° \approx 44'09	25°57'19
min. Earth dist.	1761 Aug 12 10:38	25° \approx 36'52	0.60876 AU	retrograde	1762 Jul 14 18:47	11° \approx 54'07	
inferior conj	1761 Aug 15 15:42	22° \approx 53'04	-4°-29'-53	evening set	1762 Jul 21 00:18	10° \approx 20'52	
minimum elong	1761 Aug 15 20:20	22° \approx 43'12	4°29'07	min. Earth dist.	1762 Jul 25 07:07	7° \approx 43'58	0.58815 AU
morning rise	1761 Aug 23 01:40	18° \approx 03'48		inferior conj	1762 Jul 28 13:52	5° \approx 18'48	-4°-54'-48
direct	1761 Aug 25 10:43	17° \approx 41'23		minimum elong	1762 Jul 28 15:31	5° \approx 15'43	4°54'44
morning max el	1761 Sep 01 15:34	21° \approx 15'09	18°02'56	morning rise	1762 Aug 05 10:14	0° \approx 52'41	
asc. node	1761 Sep 01 14:12	21° \approx 11'51		direct	1762 Aug 07 21:22	0° \approx 32'33	
	1761 Sep 08 07:16	0° \approx		morning max el	1762 Aug 15 23:01	4° \approx 23'39	18°34'10
morning set	1761 Sep 17 10:45	16° \approx 12'39		asc. node	1762 Aug 19 11:16	8° \approx 23'12	
	1761 Sep 24 22:39	0° \approx		morning set	1762 Sep 01 02:59	0° \approx 09'17	
					1762 Sep 01 01:03	0° \approx	
superior conj	1761 Sep 27 11:07	4° \approx 30'30	1°18'48	superior conj	1762 Sep 10 00:21	17° \approx 11'34	1°37'10
minimum elong	1761 Sep 27 15:28	4° \approx 49'44	1°18'20	minimum elong	1762 Sep 10 03:05	17° \approx 24'20	1°36'58
max. Earth dist.	1761 Oct 05 01:47	17° \approx 36'13	1.41879 AU		1762 Sep 17 02:10	0° \approx	
desc. node	1761 Oct 10 01:10	25° \approx 45'12		max. Earth dist.	1762 Sep 17 07:42	0° \approx 24'12	1.39901 AU
evening rise	1761 Oct 10 20:05	27° \approx 01'03		evening rise	1762 Sep 21 13:31	7° \approx 39'50	
	1761 Oct 12 17:08	0° \approx		desc. node	1762 Sep 26 22:12	16° \approx 26'04	
	1761 Nov 02 01:51	0° \approx			1762 Oct 05 18:19	0° \approx	
greatest brilliancy	1761 Nov 08 02:47	7° \approx 47'20	-0.3m	evening max el	1762 Oct 26 11:50	26° \approx 45'13	23°51'19
evening max el	1761 Nov 12 21:56	13° \approx 10'13	22°31'17		1762 Oct 30 02:56	0° \approx	
retrograde	1761 Nov 22 15:50	18° \approx 57'40		retrograde	1762 Nov 06 08:12	3° \approx 08'27	
evening set	1761 Nov 27 05:29	17° \approx 07'49		evening set	1762 Nov 11 11:27	1° \approx 01'09	
asc. node	1761 Nov 28 13:27	15° \approx 53'37			1762 Nov 12 13:47	30° \approx	
inferior conj	1761 Dec 02 15:04	10° \approx 54'04	1°21'34	asc. node	1762 Nov 15 10:31	26° \approx 35'53	
minimum elong	1761 Dec 02 13:18	10° \approx 51'10	1°20'53	inferior conj	1762 Nov 16 22:09	24° \approx 35'46	0°30'32
min. Earth dist.	1761 Dec 02 11:52	10° \approx 56'06	0.67813 AU	minimum elong	1762 Nov 16 21:25	24° \approx 38'14	0°30'14
morning rise	1761 Dec 07 21:00	4° \approx 32'13		min. Earth dist.	1762 Nov 16 08:22	25° \approx 22'35	0.67699 AU
direct	1761 Dec 12 09:59	2° \approx 41'14		morning rise	1762 Nov 22 07:35	18° \approx 27'36	
morning max el	1761 Dec 21 16:19	8° \approx 08'29	22°05'15	direct	1762 Nov 26 06:35	16° \approx 59'04	
greatest brilliancy	1761 Dec 26 08:17	13° \approx 23'06	-0.4m	morning max el	1762 Dec 04 10:41	21° \approx 42'35	20°45'52
desc. node	1762 Jan 06 00:26	27° \approx 44'35		greatest brilliancy	1762 Dec 10 06:31	28° \approx 31'19	-0.5m
	1762 Jan 07 13:58	0° \approx					

	1762 Dec 11 09:35	0°♊		greatest brilliancy	1763 Nov 25 16:48	15°♌40'02	-0.6m
desc. node	1762 Dec 23 21:28	17°♊52'46			1763 Dec 05 08:51	0°♊	
	1762 Dec 31 20:43	0°♊		desc. node	1763 Dec 10 18:29	8°♊17'03	
morning set	1763 Jan 02 17:40	2°♊54'14		morning set	1763 Dec 12 14:30	11°♊06'55	
max. Earth dist.	1763 Jan 11 13:18	16°♊54'14	1.42992 AU		1763 Dec 24 16:25	0°♊	
				max. Earth dist.	1763 Dec 25 01:37	0°♊36'28	1.44357 AU
superior conj	1763 Jan 18 06:57	28°♊01'30	-2°-2'-41				
minimum elong	1763 Jan 18 04:24	27°♊50'48	2°02'38	superior conj	1763 Dec 29 08:48	7°♊28'33	-1°-45'-2
	1763 Jan 19 11:02	0°♊		minimum elong	1763 Dec 29 01:09	6°♊57'46	1°44'27
evening rise	1763 Jan 30 06:55	18°♊50'56		evening rise	1764 Jan 12 04:49	0°♊18'45	
	1763 Feb 05 14:50	0°♊			1764 Jan 12 00:23	0°♊	
asc. node	1763 Feb 11 09:50	9°♊23'00		asc. node	1764 Jan 29 06:53	27°♊08'06	
evening max el	1763 Feb 16 07:00	15°♊30'12	18°07'23	evening max el	1764 Jan 30 19:33	28°♊48'33	18°18'30
retrograde	1763 Feb 22 20:21	18°♊54'01			1764 Feb 01 02:17	0°♊	
evening set	1763 Feb 25 13:08	18°♊19'03		retrograde	1764 Feb 06 06:56	2°♊18'15	
inferior conj	1763 Mar 04 00:48	13°♊13'27	3°39'34	evening set	1764 Feb 09 04:42	1°♊32'57	
minimum elong	1763 Mar 04 02:03	13°♊10'19	3°39'29		1764 Feb 11 10:55	30°♊	
min. Earth dist.	1763 Mar 07 01:02	10°♊13'25	0.61771 AU	inferior conj	1764 Feb 15 06:06	26°♊07'37	3°43'34
morning rise	1763 Mar 10 12:24	7°♊17'32		minimum elong	1764 Feb 15 05:29	26°♊09'22	3°43'32
direct	1763 Mar 17 09:37	4°♊51'09		min. Earth dist.	1764 Feb 17 15:56	23°♊25'32	0.63707 AU
desc. node	1763 Mar 21 20:41	5°♊46'28		morning rise	1764 Feb 21 04:34	20°♊01'46	
morning max el	1763 Mar 31 12:38	12°♊45'28	27°48'44	direct	1764 Feb 28 02:21	17°♊15'56	
	1763 Apr 14 06:00	0°♊		desc. node	1764 Mar 07 17:43	20°♊42'16	
	1763 May 01 13:28	0°♊		morning max el	1764 Mar 12 20:48	25°♊10'28	27°38'18
morning set	1763 May 03 16:38	4°♊17'27			1764 Mar 17 06:57	0°♊	
max. Earth dist.	1763 May 09 13:36	16°♊40'59	1.32453 AU		1764 Apr 06 16:44	0°♊	
asc. node	1763 May 10 09:09	18°♊26'57		morning set	1764 Apr 16 13:34	18°♊21'03	
				max. Earth dist.	1764 Apr 21 17:30	28°♊55'14	1.33119 AU
superior conj	1763 May 11 03:09	20°♊04'59	0°07'56		1764 Apr 22 05:48	0°♊	
minimum elong	1763 May 11 02:47	20°♊02'57	0°07'51				
behind sun begin	1763 May 10 22:18	19°♊38'32		superior conj	1764 Apr 24 10:11	4°♊38'40	0°-19'-12
behind sun end	1763 May 11 07:15	20°♊27'23		minimum elong	1764 Apr 24 11:08	4°♊43'44	0°19'01
	1763 May 15 16:15	0°♊		asc. node	1764 Apr 26 06:10	8°♊35'03	
evening rise	1763 May 18 02:01	5°♊10'00		evening rise	1764 May 01 13:43	19°♊58'46	
	1763 May 31 07:12	0°♊			1764 May 06 11:41	0°♊	
evening max el	1763 Jun 12 10:13	15°♊34'52	24°32'55	evening max el	1764 May 24 00:12	26°♊04'17	22°57'13
desc. node	1763 Jun 17 19:55	19°♊53'33			1764 May 28 21:21	0°♊	
retrograde	1763 Jun 26 08:01	22°♊36'59		desc. node	1764 Jun 03 16:57	2°♊27'30	
evening set	1763 Jul 01 06:54	21°♊41'50		retrograde	1764 Jun 06 08:58	2°♊43'44	
min. Earth dist.	1763 Jul 06 21:16	18°♊49'41	0.56909 AU	evening set	1764 Jun 09 20:03	2°♊17'26	
inferior conj	1763 Jul 09 16:13	17°♊02'22	-4°-48'-3		1764 Jun 15 10:56	30°♊	
minimum elong	1763 Jul 09 12:45	17°♊07'57	4°47'45	min. Earth dist.	1764 Jun 17 09:09	28°♊55'48	0.55504 AU
morning rise	1763 Jul 17 22:20	12°♊57'47		inferior conj	1764 Jun 18 23:08	28°♊00'52	-3°-56'-31
direct	1763 Jul 20 13:27	12°♊38'46		minimum elong	1764 Jun 18 15:35	28°♊11'50	3°54'47
morning max el	1763 Jul 29 21:42	16°♊59'38	19°26'36	morning rise	1764 Jun 27 14:04	24°♊08'28	
asc. node	1763 Aug 06 08:21	26°♊28'06		direct	1764 Jun 30 10:29	23°♊49'18	
	1763 Aug 08 11:33	0°♊		morning max el	1764 Jul 11 09:19	28°♊53'42	20°40'06
morning set	1763 Aug 16 03:42	14°♊31'36			1764 Jul 12 12:36	0°♊	
	1763 Aug 23 21:27	0°♊		asc. node	1764 Jul 23 05:24	15°♊13'04	
				morning set	1764 Jul 30 10:05	29°♊10'50	
superior conj	1763 Aug 24 06:16	0°♊43'18	1°45'10		1764 Jul 30 19:39	0°♊	
minimum elong	1763 Aug 24 07:04	0°♊47'15	1°45'09				
max. Earth dist.	1763 Aug 30 11:34	12°♊33'51	1.37859 AU	superior conj	1764 Aug 07 00:01	14°♊50'28	1°44'45
evening rise	1763 Sep 03 06:59	19°♊26'23		minimum elong	1764 Aug 06 23:13	14°♊46'23	1°44'44
	1763 Sep 09 11:26	0°♊		max. Earth dist.	1764 Aug 11 18:46	24°♊23'54	1.35991 AU
desc. node	1763 Sep 13 19:13	6°♊57'47			1764 Aug 14 16:52	0°♊	
	1763 Sep 29 21:54	0°♊		evening rise	1764 Aug 15 21:02	2°♊11'49	
evening max el	1763 Oct 08 23:51	10°♊23'30	25°08'07	desc. node	1764 Aug 30 16:15	27°♊14'30	
retrograde	1763 Oct 20 20:27	17°♊15'18			1764 Sep 01 11:58	0°♊	
evening set	1763 Oct 26 14:08	14°♊51'38		evening max el	1764 Sep 20 11:43	24°♊02'21	26°14'23
min. Earth dist.	1763 Oct 31 02:44	9°♊47'47	0.67254 AU		1764 Sep 28 10:11	0°♊	
inferior conj	1763 Nov 01 03:13	8°♊27'44	0°-24'-25	retrograde	1764 Oct 03 03:56	1°♊12'26	
minimum elong	1763 Nov 01 03:50	8°♊25'43	0°24'10		1764 Oct 07 12:00	30°♊	
asc. node	1763 Nov 02 07:34	6°♊56'13		evening set	1764 Oct 09 11:38	28°♊35'56	
morning rise	1763 Nov 06 18:09	2°♊26'42		min. Earth dist.	1764 Oct 13 16:38	24°♊08'21	0.66466 AU
direct	1763 Nov 10 04:50	1°♊18'14		inferior conj	1764 Oct 15 04:25	22°♊18'01	-1°-21'-54
morning max el	1763 Nov 17 12:57	5°♊27'47	19°39'00	minimum elong	1764 Oct 15 06:35	22°♊11'22	1°21'01

asc. node	1764 Oct 19 04:36	17°♄51'35			1765 Oct 06 07:15	30°♄♂	
morning rise	1764 Oct 21 02:36	16°♄26'50		direct	1765 Oct 07 23:26	29°♄44'43	
direct	1764 Oct 24 03:07	15°♄34'47			1765 Oct 09 15:53	0°♄	
morning max el	1764 Oct 30 22:10	19°♄20'51	18°47'16	morning max el	1765 Oct 14 12:09	3°♄16'28	18°11'58
	1764 Nov 08 03:45	0°♄			1765 Nov 01 10:46	0°♄	
morning set	1764 Nov 21 05:05	20°♄18'22		morning set	1765 Nov 02 00:35	0°♄56'47	
desc. node	1764 Nov 26 15:31	28°♄52'41		desc. node	1765 Nov 13 12:32	19°♄35'30	
	1764 Nov 27 08:37	0°♄					
max. Earth dist.	1764 Dec 06 18:32	14°♄47'13	1.45057 AU	superior conj	1765 Nov 16 17:07	24°♄39'53	0°-21'-15
				minimum elong	1765 Nov 16 14:23	24°♄29'04	0°20'52
superior conj	1764 Dec 07 14:08	16°♄04'13	-1°-8'-50	max. Earth dist.	1765 Nov 19 13:28	29°♄09'36	1.45027 AU
minimum elong	1764 Dec 07 06:00	15°♄32'15	1°07'55		1765 Nov 20 02:17	0°♄	
	1764 Dec 16 09:42	0°♄		evening rise	1765 Dec 03 04:09	20°♄25'12	
evening rise	1764 Dec 23 03:50	10°♄48'52			1765 Dec 09 08:15	0°♄	
	1765 Jan 04 04:09	0°♄		greatest brilliancy	1765 Dec 19 10:03	15°♄14'53	-0.7m
evening max el	1765 Jan 13 06:39	12°♄14'26	18°47'50	evening max el	1765 Dec 27 14:09	25°♄43'23	19°33'53
asc. node	1765 Jan 15 03:54	13°♄57'59		asc. node	1766 Jan 02 00:56	29°♄37'40	
retrograde	1765 Jan 20 00:17	16°♄01'04		retrograde	1766 Jan 03 21:03	29°♄56'16	
evening set	1765 Jan 23 03:50	15°♄04'20		evening set	1766 Jan 07 07:52	28°♄46'36	
inferior conj	1765 Jan 28 22:00	9°♄21'20	3°30'46	inferior conj	1766 Jan 12 21:16	22°♄48'22	3°05'32
minimum elong	1765 Jan 28 20:06	9°♄27'12	3°30'30	minimum elong	1766 Jan 12 18:43	22°♄56'42	3°04'58
min. Earth dist.	1765 Jan 30 16:22	7°♄11'23	0.65304 AU	min. Earth dist.	1766 Jan 14 01:01	21°♄17'35	0.66505 AU
morning rise	1765 Feb 03 11:15	3°♄09'58		morning rise	1766 Jan 18 04:50	16°♄34'07	
direct	1765 Feb 10 02:15	0°♄19'11		direct	1766 Jan 24 08:03	13°♄51'24	
desc. node	1765 Feb 22 14:43	7°♄23'56		morning max el	1766 Feb 05 15:41	21°♄10'37	25°46'42
morning max el	1765 Feb 23 06:33	8°♄03'08	26°54'58	desc. node	1766 Feb 09 11:44	25°♄20'47	
	1765 Mar 12 08:42	0°♄			1766 Feb 13 07:35	0°♄	
	1765 Mar 30 01:08	0°♄			1766 Mar 05 13:28	0°♄	
morning set	1765 Mar 31 00:23	1°♄50'45		morning set	1766 Mar 13 20:45	14°♄32'59	
max. Earth dist.	1765 Apr 04 11:18	10°♄36'21	1.34233 AU	max. Earth dist.	1766 Mar 17 17:21	21°♄46'41	1.35805 AU
					1766 Mar 21 22:23	0°♄	
superior conj	1765 Apr 08 11:57	18°♄52'09	0°-47'-3				
minimum elong	1765 Apr 08 14:19	19°♄04'29	0°46'35	superior conj	1766 Mar 23 05:49	2°♄37'17	-1°-14'-7
asc. node	1765 Apr 13 03:13	28°♄37'40		minimum elong	1766 Mar 23 09:26	2°♄55'32	1°13'33
	1765 Apr 13 18:49	0°♄		evening rise	1766 Mar 31 06:05	18°♄59'41	
evening rise	1765 Apr 15 23:46	4°♄37'40		asc. node	1766 Mar 31 00:15	18°♄29'56	
	1765 Apr 30 03:01	0°♄			1766 Apr 05 20:09	0°♄	
evening max el	1765 May 05 20:20	6°♄45'24	21°25'09	evening max el	1766 Apr 18 03:28	18°♄00'06	20°07'06
retrograde	1765 May 17 23:33	12°♄41'12		retrograde	1766 Apr 28 13:46	23°♄02'27	
evening set	1765 May 20 08:56	12°♄28'10		evening set	1766 Apr 30 14:45	22°♄51'43	
desc. node	1765 May 21 13:57	12°♄12'08		desc. node	1766 May 08 10:57	19°♄33'42	
inferior conj	1765 May 29 18:02	8°♄28'24	-2°-19'-28	inferior conj	1766 May 09 14:34	18°♄52'49	0°-20'-4
minimum elong	1765 May 29 11:43	8°♄37'16	2°17'21	minimum elong	1766 May 09 13:38	18°♄54'12	0°19'45
min. Earth dist.	1765 May 29 21:24	8°♄23'40	0.54920 AU	min. Earth dist.	1766 May 11 10:39	17°♄47'07	0.55298 AU
morning rise	1765 Jun 07 14:51	4°♄30'52		morning rise	1766 May 18 09:58	14°♄31'51	
direct	1765 Jun 10 20:59	4°♄07'48		direct	1766 May 22 10:09	13°♄56'49	
morning max el	1765 Jun 23 09:47	10°♄04'02	22°11'30	morning max el	1766 Jun 05 02:16	20°♄40'45	23°52'56
	1765 Jul 07 17:13	0°♄			1766 Jun 13 01:23	0°♄	
asc. node	1765 Jul 10 02:26	4°♄28'23		asc. node	1766 Jun 26 23:29	24°♄06'15	
morning set	1765 Jul 14 19:59	14°♄01'08		morning set	1766 Jun 29 07:38	28°♄57'18	
					1766 Jun 29 19:30	0°♄	
superior conj	1765 Jul 22 01:55	29°♄22'09	1°37'33				
minimum elong	1765 Jul 22 00:04	29°♄12'20	1°37'24	superior conj	1766 Jul 06 09:14	14°♄09'49	1°24'51
	1765 Jul 22 09:07	0°♄		minimum elong	1766 Jul 06 06:52	13°♄57'03	1°24'33
max. Earth dist.	1765 Jul 25 10:20	6°♄20'47	1.34460 AU	max. Earth dist.	1766 Jul 08 11:23	18°♄39'02	1.33322 AU
evening rise	1765 Jul 30 03:02	15°♄43'55		evening rise	1766 Jul 13 20:44	29°♄50'36	
	1765 Aug 06 21:05	0°♄			1766 Jul 13 22:36	0°♄	
desc. node	1765 Aug 17 13:17	17°♄09'18			1766 Jul 30 22:22	0°♄	
	1765 Aug 27 01:38	0°♄		desc. node	1766 Aug 04 10:17	6°♄32'51	
evening max el	1765 Sep 02 23:58	7°♄34'59	27°02'25	evening max el	1766 Aug 16 11:23	20°♄50'04	27°25'02
retrograde	1765 Sep 16 05:57	14°♄52'35		retrograde	1766 Aug 30 01:53	28°♄07'51	
evening set	1765 Sep 23 01:42	12°♄09'51		evening set	1766 Sep 06 05:29	25°♄28'21	
min. Earth dist.	1765 Sep 26 23:43	8°♄19'05	0.65327 AU	min. Earth dist.	1766 Sep 09 21:48	22°♄12'15	0.63839 AU
inferior conj	1765 Sep 28 23:39	6°♄02'30	-2°-20'-5	inferior conj	1766 Sep 12 10:27	19°♄35'50	-3°-16'-18
minimum elong	1765 Sep 29 03:22	5°♄51'54	2°18'42	minimum elong	1766 Sep 12 15:23	19°♄23'04	3°14'45
morning rise	1765 Oct 05 06:38	0°♄24'16		morning rise	1766 Sep 19 03:27	14°♄14'04	
asc. node	1765 Oct 06 01:38	0°♄04'34		direct	1766 Sep 21 15:09	13°♄43'24	

asc. node	1766 Sep 22 22:40	13°♎52'05		minimum elong	1767 Aug 26 14:58	2°♎37'46	4°05'11
morning max el	1766 Sep 28 04:15	17°♎09'08	17°54'01		1767 Aug 29 16:44	30°♎♎	
	1766 Oct 07 09:19	0°♎		morning rise	1767 Sep 02 13:30	27°♎48'04	
morning set	1766 Oct 14 22:55	12°♎53'27		direct	1767 Sep 04 22:48	27°♎23'18	
	1766 Oct 25 01:04	0°♎		asc. node	1767 Sep 09 19:44	29°♎09'31	
					1767 Sep 10 21:16	0°♎	
superior conj	1766 Oct 27 14:09	4°♎11'38	0°25'34	morning max el	1767 Sep 11 19:29	0°♎51'13	17°54'13
minimum elong	1766 Oct 27 16:53	4°♎22'47	0°25'11	morning set	1767 Sep 27 17:47	25°♎48'20	
desc. node	1766 Oct 31 09:35	10°♎22'28			1767 Sep 30 01:29	0°♎	
max. Earth dist.	1766 Nov 02 07:37	13°♎26'47	1.44274 AU				
evening rise	1766 Nov 12 14:00	29°♎30'49		superior conj	1767 Oct 08 14:06	15°♎02'48	1°02'52
	1766 Nov 12 21:35	0°♎		minimum elong	1767 Oct 08 18:43	15°♎22'37	1°02'17
	1766 Dec 03 04:06	0°♎		max. Earth dist.	1767 Oct 15 21:39	27°♎18'30	1.42890 AU
greatest brilliancy	1766 Dec 04 18:10	2°♎07'57	-0.5m		1767 Oct 17 13:21	0°♎	
evening max el	1766 Dec 10 16:34	9°♎13'42	20°34'27	desc. node	1767 Oct 18 06:37	1°♎09'42	
retrograde	1766 Dec 18 18:55	14°♎00'23		evening rise	1767 Oct 23 01:02	8°♎44'04	
asc. node	1766 Dec 19 21:57	13°♎53'17			1767 Nov 06 03:01	0°♎	
evening set	1766 Dec 22 14:43	12°♎36'08		greatest brilliancy	1767 Nov 18 17:37	17°♎15'04	-0.4m
inferior conj	1766 Dec 28 01:20	6°♎25'27	2°30'50	evening max el	1767 Nov 23 13:15	22°♎44'24	21°46'25
minimum elong	1766 Dec 27 22:44	6°♎34'21	2°30'03	retrograde	1767 Dec 02 15:54	28°♎09'46	
min. Earth dist.	1766 Dec 28 15:58	5°♎35'36	0.67307 AU	evening set	1767 Dec 06 22:33	26°♎29'26	
morning rise	1767 Jan 02 06:17	0°♎10'17		asc. node	1767 Dec 06 18:59	26°♎36'22	
	1767 Jan 02 10:58	30°♎♎		inferior conj	1767 Dec 12 08:04	20°♎09'48	1°48'41
direct	1767 Jan 07 19:01	27°♎44'38		minimum elong	1767 Dec 12 05:52	20°♎17'24	1°47'52
	1767 Jan 13 20:24	0°♎		min. Earth dist.	1767 Dec 12 11:02	19°♎59'30	0.67726 AU
morning max el	1767 Jan 19 00:05	4°♎25'46	24°23'18	morning rise	1767 Dec 17 12:57	13°♎55'32	
desc. node	1767 Jan 27 08:47	14°♎11'17		direct	1767 Dec 22 10:23	11°♎51'38	
	1767 Feb 07 15:53	0°♎		morning max el	1768 Jan 01 09:50	17°♎46'32	22°54'53
morning set	1767 Feb 23 21:05	26°♎12'20		greatest brilliancy	1768 Jan 06 02:57	23°♎02'15	-0.3m
	1767 Feb 26 00:44	0°♎			1768 Jan 11 13:25	0°♎	
max. Earth dist.	1767 Feb 27 14:36	2°♎50'02	1.37760 AU	desc. node	1768 Jan 14 05:51	3°♎40'08	
					1768 Jan 31 18:37	0°♎	
superior conj	1767 Mar 06 12:29	15°♎45'04	-1°-38'-18	morning set	1768 Feb 04 19:16	6°♎33'54	
minimum elong	1767 Mar 06 16:44	16°♎05'31	1°37'49	max. Earth dist.	1768 Feb 09 10:06	14°♎21'20	1.39900 AU
	1767 Mar 13 18:24	0°♎					
evening rise	1767 Mar 15 06:18	2°♎58'06		superior conj	1768 Feb 17 03:44	28°♎05'00	-1°-56'-30
asc. node	1767 Mar 17 21:17	8°♎07'02		minimum elong	1768 Feb 17 07:11	28°♎20'48	1°56'19
evening max el	1767 Mar 31 21:59	29°♎54'04	19°07'52		1768 Feb 18 04:45	0°♎	
	1767 Apr 01 00:27	0°♎		evening rise	1768 Feb 26 21:31	16°♎25'36	
retrograde	1767 Apr 09 16:52	4°♎09'23		asc. node	1768 Mar 03 18:20	27°♎23'30	
evening set	1767 Apr 11 20:06	3°♎55'22			1768 Mar 05 05:47	0°♎	
	1767 Apr 19 16:02	30°♎♎		evening max el	1768 Mar 14 01:36	12°♎23'04	18°28'46
inferior conj	1767 Apr 20 01:59	29°♎43'01	1°27'42	retrograde	1768 Mar 21 14:46	16°♎05'59	
minimum elong	1767 Apr 20 05:14	29°♎37'28	1°26'39	evening set	1768 Mar 23 23:18	15°♎45'23	
min. Earth dist.	1767 Apr 23 01:48	27°♎41'02	0.56554 AU	inferior conj	1768 Mar 31 10:26	11°♎13'26	2°44'04
desc. node	1767 Apr 25 08:00	26°♎17'26		minimum elong	1768 Mar 31 14:23	11°♎05'32	2°43'09
morning rise	1767 Apr 28 10:15	24°♎48'08		min. Earth dist.	1768 Apr 03 20:50	8°♎29'51	0.58419 AU
direct	1767 May 03 10:52	23°♎49'16		morning rise	1768 Apr 08 01:19	5°♎47'17	
	1767 May 16 11:24	0°♎		desc. node	1768 Apr 11 05:02	4°♎35'04	
morning max el	1767 May 17 16:44	1°♎08'03	25°31'04	direct	1768 Apr 14 01:40	4°♎13'47	
	1767 Jun 06 20:19	0°♎		morning max el	1768 Apr 28 10:51	11°♎54'21	26°50'09
morning set	1767 Jun 13 19:21	13°♎53'29			1768 May 12 13:45	0°♎	
asc. node	1767 Jun 13 20:32	13°♎59'44		morning set	1768 May 28 05:33	28°♎44'14	
					1768 May 28 19:57	0°♎	
superior conj	1767 Jun 20 19:41	29°♎05'41	1°07'39	asc. node	1768 May 30 17:37	4°♎03'34	
minimum elong	1767 Jun 20 17:20	28°♎52'49	1°07'15				
	1767 Jun 21 05:36	0°♎		superior conj	1768 Jun 04 07:28	14°♎03'44	0°46'44
max. Earth dist.	1767 Jun 21 19:36	1°♎16'28	1.32583 AU	minimum elong	1768 Jun 04 05:35	13°♎53'23	0°46'22
evening rise	1767 Jun 27 22:36	14°♎20'45		max. Earth dist.	1768 Jun 04 07:31	14°♎04'00	1.32230 AU
	1767 Jul 05 23:53	0°♎		evening rise	1768 Jun 11 05:58	29°♎05'53	
desc. node	1767 Jul 22 07:19	25°♎11'34			1768 Jun 11 16:18	0°♎	
	1767 Jul 26 08:35	0°♎			1768 Jun 28 07:31	0°♎	
evening max el	1767 Jul 29 19:20	3°♎32'42	27°16'40	desc. node	1768 Jul 08 04:20	12°♎46'48	
retrograde	1767 Aug 12 15:03	10°♎48'14		evening max el	1768 Jul 10 21:21	15°♎32'12	26°35'07
evening set	1767 Aug 19 19:11	8°♎24'17		retrograde	1768 Jul 24 20:44	22°♎45'17	
min. Earth dist.	1767 Aug 23 09:23	5°♎35'28	0.62028 AU	evening set	1768 Jul 31 14:16	20°♎50'20	
inferior conj	1767 Aug 26 09:44	2°♎49'47	-4°-6'-23	min. Earth dist.	1768 Aug 04 10:47	18°♎14'24	0.60000 AU

inferior conj	1768 Aug 07 18:04	15°♂35'43	-4°-43'-25	evening set	1769 Jul 12 10:22	2°♂37'03	
minimum elong	1768 Aug 07 21:45	15°♂28'17	4°43'00	min. Earth dist.	1769 Jul 17 04:21	29°♂55'25	0.57962 AU
morning rise	1768 Aug 15 08:36	10°♂56'36			1769 Jul 17 01:36	30°♂♂	
direct	1768 Aug 17 18:12	10°♂35'25		inferior conj	1769 Jul 20 07:59	27°♂44'03	-4°-56'-42
morning max el	1768 Aug 25 06:45	14°♂14'59	18°13'43	minimum elong	1769 Jul 20 07:38	27°♂44'39	4°56'43
asc. node	1768 Aug 26 16:48	15°♂43'46		morning rise	1769 Jul 28 08:36	23°♂27'36	
	1768 Sep 05 01:44	0°♂		direct	1769 Jul 30 21:00	23°♂08'14	
morning set	1768 Sep 10 03:28	9°♂25'38		morning max el	1769 Aug 08 10:50	27°♂10'46	18°53'50
					1769 Aug 11 01:40	0°♂	
superior conj	1768 Sep 19 15:15	27°♂08'08	1°27'58	asc. node	1769 Aug 13 13:52	3°♂19'23	
minimum elong	1768 Sep 19 19:01	27°♂25'13	1°27'37	morning set	1769 Aug 24 23:40	23°♂33'48	
	1768 Sep 21 05:25	0°♂			1769 Aug 28 06:07	0°♂	
max. Earth dist.	1768 Sep 27 05:48	10°♂29'29	1.41058 AU				
evening rise	1768 Oct 02 04:55	18°♂44'55		superior conj	1769 Sep 02 12:12	10°♂12'19	1°41'41
desc. node	1768 Oct 04 03:39	21°♂53'52		minimum elong	1769 Sep 02 14:06	10°♂21'24	1°41'36
	1768 Oct 09 07:17	0°♂		max. Earth dist.	1769 Sep 09 09:47	22°♂57'29	1.39021 AU
greatest brilliancy	1768 Oct 30 11:35	29°♂49'48	-0.2m	evening rise	1769 Sep 13 08:45	29°♂52'59	
	1768 Oct 30 14:55	0°♂			1769 Sep 13 10:24	0°♂	
evening max el	1768 Nov 05 04:59	6°♂16'48	23°05'16	desc. node	1769 Sep 21 00:40	12°♂31'20	
retrograde	1768 Nov 15 10:26	12°♂20'50			1769 Oct 02 16:29	0°♂	
evening set	1768 Nov 20 05:39	10°♂23'29		evening max el	1769 Oct 18 17:48	19°♂53'19	24°24'55
asc. node	1768 Nov 22 16:02	7°♂54'17		retrograde	1769 Oct 30 01:13	26°♂30'16	
inferior conj	1768 Nov 25 15:31	3°♂58'49	1°00'31	evening set	1769 Nov 04 10:24	24°♂16'00	
minimum elong	1768 Nov 25 14:09	4°♂03'31	0°59'57	min. Earth dist.	1769 Nov 09 03:45	18°♂51'42	0.67543 AU
min. Earth dist.	1768 Nov 25 07:45	4°♂25'33	0.67799 AU	inferior conj	1769 Nov 09 21:58	17°♂50'37	0°07'39
	1768 Nov 28 16:57	30°♂♂		minimum elong	1769 Nov 09 21:46	17°♂51'15	0°07'34
morning rise	1768 Nov 30 22:41	27°♂47'34		transit middle	1769 Nov 09 21:46	17°♂51'15	0°07'34
direct	1768 Dec 05 05:26	26°♂06'29		transit begin	1769 Nov 09 19:21	17°♂59'23	
	1768 Dec 12 17:09	0°♂		transit end	1769 Nov 10 00:12	17°♂43'08	
morning max el	1768 Dec 14 00:12	1°♂14'44	21°30'11	asc. node	1769 Nov 09 13:04	18°♂20'28	
greatest brilliancy	1768 Dec 19 00:53	6°♂58'24	-0.4m	morning rise	1769 Nov 15 09:28	11°♂44'52	
desc. node	1768 Dec 31 02:53	23°♂36'09		direct	1769 Nov 19 02:59	10°♂25'11	
	1769 Jan 04 10:27	0°♂		morning max el	1769 Nov 26 21:48	14°♂53'19	20°15'40
morning set	1769 Jan 14 12:21	15°♂32'35		greatest brilliancy	1769 Dec 03 13:33	22°♂52'26	-0.6m
max. Earth dist.	1769 Jan 21 10:17	26°♂42'53	1.41954 AU		1769 Dec 08 15:59	0°♂	
	1769 Jan 23 09:46	0°♂		desc. node	1769 Dec 17 23:55	13°♂51'53	
				morning set	1769 Dec 24 09:51	23°♂41'31	
superior conj	1769 Jan 28 22:17	9°♂23'54	-2°-4'-36		1769 Dec 28 11:07	0°♂	
minimum elong	1769 Jan 28 22:37	9°♂25'25	2°04'36	max. Earth dist.	1770 Jan 03 18:14	9°♂58'43	1.43643 AU
evening rise	1769 Feb 09 00:01	29°♂12'44					
	1769 Feb 09 10:22	0°♂		superior conj	1770 Jan 09 15:27	19°♂32'24	-1°-57'-34
asc. node	1769 Feb 18 15:22	16°♂11'36		minimum elong	1770 Jan 09 10:33	19°♂12'13	1°57'20
evening max el	1769 Feb 25 11:09	25°♂17'40	18°09'36		1770 Jan 15 21:30	0°♂	
retrograde	1769 Mar 04 06:03	28°♂44'03		evening rise	1770 Jan 22 09:34	11°♂11'29	
evening set	1769 Mar 06 19:56	28°♂14'44			1770 Feb 02 12:24	0°♂	
inferior conj	1769 Mar 13 15:09	23°♂21'38	3°27'20	asc. node	1770 Feb 05 12:24	4°♂22'51	
minimum elong	1769 Mar 13 17:34	23°♂15'59	3°27'01	evening max el	1770 Feb 08 23:30	8°♂29'51	18°09'52
min. Earth dist.	1769 Mar 16 21:53	20°♂20'07	0.60554 AU	retrograde	1770 Feb 15 10:48	11°♂54'18	
morning rise	1769 Mar 20 11:58	17°♂33'59		evening set	1770 Feb 18 05:43	11°♂15'02	
direct	1769 Mar 27 04:37	15°♂24'19		inferior conj	1770 Feb 24 12:38	6°♂01'05	3°43'37
desc. node	1769 Mar 29 02:04	15°♂34'13		minimum elong	1770 Feb 24 13:02	6°♂00'02	3°43'36
morning max el	1769 Apr 10 10:56	23°♂16'20	27°37'51	min. Earth dist.	1770 Feb 27 07:11	3°♂06'22	0.62636 AU
	1769 Apr 16 11:20	0°♂		morning rise	1770 Mar 02 18:11	0°♂00'29	
	1769 May 05 17:13	0°♂			1770 Mar 02 18:27	30°♂♂	
morning set	1769 May 12 12:20	13°♂22'10		direct	1770 Mar 09 16:57	27°♂23'49	
asc. node	1769 May 17 14:40	24°♂12'10		desc. node	1770 Mar 15 23:07	29°♂12'49	
max. Earth dist.	1769 May 18 19:17	26°♂48'08	1.32259 AU		1770 Mar 17 06:47	0°♂	
				morning max el	1770 Mar 23 16:32	5°♂19'02	27°48'33
superior conj	1769 May 19 18:47	28°♂56'52	0°22'48		1770 Apr 11 07:00	0°♂	
minimum elong	1769 May 19 17:46	28°♂51'17	0°22'35	morning set	1770 Apr 26 13:37	27°♂40'29	
	1769 May 20 06:18	0°♂			1770 Apr 27 17:02	0°♂	
evening rise	1769 May 26 16:31	13°♂57'32		max. Earth dist.	1770 May 02 03:06	9°♂16'27	1.32688 AU
	1769 Jun 03 18:16	0°♂					
evening max el	1769 Jun 22 16:20	26°♂45'23	25°23'45	superior conj	1770 May 04 03:56	13°♂39'31	0°-3'-25
desc. node	1769 Jun 25 01:21	28°♂52'09		minimum elong	1770 May 04 04:06	13°♂40'23	0°03'24
	1769 Jun 26 12:16	0°♂		behind sun begin	1770 May 03 23:00	13°♂12'47	
retrograde	1769 Jul 06 16:48	3°♂53'39		behind sun end	1770 May 04 09:12	14°♂08'00	

asc. node	1770 May 04 11:42	14°♄21'35		1771 Apr 19 06:34	0°♄	
evening rise	1770 May 11 04:20	28°♄49'19		1771 Apr 21 08:44	4°♄27'55	
	1770 May 11 17:44	0°♄		evening rise	1771 Apr 25 15:36	13°♄35'03
	1770 May 28 20:20	0°♄			1771 May 04 00:33	0°♄
evening max el	1770 Jun 04 06:35	7°♄23'51	23°52'39	evening max el	1771 May 16 22:24	17°♄55'00 22°16'49
desc. node	1770 Jun 11 22:22	12°♄53'49		retrograde	1771 May 29 20:08	24°♄17'43
retrograde	1770 Jun 18 00:35	14°♄18'00		desc. node	1771 May 29 19:23	24°♄17'43
evening set	1770 Jun 22 07:55	13°♄37'10		evening set	1771 Jun 01 18:36	23°♄58'40
min. Earth dist.	1770 Jun 28 17:17	10°♄33'53	0.56232 AU	min. Earth dist.	1771 Jun 10 04:49	20°♄20'59 0.55147 AU
inferior conj	1770 Jul 01 01:40	9°♄07'55	-4°-32'-13	inferior conj	1771 Jun 11 02:11	19°♄50'52 -3°-20'-6
minimum elong	1770 Jun 30 20:03	9°♄16'33	4°31'22	minimum elong	1771 Jun 10 18:23	20°♄01'53 3°17'55
morning rise	1770 Jul 09 11:38	5°♄09'43		morning rise	1771 Jun 19 20:14	15°♄59'01
direct	1770 Jul 12 04:51	4°♄50'47		direct	1771 Jun 22 20:17	15°♄38'43
morning max el	1770 Jul 22 04:51	9°♄28'59	19°55'20	morning max el	1771 Jul 04 11:31	21°♄04'09 21°17'07
asc. node	1770 Jul 31 10:55	21°♄42'29			1771 Jul 11 22:00	0°♄
	1770 Aug 05 01:11	0°♄		asc. node	1771 Jul 18 07:58	10°♄41'48
morning set	1770 Aug 09 03:05	8°♄03'56		morning set	1771 Jul 24 11:16	22°♄49'17
					1771 Jul 27 21:45	0°♄
superior conj	1770 Aug 16 23:36	24°♄00'01	1°45'54	superior conj	1771 Jul 31 21:16	8°♄19'15 1°42'27
minimum elong	1770 Aug 16 23:40	24°♄00'20	1°45'55	minimum elong	1771 Jul 31 19:57	8°♄12'25 1°42'23
	1770 Aug 20 00:41	0°♄		max. Earth dist.	1771 Aug 05 01:19	16°♄48'39 1.35296 AU
max. Earth dist.	1770 Aug 22 14:29	4°♄55'59	1.37034 AU	evening rise	1771 Aug 09 08:59	25°♄13'02
evening rise	1770 Aug 26 11:32	12°♄05'51			1771 Aug 11 22:35	0°♄
	1770 Sep 06 00:40	0°♄		desc. node	1771 Aug 25 18:43	23°♄05'52
desc. node	1770 Sep 07 21:41	2°♄57'13			1771 Aug 30 12:24	0°♄
	1770 Sep 27 20:19	0°♄		evening max el	1771 Sep 13 17:57	17°♄10'29 26°37'24
evening max el	1770 Oct 01 05:48	3°♄32'52	25°38'11	retrograde	1771 Sep 26 16:20	24°♄24'09
retrograde	1770 Oct 13 11:20	10°♄33'09		evening set	1771 Oct 03 05:42	21°♄43'56
evening set	1770 Oct 19 11:04	8°♄03'44		min. Earth dist.	1771 Oct 07 07:39	17°♄32'16 0.66034 AU
min. Earth dist.	1770 Oct 23 20:29	3°♄15'02	0.66960 AU	inferior conj	1771 Oct 09 00:31	15°♄30'15 -1°-46'-38
inferior conj	1770 Oct 25 01:36	1°♄42'02	0°-48'-35	minimum elong	1771 Oct 09 03:21	15°♄21'46 1°45'30
minimum elong	1770 Oct 25 02:51	1°♄38'01	0°48'04	asc. node	1771 Oct 14 07:09	10°♄13'11
	1770 Oct 26 10:01	30°♄		morning rise	1771 Oct 15 02:17	9°♄44'19
asc. node	1770 Oct 27 10:07	28°♄48'36		direct	1771 Oct 17 23:18	8°♄57'58
morning rise	1770 Oct 30 19:23	25°♄44'40		morning max el	1771 Oct 24 14:41	12°♄36'25 18°30'12
direct	1770 Nov 03 01:33	24°♄43'27			1771 Nov 06 02:14	0°♄
morning max el	1770 Nov 10 03:06	28°♄41'33	19°15'03	morning set	1771 Nov 13 14:12	11°♄59'45
	1770 Nov 11 08:41	0°♄		desc. node	1771 Nov 21 17:57	25°♄00'10
greatest brilliancy	1770 Nov 20 08:09	12°♄02'13	-0.7m		1771 Nov 24 21:49	0°♄
	1770 Dec 02 01:44	0°♄		superior conj	1771 Nov 29 08:28	6°♄59'35 0°-49'-20
morning set	1770 Dec 03 11:42	2°♄12'00		minimum elong	1771 Nov 29 02:11	6°♄34'53 0°48'31
desc. node	1770 Dec 04 20:55	4°♄21'13		max. Earth dist.	1771 Nov 30 03:46	8°♄15'23 1.45140 AU
max. Earth dist.	1770 Dec 17 09:08	23°♄56'01	1.44747 AU		1771 Dec 13 23:29	0°♄
superior conj	1770 Dec 20 07:01	28°♄32'37	-1°-31'-44	evening rise	1771 Dec 15 10:52	2°♄19'54
minimum elong	1770 Dec 19 22:18	27°♄58'02	1°30'55	greatest brilliancy	1771 Dec 26 15:42	19°♄58'30 -0.8m
	1770 Dec 21 05:00	0°♄			1772 Jan 02 11:48	0°♄
evening rise	1771 Jan 03 21:55	22°♄14'17		evening max el	1772 Jan 06 21:28	5°♄18'30 19°05'28
	1771 Jan 08 14:30	0°♄		asc. node	1772 Jan 10 06:26	8°♄07'17
asc. node	1771 Jan 23 09:25	21°♄45'51		retrograde	1772 Jan 13 19:54	9°♄15'23
evening max el	1771 Jan 23 11:44	21°♄51'47	18°28'51	evening set	1772 Jan 17 02:22	8°♄13'14
retrograde	1771 Jan 30 00:39	25°♄27'06		inferior conj	1772 Jan 22 18:13	2°♄23'06 3°21'22
evening set	1771 Feb 02 00:52	24°♄36'55		minimum elong	1772 Jan 22 15:57	2°♄30'15 3°20'59
inferior conj	1771 Feb 07 22:50	19°♄03'41	3°39'51	min. Earth dist.	1772 Jan 24 06:04	0°♄29'36 0.65861 AU
minimum elong	1771 Feb 07 21:36	19°♄07'20	3°39'45		1772 Jan 24 15:37	30°♄
min. Earth dist.	1771 Feb 10 02:00	16°♄34'18	0.64437 AU	morning rise	1772 Jan 28 04:38	26°♄10'12
morning rise	1771 Feb 13 16:57	12°♄55'21		direct	1772 Feb 03 14:56	23°♄21'50
direct	1771 Feb 20 12:40	10°♄05'53			1772 Feb 15 12:17	0°♄
desc. node	1771 Mar 02 20:08	14°♄57'23		morning max el	1772 Feb 16 11:26	0°♄56'58 26°28'33
morning max el	1771 Mar 06 01:34	17°♄56'27	27°23'31	desc. node	1772 Feb 17 17:09	2°♄13'44
	1771 Mar 16 04:46	0°♄			1772 Mar 09 05:29	0°♄
	1771 Apr 04 03:58	0°♄		morning set	1772 Mar 23 11:58	24°♄41'46
morning set	1771 Apr 10 06:42	11°♄30'52			1772 Mar 26 06:30	0°♄
max. Earth dist.	1771 Apr 15 03:16	21°♄18'05	1.33541 AU	max. Earth dist.	1772 Mar 27 16:24	2°♄45'56 1.34846 AU
superior conj	1771 Apr 18 09:02	28°♄05'34	0°-30'-59	superior conj	1772 Apr 01 07:46	12°♄07'30 0°-58'-43
minimum elong	1771 Apr 18 10:35	28°♄13'46	0°30'40			

minimum elong	1772 Apr 01 10:42	12°♄22'38	0°58'12	morning set	1773 Mar 06 00:37	6°♄59'37	
asc. node	1772 Apr 07 05:46	24°♄26'25		max. Earth dist.	1773 Mar 09 17:59	13°♄48'57	1.36590 AU
evening rise	1772 Apr 09 00:20	28°♄07'30					
	1772 Apr 09 22:13	0°♄		superior conj	1773 Mar 15 21:20	25°♄37'41	-1°-24'-53
evening max el	1772 Apr 27 22:45	28°♄47'58	20°49'50	minimum elong	1773 Mar 16 01:20	25°♄57'29	1°24'20
	1772 Apr 29 06:13	0°♄			1773 Mar 18 02:00	0°♄	
retrograde	1772 May 09 09:25	4°♄21'57		evening rise	1773 Mar 24 04:24	12°♄20'12	
evening set	1772 May 11 13:15	4°♄10'48		asc. node	1773 Mar 25 02:49	14°♄12'47	
desc. node	1772 May 15 16:24	2°♄54'10			1773 Apr 02 14:56	0°♄	
inferior conj	1772 May 20 19:57	0°♄13'01	-1°-29'-29	evening max el	1773 Apr 10 10:53	10°♄19'23	19°39'33
minimum elong	1772 May 20 15:43	0°♄19'03	1°28'00	retrograde	1773 Apr 20 03:55	15°♄00'30	
	1772 May 21 05:05	30°♄		evening set	1773 Apr 22 04:51	14°♄49'01	
min. Earth dist.	1772 May 21 17:17	29°♄42'37	0.54959 AU	inferior conj	1773 Apr 30 21:36	10°♄45'52	0°28'36
morning rise	1772 May 29 17:21	26°♄07'46		minimum elong	1773 Apr 30 22:50	10°♄43'56	0°28'10
direct	1772 Jun 02 05:47	25°♄41'07		desc. node	1773 May 02 13:24	9°♄43'09	
	1772 Jun 13 01:05	0°♄		min. Earth dist.	1773 May 03 07:36	9°♄14'55	0.55732 AU
morning max el	1772 Jun 15 08:09	1°♄58'29	22°54'09	morning rise	1773 May 09 13:18	6°♄10'28	
asc. node	1772 Jul 04 05:00	0°♄07'25		direct	1773 May 13 23:14	5°♄26'52	
	1772 Jul 04 03:30	0°♄		morning max el	1773 May 27 23:10	12°♄28'15	24°35'56
morning set	1772 Jul 07 22:08	7°♄42'50			1773 Jun 10 10:26	0°♄	
				asc. node	1773 Jun 21 02:05	19°♄52'21	
superior conj	1772 Jul 15 01:48	22°♄58'50	1°32'48	morning set	1773 Jun 22 10:01	22°♄39'19	
minimum elong	1772 Jul 14 23:40	22°♄47'25	1°32'34		1773 Jun 25 20:13	0°♄	
max. Earth dist.	1772 Jul 17 20:59	28°♄53'32	1.33925 AU				
	1772 Jul 18 09:44	0°♄		superior conj	1773 Jun 29 10:43	7°♄50'46	1°18'04
evening rise	1772 Jul 22 20:26	9°♄00'55		minimum elong	1773 Jun 29 08:18	7°♄37'37	1°17'43
	1772 Aug 03 09:38	0°♄		max. Earth dist.	1773 Jul 01 01:11	11°♄19'05	1.32960 AU
desc. node	1772 Aug 11 15:45	12°♄48'40		evening rise	1773 Jul 06 17:59	23°♄18'30	
	1772 Aug 25 14:55	0°♄			1773 Jul 10 02:45	0°♄	
evening max el	1772 Aug 26 05:50	0°♄36'08	27°15'21		1773 Jul 28 03:09	0°♄	
retrograde	1772 Sep 08 15:54	7°♄54'55		desc. node	1773 Jul 29 12:47	1°♄54'45	
evening set	1772 Sep 15 15:48	5°♄11'48		evening max el	1773 Aug 08 15:59	13°♄38'19	27°25'25
min. Earth dist.	1772 Sep 19 11:00	1°♄36'35	0.64741 AU	retrograde	1773 Aug 22 09:22	20°♄56'04	
	1772 Sep 20 22:25	30°♄		evening set	1773 Aug 29 14:08	18°♄21'28	
inferior conj	1772 Sep 21 16:28	29°♄10'16	-2°-44'-23	min. Earth dist.	1773 Sep 02 04:50	15°♄18'09	0.63101 AU
minimum elong	1772 Sep 21 20:47	28°♄58'28	2°42'52	inferior conj	1773 Sep 04 22:46	12°♄35'57	-3°-38'-40
morning rise	1772 Sep 28 03:39	23°♄38'57		minimum elong	1773 Sep 05 04:00	12°♄23'04	3°37'12
asc. node	1772 Sep 30 04:11	23°♄05'25		morning rise	1773 Sep 11 20:20	7°♄22'22	
direct	1772 Sep 30 17:54	23°♄03'41		direct	1773 Sep 14 06:32	6°♄54'42	
morning max el	1772 Oct 07 06:00	26°♄31'47	18°02'11	asc. node	1773 Sep 17 01:15	7°♄31'51	
	1772 Oct 10 05:55	0°♄		morning max el	1773 Sep 20 22:07	10°♄20'39	17°51'46
morning set	1772 Oct 24 21:45	23°♄13'08			1773 Oct 04 01:00	0°♄	
	1772 Oct 28 23:14	0°♄		morning set	1773 Oct 07 05:35	5°♄36'20	
superior conj	1772 Nov 07 17:14	15°♄54'02	0°00'-37	superior conj	1773 Oct 19 01:24	25°♄58'35	0°42'50
minimum elong	1772 Nov 07 17:09	15°♄53'42	0°00'37	minimum elong	1773 Oct 19 05:22	26°♄15'10	0°42'17
behind sun begin	1772 Nov 07 06:36	15°♄11'27			1773 Oct 21 11:38	0°♄	
behind sun end	1772 Nov 08 03:41	16°♄35'53		max. Earth dist.	1773 Oct 25 14:40	6°♄42'55	1.43749 AU
desc. node	1772 Nov 07 15:02	15°♄45'11		desc. node	1773 Oct 25 12:04	6°♄32'29	
max. Earth dist.	1772 Nov 11 22:32	22°♄36'49	1.44788 AU	evening rise	1773 Nov 03 11:37	20°♄41'51	
	1772 Nov 16 15:23	0°♄			1773 Nov 09 13:43	0°♄	
evening rise	1772 Nov 24 03:31	11°♄39'01		greatest brilliancy	1773 Nov 27 18:57	26°♄04'33	-0.5m
	1772 Dec 06 03:54	0°♄			1773 Dec 01 00:11	0°♄	
greatest brilliancy	1772 Dec 13 01:29	10°♄02'02	-0.6m	evening max el	1773 Dec 03 02:48	2°♄17'51	21°04'00
evening max el	1772 Dec 20 02:50	18°♄47'37	19°58'02	retrograde	1773 Dec 11 15:12	7°♄20'50	
asc. node	1772 Dec 27 03:27	23°♄12'45		asc. node	1773 Dec 14 00:30	6°♄49'04	
retrograde	1772 Dec 27 17:31	23°♄14'39		evening set	1773 Dec 15 15:17	5°♄50'09	
evening set	1772 Dec 31 07:50	21°♄59'04			1773 Dec 20 18:06	30°♄	
inferior conj	1773 Jan 05 19:49	15°♄54'59	2°51'51	inferior conj	1773 Dec 21 01:16	29°♄35'22	2°13'47
minimum elong	1773 Jan 05 17:11	16°♄03'49	2°51'10	minimum elong	1773 Dec 20 22:47	29°♄43'55	2°12'57
min. Earth dist.	1773 Jan 06 17:48	14°♄41'32	0.66886 AU	min. Earth dist.	1773 Dec 21 10:53	29°♄02'17	0.67527 AU
morning rise	1773 Jan 11 01:54	9°♄39'52		morning rise	1773 Dec 26 05:52	23°♄20'08	
direct	1773 Jan 16 23:02	7°♄03'34		direct	1773 Dec 31 12:09	21°♄03'07	
morning max el	1773 Jan 28 20:19	14°♄08'56	25°12'31	morning max el	1774 Jan 11 04:45	27°♄25'33	23°45'39
desc. node	1773 Feb 03 14:11	20°♄35'39			1774 Jan 13 14:44	0°♄	
	1773 Feb 10 18:43	0°♄		desc. node	1774 Jan 21 11:15	9°♄43'49	
	1773 Mar 02 01:13	0°♄			1774 Feb 04 10:58	0°♄	

morning set	1774 Feb 15 14:28	18° \approx 06'58		1775 Jan 08 18:02	0° \approx	
max. Earth dist.	1774 Feb 19 12:56	24° \approx 57'08	1.38661 AU	morning set	1775 Jan 27 00:01	27° \approx 51'21
	1774 Feb 22 08:35	0° \approx		max. Earth dist.	1775 Jan 28 07:36	0° \approx
					1775 Feb 01 09:52	6° \approx 48'17 1.40812 AU
superior conj	1774 Feb 26 21:59	8° \approx 26'02	-1°-47'00	superior conj	1775 Feb 09 05:04	20° \approx 21'24 -2°-1'-29
minimum elong	1774 Feb 27 02:07	8° \approx 45'32	1°46'37	minimum elong	1775 Feb 09 07:31	20° \approx 32'23 2°01'23
evening rise	1774 Mar 08 01:07	26° \approx 05'30			1775 Feb 14 12:08	0° \approx
	1774 Mar 10 01:27	0° \approx		evening rise	1775 Feb 19 11:21	9° \approx 16'20
asc. node	1774 Mar 11 23:51	3° \approx 41'17		asc. node	1775 Feb 26 20:52	22° \approx 46'07
evening max el	1774 Mar 24 09:41	22° \approx 28'53	18°48'50		1775 Mar 03 10:07	0° \approx
retrograde	1774 Apr 01 14:21	26° \approx 27'56		evening max el	1775 Mar 07 16:13	5° \approx 09'24 18°18'10
evening set	1774 Apr 03 19:50	26° \approx 11'25		retrograde	1775 Mar 14 19:58	8° \approx 43'06
inferior conj	1774 Apr 11 17:35	21° \approx 51'30	2°04'19	evening set	1775 Mar 17 07:00	8° \approx 18'50
minimum elong	1774 Apr 11 21:31	21° \approx 44'19	2°03'11	inferior conj	1775 Mar 24 10:52	3° \approx 37'40 3°06'14
min. Earth dist.	1774 Apr 15 00:10	19° \approx 29'10	0.57295 AU	minimum elong	1775 Mar 24 14:20	3° \approx 30'17 3°05'33
desc. node	1774 Apr 19 10:25	16° \approx 51'57		min. Earth dist.	1775 Mar 27 21:04	0° \approx 43'35 0.59322 AU
morning rise	1774 Apr 19 18:52	16° \approx 42'29			1775 Mar 28 19:15	30° \approx
direct	1774 Apr 25 06:28	15° \approx 29'26		morning rise	1775 Mar 31 17:56	28° \approx 01'29
morning max el	1774 May 09 14:25	22° \approx 59'09	26°07'51	desc. node	1775 Apr 06 07:28	26° \approx 13'55
	1774 May 15 20:42	0° \approx		direct	1775 Apr 07 02:31	26° \approx 12'14
	1774 Jun 03 04:51	0° \approx			1775 Apr 16 20:11	0° \approx
morning set	1774 Jun 06 21:17	7° \approx 33'22		morning max el	1775 Apr 21 10:42	3° \approx 57'45 27°14'53
asc. node	1774 Jun 07 23:10	9° \approx 50'29			1775 May 10 12:25	0° \approx
				morning set	1775 May 22 06:13	22° \approx 18'49
superior conj	1774 Jun 13 21:58	22° \approx 48'04	0°59'11	asc. node	1775 May 25 20:12	29° \approx 56'22
minimum elong	1774 Jun 13 19:45	22° \approx 35'58	0°58'48		1775 May 25 20:52	0° \approx
max. Earth dist.	1774 Jun 14 11:21	24° \approx 01'36	1.32385 AU			
	1774 Jun 17 05:01	0° \approx		superior conj	1775 May 29 09:42	7° \approx 44'06 0°36'54
evening rise	1774 Jun 20 22:31	7° \approx 56'00		minimum elong	1775 May 29 08:09	7° \approx 35'31 0°36'35
	1774 Jul 02 13:29	0° \approx		max. Earth dist.	1775 May 28 23:46	6° \approx 49'24 1.32195 AU
desc. node	1774 Jul 16 09:46	20° \approx 09'12		evening rise	1775 Jun 05 07:27	22° \approx 44'29
evening max el	1774 Jul 21 21:57	26° \approx 04'45	27°03'08		1775 Jun 08 20:02	0° \approx
	1774 Jul 26 16:35	0° \approx			1775 Jun 26 23:35	0° \approx
retrograde	1774 Aug 04 19:37	3° \approx 18'55		desc. node	1775 Jul 03 06:47	7° \approx 09'50
evening set	1774 Aug 11 20:34	1° \approx 06'07		evening max el	1775 Jul 03 21:07	7° \approx 44'32 26°08'05
	1774 Aug 13 11:42	30° \approx		retrograde	1775 Jul 17 21:04	14° \approx 55'18
min. Earth dist.	1774 Aug 15 12:14	28° \approx 02'432	0.61180 AU	evening set	1775 Jul 24 06:14	13° \approx 16'09
inferior conj	1774 Aug 18 16:13	25° \approx 03'48	-4°-24'-15	min. Earth dist.	1775 Jul 28 09:47	10° \approx 40'15 0.59119 AU
minimum elong	1774 Aug 18 21:05	25° \approx 02'31	4°23'22	inferior conj	1775 Jul 31 17:07	8° \approx 10'55 -4°-52'-47
morning rise	1774 Aug 26 00:34	20° \approx 04'05		minimum elong	1775 Jul 31 19:24	8° \approx 06'36 4°52'39
direct	1774 Aug 28 09:38	20° \approx 02'406		morning rise	1775 Aug 08 12:00	3° \approx 04'130
asc. node	1774 Sep 03 22:20	23° \approx 02'355		direct	1775 Aug 10 22:43	3° \approx 02'107
morning max el	1774 Sep 04 12:02	23° \approx 056'03	18°00'00	morning max el	1775 Aug 18 20:34	7° \approx 08'43 18°28'11
	1774 Sep 09 09:31	0° \approx		asc. node	1775 Aug 21 19:25	10° \approx 025'55
morning set	1774 Sep 20 07:27	18° \approx 51'35			1775 Sep 02 11:58	0° \approx
	1774 Sep 26 09:21	0° \approx		morning set	1775 Sep 03 22:06	2° \approx 43'34
superior conj	1774 Sep 30 12:38	7° \approx 22'55	1°14'59	superior conj	1775 Sep 12 22:56	19° \approx 55'19 1°35'04
minimum elong	1774 Sep 30 17:07	7° \approx 42'37	1°14'29	minimum elong	1775 Sep 13 01:57	20° \approx 09'19 1°34'51
max. Earth dist.	1774 Oct 08 02:23	20° \approx 19'18	1.42157 AU		1775 Sep 18 12:37	0° \approx
desc. node	1774 Oct 12 09:07	27° \approx 19'02		max. Earth dist.	1775 Sep 20 08:59	3° \approx 13'55 1.40208 AU
evening rise	1774 Oct 14 04:27	0° \approx 12'19		evening rise	1775 Sep 24 18:15	10° \approx 40'52
	1774 Oct 14 01:21	0° \approx		desc. node	1775 Sep 29 06:08	18° \approx 00'46
	1774 Nov 03 03:46	0° \approx			1775 Oct 07 00:07	0° \approx
greatest brilliancy	1774 Nov 11 03:58	10° \approx 31'02	-0.3m	evening max el	1775 Oct 29 11:39	29° \approx 23'52 23°39'22
evening max el	1774 Nov 15 21:22	15° \approx 49'48	22°19'29		1775 Oct 30 02:21	0° \approx
retrograde	1774 Nov 25 11:11	21° \approx 31'21		retrograde	1775 Nov 09 04:08	5° \approx 42'15
evening set	1774 Nov 29 23:00	19° \approx 43'56		evening set	1775 Nov 14 05:18	3° \approx 37'26
asc. node	1774 Nov 30 21:33	18° \approx 53'43		asc. node	1775 Nov 17 18:36	29° \approx 43'50
inferior conj	1774 Dec 05 08:31	13° \approx 21'57	1°28'55		1775 Nov 17 13:35	30° \approx
minimum elong	1774 Dec 05 06:38	13° \approx 28'30	1°28'10	min. Earth dist.	1775 Nov 19 03:29	27° \approx 53'52 0.67739 AU
min. Earth dist.	1774 Dec 05 06:54	13° \approx 27'33	0.67807 AU	inferior conj	1775 Nov 19 15:45	27° \approx 12'03 0°38'35
morning rise	1774 Dec 10 14:07	7° \approx 08'45		minimum elong	1775 Nov 19 14:50	27° \approx 15'08 0°38'12
direct	1774 Dec 15 05:18	5° \approx 14'23		morning rise	1775 Nov 25 00:32	21° \approx 03'06
morning max el	1774 Dec 24 15:53	10° \approx 48'25	22°17'51	direct	1775 Nov 29 01:29	19° \approx 31'28
greatest brilliancy	1774 Dec 29 06:08	15° \approx 57'08	-0.3m	morning max el	1775 Dec 07 09:11	24° \approx 20'59 20°56'57
desc. node	1775 Jan 08 08:19	29° \approx 25'20				

	1775 Dec 12 07:33	0°♊		asc. node	1776 Nov 03 15:39	10°♌03'26	
greatest brilliancy	1775 Dec 12 23:12	0°♊49'38	-0.5m	morning rise	1776 Nov 08 11:11	5°♌01'27	
desc. node	1775 Dec 26 05:22	19°♊30'30		direct	1776 Nov 11 23:32	3°♌50'15	
	1776 Jan 02 03:54	0°♋		morning max el	1776 Nov 19 10:16	8°♌04'25	19°48'00
morning set	1776 Jan 06 06:38	6°♋22'13		greatest brilliancy	1776 Nov 27 03:16	17°♌35'55	-0.6m
max. Earth dist.	1776 Jan 14 13:53	19°♋36'11	1.42736 AU		1776 Dec 05 14:50	0°♊	
	1776 Jan 20 20:26	0°♋		desc. node	1776 Dec 12 02:23	9°♊52'27	
				morning set	1776 Dec 15 02:44	14°♊31'04	
superior conj	1776 Jan 21 13:14	1°♋11'07	-2°-3'-44		1776 Dec 25 00:43	0°♋	
minimum elong	1776 Jan 21 11:31	1°♋03'48	2°03'44	max. Earth dist.	1776 Dec 27 00:57	3°♋11'11	1.44190 AU
evening rise	1776 Feb 02 07:12	21°♋44'16					
	1776 Feb 06 22:31	0°♌		superior conj	1776 Dec 31 18:56	10°♋48'11	-1°-48'-57
asc. node	1776 Feb 13 17:53	11°♌19'50		minimum elong	1776 Dec 31 11:53	10°♋19'41	1°48'28
evening max el	1776 Feb 19 03:16	18°♌12'23	18°07'19		1777 Jan 12 09:05	0°♋	
retrograde	1776 Feb 25 17:46	21°♌36'34		evening rise	1777 Jan 14 08:13	3°♋19'59	
evening set	1776 Feb 28 09:47	21°♌03'07		asc. node	1777 Jan 30 14:55	29°♋12'03	
inferior conj	1776 Mar 05 23:16	16°♌00'40	3°37'07		1777 Jan 31 07:00	0°♌	
minimum elong	1776 Mar 06 00:50	15°♌56'50	3°36'59	evening max el	1777 Feb 01 15:49	1°♌29'04	18°15'42
min. Earth dist.	1776 Mar 09 01:21	12°♌59'28	0.61459 AU	retrograde	1777 Feb 08 02:58	4°♌57'06	
morning rise	1776 Mar 12 13:09	10°♌06'30		evening set	1777 Feb 10 23:56	4°♌13'29	
direct	1776 Mar 19 09:24	7°♌44'10			1777 Feb 16 01:28	30°♌	
desc. node	1776 Mar 23 04:30	8°♌24'12		inferior conj	1777 Feb 17 02:40	28°♌51'06	3°44'06
morning max el	1776 Apr 02 13:32	15°♌38'15	27°47'08	minimum elong	1777 Feb 17 02:18	28°♌52'08	3°44'05
	1776 Apr 14 07:11	0°♍		min. Earth dist.	1777 Feb 19 14:51	26°♌05'08	0.63438 AU
	1776 May 02 01:04	0°♍		morning rise	1777 Feb 23 02:50	22°♌46'24	
morning set	1776 May 05 10:57	6°♍49'41		direct	1777 Mar 02 01:08	20°♌02'21	
max. Earth dist.	1776 May 11 10:33	19°♍29'39	1.32391 AU	desc. node	1777 Mar 10 01:32	23°♌00'38	
asc. node	1776 May 11 17:13	20°♍05'52		morning max el	1777 Mar 15 21:08	27°♌57'42	27°42'02
					1777 Mar 17 20:06	0°♌	
superior conj	1776 May 12 20:18	22°♍33'29	0°11'55		1777 Apr 08 00:55	0°♍	
minimum elong	1776 May 12 19:45	22°♍30'29	0°11'48	morning set	1777 Apr 19 09:06	20°♍57'20	
behind sun begin	1776 May 12 16:19	22°♍11'44			1777 Apr 23 19:05	0°♍	
behind sun end	1776 May 12 23:11	22°♍49'14		max. Earth dist.	1777 Apr 24 15:30	1°♍47'24	1.32993 AU
	1776 May 16 05:58	0°♎					
evening rise	1776 May 19 18:47	7°♎37'08		superior conj	1777 Apr 27 03:57	7°♍09'36	0°-15'00
	1776 May 31 11:27	0°♎		minimum elong	1777 Apr 27 04:41	7°♍13'32	0°14'52
evening max el	1776 Jun 14 13:20	18°♎39'41	24°46'31	behind sun begin	1777 Apr 27 02:46	7°♍03'17	
desc. node	1776 Jun 19 03:46	22°♎27'06		behind sun end	1777 Apr 27 06:35	7°♍23'47	
retrograde	1776 Jun 28 12:07	25°♎43'59		asc. node	1777 Apr 28 14:14	10°♍14'15	
evening set	1776 Jul 03 16:09	24°♎43'24		evening rise	1777 May 04 06:33	22°♍26'39	
min. Earth dist.	1776 Jul 09 00:35	21°♎54'28	0.57169 AU		1777 May 07 22:29	0°♎	
inferior conj	1776 Jul 11 22:22	20°♎00'18	-4°-51'-47	evening max el	1777 May 27 03:06	29°♎10'09	23°11'31
minimum elong	1776 Jul 11 19:45	20°♎04'38	4°51'36		1777 May 28 00:20	0°♎	
morning rise	1776 Jul 20 03:07	15°♎52'59		desc. node	1777 Jun 06 00:46	5°♎24'47	
direct	1776 Jul 22 17:27	15°♎33'57		retrograde	1777 Jun 09 14:54	5°♎54'08	
morning max el	1776 Jul 31 20:41	19°♎49'34	19°17'28	evening set	1777 Jun 13 06:55	5°♎24'38	
asc. node	1776 Aug 07 16:28	28°♎23'04		min. Earth dist.	1777 Jun 20 12:44	2°♎08'00	0.55669 AU
	1776 Aug 08 16:57	0°♏		inferior conj	1777 Jun 22 07:53	1°♎04'50	-4°-7'-29
morning set	1776 Aug 17 21:42	17°♏01'51		minimum elong	1777 Jun 22 00:40	1°♎15'26	4°05'59
	1776 Aug 24 09:50	0°♏			1777 Jun 24 04:47	30°♏♎	
superior conj	1776 Aug 26 02:39	3°♏19'56	1°44'32	morning rise	1777 Jun 30 21:34	27°♎11'19	
minimum elong	1776 Aug 26 03:44	3°♏25'13	1°44'30	direct	1777 Jul 03 17:00	26°♎52'19	
max. Earth dist.	1776 Sep 01 12:33	15°♏26'46	1.38155 AU		1777 Jul 12 05:16	0°♎	
evening rise	1776 Sep 05 08:13	22°♏17'02		morning max el	1777 Jul 14 09:59	1°♎49'48	20°27'56
	1776 Sep 09 20:28	0°♐		asc. node	1777 Jul 25 13:30	17°♎02'22	
desc. node	1776 Sep 15 03:08	8°♐33'42		morning set	1777 Aug 01 08:00	0°♏	
	1776 Sep 29 21:30	0°♐			1777 Aug 02 03:22	1°♏38'37	
evening max el	1776 Oct 10 23:42	13°♐01'09	24°57'11	superior conj	1777 Aug 09 18:52	17°♏22'13	1°45'17
retrograde	1776 Oct 22 17:06	19°♐49'43		minimum elong	1777 Aug 09 18:17	17°♏19'13	1°45'16
evening set	1776 Oct 28 08:33	17°♐28'20		max. Earth dist.	1777 Aug 14 18:45	27°♏17'13	1.36248 AU
min. Earth dist.	1776 Nov 01 22:20	12°♐19'07	0.67339 AU		1777 Aug 16 04:40	0°♏	
inferior conj	1776 Nov 02 21:12	11°♐03'48	0°-15'-53	evening rise	1777 Aug 18 19:29	4°♏54'22	
minimum elong	1776 Nov 02 21:36	11°♐02'29	0°15'44	desc. node	1777 Sep 02 00:08	28°♏52'54	
transit middle	1776 Nov 02 21:36	11°♐02'29	0°15'44		1777 Sep 02 17:39	0°♐	
transit begin	1776 Nov 02 20:55	11°♐04'43		evening max el	1777 Sep 23 11:36	26°♐40'33	26°05'35
transit end	1776 Nov 02 22:17	11°♐00'16			1777 Sep 27 06:27	0°♐	

retrograde	1777 Oct 06 01:21	3°♄48'37		evening set	1778 Sep 25 22:18	14°♄49'22	
evening set	1777 Oct 12 06:58	1°♄13'54		min. Earth dist.	1778 Sep 29 21:21	10°♄53'11	0.65519 AU
	1777 Oct 13 14:58	30°♄		inferior conj	1778 Oct 01 19:23	8°♄40'18	-2°-11'-21
min. Earth dist.	1777 Oct 16 13:06	26°♄40'42	0.66601 AU	minimum elong	1778 Oct 01 22:53	8°♄30'14	2°10'00
inferior conj	1777 Oct 17 23:07	24°♄54'46	-1°-13'-7	morning rise	1778 Oct 08 00:58	2°♄59'53	
minimum elong	1777 Oct 18 01:02	24°♄48'47	1°12'18	asc. node	1778 Oct 08 09:45	2°♄49'41	
asc. node	1777 Oct 21 12:41	20°♄50'18		direct	1778 Oct 10 18:48	2°♄18'38	
morning rise	1777 Oct 23 20:06	19°♄01'48		morning max el	1778 Oct 17 07:58	5°♄51'52	18°16'12
direct	1777 Oct 26 22:00	18°♄07'31			1778 Nov 02 18:50	0°♄	
morning max el	1777 Nov 02 18:33	21°♄56'29	18°53'57	morning set	1778 Nov 05 04:45	3°♄56'30	
	1777 Nov 09 05:50	0°♄		desc. node	1778 Nov 15 20:27	21°♄08'33	
morning set	1777 Nov 24 13:36	23°♄30'56					
desc. node	1777 Nov 28 23:25	0°♄26'39		superior conj	1778 Nov 20 04:23	28°♄00'35	0°-28'-41
	1777 Nov 28 16:38	0°♄		minimum elong	1778 Nov 20 00:40	27°♄45'55	0°28'12
max. Earth dist.	1777 Dec 09 17:20	17°♄18'43	1.45002 AU		1778 Nov 21 10:40	0°♄	
				max. Earth dist.	1778 Nov 22 12:30	1°♄41'38	1.45082 AU
superior conj	1777 Dec 11 02:30	19°♄29'11	-1°-15'-20	evening rise	1778 Dec 06 14:12	23°♄42'07	
minimum elong	1777 Dec 10 17:59	18°♄55'39	1°14'23		1778 Dec 10 15:04	0°♄	
	1777 Dec 17 17:57	0°♄		greatest brilliancy	1778 Dec 21 19:15	17°♄06'45	-0.7m
evening rise	1777 Dec 26 10:45	13°♄58'32		evening max el	1778 Dec 30 11:31	28°♄22'49	19°26'00
	1778 Jan 05 08:55	0°♄			1779 Jan 01 04:43	0°♄	
evening max el	1778 Jan 16 03:19	14°♄54'08	18°42'22	asc. node	1779 Jan 04 09:00	2°♄02'26	
asc. node	1778 Jan 17 11:57	16°♄11'07		retrograde	1779 Jan 06 15:56	2°♄31'06	
retrograde	1778 Jan 22 19:28	18°♄37'23		evening set	1779 Jan 10 01:37	1°♄23'22	
evening set	1778 Jan 25 22:08	17°♄42'23			1779 Jan 11 18:36	30°♄	
inferior conj	1778 Jan 31 17:13	12°♄01'57	3°33'32	inferior conj	1779 Jan 15 15:35	25°♄27'07	3°10'01
minimum elong	1778 Jan 31 15:28	12°♄07'16	3°33'19	minimum elong	1779 Jan 15 13:05	25°♄35'12	3°09'29
min. Earth dist.	1778 Feb 02 13:53	9°♄46'38	0.65096 AU	min. Earth dist.	1779 Jan 16 21:22	23°♄50'27	0.66356 AU
morning rise	1778 Feb 06 07:37	5°♄51'19		morning rise	1779 Jan 20 23:48	19°♄13'16	
direct	1778 Feb 13 00:05	3°♄00'22		direct	1779 Jan 27 04:59	16°♄28'48	
desc. node	1778 Feb 24 22:35	9°♄28'08		morning max el	1779 Feb 08 16:03	23°♄52'17	25°58'04
morning max el	1778 Feb 26 06:42	10°♄46'20	27°03'09	desc. node	1779 Feb 11 19:38	27°♄15'05	
	1778 Mar 13 12:31	0°♄			1779 Feb 14 03:54	0°♄	
	1778 Mar 31 12:18	0°♄		morning set	1779 Mar 06 21:47	0°♄	
morning set	1778 Apr 02 21:39	4°♄32'23		max. Earth dist.	1779 Mar 16 20:31	17°♄22'36	
max. Earth dist.	1778 Apr 07 10:57	13°♄33'13	1.34041 AU		1779 Mar 20 18:52	24°♄47'55	1.35544 AU
					1779 Mar 23 10:44	0°♄	
superior conj	1778 Apr 11 06:39	21°♄26'20	0°-42'-49	superior conj	1779 Mar 26 01:55	5°♄16'21	-1°-10'-9
minimum elong	1778 Apr 11 08:48	21°♄37'37	0°42'25	minimum elong	1779 Mar 26 05:23	5°♄33'52	1°09'35
asc. node	1778 Apr 15 11:15	0°♄17'42		asc. node	1779 Apr 02 08:19	20°♄11'58	
	1778 Apr 15 07:55	0°♄		evening rise	1779 Apr 03 00:01	21°♄32'27	
evening rise	1778 Apr 18 16:58	7°♄07'13			1779 Apr 07 05:38	0°♄	
	1778 May 01 01:45	0°♄		evening max el	1779 Apr 21 03:23	20°♄57'02	20°17'36
evening max el	1778 May 08 21:59	9°♄47'52	21°38'07	retrograde	1779 May 01 19:58	26°♄07'30	
retrograde	1778 May 21 06:22	15°♄50'51		evening set	1779 May 03 21:21	25°♄56'49	
evening set	1778 May 23 18:36	15°♄36'39		desc. node	1779 May 10 18:49	23°♄14'12	
desc. node	1778 May 23 21:48	15°♄35'07		inferior conj	1779 May 12 23:17	21°♄58'39	0°-38'-11
inferior conj	1778 Jun 02 03:51	11°♄35'26	-2°-36'-21	minimum elong	1779 May 12 21:29	22°♄01'17	0°37'32
minimum elong	1778 Jun 01 20:57	11°♄45'05	2°34'09	min. Earth dist.	1779 May 14 13:45	21°♄02'09	0.55180 AU
min. Earth dist.	1778 Jun 02 00:47	11°♄39'43	0.54950 AU	morning rise	1779 May 21 19:32	17°♄42'23	
morning rise	1778 Jun 11 00:07	7°♄39'57		direct	1779 May 25 16:27	17°♄09'54	
direct	1778 Jun 14 04:32	7°♄17'43		morning max el	1779 Jun 08 05:21	23°♄47'02	23°37'42
morning max el	1778 Jun 26 11:56	13°♄06'03	21°57'01		1779 Jun 13 20:06	0°♄	
	1778 Jul 09 00:46	0°♄		asc. node	1779 Jun 29 07:35	25°♄48'47	
asc. node	1778 Jul 12 10:32	6°♄13'38			1779 Jul 01 08:27	0°♄	
morning set	1778 Jul 17 12:53	16°♄27'35		morning set	1779 Jul 02 00:25	1°♄23'44	
	1778 Jul 23 22:43	0°♄					
superior conj	1778 Jul 24 19:45	1°♄50'39	1°39'02	superior conj	1779 Jul 09 02:27	16°♄36'45	1°27'06
minimum elong	1778 Jul 24 18:01	1°♄41'32	1°38'54	minimum elong	1779 Jul 09 00:07	16°♄24'15	1°26'49
max. Earth dist.	1778 Jul 28 09:05	9°♄12'33	1.34663 AU	max. Earth dist.	1779 Jul 11 08:58	21°♄28'16	1.33468 AU
evening rise	1778 Aug 01 23:25	18°♄20'13			1779 Jul 15 11:21	0°♄	
	1778 Aug 08 06:47	0°♄		evening rise	1779 Jul 16 15:39	2°♄22'41	
desc. node	1778 Aug 19 21:10	18°♄51'24			1779 Aug 01 03:23	0°♄	
	1778 Aug 27 22:21	0°♄		desc. node	1779 Aug 06 18:11	8°♄20'25	
evening max el	1778 Sep 05 23:57	10°♄14'59	26°56'47	evening max el	1779 Aug 19 11:35	23°♄33'10	27°23'26
retrograde	1778 Sep 19 04:07	17°♄31'37			1779 Aug 28 18:24	0°♄	

retrograde	1779 Sep 02 00:53	0°♄51'06			1780 Jul 25 22:53	0°♄	
	1779 Sep 06 01:48	30°♄		evening max el	1780 Jul 31 20:05	6°♄20'59	27°19'55
evening set	1779 Sep 09 03:49	28°♄10'16		retrograde	1780 Aug 14 15:15	13°♄37'15	
min. Earth dist.	1779 Sep 12 20:49	24°♄49'26	0.64086 AU	evening set	1780 Aug 21 19:54	11°♄09'56	
inferior conj	1779 Sep 15 07:37	22°♄15'24	-3°-8'-5	min. Earth dist.	1780 Aug 25 09:57	8°♄17'51	0.62316 AU
minimum elong	1779 Sep 15 12:24	22°♄02'48	3°06'32	inferior conj	1780 Aug 28 08:48	5°♄32'31	-3°-59'-28
morning rise	1779 Sep 21 23:05	16°♄51'04		minimum elong	1780 Aug 28 14:05	5°♄20'08	3°58'12
direct	1779 Sep 24 11:24	16°♄19'17		morning rise	1780 Sep 04 10:59	0°♄27'44	
asc. node	1779 Sep 25 06:48	16°♄22'37		direct	1780 Sep 06 20:25	0°♄02'20	
morning max el	1779 Sep 30 23:57	19°♄45'12	17°55'35	asc. node	1780 Sep 11 03:51	1°♄27'04	
	1779 Oct 08 14:54	0°♄		morning max el	1780 Sep 13 15:32	3°♄29'24	17°52'59
morning set	1779 Oct 17 23:24	15°♄42'11		morning set	1780 Sep 29 15:33	28°♄29'12	
	1779 Oct 26 10:26	0°♄			1780 Sep 30 11:46	0°♄	
superior conj	1779 Oct 30 21:47	7°♄21'09	0°18'59	superior conj	1780 Oct 10 17:38	18°♄00'20	0°57'59
minimum elong	1779 Oct 30 23:54	7°♄29'43	0°18'41	minimum elong	1780 Oct 10 22:11	18°♄19'43	0°57'25
desc. node	1779 Nov 02 17:31	11°♄54'54			1780 Oct 17 22:28	0°♄	
max. Earth dist.	1779 Nov 05 06:59	16°♄00'35	1.44429 AU	max. Earth dist.	1780 Oct 17 21:30	29°♄56'05	1.43125 AU
	1779 Nov 14 05:17	0°♄		desc. node	1780 Oct 19 14:33	2°♄42'16	
evening rise	1779 Nov 16 01:19	2°♄49'47		evening rise	1780 Oct 25 10:59	11°♄58'43	
	1779 Dec 04 05:27	0°♄			1780 Nov 06 08:17	0°♄	
greatest brilliancy	1779 Dec 07 10:07	4°♄24'17	-0.5m	greatest brilliancy	1780 Nov 20 14:12	19°♄45'11	-0.4m
evening max el	1779 Dec 13 14:42	11°♄52'39	20°24'36	evening max el	1780 Nov 25 12:09	25°♄23'06	21°35'12
retrograde	1779 Dec 21 13:51	16°♄34'07			1780 Dec 01 11:20	0°♄	
asc. node	1779 Dec 22 06:04	16°♄31'33		retrograde	1780 Dec 04 11:06	0°♄42'54	
evening set	1779 Dec 25 08:11	15°♄12'05			1780 Dec 07 06:21	30°♄	
inferior conj	1779 Dec 30 19:05	9°♄02'55	2°36'38	asc. node	1780 Dec 08 03:05	29°♄28'46	
minimum elong	1779 Dec 30 16:27	9°♄11'52	2°35'51	evening set	1780 Dec 08 15:57	29°♄05'07	
min. Earth dist.	1779 Dec 31 11:33	8°♄07'06	0.67210 AU	inferior conj	1780 Dec 14 01:32	22°♄46'33	1°55'32
morning rise	1780 Jan 05 00:14	2°♄47'44		minimum elong	1780 Dec 13 23:15	22°♄54'27	1°54'42
direct	1780 Jan 10 15:08	0°♄19'15		min. Earth dist.	1780 Dec 14 06:11	22°♄30'26	0.67681 AU
morning max el	1780 Jan 22 00:36	7°♄06'57	24°36'19	morning rise	1780 Dec 19 06:15	16°♄31'53	
desc. node	1780 Jan 29 16:42	15°♄58'41		direct	1780 Dec 24 05:56	14°♄24'33	
	1780 Feb 08 20:53	0°♄		morning max el	1781 Jan 03 09:57	20°♄26'57	23°08'01
morning set	1780 Feb 27 00:17	29°♄12'41		greatest brilliancy	1781 Jan 08 08:30	25°♄58'40	-0.3m
	1780 Feb 27 11:02	0°♄			1781 Jan 11 13:20	0°♄	
max. Earth dist.	1780 Mar 01 17:13	5°♄50'51	1.37449 AU	desc. node	1781 Jan 15 13:46	5°♄22'43	
					1781 Feb 01 02:37	0°♄	
superior conj	1780 Mar 08 10:32	18°♄30'22	-1°-34'-57	morning set	1781 Feb 07 02:45	9°♄46'57	
minimum elong	1780 Mar 08 14:45	18°♄50'50	1°34'26	max. Earth dist.	1781 Feb 11 12:19	17°♄15'26	1.39578 AU
	1780 Mar 14 06:13	0°♄			1781 Feb 18 15:43	0°♄	
evening rise	1780 Mar 17 01:22	5°♄35'05					
asc. node	1780 Mar 19 05:22	9°♄51'49		superior conj	1781 Feb 19 04:22	0°♄58'15	-1°-54'-19
	1780 Mar 31 07:53	0°♄		minimum elong	1781 Feb 19 08:05	1°♄15'21	1°54'03
evening max el	1780 Apr 02 20:16	2°♄45'07	19°15'25	evening rise	1781 Feb 28 18:08	19°♄07'42	
retrograde	1780 Apr 11 20:43	7°♄06'53		asc. node	1781 Mar 06 02:25	29°♄11'51	
evening set	1780 Apr 13 23:08	6°♄53'41			1781 Mar 06 13:02	0°♄	
inferior conj	1780 Apr 22 07:55	2°♄43'53	1°13'07	evening max el	1781 Mar 16 22:44	15°♄09'25	18°33'17
minimum elong	1780 Apr 22 10:45	2°♄39'08	1°12'10	retrograde	1781 Mar 24 15:35	18°♄55'59	
min. Earth dist.	1780 Apr 25 04:38	0°♄49'36	0.56316 AU	evening set	1781 Mar 26 23:16	18°♄36'33	
desc. node	1780 Apr 26 15:51	29°♄54'49		inferior conj	1781 Apr 03 13:06	14°♄07'55	2°34'43
	1780 Apr 26 12:24	30°♄		minimum elong	1781 Apr 03 17:08	14°♄00'02	2°33'41
morning rise	1780 Apr 30 18:20	27°♄54'00		min. Earth dist.	1781 Apr 06 23:03	11°♄28'59	0.58118 AU
direct	1780 May 05 14:59	26°♄59'34		morning rise	1781 Apr 11 06:43	8°♄45'46	
	1780 May 14 13:57	0°♄		desc. node	1781 Apr 13 12:53	7°♄51'24	
morning max el	1780 May 19 19:51	4°♄14'21	25°17'18	direct	1781 Apr 17 03:58	7°♄17'39	
	1780 Jun 07 05:16	0°♄		morning max el	1781 May 01 13:08	14°♄56'03	26°40'05
asc. node	1780 Jun 15 04:38	15°♄40'14			1781 May 13 15:56	0°♄	
morning set	1780 Jun 15 12:16	16°♄20'21			1781 May 30 09:00	0°♄	
	1780 Jun 21 19:46	0°♄		morning set	1781 May 30 22:45	1°♄11'54	
				asc. node	1781 Jun 02 01:41	5°♄42'32	
superior conj	1780 Jun 22 12:35	1°♄31'58	1°10'31				
minimum elong	1780 Jun 22 10:12	1°♄18'57	1°10'08	superior conj	1781 Jun 07 00:15	16°♄29'51	0°50'07
max. Earth dist.	1780 Jun 23 16:14	4°♄02'53	1.32668 AU	minimum elong	1781 Jun 06 22:17	16°♄18'58	0°49'45
evening rise	1780 Jun 29 16:29	16°♄49'50		max. Earth dist.	1781 Jun 07 03:42	16°♄48'47	1.32257 AU
	1780 Jul 06 09:50	0°♄			1781 Jun 13 05:30	0°♄	
desc. node	1780 Jul 23 15:11	27°♄06'51		evening rise	1781 Jun 13 23:09	1°♄32'59	

	1781 Jun 29 10:26	0°♊		superior conj	1782 May 22 11:45	1°♊24'16	0°26'36
desc. node	1781 Jul 10 12:11	14°♊53'05		minimum elong	1782 May 22 10:35	1°♊17'50	0°26'21
evening max el	1781 Jul 13 23:07	18°♊27'23	26°43'23	evening rise	1782 May 29 09:22	16°♊24'23	
retrograde	1781 Jul 27 22:14	25°♊41'00			1782 Jun 05 03:39	0°♊	
evening set	1781 Aug 03 18:03	23°♊41'04		evening max el	1782 Jun 25 19:16	29°♊48'05	25°36'02
min. Earth dist.	1781 Aug 07 12:53	21°♊04'12	0.60306 AU		1782 Jun 26 00:17	0°♊	
inferior conj	1781 Aug 10 19:35	18°♊23'16	-4°-39'-7	desc. node	1782 Jun 27 09:11	1°♊14'29	
minimum elong	1781 Aug 10 23:40	18°♊14'52	4°38'35	retrograde	1782 Jul 09 19:49	6°♊57'03	
morning rise	1781 Aug 18 08:33	13°♊40'37		evening set	1782 Jul 15 17:47	5°♊34'41	
direct	1781 Aug 20 17:51	13°♊19'05		min. Earth dist.	1782 Jul 20 07:30	2°♊55'02	0.58254 AU
morning max el	1781 Aug 28 03:34	16°♊56'28	18°09'30	inferior conj	1782 Jul 23 12:29	0°♊38'30	-4°-56'-53
asc. node	1781 Aug 29 00:55	17°♊50'41		minimum elong	1782 Jul 23 12:53	0°♊37'46	4°56'53
	1781 Sep 06 09:47	0°♊			1782 Jul 24 10:13	30°♊	
morning set	1781 Sep 12 23:20	12°♊01'02		morning rise	1782 Jul 31 11:38	26°♊18'40	
				direct	1782 Aug 02 23:32	25°♊59'04	
superior conj	1781 Sep 22 15:18	29°♊55'21	1°24'55		1782 Aug 11 09:59	0°♊	
minimum elong	1781 Sep 22 19:18	0°♊13'19	1°24'32	morning max el	1782 Aug 11 08:55	29°♊57'27	18°46'28
	1781 Sep 22 16:21	0°♊		asc. node	1782 Aug 15 21:58	5°♊18'24	
max. Earth dist.	1781 Sep 30 06:22	13°♊13'10	1.41349 AU	morning set	1782 Aug 27 18:16	26°♊06'02	
evening rise	1781 Oct 05 11:38	21°♊50'43			1782 Aug 29 18:04	0°♊	
desc. node	1781 Oct 06 11:32	23°♊27'05					
	1781 Oct 10 14:55	0°♊		superior conj	1782 Sep 05 09:43	12°♊52'20	1°40'16
	1781 Oct 31 12:23	0°♊		minimum elong	1782 Sep 05 11:55	13°♊02'46	1°40'08
greatest brilliancy	1781 Nov 03 00:00	3°♊06'06	-0.3m	max. Earth dist.	1782 Sep 12 11:00	25°♊48'36	1.39332 AU
evening max el	1781 Nov 08 04:31	8°♊55'07	22°53'24		1782 Sep 14 20:26	0°♊	
retrograde	1781 Nov 18 06:01	14°♊53'36		evening rise	1782 Sep 16 11:56	2°♊49'19	
evening set	1781 Nov 22 23:13	12°♊58'56		desc. node	1782 Sep 23 08:32	14°♊06'08	
asc. node	1781 Nov 25 00:08	10°♊57'48			1782 Oct 03 20:35	0°♊	
inferior conj	1781 Nov 28 08:57	6°♊34'50	1°08'09	evening max el	1782 Oct 21 17:44	22°♊31'30	24°13'15
minimum elong	1781 Nov 28 07:26	6°♊40'04	1°07'32	retrograde	1782 Nov 01 21:19	29°♊03'40	
min. Earth dist.	1781 Nov 28 02:48	6°♊56'05	0.67807 AU	evening set	1782 Nov 07 04:25	26°♊51'53	
morning rise	1781 Dec 03 15:37	0°♊22'55		asc. node	1782 Nov 11 21:10	21°♊28'45	
	1781 Dec 04 03:40	30°♊		min. Earth dist.	1782 Nov 11 23:01	21°♊22'32	0.67608 AU
direct	1781 Dec 08 00:32	28°♊38'21		inferior conj	1782 Nov 12 15:39	20°♊26'27	0°15'54
	1781 Dec 12 06:08	0°♊		minimum elong	1782 Nov 12 15:16	20°♊27'46	0°15'45
morning max el	1781 Dec 16 23:16	3°♊53'16	21°42'15	transit middle	1782 Nov 12 15:16	20°♊27'46	0°15'45
greatest brilliancy	1781 Dec 21 20:17	9°♊24'43	-0.4m	transit begin	1782 Nov 12 14:35	20°♊30'04	
desc. node	1782 Jan 02 10:47	25°♊15'06		transit end	1782 Nov 12 15:57	20°♊25'28	
	1782 Jan 05 16:21	0°♊		morning rise	1782 Nov 18 02:24	14°♊19'46	
morning set	1782 Jan 17 23:52	18°♊56'34		direct	1782 Nov 21 21:49	12°♊56'59	
max. Earth dist.	1782 Jan 24 11:16	29°♊27'52	1.41666 AU	morning max el	1782 Nov 29 19:40	17°♊30'10	20°25'54
	1782 Jan 24 19:00	0°♊		greatest brilliancy	1782 Dec 06 03:56	25°♊02'33	-0.5m
					1782 Dec 09 18:55	0°♊	
superior conj	1782 Feb 01 02:17	12°♊26'54	-2°-4'-14	desc. node	1782 Dec 20 07:49	15°♊28'18	
minimum elong	1782 Feb 01 03:16	12°♊31'13	2°04'14	morning set	1782 Dec 27 22:54	27°♊08'29	
	1782 Feb 10 20:22	0°♊			1782 Dec 29 19:02	0°♊	
evening rise	1782 Feb 11 22:43	2°♊01'03		max. Earth dist.	1783 Jan 06 18:12	12°♊36'44	1.43427 AU
asc. node	1782 Feb 20 23:26	18°♊04'43					
evening max el	1782 Feb 28 07:37	28°♊00'55	18°11'13	superior conj	1783 Jan 12 23:21	22°♊45'54	-1°-59'-47
	1782 Mar 02 17:31	0°♊		minimum elong	1783 Jan 12 19:16	22°♊29'01	1°59'38
retrograde	1782 Mar 07 04:25	1°♊28'34			1783 Jan 17 06:50	0°♊	
evening set	1782 Mar 09 17:36	1°♊00'36		evening rise	1783 Jan 25 10:59	14°♊07'12	
	1782 Mar 11 19:24	30°♊			1783 Feb 03 16:26	0°♊	
inferior conj	1782 Mar 16 14:57	26°♊10'39	3°22'39	asc. node	1783 Feb 07 20:27	6°♊22'09	
minimum elong	1782 Mar 16 17:40	26°♊04'27	3°22'14	evening max el	1783 Feb 11 19:42	11°♊10'53	18°08'39
min. Earth dist.	1782 Mar 19 22:56	23°♊10'14	0.60237 AU	retrograde	1783 Feb 18 07:28	14°♊34'48	
morning rise	1782 Mar 23 14:22	20°♊25'46		evening set	1783 Feb 21 01:41	13°♊57'00	
direct	1782 Mar 30 05:21	18°♊21'03		inferior conj	1783 Feb 27 10:11	8°♊45'55	3°42'32
desc. node	1782 Mar 31 09:56	18°♊24'57		minimum elong	1783 Feb 27 10:53	8°♊44'07	3°42'31
morning max el	1782 Apr 13 12:08	26°♊11'34	27°33'01	min. Earth dist.	1783 Mar 02 06:47	5°♊48'59	0.62337 AU
	1782 Apr 17 01:47	0°♊		morning rise	1783 Mar 05 17:47	2°♊46'54	
	1782 May 07 02:54	0°♊		direct	1783 Mar 12 16:12	0°♊13'36	
morning set	1782 May 15 06:09	15°♊52'09		desc. node	1783 Mar 18 06:58	1°♊41'24	
asc. node	1782 May 19 22:44	25°♊50'45		morning max el	1783 Mar 26 17:00	8°♊08'28	27°49'24
max. Earth dist.	1782 May 21 15:42	29°♊34'17	1.32229 AU		1783 Apr 12 11:58	0°♊	
	1782 May 21 20:23	0°♊		morning set	1783 Apr 29 08:24	0°♊14'09	
					1783 Apr 29 05:37	0°♊	

max. Earth dist.	1783 May 05 00:30	12°♄06'46	1.32598 AU		1784 Apr 04 13:35	0°♄	
				morning set	1784 Apr 12 02:56	14°♄09'44	
superior conj	1783 May 06 21:20	16°♄09'03	0°00'42	max. Earth dist.	1784 Apr 17 02:09	24°♄13'44	1.33384 AU
minimum elong	1783 May 06 21:18	16°♄08'53	0°00'41		1784 Apr 19 19:59	0°♄	
behind sun begin	1783 May 06 16:09	15°♄40'53					
behind sun end	1783 May 07 02:28	16°♄36'55		superior conj	1784 Apr 20 03:11	0°♄38'14	0°-26'-44
asc. node	1783 May 06 19:45	16°♄00'26		minimum elong	1784 Apr 20 04:30	0°♄45'18	0°26'29
	1783 May 13 06:39	0°♄		asc. node	1784 Apr 22 16:48	6°♄07'46	
evening rise	1783 May 13 21:08	1°♄16'59		evening rise	1784 Apr 27 08:37	16°♄04'18	
	1783 May 29 17:09	0°♄			1784 May 04 08:18	0°♄	
evening max el	1783 Jun 07 09:54	10°♄30'30	24°06'54	evening max el	1784 May 19 00:54	21°♄00'28	22°30'47
desc. node	1783 Jun 14 06:12	15°♄37'38		desc. node	1784 May 31 03:13	27°♄27'19	
retrograde	1783 Jun 21 05:24	17°♄27'36		retrograde	1784 Jun 01 02:46	27°♄29'31	
evening set	1783 Jun 25 18:17	16°♄42'01		evening set	1784 Jun 04 05:27	27°♄08'11	
min. Earth dist.	1783 Jul 01 20:43	13°♄42'58	0.56459 AU	min. Earth dist.	1784 Jun 12 08:17	23°♄36'24	0.55258 AU
inferior conj	1783 Jul 04 09:09	12°♄09'18	-4°-38'-55	inferior conj	1784 Jun 13 11:44	22°♄57'26	-3°-34'-2
minimum elong	1783 Jul 04 04:15	12°♄16'57	4°38'18	minimum elong	1784 Jun 13 03:53	23°♄08'35	3°31'58
morning rise	1783 Jul 12 17:46	8°♄09'05		morning rise	1784 Jun 22 04:46	19°♄05'50	
direct	1783 Jul 15 10:17	7°♄50'06		direct	1784 Jun 25 03:28	18°♄46'01	
morning max el	1783 Jul 25 04:34	12°♄21'56	19°44'51	morning max el	1784 Jul 06 12:58	24°♄03'45	21°03'48
asc. node	1783 Aug 02 19:00	23°♄35'11			1784 Jul 11 19:22	0°♄	
	1783 Aug 06 10:45	0°♄		asc. node	1784 Jul 19 16:03	12°♄29'34	
morning set	1783 Aug 11 20:49	10°♄33'48		morning set	1784 Jul 26 04:24	25°♄17'05	
					1784 Jul 28 10:53	0°♄	
superior conj	1783 Aug 19 19:20	26°♄34'54	1°45'48				
minimum elong	1783 Aug 19 19:39	26°♄36'29	1°45'48	superior conj	1784 Aug 02 15:41	10°♄50'05	1°43'24
	1783 Aug 21 12:59	0°♄		minimum elong	1784 Aug 02 14:33	10°♄44'12	1°43'21
max. Earth dist.	1783 Aug 25 15:27	7°♄51'18	1.37321 AU	max. Earth dist.	1784 Aug 07 00:54	19°♄42'16	1.35534 AU
evening rise	1783 Aug 29 11:34	14°♄53'25		evening rise	1784 Aug 11 06:32	27°♄53'03	
	1783 Sep 07 08:31	0°♄			1784 Aug 12 09:42	0°♄	
desc. node	1783 Sep 10 05:33	4°♄34'20		desc. node	1784 Aug 27 02:34	24°♄45'50	
	1783 Sep 28 13:19	0°♄			1784 Aug 30 15:27	0°♄	
evening max el	1783 Oct 04 05:45	6°♄11'00	25°27'51	evening max el	1784 Sep 15 17:45	19°♄49'00	26°29'43
retrograde	1783 Oct 16 08:10	13°♄08'18		retrograde	1784 Sep 28 14:03	27°♄01'42	
evening set	1783 Oct 22 05:50	10°♄40'49		evening set	1784 Oct 05 01:32	24°♄22'35	
min. Earth dist.	1783 Oct 26 16:21	5°♄46'49	0.67075 AU	min. Earth dist.	1784 Oct 09 04:30	20°♄05'25	0.66193 AU
inferior conj	1783 Oct 27 19:50	4°♄18'17	0°-39'-54	inferior conj	1784 Oct 10 19:37	18°♄07'19	-1°-37'-48
minimum elong	1783 Oct 27 20:52	4°♄15'00	0°39'28	minimum elong	1784 Oct 10 22:12	17°♄59'29	1°36'45
asc. node	1783 Oct 29 18:13	1°♄53'08		asc. node	1784 Oct 15 15:16	13°♄06'30	
	1783 Oct 31 11:32	30°♄		morning rise	1784 Oct 16 20:07	12°♄19'34	
morning rise	1783 Nov 02 12:36	28°♄19'39		direct	1784 Oct 19 18:17	11°♄31'21	
direct	1783 Nov 05 20:20	27°♄15'56		morning max el	1784 Oct 26 10:50	15°♄12'14	18°35'50
	1783 Nov 11 14:55	0°♄			1784 Nov 06 08:01	0°♄	
morning max el	1783 Nov 12 23:59	1°♄17'40	19°23'04	morning set	1784 Nov 15 20:47	15°♄06'38	
greatest brilliancy	1783 Nov 22 06:16	13°♄10'47	-0.7m	desc. node	1784 Nov 23 01:53	26°♄34'03	
	1783 Dec 03 08:51	0°♄			1784 Nov 25 06:04	0°♄	
morning set	1783 Dec 06 22:33	5°♄31'40					
desc. node	1783 Dec 07 04:51	5°♄56'07		superior conj	1784 Dec 01 20:46	10°♄24'00	0°-56'-27
max. Earth dist.	1783 Dec 20 08:27	26°♄29'53	1.44625 AU	minimum elong	1784 Dec 01 13:42	9°♄56'18	0°55'35
	1783 Dec 22 13:27	0°♄		max. Earth dist.	1784 Dec 02 02:34	10°♄46'47	1.45126 AU
					1784 Dec 14 07:20	0°♄	
superior conj	1783 Dec 23 18:21	1°♄55'03	-1°-36'-51	evening rise	1784 Dec 17 19:14	5°♄33'15	
minimum elong	1783 Dec 23 09:53	1°♄21'16	1°36'06		1785 Jan 02 11:17	0°♄	
evening rise	1784 Jan 07 02:46	25°♄19'02		evening max el	1785 Jan 08 18:20	7°♄58'04	18°58'57
	1784 Jan 09 22:12	0°♄		asc. node	1785 Jan 11 14:32	10°♄25'18	
asc. node	1784 Jan 25 17:29	23°♄53'27		retrograde	1785 Jan 15 14:59	11°♄51'19	
evening max el	1784 Jan 26 08:07	24°♄31'48	18°24'54	evening set	1785 Jan 18 20:24	10°♄51'06	
retrograde	1784 Feb 01 20:20	28°♄04'58		inferior conj	1785 Jan 24 13:00	5°♄03'23	3°24'58
evening set	1784 Feb 04 19:40	27°♄16'29		minimum elong	1785 Jan 24 10:51	5°♄10'06	3°24'36
inferior conj	1784 Feb 10 18:46	21°♄45'54	3°41'28	min. Earth dist.	1785 Jan 26 03:07	3°♄03'58	0.65672 AU
minimum elong	1784 Feb 10 17:44	21°♄48'53	3°41'24		1785 Jan 28 19:21	30°♄	
min. Earth dist.	1784 Feb 13 00:14	19°♄11'53	0.64184 AU	morning rise	1785 Jan 30 00:19	28°♄50'54	
morning rise	1784 Feb 16 14:19	15°♄38'22		direct	1785 Feb 05 12:18	26°♄01'26	
direct	1784 Feb 23 10:52	12°♄49'58			1785 Feb 14 10:41	0°♄	
desc. node	1784 Mar 04 04:02	17°♄09'35		morning max el	1785 Feb 18 11:46	3°♄40'10	26°38'18
morning max el	1784 Mar 08 01:51	20°♄42'10	27°29'26	desc. node	1785 Feb 19 01:05	4°♄14'04	
	1784 Mar 16 02:50	0°♄			1785 Mar 10 11:34	0°♄	

morning set	1785 Mar 26 10:14	27° Υ 27'19		direct	1786 Jan 19 19:44	9° Z 40'16	
	1785 Mar 27 18:13	0° Υ		morning max el	1786 Jan 31 20:45	16° Z 50'53	25°24'40
max. Earth dist.	1785 Mar 30 16:55	5° Υ 45'48	1.34619 AU	desc. node	1786 Feb 05 22:09	22° Z 27'39	
					1786 Feb 11 19:52	0° \approx	
superior conj	1785 Apr 04 03:00	14° Υ 44'04	0°-54'-35		1786 Mar 03 10:26	0° X	
minimum elong	1785 Apr 04 05:45	14° Υ 58'15	0°54'04	morning set	1786 Mar 09 01:41	9° X 53'50	
asc. node	1785 Apr 09 13:50	26° Υ 07'43		max. Earth dist.	1786 Mar 12 19:50	16° X 49'57	1.36308 AU
	1785 Apr 11 10:20	0° X					
evening rise	1785 Apr 11 17:50	0° X 38'52		superior conj	1786 Mar 18 18:08	28° X 19'27	-1°-21'-8
	1785 Apr 29 05:46	0° II		minimum elong	1786 Mar 18 22:01	28° X 38'47	1°20'34
evening max el	1785 Apr 30 23:39	1° II 48'45	21°01'54		1786 Mar 19 14:17	0° Υ	
retrograde	1785 May 12 16:24	7° II 30'41		evening rise	1786 Mar 26 22:43	14° Υ 54'38	
evening set	1785 May 14 21:46	7° II 19'05		asc. node	1786 Mar 27 10:53	15° Υ 56'05	
desc. node	1785 May 18 00:16	6° II 27'23			1786 Apr 03 19:57	0° X	
inferior conj	1785 May 24 05:37	3° II 20'55	-1°-47'-41	evening max el	1786 Apr 13 10:03	13° X 14'00	19°48'49
minimum elong	1785 May 24 00:35	3° II 28'03	1°45'54	retrograde	1786 Apr 23 09:02	18° X 02'17	
min. Earth dist.	1785 May 24 20:43	2° II 59'32	0.54924 AU	evening set	1786 Apr 25 09:47	17° X 51'11	
	1785 May 30 21:41	30° R X		inferior conj	1786 May 04 05:10	13° X 49'54	0°11'40
morning rise	1785 Jun 02 02:58	29° X 18'43		minimum elong	1786 May 04 05:41	13° X 49'06	0°11'29
direct	1785 Jun 05 12:56	28° X 53'31		transit middle	1786 May 04 05:41	13° X 49'06	0°11'29
	1785 Jun 10 23:16	0° II		transit begin	1786 May 04 02:56	13° X 53'21	
morning max el	1785 Jun 18 10:56	5° II 03'43	22°39'03	transit end	1786 May 04 08:26	13° X 44'52	
	1785 Jul 05 14:07	0° Z		desc. node	1786 May 04 21:18	13° X 24'56	
asc. node	1785 Jul 06 13:07	1° Z 51'46		min. Earth dist.	1786 May 06 10:39	12° X 27'36	0.55559 AU
morning set	1785 Jul 10 14:59	10° Z 09'44		morning rise	1786 May 12 22:19	9° X 19'40	
				direct	1786 May 17 04:47	8° X 39'17	
superior conj	1785 Jul 17 19:23	25° Z 27'17	1°34'35	morning max el	1786 May 31 02:16	15° X 35'02	24°21'05
minimum elong	1785 Jul 17 17:20	25° Z 16'23	1°34'24		1786 Jun 11 13:41	0° II	
	1785 Jul 19 23:06	0° Z		asc. node	1786 Jun 23 10:09	21° II 34'09	
max. Earth dist.	1785 Jul 20 19:04	1° Z 44'01	1.34103 AU	morning set	1786 Jun 25 02:48	25° II 06'08	
evening rise	1785 Jul 25 16:09	11° Z 35'48			1786 Jun 27 09:54	0° Z	
	1785 Aug 04 17:46	0° X					
desc. node	1785 Aug 13 23:35	14° X 33'13		superior conj	1786 Jul 02 03:46	10° Z 17'52	1°20'35
	1785 Aug 26 00:38	0° Z		minimum elong	1786 Jul 02 01:21	10° Z 04'47	1°20'16
evening max el	1785 Aug 29 05:49	3° Z 17'35	27°11'23	max. Earth dist.	1786 Jul 03 22:12	14° Z 07'06	1.33076 AU
retrograde	1785 Sep 11 14:38	10° Z 36'17		evening rise	1786 Jul 09 12:24	25° Z 49'50	
evening set	1785 Sep 18 13:08	7° Z 53'05			1786 Jul 11 14:27	0° Z	
min. Earth dist.	1785 Sep 22 09:16	4° Z 12'30	0.64951 AU		1786 Jul 29 04:10	0° X	
inferior conj	1785 Sep 24 12:48	1° Z 49'22	-2°-35'-46	desc. node	1786 Jul 31 20:37	3° X 45'57	
minimum elong	1785 Sep 24 16:55	1° Z 37'57	2°34'18	evening max el	1786 Aug 11 16:29	16° X 24'45	27°26'00
	1785 Sep 26 05:06	30° R X		retrograde	1786 Aug 25 08:58	23° X 42'33	
morning rise	1785 Sep 30 22:30	26° X 15'35		evening set	1786 Sep 01 13:27	21° X 06'03	
asc. node	1785 Oct 02 12:20	25° X 44'51		min. Earth dist.	1786 Sep 05 04:40	17° X 58'21	0.63365 AU
direct	1785 Oct 03 13:34	25° X 38'56		inferior conj	1786 Sep 07 20:45	15° X 17'59	-3°-30'-52
morning max el	1785 Oct 10 01:47	29° X 08'15	18°05'15	minimum elong	1786 Sep 08 01:54	15° X 05'03	3°29'22
	1785 Oct 10 21:31	0° Z		morning rise	1786 Sep 14 16:43	10° X 01'22	
morning set	1785 Oct 28 00:15	26° Z 08'28		direct	1786 Sep 17 03:21	9° X 32'44	
	1785 Oct 30 07:59	0° X		asc. node	1786 Sep 19 09:23	9° X 57'32	
desc. node	1785 Nov 09 22:55	17° X 18'33		morning max el	1786 Sep 23 17:56	12° X 58'30	17°52'07
					1786 Oct 05 09:15	0° Z	
superior conj	1785 Nov 11 03:11	19° X 11'25	0°-7'-54	morning set	1786 Oct 10 04:51	8° Z 22'37	
minimum elong	1785 Nov 11 02:12	19° X 07'28	0°07'47				
behind sun begin	1785 Nov 10 16:42	18° X 29'35		superior conj	1786 Oct 22 07:17	29° Z 03'54	0°36'54
behind sun end	1785 Nov 11 11:41	19° X 45'18		minimum elong	1786 Oct 22 10:53	29° Z 18'51	0°36'25
max. Earth dist.	1785 Nov 14 21:24	25° X 09'00	1.44886 AU		1786 Oct 22 20:50	0° X	
	1785 Nov 17 23:26	0° X		desc. node	1786 Oct 27 19:56	8° X 05'36	
evening rise	1785 Nov 27 14:25	14° X 58'17		max. Earth dist.	1786 Oct 28 14:12	9° X 19'01	1.43947 AU
	1785 Dec 07 09:07	0° Z		evening rise	1786 Nov 06 22:43	24° X 01'00	
greatest brilliancy	1785 Dec 15 14:42	12° Z 09'50	-0.6m		1786 Nov 10 20:27	0° X	
evening max el	1785 Dec 23 00:31	21° Z 27'32	19°49'15	greatest brilliancy	1786 Nov 30 13:03	28° X 28'37	-0.5m
asc. node	1785 Dec 29 11:35	25° Z 43'32			1786 Dec 01 17:46	0° Z	
retrograde	1785 Dec 30 12:24	25° Z 49'28		evening max el	1786 Dec 06 01:21	4° Z 57'52	20°53'26
evening set	1786 Jan 03 01:25	24° Z 36'02		retrograde	1786 Dec 14 10:08	9° Z 54'59	
inferior conj	1786 Jan 08 13:52	18° Z 33'59	2°56'57	asc. node	1786 Dec 16 08:38	9° Z 34'00	
minimum elong	1786 Jan 08 11:15	18° Z 42'40	2°56'16	evening set	1786 Dec 18 08:41	8° Z 26'35	
min. Earth dist.	1786 Jan 09 13:52	17° Z 14'21	0.66765 AU	inferior conj	1786 Dec 23 18:52	2° Z 13'14	2°20'02
morning rise	1786 Jan 13 20:24	12° Z 19'04		minimum elong	1786 Dec 23 16:19	2° Z 21'58	2°19'12

min. Earth dist.	1786 Dec 24 06:13	1°☿34'18	0.67462 AU	inferior conj	1787 Dec 08 01:56	15°♄58'46	1°36'04
	1786 Dec 25 10:08	30°♁♄		minimum elong	1787 Dec 07 23:55	16°♄05'43	1°35'18
morning rise	1786 Dec 28 23:31	25°♄58'02		min. Earth dist.	1787 Dec 08 01:53	15°♄58'55	0.67789 AU
direct	1787 Jan 03 08:06	23°♄37'50		morning rise	1787 Dec 13 07:14	9°♄45'14	
morning max el	1787 Jan 14 05:03	0°☿06'50	23°58'49	direct	1787 Dec 18 00:36	7°♄47'33	
	1787 Jan 14 02:20	0°☿		morning max el	1787 Dec 27 15:34	13°♄28'39	22°30'39
desc. node	1787 Jan 23 19:11	11°☿29'52		greatest brilliancy	1788 Jan 01 05:18	18°♄35'08	-0.3m
	1787 Feb 05 17:21	0°♁			1788 Jan 09 21:11	0°☿	
morning set	1787 Feb 18 19:21	21°♁12'53		desc. node	1788 Jan 10 16:12	1°☿06'50	
max. Earth dist.	1787 Feb 22 15:23	27°♁55'40	1.38344 AU		1788 Jan 29 16:06	0°♁	
	1787 Feb 23 19:08	0°♁		morning set	1788 Jan 30 09:19	1°♁10'06	
				max. Earth dist.	1788 Feb 04 11:50	9°♁40'09	1.40497 AU
superior conj	1787 Mar 01 21:00	11°♁15'09	-1°-44'-3				
minimum elong	1787 Mar 02 01:13	11°♁35'10	1°43'38	superior conj	1788 Feb 12 07:01	23°♁19'17	-1°-59'-57
evening rise	1787 Mar 10 20:44	28°♁44'56		minimum elong	1788 Feb 12 09:53	23°♁32'12	1°59'51
	1787 Mar 11 12:04	0°♁			1788 Feb 15 22:45	0°♁	
asc. node	1787 Mar 14 07:56	5°♁28'02		evening rise	1788 Feb 22 08:46	12°♁01'47	
evening max el	1787 Mar 27 07:25	25°♁18'28	18°55'04	asc. node	1788 Feb 29 04:58	24°♁37'15	
retrograde	1787 Apr 04 16:46	29°♁22'48			1788 Mar 03 10:27	0°♁	
evening set	1787 Apr 06 21:27	29°♁07'12		evening max el	1788 Mar 09 12:58	7°♁54'59	18°21'26
inferior conj	1787 Apr 14 22:02	24°♁50'02	1°51'59	retrograde	1788 Mar 16 19:46	11°♁31'39	
minimum elong	1787 Apr 15 01:48	24°♁43'19	1°50'50	evening set	1788 Mar 19 05:55	11°♁08'41	
min. Earth dist.	1787 Apr 18 02:38	22°♁34'29	0.57022 AU	inferior conj	1788 Mar 26 12:15	6°♁30'41	2°58'58
desc. node	1787 Apr 21 18:20	20°♁22'20		minimum elong	1788 Mar 26 15:55	6°♁23'01	2°58'11
morning rise	1787 Apr 23 01:52	19°♁45'58		min. Earth dist.	1788 Mar 29 22:45	3°♁39'47	0.59002 AU
direct	1787 Apr 28 09:44	18°♁38'03		morning rise	1788 Apr 02 22:02	0°♁57'47	
morning max el	1787 May 12 17:03	26°♁04'04	25°55'32		1788 Apr 05 00:27	30°♁♁	
	1787 May 16 10:08	0°♁		desc. node	1788 Apr 07 15:23	29°♁20'15	
	1787 Jun 04 15:51	0°♁		direct	1788 Apr 09 03:52	29°♁14'06	
morning set	1787 Jun 09 14:16	10°♁01'16			1788 Apr 13 09:54	0°♁	
asc. node	1787 Jun 10 07:11	11°♁30'50		morning max el	1788 Apr 23 12:33	6°♁57'59	27°07'01
					1788 May 10 18:27	0°♁	
superior conj	1787 Jun 16 14:45	25°♁15'01	1°02'18	morning set	1788 May 23 23:39	24°♁48'30	
minimum elong	1787 Jun 16 12:29	25°♁02'35	1°01'55		1788 May 26 10:25	0°♁	
max. Earth dist.	1787 Jun 17 07:47	26°♁48'26	1.32445 AU	asc. node	1788 May 27 04:13	1°♁35'52	
	1787 Jun 18 18:50	0°♁					
evening rise	1787 Jun 23 16:03	10°♁25'14		superior conj	1788 May 31 02:31	10°♁11'33	0°40'30
	1787 Jul 03 21:03	0°♁		minimum elong	1788 May 31 00:50	10°♁02'18	0°40'09
desc. node	1787 Jul 18 17:37	22°♁09'43		max. Earth dist.	1788 May 30 20:07	9°♁36'19	1.32198 AU
evening max el	1787 Jul 24 23:14	28°♁57'28	27°08'35	evening rise	1788 Jun 07 00:27	25°♁12'25	
	1787 Jul 26 02:26	0°♁			1788 Jun 09 07:53	0°♁	
retrograde	1787 Aug 07 20:11	6°♁11'52			1788 Jun 26 19:19	0°♁	
evening set	1787 Aug 14 22:31	3°♁54'57		desc. node	1788 Jul 04 14:38	9°♁23'06	
min. Earth dist.	1787 Aug 18 13:30	1°♁11'08	0.61484 AU	evening max el	1788 Jul 05 23:21	10°♁43'50	26°18'08
	1787 Aug 19 22:08	30°♁♁		retrograde	1788 Jul 19 23:03	17°♁55'23	
inferior conj	1787 Aug 21 16:18	28°♁25'46	-4°-18'-15	evening set	1788 Jul 26 11:30	16°♁10'27	
minimum elong	1787 Aug 21 21:21	28°♁14'35	4°17'14	min. Earth dist.	1788 Jul 30 12:12	13°♁35'02	0.59427 AU
morning rise	1787 Aug 28 23:04	23°♁29'47		inferior conj	1788 Aug 02 19:48	11°♁02'00	-4°-50'-6
direct	1787 Aug 31 08:11	23°♁06'11		minimum elong	1788 Aug 02 22:39	10°♁56'30	4°49'51
asc. node	1787 Sep 06 06:25	25°♁37'37		morning rise	1788 Aug 10 13:12	6°♁29'14	
morning max el	1787 Sep 07 08:20	26°♁36'28	17°57'31	direct	1788 Aug 12 23:30	6°♁08'36	
	1787 Sep 10 07:25	0°♁		morning max el	1788 Aug 20 17:52	9°♁53'03	18°22'43
morning set	1787 Sep 23 04:22	21°♁31'14		asc. node	1788 Aug 23 03:27	12°♁29'47	
	1787 Sep 27 19:54	0°♁			1788 Sep 02 22:16	0°♁	
				morning set	1788 Sep 05 17:23	5°♁18'21	
superior conj	1787 Oct 03 14:37	10°♁16'49	1°10'54				
minimum elong	1787 Oct 03 19:12	10°♁36'45	1°10'23	superior conj	1788 Sep 14 21:51	22°♁40'16	1°32'45
max. Earth dist.	1787 Oct 11 02:51	23°♁01'24	1.42427 AU	minimum elong	1788 Sep 15 01:09	22°♁55'26	1°32'28
desc. node	1787 Oct 14 16:57	28°♁52'20			1788 Sep 18 23:08	0°♁	
	1787 Oct 15 09:47	0°♁		max. Earth dist.	1788 Sep 22 10:02	6°♁02'14	1.40509 AU
evening rise	1787 Oct 17 13:13	3°♁24'42		evening rise	1788 Sep 26 23:27	13°♁43'24	
	1787 Nov 04 06:45	0°♁		desc. node	1788 Sep 30 13:58	19°♁35'07	
greatest brilliancy	1787 Nov 14 03:26	13°♁09'48	-0.3m		1788 Oct 07 06:24	0°♁	
evening max el	1787 Nov 18 20:37	18°♁29'12	22°07'47		1788 Oct 29 12:25	0°♁	
retrograde	1787 Nov 28 06:26	24°♁04'58		evening max el	1788 Oct 31 11:19	2°♁02'46	23°27'26
evening set	1787 Dec 02 16:26	22°♁20'00		retrograde	1788 Nov 10 23:58	8°♁16'21	
asc. node	1787 Dec 03 05:41	21°♁51'46		evening set	1788 Nov 15 23:03	6°♁14'04	

asc. node	1788 Nov 19 02:42	2°♌51'20		retrograde	1789 Oct 25 13:39	22°♍24'42	
inferior conj	1788 Nov 21 09:16	29°♍48'47	0°46'30	evening set	1789 Oct 31 02:53	20°♍05'46	
minimum elong	1788 Nov 21 08:12	29°♍52'29	0°46'03	min. Earth dist.	1789 Nov 04 17:53	14°♍51'12	0.67416 AU
min. Earth dist.	1788 Nov 20 22:33	0°♌25'30	0.67768 AU	inferior conj	1789 Nov 05 15:08	13°♍40'45	0°-7'-24
	1788 Nov 21 06:00	30°♍		minimum elong	1789 Nov 05 15:19	13°♍40'09	0°07'20
morning rise	1788 Nov 26 17:28	23°♍39'01		transit middle	1789 Nov 05 15:19	13°♍40'09	0°07'20
direct	1788 Nov 30 20:23	22°♍04'11		transit begin	1789 Nov 05 12:51	13°♍48'19	
morning max el	1788 Dec 09 07:52	27°♍00'06	21°08'20	transit end	1789 Nov 05 17:46	13°♍32'00	
	1788 Dec 12 01:55	0°♌		asc. node	1789 Nov 05 23:44	13°♍12'16	
greatest brilliancy	1788 Dec 14 16:44	3°♌11'09	-0.5m	morning rise	1789 Nov 11 04:13	7°♍37'08	
desc. node	1788 Dec 27 13:14	21°♌08'54		direct	1789 Nov 14 18:18	6°♍23'04	
	1789 Jan 02 10:39	0°♌		morning max el	1789 Nov 22 07:46	10°♍41'59	19°57'21
morning set	1789 Jan 08 19:19	9°♌50'01		greatest brilliancy	1789 Nov 29 15:16	19°♍38'14	-0.6m
max. Earth dist.	1789 Jan 16 14:32	22°♌19'16	1.42471 AU		1789 Dec 06 19:58	0°♌	
	1789 Jan 21 05:41	0°♍		desc. node	1789 Dec 14 10:14	11°♌28'40	
				morning set	1789 Dec 18 15:21	17°♌57'14	
superior conj	1789 Jan 23 18:53	4°♍19'23	-2°-4'-24		1789 Dec 26 08:45	0°♌	
minimum elong	1789 Jan 23 17:56	4°♍15'20	2°04'24	max. Earth dist.	1789 Dec 30 00:23	5°♌47'12	1.44012 AU
evening rise	1789 Feb 04 07:02	24°♍36'44					
	1789 Feb 07 06:55	0°♌		superior conj	1790 Jan 04 04:34	14°♌07'14	-1°-52'-27
asc. node	1789 Feb 15 02:01	13°♌16'28		minimum elong	1790 Jan 03 22:13	13°♌41'26	1°52'02
evening max el	1789 Feb 20 23:33	20°♌55'15	18°07'43		1790 Jan 13 17:52	0°♍	
retrograde	1789 Feb 27 15:25	24°♌19'59		evening rise	1790 Jan 17 11:06	6°♍20'28	
evening set	1789 Mar 02 06:40	23°♌48'03			1790 Feb 01 00:00	0°♌	
inferior conj	1789 Mar 08 22:05	18°♌48'51	3°34'04	asc. node	1790 Feb 01 23:04	1°♌15'43	
minimum elong	1789 Mar 08 23:57	18°♌44'20	3°33'53	evening max el	1790 Feb 04 12:06	4°♌10'25	18°13'18
min. Earth dist.	1789 Mar 12 01:55	15°♌47'02	0.61144 AU	retrograde	1790 Feb 10 23:09	7°♌36'58	
morning rise	1789 Mar 15 14:19	12°♌56'42		evening set	1790 Feb 13 19:22	6°♌54'54	
direct	1789 Mar 22 09:28	10°♌38'35		inferior conj	1790 Feb 19 23:31	1°♌35'31	3°44'14
desc. node	1789 Mar 25 12:24	11°♌05'39		minimum elong	1790 Feb 19 23:24	1°♌35'48	3°44'14
morning max el	1789 Apr 05 14:32	18°♌32'17	27°44'39		1790 Feb 21 10:25	30°♍	
	1789 Apr 15 06:11	0°♍		min. Earth dist.	1790 Feb 22 14:00	28°♍46'02	0.63165 AU
	1789 May 03 12:06	0°♌		morning rise	1790 Feb 26 01:29	25°♍32'08	
morning set	1789 May 08 05:08	9°♌21'50		direct	1790 Mar 05 00:07	22°♍50'16	
asc. node	1789 May 14 01:16	21°♌45'06		desc. node	1790 Mar 12 09:27	25°♍22'07	
max. Earth dist.	1789 May 14 07:17	22°♌17'51	1.32336 AU		1790 Mar 18 02:44	0°♌	
				morning max el	1790 Mar 18 21:28	0°♌45'55	27°45'00
superior conj	1789 May 15 13:24	25°♌02'12	0°15'52		1790 Apr 09 08:16	0°♍	
minimum elong	1789 May 15 12:40	24°♌58'14	0°15'42	morning set	1790 Apr 22 04:27	23°♍33'27	
behind sun begin	1789 May 15 11:58	24°♌54'22			1790 Apr 25 08:08	0°♌	
behind sun end	1789 May 15 13:23	25°♌02'06		max. Earth dist.	1790 Apr 27 13:17	4°♌39'21	1.32875 AU
	1789 May 17 19:46	0°♍					
evening rise	1789 May 22 11:33	10°♍04'34		superior conj	1790 Apr 29 21:38	9°♌40'49	0°-10'-50
	1789 Jun 01 17:24	0°♌		minimum elong	1790 Apr 29 22:09	9°♌43'39	0°10'44
evening max el	1789 Jun 17 16:23	21°♌44'26	24°59'52	behind sun begin	1790 Apr 29 18:15	9°♌22'35	
desc. node	1789 Jun 21 11:40	24°♌58'00		behind sun end	1790 Apr 30 02:04	10°♌04'45	
retrograde	1789 Jul 01 15:58	28°♌50'33		asc. node	1790 Apr 30 22:20	11°♌54'10	
evening set	1789 Jul 07 00:56	27°♌44'26		evening rise	1790 May 06 23:23	24°♌55'05	
min. Earth dist.	1789 Jul 12 03:54	24°♌58'21	0.57436 AU		1790 May 09 09:56	0°♍	
inferior conj	1789 Jul 15 04:05	22°♌57'47	-4°-54'-27		1790 May 28 01:05	0°♌	
minimum elong	1789 Jul 15 02:17	23°♌00'49	4°54'24	evening max el	1790 May 30 06:15	2°♌17'29	23°25'59
morning rise	1789 Jul 23 07:25	18°♌47'29		desc. node	1790 Jun 08 08:41	8°♌19'27	
direct	1789 Jul 25 21:01	18°♌28'23		retrograde	1790 Jun 12 20:39	9°♌05'28	
morning max el	1789 Aug 03 19:26	22°♌39'11	19°08'49	evening set	1790 Jun 16 17:51	8°♌32'23	
	1789 Aug 09 19:20	0°♍		min. Earth dist.	1790 Jun 23 16:24	5°♌20'39	0.55848 AU
asc. node	1789 Aug 10 00:28	0°♍19'16		inferior conj	1790 Jun 25 16:27	4°♌09'21	-4°-17'-24
morning set	1789 Aug 20 15:50	19°♍33'06		minimum elong	1790 Jun 25 09:42	4°♌19'24	4°16'08
	1789 Aug 25 22:04	0°♍		morning rise	1790 Jul 04 04:49	0°♌14'26	
					1790 Jul 05 15:14	30°♍	
superior conj	1789 Aug 28 23:18	5°♍57'59	1°43'42	direct	1790 Jul 06 23:26	29°♍55'29	
minimum elong	1789 Aug 29 00:40	6°♍04'37	1°43'38		1790 Jul 08 07:13	0°♌	
max. Earth dist.	1789 Sep 04 13:30	18°♍19'28	1.38452 AU	morning max el	1790 Jul 17 10:27	4°♌46'10	20°16'08
evening rise	1789 Sep 08 09:55	25°♍09'47		asc. node	1790 Jul 27 21:32	18°♌53'15	
	1789 Sep 11 05:40	0°♍			1790 Aug 02 19:38	0°♍	
desc. node	1789 Sep 17 10:59	10°♍09'47		morning set	1790 Aug 04 20:48	4°♍07'57	
	1789 Sep 30 22:27	0°♍					
evening max el	1789 Oct 13 23:34	15°♍39'45	24°46'05	superior conj	1790 Aug 12 13:58	19°♍55'42	1°45'39

minimum elong	1790 Aug 12 13:36	19°Ω53'52	1°45'39	minimum elong	1791 Jul 27 12:11	4°Ω12'32	1°40'16
	1790 Aug 17 16:30	0°൬		max. Earth dist.	1791 Jul 31 08:14	12°Ω06'37	1.34877 AU
max. Earth dist.	1790 Aug 17 19:05	0°൬12'25	1.36515 AU	evening rise	1791 Aug 04 20:08	20°Ω58'40	
evening rise	1790 Aug 21 18:23	7°൬39'16			1791 Aug 09 16:45	0°൬	
	1790 Sep 03 23:50	0°Ω		desc. node	1791 Aug 22 05:02	20°൬33'48	
desc. node	1790 Sep 04 08:01	0°Ω31'41			1791 Aug 28 21:07	0°Ω	
evening max el	1790 Sep 26 11:35	29°Ω19'48	25°56'19	evening max el	1791 Sep 08 23:56	12°Ω55'32	26°50'29
	1790 Sep 27 04:24	0°൬		retrograde	1791 Sep 22 02:07	20°Ω11'05	
retrograde	1790 Oct 08 22:37	6°൬25'19		evening set	1791 Sep 28 18:42	17°Ω29'27	
evening set	1790 Oct 15 02:09	3°൬52'27		min. Earth dist.	1791 Oct 02 18:47	13°Ω27'49	0.65707 AU
	1790 Oct 18 18:26	30°RΩ		inferior conj	1791 Oct 04 14:58	11°Ω18'44	-2°-2'-30
min. Earth dist.	1790 Oct 19 09:27	29°Ω13'44	0.66734 AU	minimum elong	1791 Oct 04 18:14	11°Ω09'12	2°01'15
inferior conj	1790 Oct 20 17:43	27°Ω32'17	-1°-4'-16	morning rise	1791 Oct 10 19:11	5°Ω36'17	
minimum elong	1790 Oct 20 19:24	27°Ω27'01	1°03'35	asc. node	1791 Oct 10 17:48	5°Ω38'03	
asc. node	1790 Oct 23 20:46	23°Ω51'48		direct	1791 Oct 13 14:07	4°Ω53'17	
morning rise	1790 Oct 26 13:32	21°Ω37'38		morning max el	1791 Oct 20 03:52	8°Ω28'04	18°20'45
direct	1790 Oct 29 16:54	20°Ω40'58			1791 Nov 04 02:17	0°൬	
morning max el	1790 Nov 05 15:03	24°Ω32'58	19°00'59	morning set	1791 Nov 08 09:31	6°൬58'39	
	1790 Nov 10 05:15	0°൬		desc. node	1791 Nov 18 04:20	22°൬42'15	
morning set	1790 Nov 27 22:47	26°൬46'11			1791 Nov 22 18:55	0°𐤔	
	1790 Nov 30 00:18	0°𐤔		superior conj	1791 Nov 23 16:00	1°𐤔23'07	0°-36'-6
desc. node	1790 Dec 01 07:18	2°𐤔01'22		minimum elong	1791 Nov 23 11:20	1°𐤔04'40	0°35'30
max. Earth dist.	1790 Dec 12 16:21	19°𐤔51'44	1.44931 AU	max. Earth dist.	1791 Nov 25 11:30	4°𐤔14'12	1.45119 AU
				evening rise	1791 Dec 09 23:52	26°𐤔58'58	
superior conj	1790 Dec 14 14:43	22°𐤔54'29	-1°-21'-30		1791 Dec 11 22:03	0°𐤔	
minimum elong	1790 Dec 14 05:59	22°𐤔20'00	1°20'35	greatest brilliancy	1791 Dec 24 02:03	18°𐤔49'53	-0.7m
	1790 Dec 19 02:07	0°𐤔			1792 Jan 01 09:14	0°≈	
evening rise	1790 Dec 29 17:09	17°𐤔07'39		evening max el	1792 Jan 02 08:44	1°≈03'03	19°18'28
	1791 Jan 06 14:39	0°≈		asc. node	1792 Jan 06 17:07	4°≈26'14	
evening max el	1791 Jan 18 23:57	17°≈34'38	18°37'16	retrograde	1792 Jan 09 10:53	5°≈07'06	
asc. node	1791 Jan 19 20:06	18°≈23'35		evening set	1792 Jan 12 19:26	4°≈01'17	
retrograde	1791 Jan 25 14:45	21°≈14'45			1792 Jan 16 22:16	30°R𐤔	
evening set	1791 Jan 28 16:34	20°≈21'26		inferior conj	1792 Jan 18 10:00	28°𐤔07'05	3°14'17
inferior conj	1791 Feb 03 12:37	14°≈43'31	3°36'02	minimum elong	1792 Jan 18 07:35	28°𐤔14'52	3°13'48
minimum elong	1791 Feb 03 11:02	14°≈48'16	3°35'51	min. Earth dist.	1792 Jan 19 17:52	26°𐤔24'32	0.66192 AU
min. Earth dist.	1791 Feb 05 11:33	12°≈23'04	0.64878 AU	morning rise	1792 Jan 23 18:56	21°𐤔53'34	
morning rise	1791 Feb 09 04:15	8°≈33'40		direct	1792 Jan 30 01:59	19°𐤔07'35	
direct	1791 Feb 15 22:01	5°≈42'56		morning max el	1792 Feb 11 16:27	26°𐤔35'16	26°09'10
desc. node	1791 Feb 27 06:30	11°≈34'53		desc. node	1792 Feb 14 03:34	29°𐤔11'46	
morning max el	1791 Mar 01 06:52	13°≈30'38	27°10'49		1792 Feb 14 20:47	0°≈	
	1791 Mar 14 14:57	0°𐤔			1792 Mar 07 05:21	0°𐤔	
	1791 Apr 01 23:00	0°𐤔		morning set	1792 Mar 18 19:56	20°𐤔12'05	
morning set	1791 Apr 05 18:41	7°𐤔13'59		max. Earth dist.	1792 Mar 22 20:17	27°𐤔50'20	1.35292 AU
max. Earth dist.	1791 Apr 10 10:25	16°𐤔30'32	1.33855 AU		1792 Mar 23 22:49	0°𐤔	
				superior conj	1792 Mar 27 21:49	7°𐤔55'37	-1°-6'-7
superior conj	1791 Apr 14 01:14	24°𐤔01'00	0°-38'-36	minimum elong	1792 Mar 28 01:06	8°𐤔12'21	1°05'33
minimum elong	1791 Apr 14 03:10	24°𐤔11'11	0°38'13	asc. node	1792 Apr 03 16:27	21°𐤔54'52	
	1791 Apr 16 21:03	0°𐤔		evening rise	1792 Apr 04 17:53	24°𐤔05'49	
asc. node	1791 Apr 17 19:24	1°𐤔58'49			1792 Apr 07 15:55	0°𐤔	
evening rise	1791 Apr 21 10:09	9°𐤔37'34		evening max el	1792 Apr 23 03:32	23°𐤔55'33	20°28'28
	1791 May 02 03:51	0°𐤔		retrograde	1792 May 04 02:28	29°𐤔14'18	
evening max el	1791 May 11 23:58	12°𐤔52'22	21°51'27	evening set	1792 May 06 04:27	29°𐤔03'35	
retrograde	1791 May 24 13:16	19°𐤔02'27		desc. node	1792 May 12 02:45	26°𐤔54'01	
desc. node	1791 May 26 05:43	18°𐤔56'02		inferior conj	1792 May 15 08:18	25°𐤔05'49	0°-56'-28
evening set	1791 May 27 04:45	18°𐤔46'49		minimum elong	1792 May 15 05:38	25°𐤔09'41	0°55'30
min. Earth dist.	1791 Jun 05 04:13	14°𐤔57'04	0.54998 AU	min. Earth dist.	1792 May 16 16:55	24°𐤔18'30	0.55085 AU
inferior conj	1791 Jun 05 13:46	14°𐤔43'41	-2°-52'-44	morning rise	1792 May 24 05:10	20°𐤔53'48	
minimum elong	1791 Jun 05 06:25	14°𐤔53'59	2°50'27	direct	1792 May 27 22:55	20°𐤔23'38	
morning rise	1791 Jun 14 09:20	10°𐤔49'55		morning max el	1792 Jun 10 08:25	26°𐤔53'51	23°22'24
direct	1791 Jun 17 12:10	10°𐤔28'27			1792 Jun 13 08:36	0°𐤔	
morning max el	1791 Jun 29 13:59	16°𐤔08'41	21°42'47	asc. node	1792 Jun 30 15:41	27°𐤔32'20	
	1791 Jul 10 06:14	0°𐤔			1792 Jul 01 20:47	0°𐤔	
asc. node	1791 Jul 14 18:36	8°𐤔00'25		morning set	1792 Jul 03 17:14	3°𐤔50'51	
morning set	1791 Jul 20 05:54	18°𐤔55'41					
	1791 Jul 25 12:07	0°Ω		superior conj	1792 Jul 10 19:45	19°𐤔04'35	1°29'13
superior conj	1791 Jul 27 13:47	4°Ω20'53	1°40'22				

minimum elong	1792 Jul 10 17:29	18°52'25	1°28'58		1793 Jun 23 09:47	0°5	
max. Earth dist.	1792 Jul 13 06:39	24°518'15	1.33621 AU				
	1792 Jul 16 00:15	0°		superior conj	1793 Jun 25 05:29	3°58'39	1°13'19
evening rise	1792 Jul 18 10:44	4°55'51		minimum elong	1793 Jun 25 03:04	3°545'32	1°12'56
	1792 Aug 01 09:17	0°		max. Earth dist.	1793 Jun 26 12:52	6°549'32	1.32760 AU
desc. node	1792 Aug 08 02:02	10°7'38		evening rise	1793 Jul 02 10:27	19°519'37	
evening max el	1792 Aug 21 11:38	26°16'05	27°21'12		1793 Jul 07 20:19	0°	
	1792 Aug 25 21:56	0°		desc. node	1793 Jul 25 23:03	29°01'28	
retrograde	1792 Sep 03 23:48	3°34'19			1793 Jul 26 17:09	0°	
evening set	1792 Sep 11 01:51	0°52'24		evening max el	1793 Aug 03 20:43	9°09'00	27°22'33
	1792 Sep 12 03:40	30°R		retrograde	1793 Aug 17 15:21	16°26'01	
min. Earth dist.	1792 Sep 14 19:34	27°26'44	0.64323 AU	evening set	1793 Aug 24 20:14	13°55'47	
inferior conj	1792 Sep 17 04:32	24°55'10	-2°-59'-45	min. Earth dist.	1793 Aug 28 10:20	11°00'05	0.62595 AU
minimum elong	1792 Sep 17 09:10	24°42'48	2°58'12	inferior conj	1793 Aug 31 07:34	8°15'27	-3°-52'-21
morning rise	1792 Sep 23 18:30	19°28'24		minimum elong	1793 Aug 31 12:52	8°02'49	3°50'59
direct	1792 Sep 26 07:27	18°55'28		morning rise	1793 Sep 07 08:09	3°07'36	
asc. node	1792 Sep 26 14:52	18°55'57		direct	1793 Sep 09 17:45	2°41'30	
morning max el	1792 Oct 02 19:39	22°21'53	17°57'31	asc. node	1793 Sep 13 11:55	3°47'07	
	1792 Oct 08 18:23	0°		morning max el	1793 Sep 16 11:30	6°08'03	17°52'09
morning set	1792 Oct 20 00:19	18°32'52			1793 Oct 01 21:33	0°	
	1792 Oct 26 19:33	0°		morning set	1793 Oct 02 13:40	1°11'51	
superior conj	1792 Nov 02 06:00	10°33'12	0°12'10	superior conj	1793 Oct 13 21:46	21°00'20	0°52'50
minimum elong	1792 Nov 02 07:24	10°38'52	0°11'58	minimum elong	1793 Oct 14 02:10	21°19'00	0°52'15
behind sun begin	1792 Nov 02 00:26	10°10'41			1793 Oct 19 07:30	0°	
behind sun end	1792 Nov 02 14:22	11°07'01		max. Earth dist.	1793 Oct 20 21:13	2°33'31	1.43352 AU
desc. node	1792 Nov 04 01:21	13°27'48		desc. node	1793 Oct 21 22:21	4°15'05	
max. Earth dist.	1792 Nov 07 06:10	18°34'18	1.44566 AU	evening rise	1793 Oct 28 21:17	15°15'10	
	1792 Nov 14 13:00	0°			1793 Nov 07 13:58	0°	
evening rise	1792 Nov 18 12:33	6°09'26		greatest brilliancy	1793 Nov 23 10:06	22°14'05	-0.4m
	1792 Dec 04 08:03	0°		evening max el	1793 Nov 28 10:57	28°02'24	21°24'06
greatest brilliancy	1792 Dec 09 01:19	6°39'04	-0.6m		1793 Nov 30 12:32	0°	
evening max el	1792 Dec 15 12:40	14°32'19	20°15'02	retrograde	1793 Dec 07 06:13	3°16'27	
retrograde	1792 Dec 23 08:44	19°08'42		asc. node	1793 Dec 10 11:10	2°19'26	
asc. node	1792 Dec 23 14:08	19°08'25		evening set	1793 Dec 11 09:19	1°41'12	
evening set	1792 Dec 27 01:38	17°48'56			1793 Dec 13 04:34	30°R	
inferior conj	1793 Jan 01 12:52	11°41'25	2°42'15	inferior conj	1793 Dec 16 19:00	25°23'49	2°02'10
minimum elong	1793 Jan 01 10:13	11°50'21	2°41'30	minimum elong	1793 Dec 16 16:37	25°32'00	2°01'21
min. Earth dist.	1793 Jan 02 07:13	10°39'29	0.67102 AU	min. Earth dist.	1793 Dec 17 01:22	25°01'48	0.67634 AU
morning rise	1793 Jan 06 18:17	5°26'10		morning rise	1793 Dec 21 23:37	19°08'52	
direct	1793 Jan 12 11:21	2°54'54		direct	1793 Dec 27 01:35	16°58'04	
morning max el	1793 Jan 24 01:08	9°49'06	24°49'12	morning max el	1794 Jan 06 10:04	23°07'45	23°21'09
desc. node	1793 Jan 31 00:35	17°47'50		greatest brilliancy	1794 Jan 11 19:36	29°12'21	-0.2m
	1793 Feb 09 00:52	0°			1794 Jan 12 11:04	0°	
	1793 Feb 27 20:54	0°		desc. node	1794 Jan 17 21:36	7°06'13	
morning set	1793 Mar 01 02:55	2°12'06			1794 Feb 02 10:11	0°	
max. Earth dist.	1793 Mar 04 19:43	8°52'50	1.37144 AU	morning set	1794 Feb 10 09:26	12°58'01	
				max. Earth dist.	1794 Feb 14 14:25	20°10'12	1.39257 AU
					1794 Feb 20 02:32	0°	
superior conj	1793 Mar 11 08:12	21°15'15	-1°-31'-27				
minimum elong	1793 Mar 11 12:22	21°35'37	1°30'56				
	1793 Mar 15 18:08	0°		superior conj	1794 Feb 22 04:29	3°50'16	-1°-51'-53
evening rise	1793 Mar 19 20:12	8°11'57		minimum elong	1794 Feb 22 08:23	4°08'26	1°51'36
asc. node	1793 Mar 21 13:28	11°36'57		evening rise	1794 Mar 03 14:24	21°48'57	
	1793 Apr 01 01:40	0°			1794 Mar 07 21:33	0°	
evening max el	1793 Apr 05 18:44	5°37'29	19°23'24	asc. node	1794 Mar 08 10:30	0°59'58	
retrograde	1793 Apr 15 00:53	10°05'52		evening max el	1794 Mar 19 19:59	17°56'42	18°38'18
evening set	1793 Apr 17 02:37	9°53'23		retrograde	1794 Mar 27 16:44	21°47'14	
inferior conj	1793 Apr 25 14:16	5°46'03	0°57'51	evening set	1794 Mar 29 23:36	21°28'54	
minimum elong	1793 Apr 25 16:36	5°42'13	0°57'03	inferior conj	1794 Apr 06 16:11	17°03'26	2°24'33
min. Earth dist.	1793 Apr 28 07:34	3°59'41	0.56097 AU	minimum elong	1794 Apr 06 20:14	16°55'41	2°23'28
desc. node	1793 Apr 28 23:47	3°34'22		min. Earth dist.	1794 Apr 10 01:20	14°29'47	0.57824 AU
morning rise	1793 May 04 02:41	1°01'11		morning rise	1794 Apr 14 12:32	11°45'38	
direct	1793 May 08 19:30	0°10'50		desc. node	1794 Apr 15 20:49	11°11'44	
morning max el	1793 May 22 22:59	7°21'20	25°03'08	direct	1794 Apr 20 06:33	10°22'47	
	1793 Jun 08 12:58	0°		morning max el	1794 May 04 15:26	17°58'32	26°29'23
asc. node	1793 Jun 17 12:44	17°21'24			1794 May 14 15:40	0°	
morning set	1793 Jun 18 05:06	18°47'21			1794 May 31 21:34	0°	

morning set	1794 Jun 02 15:52	3° Π 39'39			1795 May 08 11:44	0° \mathcal{B}	
asc. node	1794 Jun 04 09:46	7° Π 22'04		morning set	1795 May 17 23:53	18° \mathcal{B} 22'12	
				asc. node	1795 May 22 06:49	27° \mathcal{B} 29'47	
superior conj	1794 Jun 09 17:02	18° Π 56'21	0°53'27		1795 May 23 10:24	0° Π	
minimum elong	1794 Jun 09 14:58	18° Π 44'58	0°53'03	max. Earth dist.	1795 May 24 12:09	2° Π 21'06	1.32210 AU
max. Earth dist.	1794 Jun 09 23:52	19° Π 33'55	1.32293 AU				
	1794 Jun 14 18:54	0° \mathfrak{S}		superior conj	1795 May 25 04:41	3° Π 51'52	0°30'22
evening rise	1794 Jun 16 16:25	4° \mathfrak{S} 00'48		minimum elong	1795 May 25 03:22	3° Π 44'38	0°30'05
	1794 Jun 30 14:56	0° \mathcal{Q}		evening rise	1795 Jun 01 02:16	18° Π 51'49	
desc. node	1794 Jul 12 20:05	16° \mathcal{Q} 58'14			1795 Jun 06 13:51	0° \mathfrak{S}	
evening max el	1794 Jul 17 00:47	21° \mathcal{Q} 22'24	26°50'59		1795 Jun 26 03:47	0° \mathcal{Q}	
retrograde	1794 Jul 30 23:32	28° \mathcal{Q} 36'20		evening max el	1795 Jun 28 22:05	2° \mathcal{Q} 50'10	25°47'44
evening set	1794 Aug 06 21:22	26° \mathcal{Q} 31'41		desc. node	1795 Jun 29 17:07	3° \mathcal{Q} 34'32	
min. Earth dist.	1794 Aug 10 14:51	23° \mathcal{Q} 53'30	0.60612 AU	retrograde	1795 Jul 12 22:29	9° \mathcal{Q} 59'36	
inferior conj	1794 Aug 13 20:44	21° \mathcal{Q} 10'50	-4°-34'-20	evening set	1795 Jul 19 00:38	8° \mathcal{Q} 31'22	
minimum elong	1794 Aug 14 01:09	21° \mathcal{Q} 01'34	4°33'40	min. Earth dist.	1795 Jul 23 10:28	5° \mathcal{Q} 53'22	0.58555 AU
morning rise	1794 Aug 21 08:06	16° \mathcal{Q} 24'37		inferior conj	1795 Jul 26 16:31	3° \mathcal{Q} 32'02	-4°-56'-10
direct	1794 Aug 23 17:13	16° \mathcal{Q} 02'39		minimum elong	1795 Jul 26 17:38	3° \mathcal{Q} 29'59	4°56'09
morning max el	1794 Aug 31 00:16	19° \mathcal{Q} 38'02	18°05'44		1795 Aug 01 06:43	30° \mathcal{R} \mathfrak{S}	
asc. node	1794 Aug 31 08:58	19° \mathcal{Q} 59'34		morning rise	1795 Aug 03 14:11	29° \mathfrak{S} 08'47	
	1794 Sep 07 16:06	0° \mathfrak{P}		direct	1795 Aug 06 01:40	28° \mathfrak{S} 48'54	
morning set	1794 Sep 15 19:31	14° \mathfrak{P} 38'05			1795 Aug 10 14:29	0° \mathcal{Q}	
	1794 Sep 24 03:11	0° \mathfrak{A}		morning max el	1795 Aug 14 06:47	2° \mathcal{Q} 43'19	18°39'37
				asc. node	1795 Aug 18 06:01	7° \mathcal{Q} 18'22	
superior conj	1794 Sep 25 15:54	2° \mathfrak{A} 44'45	1°21'37	morning set	1795 Aug 30 13:03	28° \mathcal{Q} 38'54	
minimum elong	1794 Sep 25 20:06	3° \mathfrak{A} 03'29	1°21'11		1795 Aug 31 05:45	0° \mathfrak{P}	
max. Earth dist.	1794 Oct 03 06:56	15° \mathfrak{A} 56'53	1.41639 AU				
evening rise	1794 Oct 08 19:00	24° \mathfrak{A} 59'00		superior conj	1795 Sep 08 07:37	15° \mathfrak{P} 33'31	1°38'36
desc. node	1794 Oct 08 19:22	25° \mathfrak{A} 00'28		minimum elong	1795 Sep 08 10:07	15° \mathfrak{P} 45'15	1°38'26
	1794 Oct 11 22:45	0° \mathfrak{M}		max. Earth dist.	1795 Sep 15 12:20	28° \mathfrak{P} 39'21	1.39643 AU
	1794 Nov 01 11:51	0° \mathfrak{J}			1795 Sep 16 06:45	0° \mathfrak{A}	
greatest brilliancy	1794 Nov 06 05:54	6° \mathfrak{J} 03'15	-0.3m	evening rise	1795 Sep 19 15:40	5° \mathfrak{A} 47'10	
evening max el	1794 Nov 11 04:03	11° \mathfrak{J} 34'08	22°41'29	desc. node	1795 Sep 25 16:25	15° \mathfrak{A} 40'37	
retrograde	1794 Nov 21 01:29	17° \mathfrak{J} 26'45			1795 Oct 05 01:29	0° \mathfrak{M}	
evening set	1794 Nov 25 16:45	15° \mathfrak{J} 34'43		evening max el	1795 Oct 24 17:39	25° \mathfrak{M} 09'46	24°01'28
asc. node	1794 Nov 27 08:13	14° \mathfrak{J} 00'20			1795 Oct 30 16:06	0° \mathfrak{J}	
inferior conj	1794 Dec 01 02:24	9° \mathfrak{J} 11'18	1°15'39	retrograde	1795 Nov 04 17:21	1° \mathfrak{J} 37'02	
minimum elong	1794 Dec 01 00:44	9° \mathfrak{J} 17'02	1°15'00		1795 Nov 09 05:58	30° \mathcal{R} \mathfrak{M}	
min. Earth dist.	1794 Nov 30 21:50	9° \mathfrak{J} 27'04	0.67816 AU	evening set	1795 Nov 09 22:22	29° \mathfrak{M} 27'41	
morning rise	1794 Dec 06 08:38	2° \mathfrak{J} 58'50		asc. node	1795 Nov 14 05:15	24° \mathfrak{M} 36'53	
direct	1794 Dec 10 19:44	1° \mathfrak{J} 10'47		inferior conj	1795 Nov 15 09:19	23° \mathfrak{M} 02'13	0°24'05
morning max el	1794 Dec 19 22:30	6° \mathfrak{J} 32'15	21°54'29	minimum elong	1795 Nov 15 08:45	23° \mathfrak{M} 04'11	0°23'51
greatest brilliancy	1794 Dec 24 16:27	11° \mathfrak{J} 53'34	-0.4m	min. Earth dist.	1795 Nov 14 18:13	23° \mathfrak{M} 53'21	0.67665 AU
desc. node	1795 Jan 04 18:37	26° \mathfrak{J} 54'32		morning rise	1795 Nov 20 19:21	16° \mathfrak{M} 54'44	
	1795 Jan 06 21:38	0° \mathfrak{Z}		direct	1795 Nov 24 16:42	15° \mathfrak{M} 28'51	
morning set	1795 Jan 21 10:48	22° \mathfrak{Z} 19'08		morning max el	1795 Dec 02 17:47	20° \mathfrak{M} 07'23	20°36'26
	1795 Jan 26 04:05	0° \approx		greatest brilliancy	1795 Dec 08 19:11	27° \mathfrak{M} 15'29	-0.5m
max. Earth dist.	1795 Jan 27 12:26	2° \approx 14'15	1.41371 AU		1795 Dec 10 20:28	0° \mathfrak{J}	
				desc. node	1795 Dec 22 15:39	17° \mathfrak{J} 04'40	
superior conj	1795 Feb 04 05:43	15° \approx 28'24	-2°-3'-33		1795 Dec 31 02:47	0° \mathfrak{Z}	
minimum elong	1795 Feb 04 07:17	15° \approx 35'18	2°03'32	morning set	1795 Dec 31 12:01	0° \mathfrak{Z} 35'51	
	1795 Feb 12 06:38	0° \mathfrak{H}		max. Earth dist.	1796 Jan 09 18:30	15° \mathfrak{Z} 16'15	1.43197 AU
evening rise	1795 Feb 14 21:01	4° \mathfrak{H} 48'21					
asc. node	1795 Feb 23 07:32	19° \mathfrak{H} 57'17		superior conj	1796 Jan 16 06:42	25° \mathfrak{Z} 57'48	-2°-1'-36
	1795 Mar 02 10:38	0° \mathfrak{Y}		minimum elong	1796 Jan 16 03:28	25° \mathfrak{Z} 44'18	2°01'30
evening max el	1795 Mar 03 04:08	0° \mathfrak{Y} 44'45	18°13'18		1796 Jan 18 16:17	0° \approx	
retrograde	1795 Mar 10 03:06	4° \mathfrak{Y} 14'08		evening rise	1796 Jan 28 12:00	17° \approx 01'51	
evening set	1795 Mar 12 15:34	3° \mathfrak{Y} 47'27			1796 Feb 04 22:19	0° \mathfrak{H}	
	1795 Mar 18 12:03	30° \mathcal{R} \mathfrak{H}		asc. node	1796 Feb 10 04:34	8° \mathfrak{H} 20'26	
inferior conj	1795 Mar 19 15:08	29° \mathfrak{H} 00'37	3°17'20	evening max el	1796 Feb 14 15:56	13° \mathfrak{H} 52'04	18°07'51
minimum elong	1795 Mar 19 18:08	28° \mathfrak{H} 53'56	3°16'50	retrograde	1796 Feb 21 04:26	17° \mathfrak{H} 15'49	
min. Earth dist.	1795 Mar 23 00:08	26° \mathfrak{H} 01'54	0.59914 AU	evening set	1796 Feb 23 21:55	16° \mathfrak{H} 39'31	
morning rise	1795 Mar 26 17:12	23° \mathfrak{H} 18'40		inferior conj	1796 Mar 01 08:04	11° \mathfrak{H} 31'22	3°41'02
direct	1795 Apr 02 06:11	21° \mathfrak{H} 19'14		minimum elong	1796 Mar 01 09:03	11° \mathfrak{H} 28'49	3°40'58
desc. node	1795 Apr 02 17:50	21° \mathfrak{H} 19'53		min. Earth dist.	1796 Mar 04 06:39	8° \mathfrak{H} 32'35	0.62030 AU
morning max el	1795 Apr 16 13:26	29° \mathfrak{H} 08'03	27°27'27	morning rise	1796 Mar 07 17:47	5° \mathfrak{H} 33'57	
	1795 Apr 17 10:07	0° \mathfrak{Y}		direct	1796 Mar 14 15:37	3° \mathfrak{H} 04'20	

desc. node	1796 Mar 19 14:52	4° X 13'03		minimum elong	1797 Feb 12 14:07	24° \approx 30'29	3°42'39
morning max el	1796 Mar 28 17:40	10° X 58'57	27°49'28	min. Earth dist.	1797 Feb 14 22:45	21° \approx 49'42	0.63930 AU
	1796 Apr 12 15:45	0° Y		morning rise	1797 Feb 18 12:00	18° \approx 21'29	
	1796 Apr 29 17:53	0° Z		direct	1797 Feb 25 09:16	15° \approx 34'22	
morning set	1796 May 01 03:03	2° Z 47'15		desc. node	1797 Mar 06 11:53	19° \approx 23'22	
max. Earth dist.	1796 May 06 21:48	14° Z 56'39	1.32517 AU	morning max el	1797 Mar 11 02:12	23° \approx 27'58	27°34'32
asc. node	1796 May 08 03:51	17° Z 39'24			1797 Mar 16 22:29	0° X	
					1797 Apr 05 22:49	0° Y	
superior conj	1796 May 08 14:40	18° Z 38'10	0°04'46	morning set	1797 Apr 14 22:55	16° Y 46'59	
minimum elong	1796 May 08 14:26	18° Z 36'56	0°04'43	max. Earth dist.	1797 Apr 20 00:41	27° Y 07'21	1.33236 AU
behind sun begin	1796 May 08 09:30	18° Z 10'05			1797 Apr 21 09:30	0° Z	
behind sun end	1796 May 08 19:22	19° Z 03'48					
	1796 May 13 19:57	0° II		superior conj	1797 Apr 22 21:09	3° Z 09'31	0°-22'-32
evening rise	1796 May 15 13:55	3° II 44'25		minimum elong	1797 Apr 22 22:16	3° Z 15'29	0°22'18
	1796 May 29 17:30	0° III		asc. node	1797 Apr 25 00:55	7° Z 47'06	
evening max el	1796 Jun 09 13:11	13° III 36'27	24°20'57	evening rise	1797 Apr 30 01:32	18° Z 32'18	
desc. node	1796 Jun 15 14:10	18° III 17'42			1797 May 05 17:32	0° II	
retrograde	1796 Jun 23 09:57	20° III 36'15		evening max el	1797 May 22 03:31	24° II 05'29	22°44'57
evening set	1796 Jun 28 04:19	19° III 45'34			1797 May 31 04:31	0° III	
min. Earth dist.	1796 Jul 04 00:06	16° III 50'22	0.56700 AU	desc. node	1797 Jun 02 11:10	0° III 32'00	
inferior conj	1796 Jul 06 16:12	15° III 09'15	-4°-44'-31	retrograde	1797 Jun 04 09:14	0° III 40'24	
minimum elong	1796 Jul 06 12:05	15° III 15'48	4°44'05	evening set	1797 Jun 07 16:22	0° III 16'30	
morning rise	1796 Jul 14 23:29	11° III 06'45			1797 Jun 08 16:49	30° R II	
direct	1796 Jul 17 15:15	10° III 47'45		min. Earth dist.	1797 Jun 15 11:48	26° II 50'18	0.55384 AU
morning max el	1796 Jul 27 04:03	15° III 13'28	19°34'50	inferior conj	1797 Jun 16 21:03	26° II 02'39	-3°-46'-59
asc. node	1796 Aug 04 03:05	25° III 28'13		minimum elong	1797 Jun 16 13:17	26° II 13'47	3°45'05
	1796 Aug 06 19:09	0° II		morning rise	1797 Jun 25 12:57	22° II 10'49	
morning set	1796 Aug 13 14:38	13° II 03'23		direct	1797 Jun 28 10:25	21° II 51'23	
				morning max el	1797 Jul 09 14:11	27° II 01'48	20°50'53
superior conj	1796 Aug 21 15:16	29° II 09'56	1°45'30		1797 Jul 12 10:46	0° III	
minimum elong	1796 Aug 21 15:52	29° II 12'50	1°45'30	asc. node	1797 Jul 22 00:08	14° III 17'21	
	1796 Aug 22 01:27	0° IV		morning set	1797 Jul 28 21:35	27° III 44'25	
max. Earth dist.	1796 Aug 27 16:26	10° IV 45'18	1.37610 AU		1797 Jul 29 23:52	0° II	
evening rise	1796 Aug 31 12:00	17° IV 41'30					
	1796 Sep 07 16:59	0° V		superior conj	1797 Aug 05 10:15	13° II 20'49	1°44'12
desc. node	1796 Sep 11 13:28	6° V 10'42		minimum elong	1797 Aug 05 09:17	13° II 15'55	1°44'10
	1796 Sep 28 09:35	0° VI		max. Earth dist.	1797 Aug 10 00:35	22° II 35'16	1.35776 AU
evening max el	1796 Oct 06 05:39	8° VI 48'34	25°17'21		1797 Aug 13 21:12	0° IV	
retrograde	1796 Oct 18 04:58	15° VI 43'01		evening rise	1797 Aug 14 04:21	0° IV 33'27	
evening set	1796 Oct 24 00:30	13° VI 17'33		desc. node	1797 Aug 29 10:30	26° IV 25'07	
min. Earth dist.	1796 Oct 28 12:08	8° VI 18'17	0.67175 AU		1797 Aug 31 19:43	0° V	
inferior conj	1796 Oct 29 14:01	6° VI 54'15	0°-31'-14	evening max el	1797 Sep 18 17:34	22° V 26'59	26°21'41
minimum elong	1796 Oct 29 14:49	6° VI 51'40	0°30'55	retrograde	1797 Oct 01 11:46	29° V 38'30	
asc. node	1796 Oct 31 02:17	4° VI 58'40		evening set	1797 Oct 07 21:13	27° V 00'43	
morning rise	1796 Nov 04 05:47	0° VI 54'20		min. Earth dist.	1797 Oct 12 01:15	22° V 37'59	0.66341 AU
	1796 Nov 06 04:27	30° R V		inferior conj	1797 Oct 13 14:35	20° V 43'56	-1°-28'-57
direct	1796 Nov 07 15:05	29° V 48'07		minimum elong	1797 Oct 13 16:56	20° V 36'45	1°28'00
	1796 Nov 09 02:31	0° VII		asc. node	1797 Oct 17 23:20	16° V 01'35	
morning max el	1796 Nov 14 21:03	3° VII 53'53	19°31'29	morning rise	1797 Oct 19 13:49	14° V 54'22	
greatest brilliancy	1796 Nov 23 11:48	14° VII 47'29	-0.7m	direct	1797 Oct 22 13:13	14° V 04'09	
	1796 Dec 03 15:40	0° X		morning max el	1797 Oct 29 07:04	17° V 47'44	18°41'50
desc. node	1796 Dec 08 12:42	7° X 30'42			1797 Nov 07 12:47	0° VII	
morning set	1796 Dec 09 09:59	8° X 53'03		morning set	1797 Nov 19 04:02	18° VII 15'12	
max. Earth dist.	1796 Dec 22 07:50	29° X 04'06	1.44488 AU	desc. node	1797 Nov 25 09:45	28° VII 07'24	
	1796 Dec 22 21:56	0° Z			1797 Nov 26 14:19	0° X	
superior conj	1796 Dec 26 05:22	5° Z 16'32	-1°-41'-33	superior conj	1797 Dec 05 09:11	13° X 48'39	-1°-3'-24
minimum elong	1796 Dec 25 21:17	4° Z 44'10	1°40'54	minimum elong	1797 Dec 05 01:29	13° X 18'23	1°02'29
evening rise	1797 Jan 09 07:09	28° Z 22'28		max. Earth dist.	1797 Dec 05 01:21	13° X 17'53	1.45097 AU
	1797 Jan 10 06:24	0° \approx			1797 Dec 15 15:27	0° Z	
asc. node	1797 Jan 27 01:37	25° \approx 59'26		evening rise	1797 Dec 21 03:09	8° Z 45'12	
evening max el	1797 Jan 28 04:27	27° \approx 11'32	18°21'17		1798 Jan 03 13:25	0° \approx	
	1797 Jan 31 20:15	0° X		evening max el	1798 Jan 11 15:09	10° \approx 37'25	18°52'45
retrograde	1797 Feb 03 16:09	0° X 42'45		asc. node	1798 Jan 13 22:39	12° \approx 41'14	
	1797 Feb 06 11:30	30° R \approx		retrograde	1798 Jan 18 10:06	14° \approx 27'00	
evening set	1797 Feb 06 14:38	29° \approx 56'00		evening set	1798 Jan 21 14:30	13° \approx 28'41	
inferior conj	1797 Feb 12 14:56	24° \approx 28'11	3°42'42	inferior conj	1798 Jan 27 07:55	7° \approx 43'29	3°28'13

minimum elong	1798 Jan 27 05:55	7° \approx 49'45	3°27'55	asc. node	1798 Dec 31 19:40	28° Z 11'29	
min. Earth dist.	1798 Jan 29 00:20	5° \approx 38'16	0.65482 AU	retrograde	1799 Jan 02 07:12	28° Z 23'35	
morning rise	1798 Feb 01 20:15	1° \approx 31'31		evening set	1799 Jan 05 19:01	27° Z 12'13	
	1798 Feb 03 21:52	30° R Z		inferior conj	1799 Jan 11 07:57	21° Z 12'12	3°01'45
direct	1798 Feb 08 09:53	28° Z 41'13		minimum elong	1799 Jan 11 05:22	21° Z 20'43	3°01'09
	1798 Feb 13 08:04	0° \approx		min. Earth dist.	1799 Jan 12 09:58	19° Z 46'31	0.66634 AU
desc. node	1798 Feb 21 08:56	6° \approx 15'09		morning rise	1799 Jan 16 15:01	14° Z 57'36	
morning max el	1798 Feb 21 12:03	6° \approx 22'59	26°47'27	direct	1799 Jan 22 16:29	12° Z 16'34	
	1798 Mar 11 17:02	0° X		morning max el	1799 Feb 03 21:06	19° Z 31'59	25°36'35
morning set	1798 Mar 29 08:08	0° Y 10'51		desc. node	1799 Feb 08 05:59	24° Z 19'38	
	1798 Mar 29 05:51	0° Y			1799 Feb 12 19:38	0° \approx	
max. Earth dist.	1798 Apr 02 17:03	8° Y 43'37	1.34405 AU		1799 Mar 04 19:27	0° X	
				morning set	1799 Mar 12 02:17	12° X 45'55	
superior conj	1798 Apr 06 22:02	17° Y 19'09	0°-50'-25	max. Earth dist.	1799 Mar 15 21:31	19° X 50'26	1.36033 AU
minimum elong	1798 Apr 07 00:35	17° Y 32'20	0°49'56		1799 Mar 21 02:41	0° Y	
asc. node	1798 Apr 11 21:58	27° Y 48'19					
	1798 Apr 12 23:02	0° X		superior conj	1799 Mar 21 14:41	0° Y 59'52	-1°-17'-17
evening rise	1798 Apr 14 11:12	3° X 08'51		minimum elong	1799 Mar 21 18:26	1° Y 18'38	1°16'43
	1798 Apr 29 18:29	0° II		evening rise	1799 Mar 29 16:53	17° Y 28'02	
evening max el	1798 May 04 00:48	4° II 49'30	21°14'18	asc. node	1799 Mar 29 19:00	17° Y 38'46	
retrograde	1798 May 15 23:22	10° II 39'05			1799 Apr 05 03:10	0° X	
evening set	1798 May 18 06:40	10° II 26'50		evening max el	1799 Apr 16 09:27	16° X 08'58	19°58'28
desc. node	1798 May 20 08:09	9° II 56'25		retrograde	1799 Apr 26 14:30	21° X 04'44	
inferior conj	1798 May 27 15:20	6° II 28'01	-2°-5'-28	evening set	1799 Apr 28 15:15	20° X 53'54	
minimum elong	1798 May 27 09:33	6° II 36'10	2°03'30	desc. node	1799 May 07 05:11	17° X 06'04	
min. Earth dist.	1798 May 28 00:08	6° II 15'38	0.54907 AU	inferior conj	1799 May 07 13:06	16° X 54'05	0°-5'-44
morning rise	1798 Jun 05 12:25	2° II 28'34		minimum elong	1799 May 07 12:50	16° X 54'29	0°05'40
direct	1798 Jun 08 20:16	2° II 04'34		transit middle	1799 May 07 12:50	16° X 54'29	0°05'40
morning max el	1798 Jun 21 13:28	8° II 07'26	22°24'12	transit begin	1799 May 07 09:07	17° X 00'07	
	1798 Jul 06 23:49	0° S		transit end	1799 May 07 16:34	16° X 48'50	
asc. node	1798 Jul 08 21:12	3° S 36'08		min. Earth dist.	1799 May 09 13:42	15° X 40'40	0.55406 AU
morning set	1798 Jul 13 07:50	12° S 36'11		morning rise	1799 May 16 07:32	12° X 28'59	
				direct	1799 May 20 10:35	11° X 51'34	
superior conj	1798 Jul 20 13:01	27° S 55'32	1°36'18	morning max el	1799 Jun 03 05:18	18° X 41'09	24°06'04
minimum elong	1798 Jul 20 11:04	27° S 45'13	1°36'08		1799 Jun 12 14:29	0° II	
	1798 Jul 21 12:37	0° Q		asc. node	1799 Jun 25 18:15	23° II 16'01	
max. Earth dist.	1798 Jul 23 17:23	4° Q 34'55	1.34288 AU	morning set	1799 Jun 27 19:34	27° II 32'25	
evening rise	1798 Jul 28 12:04	14° Q 11'01			1799 Jun 28 23:24	0° S	
	1798 Aug 06 02:37	0° P					
desc. node	1798 Aug 16 07:31	16° P 16'56		superior conj	1799 Jul 04 20:50	12° S 44'30	1°23'01
	1798 Aug 26 15:48	0° A		minimum elong	1799 Jul 04 18:26	12° S 31'34	1°22'42
evening max el	1798 Sep 01 05:46	5° A 58'14	27°06'48	max. Earth dist.	1799 Jul 06 19:24	16° S 55'13	1.33202 AU
retrograde	1798 Sep 14 13:08	13° A 16'27		evening rise	1799 Jul 12 06:57	28° S 21'05	
evening set	1798 Sep 21 10:10	10° A 33'25			1799 Jul 13 02:39	0° Q	
min. Earth dist.	1798 Sep 25 07:19	6° A 47'19	0.65159 AU		1799 Jul 30 07:02	0° P	
inferior conj	1798 Sep 27 08:55	4° A 27'38	-2°-27'-6	desc. node	1799 Aug 03 04:31	5° P 35'43	
minimum elong	1798 Sep 27 12:48	4° A 16'39	2°25'40	evening max el	1799 Aug 14 16:51	19° P 09'46	27°25'47
	1798 Oct 01 20:54	30° R P		retrograde	1799 Aug 28 08:18	26° P 27'31	
morning rise	1798 Oct 03 17:08	28° P 51'23		evening set	1799 Sep 04 12:23	23° P 49'20	
asc. node	1798 Oct 04 20:23	28° P 25'53		min. Earth dist.	1799 Sep 08 04:10	20° P 37'09	0.63626 AU
direct	1798 Oct 06 09:05	28° P 13'15		inferior conj	1799 Sep 10 18:24	17° P 58'49	-3°-22'-55
	1798 Oct 10 22:24	0° A		minimum elong	1799 Sep 10 23:27	17° P 45'56	3°21'22
morning max el	1798 Oct 12 21:32	1° A 43'49	18°08'40	morning rise	1799 Sep 17 12:47	12° P 39'20	
morning set	1798 Oct 31 03:15	29° A 04'35		direct	1799 Sep 19 23:57	12° P 09'38	
	1798 Oct 31 16:40	0° M		asc. node	1799 Sep 21 17:26	12° P 24'29	
desc. node	1798 Nov 12 06:47	18° M 51'08		morning max el	1799 Sep 26 13:39	15° P 35'17	17°52'54
					1799 Oct 06 16:47	0° A	
superior conj	1798 Nov 14 13:34	22° M 29'18	0°-15'-15	morning set	1799 Oct 13 04:30	11° A 09'21	
minimum elong	1798 Nov 14 11:38	22° M 21'36	0°15'00		1799 Oct 24 06:14	0° M	
behind sun begin	1798 Nov 14 07:27	22° M 04'58					
behind sun end	1798 Nov 14 15:49	22° M 38'14		superior conj	1799 Oct 25 13:45	2° M 10'11	0°30'44
max. Earth dist.	1798 Nov 17 20:12	27° M 40'09	1.44972 AU	minimum elong	1799 Oct 25 16:54	2° M 23'10	0°30'17
	1798 Nov 19 07:45	0° X		desc. node	1799 Oct 30 03:48	9° M 38'01	
evening rise	1798 Dec 01 01:01	18° X 16'03		max. Earth dist.	1799 Oct 31 13:39	11° M 53'42	1.44133 AU
	1798 Dec 08 15:11	0° Z		evening rise	1799 Nov 10 09:55	27° M 19'42	
greatest brilliancy	1798 Dec 18 02:58	14° Z 13'15	-0.6m		1799 Nov 12 03:39	0° X	
evening max el	1798 Dec 25 22:03	24° Z 06'39	19°40'48		1799 Dec 02 15:21	0° Z	

greatest brilliancy	1799 Dec 03 06:19	0°☿49'21	-0.5m		1800 Oct 16 18:37	0°♍	
evening max el	1799 Dec 08 23:44	7°☿37'04	20°43'09	desc. node	1800 Oct 17 00:50	0°♍25'03	
retrograde	1799 Dec 17 05:00	12°☿28'30		evening rise	1800 Oct 20 22:25	6°♍37'28	
asc. node	1799 Dec 18 16:40	12°☿16'09			1800 Nov 05 10:48	0°♌	
evening set	1799 Dec 21 02:05	11°☿02'19		greatest brilliancy	1800 Nov 17 01:37	15°♌44'27	-0.4m
inferior conj	1799 Dec 26 12:28	4°☿50'26	2°26'06	evening max el	1800 Nov 21 19:45	21°♌08'02	21°56'16
minimum elong	1799 Dec 26 09:53	4°☿59'15	2°25'18	retrograde	1800 Dec 01 01:41	26°♌38'11	
min. Earth dist.	1799 Dec 27 01:35	4°☿05'37	0.67382 AU	evening set	1800 Dec 05 09:52	24°♌55'41	
	1799 Dec 30 07:19	30°♊		asc. node	1800 Dec 05 13:43	24°♌47'53	
morning rise	1799 Dec 31 17:15	28°♌35'16		inferior conj	1800 Dec 10 19:22	18°♌35'14	1°43'09
direct	1800 Jan 06 04:05	26°♌12'04		minimum elong	1800 Dec 10 17:15	18°♌42'34	1°42'21
	1800 Jan 14 05:06	0°☿		min. Earth dist.	1800 Dec 10 20:55	18°♌29'52	0.67759 AU
morning max el	1800 Jan 17 05:24	2°☿47'37	24°12'03	morning rise	1800 Dec 16 00:25	12°♌21'20	
desc. node	1800 Jan 26 03:01	13°☿15'43		direct	1800 Dec 20 19:59	10°♌20'20	
	1800 Feb 06 23:19	0°♊		morning max el	1800 Dec 30 15:29	16°♌08'48	22°43'37
morning set	1800 Feb 21 23:38	24°♊16'37		greatest brilliancy	1801 Jan 04 06:11	21°♌17'43	-0.3m
	1800 Feb 25 05:39	0°♋			1801 Jan 10 23:27	0°☿	
max. Earth dist.	1800 Feb 25 18:03	0°♋55'34	1.38027 AU	desc. node	1801 Jan 13 00:03	2°☿48'06	
					1801 Jan 31 00:30	0°♊	
superior conj	1800 Mar 04 19:40	14°♋02'45	-1°-40'-55	morning set	1801 Feb 02 17:59	4°♊26'37	
minimum elong	1800 Mar 04 23:55	14°♋23'05	1°40'29	max. Earth dist.	1801 Feb 07 13:59	12°♊32'51	1.40177 AU
	1800 Mar 12 23:16	0°♋					
evening rise	1800 Mar 13 16:09	1°♋23'19		superior conj	1801 Feb 15 08:29	26°♊15'08	-1°-58'-11
asc. node	1800 Mar 16 16:01	7°♋13'54		minimum elong	1801 Feb 15 11:42	26°♊29'46	1°58'01
evening max el	1800 Mar 30 05:20	28°♋08'17	19°01'45		1801 Feb 17 09:35	0°♋	
	1800 Apr 01 10:05	0°♌		evening rise	1801 Feb 25 05:54	14°♋45'46	
retrograde	1800 Apr 07 19:41	2°♌18'24		asc. node	1801 Mar 03 13:03	26°♋27'04	
evening set	1800 Apr 09 23:35	2°♌03'41			1801 Mar 05 14:19	0°♋	
	1800 Apr 14 19:27	30°♊		evening max el	1801 Mar 13 09:52	10°♋40'34	18°25'10
inferior conj	1800 Apr 18 03:02	27°♋49'08	1°38'46	retrograde	1801 Mar 20 19:58	14°♋20'27	
minimum elong	1800 Apr 18 06:32	27°♋43'01	1°37'40	evening set	1801 Mar 23 05:14	13°♋58'48	
min. Earth dist.	1800 Apr 21 05:13	25°♋40'46	0.56765 AU	inferior conj	1801 Mar 30 14:08	9°♋24'01	2°50'56
desc. node	1800 Apr 24 02:12	23°♋55'13		minimum elong	1801 Mar 30 17:58	9°♋16'11	2°50'04
morning rise	1800 Apr 26 09:18	22°♋50'00		min. Earth dist.	1801 Apr 03 00:40	6°♋36'51	0.58688 AU
direct	1800 May 01 13:17	21°♋47'05		morning rise	1801 Apr 07 02:40	3°♋54'37	
morning max el	1800 May 15 19:54	29°♋09'12	25°42'35	desc. node	1801 Apr 10 23:14	2°♋29'57	
	1800 May 16 16:30	0°♌		direct	1801 Apr 13 05:37	2°♋16'27	
	1800 Jun 06 02:16	0°♌		morning max el	1801 Apr 27 14:38	9°♋58'38	26°58'16
morning set	1800 Jun 12 07:11	12°♌28'07			1801 May 12 23:22	0°♌	
asc. node	1800 Jun 12 15:18	13°♌10'58		morning set	1801 May 27 17:01	27°♌16'58	
					1801 May 28 23:55	0°♌	
superior conj	1800 Jun 19 07:34	27°♌40'56	1°05'20	asc. node	1801 May 30 12:21	3°♌15'07	
minimum elong	1800 Jun 19 05:14	27°♌28'14	1°04'56				
max. Earth dist.	1800 Jun 20 04:17	29°♌34'26	1.32516 AU	superior conj	1801 Jun 03 19:20	12°♌38'02	0°44'00
	1800 Jun 20 08:58	0°♍		minimum elong	1801 Jun 03 17:33	12°♌28'09	0°43'39
evening rise	1800 Jun 26 09:41	12°♍53'39		max. Earth dist.	1801 Jun 03 16:24	12°♌21'52	1.32212 AU
	1800 Jul 05 05:46	0°♍		evening rise	1801 Jun 10 17:33	27°♌39'29	
desc. node	1800 Jul 21 01:31	24°♍07'42			1801 Jun 11 20:27	0°♍	
	1800 Jul 26 04:47	0°♎			1801 Jun 28 18:30	0°♍	
evening max el	1800 Jul 28 00:17	1°♎47'48	27°13'14	desc. node	1801 Jul 07 22:33	11°♍33'18	
retrograde	1800 Aug 10 20:32	9°♎02'39		evening max el	1801 Jul 10 01:24	13°♍41'01	26°27'34
evening set	1800 Aug 17 23:58	6°♎41'49		retrograde	1801 Jul 24 00:57	20°♍53'29	
min. Earth dist.	1800 Aug 21 14:26	3°♎55'29	0.61781 AU	evening set	1801 Jul 30 16:17	19°♍03'01	
inferior conj	1800 Aug 24 15:59	1°♎09'49	-4°-11'-54	min. Earth dist.	1801 Aug 03 14:34	16°♍27'33	0.59732 AU
minimum elong	1800 Aug 24 21:09	0°♎58'07	4°10'47	inferior conj	1801 Aug 06 22:06	13°♍51'19	-4°-46'-46
	1800 Aug 25 23:19	30°♊		minimum elong	1801 Aug 07 01:26	13°♍44'43	4°46'27
morning rise	1800 Aug 31 21:09	26°♊10'42		morning rise	1801 Aug 14 13:58	9°♍15'12	
direct	1800 Sep 03 06:20	25°♊46'30		direct	1801 Aug 16 23:51	8°♍54'18	
asc. node	1800 Sep 08 14:29	27°♊51'58		morning max el	1801 Aug 24 15:02	12°♍36'02	18°17'44
morning max el	1800 Sep 10 04:31	29°♊15'23	17°55'31	asc. node	1801 Aug 26 11:33	14°♍34'25	
	1800 Sep 10 21:58	0°♎			1801 Sep 05 08:01	0°♎	
morning set	1800 Sep 26 01:33	24°♎10'44		morning set	1801 Sep 09 12:53	7°♎53'04	
	1800 Sep 29 06:30	0°♏					
superior conj	1800 Oct 06 17:07	13°♏11'29	1°06'33	superior conj	1801 Sep 18 21:12	25°♎25'51	1°30'10
minimum elong	1800 Oct 06 21:44	13°♏31'26	1°05'59	minimum elong	1801 Sep 19 00:46	25°♎42'06	1°29'51
max. Earth dist.	1800 Oct 14 03:10	25°♏41'48	1.42682 AU		1801 Sep 21 09:55	0°♏	
				max. Earth dist.	1801 Sep 26 10:57	8°♏48'42	1.40804 AU

evening rise	1801 Oct 01 05:15	16° Ω 46'59		minimum elong	1802 Sep 01 21:58	8° η 44'30	1°42'34
desc. node	1801 Oct 03 21:52	21° Ω 08'57		max. Earth dist.	1802 Sep 08 14:34	21° η 11'19	1.38756 AU
	1801 Oct 09 13:21	0° \mathbb{M}		evening rise	1802 Sep 12 12:11	28° η 03'41	
	1801 Oct 31 04:27	0° \mathcal{A}			1802 Sep 13 15:18	0° Ω	
evening max el	1801 Nov 04 10:59	4° \mathcal{A} 41'16	23°15'28	desc. node	1802 Sep 20 18:55	11° Ω 45'20	
retrograde	1801 Nov 14 19:47	10° \mathcal{A} 49'52			1802 Oct 03 00:53	0° \mathbb{M}	
evening set	1801 Nov 19 16:47	8° \mathcal{A} 50'13		evening max el	1802 Oct 17 23:32	18° \mathbb{M} 18'08	24°34'44
asc. node	1801 Nov 22 10:45	5° \mathcal{A} 57'46		retrograde	1802 Oct 29 10:06	24° \mathbb{M} 58'55	
min. Earth dist.	1801 Nov 24 17:40	2° \mathcal{A} 56'36	0.67790 AU	evening set	1802 Nov 03 21:08	22° \mathbb{M} 42'33	
inferior conj	1801 Nov 25 02:48	2° \mathcal{A} 25'11	0°54'22	min. Earth dist.	1802 Nov 08 13:23	17° \mathbb{M} 22'42	0.67490 AU
minimum elong	1801 Nov 25 01:34	2° \mathcal{A} 29'27	0°53'51	inferior conj	1802 Nov 09 09:00	16° \mathbb{M} 17'13	0°01'02
	1801 Nov 26 21:58	30° \mathbb{R} \mathbb{M}		minimum elong	1802 Nov 09 08:58	16° \mathbb{M} 17'19	0°01'01
morning rise	1801 Nov 30 10:25	26° \mathbb{M} 14'35		transit middle	1802 Nov 09 08:58	16° \mathbb{M} 17'19	0°01'01
direct	1801 Dec 04 15:22	24° \mathbb{M} 36'24		transit begin	1802 Nov 09 06:14	16° \mathbb{M} 26'28	
morning max el	1801 Dec 13 06:45	29° \mathbb{M} 38'53	21°19'57	transit end	1802 Nov 09 11:43	16° \mathbb{M} 08'10	
	1801 Dec 13 15:02	0° \mathcal{A}		asc. node	1802 Nov 09 07:48	16° \mathbb{M} 21'13	
greatest brilliancy	1801 Dec 18 11:01	5° \mathcal{A} 34'27	-0.4m	morning rise	1802 Nov 14 21:13	10° \mathbb{M} 12'25	
desc. node	1801 Dec 30 21:06	22° \mathcal{A} 47'03		direct	1802 Nov 18 13:08	8° \mathbb{M} 55'21	
	1802 Jan 04 17:14	0° \mathcal{B}		morning max el	1802 Nov 26 05:24	13° \mathbb{M} 19'07	20°07'01
morning set	1802 Jan 13 07:41	13° \mathcal{B} 16'23		greatest brilliancy	1802 Dec 03 04:13	21° \mathbb{M} 43'36	-0.6m
max. Earth dist.	1802 Jan 20 15:13	25° \mathcal{B} 02'14	1.42199 AU		1802 Dec 09 00:29	0° \mathcal{A}	
	1802 Jan 23 15:02	0° \approx		desc. node	1802 Dec 17 18:08	13° \mathcal{A} 04'45	
				morning set	1802 Dec 23 04:15	21° \mathcal{A} 23'49	
superior conj	1802 Jan 27 23:59	7° \approx 25'23	-2°-4'-41		1802 Dec 28 16:50	0° \mathcal{B}	
minimum elong	1802 Jan 27 23:46	7° \approx 24'29	2°04'42	max. Earth dist.	1803 Jan 02 23:59	8° \mathcal{B} 23'35	1.43822 AU
evening rise	1802 Feb 08 06:28	27° \approx 27'19					
	1802 Feb 09 16:08	0° \mathcal{H}		superior conj	1803 Jan 08 13:41	17° \mathcal{B} 24'23	-1°-55'-28
asc. node	1802 Feb 18 10:06	15° \mathcal{H} 11'17		minimum elong	1803 Jan 08 08:06	17° \mathcal{B} 01'34	1°55'10
evening max el	1802 Feb 24 19:54	23° \mathcal{H} 37'46	18°08'33		1803 Jan 16 02:59	0° \approx	
retrograde	1802 Mar 03 13:20	27° \mathcal{H} 03'17		evening rise	1803 Jan 21 13:31	9° \approx 19'07	
evening set	1802 Mar 06 03:50	26° \mathcal{H} 32'48			1803 Feb 02 23:01	0° \mathcal{H}	
inferior conj	1802 Mar 12 21:15	21° \mathcal{H} 36'52	3°30'30	asc. node	1803 Feb 05 07:07	3° \mathcal{H} 17'22	
minimum elong	1802 Mar 12 23:26	21° \mathcal{H} 31'43	3°30'14	evening max el	1803 Feb 08 08:22	6° \mathcal{H} 51'31	18°11'18
min. Earth dist.	1802 Mar 16 02:44	18° \mathcal{H} 34'57	0.60828 AU	retrograde	1803 Feb 14 19:28	10° \mathcal{H} 16'47	
morning rise	1802 Mar 19 15:56	15° \mathcal{H} 47'00		evening set	1803 Feb 17 15:00	9° \mathcal{H} 36'14	
direct	1802 Mar 26 09:48	13° \mathcal{H} 33'20		inferior conj	1803 Feb 23 20:36	4° \mathcal{H} 19'49	3°43'59
desc. node	1802 Mar 28 20:16	13° \mathcal{H} 49'47		minimum elong	1803 Feb 23 20:46	4° \mathcal{H} 19'21	3°43'59
morning max el	1802 Apr 09 15:36	21° \mathcal{H} 26'17	27°41'22	min. Earth dist.	1803 Feb 26 13:20	1° \mathcal{H} 27'15	0.62880 AU
	1802 Apr 17 02:47	0° \mathcal{Y}			1803 Feb 28 00:40	30° \mathbb{R} \approx	
	1802 May 05 22:47	0° \mathcal{B}		morning rise	1803 Mar 02 00:28	28° \approx 17'52	
morning set	1802 May 11 23:13	11° \mathcal{B} 52'57		direct	1803 Mar 08 23:15	25° \approx 38'39	
asc. node	1802 May 17 09:24	23° \mathcal{B} 24'07		desc. node	1803 Mar 15 17:18	27° \approx 45'40	
max. Earth dist.	1802 May 18 03:55	25° \mathcal{B} 04'55	1.32289 AU		1803 Mar 18 22:36	0° \mathcal{H}	
				morning max el	1803 Mar 22 21:51	3° \mathcal{H} 34'17	27°47'19
superior conj	1802 May 19 06:29	27° \mathcal{B} 30'12	0°19'45		1803 Apr 11 14:51	0° \mathcal{Y}	
minimum elong	1802 May 19 05:35	27° \mathcal{B} 25'19	0°19'34	morning set	1803 Apr 25 23:39	26° \mathcal{Y} 08'46	
	1802 May 20 09:48	0° \mathbb{I}			1803 Apr 27 21:03	0° \mathcal{B}	
evening rise	1802 May 26 04:22	12° \mathbb{I} 31'31		max. Earth dist.	1803 May 01 10:59	7° \mathcal{B} 30'50	1.32765 AU
	1802 Jun 04 00:58	0° \mathcal{E}					
evening max el	1802 Jun 21 19:27	24° \mathcal{E} 48'21	25°12'54	superior conj	1803 May 03 15:15	12° \mathcal{B} 11'36	0°-6'-41
desc. node	1802 Jun 24 19:34	27° \mathcal{E} 25'31		minimum elong	1803 May 03 15:34	12° \mathcal{B} 13'19	0°06'37
	1802 Jun 28 17:14	0° \mathcal{Q}		behind sun begin	1803 May 03 10:47	11° \mathcal{B} 47'29	
retrograde	1802 Jul 05 19:38	1° \mathcal{Q} 55'50		behind sun end	1803 May 03 20:21	12° \mathcal{B} 39'11	
evening set	1802 Jul 11 09:20	0° \mathcal{Q} 44'06		asc. node	1803 May 04 06:27	13° \mathcal{B} 33'49	
	1802 Jul 12 23:01	30° \mathbb{R} \mathcal{E}		evening rise	1803 May 10 16:14	27° \mathcal{B} 23'18	
min. Earth dist.	1802 Jul 16 07:15	28° \mathcal{E} 00'34	0.57712 AU		1803 May 11 22:04	0° \mathbb{I}	
inferior conj	1802 Jul 19 09:26	25° \mathcal{E} 54'01	-4°-56'-15		1803 May 29 12:32	0° \mathcal{E}	
minimum elong	1802 Jul 19 08:27	25° \mathcal{E} 55'43	4°56'14	evening max el	1803 Jun 03 09:32	5° \mathcal{E} 24'51	23°40'26
morning rise	1802 Jul 27 11:19	21° \mathcal{E} 40'31		desc. node	1803 Jun 11 16:35	11° \mathcal{E} 10'14	
direct	1802 Jul 30 00:14	21° \mathcal{E} 21'17		retrograde	1803 Jun 17 02:04	12° \mathcal{E} 16'18	
morning max el	1802 Aug 07 18:00	25° \mathcal{E} 27'37	19°00'36	evening set	1803 Jun 21 04:41	11° \mathcal{E} 39'12	
	1802 Aug 11 17:38	0° \mathcal{Q}		min. Earth dist.	1803 Jun 27 20:01	8° \mathcal{E} 32'09	0.56049 AU
asc. node	1802 Aug 13 08:37	2° \mathcal{Q} 16'28		inferior conj	1803 Jun 30 00:43	7° \mathcal{E} 12'51	-4°-26'-12
morning set	1802 Aug 24 10:10	22° \mathcal{Q} 04'28		minimum elong	1803 Jun 29 18:33	7° \mathcal{E} 22'11	4°25'10
	1802 Aug 28 10:20	0° \mathcal{M}		morning rise	1803 Jul 08 11:47	3° \mathcal{E} 16'15	
				direct	1803 Jul 11 05:38	2° \mathcal{E} 57'18	
superior conj	1802 Sep 01 20:18	8° \mathcal{M} 36'31	1°42'38	morning max el	1803 Jul 21 10:41	7° \mathcal{E} 41'13	20°04'42

asc. node	1803 Jul 31 05:41	20° $\overline{54}$ 44'54		asc. node	1804 Jul 17 02:44	9° $\overline{54}$ 47'42	
	1803 Aug 05 06:41	0° Ω		morning set	1804 Jul 22 22:55	21° $\overline{54}$ 23'27	
morning set	1803 Aug 08 14:20	6° Ω 37'06			1804 Jul 27 01:29	0° Ω	
superior conj	1803 Aug 16 09:15	22° Ω 29'12	1°45'51	superior conj	1804 Jul 30 07:53	6° Ω 51'00	1°41'34
minimum elong	1803 Aug 16 09:07	22° Ω 28'33	1°45'51	minimum elong	1804 Jul 30 06:27	6° Ω 43'28	1°41'29
	1803 Aug 20 04:37	0° $\overline{\eta}$		max. Earth dist.	1804 Aug 03 07:30	15° Ω 00'22	1.35101 AU
max. Earth dist.	1803 Aug 21 19:40	3° $\overline{\eta}$ 07'24	1.36794 AU	evening rise	1804 Aug 07 17:05	23° Ω 37'15	
evening rise	1803 Aug 25 17:39	10° $\overline{\eta}$ 24'36			1804 Aug 11 03:15	0° $\overline{\eta}$	
	1803 Sep 06 06:50	0° $\underline{\Delta}$		desc. node	1804 Aug 24 12:58	22° $\overline{\eta}$ 15'21	
desc. node	1803 Sep 07 15:57	2° $\underline{\Delta}$ 09'38			1804 Aug 29 21:52	0° $\underline{\Delta}$	
	1803 Sep 28 13:00	0° $\overline{\mu}$		evening max el	1804 Sep 11 23:49	15° $\underline{\Delta}$ 34'56	26°43'41
evening max el	1803 Sep 30 11:34	1° $\overline{\mu}$ 58'09	25°46'40	retrograde	1804 Sep 24 23:59	22° $\underline{\Delta}$ 49'30	
retrograde	1803 Oct 12 19:41	9° $\overline{\mu}$ 00'53		evening set	1804 Oct 01 14:51	20° $\underline{\Delta}$ 08'36	
evening set	1803 Oct 18 21:10	6° $\overline{\mu}$ 29'52		min. Earth dist.	1804 Oct 05 15:57	16° $\underline{\Delta}$ 01'35	0.65885 AU
min. Earth dist.	1803 Oct 23 05:38	1° $\overline{\mu}$ 45'45	0.66862 AU	inferior conj	1804 Oct 07 10:21	13° $\underline{\Delta}$ 56'15	-1°-53'-43
inferior conj	1803 Oct 24 12:11	0° $\overline{\mu}$ 08'51	0°-55'-31	minimum elong	1804 Oct 07 13:22	13° $\underline{\Delta}$ 47'18	1°52'31
minimum elong	1803 Oct 24 13:37	0° $\overline{\mu}$ 04'16	0°54'55	asc. node	1804 Oct 13 01:54	8° $\underline{\Delta}$ 27'55	
	1803 Oct 24 14:58	30° \overline{R} $\underline{\Delta}$		morning rise	1804 Oct 13 13:13	8° $\underline{\Delta}$ 11'57	
asc. node	1803 Oct 27 04:51	26° $\underline{\Delta}$ 54'01		direct	1804 Oct 16 09:16	7° $\underline{\Delta}$ 27'11	
morning rise	1803 Oct 30 06:53	24° $\underline{\Delta}$ 12'40		morning max el	1804 Oct 22 23:48	11° $\underline{\Delta}$ 03'47	18°25'40
direct	1803 Nov 02 11:44	23° $\underline{\Delta}$ 13'35			1804 Nov 05 09:16	0° $\overline{\mu}$	
morning max el	1803 Nov 09 11:38	27° $\underline{\Delta}$ 08'43	19°08'21	morning set	1804 Nov 11 14:49	10° $\overline{\mu}$ 02'04	
	1803 Nov 12 01:06	0° $\overline{\mu}$		desc. node	1804 Nov 20 12:13	24° $\overline{\mu}$ 15'56	
morning set	1803 Dec 02 08:30	0° \overline{x} 02'32			1804 Nov 24 03:11	0° \overline{x}	
	1803 Dec 02 07:51	0° \overline{x}		superior conj	1804 Nov 27 03:51	4° \overline{x} 46'09	0°-43'-28
desc. node	1803 Dec 04 15:11	3° \overline{x} 35'47		minimum elong	1804 Nov 26 22:15	4° \overline{x} 24'08	0°42'44
max. Earth dist.	1803 Dec 16 15:27	22° \overline{x} 24'44	1.44841 AU	max. Earth dist.	1804 Nov 28 10:27	6° \overline{x} 46'22	1.45136 AU
				evening rise	1804 Dec 13 09:04	0° \overline{z} 14'28	
superior conj	1803 Dec 19 02:39	26° \overline{x} 18'33	-1°-27'-19		1804 Dec 13 05:24	0° \overline{z}	
minimum elong	1803 Dec 18 17:51	25° \overline{x} 43'43	1°26'26	greatest brilliancy	1804 Dec 26 04:29	20° \overline{z} 15'36	-0.7m
	1803 Dec 21 10:28	0° \overline{z}			1805 Jan 02 01:05	0° \approx	
evening rise	1804 Jan 02 22:59	20° \overline{z} 14'58		evening max el	1805 Jan 05 05:47	3° \approx 42'51	19°11'16
	1804 Jan 08 21:19	0° \approx		asc. node	1805 Jan 09 01:10	6° \approx 47'45	
evening max el	1804 Jan 22 20:28	20° \approx 14'49	18°32'34	retrograde	1805 Jan 12 05:51	7° \approx 42'56	
asc. node	1804 Jan 23 04:09	20° \approx 34'01		evening set	1805 Jan 15 13:17	6° \approx 39'04	
retrograde	1804 Jan 29 10:09	23° \approx 52'10		inferior conj	1805 Jan 21 04:30	0° \approx 47'01	3°18'16
evening set	1804 Feb 01 11:06	23° \approx 00'31		minimum elong	1805 Jan 21 02:10	0° \approx 54'27	3°17'50
inferior conj	1804 Feb 07 08:09	17° \approx 25'06	3°38'12		1805 Jan 21 19:11	30° \overline{R} \overline{z}	
minimum elong	1804 Feb 07 06:45	17° \approx 29'15	3°38'05	min. Earth dist.	1805 Jan 22 14:30	28° \overline{z} 58'33	0.66020 AU
min. Earth dist.	1804 Feb 09 09:22	14° \approx 59'46	0.64645 AU	morning rise	1805 Jan 26 14:12	24° \overline{z} 33'48	
morning rise	1804 Feb 13 01:06	11° \approx 16'05		direct	1805 Feb 01 23:02	21° \overline{z} 46'28	
direct	1804 Feb 19 19:59	8° \approx 25'54		morning max el	1805 Feb 14 16:48	29° \overline{z} 18'12	26°19'46
desc. node	1804 Mar 01 14:21	13° \approx 43'16			1805 Feb 15 09:10	0° \approx	
morning max el	1804 Mar 04 07:02	16° \approx 15'13	27°17'57	desc. node	1805 Feb 16 11:22	1° \approx 09'23	
	1804 Mar 15 16:00	0° \overline{H}			1805 Mar 09 12:22	0° \overline{H}	
	1804 Apr 03 09:19	0° \overline{Y}		morning set	1805 Mar 22 18:51	22° \overline{H} 59'46	
morning set	1804 Apr 08 15:24	9° \overline{Y} 54'32			1805 Mar 26 10:46	0° \overline{Y}	
max. Earth dist.	1804 Apr 13 09:42	19° \overline{Y} 27'23	1.33680 AU	max. Earth dist.	1805 Mar 26 21:22	0° \overline{Y} 51'48	1.35051 AU
				superior conj	1805 Mar 31 17:24	10° \overline{Y} 33'33	-1°-2'-1
superior conj	1804 Apr 16 19:39	26° \overline{Y} 34'53	0°-34'-21	minimum elong	1805 Mar 31 20:30	10° \overline{Y} 49'25	1°01'29
minimum elong	1804 Apr 16 21:22	26° \overline{Y} 43'59	0°34'01	asc. node	1805 Apr 07 00:30	23° \overline{Y} 36'53	
	1804 Apr 18 10:19	0° \overline{B}		evening rise	1805 Apr 08 11:32	26° \overline{Y} 38'08	
asc. node	1804 Apr 20 03:28	3° \overline{B} 39'23			1805 Apr 10 03:02	0° \overline{B}	
evening rise	1804 Apr 24 03:15	12° \overline{B} 07'30		evening max el	1805 Apr 27 03:52	26° \overline{B} 54'23	20°39'44
	1804 May 03 08:36	0° $\overline{\Pi}$			1805 Apr 30 23:50	0° $\overline{\Pi}$	
evening max el	1804 May 15 02:07	15° $\overline{\Pi}$ 57'13	22°05'02	retrograde	1805 May 08 09:07	2° $\overline{\Pi}$ 21'25	
retrograde	1804 May 27 20:05	22° $\overline{\Pi}$ 14'15		evening set	1805 May 10 11:58	2° $\overline{\Pi}$ 10'31	
desc. node	1804 May 28 13:36	22° $\overline{\Pi}$ 13'02		desc. node	1805 May 15 10:35	0° $\overline{\Pi}$ 31'27	
evening set	1804 May 30 15:12	21° $\overline{\Pi}$ 56'53			1805 May 16 12:01	30° \overline{R} \overline{B}	
inferior conj	1804 Jun 08 23:36	17° $\overline{\Pi}$ 51'24	-3°-8'-16	inferior conj	1805 May 19 17:29	28° \overline{B} 12'52	-1°-14'-45
minimum elong	1804 Jun 08 15:56	18° $\overline{\Pi}$ 02'10	3°06'01	minimum elong	1805 May 19 13:56	28° \overline{B} 17'57	1°13'29
min. Earth dist.	1804 Jun 08 07:37	18° $\overline{\Pi}$ 13'50	0.55071 AU	min. Earth dist.	1805 May 20 20:06	27° \overline{B} 34'40	0.55008 AU
morning rise	1804 Jun 17 18:22	13° $\overline{\Pi}$ 58'53		morning rise	1805 May 28 14:42	24° \overline{B} 04'42	
direct	1804 Jun 20 19:41	13° $\overline{\Pi}$ 38'04		direct	1805 Jun 01 05:32	23° \overline{B} 36'32	
morning max el	1804 Jul 02 15:49	19° $\overline{\Pi}$ 10'11	21°28'48				
	1804 Jul 11 09:23	0° $\overline{\Theta}$					

	1805 Jun 14 11:24	0°♊		min. Earth dist.	1806 May 02 10:33	7°♊10'46	0.55891 AU
morning max el	1805 Jun 14 11:20	29°♊59'52	23°07'14	morning rise	1806 May 08 11:15	4°♊09'12	
asc. node	1805 Jul 03 23:46	29°♊16'09		direct	1806 May 13 00:21	3°♊22'35	
	1805 Jul 04 08:32	0°♊		morning max el	1806 May 27 02:06	10°♊28'28	24°48'44
morning set	1805 Jul 07 10:01	6°♊17'45			1806 Jun 10 19:11	0°♊	
				asc. node	1806 Jun 20 20:50	19°♊03'12	
superior conj	1805 Jul 14 13:06	21°♊32'34	1°31'15	morning set	1806 Jun 21 21:55	21°♊14'40	
minimum elong	1805 Jul 14 10:54	21°♊20'48	1°31'01		1806 Jun 25 23:39	0°♊	
max. Earth dist.	1805 Jul 17 04:26	27°♊08'20	1.33778 AU				
	1805 Jul 18 13:21	0°♊		superior conj	1806 Jun 28 22:26	6°♊25'57	1°16'00
evening rise	1805 Jul 22 05:59	7°♊29'28		minimum elong	1806 Jun 28 20:01	6°♊12'48	1°15'39
	1805 Aug 03 16:07	0°♊		max. Earth dist.	1806 Jun 30 09:36	9°♊36'55	1.32857 AU
desc. node	1805 Aug 11 09:58	11°♊54'19		evening rise	1806 Jul 06 04:35	21°♊50'24	
evening max el	1805 Aug 25 11:36	28°♊58'24	27°18'22		1806 Jul 10 07:16	0°♊	
	1805 Aug 26 14:08	0°♊			1806 Jul 28 14:23	0°♊	
retrograde	1805 Sep 07 22:39	6°♊17'00		desc. node	1806 Jul 29 06:57	0°♊55'29	
evening set	1805 Sep 14 23:37	3°♊34'17		evening max el	1806 Aug 07 21:17	11°♊56'56	27°24'28
	1805 Sep 18 19:27	30°♊		retrograde	1806 Aug 21 15:18	19°♊14'30	
min. Earth dist.	1805 Sep 18 18:06	0°♊03'35	0.64550 AU	evening set	1806 Aug 28 20:13	16°♊41'46	
inferior conj	1805 Sep 21 01:12	27°♊34'44	-2°-51'-19	min. Earth dist.	1806 Sep 01 10:34	13°♊42'04	0.62869 AU
minimum elong	1805 Sep 21 05:40	27°♊22'39	2°49'47	inferior conj	1806 Sep 04 06:04	10°♊58'34	-3°-44'-54
morning rise	1805 Sep 27 13:40	22°♊05'31		minimum elong	1806 Sep 04 11:20	10°♊45'45	3°43'29
asc. node	1805 Sep 29 22:57	21°♊31'33		morning rise	1806 Sep 11 05:02	5°♊47'38	
direct	1805 Sep 30 03:17	21°♊31'23		direct	1806 Sep 13 14:54	5°♊20'45	
morning max el	1805 Oct 06 15:22	24°♊58'37	17°59'51	asc. node	1806 Sep 16 20:01	6°♊09'39	
	1805 Oct 10 18:57	0°♊		morning max el	1806 Sep 20 07:26	8°♊46'55	17°51'45
morning set	1805 Oct 24 01:44	21°♊25'08			1806 Oct 04 06:49	0°♊	
	1805 Oct 29 04:33	0°♊		morning set	1806 Oct 06 12:13	3°♊56'15	
superior conj	1805 Nov 06 14:50	13°♊47'16	0°05'11	superior conj	1806 Oct 18 02:33	24°♊02'40	0°47'23
minimum elong	1805 Nov 06 15:27	13°♊49'43	0°05'06	minimum elong	1806 Oct 18 06:45	24°♊20'17	0°46'49
behind sun begin	1805 Nov 06 05:29	13°♊09'37			1806 Oct 21 16:33	0°♊	
behind sun end	1805 Nov 07 01:25	14°♊29'46		max. Earth dist.	1806 Oct 24 20:46	5°♊10'22	1.43574 AU
desc. node	1805 Nov 07 09:15	15°♊01'11		desc. node	1806 Oct 25 06:17	5°♊48'45	
max. Earth dist.	1805 Nov 11 05:13	21°♊07'27	1.44690 AU	evening rise	1806 Nov 02 07:57	18°♊33'03	
	1805 Nov 16 20:51	0°♊			1806 Nov 09 20:03	0°♊	
evening rise	1805 Nov 22 23:42	9°♊29'04		greatest brilliancy	1806 Nov 27 05:18	24°♊41'16	-0.4m
	1805 Dec 06 11:48	0°♊			1806 Dec 01 17:32	0°♊	
greatest brilliancy	1805 Dec 12 15:54	8°♊51'47	-0.6m	evening max el	1806 Dec 02 09:40	0°♊42'06	21°13'12
evening max el	1805 Dec 19 10:29	17°♊11'57	20°05'44	retrograde	1806 Dec 11 01:14	5°♊50'15	
asc. node	1805 Dec 26 22:12	21°♊43'01		asc. node	1806 Dec 13 19:15	5°♊08'09	
retrograde	1805 Dec 27 03:38	21°♊43'18		evening set	1806 Dec 15 02:42	4°♊17'28	
evening set	1805 Dec 30 19:07	20°♊25'48			1806 Dec 19 01:39	30°♊	
inferior conj	1806 Jan 05 06:43	14°♊20'04	2°47'39	inferior conj	1806 Dec 20 12:31	28°♊01'27	2°08'42
minimum elong	1806 Jan 05 04:04	14°♊28'58	2°46'56	minimum elong	1806 Dec 20 10:05	28°♊09'52	2°07'52
min. Earth dist.	1806 Jan 06 03:00	13°♊11'58	0.66991 AU	min. Earth dist.	1806 Dec 20 20:38	27°♊33'28	0.67582 AU
morning rise	1806 Jan 10 12:27	8°♊04'51		morning rise	1806 Dec 25 17:05	21°♊46'18	
direct	1806 Jan 16 07:43	5°♊30'49		direct	1806 Dec 30 21:23	19°♊32'05	
morning max el	1806 Jan 28 01:37	12°♊31'15	25°01'48	morning max el	1807 Jan 10 10:15	25°♊48'44	23°34'16
desc. node	1806 Feb 03 08:25	19°♊37'48			1807 Jan 14 06:01	0°♊	
	1806 Feb 11 03:55	0°♊		desc. node	1807 Jan 21 05:29	8°♊50'41	
	1806 Mar 02 06:29	0°♊			1807 Feb 04 17:20	0°♊	
morning set	1806 Mar 05 04:56	5°♊09'37		morning set	1807 Feb 14 15:29	16°♊07'22	
max. Earth dist.	1806 Mar 08 21:54	11°♊54'17	1.36846 AU	max. Earth dist.	1807 Feb 18 16:34	23°♊06'09	1.38935 AU
					1807 Feb 22 13:13	0°♊	
superior conj	1806 Mar 15 05:31	23°♊58'58	-1°-27'-52	superior conj	1807 Feb 26 04:13	6°♊41'27	-1°-49'-17
minimum elong	1806 Mar 15 09:36	24°♊19'05	1°27'20	minimum elong	1807 Feb 26 08:16	7°♊00'27	1°48'56
	1806 Mar 18 06:13	0°♊		evening rise	1807 Mar 07 10:26	24°♊29'43	
evening rise	1806 Mar 23 14:50	10°♊47'56			1807 Mar 10 07:00	0°♊	
asc. node	1806 Mar 24 21:32	13°♊21'23		asc. node	1807 Mar 11 18:34	2°♊47'43	
	1806 Apr 03 01:13	0°♊		evening max el	1807 Mar 23 17:25	20°♊45'15	18°43'47
evening max el	1806 Apr 09 17:24	8°♊30'41	19°31'50	retrograde	1807 Mar 31 18:20	24°♊40'12	
retrograde	1806 Apr 19 05:23	13°♊05'49		evening set	1807 Apr 03 00:26	24°♊22'53	
evening set	1806 Apr 21 06:34	12°♊53'57		inferior conj	1807 Apr 10 19:47	20°♊00'28	2°13'37
inferior conj	1806 Apr 29 21:01	8°♊48'59	0°41'54	minimum elong	1807 Apr 10 23:48	19°♊52'59	2°12'29
minimum elong	1806 Apr 29 22:46	8°♊46'10	0°41'18	min. Earth dist.	1807 Apr 14 03:44	17°♊32'42	0.57533 AU
desc. node	1806 May 02 07:36	7°♊15'24					

morning rise	1807 Apr 18 18:49	14° Υ 47'20		minimum elong	1808 Mar 22 19:03	1° Υ 45'08	3°10'45
desc. node	1807 Apr 19 04:38	14° Υ 36'37			1808 Mar 24 19:09	30° \Re \Re	
direct	1807 Apr 24 09:26	13° Υ 29'46		min. Earth dist.	1808 Mar 26 01:32	28° \Re 55'50	0.59592 AU
morning max el	1807 May 08 17:52	21° Υ 02'25	26°18'05	morning rise	1808 Mar 29 20:33	26° \Re 13'20	
	1807 May 16 12:15	0° \Re		direct	1808 Apr 05 07:14	24° \Re 19'24	
	1807 Jun 03 09:31	0° Π		desc. node	1808 Apr 05 01:41	24° \Re 19'33	
morning set	1807 Jun 06 08:58	6° Π 08'03			1808 Apr 17 08:21	0° Υ	
asc. node	1807 Jun 07 17:52	9° Π 02'31		morning max el	1808 Apr 19 15:00	2° Υ 06'26	27°21'01
					1808 May 09 19:31	0° \Re	
superior conj	1807 Jun 13 09:50	21° Π 23'39	0°56'42	morning set	1808 May 20 17:30	20° \Re 52'27	
minimum elong	1807 Jun 13 07:42	21° Π 11'51	0°56'18	asc. node	1808 May 24 14:55	29° \Re 09'26	
max. Earth dist.	1807 Jun 13 20:09	22° Π 20'20	1.32337 AU		1808 May 25 00:14	0° Π	
	1807 Jun 17 08:25	0° \Re					
evening rise	1807 Jun 20 09:48	6° \Re 29'48		superior conj	1808 May 27 21:35	6° Π 19'43	0°34'03
	1807 Jul 02 20:40	0° Ω		minimum elong	1808 May 27 20:08	6° Π 11'42	0°33'45
desc. node	1807 Jul 16 03:59	19° Ω 02'17		max. Earth dist.	1808 May 27 08:37	5° Π 08'25	1.32202 AU
evening max el	1807 Jul 21 02:25	24° Ω 17'28	26°57'53	evening rise	1808 Jun 03 19:13	21° Π 19'47	
	1807 Jul 28 22:24	0° \Re			1808 Jun 08 00:43	0° \Re	
retrograde	1807 Aug 04 00:39	1° \Re 31'30			1808 Jun 26 15:36	0° Ω	
	1807 Aug 09 21:25	30° \Re Ω		evening max el	1808 Jul 02 00:44	5° Ω 51'36	25°58'52
evening set	1807 Aug 11 00:15	29° Ω 22'24		desc. node	1808 Jul 02 00:59	5° Ω 52'10	
min. Earth dist.	1807 Aug 14 16:38	26° Ω 42'31	0.60918 AU	retrograde	1808 Jul 16 00:51	13° Ω 01'34	
inferior conj	1807 Aug 17 21:33	23° Ω 58'35	-4°-29'-1	evening set	1808 Jul 22 06:57	11° Ω 27'23	
minimum elong	1807 Aug 18 02:15	23° Ω 48'32	4°28'14	min. Earth dist.	1808 Jul 26 13:15	8° Ω 50'40	0.58861 AU
morning rise	1807 Aug 25 07:19	19° Ω 08'48		inferior conj	1808 Jul 29 20:05	6° Ω 24'56	-4°-54'-44
direct	1807 Aug 27 16:21	18° Ω 46'20		minimum elong	1808 Jul 29 21:52	6° Ω 21'36	4°54'39
asc. node	1807 Sep 03 17:05	22° Ω 10'49		morning rise	1808 Aug 06 16:16	1° Ω 58'19	
morning max el	1807 Sep 03 20:51	22° Ω 19'51	18°02'27	direct	1808 Aug 09 03:20	1° Ω 38'10	
	1807 Sep 09 20:02	0° \Re		morning max el	1808 Aug 17 04:26	5° Ω 28'47	18°33'16
morning set	1807 Sep 19 16:00	17° \Re 16'48		asc. node	1808 Aug 20 14:08	9° Ω 20'08	
	1807 Sep 26 13:53	0° \Re			1808 Sep 01 16:56	0° \Re	
				morning set	1808 Sep 02 08:00	1° \Re 12'43	
superior conj	1807 Sep 29 17:02	5° \Re 36'25	1°18'01	superior conj	1808 Sep 11 05:51	18° \Re 16'15	1°36'43
minimum elong	1807 Sep 29 21:24	5° \Re 55'44	1°17'33	minimum elong	1808 Sep 11 08:39	18° \Re 29'16	1°36'31
max. Earth dist.	1807 Oct 07 07:35	18° \Re 40'52	1.41924 AU		1808 Sep 17 17:06	0° \Re	
desc. node	1807 Oct 12 03:20	26° \Re 34'50		max. Earth dist.	1808 Sep 18 13:39	1° \Re 29'55	1.39948 AU
evening rise	1807 Oct 13 02:58	28° \Re 09'34		evening rise	1808 Sep 22 19:55	8° \Re 46'59	
	1807 Oct 14 06:43	0° \Re		desc. node	1808 Sep 28 00:21	17° \Re 15'48	
	1807 Nov 03 12:49	0° \Re			1808 Oct 06 06:51	0° \Re	
greatest brilliancy	1807 Nov 10 08:45	8° \Re 52'05	-0.3m	evening max el	1808 Oct 27 17:31	27° \Re 48'55	23°49'37
evening max el	1807 Nov 15 03:34	14° \Re 14'04	22°29'38		1808 Oct 30 01:40	0° \Re	
retrograde	1807 Nov 24 20:53	20° \Re 00'41		retrograde	1808 Nov 07 13:20	4° \Re 11'26	
evening set	1807 Nov 29 10:18	18° \Re 11'10		evening set	1808 Nov 12 16:18	2° \Re 04'29	
asc. node	1807 Nov 30 16:18	17° \Re 02'05			1808 Nov 14 18:04	30° \Re \Re	
inferior conj	1807 Dec 04 19:52	11° \Re 48'30	1°23'07	asc. node	1808 Nov 16 13:21	27° \Re 45'45	
minimum elong	1807 Dec 04 18:05	11° \Re 54'42	1°22'24	min. Earth dist.	1808 Nov 17 13:23	26° \Re 25'14	0.67709 AU
min. Earth dist.	1807 Dec 04 16:54	11° \Re 58'48	0.67815 AU	inferior conj	1808 Nov 18 02:58	25° \Re 39'03	0°32'13
morning rise	1807 Dec 10 01:44	5° \Re 35'38		minimum elong	1808 Nov 18 02:12	25° \Re 41'38	0°31'53
direct	1807 Dec 14 15:02	3° \Re 44'08		morning rise	1808 Nov 23 12:19	19° \Re 30'47	
morning max el	1807 Dec 23 21:56	9° \Re 12'16	22°06'57	direct	1808 Nov 27 11:36	18° \Re 01'48	
greatest brilliancy	1807 Dec 28 13:34	14° \Re 25'47	-0.4m	morning max el	1808 Dec 05 16:09	22° \Re 46'05	20°47'20
desc. node	1808 Jan 08 02:33	28° \Re 35'24		greatest brilliancy	1808 Dec 11 11:09	29° \Re 31'53	-0.5m
	1808 Jan 09 02:05	0° \Re			1808 Dec 11 19:50	0° \Re	
morning set	1808 Jan 25 21:16	25° \Re 41'07		desc. node	1808 Dec 24 23:36	18° \Re 42'50	
	1808 Jan 28 12:53	0° \Re			1809 Jan 01 10:00	0° \Re	
max. Earth dist.	1808 Jan 31 14:02	5° \Re 03'35	1.41069 AU	morning set	1809 Jan 04 01:10	4° \Re 04'37	
				max. Earth dist.	1809 Jan 12 19:03	17° \Re 58'06	1.42955 AU
superior conj	1808 Feb 08 08:40	18° \Re 29'16	-2°-2'-33				
minimum elong	1808 Feb 08 10:45	18° \Re 38'32	2°02'30	superior conj	1809 Jan 19 13:32	29° \Re 09'20	-2°-2'-58
	1808 Feb 14 16:59	0° \Re		minimum elong	1809 Jan 19 11:08	28° \Re 59'15	2°02'56
evening rise	1808 Feb 18 19:03	7° \Re 35'36			1809 Jan 20 01:33	0° \Re	
asc. node	1808 Feb 26 15:37	21° \Re 49'35		evening rise	1809 Jan 31 12:40	19° \Re 56'37	
	1808 Mar 02 23:56	0° Υ			1809 Feb 06 05:17	0° \Re	
evening max el	1808 Mar 06 00:48	3° Υ 29'50	18°15'47	asc. node	1809 Feb 12 12:39	10° \Re 18'24	
retrograde	1808 Mar 13 02:12	7° Υ 01'23		evening max el	1809 Feb 17 12:11	16° \Re 34'20	18°07'23
evening set	1808 Mar 15 13:56	6° Υ 35'59		retrograde	1809 Feb 24 01:40	19° \Re 58'12	
inferior conj	1808 Mar 22 15:47	1° Υ 52'15	3°11'21				

evening set	1809 Feb 26 18:21	19° Υ 23'27		retrograde	1810 Feb 07 12:03	3° Υ 21'37	
inferior conj	1809 Mar 05 06:16	14° Υ 18'18	3°38'58	evening set	1810 Feb 10 09:42	2° Υ 36'33	
minimum elong	1809 Mar 05 07:34	14° Υ 15'02	3°38'52		1810 Feb 13 20:01	30° Υ	
min. Earth dist.	1809 Mar 08 06:45	11° Υ 18'04	0.61724 AU	inferior conj	1810 Feb 16 11:17	27° \approx 11'38	3°43'32
morning rise	1809 Mar 11 18:12	8° Υ 22'34		minimum elong	1810 Feb 16 10:43	27° \approx 13'14	3°43'31
direct	1809 Mar 18 15:15	5° Υ 56'49		min. Earth dist.	1810 Feb 18 21:28	24° \approx 28'54	0.63671 AU
desc. node	1809 Mar 22 22:44	6° Υ 48'32		morning rise	1810 Feb 22 09:59	21° \approx 05'52	
morning max el	1809 Apr 01 18:28	13° Υ 51'11	27°48'36	direct	1810 Mar 01 07:50	18° \approx 20'17	
	1809 Apr 14 17:55	0° Υ		desc. node	1810 Mar 09 19:47	21° \approx 40'13	
	1809 May 02 05:40	0° Υ		morning max el	1810 Mar 15 02:32	26° \approx 15'00	27°38'53
morning set	1809 May 04 21:32	5° Υ 20'19			1810 Mar 18 14:24	0° Υ	
max. Earth dist.	1809 May 10 18:53	17° Υ 46'13	1.32446 AU		1810 Apr 08 07:20	0° Υ	
asc. node	1809 May 11 11:57	19° Υ 18'47		morning set	1810 Apr 18 18:38	19° Υ 24'06	
					1810 Apr 23 22:49	0° Υ	
superior conj	1809 May 12 07:53	21° Υ 07'21	0°08'47	max. Earth dist.	1810 Apr 23 22:54	0° Υ 00'26	1.33099 AU
minimum elong	1809 May 12 07:29	21° Υ 05'07	0°08'42				
behind sun begin	1809 May 12 03:10	20° Υ 41'37		superior conj	1810 Apr 26 15:01	5° Υ 40'59	0°-18'-20
behind sun end	1809 May 12 11:48	21° Υ 28'39		minimum elong	1810 Apr 26 15:55	5° Υ 45'49	0°18'09
	1809 May 16 09:28	0° Υ		asc. node	1810 Apr 28 08:59	9° Υ 26'37	
evening rise	1809 May 19 06:42	6° Υ 12'07		evening rise	1810 May 03 18:24	21° Υ 00'36	
	1809 May 31 20:20	0° Υ			1810 May 08 03:43	0° Υ	
evening max el	1809 Jun 13 16:21	16° Υ 42'11	24°34'47	evening max el	1810 May 26 06:16	27° Υ 11'31	22°59'14
desc. node	1809 Jun 18 21:58	20° Υ 54'27			1810 May 29 12:36	0° Υ	
retrograde	1809 Jun 27 14:14	23° Υ 44'33		desc. node	1810 Jun 05 18:59	3° Υ 33'04	
evening set	1809 Jul 02 13:57	22° Υ 48'34		retrograde	1810 Jun 08 15:30	3° Υ 51'39	
min. Earth dist.	1809 Jul 08 03:26	19° Υ 56'53	0.56949 AU	evening set	1810 Jun 12 03:18	3° Υ 24'54	
inferior conj	1809 Jul 10 22:46	18° Υ 08'37	-4°-49'-6	min. Earth dist.	1810 Jun 19 15:20	0° Υ 04'01	0.55526 AU
minimum elong	1809 Jul 10 19:27	18° Υ 13'59	4°48'49		1810 Jun 19 18:08	30° Υ	
morning rise	1809 Jul 19 04:41	14° Υ 03'40		inferior conj	1810 Jun 21 06:04	29° Υ 07'53	-3°-58'-52
direct	1809 Jul 21 19:42	13° Υ 44'38		minimum elong	1810 Jun 20 22:33	29° Υ 18'49	3°57'10
morning max el	1809 Jul 31 03:15	18° Υ 04'44	19°25'18	morning rise	1810 Jun 29 20:46	25° Υ 15'23	
asc. node	1809 Aug 07 11:11	27° Υ 23'00		direct	1810 Jul 02 17:06	24° Υ 56'13	
	1809 Aug 09 01:41	0° Υ		morning max el	1810 Jul 13 15:07	29° Υ 59'38	20°38'21
morning set	1809 Aug 17 08:32	15° Υ 33'58			1810 Jul 13 15:16	0° Υ	
	1809 Aug 24 13:45	0° Υ		asc. node	1810 Jul 25 08:14	16° Υ 06'51	
				morning set	1810 Aug 01 14:48	0° Υ 12'46	
superior conj	1809 Aug 25 11:26	1° Υ 46'30	1°45'02		1810 Aug 01 12:19	0° Υ	
minimum elong	1809 Aug 25 12:17	1° Υ 50'43	1°45'00				
max. Earth dist.	1809 Aug 31 17:23	13° Υ 39'24	1.37900 AU	superior conj	1810 Aug 09 04:56	15° Υ 52'53	1°44'51
evening rise	1809 Sep 04 12:50	20° Υ 31'37		minimum elong	1810 Aug 09 04:11	15° Υ 49'02	1°44'50
	1809 Sep 10 01:39	0° Υ		max. Earth dist.	1810 Aug 14 00:26	25° Υ 29'26	1.36026 AU
desc. node	1809 Sep 14 21:22	7° Υ 47'30			1810 Aug 16 08:44	0° Υ	
	1809 Sep 30 07:50	0° Υ		evening rise	1810 Aug 18 02:28	3° Υ 15'47	
evening max el	1809 Oct 10 05:31	11° Υ 27'01	25°06'37	desc. node	1810 Sep 01 18:20	28° Υ 04'26	
retrograde	1809 Oct 22 01:42	18° Υ 18'30			1810 Sep 03 00:42	0° Υ	
evening set	1809 Oct 27 19:03	15° Υ 55'11		evening max el	1810 Sep 22 17:23	25° Υ 05'44	26°13'11
min. Earth dist.	1809 Nov 01 07:49	10° Υ 50'36	0.67265 AU		1810 Sep 28 18:16	0° Υ	
inferior conj	1809 Nov 02 08:06	9° Υ 31'08	0°-22'-40	retrograde	1810 Oct 05 09:17	2° Υ 15'33	
minimum elong	1809 Nov 02 08:40	9° Υ 29'17	0°22'26		1810 Oct 11 06:29	30° Υ	
asc. node	1809 Nov 03 10:23	8° Υ 06'00		evening set	1810 Oct 11 16:40	29° Υ 39'22	
morning rise	1809 Nov 07 22:52	3° Υ 29'57		min. Earth dist.	1810 Oct 15 21:49	25° Υ 10'59	0.66485 AU
direct	1809 Nov 11 09:47	2° Υ 21'06		inferior conj	1810 Oct 17 09:22	23° Υ 21'13	-1°-20'-10
morning max el	1809 Nov 18 18:16	6° Υ 31'14	19°40'15	minimum elong	1810 Oct 17 11:29	23° Υ 14'42	1°19'17
greatest brilliancy	1809 Nov 26 20:30	16° Υ 37'20	-0.6m	asc. node	1810 Oct 21 07:26	18° Υ 59'09	
	1809 Dec 05 21:48	0° Υ		morning rise	1810 Oct 23 07:23	17° Υ 29'48	
desc. node	1809 Dec 11 20:39	9° Υ 06'51		direct	1810 Oct 26 08:05	16° Υ 37'27	
morning set	1809 Dec 13 21:56	12° Υ 17'02		morning max el	1810 Nov 02 03:20	20° Υ 23'52	18°48'10
	1809 Dec 25 06:07	0° Υ			1810 Nov 09 15:52	0° Υ	
max. Earth dist.	1809 Dec 26 07:14	1° Υ 39'30	1.44336 AU	morning set	1810 Nov 23 11:55	21° Υ 26'19	
				desc. node	1810 Nov 28 17:39	29° Υ 41'51	
superior conj	1809 Dec 30 15:58	8° Υ 38'02	-1°-45'-51		1810 Nov 28 22:16	0° Υ	
minimum elong	1809 Dec 30 08:24	8° Υ 07'36	1°45'17	max. Earth dist.	1810 Dec 09 00:04	15° Υ 49'31	1.45054 AU
	1810 Jan 12 14:45	0° Υ					
evening rise	1810 Jan 13 11:03	1° \approx 25'36		superior conj	1810 Dec 09 21:33	17° Υ 14'00	-1°-10'-6
asc. node	1810 Jan 30 09:40	28° \approx 04'47		minimum elong	1810 Dec 09 13:20	16° Υ 41'41	1°09'10
evening max el	1810 Feb 01 00:44	29° \approx 52'12	18°18'03		1810 Dec 17 23:29	0° Υ	
	1810 Feb 01 03:50	0° Υ		evening rise	1810 Dec 25 10:29	11° Υ 56'23	

	1811 Jan 05 17:09	0°♊				1812 Jan 02 18:25	0°♊		
evening max el	1811 Jan 15 11:52	13°♊17'34	18°47'00	asc. node		1812 Jan 04 03:45	0°♊38'08		
asc. node	1811 Jan 17 06:42	14°♊56'11		retrograde		1812 Jan 06 02:00	0°♊58'33		
retrograde	1811 Jan 22 05:15	17°♊03'37				1812 Jan 09 05:55	30°♊♌		
evening set	1811 Jan 25 08:42	16°♊07'07		evening set		1812 Jan 09 12:40	29°♌49'07		
inferior conj	1811 Jan 31 02:59	10°♌24'29	3°31'14	inferior conj		1812 Jan 15 02:08	23°♌51'09	3°06'25	
minimum elong	1811 Jan 31 01:07	10°♌30'14	3°30'59	minimum elong		1812 Jan 14 23:36	23°♌59'26	3°05'50	
min. Earth dist.	1811 Feb 01 21:41	8°♌13'41	0.65279 AU	min. Earth dist.		1812 Jan 16 06:10	22°♌19'31	0.66487 AU	
morning rise	1811 Feb 05 16:24	4°♌13'09		morning rise		1812 Jan 20 09:48	17°♌36'57		
direct	1811 Feb 12 07:36	1°♌22'20		direct		1812 Jan 26 13:17	14°♌53'57		
desc. node	1811 Feb 24 16:50	8°♌18'44		morning max el		1812 Feb 07 21:24	22°♌13'49	25°48'19	
morning max el	1811 Feb 25 12:15	9°♌06'40	26°56'09	desc. node		1812 Feb 11 13:53	26°♌13'36		
	1811 Mar 13 21:21	0°♋				1812 Feb 14 17:14	0°♋		
	1811 Mar 31 17:02	0°♋				1812 Mar 06 03:51	0°♋		
morning set	1811 Apr 02 05:42	2°♋54'15		morning set		1812 Mar 15 02:26	15°♋37'29		
max. Earth dist.	1811 Apr 06 16:54	11°♋41'43	1.34200 AU	max. Earth dist.		1812 Mar 18 23:12	22°♋52'32	1.35765 AU	
						1812 Mar 22 14:53	0°♋		
superior conj	1811 Apr 10 16:54	19°♋54'41	0°-46'-12						
minimum elong	1811 Apr 10 19:14	20°♋06'49	0°45'46	superior conj		1812 Mar 24 10:59	3°♋40'23	-1°-13'-21	
asc. node	1811 Apr 15 06:01	29°♋29'09		minimum elong		1812 Mar 24 14:35	3°♋58'31	1°12'47	
	1811 Apr 15 11:51	0°♌		evening rise		1812 Apr 01 10:57	20°♋01'54		
evening rise	1811 Apr 18 04:30	5°♌39'30		asc. node		1812 Apr 01 03:03	19°♋21'37		
	1811 May 01 13:57	0°♌				1812 Apr 06 11:45	0°♌		
evening max el	1811 May 08 02:16	7°♌52'14	21°27'03	evening max el		1812 Apr 19 09:09	19°♌05'46	20°08'35	
retrograde	1811 May 20 06:18	13°♌49'11		retrograde		1812 Apr 29 20:21	24°♌09'22		
evening set	1811 May 22 16:02	13°♌36'01		evening set		1812 May 01 21:21	23°♌58'40		
desc. node	1811 May 23 16:00	13°♌23'09		desc. node		1812 May 09 13:03	20°♌47'42		
inferior conj	1811 Jun 01 01:10	9°♌36'07	-2°-22'-52	inferior conj		1812 May 10 21:30	19°♌59'53	0°-23'-36	
minimum elong	1811 May 31 18:43	9°♌45'09	2°20'44	minimum elong		1812 May 10 20:24	20°♌01'31	0°23'13	
min. Earth dist.	1811 Jun 01 03:35	9°♌32'44	0.54917 AU	min. Earth dist.		1812 May 12 16:47	18°♌55'32	0.55276 AU	
morning rise	1811 Jun 09 21:50	5°♌39'00		morning rise		1812 May 19 16:58	15°♌39'40		
direct	1811 Jun 13 03:46	5°♌16'01		direct		1812 May 23 16:42	15°♌05'00		
morning max el	1811 Jun 25 15:49	11°♌11'08	22°09'27	morning max el		1812 Jun 06 08:23	21°♌47'56	23°50'52	
	1811 Jul 09 08:06	0°♍				1812 Jun 13 11:48	0°♌		
asc. node	1811 Jul 12 05:17	5°♍21'35		asc. node		1812 Jun 28 02:19	24°♌58'25		
morning set	1811 Jul 17 00:42	15°♍03'19		morning set		1812 Jun 30 12:21	29°♌59'06		
						1812 Jun 30 12:32	0°♍		
superior conj	1811 Jul 24 06:45	0°♌24'33	1°37'51						
minimum elong	1811 Jul 24 04:55	0°♌14'53	1°37'43	superior conj		1812 Jul 07 13:59	15°♍11'36	1°25'20	
	1811 Jul 24 02:06	0°♌		minimum elong		1812 Jul 07 11:38	14°♍58'53	1°25'02	
max. Earth dist.	1811 Jul 27 15:56	7°♌26'54	1.34488 AU	max. Earth dist.		1812 Jul 09 16:47	19°♍44'09	1.33342 AU	
evening rise	1811 Aug 01 08:14	16°♌47'27				1812 Jul 14 15:11	0°♌		
	1811 Aug 08 11:53	0°♎		evening rise		1812 Jul 15 01:43	0°♌53'05		
desc. node	1811 Aug 19 15:21	18°♎00'01				1812 Jul 31 11:15	0°♎		
	1811 Aug 28 10:33	0°♎		desc. node		1812 Aug 05 12:22	7°♎24'18		
evening max el	1811 Sep 05 05:41	8°♎38'48	27°01'35	evening max el		1812 Aug 17 17:08	21°♎53'57	27°24'48	
retrograde	1811 Sep 18 11:23	15°♎56'11		retrograde		1812 Aug 31 07:27	29°♎11'41		
evening set	1811 Sep 25 06:55	13°♎13'33		evening set		1812 Sep 07 10:57	26°♎32'01		
min. Earth dist.	1811 Sep 29 05:07	9°♎21'58	0.65361 AU	min. Earth dist.		1812 Sep 11 03:23	23°♎15'13	0.63878 AU	
inferior conj	1811 Oct 01 04:46	7°♎05'54	-2°-18'-23	inferior conj		1812 Sep 13 15:46	20°♎39'08	-3°-14'-46	
minimum elong	1811 Oct 01 08:27	6°♎55'24	2°17'00	minimum elong		1812 Sep 13 20:42	20°♎26'23	3°13'14	
morning rise	1811 Oct 07 11:34	1°♎27'20		morning rise		1812 Sep 20 08:36	15°♎17'00		
asc. node	1811 Oct 08 04:29	1°♎09'24		direct		1812 Sep 22 20:22	14°♎46'12		
direct	1811 Oct 10 04:30	0°♎47'34		asc. node		1812 Sep 24 01:32	14°♎53'40		
morning max el	1811 Oct 16 17:15	4°♎19'26	18°12'27	morning max el		1812 Sep 29 09:21	18°♎11'54	17°54'08	
	1811 Nov 03 00:54	0°♏				1812 Oct 07 23:09	0°♎		
morning set	1811 Nov 04 06:45	2°♏02'34		morning set		1812 Oct 16 04:35	13°♎57'31		
desc. node	1811 Nov 15 14:40	20°♏24'14				1812 Oct 25 15:32	0°♏		
superior conj	1811 Nov 19 00:19	25°♏48'39	0°-22'-38	superior conj		1812 Oct 28 20:50	5°♏18'37	0°24'19	
minimum elong	1811 Nov 18 21:24	25°♏37'07	0°22'16	minimum elong		1812 Oct 28 23:27	5°♏29'17	0°23'57	
	1811 Nov 21 16:01	0°♐		desc. node		1812 Nov 01 11:42	11°♏10'50		
max. Earth dist.	1811 Nov 21 18:56	0°♐11'28	1.45041 AU	max. Earth dist.		1812 Nov 03 13:09	14°♏28'44	1.44299 AU	
evening rise	1811 Dec 05 11:21	21°♐33'21				1812 Nov 13 11:03	0°♐		
	1811 Dec 10 21:37	0°♑		evening rise		1812 Nov 13 21:12	0°♐39'04		
greatest brilliancy	1811 Dec 21 13:52	16°♑12'04	-0.7m			1812 Dec 03 15:21	0°♑		
evening max el	1811 Dec 29 19:28	26°♑46'21	19°32'46	greatest brilliancy		1812 Dec 05 22:49	3°♑07'58	-0.5m	

evening max el	1812 Dec 11 21:59	10°☾16'35	20°33'05	desc. node	1813 Oct 19 08:44	1°♌57'56	
retrograde	1812 Dec 19 23:54	15°☾02'34		evening rise	1813 Oct 24 08:04	9°♌51'46	
asc. node	1812 Dec 21 00:48	14°☾56'32			1813 Nov 06 15:33	0°♏	
evening set	1812 Dec 23 19:30	13°☾38'35		greatest brilliancy	1813 Nov 19 22:51	18°♏16'38	-0.4m
inferior conj	1812 Dec 29 06:09	7°☾28'08	2°32'02	evening max el	1813 Nov 24 18:45	23°♏47'00	21°44'50
minimum elong	1812 Dec 29 03:32	7°☾37'02	2°31'14	retrograde	1813 Dec 03 20:54	29°♏11'37	
min. Earth dist.	1812 Dec 29 21:02	6°☾37'26	0.67293 AU	asc. node	1813 Dec 07 21:51	27°♏42'07	
morning rise	1813 Jan 03 11:06	1°☾12'58		evening set	1813 Dec 08 03:18	27°♏31'37	
	1813 Jan 05 01:16	30°♊		inferior conj	1813 Dec 13 12:49	21°♏12'07	1°50'04
direct	1813 Jan 09 00:08	28°♏46'54		minimum elong	1813 Dec 13 10:36	21°♏19'47	1°49'16
	1813 Jan 13 08:32	0°☾		min. Earth dist.	1813 Dec 13 16:01	21°♏01'03	0.67724 AU
morning max el	1813 Jan 20 05:51	5°☾29'00	24°25'09	morning rise	1813 Dec 18 17:41	14°♏57'48	
desc. node	1813 Jan 28 10:55	15°☾02'49		direct	1813 Dec 23 15:26	12°♏53'23	
	1813 Feb 08 04:37	0°♊		morning max el	1814 Jan 02 15:31	18°♏49'20	22°56'39
morning set	1813 Feb 25 03:17	27°♊18'39		greatest brilliancy	1814 Jan 07 09:12	24°♏06'41	-0.3m
	1813 Feb 26 15:58	0°♋			1814 Jan 12 00:21	0°☾	
max. Earth dist.	1813 Feb 28 20:45	3°♋56'28	1.37716 AU	desc. node	1814 Jan 15 07:58	4°☾30'18	
					1814 Feb 01 08:37	0°♊	
superior conj	1813 Mar 07 17:58	16°♋49'14	-1°-37'-41	morning set	1814 Feb 06 01:59	7°♊41'11	
minimum elong	1813 Mar 07 22:13	17°♋09'44	1°37'12	max. Earth dist.	1814 Feb 10 16:04	15°♊25'54	1.39857 AU
	1813 Mar 14 10:48	0°♌					
evening rise	1813 Mar 16 11:22	4°♌01'08		superior conj	1814 Feb 18 09:29	29°♊09'26	-1°-56'-10
asc. node	1813 Mar 19 00:06	8°♌59'24		minimum elong	1814 Feb 18 12:59	29°♊25'33	1°55'57
	1813 Apr 01 04:18	0°♍			1814 Feb 18 20:30	0°♋	
evening max el	1813 Apr 02 03:26	0°♍58'50	19°08'52	evening rise	1814 Feb 28 02:44	17°♋28'36	
retrograde	1813 Apr 10 23:05	5°♍15'05		asc. node	1814 Mar 05 21:09	28°♋16'09	
evening set	1813 Apr 13 02:10	5°♍01'13			1814 Mar 06 20:29	0°♌	
inferior conj	1813 Apr 21 08:30	0°♍49'12	1°24'51	evening max el	1814 Mar 16 06:51	13°♌26'27	18°29'22
minimum elong	1813 Apr 21 11:40	0°♍43'48	1°23'48	retrograde	1814 Mar 23 20:31	17°♌09'51	
	1813 Apr 22 13:15	30°♎		evening set	1814 Mar 26 04:54	16°♌49'26	
min. Earth dist.	1813 Apr 24 07:53	28°♌48'18	0.56519 AU	inferior conj	1814 Apr 02 16:25	12°♌17'57	2°42'12
desc. node	1813 Apr 26 10:05	27°♌30'36		minimum elong	1814 Apr 02 20:23	12°♌10'03	2°41'14
morning rise	1813 Apr 29 17:04	25°♌55'00		min. Earth dist.	1814 Apr 06 02:46	9°♌34'58	0.58376 AU
direct	1813 May 04 17:08	24°♌56'47		morning rise	1814 Apr 10 07:41	6°♌52'19	
	1813 May 16 10:17	0°♍		desc. node	1814 Apr 13 07:08	5°♌43'16	
morning max el	1813 May 18 22:52	2°♍14'58	25°29'13	direct	1814 Apr 16 07:37	5°♌19'34	
	1813 Jun 07 11:49	0°♎		morning max el	1814 Apr 30 16:49	12°♌59'54	26°48'53
asc. node	1813 Jun 14 23:22	14°♎51'08			1814 May 14 02:41	0°♍	
morning set	1813 Jun 15 00:06	14°♎54'59		morning set	1814 May 30 10:19	29°♍45'26	
	1813 Jun 21 23:08	0°☾			1814 May 30 13:06	0°♎	
				asc. node	1814 Jun 01 20:26	4°♎54'21	
superior conj	1813 Jun 22 00:25	0°☾07'03	1°08'16				
minimum elong	1813 Jun 21 22:04	29°♎54'09	1°07'52	superior conj	1814 Jun 06 12:10	15°♎04'44	0°47'28
max. Earth dist.	1813 Jun 23 00:51	2°☾20'39	1.32593 AU	minimum elong	1814 Jun 06 10:16	14°♎54'16	0°47'05
evening rise	1813 Jun 29 03:27	15°☾22'27		max. Earth dist.	1814 Jun 06 12:39	15°♎07'24	1.32227 AU
	1813 Jul 06 15:17	0°♏		evening rise	1814 Jun 13 10:42	0°☾06'57	
desc. node	1813 Jul 23 09:24	26°♏04'14			1814 Jun 13 09:23	0°☾	
	1813 Jul 26 15:29	0°♐			1814 Jun 29 20:01	0°♏	
evening max el	1813 Jul 31 01:11	4°♐37'09	27°17'10	desc. node	1814 Jul 10 06:24	13°♏41'43	
retrograde	1813 Aug 13 20:48	11°♐52'44		evening max el	1814 Jul 13 03:21	16°♏37'45	26°36'26
evening set	1813 Aug 21 01:01	9°♐28'15		retrograde	1814 Jul 27 02:43	23°♏50'59	
min. Earth dist.	1813 Aug 24 15:11	6°♐39'00	0.62069 AU	evening set	1814 Aug 02 20:37	21°♏55'16	
inferior conj	1813 Aug 27 15:20	3°♐53'23	-4°-5'-13	min. Earth dist.	1814 Aug 06 16:51	19°♏19'16	0.60038 AU
minimum elong	1813 Aug 27 20:35	3°♐41'16	4°04'01	inferior conj	1814 Aug 10 00:03	16°♏40'16	-4°-42'-55
	1813 Sep 01 10:33	30°♑		minimum elong	1814 Aug 10 03:50	16°♏32'38	4°42'27
morning rise	1813 Sep 03 18:55	28°♏51'13		morning rise	1814 Aug 17 14:22	12°♏00'42	
direct	1813 Sep 06 04:11	28°♏26'24		direct	1814 Aug 19 23:54	11°♏39'29	
asc. node	1813 Sep 10 22:36	0°♐08'23		morning max el	1814 Aug 27 12:04	15°♏18'48	18°13'07
	1813 Sep 10 17:45	0°♐		asc. node	1814 Aug 28 19:39	16°♏40'44	
morning max el	1813 Sep 13 00:39	1°♐54'12	17°54'00		1814 Sep 06 16:44	0°♐	
morning set	1813 Sep 28 23:07	26°♐51'24		morning set	1814 Sep 12 08:37	10°♐28'35	
	1813 Sep 30 16:53	0°♑					
superior conj	1813 Oct 09 20:14	16°♑08'10	1°01'54	superior conj	1814 Sep 21 20:59	28°♐12'43	1°27'20
minimum elong	1813 Oct 10 00:50	16°♑27'54	1°01'20	minimum elong	1814 Sep 22 00:48	28°♐29'58	1°26'58
					1814 Sep 22 20:46	0°♑	
max. Earth dist.	1813 Oct 17 03:20	28°♑21'16	1.42925 AU	max. Earth dist.	1814 Sep 29 11:40	11°♑33'51	1.41101 AU
	1813 Oct 18 03:34	0°♒		evening rise	1814 Oct 04 11:37	19°♑52'12	

desc. node	1814 Oct 06 05:46	22°♄42'32		minimum elong	1815 Sep 04 19:32	11°♄25'07	1°41'17
	1814 Oct 10 20:43	0°♄		max. Earth dist.	1815 Sep 11 15:44	24°♄02'50	1.39067 AU
	1814 Nov 01 00:10	0°♄			1815 Sep 15 01:15	0°♄	
greatest brilliancy	1814 Nov 01 19:32	0°♄59'43	-0.2m	evening rise	1815 Sep 15 14:57	0°♄58'50	
evening max el	1814 Nov 07 10:36	7°♄19'49	23°03'31	desc. node	1815 Sep 23 02:46	13°♄20'11	
retrograde	1814 Nov 17 15:31	13°♄23'03			1815 Oct 04 04:28	0°♄	
evening set	1814 Nov 22 10:26	11°♄26'06		evening max el	1815 Oct 20 23:31	20°♄56'18	24°23'13
asc. node	1814 Nov 24 18:53	9°♄02'43		retrograde	1815 Nov 01 06:23	27°♄32'32	
inferior conj	1814 Nov 27 20:18	5°♄01'28	1°02'06	evening set	1815 Nov 06 15:16	25°♄18'40	
minimum elong	1814 Nov 27 18:54	5°♄06'17	1°01'32	min. Earth dist.	1815 Nov 11 08:46	19°♄53'39	0.67558 AU
min. Earth dist.	1814 Nov 27 12:46	5°♄27'28	0.67808 AU	asc. node	1815 Nov 11 15:54	19°♄29'45	
	1814 Dec 01 20:40	30°♄		inferior conj	1815 Nov 12 02:47	18°♄53'13	0°09'22
morning rise	1814 Dec 03 03:23	28°♄50'06		minimum elong	1815 Nov 12 02:33	18°♄53'59	0°09'16
direct	1814 Dec 07 10:27	27°♄08'30		transit middle	1815 Nov 12 02:33	18°♄53'59	0°09'16
	1814 Dec 13 17:45	0°♄		transit begin	1815 Nov 12 00:18	19°♄01'32	
morning max el	1814 Dec 16 05:44	2°♄17'35	21°31'45	transit end	1815 Nov 12 04:48	18°♄46'26	
greatest brilliancy	1814 Dec 21 05:57	7°♄59'34	-0.4m	morning rise	1815 Nov 17 14:11	12°♄47'20	
desc. node	1815 Jan 02 05:01	24°♄25'44		direct	1815 Nov 21 07:58	11°♄27'12	
	1815 Jan 05 23:27	0°♄		morning max el	1815 Nov 29 03:10	15°♄55'56	20°17'00
morning set	1815 Jan 16 19:36	16°♄41'24		greatest brilliancy	1815 Dec 05 17:52	23°♄51'10	-0.6m
max. Earth dist.	1815 Jan 23 15:58	27°♄45'51	1.41919 AU		1815 Dec 10 04:07	0°♄	
	1815 Jan 25 00:20	0°♄		desc. node	1815 Dec 20 02:04	14°♄41'01	
				morning set	1815 Dec 26 17:20	24°♄50'53	
superior conj	1815 Jan 31 04:28	10°♄29'38	-2°-4'-36		1815 Dec 30 00:50	0°♄	
minimum elong	1815 Jan 31 04:57	10°♄31'42	2°04'37	max. Earth dist.	1816 Jan 05 23:51	11°♄01'02	1.43616 AU
evening rise	1815 Feb 11 05:30	0°♄					
	1815 Feb 11 01:53	0°♄		superior conj	1816 Jan 11 22:13	20°♄39'52	-1°-58'-4
asc. node	1815 Feb 20 18:11	17°♄05'10		minimum elong	1816 Jan 11 17:27	20°♄20'14	1°57'51
evening max el	1815 Feb 27 16:18	26°♄20'35	18°09'49		1816 Jan 17 12:13	0°♄	
retrograde	1815 Mar 06 11:27	29°♄47'07		evening rise	1816 Jan 24 15:27	12°♄16'27	
evening set	1815 Mar 09 01:14	29°♄18'01			1816 Feb 04 01:31	0°♄	
inferior conj	1815 Mar 15 20:44	24°♄25'20	3°26'17	asc. node	1816 Feb 07 15:12	5°♄17'51	
minimum elong	1815 Mar 15 23:13	24°♄19'35	3°25'58	evening max el	1816 Feb 11 04:38	9°♄32'43	18°09'40
min. Earth dist.	1815 Mar 19 03:41	21°♄23'55	0.60507 AU	retrograde	1816 Feb 17 15:58	12°♄57'03	
morning rise	1815 Mar 22 17:57	18°♄38'03		evening set	1816 Feb 20 10:47	12°♄17'59	
direct	1815 Mar 29 10:20	16°♄29'06		inferior conj	1816 Feb 26 17:55	7°♄04'28	3°43'16
desc. node	1815 Mar 31 04:10	16°♄37'29		minimum elong	1816 Feb 26 18:22	7°♄03'15	3°43'16
morning max el	1815 Apr 12 16:44	24°♄20'58	27°37'18	min. Earth dist.	1816 Feb 29 12:47	4°♄09'21	0.62591 AU
	1815 Apr 17 19:58	0°♄		morning rise	1816 Mar 03 23:46	1°♄04'03	
	1815 May 07 08:50	0°♄			1816 Mar 05 14:17	30°♄	
morning set	1815 May 14 17:10	14°♄23'43		direct	1816 Mar 10 22:28	28°♄27'54	
asc. node	1815 May 19 17:28	25°♄02'54			1816 Mar 16 15:59	0°♄	
max. Earth dist.	1815 May 21 00:27	27°♄51'52	1.32248 AU	desc. node	1816 Mar 17 01:13	0°♄12'05	
				morning max el	1816 Mar 24 22:16	6°♄23'12	27°48'48
superior conj	1815 May 21 23:30	29°♄58'07	0°23'37		1816 Apr 11 20:30	0°♄	
minimum elong	1815 May 21 22:27	29°♄52'21	0°23'23	morning set	1816 Apr 27 18:35	28°♄42'50	
	1815 May 21 23:51	0°♄			1816 Apr 28 09:47	0°♄	
evening rise	1815 May 28 21:12	14°♄58'39		max. Earth dist.	1816 May 03 08:27	10°♄21'15	1.32671 AU
	1815 Jun 05 09:41	0°♄					
evening max el	1815 Jun 24 22:31	27°♄52'06	25°25'37	superior conj	1816 May 05 08:43	14°♄41'21	0°-2'-33
desc. node	1815 Jun 27 03:26	29°♄50'23		minimum elong	1816 May 05 08:50	14°♄42'01	0°02'32
	1815 Jun 27 08:05	0°♄		behind sun begin	1816 May 05 03:42	14°♄14'11	
retrograde	1815 Jul 08 23:01	5°♄00'27		behind sun end	1816 May 05 13:58	15°♄09'53	
evening set	1815 Jul 14 17:16	3°♄42'58		asc. node	1816 May 05 14:30	15°♄12'42	
min. Earth dist.	1815 Jul 19 10:33	1°♄01'43	0.58001 AU	evening rise	1816 May 12 09:01	29°♄50'52	
	1815 Jul 20 22:24	30°♄			1816 May 12 10:44	0°♄	
inferior conj	1815 Jul 22 14:23	28°♄49'36	-4°-57'-6		1816 May 29 06:33	0°♄	
minimum elong	1815 Jul 22 14:11	28°♄49'57	4°57'07	evening max el	1816 Jun 05 12:48	8°♄31'17	23°54'44
morning rise	1815 Jul 30 14:48	24°♄32'40		desc. node	1816 Jun 13 00:25	13°♄56'32	
direct	1815 Aug 02 03:07	24°♄13'16		retrograde	1816 Jun 19 07:01	15°♄25'49	
morning max el	1815 Aug 10 16:20	28°♄15'17	18°52'46	evening set	1816 Jun 23 15:13	14°♄44'15	
	1815 Aug 12 08:57	0°♄		min. Earth dist.	1816 Jun 29 23:30	11°♄41'39	0.56267 AU
asc. node	1815 Aug 15 16:41	4°♄14'38		inferior conj	1816 Jul 02 08:30	10°♄14'32	-4°-33'-48
morning set	1815 Aug 27 04:38	24°♄36'14		minimum elong	1816 Jul 02 03:00	10°♄23'00	4°33'01
	1815 Aug 29 22:28	0°♄		morning rise	1816 Jul 10 18:15	6°♄16'03	
				direct	1816 Jul 13 11:24	5°♄57'05	
superior conj	1815 Sep 04 17:34	11°♄15'46	1°41'24	morning max el	1816 Jul 23 10:34	10°♄34'19	19°53'47

asc. node	1816 Aug 01 13:44	22° $\overline{36}$ 27			1817 Jul 12 09:31	0° $\overline{36}$	
	1816 Aug 05 16:57	0° $\overline{36}$		asc. node	1817 Jul 19 10:47	11° $\overline{36}$ 34'32	
morning set	1816 Aug 10 07:55	9° $\overline{36}$ 05'54		morning set	1817 Jul 25 16:00	23° $\overline{36}$ 50'41	
					1817 Jul 28 14:49	0° $\overline{36}$	
superior conj	1816 Aug 18 04:42	25° $\overline{36}$ 02'36	1°45'52	superior conj	1817 Aug 02 02:09	9° $\overline{36}$ 20'58	1°42'37
minimum elong	1816 Aug 18 04:49	25° $\overline{36}$ 03'11	1°45'52	minimum elong	1817 Aug 02 00:52	9° $\overline{36}$ 14'20	1°42'34
	1816 Aug 20 17:00	0° $\overline{36}$		max. Earth dist.	1817 Aug 06 06:56	17° $\overline{36}$ 53'36	1.35328 AU
max. Earth dist.	1816 Aug 23 20:22	6° $\overline{36}$ 01'40	1.37077 AU	evening rise	1817 Aug 10 14:19	26° $\overline{36}$ 16'03	
evening rise	1816 Aug 27 17:16	13° $\overline{36}$ 10'18			1817 Aug 12 14:14	0° $\overline{36}$	
	1816 Sep 06 14:31	0° $\overline{36}$		desc. node	1817 Aug 26 20:46	23° $\overline{36}$ 55'24	
desc. node	1816 Sep 08 23:46	3° $\overline{36}$ 46'19			1817 Aug 31 00:12	0° $\overline{36}$	
	1816 Sep 28 03:39	0° $\overline{36}$		evening max el	1817 Sep 14 23:39	18° $\overline{36}$ 13'32	26°36'25
evening max el	1816 Oct 02 11:30	4° $\overline{36}$ 35'48	25°36'43	retrograde	1817 Sep 27 21:46	25° $\overline{36}$ 27'09	
retrograde	1816 Oct 14 16:36	11° $\overline{36}$ 35'41		evening set	1817 Oct 04 10:50	22° $\overline{36}$ 47'08	
evening set	1816 Oct 20 16:02	9° $\overline{36}$ 06'34		min. Earth dist.	1817 Oct 08 12:55	18° $\overline{36}$ 34'43	0.66052 AU
min. Earth dist.	1816 Oct 25 01:37	4° $\overline{36}$ 17'07	0.66978 AU	inferior conj	1817 Oct 10 05:34	16° $\overline{36}$ 33'10	-1°-44'-52
inferior conj	1816 Oct 26 06:30	2° $\overline{36}$ 44'43	0°-46'-49	minimum elong	1817 Oct 10 08:21	16° $\overline{36}$ 24'50	1°43'46
minimum elong	1816 Oct 26 07:43	2° $\overline{36}$ 40'51	0°46'18	asc. node	1817 Oct 15 10:01	11° $\overline{36}$ 19'23	
	1816 Oct 28 11:55	30° $\overline{36}$		morning rise	1817 Oct 16 07:09	10° $\overline{36}$ 47'03	
asc. node	1816 Oct 28 12:57	29° $\overline{36}$ 57'01		direct	1817 Oct 19 04:19	10° $\overline{36}$ 00'27	
morning rise	1816 Nov 01 00:08	26° $\overline{36}$ 47'11		morning max el	1817 Oct 25 19:51	13° $\overline{36}$ 39'13	18°31'00
direct	1816 Nov 04 06:32	25° $\overline{36}$ 45'37			1817 Nov 06 15:41	0° $\overline{36}$	
morning max el	1816 Nov 11 08:20	29° $\overline{36}$ 44'09	19°16'08	morning set	1817 Nov 14 20:50	13° $\overline{36}$ 06'56	
	1816 Nov 11 14:34	0° $\overline{36}$		desc. node	1817 Nov 22 20:05	25° $\overline{36}$ 49'04	
greatest brilliancy	1816 Nov 21 09:07	12° $\overline{36}$ 48'24	-0.7m		1817 Nov 25 11:34	0° $\overline{36}$	
	1816 Dec 02 15:14	0° $\overline{36}$		superior conj	1817 Nov 30 15:58	8° $\overline{36}$ 09'31	0°-50'-42
morning set	1816 Dec 04 18:54	3° $\overline{36}$ 20'35		minimum elong	1817 Nov 30 09:32	7° $\overline{36}$ 44'13	0°49'54
desc. node	1816 Dec 05 23:04	5° $\overline{36}$ 10'09		max. Earth dist.	1817 Dec 01 09:22	9° $\overline{36}$ 17'50	1.45137 AU
max. Earth dist.	1816 Dec 18 14:43	24° $\overline{36}$ 58'10	1.44731 AU		1817 Dec 14 13:10	0° $\overline{36}$	
				evening rise	1817 Dec 16 17:49	3° $\overline{36}$ 28'18	
superior conj	1816 Dec 21 14:20	29° $\overline{36}$ 41'44	-1°-32'-46		1818 Jan 02 22:34	0° $\overline{36}$	
minimum elong	1816 Dec 21 05:38	29° $\overline{36}$ 07'13	1°31'57	evening max el	1818 Jan 08 02:45	6° $\overline{36}$ 22'00	19°04'27
	1816 Dec 21 18:56	0° $\overline{36}$		asc. node	1818 Jan 11 09:17	9° $\overline{36}$ 06'50	
evening rise	1817 Jan 05 04:19	23° $\overline{36}$ 20'54		retrograde	1818 Jan 15 00:54	10° $\overline{36}$ 18'18	
	1817 Jan 09 04:42	0° $\overline{36}$		evening set	1818 Jan 18 07:15	9° $\overline{36}$ 16'23	
evening max el	1817 Jan 24 16:55	22° $\overline{36}$ 54'45	18°28'13	inferior conj	1818 Jan 23 23:10	3° $\overline{36}$ 26'37	3°22'04
asc. node	1817 Jan 24 12:14	22° $\overline{36}$ 42'45		minimum elong	1818 Jan 23 20:57	3° $\overline{36}$ 33'40	3°21'40
retrograde	1817 Jan 31 05:42	26° $\overline{36}$ 29'42		min. Earth dist.	1818 Jan 25 11:22	1° $\overline{36}$ 32'13	0.65839 AU
evening set	1817 Feb 03 05:48	25° $\overline{36}$ 39'44			1818 Jan 26 17:45	30° $\overline{36}$	
inferior conj	1817 Feb 09 03:54	20° $\overline{36}$ 06'52	3°40'05	morning rise	1818 Jan 29 09:44	27° $\overline{36}$ 13'42	
minimum elong	1817 Feb 09 02:42	20° $\overline{36}$ 10'23	3°39'59	direct	1818 Feb 04 20:15	24° $\overline{36}$ 25'11	
min. Earth dist.	1817 Feb 11 07:24	17° $\overline{36}$ 36'46	0.64403 AU		1818 Feb 15 14:43	0° $\overline{36}$	
morning rise	1817 Feb 14 22:14	13° $\overline{36}$ 58'37		morning max el	1818 Feb 17 17:12	2° $\overline{36}$ 00'50	26°29'54
direct	1817 Feb 21 18:04	11° $\overline{36}$ 09'18		desc. node	1818 Feb 18 19:19	3° $\overline{36}$ 08'06	
desc. node	1817 Mar 03 22:16	15° $\overline{36}$ 53'38			1818 Mar 10 18:59	0° $\overline{36}$	
morning max el	1817 Mar 07 07:16	19° $\overline{36}$ 00'08	27°24'24	morning set	1818 Mar 25 17:25	25° $\overline{36}$ 45'41	
	1817 Mar 16 15:25	0° $\overline{36}$			1818 Mar 27 22:43	0° $\overline{36}$	
	1817 Apr 04 19:17	0° $\overline{36}$		max. Earth dist.	1818 Mar 29 22:10	3° $\overline{36}$ 51'49	1.34818 AU
morning set	1817 Apr 11 11:50	12° $\overline{36}$ 33'38					
max. Earth dist.	1817 Apr 16 08:47	22° $\overline{36}$ 23'10	1.33519 AU	superior conj	1818 Apr 03 12:48	13° $\overline{36}$ 10'08	0°-57'-54
				minimum elong	1818 Apr 03 15:42	13° $\overline{36}$ 25'06	0°57'23
superior conj	1817 Apr 19 13:53	29° $\overline{36}$ 07'30	0°-30'-7	asc. node	1818 Apr 09 08:34	25° $\overline{36}$ 17'52	
minimum elong	1817 Apr 19 15:23	29° $\overline{36}$ 15'29	0°29'49	evening rise	1818 Apr 11 05:07	29° $\overline{36}$ 09'21	
	1817 Apr 19 23:47	0° $\overline{36}$			1818 Apr 11 14:57	0° $\overline{36}$	
asc. node	1817 Apr 22 11:31	5° $\overline{36}$ 18'58		evening max el	1818 Apr 30 04:30	29° $\overline{36}$ 53'39	20°51'26
evening rise	1817 Apr 26 20:17	14° $\overline{36}$ 36'28			1818 Apr 30 07:08	0° $\overline{36}$	
	1817 May 04 15:27	0° $\overline{36}$		retrograde	1818 May 11 16:03	5° $\overline{36}$ 28'48	
evening max el	1817 May 18 04:23	19° $\overline{36}$ 01'28	22°18'45	evening set	1818 May 13 20:02	5° $\overline{36}$ 17'37	
desc. node	1817 May 30 21:26	25° $\overline{36}$ 25'03		desc. node	1818 May 17 18:30	4° $\overline{36}$ 06'03	
retrograde	1817 May 31 02:43	25° $\overline{36}$ 25'10		inferior conj	1818 May 23 02:56	1° $\overline{36}$ 19'49	-1°-33'-1
evening set	1817 Jun 03 01:48	25° $\overline{36}$ 05'48		minimum elong	1818 May 22 22:33	1° $\overline{36}$ 26'04	1°31'28
min. Earth dist.	1817 Jun 11 10:58	21° $\overline{36}$ 28'59	0.55163 AU	min. Earth dist.	1818 May 23 23:24	0° $\overline{36}$ 50'41	0.54952 AU
inferior conj	1817 Jun 12 09:13	20° $\overline{36}$ 57'36	-3°-22'-58		1818 May 25 11:39	30° $\overline{36}$	
minimum elong	1817 Jun 12 01:22	21° $\overline{36}$ 08'40	3°20'47	morning rise	1818 Jun 01 00:17	27° $\overline{36}$ 15'04	
morning rise	1817 Jun 21 03:03	17° $\overline{36}$ 05'51		direct	1818 Jun 04 12:25	26° $\overline{36}$ 48'35	
direct	1817 Jun 24 02:59	16° $\overline{36}$ 45'36					
morning max el	1817 Jul 05 17:24	22° $\overline{36}$ 09'54	21°15'15				

	1818 Jun 13 18:45	0°♊		min. Earth dist.	1819 May 05 13:43	10°♌23'03	0.55702 AU
morning max el	1818 Jun 17 14:12	3°♊04'59	22°52'06	morning rise	1819 May 11 20:13	7°♌18'09	
	1818 Jul 05 19:43	0°♋		direct	1819 May 16 05:42	6°♌35'00	
asc. node	1818 Jul 06 07:50	0°♋59'33		morning max el	1819 May 30 05:18	13°♌35'36	24°33'56
morning set	1818 Jul 10 02:50	8°♋44'13			1819 Jun 11 23:45	0°♊	
				asc. node	1819 Jun 23 04:53	20°♊44'25	
superior conj	1818 Jul 17 06:35	24°♋00'23	1°33'09	morning set	1819 Jun 24 14:45	23°♊41'24	
minimum elong	1818 Jul 17 04:27	23°♋49'04	1°32'57		1819 Jun 27 13:30	0°♋	
max. Earth dist.	1818 Jul 20 02:24	29°♋58'19	1.33946 AU				
	1818 Jul 20 02:43	0°♌		superior conj	1819 Jul 01 15:28	8°♋52'52	1°18'37
evening rise	1818 Jul 25 01:30	10°♌03'21		minimum elong	1819 Jul 01 13:03	8°♋39'44	1°18'16
	1818 Aug 04 23:54	0°♍		max. Earth dist.	1819 Jul 03 06:30	12°♋24'14	1.32972 AU
desc. node	1818 Aug 13 17:48	13°♍39'16		evening rise	1819 Jul 08 22:55	24°♋21'11	
	1818 Aug 26 19:19	0°♎			1819 Jul 11 18:50	0°♌	
evening max el	1818 Aug 28 11:33	1°♎39'46	27°14'53		1819 Jul 29 14:19	0°♍	
retrograde	1818 Sep 10 21:28	8°♎58'35		desc. node	1819 Jul 31 14:50	2°♍47'17	
evening set	1818 Sep 17 21:09	6°♎15'28		evening max el	1819 Aug 10 21:48	14°♍43'19	27°25'33
min. Earth dist.	1818 Sep 21 16:30	2°♎39'30	0.64769 AU	retrograde	1819 Aug 24 15:04	22°♍01'04	
inferior conj	1818 Sep 23 21:42	0°♎13'36	-2°-42'-45	evening set	1819 Aug 31 19:48	19°♍26'13	
minimum elong	1818 Sep 24 01:59	0°♎01'52	2°41'15	min. Earth dist.	1819 Sep 04 10:35	16°♍22'16	0.63142 AU
	1818 Sep 24 02:40	30°♏♍		inferior conj	1819 Sep 07 04:15	13°♍40'19	-3°-37'-15
morning rise	1818 Sep 30 08:41	24°♏41'56		minimum elong	1819 Sep 07 09:29	13°♍27'24	3°35'47
asc. node	1818 Oct 02 07:04	24°♏08'51		morning rise	1819 Sep 14 01:38	8°♍26'17	
direct	1818 Oct 02 23:01	24°♏06'31		direct	1819 Sep 16 11:51	7°♍58'30	
morning max el	1818 Oct 09 11:08	27°♏34'47	18°02'34	asc. node	1819 Sep 19 04:06	8°♍33'03	
	1818 Oct 11 15:05	0°♐		morning max el	1819 Sep 23 03:17	11°♍24'24	17°51'43
morning set	1818 Oct 27 03:44	24°♐18'25			1819 Oct 05 15:42	0°♎	
	1818 Oct 30 13:35	0°♑		morning set	1819 Oct 09 11:09	6°♎40'47	
desc. node	1818 Nov 09 17:05	16°♑33'37					
				superior conj	1819 Oct 21 07:54	27°♎05'40	0°41'40
superior conj	1818 Nov 10 00:17	17°♑02'28	0°-2'-1	minimum elong	1819 Oct 21 11:49	27°♎21'56	0°41'09
minimum elong	1818 Nov 10 00:02	17°♑01'29	0°01'59		1819 Oct 23 01:56	0°♑	
behind sun begin	1818 Nov 09 13:31	16°♑19'20		desc. node	1819 Oct 27 14:08	7°♑21'06	
behind sun end	1818 Nov 10 10:34	17°♑43'35		max. Earth dist.	1819 Oct 27 20:15	7°♑45'42	1.43785 AU
max. Earth dist.	1818 Nov 14 04:04	23°♑39'04	1.44804 AU	evening rise	1819 Nov 05 18:51	21°♑50'44	
	1818 Nov 18 05:01	0°♒			1819 Nov 11 02:47	0°♒	
evening rise	1818 Nov 26 10:43	12°♒47'42		greatest brilliancy	1819 Nov 29 23:54	27°♒05'54	-0.5m
	1818 Dec 07 16:41	0°♓			1819 Dec 02 08:05	0°♓	
greatest brilliancy	1818 Dec 15 05:50	11°♓01'23	-0.6m	evening max el	1819 Dec 05 08:18	3°♓21'08	21°02'30
evening max el	1818 Dec 22 08:14	19°♓50'55	19°56'47	retrograde	1819 Dec 13 20:12	8°♓23'18	
asc. node	1818 Dec 29 06:21	24°♓14'42		asc. node	1819 Dec 16 03:24	7°♓53'47	
retrograde	1818 Dec 29 22:32	24°♓17'14		evening set	1819 Dec 17 20:05	6°♓52'54	
evening set	1819 Jan 02 12:40	23°♓01'56		inferior conj	1819 Dec 23 06:05	0°♓38'19	2°15'02
inferior conj	1819 Jan 08 00:42	16°♓58'08	2°52'53	minimum elong	1819 Dec 23 03:34	0°♓46'55	2°14'13
minimum elong	1819 Jan 07 22:04	17°♓06'55	2°52'11	min. Earth dist.	1819 Dec 23 15:56	0°♓04'24	0.67521 AU
min. Earth dist.	1819 Jan 08 22:58	15°♓43'48	0.66872 AU		1819 Dec 23 17:13	30°♒♒	
morning rise	1819 Jan 13 06:50	10°♓43'02		morning rise	1819 Dec 28 10:40	24°♒23'06	
direct	1819 Jan 19 04:17	8°♓06'20		direct	1820 Jan 02 17:16	22°♒05'36	
morning max el	1819 Jan 31 02:06	15°♓12'32	25°14'13	morning max el	1820 Jan 13 10:29	28°♒28'57	23°47'28
desc. node	1819 Feb 05 16:21	21°♓28'14			1820 Jan 14 21:21	0°♓	
	1819 Feb 12 06:04	0°♔		desc. node	1820 Jan 23 13:23	10°♓35'11	
	1819 Mar 03 15:58	0°♕			1820 Feb 06 00:14	0°♔	
morning set	1819 Mar 08 06:30	8°♕05'03		morning set	1820 Feb 17 20:54	19°♔14'15	
max. Earth dist.	1819 Mar 11 23:56	14°♕55'03	1.36549 AU	max. Earth dist.	1820 Feb 21 18:57	26°♔03'04	1.38612 AU
					1820 Feb 23 23:57	0°♕	
superior conj	1819 Mar 18 02:37	26°♕41'22	-1°-24'-11				
minimum elong	1819 Mar 18 06:36	27°♕01'07	1°23'37	superior conj	1820 Feb 29 03:35	9°♕30'58	-1°-46'-28
	1819 Mar 19 18:32	0°♖		minimum elong	1820 Feb 29 07:45	9°♕50'38	1°46'06
evening rise	1819 Mar 26 09:20	13°♖22'52		evening rise	1820 Mar 09 06:15	27°♕09'10	
asc. node	1819 Mar 27 05:39	15°♖04'59			1820 Mar 10 17:22	0°♖	
	1819 Apr 04 04:36	0°♗		asc. node	1820 Mar 13 02:42	4°♖34'32	
evening max el	1819 Apr 12 16:27	11°♗24'48	19°40'50	evening max el	1820 Mar 25 15:04	23°♖34'00	18°49'43
retrograde	1819 Apr 22 10:21	16°♗06'59		retrograde	1820 Apr 02 20:24	27°♖33'51	
evening set	1819 Apr 24 11:11	15°♗55'36		evening set	1820 Apr 05 01:44	27°♖17'29	
inferior conj	1819 May 03 04:21	11°♗52'45	0°25'21	inferior conj	1820 Apr 12 23:55	22°♖57'59	2°01'52
minimum elong	1819 May 03 05:27	11°♗51'01	0°24'56	minimum elong	1820 Apr 13 03:49	22°♖50'52	2°00'42
desc. node	1819 May 04 15:33	10°♗57'24		min. Earth dist.	1820 Apr 16 06:13	20°♖36'38	0.57251 AU

desc. node	1820 Apr 20 12:35	18°♈04'21		minimum elong	1821 Mar 25 20:16	4°♈36'01	3°03'59
morning rise	1820 Apr 21 01:34	17°♈49'41		min. Earth dist.	1821 Mar 29 03:00	1°♈49'51	0.59272 AU
direct	1820 Apr 26 12:37	16°♈37'24			1821 Mar 31 14:16	30°♈	
morning max el	1820 May 10 20:28	24°♈06'34	26°06'10	morning rise	1821 Apr 02 00:14	29°♈07'44	
	1820 May 16 05:05	0°♈		desc. node	1821 Apr 07 09:36	27°♈21'46	
	1820 Jun 03 21:02	0°♈		direct	1821 Apr 08 08:24	27°♈19'21	
morning set	1820 Jun 08 02:01	8°♈35'39			1821 Apr 16 10:44	0°♈	
asc. node	1820 Jun 09 01:56	10°♈42'17		morning max el	1821 Apr 22 16:40	5°♈04'41	27°13'52
					1821 May 11 02:28	0°♈	
superior conj	1820 Jun 15 02:40	23°♈50'13	0°59'53	morning set	1821 May 23 11:01	23°♈21'29	
minimum elong	1820 Jun 15 00:27	23°♈38'03	0°59'28	asc. node	1821 May 26 22:59	0°♈48'16	
max. Earth dist.	1820 Jun 15 16:35	25°♈06'36	1.32394 AU		1821 May 26 14:03	0°♈	
	1820 Jun 17 22:17	0°♈		max. Earth dist.	1821 May 30 04:59	7°♈54'34	1.32195 AU
evening rise	1820 Jun 22 03:19	8°♈58'25					
	1820 Jul 03 03:48	0°♈		superior conj	1821 May 30 14:25	8°♈46'26	0°37'41
desc. node	1820 Jul 17 11:52	21°♈03'32		minimum elong	1821 May 30 12:50	8°♈37'43	0°37'21
evening max el	1820 Jul 23 03:52	27°♈10'26	27°03'54	evening rise	1821 Jun 06 12:10	23°♈46'49	
	1820 Jul 26 10:30	0°♈			1821 Jun 09 12:23	0°♈	
retrograde	1820 Aug 06 01:24	4°♈24'29			1821 Jun 27 09:02	0°♈	
evening set	1820 Aug 13 02:34	2°♈11'05		desc. node	1821 Jul 04 08:53	8°♈06'49	
	1820 Aug 16 03:10	30°♈		evening max el	1821 Jul 05 03:09	8°♈51'14	26°09'29
min. Earth dist.	1820 Aug 16 18:09	29°♈29'11	0.61226 AU	retrograde	1821 Jul 19 03:00	16°♈01'59	
inferior conj	1820 Aug 19 21:57	26°♈44'24	-4°-23'-19	evening set	1821 Jul 25 12:43	14°♈21'55	
minimum elong	1820 Aug 20 02:51	26°♈33'41	4°22'24	min. Earth dist.	1821 Jul 29 15:50	11°♈46'07	0.59166 AU
morning rise	1820 Aug 27 06:06	21°♈51'12		inferior conj	1821 Aug 01 23:11	9°♈16'18	-4°-52'-34
direct	1820 Aug 29 15:08	21°♈28'09		minimum elong	1821 Aug 02 01:35	9°♈11'45	4°52'25
asc. node	1820 Sep 05 01:08	24°♈22'22		morning rise	1821 Aug 09 17:54	4°♈46'23	
morning max el	1820 Sep 05 17:14	24°♈59'54	17°59'36	direct	1821 Aug 12 04:32	4°♈25'59	
	1820 Sep 09 20:56	0°♈		morning max el	1821 Aug 20 01:53	8°♈13'07	18°27'22
morning set	1820 Sep 21 12:41	19°♈55'07		asc. node	1821 Aug 22 22:10	11°♈22'24	
	1820 Sep 27 00:42	0°♈			1821 Sep 03 03:43	0°♈	
				morning set	1821 Sep 05 03:06	3°♈46'28	
superior conj	1820 Oct 01 18:35	8°♈28'26	1°14'11				
minimum elong	1820 Oct 01 23:05	8°♈48'09	1°13'40	superior conj	1821 Sep 14 04:25	20°♈59'36	1°34'36
max. Earth dist.	1820 Oct 09 08:09	21°♈23'14	1.42199 AU	minimum elong	1821 Sep 14 07:29	21°♈13'50	1°34'21
desc. node	1820 Oct 13 11:11	28°♈07'47			1821 Sep 19 03:42	0°♈	
	1820 Oct 14 15:10	0°♈		max. Earth dist.	1821 Sep 21 14:48	4°♈18'48	1.40251 AU
evening rise	1820 Oct 15 11:21	1°♈20'25		evening rise	1821 Sep 26 00:38	11°♈47'40	
	1820 Nov 03 15:17	0°♈		desc. node	1821 Sep 30 08:11	18°♈49'51	
greatest brilliancy	1820 Nov 12 09:37	11°♈34'27	-0.3m		1821 Oct 07 12:55	0°♈	
evening max el	1820 Nov 17 02:57	16°♈53'13	22°17'50		1821 Oct 30 06:25	0°♈	
retrograde	1820 Nov 26 16:12	22°♈33'57		evening max el	1821 Oct 30 17:15	0°♈27'21	23°37'41
evening set	1820 Dec 01 03:46	20°♈46'52		retrograde	1821 Nov 10 09:13	6°♈45'10	
asc. node	1820 Dec 02 00:24	20°♈01'17		evening set	1821 Nov 15 10:06	4°♈40'42	
inferior conj	1820 Dec 06 13:17	14°♈24'58	1°30'22	asc. node	1821 Nov 18 21:25	0°♈53'27	
minimum elong	1820 Dec 06 11:23	14°♈31'35	1°29'38		1821 Nov 19 13:40	30°♈	
min. Earth dist.	1820 Dec 06 11:53	14°♈29'51	0.67806 AU	inferior conj	1821 Nov 20 20:31	28°♈15'18	0°40'13
morning rise	1820 Dec 11 18:50	8°♈11'46		minimum elong	1821 Nov 20 19:35	28°♈18'31	0°39'49
direct	1820 Dec 16 10:20	6°♈16'53		min. Earth dist.	1821 Nov 20 08:28	28°♈56'28	0.67746 AU
morning max el	1820 Dec 25 21:31	11°♈51'54	22°19'38	morning rise	1821 Nov 26 05:13	22°♈06'15	
greatest brilliancy	1820 Dec 30 11:40	17°♈00'11	-0.3m	direct	1821 Nov 30 06:26	20°♈34'09	
desc. node	1821 Jan 09 10:25	0°♈15'55		morning max el	1821 Dec 08 14:40	25°♈24'31	20°58'30
	1821 Jan 09 05:56	0°♈			1821 Dec 12 16:35	0°♈	
morning set	1821 Jan 28 07:05	29°♈00'37		greatest brilliancy	1821 Dec 14 03:56	1°♈50'36	-0.5m
	1821 Jan 28 21:41	0°♈		desc. node	1821 Dec 27 07:26	20°♈20'29	
max. Earth dist.	1821 Feb 02 15:51	7°♈53'36	1.40764 AU		1822 Jan 02 17:03	0°♈	
				morning set	1822 Jan 07 14:05	7°♈32'28	
superior conj	1821 Feb 10 11:04	21°♈27'41	-2°-1'-16	max. Earth dist.	1822 Jan 15 19:37	20°♈40'01	1.42703 AU
minimum elong	1821 Feb 10 13:36	21°♈39'05	2°01'11		1822 Jan 21 10:55	0°♈	
	1821 Feb 15 03:39	0°♈					
evening rise	1821 Feb 20 16:44	10°♈20'59		superior conj	1822 Jan 22 19:41	2°♈18'29	-2°-3'-58
asc. node	1821 Feb 27 23:45	23°♈40'31		minimum elong	1822 Jan 22 18:06	2°♈11'46	2°03'56
	1821 Mar 03 21:34	0°♈		evening rise	1822 Feb 03 12:51	22°♈49'30	
evening max el	1821 Mar 08 21:28	6°♈14'07	18°18'38		1822 Feb 07 13:19	0°♈	
retrograde	1821 Mar 16 01:39	9°♈48'15		asc. node	1822 Feb 14 20:46	12°♈15'03	
evening set	1821 Mar 18 12:32	9°♈24'10		evening max el	1822 Feb 20 08:24	19°♈16'05	18°07'21
inferior conj	1821 Mar 25 16:46	4°♈43'29	3°04'39	retrograde	1822 Feb 26 23:05	22°♈40'19	

evening set	1822 Mar 01 14:58	22° Υ 07'06		asc. node	1823 Feb 01 17:47	0° Υ 08'48	
inferior conj	1822 Mar 08 04:44	17° Υ 05'06	3°36'23		1823 Feb 01 14:56	0° Υ	
minimum elong	1822 Mar 08 06:21	17° Υ 01'07	3°36'15	evening max el	1823 Feb 03 20:58	2° Υ 32'47	18°15'17
min. Earth dist.	1822 Mar 11 07:05	14° Υ 03'44	0.61414 AU	retrograde	1823 Feb 10 08:04	6° Υ 00'32	
morning rise	1822 Mar 14 18:57	11° Υ 11'09		evening set	1823 Feb 13 04:56	5° Υ 17'06	
direct	1822 Mar 21 15:02	8° Υ 49'26		inferior conj	1823 Feb 19 07:52	29° \approx 55'10	3°44'01
desc. node	1822 Mar 25 06:38	9° Υ 26'29		minimum elong	1823 Feb 19 07:33	29° \approx 56'02	3°44'01
morning max el	1822 Apr 04 19:20	16° Υ 43'35	27°46'55		1823 Feb 19 06:07	30° Υ	
	1822 Apr 15 18:29	0° Υ		min. Earth dist.	1823 Feb 21 20:24	27° \approx 08'34	0.63402 AU
	1822 May 03 17:06	0° Υ		morning rise	1823 Feb 25 08:17	23° \approx 50'34	
morning set	1822 May 07 15:51	7° Υ 52'21		direct	1823 Mar 04 06:37	21° \approx 06'50	
max. Earth dist.	1822 May 13 15:46	20° Υ 34'29	1.32375 AU	desc. node	1823 Mar 12 03:40	23° \approx 59'11	
asc. node	1822 May 13 20:03	20° Υ 57'45		morning max el	1823 Mar 18 02:51	29° \approx 02'20	27°42'31
					1823 Mar 19 01:28	0° Υ	
superior conj	1822 May 15 01:02	23° Υ 35'44	0°12'45		1823 Apr 09 15:12	0° Υ	
minimum elong	1822 May 15 00:27	23° Υ 32'31	0°12'37	morning set	1823 Apr 21 14:09	22° Υ 00'33	
behind sun begin	1822 May 14 21:20	23° Υ 15'33			1823 Apr 25 11:59	0° Υ	
behind sun end	1822 May 15 03:33	23° Υ 49'30		max. Earth dist.	1823 Apr 26 20:51	2° Υ 52'40	1.32970 AU
	1822 May 17 23:16	0° Υ					
evening rise	1822 May 21 23:26	8° Υ 39'08		superior conj	1823 Apr 29 08:46	8° Υ 12'14	0°-14'-9
	1822 Jun 02 01:16	0° Υ		minimum elong	1823 Apr 29 09:28	8° Υ 15'57	0°14'00
evening max el	1822 Jun 16 19:30	19° Υ 47'29	24°48'32	behind sun begin	1823 Apr 29 06:56	8° Υ 02'20	
desc. node	1822 Jun 21 05:52	23° Υ 27'58		behind sun end	1823 Apr 29 11:59	8° Υ 29'34	
retrograde	1822 Jun 30 18:26	26° Υ 52'08		asc. node	1823 Apr 30 17:05	11° Υ 06'22	
evening set	1822 Jul 05 23:15	25° Υ 50'43		evening rise	1823 May 06 11:14	23° Υ 28'50	
min. Earth dist.	1822 Jul 11 06:47	23° Υ 02'17	0.57203 AU		1823 May 09 14:47	0° Υ	
inferior conj	1822 Jul 14 04:57	21° Υ 07'09	-4°-52'-38		1823 May 29 01:45	0° Υ	
minimum elong	1822 Jul 14 02:29	21° Υ 11'15	4°52'30	evening max el	1823 May 29 09:17	0° Υ 18'25	23°13'41
morning rise	1822 Jul 22 09:29	16° Υ 59'28		desc. node	1823 Jun 08 02:54	6° Υ 30'37	
direct	1822 Jul 24 23:43	16° Υ 40'25		retrograde	1823 Jun 11 21:32	7° Υ 03'06	
morning max el	1822 Aug 03 02:16	20° Υ 55'23	19°16'11	evening set	1823 Jun 15 14:18	6° Υ 33'05	
asc. node	1822 Aug 09 19:14	29° Υ 18'31		min. Earth dist.	1823 Jun 22 19:00	3° Υ 17'17	0.55688 AU
	1822 Aug 10 05:54	0° Υ		inferior conj	1823 Jun 24 14:54	2° Υ 12'54	-4°-9'-43
morning set	1822 Aug 20 02:35	18° Υ 04'59		minimum elong	1823 Jun 24 07:45	2° Υ 23'25	4°08'15
	1822 Aug 26 02:02	0° Υ			1823 Jun 28 14:58	30° Υ	
superior conj	1822 Aug 28 07:52	4° Υ 23'57	1°44'20	morning rise	1823 Jul 03 04:20	28° Υ 19'14	
minimum elong	1822 Aug 28 09:01	4° Υ 29'31	1°44'18	direct	1823 Jul 05 23:40	28° Υ 00'14	
max. Earth dist.	1822 Sep 03 18:26	16° Υ 33'07	1.38198 AU		1823 Jul 12 18:49	0° Υ	
evening rise	1822 Sep 07 14:10	23° Υ 23'13		morning max el	1823 Jul 16 15:49	2° Υ 56'47	20°26'14
	1822 Sep 11 10:43	0° Υ		asc. node	1823 Jul 27 16:18	17° Υ 57'00	
desc. node	1822 Sep 17 05:12	9° Υ 23'38		morning set	1823 Aug 03 00:19	0° Υ	
	1822 Oct 01 07:57	0° Υ			1823 Aug 04 08:11	2° Υ 41'46	
evening max el	1822 Oct 13 05:23	14° Υ 05'11	24°55'34	superior conj	1823 Aug 11 23:53	18° Υ 25'51	1°45'20
retrograde	1822 Oct 24 22:20	20° Υ 53'16		minimum elong	1823 Aug 11 23:21	18° Υ 23'07	1°45'20
evening set	1822 Oct 30 13:27	18° Υ 32'17		max. Earth dist.	1823 Aug 17 00:36	28° Υ 24'24	1.36287 AU
min. Earth dist.	1822 Nov 04 03:24	13° Υ 22'19	0.67354 AU		1823 Aug 17 20:29	0° Υ	
inferior conj	1822 Nov 05 02:03	12° Υ 07'37	0°-14'-7	evening rise	1823 Aug 21 01:04	5° Υ 59'42	
minimum elong	1822 Nov 05 02:25	12° Υ 06'27	0°13'59	desc. node	1823 Sep 04 02:13	29° Υ 43'28	
transit middle	1822 Nov 05 02:25	12° Υ 06'27	0°13'59		1823 Sep 04 06:31	0° Υ	
transit begin	1822 Nov 05 01:00	12° Υ 11'05		evening max el	1823 Sep 25 17:19	27° Υ 44'42	26°04'13
transit end	1822 Nov 05 03:49	12° Υ 01'50			1823 Sep 28 04:38	0° Υ	
asc. node	1822 Nov 05 18:27	11° Υ 13'52		retrograde	1823 Oct 08 06:41	4° Υ 52'21	
morning rise	1822 Nov 10 15:54	6° Υ 05'06		evening set	1823 Oct 14 11:59	2° Υ 17'56	
direct	1822 Nov 14 04:30	4° Υ 53'29			1823 Oct 16 20:11	30° Υ	
morning max el	1822 Nov 21 15:36	9° Υ 08'16	19°49'15	min. Earth dist.	1823 Oct 18 18:19	27° Υ 43'55	0.66627 AU
greatest brilliancy	1822 Nov 29 07:11	18° Υ 34'26	-0.6m	inferior conj	1823 Oct 20 04:05	25° Υ 58'36	-1°-11'-17
	1822 Dec 07 03:28	0° Υ		minimum elong	1823 Oct 20 05:57	25° Υ 52'46	1°10'32
desc. node	1822 Dec 14 04:28	10° Υ 42'21		asc. node	1823 Oct 23 15:30	21° Υ 59'00	
morning set	1822 Dec 17 10:10	15° Υ 41'27		morning rise	1823 Oct 26 00:53	20° Υ 05'23	
	1822 Dec 26 14:18	0° Υ		direct	1823 Oct 29 02:59	19° Υ 10'45	
max. Earth dist.	1822 Dec 29 06:33	4° Υ 14'28	1.44171 AU	morning max el	1823 Nov 04 23:44	23° Υ 00'05	18°54'49
					1823 Nov 10 16:57	0° Υ	
superior conj	1823 Jan 03 01:59	11° Υ 57'33	-1°-49'-41	morning set	1823 Nov 26 20:28	24° Υ 39'28	
minimum elong	1823 Jan 02 19:03	11° Υ 29'30	1°49'13		1823 Nov 30 06:06	0° Υ	
	1823 Jan 13 23:28	0° Υ		desc. node	1823 Dec 01 01:30	1° Υ 16'08	
evening rise	1823 Jan 16 14:20	4° Υ 26'40		max. Earth dist.	1823 Dec 11 22:49	18° Υ 21'20	1.44995 AU

superior conj	1823 Dec 13 09:52	20° ♄ 39'18	-1°-16'-31	evening rise	1824 Dec 07 21:12	24° ♄ 50'58	
minimum elong	1823 Dec 13 01:17	20° ♄ 05'30	1°15'36		1824 Dec 11 04:21	0° ♄	
	1823 Dec 19 07:38	0° ♄		greatest brilliancy	1824 Dec 22 22:52	18° ♄ 03'56	-0.7m
evening rise	1823 Dec 28 17:19	15° ♄ 06'24		evening max el	1824 Dec 31 16:49	29° ♄ 26'42	19°24'56
	1824 Jan 06 22:12	0° ♄			1825 Jan 01 06:05	0° ♄	
evening max el	1824 Jan 18 08:32	15° ♄ 58'03	18°41'37	asc. node	1825 Jan 05 11:51	3° ♄ 03'30	
asc. node	1824 Jan 19 14:48	17° ♄ 09'51		retrograde	1825 Jan 07 20:54	3° ♄ 34'23	
retrograde	1824 Jan 25 00:28	19° ♄ 40'48		evening set	1825 Jan 11 06:26	2° ♄ 26'52	
evening set	1824 Jan 28 03:01	18° ♄ 46'01			1825 Jan 14 00:10	30° ♄	
inferior conj	1824 Feb 02 22:13	13° ♄ 05'57	3°33'59	inferior conj	1825 Jan 16 20:28	26° ♄ 30'57	3°10'50
minimum elong	1824 Feb 02 20:30	13° ♄ 11'10	3°33'45	minimum elong	1825 Jan 16 18:00	26° ♄ 38'58	3°10'18
min. Earth dist.	1824 Feb 04 19:13	10° ♄ 49'51	0.65065 AU	min. Earth dist.	1825 Jan 18 02:33	24° ♄ 53'25	0.66334 AU
morning rise	1824 Feb 08 12:48	6° ♄ 55'25		morning rise	1825 Jan 22 04:47	20° ♄ 17'07	
direct	1824 Feb 15 05:27	4° ♄ 04'29		direct	1825 Jan 28 10:13	17° ♄ 32'26	
desc. node	1824 Feb 27 00:43	10° ♄ 24'12		morning max el	1825 Feb 09 21:47	24° ♄ 56'33	25°59'40
morning max el	1824 Feb 28 12:24	11° ♄ 50'49	27°04'19	desc. node	1825 Feb 12 21:46	28° ♄ 09'10	
	1824 Mar 14 00:29	0° ♄			1825 Feb 14 12:08	0° ♄	
	1824 Apr 01 03:52	0° ♄			1825 Mar 07 11:42	0° ♄	
morning set	1824 Apr 04 02:59	5° ♄ 36'51		morning set	1825 Mar 18 02:09	18° ♄ 27'57	
max. Earth dist.	1824 Apr 08 16:34	14° ♄ 39'42	1.34011 AU	max. Earth dist.	1825 Mar 22 00:48	25° ♄ 55'10	1.35510 AU
					1825 Mar 24 02:59	0° ♄	
superior conj	1824 Apr 12 11:38	22° ♄ 29'55	0°-41'-58				
minimum elong	1824 Apr 12 13:45	22° ♄ 41'00	0°41'33	superior conj	1825 Mar 27 07:03	6° ♄ 20'18	-1°-9'-22
	1824 Apr 16 00:52	0° ♄		minimum elong	1825 Mar 27 10:29	6° ♄ 37'42	1°08'48
asc. node	1824 Apr 16 14:08	1° ♄ 10'24		asc. node	1825 Apr 03 11:11	21° ♄ 04'49	
evening rise	1824 Apr 19 21:45	8° ♄ 10'09		evening rise	1825 Apr 04 04:53	22° ♄ 35'34	
	1824 May 01 14:01	0° ♄			1825 Apr 07 21:27	0° ♄	
evening max el	1824 May 10 04:00	10° ♄ 55'50	21°40'02	evening max el	1825 Apr 22 09:04	22° ♄ 03'26	20°19'03
retrograde	1824 May 22 13:07	16° ♄ 59'55		retrograde	1825 May 03 02:31	27° ♄ 15'07	
desc. node	1824 May 24 23:56	16° ♄ 46'23		evening set	1825 May 05 03:58	27° ♄ 04'27	
evening set	1824 May 25 01:48	16° ♄ 45'32		desc. node	1825 May 11 20:59	24° ♄ 28'19	
inferior conj	1824 Jun 03 11:02	12° ♄ 44'06	-2°-39'-43	inferior conj	1825 May 14 06:12	23° ♄ 06'20	0°-41'-40
minimum elong	1824 Jun 03 04:02	12° ♄ 53'54	2°37'28	minimum elong	1825 May 14 04:15	23° ♄ 09'12	0°40'59
min. Earth dist.	1824 Jun 03 07:01	12° ♄ 49'43	0.54953 AU	min. Earth dist.	1825 May 15 19:51	22° ♄ 11'08	0.55166 AU
morning rise	1824 Jun 12 07:08	8° ♄ 48'57		morning rise	1825 May 23 02:30	18° ♄ 50'42	
direct	1824 Jun 15 11:23	8° ♄ 26'48		direct	1825 May 26 23:02	18° ♄ 18'32	
morning max el	1824 Jun 27 17:59	14° ♄ 13'56	21°55'00	morning max el	1825 Jun 09 11:27	24° ♄ 54'39	23°35'38
	1824 Jul 09 14:50	0° ♄			1825 Jun 14 04:26	0° ♄	
asc. node	1824 Jul 13 13:23	7° ♄ 07'36		asc. node	1825 Jun 30 10:26	26° ♄ 41'39	
morning set	1824 Jul 18 17:40	17° ♄ 30'42			1825 Jul 02 01:11	0° ♄	
	1824 Jul 24 15:37	0° ♄		morning set	1825 Jul 03 05:10	2° ♄ 26'05	
superior conj	1824 Jul 26 00:39	2° ♄ 53'57	1°39'17	superior conj	1825 Jul 10 07:13	17° ♄ 39'08	1°27'33
minimum elong	1824 Jul 25 22:57	2° ♄ 45'00	1°39'11	minimum elong	1825 Jul 10 04:55	17° ♄ 26'43	1°27'16
max. Earth dist.	1824 Jul 29 14:45	10° ♄ 19'28	1.34694 AU	max. Earth dist.	1825 Jul 12 14:21	22° ♄ 33'46	1.33484 AU
evening rise	1824 Aug 03 04:42	19° ♄ 24'43			1825 Jul 16 03:58	0° ♄	
	1824 Aug 08 21:41	0° ♄		evening rise	1825 Jul 17 20:39	3° ♄ 25'48	
desc. node	1824 Aug 20 23:15	19° ♄ 42'42			1825 Aug 01 16:32	0° ♄	
	1824 Aug 28 08:03	0° ♄		desc. node	1825 Aug 07 20:17	9° ♄ 12'35	
evening max el	1824 Sep 07 05:42	11° ♄ 19'29	26°55'52	evening max el	1825 Aug 20 17:21	24° ♄ 38'00	27°23'14
retrograde	1824 Sep 20 09:34	18° ♄ 35'52			1825 Aug 27 17:08	0° ♄	
evening set	1824 Sep 27 03:31	15° ♄ 53'46		retrograde	1825 Sep 03 06:30	1° ♄ 55'59	
min. Earth dist.	1824 Oct 01 02:43	11° ♄ 56'46	0.65550 AU		1825 Sep 09 07:34	30° ♄	
inferior conj	1824 Oct 03 00:31	9° ♄ 44'25	-2°-9'-36	evening set	1825 Sep 10 09:18	29° ♄ 15'00	
minimum elong	1824 Oct 03 03:58	9° ♄ 34'25	2°08'17	min. Earth dist.	1825 Sep 14 02:24	25° ♄ 53'32	0.64117 AU
morning rise	1824 Oct 09 05:55	4° ♄ 03'41		inferior conj	1825 Sep 16 12:56	23° ♄ 19'49	-3°-6'-33
asc. node	1824 Oct 09 12:34	3° ♄ 55'48		minimum elong	1825 Sep 16 17:43	23° ♄ 07'15	3°04'59
direct	1824 Oct 11 23:53	3° ♄ 22'13		morning rise	1825 Sep 23 04:13	17° ♄ 55'09	
morning max el	1824 Oct 18 13:06	6° ♄ 55'33	18°16'43	direct	1825 Sep 25 16:36	17° ♄ 23'14	
	1824 Nov 03 08:40	0° ♄		asc. node	1825 Sep 26 09:38	17° ♄ 25'48	
morning set	1824 Nov 06 11:01	5° ♄ 03'16		morning max el	1825 Oct 02 05:05	20° ♄ 49'13	17°55'48
desc. node	1824 Nov 16 22:32	21° ♄ 57'47			1825 Oct 09 03:48	0° ♄	
				morning set	1825 Oct 19 05:12	16° ♄ 47'54	
superior conj	1824 Nov 21 11:39	29° ♄ 10'16	0°-30'-5		1825 Oct 27 00:38	0° ♄	
minimum elong	1824 Nov 21 07:45	28° ♄ 54'53	0°29'34				
	1824 Nov 22 00:15	0° ♄		superior conj	1825 Nov 01 04:38	8° ♄ 29'55	0°17'39
max. Earth dist.	1824 Nov 23 17:58	2° ♄ 44'12	1.45091 AU	minimum elong	1825 Nov 01 06:37	8° ♄ 37'56	0°17'23

desc. node	1825 Nov 03 19:34	12° \mathbb{M} 44'09			1826 Oct 19 12:28	0° \mathbb{M}	
max. Earth dist.	1825 Nov 06 12:39	17° \mathbb{M} 04'13	1.44451 AU	max. Earth dist.	1826 Oct 20 03:14	1° \mathbb{M} 00'10	1.43160 AU
	1825 Nov 14 18:32	0° \mathbb{M}		desc. node	1826 Oct 21 16:36	3° \mathbb{M} 31'25	
evening rise	1825 Nov 17 08:35	3° \mathbb{M} 59'33		evening rise	1826 Oct 27 18:09	13° \mathbb{M} 08'02	
	1825 Dec 04 16:59	0° \mathbb{Z}			1826 Nov 07 20:44	0° \mathbb{M}	
greatest brilliancy	1825 Dec 08 14:37	5° \mathbb{Z} 25'00	-0.5m	greatest brilliancy	1826 Nov 22 19:19	20° \mathbb{M} 47'32	-0.4m
evening max el	1825 Dec 14 20:07	12° \mathbb{Z} 56'44	20°23'13	evening max el	1826 Nov 27 17:40	26° \mathbb{M} 26'51	21°33'34
retrograde	1825 Dec 22 18:49	17° \mathbb{Z} 37'27			1826 Dec 01 20:21	0° \mathbb{Z}	
asc. node	1825 Dec 23 08:53	17° \mathbb{Z} 35'32		retrograde	1826 Dec 06 16:05	1° \mathbb{Z} 45'50	
evening set	1825 Dec 26 12:58	16° \mathbb{Z} 15'43		asc. node	1826 Dec 10 05:55	0° \mathbb{Z} 35'15	
inferior conj	1825 Dec 31 23:54	10° \mathbb{Z} 06'46	2°37'45	evening set	1826 Dec 10 20:43	0° \mathbb{Z} 08'23	
minimum elong	1825 Dec 31 21:16	10° \mathbb{Z} 15'42	2°36'59		1826 Dec 11 00:54	30° \mathbb{R} \mathbb{M}	
min. Earth dist.	1826 Jan 01 16:37	9° \mathbb{Z} 10'05	0.67199 AU	inferior conj	1826 Dec 16 06:18	23° \mathbb{M} 49'56	1°56'51
morning rise	1826 Jan 06 05:05	3° \mathbb{Z} 51'33		minimum elong	1826 Dec 16 04:00	23° \mathbb{M} 57'54	1°56'03
direct	1826 Jan 11 20:18	1° \mathbb{Z} 22'39		min. Earth dist.	1826 Dec 16 11:11	23° \mathbb{M} 33'01	0.67683 AU
morning max el	1826 Jan 23 06:23	8° \mathbb{Z} 11'18	24°38'04	morning rise	1826 Dec 21 11:00	17° \mathbb{M} 35'13	
desc. node	1826 Jan 30 18:47	16° \mathbb{Z} 51'13		direct	1826 Dec 26 11:00	15° \mathbb{M} 27'22	
	1826 Feb 09 09:04	0° \mathbb{M}		morning max el	1827 Jan 05 15:37	21° \mathbb{M} 30'43	23°09'44
morning set	1826 Feb 28 06:20	0° \mathbb{M} 19'16		greatest brilliancy	1827 Jan 10 15:20	27° \mathbb{M} 05'50	-0.3m
	1826 Feb 28 01:57	0° \mathbb{M}			1827 Jan 12 23:15	0° \mathbb{Z}	
max. Earth dist.	1826 Mar 03 23:15	6° \mathbb{M} 57'49	1.37409 AU	desc. node	1827 Jan 17 15:49	6° \mathbb{Z} 13'42	
					1827 Feb 02 16:15	0° \mathbb{M}	
superior conj	1826 Mar 10 15:53	19° \mathbb{M} 34'52	-1°-34'-18	morning set	1827 Feb 09 09:19	10° \mathbb{M} 54'41	
minimum elong	1826 Mar 10 20:06	19° \mathbb{M} 55'23	1°33'48	max. Earth dist.	1827 Feb 13 18:09	18° \mathbb{M} 20'26	1.39534 AU
	1826 Mar 15 22:33	0° \mathbb{Y}			1827 Feb 20 07:13	0° \mathbb{M}	
evening rise	1826 Mar 19 06:21	6° \mathbb{Y} 38'31					
asc. node	1826 Mar 21 08:13	10° \mathbb{Y} 44'59		superior conj	1827 Feb 21 10:01	2° \mathbb{M} 03'16	-1°-53'-55
	1826 Apr 01 16:30	0° \mathbb{Z}		minimum elong	1827 Feb 21 13:47	2° \mathbb{M} 20'37	1°53'40
evening max el	1826 Apr 05 01:42	3° \mathbb{Z} 50'26	19°16'28	evening rise	1827 Mar 02 23:16	20° \mathbb{M} 11'20	
retrograde	1826 Apr 14 02:56	8° \mathbb{Z} 13'08		asc. node	1827 Mar 08 05:15	0° \mathbb{Y} 05'25	
evening set	1826 Apr 16 05:13	8° \mathbb{Z} 00'04			1827 Mar 08 04:04	0° \mathbb{Y}	
inferior conj	1826 Apr 24 14:25	3° \mathbb{Z} 50'35	1°10'10	evening max el	1827 Mar 19 03:59	16° \mathbb{Y} 13'52	18°34'00
minimum elong	1826 Apr 24 17:10	3° \mathbb{Z} 46'00	1°09'15	retrograde	1827 Mar 26 21:23	20° \mathbb{Y} 01'02	
min. Earth dist.	1826 Apr 27 10:40	1° \mathbb{Z} 57'25	0.56285 AU	evening set	1827 Mar 29 04:55	19° \mathbb{Y} 41'48	
desc. node	1826 Apr 28 18:01	1° \mathbb{Z} 08'33		inferior conj	1827 Apr 05 19:09	15° \mathbb{Y} 13'38	2°32'39
	1826 Apr 30 19:22	30° \mathbb{R} \mathbb{Y}		minimum elong	1827 Apr 05 23:11	15° \mathbb{Y} 05'46	2°31'38
morning rise	1826 May 03 01:07	29° \mathbb{Y} 01'24		min. Earth dist.	1827 Apr 09 05:01	12° \mathbb{Y} 35'25	0.58071 AU
direct	1826 May 07 21:16	28° \mathbb{Y} 07'32		morning rise	1827 Apr 13 13:09	9° \mathbb{Y} 52'06	
	1826 May 14 21:53	0° \mathbb{Z}		desc. node	1827 Apr 15 15:01	9° \mathbb{Y} 01'27	
morning max el	1826 May 22 01:55	5° \mathbb{Z} 21'41	25°15'25	direct	1827 Apr 19 09:56	8° \mathbb{Y} 24'44	
	1826 Jun 08 20:10	0° \mathbb{I}		morning max el	1827 May 03 19:05	16° \mathbb{Y} 02'51	26°38'44
asc. node	1826 Jun 17 07:29	16° \mathbb{I} 32'28			1827 May 15 03:43	0° \mathbb{Z}	
morning set	1826 Jun 17 16:58	17° \mathbb{I} 22'23			1827 Jun 01 01:44	0° \mathbb{I}	
	1826 Jun 23 13:08	0° \mathbb{Z}		morning set	1827 Jun 02 03:30	2° \mathbb{I} 14'19	
				asc. node	1827 Jun 04 04:31	6° \mathbb{I} 34'42	
superior conj	1826 Jun 24 17:17	2° \mathbb{Z} 33'56	1°11'08				
minimum elong	1826 Jun 24 14:53	2° \mathbb{Z} 20'53	1°10'44	superior conj	1827 Jun 09 04:57	17° \mathbb{I} 32'08	0°50'51
max. Earth dist.	1826 Jun 25 21:27	5° \mathbb{Z} 07'33	1.32676 AU	minimum elong	1827 Jun 09 02:57	17° \mathbb{I} 21'08	0°50'28
evening rise	1826 Jul 01 21:19	17° \mathbb{Z} 52'12		max. Earth dist.	1827 Jun 09 08:52	17° \mathbb{I} 53'39	1.32257 AU
	1826 Jul 08 01:20	0° \mathbb{Q}			1827 Jun 14 22:28	0° \mathbb{Z}	
desc. node	1826 Jul 25 17:19	28° \mathbb{Q} 00'26		evening rise	1827 Jun 16 03:54	2° \mathbb{Z} 35'24	
	1826 Jul 27 07:12	0° \mathbb{M}			1827 Jun 30 23:19	0° \mathbb{Q}	
evening max el	1826 Aug 03 01:55	7° \mathbb{M} 26'20	27°20'26	desc. node	1827 Jul 12 14:20	15° \mathbb{Q} 49'01	
retrograde	1826 Aug 16 21:01	14° \mathbb{M} 42'47		evening max el	1827 Jul 16 05:07	19° \mathbb{Q} 34'04	26°44'34
evening set	1826 Aug 24 01:43	12° \mathbb{M} 15'02		retrograde	1827 Jul 30 04:12	26° \mathbb{Q} 47'42	
min. Earth dist.	1826 Aug 27 15:45	9° \mathbb{M} 22'29	0.62352 AU	evening set	1827 Aug 06 00:20	24° \mathbb{Q} 47'02	
inferior conj	1826 Aug 30 14:23	6° \mathbb{M} 37'14	-3°-58'-18	min. Earth dist.	1827 Aug 09 18:56	22° \mathbb{Q} 10'01	0.60349 AU
minimum elong	1826 Aug 30 19:41	6° \mathbb{M} 24'47	3°56'59	inferior conj	1827 Aug 13 01:31	19° \mathbb{Q} 28'50	-4°-38'-28
morning rise	1826 Sep 06 16:22	1° \mathbb{M} 32'02		minimum elong	1827 Aug 13 05:40	19° \mathbb{Q} 20'15	4°37'53
direct	1826 Sep 09 01:46	1° \mathbb{M} 06'34		morning rise	1827 Aug 20 14:16	14° \mathbb{Q} 45'40	
asc. node	1826 Sep 13 06:40	2° \mathbb{M} 27'25		direct	1827 Aug 22 23:31	14° \mathbb{Q} 24'05	
morning max el	1826 Sep 15 20:42	4° \mathbb{M} 33'36	17°52'51	morning max el	1827 Aug 30 08:52	18° \mathbb{Q} 01'14	18°08'56
morning set	1826 Oct 01 20:59	29° \mathbb{M} 33'48		asc. node	1827 Aug 31 03:42	18° \mathbb{Q} 48'51	
	1826 Oct 02 02:49	0° \mathbb{Z}			1827 Sep 08 00:00	0° \mathbb{M}	
				morning set	1827 Sep 15 04:32	13° \mathbb{M} 05'02	
superior conj	1826 Oct 12 23:55	19° \mathbb{Z} 07'23	0°56'58		1827 Sep 24 07:34	0° \mathbb{Z}	
minimum elong	1826 Oct 13 04:26	19° \mathbb{Z} 26'37	0°56'23				

superior conj	1827 Sep 24 21:08	1°♄01'05	1°24'15	morning max el	1828 Aug 12 14:19	1°♄02'04	18°45'27
minimum elong	1827 Sep 25 01:10	1°♄19'11	1°23'50	asc. node	1828 Aug 17 00:45	6°♄14'09	
max. Earth dist.	1827 Oct 02 12:13	14°♄18'09	1.41395 AU	morning set	1828 Aug 28 23:12	27°♄08'41	
evening rise	1827 Oct 07 18:27	22°♄59'10			1828 Aug 30 10:15	0°♄	
desc. node	1827 Oct 08 13:38	24°♄16'27					
	1827 Oct 12 04:18	0°♄		superior conj	1828 Sep 06 15:05	13°♄56'06	1°39'54
	1827 Nov 01 22:18	0°♄		minimum elong	1828 Sep 06 17:21	14°♄06'47	1°39'47
greatest brilliancy	1827 Nov 05 06:40	4°♄12'56	-0.3m	max. Earth dist.	1828 Sep 13 16:53	26°♄53'49	1.39378 AU
evening max el	1827 Nov 10 10:10	9°♄58'59	22°51'38		1828 Sep 15 11:20	0°♄	
retrograde	1827 Nov 20 11:05	15°♄56'35		evening rise	1828 Sep 17 18:08	3°♄55'29	
evening set	1827 Nov 25 04:01	14°♄02'19		desc. node	1828 Sep 24 10:39	14°♄55'22	
asc. node	1827 Nov 27 02:56	12°♄06'52			1828 Oct 04 08:47	0°♄	
inferior conj	1827 Nov 30 13:44	7°♄38'16	1°09'43	evening max el	1828 Oct 22 23:25	23°♄34'58	24°11'38
minimum elong	1827 Nov 30 12:12	7°♄43'36	1°09'06		1828 Nov 01 20:32	0°♄	
min. Earth dist.	1827 Nov 30 07:48	7°♄58'47	0.67816 AU	retrograde	1828 Nov 03 02:28	0°♄06'29	
morning rise	1827 Dec 05 20:20	1°♄26'16			1828 Nov 04 07:32	30°♄	
	1827 Dec 08 08:22	30°♄		evening set	1828 Nov 08 09:16	27°♄55'04	
direct	1827 Dec 10 05:34	29°♄41'10		asc. node	1828 Nov 12 23:58	22°♄38'44	
	1827 Dec 12 04:50	0°♄		min. Earth dist.	1828 Nov 13 04:03	22°♄25'03	0.67616 AU
morning max el	1827 Dec 19 04:50	4°♄56'54	21°43'52	inferior conj	1828 Nov 13 20:29	21°♄29'36	0°17'38
greatest brilliancy	1827 Dec 24 01:26	10°♄26'55	-0.4m	minimum elong	1828 Nov 13 20:03	21°♄31'03	0°17'26
desc. node	1828 Jan 04 12:50	26°♄05'18		morning rise	1828 Nov 19 07:06	15°♄22'50	
	1828 Jan 07 04:57	0°♄		direct	1828 Nov 23 02:48	13°♄59'36	
morning set	1828 Jan 20 07:05	20°♄06'07		morning max el	1828 Dec 01 01:06	18°♄33'29	20°27'21
	1828 Jan 26 09:19	0°♄		greatest brilliancy	1828 Dec 07 08:18	26°♄02'05	-0.5m
max. Earth dist.	1828 Jan 26 17:02	0°♄32'00	1.41627 AU		1828 Dec 10 06:22	0°♄	
				desc. node	1828 Dec 21 09:53	16°♄17'53	
superior conj	1828 Feb 03 08:26	13°♄33'22	-2°-4'-12	morning set	1828 Dec 29 06:30	28°♄19'03	
minimum elong	1828 Feb 03 09:32	13°♄38'12	2°04'11		1828 Dec 30 08:30	0°♄	
	1828 Feb 12 11:48	0°♄		max. Earth dist.	1829 Jan 07 23:58	13°♄40'26	1.43395 AU
evening rise	1828 Feb 14 04:09	3°♄05'34					
asc. node	1828 Feb 23 02:16	18°♄59'04		superior conj	1829 Jan 14 06:08	23°♄54'15	-2°00'-14
evening max el	1828 Mar 01 12:47	29°♄04'50	18°11'30	minimum elong	1829 Jan 14 02:13	23°♄37'59	2°00'05
	1828 Mar 02 12:52	0°♄			1829 Jan 17 21:23	0°♄	
retrograde	1828 Mar 08 09:51	2°♄32'41		evening rise	1829 Jan 26 16:53	15°♄13'08	
evening set	1828 Mar 10 22:56	2°♄04'54			1829 Feb 04 06:08	0°♄	
	1828 Mar 14 14:43	30°♄		asc. node	1829 Feb 08 23:18	7°♄17'49	
inferior conj	1828 Mar 17 20:35	27°♄15'25	3°21'30	evening max el	1829 Feb 13 00:53	12°♄14'40	18°08'29
minimum elong	1828 Mar 17 23:21	27°♄09'08	3°21'05	retrograde	1829 Feb 19 12:43	15°♄38'29	
min. Earth dist.	1828 Mar 21 04:45	24°♄15'10	0.60187 AU	evening set	1829 Feb 22 06:50	15°♄00'54	
morning rise	1828 Mar 24 20:24	21°♄30'55		inferior conj	1829 Feb 28 15:32	9°♄50'14	3°42'08
direct	1828 Mar 31 11:04	19°♄27'00		minimum elong	1829 Feb 28 16:18	9°♄48'16	3°42'06
desc. node	1828 Apr 01 12:02	19°♄29'58		min. Earth dist.	1829 Mar 03 12:27	6°♄52'59	0.62294 AU
morning max el	1828 Apr 14 17:57	27°♄17'22	27°32'23	morning rise	1829 Mar 06 23:28	3°♄51'22	
	1828 Apr 17 08:10	0°♄		direct	1829 Mar 13 21:48	1°♄18'38	
	1828 May 07 18:01	0°♄		desc. node	1829 Mar 19 09:04	2°♄42'00	
morning set	1828 May 16 10:58	16°♄54'36		morning max el	1829 Mar 27 22:47	9°♄13'28	27°49'29
asc. node	1828 May 21 01:33	26°♄42'36			1829 Apr 13 00:54	0°♄	
	1828 May 22 13:45	0°♄			1829 Apr 29 22:09	0°♄	
max. Earth dist.	1828 May 22 20:54	0°♄39'10	1.32223 AU	morning set	1829 Apr 30 13:21	1°♄16'45	
				max. Earth dist.	1829 May 06 05:48	13°♄11'39	1.32585 AU
superior conj	1828 May 23 16:26	2°♄26'24	0°27'25	asc. node	1829 May 07 22:36	16°♄52'10	
minimum elong	1828 May 23 15:14	2°♄19'47	0°27'09				
evening rise	1828 May 30 14:02	17°♄26'25		superior conj	1829 May 08 02:06	17°♄11'10	0°01'33
	1828 Jun 05 19:16	0°♄		minimum elong	1829 May 08 02:01	17°♄10'44	0°01'32
	1828 Jun 26 02:51	0°♄		behind sun begin	1829 May 07 20:53	16°♄42'48	
evening max el	1828 Jun 27 01:23	0°♄55'11	25°37'44	behind sun end	1829 May 08 07:10	17°♄38'41	
desc. node	1828 Jun 28 11:20	2°♄12'57			1829 May 13 23:45	0°♄	
retrograde	1828 Jul 11 01:53	8°♄04'06		evening rise	1829 May 15 01:47	2°♄18'44	
evening set	1828 Jul 17 00:31	6°♄40'49			1829 May 30 04:45	0°♄	
min. Earth dist.	1828 Jul 21 13:38	4°♄01'26	0.58300 AU	evening max el	1829 Jun 08 16:03	11°♄37'46	24°08'54
inferior conj	1828 Jul 24 18:45	1°♄44'14	-4°-57'-2	desc. node	1829 Jun 15 08:21	16°♄39'44	
minimum elong	1828 Jul 24 19:18	1°♄43'15	4°57'03	retrograde	1829 Jun 22 11:42	18°♄35'13	
	1828 Jul 27 07:08	30°♄		evening set	1829 Jun 27 01:28	17°♄48'51	
morning rise	1828 Aug 01 17:43	27°♄23'53		min. Earth dist.	1829 Jul 03 02:53	14°♄50'24	0.56494 AU
direct	1828 Aug 04 05:33	27°♄04'15		inferior conj	1829 Jul 05 15:51	13°♄15'40	-4°-40'-19
	1828 Aug 11 10:10	0°♄		minimum elong	1829 Jul 05 11:05	13°♄23'08	4°39'44

morning rise	1829 Jul 14 00:16	9°☿15'08		morning rise	1830 Jun 24 11:33	20°♄12'49	
direct	1829 Jul 16 16:43	8°☿56'08		direct	1830 Jun 27 10:08	19°♄53'02	
morning max el	1829 Jul 26 10:12	13°☿27'03	19°43'23	morning max el	1830 Jul 08 18:51	25°♄09'47	21°02'02
asc. node	1829 Aug 03 21:49	24°☿29'26			1830 Jul 13 04:46	0°☿	
	1829 Aug 07 02:01	0°♄		asc. node	1830 Jul 21 18:54	13°☿22'53	
morning set	1829 Aug 13 01:37	11°♄35'43		morning set	1830 Jul 28 09:10	26°☿19'02	
					1830 Jul 30 03:47	0°♄	
superior conj	1829 Aug 21 00:24	27°♄37'27	1°45'43	superior conj	1830 Aug 04 20:37	11°♄52'26	1°43'34
minimum elong	1829 Aug 21 00:46	27°♄39'19	1°45'43	minimum elong	1830 Aug 04 19:31	11°♄46'46	1°43'31
	1829 Aug 22 05:19	0°♄			1830 Aug 09 06:37	20°♄48'08	1.35564 AU
max. Earth dist.	1829 Aug 26 21:15	8°♄56'36	1.37362 AU	max. Earth dist.	1830 Aug 13 11:55	28°♄56'48	
evening rise	1829 Aug 30 17:16	15°♄57'50		evening rise	1830 Aug 14 01:25	0°♄	
	1829 Sep 07 22:32	0°♄			1830 Aug 29 04:43	25°♄36'07	
desc. node	1829 Sep 11 07:41	5°♄23'44		desc. node	1830 Sep 01 03:35	0°♄	
	1829 Sep 28 21:56	0°♄			1830 Sep 17 23:28	20°♄52'29	26°28'36
evening max el	1829 Oct 05 11:25	7°♄14'04	25°26'27	evening max el	1830 Sep 30 19:29	28°♄05'03	
retrograde	1829 Oct 17 13:27	14°♄11'04		retrograde	1830 Oct 07 06:39	25°♄26'08	
evening set	1829 Oct 23 10:47	11°♄43'53		evening set	1830 Oct 11 09:47	21°♄08'11	0.66216 AU
min. Earth dist.	1829 Oct 27 21:28	6°♄49'11	0.67087 AU	min. Earth dist.	1830 Oct 13 00:39	19°♄10'36	-1°-36'-1
inferior conj	1829 Oct 29 00:45	5°♄21'13	0°-38'-8	inferior conj	1830 Oct 13 03:12	19°♄02'53	1°34'59
minimum elong	1829 Oct 29 01:43	5°♄18'03	0°37'43	minimum elong	1830 Oct 17 18:05	14°♄13'34	
asc. node	1829 Oct 30 21:02	3°♄02'06		asc. node	1830 Oct 19 00:58	13°♄22'36	
	1829 Nov 02 20:28	30°♄		morning rise	1830 Oct 21 23:19	12°♄34'06	
morning rise	1829 Nov 03 17:21	29°♄22'26		direct	1830 Oct 28 16:01	16°♄15'20	18°36'37
direct	1829 Nov 07 01:18	28°♄18'22		morning max el	1830 Nov 07 21:04	0°♄	
	1829 Nov 11 12:28	0°♄			1830 Nov 18 03:28	16°♄13'59	
morning max el	1829 Nov 14 05:15	2°♄20'37	19°24'14	morning set	1830 Nov 25 03:58	27°♄22'49	
greatest brilliancy	1829 Nov 23 08:59	14°♄03'57	-0.7m	desc. node	1830 Nov 26 19:48	0°♄	
	1829 Dec 03 22:09	0°♄					
morning set	1829 Dec 08 05:51	6°♄40'58		superior conj	1830 Dec 04 04:14	11°♄33'45	0°-57'-48
desc. node	1829 Dec 08 06:54	6°♄45'05		minimum elong	1830 Dec 03 21:02	11°♄05'31	0°56'55
max. Earth dist.	1829 Dec 21 14:06	27°♄32'44	1.44607 AU	max. Earth dist.	1830 Dec 04 08:08	11°♄49'04	1.45126 AU
	1829 Dec 23 03:16	0°♄			1830 Dec 15 21:06	0°♄	
superior conj	1829 Dec 25 01:38	3°♄04'30	-1°-37'-48	evening rise	1830 Dec 20 02:05	6°♄41'11	
minimum elong	1829 Dec 24 17:13	2°♄30'53	1°37'05		1831 Jan 03 23:12	0°♄	
evening rise	1830 Jan 08 09:08	26°♄25'59		evening max el	1831 Jan 10 23:37	9°♄01'21	18°58'02
	1830 Jan 10 12:27	0°♄		asc. node	1831 Jan 13 17:24	11°♄24'15	
asc. node	1830 Jan 26 20:21	24°♄50'31		retrograde	1831 Jan 17 20:01	12°♄54'00	
evening max el	1830 Jan 27 13:19	25°♄35'12	18°24'19	evening set	1831 Jan 21 01:17	11°♄54'02	
retrograde	1830 Feb 03 01:26	29°♄08'01		inferior conj	1831 Jan 26 17:59	6°♄06'41	3°25'31
evening set	1830 Feb 06 00:39	28°♄19'46		minimum elong	1831 Jan 26 15:52	6°♄13'18	3°25'11
inferior conj	1830 Feb 11 23:54	22°♄49'34	3°41'35	min. Earth dist.	1831 Jan 28 08:26	4°♄06'23	0.65649 AU
minimum elong	1830 Feb 11 22:55	22°♄52'25	3°41'32	morning rise	1831 Feb 01 05:27	29°♄54'12	
min. Earth dist.	1830 Feb 14 05:43	20°♄14'51	0.64153 AU		1831 Feb 01 02:50	30°♄	
morning rise	1830 Feb 17 19:41	16°♄42'03		direct	1831 Feb 07 17:41	27°♄04'36	
direct	1830 Feb 24 16:19	13°♄53'52			1831 Feb 15 06:37	0°♄	
desc. node	1830 Mar 06 06:06	18°♄06'22		morning max el	1831 Feb 20 17:33	4°♄43'51	26°39'35
morning max el	1830 Mar 10 07:36	21°♄46'15	27°30'09	desc. node	1831 Feb 21 03:09	5°♄08'14	
	1830 Mar 17 12:33	0°♄			1831 Mar 12 00:49	0°♄	
	1830 Apr 06 04:40	0°♄		morning set	1831 Mar 28 15:40	28°♄31'02	
morning set	1830 Apr 14 08:04	15°♄12'27			1831 Mar 29 10:21	0°♄	
max. Earth dist.	1830 Apr 19 07:37	25°♄18'34	1.33362 AU	max. Earth dist.	1831 Apr 01 22:38	6°♄51'18	1.34588 AU
	1830 Apr 21 13:11	0°♄					
superior conj	1830 Apr 22 08:02	1°♄40'09	0°-25'-53	superior conj	1831 Apr 06 08:03	15°♄46'39	0°-53'-44
minimum elong	1830 Apr 22 09:19	1°♄47'00	0°25'38	minimum elong	1831 Apr 06 10:45	16°♄00'38	0°53'15
asc. node	1830 Apr 24 19:40	6°♄59'13		asc. node	1831 Apr 11 16:43	26°♄59'22	
evening rise	1830 Apr 29 13:18	17°♄05'41			1831 Apr 13 03:16	0°♄	
	1830 May 05 23:45	0°♄		evening rise	1831 Apr 13 22:38	1°♄40'41	
evening max el	1830 May 21 06:55	22°♄07'08	22°32'47		1831 Apr 30 12:30	0°♄	
desc. node	1830 Jun 02 05:22	28°♄34'02		evening max el	1831 May 03 05:29	2°♄54'47	21°03'36
retrograde	1830 Jun 03 09:24	28°♄37'09		retrograde	1831 May 14 23:07	8°♄37'52	
evening set	1830 Jun 06 12:42	28°♄15'29		evening set	1831 May 17 04:40	8°♄26'11	
min. Earth dist.	1830 Jun 14 14:26	24°♄44'33	0.55270 AU	desc. node	1831 May 20 02:23	7°♄38'54	
inferior conj	1830 Jun 15 18:45	24°♄04'19	-3°-36'-45	inferior conj	1831 May 26 12:40	4°♄27'58	-1°-51'-8
minimum elong	1830 Jun 15 10:53	24°♄15'31	3°34'42	minimum elong	1831 May 26 07:28	4°♄35'19	1°49'20
				min. Earth dist.	1831 May 27 02:53	4°♄07'52	0.54917 AU

morning rise	1831 Jun 04 09:54	0° Π 26'14		transit middle	1832 May 05 12:25	14° \mathcal{B} 56'36	0°08'05
direct	1831 Jun 07 19:38	0° Π 01'10		transit begin	1832 May 05 09:00	15° \mathcal{B} 01'51	
morning max el	1831 Jun 20 16:59	6° Π 10'22	22°37'03	transit end	1832 May 05 15:50	14° \mathcal{B} 51'20	
	1831 Jul 07 05:55	0° \mathcal{E}		desc. node	1832 May 05 23:24	14° \mathcal{B} 39'40	
asc. node	1831 Jul 08 15:57	2° \mathcal{E} 44'16		min. Earth dist.	1832 May 07 16:50	13° \mathcal{B} 36'12	0.55535 AU
morning set	1831 Jul 12 19:43	11° \mathcal{E} 11'29		morning rise	1832 May 14 05:22	10° \mathcal{B} 27'43	
				direct	1832 May 18 11:22	9° \mathcal{B} 47'45	
superior conj	1831 Jul 20 00:12	26° \mathcal{E} 29'13	1°34'58	morning max el	1832 Jun 01 08:26	16° \mathcal{B} 42'32	24°18'57
minimum elong	1831 Jul 19 22:10	26° \mathcal{E} 18'27	1°34'46		1832 Jun 12 02:07	0° Π	
	1831 Jul 21 16:07	0° \mathcal{Q}		asc. node	1832 Jun 24 13:01	22° Π 26'20	
max. Earth dist.	1831 Jul 23 00:35	2° \mathcal{Q} 49'22	1.34125 AU	morning set	1832 Jun 26 07:32	26° Π 07'54	
evening rise	1831 Jul 27 21:17	12° \mathcal{Q} 38'44			1832 Jun 28 03:08	0° \mathcal{E}	
	1831 Aug 06 08:17	0° \mathcal{M}					
desc. node	1831 Aug 16 01:45	15° \mathcal{M} 24'16		superior conj	1832 Jul 03 08:31	11° \mathcal{E} 19'38	1°21'07
	1831 Aug 27 07:18	0° \mathcal{A}		minimum elong	1832 Jul 03 06:07	11° \mathcal{E} 06'36	1°20'47
evening max el	1831 Aug 31 11:31	4° \mathcal{A} 21'14	27°10'45	max. Earth dist.	1832 Jul 05 03:33	15° \mathcal{E} 11'56	1.33095 AU
retrograde	1831 Sep 13 20:08	11° \mathcal{A} 39'53		evening rise	1832 Jul 10 17:21	26° \mathcal{E} 52'13	
evening set	1831 Sep 20 18:26	8° \mathcal{A} 56'44			1832 Jul 12 06:49	0° \mathcal{Q}	
min. Earth dist.	1831 Sep 24 14:43	5° \mathcal{A} 15'19	0.64985 AU		1832 Jul 29 16:12	0° \mathcal{M}	
inferior conj	1831 Sep 26 18:00	2° \mathcal{A} 52'38	-2°-34'-7	desc. node	1832 Aug 01 22:45	4° \mathcal{M} 37'57	
minimum elong	1831 Sep 26 22:04	2° \mathcal{A} 41'18	2°32'38	evening max el	1832 Aug 12 22:16	17° \mathcal{M} 28'57	27°25'58
	1831 Sep 29 11:22	30° \mathcal{R} \mathcal{M}		retrograde	1832 Aug 26 14:36	24° \mathcal{M} 46'38	
morning rise	1831 Oct 03 03:30	27° \mathcal{M} 18'30		evening set	1832 Sep 02 19:01	22° \mathcal{M} 09'54	
asc. node	1831 Oct 04 15:08	26° \mathcal{M} 48'43		min. Earth dist.	1832 Sep 06 10:20	19° \mathcal{M} 01'33	0.63405 AU
direct	1831 Oct 05 18:40	26° \mathcal{M} 41'40		inferior conj	1832 Sep 09 02:08	16° \mathcal{M} 21'29	-3°-29'-26
	1831 Oct 12 02:25	0° \mathcal{A}		minimum elong	1832 Sep 09 07:17	16° \mathcal{M} 08'33	3°27'55
morning max el	1831 Oct 12 06:54	0° \mathcal{A} 11'06	18°05'38	morning rise	1832 Sep 15 21:54	11° \mathcal{M} 04'26	
morning set	1831 Oct 30 06:17	27° \mathcal{A} 13'38		direct	1832 Sep 18 08:35	10° \mathcal{M} 35'40	
	1831 Oct 31 22:21	0° \mathcal{M}		asc. node	1832 Sep 20 12:11	10° \mathcal{M} 58'20	
desc. node	1831 Nov 12 01:02	18° \mathcal{M} 06'54		morning max el	1832 Sep 24 23:02	14° \mathcal{M} 01'25	17°52'10
					1832 Oct 05 23:47	0° \mathcal{A}	
superior conj	1831 Nov 13 10:17	20° \mathcal{M} 19'37	0°-9'-17	morning set	1832 Oct 11 10:26	9° \mathcal{A} 26'35	
minimum elong	1831 Nov 13 09:07	20° \mathcal{M} 14'59	0°09'09		1832 Oct 23 11:17	0° \mathcal{M}	
behind sun begin	1831 Nov 13 00:09	19° \mathcal{M} 39'17					
behind sun end	1831 Nov 13 18:04	20° \mathcal{M} 50'40		superior conj	1832 Oct 23 13:50	0° \mathcal{M} 10'36	0°35'43
max. Earth dist.	1831 Nov 17 02:49	26° \mathcal{M} 10'25	1.44903 AU	minimum elong	1832 Oct 23 17:22	0° \mathcal{M} 25'10	0°35'13
	1831 Nov 19 13:12	0° \mathcal{A}		desc. node	1832 Oct 28 22:03	8° \mathcal{M} 53'57	
evening rise	1831 Nov 29 21:32	16° \mathcal{A} 06'20		max. Earth dist.	1832 Oct 29 19:47	10° \mathcal{M} 21'14	1.43978 AU
	1831 Dec 08 22:14	0° \mathcal{E}		evening rise	1832 Nov 08 05:57	25° \mathcal{M} 09'20	
greatest brilliancy	1831 Dec 17 18:55	13° \mathcal{E} 08'18	-0.6m		1832 Nov 11 09:45	0° \mathcal{A}	
evening max el	1831 Dec 25 05:52	22° \mathcal{E} 30'22	19°48'06	greatest brilliancy	1832 Dec 01 17:48	29° \mathcal{A} 28'51	-0.5m
asc. node	1831 Dec 31 14:24	26° \mathcal{E} 44'38			1832 Dec 02 03:28	0° \mathcal{E}	
retrograde	1832 Jan 01 17:21	26° \mathcal{E} 51'37		evening max el	1832 Dec 07 06:48	6° \mathcal{E} 00'38	20°51'59
evening set	1832 Jan 05 06:14	25° \mathcal{E} 38'27		retrograde	1832 Dec 15 15:04	10° \mathcal{E} 56'55	
inferior conj	1832 Jan 10 18:44	19° \mathcal{E} 36'42	2°57'53	asc. node	1832 Dec 17 11:25	10° \mathcal{E} 37'51	
minimum elong	1832 Jan 10 16:07	19° \mathcal{E} 45'21	2°57'14	evening set	1832 Dec 19 13:26	9° \mathcal{E} 28'47	
min. Earth dist.	1832 Jan 11 19:01	18° \mathcal{E} 16'10	0.66745 AU	inferior conj	1832 Dec 24 23:38	3° \mathcal{E} 15'39	2°21'16
morning rise	1832 Jan 16 01:19	13° \mathcal{E} 21'50		minimum elong	1832 Dec 24 21:05	3° \mathcal{E} 24'24	2°20'26
direct	1832 Jan 22 00:57	10° \mathcal{E} 42'41		min. Earth dist.	1832 Dec 25 11:14	2° \mathcal{E} 35'53	0.67453 AU
morning max el	1832 Feb 03 02:31	17° \mathcal{E} 54'06	25°26'25		1832 Dec 27 10:15	30° \mathcal{R} \mathcal{A}	
desc. node	1832 Feb 08 00:12	23° \mathcal{E} 19'50		morning rise	1832 Dec 30 04:18	27° \mathcal{A} 00'27	
	1832 Feb 13 06:43	0° \mathcal{A}		direct	1833 Jan 04 13:13	24° \mathcal{A} 39'49	
	1832 Mar 04 01:04	0° \mathcal{H}			1833 Jan 14 06:16	0° \mathcal{E}	
morning set	1832 Mar 10 07:33	10° \mathcal{H} 59'10		morning max el	1833 Jan 15 10:46	1° \mathcal{E} 09'45	24°00'40
max. Earth dist.	1832 Mar 14 01:49	17° \mathcal{H} 56'21	1.36263 AU	desc. node	1833 Jan 24 21:14	12° \mathcal{E} 20'37	
					1833 Feb 06 06:32	0° \mathcal{A}	
superior conj	1832 Mar 19 23:25	29° \mathcal{H} 23'10	-1°-20'-23	morning set	1833 Feb 20 01:40	22° \mathcal{A} 19'18	
minimum elong	1832 Mar 20 03:17	29° \mathcal{H} 42'26	1°19'49	max. Earth dist.	1833 Feb 23 21:28	29° \mathcal{A} 01'33	1.38297 AU
	1832 Mar 20 06:48	0° \mathcal{Y}			1833 Feb 24 10:32	0° \mathcal{H}	
evening rise	1832 Mar 28 03:40	15° \mathcal{Y} 57'23					
asc. node	1832 Mar 28 13:45	16° \mathcal{Y} 48'24		superior conj	1833 Mar 03 02:31	12° \mathcal{H} 19'18	-1°-43'-30
	1832 Apr 04 10:31	0° \mathcal{B}		minimum elong	1833 Mar 03 06:45	12° \mathcal{H} 39'25	1°43'04
evening max el	1832 Apr 14 15:42	14° \mathcal{B} 19'50	19°50'11	evening rise	1833 Mar 12 01:48	29° \mathcal{H} 47'51	
retrograde	1832 Apr 24 15:34	19° \mathcal{B} 09'15			1833 Mar 12 04:17	0° \mathcal{Y}	
evening set	1832 Apr 26 16:16	18° \mathcal{B} 58'13		asc. node	1833 Mar 15 10:46	6° \mathcal{Y} 20'32	
inferior conj	1832 May 05 12:03	14° \mathcal{B} 57'10	0°08'12	evening max el	1833 Mar 28 12:49	26° \mathcal{Y} 22'59	18°56'01
minimum elong	1832 May 05 12:25	14° \mathcal{B} 56'36	0°08'05		1833 Apr 03 01:52	0° \mathcal{B}	

retrograde	1833 Apr 05 22:52	0°♄28'11		asc. node	1834 Mar 02 07:46	25°♄30'15	
evening set	1833 Apr 08 03:25	0°♄12'44			1834 Mar 04 23:40	0°♄	
	1833 Apr 08 22:18	30°♄♂		evening max el	1834 Mar 11 18:11	8°♄58'30	18°21'55
inferior conj	1833 Apr 16 04:27	25°♄55'56	1°49'19	retrograde	1834 Mar 19 01:27	12°♄35'36	
minimum elong	1833 Apr 16 08:09	25°♄49'20	1°48'11	evening set	1834 Mar 21 11:27	12°♄12'52	
min. Earth dist.	1833 Apr 19 08:40	23°♄41'27	0.56984 AU	inferior conj	1834 Mar 28 18:09	7°♄35'17	2°57'19
desc. node	1833 Apr 22 20:25	21°♄34'40		minimum elong	1834 Mar 28 21:51	7°♄27'35	2°56'31
morning rise	1833 Apr 24 08:38	20°♄52'34		min. Earth dist.	1834 Apr 01 04:41	4°♄44'53	0.58956 AU
direct	1833 Apr 29 15:57	19°♄45'25		morning rise	1834 Apr 05 04:21	2°♄02'51	
morning max el	1833 May 13 23:09	27°♄10'50	25°53'44	desc. node	1834 Apr 09 17:26	0°♄27'28	
	1833 May 16 16:32	0°♄		direct	1834 Apr 11 09:46	0°♄19'58	
	1833 Jun 05 07:55	0°♄		morning max el	1834 Apr 25 18:31	8°♄03'39	27°05'54
morning set	1833 Jun 10 18:59	11°♄02'35			1834 May 12 08:18	0°♄	
asc. node	1833 Jun 11 10:03	12°♄22'19		morning set	1834 May 26 04:26	25°♄49'54	
					1834 May 28 03:44	0°♄	
superior conj	1833 Jun 17 19:27	26°♄16'09	1°02'57	asc. node	1834 May 29 07:06	2°♄27'07	
minimum elong	1833 Jun 17 17:10	26°♄03'39	1°02'34				
max. Earth dist.	1833 Jun 18 13:00	27°♄52'25	1.32455 AU	superior conj	1834 Jun 02 07:13	11°♄12'43	0°41'14
	1833 Jun 19 12:20	0°♄		minimum elong	1834 Jun 02 05:31	11°♄03'19	0°40'54
evening rise	1833 Jun 24 20:50	11°♄26'40		max. Earth dist.	1834 Jun 02 01:17	10°♄40'04	1.32196 AU
	1833 Jul 04 11:57	0°♄		evening rise	1834 Jun 09 05:10	26°♄13'35	
desc. node	1833 Jul 19 19:45	23°♄02'57			1834 Jun 11 00:39	0°♄	
evening max el	1833 Jul 26 05:06	0°♄02'05	27°09'18		1834 Jun 28 06:19	0°♄	
	1833 Jul 26 04:14	0°♄		desc. node	1834 Jul 06 16:45	10°♄18'49	
retrograde	1833 Aug 09 01:55	7°♄16'27		evening max el	1834 Jul 08 05:23	11°♄49'33	26°19'33
evening set	1833 Aug 16 04:27	4°♄58'57		retrograde	1834 Jul 22 05:03	19°♄01'15	
min. Earth dist.	1833 Aug 19 19:22	2°♄14'47	0.61525 AU	evening set	1834 Jul 28 18:00	17°♄15'26	
	1833 Aug 22 08:19	30°♄♂		min. Earth dist.	1834 Aug 01 18:17	14°♄40'05	0.59469 AU
inferior conj	1833 Aug 22 21:58	29°♄29'26	-4°-17'-14	inferior conj	1834 Aug 05 01:53	12°♄06'36	-4°-49'-45
minimum elong	1833 Aug 23 03:03	29°♄18'07	4°16'12	minimum elong	1834 Aug 05 04:50	12°♄00'52	4°49'30
morning rise	1833 Aug 30 04:31	24°♄32'59		morning rise	1834 Aug 12 19:05	7°♄33'22	
direct	1833 Sep 01 13:37	24°♄09'20		direct	1834 Aug 15 05:18	7°♄12'42	
asc. node	1833 Sep 07 09:14	26°♄35'41		morning max el	1834 Aug 22 23:12	10°♄56'47	18°21'58
morning max el	1833 Sep 08 13:30	27°♄39'26	17°57'13	asc. node	1834 Aug 25 06:18	13°♄26'07	
	1833 Sep 10 16:35	0°♄			1834 Sep 04 13:55	0°♄	
morning set	1833 Sep 24 09:38	22°♄34'13		morning set	1834 Sep 07 22:25	6°♄20'46	
	1833 Sep 28 11:22	0°♄					
superior conj	1833 Oct 04 20:38	11°♄21'59	1°10'02	superior conj	1834 Sep 17 03:25	23°♄44'10	1°32'12
minimum elong	1833 Oct 05 01:13	11°♄41'54	1°09'30	minimum elong	1834 Sep 17 06:46	23°♄59'33	1°31'56
max. Earth dist.	1833 Oct 12 08:38	24°♄04'51	1.42463 AU		1834 Sep 20 14:27	0°♄	
desc. node	1833 Oct 15 19:05	29°♄40'51		max. Earth dist.	1834 Sep 24 15:53	7°♄06'27	1.40552 AU
	1833 Oct 15 23:50	0°♄		evening rise	1834 Sep 29 05:58	14°♄49'53	
evening rise	1833 Oct 18 20:12	4°♄32'30		desc. node	1834 Oct 02 16:06	20°♄23'44	
	1833 Nov 04 18:45	0°♄			1834 Oct 08 19:37	0°♄	
greatest brilliancy	1833 Nov 15 08:56	14°♄12'29	-0.3m		1834 Oct 30 19:25	0°♄	
evening max el	1833 Nov 20 02:11	19°♄32'16	22°06'08	evening max el	1834 Nov 02 16:57	3°♄05'35	23°25'43
retrograde	1833 Nov 29 11:27	25°♄07'16		retrograde	1834 Nov 13 05:05	9°♄18'31	
evening set	1833 Dec 03 21:12	23°♄22'38		evening set	1834 Nov 18 03:52	7°♄16'37	
asc. node	1833 Dec 04 08:26	22°♄58'54		asc. node	1834 Nov 21 05:30	4°♄00'13	
inferior conj	1833 Dec 09 06:42	17°♄01'28	1°37'34	min. Earth dist.	1834 Nov 23 03:33	1°♄27'20	0.67775 AU
minimum elong	1833 Dec 09 04:40	17°♄08'31	1°36'47	inferior conj	1834 Nov 23 14:03	0°♄51'19	0°48'09
min. Earth dist.	1833 Dec 09 06:52	17°♄00'54	0.67789 AU	minimum elong	1834 Nov 23 12:57	0°♄55'08	0°47'41
morning rise	1833 Dec 14 11:57	10°♄47'55			1834 Nov 24 05:05	30°♄♂	
direct	1833 Dec 19 05:39	8°♄49'43		morning rise	1834 Nov 28 22:09	24°♄41'26	
morning max el	1833 Dec 28 21:15	14°♄31'49	22°32'27	direct	1834 Dec 03 01:21	23°♄06'07	
greatest brilliancy	1834 Jan 02 11:00	19°♄38'16	-0.3m	morning max el	1834 Dec 11 13:23	28°♄02'52	21°09'53
	1834 Jan 10 08:51	0°♄			1834 Dec 13 09:25	0°♄	
desc. node	1834 Jan 11 18:17	1°♄56'54		greatest brilliancy	1834 Dec 16 21:33	4°♄11'34	-0.5m
	1834 Jan 30 06:14	0°♄		desc. node	1834 Dec 29 15:20	21°♄58'14	
morning set	1834 Jan 31 16:15	2°♄18'18			1835 Jan 03 23:54	0°♄	
max. Earth dist.	1834 Feb 05 17:48	10°♄44'49	1.40456 AU	morning set	1835 Jan 11 02:44	10°♄59'21	
				max. Earth dist.	1835 Jan 18 20:14	23°♄22'13	1.42437 AU
					1835 Jan 22 20:20	0°♄	
superior conj	1834 Feb 13 12:54	24°♄24'24	-1°-59'-42				
minimum elong	1834 Feb 13 15:51	24°♄37'42	1°59'34	superior conj	1835 Jan 26 01:17	5°♄25'44	-2°-4'-33
	1834 Feb 16 14:27	0°♄		minimum elong	1835 Jan 26 00:28	5°♄22'17	2°04'33
evening rise	1834 Feb 23 14:04	13°♄05'17		evening rise	1835 Feb 06 12:38	25°♄40'58	

	1835 Feb 08 22:09	0°♄			1836 Jan 15 08:33	0°♄		
asc. node	1835 Feb 17 04:48	14°♄10'19		evening rise	1836 Jan 19 17:08	7°♄25'58		
evening max el	1835 Feb 23 04:41	21°♄58'09	18°07'48		1836 Feb 02 10:56	0°♄		
retrograde	1835 Mar 01 20:45	25°♄22'58		asc. node	1836 Feb 04 01:51	2°♄11'08		
evening set	1835 Mar 04 11:53	24°♄51'15		evening max el	1836 Feb 06 17:15	5°♄13'24	18°13'00	
inferior conj	1835 Mar 11 03:34	19°♄52'32	3°33'17	retrograde	1836 Feb 13 04:17	8°♄39'41		
minimum elong	1835 Mar 11 05:30	19°♄47'53	3°33'04	evening set	1836 Feb 16 00:25	7°♄57'50		
min. Earth dist.	1835 Mar 14 07:42	16°♄50'34	0.61097 AU	inferior conj	1836 Feb 22 04:44	2°♄38'53	3°44'05	
morning rise	1835 Mar 17 20:10	14°♄00'38		minimum elong	1836 Feb 22 04:41	2°♄39'01	3°44'05	
direct	1835 Mar 24 15:07	11°♄43'11			1836 Feb 24 15:21	30°♄		
desc. node	1835 Mar 27 14:29	12°♄07'44		min. Earth dist.	1836 Feb 24 19:34	29°♄48'53	0.63123 AU	
morning max el	1835 Apr 07 20:21	19°♄36'57	27°44'23	morning rise	1836 Feb 28 06:59	26°♄35'39		
	1835 Apr 16 16:49	0°♄		direct	1836 Mar 06 05:39	23°♄54'10		
	1835 May 05 04:06	0°♄		desc. node	1836 Mar 13 11:32	26°♄20'23		
morning set	1835 May 10 10:03	10°♄23'55			1836 Mar 18 05:03	0°♄		
asc. node	1835 May 16 04:08	22°♄36'26		morning max el	1836 Mar 20 03:12	1°♄49'57	27°45'27	
max. Earth dist.	1835 May 16 12:33	23°♄22'11	1.32321 AU		1836 Apr 09 22:23	0°♄		
				morning set	1836 Apr 23 09:30	24°♄36'03		
superior conj	1835 May 17 18:10	26°♄03'54	0°16'41		1836 Apr 26 01:04	0°♄		
minimum elong	1835 May 17 17:24	25°♄59'44	0°16'32	max. Earth dist.	1836 Apr 28 18:40	5°♄44'07	1.32855 AU	
	1835 May 19 13:15	0°♄						
evening rise	1835 May 24 16:15	11°♄06'05		superior conj	1836 May 01 02:28	10°♄42'52	0°-9'-57	
	1835 Jun 03 08:00	0°♄		minimum elong	1836 May 01 02:57	10°♄45'28	0°09'52	
evening max el	1835 Jun 19 22:37	22°♄51'48	25°01'52	behind sun begin	1836 Apr 30 22:48	10°♄23'05		
desc. node	1835 Jun 23 13:46	25°♄57'43		behind sun end	1836 May 01 07:06	11°♄07'51		
retrograde	1835 Jul 03 22:20	29°♄58'10		asc. node	1836 May 02 01:10	12°♄45'26		
evening set	1835 Jul 09 08:03	28°♄51'10		evening rise	1836 May 08 04:05	25°♄56'41		
min. Earth dist.	1835 Jul 14 10:10	26°♄05'35	0.57474 AU		1836 May 10 02:38	0°♄		
inferior conj	1835 Jul 17 10:41	24°♄04'05	-4°-55'-12		1836 May 28 07:25	0°♄		
minimum elong	1835 Jul 17 09:02	24°♄06'52	4°55'08	evening max el	1836 May 31 12:27	3°♄24'56	23°28'05	
morning rise	1835 Jul 25 13:48	19°♄53'20		desc. node	1836 Jun 09 10:48	9°♄23'37		
direct	1835 Jul 28 03:17	19°♄34'14		retrograde	1836 Jun 14 03:10	10°♄13'27		
morning max el	1835 Aug 06 01:03	23°♄44'25	19°07'34	evening set	1836 Jun 18 01:12	9°♄39'47		
	1835 Aug 11 07:00	0°♄		min. Earth dist.	1836 Jun 24 22:40	6°♄28'48	0.55876 AU	
asc. node	1835 Aug 12 03:23	1°♄14'41		inferior conj	1836 Jun 26 23:24	5°♄16'20	-4°-19'-24	
morning set	1835 Aug 22 20:47	20°♄35'40		minimum elong	1836 Jun 26 16:45	5°♄26'17	4°18'10	
	1835 Aug 27 14:27	0°♄		morning rise	1836 Jul 05 11:33	1°♄21'13		
				direct	1836 Jul 08 06:05	1°♄02'15		
superior conj	1835 Aug 31 04:37	7°♄01'28	1°43'27	morning max el	1836 Jul 18 16:16	5°♄51'58	20°14'28	
minimum elong	1835 Aug 31 06:03	7°♄08'23	1°43'24	asc. node	1836 Jul 29 00:26	19°♄47'18		
max. Earth dist.	1835 Sep 06 19:27	19°♄25'07	1.38501 AU		1836 Aug 03 11:57	0°♄		
evening rise	1835 Sep 10 16:00	26°♄15'29		morning set	1836 Aug 06 01:38	5°♄09'59		
	1835 Sep 12 20:18	0°♄						
desc. node	1835 Sep 19 13:07	10°♄58'55		superior conj	1836 Aug 13 19:01	20°♄58'14	1°45'41	
	1835 Oct 02 09:45	0°♄		minimum elong	1836 Aug 13 18:42	20°♄56'39	1°45'40	
evening max el	1835 Oct 16 05:17	16°♄42'44	24°44'24		1836 Aug 18 08:40	0°♄		
retrograde	1835 Oct 27 18:53	23°♄27'03		max. Earth dist.	1836 Aug 19 00:55	1°♄18'08	1.36558 AU	
evening set	1835 Nov 02 07:47	21°♄08'31		evening rise	1836 Aug 23 00:00	8°♄43'30		
min. Earth dist.	1835 Nov 06 22:58	15°♄53'11	0.67433 AU		1836 Sep 04 13:18	0°♄		
inferior conj	1835 Nov 07 19:59	14°♄43'24	0°-5'-39	desc. node	1836 Sep 05 10:09	1°♄21'13		
minimum elong	1835 Nov 07 20:08	14°♄42'56	0°05'36		1836 Sep 27 08:01	0°♄		
transit middle	1835 Nov 07 20:08	14°♄42'56	0°05'36	evening max el	1836 Sep 27 17:18	0°♄22'46	25°54'58	
transit begin	1835 Nov 07 17:33	14°♄51'31		retrograde	1836 Oct 10 03:56	7°♄27'55		
transit end	1835 Nov 07 22:43	14°♄34'22		evening set	1836 Oct 16 07:11	4°♄55'22		
asc. node	1835 Nov 08 02:34	14°♄21'35		min. Earth dist.	1836 Oct 20 14:39	0°♄15'52	0.66756 AU	
morning rise	1835 Nov 13 08:56	8°♄39'36			1836 Oct 20 19:44	30°♄		
direct	1835 Nov 16 23:17	7°♄25'06		inferior conj	1836 Oct 21 22:41	28°♄35'02	-1°-2'-31	
morning max el	1835 Nov 24 13:07	11°♄44'38	19°58'36	minimum elong	1836 Oct 22 00:19	28°♄29'54	1°01'50	
greatest brilliancy	1835 Dec 01 19:20	20°♄36'07	-0.6m	asc. node	1836 Oct 24 23:38	24°♄59'42		
	1835 Dec 08 08:40	0°♄		morning rise	1836 Oct 27 18:20	22°♄40'10		
desc. node	1835 Dec 16 12:22	12°♄17'38		direct	1836 Oct 30 21:54	21°♄43'11		
morning set	1835 Dec 20 22:47	19°♄06'29		morning max el	1836 Nov 06 20:15	25°♄35'31	19°01'55	
	1835 Dec 27 22:34	0°♄			1836 Nov 10 15:24	0°♄		
max. Earth dist.	1836 Jan 01 05:57	6°♄49'20	1.43988 AU	morning set	1836 Nov 29 05:44	27°♄54'03		
					1836 Nov 30 13:56	0°♄		
superior conj	1836 Jan 06 11:31	15°♄15'16	-1°-53'-5	desc. node	1836 Dec 02 09:25	2°♄50'06		
minimum elong	1836 Jan 06 05:18	14°♄49'57	1°52'43	max. Earth dist.	1836 Dec 13 21:50	20°♄53'32	1.44919 AU	

superior conj	1836 Dec 15 22:03	24° ♄ 03'38	-1°-22'-39	evening rise	1837 Dec 11 06:49	28° ♄ 07'00	
minimum elong	1836 Dec 15 13:17	23° ♄ 28'59	1°21'43		1837 Dec 12 11:38	0° ♄	
	1836 Dec 19 16:01	0° ♄		greatest brilliancy	1837 Dec 25 05:09	19° ♄ 44'16	-0.7m
evening rise	1836 Dec 30 23:39	18° ♄ 14'31			1838 Jan 01 16:37	0° ♄	
	1837 Jan 07 04:27	0° ♄		evening max el	1838 Jan 03 14:01	2° ♄ 06'04	19°17'25
evening max el	1837 Jan 20 05:10	18° ♄ 37'52	18°36'36	asc. node	1838 Jan 07 19:57	5° ♄ 26'01	
asc. node	1837 Jan 20 22:54	19° ♄ 21'12		retrograde	1838 Jan 10 15:50	6° ♄ 09'31	
retrograde	1837 Jan 26 19:47	22° ♄ 17'33		evening set	1838 Jan 14 00:15	5° ♄ 03'56	
evening set	1837 Jan 29 21:30	21° ♄ 24'26			1838 Jan 18 23:16	30° ♄	
inferior conj	1837 Feb 04 17:40	15° ♄ 46'54	3°36'21	inferior conj	1838 Jan 19 14:53	29° ♄ 10'02	3°15'00
minimum elong	1837 Feb 04 16:07	15° ♄ 51'31	3°36'12	minimum elong	1838 Jan 19 12:29	29° ♄ 17'44	3°14'32
min. Earth dist.	1837 Feb 06 16:56	13° ♄ 25'42	0.64844 AU	min. Earth dist.	1838 Jan 20 23:03	27° ♄ 26'37	0.66173 AU
morning rise	1837 Feb 10 09:29	9° ♄ 37'09		morning rise	1838 Jan 24 23:56	22° ♄ 56'31	
direct	1837 Feb 17 03:23	6° ♄ 46'29		direct	1838 Jan 31 07:13	20° ♄ 10'21	
desc. node	1837 Feb 28 08:34	12° ♄ 30'30		morning max el	1838 Feb 12 22:10	27° ♄ 38'38	26°10'36
morning max el	1837 Mar 02 12:34	14° ♄ 34'28	27°11'54	desc. node	1838 Feb 15 05:37	0° ♄ 05'02	
	1837 Mar 15 02:35	0° ♄			1838 Feb 15 03:47	0° ♄	
	1837 Apr 02 14:33	0° ♄			1838 Mar 08 19:15	0° ♄	
morning set	1837 Apr 06 23:56	8° ♄ 17'26		morning set	1838 Mar 21 01:25	21° ♄ 16'01	
max. Earth dist.	1837 Apr 11 16:02	17° ♄ 36'17	1.33830 AU	max. Earth dist.	1838 Mar 25 02:04	28° ♄ 56'08	1.35259 AU
					1838 Mar 25 15:09	0° ♄	
superior conj	1837 Apr 15 06:10	25° ♄ 03'34	0°-37'-43	superior conj	1838 Mar 30 02:51	8° ♄ 58'17	-1°-5'-19
minimum elong	1837 Apr 15 08:04	25° ♄ 13'32	0°37'22	minimum elong	1838 Mar 30 06:07	9° ♄ 14'53	1°04'46
	1837 Apr 17 14:11	0° ♄		asc. node	1838 Apr 05 19:15	22° ♄ 46'30	
asc. node	1837 Apr 18 22:13	2° ♄ 50'20		evening rise	1838 Apr 06 22:39	25° ♄ 07'42	
evening rise	1837 Apr 22 14:54	10° ♄ 39'31			1838 Apr 09 08:15	0° ♄	
	1837 May 02 17:28	0° ♄		evening max el	1838 Apr 25 09:12	25° ♄ 01'05	20°30'00
evening max el	1837 May 13 05:57	13° ♄ 59'09	21°53'19		1838 May 03 12:35	0° ♄	
retrograde	1837 May 25 19:54	20° ♄ 10'16		retrograde	1838 May 06 09:02	0° ♄ 21'05	
desc. node	1837 May 27 07:48	20° ♄ 05'12		evening set	1838 May 08 11:05	0° ♄ 10'21	
evening set	1837 May 28 11:55	19° ♄ 54'23			1838 May 09 07:40	30° ♄	
inferior conj	1837 Jun 06 20:51	15° ♄ 50'57	-2°-55'-49	desc. node	1838 May 14 04:47	28° ♄ 06'56	
minimum elong	1837 Jun 06 13:25	16° ♄ 01'21	2°53'33	inferior conj	1838 May 17 15:12	26° ♄ 12'37	0°-59'-59
min. Earth dist.	1837 Jun 06 10:22	16° ♄ 05'37	0.55008 AU	minimum elong	1838 May 17 12:21	26° ♄ 16'44	0°58'57
morning rise	1837 Jun 15 16:15	11° ♄ 57'25		min. Earth dist.	1838 May 18 22:58	25° ♄ 26'36	0.55069 AU
direct	1837 Jun 18 18:57	11° ♄ 36'00		morning rise	1838 May 26 12:03	22° ♄ 01'15	
morning max el	1837 Jun 30 19:57	17° ♄ 15'03	21°40'50	direct	1838 May 30 05:27	21° ♄ 31'20	
	1837 Jul 10 19:43	0° ♄		morning max el	1838 Jun 12 14:27	28° ♄ 00'37	23°20'25
asc. node	1837 Jul 15 21:28	8° ♄ 53'27			1838 Jun 14 14:11	0° ♄	
morning set	1837 Jul 21 10:39	19° ♄ 57'26		asc. node	1838 Jul 02 18:31	28° ♄ 24'45	
	1837 Jul 26 05:13	0° ♄			1838 Jul 03 13:22	0° ♄	
superior conj	1837 Jul 28 18:39	5° ♄ 22'54	1°40'37	morning set	1838 Jul 05 21:56	4° ♄ 52'41	
minimum elong	1837 Jul 28 17:05	5° ♄ 14'43	1°40'30	superior conj	1838 Jul 13 00:31	20° ♄ 06'33	1°29'39
max. Earth dist.	1837 Aug 01 13:50	13° ♄ 12'03	1.34907 AU	minimum elong	1838 Jul 12 22:15	19° ♄ 54'28	1°29'24
evening rise	1837 Aug 06 01:25	22° ♄ 01'53		max. Earth dist.	1838 Jul 15 12:04	25° ♄ 23'31	1.33636 AU
	1837 Aug 10 08:06	0° ♄			1838 Jul 17 17:02	0° ♄	
desc. node	1837 Aug 23 07:11	21° ♄ 24'09		evening rise	1838 Jul 20 15:45	5° ♄ 58'39	
	1837 Aug 29 07:55	0° ♄			1838 Aug 02 22:55	0° ♄	
evening max el	1837 Sep 10 05:39	13° ♄ 58'57	26°49'34	desc. node	1838 Aug 10 04:11	10° ♄ 59'26	
retrograde	1837 Sep 23 07:34	21° ♄ 14'21		evening max el	1838 Aug 23 17:23	27° ♄ 20'32	27°20'53
evening set	1837 Sep 29 23:53	18° ♄ 32'51			1838 Aug 26 17:51	0° ♄	
min. Earth dist.	1837 Oct 04 00:06	14° ♄ 30'29	0.65733 AU	retrograde	1838 Sep 06 05:24	4° ♄ 38'54	
inferior conj	1837 Oct 05 20:04	12° ♄ 21'52	-2°00'-48	evening set	1838 Sep 13 07:18	1° ♄ 56'53	
minimum elong	1837 Oct 05 23:17	12° ♄ 12'27	1°59'32		1838 Sep 15 13:22	30° ♄	
asc. node	1837 Oct 11 20:41	6° ♄ 43'39		min. Earth dist.	1838 Sep 17 01:07	28° ♄ 30'31	0.64354 AU
morning rise	1837 Oct 12 00:06	6° ♄ 39'11		inferior conj	1838 Sep 19 09:49	25° ♄ 59'19	-2°-58'-8
direct	1837 Oct 14 19:10	5° ♄ 55'57		minimum elong	1838 Sep 19 14:26	25° ♄ 47'00	2°56'36
morning max el	1837 Oct 21 09:00	9° ♄ 30'56	18°21'22	morning rise	1838 Sep 25 23:35	20° ♄ 32'12	
	1837 Nov 04 16:08	0° ♄		direct	1838 Sep 28 12:36	19° ♄ 59'08	
morning set	1837 Nov 09 15:52	8° ♄ 04'59		asc. node	1838 Sep 28 17:43	19° ♄ 59'22	
desc. node	1837 Nov 19 06:27	23° ♄ 31'01		morning max el	1838 Oct 05 00:48	23° ♄ 25'39	17°57'49
	1837 Nov 23 08:41	0° ♄			1838 Oct 10 06:21	0° ♄	
superior conj	1837 Nov 24 23:19	2° ♄ 32'15	0°-37'-30	morning set	1838 Oct 22 06:14	19° ♄ 38'34	
minimum elong	1837 Nov 24 18:27	2° ♄ 13'08	0°36'52		1838 Oct 28 09:50	0° ♄	
max. Earth dist.	1837 Nov 26 17:03	5° ♄ 16'25	1.45125 AU				

superior conj	1838 Nov 04 13:00	11° ℳ 42'04	0°10'49	superior conj	1839 Oct 16 04:09	22° ♊ 07'30	0°51'45
minimum elong	1838 Nov 04 14:15	11° ℳ 47'07	0°10'38	minimum elong	1839 Oct 16 08:31	22° ♊ 25'57	0°51'11
behind sun begin	1838 Nov 04 06:25	11° ℳ 15'28			1839 Oct 20 21:37	0° ℳ	
behind sun end	1838 Nov 04 22:05	12° ℳ 18'43		max. Earth dist.	1839 Oct 23 02:51	3° ℳ 36'58	1.43389 AU
desc. node	1838 Nov 06 03:30	14° ℳ 17'06		desc. node	1839 Oct 24 00:31	5° ℳ 04'31	
max. Earth dist.	1838 Nov 09 11:49	19° ℳ 37'26	1.44591 AU	evening rise	1839 Oct 31 04:31	16° ℳ 24'27	
	1838 Nov 16 02:26	0° ♊			1839 Nov 09 02:40	0° ♊	
evening rise	1838 Nov 20 19:53	7° ♊ 18'55		greatest brilliancy	1839 Nov 25 15:06	23° ♊ 15'58	-0.4m
	1838 Dec 05 20:12	0° ♊		evening max el	1839 Nov 30 16:28	29° ♊ 06'06	21°22'31
greatest brilliancy	1838 Dec 11 05:43	7° ♊ 38'50	-0.6m		1839 Dec 01 14:13	0° ♊	
evening max el	1838 Dec 17 18:03	15° ♊ 35'43	20°13'37	retrograde	1839 Dec 09 11:12	4° ♊ 19'18	
retrograde	1838 Dec 25 13:42	20° ♊ 11'20		asc. node	1839 Dec 12 13:59	3° ♊ 25'28	
asc. node	1838 Dec 25 16:58	20° ♊ 11'14		evening set	1839 Dec 13 14:05	2° ♊ 44'24	
evening set	1838 Dec 29 06:25	18° ♊ 51'52			1839 Dec 16 07:24	30° ♊	
inferior conj	1839 Jan 03 17:41	12° ♊ 44'34	2°43'19	inferior conj	1839 Dec 18 23:47	26° ♊ 27'12	2°03'33
minimum elong	1839 Jan 03 15:03	12° ♊ 53'30	2°42'34	minimum elong	1839 Dec 18 21:24	26° ♊ 35'26	2°02'42
min. Earth dist.	1839 Jan 04 12:18	11° ♊ 41'45	0.67096 AU	min. Earth dist.	1839 Dec 19 06:24	26° ♊ 04'20	0.67632 AU
morning rise	1839 Jan 08 23:09	6° ♊ 29'18		morning rise	1839 Dec 24 04:23	20° ♊ 12'13	
direct	1839 Jan 14 16:32	3° ♊ 57'37		direct	1839 Dec 29 06:42	18° ♊ 00'54	
morning max el	1839 Jan 26 06:53	10° ♊ 52'41	24°50'52	morning max el	1840 Jan 08 15:48	24° ♊ 11'33	23°22'56
desc. node	1839 Feb 02 02:40	18° ♊ 39'51			1840 Jan 13 20:03	0° ♊	
	1839 Feb 10 12:55	0° ♊		greatest brilliancy	1840 Jan 14 04:03	0° ♊ 24'27	-0.2m
	1839 Mar 01 11:51	0° ♊		desc. node	1840 Jan 19 23:44	7° ♊ 57'35	
morning set	1839 Mar 03 08:51	3° ♊ 17'37			1840 Feb 03 23:40	0° ♊	
max. Earth dist.	1839 Mar 07 01:36	9° ♊ 58'32	1.37102 AU	morning set	1840 Feb 12 16:01	14° ♊ 05'55	
				max. Earth dist.	1840 Feb 16 20:22	21° ♊ 15'52	1.39211 AU
superior conj	1839 Mar 13 13:29	22° ♊ 18'50	-1°30'-49		1840 Feb 21 17:57	0° ♊	
minimum elong	1839 Mar 13 17:39	22° ♊ 39'12	1°30'16				
	1839 Mar 17 10:38	0° ♊		superior conj	1840 Feb 24 10:09	4° ♊ 55'32	-1°51'-27
evening rise	1839 Mar 22 01:07	9° ♊ 14'32		minimum elong	1840 Feb 24 14:06	5° ♊ 13'54	1°51'09
asc. node	1839 Mar 23 16:16	12° ♊ 29'14		evening rise	1840 Mar 04 19:34	22° ♊ 52'49	
	1839 Apr 02 13:01	0° ♊			1840 Mar 08 12:58	0° ♊	
evening max el	1839 Apr 08 00:10	6° ♊ 42'26	19°24'34	asc. node	1840 Mar 09 13:18	1° ♊ 53'21	
retrograde	1839 Apr 17 07:11	11° ♊ 11'50		evening max el	1840 Mar 21 01:18	19° ♊ 01'37	18°39'04
evening set	1839 Apr 19 08:46	10° ♊ 59'28		retrograde	1840 Mar 28 22:38	22° ♊ 52'49	
inferior conj	1839 Apr 27 20:50	6° ♊ 52'30	0°54'45	evening set	1840 Mar 31 05:22	22° ♊ 34'39	
minimum elong	1839 Apr 27 23:03	6° ♊ 48'51	0°54'00	inferior conj	1840 Apr 07 22:22	18° ♊ 09'40	2°22'21
min. Earth dist.	1839 Apr 30 13:37	5° ♊ 07'17	0.56061 AU	minimum elong	1840 Apr 08 02:25	18° ♊ 01'58	2°21'15
desc. node	1839 May 01 01:49	4° ♊ 48'13		min. Earth dist.	1840 Apr 11 07:22	15° ♊ 36'51	0.57776 AU
morning rise	1839 May 06 09:28	2° ♊ 08'24		morning rise	1840 Apr 15 19:06	12° ♊ 52'33	
direct	1839 May 11 01:46	1° ♊ 18'34		desc. node	1840 Apr 16 22:51	12° ♊ 23'05	
morning max el	1839 May 25 05:03	8° ♊ 28'28	25°01'15	direct	1840 Apr 21 12:38	11° ♊ 30'29	
	1839 Jun 10 03:21	0° ♊		morning max el	1840 May 05 21:28	19° ♊ 05'53	26°27'53
asc. node	1839 Jun 19 15:33	18° ♊ 13'36			1840 May 15 02:23	0° ♊	
morning set	1839 Jun 20 09:47	19° ♊ 49'24			1840 Jun 01 14:04	0° ♊	
	1839 Jun 25 03:07	0° ♊		morning set	1840 Jun 03 20:37	4° ♊ 42'14	
				asc. node	1840 Jun 05 12:36	8° ♊ 14'25	
superior conj	1839 Jun 27 10:10	5° ♊ 00'41	1°13'53				
minimum elong	1839 Jun 27 07:46	4° ♊ 47'33	1°13'31	superior conj	1840 Jun 10 21:44	19° ♊ 58'45	0°54'08
max. Earth dist.	1839 Jun 28 18:06	7° ♊ 54'26	1.32767 AU	minimum elong	1840 Jun 10 19:38	19° ♊ 47'17	0°53'46
evening rise	1839 Jul 04 15:18	20° ♊ 22'06		max. Earth dist.	1840 Jun 11 05:04	20° ♊ 39'08	1.32296 AU
	1839 Jul 09 12:03	0° ♊			1840 Jun 15 11:58	0° ♊	
desc. node	1839 Jul 28 01:10	29° ♊ 54'45		evening rise	1840 Jun 17 21:10	5° ♊ 03'23	
	1839 Jul 28 02:46	0° ♊			1840 Jul 01 04:24	0° ♊	
evening max el	1839 Aug 06 02:31	10° ♊ 14'15	27°22'55	desc. node	1840 Jul 13 22:09	17° ♊ 53'30	
retrograde	1839 Aug 19 21:05	17° ♊ 31'22		evening max el	1840 Jul 18 06:46	22° ♊ 28'51	26°52'02
evening set	1839 Aug 27 01:59	15° ♊ 00'47		retrograde	1840 Aug 01 05:25	29° ♊ 42'41	
min. Earth dist.	1839 Aug 30 16:06	12° ♊ 04'31	0.62634 AU	evening set	1840 Aug 08 03:33	27° ♊ 37'21	
inferior conj	1839 Sep 02 13:06	9° ♊ 20'02	-3°-51'-1	min. Earth dist.	1840 Aug 11 20:52	24° ♊ 58'55	0.60658 AU
minimum elong	1839 Sep 02 18:24	9° ♊ 07'20	3°49'40	inferior conj	1840 Aug 15 02:35	22° ♊ 16'06	-4°-33'-33
morning rise	1839 Sep 09 13:28	4° ♊ 11'45		minimum elong	1840 Aug 15 07:04	22° ♊ 06'40	4°32'51
direct	1839 Sep 11 23:05	3° ♊ 45'34		morning rise	1840 Aug 22 13:45	17° ♊ 29'19	
asc. node	1839 Sep 15 14:45	4° ♊ 47'46		direct	1840 Aug 24 22:49	17° ♊ 07'19	
morning max el	1839 Sep 18 16:40	7° ♊ 12'04	17°52'03	morning max el	1840 Sep 01 05:30	20° ♊ 42'27	18°05'13
	1839 Oct 03 12:31	0° ♊		asc. node	1840 Sep 01 11:49	20° ♊ 57'58	
morning set	1839 Oct 04 19:10	2° ♊ 16'27			1840 Sep 08 05:33	0° ♊	
				morning set	1840 Sep 17 00:41	15° ♊ 41'49	

	1840 Sep 24 18:28	0°♄		morning max el	1841 Aug 15 12:10	3°♄48'01	18°38'42
				asc. node	1841 Aug 19 08:53	8°♄14'51	
superior conj	1840 Sep 26 21:43	3°♄50'19	1°20'53	morning set	1841 Aug 31 18:01	29°♄41'57	
minimum elong	1840 Sep 27 01:57	4°♄09'08	1°20'27		1841 Aug 31 21:44	0°♄	
max. Earth dist.	1840 Oct 04 12:44	17°♄01'27	1.41682 AU				
desc. node	1840 Oct 09 21:31	25°♄50'02		superior conj	1841 Sep 09 13:01	16°♄37'45	1°38'12
evening rise	1840 Oct 10 01:49	26°♄07'17		minimum elong	1841 Sep 09 15:34	16°♄49'44	1°38'02
	1840 Oct 12 12:17	0°♄			1841 Sep 16 21:39	0°♄	
	1840 Nov 01 22:27	0°♄		max. Earth dist.	1841 Sep 16 18:12	29°♄44'55	1.39684 AU
greatest brilliancy	1840 Nov 07 12:13	7°♄09'05	-0.3m	evening rise	1841 Sep 20 21:56	6°♄53'55	
evening max el	1840 Nov 12 09:41	12°♄38'09	22°39'49	desc. node	1841 Sep 26 18:32	16°♄30'20	
retrograde	1840 Nov 22 06:33	18°♄29'57			1841 Oct 05 13:49	0°♄	
evening set	1840 Nov 26 21:34	16°♄38'16		evening max el	1841 Oct 25 23:21	26°♄13'55	23°59'50
asc. node	1840 Nov 28 11:02	15°♄09'17			1841 Oct 30 07:05	0°♄	
inferior conj	1840 Dec 02 07:12	10°♄14'56	1°17'15	retrograde	1841 Nov 05 22:31	2°♄40'37	
minimum elong	1840 Dec 02 05:31	10°♄20'46	1°16'34	evening set	1841 Nov 11 03:15	0°♄31'37	
min. Earth dist.	1840 Dec 02 02:51	10°♄29'59	0.67818 AU		1841 Nov 11 17:27	30°♄	
morning rise	1840 Dec 07 13:22	4°♄02'27		asc. node	1841 Nov 15 08:06	25°♄47'30	
direct	1840 Dec 12 00:47	2°♄13'53		min. Earth dist.	1841 Nov 15 23:16	24°♄56'38	0.67670 AU
morning max el	1840 Dec 21 04:07	7°♄36'16	21°56'12	inferior conj	1841 Nov 16 14:10	24°♄06'09	0°25'47
greatest brilliancy	1840 Dec 25 21:39	12°♄56'11	-0.4m	minimum elong	1841 Nov 16 13:33	24°♄08'15	0°25'32
desc. node	1841 Jan 05 20:47	27°♄45'32		morning rise	1841 Nov 22 00:04	17°♄58'35	
	1841 Jan 07 09:54	0°♄		direct	1841 Nov 25 21:42	16°♄32'15	
morning set	1841 Jan 22 18:03	23°♄29'13		morning max el	1841 Dec 03 23:16	21°♄11'32	20°37'59
	1841 Jan 26 18:14	0°♄		greatest brilliancy	1841 Dec 09 23:37	28°♄16'00	-0.5m
max. Earth dist.	1841 Jan 28 18:24	3°♄19'38	1.41331 AU		1841 Dec 11 07:04	0°♄	
				desc. node	1841 Dec 23 17:49	17°♄55'29	
superior conj	1841 Feb 05 11:52	16°♄35'23	-2°-3'-26		1841 Dec 31 15:58	0°♄	
minimum elong	1841 Feb 05 13:33	16°♄42'47	2°03'25	morning set	1842 Jan 01 19:41	1°♄47'25	
	1841 Feb 12 22:03	0°♄		max. Earth dist.	1842 Jan 11 00:22	16°♄21'07	1.43165 AU
evening rise	1841 Feb 16 02:30	5°♄53'28					
asc. node	1841 Feb 24 10:21	20°♄51'43		superior conj	1842 Jan 17 13:28	27°♄06'51	-2°-1'-56
	1841 Mar 02 16:52	0°♄		minimum elong	1842 Jan 17 10:23	26°♄53'59	2°01'52
evening max el	1841 Mar 04 09:22	1°♄49'15	18°13'34		1842 Jan 19 06:40	0°♄	
retrograde	1841 Mar 11 08:38	5°♄18'51		evening rise	1842 Jan 29 17:55	18°♄08'33	
evening set	1841 Mar 13 20:59	4°♄52'23			1842 Feb 05 12:24	0°♄	
inferior conj	1841 Mar 20 20:53	0°♄05'59	3°16'02	asc. node	1842 Feb 11 07:24	9°♄16'24	
minimum elong	1841 Mar 20 23:56	29°♄59'12	3°15'31	evening max el	1842 Feb 15 21:09	14°♄56'33	18°07'40
	1841 Mar 20 23:34	30°♄		retrograde	1842 Feb 22 09:45	18°♄20'15	
min. Earth dist.	1841 Mar 24 06:00	27°♄07'33	0.59870 AU	evening set	1842 Feb 25 03:06	17°♄44'10	
morning rise	1841 Mar 27 23:21	24°♄24'24		inferior conj	1842 Mar 03 13:29	12°♄36'25	3°40'28
direct	1841 Apr 03 12:01	22°♄25'48		minimum elong	1842 Mar 03 14:33	12°♄33'43	3°40'24
desc. node	1841 Apr 03 19:55	22°♄26'06		min. Earth dist.	1842 Mar 06 12:22	9°♄37'22	0.61992 AU
	1841 Apr 17 13:28	0°♄		morning rise	1842 Mar 09 23:34	6°♄39'09	
morning max el	1841 Apr 17 19:20	0°♄14'21	27°26'36	direct	1842 Mar 16 21:16	4°♄10'06	
	1841 May 09 02:29	0°♄		desc. node	1842 Mar 21 16:59	5°♄14'52	
morning set	1841 May 19 04:41	19°♄24'34		morning max el	1842 Mar 30 23:28	12°♄04'39	27°49'21
asc. node	1841 May 23 09:39	28°♄21'40			1842 Apr 14 04:04	0°♄	
	1841 May 24 03:44	0°♄			1842 May 01 10:13	0°♄	
max. Earth dist.	1841 May 25 17:19	3°♄25'43	1.32208 AU	morning set	1842 May 03 07:59	3°♄50'06	
				max. Earth dist.	1842 May 09 03:04	16°♄01'36	1.32507 AU
superior conj	1841 May 26 09:23	4°♄53'56	0°31'09	asc. node	1842 May 10 06:42	18°♄31'14	
minimum elong	1841 May 26 08:02	4°♄46'31	0°30'52				
evening rise	1841 Jun 02 06:57	19°♄53'48		superior conj	1842 May 10 19:26	19°♄40'30	0°05'37
	1841 Jun 07 05:48	0°♄		minimum elong	1842 May 10 19:10	19°♄39'04	0°05'33
	1841 Jun 26 09:57	0°♄		behind sun begin	1842 May 10 14:20	19°♄12'43	
evening max el	1841 Jun 30 04:10	3°♄57'06	25°49'22	behind sun end	1842 May 11 00:01	20°♄05'26	
desc. node	1841 Jun 30 19:10	4°♄32'14			1842 May 15 13:09	0°♄	
retrograde	1841 Jul 14 04:30	11°♄06'34		evening rise	1842 May 17 18:36	4°♄46'28	
evening set	1841 Jul 20 07:18	9°♄37'27			1842 May 31 06:06	0°♄	
min. Earth dist.	1841 Jul 24 16:35	6°♄59'41	0.58597 AU	evening max el	1842 Jun 11 19:19	14°♄43'56	24°22'54
inferior conj	1841 Jul 27 22:44	4°♄37'46	-4°-56'-16	desc. node	1842 Jun 17 16:12	19°♄19'18	
minimum elong	1841 Jul 27 23:59	4°♄35'28	4°56'13	retrograde	1842 Jun 25 16:15	21°♄44'09	
morning rise	1841 Aug 04 20:12	0°♄14'03		evening set	1842 Jun 30 11:26	20°♄52'41	
	1841 Aug 05 23:38	30°♄		min. Earth dist.	1842 Jul 06 06:15	17°♄58'04	0.56731 AU
direct	1841 Aug 07 07:37	29°♄54'08		inferior conj	1842 Jul 08 22:49	16°♄15'57	-4°-45'-45
	1841 Aug 08 15:08	0°♄		minimum elong	1842 Jul 08 18:50	16°♄22'18	4°45'21

morning rise	1842 Jul 17 05:54	12°☿13'10		inferior conj	1843 Jun 19 04:05	27°♄10'47	-3°-49'-30
direct	1842 Jul 19 21:35	11°☿54'09		minimum elong	1843 Jun 18 20:21	27°♄21'55	3°47'39
morning max el	1842 Jul 29 09:39	16°☿19'08	19°33'30	morning rise	1843 Jun 27 19:46	23°♄18'55	
asc. node	1842 Aug 06 05:57	26°☿23'29		direct	1843 Jun 30 17:05	22°♄59'31	
	1842 Aug 08 09:39	0°♄		morning max el	1843 Jul 11 20:04	28°♄08'57	20°49'06
morning set	1842 Aug 15 19:29	14°♄06'15			1843 Jul 13 16:30	0°☿	
				asc. node	1843 Jul 24 02:59	15°☿11'50	
superior conj	1842 Aug 23 20:24	0°♄13'33	1°45'24	morning set	1843 Jul 31 02:23	28°☿47'27	
minimum elong	1842 Aug 23 21:03	0°♄16'43	1°45'22		1843 Jul 31 16:28	0°♄	
	1842 Aug 23 17:39	0°♄					
max. Earth dist.	1842 Aug 29 22:18	11°♄51'45	1.37648 AU	superior conj	1843 Aug 07 15:13	14°♄24'17	1°44'20
evening rise	1842 Sep 02 17:47	18°♄47'03		minimum elong	1843 Aug 07 14:19	14°♄19'37	1°44'18
	1842 Sep 09 06:59	0°♄		max. Earth dist.	1843 Aug 12 06:21	23°♄42'12	1.35811 AU
desc. node	1842 Sep 13 15:33	7°♄00'42			1843 Aug 15 12:51	0°♄	
	1842 Sep 29 18:54	0°♄		evening rise	1843 Aug 16 09:49	1°♄38'25	
evening max el	1842 Oct 08 11:20	9°♄52'31	25°15'52	desc. node	1843 Aug 31 12:34	27°♄15'48	
retrograde	1842 Oct 20 10:14	16°♄46'35			1843 Sep 02 08:02	0°♄	
evening set	1842 Oct 26 05:26	14°♄21'25		evening max el	1843 Sep 20 23:15	23°♄31'07	26°20'26
min. Earth dist.	1842 Oct 30 17:13	9°♄21'27	0.67190 AU		1843 Sep 30 02:50	0°♄	
inferior conj	1842 Oct 31 18:54	7°♄57'58	0°-29'-30	retrograde	1843 Oct 03 17:07	0°♄42'23	
minimum elong	1842 Oct 31 19:39	7°♄55'32	0°29'11		1843 Oct 07 01:43	30°♄	
asc. node	1842 Nov 02 05:10	6°♄08'28		evening set	1843 Oct 10 02:16	28°♄04'52	
morning rise	1842 Nov 06 10:31	1°♄57'54		min. Earth dist.	1843 Oct 14 06:28	23°♄41'17	0.66367 AU
direct	1842 Nov 09 20:03	0°♄51'18		inferior conj	1843 Oct 15 19:34	21°♄47'49	-1°-27'-12
morning max el	1842 Nov 17 02:21	4°♄57'37	19°32'39	minimum elong	1843 Oct 15 21:52	21°♄40'45	1°26'15
greatest brilliancy	1842 Nov 25 15:08	15°♄43'46	-0.6m	asc. node	1843 Oct 20 02:12	17°♄09'28	
	1842 Dec 05 04:39	0°♄		morning rise	1843 Oct 21 18:38	15°♄57'58	
desc. node	1842 Dec 10 14:51	8°♄20'46		direct	1843 Oct 24 18:12	15°♄07'28	
morning set	1842 Dec 11 17:19	10°♄03'07		morning max el	1843 Oct 31 12:13	18°♄51'21	18°42'36
	1842 Dec 24 11:33	0°♄			1843 Nov 09 01:09	0°♄	
max. Earth dist.	1842 Dec 24 13:26	0°♄07'28	1.44468 AU	morning set	1843 Nov 21 10:43	19°♄23'05	
				desc. node	1843 Nov 27 11:52	28°♄56'58	
superior conj	1842 Dec 28 12:33	6°♄26'22	-1°-42'-27		1843 Nov 28 03:51	0°♄	
minimum elong	1842 Dec 28 04:32	5°♄54'16	1°41'47	superior conj	1843 Dec 07 16:32	14°♄58'36	-1°-4'-41
evening rise	1843 Jan 11 13:25	29°♄29'47		minimum elong	1843 Dec 07 08:43	14°♄27'54	1°03'45
	1843 Jan 11 20:37	0°♄		max. Earth dist.	1843 Dec 07 06:44	14°♄20'07	1.45095 AU
asc. node	1843 Jan 29 04:27	26°♄56'52			1843 Dec 17 05:05	0°♄	
evening max el	1843 Jan 30 09:38	28°♄15'41	18°20'49	evening rise	1843 Dec 23 09:48	9°♄53'06	
	1843 Feb 01 08:39	0°♄			1844 Jan 05 01:53	0°♄	
retrograde	1843 Feb 05 21:16	1°♄46'36		evening max el	1844 Jan 13 20:22	11°♄41'12	18°51'59
evening set	1843 Feb 08 19:39	1°♄00'04		asc. node	1844 Jan 16 01:28	13°♄40'27	
	1843 Feb 10 08:52	30°♄		retrograde	1844 Jan 20 15:06	15°♄30'19	
inferior conj	1843 Feb 14 20:06	25°♄32'42	3°42'45	evening set	1844 Jan 23 19:23	14°♄32'13	
minimum elong	1843 Feb 14 19:20	25°♄34'51	3°42'43	inferior conj	1844 Jan 29 12:53	8°♄47'24	3°28'46
min. Earth dist.	1843 Feb 17 04:16	22°♄53'32	0.63893 AU	minimum elong	1844 Jan 29 10:55	8°♄53'33	3°28'29
morning rise	1843 Feb 20 17:25	19°♄26'03		min. Earth dist.	1844 Jan 31 05:39	6°♄41'20	0.65450 AU
direct	1843 Feb 27 14:45	16°♄39'11		morning rise	1844 Feb 04 01:22	2°♄35'30	
desc. node	1843 Mar 08 14:02	20°♄21'37			1844 Feb 08 15:21	30°♄	
morning max el	1843 Mar 13 07:58	24°♄33'06	27°35'14	direct	1844 Feb 10 15:13	29°♄45'06	
	1843 Mar 18 06:43	0°♄			1844 Feb 12 17:02	0°♄	
	1843 Apr 07 13:27	0°♄		desc. node	1844 Feb 23 11:04	7°♄10'38	
morning set	1843 Apr 17 04:04	17°♄50'55		morning max el	1844 Feb 23 17:46	7°♄27'24	26°48'47
max. Earth dist.	1843 Apr 22 06:11	28°♄13'27	1.33214 AU		1844 Mar 12 05:39	0°♄	
	1843 Apr 23 02:27	0°♄			1844 Mar 29 21:36	0°♄	
superior conj	1843 Apr 25 02:03	4°♄12'43	0°-21'-39	morning set	1844 Mar 30 13:32	1°♄15'43	
minimum elong	1843 Apr 25 03:08	4°♄18'27	0°21'27	max. Earth dist.	1844 Apr 03 22:46	9°♄50'36	1.34371 AU
asc. node	1843 Apr 27 03:44	8°♄39'14					
evening rise	1843 May 02 06:16	19°♄34'59		superior conj	1844 Apr 08 03:03	18°♄22'59	0°-49'-33
	1843 May 07 09:13	0°♄		minimum elong	1844 Apr 08 05:33	18°♄35'58	0°49'05
evening max el	1843 May 24 09:38	25°♄13'37	22°46'58	asc. node	1844 Apr 13 00:45	28°♄40'44	
	1843 May 30 18:06	0°☿			1844 Apr 13 15:49	0°♄	
desc. node	1843 Jun 04 13:14	1°☿39'11		evening rise	1844 Apr 15 15:59	4°♄11'59	
retrograde	1843 Jun 06 15:54	1°☿49'21			1844 Apr 30 03:50	0°♄	
evening set	1843 Jun 09 23:42	1°☿25'04		evening max el	1844 May 05 06:44	5°♄57'14	21°16'06
	1843 Jun 13 22:40	30°♄		retrograde	1844 May 17 06:05	11°♄47'56	
min. Earth dist.	1843 Jun 17 18:01	27°♄59'40	0.55402 AU	evening set	1844 May 19 13:44	11°♄35'33	

desc. node	1844 May 21 10:16	11°II08'53		desc. node	1845 May 08 07:16	18°821'26	
inferior conj	1844 May 28 22:30	7°II36'36	-2°-8'-57	inferior conj	1845 May 08 20:02	18°802'12	0°-9'-16
minimum elong	1844 May 28 16:34	7°II44'56	2°06'56	minimum elong	1845 May 08 19:37	18°802'50	0°09'07
min. Earth dist.	1844 May 29 06:21	7°II25'32	0.54909 AU	transit middle	1845 May 08 19:37	18°802'50	0°09'07
morning rise	1844 Jun 06 19:28	3°II37'30		transit begin	1845 May 08 16:20	18°807'47	
direct	1844 Jun 10 03:06	3°II13'37		transit end	1845 May 08 22:53	17°857'53	
morning max el	1844 Jun 22 19:33	9°II15'17	22°22'02	min. Earth dist.	1845 May 10 19:49	16°850'10	0.55387 AU
	1844 Jul 07 14:57	0°☿		morning rise	1845 May 17 14:35	13°837'51	
asc. node	1844 Jul 10 00:00	4°☿29'26		direct	1845 May 21 17:13	13°800'49	
morning set	1844 Jul 14 12:33	13°☿38'40		morning max el	1845 Jun 04 11:28	19°849'19	24°03'53
					1845 Jun 13 01:34	0°II	
superior conj	1844 Jul 21 17:51	28°☿58'12	1°36'37	asc. node	1845 Jun 26 21:03	24°II08'37	
minimum elong	1844 Jul 21 15:55	28°☿48'02	1°36'27	morning set	1845 Jun 29 00:16	28°II34'44	
	1844 Jul 22 05:33	0°♊			1845 Jun 29 16:24	0°☿	
max. Earth dist.	1844 Jul 24 22:52	5°♊40'44	1.34320 AU				
evening rise	1844 Jul 29 17:14	15°♊14'43		superior conj	1845 Jul 06 01:35	13°☿46'49	1°23'30
	1844 Aug 06 17:14	0°♋		minimum elong	1845 Jul 05 23:12	13°☿33'57	1°23'12
desc. node	1844 Aug 17 09:35	17°♋08'04		max. Earth dist.	1845 Jul 08 00:45	18°☿00'40	1.33225 AU
	1844 Aug 26 23:53	0°♌		evening rise	1845 Jul 13 11:56	29°☿24'04	
evening max el	1844 Sep 02 11:27	7°♌02'18	27°06'04		1845 Jul 13 19:04	0°♌	
retrograde	1844 Sep 15 18:36	14°♌20'23			1845 Jul 30 19:30	0°♋	
evening set	1844 Sep 22 15:24	11°♌37'28		desc. node	1845 Aug 04 06:36	6°♋27'48	
min. Earth dist.	1844 Sep 26 12:42	7°♌50'35	0.65188 AU	evening max el	1845 Aug 15 22:37	20°♋14'18	27°25'39
inferior conj	1844 Sep 28 14:02	5°♌31'23	-2°-25'-25	retrograde	1845 Aug 29 13:52	27°♋31'55	
minimum elong	1844 Sep 28 17:53	5°♌20'29	2°24'00	evening set	1845 Sep 05 17:52	24°♋53'33	
morning rise	1844 Oct 04 22:04	29°♋54'50		min. Earth dist.	1845 Sep 09 09:47	21°♋40'40	0.63663 AU
	1844 Oct 04 17:50	30°♋♋		inferior conj	1845 Sep 11 23:44	19°♋02'43	-3°-21'-25
asc. node	1844 Oct 05 23:13	29°♋30'42		minimum elong	1845 Sep 12 04:46	18°♋49'51	3°19'54
direct	1844 Oct 07 14:08	29°♋16'28		morning rise	1845 Sep 18 17:55	13°♋42'50	
	1844 Oct 10 11:02	0°♍		direct	1845 Sep 21 05:08	13°♋13'01	
morning max el	1844 Oct 14 02:36	2°♍47'12	18°09'08	asc. node	1845 Sep 22 20:16	13°♋26'16	
morning set	1844 Nov 01 09:20	0°♍10'47		morning max el	1845 Sep 27 18:44	16°♋38'40	17°53'02
	1844 Nov 01 06:44	0°♍			1845 Oct 07 06:46	0°♍	
desc. node	1844 Nov 13 08:54	19°♍40'25		morning set	1845 Oct 14 10:08	12°♍14'08	
					1845 Oct 24 20:31	0°♍	
superior conj	1844 Nov 15 20:43	23°♍38'36	0°-16'-39	superior conj	1845 Oct 26 20:23	3°♍17'52	0°29'30
minimum elong	1844 Nov 15 18:36	23°♍30'10	0°16'23	minimum elong	1845 Oct 26 23:26	3°♍30'25	0°29'04
max. Earth dist.	1844 Nov 19 01:38	28°♍42'37	1.44983 AU	desc. node	1845 Oct 31 05:55	10°♍27'06	
	1844 Nov 19 21:18	0°♎		max. Earth dist.	1845 Nov 01 19:17	12°♍56'57	1.44158 AU
evening rise	1844 Dec 02 08:04	19°♎24'59		evening rise	1845 Nov 11 17:10	28°♍28'56	
	1844 Dec 09 04:13	0°♏			1845 Nov 12 16:51	0°♎	
greatest brilliancy	1844 Dec 19 06:56	15°♏11'53	-0.6m		1845 Dec 03 01:51	0°♏	
evening max el	1844 Dec 27 03:22	25°♏10'31	19°39'41	greatest brilliancy	1845 Dec 04 11:00	1°♏50'16	-0.5m
asc. node	1845 Jan 01 22:30	29°♏13'11		evening max el	1845 Dec 10 05:10	8°♏40'40	20°41'41
retrograde	1845 Jan 03 12:08	29°♏26'45		retrograde	1845 Dec 18 09:56	13°♏31'19	
evening set	1845 Jan 06 23:48	28°♏15'36		asc. node	1845 Dec 19 19:32	13°♏20'21	
inferior conj	1845 Jan 12 12:48	22°♏15'55	3°02'41	evening set	1845 Dec 22 06:49	12°♏05'24	
minimum elong	1845 Jan 12 10:13	22°♏24'22	3°02'05	inferior conj	1845 Dec 27 17:14	5°♏53'41	2°27'18
min. Earth dist.	1845 Jan 13 15:06	20°♏49'20	0.66612 AU	minimum elong	1845 Dec 27 14:39	6°♏02'32	2°26'29
morning rise	1845 Jan 17 19:56	16°♏01'22		min. Earth dist.	1845 Dec 28 06:35	5°♏08'05	0.67375 AU
direct	1845 Jan 23 21:41	13°♏20'01		morning rise	1846 Jan 01 22:02	29°♎38'32	
morning max el	1845 Feb 05 02:49	20°♏36'08	25°38'19		1846 Jan 01 12:43	30°♎♎	
desc. node	1845 Feb 09 08:05	25°♏13'14		direct	1846 Jan 07 09:11	27°♎14'54	
	1845 Feb 13 05:28	0°♏			1846 Jan 14 02:32	0°♏	
	1845 Mar 05 09:39	0°♐		morning max el	1846 Jan 18 11:07	3°♏51'20	24°13'50
morning set	1845 Mar 13 08:01	13°♐51'51		desc. node	1846 Jan 27 05:08	14°♏07'35	
max. Earth dist.	1845 Mar 17 03:30	20°♐57'58	1.35992 AU		1846 Feb 07 12:05	0°♏	
	1845 Mar 21 18:58	0°♑		morning set	1846 Feb 23 05:47	25°♏23'05	
					1846 Feb 25 20:50	0°♐	
superior conj	1845 Mar 22 19:52	2°♑04'15	-1°-16'-32	max. Earth dist.	1846 Feb 27 00:01	2°♐01'35	1.37985 AU
minimum elong	1845 Mar 22 23:36	2°♑22'56	1°15'57				
evening rise	1845 Mar 30 21:46	18°♑31'29		superior conj	1846 Mar 06 01:05	15°♐07'01	-1°-40'-22
asc. node	1845 Mar 30 21:47	18°♑31'38		minimum elong	1846 Mar 06 05:20	15°♐27'26	1°39'54
	1845 Apr 05 18:11	0°♒			1846 Mar 13 15:30	0°♑	
evening max el	1845 Apr 17 15:07	17°♒15'44	19°59'55	evening rise	1846 Mar 14 21:09	2°♑26'26	
retrograde	1845 Apr 27 21:03	22°♒12'41		asc. node	1846 Mar 17 18:50	8°♑06'45	
evening set	1845 Apr 29 21:49	22°♒01'52					

evening max el	1846 Mar 31 10:42	29° Υ 13'06	19°02'44		1847 Feb 18 01:10	0° X	
	1846 Apr 01 07:03	0° B		evening rise	1847 Feb 26 11:09	15° X 49'35	
retrograde	1846 Apr 09 01:49	3° B 24'08		asc. node	1847 Mar 04 15:53	27° X 20'35	
evening set	1846 Apr 11 05:32	3° B 09'34			1847 Mar 06 04:23	0° Υ	
	1846 Apr 17 19:33	30° R Υ		evening max el	1847 Mar 14 15:05	11° Υ 44'35	18°25'43
inferior conj	1846 Apr 19 09:25	28° Υ 55'23	1°36'05	retrograde	1847 Mar 22 01:41	15° Υ 24'59	
minimum elong	1846 Apr 19 12:51	28° Υ 49'23	1°34'59	evening set	1847 Mar 24 10:48	15° Υ 03'31	
min. Earth dist.	1846 Apr 22 11:12	26° Υ 48'04	0.56724 AU	inferior conj	1847 Mar 31 20:04	10° Υ 29'13	2°49'10
desc. node	1846 Apr 25 04:18	25° Υ 08'07		minimum elong	1847 Mar 31 23:55	10° Υ 21'22	2°48'17
morning rise	1846 Apr 27 16:00	23° Υ 56'59		min. Earth dist.	1847 Apr 04 06:37	7° Υ 42'33	0.58637 AU
direct	1846 May 02 19:26	22° Υ 54'44		morning rise	1847 Apr 08 08:59	5° Υ 00'18	
	1846 May 16 19:06	0° B		desc. node	1847 Apr 12 01:22	3° Υ 38'19	
morning max el	1846 May 17 01:57	0° B 16'22	25°40'53	direct	1847 Apr 14 11:29	3° Υ 22'55	
	1846 Jun 06 17:50	0° II		morning max el	1847 Apr 28 20:36	11° Υ 04'58	26°57'10
morning set	1846 Jun 13 11:56	13° II 30'24			1847 May 13 12:28	0° B	
asc. node	1846 Jun 13 18:07	14° II 03'02		morning set	1847 May 28 21:49	28° B 19'22	
					1847 May 29 16:57	0° II	
superior conj	1846 Jun 20 12:17	28° II 43'06	1°05'58	asc. node	1847 May 31 15:09	4° II 06'52	
minimum elong	1846 Jun 20 09:57	28° II 30'21	1°05'34				
	1846 Jun 21 02:19	0° S		superior conj	1847 Jun 05 00:03	13° II 40'11	0°44'46
max. Earth dist.	1846 Jun 21 09:32	0° S 39'32	1.32521 AU	minimum elong	1847 Jun 04 22:14	13° II 30'10	0°44'23
evening rise	1846 Jun 27 14:31	13° S 56'10		max. Earth dist.	1847 Jun 04 21:37	13° II 26'44	1.32204 AU
	1846 Jul 05 20:46	0° Ω		evening rise	1847 Jun 11 22:17	28° II 41'41	
desc. node	1846 Jul 22 03:36	25° Ω 01'39			1847 Jun 12 13:13	0° S	
	1846 Jul 26 09:47	0° np			1847 Jun 29 06:11	0° Ω	
evening max el	1846 Jul 29 06:11	2° np 53'36	27°13'54	desc. node	1847 Jul 09 00:38	12° Ω 29'42	
retrograde	1846 Aug 12 02:20	10° np 08'32		evening max el	1847 Jul 11 07:29	14° Ω 47'58	26°28'58
evening set	1846 Aug 19 05:55	7° np 47'09		retrograde	1847 Jul 25 07:00	22° Ω 00'32	
min. Earth dist.	1846 Aug 22 20:20	5° np 00'25	0.61822 AU	evening set	1847 Jul 31 22:47	20° Ω 09'13	
inferior conj	1846 Aug 25 21:40	2° np 14'45	-4°-10'-47	min. Earth dist.	1847 Aug 04 20:41	17° Ω 33'46	0.59777 AU
minimum elong	1846 Aug 26 02:52	2° np 02'57	4°09'39	inferior conj	1847 Aug 08 04:12	14° Ω 57'05	-4°-46'-20
	1846 Aug 28 11:48	30° R Ω		minimum elong	1847 Aug 08 07:38	14° Ω 50'16	4°45'58
morning rise	1846 Sep 02 02:38	27° Ω 15'12		morning rise	1847 Aug 15 19:53	10° Ω 20'27	
direct	1846 Sep 04 11:49	26° Ω 50'56		direct	1847 Aug 18 05:41	9° Ω 59'32	
asc. node	1846 Sep 09 17:20	28° Ω 51'40		morning max el	1847 Aug 25 20:25	13° Ω 40'56	18°16'58
	1846 Sep 11 01:31	0° np		asc. node	1847 Aug 27 14:24	15° Ω 32'01	
morning max el	1846 Sep 11 09:44	0° np 19'39	17°55'15		1847 Sep 05 23:08	0° np	
morning set	1846 Sep 27 06:55	25° np 15'00		morning set	1847 Sep 10 18:00	8° np 56'31	
	1846 Sep 29 21:43	0° A					
superior conj	1846 Oct 07 23:17	14° A 18'00	1°05'37	superior conj	1847 Sep 20 02:53	26° np 30'49	1°29'35
minimum elong	1846 Oct 08 03:53	14° A 37'53	1°05'03	minimum elong	1847 Sep 20 06:29	26° np 47'16	1°29'15
max. Earth dist.	1846 Oct 15 08:57	26° A 45'56	1.42721 AU		1847 Sep 22 01:09	0° A	
	1846 Oct 17 08:33	0° ML		max. Earth dist.	1847 Sep 27 16:49	9° A 53'34	1.40854 AU
desc. node	1846 Oct 18 02:56	1° ML 14'15		evening rise	1847 Oct 02 11:53	17° A 54'30	
evening rise	1846 Oct 22 05:31	7° ML 46'28		desc. node	1847 Oct 04 23:58	21° A 57'58	
	1846 Nov 05 22:55	0° A			1847 Oct 10 02:35	0° ML	
greatest brilliancy	1846 Nov 18 06:59	16° A 47'19	-0.4m	evening max el	1847 Oct 31 12:54	0° A	
evening max el	1846 Nov 23 01:18	22° A 11'44	21°54'35		1847 Nov 05 16:38	5° A 44'37	23°13'45
retrograde	1846 Dec 02 06:42	27° A 41'06		retrograde	1847 Nov 16 00:55	11° A 52'27	
evening set	1846 Dec 06 14:39	25° A 58'56		evening set	1847 Nov 20 21:36	9° A 53'12	
asc. node	1846 Dec 06 16:35	25° A 55'03		asc. node	1847 Nov 23 13:38	7° A 06'45	
inferior conj	1846 Dec 12 00:08	19° A 38'36	1°44'34	inferior conj	1847 Nov 26 07:37	3° A 28'10	0°55'58
minimum elong	1846 Dec 11 22:00	19° A 46'00	1°43'47	minimum elong	1847 Nov 26 06:20	3° A 32'33	0°55'26
min. Earth dist.	1846 Dec 12 01:55	19° A 32'27	0.67761 AU	min. Earth dist.	1847 Nov 25 22:41	3° A 58'53	0.67798 AU
morning rise	1846 Dec 17 05:10	13° A 24'37			1847 Nov 28 22:52	30° RML	
direct	1846 Dec 22 01:02	11° A 23'07		morning rise	1847 Dec 01 15:08	27° ML 17'29	
morning max el	1846 Dec 31 21:10	17° A 12'34	22°45'22	direct	1847 Dec 05 20:24	25° ML 38'48	
greatest brilliancy	1847 Jan 05 12:09	22° A 22'12	-0.3m		1847 Dec 13 19:08	0° A	
	1847 Jan 11 10:29	0° B		morning max el	1847 Dec 14 12:18	0° A 42'10	21°21'30
desc. node	1847 Jan 14 02:12	3° B 39'04		greatest brilliancy	1847 Dec 19 15:57	6° A 35'39	-0.4m
	1847 Jan 31 14:23	0° \approx		desc. node	1847 Dec 31 23:14	23° A 37'07	
morning set	1847 Feb 04 00:48	5° \approx 34'59			1848 Jan 05 06:13	0° B	
max. Earth dist.	1847 Feb 08 19:53	13° \approx 37'48	1.40135 AU	morning set	1848 Jan 14 15:05	14° B 26'14	
				max. Earth dist.	1848 Jan 21 20:58	26° B 06'01	1.42159 AU
superior conj	1847 Feb 16 14:18	27° \approx 20'31	-1°-57'-52		1848 Jan 24 05:29	0° \approx	
minimum elong	1847 Feb 16 17:36	27° \approx 35'29	1°57'42	superior conj	1848 Jan 29 06:19	8° \approx 32'18	-2°-4'-45

minimum elong	1848 Jan 29 06:15	8° \approx 31'58	2°04'47	max. Earth dist.	1849 Jan 03 05:35	9° \approx 26'10	1.43795 AU
evening rise	1848 Feb 09 12:04	28° \approx 32'12					
	1848 Feb 10 07:24	0° \approx		superior conj	1849 Jan 08 20:34	18° \approx 32'33	-1°-56'-3
asc. node	1848 Feb 19 12:57	16° \approx 05'56		minimum elong	1849 Jan 08 15:07	18° \approx 10'16	1°55'46
evening max el	1848 Feb 26 01:06	24° \approx 41'41	18°08'43		1849 Jan 15 17:36	0° \approx	
retrograde	1848 Mar 03 18:44	28° \approx 07'18		evening rise	1849 Jan 21 19:30	10° \approx 24'51	
evening set	1848 Mar 06 09:07	27° \approx 37'01			1849 Feb 02 11:23	0° \approx	
inferior conj	1848 Mar 13 02:50	22° \approx 41'35	3°29'31	asc. node	1849 Feb 05 09:59	4° \approx 13'10	
minimum elong	1848 Mar 13 05:04	22° \approx 36'18	3°29'16	evening max el	1849 Feb 08 13:33	7° \approx 54'55	18°11'02
min. Earth dist.	1848 Mar 16 08:33	19° \approx 39'39	0.60778 AU	retrograde	1849 Feb 15 00:39	11° \approx 20'00	
morning rise	1848 Mar 19 21:53	16° \approx 52'01		evening set	1849 Feb 17 20:05	10° \approx 39'39	
direct	1848 Mar 26 15:32	14° \approx 39'02		inferior conj	1849 Feb 24 01:52	5° \approx 23'39	3°43'43
desc. node	1848 Mar 28 22:25	14° \approx 53'31		minimum elong	1849 Feb 24 02:06	5° \approx 23'01	3°43'43
morning max el	1848 Apr 09 21:28	22° \approx 31'58	27°40'57	min. Earth dist.	1849 Feb 26 18:55	2° \approx 30'40	0.62840 AU
	1848 Apr 16 12:02	0° \approx			1849 Mar 01 10:56	30° \approx	
	1848 May 05 14:23	0° \approx		morning rise	1849 Mar 02 06:02	29° \approx 21'52	
morning set	1848 May 12 04:07	12° \approx 55'37		direct	1849 Mar 09 04:48	26° \approx 43'06	
asc. node	1848 May 17 12:13	24° \approx 15'46		desc. node	1849 Mar 15 19:27	28° \approx 44'58	
max. Earth dist.	1848 May 18 09:09	26° \approx 09'51	1.32278 AU		1849 Mar 17 18:01	0° \approx	
				morning max el	1849 Mar 23 03:34	4° \approx 38'42	27°47'35
superior conj	1848 May 19 11:14	28° \approx 32'30	0°20'36		1849 Apr 11 04:33	0° \approx	
minimum elong	1848 May 19 10:19	28° \approx 27'25	0°20'23	morning set	1849 Apr 26 04:37	27° \approx 11'09	
	1848 May 20 03:12	0° \approx			1849 Apr 27 13:52	0° \approx	
evening rise	1848 May 26 09:04	13° \approx 33'37		max. Earth dist.	1849 May 01 16:17	8° \approx 35'22	1.32752 AU
	1848 Jun 03 15:57	0° \approx					
evening max el	1848 Jun 22 01:40	25° \approx 56'02	25°14'49	superior conj	1849 May 03 20:02	13° \approx 13'25	0°-5'-49
desc. node	1848 Jun 24 21:39	28° \approx 25'01		minimum elong	1849 May 03 20:19	13° \approx 14'56	0°05'46
	1848 Jun 27 01:58	0° \approx		behind sun begin	1849 May 03 15:25	12° \approx 48'29	
retrograde	1848 Jul 06 01:53	3° \approx 03'36		behind sun end	1849 May 04 01:12	13° \approx 41'25	
evening set	1848 Jul 11 16:20	1° \approx 50'58		asc. node	1849 May 04 09:15	14° \approx 24'59	
	1848 Jul 15 04:51	30° \approx		evening rise	1849 May 10 20:54	28° \approx 24'45	
min. Earth dist.	1848 Jul 16 13:30	29° \approx 07'50	0.57754 AU		1849 May 11 14:58	0° \approx	
inferior conj	1848 Jul 19 15:56	27° \approx 00'28	-4°-56'-45		1849 May 28 21:37	0° \approx	
minimum elong	1848 Jul 19 15:06	27° \approx 01'55	4°56'45	evening max el	1849 Jun 03 15:40	6° \approx 31'47	23°42'26
morning rise	1848 Jul 27 17:37	22° \approx 46'26		desc. node	1849 Jun 11 18:40	12° \approx 13'11	
direct	1848 Jul 30 06:26	22° \approx 27'12		retrograde	1849 Jun 17 08:25	13° \approx 23'40	
morning max el	1848 Aug 07 23:33	26° \approx 32'55	18°59'24	evening set	1849 Jun 21 11:54	12° \approx 45'55	
	1848 Aug 11 02:54	0° \approx		min. Earth dist.	1849 Jun 28 02:12	9° \approx 39'33	0.56077 AU
asc. node	1848 Aug 13 11:26	3° \approx 12'08		inferior conj	1849 Jun 30 07:30	8° \approx 19'10	-4°-27'-56
morning set	1848 Aug 24 15:07	23° \approx 07'16		minimum elong	1849 Jun 30 01:26	8° \approx 28'22	4°26'57
	1848 Aug 28 02:38	0° \approx		morning rise	1849 Jul 08 18:20	4° \approx 22'21	
				direct	1849 Jul 11 12:09	4° \approx 03'23	
superior conj	1848 Sep 02 01:38	9° \approx 40'16	1°42'22	morning max el	1849 Jul 21 16:22	8° \approx 46'23	20°03'12
minimum elong	1848 Sep 02 03:21	9° \approx 48'33	1°42'17	asc. node	1849 Jul 31 08:28	21° \approx 38'37	
max. Earth dist.	1848 Sep 08 20:29	22° \approx 16'58	1.38806 AU		1849 Aug 04 22:40	0° \approx	
evening rise	1848 Sep 12 18:19	29° \approx 09'43		morning set	1849 Aug 08 19:09	7° \approx 39'05	
	1848 Sep 13 06:01	0° \approx					
desc. node	1848 Sep 20 20:59	12° \approx 34'24		superior conj	1849 Aug 16 14:18	23° \approx 31'45	1°45'50
	1848 Oct 02 12:33	0° \approx		minimum elong	1849 Aug 16 14:14	23° \approx 31'22	1°45'50
evening max el	1848 Oct 18 05:15	19° \approx 21'20	24°33'05		1849 Aug 19 20:52	0° \approx	
retrograde	1848 Oct 29 15:18	26° \approx 01'28		max. Earth dist.	1849 Aug 22 01:29	4° \approx 13'06	1.36831 AU
evening set	1848 Nov 04 02:01	23° \approx 45'28		evening rise	1849 Aug 25 23:18	11° \approx 29'00	
min. Earth dist.	1848 Nov 08 18:28	18° \approx 24'53	0.67505 AU		1849 Sep 05 20:30	0° \approx	
asc. node	1848 Nov 09 10:41	17° \approx 30'44		desc. node	1849 Sep 07 17:59	2° \approx 58'57	
inferior conj	1848 Nov 09 13:52	17° \approx 20'05	0°02'45		1849 Sep 27 19:06	0° \approx	
minimum elong	1848 Nov 09 13:48	17° \approx 20'19	0°02'43	evening max el	1849 Sep 30 17:18	3° \approx 01'31	25°45'17
transit middle	1848 Nov 09 13:48	17° \approx 20'19	0°02'43	retrograde	1849 Oct 13 01:00	10° \approx 03'52	
transit begin	1848 Nov 09 11:05	17° \approx 29'22		evening set	1849 Oct 19 02:11	7° \approx 33'10	
transit end	1848 Nov 09 16:30	17° \approx 11'17		min. Earth dist.	1849 Oct 23 10:47	2° \approx 48'18	0.66880 AU
morning rise	1848 Nov 15 01:57	11° \approx 15'07		inferior conj	1849 Oct 24 17:07	1° \approx 11'58	0°-53'-43
direct	1848 Nov 18 18:08	9° \approx 57'37		minimum elong	1849 Oct 24 18:31	1° \approx 07'33	0°53'09
morning max el	1848 Nov 26 10:46	14° \approx 21'59	20°08'18		1849 Oct 25 15:59	30° \approx	
greatest brilliancy	1848 Dec 03 08:24	22° \approx 42'08	-0.6m	asc. node	1849 Oct 27 07:42	28° \approx 02'41	
	1848 Dec 08 12:47	0° \approx		morning rise	1849 Oct 30 11:40	25° \approx 15'38	
desc. node	1848 Dec 17 20:16	13° \approx 54'03		direct	1849 Nov 02 16:45	24° \approx 16'11	
morning set	1848 Dec 23 11:44	22° \approx 33'28		morning max el	1849 Nov 09 16:53	28° \approx 11'43	19°09'24
	1848 Dec 28 06:31	0° \approx			1849 Nov 11 09:00	0° \approx	

	1849 Dec 01 21:22	0°♊			1850 Nov 24 17:00	0°♊	
morning set	1849 Dec 02 15:39	1°♊11'17					
desc. node	1849 Dec 04 17:17	4°♊24'46		superior conj	1850 Nov 28 11:15	5°♊55'26	0°-44'-51
max. Earth dist.	1849 Dec 16 21:04	23°♊27'16	1.44830 AU	minimum elong	1850 Nov 28 05:29	5°♊32'46	0°44'07
				max. Earth dist.	1850 Nov 29 16:01	7°♊48'28	1.45143 AU
superior conj	1849 Dec 19 10:02	27°♊28'04	-1°-28'-24		1850 Dec 13 19:07	0°♋	
minimum elong	1849 Dec 19 01:13	26°♊53'13	1°27'32	evening rise	1850 Dec 14 15:59	1°♋22'14	
	1849 Dec 21 00:20	0°♋		greatest brilliancy	1850 Dec 27 06:23	21°♋05'03	-0.7m
evening rise	1850 Jan 03 05:28	21°♋21'59			1851 Jan 02 11:04	0°♌	
	1850 Jan 08 11:20	0°♌		evening max el	1851 Jan 06 11:03	4°♌45'30	19°10'15
evening max el	1850 Jan 23 01:40	21°♌17'59	18°31'53	asc. node	1851 Jan 10 04:02	7°♌46'51	
asc. node	1850 Jan 23 07:01	21°♌31'23		retrograde	1851 Jan 13 10:49	8°♌45'00	
retrograde	1850 Jan 29 15:12	24°♌54'55		evening set	1851 Jan 16 18:07	7°♌41'23	
evening set	1850 Feb 01 16:03	24°♌03'29		inferior conj	1851 Jan 22 09:25	1°♌49'38	3°18'59
inferior conj	1850 Feb 07 13:14	18°♌28'26	3°38'29	minimum elong	1851 Jan 22 07:07	1°♌57'00	3°18'33
minimum elong	1850 Feb 07 11:52	18°♌32'26	3°38'22		1851 Jan 23 19:50	30°♍	
min. Earth dist.	1850 Feb 09 14:47	16°♌02'21	0.64615 AU	min. Earth dist.	1851 Jan 23 19:44	0°♍00'18	0.65999 AU
morning rise	1850 Feb 13 06:23	12°♌19'26		morning rise	1851 Jan 27 19:15	25°♍36'26	
direct	1850 Feb 20 01:23	9°♌29'25		direct	1851 Feb 03 04:18	22°♍48'56	
desc. node	1850 Mar 02 16:30	14°♌39'17			1851 Feb 15 14:01	0°♎	
morning max el	1850 Mar 05 12:45	17°♌18'58	27°18'51	morning max el	1851 Feb 15 22:33	0°♎21'18	26°21'11
	1850 Mar 16 03:05	0°♏		desc. node	1851 Feb 17 13:31	2°♎02'47	
	1850 Apr 04 00:45	0°♐			1851 Mar 10 02:09	0°♏	
morning set	1850 Apr 09 20:35	10°♐57'20		morning set	1851 Mar 24 00:20	24°♏03'27	
max. Earth dist.	1850 Apr 14 15:15	20°♐32'28	1.33658 AU		1851 Mar 27 03:06	0°♑	
				max. Earth dist.	1851 Mar 28 03:08	1°♑57'16	1.35014 AU
superior conj	1850 Apr 18 00:32	27°♑36'51	0°-33'-30				
minimum elong	1850 Apr 18 02:12	27°♑45'43	0°33'10	superior conj	1851 Apr 01 22:27	11°♑36'00	-1°-1'-14
	1850 Apr 19 03:32	0°♒		minimum elong	1851 Apr 02 01:31	11°♑51'43	1°00'41
asc. node	1850 Apr 21 06:17	4°♒30'31		asc. node	1851 Apr 08 03:20	24°♑28'21	
evening rise	1850 Apr 25 07:57	13°♒08'53		evening rise	1851 Apr 09 16:20	27°♑39'52	
	1850 May 03 23:07	0°♓			1851 Apr 10 19:40	0°♒	
evening max el	1850 May 16 08:05	17°♓03'28	22°06'55	evening max el	1851 Apr 28 09:38	28°♒00'16	20°41'26
retrograde	1850 May 29 02:40	23°♓21'28			1851 Apr 30 16:25	0°♓	
desc. node	1850 May 29 15:42	23°♓20'48		retrograde	1851 May 09 15:52	3°♓28'37	
evening set	1850 May 31 22:20	23°♓03'50		evening set	1851 May 11 18:49	3°♓17'42	
min. Earth dist.	1850 Jun 09 13:42	19°♓21'41	0.55080 AU	desc. node	1851 May 16 12:43	1°♓44'16	
inferior conj	1850 Jun 10 06:35	18°♓57'59	-3°-11'-15		1851 May 19 20:32	30°♔	
minimum elong	1850 Jun 09 22:52	19°♓08'50	3°09'00	inferior conj	1851 May 21 00:32	29°♔20'04	-1°-18'-21
morning rise	1850 Jun 19 01:10	15°♓05'39		minimum elong	1851 May 20 20:50	29°♔25'23	1°17'01
direct	1850 Jun 22 02:22	14°♓44'52		min. Earth dist.	1851 May 22 02:15	28°♔43'13	0.54994 AU
morning max el	1850 Jul 03 21:42	20°♓15'54	21°26'59	morning rise	1851 May 29 21:43	25°♔12'28	
	1850 Jul 11 21:48	0°♕		direct	1851 Jun 02 12:11	24°♔44'32	
asc. node	1850 Jul 18 05:30	10°♕40'14			1851 Jun 14 11:38	0°♖	
morning set	1850 Jul 24 03:39	22°♕24'57		morning max el	1851 Jun 15 17:27	1°♖06'53	23°05'08
	1850 Jul 27 18:34	0°♗		asc. node	1851 Jul 05 02:33	0°♕08'18	
					1851 Jul 05 00:53	0°♖	
superior conj	1850 Jul 31 12:45	7°♗52'49	1°41'47	morning set	1851 Jul 08 14:44	7°♖19'30	
minimum elong	1850 Jul 31 11:21	7°♗45'29	1°41'43				
max. Earth dist.	1850 Aug 04 13:09	16°♗05'46	1.35127 AU	superior conj	1851 Jul 15 17:53	22°♖34'26	1°31'39
evening rise	1850 Aug 08 22:22	24°♗40'23		minimum elong	1851 Jul 15 15:42	22°♖22'46	1°31'26
	1850 Aug 11 18:46	0°♘		max. Earth dist.	1851 Jul 18 09:54	28°♖13'33	1.33799 AU
desc. node	1850 Aug 25 15:00	23°♘05'12			1851 Jul 19 06:16	0°♗	
	1850 Aug 30 09:16	0°♙		evening rise	1851 Jul 23 11:04	8°♗32'12	
evening max el	1850 Sep 13 05:30	16°♙38'17	26°42'42		1851 Aug 04 06:11	0°♘	
retrograde	1850 Sep 26 05:23	23°♙52'45		desc. node	1851 Aug 12 12:01	12°♘45'16	
evening set	1850 Oct 02 20:00	21°♙12'00		evening max el	1851 Aug 26 17:20	0°♙02'13	27°17'53
min. Earth dist.	1850 Oct 06 21:14	17°♙04'14	0.65909 AU		1851 Aug 26 16:24	0°♙	
inferior conj	1850 Oct 08 15:24	14°♙59'24	-1°-51'-56	retrograde	1851 Sep 09 04:14	7°♙20'52	
minimum elong	1850 Oct 08 18:23	14°♙50'34	1°50'46	evening set	1851 Sep 16 05:00	4°♙38'07	
asc. node	1850 Oct 14 04:43	9°♙34'00		min. Earth dist.	1851 Sep 19 23:36	1°♙06'38	0.64583 AU
morning rise	1850 Oct 14 18:06	9°♙14'50			1851 Sep 21 00:26	30°♚	
direct	1850 Oct 17 14:17	8°♙29'49		inferior conj	1851 Sep 22 06:27	28°♚38'11	-2°-49'-40
morning max el	1850 Oct 24 04:57	12°♙06'41	18°26'23	minimum elong	1851 Sep 22 10:53	28°♚26'09	2°48'08
	1850 Nov 05 22:55	0°♛		morning rise	1851 Sep 28 18:43	23°♚08'37	
morning set	1850 Nov 12 21:19	11°♛08'46		direct	1851 Oct 01 08:25	22°♚34'19	
desc. node	1850 Nov 21 14:18	25°♛04'22		asc. node	1851 Oct 01 01:46	22°♚34'44	

morning max el	1851 Oct 07 20:29	26° \cap 01'40	18°00'11	asc. node	1852 Sep 16 22:49	7° \cap 09'26	
	1851 Oct 11 05:32	0° $\underline{\cap}$		morning max el	1852 Sep 20 12:33	9° \cap 49'39	17°51'41
morning set	1851 Oct 25 07:41	22° $\underline{\cap}$ 30'14			1852 Oct 03 21:50	0° $\underline{\cap}$	
	1851 Oct 29 18:58	0° \cap		morning set	1852 Oct 06 17:43	4° $\underline{\cap}$ 59'46	
superior conj	1851 Nov 07 21:52	14° \cap 55'30	0°03'48	superior conj	1852 Oct 18 08:58	25° $\underline{\cap}$ 08'51	0°46'16
minimum elong	1851 Nov 07 22:20	14° \cap 57'21	0°03'44	minimum elong	1852 Oct 18 13:06	25° $\underline{\cap}$ 26'13	0°45'43
behind sun begin	1851 Nov 07 12:07	14° \cap 16'15			1852 Oct 21 06:58	0° \cap	
behind sun end	1851 Nov 08 08:33	15° \cap 38'22		max. Earth dist.	1852 Oct 25 02:22	6° \cap 12'44	1.43604 AU
desc. node	1851 Nov 08 11:19	15° \cap 49'30		desc. node	1852 Oct 25 08:21	6° \cap 36'50	
max. Earth dist.	1851 Nov 12 10:43	22° \cap 09'22	1.44712 AU	evening rise	1852 Nov 02 15:10	19° \cap 41'22	
	1851 Nov 17 10:31	0° \mathcal{A}			1852 Nov 09 09:09	0° \mathcal{A}	
evening rise	1851 Nov 24 06:58	10° \mathcal{A} 37'40		greatest brilliancy	1852 Nov 27 10:21	25° \mathcal{A} 42'36	-0.4m
	1851 Dec 07 00:28	0° \mathcal{B}			1852 Dec 01 00:00	0° \mathcal{B}	
greatest brilliancy	1851 Dec 13 20:11	9° \mathcal{B} 50'34	-0.6m	evening max el	1852 Dec 02 15:11	1° \mathcal{B} 45'12	21°11'41
evening max el	1851 Dec 20 15:51	18° \mathcal{B} 14'45	20°04'26	retrograde	1852 Dec 11 06:15	6° \mathcal{B} 52'30	
retrograde	1851 Dec 28 08:35	22° \mathcal{B} 45'21		asc. node	1852 Dec 13 22:06	6° \mathcal{B} 13'06	
asc. node	1851 Dec 28 01:04	22° \mathcal{B} 44'48		evening set	1852 Dec 15 07:29	5° \mathcal{B} 20'03	
evening set	1851 Dec 31 23:54	21° \mathcal{B} 28'08			1852 Dec 20 01:05	30° \mathcal{R} \mathcal{A}	
inferior conj	1852 Jan 06 11:33	15° \mathcal{B} 22'41	2°48'41	inferior conj	1852 Dec 20 17:19	29° \mathcal{A} 04'13	2°10'00
minimum elong	1852 Jan 06 08:55	15° \mathcal{B} 31'32	2°47'59	minimum elong	1852 Dec 20 14:52	29° \mathcal{A} 12'41	2°09'11
min. Earth dist.	1852 Jan 07 08:08	14° \mathcal{B} 13'38	0.66979 AU	min. Earth dist.	1852 Dec 21 01:40	28° \mathcal{A} 35'25	0.67575 AU
morning rise	1852 Jan 11 17:21	9° \mathcal{B} 07'26		morning rise	1852 Dec 25 21:52	22° \mathcal{A} 49'05	
direct	1852 Jan 17 12:55	6° \mathcal{B} 32'59		direct	1852 Dec 31 02:31	20° \mathcal{A} 34'22	
morning max el	1852 Jan 29 07:23	13° \mathcal{B} 34'15	25°03'31	morning max el	1853 Jan 10 16:00	26° \mathcal{A} 52'00	23°36'09
desc. node	1852 Feb 04 10:33	20° \mathcal{B} 29'37			1853 Jan 13 13:51	0° \mathcal{B}	
	1852 Feb 11 15:43	0° \approx		desc. node	1853 Jan 21 07:36	9° \mathcal{B} 41'34	
	1852 Mar 01 21:25	0° \mathcal{H}			1853 Feb 04 06:48	0° \approx	
morning set	1852 Mar 05 10:52	6° \mathcal{H} 14'41		morning set	1853 Feb 14 22:02	17° \approx 14'36	
max. Earth dist.	1852 Mar 09 03:51	12° \mathcal{H} 59'54	1.36802 AU	max. Earth dist.	1853 Feb 18 22:40	24° \approx 11'50	1.38891 AU
					1853 Feb 22 04:43	0° \mathcal{H}	
superior conj	1852 Mar 15 10:49	25° \mathcal{H} 02'12	-1°-27'-11	superior conj	1853 Feb 26 09:53	7° \mathcal{H} 46'07	-1°-48'-47
minimum elong	1852 Mar 15 14:54	25° \mathcal{H} 22'18	1°26'38	minimum elong	1853 Feb 26 13:58	8° \mathcal{H} 05'18	1°48'26
	1852 Mar 17 22:49	0° \mathcal{Y}		evening rise	1853 Mar 07 15:37	25° \mathcal{H} 32'59	
evening rise	1852 Mar 23 19:46	11° \mathcal{Y} 50'11			1853 Mar 09 22:54	0° \mathcal{Y}	
asc. node	1852 Mar 25 00:23	14° \mathcal{Y} 13'21		asc. node	1853 Mar 11 21:27	3° \mathcal{Y} 40'33	
	1852 Apr 02 14:17	0° \mathcal{B}		evening max el	1853 Mar 23 22:48	21° \mathcal{Y} 49'31	18°44'33
evening max el	1852 Apr 09 22:57	9° \mathcal{B} 35'40	19°33'07	retrograde	1853 Apr 01 00:18	25° \mathcal{Y} 45'08	
retrograde	1852 Apr 19 11:48	14° \mathcal{B} 11'54		evening set	1853 Apr 03 06:15	25° \mathcal{Y} 27'58	
evening set	1852 Apr 21 12:53	14° \mathcal{B} 00'08		inferior conj	1853 Apr 11 02:03	21° \mathcal{Y} 05'58	2°11'14
inferior conj	1852 Apr 30 03:45	9° \mathcal{B} 55'31	0°38'42	minimum elong	1853 Apr 11 06:02	20° \mathcal{Y} 58'33	2°10'07
minimum elong	1852 Apr 30 05:23	9° \mathcal{B} 52'54	0°38'07	min. Earth dist.	1853 Apr 14 09:46	18° \mathcal{Y} 39'06	0.57493 AU
desc. node	1852 May 02 09:46	8° \mathcal{B} 29'22		morning rise	1853 Apr 19 01:27	15° \mathcal{Y} 53'31	
min. Earth dist.	1852 May 02 16:42	8° \mathcal{B} 18'33	0.55859 AU	desc. node	1853 Apr 19 06:48	15° \mathcal{Y} 47'38	
morning rise	1852 May 08 18:11	5° \mathcal{B} 16'32		direct	1853 Apr 24 15:36	14° \mathcal{Y} 36'43	
direct	1852 May 13 06:47	4° \mathcal{B} 30'25		morning max el	1853 May 08 23:56	22° \mathcal{Y} 08'51	26°16'29
morning max el	1852 May 27 08:15	11° \mathcal{B} 35'34	24°46'41		1853 May 15 21:59	0° \mathcal{B}	
	1852 Jun 10 09:04	0° \mathcal{H}			1853 Jun 03 02:02	0° \mathcal{H}	
asc. node	1852 Jun 20 23:37	19° \mathcal{H} 54'42		morning set	1853 Jun 06 13:44	7° \mathcal{H} 09'28	
morning set	1852 Jun 22 02:37	22° \mathcal{H} 16'07		asc. node	1853 Jun 07 20:42	9° \mathcal{H} 53'44	
	1852 Jun 25 17:04	0° \mathcal{B}					
superior conj	1852 Jun 29 03:10	7° \mathcal{B} 27'23	1°16'34	superior conj	1853 Jun 13 14:33	22° \mathcal{H} 24'54	0°57'23
minimum elong	1852 Jun 29 00:45	7° \mathcal{B} 14'13	1°16'12	minimum elong	1853 Jun 13 12:24	22° \mathcal{H} 13'01	0°56'59
max. Earth dist.	1852 Jun 30 14:53	10° \mathcal{B} 41'18	1.32873 AU	max. Earth dist.	1853 Jun 14 01:22	23° \mathcal{H} 24'18	1.32344 AU
evening rise	1852 Jul 06 09:29	22° \mathcal{B} 52'19			1853 Jun 17 01:49	0° \mathcal{B}	
	1852 Jul 09 23:23	0° \mathcal{Q}		evening rise	1853 Jun 20 14:35	7° \mathcal{B} 31'16	
	1852 Jul 28 01:19	0° \cap			1853 Jul 02 10:56	0° \mathcal{Q}	
desc. node	1852 Jul 29 09:04	1° \cap 47'28		desc. node	1853 Jul 16 06:06	19° \mathcal{Q} 56'06	
evening max el	1852 Aug 08 03:04	13° \cap 00'59	27°24'38	evening max el	1853 Jul 21 08:20	25° \mathcal{Q} 22'25	26°58'46
retrograde	1852 Aug 21 21:00	20° \cap 18'30			1853 Jul 27 05:07	0° \cap	
evening set	1852 Aug 29 01:52	17° \cap 45'28		retrograde	1853 Aug 04 06:27	2° \cap 36'22	
min. Earth dist.	1852 Sep 01 16:18	14° \cap 45'08	0.62909 AU	evening set	1853 Aug 11 06:19	0° \cap 26'37	
inferior conj	1852 Sep 04 11:31	12° \cap 01'54	-3°-43'-35		1853 Aug 11 23:10	30° \mathcal{R} \mathcal{Q}	
minimum elong	1852 Sep 04 16:48	11° \cap 49'02	3°42'09	min. Earth dist.	1853 Aug 14 22:36	27° \mathcal{Q} 46'27	0.60963 AU
morning rise	1852 Sep 11 10:17	6° \cap 50'29		inferior conj	1853 Aug 18 03:20	25° \mathcal{Q} 02'27	-4°-28'-12
direct	1852 Sep 13 20:10	6° \cap 23'31		minimum elong	1853 Aug 18 08:05	24° \mathcal{Q} 52'15	4°27'22

morning rise	1853 Aug 25 12:54	20° Ω 12'10		inferior conj	1854 Jul 31 02:18	7° Ω 30'13	-4°-54'-38
direct	1853 Aug 27 21:54	19° Ω 49'38		minimum elong	1854 Jul 31 04:13	7° Ω 26'38	4°54'33
asc. node	1853 Sep 03 19:54	23° Ω 08'13		morning rise	1854 Aug 07 22:18	3° Ω 03'10	
morning max el	1853 Sep 04 02:03	23° Ω 22'54	18°01'59	direct	1854 Aug 10 09:17	2° Ω 42'59	
	1853 Sep 09 08:38	0° \mathfrak{M}		morning max el	1854 Aug 18 09:51	6° Ω 33'09	18°32'23
morning set	1853 Sep 19 21:10	18° \mathfrak{M} 19'22		asc. node	1854 Aug 21 16:57	10° Ω 16'13	
	1853 Sep 26 05:25	0° $\underline{\Omega}$			1854 Sep 02 08:53	0° \mathfrak{M}	
				morning set	1854 Sep 03 13:02	2° \mathfrak{M} 15'28	
superior conj	1853 Sep 29 22:52	6° $\underline{\Omega}$ 40'52	1°17'16	superior conj	1854 Sep 12 11:21	19° \mathfrak{M} 20'16	1°36'16
minimum elong	1853 Sep 30 03:15	7° $\underline{\Omega}$ 00'15	1°16'47	minimum elong	1854 Sep 12 14:12	19° \mathfrak{M} 33'31	1°36'03
max. Earth dist.	1853 Oct 07 13:19	19° $\underline{\Omega}$ 44'05	1.41963 AU		1854 Sep 18 08:14	0° $\underline{\Omega}$	
desc. node	1853 Oct 12 05:22	27° $\underline{\Omega}$ 22'53		max. Earth dist.	1854 Sep 19 19:35	2° $\underline{\Omega}$ 35'05	1.39994 AU
evening rise	1853 Oct 13 09:46	29° $\underline{\Omega}$ 16'42		evening rise	1854 Sep 24 02:18	9° $\underline{\Omega}$ 53'29	
	1853 Oct 13 20:38	0° \mathfrak{M}		desc. node	1854 Sep 29 02:25	18° $\underline{\Omega}$ 04'30	
	1853 Nov 03 00:14	0° \mathfrak{M}			1854 Oct 06 19:38	0° \mathfrak{M}	
greatest brilliancy	1853 Nov 10 14:46	9° \mathfrak{M} 56'05	-0.3m	evening max el	1854 Oct 28 23:12	28° \mathfrak{M} 52'04	23°47'54
evening max el	1853 Nov 15 09:10	15° \mathfrak{M} 17'00	22°28'00		1854 Oct 30 03:18	0° \mathfrak{M}	
retrograde	1853 Nov 25 01:56	21° \mathfrak{M} 02'51		retrograde	1854 Nov 08 18:28	5° \mathfrak{M} 13'55	
evening set	1853 Nov 29 15:05	19° \mathfrak{M} 13'39		evening set	1854 Nov 13 21:08	3° \mathfrak{M} 07'20	
asc. node	1853 Nov 30 19:09	18° \mathfrak{M} 09'32			1854 Nov 16 19:55	30° \mathfrak{M}	
inferior conj	1853 Dec 05 00:38	12° \mathfrak{M} 51'07	1°24'36	asc. node	1854 Nov 17 16:11	28° \mathfrak{M} 55'09	
minimum elong	1853 Dec 04 22:50	12° \mathfrak{M} 57'23	1°23'54	inferior conj	1854 Nov 19 07:47	26° \mathfrak{M} 41'50	0°33'53
min. Earth dist.	1853 Dec 04 21:53	13° \mathfrak{M} 00'40	0.67815 AU	minimum elong	1854 Nov 19 06:59	26° \mathfrak{M} 44'34	0°33'32
morning rise	1853 Dec 10 06:27	6° \mathfrak{M} 38'12		min. Earth dist.	1854 Nov 18 18:23	27° \mathfrak{M} 27'23	0.67719 AU
direct	1853 Dec 14 20:04	4° \mathfrak{M} 46'12		morning rise	1854 Nov 24 17:01	20° \mathfrak{M} 33'30	
morning max el	1853 Dec 24 03:33	10° \mathfrak{M} 15'16	22°08'43	direct	1854 Nov 28 16:35	19° \mathfrak{M} 04'04	
greatest brilliancy	1853 Dec 28 18:48	15° \mathfrak{M} 27'29	-0.4m	morning max el	1854 Dec 06 21:37	23° \mathfrak{M} 49'06	20°48'49
desc. node	1854 Jan 08 04:37	29° \mathfrak{M} 25'14			1854 Dec 12 05:49	0° \mathfrak{M}	
	1854 Jan 08 14:19	0° \mathfrak{M}		greatest brilliancy	1854 Dec 12 15:46	0° \mathfrak{M} 31'56	-0.5m
morning set	1854 Jan 26 04:23	26° \mathfrak{M} 49'54		desc. node	1854 Dec 26 01:38	19° \mathfrak{M} 32'06	
	1854 Jan 28 03:11	0° \approx			1855 Jan 01 23:23	0° \mathfrak{M}	
max. Earth dist.	1854 Jan 31 19:59	6° \approx 08'02	1.41030 AU	morning set	1855 Jan 05 08:40	5° \mathfrak{M} 14'30	
				max. Earth dist.	1855 Jan 14 00:48	19° \mathfrak{M} 01'27	1.42922 AU
superior conj	1854 Feb 08 14:43	19° \approx 34'56	-2°-2'-23	superior conj	1855 Jan 20 20:05	0° \approx 16'32	-2°-3'-16
minimum elong	1854 Feb 08 16:55	19° \approx 44'39	2°02'20	minimum elong	1855 Jan 20 17:50	0° \approx 07'04	2°03'13
	1854 Feb 14 08:39	0° \mathfrak{M}			1855 Jan 20 16:09	0° \approx	
evening rise	1854 Feb 19 00:28	8° \mathfrak{M} 39'28		evening rise	1855 Feb 01 18:25	21° \approx 01'37	
asc. node	1854 Feb 26 18:29	22° \mathfrak{M} 43'06			1855 Feb 06 20:00	0° \mathfrak{M}	
	1854 Mar 03 10:21	0° \mathfrak{Y}		asc. node	1855 Feb 13 15:31	11° \mathfrak{M} 13'13	
evening max el	1854 Mar 07 06:00	4° \mathfrak{Y} 33'10	18°16'05	evening max el	1855 Feb 18 17:21	17° \mathfrak{M} 37'38	18°07'21
retrograde	1854 Mar 14 07:46	8° \mathfrak{Y} 05'02		retrograde	1855 Feb 25 06:58	21° \mathfrak{M} 01'30	
evening set	1854 Mar 16 19:21	7° \mathfrak{Y} 39'51		evening set	1855 Feb 27 23:33	20° \mathfrak{M} 26'58	
inferior conj	1854 Mar 23 21:33	2° \mathfrak{Y} 56'29	3°09'54	inferior conj	1855 Mar 06 11:42	15° \mathfrak{M} 22'17	3°38'20
minimum elong	1854 Mar 24 00:51	2° \mathfrak{Y} 49'18	3°09'18	minimum elong	1855 Mar 06 13:04	15° \mathfrak{M} 18'52	3°38'14
	1854 Mar 27 07:35	30° \mathfrak{M}		min. Earth dist.	1855 Mar 09 12:29	12° \mathfrak{M} 21'47	0.61678 AU
min. Earth dist.	1854 Mar 27 07:23	0° \mathfrak{Y} 00'25	0.59548 AU	morning rise	1855 Mar 12 23:58	9° \mathfrak{M} 26'42	
morning rise	1854 Mar 31 02:43	27° \mathfrak{M} 17'59		direct	1855 Mar 19 20:52	7° \mathfrak{M} 01'34	
desc. node	1854 Apr 06 03:50	25° \mathfrak{M} 25'14		desc. node	1855 Mar 24 00:51	7° \mathfrak{M} 49'54	
direct	1854 Apr 06 13:02	25° \mathfrak{M} 24'51		morning max el	1855 Apr 03 00:16	14° \mathfrak{M} 56'01	27°48'28
	1854 Apr 17 06:48	0° \mathfrak{Y}			1855 Apr 15 05:49	0° \mathfrak{Y}	
morning max el	1854 Apr 20 20:53	3° \mathfrak{Y} 11'39	27°20'08		1855 May 02 21:57	0° \mathfrak{M}	
	1854 May 10 10:08	0° \mathfrak{M}		morning set	1855 May 06 02:27	6° \mathfrak{M} 22'31	
morning set	1854 May 21 22:20	21° \mathfrak{M} 53'56		max. Earth dist.	1855 May 12 00:10	18° \mathfrak{M} 50'39	1.32431 AU
asc. node	1854 May 25 17:46	0° \mathfrak{M} 00'28		asc. node	1855 May 12 14:48	20° \mathfrak{M} 10'03	
	1854 May 25 17:41	0° \mathfrak{M}					
max. Earth dist.	1854 May 28 13:47	6° \mathfrak{M} 12'07	1.32194 AU	superior conj	1855 May 13 12:39	22° \mathfrak{M} 09'05	0°09'37
superior conj	1854 May 29 02:18	7° \mathfrak{M} 20'54	0°34'50	minimum elong	1855 May 13 12:12	22° \mathfrak{M} 06'39	0°09'32
minimum elong	1854 May 29 00:49	7° \mathfrak{M} 12'45	0°34'31	behind sun begin	1855 May 13 08:05	21° \mathfrak{M} 44'11	
evening rise	1854 Jun 04 23:55	22° \mathfrak{M} 20'57		behind sun end	1855 May 13 16:20	22° \mathfrak{M} 29'08	
	1854 Jun 08 17:07	0° \mathfrak{M}			1855 May 17 02:52	0° \mathfrak{M}	
	1854 Jun 27 00:14	0° Ω		evening rise	1855 May 20 11:23	7° \mathfrak{M} 13'36	
desc. node	1854 Jul 03 03:07	6° Ω 49'02			1855 Jun 01 09:53	0° \mathfrak{M}	
evening max el	1854 Jul 03 06:51	6° Ω 57'58	26°00'31	evening max el	1855 Jun 14 22:33	17° \mathfrak{M} 49'29	24°36'49
retrograde	1854 Jul 17 06:56	14° Ω 08'04		desc. node	1855 Jun 20 00:09	21° \mathfrak{M} 55'19	
evening set	1854 Jul 23 13:37	12° Ω 33'01		retrograde	1855 Jun 28 20:37	24° \mathfrak{M} 52'13	
min. Earth dist.	1854 Jul 27 19:22	9° Ω 56'33	0.58900 AU				

evening set	1855 Jul 03 21:07	23° ☿ 55'24		retrograde	1856 Jun 08 22:06	5° ☿ 00'14	
min. Earth dist.	1855 Jul 09 09:39	21° ☿ 04'17	0.56982 AU	evening set	1856 Jun 12 10:41	4° ☿ 32'59	
inferior conj	1855 Jul 12 05:25	19° ☿ 15'01	-4°-50'-6	min. Earth dist.	1856 Jun 19 21:37	1° ☿ 12'51	0.55552 AU
minimum elong	1855 Jul 12 02:16	19° ☿ 20'09	4°49'52	inferior conj	1856 Jun 21 13:06	0° ☿ 15'31	-4°-1'-15
morning rise	1855 Jul 20 11:08	15° ☿ 09'43		minimum elong	1856 Jun 21 05:38	0° ☿ 26'24	3°59'35
direct	1855 Jul 23 02:02	14° ☿ 50'41			1856 Jun 21 23:48	30° ☿ II	
morning max el	1855 Aug 01 08:53	19° ☿ 10'05	19°23'58	morning rise	1856 Jun 30 03:35	26° ☿ II22'50	
asc. node	1855 Aug 08 13:59	28° ☿ 17'44		direct	1856 Jul 02 23:49	26° ☿ II03'41	
	1855 Aug 09 15:28	0° ☿			1856 Jul 12 14:44	0° ☿	
morning set	1855 Aug 18 13:26	16° ☿ 36'30		morning max el	1856 Jul 13 20:58	1° ☿ 06'03	20°36'35
	1855 Aug 25 06:06	0° ☿		asc. node	1856 Jul 25 11:03	17° ☿ 00'36	
					1856 Aug 01 04:55	0° ☿	
superior conj	1855 Aug 26 16:39	2° ☿ 49'52	1°44'51	morning set	1856 Aug 01 19:37	1° ☿ 15'05	
minimum elong	1855 Aug 26 17:34	2° ☿ 54'22	1°44'50				
max. Earth dist.	1855 Sep 01 23:21	14° ☿ 45'31	1.37945 AU	superior conj	1856 Aug 09 09:57	16° ☿ 55'41	1°44'56
evening rise	1855 Sep 05 18:46	21° ☿ 37'03		minimum elong	1856 Aug 09 09:15	16° ☿ 52'04	1°44'55
	1855 Sep 10 16:00	0° ☿		max. Earth dist.	1856 Aug 14 06:11	26° ☿ 35'20	1.36066 AU
desc. node	1855 Sep 15 23:27	8° ☿ 36'47			1856 Aug 16 00:40	0° ☿	
	1855 Sep 30 18:09	0° ☿		evening rise	1856 Aug 18 08:01	4° ☿ 20'11	
evening max el	1855 Oct 11 11:12	12° ☿ 30'06	25°04'59	desc. node	1856 Sep 01 20:28	28° ☿ 54'25	
retrograde	1855 Oct 23 06:55	19° ☿ 21'06			1856 Sep 02 13:37	0° ☿	
evening set	1855 Oct 28 23:57	16° ☿ 58'08		evening max el	1856 Sep 22 23:05	26° ☿ 09'08	26°11'53
min. Earth dist.	1855 Nov 02 12:53	11° ☿ 52'47	0.67285 AU		1856 Sep 27 10:43	0° ☿	
inferior conj	1855 Nov 03 12:57	10° ☿ 33'57	0°-20'-53	retrograde	1856 Oct 05 14:39	3° ☿ 18'40	
minimum elong	1855 Nov 03 13:29	10° ☿ 32'13	0°20'41	evening set	1856 Oct 11 21:42	0° ☿ 42'48	
asc. node	1855 Nov 04 13:11	9° ☿ 15'18			1856 Oct 12 16:58	30° ☿ II	
morning rise	1855 Nov 09 03:36	4° ☿ 32'34		min. Earth dist.	1856 Oct 16 03:02	26° ☿ 13'36	0.66508 AU
direct	1855 Nov 12 14:45	3° ☿ 23'19		inferior conj	1856 Oct 17 14:21	24° ☿ 24'25	-1°-18'-20
morning max el	1855 Nov 19 23:34	7° ☿ 34'02	19°41'23	minimum elong	1856 Oct 17 16:25	24° ☿ 18'02	1°17'30
greatest brilliancy	1855 Nov 28 00:15	17° ☿ 34'16	-0.6m	asc. node	1856 Oct 21 10:13	20° ☿ 06'59	
	1855 Dec 06 10:51	0° ☿		morning rise	1856 Oct 23 12:11	18° ☿ 32'45	
desc. node	1855 Dec 12 22:41	9° ☿ 55'38		direct	1856 Oct 26 13:05	17° ☿ 40'05	
morning set	1855 Dec 15 05:15	13° ☿ 26'03		morning max el	1856 Nov 02 08:31	21° ☿ 26'51	18°49'01
	1855 Dec 25 19:55	0° ☿			1856 Nov 09 03:43	0° ☿	
max. Earth dist.	1855 Dec 27 12:42	2° ☿ 41'29	1.44314 AU	morning set	1856 Nov 23 18:44	22° ☿ 34'05	
					1856 Nov 28 11:56	0° ☿	
superior conj	1855 Dec 31 23:01	9° ☿ 46'30	-1°-46'-38	desc. node	1856 Nov 28 19:43	0° ☿ 30'39	
minimum elong	1855 Dec 31 15:33	9° ☿ 16'26	1°46'06	max. Earth dist.	1856 Dec 09 05:29	16° ☿ 51'21	1.45049 AU
	1856 Jan 13 05:15	0° ☿					
evening rise	1856 Jan 14 17:10	2° ☿ 31'36		superior conj	1856 Dec 10 04:57	18° ☿ 23'36	-1°-11'-20
asc. node	1856 Jan 31 12:31	29° ☿ 01'13		minimum elong	1856 Dec 09 20:39	17° ☿ 50'56	1°10'25
	1856 Feb 01 08:55	0° ☿			1856 Dec 17 13:17	0° ☿	
evening max el	1856 Feb 02 05:53	0° ☿ 55'32	18°17'42	evening rise	1856 Dec 25 17:07	13° ☿ 03'46	
retrograde	1856 Feb 08 17:11	4° ☿ 24'42			1857 Jan 05 06:17	0° ☿	
evening set	1856 Feb 11 14:43	3° ☿ 39'52		evening max el	1857 Jan 15 17:04	14° ☿ 20'51	18°46'13
	1856 Feb 16 02:13	30° ☿ II		asc. node	1857 Jan 17 09:32	15° ☿ 54'33	
inferior conj	1856 Feb 17 16:28	28° ☿ 15'25	3°43'34	retrograde	1857 Jan 22 10:14	18° ☿ 06'24	
minimum elong	1856 Feb 17 15:57	28° ☿ 16'51	3°43'32	evening set	1857 Jan 25 13:34	17° ☿ 10'07	
min. Earth dist.	1856 Feb 20 03:00	25° ☿ 32'04	0.63628 AU	inferior conj	1857 Jan 31 07:58	11° ☿ 27'53	3°31'43
morning rise	1856 Feb 23 15:25	22° ☿ 09'47		minimum elong	1857 Jan 31 06:07	11° ☿ 33'31	3°31'28
direct	1856 Mar 01 13:19	19° ☿ 24'28		min. Earth dist.	1857 Feb 02 03:01	9° ☿ 16'15	0.65249 AU
desc. node	1856 Mar 09 21:52	22° ☿ 38'09		morning rise	1857 Feb 05 21:32	5° ☿ 16'39	
morning max el	1856 Mar 15 08:16	27° ☿ 19'29	27°39'33	direct	1857 Feb 12 12:57	2° ☿ 25'48	
	1856 Mar 17 21:11	0° ☿		desc. node	1857 Feb 24 18:54	9° ☿ 13'51	
	1856 Apr 07 21:47	0° ☿		morning max el	1857 Feb 25 17:56	10° ☿ 10'30	26°57'22
morning set	1856 Apr 18 23:45	20° ☿ 27'30			1857 Mar 13 09:43	0° ☿	
	1856 Apr 23 15:46	0° ☿			1857 Mar 31 08:46	0° ☿	
max. Earth dist.	1856 Apr 24 04:22	1° ☿ 06'09	1.33077 AU	morning set	1857 Apr 02 11:01	3° ☿ 58'08	
				max. Earth dist.	1857 Apr 06 22:33	12° ☿ 47'49	1.34171 AU
superior conj	1856 Apr 26 19:52	6° ☿ 43'43	0°-17'-27				
minimum elong	1856 Apr 26 20:44	6° ☿ 48'20	0°17'16	superior conj	1857 Apr 10 21:52	20° ☿ 57'35	0°-45'-21
asc. node	1856 Apr 28 11:50	10° ☿ 18'36		minimum elong	1857 Apr 11 00:09	21° ☿ 09'31	0°44'55
evening rise	1856 May 03 23:07	22° ☿ 02'51		asc. node	1857 Apr 15 08:52	0° ☿ 21'16	
	1856 May 07 19:51	0° ☿ II			1857 Apr 15 04:50	0° ☿	
evening max el	1856 May 26 12:27	28° ☿ II19'26	23°01'19	evening rise	1857 Apr 18 09:14	6° ☿ 41'43	
	1856 May 28 08:46	0° ☿			1857 May 01 01:30	0° ☿ II	
desc. node	1856 Jun 05 21:08	4° ☿ 39'08		evening max el	1857 May 08 08:10	8° ☿ II59'07	21°28'52

retrograde	1857 May 20 12:56	14°II57'09		retrograde	1858 May 01 02:54	25°816'24	
evening set	1857 May 22 23:05	14°II43'48		evening set	1858 May 03 03:53	25°805'44	
desc. node	1857 May 23 18:08	14°II33'53		desc. node	1858 May 10 15:10	22°801'39	
inferior conj	1857 Jun 01 08:16	10°II43'43	-2°-26'-13	inferior conj	1858 May 12 04:22	21°807'03	0°-27'-4
minimum elong	1857 Jun 01 01:42	10°II52'55	2°24'03	minimum elong	1858 May 12 03:07	21°808'55	0°26'38
min. Earth dist.	1857 Jun 01 09:44	10°II41'39	0.54922 AU	min. Earth dist.	1858 May 13 22:51	20°804'03	0.55256 AU
morning rise	1857 Jun 10 04:47	6°II46'56		morning rise	1858 May 20 23:55	16°847'36	
direct	1857 Jun 13 10:35	6°II24'01		direct	1858 May 24 23:15	16°813'16	
morning max el	1857 Jun 25 21:50	12°II17'59	22°07'26	morning max el	1858 Jun 07 14:28	22°855'12	23°48'49
	1857 Jul 08 22:47	0°☿			1858 Jun 13 21:30	0°II	
asc. node	1857 Jul 12 08:07	6°☿14'31		asc. node	1858 Jun 29 05:10	25°II51'05	
morning set	1857 Jul 17 05:26	16°☿05'15			1858 Jul 01 05:25	0°☿	
	1857 Jul 23 19:10	0°♄		morning set	1858 Jul 01 17:03	1°☿01'08	
superior conj	1857 Jul 24 11:36	1°♄26'43	1°38'09	superior conj	1858 Jul 08 18:44	16°☿13'39	1°25'48
minimum elong	1857 Jul 24 09:48	1°♄17'12	1°38'01	minimum elong	1858 Jul 08 16:23	16°☿01'00	1°25'31
max. Earth dist.	1857 Jul 27 21:28	8°♄32'20	1.34516 AU	max. Earth dist.	1858 Jul 10 22:10	20°☿49'30	1.33357 AU
evening rise	1857 Aug 01 13:26	17°♄50'45			1858 Jul 15 07:45	0°♄	
	1857 Aug 08 02:51	0°♄		evening rise	1858 Jul 16 06:41	1°♄55'53	
desc. node	1857 Aug 19 17:29	18°♄50'50			1858 Aug 01 00:12	0°♄	
	1857 Aug 27 19:55	0°♄		desc. node	1858 Aug 06 14:30	8°♄16'28	
evening max el	1857 Sep 05 11:26	9°♄42'47	27°00'51	evening max el	1858 Aug 18 22:54	22°♄58'38	27°24'40
retrograde	1857 Sep 18 16:54	17°♄00'03			1858 Aug 30 03:38	0°♄	
evening set	1857 Sep 25 12:10	14°♄17'32		retrograde	1858 Sep 01 13:03	0°♄16'24	
min. Earth dist.	1857 Sep 29 10:31	10°♄25'10	0.65385 AU		1858 Sep 03 20:41	30°♄	
inferior conj	1857 Oct 01 09:55	8°♄09'38	-2°-16'-41	evening set	1858 Sep 08 16:28	27°♄36'33	
minimum elong	1857 Oct 01 13:33	7°♄59'13	2°15'18	min. Earth dist.	1858 Sep 12 09:00	24°♄19'06	0.63912 AU
morning rise	1857 Oct 07 16:31	2°♄30'46		inferior conj	1858 Sep 14 21:08	21°♄43'21	-3°-13'-18
asc. node	1857 Oct 08 07:17	2°♄14'45		minimum elong	1858 Sep 15 02:02	21°♄30'37	3°11'43
direct	1857 Oct 10 09:35	1°♄50'47		morning rise	1858 Sep 21 13:45	16°♄20'51	
morning max el	1857 Oct 16 22:24	5°♄22'52	18°13'03	direct	1858 Sep 24 01:35	15°♄49'55	
	1857 Nov 02 14:54	0°♄		asc. node	1858 Sep 25 04:22	15°♄56'13	
morning set	1857 Nov 04 13:04	3°♄09'23		morning max el	1858 Sep 30 14:29	19°♄15'37	17°54'18
desc. node	1857 Nov 15 16:46	21°♄13'22			1858 Oct 08 12:34	0°♄	
superior conj	1857 Nov 19 07:41	26°♄58'36	0°-24'-5	morning set	1858 Oct 17 10:20	15°♄02'47	
minimum elong	1857 Nov 19 04:35	26°♄46'19	0°23'40		1858 Oct 26 05:49	0°♄	
	1857 Nov 21 05:38	0°♄		superior conj	1858 Oct 30 03:37	6°♄26'50	0°23'02
max. Earth dist.	1857 Nov 22 00:36	1°♄14'38	1.45050 AU	minimum elong	1858 Oct 30 06:06	6°♄37'00	0°22'41
evening rise	1857 Dec 05 18:22	22°♄42'41		desc. node	1858 Nov 02 13:47	11°♄59'52	
	1857 Dec 10 10:51	0°♄		max. Earth dist.	1858 Nov 04 18:48	15°♄32'03	1.44325 AU
greatest brilliancy	1857 Dec 21 17:33	17°♄09'27	-0.7m		1858 Nov 14 00:20	0°♄	
evening max el	1857 Dec 30 00:49	27°♄50'12	19°31'34	evening rise	1858 Nov 15 04:30	1°♄48'33	
	1858 Jan 01 09:55	0°♄			1858 Dec 04 02:37	0°♄	
asc. node	1858 Jan 04 06:34	1°♄39'20		greatest brilliancy	1858 Dec 07 03:26	4°♄08'43	-0.5m
retrograde	1858 Jan 06 06:58	2°♄01'40		evening max el	1858 Dec 13 03:26	11°♄20'17	20°31'38
evening set	1858 Jan 09 17:30	0°♄52'28		retrograde	1858 Dec 21 04:53	16°♄05'31	
	1858 Jan 10 20:40	30°♄		asc. node	1858 Dec 22 03:38	16°♄00'29	
inferior conj	1858 Jan 15 07:01	24°♄54'48	3°07'15	evening set	1858 Dec 25 00:17	14°♄41'49	
minimum elong	1858 Jan 15 04:30	25°♄03'01	3°06'41	inferior conj	1858 Dec 30 10:58	8°♄31'34	2°33'09
min. Earth dist.	1858 Jan 16 11:21	23°♄22'18	0.66472 AU	minimum elong	1858 Dec 30 08:21	8°♄40'29	2°32'22
morning rise	1858 Jan 20 14:47	18°♄40'38		min. Earth dist.	1858 Dec 31 02:07	7°♄40'02	0.67287 AU
direct	1858 Jan 26 18:33	15°♄57'23		morning rise	1859 Jan 04 15:56	2°♄16'24	
morning max el	1858 Feb 08 03:10	23°♄17'50	25°49'52		1859 Jan 08 17:13	30°♄	
desc. node	1858 Feb 11 15:58	27°♄07'02		direct	1859 Jan 10 05:17	29°♄49'54	
	1858 Feb 14 02:17	0°♄			1859 Jan 11 18:41	0°♄	
	1858 Mar 06 18:00	0°♄		morning max el	1859 Jan 21 11:36	6°♄32'55	24°26'54
morning set	1858 Mar 16 08:04	16°♄42'21		desc. node	1859 Jan 29 13:00	15°♄54'47	
max. Earth dist.	1858 Mar 20 05:04	23°♄58'54	1.35730 AU		1859 Feb 08 17:06	0°♄	
	1858 Mar 23 07:15	0°♄		morning set	1859 Feb 26 09:25	28°♄25'06	
superior conj	1858 Mar 25 16:07	4°♄43'48	-1°-12'-35		1859 Feb 27 07:02	0°♄	
minimum elong	1858 Mar 25 19:42	5°♄01'49	1°12'01	max. Earth dist.	1859 Mar 02 02:43	5°♄02'40	1.37672 AU
asc. node	1858 Apr 02 05:54	20°♄14'02		superior conj	1859 Mar 08 23:22	17°♄53'35	-1°-37'-4
evening rise	1858 Apr 02 15:46	21°♄04'26		minimum elong	1859 Mar 09 03:38	18°♄14'08	1°36'35
	1858 Apr 07 03:25	0°♄			1859 Mar 15 03:08	0°♄	
evening max el	1858 Apr 20 14:46	20°♄11'36	20°10'01	evening rise	1859 Mar 17 16:22	5°♄04'24	

asc. node	1859 Mar 20 02:58	9°Υ52'25			1860 Feb 19 11:57	0°✠	
	1859 Apr 01 10:21	0°♄					
evening max el	1859 Apr 03 08:51	2°♄04'02	19°09'56	superior conj	1860 Feb 19 15:17	0°✠15'16	-1°-55'-48
retrograde	1859 Apr 12 05:20	6°♄21'18		minimum elong	1860 Feb 19 18:51	0°✠31'39	1°55'35
evening set	1859 Apr 14 08:13	6°♄07'34		evening rise	1860 Feb 29 07:59	18°✠32'58	
inferior conj	1859 Apr 22 14:59	1°♄55'57	1°21'58	asc. node	1860 Mar 06 00:00	29°✠10'06	
minimum elong	1859 Apr 22 18:04	1°♄50'42	1°20'57		1860 Mar 06 11:07	0°Υ	
	1859 Apr 25 11:36	30°♄Υ		evening max el	1860 Mar 16 12:08	14°Υ31'17	18°29'58
min. Earth dist.	1859 Apr 25 13:57	29°Υ56'09	0.56478 AU	retrograde	1860 Mar 24 02:18	18°Υ15'12	
desc. node	1859 Apr 27 12:12	28°Υ44'20		evening set	1860 Mar 26 10:32	17°Υ54'59	
morning rise	1859 Apr 30 23:49	27°Υ02'32		inferior conj	1860 Apr 02 22:27	13°Υ24'01	2°40'15
direct	1859 May 05 23:19	26°Υ04'57		minimum elong	1860 Apr 03 02:25	13°Υ16'06	2°39'17
	1859 May 16 05:28	0°♄		min. Earth dist.	1860 Apr 06 08:45	10°Υ41'39	0.58329 AU
morning max el	1859 May 20 04:59	3°♄22'39	25°27'26	morning rise	1860 Apr 10 14:06	7°Υ58'55	
	1859 Jun 08 02:54	0°♄		desc. node	1860 Apr 13 09:14	6°Υ53'11	
morning set	1859 Jun 16 04:51	15°♄57'41		direct	1860 Apr 16 13:35	6°Υ26'57	
asc. node	1859 Jun 16 02:14	15°♄43'53		morning max el	1860 Apr 30 22:49	14°Υ07'05	26°47'35
	1859 Jun 22 16:25	0°♄			1860 May 13 14:55	0°♄	
					1860 May 30 05:53	0°♄	
superior conj	1859 Jun 23 05:08	1°♄09'39	1°08'54	morning set	1860 May 30 15:05	0°♄48'05	
minimum elong	1859 Jun 23 02:47	0°♄56'43	1°08'30	asc. node	1860 Jun 01 23:16	5°♄46'42	
max. Earth dist.	1859 Jun 24 06:08	3°♄26'16	1.32598 AU				
evening rise	1859 Jun 30 08:18	16°♄25'25		superior conj	1860 Jun 06 16:52	16°♄07'11	0°48'12
	1859 Jul 07 06:31	0°♄		minimum elong	1860 Jun 06 14:57	15°♄56'36	0°47'49
desc. node	1859 Jul 24 11:32	26°♄58'30		max. Earth dist.	1860 Jun 06 17:50	16°♄12'31	1.32228 AU
	1859 Jul 26 22:38	0°♄			1860 Jun 13 02:15	0°♄	
evening max el	1859 Aug 01 07:04	5°♄43'13	27°17'43	evening rise	1860 Jun 13 15:26	1°♄09'28	
retrograde	1859 Aug 15 02:36	12°♄58'52			1860 Jun 29 08:28	0°♄	
evening set	1859 Aug 22 06:56	10°♄33'52		desc. node	1860 Jul 10 08:34	14°♄37'56	
min. Earth dist.	1859 Aug 25 21:03	7°♄44'11	0.62113 AU	evening max el	1860 Jul 13 09:19	17°♄44'21	26°37'38
inferior conj	1859 Aug 28 20:59	4°♄58'35	-4°-4'-3	retrograde	1860 Jul 27 08:38	24°♄57'34	
minimum elong	1859 Aug 29 02:16	4°♄46'23	4°02'49	evening set	1860 Aug 03 02:54	23°♄01'06	
	1859 Sep 04 19:49	30°♄♄		min. Earth dist.	1860 Aug 06 22:53	20°♄24'58	0.60084 AU
morning rise	1859 Sep 05 00:22	29°♄55'57		inferior conj	1860 Aug 10 05:58	17°♄45'42	-4°-42'-18
direct	1859 Sep 07 09:38	29°♄31'05		minimum elong	1860 Aug 10 09:50	17°♄37'51	4°41'50
	1859 Sep 09 22:20	0°♄		morning rise	1860 Aug 17 20:07	13°♄05'35	
asc. node	1859 Sep 12 01:26	1°♄08'44		direct	1860 Aug 20 05:34	12°♄44'21	
morning max el	1859 Sep 14 05:51	2°♄58'45	17°53'44	morning max el	1860 Aug 27 17:21	16°♄23'23	18°12'28
morning set	1859 Sep 30 04:30	27°♄55'55		asc. node	1860 Aug 28 22:28	17°♄38'34	
	1859 Oct 01 08:00	0°♄			1860 Sep 06 07:21	0°♄	
				morning set	1860 Sep 12 13:43	11°♄32'04	
superior conj	1859 Oct 11 02:27	17°♄15'01	1°00'55				
minimum elong	1859 Oct 11 07:02	17°♄34'38	1°00'21	superior conj	1860 Sep 22 02:40	29°♄17'50	1°26'42
max. Earth dist.	1859 Oct 18 09:02	29°♄25'14	1.42966 AU	minimum elong	1860 Sep 22 06:31	29°♄35'15	1°26'20
	1859 Oct 18 17:33	0°♄			1860 Sep 22 12:00	0°♄	
desc. node	1859 Oct 20 10:50	2°♄47'13		max. Earth dist.	1860 Sep 29 17:26	12°♄38'26	1.41146 AU
evening rise	1859 Oct 25 15:12	11°♄00'55		evening rise	1860 Oct 04 18:14	20°♄59'55	
	1859 Nov 07 03:53	0°♄		desc. node	1860 Oct 06 07:52	23°♄31'58	
greatest brilliancy	1859 Nov 21 04:08	19°♄19'25	-0.4m		1860 Oct 10 10:02	0°♄	
evening max el	1859 Nov 26 00:19	24°♄50'49	21°43'13		1860 Oct 31 09:34	0°♄	
	1859 Dec 03 08:35	0°♄		greatest brilliancy	1860 Nov 02 03:24	2°♄10'10	-0.2m
retrograde	1859 Dec 05 01:57	0°♄14'38		evening max el	1860 Nov 07 16:13	8°♄23'32	23°01'52
	1859 Dec 06 17:44	30°♄♄		retrograde	1860 Nov 17 20:35	14°♄26'03	
evening set	1859 Dec 09 08:06	28°♄34'59		evening set	1860 Nov 22 15:14	12°♄29'29	
asc. node	1859 Dec 09 00:41	28°♄49'07		asc. node	1860 Nov 24 21:42	10°♄12'00	
inferior conj	1859 Dec 14 17:37	22°♄15'35	1°51'28	min. Earth dist.	1860 Nov 27 17:45	6°♄30'10	0.67811 AU
minimum elong	1859 Dec 14 15:23	22°♄23'19	1°50'39	inferior conj	1860 Nov 28 01:05	6°♄04'54	1°03'41
min. Earth dist.	1859 Dec 14 21:02	22°♄03'44	0.67723 AU	minimum elong	1860 Nov 27 23:39	6°♄09'49	1°03'06
morning rise	1859 Dec 19 22:26	16°♄01'13		morning rise	1860 Dec 03 08:05	29°♄53'28	
direct	1859 Dec 24 20:31	13°♄56'19			1860 Dec 03 04:52	30°♄♄	
morning max el	1860 Jan 03 21:13	19°♄53'18	22°58'25	direct	1860 Dec 07 15:28	28°♄11'20	
greatest brilliancy	1860 Jan 08 15:28	25°♄12'18	-0.3m		1860 Dec 12 13:24	0°♄	
	1860 Jan 12 10:42	0°♄		morning max el	1860 Dec 16 11:18	3°♄21'20	21°33'24
desc. node	1860 Jan 16 10:02	5°♄21'24		greatest brilliancy	1860 Dec 21 10:56	9°♄01'27	-0.4m
	1860 Feb 01 22:18	0°♄		desc. node	1861 Jan 02 07:04	25°♄16'08	
morning set	1860 Feb 07 08:45	8°♄49'50			1861 Jan 05 12:05	0°♄	
max. Earth dist.	1860 Feb 11 22:03	16°♄31'40	1.39811 AU	morning set	1861 Jan 17 02:58	17°♄51'47	

max. Earth dist.	1861 Jan 23 21:48	28°☾50'35	1.41877 AU	morning max el	1861 Nov 29 08:32	16°☾59'30	20°18'23
	1861 Jan 24 14:34	0°☾		greatest brilliancy	1861 Dec 05 22:13	24°☾51'05	-0.5m
					1861 Dec 09 15:47	0°☾	
superior conj	1861 Jan 31 10:45	11°☾37'02	-2°-4'-38	desc. node	1861 Dec 20 04:06	15°☾30'49	
minimum elong	1861 Jan 31 11:21	11°☾39'39	2°04'38	morning set	1861 Dec 27 00:49	26°☾01'18	
	1861 Feb 10 17:08	0°☾			1861 Dec 29 14:16	0°☾	
evening rise	1861 Feb 11 11:03	1°☾21'57		max. Earth dist.	1862 Jan 06 05:30	12°☾04'36	1.43589 AU
asc. node	1861 Feb 20 21:02	18°☾00'15					
evening max el	1861 Feb 27 21:31	27°☾25'13	18°10'01	superior conj	1862 Jan 12 04:58	21°☾48'19	-1°-58'-34
	1861 Mar 03 07:46	0°☾		minimum elong	1862 Jan 12 00:21	21°☾29'17	1°58'21
retrograde	1861 Mar 06 16:55	0°☾51'54			1862 Jan 17 02:40	0°☾	
evening set	1861 Mar 09 06:34	0°☾22'59		evening rise	1862 Jan 24 21:19	13°☾22'28	
	1861 Mar 10 04:09	30°☾			1862 Feb 03 14:42	0°☾	
inferior conj	1861 Mar 16 02:22	25°☾30'46	3°25'14	asc. node	1862 Feb 07 18:02	6°☾13'52	
minimum elong	1861 Mar 16 04:55	25°☾24'54	3°24'53	evening max el	1862 Feb 11 09:47	10°☾36'37	18°09'29
min. Earth dist.	1861 Mar 19 09:31	22°☾29'29	0.60462 AU	retrograde	1862 Feb 17 21:09	14°☾00'49	
morning rise	1861 Mar 22 23:59	19°☾43'50		evening set	1862 Feb 20 15:54	13°☾21'56	
direct	1861 Mar 29 16:06	17°☾35'37		inferior conj	1862 Feb 26 23:13	8°☾08'49	3°42'56
desc. node	1861 Mar 31 06:15	17°☾42'35		minimum elong	1862 Feb 26 23:45	8°☾07'27	3°42'55
morning max el	1861 Apr 12 22:35	25°☾27'17	27°36'40	min. Earth dist.	1862 Mar 01 18:24	5°☾13'20	0.62550 AU
	1861 Apr 17 03:30	0°☾		morning rise	1862 Mar 05 05:24	2°☾08'33	
	1861 May 07 00:04	0°☾			1862 Mar 09 05:52	30°☾	
morning set	1861 May 14 22:00	15°☾26'29		direct	1862 Mar 12 04:00	29°☾32'55	
asc. node	1861 May 19 20:19	25°☾55'08			1862 Mar 15 04:59	0°☾	
max. Earth dist.	1861 May 21 05:37	28°☾56'45	1.32244 AU	desc. node	1862 Mar 18 03:16	1°☾12'19	
	1861 May 21 17:10	0°☾		morning max el	1862 Mar 26 03:59	7°☾28'12	27°48'58
					1862 Apr 12 09:38	0°☾	
superior conj	1861 May 22 04:13	1°☾00'33	0°24'25	morning set	1862 Apr 28 23:32	29°☾45'46	
minimum elong	1861 May 22 03:08	0°☾54'36	0°24'11		1862 Apr 29 02:21	0°☾	
evening rise	1861 May 29 01:52	16°☾00'54		max. Earth dist.	1862 May 04 13:45	11°☾26'23	1.32655 AU
	1861 Jun 05 01:03	0°☾					
evening max el	1861 Jun 25 04:36	28°☾59'23	25°27'20	superior conj	1862 May 06 13:29	15°☾43'50	0°-1'-42
	1861 Jun 26 06:48	0°☾		minimum elong	1862 May 06 13:34	15°☾44'14	0°01'41
desc. node	1861 Jun 27 05:34	0°☾49'24		behind sun begin	1862 May 06 08:24	15°☾16'15	
retrograde	1861 Jul 09 05:05	6°☾07'45		behind sun end	1862 May 06 18:44	16°☾12'15	
evening set	1861 Jul 15 00:01	4°☾49'25		asc. node	1862 May 06 17:22	16°☾04'53	
min. Earth dist.	1861 Jul 19 16:41	2°☾08'28	0.58042 AU		1862 May 13 03:42	0°☾	
inferior conj	1861 Jul 22 20:41	29°☾55'40	-4°-57'-25	evening rise	1862 May 13 13:40	0°☾52'58	
minimum elong	1861 Jul 22 20:38	29°☾55'46	4°57'26		1862 May 29 17:10	0°☾	
	1861 Jul 22 18:14	30°☾		evening max el	1862 Jun 06 18:59	9°☾39'13	23°56'48
morning rise	1861 Jul 30 20:54	25°☾38'16		desc. node	1862 Jun 14 02:33	14°☾59'50	
direct	1861 Aug 02 09:09	25°☾18'50		retrograde	1862 Jun 20 13:25	16°☾34'12	
morning max el	1861 Aug 10 21:44	29°☾20'18	18°51'43	evening set	1862 Jun 24 22:28	15°☾51'57	
	1861 Aug 11 13:58	0°☾		min. Earth dist.	1862 Jul 01 05:41	12°☾50'01	0.56294 AU
asc. node	1861 Aug 15 19:30	5°☾10'41		inferior conj	1862 Jul 03 15:16	11°☾21'49	-4°-35'-25
morning set	1861 Aug 27 09:33	25°☾39'14		minimum elong	1862 Jul 03 09:53	11°☾30'07	4°34'39
	1861 Aug 29 14:37	0°☾		morning rise	1862 Jul 12 00:47	7°☾23'06	
				direct	1862 Jul 14 17:52	7°☾04'06	
superior conj	1861 Sep 04 22:52	12°☾19'47	1°41'04	morning max el	1862 Jul 24 16:14	11°☾40'30	19°52'20
minimum elong	1861 Sep 05 00:53	12°☾29'24	1°40'57	asc. node	1862 Aug 02 16:33	23°☾31'29	
max. Earth dist.	1861 Sep 11 21:34	25°☾08'28	1.39111 AU		1862 Aug 06 08:19	0°☾	
	1861 Sep 14 15:57	0°☾		morning set	1862 Aug 11 12:45	10°☾09'03	
evening rise	1861 Sep 15 21:03	2°☾05'13					
desc. node	1861 Sep 23 04:53	14°☾10'00		superior conj	1862 Aug 19 09:48	26°☾06'24	1°45'50
	1861 Oct 03 16:19	0°☾		minimum elong	1862 Aug 19 09:59	26°☾07'16	1°45'50
evening max el	1861 Oct 21 05:10	22°☾00'07	24°21'36		1862 Aug 21 09:05	0°☾	
retrograde	1861 Nov 01 11:31	28°☾35'42		max. Earth dist.	1862 Aug 25 02:18	7°☾08'48	1.37115 AU
evening set	1861 Nov 06 20:06	26°☾22'13		evening rise	1862 Aug 28 22:59	14°☾16'02	
min. Earth dist.	1861 Nov 11 13:47	20°☾56'32	0.67569 AU		1862 Sep 07 04:08	0°☾	
asc. node	1861 Nov 11 18:43	20°☾40'01		desc. node	1862 Sep 10 01:55	4°☾37'04	
inferior conj	1861 Nov 12 07:36	19°☾56'43	0°11'05		1862 Sep 28 11:06	0°☾	
minimum elong	1861 Nov 12 07:19	19°☾57'38	0°10'58	evening max el	1862 Oct 03 17:14	5°☾40'12	25°35'14
transit middle	1861 Nov 12 07:19	19°☾57'38	0°10'58	retrograde	1862 Oct 15 21:53	12°☾39'39	
transit begin	1861 Nov 12 05:18	20°☾04'26		evening set	1862 Oct 21 21:00	10°☾10'50	
transit end	1861 Nov 12 09:21	19°☾50'51		min. Earth dist.	1862 Oct 26 06:45	5°☾20'39	0.66999 AU
morning rise	1861 Nov 17 18:52	13°☾50'45		inferior conj	1862 Oct 27 11:25	3°☾48'49	0°-44'-59
direct	1861 Nov 21 12:57	12°☾30'09		minimum elong	1862 Oct 27 12:35	3°☾45'06	0°44'31

asc. node	1862 Oct 29 15:44	1°♄07'06		asc. node	1863 Oct 16 12:48	12°♄26'46	
	1862 Oct 30 16:03	30°♄		morning rise	1863 Oct 17 12:00	11°♄50'44	
morning rise	1862 Nov 02 04:54	27°♄51'07		direct	1863 Oct 20 09:20	11°♄03'54	
direct	1862 Nov 05 11:32	26°♄49'12		morning max el	1863 Oct 27 01:01	14°♄42'57	18°31'44
	1862 Nov 11 17:41	0°♄			1863 Nov 07 04:49	0°♄	
morning max el	1862 Nov 12 13:36	0°♄48'09	19°17'12	morning set	1863 Nov 16 03:24	14°♄14'41	
greatest brilliancy	1862 Nov 22 10:44	13°♄38'15	-0.7m	desc. node	1863 Nov 23 22:14	26°♄38'41	
	1862 Dec 03 04:25	0°♄			1863 Nov 26 01:09	0°♄	
morning set	1862 Dec 06 02:05	4°♄30'18		superior conj	1863 Dec 01 23:24	9°♄19'49	0°-52'-5
desc. node	1862 Dec 07 01:09	5°♄59'57		minimum elong	1863 Dec 01 16:49	8°♄53'55	0°51'15
max. Earth dist.	1862 Dec 19 20:20	26°♄01'29	1.44722 AU	max. Earth dist.	1863 Dec 02 14:51	10°♄20'28	1.45140 AU
	1862 Dec 22 08:35	0°♄			1863 Dec 15 02:43	0°♄	
superior conj	1862 Dec 22 21:36	0°♄51'43	-1°-33'-46	evening rise	1863 Dec 18 00:41	4°♄36'54	
minimum elong	1862 Dec 22 12:56	0°♄17'17	1°32'58		1864 Jan 03 09:40	0°♄	
evening rise	1863 Jan 06 10:41	24°♄28'16		evening max el	1864 Jan 09 08:00	7°♄25'45	19°03'30
	1863 Jan 09 18:43	0°♄		asc. node	1864 Jan 12 12:04	10°♄06'33	
asc. node	1863 Jan 25 15:03	23°♄40'18		retrograde	1864 Jan 16 05:53	11°♄21'31	
evening max el	1863 Jan 25 22:05	23°♄58'26	18°27'38	evening set	1864 Jan 19 12:05	10°♄19'51	
retrograde	1863 Feb 01 10:45	27°♄33'01		inferior conj	1864 Jan 25 04:06	4°♄30'26	3°22'41
evening set	1863 Feb 04 10:44	26°♄43'17		minimum elong	1864 Jan 25 01:54	4°♄37'23	3°22'19
inferior conj	1863 Feb 10 09:00	21°♄10'46	3°40'16	min. Earth dist.	1864 Jan 26 16:39	2°♄35'07	0.65813 AU
minimum elong	1863 Feb 10 07:50	21°♄14'08	3°40'11		1864 Jan 28 21:21	30°♄	
min. Earth dist.	1863 Feb 12 12:50	18°♄39'57	0.64371 AU	morning rise	1864 Jan 30 14:47	28°♄17'33	
morning rise	1863 Feb 16 03:32	15°♄02'33		direct	1864 Feb 06 01:33	25°♄28'51	
direct	1863 Feb 22 23:28	12°♄13'25			1864 Feb 15 15:00	0°♄	
desc. node	1863 Mar 05 00:18	16°♄50'25		morning max el	1864 Feb 18 22:57	3°♄05'07	26°31'20
morning max el	1863 Mar 08 12:59	20°♄04'33	27°25'15	desc. node	1864 Feb 19 21:23	4°♄02'41	
	1863 Mar 17 01:33	0°♄			1864 Mar 10 08:12	0°♄	
	1863 Apr 05 10:20	0°♄		morning set	1864 Mar 25 22:55	26°♄50'34	
morning set	1863 Apr 12 17:00	13°♄37'11			1864 Mar 27 14:42	0°♄	
max. Earth dist.	1863 Apr 17 14:16	23°♄28'56	1.33492 AU	max. Earth dist.	1864 Mar 30 03:58	4°♄58'37	1.34781 AU
superior conj	1863 Apr 20 18:46	0°♄10'19	0°-29'-16	superior conj	1864 Apr 03 17:52	14°♄13'48	0°-57'-4
minimum elong	1863 Apr 20 20:14	0°♄18'04	0°28'58	minimum elong	1864 Apr 03 20:45	14°♄28'36	0°56'34
	1863 Apr 20 16:49	0°♄		asc. node	1864 Apr 09 11:27	26°♄10'33	
asc. node	1863 Apr 23 14:24	6°♄11'13		evening rise	1864 Apr 11 09:56	0°♄12'18	
evening rise	1863 Apr 28 00:59	15°♄38'47			1864 Apr 11 07:34	0°♄	
	1863 May 05 06:24	0°♄			1864 Apr 29 10:14	0°♄	
evening max el	1863 May 19 10:27	20°♄09'16	22°20'48	evening max el	1864 Apr 30 10:21	1°♄00'55	20°53'11
desc. node	1863 May 31 23:34	26°♄33'36		retrograde	1864 May 11 22:49	6°♄37'21	
retrograde	1863 Jun 01 09:25	26°♄33'59		evening set	1864 May 14 03:00	6°♄26'07	
evening set	1863 Jun 04 09:07	26°♄14'17		desc. node	1864 May 17 20:34	5°♄19'40	
min. Earth dist.	1863 Jun 12 17:09	22°♄38'23	0.55173 AU	inferior conj	1864 May 23 10:05	2°♄28'17	-1°-36'-37
inferior conj	1863 Jun 13 16:18	22°♄05'42	-3°-25'-49	minimum elong	1864 May 23 05:32	2°♄34'46	1°35'01
minimum elong	1863 Jun 13 08:26	22°♄16'49	3°23'40	min. Earth dist.	1864 May 24 05:37	2°♄00'30	0.54943 AU
morning rise	1863 Jun 22 09:56	18°♄14'03			1864 May 27 23:57	30°♄	
direct	1863 Jun 25 09:42	17°♄53'51		morning rise	1864 Jun 01 07:21	28°♄24'02	
morning max el	1863 Jul 06 23:20	23°♄17'03	21°13'23	direct	1864 Jun 04 19:12	27°♄57'45	
	1863 Jul 12 20:00	0°♄			1864 Jun 12 04:27	0°♄	
asc. node	1863 Jul 20 13:38	12°♄28'38		morning max el	1864 Jun 17 20:21	4°♄13'04	22°49'57
morning set	1863 Jul 26 20:46	24°♄53'31			1864 Jul 05 11:35	0°♄	
	1863 Jul 29 07:37	0°♄		asc. node	1864 Jul 06 10:43	1°♄53'06	
superior conj	1863 Aug 03 07:05	10°♄24'09	1°42'50	morning set	1864 Jul 10 07:35	9°♄46'51	
minimum elong	1863 Aug 03 05:50	10°♄17'44	1°42'45	superior conj	1864 Jul 17 11:24	25°♄03'09	1°33'32
max. Earth dist.	1863 Aug 07 12:40	19°♄00'22	1.35360 AU	minimum elong	1864 Jul 17 09:18	24°♄51'58	1°33'20
evening rise	1863 Aug 11 19:42	27°♄20'37			1864 Jul 19 19:35	0°♄	
	1863 Aug 13 05:43	0°♄		max. Earth dist.	1864 Jul 20 07:54	1°♄04'19	1.33972 AU
desc. node	1863 Aug 27 22:57	24°♄46'36		evening rise	1864 Jul 25 06:38	11°♄07'01	
	1863 Aug 31 11:53	0°♄			1864 Aug 04 14:07	0°♄	
evening max el	1863 Sep 16 05:20	19°♄17'41	26°35'17	desc. node	1864 Aug 13 19:57	14°♄30'59	
retrograde	1863 Sep 29 03:10	26°♄31'11			1864 Aug 26 00:29	0°♄	
evening set	1863 Oct 05 15:57	23°♄51'22		evening max el	1864 Aug 28 17:17	2°♄44'07	27°14'18
min. Earth dist.	1863 Oct 09 18:12	19°♄38'08	0.66079 AU	retrograde	1864 Sep 11 03:02	10°♄02'52	
inferior conj	1863 Oct 11 10:36	17°♄37'08	-1°-43'-6	evening set	1864 Sep 18 02:29	7°♄19'46	
minimum elong	1863 Oct 11 13:20	17°♄28'54	1°42'00	min. Earth dist.	1864 Sep 21 21:59	3°♄43'00	0.64802 AU

inferior conj	1864 Sep 24 02:55	1°♄17'33	-2°-41'-7	evening set	1865 Sep 01 01:27	20°♊30'42	
minimum elong	1864 Sep 24 07:09	1°♄05'53	2°39'37	min. Earth dist.	1865 Sep 04 16:19	17°♊26'07	0.63176 AU
	1864 Sep 25 07:30	30°♊		inferior conj	1865 Sep 07 09:43	14°♊44'27	-3°-35'-53
morning rise	1864 Sep 30 13:42	25°♊45'31		minimum elong	1865 Sep 07 14:56	14°♊31'30	3°34'24
asc. node	1864 Oct 02 09:53	25°♊13'00		morning rise	1865 Sep 14 06:52	9°♊29'59	
direct	1864 Oct 03 04:08	25°♊09'56		direct	1865 Sep 16 17:08	9°♊02'06	
morning max el	1864 Oct 09 16:15	28°♊38'21	18°02'56	asc. node	1865 Sep 19 06:58	9°♊34'11	
	1864 Oct 10 22:42	0°♄		morning max el	1865 Sep 23 08:25	12°♊27'59	17°51'44
morning set	1864 Oct 27 09:44	25°♄24'20			1865 Oct 05 06:16	0°♄	
	1864 Oct 30 03:48	0°♌		morning set	1865 Oct 09 16:42	7°♄45'24	
desc. node	1864 Nov 09 19:15	17°♌23'07					
				superior conj	1865 Oct 21 14:25	28°♌13'02	0°40'31
superior conj	1864 Nov 10 07:23	18°♌11'38	0°-3'-24	minimum elong	1865 Oct 21 18:14	28°♌28'59	0°39'59
minimum elong	1864 Nov 10 06:58	18°♌09'58	0°03'22		1865 Oct 22 16:10	0°♌	
behind sun begin	1864 Nov 09 20:32	17°♌28'14		desc. node	1865 Oct 27 16:17	8°♌10'23	
behind sun end	1864 Nov 10 17:23	18°♌51'38		max. Earth dist.	1865 Oct 28 01:54	8°♌49'06	1.43811 AU
max. Earth dist.	1864 Nov 14 09:35	24°♌41'45	1.44819 AU	evening rise	1865 Nov 06 02:07	23°♌00'07	
	1864 Nov 17 18:31	0°♊			1865 Nov 10 15:46	0°♊	
evening rise	1864 Nov 26 17:57	13°♊57'05		greatest brilliancy	1865 Nov 30 04:54	28°♊08'02	-0.5m
	1864 Dec 07 05:24	0°♊			1865 Dec 01 16:30	0°♊	
greatest brilliancy	1864 Dec 15 10:05	12°♊01'03	-0.6m	evening max el	1865 Dec 05 13:49	4°♊25'11	21°00'59
evening max el	1864 Dec 22 13:36	20°♊54'50	19°55'30	retrograde	1865 Dec 14 01:11	9°♊26'31	
asc. node	1864 Dec 29 09:08	25°♊17'08		asc. node	1865 Dec 16 06:11	8°♊59'20	
retrograde	1864 Dec 30 03:29	25°♊20'24		evening set	1865 Dec 18 00:52	7°♊56'25	
evening set	1865 Jan 02 17:28	24°♊05'23		inferior conj	1865 Dec 23 10:53	1°♊42'03	2°16'21
inferior conj	1865 Jan 08 05:32	18°♊01'53	2°53'52	minimum elong	1865 Dec 23 08:22	1°♊50'40	2°15'31
minimum elong	1865 Jan 08 02:55	18°♊10'39	2°53'12	min. Earth dist.	1865 Dec 23 20:59	1°♊07'19	0.67515 AU
min. Earth dist.	1865 Jan 09 04:06	16°♊46'38	0.66857 AU		1865 Dec 24 16:44	30°♊	
morning rise	1865 Jan 13 11:44	11°♊46'48		morning rise	1865 Dec 28 15:28	25°♊26'51	
direct	1865 Jan 19 09:31	9°♊09'43		direct	1866 Jan 02 22:25	23°♊08'51	
morning max el	1865 Jan 31 07:53	16°♊16'43	25°15'57	morning max el	1866 Jan 13 16:14	29°♊33'07	23°49'19
desc. node	1865 Feb 05 18:26	22°♊21'13			1866 Jan 14 02:47	0°♊	
	1865 Feb 11 17:02	0°♊		desc. node	1866 Jan 23 15:29	11°♊27'00	
	1865 Mar 03 06:32	0°♋			1866 Feb 05 13:18	0°♊	
morning set	1865 Mar 08 12:22	9°♋10'54		morning set	1866 Feb 18 03:19	20°♊21'47	
max. Earth dist.	1865 Mar 12 05:54	16°♋01'52	1.36511 AU	max. Earth dist.	1866 Feb 22 01:01	27°♊09'30	1.38572 AU
					1866 Feb 23 15:13	0°♋	
superior conj	1865 Mar 18 07:53	27°♋45'26	-1°-23'-28	superior conj	1866 Mar 01 09:09	10°♋36'00	-1°-45'-57
minimum elong	1865 Mar 18 11:51	28°♋05'08	1°22'54	minimum elong	1866 Mar 01 13:21	10°♋55'48	1°45'33
	1865 Mar 19 10:57	0°♋		evening rise	1866 Mar 10 11:22	28°♋12'50	
evening rise	1865 Mar 26 14:15	14°♋25'53			1866 Mar 11 09:21	0°♋	
asc. node	1865 Mar 27 08:29	15°♋57'35		asc. node	1866 Mar 14 05:30	5°♋27'28	
	1865 Apr 03 18:35	0°♋		evening max el	1866 Mar 26 20:25	24°♋38'40	18°50'30
evening max el	1865 Apr 12 21:59	12°♋30'26	19°42'04	retrograde	1866 Apr 04 02:23	28°♋39'13	
retrograde	1865 Apr 22 16:44	17°♋13'36		evening set	1866 Apr 06 07:34	28°♋23'00	
evening set	1865 Apr 24 17:29	17°♋02'18		inferior conj	1866 Apr 14 06:10	24°♋03'50	1°59'23
inferior conj	1865 May 03 11:05	12°♋59'43	0°22'01	minimum elong	1866 Apr 14 10:02	23°♋56'49	1°58'14
minimum elong	1865 May 03 12:03	12°♋58'13	0°21'41	min. Earth dist.	1866 Apr 17 12:13	21°♋43'25	0.57215 AU
desc. node	1865 May 04 17:37	12°♋11'49		desc. node	1866 Apr 21 14:39	19°♋16'13	
min. Earth dist.	1865 May 05 19:48	11°♋31'15	0.55678 AU	morning rise	1866 Apr 22 08:11	18°♋56'14	
morning rise	1865 May 12 03:07	8°♋25'53		direct	1866 Apr 27 18:44	17°♋44'39	
direct	1865 May 16 12:11	7°♋43'09		morning max el	1866 May 12 02:29	25°♋13'12	26°04'32
morning max el	1865 May 30 11:25	14°♋42'56	24°31'55		1866 May 16 12:58	0°♋	
	1865 Jun 11 12:46	0°♋			1866 Jun 04 13:12	0°♋	
asc. node	1865 Jun 23 07:47	21°♋36'56		morning set	1866 Jun 09 06:45	9°♋37'20	
morning set	1865 Jun 24 19:27	24°♋43'17		asc. node	1866 Jun 10 04:48	11°♋34'07	
	1865 Jun 27 06:46	0°♋					
superior conj	1865 Jul 01 20:12	9°♋54'43	1°19'08	superior conj	1866 Jun 16 07:21	24°♋51'46	1°00'32
minimum elong	1865 Jul 01 17:47	9°♋41'37	1°18'48	minimum elong	1866 Jun 16 05:07	24°♋39'31	1°00'08
max. Earth dist.	1865 Jul 03 11:47	13°♋29'02	1.32985 AU	max. Earth dist.	1866 Jun 16 21:44	26°♋10'44	1.32397 AU
evening rise	1865 Jul 09 03:49	25°♋23'36			1866 Jun 18 15:39	0°♋	
	1865 Jul 11 11:02	0°♋		evening rise	1866 Jun 23 08:04	10°♋00'13	
	1865 Jul 29 01:51	0°♋			1866 Jul 03 18:20	0°♋	
desc. node	1865 Jul 31 16:57	3°♋39'47		desc. node	1866 Jul 18 13:58	21°♋57'40	
evening max el	1865 Aug 11 03:36	15°♋48'05	27°25'44	evening max el	1866 Jul 24 09:47	28°♋16'01	27°04'49
retrograde	1865 Aug 24 20:45	23°♋05'49			1866 Jul 26 08:04	0°♋	

retrograde	1866 Aug 07 07:14	5° $\mathring{\text{M}}$ 30'06			1867 Jun 27 19:03	0° Ω	
evening set	1866 Aug 14 08:38	3° $\mathring{\text{M}}$ 16'06		desc. node	1867 Jul 05 10:58	9° Ω 03'39	
min. Earth dist.	1866 Aug 18 00:04	0° $\mathring{\text{M}}$ 33'57	0.61266 AU	evening max el	1867 Jul 06 09:15	9° Ω 58'03	26°11'00
	1866 Aug 18 16:03	30° $\mathring{\text{R}}$ Ω		retrograde	1867 Jul 20 09:03	17° Ω 08'52	
inferior conj	1866 Aug 21 03:43	27° Ω 49'04	-4°-22'-22	evening set	1867 Jul 26 19:18	15° Ω 27'54	
minimum elong	1866 Aug 21 08:40	27° Ω 38'13	4°21'26	min. Earth dist.	1867 Jul 30 21:57	12° Ω 52'14	0.59209 AU
morning rise	1866 Aug 28 11:40	22° Ω 55'24		inferior conj	1867 Aug 03 05:21	10° Ω 21'54	-4°-52'-20
direct	1866 Aug 30 20:41	22° Ω 32'18		minimum elong	1867 Aug 03 07:52	10° Ω 17'06	4°52'09
asc. node	1866 Sep 06 04:01	25° Ω 21'07		morning rise	1867 Aug 10 23:52	5° Ω 51'29	
morning max el	1866 Sep 06 22:27	26° Ω 03'49	17°59'12	direct	1867 Aug 13 10:25	5° Ω 31'04	
	1866 Sep 10 07:32	0° $\mathring{\text{M}}$		morning max el	1867 Aug 21 07:17	9° Ω 17'47	18°26'33
morning set	1866 Sep 22 17:56	20° $\mathring{\text{M}}$ 58'44		asc. node	1867 Aug 24 01:03	12° Ω 19'16	
	1866 Sep 27 16:03	0° $\underline{\Omega}$			1867 Sep 03 19:24	0° $\mathring{\text{M}}$	
				morning set	1867 Sep 06 08:10	4° $\mathring{\text{M}}$ 49'39	
superior conj	1866 Oct 03 00:32	9° $\underline{\Omega}$ 34'00	1°13'20	superior conj	1867 Sep 15 10:00	22° $\mathring{\text{M}}$ 04'10	1°34'05
minimum elong	1866 Oct 03 05:03	9° $\underline{\Omega}$ 53'45	1°12'50	minimum elong	1867 Sep 15 13:08	22° $\mathring{\text{M}}$ 18'37	1°33'50
max. Earth dist.	1866 Oct 10 13:57	22° $\underline{\Omega}$ 27'21	1.42239 AU		1867 Sep 19 18:53	0° $\underline{\Omega}$	
desc. node	1866 Oct 14 13:18	28° $\underline{\Omega}$ 56'47		max. Earth dist.	1867 Sep 22 20:46	5° $\underline{\Omega}$ 24'05	1.40299 AU
	1866 Oct 15 05:02	0° $\mathring{\text{M}}$		evening rise	1867 Sep 27 07:08	12° $\underline{\Omega}$ 54'44	
evening rise	1866 Oct 16 18:17	2° $\mathring{\text{M}}$ 28'34		desc. node	1867 Oct 01 10:19	19° $\underline{\Omega}$ 38'59	
	1866 Nov 04 02:58	0° $\mathring{\text{M}}$			1867 Oct 08 01:55	0° $\mathring{\text{M}}$	
greatest brilliancy	1866 Nov 13 15:19	12° $\mathring{\text{M}}$ 38'02	-0.3m		1867 Oct 30 11:54	0° $\mathring{\text{M}}$	
evening max el	1866 Nov 18 08:32	17° $\mathring{\text{M}}$ 56'37	22°16'10	evening max el	1867 Oct 31 22:55	1° $\mathring{\text{M}}$ 30'30	23°35'56
retrograde	1866 Nov 27 21:14	23° $\mathring{\text{M}}$ 36'32		retrograde	1867 Nov 11 14:20	7° $\mathring{\text{M}}$ 47'35	
evening set	1866 Dec 02 08:33	21° $\mathring{\text{M}}$ 49'47		evening set	1867 Nov 16 14:55	5° $\mathring{\text{M}}$ 43'29	
asc. node	1866 Dec 03 03:14	21° $\mathring{\text{M}}$ 08'52		asc. node	1867 Nov 20 00:15	2° $\mathring{\text{M}}$ 02'36	
inferior conj	1866 Dec 07 18:04	15° $\mathring{\text{M}}$ 27'57	1°31'53	min. Earth dist.	1867 Nov 21 13:28	29° $\mathring{\text{M}}$ 58'32	0.67756 AU
minimum elong	1866 Dec 07 16:08	15° $\mathring{\text{M}}$ 34'40	1°31'07		1867 Nov 21 13:02	30° $\mathring{\text{M}}$ $\mathring{\text{M}}$	
min. Earth dist.	1866 Dec 07 16:52	15° $\mathring{\text{M}}$ 32'06	0.67808 AU	inferior conj	1867 Nov 22 01:19	29° $\mathring{\text{M}}$ 18'03	0°41'52
morning rise	1866 Dec 12 23:33	9° $\mathring{\text{M}}$ 14'43		minimum elong	1867 Nov 22 00:20	29° $\mathring{\text{M}}$ 21'23	0°41'27
direct	1866 Dec 17 15:22	7° $\mathring{\text{M}}$ 19'21		morning rise	1867 Nov 27 09:55	23° $\mathring{\text{M}}$ 08'53	
morning max el	1866 Dec 27 03:09	12° $\mathring{\text{M}}$ 55'17	22°21'21	direct	1867 Dec 01 11:26	21° $\mathring{\text{M}}$ 36'19	
greatest brilliancy	1866 Dec 31 17:06	18° $\mathring{\text{M}}$ 02'55	-0.3m	morning max el	1867 Dec 09 20:09	26° $\mathring{\text{M}}$ 27'29	20°59'59
	1867 Jan 09 17:44	0° $\mathring{\text{Z}}$			1867 Dec 13 01:14	0° $\mathring{\text{M}}$	
desc. node	1867 Jan 10 12:31	1° $\mathring{\text{Z}}$ 06'20		greatest brilliancy	1867 Dec 15 08:42	2° $\mathring{\text{M}}$ 51'02	-0.5m
	1867 Jan 29 11:45	0° \approx		desc. node	1867 Dec 28 09:33	21° $\mathring{\text{M}}$ 10'00	
morning set	1867 Jan 29 14:05	0° \approx 09'30			1868 Jan 03 06:20	0° $\mathring{\text{Z}}$	
max. Earth dist.	1867 Feb 03 21:47	8° \approx 58'31	1.40720 AU	morning set	1868 Jan 08 21:32	8° $\mathring{\text{Z}}$ 42'07	
				max. Earth dist.	1868 Jan 17 01:19	21° $\mathring{\text{Z}}$ 43'09	1.42665 AU
superior conj	1867 Feb 11 17:01	22° \approx 33'33	-2°-1'-3		1868 Jan 22 01:29	0° \approx	
minimum elong	1867 Feb 11 19:39	22° \approx 45'22	2°00'57	superior conj	1868 Jan 24 02:09	3° \approx 25'23	-2°-4'-9
	1867 Feb 15 19:13	0° $\mathring{\text{H}}$		minimum elong	1868 Jan 24 00:42	3° \approx 19'17	2°04'09
evening rise	1867 Feb 21 22:04	11° $\mathring{\text{H}}$ 25'12		evening rise	1868 Feb 04 18:31	23° \approx 54'20	
asc. node	1867 Mar 01 02:31	24° $\mathring{\text{H}}$ 34'08			1868 Feb 08 04:17	0° $\mathring{\text{H}}$	
	1867 Mar 04 09:48	0° $\mathring{\text{Y}}$		asc. node	1868 Feb 15 23:33	13° $\mathring{\text{H}}$ 09'34	
evening max el	1867 Mar 10 02:42	7° $\mathring{\text{Y}}$ 18'14	18°19'05	evening max el	1868 Feb 21 13:34	20° $\mathring{\text{H}}$ 19'40	18°07'26
retrograde	1867 Mar 17 07:18	10° $\mathring{\text{Y}}$ 52'49		retrograde	1868 Feb 28 04:27	23° $\mathring{\text{H}}$ 43'58	
evening set	1867 Mar 19 18:02	10° $\mathring{\text{Y}}$ 28'57		evening set	1868 Mar 01 20:13	23° $\mathring{\text{H}}$ 10'59	
inferior conj	1867 Mar 26 22:37	5° $\mathring{\text{Y}}$ 48'42	3°03'09	inferior conj	1868 Mar 08 10:14	18° $\mathring{\text{H}}$ 09'29	3°35'40
minimum elong	1867 Mar 27 02:09	5° $\mathring{\text{Y}}$ 41'11	3°02'25	minimum elong	1868 Mar 08 11:54	18° $\mathring{\text{H}}$ 05'22	3°35'31
min. Earth dist.	1867 Mar 30 08:55	2° $\mathring{\text{Y}}$ 55'29	0.59223 AU	min. Earth dist.	1868 Mar 11 12:51	15° $\mathring{\text{H}}$ 07'59	0.61362 AU
morning rise	1867 Apr 03 06:29	0° $\mathring{\text{Y}}$ 13'23		morning rise	1868 Mar 15 00:48	12° $\mathring{\text{H}}$ 15'48	
	1867 Apr 03 16:22	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$		direct	1868 Mar 21 20:42	9° $\mathring{\text{H}}$ 54'43	
desc. node	1867 Apr 08 11:40	28° $\mathring{\text{H}}$ 29'07		desc. node	1868 Mar 25 08:42	10° $\mathring{\text{H}}$ 28'49	
direct	1867 Apr 09 14:14	28° $\mathring{\text{H}}$ 25'50		morning max el	1868 Apr 05 01:10	17° $\mathring{\text{H}}$ 48'58	27°46'42
	1867 Apr 15 17:23	0° $\mathring{\text{Y}}$			1868 Apr 15 05:29	0° $\mathring{\text{Y}}$	
morning max el	1867 Apr 23 22:37	6° $\mathring{\text{Y}}$ 10'59	27°12'52	morning set	1868 May 03 09:05	0° $\mathring{\text{H}}$	
	1867 May 11 16:26	0° $\mathring{\text{Z}}$		asc. node	1868 May 07 20:45	8° $\mathring{\text{H}}$ 54'55	
morning set	1867 May 24 15:50	24° $\mathring{\text{Z}}$ 23'46		max. Earth dist.	1868 May 13 22:50	21° $\mathring{\text{H}}$ 49'06	
	1867 May 27 07:17	0° $\mathring{\text{H}}$			1868 May 13 21:03	21° $\mathring{\text{H}}$ 39'25	1.32367 AU
asc. node	1867 May 28 01:49	1° $\mathring{\text{H}}$ 39'56		superior conj	1868 May 15 05:47	24° $\mathring{\text{H}}$ 37'51	0°13'36
superior conj	1867 May 31 19:08	9° $\mathring{\text{H}}$ 48'26	0°38'27	minimum elong	1868 May 15 05:10	24° $\mathring{\text{H}}$ 34'25	0°13'28
minimum elong	1867 May 31 17:31	9° $\mathring{\text{H}}$ 39'33	0°38'08	behind sun begin	1868 May 15 02:27	24° $\mathring{\text{H}}$ 19'36	
max. Earth dist.	1867 May 31 10:12	8° $\mathring{\text{H}}$ 59'18	1.32192 AU	behind sun end	1868 May 15 07:52	24° $\mathring{\text{H}}$ 49'15	
evening rise	1867 Jun 07 16:54	24° $\mathring{\text{H}}$ 48'51					
	1867 Jun 10 04:53	0° $\mathring{\text{Z}}$					

	1868 May 17 16:39	0°♂		superior conj	1869 Apr 29 13:36	9°♂14'25	0°-13'-16
evening rise	1868 May 22 04:08	9°♂40'59		minimum elong	1869 Apr 29 14:15	9°♂17'54	0°13'09
	1868 Jun 01 15:28	0°♂		behind sun begin	1869 Apr 29 11:15	9°♂01'44	
evening max el	1868 Jun 17 01:39	20°♂54'35	24°50'25	behind sun end	1869 Apr 29 17:15	9°♂34'04	
desc. node	1868 Jun 21 07:58	24°♂27'58		asc. node	1869 Apr 30 19:53	11°♂57'38	
retrograde	1868 Jul 01 00:40	27°♂59'25		evening rise	1869 May 06 15:56	24°♂30'33	
evening set	1868 Jul 06 06:17	26°♂57'07			1869 May 09 07:18	0°♂	
min. Earth dist.	1868 Jul 11 13:00	24°♂09'06	0.57246 AU		1869 May 28 05:34	0°♂	
inferior conj	1868 Jul 14 11:29	22°♂13'05	-4°-53'-27	evening max el	1869 May 29 15:27	1°♂25'39	23°15'44
minimum elong	1868 Jul 14 09:09	22°♂16'56	4°53'20	desc. node	1869 Jun 08 04:59	7°♂35'08	
morning rise	1868 Jul 22 15:50	18°♂04'56		retrograde	1869 Jun 12 04:03	8°♂10'51	
direct	1868 Jul 25 05:58	17°♂45'52		evening set	1869 Jun 15 21:38	7°♂40'19	
morning max el	1868 Aug 03 07:49	22°♂00'08	19°14'56	min. Earth dist.	1869 Jun 23 01:13	4°♂25'14	0.55718 AU
asc. node	1868 Aug 09 22:05	0°♂13'16		inferior conj	1869 Jun 24 21:51	3°♂19'39	-4°-11'-50
	1868 Aug 09 18:36	0°♂		minimum elong	1869 Jun 24 14:46	3°♂30'06	4°10'25
morning set	1868 Aug 20 07:28	19°♂07'02			1869 Jul 01 11:57	30°♂♂	
	1868 Aug 25 18:29	0°♂		morning rise	1869 Jul 03 11:03	29°♂25'48	
superior conj	1868 Aug 28 13:06	5°♂26'53	1°44'09	direct	1869 Jul 06 06:21	29°♂06'45	
minimum elong	1868 Aug 28 14:18	5°♂32'43	1°44'06		1869 Jul 10 19:20	0°♂	
max. Earth dist.	1868 Sep 04 00:15	17°♂37'59	1.38242 AU	morning max el	1869 Jul 16 21:37	4°♂02'17	20°24'29
evening rise	1868 Sep 07 20:08	24°♂28'16		asc. node	1869 Jul 27 19:08	18°♂50'28	
	1868 Sep 11 01:19	0°♂		morning set	1869 Aug 02 16:50	0°♂	
desc. node	1868 Sep 17 07:21	10°♂12'42			1869 Aug 04 12:57	3°♂43'15	
	1868 Sep 30 18:57	0°♂		superior conj	1869 Aug 12 04:53	19°♂27'51	1°45'24
evening max el	1868 Oct 13 11:04	15°♂08'03	24°54'01	minimum elong	1869 Aug 12 04:23	19°♂25'22	1°45'23
retrograde	1868 Oct 25 03:34	21°♂55'42		max. Earth dist.	1869 Aug 17 06:19	29°♂29'23	1.36327 AU
evening set	1868 Oct 30 18:22	19°♂35'05			1869 Aug 17 12:40	0°♂	
min. Earth dist.	1868 Nov 04 08:29	14°♂24'22	0.67366 AU	evening rise	1869 Aug 21 06:36	7°♂03'20	
inferior conj	1868 Nov 05 06:56	13°♂10'18	0°-12'-22		1869 Sep 03 19:53	0°♂	
minimum elong	1868 Nov 05 07:14	13°♂09'17	0°12'15	desc. node	1869 Sep 04 04:21	0°♂32'46	
transit middle	1868 Nov 05 07:14	13°♂09'17	0°12'15	evening max el	1869 Sep 25 23:02	28°♂47'33	26°02'58
transit begin	1868 Nov 05 05:25	13°♂15'16			1869 Sep 27 05:49	0°♂	
transit end	1868 Nov 05 09:03	13°♂03'19		retrograde	1869 Oct 08 12:02	5°♂54'52	
asc. node	1868 Nov 05 21:18	12°♂23'04		evening set	1869 Oct 14 17:01	3°♂20'46	
morning rise	1868 Nov 10 20:38	7°♂07'38			1869 Oct 17 23:05	30°♂♂	
direct	1868 Nov 14 09:29	5°♂55'36		min. Earth dist.	1869 Oct 18 23:30	28°♂46'00	0.66644 AU
morning max el	1868 Nov 21 20:57	10°♂10'59	19°50'31	inferior conj	1869 Oct 20 09:03	27°♂01'15	-1°-9'-33
greatest brilliancy	1868 Nov 29 11:13	19°♂32'12	-0.6m	minimum elong	1869 Oct 20 10:52	26°♂55'33	1°08'47
	1868 Dec 06 16:20	0°♂		asc. node	1869 Oct 23 18:22	23°♂06'29	
desc. node	1868 Dec 14 06:36	11°♂31'26		morning rise	1869 Oct 26 05:41	21°♂07'49	
morning set	1868 Dec 17 17:38	16°♂50'57		direct	1869 Oct 29 07:59	20°♂12'51	
	1868 Dec 26 04:05	0°♂		morning max el	1869 Nov 05 04:56	24°♂02'34	18°55'47
max. Earth dist.	1868 Dec 29 12:06	5°♂16'42	1.44146 AU		1869 Nov 10 03:58	0°♂	
superior conj	1869 Jan 03 09:02	13°♂06'04	-1°-50'-24	morning set	1869 Nov 27 03:26	25°♂47'15	
minimum elong	1869 Jan 03 02:13	12°♂38'26	1°49'58		1869 Nov 29 19:50	0°♂	
	1869 Jan 13 14:03	0°♂		desc. node	1869 Dec 01 03:39	2°♂04'49	
evening rise	1869 Jan 16 20:26	5°♂32'37		max. Earth dist.	1869 Dec 12 04:24	19°♂23'26	1.44988 AU
	1869 Feb 01 00:22	0°♂		superior conj	1869 Dec 13 17:17	21°♂48'35	-1°-17'-44
asc. node	1869 Feb 01 20:35	1°♂04'45		minimum elong	1869 Dec 13 08:39	21°♂14'34	1°16'47
evening max el	1869 Feb 04 02:09	3°♂36'05	18°14'57		1869 Dec 18 21:33	0°♂	
retrograde	1869 Feb 10 13:13	7°♂03'35		evening rise	1869 Dec 28 23:55	16°♂13'21	
evening set	1869 Feb 13 10:00	6°♂20'22			1870 Jan 06 11:51	0°♂	
inferior conj	1869 Feb 19 13:06	0°♂58'54	3°43'54	evening max el	1870 Jan 18 13:46	17°♂00'52	18°40'51
minimum elong	1869 Feb 19 12:50	0°♂59'36	3°43'55	asc. node	1870 Jan 19 17:39	18°♂07'23	
	1869 Feb 20 10:21	30°♂♂		retrograde	1870 Jan 25 05:28	20°♂43'04	
min. Earth dist.	1869 Feb 22 02:00	28°♂11'43	0.63360 AU	evening set	1870 Jan 28 07:56	19°♂48'30	
morning rise	1869 Feb 25 13:48	24°♂54'27		inferior conj	1870 Feb 03 03:15	14°♂08'48	3°34'20
direct	1869 Mar 04 12:09	22°♂11'02		minimum elong	1870 Feb 03 01:34	14°♂13'53	3°34'09
desc. node	1869 Mar 12 05:45	24°♂57'24		min. Earth dist.	1870 Feb 05 00:35	11°♂51'55	0.65039 AU
	1869 Mar 18 05:55	0°♂		morning rise	1870 Feb 08 18:01	7°♂58'18	
morning max el	1869 Mar 18 08:36	0°♂06'40	27°43'02	direct	1870 Feb 15 10:50	5°♂07'25	
	1869 Apr 09 05:27	0°♂		desc. node	1870 Feb 27 02:49	11°♂18'58	
morning set	1869 Apr 21 19:13	23°♂03'24		morning max el	1870 Feb 28 18:07	12°♂54'01	27°05'23
	1869 Apr 25 04:56	0°♂			1870 Mar 14 12:36	0°♂	
max. Earth dist.	1869 Apr 27 02:17	3°♂57'51	1.32951 AU		1870 Apr 01 19:38	0°♂	

morning set	1870 Apr 05 08:14	6° Υ 39'38		morning set	1871 Mar 19 07:45	19° Υ 31'49	
max. Earth dist.	1870 Apr 09 22:08	15° Υ 44'28	1.33981 AU	max. Earth dist.	1871 Mar 23 06:36	27° Υ 00'28	1.35472 AU
					1871 Mar 24 19:28	0° Υ	
superior conj	1870 Apr 13 16:34	23° Υ 31'50	0°-41'-7	superior conj	1871 Mar 28 12:11	7° Υ 22'49	-1°-8'-35
minimum elong	1870 Apr 13 18:38	23° Υ 42'42	0°40'43	minimum elong	1871 Mar 28 15:35	7° Υ 40'05	1°08'01
	1870 Apr 16 18:04	0° Υ					
asc. node	1870 Apr 17 16:57	2° Υ 01'25		asc. node	1871 Apr 04 14:00	21° Υ 56'07	
evening rise	1870 Apr 21 02:27	9° Υ 11'25		evening rise	1871 Apr 05 09:43	23° Υ 37'16	
	1870 May 02 03:06	0° Υ			1871 Apr 08 13:41	0° Υ	
evening max el	1870 May 11 09:58	12° Υ 02'11	21°41'58	evening max el	1871 Apr 23 14:44	23° Υ 08'43	20°20'35
retrograde	1870 May 23 19:50	18° Υ 07'25		retrograde	1871 May 04 09:09	28° Υ 21'43	
evening set	1870 May 26 08:57	17° Υ 52'50		evening set	1871 May 06 10:36	28° Υ 11'04	
desc. node	1870 May 26 01:59	17° Υ 55'55		desc. node	1871 May 12 23:02	25° Υ 41'33	
inferior conj	1870 Jun 04 18:09	13° Υ 51'10	-2°-42'-57	inferior conj	1871 May 15 13:08	24° Υ 13'04	0°-45'-15
minimum elong	1870 Jun 04 11:03	14° Υ 01'06	2°40'42	minimum elong	1871 May 15 11:01	24° Υ 16'11	0°44'29
min. Earth dist.	1870 Jun 04 13:10	13° Υ 58'08	0.54954 AU	min. Earth dist.	1871 May 17 01:58	23° Υ 19'12	0.55144 AU
morning rise	1870 Jun 13 14:05	9° Υ 56'22		morning rise	1871 May 24 09:27	19° Υ 58'09	
direct	1870 Jun 16 18:09	9° Υ 34'18		direct	1871 May 28 05:33	19° Υ 26'19	
morning max el	1870 Jun 28 23:59	15° Υ 20'18	21°53'02	morning max el	1871 Jun 10 17:34	26° Υ 01'30	23°33'36
	1870 Jul 10 04:51	0° Υ			1871 Jun 14 12:04	0° Υ	
asc. node	1870 Jul 14 16:13	8° Υ 00'23		asc. node	1871 Jul 01 13:16	27° Υ 33'47	
morning set	1870 Jul 19 22:25	18° Υ 32'27			1871 Jul 02 17:57	0° Υ	
	1870 Jul 25 08:44	0° Υ		morning set	1871 Jul 04 09:53	3° Υ 27'49	
superior conj	1870 Jul 27 05:31	3° Υ 55'56	1°39'34	superior conj	1871 Jul 11 12:00	18° Υ 40'55	1°28'00
minimum elong	1870 Jul 27 03:51	3° Υ 47'09	1°39'27	minimum elong	1871 Jul 11 09:42	18° Υ 28'35	1°27'44
max. Earth dist.	1870 Jul 30 20:25	11° Υ 25'14	1.34722 AU	max. Earth dist.	1871 Jul 13 19:48	23° Υ 39'00	1.33502 AU
evening rise	1870 Aug 04 09:58	20° Υ 27'56			1871 Jul 16 20:45	0° Υ	
	1870 Aug 09 12:55	0° Υ		evening rise	1871 Jul 19 01:40	4° Υ 28'21	
desc. node	1870 Aug 22 01:22	20° Υ 33'01			1871 Aug 02 06:01	0° Υ	
	1870 Aug 28 18:25	0° Υ		desc. node	1871 Aug 08 22:22	10° Υ 03'53	
evening max el	1870 Sep 08 11:27	12° Υ 23'01	26°54'58	evening max el	1871 Aug 21 23:05	25° Υ 41'55	27°22'54
retrograde	1870 Sep 21 15:02	19° Υ 39'14			1871 Aug 27 05:12	0° Υ	
evening set	1870 Sep 28 08:44	16° Υ 57'15		retrograde	1871 Sep 04 12:04	2° Υ 59'54	
min. Earth dist.	1870 Oct 02 08:07	12° Υ 59'28	0.65580 AU	evening set	1871 Sep 11 14:45	0° Υ 18'47	
inferior conj	1870 Oct 04 05:39	10° Υ 47'38	-2°-7'-51		1871 Sep 12 00:27	30° Υ	
minimum elong	1870 Oct 04 09:03	10° Υ 37'45	2°06'33	min. Earth dist.	1871 Sep 15 07:57	26° Υ 56'36	0.64157 AU
morning rise	1870 Oct 10 10:51	5° Υ 06'37		inferior conj	1871 Sep 17 18:15	24° Υ 23'13	-3°-4'-56
asc. node	1870 Oct 10 15:25	5° Υ 01'06		minimum elong	1871 Sep 17 23:00	24° Υ 10'40	3°03'23
direct	1870 Oct 13 04:59	4° Υ 24'54		morning rise	1871 Sep 24 09:21	18° Υ 58'12	
morning max el	1870 Oct 19 18:15	7° Υ 58'24	18°17'18	direct	1871 Sep 26 21:47	18° Υ 26'08	
	1870 Nov 03 22:42	0° Υ		asc. node	1871 Sep 27 12:29	18° Υ 28'03	
morning set	1870 Nov 07 17:21	6° Υ 09'26		morning max el	1871 Oct 03 10:12	21° Υ 52'07	17°55'58
desc. node	1870 Nov 18 00:42	22° Υ 46'27			1871 Oct 09 16:38	0° Υ	
superior conj	1870 Nov 22 19:00	0° Υ 19'23	0°-31'-30	morning set	1871 Oct 20 10:58	17° Υ 52'15	
minimum elong	1870 Nov 22 14:55	0° Υ 03'17	0°30'59		1871 Oct 27 15:08	0° Υ	
	1870 Nov 22 14:06	0° Υ		superior conj	1871 Nov 02 11:27	9° Υ 37'16	0°16'21
max. Earth dist.	1870 Nov 24 23:33	3° Υ 46'15	1.45102 AU	minimum elong	1871 Nov 02 13:17	9° Υ 44'44	0°16'05
evening rise	1870 Dec 09 04:17	25° Υ 59'10		behind sun begin	1871 Nov 02 12:17	9° Υ 40'36	
	1870 Dec 11 17:56	0° Υ		behind sun end	1871 Nov 02 14:18	9° Υ 48'51	
greatest brilliancy	1870 Dec 24 02:23	18° Υ 59'41	-0.7m	desc. node	1871 Nov 04 21:43	13° Υ 32'34	
	1871 Jan 01 10:53	0° Υ		max. Earth dist.	1871 Nov 07 18:10	18° Υ 05'59	1.44476 AU
evening max el	1871 Jan 01 22:08	0° Υ 29'33	19°23'48		1871 Nov 15 08:09	0° Υ	
asc. node	1871 Jan 06 14:42	4° Υ 03'22		evening rise	1871 Nov 18 15:49	5° Υ 07'49	
retrograde	1871 Jan 09 01:53	4° Υ 36'34			1871 Dec 05 05:03	0° Υ	
evening set	1871 Jan 12 11:16	3° Υ 29'17		greatest brilliancy	1871 Dec 09 19:08	6° Υ 24'27	-0.5m
	1871 Jan 16 02:50	30° Υ		evening max el	1871 Dec 16 01:31	13° Υ 59'26	20°21'52
inferior conj	1871 Jan 18 01:22	27° Υ 33'37	3°11'37	retrograde	1871 Dec 23 23:48	18° Υ 39'26	
minimum elong	1871 Jan 17 22:55	27° Υ 41'34	3°11'06	asc. node	1871 Dec 24 11:44	18° Υ 38'03	
min. Earth dist.	1871 Jan 19 07:45	25° Υ 55'14	0.66317 AU	evening set	1871 Dec 27 17:45	17° Υ 17'59	
morning rise	1871 Jan 23 09:47	21° Υ 19'49		inferior conj	1872 Jan 02 04:43	11° Υ 09'17	2°38'54
direct	1871 Jan 29 15:29	18° Υ 34'53		minimum elong	1872 Jan 02 02:05	11° Υ 18'13	2°38'07
morning max el	1871 Feb 11 03:32	25° Υ 59'35	26°01'10	min. Earth dist.	1872 Jan 02 21:43	10° Υ 11'43	0.67186 AU
desc. node	1871 Feb 13 23:53	29° Υ 01'58		morning rise	1872 Jan 07 09:55	4° Υ 54'03	
	1871 Feb 14 20:17	0° Υ		direct	1872 Jan 13 01:27	2° Υ 24'45	
	1871 Mar 08 01:52	0° Υ		morning max el	1872 Jan 24 12:09	9° Υ 14'23	24°39'54

direct	1873 Dec 10 10:37	0° \mathcal{A} 43'34		min. Earth dist.	1874 Nov 14 09:04	23° \mathcal{M} 27'33	0.67630 AU
morning max el	1873 Dec 19 10:25	6° \mathcal{A} 00'08	21°45'31	inferior conj	1874 Nov 15 01:19	22° \mathcal{M} 32'45	0°19'19
greatest brilliancy	1873 Dec 24 06:35	11° \mathcal{A} 28'42	-0.4m	minimum elong	1874 Nov 15 00:51	22° \mathcal{M} 34'19	0°19'08
desc. node	1874 Jan 04 14:59	26° \mathcal{A} 55'29		morning rise	1874 Nov 20 11:50	16° \mathcal{M} 25'53	
	1874 Jan 06 17:33	0° \mathcal{B}		direct	1874 Nov 24 07:49	15° \mathcal{M} 02'11	
morning set	1874 Jan 20 14:19	21° \mathcal{B} 15'22		morning max el	1874 Dec 02 06:32	19° \mathcal{M} 36'43	20°28'45
	1874 Jan 25 23:40	0° \approx		greatest brilliancy	1874 Dec 08 12:47	27° \mathcal{M} 01'50	-0.5m
max. Earth dist.	1874 Jan 26 22:52	1° \approx 36'01	1.41590 AU		1874 Dec 10 17:40	0° \mathcal{A}	
				desc. node	1874 Dec 22 12:02	17° \mathcal{A} 07'35	
superior conj	1874 Feb 03 14:35	14° \approx 39'30	-2°-4'-8	morning set	1874 Dec 30 14:01	29° \mathcal{A} 29'00	
minimum elong	1874 Feb 03 15:49	14° \approx 44'52	2°04'08		1874 Dec 30 22:01	0° \mathcal{B}	
	1874 Feb 12 03:20	0° \mathcal{K}		max. Earth dist.	1875 Jan 09 05:40	14° \mathcal{B} 43'34	1.43369 AU
evening rise	1874 Feb 14 09:38	4° \mathcal{K} 09'48					
asc. node	1874 Feb 23 05:05	19° \mathcal{K} 52'51		superior conj	1875 Jan 15 12:50	25° \mathcal{B} 01'53	-2°00'-38
evening max el	1874 Mar 02 17:59	0° \mathcal{Y} 08'24	18°11'45	minimum elong	1875 Jan 15 09:03	24° \mathcal{B} 46'12	2°00'30
	1874 Mar 02 14:35	0° \mathcal{Y}			1875 Jan 18 12:00	0° \approx	
retrograde	1874 Mar 09 15:20	3° \mathcal{Y} 36'27		evening rise	1875 Jan 27 22:43	16° \approx 18'22	
evening set	1874 Mar 12 04:18	3° \mathcal{Y} 08'52			1875 Feb 04 20:09	0° \mathcal{K}	
	1874 Mar 17 04:34	30° \mathcal{R} \mathcal{K}		asc. node	1875 Feb 10 02:07	8° \mathcal{K} 12'51	
inferior conj	1874 Mar 19 02:17	28° \mathcal{K} 19'49	3°20'18	evening max el	1875 Feb 14 06:01	13° \mathcal{K} 17'54	18°08'20
minimum elong	1874 Mar 19 05:06	28° \mathcal{K} 13'25	3°19'52	retrograde	1875 Feb 20 17:57	16° \mathcal{K} 41'39	
min. Earth dist.	1874 Mar 22 10:36	25° \mathcal{K} 19'46	0.60143 AU	evening set	1875 Feb 23 11:57	16° \mathcal{K} 04'17	
morning rise	1874 Mar 26 02:29	22° \mathcal{K} 35'40		inferior conj	1875 Mar 01 20:53	10° \mathcal{K} 54'02	3°41'40
direct	1874 Apr 01 16:51	20° \mathcal{K} 32'32		minimum elong	1875 Mar 01 21:42	10° \mathcal{K} 51'55	3°41'38
desc. node	1874 Apr 02 14:09	20° \mathcal{K} 34'41		min. Earth dist.	1875 Mar 04 18:06	7° \mathcal{K} 56'27	0.62249 AU
morning max el	1874 Apr 15 23:48	28° \mathcal{K} 22'37	27°31'38	morning rise	1875 Mar 08 05:08	4° \mathcal{K} 55'21	
	1874 Apr 17 13:53	0° \mathcal{Y}		direct	1875 Mar 15 03:21	2° \mathcal{K} 23'11	
	1874 May 08 09:10	0° \mathcal{B}		desc. node	1875 Mar 20 11:12	3° \mathcal{K} 42'20	
morning set	1874 May 17 15:47	17° \mathcal{B} 56'14		morning max el	1875 Mar 29 04:33	10° \mathcal{K} 18'08	27°49'37
asc. node	1874 May 22 04:22	27° \mathcal{B} 33'34			1875 Apr 13 13:42	0° \mathcal{Y}	
	1874 May 23 07:15	0° \mathcal{II}			1875 Apr 30 14:40	0° \mathcal{B}	
max. Earth dist.	1874 May 24 02:04	1° \mathcal{II} 42'59	1.32218 AU	morning set	1875 May 01 18:20	2° \mathcal{B} 19'23	
				max. Earth dist.	1875 May 07 11:09	14° \mathcal{B} 16'37	1.32568 AU
superior conj	1874 May 24 21:10	3° \mathcal{II} 27'45	0°28'13				
minimum elong	1874 May 24 19:55	3° \mathcal{II} 20'58	0°27'56	superior conj	1875 May 09 06:54	18° \mathcal{B} 13'19	0°02'26
evening rise	1874 May 31 18:43	18° \mathcal{II} 27'42		minimum elong	1875 May 09 06:47	18° \mathcal{B} 12'41	0°02'23
	1874 Jun 06 11:12	0° \mathcal{B}		behind sun begin	1875 May 09 01:40	17° \mathcal{B} 44'55	
	1874 Jun 26 07:14	0° \mathcal{Q}		behind sun end	1875 May 09 11:54	18° \mathcal{B} 40'29	
evening max el	1874 Jun 28 07:31	2° \mathcal{Q} 01'43	25°39'28	asc. node	1875 May 09 01:25	17° \mathcal{B} 43'34	
desc. node	1874 Jun 29 13:24	3° \mathcal{Q} 10'28			1875 May 14 16:56	0° \mathcal{II}	
retrograde	1874 Jul 12 08:00	9° \mathcal{Q} 10'40		evening rise	1875 May 16 06:30	3° \mathcal{II} 20'38	
evening set	1874 Jul 18 07:17	7° \mathcal{Q} 46'31			1875 May 30 16:45	0° \mathcal{B}	
min. Earth dist.	1874 Jul 22 19:47	5° \mathcal{Q} 07'27	0.58337 AU	evening max el	1875 Jun 09 22:18	12° \mathcal{B} 45'33	24°10'58
inferior conj	1874 Jul 26 01:03	2° \mathcal{Q} 49'36	-4°-57'-16	desc. node	1875 Jun 16 10:25	17° \mathcal{B} 42'02	
minimum elong	1874 Jul 26 01:44	2° \mathcal{Q} 48'22	4°57'16	retrograde	1875 Jun 23 18:07	19° \mathcal{B} 43'26	
	1874 Jul 30 08:18	30° \mathcal{R} \mathcal{B}		evening set	1875 Jun 28 08:45	18° \mathcal{B} 56'16	
morning rise	1874 Aug 02 23:47	28° \mathcal{B} 28'47		min. Earth dist.	1875 Jul 04 09:07	15° \mathcal{B} 58'26	0.56527 AU
direct	1874 Aug 05 11:33	28° \mathcal{B} 09'06		inferior conj	1875 Jul 06 22:38	14° \mathcal{B} 22'38	-4°-41'-42
	1874 Aug 11 04:33	0° \mathcal{Q}		minimum elong	1875 Jul 06 18:00	14° \mathcal{B} 29'54	4°41'09
morning max el	1874 Aug 13 19:45	2° \mathcal{Q} 06'28	18°44'31	morning rise	1875 Jul 15 06:51	10° \mathcal{B} 21'48	
asc. node	1874 Aug 18 03:36	7° \mathcal{Q} 09'53		direct	1875 Jul 17 23:12	10° \mathcal{B} 02'48	
morning set	1874 Aug 30 04:12	28° \mathcal{Q} 11'27		morning max el	1875 Jul 27 15:54	14° \mathcal{B} 32'50	19°41'57
	1874 Aug 31 02:27	0° \mathcal{M}		asc. node	1875 Aug 05 00:40	25° \mathcal{B} 24'12	
					1875 Aug 07 16:59	0° \mathcal{Q}	
superior conj	1874 Sep 07 20:30	15° \mathcal{M} 00'00	1°39'33	morning set	1875 Aug 14 06:30	12° \mathcal{Q} 38'27	
minimum elong	1874 Sep 07 22:49	15° \mathcal{M} 10'57	1°39'24				
max. Earth dist.	1874 Sep 14 22:52	27° \mathcal{M} 59'31	1.39420 AU	superior conj	1875 Aug 22 05:34	28° \mathcal{Q} 40'53	1°45'38
	1874 Sep 16 02:18	0° \mathcal{A}		minimum elong	1875 Aug 22 06:00	28° \mathcal{Q} 43'02	1°45'38
evening rise	1874 Sep 19 00:25	5° \mathcal{A} 01'54			1875 Aug 22 21:36	0° \mathcal{M}	
desc. node	1874 Sep 25 12:45	15° \mathcal{A} 44'30		max. Earth dist.	1875 Aug 28 03:12	10° \mathcal{M} 03'05	1.37404 AU
	1874 Oct 04 21:06	0° \mathcal{M}		evening rise	1875 Aug 31 23:07	17° \mathcal{M} 03'13	
evening max el	1874 Oct 24 05:08	24° \mathcal{M} 38'29	24°09'54		1875 Sep 08 12:33	0° \mathcal{A}	
	1874 Oct 31 01:49	0° \mathcal{A}		desc. node	1875 Sep 12 09:45	6° \mathcal{A} 13'20	
retrograde	1874 Nov 04 07:38	1° \mathcal{A} 09'19			1875 Sep 29 06:50	0° \mathcal{M}	
	1874 Nov 08 04:19	30° \mathcal{R} \mathcal{M}		evening max el	1875 Oct 06 17:09	8° \mathcal{M} 17'40	25°24'54
evening set	1874 Nov 09 14:07	28° \mathcal{M} 58'15		retrograde	1875 Oct 18 18:43	15° \mathcal{M} 14'15	
asc. node	1874 Nov 14 02:49	23° \mathcal{M} 48'30		evening set	1875 Oct 24 15:45	12° \mathcal{M} 47'23	

min. Earth dist.	1875 Oct 29 02:35	7° \mathbb{M} 51'56	0.67106 AU	retrograde	1876 Oct 01 00:54	29° \mathbb{A} 08'23	
inferior conj	1875 Oct 30 05:39	6° \mathbb{M} 24'33	0°-36'-21	evening set	1876 Oct 07 11:45	26° \mathbb{A} 29'42	
minimum elong	1875 Oct 30 06:35	6° \mathbb{M} 21'33	0°35'58	min. Earth dist.	1876 Oct 11 15:02	22° \mathbb{A} 10'59	0.66235 AU
asc. node	1875 Oct 31 23:53	4° \mathbb{M} 11'29		inferior conj	1876 Oct 13 05:41	20° \mathbb{A} 13'54	-1°-34'-16
morning rise	1875 Nov 04 22:06	0° \mathbb{M} 25'36		minimum elong	1876 Oct 13 08:11	20° \mathbb{A} 06'20	1°33'15
	1875 Nov 05 16:01	30° \mathbb{R} \mathbb{A}		asc. node	1876 Oct 17 20:57	15° \mathbb{A} 20'37	
direct	1875 Nov 08 06:17	29° \mathbb{A} 21'12		morning rise	1876 Oct 19 05:49	14° \mathbb{A} 25'41	
	1875 Nov 10 23:05	0° \mathbb{M}		direct	1876 Oct 22 04:18	13° \mathbb{A} 36'56	
morning max el	1875 Nov 15 10:32	3° \mathbb{M} 23'55	19°25'21	morning max el	1876 Oct 28 21:11	17° \mathbb{A} 18'31	18°37'25
greatest brilliancy	1875 Nov 24 11:56	14° \mathbb{M} 58'10	-0.7m		1876 Nov 07 09:53	0° \mathbb{M}	
	1875 Dec 04 11:22	0° \mathbb{A}		morning set	1876 Nov 18 10:08	17° \mathbb{M} 21'44	
desc. node	1875 Dec 09 09:04	7° \mathbb{A} 34'35		desc. node	1876 Nov 25 06:05	28° \mathbb{M} 12'06	
morning set	1875 Dec 09 13:08	7° \mathbb{A} 50'20			1876 Nov 26 09:25	0° \mathbb{A}	
max. Earth dist.	1875 Dec 22 19:40	28° \mathbb{A} 35'19	1.44592 AU				
	1875 Dec 23 17:03	0° \mathbb{A}		superior conj	1876 Dec 04 11:42	12° \mathbb{A} 44'01	0°-59'-8
				minimum elong	1876 Dec 04 04:22	12° \mathbb{A} 15'17	0°58'15
superior conj	1875 Dec 26 08:53	4° \mathbb{A} 13'52	-1°-38'-45	max. Earth dist.	1876 Dec 04 13:39	12° \mathbb{A} 51'42	1.45120 AU
minimum elong	1875 Dec 26 00:31	3° \mathbb{A} 40'28	1°38'01		1876 Dec 15 10:43	0° \mathbb{A}	
evening rise	1876 Jan 09 15:27	27° \mathbb{A} 32'46		evening rise	1876 Dec 20 08:55	7° \mathbb{A} 49'41	
	1876 Jan 11 02:44	0° \mathbb{A}			1877 Jan 03 11:13	0° \mathbb{A}	
asc. node	1876 Jan 27 23:11	25° \mathbb{A} 47'26		evening max el	1877 Jan 11 04:53	10° \mathbb{A} 05'20	18°57'07
evening max el	1876 Jan 28 18:29	26° \mathbb{A} 38'31	18°23'46	asc. node	1877 Jan 13 20:14	12° \mathbb{A} 23'54	
	1876 Feb 02 20:23	0° \mathbb{A}		retrograde	1877 Jan 18 01:01	13° \mathbb{A} 57'27	
retrograde	1876 Feb 04 06:30	0° \mathbb{A} 11'02		evening set	1877 Jan 21 06:10	12° \mathbb{A} 57'43	
	1876 Feb 05 16:27	30° \mathbb{R} \mathbb{A}		inferior conj	1877 Jan 26 22:57	7° \mathbb{A} 10'46	3°26'08
evening set	1876 Feb 07 05:37	29° \mathbb{A} 23'01		minimum elong	1877 Jan 26 20:52	7° \mathbb{A} 17'17	3°25'48
inferior conj	1876 Feb 13 05:01	23° \mathbb{A} 53'13	3°41'44	min. Earth dist.	1877 Jan 28 13:45	5° \mathbb{A} 09'34	0.65623 AU
minimum elong	1876 Feb 13 04:05	23° \mathbb{A} 55'55	3°41'41	morning rise	1877 Feb 01 10:34	0° \mathbb{A} 58'19	
min. Earth dist.	1876 Feb 15 11:11	21° \mathbb{A} 17'47	0.64116 AU		1877 Feb 02 15:48	30° \mathbb{R} \mathbb{A}	
morning rise	1876 Feb 19 01:01	17° \mathbb{A} 45'47		direct	1877 Feb 07 23:01	28° \mathbb{A} 08'36	
direct	1876 Feb 25 21:44	14° \mathbb{A} 57'47			1877 Feb 13 20:34	0° \mathbb{A}	
desc. node	1876 Mar 06 08:16	19° \mathbb{A} 03'36		morning max el	1877 Feb 20 23:18	5° \mathbb{A} 48'22	26°40'55
morning max el	1876 Mar 10 13:20	22° \mathbb{A} 50'30	27°30'58	desc. node	1877 Feb 21 05:18	6° \mathbb{A} 03'33	
	1876 Mar 16 21:45	0° \mathbb{A}			1877 Mar 11 13:41	0° \mathbb{A}	
	1876 Apr 05 19:33	0° \mathbb{Y}		morning set	1877 Mar 28 21:05	29° \mathbb{A} 35'38	
morning set	1876 Apr 14 13:13	16° \mathbb{Y} 15'49			1877 Mar 29 02:13	0° \mathbb{Y}	
max. Earth dist.	1876 Apr 19 13:07	26° \mathbb{Y} 24'17	1.33338 AU	max. Earth dist.	1877 Apr 02 04:23	7° \mathbb{Y} 58'00	1.34559 AU
	1876 Apr 21 06:14	0° \mathbb{A}					
				superior conj	1877 Apr 06 13:04	16° \mathbb{Y} 50'04	0°-52'-54
superior conj	1876 Apr 22 12:54	2° \mathbb{A} 42'45	0°-25'-1	minimum elong	1877 Apr 06 15:44	17° \mathbb{Y} 03'52	0°52'25
minimum elong	1876 Apr 22 14:09	2° \mathbb{A} 49'23	0°24'46	asc. node	1877 Apr 11 19:31	27° \mathbb{Y} 51'32	
asc. node	1876 Apr 24 22:28	7° \mathbb{A} 50'50			1877 Apr 12 20:03	0° \mathbb{A}	
evening rise	1876 Apr 29 18:00	18° \mathbb{A} 07'49		evening rise	1877 Apr 14 03:24	2° \mathbb{A} 43'19	
	1876 May 05 15:16	0° \mathbb{II}			1877 Apr 29 20:17	0° \mathbb{II}	
evening max el	1876 May 21 13:00	23° \mathbb{II} 14'41	22°34'49	evening max el	1877 May 03 11:19	4° \mathbb{II} 01'39	21°05'18
desc. node	1876 Jun 02 07:28	29° \mathbb{II} 41'25		retrograde	1877 May 15 05:48	9° \mathbb{II} 45'51	
retrograde	1876 Jun 03 16:04	29° \mathbb{II} 45'37		evening set	1877 May 17 11:36	9° \mathbb{II} 34'07	
evening set	1876 Jun 06 20:02	29° \mathbb{II} 23'34		desc. node	1877 May 20 04:30	8° \mathbb{II} 51'07	
min. Earth dist.	1876 Jun 14 20:40	25° \mathbb{II} 53'30	0.55289 AU	inferior conj	1877 May 26 19:45	5° \mathbb{II} 35'49	-1°-54'-39
inferior conj	1876 Jun 16 01:50	25° \mathbb{II} 11'59	-3°-39'-25	minimum elong	1877 May 26 14:24	5° \mathbb{II} 43'22	1°52'47
minimum elong	1876 Jun 15 17:58	25° \mathbb{II} 23'12	3°37'24	min. Earth dist.	1877 May 27 09:02	5° \mathbb{II} 17'02	0.54916 AU
morning rise	1876 Jun 24 18:26	21° \mathbb{II} 20'29		morning rise	1877 Jun 04 16:54	1° \mathbb{II} 34'30	
direct	1876 Jun 27 16:53	21° \mathbb{II} 00'44		direct	1877 Jun 08 02:24	1° \mathbb{II} 09'35	
morning max el	1876 Jul 09 00:47	26° \mathbb{II} 16'23	21°00'08	morning max el	1877 Jun 20 23:02	7° \mathbb{II} 17'41	22°34'56
	1876 Jul 12 12:59	0° \mathbb{A}			1877 Jul 06 21:27	0° \mathbb{A}	
asc. node	1876 Jul 21 21:44	14° \mathbb{A} 16'28		asc. node	1877 Jul 08 18:46	3° \mathbb{A} 37'07	
morning set	1876 Jul 28 13:56	27° \mathbb{A} 21'08		morning set	1877 Jul 13 00:25	12° \mathbb{A} 13'29	
	1876 Jul 29 20:38	0° \mathbb{A}					
				superior conj	1877 Jul 20 04:59	27° \mathbb{A} 31'24	1°35'17
superior conj	1876 Aug 05 01:33	12° \mathbb{A} 54'55	1°43'42	minimum elong	1877 Jul 20 02:59	27° \mathbb{A} 20'46	1°35'07
minimum elong	1876 Aug 05 00:30	12° \mathbb{A} 49'28	1°43'40		1877 Jul 21 09:06	0° \mathbb{A}	
max. Earth dist.	1876 Aug 09 12:16	21° \mathbb{A} 53'43	1.35600 AU	max. Earth dist.	1877 Jul 23 06:02	3° \mathbb{A} 54'47	1.34152 AU
evening rise	1876 Aug 13 17:19	0° \mathbb{A} 00'39		evening rise	1877 Jul 28 02:23	13° \mathbb{A} 41'54	
	1876 Aug 13 17:10	0° \mathbb{A}			1877 Aug 05 22:51	0° \mathbb{A}	
desc. node	1876 Aug 29 06:47	26° \mathbb{A} 26'04		desc. node	1877 Aug 16 03:48	16° \mathbb{A} 15'10	
	1876 Aug 31 15:54	0° \mathbb{A}			1877 Aug 26 14:35	0° \mathbb{A}	
evening max el	1876 Sep 18 05:09	21° \mathbb{A} 55'56	26°27'31	evening max el	1877 Aug 31 17:13	5° \mathbb{A} 25'08	27°10'10

retrograde	1877 Sep 14 01:39	12° 5 43'43		evening rise	1878 Jul 11 22:17	27° 5 55'13	
evening set	1877 Sep 20 23:43	10° 5 00'38			1878 Jul 12 23:06	0° 5	
min. Earth dist.	1877 Sep 24 20:10	6° 5 18'26	0.65012 AU		1878 Jul 30 04:14	0° 5	
inferior conj	1877 Sep 26 23:10	3° 5 56'14	-2°-32'-27	desc. node	1878 Aug 03 00:49	5° 5 30'38	
minimum elong	1877 Sep 27 03:12	3° 5 44'58	2°31'00	evening max el	1878 Aug 14 04:04	18° 5 34'15	27°26'01
	1877 Sep 30 20:38	30° 5		retrograde	1878 Aug 27 20:16	25° 5 51'55	
morning rise	1877 Oct 03 08:28	28° 5 21'45		evening set	1878 Sep 04 00:37	23° 5 14'59	
asc. node	1877 Oct 04 18:00	27° 5 52'58		min. Earth dist.	1878 Sep 07 16:01	20° 5 06'00	0.63442 AU
direct	1877 Oct 05 23:44	27° 5 44'44		inferior conj	1878 Sep 10 07:34	17° 5 26'12	-3°-27'-58
	1877 Oct 11 03:39	0° 5		minimum elong	1878 Sep 10 12:42	17° 5 13'16	3°26'27
morning max el	1877 Oct 12 11:59	1° 5 14'21	18°06'04	morning rise	1878 Sep 17 03:08	12° 5 08'44	
morning set	1877 Oct 30 12:19	28° 5 19'32		direct	1878 Sep 19 13:52	11° 5 39'51	
	1877 Oct 31 12:32	0° 5		asc. node	1878 Sep 21 15:01	12° 5 00'28	
desc. node	1877 Nov 12 03:06	18° 5 55'55		morning max el	1878 Sep 26 04:10	15° 5 05'34	17°52'13
					1878 Oct 06 13:56	0° 5	
superior conj	1877 Nov 13 17:23	21° 5 28'45	0°-10'-42	morning set	1878 Oct 12 16:05	10° 5 31'50	
minimum elong	1877 Nov 13 16:03	21° 5 23'24	0°10'31		1878 Oct 24 01:30	0° 5	
behind sun begin	1877 Nov 13 07:46	20° 5 50'25					
behind sun end	1877 Nov 14 00:19	21° 5 56'21		superior conj	1878 Oct 24 20:28	1° 5 18'36	0°34'29
max. Earth dist.	1877 Nov 17 08:20	27° 5 13'09	1.44914 AU	minimum elong	1878 Oct 24 23:53	1° 5 32'47	0°34'02
	1877 Nov 19 02:45	0° 5		desc. node	1878 Oct 30 00:08	9° 5 43'13	
evening rise	1877 Nov 30 04:41	17° 5 15'29		max. Earth dist.	1878 Oct 31 01:24	11° 5 24'44	1.44009 AU
	1877 Dec 08 11:10	0° 5		evening rise	1878 Nov 09 13:14	26° 5 19'00	
greatest brilliancy	1877 Dec 17 23:08	14° 5 07'48	-0.6m		1878 Nov 11 22:48	0° 5	
evening max el	1877 Dec 25 11:13	23° 5 34'16	19°46'52		1878 Dec 02 13:16	0° 5	
asc. node	1877 Dec 31 17:17	27° 5 46'41		greatest brilliancy	1878 Dec 02 22:37	0° 5 30'30	-0.5m
retrograde	1878 Jan 01 22:19	27° 5 54'47		evening max el	1878 Dec 08 12:17	7° 5 04'36	20°50'30
evening set	1878 Jan 05 11:02	26° 5 41'53		retrograde	1878 Dec 16 20:02	12° 5 00'04	
inferior conj	1878 Jan 10 23:34	20° 5 40'25	2°58'49	asc. node	1878 Dec 18 14:18	11° 5 42'45	
minimum elong	1878 Jan 10 20:58	20° 5 49'01	2°58'11	evening set	1878 Dec 20 18:13	10° 5 32'13	
min. Earth dist.	1878 Jan 12 00:09	19° 5 19'01	0.66731 AU	inferior conj	1878 Dec 26 04:26	4° 5 19'17	2°22'29
morning rise	1878 Jan 16 06:14	14° 5 25'36		minimum elong	1878 Dec 26 01:52	4° 5 28'03	2°21'40
direct	1878 Jan 22 06:11	11° 5 46'06		min. Earth dist.	1878 Dec 26 16:17	3° 5 38'41	0.67446 AU
morning max el	1878 Feb 03 08:14	18° 5 58'12	25°28'04		1878 Dec 29 12:06	30° 5	
desc. node	1878 Feb 08 02:19	24° 5 13'12		morning rise	1878 Dec 31 09:06	28° 5 04'06	
	1878 Feb 12 17:02	0° 5		direct	1879 Jan 05 18:20	25° 5 43'00	
	1878 Mar 04 15:27	0° 5			1879 Jan 14 07:55	0° 5	
morning set	1878 Mar 11 13:18	12° 5 04'39		morning max el	1879 Jan 16 16:30	2° 5 13'49	24°02'29
max. Earth dist.	1878 Mar 15 07:41	19° 5 02'48	1.36228 AU	desc. node	1879 Jan 25 23:21	13° 5 12'42	
	1878 Mar 20 23:11	0° 5			1879 Feb 06 19:20	0° 5	
				morning set	1879 Feb 21 07:58	23° 5 26'42	
superior conj	1878 Mar 21 04:37	0° 5 27'02	-1°-19'-40	max. Earth dist.	1879 Feb 25 03:30	0° 5 08'11	1.38252 AU
minimum elong	1878 Mar 21 08:28	0° 5 46'13	1°19'05		1879 Feb 25 01:40	0° 5	
evening rise	1878 Mar 29 08:31	17° 5 00'16					
asc. node	1878 Mar 29 16:34	17° 5 40'57		superior conj	1879 Mar 04 08:02	13° 5 24'25	-1°-42'-56
	1878 Apr 05 01:16	0° 5		minimum elong	1879 Mar 04 12:17	13° 5 44'39	1°42'30
evening max el	1878 Apr 15 21:14	15° 5 25'32	19°51'28		1879 Mar 12 20:21	0° 5	
retrograde	1878 Apr 25 21:58	20° 5 16'02		evening rise	1879 Mar 13 06:52	0° 5 51'44	
evening set	1878 Apr 27 22:37	20° 5 05'03		asc. node	1879 Mar 16 13:36	7° 5 14'02	
inferior conj	1878 May 06 18:47	16° 5 04'13	0°04'52	evening max el	1879 Mar 29 18:11	27° 5 28'23	18°56'56
minimum elong	1878 May 06 19:00	16° 5 03'53	0°04'47		1879 Apr 01 23:07	0° 5	
transit middle	1878 May 06 19:00	16° 5 03'53	0°04'47	retrograde	1879 Apr 07 04:57	1° 5 34'27	
transit begin	1878 May 06 15:13	16° 5 09'41		evening set	1879 Apr 09 09:21	1° 5 19'08	
transit end	1878 May 06 22:47	15° 5 58'04			1879 Apr 12 19:42	30° 5	
desc. node	1878 May 07 01:30	15° 5 53'53		inferior conj	1879 Apr 17 10:48	27° 5 02'43	1°46'43
min. Earth dist.	1878 May 08 22:53	14° 5 44'30	0.55511 AU	minimum elong	1879 Apr 17 14:27	26° 5 56'14	1°45'35
morning rise	1878 May 15 12:13	11° 5 35'34		min. Earth dist.	1879 Apr 20 14:42	24° 5 49'15	0.56942 AU
direct	1878 May 19 17:48	10° 5 55'59		desc. node	1879 Apr 23 22:32	22° 5 47'49	
morning max el	1878 Jun 02 14:29	17° 5 49'55	24°16'58	morning rise	1879 Apr 25 15:19	22° 5 00'05	
	1878 Jun 12 14:03	0° 5		direct	1879 Apr 30 22:04	20° 5 53'39	
asc. node	1878 Jun 25 15:48	23° 5 18'46		morning max el	1879 May 15 05:13	28° 5 18'32	25°52'02
morning set	1878 Jun 27 12:14	27° 5 10'12			1879 May 16 21:28	0° 5	
	1878 Jun 28 20:13	0° 5			1879 Jun 05 23:34	0° 5	
				morning set	1879 Jun 11 23:43	12° 5 05'18	
superior conj	1878 Jul 04 13:15	12° 5 21'58	1°21'37	asc. node	1879 Jun 12 12:50	13° 5 14'37	
minimum elong	1878 Jul 04 10:51	12° 5 08'58	1°21'18				
max. Earth dist.	1878 Jul 06 08:51	16° 5 17'21	1.33107 AU	superior conj	1879 Jun 19 00:09	27° 5 18'44	1°03'37

minimum elong	1879 Jun 18 21:52	27° Π 06'11	1°03'13	superior conj	1880 Jun 02 11:57	12° Π 15'42	0°42'01
max. Earth dist.	1879 Jun 19 18:15	28° Π 57'56	1.32461 AU	minimum elong	1880 Jun 02 10:13	12° Π 06'11	0°41'40
	1879 Jun 20 05:35	0° Σ		max. Earth dist.	1880 Jun 02 06:32	11° Π 45'55	1.32197 AU
evening rise	1879 Jun 26 01:39	12° Σ 29'35		evening rise	1880 Jun 09 09:56	27° Π 16'36	
	1879 Jul 05 02:40	0° Ω			1880 Jun 10 17:12	0° Σ	
desc. node	1879 Jul 20 21:51	23° Ω 57'35			1880 Jun 27 17:18	0° Ω	
	1879 Jul 26 07:00	0° Π		desc. node	1880 Jul 06 18:51	11° Ω 15'56	
evening max el	1879 Jul 27 11:01	1° Π 08'22	27°10'00	evening max el	1880 Jul 08 11:26	12° Ω 56'50	26°20'53
retrograde	1879 Aug 10 07:43	8° Π 22'44		retrograde	1880 Jul 22 11:02	20° Ω 08'33	
evening set	1879 Aug 17 10:25	6° Π 04'38		evening set	1880 Jul 29 00:27	18° Ω 21'53	
min. Earth dist.	1879 Aug 21 01:15	3° Π 20'08	0.61570 AU	min. Earth dist.	1880 Aug 02 00:24	15° Ω 46'30	0.59518 AU
inferior conj	1879 Aug 24 03:41	0° Π 34'46	-4°-16'-11	inferior conj	1880 Aug 05 07:57	13° Ω 12'35	-4°-49'-23
minimum elong	1879 Aug 24 08:48	0° Π 23'20	4°15'08	minimum elong	1880 Aug 05 11:01	13° Ω 06'38	4°49'06
	1879 Aug 24 19:20	30° Ω		morning rise	1880 Aug 13 00:58	8° Ω 38'51	
morning rise	1879 Aug 31 10:03	25° Ω 37'51		direct	1880 Aug 15 11:06	8° Ω 18'10	
direct	1879 Sep 02 19:07	25° Ω 14'09		morning max el	1880 Aug 23 04:33	12° Ω 01'51	18°21'11
asc. node	1879 Sep 08 12:02	27° Ω 35'19		asc. node	1880 Aug 25 09:05	14° Ω 23'33	
morning max el	1879 Sep 09 18:43	28° Ω 44'03	17°56'53		1880 Sep 04 05:12	0° Π	
	1879 Sep 10 23:41	0° Π		morning set	1880 Sep 08 03:29	7° Π 24'24	
morning set	1879 Sep 25 14:57	23° Π 38'38					
	1879 Sep 29 02:35	0° Ω		superior conj	1880 Sep 17 09:02	24° Π 49'18	1°31'40
superior conj	1879 Oct 06 02:43	12° Ω 28'29	1°09'09	minimum elong	1880 Sep 17 12:26	25° Π 04'53	1°31'22
minimum elong	1879 Oct 06 07:17	12° Ω 48'24	1°08'36		1880 Sep 20 05:34	0° Ω	
max. Earth dist.	1879 Oct 13 14:25	25° Ω 09'19	1.42506 AU	max. Earth dist.	1880 Sep 24 21:42	8° Ω 11'39	1.40599 AU
desc. node	1879 Oct 16 21:09	0° Π 30'10		evening rise	1880 Sep 29 12:30	15° Ω 57'35	
	1879 Oct 16 13:41	0° Π		desc. node	1880 Oct 02 18:11	21° Ω 13'16	
evening rise	1879 Oct 20 03:13	5° Π 41'27			1880 Oct 08 08:38	0° Π	
	1879 Nov 05 06:38	0° Σ			1880 Oct 30 02:45	0° Σ	
greatest brilliancy	1879 Nov 16 14:23	15° Σ 15'45	-0.3m	evening max el	1880 Nov 02 22:36	4° Σ 09'29	23°24'01
evening max el	1879 Nov 21 07:45	20° Σ 36'06	22°04'30	retrograde	1880 Nov 13 10:12	10° Σ 21'45	
retrograde	1879 Nov 30 16:29	26° Σ 10'19		evening set	1880 Nov 18 08:41	8° Σ 20'14	
evening set	1879 Dec 05 01:59	24° Σ 26'00		asc. node	1880 Nov 21 08:21	5° Σ 10'04	
asc. node	1879 Dec 05 11:18	24° Σ 06'31		inferior conj	1880 Nov 23 18:52	1° Σ 54'56	0°49'46
inferior conj	1879 Dec 10 11:29	18° Σ 04'56	1°39'00	minimum elong	1880 Nov 23 17:43	1° Σ 58'52	0°49'18
minimum elong	1879 Dec 10 09:26	18° Σ 12'02	1°38'13	min. Earth dist.	1880 Nov 23 08:34	2° Σ 30'15	0.67781 AU
min. Earth dist.	1879 Dec 10 11:52	18° Σ 03'37	0.67788 AU		1880 Nov 25 04:52	30° Ω	
morning rise	1879 Dec 15 16:42	11° Σ 51'21		morning rise	1880 Nov 29 02:52	25° Π 44'57	
direct	1879 Dec 20 10:42	9° Σ 52'39		direct	1880 Dec 03 06:22	24° Π 09'08	
morning max el	1879 Dec 30 02:56	15° Σ 35'48	22°34'13	morning max el	1880 Dec 11 18:55	29° Π 06'46	21°11'27
greatest brilliancy	1880 Jan 03 16:47	20° Σ 42'30	-0.3m		1880 Dec 12 15:30	0° Σ	
	1880 Jan 10 20:07	0° Σ		greatest brilliancy	1880 Dec 17 02:27	5° Σ 13'17	-0.4m
desc. node	1880 Jan 12 20:24	2° Σ 48'01		desc. node	1880 Dec 29 17:26	22° Σ 48'41	
	1880 Jan 30 20:04	0° \approx			1881 Jan 03 12:49	0° Σ	
morning set	1880 Feb 01 23:12	3° \approx 27'40		morning set	1881 Jan 11 10:11	12° Σ 09'56	
max. Earth dist.	1880 Feb 06 23:47	11° \approx 50'38	1.40405 AU	max. Earth dist.	1881 Jan 19 01:59	24° Σ 26'29	1.42398 AU
					1881 Jan 22 10:39	0° \approx	
superior conj	1880 Feb 14 18:50	25° \approx 30'51	-1°-59'-25	superior conj	1881 Jan 26 07:41	6° \approx 33'22	-2°-4'-41
minimum elong	1880 Feb 14 21:51	25° \approx 44'31	1°59'17	minimum elong	1881 Jan 26 07:01	6° \approx 30'30	2°04'41
	1880 Feb 17 05:52	0° H		evening rise	1881 Feb 06 18:17	26° \approx 46'34	
evening rise	1880 Feb 24 19:24	14° H 10'13			1881 Feb 08 13:10	0° H	
asc. node	1880 Mar 02 10:38	26° H 24'55		asc. node	1881 Feb 17 07:41	15° H 05'49	
	1880 Mar 04 12:57	0° Υ		evening max el	1881 Feb 23 09:53	23° H 02'35	18°07'55
evening max el	1880 Mar 11 23:29	10° Υ 03'48	18°22'30	retrograde	1881 Mar 02 02:11	26° H 27'31	
retrograde	1880 Mar 19 07:14	13° Υ 41'25		evening set	1881 Mar 04 17:11	25° H 56'00	
evening set	1880 Mar 21 17:04	13° Υ 18'53		inferior conj	1881 Mar 11 09:09	20° H 57'46	3°32'24
inferior conj	1880 Mar 29 00:09	8° Υ 41'48	2°55'34	minimum elong	1881 Mar 11 11:08	20° H 52'59	3°32'11
minimum elong	1880 Mar 29 03:52	8° Υ 34'04	2°54'47	min. Earth dist.	1881 Mar 14 13:31	17° H 55'45	0.61049 AU
min. Earth dist.	1880 Apr 01 10:40	5° Υ 51'58	0.58903 AU	morning rise	1881 Mar 18 02:07	15° H 06'09	
morning rise	1880 Apr 05 10:45	3° Υ 09'52		direct	1881 Mar 24 20:50	12° H 49'21	
desc. node	1880 Apr 09 19:34	1° Υ 36'49		desc. node	1881 Mar 27 16:37	13° H 11'31	
direct	1880 Apr 11 15:43	1° Υ 27'50		morning max el	1881 Apr 08 02:12	20° H 43'05	27°44'00
morning max el	1880 Apr 26 00:33	9° Υ 11'22	27°04'45		1881 Apr 16 02:40	0° Υ	
	1880 May 11 21:30	0° B			1881 May 04 19:44	0° B	
morning set	1880 May 26 09:15	26° B 53'12		morning set	1881 May 10 14:56	11° B 26'56	
	1880 May 27 20:40	0° Π		asc. node	1881 May 16 06:58	23° B 28'37	
asc. node	1880 May 29 09:54	3° Π 19'37		max. Earth dist.	1881 May 16 17:47	24° B 27'25	1.32312 AU

superior conj	1881 May 17 22:54	27°♄06'31	0°17'31		1882 Apr 10 12:10	0°♄	
minimum elong	1881 May 17 22:06	27°♄02'09	0°17'21	morning set	1882 Apr 24 14:32	25°♄39'15	
	1881 May 19 06:34	0°♄			1882 Apr 26 17:50	0°♄	
evening rise	1881 May 24 20:56	12°♄08'27		max. Earth dist.	1882 Apr 30 00:01	6°♄49'24	1.32836 AU
	1881 Jun 02 22:37	0°♄					
evening max el	1881 Jun 20 04:47	23°♄59'35	25°03'45	superior conj	1882 May 02 07:17	11°♄45'29	0°-9'-6
desc. node	1881 Jun 23 15:52	26°♄57'53		minimum elong	1882 May 02 07:43	11°♄47'52	0°09'01
	1881 Jun 28 20:21	0°♄		behind sun begin	1882 May 02 03:22	11°♄24'22	
retrograde	1881 Jul 04 04:35	1°♄06'06		behind sun end	1882 May 02 12:05	12°♄11'22	
evening set	1881 Jul 09 15:02	29°♄58'15		asc. node	1882 May 03 04:02	13°♄37'33	
	1881 Jul 09 13:18	30°♄♄		evening rise	1882 May 09 08:46	26°♄58'52	
min. Earth dist.	1881 Jul 14 16:22	27°♄13'04	0.57514 AU		1882 May 10 19:18	0°♄	
inferior conj	1881 Jul 17 17:10	25°♄10'43	-4°-55'-49		1882 May 28 14:41	0°♄	
minimum elong	1881 Jul 17 15:40	25°♄13'15	4°55'47	evening max el	1882 Jun 01 18:37	4°♄32'56	23°30'10
morning rise	1881 Jul 25 20:05	20°♄59'31		desc. node	1882 Jun 10 12:54	10°♄28'10	
direct	1881 Jul 28 09:29	20°♄40'23		retrograde	1882 Jun 15 09:41	11°♄21'58	
morning max el	1881 Aug 06 06:35	24°♄49'58	19°06'21	evening set	1882 Jun 19 08:31	10°♄47'42	
	1881 Aug 10 17:42	0°♄		min. Earth dist.	1882 Jun 26 04:52	7°♄37'28	0.55900 AU
asc. node	1881 Aug 12 06:10	2°♄10'22		inferior conj	1882 Jun 28 06:18	6°♄23'52	-4°-21'-22
morning set	1881 Aug 23 01:41	21°♄38'44		minimum elong	1882 Jun 27 23:44	6°♄33'41	4°20'11
	1881 Aug 27 06:41	0°♄		morning rise	1882 Jul 06 18:13	2°♄28'32	
				direct	1882 Jul 09 12:40	2°♄09'33	
superior conj	1881 Aug 31 09:53	8°♄05'31	1°43'13	morning max el	1882 Jul 19 22:01	6°♄58'20	20°12'51
minimum elong	1881 Aug 31 11:22	8°♄12'42	1°43'09	asc. node	1882 Jul 30 03:15	20°♄41'54	
max. Earth dist.	1881 Sep 07 01:18	20°♄31'05	1.38544 AU		1882 Aug 04 03:57	0°♄	
evening rise	1881 Sep 10 22:02	27°♄21'49		morning set	1882 Aug 07 06:26	6°♄12'49	
	1881 Sep 12 10:48	0°♄					
desc. node	1881 Sep 19 15:12	11°♄48'45		superior conj	1882 Aug 15 00:03	22°♄01'36	1°45'41
	1881 Oct 01 20:56	0°♄		minimum elong	1882 Aug 14 23:47	22°♄00'16	1°45'42
evening max el	1881 Oct 16 11:01	17°♄46'55	24°42'48		1882 Aug 19 00:41	0°♄	
retrograde	1881 Oct 28 00:08	24°♄30'42		max. Earth dist.	1882 Aug 20 06:46	2°♄24'59	1.36596 AU
evening set	1881 Nov 02 12:42	22°♄12'35		evening rise	1882 Aug 24 05:37	9°♄48'39	
min. Earth dist.	1881 Nov 07 04:03	16°♄56'31	0.67444 AU		1882 Sep 05 02:37	0°♄	
inferior conj	1881 Nov 08 00:52	15°♄47'22	0°-3'-53	desc. node	1882 Sep 06 12:13	2°♄11'24	
minimum elong	1881 Nov 08 00:57	15°♄47'03	0°03'52		1882 Sep 27 12:24	0°♄	
transit middle	1881 Nov 08 00:57	15°♄47'03	0°03'52	evening max el	1882 Sep 28 23:01	1°♄26'48	25°53'34
transit begin	1881 Nov 07 22:17	15°♄55'57		retrograde	1882 Oct 11 09:14	8°♄31'32	
transit end	1881 Nov 08 03:38	15°♄38'10		evening set	1882 Oct 17 12:10	5°♄59'17	
asc. node	1881 Nov 08 05:23	15°♄32'20		min. Earth dist.	1882 Oct 21 19:50	1°♄19'01	0.66778 AU
morning rise	1881 Nov 13 13:40	9°♄43'26			1882 Oct 22 20:55	30°♄♄	
direct	1881 Nov 17 04:18	8°♄28'29		inferior conj	1882 Oct 23 03:37	29°♄38'47	-1°00'-42
morning max el	1881 Nov 24 18:30	12°♄48'39	19°59'56	minimum elong	1882 Oct 23 05:12	29°♄33'48	1°00'03
greatest brilliancy	1881 Dec 01 23:26	21°♄35'24	-0.6m	asc. node	1882 Oct 26 02:27	26°♄08'45	
	1881 Dec 07 20:55	0°♄		morning rise	1882 Oct 28 23:07	23°♄43'43	
desc. node	1881 Dec 16 14:29	13°♄07'50		direct	1882 Nov 01 02:53	22°♄46'23	
morning set	1881 Dec 21 06:22	20°♄17'29		morning max el	1882 Nov 08 01:28	26°♄39'04	19°02'53
	1881 Dec 27 12:02	0°♄			1882 Nov 11 00:32	0°♄	
max. Earth dist.	1882 Jan 01 11:39	7°♄53'12	1.43965 AU	morning set	1882 Nov 30 12:46	29°♄02'59	
					1882 Dec 01 03:21	0°♄	
superior conj	1882 Jan 06 18:34	16°♄24'53	-1°-53'-44	desc. node	1882 Dec 03 11:30	3°♄39'33	
minimum elong	1882 Jan 06 12:29	16°♄00'05	1°53'23	max. Earth dist.	1882 Dec 15 03:23	21°♄56'22	1.44912 AU
	1882 Jan 14 22:56	0°♄					
evening rise	1882 Jan 19 23:15	8°♄32'55		superior conj	1882 Dec 17 05:26	25°♄13'41	-1°-23'-46
	1882 Feb 01 22:15	0°♄		minimum elong	1882 Dec 16 20:37	24°♄38'55	1°22'52
asc. node	1882 Feb 04 04:44	3°♄07'52			1882 Dec 20 05:44	0°♄	
evening max el	1882 Feb 06 22:27	6°♄17'32	18°12'37	evening rise	1883 Jan 01 06:10	19°♄22'08	
retrograde	1882 Feb 13 09:26	9°♄43'32			1883 Jan 07 18:11	0°♄	
evening set	1882 Feb 16 05:29	9°♄01'53		evening max el	1883 Jan 21 10:22	19°♄41'32	18°35'53
inferior conj	1882 Feb 22 10:00	3°♄43'22	3°43'54	asc. node	1883 Jan 22 01:45	20°♄19'20	
minimum elong	1882 Feb 22 10:01	3°♄43'20	3°43'53	retrograde	1883 Jan 28 00:48	23°♄20'46	
min. Earth dist.	1882 Feb 25 01:11	0°♄52'50	0.63087 AU	evening set	1883 Jan 31 02:25	22°♄27'52	
	1882 Feb 25 21:52	30°♄♄		inferior conj	1883 Feb 05 22:41	16°♄50'41	3°36'44
morning rise	1882 Feb 28 12:32	27°♄40'15		minimum elong	1883 Feb 05 21:11	16°♄55'10	3°36'33
direct	1882 Mar 07 11:13	24°♄59'09		min. Earth dist.	1883 Feb 07 22:18	14°♄28'44	0.64814 AU
desc. node	1882 Mar 14 13:41	27°♄19'51		morning rise	1883 Feb 11 14:42	10°♄40'59	
	1882 Mar 18 05:02	0°♄		direct	1883 Feb 18 08:46	7°♄50'25	
morning max el	1882 Mar 21 08:57	2°♄54'58	27°45'49	desc. node	1883 Mar 01 10:44	13°♄26'46	

morning max el	1883 Mar 03 18:17	15° \approx 38'42	27°12'57		1884 Feb 15 09:51	0° \approx	
	1883 Mar 15 13:53	0° H		desc. node	1884 Feb 16 07:44	0° \approx 59'00	
	1883 Apr 03 05:55	0° Y			1884 Mar 08 08:56	0° H	
morning set	1883 Apr 08 05:12	9° Y 21'23		morning set	1884 Mar 21 06:59	22° H 20'51	
max. Earth dist.	1883 Apr 12 21:37	18° Y 42'15	1.33799 AU		1884 Mar 25 07:21	0° Y	
				max. Earth dist.	1884 Mar 25 07:57	0° Y 02'56	1.35222 AU
superior conj	1883 Apr 16 11:07	26° Y 06'40	0°-36'-52				
minimum elong	1883 Apr 16 12:59	26° Y 16'25	0°36'30	superior conj	1884 Mar 30 07:58	10° Y 01'49	-1°-4'-31
	1883 Apr 18 07:14	0° B		minimum elong	1884 Mar 30 11:11	10° Y 18'16	1°03'58
asc. node	1883 Apr 20 01:04	3° B 42'36		asc. node	1884 Apr 05 22:06	23° Y 38'54	
evening rise	1883 Apr 23 19:38	11° B 42'01		evening rise	1884 Apr 07 03:29	26° Y 10'27	
	1883 May 03 07:15	0° II			1884 Apr 09 00:33	0° B	
evening max el	1883 May 14 11:59	15° II 06'56	21°55'19	evening max el	1884 Apr 25 14:56	26° B 07'36	20°31'36
retrograde	1883 May 27 02:39	21° II 19'12			1884 Apr 30 19:56	0° II	
desc. node	1883 May 28 09:56	21° II 15'21		retrograde	1884 May 06 15:43	1° II 28'53	
evening set	1883 May 29 19:11	21° II 03'04		evening set	1884 May 08 17:51	1° II 18'10	
min. Earth dist.	1883 Jun 07 16:35	17° II 15'22	0.55012 AU		1884 May 12 21:42	30° R B	
inferior conj	1883 Jun 08 04:01	16° II 59'22	-2°-59'-2	desc. node	1884 May 14 06:58	29° B 20'44	
minimum elong	1883 Jun 07 20:31	17° II 09'53	2°56'45	inferior conj	1884 May 17 22:13	27° B 20'27	-1°-3'-32
morning rise	1883 Jun 16 23:14	13° II 06'07		minimum elong	1884 May 17 19:13	27° B 24'48	1°02'28
direct	1883 Jun 20 01:45	12° II 44'46		min. Earth dist.	1884 May 19 05:07	26° B 35'47	0.55054 AU
morning max el	1883 Jul 02 01:58	18° II 22'39	21°38'52	morning rise	1884 May 26 19:04	23° B 09'41	
	1883 Jul 11 08:30	0° E		direct	1884 May 30 12:07	22° B 40'02	
asc. node	1883 Jul 17 00:18	9° E 47'24		morning max el	1884 Jun 12 20:36	29° B 08'19	23°18'18
morning set	1883 Jul 22 15:25	21° E 00'26			1884 Jun 13 17:59	0° II	
	1883 Jul 26 22:07	0° Q		asc. node	1884 Jul 02 21:20	29° II 17'28	
					1884 Jul 03 05:48	0° E	
superior conj	1883 Jul 29 23:33	6° Q 26'06	1°40'50	morning set	1884 Jul 06 02:40	5° E 54'55	
minimum elong	1883 Jul 29 22:01	6° Q 18'07	1°40'45				
max. Earth dist.	1883 Aug 02 19:33	14° Q 19'03	1.34938 AU	superior conj	1884 Jul 13 05:18	21° E 08'51	1°30'05
evening rise	1883 Aug 07 06:43	23° Q 06'21		minimum elong	1884 Jul 13 03:03	20° E 56'52	1°29'50
	1883 Aug 10 23:17	0° np		max. Earth dist.	1884 Jul 15 17:30	26° E 29'05	1.33657 AU
desc. node	1883 Aug 24 09:14	22° np 15'06			1884 Jul 17 09:50	0° Q	
	1883 Aug 29 18:42	0° Q		evening rise	1884 Jul 20 20:48	7° Q 01'42	
evening max el	1883 Sep 11 11:22	15° Q 03'12	26°48'32		1884 Aug 02 12:41	0° np	
retrograde	1883 Sep 24 12:59	22° Q 18'23		desc. node	1884 Aug 10 06:16	11° np 51'03	
evening set	1883 Oct 01 05:02	19° Q 37'01		evening max el	1884 Aug 23 23:06	28° np 24'43	27°20'29
min. Earth dist.	1883 Oct 05 05:26	15° Q 33'52	0.65766 AU		1884 Aug 25 16:53	0° Q	
inferior conj	1883 Oct 07 01:09	13° Q 25'45	-1°-59'-1	retrograde	1884 Sep 06 10:58	5° Q 43'05	
minimum elong	1883 Oct 07 04:19	13° Q 16'26	1°57'47	evening set	1884 Sep 13 12:41	3° Q 00'58	
asc. node	1883 Oct 12 23:29	7° Q 50'08			1884 Sep 16 20:31	30° R np	
morning rise	1883 Oct 13 05:00	7° Q 42'47		min. Earth dist.	1884 Sep 17 06:38	29° np 33'52	0.64389 AU
direct	1883 Oct 16 00:14	6° Q 59'19		inferior conj	1884 Sep 19 15:05	27° np 03'03	-2°-56'-34
morning max el	1883 Oct 22 14:08	10° Q 34'27	18°21'56	minimum elong	1884 Sep 19 19:40	26° np 50'46	2°55'00
	1883 Nov 05 05:47	0° ML		morning rise	1884 Sep 26 04:39	21° np 35'35	
morning set	1883 Nov 10 22:13	9° ML 11'46		direct	1884 Sep 28 17:44	21° np 02'22	
desc. node	1883 Nov 20 08:30	24° ML 19'56		asc. node	1884 Sep 28 20:31	21° np 02'26	
	1883 Nov 23 22:21	0° J		morning max el	1884 Oct 05 05:54	24° np 28'59	17°58'04
					1884 Oct 09 17:52	0° Q	
superior conj	1883 Nov 26 06:37	3° J 41'47	0°-38'-54	morning set	1884 Oct 22 12:02	20° Q 43'38	
minimum elong	1883 Nov 26 01:35	3° J 21'59	0°38'14		1884 Oct 28 00:11	0° ML	
max. Earth dist.	1883 Nov 27 22:30	6° J 18'39	1.45134 AU				
evening rise	1883 Dec 12 13:44	29° J 15'21		superior conj	1884 Nov 04 19:53	12° ML 50'13	0°09'28
	1883 Dec 13 01:07	0° Z		minimum elong	1884 Nov 04 20:59	12° ML 54'40	0°09'19
greatest brilliancy	1883 Dec 26 08:11	20° Z 38'54	-0.7m	behind sun begin	1884 Nov 04 12:28	12° ML 20'19	
	1884 Jan 02 01:02	0° \approx		behind sun end	1884 Nov 05 05:29	13° ML 28'58	
evening max el	1884 Jan 04 19:16	3° \approx 09'29	19°16'24	desc. node	1884 Nov 06 05:32	15° ML 05'41	
asc. node	1884 Jan 08 22:47	6° \approx 26'11		max. Earth dist.	1884 Nov 09 17:20	20° ML 39'53	1.44611 AU
retrograde	1884 Jan 11 20:48	7° \approx 12'21			1884 Nov 15 15:57	0° J	
evening set	1884 Jan 15 05:04	6° \approx 07'00		evening rise	1884 Nov 21 03:04	8° J 27'45	
inferior conj	1884 Jan 20 19:47	0° \approx 13'25	3°15'46		1884 Dec 05 08:29	0° Z	
minimum elong	1884 Jan 20 17:24	0° \approx 21'03	3°15'18	greatest brilliancy	1884 Dec 11 10:08	8° Z 38'43	-0.6m
	1884 Jan 20 23:57	30° R Z		evening max el	1884 Dec 17 23:25	16° Z 39'06	20°12'19
min. Earth dist.	1884 Jan 22 04:15	28° Z 29'07	0.66149 AU	retrograde	1884 Dec 25 18:40	21° Z 14'02	
morning rise	1884 Jan 26 04:56	23° Z 59'55		asc. node	1884 Dec 25 19:48	21° Z 14'01	
direct	1884 Feb 01 12:27	21° Z 13'34		evening set	1884 Dec 29 11:11	19° Z 54'51	
morning max el	1884 Feb 14 03:53	28° Z 42'30	26°12'09	inferior conj	1885 Jan 03 22:30	13° Z 47'49	2°44'22

minimum elong	1885 Jan 03 19:52	13°☿56'43	2°43'39	minimum elong	1885 Dec 19 02:10	27°♄38'19	2°04'01
min. Earth dist.	1885 Jan 04 17:23	12°☿44'07	0.67081 AU	min. Earth dist.	1885 Dec 19 11:25	27°♄06'21	0.67630 AU
morning rise	1885 Jan 09 03:59	7°☿32'32		morning rise	1885 Dec 24 09:09	21°♄15'01	
direct	1885 Jan 14 21:42	5°☿00'26		direct	1885 Dec 29 11:48	19°♄03'12	
morning max el	1885 Jan 26 12:39	11°☿56'29	24°52'39	morning max el	1886 Jan 08 21:29	25°♄14'45	23°24'41
desc. node	1885 Feb 02 04:45	19°☿32'07			1886 Jan 13 04:43	0°☿	
	1885 Feb 10 00:43	0°♁		greatest brilliancy	1886 Jan 14 12:49	1°☿37'01	-0.2m
	1885 Mar 01 02:39	0°♂		desc. node	1886 Jan 20 01:47	8°☿48'12	
morning set	1885 Mar 03 14:51	4°♂23'42			1886 Feb 03 13:13	0°♁	
max. Earth dist.	1885 Mar 07 07:38	11°♂05'17	1.37060 AU	morning set	1886 Feb 12 22:30	15°♁12'50	
				max. Earth dist.	1886 Feb 17 02:15	22°♁20'40	1.39169 AU
					1886 Feb 21 09:28	0°♂	
superior conj	1885 Mar 13 18:49	23°♂23'00	-1°-30'-7				
minimum elong	1885 Mar 13 22:58	23°♂43'21	1°29'35	superior conj	1886 Feb 24 15:45	5°♂59'51	-1°-51'00
	1885 Mar 17 03:03	0°♀		minimum elong	1886 Feb 24 19:45	6°♂18'26	1°50'42
evening rise	1885 Mar 22 06:06	10°♀17'40		evening rise	1886 Mar 06 00:41	23°♂55'46	
asc. node	1885 Mar 23 19:08	13°♀22'00			1886 Mar 09 04:40	0°♀	
	1885 Apr 02 01:00	0°♄		asc. node	1886 Mar 10 16:10	2°♀46'14	
evening max el	1885 Apr 08 05:41	7°♄47'50	19°25'44	evening max el	1886 Mar 22 06:35	20°♀05'31	18°39'49
retrograde	1885 Apr 17 13:31	12°♄18'12		retrograde	1886 Mar 30 04:30	23°♀57'21	
evening set	1885 Apr 19 14:58	12°♄05'57		evening set	1886 Apr 01 11:05	23°♀39'21	
inferior conj	1885 Apr 28 03:28	7°♄59'17	0°51'39	inferior conj	1886 Apr 09 04:30	19°♀14'47	2°20'07
minimum elong	1885 Apr 28 05:35	7°♄55'51	0°50'54	minimum elong	1886 Apr 09 08:31	19°♀07'08	2°19'02
min. Earth dist.	1885 Apr 30 19:43	6°♄15'15	0.56033 AU	min. Earth dist.	1886 Apr 12 13:21	16°♀42'46	0.57733 AU
desc. node	1885 May 01 03:59	6°♄02'19		morning rise	1886 Apr 17 01:36	13°♀58'20	
morning rise	1885 May 06 16:21	3°♄15'54		desc. node	1886 Apr 18 00:59	13°♀33'15	
direct	1885 May 11 08:10	2°♄26'34		direct	1886 Apr 22 18:39	12°♀37'00	
morning max el	1885 May 25 11:11	9°♄35'46	24°59'17	morning max el	1886 May 07 03:26	20°♀11'59	26°26'27
	1885 Jun 09 17:34	0°♂			1886 May 15 12:58	0°♄	
asc. node	1885 Jun 19 18:22	19°♂05'28			1886 Jun 02 06:41	0°♂	
morning set	1885 Jun 20 14:31	20°♂51'10		morning set	1886 Jun 05 01:23	5°♂43'52	
	1885 Jun 24 20:32	0°☿		asc. node	1886 Jun 06 15:27	9°♂05'51	
superior conj	1885 Jun 27 14:54	6°☿02'25	1°14'28				
minimum elong	1885 Jun 27 12:30	5°☿49'17	1°14'05	superior conj	1886 Jun 12 02:27	21°♂00'17	0°54'51
max. Earth dist.	1885 Jun 28 23:21	8°☿58'53	1.32780 AU	minimum elong	1886 Jun 12 00:21	20°♂48'43	0°54'27
evening rise	1885 Jul 04 20:11	21°☿24'17		max. Earth dist.	1886 Jun 12 10:15	21°♂43'11	1.32296 AU
	1885 Jul 09 04:00	0°♂			1886 Jun 16 05:16	0°☿	
	1885 Jul 27 12:59	0°♄		evening rise	1886 Jun 19 01:57	6°☿05'07	
desc. node	1885 Jul 28 03:18	0°♄47'31			1886 Jul 01 18:17	0°♂	
evening max el	1885 Aug 06 08:19	11°♄18'52	27°23'14	desc. node	1886 Jul 15 00:19	18°♂48'23	
retrograde	1885 Aug 20 02:48	18°♄36'04		evening max el	1886 Jul 19 12:47	23°♂34'47	26°53'08
evening set	1885 Aug 27 07:42	16°♄05'08			1886 Jul 29 01:30	0°♄	
min. Earth dist.	1885 Aug 30 21:53	13°♄08'17	0.62670 AU	retrograde	1886 Aug 02 11:23	0°♄48'37	
inferior conj	1885 Sep 02 18:36	10°♄23'59	-3°-49'-46		1886 Aug 06 18:22	30°♂42'37	
minimum elong	1885 Sep 02 23:56	10°♄11'14	3°48'23	evening set	1886 Aug 09 09:47	28°♂42'37	
morning rise	1885 Sep 09 18:47	5°♄15'16		min. Earth dist.	1886 Aug 13 02:54	26°♂04'00	0.60697 AU
direct	1885 Sep 12 04:23	4°♄49'00		inferior conj	1886 Aug 16 08:29	23°♂21'01	-4°-32'-46
asc. node	1885 Sep 15 17:33	5°♄47'52		minimum elong	1886 Aug 16 13:02	23°♂11'25	4°32'03
morning max el	1885 Sep 18 21:49	8°♄15'29	17°51'59	morning rise	1886 Aug 23 19:26	18°♂33'44	
	1885 Oct 03 03:33	0°♂		direct	1886 Aug 26 04:28	18°♂11'40	
morning set	1885 Oct 05 00:38	3°♂20'27		morning max el	1886 Sep 02 10:48	21°♂46'37	18°04'45
				asc. node	1886 Sep 02 14:37	21°♂55'57	
superior conj	1885 Oct 16 10:30	23°♂14'04	0°50'41		1886 Sep 08 18:42	0°♄	
minimum elong	1885 Oct 16 14:50	23°♂32'17	0°50'06	morning set	1886 Sep 18 05:57	16°♄45'34	
	1885 Oct 20 11:53	0°♂			1886 Sep 25 09:52	0°♂	
max. Earth dist.	1885 Oct 23 08:30	4°♂40'01	1.43422 AU				
desc. node	1885 Oct 24 02:34	5°♂53'01		superior conj	1886 Sep 28 03:39	4°♂55'53	1°20'08
evening rise	1885 Oct 31 11:42	17°♂33'09		minimum elong	1886 Sep 28 07:55	5°♂14'49	1°19'41
	1885 Nov 08 15:33	0°♄		max. Earth dist.	1886 Oct 05 18:39	18°♂06'09	1.41725 AU
greatest brilliancy	1885 Nov 25 20:07	24°♄17'28	-0.4m	desc. node	1886 Oct 10 23:38	26°♂38'58	
	1885 Nov 30 18:21	0°☿		evening rise	1886 Oct 11 08:45	27°♂15'35	
evening max el	1885 Nov 30 21:57	0°☿09'16	21°20'56		1886 Oct 13 01:59	0°♂	
retrograde	1885 Dec 09 16:11	5°☿21'38			1886 Nov 02 09:24	0°♄	
asc. node	1885 Dec 12 16:50	4°☿30'49		greatest brilliancy	1886 Nov 08 18:19	8°♄13'48	-0.3m
evening set	1885 Dec 13 18:51	3°☿47'04		evening max el	1886 Nov 13 15:21	13°♄41'40	22°38'03
	1885 Dec 17 08:11	30°♂♄		retrograde	1886 Nov 23 11:37	19°♄32'32	
inferior conj	1885 Dec 19 04:33	27°♄30'02	2°04'50	evening set	1886 Nov 28 02:22	17°♄41'13	

asc. node	1886 Nov 29 13:51	16°♊17'35		evening set	1887 Nov 12 08:07	1°♊34'27	
inferior conj	1886 Dec 03 12:00	11°♊17'58	1°18'47		1887 Nov 13 23:07	30°♋♌	
minimum elong	1886 Dec 03 10:17	11°♊23'53	1°18'06	asc. node	1887 Nov 16 10:54	26°♌57'07	
min. Earth dist.	1886 Dec 03 07:52	11°♊32'16	0.67826 AU	min. Earth dist.	1887 Nov 17 04:18	25°♌58'48	0.67681 AU
morning rise	1886 Dec 08 18:07	5°♊05'24		inferior conj	1887 Nov 17 19:00	25°♌08'57	0°27'31
direct	1886 Dec 13 05:52	3°♊16'19		minimum elong	1887 Nov 17 18:21	25°♌11'11	0°27'13
morning max el	1886 Dec 22 09:44	8°♊39'30	21°57'51	morning rise	1887 Nov 23 04:48	19°♌01'18	
greatest brilliancy	1886 Dec 27 02:59	13°♊58'23	-0.4m	direct	1887 Nov 27 02:43	17°♌34'30	
desc. node	1887 Jan 06 22:50	28°♊35'19		morning max el	1887 Dec 05 04:45	22°♌14'32	20°39'26
	1887 Jan 07 22:18	0°♋		greatest brilliancy	1887 Dec 11 04:08	29°♌15'35	-0.5m
morning set	1887 Jan 24 01:11	24°♋37'55			1887 Dec 11 17:42	0°♌	
	1887 Jan 27 08:34	0°♋		desc. node	1887 Dec 24 19:54	18°♌44'40	
max. Earth dist.	1887 Jan 30 00:14	4°♋23'31	1.41294 AU		1888 Jan 01 05:26	0°♋	
				morning set	1888 Jan 03 03:15	2°♋57'20	
superior conj	1887 Feb 06 17:56	17°♋40'57	-2°-3'-20	max. Earth dist.	1888 Jan 12 06:07	17°♋24'13	1.43133 AU
minimum elong	1887 Feb 06 19:43	17°♋48'48	2°03'18				
	1887 Feb 13 13:41	0°♌		superior conj	1888 Jan 18 20:07	28°♋14'14	-2°-2'-17
evening rise	1887 Feb 17 07:54	6°♌57'10		minimum elong	1888 Jan 18 17:12	28°♋02'00	2°02'13
asc. node	1887 Feb 25 13:12	21°♌45'16			1888 Jan 19 21:18	0°♌	
	1887 Mar 03 01:20	0°♍		evening rise	1888 Jan 30 23:43	19°♌13'37	
evening max el	1887 Mar 05 14:33	2°♍52'31	18°13'54		1888 Feb 06 02:55	0°♌	
retrograde	1887 Mar 12 14:09	6°♍22'24		asc. node	1888 Feb 12 10:14	10°♌11'13	
evening set	1887 Mar 15 02:23	5°♍56'07		evening max el	1888 Feb 17 02:18	15°♌59'45	18°07'35
inferior conj	1887 Mar 22 02:35	1°♍10'09	3°14'44	retrograde	1888 Feb 23 15:02	19°♌23'25	
minimum elong	1887 Mar 22 05:41	1°♍03'18	3°14'13	evening set	1888 Feb 26 08:16	18°♌47'34	
	1887 Mar 23 10:07	30°♋		inferior conj	1888 Mar 03 18:53	13°♌40'15	3°39'56
min. Earth dist.	1887 Mar 25 11:51	28°♌12'00	0.59821 AU	minimum elong	1888 Mar 03 20:01	13°♌37'24	3°39'52
morning rise	1887 Mar 29 05:28	25°♌28'58		min. Earth dist.	1888 Mar 06 18:03	10°♌40'56	0.61946 AU
direct	1887 Apr 04 17:46	23°♌31'11		morning rise	1888 Mar 10 05:18	7°♌43'11	
desc. node	1887 Apr 04 22:02	23°♌31'16		direct	1888 Mar 17 02:52	5°♌14'43	
	1887 Apr 17 15:41	0°♍		desc. node	1888 Mar 21 19:04	6°♌15'40	
morning max el	1887 Apr 19 01:12	1°♍19'35	27°25'52	morning max el	1888 Mar 31 05:16	13°♌09'20	27°49'21
	1887 May 09 17:16	0°♎			1888 Apr 13 16:21	0°♍	
morning set	1887 May 20 09:30	20°♎26'23			1888 May 01 02:35	0°♎	
asc. node	1887 May 24 12:30	29°♎12'58		morning set	1888 May 03 12:56	4°♎52'24	
	1887 May 24 21:09	0°♏		max. Earth dist.	1888 May 09 08:22	17°♎06'16	1.32492 AU
max. Earth dist.	1887 May 26 22:33	4°♏30'00	1.32199 AU	asc. node	1888 May 10 09:33	19°♎22'41	
superior conj	1887 May 27 14:06	5°♏55'28	0°31'56	superior conj	1888 May 11 00:11	20°♎42'18	0°06'27
minimum elong	1887 May 27 12:43	5°♏47'53	0°31'39	minimum elong	1888 May 10 23:53	20°♎40'39	0°06'24
evening rise	1887 Jun 03 11:39	20°♏55'19		behind sun begin	1888 May 10 19:10	20°♎14'54	
	1887 Jun 07 21:59	0°♐		behind sun end	1888 May 11 04:37	21°♎06'25	
	1887 Jun 26 17:13	0°♑			1888 May 15 06:29	0°♏	
evening max el	1887 Jul 01 10:20	5°♑03'55	25°51'05	evening rise	1888 May 17 23:17	5°♏48'00	
desc. node	1887 Jul 01 21:21	5°♑29'50			1888 May 30 19:09	0°♐	
retrograde	1887 Jul 15 10:36	12°♑13'25		evening max el	1888 Jun 12 01:31	15°♐51'11	24°24'57
evening set	1887 Jul 21 14:03	10°♑43'21		desc. node	1888 Jun 17 18:21	20°♐20'33	
min. Earth dist.	1887 Jul 25 22:46	8°♑05'51	0.58640 AU	retrograde	1888 Jun 25 22:36	22°♐51'45	
inferior conj	1887 Jul 29 05:02	5°♑43'18	-4°-56'-15	evening set	1888 Jun 30 18:39	21°♐59'28	
minimum elong	1887 Jul 29 06:25	5°♑40'45	4°56'13	min. Earth dist.	1888 Jul 06 12:28	19°♐05'24	0.56769 AU
morning rise	1887 Aug 06 02:18	1°♑19'06		inferior conj	1888 Jul 09 05:32	17°♐22'13	-4°-46'-56
direct	1887 Aug 08 13:38	0°♑59'09		minimum elong	1888 Jul 09 01:42	17°♐28'21	4°46'33
morning max el	1887 Aug 16 17:37	4°♑52'31	18°37'45	morning rise	1888 Jul 17 12:25	13°♐19'06	
asc. node	1887 Aug 20 11:42	9°♑10'44		direct	1888 Jul 20 04:01	13°♐00'04	
morning set	1887 Sep 01 23:03	0°♒44'41		morning max el	1888 Jul 29 15:18	17°♐24'12	19°32'04
	1887 Sep 01 13:50	0°♒		asc. node	1888 Aug 06 08:46	27°♐17'47	
					1888 Aug 08 00:02	0°♑	
superior conj	1887 Sep 10 18:31	17°♒41'41	1°37'47	morning set	1888 Aug 16 00:20	15°♑08'11	
minimum elong	1887 Sep 10 21:07	17°♒53'55	1°37'37		1888 Aug 23 10:06	0°♒	
	1887 Sep 17 12:46	0°♓					
max. Earth dist.	1887 Sep 18 00:12	0°♓50'14	1.39731 AU	superior conj	1888 Aug 24 01:34	1°♒16'14	1°45'15
evening rise	1887 Sep 22 04:18	8°♓00'20		minimum elong	1888 Aug 24 02:15	1°♒19'40	1°45'15
desc. node	1887 Sep 27 20:40	17°♓19'17		max. Earth dist.	1888 Aug 30 04:09	12°♒56'57	1.37693 AU
	1887 Oct 06 02:30	0°♔		evening rise	1888 Sep 02 23:38	19°♒51'42	
evening max el	1887 Oct 27 05:04	27°♔17'04	23°58'07		1888 Sep 08 21:22	0°♓	
	1887 Oct 30 04:19	0°♕		desc. node	1888 Sep 13 17:41	7°♓49'47	
retrograde	1887 Nov 07 03:41	3°♕43'07			1888 Sep 29 04:54	0°♔	

evening max el	1888 Oct 08 17:02	10° \mathbb{M} 55'21	25°14'21	desc. node	1889 Aug 31 14:41	28° \mathbb{M} 05'21	
retrograde	1888 Oct 20 15:30	17° \mathbb{M} 49'03			1889 Sep 01 20:53	0° \mathbb{M}	
evening set	1888 Oct 26 10:24	15° \mathbb{M} 24'13		evening max el	1889 Sep 21 04:57	24° \mathbb{M} 34'09	26°19'18
min. Earth dist.	1888 Oct 30 22:20	10° \mathbb{M} 23'30	0.67203 AU		1889 Sep 28 03:10	0° \mathbb{M}	
inferior conj	1888 Oct 31 23:48	9° \mathbb{M} 00'37	0°-27'-42	retrograde	1889 Oct 03 22:32	1° \mathbb{M} 45'15	
minimum elong	1888 Nov 01 00:30	8° \mathbb{M} 58'19	0°27'26		1889 Oct 09 04:01	30° \mathbb{R} \mathbb{M}	
asc. node	1888 Nov 02 07:58	7° \mathbb{M} 17'31		evening set	1889 Oct 10 07:21	29° \mathbb{M} 07'59	
morning rise	1888 Nov 06 15:16	3° \mathbb{M} 00'23		min. Earth dist.	1889 Oct 14 11:43	24° \mathbb{M} 43'38	0.66385 AU
direct	1888 Nov 10 01:01	1° \mathbb{M} 53'25		inferior conj	1889 Oct 16 00:35	22° \mathbb{M} 50'43	-1°-25'-25
morning max el	1888 Nov 17 07:39	6° \mathbb{M} 00'17	19°33'50	minimum elong	1889 Oct 16 02:50	22° \mathbb{M} 43'47	1°24'29
greatest brilliancy	1888 Nov 25 18:30	16° \mathbb{M} 39'03	-0.6m	asc. node	1889 Oct 20 05:00	18° \mathbb{M} 16'39	
	1888 Dec 04 17:51	0° \mathbb{M}		morning rise	1889 Oct 21 23:28	17° \mathbb{M} 00'37	
desc. node	1888 Dec 10 16:55	9° \mathbb{M} 09'32		direct	1889 Oct 24 23:13	16° \mathbb{M} 09'49	
morning set	1888 Dec 12 00:42	11° \mathbb{M} 12'21		morning max el	1889 Oct 31 17:25	19° \mathbb{M} 54'07	18°43'29
	1888 Dec 24 01:25	0° \mathbb{M}			1889 Nov 08 13:33	0° \mathbb{M}	
max. Earth dist.	1888 Dec 24 19:04	1° \mathbb{M} 09'52	1.44447 AU	morning set	1889 Nov 21 17:32	20° \mathbb{M} 30'46	
				desc. node	1889 Nov 27 13:57	29° \mathbb{M} 45'37	
superior conj	1888 Dec 28 19:47	7° \mathbb{M} 35'22	-1°-43'-18		1889 Nov 27 17:36	0° \mathbb{M}	
minimum elong	1888 Dec 28 11:51	7° \mathbb{M} 03'34	1°42'41	max. Earth dist.	1889 Dec 07 12:19	15° \mathbb{M} 22'24	1.45089 AU
	1889 Jan 11 11:05	0° \mathbb{M}					
evening rise	1889 Jan 11 19:42	0° \mathbb{M} 36'14		superior conj	1889 Dec 08 00:03	16° \mathbb{M} 08'31	-1°-5'-59
asc. node	1889 Jan 29 07:16	27° \mathbb{M} 53'13		minimum elong	1889 Dec 07 16:08	15° \mathbb{M} 37'23	1°05'04
evening max el	1889 Jan 30 14:49	29° \mathbb{M} 18'46	18°20'17		1889 Dec 16 18:54	0° \mathbb{M}	
	1889 Jan 31 07:52	0° \mathbb{M}		evening rise	1889 Dec 23 16:37	11° \mathbb{M} 00'59	
retrograde	1889 Feb 06 02:22	2° \mathbb{M} 49'22			1890 Jan 04 14:45	0° \mathbb{M}	
evening set	1889 Feb 09 00:37	2° \mathbb{M} 03'04		evening max el	1890 Jan 14 01:39	12° \mathbb{M} 44'33	18°51'05
	1889 Feb 11 19:50	30° \mathbb{R} \mathbb{M}		asc. node	1890 Jan 16 04:17	14° \mathbb{M} 38'57	
inferior conj	1889 Feb 15 01:15	26° \mathbb{M} 36'07	3°42'48	retrograde	1890 Jan 20 20:08	16° \mathbb{M} 33'03	
minimum elong	1889 Feb 15 00:32	26° \mathbb{M} 38'07	3°42'46	evening set	1890 Jan 24 00:16	15° \mathbb{M} 35'13	
min. Earth dist.	1889 Feb 17 09:46	23° \mathbb{M} 56'16	0.63859 AU	inferior conj	1890 Jan 29 17:54	9° \mathbb{M} 50'46	3°29'17
morning rise	1889 Feb 20 22:49	20° \mathbb{M} 29'32		minimum elong	1890 Jan 29 15:57	9° \mathbb{M} 56'48	3°29'00
direct	1889 Feb 27 20:12	17° \mathbb{M} 42'54		min. Earth dist.	1890 Jan 31 10:59	7° \mathbb{M} 43'52	0.65426 AU
desc. node	1889 Mar 08 16:06	21° \mathbb{M} 18'41		morning rise	1890 Feb 04 06:32	3° \mathbb{M} 38'54	
morning max el	1889 Mar 13 13:42	25° \mathbb{M} 37'00	27°35'51	direct	1890 Feb 10 20:37	0° \mathbb{M} 48'26	
	1889 Mar 17 14:44	0° \mathbb{M}		desc. node	1890 Feb 23 13:08	8° \mathbb{M} 05'14	
	1889 Apr 07 04:14	0° \mathbb{M}		morning max el	1890 Feb 23 23:31	8° \mathbb{M} 31'06	26°49'59
morning set	1889 Apr 17 09:08	18° \mathbb{M} 53'15			1890 Mar 12 18:24	0° \mathbb{M}	
max. Earth dist.	1889 Apr 22 11:35	29° \mathbb{M} 17'57	1.33196 AU		1890 Mar 30 13:33	0° \mathbb{M}	
	1889 Apr 22 19:36	0° \mathbb{M}		morning set	1890 Mar 31 18:52	2° \mathbb{M} 19'00	
				max. Earth dist.	1890 Apr 05 04:24	10° \mathbb{M} 55'44	1.34346 AU
superior conj	1889 Apr 25 06:52	5° \mathbb{M} 14'17	0°-20'-48				
minimum elong	1889 Apr 25 07:54	5° \mathbb{M} 19'47	0°20'35	superior conj	1890 Apr 09 08:02	19° \mathbb{M} 25'10	0°-48'-42
asc. node	1889 Apr 27 06:35	9° \mathbb{M} 30'22		minimum elong	1890 Apr 09 10:30	19° \mathbb{M} 37'57	0°48'15
evening rise	1889 May 02 10:56	20° \mathbb{M} 36'02		asc. node	1890 Apr 14 03:37	29° \mathbb{M} 32'03	
	1889 May 07 01:20	0° \mathbb{M}			1890 Apr 14 08:55	0° \mathbb{M}	
evening max el	1889 May 24 15:39	26° \mathbb{M} 19'56	22°48'56	evening rise	1890 Apr 16 20:44	5° \mathbb{M} 13'24	
	1889 May 29 03:22	0° \mathbb{M}			1890 Apr 30 14:33	0° \mathbb{M}	
desc. node	1889 Jun 04 15:21	2° \mathbb{M} 44'24		evening max el	1890 May 06 12:33	7° \mathbb{M} 02'53	21°17'48
retrograde	1889 Jun 06 22:28	2° \mathbb{M} 56'27		retrograde	1890 May 18 12:42	12° \mathbb{M} 54'38	
evening set	1889 Jun 10 06:56	2° \mathbb{M} 31'46		evening set	1890 May 20 20:38	12° \mathbb{M} 42'08	
	1889 Jun 16 10:16	30° \mathbb{R} \mathbb{M}		desc. node	1890 May 22 12:22	12° \mathbb{M} 18'57	
min. Earth dist.	1889 Jun 18 00:10	29° \mathbb{M} 07'10	0.55420 AU	inferior conj	1890 May 30 05:29	8° \mathbb{M} 43'04	-2°-12'-17
inferior conj	1889 Jun 19 11:01	28° \mathbb{M} 17'05	-3°-52'00	minimum elong	1890 May 29 23:25	8° \mathbb{M} 51'35	2°10'15
minimum elong	1889 Jun 19 03:18	28° \mathbb{M} 28'12	3°50'10	min. Earth dist.	1890 May 30 12:28	8° \mathbb{M} 33'14	0.54909 AU
morning rise	1889 Jun 28 02:29	24° \mathbb{M} 25'10		morning rise	1890 Jun 08 02:19	4° \mathbb{M} 44'21	
direct	1889 Jun 30 23:41	24° \mathbb{M} 05'47		direct	1890 Jun 11 09:46	4° \mathbb{M} 20'34	
morning max el	1889 Jul 12 01:53	29° \mathbb{M} 14'16	20°47'22	morning max el	1890 Jun 24 01:30	10° \mathbb{M} 21'11	22°20'05
	1889 Jul 12 20:59	0° \mathbb{M}			1890 Jul 08 06:09	0° \mathbb{M}	
asc. node	1889 Jul 24 05:49	16° \mathbb{M} 04'52		asc. node	1890 Jul 11 02:51	5° \mathbb{M} 21'43	
morning set	1889 Jul 31 07:07	29° \mathbb{M} 48'48		morning set	1890 Jul 15 17:15	14° \mathbb{M} 39'53	
	1889 Jul 31 09:18	0° \mathbb{M}					
superior conj	1889 Aug 07 20:09	15° \mathbb{M} 26'06	1°44'26	superior conj	1890 Jul 22 22:38	29° \mathbb{M} 59'37	1°36'56
minimum elong	1889 Aug 07 19:17	15° \mathbb{M} 21'39	1°44'25	minimum elong	1890 Jul 22 20:44	29° \mathbb{M} 49'36	1°36'47
max. Earth dist.	1889 Aug 12 12:01	24° \mathbb{M} 47'17	1.35844 AU		1890 Jul 22 22:43	0° \mathbb{M}	
	1889 Aug 15 04:51	0° \mathbb{M}		max. Earth dist.	1890 Jul 26 04:22	6° \mathbb{M} 45'34	1.34341 AU
evening rise	1889 Aug 16 15:14	2° \mathbb{M} 41'43		evening rise	1890 Jul 30 22:22	16° \mathbb{M} 17'14	
					1890 Aug 07 08:11	0° \mathbb{M}	

desc. node	1890 Aug 18 11:42	17° \mathring{M} 58'30		max. Earth dist.	1891 Jul 09 06:08	19° \mathring{S} 05'40	1.33242 AU
	1890 Aug 27 08:43	0° \mathring{A}			1891 Jul 14 11:39	0° \mathring{Q}	
evening max el	1890 Sep 03 17:09	8° \mathring{A} 05'39	27°05'24	evening rise	1891 Jul 14 16:54	0° \mathring{Q} 26'33	
retrograde	1890 Sep 17 00:05	15° \mathring{A} 23'39			1891 Jul 31 08:18	0° \mathring{M}	
evening set	1890 Sep 23 20:39	12° \mathring{A} 40'51		desc. node	1891 Aug 05 08:44	7° \mathring{M} 19'40	
min. Earth dist.	1890 Sep 27 18:07	8° \mathring{A} 53'10	0.65217 AU	evening max el	1891 Aug 17 04:25	21° \mathring{M} 18'36	27°25'31
inferior conj	1890 Sep 29 19:11	6° \mathring{A} 34'28	-2°-23'-45	retrograde	1891 Aug 30 19:30	28° \mathring{M} 36'10	
minimum elong	1890 Sep 29 23:00	6° \mathring{A} 23'39	2°22'19	evening set	1891 Sep 06 23:24	25° \mathring{M} 57'36	
morning rise	1890 Oct 06 03:02	0° \mathring{A} 57'34		min. Earth dist.	1891 Sep 10 15:25	22° \mathring{M} 44'04	0.63701 AU
asc. node	1890 Oct 07 02:02	0° \mathring{A} 34'58		inferior conj	1891 Sep 13 05:07	20° \mathring{M} 06'25	-3°-19'-56
direct	1890 Oct 08 19:13	0° \mathring{A} 19'01		minimum elong	1891 Sep 13 10:08	19° \mathring{M} 53'34	3°18'23
morning max el	1890 Oct 15 07:43	3° \mathring{A} 49'53	18°09'37	morning rise	1891 Sep 19 23:06	14° \mathring{M} 46'09	
	1890 Nov 01 21:00	0° \mathring{M}		direct	1891 Sep 22 10:23	14° \mathring{M} 16'12	
morning set	1890 Nov 02 15:29	1° \mathring{M} 16'16		asc. node	1891 Sep 23 23:05	14° \mathring{M} 27'53	
desc. node	1890 Nov 14 10:58	20° \mathring{M} 28'38		morning max el	1891 Sep 28 23:52	17° \mathring{M} 41'50	17°53'08
					1891 Oct 07 20:42	0° \mathring{A}	
superior conj	1890 Nov 17 03:54	24° \mathring{M} 47'06	0°-18'-4	morning set	1891 Oct 15 15:50	13° \mathring{A} 18'34	
minimum elong	1890 Nov 17 01:36	24° \mathring{M} 37'57	0°17'46		1891 Oct 25 10:59	0° \mathring{M}	
	1890 Nov 20 11:07	0° \mathring{A}					
max. Earth dist.	1890 Nov 20 07:07	29° \mathring{M} 44'16	1.44997 AU	superior conj	1891 Oct 28 03:05	4° \mathring{M} 25'08	0°28'15
evening rise	1890 Dec 03 15:10	20° \mathring{A} 33'03		minimum elong	1891 Oct 28 06:01	4° \mathring{M} 37'13	0°27'50
	1890 Dec 09 17:35	0° \mathring{S}		desc. node	1891 Nov 01 08:01	11° \mathring{M} 15'30	
greatest brilliancy	1890 Dec 20 10:56	16° \mathring{S} 09'34	-0.7m	max. Earth dist.	1891 Nov 03 00:55	13° \mathring{M} 59'26	1.44188 AU
evening max el	1890 Dec 28 08:43	26° \mathring{S} 13'23	19°38'33	evening rise	1891 Nov 13 00:26	29° \mathring{M} 37'32	
	1891 Jan 02 09:42	0° \mathring{A}			1891 Nov 13 06:16	0° \mathring{A}	
asc. node	1891 Jan 03 01:19	0° \mathring{A} 13'48			1891 Dec 03 12:54	0° \mathring{S}	
retrograde	1891 Jan 04 17:06	0° \mathring{A} 28'56		greatest brilliancy	1891 Dec 05 15:39	2° \mathring{S} 50'18	-0.5m
	1891 Jan 06 22:34	30° \mathring{R} \mathring{S}		evening max el	1891 Dec 11 10:37	9° \mathring{S} 43'36	20°40'16
evening set	1891 Jan 08 04:38	29° \mathring{S} 18'01		retrograde	1891 Dec 19 14:55	14° \mathring{S} 33'27	
inferior conj	1891 Jan 13 17:41	23° \mathring{S} 18'38	3°03'33	asc. node	1891 Dec 20 22:21	14° \mathring{S} 23'51	
minimum elong	1891 Jan 13 15:07	23° \mathring{S} 27'03	3°02'58	evening set	1891 Dec 23 11:37	13° \mathring{S} 07'48	
min. Earth dist.	1891 Jan 14 20:17	21° \mathring{S} 51'11	0.66593 AU	inferior conj	1891 Dec 28 22:03	6° \mathring{S} 56'17	2°28'29
morning rise	1891 Jan 19 00:54	17° \mathring{S} 04'09		minimum elong	1891 Dec 28 19:28	7° \mathring{S} 05'08	2°27'41
direct	1891 Jan 25 02:56	14° \mathring{S} 22'31		min. Earth dist.	1891 Dec 29 11:40	6° \mathring{S} 09'50	0.67365 AU
morning max el	1891 Feb 06 08:34	21° \mathring{S} 39'18	25°39'58	morning rise	1892 Jan 03 02:52	0° \mathring{S} 41'08	
desc. node	1891 Feb 10 10:10	26° \mathring{S} 05'40			1892 Jan 03 22:50	30° \mathring{R} \mathring{A}	
	1891 Feb 13 15:20	0° \mathring{A}		direct	1892 Jan 08 14:20	28° \mathring{A} 17'05	
	1891 Mar 06 00:04	0° \mathring{H}			1892 Jan 13 19:06	0° \mathring{S}	
morning set	1891 Mar 14 13:47	14° \mathring{H} 56'38		morning max el	1892 Jan 19 16:53	4° \mathring{S} 54'29	24°15'39
max. Earth dist.	1891 Mar 18 09:27	22° \mathring{H} 04'06	1.35950 AU	desc. node	1892 Jan 28 07:13	14° \mathring{S} 58'40	
	1891 Mar 22 11:27	0° \mathring{Y}			1892 Feb 08 00:54	0° \mathring{A}	
				morning set	1892 Feb 24 12:03	26° \mathring{A} 29'29	
superior conj	1891 Mar 24 01:05	3° \mathring{Y} 07'32	-1°-15'-45		1892 Feb 26 12:04	0° \mathring{H}	
minimum elong	1891 Mar 24 04:48	3° \mathring{Y} 26'08	1°15'12	max. Earth dist.	1892 Feb 28 06:08	3° \mathring{H} 07'48	1.37936 AU
evening rise	1891 Apr 01 02:39	19° \mathring{Y} 33'51					
asc. node	1891 Apr 01 00:38	19° \mathring{Y} 23'36		superior conj	1892 Mar 06 06:35	16° \mathring{H} 11'16	-1°-39'-46
	1891 Apr 06 09:40	0° \mathring{S}		minimum elong	1892 Mar 06 10:51	16° \mathring{H} 31'46	1°39'18
evening max el	1891 Apr 18 20:46	18° \mathring{S} 21'23	20°01'21		1892 Mar 13 07:51	0° \mathring{Y}	
retrograde	1891 Apr 29 03:37	23° \mathring{S} 19'31		evening rise	1892 Mar 15 02:13	3° \mathring{Y} 29'34	
evening set	1891 May 01 04:22	23° \mathring{S} 08'45		asc. node	1892 Mar 17 21:41	8° \mathring{Y} 59'24	
desc. node	1891 May 09 09:23	19° \mathring{S} 35'36			1892 Mar 31 08:47	0° \mathring{S}	
inferior conj	1891 May 10 02:57	19° \mathring{S} 09'15	0°-12'-45	evening max el	1892 Mar 31 16:10	0° \mathring{S} 18'11	19°03'47
minimum elong	1891 May 10 02:22	19° \mathring{S} 10'08	0°12'34	retrograde	1892 Apr 09 08:04	4° \mathring{S} 30'11	
transit middle	1891 May 10 02:22	19° \mathring{S} 10'08	0°12'34	evening set	1892 Apr 11 11:38	4° \mathring{S} 15'45	
transit begin	1891 May 09 23:54	19° \mathring{S} 13'50		inferior conj	1892 Apr 19 15:57	0° \mathring{S} 01'56	1°33'14
transit end	1891 May 10 04:49	19° \mathring{S} 06'25		minimum elong	1892 Apr 19 19:19	29° \mathring{Y} 56'05	1°32'09
min. Earth dist.	1891 May 12 01:58	17° \mathring{S} 58'33	0.55364 AU		1892 Apr 19 17:04	30° \mathring{R} \mathring{Y}	
morning rise	1891 May 18 21:36	14° \mathring{S} 45'41		min. Earth dist.	1892 Apr 22 17:18	27° \mathring{Y} 55'47	0.56684 AU
direct	1891 May 22 23:48	14° \mathring{S} 09'01		desc. node	1892 Apr 25 06:25	26° \mathring{Y} 21'34	
morning max el	1891 Jun 05 17:36	20° \mathring{S} 56'32	24°01'47	morning rise	1892 Apr 27 22:51	25° \mathring{Y} 04'18	
	1891 Jun 13 12:22	0° \mathring{H}		direct	1892 May 03 01:43	24° \mathring{Y} 02'45	
asc. node	1891 Jun 27 23:54	25° \mathring{H} 00'49			1892 May 15 19:45	0° \mathring{S}	
morning set	1891 Jun 30 05:00	29° \mathring{H} 36'30		morning max el	1892 May 17 08:07	1° \mathring{S} 23'47	25°38'59
	1891 Jun 30 09:27	0° \mathring{S}			1892 Jun 06 09:18	0° \mathring{H}	
				morning set	1892 Jun 13 16:40	14° \mathring{H} 32'12	
superior conj	1891 Jul 07 06:20	14° \mathring{S} 48'36	1°24'01	asc. node	1892 Jun 13 20:58	14° \mathring{H} 54'52	
minimum elong	1891 Jul 07 03:58	14° \mathring{S} 35'46	1°23'42				

superior conj	1892 Jun 20 17:00	29°II44'45	1°06'36	asc. node	1893 May 31 18:02	4°II58'36	
minimum elong	1892 Jun 20 14:40	29°II31'57	1°06'12				
	1892 Jun 20 19:47	0°☿		superior conj	1893 Jun 05 04:46	14°II41'56	0°45'29
max. Earth dist.	1892 Jun 21 14:49	1°☿44'09	1.32534 AU	minimum elong	1893 Jun 05 02:56	14°II31'47	0°45'08
evening rise	1892 Jun 27 19:21	14°☿58'09		max. Earth dist.	1893 Jun 05 02:48	14°II31'05	1.32206 AU
	1892 Jul 05 12:05	0°♊		evening rise	1893 Jun 12 03:01	29°II43'26	
desc. node	1892 Jul 22 05:46	25°♊54'55			1893 Jun 12 06:10	0°☿	
	1892 Jul 25 16:07	0°♋			1893 Jun 28 18:24	0°♊	
evening max el	1892 Jul 29 12:02	3°♋58'15	27°14'25	desc. node	1893 Jul 09 02:46	13°♊25'15	
retrograde	1892 Aug 12 08:03	11°♋13'11		evening max el	1893 Jul 11 13:27	15°♊53'44	26°30'13
evening set	1892 Aug 19 11:46	8°♋51'16		retrograde	1893 Jul 25 12:56	23°♊06'20	
min. Earth dist.	1892 Aug 23 02:10	6°♋04'05	0.61866 AU	evening set	1893 Aug 01 05:07	21°♊14'14	
inferior conj	1892 Aug 26 03:17	3°♋18'29	-4°-9'-40	min. Earth dist.	1893 Aug 05 02:43	18°♊38'42	0.59822 AU
minimum elong	1892 Aug 26 08:31	3°♋06'35	4°08'31	inferior conj	1893 Aug 08 10:10	16°♊01'40	-4°-45'-49
	1892 Aug 30 03:01	30°♋♊		minimum elong	1893 Aug 08 13:42	15°♊54'38	4°45'27
morning rise	1892 Sep 02 08:03	28°♊18'29		morning rise	1893 Aug 16 01:40	11°♊24'32	
direct	1892 Sep 04 17:12	27°♊54'10		direct	1893 Aug 18 11:23	11°♊03'35	
asc. node	1892 Sep 09 20:09	29°♊50'19		morning max el	1893 Aug 26 01:42	14°♊44'40	18°16'16
	1892 Sep 10 01:14	0°♋		asc. node	1893 Aug 27 17:14	16°♊28'47	
morning max el	1892 Sep 11 14:53	1°♋22'45	17°55'00		1893 Sep 05 14:14	0°♋	
morning set	1892 Sep 27 12:14	26°♋18'11		morning set	1893 Sep 10 23:03	9°♋59'04	
	1892 Sep 29 13:08	0°♌					
				superior conj	1893 Sep 20 08:29	27°♋34'57	1°28'59
superior conj	1892 Oct 08 05:23	15°♌23'30	1°04'41	minimum elong	1893 Sep 20 12:09	27°♋51'34	1°28'40
minimum elong	1892 Oct 08 09:59	15°♌43'19	1°04'07		1893 Sep 21 16:32	0°♌	
max. Earth dist.	1892 Oct 15 14:39	27°♌49'02	1.42757 AU	max. Earth dist.	1893 Sep 27 22:32	10°♌57'24	1.40895 AU
	1892 Oct 16 22:44	0°♍		evening rise	1893 Oct 02 18:25	19°♌01'15	
desc. node	1892 Oct 18 05:05	2°♍02'51		desc. node	1893 Oct 05 02:06	22°♌46'51	
evening rise	1892 Oct 22 12:33	8°♍54'26			1893 Oct 09 16:00	0°♍	
	1892 Nov 05 11:18	0°♎			1893 Oct 30 21:51	0°♎	
greatest brilliancy	1892 Nov 18 12:18	17°♎49'31	-0.4m	evening max el	1893 Nov 05 22:15	6°♎47'44	23°12'05
evening max el	1892 Nov 23 06:51	23°♎14'48	21°52'58	retrograde	1893 Nov 16 06:00	12°♎54'54	
retrograde	1892 Dec 02 11:44	28°♎43'27		evening set	1893 Nov 21 02:24	10°♎56'02	
evening set	1892 Dec 06 19:26	27°♎01'38		asc. node	1893 Nov 23 16:26	8°♎15'39	
asc. node	1892 Dec 06 19:23	27°♎01'43		min. Earth dist.	1893 Nov 26 03:40	5°♎01'03	0.67802 AU
inferior conj	1892 Dec 12 04:55	20°♎41'24	1°46'01	inferior conj	1893 Nov 26 12:23	4°♎31'03	0°57'35
minimum elong	1892 Dec 12 02:46	20°♎48'52	1°45'13	minimum elong	1893 Nov 26 11:04	4°♎35'32	0°57'02
min. Earth dist.	1892 Dec 12 06:55	20°♎34'29	0.67758 AU		1893 Nov 30 01:30	30°♎♍	
morning rise	1892 Dec 17 09:54	14°♎27'24		morning rise	1893 Dec 01 19:49	28°♎20'16	
direct	1892 Dec 22 06:05	12°♎25'22		direct	1893 Dec 06 01:23	26°♎41'05	
morning max el	1893 Jan 01 02:52	18°♎15'54	22°47'12		1893 Dec 12 21:00	0°♎	
greatest brilliancy	1893 Jan 05 18:10	23°♎26'23	-0.3m	morning max el	1893 Dec 14 17:49	1°♎45'20	21°23'07
	1893 Jan 10 21:26	0°♏		greatest brilliancy	1893 Dec 19 20:52	7°♎36'49	-0.4m
desc. node	1893 Jan 14 04:17	4°♏29'27		desc. node	1894 Jan 01 01:19	24°♎26'54	
	1893 Jan 31 04:17	0°♐			1894 Jan 04 19:08	0°♏	
morning set	1893 Feb 04 07:41	6°♐43'21		morning set	1894 Jan 14 22:27	15°♏35'54	
max. Earth dist.	1893 Feb 09 01:53	14°♐42'57	1.40089 AU	max. Earth dist.	1894 Jan 22 02:45	27°♏09'46	1.42124 AU
					1894 Jan 23 19:55	0°♐	
superior conj	1893 Feb 16 20:11	28°♐25'57	-1°-57'-33				
minimum elong	1893 Feb 16 23:32	28°♐41'14	1°57'22	superior conj	1894 Jan 29 12:37	9°♐38'53	-2°-4'-50
	1893 Feb 17 16:45	0°♑		minimum elong	1894 Jan 29 12:41	9°♐39'08	2°04'50
evening rise	1893 Feb 26 16:28	16°♑53'31		evening rise	1894 Feb 09 17:38	29°♐36'44	
asc. node	1893 Mar 04 18:44	28°♑14'00			1894 Feb 09 22:45	0°♑	
	1893 Mar 05 18:46	0°♒		asc. node	1894 Feb 19 15:46	17°♑00'06	
evening max el	1893 Mar 14 20:23	12°♒48'51	18°26'18	evening max el	1894 Feb 26 06:15	25°♑45'04	18°08'50
retrograde	1893 Mar 22 07:30	16°♒29'46		retrograde	1894 Mar 05 00:07	29°♑10'48	
evening set	1893 Mar 24 16:26	16°♒08'31		evening set	1894 Mar 07 14:23	28°♑40'43	
inferior conj	1893 Apr 01 02:06	11°♒34'42	2°47'20	inferior conj	1894 Mar 14 08:23	23°♑45'45	3°28'36
minimum elong	1893 Apr 01 05:58	11°♒26'49	2°46'26	minimum elong	1894 Mar 14 10:41	23°♑40'21	3°28'18
min. Earth dist.	1893 Apr 04 12:37	8°♒48'37	0.58591 AU	min. Earth dist.	1894 Mar 17 14:21	20°♑43'47	0.60733 AU
morning rise	1893 Apr 08 15:25	6°♒06'18		morning rise	1894 Mar 21 03:49	17°♑56'31	
desc. node	1893 Apr 12 03:26	4°♒47'14		direct	1894 Mar 27 21:14	15°♑44'12	
direct	1893 Apr 14 17:28	4°♒29'43		desc. node	1894 Mar 30 00:28	15°♑56'51	
morning max el	1893 Apr 29 02:37	12°♒11'32	26°55'54	morning max el	1894 Apr 11 03:17	23°♑37'06	27°40'30
	1893 May 13 01:20	0°♓			1894 Apr 16 20:55	0°♒	
morning set	1893 May 29 02:36	29°♓21'22			1894 May 06 05:57	0°♓	
	1893 May 29 09:58	0°♊		morning set	1894 May 13 09:00	13°♓57'53	

asc. node	1894 May 18 15:05	25°♄07'27		desc. node	1895 Mar 16 21:30	29°♄44'17	
max. Earth dist.	1894 May 19 14:22	27°♄14'16	1.32264 AU		1895 Mar 17 08:17	0°♄	
				morning max el	1895 Mar 24 09:17	5°♄43'11	27°47'53
superior conj	1894 May 20 15:59	29°♄34'24	0°21'24		1895 Apr 11 18:03	0°♄	
minimum elong	1894 May 20 15:01	29°♄29'09	0°21'12	morning set	1895 Apr 27 09:37	28°♄13'57	
	1894 May 20 20:39	0°♄			1895 Apr 28 06:33	0°♄	
evening rise	1894 May 27 13:45	14°♄35'21		max. Earth dist.	1895 May 02 21:36	9°♄40'16	1.32731 AU
	1894 Jun 04 07:10	0°♄					
evening max el	1894 Jun 23 07:53	27°♄03'35	25°16'46	superior conj	1895 May 05 00:50	14°♄15'45	0°-4'-57
desc. node	1894 Jun 25 23:45	29°♄24'21		minimum elong	1895 May 05 01:04	14°♄17'02	0°04'55
	1894 Jun 26 18:01	0°♄		behind sun begin	1895 May 04 20:05	13°♄50'04	
retrograde	1894 Jul 07 08:10	4°♄11'18		behind sun end	1895 May 05 06:03	14°♄44'01	
evening set	1894 Jul 12 23:19	2°♄57'46		asc. node	1895 May 05 12:06	15°♄16'45	
min. Earth dist.	1894 Jul 17 19:44	0°♄15'04	0.57792 AU	evening rise	1895 May 12 01:34	29°♄26'42	
	1894 Jul 18 04:46	30°♄			1895 May 12 07:52	0°♄	
inferior conj	1894 Jul 20 22:25	28°♄06'54	-4°-57'-16		1895 May 29 07:12	0°♄	
minimum elong	1894 Jul 20 21:44	28°♄08'05	4°57'16	evening max el	1895 Jun 04 21:54	7°♄39'52	23°44'35
morning rise	1894 Jul 28 23:54	23°♄52'23		desc. node	1895 Jun 12 20:46	13°♄17'07	
direct	1894 Jul 31 12:36	23°♄33'08		retrograde	1895 Jun 18 14:55	14°♄32'17	
morning max el	1894 Aug 09 05:05	27°♄38'17	18°58'14	evening set	1895 Jun 22 19:16	13°♄53'52	
	1894 Aug 11 10:47	0°♄		min. Earth dist.	1895 Jun 29 08:27	10°♄48'16	0.56104 AU
asc. node	1894 Aug 14 14:18	4°♄08'07		inferior conj	1895 Jul 01 14:24	9°♄26'44	-4°-29'-44
morning set	1894 Aug 25 20:03	24°♄10'15		minimum elong	1895 Jul 01 08:26	9°♄35'47	4°28'47
	1894 Aug 28 18:53	0°♄		morning rise	1895 Jul 10 01:01	5°♄29'42	
				direct	1895 Jul 12 18:45	5°♄10'42	
superior conj	1894 Sep 03 06:56	10°♄44'15	1°42'04	morning max el	1895 Jul 22 22:07	9°♄52'46	20°01'37
minimum elong	1894 Sep 03 08:43	10°♄52'48	1°41'59	asc. node	1895 Aug 01 11:20	22°♄33'34	
max. Earth dist.	1894 Sep 10 02:26	23°♄23'04	1.38852 AU		1895 Aug 05 14:20	0°♄	
	1894 Sep 13 20:43	0°♄		morning set	1895 Aug 09 23:59	8°♄41'59	
evening rise	1894 Sep 14 00:26	0°♄16'03					
desc. node	1894 Sep 21 23:07	13°♄24'07		superior conj	1895 Aug 17 19:23	24°♄35'11	1°45'49
	1894 Oct 03 00:17	0°♄		minimum elong	1895 Aug 17 19:22	24°♄35'04	1°45'49
evening max el	1894 Oct 19 10:57	20°♄24'58	24°31'24		1895 Aug 20 13:00	0°♄	
retrograde	1894 Oct 30 20:29	27°♄04'27		max. Earth dist.	1895 Aug 23 07:23	5°♄19'53	1.36875 AU
evening set	1894 Nov 05 06:53	24°♄48'50		evening rise	1895 Aug 27 04:59	12°♄34'15	
min. Earth dist.	1894 Nov 09 23:30	19°♄27'32	0.67520 AU		1895 Sep 06 10:06	0°♄	
inferior conj	1894 Nov 10 18:42	18°♄23'23	0°04'30	desc. node	1895 Sep 08 20:08	3°♄49'14	
minimum elong	1894 Nov 10 18:35	18°♄23'46	0°04'26		1895 Sep 28 01:50	0°♄	
transit middle	1894 Nov 10 18:35	18°♄23'46	0°04'26	evening max el	1895 Oct 01 22:59	4°♄05'10	25°43'49
transit begin	1894 Nov 10 15:57	18°♄32'35		retrograde	1895 Oct 14 06:15	11°♄07'03	
transit end	1894 Nov 10 21:13	18°♄14'56		evening set	1895 Oct 20 07:08	8°♄36'40	
asc. node	1894 Nov 10 13:29	18°♄40'50		min. Earth dist.	1895 Oct 24 15:56	3°♄51'02	0.66903 AU
morning rise	1894 Nov 16 06:39	12°♄18'17		inferior conj	1895 Oct 25 22:02	2°♄15'18	0°-51'-57
direct	1894 Nov 19 23:07	11°♄00'19		minimum elong	1895 Oct 25 23:23	2°♄11'01	0°51'23
morning max el	1894 Nov 27 16:08	15°♄25'18	20°09'37		1895 Oct 27 17:43	30°♄	
greatest brilliancy	1894 Dec 04 12:34	23°♄41'07	-0.6m	asc. node	1895 Oct 28 10:31	29°♄11'37	
	1894 Dec 09 00:50	0°♄		morning rise	1895 Oct 31 16:26	26°♄18'46	
desc. node	1894 Dec 18 22:21	14°♄43'41		direct	1895 Nov 03 21:44	25°♄18'59	
morning set	1894 Dec 24 19:13	23°♄43'35		morning max el	1895 Nov 10 22:05	29°♄14'52	19°10'22
	1894 Dec 28 20:04	0°♄			1895 Nov 11 15:27	0°♄	
max. Earth dist.	1895 Jan 04 11:13	10°♄29'15	1.43771 AU		1895 Dec 02 10:44	0°♄	
				morning set	1895 Dec 03 22:41	2°♄19'58	
superior conj	1895 Jan 10 03:25	19°♄40'58	-1°-56'-36	desc. node	1895 Dec 05 19:24	5°♄14'11	
minimum elong	1895 Jan 09 22:07	19°♄19'14	1°56'20	max. Earth dist.	1895 Dec 18 02:33	24°♄29'38	1.44817 AU
	1895 Jan 16 08:07	0°♄					
evening rise	1895 Jan 23 01:27	11°♄30'43		superior conj	1895 Dec 20 17:17	28°♄37'35	-1°-29'-27
	1895 Feb 03 00:06	0°♄		minimum elong	1895 Dec 20 08:29	28°♄02'42	1°28'36
asc. node	1895 Feb 06 12:47	5°♄08'49			1895 Dec 21 14:04	0°♄	
evening max el	1895 Feb 09 18:41	8°♄58'22	18°10'46	evening rise	1896 Jan 04 11:51	22°♄29'08	
retrograde	1895 Feb 16 05:47	12°♄23'14			1896 Jan 09 01:17	0°♄	
evening set	1895 Feb 19 01:07	11°♄43'05		asc. node	1896 Jan 24 09:48	22°♄29'05	
inferior conj	1895 Feb 25 07:07	6°♄27'29	3°43'26	evening max el	1896 Jan 24 06:51	22°♄21'40	18°31'17
minimum elong	1895 Feb 25 07:24	6°♄26'42	3°43'26	retrograde	1896 Jan 30 20:14	25°♄58'15	
min. Earth dist.	1895 Feb 28 00:29	3°♄34'04	0.62800 AU	evening set	1896 Feb 02 20:59	25°♄07'01	
morning rise	1895 Mar 03 11:35	0°♄25'51		inferior conj	1896 Feb 08 18:17	19°♄32'21	3°38'44
	1895 Mar 04 01:47	30°♄		minimum elong	1896 Feb 08 16:58	19°♄36'14	3°38'38
direct	1895 Mar 10 10:20	27°♄47'32		min. Earth dist.	1896 Feb 10 20:10	17°♄05'32	0.64578 AU

morning rise	1896 Feb 14 11:38	13° \approx 23'27		morning rise	1897 Jan 28 00:17	26° \approx 40'13	
direct	1896 Feb 21 06:44	10° \approx 33'33		direct	1897 Feb 03 09:34	23° \approx 52'33	
desc. node	1896 Mar 02 18:32	15° \approx 35'55			1897 Feb 14 17:07	0° \approx	
morning max el	1896 Mar 05 18:27	18° \approx 23'26	27°19'52	morning max el	1897 Feb 16 04:17	1° \approx 25'35	26°22'38
	1896 Mar 15 13:38	0° \approx		desc. node	1897 Feb 17 15:35	2° \approx 57'14	
	1896 Apr 03 15:52	0° \approx			1897 Mar 09 15:30	0° \approx	
morning set	1896 Apr 10 01:48	12° \approx 01'23		morning set	1897 Mar 24 05:49	25° \approx 08'12	
max. Earth dist.	1896 Apr 14 20:51	21° \approx 38'54	1.33632 AU		1897 Mar 26 19:08	0° \approx	
				max. Earth dist.	1897 Mar 28 08:57	3° \approx 04'06	1.34982 AU
superior conj	1896 Apr 18 05:27	28° \approx 40'04	0°-32'-37	superior conj	1897 Apr 02 03:30	12° \approx 39'30	-1°00'-24
minimum elong	1896 Apr 18 07:05	28° \approx 48'43	0°32'18	minimum elong	1897 Apr 02 06:32	12° \approx 55'03	0°59'52
	1896 Apr 18 20:33	0° \approx		asc. node	1897 Apr 08 06:09	25° \approx 20'41	
asc. node	1896 Apr 21 09:07	5° \approx 22'48		evening rise	1897 Apr 09 21:07	28° \approx 42'36	
evening rise	1896 Apr 25 12:42	14° \approx 11'35			1897 Apr 10 12:11	0° \approx	
	1896 May 03 13:39	0° \approx		evening max el	1897 Apr 28 15:22	29° \approx 06'45	20°43'00
evening max el	1896 May 16 14:08	18° \approx 11'20	22°08'53		1897 Apr 29 14:16	0° \approx	
retrograde	1896 May 29 09:22	24° \approx 30'24		retrograde	1897 May 09 22:30	4° \approx 36'15	
desc. node	1896 May 29 17:46	24° \approx 30'07		evening set	1897 May 12 01:33	4° \approx 25'20	
evening set	1896 Jun 01 05:38	24° \approx 12'28		desc. node	1897 May 16 14:46	2° \approx 57'22	
min. Earth dist.	1896 Jun 09 19:54	20° \approx 31'16	0.55092 AU	inferior conj	1897 May 21 07:31	0° \approx 27'39	-1°-21'-53
inferior conj	1896 Jun 10 13:43	20° \approx 06'15	-3°-14'-14	minimum elong	1897 May 21 03:38	0° \approx 33'12	1°20'29
minimum elong	1896 Jun 10 05:57	20° \approx 17'10	3°12'00		1897 May 22 02:49	30° \approx	
morning rise	1896 Jun 19 08:06	16° \approx 14'06		min. Earth dist.	1897 May 22 08:21	29° \approx 52'05	0.54986 AU
direct	1896 Jun 22 09:10	15° \approx 53'22		morning rise	1897 May 30 04:39	26° \approx 20'35	
morning max el	1896 Jul 04 03:41	21° \approx 23'15	21°25'03	direct	1897 Jun 02 18:48	25° \approx 52'50	
	1896 Jul 11 09:20	0° \approx			1897 Jun 13 08:29	0° \approx	
asc. node	1896 Jul 18 08:23	11° \approx 34'21		morning max el	1897 Jun 15 23:31	2° \approx 14'12	23°03'06
morning set	1896 Jul 24 08:26	23° \approx 27'46			1897 Jul 04 17:01	0° \approx	
	1896 Jul 27 11:27	0° \approx		asc. node	1897 Jul 05 05:26	1° \approx 01'23	
superior conj	1896 Jul 31 17:42	8° \approx 55'55	1°42'00	morning set	1897 Jul 08 19:28	8° \approx 21'47	
minimum elong	1896 Jul 31 16:19	8° \approx 48'48	1°41'55	superior conj	1897 Jul 15 22:42	23° \approx 36'51	1°32'03
max. Earth dist.	1896 Aug 04 18:51	17° \approx 12'20	1.35161 AU	minimum elong	1897 Jul 15 20:32	23° \approx 25'18	1°31'50
evening rise	1896 Aug 09 03:44	25° \approx 44'46		max. Earth dist.	1897 Jul 18 15:20	29° \approx 19'07	1.33818 AU
	1896 Aug 11 10:12	0° \approx			1897 Jul 18 23:09	0° \approx	
desc. node	1896 Aug 25 17:09	23° \approx 56'11		evening rise	1897 Jul 23 16:08	9° \approx 35'30	
	1896 Aug 29 20:42	0° \approx			1897 Aug 03 20:14	0° \approx	
evening max el	1896 Sep 13 11:13	17° \approx 42'21	26°41'38	desc. node	1897 Aug 12 14:09	13° \approx 37'08	
retrograde	1896 Sep 26 10:48	24° \approx 56'38			1897 Aug 25 19:45	0° \approx	
evening set	1896 Oct 03 01:08	22° \approx 16'02		evening max el	1897 Aug 26 23:04	1° \approx 06'53	27°17'29
min. Earth dist.	1896 Oct 07 02:32	18° \approx 07'30	0.65937 AU	retrograde	1897 Sep 09 09:50	8° \approx 25'39	
inferior conj	1896 Oct 08 20:28	16° \approx 03'09	-1°-50'-12	evening set	1897 Sep 16 10:24	5° \approx 42'53	
minimum elong	1896 Oct 08 23:24	15° \approx 54'26	1°49'02	min. Earth dist.	1897 Sep 20 05:09	2° \approx 10'40	0.64611 AU
asc. node	1896 Oct 14 07:34	10° \approx 40'46		inferior conj	1897 Sep 22 11:43	29° \approx 42'37	-2°-48'-3
morning rise	1896 Oct 14 22:59	10° \approx 18'21		minimum elong	1897 Sep 22 16:08	29° \approx 30'38	2°46'31
direct	1896 Oct 17 19:20	9° \approx 33'05			1897 Sep 22 05:21	30° \approx	
morning max el	1896 Oct 24 10:06	13° \approx 10'11	18°27'03	morning rise	1897 Sep 28 23:47	24° \approx 12'43	
	1896 Nov 05 12:19	0° \approx		asc. node	1897 Oct 01 04:38	23° \approx 39'00	
morning set	1896 Nov 13 03:47	12° \approx 15'55		direct	1897 Oct 01 13:34	23° \approx 38'16	
desc. node	1896 Nov 21 16:26	25° \approx 53'50		morning max el	1897 Oct 08 01:39	27° \approx 05'46	18°00'33
	1896 Nov 24 06:38	0° \approx			1897 Oct 10 14:55	0° \approx	
superior conj	1896 Nov 28 18:36	7° \approx 05'15	0°-46'-14	morning set	1897 Oct 25 13:41	23° \approx 36'36	
minimum elong	1896 Nov 28 12:40	6° \approx 41'58	0°45'28		1897 Oct 29 09:09	0° \approx	
max. Earth dist.	1896 Nov 29 21:32	8° \approx 51'02	1.45145 AU	superior conj	1897 Nov 08 04:58	16° \approx 05'08	0°02'25
	1896 Dec 13 08:38	0° \approx		minimum elong	1897 Nov 08 05:15	16° \approx 06'15	0°02'21
evening rise	1896 Dec 14 22:51	2° \approx 30'40		behind sun begin	1897 Nov 07 18:52	15° \approx 24'31	
greatest brilliancy	1896 Dec 27 08:21	21° \approx 55'41	-0.7m	behind sun end	1897 Nov 08 15:38	16° \approx 47'55	
	1897 Jan 01 21:22	0° \approx		desc. node	1897 Nov 08 13:29	16° \approx 39'17	
evening max el	1897 Jan 06 16:18	5° \approx 49'15	19°09'17	max. Earth dist.	1897 Nov 12 16:20	23° \approx 12'49	1.44731 AU
asc. node	1897 Jan 10 06:50	8° \approx 46'53			1897 Nov 16 23:55	0° \approx	
retrograde	1897 Jan 13 15:48	9° \approx 48'11		evening rise	1897 Nov 24 14:16	11° \approx 47'35	
evening set	1897 Jan 16 22:57	8° \approx 44'49			1897 Dec 06 12:55	0° \approx	
inferior conj	1897 Jan 22 14:20	2° \approx 53'25	3°19'39	greatest brilliancy	1897 Dec 14 00:31	10° \approx 50'45	-0.6m
minimum elong	1897 Jan 22 12:03	3° \approx 00'41	3°19'14	evening max el	1897 Dec 20 21:15	19° \approx 18'52	20°03'06
min. Earth dist.	1897 Jan 24 00:58	1° \approx 03'11	0.65974 AU	asc. node	1897 Dec 28 03:52	23° \approx 47'50	
	1897 Jan 24 21:24	30° \approx					

retrograde	1897 Dec 28 13:34	23°☾48'45		evening set	1898 Dec 16 12:16	6°☾23'36	
evening set	1898 Jan 01 04:43	22°☾31'48		inferior conj	1898 Dec 21 22:07	0°☾07'58	2°11'20
inferior conj	1898 Jan 06 16:25	16°☾26'37	2°49'44	minimum elong	1898 Dec 21 19:39	0°☾16'27	2°10'29
minimum elong	1898 Jan 06 13:47	16°☾35'27	2°49'01		1898 Dec 22 00:26	30°☾☿	
min. Earth dist.	1898 Jan 07 13:16	15°☾16'41	0.66969 AU	min. Earth dist.	1898 Dec 22 06:43	29°☿38'19	0.67574 AU
morning rise	1898 Jan 11 22:15	10°☾11'22		morning rise	1898 Dec 27 02:41	23°☿52'48	
direct	1898 Jan 17 18:09	7°☾36'31		direct	1899 Jan 01 07:40	21°☿37'35	
morning max el	1898 Jan 29 13:10	14°☾38'35	25°05'12	morning max el	1899 Jan 11 21:44	27°☿56'05	23°37'54
desc. node	1898 Feb 04 12:40	21°☾22'40			1899 Jan 13 20:40	0°☾	
	1898 Feb 11 02:57	0°☿		desc. node	1899 Jan 22 09:44	10°☾33'23	
	1898 Mar 02 12:01	0°☿			1899 Feb 04 19:59	0°☿	
morning set	1898 Mar 06 16:45	7°☿20'43		morning set	1899 Feb 16 04:28	18°☿☿22'15	
max. Earth dist.	1898 Mar 10 09:46	14°☿06'30	1.36763 AU	max. Earth dist.	1899 Feb 20 04:36	25°☿☿17'47	1.38846 AU
					1899 Feb 22 19:59	0°☿	
superior conj	1898 Mar 16 16:05	26°☿06'24	-1°-26'-30	superior conj	1899 Feb 27 15:28	8°☿51'18	-1°-48'-18
minimum elong	1898 Mar 16 20:09	26°☿26'27	1°25'56	minimum elong	1899 Feb 27 19:35	9°☿10'39	1°47'56
	1898 Mar 18 15:12	0°☿		evening rise	1899 Mar 08 20:42	26°☿36'48	
evening rise	1898 Mar 25 00:41	12°☿53'21			1899 Mar 10 14:40	0°☿	
asc. node	1898 Mar 26 03:11	15°☿06'04		asc. node	1899 Mar 13 00:14	4°☿33'55	
	1898 Apr 03 03:35	0°☿		evening max el	1899 Mar 25 04:08	22°☿54'41	18°45'24
evening max el	1898 Apr 11 04:27	10°☿41'21	19°34'20	retrograde	1899 Apr 02 06:16	26°☿51'02	
retrograde	1898 Apr 20 18:09	15°☿18'35		evening set	1899 Apr 04 12:05	26°☿34'03	
evening set	1898 Apr 22 19:07	15°☿06'54		inferior conj	1899 Apr 12 08:17	22°☿12'29	2°08'54
inferior conj	1898 May 01 10:25	11°☿02'35	0°35'28	minimum elong	1899 Apr 12 12:15	22°☿05'08	2°07'45
minimum elong	1898 May 01 11:56	11°☿00'11	0°34'56	min. Earth dist.	1899 Apr 15 15:48	19°☿46'32	0.57446 AU
desc. node	1898 May 03 11:49	9°☿43'55		morning rise	1899 Apr 20 08:04	17°☿00'46	
min. Earth dist.	1898 May 03 22:47	9°☿26'48	0.55831 AU	desc. node	1899 Apr 20 08:52	16°☿59'53	
morning rise	1898 May 10 01:03	6°☿24'21		direct	1899 Apr 25 21:41	15°☿44'44	
direct	1898 May 14 13:11	5°☿38'41		morning max el	1899 May 10 05:58	23°☿16'27	26°14'56
morning max el	1898 May 28 14:20	12°☿43'04	24°44'43		1899 May 16 06:45	0°☿	
	1898 Jun 10 22:29	0°☿			1899 Jun 03 18:10	0°☿	
asc. node	1898 Jun 22 02:29	20°☿47'18		morning set	1899 Jun 07 18:28	8°☿12'18	
morning set	1898 Jun 23 07:20	23°☿18'20		asc. node	1899 Jun 08 23:32	10°☿46'19	
	1898 Jun 26 10:18	0°☿					
superior conj	1898 Jun 30 07:53	8°☿29'38	1°17'07	superior conj	1899 Jun 14 19:16	23°☿27'36	0°58'04
minimum elong	1898 Jun 30 05:28	8°☿16'29	1°16'46	minimum elong	1899 Jun 14 17:05	23°☿15'37	0°57'40
max. Earth dist.	1898 Jul 01 20:07	11°☿46'19	1.32883 AU	max. Earth dist.	1899 Jun 15 06:36	24°☿29'54	1.32347 AU
evening rise	1898 Jul 07 14:22	23°☿55'06			1899 Jun 17 18:58	0°☿	
	1898 Jul 10 15:24	0°☿		evening rise	1899 Jun 21 19:22	8°☿34'13	
	1898 Jul 28 12:13	0°☿			1899 Jul 03 01:01	0°☿	
desc. node	1898 Jul 30 11:10	2°☿40'40		desc. node	1899 Jul 17 08:10	20°☿51'20	
evening max el	1898 Aug 09 08:54	14°☿06'29	27°24'56	evening max el	1899 Jul 22 14:20	26°☿29'11	26°59'43
retrograde	1898 Aug 23 02:45	21°☿24'05			1899 Jul 26 19:07	0°☿	
evening set	1898 Aug 30 07:36	18°☿50'46		retrograde	1899 Aug 05 12:19	3°☿43'03	
min. Earth dist.	1898 Sep 02 22:04	15°☿49'52	0.62943 AU	evening set	1899 Aug 12 12:27	1°☿32'38	
inferior conj	1898 Sep 05 17:02	13°☿06'50	-3°-42'-13		1899 Aug 14 18:24	30°☿☿	
minimum elong	1898 Sep 05 22:19	12°☿53'56	3°40'46	min. Earth dist.	1899 Aug 16 04:36	28°☿52'12	0.61008 AU
morning rise	1898 Sep 12 15:36	7°☿54'59		inferior conj	1899 Aug 19 09:10	26°☿08'06	-4°-27'-17
direct	1898 Sep 15 01:30	7°☿27'55		minimum elong	1899 Aug 19 13:58	25°☿57'45	4°26'26
asc. node	1898 Sep 18 01:42	8°☿11'00		morning rise	1899 Aug 26 18:32	21°☿17'17	
morning max el	1898 Sep 21 17:44	10°☿54'04	17°51'40	direct	1899 Aug 29 03:29	20°☿54'41	
	1898 Oct 04 12:27	0°☿		asc. node	1899 Sep 04 22:46	24°☿07'27	
morning set	1898 Oct 07 23:18	6°☿05'02		morning max el	1899 Sep 05 07:18	24°☿27'43	18°01'31
					1899 Sep 09 20:12	0°☿	
superior conj	1898 Oct 19 15:28	26°☿16'47	0°45'08	morning set	1899 Sep 21 02:25	19°☿23'44	
minimum elong	1898 Oct 19 19:33	26°☿33'52	0°44'35		1899 Sep 26 20:39	0°☿	
	1898 Oct 21 21:05	0°☿		superior conj	1899 Oct 01 04:50	7°☿47'11	1°16'27
desc. node	1898 Oct 26 10:31	7°☿26'37		minimum elong	1899 Oct 01 09:14	8°☿06'38	1°15'59
max. Earth dist.	1898 Oct 26 08:05	7°☿16'49	1.43638 AU	max. Earth dist.	1899 Oct 08 19:11	20°☿49'10	1.42007 AU
evening rise	1898 Nov 03 22:28	20°☿51'18		desc. node	1899 Oct 13 07:32	28°☿12'42	
	1898 Nov 09 21:57	0°☿			1899 Oct 14 10:17	0°☿	
greatest brilliancy	1898 Nov 28 15:18	26°☿44'43	-0.4m	evening rise	1899 Oct 14 16:44	0°☿25'44	
	1898 Dec 01 07:08	0°☿			1899 Nov 03 11:28	0°☿	
evening max el	1898 Dec 03 20:43	2°☿49'20	21°10'05	greatest brilliancy	1899 Nov 11 20:43	11°☿01'02	-0.3m
retrograde	1898 Dec 12 11:14	7°☿55'43		evening max el	1899 Nov 16 14:49	16°☿21'12	22°26'16
asc. node	1898 Dec 15 00:56	7°☿18'58					

retrograde	1899 Nov 26 06:59	22°♂06'12		1900 Oct 30 06:29	0°♂	
evening set	1899 Nov 30 19:53	20°♂17'20		retrograde	1900 Nov 09 23:37	6°♂17'13
asc. node	1899 Dec 01 22:00	19°♂18'11		evening set	1900 Nov 15 01:58	4°♂11'00
inferior conj	1899 Dec 06 05:26	13°♂54'51	1°26'08	asc. node	1900 Nov 18 19:02	0°♂05'16
minimum elong	1899 Dec 06 03:36	14°♂01'14	1°25'25		1900 Nov 18 20:39	30°♂
min. Earth dist.	1899 Dec 06 02:53	14°♂03'43	0.67820 AU	min. Earth dist.	1900 Nov 19 23:24	28°♂30'22 0.67723 AU
morning rise	1899 Dec 11 11:11	7°♂41'56		inferior conj	1900 Nov 20 12:35	27°♂45'30 0°35'33
direct	1899 Dec 16 01:08	5°♂49'25		minimum elong	1900 Nov 20 11:45	27°♂48'20 0°35'12
morning max el	1899 Dec 25 09:12	11°♂19'23	22°10'26	morning rise	1900 Nov 25 21:43	21°♂37'04
greatest brilliancy	1899 Dec 30 00:09	16°♂30'36	-0.3m	direct	1900 Nov 29 21:34	20°♂07'11
desc. node	1900 Jan 09 06:46	0°♂16'24		morning max el	1900 Dec 08 03:07	24°♂53'03 20°50'24
	1900 Jan 09 02:10	0°♂			1900 Dec 12 15:03	0°♂
morning set	1900 Jan 27 11:30	27°♂59'36		greatest brilliancy	1900 Dec 13 20:21	1°♂32'47 -0.5m
	1900 Jan 28 17:11	0°♂		desc. node	1900 Dec 27 03:48	20°♂22'45
max. Earth dist.	1900 Feb 02 01:54	7°♂13'17	1.40988 AU		1901 Jan 02 12:27	0°♂
				morning set	1901 Jan 06 16:18	6°♂25'50
superior conj	1900 Feb 09 20:46	20°♂41'35	-2°-2'-13	max. Earth dist.	1901 Jan 15 06:38	20°♂06'06 1.42885 AU
minimum elong	1900 Feb 09 23:03	20°♂51'45	2°02'09		1901 Jan 21 06:30	0°♂
	1900 Feb 15 00:04	0°♂				
evening rise	1900 Feb 20 05:52	9°♂44'22		superior conj	1901 Jan 22 02:44	1°♂25'08 -2°-3'-31
asc. node	1900 Feb 27 21:17	23°♂37'22		minimum elong	1901 Jan 22 00:38	1°♂16'19 2°03'29
	1900 Mar 03 21:21	0°♂		evening rise	1901 Feb 03 00:13	22°♂07'58
evening max el	1900 Mar 08 11:13	5°♂37'45	18°16'28		1901 Feb 07 10:35	0°♂
retrograde	1900 Mar 15 13:22	9°♂09'58		asc. node	1901 Feb 14 18:19	12°♂08'54
evening set	1900 Mar 18 00:48	8°♂45'00		evening max el	1901 Feb 19 22:32	18°♂42'06 18°07'16
inferior conj	1900 Mar 25 03:20	4°♂02'04	3°08'30	retrograde	1901 Feb 26 12:18	22°♂05'59
minimum elong	1900 Mar 25 06:41	3°♂54'50	3°07'52	evening set	1901 Mar 01 04:45	21°♂31'40
min. Earth dist.	1900 Mar 28 13:15	1°♂06'22	0.59499 AU	inferior conj	1901 Mar 07 17:10	16°♂27'26 3°37'40
	1900 Mar 29 23:07	30°♂		minimum elong	1901 Mar 07 18:35	16°♂23'52 3°37'33
morning rise	1900 Apr 01 08:54	28°♂24'00		min. Earth dist.	1901 Mar 10 18:14	13°♂26'43 0.61636 AU
desc. node	1900 Apr 07 05:55	26°♂32'29		morning rise	1901 Mar 14 05:47	10°♂32'02
direct	1900 Apr 07 18:51	26°♂31'41		direct	1901 Mar 21 02:30	8°♂07'30
	1900 Apr 17 01:05	0°♂		desc. node	1901 Mar 25 02:57	8°♂52'30
morning max el	1900 Apr 22 02:47	4°♂18'18	27°19'14	morning max el	1901 Apr 04 06:06	16°♂01'56 27°48'16
	1900 May 11 00:14	0°♂			1901 Apr 15 17:10	0°♂
morning set	1900 May 23 03:07	22°♂56'42			1901 May 03 13:58	0°♂
	1900 May 26 10:51	0°♂		morning set	1901 May 07 07:21	7°♂25'25
asc. node	1900 May 26 20:34	0°♂52'33		max. Earth dist.	1901 May 13 05:25	19°♂55'46 1.32422 AU
				asc. node	1901 May 13 17:35	21°♂01'51
superior conj	1900 May 30 06:59	8°♂23'22	0°35'37			
minimum elong	1900 May 30 05:28	8°♂15'03	0°35'18	superior conj	1901 May 14 17:24	23°♂11'29 0°10'28
max. Earth dist.	1900 May 29 18:59	7°♂17'21	1.32192 AU	minimum elong	1901 May 14 16:54	23°♂08'50 0°10'21
evening rise	1900 Jun 06 04:36	23°♂23'22		behind sun begin	1901 May 14 13:00	22°♂47'32
	1900 Jun 09 09:23	0°♂		behind sun end	1901 May 14 20:49	23°♂30'07
	1900 Jun 27 09:13	0°♂			1901 May 17 20:08	0°♂
desc. node	1900 Jul 04 05:10	7°♂46'28		evening rise	1901 May 21 16:02	8°♂15'42
evening max el	1900 Jul 04 12:54	8°♂05'02	26°02'02		1901 Jun 01 23:35	0°♂
retrograde	1900 Jul 18 12:54	15°♂15'08		evening max el	1901 Jun 16 04:40	18°♂56'56 24°38'44
evening set	1900 Jul 24 20:11	13°♂39'10		desc. node	1901 Jun 21 02:11	22°♂56'07
min. Earth dist.	1900 Jul 29 01:27	11°♂02'51	0.58947 AU	retrograde	1901 Jun 30 02:52	25°♂59'56
inferior conj	1900 Aug 01 08:27	8°♂35'58	-4°-54'-32	evening set	1901 Jul 05 04:10	25°♂02'19
minimum elong	1900 Aug 01 10:29	8°♂32'08	4°54'25	min. Earth dist.	1901 Jul 10 15:47	22°♂11'42 0.57019 AU
morning rise	1900 Aug 09 04:16	4°♂08'25		inferior conj	1901 Jul 13 11:58	20°♂21'28 -4°-51'-6
direct	1900 Aug 11 15:10	3°♂48'13		minimum elong	1901 Jul 13 08:57	20°♂26'22 4°50'53
morning max el	1900 Aug 19 15:12	7°♂37'53	18°31'30	morning rise	1901 Jul 21 17:29	16°♂15'46
asc. node	1900 Aug 22 19:48	11°♂13'01		direct	1901 Jul 24 08:17	15°♂56'45
	1900 Sep 03 00:39	0°♂		morning max el	1901 Aug 02 14:26	20°♂15'26 19°22'39
morning set	1900 Sep 04 18:00	3°♂18'34		asc. node	1901 Aug 09 16:50	29°♂12'57
					1901 Aug 10 04:45	0°♂
superior conj	1900 Sep 13 16:48	20°♂24'39	1°35'48	morning set	1901 Aug 19 18:15	17°♂39'00
minimum elong	1900 Sep 13 19:42	20°♂38'07	1°35'36		1901 Aug 25 22:24	0°♂
	1900 Sep 18 23:18	0°♂				
max. Earth dist.	1900 Sep 21 01:24	3°♂40'13	1.40037 AU	superior conj	1901 Aug 27 21:47	3°♂53'10 1°44'42
evening rise	1900 Sep 25 08:38	11°♂00'21		minimum elong	1901 Aug 27 22:45	3°♂57'56 1°44'40
desc. node	1900 Sep 30 04:32	18°♂54'03		max. Earth dist.	1901 Sep 03 05:08	15°♂51'09 1.37986 AU
	1900 Oct 07 08:22	0°♂		evening rise	1901 Sep 07 00:35	22°♂42'21
evening max el	1900 Oct 30 04:51	29°♂55'56	23°46'15		1901 Sep 11 06:21	0°♂

desc. node	1901 Sep 17 01:31	9° Ω 26'22			1902 Aug 17 16:34	0° \cap	
	1901 Oct 01 04:35	0° \cap		evening rise	1902 Aug 20 13:32	5° \cap 25'00	
evening max el	1901 Oct 12 16:51	13° \cap 33'38	25°03'31	desc. node	1902 Sep 03 22:33	29° \cap 44'49	
retrograde	1901 Oct 24 12:10	20° \cap 24'14			1902 Sep 04 02:30	0° Ω	
evening set	1901 Oct 30 04:51	18° \cap 01'37		evening max el	1902 Sep 25 04:48	27° Ω 13'07	26°10'36
min. Earth dist.	1901 Nov 03 17:57	12° \cap 55'33	0.67295 AU		1902 Sep 28 07:22	0° \cap	
inferior conj	1901 Nov 04 17:49	11° \cap 37'18	0°-19'-10	retrograde	1902 Oct 07 20:00	4° \cap 22'21	
minimum elong	1901 Nov 04 18:18	11° \cap 35'43	0°18'58	evening set	1902 Oct 14 02:45	1° \cap 46'46	
asc. node	1901 Nov 05 16:04	10° \cap 24'54			1902 Oct 15 23:38	30° \cap Ω	
morning rise	1901 Nov 10 08:19	5° \cap 35'46		min. Earth dist.	1902 Oct 18 08:16	27° Ω 16'45	0.66532 AU
direct	1901 Nov 13 19:42	4° \cap 26'08		inferior conj	1902 Oct 19 19:20	25° Ω 28'09	-1°-16'-34
morning max el	1901 Nov 21 04:52	8° \cap 37'28	19°42'38	minimum elong	1902 Oct 19 21:21	25° Ω 21'54	1°15'44
greatest brilliancy	1901 Nov 29 03:58	18° \cap 31'40	-0.6m	asc. node	1902 Oct 23 13:05	21° Ω 15'15	
	1901 Dec 06 23:38	0° \nearrow		morning rise	1902 Oct 25 17:01	19° Ω 36'13	
desc. node	1901 Dec 14 00:48	10° \nearrow 45'25		direct	1902 Oct 28 18:06	18° Ω 43'15	
morning set	1901 Dec 16 12:39	14° \nearrow 36'10		morning max el	1902 Nov 04 13:43	22° Ω 30'19	18°49'52
	1901 Dec 26 09:31	0° \searrow			1902 Nov 10 15:08	0° \cap	
max. Earth dist.	1901 Dec 28 18:21	3° \searrow 44'51	1.44291 AU	morning set	1902 Nov 26 01:34	23° \cap 42'17	
					1902 Nov 30 01:30	0° \nearrow	
superior conj	1902 Jan 02 06:08	10° \searrow 55'59	-1°-47'-26	desc. node	1902 Nov 30 21:50	1° \nearrow 20'01	
minimum elong	1902 Jan 01 22:45	10° \searrow 26'17	1°46'54	max. Earth dist.	1902 Dec 11 10:56	17° \nearrow 53'39	1.45045 AU
	1902 Jan 13 19:35	0° \approx					
evening rise	1902 Jan 15 23:21	3° \approx 38'32		superior conj	1902 Dec 12 12:21	19° \nearrow 33'31	-1°-12'-35
asc. node	1902 Feb 01 15:21	29° \approx 58'09		minimum elong	1902 Dec 12 03:58	19° \nearrow 00'33	1°11'38
	1902 Feb 01 15:58	0° \times			1902 Dec 19 03:00	0° \searrow	
evening max el	1902 Feb 03 11:04	1° \times 59'27	18°17'16	evening rise	1902 Dec 27 23:44	14° \searrow 11'27	
retrograde	1902 Feb 09 22:18	5° \times 28'19			1903 Jan 06 19:31	0° \approx	
evening set	1902 Feb 12 19:45	4° \times 43'42		evening max el	1903 Jan 17 22:19	15° \approx 24'28	18°45'28
	1902 Feb 18 07:09	30° \cap \approx		asc. node	1903 Jan 19 12:23	16° \approx 53'09	
inferior conj	1902 Feb 18 21:40	29° \approx 19'41	3°43'29	retrograde	1903 Jan 24 15:15	19° \approx 09'31	
minimum elong	1902 Feb 18 21:12	29° \approx 20'58	3°43'29	evening set	1903 Jan 27 18:29	18° \approx 13'26	
min. Earth dist.	1902 Feb 21 08:34	26° \approx 35'43	0.63593 AU	inferior conj	1903 Feb 02 12:59	12° \approx 31'34	3°32'09
morning rise	1902 Feb 24 20:53	23° \approx 14'08		minimum elong	1903 Feb 02 11:11	12° \approx 37'04	3°31'55
direct	1902 Mar 03 18:51	20° \approx 29'06		min. Earth dist.	1903 Feb 04 08:23	10° \approx 19'08	0.65220 AU
desc. node	1902 Mar 11 23:59	23° \approx 36'33		morning rise	1903 Feb 08 02:44	6° \approx 20'24	
morning max el	1902 Mar 17 14:01	28° \approx 24'18	27°40'04	direct	1903 Feb 14 18:20	3° \approx 29'32	
	1902 Mar 19 03:04	0° \times		desc. node	1903 Feb 26 21:02	10° \approx 09'18	
	1902 Apr 09 12:07	0° Υ		morning max el	1903 Feb 27 23:40	11° \approx 14'35	26°58'33
morning set	1902 Apr 21 04:49	21° Υ 30'40			1903 Mar 14 21:52	0° \times	
	1902 Apr 25 08:41	0° \searrow			1903 Apr 02 00:25	0° Υ	
max. Earth dist.	1902 Apr 26 09:44	2° \searrow 11'19	1.33057 AU	morning set	1903 Apr 04 16:21	5° Υ 02'12	
				max. Earth dist.	1903 Apr 09 04:12	13° Υ 53'53	1.34141 AU
superior conj	1902 Apr 29 00:43	7° \searrow 46'13	0°-16'-35				
minimum elong	1902 Apr 29 01:32	7° \searrow 50'35	0°16'25	superior conj	1903 Apr 13 02:52	22° Υ 00'43	0°-44'-29
asc. node	1902 Apr 30 14:38	11° \searrow 10'13		minimum elong	1903 Apr 13 05:06	22° Υ 12'26	0°44'04
evening rise	1902 May 06 03:48	23° \searrow 04'51			1903 Apr 16 21:51	0° \searrow	
	1902 May 09 12:09	0° Π		asc. node	1903 Apr 17 11:41	1° \searrow 13'09	
evening max el	1902 May 28 18:34	29° Π 27'02	23°03'22	evening rise	1903 Apr 20 14:01	7° \searrow 44'11	
	1902 May 29 08:27	0° \searrow			1903 May 02 13:36	0° Π	
desc. node	1902 Jun 07 23:12	5° \searrow 44'45		evening max el	1903 May 10 14:09	10° Π 06'25	21°30'44
retrograde	1902 Jun 11 04:42	6° \searrow 08'33		retrograde	1903 May 22 19:39	16° Π 05'32	
evening set	1902 Jun 14 17:59	5° \searrow 40'50		evening set	1903 May 25 06:14	15° Π 52'01	
min. Earth dist.	1902 Jun 22 03:50	2° \searrow 21'29	0.55570 AU	desc. node	1903 May 25 20:14	15° Π 44'56	
inferior conj	1902 Jun 23 20:04	1° \searrow 22'59	-4°-3'-31	inferior conj	1903 Jun 03 15:25	11° Π 51'44	-2°-29'-35
minimum elong	1902 Jun 23 12:38	1° \searrow 33'49	4°01'55	minimum elong	1903 Jun 03 08:44	12° Π 01'06	2°27'24
	1902 Jun 26 06:28	30° \cap Π		min. Earth dist.	1903 Jun 03 15:57	11° Π 50'59	0.54924 AU
morning rise	1902 Jul 02 10:19	27° Π 30'12		morning rise	1903 Jun 12 11:47	7° Π 55'18	
direct	1902 Jul 05 06:26	27° Π 11'03		direct	1903 Jun 15 17:24	7° Π 32'28	
	1902 Jul 13 09:31	0° \searrow		morning max el	1903 Jun 28 03:52	13° Π 25'15	22°05'24
morning max el	1902 Jul 16 02:48	2° \searrow 12'30	20°34'54		1903 Jul 10 13:08	0° \searrow	
asc. node	1902 Jul 27 13:52	17° \searrow 54'48		asc. node	1903 Jul 14 10:55	7° \searrow 07'39	
	1902 Aug 02 21:22	0° Ω		morning set	1903 Jul 19 10:12	17° \searrow 07'37	
morning set	1902 Aug 04 00:24	2° Ω 17'46			1903 Jul 25 12:11	0° Ω	
superior conj	1902 Aug 11 14:57	17° Ω 58'52	1°45'02	superior conj	1903 Jul 26 16:28	2° Ω 29'18	1°38'27
minimum elong	1902 Aug 11 14:17	17° Ω 55'30	1°45'00	minimum elong	1903 Jul 26 14:42	2° Ω 19'57	1°38'19
max. Earth dist.	1902 Aug 16 11:59	27° Ω 42'02	1.36100 AU	max. Earth dist.	1903 Jul 30 03:04	9° Ω 38'25	1.34544 AU

evening rise	1903 Aug 03 18:41	18°Ω54'30			1904 Jul 16 00:26	0°Ω	
	1903 Aug 09 17:51	0°൬		evening rise	1904 Jul 17 11:43	2°Ω58'50	
desc. node	1903 Aug 21 19:35	19°൬41'44			1904 Aug 01 13:25	0°൬	
	1903 Aug 29 05:36	0°Ω		desc. node	1904 Aug 07 16:35	9°൬08'03	
evening max el	1903 Sep 07 17:10	10°Ω46'48	26°59'59	evening max el	1904 Aug 20 04:40	24°൬02'50	27°24'23
retrograde	1903 Sep 20 22:21	18°Ω03'49			1904 Aug 28 08:17	0°Ω	
evening set	1903 Sep 27 17:24	15°Ω21'26		retrograde	1904 Sep 02 18:37	1°Ω20'31	
min. Earth dist.	1903 Oct 01 15:54	11°Ω28'17	0.65417 AU		1904 Sep 07 20:25	30°൬	
inferior conj	1903 Oct 03 15:03	9°Ω13'15	-2°-14'-56	evening set	1904 Sep 09 21:56	28°൬40'30	
minimum elong	1903 Oct 03 18:38	9°Ω02'56	2°13'35	min. Earth dist.	1904 Sep 13 14:36	25°൬22'20	0.63949 AU
morning rise	1903 Oct 09 21:28	3°Ω34'03		inferior conj	1904 Sep 16 02:27	22°൬46'58	-3°-11'-43
asc. node	1903 Oct 10 10:08	3°Ω20'02		minimum elong	1904 Sep 16 07:20	22°൬34'14	3°10'10
direct	1903 Oct 12 14:40	2°Ω53'50		morning rise	1904 Sep 22 18:53	17°൬24'05	
morning max el	1903 Oct 19 03:31	6°Ω26'03	18°13'34	direct	1904 Sep 25 06:46	16°൬53'01	
	1903 Nov 04 04:56	0°൬		asc. node	1904 Sep 26 07:12	16°൬58'16	
morning set	1903 Nov 06 19:17	4°൬15'34		morning max el	1904 Oct 01 19:35	20°൬18'44	17°54'30
desc. node	1903 Nov 17 18:54	22°൬02'21			1904 Oct 09 01:50	0°Ω	
				morning set	1904 Oct 18 16:04	16°Ω07'25	
superior conj	1903 Nov 21 14:56	28°൬07'42	0°-25'-29		1904 Oct 26 20:15	0°൬	
minimum elong	1903 Nov 21 11:38	27°൬54'42	0°25'04				
	1903 Nov 22 19:22	0°♌		superior conj	1904 Oct 31 10:23	7°൬34'29	0°21'45
max. Earth dist.	1903 Nov 24 06:04	2°♌16'41	1.45062 AU	minimum elong	1904 Oct 31 12:45	7°൬44'08	0°21'25
evening rise	1903 Dec 08 01:24	23°♌51'03		desc. node	1904 Nov 03 15:55	12°൬48'36	
	1903 Dec 12 00:14	0°♌		max. Earth dist.	1904 Nov 06 00:25	16°൬34'40	1.44349 AU
greatest brilliancy	1903 Dec 23 21:17	18°♌06'33	-0.7m		1904 Nov 14 13:47	0°♌	
evening max el	1904 Jan 01 06:08	28°♌53'31	19°30'29	evening rise	1904 Nov 16 11:46	2°♌57'23	
	1904 Jan 02 09:25	0°♌			1904 Dec 04 14:14	0°♌	
asc. node	1904 Jan 06 09:25	2°♌40'02		greatest brilliancy	1904 Dec 08 08:00	5°♌08'48	-0.5m
retrograde	1904 Jan 08 11:56	3°♌04'19		evening max el	1904 Dec 14 08:50	12°♌23'28	20°30'13
evening set	1904 Jan 11 22:19	1°♌55'21		retrograde	1904 Dec 22 09:50	17°♌07'57	
	1904 Jan 14 03:48	30°൬♌		asc. node	1904 Dec 23 06:28	17°♌03'49	
inferior conj	1904 Jan 17 11:54	25°♌58'00	3°08'07	evening set	1904 Dec 26 05:03	15°♌44'32	
minimum elong	1904 Jan 17 09:24	26°♌06'09	3°07'34	inferior conj	1904 Dec 31 15:46	9°♌34'28	2°34'20
min. Earth dist.	1904 Jan 18 16:32	24°♌24'36	0.66449 AU	minimum elong	1904 Dec 31 13:08	9°♌43'23	2°33'33
morning rise	1904 Jan 22 19:45	19°♌43'52		min. Earth dist.	1905 Jan 01 07:10	8°♌42'06	0.67275 AU
direct	1904 Jan 28 23:48	17°♌00'22		morning rise	1905 Jan 05 20:45	3°♌19'18	
morning max el	1904 Feb 10 08:55	24°♌21'32	25°51'33	direct	1905 Jan 11 10:25	0°♌52'22	
desc. node	1904 Feb 13 18:06	28°♌00'22		morning max el	1905 Jan 22 17:22	7°♌36'20	24°28'43
	1904 Feb 15 10:59	0°♌		desc. node	1905 Jan 30 15:09	16°♌46'33	
	1904 Mar 07 08:05	0°♌			1905 Feb 09 05:35	0°♌	
morning set	1904 Mar 17 13:48	17°♌47'42		morning set	1905 Feb 27 15:33	29°♌31'11	
max. Earth dist.	1904 Mar 21 11:04	25°♌06'02	1.35688 AU		1905 Feb 27 22:07	0°♌	
	1904 Mar 23 23:34	0°♌		max. Earth dist.	1905 Mar 03 08:46	6°♌08'48	1.37628 AU
superior conj	1904 Mar 26 21:20	5°♌47'44	-1°-11'-49	superior conj	1905 Mar 10 04:46	18°♌57'32	-1°-36'-28
minimum elong	1904 Mar 27 00:53	6°♌05'38	1°11'14	minimum elong	1905 Mar 10 09:02	19°♌18'07	1°35'57
asc. node	1904 Apr 03 08:44	21°♌06'29			1905 Mar 15 19:33	0°♌	
evening rise	1904 Apr 03 20:41	22°♌07'30		evening rise	1905 Mar 18 21:22	6°♌07'14	
	1904 Apr 07 19:13	0°♌		asc. node	1905 Mar 21 05:47	10°♌44'50	
evening max el	1904 Apr 21 20:31	21°♌18'14	20°11'33		1905 Apr 01 18:19	0°♌	
retrograde	1904 May 02 09:34	26°♌24'18		evening max el	1905 Apr 04 14:17	3°♌08'47	19°10'59
evening set	1904 May 04 10:36	26°♌13'39		retrograde	1905 Apr 13 11:35	7°♌27'01	
desc. node	1904 May 11 17:16	23°♌16'38		evening set	1905 Apr 15 14:18	7°♌13'26	
inferior conj	1904 May 13 11:25	22°♌15'04	0°-30'-43	inferior conj	1905 Apr 23 21:31	3°♌02'10	1°19'05
minimum elong	1904 May 13 09:59	22°♌17'11	0°30'11	minimum elong	1905 Apr 24 00:31	2°♌57'05	1°18'04
min. Earth dist.	1904 May 15 05:01	21°♌13'28	0.55238 AU	min. Earth dist.	1905 Apr 26 20:01	1°♌03'29	0.56443 AU
morning rise	1904 May 22 07:02	17°♌56'21		desc. node	1905 Apr 28 14:18	29°♌57'39	
direct	1904 May 26 05:57	17°♌22'21			1905 Apr 28 12:43	30°൬♌	
morning max el	1904 Jun 08 20:41	24°♌03'12	23°46'37	morning rise	1905 May 02 06:38	28°♌09'29	
	1904 Jun 14 06:23	0°♌		direct	1905 May 07 05:35	27°♌12'30	
asc. node	1904 Jun 30 08:00	26°♌43'34			1905 May 15 20:06	0°♌	
	1904 Jul 01 22:14	0°♌		morning max el	1905 May 21 11:06	4°♌29'37	25°25'33
morning set	1904 Jul 02 21:48	2°♌03'22			1905 Jun 08 18:00	0°♌	
				morning set	1905 Jun 17 09:35	16°♌59'16	
superior conj	1904 Jul 09 23:31	17°♌15'53	1°26'16	asc. node	1905 Jun 17 05:04	16°♌35'29	
minimum elong	1904 Jul 09 21:11	17°♌03'18	1°25'59		1905 Jun 23 09:54	0°♌	
max. Earth dist.	1904 Jul 12 03:37	21°♌55'01	1.33381 AU				

superior conj	1905 Jun 24 09:51	2°☿11'07	1°09'29	superior conj	1906 Jun 08 21:33	17°♄08'27	0°48'55
minimum elong	1905 Jun 24 07:29	1°☿58'09	1°09'07	minimum elong	1906 Jun 08 19:37	16°♄57'45	0°48'32
max. Earth dist.	1905 Jun 25 11:22	4°☿30'33	1.32607 AU	max. Earth dist.	1906 Jun 08 22:59	17°♄16'22	1.32226 AU
evening rise	1905 Jul 01 13:08	17°☿27'14			1906 Jun 14 19:23	0°☿	
	1905 Jul 07 22:07	0°♄		evening rise	1906 Jun 15 20:09	2°☿10'50	
desc. node	1905 Jul 25 13:35	27°♄51'16			1906 Jun 30 21:27	0°♄	
	1905 Jul 27 06:51	0°♄		desc. node	1906 Jul 12 10:36	15°♄32'54	
evening max el	1905 Aug 02 12:54	6°♄47'54	27°18'14	evening max el	1906 Jul 15 15:20	18°♄50'13	26°38'56
retrograde	1905 Aug 16 08:22	14°♄03'41		retrograde	1906 Jul 29 14:38	26°♄03'30	
evening set	1905 Aug 23 12:46	11°♄38'12		evening set	1906 Aug 05 09:15	24°♄06'15	
min. Earth dist.	1905 Aug 27 02:53	8°♄48'03	0.62152 AU	min. Earth dist.	1906 Aug 09 04:57	21°♄30'04	0.60126 AU
inferior conj	1905 Aug 30 02:36	6°♄02'31	-4°-2'-53	inferior conj	1906 Aug 12 11:57	21°♄50'27	-4°-41'-45
minimum elong	1905 Aug 30 07:54	5°♄50'14	4°01'37	minimum elong	1906 Aug 12 15:55	18°♄42'25	4°41'14
morning rise	1905 Sep 06 05:47	0°♄59'28		morning rise	1906 Aug 20 01:54	14°♄09'49	
direct	1905 Sep 08 15:01	0°♄34'32		direct	1906 Aug 22 11:16	13°♄48'34	
asc. node	1905 Sep 13 04:16	2°♄08'04		morning max el	1906 Aug 29 22:39	17°♄27'20	18°11'48
morning max el	1905 Sep 15 11:02	4°♄02'07	17°53'31	asc. node	1906 Aug 31 01:19	18°♄35'48	
morning set	1905 Oct 01 09:52	28°♄59'31			1906 Sep 07 21:54	0°♄	
	1905 Oct 01 23:17	0°♄		morning set	1906 Sep 14 18:50	12°♄34'57	
superior conj	1905 Oct 12 08:39	18°♄21'03	0°59'55	superior conj	1906 Sep 24 08:23	0°♄22'22	1°26'03
minimum elong	1905 Oct 12 13:13	18°♄40'33	0°59'21	minimum elong	1906 Sep 24 12:16	0°♄39'55	1°25'40
	1905 Oct 19 07:45	0°♄			1906 Sep 24 03:26	0°♄	
max. Earth dist.	1905 Oct 19 14:43	0°♄28'28	1.42999 AU	max. Earth dist.	1906 Oct 01 23:16	13°♄42'37	1.41191 AU
desc. node	1905 Oct 21 12:56	3°♄35'51		evening rise	1906 Oct 07 00:55	22°♄07'06	
evening rise	1905 Oct 26 22:19	12°♄09'23		desc. node	1906 Oct 08 09:55	24°♄20'24	
	1905 Nov 07 16:27	0°♄			1906 Oct 11 23:37	0°♄	
greatest brilliancy	1905 Nov 22 09:21	20°♄21'32	-0.4m		1906 Nov 01 19:33	0°♄	
evening max el	1905 Nov 27 05:51	25°♄54'07	21°41'35	greatest brilliancy	1906 Nov 04 11:03	3°♄19'07	-0.2m
	1905 Dec 02 04:46	0°♄		evening max el	1906 Nov 09 21:51	9°♄26'30	23°00'08
retrograde	1905 Dec 06 06:57	1°♄17'11		retrograde	1906 Nov 20 01:40	15°♄28'13	
asc. node	1905 Dec 10 03:30	29°♄55'30		evening set	1906 Nov 24 20:01	13°♄32'01	
	1905 Dec 10 00:57	30°♄		asc. node	1906 Nov 27 00:33	11°♄20'14	
evening set	1905 Dec 10 12:51	29°♄37'53		inferior conj	1906 Nov 30 05:51	7°♄07'29	1°05'15
inferior conj	1905 Dec 15 22:23	23°♄18'37	1°52'53	minimum elong	1906 Nov 30 04:24	7°♄12'31	1°04'40
minimum elong	1905 Dec 15 20:08	23°♄26'24	1°52'04	min. Earth dist.	1906 Nov 29 22:45	7°♄32'01	0.67818 AU
min. Earth dist.	1905 Dec 16 02:03	23°♄05'57	0.67721 AU	morning rise	1906 Dec 05 12:46	0°♄55'58	
morning rise	1905 Dec 21 03:10	17°♄04'11			1906 Dec 06 22:06	30°♄	
direct	1905 Dec 26 01:35	14°♄58'45		direct	1906 Dec 09 20:28	29°♄13'19	
morning max el	1906 Jan 05 02:55	20°♄56'44	23°00'13		1906 Dec 12 23:49	0°♄	
greatest brilliancy	1906 Jan 09 21:52	26°♄17'44	-0.3m	morning max el	1906 Dec 18 16:50	4°♄24'11	21°35'01
	1906 Jan 12 20:56	0°♄		greatest brilliancy	1906 Dec 23 15:54	10°♄02'24	-0.4m
desc. node	1906 Jan 17 12:11	6°♄12'14		desc. node	1907 Jan 04 09:12	26°♄05'54	
	1906 Feb 02 12:04	0°♄			1907 Jan 07 00:55	0°♄	
morning set	1906 Feb 08 15:29	9°♄57'36		morning set	1907 Jan 19 10:15	19°♄00'53	
max. Earth dist.	1906 Feb 13 04:00	17°♄36'35	1.39770 AU	max. Earth dist.	1907 Jan 26 03:34	29°♄54'03	1.41838 AU
	1906 Feb 20 03:32	0°♄			1907 Jan 26 05:00	0°♄	
superior conj	1906 Feb 20 21:01	1°♄20'05	-1°-55'-25	superior conj	1907 Feb 02 16:58	12°♄43'06	-2°-4'-36
minimum elong	1906 Feb 21 00:39	1°♄36'46	1°55'12	minimum elong	1907 Feb 02 17:42	12°♄46'15	2°04'38
evening rise	1906 Mar 02 13:11	19°♄36'16			1907 Feb 12 08:38	0°♄	
asc. node	1906 Mar 08 02:48	0°♄02'56		evening rise	1907 Feb 13 16:33	2°♄26'02	
	1906 Mar 08 02:09	0°♄		asc. node	1907 Feb 22 23:50	18°♄54'00	
evening max el	1906 Mar 18 17:22	15°♄34'58	18°30'34	evening max el	1907 Mar 02 02:41	28°♄28'30	18°10'14
retrograde	1906 Mar 26 08:03	19°♄19'24			1907 Mar 03 20:52	0°♄	
evening set	1906 Mar 28 16:08	18°♄59'22		retrograde	1907 Mar 08 22:19	1°♄55'19	
inferior conj	1906 Apr 05 04:27	14°♄28'51	2°38'18	evening set	1907 Mar 11 11:52	1°♄26'36	
minimum elong	1906 Apr 05 08:26	14°♄20'57	2°37'19		1907 Mar 14 05:00	30°♄	
min. Earth dist.	1906 Apr 08 14:43	11°♄47'07	0.58285 AU	inferior conj	1907 Mar 18 07:59	26°♄34'52	3°24'09
morning rise	1906 Apr 12 20:31	9°♄04'18		minimum elong	1907 Mar 18 10:34	26°♄28'53	3°23'47
desc. node	1906 Apr 15 11:21	8°♄01'59		min. Earth dist.	1907 Mar 21 15:19	23°♄33'40	0.60413 AU
direct	1906 Apr 18 19:32	7°♄33'06		morning rise	1907 Mar 25 05:58	20°♄48'16	
morning max el	1906 May 03 04:47	15°♄12'58	26°46'17	direct	1907 Mar 31 21:51	18°♄40'48	
	1906 May 15 03:10	0°♄		desc. node	1907 Apr 02 08:23	18°♄46'31	
	1906 May 31 22:49	0°♄		morning max el	1907 Apr 15 04:25	26°♄32'22	27°36'08
morning set	1906 Jun 01 19:50	1°♄49'34			1907 Apr 18 10:42	0°♄	
asc. node	1906 Jun 04 02:05	6°♄37'49			1907 May 08 15:22	0°♄	

morning set	1907 May 17 02:52	16°♄28'29		desc. node	1908 Mar 19 05:26	2°♄11'59	
asc. node	1907 May 21 23:06	26°♄46'13		morning max el	1908 Mar 27 09:42	8°♄32'24	27°49'12
	1907 May 23 10:39	0°♄			1908 Apr 12 22:48	0°♄	
max. Earth dist.	1907 May 23 10:50	0°♄01'03	1.32234 AU		1908 Apr 29 19:00	0°♄	
				morning set	1908 Apr 30 04:30	0°♄48'01	
superior conj	1907 May 24 08:57	2°♄02'16	0°25'15	max. Earth dist.	1908 May 05 19:05	12°♄30'57	1.32640 AU
minimum elong	1907 May 24 07:50	1°♄56'08	0°25'00				
evening rise	1907 May 31 06:34	17°♄02'29		superior conj	1908 May 07 18:16	16°♄45'32	0°00'-49
	1907 Jun 06 16:43	0°♄		minimum elong	1908 May 07 18:18	16°♄45'44	0°00'50
	1907 Jun 27 08:05	0°♄		behind sun begin	1908 May 07 13:08	16°♄17'41	
evening max el	1907 Jun 27 10:48	0°♄06'32	25°29'11	behind sun end	1908 May 07 23:29	17°♄13'49	
desc. node	1907 Jun 29 07:37	1°♄47'46		asc. node	1908 May 07 20:08	16°♄55'41	
retrograde	1907 Jul 11 11:17	7°♄14'59			1908 May 13 20:52	0°♄	
evening set	1907 Jul 17 06:56	5°♄55'44		evening rise	1908 May 14 18:21	1°♄54'23	
min. Earth dist.	1907 Jul 21 22:55	3°♄15'08	0.58085 AU		1908 May 30 04:34	0°♄	
inferior conj	1907 Jul 25 03:07	1°♄01'36	-4°-57'-45	evening max el	1908 Jun 08 01:09	10°♄46'11	23°58'48
minimum elong	1907 Jul 25 03:12	1°♄01'26	4°57'46	desc. node	1908 Jun 15 04:39	16°♄01'58	
	1907 Jul 26 14:36	30°♄		retrograde	1908 Jun 21 19:46	17°♄41'34	
morning rise	1907 Aug 02 03:08	26°♄43'42		evening set	1908 Jun 26 05:41	16°♄58'35	
direct	1907 Aug 04 15:18	26°♄24'14		min. Earth dist.	1908 Jul 02 11:52	13°♄57'17	0.56327 AU
	1907 Aug 12 16:20	0°♄		inferior conj	1908 Jul 04 22:02	12°♄28'00	-4°-36'-54
morning max el	1907 Aug 13 03:15	0°♄25'07	18°50'37	minimum elong	1908 Jul 04 16:46	12°♄36'08	4°36'11
asc. node	1907 Aug 17 22:21	6°♄06'19		morning rise	1908 Jul 13 07:20	8°♄29'01	
morning set	1907 Aug 29 14:32	26°♄14'49		direct	1908 Jul 16 00:22	8°♄10'00	
	1907 Aug 31 06:54	0°♄		morning max el	1908 Jul 25 21:55	12°♄45'30	19°50'51
				asc. node	1908 Aug 03 19:22	24°♄25'14	
superior conj	1907 Sep 07 04:16	13°♄23'25	1°40'44		1908 Aug 06 23:46	0°♄	
minimum elong	1907 Sep 07 06:20	13°♄33'18	1°40'37	morning set	1908 Aug 12 17:36	11°♄10'50	
max. Earth dist.	1907 Sep 14 03:32	26°♄13'49	1.39162 AU				
	1907 Sep 16 06:56	0°♄		superior conj	1908 Aug 20 14:55	27°♄08'48	1°45'46
evening rise	1907 Sep 18 03:17	3°♄11'14		minimum elong	1908 Aug 20 15:08	27°♄09'56	1°45'46
desc. node	1907 Sep 25 06:56	14°♄58'35			1908 Aug 22 01:31	0°♄	
	1907 Oct 05 04:36	0°♄		max. Earth dist.	1908 Aug 26 08:09	8°♄14'06	1.37157 AU
evening max el	1907 Oct 23 10:52	23°♄02'57	24°19'53	evening rise	1908 Aug 30 04:43	15°♄20'15	
retrograde	1907 Nov 03 16:40	29°♄37'49			1908 Sep 07 18:14	0°♄	
evening set	1907 Nov 09 00:57	27°♄24'41		desc. node	1908 Sep 11 03:58	5°♄25'51	
asc. node	1907 Nov 13 21:35	21°♄49'03			1908 Sep 28 19:36	0°♄	
min. Earth dist.	1907 Nov 13 18:50	21°♄58'17	0.67585 AU	evening max el	1908 Oct 04 22:56	6°♄42'58	25°33'48
inferior conj	1907 Nov 14 12:25	20°♄59'10	0°12'46	retrograde	1908 Oct 17 03:10	13°♄42'01	
minimum elong	1907 Nov 14 12:07	21°♄00'12	0°12'39	evening set	1908 Oct 23 01:59	11°♄13'30	
transit middle	1907 Nov 14 12:07	21°♄00'12	0°12'39	min. Earth dist.	1908 Oct 27 11:52	6°♄22'37	0.67015 AU
transit begin	1907 Nov 14 10:24	21°♄05'59		inferior conj	1908 Oct 28 16:21	4°♄51'20	0°-43'-14
transit end	1907 Nov 14 13:50	20°♄54'26		minimum elong	1908 Oct 28 17:27	4°♄47'45	0°42'46
morning rise	1907 Nov 19 23:35	14°♄53'03		asc. node	1908 Oct 30 18:37	2°♄15'24	
direct	1907 Nov 23 17:56	13°♄32'00			1908 Nov 01 22:44	30°♄	
morning max el	1907 Dec 01 13:55	18°♄01'57	20°19'43	morning rise	1908 Nov 03 09:41	28°♄53'30	
greatest brilliancy	1907 Dec 08 02:31	25°♄49'38	-0.5m	direct	1908 Nov 06 16:32	27°♄51'14	
	1907 Dec 11 03:37	0°♄			1908 Nov 11 17:53	0°♄	
desc. node	1907 Dec 22 06:13	16°♄19'49		morning max el	1908 Nov 13 18:53	1°♄50'38	19°18'16
morning set	1907 Dec 29 08:17	27°♄10'35		greatest brilliancy	1908 Nov 23 12:41	14°♄27'54	-0.7m
	1907 Dec 31 03:57	0°♄			1908 Dec 03 17:54	0°♄	
max. Earth dist.	1908 Jan 08 11:06	13°♄06'48	1.43559 AU	morning set	1908 Dec 07 09:17	5°♄38'46	
				desc. node	1908 Dec 08 03:15	6°♄48'32	
superior conj	1908 Jan 14 11:44	22°♄55'42	-1°-59'-2	max. Earth dist.	1908 Dec 21 01:56	27°♄03'35	1.44704 AU
minimum elong	1908 Jan 14 07:16	22°♄37'14	1°58'51		1908 Dec 22 22:31	0°♄	
	1908 Jan 18 17:22	0°♄					
evening rise	1908 Jan 27 03:12	14°♄27'29		superior conj	1908 Dec 24 04:53	2°♄00'36	-1°-34'-46
	1908 Feb 05 04:24	0°♄		minimum elong	1908 Dec 23 20:15	1°♄26'16	1°33'59
asc. node	1908 Feb 09 20:52	7°♄08'53		evening rise	1909 Jan 07 17:03	25°♄34'43	
evening max el	1908 Feb 13 14:56	11°♄39'35	18°09'19		1909 Jan 10 09:00	0°♄	
retrograde	1908 Feb 20 02:21	15°♄03'42		asc. node	1909 Jan 26 17:55	24°♄37'14	
evening set	1908 Feb 22 21:00	14°♄25'01		evening max el	1909 Jan 27 03:18	25°♄01'32	18°27'04
inferior conj	1908 Feb 29 04:32	9°♄12'19	3°42'34	retrograde	1909 Feb 02 15:51	28°♄35'46	
minimum elong	1908 Feb 29 05:06	9°♄10'48	3°42'33	evening set	1909 Feb 05 15:43	27°♄46'15	
min. Earth dist.	1908 Mar 03 00:00	6°♄16'28	0.62504 AU	inferior conj	1909 Feb 11 14:07	22°♄14'09	3°40'29
morning rise	1908 Mar 06 11:00	3°♄12'15		minimum elong	1909 Feb 11 13:00	22°♄17'22	3°40'24
direct	1908 Mar 13 09:32	0°♄37'07		min. Earth dist.	1909 Feb 13 18:18	19°♄42'36	0.64334 AU

morning rise	1909 Feb 17 08:52	16° \approx 05'58		direct	1910 Feb 07 06:52	26° \approx 31'23	
direct	1909 Feb 24 04:54	13° \approx 17'02			1910 Feb 15 13:10	0° \approx	
desc. node	1909 Mar 06 02:28	17° \approx 46'59		morning max el	1910 Feb 20 04:41	4° \approx 08'13	26°32'38
morning max el	1909 Mar 09 18:45	21° \approx 08'30	27°26'07	desc. node	1910 Feb 20 23:30	4° \approx 56'23	
	1909 Mar 17 11:31	0° \approx			1910 Mar 11 21:34	0° \approx	
	1909 Apr 06 01:27	0° \approx		morning set	1910 Mar 28 04:19	27° \approx 53'53	
morning set	1909 Apr 13 22:10	14° \approx 40'07			1910 Mar 29 06:52	0° \approx	
max. Earth dist.	1909 Apr 18 19:50	24° \approx 34'18	1.33470 AU	max. Earth dist.	1910 Apr 01 09:38	6° \approx 03'42	1.34747 AU
	1909 Apr 21 10:00	0° \approx					
				superior conj	1910 Apr 05 22:52	15° \approx 15'58	0°-56'-16
superior conj	1909 Apr 21 23:39	1° \approx 12'25	0°-28'-23	minimum elong	1910 Apr 06 01:42	15° \approx 30'34	0°55'45
minimum elong	1909 Apr 22 01:05	1° \approx 19'57	0°28'06	asc. node	1910 Apr 11 14:16	27° \approx 01'49	
asc. node	1909 Apr 24 17:12	7° \approx 02'19			1910 Apr 13 00:28	0° \approx	
evening rise	1909 Apr 29 05:43	16° \approx 40'21		evening rise	1910 Apr 13 14:41	1° \approx 13'44	
	1909 May 05 21:46	0° \approx			1910 Apr 30 15:53	0° \approx	
evening max el	1909 May 20 16:29	21° \approx 15'52	22°22'44	evening max el	1910 May 02 16:08	2° \approx 06'40	20°54'54
desc. node	1909 Jun 02 01:42	27° \approx 40'40		retrograde	1910 May 14 05:30	7° \approx 44'19	
retrograde	1909 Jun 02 16:03	27° \approx 41'29		evening set	1910 May 16 09:52	7° \approx 33'02	
evening set	1909 Jun 05 16:21	27° \approx 21'27		desc. node	1910 May 19 22:42	6° \approx 31'24	
min. Earth dist.	1909 Jun 13 23:18	23° \approx 46'22	0.55190 AU	inferior conj	1910 May 25 17:07	3° \approx 35'11	-1°-40'-10
inferior conj	1909 Jun 14 23:20	23° \approx 12'25	-3°-28'-37	minimum elong	1910 May 25 12:24	3° \approx 41'53	1°38'29
minimum elong	1909 Jun 14 15:27	23° \approx 23'35	3°26'28	min. Earth dist.	1910 May 26 11:46	3° \approx 08'41	0.54933 AU
morning rise	1909 Jun 23 16:46	19° \approx 20'51			1910 Jun 01 23:39	30° \approx	
direct	1909 Jun 26 16:25	19° \approx 00'40		morning rise	1910 Jun 03 14:18	29° \approx 31'25	
morning max el	1909 Jul 08 05:14	24° \approx 22'46	21°11'33	direct	1910 Jun 07 01:50	29° \approx 05'18	
	1909 Jul 13 06:04	0° \approx			1910 Jun 12 00:14	0° \approx	
asc. node	1909 Jul 21 16:25	13° \approx 21'14		morning max el	1910 Jun 20 02:24	5° \approx 19'38	22°47'56
morning set	1909 Jul 28 01:31	25° \approx 54'55			1910 Jul 07 03:28	0° \approx	
	1909 Jul 30 00:39	0° \approx		asc. node	1910 Jul 08 13:29	2° \approx 45'09	
				morning set	1910 Jul 12 12:18	10° \approx 48'29	
superior conj	1909 Aug 04 11:59	11° \approx 25'55	1°42'59				
minimum elong	1909 Aug 04 10:47	11° \approx 19'43	1°42'56	superior conj	1910 Jul 19 16:13	26° \approx 04'58	1°33'54
max. Earth dist.	1909 Aug 08 18:19	20° \approx 05'29	1.35392 AU	minimum elong	1910 Jul 19 14:08	25° \approx 53'55	1°33'43
evening rise	1909 Aug 13 01:03	28° \approx 23'44			1910 Jul 21 12:38	0° \approx	
	1909 Aug 13 21:32	0° \approx		max. Earth dist.	1910 Jul 22 13:22	2° \approx 09'26	1.33992 AU
desc. node	1909 Aug 29 01:01	25° \approx 36'07		evening rise	1910 Jul 27 11:44	12° \approx 09'49	
	1909 Sep 01 00:05	0° \approx			1910 Aug 06 04:37	0° \approx	
evening max el	1909 Sep 17 11:01	20° \approx 20'40	26°34'14	desc. node	1910 Aug 15 22:02	15° \approx 21'56	
retrograde	1909 Sep 30 08:34	27° \approx 34'07			1910 Aug 27 06:42	0° \approx	
evening set	1909 Oct 06 21:05	24° \approx 54'29		evening max el	1910 Aug 30 23:01	3° \approx 48'03	27°13'46
min. Earth dist.	1909 Oct 10 23:29	20° \approx 40'30	0.66101 AU	retrograde	1910 Sep 13 08:36	11° \approx 06'51	
inferior conj	1909 Oct 12 15:39	18° \approx 39'59	-1°-41'-19	evening set	1910 Sep 20 07:51	8° \approx 23'48	
minimum elong	1909 Oct 12 18:21	18° \approx 31'53	1°40'15	min. Earth dist.	1910 Sep 24 03:29	4° \approx 46'15	0.64832 AU
asc. node	1909 Oct 17 15:40	13° \approx 33'04		inferior conj	1910 Sep 26 08:09	2° \approx 21'13	-2°-39'-25
morning rise	1909 Oct 18 16:53	12° \approx 53'21		minimum elong	1910 Sep 26 12:21	2° \approx 09'37	2°37'56
direct	1909 Oct 21 14:21	12° \approx 06'16			1910 Sep 28 13:20	30° \approx	
morning max el	1909 Oct 28 06:12	15° \approx 45'38	18°32'28	morning rise	1910 Oct 02 18:44	26° \approx 48'51	
	1909 Nov 07 18:06	0° \approx		asc. node	1910 Oct 04 12:42	26° \approx 16'58	
morning set	1909 Nov 17 10:00	15° \approx 21'24		direct	1910 Oct 05 09:16	26° \approx 13'04	
desc. node	1909 Nov 25 00:17	27° \approx 26'58		morning max el	1910 Oct 11 21:23	29° \approx 41'39	18°03'20
	1909 Nov 26 14:59	0° \approx			1910 Oct 12 04:36	0° \approx	
				morning set	1910 Oct 29 15:48	26° \approx 30'03	
superior conj	1909 Dec 03 06:49	10° \approx 29'00	0°-53'-25		1910 Oct 31 18:09	0° \approx	
minimum elong	1909 Dec 03 00:04	10° \approx 02'31	0°52'36	desc. node	1910 Nov 11 21:20	18° \approx 11'41	
max. Earth dist.	1909 Dec 03 20:24	11° \approx 22'22	1.45142 AU				
	1909 Dec 15 16:33	0° \approx		superior conj	1910 Nov 12 14:33	19° \approx 20'35	0°-4'-50
evening rise	1909 Dec 19 07:32	5° \approx 44'23		minimum elong	1910 Nov 12 13:57	19° \approx 18'10	0°04'45
	1910 Jan 03 21:27	0° \approx		behind sun begin	1910 Nov 12 03:43	18° \approx 37'15	
evening max el	1910 Jan 10 13:15	8° \approx 28'25	19°02'33	behind sun end	1910 Nov 13 00:11	19° \approx 59'02	
asc. node	1910 Jan 13 14:59	11° \approx 05'16		max. Earth dist.	1910 Nov 16 15:08	25° \approx 44'02	1.44840 AU
retrograde	1910 Jan 17 10:53	12° \approx 23'37			1910 Nov 19 08:12	0° \approx	
evening set	1910 Jan 20 16:57	11° \approx 22'12		evening rise	1910 Nov 29 01:13	15° \approx 05'59	
inferior conj	1910 Jan 26 09:03	5° \approx 33'08	3°23'18		1910 Dec 08 18:22	0° \approx	
minimum elong	1910 Jan 26 06:53	5° \approx 39'59	3°22'56	greatest brilliancy	1910 Dec 17 14:17	12° \approx 59'39	-0.6m
min. Earth dist.	1910 Jan 27 21:55	3° \approx 36'56	0.65792 AU	evening max el	1910 Dec 24 18:58	21° \approx 57'50	19°54'11
	1910 Jan 31 02:44	30° \approx		asc. node	1910 Dec 31 12:00	26° \approx 18'34	
morning rise	1910 Jan 31 19:52	29° \approx 20'15		retrograde	1911 Jan 01 08:26	26° \approx 22'36	

evening set	1911 Jan 04 22:15	25°☾07'52		inferior conj	1911 Dec 25 15:40	2°☾45'02	2°17'36
inferior conj	1911 Jan 10 10:23	19°☾04'40	2°54'50	minimum elong	1911 Dec 25 13:09	2°☾53'41	2°16'47
minimum elong	1911 Jan 10 07:46	19°☾13'23	2°54'10	min. Earth dist.	1911 Dec 26 02:00	2°☾09'29	0.67509 AU
min. Earth dist.	1911 Jan 11 09:15	17°☾48'29	0.66847 AU		1911 Dec 27 16:35	30°☾☿	
morning rise	1911 Jan 15 16:38	12°☾49'34		morning rise	1911 Dec 30 20:15	26°☿29'51	
direct	1911 Jan 21 14:44	10°☾12'07		direct	1912 Jan 05 03:33	24°☿11'23	
morning max el	1911 Feb 02 13:37	17°☾19'48	25°17'34		1912 Jan 15 07:15	0°☾	
desc. node	1911 Feb 07 20:33	23°☾13'22		morning max el	1912 Jan 15 21:59	0°☾36'37	23°51'10
	1911 Feb 13 04:03	0°☿		desc. node	1912 Jan 25 17:35	12°☾18'19	
	1911 Mar 04 21:14	0°☿			1912 Feb 07 02:24	0°☿	
morning set	1911 Mar 10 18:11	10°☿15'39		morning set	1912 Feb 20 09:44	21°☿28'53	
max. Earth dist.	1911 Mar 14 11:46	17°☿07'15	1.36470 AU	max. Earth dist.	1912 Feb 24 07:04	28°☿15'27	1.38527 AU
					1912 Feb 25 06:32	0°☿	
superior conj	1911 Mar 20 13:06	28°☿48'31	-1°-22'-45	superior conj	1912 Mar 02 14:44	11°☿40'43	-1°-45'-24
minimum elong	1911 Mar 20 17:04	29°☿08'09	1°22'11	minimum elong	1912 Mar 02 18:57	12°☿00'40	1°45'01
	1911 Mar 21 03:30	0°☿		evening rise	1912 Mar 11 16:28	29°☿16'14	
evening rise	1911 Mar 28 19:08	15°☿27'59			1912 Mar 12 01:26	0°☿	
asc. node	1911 Mar 29 11:20	16°☿49'33		asc. node	1912 Mar 15 08:22	6°☿20'34	
	1911 Apr 05 09:04	0°☿		evening max el	1912 Mar 28 01:47	25°☿43'27	18°51'22
evening max el	1911 Apr 15 03:32	13°☿35'30	19°43'24	retrograde	1912 Apr 05 08:26	29°☿44'48	
retrograde	1911 Apr 24 23:09	18°☿19'49		evening set	1912 Apr 07 13:27	29°☿28'44	
evening set	1911 Apr 26 23:50	18°☿08'35		inferior conj	1912 Apr 15 12:30	25°☿09'59	1°56'50
inferior conj	1911 May 05 17:50	14°☿06'19	0°18'43	minimum elong	1912 Apr 15 16:19	25°☿03'04	1°55'42
minimum elong	1911 May 05 18:39	14°☿05'02	0°18'25	min. Earth dist.	1912 Apr 18 18:14	22°☿50'35	0.57172 AU
desc. node	1911 May 06 19:45	13°☿25'46		desc. node	1912 Apr 22 16:46	20°☿28'31	
min. Earth dist.	1911 May 08 01:54	12°☿39'07	0.55646 AU	morning rise	1912 Apr 23 14:52	20°☿03'08	
morning rise	1911 May 14 10:01	9°☿33'19		direct	1912 Apr 29 00:53	18°☿52'19	
direct	1911 May 18 18:36	8°☿51'01		morning max el	1912 May 13 08:33	26°☿20'22	26°02'51
morning max el	1911 Jun 01 17:31	15°☿50'03	24°29'55		1912 May 16 19:54	0°☿	
	1911 Jun 13 01:26	0°☿			1912 Jun 05 05:10	0°☿	
asc. node	1911 Jun 25 10:33	22°☿28'45		morning set	1912 Jun 10 11:29	10°☿39'25	
morning set	1911 Jun 27 00:09	25°☿45'04		asc. node	1912 Jun 11 07:37	12°☿26'02	
	1911 Jun 28 23:59	0°☿					
superior conj	1911 Jul 04 00:55	10°☿56'32	1°19'41	superior conj	1912 Jun 17 12:02	25°☿53'40	1°01'12
minimum elong	1911 Jul 03 22:30	10°☿43'27	1°19'20	minimum elong	1912 Jun 17 09:48	25°☿41'21	1°00'48
max. Earth dist.	1911 Jul 05 17:06	14°☿34'01	1.32998 AU	max. Earth dist.	1912 Jun 18 02:58	27°☿15'36	1.32404 AU
evening rise	1911 Jul 11 08:43	26°☿26'00			1912 Jun 19 09:00	0°☿	
	1911 Jul 13 03:20	0°☿		evening rise	1912 Jun 24 12:51	11°☿02'24	
	1911 Jul 30 13:41	0°☿			1912 Jul 04 09:00	0°☿	
desc. node	1911 Aug 02 19:03	4°☿32'04		desc. node	1912 Jul 19 16:03	22°☿51'44	
evening max el	1911 Aug 13 09:24	16°☿52'41	27°25'49	evening max el	1912 Jul 25 15:41	29°☿21'31	27°05'35
retrograde	1911 Aug 27 02:25	24°☿10'20			1912 Jul 26 08:13	0°☿	
evening set	1911 Sep 03 07:04	21°☿34'58		retrograde	1912 Aug 08 12:58	6°☿35'32	
min. Earth dist.	1911 Sep 06 22:01	18°☿29'44	0.63216 AU	evening set	1912 Aug 15 14:37	4°☿20'55	
inferior conj	1911 Sep 09 15:08	15°☿48'21	-3°-34'-28	min. Earth dist.	1912 Aug 19 05:58	1°☿38'25	0.61312 AU
minimum elong	1911 Sep 09 20:21	15°☿35'23	3°32'58		1912 Aug 21 03:22	30°☿☿	
morning rise	1911 Sep 16 12:05	10°☿33'25		inferior conj	1912 Aug 22 09:26	28°☿53'30	-4°-21'-25
direct	1911 Sep 18 22:23	10°☿05'25		minimum elong	1912 Aug 22 14:26	28°☿42'30	4°20'27
asc. node	1911 Sep 21 09:44	10°☿35'03		morning rise	1912 Aug 29 17:12	23°☿59'21	
morning max el	1911 Sep 25 13:32	13°☿31'17	17°51'45	direct	1912 Sep 01 02:11	23°☿36'10	
	1911 Oct 06 20:49	0°☿		asc. node	1912 Sep 07 06:48	26°☿19'30	
morning set	1911 Oct 11 22:16	8°☿49'40		morning max el	1912 Sep 08 03:38	27°☿07'26	17°58'47
					1912 Sep 10 17:07	0°☿	
superior conj	1911 Oct 23 20:57	29°☿20'05	0°39'20	morning set	1912 Sep 23 23:08	22°☿02'00	
minimum elong	1911 Oct 24 00:42	29°☿35'40	0°38'49		1912 Sep 28 07:27	0°☿	
	1911 Oct 24 06:33	0°☿		superior conj	1912 Oct 04 06:28	10°☿39'17	1°12'31
desc. node	1911 Oct 29 18:22	8°☿58'56		minimum elong	1912 Oct 04 10:59	10°☿59'03	1°11'59
max. Earth dist.	1911 Oct 30 07:31	9°☿51'54	1.43843 AU	max. Earth dist.	1912 Oct 11 19:39	23°☿30'55	1.42279 AU
evening rise	1911 Nov 08 09:23	24°☿09'01		desc. node	1912 Oct 15 15:21	29°☿45'25	
	1911 Nov 12 04:56	0°☿			1912 Oct 15 18:58	0°☿	
greatest brilliancy	1911 Dec 02 09:47	29°☿09'10	-0.5m	evening rise	1912 Oct 18 01:10	3°☿36'29	
	1911 Dec 03 01:44	0°☿			1912 Nov 04 14:46	0°☿	
evening max el	1911 Dec 07 19:18	5°☿28'30	20°59'28	greatest brilliancy	1912 Nov 14 21:01	13°☿41'38	-0.3m
retrograde	1911 Dec 16 06:10	10°☿29'00		evening max el	1912 Nov 19 14:06	19°☿00'03	22°14'33
asc. node	1911 Dec 18 09:01	10°☿03'58		retrograde	1912 Nov 29 02:15	24°☿39'14	
evening set	1911 Dec 20 05:38	8°☿59'13					

evening set	1912 Dec 03 13:19	22° ♂ 52'49		retrograde	1913 Nov 12 19:28	8° ♂ 50'46	
asc. node	1912 Dec 04 06:03	22° ♂ 16'30		evening set	1913 Nov 17 19:45	6° ♂ 47'02	
inferior conj	1912 Dec 08 22:50	16° ♂ 31'05	1°33'21	asc. node	1913 Nov 21 03:04	3° ♂ 12'36	
minimum elong	1912 Dec 08 20:52	16° ♂ 37'53	1°32'36	inferior conj	1913 Nov 23 06:07	0° ♂ 21'34	0°43'32
min. Earth dist.	1912 Dec 08 21:50	16° ♂ 34'30	0.67805 AU	minimum elong	1913 Nov 23 05:07	0° ♂ 25'01	0°43'06
morning rise	1912 Dec 14 04:15	10° ♂ 17'50		min. Earth dist.	1913 Nov 22 18:28	1° ♂ 01'24	0.67761 AU
direct	1912 Dec 18 20:24	8° ♂ 21'58			1913 Nov 23 12:26	30° ♂	
morning max el	1912 Dec 28 08:48	13° ♂ 58'55	22°23'10	morning rise	1913 Nov 28 14:37	24° ♂ 12'19	
greatest brilliancy	1913 Jan 01 22:33	19° ♂ 05'52	-0.3m	direct	1913 Dec 02 16:26	22° ♂ 39'17	
	1913 Jan 10 05:20	0° ♂		morning max el	1913 Dec 11 01:40	27° ♂ 31'20	21°01'34
desc. node	1913 Jan 11 14:36	1° ♂ 56'57			1913 Dec 13 08:50	0° ♂	
	1913 Jan 30 01:44	0° ♂		greatest brilliancy	1913 Dec 16 13:26	3° ♂ 52'12	-0.5m
morning set	1913 Jan 30 21:08	1° ♂ 18'43		desc. node	1913 Dec 29 11:37	22° ♂ 00'14	
max. Earth dist.	1913 Feb 05 03:48	10° ♂ 03'59	1.40678 AU		1914 Jan 03 19:20	0° ♂	
				morning set	1914 Jan 10 05:05	9° ♂ 53'01	
superior conj	1913 Feb 12 23:00	23° ♂ 39'41	-2°00'-48	max. Earth dist.	1914 Jan 18 07:10	22° ♂ 47'46	1.42629 AU
minimum elong	1913 Feb 13 01:44	23° ♂ 51'54	2°00'43		1914 Jan 22 15:51	0° ♂	
	1913 Feb 16 10:43	0° ♂					
evening rise	1913 Feb 23 03:27	12° ♂ 29'40		superior conj	1914 Jan 25 08:40	4° ♂ 33'22	-2°-4'-21
asc. node	1913 Mar 02 05:23	25° ♂ 28'10		minimum elong	1914 Jan 25 07:22	4° ♂ 27'53	2°04'21
	1913 Mar 04 22:35	0° ♂		evening rise	1914 Feb 06 00:15	25° ♂ 00'09	
evening max el	1913 Mar 11 07:55	8° ♂ 22'23	18°19'28		1914 Feb 08 19:11	0° ♂	
retrograde	1913 Mar 18 12:57	11° ♂ 57'21		asc. node	1914 Feb 17 02:25	14° ♂ 04'57	
evening set	1913 Mar 20 23:31	11° ♂ 33'42		evening max el	1914 Feb 22 18:46	21° ♂ 23'53	18°07'26
inferior conj	1913 Mar 28 04:28	6° ♂ 53'52	3°01'31	retrograde	1914 Mar 01 09:48	24° ♂ 48'12	
minimum elong	1913 Mar 28 08:02	6° ♂ 46'19	3°00'48	evening set	1914 Mar 04 01:28	24° ♂ 15'26	
min. Earth dist.	1913 Mar 31 14:49	4° ♂ 01'06	0.59180 AU	inferior conj	1914 Mar 10 15:45	19° ♂ 14'24	3°34'53
morning rise	1913 Apr 04 12:45	1° ♂ 18'59		minimum elong	1914 Mar 10 17:29	19° ♂ 10'09	3°34'43
	1913 Apr 07 15:02	30° ♂		min. Earth dist.	1914 Mar 13 18:38	16° ♂ 12'45	0.61321 AU
desc. node	1913 Apr 09 13:48	29° ♂ 36'29		morning rise	1914 Mar 17 06:41	13° ♂ 20'54	
direct	1913 Apr 10 20:05	29° ♂ 32'14		direct	1914 Mar 24 02:24	11° ♂ 00'28	
	1913 Apr 14 02:48	0° ♂		desc. node	1914 Mar 27 10:50	11° ♂ 31'45	
morning max el	1913 Apr 25 04:33	7° ♂ 17'08	27°11'47	morning max el	1914 Apr 07 07:01	18° ♂ 54'41	27°46'21
	1913 May 12 06:15	0° ♂			1914 Apr 16 16:05	0° ♂	
morning set	1913 May 25 20:36	25° ♂ 25'40			1914 May 05 00:58	0° ♂	
	1913 May 28 00:30	0° ♂		morning set	1914 May 10 01:39	9° ♂ 57'26	
asc. node	1913 May 29 04:40	2° ♂ 31'33		max. Earth dist.	1914 May 16 02:16	22° ♂ 44'00	1.32358 AU
				asc. node	1914 May 16 01:42	22° ♂ 40'53	
superior conj	1913 Jun 01 23:49	10° ♂ 50'02	0°39'13				
minimum elong	1913 Jun 01 22:10	10° ♂ 41'01	0°38'53	superior conj	1914 May 17 10:33	25° ♂ 39'56	0°14'26
max. Earth dist.	1913 Jun 01 15:21	10° ♂ 03'25	1.32189 AU	minimum elong	1914 May 17 09:53	25° ♂ 36'20	0°14'17
evening rise	1913 Jun 08 21:35	25° ♂ 50'26		behind sun begin	1914 May 17 07:39	25° ♂ 24'10	
	1913 Jun 10 21:31	0° ♂		behind sun end	1914 May 17 12:06	25° ♂ 48'30	
	1913 Jun 28 05:37	0° ♂			1914 May 19 10:03	0° ♂	
desc. node	1913 Jul 06 13:04	10° ♂ 00'10		evening rise	1914 May 24 08:49	10° ♂ 42'50	
evening max el	1913 Jul 07 15:17	11° ♂ 04'26	26°12'30		1914 Jun 03 05:53	0° ♂	
retrograde	1913 Jul 21 15:03	18° ♂ 15'24		evening max el	1914 Jun 19 07:50	22° ♂ 01'59	24°52'20
evening set	1913 Jul 28 01:49	16° ♂ 33'33		desc. node	1914 Jun 23 10:06	25° ♂ 28'13	
min. Earth dist.	1913 Aug 01 04:00	13° ♂ 58'02	0.59250 AU	retrograde	1914 Jul 03 06:58	29° ♂ 07'05	
inferior conj	1913 Aug 04 11:27	11° ♂ 27'11	-4°-52'-6	evening set	1914 Jul 08 13:19	28° ♂ 03'58	
minimum elong	1913 Aug 04 14:05	11° ♂ 22'09	4°51'54	min. Earth dist.	1914 Jul 13 19:12	25° ♂ 16'26	0.57280 AU
morning rise	1913 Aug 12 05:46	6° ♂ 56'20		inferior conj	1914 Jul 16 18:01	23° ♂ 19'32	-4°-54'-15
direct	1913 Aug 14 16:14	6° ♂ 35'54		minimum elong	1914 Jul 16 15:51	23° ♂ 23'09	4°54'09
morning max el	1913 Aug 22 12:38	10° ♂ 22'13	18°25'46	morning rise	1914 Jul 24 22:09	19° ♂ 11'00	
asc. node	1913 Aug 25 03:51	13° ♂ 15'56		direct	1914 Jul 27 12:10	18° ♂ 51'56	
	1913 Sep 04 10:58	0° ♂		morning max el	1914 Aug 05 13:23	23° ♂ 05'37	19°13'43
morning set	1913 Sep 07 13:11	5° ♂ 52'42			1914 Aug 11 06:30	0° ♂	
				asc. node	1914 Aug 12 00:54	1° ♂ 08'43	
superior conj	1913 Sep 16 15:31	23° ♂ 08'37	1°33'35	morning set	1914 Aug 22 12:23	20° ♂ 10'02	
minimum elong	1913 Sep 16 18:42	23° ♂ 23'17	1°33'19		1914 Aug 27 10:46	0° ♂	
	1913 Sep 20 10:03	0° ♂					
max. Earth dist.	1913 Sep 24 02:37	6° ♂ 29'12	1.40341 AU	superior conj	1914 Aug 30 18:21	6° ♂ 30'49	1°43'55
evening rise	1913 Sep 28 13:34	14° ♂ 01'44		minimum elong	1914 Aug 30 19:36	6° ♂ 36'56	1°43'53
desc. node	1913 Oct 02 12:22	20° ♂ 28'05		max. Earth dist.	1914 Sep 06 06:11	18° ♂ 44'25	1.38285 AU
	1913 Oct 08 14:53	0° ♂		evening rise	1914 Sep 10 02:07	25° ♂ 34'23	
	1913 Oct 30 18:07	0° ♂			1914 Sep 12 15:46	0° ♂	
evening max el	1913 Nov 02 04:35	2° ♂ 34'18	23°34'16	desc. node	1914 Sep 19 09:25	11° ♂ 02'24	

	1914 Oct 02 05:54	0°♄		minimum elong	1915 Aug 14 09:30	20°♄29'17	1°45'26
evening max el	1914 Oct 15 16:45	16°♄11'49	24°52'24		1915 Aug 19 04:38	0°♄	
retrograde	1914 Oct 27 08:47	22°♄58'58		max. Earth dist.	1915 Aug 19 12:09	0°♄36'16	1.36368 AU
evening set	1914 Nov 01 23:15	20°♄38'43		evening rise	1915 Aug 23 12:14	8°♄08'44	
min. Earth dist.	1914 Nov 06 13:33	15°♄27'15	0.67382 AU		1915 Sep 05 09:02	0°♄	
inferior conj	1914 Nov 07 11:47	14°♄13'49	0°-10'-36	desc. node	1915 Sep 06 06:27	1°♄23'16	
minimum elong	1914 Nov 07 12:03	14°♄12'57	0°10'31	evening max el	1915 Sep 28 04:45	29°♄51'42	26°01'35
transit middle	1914 Nov 07 12:03	14°♄12'57	0°10'31		1915 Sep 28 08:11	0°♄	
transit begin	1914 Nov 07 09:57	14°♄19'54		retrograde	1915 Oct 10 17:22	6°♄58'37	
transit end	1914 Nov 07 14:09	14°♄06'00		evening set	1915 Oct 16 22:02	4°♄24'50	
asc. node	1914 Nov 08 00:06	13°♄33'15		min. Earth dist.	1915 Oct 21 04:42	29°♄49'16	0.66668 AU
morning rise	1914 Nov 13 01:22	8°♄10'57			1915 Oct 21 01:14	30°♄	
direct	1914 Nov 16 14:27	6°♄58'31		inferior conj	1915 Oct 22 14:00	28°♄05'07	-1°-7'-43
morning max el	1914 Nov 24 02:16	11°♄14'29	19°51'44	minimum elong	1915 Oct 22 15:47	27°♄59'33	1°07'00
greatest brilliancy	1914 Dec 01 15:14	20°♄30'43	-0.6m	asc. node	1915 Oct 25 21:10	24°♄15'26	
	1914 Dec 08 04:53	0°♄		morning rise	1915 Oct 28 10:30	22°♄11'27	
desc. node	1914 Dec 16 08:40	12°♄20'57		direct	1915 Oct 31 13:00	21°♄16'09	
morning set	1914 Dec 20 01:03	18°♄00'57		morning max el	1915 Nov 07 10:08	25°♄06'10	18°56'41
	1914 Dec 27 17:40	0°♄			1915 Nov 11 14:08	0°♄	
max. Earth dist.	1914 Dec 31 17:37	6°♄19'29	1.44122 AU	morning set	1915 Nov 29 10:21	26°♄55'51	
					1915 Dec 01 09:18	0°♄	
superior conj	1915 Jan 05 16:02	14°♄15'04	-1°-51'-7	desc. node	1915 Dec 03 05:42	2°♄54'09	
minimum elong	1915 Jan 05 09:20	13°♄47'54	1°50'41	max. Earth dist.	1915 Dec 14 09:51	20°♄25'49	1.44981 AU
	1915 Jan 15 04:28	0°♄					
evening rise	1915 Jan 19 02:31	6°♄39'06		superior conj	1915 Dec 16 00:38	22°♄58'32	-1°-18'-53
	1915 Feb 02 10:33	0°♄		minimum elong	1915 Dec 15 15:57	22°♄24'18	1°17'58
asc. node	1915 Feb 03 23:26	2°♄01'30			1915 Dec 20 11:14	0°♄	
evening max el	1915 Feb 06 07:20	4°♄40'03	18°14'39	evening rise	1915 Dec 31 06:26	17°♄20'55	
retrograde	1915 Feb 12 18:23	8°♄07'21			1916 Jan 08 01:22	0°♄	
evening set	1915 Feb 15 15:04	7°♄24'21		evening max el	1916 Jan 20 18:58	18°♄04'39	18°40'10
inferior conj	1915 Feb 21 18:20	2°♄03'19	3°43'50	asc. node	1916 Jan 21 20:28	19°♄05'51	
minimum elong	1915 Feb 21 18:08	2°♄03'53	3°43'49	retrograde	1916 Jan 27 10:28	21°♄46'25	
	1915 Feb 23 15:04	30°♄		evening set	1916 Jan 30 12:50	20°♄52'03	
min. Earth dist.	1915 Feb 24 07:35	29°♄15'36	0.63317 AU	inferior conj	1916 Feb 05 08:16	15°♄12'44	3°34'45
morning rise	1915 Feb 27 19:18	25°♄59'02		minimum elong	1916 Feb 05 06:37	15°♄17'41	3°34'34
direct	1915 Mar 06 17:41	23°♄15'58		min. Earth dist.	1916 Feb 07 05:57	12°♄55'02	0.65004 AU
desc. node	1915 Mar 14 07:52	25°♄56'32		morning rise	1916 Feb 10 23:12	9°♄02'20	
	1915 Mar 19 08:46	0°♄		direct	1916 Feb 17 16:11	6°♄11'29	
morning max el	1915 Mar 20 14:21	1°♄11'47	27°43'34	desc. node	1916 Feb 29 04:55	12°♄15'05	
	1915 Apr 10 19:22	0°♄		morning max el	1916 Mar 01 23:49	13°♄58'27	27°06'35
morning set	1915 Apr 24 00:20	24°♄07'14			1916 Mar 15 00:08	0°♄	
	1915 Apr 26 21:40	0°♄			1916 Apr 02 11:00	0°♄	
max. Earth dist.	1915 Apr 29 07:43	5°♄03'52	1.32931 AU	morning set	1916 Apr 06 13:32	7°♄44'13	
				max. Earth dist.	1916 Apr 11 03:49	16°♄51'29	1.33951 AU
superior conj	1915 May 01 18:29	10°♄17'39	0°-12'-23				
minimum elong	1915 May 01 19:05	10°♄20'54	0°12'16	superior conj	1916 Apr 14 21:32	24°♄35'31	0°-40'-15
behind sun begin	1915 May 01 15:42	10°♄02'39		minimum elong	1916 Apr 14 23:33	24°♄46'09	0°39'51
behind sun end	1915 May 01 22:29	10°♄39'10			1916 Apr 17 10:59	0°♄	
asc. node	1915 May 02 22:45	12°♄50'05		asc. node	1916 Apr 18 19:48	2°♄54'07	
evening rise	1915 May 08 20:40	25°♄33'21		evening rise	1916 Apr 22 07:13	10°♄14'28	
	1915 May 10 23:47	0°♄			1916 May 02 16:13	0°♄	
	1915 May 29 10:34	0°♄		evening max el	1916 May 12 15:58	13°♄10'14	21°43'52
evening max el	1915 May 31 21:40	2°♄34'11	23°17'48	retrograde	1916 May 25 02:33	19°♄16'31	
desc. node	1915 Jun 10 07:08	8°♄40'51		desc. node	1916 May 27 04:10	19°♄06'52	
retrograde	1915 Jun 14 10:38	9°♄19'58		evening set	1916 May 27 16:10	19°♄01'43	
evening set	1915 Jun 18 05:01	8°♄48'53		inferior conj	1916 Jun 06 01:20	14°♄59'46	-2°-46'-13
min. Earth dist.	1915 Jun 25 07:32	5°♄34'32	0.55744 AU	minimum elong	1916 Jun 05 18:08	15°♄09'50	2°43'57
inferior conj	1915 Jun 27 04:51	4°♄27'48	-4°-13'-59	min. Earth dist.	1916 Jun 05 19:22	15°♄08'06	0.54964 AU
minimum elong	1915 Jun 26 21:50	4°♄38'10	4°12'36	morning rise	1916 Jun 14 21:06	11°♄05'14	
morning rise	1915 Jul 05 17:50	0°♄33'45		direct	1916 Jun 18 01:02	10°♄43'14	
direct	1915 Jul 08 13:03	0°♄14'43		morning max el	1916 Jun 30 06:01	16°♄27'58	21°50'57
morning max el	1915 Jul 19 03:28	5°♄09'16	20°22'47		1916 Jul 10 18:17	0°♄	
asc. node	1915 Jul 29 21:58	19°♄45'11		asc. node	1916 Jul 15 19:02	8°♄54'04	
	1915 Aug 04 09:00	0°♄		morning set	1916 Jul 21 03:09	19°♄35'02	
morning set	1915 Aug 06 17:48	4°♄46'26			1916 Jul 26 01:42	0°♄	
superior conj	1915 Aug 14 09:57	20°♄31'32	1°45'26	superior conj	1916 Jul 28 10:23	4°♄58'44	1°39'50

minimum elong	1916 Jul 28 08:45	4°Ω50'08	1°39'43	minimum elong	1917 Jul 12 14:28	19°Ω31'08	1°28'10
max. Earth dist.	1916 Aug 01 02:01	12°Ω31'25	1.34755 AU	max. Earth dist.	1917 Jul 15 01:11	24°Ω44'43	1.33524 AU
evening rise	1916 Aug 05 15:13	21°Ω31'54			1917 Jul 17 13:26	0°Ω	
	1916 Aug 10 04:04	0°Π		evening rise	1917 Jul 20 06:40	5°Ω31'35	
desc. node	1916 Aug 23 03:29	21°Π24'06			1917 Aug 02 19:31	0°Π	
	1916 Aug 29 04:52	0°Ω		desc. node	1917 Aug 10 00:30	10°Π56'03	
evening max el	1916 Sep 09 17:10	13°Ω27'09	26°54'05	evening max el	1917 Aug 23 04:48	26°Π46'27	27°22'35
retrograde	1916 Sep 22 20:27	20°Ω43'12			1917 Aug 26 22:50	0°Ω	
evening set	1916 Sep 29 13:55	18°Ω01'21		retrograde	1917 Sep 05 17:37	4°Ω04'29	
min. Earth dist.	1916 Oct 03 13:27	14°Ω02'48	0.65606 AU	evening set	1917 Sep 12 20:10	1°Ω23'14	
inferior conj	1916 Oct 05 10:44	11°Ω51'29	-2°-6'-8		1917 Sep 14 12:12	30°RΠ	
minimum elong	1916 Oct 05 14:06	11°Ω41'43	2°04'50	min. Earth dist.	1917 Sep 16 13:29	28°Π00'21	0.64190 AU
morning rise	1916 Oct 11 15:45	6°Ω10'13		inferior conj	1917 Sep 18 23:31	25°Π27'19	-3°-3'-25
asc. node	1916 Oct 11 18:13	6°Ω07'10		minimum elong	1917 Sep 19 04:16	25°Π14'49	3°01'51
direct	1916 Oct 14 10:01	5°Ω28'16		morning rise	1917 Sep 25 14:25	20°Π01'58	
morning max el	1916 Oct 20 23:21	9°Ω01'59	18°17'55	direct	1917 Sep 28 02:56	19°Π29'47	
	1916 Nov 04 12:25	0°Π		asc. node	1917 Sep 28 15:17	19°Π31'09	
morning set	1916 Nov 08 23:40	7°Π16'29		morning max el	1917 Oct 04 15:17	22°Π55'49	17°56'12
desc. node	1916 Nov 19 02:45	23°Π35'46			1917 Oct 10 04:48	0°Ω	
	1916 Nov 23 03:39	0°♂		morning set	1917 Oct 21 16:44	18°Ω57'41	
					1917 Oct 28 05:23	0°Π	
superior conj	1916 Nov 24 02:19	1°♂29'25	0°-32'-56	superior conj	1917 Nov 03 18:17	10°Π45'50	0°15'02
minimum elong	1916 Nov 23 22:03	1°♂12'36	0°32'22	minimum elong	1917 Nov 03 19:59	10°Π52'44	0°14'48
max. Earth dist.	1916 Nov 26 05:07	4°♂49'22	1.45108 AU	behind sun begin	1917 Nov 03 15:50	10°Π35'56	
evening rise	1916 Dec 10 11:18	27°♂08'19		behind sun end	1917 Nov 04 00:07	11°Π09'31	
	1916 Dec 12 07:13	0°♂		desc. node	1917 Nov 05 23:46	14°Π21'45	
greatest brilliancy	1916 Dec 25 05:43	19°♂56'02	-0.7m	max. Earth dist.	1917 Nov 08 23:44	19°Π09'11	1.44498 AU
	1917 Jan 01 17:07	0°≈			1917 Nov 15 21:29	0°♂	
evening max el	1917 Jan 03 03:25	1°≈33'36	19°22'43	evening rise	1917 Nov 19 23:04	6°♂17'22	
asc. node	1917 Jan 07 17:30	5°≈04'23			1917 Dec 05 16:56	0°♂	
retrograde	1917 Jan 10 06:49	5°≈39'59		greatest brilliancy	1917 Dec 10 23:37	7°♂25'02	-0.5m
evening set	1917 Jan 13 16:05	4°≈32'56		evening max el	1917 Dec 17 06:53	15°♂03'15	20°20'27
	1917 Jan 18 04:29	30°R♂		retrograde	1917 Dec 25 04:44	19°♂42'33	
inferior conj	1917 Jan 19 06:14	28°♂37'33	3°12'24	asc. node	1917 Dec 25 14:32	19°♂41'36	
minimum elong	1917 Jan 19 03:48	28°♂45'26	3°11'54	evening set	1917 Dec 28 22:30	18°♂21'23	
min. Earth dist.	1917 Jan 20 12:55	26°♂58'18	0.66296 AU	inferior conj	1918 Jan 03 09:30	12°♂12'53	2°39'57
morning rise	1917 Jan 24 14:46	22°♂23'47		minimum elong	1918 Jan 03 06:52	12°♂21'49	2°39'12
direct	1917 Jan 30 20:43	19°♂38'39		min. Earth dist.	1918 Jan 04 02:45	11°♂14'27	0.67177 AU
morning max el	1917 Feb 12 09:16	27°♂04'00	26°02'45	morning rise	1918 Jan 08 14:44	5°♂57'38	
desc. node	1917 Feb 15 01:56	29°♂56'04		direct	1918 Jan 14 06:34	3°♂27'55	
	1917 Feb 15 03:21	0°≈		morning max el	1918 Jan 25 17:52	10°♂18'25	24°41'37
	1917 Mar 08 15:34	0°♂		desc. node	1918 Feb 01 22:58	18°♂35'06	
morning set	1917 Mar 20 13:20	20°♂37'11			1918 Feb 10 09:24	0°≈	
max. Earth dist.	1917 Mar 24 12:29	28°♂07'40	1.35435 AU		1918 Mar 01 07:52	0°♂	
	1917 Mar 25 11:35	0°♀		morning set	1918 Mar 02 18:26	2°♂31'17	
superior conj	1917 Mar 29 17:17	8°♀26'48	-1°-7'-47	max. Earth dist.	1918 Mar 06 11:14	9°♂10'09	1.37321 AU
minimum elong	1917 Mar 29 20:39	8°♀43'56	1°07'14	superior conj	1918 Mar 13 02:36	21°♂42'50	-1°-33'-1
asc. node	1917 Apr 05 16:50	22°♀49'02		minimum elong	1918 Mar 13 06:49	22°♂03'23	1°32'30
evening rise	1917 Apr 06 14:31	24°♀40'26			1918 Mar 17 07:24	0°♀	
	1917 Apr 09 05:43	0°♂		evening rise	1918 Mar 21 16:16	8°♀44'20	
evening max el	1917 Apr 24 20:26	24°♂15'32	20°22'08	asc. node	1918 Mar 23 13:52	12°♀30'08	
retrograde	1917 May 05 15:47	29°♂29'47			1918 Apr 02 13:15	0°♂	
evening set	1917 May 07 17:17	29°♂19'09		evening max el	1918 Apr 07 12:34	6°♂00'32	19°18'42
desc. node	1917 May 14 01:10	26°♂56'03		retrograde	1918 Apr 16 15:28	10°♂25'16	
inferior conj	1917 May 16 20:08	25°♂21'10	0°-48'-48	evening set	1918 Apr 18 17:26	10°♂12'28	
minimum elong	1917 May 16 17:50	25°♂24'31	0°47'59	inferior conj	1918 Apr 27 03:31	6°♂03'45	1°04'08
min. Earth dist.	1917 May 18 08:04	24°♂28'41	0.55129 AU	minimum elong	1918 Apr 27 06:04	5°♂59'32	1°03'17
morning rise	1917 May 25 16:28	21°♂06'56		min. Earth dist.	1918 Apr 29 22:49	4°♂12'49	0.56210 AU
direct	1917 May 29 12:11	20°♂35'22		desc. node	1918 Apr 30 22:10	3°♂36'16	
morning max el	1917 Jun 11 23:40	27°♂09'29	23°31'27	morning rise	1918 May 05 14:42	1°♂16'05	
	1917 Jun 14 18:14	0°Π		direct	1918 May 10 09:46	0°♂23'22	
asc. node	1917 Jul 02 16:05	28°Π26'53		morning max el	1918 May 24 14:08	7°♂36'28	25°11'43
	1917 Jul 03 10:27	0°Ω			1918 Jun 10 01:22	0°Π	
morning set	1917 Jul 05 14:35	4°Ω30'16		asc. node	1918 Jun 19 13:08	18°Π16'59	
superior conj	1917 Jul 12 16:44	19°Ω43'24	1°28'27	morning set	1918 Jun 20 02:25	19°Π26'49	

	1918 Jun 24 23:50	0°☿		morning set	1919 Jun 04 13:00	4°♊18'18	
				asc. node	1919 Jun 06 10:10	8°♊18'09	
superior conj	1918 Jun 27 02:43	4°☿38'14	1°12'19				
minimum elong	1918 Jun 27 00:19	4°☿25'09	1°11'56	superior conj	1919 Jun 11 14:20	19°♊35'46	0°52'16
max. Earth dist.	1918 Jun 28 07:59	7°☿17'46	1.32691 AU	minimum elong	1919 Jun 11 12:17	19°♊24'34	0°51'53
evening rise	1918 Jul 04 07:01	19°☿57'19		max. Earth dist.	1919 Jun 11 19:10	20°♊02'25	1.32256 AU
	1918 Jul 09 08:39	0°♊			1919 Jun 16 08:44	0°☿	
desc. node	1918 Jul 27 21:30	29°♊47'11		evening rise	1919 Jun 18 13:22	4°☿39'18	
	1918 Jul 28 01:27	0°♊			1919 Jul 02 02:02	0°♊	
evening max el	1918 Aug 05 13:35	9°♊37'02	27°21'16	desc. node	1919 Jul 14 18:32	17°♊39'34	
retrograde	1918 Aug 19 08:32	16°♊53'37		evening max el	1919 Jul 18 17:04	21°♊46'22	26°46'55
evening set	1918 Aug 26 13:19	14°♊25'00		retrograde	1919 Aug 01 16:02	29°♊00'02	
min. Earth dist.	1918 Aug 30 03:22	11°♊31'25	0.62436 AU	evening set	1919 Aug 08 12:49	26°♊57'58	
inferior conj	1918 Sep 02 01:32	8°♊46'22	-3°-55'-47	min. Earth dist.	1919 Aug 12 07:00	24°♊20'37	0.60434 AU
minimum elong	1918 Sep 02 06:52	8°♊33'47	3°54'26	inferior conj	1919 Aug 15 13:19	21°♊39'00	-4°-37'-4
morning rise	1918 Sep 09 03:07	3°♊40'15		minimum elong	1919 Aug 15 17:38	21°♊30'03	4°36'27
direct	1918 Sep 11 12:30	3°♊14'39		morning rise	1919 Aug 23 01:40	16°♊54'47	
asc. node	1918 Sep 15 12:19	4°♊27'58		direct	1919 Aug 25 10:48	16°♊33'09	
morning max el	1918 Sep 18 07:03	6°♊41'32	17°52'28	morning max el	1919 Sep 01 19:25	20°♊09'48	18°07'48
	1918 Oct 03 08:59	0°♋		asc. node	1919 Sep 02 09:22	20°♊44'41	
morning set	1918 Oct 04 07:48	1°♋42'07			1919 Sep 09 03:43	0°♊	
				morning set	1919 Sep 17 14:51	15°♊12'01	
superior conj	1918 Oct 15 12:29	21°♋20'37	0°54'54		1919 Sep 25 14:16	0°♋	
minimum elong	1918 Oct 15 16:56	21°♋39'31	0°54'19				
	1918 Oct 20 16:47	0°♌		superior conj	1919 Sep 27 08:42	3°♋11'30	1°22'51
max. Earth dist.	1918 Oct 22 14:32	3°♌06'52	1.43237 AU	minimum elong	1919 Sep 27 12:48	3°♋29'52	1°22'26
desc. node	1918 Oct 23 20:48	5°♌09'19		max. Earth dist.	1919 Oct 04 23:49	16°♋27'03	1.41484 AU
evening rise	1918 Oct 30 08:27	15°♌25'40		evening rise	1919 Oct 10 07:58	25°♋14'57	
	1918 Nov 08 22:06	0°♍		desc. node	1919 Oct 10 17:50	25°♋54'44	
greatest brilliancy	1918 Nov 25 05:35	22°♍51'34	-0.4m		1919 Oct 13 07:25	0°♌	
evening max el	1918 Nov 30 04:41	28°♍33'34	21°30'22		1919 Nov 02 19:07	0°♍	
	1918 Dec 01 16:19	0°♎		greatest brilliancy	1919 Nov 07 19:52	6°♍25'36	-0.3m
retrograde	1918 Dec 09 02:05	3°♎50'55		evening max el	1919 Nov 12 21:25	12°♍06'05	22°48'15
asc. node	1918 Dec 12 11:34	2°♎47'15		retrograde	1919 Nov 22 21:13	18°♍02'03	
evening set	1918 Dec 13 06:14	2°♎14'09		evening set	1919 Nov 27 13:36	16°♍08'31	
	1918 Dec 15 13:03	30°♏♊		asc. node	1919 Nov 29 08:35	14°♍24'14	
inferior conj	1918 Dec 18 15:50	25°♍56'01	1°59'35	inferior conj	1919 Dec 02 23:19	9°♍44'38	1°12'52
minimum elong	1918 Dec 18 13:30	26°♍04'06	1°58'46	minimum elong	1919 Dec 02 21:43	9°♍50'11	1°12'12
min. Earth dist.	1918 Dec 18 21:12	25°♍37'28	0.67679 AU	min. Earth dist.	1919 Dec 02 17:49	10°♍03'40	0.67827 AU
morning rise	1918 Dec 23 20:29	19°♍41'14		morning rise	1919 Dec 08 05:46	3°♍32'31	
direct	1918 Dec 28 21:10	17°♍32'20		direct	1919 Dec 12 15:39	1°♍46'23	
morning max el	1919 Jan 08 03:01	23°♍37'44	23°13'18	morning max el	1919 Dec 21 16:00	7°♍03'50	21°47'10
greatest brilliancy	1919 Jan 13 05:16	29°♍20'24	-0.3m	greatest brilliancy	1919 Dec 26 11:41	12°♍30'49	-0.4m
	1919 Jan 13 18:13	0°♎		desc. node	1920 Jan 06 17:03	27°♍45'53	
desc. node	1919 Jan 19 20:00	7°♎55'34			1920 Jan 08 05:55	0°♎	
	1919 Feb 03 19:27	0°♏		morning set	1920 Jan 22 21:34	22°♎25'16	
morning set	1919 Feb 11 22:34	13°♏10'12			1920 Jan 27 13:49	0°♏	
max. Earth dist.	1919 Feb 16 06:03	20°♏31'06	1.39446 AU	max. Earth dist.	1920 Jan 29 04:41	2°♏40'39	1.41547 AU
	1919 Feb 21 14:10	0°♐					
superior conj	1919 Feb 23 21:25	4°♐13'19	-1°-53'-6	superior conj	1920 Feb 05 20:46	15°♏46'25	-2°-4'-5
minimum elong	1919 Feb 24 01:16	4°♐31'09	1°52'49	minimum elong	1920 Feb 05 22:06	15°♏52'17	2°04'03
evening rise	1919 Mar 05 09:38	22°♐18'32			1920 Feb 13 18:41	0°♐	
	1919 Mar 09 10:42	0°♑		evening rise	1920 Feb 16 15:07	5°♐14'51	
asc. node	1919 Mar 10 10:54	1°♑51'50		asc. node	1920 Feb 25 07:56	20°♐47'35	
evening max el	1919 Mar 21 14:32	18°♑22'29	18°35'21		1920 Mar 02 19:25	0°♑	
retrograde	1919 Mar 29 09:01	22°♑10'45		evening max el	1920 Mar 03 23:12	1°♑12'56	18°12'02
evening set	1919 Mar 31 16:15	21°♑51'52		retrograde	1920 Mar 10 20:51	4°♑41'13	
inferior conj	1919 Apr 08 07:18	17°♑24'37	2°28'29	evening set	1920 Mar 13 09:42	4°♑13'50	
minimum elong	1919 Apr 08 11:19	17°♑16'49	2°27'26		1920 Mar 19 16:26	30°♒♊	
min. Earth dist.	1919 Apr 11 16:57	14°♑47'51	0.57981 AU	inferior conj	1920 Mar 20 07:59	29°♐25'13	3°19'06
morning rise	1919 Apr 16 02:04	12°♑04'18		minimum elong	1920 Mar 20 10:51	29°♐18'43	3°18'38
desc. node	1919 Apr 17 19:12	11°♑21'33		min. Earth dist.	1920 Mar 23 16:27	26°♐25'24	0.60094 AU
direct	1919 Apr 21 21:57	10°♑38'25		morning rise	1920 Mar 27 08:35	23°♐41'28	
morning max el	1919 May 06 07:03	18°♑15'54	26°35'59	direct	1920 Apr 02 22:39	21°♐39'07	
	1919 May 16 02:25	0°♒		desc. node	1920 Apr 03 16:13	21°♐40'35	
	1919 Jun 02 11:06	0°♓		morning max el	1920 Apr 17 05:40	29°♐28'59	27°30'56
					1920 Apr 17 18:06	0°♑	

	1920 May 08 23:55	0°♄		desc. node	1921 Mar 21 13:15	4°♄43'13	
morning set	1920 May 18 20:37	18°♄59'04		morning max el	1921 Mar 30 10:19	11°♄23'13	27°49'36
asc. node	1920 May 23 07:13	28°♄25'53			1921 Apr 14 02:12	0°♄	
	1920 May 24 00:32	0°♄			1921 May 01 07:03	0°♄	
max. Earth dist.	1920 May 25 07:16	2°♄48'07	1.32212 AU	morning set	1921 May 02 23:15	3°♄21'52	
				max. Earth dist.	1921 May 08 16:25	15°♄21'21	1.32557 AU
superior conj	1920 May 26 01:53	4°♄30'16	0°29'00				
minimum elong	1920 May 26 00:37	4°♄23'19	0°28'45	superior conj	1921 May 10 11:38	19°♄15'17	0°03'15
evening rise	1920 Jun 01 23:25	19°♄30'07		minimum elong	1921 May 10 11:29	19°♄14'27	0°03'14
	1920 Jun 07 03:02	0°♄		behind sun begin	1921 May 10 06:25	18°♄46'55	
	1920 Jun 26 12:30	0°♄		behind sun end	1921 May 10 16:33	19°♄42'00	
evening max el	1920 Jun 29 13:40	3°♄09'16	25°41'10	asc. node	1921 May 10 04:16	18°♄35'16	
desc. node	1920 Jun 30 15:32	4°♄09'06			1921 May 15 10:09	0°♄	
retrograde	1920 Jul 13 14:05	10°♄18'12		evening rise	1921 May 17 11:09	4°♄22'19	
evening set	1920 Jul 19 14:02	8°♄53'09			1921 May 31 05:12	0°♄	
min. Earth dist.	1920 Jul 24 01:57	6°♄14'22	0.58381 AU	evening max el	1921 Jun 11 04:26	13°♄52'45	24°12'57
inferior conj	1920 Jul 27 07:21	3°♄55'52	-4°-57'-23	desc. node	1921 Jun 17 12:32	18°♄43'48	
minimum elong	1920 Jul 27 08:11	3°♄54'22	4°57'23	retrograde	1921 Jun 25 00:26	20°♄51'00	
	1920 Aug 02 22:11	30°♄		evening set	1921 Jun 29 15:53	20°♄03'05	
morning rise	1920 Aug 04 05:54	29°♄34'32		min. Earth dist.	1921 Jul 05 15:16	17°♄05'51	0.56557 AU
direct	1920 Aug 06 17:37	29°♄14'49		inferior conj	1921 Jul 08 05:17	15°♄29'02	-4°-43'-3
	1920 Aug 10 09:13	0°♄		minimum elong	1921 Jul 08 00:47	15°♄36'06	4°42'32
morning max el	1920 Aug 15 01:12	3°♄11'38	18°43'31	morning rise	1921 Jul 16 13:16	11°♄27'55	
asc. node	1920 Aug 19 06:25	8°♄06'18		direct	1921 Jul 19 05:33	11°♄08'54	
morning set	1920 Aug 31 09:11	29°♄14'41		morning max el	1921 Jul 28 21:31	15°♄38'08	19°40'37
	1920 Aug 31 18:29	0°♄		asc. node	1921 Aug 06 03:30	26°♄18'52	
					1921 Aug 08 07:42	0°♄	
superior conj	1920 Sep 09 01:55	16°♄04'19	1°39'10	morning set	1921 Aug 15 11:21	13°♄41'01	
minimum elong	1920 Sep 09 04:17	16°♄15'31	1°39'01				
max. Earth dist.	1920 Sep 16 04:46	29°♄05'12	1.39467 AU	superior conj	1921 Aug 23 10:42	29°♄44'12	1°45'33
	1920 Sep 16 17:13	0°♄		minimum elong	1921 Aug 23 11:11	29°♄46'37	1°45'32
evening rise	1920 Sep 20 06:40	6°♄08'38			1921 Aug 23 13:54	0°♄	
desc. node	1920 Sep 26 14:53	16°♄34'11		max. Earth dist.	1921 Aug 29 09:07	11°♄09'27	1.37440 AU
	1920 Oct 05 09:27	0°♄		evening rise	1921 Sep 02 04:53	18°♄08'31	
evening max el	1920 Oct 25 10:50	25°♄42'12	24°08'15		1921 Sep 09 02:37	0°♄	
	1920 Oct 30 12:40	0°♄		desc. node	1921 Sep 13 11:55	7°♄03'27	
retrograde	1920 Nov 05 12:47	2°♄12'20			1921 Sep 29 16:01	0°♄	
evening set	1920 Nov 10 18:59	0°♄01'38		evening max el	1921 Oct 07 22:52	9°♄21'37	25°23'26
	1920 Nov 10 19:46	30°♄		retrograde	1921 Oct 20 00:00	16°♄17'51	
asc. node	1920 Nov 15 05:38	24°♄58'39		evening set	1921 Oct 25 20:43	13°♄51'17	
min. Earth dist.	1920 Nov 15 14:06	24°♄30'16	0.67641 AU	min. Earth dist.	1921 Oct 30 07:43	8°♄55'07	0.67121 AU
inferior conj	1920 Nov 16 06:09	23°♄36'05	0°21'03	inferior conj	1921 Oct 31 10:34	7°♄28'18	0°-34'-32
minimum elong	1920 Nov 16 05:39	23°♄37'48	0°20'49	minimum elong	1921 Oct 31 11:27	7°♄25'27	0°34'10
morning rise	1920 Nov 21 16:33	17°♄29'08		asc. node	1921 Nov 02 02:41	5°♄21'32	
direct	1920 Nov 25 12:50	16°♄04'59		morning rise	1921 Nov 06 02:53	1°♄29'11	
morning max el	1920 Dec 03 11:58	20°♄40'11	20°30'10	direct	1921 Nov 09 11:17	0°♄24'24	
greatest brilliancy	1920 Dec 09 17:15	28°♄01'54	-0.5m	morning max el	1921 Nov 16 15:51	4°♄27'39	19°26'31
	1920 Dec 11 04:37	0°♄		greatest brilliancy	1921 Nov 25 14:56	15°♄52'59	-0.7m
desc. node	1920 Dec 23 14:06	17°♄57'20			1921 Dec 05 00:28	0°♄	
	1920 Dec 31 11:22	0°♄		desc. node	1921 Dec 10 11:10	8°♄24'13	
morning set	1920 Dec 31 21:32	0°♄39'22		morning set	1921 Dec 10 20:28	9°♄00'16	
max. Earth dist.	1921 Jan 10 11:25	15°♄47'18	1.43338 AU	max. Earth dist.	1921 Dec 24 01:20	29°♄38'37	1.44578 AU
					1921 Dec 24 06:45	0°♄	
superior conj	1921 Jan 16 19:32	26°♄10'01	-2°-1'-2				
minimum elong	1921 Jan 16 15:54	25°♄54'57	2°00'55	superior conj	1921 Dec 27 16:10	5°♄23'41	-1°-39'-40
	1921 Jan 19 02:28	0°♄		minimum elong	1921 Dec 27 07:51	4°♄50'29	1°38'59
evening rise	1921 Jan 29 04:34	17°♄24'12		evening rise	1922 Jan 10 21:47	28°♄39'56	
	1921 Feb 05 10:14	0°♄			1922 Jan 11 16:58	0°♄	
asc. node	1921 Feb 11 04:58	9°♄08'29		asc. node	1922 Jan 29 02:00	26°♄44'25	
evening max el	1921 Feb 15 11:12	14°♄21'45	18°08'12	evening max el	1922 Jan 29 23:40	27°♄42'03	18°23'11
retrograde	1921 Feb 21 23:12	17°♄45'27			1922 Feb 01 17:43	0°♄	
evening set	1921 Feb 24 17:06	17°♄08'16		retrograde	1922 Feb 05 11:36	1°♄14'12	
inferior conj	1921 Mar 03 02:16	11°♄58'27	3°41'12	evening set	1922 Feb 08 10:35	0°♄26'25	
minimum elong	1921 Mar 03 03:09	11°♄56'11	3°41'09		1922 Feb 09 04:25	30°♄	
min. Earth dist.	1921 Mar 05 23:46	9°♄00'33	0.62208 AU	inferior conj	1922 Feb 14 10:09	24°♄57'01	3°41'49
morning rise	1921 Mar 09 10:50	5°♄59'54		minimum elong	1922 Feb 14 09:16	24°♄59'34	3°41'46
direct	1921 Mar 16 08:55	3°♄28'19		min. Earth dist.	1922 Feb 16 16:40	22°♄20'53	0.64086 AU

morning rise	1922 Feb 20 06:24	18° \approx 49'37		minimum elong	1923 Jan 29 01:50	8° \approx 20'19	3°26'22
direct	1922 Feb 27 03:12	16° \approx 01'49		min. Earth dist.	1923 Jan 30 19:02	6° \approx 11'49	0.65598 AU
desc. node	1922 Mar 08 10:19	20° \approx 00'41		morning rise	1923 Feb 03 15:39	2° \approx 01'30	
morning max el	1922 Mar 12 19:04	23° \approx 54'47	27°31'38		1923 Feb 06 15:36	30° \approx 3	
	1922 Mar 18 06:32	0° \approx		direct	1923 Feb 10 04:20	29° \approx 11'39	
	1922 Apr 07 10:22	0° \approx			1923 Feb 13 23:23	0° \approx	
morning set	1922 Apr 16 18:19	17° \approx 18'41		morning max el	1923 Feb 23 05:01	6° \approx 51'55	26°42'13
max. Earth dist.	1922 Apr 21 18:33	27° \approx 29'14	1.33317 AU	desc. node	1923 Feb 23 07:22	6° \approx 57'51	
	1922 Apr 22 23:19	0° \approx			1923 Mar 13 02:36	0° \approx	
					1923 Mar 30 18:09	0° \approx	
superior conj	1922 Apr 24 17:45	3° \approx 44'52	0°-24'-9	morning set	1923 Mar 31 02:29	0° \approx 39'29	
minimum elong	1922 Apr 24 18:57	3° \approx 51'16	0°23'55	max. Earth dist.	1923 Apr 04 10:03	9° \approx 03'43	1.34524 AU
asc. node	1922 Apr 27 01:19	8° \approx 42'26					
evening rise	1922 May 01 22:41	19° \approx 09'24		superior conj	1923 Apr 08 18:04	17° \approx 52'48	0°-52'-4
	1922 May 07 07:03	0° \approx		minimum elong	1923 Apr 08 20:42	18° \approx 06'25	0°51'35
evening max el	1922 May 23 19:01	24° \approx 21'30	22°36'47	asc. node	1923 Apr 13 22:21	28° \approx 43'20	
	1922 Jun 01 03:08	0° \approx			1923 Apr 14 12:58	0° \approx	
desc. node	1922 Jun 04 09:33	0° \approx 47'51		evening rise	1923 Apr 16 08:09	3° \approx 45'20	
retrograde	1922 Jun 05 22:38	0° \approx 53'18			1923 May 01 05:18	0° \approx	
evening set	1922 Jun 09 03:15	0° \approx 30'52		evening max el	1923 May 05 17:10	5° \approx 08'16	21°07'07
	1922 Jun 10 22:13	30° \approx 11		retrograde	1923 May 17 12:31	10° \approx 53'41	
min. Earth dist.	1922 Jun 17 02:48	27° \approx 01'36	0.55303 AU	evening set	1923 May 19 18:35	10° \approx 41'51	
inferior conj	1922 Jun 18 08:46	26° \approx 18'53	-3°-42'-3	desc. node	1923 May 22 06:34	10° \approx 03'05	
minimum elong	1922 Jun 18 00:55	26° \approx 30'07	3°40'03	inferior conj	1923 May 29 02:52	6° \approx 43'30	-1°-58'-9
morning rise	1922 Jun 27 01:09	22° \approx 27'22		minimum elong	1923 May 28 21:22	6° \approx 51'16	1°56'15
direct	1922 Jun 29 23:28	22° \approx 07'40		min. Earth dist.	1923 May 29 15:14	6° \approx 26'03	0.54910 AU
morning max el	1922 Jul 11 06:36	27° \approx 22'19	20°58'24	morning rise	1923 Jun 06 23:54	2° \approx 42'40	
	1922 Jul 13 20:04	0° \approx		direct	1923 Jun 10 09:10	2° \approx 17'53	
asc. node	1922 Jul 24 00:33	15° \approx 09'57		morning max el	1923 Jun 23 05:07	8° \approx 24'55	22°32'49
morning set	1922 Jul 30 18:40	28° \approx 23'08			1923 Jul 08 12:47	0° \approx	
	1922 Jul 31 13:25	0° \approx		asc. node	1923 Jul 10 21:37	4° \approx 30'08	
				morning set	1923 Jul 15 05:07	13° \approx 15'27	
superior conj	1922 Aug 07 06:28	13° \approx 57'20	1°43'51				
minimum elong	1922 Aug 07 05:27	13° \approx 52'06	1°43'49	superior conj	1923 Jul 22 09:47	28° \approx 33'33	1°35'39
max. Earth dist.	1922 Aug 11 17:57	22° \approx 59'33	1.35629 AU	minimum elong	1923 Jul 22 07:48	28° \approx 23'03	1°35'28
	1922 Aug 15 08:59	0° \approx			1923 Jul 23 02:07	0° \approx	
evening rise	1922 Aug 15 22:41	1° \approx 04'32		max. Earth dist.	1923 Jul 25 11:31	5° \approx 00'17	1.34178 AU
desc. node	1922 Aug 31 08:56	27° \approx 16'29		evening rise	1923 Jul 30 07:31	14° \approx 45'02	
	1922 Sep 02 04:20	0° \approx			1923 Aug 07 13:33	0° \approx	
evening max el	1922 Sep 20 10:49	22° \approx 59'32	26°26'23	desc. node	1923 Aug 18 05:55	17° \approx 06'08	
	1922 Oct 01 09:14	0° \approx			1923 Aug 27 22:30	0° \approx	
retrograde	1922 Oct 03 06:17	0° \approx 11'53		evening max el	1923 Sep 02 22:55	6° \approx 28'56	27°09'30
	1922 Oct 05 01:45	30° \approx 11		retrograde	1923 Sep 16 07:09	13° \approx 47'24	
evening set	1922 Oct 09 16:50	27° \approx 33'27		evening set	1923 Sep 23 04:59	11° \approx 04'22	
min. Earth dist.	1922 Oct 13 20:16	23° \approx 13'55	0.66257 AU	min. Earth dist.	1923 Sep 27 01:36	7° \approx 21'21	0.65043 AU
inferior conj	1922 Oct 15 10:40	21° \approx 17'23	-1°-32'-29	inferior conj	1923 Sep 29 04:19	4° \approx 59'39	-2°-30'-48
minimum elong	1922 Oct 15 13:08	21° \approx 09'55	1°31'29	minimum elong	1923 Sep 29 08:19	4° \approx 48'28	2°29'20
asc. node	1922 Oct 19 23:44	16° \approx 28'02			1923 Oct 04 11:53	30° \approx 11	
morning rise	1922 Oct 21 10:38	15° \approx 28'54		morning rise	1923 Oct 05 13:25	29° \approx 24'48	
direct	1922 Oct 24 09:18	14° \approx 39'52		asc. node	1923 Oct 06 20:48	28° \approx 57'08	
morning max el	1922 Oct 31 02:21	18° \approx 21'46	18°38'14	direct	1923 Oct 08 04:47	28° \approx 47'35	
	1922 Nov 08 22:31	0° \approx			1923 Oct 11 22:23	0° \approx	
morning set	1922 Nov 20 16:50	18° \approx 29'23		morning max el	1923 Oct 14 17:04	2° \approx 17'21	18°06'30
desc. node	1922 Nov 27 08:12	29° \approx 01'13		morning set	1923 Nov 01 18:23	29° \approx 25'11	
	1922 Nov 27 23:05	0° \approx			1923 Nov 02 02:47	0° \approx	
				desc. node	1923 Nov 14 05:13	19° \approx 44'43	
superior conj	1922 Dec 06 19:08	13° \approx 53'54	-1°00'-28				
minimum elong	1922 Dec 06 11:41	13° \approx 54'39	0°59'34	superior conj	1923 Nov 16 00:32	22° \approx 37'35	0°-12'-6
max. Earth dist.	1922 Dec 06 19:07	13° \approx 53'48	1.45121 AU	minimum elong	1923 Nov 15 23:01	22° \approx 31'31	0°11'54
	1922 Dec 17 00:27	0° \approx		behind sun begin	1923 Nov 15 15:37	22° \approx 02'03	
evening rise	1922 Dec 22 15:41	8° \approx 57'31		behind sun end	1923 Nov 16 06:25	23° \approx 00'57	
	1923 Jan 04 23:40	0° \approx		max. Earth dist.	1923 Nov 19 13:50	28° \approx 15'16	1.44929 AU
evening max el	1923 Jan 13 10:06	11° \approx 08'26	18°56'13		1923 Nov 20 16:26	0° \approx	
asc. node	1923 Jan 15 23:01	13° \approx 22'31		evening rise	1923 Dec 02 11:50	18° \approx 24'07	
retrograde	1923 Jan 20 05:59	14° \approx 59'59			1923 Dec 10 00:18	0° \approx	
evening set	1923 Jan 23 11:00	14° \approx 00'30		greatest brilliancy	1923 Dec 20 03:11	15° \approx 06'07	-0.6m
inferior conj	1923 Jan 29 03:54	8° \approx 13'55	3°26'41	evening max el	1923 Dec 27 16:33	24° \approx 37'30	19°45'40

asc. node	1924 Jan 02 20:02	28°☾47'54		greatest brilliancy	1924 Dec 04 03:28	1°☾31'29	-0.5m
retrograde	1924 Jan 04 03:15	28°☾57'15		evening max el	1924 Dec 09 17:44	8°☾07'51	20°49'04
evening set	1924 Jan 07 15:48	27°☾44'36		retrograde	1924 Dec 18 01:00	13°☾02'34	
inferior conj	1924 Jan 13 04:24	21°☾43'27	2°59'45	asc. node	1924 Dec 19 17:05	12°☾47'00	
minimum elong	1924 Jan 13 01:49	21°☾52'01	2°59'08	evening set	1924 Dec 21 22:59	11°☾34'59	
min. Earth dist.	1924 Jan 14 05:16	20°☾21'09	0.66713 AU	inferior conj	1924 Dec 27 09:13	5°☾22'16	2°23'43
morning rise	1924 Jan 18 11:08	15°☾28'39		minimum elong	1924 Dec 27 06:39	5°☾31'03	2°22'54
direct	1924 Jan 24 11:24	12°☾48'49		min. Earth dist.	1924 Dec 27 21:19	4°☾40'50	0.67435 AU
morning max el	1924 Feb 05 13:58	20°☾01'39	25°29'46		1924 Dec 31 15:52	30°☾☿	
desc. node	1924 Feb 10 04:24	25°☾05'47		morning rise	1925 Jan 01 13:53	29°☾☿07'06	
	1924 Feb 14 03:18	0°☾		direct	1925 Jan 06 23:27	26°☾☿45'32	
	1924 Mar 05 05:53	0°☾			1925 Jan 14 07:16	0°☾	
morning set	1924 Mar 12 19:05	13°☾09'43		morning max el	1925 Jan 17 22:15	3°☾17'19	24°04'23
max. Earth dist.	1924 Mar 16 13:38	20°☾09'05	1.36188 AU	desc. node	1925 Jan 27 01:26	14°☾04'05	
	1924 Mar 21 15:37	0°☾			1925 Feb 07 08:12	0°☾	
				morning set	1925 Feb 22 14:18	24°☾☿33'31	
superior conj	1924 Mar 22 09:49	1°☾30'29	-1°-18'-54		1925 Feb 25 16:53	0°☾	
minimum elong	1924 Mar 22 13:39	1°☾49'35	1°18'20	max. Earth dist.	1925 Feb 26 09:36	1°☾14'29	1.38210 AU
evening rise	1924 Mar 30 13:24	18°☾02'43					
asc. node	1924 Mar 30 19:22	18°☾32'55		superior conj	1925 Mar 05 13:34	14°☾28'53	-1°-42'-22
	1924 Apr 05 16:23	0°☾		minimum elong	1925 Mar 05 17:50	14°☾49'13	1°41'55
evening max el	1924 Apr 17 02:50	16°☾31'03	19°52'50		1925 Mar 13 12:36	0°☾	
retrograde	1924 Apr 27 04:28	21°☾22'40		evening rise	1925 Mar 14 11:57	1°☾54'55	
evening set	1924 Apr 29 05:04	21°☾11'44		asc. node	1925 Mar 17 16:24	8°☾06'29	
inferior conj	1924 May 08 01:37	17°☾11'06	0°01'26	evening max el	1925 Mar 30 23:34	28°☾32'52	18°57'48
minimum elong	1924 May 08 01:41	17°☾11'01	0°01'25		1925 Apr 01 15:21	0°☾	
transit middle	1924 May 08 01:41	17°☾11'01	0°01'25	retrograde	1925 Apr 08 11:03	2°☾39'45	
transit begin	1924 May 07 21:44	17°☾17'04		evening set	1925 Apr 10 15:16	2°☾24'35	
transit end	1924 May 08 05:38	17°☾04'57			1925 Apr 15 23:13	30°☾☿	
desc. node	1924 May 08 03:35	17°☾08'05		inferior conj	1925 Apr 18 17:10	28°☾08'29	1°44'03
min. Earth dist.	1924 May 10 04:59	15°☾52'44	0.55488 AU	minimum elong	1925 Apr 18 20:46	28°☾02'07	1°42'55
morning rise	1924 May 16 19:12	12°☾43'17		min. Earth dist.	1925 Apr 21 20:43	25°☾56'03	0.56908 AU
direct	1924 May 21 00:21	12°☾04'05		desc. node	1925 Apr 25 00:37	24°☾00'07	
morning max el	1924 Jun 03 20:37	18°☾57'02	24°14'50	morning rise	1925 Apr 26 22:01	23°☾06'33	
	1924 Jun 13 01:42	0°☾		direct	1925 May 02 04:15	22°☾00'48	
asc. node	1924 Jun 26 18:39	24°☾10'51		morning max el	1925 May 16 11:17	29°☾25'03	25°50'16
morning set	1924 Jun 28 16:55	28°☾11'38			1925 May 17 01:32	0°☾	
	1924 Jun 29 13:22	0°☾			1925 Jun 06 15:23	0°☾	
				morning set	1925 Jun 13 04:26	13°☾06'32	
superior conj	1924 Jul 05 17:57	13°☾23'21	1°22'08	asc. node	1925 Jun 13 15:42	14°☾06'03	
minimum elong	1924 Jul 05 15:33	13°☾10'24	1°21'48				
max. Earth dist.	1924 Jul 07 14:10	17°☾21'54	1.33127 AU	superior conj	1925 Jun 20 04:51	28°☾19'49	1°04'15
evening rise	1924 Jul 13 03:11	28°☾57'13		minimum elong	1925 Jun 20 02:33	28°☾07'13	1°03'51
	1924 Jul 13 15:38	0°☾			1925 Jun 20 23:07	0°☾	
	1924 Jul 30 16:48	0°☾		max. Earth dist.	1925 Jun 20 23:26	0°☾01'43	1.32470 AU
desc. node	1924 Aug 04 02:56	6°☾22'13		evening rise	1925 Jun 27 06:26	13°☾30'57	
evening max el	1924 Aug 15 09:48	19°☾38'00	27°25'59		1925 Jul 05 17:52	0°☾	
retrograde	1924 Aug 29 01:50	26°☾55'36		desc. node	1925 Jul 21 23:57	24°☾50'37	
evening set	1924 Sep 05 06:08	24°☾18'27			1925 Jul 26 11:46	0°☾	
min. Earth dist.	1924 Sep 08 21:39	21°☾08'47	0.63479 AU	evening max el	1925 Jul 28 16:52	2°☾12'51	27°10'41
inferior conj	1924 Sep 11 12:55	18°☾29'21	-3°-26'-33	retrograde	1925 Aug 11 13:27	9°☾27'15	
minimum elong	1924 Sep 11 18:02	18°☾16'24	3°25'01	evening set	1925 Aug 18 16:20	7°☾08'36	
morning rise	1924 Sep 18 08:16	13°☾11'28		min. Earth dist.	1925 Aug 22 07:05	4°☾23'45	0.61611 AU
direct	1924 Sep 20 19:04	12°☾42'28		inferior conj	1925 Aug 25 09:20	1°☾38'21	-4°-15'-8
asc. node	1924 Sep 22 17:51	13°☾01'11		minimum elong	1925 Aug 25 14:29	1°☾26'48	4°14'04
morning max el	1924 Sep 27 09:14	16°☾08'08	17°52'17		1925 Aug 27 06:29	30°☾☿	
	1924 Oct 07 04:12	0°☾		morning rise	1925 Sep 01 15:30	26°☾41'01	
morning set	1924 Oct 13 21:38	11°☾35'39		direct	1925 Sep 04 00:34	26°☾17'14	
	1924 Oct 24 15:59	0°☾		asc. node	1925 Sep 09 14:55	28°☾33'35	
				morning max el	1925 Sep 10 23:53	29°☾46'58	17°56'33
superior conj	1924 Oct 26 03:00	2°☾25'16	0°33'18		1925 Sep 11 05:09	0°☾	
minimum elong	1924 Oct 26 06:20	2°☾39'03	0°32'50	morning set	1925 Sep 26 20:12	24°☾41'25	
desc. node	1924 Oct 31 02:14	10°☾31'38			1925 Sep 29 18:04	0°☾	
max. Earth dist.	1924 Nov 01 06:58	12°☾27'01	1.44033 AU				
evening rise	1924 Nov 10 20:26	27°☾27'26		superior conj	1925 Oct 07 08:42	13°☾33'22	1°08'15
	1924 Nov 12 12:08	0°☾		minimum elong	1925 Oct 07 13:17	13°☾53'15	1°07'43
	1924 Dec 02 23:41	0°☾		max. Earth dist.	1925 Oct 14 20:06	26°☾12'15	1.42541 AU

	1925 Oct 17 03:52	0°♍		evening rise	1926 Oct 01 19:05	17°♊04'32	
desc. node	1925 Oct 17 23:16	1°♍18'25		desc. node	1926 Oct 04 20:19	22°♊02'02	
evening rise	1925 Oct 21 10:08	6°♍48'50			1926 Oct 09 21:58	0°♍	
	1925 Nov 05 18:54	0°♊			1926 Oct 31 11:01	0°♊	
greatest brilliancy	1925 Nov 17 19:52	16°♊18'10	-0.3m	evening max el	1926 Nov 05 04:15	5°♊12'22	23°22'16
evening max el	1925 Nov 22 13:18	21°♊38'53	22°02'53	retrograde	1926 Nov 15 15:18	11°♊23'55	
retrograde	1925 Dec 01 21:30	27°♊12'22		evening set	1926 Nov 20 13:30	9°♊22'46	
evening set	1925 Dec 06 06:45	25°♊28'23		asc. node	1926 Nov 23 11:11	6°♊18'47	
asc. node	1925 Dec 06 14:08	25°♊13'05		inferior conj	1926 Nov 25 23:40	2°♊57'28	0°51'24
inferior conj	1925 Dec 11 16:14	19°♊07'24	1°40'27	minimum elong	1926 Nov 25 22:29	3°♊01'30	0°50'55
minimum elong	1925 Dec 11 14:10	19°♊14'35	1°39'40	min. Earth dist.	1926 Nov 25 13:34	3°♊32'05	0.67791 AU
min. Earth dist.	1925 Dec 11 16:50	19°♊05'21	0.67785 AU		1926 Nov 28 05:06	30°♍	
morning rise	1925 Dec 16 21:24	12°♊53'46		morning rise	1926 Dec 01 07:34	26°♍47'21	
direct	1925 Dec 21 15:44	10°♊54'36		direct	1926 Dec 05 11:22	25°♍11'03	
morning max el	1925 Dec 31 08:35	16°♊38'45	22°36'01		1926 Dec 13 20:38	0°♊	
greatest brilliancy	1926 Jan 04 22:28	21°♊45'26	-0.3m	morning max el	1926 Dec 14 00:26	0°♊09'33	21°12'59
	1926 Jan 11 07:27	0°♊		greatest brilliancy	1926 Dec 19 07:21	6°♊13'53	-0.4m
desc. node	1926 Jan 13 22:28	3°♊38'02		desc. node	1926 Dec 31 19:32	23°♊37'59	
	1926 Jan 31 10:04	0°♊			1927 Jan 05 01:58	0°♊	
morning set	1926 Feb 03 06:07	4°♊35'51		morning set	1927 Jan 13 17:35	13°♊19'11	
max. Earth dist.	1926 Feb 08 05:47	12°♊55'27	1.40362 AU	max. Earth dist.	1927 Jan 21 07:42	25°♊29'27	1.42360 AU
					1927 Jan 24 01:13	0°♊	
superior conj	1926 Feb 16 00:43	26°♊36'00	-1°-59'-9	superior conj	1927 Jan 28 14:02	7°♊39'41	-2°-4'-48
minimum elong	1926 Feb 16 03:49	26°♊50'03	1°58'59	minimum elong	1927 Jan 28 13:31	7°♊37'26	2°04'48
	1926 Feb 17 21:30	0°♋		evening rise	1927 Feb 08 23:53	27°♊50'52	
evening rise	1926 Feb 26 00:42	15°♋13'47			1927 Feb 10 04:28	0°♋	
asc. node	1926 Mar 04 13:26	27°♋17'54		asc. node	1927 Feb 19 10:29	15°♋59'48	
	1926 Mar 06 02:57	0°♋		evening max el	1927 Feb 25 15:04	24°♋05'49	18°08'04
evening max el	1926 Mar 14 04:43	11°♋07'23	18°22'59	retrograde	1927 Mar 04 07:34	27°♋30'51	
retrograde	1926 Mar 21 12:55	14°♋45'27		evening set	1927 Mar 06 22:27	26°♋59'34	
evening set	1926 Mar 23 22:36	14°♋23'07		inferior conj	1927 Mar 13 14:42	22°♋01'48	3°31'33
inferior conj	1926 Mar 31 06:03	9°♋46'30	2°53'53	minimum elong	1927 Mar 13 16:44	21°♋56'54	3°31'19
minimum elong	1926 Mar 31 09:48	9°♋38'43	2°53'04	min. Earth dist.	1927 Mar 16 19:18	18°♋59'44	0.60999 AU
min. Earth dist.	1926 Apr 03 16:36	6°♋57'07	0.58857 AU	morning rise	1927 Mar 20 08:01	16°♋10'29	
morning rise	1926 Apr 07 17:03	4°♋15'00		direct	1927 Mar 27 02:33	13°♋54'20	
desc. node	1926 Apr 11 21:38	2°♋44'20		desc. node	1927 Mar 29 18:41	14°♋14'12	
direct	1926 Apr 13 21:35	2°♋33'46		morning max el	1927 Apr 10 08:02	21°♋48'05	27°43'39
morning max el	1926 Apr 28 06:31	10°♋17'08	27°03'38		1927 Apr 17 12:24	0°♋	
	1926 May 13 10:53	0°♌			1927 May 06 11:28	0°♌	
morning set	1926 May 28 14:03	27°♌54'48		morning set	1927 May 12 19:50	12°♌29'04	
	1926 May 29 13:51	0°♌		asc. node	1927 May 18 09:47	24°♌19'44	
asc. node	1926 May 31 12:45	4°♌10'46		max. Earth dist.	1927 May 18 23:01	25°♌31'47	1.32301 AU
superior conj	1926 Jun 04 16:40	13°♌17'04	0°42'46	superior conj	1927 May 20 03:40	28°♌08'16	0°18'22
minimum elong	1926 Jun 04 14:55	13°♌07'23	0°42'25	minimum elong	1927 May 20 02:50	28°♌03'43	0°18'11
max. Earth dist.	1926 Jun 04 11:44	12°♌49'51	1.32193 AU		1927 May 21 00:03	0°♌	
evening rise	1926 Jun 11 14:40	28°♌17'58		evening rise	1927 May 27 01:38	13°♌09'59	
	1926 Jun 12 10:08	0°♍			1927 Jun 04 13:38	0°♍	
	1926 Jun 29 05:01	0°♍		evening max el	1927 Jun 22 10:59	25°♍06'38	25°05'39
desc. node	1926 Jul 08 20:57	12°♍11'43		desc. node	1927 Jun 25 17:59	27°♍57'10	
evening max el	1926 Jul 10 17:30	14°♍02'55	26°22'20		1927 Jun 28 19:33	0°♍	
retrograde	1926 Jul 24 17:05	21°♍14'46		retrograde	1927 Jul 06 10:50	2°♍13'19	
evening set	1926 Jul 31 06:57	19°♍27'15		evening set	1927 Jul 11 22:03	1°♍04'35	
min. Earth dist.	1926 Aug 04 06:30	16°♍51'57	0.59558 AU	min. Earth dist.	1927 Jul 14 04:08	30°♎	
inferior conj	1926 Aug 07 14:03	14°♍17'35	-4°-48'-59	inferior conj	1927 Jul 16 22:37	28°♎19'48	0.57555 AU
minimum elong	1926 Aug 07 17:13	14°♍11'24	4°48'42	minimum elong	1927 Jul 19 23:41	26°♎16'38	-4°-56'-26
morning rise	1926 Aug 15 06:53	9°♍43'23		morning rise	1927 Jul 19 22:21	26°♎18'55	4°56'25
direct	1926 Aug 17 16:54	9°♍22'42		direct	1927 Jul 28 02:25	22°♎04'57	
morning max el	1926 Aug 25 09:56	13°♍06'03	18°20'27	morning max el	1927 Jul 30 15:42	21°♎45'48	
asc. node	1926 Aug 27 11:58	15°♍20'23			1927 Aug 08 12:08	25°♎54'46	19°05'09
morning set	1926 Sep 05 20:33	0°♎			1927 Aug 12 03:43	0°♎	
	1926 Sep 10 08:36	8°♎27'18		asc. node	1927 Aug 14 09:01	3°♎05'28	
superior conj	1926 Sep 19 14:41	25°♎53'43	1°31'06	morning set	1927 Aug 25 06:37	22°♎41'00	
minimum elong	1926 Sep 19 18:08	26°♎09'30	1°30'48		1927 Aug 28 23:07	0°♎	
	1926 Sep 21 20:56	0°♏		superior conj	1927 Sep 02 15:11	9°♎08'42	1°42'58
max. Earth dist.	1926 Sep 27 03:39	9°♏16'25	1.40645 AU				

minimum elong	1927 Sep 02 16:44	9° $\mathring{\text{M}}$ 16'10	1°42'53	asc. node	1928 Jul 31 06:04	21° $\mathring{\text{S}}$ 35'46	
max. Earth dist.	1927 Sep 09 07:12	21° $\mathring{\text{M}}$ 36'12	1.38592 AU		1928 Aug 04 20:00	0° $\mathring{\text{O}}$	
evening rise	1927 Sep 13 04:06	28° $\mathring{\text{M}}$ 27'14		morning set	1928 Aug 08 11:14	7° $\mathring{\text{O}}$ 14'40	
	1927 Sep 14 01:37	0° $\mathring{\text{S}}$					
desc. node	1927 Sep 21 17:21	12° $\mathring{\text{S}}$ 37'47		superior conj	1928 Aug 16 05:05	23° $\mathring{\text{O}}$ 04'00	1°45'43
	1927 Oct 03 08:38	0° $\mathring{\text{M}}$		minimum elong	1928 Aug 16 04:52	23° $\mathring{\text{O}}$ 02'55	1°45'42
evening max el	1927 Oct 18 16:42	18° $\mathring{\text{M}}$ 49'41	24°41'10		1928 Aug 19 16:59	0° $\mathring{\text{M}}$	
retrograde	1927 Oct 30 05:19	25° $\mathring{\text{M}}$ 32'53		max. Earth dist.	1928 Aug 21 12:34	3° $\mathring{\text{M}}$ 30'24	1.36640 AU
evening set	1927 Nov 04 17:34	23° $\mathring{\text{M}}$ 15'09		evening rise	1928 Aug 25 11:14	10° $\mathring{\text{M}}$ 52'47	
min. Earth dist.	1927 Nov 09 09:06	17° $\mathring{\text{M}}$ 58'21	0.67460 AU		1928 Sep 05 16:20	0° $\mathring{\text{S}}$	
inferior conj	1927 Nov 10 05:43	16° $\mathring{\text{M}}$ 49'51	0°-2'-9	desc. node	1928 Sep 07 14:21	3° $\mathring{\text{S}}$ 00'49	
minimum elong	1927 Nov 10 05:46	16° $\mathring{\text{M}}$ 49'41	0°02'09		1928 Sep 27 18:12	0° $\mathring{\text{M}}$	
transit middle	1927 Nov 10 05:46	16° $\mathring{\text{M}}$ 49'41	0°02'09	evening max el	1928 Sep 30 04:44	2° $\mathring{\text{M}}$ 29'44	25°52'12
transit begin	1927 Nov 10 03:02	16° $\mathring{\text{M}}$ 58'45		retrograde	1928 Oct 12 14:32	9° $\mathring{\text{M}}$ 34'02	
transit end	1927 Nov 10 08:29	16° $\mathring{\text{M}}$ 40'37		evening set	1928 Oct 18 17:09	7° $\mathring{\text{M}}$ 02'05	
asc. node	1927 Nov 10 08:13	16° $\mathring{\text{M}}$ 41'30		min. Earth dist.	1928 Oct 23 00:59	2° $\mathring{\text{M}}$ 21'04	0.66797 AU
morning rise	1927 Nov 15 18:23	10° $\mathring{\text{M}}$ 45'46		inferior conj	1928 Oct 24 08:33	0° $\mathring{\text{M}}$ 41'26	0°-58'-56
direct	1927 Nov 19 09:17	9° $\mathring{\text{M}}$ 30'23		minimum elong	1928 Oct 24 10:05	0° $\mathring{\text{M}}$ 36'35	0°58'18
morning max el	1927 Nov 26 23:50	13° $\mathring{\text{M}}$ 51'07	20°01'11		1928 Oct 24 21:43	30° $\mathring{\text{R}}$ $\mathring{\text{S}}$	
greatest brilliancy	1927 Dec 04 03:36	22° $\mathring{\text{M}}$ 33'33	-0.6m	asc. node	1928 Oct 27 05:16	27° $\mathring{\text{S}}$ 16'43	
	1927 Dec 09 09:26	0° $\mathring{\text{S}}$		morning rise	1928 Oct 30 03:53	24° $\mathring{\text{S}}$ 46'10	
desc. node	1927 Dec 18 16:36	13° $\mathring{\text{S}}$ 56'46		direct	1928 Nov 02 07:52	23° $\mathring{\text{S}}$ 48'29	
morning set	1927 Dec 23 13:48	21° $\mathring{\text{S}}$ 26'37		morning max el	1928 Nov 09 06:40	27° $\mathring{\text{S}}$ 41'35	19°03'52
	1927 Dec 29 01:48	0° $\mathring{\text{S}}$			1928 Nov 11 09:05	0° $\mathring{\text{M}}$	
max. Earth dist.	1928 Jan 03 17:08	8° $\mathring{\text{S}}$ 55'00	1.43938 AU	morning set	1928 Dec 01 19:47	0° $\mathring{\text{S}}$ 11'02	
					1928 Dec 01 16:57	0° $\mathring{\text{S}}$	
superior conj	1928 Jan 09 01:28	17° $\mathring{\text{S}}$ 32'41	-1°-54'-21	desc. node	1928 Dec 04 13:39	4° $\mathring{\text{S}}$ 28'26	
minimum elong	1928 Jan 08 19:30	17° $\mathring{\text{S}}$ 08'23	1°54'01	max. Earth dist.	1928 Dec 16 08:58	22° $\mathring{\text{S}}$ 58'30	1.44902 AU
	1928 Jan 16 13:35	0° $\mathring{\text{S}}$					
evening rise	1928 Jan 22 05:13	9° $\mathring{\text{S}}$ 38'14		superior conj	1928 Dec 18 12:47	26° $\mathring{\text{S}}$ 22'53	-1°-24'-54
	1928 Feb 03 10:22	0° $\mathring{\text{S}}$		minimum elong	1928 Dec 18 03:57	25° $\mathring{\text{S}}$ 48'01	1°23'59
asc. node	1928 Feb 06 07:31	4° $\mathring{\text{S}}$ 03'18			1928 Dec 20 19:37	0° $\mathring{\text{S}}$	
evening max el	1928 Feb 09 03:36	7° $\mathring{\text{S}}$ 20'37	18°12'23	evening rise	1929 Jan 02 12:39	20° $\mathring{\text{S}}$ 28'56	
retrograde	1928 Feb 15 14:35	10° $\mathring{\text{S}}$ 46'27			1929 Jan 08 08:09	0° $\mathring{\text{S}}$	
evening set	1928 Feb 18 10:33	10° $\mathring{\text{S}}$ 05'00		evening max el	1929 Jan 22 15:33	20° $\mathring{\text{S}}$ 44'27	18°35'10
inferior conj	1928 Feb 24 15:15	4° $\mathring{\text{S}}$ 46'56	3°43'41	asc. node	1929 Jan 23 04:33	21° $\mathring{\text{S}}$ 16'33	
minimum elong	1928 Feb 24 15:19	4° $\mathring{\text{S}}$ 46'45	3°43'42	retrograde	1929 Jan 29 05:48	24° $\mathring{\text{S}}$ 23'13	
min. Earth dist.	1928 Feb 27 06:46	1° $\mathring{\text{S}}$ 55'54	0.63040 AU	evening set	1929 Feb 01 07:18	23° $\mathring{\text{S}}$ 30'32	
	1928 Feb 29 06:00	30° $\mathring{\text{R}}$ $\mathring{\text{S}}$		inferior conj	1929 Feb 07 03:42	17° $\mathring{\text{S}}$ 53'42	3°37'01
morning rise	1928 Mar 01 18:04	28° $\mathring{\text{S}}$ 44'01		minimum elong	1929 Feb 07 02:14	17° $\mathring{\text{S}}$ 58'04	3°36'52
direct	1928 Mar 08 16:44	26° $\mathring{\text{S}}$ 03'20		min. Earth dist.	1929 Feb 09 03:39	15° $\mathring{\text{S}}$ 31'00	0.64783 AU
desc. node	1928 Mar 15 15:44	28° $\mathring{\text{S}}$ 18'32		morning rise	1929 Feb 12 19:55	11° $\mathring{\text{S}}$ 44'04	
	1928 Mar 18 02:45	0° $\mathring{\text{S}}$		direct	1929 Feb 19 14:07	8° $\mathring{\text{S}}$ 53'37	
morning max el	1928 Mar 22 14:40	3° $\mathring{\text{S}}$ 59'16	27°46'16	desc. node	1929 Mar 02 12:47	14° $\mathring{\text{S}}$ 22'13	
	1928 Apr 11 01:55	0° $\mathring{\text{Y}}$		morning max el	1929 Mar 04 23:58	16° $\mathring{\text{S}}$ 42'12	27°13'58
morning set	1928 Apr 25 19:34	26° $\mathring{\text{Y}}$ 42'07			1929 Mar 16 01:07	0° $\mathring{\text{S}}$	
	1928 Apr 27 10:35	0° $\mathring{\text{S}}$			1929 Apr 03 21:21	0° $\mathring{\text{Y}}$	
max. Earth dist.	1928 May 01 05:25	7° $\mathring{\text{S}}$ 54'43	1.32817 AU	morning set	1929 Apr 09 10:23	10° $\mathring{\text{Y}}$ 24'16	
				max. Earth dist.	1929 Apr 14 03:08	19° $\mathring{\text{Y}}$ 47'23	1.33774 AU
superior conj	1928 May 03 12:06	12° $\mathring{\text{S}}$ 47'47	0°-8'-13				
minimum elong	1928 May 03 12:30	12° $\mathring{\text{S}}$ 49'56	0°08'09	superior conj	1929 Apr 17 16:00	27° $\mathring{\text{Y}}$ 08'43	0°-36'00
behind sun begin	1928 May 03 07:58	12° $\mathring{\text{S}}$ 25'27		minimum elong	1929 Apr 17 17:48	27° $\mathring{\text{Y}}$ 18'16	0°35'39
behind sun end	1928 May 03 17:02	13° $\mathring{\text{S}}$ 14'25			1929 Apr 19 00:23	0° $\mathring{\text{S}}$	
asc. node	1928 May 04 06:49	14° $\mathring{\text{S}}$ 28'56		asc. node	1929 Apr 21 03:51	4° $\mathring{\text{S}}$ 33'47	
evening rise	1928 May 10 13:28	28° $\mathring{\text{S}}$ 00'45		evening rise	1929 Apr 25 00:19	12° $\mathring{\text{S}}$ 43'28	
	1928 May 11 12:07	0° $\mathring{\text{II}}$			1929 May 03 21:34	0° $\mathring{\text{II}}$	
	1928 May 28 23:03	0° $\mathring{\text{S}}$		evening max el	1929 May 15 17:55	16° $\mathring{\text{II}}$ 13'25	21°57'14
evening max el	1928 Jun 03 00:50	5° $\mathring{\text{S}}$ 40'36	23°32'16	retrograde	1929 May 28 09:17	22° $\mathring{\text{II}}$ 26'43	
desc. node	1928 Jun 11 14:58	11° $\mathring{\text{S}}$ 32'09		desc. node	1929 May 29 11:57	22° $\mathring{\text{II}}$ 23'56	
retrograde	1928 Jun 16 16:11	12° $\mathring{\text{S}}$ 30'04		evening set	1929 May 31 02:20	22° $\mathring{\text{II}}$ 10'22	
evening set	1928 Jun 20 15:53	11° $\mathring{\text{S}}$ 55'11		inferior conj	1929 Jun 09 11:04	18° $\mathring{\text{II}}$ 06'20	-3°-2'-6
min. Earth dist.	1928 Jun 27 11:07	8° $\mathring{\text{S}}$ 45'40	0.55933 AU	minimum elong	1929 Jun 09 03:29	18° $\mathring{\text{II}}$ 16'56	2°59'49
inferior conj	1928 Jun 29 13:14	7° $\mathring{\text{S}}$ 30'52	-4°-23'-16	min. Earth dist.	1929 Jun 08 22:42	18° $\mathring{\text{II}}$ 23'39	0.55020 AU
minimum elong	1928 Jun 29 06:45	7° $\mathring{\text{S}}$ 40'35	4°22'07	morning rise	1929 Jun 18 06:06	14° $\mathring{\text{II}}$ 13'19	
morning rise	1928 Jul 08 00:56	3° $\mathring{\text{S}}$ 35'17		direct	1929 Jun 21 08:28	13° $\mathring{\text{II}}$ 52'02	
direct	1928 Jul 10 19:21	3° $\mathring{\text{S}}$ 16'16		morning max el	1929 Jul 03 07:52	19° $\mathring{\text{II}}$ 28'44	21°36'56
morning max el	1928 Jul 21 03:47	8° $\mathring{\text{S}}$ 04'02	20°11'10		1929 Jul 11 21:07	0° $\mathring{\text{S}}$	

asc. node	1929 Jul 18 03:07	10° $\overline{54}$ 0'17			1930 Jun 14 20:09	0° $\overline{\text{II}}$	
morning set	1929 Jul 23 20:08	22° $\overline{50}$ 2'03		morning max el	1930 Jun 15 02:39	0° $\overline{\text{II}}$ 15'06	23°16'17
	1929 Jul 27 15:11	0° $\overline{\Omega}$			1930 Jul 04 22:10	0° $\overline{5}$	
superior conj	1929 Jul 31 04:24	7° $\overline{\Omega}$ 27'59	1°41'05	asc. node	1930 Jul 05 00:09	0° $\overline{50}$ 9'54	
minimum elong	1929 Jul 31 02:54	7° $\overline{\Omega}$ 20'11	1°41'00	morning set	1930 Jul 08 07:21	6° $\overline{5}$ 56'41	
max. Earth dist.	1929 Aug 04 01:11	15° $\overline{\Omega}$ 24'31	1.34968 AU	superior conj	1930 Jul 15 10:02	22° $\overline{5}$ 10'43	1°30'29
evening rise	1929 Aug 08 11:59	24° $\overline{\Omega}$ 09'31		minimum elong	1930 Jul 15 07:49	21° $\overline{5}$ 58'49	1°30'16
	1929 Aug 11 14:48	0° $\overline{\eta}$		max. Earth dist.	1930 Jul 17 22:54	27° $\overline{5}$ 34'16	1.33673 AU
desc. node	1929 Aug 25 11:19	23° $\overline{\eta}$ 05'15			1930 Jul 19 02:44	0° $\overline{\Omega}$	
	1929 Aug 30 06:01	0° $\overline{\Omega}$		evening rise	1930 Jul 23 01:48	8° $\overline{\Omega}$ 04'23	
evening max el	1929 Sep 12 17:04	16° $\overline{\Omega}$ 06'35	26°47'36		1930 Aug 04 02:38	0° $\overline{\eta}$	
retrograde	1929 Sep 25 18:24	23° $\overline{\Omega}$ 21'41		desc. node	1930 Aug 12 08:19	12° $\overline{\eta}$ 42'20	
evening set	1929 Oct 02 10:12	20° $\overline{\Omega}$ 40'29		evening max el	1930 Aug 26 04:49	29° $\overline{\eta}$ 28'49	27°20'07
min. Earth dist.	1929 Oct 06 10:45	16° $\overline{\Omega}$ 36'34	0.65790 AU		1930 Aug 26 18:04	0° $\overline{\Omega}$	
inferior conj	1929 Oct 08 06:13	14° $\overline{\Omega}$ 28'57	-1°-57'-17	retrograde	1930 Sep 08 16:32	6° $\overline{\Omega}$ 47'16	
minimum elong	1929 Oct 08 09:21	14° $\overline{\Omega}$ 19'45	1°56'03	evening set	1930 Sep 15 18:06	4° $\overline{\Omega}$ 05'03	
morning rise	1929 Oct 14 09:53	8° $\overline{\Omega}$ 45'45		min. Earth dist.	1930 Sep 19 12:08	0° $\overline{\Omega}$ 37'15	0.64422 AU
asc. node	1929 Oct 14 02:19	8° $\overline{\Omega}$ 55'59			1930 Sep 20 02:16	30° $\overline{\text{R}}$ $\overline{\eta}$	
direct	1929 Oct 17 05:15	8° $\overline{\Omega}$ 02'02		inferior conj	1930 Sep 21 20:21	28° $\overline{\eta}$ 06'46	-2°-54'-57
morning max el	1929 Oct 23 19:16	11° $\overline{\Omega}$ 37'24	18°22'38	minimum elong	1930 Sep 22 00:55	27° $\overline{\eta}$ 54'32	2°53'23
	1929 Nov 05 19:29	0° $\overline{\text{M}}$		morning rise	1930 Sep 28 09:44	22° $\overline{\eta}$ 38'58	
morning set	1929 Nov 12 04:40	10° $\overline{\text{M}}$ 18'35		direct	1930 Sep 30 22:53	22° $\overline{\eta}$ 05'36	
desc. node	1929 Nov 21 10:40	25° $\overline{\text{M}}$ 09'01		asc. node	1930 Sep 30 23:23	22° $\overline{\eta}$ 05'36	
	1929 Nov 24 12:06	0° $\overline{\text{J}}$		morning max el	1930 Oct 07 11:01	25° $\overline{\eta}$ 32'18	17°58'20
superior conj	1929 Nov 27 14:02	4° $\overline{\text{J}}$ 51'30	0°-40'-18		1930 Oct 11 04:45	0° $\overline{\Omega}$	
minimum elong	1929 Nov 27 08:50	4° $\overline{\text{J}}$ 31'01	0°39'39	morning set	1930 Oct 24 17:54	21° $\overline{\Omega}$ 48'47	
max. Earth dist.	1929 Nov 29 04:07	7° $\overline{\text{J}}$ 21'10	1.45139 AU		1930 Oct 29 14:35	0° $\overline{\text{M}}$	
evening rise	1929 Dec 13 20:46	0° $\overline{\text{Z}}$ 23'53		superior conj	1930 Nov 07 02:49	13° $\overline{\text{M}}$ 58'29	0°08'07
	1929 Dec 13 14:42	0° $\overline{\text{Z}}$		minimum elong	1930 Nov 07 03:46	14° $\overline{\text{M}}$ 02'18	0°07'59
greatest brilliancy	1929 Dec 27 11:03	21° $\overline{\text{Z}}$ 32'34	-0.7m	behind sun begin	1930 Nov 06 18:42	13° $\overline{\text{M}}$ 25'43	
	1930 Jan 02 10:25	0° $\overline{\approx}$		behind sun end	1930 Nov 07 12:49	14° $\overline{\text{M}}$ 38'49	
evening max el	1930 Jan 06 00:33	4° $\overline{\approx}$ 12'44	19°15'17	desc. node	1930 Nov 08 07:40	15° $\overline{\text{M}}$ 54'33	
asc. node	1930 Jan 10 01:35	7° $\overline{\approx}$ 25'59		max. Earth dist.	1930 Nov 11 22:52	21° $\overline{\text{M}}$ 42'13	1.44633 AU
retrograde	1930 Jan 13 01:46	8° $\overline{\approx}$ 14'59			1930 Nov 17 05:31	0° $\overline{\text{J}}$	
evening set	1930 Jan 16 09:53	7° $\overline{\approx}$ 09'54		evening rise	1930 Nov 23 10:18	9° $\overline{\text{J}}$ 36'33	
inferior conj	1930 Jan 22 00:40	1° $\overline{\approx}$ 16'36	3°16'29		1930 Dec 06 20:57	0° $\overline{\text{Z}}$	
minimum elong	1930 Jan 21 22:19	1° $\overline{\approx}$ 24'09	3°16'02	greatest brilliancy	1930 Dec 13 14:33	9° $\overline{\text{Z}}$ 38'16	-0.6m
	1930 Jan 23 00:30	30° $\overline{\text{R}}$ $\overline{\text{Z}}$		evening max el	1930 Dec 20 04:48	17° $\overline{\text{Z}}$ 42'16	20°11'00
min. Earth dist.	1930 Jan 23 09:28	29° $\overline{\text{Z}}$ 31'25	0.66131 AU	retrograde	1930 Dec 27 23:38	22° $\overline{\text{Z}}$ 16'28	
morning rise	1930 Jan 27 09:56	25° $\overline{\text{Z}}$ 03'06		asc. node	1930 Dec 27 22:37	22° $\overline{\text{Z}}$ 16'28	
direct	1930 Feb 02 17:43	22° $\overline{\text{Z}}$ 16'32		evening set	1930 Dec 31 15:59	20° $\overline{\text{Z}}$ 57'35	
morning max el	1930 Feb 15 09:37	29° $\overline{\text{Z}}$ 46'02	26°13'35	inferior conj	1931 Jan 06 03:20	14° $\overline{\text{Z}}$ 50'49	2°45'28
	1930 Feb 15 15:08	0° $\overline{\approx}$		minimum elong	1931 Jan 06 00:41	14° $\overline{\text{Z}}$ 59'42	2°44'43
desc. node	1930 Feb 17 09:51	1° $\overline{\approx}$ 52'37		min. Earth dist.	1931 Jan 06 22:30	13° $\overline{\text{Z}}$ 46'12	0.67068 AU
	1930 Mar 09 22:39	0° $\overline{\text{K}}$		morning rise	1931 Jan 11 08:51	8° $\overline{\text{Z}}$ 35'32	
morning set	1930 Mar 23 12:29	23° $\overline{\text{K}}$ 24'48		direct	1931 Jan 17 02:52	6° $\overline{\text{Z}}$ 03'01	
	1930 Mar 26 23:36	0° $\overline{\text{Y}}$		morning max el	1931 Jan 28 18:25	13° $\overline{\text{Z}}$ 00'00	24°54'24
max. Earth dist.	1930 Mar 27 13:42	1° $\overline{\text{Y}}$ 08'32	1.35188 AU	desc. node	1931 Feb 04 06:54	20° $\overline{\text{Z}}$ 24'21	
superior conj	1930 Apr 01 13:00	11° $\overline{\text{Y}}$ 04'26	-1°-3'-43		1931 Feb 11 12:27	0° $\overline{\approx}$	
minimum elong	1930 Apr 01 16:12	11° $\overline{\text{Y}}$ 20'43	1°03'10	morning set	1931 Mar 02 17:28	0° $\overline{\text{K}}$	
asc. node	1930 Apr 08 00:53	24° $\overline{\text{Y}}$ 30'21		max. Earth dist.	1931 Mar 05 20:50	5° $\overline{\text{K}}$ 29'30	
evening rise	1930 Apr 09 08:15	27° $\overline{\text{Y}}$ 12'17			1931 Mar 09 13:37	12° $\overline{\text{K}}$ 11'29	1.37016 AU
	1930 Apr 10 17:05	0° $\overline{\text{B}}$		superior conj	1931 Mar 16 00:09	24° $\overline{\text{K}}$ 26'54	-1°-29'-27
evening max el	1930 Apr 27 20:36	27° $\overline{\text{B}}$ 13'07	20°33'10	minimum elong	1931 Mar 16 04:18	24° $\overline{\text{K}}$ 47'14	1°28'54
	1930 May 01 05:30	0° $\overline{\text{II}}$			1931 Mar 18 19:31	0° $\overline{\text{Y}}$	
retrograde	1930 May 08 22:19	2° $\overline{\text{II}}$ 35'41		evening rise	1931 Mar 24 11:03	11° $\overline{\text{Y}}$ 20'30	
evening set	1930 May 11 00:31	2° $\overline{\text{II}}$ 24'57		asc. node	1931 Mar 25 21:55	14° $\overline{\text{Y}}$ 14'16	
desc. node	1930 May 16 08:59	0° $\overline{\text{II}}$ 33'31			1931 Apr 03 13:38	0° $\overline{\text{B}}$	
	1930 May 17 11:06	30° $\overline{\text{R}}$ $\overline{\text{B}}$		evening max el	1931 Apr 10 11:10	8° $\overline{\text{B}}$ 53'10	19°26'56
inferior conj	1930 May 20 05:09	28° $\overline{\text{B}}$ 27'18	-1°-7'-7	retrograde	1931 Apr 19 19:51	13° $\overline{\text{B}}$ 24'35	
minimum elong	1930 May 20 01:59	28° $\overline{\text{B}}$ 31'53	1°05'58	evening set	1931 Apr 21 21:11	13° $\overline{\text{B}}$ 12'27	
min. Earth dist.	1930 May 21 11:12	27° $\overline{\text{B}}$ 43'55	0.55038 AU	inferior conj	1931 Apr 30 10:08	9° $\overline{\text{B}}$ 06'11	0°48'29
morning rise	1930 May 29 01:59	24° $\overline{\text{B}}$ 17'08		minimum elong	1931 Apr 30 12:08	9° $\overline{\text{B}}$ 02'56	0°47'47
direct	1930 Jun 01 18:38	23° $\overline{\text{B}}$ 47'45		min. Earth dist.	1931 May 03 01:50	7° $\overline{\text{B}}$ 23'20	0.55997 AU

desc. node	1931 May 03 06:02	7°♄16'44		min. Earth dist.	1932 Apr 13 19:22	17°♄49'46	0.57690 AU
morning rise	1931 May 08 23:13	4°♄23'36		morning rise	1932 Apr 18 08:11	15°♄05'09	
direct	1931 May 13 14:32	3°♄34'48		desc. node	1932 Apr 19 03:06	14°♄44'40	
morning max el	1931 May 27 17:19	10°♄43'25	24°57'20	direct	1932 Apr 24 00:45	13°♄44'35	
	1931 Jun 11 07:27	0°♄		morning max el	1932 May 08 09:28	21°♄19'05	26°24'55
asc. node	1931 Jun 21 21:12	19°♄57'51			1932 May 15 22:49	0°♄	
morning set	1931 Jun 22 19:15	21°♄53'31			1932 Jun 02 23:05	0°♄	
	1931 Jun 26 13:49	0°♄		morning set	1932 Jun 06 06:08	6°♄46'04	
				asc. node	1932 Jun 07 18:14	9°♄57'38	
superior conj	1931 Jun 29 19:38	7°♄04'44	1°15'02	superior conj	1932 Jun 13 07:09	22°♄02'20	0°55'33
minimum elong	1931 Jun 29 17:14	6°♄51'35	1°14'41	minimum elong	1932 Jun 13 05:02	21°♄50'41	0°55'09
max. Earth dist.	1931 Jul 01 04:39	10°♄04'16	1.32790 AU	max. Earth dist.	1932 Jun 13 15:25	22°♄47'51	1.32302 AU
evening rise	1931 Jul 07 01:04	22°♄27'04			1932 Jun 16 22:30	0°♄	
	1931 Jul 10 19:56	0°♄		evening rise	1932 Jun 20 06:43	7°♄07'20	
	1931 Jul 28 23:24	0°♄			1932 Jul 02 08:16	0°♄	
desc. node	1931 Jul 30 05:20	1°♄40'30		desc. node	1932 Jul 16 02:23	19°♄43'06	
evening max el	1931 Aug 08 14:09	12°♄24'13	27°23'31	evening max el	1932 Jul 20 18:43	24°♄40'40	26°54'06
retrograde	1931 Aug 22 08:33	19°♄41'26		retrograde	1932 Jul 27 20:38	0°♄	
evening set	1931 Aug 29 13:27	17°♄10'07			1932 Aug 03 17:13	1°♄54'28	
min. Earth dist.	1931 Sep 02 03:41	14°♄12'41	0.62713 AU		1932 Aug 10 07:32	30°♄	
inferior conj	1931 Sep 05 00:09	11°♄28'34	-3°-48'-25	evening set	1932 Aug 10 15:54	29°♄47'49	
minimum elong	1931 Sep 05 05:29	11°♄15'46	3°47'01	min. Earth dist.	1932 Aug 14 08:53	27°♄08'57	0.60741 AU
morning rise	1931 Sep 12 00:07	6°♄19'22		inferior conj	1932 Aug 17 14:17	24°♄25'52	-4°-31'-58
direct	1931 Sep 14 09:44	5°♄53'02		minimum elong	1932 Aug 17 18:54	24°♄16'05	4°31'13
asc. node	1931 Sep 17 20:26	6°♄48'40		morning rise	1932 Aug 25 01:03	19°♄38'04	
morning max el	1931 Sep 21 02:59	9°♄19'26	17°51'50	direct	1932 Aug 27 10:02	19°♄15'57	
	1931 Oct 04 18:27	0°♄		morning max el	1932 Sep 03 16:02	22°♄50'40	18°04'15
morning set	1931 Oct 07 06:05	4°♄24'45		asc. node	1932 Sep 03 17:28	22°♄54'11	
					1932 Sep 09 07:20	0°♄	
superior conj	1931 Oct 18 16:52	24°♄20'52	0°49'34	morning set	1932 Sep 19 11:08	17°♄49'03	
minimum elong	1931 Oct 18 21:08	24°♄38'52	0°49'01		1932 Sep 26 01:15	0°♄	
	1931 Oct 22 02:08	0°♄		superior conj	1932 Sep 29 09:29	6°♄01'11	1°19'23
max. Earth dist.	1931 Oct 25 14:06	5°♄43'06	1.43460 AU	minimum elong	1932 Sep 29 13:46	6°♄20'12	1°18'56
desc. node	1931 Oct 26 04:41	6°♄41'59		max. Earth dist.	1932 Oct 07 00:24	19°♄10'19	1.41767 AU
evening rise	1931 Nov 02 18:52	18°♄41'58		desc. node	1932 Oct 12 01:43	27°♄28'04	
	1931 Nov 10 04:27	0°♄		evening rise	1932 Oct 12 15:33	28°♄23'35	
greatest brilliancy	1931 Nov 28 01:12	25°♄19'20	-0.4m		1932 Oct 13 15:41	0°♄	
	1931 Dec 02 00:00	0°♄		greatest brilliancy	1932 Nov 10 00:25	9°♄18'47	-0.3m
evening max el	1931 Dec 03 03:28	1°♄12'38	21°19'25	evening max el	1932 Nov 14 20:58	14°♄45'21	22°36'23
retrograde	1931 Dec 11 21:11	6°♄24'10		retrograde	1932 Nov 24 16:40	20°♄35'24	
asc. node	1931 Dec 14 19:41	5°♄36'18		evening set	1932 Nov 29 07:09	18°♄44'26	
evening set	1931 Dec 15 23:37	4°♄49'55		asc. node	1932 Nov 30 16:43	17°♄25'56	
	1931 Dec 20 08:00	30°♄		inferior conj	1932 Dec 04 16:47	12°♄21'16	1°20'19
inferior conj	1931 Dec 21 09:21	28°♄33'05	2°06'11	minimum elong	1932 Dec 04 15:02	12°♄27'18	1°19'37
minimum elong	1931 Dec 21 06:57	28°♄41'24	2°05'20	min. Earth dist.	1932 Dec 04 12:51	12°♄34'51	0.67828 AU
min. Earth dist.	1931 Dec 21 16:27	28°♄08'34	0.67626 AU	morning rise	1932 Dec 09 22:49	6°♄08'41	
morning rise	1931 Dec 26 13:55	22°♄18'03		direct	1932 Dec 14 10:54	4°♄19'05	
direct	1931 Dec 31 16:55	20°♄05'42		morning max el	1932 Dec 23 15:20	9°♄43'09	21°59'35
morning max el	1932 Jan 11 03:12	26°♄18'16	23°26'29	greatest brilliancy	1932 Dec 28 08:14	15°♄00'51	-0.4m
	1932 Jan 14 12:46	0°♄		desc. node	1933 Jan 08 00:59	29°♄26'06	
greatest brilliancy	1932 Jan 16 22:00	2°♄51'06	-0.2m		1933 Jan 08 10:25	0°♄	
desc. node	1932 Jan 22 03:56	9°♄39'31		morning set	1933 Jan 25 08:22	25°♄47'39	
	1932 Feb 05 02:36	0°♄			1933 Jan 27 22:39	0°♄	
morning set	1932 Feb 15 05:04	16°♄20'33		max. Earth dist.	1933 Jan 31 06:09	5°♄28'34	1.41252 AU
max. Earth dist.	1932 Feb 19 08:15	23°♄26'23	1.39122 AU	superior conj	1933 Feb 08 00:03	18°♄47'39	-2°-3'-12
	1932 Feb 23 00:50	0°♄		minimum elong	1933 Feb 08 01:56	18°♄56'00	2°03'10
					1933 Feb 14 05:06	0°♄	
superior conj	1932 Feb 26 21:26	7°♄05'02	-1°-50'-33	evening rise	1933 Feb 18 13:21	8°♄02'05	
minimum elong	1932 Feb 27 01:28	7°♄23'49	1°50'13	asc. node	1933 Feb 26 16:02	22°♄39'39	
evening rise	1932 Mar 07 05:51	24°♄59'37			1933 Mar 03 10:49	0°♄	
	1932 Mar 09 20:21	0°♄		evening max el	1933 Mar 06 19:48	3°♄57'00	18°14'13
asc. node	1932 Mar 11 18:59	3°♄39'26		retrograde	1933 Mar 13 19:43	7°♄27'12	
evening max el	1932 Mar 23 11:56	21°♄10'26	18°40'34	evening set	1933 Mar 16 07:50	7°♄01'07	
retrograde	1932 Mar 31 10:27	25°♄02'54					
evening set	1932 Apr 02 16:53	24°♄45'04					
inferior conj	1932 Apr 10 10:42	20°♄20'55	2°17'54				
minimum elong	1932 Apr 10 14:43	20°♄13'20	2°16'46				

inferior conj	1933 Mar 23 08:22	2°Υ15'34	3°13'23	retrograde	1934 Feb 24 20:17	20°✕27'03	
minimum elong	1933 Mar 23 11:31	2°Υ08'38	3°12'50	evening set	1934 Feb 27 13:24	19°✕51'26	
	1933 Mar 25 21:49	30°℞✕		inferior conj	1934 Mar 06 00:16	14°✕44'33	3°39'20
min. Earth dist.	1933 Mar 26 17:44	29°✕17'44	0.59775 AU	minimum elong	1934 Mar 06 01:27	14°✕41'33	3°39'17
morning rise	1933 Mar 30 11:38	26°✕34'47		min. Earth dist.	1934 Mar 08 23:43	11°✕44'57	0.61901 AU
direct	1933 Apr 05 23:35	24°✕37'49		morning rise	1934 Mar 12 11:00	8°✕47'38	
desc. node	1933 Apr 06 00:09	24°✕37'49		direct	1934 Mar 19 08:25	6°✕19'46	
	1933 Apr 17 15:27	0°Υ		desc. node	1934 Mar 23 21:11	7°✕17'04	
morning max el	1933 Apr 20 07:06	2°Υ25'56	27°24'59	morning max el	1934 Apr 02 11:03	14°✕14'29	27°49'19
	1933 May 10 07:42	0°♄			1934 Apr 15 04:14	0°Υ	
morning set	1933 May 21 14:19	21°♄28'48			1934 May 02 18:45	0°♄	
asc. node	1933 May 25 15:18	0°♀04'36		morning set	1934 May 05 17:51	5°♄55'12	
	1933 May 25 14:27	0°♀		max. Earth dist.	1934 May 11 13:38	18°♄11'19	1.32476 AU
max. Earth dist.	1933 May 28 03:44	5°♀34'42	1.32198 AU	asc. node	1934 May 12 12:21	20°♄14'23	
superior conj	1933 May 28 18:49	6°♀57'33	0°32'44	superior conj	1934 May 13 04:56	21°♄44'39	0°07'19
minimum elong	1933 May 28 17:24	6°♀49'49	0°32'25	minimum elong	1934 May 13 04:36	21°♄42'47	0°07'14
evening rise	1933 Jun 04 16:21	21°♀57'21		behind sun begin	1934 May 13 00:00	21°♄17'44	
	1933 Jun 08 14:12	0°♄		behind sun end	1934 May 13 09:12	22°♄07'51	
	1933 Jun 27 01:12	0°♂			1934 May 16 23:43	0°♀	
evening max el	1933 Jul 02 16:25	6°♂10'43	25°52'38	evening rise	1934 May 20 03:56	6°♀50'05	
desc. node	1933 Jul 02 23:24	6°♂27'14			1934 Jun 01 08:22	0°♄	
retrograde	1933 Jul 16 16:37	13°♂20'12		evening max el	1934 Jun 14 07:42	16°♄59'07	24°27'00
evening set	1933 Jul 22 20:39	11°♂49'15		desc. node	1934 Jun 19 20:25	21°♄22'18	
min. Earth dist.	1933 Jul 27 04:50	9°♂11'59	0.58682 AU	retrograde	1934 Jun 28 04:57	24°♄00'07	
inferior conj	1933 Jul 30 11:11	6°♂48'52	-4°-56'-16	evening set	1934 Jul 03 01:50	23°♄07'00	
minimum elong	1933 Jul 30 12:43	6°♂46'03	4°56'13	min. Earth dist.	1934 Jul 08 18:40	20°♄13'32	0.56800 AU
morning rise	1933 Aug 07 08:17	2°♂24'11		inferior conj	1934 Jul 11 12:12	18°♄29'20	-4°-48'-5
direct	1933 Aug 09 19:32	2°♂04'13		minimum elong	1934 Jul 11 08:30	18°♄35'15	4°47'44
morning max el	1933 Aug 17 22:58	5°♂57'07	18°36'52	morning rise	1934 Jul 19 18:52	14°♄25'54	
asc. node	1933 Aug 21 14:31	10°♂07'05		direct	1934 Jul 22 10:21	14°♄06'52	
	1933 Sep 02 05:44	0°♄		morning max el	1934 Jul 31 20:55	18°♄30'14	19°30'43
morning set	1933 Sep 03 04:01	1°♄47'44		asc. node	1934 Aug 08 11:34	28°♄13'09	
					1934 Aug 09 13:49	0°♂	
superior conj	1933 Sep 11 23:56	18°♄45'58	1°37'23	morning set	1934 Aug 18 05:12	16°♂11'26	
minimum elong	1933 Sep 12 02:36	18°♄58'26	1°37'11		1934 Aug 25 02:18	0°♄	
	1933 Sep 18 03:48	0°♂					
max. Earth dist.	1933 Sep 19 06:07	1°♂55'51	1.39773 AU	superior conj	1934 Aug 26 06:43	2°♄20'17	1°45'08
evening rise	1933 Sep 23 10:35	9°♂07'06		minimum elong	1934 Aug 26 07:29	2°♄24'00	1°45'07
desc. node	1933 Sep 28 22:44	18°♂08'42		max. Earth dist.	1934 Sep 01 10:05	14°♄03'53	1.37734 AU
	1933 Oct 06 15:04	0°♂		evening rise	1934 Sep 05 05:29	20°♄57'49	
evening max el	1933 Oct 28 10:43	28°♂20'52	23°56'26		1934 Sep 10 11:29	0°♂	
	1933 Oct 30 04:27	0°♄		desc. node	1934 Sep 15 19:45	8°♂39'58	
retrograde	1933 Nov 08 08:48	4°♄46'15			1934 Sep 30 14:46	0°♂	
evening set	1933 Nov 13 12:55	2°♄37'56		evening max el	1934 Oct 10 22:43	11°♂59'31	25°12'46
	1933 Nov 16 02:07	30°℞♂		retrograde	1934 Oct 22 20:44	18°♂52'49	
asc. node	1933 Nov 17 13:45	28°♂07'01		evening set	1934 Oct 28 15:18	16°♂28'20	
inferior conj	1933 Nov 18 23:47	26°♂12'24	0°29'09	min. Earth dist.	1934 Nov 02 03:24	11°♂26'52	0.67222 AU
minimum elong	1933 Nov 18 23:06	26°♂14'45	0°28'52	inferior conj	1934 Nov 03 04:40	10°♂04'34	0°-25'-56
min. Earth dist.	1933 Nov 18 09:17	27°♂01'37	0.67691 AU	minimum elong	1934 Nov 03 05:19	10°♂02'25	0°25'40
morning rise	1933 Nov 24 09:29	20°♂04'40		asc. node	1934 Nov 04 10:47	8°♂27'46	
direct	1933 Nov 28 07:41	18°♂37'24		morning rise	1934 Nov 08 19:59	4°♂04'10	
morning max el	1933 Dec 06 10:11	23°♂18'10	20°40'54	direct	1934 Nov 12 05:58	2°♂56'50	
	1933 Dec 12 03:43	0°♄		morning max el	1934 Nov 19 12:56	7°♂04'14	19°35'00
greatest brilliancy	1933 Dec 12 08:43	0°♄16'10	-0.5m	greatest brilliancy	1934 Nov 27 22:03	17°♂36'14	-0.6m
desc. node	1933 Dec 25 22:00	19°♄34'49			1934 Dec 06 06:42	0°♄	
	1934 Jan 01 18:40	0°♄		desc. node	1934 Dec 12 19:02	9°♄59'34	
morning set	1934 Jan 04 10:43	4°♄07'43		morning set	1934 Dec 14 08:01	12°♄22'26	
max. Earth dist.	1934 Jan 13 11:51	18°♄28'06	1.43104 AU		1934 Dec 25 14:59	0°♄	
				max. Earth dist.	1934 Dec 27 00:35	2°♄12'54	1.44432 AU
superior conj	1934 Jan 20 02:41	29°♄22'00	-2°-2'-36	superior conj	1934 Dec 31 02:54	8°♄44'55	-1°-44'-10
minimum elong	1934 Jan 19 23:55	29°♄10'23	2°02'32	minimum elong	1934 Dec 30 19:03	8°♄13'26	1°43'32
	1934 Jan 20 11:44	0°♄			1935 Jan 13 01:20	0°♄	
evening rise	1934 Feb 01 05:27	20°♄19'07			1935 Jan 14 01:53	1°♄43'08	
	1934 Feb 06 17:24	0°✕		evening rise	1935 Jan 31 10:05	28°♄50'10	
asc. node	1934 Feb 13 13:04	11°✕06'31		asc. node	1935 Feb 01 11:16	0°✕	
evening max el	1934 Feb 18 07:26	17°✕03'24	18°07'30				

evening max el	1935 Feb 01 19:56	0° Υ 22'22	18°19'48	evening rise	1935 Dec 25 23:18	12° Ξ 09'23	
retrograde	1935 Feb 08 07:25	3° Υ 52'40			1936 Jan 06 03:32	0° \approx	
evening set	1935 Feb 11 05:34	3° Υ 06'36		evening max el	1936 Jan 16 06:51	13° \approx 48'37	18°50'15
	1935 Feb 15 03:02	30° \Re \approx		asc. node	1936 Jan 18 07:07	15° \approx 38'17	
inferior conj	1935 Feb 17 06:21	27° \approx 40'04	3°42'50	retrograde	1936 Jan 23 01:05	17° \approx 36'34	
minimum elong	1935 Feb 17 05:42	27° \approx 41'55	3°42'48	evening set	1936 Jan 26 05:07	16° \approx 38'57	
min. Earth dist.	1935 Feb 19 15:15	24° \approx 59'32	0.63823 AU	inferior conj	1936 Jan 31 22:51	10° \approx 54'55	3°29'48
morning rise	1935 Feb 23 04:10	21° \approx 33'33		minimum elong	1936 Jan 31 20:56	11° \approx 00'50	3°29'32
direct	1935 Mar 02 01:37	18° \approx 47'08		min. Earth dist.	1936 Feb 02 16:17	8° \approx 47'08	0.65398 AU
desc. node	1935 Mar 10 18:13	22° \approx 16'37		morning rise	1936 Feb 06 11:39	4° \approx 43'07	
morning max el	1935 Mar 15 19:23	26° \approx 41'30	27°36'32	direct	1936 Feb 13 01:57	1° \approx 52'34	
	1935 Mar 18 21:53	0° Υ		desc. node	1936 Feb 25 15:15	9° \approx 01'00	
	1935 Apr 08 18:40	0° Υ		morning max el	1936 Feb 26 05:13	9° \approx 35'41	26°51'15
morning set	1935 Apr 19 14:12	19° Υ 56'43			1936 Mar 13 06:40	0° Υ	
max. Earth dist.	1935 Apr 24 16:59	0° Υ 23'35	1.33169 AU		1936 Mar 31 05:08	0° Υ	
	1935 Apr 24 12:29	0° Υ		morning set	1936 Apr 02 00:13	3° Υ 23'41	
				max. Earth dist.	1936 Apr 06 10:04	12° Υ 02'29	1.34315 AU
superior conj	1935 Apr 27 11:41	6° Υ 17'05	0°-19'-55	superior conj	1936 Apr 10 13:01	20° Υ 28'50	0°-47'-52
minimum elong	1935 Apr 27 12:40	6° Υ 22'21	0°19'44	minimum elong	1936 Apr 10 15:26	20° Υ 41'25	0°47'24
asc. node	1935 Apr 29 09:22	10° Υ 22'19		asc. node	1936 Apr 15 06:25	0° Υ 24'36	
evening rise	1935 May 04 15:36	21° Υ 38'22			1936 Apr 15 01:45	0° Υ	
	1935 May 08 17:20	0° Π		evening rise	1936 Apr 18 01:29	6° Υ 16'21	
evening max el	1935 May 26 21:46	27° Π 28'07	22°51'05		1936 May 01 01:29	0° Π	
	1935 May 29 19:26	0° Ξ		evening max el	1936 May 07 18:28	8° Π 10'34	21°19'38
desc. node	1935 Jun 06 17:26	3° Ξ 51'22		retrograde	1936 May 19 19:26	14° Π 03'25	
retrograde	1935 Jun 09 05:06	4° Ξ 05'29		evening set	1936 May 22 03:42	13° Π 50'48	
evening set	1935 Jun 12 14:18	3° Ξ 40'21		desc. node	1936 May 23 14:26	13° Π 31'06	
min. Earth dist.	1935 Jun 20 06:24	0° Ξ 16'36	0.55438 AU	inferior conj	1936 May 31 12:37	9° Π 51'35	-2°-15'-47
	1935 Jun 20 17:58	30° \Re Π		minimum elong	1936 May 31 06:26	10° Π 00'17	2°13'41
inferior conj	1935 Jun 21 18:04	29° Π 25'15	-3°-54'-28	min. Earth dist.	1936 May 31 18:39	9° Π 43'07	0.54909 AU
minimum elong	1935 Jun 21 10:23	29° Π 36'20	3°52'40	morning rise	1936 Jun 09 09:20	5° Π 53'16	
morning rise	1935 Jun 30 09:18	25° Π 33'17		direct	1936 Jun 12 16:35	5° Π 29'35	
direct	1935 Jul 03 06:24	25° Π 13'54		morning max el	1936 Jun 25 07:34	11° Π 29'02	22°17'59
	1935 Jul 13 22:22	0° Ξ			1936 Jul 08 20:47	0° Ξ	
morning max el	1935 Jul 14 07:45	0° Ξ 21'23	20°45'33	asc. node	1936 Jul 12 05:40	6° Ξ 15'15	
asc. node	1935 Jul 26 08:36	16° Ξ 59'09		morning set	1936 Jul 16 21:59	15° Ξ 42'35	
morning set	1935 Aug 02 11:53	0° Ω 51'39			1936 Jul 23 15:39	0° Ω	
	1935 Aug 02 01:48	0° Ω					
superior conj	1935 Aug 10 01:06	16° Ω 29'24	1°44'33	superior conj	1936 Jul 24 03:28	1° Ω 02'30	1°37'14
minimum elong	1935 Aug 10 00:17	16° Ω 25'12	1°44'32	minimum elong	1936 Jul 24 01:36	0° Ω 52'37	1°37'06
max. Earth dist.	1935 Aug 14 17:44	25° Ω 53'52	1.35881 AU	max. Earth dist.	1936 Jul 27 09:55	7° Ω 51'52	1.34371 AU
	1935 Aug 16 20:39	0° \Re		evening rise	1936 Aug 01 03:33	17° Ω 21'11	
evening rise	1935 Aug 18 20:41	3° \Re 46'33			1936 Aug 07 22:59	0° \Re	
desc. node	1935 Sep 02 16:45	28° \Re 55'55		desc. node	1936 Aug 19 13:46	18° \Re 49'41	
	1935 Sep 03 09:33	0° Ξ			1936 Aug 27 17:43	0° Ξ	
evening max el	1935 Sep 23 10:37	25° Ξ 38'11	26°18'04	evening max el	1936 Sep 04 22:52	9° Ξ 09'58	27°04'39
	1935 Sep 28 15:52	0° \Re		retrograde	1936 Sep 18 05:33	16° Ξ 27'48	
retrograde	1935 Oct 06 03:54	2° \Re 49'01		evening set	1936 Sep 25 01:54	13° Ξ 45'05	
evening set	1935 Oct 12 12:23	0° \Re 12'03		min. Earth dist.	1936 Sep 28 23:32	9° Ξ 56'35	0.65246 AU
	1935 Oct 12 18:03	30° \Re Ξ		inferior conj	1936 Oct 01 00:19	7° Ξ 38'25	-2°-22'-2
min. Earth dist.	1935 Oct 16 16:55	25° Ξ 46'53	0.66408 AU	minimum elong	1936 Oct 01 04:06	7° Ξ 27'41	2°20'38
inferior conj	1935 Oct 18 05:33	23° Ξ 54'32	-1°-23'-37	morning rise	1936 Oct 07 07:58	2° Ξ 01'11	
minimum elong	1935 Oct 18 07:45	23° Ξ 47'44	1°22'43	asc. node	1936 Oct 08 04:53	1° Ξ 40'09	
asc. node	1935 Oct 22 07:49	19° Ξ 24'43		direct	1936 Oct 10 00:17	1° Ξ 22'25	
morning rise	1935 Oct 24 04:15	18° Ξ 04'11		morning max el	1936 Oct 16 12:48	4° Ξ 53'26	18°10'07
direct	1935 Oct 27 04:11	17° Ξ 13'06			1936 Nov 02 11:00	0° \Re	
morning max el	1935 Nov 02 22:33	20° Ξ 57'44	18°44'19	morning set	1936 Nov 03 21:38	2° \Re 22'46	
	1935 Nov 10 01:24	0° \Re		desc. node	1936 Nov 15 13:04	21° \Re 18'06	
morning set	1935 Nov 24 00:17	21° \Re 39'05					
	1935 Nov 29 07:05	0° \Re		superior conj	1936 Nov 18 11:06	25° \Re 56'47	0°-19'-29
desc. node	1935 Nov 29 16:04	0° \Re 35'22		minimum elong	1936 Nov 18 08:37	25° \Re 46'54	0°19'09
max. Earth dist.	1935 Dec 09 17:46	16° \Re 25'07	1.45084 AU		1936 Nov 21 00:39	0° \Re	
				max. Earth dist.	1936 Nov 21 12:38	0° \Re 47'11	1.45006 AU
superior conj	1935 Dec 10 07:28	17° \Re 18'58	-1°-7'-16	evening rise	1936 Dec 04 22:17	21° \Re 42'27	
minimum elong	1935 Dec 09 23:27	16° \Re 47'26	1°06'21		1936 Dec 10 06:39	0° Ξ	
	1935 Dec 18 08:28	0° Ξ		greatest brilliancy	1936 Dec 21 14:56	17° Ξ 08'31	-0.7m

evening max el	1936 Dec 29 14:03	27°☿17'36	19°37'22			1937 Nov 13 19:25	0°☿	
	1937 Jan 01 16:41	0°☿		evening rise		1937 Nov 14 07:43	0°☿47'22	
asc. node	1937 Jan 04 04:10	1°☿15'42				1937 Dec 03 23:51	0°☿	
retrograde	1937 Jan 05 22:03	1°☿32'27		greatest brilliancy		1937 Dec 06 20:22	3°☿51'49	-0.5m
evening set	1937 Jan 09 09:26	0°☿21'48		evening max el		1937 Dec 12 16:05	10°☿47'52	20°38'49
	1937 Jan 09 21:29	30°☿		retrograde		1937 Dec 20 19:54	15°☿36'57	
inferior conj	1937 Jan 14 22:32	24°☿22'42	3°04'28	asc. node		1937 Dec 22 01:13	15°☿28'36	
minimum elong	1937 Jan 14 20:00	24°☿31'03	3°03'52	evening set		1937 Dec 24 16:25	14°☿11'35	
min. Earth dist.	1937 Jan 16 01:26	22°☿54'23	0.66576 AU	inferior conj		1937 Dec 30 02:53	8°☿00'17	2°29'40
morning rise	1937 Jan 20 05:50	18°☿08'15		minimum elong		1937 Dec 30 00:17	8°☿09'09	2°28'52
direct	1937 Jan 26 08:10	15°☿26'20		min. Earth dist.		1937 Dec 30 16:44	7°☿12'59	0.67356 AU
morning max el	1937 Feb 07 14:18	22°☿43'45	25°41'36	morning rise		1938 Jan 04 07:42	1°☿45'07	
desc. node	1937 Feb 11 12:18	26°☿59'38				1938 Jan 06 21:37	30°☿	
	1937 Feb 14 00:26	0°☿		direct		1938 Jan 09 19:29	29°☿20'38	
	1937 Mar 06 14:06	0°☿				1938 Jan 12 22:30	0°☿	
morning set	1937 Mar 15 19:28	16°☿02'12		morning max el		1938 Jan 20 22:40	5°☿58'57	24°17'29
max. Earth dist.	1937 Mar 19 15:21	23°☿11'05	1.35918 AU	desc. node		1938 Jan 29 09:21	15°☿51'14	
	1937 Mar 23 03:41	0°☿				1938 Feb 08 13:17	0°☿	
				morning set		1938 Feb 25 18:16	27°☿36'44	
superior conj	1937 Mar 25 06:16	4°☿11'35	-1°-15'-1			1938 Feb 27 03:00	0°☿	
minimum elong	1937 Mar 25 09:56	4°☿30'03	1°14'25	max. Earth dist.		1938 Mar 01 12:14	4°☿14'56	1.37895 AU
evening rise	1937 Apr 02 07:31	20°☿36'56						
asc. node	1937 Apr 02 03:28	20°☿16'19		superior conj		1938 Mar 08 12:02	17°☿16'16	-1°-39'-10
	1937 Apr 07 01:09	0°☿		minimum elong		1938 Mar 08 16:19	17°☿36'50	1°38'41
evening max el	1937 Apr 20 02:21	19°☿27'20	20°02'40			1938 Mar 15 00:02	0°☿	
retrograde	1937 Apr 30 10:03	24°☿26'35		evening rise		1938 Mar 17 07:15	4°☿33'22	
evening set	1937 May 02 10:47	24°☿15'51		asc. node		1938 Mar 20 00:31	9°☿52'42	
desc. node	1937 May 10 11:29	20°☿49'43				1938 Apr 01 13:24	0°☿	
inferior conj	1937 May 11 09:44	20°☿16'28	0°-16'-11	evening max el		1938 Apr 02 21:33	1°☿23'27	19°04'43
minimum elong	1937 May 11 08:59	20°☿17'35	0°15'56	retrograde		1938 Apr 11 14:11	5°☿36'19	
transit middle	1937 May 11 08:59	20°☿17'35	0°15'56	evening set		1938 Apr 13 17:36	5°☿22'02	
transit begin	1937 May 11 08:53	20°☿17'45		inferior conj		1938 Apr 21 22:22	1°☿08'34	1°30'29
transit end	1937 May 11 09:06	20°☿17'25		minimum elong		1938 Apr 22 01:40	1°☿02'51	1°29'24
min. Earth dist.	1937 May 13 08:02	19°☿07'02	0.55346 AU			1938 Apr 23 13:56	30°☿	
morning rise	1937 May 20 04:29	15°☿53'38		min. Earth dist.		1938 Apr 24 23:19	29°☿03'26	0.56650 AU
direct	1937 May 24 06:16	15°☿17'19		desc. node		1938 Apr 27 08:32	27°☿34'55	
morning max el	1937 Jun 06 23:40	22°☿03'52	23°59'47	morning rise		1938 Apr 30 05:34	26°☿11'36	
	1937 Jun 13 22:28	0°☿		direct		1938 May 05 07:54	25°☿10'42	
asc. node	1937 Jun 29 02:43	25°☿53'24				1938 May 16 17:46	0°☿	
morning set	1937 Jul 01 09:43	0°☿38'42		morning max el		1938 May 19 14:11	2°☿31'09	25°37'13
	1937 Jul 01 02:21	0°☿				1938 Jun 08 00:32	0°☿	
				morning set		1938 Jun 15 21:23	15°☿34'24	
superior conj	1937 Jul 08 11:05	15°☿50'49	1°24'29	asc. node		1938 Jun 15 23:46	15°☿46'57	
minimum elong	1937 Jul 08 08:43	15°☿38'03	1°24'11					
max. Earth dist.	1937 Jul 10 11:28	20°☿10'57	1.33255 AU	superior conj		1938 Jun 22 21:41	0°☿46'49	1°07'14
	1937 Jul 15 04:11	0°☿		minimum elong		1938 Jun 22 19:21	0°☿34'00	1°06'49
evening rise	1937 Jul 15 21:51	1°☿29'28				1938 Jun 22 13:09	0°☿	
	1937 Jul 31 21:07	0°☿		max. Earth dist.		1938 Jun 23 20:01	2°☿49'01	1.32539 AU
desc. node	1937 Aug 06 10:47	8°☿11'55		evening rise		1938 Jun 30 00:09	16°☿00'34	
evening max el	1937 Aug 18 10:11	22°☿23'35	27°25'29			1938 Jul 07 03:21	0°☿	
retrograde	1937 Sep 01 01:08	29°☿41'11		desc. node		1938 Jul 24 07:50	26°☿48'49	
evening set	1937 Sep 08 04:57	27°☿02'26				1938 Jul 26 22:55	0°☿	
min. Earth dist.	1937 Sep 11 21:03	23°☿48'16	0.63734 AU	evening max el		1938 Jul 31 17:55	5°☿04'04	27°15'05
inferior conj	1937 Sep 14 10:30	21°☿10'56	-3°-18'-26	retrograde		1938 Aug 14 13:51	12°☿19'08	
minimum elong	1937 Sep 14 15:30	20°☿58'04	3°16'53	evening set		1938 Aug 21 17:42	9°☿56'39	
morning rise	1937 Sep 21 04:17	15°☿50'17		min. Earth dist.		1938 Aug 25 08:01	7°☿09'07	0.61904 AU
direct	1937 Sep 23 15:38	15°☿20'12		inferior conj		1938 Aug 28 08:57	4°☿23'32	-4°-8'-34
asc. node	1937 Sep 25 01:56	15°☿30'26		minimum elong		1938 Aug 28 14:13	4°☿11'32	4°07'23
morning max el	1937 Sep 30 05:00	18°☿45'50	17°53'17			1938 Sep 03 02:59	30°☿	
	1937 Oct 08 10:12	0°☿		morning rise		1938 Sep 04 13:32	29°☿23'06	
morning set	1937 Oct 16 21:32	14°☿24'01		direct		1938 Sep 06 22:39	28°☿58'44	
	1937 Oct 26 01:14	0°☿				1938 Sep 10 15:38	0°☿	
				asc. node		1938 Sep 11 22:59	0°☿50'19	
superior conj	1937 Oct 29 09:48	5°☿33'30	0°26'58	morning max el		1938 Sep 13 20:07	2°☿27'11	17°54'45
minimum elong	1937 Oct 29 12:38	5°☿45'07	0°26'35	morning set		1938 Sep 29 17:36	27°☿22'39	
desc. node	1937 Nov 02 10:06	12°☿04'52				1938 Oct 01 04:19	0°☿	
max. Earth dist.	1937 Nov 04 06:34	15°☿03'07	1.44212 AU					

superior conj	1938 Oct 10 11:33	16° Ω 30'12	1°03'44	minimum elong	1939 Sep 22 17:53	28° Π 56'56	1°28'02
minimum elong	1938 Oct 10 16:08	16° Ω 49'57	1°03'10		1939 Sep 23 07:48	0° Ω	
max. Earth dist.	1938 Oct 17 20:27	28° Ω 53'29	1.42796 AU	max. Earth dist.	1939 Sep 30 04:21	12° Ω 02'16	1.40942 AU
	1938 Oct 18 12:43	0° Π		evening rise	1939 Oct 05 01:04	20° Ω 09'03	
desc. node	1938 Oct 20 07:08	2° Π 52'00		desc. node	1939 Oct 07 04:10	23° Ω 36'00	
evening rise	1938 Oct 24 19:38	10° Π 03'30			1939 Oct 11 05:20	0° Π	
	1938 Nov 06 23:33	0° \mathcal{A}			1939 Nov 01 07:03	0° \mathcal{A}	
greatest brilliancy	1938 Nov 20 17:37	18° \mathcal{A} 52'27	-0.4m	greatest brilliancy	1939 Nov 01 21:30	0° \mathcal{A} 44'58	-0.2m
evening max el	1938 Nov 25 12:24	24° \mathcal{A} 18'35	21°51'20	evening max el	1939 Nov 08 03:52	7° \mathcal{A} 51'17	23°10'21
retrograde	1938 Dec 04 16:46	29° \mathcal{A} 46'27		retrograde	1939 Nov 18 11:05	13° \mathcal{A} 57'42	
asc. node	1938 Dec 08 22:15	28° \mathcal{A} 08'49		evening set	1939 Nov 23 07:11	11° \mathcal{A} 59'13	
evening set	1938 Dec 09 00:13	28° \mathcal{A} 04'57		asc. node	1939 Nov 25 19:17	9° \mathcal{A} 24'46	
inferior conj	1938 Dec 14 09:43	21° \mathcal{A} 44'49	1°47'25	inferior conj	1939 Nov 28 17:10	5° \mathcal{A} 34'14	0°59'10
minimum elong	1938 Dec 14 07:32	21° \mathcal{A} 52'21	1°46'37	minimum elong	1939 Nov 28 15:49	5° \mathcal{A} 38'50	0°58'37
min. Earth dist.	1938 Dec 14 11:56	21° \mathcal{A} 37'08	0.67757 AU	min. Earth dist.	1939 Nov 28 08:40	6° \mathcal{A} 03'30	0.67809 AU
morning rise	1938 Dec 19 14:39	15° \mathcal{A} 30'46			1939 Dec 03 07:22	30° $\mathcal{R}\Pi$	
direct	1938 Dec 24 11:09	13° \mathcal{A} 28'14		morning rise	1939 Dec 04 00:30	29° Π 23'20	
morning max el	1939 Jan 03 08:34	19° \mathcal{A} 19'49	22°48'57	direct	1939 Dec 08 06:23	27° Π 43'39	
greatest brilliancy	1939 Jan 08 00:12	24° \mathcal{A} 31'15	-0.3m		1939 Dec 13 19:16	0° \mathcal{A}	
	1939 Jan 12 07:57	0° \mathcal{B}		morning max el	1939 Dec 16 23:20	2° \mathcal{A} 48'44	21°24'42
desc. node	1939 Jan 16 06:23	5° \mathcal{B} 20'35		greatest brilliancy	1939 Dec 22 01:50	8° \mathcal{A} 38'18	-0.4m
	1939 Feb 01 17:57	0° \approx		desc. node	1940 Jan 03 03:25	25° \mathcal{A} 17'03	
morning set	1939 Feb 06 14:30	7° \approx 52'07			1940 Jan 06 07:56	0° \mathcal{B}	
max. Earth dist.	1939 Feb 11 07:50	15° \approx 48'32	1.40041 AU	morning set	1940 Jan 17 05:47	16° \mathcal{B} 45'43	
				max. Earth dist.	1940 Jan 24 08:25	28° \mathcal{B} 13'23	1.42083 AU
superior conj	1939 Feb 19 01:59	29° \approx 31'51	-1°-57'-12		1940 Jan 25 10:14	0° \approx	
minimum elong	1939 Feb 19 05:25	29° \approx 47'28	1°57'01				
	1939 Feb 19 08:09	0° \mathcal{H}		superior conj	1940 Jan 31 18:54	10° \approx 45'44	-2°-4'-52
evening rise	1939 Feb 28 21:43	17° \mathcal{H} 57'58		minimum elong	1940 Jan 31 19:05	10° \approx 46'33	2°04'54
asc. node	1939 Mar 06 21:34	29° \mathcal{H} 08'06		evening rise	1940 Feb 11 23:10	0° \mathcal{H} 41'38	
	1939 Mar 07 09:14	0° \mathcal{Y}			1940 Feb 11 14:01	0° \mathcal{H}	
evening max el	1939 Mar 17 01:39	13° \mathcal{Y} 53'50	18°26'56	asc. node	1940 Feb 21 18:36	17° \mathcal{H} 54'53	
retrograde	1939 Mar 24 13:17	17° \mathcal{Y} 35'16		evening max el	1940 Feb 28 11:25	26° \mathcal{H} 49'10	18°09'03
evening set	1939 Mar 26 22:04	17° \mathcal{Y} 14'14			1940 Mar 04 10:09	0° \mathcal{Y}	
inferior conj	1939 Apr 03 08:07	12° \mathcal{Y} 40'54	2°45'27	retrograde	1940 Mar 06 05:32	0° \mathcal{Y} 15'03	
minimum elong	1939 Apr 03 12:00	12° \mathcal{Y} 33'01	2°44'32		1940 Mar 08 01:26	30° $\mathcal{R}\mathcal{H}$	
min. Earth dist.	1939 Apr 06 18:36	9° \mathcal{Y} 55'27	0.58541 AU	evening set	1940 Mar 08 19:41	29° \mathcal{H} 45'11	
morning rise	1939 Apr 10 21:50	7° \mathcal{Y} 13'04		inferior conj	1940 Mar 15 13:58	24° \mathcal{H} 50'42	3°27'35
desc. node	1939 Apr 14 05:35	5° \mathcal{Y} 57'00		minimum elong	1940 Mar 15 16:19	24° \mathcal{H} 45'11	3°27'18
direct	1939 Apr 16 23:26	5° \mathcal{Y} 37'17		min. Earth dist.	1940 Mar 18 20:10	21° \mathcal{H} 48'47	0.60682 AU
morning max el	1939 May 01 08:38	13° \mathcal{Y} 18'55	26°54'38	morning rise	1940 Mar 22 09:47	19° \mathcal{H} 01'49	
	1939 May 14 13:43	0° \mathcal{B}		direct	1940 Mar 29 02:57	16° \mathcal{H} 50'14	
morning set	1939 May 31 07:23	0° Π 24'12		desc. node	1940 Mar 31 02:37	17° \mathcal{H} 01'10	
	1939 May 31 02:45	0° Π		morning max el	1940 Apr 12 09:06	24° \mathcal{H} 43'02	27°40'01
asc. node	1939 Jun 02 20:49	5° Π 50'45			1940 Apr 17 04:56	0° \mathcal{Y}	
					1940 May 06 21:14	0° \mathcal{B}	
superior conj	1939 Jun 07 09:29	15° Π 44'32	0°46'15	morning set	1940 May 14 13:50	15° \mathcal{B} 00'36	
minimum elong	1939 Jun 07 07:37	15° Π 34'16	0°45'52	asc. node	1940 May 19 17:51	25° \mathcal{B} 59'13	
max. Earth dist.	1939 Jun 07 08:01	15° Π 36'25	1.32208 AU	max. Earth dist.	1940 May 20 19:35	28° \mathcal{B} 19'21	1.32258 AU
	1939 Jun 13 23:01	0° \mathcal{B}					
evening rise	1939 Jun 14 07:46	0° \mathcal{B} 46'06		superior conj	1940 May 21 20:41	0° Π 36'46	0°22'14
	1939 Jun 30 06:41	0° \mathcal{Q}		minimum elong	1940 May 21 19:41	0° Π 31'19	0°22'01
desc. node	1939 Jul 11 04:51	14° \mathcal{Q} 21'36			1940 May 21 13:59	0° Π	
evening max el	1939 Jul 13 19:29	17° \mathcal{Q} 00'36	26°31'29	evening rise	1940 May 28 18:25	15° Π 37'31	
retrograde	1939 Jul 27 18:54	24° \mathcal{Q} 13'14			1940 Jun 04 22:29	0° \mathcal{B}	
evening set	1939 Aug 03 11:30	22° \mathcal{Q} 20'20		evening max el	1940 Jun 24 13:59	28° \mathcal{B} 10'47	25°18'30
min. Earth dist.	1939 Aug 07 08:49	19° \mathcal{Q} 44'42	0.59868 AU		1940 Jun 26 14:32	0° \mathcal{Q}	
inferior conj	1939 Aug 10 16:10	17° \mathcal{Q} 07'19	-4°-45'-19	desc. node	1940 Jun 27 01:51	0° \mathcal{Q} 23'25	
minimum elong	1939 Aug 10 19:48	17° \mathcal{Q} 00'05	4°44'54	retrograde	1940 Jul 08 14:17	5° \mathcal{Q} 18'29	
morning rise	1939 Aug 18 07:29	12° \mathcal{Q} 29'40		evening set	1940 Jul 14 06:09	4° \mathcal{Q} 04'05	
direct	1939 Aug 20 17:07	12° \mathcal{Q} 08'42		min. Earth dist.	1940 Jul 19 01:53	1° \mathcal{Q} 21'42	0.57839 AU
morning max el	1939 Aug 28 07:01	15° \mathcal{Q} 49'27	18°15'35		1940 Jul 21 01:39	30° $\mathcal{R}\mathcal{B}$	
asc. node	1939 Aug 29 20:02	17° \mathcal{Q} 26'26		inferior conj	1940 Jul 22 04:47	29° \mathcal{B} 12'47	-4°-57'-39
	1939 Sep 07 04:58	0° \mathcal{B}		minimum elong	1940 Jul 22 04:15	29° \mathcal{B} 13'42	4°57'40
morning set	1939 Sep 13 04:10	11° \mathcal{B} 02'41		morning rise	1940 Jul 30 06:04	24° \mathcal{B} 57'45	
				direct	1940 Aug 01 18:42	24° \mathcal{B} 38'28	
superior conj	1939 Sep 22 14:11	28° \mathcal{B} 40'08	1°28'23	morning max el	1940 Aug 10 10:31	28° \mathcal{B} 43'01	18°57'06

	1940 Aug 11 17:06	0°♌		min. Earth dist.	1941 Jun 30 14:36	11°♊56'05	0.56137 AU
asc. node	1940 Aug 15 17:04	5°♌03'25		inferior conj	1941 Jul 02 21:11	10°♊33'26	-4°-31'-24
morning set	1940 Aug 27 00:56	25°♌12'38		minimum elong	1941 Jul 02 15:21	10°♊42'20	4°30'30
	1940 Aug 29 11:11	0°♍		morning rise	1941 Jul 11 07:35	6°♊36'08	
				direct	1941 Jul 14 01:15	6°♊17'07	
superior conj	1940 Sep 04 12:13	11°♍47'38	1°41'47	morning max el	1941 Jul 24 03:47	10°♊58'12	20°00'02
minimum elong	1940 Sep 04 14:03	11°♍56'27	1°41'41	asc. node	1941 Aug 02 14:07	23°♊27'33	
max. Earth dist.	1940 Sep 11 08:13	24°♍28'00	1.38897 AU		1941 Aug 06 05:57	0°♌	
	1940 Sep 14 11:34	0°♎		morning set	1941 Aug 11 04:45	9°♌43'56	
evening rise	1940 Sep 15 06:30	1°♎21'45					
desc. node	1940 Sep 23 01:10	14°♎13'07		superior conj	1941 Aug 19 00:23	25°♌37'41	1°45'47
	1940 Oct 03 12:14	0°♏		minimum elong	1941 Aug 19 00:25	25°♌37'50	1°45'48
evening max el	1940 Oct 20 16:37	21°♏28'20	24°29'49		1941 Aug 21 05:18	0°♐	
retrograde	1940 Nov 01 01:39	28°♏07'12		max. Earth dist.	1941 Aug 24 13:11	6°♐25'32	1.36916 AU
evening set	1940 Nov 06 11:44	25°♏51'58		evening rise	1941 Aug 28 10:36	13°♐38'33	
min. Earth dist.	1940 Nov 11 04:31	20°♏29'58	0.67528 AU		1941 Sep 06 23:58	0°♑	
inferior conj	1940 Nov 11 23:30	19°♏26'29	0°06'12	desc. node	1941 Sep 09 22:10	4°♑38'30	
minimum elong	1940 Nov 11 23:21	19°♏26'59	0°06'08		1941 Sep 28 09:21	0°♒	
transit middle	1940 Nov 11 23:21	19°♏26'59	0°06'08	evening max el	1941 Oct 03 04:39	5°♒08'15	25°42'26
transit begin	1940 Nov 11 20:49	19°♏35'29		retrograde	1941 Oct 15 11:30	12°♒09'46	
transit end	1940 Nov 12 01:53	19°♏18'30		evening set	1941 Oct 21 12:05	9°♒39'40	
asc. node	1940 Nov 11 16:18	19°♏50'37		min. Earth dist.	1941 Oct 25 21:02	4°♒53'19	0.66919 AU
morning rise	1940 Nov 17 11:20	13°♏21'16		inferior conj	1941 Oct 27 02:56	3°♒18'10	0°-50'-10
direct	1940 Nov 21 04:05	12°♏02'50		minimum elong	1941 Oct 27 04:14	3°♒14'02	0°49'38
morning max el	1940 Nov 28 21:29	16°♏28'28	20°11'02	asc. node	1941 Oct 29 13:20	0°♓20'04	
greatest brilliancy	1940 Dec 05 16:46	24°♏40'05	-0.6m		1941 Oct 29 20:35	30°♓♊	
	1940 Dec 09 12:44	0°♓		morning rise	1941 Nov 01 21:10	27°♓21'28	
desc. node	1940 Dec 20 00:27	15°♓33'16		direct	1941 Nov 05 02:41	26°♓21'20	
morning set	1940 Dec 26 02:47	24°♓53'59			1941 Nov 11 20:11	0°♐	
	1940 Dec 29 09:35	0°♑		morning max el	1941 Nov 12 03:17	0°♐17'38	19°11'26
max. Earth dist.	1941 Jan 05 16:55	11°♑32'38	1.43742 AU		1941 Dec 03 00:11	0°♓	
				morning set	1941 Dec 05 05:48	3°♓28'35	
superior conj	1941 Jan 11 10:20	20°♑49'39	-1°-57'-9	desc. node	1941 Dec 06 21:27	6°♓02'59	
minimum elong	1941 Jan 11 05:10	20°♑28'30	1°56'54	max. Earth dist.	1941 Dec 19 08:09	25°♓32'08	1.44805 AU
	1941 Jan 16 22:36	0°♒					
evening rise	1941 Jan 24 07:26	12°♒36'51		superior conj	1941 Dec 22 00:35	29°♓46'53	-1°-30'-31
	1941 Feb 03 13:08	0°♑		minimum elong	1941 Dec 21 15:47	29°♓12'02	1°29'40
asc. node	1941 Feb 07 15:37	6°♑04'49			1941 Dec 22 03:54	0°♑	
evening max el	1941 Feb 10 23:51	10°♑02'07	18°10'30	evening rise	1942 Jan 05 18:16	23°♑35'58	
retrograde	1941 Feb 17 10:57	13°♑26'47			1942 Jan 09 15:24	0°♒	
evening set	1941 Feb 20 06:12	12°♑46'50		evening max el	1942 Jan 25 12:02	23°♒24'42	18°30'38
inferior conj	1941 Feb 26 12:24	7°♑31'40	3°43'10	asc. node	1942 Jan 25 12:39	23°♒26'18	
minimum elong	1941 Feb 26 12:45	7°♑30'44	3°43'09	retrograde	1942 Feb 01 01:16	27°♒00'53	
min. Earth dist.	1941 Mar 01 06:06	4°♑37'50	0.62758 AU	evening set	1942 Feb 04 01:54	26°♒09'52	
morning rise	1941 Mar 04 17:10	1°♑30'12		inferior conj	1942 Feb 09 23:20	20°♒35'32	3°39'00
	1941 Mar 07 02:22	30°♒♑		minimum elong	1942 Feb 09 22:04	20°♒39'16	3°38'53
direct	1941 Mar 11 15:52	28°♒52'22		min. Earth dist.	1942 Feb 12 01:33	18°♒08'00	0.64548 AU
	1941 Mar 16 12:26	0°♑		morning rise	1942 Feb 15 16:53	14°♒26'40	
desc. node	1941 Mar 17 23:39	0°♑44'08		direct	1942 Feb 22 12:08	11°♒36'55	
morning max el	1941 Mar 25 15:01	6°♑48'01	27°48'10	desc. node	1942 Mar 04 20:40	16°♒31'58	
	1941 Apr 12 07:19	0°♒		morning max el	1942 Mar 08 00:09	19°♒27'02	27°20'47
morning set	1941 Apr 28 14:36	29°♒16'46			1942 Mar 17 00:10	0°♑	
	1941 Apr 28 23:09	0°♓			1942 Apr 05 07:06	0°♒	
max. Earth dist.	1941 May 04 02:56	10°♓45'23	1.32716 AU	morning set	1942 Apr 12 06:59	13°♒04'16	
				max. Earth dist.	1942 Apr 17 02:20	22°♒43'51	1.33603 AU
superior conj	1941 May 06 05:36	15°♓18'00	0°-4'-5				
minimum elong	1941 May 06 05:48	15°♓19'04	0°04'04	superior conj	1942 Apr 20 10:20	29°♒42'08	0°-31'-46
behind sun begin	1941 May 06 00:44	14°♓51'41		minimum elong	1942 Apr 20 11:55	29°♒50'34	0°31'27
behind sun end	1941 May 06 10:52	15°♓46'28			1942 Apr 20 13:42	0°♓	
asc. node	1941 May 06 14:54	16°♓08'21		asc. node	1942 Apr 23 11:58	6°♓14'12	
evening rise	1941 May 13 06:14	0°♓28'33		evening rise	1942 Apr 27 17:23	15°♓13'07	
	1941 May 13 00:50	0°♓			1942 May 05 04:37	0°♓	
	1941 May 29 17:32	0°♓		evening max el	1942 May 18 20:08	19°♓18'14	22°10'54
evening max el	1941 Jun 06 04:03	8°♓47'21	23°46'37	retrograde	1942 May 31 16:03	25°♓38'26	
desc. node	1941 Jun 13 22:53	14°♓20'16		desc. node	1942 May 31 19:54	25°♓38'22	
retrograde	1941 Jun 19 21:17	15°♓40'08		evening set	1942 Jun 03 12:54	25°♓20'12	
evening set	1941 Jun 24 02:30	15°♓01'01		min. Earth dist.	1942 Jun 12 02:05	21°♓40'00	0.55098 AU

inferior conj	1942 Jun 12 20:49	21°II13'40	-3°-17'-15	inferior conj	1943 May 23 14:34	1°II34'59	-1°-25'-27
minimum elong	1942 Jun 12 13:00	21°II24'40	3°15'01	minimum elong	1943 May 23 10:32	1°II40'46	1°24'00
morning rise	1942 Jun 21 15:00	17°II21'43		min. Earth dist.	1943 May 24 14:31	1°II00'44	0.54971 AU
direct	1942 Jun 24 15:54	17°II01'04			1943 May 26 10:04	30°R8	
morning max el	1942 Jul 06 09:37	22°II29'50	21°23'09	morning rise	1943 Jun 01 11:39	27°828'29	
	1942 Jul 12 20:24	0°☿		direct	1943 Jun 05 01:29	27°800'57	
asc. node	1942 Jul 20 11:10	12°☿27'35			1943 Jun 14 00:46	0°II	
morning set	1942 Jul 26 13:11	24°☿29'58		morning max el	1943 Jun 18 05:39	3°II21'22	23°01'02
	1942 Jul 29 04:24	0°♁			1943 Jul 06 09:05	0°☿	
				asc. node	1943 Jul 07 08:14	1°☿53'46	
superior conj	1942 Aug 02 22:35	9°♁58'26	1°42'11	morning set	1943 Jul 11 00:12	9°☿23'45	
minimum elong	1942 Aug 02 21:15	9°♁51'31	1°42'08				
max. Earth dist.	1942 Aug 07 00:34	18°♁18'34	1.35192 AU	superior conj	1943 Jul 18 03:30	24°☿38'57	1°32'27
evening rise	1942 Aug 11 09:04	26°♁48'37		minimum elong	1943 Jul 18 01:22	24°☿27'30	1°32'14
	1942 Aug 13 01:48	0°♊			1943 Jul 20 16:08	0°♁	
desc. node	1942 Aug 27 19:12	24°♊46'27		max. Earth dist.	1943 Jul 20 20:50	0°♁24'41	1.33840 AU
	1942 Aug 31 08:27	0°♊		evening rise	1943 Jul 25 21:14	10°♁38'28	
evening max el	1942 Sep 15 16:55	18°♊45'55	26°40'33		1943 Aug 05 10:33	0°♊	
retrograde	1942 Sep 28 16:12	26°♊00'03		desc. node	1943 Aug 14 16:15	14°♊28'15	
evening set	1942 Oct 05 06:17	23°♊19'37			1943 Aug 27 00:36	0°♊	
min. Earth dist.	1942 Oct 09 07:49	19°♊10'18	0.65967 AU	evening max el	1943 Aug 29 04:47	2°♊10'40	27°16'56
inferior conj	1942 Oct 11 01:31	17°♊06'26	-1°-48'-24	retrograde	1943 Sep 11 15:23	9°♊29'23	
minimum elong	1942 Oct 11 04:25	16°♊57'50	1°47'16	evening set	1943 Sep 18 15:46	6°♊46'34	
asc. node	1942 Oct 16 10:22	11°♊47'13		min. Earth dist.	1943 Sep 22 10:39	3°♊13'34	0.64648 AU
morning rise	1942 Oct 17 03:52	11°♊21'23		inferior conj	1943 Sep 24 16:57	0°♊45'56	-2°-46'-24
direct	1942 Oct 20 00:22	10°♊35'53		minimum elong	1943 Sep 24 21:20	0°♊34'01	2°44'52
morning max el	1942 Oct 26 15:15	14°♊13'11	18°27'42		1943 Sep 25 09:56	30°R♊	
	1942 Nov 07 01:44	0°♋		morning rise	1943 Oct 01 04:50	25°♊15'39	
morning set	1942 Nov 15 10:15	13°♋22'32		asc. node	1943 Oct 03 07:25	24°♊42'13	
desc. node	1942 Nov 23 18:29	26°♋42'17		direct	1943 Oct 03 18:41	24°♊41'04	
	1942 Nov 25 20:26	0°♌		morning max el	1943 Oct 10 06:45	28°♊08'40	18°00'50
					1943 Oct 11 23:27	0°♊	
superior conj	1942 Dec 01 01:57	8°♌14'29	0°-47'-36	morning set	1943 Oct 27 19:35	24°♊41'21	
minimum elong	1942 Nov 30 19:52	7°♌50'34	0°46'50		1943 Oct 30 23:37	0°♋	
max. Earth dist.	1942 Dec 02 03:00	9°♌52'50	1.45152 AU				
	1942 Dec 14 22:21	0°♍		superior conj	1943 Nov 10 11:56	17°♋12'57	0°01'01
evening rise	1942 Dec 17 05:44	3°♍38'24		minimum elong	1943 Nov 10 12:03	17°♋13'27	0°01'01
greatest brilliancy	1942 Dec 29 10:03	22°♍44'25	-0.7m	behind sun begin	1943 Nov 10 01:36	16°♋31'25	
	1943 Jan 03 08:27	0°♎		behind sun end	1943 Nov 10 22:31	17°♋55'24	
evening max el	1943 Jan 08 21:34	6°♎52'06	19°08'19	desc. node	1943 Nov 10 15:34	17°♋27'34	
asc. node	1943 Jan 12 09:42	9°♎46'03		max. Earth dist.	1943 Nov 14 21:47	24°♋14'24	1.44752 AU
retrograde	1943 Jan 15 20:46	10°♎50'29			1943 Nov 18 13:39	0°♌	
evening set	1943 Jan 19 03:48	9°♎47'21		evening rise	1943 Nov 26 21:25	12°♌55'42	
inferior conj	1943 Jan 24 19:15	3°♎56'16	3°20'20		1943 Dec 08 01:47	0°♍	
minimum elong	1943 Jan 24 17:00	4°♎03'27	3°19'55	greatest brilliancy	1943 Dec 16 04:53	11°♍49'44	-0.6m
min. Earth dist.	1943 Jan 26 06:13	2°♎05'07	0.65952 AU	evening max el	1943 Dec 23 02:36	20°♍21'37	20°01'51
	1943 Jan 27 23:42	30°R♍		asc. node	1943 Dec 30 06:43	24°♍49'26	
morning rise	1943 Jan 30 05:19	27°♍43'03		retrograde	1943 Dec 30 18:32	24°♍50'47	
direct	1943 Feb 05 14:50	24°♍55'12		evening set	1944 Jan 03 09:30	23°♍34'08	
	1943 Feb 15 19:00	0°♎		inferior conj	1944 Jan 08 21:14	17°♍29'14	2°50'43
morning max el	1943 Feb 18 10:01	2°♎28'50	26°24'03	minimum elong	1944 Jan 08 18:37	17°♍38'02	2°50'02
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	1943 Mar 11 04:59	0°♏		morning rise	1944 Jan 14 03:07	11°♍14'00	
morning set	1943 Mar 26 11:19	26°♏12'03		direct	1944 Jan 19 23:21	8°♍38'44	
	1943 Mar 28 11:19	0°♐		morning max el	1944 Jan 31 18:55	15°♍41'44	25°06'58
max. Earth dist.	1943 Mar 30 14:43	4°♐09'45	1.34945 AU	desc. node	1944 Feb 06 14:45	22°♍14'35	
					1944 Feb 12 14:17	0°♎	
superior conj	1943 Apr 04 08:34	13°♐42'08	0°-59'-36		1944 Mar 03 02:45	0°♏	
minimum elong	1943 Apr 04 11:34	13°♐57'31	0°59'04	morning set	1944 Mar 07 22:42	8°♏26'10	
asc. node	1943 Apr 10 09:01	26°♐12'22		max. Earth dist.	1944 Mar 11 15:46	15°♏12'37	1.36718 AU
evening rise	1943 Apr 12 01:56	29°♐44'29					
	1943 Apr 12 04:56	0°♑		superior conj	1944 Mar 17 21:25	27°♏10'03	-1°-25'-47
	1943 Apr 30 15:56	0°II		minimum elong	1944 Mar 18 01:28	27°♏30'04	1°25'13
evening max el	1943 Apr 30 21:09	0°II12'46	20°44'42		1944 Mar 19 07:43	0°♑	
retrograde	1943 May 12 05:13	5°II43'35		evening rise	1944 Mar 26 05:39	13°♑56'00	
evening set	1943 May 14 08:24	5°II32'38		asc. node	1944 Mar 27 06:05	15°♑58'25	
desc. node	1943 May 18 16:56	4°II10'02			1944 Apr 03 17:29	0°♒	

































































































































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retrograde	1944 Apr 22 00:34	16°♄24'55		retrograde	1945 Apr 03 12:12	27°♃55'36	
evening set	1944 Apr 24 01:27	16°♄13'20		evening set	1945 Apr 05 17:52	27°♃38'45	
inferior conj	1944 May 02 17:10	12°♄09'18	0°32'12	inferior conj	1945 Apr 13 14:30	23°♃17'34	2°06'29
minimum elong	1944 May 02 18:32	12°♄07'07	0°31'42	minimum elong	1945 Apr 13 18:26	23°♃10'18	2°05'21
desc. node	1944 May 04 13:58	10°♄58'07		min. Earth dist.	1945 Apr 16 21:47	20°♃52'31	0.57407 AU
min. Earth dist.	1944 May 05 04:55	10°♄34'46	0.55802 AU	desc. node	1945 Apr 21 10:59	18°♃10'37	
morning rise	1944 May 11 07:59	7°♄31'51		morning rise	1945 Apr 21 14:39	18°♃06'31	
direct	1944 May 15 19:39	6°♄46'38		direct	1945 Apr 27 03:46	16°♃51'13	
morning max el	1944 May 29 20:29	13°♄50'14	24°42'42	morning max el	1945 May 11 11:58	24°♃22'23	26°13'21
	1944 Jun 11 11:46	0°♄			1945 May 16 15:21	0°♄	
asc. node	1944 Jun 23 05:19	21°♄39'05			1945 Jun 04 10:30	0°♄	
morning set	1944 Jun 24 12:04	24°♄20'01		morning set	1945 Jun 08 23:12	9°♄13'23	
	1944 Jun 27 03:39	0°♄		asc. node	1945 Jun 10 02:23	11°♄37'25	
superior conj	1944 Jul 01 12:38	9°♄31'17	1°17'41	superior conj	1945 Jun 15 23:57	24°♄28'33	0°58'44
minimum elong	1944 Jul 01 10:13	9°♄18'09	1°17'19	minimum elong	1945 Jun 15 21:45	24°♄16'30	0°58'20
max. Earth dist.	1944 Jul 03 01:26	12°♄50'53	1.32897 AU	max. Earth dist.	1945 Jun 16 11:45	25°♄33'26	1.32350 AU
evening rise	1944 Jul 08 19:17	24°♄57'16			1945 Jun 18 12:27	0°♄	
	1944 Jul 11 07:41	0°♄		evening rise	1945 Jun 23 00:08	9°♄35'24	
	1944 Jul 28 23:44	0°♄			1945 Jul 03 15:39	0°♄	
desc. node	1944 Jul 31 13:17	3°♄32'53		desc. node	1945 Jul 18 10:18	21°♄45'10	
evening max el	1944 Aug 10 14:42	15°♄10'47	27°25'05	evening max el	1945 Jul 23 20:16	27°♄34'19	27°00'42
retrograde	1944 Aug 24 08:25	22°♄28'21			1945 Jul 26 14:48	0°♄	
evening set	1944 Aug 31 13:15	19°♄54'46		retrograde	1945 Aug 06 18:10	4°♄48'11	
min. Earth dist.	1944 Sep 04 03:48	16°♄53'13	0.62984 AU	evening set	1945 Aug 13 18:32	2°♄37'09	
inferior conj	1944 Sep 06 22:30	14°♄10'25	-3°-40'-52		1945 Aug 17 08:50	30°♄	
minimum elong	1944 Sep 07 03:47	13°♄57'29	3°39'23	min. Earth dist.	1945 Aug 17 10:32	29°♄56'29	0.61046 AU
morning rise	1944 Sep 13 20:52	8°♄58'07		inferior conj	1945 Aug 20 14:57	27°♄12'17	-4°-26'-25
direct	1944 Sep 16 06:47	8°♄30'57		minimum elong	1945 Aug 20 19:48	27°♄01'47	4°25'32
asc. node	1944 Sep 19 04:29	9°♄11'12		morning rise	1945 Aug 28 00:06	22°♄21'00	
morning max el	1944 Sep 22 22:51	11°♄57'03	17°51'37	direct	1945 Aug 30 09:02	21°♄58'21	
	1944 Oct 05 03:17	0°♄		asc. node	1945 Sep 06 01:33	25°♄05'17	
morning set	1944 Oct 09 04:47	7°♄08'42		morning max el	1945 Sep 06 12:31	25°♄31'12	18°01'08
					1945 Sep 10 07:21	0°♄	
superior conj	1944 Oct 20 21:53	27°♄23'02	0°44'00	morning set	1945 Sep 22 07:40	20°♄27'02	
minimum elong	1944 Oct 21 01:54	27°♄39'50	0°43'27		1945 Sep 27 12:08	0°♄	
	1944 Oct 22 11:33	0°♄		superior conj	1945 Oct 02 10:46	8°♄52'26	1°15'40
max. Earth dist.	1944 Oct 27 13:38	8°♄19'00	1.43671 AU	minimum elong	1945 Oct 02 15:11	9°♄11'56	1°15'09
desc. node	1944 Oct 27 12:34	8°♄14'43		max. Earth dist.	1945 Oct 10 01:03	21°♄53'20	1.42047 AU
evening rise	1944 Nov 05 05:38	21°♄59'29		desc. node	1945 Oct 14 09:36	29°♄01'15	
	1944 Nov 10 11:09	0°♄			1945 Oct 15 00:13	0°♄	
greatest brilliancy	1944 Nov 29 20:13	27°♄45'30	-0.4m	evening rise	1945 Oct 15 23:39	1°♄33'42	
	1944 Dec 01 15:31	0°♄			1945 Nov 03 23:06	0°♄	
evening max el	1944 Dec 05 02:10	3°♄52'03	21°08'35	greatest brilliancy	1945 Nov 13 02:28	12°♄04'33	-0.3m
retrograde	1944 Dec 13 16:11	8°♄57'37		evening max el	1945 Nov 17 20:25	17°♄24'27	22°24'32
asc. node	1944 Dec 16 03:45	8°♄23'20		retrograde	1945 Nov 27 12:01	23°♄08'34	
evening set	1944 Dec 17 17:00	7°♄25'47		evening set	1945 Dec 02 00:39	21°♄20'03	
inferior conj	1944 Dec 23 02:53	1°♄10'22	2°12'34	asc. node	1945 Dec 03 00:46	20°♄25'52	
minimum elong	1944 Dec 23 00:25	1°♄18'53	2°11'45	inferior conj	1945 Dec 07 10:12	14°♄57'38	1°27'39
min. Earth dist.	1944 Dec 23 11:44	0°♄39'53	0.67569 AU	minimum elong	1945 Dec 07 08:20	15°♄04'06	1°26'55
	1944 Dec 23 23:21	30°♄		min. Earth dist.	1945 Dec 07 07:51	15°♄05'47	0.67826 AU
morning rise	1944 Dec 28 07:26	24°♄55'12		morning rise	1945 Dec 12 15:54	8°♄44'41	
direct	1945 Jan 02 12:45	22°♄39'30		direct	1945 Dec 17 06:11	6°♄51'40	
morning max el	1945 Jan 13 03:25	28°♄58'53	23°39'42	morning max el	1945 Dec 26 14:49	12°♄22'31	22°12'07
	1945 Jan 14 03:04	0°♄		greatest brilliancy	1945 Dec 31 05:37	17°♄33'07	-0.3m
desc. node	1945 Jan 23 11:47	11°♄23'53			1946 Jan 09 14:09	0°♄	
	1945 Feb 05 09:20	0°♄		desc. node	1946 Jan 10 08:49	1°♄06'14	
morning set	1945 Feb 17 10:52	19°♄28'44		morning set	1946 Jan 28 18:31	29°♄07'55	
max. Earth dist.	1945 Feb 21 10:35	26°♄22'52	1.38802 AU		1946 Jan 29 07:22	0°♄	
	1945 Feb 23 11:25	0°♄		max. Earth dist.	1946 Feb 03 07:49	8°♄17'32	1.40951 AU
superior conj	1945 Feb 28 21:01	9°♄55'20	-1°-47'-48	superior conj	1946 Feb 11 02:43	21°♄46'47	-2°-2'-1
minimum elong	1945 Mar 01 01:11	10°♄14'51	1°47'26	minimum elong	1946 Feb 11 05:06	21°♄57'22	2°01'57
evening rise	1945 Mar 10 01:48	27°♄39'30			1946 Feb 15 15:43	0°♄	
	1945 Mar 11 06:45	0°♄		evening rise	1946 Feb 21 11:11	10°♄47'49	
asc. node	1945 Mar 14 03:06	5°♄26'28					

asc. node	1946 Mar 01 00:06	24° Υ 30'33		minimum elong	1947 Jan 23 07:17	2° \approx 23'42	2°03'44
	1946 Mar 04 09:26	0° Υ		evening rise	1947 Feb 04 05:54	23° \approx 12'32	
evening max el	1946 Mar 09 16:24	6° Υ 40'54	18°16'51		1947 Feb 08 01:31	0° Υ	
retrograde	1946 Mar 16 18:55	10° Υ 13'28		asc. node	1947 Feb 15 21:07	13° Υ 03'12	
evening set	1946 Mar 19 06:13	9° Υ 48'42		evening max el	1947 Feb 21 03:38	19° Υ 45'00	18°07'15
inferior conj	1946 Mar 26 09:06	5° Υ 06'11	3°07'02	retrograde	1947 Feb 27 17:35	23° Υ 08'56	
minimum elong	1946 Mar 26 12:29	4° Υ 58'53	3°06'23	evening set	1947 Mar 02 09:54	22° Υ 34'51	
min. Earth dist.	1946 Mar 29 19:05	2° Υ 10'51	0.59453 AU	inferior conj	1947 Mar 08 22:34	17° Υ 31'05	3°37'02
	1946 Apr 01 18:17	30° Υ		minimum elong	1947 Mar 09 00:03	17° Υ 27'22	3°36'53
morning rise	1946 Apr 02 15:03	29° Υ 28'30		min. Earth dist.	1947 Mar 11 23:55	14° Υ 30'08	0.61589 AU
desc. node	1946 Apr 08 08:01	27° Υ 38'19		morning rise	1947 Mar 15 11:32	11° Υ 35'54	
direct	1946 Apr 09 00:38	27° Υ 37'02		direct	1947 Mar 22 08:06	9° Υ 11'59	
	1946 Apr 16 14:54	0° Υ		desc. node	1947 Mar 26 05:02	9° Υ 53'48	
morning max el	1946 Apr 23 08:40	5° Υ 23'26	27°18'19	morning max el	1947 Apr 05 11:52	17° Υ 06'31	27°48'09
	1946 May 11 14:29	0° Υ			1947 Apr 16 04:31	0° Υ	
morning set	1946 May 24 07:53	23° Υ 57'58			1947 May 04 06:03	0° Υ	
	1946 May 27 04:13	0° Υ		morning set	1947 May 08 12:15	8° Υ 27'35	
asc. node	1946 May 27 23:24	1° Υ 43'33		max. Earth dist.	1947 May 14 10:40	21° Υ 00'14	1.32406 AU
				asc. node	1947 May 14 20:26	21° Υ 53'15	
superior conj	1946 May 31 11:40	9° Υ 24'21	0°36'23	superior conj	1947 May 15 22:08	24° Υ 13'12	0°11'18
minimum elong	1946 May 31 10:07	9° Υ 15'53	0°36'04	minimum elong	1947 May 15 21:36	24° Υ 10'21	0°11'12
max. Earth dist.	1946 May 31 00:08	8° Υ 20'58	1.32186 AU	behind sun begin	1947 May 15 17:58	23° Υ 50'27	
evening rise	1946 Jun 07 09:17	24° Υ 24'23		behind sun end	1947 May 16 01:15	24° Υ 30'15	
	1946 Jun 10 02:00	0° Υ			1947 May 18 13:33	0° Υ	
	1946 Jun 27 19:07	0° Υ		evening rise	1947 May 22 20:42	9° Υ 17'12	
desc. node	1946 Jul 05 07:19	8° Υ 42'59			1947 Jun 02 13:40	0° Υ	
evening max el	1946 Jul 05 18:59	9° Υ 11'08	26°03'39	evening max el	1947 Jun 17 10:52	20° Υ 04'14	24°40'46
retrograde	1946 Jul 19 18:55	16° Υ 21'22		desc. node	1947 Jun 22 04:19	23° Υ 56'41	
evening set	1946 Jul 26 02:47	14° Υ 44'28		retrograde	1947 Jul 01 09:13	27° Υ 07'36	
min. Earth dist.	1946 Jul 30 07:34	12° Υ 08'22	0.58986 AU	evening set	1947 Jul 06 11:19	26° Υ 09'07	
inferior conj	1946 Aug 02 14:37	9° Υ 40'56	-4°-54'-22	min. Earth dist.	1947 Jul 11 22:01	23° Υ 19'00	0.57056 AU
minimum elong	1946 Aug 02 16:47	9° Υ 36'52	4°54'16	inferior conj	1947 Jul 14 18:36	21° Υ 27'46	-4°-52'-4
morning rise	1946 Aug 10 10:13	5° Υ 12'56		minimum elong	1947 Jul 14 15:45	21° Υ 32'26	4°51'52
direct	1946 Aug 12 21:03	4° Υ 52'42		morning rise	1947 Jul 22 23:55	17° Υ 21'42	
morning max el	1946 Aug 20 20:34	8° Υ 41'55	18°30'41	direct	1947 Jul 25 14:37	17° Υ 02'39	
asc. node	1946 Aug 23 22:36	12° Υ 08'57		morning max el	1947 Aug 03 20:03	21° Υ 20'37	19°21'20
	1946 Sep 03 16:29	0° Υ		asc. node	1947 Aug 10 19:40	0° Υ 07'44	
morning set	1946 Sep 05 23:02	4° Υ 21'13			1947 Aug 10 17:40	0° Υ	
superior conj	1946 Sep 14 22:19	21° Υ 28'40	1°35'20	morning set	1947 Aug 20 23:09	18° Υ 41'20	
minimum elong	1946 Sep 15 01:16	21° Υ 42'23	1°35'07		1947 Aug 26 14:50	0° Υ	
	1946 Sep 19 14:34	0° Υ		superior conj	1947 Aug 29 03:00	4° Υ 56'22	1°44'30
max. Earth dist.	1946 Sep 22 07:23	4° Υ 45'25	1.40081 AU	minimum elong	1947 Aug 29 04:02	5° Υ 01'24	1°44'30
evening rise	1946 Sep 26 15:03	12° Υ 06'57		max. Earth dist.	1947 Sep 04 11:01	16° Υ 56'38	1.38031 AU
desc. node	1946 Oct 01 06:37	19° Υ 42'51		evening rise	1947 Sep 08 06:32	23° Υ 47'38	
	1946 Oct 07 21:21	0° Υ			1947 Sep 11 20:54	0° Υ	
	1946 Oct 30 11:23	0° Υ		desc. node	1947 Sep 18 03:38	10° Υ 15'32	
evening max el	1946 Oct 31 10:30	0° Υ 59'01	23°44'29		1947 Oct 01 15:26	0° Υ	
retrograde	1946 Nov 11 04:43	7° Υ 19'38		evening max el	1947 Oct 13 22:33	14° Υ 36'43	25°01'55
evening set	1946 Nov 16 06:47	5° Υ 13'46		retrograde	1947 Oct 25 17:25	21° Υ 26'52	
asc. node	1946 Nov 19 21:48	1° Υ 14'41		evening set	1947 Oct 31 09:46	19° Υ 04'37	
	1946 Nov 20 20:16	30° Υ		min. Earth dist.	1947 Nov 04 23:02	13° Υ 57'48	0.67310 AU
min. Earth dist.	1946 Nov 21 04:23	29° Υ 32'27	0.67735 AU	inferior conj	1947 Nov 05 22:41	12° Υ 40'10	0°-17'-22
inferior conj	1946 Nov 21 17:22	28° Υ 48'13	0°37'14	minimum elong	1947 Nov 05 23:07	12° Υ 38'44	0°17'12
minimum elong	1946 Nov 21 16:30	28° Υ 51'12	0°36'52	asc. node	1947 Nov 06 18:51	11° Υ 34'24	
morning rise	1946 Nov 27 02:24	22° Υ 39'41		morning rise	1947 Nov 11 13:02	6° Υ 38'27	
direct	1946 Dec 01 02:32	21° Υ 09'21		direct	1947 Nov 15 00:40	5° Υ 28'25	
morning max el	1946 Dec 09 08:35	25° Υ 55'59	20°51'53	morning max el	1947 Nov 22 10:11	9° Υ 40'21	19°43'51
	1946 Dec 13 00:03	0° Υ		greatest brilliancy	1947 Nov 30 07:44	19° Υ 28'42	-0.6m
greatest brilliancy	1946 Dec 15 01:01	2° Υ 32'51	-0.5m		1947 Dec 07 12:32	0° Υ	
desc. node	1946 Dec 28 05:51	21° Υ 11'58		desc. node	1947 Dec 15 02:53	11° Υ 34'23	
	1947 Jan 03 01:46	0° Υ		morning set	1947 Dec 17 20:05	15° Υ 45'39	
morning set	1947 Jan 07 23:46	7° Υ 35'24			1947 Dec 26 23:17	0° Υ	
max. Earth dist.	1947 Jan 16 12:19	21° Υ 08'58	1.42854 AU	max. Earth dist.	1947 Dec 29 23:54	4° Υ 47'10	1.44269 AU
	1947 Jan 21 21:06	0° Υ		superior conj	1948 Jan 03 13:15	12° Υ 04'45	-1°-48'-12

minimum elong	1948 Jan 03 05:59	11°☿35'27	1°47'42			1948 Nov 29 15:09	0°☿	
	1948 Jan 14 10:06	0°☿		desc. node		1948 Nov 30 23:54	2°☿08'49	
evening rise	1948 Jan 17 05:31	4°☿44'42		max. Earth dist.		1948 Dec 11 16:31	18°☿56'09	1.45034 AU
	1948 Feb 02 00:46	0°☿						
asc. node	1948 Feb 02 18:09	0°☿54'12		superior conj		1948 Dec 12 19:50	20°☿43'31	-1°-13'-50
evening max el	1948 Feb 04 16:13	3°☿02'36	18°16'50	minimum elong		1948 Dec 12 11:22	20°☿10'14	1°12'53
retrograde	1948 Feb 11 03:24	6°☿31'10				1948 Dec 18 16:46	0°☿	
evening set	1948 Feb 14 00:44	5°☿46'47		evening rise		1948 Dec 28 06:26	15°☿19'19	
inferior conj	1948 Feb 20 02:50	0°☿23'13	3°43'28			1949 Jan 06 08:53	0°☿	
minimum elong	1948 Feb 20 02:25	0°☿24'21	3°43'27	evening max el		1949 Jan 18 03:35	16°☿28'11	18°44'40
	1948 Feb 20 11:08	30°☿		asc. node		1949 Jan 19 15:12	17°☿51'41	
min. Earth dist.	1948 Feb 22 14:05	27°☿38'37	0.63554 AU	retrograde		1949 Jan 24 20:17	20°☿12'42	
morning rise	1948 Feb 26 02:19	24°☿17'48		evening set		1949 Jan 27 23:24	19°☿16'51	
direct	1948 Mar 04 00:19	21°☿33'03		inferior conj		1949 Feb 02 18:01	13°☿35'22	3°32'36
desc. node	1948 Mar 12 02:04	24°☿34'23		minimum elong		1949 Feb 02 16:15	13°☿40'46	3°32'23
morning max el	1948 Mar 17 19:44	29°☿28'26	27°40'38	min. Earth dist.		1949 Feb 04 13:44	11°☿22'09	0.65192 AU
	1948 Mar 18 08:14	0°☿		morning rise		1949 Feb 08 07:56	7°☿24'17	
	1948 Apr 09 02:26	0°☿		direct		1949 Feb 14 23:45	4°☿33'25	
morning set	1948 Apr 21 09:52	22°☿33'23		desc. node		1949 Feb 26 23:07	11°☿04'48	
	1948 Apr 25 01:38	0°☿		morning max el		1949 Feb 28 05:24	12°☿18'46	26°59'42
max. Earth dist.	1948 Apr 26 15:09	3°☿16'16	1.33038 AU			1949 Mar 14 09:51	0°☿	
						1949 Apr 01 16:02	0°☿	
superior conj	1948 Apr 29 05:32	8°☿48'14	0°-15'-43	morning set		1949 Apr 04 21:40	6°☿05'54	
minimum elong	1948 Apr 29 06:18	8°☿52'23	0°15'34	max. Earth dist.		1949 Apr 09 09:50	14°☿59'39	1.34118 AU
behind sun begin	1948 Apr 29 05:10	8°☿46'18						
behind sun end	1948 Apr 29 07:26	8°☿58'27		superior conj		1949 Apr 13 07:50	23°☿03'26	0°-43'-38
asc. node	1948 Apr 30 17:28	12°☿01'39		minimum elong		1949 Apr 13 10:02	23°☿14'57	0°43'13
evening rise	1948 May 06 08:28	24°☿06'22				1949 Apr 16 14:55	0°☿	
	1948 May 09 04:38	0°☿		asc. node		1949 Apr 17 14:31	2°☿04'55	
	1948 May 28 10:50	0°☿		evening rise		1949 Apr 20 18:45	8°☿46'10	
evening max el	1948 May 29 00:40	0°☿34'06	23°05'24			1949 May 02 02:19	0°☿	
desc. node	1948 Jun 08 01:20	6°☿49'40		evening max el		1949 May 10 20:03	11°☿12'51	21°32'29
retrograde	1948 Jun 11 11:15	7°☿16'14		retrograde		1949 May 23 02:16	17°☿12'58	
evening set	1948 Jun 15 01:17	6°☿48'03		evening set		1949 May 25 13:15	16°☿59'18	
min. Earth dist.	1948 Jun 22 10:01	3°☿29'28	0.55595 AU	desc. node		1949 May 25 22:22	16°☿54'49	
inferior conj	1948 Jun 24 03:00	2°☿29'47	-4°-5'-49	inferior conj		1949 Jun 03 22:28	12°☿58'49	-2°-32'-50
minimum elong	1948 Jun 23 19:38	2°☿40'33	4°04'13	minimum elong		1949 Jun 03 15:40	13°☿08'20	2°30'38
	1948 Jun 28 17:58	30°☿		min. Earth dist.		1949 Jun 03 22:06	12°☿59'20	0.54930 AU
morning rise	1948 Jul 02 17:02	28°☿36'50		morning rise		1949 Jun 12 18:41	9°☿02'42	
direct	1948 Jul 05 13:04	28°☿17'40		direct		1949 Jun 16 00:08	8°☿39'57	
	1948 Jul 11 20:56	0°☿		morning max el		1949 Jun 28 09:50	14°☿31'34	22°03'24
morning max el	1948 Jul 16 08:36	3°☿18'09	20°33'10			1949 Jul 10 03:19	0°☿	
asc. node	1948 Jul 27 16:43	18°☿48'19		asc. node		1949 Jul 14 13:46	8°☿00'27	
	1948 Aug 02 13:54	0°☿		morning set		1949 Jul 19 14:54	18°☿09'11	
morning set	1948 Aug 04 05:11	3°☿19'25				1949 Jul 25 05:20	0°☿	
superior conj	1948 Aug 11 19:55	19°☿00'59	1°45'06	superior conj		1949 Jul 26 21:17	3°☿31'04	1°38'44
minimum elong	1948 Aug 11 19:18	18°☿57'51	1°45'05	minimum elong		1949 Jul 26 19:32	3°☿21'52	1°38'36
max. Earth dist.	1948 Aug 16 17:41	28°☿47'15	1.36138 AU	max. Earth dist.		1949 Jul 30 08:36	10°☿43'34	1.34571 AU
	1948 Aug 17 08:44	0°☿		evening rise		1949 Aug 03 23:51	19°☿57'24	
evening rise	1948 Aug 20 19:01	6°☿28'41				1949 Aug 09 09:04	0°☿	
	1948 Sep 03 15:47	0°☿		desc. node		1949 Aug 21 21:42	20°☿32'13	
desc. node	1948 Sep 04 00:40	0°☿34'18				1949 Aug 28 15:47	0°☿	
evening max el	1948 Sep 25 10:30	28°☿16'11	26°09'25	evening max el		1949 Sep 07 22:53	11°☿50'18	26°59'15
	1948 Sep 27 07:19	0°☿		retrograde		1949 Sep 21 03:49	19°☿07'13	
retrograde	1948 Oct 08 01:22	5°☿25'10		evening set		1949 Sep 27 22:37	16°☿24'57	
evening set	1948 Oct 14 07:48	2°☿49'52		min. Earth dist.		1949 Oct 01 21:17	12°☿31'03	0.65442 AU
	1948 Oct 17 03:34	30°☿		inferior conj		1949 Oct 03 20:11	10°☿16'30	-2°-13'-15
min. Earth dist.	1948 Oct 18 13:29	28°☿19'05	0.66548 AU	minimum elong		1949 Oct 03 23:44	10°☿06'17	2°11'53
inferior conj	1948 Oct 20 00:19	26°☿31'05	-1°-14'-48	morning rise		1949 Oct 10 02:24	4°☿37'01	
minimum elong	1948 Oct 20 02:17	26°☿24'58	1°13'59	asc. node		1949 Oct 10 12:59	4°☿25'04	
asc. node	1948 Oct 23 15:55	22°☿22'52		direct		1949 Oct 12 19:44	3°☿56'35	
morning rise	1948 Oct 25 21:49	20°☿38'54		morning max el		1949 Oct 19 08:38	7°☿28'57	18°14'07
direct	1948 Oct 28 23:06	19°☿45'37				1949 Nov 03 18:58	0°☿	
morning max el	1948 Nov 04 18:54	23°☿33'06	18°50'48	morning set		1949 Nov 07 01:31	5°☿21'38	
	1948 Nov 10 02:19	0°☿		desc. node		1949 Nov 17 20:57	22°☿50'53	
morning set	1948 Nov 26 08:28	24°☿50'21						

superior conj	1949 Nov 21 22:10	29° \mathbb{M} 16'46	0°-26'-55		1950 Oct 27 10:36	0° \mathbb{M}	
minimum elong	1949 Nov 21 18:41	29° \mathbb{M} 03'03	0°26'27				
	1949 Nov 22 09:06	0° \mathbb{A}		superior conj	1950 Nov 01 17:12	8° \mathbb{M} 42'42	0°20'27
max. Earth dist.	1949 Nov 24 11:36	3° \mathbb{A} 18'57	1.45070 AU	minimum elong	1950 Nov 01 19:26	8° \mathbb{M} 51'49	0°20'08
evening rise	1949 Dec 08 08:27	24° \mathbb{A} 59'30		desc. node	1950 Nov 04 18:02	13° \mathbb{M} 37'36	
	1949 Dec 11 13:37	0° \mathbb{B}		max. Earth dist.	1950 Nov 07 06:03	17° \mathbb{M} 37'47	1.44377 AU
greatest brilliancy	1949 Dec 24 01:05	19° \mathbb{B} 03'56	-0.7m		1950 Nov 15 03:10	0° \mathbb{A}	
evening max el	1950 Jan 01 11:27	29° \mathbb{B} 56'55	19°29'22	evening rise	1950 Nov 17 19:03	4° \mathbb{A} 06'39	
	1950 Jan 01 12:39	0° \mathbb{A}			1950 Dec 05 01:57	0° \mathbb{B}	
asc. node	1950 Jan 06 12:16	3° \mathbb{A} 40'44		greatest brilliancy	1950 Dec 09 12:34	6° \mathbb{B} 09'07	-0.5m
retrograde	1950 Jan 08 16:54	4° \mathbb{A} 07'05		evening max el	1950 Dec 15 14:16	13° \mathbb{B} 26'53	20°28'49
evening set	1950 Jan 12 03:09	2° \mathbb{A} 58'21		retrograde	1950 Dec 23 14:48	18° \mathbb{B} 10'35	
	1950 Jan 15 07:36	30° \mathbb{R} \mathbb{B}		asc. node	1950 Dec 24 09:17	18° \mathbb{B} 07'16	
inferior conj	1950 Jan 17 16:48	27° \mathbb{B} 01'16	3°08'54	evening set	1950 Dec 27 09:50	16° \mathbb{B} 47'28	
minimum elong	1950 Jan 17 14:19	27° \mathbb{B} 09'22	3°08'22	inferior conj	1951 Jan 01 20:34	10° \mathbb{B} 37'36	2°35'26
min. Earth dist.	1950 Jan 18 21:43	25° \mathbb{B} 27'02	0.66431 AU	minimum elong	1951 Jan 01 17:57	10° \mathbb{B} 46'30	2°34'40
morning rise	1950 Jan 23 00:44	20° \mathbb{B} 47'11		min. Earth dist.	1951 Jan 02 12:13	9° \mathbb{B} 44'22	0.67266 AU
direct	1950 Jan 29 05:03	18° \mathbb{B} 03'26		morning rise	1951 Jan 07 01:35	4° \mathbb{B} 22'24	
morning max el	1950 Feb 10 14:39	25° \mathbb{B} 25'12	25°53'07	direct	1951 Jan 12 15:34	1° \mathbb{B} 55'04	
desc. node	1950 Feb 13 20:08	28° \mathbb{B} 53'31		morning max el	1951 Jan 23 23:08	8° \mathbb{B} 40'00	24°30'30
	1950 Feb 14 19:12	0° \mathbb{A}		desc. node	1951 Jan 31 17:11	17° \mathbb{B} 38'14	
	1950 Mar 07 22:04	0° \mathbb{K}			1951 Feb 09 17:50	0° \mathbb{A}	
morning set	1950 Mar 18 19:25	18° \mathbb{K} 52'26		morning set	1951 Feb 28 21:40	0° \mathbb{K} 37'34	
max. Earth dist.	1950 Mar 22 16:57	26° \mathbb{K} 12'22	1.35652 AU		1951 Feb 28 13:04	0° \mathbb{K}	
	1950 Mar 24 15:52	0° \mathbb{Y}		max. Earth dist.	1951 Mar 04 14:47	7° \mathbb{K} 15'11	1.37581 AU
superior conj	1950 Mar 28 02:28	6° \mathbb{Y} 51'03	-1°-11'-1	superior conj	1951 Mar 11 10:10	20° \mathbb{K} 01'52	-1°-35'-49
minimum elong	1950 Mar 28 05:59	7° \mathbb{Y} 08'50	1°10'27	minimum elong	1951 Mar 11 14:26	20° \mathbb{K} 22'30	1°35'19
asc. node	1950 Apr 04 11:35	21° \mathbb{Y} 58'41			1951 Mar 16 11:53	0° \mathbb{Y}	
evening rise	1950 Apr 05 01:31	23° \mathbb{Y} 09'57		evening rise	1951 Mar 20 02:21	7° \mathbb{Y} 10'30	
	1950 Apr 08 11:12	0° \mathbb{B}		asc. node	1951 Mar 22 08:37	11° \mathbb{Y} 37'47	
evening max el	1950 Apr 23 02:09	22° \mathbb{B} 24'00	20°12'59		1951 Apr 02 03:27	0° \mathbb{B}	
retrograde	1950 May 03 16:06	27° \mathbb{B} 31'19		evening max el	1951 Apr 05 19:43	4° \mathbb{B} 14'10	19°12'05
evening set	1950 May 05 17:09	27° \mathbb{B} 20'41		retrograde	1951 Apr 14 17:50	8° \mathbb{B} 33'24	
desc. node	1950 May 12 19:22	24° \mathbb{B} 30'25		evening set	1951 Apr 16 20:23	8° \mathbb{B} 19'58	
inferior conj	1950 May 14 18:18	23° \mathbb{B} 22'13	0°-34'-12	inferior conj	1951 Apr 25 04:02	4° \mathbb{B} 09'04	1°16'07
minimum elong	1950 May 14 16:42	23° \mathbb{B} 24'35	0°33'37	minimum elong	1951 Apr 25 06:57	4° \mathbb{B} 04'09	1°15'09
min. Earth dist.	1950 May 16 11:06	22° \mathbb{B} 21'56	0.55219 AU	min. Earth dist.	1951 Apr 28 02:04	2° \mathbb{B} 11'33	0.56403 AU
morning rise	1950 May 23 13:58	19° \mathbb{B} 04'12		desc. node	1951 Apr 29 16:23	1° \mathbb{B} 11'44	
direct	1950 May 27 12:28	18° \mathbb{B} 30'33			1951 May 01 21:25	30° \mathbb{R} \mathbb{Y}	
morning max el	1950 Jun 10 02:46	25° \mathbb{B} 10'27	23°44'34	morning rise	1951 May 03 13:26	29° \mathbb{Y} 17'09	
	1950 Jun 14 14:33	0° \mathbb{I}		direct	1951 May 08 11:50	28° \mathbb{Y} 20'48	
asc. node	1950 Jul 01 10:50	27° \mathbb{I} 36'08			1951 May 15 01:40	0° \mathbb{B}	
	1950 Jul 02 14:57	0° \mathbb{B}		morning max el	1951 May 22 17:12	5° \mathbb{B} 37'23	25°23'41
morning set	1950 Jul 04 02:31	3° \mathbb{B} 05'27			1951 Jun 09 08:43	0° \mathbb{I}	
superior conj	1950 Jul 11 04:17	18° \mathbb{B} 18'00	1°26'45	asc. node	1951 Jun 18 07:52	17° \mathbb{I} 27'55	
minimum elong	1950 Jul 11 01:57	18° \mathbb{B} 05'30	1°26'27	morning set	1951 Jun 18 14:17	18° \mathbb{I} 01'41	
max. Earth dist.	1950 Jul 13 09:00	23° \mathbb{B} 00'24	1.33396 AU		1951 Jun 24 03:13	0° \mathbb{B}	
	1950 Jul 16 17:08	0° \mathbb{Q}		superior conj	1951 Jun 25 14:33	3° \mathbb{B} 13'26	1°10'07
evening rise	1950 Jul 18 16:43	4° \mathbb{Q} 01'43		minimum elong	1951 Jun 25 12:10	3° \mathbb{B} 00'27	1°09'43
	1950 Aug 02 02:44	0° \mathbb{P}		max. Earth dist.	1951 Jun 26 16:37	5° \mathbb{B} 35'51	1.32618 AU
desc. node	1950 Aug 08 18:44	10° \mathbb{P} 00'17		evening rise	1951 Jul 02 17:58	18° \mathbb{B} 29'56	
evening max el	1950 Aug 21 10:27	25° \mathbb{P} 07'33	27°24'11		1951 Jul 08 13:39	0° \mathbb{Q}	
	1950 Aug 27 14:17	0° \mathbb{A}		desc. node	1951 Jul 26 15:45	28° \mathbb{Q} 45'06	
retrograde	1950 Sep 04 00:14	2° \mathbb{A} 25'16			1951 Jul 27 15:24	0° \mathbb{P}	
	1950 Sep 10 19:16	30° \mathbb{R} \mathbb{P}		evening max el	1951 Aug 03 18:42	7° \mathbb{P} 53'15	27°18'40
evening set	1950 Sep 11 03:26	29° \mathbb{P} 45'06		retrograde	1951 Aug 17 14:04	15° \mathbb{P} 09'06	
min. Earth dist.	1950 Sep 14 20:11	26° \mathbb{P} 26'17	0.63985 AU	evening set	1951 Aug 24 18:33	12° \mathbb{P} 43'09	
inferior conj	1950 Sep 17 07:48	23° \mathbb{P} 51'13	-3°-10'-11	min. Earth dist.	1951 Aug 28 08:40	9° \mathbb{P} 52'29	0.62195 AU
minimum elong	1950 Sep 17 12:40	23° \mathbb{P} 38'31	3°08'37	inferior conj	1951 Aug 31 08:09	7° \mathbb{P} 07'04	-4°-1'-39
morning rise	1950 Sep 24 00:01	18° \mathbb{P} 27'59		minimum elong	1951 Aug 31 13:28	6° \mathbb{P} 54'42	4°00'23
direct	1950 Sep 26 11:59	17° \mathbb{P} 56'47		morning rise	1951 Sep 07 11:08	2° \mathbb{P} 03'34	
asc. node	1950 Sep 27 10:01	18° \mathbb{P} 01'04		direct	1951 Sep 09 20:22	1° \mathbb{P} 38'34	
morning max el	1950 Oct 03 00:43	21° \mathbb{P} 22'31	17°54'41	asc. node	1951 Sep 14 07:03	3° \mathbb{P} 08'00	
	1950 Oct 09 14:40	0° \mathbb{A}		morning max el	1951 Sep 16 16:10	5° \mathbb{P} 06'03	17°53'20
morning set	1950 Oct 19 21:50	17° \mathbb{A} 12'41		morning set	1951 Oct 02 15:14	0° \mathbb{A} 03'38	

	1951 Oct 02 14:25	0°♄			1952 Sep 07 12:02	0°♍		
				morning set	1952 Sep 14 23:54	13°♍38'15		
superior conj	1951 Oct 13 14:52	19°♄27'35	0°58'56		1952 Sep 23 18:45	0°♄		
minimum elong	1951 Oct 13 19:24	19°♄46'57	0°58'21					
	1951 Oct 19 21:52	0°♌		superior conj	1952 Sep 24 14:03	1°♄27'19	1°25'24	
max. Earth dist.	1951 Oct 20 20:22	1°♌31'58	1.43037 AU	minimum elong	1952 Sep 24 17:58	1°♄45'02	1°25'01	
desc. node	1951 Oct 22 15:04	4°♌25'08		max. Earth dist.	1952 Oct 02 04:56	14°♄46'49	1.41235 AU	
evening rise	1951 Oct 28 05:25	13°♌18'11		evening rise	1952 Oct 07 07:33	23°♄14'43		
	1951 Nov 08 04:59	0°♊		desc. node	1952 Oct 08 12:04	25°♄09'55		
greatest brilliancy	1951 Nov 23 14:29	21°♊23'45	-0.4m		1952 Oct 11 13:05	0°♌		
evening max el	1951 Nov 28 11:20	26°♊57'37	21°39'59		1952 Nov 01 05:34	0°♊		
	1951 Dec 01 20:41	0°♋		greatest brilliancy	1952 Nov 04 18:19	4°♊27'44	-0.2m	
retrograde	1951 Dec 07 11:57	2°♋19'56		evening max el	1952 Nov 10 03:27	10°♊30'13	22°58'29	
asc. node	1951 Dec 11 06:17	1°♋02'03		retrograde	1952 Nov 20 06:43	16°♊31'10		
evening set	1951 Dec 11 17:36	0°♋40'58		evening set	1952 Nov 25 00:47	14°♊35'22		
	1951 Dec 12 12:40	30°♊♊		asc. node	1952 Nov 27 03:19	12°♊29'27		
inferior conj	1951 Dec 17 03:09	24°♊21'51	1°54'17	inferior conj	1952 Nov 30 10:37	8°♊10'54	1°06'52	
minimum elong	1951 Dec 17 00:53	24°♊29'42	1°53'27	minimum elong	1952 Nov 30 09:07	8°♊16'02	1°06'15	
min. Earth dist.	1951 Dec 17 07:02	24°♊08'21	0.67718 AU	min. Earth dist.	1952 Nov 30 03:43	8°♊34'43	0.67821 AU	
morning rise	1951 Dec 22 07:54	18°♊07'22		morning rise	1952 Dec 05 17:27	1°♊59'19		
direct	1951 Dec 27 06:38	16°♊01'24		direct	1952 Dec 10 01:28	0°♊16'09		
morning max el	1952 Jan 06 08:37	22°♊00'27	23°02'02	morning max el	1952 Dec 18 22:22	5°♊27'54	21°36'41	
greatest brilliancy	1952 Jan 11 04:21	27°♊23'47	-0.3m	greatest brilliancy	1952 Dec 23 20:57	11°♊04'29	-0.4m	
	1952 Jan 13 06:44	0°♋		desc. node	1953 Jan 04 11:17	26°♊56'25		
desc. node	1952 Jan 18 14:15	7°♋03'11			1953 Jan 06 13:24	0°♋		
	1952 Feb 03 01:38	0°♌		morning set	1953 Jan 19 17:32	20°♋10'58		
morning set	1952 Feb 09 22:13	11°♌06'04			1953 Jan 25 19:10	0°♌		
max. Earth dist.	1952 Feb 14 09:54	18°♌42'04	1.39721 AU	max. Earth dist.	1953 Jan 26 09:23	0°♌58'41	1.41800 AU	
	1952 Feb 20 18:54	0°♎						
				superior conj	1953 Feb 02 23:11	13°♌50'04	-2°-4'-36	
superior conj	1952 Feb 22 02:47	2°♎25'45	-1°-55'-3	minimum elong	1953 Feb 03 00:02	13°♌53'46	2°04'36	
minimum elong	1952 Feb 22 06:28	2°♎42'43	1°54'49		1953 Feb 11 23:57	0°♎		
evening rise	1952 Mar 02 18:24	20°♎40'31		evening rise	1953 Feb 13 22:03	3°♎31'02		
	1952 Mar 07 17:10	0°♏		asc. node	1953 Feb 23 02:39	19°♎48'37		
asc. node	1952 Mar 08 05:38	0°♏56'50		evening max el	1953 Mar 02 07:51	29°♎32'41	18°10'27	
evening max el	1952 Mar 18 22:40	16°♏39'59	18°31'16		1953 Mar 02 19:21	0°♏		
retrograde	1952 Mar 26 13:54	20°♏25'01		retrograde	1953 Mar 09 03:44	2°♏59'39		
evening set	1952 Mar 28 21:49	20°♏05'11		evening set	1953 Mar 11 17:12	2°♏31'08		
inferior conj	1952 Apr 05 10:33	15°♏35'10	2°36'17		1953 Mar 15 21:16	30°♎♎		
minimum elong	1952 Apr 05 14:32	15°♏27'17	2°35'17	inferior conj	1953 Mar 18 13:36	27°♎39'51	3°23'03	
min. Earth dist.	1952 Apr 08 20:44	12°♏54'08	0.58235 AU	minimum elong	1953 Mar 18 16:15	27°♎33'46	3°22'40	
morning rise	1952 Apr 13 03:00	10°♏11'14		min. Earth dist.	1953 Mar 21 21:08	24°♎38'46	0.60368 AU	
desc. node	1952 Apr 15 13:23	9°♏12'34		morning rise	1953 Mar 25 11:59	21°♎53'36		
direct	1952 Apr 19 01:32	8°♏40'50		direct	1953 Apr 01 03:36	19°♎46'52		
morning max el	1952 May 03 10:48	16°♏20'25	26°44'55	desc. node	1953 Apr 02 10:26	19°♎51'25		
	1952 May 14 14:43	0°♐		morning max el	1953 Apr 15 10:14	27°♎38'16	27°35'31	
	1952 May 31 15:26	0°♑			1953 Apr 17 16:48	0°♏		
morning set	1952 Jun 02 00:36	2°♑52'20			1953 May 08 06:24	0°♐		
asc. node	1952 Jun 04 04:55	7°♑30'21		morning set	1953 May 17 07:41	17°♐30'59		
				asc. node	1953 May 22 01:58	27°♐38'22		
superior conj	1952 Jun 09 02:15	18°♑11'00	0°49'38		1953 May 23 03:58	0°♑		
minimum elong	1952 Jun 09 00:17	18°♑00'12	0°49'16	max. Earth dist.	1953 May 23 16:00	1°♑05'46	1.32226 AU	
max. Earth dist.	1952 Jun 09 04:10	18°♑21'37	1.32229 AU					
	1952 Jun 14 12:22	0°♒		superior conj	1953 May 24 13:39	3°♑04'26	0°26'02	
evening rise	1952 Jun 16 00:53	3°♒13'27		minimum elong	1953 May 24 12:30	2°♑58'08	0°25'48	
	1952 Jun 30 10:27	0°♓		evening rise	1953 May 31 11:13	18°♑04'32		
desc. node	1952 Jul 12 12:44	16°♓28'51			1953 Jun 06 08:23	0°♒		
evening max el	1952 Jul 15 21:17	19°♓56'41	26°40'03		1953 Jun 26 11:01	0°♓		
retrograde	1952 Jul 29 20:31	27°♓09'54		evening max el	1953 Jun 27 16:57	1°♓14'02	25°31'00	
evening set	1952 Aug 05 15:30	25°♓11'56		desc. node	1953 Jun 29 09:43	2°♓46'36		
min. Earth dist.	1952 Aug 09 10:57	22°♓35'35	0.60174 AU	retrograde	1953 Jul 11 17:25	8°♓22'31		
inferior conj	1952 Aug 12 17:51	19°♓55'42	-4°-41'-4	evening set	1953 Jul 17 13:45	7°♓02'23		
minimum elong	1952 Aug 12 21:53	19°♓47'28	4°40'33	min. Earth dist.	1953 Jul 22 05:05	4°♓22'08	0.58125 AU	
morning rise	1952 Aug 20 07:36	15°♓14'31		inferior conj	1953 Jul 25 09:27	2°♓07'54	-4°-58'-3	
direct	1952 Aug 22 16:54	14°♓53'14		minimum elong	1953 Jul 25 09:42	2°♓07'29	4°58'03	
morning max el	1952 Aug 30 03:54	18°♓31'43	18°11'09		1953 Jul 28 13:41	30°♎♒		
asc. node	1952 Aug 31 04:06	19°♓33'35		morning rise	1953 Aug 02 09:16	27°♒49'30		

direct	1953 Aug 04 21:21	27°  30'01		retrograde	1954 Jun 23 02:09	18°  50'00	
	1953 Aug 11 14:04	0°  0		evening set	1954 Jun 27 12:56	18°  06'17	
morning max el	1953 Aug 13 08:41	1°  30'21	18°49'33	min. Earth dist.	1954 Jul 03 18:04	15°  05'41	0.56354 AU
asc. node	1953 Aug 18 01:11	7°  02'43		inferior conj	1954 Jul 06 04:48	13°  35'19	-4°-38'-28
morning set	1953 Aug 29 19:27	27°  04'50'4		minimum elong	1954 Jul 05 23:40	13°  34'16	4°37'46
	1953 Aug 30 22:59	0°  0		morning rise	1954 Jul 14 13:53	9°  36'06	
				direct	1954 Jul 17 06:50	9°  17'04	
superior conj	1953 Sep 07 09:35	14°  27'44	1°40'23	morning max el	1954 Jul 27 03:36	13°  51'42	19°49'24
minimum elong	1953 Sep 07 11:44	14°  37'53	1°40'16	asc. node	1954 Aug 04 22:15	25°  20'35	
max. Earth dist.	1953 Sep 14 09:27	27°  19'59	1.39206 AU		1954 Aug 07 14:44	0°  0	
	1953 Sep 15 21:44	0°  0		morning set	1954 Aug 13 22:26	12°  01'3'58	
evening rise	1953 Sep 18 09:27	4°  17'59					
desc. node	1953 Sep 25 09:05	15°  48'41		superior conj	1954 Aug 21 20:01	28°  01'2'34	1°45'43
	1953 Oct 04 16:40	0°  0		minimum elong	1954 Aug 21 20:17	28°  01'3'57	1°45'42
evening max el	1953 Oct 23 16:34	24°  07'09	24°18'14		1954 Aug 22 17:42	0°  0	
	1953 Oct 31 15:49	0°  0		max. Earth dist.	1954 Aug 27 14:04	9°  21'08	1.37197 AU
retrograde	1953 Nov 03 21:50	0°  0		evening rise	1954 Aug 31 10:27	16°  25'55	
	1953 Nov 06 22:19	30°  0			1954 Sep 08 08:05	0°  0	
evening set	1953 Nov 09 05:48	28°  28'37		desc. node	1954 Sep 12 06:06	6°  16'20	
min. Earth dist.	1953 Nov 13 23:51	23°  01'33	0.67596 AU		1954 Sep 29 04:06	0°  0	
asc. node	1953 Nov 14 00:21	22°  05'52		evening max el	1954 Oct 06 04:37	7°  04'7'00	25°32'17
inferior conj	1953 Nov 14 17:15	22°  03'04	0°14'32	retrograde	1954 Oct 18 08:25	14°  04'5'38	
minimum elong	1953 Nov 14 16:54	22°  04'15	0°14'22	evening set	1954 Oct 24 06:56	12°  04'17'26	
transit middle	1953 Nov 14 16:54	22°  04'15	0°14'22	min. Earth dist.	1954 Oct 28 16:59	7°  04'25'48	0.67037 AU
transit begin	1953 Nov 14 15:37	22°  08'34		inferior conj	1954 Oct 29 21:15	5°  05'5'05	0°-41'-27
transit end	1953 Nov 14 18:11	21°  05'57		minimum elong	1954 Oct 29 22:19	5°  05'1'39	0°41'01
morning rise	1953 Nov 20 04:17	15°  05'52		asc. node	1954 Oct 31 21:26	3°  05'25'05	
direct	1953 Nov 23 22:55	14°  03'52'1		morning rise	1954 Nov 04 14:26	29°  05'7'05	
morning max el	1953 Dec 01 19:19	19°  05'59	20°21'08		1954 Nov 04 12:36	30°  0	
greatest brilliancy	1953 Dec 08 06:47	26°  04'9'33	-0.5m	direct	1954 Nov 07 21:30	28°  05'4'28	
	1953 Dec 10 14:48	0°  0			1954 Nov 11 10:25	0°  0	
desc. node	1953 Dec 22 08:20	17°  01'10'15		morning max el	1954 Nov 15 00:07	2°  05'4'17	19°19'19
morning set	1953 Dec 29 15:52	28°  01'21'41		greatest brilliancy	1954 Nov 24 14:53	15°  05'19'44	-0.7m
	1953 Dec 30 17:14	0°  0			1954 Dec 04 07:02	0°  0	
max. Earth dist.	1954 Jan 08 16:52	14°  01'1'06	1.43534 AU	morning set	1954 Dec 08 16:27	6°  05'4'8'12	
				desc. node	1954 Dec 09 05:23	7°  05'3'8'24	
superior conj	1954 Jan 14 18:33	24°  04'42	-1°-59'-30	max. Earth dist.	1954 Dec 22 07:27	28°  05'0'6'26	1.44690 AU
minimum elong	1954 Jan 14 14:14	23°  04'6'51	1°59'20		1954 Dec 23 12:10	0°  0	
	1954 Jan 18 07:43	0°  0					
evening rise	1954 Jan 27 09:07	15°  03'33'59		superior conj	1954 Dec 25 12:07	3°  05'10'21	-1°-35'-45
	1954 Feb 04 18:03	0°  0		minimum elong	1954 Dec 25 03:31	2°  05'3'6'08	1°34'58
asc. node	1954 Feb 09 23:40	8°  04'51		evening rise	1955 Jan 08 23:23	26°  05'4'2'01	
evening max el	1954 Feb 13 20:05	12°  04'3'41	18°09'04		1955 Jan 10 23:05	0°  0	
retrograde	1954 Feb 20 07:33	16°  07'38		asc. node	1955 Jan 27 20:43	25°  05'3'4'44	
evening set	1954 Feb 23 02:06	15°  02'9'10		evening max el	1955 Jan 28 08:28	26°  05'0'5'22	18°26'30
inferior conj	1954 Mar 01 09:51	10°  04'16'50	3°42'10	retrograde	1955 Feb 03 20:55	29°  05'3'9'18	
minimum elong	1954 Mar 01 10:29	10°  04'15'09	3°42'08	evening set	1955 Feb 06 20:40	28°  05'0'0'00	
min. Earth dist.	1954 Mar 04 05:37	7°  04'20'38	0.62467 AU	inferior conj	1955 Feb 12 19:12	23°  05'1'8'18	3°40'38
morning rise	1954 Mar 07 16:38	4°  04'16'53		minimum elong	1955 Feb 12 18:09	23°  05'2'1'23	3°40'34
direct	1954 Mar 14 15:06	1°  04'42'17		min. Earth dist.	1955 Feb 14 23:44	20°  05'4'6'01	0.64299 AU
desc. node	1954 Mar 20 07:29	3°  04'12'32		morning rise	1955 Feb 18 14:10	17°  05'1'0'11	
morning max el	1954 Mar 28 15:27	9°  04'37'31	27°49'18	direct	1955 Feb 25 10:17	14°  05'2'1'25	
	1954 Apr 13 11:34	0°  0		desc. node	1955 Mar 07 04:33	18°  05'4'4'18	
	1954 Apr 30 11:26	0°  0		morning max el	1955 Mar 11 00:28	22°  05'1'3'12	27°27'00
morning set	1954 May 01 09:28	1°  05'50'54			1955 Mar 17 20:49	0°  0	
max. Earth dist.	1954 May 07 00:21	13°  05'35'53	1.32624 AU		1955 Apr 06 16:14	0°  0	
				morning set	1955 Apr 15 03:22	15°  05'4'4'09	
superior conj	1954 May 08 23:02	17°  05'47'55	0°00'01	max. Earth dist.	1955 Apr 20 01:23	25°  05'4'0'34	1.33444 AU
minimum elong	1954 May 08 23:03	17°  05'47'55	0°00'01		1955 Apr 22 02:57	0°  0	
behind sun begin	1954 May 08 18:13	17°  05'21'48					
behind sun end	1954 May 09 03:52	18°  05'14'04		superior conj	1955 Apr 23 04:35	2°  05'15'40	0°-27'-30
asc. node	1954 May 08 23:00	17°  05'47'43		minimum elong	1955 Apr 23 05:57	2°  05'22'58	0°27'14
	1954 May 14 13:57	0°  0		asc. node	1955 Apr 25 20:03	7°  05'5'4'43	
evening rise	1954 May 15 23:01	2°  05'56'27		evening rise	1955 Apr 30 10:27	17°  05'4'3'05	
	1954 May 30 16:13	0°  0			1955 May 06 13:05	0°  0	
evening max el	1954 Jun 09 07:20	11°  05'54'08	24°00'53	evening max el	1955 May 21 22:34	22°  05'23'58	22°24'45
desc. node	1954 Jun 16 06:44	17°  05'04'56		desc. node	1955 Jun 03 03:45	28°  05'2'49'10	

retrograde	1955 Jun 03 22:46	28°II50'36		evening set	1956 May 16 16:45	8°II41'13	
evening set	1955 Jun 06 23:41	28°II30'14		desc. node	1956 May 20 00:48	7°II44'19	
min. Earth dist.	1955 Jun 15 05:31	24°II56'05	0.55201 AU	inferior conj	1956 May 26 00:11	4°II43'18	-1°-43'-39
inferior conj	1955 Jun 16 06:26	24°II20'49	-3°-31'-25	minimum elong	1956 May 25 19:19	4°II50'12	1°41'57
minimum elong	1955 Jun 15 22:32	24°II32'02	3°29'19	min. Earth dist.	1956 May 26 17:56	4°II18'06	0.54930 AU
morning rise	1955 Jun 24 23:40	20°II29'22		morning rise	1956 Jun 03 21:17	0°II39'59	
direct	1955 Jun 27 23:11	20°II09'13		direct	1956 Jun 07 08:34	0°II14'01	
morning max el	1955 Jul 09 11:12	25°II30'16	21°09'41	morning max el	1956 Jun 20 08:29	6°II27'16	22°45'50
	1955 Jul 13 14:44	0°☾			1956 Jul 06 19:02	0°☾	
asc. node	1955 Jul 22 19:19	14°☾15'51		asc. node	1956 Jul 08 16:22	3°☾38'27	
morning set	1955 Jul 29 06:19	26°☾58'04		morning set	1956 Jul 12 17:01	11°☾50'49	
	1955 Jul 30 17:22	0°♌					
superior conj	1955 Aug 05 16:57	12°♌29'25	1°43'10	superior conj	1956 Jul 19 21:01	27°☾07'27	1°34'16
minimum elong	1955 Aug 05 15:47	12°♌23'25	1°43'07	minimum elong	1956 Jul 19 18:57	26°☾56'31	1°34'05
max. Earth dist.	1955 Aug 10 00:04	21°♌12'30	1.35425 AU	max. Earth dist.	1956 Jul 22 18:48	3°♌15'03	1.34016 AU
evening rise	1955 Aug 14 06:28	29°♌28'34		evening rise	1956 Jul 27 16:50	13°♌13'13	
	1955 Aug 14 13:08	0°♍			1956 Aug 05 19:06	0°♍	
desc. node	1955 Aug 30 03:07	26°♍27'09		desc. node	1956 Aug 16 00:09	16°♍13'25	
	1955 Sep 01 12:06	0°♎			1956 Aug 26 13:29	0°♎	
evening max el	1955 Sep 18 16:43	21°♎24'55	26°33'05	evening max el	1956 Aug 31 04:42	4°♎52'17	27°13'15
retrograde	1955 Oct 01 13:58	28°♎38'09		retrograde	1956 Sep 13 14:08	12°♎11'06	
evening set	1955 Oct 08 02:11	25°♎58'42		evening set	1956 Sep 20 13:10	9°♎28'05	
min. Earth dist.	1955 Oct 12 04:45	21°♎43'56	0.66129 AU	min. Earth dist.	1956 Sep 24 08:57	5°♎49'45	0.64860 AU
inferior conj	1955 Oct 13 20:41	19°♎43'55	-1°-39'-35	inferior conj	1956 Sep 26 13:20	3°♎25'11	-2°-37'-48
minimum elong	1955 Oct 13 23:20	19°♎35'57	1°38'30	minimum elong	1956 Sep 26 17:31	3°♎13'38	2°36'18
asc. node	1955 Oct 18 18:30	14°♎40'31			1956 Sep 29 21:25	30°♏♍	
morning rise	1955 Oct 19 21:45	13°♎57'02		morning rise	1956 Oct 02 23:43	27°♏52'27	
direct	1955 Oct 22 19:22	13°♎09'41		asc. node	1956 Oct 04 15:33	27°♏21'19	
morning max el	1955 Oct 29 11:21	16°♎49'19	18°33'10	direct	1956 Oct 05 14:21	27°♏16'31	
	1955 Nov 08 06:57	0°♐			1956 Oct 11 07:30	0°♎	
morning set	1955 Nov 18 16:32	16°♐28'55		morning max el	1956 Oct 12 02:29	0°♎45'14	18°03'44
desc. node	1955 Nov 26 02:25	28°♐16'34		morning set	1956 Oct 29 21:47	27°♎36'02	
	1955 Nov 27 04:34	0°♑			1956 Oct 31 08:19	0°♐	
superior conj	1955 Dec 04 14:09	11°♑38'57	0°-54'-46	desc. node	1956 Nov 11 23:27	19°♐01'07	
minimum elong	1955 Dec 04 07:16	11°♑11'56	0°53'55	superior conj	1956 Nov 12 21:36	20°♐29'40	0°-6'-12
max. Earth dist.	1955 Dec 05 01:51	12°♑24'50	1.45143 AU	minimum elong	1956 Nov 12 20:50	20°♐26'37	0°06'08
	1955 Dec 16 06:06	0°♒		behind sun begin	1956 Nov 12 10:53	19°♐46'52	
evening rise	1955 Dec 20 14:18	6°♒52'39		behind sun end	1956 Nov 13 06:46	21°♐06'18	
	1956 Jan 04 09:16	0°♓		max. Earth dist.	1956 Nov 16 20:36	26°♐46'44	1.44854 AU
evening max el	1956 Jan 11 18:29	9°♓32'12	19°01'40		1956 Nov 18 21:42	0°♑	
asc. node	1956 Jan 14 17:46	12°♓04'53		evening rise	1956 Nov 29 08:22	16°♑15'13	
retrograde	1956 Jan 18 15:52	13°♓26'52			1956 Dec 08 07:11	0°♒	
evening set	1956 Jan 21 21:48	12°♓25'43		greatest brilliancy	1956 Dec 17 18:30	13°♒59'19	-0.6m
inferior conj	1956 Jan 27 13:59	6°♓37'01	3°23'55	evening max el	1956 Dec 25 00:18	23°♒01'43	19°52'58
minimum elong	1956 Jan 27 11:50	6°♓43'46	3°23'34	asc. node	1956 Dec 31 14:48	27°♒20'51	
min. Earth dist.	1956 Jan 29 03:11	4°♓39'56	0.65764 AU	retrograde	1957 Jan 01 13:22	27°♒25'46	
morning rise	1956 Feb 02 00:56	0°♓24'10		evening set	1957 Jan 05 03:02	26°♒11'17	
	1956 Feb 02 12:18	30°♒♒		inferior conj	1957 Jan 10 15:13	20°♒08'23	2°55'48
direct	1956 Feb 08 12:10	27°♒35'10		minimum elong	1957 Jan 10 12:36	20°♒17'04	2°55'09
	1956 Feb 15 06:34	0°♓		min. Earth dist.	1957 Jan 11 14:22	18°♒51'18	0.66832 AU
morning max el	1956 Feb 21 10:25	5°♓12'39	26°34'03	morning rise	1957 Jan 15 21:32	13°♒53'19	
desc. node	1956 Feb 22 01:36	5°♓51'22		direct	1957 Jan 21 19:56	11°♒15'30	
	1956 Mar 11 10:27	0°♈		morning max el	1957 Feb 02 19:20	18°♒23'56	25°19'16
morning set	1956 Mar 28 09:46	28°♈58'48		desc. node	1957 Feb 07 22:38	24°♒06'33	
	1956 Mar 28 22:41	0°♉			1957 Feb 12 14:30	0°♓	
max. Earth dist.	1956 Apr 01 15:25	7°♉10'43	1.34714 AU		1957 Mar 04 11:34	0°♈	
superior conj	1956 Apr 06 03:55	16°♉19'43	0°-55'-25	morning set	1957 Mar 10 23:59	11°♈21'31	
minimum elong	1956 Apr 06 06:43	16°♉34'09	0°54'55	max. Earth dist.	1957 Mar 14 17:41	18°♈14'08	1.36431 AU
asc. node	1956 Apr 11 17:05	27°♉54'15		superior conj	1957 Mar 20 18:19	29°♈52'40	-1°-22'-1
	1956 Apr 12 17:10	0°♊		minimum elong	1957 Mar 20 22:16	0°♉12'14	1°21'27
evening rise	1956 Apr 13 19:29	2°♊16'44			1957 Mar 20 19:48	0°♉	
	1956 Apr 29 22:41	0°♋		evening rise	1957 Mar 29 00:01	16°♉31'08	
evening max el	1956 May 02 21:57	3°♋13'46	20°56'35	asc. node	1957 Mar 29 14:06	17°♉42'08	
retrograde	1956 May 14 12:12	8°♋52'34			1957 Apr 04 23:37	0°♊	

evening max el	1957 Apr 15 09:04	14°♄41'24	19°44'40	evening rise	1958 Mar 12 21:29	0°♃19'21	
retrograde	1957 Apr 25 05:32	19°♄26'45			1958 Mar 12 17:31	0°♃	
evening set	1957 Apr 27 06:10	19°♄15'34		asc. node	1958 Mar 16 11:08	7°♃13'19	
inferior conj	1957 May 06 00:34	15°♄13'32	0°15'22	evening max el	1958 Mar 29 07:05	26°♃48'02	18°52'15
minimum elong	1957 May 06 01:14	15°♄12'28	0°15'07		1958 Apr 02 19:17	0°♄	
transit middle	1957 May 06 01:14	15°♄12'28	0°15'07	retrograde	1958 Apr 06 14:24	0°♄50'11	
transit begin	1957 May 05 23:59	15°♄14'26		evening set	1958 Apr 08 19:17	0°♄34'17	
transit end	1957 May 06 02:30	15°♄10'31			1958 Apr 10 13:52	30°♄	
desc. node	1957 May 06 21:48	14°♄40'23		inferior conj	1958 Apr 16 18:45	26°♃15'55	1°54'21
min. Earth dist.	1957 May 08 07:59	13°♄47'35	0.55625 AU	minimum elong	1958 Apr 16 22:31	26°♃09'06	1°53'12
morning rise	1957 May 14 16:55	10°♄41'16		min. Earth dist.	1958 Apr 20 00:11	23°♃57'30	0.57129 AU
direct	1957 May 19 01:04	9°♄59'22		desc. node	1958 Apr 23 18:48	21°♃40'37	
morning max el	1957 Jun 01 23:35	16°♄57'28	24°27'51	morning rise	1958 Apr 24 21:28	21°♃09'48	
	1957 Jun 12 13:40	0°♄		direct	1958 Apr 30 06:57	19°♃59'43	
asc. node	1957 Jun 25 13:23	23°♄21'07		morning max el	1958 May 14 14:33	27°♃27'18	26°01'15
morning set	1957 Jun 27 04:50	26°♄46'57			1958 May 17 01:53	0°♄	
	1957 Jun 28 17:08	0°♄			1958 Jun 05 20:59	0°♄	
				morning set	1958 Jun 11 16:11	11°♄41'35	
superior conj	1957 Jul 04 05:37	11°♄58'26	1°20'12	asc. node	1958 Jun 12 10:25	13°♄18'02	
minimum elong	1957 Jul 04 03:13	11°♄45'23	1°19'52				
max. Earth dist.	1957 Jul 05 22:20	15°♄38'42	1.33014 AU	superior conj	1958 Jun 18 16:43	26°♄55'42	1°01'51
evening rise	1957 Jul 11 13:36	27°♄28'29		minimum elong	1958 Jun 18 14:28	26°♄43'19	1°01'28
	1957 Jul 12 19:41	0°♄		max. Earth dist.	1958 Jun 19 08:11	28°♄20'32	1.32408 AU
	1957 Jul 30 01:44	0°♄			1958 Jun 20 02:20	0°♄	
desc. node	1957 Aug 02 21:09	5°♄24'31		evening rise	1958 Jun 25 17:37	12°♄04'46	
evening max el	1957 Aug 13 15:11	17°♄57'25	27°25'57		1958 Jul 04 23:46	0°♄	
retrograde	1957 Aug 27 08:04	25°♄15'03		desc. node	1958 Jul 20 18:08	23°♄46'09	
evening set	1957 Sep 03 12:39	22°♄39'27			1958 Jul 26 10:08	0°♄	
min. Earth dist.	1957 Sep 07 03:41	19°♄33'36	0.63250 AU	evening max el	1958 Jul 26 21:37	0°♄27'33	27°06'26
inferior conj	1957 Sep 09 20:32	16°♄52'30	-3°-33'-4	retrograde	1958 Aug 09 18:47	7°♄41'34	
minimum elong	1957 Sep 10 01:45	16°♄39'31	3°31'33	evening set	1958 Aug 16 20:39	5°♄26'19	
morning rise	1957 Sep 16 17:17	11°♄37'08		min. Earth dist.	1958 Aug 20 11:54	2°♄43'31	0.61353 AU
direct	1957 Sep 19 03:37	11°♄09'01		inferior conj	1958 Aug 23 15:10	29°♄58'34	-4°-20'-24
asc. node	1957 Sep 21 12:36	11°♄36'24		minimum elong	1958 Aug 23 20:13	29°♄47'26	4°19'25
morning max el	1957 Sep 25 18:38	14°♄34'54	17°51'49		1958 Aug 23 14:31	30°♄	
	1957 Oct 06 11:09	0°♄		morning rise	1958 Aug 30 22:44	25°♄03'56	
morning set	1957 Oct 12 03:51	9°♄54'26		direct	1958 Sep 02 07:42	24°♄40'41	
	1957 Oct 23 20:50	0°♄		asc. node	1958 Sep 08 09:38	27°♄18'41	
				morning max el	1958 Sep 09 08:51	28°♄11'45	17°58'27
superior conj	1957 Oct 24 03:28	0°♄27'34	0°38'10		1958 Sep 11 01:09	0°♄	
minimum elong	1957 Oct 24 07:08	0°♄42'49	0°37'39	morning set	1958 Sep 25 04:26	23°♄06'12	
desc. node	1957 Oct 29 20:29	9°♄48'12			1958 Sep 28 22:45	0°♄	
max. Earth dist.	1957 Oct 30 13:10	10°♄55'22	1.43872 AU				
evening rise	1957 Nov 08 16:37	25°♄18'20		superior conj	1958 Oct 05 12:31	11°♄45'34	1°11'38
	1957 Nov 11 18:00	0°♄		minimum elong	1958 Oct 05 17:02	12°♄05'21	1°11'07
	1957 Dec 02 11:19	0°♄		max. Earth dist.	1958 Oct 13 01:31	24°♄35'38	1.42320 AU
greatest brilliancy	1957 Dec 02 14:35	0°♄10'31	-0.5m		1958 Oct 16 08:52	0°♄	
evening max el	1957 Dec 08 00:45	6°♄32'10	20°57'56	desc. node	1958 Oct 16 17:30	0°♄34'52	
retrograde	1957 Dec 16 11:05	11°♄31'46		evening rise	1958 Oct 19 08:12	4°♄45'23	
asc. node	1957 Dec 18 11:50	11°♄08'46			1958 Nov 05 02:36	0°♄	
evening set	1957 Dec 20 10:22	10°♄02'16		greatest brilliancy	1958 Nov 16 02:36	14°♄45'14	-0.3m
inferior conj	1957 Dec 25 20:25	3°♄48'17	2°18'51	evening max el	1958 Nov 20 19:42	20°♄03'48	22°12'48
minimum elong	1957 Dec 25 17:53	3°♄56'58	2°18'01	retrograde	1958 Nov 30 07:16	25°♄42'09	
min. Earth dist.	1957 Dec 26 07:00	3°♄11'55	0.67506 AU	evening set	1958 Dec 04 18:05	23°♄56'03	
	1957 Dec 28 17:30	30°♄		asc. node	1958 Dec 05 08:52	23°♄24'15	
morning rise	1957 Dec 31 01:00	27°♄33'06		inferior conj	1958 Dec 10 03:36	17°♄34'23	1°34'51
direct	1958 Jan 05 08:38	25°♄14'10		minimum elong	1958 Dec 10 01:37	17°♄41'16	1°34'05
	1958 Jan 14 10:03	0°♄		min. Earth dist.	1958 Dec 10 02:49	17°♄37'05	0.67811 AU
morning max el	1958 Jan 16 03:40	1°♄40'13	23°52'55	morning rise	1958 Dec 15 08:59	11°♄21'05	
desc. node	1958 Jan 25 19:40	13°♄09'51		direct	1958 Dec 20 01:27	9°♄24'43	
	1958 Feb 06 15:21	0°♄		morning max el	1958 Dec 29 14:27	15°♄02'36	22°24'53
morning set	1958 Feb 20 16:00	22°♄35'36		greatest brilliancy	1959 Jan 03 04:09	20°♄09'13	-0.3m
max. Earth dist.	1958 Feb 24 12:59	29°♄21'08	1.38484 AU		1959 Jan 10 16:47	0°♄	
	1958 Feb 24 21:44	0°♄		desc. node	1959 Jan 12 16:43	2°♄47'40	
					1959 Jan 30 15:41	0°♄	
superior conj	1958 Mar 03 20:12	12°♄45'06	-1°-44'-53	morning set	1959 Feb 01 04:05	2°♄27'23	
minimum elong	1958 Mar 04 00:26	13°♄05'10	1°44'28	max. Earth dist.	1959 Feb 06 09:41	11°♄08'42	1.40637 AU

superior conj	1959 Feb 14 04:54	24° \approx 45'17	-2°00'-34	superior conj	1960 Jan 26 15:10	5° \approx 40'51	-2°-4'-31
minimum elong	1959 Feb 14 07:43	24° \approx 57'54	2°00'27	minimum elong	1960 Jan 26 14:02	5° \approx 35'59	2°04'32
	1959 Feb 17 02:15	0° \mathbb{X}		evening rise	1960 Feb 07 05:57	26° \approx 05'30	
evening rise	1959 Feb 24 08:44	13° \mathbb{X} 33'37			1960 Feb 09 10:13	0° \mathbb{X}	
asc. node	1959 Mar 03 08:10	26° \mathbb{X} 21'36		asc. node	1960 Feb 18 05:13	14° \mathbb{X} 59'47	
	1959 Mar 05 11:52	0° \mathbb{Y}		evening max el	1960 Feb 23 23:56	22° \mathbb{X} 27'44	18°07'28
evening max el	1959 Mar 12 13:06	9° \mathbb{Y} 26'15	18°19'56	retrograde	1960 Mar 01 15:10	25° \mathbb{X} 52'08	
retrograde	1959 Mar 19 18:34	13° \mathbb{Y} 01'39		evening set	1960 Mar 04 06:42	25° \mathbb{X} 19'35	
evening set	1959 Mar 22 04:59	12° \mathbb{Y} 38'12		inferior conj	1960 Mar 10 21:16	20° \mathbb{X} 19'02	3°34'05
inferior conj	1959 Mar 29 10:17	7° \mathbb{Y} 58'49	2°59'59	minimum elong	1960 Mar 10 23:04	20° \mathbb{X} 14'38	3°33'55
minimum elong	1959 Mar 29 13:53	7° \mathbb{Y} 51'13	2°59'13	min. Earth dist.	1960 Mar 14 00:26	17° \mathbb{X} 17'14	0.61273 AU
min. Earth dist.	1959 Apr 01 20:42	5° \mathbb{Y} 06'28	0.59129 AU	morning rise	1960 Mar 17 12:34	14° \mathbb{X} 25'46	
morning rise	1959 Apr 05 18:58	2° \mathbb{Y} 24'24		direct	1960 Mar 24 08:05	12° \mathbb{X} 05'58	
desc. node	1959 Apr 10 15:52	0° \mathbb{Y} 43'49		desc. node	1960 Mar 27 12:55	12° \mathbb{X} 34'31	
direct	1959 Apr 12 01:53	0° \mathbb{Y} 38'27		morning max el	1960 Apr 07 12:52	20° \mathbb{X} 00'12	27°46'04
morning max el	1959 Apr 26 10:27	8° \mathbb{Y} 23'14	27°10'49		1960 Apr 16 02:22	0° \mathbb{Y}	
	1959 May 12 19:48	0° \mathbb{Z}			1960 May 04 16:45	0° \mathbb{Z}	
morning set	1959 May 27 01:23	26° \mathbb{Z} 27'56		morning set	1960 May 10 06:33	11° \mathbb{Z} 00'00	
	1959 May 28 17:35	0° \mathbb{I}		asc. node	1960 May 16 04:30	23° \mathbb{Z} 32'25	
asc. node	1959 May 30 07:27	3° \mathbb{I} 23'12		max. Earth dist.	1960 May 16 07:32	23° \mathbb{Z} 48'51	1.32347 AU
superior conj	1959 Jun 03 04:30	11° \mathbb{I} 52'02	0°39'59	superior conj	1960 May 17 15:17	26° \mathbb{Z} 42'03	0°15'16
minimum elong	1959 Jun 03 02:50	11° \mathbb{I} 42'52	0°39'38	minimum elong	1960 May 17 14:35	26° \mathbb{Z} 38'13	0°15'07
max. Earth dist.	1959 Jun 02 20:32	11° \mathbb{I} 08'12	1.32184 AU	behind sun begin	1960 May 17 13:02	26° \mathbb{Z} 29'45	
evening rise	1959 Jun 10 02:16	26° \mathbb{I} 52'26		behind sun end	1960 May 17 16:08	26° \mathbb{Z} 46'41	
	1959 Jun 11 14:11	0° \mathbb{S}			1960 May 19 03:27	0° \mathbb{I}	
	1959 Jun 28 16:31	0° \mathbb{Q}		evening rise	1960 May 24 13:30	11° \mathbb{I} 44'41	
desc. node	1959 Jul 07 15:09	10° \mathbb{Q} 56'51			1960 Jun 02 20:31	0° \mathbb{S}	
evening max el	1959 Jul 08 21:19	12° \mathbb{Q} 11'05	26°13'58	evening max el	1960 Jun 19 14:00	23° \mathbb{S} 09'19	24°54'16
retrograde	1959 Jul 22 21:02	19° \mathbb{Q} 22'09		desc. node	1960 Jun 23 12:10	26° \mathbb{S} 28'07	
evening set	1959 Jul 29 08:20	17° \mathbb{Q} 39'25			1960 Jul 01 01:13	0° \mathbb{Q}	
min. Earth dist.	1959 Aug 02 10:06	15° \mathbb{Q} 03'58	0.59296 AU	retrograde	1960 Jul 03 13:15	0° \mathbb{Q} 14'36	
inferior conj	1959 Aug 05 17:33	12° \mathbb{Q} 32'36	-4°-51'-48		1960 Jul 06 01:23	30° \mathbb{R} \mathbb{S}	
minimum elong	1959 Aug 05 20:18	12° \mathbb{Q} 27'20	4°51'35	evening set	1960 Jul 08 20:22	29° \mathbb{S} 10'37	
morning rise	1959 Aug 13 11:42	8° \mathbb{Q} 01'16		min. Earth dist.	1960 Jul 14 01:23	26° \mathbb{S} 23'32	0.57321 AU
direct	1959 Aug 15 22:05	7° \mathbb{Q} 40'48		inferior conj	1960 Jul 17 00:34	24° \mathbb{S} 25'43	-4°-55'-2
morning max el	1959 Aug 23 17:59	11° \mathbb{Q} 26'42	18°24'56	minimum elong	1960 Jul 16 22:33	24° \mathbb{S} 29'05	4°54'56
asc. node	1959 Aug 26 06:42	14° \mathbb{Q} 12'46		morning rise	1960 Jul 25 04:30	20° \mathbb{S} 16'43	
	1959 Sep 05 02:28	0° \mathbb{P}		direct	1960 Jul 27 18:24	19° \mathbb{S} 57'39	
morning set	1959 Sep 08 18:13	6° \mathbb{P} 55'38		morning max el	1960 Aug 05 18:57	24° \mathbb{S} 10'39	19°12'25
					1960 Aug 10 17:49	0° \mathbb{Q}	
superior conj	1959 Sep 17 21:05	24° \mathbb{P} 12'57	1°33'04	asc. node	1960 Aug 12 03:45	2° \mathbb{Q} 03'51	
minimum elong	1959 Sep 18 00:18	24° \mathbb{P} 27'50	1°32'48	morning set	1960 Aug 22 17:15	21° \mathbb{Q} 12'13	
	1959 Sep 21 01:20	0° \mathbb{A}			1960 Aug 27 03:11	0° \mathbb{P}	
max. Earth dist.	1959 Sep 25 08:26	7° \mathbb{A} 33'48	1.40387 AU				
evening rise	1959 Sep 29 20:01	15° \mathbb{A} 08'34		superior conj	1960 Aug 30 23:33	7° \mathbb{P} 33'52	1°43'43
desc. node	1959 Oct 03 14:31	21° \mathbb{A} 17'14		minimum elong	1960 Aug 31 00:52	7° \mathbb{P} 40'16	1°43'40
	1959 Oct 09 04:02	0° \mathbb{M}		max. Earth dist.	1960 Sep 06 12:00	19° \mathbb{P} 49'29	1.38331 AU
	1959 Oct 31 01:16	0° \mathbb{J}		evening rise	1960 Sep 10 08:03	26° \mathbb{P} 39'33	
evening max el	1959 Nov 03 10:14	3° \mathbb{J} 37'37	23°32'36		1960 Sep 12 06:29	0° \mathbb{A}	
retrograde	1959 Nov 14 00:37	9° \mathbb{J} 53'28		desc. node	1960 Sep 19 11:31	11° \mathbb{A} 51'28	
evening set	1959 Nov 19 00:35	7° \mathbb{J} 50'06			1960 Oct 01 17:17	0° \mathbb{M}	
asc. node	1959 Nov 22 05:55	4° \mathbb{J} 22'00		evening max el	1960 Oct 15 22:26	17° \mathbb{M} 14'51	24°50'53
inferior conj	1959 Nov 24 10:56	1° \mathbb{J} 24'37	0°45'10	retrograde	1960 Oct 27 14:02	24° \mathbb{M} 01'30	
minimum elong	1959 Nov 24 09:53	1° \mathbb{J} 28'12	0°44'44	evening set	1960 Nov 02 04:11	21° \mathbb{M} 41'37	
min. Earth dist.	1959 Nov 23 23:29	2° \mathbb{J} 03'47	0.67766 AU	min. Earth dist.	1960 Nov 06 18:39	16° \mathbb{M} 29'25	0.67392 AU
	1959 Nov 25 11:53	30° \mathbb{R} \mathbb{M}		inferior conj	1960 Nov 07 16:40	15° \mathbb{M} 16'37	0°-8'-53
morning rise	1959 Nov 29 19:20	25° \mathbb{M} 15'17		minimum elong	1960 Nov 07 16:53	15° \mathbb{M} 15'54	0°08'48
direct	1959 Dec 03 21:25	23° \mathbb{M} 41'46		transit middle	1960 Nov 07 16:53	15° \mathbb{M} 15'54	0°08'48
morning max el	1959 Dec 12 07:12	28° \mathbb{M} 34'41	21°03'09	transit begin	1960 Nov 07 14:34	15° \mathbb{M} 23'34	
	1959 Dec 13 15:42	0° \mathbb{J}		transit end	1960 Nov 07 19:12	15° \mathbb{M} 08'14	
greatest brilliancy	1959 Dec 17 18:12	4° \mathbb{J} 52'59	-0.5m	asc. node	1960 Nov 08 03:00	14° \mathbb{M} 42'32	
desc. node	1959 Dec 30 13:46	22° \mathbb{J} 50'18		morning rise	1960 Nov 13 06:06	9° \mathbb{M} 13'37	
	1960 Jan 04 08:24	0° \mathbb{Z}		direct	1960 Nov 16 19:27	8° \mathbb{M} 00'45	
morning set	1960 Jan 11 12:37	11° \mathbb{Z} 03'23		morning max el	1960 Nov 24 07:37	12° \mathbb{M} 17'21	19°53'01
max. Earth dist.	1960 Jan 19 12:56	23° \mathbb{Z} 51'36	1.42591 AU	greatest brilliancy	1960 Dec 01 19:08	21° \mathbb{M} 28'20	-0.6m
	1960 Jan 23 06:16	0° \mathbb{A}			1960 Dec 07 17:30	0° \mathbb{J}	

desc. node	1960 Dec 16 10:48	13°♄10'20		direct	1961 Oct 31 18:01	22°♄18'41	
morning set	1960 Dec 20 08:32	19°♄10'47		morning max el	1961 Nov 07 15:21	26°♄09'03	18°57'38
	1960 Dec 27 07:21	0°♄			1961 Nov 10 23:53	0°♄	
max. Earth dist.	1960 Dec 31 23:17	7°♄22'25	1.44095 AU	morning set	1961 Nov 29 17:20	28°♄04'04	
					1961 Nov 30 22:54	0°♄	
superior conj	1961 Jan 05 23:06	15°♄23'55	-1°-51'-49	desc. node	1961 Dec 03 07:51	3°♄43'11	
minimum elong	1961 Jan 05 16:31	14°♄57'13	1°51'23	max. Earth dist.	1961 Dec 14 15:24	21°♄28'04	1.44973 AU
	1961 Jan 14 18:58	0°♄					
evening rise	1961 Jan 19 08:39	7°♄45'26		superior conj	1961 Dec 16 08:04	24°♄08'12	-1°-20'-5
	1961 Feb 01 21:39	0°♄		minimum elong	1961 Dec 15 23:20	23°♄33'46	1°19'09
asc. node	1961 Feb 04 02:17	2°♄57'41			1961 Dec 20 01:04	0°♄	
evening max el	1961 Feb 06 12:32	5°♄43'37	18°14'16	evening rise	1961 Dec 31 13:03	18°♄28'15	
retrograde	1961 Feb 12 23:32	9°♄10'35			1962 Jan 07 15:08	0°♄	
evening set	1961 Feb 15 20:07	8°♄27'48		evening max el	1962 Jan 21 00:13	19°♄07'57	18°39'25
inferior conj	1961 Feb 21 23:35	3°♄07'13	3°43'38	asc. node	1962 Jan 21 23:19	20°♄03'42	
minimum elong	1961 Feb 21 23:26	3°♄07'37	3°43'39	retrograde	1962 Jan 27 15:31	22°♄49'14	
min. Earth dist.	1961 Feb 24 13:09	0°♄18'57	0.63281 AU	evening set	1962 Jan 30 17:46	21°♄55'04	
	1961 Feb 24 20:22	30°♄		inferior conj	1962 Feb 05 13:19	16°♄16'07	3°35'06
morning rise	1961 Feb 28 00:50	27°♄03'02		minimum elong	1962 Feb 05 11:43	16°♄20'56	3°34'56
direct	1961 Mar 06 23:16	24°♄20'19		min. Earth dist.	1962 Feb 07 11:20	13°♄57'38	0.64976 AU
desc. node	1961 Mar 14 09:58	26°♄55'03		morning rise	1962 Feb 11 04:26	10°♄05'46	
	1961 Mar 18 10:16	0°♄		direct	1962 Feb 17 21:35	7°♄14'58	
morning max el	1961 Mar 20 20:05	2°♄16'11	27°43'57	desc. node	1962 Mar 01 07:02	13°♄10'34	
	1961 Apr 10 09:22	0°♄		morning max el	1962 Mar 03 05:31	15°♄02'10	27°07'38
morning set	1961 Apr 24 05:21	25°♄09'37			1962 Mar 15 11:43	0°♄	
	1961 Apr 26 14:34	0°♄			1962 Apr 03 02:32	0°♄	
max. Earth dist.	1961 Apr 29 13:02	6°♄08'14	1.32916 AU	morning set	1962 Apr 07 18:48	8°♄47'24	
				max. Earth dist.	1962 Apr 12 09:24	17°♄56'44	1.33926 AU
superior conj	1961 May 01 23:17	11°♄19'25	0°-11'-31				
minimum elong	1961 May 01 23:51	11°♄22'27	0°11'25	superior conj	1962 Apr 16 02:29	25°♄37'47	0°-39'-23
behind sun begin	1961 May 01 20:09	11°♄02'31		minimum elong	1962 Apr 16 04:28	25°♄48'13	0°39'00
behind sun end	1961 May 02 03:33	11°♄42'23			1962 Apr 18 04:10	0°♄	
asc. node	1961 May 03 01:34	13°♄41'07		asc. node	1962 Apr 19 22:36	3°♄45'17	
evening rise	1961 May 09 01:20	26°♄34'37		evening rise	1962 Apr 23 11:57	11°♄16'04	
	1961 May 10 16:34	0°♄			1962 May 03 06:05	0°♄	
	1961 May 28 17:23	0°♄		evening max el	1962 May 13 21:54	14°♄16'31	21°45'42
evening max el	1961 Jun 01 03:46	3°♄40'58	23°19'49	retrograde	1962 May 26 09:09	20°♄23'50	
desc. node	1961 Jun 10 09:11	9°♄44'37		desc. node	1962 May 28 06:13	20°♄15'51	
retrograde	1961 Jun 14 17:06	10°♄27'18		evening set	1962 May 28 23:15	20°♄08'49	
evening set	1961 Jun 18 12:15	9°♄55'40		inferior conj	1962 Jun 07 08:22	16°♄06'37	-2°-49'-23
min. Earth dist.	1961 Jun 25 13:43	6°♄42'03	0.55767 AU	minimum elong	1962 Jun 07 01:04	16°♄16'48	2°47'07
inferior conj	1961 Jun 27 11:42	5°♄34'14	-4°-16'-1	min. Earth dist.	1962 Jun 07 01:30	16°♄16'12	0.54969 AU
minimum elong	1961 Jun 27 04:46	5°♄44'30	4°14'41	morning rise	1962 Jun 16 03:58	12°♄12'22	
morning rise	1961 Jul 06 00:28	1°♄40'01		direct	1962 Jun 19 07:45	11°♄50'26	
direct	1961 Jul 08 19:36	1°♄20'57		morning max el	1962 Jul 01 11:57	17°♄34'01	21°49'03
morning max el	1961 Jul 19 09:12	6°♄14'37	20°21'11		1962 Jul 11 07:36	0°♄	
asc. node	1961 Jul 30 00:49	20°♄38'50		asc. node	1962 Jul 16 21:51	9°♄46'40	
	1961 Aug 04 01:15	0°♄		morning set	1962 Jul 22 07:53	20°♄36'40	
morning set	1961 Aug 06 22:35	5°♄48'17			1962 Jul 26 18:50	0°♄	
superior conj	1961 Aug 14 14:56	21°♄33'54	1°45'29	superior conj	1962 Jul 29 15:14	6°♄00'36	1°40'05
minimum elong	1961 Aug 14 14:33	21°♄31'54	1°45'29	minimum elong	1962 Jul 29 13:37	5°♄52'11	1°39'59
	1961 Aug 18 20:52	0°♄		max. Earth dist.	1962 Aug 02 07:37	13°♄36'52	1.34781 AU
max. Earth dist.	1961 Aug 19 17:57	1°♄42'00	1.36403 AU	evening rise	1962 Aug 06 20:27	22°♄35'00	
evening rise	1961 Aug 23 17:47	9°♄12'49			1962 Aug 10 19:29	0°♄	
	1961 Sep 04 22:32	0°♄		desc. node	1962 Aug 24 05:33	22°♄14'14	
desc. node	1961 Sep 06 08:32	2°♄12'48			1962 Aug 29 15:48	0°♄	
	1961 Sep 27 12:16	0°♄		evening max el	1962 Sep 10 22:51	14°♄30'36	26°53'11
evening max el	1961 Sep 28 10:27	0°♄54'59	26°00'17	retrograde	1962 Sep 24 01:53	21°♄46'29	
retrograde	1961 Oct 10 22:42	8°♄01'35		evening set	1962 Sep 30 19:05	19°♄04'46	
evening set	1961 Oct 17 03:04	5°♄28'07		min. Earth dist.	1962 Oct 04 18:47	15°♄05'28	0.65636 AU
min. Earth dist.	1961 Oct 21 09:55	0°♄51'46	0.66688 AU	inferior conj	1962 Oct 06 15:49	12°♄54'37	-2°-4'-22
	1961 Oct 22 02:30	30°♄		minimum elong	1962 Oct 06 19:08	12°♄44'57	2°03'05
inferior conj	1961 Oct 22 18:59	29°♄08'12	-1°-5'-57	morning rise	1962 Oct 12 20:40	7°♄13'04	
minimum elong	1961 Oct 22 20:43	29°♄02'47	1°05'13	asc. node	1962 Oct 12 21:04	7°♄12'34	
asc. node	1961 Oct 26 00:02	25°♄23'32		direct	1962 Oct 15 15:04	6°♄30'54	
morning rise	1961 Oct 28 15:18	23°♄14'18		morning max el	1962 Oct 22 04:29	10°♄04'46	18°18'30

	1962 Nov 05 02:20	0°♄		morning rise	1963 Sep 26 19:29	21°♄04'55	
morning set	1962 Nov 10 05:59	8°♄22'31		direct	1963 Sep 29 08:04	20°♄32'36	
desc. node	1962 Nov 20 04:52	24°♄24'18		asc. node	1963 Sep 29 18:06	20°♄33'30	
	1962 Nov 23 17:31	0°♄		morning max el	1963 Oct 05 20:23	23°♄58'41	17°56'26
					1963 Oct 10 16:44	0°♄	
superior conj	1962 Nov 25 09:36	2°♄38'12	0°-34'-19	morning set	1963 Oct 22 22:31	20°♄02'13	
minimum elong	1962 Nov 25 05:10	2°♄20'41	0°33'45		1963 Oct 28 19:54	0°♄	
max. Earth dist.	1962 Nov 27 10:37	5°♄51'04	1.45119 AU				
evening rise	1962 Dec 11 18:16	28°♄16'01		superior conj	1963 Nov 05 01:08	11°♄53'25	0°13'42
	1962 Dec 12 20:51	0°♄		minimum elong	1963 Nov 05 02:41	11°♄59'44	0°13'29
greatest brilliancy	1962 Dec 26 09:02	20°♄51'01	-0.7m	behind sun begin	1963 Nov 04 21:01	11°♄36'43	
	1963 Jan 02 01:10	0°♄		behind sun end	1963 Nov 05 08:22	12°♄22'42	
evening max el	1963 Jan 04 08:42	2°♄36'18	19°21'41	desc. node	1963 Nov 07 01:53	15°♄10'08	
asc. node	1963 Jan 08 20:20	6°♄04'01		max. Earth dist.	1963 Nov 10 05:16	20°♄11'10	1.44522 AU
retrograde	1963 Jan 11 11:47	6°♄42'04			1963 Nov 16 11:07	0°♄	
evening set	1963 Jan 14 20:54	5°♄35'16		evening rise	1963 Nov 21 06:17	7°♄25'43	
inferior conj	1963 Jan 20 11:07	29°♄40'12	3°13'12		1963 Dec 06 05:17	0°♄	
minimum elong	1963 Jan 20 08:43	29°♄48'00	3°12'42	greatest brilliancy	1963 Dec 12 04:02	8°♄24'11	-0.6m
	1963 Jan 20 05:00	30°♄		evening max el	1963 Dec 18 12:15	16°♄05'52	20°19'06
min. Earth dist.	1963 Jan 21 18:07	28°♄00'03	0.66272 AU	retrograde	1963 Dec 26 09:40	20°♄44'27	
morning rise	1963 Jan 25 19:45	23°♄26'26		asc. node	1963 Dec 26 17:21	20°♄43'52	
direct	1963 Feb 01 01:58	20°♄41'06		evening set	1963 Dec 30 03:15	19°♄23'34	
morning max el	1963 Feb 13 15:01	28°♄07'11	26°04'21	inferior conj	1964 Jan 04 14:17	13°♄15'19	2°41'05
	1963 Feb 15 10:08	0°♄		minimum elong	1964 Jan 04 11:39	13°♄24'13	2°40'19
desc. node	1963 Feb 16 04:05	0°♄49'13		min. Earth dist.	1964 Jan 05 07:49	12°♄15'59	0.67165 AU
	1963 Mar 09 05:26	0°♄		morning rise	1964 Jan 09 19:33	7°♄00'07	
morning set	1963 Mar 21 18:58	21°♄41'39		direct	1964 Jan 15 11:42	4°♄29'53	
max. Earth dist.	1963 Mar 25 18:24	29°♄14'01	1.35394 AU	morning max el	1964 Jan 26 23:37	11°♄21'23	24°43'25
	1963 Mar 26 03:52	0°♄		desc. node	1964 Feb 03 01:07	19°♄26'43	
					1964 Feb 10 21:30	0°♄	
superior conj	1963 Mar 30 22:25	9°♄29'56	-1°-6'-59		1964 Feb 29 22:50	0°♄	
minimum elong	1963 Mar 31 01:46	9°♄46'55	1°06'25	morning set	1964 Mar 03 00:29	3°♄36'52	
asc. node	1963 Apr 06 19:38	23°♄40'45		max. Earth dist.	1964 Mar 06 17:14	10°♄16'00	1.37274 AU
evening rise	1963 Apr 07 19:22	25°♄42'46					
	1963 Apr 09 22:03	0°♄		superior conj	1964 Mar 13 07:57	22°♄46'26	-1°-32'-22
evening max el	1963 Apr 26 02:11	25°♄21'41	20°23'45	minimum elong	1964 Mar 13 12:10	23°♄06'59	1°31'50
	1963 May 03 04:17	0°♄			1964 Mar 16 23:54	0°♄	
retrograde	1963 May 06 22:30	0°♄37'15		evening rise	1964 Mar 21 21:14	9°♄46'55	
evening set	1963 May 09 00:03	0°♄26'37		asc. node	1964 Mar 23 16:40	13°♄22'10	
	1963 May 10 20:39	30°♄			1964 Apr 02 00:57	0°♄	
desc. node	1963 May 15 03:14	28°♄10'02		evening max el	1964 Apr 07 18:03	7°♄05'31	19°19'54
inferior conj	1963 May 18 03:11	26°♄28'41	0°-52'-28	retrograde	1964 Apr 16 21:50	11°♄31'18	
minimum elong	1963 May 18 00:42	26°♄32'18	0°51'34	evening set	1964 Apr 18 23:39	11°♄18'37	
min. Earth dist.	1963 May 19 14:12	25°♄37'37	0.55112 AU	inferior conj	1964 Apr 27 10:10	7°♄10'16	1°01'05
morning rise	1963 May 26 23:32	22°♄15'08		minimum elong	1964 Apr 27 12:37	7°♄06'14	1°00'14
direct	1963 May 30 18:51	21°♄43'52		min. Earth dist.	1964 Apr 30 04:56	5°♄20'33	0.56175 AU
morning max el	1963 Jun 13 05:50	28°♄16'57	23°29'17	desc. node	1964 May 01 00:16	4°♄50'13	
	1963 Jun 14 23:20	0°♄		morning rise	1964 May 05 21:36	2°♄23'22	
asc. node	1963 Jul 03 18:53	29°♄19'05		direct	1964 May 10 16:08	1°♄31'13	
	1963 Jul 04 03:00	0°♄		morning max el	1964 May 24 20:18	8°♄43'39	25°09'42
morning set	1963 Jul 06 19:18	5°♄32'07			1964 Jun 09 15:45	0°♄	
				asc. node	1964 Jun 19 15:55	19°♄08'25	
superior conj	1963 Jul 13 21:31	20°♄45'17	1°28'52	morning set	1964 Jun 20 07:07	20°♄28'16	
minimum elong	1963 Jul 13 19:15	20°♄33'06	1°28'37		1964 Jun 24 17:17	0°♄	
max. Earth dist.	1963 Jul 16 06:38	25°♄50'00	1.33546 AU				
	1963 Jul 18 06:19	0°♄		superior conj	1964 Jun 27 07:25	5°♄39'37	1°12'54
evening rise	1963 Jul 21 11:42	6°♄34'14		minimum elong	1964 Jun 27 05:01	5°♄26'31	1°12'32
	1963 Aug 03 09:20	0°♄		max. Earth dist.	1964 Jun 28 13:12	8°♄21'59	1.32706 AU
desc. node	1963 Aug 11 02:33	11°♄47'06		evening rise	1964 Jul 04 11:52	20°♄59'04	
evening max el	1963 Aug 24 10:31	27°♄50'15	27°22'13		1964 Jul 09 00:38	0°♄	
	1963 Aug 26 20:33	0°♄			1964 Jul 27 11:35	0°♄	
retrograde	1963 Sep 06 23:09	5°♄08'16		desc. node	1964 Jul 27 23:33	0°♄39'20	
evening set	1963 Sep 14 01:34	2°♄26'54		evening max el	1964 Aug 05 19:22	10°♄41'07	27°21'36
	1963 Sep 16 20:30	30°♄		retrograde	1964 Aug 19 14:14	17°♄57'45	
min. Earth dist.	1963 Sep 17 19:01	29°♄03'17	0.64227 AU	evening set	1964 Aug 26 19:03	15°♄28'45	
inferior conj	1963 Sep 20 04:47	26°♄30'38	-3°-1'-48	min. Earth dist.	1964 Aug 30 09:07	12°♄34'35	0.62476 AU
minimum elong	1963 Sep 20 09:30	26°♄18'10	3°00'14	inferior conj	1964 Sep 02 07:02	9°♄49'42	-3°-54'-31

minimum elong	1964 Sep 02 12:23	9° $\overline{\text{m}}$ 37'03	3°53'09	evening set	1965 Aug 08 19:02	28° Ω 02'31	
morning rise	1964 Sep 09 08:25	4° $\overline{\text{m}}$ 43'09		min. Earth dist.	1965 Aug 12 13:00	25° Ω 24'59	0.60478 AU
direct	1964 Sep 11 17:48	4° $\overline{\text{m}}$ 17'28		inferior conj	1965 Aug 15 19:11	22° Ω 43'11	-4°-36'-23
asc. node	1964 Sep 15 15:08	5° $\overline{\text{m}}$ 27'14		minimum elong	1965 Aug 15 23:34	22° Ω 34'03	4°35'43
morning max el	1964 Sep 18 12:10	7° $\overline{\text{m}}$ 44'18	17°52'19	morning rise	1965 Aug 23 07:21	17° Ω 58'25	
	1964 Oct 03 00:12	0° $\underline{\text{a}}$		direct	1965 Aug 25 16:24	17° Ω 36'45	
morning set	1964 Oct 04 13:11	2° $\underline{\text{a}}$ 45'19		morning max el	1965 Sep 02 00:40	21° Ω 13'09	18°07'14
				asc. node	1965 Sep 02 12:12	21° Ω 41'53	
superior conj	1964 Oct 15 18:44	22° $\underline{\text{a}}$ 26'22	0°53'51		1965 Sep 08 17:14	0° $\overline{\text{m}}$	
minimum elong	1964 Oct 15 23:09	22° $\underline{\text{a}}$ 45'05	0°53'17	morning set	1965 Sep 17 19:59	16° $\overline{\text{m}}$ 14'36	
	1964 Oct 20 07:11	0° $\overline{\text{m}}$			1965 Sep 25 05:49	0° $\underline{\text{a}}$	
max. Earth dist.	1964 Oct 22 20:07	4° $\overline{\text{m}}$ 09'13	1.43268 AU				
desc. node	1964 Oct 23 22:53	5° $\overline{\text{m}}$ 57'34		superior conj	1965 Sep 27 14:27	4° $\underline{\text{a}}$ 15'49	1°22'09
evening rise	1964 Oct 30 15:33	16° $\overline{\text{m}}$ 33'42		minimum elong	1965 Sep 27 18:35	4° $\underline{\text{a}}$ 34'18	1°21'44
	1964 Nov 08 11:02	0° $\overline{\text{a}}$		max. Earth dist.	1965 Oct 05 05:36	17° $\underline{\text{a}}$ 30'42	1.41525 AU
greatest brilliancy	1964 Nov 25 10:41	23° $\overline{\text{a}}$ 53'03	-0.4m	evening rise	1965 Oct 10 14:41	26° $\underline{\text{a}}$ 21'58	
evening max el	1964 Nov 30 10:11	29° $\overline{\text{a}}$ 36'31	21°28'49	desc. node	1965 Oct 10 19:54	26° $\underline{\text{a}}$ 42'57	
	1964 Nov 30 19:30	0° $\overline{\text{c}}$			1965 Oct 12 21:15	0° $\overline{\text{m}}$	
retrograde	1964 Dec 09 07:05	4° $\overline{\text{c}}$ 53'05			1965 Nov 02 06:04	0° $\overline{\text{a}}$	
asc. node	1964 Dec 12 14:23	3° $\overline{\text{c}}$ 52'44		greatest brilliancy	1965 Nov 08 02:28	7° $\overline{\text{a}}$ 31'17	-0.3m
evening set	1964 Dec 13 10:59	3° $\overline{\text{c}}$ 16'41		evening max el	1965 Nov 13 03:02	13° $\overline{\text{a}}$ 08'57	22°46'34
	1964 Dec 16 14:31	30° $\overline{\text{R}}$ $\overline{\text{a}}$		retrograde	1965 Nov 23 02:15	19° $\overline{\text{a}}$ 04'07	
inferior conj	1964 Dec 18 20:36	26° $\overline{\text{a}}$ 58'43	2°00'57	evening set	1965 Nov 27 18:22	17° $\overline{\text{a}}$ 10'57	
minimum elong	1964 Dec 18 18:15	27° $\overline{\text{a}}$ 06'50	2°00'08	asc. node	1965 Nov 29 11:27	15° $\overline{\text{a}}$ 31'58	
min. Earth dist.	1964 Dec 19 02:12	26° $\overline{\text{a}}$ 39'20	0.67673 AU	inferior conj	1965 Dec 03 04:05	10° $\overline{\text{a}}$ 47'08	1°14'22
morning rise	1964 Dec 24 01:13	20° $\overline{\text{a}}$ 43'54		minimum elong	1965 Dec 03 02:27	10° $\overline{\text{a}}$ 52'46	1°13'44
direct	1964 Dec 29 02:15	18° $\overline{\text{a}}$ 34'29		min. Earth dist.	1965 Dec 02 22:47	11° $\overline{\text{a}}$ 05'27	0.67831 AU
morning max el	1965 Jan 08 08:43	24° $\overline{\text{a}}$ 40'53	23°15'08	morning rise	1965 Dec 08 10:28	4° $\overline{\text{a}}$ 34'58	
	1965 Jan 13 03:12	0° $\overline{\text{c}}$		direct	1965 Dec 12 20:40	2° $\overline{\text{a}}$ 48'19	
greatest brilliancy	1965 Jan 13 12:29	0° $\overline{\text{c}}$ 28'06	-0.2m	morning max el	1965 Dec 21 21:34	8° $\overline{\text{a}}$ 06'38	21°48'50
desc. node	1965 Jan 19 22:09	8° $\overline{\text{c}}$ 46'23		greatest brilliancy	1965 Dec 26 16:46	13° $\overline{\text{a}}$ 32'02	-0.4m
	1965 Feb 03 09:02	0° \approx		desc. node	1966 Jan 06 19:11	28° $\overline{\text{a}}$ 35'43	
morning set	1965 Feb 12 05:13	14° \approx 17'38			1966 Jan 07 18:26	0° $\overline{\text{c}}$	
max. Earth dist.	1965 Feb 16 12:02	21° \approx 36'14	1.39402 AU	morning set	1966 Jan 23 04:45	23° $\overline{\text{c}}$ 34'03	
	1965 Feb 21 05:40	0° $\overline{\text{H}}$			1966 Jan 27 04:10	0° \approx	
				max. Earth dist.	1966 Jan 29 10:31	3° \approx 44'25	1.41511 AU
superior conj	1965 Feb 24 03:07	5° $\overline{\text{H}}$ 18'00	-1°-52'-40				
minimum elong	1965 Feb 24 07:01	5° $\overline{\text{H}}$ 36'05	1°52'23	superior conj	1966 Feb 06 02:54	16° \approx 52'07	-2°-3'-59
evening rise	1965 Mar 05 14:49	23° $\overline{\text{H}}$ 21'46		minimum elong	1966 Feb 06 04:21	16° \approx 58'29	2°03'59
	1965 Mar 09 02:19	0° $\overline{\text{Y}}$			1966 Feb 13 10:17	0° $\overline{\text{H}}$	
asc. node	1965 Mar 10 13:42	2° $\overline{\text{Y}}$ 44'31		evening rise	1966 Feb 16 20:33	6° $\overline{\text{H}}$ 18'39	
evening max el	1965 Mar 21 19:51	19° $\overline{\text{Y}}$ 26'29	18°36'03	asc. node	1966 Feb 25 10:46	21° $\overline{\text{H}}$ 41'02	
retrograde	1965 Mar 29 14:52	23° $\overline{\text{Y}}$ 15'20			1966 Mar 03 02:57	0° $\overline{\text{Y}}$	
evening set	1965 Mar 31 21:58	22° $\overline{\text{Y}}$ 56'37		evening max el	1966 Mar 05 04:22	2° $\overline{\text{Y}}$ 16'03	18°12'17
inferior conj	1965 Apr 08 13:26	18° $\overline{\text{Y}}$ 29'49	2°26'22	retrograde	1966 Mar 12 02:18	5° $\overline{\text{Y}}$ 44'32	
minimum elong	1965 Apr 08 17:27	18° $\overline{\text{Y}}$ 22'03	2°25'17	evening set	1966 Mar 14 15:02	5° $\overline{\text{Y}}$ 17'21	
min. Earth dist.	1965 Apr 11 22:58	15° $\overline{\text{Y}}$ 53'48	0.57939 AU	inferior conj	1966 Mar 21 13:38	0° $\overline{\text{Y}}$ 29'10	3°17'52
morning rise	1965 Apr 16 08:36	13° $\overline{\text{Y}}$ 10'07		minimum elong	1966 Mar 21 16:33	0° $\overline{\text{Y}}$ 22'35	3°17'24
desc. node	1965 Apr 17 21:19	12° $\overline{\text{Y}}$ 31'30			1966 Mar 22 02:34	30° $\overline{\text{R}}$ $\overline{\text{H}}$	
direct	1965 Apr 22 04:00	11° $\overline{\text{Y}}$ 45'00		min. Earth dist.	1966 Mar 24 22:16	27° $\overline{\text{H}}$ 29'34	0.60047 AU
morning max el	1965 May 06 13:04	19° $\overline{\text{Y}}$ 22'06	26°34'31	morning rise	1966 Mar 28 14:38	24° $\overline{\text{H}}$ 45'47	
	1965 May 15 13:19	0° $\overline{\text{B}}$		direct	1966 Apr 04 04:24	22° $\overline{\text{H}}$ 44'13	
	1965 Jun 02 03:47	0° $\overline{\text{II}}$		desc. node	1966 Apr 04 18:22	22° $\overline{\text{H}}$ 45'09	
morning set	1965 Jun 04 17:45	5° $\overline{\text{II}}$ 19'44			1966 Apr 17 21:31	0° $\overline{\text{Y}}$	
asc. node	1965 Jun 06 12:59	9° $\overline{\text{II}}$ 09'12		morning max el	1966 Apr 18 11:31	0° $\overline{\text{Y}}$ 33'58	27°30'18
					1966 May 09 14:48	0° $\overline{\text{B}}$	
superior conj	1965 Jun 11 19:02	20° $\overline{\text{II}}$ 37'02	0°52'58	morning set	1966 May 20 01:29	20° $\overline{\text{B}}$ 00'52	
minimum elong	1965 Jun 11 16:59	20° $\overline{\text{II}}$ 25'44	0°52'35	asc. node	1966 May 24 10:03	29° $\overline{\text{B}}$ 16'52	
max. Earth dist.	1965 Jun 12 00:21	21° $\overline{\text{II}}$ 06'17	1.32260 AU		1966 May 24 17:59	0° $\overline{\text{II}}$	
	1965 Jun 16 02:04	0° $\overline{\text{c}}$		max. Earth dist.	1966 May 26 12:29	3° $\overline{\text{II}}$ 52'11	1.32202 AU
evening rise	1965 Jun 18 18:07	5° $\overline{\text{c}}$ 40'42					
	1965 Jul 01 15:55	0° $\overline{\Omega}$		superior conj	1966 May 27 06:38	5° $\overline{\text{II}}$ 31'49	0°29'49
desc. node	1965 Jul 14 20:35	18° $\overline{\Omega}$ 33'48		minimum elong	1966 May 27 05:20	5° $\overline{\text{II}}$ 24'41	0°29'32
evening max el	1965 Jul 18 23:02	22° $\overline{\Omega}$ 51'41	26°48'00	evening rise	1966 Jun 03 04:08	20° $\overline{\text{II}}$ 31'35	
	1965 Jul 31 11:23	0° $\overline{\text{m}}$			1966 Jun 07 19:11	0° $\overline{\text{c}}$	
retrograde	1965 Aug 01 21:56	0° $\overline{\text{m}}$ 05'17			1966 Jun 26 19:05	0° $\overline{\Omega}$	
	1965 Aug 03 08:09	30° $\overline{\text{R}}$ $\overline{\Omega}$		evening max el	1966 Jun 30 19:51	4° $\overline{\Omega}$ 16'16	25°42'58

desc. node	1966 Jul 01 17:37	5°♌06'51		1967 May 31 18:02	0°♏	
retrograde	1966 Jul 14 20:14	11°♌25'19		evening max el	1967 Jun 12 10:38	15°♏00'15 24°15'01
evening set	1966 Jul 20 20:52	9°♌59'21		desc. node	1967 Jun 18 14:40	19°♏45'41
min. Earth dist.	1966 Jul 25 08:09	7°♌20'54 0.58421 AU		retrograde	1967 Jun 26 06:51	21°♏58'58
inferior conj	1966 Jul 28 13:43	5°♌01'43 -4°-57'-32		evening set	1967 Jun 30 23:09	21°♏10'16
minimum elong	1966 Jul 28 14:41	4°♌59'57 4°57'32		min. Earth dist.	1967 Jul 06 21:29	18°♏13'40 0.56589 AU
morning rise	1966 Aug 05 12:04	0°♌39'55		inferior conj	1967 Jul 09 12:03	16°♏35'46 -4°-44'-20
direct	1966 Aug 07 23:42	0°♌20'11		minimum elong	1967 Jul 09 07:41	16°♏42'38 4°43'52
morning max el	1966 Aug 16 06:41	4°♌16'27 18°42'30		morning rise	1967 Jul 17 19:50	12°♏34'23
asc. node	1966 Aug 20 09:16	9°♌02'22		direct	1967 Jul 20 12:01	12°♏15'21
	1966 Sep 01 10:35	0°♐		morning max el	1967 Jul 30 03:12	16°♏43'46 19°39'09
morning set	1966 Sep 01 14:12	0°♐17'34		asc. node	1967 Aug 07 06:19	27°♏13'25
					1967 Aug 08 22:09	0°♑
superior conj	1966 Sep 10 07:22	17°♐08'19 1°38'47		morning set	1967 Aug 16 16:13	14°♑43'29
minimum elong	1966 Sep 10 09:48	17°♐19'47 1°38'37			1967 Aug 24 06:17	0°♐
	1966 Sep 17 08:19	0°♑				
max. Earth dist.	1966 Sep 17 10:46	0°♑10'48 1.39516 AU		superior conj	1967 Aug 24 15:51	0°♐47'21 1°45'26
evening rise	1966 Sep 21 12:59	7°♑15'05		minimum elong	1967 Aug 24 16:24	0°♐50'02 1°45'26
desc. node	1966 Sep 27 16:56	17°♑22'59		max. Earth dist.	1967 Aug 30 15:02	12°♐15'27 1.37485 AU
	1966 Oct 05 22:03	0°♒		evening rise	1967 Sep 03 10:42	19°♐13'32
evening max el	1966 Oct 26 16:31	26°♒45'21 24°06'30			1967 Sep 09 16:53	0°♑
	1966 Oct 30 07:39	0°♓		desc. node	1967 Sep 14 13:58	7°♑52'40
retrograde	1966 Nov 06 17:55	3°♓14'46			1967 Sep 30 01:46	0°♒
evening set	1966 Nov 11 23:50	1°♓04'25		evening max el	1967 Oct 09 04:33	10°♒24'41 25°21'54
	1966 Nov 13 03:26	30°♒		retrograde	1967 Oct 21 05:16	17°♒20'29
asc. node	1966 Nov 16 08:30	26°♒07'57		evening set	1967 Oct 27 01:39	14°♒54'14
inferior conj	1966 Nov 17 10:58	24°♒38'50 0°22'42		min. Earth dist.	1967 Oct 31 12:48	9°♒57'21 0.67141 AU
minimum elong	1966 Nov 17 10:25	24°♒40'40 0°22'29		inferior conj	1967 Nov 01 15:28	8°♒31'05 0°-32'-46
min. Earth dist.	1966 Nov 16 19:08	25°♒32'21 0.67656 AU		minimum elong	1967 Nov 01 16:18	8°♒28'22 0°32'26
morning rise	1966 Nov 22 21:16	18°♒31'46		asc. node	1967 Nov 03 05:32	6°♒30'22
direct	1966 Nov 26 17:49	17°♒07'10		morning rise	1967 Nov 07 07:38	2°♒31'49
morning max el	1966 Dec 04 17:22	21°♒43'00 20°31'32		direct	1967 Nov 10 16:16	1°♒26'41
greatest brilliancy	1966 Dec 10 21:41	29°♒01'12 -0.5m		morning max el	1967 Nov 17 21:07	5°♒30'24 19°27'34
	1966 Dec 11 15:27	0°♓		greatest brilliancy	1967 Nov 26 18:03	16°♒47'26 -0.7m
desc. node	1966 Dec 24 16:12	18°♓46'38			1967 Dec 05 13:41	0°♓
	1967 Jan 01 00:52	0°♔		desc. node	1967 Dec 11 13:15	9°♓13'08
morning set	1967 Jan 02 05:01	1°♔48'56		morning set	1967 Dec 12 03:40	10°♓08'58
max. Earth dist.	1967 Jan 11 17:04	16°♔50'00 1.43309 AU			1967 Dec 24 20:33	0°♔
				max. Earth dist.	1967 Dec 25 06:51	0°♔40'45 1.44558 AU
superior conj	1967 Jan 18 02:11	27°♔17'17 -2°-1'-25				
minimum elong	1967 Jan 17 22:43	27°♔02'50 2°01'18		superior conj	1967 Dec 28 23:18	6°♔32'23 -1°-40'-35
	1967 Jan 19 17:05	0°♕		minimum elong	1967 Dec 28 15:03	5°♔59'26 1°39'53
evening rise	1967 Jan 30 10:22	18°♕29'09		evening rise	1968 Jan 12 04:01	29°♔46'14
	1967 Feb 06 00:38	0°♖			1968 Jan 12 07:19	0°♕
asc. node	1967 Feb 12 07:49	10°♖03'21		asc. node	1968 Jan 30 04:51	27°♕41'13
evening max el	1967 Feb 16 16:20	15°♖24'44 18°08'04		evening max el	1968 Jan 31 04:49	28°♕45'17 18°22'43
retrograde	1967 Feb 23 04:26	18°♖48'25			1968 Feb 01 12:57	0°♖
evening set	1967 Feb 25 22:13	18°♖11'27		retrograde	1968 Feb 06 16:40	2°♖17'09
inferior conj	1967 Mar 04 07:36	13°♖02'01 3°40'42		evening set	1968 Feb 09 15:34	1°♖29'36
minimum elong	1967 Mar 04 08:33	12°♖59'36 3°40'40			1968 Feb 11 18:54	30°♖
min. Earth dist.	1967 Mar 07 05:24	10°♖03'49 0.62163 AU		inferior conj	1968 Feb 15 15:16	26°♖00'38 3°41'56
morning rise	1967 Mar 10 16:29	7°♖03'40		minimum elong	1968 Feb 15 14:25	26°♖03'02 3°41'53
direct	1967 Mar 17 14:27	4°♖32'37		min. Earth dist.	1968 Feb 17 22:08	23°♖23'48 0.64046 AU
desc. node	1967 Mar 22 15:25	5°♖43'34		morning rise	1968 Feb 21 11:44	19°♖53'18
morning max el	1967 Mar 31 16:03	12°♖27'35 27°49'43		direct	1968 Feb 28 08:36	17°♖05'44
	1967 Apr 14 14:38	0°♗		desc. node	1968 Mar 08 12:26	20°♖58'00
	1967 May 01 23:26	0°♘		morning max el	1968 Mar 13 00:48	24°♖59'04 27°32'26
morning set	1967 May 04 04:12	4°♘24'13			1968 Mar 17 14:45	0°♗
max. Earth dist.	1967 May 09 21:44	16°♘26'01 1.32540 AU			1968 Apr 07 01:01	0°♗
asc. node	1967 May 11 07:05	19°♘26'25		morning set	1968 Apr 16 23:26	18°♗21'58
				max. Earth dist.	1968 Apr 22 00:03	28°♗34'54 1.33294 AU
superior conj	1967 May 11 16:25	20°♘17'10 0°04'08			1968 Apr 22 16:18	0°♘
minimum elong	1967 May 11 16:13	20°♘16'06 0°04'04				
behind sun begin	1967 May 11 11:13	19°♘48'54		superior conj	1968 Apr 24 22:36	4°♘47'24 0°-23'-17
behind sun end	1967 May 11 21:14	20°♘43'19		minimum elong	1968 Apr 24 23:46	4°♘53'35 0°23'03
	1967 May 16 03:27	0°♙		asc. node	1968 Apr 27 04:08	9°♘34'04
evening rise	1967 May 18 15:50	5°♙23'56		evening rise	1968 May 02 03:23	20°♘11'26

	1968 May 06 22:56	0°♊			1969 Apr 14 05:55	0°♄	
evening max el	1968 May 24 01:06	25°♊28'55	22°38'47	evening rise	1969 Apr 16 12:52	4°♄47'12	
	1968 May 29 22:43	0°♅			1969 Apr 30 15:18	0°♊	
desc. node	1968 Jun 04 11:40	1°♅54'41		evening max el	1969 May 05 22:57	6°♊14'24	21°08'49
retrograde	1968 Jun 06 05:16	2°♅01'33		retrograde	1969 May 17 19:06	12°♊00'55	
evening set	1968 Jun 09 10:33	1°♅38'44		evening set	1969 May 20 01:27	11°♊49'00	
	1968 Jun 13 22:33	30°♊		desc. node	1969 May 22 08:40	11°♊14'09	
min. Earth dist.	1968 Jun 17 09:00	28°♊10'16	0.55322 AU	inferior conj	1969 May 29 09:50	7°♊50'34	-2°-1'-36
inferior conj	1968 Jun 18 15:48	27°♊26'18	-3°-44'-39	minimum elong	1969 May 29 04:12	7°♊58'31	1°59'39
minimum elong	1968 Jun 18 07:57	27°♊37'32	3°42'41	min. Earth dist.	1969 May 29 21:20	7°♊34'21	0.54907 AU
morning rise	1968 Jun 27 07:58	23°♊34'46		morning rise	1969 Jun 07 06:45	3°♊50'07	
direct	1968 Jun 30 06:09	23°♊15'04		direct	1969 Jun 10 15:48	3°♊25'28	
morning max el	1968 Jul 11 12:29	28°♊28'42	20°56'35	morning max el	1969 Jun 23 11:05	9°♊31'27	22°30'50
	1968 Jul 13 01:30	0°♅			1969 Jul 08 03:58	0°♅	
asc. node	1968 Jul 24 03:21	16°♅03'20		asc. node	1969 Jul 11 00:23	5°♅22'37	
morning set	1968 Jul 30 23:26	29°♅25'16		morning set	1969 Jul 15 09:49	14°♅17'15	
	1968 Jul 31 06:11	0°♎					
superior conj	1968 Aug 07 11:25	14°♎59'54	1°43'59	superior conj	1969 Jul 22 14:34	29°♅35'35	1°35'58
minimum elong	1968 Aug 07 10:26	14°♎54'53	1°43'57	minimum elong	1969 Jul 22 12:37	29°♅25'13	1°35'49
max. Earth dist.	1968 Aug 11 23:39	24°♎05'24	1.35665 AU	max. Earth dist.	1969 Jul 22 19:11	0°♎	
	1968 Aug 15 00:53	0°♎		evening rise	1969 Jul 25 16:57	6°♎05'29	1.34199 AU
evening rise	1968 Aug 16 04:07	2°♎08'32			1969 Jul 30 12:37	15°♎48'08	
desc. node	1968 Aug 31 11:00	28°♎06'24		desc. node	1969 Aug 07 04:21	0°♎	
	1968 Sep 01 16:59	0°♎			1969 Aug 18 08:00	17°♎57'09	
evening max el	1968 Sep 20 16:29	24°♎02'56	26°25'13	evening max el	1969 Aug 27 06:50	0°♎	
	1968 Sep 28 14:40	0°♎		retrograde	1969 Sep 03 04:38	7°♎33'08	27°08'55
retrograde	1968 Oct 03 11:40	1°♎15'07		evening set	1969 Sep 16 12:41	14°♎51'35	
	1968 Oct 07 22:46	30°♎		min. Earth dist.	1969 Sep 23 10:17	12°♎08'41	
evening set	1968 Oct 09 21:54	28°♎36'55		inferior conj	1969 Sep 27 07:02	8°♎24'53	0.65069 AU
min. Earth dist.	1968 Oct 14 01:31	24°♎16'36	0.66280 AU	minimum elong	1969 Sep 29 09:29	6°♎03'39	-2°-29'-4
inferior conj	1968 Oct 15 15:41	22°♎20'36	-1°-30'-41	morning rise	1969 Sep 29 13:27	5°♎52'33	2°27'38
minimum elong	1968 Oct 15 18:05	22°♎13'16	1°29'43	asc. node	1969 Oct 05 18:24	0°♎28'28	
asc. node	1968 Oct 20 02:34	17°♎35'12			1969 Oct 06 23:35	0°♎02'03	
morning rise	1968 Oct 21 15:27	16°♎31'52			1969 Oct 07 02:57	30°♎	
direct	1968 Oct 24 14:17	15°♎42'34		direct	1969 Oct 08 09:53	29°♎51'04	
morning max el	1968 Oct 31 07:30	19°♎24'48	18°39'01	morning max el	1969 Oct 09 16:56	0°♎	
	1968 Nov 08 11:00	0°♎			1969 Oct 14 22:11	3°♎21'00	18°07'01
morning set	1968 Nov 20 23:29	19°♎36'43		morning set	1969 Nov 01 16:53	0°♎	
desc. node	1968 Nov 27 10:16	29°♎50'05		desc. node	1969 Nov 02 00:33	0°♎31'44	
	1968 Nov 27 12:47	0°♏			1969 Nov 14 07:18	20°♎33'57	
superior conj	1968 Dec 07 02:31	15°♏03'30	-1°-1'-46	superior conj	1969 Nov 16 07:47	23°♎47'18	0°-13'-32
minimum elong	1968 Dec 06 18:57	14°♏33'47	1°00'52	minimum elong	1969 Nov 16 06:04	23°♎40'30	0°13'19
max. Earth dist.	1968 Dec 07 00:34	14°♏55'51	1.45120 AU	behind sun begin	1969 Nov 15 23:50	23°♎15'42	
	1968 Dec 16 14:11	0°♏		behind sun end	1969 Nov 16 12:19	24°♎05'18	
evening rise	1968 Dec 22 22:25	10°♏05'14		max. Earth dist.	1969 Nov 19 19:24	29°♎18'15	1.44945 AU
	1969 Jan 04 12:18	0°♏			1969 Nov 20 06:00	0°♏	
evening max el	1969 Jan 13 15:18	12°♏11'37	18°55'20	evening rise	1969 Dec 02 19:04	19°♏33'34	
asc. node	1969 Jan 16 01:52	14°♏21'20			1969 Dec 09 13:21	0°♏	
retrograde	1969 Jan 20 10:56	16°♏02'38		greatest brilliancy	1969 Dec 20 07:10	16°♏04'42	-0.6m
evening set	1969 Jan 23 15:50	15°♏03'24		evening max el	1969 Dec 27 21:53	25°♏41'12	19°44'23
inferior conj	1969 Jan 29 08:49	9°♏17'10	3°27'14	asc. node	1970 Jan 02 22:53	29°♏49'31	
minimum elong	1969 Jan 29 06:48	9°♏23'28	3°26'56	retrograde	1970 Jan 04 08:10	0°♏00'09	
min. Earth dist.	1969 Jan 31 00:18	7°♏14'13	0.65574 AU		1970 Jan 04 04:24	0°♏	
morning rise	1969 Feb 03 20:44	3°♏04'48			1970 Jan 04 11:59	30°♏	
direct	1969 Feb 10 09:38	0°♏14'50		evening set	1970 Jan 07 20:35	28°♏47'45	
desc. node	1969 Feb 23 09:28	7°♏52'30		inferior conj	1970 Jan 13 09:15	22°♏46'54	3°00'40
morning max el	1969 Feb 23 10:41	7°♏55'34	26°43'28	minimum elong	1970 Jan 13 06:40	22°♏55'25	3°00'03
	1969 Mar 12 15:19	0°♏		min. Earth dist.	1970 Jan 14 10:25	21°♏23'43	0.66703 AU
	1969 Mar 30 09:59	0°♏		morning rise	1970 Jan 18 16:04	16°♏32'07	
morning set	1969 Mar 31 07:48	1°♏43'08		direct	1970 Jan 24 16:38	13°♏51'58	
max. Earth dist.	1969 Apr 04 15:40	10°♏09'16	1.34495 AU	morning max el	1970 Feb 05 19:41	21°♏05'23	25°31'20
				desc. node	1970 Feb 10 06:31	25°♏58'53	
superior conj	1969 Apr 08 23:00	18°♏55'23	0°-51'-15		1970 Feb 13 13:08	0°♏	
minimum elong	1969 Apr 09 01:36	19°♏08'48	0°50'45		1970 Mar 05 20:10	0°♏	
asc. node	1969 Apr 14 01:10	29°♏35'05		morning set	1970 Mar 14 00:46	14°♏14'39	
				max. Earth dist.	1970 Mar 17 19:28	21°♏15'07	1.36151 AU

	1970 Mar 22 07:59	0°♂			1971 Feb 07 20:51	0°♁	
				morning set	1971 Feb 23 20:34	25°♁40'36	
superior conj	1970 Mar 23 14:58	2°♂33'51	-1°-18'-11		1971 Feb 26 07:57	0°♂	
minimum elong	1970 Mar 23 18:47	2°♂52'52	1°17'36	max. Earth dist.	1971 Feb 27 15:37	2°♂20'50	1.38165 AU
evening rise	1970 Mar 31 18:14	19°♂05'07					
asc. node	1970 Mar 31 22:12	19°♂25'15		superior conj	1971 Mar 06 19:03	15°♂33'43	-1°-41'-47
	1970 Apr 06 07:40	0°♂		minimum elong	1971 Mar 06 23:20	15°♂54'09	1°41'21
evening max el	1970 Apr 18 08:22	17°♂36'29	19°54'11		1971 Mar 14 04:46	0°♂	
retrograde	1970 Apr 28 10:51	22°♂29'13		evening rise	1971 Mar 15 17:00	2°♂58'32	
evening set	1970 Apr 30 11:26	22°♂18'21		asc. node	1971 Mar 18 19:15	8°♂59'50	
inferior conj	1970 May 09 08:21	18°♂17'56	0°-1'-55	evening max el	1971 Apr 01 04:57	29°♂38'09	18°58'46
minimum elong	1970 May 09 08:16	18°♂18'04	0°01'54		1971 Apr 01 14:11	0°♂	
transit middle	1970 May 09 08:16	18°♂18'04	0°01'54	retrograde	1971 Apr 09 17:11	3°♂45'56	
transit begin	1970 May 09 04:19	18°♂24'05		evening set	1971 Apr 11 21:14	3°♂30'56	
transit end	1970 May 09 12:13	18°♂12'02			1971 Apr 18 21:52	30°♂	
desc. node	1970 May 09 05:42	18°♂21'59		inferior conj	1971 Apr 19 23:34	29°♂15'14	1°41'22
min. Earth dist.	1970 May 11 11:01	17°♂00'50	0.55463 AU	minimum elong	1971 Apr 20 03:07	29°♂08'59	1°40'15
morning rise	1970 May 18 02:04	13°♂50'53		min. Earth dist.	1971 Apr 23 02:45	27°♂03'52	0.56864 AU
direct	1970 May 22 06:47	13°♂12'04		desc. node	1971 Apr 26 02:45	25°♂13'27	
morning max el	1970 Jun 05 02:39	20°♂04'09	24°12'51	morning rise	1971 Apr 28 04:45	24°♂14'04	
	1970 Jun 13 12:46	0°♂		direct	1971 May 03 10:25	23°♂09'02	
asc. node	1970 Jun 27 21:26	25°♂03'06			1971 May 17 03:32	0°♂	
morning set	1970 Jun 29 21:35	29°♂13'36		morning max el	1971 May 17 17:21	0°♂32'47	25°48'32
	1970 Jun 30 06:22	0°♂			1971 Jun 07 06:45	0°♂	
				morning set	1971 Jun 14 09:10	14°♂09'12	
superior conj	1970 Jul 06 22:39	14°♂25'21	1°22'38	asc. node	1971 Jun 14 18:30	14°♂58'34	
minimum elong	1970 Jul 06 20:16	14°♂12'26	1°22'19				
max. Earth dist.	1970 Jul 08 19:28	18°♂27'04	1.33139 AU	superior conj	1971 Jun 21 09:32	29°♂22'20	1°04'54
evening rise	1970 Jul 14 08:05	29°♂59'54		minimum elong	1971 Jun 21 07:14	29°♂09'40	1°04'30
	1970 Jul 14 08:06	0°♂			1971 Jun 21 16:25	0°♂	
	1970 Jul 31 05:21	0°♂		max. Earth dist.	1971 Jun 22 04:41	1°♂07'17	1.32476 AU
desc. node	1970 Aug 05 05:00	7°♂14'38		evening rise	1971 Jun 28 11:14	14°♂33'48	
evening max el	1970 Aug 16 15:35	20°♂43'00	27°26'01		1971 Jul 06 08:53	0°♂	
retrograde	1970 Aug 30 07:28	28°♂00'36		desc. node	1971 Jul 23 02:02	25°♂44'58	
evening set	1970 Sep 06 11:42	25°♂23'13			1971 Jul 26 17:03	0°♂	
min. Earth dist.	1970 Sep 10 03:18	22°♂12'55	0.63514 AU	evening max el	1971 Jul 29 22:45	3°♂18'54	27°11'21
inferior conj	1970 Sep 12 18:19	19°♂33'48	-3°-25'-5	retrograde	1971 Aug 12 19:13	10°♂33'19	
minimum elong	1970 Sep 12 23:25	19°♂20'51	3°23'32	evening set	1971 Aug 19 22:17	8°♂14'04	
morning rise	1970 Sep 19 13:27	14°♂15'31		min. Earth dist.	1971 Aug 23 12:58	5°♂28'50	0.61656 AU
direct	1970 Sep 22 00:17	13°♂46'23		inferior conj	1971 Aug 26 15:01	2°♂43'25	-4°-14'-6
asc. node	1970 Sep 23 20:38	14°♂03'15		minimum elong	1971 Aug 26 20:13	2°♂31'46	4°12'59
morning max el	1970 Sep 28 14:22	17°♂12'04	17°52'25		1971 Aug 29 20:42	30°♂	
	1970 Oct 07 18:04	0°♂		morning rise	1971 Sep 02 21:00	27°♂45'37	
morning set	1970 Oct 15 03:18	12°♂40'55		direct	1971 Sep 05 06:02	27°♂21'47	
	1970 Oct 25 06:16	0°♂		asc. node	1971 Sep 10 17:42	29°♂33'09	
					1971 Sep 11 06:45	0°♂	
superior conj	1970 Oct 27 09:40	3°♂33'24	0°32'04	morning max el	1971 Sep 12 05:05	0°♂51'19	17°56'13
minimum elong	1970 Oct 27 12:54	3°♂46'46	0°31'37	morning set	1971 Sep 28 01:29	25°♂45'35	
desc. node	1970 Nov 01 04:19	11°♂20'50			1971 Sep 30 09:19	0°♂	
max. Earth dist.	1970 Nov 02 12:41	13°♂30'46	1.44063 AU				
evening rise	1970 Nov 12 03:45	28°♂37'10		superior conj	1971 Oct 08 14:46	14°♂39'44	1°07'22
	1970 Nov 13 01:16	0°♂		minimum elong	1971 Oct 08 19:20	14°♂59'34	1°06'49
	1970 Dec 03 10:14	0°♂		max. Earth dist.	1971 Oct 16 01:50	27°♂16'24	1.42581 AU
greatest brilliancy	1970 Dec 05 08:13	2°♂32'46	-0.5m		1971 Oct 17 17:49	0°♂	
evening max el	1970 Dec 10 23:13	9°♂11'47	20°47'33	desc. node	1971 Oct 19 01:20	2°♂07'39	
retrograde	1970 Dec 19 05:59	14°♂05'39		evening rise	1971 Oct 22 17:09	7°♂57'42	
asc. node	1970 Dec 20 19:55	13°♂51'42			1971 Nov 06 06:59	0°♂	
evening set	1970 Dec 23 03:46	12°♂38'22		greatest brilliancy	1971 Nov 19 01:20	17°♂21'37	-0.3m
inferior conj	1970 Dec 28 14:01	6°♂25'50	2°24'56	evening max el	1971 Nov 23 18:53	22°♂42'51	22°01'15
minimum elong	1970 Dec 28 11:27	6°♂34'37	2°24'07	retrograde	1971 Dec 03 02:33	28°♂15'36	
min. Earth dist.	1970 Dec 29 02:21	5°♂43'35	0.67429 AU	evening set	1971 Dec 07 11:33	26°♂31'57	
morning rise	1971 Jan 02 18:42	0°♂10'41		asc. node	1971 Dec 07 16:58	26°♂20'49	
	1971 Jan 02 23:36	30°♂		inferior conj	1971 Dec 12 21:02	20°♂11'04	1°41'53
direct	1971 Jan 08 04:36	27°♂48'40		minimum elong	1971 Dec 12 18:56	20°♂18'19	1°41'07
	1971 Jan 14 02:16	0°♂		min. Earth dist.	1971 Dec 12 21:51	20°♂08'15	0.67784 AU
morning max el	1971 Jan 19 04:01	4°♂21'22	24°06'11	morning rise	1971 Dec 18 02:09	13°♂57'23	
desc. node	1971 Jan 28 03:34	14°♂56'08		direct	1971 Dec 22 20:47	11°♂57'43	

morning max el	1972 Jan 01 14:17	17° ♊ 42'54	22°37'48			1972 Dec 12 23:20	0° ♊	
greatest brilliancy	1972 Jan 06 04:12	22° ♊ 49'40	-0.3m	morning max el		1972 Dec 14 05:59	1° ♊ 13'39	21°14'38
	1972 Jan 11 18:18	0° ♊		greatest brilliancy		1972 Dec 19 12:10	7° ♊ 15'35	-0.4m
desc. node	1972 Jan 15 00:35	4° ♊ 29'18		desc. node		1972 Dec 31 21:37	24° ♊ 28'39	
	1972 Jan 31 23:46	0° ♊				1973 Jan 04 14:41	0° ♊	
morning set	1972 Feb 04 13:04	5° ♊ 45'10		morning set		1973 Jan 14 01:07	14° ♊ 30'27	
max. Earth dist.	1972 Feb 09 11:47	14° ♊ 01'17	1.40317 AU	max. Earth dist.		1973 Jan 21 13:36	26° ♊ 34'40	1.42321 AU
						1973 Jan 23 15:23	0° ♊	
superior conj	1972 Feb 17 06:38	27° ♊ 42'21	-1°-58'-50					
minimum elong	1972 Feb 17 09:48	27° ♊ 56'44	1°58'41	superior conj		1973 Jan 28 20:31	8° ♊ 47'59	-2°-4'-54
	1972 Feb 18 12:53	0° ♊		minimum elong		1973 Jan 28 20:08	8° ♊ 46'19	2°04'55
evening rise	1972 Feb 27 06:02	16° ♊ 18'35		evening rise		1973 Feb 09 05:35	28° ♊ 57'05	
asc. node	1972 Mar 04 16:18	28° ♊ 12'14				1973 Feb 09 19:30	0° ♊	
	1972 Mar 05 16:59	0° ♊		asc. node		1973 Feb 19 13:21	16° ♊ 55'28	
evening max el	1972 Mar 14 09:58	12° ♊ 12'10	18°23'28	evening max el		1973 Feb 25 20:17	25° ♊ 10'37	18°08'07
retrograde	1972 Mar 21 18:38	15° ♊ 50'43		retrograde		1973 Mar 04 12:58	28° ♊ 35'41	
evening set	1972 Mar 24 04:10	15° ♊ 28'35		evening set		1973 Mar 07 03:45	28° ♊ 04'37	
inferior conj	1972 Mar 31 12:00	10° ♊ 52'25	2°52'07	inferior conj		1973 Mar 13 20:16	23° ♊ 07'20	3°30'37
minimum elong	1972 Mar 31 15:46	10° ♊ 44'37	2°51'17	minimum elong		1973 Mar 13 22:23	23° ♊ 02'18	3°30'22
min. Earth dist.	1972 Apr 03 22:33	8° ♊ 03'33	0.58811 AU	min. Earth dist.		1973 Mar 17 01:08	20° ♊ 05'13	0.60957 AU
morning rise	1972 Apr 07 23:23	5° ♊ 21'24		morning rise		1973 Mar 20 13:59	17° ♊ 16'16	
desc. node	1972 Apr 11 23:48	3° ♊ 53'14		direct		1973 Mar 27 08:19	15° ♊ 00'48	
direct	1972 Apr 14 03:29	3° ♊ 40'58		desc. node		1973 Mar 29 20:50	15° ♊ 18'29	
morning max el	1972 Apr 28 12:29	11° ♊ 24'06	27°02'27	morning max el		1973 Apr 10 13:54	22° ♊ 54'26	27°43'10
	1972 May 12 23:45	0° ♊				1973 Apr 16 21:17	0° ♊	
morning set	1972 May 28 18:49	28° ♊ 57'20				1973 May 06 02:55	0° ♊	
	1972 May 29 06:46	0° ♊		morning set		1973 May 13 00:42	13° ♊ 31'56	
asc. node	1972 May 31 15:34	5° ♊ 02'56		asc. node		1973 May 18 12:37	25° ♊ 11'51	
				max. Earth dist.		1973 May 19 04:13	26° ♊ 36'40	1.32295 AU
superior conj	1972 Jun 04 21:21	14° ♊ 19'18	0°43'31					
minimum elong	1972 Jun 04 19:35	14° ♊ 09'30	0°43'09	superior conj		1973 May 20 08:24	29° ♊ 10'43	0°19'11
max. Earth dist.	1972 Jun 04 16:54	13° ♊ 54'44	1.32193 AU	minimum elong		1973 May 20 07:32	29° ♊ 05'58	0°18'59
evening rise	1972 Jun 11 19:22	29° ♊ 20'14				1973 May 20 17:24	0° ♊	
	1972 Jun 12 02:56	0° ♊		evening rise		1973 May 27 06:18	14° ♊ 12'10	
	1972 Jun 28 16:52	0° ♊				1973 Jun 04 04:42	0° ♊	
desc. node	1972 Jul 08 23:04	13° ♊ 08'08		evening max el		1973 Jun 22 17:05	26° ♊ 14'00	25°07'28
evening max el	1972 Jul 10 23:28	15° ♊ 09'27	26°23'40	desc. node		1973 Jun 25 20:06	28° ♊ 56'49	
retrograde	1972 Jul 24 23:02	22° ♊ 21'22				1973 Jun 27 06:42	0° ♊	
evening set	1972 Jul 31 13:20	20° ♊ 33'01		retrograde		1973 Jul 06 17:00	3° ♊ 20'47	
min. Earth dist.	1972 Aug 04 12:31	17° ♊ 57'44	0.59603 AU	evening set		1973 Jul 12 04:56	2° ♊ 11'13	
inferior conj	1972 Aug 07 20:03	15° ♊ 22'57	-4°-48'-36			1973 Jul 16 08:04	30° ♊	
minimum elong	1972 Aug 07 23:19	15° ♊ 16'33	4°48'16	min. Earth dist.		1973 Jul 17 04:46	29° ♊ 26'49	0.57593 AU
morning rise	1972 Aug 15 12:42	10° ♊ 48'14		inferior conj		1973 Jul 20 06:05	27° ♊ 22'52	-4°-57'00
direct	1972 Aug 17 22:38	10° ♊ 27'32		minimum elong		1973 Jul 20 04:54	27° ♊ 24'54	4°57'00
morning max el	1972 Aug 25 15:14	14° ♊ 10'33	18°19'42	morning rise		1973 Jul 28 08:36	23° ♊ 10'43	
asc. node	1972 Aug 27 14:46	16° ♊ 17'36		direct		1973 Jul 30 21:47	22° ♊ 51'35	
	1972 Sep 05 11:36	0° ♊		morning max el		1973 Aug 08 17:36	26° ♊ 59'58	19°04'00
morning set	1972 Sep 10 13:37	9° ♊ 30'29				1973 Aug 11 12:21	0° ♊	
				asc. node		1973 Aug 14 11:49	4° ♊ 01'10	
superior conj	1972 Sep 19 20:15	26° ♊ 58'23	1°30'32	morning set		1973 Aug 25 11:30	23° ♊ 43'52	
minimum elong	1972 Sep 19 23:44	27° ♊ 14'22	1°30'14			1973 Aug 28 15:22	0° ♊	
	1972 Sep 21 12:11	0° ♊						
max. Earth dist.	1972 Sep 27 09:24	10° ♊ 21'08	1.40687 AU	superior conj		1973 Sep 02 20:24	10° ♊ 12'31	1°42'42
evening rise	1972 Oct 02 01:33	18° ♊ 11'46		minimum elong		1973 Sep 02 22:01	10° ♊ 20'16	1°42'38
desc. node	1972 Oct 04 22:22	22° ♊ 51'15		max. Earth dist.		1973 Sep 09 13:02	22° ♊ 42'07	1.38634 AU
	1972 Oct 09 11:11	0° ♊		evening rise		1973 Sep 13 10:05	29° ♊ 33'17	
	1972 Oct 30 19:27	0° ♊				1973 Sep 13 16:16	0° ♊	
evening max el	1972 Nov 05 09:53	6° ♊ 16'18	23°20'39	desc. node		1973 Sep 21 19:23	13° ♊ 27'21	
retrograde	1972 Nov 15 20:27	12° ♊ 27'14				1973 Oct 02 20:12	0° ♊	
evening set	1972 Nov 20 18:20	10° ♊ 26'28		evening max el		1973 Oct 18 22:20	19° ♊ 53'27	24°39'36
asc. node	1972 Nov 23 14:01	7° ♊ 28'40		retrograde		1973 Oct 30 10:29	26° ♊ 36'06	
inferior conj	1972 Nov 26 04:28	4° ♊ 01'11	0°53'01	evening set		1973 Nov 04 22:26	24° ♊ 18'45	
minimum elong	1972 Nov 26 03:15	4° ♊ 05'21	0°52'31	min. Earth dist.		1973 Nov 09 14:09	19° ♊ 01'13	0.67471 AU
min. Earth dist.	1972 Nov 25 18:35	4° ♊ 35'07	0.67792 AU	inferior conj		1973 Nov 10 10:32	17° ♊ 53'23	0°00'-26
	1972 Nov 29 07:08	30° ♊		minimum elong		1973 Nov 10 10:32	17° ♊ 53'21	0°00'26
morning rise	1972 Dec 01 12:16	27° ♊ 51'00		transit middle		1973 Nov 10 10:32	17° ♊ 53'21	0°00'26
direct	1972 Dec 05 16:22	26° ♊ 14'12		transit begin		1973 Nov 10 07:47	18° ♊ 02'30	

transit end	1973 Nov 10 13:17	17° M 44'12		evening set	1974 Oct 19 22:07	8° M 06'09	
asc. node	1973 Nov 10 11:03	17° M 51'39		min. Earth dist.	1974 Oct 24 06:07	3° M 24'23	0.66821 AU
morning rise	1973 Nov 15 23:05	11° M 49'08		inferior conj	1974 Oct 25 13:28	1° M 45'19	0°-57'-7
direct	1973 Nov 19 14:14	10° M 33'19		minimum elong	1974 Oct 25 14:57	1° M 40'36	0°56'31
morning max el	1973 Nov 27 05:09	14° M 54'40	20°02'30		1974 Oct 26 23:21	30° R Δ	
greatest brilliancy	1973 Dec 04 07:42	23° M 32'37	-0.6m	asc. node	1974 Oct 28 08:03	28° Δ 26'04	
	1973 Dec 08 21:29	0° ♂		morning rise	1974 Oct 31 08:39	25° Δ 49'50	
desc. node	1973 Dec 18 18:37	14° ♂ 46'28		direct	1974 Nov 03 12:51	24° Δ 51'48	
morning set	1973 Dec 23 21:15	22° ♂ 37'00		morning max el	1974 Nov 10 11:51	28° Δ 45'13	19°04'49
	1973 Dec 28 15:14	0° ♂			1974 Nov 11 16:05	0° M	
max. Earth dist.	1974 Jan 03 22:43	9° ♂ 58'21	1.43913 AU		1974 Dec 02 06:17	0° ♂	
				morning set	1974 Dec 03 02:45	1° ♂ 19'53	
superior conj	1974 Jan 09 08:22	18° ♂ 41'41	-1°-54'-58	desc. node	1974 Dec 05 15:39	5° ♂ 17'46	
minimum elong	1974 Jan 09 02:32	18° ♂ 17'55	1°54'38	max. Earth dist.	1974 Dec 17 14:25	24° ♂ 01'04	1.44894 AU
	1974 Jan 16 03:56	0° ≈					
evening rise	1974 Jan 22 11:13	10° ≈ 44'43		superior conj	1974 Dec 19 20:02	27° ♂ 32'37	-1°-25'-59
	1974 Feb 02 22:42	0° ♂		minimum elong	1974 Dec 19 11:12	26° ♂ 57'40	1°25'06
asc. node	1974 Feb 06 10:22	4° ♂ 59'56			1974 Dec 21 09:16	0° ♂	
evening max el	1974 Feb 09 08:46	8° ♂ 24'42	18°12'07	evening rise	1975 Jan 03 19:03	21° ♂ 36'13	
retrograde	1974 Feb 15 19:45	11° ♂ 50'20			1975 Jan 08 21:58	0° ≈	
evening set	1974 Feb 18 15:37	11° ♂ 09'05		evening max el	1975 Jan 23 20:43	21° ≈ 48'06	18°34'33
inferior conj	1974 Feb 24 20:30	5° ♂ 51'26	3°43'29	asc. node	1975 Jan 24 07:23	22° ≈ 14'34	
minimum elong	1974 Feb 24 20:38	5° ♂ 51'06	3°43'28	retrograde	1975 Jan 30 10:48	25° ≈ 26'28	
min. Earth dist.	1974 Feb 27 12:21	2° ♂ 59'57	0.63000 AU	evening set	1975 Feb 02 12:12	24° ≈ 33'59	
morning rise	1974 Mar 02 23:37	29° ≈ 48'41		inferior conj	1975 Feb 08 08:43	18° ≈ 57'32	3°37'20
	1974 Mar 02 17:49	30° R ≈		minimum elong	1975 Feb 08 07:18	19° ≈ 01'46	3°37'12
direct	1974 Mar 09 22:16	27° ≈ 08'25		min. Earth dist.	1975 Feb 10 09:01	16° ≈ 34'04	0.64748 AU
desc. node	1974 Mar 16 17:51	29° ≈ 18'18		morning rise	1975 Feb 14 01:07	12° ≈ 47'58	
	1974 Mar 17 20:11	0° ♂		direct	1975 Feb 20 19:27	9° ≈ 57'38	
morning max el	1974 Mar 23 20:23	5° ♂ 04'22	27°46'37	desc. node	1975 Mar 03 14:52	15° ≈ 18'38	
	1974 Apr 11 15:20	0° ♀		morning max el	1975 Mar 06 05:39	17° ≈ 46'33	27°15'02
morning set	1974 Apr 27 00:36	27° ♀ 45'31			1975 Mar 16 11:50	0° ♂	
	1974 Apr 28 03:10	0° ♂			1975 Apr 04 12:28	0° ♀	
max. Earth dist.	1974 May 02 10:46	9° ♂ 00'12	1.32799 AU	morning set	1975 Apr 10 15:37	11° ♀ 28'26	
				max. Earth dist.	1975 Apr 15 08:45	20° ♀ 53'58	1.33744 AU
superior conj	1974 May 04 16:55	13° ♂ 50'39	0°-7'-21				
minimum elong	1974 May 04 17:16	13° ♂ 52'34	0°07'17	superior conj	1975 Apr 18 20:55	28° ♀ 12'04	0°-35'-9
behind sun begin	1974 May 04 12:35	13° ♂ 27'15		minimum elong	1975 Apr 18 22:41	28° ♀ 21'23	0°34'47
behind sun end	1974 May 04 21:58	14° ♂ 17'54			1975 Apr 19 17:20	0° ♂	
asc. node	1974 May 05 09:40	15° ♂ 21'12		asc. node	1975 Apr 22 06:42	5° ♂ 26'19	
evening rise	1974 May 11 18:09	29° ♂ 03'12		evening rise	1975 Apr 26 05:02	13° ♂ 46'17	
	1974 May 12 04:55	0° ♂			1975 May 04 11:55	0° ♂	
	1974 May 29 08:03	0° ♂		evening max el	1975 May 16 23:58	17° ♂ 21'30	21°59'13
evening max el	1974 Jun 04 07:01	6° ♂ 48'46	23°34'19	retrograde	1975 May 29 16:00	23° ♂ 35'52	
desc. node	1974 Jun 12 17:07	12° ♂ 36'40		desc. node	1975 May 30 14:08	23° ♂ 33'57	
retrograde	1974 Jun 17 22:38	13° ♂ 38'45		evening set	1975 Jun 01 09:37	23° ♂ 19'14	
evening set	1974 Jun 21 23:10	13° ♂ 03'16		min. Earth dist.	1975 Jun 10 04:52	19° ♂ 33'33	0.55030 AU
min. Earth dist.	1974 Jun 28 17:20	9° ♂ 54'27	0.55959 AU	inferior conj	1975 Jun 10 18:14	19° ♂ 14'50	-3°-5'-13
inferior conj	1974 Jun 30 20:06	8° ♂ 38'33	-4°-25'-9	minimum elong	1975 Jun 10 10:35	19° ♂ 25'33	3°02'56
minimum elong	1974 Jun 30 13:43	8° ♂ 48'08	4°24'03	morning rise	1975 Jun 19 13:05	15° ♂ 22'04	
morning rise	1974 Jul 09 07:35	4° ♂ 42'47		direct	1975 Jun 22 15:18	15° ♂ 00'50	
direct	1974 Jul 12 01:56	4° ♂ 23'44		morning max el	1975 Jul 04 13:52	20° ♂ 36'19	21°34'56
morning max el	1974 Jul 22 09:32	9° ♂ 10'35	20°09'35		1975 Jul 12 08:56	0° ♂	
asc. node	1974 Aug 01 08:52	22° ♂ 30'33		asc. node	1975 Jul 19 05:54	11° ♂ 34'04	
	1974 Aug 05 11:42	0° ♂		morning set	1975 Jul 25 00:52	23° ♂ 04'48	
morning set	1974 Aug 09 16:03	8° ♂ 17'48			1975 Jul 28 08:05	0° ♂	
superior conj	1974 Aug 17 10:07	24° ♂ 07'39	1°45'42	superior conj	1975 Aug 01 09:17	8° ♂ 30'59	1°41'19
minimum elong	1974 Aug 17 09:57	24° ♂ 06'50	1°45'42	minimum elong	1975 Aug 01 07:49	8° ♂ 23'23	1°41'13
	1974 Aug 20 09:04	0° ♂		max. Earth dist.	1975 Aug 05 06:50	16° ♂ 31'05	1.35002 AU
max. Earth dist.	1974 Aug 22 18:24	4° ♂ 37'23	1.36678 AU	evening rise	1975 Aug 09 17:17	25° ♂ 13'46	
evening rise	1974 Aug 26 16:52	11° ♂ 58'14			1975 Aug 12 06:12	0° ♂	
	1974 Sep 06 05:48	0° ♂		desc. node	1975 Aug 26 13:28	23° ♂ 56'19	
desc. node	1974 Sep 08 16:26	3° ♂ 51'20			1975 Aug 30 17:20	0° ♂	
	1974 Sep 28 00:20	0° ♂		evening max el	1975 Sep 13 22:44	17° ♂ 10'34	26°46'34
evening max el	1974 Oct 01 10:25	3° ♂ 33'56	25°50'46	retrograde	1975 Sep 26 23:46	24° ♂ 25'29	
retrograde	1974 Oct 13 19:48	10° ♂ 37'47		evening set	1975 Oct 03 15:19	21° ♂ 44'25	

min. Earth dist.	1975 Oct 07 16:01	17°♄39'43	0.65818 AU	evening max el	1976 Aug 26 10:31	0°♄32'58	27°19'39
inferior conj	1975 Oct 09 11:15	15°♄32'38	-1°-55'-31	retrograde	1976 Sep 08 22:04	7°♄51'24	
minimum elong	1975 Oct 09 14:20	15°♄23'32	1°54'18	evening set	1976 Sep 15 23:27	5°♄09'08	
asc. node	1975 Oct 15 05:05	10°♄02'28		min. Earth dist.	1976 Sep 19 17:38	1°♄40'34	0.64456 AU
morning rise	1975 Oct 15 14:44	9°♄49'10			1976 Sep 21 07:15	30°♄	
direct	1975 Oct 18 10:15	9°♄05'13		inferior conj	1976 Sep 22 01:34	29°♄10'29	-2°-53'-21
morning max el	1975 Oct 25 00:22	12°♄40'48	18°23'17	minimum elong	1976 Sep 22 06:06	28°♄58'17	2°51'48
	1975 Nov 06 08:58	0°♄		morning rise	1976 Sep 28 14:46	23°♄42'20	
morning set	1975 Nov 13 11:02	11°♄25'33		direct	1976 Oct 01 03:59	23°♄08'49	
desc. node	1975 Nov 22 12:43	25°♄58'09		asc. node	1976 Oct 01 02:09	23°♄08'51	
	1975 Nov 25 01:44	0°♄		morning max el	1976 Oct 07 16:06	26°♄35'37	17°58'38
					1976 Oct 10 14:47	0°♄	
superior conj	1975 Nov 28 21:20	6°♄01'13	0°-41'-42	morning set	1976 Oct 24 23:45	22°♄54'02	
minimum elong	1975 Nov 28 15:58	5°♄40'04	0°41'00		1976 Oct 29 04:55	0°♄	
max. Earth dist.	1975 Nov 30 09:36	8°♄23'45	1.45144 AU				
	1975 Dec 14 04:09	0°♄		superior conj	1976 Nov 07 09:44	15°♄06'54	0°06'46
evening rise	1975 Dec 15 03:40	1°♄32'21		minimum elong	1976 Nov 07 10:31	15°♄10'07	0°06'39
greatest brilliancy	1975 Dec 28 13:47	22°♄26'12	-0.7m	behind sun begin	1976 Nov 07 01:01	14°♄31'45	
	1976 Jan 02 20:22	0°♄		behind sun end	1976 Nov 07 20:02	15°♄48'25	
evening max el	1976 Jan 07 05:47	5°♄16'20	19°14'18	desc. node	1976 Nov 08 09:45	16°♄43'31	
asc. node	1976 Jan 11 04:23	8°♄26'09		max. Earth dist.	1976 Nov 12 04:21	22°♄44'41	1.44651 AU
retrograde	1976 Jan 14 06:42	9°♄18'01			1976 Nov 16 19:02	0°♄	
evening set	1976 Jan 17 14:41	8°♄13'11		evening rise	1976 Nov 23 17:31	10°♄45'38	
inferior conj	1976 Jan 23 05:33	2°♄20'12	3°17'12		1976 Dec 06 09:25	0°♄	
minimum elong	1976 Jan 23 03:13	2°♄27'39	3°16'46	greatest brilliancy	1976 Dec 13 18:55	10°♄38'10	-0.6m
min. Earth dist.	1976 Jan 24 14:39	0°♄34'07	0.66106 AU	evening max el	1976 Dec 20 10:09	18°♄45'47	20°09'40
	1976 Jan 25 01:31	30°♄		retrograde	1976 Dec 28 04:34	23°♄19'17	
morning rise	1976 Jan 28 14:55	26°♄06'43		asc. node	1976 Dec 28 01:26	23°♄19'11	
direct	1976 Feb 03 22:57	23°♄19'58		evening set	1976 Dec 31 20:44	22°♄00'41	
	1976 Feb 15 19:03	0°♄		inferior conj	1977 Jan 06 08:07	15°♄54'10	2°46'29
morning max el	1976 Feb 16 15:21	0°♄50'11	26°15'08	minimum elong	1977 Jan 06 05:29	16°♄03'02	2°45'46
desc. node	1976 Feb 18 11:54	2°♄46'45		min. Earth dist.	1977 Jan 07 03:35	14°♄48'39	0.67056 AU
	1976 Mar 09 12:02	0°♄		morning rise	1977 Jan 11 13:41	9°♄38'52	
morning set	1976 Mar 23 18:02	24°♄29'56		direct	1977 Jan 17 08:01	7°♄05'55	
	1976 Mar 26 15:36	0°♄		morning max el	1977 Jan 29 00:08	14°♄03'45	24°56'08
max. Earth dist.	1976 Mar 27 19:33	2°♄15'39	1.35150 AU	desc. node	1977 Feb 04 08:57	21°♄16'40	
					1977 Feb 10 23:55	0°♄	
superior conj	1976 Apr 01 18:06	12°♄08'17	-1°-2'-54		1977 Mar 02 08:09	0°♄	
minimum elong	1976 Apr 01 21:15	12°♄24'25	1°02'21	morning set	1977 Mar 06 02:46	6°♄35'16	
asc. node	1976 Apr 08 03:44	25°♄23'14		max. Earth dist.	1977 Mar 09 19:33	13°♄17'41	1.36975 AU
evening rise	1976 Apr 09 13:04	28°♄15'23					
	1976 Apr 10 09:29	0°♄		superior conj	1977 Mar 16 05:25	25°♄30'43	-1°-28'-46
evening max el	1976 Apr 28 02:23	28°♄20'15	20°34'50	minimum elong	1977 Mar 16 09:34	25°♄51'02	1°28'14
	1976 Apr 29 23:11	0°♄			1977 Mar 18 11:56	0°♄	
retrograde	1976 May 09 05:04	3°♄44'06		evening rise	1977 Mar 24 15:58	12°♄23'17	
evening set	1976 May 11 07:22	3°♄33'22		asc. node	1977 Mar 26 00:47	15°♄06'57	
desc. node	1976 May 16 11:07	1°♄47'49			1977 Apr 03 02:46	0°♄	
	1976 May 19 19:21	30°♄		evening max el	1977 Apr 10 16:38	9°♄58'17	19°28'06
inferior conj	1976 May 20 12:15	29°♄35'42	-1°-10'-43	retrograde	1977 Apr 20 02:09	14°♄30'43	
minimum elong	1976 May 20 08:54	29°♄40'31	1°09'31	evening set	1977 Apr 22 03:21	14°♄18'41	
min. Earth dist.	1976 May 21 17:22	28°♄53'42	0.55027 AU	inferior conj	1977 Apr 30 16:44	10°♄12'46	0°45'20
morning rise	1976 May 29 09:03	25°♄26'07		minimum elong	1977 Apr 30 18:37	10°♄09'43	0°44'41
direct	1976 Jun 02 01:20	24°♄56'59		desc. node	1977 May 03 08:09	8°♄30'41	
	1976 Jun 13 19:20	0°♄		min. Earth dist.	1977 May 03 07:54	8°♄31'04	0.55965 AU
morning max el	1976 Jun 15 08:48	1°♄23'15	23°14'06	morning rise	1977 May 09 06:02	5°♄30'56	
	1976 Jul 04 14:18	0°♄		direct	1977 May 13 20:51	4°♄42'38	
asc. node	1976 Jul 05 02:59	1°♄03'01		morning max el	1977 May 27 23:25	11°♄50'37	24°55'26
morning set	1976 Jul 08 12:05	7°♄59'11			1977 Jun 10 21:07	0°♄	
				asc. node	1977 Jun 22 00:04	20°♄50'12	
superior conj	1976 Jul 15 14:50	23°♄13'18	1°30'55	morning set	1977 Jun 22 23:58	22°♄55'31	
minimum elong	1976 Jul 15 12:38	23°♄01'30	1°30'40		1977 Jun 26 07:07	0°♄	
max. Earth dist.	1976 Jul 18 04:21	28°♄40'04	1.33700 AU				
	1976 Jul 18 19:35	0°♄		superior conj	1977 Jun 30 00:22	8°♄06'43	1°15'36
evening rise	1976 Jul 23 06:53	9°♄07'46		minimum elong	1977 Jun 29 21:57	7°♄53'36	1°15'15
	1976 Aug 03 16:41	0°♄		max. Earth dist.	1977 Jul 01 09:55	11°♄09'06	1.32798 AU
desc. node	1976 Aug 12 10:29	13°♄34'08		evening rise	1977 Jul 07 05:57	23°♄29'32	
	1976 Aug 25 20:52	0°♄			1977 Jul 10 12:00	0°♄	

	1977 Jul 28 10:15	0° $\mathring{\text{M}}$	evening rise	1978 Jun 21 11:28	8° $\mathring{\text{S}}$ 09'16	
desc. node	1977 Jul 30 07:29	2° $\mathring{\text{M}}$ 33'36		1978 Jul 02 22:28	0° $\mathring{\text{Q}}$	
evening max el	1977 Aug 08 20:00	13° $\mathring{\text{M}}$ 29'23 27°23'52	desc. node	1978 Jul 17 04:31	20° $\mathring{\text{Q}}$ 38'04	
retrograde	1977 Aug 22 14:19	20° $\mathring{\text{M}}$ 46'38	evening max el	1978 Jul 22 00:42	25° $\mathring{\text{Q}}$ 46'50 26°55'13	
evening set	1977 Aug 29 19:12	18° $\mathring{\text{M}}$ 15'00		1978 Jul 27 06:10	0° $\mathring{\text{M}}$	
min. Earth dist.	1977 Sep 02 09:28	15° $\mathring{\text{M}}$ 17'00 0.62751 AU	retrograde	1978 Aug 04 23:07	3° $\mathring{\text{M}}$ 00'38	
inferior conj	1977 Sep 05 05:41	12° $\mathring{\text{M}}$ 33'03 -3°-47'-7	evening set	1978 Aug 11 22:06	0° $\mathring{\text{M}}$ 53'20	
minimum elong	1977 Sep 05 11:01	12° $\mathring{\text{M}}$ 20'12 3°45'41		1978 Aug 13 07:06	30° $\mathring{\text{R}}$ $\mathring{\text{Q}}$	
morning rise	1977 Sep 12 05:28	7° $\mathring{\text{M}}$ 23'23	min. Earth dist.	1978 Aug 15 14:55	28° $\mathring{\text{Q}}$ 14'16 0.60783 AU	
direct	1977 Sep 14 15:04	6° $\mathring{\text{M}}$ 56'58	inferior conj	1978 Aug 18 20:11	25° $\mathring{\text{Q}}$ 31'00 -4°-31'-8	
asc. node	1977 Sep 17 23:15	7° $\mathring{\text{M}}$ 49'24	minimum elong	1978 Aug 19 00:52	25° $\mathring{\text{Q}}$ 21'04 4°30'22	
morning max el	1977 Sep 21 08:09	10° $\mathring{\text{M}}$ 23'21 17°51'44	morning rise	1978 Aug 26 06:45	20° $\mathring{\text{Q}}$ 42'41	
	1977 Oct 04 09:16	0° $\mathring{\text{A}}$	direct	1978 Aug 28 15:41	20° $\mathring{\text{Q}}$ 20'32	
morning set	1977 Oct 07 11:35	5° $\mathring{\text{A}}$ 29'15	asc. node	1978 Sep 04 20:19	23° $\mathring{\text{Q}}$ 52'35	
			morning max el	1978 Sep 04 21:19	23° $\mathring{\text{Q}}$ 54'59 18°03'44	
superior conj	1977 Oct 18 23:16	25° $\mathring{\text{A}}$ 27'59 0°48'29		1978 Sep 09 19:23	0° $\mathring{\text{M}}$	
minimum elong	1977 Oct 19 03:29	25° $\mathring{\text{A}}$ 45'44 0°47'55	morning set	1978 Sep 20 16:20	18° $\mathring{\text{M}}$ 52'41	
	1977 Oct 21 16:23	0° $\mathring{\text{M}}$		1978 Sep 26 16:40	0° $\mathring{\text{A}}$	
max. Earth dist.	1977 Oct 25 19:47	6° $\mathring{\text{M}}$ 46'38 1.43493 AU	superior conj	1978 Sep 30 15:22	7° $\mathring{\text{A}}$ 06'36 1°18'37	
desc. node	1977 Oct 26 06:47	7° $\mathring{\text{M}}$ 31'05	minimum elong	1978 Sep 30 19:40	7° $\mathring{\text{A}}$ 25'42 1°18'10	
evening rise	1977 Nov 03 02:06	19° $\mathring{\text{M}}$ 51'13	max. Earth dist.	1978 Oct 08 06:15	20° $\mathring{\text{A}}$ 14'45 1.41813 AU	
	1977 Nov 09 17:20	0° $\mathring{\text{A}}$	desc. node	1978 Oct 13 03:49	28° $\mathring{\text{A}}$ 17'02	
greatest brilliancy	1977 Nov 28 06:17	26° $\mathring{\text{A}}$ 21'26 -0.4m	evening rise	1978 Oct 13 22:24	29° $\mathring{\text{A}}$ 31'38	
	1977 Dec 01 06:43	0° $\mathring{\text{S}}$		1978 Oct 14 05:29	0° $\mathring{\text{M}}$	
evening max el	1977 Dec 03 08:59	2° $\mathring{\text{S}}$ 16'21 21°17'49		1978 Nov 03 07:48	0° $\mathring{\text{A}}$	
retrograde	1977 Dec 12 02:11	7° $\mathring{\text{S}}$ 27'01	greatest brilliancy	1978 Nov 11 06:33	10° $\mathring{\text{A}}$ 23'30 -0.3m	
asc. node	1977 Dec 14 22:29	6° $\mathring{\text{S}}$ 42'05	evening max el	1978 Nov 16 02:35	15° $\mathring{\text{A}}$ 48'37 22°34'40	
evening set	1977 Dec 16 04:24	5° $\mathring{\text{S}}$ 53'06	retrograde	1978 Nov 25 21:42	21° $\mathring{\text{A}}$ 37'49	
	1977 Dec 21 07:19	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	evening set	1978 Nov 30 11:56	19° $\mathring{\text{A}}$ 47'11	
inferior conj	1977 Dec 21 14:08	29° $\mathring{\text{A}}$ 36'27 2°07'29	asc. node	1978 Dec 01 19:32	18° $\mathring{\text{A}}$ 33'52	
minimum elong	1977 Dec 21 11:43	29° $\mathring{\text{A}}$ 44'48 2°06'39	inferior conj	1978 Dec 05 21:34	13° $\mathring{\text{A}}$ 24'06 1°21'50	
min. Earth dist.	1977 Dec 21 21:28	29° $\mathring{\text{A}}$ 11'06 0.67624 AU	minimum elong	1978 Dec 05 19:48	13° $\mathring{\text{A}}$ 30'13 1°21'08	
morning rise	1977 Dec 26 18:41	23° $\mathring{\text{A}}$ 21'23	min. Earth dist.	1978 Dec 05 17:51	13° $\mathring{\text{A}}$ 36'56 0.67835 AU	
direct	1977 Dec 31 22:02	21° $\mathring{\text{A}}$ 08'31	morning rise	1978 Dec 11 03:32	7° $\mathring{\text{A}}$ 11'28	
morning max el	1978 Jan 11 08:55	27° $\mathring{\text{A}}$ 22'01 23°28'16	direct	1978 Dec 15 15:56	5° $\mathring{\text{A}}$ 21'22	
	1978 Jan 13 20:07	0° $\mathring{\text{S}}$	morning max el	1978 Dec 24 20:56	10° $\mathring{\text{A}}$ 46'17 22°01'13	
greatest brilliancy	1978 Jan 17 08:38	4° $\mathring{\text{S}}$ 09'56 -0.2m	greatest brilliancy	1978 Dec 29 13:24	16° $\mathring{\text{A}}$ 02'37 -0.4m	
desc. node	1978 Jan 22 06:00	10° $\mathring{\text{S}}$ 30'41		1979 Jan 08 22:33	0° $\mathring{\text{S}}$	
	1978 Feb 04 15:54	0° $\mathring{\text{A}}$	desc. node	1979 Jan 09 03:02	0° $\mathring{\text{S}}$ 16'04	
morning set	1978 Feb 15 11:34	17° $\mathring{\text{A}}$ 27'56	morning set	1979 Jan 26 15:28	26° $\mathring{\text{S}}$ 56'31	
max. Earth dist.	1978 Feb 19 14:13	24° $\mathring{\text{A}}$ 31'53 1.39081 AU		1979 Jan 28 12:49	0° $\mathring{\text{A}}$	
	1978 Feb 22 16:11	0° $\mathring{\text{H}}$	max. Earth dist.	1979 Feb 01 11:58	6° $\mathring{\text{A}}$ 32'40 1.41210 AU	
superior conj	1978 Feb 27 03:03	8° $\mathring{\text{H}}$ 09'47 -1°-50'-4	superior conj	1979 Feb 09 06:06	19° $\mathring{\text{A}}$ 53'32 -2°-3'-4	
minimum elong	1978 Feb 27 07:07	8° $\mathring{\text{H}}$ 28'46 1°49'45	minimum elong	1979 Feb 09 08:05	20° $\mathring{\text{A}}$ 02'20 2°03'01	
evening rise	1978 Mar 08 10:59	26° $\mathring{\text{H}}$ 02'55		1979 Feb 14 20:38	0° $\mathring{\text{H}}$	
	1978 Mar 10 12:10	0° $\mathring{\text{Y}}$	evening rise	1979 Feb 19 18:45	9° $\mathring{\text{H}}$ 06'11	
asc. node	1978 Mar 12 21:49	4° $\mathring{\text{Y}}$ 32'28	asc. node	1979 Feb 27 18:51	23° $\mathring{\text{H}}$ 33'25	
evening max el	1978 Mar 24 17:13	22° $\mathring{\text{Y}}$ 14'36 18°41'18		1979 Mar 03 21:32	0° $\mathring{\text{Y}}$	
retrograde	1978 Apr 01 16:17	26° $\mathring{\text{Y}}$ 07'39	evening max el	1979 Mar 08 00:59	5° $\mathring{\text{Y}}$ 00'47 18°14'35	
evening set	1978 Apr 03 22:35	25° $\mathring{\text{Y}}$ 49'59	retrograde	1979 Mar 15 01:15	8° $\mathring{\text{Y}}$ 31'18	
inferior conj	1978 Apr 11 16:49	21° $\mathring{\text{Y}}$ 26'16 2°15'37	evening set	1979 Mar 17 13:14	8° $\mathring{\text{Y}}$ 05'25	
minimum elong	1978 Apr 11 20:49	21° $\mathring{\text{Y}}$ 18'44 2°14'30	inferior conj	1979 Mar 24 14:05	3° $\mathring{\text{Y}}$ 20'17 3°12'03	
min. Earth dist.	1978 Apr 15 01:19	18° $\mathring{\text{Y}}$ 55'55 0.57647 AU	minimum elong	1979 Mar 24 17:17	3° $\mathring{\text{Y}}$ 13'16 3°11'28	
morning rise	1978 Apr 19 14:41	16° $\mathring{\text{Y}}$ 11'09	min. Earth dist.	1979 Mar 27 23:34	0° $\mathring{\text{Y}}$ 22'45 0.59725 AU	
desc. node	1978 Apr 20 05:11	15° $\mathring{\text{Y}}$ 55'16		1979 Mar 28 10:40	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$	
direct	1978 Apr 25 06:48	14° $\mathring{\text{Y}}$ 51'18	morning rise	1979 Mar 31 17:45	27° $\mathring{\text{H}}$ 39'55	
morning max el	1978 May 09 15:26	22° $\mathring{\text{Y}}$ 25'24 26°23'29	direct	1979 Apr 07 05:21	25° $\mathring{\text{H}}$ 43'45	
	1978 May 16 08:20	0° $\mathring{\text{S}}$	desc. node	1979 Apr 07 02:13	25° $\mathring{\text{H}}$ 43'48	
	1978 Jun 03 15:26	0° $\mathring{\text{II}}$		1979 Apr 17 12:48	0° $\mathring{\text{Y}}$	
morning set	1978 Jun 07 10:53	7° $\mathring{\text{II}}$ 47'55	morning max el	1979 Apr 21 12:57	3° $\mathring{\text{Y}}$ 31'40 27°24'13	
asc. node	1978 Jun 08 21:07	10° $\mathring{\text{II}}$ 49'31		1979 May 10 22:03	0° $\mathring{\text{S}}$	
superior conj	1978 Jun 14 11:50	23° $\mathring{\text{II}}$ 04'03 0°56'14	morning set	1979 May 22 19:08	22° $\mathring{\text{S}}$ 31'02	
minimum elong	1978 Jun 14 09:42	22° $\mathring{\text{II}}$ 52'18 0°55'50		1979 May 26 07:44	0° $\mathring{\text{II}}$	
max. Earth dist.	1978 Jun 14 20:36	23° $\mathring{\text{II}}$ 52'15 1.32300 AU	asc. node	1979 May 26 18:09	0° $\mathring{\text{II}}$ 56'22	
	1978 Jun 17 15:49	0° $\mathring{\text{S}}$				

superior conj	1979 May 29 23:31	7°II59'30	0°33'31	superior conj	1980 May 13 09:40	22°846'16	0°08'09
minimum elong	1979 May 29 22:05	7°II51'36	0°33'13	minimum elong	1980 May 13 09:17	22°844'11	0°08'04
max. Earth dist.	1979 May 29 08:56	6°II39'20	1.32190 AU	behind sun begin	1980 May 13 04:50	22°819'57	
evening rise	1979 Jun 05 21:03	22°II59'16		behind sun end	1980 May 13 13:44	23°808'26	
	1979 Jun 09 06:32	0°☿			1980 May 16 17:06	0°II	
	1979 Jun 27 09:51	0°♂		evening rise	1980 May 20 08:35	7°II51'26	
evening max el	1979 Jul 03 22:33	7°♂17'48	25°54'19		1980 May 31 22:05	0°☿	
desc. node	1979 Jul 04 01:31	7°♂24'52		evening max el	1980 Jun 14 13:48	18°☿05'50	24°28'55
retrograde	1979 Jul 17 22:42	14°♂27'21		desc. node	1980 Jun 19 22:31	22°☿22'50	
evening set	1979 Jul 24 03:22	12°♂55'28		retrograde	1980 Jun 28 11:12	25°☿07'07	
min. Earth dist.	1979 Jul 28 10:59	10°♂18'27	0.58726 AU	evening set	1980 Jul 03 08:54	24°☿13'12	
inferior conj	1979 Jul 31 17:27	7°♂54'42	-4°-56'-13	min. Earth dist.	1980 Jul 09 00:48	21°☿20'14	0.56836 AU
minimum elong	1979 Jul 31 19:07	7°♂51'38	4°56'10	inferior conj	1980 Jul 11 18:46	19°☿35'04	-4°-49'-11
morning rise	1979 Aug 08 14:21	3°♂29'32		minimum elong	1980 Jul 11 15:13	19°☿40'45	4°48'52
direct	1979 Aug 11 01:32	3°♂09'32		morning rise	1980 Jul 20 01:13	15°☿31'16	
morning max el	1979 Aug 19 04:24	7°♂01'55	18°35'56	direct	1980 Jul 22 16:37	15°☿12'14	
asc. node	1979 Aug 22 17:22	11°♂03'30		morning max el	1980 Aug 01 02:29	19°☿34'52	19°29'25
	1979 Sep 02 21:39	0°♊		asc. node	1980 Aug 08 14:23	29°☿07'26	
morning set	1979 Sep 04 09:02	2°♊50'44			1980 Aug 09 03:31	0°♂	
				morning set	1980 Aug 18 10:02	17°♂13'18	
superior conj	1979 Sep 13 05:25	19°♊50'09	1°36'55		1980 Aug 24 18:47	0°♊	
minimum elong	1979 Sep 13 08:08	20°♊02'53	1°36'45				
	1979 Sep 18 18:59	0°♊		superior conj	1980 Aug 26 11:52	3°♊22'58	1°44'59
max. Earth dist.	1979 Sep 20 12:03	3°♊01'11	1.39823 AU	minimum elong	1980 Aug 26 12:41	3°♊26'58	1°44'58
evening rise	1979 Sep 24 16:57	10°♊13'44		max. Earth dist.	1980 Sep 01 15:56	15°♊09'09	1.37774 AU
desc. node	1979 Sep 30 00:51	18°♊57'46		evening rise	1980 Sep 05 11:19	22°♊02'30	
	1979 Oct 07 03:55	0°♋			1980 Sep 10 02:00	0°♊	
evening max el	1979 Oct 29 16:23	29°♋23'58	23°54'42	desc. node	1980 Sep 15 21:53	9°♊29'07	
	1979 Oct 30 07:06	0°♋			1980 Sep 30 01:16	0°♋	
retrograde	1979 Nov 09 13:55	5°♋48'37		evening max el	1980 Oct 11 04:23	13°♋02'28	25°11'16
evening set	1979 Nov 14 17:45	3°♋40'40		retrograde	1980 Oct 23 01:59	19°♋55'24	
	1979 Nov 18 03:09	30°♋		evening set	1980 Oct 28 20:13	17°♋31'15	
asc. node	1979 Nov 18 16:34	29°♋16'22		min. Earth dist.	1980 Nov 02 08:29	12°♋29'03	0.67235 AU
min. Earth dist.	1979 Nov 19 14:17	28°♋03'39	0.67704 AU	inferior conj	1980 Nov 03 09:33	11°♋07'21	0°-24'-9
inferior conj	1979 Nov 20 04:36	27°♋15'03	0°30'51	minimum elong	1980 Nov 03 10:09	11°♋05'21	0°23'55
minimum elong	1979 Nov 20 03:52	27°♋17'33	0°30'32	asc. node	1980 Nov 04 13:35	9°♋37'00	
morning rise	1979 Nov 25 14:12	21°♋07'14		morning rise	1980 Nov 09 00:43	5°♋06'47	
direct	1979 Nov 29 12:41	19°♋39'33		direct	1980 Nov 12 10:56	3°♋59'04	
morning max el	1979 Dec 07 15:37	24°♋20'59	20°42'19	morning max el	1980 Nov 19 18:15	8°♋07'04	19°36'12
	1979 Dec 12 13:34	0°♋		greatest brilliancy	1980 Nov 28 01:38	18°♋32'28	-0.6m
greatest brilliancy	1979 Dec 13 13:18	1°♋15'58	-0.5m		1980 Dec 05 19:45	0°♋	
desc. node	1979 Dec 27 00:04	20°♋24'02		desc. node	1980 Dec 12 21:07	10°♋48'27	
	1980 Jan 02 08:02	0°♌		morning set	1980 Dec 14 15:24	13°♋31'44	
morning set	1980 Jan 05 18:11	5°♌17'17			1980 Dec 25 04:46	0°♌	
max. Earth dist.	1980 Jan 14 17:32	19°♌31'00	1.43070 AU	max. Earth dist.	1980 Dec 27 06:11	3°♌15'21	1.44412 AU
superior conj	1980 Jan 21 09:15	0°≈29'07	-2°-2'-55	superior conj	1980 Dec 31 10:04	9°♌53'46	-1°-44'-59
minimum elong	1980 Jan 21 06:38	0°≈18'08	2°02'51	minimum elong	1980 Dec 31 02:18	9°♌22'36	1°44'24
	1980 Jan 21 02:18	0°≈			1981 Jan 12 15:48	0°≈	
evening rise	1980 Feb 02 11:12	21°≈24'03		evening rise	1981 Jan 14 08:07	2°≈49'24	
	1980 Feb 07 08:07	0°♍		asc. node	1981 Jan 31 12:53	29°≈46'20	
asc. node	1980 Feb 14 15:52	12°♍01'13			1981 Jan 31 17:35	0°♍	
evening max el	1980 Feb 19 12:34	18°♍06'39	18°07'27	evening max el	1981 Feb 02 01:06	1°♍25'25	18°19'20
retrograde	1980 Feb 26 01:33	21°♍30'19		retrograde	1981 Feb 08 12:31	4°♍55'26	
evening set	1980 Feb 28 18:33	20°♍54'55		evening set	1981 Feb 11 10:33	4°♍09'36	
inferior conj	1980 Mar 06 05:39	15°♍48'28	3°38'48		1981 Feb 16 08:03	30°♍	
minimum elong	1980 Mar 06 06:54	15°♍45'20	3°38'42	inferior conj	1981 Feb 17 11:31	28°≈43'29	3°42'51
min. Earth dist.	1980 Mar 09 05:23	12°♍48'37	0.61855 AU	minimum elong	1981 Feb 17 10:55	28°≈45'11	3°42'49
morning rise	1980 Mar 12 16:43	9°♍51'44		min. Earth dist.	1981 Feb 19 20:45	26°≈02'18	0.63787 AU
direct	1980 Mar 19 13:59	7°♍24'29		morning rise	1981 Feb 23 09:35	22°≈37'04	
desc. node	1980 Mar 23 23:14	8°♍18'11		direct	1981 Mar 02 07:06	19°≈50'53	
morning max el	1980 Apr 02 16:48	15°♍19'15	27°49'15	desc. node	1981 Mar 10 20:16	23°≈13'54	
	1980 Apr 14 15:58	0°♎		morning max el	1981 Mar 16 01:07	27°≈45'28	27°37'08
	1980 May 02 10:56	0°♎			1981 Mar 18 04:33	0°♎	
morning set	1980 May 05 22:44	6°♎57'19			1981 Apr 08 09:11	0°♎	
max. Earth dist.	1980 May 11 18:54	19°♎15'47	1.32465 AU	morning set	1981 Apr 19 19:16	20°♎59'09	
asc. node	1980 May 12 15:10	21°♎05'38			1981 Apr 24 05:31	0°♎	

max. Earth dist.	1981 Apr 24 22:22	1°♄28'08	1.33151 AU	morning set	1982 Apr 03 05:31	4°♃26'34	
				max. Earth dist.	1982 Apr 07 15:39	13°♃07'14	1.34284 AU
superior conj	1981 Apr 27 16:30	7°♄18'46	0°-19'-4	superior conj	1982 Apr 11 17:58	21°♃30'44	0°-47'-1
minimum elong	1981 Apr 27 17:26	7°♄23'48	0°18'52	minimum elong	1982 Apr 11 20:20	21°♃43'07	0°46'34
asc. node	1981 Apr 29 12:12	11°♄13'23			1982 Apr 15 18:54	0°♄	
evening rise	1981 May 04 20:15	22°♄39'32		asc. node	1982 Apr 16 09:15	1°♄15'43	
	1981 May 08 09:42	0°♄		evening rise	1982 Apr 19 06:12	7°♄17'34	
evening max el	1981 May 27 03:48	28°♄34'31	22°53'03		1982 May 01 13:29	0°♄	
	1981 May 28 17:04	0°♄		evening max el	1982 May 09 00:20	9°♄16'35	21°21'29
desc. node	1981 Jun 06 19:32	4°♄56'19		retrograde	1982 May 21 02:05	15°♄10'36	
retrograde	1981 Jun 09 11:36	5°♄12'35		evening set	1982 May 23 10:43	14°♄57'51	
evening set	1981 Jun 12 21:30	4°♄47'01		desc. node	1982 May 24 16:32	14°♄41'25	
min. Earth dist.	1981 Jun 20 12:33	1°♄23'58	0.55459 AU	inferior conj	1982 Jun 01 19:42	10°♄58'31	-2°-19'-9
inferior conj	1981 Jun 22 00:57	0°♄31'29	-3°-56'-52	minimum elong	1982 Jun 01 13:23	11°♄07'24	2°17'02
minimum elong	1981 Jun 21 17:18	0°♄42'33	3°55'06	min. Earth dist.	1982 Jun 02 00:48	10°♄51'22	0.54905 AU
	1981 Jun 22 22:51	30°♄		morning rise	1982 Jun 10 16:17	7°♄00'37	
morning rise	1981 Jun 30 15:58	26°♄39'24		direct	1982 Jun 13 23:20	6°♄37'02	
direct	1981 Jul 03 12:58	26°♄20'02		morning max el	1982 Jun 26 13:34	12°♄35'25	22°15'58
	1981 Jul 12 21:08	0°♄			1982 Jul 09 11:26	0°♄	
morning max el	1981 Jul 14 13:31	1°♄26'31	20°43'51	asc. node	1982 Jul 13 08:30	7°♄07'48	
asc. node	1981 Jul 26 11:26	17°♄52'09		morning set	1982 Jul 18 02:41	16°♄44'06	
	1981 Aug 01 18:30	0°♄			1982 Jul 24 08:48	0°♄	
morning set	1981 Aug 02 16:36	1°♄52'57					
superior conj	1981 Aug 10 06:01	17°♄31'09	1°44'40	superior conj	1982 Jul 25 08:17	2°♄04'15	1°37'34
minimum elong	1981 Aug 10 05:14	17°♄27'10	1°44'38	minimum elong	1982 Jul 25 06:26	1°♄54'32	1°37'25
max. Earth dist.	1981 Aug 14 23:23	26°♄58'45	1.35913 AU	max. Earth dist.	1982 Jul 28 15:27	8°♄57'09	1.34396 AU
	1981 Aug 16 12:47	0°♄		evening rise	1982 Aug 02 08:43	18°♄24'04	
evening rise	1981 Aug 19 02:05	4°♄49'50			1982 Aug 08 14:06	0°♄	
desc. node	1981 Sep 02 18:53	29°♄45'30		desc. node	1982 Aug 20 15:55	19°♄40'18	
	1981 Sep 02 22:40	0°♄			1982 Aug 28 03:22	0°♄	
evening max el	1981 Sep 23 16:17	26°♄41'07	26°16'55	evening max el	1982 Sep 06 04:36	10°♄13'37	27°03'56
	1981 Sep 27 11:02	0°♄		retrograde	1982 Sep 19 11:03	17°♄31'17	
retrograde	1981 Oct 06 09:15	3°♄51'48		evening set	1982 Sep 26 07:09	14°♄48'40	
evening set	1981 Oct 12 17:26	1°♄15'08		min. Earth dist.	1982 Sep 30 04:57	10°♄59'23	0.65275 AU
	1981 Oct 14 02:09	30°♄		inferior conj	1982 Oct 02 05:28	8°♄41'42	-2°-20'-20
min. Earth dist.	1981 Oct 16 22:08	26°♄49'11	0.66427 AU	minimum elong	1982 Oct 02 09:12	8°♄31'04	2°18'55
inferior conj	1981 Oct 18 10:31	24°♄57'22	-1°-21'-52	morning rise	1982 Oct 08 12:55	3°♄04'08	
minimum elong	1981 Oct 18 12:41	24°♄50'43	1°20'58	asc. node	1982 Oct 09 07:41	2°♄44'49	
asc. node	1981 Oct 22 10:37	20°♄31'58		direct	1982 Oct 11 05:21	2°♄25'09	
morning rise	1981 Oct 24 09:03	19°♄06'47		morning max el	1982 Oct 17 17:55	5°♄56'20	18°10'38
direct	1981 Oct 27 09:10	18°♄15'24			1982 Nov 03 01:10	0°♄	
morning max el	1981 Nov 03 03:44	22°♄00'24	18°45'12	morning set	1982 Nov 05 03:50	3°♄28'39	
	1981 Nov 09 13:14	0°♄		desc. node	1982 Nov 16 15:12	22°♄06'41	
morning set	1981 Nov 24 07:05	22°♄46'32					
	1981 Nov 28 20:52	0°♄		superior conj	1982 Nov 19 18:23	27°♄05'45	0°-20'-55
desc. node	1981 Nov 29 18:09	1°♄23'52		minimum elong	1982 Nov 19 15:42	26°♄55'09	0°20'33
max. Earth dist.	1981 Dec 09 23:16	17°♄26'54	1.45083 AU		1982 Nov 21 14:28	0°♄	
				max. Earth dist.	1982 Nov 22 18:13	1°♄49'22	1.45022 AU
superior conj	1981 Dec 10 14:54	18°♄28'19	-1°-8'-33	evening rise	1982 Dec 06 05:26	22°♄50'52	
minimum elong	1981 Dec 10 06:46	17°♄56'24	1°07'36		1982 Dec 10 20:04	0°♄	
	1981 Dec 17 22:21	0°♄		greatest brilliancy	1982 Dec 22 18:45	18°♄05'36	-0.7m
evening rise	1981 Dec 26 05:59	13°♄16'30		evening max el	1982 Dec 30 19:23	28°♄20'29	19°36'10
	1982 Jan 05 16:49	0°♄			1983 Jan 01 13:32	0°♄	
evening max el	1982 Jan 16 12:04	14°♄51'13	18°49'24	asc. node	1983 Jan 05 06:58	2°♄16'04	
asc. node	1982 Jan 18 09:55	16°♄36'03		retrograde	1983 Jan 07 03:00	2°♄34'34	
retrograde	1982 Jan 23 06:03	18°♄38'36		evening set	1983 Jan 10 14:14	1°♄24'09	
evening set	1982 Jan 26 09:59	17°♄41'13			1983 Jan 12 06:55	30°♄	
inferior conj	1982 Feb 01 03:49	11°♄57'33	3°30'15	inferior conj	1983 Jan 16 03:24	25°♄25'20	3°05'18
minimum elong	1982 Feb 01 01:56	12°♄03'21	3°30'00	minimum elong	1983 Jan 16 00:53	25°♄33'38	3°04'44
min. Earth dist.	1982 Feb 02 21:36	9°♄48'54	0.65375 AU	min. Earth dist.	1983 Jan 17 06:35	23°♄56'10	0.66562 AU
morning rise	1982 Feb 06 16:47	5°♄45'47		morning rise	1983 Jan 21 10:48	19°♄10'55	
direct	1982 Feb 13 07:18	2°♄55'11		direct	1983 Jan 27 13:25	16°♄28'43	
desc. node	1982 Feb 25 17:19	9°♄55'06		morning max el	1983 Feb 08 20:02	23°♄46'45	25°43'11
morning max el	1982 Feb 26 10:54	10°♄38'38	26°52'24	desc. node	1983 Feb 12 14:22	27°♄51'59	
	1982 Mar 13 19:11	0°♄			1983 Feb 14 09:36	0°♄	
	1982 Mar 31 20:59	0°♄			1983 Mar 07 04:23	0°♄	

morning set	1983 Mar 17 01:09	17° ✕ 06'22		morning set	1984 Feb 27 00:31	28° ≈ 43'08	
max. Earth dist.	1983 Mar 20 21:12	24° ✕ 16'29	1.35879 AU		1984 Feb 27 18:07	0° ✕	
	1983 Mar 23 20:09	0° Υ		max. Earth dist.	1984 Mar 01 18:20	5° ✕ 21'07	1.37852 AU
superior conj	1983 Mar 26 11:26	5° Υ 14'18	-1°-14'-14	superior conj	1984 Mar 08 17:32	18° ✕ 20'27	-1°-38'-33
minimum elong	1983 Mar 26 15:05	5° Υ 32'41	1°13'40	minimum elong	1984 Mar 08 21:49	18° ✕ 41'05	1°38'04
asc. node	1983 Apr 03 06:18	21° Υ 07'50			1984 Mar 14 16:27	0° Υ	
evening rise	1983 Apr 03 12:22	21° Υ 38'45		evening rise	1984 Mar 17 12:19	5° Υ 36'23	
	1983 Apr 07 17:04	0° ♄		asc. node	1984 Mar 20 03:21	10° Υ 45'06	
evening max el	1983 Apr 21 07:59	20° ♄ 32'32	20°04'07		1984 Mar 31 20:25	0° ♄	
retrograde	1983 May 01 16:37	25° ♄ 33'01		evening max el	1984 Apr 03 02:58	2° ♄ 28'02	19°05'40
evening set	1983 May 03 17:19	25° ♄ 22'20		retrograde	1984 Apr 11 20:24	6° ♄ 41'50	
desc. node	1983 May 11 13:34	22° ♄ 03'21		evening set	1984 Apr 13 23:36	6° ♄ 27'43	
inferior conj	1983 May 12 16:37	21° ♄ 23'07	0°-19'-41	inferior conj	1984 Apr 22 04:50	2° ♄ 14'35	1°27'38
minimum elong	1983 May 12 15:42	21° ♄ 24'28	0°19'22	minimum elong	1984 Apr 22 08:03	2° ♄ 09'01	1°26'35
min. Earth dist.	1983 May 14 14:07	20° ♄ 15'03	0.55322 AU	min. Earth dist.	1984 Apr 25 05:23	0° ♄ 10'32	0.56614 AU
morning rise	1983 May 21 11:27	17° ♄ 01'06			1984 Apr 25 11:49	30° ♄	
direct	1983 May 25 12:48	16° ♄ 25'08		desc. node	1984 Apr 27 10:35	28° Υ 47'57	
morning max el	1983 Jun 08 05:46	23° ♄ 10'43	23°57'42	morning rise	1984 Apr 30 12:20	27° Υ 18'21	
	1983 Jun 14 08:06	0° ♄		direct	1984 May 05 14:06	26° Υ 18'07	
asc. node	1983 Jun 30 05:34	26° ♄ 45'26			1984 May 15 12:33	0° ♄	
	1983 Jul 01 19:18	0° ♄		morning max el	1984 May 19 20:17	3° ♄ 37'59	25°35'23
morning set	1983 Jul 02 14:25	1° ♄ 40'12			1984 Jun 07 15:45	0° ♄	
superior conj	1983 Jul 09 15:49	16° ♄ 52'17	1°24'58	morning set	1984 Jun 16 02:07	16° ♄ 35'54	
minimum elong	1983 Jul 09 13:27	16° ♄ 39'35	1°24'40	asc. node	1984 Jun 16 02:38	16° ♄ 38'41	
max. Earth dist.	1983 Jul 11 16:51	21° ♄ 15'49	1.33274 AU		1984 Jun 22 06:39	0° ♄	
	1983 Jul 15 20:57	0° ♄		superior conj	1984 Jun 23 02:23	1° ♄ 48'10	1°07'50
evening rise	1983 Jul 17 02:49	2° ♄ 31'38		minimum elong	1984 Jun 23 00:03	1° ♄ 35'19	1°07'27
	1983 Aug 01 10:22	0° ♄		max. Earth dist.	1984 Jun 24 01:14	3° ♄ 53'12	1.32548 AU
desc. node	1983 Aug 07 12:56	9° ♄ 03'24		evening rise	1984 Jun 30 04:58	17° ♄ 02'14	
evening max el	1983 Aug 19 15:55	23° ♄ 27'20	27°25'19		1984 Jul 06 18:56	0° ♄	
	1983 Aug 29 06:08	0° ♄		desc. node	1984 Jul 24 09:56	27° ♄ 41'41	
retrograde	1983 Sep 02 06:41	0° ♄ 44'53			1984 Jul 26 06:49	0° ♄	
	1983 Sep 06 02:30	30° ♄		evening max el	1984 Jul 31 23:43	6° ♄ 08'31	27°15'37
evening set	1983 Sep 09 10:26	28° ♄ 05'57		retrograde	1984 Aug 14 19:34	13° ♄ 23'36	
min. Earth dist.	1983 Sep 13 02:40	24° ♄ 51'05	0.63772 AU	evening set	1984 Aug 21 23:31	11° ♄ 00'36	
inferior conj	1983 Sep 15 15:49	22° ♄ 14'05	-3°-16'-56	min. Earth dist.	1984 Aug 25 13:48	8° ♄ 12'39	0.61947 AU
minimum elong	1983 Sep 15 20:49	22° ♄ 01'15	3°15'22	inferior conj	1984 Aug 28 14:32	5° ♄ 27'05	-4°-7'-25
morning rise	1983 Sep 22 09:24	16° ♄ 53'04		minimum elong	1984 Aug 28 19:50	5° ♄ 14'59	4°06'13
direct	1983 Sep 24 20:49	16° ♄ 22'51		morning rise	1984 Sep 04 18:56	0° ♄ 26'12	
asc. node	1983 Sep 26 04:45	16° ♄ 31'44		direct	1984 Sep 07 04:02	0° ♄ 01'46	
morning max el	1983 Oct 01 10:04	19° ♄ 48'27	17°53'25	asc. node	1984 Sep 12 01:50	1° ♄ 49'02	
	1983 Oct 08 23:44	0° ♄		morning max el	1984 Sep 14 01:15	3° ♄ 30'05	17°54'28
morning set	1983 Oct 18 03:12	15° ♄ 28'03		morning set	1984 Sep 29 22:52	28° ♄ 25'30	
	1983 Oct 26 15:47	0° ♄			1984 Sep 30 19:44	0° ♄	
superior conj	1983 Oct 30 16:29	6° ♄ 40'29	0°25'44	superior conj	1984 Oct 10 17:36	17° ♄ 35'18	1°02'47
minimum elong	1983 Oct 30 19:12	6° ♄ 51'38	0°25'21	minimum elong	1984 Oct 10 22:10	17° ♄ 54'58	1°02'14
desc. node	1983 Nov 03 12:15	12° ♄ 53'19		max. Earth dist.	1984 Oct 18 02:03	29° ♄ 56'01	1.42830 AU
max. Earth dist.	1983 Nov 05 12:09	16° ♄ 05'15	1.44236 AU		1984 Oct 18 03:01	0° ♄	
	1983 Nov 14 08:56	0° ♄		desc. node	1984 Oct 20 09:16	3° ♄ 40'22	
evening rise	1983 Nov 15 14:58	1° ♄ 55'50		evening rise	1984 Oct 25 02:35	11° ♄ 10'59	
	1983 Dec 04 11:22	0° ♄			1984 Nov 06 12:09	0° ♄	
greatest brilliancy	1983 Dec 08 01:04	4° ♄ 52'08	-0.5m	greatest brilliancy	1984 Nov 20 22:58	19° ♄ 54'33	-0.4m
evening max el	1983 Dec 13 21:32	11° ♄ 50'53	20°37'24	evening max el	1984 Nov 25 17:55	25° ♄ 21'27	21°49'47
retrograde	1983 Dec 22 00:53	16° ♄ 39'15			1984 Dec 01 16:30	0° ♄	
asc. node	1983 Dec 23 04:00	16° ♄ 32'06		retrograde	1984 Dec 04 21:46	0° ♄ 48'37	
evening set	1983 Dec 25 21:11	15° ♄ 14'10			1984 Dec 07 21:46	30° ♄	
inferior conj	1983 Dec 31 07:41	9° ♄ 03'04	2°30'52	evening set	1984 Dec 09 04:59	29° ♄ 07'27	
minimum elong	1983 Dec 31 05:05	9° ♄ 11'56	2°30'04	asc. node	1984 Dec 09 01:03	29° ♄ 15'06	
min. Earth dist.	1983 Dec 31 21:47	8° ♄ 14'56	0.67344 AU	inferior conj	1984 Dec 14 14:28	22° ♄ 47'27	1°48'51
morning rise	1984 Jan 05 12:31	2° ♄ 47'55		minimum elong	1984 Dec 14 12:16	22° ♄ 55'03	1°48'02
direct	1984 Jan 11 00:37	0° ♄ 23'00		min. Earth dist.	1984 Dec 14 16:54	22° ♄ 38'59	0.67751 AU
morning max el	1984 Jan 22 04:26	7° ♄ 02'17	24°19'21	morning rise	1984 Dec 19 19:21	16° ♄ 33'21	
desc. node	1984 Jan 30 11:26	16° ♄ 42'36		direct	1984 Dec 24 16:11	14° ♄ 30'19	
	1984 Feb 09 01:50	0° ♄		morning max el	1985 Jan 03 14:15	20° ♄ 22'59	22°50'47

greatest brilliancy	1985 Jan 08 06:12	25° ♂ 35'20	-0.3m		1985 Dec 12 11:05	0° ♂	
	1985 Jan 11 18:25	0° ♂		morning max el	1985 Dec 17 04:52	3° ♂ 51'58	21°26'19
desc. node	1985 Jan 16 08:28	6° ♂ 10'58		greatest brilliancy	1985 Dec 22 06:45	9° ♂ 39'28	-0.4m
	1985 Feb 01 07:43	0° \approx		desc. node	1986 Jan 03 05:30	26° ♂ 06'58	
morning set	1985 Feb 06 21:20	9° \approx 00'18			1986 Jan 05 20:42	0° ♂	
max. Earth dist.	1985 Feb 11 13:53	16° \approx 53'54	1.39998 AU	morning set	1986 Jan 17 13:08	17° ♂ 55'27	
	1985 Feb 18 23:41	0° ♂		max. Earth dist.	1986 Jan 24 14:12	29° ♂ 17'17	1.42045 AU
					1986 Jan 25 00:33	0° \approx	
superior conj	1985 Feb 19 07:49	0° ♂ 37'03	-1°-56'-52				
minimum elong	1985 Feb 19 11:18	0° ♂ 52'59	1°56'40	superior conj	1986 Feb 01 01:11	11° \approx 52'25	-2°-4'-55
evening rise	1985 Mar 01 02:59	19° ♂ 01'38		minimum elong	1986 Feb 01 01:30	11° \approx 53'48	2°04'56
asc. node	1985 Mar 07 00:22	0° ♀ 01'09			1986 Feb 11 05:21	0° ♂	
	1985 Mar 07 00:07	0° ♀		evening rise	1986 Feb 12 04:42	1° ♂ 46'18	
evening max el	1985 Mar 17 06:54	14° ♀ 57'37	18°27'27	asc. node	1986 Feb 21 21:23	18° ♂ 49'03	
retrograde	1985 Mar 24 19:00	18° ♀ 39'31		evening max el	1986 Feb 28 16:36	27° ♂ 52'52	18°09'13
evening set	1985 Mar 27 03:38	18° ♀ 18'40			1986 Mar 03 07:22	0° ♀	
inferior conj	1985 Apr 03 14:05	13° ♀ 45'48	2°43'35	retrograde	1986 Mar 07 10:56	1° ♀ 18'51	
minimum elong	1985 Apr 03 17:59	13° ♀ 37'55	2°42'38	evening set	1986 Mar 10 00:59	0° ♀ 49'11	
min. Earth dist.	1985 Apr 07 00:33	11° ♀ 00'55	0.58500 AU		1986 Mar 11 17:37	30° ♂	
morning rise	1985 Apr 11 04:12	8° ♀ 18'26		inferior conj	1986 Mar 16 19:34	25° ♂ 55'09	3°26'35
desc. node	1985 Apr 14 07:37	7° ♀ 05'30		minimum elong	1986 Mar 16 21:58	25° ♂ 49'31	3°26'16
direct	1985 Apr 17 05:23	6° ♀ 43'26		min. Earth dist.	1986 Mar 20 01:57	22° ♂ 53'19	0.60637 AU
morning max el	1985 May 01 14:36	14° ♀ 24'48	26°53'21	morning rise	1986 Mar 23 15:46	20° ♂ 06'36	
	1985 May 14 02:10	0° ♂		direct	1986 Mar 30 08:42	17° ♂ 55'42	
	1985 May 30 19:44	0° ♂		desc. node	1986 Apr 01 04:39	18° ♂ 05'01	
morning set	1985 May 31 12:08	1° ♂ 25'31		morning max el	1986 Apr 13 14:55	25° ♂ 48'20	27°39'27
asc. node	1985 Jun 02 23:41	6° ♂ 41'58			1986 Apr 17 12:33	0° ♀	
					1986 May 07 12:33	0° ♂	
superior conj	1985 Jun 07 14:10	16° ♂ 45'37	0°46'57	morning set	1986 May 15 18:40	16° ♂ 02'32	
minimum elong	1985 Jun 07 12:17	16° ♂ 35'14	0°46'36	asc. node	1986 May 20 20:41	26° ♂ 50'29	
max. Earth dist.	1985 Jun 07 13:08	16° ♂ 39'55	1.32207 AU	max. Earth dist.	1986 May 22 00:44	29° ♂ 23'20	1.32252 AU
	1985 Jun 13 16:11	0° ♂			1986 May 22 07:26	0° ♂	
evening rise	1985 Jun 14 12:28	1° ♂ 47'13					
	1985 Jun 29 19:34	0° ♂		superior conj	1986 May 23 01:24	1° ♂ 38'23	0°23'02
desc. node	1985 Jul 11 06:56	15° ♂ 16'41		minimum elong	1986 May 23 00:22	1° ♂ 32'45	0°22'49
evening max el	1985 Jul 14 01:27	18° ♂ 06'13	26°32'49	evening rise	1986 May 29 23:05	16° ♂ 38'58	
retrograde	1985 Jul 28 00:52	25° ♂ 18'58			1986 Jun 05 14:06	0° ♂	
evening set	1985 Aug 03 17:51	23° ♂ 25'18		evening max el	1986 Jun 25 20:07	29° ♂ 17'36	25°20'20
min. Earth dist.	1985 Aug 07 14:50	20° ♂ 49'39	0.59907 AU		1986 Jun 26 14:15	0° ♂	
inferior conj	1985 Aug 10 22:08	18° ♂ 11'56	-4°-44'-48	desc. node	1986 Jun 28 03:56	1° ♂ 21'56	
minimum elong	1985 Aug 11 01:52	18° ♂ 04'29	4°44'22	retrograde	1986 Jul 09 20:27	6° ♂ 25'25	
morning rise	1985 Aug 18 13:15	13° ♂ 33'49		evening set	1986 Jul 15 13:01	5° ♂ 10'10	
direct	1985 Aug 20 22:48	13° ♂ 12'50		min. Earth dist.	1986 Jul 20 08:04	2° ♂ 28'09	0.57876 AU
morning max el	1985 Aug 28 12:19	16° ♂ 53'20	18°14'56	inferior conj	1986 Jul 23 11:10	0° ♂ 18'30	-4°-58'-6
asc. node	1985 Aug 29 22:53	18° ♂ 23'30		minimum elong	1986 Jul 23 10:47	0° ♂ 19'10	4°58'06
	1985 Sep 06 19:39	0° ♂			1986 Jul 23 21:51	30° ♂	
morning set	1985 Sep 13 09:14	12° ♂ 05'31		morning rise	1986 Jul 31 12:15	26° ♂ 03'01	
				direct	1986 Aug 03 00:48	25° ♂ 43'43	
superior conj	1985 Sep 22 19:49	29° ♂ 44'35	1°27'45	morning max el	1986 Aug 11 16:00	29° ♂ 47'44	18°56'01
minimum elong	1985 Sep 22 23:34	0° ♂ 01'33	1°27'25		1986 Aug 11 21:09	0° ♂	
	1985 Sep 22 23:13	0° ♂		asc. node	1986 Aug 16 19:55	5° ♂ 59'02	
max. Earth dist.	1985 Sep 30 10:11	13° ♂ 06'41	1.40984 AU	morning set	1986 Aug 28 05:52	26° ♂ 15'16	
evening rise	1985 Oct 05 07:39	21° ♂ 16'08			1986 Aug 30 03:28	0° ♂	
desc. node	1985 Oct 07 06:17	24° ♂ 24'57					
	1985 Oct 10 18:50	0° ♂		superior conj	1986 Sep 05 17:32	12° ♂ 51'17	1°41'29
	1985 Oct 31 16:44	0° ♂		minimum elong	1986 Sep 05 19:26	13° ♂ 00'22	1°41'23
greatest brilliancy	1985 Nov 02 08:34	2° ♂ 04'50	-0.2m	max. Earth dist.	1986 Sep 12 14:08	25° ♂ 33'34	1.38943 AU
evening max el	1985 Nov 08 09:29	8° ♂ 54'31	23°08'40		1986 Sep 15 02:28	0° ♂	
retrograde	1985 Nov 18 16:10	15° ♂ 00'13		evening rise	1986 Sep 16 12:37	2° ♂ 27'46	
evening set	1985 Nov 23 11:59	13° ♂ 02'07		desc. node	1986 Sep 24 03:18	15° ♂ 02'31	
asc. node	1985 Nov 25 22:05	10° ♂ 33'40			1986 Oct 04 00:19	0° ♂	
inferior conj	1985 Nov 28 21:56	6° ♂ 37'10	1°00'47	evening max el	1986 Oct 21 22:17	22° ♂ 31'33	24°28'08
minimum elong	1985 Nov 28 20:34	6° ♂ 41'53	1°00'13	retrograde	1986 Nov 02 06:47	29° ♂ 09'44	
min. Earth dist.	1985 Nov 28 13:39	7° ♂ 05'42	0.67815 AU	evening set	1986 Nov 07 16:34	26° ♂ 54'54	
morning rise	1985 Dec 04 05:11	0° ♂ 26'11		min. Earth dist.	1986 Nov 12 09:32	21° ♂ 32'11	0.67545 AU
	1985 Dec 04 19:23	30° ♂		asc. node	1986 Nov 12 19:06	21° ♂ 00'12	
direct	1985 Dec 08 11:23	28° ♂ 45'58		inferior conj	1986 Nov 13 04:19	20° ♂ 29'20	0°07'56

minimum elong	1986 Nov 13 04:07	20° <u>ℓ</u> 30'00	0°07'51	evening max el	1987 Oct 04 10:22	6° <u>ℓ</u> 11'44	25°40'58
transit middle	1986 Nov 13 04:07	20° <u>ℓ</u> 30'00	0°07'51	retrograde	1987 Oct 16 16:46	13° <u>ℓ</u> 12'47	
transit begin	1986 Nov 13 01:43	20° <u>ℓ</u> 38'02		evening set	1987 Oct 22 17:02	10° <u>ℓ</u> 43'00	
transit end	1986 Nov 13 06:31	20° <u>ℓ</u> 21'58		min. Earth dist.	1987 Oct 27 02:09	5° <u>ℓ</u> 55'55	0.66940 AU
morning rise	1986 Nov 18 16:02	14° <u>ℓ</u> 23'59		inferior conj	1987 Oct 28 07:50	4° <u>ℓ</u> 21'20	0°-48'-24
direct	1986 Nov 22 09:02	13° <u>ℓ</u> 05'07		minimum elong	1987 Oct 28 09:05	4° <u>ℓ</u> 17'20	0°47'53
morning max el	1986 Nov 30 02:49	17° <u>ℓ</u> 31'19	20°12'19	asc. node	1987 Oct 30 16:10	1° <u>ℓ</u> 28'56	
greatest brilliancy	1986 Dec 06 21:03	25° <u>ℓ</u> 39'05	-0.6m		1987 Nov 01 01:57	30° <u>ℓ</u>	
	1986 Dec 10 00:34	0° <u>♊</u>		morning rise	1987 Nov 03 01:55	28° <u>♊</u> 24'28	
desc. node	1986 Dec 21 02:34	16° <u>♊</u> 22'42		direct	1987 Nov 06 07:39	27° <u>♊</u> 23'59	
morning set	1986 Dec 27 10:12	26° <u>♊</u> 03'31			1987 Nov 11 21:57	0° <u>ℓ</u>	
	1986 Dec 29 23:09	0° <u>♋</u>		morning max el	1987 Nov 13 08:30	1° <u>ℓ</u> 20'42	19°12'27
max. Earth dist.	1987 Jan 06 22:26	12° <u>♋</u> 35'00	1.43714 AU	greatest brilliancy	1987 Nov 24 01:22	15° <u>ℓ</u> 26'14	-0.7m
					1987 Dec 03 13:33	0° <u>♊</u>	
superior conj	1987 Jan 12 17:06	21° <u>♋</u> 57'28	-1°-57'-40	morning set	1987 Dec 06 12:54	4° <u>♊</u> 37'21	
minimum elong	1987 Jan 12 12:05	21° <u>♋</u> 36'52	1°57'27	desc. node	1987 Dec 07 23:36	6° <u>♊</u> 52'26	
	1987 Jan 17 13:08	0° <u>♋</u>		max. Earth dist.	1987 Dec 20 13:41	26° <u>♊</u> 34'36	1.44791 AU
evening rise	1987 Jan 25 13:18	13° <u>♋</u> 42'15			1987 Dec 22 17:40	0° <u>♋</u>	
	1987 Feb 04 02:31	0° <u>♌</u>					
asc. node	1987 Feb 08 18:23	7° <u>♌</u> 00'16		superior conj	1987 Dec 23 07:52	0° <u>♋</u> 56'17	-1°-31'-33
evening max el	1987 Feb 12 04:59	11° <u>♌</u> 05'32	18°10'21	minimum elong	1987 Dec 22 23:05	0° <u>♋</u> 21'28	1°30'43
retrograde	1987 Feb 18 16:07	14° <u>♌</u> 30'07		evening rise	1988 Jan 07 00:39	24° <u>♋</u> 42'55	
evening set	1987 Feb 21 11:17	13° <u>♌</u> 50'21			1988 Jan 10 05:28	0° <u>♋</u>	
inferior conj	1987 Feb 27 17:40	8° <u>♌</u> 35'37	3°42'51	evening max el	1988 Jan 26 17:12	24° <u>♋</u> 28'08	18°30'02
minimum elong	1987 Feb 27 18:05	8° <u>♌</u> 34'32	3°42'51	asc. node	1988 Jan 26 15:25	24° <u>♋</u> 23'37	
min. Earth dist.	1987 Mar 02 11:42	5° <u>♌</u> 41'22	0.62711 AU	retrograde	1988 Feb 02 06:18	28° <u>♋</u> 03'58	
morning rise	1987 Mar 05 22:44	2° <u>♌</u> 34'21		evening set	1988 Feb 05 06:49	27° <u>♋</u> 13'10	
	1987 Mar 11 21:55	30° <u>♌</u>		inferior conj	1988 Feb 11 04:23	21° <u>♋</u> 39'14	3°39'14
direct	1987 Mar 12 21:22	29° <u>♋</u> 57'01		minimum elong	1988 Feb 11 03:10	21° <u>♋</u> 42'49	3°39'08
	1987 Mar 13 21:09	0° <u>♌</u>		min. Earth dist.	1988 Feb 13 06:57	19° <u>♋</u> 10'57	0.64510 AU
desc. node	1987 Mar 19 01:42	1° <u>♌</u> 43'51		morning rise	1988 Feb 16 22:08	15° <u>♋</u> 30'26	
morning max el	1987 Mar 26 20:44	7° <u>♌</u> 52'45	27°48'30	direct	1988 Feb 23 17:30	12° <u>♋</u> 40'50	
	1987 Apr 12 20:23	0° <u>♍</u>		desc. node	1988 Mar 04 22:46	17° <u>♋</u> 28'38	
morning set	1987 Apr 29 19:36	0° <u>♌</u> 19'55		morning max el	1988 Mar 08 05:52	20° <u>♋</u> 31'21	27°21'47
	1987 Apr 29 15:39	0° <u>♌</u>			1988 Mar 16 10:09	0° <u>♌</u>	
max. Earth dist.	1987 May 05 08:19	11° <u>♌</u> 51'00	1.32698 AU		1988 Apr 04 22:04	0° <u>♍</u>	
				morning set	1988 Apr 12 12:10	14° <u>♍</u> 08'03	
superior conj	1987 May 07 10:24	16° <u>♌</u> 20'38	0°-3'-13	max. Earth dist.	1988 Apr 17 07:55	23° <u>♍</u> 50'06	1.33577 AU
minimum elong	1987 May 07 10:34	16° <u>♌</u> 21'29	0°03'12		1988 Apr 20 06:42	0° <u>♌</u>	
behind sun begin	1987 May 07 05:27	15° <u>♌</u> 53'47					
behind sun end	1987 May 07 15:41	16° <u>♌</u> 49'12		superior conj	1988 Apr 20 15:14	0° <u>♌</u> 45'07	0°-30'-53
asc. node	1987 May 07 17:43	17° <u>♌</u> 00'14		minimum elong	1988 Apr 20 16:47	0° <u>♌</u> 53'19	0°30'35
	1987 May 13 17:50	0° <u>♍</u>		asc. node	1988 Apr 23 14:44	7° <u>♌</u> 06'06	
evening rise	1987 May 14 10:56	1° <u>♍</u> 30'52		evening rise	1988 Apr 27 22:06	16° <u>♌</u> 15'32	
	1987 May 30 04:21	0° <u>♍</u>			1988 May 04 19:40	0° <u>♍</u>	
evening max el	1987 Jun 07 10:17	9° <u>♍</u> 55'28	23°48'41	evening max el	1988 May 19 02:10	20° <u>♍</u> 25'51	22°12'52
desc. node	1987 Jun 15 00:56	15° <u>♍</u> 23'49		retrograde	1988 May 31 22:43	26° <u>♍</u> 47'01	
retrograde	1987 Jun 21 03:44	16° <u>♍</u> 48'39		desc. node	1988 May 31 21:57	26° <u>♍</u> 47'01	
evening set	1987 Jun 25 09:49	16° <u>♍</u> 08'51		evening set	1988 Jun 03 20:10	26° <u>♍</u> 28'29	
min. Earth dist.	1987 Jul 01 20:50	13° <u>♍</u> 04'36	0.56171 AU	min. Earth dist.	1988 Jun 12 08:15	22° <u>♍</u> 49'11	0.55115 AU
inferior conj	1987 Jul 04 04:03	11° <u>♍</u> 40'48	-4°-33'-5	inferior conj	1988 Jun 13 03:55	22° <u>♍</u> 21'31	-3°-20'-8
minimum elong	1987 Jul 03 22:19	11° <u>♍</u> 49'32	4°32'13	minimum elong	1988 Jun 12 20:03	22° <u>♍</u> 32'35	3°17'56
morning rise	1987 Jul 12 14:15	7° <u>♍</u> 43'13		morning rise	1988 Jun 21 21:55	18° <u>♍</u> 29'41	
direct	1987 Jul 15 07:51	7° <u>♍</u> 24'11		direct	1988 Jun 24 22:40	18° <u>♍</u> 09'04	
morning max el	1987 Jul 25 09:32	12° <u>♍</u> 04'18	19°58'27	morning max el	1988 Jul 06 15:34	23° <u>♍</u> 36'39	21°21'12
asc. node	1987 Aug 03 16:58	24° <u>♍</u> 22'15			1988 Jul 12 06:42	0° <u>♍</u>	
	1987 Aug 06 21:20	0° <u>♎</u>		asc. node	1988 Jul 20 14:02	13° <u>♍</u> 21'14	
morning set	1987 Aug 12 09:35	10° <u>♎</u> 46'32		morning set	1988 Jul 26 17:56	25° <u>♍</u> 32'09	
					1988 Jul 28 21:19	0° <u>♎</u>	
superior conj	1987 Aug 20 05:29	26° <u>♎</u> 40'53	1°45'46				
minimum elong	1987 Aug 20 05:34	26° <u>♎</u> 41'17	1°45'45	superior conj	1988 Aug 03 03:29	11° <u>♎</u> 00'54	1°42'23
	1987 Aug 21 21:36	0° <u>♏</u>		minimum elong	1988 Aug 03 02:11	10° <u>♎</u> 54'11	1°42'19
max. Earth dist.	1987 Aug 25 19:03	7° <u>♏</u> 31'47	1.36960 AU	max. Earth dist.	1988 Aug 07 06:11	19° <u>♎</u> 24'20	1.35227 AU
evening rise	1987 Aug 29 16:19	14° <u>♏</u> 43'34		evening rise	1988 Aug 11 14:23	27° <u>♎</u> 52'22	
	1987 Sep 07 13:52	0° <u>♏</u>			1988 Aug 12 17:29	0° <u>♏</u>	
desc. node	1987 Sep 11 00:18	5° <u>♏</u> 28'22		desc. node	1988 Aug 27 21:19	25° <u>♏</u> 36'49	
	1987 Sep 28 17:21	0° <u>♏</u>			1988 Aug 30 20:25	0° <u>♏</u>	

evening max el	1988 Sep 15 22:35	19° Δ 49'27	26°39'32		1989 Aug 05 00:54	0° Ṁ	
retrograde	1988 Sep 28 21:37	27° Δ 03'31		desc. node	1989 Aug 14 18:20	15° Ṁ 19'37	
evening set	1988 Oct 05 11:24	24° Δ 23'17			1989 Aug 26 06:14	0° Δ	
min. Earth dist.	1988 Oct 09 13:06	20° Δ 13'12	0.65988 AU	evening max el	1989 Aug 29 10:29	3° Δ 14'53	27°16'29
inferior conj	1988 Oct 11 06:34	18° Δ 09'50	-1°-46'-41	retrograde	1989 Sep 11 20:57	10° Δ 33'38	
minimum elong	1988 Oct 11 09:24	18° Δ 01'22	1°45'32	evening set	1989 Sep 18 21:07	7° Δ 50'49	
asc. node	1988 Oct 16 13:14	12° Δ 53'47		min. Earth dist.	1989 Sep 22 16:08	4° Δ 17'05	0.64678 AU
morning rise	1988 Oct 17 08:44	12° Δ 24'33		inferior conj	1989 Sep 24 22:11	1° Δ 49'50	-2°-44'-46
direct	1988 Oct 20 05:22	11° Δ 38'50		minimum elong	1989 Sep 25 02:32	1° Δ 37'59	2°43'15
morning max el	1988 Oct 26 20:23	15° Δ 16'26	18°28'26		1989 Sep 26 15:28	30° Ṁ	
	1988 Nov 06 14:57	0° Ṁ		morning rise	1989 Oct 01 09:52	26° Ṁ 19'13	
morning set	1988 Nov 15 16:46	14° Ṁ 29'54		asc. node	1989 Oct 03 10:19	25° Ṁ 46'07	
desc. node	1988 Nov 23 20:38	27° Ṁ 31'46		direct	1989 Oct 03 23:48	25° Ṁ 44'28	
	1988 Nov 25 10:04	0° Ṁ		morning max el	1989 Oct 10 11:52	29° Ṁ 12'13	18°01'09
					1989 Oct 11 06:11	0° Δ	
superior conj	1988 Dec 01 09:23	9° Ṁ 24'36	0°-48'-59	morning set	1989 Oct 28 01:30	25° Δ 47'00	
minimum elong	1988 Dec 01 03:08	9° Ṁ 00'04	0°48'12		1989 Oct 30 13:53	0° Ṁ	
max. Earth dist.	1988 Dec 02 08:33	10° Ṁ 55'35	1.45151 AU				
	1988 Dec 14 11:53	0° Ṁ		superior conj	1989 Nov 10 18:56	18° Ṁ 21'47	0°00'-21
evening rise	1988 Dec 17 12:39	4° Ṁ 47'07		minimum elong	1989 Nov 10 18:53	18° Ṁ 21'37	0°00'22
greatest brilliancy	1988 Dec 29 11:13	23° Ṁ 31'58	-0.7m	behind sun begin	1989 Nov 10 08:24	17° Ṁ 39'32	
	1989 Jan 02 19:41	0° ≈		behind sun end	1989 Nov 11 05:22	19° Ṁ 03'38	
evening max el	1989 Jan 09 02:50	7° ≈ 55'55	19°07'18	desc. node	1989 Nov 10 17:39	18° Ṁ 16'39	
asc. node	1989 Jan 12 12:29	10° ≈ 45'59		max. Earth dist.	1989 Nov 15 03:18	25° Ṁ 17'09	1.44770 AU
retrograde	1989 Jan 16 01:45	11° ≈ 53'45			1989 Nov 18 03:10	0° Ṁ	
evening set	1989 Jan 19 08:38	10° ≈ 50'52		evening rise	1989 Nov 27 04:36	14° Ṁ 04'52	
inferior conj	1989 Jan 25 00:11	5° ≈ 00'09	3°21'00		1989 Dec 07 14:30	0° Ṁ	
minimum elong	1989 Jan 24 21:57	5° ≈ 07'13	3°20'36	greatest brilliancy	1989 Dec 16 09:14	12° Ṁ 49'36	-0.6m
min. Earth dist.	1989 Jan 26 11:28	3° ≈ 08'06	0.65929 AU	evening max el	1989 Dec 23 07:58	21° Ṁ 25'17	20°00'33
	1989 Jan 29 04:06	30° Ṁ		asc. node	1989 Dec 30 09:34	25° Ṁ 51'49	
morning rise	1989 Jan 30 10:22	28° Ṁ 46'55		retrograde	1989 Dec 30 23:29	25° Ṁ 53'42	
direct	1989 Feb 05 20:07	25° Ṁ 58'54		evening set	1990 Jan 03 14:16	24° Ṁ 37'20	
	1989 Feb 14 18:11	0° ≈		inferior conj	1990 Jan 09 02:04	18° Ṁ 32'43	2°51'44
morning max el	1989 Feb 18 15:46	3° ≈ 33'07	26°25'28	minimum elong	1990 Jan 08 23:26	18° Ṁ 41'30	2°51'02
desc. node	1989 Feb 19 19:50	4° ≈ 45'32		min. Earth dist.	1990 Jan 09 23:30	17° Ṁ 20'58	0.66941 AU
	1989 Mar 10 18:07	0° Ṁ		morning rise	1990 Jan 14 08:00	12° Ṁ 17'29	
morning set	1989 Mar 26 16:47	27° Ṁ 16'41		direct	1990 Jan 20 04:31	9° Ṁ 41'50	
	1989 Mar 28 03:16	0° Ṁ		morning max el	1990 Feb 01 00:39	16° Ṁ 45'38	25°08'38
max. Earth dist.	1989 Mar 30 20:30	5° Ṁ 16'17	1.34913 AU	desc. node	1990 Feb 06 16:52	23° Ṁ 07'27	
					1990 Feb 12 01:11	0° ≈	
superior conj	1989 Apr 04 13:36	14° Ṁ 45'29	0°-58'-46		1990 Mar 03 17:14	0° Ṁ	
minimum elong	1989 Apr 04 16:34	15° Ṁ 00'42	0°58'15	morning set	1990 Mar 09 04:33	9° Ṁ 31'50	
asc. node	1989 Apr 10 11:48	27° Ṁ 04'26		max. Earth dist.	1990 Mar 12 21:38	16° Ṁ 18'51	1.36678 AU
	1989 Apr 11 21:36	0° Ṁ					
evening rise	1989 Apr 12 06:42	0° Ṁ 47'04		superior conj	1990 Mar 19 02:39	28° Ṁ 13'58	-1°-25'-5
	1989 Apr 29 19:53	0° Ṁ		minimum elong	1990 Mar 19 06:42	28° Ṁ 33'56	1°24'31
evening max el	1989 May 01 02:53	1° Ṁ 19'17	20°46'20		1990 Mar 20 00:04	0° Ṁ	
retrograde	1989 May 12 11:52	6° Ṁ 51'20		evening rise	1990 Mar 27 10:32	14° Ṁ 58'53	
evening set	1989 May 14 15:12	6° Ṁ 40'20		asc. node	1990 Mar 28 08:51	16° Ṁ 50'52	
desc. node	1989 May 18 19:00	5° Ṁ 23'02			1990 Apr 04 07:35	0° Ṁ	
inferior conj	1989 May 23 21:36	2° Ṁ 42'41	-1°-29'00	evening max el	1990 Apr 13 15:31	12° Ṁ 52'16	19°36'51
minimum elong	1989 May 23 17:23	2° Ṁ 48'41	1°27'30	retrograde	1990 Apr 23 06:55	17° Ṁ 31'35	
min. Earth dist.	1989 May 24 20:39	2° Ṁ 09'44	0.54962 AU	evening set	1990 Apr 25 07:41	17° Ṁ 20'05	
	1989 May 28 22:53	30° Ṁ		inferior conj	1990 May 03 23:49	13° Ṁ 16'25	0°28'57
morning rise	1989 Jun 01 18:36	28° Ṁ 36'41		minimum elong	1990 May 04 01:04	13° Ṁ 14'26	0°28'30
direct	1989 Jun 05 08:07	28° Ṁ 09'22		desc. node	1990 May 05 16:01	12° Ṁ 12'40	
	1989 Jun 12 08:56	0° Ṁ		min. Earth dist.	1990 May 06 10:59	11° Ṁ 43'06	0.55769 AU
morning max el	1989 Jun 18 11:43	4° Ṁ 28'46	22°58'57	morning rise	1990 May 12 14:49	8° Ṁ 39'46	
	1989 Jul 06 00:55	0° Ṁ		direct	1990 May 17 02:02	7° Ṁ 55'01	
asc. node	1989 Jul 07 11:05	2° Ṁ 46'46		morning max el	1990 May 31 02:34	14° Ṁ 57'57	24°40'47
morning set	1989 Jul 11 04:54	10° Ṁ 25'52			1990 Jun 12 00:29	0° Ṁ	
				asc. node	1990 Jun 24 08:07	22° Ṁ 31'50	
superior conj	1989 Jul 18 08:16	25° Ṁ 41'12	1°32'49	morning set	1990 Jun 25 16:47	25° Ṁ 22'40	
minimum elong	1989 Jul 18 06:09	25° Ṁ 29'52	1°32'37		1990 Jun 27 20:46	0° Ṁ	
	1989 Jul 20 09:04	0° Ṁ					
max. Earth dist.	1989 Jul 21 02:14	1° Ṁ 30'04	1.33862 AU	superior conj	1990 Jul 02 17:21	10° Ṁ 33'56	1°18'13
evening rise	1989 Jul 26 02:17	11° Ṁ 41'35		minimum elong	1990 Jul 02 14:57	10° Ṁ 20'49	1°17'52

max. Earth dist.	1990 Jul 04 06:45	13° \mathfrak{S} 56'41	1.32907 AU	max. Earth dist.	1991 Jun 17 16:57	26° \mathbb{I} 38'47	1.32353 AU
evening rise	1990 Jul 10 00:11	26° \mathfrak{S} 00'29			1991 Jun 19 05:40	0° \mathfrak{S}	
	1990 Jul 11 23:48	0° \mathcal{Q}		evening rise	1991 Jun 24 04:53	10° \mathfrak{S} 38'13	
	1990 Jul 29 11:10	0° \mathfrak{M}			1991 Jul 04 06:05	0° \mathcal{Q}	
desc. node	1990 Aug 01 15:21	4° \mathfrak{M} 26'07		desc. node	1991 Jul 19 12:21	22° \mathcal{Q} 40'09	
evening max el	1990 Aug 11 20:32	16° \mathfrak{M} 16'31	27°25'17	evening max el	1991 Jul 25 02:11	28° \mathcal{Q} 40'42	27°01'34
retrograde	1990 Aug 25 14:08	23° \mathfrak{M} 34'04			1991 Jul 26 13:00	0° \mathfrak{M}	
evening set	1990 Sep 01 18:56	21° \mathfrak{M} 00'11		retrograde	1991 Aug 07 23:58	5° \mathfrak{M} 54'31	
min. Earth dist.	1990 Sep 05 09:34	17° \mathfrak{M} 58'01	0.63024 AU	evening set	1991 Aug 15 00:35	3° \mathfrak{M} 42'52	
inferior conj	1990 Sep 08 04:00	15° \mathfrak{M} 15'27	-3°-39'-26	min. Earth dist.	1991 Aug 18 16:28	1° \mathfrak{M} 01'55	0.61092 AU
minimum elong	1990 Sep 08 09:17	15° \mathfrak{M} 02'29	3°37'58		1991 Aug 19 21:41	30° $\mathcal{R}\mathcal{Q}$	
morning rise	1990 Sep 15 02:09	10° \mathfrak{M} 02'41		inferior conj	1991 Aug 21 20:42	28° \mathcal{Q} 17'37	-4°-25'-28
direct	1990 Sep 17 12:06	9° \mathfrak{M} 35'25		minimum elong	1991 Aug 22 01:37	28° \mathcal{Q} 06'58	4°24'34
asc. node	1990 Sep 20 07:21	10° \mathfrak{M} 12'59		morning rise	1991 Aug 29 05:40	23° \mathcal{Q} 25'49	
morning max el	1990 Sep 24 04:01	13° \mathfrak{M} 01'28	17°51'33	direct	1991 Aug 31 14:35	23° \mathcal{Q} 03'06	
	1990 Oct 05 17:44	0° \mathfrak{A}		asc. node	1991 Sep 07 04:22	26° \mathcal{Q} 04'23	
morning set	1990 Oct 10 10:19	8° \mathfrak{A} 13'44		morning max el	1991 Sep 07 17:43	26° \mathcal{Q} 35'43	18°00'41
					1991 Sep 10 17:14	0° \mathfrak{M}	
superior conj	1990 Oct 22 04:21	28° \mathfrak{A} 30'42	0°42'51	morning set	1991 Sep 23 12:52	21° \mathfrak{M} 31'03	
minimum elong	1990 Oct 22 08:18	28° \mathfrak{A} 47'11	0°42'19		1991 Sep 28 03:26	0° \mathfrak{A}	
	1990 Oct 23 01:46	0° \mathcal{M}					
desc. node	1990 Oct 28 14:41	9° \mathcal{M} 04'11		superior conj	1991 Oct 03 16:40	9° \mathfrak{A} 58'21	1°14'51
max. Earth dist.	1990 Oct 28 19:16	9° \mathcal{M} 22'40	1.43708 AU	minimum elong	1991 Oct 03 21:06	10° \mathfrak{A} 17'53	1°14'21
evening rise	1990 Nov 06 12:52	23° \mathcal{M} 09'01		max. Earth dist.	1991 Oct 11 06:46	22° \mathfrak{A} 57'40	1.42091 AU
	1990 Nov 11 00:06	0° \mathfrak{A}		desc. node	1991 Oct 15 11:42	29° \mathfrak{A} 50'41	
greatest brilliancy	1990 Dec 01 01:12	28° \mathfrak{A} 47'33	-0.4m		1991 Oct 15 14:01	0° \mathcal{M}	
	1990 Dec 02 00:13	0° \mathfrak{S}		evening rise	1991 Oct 17 06:31	2° \mathcal{M} 42'10	
evening max el	1990 Dec 06 07:39	4° \mathfrak{S} 55'50	21°07'02		1991 Nov 04 10:41	0° \mathfrak{A}	
retrograde	1990 Dec 14 21:09	10° \mathfrak{S} 00'33		greatest brilliancy	1991 Nov 14 08:11	13° \mathfrak{A} 08'34	-0.3m
asc. node	1990 Dec 17 06:37	9° \mathfrak{S} 28'39		evening max el	1991 Nov 19 01:59	18° \mathfrak{A} 28'13	22°22'53
evening set	1990 Dec 18 21:46	8° \mathfrak{S} 29'01		retrograde	1991 Nov 28 17:01	24° \mathfrak{A} 11'31	
inferior conj	1990 Dec 24 07:40	2° \mathfrak{S} 13'47	2°13'51	evening set	1991 Dec 03 05:24	22° \mathfrak{A} 23'20	
minimum elong	1990 Dec 24 05:10	2° \mathfrak{S} 22'20	2°13'01	asc. node	1991 Dec 04 03:37	21° \mathfrak{A} 33'50	
min. Earth dist.	1990 Dec 24 16:45	1° \mathfrak{S} 42'29	0.67567 AU	inferior conj	1991 Dec 08 14:58	16° \mathfrak{A} 01'01	1°29'08
	1990 Dec 25 22:57	30° $\mathcal{R}\mathfrak{A}$		minimum elong	1991 Dec 08 13:04	16° \mathfrak{A} 07'34	1°28'24
morning rise	1990 Dec 29 12:12	25° \mathfrak{A} 58'38		min. Earth dist.	1991 Dec 08 12:49	16° \mathfrak{A} 08'25	0.67827 AU
direct	1991 Jan 03 17:51	23° \mathfrak{A} 42'26		morning rise	1991 Dec 13 20:36	9° \mathfrak{A} 48'02	
	1991 Jan 14 08:02	0° \mathfrak{S}		direct	1991 Dec 18 11:12	7° \mathfrak{A} 54'32	
morning max el	1991 Jan 14 09:07	0° \mathfrak{S} 02'44	23°41'28	morning max el	1991 Dec 27 20:26	13° \mathfrak{A} 26'18	22°13'51
desc. node	1991 Jan 24 13:54	12° \mathfrak{S} 15'41		greatest brilliancy	1992 Jan 01 11:01	18° \mathfrak{A} 36'12	-0.3m
	1991 Feb 05 22:20	0° \approx			1992 Jan 10 01:46	0° \mathfrak{S}	
morning set	1991 Feb 18 17:16	20° \approx 36'14		desc. node	1992 Jan 11 10:57	1° \mathfrak{S} 57'15	
max. Earth dist.	1991 Feb 22 16:30	27° \approx 28'42	1.38757 AU		1992 Jan 29 21:15	0° \approx	
	1991 Feb 24 02:35	0° \mathfrak{H}		morning set	1992 Jan 30 01:34	0° \approx 17'29	
				max. Earth dist.	1992 Feb 04 13:44	9° \approx 22'56	1.40905 AU
superior conj	1991 Mar 02 02:35	11° \mathfrak{H} 00'26	-1°-47'-18				
minimum elong	1991 Mar 02 06:46	11° \mathfrak{H} 20'07	1°46'55	superior conj	1992 Feb 12 08:43	22° \approx 53'23	-2°-1'-49
evening rise	1991 Mar 11 06:53	28° \mathfrak{H} 43'19		minimum elong	1992 Feb 12 11:12	23° \approx 04'24	2°01'45
	1991 Mar 11 22:40	0° \mathfrak{Y}			1992 Feb 16 07:04	0° \mathfrak{H}	
asc. node	1991 Mar 15 05:54	6° \mathfrak{Y} 19'45		evening rise	1992 Feb 22 16:34	11° \mathfrak{H} 52'45	
evening max el	1991 Mar 27 14:46	25° \mathfrak{Y} 03'36	18°47'01	asc. node	1992 Mar 01 02:55	25° \mathfrak{H} 25'04	
retrograde	1991 Apr 04 18:09	29° \mathfrak{Y} 01'22			1992 Mar 03 21:45	0° \mathfrak{Y}	
evening set	1991 Apr 06 23:39	28° \mathfrak{Y} 44'41		evening max el	1992 Mar 09 21:37	7° \mathfrak{Y} 45'42	18°17'16
inferior conj	1991 Apr 14 20:42	24° \mathfrak{Y} 23'53	2°04'07	retrograde	1992 Mar 17 00:32	11° \mathfrak{Y} 18'42	
minimum elong	1991 Apr 15 00:36	24° \mathfrak{Y} 16'43	2°02'58	evening set	1992 Mar 19 11:42	10° \mathfrak{Y} 54'08	
min. Earth dist.	1991 Apr 18 03:45	21° \mathfrak{Y} 59'46	0.57362 AU	inferior conj	1992 Mar 26 14:55	6° \mathfrak{Y} 12'04	3°05'32
morning rise	1991 Apr 22 21:12	19° \mathfrak{Y} 13'35		minimum elong	1992 Mar 26 18:21	6° \mathfrak{Y} 04'42	3°04'52
desc. node	1991 Apr 22 13:03	19° \mathfrak{Y} 22'48		min. Earth dist.	1992 Mar 30 00:59	3° \mathfrak{Y} 17'08	0.59404 AU
direct	1991 Apr 28 09:49	17° \mathfrak{Y} 59'01		morning rise	1992 Apr 02 21:17	0° \mathfrak{Y} 34'48	
morning max el	1991 May 12 17:56	25° \mathfrak{Y} 29'42	26°11'49		1992 Apr 03 23:52	30° $\mathcal{R}\mathfrak{H}$	
	1991 May 16 22:45	0° \mathfrak{B}		desc. node	1992 Apr 08 10:05	28° \mathfrak{H} 46'07	
	1991 Jun 05 02:24	0° \mathbb{I}		direct	1992 Apr 09 06:26	28° \mathfrak{H} 44'10	
morning set	1991 Jun 10 03:56	10° \mathbb{I} 16'04			1992 Apr 14 17:35	0° \mathfrak{Y}	
asc. node	1991 Jun 11 05:09	12° \mathbb{I} 29'41		morning max el	1992 Apr 23 14:35	6° \mathfrak{Y} 30'23	27°17'21
					1992 May 11 04:10	0° \mathfrak{B}	
superior conj	1991 Jun 17 04:38	25° \mathbb{I} 31'06	0°59'25	morning set	1992 May 24 12:40	25° \mathfrak{B} 00'50	
minimum elong	1991 Jun 17 02:25	25° \mathbb{I} 18'58	0°59'01		1992 May 26 21:16	0° \mathbb{I}	

asc. node	1992 May 28 02:11	2° Π 35'39		max. Earth dist.	1993 May 14 15:52	22° \mathcal{B} 05'00	1.32395 AU
max. Earth dist.	1992 May 31 05:20	9° Π 26'16	1.32184 AU	asc. node	1993 May 14 23:14	22° \mathcal{B} 44'58	
superior conj	1992 May 31 16:21	10° Π 26'54	0°37'09	superior conj	1993 May 16 02:51	25° \mathcal{B} 15'25	0°12'08
minimum elong	1992 May 31 14:47	10° Π 18'16	0°36'50	minimum elong	1993 May 16 02:17	25° \mathcal{B} 12'21	0°12'01
evening rise	1992 Jun 07 13:58	25° Π 26'54		behind sun begin	1993 May 15 22:56	24° \mathcal{B} 54'00	
	1992 Jun 09 18:27	0° \mathcal{E}		behind sun end	1993 May 16 05:39	25° \mathcal{B} 30'41	
	1992 Jun 27 05:11	0° \mathcal{Q}			1993 May 18 06:53	0° Π	
desc. node	1992 Jul 05 09:21	9° \mathcal{Q} 40'19		evening rise	1993 May 23 01:21	10° Π 19'08	
evening max el	1992 Jul 06 01:01	10° \mathcal{Q} 18'17	26°05'08		1993 Jun 02 03:54	0° \mathcal{E}	
retrograde	1992 Jul 20 00:54	17° \mathcal{Q} 28'32		evening max el	1993 Jun 17 16:59	21° \mathcal{E} 11'45	24°42'44
evening set	1992 Jul 26 09:19	15° \mathcal{Q} 50'43		desc. node	1993 Jun 22 06:22	24° \mathcal{E} 57'19	
min. Earth dist.	1992 Jul 30 13:37	13° \mathcal{Q} 14'46	0.59030 AU	retrograde	1993 Jul 01 15:29	28° \mathcal{E} 15'26	
inferior conj	1992 Aug 02 20:43	10° \mathcal{Q} 46'48	-4°-54'-13	evening set	1993 Jul 06 18:22	27° \mathcal{E} 16'08	
minimum elong	1992 Aug 02 23:00	10° \mathcal{Q} 42'29	4°54'04	min. Earth dist.	1993 Jul 12 04:11	24° \mathcal{E} 26'30	0.57089 AU
morning rise	1992 Aug 10 16:09	6° \mathcal{Q} 18'19		inferior conj	1993 Jul 15 01:08	22° \mathcal{E} 34'22	-4°-52'-59
direct	1992 Aug 13 02:53	5° \mathcal{Q} 58'04		minimum elong	1993 Jul 14 22:26	22° \mathcal{E} 38'48	4°52'48
morning max el	1992 Aug 21 01:54	9° \mathcal{Q} 46'50	18°29'50	morning rise	1993 Jul 23 06:15	18° \mathcal{E} 27'55	
asc. node	1992 Aug 24 01:24	13° \mathcal{Q} 05'55		direct	1993 Jul 25 20:50	18° \mathcal{E} 08'52	
	1992 Sep 03 08:03	0° \mathcal{M}		morning max el	1993 Aug 04 01:36	22° \mathcal{E} 26'12	19°20'06
morning set	1992 Sep 06 04:01	5° \mathcal{M} 24'35			1993 Aug 10 05:51	0° \mathcal{Q}	
				asc. node	1993 Aug 10 22:27	1° \mathcal{Q} 03'07	
superior conj	1992 Sep 15 03:48	22° \mathcal{M} 33'21	1°34'52	morning set	1993 Aug 21 04:01	19° \mathcal{Q} 44'25	
minimum elong	1992 Sep 15 06:48	22° \mathcal{M} 47'17	1°34'38		1993 Aug 26 07:06	0° \mathcal{M}	
	1992 Sep 19 05:41	0° \mathcal{A}					
max. Earth dist.	1992 Sep 22 13:15	5° \mathcal{A} 50'56	1.40126 AU	superior conj	1993 Aug 29 08:12	6° \mathcal{M} 00'20	1°44'21
evening rise	1992 Sep 26 21:25	13° \mathcal{A} 14'06		minimum elong	1993 Aug 29 09:17	6° \mathcal{M} 05'40	1°44'18
desc. node	1992 Oct 01 08:43	20° \mathcal{A} 32'28		max. Earth dist.	1993 Sep 04 16:54	18° \mathcal{M} 03'08	1.38070 AU
	1992 Oct 07 10:13	0° \mathcal{M}		evening rise	1993 Sep 08 12:27	24° \mathcal{M} 53'46	
	1992 Oct 29 17:02	0° \mathcal{J}			1993 Sep 11 11:18	0° \mathcal{A}	
evening max el	1992 Oct 31 16:08	2° \mathcal{J} 02'50	23°42'50	desc. node	1993 Sep 18 05:44	11° \mathcal{A} 05'40	
retrograde	1992 Nov 11 09:49	8° \mathcal{J} 22'49			1993 Oct 01 02:09	0° \mathcal{M}	
evening set	1992 Nov 16 11:35	6° \mathcal{J} 17'18		evening max el	1993 Oct 14 04:14	15° \mathcal{M} 40'57	25°00'20
asc. node	1992 Nov 20 00:38	2° \mathcal{J} 24'33		retrograde	1993 Oct 25 22:40	22° \mathcal{M} 30'42	
inferior conj	1992 Nov 21 22:09	29° \mathcal{M} 51'43	0°38'52	evening set	1993 Oct 31 14:41	20° \mathcal{M} 08'49	
minimum elong	1992 Nov 21 21:15	29° \mathcal{M} 54'49	0°38'29	min. Earth dist.	1993 Nov 05 04:07	15° \mathcal{M} 01'14	0.67325 AU
min. Earth dist.	1992 Nov 21 09:22	0° \mathcal{J} 35'19	0.67742 AU	inferior conj	1993 Nov 06 03:33	13° \mathcal{M} 44'13	0°-15'-36
	1992 Nov 21 19:44	30° \mathcal{R} \mathcal{M}		minimum elong	1993 Nov 06 03:57	13° \mathcal{M} 42'56	0°15'27
morning rise	1992 Nov 27 07:05	23° \mathcal{M} 43'06		transit middle	1993 Nov 06 03:57	13° \mathcal{M} 42'56	0°15'27
direct	1992 Dec 01 07:30	22° \mathcal{M} 12'18		transit begin	1993 Nov 06 03:06	13° \mathcal{M} 45'42	
morning max el	1992 Dec 09 14:03	26° \mathcal{M} 59'45	20°53'23	transit end	1993 Nov 06 04:47	13° \mathcal{M} 40'09	
	1992 Dec 12 08:05	0° \mathcal{J}		asc. node	1993 Nov 06 21:40	12° \mathcal{M} 45'00	
greatest brilliancy	1992 Dec 15 05:44	3° \mathcal{J} 34'00	-0.5m	morning rise	1993 Nov 11 17:46	7° \mathcal{M} 42'19	
desc. node	1992 Dec 28 07:58	22° \mathcal{J} 02'21		direct	1993 Nov 15 05:39	6° \mathcal{M} 31'53	
	1993 Jan 02 14:47	0° \mathcal{E}		morning max el	1993 Nov 22 15:31	10° \mathcal{M} 44'24	19°45'06
morning set	1993 Jan 08 07:13	8° \mathcal{E} 45'54		greatest brilliancy	1993 Nov 30 11:37	20° \mathcal{M} 27'13	-0.6m
max. Earth dist.	1993 Jan 16 18:04	22° \mathcal{E} 13'11	1.42821 AU		1993 Dec 07 01:04	0° \mathcal{J}	
	1993 Jan 21 11:25	0° \approx		desc. node	1993 Dec 15 05:01	12° \mathcal{J} 24'39	
				morning set	1993 Dec 18 03:31	16° \mathcal{J} 56'12	
superior conj	1993 Jan 23 15:42	3° \approx 39'38	-2°-4'00		1993 Dec 26 12:47	0° \mathcal{E}	
minimum elong	1993 Jan 23 13:54	3° \approx 32'02	2°03'59	max. Earth dist.	1993 Dec 30 05:29	5° \mathcal{E} 50'31	1.44252 AU
evening rise	1993 Feb 04 11:35	24° \approx 18'07					
	1993 Feb 07 16:19	0° \mathcal{H}		superior conj	1994 Jan 03 20:20	13° \mathcal{E} 14'21	-1°-48'-58
asc. node	1993 Feb 15 23:57	13° \mathcal{H} 58'36		minimum elong	1994 Jan 03 13:11	12° \mathcal{E} 45'28	1°48'28
evening max el	1993 Feb 21 08:47	20° \mathcal{H} 49'01	18°07'16		1994 Jan 14 00:25	0° \approx	
retrograde	1993 Feb 27 22:54	24° \mathcal{H} 12'58		evening rise	1994 Jan 17 11:40	5° \approx 51'36	
evening set	1993 Mar 02 15:06	23° \mathcal{H} 39'07			1994 Feb 01 10:28	0° \mathcal{H}	
inferior conj	1993 Mar 09 04:01	18° \mathcal{H} 35'47	3°36'17	asc. node	1994 Feb 02 21:00	1° \mathcal{H} 50'59	
minimum elong	1993 Mar 09 05:34	18° \mathcal{H} 31'57	3°36'10	evening max el	1994 Feb 04 21:23	4° \mathcal{H} 06'23	18°16'24
min. Earth dist.	1993 Mar 12 05:38	15° \mathcal{H} 34'41	0.61545 AU	retrograde	1994 Feb 11 08:30	7° \mathcal{H} 34'40	
morning rise	1993 Mar 15 17:20	12° \mathcal{H} 40'48		evening set	1994 Feb 14 05:45	6° \mathcal{H} 50'29	
direct	1993 Mar 22 13:44	10° \mathcal{H} 17'30		inferior conj	1994 Feb 20 08:01	1° \mathcal{H} 27'20	3°43'22
desc. node	1993 Mar 26 07:08	10° \mathcal{H} 56'14		minimum elong	1994 Feb 20 07:40	1° \mathcal{H} 28'19	3°43'22
morning max el	1993 Apr 05 17:40	18° \mathcal{H} 12'05	27°47'55		1994 Feb 21 15:16	30° \mathcal{R} \approx	
	1993 Apr 15 15:18	0° \mathcal{V}		min. Earth dist.	1994 Feb 22 19:38	28° \approx 42'07	0.63520 AU
	1993 May 03 21:54	0° \mathcal{B}		morning rise	1994 Feb 26 07:46	25° \approx 22'00	
morning set	1993 May 08 17:07	9° \mathcal{B} 30'13		direct	1994 Mar 05 05:49	22° \approx 37'32	

desc. node	1994 Mar 13 04:12	25° \approx 32'53		minimum elong	1995 Feb 03 21:17	14° \approx 44'26	3°32'49
	1994 Mar 18 12:03	0° H		min. Earth dist.	1995 Feb 05 19:05	12° \approx 25'06	0.65163 AU
morning max el	1994 Mar 19 01:27	0° H 33'02	27°41'07	morning rise	1995 Feb 09 13:06	8° \approx 28'08	
	1994 Apr 09 16:30	0° Y		direct	1995 Feb 16 05:06	5° \approx 37'16	
morning set	1994 Apr 22 14:55	23° Y 36'29		desc. node	1995 Feb 28 01:16	12° \approx 00'37	
	1994 Apr 25 18:27	0° X		morning max el	1995 Mar 01 11:07	13° \approx 22'58	27°00'53
max. Earth dist.	1994 Apr 27 20:30	4° X 21'24	1.33016 AU		1995 Mar 14 21:35	0° H	
					1995 Apr 02 07:29	0° Y	
superior conj	1994 Apr 30 10:21	9° X 50'43	0°-14'-51	morning set	1995 Apr 06 02:59	7° Y 10'06	
minimum elong	1994 Apr 30 11:04	9° X 54'38	0°14'43	max. Earth dist.	1995 Apr 10 15:28	16° Y 05'54	1.34086 AU
behind sun begin	1994 Apr 30 09:01	9° X 43'38					
behind sun end	1994 Apr 30 13:07	10° X 05'37		superior conj	1995 Apr 14 12:49	24° Y 06'42	0°-42'-46
asc. node	1994 May 01 20:17	12° X 53'25		minimum elong	1995 Apr 14 14:58	24° Y 18'01	0°42'21
evening rise	1994 May 07 13:08	25° X 08'24			1995 Apr 17 07:54	0° X	
	1994 May 09 21:08	0° II		asc. node	1995 Apr 18 17:21	2° X 57'06	
	1994 May 28 14:52	0° S		evening rise	1995 Apr 21 23:31	9° X 48'46	
evening max el	1994 May 30 06:47	1° S 41'51	23°07'29		1995 May 02 15:18	0° II	
desc. node	1994 Jun 09 03:24	7° S 55'08		evening max el	1995 May 12 02:02	12° II 20'27	21°34'23
retrograde	1994 Jun 12 17:49	8° S 24'40		retrograde	1995 May 24 09:02	18° II 21'42	
evening set	1994 Jun 16 08:36	7° S 56'00		evening set	1995 May 26 20:25	18° II 07'51	
min. Earth dist.	1994 Jun 23 16:14	4° S 38'12	0.55614 AU	desc. node	1995 May 27 00:26	18° II 05'57	
inferior conj	1994 Jun 25 09:57	3° S 37'20	-4°-8'-2	inferior conj	1995 Jun 05 05:38	14° II 07'10	-2°-36'-14
minimum elong	1994 Jun 25 02:38	3° S 48'02	4°06'30	minimum elong	1995 Jun 04 22:43	14° II 16'51	2°33'59
	1994 Jul 02 23:18	30° R II		min. Earth dist.	1995 Jun 05 04:17	14° II 09'03	0.54932 AU
morning rise	1994 Jul 03 23:45	29° II 44'16		morning rise	1995 Jun 14 01:43	10° II 11'26	
direct	1994 Jul 06 19:43	29° II 25'06		direct	1995 Jun 17 06:58	9° II 48'46	
	1994 Jul 10 12:41	0° S		morning max el	1995 Jun 29 15:53	15° II 39'11	22°01'20
morning max el	1994 Jul 17 14:24	4° S 24'40	20°31'29		1995 Jul 10 16:58	0° S	
asc. node	1994 Jul 28 19:31	19° S 42'35		asc. node	1995 Jul 15 16:36	8° S 54'03	
	1994 Aug 03 06:09	0° Q		morning set	1995 Jul 20 19:39	19° S 11'49	
morning set	1994 Aug 05 09:57	4° Q 22'08			1995 Jul 25 22:19	0° Q	
superior conj	1994 Aug 13 00:54	20° Q 04'12	1°45'10	superior conj	1995 Jul 28 02:09	4° Q 33'52	1°39'00
minimum elong	1994 Aug 13 00:20	20° Q 01'19	1°45'09	minimum elong	1995 Jul 28 00:26	4° Q 24'51	1°38'53
max. Earth dist.	1994 Aug 17 23:27	29° Q 53'49	1.36173 AU	max. Earth dist.	1995 Jul 31 14:14	11° Q 50'02	1.34602 AU
	1994 Aug 18 00:44	0° P		evening rise	1995 Aug 05 05:05	21° Q 01'22	
evening rise	1994 Aug 22 00:33	7° P 33'34			1995 Aug 10 00:13	0° P	
	1994 Sep 04 04:55	0° A		desc. node	1995 Aug 22 23:44	21° P 23'00	
desc. node	1994 Sep 05 02:44	1° A 24'42			1995 Aug 29 02:07	0° A	
evening max el	1994 Sep 26 16:12	29° A 20'19	26°08'07	evening max el	1995 Sep 09 04:35	12° A 54'24	26°58'23
	1994 Sep 27 08:51	0° M		retrograde	1995 Sep 22 09:15	20° A 11'06	
retrograde	1994 Oct 09 06:44	6° M 28'57		evening set	1995 Sep 29 03:49	17° A 28'57	
evening set	1994 Oct 15 12:50	3° M 53'58		min. Earth dist.	1995 Oct 03 02:39	13° A 34'14	0.65473 AU
	1994 Oct 19 06:20	30° R A		inferior conj	1995 Oct 05 01:17	11° A 20'13	-2°-11'-30
min. Earth dist.	1994 Oct 19 18:41	29° A 22'23	0.66571 AU	minimum elong	1995 Oct 05 04:48	11° A 10'06	2°10'10
inferior conj	1994 Oct 21 05:17	27° A 34'57	-1°-12'-59	morning rise	1995 Oct 11 07:19	5° A 40'26	
minimum elong	1994 Oct 21 07:12	27° A 28'59	1°12'11	asc. node	1995 Oct 11 15:49	5° A 30'38	
asc. node	1994 Oct 24 18:44	23° A 31'31		direct	1995 Oct 14 00:47	4° A 59'46	
morning rise	1994 Oct 27 02:36	21° A 42'32		morning max el	1995 Oct 20 13:43	8° A 32'16	18°14'39
direct	1994 Oct 30 04:05	20° A 48'54			1995 Nov 04 08:50	0° M	
morning max el	1994 Nov 06 00:05	24° A 36'45	18°51'42	morning set	1995 Nov 08 07:45	6° M 28'07	
	1994 Nov 10 12:46	0° M		desc. node	1995 Nov 18 23:03	23° M 40'04	
morning set	1994 Nov 27 15:22	25° M 59'00			1995 Nov 22 22:46	0° X	
	1994 Nov 30 04:38	0° X					
desc. node	1994 Dec 02 02:04	2° X 58'32		superior conj	1995 Nov 23 05:26	0° X 26'18	0°-28'-19
max. Earth dist.	1994 Dec 12 22:02	19° X 58'53	1.45030 AU	minimum elong	1995 Nov 23 01:46	0° X 11'51	0°27'50
				max. Earth dist.	1995 Nov 25 17:06	4° X 21'27	1.45079 AU
superior conj	1994 Dec 14 03:16	21° X 53'50	-1°-15'-3	evening rise	1995 Dec 09 15:30	26° X 08'21	
minimum elong	1994 Dec 13 18:44	21° X 20'15	1°14'07		1995 Dec 12 02:57	0° Z	
	1994 Dec 19 06:26	0° Z		greatest brilliancy	1995 Dec 25 04:46	20° Z 01'18	-0.7m
evening rise	1994 Dec 29 13:04	16° Z 27'17			1996 Jan 01 18:06	0° \approx	
	1995 Jan 06 22:17	0° \approx		evening max el	1996 Jan 02 16:45	1° \approx 00'39	19°28'16
evening max el	1995 Jan 19 08:48	17° \approx 31'56	18°43'52	asc. node	1996 Jan 07 15:05	4° \approx 41'41	
asc. node	1995 Jan 20 18:02	18° \approx 50'16		retrograde	1996 Jan 09 21:51	5° \approx 10'09	
retrograde	1995 Jan 26 01:16	21° \approx 15'53		evening set	1996 Jan 13 07:58	4° \approx 01'39	
evening set	1995 Jan 29 04:17	20° \approx 20'16			1996 Jan 17 09:37	30° R Z	
inferior conj	1995 Feb 03 23:00	14° \approx 39'10	3°33'03	inferior conj	1996 Jan 18 21:40	28° Z 04'52	3°09'46

minimum elong	1996 Jan 18 19:12	28°☿12'53	3°09'14	inferior conj	1997 Jan 02 01:22	11°☿41'04	2°36'35
min. Earth dist.	1996 Jan 20 02:53	26°☿29'46	0.66409 AU	minimum elong	1997 Jan 01 22:44	11°☿49'59	2°35'49
morning rise	1996 Jan 24 05:41	21°☿50'49		min. Earth dist.	1997 Jan 02 17:17	10°☿46'58	0.67252 AU
direct	1996 Jan 30 10:17	19°☿06'49		morning rise	1997 Jan 07 06:24	5°☿25'51	
morning max el	1996 Feb 11 20:23	26°☿29'14	25°54'45	direct	1997 Jan 12 20:41	2°☿58'06	
desc. node	1996 Feb 14 22:18	29°☿47'25		morning max el	1997 Jan 24 04:54	9°☿44'01	24°32'21
	1996 Feb 15 02:44	0°≈		desc. node	1997 Jan 31 19:19	18°☿30'37	
	1996 Mar 07 11:53	0°✕			1997 Feb 09 05:53	0°≈	
morning set	1996 Mar 19 01:04	19°✕57'35			1997 Feb 28 03:54	0°✕	
max. Earth dist.	1996 Mar 22 22:51	27°✕19'14	1.35617 AU	morning set	1997 Mar 01 03:47	1°✕44'12	
	1996 Mar 24 08:03	0°☿		max. Earth dist.	1997 Mar 04 20:54	8°✕22'13	1.37540 AU
superior conj	1996 Mar 28 07:37	7°☿54'46	-1°-10'-14	superior conj	1997 Mar 11 15:34	21°✕06'21	-1°-35'-11
minimum elong	1996 Mar 28 11:06	8°☿12'24	1°09'40	minimum elong	1997 Mar 11 19:50	21°✕27'01	1°34'40
asc. node	1996 Apr 04 14:23	22°☿50'59			1997 Mar 16 04:13	0°☿	
evening rise	1996 Apr 05 06:22	24°☿12'47		evening rise	1997 Mar 20 07:21	8°☿13'50	
	1996 Apr 08 03:16	0°♄		asc. node	1997 Mar 22 11:25	12°☿30'30	
evening max el	1996 Apr 23 07:48	23°♄30'05	20°14'26		1997 Apr 01 13:45	0°♄	
retrograde	1996 May 03 22:40	28°♄38'36		evening max el	1997 Apr 06 01:07	5°♄19'12	19°13'06
evening set	1996 May 05 23:44	28°♄27'59		retrograde	1997 Apr 15 00:01	9°♄39'20	
desc. node	1996 May 12 21:29	25°♄44'23		evening set	1997 Apr 17 02:26	9°♄26'02	
inferior conj	1996 May 15 01:12	24°♄29'35	0°-37'-43	inferior conj	1997 Apr 25 10:32	5°♄15'28	1°13'12
minimum elong	1996 May 14 23:27	24°♄32'12	0°37'05	minimum elong	1997 Apr 25 13:21	5°♄10'43	1°12'15
min. Earth dist.	1996 May 16 17:12	23°♄30'38	0.55204 AU	min. Earth dist.	1997 Apr 28 08:06	3°♄19'02	0.56373 AU
morning rise	1996 May 23 20:56	20°♄12'16		desc. node	1997 Apr 29 18:31	2°♄25'11	
direct	1996 May 27 19:02	19°♄38'56		morning rise	1997 May 03 20:12	0°♄24'13	
morning max el	1996 Jun 10 08:52	26°♄17'48	23°42'27		1997 May 05 01:48	30°♄☿	
	1996 Jun 13 21:45	0°♄		direct	1997 May 08 18:05	29°☿28'28	
asc. node	1996 Jul 01 13:39	28°♄28'30			1997 May 12 10:25	0°♄	
	1996 Jul 02 07:37	0°♄		morning max el	1997 May 22 23:18	6°♄44'24	25°21'46
morning set	1996 Jul 04 07:13	4°♄07'18			1997 Jun 08 23:25	0°♄	
superior conj	1996 Jul 11 09:01	19°♄19'51	1°27'11	asc. node	1997 Jun 18 10:40	18°♄19'27	
minimum elong	1996 Jul 11 06:42	19°♄07'25	1°26'55	morning set	1997 Jun 18 18:59	19°♄03'12	
max. Earth dist.	1996 Jul 13 14:20	24°♄05'24	1.33415 AU		1997 Jun 23 20:41	0°♄	
	1996 Jul 16 09:56	0°♄		superior conj	1997 Jun 25 19:14	4°♄14'52	1°10'42
evening rise	1996 Jul 18 21:40	5°♄04'15		minimum elong	1997 Jun 25 16:51	4°♄01'51	1°10'19
	1996 Aug 01 16:17	0°♄		max. Earth dist.	1997 Jun 26 21:48	6°♄39'59	1.32628 AU
desc. node	1996 Aug 08 20:46	10°♄51'39		evening rise	1997 Jul 02 22:46	19°♄31'43	
evening max el	1996 Aug 21 16:09	26°♄11'36	27°23'59		1997 Jul 08 05:28	0°♄	
	1996 Aug 26 05:17	0°♄		desc. node	1997 Jul 26 17:48	29°♄37'49	
retrograde	1996 Sep 04 05:47	3°♄29'21			1997 Jul 27 00:42	0°♄	
evening set	1996 Sep 11 08:53	0°♄49'01		evening max el	1997 Aug 04 00:30	8°♄57'55	27°19'11
	1996 Sep 12 09:32	30°♄☿		retrograde	1997 Aug 17 19:49	16°♄13'53	
min. Earth dist.	1996 Sep 15 01:44	27°♄29'32	0.64019 AU	evening set	1997 Aug 25 00:21	13°♄47'29	
inferior conj	1996 Sep 17 13:05	24°♄54'47	-3°-8'-38	min. Earth dist.	1997 Aug 28 14:27	10°♄56'22	0.62233 AU
minimum elong	1996 Sep 17 17:56	24°♄42'07	3°07'04	inferior conj	1997 Aug 31 13:43	8°♄11'01	-4°00'-29
morning rise	1996 Sep 24 05:07	19°♄31'13		minimum elong	1997 Aug 31 19:04	7°♄58'34	3°59'11
direct	1996 Sep 26 17:08	18°♄59'53		morning rise	1997 Sep 07 16:30	3°♄07'05	
asc. node	1996 Sep 27 12:51	19°♄03'19		direct	1997 Sep 10 01:42	2°♄42'03	
morning max el	1996 Oct 03 05:48	22°♄25'39	17°54'51	asc. node	1997 Sep 14 09:53	4°♄07'33	
	1996 Oct 09 03:13	0°♄		morning max el	1997 Sep 16 21:19	6°♄09'27	17°53'08
morning set	1996 Oct 20 03:32	18°♄17'22			1997 Oct 02 05:38	0°♄	
	1996 Oct 27 01:01	0°♄		morning set	1997 Oct 02 20:35	1°♄07'15	
superior conj	1996 Nov 01 23:55	9°♄50'26	0°19'09	superior conj	1997 Oct 13 21:02	20°♄33'34	0°57'56
minimum elong	1996 Nov 02 02:02	9°♄59'02	0°18'52	minimum elong	1997 Oct 14 01:33	20°♄52'48	0°57'22
desc. node	1996 Nov 04 20:04	14°♄26'15			1997 Oct 19 12:08	0°♄	
max. Earth dist.	1996 Nov 07 11:35	18°♄40'23	1.44396 AU	max. Earth dist.	1997 Oct 21 02:03	2°♄35'12	1.43073 AU
	1996 Nov 14 16:36	0°♄		desc. node	1997 Oct 22 17:05	5°♄13'27	
evening rise	1996 Nov 18 02:15	5°♄15'36		evening rise	1997 Oct 28 12:28	14°♄26'27	
	1996 Dec 04 13:48	0°♄			1997 Nov 07 17:42	0°♄	
greatest brilliancy	1996 Dec 09 17:10	7°☿09'44	-0.5m	greatest brilliancy	1997 Nov 23 19:41	22°♄25'43	-0.4m
evening max el	1996 Dec 15 19:40	14°☿30'32	20°27'26	evening max el	1997 Nov 28 16:50	28°♄00'40	21°38'24
retrograde	1996 Dec 23 19:46	19°☿13'33			1997 Nov 30 19:12	0°☿	
asc. node	1996 Dec 24 12:07	19°☿10'57		retrograde	1997 Dec 07 16:56	3°☿22'11	
evening set	1996 Dec 27 14:36	17°☿50'42		asc. node	1997 Dec 11 09:09	2°☿07'52	

evening set	1997 Dec 11 22:21	1°☿43'34		evening set	1998 Nov 26 05:34	15°♊37'59	
	1997 Dec 13 18:07	30°♊18'		asc. node	1998 Nov 28 06:10	13°♊37'39	
inferior conj	1997 Dec 17 07:54	25°♊24'34	1°55'37	inferior conj	1998 Dec 01 15:23	9°♊13'34	1°08'24
minimum elong	1997 Dec 17 05:37	25°♊32'28	1°54'48	minimum elong	1998 Dec 01 13:52	9°♊18'48	1°07'47
min. Earth dist.	1997 Dec 17 12:01	25°♊10'17	0.67716 AU	min. Earth dist.	1998 Dec 01 08:42	9°♊36'37	0.67831 AU
morning rise	1997 Dec 22 12:37	19°♊10'03		morning rise	1998 Dec 06 22:09	3°♊01'53	
direct	1997 Dec 27 11:41	17°♊03'34		direct	1998 Dec 11 06:29	1°♊18'12	
morning max el	1998 Jan 06 14:17	23°♊03'39	23°03'48	morning max el	1998 Dec 20 03:54	6°♊30'44	21°38'15
greatest brilliancy	1998 Jan 11 10:48	28°♊29'17	-0.3m	greatest brilliancy	1998 Dec 25 02:03	12°♊05'48	-0.4m
	1998 Jan 12 16:20	0°☿		desc. node	1999 Jan 05 13:22	27°♊46'02	
desc. node	1998 Jan 18 16:20	7°☿53'48			1999 Jan 07 02:04	0°☿	
	1998 Feb 02 15:15	0°♊		morning set	1999 Jan 21 00:45	21°☿19'47	
morning set	1998 Feb 10 04:52	12°♊13'40			1999 Jan 26 09:32	0°♊	
max. Earth dist.	1998 Feb 14 15:48	19°♊46'56	1.39675 AU	max. Earth dist.	1999 Jan 27 15:03	2°♊01'45	1.41760 AU
	1998 Feb 20 10:22	0°♋					
superior conj	1998 Feb 22 08:29	3°♋30'35	-1°-54'-39	superior conj	1999 Feb 04 05:20	14°♊55'54	-2°-4'-34
minimum elong	1998 Feb 22 12:13	3°♋47'49	1°54'25	minimum elong	1999 Feb 04 06:18	15°♊00'07	2°04'35
evening rise	1998 Mar 03 23:34	21°♋43'56			1999 Feb 12 15:28	0°♋	
	1998 Mar 08 08:28	0°♌		evening rise	1999 Feb 15 03:29	4°♋34'56	
asc. node	1998 Mar 09 08:27	1°♌49'58		asc. node	1999 Feb 24 05:29	20°♋42'29	
evening max el	1998 Mar 20 03:55	17°♌44'05	18°31'57		1999 Mar 02 22:50	0°♌	
retrograde	1998 Mar 27 19:42	21°♌29'40		evening max el	1999 Mar 03 13:01	0°♌36'04	18°10'44
evening set	1998 Mar 30 03:27	21°♌10'01		retrograde	1999 Mar 10 09:11	4°♌03'15	
inferior conj	1998 Apr 06 16:35	16°♌40'28	2°34'16	evening set	1999 Mar 12 22:32	3°♌34'56	
minimum elong	1998 Apr 06 20:34	16°♌32'36	2°33'15		1999 Mar 18 09:23	30°♌18'	
min. Earth dist.	1998 Apr 10 02:41	14°♌00'08	0.58188 AU	inferior conj	1999 Mar 19 19:14	28°♌44'06	3°21'55
morning rise	1998 Apr 14 09:25	11°♌17'08		minimum elong	1999 Mar 19 21:56	28°♌37'55	3°21'32
desc. node	1998 Apr 16 15:31	10°♌22'07		min. Earth dist.	1999 Mar 23 02:57	25°♌43'10	0.60315 AU
direct	1998 Apr 20 07:31	9°♌47'28		morning rise	1999 Mar 26 17:59	22°♌58'15	
morning max el	1998 May 04 16:45	17°♌26'47	26°43'35	direct	1999 Apr 02 09:19	20°♌52'17	
	1998 May 15 02:10	0°♍		desc. node	1999 Apr 03 12:34	20°♌55'51	
	1998 Jun 01 08:07	0°♎		morning max el	1999 Apr 16 16:03	28°♌43'33	27°34'58
morning set	1998 Jun 03 05:21	3°♎54'15			1999 Apr 17 22:09	0°♌	
asc. node	1998 Jun 05 07:42	8°♎21'40			1999 May 08 21:22	0°♍	
superior conj	1998 Jun 10 06:57	19°♎12'46	0°50'23	morning set	1999 May 18 12:31	18°♍33'10	
minimum elong	1998 Jun 10 04:58	19°♎01'50	0°49'59	asc. node	1999 May 23 04:44	28°♍29'33	
max. Earth dist.	1998 Jun 10 09:20	19°♎25'55	1.32229 AU		1999 May 23 21:22	0°♎	
	1998 Jun 15 05:33	0°☿		max. Earth dist.	1999 May 24 21:14	2°♎10'25	1.32218 AU
evening rise	1998 Jun 17 05:38	4°☿15'19					
	1998 Jun 30 23:52	0°♏		superior conj	1999 May 25 18:22	4°♎06'18	0°26'52
desc. node	1998 Jul 13 14:49	17°♏24'07		minimum elong	1999 May 25 17:11	3°♎59'49	0°26'36
evening max el	1998 Jul 17 03:17	21°♏02'47	26°41'17	evening rise	1999 Jun 01 15:54	19°♎06'17	
retrograde	1998 Jul 31 02:28	28°♏16'03			1999 Jun 07 00:18	0°☿	
evening set	1998 Aug 06 21:48	26°♏17'21			1999 Jun 26 15:39	0°♏	
min. Earth dist.	1998 Aug 10 17:01	23°♏40'51	0.60217 AU	evening max el	1999 Jun 28 23:06	2°♏20'59	25°32'45
inferior conj	1998 Aug 13 23:47	21°♏00'43	-4°-40'-27	desc. node	1999 Jun 30 11:51	3°♏44'50	
minimum elong	1998 Aug 14 03:55	20°♏52'17	4°39'54	retrograde	1999 Jul 12 23:33	9°♏29'25	
morning rise	1998 Aug 21 13:21	16°♏19'01		evening set	1999 Jul 18 20:34	8°♏08'23	
direct	1998 Aug 23 22:35	15°♏57'42		min. Earth dist.	1999 Jul 23 11:15	5°♏28'26	0.58171 AU
morning max el	1998 Aug 31 09:12	19°♏35'56	18°10'34	inferior conj	1999 Jul 26 15:48	3°♏13'30	-4°-58'-14
asc. node	1998 Sep 01 06:54	20°♏31'05		minimum elong	1999 Jul 26 16:11	3°♏12'49	4°58'15
	1998 Sep 08 01:58	0°♐			1999 Jul 31 18:44	30°♐18'	
morning set	1998 Sep 16 05:04	14°♐41'37		morning rise	1999 Aug 03 15:26	28°☿54'33	
	1998 Sep 24 10:13	0°♑		direct	1999 Aug 06 03:27	28°☿35'02	
superior conj	1998 Sep 25 19:50	2°♑32'22	1°24'44		1999 Aug 11 04:25	0°♑	
minimum elong	1998 Sep 25 23:48	2°♑50'13	1°24'20	morning max el	1999 Aug 14 14:09	2°♑34'48	18°48'29
max. Earth dist.	1998 Oct 03 10:47	15°♑51'16	1.41282 AU	asc. node	1999 Aug 19 03:57	7°♑58'00	
evening rise	1998 Oct 08 14:19	24°♑22'26		morning set	1999 Aug 31 00:25	28°♑47'21	
desc. node	1998 Oct 09 14:07	25°♑58'33			1999 Aug 31 15:15	0°♐	
	1998 Oct 12 02:44	0°♒		superior conj	1999 Sep 08 14:58	15°♐31'04	1°40'03
	1998 Nov 01 16:03	0°♓		minimum elong	1999 Sep 08 17:09	15°♐41'29	1°39'55
greatest brilliancy	1998 Nov 06 01:17	5°♓34'48	-0.2m	max. Earth dist.	1999 Sep 15 15:20	28°♐24'44	1.39253 AU
evening max el	1998 Nov 11 09:04	11°♓33'18	22°56'42		1999 Sep 16 12:53	0°♑	
retrograde	1998 Nov 21 11:46	17°♓33'23		evening rise	1999 Sep 19 15:39	5°♑23'41	
				desc. node	1999 Sep 26 11:10	16°♑37'17	
					1999 Oct 05 05:12	0°♒	

evening max el	1999 Oct 24 22:15	25°♄10'01	24°16'35		2000 Aug 22 10:11	0°♄	
	1999 Oct 30 20:09	0°♄		max. Earth dist.	2000 Aug 27 19:55	10°♄26'24	1.37241 AU
retrograde	1999 Nov 05 02:59	1°♄43'35		evening rise	2000 Aug 31 16:10	17°♄30'07	
	1999 Nov 09 20:13	30°♄			2000 Sep 07 22:22	0°♄	
evening set	1999 Nov 10 10:40	29°♄31'10		desc. node	2000 Sep 12 08:11	7°♄05'13	
min. Earth dist.	1999 Nov 15 04:53	24°♄03'26	0.67607 AU		2000 Sep 28 13:28	0°♄	
asc. node	1999 Nov 15 03:12	24°♄09'05		evening max el	2000 Oct 06 10:19	8°♄49'40	25°30'51
inferior conj	1999 Nov 15 22:05	23°♄05'35	0°16'14	retrograde	2000 Oct 18 13:41	15°♄47'57	
minimum elong	1999 Nov 15 21:41	23°♄06'54	0°16'03	evening set	2000 Oct 24 11:53	13°♄20'03	
transit middle	1999 Nov 15 21:41	23°♄06'54	0°16'03	min. Earth dist.	2000 Oct 28 22:06	8°♄27'42	0.67052 AU
transit begin	1999 Nov 15 21:15	23°♄08'22		inferior conj	2000 Oct 30 02:09	6°♄57'33	0°-39'-40
transit end	1999 Nov 15 22:07	23°♄05'27		minimum elong	2000 Oct 30 03:10	6°♄54'16	0°39'15
morning rise	1999 Nov 21 09:00	16°♄59'17		asc. node	2000 Nov 01 00:16	4°♄33'32	
direct	1999 Nov 25 03:55	15°♄37'19		morning rise	2000 Nov 04 19:11	0°♄59'24	
morning max el	1999 Dec 03 00:43	20°♄08'36	20°22'32		2000 Nov 07 07:27	30°♄	
greatest brilliancy	1999 Dec 09 11:09	27°♄48'29	-0.5m	direct	2000 Nov 08 02:28	29°♄56'26	
	1999 Dec 11 02:09	0°♄			2000 Nov 08 21:43	0°♄	
desc. node	1999 Dec 23 10:25	17°♄59'18		morning max el	2000 Nov 15 05:22	3°♄56'43	19°20'25
morning set	1999 Dec 30 23:24	29°♄31'19		greatest brilliancy	2000 Nov 24 17:06	16°♄10'32	-0.7m
	1999 Dec 31 06:48	0°♄			2000 Dec 03 20:26	0°♄	
max. Earth dist.	2000 Jan 09 22:33	15°♄13'52	1.43503 AU	morning set	2000 Dec 08 23:40	7°♄56'47	
				desc. node	2000 Dec 09 07:27	8°♄26'59	
superior conj	2000 Jan 16 01:19	25°♄12'16	-1°-59'-57	max. Earth dist.	2000 Dec 22 13:05	29°♄08'43	1.44674 AU
minimum elong	2000 Jan 15 21:09	24°♄55'01	1°59'47		2000 Dec 23 02:03	0°♄	
	2000 Jan 18 22:20	0°♄					
evening rise	2000 Jan 28 15:00	16°♄39'09		superior conj	2000 Dec 25 19:23	4°♄19'15	-1°-36'-43
	2000 Feb 05 08:09	0°♄		minimum elong	2000 Dec 25 10:50	3°♄45'11	1°35'58
asc. node	2000 Feb 11 02:32	9°♄00'00		evening rise	2001 Jan 09 05:46	27°♄48'27	
evening max el	2000 Feb 15 01:15	13°♄46'50	18°08'55		2001 Jan 10 13:26	0°♄	
retrograde	2000 Feb 21 12:46	17°♄10'42		asc. node	2001 Jan 27 23:35	26°♄31'20	
evening set	2000 Feb 24 07:13	16°♄32'26		evening max el	2001 Jan 28 13:38	27°♄08'07	18°25'53
inferior conj	2000 Mar 01 15:11	11°♄20'33	3°41'46		2001 Feb 01 07:13	0°♄	
minimum elong	2000 Mar 01 15:53	11°♄18'43	3°41'44	retrograde	2001 Feb 04 01:58	0°♄41'41	
min. Earth dist.	2000 Mar 04 11:16	8°♄23'59	0.62420 AU		2001 Feb 06 19:57	30°♄	
morning rise	2000 Mar 07 22:17	5°♄20'46		evening set	2001 Feb 07 01:37	29°♄52'38	
direct	2000 Mar 14 20:39	2°♄46'44		inferior conj	2001 Feb 13 00:17	24°♄21'18	3°40'48
desc. node	2000 Mar 20 09:37	4°♄12'34		minimum elong	2001 Feb 12 23:16	24°♄24'13	3°40'43
morning max el	2000 Mar 28 21:13	10°♄42'02	27°49'30	min. Earth dist.	2001 Feb 15 05:10	21°♄48'18	0.64268 AU
	2000 Apr 13 00:17	0°♄		morning rise	2001 Feb 18 19:29	18°♄13'13	
	2000 Apr 30 03:53	0°♄		direct	2001 Feb 25 15:41	15°♄24'37	
morning set	2000 May 01 14:26	2°♄53'22		desc. node	2001 Mar 07 06:39	19°♄40'35	
max. Earth dist.	2000 May 07 05:42	14°♄40'49	1.32608 AU	morning max el	2001 Mar 11 06:10	23°♄16'39	27°27'46
					2001 Mar 17 06:05	0°♄	
superior conj	2000 May 09 03:50	18°♄49'54	0°00'54		2001 Apr 06 07:14	0°♄	
minimum elong	2000 May 09 03:47	18°♄49'39	0°00'53	morning set	2001 Apr 15 08:29	16°♄46'25	
behind sun begin	2000 May 08 22:37	18°♄21'38		max. Earth dist.	2001 Apr 20 06:49	26°♄44'55	1.33421 AU
behind sun end	2000 May 09 08:57	19°♄17'43			2001 Apr 21 20:08	0°♄	
asc. node	2000 May 09 01:49	18°♄39'00					
	2000 May 14 07:10	0°♄		superior conj	2001 Apr 23 09:24	3°♄17'09	0°-26'-40
evening rise	2000 May 16 03:42	3°♄58'05		minimum elong	2001 Apr 23 10:44	3°♄24'13	0°26'23
	2000 May 30 04:27	0°♄		asc. node	2001 Apr 25 22:53	8°♄45'39	
evening max el	2000 Jun 09 13:32	13°♄01'28	24°02'57	evening rise	2001 Apr 30 15:07	18°♄44'03	
desc. node	2000 Jun 16 08:52	18°♄07'07			2001 May 06 04:53	0°♄	
retrograde	2000 Jun 23 08:32	19°♄57'43		evening max el	2001 May 22 04:33	23°♄30'12	22°26'44
evening set	2000 Jun 27 20:12	19°♄13'12		desc. node	2001 Jun 03 05:52	29°♄55'40	
min. Earth dist.	2000 Jul 04 00:16	16°♄13'13	0.56391 AU	retrograde	2001 Jun 04 05:22	29°♄57'51	
inferior conj	2000 Jul 06 11:35	14°♄41'46	-4°-39'-53	evening set	2001 Jun 07 06:55	29°♄37'09	
minimum elong	2000 Jul 06 06:35	14°♄49'31	4°39'15	min. Earth dist.	2001 Jun 15 11:40	26°♄03'52	0.55212 AU
morning rise	2000 Jul 14 20:29	10°♄42'13		inferior conj	2001 Jun 16 13:26	25°♄27'22	-3°-34'-13
direct	2000 Jul 17 13:20	10°♄23'11		minimum elong	2001 Jun 16 05:30	25°♄38'37	3°32'06
morning max el	2000 Jul 27 09:17	14°♄56'50	19°47'52	morning rise	2001 Jun 25 06:27	21°♄36'00	
asc. node	2000 Aug 05 01:02	26°♄14'25		direct	2001 Jun 28 05:49	21°♄15'55	
	2000 Aug 07 05:42	0°♄		morning max el	2001 Jul 09 17:04	26°♄35'57	21°07'53
morning set	2000 Aug 14 03:15	13°♄15'42			2001 Jul 12 22:47	0°♄	
				asc. node	2001 Jul 22 22:06	15°♄08'36	
superior conj	2000 Aug 22 01:05	29°♄14'55	1°45'38	morning set	2001 Jul 29 11:03	27°♄59'36	
minimum elong	2000 Aug 22 01:26	29°♄16'35	1°45'38		2001 Jul 30 10:18	0°♄	

superior conj	2001 Aug 05 21:51	13°♊31'21	1°43'19	minimum elong	2002 Jul 20 23:45	27°♎58'20	1°34'27
minimum elong	2001 Aug 05 20:44	13°♊25'33	1°43'17		2002 Jul 21 22:41	0°♊	
max. Earth dist.	2001 Aug 10 05:44	22°♊17'52	1.35456 AU	max. Earth dist.	2002 Jul 24 00:16	4°♊20'10	1.34036 AU
evening rise	2001 Aug 14 11:49	0°♐31'52		evening rise	2002 Jul 28 21:54	14°♊15'52	
	2001 Aug 14 05:04	0°♐			2002 Aug 06 09:51	0°♐	
desc. node	2001 Aug 30 05:12	27°♐16'51		desc. node	2002 Aug 17 02:13	17°♐04'05	
	2001 Sep 01 00:37	0°♎			2002 Aug 26 21:10	0°♎	
evening max el	2001 Sep 18 22:24	22°♎28'02	26°32'00	evening max el	2002 Sep 01 10:24	5°♎55'54	27°12'40
retrograde	2001 Oct 01 19:23	29°♎41'10		retrograde	2002 Sep 14 19:38	13°♎14'39	
evening set	2001 Oct 08 07:18	27°♎01'55		evening set	2002 Sep 21 18:28	10°♎31'40	
min. Earth dist.	2001 Oct 12 10:00	22°♎46'22	0.66152 AU	min. Earth dist.	2002 Sep 25 14:24	6°♎52'33	0.64894 AU
inferior conj	2001 Oct 14 01:43	20°♎46'52	-1°-37'-46	inferior conj	2002 Sep 27 18:31	4°♎28'25	-2°-36'-7
minimum elong	2001 Oct 14 04:19	20°♎39'01	1°36'44	minimum elong	2002 Sep 27 22:40	4°♎16'57	2°34'37
asc. node	2001 Oct 18 21:18	15°♎47'09			2002 Oct 02 09:26	30°♎	
morning rise	2001 Oct 20 02:36	14°♎59'43		morning rise	2002 Oct 04 04:43	28°♎55'19	
direct	2001 Oct 23 00:23	14°♎12'07		asc. node	2002 Oct 05 18:20	28°♎25'02	
morning max el	2001 Oct 29 16:30	17°♎52'04	18°33'55	direct	2002 Oct 06 19:26	28°♎19'12	
	2001 Nov 07 19:53	0°♌			2002 Oct 11 05:57	0°♎	
morning set	2001 Nov 18 23:09	17°♌35'51		morning max el	2002 Oct 13 07:35	1°♎48'03	18°04'06
desc. node	2001 Nov 26 04:29	29°♌05'00		morning set	2002 Oct 31 03:47	28°♎41'05	
	2001 Nov 26 18:23	0°♏			2002 Oct 31 22:43	0°♌	
				desc. node	2002 Nov 13 01:30	19°♌49'14	
superior conj	2001 Dec 04 21:36	12°♏48'22	0°-56'-7	superior conj	2002 Nov 14 04:40	21°♌37'50	0°-7'-37
minimum elong	2001 Dec 04 14:34	12°♏20'47	0°55'16	minimum elong	2002 Nov 14 03:43	21°♌34'03	0°07'29
max. Earth dist.	2001 Dec 05 07:22	13°♏26'42	1.45145 AU	behind sun begin	2002 Nov 13 18:10	20°♌55'53	
	2001 Dec 15 19:55	0°♎		behind sun end	2002 Nov 14 13:16	22°♌12'09	
evening rise	2001 Dec 20 21:10	8°♎00'19		max. Earth dist.	2002 Nov 18 02:03	27°♌48'19	1.44873 AU
	2002 Jan 03 21:38	0°♎			2002 Nov 19 11:29	0°♏	
evening max el	2002 Jan 11 23:44	10°♎35'00	19°00'41	evening rise	2002 Nov 30 15:29	17°♏23'16	
asc. node	2002 Jan 14 20:37	13°♎03'31			2002 Dec 08 20:21	0°♎	
retrograde	2002 Jan 18 20:50	14°♎29'05		greatest brilliancy	2002 Dec 18 22:44	14°♎57'50	-0.6m
evening set	2002 Jan 22 02:38	13°♎28'10		evening max el	2002 Dec 26 05:38	24°♎04'26	19°51'46
inferior conj	2002 Jan 27 18:55	7°♎39'49	3°24'31	asc. node	2003 Jan 01 17:38	28°♎21'53	
minimum elong	2002 Jan 27 16:48	7°♎46'29	3°24'10	retrograde	2003 Jan 02 18:19	28°♎27'45	
min. Earth dist.	2002 Jan 29 08:27	5°♎41'50	0.65744 AU	evening set	2003 Jan 06 07:49	27°♎13'33	
morning rise	2002 Feb 02 06:00	1°♎26'58		inferior conj	2003 Jan 11 20:02	21°♎10'56	2°56'45
	2002 Feb 04 04:19	30°♎		minimum elong	2003 Jan 11 17:27	21°♎19'35	2°56'06
direct	2002 Feb 08 17:28	28°♎37'49		min. Earth dist.	2003 Jan 12 19:29	19°♎52'58	0.66815 AU
	2002 Feb 13 17:20	0°♎		morning rise	2003 Jan 17 02:25	14°♎55'55	
morning max el	2002 Feb 21 16:08	6°♎15'47	26°35'20	direct	2003 Jan 23 01:08	12°♎17'44	
desc. node	2002 Feb 22 03:42	6°♎45'13		morning max el	2003 Feb 04 01:04	19°♎26'59	25°20'59
	2002 Mar 11 23:34	0°♏		desc. node	2003 Feb 09 00:44	24°♎58'43	
morning set	2002 Mar 29 15:10	0°♐02'01			2003 Feb 13 01:00	0°♎	
	2002 Mar 29 14:44	0°♐			2003 Mar 05 02:04	0°♏	
max. Earth dist.	2002 Apr 02 21:05	8°♐15'39	1.34683 AU	morning set	2003 Mar 12 05:49	12°♏26'32	
				max. Earth dist.	2003 Mar 15 23:36	19°♏20'00	1.36388 AU
superior conj	2002 Apr 07 08:55	17°♐21'45	0°-54'-37	superior conj	2003 Mar 21 23:34	0°♐56'03	-1°-21'-17
minimum elong	2002 Apr 07 11:40	17°♐36'00	0°54'06	minimum elong	2003 Mar 22 03:30	1°♐15'32	1°20'43
asc. node	2002 Apr 12 19:56	28°♐45'31			2003 Mar 21 12:16	0°♐	
	2002 Apr 13 10:11	0°♏		evening rise	2003 Mar 30 04:55	17°♐33'32	
evening rise	2002 Apr 15 00:14	3°♏18'00		asc. node	2003 Mar 30 16:57	18°♐34'16	
	2002 Apr 30 07:15	0°♏			2003 Apr 05 14:37	0°♏	
evening max el	2002 May 04 03:42	4°♏19'13	20°58'15	evening max el	2003 Apr 16 14:39	15°♏46'45	19°46'00
retrograde	2002 May 15 18:50	9°♏59'11		retrograde	2003 Apr 26 11:59	20°♏33'12	
evening set	2002 May 17 23:33	9°♏47'48		evening set	2003 Apr 28 12:33	20°♏22'06	
desc. node	2002 May 21 02:54	8°♏55'25		inferior conj	2003 May 07 07:21	16°♏20'19	0°12'00
inferior conj	2002 May 27 07:09	5°♏49'53	-1°-47'-9	minimum elong	2003 May 07 07:52	16°♏19'29	0°11'48
minimum elong	2002 May 27 02:08	5°♏57'00	1°45'23	transit middle	2003 May 07 07:52	16°♏19'29	0°11'48
min. Earth dist.	2002 May 28 00:02	5°♏25'57	0.54919 AU	transit begin	2003 May 07 05:13	16°♏23'37	
morning rise	2002 Jun 05 04:10	1°♏47'05		transit end	2003 May 07 10:32	16°♏15'22	
direct	2002 Jun 08 15:11	1°♏21'16		desc. node	2003 May 07 23:56	15°♏54'31	
morning max el	2002 Jun 21 14:30	7°♏33'36	22°43'51	min. Earth dist.	2003 May 09 14:05	14°♏55'40	0.55597 AU
	2002 Jul 07 10:35	0°♎		morning rise	2003 May 15 23:52	11°♏48'53	
asc. node	2002 Jul 09 19:09	4°♎30'36		direct	2003 May 20 07:33	11°♏07'24	
morning set	2002 Jul 13 21:43	12°♎52'19		morning max el	2003 Jun 03 05:41	18°♏04'38	24°25'48
superior conj	2002 Jul 21 01:47	28°♎09'08	1°34'38				

	2003 Jun 13 01:34	0°♊		direct	2004 Apr 30 13:05	21°♑06'59	
asc. node	2003 Jun 26 16:12	24°♊13'09		morning max el	2004 May 14 20:36	28°♑33'58	25°59'31
morning set	2003 Jun 28 09:32	27°♊48'45			2004 May 16 06:54	0°♑	
	2003 Jun 29 10:17	0°♑			2004 Jun 05 12:47	0°♊	
				morning set	2004 Jun 11 20:54	12°♊43'01	
superior conj	2003 Jul 05 10:21	13°♑00'13	1°20'44	asc. node	2004 Jun 12 13:15	14°♊09'28	
minimum elong	2003 Jul 05 07:57	12°♑47'12	1°20'23				
max. Earth dist.	2003 Jul 07 03:39	16°♑43'37	1.33029 AU	superior conj	2004 Jun 18 21:24	27°♊56'59	1°02'31
evening rise	2003 Jul 12 18:31	28°♑30'54		minimum elong	2004 Jun 18 19:08	27°♊44'32	1°02'06
	2003 Jul 13 12:10	0°♊		max. Earth dist.	2004 Jun 19 13:22	29°♊24'33	1.32416 AU
	2003 Jul 30 14:05	0°♑			2004 Jun 19 19:49	0°♑	
desc. node	2003 Aug 03 23:14	6°♑16'33		evening rise	2004 Jun 25 22:24	13°♑06'20	
evening max el	2003 Aug 14 20:57	19°♑01'51	27°25'59		2004 Jul 04 14:52	0°♊	
retrograde	2003 Aug 28 13:41	26°♑19'25		desc. node	2004 Jul 20 20:16	24°♊39'40	
evening set	2003 Sep 04 18:14	23°♑43'35			2004 Jul 25 13:58	0°♑	
min. Earth dist.	2003 Sep 08 09:22	20°♑37'05	0.63291 AU	evening max el	2004 Jul 27 03:29	1°♑32'27	27°07'11
inferior conj	2003 Sep 11 01:57	17°♑56'16	-3°-31'-38	retrograde	2004 Aug 10 00:33	8°♑46'28	
minimum elong	2003 Sep 11 07:09	17°♑43'16	3°30'06	evening set	2004 Aug 17 02:35	6°♑30'38	
morning rise	2003 Sep 17 22:30	12°♑40'27		min. Earth dist.	2004 Aug 20 17:45	3°♑47'32	0.61394 AU
direct	2003 Sep 20 08:52	12°♑12'14		inferior conj	2004 Aug 23 20:51	1°♑02'33	-4°-19'-26
asc. node	2003 Sep 22 15:23	12°♑37'21		minimum elong	2004 Aug 24 01:56	0°♑51'18	4°18'25
morning max el	2003 Sep 26 23:44	15°♑38'03	17°51'48		2004 Aug 25 01:33	30°♊	
	2003 Oct 07 01:28	0°♊		morning rise	2004 Aug 31 04:12	26°♊07'28	
morning set	2003 Oct 13 09:23	10°♊58'25		direct	2004 Sep 02 13:09	25°♊44'10	
	2003 Oct 24 11:20	0°♋		asc. node	2004 Sep 08 12:25	28°♊16'55	
				morning max el	2004 Sep 09 14:01	29°♊15'04	17°58'07
superior conj	2003 Oct 25 09:58	1°♋34'14	0°36'59		2004 Sep 10 07:38	0°♑	
minimum elong	2003 Oct 25 13:33	1°♋49'07	0°36'29	morning set	2004 Sep 25 09:41	24°♑09'27	
desc. node	2003 Oct 30 22:31	10°♋36'23			2004 Sep 28 14:13	0°♊	
max. Earth dist.	2003 Oct 31 18:43	11°♋57'37	1.43905 AU				
evening rise	2003 Nov 09 23:48	26°♋26'40		superior conj	2004 Oct 05 18:29	12°♊50'54	1°10'48
	2003 Nov 12 07:19	0°♋		minimum elong	2004 Oct 05 23:01	13°♊10'41	1°10'15
	2003 Dec 02 21:34	0°♑		max. Earth dist.	2004 Oct 13 07:18	25°♊39'22	1.42357 AU
greatest brilliancy	2003 Dec 03 19:22	1°♑11'01	-0.5m		2004 Oct 15 22:57	0°♋	
evening max el	2003 Dec 09 06:11	7°♑34'57	20°56'29	desc. node	2004 Oct 16 19:33	1°♋23'21	
retrograde	2003 Dec 17 16:01	12°♑33'45		evening rise	2004 Oct 19 15:08	5°♋53'19	
asc. node	2003 Dec 19 14:38	12°♑12'43			2004 Nov 04 14:40	0°♋	
evening set	2003 Dec 21 15:07	11°♑04'31		greatest brilliancy	2004 Nov 16 08:08	15°♋48'13	-0.3m
inferior conj	2003 Dec 27 01:11	4°♑50'45	2°20'04	evening max el	2004 Nov 21 01:16	21°♋07'05	22°11'10
minimum elong	2003 Dec 26 22:39	4°♑59'27	2°19'15	retrograde	2004 Nov 30 12:17	26°♋44'38	
min. Earth dist.	2003 Dec 27 12:01	4°♑13'33	0.67498 AU	evening set	2004 Dec 04 22:51	24°♋58'53	
	2003 Dec 30 19:53	30°♋		asc. node	2004 Dec 05 11:39	24°♋31'35	
morning rise	2004 Jan 01 05:47	28°♋35'34		inferior conj	2004 Dec 10 08:22	18°♋37'17	1°36'18
direct	2004 Jan 06 13:44	26°♋16'11		minimum elong	2004 Dec 10 06:21	18°♋44'15	1°35'32
	2004 Jan 14 11:02	0°♑		min. Earth dist.	2004 Dec 10 07:47	18°♋39'16	0.67810 AU
morning max el	2004 Jan 17 09:21	2°♑43'08	23°54'45	morning rise	2004 Dec 15 13:41	12°♋23'58	
desc. node	2004 Jan 26 21:45	14°♑00'46		direct	2004 Dec 20 06:29	10°♋27'07	
	2004 Feb 07 04:20	0°♋		morning max el	2004 Dec 29 20:06	16°♋05'58	22°26'39
morning set	2004 Feb 21 22:19	23°♋42'08		greatest brilliancy	2005 Jan 03 09:47	21°♋12'28	-0.3m
	2004 Feb 25 12:58	0°♋			2005 Jan 10 04:09	0°♑	
max. Earth dist.	2004 Feb 25 19:01	0°♋26'50	1.38438 AU	desc. node	2005 Jan 12 18:47	3°♑37'58	
					2005 Jan 30 05:37	0°♋	
superior conj	2004 Mar 04 01:43	13°♋49'22	-1°-44'-20	morning set	2005 Feb 01 11:03	3°♋36'01	
minimum elong	2004 Mar 04 05:58	14°♋09'33	1°43'56	max. Earth dist.	2005 Feb 06 15:41	12°♋13'49	1.40595 AU
	2004 Mar 12 09:44	0°♑					
evening rise	2004 Mar 13 02:33	1°♑22'22		superior conj	2005 Feb 14 10:50	25°♋50'54	-2°00'-18
asc. node	2004 Mar 16 13:59	8°♑06'03		minimum elong	2005 Feb 14 13:43	26°♋03'54	2°00'12
evening max el	2004 Mar 29 12:27	27°♑52'31	18°53'09		2005 Feb 16 17:46	0°♋	
	2004 Apr 01 02:27	0°♑		evening rise	2005 Feb 24 14:04	14°♋37'37	
retrograde	2004 Apr 06 20:27	1°♑55'30		asc. node	2005 Mar 03 11:01	27°♋15'15	
evening set	2004 Apr 09 01:11	1°♑39'45			2005 Mar 05 01:34	0°♑	
	2004 Apr 13 01:23	30°♋		evening max el	2005 Mar 12 18:20	10°♑30'13	18°20'24
inferior conj	2004 Apr 17 01:05	27°♑21'45	1°51'46	retrograde	2005 Mar 20 00:14	14°♑06'03	
minimum elong	2004 Apr 17 04:49	27°♑15'02	1°50'37	evening set	2005 Mar 22 10:31	13°♑42'49	
min. Earth dist.	2004 Apr 20 06:12	25°♑04'21	0.57091 AU	inferior conj	2005 Mar 29 16:11	9°♑03'52	2°58'19
desc. node	2004 Apr 23 20:57	22°♑52'40		minimum elong	2005 Mar 29 19:49	8°♑56'13	2°57'33
morning rise	2004 Apr 25 04:08	22°♑16'19		min. Earth dist.	2005 Apr 02 02:36	6°♑12'00	0.59084 AU

morning rise	2005 Apr 06 01:15	3°♊29'52		morning rise	2006 Mar 18 18:23	15°♋30'03	
desc. node	2005 Apr 10 17:59	1°♊51'21		direct	2006 Mar 25 13:42	13°♋10'52	
direct	2005 Apr 12 07:46	1°♊44'44		desc. node	2006 Mar 28 15:01	13°♋36'53	
morning max el	2005 Apr 26 16:24	9°♊29'18	27°09'43	morning max el	2006 Apr 08 18:39	21°♋05'10	27°45'49
	2005 May 12 09:14	0°♋			2006 Apr 16 12:20	0°♊	
morning set	2005 May 27 06:09	27°♋29'41			2006 May 05 08:28	0°♋	
	2005 May 28 10:44	0°♌		morning set	2006 May 11 11:26	12°♌02'24	
asc. node	2005 May 30 10:18	4°♌14'38		asc. node	2006 May 17 07:22	24°♌24'08	
				max. Earth dist.	2006 May 17 12:45	24°♌53'24	1.32332 AU
superior conj	2005 Jun 03 09:12	12°♌53'29	0°40'44	superior conj	2006 May 18 20:02	27°♌44'04	0°16'05
minimum elong	2005 Jun 03 07:30	12°♌44'11	0°40'23	minimum elong	2006 May 18 19:18	27°♌40'02	0°15'56
max. Earth dist.	2005 Jun 03 01:42	12°♌12'14	1.32184 AU		2006 May 19 20:52	0°♌	
evening rise	2005 Jun 10 06:59	27°♌53'54		evening rise	2006 May 25 18:10	12°♌46'28	
	2005 Jun 11 07:03	0°♍			2006 Jun 03 11:21	0°♍	
	2005 Jun 28 04:01	0°♎		evening max el	2006 Jun 20 20:11	24°♍16'53	24°56'16
desc. node	2005 Jul 07 17:17	11°♎52'56		desc. node	2006 Jun 24 14:19	27°♍28'19	
evening max el	2005 Jul 09 03:20	13°♎17'02	26°15'23		2006 Jun 28 19:57	0°♎	
retrograde	2005 Jul 23 03:00	20°♎28'11		retrograde	2006 Jul 04 19:33	1°♎22'26	
evening set	2005 Jul 29 14:47	18°♎44'36		evening set	2006 Jul 10 03:26	0°♎17'37	
min. Earth dist.	2005 Aug 02 16:09	16°♎09'13	0.59336 AU		2006 Jul 10 20:18	30°♏♍	
inferior conj	2005 Aug 05 23:36	13°♎37'26	-4°-51'-30	min. Earth dist.	2006 Jul 15 07:37	27°♏31'00	0.57357 AU
minimum elong	2005 Aug 06 02:27	13°♎31'56	4°51'16	inferior conj	2006 Jul 18 07:07	25°♏32'16	-4°-55'-45
morning rise	2005 Aug 13 17:33	9°♏05'38		minimum elong	2006 Jul 18 05:16	25°♏35'23	4°55'41
direct	2005 Aug 16 03:51	8°♏45'10		morning rise	2006 Jul 26 10:51	21°♏22'51	
morning max el	2005 Aug 23 23:18	12°♏30'42	18°24'13	direct	2006 Jul 29 00:39	21°♏03'47	
asc. node	2005 Aug 26 09:29	15°♏09'11		morning max el	2006 Aug 07 00:32	25°♏16'10	19°11'11
	2005 Sep 04 17:52	0°♐			2006 Aug 11 04:09	0°♏	
morning set	2005 Sep 08 23:15	7°♐58'27		asc. node	2006 Aug 13 06:34	2°♏59'20	
				morning set	2006 Aug 23 22:09	22°♏15'11	
superior conj	2005 Sep 18 02:38	25°♐17'15	1°32'32		2006 Aug 27 19:31	0°♐	
minimum elong	2005 Sep 18 05:55	25°♐32'21	1°32'16	superior conj	2006 Sep 01 04:49	8°♐37'45	1°43'29
	2005 Sep 20 16:40	0°♑		minimum elong	2006 Sep 01 06:12	8°♐44'25	1°43'26
max. Earth dist.	2005 Sep 25 14:20	8°♑38'43	1.40428 AU	max. Earth dist.	2006 Sep 07 17:55	20°♐55'35	1.38375 AU
evening rise	2005 Sep 30 02:30	16°♑15'29		evening rise	2006 Sep 11 14:05	27°♐45'39	
desc. node	2005 Oct 03 16:36	22°♑06'11			2006 Sep 12 21:08	0°♑	
	2005 Oct 08 17:15	0°♒		desc. node	2006 Sep 20 13:38	12°♑41'11	
	2005 Oct 30 09:02	0°♓			2006 Oct 02 04:38	0°♒	
evening max el	2005 Nov 03 15:51	4°♓40'58	23°30'52	evening max el	2006 Oct 17 04:08	18°♒18'36	24°49'14
retrograde	2005 Nov 14 05:42	10°♓56'13		retrograde	2006 Oct 28 19:16	25°♒04'41	
evening set	2005 Nov 19 05:23	8°♓53'13		evening set	2006 Nov 03 09:04	22°♒45'13	
asc. node	2005 Nov 22 08:43	5°♓31'30		min. Earth dist.	2006 Nov 07 23:42	17°♒32'16	0.67409 AU
min. Earth dist.	2005 Nov 24 04:28	3°♓06'12	0.67775 AU	inferior conj	2006 Nov 08 21:31	16°♒20'06	0°-7'-6
inferior conj	2005 Nov 24 15:43	2°♓27'43	0°46'49	minimum elong	2006 Nov 08 21:41	16°♒19'31	0°07'03
minimum elong	2005 Nov 24 14:38	2°♓31'26	0°46'22	transit middle	2006 Nov 08 21:41	16°♒19'31	0°07'03
	2005 Nov 26 11:53	30°♒♌		transit begin	2006 Nov 08 19:12	16°♒27'45	
morning rise	2005 Nov 30 00:01	26°♒18'16		transit end	2006 Nov 09 00:10	16°♒11'18	
direct	2005 Dec 04 02:24	24°♒44'17		asc. node	2006 Nov 09 05:46	15°♒52'48	
morning max el	2005 Dec 12 12:42	29°♒38'02	21°04'41	morning rise	2006 Nov 14 10:48	10°♒16'55	
	2005 Dec 12 21:19	0°♓		direct	2006 Nov 18 00:25	9°♒03'38	
greatest brilliancy	2005 Dec 17 23:01	5°♓53'56	-0.5m	morning max el	2006 Nov 25 12:57	13°♒20'49	19°54'16
desc. node	2005 Dec 30 15:49	23°♓39'57		greatest brilliancy	2006 Dec 02 23:10	22°♒26'54	-0.6m
	2006 Jan 03 21:26	0°♔			2006 Dec 08 05:52	0°♓	
morning set	2006 Jan 11 20:01	12°♔13'12		desc. node	2006 Dec 17 12:52	13°♓59'51	
max. Earth dist.	2006 Jan 19 18:38	24°♔54'58	1.42559 AU	morning set	2006 Dec 21 15:59	20°♓20'49	
	2006 Jan 22 20:41	0°♕			2006 Dec 27 20:55	0°♔	
superior conj	2006 Jan 26 21:34	6°♕47'40	-2°-4'-41	max. Earth dist.	2007 Jan 02 04:50	8°♔25'14	1.44075 AU
minimum elong	2006 Jan 26 20:34	6°♕43'24	2°04'41	superior conj	2007 Jan 07 06:05	16°♔32'46	-1°-52'-29
evening rise	2006 Feb 07 11:34	27°♕10'12		minimum elong	2007 Jan 06 23:38	16°♔06'34	1°52'05
	2006 Feb 09 01:22	0°♖			2007 Jan 15 09:25	0°♕	
asc. node	2006 Feb 18 08:03	15°♖54'17		evening rise	2007 Jan 20 14:42	8°♕51'39	
evening max el	2006 Feb 24 05:04	23°♖31'00	18°07'32		2007 Feb 02 09:20	0°♖	
retrograde	2006 Mar 02 20:29	26°♖55'28		asc. node	2007 Feb 05 05:05	3°♖53'48	
evening set	2006 Mar 05 11:54	26°♖23'08		evening max el	2007 Feb 07 17:40	6°♖47'02	18°13'55
inferior conj	2006 Mar 12 02:44	21°♖23'03	3°33'19	retrograde	2007 Feb 14 04:38	10°♖13'45	
minimum elong	2006 Mar 12 04:35	21°♖18'32	3°33'07				
min. Earth dist.	2006 Mar 15 06:10	18°♖21'06	0.61227 AU				

evening set	2007 Feb 17 01:07	9° Υ 31'10		evening max el	2008 Jan 22 05:25	20° \approx 11'57	18°38'41
inferior conj	2007 Feb 23 04:46	4° Υ 11'01	3°43'32	asc. node	2008 Jan 23 02:07	21° \approx 02'11	
minimum elong	2007 Feb 23 04:40	4° Υ 11'16	3°43'31	retrograde	2008 Jan 28 20:31	23° \approx 52'45	
min. Earth dist.	2007 Feb 25 18:42	1° Υ 22'11	0.63242 AU	evening set	2008 Jan 31 22:40	22° \approx 58'49	
	2007 Feb 27 03:01	30° \Re \approx		inferior conj	2008 Feb 06 18:19	17° \approx 20'14	3°35'28
morning rise	2007 Mar 01 06:17	28° \approx 06'59		minimum elong	2008 Feb 06 16:45	17° \approx 24'56	3°35'18
direct	2007 Mar 08 04:44	25° \approx 24'37		min. Earth dist.	2008 Feb 08 16:40	15° \approx 01'01	0.64944 AU
desc. node	2007 Mar 15 12:03	27° \approx 53'43		morning rise	2008 Feb 12 09:38	11° \approx 09'59	
	2007 Mar 18 09:35	0° Υ		direct	2008 Feb 19 02:57	8° \approx 19'15	
morning max el	2007 Mar 22 01:47	3° Υ 20'37	27°44'26	desc. node	2008 Mar 01 09:04	14° \approx 06'51	
	2007 Apr 10 23:07	0° Υ		morning max el	2008 Mar 03 11:13	16° \approx 06'45	27°08'45
morning set	2007 Apr 25 10:22	26° Υ 12'42			2008 Mar 14 22:46	0° Υ	
	2007 Apr 27 07:16	0° Υ			2008 Apr 02 17:45	0° Υ	
max. Earth dist.	2007 Apr 30 18:24	7° Υ 13'31	1.32893 AU	morning set	2008 Apr 08 00:03	9° Υ 51'33	
				max. Earth dist.	2008 Apr 12 15:00	19° Υ 03'06	1.33901 AU
superior conj	2007 May 03 04:05	12° Υ 21'56	0°-10'-39				
minimum elong	2007 May 03 04:37	12° Υ 24'43	0°10'33	superior conj	2008 Apr 16 07:24	26° Υ 41'03	0°-38'-31
behind sun begin	2007 May 03 00:38	12° Υ 03'19		minimum elong	2008 Apr 16 09:21	26° Υ 51'16	0°38'08
behind sun end	2007 May 03 08:35	12° Υ 46'08			2008 Apr 17 21:07	0° Υ	
asc. node	2007 May 04 04:24	14° Υ 33'06		asc. node	2008 Apr 20 01:27	4° Υ 37'45	
evening rise	2007 May 10 06:00	27° Υ 36'41		evening rise	2008 Apr 23 16:40	12° Υ 18'42	
	2007 May 11 09:17	0° Π			2008 May 02 20:00	0° Π	
	2007 May 29 00:56	0° \Im		evening max el	2008 May 14 03:51	15° Π 23'59	21°47'34
evening max el	2007 Jun 02 09:57	4° \Im 49'01	23°21'57	retrograde	2008 May 26 15:48	21° Π 32'20	
desc. node	2007 Jun 11 11:20	10° \Im 49'35		desc. node	2008 May 28 08:20	21° Π 25'52	
retrograde	2007 Jun 15 23:40	11° \Im 35'55		evening set	2008 May 29 06:23	21° Π 17'06	
evening set	2007 Jun 19 19:37	11° \Im 03'44		inferior conj	2008 Jun 07 15:27	17° Π 14'37	-2°-52'-34
min. Earth dist.	2007 Jun 26 19:56	7° \Im 50'55	0.55793 AU	minimum elong	2008 Jun 07 08:04	17° Π 24'56	2°50'17
inferior conj	2007 Jun 28 18:40	6° \Im 41'52	-4°-18'-6	min. Earth dist.	2008 Jun 07 07:39	17° Π 25'30	0.54978 AU
minimum elong	2007 Jun 28 11:49	6° \Im 52'02	4°16'47	morning rise	2008 Jun 16 10:53	13° Π 20'38	
morning rise	2007 Jul 07 07:12	2° \Im 47'28		direct	2008 Jun 19 14:31	12° Π 58'46	
direct	2007 Jul 10 02:15	2° \Im 28'24		morning max el	2008 Jul 01 17:54	18° Π 41'08	21°47'03
morning max el	2007 Jul 20 15:00	7° \Im 21'04	20°19'28		2008 Jul 10 20:17	0° \Im	
asc. node	2007 Jul 31 03:38	21° \Im 33'18		asc. node	2008 Jul 17 00:41	10° \Im 40'19	
	2007 Aug 04 17:15	0° Ω		morning set	2008 Jul 22 12:36	21° \Im 39'02	
morning set	2007 Aug 08 03:22	6° Ω 50'49			2008 Jul 26 11:48	0° Ω	
superior conj	2007 Aug 15 19:56	22° Ω 36'54	1°45'31	superior conj	2008 Jul 29 20:04	7° Ω 03'11	1°40'20
minimum elong	2007 Aug 15 19:36	22° Ω 35'10	1°45'30	minimum elong	2008 Jul 29 18:30	6° Ω 54'56	1°40'14
	2007 Aug 19 13:01	0° \P		max. Earth dist.	2008 Aug 02 13:12	14° Ω 42'54	1.34813 AU
max. Earth dist.	2007 Aug 20 23:43	2° \P 48'16	1.36445 AU	evening rise	2008 Aug 07 01:40	23° Ω 38'47	
evening rise	2007 Aug 24 23:20	10° \P 17'29			2008 Aug 10 10:51	0° \P	
	2007 Sep 05 12:02	0° Δ		desc. node	2008 Aug 24 07:41	23° \P 05'12	
desc. node	2007 Sep 07 10:40	3° Δ 02'59			2008 Aug 29 02:50	0° Δ	
	2007 Sep 27 17:18	0° \mathbb{L}		evening max el	2008 Sep 11 04:32	15° Δ 34'27	26°52'17
evening max el	2007 Sep 29 16:09	1° \mathbb{L} 58'35	25°58'58	retrograde	2008 Sep 24 07:17	22° Δ 50'10	
retrograde	2007 Oct 12 04:00	9° \mathbb{L} 04'49		evening set	2008 Oct 01 00:15	20° Δ 08'35	
evening set	2007 Oct 18 08:04	6° \mathbb{L} 31'39		min. Earth dist.	2008 Oct 05 00:05	16° Δ 08'31	0.65662 AU
min. Earth dist.	2007 Oct 22 15:05	1° \mathbb{L} 54'32	0.66708 AU	inferior conj	2008 Oct 06 20:53	13° Δ 58'10	-2°-2'-40
inferior conj	2007 Oct 23 23:55	0° \mathbb{L} 11'35	-1°-4'-9	minimum elong	2008 Oct 07 00:10	13° Δ 48'36	2°01'23
minimum elong	2007 Oct 24 01:36	0° \mathbb{L} 06'18	1°03'28	asc. node	2008 Oct 12 23:52	8° Δ 18'30	
	2007 Oct 24 03:37	30° \Re Δ		morning rise	2008 Oct 13 01:32	8° Δ 16'22	
asc. node	2007 Oct 27 02:49	26° Δ 32'06		direct	2008 Oct 15 20:06	7° Δ 33'57	
morning rise	2007 Oct 29 20:04	24° Δ 17'28		morning max el	2008 Oct 22 09:34	11° Δ 07'59	18°19'05
direct	2007 Nov 01 22:59	23° Δ 21'31			2008 Nov 04 16:00	0° \mathbb{L}	
morning max el	2007 Nov 08 20:31	27° Δ 12'16	18°58'34	morning set	2008 Nov 10 12:16	9° \mathbb{L} 29'12	
	2007 Nov 11 08:41	0° \mathbb{L}		desc. node	2008 Nov 20 06:55	25° \mathbb{L} 13'26	
morning set	2007 Dec 01 00:16	29° \mathbb{L} 12'41			2008 Nov 23 07:09	0° \mathcal{A}	
	2007 Dec 01 12:21	0° \mathcal{A}		superior conj	2008 Nov 25 16:52	3° \mathcal{A} 47'51	0°-35'-44
desc. node	2007 Dec 04 09:54	4° \mathcal{A} 32'30		minimum elong	2008 Nov 25 12:15	3° \mathcal{A} 29'39	0°35'07
max. Earth dist.	2007 Dec 15 20:55	22° \mathcal{A} 30'51	1.44961 AU	max. Earth dist.	2008 Nov 27 16:07	6° \mathcal{A} 53'45	1.45122 AU
superior conj	2007 Dec 17 15:27	25° \mathcal{A} 18'19	-1°-21'-14	evening rise	2008 Dec 12 01:13	29° \mathcal{A} 24'50	
minimum elong	2007 Dec 17 06:40	24° \mathcal{A} 43'42	1°20'19		2008 Dec 12 10:13	0° \mathcal{B}	
	2007 Dec 20 14:43	0° \mathcal{B}		greatest brilliancy	2008 Dec 26 12:26	21° \mathcal{B} 47'26	-0.7m
evening rise	2008 Jan 01 19:35	19° \mathcal{B} 36'08			2009 Jan 01 09:51	0° \approx	
	2008 Jan 08 04:46	0° \approx		evening max el	2009 Jan 04 13:58	3° \approx 40'12	19°20'36

asc. node	2009 Jan 08 23:09	7° \approx 04'47		max. Earth dist.	2009 Nov 10 10:53	21° \mathbb{M} 14'42	1.44545 AU
retrograde	2009 Jan 11 16:44	7° \approx 45'23			2009 Nov 16 00:28	0° \mathcal{Z}	
evening set	2009 Jan 15 01:42	6° \approx 38'49		evening rise	2009 Nov 21 13:34	8° \mathcal{Z} 35'31	
inferior conj	2009 Jan 20 16:00	0° \approx 44'04	3°13'55		2009 Dec 05 17:24	0° \mathcal{Z}	
minimum elong	2009 Jan 20 13:36	0° \approx 51'47	3°13'27	greatest brilliancy	2009 Dec 12 08:29	9° \mathcal{Z} 24'47	-0.6m
	2009 Jan 21 05:37	30° \mathbb{R} \mathcal{Z}		evening max el	2009 Dec 18 17:39	17° \mathcal{Z} 09'53	20°17'43
min. Earth dist.	2009 Jan 21 23:17	29° \mathcal{Z} 03'03	0.66251 AU	retrograde	2009 Dec 26 14:38	21° \mathcal{Z} 47'43	
morning rise	2009 Jan 26 00:43	24° \mathcal{Z} 30'19		asc. node	2009 Dec 26 20:09	21° \mathcal{Z} 47'25	
direct	2009 Feb 01 07:10	21° \mathcal{Z} 44'47		evening set	2009 Dec 30 08:02	20° \mathcal{Z} 27'09	
morning max el	2009 Feb 13 20:43	29° \mathcal{Z} 11'28	26°05'52	inferior conj	2010 Jan 04 19:06	14° \mathcal{Z} 19'07	2°42'08
	2009 Feb 14 15:39	0° \approx		minimum elong	2010 Jan 04 16:28	14° \mathcal{Z} 28'01	2°41'24
desc. node	2009 Feb 16 06:05	1° \approx 43'16		min. Earth dist.	2010 Jan 05 12:54	13° \mathcal{Z} 18'55	0.67154 AU
	2009 Mar 08 18:56	0° \mathbb{X}		morning rise	2010 Jan 10 00:24	8° \mathcal{Z} 03'50	
morning set	2009 Mar 22 00:30	22° \mathbb{X} 46'37		direct	2010 Jan 15 16:52	5° \mathcal{Z} 33'16	
	2009 Mar 25 19:55	0° \mathbb{Y}		morning max el	2010 Jan 27 05:23	12° \mathcal{Z} 25'43	24°45'10
max. Earth dist.	2009 Mar 26 00:14	0° \mathbb{Y} 20'54	1.35363 AU	desc. node	2010 Feb 03 03:09	20° \mathcal{Z} 19'15	
					2010 Feb 10 09:06	0° \approx	
superior conj	2009 Mar 31 03:29	10° \mathbb{Y} 33'32	-1°-6'-11		2010 Mar 01 13:28	0° \mathbb{X}	
minimum elong	2009 Mar 31 06:48	10° \mathbb{Y} 50'23	1°05'38	morning set	2010 Mar 04 06:29	4° \mathbb{X} 43'24	
asc. node	2009 Apr 06 22:28	24° \mathbb{Y} 33'22		max. Earth dist.	2010 Mar 07 23:13	11° \mathbb{X} 22'52	1.37232 AU
evening rise	2009 Apr 08 00:10	26° \mathbb{Y} 45'32					
	2009 Apr 09 14:21	0° \mathbb{X}		superior conj	2010 Mar 14 13:16	23° \mathbb{X} 50'59	-1°-31'-42
evening max el	2009 Apr 26 07:48	26° \mathbb{X} 27'45	20°25'12	minimum elong	2010 Mar 14 17:29	24° \mathbb{X} 11'31	1°31'10
	2009 Apr 30 22:29	0° \mathbb{I}			2010 Mar 17 16:12	0° \mathbb{Y}	
retrograde	2009 May 07 05:00	1° \mathbb{I} 44'32		evening rise	2010 Mar 23 02:11	10° \mathbb{Y} 50'24	
evening set	2009 May 09 06:37	1° \mathbb{I} 33'54		asc. node	2010 Mar 24 19:30	14° \mathbb{Y} 15'21	
	2009 May 13 23:53	30° \mathbb{R} \mathcal{X}			2010 Apr 02 13:06	0° \mathcal{X}	
desc. node	2009 May 15 05:19	29° \mathcal{X} 23'29		evening max el	2010 Apr 08 23:30	8° \mathcal{X} 11'10	19°21'01
inferior conj	2009 May 18 10:02	27° \mathcal{X} 36'01	0°-55'-56	retrograde	2010 Apr 18 04:06	12° \mathcal{X} 37'54	
minimum elong	2009 May 18 07:24	27° \mathcal{X} 39'52	0°54'59	evening set	2010 Apr 20 05:46	12° \mathcal{X} 25'22	
min. Earth dist.	2009 May 19 20:15	26° \mathcal{X} 46'12	0.55098 AU	inferior conj	2010 Apr 28 16:44	8° \mathcal{X} 17'21	0°57'59
morning rise	2009 May 27 06:25	23° \mathcal{X} 23'05		minimum elong	2010 Apr 28 19:04	8° \mathcal{X} 13'30	0°57'11
direct	2009 May 31 01:22	22° \mathcal{X} 52'06		min. Earth dist.	2010 May 01 10:59	6° \mathcal{X} 28'47	0.56142 AU
morning max el	2009 Jun 13 11:52	29° \mathcal{X} 24'14	23°27'17	desc. node	2010 May 02 02:21	6° \mathcal{X} 04'40	
	2009 Jun 14 02:47	0° \mathbb{I}		morning rise	2010 May 07 04:24	3° \mathcal{X} 31'12	
asc. node	2009 Jul 03 21:43	0° \mathcal{E} 12'02		direct	2010 May 11 22:27	2° \mathcal{X} 39'34	
	2009 Jul 03 19:20	0° \mathcal{E}		morning max el	2010 May 26 02:23	9° \mathcal{X} 51'24	25°07'48
morning set	2009 Jul 06 23:59	6° \mathcal{E} 34'21			2010 Jun 10 05:41	0° \mathbb{I}	
				asc. node	2010 Jun 20 18:46	20° \mathbb{I} 01'09	
superior conj	2009 Jul 14 02:16	21° \mathcal{E} 47'37	1°29'19	morning set	2010 Jun 21 11:49	21° \mathbb{I} 30'45	
minimum elong	2009 Jul 14 00:00	21° \mathcal{E} 35'32	1°29'03		2010 Jun 25 10:32	0° \mathcal{E}	
max. Earth dist.	2009 Jul 16 12:00	26° \mathcal{E} 55'29	1.33561 AU				
	2009 Jul 17 23:08	0° \mathcal{O}		superior conj	2010 Jun 28 12:07	6° \mathcal{E} 42'03	1°13'29
evening rise	2009 Jul 21 16:41	7° \mathcal{O} 37'22		minimum elong	2010 Jun 28 09:43	6° \mathcal{E} 28'57	1°13'07
	2009 Aug 02 23:07	0° \mathbb{P}		max. Earth dist.	2010 Jun 29 18:26	9° \mathcal{E} 27'16	1.32714 AU
desc. node	2009 Aug 11 04:41	12° \mathbb{P} 39'25		evening rise	2010 Jul 05 16:42	22° \mathcal{E} 01'57	
evening max el	2009 Aug 24 16:15	28° \mathbb{P} 55'07	27°21'57		2010 Jul 09 16:29	0° \mathcal{O}	
	2009 Aug 25 20:18	0° \mathcal{A}			2010 Jul 27 21:43	0° \mathbb{P}	
retrograde	2009 Sep 07 04:45	6° \mathcal{A} 13'14		desc. node	2010 Jul 29 01:43	1° \mathbb{P} 33'11	
evening set	2009 Sep 14 07:00	3° \mathcal{A} 31'45		evening max el	2010 Aug 07 01:10	11° \mathbb{P} 46'46	27°22'00
min. Earth dist.	2009 Sep 18 00:33	0° \mathcal{A} 07'28	0.64257 AU	retrograde	2010 Aug 20 19:59	19° \mathbb{P} 03'32	
	2009 Sep 18 03:26	30° \mathbb{R} \mathbb{P}		evening set	2010 Aug 28 00:48	16° \mathbb{P} 34'09	
inferior conj	2009 Sep 20 10:05	27° \mathbb{P} 35'08	-3°00'-14	min. Earth dist.	2010 Aug 31 14:55	13° \mathbb{P} 39'27	0.62514 AU
minimum elong	2009 Sep 20 14:46	27° \mathbb{P} 22'42	2°58'40	inferior conj	2010 Sep 03 12:35	10° \mathbb{P} 54'42	-3°-53'-14
morning rise	2009 Sep 27 00:35	22° \mathbb{P} 09'05		minimum elong	2010 Sep 03 17:57	10° \mathbb{P} 41'59	3°51'52
direct	2009 Sep 29 13:13	21° \mathbb{P} 36'37		morning rise	2010 Sep 10 13:46	5° \mathbb{P} 47'42	
asc. node	2009 Sep 29 20:54	21° \mathbb{P} 37'09		direct	2010 Sep 12 23:09	5° \mathbb{P} 21'58	
morning max el	2009 Oct 06 01:31	25° \mathbb{P} 02'49	17°56'43	asc. node	2010 Sep 16 17:57	6° \mathbb{P} 28'10	
	2009 Oct 10 03:46	0° \mathcal{A}		morning max el	2010 Sep 19 17:20	8° \mathbb{P} 48'45	17°52'13
morning set	2009 Oct 23 04:22	21° \mathcal{A} 08'09			2010 Oct 03 15:04	0° \mathcal{A}	
	2009 Oct 28 10:09	0° \mathbb{M}		morning set	2010 Oct 05 18:39	3° \mathcal{A} 50'14	
superior conj	2009 Nov 05 08:02	13° \mathbb{M} 02'26	0°12'22	superior conj	2010 Oct 17 01:05	23° \mathcal{A} 33'46	0°52'48
minimum elong	2009 Nov 05 09:27	13° \mathbb{M} 08'09	0°12'10	minimum elong	2010 Oct 17 05:27	23° \mathcal{A} 52'17	0°52'13
behind sun begin	2009 Nov 05 02:39	12° \mathbb{M} 40'38			2010 Oct 20 21:19	0° \mathbb{M}	
behind sun end	2009 Nov 05 16:15	13° \mathbb{M} 35'38		max. Earth dist.	2010 Oct 24 01:46	5° \mathbb{M} 13'10	1.43306 AU
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

































































































































evening rise	2010 Oct 31 22:44	17° \mathbb{M} 43'12		minimum elong	2011 Sep 29 00:25	5° \mathbb{A} 40'08	1°21'00
	2010 Nov 08 23:43	0° \mathbb{A}		max. Earth dist.	2011 Oct 06 11:22	18° \mathbb{A} 35'24	1.41571 AU
greatest brilliancy	2010 Nov 26 15:45	24° \mathbb{A} 55'23	-0.4m	evening rise	2011 Oct 11 21:29	27° \mathbb{A} 30'22	
	2010 Dec 01 00:10	0° \mathbb{B}		desc. node	2011 Oct 11 22:04	27° \mathbb{A} 32'44	
evening max el	2010 Dec 01 15:42	0° \mathbb{B} 40'24	21°27'14		2011 Oct 13 10:52	0° \mathbb{M}	
retrograde	2010 Dec 10 12:04	5° \mathbb{B} 56'09			2011 Nov 02 16:54	0° \mathbb{A}	
asc. node	2010 Dec 13 17:11	4° \mathbb{B} 59'05		greatest brilliancy	2011 Nov 09 08:53	8° \mathbb{A} 37'30	-0.3m
evening set	2010 Dec 14 15:45	4° \mathbb{B} 20'05		evening max el	2011 Nov 14 08:40	14° \mathbb{A} 12'58	22°44'52
	2010 Dec 18 14:54	30° \mathbb{R} \mathbb{A}		retrograde	2011 Nov 24 07:19	20° \mathbb{A} 07'16	
inferior conj	2010 Dec 20 01:23	28° \mathbb{A} 02'17	2°02'18	evening set	2011 Nov 28 23:10	18° \mathbb{A} 14'28	
minimum elong	2010 Dec 19 23:01	28° \mathbb{A} 10'27	2°01'28	asc. node	2011 Nov 30 14:14	16° \mathbb{A} 41'02	
min. Earth dist.	2010 Dec 20 07:14	27° \mathbb{A} 42'03	0.67672 AU	inferior conj	2011 Dec 04 08:52	11° \mathbb{A} 50'44	1°15'58
morning rise	2010 Dec 25 05:59	21° \mathbb{A} 47'25		minimum elong	2011 Dec 04 07:13	11° \mathbb{A} 56'28	1°15'17
direct	2010 Dec 30 07:21	19° \mathbb{A} 37'29		min. Earth dist.	2011 Dec 04 03:47	12° \mathbb{A} 08'19	0.67835 AU
morning max el	2011 Jan 09 14:26	25° \mathbb{A} 44'52	23°16'55	morning rise	2011 Dec 09 15:11	5° \mathbb{A} 38'31	
	2011 Jan 13 11:25	0° \mathbb{B}		direct	2011 Dec 14 01:43	3° \mathbb{A} 51'20	
greatest brilliancy	2011 Jan 14 19:55	1° \mathbb{B} 37'16	-0.2m	morning max el	2011 Dec 23 03:09	9° \mathbb{A} 10'30	21°50'30
desc. node	2011 Jan 21 00:13	9° \mathbb{B} 37'47		greatest brilliancy	2011 Dec 27 21:57	14° \mathbb{A} 34'32	-0.4m
	2011 Feb 03 22:19	0° \mathbb{A}		desc. node	2012 Jan 07 21:17	29° \mathbb{A} 26'29	
morning set	2011 Feb 13 11:49	15° \mathbb{A} 25'54			2012 Jan 08 06:34	0° \mathbb{B}	
max. Earth dist.	2011 Feb 17 17:56	22° \mathbb{A} 41'57	1.39353 AU	morning set	2012 Jan 24 11:59	24° \mathbb{B} 44'00	
	2011 Feb 21 20:53	0° \mathbb{H}			2012 Jan 27 18:12	0° \mathbb{A}	
				max. Earth dist.	2012 Jan 30 16:23	4° \mathbb{A} 49'19	1.41469 AU
superior conj	2011 Feb 25 08:48	6° \mathbb{H} 23'38	-1°-52'-14				
minimum elong	2011 Feb 25 12:44	6° \mathbb{H} 41'56	1°51'56	superior conj	2012 Feb 07 09:02	17° \mathbb{A} 59'02	-2°-3'-54
evening rise	2011 Mar 06 19:58	24° \mathbb{H} 26'02		minimum elong	2012 Feb 07 10:36	18° \mathbb{A} 05'54	2°03'53
	2011 Mar 09 17:47	0° \mathbb{Y}			2012 Feb 14 01:38	0° \mathbb{H}	
asc. node	2011 Mar 11 16:31	3° \mathbb{Y} 38'25		evening rise	2012 Feb 18 02:01	7° \mathbb{H} 23'42	
evening max el	2011 Mar 23 01:10	20° \mathbb{Y} 31'51	18°36'50	asc. node	2012 Feb 26 13:34	22° \mathbb{H} 35'36	
retrograde	2011 Mar 30 20:48	24° \mathbb{Y} 21'23			2012 Mar 02 11:41	0° \mathbb{Y}	
evening set	2011 Apr 02 03:44	24° \mathbb{Y} 02'50		evening max el	2012 Mar 05 09:35	3° \mathbb{Y} 20'36	18°12'35
inferior conj	2011 Apr 09 19:36	19° \mathbb{Y} 36'31	2°24'10	retrograde	2012 Mar 12 07:49	6° \mathbb{Y} 49'21	
minimum elong	2011 Apr 09 23:37	19° \mathbb{Y} 28'47	2°23'05	evening set	2012 Mar 14 20:26	6° \mathbb{Y} 22'21	
min. Earth dist.	2011 Apr 13 05:01	17° \mathbb{Y} 01'20	0.57889 AU	inferior conj	2012 Mar 21 19:21	1° \mathbb{Y} 34'38	3°16'38
morning rise	2011 Apr 17 15:10	14° \mathbb{Y} 17'31		minimum elong	2012 Mar 21 22:19	1° \mathbb{Y} 27'57	3°16'08
desc. node	2011 Apr 18 23:22	13° \mathbb{Y} 43'16			2012 Mar 23 13:22	30° \mathbb{R} \mathbb{H}	
direct	2011 Apr 23 10:04	12° \mathbb{Y} 53'11		min. Earth dist.	2012 Mar 25 04:07	28° \mathbb{H} 35'16	0.59999 AU
morning max el	2011 May 07 19:05	20° \mathbb{Y} 29'55	26°33'03	morning rise	2012 Mar 28 20:44	25° \mathbb{H} 51'38	
	2011 May 15 23:18	0° \mathbb{B}		direct	2012 Apr 04 10:11	23° \mathbb{H} 50'54	
	2011 Jun 02 20:02	0° \mathbb{II}		desc. node	2012 Apr 04 20:25	23° \mathbb{H} 51'23	
morning set	2011 Jun 05 22:31	6° \mathbb{II} 22'49			2012 Apr 16 22:42	0° \mathbb{Y}	
asc. node	2011 Jun 07 15:50	10° \mathbb{II} 02'06		morning max el	2012 Apr 18 17:23	1° \mathbb{Y} 40'26	27°29'33
					2012 May 09 05:14	0° \mathbb{B}	
superior conj	2011 Jun 12 23:44	21° \mathbb{II} 39'57	0°53'41	morning set	2012 May 20 06:17	21° \mathbb{B} 03'39	
minimum elong	2011 Jun 12 21:40	21° \mathbb{II} 28'33	0°53'18		2012 May 24 11:12	0° \mathbb{II}	
max. Earth dist.	2011 Jun 13 05:34	22° \mathbb{II} 11'58	1.32264 AU	asc. node	2012 May 24 12:53	0° \mathbb{II} 09'10	
	2011 Jun 16 19:09	0° \mathbb{B}		max. Earth dist.	2012 May 26 17:41	4° \mathbb{II} 57'24	1.32199 AU
evening rise	2011 Jun 19 22:53	6° \mathbb{B} 43'46					
	2011 Jul 02 05:38	0° \mathbb{Q}		superior conj	2012 May 27 11:19	6° \mathbb{II} 34'16	0°30'36
desc. node	2011 Jul 15 22:43	19° \mathbb{Q} 29'43		minimum elong	2012 May 27 10:00	6° \mathbb{II} 26'58	0°30'19
evening max el	2011 Jul 20 05:02	23° \mathbb{Q} 58'34	26°49'02	evening rise	2012 Jun 03 08:48	21° \mathbb{II} 33'57	
	2011 Jul 28 17:59	0° \mathbb{M}			2012 Jun 07 11:16	0° \mathbb{B}	
retrograde	2011 Aug 03 03:50	1° \mathbb{M} 12'04			2012 Jun 26 02:24	0° \mathbb{Q}	
	2011 Aug 08 09:46	30° \mathbb{R} \mathbb{Q}		evening max el	2012 Jul 01 01:57	5° \mathbb{Q} 23'34	25°44'36
evening set	2011 Aug 10 01:14	29° \mathbb{Q} 08'36		desc. node	2012 Jul 01 19:43	6° \mathbb{Q} 05'02	
min. Earth dist.	2011 Aug 13 19:02	26° \mathbb{Q} 30'51	0.60526 AU	retrograde	2012 Jul 15 02:16	12° \mathbb{Q} 32'33	
inferior conj	2011 Aug 17 01:04	23° \mathbb{Q} 48'52	-4°-35'-35	evening set	2012 Jul 21 03:33	11° \mathbb{Q} 05'40	
minimum elong	2011 Aug 17 05:32	23° \mathbb{Q} 39'33	4°34'55	min. Earth dist.	2012 Jul 25 14:16	8° \mathbb{Q} 27'28	0.58467 AU
morning rise	2011 Aug 24 13:02	19° \mathbb{Q} 03'32		inferior conj	2012 Jul 28 19:57	6° \mathbb{Q} 07'41	-4°-57'-37
direct	2011 Aug 26 22:03	18° \mathbb{Q} 41'48		minimum elong	2012 Jul 28 21:04	6° \mathbb{Q} 05'40	4°57'35
morning max el	2011 Sep 03 05:56	22° \mathbb{Q} 17'58	18°06'39	morning rise	2012 Aug 05 18:08	1° \mathbb{Q} 45'22	
asc. node	2011 Sep 03 15:01	22° \mathbb{Q} 40'28		direct	2012 Aug 08 05:40	1° \mathbb{Q} 25'37	
	2011 Sep 09 05:59	0° \mathbb{M}		morning max el	2012 Aug 16 12:04	5° \mathbb{Q} 21'19	18°41'31
morning set	2011 Sep 19 01:08	17° \mathbb{M} 18'33		asc. node	2012 Aug 20 12:06	9° \mathbb{Q} 58'48	
	2011 Sep 25 21:09	0° \mathbb{A}			2012 Sep 01 02:32	0° \mathbb{M}	
				morning set	2012 Sep 01 19:08	1° \mathbb{M} 20'33	
superior conj	2011 Sep 28 20:16	5° \mathbb{A} 21'32	1°21'26				

superior conj	2012 Sep 10 12:44	18° $\overline{\text{M}}$ 12'27	1°38'23	morning set	2013 Aug 16 21:01	15° Ω 46'03	
minimum elong	2012 Sep 10 15:13	18° $\overline{\text{M}}$ 24'10	1°38'14		2013 Aug 23 22:37	0° $\overline{\text{M}}$	
	2012 Sep 16 23:22	0° $\underline{\text{A}}$					
max. Earth dist.	2012 Sep 17 16:38	1° $\underline{\text{A}}$ 16'20	1.39560 AU	superior conj	2013 Aug 24 20:56	1° $\overline{\text{M}}$ 50'36	1°45'20
evening rise	2012 Sep 21 19:12	8° $\underline{\text{A}}$ 21'40		minimum elong	2013 Aug 24 21:32	1° $\overline{\text{M}}$ 53'33	1°45'19
desc. node	2012 Sep 27 19:05	18° $\underline{\text{A}}$ 12'44		max. Earth dist.	2013 Aug 30 20:51	13° $\overline{\text{M}}$ 21'32	1.37525 AU
	2012 Oct 05 10:35	0° $\overline{\text{M}}$		evening rise	2013 Sep 03 16:26	20° $\overline{\text{M}}$ 18'43	
evening max el	2012 Oct 26 22:12	27° $\overline{\text{M}}$ 49'13	24°04'52		2013 Sep 09 07:07	0° $\underline{\text{A}}$	
	2012 Oct 29 06:18	0° $\overline{\text{A}}$		desc. node	2013 Sep 14 16:04	8° $\underline{\text{A}}$ 42'34	
retrograde	2012 Nov 06 23:04	4° $\overline{\text{A}}$ 18'03			2013 Sep 29 11:38	0° $\overline{\text{M}}$	
evening set	2012 Nov 12 04:40	2° $\overline{\text{A}}$ 08'02		evening max el	2013 Oct 09 10:11	11° $\overline{\text{M}}$ 28'12	25°20'24
	2012 Nov 14 07:43	30° $\overline{\text{R}}$ $\overline{\text{M}}$		retrograde	2013 Oct 21 10:29	18° $\overline{\text{M}}$ 23'39	
asc. node	2012 Nov 16 11:18	27° $\overline{\text{M}}$ 18'21		evening set	2013 Oct 27 06:34	15° $\overline{\text{M}}$ 57'44	
min. Earth dist.	2012 Nov 17 00:08	26° $\overline{\text{M}}$ 35'18	0.67662 AU	min. Earth dist.	2013 Oct 31 17:52	11° $\overline{\text{M}}$ 00'06	0.67157 AU
inferior conj	2012 Nov 17 15:47	25° $\overline{\text{M}}$ 42'25	0°24'26	inferior conj	2013 Nov 01 20:19	9° $\overline{\text{M}}$ 34'24	0°-31'-2
minimum elong	2012 Nov 17 15:12	25° $\overline{\text{M}}$ 44'25	0°24'10	minimum elong	2013 Nov 01 21:07	9° $\overline{\text{M}}$ 31'50	0°30'42
morning rise	2012 Nov 23 01:57	19° $\overline{\text{M}}$ 35'18		asc. node	2013 Nov 03 08:21	7° $\overline{\text{M}}$ 39'49	
direct	2012 Nov 26 22:48	18° $\overline{\text{M}}$ 10'14		morning rise	2013 Nov 07 12:20	3° $\overline{\text{M}}$ 34'59	
morning max el	2012 Dec 04 22:48	22° $\overline{\text{M}}$ 46'49	20°33'03	direct	2013 Nov 10 21:12	2° $\overline{\text{M}}$ 29'30	
greatest brilliancy	2012 Dec 11 02:03	0° $\overline{\text{A}}$ 01'17	-0.5m	morning max el	2013 Nov 18 02:22	6° $\overline{\text{M}}$ 33'43	19°28'42
	2012 Dec 11 01:40	0° $\overline{\text{A}}$		greatest brilliancy	2013 Nov 26 21:14	17° $\overline{\text{M}}$ 42'48	-0.7m
desc. node	2012 Dec 24 18:20	19° $\overline{\text{A}}$ 37'01			2013 Dec 05 02:42	0° $\overline{\text{A}}$	
	2012 Dec 31 14:03	0° $\overline{\text{Z}}$		desc. node	2013 Dec 11 15:20	10° $\overline{\text{A}}$ 02'41	
morning set	2013 Jan 02 12:38	3° $\overline{\text{Z}}$ 00'04		morning set	2013 Dec 12 10:55	11° $\overline{\text{A}}$ 18'26	
max. Earth dist.	2013 Jan 11 22:53	17° $\overline{\text{Z}}$ 54'24	1.43278 AU		2013 Dec 24 10:12	0° $\overline{\text{Z}}$	
				max. Earth dist.	2013 Dec 25 12:24	1° $\overline{\text{Z}}$ 43'31	1.44542 AU
superior conj	2013 Jan 18 08:56	28° $\overline{\text{Z}}$ 26'02	-2°-1'-47	superior conj	2013 Dec 29 06:27	7° $\overline{\text{Z}}$ 41'42	-1°-41'-28
minimum elong	2013 Jan 18 05:37	28° $\overline{\text{Z}}$ 12'13	2°01'42	minimum elong	2013 Dec 28 22:16	7° $\overline{\text{Z}}$ 08'59	1°40'48
	2013 Jan 19 07:25	0° \approx			2014 Jan 11 21:35	0° \approx	
evening rise	2013 Jan 30 16:15	19° \approx 35'31		evening rise	2014 Jan 12 10:16	0° \approx 53'02	
	2013 Feb 05 14:55	0° H		asc. node	2014 Jan 30 07:38	28° \approx 38'01	
asc. node	2013 Feb 12 10:37	10° H 59'02		evening max el	2014 Jan 31 09:58	29° \approx 48'41	18°22'12
evening max el	2013 Feb 16 21:30	16° H 28'53	18°07'53		2014 Jan 31 14:29	0° H	
retrograde	2013 Feb 23 09:41	19° H 52'28		retrograde	2014 Feb 06 21:43	3° H 20'15	
evening set	2013 Feb 26 03:21	19° H 15'44		evening set	2014 Feb 09 20:30	2° H 32'55	
inferior conj	2013 Mar 04 12:58	14° H 06'42	3°40'13		2014 Feb 13 03:30	30° $\overline{\text{R}}$ \approx	
minimum elong	2013 Mar 04 13:58	14° H 04'08	3°40'09	inferior conj	2014 Feb 15 20:22	27° \approx 04'21	3°41'59
min. Earth dist.	2013 Mar 07 11:03	11° H 08'11	0.62123 AU	minimum elong	2014 Feb 15 19:34	27° \approx 06'37	3°41'57
morning rise	2013 Mar 10 22:11	8° H 08'29		min. Earth dist.	2014 Feb 18 03:36	24° \approx 26'48	0.64011 AU
direct	2013 Mar 17 20:03	5° H 37'59		morning rise	2014 Feb 21 17:04	20° \approx 57'04	
desc. node	2013 Mar 22 17:29	6° H 44'56		direct	2014 Feb 28 14:00	18° \approx 09'42	
morning max el	2013 Mar 31 21:50	13° H 32'57	27°49'43	desc. node	2014 Mar 09 14:30	21° \approx 55'19	
	2013 Apr 14 02:37	0° $\overline{\text{Y}}$		morning max el	2014 Mar 14 06:30	26° \approx 03'18	27°33'10
	2013 May 01 15:37	0° $\overline{\text{B}}$			2014 Mar 17 22:24	0° H	
morning set	2013 May 04 09:08	5° $\overline{\text{B}}$ 27'01			2014 Apr 07 15:35	0° $\overline{\text{Y}}$	
max. Earth dist.	2013 May 10 02:59	17° $\overline{\text{B}}$ 30'58	1.32526 AU	morning set	2014 Apr 18 04:33	19° $\overline{\text{Y}}$ 25'11	
asc. node	2013 May 11 09:55	20° $\overline{\text{B}}$ 18'20		max. Earth dist.	2014 Apr 23 05:29	29° $\overline{\text{Y}}$ 40'12	1.33268 AU
					2014 Apr 23 09:16	0° $\overline{\text{B}}$	
superior conj	2013 May 11 21:10	21° $\overline{\text{B}}$ 19'26	0°04'58	superior conj	2014 Apr 26 03:27	5° $\overline{\text{B}}$ 49'52	0°-22'-24
minimum elong	2013 May 11 20:56	21° $\overline{\text{B}}$ 18'10	0°04'55	minimum elong	2014 Apr 26 04:34	5° $\overline{\text{B}}$ 55'49	0°22'11
behind sun begin	2013 May 11 16:01	20° $\overline{\text{B}}$ 51'24		asc. node	2014 Apr 28 06:57	10° $\overline{\text{B}}$ 25'49	
behind sun end	2013 May 12 01:51	21° $\overline{\text{B}}$ 44'58		evening rise	2014 May 03 08:04	21° $\overline{\text{B}}$ 13'24	
	2013 May 15 20:41	0° $\overline{\text{II}}$			2014 May 07 14:57	0° $\overline{\text{II}}$	
evening rise	2013 May 18 20:29	6° $\overline{\text{II}}$ 25'53		evening max el	2014 May 25 07:10	26° $\overline{\text{II}}$ 36'29	22°40'52
	2013 May 31 07:07	0° $\overline{\text{S}}$			2014 May 29 09:12	0° $\overline{\text{S}}$	
evening max el	2013 Jun 12 16:45	16° $\overline{\text{S}}$ 07'44	24°17'01	desc. node	2014 Jun 05 13:44	3° $\overline{\text{S}}$ 01'35	
desc. node	2013 Jun 18 16:43	20° $\overline{\text{S}}$ 47'26		retrograde	2014 Jun 07 11:56	3° $\overline{\text{S}}$ 10'03	
retrograde	2013 Jun 26 13:08	23° $\overline{\text{S}}$ 06'51		evening set	2014 Jun 10 17:52	2° $\overline{\text{S}}$ 46'52	
evening set	2013 Jul 01 06:17	22° $\overline{\text{S}}$ 17'22			2014 Jun 17 10:05	30° $\overline{\text{R}}$ $\overline{\text{II}}$	
min. Earth dist.	2013 Jul 07 03:37	19° $\overline{\text{S}}$ 21'22	0.56622 AU	min. Earth dist.	2014 Jun 18 15:11	29° $\overline{\text{II}}$ 19'17	0.55334 AU
inferior conj	2013 Jul 09 18:41	17° $\overline{\text{S}}$ 42'25	-4°-45'-38	inferior conj	2014 Jun 19 22:50	28° $\overline{\text{II}}$ 34'04	-3°-47'-15
minimum elong	2013 Jul 09 14:28	17° $\overline{\text{S}}$ 49'05	4°45'11	minimum elong	2014 Jun 19 15:00	28° $\overline{\text{II}}$ 45'17	3°45'20
morning rise	2013 Jul 18 02:17	13° $\overline{\text{S}}$ 40'45		morning rise	2014 Jun 28 14:47	24° $\overline{\text{II}}$ 42'33	
direct	2013 Jul 20 18:22	13° $\overline{\text{S}}$ 21'42		direct	2014 Jul 01 12:50	24° $\overline{\text{II}}$ 22'53	
morning max el	2013 Jul 30 08:48	17° $\overline{\text{S}}$ 49'18	19°37'45	morning max el	2014 Jul 12 18:22	29° $\overline{\text{II}}$ 35'33	20°54'48
asc. node	2013 Aug 07 09:10	28° $\overline{\text{S}}$ 08'29					
	2013 Aug 08 12:13	0° $\overline{\Omega}$					

	2014 Jul 13 04:45	0°☿			2015 Jul 08 18:52	0°☿	
asc. node	2014 Jul 25 06:12	16°☿57'36		asc. node	2015 Jul 12 03:14	6°☿15'40	
	2014 Jul 31 22:46	0°♌		morning set	2015 Jul 16 14:32	15°☿19'25	
morning set	2014 Aug 01 04:12	0°♌27'58					
				superior conj	2015 Jul 23 19:24	0°♌37'55	1°36'19
superior conj	2014 Aug 08 16:21	16°♌03'01	1°44'07	minimum elong	2015 Jul 23 17:28	0°♌27'42	1°36'08
minimum elong	2014 Aug 08 15:25	15°♌58'14	1°44'05		2015 Jul 23 12:14	0°♌	
max. Earth dist.	2014 Aug 13 05:24	25°♌12'06	1.35699 AU	max. Earth dist.	2015 Jul 26 22:29	7°♌11'15	1.34226 AU
	2014 Aug 15 16:44	0°♍		evening rise	2015 Jul 31 17:46	16°♌51'30	
evening rise	2014 Aug 17 09:32	3°♍13'07			2015 Aug 07 19:15	0°♍	
desc. node	2014 Sep 01 13:05	28°♍57'00		desc. node	2015 Aug 19 10:07	18°♍48'12	
	2014 Sep 02 05:38	0°♎			2015 Aug 27 15:44	0°♎	
evening max el	2014 Sep 21 22:10	25°♎06'48	26°24'00	evening max el	2015 Sep 04 10:19	8°♎36'57	27°08'12
	2014 Sep 27 22:39	0°♏		retrograde	2015 Sep 17 18:09	15°♎55'16	
retrograde	2014 Oct 04 17:02	2°♏18'45		evening set	2015 Sep 24 15:31	13°♎12'27	
	2014 Oct 10 17:27	30°♏♎		min. Earth dist.	2015 Sep 28 12:27	9°♎27'51	0.65102 AU
evening set	2014 Oct 11 02:58	29°♎40'47		inferior conj	2015 Sep 30 14:38	7°♎07'06	-2°-27'-24
min. Earth dist.	2014 Oct 15 06:44	25°♎19'39	0.66308 AU	minimum elong	2015 Sep 30 18:34	6°♎56'04	2°25'57
inferior conj	2014 Oct 16 20:40	23°♎24'11	-1°-28'-56	morning rise	2015 Oct 06 23:21	1°♎31'34	
minimum elong	2014 Oct 16 23:02	23°♎16'59	1°27'58	asc. node	2015 Oct 08 02:25	1°♎06'27	
asc. node	2014 Oct 21 05:23	18°♎42'47		direct	2015 Oct 09 14:57	0°♎53'58	
morning rise	2014 Oct 22 20:17	17°♎35'10		morning max el	2015 Oct 16 03:16	4°♎24'01	18°07'25
direct	2014 Oct 25 19:17	16°♎45'36			2015 Nov 02 07:06	0°♏	
morning max el	2014 Nov 01 12:39	20°♎28'08	18°39'45	morning set	2015 Nov 03 06:35	1°♏37'17	
	2014 Nov 08 23:09	0°♐		desc. node	2015 Nov 15 09:25	21°♏22'46	
morning set	2014 Nov 22 06:06	20°♏44'07					
desc. node	2014 Nov 28 02:26	0°♑		superior conj	2015 Nov 17 14:53	24°♏55'55	0°-14'-56
	2014 Nov 28 12:22	0°♑39'13		minimum elong	2015 Nov 17 13:00	24°♏48'24	0°14'41
				behind sun begin	2015 Nov 17 08:21	24°♏29'58	
superior conj	2014 Dec 08 09:51	16°♑13'03	-1°-3'-4	behind sun end	2015 Nov 17 17:38	25°♏06'50	
minimum elong	2014 Dec 08 02:10	15°♑42'52	1°02'09		2015 Nov 20 19:43	0°♒	
max. Earth dist.	2014 Dec 08 05:59	15°♑57'50	1.45121 AU	max. Earth dist.	2015 Nov 21 00:49	0°♒20'04	1.44960 AU
	2014 Dec 17 03:53	0°♓		evening rise	2015 Dec 04 02:08	20°♒41'55	
evening rise	2014 Dec 24 05:05	11°♓12'47			2015 Dec 10 02:34	0°♓	
	2015 Jan 05 01:08	0°♈		greatest brilliancy	2015 Dec 21 11:15	17°♓03'08	-0.6m
evening max el	2015 Jan 14 20:31	13°♈14'49	18°54'30	evening max el	2015 Dec 29 03:12	26°♓44'21	19°43'14
asc. node	2015 Jan 17 04:39	15°♈19'57			2016 Jan 02 02:20	0°♈	
retrograde	2015 Jan 21 15:54	17°♈05'16		asc. node	2016 Jan 04 01:41	0°♈50'36	
evening set	2015 Jan 24 20:41	16°♈06'16		retrograde	2016 Jan 05 13:06	1°♈02'37	
inferior conj	2015 Jan 30 13:45	10°♈20'25	3°27'45		2016 Jan 08 19:37	30°♈♓	
minimum elong	2015 Jan 30 11:46	10°♈26'36	3°27'28	evening set	2016 Jan 09 01:22	29°♓50'28	
min. Earth dist.	2015 Feb 01 05:34	8°♈16'36	0.65547 AU	inferior conj	2016 Jan 14 14:05	23°♓49'55	3°01'34
morning rise	2015 Feb 05 01:49	4°♈08'05		minimum elong	2016 Jan 14 11:31	23°♓58'22	3°00'57
direct	2015 Feb 11 14:57	1°♈18'01		min. Earth dist.	2016 Jan 15 15:33	22°♓25'50	0.66684 AU
desc. node	2015 Feb 24 11:32	8°♈47'07		morning rise	2016 Jan 19 20:58	17°♓35'11	
morning max el	2015 Feb 24 16:23	8°♈59'15	26°44'46	direct	2016 Jan 25 21:50	14°♓54'42	
	2015 Mar 13 03:52	0°♉		morning max el	2016 Feb 07 01:24	22°♓08'49	25°33'02
	2015 Mar 31 01:44	0°♊		desc. node	2016 Feb 11 08:35	26°♓51'37	
morning set	2015 Apr 01 13:10	2°♊47'07			2016 Feb 13 22:43	0°♋	
max. Earth dist.	2015 Apr 05 21:19	11°♊15'08	1.34462 AU		2016 Mar 05 10:23	0°♋	
				morning set	2016 Mar 14 06:31	15°♋19'50	
superior conj	2015 Apr 10 04:00	19°♊58'19	0°-50'-23	max. Earth dist.	2016 Mar 18 01:24	22°♋21'38	1.36112 AU
minimum elong	2015 Apr 10 06:33	20°♊11'33	0°49'56		2016 Mar 22 00:19	0°♌	
	2015 Apr 14 22:51	0°♍					
asc. node	2015 Apr 15 03:58	0°♍26'52		superior conj	2016 Mar 23 20:11	3°♌37'29	-1°-17'-25
evening rise	2015 Apr 17 17:38	5°♍49'26		minimum elong	2016 Mar 23 23:58	3°♌56'24	1°16'51
	2015 May 01 02:00	0°♎		evening rise	2016 Mar 31 23:07	20°♌07'49	
evening max el	2015 May 07 04:50	7°♎21'14	21°10'37	asc. node	2016 Apr 01 01:00	20°♌17'24	
retrograde	2015 May 19 01:49	13°♎08'53			2016 Apr 05 23:09	0°♍	
evening set	2015 May 21 08:26	12°♎56'52		evening max el	2016 Apr 18 13:59	18°♍42'15	19°55'33
desc. node	2015 May 23 10:45	12°♎25'55		retrograde	2016 Apr 28 17:20	23°♍36'07	
inferior conj	2015 May 30 16:56	8°♎58'21	-2°-5'-2	evening set	2016 Apr 30 17:54	23°♍25'17	
minimum elong	2015 May 30 11:09	9°♎06'29	2°03'04	desc. node	2016 May 09 07:46	19°♍36'20	
min. Earth dist.	2015 May 31 03:30	8°♎43'27	0.54902 AU	inferior conj	2016 May 09 15:12	19°♍25'01	0°-5'-24
morning rise	2015 Jun 08 13:44	4°♎58'19		minimum elong	2016 May 09 14:57	19°♍25'23	0°05'19
direct	2015 Jun 11 22:33	4°♎33'47		transit middle	2016 May 09 14:57	19°♍25'23	0°05'19
morning max el	2015 Jun 24 17:08	10°♎38'41	22°28'47	transit begin	2016 May 09 11:12	19°♍31'06	

transit end	2016 May 09 18:42	19°♄19'40		minimum elong	2017 Apr 20 09:23	0°♄14'30	1°37'36
min. Earth dist.	2016 May 11 17:07	18°♄09'13	0.55443 AU		2017 Apr 20 17:37	30°♄♂	
morning rise	2016 May 18 09:02	14°♄58'42		min. Earth dist.	2017 Apr 23 08:43	28°♂10'18	0.56827 AU
direct	2016 May 22 13:20	14°♄20'16		desc. node	2017 Apr 26 04:48	26°♂25'27	
morning max el	2016 Jun 05 08:45	21°♄11'20	24°10'46	morning rise	2017 Apr 28 11:24	25°♂20'10	
	2016 Jun 12 23:22	0°♂		direct	2017 May 03 16:33	24°♂15'49	
asc. node	2016 Jun 28 00:17	25°♂55'13			2017 May 16 04:07	0°♄	
	2016 Jun 29 23:24	0°♄		morning max el	2017 May 17 23:24	1°♄39'02	25°46'51
morning set	2016 Jun 30 02:18	0°♄15'16			2017 Jun 06 22:15	0°♂	
				morning set	2017 Jun 14 13:53	15°♂10'28	
superior conj	2016 Jul 07 03:24	15°♄27'03	1°23'07	asc. node	2017 Jun 14 21:21	15°♂49'55	
minimum elong	2016 Jul 07 01:01	15°♄14'10	1°22'49		2017 Jun 21 09:57	0°♄	
max. Earth dist.	2016 Jul 09 00:48	19°♄31'44	1.33157 AU				
	2016 Jul 14 00:47	0°♂		superior conj	2017 Jun 21 14:14	0°♄23'28	1°05'31
evening rise	2016 Jul 14 13:03	1°♂02'14		minimum elong	2017 Jun 21 11:55	0°♄10'46	1°05'08
	2016 Jul 30 18:18	0°♂		max. Earth dist.	2017 Jun 22 09:54	2°♄11'12	1.32480 AU
desc. node	2016 Aug 05 07:08	8°♂06'24		evening rise	2017 Jun 28 16:02	15°♄35'17	
evening max el	2016 Aug 16 21:21	21°♂47'08	27°25'58		2017 Jul 06 00:20	0°♂	
retrograde	2016 Aug 30 13:04	29°♂04'39		desc. node	2017 Jul 23 04:08	26°♂38'11	
evening set	2016 Sep 06 17:13	26°♂27'04			2017 Jul 25 23:41	0°♂	
min. Earth dist.	2016 Sep 10 08:56	23°♂16'07	0.63549 AU	evening max el	2017 Jul 30 04:39	4°♂23'52	27°12'07
inferior conj	2016 Sep 12 23:40	20°♂37'19	-3°-23'-36	retrograde	2017 Aug 13 01:00	11°♂38'24	
minimum elong	2016 Sep 13 04:46	20°♂24'21	3°22'03	evening set	2017 Aug 20 04:15	9°♂18'34	
morning rise	2016 Sep 19 18:37	15°♂18'37		min. Earth dist.	2017 Aug 23 18:51	6°♂33'00	0.61692 AU
direct	2016 Sep 22 05:31	14°♂49'21		inferior conj	2017 Aug 26 20:42	3°♂47'36	-4°-13'00
asc. node	2016 Sep 23 23:29	15°♂04'30		minimum elong	2017 Aug 27 01:56	3°♂35'50	4°11'53
morning max el	2016 Sep 28 19:27	18°♂15'02	17°52'31		2017 Aug 31 15:28	30°♄♂	
	2016 Oct 07 07:56	0°♄		morning rise	2017 Sep 03 02:29	28°♂49'22	
morning set	2016 Oct 15 08:56	13°♄45'10		direct	2017 Sep 05 11:29	28°♂25'28	
	2016 Oct 24 20:46	0°♂			2017 Sep 10 02:52	0°♂	
				asc. node	2017 Sep 10 20:34	0°♂32'04	
superior conj	2016 Oct 27 16:16	4°♂40'28	0°30'51	morning max el	2017 Sep 12 10:17	1°♂54'51	17°55'59
minimum elong	2016 Oct 27 19:25	4°♂53'24	0°30'24	morning set	2017 Sep 28 06:50	26°♂49'18	
desc. node	2016 Nov 01 06:28	12°♂09'31			2017 Sep 30 00:42	0°♄	
max. Earth dist.	2016 Nov 02 18:18	14°♂33'25	1.44090 AU				
evening rise	2016 Nov 12 10:58	29°♂45'48		superior conj	2017 Oct 08 20:54	15°♄45'43	1°06'26
	2016 Nov 12 14:40	0°♄		minimum elong	2017 Oct 09 01:28	16°♄05'31	1°05'53
	2016 Dec 02 21:18	0°♄		max. Earth dist.	2017 Oct 16 07:41	28°♄20'30	1.42617 AU
greatest brilliancy	2016 Dec 05 12:53	3°♄33'06	-0.5m		2017 Oct 17 07:59	0°♂	
evening max el	2016 Dec 11 04:39	10°♄14'49	20°46'05	desc. node	2017 Oct 19 03:30	2°♂56'37	
retrograde	2016 Dec 19 10:55	15°♄07'52		evening rise	2017 Oct 23 00:15	9°♂06'15	
asc. node	2016 Dec 20 22:44	14°♄55'26			2017 Nov 05 19:19	0°♄	
evening set	2016 Dec 23 08:31	13°♄40'52		greatest brilliancy	2017 Nov 19 06:43	18°♄24'13	-0.3m
inferior conj	2016 Dec 28 18:48	7°♄28'30	2°26'08	evening max el	2017 Nov 24 00:27	23°♄46'13	21°59'32
minimum elong	2016 Dec 28 16:13	7°♄37'19	2°25'19	retrograde	2017 Dec 03 07:34	29°♄18'10	
min. Earth dist.	2016 Dec 29 07:22	6°♄45'28	0.67423 AU	evening set	2017 Dec 07 16:20	27°♄34'51	
morning rise	2017 Jan 02 23:30	1°♄13'21		asc. node	2017 Dec 07 19:47	27°♄27'50	
	2017 Jan 04 14:17	30°♄♄		inferior conj	2017 Dec 13 01:49	21°♄14'04	1°43'22
direct	2017 Jan 08 09:43	28°♄50'56		minimum elong	2017 Dec 12 23:42	21°♄21'23	1°42'34
	2017 Jan 12 14:03	0°♄		min. Earth dist.	2017 Dec 13 02:51	21°♄10'29	0.67787 AU
morning max el	2017 Jan 19 09:43	5°♄24'29	24°07'57	morning rise	2017 Dec 18 06:53	15°♄00'19	
desc. node	2017 Jan 28 05:39	15°♄47'17		direct	2017 Dec 23 01:51	13°♄00'08	
	2017 Feb 07 09:35	0°♄		morning max el	2018 Jan 01 19:58	18°♄46'18	22°39'32
morning set	2017 Feb 24 02:46	26°♄46'34		greatest brilliancy	2018 Jan 06 10:06	23°♄53'33	-0.3m
	2017 Feb 25 23:07	0°♄			2018 Jan 11 05:09	0°♄	
max. Earth dist.	2017 Feb 27 21:38	3°♄26'30	1.38124 AU	desc. node	2018 Jan 15 02:43	5°♄19'45	
					2018 Jan 31 13:39	0°♄	
superior conj	2017 Mar 07 00:29	16°♄37'27	-1°-41'-14	morning set	2018 Feb 04 19:54	6°♄53'06	
minimum elong	2017 Mar 07 04:46	16°♄57'58	1°40'45	max. Earth dist.	2018 Feb 09 17:42	15°♄05'46	1.40279 AU
	2017 Mar 13 21:07	0°♂					
evening rise	2017 Mar 15 22:00	4°♂01'05		superior conj	2018 Feb 17 12:27	28°♄47'13	-1°-58'-32
asc. node	2017 Mar 18 22:03	9°♂51'59		minimum elong	2018 Feb 17 15:42	29°♄01'57	1°58'22
	2017 Mar 31 17:31	0°♄			2018 Feb 18 04:28	0°♄	
evening max el	2017 Apr 01 10:18	0°♄42'12	18°59'41	evening rise	2018 Feb 27 11:17	17°♄21'52	
retrograde	2017 Apr 09 23:14	4°♄50'51		asc. node	2018 Mar 05 19:05	29°♄04'59	
evening set	2017 Apr 12 03:08	4°♄36'00			2018 Mar 06 07:34	0°♂	
inferior conj	2017 Apr 20 05:54	0°♄20'38	1°38'42	evening max el	2018 Mar 15 15:10	13°♂15'29	18°23'59

































































































































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evening set	2018 Mar 25 09:40	16°♊32'34		evening set	2019 Mar 08 08:58	29°♋08'06	
inferior conj	2018 Apr 01 17:53	11°♊56'51	2°50'24	inferior conj	2019 Mar 15 01:48	24°♋11'19	3°29'42
minimum elong	2018 Apr 01 21:41	11°♊49'02	2°49'32	minimum elong	2019 Mar 15 03:58	24°♋06'09	3°29'27
min. Earth dist.	2018 Apr 05 04:28	9°♊08'29	0.58765 AU	min. Earth dist.	2019 Mar 18 06:55	21°♋09'08	0.60909 AU
morning rise	2018 Apr 09 05:40	6°♊26'18		morning rise	2019 Mar 21 19:52	18°♋20'33	
desc. node	2018 Apr 13 01:51	5°♊00'46		direct	2019 Mar 28 13:59	16°♋05'45	
direct	2018 Apr 15 09:21	4°♊46'39		desc. node	2019 Mar 30 22:54	16°♋21'24	
morning max el	2018 Apr 29 18:24	12°♊29'37	27°01'20	morning max el	2019 Apr 11 19:42	23°♋59'22	27°42'46
	2018 May 13 12:40	0°♌			2019 Apr 17 06:01	0°♊	
morning set	2018 May 29 23:34	29°♌58'43			2019 May 06 18:25	0°♌	
	2018 May 29 23:49	0°♍		morning set	2019 May 14 05:33	14°♌33'56	
asc. node	2018 Jun 01 18:23	5°♍53'58		asc. node	2019 May 19 15:25	26°♌02'59	
				max. Earth dist.	2019 May 20 09:25	27°♌40'58	1.32284 AU
					2019 May 21 10:52	0°♍	
superior conj	2018 Jun 06 02:02	15°♍20'27	0°44'15	superior conj	2019 May 21 13:07	0°♍12'20	0°20'00
minimum elong	2018 Jun 06 00:14	15°♍10'31	0°43'53	minimum elong	2019 May 21 12:13	0°♍07'24	0°19'49
max. Earth dist.	2018 Jun 05 22:02	14°♍58'27	1.32188 AU	evening rise	2019 May 28 10:58	15°♍13'36	
	2018 Jun 12 20:00	0°♎			2019 Jun 04 20:05	0°♎	
evening rise	2018 Jun 13 00:03	0°♎21'24		evening max el	2019 Jun 23 23:16	27°♎21'01	25°09'23
	2018 Jun 29 05:16	0°♏		desc. node	2019 Jun 26 22:08	29°♎55'42	
desc. node	2018 Jul 10 01:09	14°♏03'38			2019 Jun 27 00:19	0°♏	
evening max el	2018 Jul 12 05:29	16°♏15'19	26°25'06	retrograde	2019 Jul 07 23:14	4°♏27'54	
retrograde	2018 Jul 26 05:02	23°♏27'22		evening set	2019 Jul 13 11:55	3°♏17'27	
evening set	2018 Aug 01 19:48	21°♏38'12		min. Earth dist.	2019 Jul 18 10:59	0°♏33'28	0.57635 AU
min. Earth dist.	2018 Aug 05 18:35	19°♏02'55	0.59644 AU		2019 Jul 19 07:06	30°♏♎	
inferior conj	2018 Aug 09 02:06	16°♏27'42	-4°-48'-10	inferior conj	2019 Jul 21 12:34	28°♎28'41	-4°-57'-35
minimum elong	2018 Aug 09 05:28	16°♏21'04	4°47'50	minimum elong	2019 Jul 21 11:32	28°♎30'27	4°57'34
morning rise	2018 Aug 16 18:33	11°♏52'31		morning rise	2019 Jul 29 14:54	24°♎16'01	
direct	2018 Aug 19 04:25	11°♏31'48		direct	2019 Aug 01 03:58	23°♎56'51	
morning max el	2018 Aug 26 20:34	15°♏14'30	18°18'59	morning max el	2019 Aug 09 23:08	28°♎04'37	19°02'47
asc. node	2018 Aug 28 17:38	17°♏14'21			2019 Aug 11 19:46	0°♏	
	2018 Sep 06 02:39	0°♐		asc. node	2019 Aug 15 14:41	4°♏56'19	
morning set	2018 Sep 11 18:42	10°♐33'10		morning set	2019 Aug 26 16:23	24°♏45'55	
					2019 Aug 29 07:48	0°♐	
superior conj	2018 Sep 21 01:52	28°♐02'36	1°29'58	superior conj	2019 Sep 04 01:40	11°♐15'31	1°42'26
minimum elong	2018 Sep 21 05:24	28°♐18'45	1°29'39	minimum elong	2019 Sep 04 03:20	11°♐23'31	1°42'21
	2018 Sep 22 03:39	0°♑		max. Earth dist.	2019 Sep 10 18:53	23°♐47'00	1.38681 AU
max. Earth dist.	2018 Sep 28 15:15	11°♑25'25	1.40730 AU		2019 Sep 14 07:14	0°♑	
evening rise	2018 Oct 03 08:07	19°♑18'35		evening rise	2019 Sep 14 16:08	0°♑38'31	
desc. node	2018 Oct 06 00:30	23°♑40'02		desc. node	2019 Sep 22 21:29	14°♑16'05	
	2018 Oct 10 00:40	0°♒			2019 Oct 03 08:14	0°♒	
	2018 Oct 31 04:38	0°♓		evening max el	2019 Oct 20 04:02	20°♒56'13	24°38'00
evening max el	2018 Nov 06 15:32	7°♓19'15	23°18'56	retrograde	2019 Oct 31 15:41	27°♒38'16	
retrograde	2018 Nov 17 01:33	13°♓29'30		evening set	2019 Nov 06 03:18	25°♒21'17	
evening set	2018 Nov 21 23:08	11°♓29'07		min. Earth dist.	2019 Nov 10 19:12	20°♒03'02	0.67483 AU
asc. node	2018 Nov 24 16:50	8°♓37'28		inferior conj	2019 Nov 11 15:22	18°♒55'51	0°01'16
inferior conj	2018 Nov 27 09:15	5°♓03'49	0°54'39	minimum elong	2019 Nov 11 15:20	18°♒55'57	0°01'16
minimum elong	2018 Nov 27 08:00	5°♓08'06	0°54'08	transit middle	2019 Nov 11 15:20	18°♒55'57	0°01'16
min. Earth dist.	2018 Nov 26 23:35	5°♓37'03	0.67799 AU	transit begin	2019 Nov 11 12:35	19°♒05'05	
	2018 Dec 01 11:12	30°♒♒		transit end	2019 Nov 11 18:04	18°♒46'50	
morning rise	2018 Dec 02 16:57	28°♒53'33		asc. node	2019 Nov 11 13:53	19°♒00'45	
direct	2018 Dec 06 21:22	27°♒16'14		morning rise	2019 Nov 17 03:47	12°♒51'27	
	2018 Dec 12 23:43	0°♓		direct	2019 Nov 20 19:12	11°♒35'11	
morning max el	2018 Dec 15 11:30	2°♓16'32	21°16'12	morning max el	2019 Nov 28 10:29	15°♒57'11	20°03'49
greatest brilliancy	2018 Dec 20 17:01	8°♓16'13	-0.4m	greatest brilliancy	2019 Dec 05 11:43	24°♒30'21	-0.6m
desc. node	2019 Jan 01 23:46	25°♓18'23			2019 Dec 09 09:42	0°♓	
	2019 Jan 05 03:40	0°♔		desc. node	2019 Dec 19 20:47	15°♓35'41	
morning set	2019 Jan 15 08:31	15°♔39'55		morning set	2019 Dec 25 04:45	23°♓46'38	
max. Earth dist.	2019 Jan 22 19:19	27°♔37'51	1.42284 AU		2019 Dec 29 04:55	0°♔	
	2019 Jan 24 05:49	0°♕		max. Earth dist.	2020 Jan 05 04:21	11°♔00'56	1.43884 AU
superior conj	2019 Jan 30 02:52	9°♕54'26	-2°-4'-59	superior conj	2020 Jan 10 15:19	19°♔49'57	-1°-55'-34
minimum elong	2019 Jan 30 02:37	9°♕53'22	2°05'01	minimum elong	2020 Jan 10 09:38	19°♔26'43	1°55'16
evening rise	2019 Feb 10 11:10	0°♖01'27			2020 Jan 16 18:31	0°♕	
	2019 Feb 10 10:51	0°♗					
asc. node	2019 Feb 20 16:07	17°♖49'21					
evening max el	2019 Feb 27 01:25	26°♖13'48	18°08'14				

evening rise	2020 Jan 23 17:15	11°  50'30		superior conj	2020 Dec 20 03:26	28°  42'04	-1°-27'-6
	2020 Feb 03 11:37	0° 		minimum elong	2020 Dec 19 18:34	28°  07'03	1°26'13
asc. node	2020 Feb 07 13:10	5°  55'26			2020 Dec 20 23:07	0° 	
evening max el	2020 Feb 10 13:56	9°  27'59	18°11'48	evening rise	2021 Jan 04 01:34	22°  43'20	
retrograde	2020 Feb 17 00:54	12°  53'23			2021 Jan 08 12:00	0° 	
evening set	2020 Feb 19 20:40	12°  12'20		evening max el	2021 Jan 24 01:57	22°  51'29	18°33'52
inferior conj	2020 Feb 26 01:45	6°  55'08	3°43'13	asc. node	2021 Jan 24 10:12	23°  12'05	
minimum elong	2020 Feb 26 01:56	6°  54'38	3°43'13	retrograde	2021 Jan 30 15:52	26°  29'27	
min. Earth dist.	2020 Feb 28 17:55	4°  03'11	0.62960 AU	evening set	2021 Feb 02 17:09	25°  37'10	
morning rise	2020 Mar 03 05:09	0°  52'31		inferior conj	2021 Feb 08 13:48	20°  01'05	3°37'37
	2020 Mar 04 11:08	30°  R 		minimum elong	2021 Feb 08 12:26	20°  05'10	3°37'30
direct	2020 Mar 10 03:49	28°  12'42		min. Earth dist.	2021 Feb 10 14:25	17°  36'53	0.64716 AU
	2020 Mar 16 07:43	0° 		morning rise	2021 Feb 14 06:24	13°  51'36	
desc. node	2020 Mar 16 19:56	0°  17'20		direct	2021 Feb 21 00:52	11°  01'22	
morning max el	2020 Mar 24 02:06	6°  08'40	27°46'56	desc. node	2021 Mar 03 16:59	16°  14'46	
	2020 Apr 11 04:48	0° 		morning max el	2021 Mar 06 11:22	18°  50'30	27°16'00
morning set	2020 Apr 27 05:34	28°  Y47'47			2021 Mar 15 22:26	0° 	
	2020 Apr 27 19:53	0° 			2021 Apr 04 03:41	0° 	
max. Earth dist.	2020 May 02 16:04	10°  8'04'38	1.32787 AU	morning set	2021 Apr 10 20:49	12°  Y31'31	
				max. Earth dist.	2021 Apr 15 14:20	21°  Y59'22	1.33724 AU
superior conj	2020 May 04 21:41	14°  8'52'20	0°-6'-29	superior conj	2021 Apr 19 01:49	29°  Y14'15	0°-34'-16
minimum elong	2020 May 04 22:00	14°  8'54'02	0°06'26	minimum elong	2021 Apr 19 03:33	29°  Y23'22	0°33'56
behind sun begin	2020 May 04 17:11	14°  8'28'01			2021 Apr 19 10:29	0° 	
behind sun end	2020 May 05 02:49	15°  8'20'04		asc. node	2021 Apr 22 09:28	6°  8'17'21	
asc. node	2020 May 05 12:26	16°  8'12'04		evening rise	2021 Apr 26 09:46	14°  8'47'52	
evening rise	2020 May 11 22:48	0°  II04'27			2021 May 04 02:49	0°  II	
	2020 May 11 21:58	0°  II		evening max el	2021 May 17 05:54	18°  II27'41	22°01'02
	2020 May 28 18:09	0° 		retrograde	2021 May 29 22:34	24°  II43'01	
evening max el	2020 Jun 04 13:07	7°  55'26	23°36'18	desc. node	2021 May 30 16:11	24°  II41'48	
desc. node	2020 Jun 12 19:09	13°  53'24		evening set	2021 Jun 01 16:43	24°  II26'08	
retrograde	2020 Jun 18 04:59	14°  54'50		min. Earth dist.	2021 Jun 10 10:59	20°  II41'20	0.55043 AU
evening set	2020 Jun 22 06:22	14°  50'43		inferior conj	2021 Jun 11 01:13	20°  II21'23	-3°-8'-11
min. Earth dist.	2020 Jun 28 23:30	11°  50'1'36	0.55989 AU	minimum elong	2021 Jun 10 17:30	20°  II32'11	3°05'55
inferior conj	2020 Jul 01 02:53	9°  54'43'37	-4°-26'-56	morning rise	2021 Jun 19 19:54	16°  II28'48	
minimum elong	2020 Jun 30 20:36	9°  54'04	4°25'53	direct	2021 Jun 22 22:00	16°  II07'37	
morning rise	2020 Jul 09 14:09	5°  54'8'37		morning max el	2021 Jul 04 19:45	21°  II41'58	21°33'03
direct	2020 Jul 12 08:26	5°  52'9'34			2021 Jul 11 20:35	0° 	
morning max el	2020 Jul 22 15:12	10°  51'5'27	20°08'00	asc. node	2021 Jul 19 08:43	12°  52'6'37	
asc. node	2020 Aug 01 11:42	23°  52'24'07		morning set	2021 Jul 25 05:35	24°  50'0'03	
	2020 Aug 05 03:32	0° 			2021 Jul 28 01:12	0° 	
morning set	2020 Aug 09 20:49	9°  19'14					
superior conj	2020 Aug 17 15:07	25°  10'9'36	1°45'42	superior conj	2021 Aug 01 14:07	9°  10'32'31	1°41'31
minimum elong	2020 Aug 17 15:01	25°  10'09'03	1°45'42	minimum elong	2021 Aug 01 12:42	9°  10'25'06	1°41'27
	2020 Aug 20 01:30	0° 		max. Earth dist.	2021 Aug 05 12:25	17°  10'35'59	1.35030 AU
max. Earth dist.	2020 Aug 23 00:10	5°  14'42'26	1.36718 AU	evening rise	2021 Aug 09 22:31	26°  10'16'33	
evening rise	2020 Aug 26 22:27	13°  11'01'57			2021 Aug 11 21:57	0° 	
	2020 Sep 05 19:46	0° 		desc. node	2021 Aug 26 15:30	24°  10'45'58	
desc. node	2020 Sep 08 18:29	4°  14'40'14			2021 Aug 30 05:10	0° 	
	2020 Sep 27 07:41	0° 		evening max el	2021 Sep 14 04:24	18°  10'13'37	26°45'39
evening max el	2020 Oct 01 16:06	4°  13'36'40	25°49'28	retrograde	2021 Sep 27 05:10	25°  10'28'25	
retrograde	2020 Oct 14 01:05	11°  14'40'10		evening set	2021 Oct 03 20:27	22°  10'47'30	
evening set	2020 Oct 20 03:06	9°  14'08'50		min. Earth dist.	2021 Oct 07 21:18	18°  10'42'05	0.65842 AU
min. Earth dist.	2020 Oct 24 11:15	4°  14'26'20	0.66836 AU	inferior conj	2021 Oct 09 16:18	16°  10'35'27	-1°-53'-47
inferior conj	2020 Oct 25 18:23	2°  14'47'51	0°-55'-23	minimum elong	2021 Oct 09 19:21	16°  10'26'29	1°52'35
minimum elong	2020 Oct 25 19:50	2°  14'43'17	0°54'46	asc. node	2021 Oct 15 07:58	11°  10'48'04	
asc. node	2020 Oct 28 10:56	29°  14'33'56		morning rise	2021 Oct 15 19:37	10°  10'51'45	
	2020 Oct 28 01:33	30°  R 		direct	2021 Oct 18 15:17	10°  10'07'35	
morning rise	2020 Oct 31 13:24	26°  14'52'12		morning max el	2021 Oct 25 05:30	13°  10'43'23	18°23'57
direct	2020 Nov 03 17:50	25°  14'53'50			2021 Nov 05 22:35	0° 	
morning max el	2020 Nov 10 17:03	29°  14'47'38	19°05'52	morning set	2021 Nov 13 17:27	12°  10'31'45	
	2020 Nov 10 21:56	0° 		desc. node	2021 Nov 22 14:49	26°  10'46'34	
	2020 Dec 01 19:51	0° 			2021 Nov 24 15:36	0° 	
morning set	2020 Dec 03 09:51	2°  14'28'13		superior conj	2021 Nov 29 04:39	7°  10'10'05	0°-43'-5
desc. node	2020 Dec 05 17:48	6°  14'06'38		minimum elong	2021 Nov 28 23:07	6°  10'48'17	0°42'22
max. Earth dist.	2020 Dec 17 20:00	25°  14'03'19	1.44878 AU	max. Earth dist.	2021 Nov 30 15:08	9°  10'25'35	1.45148 AU

	2021 Dec 13 17:52	0°☿		superior conj	2022 Nov 08 16:43	16°☿15'09	0°05'24
evening rise	2021 Dec 15 10:33	2°☿39'55		minimum elong	2022 Nov 08 17:21	16°☿17'42	0°05'19
greatest brilliancy	2021 Dec 28 16:27	23°☿18'42	-0.7m	behind sun begin	2022 Nov 08 07:29	15°☿37'56	
	2022 Jan 02 07:10	0°☿		behind sun end	2022 Nov 09 03:13	16°☿57'24	
evening max el	2022 Jan 07 11:04	6°☿19'08	19°13'19	desc. node	2022 Nov 09 11:52	17°☿32'09	
asc. node	2022 Jan 11 07:15	9°☿25'27		max. Earth dist.	2022 Nov 13 09:53	23°☿46'51	1.44675 AU
retrograde	2022 Jan 14 11:41	10°☿20'15			2022 Nov 17 08:42	0°☿	
evening set	2022 Jan 17 19:33	9°☿15'39		evening rise	2022 Nov 25 00:45	11°☿54'15	
inferior conj	2022 Jan 23 10:28	3°☿22'59	3°17'55		2022 Dec 06 22:08	0°☿	
minimum elong	2022 Jan 23 08:10	3°☿30'22	3°17'29	greatest brilliancy	2022 Dec 14 23:18	11°☿37'21	-0.6m
min. Earth dist.	2022 Jan 24 19:54	1°☿36'01	0.66081 AU	evening max el	2022 Dec 21 15:31	19°☿48'37	20°08'21
	2022 Jan 26 03:05	30°☿☿		retrograde	2022 Dec 29 09:32	24°☿21'24	
morning rise	2022 Jan 28 19:57	27°☿09'30		asc. node	2022 Dec 29 04:17	24°☿21'08	
direct	2022 Feb 04 04:13	24°☿22'35		evening set	2023 Jan 02 01:31	23°☿03'05	
	2022 Feb 14 21:54	0°☿		inferior conj	2023 Jan 07 12:57	16°☿56'50	2°47'32
morning max el	2022 Feb 16 21:07	1°☿53'30	26°16'37	minimum elong	2023 Jan 07 10:19	17°☿05'40	2°46'49
desc. node	2022 Feb 18 14:02	3°☿40'16		min. Earth dist.	2023 Jan 08 08:41	15°☿50'24	0.67044 AU
	2022 Mar 10 01:32	0°☿		morning rise	2023 Jan 12 18:34	10°☿41'30	
morning set	2022 Mar 24 23:34	25°☿34'04		direct	2023 Jan 18 13:12	8°☿08'08	
	2022 Mar 27 07:44	0°☿		morning max el	2023 Jan 30 05:54	15°☿06'53	24°57'52
max. Earth dist.	2022 Mar 29 01:24	3°☿21'43	1.35111 AU	desc. node	2023 Feb 05 11:05	22°☿08'39	
					2023 Feb 11 11:22	0°☿	
superior conj	2022 Apr 02 23:11	13°☿11'09	-1°-2'-5		2023 Mar 02 22:52	0°☿	
minimum elong	2022 Apr 03 02:18	13°☿27'08	1°01'32	morning set	2023 Mar 07 08:43	7°☿40'44	
asc. node	2022 Apr 09 06:32	26°☿14'46		max. Earth dist.	2023 Mar 11 01:28	14°☿23'26	1.36927 AU
evening rise	2022 Apr 10 17:53	29°☿17'30					
	2022 Apr 11 02:09	0°☿		superior conj	2023 Mar 17 10:45	26°☿34'22	-1°-28'-6
evening max el	2022 Apr 29 08:09	29°☿26'22	20°36'29	minimum elong	2023 Mar 17 14:53	26°☿54'40	1°27'32
	2022 Apr 29 22:23	0°☿			2023 Mar 19 04:24	0°☿	
retrograde	2022 May 10 11:47	4°☿51'31		evening rise	2023 Mar 25 20:54	13°☿25'57	
evening set	2022 May 12 14:10	4°☿40'46		asc. node	2023 Mar 27 03:35	15°☿59'08	
desc. node	2022 May 17 13:12	3°☿01'03			2023 Apr 03 16:22	0°☿	
inferior conj	2022 May 21 19:18	0°☿43'06	-1°-14'-21	evening max el	2023 Apr 11 22:10	11°☿03'45	19°29'24
minimum elong	2022 May 21 15:47	0°☿48'11	1°13'04	retrograde	2023 Apr 21 08:35	15°☿37'17	
min. Earth dist.	2022 May 22 23:31	0°☿02'29	0.55013 AU	evening set	2023 Apr 23 09:40	15°☿25'22	
	2022 May 23 01:15	30°☿☿		inferior conj	2023 May 01 23:27	11°☿19'48	0°42'08
morning rise	2022 May 30 16:05	26°☿34'08		minimum elong	2023 May 02 01:13	11°☿16'58	0°41'30
direct	2022 Jun 03 08:00	26°☿05'14		desc. node	2023 May 04 10:15	9°☿45'18	
	2022 Jun 13 15:27	0°☿		min. Earth dist.	2023 May 04 14:03	9°☿39'21	0.55930 AU
morning max el	2022 Jun 16 14:55	2°☿30'30	23°11'59	morning rise	2023 May 10 12:58	6°☿38'47	
	2022 Jul 05 06:25	0°☿		direct	2023 May 15 03:17	5°☿50'59	
asc. node	2022 Jul 06 05:46	1°☿55'18		morning max el	2023 May 29 05:34	12°☿58'16	24°53'24
morning set	2022 Jul 09 16:48	9°☿01'06			2023 Jun 11 10:27	0°☿	
				asc. node	2023 Jun 23 02:50	21°☿42'07	
superior conj	2022 Jul 16 19:38	24°☿15'19	1°31'19	morning set	2023 Jun 24 04:41	23°☿57'35	
minimum elong	2022 Jul 16 17:27	24°☿03'38	1°31'06		2023 Jun 27 00:24	0°☿	
max. Earth dist.	2022 Jul 19 09:49	29°☿45'27	1.33722 AU				
	2022 Jul 19 12:35	0°☿		superior conj	2023 Jul 01 05:06	9°☿08'45	1°16'10
evening rise	2022 Jul 24 11:57	10°☿10'39		minimum elong	2023 Jul 01 02:41	8°☿55'37	1°15'49
	2022 Aug 04 06:58	0°☿		max. Earth dist.	2023 Jul 02 15:12	12°☿14'07	1.32815 AU
desc. node	2022 Aug 13 12:33	14°☿25'16		evening rise	2023 Jul 08 10:50	24°☿32'03	
	2022 Aug 26 01:03	0°☿			2023 Jul 11 04:11	0°☿	
evening max el	2022 Aug 27 16:14	1°☿36'58	27°19'12		2023 Jul 28 21:31	0°☿	
retrograde	2022 Sep 10 03:38	8°☿55'27		desc. node	2023 Jul 31 09:34	3°☿26'05	
evening set	2022 Sep 17 04:51	6°☿13'08		evening max el	2023 Aug 10 01:47	14°☿33'55	27°24'01
min. Earth dist.	2022 Sep 20 23:10	2°☿43'48	0.64491 AU	retrograde	2023 Aug 23 19:59	21°☿51'07	
inferior conj	2022 Sep 23 06:50	0°☿14'07	-2°-51'-41	evening set	2023 Aug 31 00:52	19°☿19'11	
minimum elong	2022 Sep 23 11:20	0°☿01'59	2°50'09	min. Earth dist.	2023 Sep 03 15:12	16°☿20'32	0.62794 AU
	2022 Sep 23 12:04	30°☿☿		inferior conj	2023 Sep 06 11:09	13°☿36'50	-3°-45'-44
morning rise	2022 Sep 29 19:50	24°☿45'36		minimum elong	2023 Sep 06 16:29	13°☿23'56	3°44'18
direct	2022 Oct 02 09:07	24°☿11'58		morning rise	2023 Sep 13 10:44	8°☿26'42	
asc. node	2022 Oct 02 05:00	24°☿12'07		direct	2023 Sep 15 20:21	8°☿00'11	
morning max el	2022 Oct 08 21:13	27°☿38'51	17°58'55	asc. node	2023 Sep 19 02:03	8°☿49'34	
	2022 Oct 10 23:51	0°☿		morning max el	2023 Sep 22 13:16	11°☿26'32	17°51'38
morning set	2022 Oct 26 05:39	23°☿59'09			2023 Oct 05 00:08	0°☿	
	2022 Oct 29 19:22	0°☿		morning set	2023 Oct 08 17:02	6°☿33'01	

superior conj	2023 Oct 20 05:38	26° Ω 34'20	0°47'23		2024 Sep 09 06:50	0° \cap	
minimum elong	2023 Oct 20 09:48	26° Ω 51'50	0°46'50	morning set	2024 Sep 20 21:28	19° \cap 55'44	
	2023 Oct 22 06:49	0° \cap			2024 Sep 26 08:09	0° Ω	
max. Earth dist.	2023 Oct 27 01:19	7° \cap 49'05	1.43526 AU				
desc. node	2023 Oct 27 08:54	8° \cap 19'43		superior conj	2024 Sep 30 21:09	8° Ω 11'29	1°17'52
evening rise	2023 Nov 04 09:16	20° \cap 59'41		minimum elong	2024 Oct 01 01:29	8° Ω 30'39	1°17'24
	2023 Nov 10 06:25	0° \nearrow		max. Earth dist.	2024 Oct 08 11:58	21° Ω 18'29	1.41855 AU
greatest brilliancy	2023 Nov 29 11:16	27° \nearrow 22'49	-0.4m	desc. node	2024 Oct 13 05:54	29° Ω 05'45	
	2023 Dec 01 14:31	0° \Leftarrow			2024 Oct 13 19:23	0° \cap	
evening max el	2023 Dec 04 14:28	3° \Leftarrow 19'30	21°16'18	evening rise	2024 Oct 14 05:10	0° \cap 39'10	
retrograde	2023 Dec 13 07:09	8° \Leftarrow 29'20			2024 Nov 02 19:18	0° \nearrow	
asc. node	2023 Dec 16 01:19	7° \Leftarrow 47'10		greatest brilliancy	2024 Nov 11 12:39	11° \nearrow 28'09	-0.3m
evening set	2023 Dec 17 09:09	6° \Leftarrow 55'46		evening max el	2024 Nov 16 08:09	16° \nearrow 51'53	22°33'01
inferior conj	2023 Dec 22 18:54	0° \Leftarrow 39'18	2°08'48	retrograde	2024 Nov 26 02:42	22° \nearrow 40'18	
minimum elong	2023 Dec 22 16:28	0° \Leftarrow 47'42	2°07'58	evening set	2024 Nov 30 16:41	20° \nearrow 50'00	
min. Earth dist.	2023 Dec 23 02:29	0° \Leftarrow 13'07	0.67618 AU	asc. node	2024 Dec 01 22:22	19° \nearrow 41'39	
	2023 Dec 23 06:18	30° \nearrow		inferior conj	2024 Dec 06 02:18	14° \nearrow 27'02	1°23'20
morning rise	2023 Dec 27 23:26	24° \nearrow 24'15		minimum elong	2024 Dec 06 00:30	14° \nearrow 33'14	1°22'38
direct	2024 Jan 02 03:07	22° \nearrow 10'52		min. Earth dist.	2024 Dec 05 22:48	14° \nearrow 39'09	0.67836 AU
morning max el	2024 Jan 12 14:37	28° \nearrow 25'20	23°30'07	morning rise	2024 Dec 11 08:13	8° \nearrow 14'23	
	2024 Jan 14 02:49	0° \Leftarrow		direct	2024 Dec 15 20:56	6° \nearrow 23'46	
greatest brilliancy	2024 Jan 19 11:51	6° \Leftarrow 20'24	-0.2m	morning max el	2024 Dec 25 02:30	11° \nearrow 49'37	22°02'57
desc. node	2024 Jan 23 08:09	11° \Leftarrow 21'53		greatest brilliancy	2024 Dec 29 18:37	17° \nearrow 04'43	-0.4m
	2024 Feb 05 05:10	0° \approx			2025 Jan 08 10:30	0° \Leftarrow	
morning set	2024 Feb 16 18:07	18° \approx 35'27		desc. node	2025 Jan 09 05:10	1° \Leftarrow 06'34	
max. Earth dist.	2024 Feb 20 20:12	25° \approx 37'30	1.39033 AU	morning set	2025 Jan 26 22:34	28° \Leftarrow 05'40	
	2024 Feb 23 07:29	0° \nearrow			2025 Jan 28 02:53	0° \approx	
				max. Earth dist.	2025 Feb 01 17:53	7° \approx 37'25	1.41171 AU
superior conj	2024 Feb 28 08:43	9° \nearrow 14'46	-1°-49'-36				
minimum elong	2024 Feb 28 12:49	9° \nearrow 33'56	1°49'16	superior conj	2025 Feb 09 12:08	20° \approx 59'36	-2°-2'-54
evening rise	2024 Mar 08 16:08	27° \nearrow 06'31		minimum elong	2025 Feb 09 14:13	21° \approx 08'52	2°02'52
	2024 Mar 10 04:03	0° \cap			2025 Feb 14 12:06	0° \nearrow	
asc. node	2024 Mar 13 00:39	5° \cap 25'35		evening rise	2025 Feb 20 00:08	10° \nearrow 10'26	
evening max el	2024 Mar 24 22:34	23° \cap 19'22	18°42'06	asc. node	2025 Feb 27 21:41	24° \nearrow 27'18	
retrograde	2024 Apr 01 22:14	27° \cap 13'07			2025 Mar 03 09:04	0° \cap	
evening set	2024 Apr 04 04:23	26° \cap 55'37		evening max el	2025 Mar 08 06:09	6° \cap 04'31	18°14'53
inferior conj	2024 Apr 11 23:03	22° \cap 32'20	2°13'19	retrograde	2025 Mar 15 06:46	9° \cap 35'20	
minimum elong	2024 Apr 12 03:01	22° \cap 24'52	2°12'11	evening set	2025 Mar 17 18:36	9° \cap 09'39	
min. Earth dist.	2024 Apr 15 07:22	20° \cap 02'52	0.57601 AU	inferior conj	2025 Mar 24 19:48	4° \cap 24'56	3°10'39
morning rise	2024 Apr 19 21:17	17° \cap 17'55		minimum elong	2025 Mar 24 23:02	4° \cap 17'50	3°10'05
desc. node	2024 Apr 20 07:18	17° \cap 06'52		min. Earth dist.	2025 Mar 28 05:23	1° \cap 27'42	0.59680 AU
direct	2024 Apr 25 12:54	15° \cap 58'52			2025 Mar 30 02:18	30° \nearrow	
morning max el	2024 May 09 21:29	23° \cap 32'32	26°21'56	morning rise	2025 Mar 31 23:52	28° \nearrow 44'57	
	2024 May 15 17:05	0° \Leftarrow		direct	2025 Apr 07 11:07	26° \nearrow 49'35	
	2024 Jun 03 07:36	0° \cap		desc. node	2025 Apr 07 04:20	26° \nearrow 49'48	
morning set	2024 Jun 07 15:38	8° \cap 50'09			2025 Apr 16 06:25	0° \cap	
asc. node	2024 Jun 08 23:54	11° \cap 41'18		morning max el	2025 Apr 21 18:49	4° \cap 37'19	27°23'25
					2025 May 10 12:15	0° \Leftarrow	
superior conj	2024 Jun 14 16:32	24° \cap 06'06	0°56'55	morning set	2025 May 22 23:56	23° \Leftarrow 33'06	
minimum elong	2024 Jun 14 14:23	23° \cap 54'16	0°56'31		2025 May 26 00:59	0° \cap	
max. Earth dist.	2024 Jun 15 01:49	24° \cap 57'08	1.32306 AU	asc. node	2025 May 26 20:57	1° \cap 47'51	
	2024 Jun 17 09:07	0° \Leftarrow		max. Earth dist.	2025 May 29 14:05	7° \cap 43'39	1.32181 AU
evening rise	2024 Jun 21 16:14	9° \Leftarrow 11'30					
	2024 Jul 02 12:50	0° \cap		superior conj	2025 May 30 04:13	9° \cap 01'17	0°34'18
desc. node	2024 Jul 17 06:34	21° \cap 32'32		minimum elong	2025 May 30 02:45	8° \cap 53'13	0°33'59
evening max el	2024 Jul 22 06:39	26° \cap 52'37	26°56'08	evening rise	2025 Jun 06 01:43	24° \cap 01'00	
	2024 Jul 25 22:42	0° \cap			2025 Jun 08 22:58	0° \Leftarrow	
retrograde	2024 Aug 05 04:56	4° \cap 06'17			2025 Jun 26 19:09	0° \cap	
evening set	2024 Aug 12 04:11	1° \cap 58'17		evening max el	2025 Jul 04 04:39	8° \cap 24'49	25°56'01
	2024 Aug 15 00:15	30° \nearrow		desc. node	2025 Jul 04 03:34	8° \cap 22'16	
min. Earth dist.	2024 Aug 15 20:52	29° \cap 18'58	0.60831 AU	retrograde	2025 Jul 18 04:45	15° \cap 34'31	
inferior conj	2024 Aug 19 01:58	26° \cap 35'36	-4°-30'-18	evening set	2025 Jul 24 10:03	14° \cap 01'43	
minimum elong	2024 Aug 19 06:43	26° \cap 25'30	4°29'29	min. Earth dist.	2025 Jul 28 17:06	11° \cap 24'58	0.58765 AU
morning rise	2024 Aug 26 12:20	21° \cap 46'44		inferior conj	2025 Jul 31 23:41	9° \cap 00'36	-4°-56'-12
direct	2024 Aug 28 21:14	21° \cap 24'32		minimum elong	2025 Aug 01 01:29	8° \cap 57'17	4°56'07
asc. node	2024 Sep 04 23:07	24° \cap 50'34		morning rise	2025 Aug 08 20:23	4° \cap 34'59	
morning max el	2024 Sep 05 02:30	24° \cap 58'43	18°03'12	direct	2025 Aug 11 07:30	4° \cap 14'58	

morning max el	2025 Aug 19 09:48	8°06'51	18°35'00	morning rise	2026 Jul 21 07:41	16°53'02	
asc. node	2025 Aug 22 20:10	12°00'09		direct	2026 Jul 23 22:58	16°51'00	
	2025 Sep 02 13:23	0°00		morning max el	2026 Aug 02 08:07	20°54'05	19°28'05
morning set	2025 Sep 04 14:01	3°05'59		asc. node	2026 Aug 09 17:12	0°02'51	
					2026 Aug 09 16:28	0°00	
superior conj	2025 Sep 13 10:52	20°05'40	1°36'30	morning set	2026 Aug 19 14:55	18°01'31	
minimum elong	2025 Sep 13 13:38	21°07'38	1°36'17		2026 Aug 25 11:04	0°00	
	2025 Sep 18 10:06	0°00					
max. Earth dist.	2025 Sep 20 17:59	4°00'00	1.39868 AU	superior conj	2026 Aug 27 17:04	4°02'59	1°44'50
evening rise	2025 Sep 24 23:17	11°00'46		minimum elong	2026 Aug 27 17:56	4°03'15	1°44'49
desc. node	2025 Sep 30 02:54	19°04'08		max. Earth dist.	2026 Sep 02 21:53	16°05'58	1.37818 AU
	2025 Oct 06 16:41	0°00		evening rise	2026 Sep 06 17:12	23°08'32	
	2025 Oct 29 11:02	0°00			2026 Sep 10 16:20	0°00	
evening max el	2025 Oct 29 22:02	0°00'27'42	23°52'58	desc. node	2026 Sep 16 23:55	10°00'18'59	
retrograde	2025 Nov 09 19:02	6°00'51'43			2026 Sep 30 11:44	0°00	
evening set	2025 Nov 14 22:34	4°00'44'07		evening max el	2026 Oct 12 10:03	14°00'06'17	25°09'39
asc. node	2025 Nov 18 19:23	0°00'26'19		retrograde	2026 Oct 24 07:12	20°00'58'44	
	2025 Nov 19 03:20	30°00'00		evening set	2026 Oct 30 01:07	18°00'34'56	
inferior conj	2025 Nov 20 09:23	28°00'18'28	0°32'31	min. Earth dist.	2026 Nov 03 13:33	13°00'31'58	0.67255 AU
minimum elong	2025 Nov 20 08:37	28°00'21'05	0°32'11	inferior conj	2026 Nov 04 14:24	12°00'10'51	0°-22'-24
min. Earth dist.	2025 Nov 19 19:16	29°00'06'25	0.67716 AU	minimum elong	2026 Nov 04 14:58	12°00'09'00	0°22'10
morning rise	2025 Nov 25 18:52	22°00'10'33		asc. node	2026 Nov 05 16:25	10°00'46'49	
direct	2025 Nov 29 17:38	20°00'42'25		morning rise	2026 Nov 10 05:26	6°00'10'06	
morning max el	2025 Dec 07 21:03	25°00'24'35	20°43'46	direct	2026 Nov 13 15:54	5°00'02'01	
	2025 Dec 11 22:40	0°00		morning max el	2026 Nov 20 23:31	9°00'10'32	19°37'18
greatest brilliancy	2025 Dec 13 17:50	2°00'16'26	-0.5m	greatest brilliancy	2026 Nov 29 05:15	19°00'29'35	-0.6m
desc. node	2025 Dec 27 02:11	21°00'14'12			2026 Dec 06 08:33	0°00	
	2026 Jan 01 21:11	0°00		desc. node	2026 Dec 12 23:12	11°00'38'07	
morning set	2026 Jan 06 01:40	6°00'27'40		morning set	2026 Dec 15 22:40	14°00'41'16	
max. Earth dist.	2026 Jan 14 23:14	20°00'34'44	1.43040 AU		2026 Dec 25 18:22	0°00	
	2026 Jan 20 16:41	0°00		max. Earth dist.	2026 Dec 28 11:41	4°00'18'00	1.44393 AU
superior conj	2026 Jan 21 15:49	1°00'36'53	-2°-3'-12	superior conj	2027 Jan 01 17:07	11°00'02'52	-1°-45'-48
minimum elong	2026 Jan 21 13:20	1°00'26'30	2°03'09	minimum elong	2027 Jan 01 09:27	10°00'32'03	1°45'13
evening rise	2026 Feb 02 16:56	22°00'29'34			2027 Jan 13 06:06	0°00	
	2026 Feb 06 22:48	0°00		evening rise	2027 Jan 15 14:15	3°00'56'00	
asc. node	2026 Feb 14 18:42	12°00'56'28			2027 Feb 01 01:25	0°00	
evening max el	2026 Feb 19 17:41	19°00'10'15	18°07'22	asc. node	2027 Feb 01 15:43	0°00'43'17	
retrograde	2026 Feb 26 06:48	22°00'33'55		evening max el	2027 Feb 03 06:15	2°00'29'09	18°18'55
evening set	2026 Feb 28 23:41	21°00'58'44		retrograde	2027 Feb 09 17:36	5°00'58'53	
inferior conj	2026 Mar 07 11:02	16°00'52'43	3°38'09	evening set	2027 Feb 12 15:32	5°00'13'16	
minimum elong	2026 Mar 07 12:20	16°00'49'25	3°38'04	inferior conj	2027 Feb 18 16:39	29°00'47'37	3°42'51
min. Earth dist.	2026 Mar 10 11:03	13°00'52'35	0.61813 AU	minimum elong	2027 Feb 18 16:06	29°00'49'10	3°42'50
morning rise	2026 Mar 13 22:25	10°00'56'08			2027 Feb 18 12:15	30°00'00	
direct	2026 Mar 20 19:33	8°00'29'27		min. Earth dist.	2027 Feb 21 02:15	27°00'05'46	0.63747 AU
desc. node	2026 Mar 25 01:22	9°00'19'45		morning rise	2027 Feb 24 14:57	23°00'41'18	
morning max el	2026 Apr 03 22:33	16°00'24'16	27°49'10	direct	2027 Mar 03 12:32	20°00'55'23	
	2026 Apr 15 03:21	0°00		desc. node	2027 Mar 11 22:24	24°00'12'14	
	2026 May 03 02:57	0°00		morning max el	2027 Mar 17 06:50	28°00'50'18	27°37'48
morning set	2026 May 07 03:39	7°00'59'54			2027 Mar 18 10:02	0°00	
max. Earth dist.	2026 May 13 00:08	20°00'20'30	1.32449 AU		2027 Apr 08 23:20	0°00	
asc. node	2026 May 13 17:59	21°00'57'14		morning set	2027 Apr 21 00:22	22°00'02'55	
					2027 Apr 24 22:18	0°00	
superior conj	2026 May 14 14:24	23°00'48'24	0°09'00	max. Earth dist.	2027 Apr 26 03:49	2°00'34'08	1.33128 AU
minimum elong	2026 May 14 13:59	23°00'46'06	0°08'54				
behind sun begin	2026 May 14 09:43	23°00'22'48		superior conj	2027 Apr 28 21:22	8°00'21'52	0°-18'-11
behind sun end	2026 May 14 18:16	24°00'09'25		minimum elong	2027 Apr 28 22:16	8°00'26'41	0°18'00
	2026 May 17 10:26	0°00		asc. node	2027 Apr 30 15:01	12°00'05'38	
evening rise	2026 May 21 13:14	8°00'53'19		evening rise	2027 May 06 00:58	23°00'42'09	
	2026 Jun 01 11:56	0°00			2027 May 09 01:58	0°00	
evening max el	2026 Jun 15 20:00	19°00'13'42	24°31'01	evening max el	2027 May 28 09:57	29°00'42'52	22°55'08
desc. node	2026 Jun 21 00:36	23°00'24'18			2027 May 28 17:06	0°00	
retrograde	2026 Jun 29 17:36	26°00'15'26		desc. node	2027 Jun 07 21:37	6°00'02'59	
evening set	2026 Jul 04 16:05	25°00'20'43		retrograde	2027 Jun 10 18:15	6°00'21'40	
min. Earth dist.	2026 Jul 10 06:59	22°00'28'21	0.56866 AU	evening set	2027 Jun 14 04:53	5°00'55'39	
inferior conj	2026 Jul 13 01:26	20°00'42'08	-4°-50'-16	min. Earth dist.	2027 Jun 21 18:48	2°00'33'25	0.55479 AU
minimum elong	2026 Jul 12 22:02	20°00'47'36	4°49'59	inferior conj	2027 Jun 23 07:59	1°00'39'43	-3°-59'-18

minimum elong	2027 Jun 23 00:23	1°  50'44	3°57'34	minimum elong	2028 Jun 01 20:19	12°  15'32	2°20'22
	2027 Jun 26 07:19	30°  II		min. Earth dist.	2028 Jun 02 06:58	12°  00'35	0.54910 AU
morning rise	2027 Jul 01 22:47	27°  II47'31		morning rise	2028 Jun 10 23:12	8°  II08'55	
direct	2027 Jul 04 19:39	27°  II28'09		direct	2028 Jun 14 06:06	7°  II45'25	
	2027 Jul 12 13:48	0°  ☿		morning max el	2028 Jun 26 19:34	13°  II42'38	22°13'58
morning max el	2027 Jul 15 19:24	2°  ☿33'40	20°42'06		2028 Jul 09 01:37	0°  ☿	
asc. node	2027 Jul 27 14:15	18°  ☿46'36		asc. node	2028 Jul 13 11:18	8°  ☿01'01	
	2027 Aug 02 10:52	0°  ♁		morning set	2028 Jul 18 07:26	17°  ☿46'29	
morning set	2027 Aug 03 21:26	2°  ♁56'04			2028 Jul 24 01:50	0°  ♁	
superior conj	2027 Aug 11 11:02	18°  ♁34'45	1°44'44	superior conj	2028 Jul 25 13:07	3°  ♁06'50	1°37'51
minimum elong	2027 Aug 11 10:18	18°  ♁31'00	1°44'44	minimum elong	2028 Jul 25 11:18	2°  ♁57'16	1°37'43
max. Earth dist.	2027 Aug 16 05:11	28°  ♁05'42	1.35951 AU	max. Earth dist.	2028 Jul 28 20:58	10°  ♁02'55	1.34422 AU
	2027 Aug 17 04:43	0°  ♐		evening rise	2028 Aug 02 13:54	19°  ♁27'45	
evening rise	2027 Aug 20 07:38	5°  ♐55'00			2028 Aug 08 05:09	0°  ♐	
	2027 Sep 03 11:37	0°  ♑		desc. node	2028 Aug 20 17:58	20°  ♐31'24	
desc. node	2027 Sep 03 20:56	0°  ♑35'59			2028 Aug 27 13:08	0°  ♑	
evening max el	2027 Sep 24 21:59	27°  ♑45'16	26°15'38	evening max el	2028 Sep 06 10:20	11°  ♑18'04	27°03'14
	2027 Sep 27 09:10	0°  ♒		retrograde	2028 Sep 19 16:34	18°  ♑35'39	
retrograde	2027 Oct 07 14:37	4°  ♒55'40		evening set	2028 Sep 26 12:25	15°  ♑53'09	
evening set	2027 Oct 13 22:29	2°  ♒19'16		min. Earth dist.	2028 Sep 30 10:22	12°  ♑03'07	0.65300 AU
	2027 Oct 16 07:36	30°  ♒♎		inferior conj	2028 Oct 02 10:37	9°  ♑45'55	-2°-18'-36
min. Earth dist.	2027 Oct 18 03:22	27°  ♑52'29	0.66452 AU	minimum elong	2028 Oct 02 14:19	9°  ♑35'23	2°17'12
inferior conj	2027 Oct 19 15:31	26°  ♑01'16	-1°-20'-2	morning rise	2028 Oct 08 17:53	4°  ♑08'03	
minimum elong	2027 Oct 19 17:38	25°  ♑54'45	1°19'11	asc. node	2028 Oct 09 10:31	3°  ♑50'32	
asc. node	2027 Oct 23 13:27	21°  ♑40'18		direct	2028 Oct 11 10:27	3°  ♑28'50	
morning rise	2027 Oct 25 13:53	20°  ♑10'25		morning max el	2028 Oct 17 23:03	7°  ♑00'12	18°11'11
direct	2027 Oct 28 14:10	19°  ♑18'43			2028 Nov 02 15:04	0°  ♒	
morning max el	2027 Nov 04 08:55	23°  ♑04'02	18°46'01	morning set	2028 Nov 05 10:04	4°  ♒35'41	
	2027 Nov 10 00:26	0°  ♒		desc. node	2028 Nov 16 17:16	22°  ♒56'10	
morning set	2027 Nov 25 13:50	23°  ♒54'42					
	2027 Nov 29 10:23	0°  ♐		superior conj	2028 Nov 20 01:40	28°  ♒15'52	0°-22'-21
desc. node	2027 Nov 30 20:14	2°  ♐13'21		minimum elong	2028 Nov 19 22:48	28°  ♒04'31	0°21'58
max. Earth dist.	2027 Dec 11 04:41	18°  ♐29'17	1.45080 AU		2028 Nov 21 04:00	0°  ♐	
				max. Earth dist.	2028 Nov 22 23:47	2°  ♐52'40	1.45032 AU
superior conj	2027 Dec 11 22:16	19°  ♐38'24	-1°-9'-47	evening rise	2028 Dec 06 12:34	24°  ♐00'27	
minimum elong	2027 Dec 11 14:03	19°  ♐06'06	1°08'52		2028 Dec 10 09:12	0°  ♑	
	2027 Dec 18 11:58	0°  ♑		greatest brilliancy	2028 Dec 22 22:33	19°  ♑03'52	-0.7m
evening rise	2027 Dec 27 12:38	14°  ♑24'28		evening max el	2028 Dec 31 00:43	29°  ♑24'40	19°34'59
	2028 Jan 06 05:57	0°  ♒			2028 Dec 31 14:49	0°  ♒	
evening max el	2028 Jan 17 17:16	15°  ♒55'01	18°48'37	asc. node	2029 Jan 05 09:48	3°  ♒17'45	
asc. node	2028 Jan 19 12:45	17°  ♒35'02		retrograde	2029 Jan 07 07:56	3°  ♒38'02	
retrograde	2028 Jan 24 11:02	19°  ♒41'54		evening set	2029 Jan 10 19:03	2°  ♒27'52	
evening set	2028 Jan 27 14:51	18°  ♒44'44			2029 Jan 13 12:13	30°  ♒♑	
inferior conj	2028 Feb 02 08:47	13°  ♒01'27	3°30'46	inferior conj	2029 Jan 16 08:16	26°  ♑29'20	3°06'10
minimum elong	2028 Feb 02 06:56	13°  ♒07'08	3°30'30	minimum elong	2029 Jan 16 05:46	26°  ♑37'34	3°05'36
min. Earth dist.	2028 Feb 04 02:55	10°  ♒51'59	0.65346 AU	min. Earth dist.	2029 Jan 17 11:45	24°  ♑59'17	0.66546 AU
morning rise	2028 Feb 07 21:55	6°  ♒49'47		morning rise	2029 Jan 21 15:45	20°  ♑14'57	
direct	2028 Feb 14 12:38	3°  ♒59'07		direct	2029 Jan 27 18:40	17°  ♑32'29	
desc. node	2028 Feb 26 19:27	10°  ♒50'52		morning max el	2029 Feb 09 01:46	24°  ♑51'07	25°44'46
morning max el	2028 Feb 27 16:35	11°  ♒42'59	26°53'38	desc. node	2029 Feb 12 16:30	28°  ♑45'57	
	2028 Mar 13 07:07	0°  ♐			2029 Feb 13 17:52	0°  ♒	
	2028 Mar 31 12:27	0°  ♑			2029 Mar 06 18:15	0°  ♐	
morning set	2028 Apr 03 10:51	5°  ♑31'00		morning set	2029 Mar 17 06:48	18°  ♐11'45	
max. Earth dist.	2028 Apr 07 21:18	14°  ♑13'47	1.34255 AU	max. Earth dist.	2029 Mar 21 03:05	25°  ♐23'30	1.35845 AU
					2029 Mar 23 12:18	0°  ♑	
superior conj	2028 Apr 11 22:56	22°  ♑34'10	0°-46'-11				
minimum elong	2028 Apr 12 01:16	22°  ♑46'21	0°45'43	superior conj	2029 Mar 26 16:34	6°  ♑18'13	-1°-13'-29
	2028 Apr 15 11:48	0°  ♐		minimum elong	2029 Mar 26 20:12	6°  ♑36'29	1°12'54
asc. node	2028 Apr 16 12:03	2°  ♐08'06		asc. node	2029 Apr 03 09:07	22°  ♑00'33	
evening rise	2028 Apr 19 10:57	8°  ♐20'18		evening rise	2029 Apr 03 17:12	22°  ♑41'45	
	2028 May 01 01:42	0°  ♑			2029 Apr 07 08:51	0°  ♐	
evening max el	2028 May 09 06:13	10°  ♑23'49	21°23'15	evening max el	2029 Apr 21 13:35	21°  ♐38'41	20°05'31
retrograde	2028 May 21 08:43	16°  ♑18'53		retrograde	2029 May 01 23:05	26°  ♐40'20	
evening set	2028 May 23 17:43	16°  ♑05'59		evening set	2029 May 03 23:49	26°  ♐29'41	
desc. node	2028 May 24 18:40	15°  ♑52'36		desc. node	2029 May 11 15:42	23°  ♐17'36	
inferior conj	2028 Jun 02 02:46	12°  ♑06'29	-2°-22'-32	inferior conj	2029 May 12 23:27	22°  ♐30'34	0°-23'-8

minimum elong	2029 May 12 22:23	22°♄32'10	0°22'45	minimum elong	2030 Apr 23 14:23	3°♄15'50	1°23'48
min. Earth dist.	2029 May 14 20:09	21°♄23'49	0.55305 AU	min. Earth dist.	2030 Apr 26 11:23	1°♄18'17	0.56573 AU
morning rise	2029 May 21 18:22	18°♄09'16		desc. node	2030 Apr 28 12:44	0°♄01'28	
direct	2029 May 25 19:20	17°♄33'39			2030 Apr 28 13:44	30°♄	
morning max el	2029 Jun 08 11:50	24°♄18'15	23°55'38	morning rise	2030 May 01 19:02	28°♄25'47	
	2029 Jun 13 16:46	0°♄		direct	2030 May 06 20:15	27°♄26'11	
asc. node	2029 Jun 30 08:22	27°♄38'00			2030 May 15 01:30	0°♄	
	2029 Jul 01 12:01	0°♄		morning max el	2030 May 21 02:20	4°♄45'35	25°33'37
morning set	2029 Jul 02 19:05	2°♄42'19			2030 Jun 08 06:31	0°♄	
				morning set	2030 Jun 17 06:49	17°♄38'31	
superior conj	2029 Jul 09 20:31	17°♄54'26	1°25'26	asc. node	2030 Jun 17 05:25	17°♄31'08	
minimum elong	2029 Jul 09 18:11	17°♄41'47	1°25'08		2030 Jun 22 23:56	0°♄	
max. Earth dist.	2029 Jul 11 22:10	22°♄21'05	1.33290 AU				
	2029 Jul 15 13:37	0°♄		superior conj	2030 Jun 24 07:04	2°♄50'41	1°08'28
evening rise	2029 Jul 17 07:45	3°♄34'30		minimum elong	2030 Jun 24 04:43	2°♄37'47	1°08'04
	2029 Jul 31 23:35	0°♄		max. Earth dist.	2030 Jun 25 06:28	4°♄58'40	1.32554 AU
desc. node	2029 Aug 07 15:01	9°♄55'38		evening rise	2030 Jul 01 09:46	18°♄05'06	
evening max el	2029 Aug 19 21:42	24°♄32'16	27°25'15		2030 Jul 07 10:22	0°♄	
	2029 Aug 27 02:21	0°♄		desc. node	2030 Jul 25 12:02	28°♄35'54	
retrograde	2029 Sep 02 12:18	1°♄49'51			2030 Jul 26 14:53	0°♄	
	2029 Sep 08 10:59	30°♄		evening max el	2030 Aug 02 05:34	7°♄14'31	27°16'13
evening set	2029 Sep 09 15:57	29°♄10'43		retrograde	2030 Aug 16 01:20	14°♄29'44	
min. Earth dist.	2029 Sep 13 08:16	25°♄55'13	0.63803 AU	evening set	2030 Aug 23 05:25	12°♄06'13	
inferior conj	2029 Sep 15 21:11	23°♄18'33	-3°-15'-26	min. Earth dist.	2030 Aug 26 19:39	9°♄17'49	0.61989 AU
minimum elong	2029 Sep 16 02:09	23°♄05'44	3°13'51	inferior conj	2030 Aug 29 20:10	6°♄32'16	-4°-6'-16
morning rise	2029 Sep 22 14:33	17°♄57'11		minimum elong	2030 Aug 30 01:30	6°♄20'05	4°05'02
direct	2029 Sep 25 02:02	17°♄26'50		morning rise	2030 Sep 06 00:22	1°♄30'58	
asc. node	2029 Sep 26 07:35	17°♄34'27		direct	2030 Sep 08 09:27	1°♄06'28	
morning max el	2029 Oct 01 15:12	20°♄52'28	17°53'37	asc. node	2030 Sep 13 04:37	2°♄49'16	
	2029 Oct 08 12:40	0°♄		morning max el	2030 Sep 15 06:26	4°♄34'38	17°54'14
morning set	2029 Oct 18 08:55	16°♄33'38		morning set	2030 Oct 01 04:14	29°♄30'09	
	2029 Oct 26 06:04	0°♄			2030 Oct 01 10:49	0°♄	
superior conj	2029 Oct 30 23:13	7°♄49'03	0°24'27	superior conj	2030 Oct 11 23:47	18°♄42'18	1°01'50
minimum elong	2029 Oct 31 01:50	7°♄59'43	0°24'05	minimum elong	2030 Oct 12 04:20	19°♄01'53	1°01'15
desc. node	2029 Nov 03 14:18	13°♄42'37			2030 Oct 18 17:03	0°♄	
max. Earth dist.	2029 Nov 05 17:51	17°♄09'14	1.44262 AU	max. Earth dist.	2030 Oct 19 07:47	1°♄00'22	1.42869 AU
	2029 Nov 13 22:09	0°♄		desc. node	2030 Oct 21 11:19	4°♄29'45	
evening rise	2029 Nov 15 22:17	3°♄05'45		evening rise	2030 Oct 26 09:42	12°♄20'25	
	2029 Dec 03 22:47	0°♄			2030 Nov 07 00:30	0°♄	
greatest brilliancy	2029 Dec 08 05:42	5°♄53'15	-0.5m	greatest brilliancy	2030 Nov 22 04:15	20°♄57'37	-0.4m
evening max el	2029 Dec 14 02:58	12°♄54'55	20°35'54	evening max el	2030 Nov 26 23:28	26°♄25'30	21°48'06
retrograde	2029 Dec 22 05:50	17°♄42'28			2030 Dec 01 02:27	0°♄	
asc. node	2029 Dec 23 06:51	17°♄36'24		retrograde	2030 Dec 06 02:47	1°♄51'52	
evening set	2029 Dec 26 01:57	16°♄17'41		evening set	2030 Dec 10 09:44	0°♄11'04	
inferior conj	2029 Dec 31 12:28	10°♄06'45	2°32'00	asc. node	2030 Dec 10 03:53	0°♄22'21	
minimum elong	2029 Dec 31 09:52	10°♄15'37	2°31'13		2030 Dec 10 15:10	30°♄	
min. Earth dist.	2030 Jan 01 02:49	9°♄17'48	0.67339 AU	inferior conj	2030 Dec 15 19:14	23°♄51'10	1°50'14
morning rise	2030 Jan 05 17:19	3°♄51'35		minimum elong	2030 Dec 15 17:01	23°♄58'50	1°49'26
direct	2030 Jan 11 05:45	1°♄26'14		min. Earth dist.	2030 Dec 15 21:54	23°♄41'54	0.67752 AU
morning max el	2030 Jan 22 10:10	8°♄06'24	24°21'05	morning rise	2030 Dec 21 00:05	17°♄36'59	
desc. node	2030 Jan 30 13:32	17°♄34'53		direct	2030 Dec 25 21:14	15°♄33'26	
	2030 Feb 08 14:03	0°♄		morning max el	2031 Jan 04 19:56	21°♄27'06	22°52'33
morning set	2030 Feb 27 06:37	29°♄49'41		greatest brilliancy	2031 Jan 09 12:19	26°♄40'40	-0.3m
	2030 Feb 27 08:59	0°♄			2031 Jan 12 04:18	0°♄	
max. Earth dist.	2030 Mar 03 00:16	6°♄27'20	1.37809 AU	desc. node	2031 Jan 17 10:33	7°♄02'16	
					2031 Feb 01 21:15	0°♄	
superior conj	2030 Mar 09 22:54	19°♄24'52	-1°-37'-57	morning set	2031 Feb 08 04:06	10°♄08'57	
minimum elong	2030 Mar 10 03:12	19°♄45'33	1°37'28	max. Earth dist.	2031 Feb 12 19:46	17°♄59'17	1.39954 AU
	2030 Mar 15 08:41	0°♄			2031 Feb 19 15:02	0°♄	
evening rise	2030 Mar 18 17:17	6°♄39'41					
asc. node	2030 Mar 21 06:10	11°♄38'14		superior conj	2031 Feb 20 13:36	1°♄42'47	-1°-56'-30
	2030 Apr 01 04:47	0°♄		minimum elong	2031 Feb 20 17:09	1°♄59'01	1°56'18
evening max el	2030 Apr 04 08:20	3°♄33'11	19°06'42	evening rise	2031 Mar 02 08:12	20°♄05'51	
retrograde	2030 Apr 13 02:33	7°♄47'57			2031 Mar 07 15:01	0°♄	
evening set	2030 Apr 15 05:35	7°♄33'59		asc. node	2031 Mar 08 03:12	0°♄55'03	
inferior conj	2030 Apr 23 11:14	3°♄21'15	1°24'50	evening max el	2031 Mar 18 12:06	16°♄02'08	18°28'01

retrograde	2031 Mar 26 00:43	19° Υ 44'33		evening max el	2032 Feb 29 21:48	28° Υ 57'27	18°09'22
evening set	2031 Mar 28 09:11	19° Υ 23'55			2032 Mar 02 01:19	0° Υ	
inferior conj	2031 Apr 04 20:02	14° Υ 51'31	2°41'41	retrograde	2032 Mar 07 16:21	2° Υ 23'32	
minimum elong	2031 Apr 04 23:57	14° Υ 43'38	2°40'44	evening set	2032 Mar 10 06:17	1° Υ 54'04	
min. Earth dist.	2031 Apr 08 06:29	12° Υ 07'13	0.58451 AU		2032 Mar 13 13:47	30° \Re \Im	
morning rise	2031 Apr 12 10:32	9° Υ 24'42		inferior conj	2032 Mar 17 01:11	27° Υ 00'31	3°25'31
desc. node	2031 Apr 15 09:46	8° Υ 14'56		minimum elong	2032 Mar 17 03:38	26° Υ 54'45	3°25'11
direct	2031 Apr 18 11:15	7° Υ 50'29		min. Earth dist.	2032 Mar 20 07:46	23° Υ 58'45	0.60591 AU
morning max el	2031 May 02 20:32	15° Υ 31'40	26°52'08	morning rise	2032 Mar 23 21:46	21° Υ 12'15	
	2031 May 14 14:00	0° \Im		direct	2032 Mar 30 14:29	19° Υ 02'06	
	2031 May 31 12:23	0° Π		desc. node	2032 Apr 01 06:47	19° Υ 09'56	
morning set	2031 Jun 01 16:52	2° Π 28'07		morning max el	2032 Apr 13 20:46	26° Υ 54'34	27°38'53
asc. node	2031 Jun 04 02:27	7° Π 34'06			2032 Apr 16 19:07	0° Υ	
					2032 May 07 03:35	0° \Im	
superior conj	2031 Jun 08 18:49	17° Π 47'59	0°47'43	morning set	2032 May 15 23:30	17° \Im 05'14	
minimum elong	2031 Jun 08 16:55	17° Π 37'28	0°47'19	asc. node	2032 May 20 23:30	27° \Im 42'29	
max. Earth dist.	2031 Jun 08 18:17	17° Π 45'00	1.32205 AU	max. Earth dist.	2032 May 22 05:55	0° Π 28'13	1.32246 AU
	2031 Jun 14 09:09	0° \Im			2032 May 22 00:45	0° Π	
evening rise	2031 Jun 15 17:09	2° \Im 49'38					
	2031 Jun 30 08:25	0° Ω		superior conj	2032 May 23 06:07	2° Π 40'43	0°23'51
desc. node	2031 Jul 12 09:02	16° Ω 12'53		minimum elong	2032 May 23 05:03	2° Π 34'54	0°23'37
evening max el	2031 Jul 15 07:24	19° Ω 12'50	26°34'04	evening rise	2032 May 30 03:45	17° Π 41'05	
retrograde	2031 Jul 29 06:47	26° Ω 25'35			2032 Jun 05 05:43	0° \Im	
evening set	2031 Aug 05 00:08	24° Ω 31'08			2032 Jun 25 15:57	0° Ω	
min. Earth dist.	2031 Aug 08 20:51	21° Ω 55'24	0.59954 AU	evening max el	2032 Jun 26 02:14	0° Ω 24'53	25°22'06
inferior conj	2031 Aug 12 04:04	19° Ω 17'20	-4°-44'-15	desc. node	2032 Jun 28 06:03	2° Ω 20'55	
minimum elong	2031 Aug 12 07:53	19° Ω 09'40	4°43'47	retrograde	2032 Jul 10 02:33	7° Ω 32'42	
morning rise	2031 Aug 19 19:00	14° Ω 38'39		evening set	2032 Jul 15 19:50	6° Ω 16'36	
direct	2031 Aug 22 04:28	14° Ω 17'39		min. Earth dist.	2032 Jul 20 14:13	3° Ω 34'54	0.57919 AU
morning max el	2031 Aug 29 17:35	17° Ω 57'51	18°14'14	inferior conj	2032 Jul 23 17:30	1° Ω 24'33	-4°-58'-26
asc. node	2031 Aug 31 01:39	19° Ω 21'04		minimum elong	2032 Jul 23 17:16	1° Ω 24'58	4°58'28
	2031 Sep 07 09:56	0° \mathfrak{M}			2032 Jul 25 19:20	30° \Re \Im	
morning set	2031 Sep 14 14:17	13° \mathfrak{M} 08'47		morning rise	2032 Jul 31 18:24	27° \Im 08'33	
	2031 Sep 23 14:35	0° $\underline{\Omega}$		direct	2032 Aug 03 06:52	26° \Im 49'14	
					2032 Aug 10 21:46	0° Ω	
superior conj	2031 Sep 24 01:27	0° $\underline{\Omega}$ 49'25	1°27'09	morning max el	2032 Aug 11 21:26	0° Ω 52'39	18°54'53
minimum elong	2031 Sep 24 05:14	1° $\underline{\Omega}$ 06'33	1°26'47	asc. node	2032 Aug 16 22:42	6° Ω 54'44	
max. Earth dist.	2031 Oct 01 15:54	14° $\underline{\Omega}$ 11'02	1.41029 AU	morning set	2032 Aug 28 10:45	27° Ω 17'55	
evening rise	2031 Oct 06 14:13	22° $\underline{\Omega}$ 23'33			2032 Aug 29 19:41	0° \mathfrak{M}	
desc. node	2031 Oct 08 08:20	25° $\underline{\Omega}$ 14'03					
	2031 Oct 11 08:18	0° \mathfrak{M}		superior conj	2032 Sep 05 22:47	13° \mathfrak{M} 54'53	1°41'10
	2031 Nov 01 02:35	0° \mathfrak{J}		minimum elong	2032 Sep 06 00:45	14° \mathfrak{M} 04'14	1°41'04
greatest brilliancy	2031 Nov 03 18:12	3° \mathfrak{J} 20'40	-0.2m	max. Earth dist.	2032 Sep 12 19:57	26° \mathfrak{M} 38'53	1.38988 AU
evening max el	2031 Nov 09 15:06	9° \mathfrak{J} 58'13	23°07'02		2032 Sep 14 17:24	0° $\underline{\Omega}$	
retrograde	2031 Nov 19 21:15	16° \mathfrak{J} 03'12		evening rise	2032 Sep 16 18:41	3° $\underline{\Omega}$ 33'40	
evening set	2031 Nov 24 16:46	14° \mathfrak{J} 05'29		desc. node	2032 Sep 24 05:21	15° $\underline{\Omega}$ 51'43	
asc. node	2031 Nov 27 00:54	11° \mathfrak{J} 42'57			2032 Oct 03 12:29	0° \mathfrak{M}	
inferior conj	2031 Nov 30 02:43	7° \mathfrak{J} 40'35	1°02'22	evening max el	2032 Oct 22 03:56	23° \mathfrak{M} 34'59	24°26'34
minimum elong	2031 Nov 30 01:19	7° \mathfrak{J} 45'25	1°01'48		2032 Oct 31 17:33	0° \mathfrak{J}	
min. Earth dist.	2031 Nov 29 18:38	8° \mathfrak{J} 08'24	0.67816 AU	retrograde	2032 Nov 02 11:56	0° \mathfrak{J} 12'35	
morning rise	2031 Dec 05 09:52	1° \mathfrak{J} 29'32			2032 Nov 04 04:37	30° \Re \mathfrak{M}	
	2031 Dec 08 05:36	30° \Re \mathfrak{M}		evening set	2032 Nov 07 21:25	27° \mathfrak{M} 58'06	
direct	2031 Dec 09 16:23	29° \mathfrak{M} 48'48		min. Earth dist.	2032 Nov 12 14:34	22° \mathfrak{M} 34'42	0.67553 AU
	2031 Dec 11 04:22	0° \mathfrak{J}		asc. node	2032 Nov 12 21:56	22° \mathfrak{M} 10'05	
morning max el	2031 Dec 18 10:25	4° \mathfrak{J} 55'44	21°27'59	inferior conj	2032 Nov 13 09:08	21° \mathfrak{M} 32'31	0°09'38
greatest brilliancy	2031 Dec 23 11:40	10° \mathfrak{J} 41'10	-0.4m	minimum elong	2032 Nov 13 08:54	21° \mathfrak{M} 33'18	0°09'32
desc. node	2032 Jan 04 07:34	26° \mathfrak{J} 57'25		transit middle	2032 Nov 13 08:54	21° \mathfrak{M} 33'18	0°09'32
	2032 Jan 06 09:13	0° \mathfrak{Z}		transit begin	2032 Nov 13 06:41	21° \mathfrak{M} 40'45	
morning set	2032 Jan 18 20:34	19° \mathfrak{Z} 06'07		transit end	2032 Nov 13 11:07	21° \mathfrak{M} 25'52	
	2032 Jan 25 14:41	0° \approx		morning rise	2032 Nov 18 20:43	15° \mathfrak{M} 27'03	
max. Earth dist.	2032 Jan 25 20:03	0° \approx 22'09	1.42003 AU	direct	2032 Nov 22 14:00	14° \mathfrak{M} 07'43	
				morning max el	2032 Nov 30 08:11	18° \mathfrak{M} 34'34	20°13'42
superior conj	2032 Feb 02 07:31	13° \approx 00'03	-2°-4'-57	greatest brilliancy	2032 Dec 07 01:16	26° \mathfrak{M} 38'12	-0.6m
minimum elong	2032 Feb 02 07:58	13° \approx 02'00	2°04'57		2032 Dec 09 12:04	0° \mathfrak{J}	
	2032 Feb 11 20:34	0° Υ		desc. node	2032 Dec 21 04:35	17° \mathfrak{J} 12'13	
evening rise	2032 Feb 13 10:18	2° Υ 51'55		morning set	2032 Dec 27 17:43	27° \mathfrak{J} 13'55	
asc. node	2032 Feb 23 00:14	19° Υ 44'15			2032 Dec 29 12:34	0° \mathfrak{Z}	

max. Earth dist.	2033 Jan 07 04:07	13°☿38'33	1.43684 AU	morning set	2033 Dec 06 20:02	5°♄46'21	
				desc. node	2033 Dec 08 01:39	7°♄41'32	
superior conj	2033 Jan 12 23:56	23°☿06'08	-1°-58'-12	max. Earth dist.	2033 Dec 20 19:16	27°♄37'16	1.44780 AU
minimum elong	2033 Jan 12 19:04	22°☿46'07	1°57'58		2033 Dec 22 07:24	0°☿	
	2033 Jan 17 03:32	0°♊					
evening rise	2033 Jan 25 19:15	14°♊48'29		superior conj	2033 Dec 23 15:08	2°☿05'46	-1°-32'-34
	2033 Feb 03 16:04	0°♋		minimum elong	2033 Dec 23 06:22	1°☿31'00	1°31'45
asc. node	2033 Feb 08 21:16	7°♋56'29		evening rise	2034 Jan 07 07:02	25°☿49'56	
evening max el	2033 Feb 12 10:10	12°♋09'30	18°10'07		2034 Jan 09 19:35	0°♊	
retrograde	2033 Feb 18 21:20	15°♋33'55		asc. node	2034 Jan 26 18:18	25°♊21'03	
evening set	2033 Feb 21 16:24	14°♋54'21		evening max el	2034 Jan 26 22:24	25°♊31'33	18°29'26
inferior conj	2033 Feb 27 22:59	9°♋40'00	3°42'31	retrograde	2034 Feb 02 11:22	29°♊07'00	
minimum elong	2033 Feb 27 23:28	9°♋38'46	3°42'30	evening set	2034 Feb 05 11:47	28°♊16'26	
min. Earth dist.	2033 Mar 02 17:19	6°♋45'23	0.62672 AU	inferior conj	2034 Feb 11 09:29	22°♊42'51	3°39'27
morning rise	2033 Mar 06 04:22	3°♋38'53		minimum elong	2034 Feb 11 08:18	22°♊46'18	3°39'21
direct	2033 Mar 13 02:57	1°♋02'02		min. Earth dist.	2034 Feb 13 12:23	20°♊13'50	0.64477 AU
desc. node	2033 Mar 19 03:48	2°♋44'02		morning rise	2034 Feb 17 03:27	16°♊34'05	
morning max el	2033 Mar 27 02:28	8°♋57'40	27°48'39	direct	2034 Feb 23 22:54	13°♊44'39	
	2033 Apr 12 09:17	0°♌		desc. node	2034 Mar 06 00:50	18°♊25'09	
	2033 Apr 29 08:08	0°♍		morning max el	2034 Mar 09 11:36	21°♊35'28	27°22'40
morning set	2033 Apr 30 00:34	1°♍22'32			2034 Mar 16 19:52	0°♋	
max. Earth dist.	2033 May 05 13:36	12°♍55'42	1.32685 AU		2034 Apr 05 13:01	0°♌	
				morning set	2034 Apr 13 17:22	15°♌11'21	
superior conj	2033 May 07 15:11	17°♍22'45	0°-2'-22	max. Earth dist.	2034 Apr 18 13:28	24°♌55'41	1.33552 AU
minimum elong	2033 May 07 15:18	17°♍23'21	0°02'21		2034 Apr 20 23:46	0°♍	
behind sun begin	2033 May 07 10:08	16°♍55'26					
behind sun end	2033 May 07 20:27	17°♍51'17		superior conj	2034 Apr 21 20:08	1°♍47'37	0°-30'-2
asc. node	2033 May 07 20:34	17°♍51'53		minimum elong	2034 Apr 21 21:38	1°♍55'36	0°29'43
	2033 May 13 10:57	0°♎		asc. node	2034 Apr 24 17:37	7°♍57'57	
evening rise	2033 May 14 15:35	2°♎32'36		evening rise	2034 Apr 29 02:49	17°♍17'31	
	2033 May 29 15:50	0°♏			2034 May 05 11:02	0°♎	
evening max el	2033 Jun 07 16:24	11°♏02'43	23°50'42	evening max el	2034 May 20 08:12	21°♎33'00	22°14'50
desc. node	2033 Jun 15 03:04	16°♏26'37		retrograde	2034 Jun 02 05:23	27°♎55'09	
retrograde	2033 Jun 21 10:05	17°♏56'22		desc. node	2034 Jun 02 00:06	27°♎55'02	
evening set	2033 Jun 25 17:01	17°♏15'53		evening set	2034 Jun 05 03:25	27°♎36'19	
min. Earth dist.	2033 Jul 02 03:00	14°♏12'17	0.56198 AU	min. Earth dist.	2034 Jun 13 14:24	23°♎57'55	0.55125 AU
inferior conj	2033 Jul 04 10:47	12°♏47'26	-4°-34'-42	inferior conj	2034 Jun 14 10:58	23°♎28'57	-3°-23'-3
minimum elong	2033 Jul 04 05:11	12°♏56'01	4°33'53	minimum elong	2034 Jun 14 03:05	23°♎40'05	3°20'51
morning rise	2033 Jul 12 20:46	8°♏49'39		morning rise	2034 Jun 23 04:46	19°♎37'16	
direct	2033 Jul 15 14:19	8°♏30'35		direct	2034 Jun 26 05:23	19°♎16'41	
morning max el	2033 Jul 25 15:11	13°♏09'51	19°56'59	morning max el	2034 Jul 07 21:29	24°♎43'10	21°19'21
asc. node	2033 Aug 03 19:45	25°♏16'32			2034 Jul 12 16:13	0°♏	
	2033 Aug 06 12:31	0°♐		asc. node	2034 Jul 21 16:49	14°♏14'30	
morning set	2033 Aug 12 14:24	11°♐49'02		morning set	2034 Jul 27 22:41	26°♏34'20	
					2034 Jul 29 14:12	0°♑	
superior conj	2033 Aug 20 10:33	27°♑43'59	1°45'43				
minimum elong	2033 Aug 20 10:41	27°♑44'40	1°45'43	superior conj	2034 Aug 04 08:24	12°♑03'26	1°42'35
	2033 Aug 21 13:54	0°♒		minimum elong	2034 Aug 04 07:08	11°♑56'55	1°42'31
max. Earth dist.	2033 Aug 26 00:56	8°♒38'10	1.36997 AU	max. Earth dist.	2034 Aug 08 11:53	20°♑30'26	1.35258 AU
evening rise	2033 Aug 29 21:59	15°♒48'33		evening rise	2034 Aug 12 19:44	28°♑56'13	
	2033 Sep 07 03:48	0°♓			2034 Aug 13 09:14	0°♒	
desc. node	2033 Sep 11 02:24	6°♓18'20		desc. node	2034 Aug 28 23:27	26°♒27'18	
	2033 Sep 28 01:43	0°♔			2034 Aug 31 08:33	0°♓	
evening max el	2033 Oct 04 16:04	7°♔15'30	25°39'31	evening max el	2034 Sep 17 04:16	20°♓53'03	26°38'27
retrograde	2033 Oct 16 22:03	14°♔16'09		retrograde	2034 Sep 30 03:00	28°♓06'59	
evening set	2033 Oct 22 22:01	11°♔46'39		evening set	2034 Oct 06 16:31	25°♓26'55	
min. Earth dist.	2033 Oct 27 07:17	6°♔58'51	0.66960 AU	min. Earth dist.	2034 Oct 10 18:21	21°♓16'03	0.66016 AU
inferior conj	2033 Oct 28 12:45	5°♔24'49	0°-46'-35	inferior conj	2034 Oct 12 11:35	19°♓13'12	-1°-44'-52
minimum elong	2033 Oct 28 13:58	5°♔20'58	0°46'05	minimum elong	2034 Oct 12 14:23	19°♓04'50	1°43'46
asc. node	2033 Oct 30 18:57	2°♔38'18		asc. node	2034 Oct 17 16:00	14°♓00'30	
	2033 Nov 02 12:07	30°♕		morning rise	2034 Oct 18 13:35	13°♓27'39	
morning rise	2033 Nov 03 06:41	29°♓27'47		direct	2034 Oct 21 10:22	12°♓41'40	
direct	2033 Nov 06 12:39	28°♓26'56		morning max el	2034 Oct 28 01:32	16°♓19'32	18°29'08
	2033 Nov 10 18:34	0°♖			2034 Nov 07 04:05	0°♔	
morning max el	2033 Nov 13 13:45	2°♖24'03	19°13'29	morning set	2034 Nov 16 23:17	15°♖36'47	
greatest brilliancy	2033 Nov 24 00:22	16°♖05'33	-0.7m	desc. node	2034 Nov 24 22:43	28°♖20'30	
	2033 Dec 03 02:51	0°♗			2034 Nov 25 23:50	0°♕	

superior conj	2034 Dec 02 16:45	10°♂34'01	0°-50'-20	morning set	2035 Oct 29 07:25	26°♂52'03	
minimum elong	2034 Dec 02 10:21	10°♂08'53	0°49'33		2035 Oct 31 04:18	0°♂	
max. Earth dist.	2034 Dec 03 14:01	11°♂57'31	1.45155 AU	desc. node	2035 Nov 11 19:43	19°♂05'05	
	2034 Dec 15 01:35	0°♂					
evening rise	2034 Dec 18 19:30	5°♂54'55		superior conj	2035 Nov 12 01:57	19°♂30'03	0°-1'-45
greatest brilliancy	2034 Dec 30 11:39	24°♂16'00	-0.7m	minimum elong	2035 Nov 12 01:43	19°♂29'09	0°01'44
	2035 Jan 03 07:28	0°♂		behind sun begin	2035 Nov 11 15:14	18°♂47'05	
evening max el	2035 Jan 10 08:04	8°♂58'56	19°06'22	behind sun end	2035 Nov 12 12:13	20°♂11'09	
asc. node	2035 Jan 13 15:18	11°♂45'07		max. Earth dist.	2035 Nov 16 08:44	26°♂18'54	1.44787 AU
retrograde	2035 Jan 17 06:44	12°♂56'13			2035 Nov 18 16:53	0°♂	
evening set	2035 Jan 20 13:28	11°♂53'36		evening rise	2035 Nov 28 11:46	15°♂13'20	
inferior conj	2035 Jan 26 05:06	6°♂03'12	3°21'39		2035 Dec 08 03:26	0°♂	
minimum elong	2035 Jan 26 02:54	6°♂10'12	3°21'16	greatest brilliancy	2035 Dec 17 13:28	13°♂48'28	-0.6m
min. Earth dist.	2035 Jan 27 16:43	4°♂10'16	0.65902 AU	evening max el	2035 Dec 24 13:18	22°♂28'14	19°59'17
	2035 Jan 31 10:58	30°♂		asc. node	2035 Dec 31 12:20	26°♂53'24	
morning rise	2035 Jan 31 15:25	29°♂50'02		retrograde	2036 Jan 01 04:24	26°♂55'53	
direct	2035 Feb 07 01:24	27°♂01'49		evening set	2036 Jan 04 19:01	25°♂39'48	
	2035 Feb 14 14:31	0°♂		inferior conj	2036 Jan 10 06:52	19°♂35'29	2°52'43
morning max el	2035 Feb 19 21:31	4°♂36'45	26°26'57	minimum elong	2036 Jan 10 04:15	19°♂44'14	2°52'02
desc. node	2035 Feb 20 21:54	5°♂39'30		min. Earth dist.	2036 Jan 11 04:35	18°♂22'48	0.66926 AU
	2035 Mar 11 07:16	0°♂		morning rise	2036 Jan 15 12:51	13°♂20'16	
morning set	2035 Mar 27 22:18	28°♂21'11		direct	2036 Jan 21 09:42	10°♂44'13	
	2035 Mar 28 19:13	0°♂		morning max el	2036 Feb 02 06:22	17°♂48'49	25°10'22
max. Earth dist.	2035 Apr 01 02:18	6°♂22'41	1.34873 AU	desc. node	2036 Feb 07 18:56	23°♂59'35	
					2036 Feb 12 12:02	0°♂	
superior conj	2035 Apr 05 18:41	15°♂48'46	0°-57'-56		2036 Mar 03 07:48	0°♂	
minimum elong	2035 Apr 05 21:37	16°♂03'49	0°57'25	morning set	2036 Mar 09 10:25	10°♂37'04	
asc. node	2035 Apr 11 14:40	27°♂56'44		max. Earth dist.	2036 Mar 13 03:35	17°♂24'52	1.36635 AU
	2035 Apr 12 14:21	0°♂					
evening rise	2035 Apr 13 11:31	1°♂49'37		superior conj	2036 Mar 19 07:54	29°♂17'25	-1°-24'-22
	2035 Apr 30 01:44	0°♂		minimum elong	2036 Mar 19 11:56	29°♂37'19	1°23'48
evening max el	2035 May 02 08:44	2°♂26'10	20°48'05		2036 Mar 19 16:31	0°♂	
retrograde	2035 May 13 18:40	7°♂59'29		evening rise	2036 Mar 27 15:26	16°♂01'18	
evening set	2035 May 15 22:09	7°♂48'28		asc. node	2036 Mar 28 11:41	17°♂43'02	
desc. node	2035 May 19 21:07	6°♂36'22			2036 Apr 03 22:09	0°♂	
inferior conj	2035 May 25 04:45	3°♂50'47	-1°-32'-38	evening max el	2036 Apr 13 21:03	13°♂57'26	19°38'07
minimum elong	2035 May 25 00:22	3°♂57'01	1°31'04	retrograde	2036 Apr 23 13:18	18°♂37'49	
min. Earth dist.	2035 May 26 02:52	3°♂19'13	0.54952 AU	evening set	2036 Apr 25 14:00	18°♂26'24	
	2035 Jun 02 04:33	30°♂		inferior conj	2036 May 04 06:33	14°♂23'01	0°25'39
morning rise	2035 Jun 03 01:42	29°♂45'18		minimum elong	2036 May 04 07:40	14°♂21'17	0°25'15
direct	2035 Jun 06 14:52	29°♂18'11		desc. node	2036 May 05 18:09	13°♂26'43	
	2035 Jun 10 22:32	0°♂		min. Earth dist.	2036 May 06 17:06	12°♂50'58	0.55742 AU
morning max el	2035 Jun 19 17:52	5°♂36'30	22°56'45	morning rise	2036 May 12 21:44	9°♂47'10	
	2035 Jul 06 16:36	0°♂		direct	2036 May 17 08:29	9°♂02'52	
asc. node	2035 Jul 08 13:55	3°♂39'36		morning max el	2036 May 31 08:41	16°♂05'00	24°38'43
morning set	2035 Jul 12 09:37	11°♂28'02			2036 Jun 11 13:05	0°♂	
				asc. node	2036 Jun 24 10:58	23°♂23'42	
superior conj	2035 Jul 19 13:05	26°♂43'28	1°33'13	morning set	2036 Jun 25 21:28	26°♂24'04	
minimum elong	2035 Jul 19 10:59	26°♂32'16	1°33'00		2036 Jun 27 14:02	0°♂	
	2035 Jul 21 02:06	0°♂					
max. Earth dist.	2035 Jul 22 07:42	2°♂35'36	1.33889 AU	superior conj	2036 Jul 02 22:03	11°♂35'19	1°18'45
evening rise	2035 Jul 27 07:24	12°♂44'44		minimum elong	2036 Jul 02 19:39	11°♂22'13	1°18'24
	2035 Aug 05 15:28	0°♂		max. Earth dist.	2036 Jul 04 12:00	15°♂00'59	1.32922 AU
desc. node	2035 Aug 15 20:27	16°♂10'47		evening rise	2036 Jul 10 05:03	27°♂02'23	
	2035 Aug 26 12:50	0°♂			2036 Jul 11 16:16	0°♂	
evening max el	2035 Aug 30 16:10	4°♂18'35	27°15'54		2036 Jul 28 23:16	0°♂	
retrograde	2035 Sep 13 02:28	11°♂37'18		desc. node	2036 Aug 01 17:28	5°♂18'06	
evening set	2035 Sep 20 02:26	8°♂54'30		evening max el	2036 Aug 12 02:18	17°♂20'38	27°25'27
min. Earth dist.	2035 Sep 23 21:35	5°♂19'57	0.64712 AU	retrograde	2036 Aug 25 19:47	24°♂38'07	
inferior conj	2035 Sep 26 03:22	2°♂53'07	-2°-43'-8	evening set	2036 Sep 02 00:33	22°♂03'58	
minimum elong	2035 Sep 26 07:41	2°♂41'20	2°41'36	min. Earth dist.	2036 Sep 05 15:16	19°♂01'10	0.63062 AU
	2035 Sep 28 22:18	30°♂		inferior conj	2036 Sep 08 09:25	16°♂18'52	-3°-38'-5
morning rise	2035 Oct 02 14:52	27°♂22'09		minimum elong	2036 Sep 08 14:43	16°♂05'52	3°36'35
asc. node	2035 Oct 04 13:04	26°♂49'31		morning rise	2036 Sep 15 07:23	11°♂05'38	
direct	2035 Oct 05 04:53	26°♂47'14		direct	2036 Sep 17 17:20	10°♂38'16	
	2035 Oct 11 10:49	0°♂		asc. node	2036 Sep 20 10:08	11°♂13'15	
morning max el	2035 Oct 11 16:56	0°♂15'06	18°01'30	morning max el	2036 Sep 24 09:06	14°♂04'18	17°51'31

	2036 Oct 05 08:20	0°♄		morning rise	2037 Aug 29 11:13	24°♄29'26	
morning set	2036 Oct 10 15:48	9°♄17'25		direct	2037 Aug 31 20:07	24°♄06'40	
				asc. node	2037 Sep 07 07:12	27°♄02'21	
superior conj	2036 Oct 22 10:46	29°♄37'05	0°41'43	morning max el	2037 Sep 07 22:55	27°♄39'01	18°00'16
minimum elong	2036 Oct 22 14:38	29°♄53'15	0°41'11		2037 Sep 10 02:17	0°♄	
	2036 Oct 22 16:15	0°♄		morning set	2037 Sep 23 18:05	22°♄34'00	
desc. node	2036 Oct 28 16:45	9°♄52'31			2037 Sep 27 18:59	0°♄	
max. Earth dist.	2036 Oct 29 00:51	10°♄25'11	1.43736 AU				
evening rise	2036 Nov 06 20:03	24°♄17'25		superior conj	2037 Oct 03 22:34	11°♄03'13	1°14'01
	2036 Nov 10 13:20	0°♄		minimum elong	2037 Oct 04 03:01	11°♄22'47	1°13'31
	2036 Dec 01 09:40	0°♄		max. Earth dist.	2037 Oct 11 12:33	24°♄01'13	1.42132 AU
greatest brilliancy	2036 Dec 01 06:10	29°♄48'50	-0.5m		2037 Oct 15 04:07	0°♄	
evening max el	2036 Dec 06 13:08	5°♄58'59	21°05'32	desc. node	2037 Oct 15 13:46	0°♄38'57	
retrograde	2036 Dec 15 02:06	11°♄02'51		evening rise	2037 Oct 17 13:23	3°♄49'40	
asc. node	2036 Dec 17 09:22	10°♄33'20			2037 Nov 03 22:40	0°♄	
evening set	2036 Dec 19 02:30	9°♄31'38		greatest brilliancy	2037 Nov 14 13:57	14°♄11'51	-0.3m
inferior conj	2036 Dec 24 12:25	3°♄16'37	2°15'07	evening max el	2037 Nov 19 07:33	19°♄30'59	22°21'12
minimum elong	2036 Dec 24 09:55	3°♄25'11	2°14'18	retrograde	2037 Nov 28 22:00	25°♄13'29	
min. Earth dist.	2036 Dec 24 21:44	2°♄44'30	0.67560 AU	evening set	2037 Dec 03 10:09	23°♄25'37	
	2036 Dec 26 23:09	30°♄		asc. node	2037 Dec 04 06:25	22°♄40'51	
morning rise	2036 Dec 29 16:57	27°♄01'27		inferior conj	2037 Dec 08 19:42	17°♄03'22	1°30'36
direct	2037 Jan 03 22:57	24°♄44'46		minimum elong	2037 Dec 08 17:47	17°♄10'01	1°29'52
	2037 Jan 13 11:52	0°♄		min. Earth dist.	2037 Dec 08 17:46	17°♄10'04	0.67831 AU
morning max el	2037 Jan 14 14:49	1°♄06'00	23°43'19	morning rise	2037 Dec 14 01:17	10°♄50'22	
desc. node	2037 Jan 24 15:57	13°♄06'39		direct	2037 Dec 18 16:12	8°♄56'22	
	2037 Feb 05 11:25	0°♄		morning max el	2037 Dec 28 02:00	14°♄29'02	22°15'33
morning set	2037 Feb 18 23:40	21°♄43'02		greatest brilliancy	2038 Jan 01 16:20	19°♄38'01	-0.3m
max. Earth dist.	2037 Feb 22 22:31	28°♄34'18	1.38716 AU		2038 Jan 09 13:31	0°♄	
	2037 Feb 23 17:52	0°♄		desc. node	2038 Jan 11 12:59	2°♄46'54	
					2038 Jan 29 11:21	0°♄	
superior conj	2037 Mar 02 08:09	12°♄04'45	-1°-46'-46	morning set	2038 Jan 30 08:33	1°♄25'35	
minimum elong	2037 Mar 02 12:21	12°♄24'35	1°46'24	max. Earth dist.	2038 Feb 04 19:35	10°♄26'52	1.40864 AU
evening rise	2037 Mar 11 11:58	29°♄46'15					
	2037 Mar 11 14:48	0°♄		superior conj	2038 Feb 12 14:39	23°♄58'27	-2°-1'-37
asc. node	2037 Mar 15 08:42	7°♄12'15		minimum elong	2038 Feb 12 17:13	24°♄09'54	2°01'32
evening max el	2037 Mar 27 20:04	26°♄07'38	18°47'48		2038 Feb 15 22:41	0°♄	
	2037 Apr 03 16:23	0°♄		evening rise	2038 Feb 22 21:53	12°♄56'09	
retrograde	2037 Apr 05 00:05	0°♄06'06		asc. node	2038 Mar 02 05:44	26°♄18'07	
	2037 Apr 06 08:16	30°♄			2038 Mar 04 10:56	0°♄	
evening set	2037 Apr 07 05:27	29°♄49'34		evening max el	2038 Mar 11 02:47	8°♄48'52	18°17'40
inferior conj	2037 Apr 15 02:55	25°♄29'09	2°01'39	retrograde	2038 Mar 18 06:07	12°♄22'16	
minimum elong	2037 Apr 15 06:47	25°♄22'03	2°00'31	evening set	2038 Mar 20 17:07	11°♄57'54	
min. Earth dist.	2037 Apr 18 09:42	23°♄05'58	0.57323 AU	inferior conj	2038 Mar 27 20:41	7°♄16'16	3°04'03
desc. node	2037 Apr 22 15:10	20°♄33'57		minimum elong	2038 Mar 28 00:08	7°♄08'50	3°03'21
morning rise	2037 Apr 23 03:47	20°♄19'32		min. Earth dist.	2038 Mar 31 06:49	4°♄21'41	0.59355 AU
direct	2037 Apr 28 15:55	19°♄05'43		morning rise	2038 Apr 04 03:26	1°♄39'26	
morning max el	2037 May 12 23:56	26°♄35'51	26°10'13		2038 Apr 08 13:07	30°♄	
	2037 May 16 05:45	0°♄		desc. node	2038 Apr 09 12:10	29°♄52'17	
	2037 Jun 04 18:27	0°♄		direct	2038 Apr 10 12:11	29°♄49'35	
morning set	2037 Jun 10 08:38	11°♄17'18			2038 Apr 12 11:56	0°♄	
asc. node	2037 Jun 11 08:00	13°♄21'02		morning max el	2038 Apr 24 20:27	7°♄35'39	27°16'28
					2038 May 11 18:00	0°♄	
superior conj	2037 Jun 17 09:18	26°♄32'11	1°00'05	morning set	2038 May 25 17:29	26°♄02'31	
minimum elong	2037 Jun 17 07:05	26°♄19'59	0°59'41		2038 May 27 14:31	0°♄	
max. Earth dist.	2037 Jun 17 22:07	27°♄42'36	1.32357 AU	asc. node	2038 May 29 05:02	3°♄26'55	
	2037 Jun 18 23:10	0°♄					
evening rise	2037 Jun 24 09:38	11°♄39'34		superior conj	2038 Jun 01 21:04	11°♄28'19	0°37'55
	2037 Jul 03 21:00	0°♄		minimum elong	2038 Jun 01 19:28	11°♄19'32	0°37'36
desc. node	2037 Jul 19 14:29	23°♄33'53		max. Earth dist.	2038 Jun 01 10:31	10°♄30'20	1.32177 AU
evening max el	2037 Jul 25 08:06	29°♄45'47	27°02'29	evening rise	2038 Jun 08 18:41	26°♄28'21	
	2037 Jul 25 14:08	0°♄			2038 Jun 10 11:12	0°♄	
retrograde	2037 Aug 08 05:45	6°♄59'35			2038 Jun 27 15:58	0°♄	
evening set	2037 Aug 15 06:38	4°♄47'18		desc. node	2038 Jul 06 11:29	10°♄37'00	
min. Earth dist.	2037 Aug 18 22:23	2°♄06'05	0.61133 AU	evening max el	2038 Jul 07 07:07	11°♄24'48	26°06'44
	2037 Aug 21 08:56	30°♄		retrograde	2038 Jul 21 06:58	18°♄35'11	
inferior conj	2037 Aug 22 02:27	29°♄21'42	-4°-24'-33	evening set	2038 Jul 27 15:57	16°♄56'28	
minimum elong	2037 Aug 22 07:25	29°♄10'55	4°23'37	min. Earth dist.	2038 Jul 31 19:44	14°♄20'42	0.59072 AU

inferior conj	2038 Aug 04 02:55	11° Ω 52'10	-4°-53'-59	evening set	2039 Jul 08 01:27	28° Θ 22'33	
minimum elong	2038 Aug 04 05:19	11° Ω 47'37	4°53'50	min. Earth dist.	2039 Jul 13 10:24	25° Θ 33'25	0.57127 AU
morning rise	2038 Aug 11 22:09	7° Ω 23'13		inferior conj	2039 Jul 16 07:43	23° Θ 40'20	-4°-53'-51
direct	2038 Aug 14 08:49	7° Ω 02'57		minimum elong	2039 Jul 16 05:10	23° Θ 44'32	4°53'42
morning max el	2038 Aug 22 07:19	10° Ω 51'17	18°28'59	morning rise	2039 Jul 24 12:38	19° Θ 33'29	
asc. node	2038 Aug 25 04:14	14° Ω 02'23		direct	2039 Jul 27 03:06	19° Θ 14'26	
	2038 Sep 03 23:41	0° \cap		morning max el	2039 Aug 05 07:12	23° Θ 31'04	19°18'49
morning set	2038 Sep 07 09:05	6° \cap 27'27			2039 Aug 10 17:38	0° Ω	
				asc. node	2039 Aug 12 01:17	1° Ω 57'48	
superior conj	2038 Sep 16 09:22	23° \cap 37'33	1°34'21	morning set	2039 Aug 22 08:55	20° Ω 46'31	
minimum elong	2038 Sep 16 12:25	23° \cap 51'43	1°34'08		2039 Aug 26 23:37	0° \cap	
	2038 Sep 19 21:03	0° $\underline{\Omega}$					
max. Earth dist.	2038 Sep 23 19:12	6° $\underline{\Omega}$ 55'55	1.40174 AU	superior conj	2039 Aug 30 13:26	7° \cap 03'18	1°44'08
evening rise	2038 Sep 28 03:53	14° $\underline{\Omega}$ 20'47		minimum elong	2039 Aug 30 14:35	7° \cap 08'54	1°44'06
desc. node	2038 Oct 02 10:48	21° $\underline{\Omega}$ 21'09		max. Earth dist.	2039 Sep 05 22:48	19° \cap 08'22	1.38115 AU
	2038 Oct 07 23:25	0° \cap		evening rise	2039 Sep 09 18:24	25° \cap 58'48	
	2038 Oct 29 23:57	0° \times			2039 Sep 12 02:05	0° $\underline{\Omega}$	
evening max el	2038 Nov 01 21:47	3° \times 05'41	23°41'03	desc. node	2039 Sep 19 07:52	11° $\underline{\Omega}$ 54'40	
retrograde	2038 Nov 12 14:56	9° \times 24'56			2039 Oct 01 13:30	0° \cap	
evening set	2038 Nov 17 16:24	7° \times 19'47		evening max el	2039 Oct 15 09:55	16° \cap 43'42	24°58'46
asc. node	2038 Nov 21 03:27	3° \times 33'29		retrograde	2039 Oct 27 03:54	23° \cap 32'59	
min. Earth dist.	2038 Nov 22 14:21	1° \times 37'06	0.67755 AU	evening set	2039 Nov 01 19:36	21° \cap 11'28	
inferior conj	2038 Nov 23 02:57	0° \times 54'08	0°40'32	min. Earth dist.	2039 Nov 06 09:12	16° \cap 03'08	0.67339 AU
minimum elong	2038 Nov 23 02:00	0° \times 57'22	0°40'08	inferior conj	2039 Nov 07 08:26	14° \cap 46'45	0°-13'-50
	2038 Nov 23 18:54	30° \cap		minimum elong	2039 Nov 07 08:46	14° \cap 45'37	0°13'42
morning rise	2038 Nov 28 11:47	24° \cap 45'25		transit middle	2039 Nov 07 08:46	14° \cap 45'37	0°13'42
direct	2038 Dec 02 12:30	23° \cap 14'10		transit begin	2039 Nov 07 07:18	14° \cap 50'29	
morning max el	2038 Dec 10 19:31	28° \cap 02'23	20°54'50	transit end	2039 Nov 07 10:15	14° \cap 40'44	
	2038 Dec 12 15:41	0° \times		asc. node	2039 Nov 08 00:29	13° \cap 54'10	
greatest brilliancy	2038 Dec 16 10:28	4° \times 34'03	-0.5m	morning rise	2039 Nov 12 22:30	8° \cap 44'41	
desc. node	2038 Dec 29 10:01	22° \times 51'19		direct	2039 Nov 16 10:38	7° \cap 33'51	
	2039 Jan 03 04:04	0° Θ		morning max el	2039 Nov 23 20:51	11° \cap 46'57	19°46'17
morning set	2039 Jan 09 14:38	9° Θ 55'05		greatest brilliancy	2039 Dec 01 15:32	21° \cap 24'27	-0.6m
max. Earth dist.	2039 Jan 17 23:45	23° Θ 15'51	1.42786 AU		2039 Dec 07 13:52	0° \times	
	2039 Jan 22 01:59	0° \approx		desc. node	2039 Dec 16 07:05	13° \times 13'17	
				morning set	2039 Dec 19 10:54	18° \times 05'15	
superior conj	2039 Jan 24 22:09	4° \approx 46'05	-2°-4'-13		2039 Dec 27 02:34	0° Θ	
minimum elong	2039 Jan 24 20:30	4° \approx 39'07	2°04'12	max. Earth dist.	2039 Dec 31 11:01	6° Θ 52'29	1.44228 AU
evening rise	2039 Feb 05 17:15	25° \approx 22'29					
	2039 Feb 08 07:26	0° \cap		superior conj	2040 Jan 05 03:22	14° Θ 22'36	-1°-49'-41
asc. node	2039 Feb 17 02:46	14° \cap 52'44		minimum elong	2040 Jan 04 20:19	13° Θ 54'09	1°49'13
evening max el	2039 Feb 22 13:55	21° \cap 51'55	18°07'17		2040 Jan 14 14:58	0° \approx	
retrograde	2039 Mar 01 04:11	25° \cap 15'56		evening rise	2040 Jan 18 17:47	6° \approx 57'21	
evening set	2039 Mar 03 20:17	24° \cap 42'18			2040 Feb 01 21:16	0° \cap	
inferior conj	2039 Mar 10 09:27	19° \cap 39'27	3°35'37	asc. node	2040 Feb 03 23:48	2° \cap 46'50	
minimum elong	2039 Mar 10 11:04	19° \cap 35'28	3°35'28	evening max el	2040 Feb 06 02:33	5° \cap 09'26	18°16'03
min. Earth dist.	2039 Mar 13 11:21	16° \cap 38'08	0.61496 AU	retrograde	2040 Feb 12 13:38	8° \cap 37'27	
morning rise	2039 Mar 16 23:06	13° \cap 44'40		evening set	2040 Feb 15 10:46	7° \cap 53'30	
direct	2039 Mar 23 19:19	11° \cap 21'59		inferior conj	2040 Feb 21 13:13	2° \cap 30'48	3°43'17
desc. node	2039 Mar 27 09:12	11° \cap 57'46		minimum elong	2040 Feb 21 12:55	2° \cap 31'38	3°43'17
morning max el	2039 Apr 06 23:27	19° \cap 16'41	27°47'46		2040 Feb 23 19:37	30° \cap	
	2039 Apr 16 02:00	0° \cap		min. Earth dist.	2040 Feb 24 01:11	29° \approx 45'00	0.63479 AU
	2039 May 04 13:48	0° Θ		morning rise	2040 Feb 27 13:14	26° \approx 25'37	
morning set	2039 May 09 22:02	10° Θ 32'18		direct	2040 Mar 05 11:19	23° \approx 41'27	
max. Earth dist.	2039 May 15 21:08	23° Θ 09'23	1.32382 AU	desc. node	2040 Mar 13 06:14	26° \approx 30'47	
asc. node	2039 May 16 02:04	23° Θ 36'09			2040 Mar 17 14:43	0° \cap	
				morning max el	2040 Mar 19 07:10	1° \cap 37'08	27°41'40
superior conj	2039 May 17 07:36	26° Θ 17'02	0°12'59		2040 Apr 09 06:33	0° \cap	
minimum elong	2039 May 17 07:00	26° Θ 13'46	0°12'51	morning set	2040 Apr 22 19:58	24° \cap 39'09	
behind sun begin	2039 May 17 03:59	25° Θ 57'18			2040 Apr 25 11:18	0° Θ	
behind sun end	2039 May 17 10:01	26° Θ 30'14		max. Earth dist.	2040 Apr 28 01:53	5° Θ 26'17	1.32998 AU
	2039 May 19 00:21	0° \cap					
evening rise	2039 May 24 06:01	11° \cap 20'31		superior conj	2040 Apr 30 15:10	10° Θ 52'43	0°-13'-59
	2039 Jun 02 18:31	0° Θ		minimum elong	2040 Apr 30 15:51	10° Θ 56'24	0°13'50
evening max el	2039 Jun 18 23:10	22° Θ 18'46	24°44'42	behind sun begin	2040 Apr 30 13:12	10° Θ 42'13	
desc. node	2039 Jun 23 08:31	25° Θ 57'24		behind sun end	2040 Apr 30 18:29	11° Θ 10'36	
retrograde	2039 Jul 02 21:47	29° Θ 22'43		asc. node	2040 May 01 23:07	13° Θ 44'47	

evening rise	2040 May 07 17:49	26°♄09'55		evening rise	2041 Apr 22 04:11	10°♄50'01	
	2040 May 09 13:51	0°♄			2041 May 02 04:57	0°♄	
	2040 May 27 20:41	0°♄		evening max el	2041 May 12 07:54	13°♄26'31	21°36'14
evening max el	2040 May 30 12:55	2°♄48'52	23°09'31	retrograde	2041 May 24 15:37	19°♄28'51	
desc. node	2040 Jun 09 05:31	8°♄59'40		evening set	2041 May 27 03:26	19°♄14'50	
retrograde	2040 Jun 13 00:19	9°♄32'16		desc. node	2041 May 27 02:30	19°♄15'15	
evening set	2040 Jun 16 15:53	9°♄03'05		inferior conj	2041 Jun 05 12:39	15°♄13'57	-2°-39'-27
min. Earth dist.	2040 Jun 23 22:28	5°♄46'00	0.55641 AU	minimum elong	2041 Jun 05 05:38	15°♄23'46	2°37'12
inferior conj	2040 Jun 25 16:53	4°♄43'59	-4°-10'-14	min. Earth dist.	2041 Jun 05 10:23	15°♄17'07	0.54933 AU
minimum elong	2040 Jun 25 09:38	4°♄54'38	4°08'43	morning rise	2041 Jun 14 08:34	11°♄18'33	
morning rise	2040 Jul 04 06:27	0°♄50'45		direct	2041 Jun 17 13:41	10°♄55'57	
direct	2040 Jul 07 02:20	0°♄31'33		morning max el	2041 Jun 29 21:48	16°♄45'16	21°59'24
morning max el	2040 Jul 17 20:11	5°♄30'08	20°29'46		2041 Jul 10 06:29	0°♄	
asc. node	2040 Jul 28 22:21	20°♄35'59		asc. node	2041 Jul 15 19:25	9°♄46'45	
	2040 Aug 02 22:31	0°♄		morning set	2041 Jul 21 00:21	20°♄13'23	
morning set	2040 Aug 05 14:44	5°♄23'45			2041 Jul 25 15:27	0°♄	
superior conj	2040 Aug 13 05:53	21°♄06'18	1°45'14	superior conj	2041 Jul 28 06:57	5°♄35'42	1°39'17
minimum elong	2040 Aug 13 05:21	21°♄03'40	1°45'13	minimum elong	2041 Jul 28 05:16	5°♄26'51	1°39'10
	2040 Aug 17 17:01	0°♄		max. Earth dist.	2041 Jul 31 19:47	12°♄55'25	1.34627 AU
max. Earth dist.	2040 Aug 18 05:10	0°♄58'58	1.36211 AU	evening rise	2041 Aug 05 10:17	22°♄04'25	
evening rise	2040 Aug 22 06:04	8°♄37'19			2041 Aug 09 15:36	0°♄	
	2040 Sep 03 18:28	0°♄		desc. node	2041 Aug 23 01:54	22°♄13'44	
desc. node	2040 Sep 05 04:54	2°♄14'19			2041 Aug 28 12:52	0°♄	
	2040 Sep 26 12:23	0°♄		evening max el	2041 Sep 09 10:19	13°♄58'13	26°57'35
evening max el	2040 Sep 26 21:54	0°♄23'18	26°06'52	retrograde	2041 Sep 22 14:43	21°♄14'49	
retrograde	2040 Oct 09 12:05	7°♄31'39		evening set	2041 Sep 29 09:02	18°♄32'47	
evening set	2040 Oct 15 17:52	4°♄56'59		min. Earth dist.	2041 Oct 03 08:02	14°♄37'19	0.65499 AU
min. Earth dist.	2040 Oct 19 23:54	0°♄24'37	0.66590 AU	inferior conj	2041 Oct 05 06:24	12°♄23'48	-2°-9'-46
	2040 Oct 20 07:52	30°♄		minimum elong	2041 Oct 05 09:52	12°♄13'47	2°08'26
inferior conj	2040 Oct 21 10:15	28°♄37'46	-1°-11'-12	morning rise	2041 Oct 11 12:14	6°♄43'44	
minimum elong	2040 Oct 21 12:08	28°♄31'56	1°10'25	asc. node	2041 Oct 11 18:35	6°♄36'15	
asc. node	2040 Oct 24 21:33	24°♄39'14		direct	2041 Oct 14 05:51	6°♄02'49	
morning rise	2040 Oct 27 07:24	22°♄45'08		morning max el	2041 Oct 20 18:51	9°♄35'32	18°15'16
direct	2040 Oct 30 09:05	21°♄51'12			2041 Nov 03 22:43	0°♄	
morning max el	2040 Nov 06 05:17	25°♄39'22	18°52'37	morning set	2041 Nov 08 14:05	7°♄34'48	
	2040 Nov 09 22:57	0°♄		desc. node	2041 Nov 19 01:12	24°♄29'10	
morning set	2040 Nov 27 22:15	27°♄06'41			2041 Nov 22 12:31	0°♄	
	2040 Nov 29 18:20	0°♄		superior conj	2041 Nov 23 12:48	1°♄36'00	0°-29'-46
desc. node	2040 Dec 02 04:08	3°♄47'08		minimum elong	2041 Nov 23 08:58	1°♄20'49	0°29'15
max. Earth dist.	2040 Dec 13 03:33	21°♄00'48	1.45025 AU	max. Earth dist.	2041 Nov 25 22:45	5°♄24'18	1.45091 AU
superior conj	2040 Dec 14 10:39	23°♄03'08	-1°-16'-16	evening rise	2041 Dec 09 22:38	27°♄17'12	
minimum elong	2040 Dec 14 02:03	22°♄29'17	1°15'19		2041 Dec 11 16:23	0°♄	
	2040 Dec 18 20:17	0°♄		greatest brilliancy	2041 Dec 25 08:16	20°♄57'29	-0.7m
evening rise	2040 Dec 29 19:40	17°♄34'18			2042 Jan 01 01:19	0°♄	
	2041 Jan 06 11:59	0°♄		evening max el	2042 Jan 02 22:04	2°♄03'52	19°27'03
evening max el	2041 Jan 19 14:00	18°♄34'45	18°43'05	asc. node	2042 Jan 07 17:52	5°♄41'56	
asc. node	2041 Jan 20 20:51	19°♄47'52		retrograde	2042 Jan 10 02:47	6°♄12'39	
retrograde	2041 Jan 26 06:14	22°♄18'10		evening set	2042 Jan 13 12:45	5°♄04'24	
evening set	2041 Jan 29 09:09	21°♄22'45			2042 Jan 18 10:25	30°♄	
inferior conj	2041 Feb 04 03:59	15°♄42'02	3°33'24	inferior conj	2042 Jan 19 02:31	29°♄07'53	3°10'32
minimum elong	2041 Feb 04 02:18	15°♄47'10	3°33'13	minimum elong	2042 Jan 19 00:05	29°♄15'50	3°10'01
min. Earth dist.	2041 Feb 06 00:24	13°♄27'10	0.65138 AU	min. Earth dist.	2042 Jan 20 08:03	27°♄31'55	0.66396 AU
morning rise	2041 Feb 09 18:16	9°♄31'03		morning rise	2042 Jan 24 10:39	22°♄53'50	
direct	2041 Feb 16 10:27	6°♄40'13		direct	2042 Jan 30 15:31	20°♄09'37	
desc. node	2041 Feb 28 03:17	12°♄55'18		morning max el	2042 Feb 12 02:06	27°♄32'36	25°56'14
morning max el	2041 Mar 01 16:46	14°♄26'09	27°01'57		2042 Feb 14 09:52	0°♄	
	2041 Mar 14 09:20	0°♄		desc. node	2042 Feb 15 00:21	0°♄40'22	
	2041 Apr 01 23:03	0°♄			2042 Mar 08 01:46	0°♄	
morning set	2041 Apr 06 08:13	8°♄12'55		morning set	2042 Mar 20 06:38	21°♄01'39	
max. Earth dist.	2041 Apr 10 21:01	17°♄10'46	1.34059 AU	max. Earth dist.	2042 Mar 24 04:37	28°♄24'41	1.35581 AU
					2042 Mar 25 00:20	0°♄	
superior conj	2041 Apr 14 17:42	25°♄08'36	0°-41'-56	superior conj	2042 Mar 29 12:42	8°♄57'27	-1°-9'-27
minimum elong	2041 Apr 14 19:49	25°♄19'43	0°41'31	minimum elong	2042 Mar 29 16:10	9°♄14'58	1°08'54
	2041 Apr 17 01:03	0°♄		asc. node	2042 Apr 05 17:12	23°♄42'41	
asc. node	2041 Apr 18 20:10	3°♄48'23					

evening rise	2042 Apr 06 11:09	25° Υ 14'36		evening rise	2043 Mar 21 12:21	9° Υ 16'59	
	2042 Apr 08 19:35	0° \mathcal{B}		asc. node	2043 Mar 23 14:13	13° Υ 23'08	
evening max el	2042 Apr 24 13:25	24° \mathcal{B} 35'24	20°15'55		2043 Apr 02 00:54	0° \mathcal{B}	
retrograde	2042 May 05 05:12	29° \mathcal{B} 45'11		evening max el	2043 Apr 07 06:33	6° \mathcal{B} 24'21	19°14'10
evening set	2042 May 07 06:17	29° \mathcal{B} 34'36		retrograde	2043 Apr 16 06:17	10° \mathcal{B} 45'30	
desc. node	2042 May 13 23:31	26° \mathcal{B} 57'38		evening set	2043 Apr 18 08:31	10° \mathcal{B} 32'21	
inferior conj	2042 May 16 08:03	25° \mathcal{B} 36'18	0°-41'-14	inferior conj	2043 Apr 26 17:04	6° \mathcal{B} 22'10	1°10'11
minimum elong	2042 May 16 06:07	25° \mathcal{B} 39'09	0°40'32	minimum elong	2043 Apr 26 19:48	6° \mathcal{B} 17'35	1°09'16
min. Earth dist.	2042 May 17 23:14	24° \mathcal{B} 38'40	0.55181 AU	min. Earth dist.	2043 Apr 29 14:11	4° \mathcal{B} 26'52	0.56335 AU
morning rise	2042 May 25 03:50	21° \mathcal{B} 19'44		desc. node	2043 Apr 30 20:33	3° \mathcal{B} 39'14	
direct	2042 May 29 01:31	20° \mathcal{B} 46'42		morning rise	2043 May 05 03:00	1° \mathcal{B} 31'42	
morning max el	2042 Jun 11 14:54	27° \mathcal{B} 24'38	23°40'27	direct	2043 May 10 00:19	0° \mathcal{B} 36'33	
	2042 Jun 14 03:56	0° Π		morning max el	2043 May 24 05:24	7° \mathcal{B} 51'57	25°19'54
asc. node	2042 Jul 02 16:28	29° Π 20'57			2043 Jun 09 13:46	0° Π	
	2042 Jul 03 00:10	0° \mathcal{E}		morning set	2043 Jun 19 23:41	20° Π 05'27	
morning set	2042 Jul 05 11:53	5° \mathcal{E} 09'04		asc. node	2043 Jun 19 13:31	19° Π 11'57	
					2043 Jun 24 14:00	0° \mathcal{E}	
superior conj	2042 Jul 12 13:43	20° \mathcal{E} 21'39	1°27'38	superior conj	2043 Jun 26 23:55	5° \mathcal{E} 17'00	1°11'18
minimum elong	2042 Jul 12 11:25	20° \mathcal{E} 09'18	1°27'22	minimum elong	2043 Jun 26 21:32	5° \mathcal{E} 03'58	1°10'55
max. Earth dist.	2042 Jul 14 19:43	25° \mathcal{E} 10'38	1.33431 AU	max. Earth dist.	2043 Jun 28 03:02	7° \mathcal{E} 45'05	1.32636 AU
	2042 Jul 17 02:46	0° Ω		evening rise	2043 Jul 04 03:35	20° \mathcal{E} 34'13	
evening rise	2042 Jul 20 02:37	6° Ω 06'50			2043 Jul 08 21:14	0° Ω	
	2042 Aug 02 05:58	0° \mathcal{M}			2043 Jul 27 10:17	0° \mathcal{M}	
desc. node	2042 Aug 09 22:53	11° \mathcal{M} 43'28		desc. node	2043 Jul 27 19:52	0° \mathcal{M} 31'12	
evening max el	2042 Aug 22 21:52	27° \mathcal{M} 15'50	27°23'45	evening max el	2043 Aug 05 06:18	10° \mathcal{M} 03'08	27°19'37
	2042 Aug 26 00:53	0° \mathcal{A}		retrograde	2043 Aug 19 01:32	17° \mathcal{M} 19'09	
retrograde	2042 Sep 05 11:20	4° \mathcal{A} 33'39		evening set	2043 Aug 26 06:08	14° \mathcal{M} 52'17	
evening set	2042 Sep 12 14:19	1° \mathcal{A} 53'10		min. Earth dist.	2043 Aug 29 20:13	12° \mathcal{M} 00'40	0.62276 AU
	2042 Sep 14 19:45	30° \mathcal{R} \mathcal{M}		inferior conj	2043 Sep 01 19:16	9° \mathcal{M} 15'23	-3°-59'-14
min. Earth dist.	2042 Sep 16 07:17	28° \mathcal{M} 33'00	0.64054 AU	minimum elong	2043 Sep 02 00:38	9° \mathcal{M} 02'52	3°57'55
inferior conj	2042 Sep 18 18:22	25° \mathcal{M} 58'35	-3°-7'-5	morning rise	2043 Sep 08 21:52	4° \mathcal{M} 11'00	
minimum elong	2042 Sep 18 23:12	25° \mathcal{M} 45'56	3°05'30	direct	2043 Sep 11 07:03	3° \mathcal{M} 45'53	
morning rise	2042 Sep 25 10:13	20° \mathcal{M} 34'40		asc. node	2043 Sep 15 12:43	5° \mathcal{M} 07'32	
direct	2042 Sep 27 22:18	20° \mathcal{M} 03'12		morning max el	2043 Sep 18 02:27	7° \mathcal{M} 13'12	17°52'55
asc. node	2042 Sep 28 15:39	20° \mathcal{M} 05'52			2043 Oct 02 20:44	0° \mathcal{A}	
morning max el	2042 Oct 04 10:53	23° \mathcal{M} 28'59	17°55'04	morning set	2043 Oct 04 01:55	2° \mathcal{A} 11'04	
	2042 Oct 09 15:18	0° \mathcal{A}					
morning set	2042 Oct 21 09:17	19° \mathcal{A} 22'21		superior conj	2043 Oct 15 03:13	21° \mathcal{A} 39'49	0°56'55
	2042 Oct 27 15:26	0° \mathcal{M}		minimum elong	2043 Oct 15 07:41	21° \mathcal{A} 58'54	0°56'21
superior conj	2042 Nov 03 06:44	10° \mathcal{M} 58'30	0°17'51		2043 Oct 20 02:23	0° \mathcal{M}	
minimum elong	2042 Nov 03 08:43	11° \mathcal{M} 06'33	0°17'34	max. Earth dist.	2043 Oct 22 07:38	3° \mathcal{M} 38'20	1.43108 AU
desc. node	2042 Nov 05 22:13	15° \mathcal{M} 15'20		desc. node	2043 Oct 23 19:13	6° \mathcal{M} 02'34	
max. Earth dist.	2042 Nov 08 17:10	19° \mathcal{M} 43'05	1.44422 AU	evening rise	2043 Oct 29 19:31	15° \mathcal{M} 34'58	
	2042 Nov 15 06:05	0° \mathcal{A}			2043 Nov 08 06:24	0° \mathcal{A}	
evening rise	2042 Nov 19 09:32	6° \mathcal{A} 24'45		greatest brilliancy	2043 Nov 25 00:55	23° \mathcal{A} 28'10	-0.4m
	2042 Dec 05 01:51	0° \mathcal{B}		evening max el	2043 Nov 29 22:21	29° \mathcal{A} 04'14	21°36'51
greatest brilliancy	2042 Dec 10 21:41	8° \mathcal{B} 09'55	-0.5m		2043 Nov 30 20:54	0° \mathcal{B}	
evening max el	2042 Dec 17 01:04	15° \mathcal{B} 33'56	20°26'01	retrograde	2043 Dec 08 21:57	4° \mathcal{B} 25'00	
retrograde	2042 Dec 25 00:43	20° \mathcal{B} 16'14		asc. node	2043 Dec 12 11:56	3° \mathcal{B} 14'22	
asc. node	2042 Dec 25 14:53	20° \mathcal{B} 14'17		evening set	2043 Dec 13 03:07	2° \mathcal{B} 46'44	
evening set	2042 Dec 28 19:22	18° \mathcal{B} 53'41			2043 Dec 15 20:44	30° \mathcal{R} \mathcal{A}	
inferior conj	2043 Jan 03 06:10	12° \mathcal{B} 44'16	2°37'44	inferior conj	2043 Dec 18 12:40	26° \mathcal{A} 27'54	1°57'01
minimum elong	2043 Jan 03 03:32	12° \mathcal{B} 53'10	2°36'57	minimum elong	2043 Dec 18 10:22	26° \mathcal{A} 35'51	1°56'12
min. Earth dist.	2043 Jan 03 22:21	11° \mathcal{B} 49'17	0.67241 AU	min. Earth dist.	2043 Dec 18 17:01	26° \mathcal{A} 12'48	0.67710 AU
morning rise	2043 Jan 08 11:13	6° \mathcal{B} 29'02		morning rise	2043 Dec 23 17:21	20° \mathcal{A} 13'20	
direct	2043 Jan 14 01:49	4° \mathcal{B} 00'52		direct	2043 Dec 28 16:45	18° \mathcal{A} 06'20	
morning max el	2043 Jan 25 10:39	10° \mathcal{B} 47'45	24°34'09	morning max el	2044 Jan 07 19:59	24° \mathcal{A} 07'31	23°05'39
desc. node	2043 Feb 01 21:24	19° \mathcal{B} 22'37		greatest brilliancy	2044 Jan 12 17:20	29° \mathcal{A} 35'38	-0.3m
	2043 Feb 09 17:53	0° \approx			2044 Jan 13 01:21	0° \mathcal{B}	
	2043 Feb 28 18:44	0° \mathcal{H}		desc. node	2044 Jan 19 18:26	8° \mathcal{B} 45'04	
morning set	2043 Mar 02 09:54	2° \mathcal{H} 50'33			2044 Feb 03 04:38	0° \approx	
max. Earth dist.	2043 Mar 06 02:54	9° \mathcal{H} 28'30	1.37496 AU	morning set	2044 Feb 11 11:36	13° \approx 22'17	
				max. Earth dist.	2044 Feb 15 21:52	20° \approx 53'08	1.39630 AU
superior conj	2043 Mar 12 20:58	22° \mathcal{H} 10'36	-1°-34'-32		2044 Feb 21 01:39	0° \mathcal{H}	
minimum elong	2043 Mar 13 01:14	22° \mathcal{H} 31'17	1°34'01	superior conj	2044 Feb 23 14:16	4° \mathcal{H} 36'23	-1°-54'-16
	2043 Mar 16 20:35	0° Υ					

minimum elong	2044 Feb 23 18:03	4° Υ 53'52	1°54'00		2045 Feb 12 06:43	0° Υ	
evening rise	2044 Mar 04 04:49	22° Υ 48'15		evening rise	2045 Feb 15 09:03	5° Υ 40'29	
	2044 Mar 07 23:48	0° Υ		asc. node	2045 Feb 24 08:17	21° Υ 37'14	
asc. node	2044 Mar 09 11:15	2° Υ 43'31			2045 Mar 02 04:45	0° Υ	
evening max el	2044 Mar 20 09:13	18° Υ 48'53	18°32'33	evening max el	2045 Mar 03 18:15	1° Υ 40'46	18°10'56
retrograde	2044 Mar 28 01:30	22° Υ 34'59		retrograde	2045 Mar 10 14:41	5° Υ 08'07	
evening set	2044 Mar 30 09:07	22° Υ 15'31		evening set	2045 Mar 13 03:54	4° Υ 40'00	
inferior conj	2044 Apr 06 22:40	17° Υ 46'25	2°32'13		2045 Mar 19 20:22	30° Υ	
minimum elong	2044 Apr 07 02:39	17° Υ 38'35	2°31'11	inferior conj	2045 Mar 20 00:56	29° Υ 49'35	3°20'45
min. Earth dist.	2044 Apr 10 08:41	15° Υ 06'48	0.58148 AU	minimum elong	2045 Mar 20 03:41	29° Υ 43'18	3°20'20
morning rise	2044 Apr 14 15:54	12° Υ 23'39		min. Earth dist.	2045 Mar 23 08:48	26° Υ 48'52	0.60273 AU
desc. node	2044 Apr 16 17:35	11° Υ 32'31		morning rise	2045 Mar 27 00:06	24° Υ 04'06	
direct	2044 Apr 20 13:34	10° Υ 54'46		direct	2045 Apr 02 15:09	21° Υ 58'54	
morning max el	2044 May 04 22:46	18° Υ 33'43	26°42'09	desc. node	2045 Apr 03 14:38	22° Υ 01'32	
	2044 May 14 13:08	0° Υ		morning max el	2045 Apr 16 21:56	29° Υ 49'51	27°34'13
	2044 Jun 01 00:41	0° Υ			2045 Apr 17 02:01	0° Υ	
morning set	2044 Jun 03 10:05	4° Υ 56'16			2045 May 08 12:06	0° Υ	
asc. node	2044 Jun 05 10:33	9° Υ 13'38		morning set	2045 May 18 17:21	19° Υ 35'38	
				asc. node	2045 May 23 07:35	29° Υ 21'27	
superior conj	2044 Jun 10 11:37	20° Υ 14'34	0°51'04		2045 May 23 14:41	0° Υ	
minimum elong	2044 Jun 10 09:37	20° Υ 03'32	0°50'41	max. Earth dist.	2045 May 25 02:24	3° Υ 14'56	1.32216 AU
max. Earth dist.	2044 Jun 10 14:28	20° Υ 30'12	1.32233 AU				
	2044 Jun 14 22:44	0° Υ		superior conj	2045 May 25 23:06	5° Υ 08'28	0°27'39
evening rise	2044 Jun 17 10:20	5° Υ 17'12		minimum elong	2045 May 25 21:53	5° Υ 01'48	0°27'24
	2044 Jun 30 13:28	0° Υ		evening rise	2045 Jun 01 20:36	20° Υ 08'19	
desc. node	2044 Jul 13 16:53	18° Υ 19'17			2045 Jun 06 16:19	0° Υ	
evening max el	2044 Jul 17 09:14	22° Υ 08'44	26°42'27		2045 Jun 25 21:26	0° Υ	
retrograde	2044 Jul 31 08:21	29° Υ 22'01		evening max el	2045 Jun 29 05:12	3° Υ 27'59	25°34'26
evening set	2044 Aug 07 04:01	27° Υ 22'37		desc. node	2045 Jun 30 13:55	4° Υ 43'00	
min. Earth dist.	2044 Aug 10 23:01	24° Υ 45'58	0.60258 AU	retrograde	2045 Jul 13 05:37	10° Υ 36'26	
inferior conj	2044 Aug 14 05:40	22° Υ 05'37	-4°-39'-48	evening set	2045 Jul 19 03:18	9° Υ 14'34	
minimum elong	2044 Aug 14 09:53	21° Υ 56'59	4°39'13	min. Earth dist.	2045 Jul 23 17:23	6° Υ 34'54	0.58209 AU
morning rise	2044 Aug 21 19:02	17° Υ 23'24		inferior conj	2045 Jul 26 22:04	4° Υ 19'20	-4°-58'-29
direct	2044 Aug 24 04:12	17° Υ 02'04		minimum elong	2045 Jul 26 22:36	4° Υ 18'23	4°58'29
morning max el	2044 Aug 31 14:27	20° Υ 40'03	18°09'59	morning rise	2045 Aug 03 21:30	29° Υ 59'56	
asc. node	2044 Sep 01 09:46	21° Υ 28'55			2045 Aug 03 21:25	30° Υ	
	2044 Sep 07 15:30	0° Υ		direct	2045 Aug 06 09:27	29° Υ 40'23	
morning set	2044 Sep 16 10:10	15° Υ 44'52			2045 Aug 08 19:51	0° Υ	
	2044 Sep 24 01:37	0° Υ		morning max el	2045 Aug 14 19:34	3° Υ 39'40	18°47'31
				asc. node	2045 Aug 19 06:49	8° Υ 54'18	
superior conj	2044 Sep 26 01:31	3° Υ 37'19	1°24'03	morning set	2045 Aug 31 05:22	29° Υ 50'28	
minimum elong	2044 Sep 26 05:31	3° Υ 55'18	1°23'40		2045 Aug 31 07:19	0° Υ	
max. Earth dist.	2044 Oct 03 16:33	16° Υ 55'42	1.41322 AU				
evening rise	2044 Oct 08 20:57	25° Υ 30'03		superior conj	2045 Sep 08 20:19	16° Υ 35'15	1°39'41
desc. node	2044 Oct 09 16:14	26° Υ 47'53		minimum elong	2045 Sep 08 22:34	16° Υ 45'55	1°39'33
	2044 Oct 11 16:21	0° Υ		max. Earth dist.	2045 Sep 15 21:14	29° Υ 30'40	1.39295 AU
	2044 Nov 01 02:34	0° Υ			2045 Sep 16 03:52	0° Υ	
greatest brilliancy	2044 Nov 06 08:31	6° Υ 43'18	-0.2m	evening rise	2045 Sep 19 21:50	6° Υ 30'18	
evening max el	2044 Nov 11 14:41	12° Υ 37'08	22°55'05	desc. node	2045 Sep 26 13:16	17° Υ 27'02	
retrograde	2044 Nov 21 16:51	18° Υ 36'30			2045 Oct 04 17:34	0° Υ	
evening set	2044 Nov 26 10:22	16° Υ 41'27		evening max el	2045 Oct 25 03:55	26° Υ 13'53	24°14'55
asc. node	2044 Nov 28 08:58	14° Υ 46'49			2045 Oct 29 11:42	0° Υ	
inferior conj	2044 Dec 01 20:10	10° Υ 17'07	1°10'00	retrograde	2045 Nov 05 08:07	2° Υ 46'46	
minimum elong	2044 Dec 01 18:37	10° Υ 22'28	1°09'22	evening set	2045 Nov 10 15:30	0° Υ 34'44	
min. Earth dist.	2044 Dec 01 13:42	10° Υ 39'26	0.67831 AU		2045 Nov 11 07:00	30° Υ	
morning rise	2044 Dec 07 02:51	4° Υ 05'23		asc. node	2045 Nov 15 06:02	25° Υ 19'14	
direct	2044 Dec 11 11:31	2° Υ 21'10		min. Earth dist.	2045 Nov 15 09:53	25° Υ 06'18	0.67619 AU
morning max el	2044 Dec 20 09:29	7° Υ 34'38	21°39'58	inferior conj	2045 Nov 16 02:53	24° Υ 09'05	0°17'55
greatest brilliancy	2044 Dec 25 07:02	13° Υ 07'47	-0.4m	minimum elong	2045 Nov 16 02:27	24° Υ 10'33	0°17'44
desc. node	2045 Jan 05 15:28	28° Υ 36'49		morning rise	2045 Nov 21 13:41	18° Υ 02'41	
	2045 Jan 06 14:20	0° Υ		direct	2045 Nov 25 08:53	16° Υ 40'16	
morning set	2045 Jan 21 08:06	22° Υ 30'20		morning max el	2045 Dec 03 06:06	21° Υ 12'10	20°23'55
	2045 Jan 25 23:34	0° Υ		greatest brilliancy	2045 Dec 09 15:33	28° Υ 48'30	-0.5m
max. Earth dist.	2045 Jan 27 20:58	3° Υ 06'57	1.41720 AU		2045 Dec 10 12:57	0° Υ	
				desc. node	2045 Dec 23 12:32	18° Υ 49'21	
superior conj	2045 Feb 04 11:36	16° Υ 03'22	-2°-4'-32		2045 Dec 30 20:06	0° Υ	
minimum elong	2045 Feb 04 12:41	16° Υ 08'08	2°04'32	morning set	2045 Dec 31 06:53	0° Υ 41'41	

max. Earth dist.	2046 Jan 10 04:12	16°♈17'20	1.43474 AU		max. Earth dist.	2046 Dec 23 15:39	0°♈	
superior conj	2046 Jan 16 08:01	26°♈20'32	-2°00'-23		superior conj	2046 Dec 27 02:34	5°♈28'51	-1°-37'-40
minimum elong	2046 Jan 16 04:00	26°♈03'53	2°00'14		minimum elong	2046 Dec 26 18:03	4°♈54'57	1°36'55
	2046 Jan 18 12:42	0°♈						
evening rise	2046 Jan 28 20:50	17°♈45'03			evening rise	2047 Jan 10 12:02	28°♈55'30	
	2046 Feb 04 22:12	0°♈				2047 Jan 11 03:33	0°♈	
asc. node	2046 Feb 11 05:19	9°♈55'45			asc. node	2047 Jan 29 02:21	27°♈28'37	
evening max el	2046 Feb 15 06:24	14°♈50'49	18°08'47		evening max el	2047 Jan 29 18:46	28°♈11'49	18°25'22
retrograde	2046 Feb 21 18:00	18°♈14'38				2047 Jan 31 19:33	0°♈	
evening set	2046 Feb 24 12:20	17°♈36'34			retrograde	2047 Feb 05 07:00	1°♈45'04	
inferior conj	2046 Mar 02 20:31	12°♈25'06	3°41'20		evening set	2047 Feb 08 06:32	0°♈56'14	
minimum elong	2046 Mar 02 21:16	12°♈23'07	3°41'19			2047 Feb 09 16:50	30°♈	
min. Earth dist.	2046 Mar 05 16:54	9°♈28'11	0.62375 AU		inferior conj	2047 Feb 14 05:21	25°♈25'18	3°40'56
morning rise	2046 Mar 09 03:56	6°♈25'31			minimum elong	2047 Feb 14 04:24	25°♈28'05	3°40'53
direct	2046 Mar 16 02:11	3°♈52'01			min. Earth dist.	2047 Feb 16 10:35	22°♈51'35	0.64229 AU
desc. node	2046 Mar 21 11:41	5°♈13'30			morning rise	2047 Feb 20 00:46	19°♈17'17	
morning max el	2046 Mar 30 02:59	11°♈47'25	27°49'41		direct	2047 Feb 26 21:04	16°♈28'53	
	2046 Apr 13 12:34	0°♈			desc. node	2047 Mar 08 08:44	20°♈38'01	
	2046 Apr 30 20:06	0°♈			morning max el	2047 Mar 12 11:53	24°♈21'19	27°28'40
morning set	2046 May 02 19:26	3°♈56'48				2047 Mar 17 14:28	0°♈	
max. Earth dist.	2046 May 08 11:04	15°♈46'38	1.32592 AU			2047 Apr 06 21:46	0°♈	
					morning set	2047 Apr 16 13:38	17°♈50'30	
superior conj	2046 May 10 08:38	19°♈52'49	0°01'46		max. Earth dist.	2047 Apr 21 12:20	27°♈51'24	1.33392 AU
minimum elong	2046 May 10 08:33	19°♈52'22	0°01'45			2047 Apr 22 12:58	0°♈	
behind sun begin	2046 May 10 03:24	19°♈24'26						
behind sun end	2046 May 10 13:42	20°♈20'20			superior conj	2047 Apr 24 14:17	4°♈20'28	0°-25'-46
asc. node	2046 May 10 04:38	19°♈31'09			minimum elong	2047 Apr 24 15:34	4°♈27'19	0°25'31
	2046 May 15 00:17	0°♈			asc. node	2047 Apr 27 01:40	9°♈37'55	
evening rise	2046 May 17 08:24	5°♈00'43			evening rise	2047 May 01 19:49	19°♈46'53	
	2046 May 30 16:51	0°♈				2047 May 06 20:30	0°♈	
evening max el	2046 Jun 10 19:45	14°♈09'53	24°04'59		evening max el	2047 May 23 10:39	24°♈38'36	22°28'48
desc. node	2046 Jun 17 10:56	19°♈10'11				2047 May 31 02:37	0°♈	
retrograde	2046 Jun 24 14:57	21°♈06'31			desc. node	2047 Jun 04 07:57	1°♈04'03	
evening set	2046 Jun 29 03:29	20°♈21'16			retrograde	2047 Jun 05 12:04	1°♈07'11	
min. Earth dist.	2046 Jul 05 06:29	17°♈21'56	0.56423 AU		evening set	2047 Jun 08 14:16	0°♈46'07	
inferior conj	2046 Jul 07 18:22	15°♈49'22	-4°-41'-20			2047 Jun 11 03:04	30°♈	
minimum elong	2046 Jul 07 13:30	15°♈56'57	4°40'44		min. Earth dist.	2047 Jun 16 17:53	27°♈13'44	0.55230 AU
morning rise	2046 Jul 16 03:03	11°♈49'34			inferior conj	2047 Jun 17 20:33	26°♈35'55	-3°-36'-55
direct	2046 Jul 18 19:50	11°♈30'30			minimum elong	2047 Jun 17 12:37	26°♈47'11	3°34'51
morning max el	2046 Jul 28 14:59	16°♈03'17	19°46'23		morning rise	2047 Jun 26 13:22	22°♈44'34	
asc. node	2046 Aug 06 03:53	27°♈09'51			direct	2047 Jun 29 12:35	22°♈24'31	
	2046 Aug 07 20:07	0°♈			morning max el	2047 Jul 10 23:00	27°♈43'24	21°05'56
morning set	2046 Aug 15 08:06	14°♈18'58				2047 Jul 13 04:57	0°♈	
					asc. node	2047 Jul 24 00:56	16°♈02'54	
superior conj	2046 Aug 23 06:13	0°♈18'50	1°45'34		morning set	2047 Jul 30 15:47	29°♈02'23	
minimum elong	2046 Aug 23 06:37	0°♈20'47	1°45'33			2047 Jul 31 02:56	0°♈	
	2046 Aug 23 02:26	0°♈						
max. Earth dist.	2046 Aug 29 01:50	11°♈33'25	1.37283 AU		superior conj	2047 Aug 07 02:45	14°♈34'28	1°43'29
evening rise	2046 Sep 01 21:57	18°♈35'56			minimum elong	2047 Aug 07 01:41	14°♈28'54	1°43'26
	2046 Sep 08 12:25	0°♈			max. Earth dist.	2047 Aug 11 11:24	23°♈24'17	1.35494 AU
desc. node	2046 Sep 13 10:18	7°♈55'38				2047 Aug 14 20:50	0°♈	
	2046 Sep 28 22:43	0°♈			evening rise	2047 Aug 15 17:11	1°♈36'22	
evening max el	2046 Oct 07 16:00	9°♈53'46	25°29'19		desc. node	2047 Aug 31 07:19	28°♈07'37	
retrograde	2046 Oct 19 18:55	16°♈51'37				2047 Sep 01 13:03	0°♈	
evening set	2046 Oct 25 16:49	14°♈24'01			evening max el	2047 Sep 20 04:02	23°♈31'51	26°30'52
min. Earth dist.	2046 Oct 30 03:11	9°♈30'56	0.67072 AU			2047 Sep 29 07:04	0°♈	
inferior conj	2046 Oct 31 07:02	8°♈01'21	0°-37'-54		retrograde	2047 Oct 03 00:45	0°♈44'51	
minimum elong	2046 Oct 31 08:00	7°♈58'13	0°37'30			2047 Oct 06 12:30	30°♈	
asc. node	2046 Nov 02 03:05	5°♈43'20			evening set	2047 Oct 09 12:22	28°♈05'50	
morning rise	2046 Nov 05 23:55	2°♈03'02			min. Earth dist.	2047 Oct 13 15:13	23°♈49'29	0.66176 AU
direct	2046 Nov 09 07:26	0°♈59'43			inferior conj	2047 Oct 15 06:42	21°♈50'30	-1°-36'-1
morning max el	2046 Nov 16 10:37	5°♈00'27	19°21'29		minimum elong	2047 Oct 15 09:15	21°♈42'47	1°34'59
greatest brilliancy	2046 Nov 25 19:40	17°♈03'52	-0.7m		asc. node	2047 Oct 20 00:07	16°♈54'28	
	2046 Dec 04 09:29	0°♈			morning rise	2047 Oct 21 07:24	16°♈03'08	
morning set	2046 Dec 10 06:50	9°♈06'17			direct	2047 Oct 24 05:20	15°♈15'16	
desc. node	2046 Dec 10 09:34	9°♈16'54			morning max el	2047 Oct 30 21:37	18°♈55'31	18°34'40

	2047 Nov 08 08:21	0°♄			2048 Oct 09 16:42	0°♄	
morning set	2047 Nov 20 05:42	18°♄43'34		morning max el	2048 Oct 13 12:38	2°♄51'27	18°04'29
desc. node	2047 Nov 27 06:37	29°♄54'45		morning set	2048 Oct 31 09:44	29°♄46'55	
	2047 Nov 27 07:57	0°♄			2048 Oct 31 12:53	0°♄	
				desc. node	2048 Nov 13 03:37	20°♄38'41	
superior conj	2047 Dec 06 04:58	13°♄58'36	0°-57'-27	superior conj	2048 Nov 14 11:41	22°♄46'50	0°-8'-59
minimum elong	2047 Dec 05 21:49	13°♄30'29	0°56'35	minimum elong	2048 Nov 14 10:34	22°♄42'22	0°08'51
max. Earth dist.	2047 Dec 06 12:47	14°♄29'16	1.45142 AU	behind sun begin	2048 Nov 14 01:31	22°♄06'16	
	2047 Dec 16 09:26	0°♄		behind sun end	2048 Nov 14 19:37	23°♄18'27	
evening rise	2047 Dec 22 03:56	9°♄08'51		max. Earth dist.	2048 Nov 18 07:31	28°♄50'57	1.44887 AU
	2048 Jan 04 09:54	0°♄			2048 Nov 19 01:02	0°♄	
evening max el	2048 Jan 13 04:56	11°♄38'56	18°59'47	evening rise	2048 Nov 30 22:35	18°♄32'23	
asc. node	2048 Jan 15 23:23	14°♄03'11			2048 Dec 08 09:17	0°♄	
retrograde	2048 Jan 20 01:47	15°♄32'30		greatest brilliancy	2048 Dec 19 02:56	15°♄57'22	-0.6m
evening set	2048 Jan 23 07:27	14°♄31'49		evening max el	2048 Dec 26 10:57	25°♄08'14	19°50'31
inferior conj	2048 Jan 28 23:49	8°♄43'51	3°25'06	asc. node	2049 Jan 01 20:26	29°♄23'54	
minimum elong	2048 Jan 28 21:44	8°♄50'24	3°24'46	retrograde	2049 Jan 02 23:14	29°♄30'48	
min. Earth dist.	2048 Jan 30 13:42	6°♄44'57	0.65716 AU	evening set	2049 Jan 06 12:33	28°♄16'52	
morning rise	2048 Feb 03 11:03	2°♄31'02		inferior conj	2049 Jan 12 00:50	22°♄14'33	2°57'41
	2048 Feb 07 18:20	30°♄		minimum elong	2049 Jan 11 22:15	22°♄23'09	2°57'03
direct	2048 Feb 09 22:44	29°♄41'43		min. Earth dist.	2049 Jan 13 00:34	20°♄55'42	0.66801 AU
	2048 Feb 12 05:34	0°♄		morning rise	2049 Jan 17 07:16	15°♄59'33	
morning max el	2048 Feb 22 21:49	7°♄20'15	26°36'44	direct	2049 Jan 23 06:18	13°♄21'00	
desc. node	2048 Feb 23 05:46	7°♄40'25		morning max el	2049 Feb 04 06:45	20°♄30'58	25°22'38
	2048 Mar 11 12:07	0°♄		desc. node	2049 Feb 09 02:48	25°♄51'56	
	2048 Mar 29 06:23	0°♄			2049 Feb 12 10:54	0°♄	
morning set	2048 Mar 29 20:34	1°♄06'54			2049 Mar 04 16:16	0°♄	
max. Earth dist.	2048 Apr 03 02:48	9°♄22'34	1.34649 AU	morning set	2049 Mar 12 11:33	13°♄31'58	
				max. Earth dist.	2049 Mar 16 05:26	20°♄26'23	1.36352 AU
					2049 Mar 21 04:31	0°♄	
superior conj	2048 Apr 07 13:54	18°♄25'29	0°-53'-46	superior conj	2049 Mar 22 04:44	1°♄59'50	-1°-20'-34
minimum elong	2048 Apr 07 16:38	18°♄39'33	0°53'16	minimum elong	2049 Mar 22 08:39	2°♄19'15	1°19'59
asc. node	2048 Apr 12 22:42	29°♄37'58		evening rise	2049 Mar 30 09:45	18°♄36'18	
	2048 Apr 13 02:54	0°♄		asc. node	2049 Mar 30 19:44	19°♄26'41	
evening rise	2048 Apr 15 04:59	4°♄20'59			2049 Apr 05 05:43	0°♄	
	2048 Apr 29 16:20	0°♄		evening max el	2049 Apr 16 20:08	16°♄52'20	19°47'17
evening max el	2048 May 04 09:31	5°♄26'34	21°00'00	retrograde	2049 Apr 26 18:19	21°♄39'51	
retrograde	2048 May 16 01:31	11°♄07'43		evening set	2049 Apr 28 18:49	21°♄28'48	
evening set	2048 May 18 06:29	10°♄56'16		inferior conj	2049 May 07 14:01	17°♄27'17	0°08'40
desc. node	2048 May 21 04:57	10°♄08'25		minimum elong	2049 May 07 14:24	17°♄26'41	0°08'32
inferior conj	2048 May 27 14:15	6°♄58'17	-1°-50'-41	transit middle	2049 May 07 14:24	17°♄26'41	0°08'32
minimum elong	2048 May 27 09:04	7°♄05'37	1°48'53	transit begin	2049 May 07 11:03	17°♄31'51	
min. Earth dist.	2048 May 28 06:12	6°♄35'42	0.54915 AU	transit end	2049 May 07 17:44	17°♄21'30	
morning rise	2048 Jun 05 11:10	2°♄55'56		desc. node	2049 May 08 01:57	17°♄08'45	
direct	2048 Jun 08 21:56	2°♄30'17		min. Earth dist.	2049 May 09 20:06	16°♄03'52	0.55570 AU
morning max el	2048 Jun 21 20:34	8°♄41'32	22°41'42	morning rise	2049 May 16 06:40	12°♄56'38	
	2048 Jul 07 01:42	0°♄		direct	2049 May 20 13:56	12°♄15'34	
asc. node	2048 Jul 09 21:58	5°♄24'00		morning max el	2049 Jun 03 11:43	19°♄12'00	24°23'52
morning set	2048 Jul 14 02:24	13°♄54'48			2049 Jun 12 12:53	0°♄	
				asc. node	2049 Jun 26 19:01	25°♄05'47	
superior conj	2048 Jul 21 06:34	29°♄11'47	1°34'58	morning set	2049 Jun 28 14:14	28°♄51'06	
minimum elong	2048 Jul 21 04:33	29°♄01'07	1°34'48		2049 Jun 29 03:15	0°♄	
	2048 Jul 21 15:39	0°♄		superior conj	2049 Jul 05 15:03	14°♄02'35	1°21'14
max. Earth dist.	2048 Jul 24 05:42	5°♄26'00	1.34064 AU	minimum elong	2049 Jul 05 12:40	13°♄49'36	1°20'55
evening rise	2048 Jul 29 03:00	15°♄19'28		max. Earth dist.	2049 Jul 07 08:58	17°♄49'07	1.33040 AU
	2048 Aug 06 00:32	0°♄		evening rise	2049 Jul 12 23:25	29°♄33'54	
desc. node	2048 Aug 17 04:18	17°♄55'30			2049 Jul 13 04:34	0°♄	
	2048 Aug 26 05:12	0°♄		desc. node	2049 Jul 30 02:28	0°♄	
evening max el	2048 Sep 01 16:05	7°♄00'05	27°12'02	evening max el	2049 Aug 04 01:17	7°♄09'19	
retrograde	2048 Sep 15 01:08	14°♄18'43		retrograde	2049 Aug 15 02:45	20°♄07'13	27°26'05
evening set	2048 Sep 21 23:43	11°♄35'48		evening set	2049 Aug 28 19:20	27°♄24'47	
min. Earth dist.	2048 Sep 25 19:49	7°♄55'52	0.64925 AU	min. Earth dist.	2049 Sep 04 23:51	24°♄48'43	
inferior conj	2048 Sep 27 23:40	5°♄32'12	-2°-34'-27	inferior conj	2049 Sep 08 15:04	21°♄41'34	0.63327 AU
minimum elong	2048 Sep 28 03:46	5°♄20'49	2°32'58		2049 Sep 11 07:23	19°♄01'03	-3°-30'-10
morning rise	2048 Oct 04 09:40	29°♄58'45					
	2048 Oct 04 08:35	30°♄					
asc. node	2048 Oct 05 21:11	29°♄29'22					
direct	2048 Oct 07 00:29	29°♄22'27					

minimum elong	2049 Sep 11 12:35	18° \cap 48'02	3°28'38	evening set	2050 Aug 18 08:37	7° \cap 36'18	
morning rise	2049 Sep 18 03:44	13° \cap 44'49		min. Earth dist.	2050 Aug 21 23:40	4° \cap 52'55	0.61437 AU
direct	2049 Sep 20 14:09	13° \cap 16'28		inferior conj	2050 Aug 25 02:35	2° \cap 07'51	-4°-18'-23
asc. node	2049 Sep 22 18:14	13° \cap 39'28		minimum elong	2050 Aug 25 07:44	1° \cap 56'28	4°17'21
morning max el	2049 Sep 27 04:52	16° \cap 42'15	17°51'50		2050 Aug 27 14:50	30° \cap	
	2049 Oct 06 15:24	0° \cap		morning rise	2050 Sep 01 09:46	27° \cap 12'19	
morning set	2049 Oct 13 14:59	12° \cap 03'40		direct	2050 Sep 03 18:41	26° \cap 48'57	
	2049 Oct 24 01:37	0° \cap		asc. node	2050 Sep 09 15:17	29° \cap 16'31	
					2050 Sep 10 11:01	0° \cap	
superior conj	2049 Oct 25 16:32	2° \cap 42'13	0°35'46	morning max el	2050 Sep 10 19:15	0° \cap 19'38	17°57'45
minimum elong	2049 Oct 25 20:02	2° \cap 56'44	0°35'18	morning set	2050 Sep 26 14:58	25° \cap 13'42	
desc. node	2049 Oct 31 00:38	11° \cap 25'57			2050 Sep 29 05:30	0° \cap	
max. Earth dist.	2049 Nov 01 00:22	13° \cap 01'22	1.43937 AU				
evening rise	2049 Nov 10 07:04	27° \cap 36'24		superior conj	2050 Oct 07 00:31	13° \cap 57'10	1°09'54
	2049 Nov 11 20:24	0° \cap		minimum elong	2050 Oct 07 05:03	14° \cap 16'56	1°09'23
	2049 Dec 02 07:51	0° \cap		max. Earth dist.	2050 Oct 14 13:04	26° \cap 43'46	1.42402 AU
greatest brilliancy	2049 Dec 04 00:14	2° \cap 12'50	-0.5m		2050 Oct 16 12:56	0° \cap	
evening max el	2049 Dec 09 11:39	8° \cap 38'57	20°54'58	desc. node	2050 Oct 17 21:40	2° \cap 12'41	
retrograde	2049 Dec 17 20:58	13° \cap 36'53		evening rise	2050 Oct 20 22:06	7° \cap 02'02	
asc. node	2049 Dec 19 17:29	13° \cap 17'43			2050 Nov 05 02:43	0° \cap	
evening set	2049 Dec 21 19:52	12° \cap 07'56		greatest brilliancy	2050 Nov 17 13:37	16° \cap 51'25	-0.3m
inferior conj	2049 Dec 27 05:58	5° \cap 54'21	2°21'19	evening max el	2050 Nov 22 06:50	22° \cap 10'42	22°09'30
minimum elong	2049 Dec 27 03:25	6° \cap 03'05	2°20'29	retrograde	2050 Dec 01 17:18	27° \cap 47'27	
min. Earth dist.	2049 Dec 27 17:02	5° \cap 16'20	0.67494 AU	evening set	2050 Dec 06 03:38	26° \cap 02'01	
morning rise	2050 Jan 01 10:34	29° \cap 39'11		asc. node	2050 Dec 06 14:31	25° \cap 39'00	
	2050 Jan 01 01:29	30° \cap		inferior conj	2050 Dec 11 13:08	19° \cap 40'31	1°37'46
direct	2050 Jan 06 18:51	27° \cap 19'20		minimum elong	2050 Dec 11 11:06	19° \cap 47'32	1°36'59
	2050 Jan 13 08:19	0° \cap		min. Earth dist.	2050 Dec 11 12:47	19° \cap 41'44	0.67813 AU
morning max el	2050 Jan 17 15:04	3° \cap 47'10	23°56'32	morning rise	2050 Dec 16 18:25	13° \cap 27'08	
desc. node	2050 Jan 26 23:52	14° \cap 52'48		direct	2050 Dec 21 11:31	11° \cap 29'48	
	2050 Feb 06 16:59	0° \cap		morning max el	2050 Dec 31 01:45	17° \cap 09'37	22°28'22
morning set	2050 Feb 22 04:37	24° \cap 49'17		greatest brilliancy	2051 Jan 04 15:26	22° \cap 16'01	-0.3m
	2050 Feb 25 04:00	0° \cap			2051 Jan 10 15:13	0° \cap	
max. Earth dist.	2050 Feb 26 00:59	1° \cap 32'59	1.38396 AU	desc. node	2051 Jan 13 20:55	4° \cap 28'53	
					2051 Jan 30 19:24	0° \cap	
superior conj	2050 Mar 05 07:13	14° \cap 54'11	-1°-43'-48	morning set	2051 Feb 02 17:59	4° \cap 44'55	
minimum elong	2050 Mar 05 11:29	15° \cap 14'29	1°43'22	max. Earth dist.	2051 Feb 07 21:36	13° \cap 18'58	1.40548 AU
	2050 Mar 13 01:51	0° \cap					
evening rise	2050 Mar 14 07:36	2° \cap 25'55		superior conj	2051 Feb 15 16:44	26° \cap 56'52	-2°00'-3
asc. node	2050 Mar 17 16:46	8° \cap 59'05		minimum elong	2051 Feb 15 19:42	27° \cap 10'15	1°59'56
evening max el	2050 Mar 30 17:46	28° \cap 57'22	18°54'01		2051 Feb 17 09:09	0° \cap	
	2050 Mar 31 21:29	0° \cap		evening rise	2051 Feb 25 19:22	15° \cap 42'02	
retrograde	2050 Apr 08 02:27	3° \cap 01'09		asc. node	2051 Mar 04 13:49	28° \cap 09'13	
evening set	2050 Apr 10 07:01	2° \cap 45'33			2051 Mar 05 15:28	0° \cap	
	2050 Apr 16 02:13	30° \cap		evening max el	2051 Mar 13 23:34	11° \cap 34'46	18°20'54
inferior conj	2050 Apr 18 07:20	28° \cap 27'53	1°49'14	retrograde	2051 Mar 21 05:55	15° \cap 11'04	
minimum elong	2050 Apr 18 11:01	28° \cap 21'17	1°48'05	evening set	2051 Mar 23 16:03	14° \cap 48'02	
min. Earth dist.	2050 Apr 21 12:10	26° \cap 11'27	0.57049 AU	inferior conj	2051 Mar 30 22:04	10° \cap 09'34	2°56'40
desc. node	2050 Apr 24 23:01	24° \cap 05'08		minimum elong	2051 Mar 31 01:44	10° \cap 01'53	2°55'53
morning rise	2050 Apr 26 10:44	23° \cap 23'11		min. Earth dist.	2051 Apr 03 08:32	7° \cap 18'09	0.59033 AU
direct	2050 May 01 19:09	22° \cap 14'32		morning rise	2051 Apr 07 07:32	4° \cap 36'00	
morning max el	2050 May 16 02:35	29° \cap 41'00	25°57'56	desc. node	2051 Apr 11 20:04	2° \cap 59'42	
	2050 May 16 10:23	0° \cap		direct	2051 Apr 13 13:37	2° \cap 51'43	
	2050 Jun 06 04:17	0° \cap		morning max el	2051 Apr 27 22:21	10° \cap 36'08	27°08'40
morning set	2050 Jun 13 01:37	13° \cap 45'24			2051 May 12 22:13	0° \cap	
asc. node	2050 Jun 13 16:02	15° \cap 01'38		morning set	2051 May 28 10:57	28° \cap 32'24	
					2051 May 29 03:39	0° \cap	
superior conj	2050 Jun 20 02:05	28° \cap 59'14	1°03'09	asc. node	2051 May 31 13:05	5° \cap 06'38	
minimum elong	2050 Jun 19 23:49	28° \cap 46'44	1°02'46				
	2050 Jun 20 13:09	0° \cap		superior conj	2051 Jun 04 13:54	13° \cap 55'55	0°41'30
max. Earth dist.	2050 Jun 20 18:34	0° \cap 29'39	1.32417 AU	minimum elong	2051 Jun 04 12:11	13° \cap 46'28	0°41'09
evening rise	2050 Jun 27 03:10	14° \cap 08'54		max. Earth dist.	2051 Jun 04 06:55	13° \cap 17'28	1.32181 AU
	2050 Jul 05 05:52	0° \cap		evening rise	2051 Jun 11 11:42	28° \cap 56'21	
desc. node	2050 Jul 21 22:19	25° \cap 34'09			2051 Jun 11 23:49	0° \cap	
	2050 Jul 25 18:34	0° \cap			2051 Jun 28 15:37	0° \cap	
evening max el	2050 Jul 28 09:24	2° \cap 38'41	27°08'00	desc. node	2051 Jul 08 19:20	12° \cap 49'41	
retrograde	2050 Aug 11 06:22	9° \cap 52'45		evening max el	2051 Jul 10 09:23	14° \cap 24'07	26°16'50

retrograde	2051 Jul 24 09:01	21°♄35'20			2052 Jun 26 23:08	0°♄	
evening set	2051 Jul 30 21:18	19°♄50'51		retrograde	2052 Jul 05 01:44	2°♄29'35	
min. Earth dist.	2051 Aug 03 22:14	17°♄15'32	0.59381 AU	evening set	2052 Jul 10 10:22	1°♄23'55	
inferior conj	2051 Aug 07 05:42	14°♄43'15	-4°-51'-10		2052 Jul 13 07:37	30°♄	
minimum elong	2051 Aug 07 08:40	14°♄37'31	4°50'55	min. Earth dist.	2052 Jul 15 13:47	28°♄37'41	0.57395 AU
morning rise	2051 Aug 14 23:28	10°♄10'57		inferior conj	2052 Jul 18 13:33	26°♄38'09	-4°-56'-28
direct	2051 Aug 17 09:40	9°♄50'28		minimum elong	2052 Jul 18 11:51	26°♄41'02	4°56'24
morning max el	2051 Aug 25 04:40	13°♄35'36	18°23'25	morning rise	2052 Jul 26 17:05	22°♄28'17	
asc. node	2051 Aug 27 12:19	16°♄06'30		direct	2052 Jul 29 06:47	22°♄09'12	
	2051 Sep 05 09:01	0°♄		morning max el	2052 Aug 07 06:02	26°♄20'59	19°10'01
morning set	2051 Sep 10 04:19	9°♄01'52			2052 Aug 10 13:35	0°♄	
				asc. node	2052 Aug 13 09:22	3°♄54'27	
superior conj	2051 Sep 19 08:13	26°♄22'07	1°32'00	morning set	2052 Aug 24 03:02	23°♄17'38	
minimum elong	2051 Sep 19 11:33	26°♄37'25	1°31'43		2052 Aug 27 11:53	0°♄	
	2051 Sep 21 07:57	0°♄					
max. Earth dist.	2051 Sep 26 20:13	9°♄43'57	1.40476 AU	superior conj	2052 Sep 01 10:03	9°♄41'09	1°43'16
evening rise	2051 Oct 01 09:00	17°♄22'51		minimum elong	2052 Sep 01 11:29	9°♄48'06	1°43'12
desc. node	2051 Oct 04 18:42	22°♄55'30		max. Earth dist.	2052 Sep 07 23:44	22°♄01'02	1.38416 AU
	2051 Oct 09 06:28	0°♄		evening rise	2052 Sep 11 20:03	28°♄51'17	
	2051 Oct 30 17:18	0°♄			2052 Sep 12 11:54	0°♄	
evening max el	2051 Nov 04 21:30	5°♄44'29	23°29'10	desc. node	2052 Sep 20 15:42	13°♄30'31	
retrograde	2051 Nov 15 10:50	11°♄59'03			2052 Oct 01 16:13	0°♄	
evening set	2051 Nov 20 10:12	9°♄56'25		evening max el	2052 Oct 17 09:49	19°♄22'10	24°47'40
asc. node	2051 Nov 23 11:34	6°♄40'52		retrograde	2052 Oct 29 00:29	26°♄07'47	
inferior conj	2051 Nov 25 20:31	3°♄30'53	0°48'26	evening set	2052 Nov 03 13:57	23°♄48'42	
minimum elong	2051 Nov 25 19:24	3°♄34'43	0°47'59	min. Earth dist.	2052 Nov 08 04:46	18°♄35'01	0.67420 AU
min. Earth dist.	2051 Nov 25 09:28	4°♄08'42	0.67783 AU	inferior conj	2052 Nov 09 02:22	17°♄23'30	0°-5'-22
	2051 Nov 28 13:03	30°♄		minimum elong	2052 Nov 09 02:29	17°♄23'03	0°05'19
morning rise	2051 Dec 01 04:43	27°♄21'20		transit middle	2052 Nov 09 02:29	17°♄23'03	0°05'19
direct	2051 Dec 05 07:24	25°♄46'51		transit begin	2052 Nov 08 23:53	17°♄31'42	
	2051 Dec 13 01:18	0°♄		transit end	2052 Nov 09 05:06	17°♄14'26	
morning max el	2051 Dec 13 18:12	0°♄41'28	21°06'12	asc. node	2052 Nov 09 08:36	17°♄02'50	
greatest brilliancy	2051 Dec 19 03:50	6°♄55'02	-0.5m	morning rise	2052 Nov 14 15:31	11°♄20'09	
desc. node	2051 Dec 31 17:58	24°♄30'06		direct	2052 Nov 18 05:24	10°♄06'26	
	2052 Jan 04 10:22	0°♄		morning max el	2052 Nov 25 18:18	14°♄24'14	19°55'35
morning set	2052 Jan 13 03:27	13°♄23'16		greatest brilliancy	2052 Dec 03 03:14	23°♄25'32	-0.6m
max. Earth dist.	2052 Jan 21 00:22	25°♄58'46	1.42521 AU		2052 Dec 07 18:07	0°♄	
	2052 Jan 23 11:00	0°♄		desc. node	2052 Dec 17 15:00	14°♄49'39	
				morning set	2052 Dec 21 23:30	21°♄31'08	
superior conj	2052 Jan 28 03:58	7°♄54'54	-2°-4'-50		2052 Dec 27 10:27	0°♄	
minimum elong	2052 Jan 28 03:07	7°♄51'15	2°04'51	max. Earth dist.	2053 Jan 02 10:27	9°♄28'17	1.44053 AU
evening rise	2052 Feb 08 17:13	28°♄15'24					
	2052 Feb 09 16:28	0°♄		superior conj	2053 Jan 07 13:07	17°♄41'48	-1°-53'-9
asc. node	2052 Feb 19 10:52	16°♄49'10		minimum elong	2053 Jan 07 06:47	17°♄16'06	1°52'46
evening max el	2052 Feb 25 10:14	24°♄34'56	18°07'37		2053 Jan 14 23:50	0°♄	
retrograde	2052 Mar 03 01:51	27°♄59'28		evening rise	2053 Jan 20 20:48	9°♄58'03	
evening set	2052 Mar 05 17:09	27°♄27'22			2053 Feb 01 21:31	0°♄	
inferior conj	2052 Mar 12 08:15	22°♄27'45	3°32'27	asc. node	2053 Feb 05 07:54	4°♄49'55	
minimum elong	2052 Mar 12 10:10	22°♄23'06	3°32'15	evening max el	2053 Feb 07 22:49	7°♄50'34	18°13'32
min. Earth dist.	2052 Mar 15 11:56	19°♄25'44	0.61180 AU	retrograde	2053 Feb 14 09:45	11°♄17'01	
morning rise	2052 Mar 19 00:15	16°♄35'00		evening set	2053 Feb 17 06:08	10°♄34'39	
direct	2052 Mar 25 19:23	14°♄16'28		inferior conj	2053 Feb 23 09:59	5°♄14'55	3°43'19
desc. node	2052 Mar 28 17:07	14°♄40'02		minimum elong	2053 Feb 23 09:57	5°♄15'00	3°43'19
morning max el	2052 Apr 09 00:27	22°♄10'45	27°45'28	min. Earth dist.	2053 Feb 26 00:16	2°♄25'33	0.63206 AU
	2052 Apr 15 21:42	0°♄			2053 Feb 28 12:06	30°♄	
	2052 May 05 00:00	0°♄		morning rise	2053 Mar 01 11:48	29°♄11'01	
morning set	2052 May 11 16:17	13°♄04'50		direct	2053 Mar 08 10:16	26°♄29'01	
asc. node	2052 May 17 10:08	25°♄15'33		desc. node	2053 Mar 15 14:11	28°♄52'35	
max. Earth dist.	2052 May 17 17:57	25°♄57'59	1.32325 AU		2053 Mar 17 05:56	0°♄	
				morning max el	2053 Mar 22 07:29	4°♄25'00	27°44'48
superior conj	2052 May 19 00:45	28°♄46'04	0°16'56		2053 Apr 10 12:46	0°♄	
minimum elong	2052 May 18 23:58	28°♄41'50	0°16'45	morning set	2053 Apr 25 15:22	27°♄15'14	
	2052 May 19 14:15	0°♄			2053 Apr 26 23:59	0°♄	
evening rise	2052 May 25 22:49	13°♄48'12		max. Earth dist.	2053 Apr 30 23:43	8°♄18'10	1.32877 AU
	2052 Jun 03 02:24	0°♄					
evening max el	2052 Jun 21 02:17	25°♄23'52	24°58'07	superior conj	2053 May 03 08:52	13°♄23'51	0°-9'-47
desc. node	2052 Jun 24 16:21	28°♄27'45		minimum elong	2053 May 03 09:20	13°♄26'25	0°09'42

behind sun begin	2053 May 03 05:08	13°♄03'47		minimum elong	2054 Apr 17 14:12	27°♄53'20	0°37'17
behind sun end	2053 May 03 13:33	13°♄49'05			2054 Apr 18 14:13	0°♄	
asc. node	2053 May 04 07:11	15°♄24'17		asc. node	2054 Apr 21 04:13	5°♄29'02	
evening rise	2053 May 10 10:38	28°♄38'10		evening rise	2054 Apr 24 21:22	13°♄20'22	
	2053 May 11 02:10	0°♄			2054 May 03 10:24	0°♄	
	2053 May 28 09:39	0°♄		evening max el	2054 May 15 09:49	16°♄30'52	21°49'32
evening max el	2053 Jun 02 16:02	5°♄55'58	23°23'58	retrograde	2054 May 27 22:30	22°♄40'21	
desc. node	2053 Jun 11 13:22	11°♄53'15		desc. node	2054 May 29 10:24	22°♄35'17	
retrograde	2053 Jun 16 06:04	12°♄43'21		evening set	2054 May 30 13:35	22°♄24'54	
evening set	2053 Jun 20 02:49	12°♄10'37		inferior conj	2054 Jun 08 22:34	18°♄22'08	-2°-55'-46
min. Earth dist.	2053 Jun 27 02:05	8°♄58'29	0.55818 AU	minimum elong	2054 Jun 08 15:06	18°♄32'35	2°53'28
inferior conj	2053 Jun 29 01:28	7°♄48'20	-4°-20'-3	min. Earth dist.	2054 Jun 08 13:48	18°♄34'24	0.54981 AU
minimum elong	2053 Jun 28 18:42	7°♄58'23	4°18'48	morning rise	2054 Jun 17 17:50	14°♄28'29	
morning rise	2053 Jul 07 13:47	3°♄53'44		direct	2054 Jun 20 21:17	14°♄06'41	
direct	2053 Jul 10 08:48	3°♄34'37		morning max el	2054 Jul 02 23:52	19°♄47'52	21°45'03
morning max el	2053 Jul 20 20:41	8°♄26'23	20°17'53		2054 Jul 11 08:35	0°♄	
asc. node	2053 Jul 31 06:25	22°♄26'55		asc. node	2054 Jul 18 03:27	11°♄33'20	
	2053 Aug 04 09:13	0°♄		morning set	2054 Jul 23 17:19	22°♄41'04	
morning set	2053 Aug 08 08:06	7°♄52'37			2054 Jul 27 04:50	0°♄	
superior conj	2053 Aug 16 00:54	23°♄39'15	1°45'32	superior conj	2054 Jul 31 00:54	8°♄05'25	1°40'34
minimum elong	2053 Aug 16 00:36	23°♄37'46	1°45'32	minimum elong	2054 Jul 30 23:22	7°♄57'21	1°40'29
	2053 Aug 19 05:18	0°♄		max. Earth dist.	2054 Aug 03 18:50	15°♄48'55	1.34843 AU
max. Earth dist.	2053 Aug 21 05:27	3°♄53'50	1.36479 AU	evening rise	2054 Aug 08 06:54	24°♄42'16	
evening rise	2053 Aug 25 04:51	11°♄21'34			2054 Aug 11 02:22	0°♄	
	2053 Sep 05 01:43	0°♄		desc. node	2054 Aug 25 09:42	23°♄55'23	
desc. node	2053 Sep 07 12:42	3°♄52'27			2054 Aug 29 14:12	0°♄	
	2053 Sep 26 23:17	0°♄		evening max el	2054 Sep 12 10:13	16°♄38'01	26°51'21
evening max el	2053 Sep 29 21:49	3°♄02'00	25°57'41	retrograde	2054 Sep 25 12:40	23°♄53'35	
retrograde	2053 Oct 12 09:18	10°♄07'52		evening set	2054 Oct 02 05:24	21°♄12'07	
evening set	2053 Oct 18 13:02	7°♄35'00		min. Earth dist.	2054 Oct 06 05:24	17°♄11'16	0.65691 AU
min. Earth dist.	2053 Oct 22 20:13	2°♄57'09	0.66726 AU	inferior conj	2054 Oct 08 01:57	15°♄01'26	-2°00'-54
inferior conj	2053 Oct 24 04:50	1°♄14'46	-1°-2'-22	minimum elong	2054 Oct 08 05:11	14°♄51'59	1°59'38
minimum elong	2053 Oct 24 06:28	1°♄09'38	1°01'41	morning rise	2054 Oct 14 06:25	9°♄19'21	
	2053 Oct 25 04:53	30°♄		asc. node	2054 Oct 14 02:40	9°♄24'13	
asc. node	2053 Oct 27 05:38	27°♄40'25		direct	2054 Oct 17 01:07	8°♄36'43	
morning rise	2053 Oct 30 00:48	25°♄20'27		morning max el	2054 Oct 23 14:39	12°♄10'54	18°19'42
direct	2053 Nov 02 03:56	24°♄24'09			2054 Nov 05 05:42	0°♄	
morning max el	2053 Nov 09 01:42	28°♄15'16	18°59'34	morning set	2054 Nov 11 18:36	10°♄35'36	
	2053 Nov 10 16:31	0°♄		desc. node	2054 Nov 21 09:00	26°♄02'08	
morning set	2053 Dec 01 07:16	0°♄21'07			2054 Nov 23 20:56	0°♄	
	2053 Dec 01 01:52	0°♄		superior conj	2054 Nov 27 00:11	4°♄57'08	0°-37'-8
desc. node	2053 Dec 04 12:00	5°♄21'37		minimum elong	2054 Nov 26 19:23	4°♄38'13	0°36'31
max. Earth dist.	2053 Dec 16 02:29	23°♄33'19	1.44956 AU	max. Earth dist.	2054 Nov 28 21:37	7°♄55'52	1.45130 AU
superior conj	2053 Dec 17 22:49	26°♄27'57	-1°-22'-24		2054 Dec 12 23:46	0°♄	
minimum elong	2053 Dec 17 14:00	25°♄53'11	1°21'29	evening rise	2054 Dec 13 08:13	0°♄33'02	
	2053 Dec 20 04:29	0°♄		greatest brilliancy	2054 Dec 27 15:37	22°♄42'16	-0.7m
evening rise	2054 Jan 02 02:07	20°♄43'17			2055 Jan 01 19:36	0°♄	
	2054 Jan 07 18:38	0°♄		evening max el	2055 Jan 05 19:14	4°♄43'14	19°19'32
evening max el	2054 Jan 22 10:36	21°♄14'58	18°37'57	asc. node	2055 Jan 10 01:58	8°♄04'36	
asc. node	2054 Jan 23 04:56	21°♄59'42		retrograde	2055 Jan 12 21:40	8°♄47'49	
retrograde	2054 Jan 29 01:29	24°♄55'16		evening set	2055 Jan 16 06:30	7°♄41'29	
evening set	2054 Feb 01 03:32	24°♄01'32		inferior conj	2055 Jan 21 20:52	1°♄47'01	3°14'42
inferior conj	2054 Feb 06 23:18	18°♄23'19	3°35'49	minimum elong	2055 Jan 21 18:30	1°♄54'39	3°14'14
minimum elong	2054 Feb 06 21:48	18°♄27'52	3°35'39	min. Earth dist.	2055 Jan 23 04:28	0°♄05'07	0.66230 AU
min. Earth dist.	2054 Feb 08 22:00	16°♄03'18	0.64916 AU		2055 Jan 23 06:05	30°♄	
morning rise	2054 Feb 12 14:49	12°♄13'06		morning rise	2055 Jan 27 05:42	25°♄33'17	
direct	2054 Feb 19 08:18	9°♄22'28		direct	2055 Feb 02 12:25	22°♄47'31	
desc. node	2054 Mar 02 11:13	15°♄02'23			2055 Feb 14 20:31	0°♄	
morning max el	2054 Mar 04 16:55	17°♄10'15	27°09'48	morning max el	2055 Feb 15 02:26	0°♄14'50	26°07'24
	2054 Mar 15 09:53	0°♄		desc. node	2055 Feb 17 08:15	2°♄36'46	
	2054 Apr 03 09:05	0°♄			2055 Mar 09 08:34	0°♄	
morning set	2054 Apr 09 05:17	10°♄54'41		morning set	2055 Mar 23 06:04	23°♄50'51	
max. Earth dist.	2054 Apr 13 20:32	20°♄08'17	1.33871 AU		2055 Mar 26 12:06	0°♄	
superior conj	2054 Apr 17 12:18	27°♄43'20	0°-37'-40	max. Earth dist.	2055 Mar 27 06:04	1°♄26'52	1.35325 AU

superior conj	2055 Apr 01 08:35	11°♊36'26	-1°-5'-23			2056 Mar 01 04:12	0°♋	
minimum elong	2055 Apr 01 11:52	11°♊53'07	1°04'50	morning set		2056 Mar 04 12:33	5°♋49'29	
asc. node	2055 Apr 08 01:16	25°♊24'59		max. Earth dist.		2056 Mar 08 05:19	12°♋29'32	1.37189 AU
evening rise	2055 Apr 09 04:58	27°♊47'39						
	2055 Apr 10 06:54	0°♌		superior conj		2056 Mar 14 18:40	24°♋55'03	-1°-31'-1
evening max el	2055 Apr 27 13:30	27°♌33'35	20°26'46	minimum elong		2056 Mar 14 22:52	25°♋15'35	1°30'28
	2055 Apr 30 10:52	0°♍				2056 Mar 17 08:38	0°♌	
retrograde	2055 May 08 11:40	2°♍51'41		evening rise		2056 Mar 23 07:12	11°♌53'22	
evening set	2055 May 10 13:20	2°♍41'04		asc. node		2056 Mar 24 22:19	15°♌07'42	
desc. node	2055 May 16 07:26	0°♍36'49				2056 Apr 02 02:00	0°♌	
	2055 May 17 11:09	30°♌♌		evening max el		2056 Apr 09 04:59	9°♌16'14	19°22'07
inferior conj	2055 May 19 17:02	28°♌43'14	0°-59'-32	retrograde		2056 Apr 18 10:24	13°♌43'56	
minimum elong	2055 May 19 14:13	28°♌47'20	0°58'31	evening set		2056 Apr 20 11:56	13°♌31'30	
min. Earth dist.	2055 May 21 02:23	27°♌54'47	0.55082 AU	inferior conj		2056 Apr 28 23:21	9°♌23'51	0°54'54
morning rise	2055 May 28 13:25	24°♌30'57		minimum elong		2056 Apr 29 01:35	9°♌20'11	0°54'07
direct	2055 Jun 01 07:57	24°♌00'16		min. Earth dist.		2056 May 01 17:05	7°♌36'26	0.56113 AU
	2055 Jun 14 04:23	0°♍		desc. node		2056 May 02 04:28	7°♌18'32	
morning max el	2055 Jun 14 17:59	0°♍31'23	23°25'09	morning rise		2056 May 07 11:16	4°♌38'25	
	2055 Jul 04 11:39	0°♎		direct		2056 May 12 04:49	3°♌47'19	
asc. node	2055 Jul 05 00:30	1°♎04'06		morning max el		2056 May 26 08:32	10°♌58'29	25°05'48
morning set	2055 Jul 08 04:41	7°♎36'01				2056 Jun 09 19:36	0°♍	
				asc. node		2056 Jun 20 21:34	20°♍52'34	
superior conj	2055 Jul 15 07:00	22°♎49'19	1°29'44	morning set		2056 Jun 21 16:32	22°♍32'12	
minimum elong	2055 Jul 15 04:46	22°♎37'19	1°29'29			2056 Jun 25 03:58	0°♎	
max. Earth dist.	2055 Jul 17 17:24	28°♎00'29	1.33584 AU					
	2055 Jul 18 16:07	0°♏		superior conj		2056 Jun 28 16:50	7°♎43'26	1°14'04
evening rise	2055 Jul 22 21:42	8°♏39'48		minimum elong		2056 Jun 28 14:26	7°♎30'19	1°13'41
	2055 Aug 03 13:16	0°♐		max. Earth dist.		2056 Jun 29 23:41	10°♎31'26	1.32728 AU
desc. node	2055 Aug 12 06:44	13°♐30'16		evening rise		2056 Jul 05 21:34	23°♎03'45	
	2055 Aug 25 22:32	0°♑				2056 Jul 09 08:41	0°♏	
evening max el	2055 Aug 25 21:56	29°♐58'35	27°21'34			2056 Jul 27 08:36	0°♐	
retrograde	2055 Sep 08 10:16	7°♑16'42		desc. node		2056 Jul 29 03:46	2°♐25'18	
evening set	2055 Sep 15 12:22	4°♑35'05		evening max el		2056 Aug 07 06:57	12°♐50'58	27°22'19
min. Earth dist.	2055 Sep 19 06:02	1°♑10'05	0.64293 AU	retrograde		2056 Aug 21 01:41	20°♐07'44	
	2055 Sep 20 08:41	30°♑♐		evening set		2056 Aug 28 06:31	17°♐37'59	
inferior conj	2055 Sep 21 15:19	28°♑38'06	-2°-58'-37	min. Earth dist.		2056 Aug 31 20:40	14°♑42'43	0.62554 AU
minimum elong	2055 Sep 21 19:58	28°♑25'43	2°57'04	inferior conj		2056 Sep 03 18:05	11°♑58'07	-3°-51'-57
morning rise	2055 Sep 28 05:38	23°♑11'43		minimum elong		2056 Sep 03 23:28	11°♑45'21	3°50'34
direct	2055 Sep 30 18:20	22°♑39'06		morning rise		2056 Sep 10 19:05	6°♑50'40	
asc. node	2055 Sep 30 23:43	22°♑39'22		direct		2056 Sep 13 04:27	6°♑24'51	
morning max el	2055 Oct 07 06:34	26°♑05'21	17°56'57	asc. node		2056 Sep 16 20:46	7°♑27'40	
	2055 Oct 10 14:26	0°♒		morning max el		2056 Sep 19 22:28	9°♑51'35	17°52'04
morning set	2055 Oct 24 10:07	22°♒12'24				2056 Oct 03 06:10	0°♒	
	2055 Oct 29 00:42	0°♓		morning set		2056 Oct 06 00:02	4°♒53'23	
superior conj	2055 Nov 06 14:51	14°♓09'50	0°11'02	superior conj		2056 Oct 17 07:19	24°♒39'24	0°51'44
minimum elong	2055 Nov 06 16:07	14°♓14'57	0°10'52	minimum elong		2056 Oct 17 11:39	24°♒57'43	0°51'10
behind sun begin	2055 Nov 06 08:28	13°♓43'59				2056 Oct 20 11:48	0°♓	
behind sun end	2055 Nov 06 23:46	14°♓45'53		max. Earth dist.		2056 Oct 24 07:20	6°♓15'25	1.43338 AU
desc. node	2055 Nov 08 06:02	16°♓47'49		desc. node		2056 Oct 25 03:04	7°♓35'10	
max. Earth dist.	2055 Nov 11 16:21	22°♓16'24	1.44563 AU	evening rise		2056 Nov 01 05:49	18°♓50'59	
	2055 Nov 16 14:09	0°♔				2056 Nov 08 12:48	0°♔	
evening rise	2055 Nov 22 20:45	9°♔43'47		greatest brilliancy		2056 Nov 26 20:53	25°♔56'52	-0.4m
	2055 Dec 06 05:55	0°♕				2056 Nov 30 06:36	0°♕	
greatest brilliancy	2055 Dec 13 12:59	10°♕24'31	-0.6m	evening max el		2056 Dec 01 21:11	1°♕43'09	21°25'43
evening max el	2055 Dec 19 23:02	18°♕12'56	20°16'25	retrograde		2056 Dec 10 17:04	6°♕58'07	
retrograde	2055 Dec 27 19:36	22°♕50'05		asc. node		2056 Dec 13 20:03	6°♕04'07	
asc. node	2055 Dec 27 23:00	22°♕49'59		evening set		2056 Dec 14 20:30	5°♕22'22	
evening set	2055 Dec 31 12:48	21°♕29'48				2056 Dec 19 14:07	30°♒♔	
inferior conj	2056 Jan 05 23:54	15°♕22'03	2°43'14	inferior conj		2056 Dec 20 06:09	29°♔04'45	2°03'37
minimum elong	2056 Jan 05 21:17	15°♕30'56	2°42'30	minimum elong		2056 Dec 20 03:46	29°♔12'58	2°02'48
min. Earth dist.	2056 Jan 06 17:59	14°♕20'56	0.67137 AU	min. Earth dist.		2056 Dec 20 12:14	28°♔43'42	0.67665 AU
morning rise	2056 Jan 11 05:14	9°♕06'44		morning rise		2056 Dec 25 10:43	22°♔49'52	
direct	2056 Jan 16 22:00	6°♕35'45		direct		2056 Dec 30 12:25	20°♔39'24	
morning max el	2056 Jan 28 11:09	13°♕29'11	24°47'01	morning max el		2057 Jan 09 20:07	26°♔47'50	23°18'45
desc. node	2056 Feb 04 05:16	21°♕11'20				2057 Jan 12 19:22	0°♕	
	2056 Feb 10 20:45	0°♖		greatest brilliancy		2057 Jan 15 03:16	2°♕45'13	-0.2m

desc. node	2057 Jan 21 02:18	10°☿28'20		greatest brilliancy	2057 Dec 28 03:08	15°♄36'08	-0.4m
	2057 Feb 03 11:46	0°♊		desc. node	2058 Jan 07 23:21	0°☿16'11	
morning set	2057 Feb 13 18:24	16°♊33'09			2058 Jan 07 18:51	0°☿	
max. Earth dist.	2057 Feb 17 23:55	23°♊47'06	1.39308 AU	morning set	2058 Jan 24 19:07	25°☿52'39	
	2057 Feb 21 12:18	0°♋			2058 Jan 27 08:25	0°♊	
				max. Earth dist.	2058 Jan 30 22:09	5°♊52'53	1.41429 AU
superior conj	2057 Feb 25 14:28	7°♋28'13	-1°-51'-47				
minimum elong	2057 Feb 25 18:27	7°♋46'45	1°51'29	superior conj	2058 Feb 07 15:07	19°♊04'38	-2°-3'-47
evening rise	2057 Mar 07 01:08	25°♋29'12		minimum elong	2058 Feb 07 16:47	19°♊11'59	2°03'46
	2057 Mar 09 09:36	0°♌			2058 Feb 13 17:11	0°♋	
asc. node	2057 Mar 11 19:22	4°♌31'14		evening rise	2058 Feb 18 07:25	8°♋27'26	
evening max el	2057 Mar 23 06:28	21°♌35'48	18°37'32	asc. node	2058 Feb 26 16:24	23°♋29'12	
retrograde	2057 Mar 31 02:39	25°♌25'54			2058 Mar 02 21:57	0°♌	
evening set	2057 Apr 02 09:26	25°♌07'32		evening max el	2058 Mar 06 14:45	4°♌23'56	18°12'56
inferior conj	2057 Apr 10 01:43	20°♌41'37	2°21'58	retrograde	2058 Mar 13 13:18	7°♌53'00	
minimum elong	2057 Apr 10 05:44	20°♌33'56	2°20'53	evening set	2058 Mar 16 01:48	7°♌26'11	
min. Earth dist.	2057 Apr 13 11:00	18°♌07'14	0.57848 AU	inferior conj	2058 Mar 23 01:02	2°♌38'53	3°15'20
morning rise	2057 Apr 17 21:40	15°♌23'15		minimum elong	2058 Mar 23 04:04	2°♌32'07	3°14'50
desc. node	2057 Apr 19 01:30	14°♌53'21			2058 Mar 26 00:27	30°♌	
direct	2057 Apr 23 16:07	13°♌59'40		min. Earth dist.	2058 Mar 26 09:57	29°♌39'46	0.59949 AU
morning max el	2057 May 08 01:05	21°♌35'58	26°31'36	morning rise	2058 Mar 30 02:49	26°♌56'18	
	2057 May 15 09:18	0°♍		direct	2058 Apr 05 15:56	24°♌56'21	
	2057 Jun 02 12:32	0°♎		desc. node	2058 Apr 05 22:33	24°♌56'33	
morning set	2057 Jun 06 03:17	7°♎24'12			2058 Apr 16 22:16	0°♌	
asc. node	2057 Jun 07 18:38	10°♎53'04		morning max el	2058 Apr 19 23:13	2°♌45'41	27°28'50
					2058 May 09 19:45	0°♍	
superior conj	2057 Jun 13 04:27	22°♎41'12	0°54'23	morning set	2058 May 21 11:06	22°♍05'30	
minimum elong	2057 Jun 13 02:21	22°♎29'42	0°53'59		2058 May 25 04:33	0°♎	
max. Earth dist.	2057 Jun 13 10:43	23°♎15'39	1.32265 AU	asc. node	2058 May 25 15:40	1°♎00'13	
	2057 Jun 16 12:34	0°♏		max. Earth dist.	2058 May 27 22:53	6°♎01'40	1.32191 AU
evening rise	2057 Jun 20 03:39	7°♏45'09					
	2057 Jul 01 19:54	0°♐		superior conj	2058 May 28 16:02	7°♎35'49	0°31'24
desc. node	2057 Jul 16 00:47	20°♐24'04		minimum elong	2058 May 28 14:40	7°♎28'21	0°31'07
evening max el	2057 Jul 20 11:00	25°♐04'04	26°50'10	evening rise	2058 Jun 04 13:30	22°♎35'28	
	2057 Jul 26 20:13	0°♑			2058 Jun 08 03:38	0°♏	
retrograde	2057 Aug 03 09:45	2°♑17'37			2058 Jun 26 10:43	0°♐	
evening set	2057 Aug 10 07:27	0°♑13'30		evening max el	2058 Jul 02 08:06	6°♐30'22	25°46'19
	2057 Aug 10 16:27	30°♑		desc. node	2058 Jul 02 21:50	7°♐02'34	
min. Earth dist.	2057 Aug 14 01:04	27°♐35'34	0.60565 AU	retrograde	2058 Jul 16 08:23	13°♐39'24	
inferior conj	2057 Aug 17 06:57	24°♐53'24	-4°-34'-51	evening set	2058 Jul 22 10:19	12°♐11'35	
minimum elong	2057 Aug 17 11:29	24°♐43'55	4°34'08	min. Earth dist.	2058 Jul 26 20:25	9°♐33'41	0.58510 AU
morning rise	2057 Aug 24 18:43	20°♐07'35		inferior conj	2058 Jul 30 02:15	7°♐13'13	-4°-57'-39
direct	2057 Aug 27 03:41	19°♐45'49		minimum elong	2058 Jul 30 03:30	7°♐10'57	4°57'37
morning max el	2057 Sep 03 11:12	23°♐21'45	18°06'09	morning rise	2058 Aug 07 00:14	2°♐50'26	
asc. node	2057 Sep 03 17:50	23°♐38'03		direct	2058 Aug 09 11:42	2°♐30'38	
	2057 Sep 08 18:27	0°♑		morning max el	2058 Aug 17 17:30	6°♐25'50	18°40'31
morning set	2057 Sep 19 06:20	18°♑21'46		asc. node	2058 Aug 21 14:52	10°♐54'32	
	2057 Sep 25 12:41	0°♒			2058 Sep 01 18:33	0°♑	
				morning set	2058 Sep 03 00:07	2°♑23'12	
superior conj	2057 Sep 29 02:06	6°♒26'30	1°20'42				
minimum elong	2057 Sep 29 06:17	6°♒45'12	1°20'15	superior conj	2058 Sep 11 18:10	19°♑16'16	1°37'59
max. Earth dist.	2057 Oct 06 17:13	19°♒39'36	1.41614 AU	minimum elong	2058 Sep 11 20:42	19°♑28'14	1°37'48
evening rise	2057 Oct 12 04:17	28°♒38'02			2058 Sep 17 14:37	0°♒	
desc. node	2057 Oct 12 00:06	28°♒21'12		max. Earth dist.	2058 Sep 18 22:36	2°♒21'39	1.39608 AU
	2057 Oct 13 00:44	0°♓		evening rise	2058 Sep 23 01:30	9°♒27'55	
	2057 Nov 02 04:11	0°♄		desc. node	2058 Sep 28 21:08	19°♒01'28	
greatest brilliancy	2057 Nov 09 15:09	9°♄42'24	-0.3m		2058 Oct 05 23:25	0°♓	
evening max el	2057 Nov 14 14:17	15°♄16'02	22°43'08	evening max el	2058 Oct 28 03:52	28°♓52'13	24°03'07
retrograde	2057 Nov 24 12:20	21°♄09'28			2058 Oct 29 07:59	0°♄	
evening set	2057 Nov 29 03:56	19°♄17'01		retrograde	2058 Nov 08 04:11	5°♄20'19	
asc. node	2057 Nov 30 17:05	17°♄48'50		evening set	2058 Nov 13 09:29	3°♄10'40	
inferior conj	2057 Dec 04 13:38	12°♄53'21	1°17'28		2058 Nov 16 09:26	30°♓	
minimum elong	2057 Dec 04 11:57	12°♄59'11	1°16'49	asc. node	2058 Nov 17 14:06	28°♓27'35	
min. Earth dist.	2057 Dec 04 08:46	13°♄10'12	0.67843 AU	min. Earth dist.	2058 Nov 18 05:07	27°♓37'15	0.67677 AU
morning rise	2057 Dec 09 19:53	6°♄41'04		inferior conj	2058 Nov 18 20:34	26°♓45'00	0°26'07
direct	2057 Dec 14 06:44	4°♄53'23		minimum elong	2058 Nov 18 19:57	26°♓47'07	0°25'51
morning max el	2057 Dec 23 08:43	10°♄13'21	21°52'09	morning rise	2058 Nov 24 06:38	20°♓37'47	

direct	2058 Nov 28 03:46	19° \mathbb{M} 12'16		morning rise	2059 Nov 08 17:03	4° \mathbb{M} 37'32	
morning max el	2058 Dec 06 04:13	23° \mathbb{M} 49'32	20°34'27	direct	2059 Nov 12 02:07	3° \mathbb{M} 31'41	
	2058 Dec 11 11:48	0° \mathbb{A}		morning max el	2059 Nov 19 07:37	7° \mathbb{M} 36'27	19°29'50
greatest brilliancy	2058 Dec 12 06:32	1° \mathbb{A} 00'41	-0.5m	greatest brilliancy	2059 Nov 28 00:26	18° \mathbb{M} 37'39	-0.7m
desc. node	2058 Dec 25 20:24	20° \mathbb{A} 26'10			2059 Dec 05 15:49	0° \mathbb{A}	
	2059 Jan 01 03:28	0° \mathbb{B}		desc. node	2059 Dec 12 17:25	10° \mathbb{A} 51'38	
morning set	2059 Jan 03 20:05	4° \mathbb{B} 09'32		morning set	2059 Dec 13 18:11	12° \mathbb{A} 27'27	
max. Earth dist.	2059 Jan 13 04:31	18° \mathbb{B} 57'04	1.43246 AU		2059 Dec 24 23:59	0° \mathbb{B}	
				max. Earth dist.	2059 Dec 26 17:56	2° \mathbb{B} 45'42	1.44523 AU
superior conj	2059 Jan 19 15:32	29° \mathbb{B} 33'07	-2°-2'-9				
minimum elong	2059 Jan 19 12:22	29° \mathbb{B} 19'55	2°02'04	superior conj	2059 Dec 30 13:38	8° \mathbb{B} 50'36	-1°-42'-21
	2059 Jan 19 21:58	0° \mathbb{C}		minimum elong	2059 Dec 30 05:31	8° \mathbb{B} 18'10	1°41'42
evening rise	2059 Jan 31 22:00	20° \mathbb{C} 40'20			2060 Jan 12 11:57	0° \mathbb{C}	
	2059 Feb 06 05:33	0° \mathbb{H}		evening rise	2060 Jan 13 16:31	1° \mathbb{C} 59'24	
asc. node	2059 Feb 13 13:25	11° \mathbb{H} 53'50		asc. node	2060 Jan 31 10:27	29° \mathbb{C} 34'28	
evening max el	2059 Feb 18 02:37	17° \mathbb{H} 31'58	18°07'50		2060 Jan 31 19:33	0° \mathbb{H}	
retrograde	2059 Feb 24 14:55	20° \mathbb{H} 55'33		evening max el	2060 Feb 01 15:06	0° \mathbb{H} 51'43	18°21'40
evening set	2059 Feb 27 08:29	20° \mathbb{H} 19'02		retrograde	2060 Feb 08 02:46	4° \mathbb{H} 22'59	
inferior conj	2059 Mar 05 18:19	15° \mathbb{H} 10'27	3°39'42	evening set	2060 Feb 11 01:26	3° \mathbb{H} 35'53	
minimum elong	2059 Mar 05 19:22	15° \mathbb{H} 07'44	3°39'38		2060 Feb 15 09:07	30° \mathbb{R} \mathbb{C}	
min. Earth dist.	2059 Mar 08 16:42	12° \mathbb{H} 11'38	0.62072 AU	inferior conj	2060 Feb 17 01:27	28° \mathbb{C} 07'45	3°42'05
morning rise	2059 Mar 12 03:51	9° \mathbb{H} 12'26		minimum elong	2060 Feb 17 00:43	28° \mathbb{C} 09'51	3°42'02
direct	2059 Mar 19 01:35	6° \mathbb{H} 42'32		min. Earth dist.	2060 Feb 19 09:02	25° \mathbb{C} 29'29	0.63975 AU
desc. node	2059 Mar 23 19:35	7° \mathbb{H} 45'41		morning rise	2060 Feb 22 22:23	22° \mathbb{C} 00'32	
morning max el	2059 Apr 02 03:36	14° \mathbb{H} 37'39	27°49'50	direct	2060 Feb 29 19:24	19° \mathbb{C} 13'22	
	2059 Apr 14 14:28	0° \mathbb{Y}		desc. node	2060 Mar 09 16:37	22° \mathbb{C} 52'33	
	2059 May 02 07:45	0° \mathbb{B}		morning max el	2060 Mar 14 12:11	27° \mathbb{C} 07'15	27°33'54
morning set	2059 May 05 14:04	6° \mathbb{B} 29'41			2060 Mar 17 05:27	0° \mathbb{H}	
max. Earth dist.	2059 May 11 08:19	18° \mathbb{B} 36'08	1.32509 AU		2060 Apr 07 06:04	0° \mathbb{Y}	
asc. node	2059 May 12 12:43	21° \mathbb{B} 09'49		morning set	2060 Apr 18 09:38	20° \mathbb{Y} 28'01	
					2060 Apr 23 02:13	0° \mathbb{B}	
superior conj	2059 May 13 01:55	22° \mathbb{B} 21'38	0°05'50	max. Earth dist.	2060 Apr 23 10:54	0° \mathbb{B} 45'16	1.33245 AU
minimum elong	2059 May 13 01:39	22° \mathbb{B} 20'07	0°05'46				
behind sun begin	2059 May 12 20:49	21° \mathbb{B} 53'53		superior conj	2060 Apr 26 08:16	6° \mathbb{B} 51'56	0°-21'-33
behind sun end	2059 May 13 06:28	22° \mathbb{B} 46'23		minimum elong	2060 Apr 26 09:20	6° \mathbb{B} 57'39	0°21'20
	2059 May 16 13:59	0° \mathbb{I}		asc. node	2060 Apr 28 09:45	11° \mathbb{B} 17'11	
evening rise	2059 May 20 01:09	7° \mathbb{I} 27'48		evening rise	2060 May 03 12:43	22° \mathbb{B} 14'58	
	2059 May 31 20:32	0° \mathbb{S}			2060 May 07 07:09	0° \mathbb{I}	
evening max el	2059 Jun 13 22:59	17° \mathbb{S} 15'32	24°19'06	evening max el	2060 May 25 13:11	27° \mathbb{I} 43'27	22°42'54
desc. node	2059 Jun 19 18:49	21° \mathbb{S} 49'13			2060 May 28 03:04	0° \mathbb{S}	
retrograde	2059 Jun 27 19:31	24° \mathbb{S} 15'01		desc. node	2060 Jun 05 15:49	4° \mathbb{S} 07'40	
evening set	2059 Jul 02 13:32	23° \mathbb{S} 24'41		retrograde	2060 Jun 07 18:30	4° \mathbb{S} 17'52	
min. Earth dist.	2059 Jul 08 09:51	20° \mathbb{S} 29'17	0.56660 AU	evening set	2060 Jun 11 01:08	3° \mathbb{S} 54'16	
inferior conj	2059 Jul 11 01:26	18° \mathbb{S} 49'14	-4°-46'-51	min. Earth dist.	2060 Jun 18 21:21	0° \mathbb{S} 27'30	0.55353 AU
minimum elong	2059 Jul 10 21:22	18° \mathbb{S} 55'41	4°46'26		2060 Jun 19 16:36	30° \mathbb{R} \mathbb{I}	
morning rise	2059 Jul 19 08:50	14° \mathbb{S} 47'13		inferior conj	2060 Jun 20 05:49	29° \mathbb{I} 41'03	-3°-49'-50
direct	2059 Jul 22 00:49	14° \mathbb{S} 28'10		minimum elong	2060 Jun 19 21:59	29° \mathbb{I} 52'16	3°47'55
morning max el	2059 Jul 31 14:28	18° \mathbb{S} 54'52	19°36'16	morning rise	2060 Jun 28 21:32	25° \mathbb{I} 49'30	
asc. node	2059 Aug 08 11:56	29° \mathbb{S} 02'58		direct	2060 Jul 01 19:29	25° \mathbb{I} 29'52	
	2059 Aug 09 01:59	0° \mathbb{Q}			2060 Jul 12 05:39	0° \mathbb{S}	
morning set	2059 Aug 18 01:51	16° \mathbb{Q} 48'20		morning max el	2060 Jul 13 00:12	0° \mathbb{S} 41'31	20°53'00
	2059 Aug 24 15:04	0° \mathbb{P}		asc. node	2060 Jul 25 08:59	17° \mathbb{S} 50'52	
					2060 Jul 31 15:25	0° \mathbb{Q}	
superior conj	2059 Aug 26 02:05	2° \mathbb{P} 53'38	1°45'12	morning set	2060 Aug 01 08:56	1° \mathbb{Q} 29'47	
minimum elong	2059 Aug 26 02:44	2° \mathbb{P} 56'52	1°45'12				
max. Earth dist.	2059 Sep 01 02:43	14° \mathbb{P} 27'14	1.37572 AU	superior conj	2060 Aug 08 21:16	17° \mathbb{Q} 05'16	1°44'13
evening rise	2059 Sep 04 22:16	21° \mathbb{P} 23'43		minimum elong	2060 Aug 08 20:23	17° \mathbb{Q} 00'42	1°44'13
	2059 Sep 09 21:35	0° \mathbb{U}		max. Earth dist.	2060 Aug 13 11:03	26° \mathbb{Q} 17'31	1.35734 AU
desc. node	2059 Sep 15 18:08	9° \mathbb{U} 31'41			2060 Aug 15 08:48	0° \mathbb{P}	
	2059 Sep 29 21:59	0° \mathbb{M}		evening rise	2060 Aug 17 14:56	4° \mathbb{P} 16'49	
evening max el	2059 Oct 10 15:51	12° \mathbb{M} 31'08	25°18'51	desc. node	2060 Sep 01 15:08	29° \mathbb{P} 46'40	
retrograde	2059 Oct 22 15:42	19° \mathbb{M} 26'12			2060 Sep 01 18:37	0° \mathbb{U}	
evening set	2059 Oct 28 11:28	17° \mathbb{M} 00'36		evening max el	2060 Sep 22 03:50	26° \mathbb{U} 10'05	26°22'51
min. Earth dist.	2059 Nov 01 22:56	12° \mathbb{M} 02'14	0.67174 AU		2060 Sep 26 15:11	0° \mathbb{M}	
inferior conj	2059 Nov 03 01:11	10° \mathbb{M} 37'08	0°-29'-14	retrograde	2060 Oct 04 22:26	3° \mathbb{M} 21'52	
minimum elong	2059 Nov 03 01:56	10° \mathbb{M} 34'42	0°28'56	evening set	2060 Oct 11 08:02	0° \mathbb{M} 44'10	
asc. node	2059 Nov 04 11:08	8° \mathbb{M} 48'50			2060 Oct 12 04:02	30° \mathbb{R} \mathbb{U}	

min. Earth dist.	2060 Oct 15 11:58	26°♄22'15	0.66328 AU	minimum elong	2061 Sep 30 23:41	7°♄59'50	2°24'15
inferior conj	2060 Oct 17 01:39	24°♄27'20	-1°-27'-8	morning rise	2061 Oct 07 04:19	2°♄34'54	
minimum elong	2060 Oct 17 03:58	24°♄20'16	1°26'11	asc. node	2061 Oct 08 05:14	2°♄11'12	
asc. node	2060 Oct 21 08:11	19°♄50'06		direct	2061 Oct 09 20:02	1°♄57'06	
morning rise	2060 Oct 23 01:05	18°♄38'05		morning max el	2061 Oct 16 08:23	5°♄27'18	18°07'53
direct	2060 Oct 26 00:16	17°♄48'13			2061 Nov 01 21:15	0°♄	
morning max el	2060 Nov 01 17:48	21°♄31'07	18°40'35	morning set	2061 Nov 03 12:42	2°♄43'14	
	2060 Nov 08 11:05	0°♄		desc. node	2061 Nov 15 11:26	22°♄11'23	
morning set	2060 Nov 22 12:50	21°♄51'49					
	2060 Nov 27 16:07	0°♄		superior conj	2061 Nov 17 22:02	26°♄04'55	0°-16'-21
desc. node	2060 Nov 28 14:26	1°♄28'05		minimum elong	2061 Nov 17 19:58	25°♄56'41	0°16'04
				behind sun begin	2061 Nov 17 18:29	25°♄50'47	
superior conj	2060 Dec 08 17:19	17°♄23'03	-1°-4'-22	behind sun end	2061 Nov 17 21:27	26°♄02'35	
minimum elong	2060 Dec 08 09:31	16°♄52'24	1°03'27		2061 Nov 20 09:25	0°♄	
max. Earth dist.	2060 Dec 08 11:30	17°♄00'13	1.45117 AU	max. Earth dist.	2061 Nov 21 06:20	1°♄22'31	1.44976 AU
	2060 Dec 16 17:35	0°♄		evening rise	2061 Dec 04 09:14	21°♄50'37	
evening rise	2060 Dec 24 11:53	12°♄20'51			2061 Dec 09 15:47	0°♄	
	2061 Jan 04 14:05	0°♄		greatest brilliancy	2061 Dec 21 15:19	18°♄01'36	-0.6m
evening max el	2061 Jan 15 01:45	14°♄18'17	18°53'35	evening max el	2061 Dec 29 08:32	27°♄47'41	19°42'03
asc. node	2061 Jan 17 07:29	16°♄18'47			2061 Dec 31 18:36	0°♄	
retrograde	2061 Jan 21 20:53	18°♄08'09		asc. node	2062 Jan 04 04:32	1°♄51'46	
evening set	2061 Jan 25 01:31	17°♄09'24		retrograde	2062 Jan 05 18:02	2°♄05'13	
inferior conj	2061 Jan 30 18:43	11°♄23'56	3°28'18	evening set	2062 Jan 09 06:10	0°♄53'19	
minimum elong	2061 Jan 30 16:45	11°♄30'01	3°28'00		2062 Jan 10 09:16	30°♄	
min. Earth dist.	2061 Feb 01 10:52	9°♄19'15	0.65524 AU	inferior conj	2062 Jan 14 18:56	24°♄53'03	3°02'26
morning rise	2061 Feb 05 06:56	5°♄11'38		minimum elong	2062 Jan 14 16:23	25°♄01'28	3°01'51
direct	2061 Feb 11 20:17	2°♄21'28		min. Earth dist.	2062 Jan 15 20:41	23°♄28'07	0.66670 AU
desc. node	2061 Feb 24 13:39	9°♄42'05		morning rise	2062 Jan 20 01:54	18°♄38'22	
morning max el	2061 Feb 24 22:05	10°♄03'07	26°46'00	direct	2062 Jan 26 03:03	15°♄57'35	
	2061 Mar 12 16:15	0°♄		morning max el	2062 Feb 07 07:07	23°♄12'22	25°34'38
	2061 Mar 30 17:26	0°♄		desc. node	2062 Feb 11 10:41	27°♄44'33	
morning set	2061 Apr 01 18:30	3°♄50'48			2062 Feb 13 07:54	0°♄	
max. Earth dist.	2061 Apr 06 02:57	12°♄20'41	1.34434 AU		2062 Mar 06 00:31	0°♄	
				morning set	2062 Mar 15 12:14	16°♄24'48	
superior conj	2061 Apr 10 08:58	21°♄00'54	0°-49'-34	max. Earth dist.	2062 Mar 19 07:14	23°♄27'38	1.36073 AU
minimum elong	2061 Apr 10 11:28	21°♄13'56	0°49'05		2062 Mar 22 16:37	0°♄	
	2061 Apr 14 15:52	0°♄					
asc. node	2061 Apr 15 06:47	1°♄18'34		superior conj	2062 Mar 25 01:22	4°♄40'58	-1°-16'-40
evening rise	2061 Apr 17 22:21	6°♄51'14		minimum elong	2062 Mar 25 05:08	4°♄59'47	1°16'05
	2061 Apr 30 13:30	0°♄		evening rise	2062 Apr 02 03:58	21°♄10'22	
evening max el	2061 May 07 10:37	8°♄27'24	21°12'20	asc. node	2062 Apr 02 03:51	21°♄09'45	
retrograde	2061 May 19 08:26	14°♄16'09			2062 Apr 06 14:49	0°♄	
evening set	2061 May 21 15:20	14°♄04'03		evening max el	2062 Apr 19 19:35	19°♄47'59	19°56'56
desc. node	2061 May 23 12:52	13°♄36'45		retrograde	2062 Apr 29 23:49	24°♄43'02	
inferior conj	2061 May 30 23:56	10°♄05'26	-2°-8'-28	evening set	2062 May 02 00:21	24°♄32'15	
minimum elong	2061 May 30 18:00	10°♄13'46	2°06'27	desc. node	2062 May 10 09:54	20°♄50'31	
min. Earth dist.	2061 May 31 09:36	9°♄51'49	0.54899 AU	inferior conj	2062 May 10 22:01	20°♄32'11	0°-8'-48
morning rise	2061 Jun 08 20:37	6°♄05'51		minimum elong	2062 May 10 21:36	20°♄32'47	0°08'41
direct	2061 Jun 12 05:14	5°♄41'24		transit middle	2062 May 10 21:36	20°♄32'47	0°08'41
morning max el	2061 Jun 24 23:06	11°♄45'17	22°26'47	transit begin	2062 May 10 18:16	20°♄37'52	
	2061 Jul 08 09:34	0°♄		transit end	2062 May 11 00:57	20°♄27'43	
asc. node	2061 Jul 12 06:02	7°♄08'19		min. Earth dist.	2062 May 12 23:12	19°♄17'41	0.55416 AU
morning set	2061 Jul 16 19:14	16°♄21'12		morning rise	2062 May 19 15:56	16°♄06'41	
	2061 Jul 23 05:20	0°♄		direct	2062 May 23 19:48	15°♄28'38	
				morning max el	2062 Jun 06 14:51	22°♄18'48	24°08'46
superior conj	2061 Jul 24 00:10	1°♄39'54	1°36'37		2062 Jun 13 09:15	0°♄	
minimum elong	2061 Jul 23 22:16	1°♄29'49	1°36'28	asc. node	2062 Jun 29 03:05	26°♄47'48	
max. Earth dist.	2061 Jul 27 03:58	8°♄16'39	1.34248 AU		2062 Jun 30 16:14	0°♄	
evening rise	2061 Jul 31 22:53	17°♄54'32		morning set	2062 Jul 01 07:01	1°♄17'40	
	2061 Aug 07 10:16	0°♄					
desc. node	2061 Aug 19 12:10	19°♄38'57		superior conj	2062 Jul 08 08:08	16°♄29'28	1°23'38
	2061 Aug 27 01:03	0°♄		minimum elong	2062 Jul 08 05:46	16°♄16'38	1°23'19
evening max el	2061 Sep 04 16:02	9°♄40'55	27°07'35	max. Earth dist.	2062 Jul 10 06:10	20°♄37'26	1.33169 AU
retrograde	2061 Sep 17 23:39	16°♄59'10			2062 Jul 14 17:21	0°♄	
evening set	2061 Sep 24 20:48	14°♄16'25		evening rise	2062 Jul 15 18:00	2°♄05'21	
min. Earth dist.	2061 Sep 28 17:53	10°♄31'03	0.65130 AU		2062 Jul 31 07:13	0°♄	
inferior conj	2061 Sep 30 19:48	8°♄10'46	-2°-25'-42	desc. node	2062 Aug 06 09:13	8°♄58'57	

evening max el	2062 Aug 18 03:09	22° \mathbb{M} 52'20	27°25'55	max. Earth dist.	2063 Jun 23 15:07	3° \mathfrak{G} 16'20	1.32488 AU
	2062 Aug 29 22:08	0° \mathfrak{A}		evening rise	2063 Jun 29 20:50	16° \mathfrak{G} 37'49	
retrograde	2062 Aug 31 18:43	0° \mathfrak{A} 09'49			2063 Jul 06 15:41	0° \mathcal{O}	
	2062 Sep 02 14:15	30° \mathcal{R} \mathbb{M}		desc. node	2063 Jul 24 06:15	27° \mathcal{O} 32'16	
evening set	2062 Sep 07 22:48	27° \mathbb{M} 32'02			2063 Jul 26 06:50	0° \mathbb{M}	
min. Earth dist.	2062 Sep 11 14:36	24° \mathbb{M} 20'26	0.63589 AU	evening max el	2063 Jul 31 10:29	5° \mathbb{M} 29'28	27°12'44
inferior conj	2062 Sep 14 05:05	21° \mathbb{M} 41'54	-3°-22'-7	retrograde	2063 Aug 14 06:44	12° \mathbb{M} 44'01	
minimum elong	2062 Sep 14 10:10	21° \mathbb{M} 28'58	3°20'32	evening set	2063 Aug 21 10:07	10° \mathbb{M} 23'38	
morning rise	2062 Sep 20 23:50	16° \mathbb{M} 22'49		min. Earth dist.	2063 Aug 25 00:40	7° \mathbb{M} 37'41	0.61735 AU
direct	2062 Sep 23 10:47	15° \mathbb{M} 53'25		inferior conj	2063 Aug 28 02:20	4° \mathbb{M} 52'17	-4°-11'-54
asc. node	2062 Sep 25 02:17	16° \mathbb{M} 06'52		minimum elong	2063 Aug 28 07:36	4° \mathbb{M} 40'24	4°10'45
morning max el	2062 Sep 30 00:35	19° \mathbb{M} 19'03	17°52'35	morning rise	2063 Sep 04 07:55	29° \mathcal{O} 53'36	
	2062 Oct 07 21:21	0° \mathfrak{A}			2063 Sep 04 00:35	30° \mathcal{R} \mathcal{O}	
morning set	2062 Oct 16 14:35	14° \mathfrak{A} 50'17		direct	2063 Sep 06 16:54	29° \mathcal{O} 29'39	
	2062 Oct 25 11:08	0° \mathbb{M}			2063 Sep 09 07:52	0° \mathbb{M}	
				asc. node	2063 Sep 11 23:19	1° \mathbb{M} 31'27	
superior conj	2062 Oct 28 22:56	5° \mathbb{M} 48'22	0°29'35	morning max el	2063 Sep 13 15:26	2° \mathbb{M} 58'52	17°55'42
minimum elong	2062 Oct 29 01:58	6° \mathbb{M} 00'52	0°29'10	morning set	2063 Sep 29 12:07	27° \mathbb{M} 53'16	
desc. node	2062 Nov 02 08:29	12° \mathbb{M} 58'22			2063 Sep 30 15:58	0° \mathfrak{A}	
max. Earth dist.	2062 Nov 03 23:55	15° \mathbb{M} 36'37	1.44123 AU				
	2062 Nov 13 03:56	0° \mathfrak{A}		superior conj	2063 Oct 10 02:57	16° \mathfrak{A} 51'53	1°05'32
evening rise	2062 Nov 13 18:15	0° \mathfrak{A} 55'09		minimum elong	2063 Oct 10 07:31	17° \mathfrak{A} 11'38	1°04'58
	2062 Dec 03 08:28	0° \mathfrak{Z}		max. Earth dist.	2063 Oct 17 13:24	29° \mathfrak{A} 24'28	1.42656 AU
greatest brilliancy	2062 Dec 06 17:36	4° \mathfrak{Z} 34'00	-0.5m		2063 Oct 17 22:04	0° \mathbb{M}	
evening max el	2062 Dec 12 10:06	11° \mathfrak{Z} 18'20	20°44'37	desc. node	2063 Oct 20 05:33	3° \mathbb{M} 45'38	
retrograde	2062 Dec 20 15:53	16° \mathfrak{Z} 10'34		evening rise	2063 Oct 24 07:14	10° \mathbb{M} 14'52	
asc. node	2062 Dec 22 01:35	15° \mathfrak{Z} 59'34			2063 Nov 06 07:37	0° \mathfrak{A}	
evening set	2062 Dec 24 13:17	14° \mathfrak{Z} 43'51		greatest brilliancy	2063 Nov 20 12:04	19° \mathfrak{A} 27'07	-0.3m
inferior conj	2062 Dec 29 23:35	8° \mathfrak{Z} 31'41	2°27'17	evening max el	2063 Nov 25 05:59	24° \mathfrak{A} 49'53	21°57'56
minimum elong	2062 Dec 29 21:01	8° \mathfrak{Z} 40'30	2°26'30		2063 Dec 02 10:17	0° \mathfrak{Z}	
min. Earth dist.	2062 Dec 30 12:25	7° \mathfrak{Z} 47'48	0.67417 AU	retrograde	2063 Dec 04 12:35	0° \mathfrak{Z} 21'04	
morning rise	2063 Jan 04 04:18	2° \mathfrak{Z} 16'31			2063 Dec 06 12:31	30° \mathcal{R} \mathfrak{A}	
	2063 Jan 08 10:27	30° \mathcal{R} \mathfrak{A}		evening set	2063 Dec 08 21:05	28° \mathfrak{A} 38'05	
direct	2063 Jan 09 14:50	29° \mathfrak{A} 53'40		asc. node	2063 Dec 08 22:35	28° \mathfrak{A} 35'04	
	2063 Jan 10 20:03	0° \mathfrak{Z}		inferior conj	2063 Dec 14 06:34	22° \mathfrak{A} 17'23	1°44'46
morning max el	2063 Jan 20 15:27	6° \mathfrak{Z} 28'08	24°09'43	minimum elong	2063 Dec 14 04:26	22° \mathfrak{A} 24'47	1°43'59
desc. node	2063 Jan 29 07:43	16° \mathfrak{Z} 38'57		min. Earth dist.	2063 Dec 14 07:49	22° \mathfrak{A} 13'04	0.67784 AU
	2063 Feb 07 22:04	0° \approx		morning rise	2063 Dec 19 11:36	16° \mathfrak{A} 03'37	
morning set	2063 Feb 25 08:59	27° \approx 53'18		direct	2063 Dec 24 06:53	14° \mathfrak{A} 02'57	
	2063 Feb 26 14:06	0° \mathfrak{H}		morning max el	2064 Jan 03 01:39	19° \mathfrak{A} 50'10	22°41'20
max. Earth dist.	2063 Mar 01 03:39	4° \mathfrak{H} 32'44	1.38079 AU	greatest brilliancy	2064 Jan 07 16:00	24° \mathfrak{A} 58'02	-0.3m
					2064 Jan 11 15:34	0° \mathfrak{Z}	
superior conj	2063 Mar 08 05:57	17° \mathfrak{H} 42'03	-1°-40'-37	desc. node	2064 Jan 16 04:45	6° \mathfrak{Z} 10'37	
minimum elong	2063 Mar 08 10:15	18° \mathfrak{H} 02'39	1°40'10		2064 Feb 01 03:15	0° \approx	
	2063 Mar 14 13:21	0° \mathbb{Y}		morning set	2064 Feb 06 02:46	8° \approx 02'04	
evening rise	2063 Mar 17 03:03	5° \mathbb{Y} 04'32		max. Earth dist.	2064 Feb 10 23:40	16° \approx 11'29	1.40232 AU
asc. node	2063 Mar 20 00:54	10° \mathbb{Y} 45'10					
	2063 Mar 31 23:05	0° \mathfrak{B}		superior conj	2064 Feb 18 18:19	29° \approx 53'16	-1°-58'-13
evening max el	2063 Apr 02 15:41	1° \mathfrak{B} 47'20	19°00'39	minimum elong	2064 Feb 18 21:38	0° \mathfrak{H} 08'21	1°58'03
retrograde	2063 Apr 11 05:22	5° \mathfrak{B} 56'54			2064 Feb 18 19:48	0° \mathfrak{H}	
evening set	2063 Apr 13 09:06	5° \mathfrak{B} 42'12		evening rise	2064 Feb 28 16:34	18° \mathfrak{H} 26'25	
inferior conj	2063 Apr 21 12:18	1° \mathfrak{B} 27'13	1°35'58	asc. node	2064 Mar 05 21:57	29° \mathfrak{H} 59'14	
minimum elong	2063 Apr 21 15:43	1° \mathfrak{B} 21'14	1°34'52		2064 Mar 05 22:07	0° \mathbb{Y}	
	2063 Apr 23 14:04	30° \mathcal{R} \mathbb{Y}		evening max el	2064 Mar 15 20:25	14° \mathbb{Y} 20'16	18°24'31
min. Earth dist.	2063 Apr 24 14:44	29° \mathbb{Y} 17'56	0.56787 AU	retrograde	2064 Mar 23 06:03	17° \mathbb{Y} 59'45	
desc. node	2063 Apr 27 06:56	27° \mathbb{Y} 38'41		evening set	2064 Mar 25 15:14	17° \mathbb{Y} 38'03	
morning rise	2063 Apr 29 18:06	26° \mathbb{Y} 27'28		inferior conj	2064 Apr 01 23:50	13° \mathbb{Y} 02'49	2°48'34
direct	2063 May 04 22:40	25° \mathbb{Y} 23'49		minimum elong	2064 Apr 02 03:39	12° \mathbb{Y} 54'59	2°47'42
	2063 May 16 01:29	0° \mathfrak{B}		min. Earth dist.	2064 Apr 05 10:24	10° \mathbb{Y} 15'02	0.58719 AU
morning max el	2063 May 19 05:27	2° \mathfrak{B} 46'30	25°45'05	morning rise	2064 Apr 09 12:01	7° \mathbb{Y} 32'46	
	2063 Jun 07 13:21	0° \mathbb{I}		desc. node	2064 Apr 13 03:57	6° \mathbb{Y} 10'02	
morning set	2063 Jun 15 18:36	16° \mathbb{I} 12'50		direct	2064 Apr 15 15:16	5° \mathbb{Y} 53'55	
asc. node	2063 Jun 16 00:09	16° \mathbb{I} 42'06		morning max el	2064 Apr 30 00:22	13° \mathbb{Y} 36'40	27°00'06
	2063 Jun 22 03:18	0° \mathfrak{G}			2064 May 13 00:59	0° \mathfrak{B}	
					2064 May 29 16:35	0° \mathbb{I}	
superior conj	2063 Jun 22 18:55	1° \mathfrak{G} 25'40	1°06'10	morning set	2064 May 30 04:19	1° \mathbb{I} 01'13	
minimum elong	2063 Jun 22 16:36	1° \mathfrak{G} 12'56	1°05'45	asc. node	2064 Jun 01 21:12	6° \mathbb{I} 46'06	

superior conj	2064 Jun 06 06:42	16°II22'40	0°45'00	asc. node	2065 May 19 18:15	26°855'00	
minimum elong	2064 Jun 06 04:53	16°II12'37	0°44'37	max. Earth dist.	2065 May 20 14:33	28°845'32	1.32274 AU
max. Earth dist.	2064 Jun 06 03:11	16°II03'16	1.32190 AU		2065 May 21 04:11	0°II	
	2064 Jun 12 12:56	0°8					
evening rise	2064 Jun 13 04:45	1°823'37		superior conj	2065 May 21 17:48	1°II14'28	0°20'49
	2064 Jun 28 17:45	0°8		minimum elong	2065 May 21 16:51	1°II09'20	0°20'37
desc. node	2064 Jul 10 03:16	14°859'54		evening rise	2065 May 28 15:35	16°II15'31	
evening max el	2064 Jul 12 11:26	17°821'42	26°26'23		2065 Jun 04 11:28	0°8	
retrograde	2064 Jul 26 10:56	24°833'48		evening max el	2065 Jun 24 05:22	28°828'31	25°11'17
evening set	2064 Aug 02 02:07	22°843'50			2065 Jun 25 21:34	0°8	
min. Earth dist.	2064 Aug 06 00:36	20°808'30	0.59686 AU	desc. node	2065 Jun 27 00:16	0°855'20	
inferior conj	2064 Aug 09 08:02	17°832'56	-4°-47'-42	retrograde	2065 Jul 08 05:26	5°835'34	
minimum elong	2064 Aug 09 11:31	17°826'05	4°47'21	evening set	2065 Jul 13 18:49	4°824'16	
morning rise	2064 Aug 17 00:18	12°857'16		min. Earth dist.	2065 Jul 18 17:08	1°840'41	0.57671 AU
direct	2064 Aug 19 10:05	12°836'31			2065 Jul 21 04:29	30°88	
morning max el	2064 Aug 27 01:50	16°818'54	18°18'18	inferior conj	2065 Jul 21 18:58	29°835'07	-4°-58'-5
asc. node	2064 Aug 28 20:23	18°811'34		minimum elong	2065 Jul 21 18:05	29°836'38	4°58'05
	2064 Sep 05 17:18	0°8		morning rise	2065 Jul 29 21:05	25°822'01	
morning set	2064 Sep 11 23:43	11°836'27		direct	2065 Aug 01 10:04	25°802'50	
				morning max el	2065 Aug 10 04:36	29°810'04	19°01'39
superior conj	2064 Sep 21 07:26	29°807'27	1°29'23		2065 Aug 11 00:54	0°8	
minimum elong	2064 Sep 21 11:01	29°823'48	1°29'04	asc. node	2065 Aug 15 17:26	5°852'13	
	2064 Sep 21 18:58	0°8		morning set	2065 Aug 26 21:16	25°849'10	
max. Earth dist.	2064 Sep 28 21:00	12°830'14	1.40771 AU		2065 Aug 28 23:58	0°8	
evening rise	2064 Oct 03 14:37	20°826'02					
desc. node	2064 Oct 06 02:34	24°829'27		superior conj	2065 Sep 04 06:55	12°819'45	1°42'09
	2064 Oct 09 14:00	0°8		minimum elong	2065 Sep 04 08:39	12°828'02	1°42'05
	2064 Oct 30 13:52	0°8		max. Earth dist.	2065 Sep 11 00:46	24°853'21	1.38723 AU
evening max el	2064 Nov 06 21:06	8°823'04	23°17'15		2065 Sep 13 21:57	0°8	
retrograde	2064 Nov 17 06:37	14°832'40		evening rise	2065 Sep 14 22:10	1°845'08	
evening set	2064 Nov 22 03:54	12°832'40		desc. node	2065 Sep 22 23:36	15°806'17	
asc. node	2064 Nov 24 19:36	9°847'10			2065 Oct 02 20:00	0°8	
min. Earth dist.	2064 Nov 27 04:32	6°839'55	0.67804 AU	evening max el	2065 Oct 20 09:42	22°800'32	24°36'22
inferior conj	2064 Nov 27 14:00	6°807'24	0°56'16	retrograde	2065 Oct 31 20:52	28°841'59	
minimum elong	2064 Nov 27 12:43	6°811'48	0°55'44	evening set	2065 Nov 06 08:09	26°825'23	
morning rise	2064 Dec 02 21:37	29°857'01		min. Earth dist.	2065 Nov 11 00:13	21°806'26	0.67497 AU
	2064 Dec 02 20:07	30°88		inferior conj	2065 Nov 11 20:11	19°859'52	0°03'04
direct	2064 Dec 07 02:20	28°819'12		minimum elong	2065 Nov 11 20:06	20°800'08	0°03'01
	2064 Dec 11 18:45	0°8		transit middle	2065 Nov 11 20:06	20°800'08	0°03'01
morning max el	2064 Dec 15 17:00	3°820'23	21°17'48	transit begin	2065 Nov 11 17:24	20°809'08	
greatest brilliancy	2064 Dec 20 21:55	9°818'01	-0.4m	transit end	2065 Nov 11 22:48	19°851'08	
desc. node	2065 Jan 02 01:46	26°808'37		asc. node	2065 Nov 11 16:37	20°811'44	
	2065 Jan 04 16:18	0°8		morning rise	2065 Nov 17 08:27	13°855'21	
morning set	2065 Jan 15 15:52	16°850'13		direct	2065 Nov 21 00:09	12°838'37	
max. Earth dist.	2065 Jan 23 01:02	28°842'04	1.42249 AU	morning max el	2065 Nov 28 15:49	17°801'13	20°05'09
	2065 Jan 23 19:58	0°8		greatest brilliancy	2065 Dec 05 15:52	25°829'57	-0.6m
superior conj	2065 Jan 30 09:09	11°801'40	-2°-5'-5		2065 Dec 08 21:20	0°8	
minimum elong	2065 Jan 30 09:02	11°801'11	2°05'05	desc. node	2065 Dec 19 22:49	16°825'47	
	2065 Feb 10 02:00	0°8		morning set	2065 Dec 25 12:15	24°857'25	
evening rise	2065 Feb 10 16:42	1°806'37			2065 Dec 28 18:14	0°8	
asc. node	2065 Feb 20 18:57	18°844'19		max. Earth dist.	2066 Jan 05 09:59	12°804'38	1.43863 AU
evening max el	2065 Feb 27 06:32	27°817'45	18°08'21	superior conj	2066 Jan 10 22:12	20°859'05	-1°-56'-8
	2065 Mar 02 22:45	0°8		minimum elong	2066 Jan 10 16:39	20°836'24	1°55'51
retrograde	2065 Mar 05 23:39	0°843'00			2066 Jan 16 08:48	0°8	
evening set	2065 Mar 08 14:12	0°812'20		evening rise	2066 Jan 23 23:12	12°856'58	
	2065 Mar 09 02:00	30°88			2066 Feb 03 00:39	0°8	
inferior conj	2065 Mar 15 07:18	25°816'00	3°28'46	asc. node	2066 Feb 07 15:58	6°851'42	
minimum elong	2065 Mar 15 09:32	25°810'43	3°28'30	evening max el	2066 Feb 10 19:03	10°831'50	18°11'30
min. Earth dist.	2065 Mar 18 12:40	22°813'48	0.60866 AU	retrograde	2066 Feb 17 06:00	13°856'59	
morning rise	2065 Mar 22 01:46	19°825'32		evening set	2066 Feb 20 01:40	13°816'09	
direct	2065 Mar 28 19:39	17°811'24		inferior conj	2066 Feb 26 06:58	7°859'20	3°42'58
desc. node	2065 Mar 31 00:58	17°825'09		minimum elong	2066 Feb 26 07:12	7°858'41	3°42'58
morning max el	2065 Apr 12 01:28	25°804'55	27°42'19	min. Earth dist.	2066 Feb 28 23:28	5°806'55	0.62922 AU
	2065 Apr 16 13:55	0°8		morning rise	2066 Mar 04 10:40	1°856'52	
	2065 May 06 09:39	0°8			2066 Mar 07 18:36	30°88	
morning set	2065 May 14 10:22	15°836'25		direct	2066 Mar 11 09:18	29°817'29	

	2066 Mar 15 04:34	0° Υ		morning rise	2067 Feb 15 11:38	14° \approx 56'00	
desc. node	2066 Mar 17 22:00	1° Υ 16'56		direct	2067 Feb 22 06:14	12° \approx 05'53	
morning max el	2066 Mar 25 07:47	7° Υ 13'27	27°47'14	desc. node	2067 Mar 04 19:02	17° \approx 11'43	
	2066 Apr 11 17:55	0° Υ		morning max el	2067 Mar 07 17:04	19° \approx 55'20	27°17'03
morning set	2066 Apr 28 10:32	29° Υ 50'48			2067 Mar 16 08:26	0° Υ	
	2066 Apr 28 12:21	0° Υ			2067 Apr 04 18:34	0° Υ	
max. Earth dist.	2066 May 03 21:21	11° Υ 09'47	1.32767 AU	morning set	2067 Apr 12 02:03	13° Υ 35'53	
				max. Earth dist.	2067 Apr 16 19:55	23° Υ 05'59	1.33697 AU
superior conj	2066 May 06 02:27	15° Υ 54'52	0°-5'-38				
minimum elong	2066 May 06 02:43	15° Υ 56'19	0°05'35	superior conj	2067 Apr 20 06:45	0° Υ 17'47	0°-33'-24
behind sun begin	2066 May 05 21:47	15° Υ 29'42		minimum elong	2067 Apr 20 08:26	0° Υ 26'40	0°33'04
behind sun end	2066 May 06 07:39	16° Υ 22'57			2067 Apr 20 03:23	0° Υ	
asc. node	2066 May 06 15:17	17° Υ 04'16		asc. node	2067 Apr 23 12:20	7° Υ 10'07	
	2066 May 12 14:53	0° Π		evening rise	2067 Apr 27 14:29	15° Υ 50'49	
evening rise	2066 May 13 03:26	1° Π 06'36			2067 May 04 17:39	0° Π	
	2066 May 29 04:32	0° Θ		evening max el	2067 May 18 11:55	19° Π 35'48	22°03'00
evening max el	2066 Jun 05 19:17	9° Θ 03'38	23°38'26	retrograde	2067 May 31 05:16	25° Π 52'13	
desc. node	2066 Jun 13 21:17	14° Θ 43'37		desc. node	2067 May 31 18:17	25° Π 51'33	
retrograde	2066 Jun 19 11:27	15° Θ 54'33		evening set	2067 Jun 02 23:59	25° Π 35'03	
evening set	2066 Jun 23 13:40	15° Θ 17'47		min. Earth dist.	2067 Jun 11 17:10	21° Π 51'15	0.55053 AU
min. Earth dist.	2066 Jun 30 05:41	12° Θ 10'25	0.56015 AU	inferior conj	2067 Jun 12 08:21	21° Π 29'58	-3°-11'-16
inferior conj	2066 Jul 02 09:44	10° Θ 52'17	-4°-28'-47	minimum elong	2067 Jun 12 00:35	21° Π 40'52	3°08'59
minimum elong	2066 Jul 02 03:34	11° Θ 01'35	4°27'45	morning rise	2067 Jun 21 02:51	17° Π 37'36	
morning rise	2066 Jul 10 20:47	6° Θ 56'04		direct	2067 Jun 24 04:47	17° Π 16'29	
direct	2066 Jul 13 14:59	6° Θ 37'00		morning max el	2067 Jul 06 01:44	22° Π 49'38	21°31'04
morning max el	2066 Jul 23 20:55	11° Θ 21'57	20°06'24		2067 Jul 12 07:07	0° Θ	
asc. node	2066 Aug 02 14:30	24° Θ 19'02		asc. node	2067 Jul 20 11:35	13° Θ 20'54	
	2066 Aug 05 18:53	0° Ω		morning set	2067 Jul 26 10:20	25° Θ 09'02	
morning set	2066 Aug 11 01:36	10° Ω 22'13			2067 Jul 28 18:01	0° Ω	
superior conj	2066 Aug 18 20:08	26° Ω 13'09	1°45'41	superior conj	2067 Aug 02 19:01	10° Ω 35'45	1°41'44
minimum elong	2066 Aug 18 20:05	26° Ω 12'51	1°45'41	minimum elong	2067 Aug 02 17:38	10° Ω 28'32	1°41'39
	2066 Aug 20 17:40	0° \P		max. Earth dist.	2067 Aug 06 18:05	18° Ω 42'44	1.35065 AU
max. Earth dist.	2066 Aug 24 06:01	6° \P 49'24	1.36758 AU	evening rise	2067 Aug 11 03:50	27° Ω 21'02	
evening rise	2066 Aug 28 04:03	14° \P 07'18			2067 Aug 12 13:29	0° \P	
	2066 Sep 06 09:29	0° Δ		desc. node	2067 Aug 27 17:37	25° \P 37'06	
desc. node	2066 Sep 09 20:37	5° Δ 30'50			2067 Aug 30 16:52	0° Δ	
	2066 Sep 27 15:08	0° M		evening max el	2067 Sep 15 10:05	19° Δ 17'44	26°44'36
evening max el	2066 Oct 02 21:47	5° M 40'45	25°48'03	retrograde	2067 Sep 28 10:34	26° Δ 32'23	
retrograde	2066 Oct 15 06:20	12° M 43'51		evening set	2067 Oct 05 01:35	23° Δ 51'37	
evening set	2066 Oct 21 08:03	10° M 12'49		min. Earth dist.	2067 Oct 09 02:35	19° Δ 45'24	0.65870 AU
min. Earth dist.	2066 Oct 25 16:23	5° M 29'33	0.66856 AU	inferior conj	2067 Oct 10 21:21	17° Δ 39'16	-1°-52'-2
inferior conj	2066 Oct 26 23:17	3° M 51'41	0°-53'-34	minimum elong	2067 Oct 11 00:21	17° Δ 30'25	1°50'51
minimum elong	2066 Oct 27 00:41	3° M 47'15	0°52'59	asc. node	2067 Oct 16 10:45	12° Δ 14'53	
asc. node	2066 Oct 29 13:40	0° M 43'25		morning rise	2067 Oct 17 00:29	11° Δ 55'20	
	2066 Oct 30 06:02	30° R Δ		direct	2067 Oct 19 20:18	11° Δ 10'55	
morning rise	2066 Nov 01 18:08	27° Δ 55'50		morning max el	2067 Oct 26 10:36	14° Δ 46'56	18°24'35
direct	2066 Nov 04 22:47	26° Δ 57'06			2067 Nov 06 11:49	0° M	
	2066 Nov 11 00:54	0° M		morning set	2067 Nov 14 23:51	13° M 38'59	
morning max el	2066 Nov 11 22:14	0° M 51'19	19°06'52	desc. node	2067 Nov 23 16:54	27° M 36'01	
	2066 Dec 02 09:05	0° J			2067 Nov 25 05:12	0° J	
morning set	2066 Dec 04 16:54	3° J 37'35		superior conj	2067 Nov 30 11:59	8° J 20'09	0°-44'-28
desc. node	2066 Dec 06 19:52	6° J 56'25		minimum elong	2067 Nov 30 06:17	7° J 57'42	0°43'44
max. Earth dist.	2066 Dec 19 01:32	26° J 06'28	1.44865 AU	max. Earth dist.	2067 Dec 01 20:36	10° J 28'16	1.45149 AU
					2067 Dec 14 07:17	0° Z	
superior conj	2066 Dec 21 10:46	29° J 52'24	-1°-28'-11	evening rise	2067 Dec 16 17:28	3° Z 48'48	
minimum elong	2066 Dec 21 01:54	29° J 17'21	1°27'19	greatest brilliancy	2067 Dec 29 19:10	24° Z 12'38	-0.7m
	2066 Dec 21 12:41	0° Z			2068 Jan 02 18:02	0° \approx	
evening rise	2067 Jan 05 08:02	23° Z 51'17		evening max el	2068 Jan 08 16:20	7° \approx 23'17	19°12'20
	2067 Jan 09 01:49	0° \approx		asc. node	2068 Jan 12 10:02	10° \approx 25'57	
evening max el	2067 Jan 25 07:07	23° \approx 55'39	18°33'12	retrograde	2068 Jan 15 16:40	11° \approx 23'51	
asc. node	2067 Jan 25 12:59	24° \approx 10'20		evening set	2068 Jan 19 00:22	10° \approx 19'30	
retrograde	2067 Jan 31 20:53	27° \approx 33'12		inferior conj	2068 Jan 24 15:22	4° \approx 27'10	3°18'36
evening set	2067 Feb 03 22:03	26° \approx 41'09		minimum elong	2068 Jan 24 13:06	4° \approx 34'28	3°18'12
inferior conj	2067 Feb 09 18:50	21° \approx 05'25	3°37'55	min. Earth dist.	2068 Jan 26 01:07	2° \approx 39'18	0.66055 AU
minimum elong	2067 Feb 09 17:30	21° \approx 09'22	3°37'47		2068 Jan 28 06:27	30° R Z	
min. Earth dist.	2067 Feb 11 19:47	18° \approx 40'29	0.64682 AU				

morning rise	2068 Jan 30 00:58	28°☿13'42		retrograde	2068 Dec 29 14:30	25°☿24'48	
direct	2068 Feb 05 09:28	25°☿26'35		evening set	2069 Jan 02 06:18	24°☿06'46	
	2068 Feb 14 22:14	0°≈		inferior conj	2069 Jan 07 17:47	18°☿00'47	2°48'33
morning max el	2068 Feb 18 02:51	2°≈58'09	26°18'08	minimum elong	2069 Jan 07 15:09	18°☿09'37	2°47'51
desc. node	2068 Feb 19 16:05	4°≈35'00		min. Earth dist.	2069 Jan 08 13:48	16°☿53'28	0.67028 AU
	2068 Mar 09 14:36	0°✕		morning rise	2069 Jan 12 23:26	11°☿45'29	
morning set	2068 Mar 25 05:06	26°✕39'19		direct	2069 Jan 18 18:23	9°☿11'42	
	2068 Mar 26 23:35	0°☿		morning max el	2069 Jan 30 11:40	16°☿11'21	24°59'38
max. Earth dist.	2068 Mar 29 07:16	4°☿29'06	1.35080 AU	desc. node	2069 Feb 05 13:07	23°☿01'36	
					2069 Feb 10 22:15	0°≈	
superior conj	2068 Apr 03 04:15	14°☿15'04	-1°-1'-15		2069 Mar 02 13:15	0°✕	
minimum elong	2068 Apr 03 07:21	14°☿30'53	1°00'43	morning set	2069 Mar 07 14:40	8°✕47'16	
asc. node	2068 Apr 09 09:22	27°☿07'32		max. Earth dist.	2069 Mar 11 07:28	15°✕30'40	1.36887 AU
evening rise	2068 Apr 10 22:42	0°♄20'36					
	2068 Apr 10 18:42	0°♄		superior conj	2069 Mar 17 16:03	27°✕38'58	-1°-27'-23
	2068 Apr 29 00:34	0°♄		minimum elong	2069 Mar 17 20:10	27°✕59'14	1°26'50
evening max el	2068 Apr 29 13:51	0°♄33'00	20°38'01		2069 Mar 18 20:39	0°☿	
retrograde	2068 May 10 18:23	5°♄59'19		evening rise	2069 Mar 26 01:51	14°☿29'29	
evening set	2068 May 12 20:53	5°♄48'33		asc. node	2069 Mar 27 06:24	16°☿52'11	
desc. node	2068 May 17 15:19	4°♄14'24			2069 Apr 03 06:12	0°♄	
inferior conj	2068 May 22 02:16	1°♄50'53	-1°-17'-51	evening max el	2069 Apr 12 03:40	12°♄09'36	19°30'34
minimum elong	2068 May 21 22:35	1°♄56'11	1°16'32	retrograde	2069 Apr 21 14:54	16°♄44'05	
min. Earth dist.	2068 May 23 05:37	1°♄11'33	0.55006 AU	evening set	2069 Apr 23 15:52	16°♄32'16	
	2068 May 25 09:08	30°♄		inferior conj	2069 May 02 06:06	12°♄26'59	0°38'54
morning rise	2068 May 30 23:01	27°♄42'27		minimum elong	2069 May 02 07:44	12°♄24'21	0°38'19
direct	2068 Jun 03 14:38	27°♄13'46		desc. node	2069 May 04 12:20	10°♄59'57	
	2068 Jun 12 06:14	0°♄		min. Earth dist.	2069 May 04 20:07	10°♄47'45	0.55904 AU
morning max el	2068 Jun 16 21:00	3°♄38'01	23°09'54	morning rise	2069 May 10 19:50	7°♄46'42	
	2068 Jul 04 22:19	0°♄		direct	2069 May 15 09:41	6°♄59'21	
asc. node	2068 Jul 06 08:39	2°♄48'27		morning max el	2069 May 29 11:39	14°♄05'51	24°51'23
morning set	2068 Jul 09 21:30	10°♄03'20			2069 Jun 10 23:26	0°♄	
				asc. node	2069 Jun 23 05:41	22°♄34'36	
superior conj	2068 Jul 17 00:24	25°♄17'39	1°31'43	morning set	2069 Jun 24 09:22	24°♄59'37	
minimum elong	2068 Jul 16 22:14	25°♄06'04	1°31'29		2069 Jun 26 17:36	0°♄	
	2068 Jul 19 05:32	0°♄					
max. Earth dist.	2068 Jul 19 15:12	0°♄50'52	1.33741 AU	superior conj	2069 Jul 01 09:47	10°♄10'46	1°16'44
evening rise	2068 Jul 24 16:59	11°♄13'47		minimum elong	2069 Jul 01 07:23	9°♄57'39	1°16'22
	2068 Aug 03 21:15	0°♄		max. Earth dist.	2069 Jul 02 20:24	13°♄18'52	1.32827 AU
desc. node	2068 Aug 13 14:39	15°♄17'04		evening rise	2069 Jul 08 15:42	25°♄34'33	
	2068 Aug 25 06:06	0°♄			2069 Jul 10 20:24	0°♄	
evening max el	2068 Aug 27 21:56	2°♄41'24	27°18'50		2069 Jul 28 08:59	0°♄	
retrograde	2068 Sep 10 09:12	9°♄59'58		desc. node	2069 Jul 31 11:41	4°♄19'07	
evening set	2068 Sep 17 10:13	7°♄17'35		evening max el	2069 Aug 10 07:34	15°♄39'01	27°24'20
min. Earth dist.	2068 Sep 21 04:40	3°♄47'32	0.64520 AU	retrograde	2069 Aug 24 01:42	22°♄56'19	
inferior conj	2068 Sep 23 12:05	1°♄18'14	-2°-50'-7	evening set	2069 Aug 31 06:34	20°♄24'04	
minimum elong	2068 Sep 23 16:33	1°♄06'09	2°48'33	min. Earth dist.	2069 Sep 03 20:57	17°♄24'51	0.62829 AU
	2068 Sep 24 17:30	30°♄		inferior conj	2069 Sep 06 16:38	14°♄41'20	-3°-44'-25
morning rise	2068 Sep 30 00:52	25°♄49'23		minimum elong	2069 Sep 06 21:59	14°♄28'24	3°42'58
asc. node	2068 Oct 02 07:49	25°♄15'58		morning rise	2069 Sep 13 16:01	9°♄30'47	
direct	2068 Oct 02 14:14	25°♄15'35		direct	2069 Sep 16 01:39	9°♄04'11	
morning max el	2068 Oct 09 02:20	28°♄42'37	17°59'14	asc. node	2069 Sep 19 04:53	9°♄50'37	
	2068 Oct 10 07:20	0°♄		morning max el	2069 Sep 22 18:24	12°♄30'31	17°51'35
morning set	2068 Oct 26 11:32	25°♄04'56			2069 Oct 04 14:45	0°♄	
	2068 Oct 29 09:38	0°♄		morning set	2069 Oct 08 22:32	7°♄37'42	
superior conj	2068 Nov 08 23:39	17°♄24'04	0°04'02	superior conj	2069 Oct 20 12:02	27°♄41'36	0°46'16
minimum elong	2068 Nov 09 00:08	17°♄26'00	0°03'58	minimum elong	2069 Oct 20 16:08	27°♄58'50	0°45'43
behind sun begin	2068 Nov 08 14:00	16°♄45'12			2069 Oct 21 21:05	0°♄	
behind sun end	2068 Nov 09 10:16	18°♄06'44		desc. node	2069 Oct 27 10:59	9°♄08'56	
desc. node	2068 Nov 09 13:56	18°♄21'26		max. Earth dist.	2069 Oct 27 06:57	8°♄52'40	1.43560 AU
max. Earth dist.	2068 Nov 13 15:25	24°♄49'56	1.44692 AU	evening rise	2069 Nov 04 16:28	22°♄08'58	
	2068 Nov 16 22:09	0°♄			2069 Nov 09 19:22	0°♄	
evening rise	2068 Nov 25 07:57	13°♄03'45		greatest brilliancy	2069 Nov 29 16:15	28°♄24'42	-0.4m
	2068 Dec 06 10:39	0°☿			2069 Nov 30 22:52	0°☿	
greatest brilliancy	2068 Dec 15 03:42	12°☿37'49	-0.6m	evening max el	2069 Dec 04 19:57	4°☿23'08	21°14'43
evening max el	2068 Dec 21 20:54	20°☿52'44	20°07'04	retrograde	2069 Dec 13 12:05	9°☿32'06	
asc. node	2068 Dec 29 07:04	25°☿24'16		asc. node	2069 Dec 16 04:06	8°☿52'37	

evening set	2069 Dec 17 13:53	7°☾58'50		retrograde	2070 Nov 27 07:43	23°☾43'00	
inferior conj	2069 Dec 22 23:39	1°☾42'34	2°10'05	evening set	2070 Dec 01 21:26	21°☾53'03	
minimum elong	2069 Dec 22 21:13	1°☾51'00	2°09'15	asc. node	2070 Dec 03 01:08	20°☾49'46	
min. Earth dist.	2069 Dec 23 07:29	1°☾15'31	0.67617 AU	inferior conj	2070 Dec 07 07:03	15°☾30'07	1°24'52
	2069 Dec 24 05:34	30°☾☾		minimum elong	2070 Dec 07 05:13	15°☾36'25	1°24'08
morning rise	2069 Dec 28 04:11	25°☾27'28		min. Earth dist.	2070 Dec 07 03:45	15°☾41'32	0.67843 AU
direct	2070 Jan 02 08:12	23°☾13'35		morning rise	2070 Dec 12 12:54	9°☾17'27	
morning max el	2070 Jan 12 20:17	29°☾28'57	23°31'53	direct	2070 Dec 17 01:57	7°☾26'18	
	2070 Jan 13 08:27	0°☾		morning max el	2070 Dec 26 08:05	12°☾53'01	22°04'37
desc. node	2070 Jan 23 10:10	12°☾13'05		greatest brilliancy	2070 Dec 30 23:55	18°☾07'10	-0.4m
	2070 Feb 04 18:14	0°☾			2071 Jan 08 22:19	1°☾	
morning set	2070 Feb 17 00:33	19°☾42'53		desc. node	2071 Jan 10 07:13	1°☾56'51	
max. Earth dist.	2070 Feb 21 02:04	26°☾42'57	1.38987 AU	morning set	2071 Jan 28 05:38	29°☾14'38	
	2070 Feb 22 22:38	0°☾			2071 Jan 28 16:53	0°☾	
				max. Earth dist.	2071 Feb 02 23:42	8°☾41'46	1.41128 AU
superior conj	2070 Feb 28 14:17	10°☾19'43	-1°-49'-7				
minimum elong	2070 Feb 28 18:25	10°☾39'04	1°48'46	superior conj	2071 Feb 10 18:08	22°☾05'32	-2°-2'-45
evening rise	2070 Mar 09 21:12	28°☾10'07		minimum elong	2071 Feb 10 20:20	22°☾15'15	2°02'41
	2070 Mar 10 19:54	0°☾			2071 Feb 15 03:33	0°☾	
asc. node	2070 Mar 14 03:26	6°☾18'52		evening rise	2071 Feb 21 05:29	11°☾14'37	
evening max el	2070 Mar 26 03:52	24°☾24'17	18°42'56	asc. node	2071 Mar 01 00:27	25°☾21'04	
retrograde	2070 Apr 03 04:10	28°☾18'46			2071 Mar 03 21:12	0°☾	
evening set	2070 Apr 05 10:10	28°☾01'26		evening max el	2071 Mar 09 11:19	7°☾08'30	18°15'17
inferior conj	2070 Apr 13 05:14	23°☾38'35	2°10'57	retrograde	2071 Mar 16 12:18	10°☾39'41	
minimum elong	2070 Apr 13 09:12	23°☾31'11	2°09'50	evening set	2071 Mar 19 00:00	10°☾14'12	
min. Earth dist.	2070 Apr 16 13:21	21°☾10'01	0.57554 AU	inferior conj	2071 Mar 26 01:32	5°☾29'57	3°09'18
morning rise	2070 Apr 21 03:51	18°☾24'53		minimum elong	2071 Mar 26 04:48	5°☾22'47	3°08'41
desc. node	2070 Apr 21 09:20	18°☾18'46		min. Earth dist.	2071 Mar 29 11:13	2°☾33'03	0.59626 AU
direct	2070 Apr 26 18:57	17°☾06'37			2071 Apr 01 23:31	30°☾☾	
morning max el	2070 May 11 03:29	24°☾39'48	26°20'24	morning rise	2071 Apr 02 05:59	29°☾50'24	
	2070 May 16 01:03	0°☾		desc. node	2071 Apr 08 06:22	27°☾56'24	
	2070 Jun 03 23:34	0°☾		direct	2071 Apr 08 16:52	27°☾55'52	
morning set	2070 Jun 08 20:21	9°☾52'41			2071 Apr 15 17:38	0°☾	
asc. node	2070 Jun 10 02:43	12°☾33'38		morning max el	2071 Apr 23 00:41	5°☾43'29	27°22'37
					2071 May 11 02:08	0°☾	
superior conj	2070 Jun 15 21:13	25°☾08'30	0°57'37	morning set	2071 May 24 04:43	24°☾35'38	
minimum elong	2070 Jun 15 19:03	24°☾56'35	0°57'13		2071 May 26 18:06	0°☾	
max. Earth dist.	2070 Jun 16 07:01	26°☾02'21	1.32310 AU	asc. node	2071 May 27 23:44	2°☾39'43	
	2070 Jun 18 02:22	0°☾					
evening rise	2070 Jun 22 21:00	10°☾14'09		superior conj	2071 May 31 08:53	10°☾03'30	0°35'04
	2070 Jul 03 03:16	0°☾		minimum elong	2071 May 31 07:23	9°☾55'16	0°34'46
desc. node	2070 Jul 18 08:41	22°☾27'41		max. Earth dist.	2071 May 30 19:18	8°☾48'48	1.32177 AU
evening max el	2070 Jul 23 12:37	27°☾59'02	26°57'05	evening rise	2071 Jun 07 06:23	25°☾03'12	
	2070 Jul 25 19:01	0°☾			2071 Jun 09 15:26	0°☾	
retrograde	2070 Aug 06 10:47	5°☾12'35			2071 Jun 27 04:58	0°☾	
evening set	2070 Aug 13 10:18	3°☾03'57		desc. node	2071 Jul 05 05:41	9°☾19'44	
min. Earth dist.	2070 Aug 17 02:50	0°☾24'21	0.60877 AU	evening max el	2071 Jul 05 10:42	9°☾31'47	25°57'34
	2070 Aug 17 14:38	30°☾☾		retrograde	2071 Jul 19 10:43	16°☾41'26	
inferior conj	2070 Aug 20 07:47	27°☾40'52	-4°-29'-23	evening set	2071 Jul 25 16:39	15°☾07'41	
minimum elong	2070 Aug 20 12:35	27°☾30'36	4°28'33	min. Earth dist.	2071 Jul 29 23:12	12°☾31'07	0.58814 AU
morning rise	2070 Aug 27 17:57	22°☾51'28		inferior conj	2071 Aug 02 05:51	10°☾06'10	-4°-56'-3
direct	2070 Aug 30 02:49	22°☾29'11		minimum elong	2071 Aug 02 07:46	10°☾02'36	4°55'58
asc. node	2070 Sep 06 01:55	25°☾49'14		morning rise	2071 Aug 10 02:23	5°☾40'02	
morning max el	2070 Sep 06 07:44	26°☾03'09	18°02'44	direct	2071 Aug 12 13:24	5°☾19'59	
	2070 Sep 09 17:16	0°☾		morning max el	2071 Aug 20 15:09	9°☾11'19	18°34'04
morning set	2070 Sep 22 02:41	20°☾59'38		asc. node	2071 Aug 23 22:57	12°☾56'26	
	2070 Sep 26 23:32	0°☾			2071 Sep 03 05:08	0°☾	
				morning set	2071 Sep 05 18:58	4°☾56'38	
superior conj	2070 Oct 02 03:03	9°☾17'16	1°17'05				
minimum elong	2070 Oct 02 07:24	9°☾36'30	1°16'36	superior conj	2071 Sep 14 16:17	21°☾58'33	1°36'02
max. Earth dist.	2070 Oct 09 17:47	22°☾23'04	1.41900 AU	minimum elong	2071 Sep 14 19:07	22°☾11'45	1°35'50
desc. node	2070 Oct 14 08:01	29°☾55'07			2071 Sep 19 01:23	0°☾	
	2070 Oct 14 09:14	0°☾		max. Earth dist.	2071 Sep 21 23:49	5°☾11'46	1.39915 AU
evening rise	2070 Oct 15 12:03	1°☾47'37		evening rise	2071 Sep 26 05:35	12°☾27'05	
	2070 Nov 03 06:50	0°☾		desc. node	2071 Oct 01 05:02	20°☾36'18	
greatest brilliancy	2070 Nov 12 18:34	12°☾32'34	-0.3m		2071 Oct 07 05:42	0°☾	
evening max el	2070 Nov 17 13:45	17°☾55'30	22°31'17		2071 Oct 29 16:24	0°☾	

evening max el	2071 Oct 31 03:40	1°♂30'51	23°51'19	desc. node	2072 Sep 17 02:02	11°♂08'15	
retrograde	2071 Nov 11 00:07	7°♂54'16			2072 Sep 29 22:42	0°♂	
evening set	2071 Nov 16 03:22	5°♂47'00		evening max el	2072 Oct 12 15:41	15°♂09'09	25°08'09
asc. node	2071 Nov 19 22:10	1°♂35'49		retrograde	2072 Oct 24 12:26	22°♂01'14	
min. Earth dist.	2071 Nov 21 00:14	0°♂08'38	0.67722 AU	evening set	2072 Oct 30 06:01	19°♂37'46	
	2071 Nov 21 02:47	30°♂		min. Earth dist.	2072 Nov 03 18:37	14°♂34'04	0.67268 AU
inferior conj	2071 Nov 21 14:10	29°♂21'20	0°34'12	inferior conj	2072 Nov 04 19:15	13°♂13'32	0°-20'-39
minimum elong	2071 Nov 21 13:21	29°♂24'05	0°33'51	minimum elong	2072 Nov 04 19:46	13°♂11'50	0°20'26
morning rise	2071 Nov 26 23:32	23°♂13'21		asc. node	2072 Nov 05 19:14	11°♂55'53	
direct	2071 Nov 30 22:35	21°♂44'45		morning rise	2072 Nov 10 10:09	7°♂12'38	
morning max el	2071 Dec 09 02:29	26°♂27'44	20°45'18	direct	2072 Nov 13 20:50	6°♂04'09	
	2071 Dec 12 07:17	0°♂		morning max el	2072 Nov 21 04:47	10°♂13'15	19°38'30
greatest brilliancy	2071 Dec 14 22:22	3°♂16'25	-0.5m	greatest brilliancy	2072 Nov 29 08:53	20°♂26'04	-0.6m
desc. node	2071 Dec 28 04:16	22°♂03'55			2072 Dec 05 21:27	0°♂	
	2072 Jan 02 10:21	0°♂		desc. node	2072 Dec 14 01:17	12°♂27'08	
morning set	2072 Jan 07 09:13	7°♂38'03		morning set	2072 Dec 16 06:00	15°♂50'31	
max. Earth dist.	2072 Jan 16 04:59	21°♂38'25	1.43005 AU		2072 Dec 25 08:05	0°♂	
	2072 Jan 21 07:05	0°♂		max. Earth dist.	2072 Dec 28 17:15	5°♂20'26	1.44372 AU
superior conj	2072 Jan 22 22:25	2°♂44'37	-2°-3'-29	superior conj	2073 Jan 02 00:14	12°♂11'36	-1°-46'-36
minimum elong	2072 Jan 22 20:06	2°♂34'53	2°03'27	minimum elong	2073 Jan 01 16:39	11°♂41'08	1°46'03
evening rise	2072 Feb 03 22:42	23°♂35'04			2073 Jan 12 20:32	0°♂	
	2072 Feb 07 13:36	0°♂		evening rise	2073 Jan 15 20:27	5°♂02'14	
asc. node	2072 Feb 15 21:28	13°♂51'25			2073 Jan 31 10:47	0°♂	
evening max el	2072 Feb 20 22:49	20°♂13'55	18°07'18	asc. node	2073 Feb 01 18:31	1°♂39'24	
retrograde	2072 Feb 27 12:05	23°♂37'35		evening max el	2073 Feb 03 11:24	3°♂32'13	18°18'27
evening set	2072 Mar 01 04:50	23°♂02'38		retrograde	2073 Feb 09 22:41	7°♂01'38	
inferior conj	2072 Mar 07 16:26	17°♂57'04	3°37'33	evening set	2073 Feb 12 20:31	6°♂16'14	
minimum elong	2072 Mar 07 17:48	17°♂53'38	3°37'26	inferior conj	2073 Feb 18 21:48	0°♂51'00	3°42'48
min. Earth dist.	2072 Mar 10 16:45	14°♂56'42	0.61767 AU	minimum elong	2073 Feb 18 21:18	0°♂52'24	3°42'48
morning rise	2072 Mar 14 04:10	12°♂00'41			2073 Feb 19 15:51	30°♂	
direct	2072 Mar 21 01:09	9°♂34'35		min. Earth dist.	2073 Feb 21 07:45	28°♂08'31	0.63713 AU
desc. node	2072 Mar 25 03:24	10°♂21'29		morning rise	2073 Feb 24 20:22	24°♂44'45	
morning max el	2072 Apr 04 04:21	17°♂29'28	27°49'05	direct	2073 Mar 03 18:00	21°♂59'05	
	2072 Apr 14 14:25	0°♂		desc. node	2073 Mar 12 00:27	25°♂09'37	
	2072 May 02 18:52	0°♂		morning max el	2073 Mar 17 12:32	29°♂54'09	27°38'22
morning set	2072 May 07 08:33	9°♂02'27			2073 Mar 17 14:52	0°♂	
max. Earth dist.	2072 May 13 05:23	21°♂25'20	1.32436 AU		2073 Apr 08 13:37	0°♂	
asc. node	2072 May 13 20:47	22°♂48'48		morning set	2073 Apr 21 05:25	23°♂05'18	
superior conj	2072 May 14 19:08	24°♂50'25	0°09'50		2073 Apr 24 15:15	0°♂	
minimum elong	2072 May 14 18:40	24°♂47'55	0°09'44	max. Earth dist.	2073 Apr 26 09:11	3°♂38'32	1.33106 AU
behind sun begin	2072 May 14 14:36	24°♂25'43		superior conj	2073 Apr 29 02:10	9°♂23'34	0°-17'-19
behind sun end	2072 May 14 22:45	25°♂10'09		minimum elong	2073 Apr 29 03:01	9°♂28'09	0°17'09
	2072 May 17 03:47	0°♂		asc. node	2073 Apr 30 17:50	12°♂56'45	
evening rise	2072 May 21 17:53	9°♂55'03		evening rise	2073 May 06 05:37	24°♂43'21	
	2072 Jun 01 02:05	0°♂			2073 May 08 18:33	0°♂	
evening max el	2072 Jun 16 02:07	20°♂20'57	24°32'59		2073 May 27 20:03	0°♂	
desc. node	2072 Jun 21 02:41	24°♂25'02		evening max el	2073 May 28 16:02	0°♂49'44	22°57'13
retrograde	2072 Jun 29 23:52	27°♂23'00		desc. node	2073 Jun 07 23:41	7°♂08'06	
evening set	2072 Jul 04 23:11	26°♂27'26		retrograde	2073 Jun 11 00:52	7°♂29'20	
min. Earth dist.	2072 Jul 10 13:09	23°♂35'36	0.56905 AU	evening set	2073 Jun 14 12:10	7°♂02'53	
inferior conj	2072 Jul 13 08:02	21°♂48'22	-4°-51'-19	min. Earth dist.	2073 Jun 22 00:59	3°♂41'28	0.55494 AU
minimum elong	2072 Jul 13 04:47	21°♂53'36	4°51'03	inferior conj	2073 Jun 23 14:57	2°♂46'34	-4°-1'-40
morning rise	2072 Jul 21 14:06	17°♂43'53		minimum elong	2073 Jun 23 07:22	2°♂57'33	3°59'59
direct	2072 Jul 24 05:16	17°♂24'51			2073 Jun 28 21:49	30°♂	
morning max el	2072 Aug 02 13:42	21°♂46'00	19°26'41	morning rise	2073 Jul 02 05:30	28°♂54'19	
	2072 Aug 09 05:07	0°♂		direct	2073 Jul 05 02:17	28°♂34'57	
asc. node	2072 Aug 09 20:01	0°♂57'35			2073 Jul 10 21:39	0°♂	
morning set	2072 Aug 19 19:43	19°♂18'32		morning max el	2073 Jul 16 01:14	3°♂39'34	20°40'23
	2072 Aug 25 03:32	0°♂		asc. node	2073 Jul 27 17:05	19°♂40'19	
superior conj	2072 Aug 27 22:10	5°♂29'46	1°44'40		2073 Aug 02 03:18	0°♂	
minimum elong	2072 Aug 27 23:06	5°♂34'19	1°44'39	morning set	2073 Aug 04 02:12	3°♂58'07	
max. Earth dist.	2072 Sep 03 03:39	17°♂21'05	1.37862 AU	superior conj	2073 Aug 11 16:00	19°♂37'17	1°44'51
evening rise	2072 Sep 06 23:00	24°♂13'18		minimum elong	2073 Aug 11 15:18	19°♂33'46	1°44'49
	2072 Sep 10 06:59	0°♂		max. Earth dist.	2073 Aug 16 10:57	29°♂11'44	1.35985 AU

	2073 Aug 16 20:52	0° $\mathring{\text{M}}$		evening rise	2074 Aug 03 19:05	20° $\mathring{\text{O}}$ 30'59	
evening rise	2073 Aug 20 13:06	6° $\mathring{\text{M}}$ 59'08			2074 Aug 08 20:26	0° $\mathring{\text{M}}$	
	2073 Sep 03 00:53	0° $\mathring{\text{A}}$		desc. node	2074 Aug 21 20:05	21° $\mathring{\text{M}}$ 22'02	
desc. node	2073 Sep 03 23:04	1° $\mathring{\text{A}}$ 26'00			2074 Aug 27 23:27	0° $\mathring{\text{A}}$	
evening max el	2073 Sep 25 03:41	28° $\mathring{\text{A}}$ 48'44	26°14'23	evening max el	2074 Sep 07 16:02	12° $\mathring{\text{A}}$ 21'42	27°02'26
	2073 Sep 26 10:01	0° $\mathring{\text{M}}$		retrograde	2074 Sep 20 22:00	19° $\mathring{\text{A}}$ 39'06	
retrograde	2073 Oct 07 19:59	5° $\mathring{\text{M}}$ 58'51		evening set	2074 Sep 27 17:38	16° $\mathring{\text{A}}$ 56'43	
evening set	2073 Oct 14 03:33	3° $\mathring{\text{M}}$ 22'44		min. Earth dist.	2074 Oct 01 15:45	13° $\mathring{\text{A}}$ 05'54	0.65334 AU
	2073 Oct 17 10:56	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		inferior conj	2074 Oct 03 15:45	10° $\mathring{\text{A}}$ 49'11	-2°-16'-52
min. Earth dist.	2073 Oct 18 08:36	28° $\mathring{\text{A}}$ 55'09	0.66476 AU	minimum elong	2074 Oct 03 19:25	10° $\mathring{\text{A}}$ 38'44	2°15'29
inferior conj	2073 Oct 19 20:30	27° $\mathring{\text{A}}$ 04'29	-1°-18'-15	morning rise	2074 Oct 09 22:49	5° $\mathring{\text{A}}$ 10'59	
minimum elong	2073 Oct 19 22:34	26° $\mathring{\text{A}}$ 58'06	1°17'24	asc. node	2074 Oct 10 13:20	4° $\mathring{\text{A}}$ 55'22	
asc. node	2073 Oct 23 16:17	22° $\mathring{\text{A}}$ 48'04		direct	2074 Oct 12 15:32	4° $\mathring{\text{A}}$ 31'33	
morning rise	2073 Oct 25 18:42	21° $\mathring{\text{A}}$ 13'22		morning max el	2074 Oct 19 04:09	8° $\mathring{\text{A}}$ 03'00	18°11'39
direct	2073 Oct 28 19:11	20° $\mathring{\text{A}}$ 21'22			2074 Nov 03 05:11	0° $\mathring{\text{M}}$	
morning max el	2073 Nov 04 14:06	24° $\mathring{\text{A}}$ 07'01	18°46'51	morning set	2074 Nov 06 16:14	5° $\mathring{\text{M}}$ 41'16	
	2073 Nov 09 11:23	0° $\mathring{\text{M}}$		desc. node	2074 Nov 17 19:24	23° $\mathring{\text{M}}$ 44'42	
morning set	2073 Nov 25 20:38	25° $\mathring{\text{M}}$ 02'17					
	2073 Nov 29 00:06	0° $\mathring{\text{J}}$		superior conj	2074 Nov 21 08:51	29° $\mathring{\text{M}}$ 24'24	0°-23'-45
desc. node	2073 Nov 30 22:21	3° $\mathring{\text{J}}$ 02'12		minimum elong	2074 Nov 21 05:48	29° $\mathring{\text{M}}$ 12'20	0°23'21
max. Earth dist.	2073 Dec 11 10:11	19° $\mathring{\text{J}}$ 31'16	1.45079 AU		2074 Nov 21 17:51	0° $\mathring{\text{J}}$	
				max. Earth dist.	2074 Nov 24 05:14	3° $\mathring{\text{J}}$ 54'12	1.45047 AU
superior conj	2073 Dec 12 05:41	20° $\mathring{\text{J}}$ 47'51	-1°-11'-3	evening rise	2074 Dec 07 19:37	25° $\mathring{\text{J}}$ 08'22	
minimum elong	2073 Dec 11 21:22	20° $\mathring{\text{J}}$ 15'13	1°10'06		2074 Dec 10 22:41	0° $\mathring{\text{Z}}$	
	2073 Dec 18 01:47	0° $\mathring{\text{Z}}$		greatest brilliancy	2074 Dec 24 02:25	20° $\mathring{\text{Z}}$ 01'00	-0.7m
evening rise	2073 Dec 27 19:18	15° $\mathring{\text{Z}}$ 31'44			2074 Dec 31 19:33	0° $\mathring{\text{Z}}$	
	2074 Jan 05 19:26	0° $\mathring{\text{Z}}$		evening max el	2075 Jan 01 06:01	0° $\mathring{\text{Z}}$ 27'25	19°33'52
evening max el	2074 Jan 17 22:30	16° $\mathring{\text{Z}}$ 57'58	18°47'47	asc. node	2075 Jan 06 12:35	4° $\mathring{\text{Z}}$ 17'55	
asc. node	2074 Jan 19 15:34	18° $\mathring{\text{Z}}$ 32'58		retrograde	2075 Jan 08 12:52	4° $\mathring{\text{Z}}$ 40'07	
retrograde	2074 Jan 24 16:02	20° $\mathring{\text{Z}}$ 44'17		evening set	2075 Jan 11 23:50	3° $\mathring{\text{Z}}$ 30'09	
evening set	2074 Jan 27 19:44	19° $\mathring{\text{Z}}$ 47'20			2075 Jan 15 14:33	30° $\mathring{\text{R}}$ $\mathring{\text{Z}}$	
inferior conj	2074 Feb 02 13:46	14° $\mathring{\text{Z}}$ 04'25	3°31'10	inferior conj	2075 Jan 17 13:07	27° $\mathring{\text{Z}}$ 31'57	3°07'00
minimum elong	2074 Feb 02 11:58	14° $\mathring{\text{Z}}$ 09'59	3°30'57	minimum elong	2075 Jan 17 10:38	27° $\mathring{\text{Z}}$ 40'06	3°06'27
min. Earth dist.	2074 Feb 04 08:14	11° $\mathring{\text{Z}}$ 54'08	0.65321 AU	min. Earth dist.	2075 Jan 18 16:54	26° $\mathring{\text{Z}}$ 01'00	0.66526 AU
morning rise	2074 Feb 08 03:04	7° $\mathring{\text{Z}}$ 52'47		morning rise	2075 Jan 22 20:41	21° $\mathring{\text{Z}}$ 17'35	
direct	2074 Feb 14 17:59	5° $\mathring{\text{Z}}$ 02'05		direct	2075 Jan 28 23:52	18° $\mathring{\text{Z}}$ 34'51	
desc. node	2074 Feb 26 21:30	11° $\mathring{\text{Z}}$ 45'25		morning max el	2075 Feb 10 07:29	25° $\mathring{\text{Z}}$ 54'09	25°46'25
morning max el	2074 Feb 27 22:17	12° $\mathring{\text{Z}}$ 46'18	26°54'48	desc. node	2075 Feb 13 18:35	29° $\mathring{\text{Z}}$ 38'34	
	2074 Mar 13 19:11	0° $\mathring{\text{X}}$			2075 Feb 14 02:02	0° $\mathring{\text{Z}}$	
	2074 Apr 01 04:07	0° $\mathring{\text{Y}}$		morning set	2075 Mar 07 08:16	0° $\mathring{\text{X}}$	
morning set	2074 Apr 04 16:10	6° $\mathring{\text{Y}}$ 34'10			2075 Mar 18 12:30	19° $\mathring{\text{X}}$ 16'25	
max. Earth dist.	2074 Apr 09 02:53	15° $\mathring{\text{Y}}$ 18'43	1.34226 AU	max. Earth dist.	2075 Mar 22 09:01	26° $\mathring{\text{X}}$ 29'40	1.35803 AU
					2075 Mar 24 04:37	0° $\mathring{\text{Y}}$	
superior conj	2074 Apr 13 03:54	23° $\mathring{\text{Y}}$ 36'23	0°-45'-19				
minimum elong	2074 Apr 13 06:12	23° $\mathring{\text{Y}}$ 48'21	0°44'53	superior conj	2075 Mar 27 21:45	7° $\mathring{\text{Y}}$ 21'27	-1°-12'-41
	2074 Apr 16 04:56	0° $\mathring{\text{B}}$		minimum elong	2075 Mar 28 01:21	7° $\mathring{\text{Y}}$ 39'35	1°12'07
asc. node	2074 Apr 17 14:53	2° $\mathring{\text{B}}$ 59'20		asc. node	2075 Apr 04 11:56	22° $\mathring{\text{Y}}$ 52'21	
evening rise	2074 Apr 20 15:41	9° $\mathring{\text{B}}$ 21'49		evening rise	2075 Apr 04 22:04	23° $\mathring{\text{Y}}$ 44'05	
	2074 May 01 14:41	0° $\mathring{\text{I}}$			2075 Apr 08 00:57	0° $\mathring{\text{B}}$	
evening max el	2074 May 10 12:07	11° $\mathring{\text{I}}$ 30'03	21°25'04	evening max el	2075 Apr 22 19:15	22° $\mathring{\text{B}}$ 44'23	20°06'58
retrograde	2074 May 22 15:23	17° $\mathring{\text{I}}$ 26'14		retrograde	2075 May 03 05:39	27° $\mathring{\text{B}}$ 47'16	
evening set	2074 May 25 00:45	17° $\mathring{\text{I}}$ 13'11		evening set	2075 May 05 06:23	27° $\mathring{\text{B}}$ 36'38	
desc. node	2074 May 25 20:43	17° $\mathring{\text{I}}$ 02'48		desc. node	2075 May 12 17:44	24° $\mathring{\text{B}}$ 31'41	
inferior conj	2074 Jun 03 09:50	13° $\mathring{\text{I}}$ 13'34	-2°-25'-52	inferior conj	2075 May 14 06:22	23° $\mathring{\text{B}}$ 37'40	0°-26'-43
minimum elong	2074 Jun 03 03:15	13° $\mathring{\text{I}}$ 22'47	2°23'42	minimum elong	2075 May 14 05:08	23° $\mathring{\text{B}}$ 39'31	0°26'15
min. Earth dist.	2074 Jun 03 13:07	13° $\mathring{\text{I}}$ 08'58	0.54906 AU	min. Earth dist.	2075 May 16 02:16	22° $\mathring{\text{B}}$ 32'15	0.55284 AU
morning rise	2074 Jun 12 06:07	9° $\mathring{\text{I}}$ 16'24		morning rise	2075 May 23 01:22	19° $\mathring{\text{B}}$ 17'07	
direct	2074 Jun 15 12:48	8° $\mathring{\text{I}}$ 53'00		direct	2075 May 27 01:55	18° $\mathring{\text{B}}$ 41'51	
morning max el	2074 Jun 28 01:33	14° $\mathring{\text{I}}$ 49'08	22°12'00	morning max el	2075 Jun 09 17:58	25° $\mathring{\text{B}}$ 25'27	23°53'32
	2074 Jul 09 15:38	0° $\mathring{\text{G}}$			2075 Jun 14 00:46	0° $\mathring{\text{I}}$	
asc. node	2074 Jul 14 14:09	8° $\mathring{\text{G}}$ 53'49		asc. node	2075 Jul 01 11:12	28° $\mathring{\text{I}}$ 30'15	
morning set	2074 Jul 19 12:09	18° $\mathring{\text{G}}$ 48'20			2075 Jul 02 04:46	0° $\mathring{\text{G}}$	
	2074 Jul 24 18:58	0° $\mathring{\text{O}}$		morning set	2075 Jul 03 23:48	3° $\mathring{\text{G}}$ 44'05	
superior conj	2074 Jul 26 17:57	4° $\mathring{\text{O}}$ 08'54	1°38'10	superior conj	2075 Jul 11 01:17	18° $\mathring{\text{G}}$ 56'12	1°25'54
minimum elong	2074 Jul 26 16:10	3° $\mathring{\text{O}}$ 59'30	1°38'01	minimum elong	2075 Jul 10 22:57	18° $\mathring{\text{G}}$ 43'37	1°25'37
max. Earth dist.	2074 Jul 30 02:33	11° $\mathring{\text{O}}$ 08'39	1.34447 AU	max. Earth dist.	2075 Jul 13 03:33	23° $\mathring{\text{G}}$ 26'07	1.33308 AU

	2075 Jul 16 06:27	0°♌		superior conj	2076 Jun 24 11:44	3°♊51'40	1°09'03
evening rise	2075 Jul 18 12:43	4°♌36'58		minimum elong	2076 Jun 24 09:22	3°♊38'44	1°08'41
	2075 Aug 01 13:08	0°♍		max. Earth dist.	2076 Jun 25 11:38	6°♊02'26	1.32563 AU
desc. node	2075 Aug 08 17:05	10°♍47'05		evening rise	2076 Jul 01 14:33	19°♊06'26	
evening max el	2075 Aug 21 03:27	25°♍36'18	27°25'03		2076 Jul 07 02:14	0°♌	
	2075 Aug 26 13:22	0°♍		desc. node	2076 Jul 25 14:05	29°♌28'26	
retrograde	2075 Sep 03 17:52	2°♍53'51			2076 Jul 26 00:01	0°♍	
evening set	2075 Sep 10 21:25	0°♍14'32		evening max el	2076 Aug 02 11:22	8°♍18'54	27°16'48
	2075 Sep 11 05:07	30°♍		retrograde	2076 Aug 16 07:03	15°♍34'16	
min. Earth dist.	2075 Sep 14 13:50	26°♍58'22	0.63841 AU	evening set	2076 Aug 23 11:14	13°♍10'14	
inferior conj	2075 Sep 17 02:30	24°♍22'01	-3°-13'-52	min. Earth dist.	2076 Aug 27 01:27	10°♍21'24	0.62025 AU
minimum elong	2075 Sep 17 07:27	24°♍09'12	3°12'18	inferior conj	2076 Aug 30 01:45	7°♍35'56	-4°-5'-5
morning rise	2075 Sep 23 19:40	19°♍00'16		minimum elong	2076 Aug 30 07:05	7°♍23'39	4°03'51
direct	2075 Sep 26 07:13	18°♍29'47		morning rise	2076 Sep 06 05:44	2°♍34'12	
asc. node	2075 Sep 27 10:23	18°♍36'14		direct	2076 Sep 08 14:47	2°♍09'40	
morning max el	2075 Oct 02 20:17	21°♍55'24	17°53'45	asc. node	2076 Sep 13 07:26	3°♍48'17	
	2075 Oct 09 01:31	0°♍		morning max el	2076 Sep 15 11:34	5°♍37'44	17°54'02
morning set	2075 Oct 19 14:35	17°♍37'54		morning set	2076 Oct 01 09:33	0°♍33'33	
	2075 Oct 26 20:37	0°♎			2076 Oct 01 02:08	0°♍	
superior conj	2075 Nov 01 05:55	8°♎56'14	0°23'11	superior conj	2076 Oct 12 05:56	19°♍48'08	1°00'50
minimum elong	2075 Nov 01 08:24	9°♎06'24	0°22'49	minimum elong	2076 Oct 12 10:28	20°♍07'37	1°00'17
desc. node	2075 Nov 04 16:25	14°♎31'06			2076 Oct 18 07:21	0°♎	
max. Earth dist.	2075 Nov 06 23:25	18°♎11'27	1.44289 AU	max. Earth dist.	2076 Oct 19 13:29	2°♎03'41	1.42902 AU
	2075 Nov 14 11:42	0°♏		desc. node	2076 Oct 21 13:26	5°♎18'26	
evening rise	2075 Nov 17 05:30	4°♏14'09		evening rise	2076 Oct 26 16:47	13°♎28'43	
	2075 Dec 04 10:42	0°♐			2076 Nov 06 13:10	0°♏	
greatest brilliancy	2075 Dec 09 10:14	6°♐52'56	-0.5m	greatest brilliancy	2076 Nov 22 09:28	21°♏59'42	-0.4m
evening max el	2075 Dec 15 08:21	13°♐57'39	20°34'30	evening max el	2076 Nov 27 04:59	27°♏28'41	21°46'27
retrograde	2075 Dec 23 10:46	18°♐44'26			2076 Nov 29 22:28	0°♑	
asc. node	2075 Dec 24 09:37	18°♐39'22		retrograde	2076 Dec 06 07:46	2°♑54'17	
evening set	2075 Dec 27 06:41	17°♐19'56		asc. node	2076 Dec 10 06:39	1°♑28'45	
inferior conj	2076 Jan 01 17:14	11°♑09'12	2°33'10	evening set	2076 Dec 10 14:29	1°♑13'49	
minimum elong	2076 Jan 01 14:37	11°♑18'05	2°32'23		2076 Dec 11 22:52	30°♒	
min. Earth dist.	2076 Jan 02 07:50	10°♑19'24	0.67328 AU	inferior conj	2076 Dec 15 23:59	24°♒54'04	1°51'41
morning rise	2076 Jan 06 22:06	4°♑54'01		minimum elong	2076 Dec 15 21:45	25°♒01'47	1°50'51
direct	2076 Jan 12 10:51	2°♑28'16		min. Earth dist.	2076 Dec 16 02:53	24°♒43'59	0.67751 AU
morning max el	2076 Jan 23 15:54	9°♑09'25	24°22'54	morning rise	2076 Dec 21 04:48	18°♒39'49	
desc. node	2076 Jan 31 15:37	18°♑26'08		direct	2076 Dec 26 02:16	16°♒35'45	
	2076 Feb 09 02:24	0°♒		morning max el	2077 Jan 05 01:37	22°♒30'26	22°54'20
	2076 Feb 27 23:59	0°♓		greatest brilliancy	2077 Jan 09 18:33	27°♒45'35	-0.3m
morning set	2076 Feb 28 12:45	0°♓55'30			2077 Jan 11 14:06	0°♑	
max. Earth dist.	2076 Mar 03 06:19	7°♓33'17	1.37765 AU	desc. node	2077 Jan 17 12:40	7°♑52'54	
					2077 Feb 01 10:53	0°♒	
superior conj	2076 Mar 10 04:18	20°♓28'35	-1°-37'-20	morning set	2077 Feb 08 10:50	11°♒16'43	
minimum elong	2076 Mar 10 08:36	20°♓49'18	1°36'50	max. Earth dist.	2077 Feb 13 01:41	19°♒04'06	1.39913 AU
	2076 Mar 15 01:06	0°♔			2077 Feb 19 06:29	0°♓	
evening rise	2076 Mar 18 22:16	7°♔42'16		superior conj	2077 Feb 20 19:20	2°♓47'36	-1°-56'-9
asc. node	2076 Mar 21 08:56	12°♔30'16		minimum elong	2077 Feb 20 22:57	3°♓04'08	1°55'56
	2076 Mar 31 14:38	0°♕		evening rise	2077 Mar 02 13:24	21°♓09'09	
evening max el	2076 Apr 04 13:43	4°♕37'37	19°07'43		2077 Mar 07 06:16	0°♔	
retrograde	2076 Apr 13 08:43	8°♕53'19		asc. node	2077 Mar 08 05:57	1°♔47'43	
evening set	2076 Apr 15 11:36	8°♕39'29		evening max el	2077 Mar 18 17:19	17°♔05'46	18°28'37
inferior conj	2076 Apr 23 17:42	4°♕27'05	1°21'58	retrograde	2077 Mar 26 06:27	20°♔48'42	
minimum elong	2076 Apr 23 20:46	4°♕21'49	1°20'57	evening set	2077 Mar 28 14:46	20°♔28'15	
min. Earth dist.	2076 Apr 26 17:24	2°♕25'14	0.56538 AU	inferior conj	2077 Apr 05 02:00	15°♔56'19	2°39'47
desc. node	2076 Apr 28 14:46	1°♕14'23		minimum elong	2077 Apr 05 05:56	15°♔48'26	2°38'48
	2076 Apr 30 23:26	30°♕		min. Earth dist.	2077 Apr 08 12:26	13°♔12'37	0.58408 AU
morning rise	2076 May 02 01:47	29°♕32'20		morning rise	2077 Apr 12 16:55	10°♔30'01	
direct	2076 May 07 02:28	28°♕33'22		desc. node	2077 Apr 15 11:48	9°♔23'38	
	2076 May 13 05:28	0°♖		direct	2077 Apr 18 17:11	8°♔56'33	
morning max el	2076 May 21 08:25	5°♖52'09	25°31'45	morning max el	2077 May 03 02:27	16°♔37'26	26°50'49
	2076 Jun 07 21:23	0°♗			2077 May 14 01:48	0°♕	
morning set	2076 Jun 17 11:30	18°♗39'38			2077 May 31 05:11	0°♗	
asc. node	2076 Jun 17 08:14	18°♗22'28		morning set	2077 Jun 01 21:35	3°♗29'20	
	2076 Jun 22 17:28	0°♘		asc. node	2077 Jun 04 05:15	8°♗25'07	

superior conj	2077 Jun 08 23:29	18°II49'00	0°48'25			2078 May 22 18:10	0°II	
minimum elong	2077 Jun 08 21:33	18°II38'23	0°48'03	max. Earth dist.		2078 May 23 11:07	1°II32'32	1.32235 AU
max. Earth dist.	2077 Jun 08 23:23	18°II48'28	1.32205 AU					
	2077 Jun 14 02:25	0°☿		superior conj		2078 May 24 10:49	3°II42'25	0°24'40
evening rise	2077 Jun 15 21:50	3°☿50'44		minimum elong		2078 May 24 09:44	3°II36'24	0°24'26
	2077 Jun 29 21:50	0°♂		evening rise		2078 May 31 08:25	18°II42'39	
desc. node	2077 Jul 12 11:05	17°♂07'39				2078 Jun 05 21:36	0°☿	
evening max el	2077 Jul 15 13:22	20°♂18'17	26°35'22			2078 Jun 25 19:29	0°♂	
retrograde	2077 Jul 29 12:43	27°♂31'07		evening max el		2078 Jun 27 08:25	1°♂32'07	25°23'59
evening set	2077 Aug 05 06:27	25°♂35'55		desc. node		2078 Jun 29 08:05	3°♂19'26	
min. Earth dist.	2077 Aug 09 02:52	23°♂00'06	0.59993 AU	retrograde		2078 Jul 11 08:46	8°♂40'00	
inferior conj	2077 Aug 12 10:00	20°♂21'43	-4°-43'-42	evening set		2078 Jul 17 02:44	7°♂22'59	
minimum elong	2077 Aug 12 13:55	20°♂13'51	4°43'12	min. Earth dist.		2078 Jul 21 20:25	4°♂41'40	0.57960 AU
morning rise	2077 Aug 20 00:44	15°♂42'34		inferior conj		2078 Jul 24 23:56	2°♂30'33	-4°-58'-50
direct	2077 Aug 22 10:07	15°♂21'32		minimum elong		2078 Jul 24 23:51	2°♂30'42	4°58'50
morning max el	2077 Aug 29 22:51	19°♂01'29	18°13'37			2078 Jul 28 20:33	30°♂☿	
asc. node	2077 Aug 31 04:29	20°♂18'03		morning rise		2078 Aug 02 00:37	28°☿14'02	
	2077 Sep 07 00:07	0°♎		direct		2078 Aug 04 12:59	27°☿54'42	
morning set	2077 Sep 14 19:22	14°♎11'33				2078 Aug 10 17:07	0°♂	
	2077 Sep 23 06:06	0°♎		morning max el		2078 Aug 13 02:56	1°♂57'33	18°53'47
				asc. node		2078 Aug 18 01:33	7°♂50'31	
superior conj	2077 Sep 24 07:07	1°♎53'51	1°26'30	morning set		2078 Aug 29 15:42	28°♂20'35	
minimum elong	2077 Sep 24 10:56	2°♎11'09	1°26'09			2078 Aug 30 11:56	0°♎	
max. Earth dist.	2077 Oct 01 21:43	15°♎15'17	1.41070 AU					
evening rise	2077 Oct 06 20:51	23°♎30'43		superior conj		2078 Sep 07 04:08	14°♎58'35	1°40'51
desc. node	2077 Oct 08 10:26	26°♎02'51		minimum elong		2078 Sep 07 06:09	15°♎08'12	1°40'44
	2077 Oct 10 21:58	0°♏		max. Earth dist.		2078 Sep 14 01:53	27°♎44'27	1.39035 AU
	2077 Oct 31 12:52	0°♏				2078 Sep 15 08:27	0°♎	
greatest brilliancy	2077 Nov 04 02:48	4°♏32'49	-0.2m	evening rise		2078 Sep 18 00:51	4°♎39'44	
evening max el	2077 Nov 09 20:43	11°♏01'25	23°05'18	desc. node		2078 Sep 25 07:27	16°♎40'49	
retrograde	2077 Nov 20 02:19	17°♏05'38				2078 Oct 04 00:51	0°♏	
evening set	2077 Nov 24 21:33	15°♏08'19		evening max el		2078 Oct 23 09:38	24°♏38'17	24°24'54
asc. node	2077 Nov 27 03:42	12°♏51'38				2078 Oct 30 05:41	0°♏	
inferior conj	2077 Nov 30 07:28	8°♏43'27	1°03'58	retrograde		2078 Nov 03 17:06	1°♏15'14	
minimum elong	2077 Nov 30 06:02	8°♏48'24	1°03'23			2078 Nov 07 18:31	30°♏♏	
min. Earth dist.	2077 Nov 29 23:36	9°♏10'33	0.67824 AU	evening set		2078 Nov 09 02:17	29°♏01'07	
morning rise	2077 Dec 05 14:33	2°♏32'19		min. Earth dist.		2078 Nov 13 19:36	23°♏37'01	0.67567 AU
direct	2077 Dec 09 21:23	0°♏51'03		asc. node		2078 Nov 14 00:46	23°♏19'45	
morning max el	2077 Dec 18 15:56	5°♏58'49	21°29'35	inferior conj		2078 Nov 14 13:57	22°♏35'29	0°11'21
greatest brilliancy	2077 Dec 23 16:39	11°♏42'26	-0.4m	minimum elong		2078 Nov 14 13:41	22°♏36'25	0°11'14
desc. node	2078 Jan 04 09:42	27°♏47'22		transit middle		2078 Nov 14 13:41	22°♏36'25	0°11'14
	2078 Jan 05 21:53	0°♐		transit begin		2078 Nov 14 11:42	22°♏43'04	
morning set	2078 Jan 19 03:51	20°♐15'24		transit end		2078 Nov 14 15:39	22°♏29'47	
	2078 Jan 25 04:58	0°♑		morning rise		2078 Nov 20 01:25	16°♏29'54	
max. Earth dist.	2078 Jan 26 01:46	1°♑25'32	1.41968 AU	direct		2078 Nov 23 18:59	15°♏10'07	
				morning max el		2078 Dec 01 13:33	19°♏37'37	20°15'04
superior conj	2078 Feb 02 13:45	14°♑06'14	-2°-4'-56	greatest brilliancy		2078 Dec 08 05:26	27°♏36'56	-0.6m
minimum elong	2078 Feb 02 14:19	14°♑08'44	2°04'58			2078 Dec 09 23:28	0°♏	
	2078 Feb 11 12:00	0°♑		desc. node		2078 Dec 22 06:44	18°♏01'51	
evening rise	2078 Feb 13 15:48	3°♑56'03		morning set		2078 Dec 29 01:16	28°♏23'59	
asc. node	2078 Feb 23 02:59	20°♑37'52				2078 Dec 30 02:03	0°♐	
evening max el	2078 Mar 02 02:55	0°♑00'37	18°09'33	max. Earth dist.		2079 Jan 08 09:47	14°♐41'35	1.43657 AU
	2078 Mar 02 02:41	0°♑						
retrograde	2078 Mar 08 21:43	3°♑26'49		superior conj		2079 Jan 14 06:47	24°♐14'21	-1°-58'-42
evening set	2078 Mar 11 11:32	2°♑57'34		minimum elong		2079 Jan 14 02:04	23°♐54'55	1°58'29
	2078 Mar 16 03:07	30°♑♑				2079 Jan 17 18:01	0°♑	
inferior conj	2078 Mar 18 06:44	28°♑04'28	3°24'29	evening rise		2079 Jan 27 01:11	15°♑54'12	
minimum elong	2078 Mar 18 09:15	27°♑58'37	3°24'08			2079 Feb 04 05:56	0°♑	
min. Earth dist.	2078 Mar 21 13:33	25°♑02'46	0.60544 AU	asc. node		2079 Feb 10 00:02	8°♑51'46	
morning rise	2078 Mar 25 03:42	22°♑16'34		evening max el		2079 Feb 13 15:19	13°♑12'53	18°09'52
direct	2078 Mar 31 20:10	20°♑07'09		retrograde		2079 Feb 20 02:30	16°♑37'08	
desc. node	2078 Apr 02 08:50	20°♑13'37		evening set		2079 Feb 22 21:28	15°♑57'47	
morning max el	2078 Apr 15 02:34	27°♑59'32	27°38'23	inferior conj		2079 Mar 01 04:16	10°♑43'52	3°42'09
	2078 Apr 17 01:13	0°♑		minimum elong		2079 Mar 01 04:47	10°♑42'28	3°42'08
	2078 May 07 18:40	0°♒		min. Earth dist.		2079 Mar 03 22:54	7°♑48'51	0.62629 AU
morning set	2078 May 17 04:20	18°♒07'15		morning rise		2079 Mar 07 09:57	4°♑42'54	
asc. node	2078 May 22 02:17	28°♒33'39		direct		2079 Mar 14 08:29	2°♑06'34	

desc. node	2079 Mar 20 05:54	3° H 43'54		minimum elong	2080 Feb 12 13:27	23° \approx 50'18	3°39'34
morning max el	2079 Mar 28 08:12	10° H 02'14	27°48'55	min. Earth dist.	2080 Feb 14 17:50	21° \approx 17'15	0.64442 AU
	2079 Apr 12 22:03	0° Y		morning rise	2080 Feb 18 08:45	17° \approx 38'17	
	2079 Apr 30 00:34	0° B		direct	2080 Feb 25 04:18	14° \approx 49'02	
morning set	2079 May 01 05:32	2° B 25'11		desc. node	2080 Mar 06 02:56	19° \approx 22'19	
max. Earth dist.	2079 May 06 18:55	14° B 00'37	1.32669 AU	morning max el	2080 Mar 09 17:20	22° \approx 40'07	27°23'34
					2080 Mar 16 05:01	0° H	
superior conj	2079 May 08 19:58	18° B 24'52	0°-1'-28		2080 Apr 05 03:46	0° Y	
minimum elong	2079 May 08 20:02	18° B 25'15	0°01'29	morning set	2080 Apr 13 22:32	16° Y 15'01	
behind sun begin	2079 May 08 14:51	17° B 57'12		max. Earth dist.	2080 Apr 18 19:02	26° Y 01'47	1.33532 AU
behind sun end	2079 May 09 01:13	18° B 53'19			2080 Apr 20 16:44	0° B	
asc. node	2079 May 08 23:19	18° B 43'06					
	2079 May 14 04:07	0° II		superior conj	2080 Apr 22 01:01	2° B 50'25	0°-29'-8
evening rise	2079 May 15 20:15	3° II 34'22		minimum elong	2080 Apr 22 02:29	2° B 58'10	0°28'51
	2079 May 30 03:45	0° B		asc. node	2080 Apr 24 20:23	8° B 49'34	
evening max el	2079 Jun 08 22:35	12° B 10'13	23°52'45	evening rise	2080 Apr 29 07:32	18° B 19'46	
desc. node	2079 Jun 16 05:08	17° B 29'21			2080 May 05 02:33	0° II	
retrograde	2079 Jun 22 16:27	19° B 04'18		evening max el	2080 May 20 14:12	22° II 40'05	22°16'43
evening set	2079 Jun 27 00:17	18° B 23'06		retrograde	2080 Jun 02 11:59	29° II 03'11	
min. Earth dist.	2079 Jul 03 09:12	15° B 20'12	0.56230 AU	desc. node	2080 Jun 02 02:10	29° II 02'48	
inferior conj	2079 Jul 05 17:36	13° B 54'14	-4°-36'-17	evening set	2080 Jun 05 10:37	28° II 44'02	
minimum elong	2079 Jul 05 12:07	14° B 02'39	4°35'30	min. Earth dist.	2080 Jun 13 20:32	25° II 06'29	0.55142 AU
morning rise	2079 Jul 14 03:23	9° B 56'12		inferior conj	2080 Jun 14 18:00	24° II 36'15	-3°-25'-51
direct	2079 Jul 16 20:51	9° B 37'07		minimum elong	2080 Jun 14 10:04	24° II 47'26	3°23'41
morning max el	2079 Jul 26 20:53	14° B 15'25	19°55'26	morning rise	2080 Jun 23 11:36	20° II 44'41	
asc. node	2079 Aug 04 22:36	26° B 10'55		direct	2080 Jun 26 12:06	20° II 24'09	
	2079 Aug 07 03:32	0° B		morning max el	2080 Jul 08 03:23	25° II 49'31	21°17'27
morning set	2079 Aug 13 19:13	12° B 51'11			2080 Jul 12 00:48	0° B	
				asc. node	2080 Jul 21 19:38	15° B 07'48	
superior conj	2079 Aug 21 15:37	28° B 46'41	1°45'40	morning set	2080 Jul 28 03:24	27° B 36'13	
minimum elong	2079 Aug 21 15:48	28° B 47'37	1°45'39		2080 Jul 29 07:05	0° B	
	2079 Aug 22 06:20	0° B					
max. Earth dist.	2079 Aug 27 06:44	9° B 43'50	1.37040 AU	superior conj	2080 Aug 04 13:16	13° B 05'38	1°42'45
evening rise	2079 Aug 31 03:39	16° B 53'02		minimum elong	2080 Aug 04 12:03	12° B 59'20	1°42'42
	2079 Sep 07 17:59	0° B		max. Earth dist.	2080 Aug 08 17:30	21° B 35'55	1.35290 AU
desc. node	2079 Sep 12 04:28	7° B 07'40		evening rise	2080 Aug 13 01:02	29° B 59'42	
	2079 Sep 28 10:44	0° B			2080 Aug 13 01:06	0° B	
evening max el	2079 Oct 05 21:44	8° B 18'36	25°38'08	desc. node	2080 Aug 29 01:30	27° B 17'20	
retrograde	2079 Oct 18 03:19	15° B 18'54			2080 Aug 30 20:55	0° B	
evening set	2079 Oct 24 02:59	12° B 49'42		evening max el	2080 Sep 17 09:55	21° B 56'24	26°37'26
min. Earth dist.	2079 Oct 28 12:24	8° B 01'10	0.66975 AU	retrograde	2080 Sep 30 08:23	29° B 10'13	
inferior conj	2079 Oct 29 17:40	6° B 27'43	0°-44'-51	evening set	2080 Oct 06 21:37	26° B 30'19	
minimum elong	2079 Oct 29 18:50	6° B 24'01	0°44'21	min. Earth dist.	2080 Oct 10 23:36	22° B 18'43	0.66038 AU
asc. node	2079 Oct 31 21:50	3° B 46'52		inferior conj	2080 Oct 12 16:37	20° B 16'20	-1°-43'-8
morning rise	2079 Nov 04 11:26	0° B 30'33		minimum elong	2080 Oct 12 19:22	20° B 08'06	1°42'02
	2079 Nov 05 10:15	30° B		asc. node	2080 Oct 17 18:53	15° B 06'55	
direct	2079 Nov 07 17:37	29° B 29'21		morning rise	2080 Oct 18 18:26	14° B 30'33	
	2079 Nov 10 02:50	0° B		direct	2080 Oct 21 15:22	13° B 44'20	
morning max el	2079 Nov 14 18:59	3° B 26'55	19°14'34	morning max el	2080 Oct 28 06:39	17° B 22'29	18°29'50
greatest brilliancy	2079 Nov 25 00:23	16° B 48'33	-0.7m		2080 Nov 06 17:04	0° B	
	2079 Dec 03 16:09	0° B		morning set	2080 Nov 17 05:45	16° B 43'38	
morning set	2079 Dec 08 03:12	6° B 55'19		desc. node	2080 Nov 25 00:47	29° B 09'26	
desc. node	2079 Dec 09 03:45	8° B 30'49			2080 Nov 25 13:33	0° B	
max. Earth dist.	2079 Dec 22 00:50	28° B 39'57	1.44760 AU				
	2079 Dec 22 21:07	0° B		superior conj	2080 Dec 03 00:04	11° B 43'29	0°-51'-42
superior conj	2079 Dec 24 22:27	3° B 15'27	-1°-33'-37	minimum elong	2080 Dec 02 17:31	11° B 17'45	0°50'53
minimum elong	2079 Dec 24 13:43	2° B 40'45	1°32'47	max. Earth dist.	2080 Dec 03 19:30	12° B 59'48	1.45154 AU
evening rise	2080 Jan 08 13:28	26° B 57'16			2080 Dec 14 15:12	0° B	
	2080 Jan 10 09:40	0° \approx		evening rise	2080 Dec 19 02:19	7° B 02'55	
asc. node	2080 Jan 27 21:07	26° \approx 18'40		greatest brilliancy	2080 Dec 30 11:24	24° B 57'39	-0.8m
evening max el	2080 Jan 28 03:36	26° \approx 35'24	18°28'50		2081 Jan 02 19:27	0° \approx	
	2080 Feb 02 07:15	0° H		evening max el	2081 Jan 10 13:18	10° \approx 02'23	19°05'26
retrograde	2080 Feb 03 16:27	0° H 10'32		asc. node	2081 Jan 13 18:10	12° \approx 44'39	
	2080 Feb 05 01:24	30° R		retrograde	2081 Jan 17 11:42	13° \approx 59'07	
evening set	2080 Feb 06 16:45	29° \approx 20'11		evening set	2081 Jan 20 18:18	12° \approx 56'45	
inferior conj	2080 Feb 12 14:34	23° \approx 47'00	3°39'38	inferior conj	2081 Jan 26 10:00	7° \approx 06'43	3°22'16
				minimum elong	2081 Jan 26 07:50	7° \approx 13'36	3°21'54

min. Earth dist.	2081 Jan 27 21:57	5° \approx 12'53	0.65877 AU	retrograde	2082 Jan 01 09:20	27° Z 58'46	
morning rise	2081 Jan 31 20:27	0° \approx 53'32		evening set	2082 Jan 04 23:47	26° Z 42'57	
	2081 Feb 01 22:52	30° R Z		inferior conj	2082 Jan 10 11:40	20° Z 38'55	2°53'42
direct	2081 Feb 07 06:40	28° Z 05'11		minimum elong	2082 Jan 10 09:04	20° Z 47'37	2°53'01
	2081 Feb 13 05:23	0° \approx		min. Earth dist.	2082 Jan 11 09:41	19° Z 25'19	0.66913 AU
morning max el	2081 Feb 20 03:14	5° \approx 40'45	26°28'20	morning rise	2082 Jan 15 17:43	14° Z 23'42	
desc. node	2081 Feb 20 23:59	6° \approx 33'57		direct	2082 Jan 21 14:52	11° Z 47'15	
	2081 Mar 10 20:10	0° H		morning max el	2082 Feb 02 12:05	18° Z 52'39	25°12'04
morning set	2081 Mar 28 03:43	29° H 25'29		desc. node	2082 Feb 07 21:02	24° Z 52'27	
	2081 Mar 28 11:02	0° Y			2082 Feb 11 22:27	0° \approx	
max. Earth dist.	2081 Apr 01 08:02	7° Y 28'56	1.34842 AU		2082 Mar 03 22:07	0° H	
				morning set	2082 Mar 10 16:15	11° H 42'50	
superior conj	2081 Apr 05 23:41	16° Y 51'52	0°-57'-7	max. Earth dist.	2082 Mar 14 09:27	18° H 31'13	1.36592 AU
minimum elong	2081 Apr 06 02:35	17° Y 06'44	0°56'35		2082 Mar 20 08:47	0° Y	
asc. node	2081 Apr 11 17:26	28° Y 48'37					
	2081 Apr 12 07:08	0° B		superior conj	2082 Mar 20 13:08	0° Y 21'27	-1°-23'-40
evening rise	2081 Apr 13 16:16	2° B 51'57		minimum elong	2082 Mar 20 17:09	0° Y 41'18	1°23'05
	2081 Apr 29 09:10	0° II		evening rise	2082 Mar 28 20:18	17° Y 04'21	
evening max el	2081 May 02 14:28	3° II 32'30	20°49'43	asc. node	2082 Mar 29 14:28	18° Y 35'39	
retrograde	2081 May 14 01:18	9° II 06'59			2082 Apr 04 12:49	0° B	
evening set	2081 May 16 04:56	8° II 55'56		evening max el	2082 Apr 15 02:34	15° B 03'21	19°39'26
desc. node	2081 May 19 23:10	7° II 48'51		retrograde	2082 Apr 24 19:41	19° B 44'51	
inferior conj	2081 May 25 11:43	4° II 58'14	-1°-36'-10	evening set	2082 Apr 26 20:18	19° B 33'31	
minimum elong	2081 May 25 07:11	5° II 04'41	1°34'33	inferior conj	2082 May 05 13:16	15° B 30'26	0°22'20
min. Earth dist.	2081 May 26 08:57	4° II 27'57	0.54944 AU	minimum elong	2082 May 05 14:14	15° B 28'55	0°21'59
morning rise	2081 Jun 03 08:36	0° II 53'16		desc. node	2082 May 06 20:12	14° B 41'39	
direct	2081 Jun 06 21:29	0° II 26'19		min. Earth dist.	2082 May 07 23:11	13° B 59'38	0.55711 AU
morning max el	2081 Jun 19 23:53	6° II 43'39	22°54'43	morning rise	2082 May 14 04:37	10° B 55'24	
	2081 Jul 06 08:06	0° S		direct	2082 May 18 14:53	10° B 11'33	
asc. node	2081 Jul 08 16:41	4° S 32'15		morning max el	2082 Jun 01 14:46	17° B 12'53	24°36'41
morning set	2081 Jul 12 14:18	12° S 30'07			2082 Jun 12 01:02	0° II	
				asc. node	2082 Jun 25 13:42	24° II 16'10	
superior conj	2081 Jul 19 17:50	27° S 45'44	1°33'35	morning set	2082 Jun 27 02:09	27° II 26'33	
minimum elong	2081 Jul 19 15:46	27° S 34'39	1°33'23		2082 Jun 28 07:02	0° S	
	2081 Jul 20 19:06	0° Q					
max. Earth dist.	2081 Jul 22 13:07	3° Q 41'05	1.33909 AU	superior conj	2082 Jul 04 02:45	12° S 37'49	1°19'17
evening rise	2081 Jul 27 12:27	13° Q 47'56		minimum elong	2082 Jul 04 00:21	12° S 24'45	1°18'57
	2081 Aug 05 06:02	0° M		max. Earth dist.	2082 Jul 05 17:16	16° S 06'31	1.32937 AU
desc. node	2081 Aug 15 22:31	17° M 02'12		evening rise	2082 Jul 11 09:56	28° S 05'28	
	2081 Aug 25 19:55	0° A			2082 Jul 12 08:34	0° Q	
evening max el	2081 Aug 30 21:52	5° A 22'59	27°15'25		2082 Jul 29 11:18	0° M	
retrograde	2081 Sep 13 08:00	12° A 41'47		desc. node	2082 Aug 02 19:31	6° M 10'59	
evening set	2081 Sep 20 07:46	9° A 58'59		evening max el	2082 Aug 13 08:04	18° M 25'51	27°25'33
min. Earth dist.	2081 Sep 24 03:04	6° A 23'40	0.64742 AU	retrograde	2082 Aug 27 01:26	25° M 43'18	
inferior conj	2081 Sep 26 08:34	3° A 57'16	-2°-41'-26	evening set	2082 Sep 03 06:09	23° M 08'53	
minimum elong	2081 Sep 26 12:51	3° A 45'33	2°39'55	min. Earth dist.	2082 Sep 06 20:57	20° M 05'26	0.63103 AU
	2081 Sep 30 08:38	30° R M		inferior conj	2082 Sep 09 14:50	17° M 23'25	-3°-36'-38
morning rise	2081 Oct 02 19:52	28° M 25'57		minimum elong	2082 Sep 09 20:07	17° M 10'24	3°35'08
asc. node	2081 Oct 04 15:54	27° M 53'52		morning rise	2082 Sep 16 12:35	12° M 09'44	
direct	2081 Oct 05 09:58	27° M 50'52		direct	2082 Sep 18 22:35	11° M 42'15	
	2081 Oct 10 11:23	0° A		asc. node	2082 Sep 21 12:55	12° M 14'42	
morning max el	2081 Oct 11 22:03	1° A 18'52	18°01'53	morning max el	2082 Sep 25 14:12	15° M 08'15	17°51'30
morning set	2081 Oct 29 13:25	27° A 58'08			2082 Oct 05 22:35	0° A	
	2081 Oct 30 18:31	0° M		morning set	2082 Oct 11 21:20	10° A 22'15	
desc. node	2081 Nov 11 21:50	19° M 54'29			2082 Oct 23 06:34	0° M	
superior conj	2081 Nov 12 09:00	20° M 39'14	0°-3'-8	superior conj	2082 Oct 23 17:14	0° M 44'35	0°40'33
minimum elong	2081 Nov 12 08:37	20° M 37'42	0°03'07	minimum elong	2082 Oct 23 21:02	1° M 00'26	0°40'02
behind sun begin	2081 Nov 11 22:13	19° M 56'01		desc. node	2082 Oct 29 18:52	10° M 41'53	
behind sun end	2081 Nov 12 19:02	21° M 19'20		max. Earth dist.	2082 Oct 30 06:26	11° M 28'30	1.43770 AU
max. Earth dist.	2081 Nov 16 14:15	27° M 21'44	1.44808 AU	evening rise	2082 Nov 08 03:16	25° M 26'47	
	2081 Nov 18 06:25	0° J			2082 Nov 11 02:23	0° J	
evening rise	2081 Nov 28 18:59	16° J 22'42			2082 Dec 01 19:22	0° Z	
	2081 Dec 07 16:16	0° Z		greatest brilliancy	2082 Dec 02 11:00	0° Z 50'23	-0.5m
greatest brilliancy	2081 Dec 17 17:45	14° Z 48'06	-0.6m	evening max el	2082 Dec 07 18:35	7° Z 02'45	21°04'01
evening max el	2081 Dec 24 18:38	23° Z 31'51	19°58'00	retrograde	2082 Dec 16 07:01	12° Z 05'44	
asc. node	2081 Dec 31 15:10	27° Z 55'35		asc. node	2082 Dec 18 12:11	11° Z 38'27	

evening set	2082 Dec 20 07:14	10°☾34'50		greatest brilliancy	2083 Nov 15 19:42	15°☿16'03	-0.3m
inferior conj	2082 Dec 25 17:10	4°☾20'00	2°16'25	evening max el	2083 Nov 20 13:06	20°☿34'51	22°19'34
minimum elong	2082 Dec 25 14:40	4°☾28'36	2°15'34	retrograde	2083 Nov 30 03:01	26°☿16'35	
min. Earth dist.	2082 Dec 26 02:44	3°☾47'02	0.67555 AU	evening set	2083 Dec 04 14:54	24°☿29'02	
	2082 Dec 29 00:51	30°☿☿		asc. node	2083 Dec 05 09:13	23°☿48'54	
morning rise	2082 Dec 30 21:42	28°☿04'51		inferior conj	2083 Dec 10 00:27	18°☿06'53	1°32'06
direct	2083 Jan 05 04:02	25°☿47'40		minimum elong	2083 Dec 09 22:30	18°☿13'36	1°31'21
	2083 Jan 13 13:39	0°☾		min. Earth dist.	2083 Dec 09 22:44	18°☿12'51	0.67830 AU
morning max el	2083 Jan 15 20:30	2°☾09'50	23°45'09	morning rise	2083 Dec 15 05:58	11°☿53'51	
desc. node	2083 Jan 25 18:06	13°☾58'33		direct	2083 Dec 19 21:12	9°☿59'20	
	2083 Feb 06 00:13	0°☿		morning max el	2083 Dec 29 07:38	15°☿33'00	22°17'20
morning set	2083 Feb 20 06:05	22°☿50'41		greatest brilliancy	2084 Jan 02 21:44	20°☿41'14	-0.3m
max. Earth dist.	2083 Feb 24 04:29	29°☿40'32	1.38667 AU		2084 Jan 10 00:46	0°☾	
	2083 Feb 24 08:53	0°☿		desc. node	2084 Jan 12 15:07	3°☾38'11	
					2084 Jan 30 01:06	0°☿	
superior conj	2083 Mar 03 13:42	13°☿10'01	-1°-46'-15	morning set	2084 Jan 31 15:35	2°☿35'13	
minimum elong	2083 Mar 03 17:56	13°☿30'00	1°45'52	max. Earth dist.	2084 Feb 06 01:33	11°☿32'32	1.40820 AU
	2083 Mar 12 06:45	0°☿					
evening rise	2083 Mar 12 17:03	0°☿50'12		superior conj	2084 Feb 13 20:38	25°☿05'04	-2°-1'-23
asc. node	2083 Mar 16 11:30	8°☿05'47		minimum elong	2084 Feb 13 23:18	25°☿16'55	2°01'19
evening max el	2083 Mar 29 01:25	27°☿13'08	18°48'43		2084 Feb 16 13:59	0°☿	
	2083 Apr 01 17:41	0°☿		evening rise	2084 Feb 24 03:14	14°☿01'04	
retrograde	2083 Apr 06 06:07	1°☿12'25		asc. node	2084 Mar 02 08:33	27°☿12'31	
evening set	2083 Apr 08 11:19	0°☿56'03			2084 Mar 04 00:12	0°☿	
	2083 Apr 11 00:50	30°☿☿		evening max el	2084 Mar 11 08:00	9°☿53'37	18°18'05
inferior conj	2083 Apr 16 09:14	26°☿36'05	1°59'10	retrograde	2084 Mar 18 11:45	13°☿27'24	
minimum elong	2083 Apr 16 13:03	26°☿29'04	1°58'01	evening set	2084 Mar 20 22:36	13°☿03'15	
min. Earth dist.	2083 Apr 19 15:44	24°☿13'53	0.57276 AU	inferior conj	2084 Mar 28 02:31	8°☿22'03	3°02'29
desc. node	2083 Apr 23 17:14	21°☿47'03		minimum elong	2084 Mar 28 06:00	8°☿14'33	3°01'47
morning rise	2083 Apr 24 10:27	21°☿27'13		min. Earth dist.	2084 Mar 31 12:42	5°☿27'54	0.59308 AU
direct	2083 Apr 29 22:03	20°☿14'11		morning rise	2084 Apr 04 09:40	2°☿45'38	
morning max el	2083 May 14 06:00	27°☿43'52	26°08'34	desc. node	2084 Apr 09 14:17	1°☿00'13	
	2083 May 16 11:10	0°☿		direct	2084 Apr 10 18:02	0°☿56'37	
	2083 Jun 05 10:00	0°☿		morning max el	2084 Apr 25 02:22	8°☿42'28	27°15'29
morning set	2083 Jun 11 13:22	12°☿20'18			2084 May 11 07:19	0°☿	
asc. node	2083 Jun 12 10:46	14°☿13'38		morning set	2084 May 25 22:15	27°☿05'15	
					2084 May 27 07:29	0°☿	
superior conj	2083 Jun 18 13:59	27°☿35'00	1°00'45	asc. node	2084 May 29 07:49	4°☿19'00	
minimum elong	2083 Jun 18 11:45	27°☿22'44	1°00'21	max. Earth dist.	2084 Jun 01 15:41	11°☿35'26	1.32174 AU
max. Earth dist.	2083 Jun 19 03:21	28°☿48'30	1.32364 AU				
	2083 Jun 19 16:23	0°☿		superior conj	2084 Jun 02 01:44	12°☿30'44	0°38'42
evening rise	2083 Jun 25 14:24	12°☿42'40		minimum elong	2084 Jun 02 00:07	12°☿21'49	0°38'21
	2083 Jul 04 11:44	0°☿		evening rise	2084 Jun 08 23:21	27°☿30'44	
desc. node	2083 Jul 20 16:30	24°☿28'41			2084 Jun 10 03:50	0°☿	
	2083 Jul 25 16:28	0°☿			2084 Jun 27 02:56	0°☿	
evening max el	2083 Jul 26 14:01	0°☿52'14	27°03'16	desc. node	2084 Jul 06 13:31	11°☿34'07	
retrograde	2083 Aug 09 11:31	8°☿05'54		evening max el	2084 Jul 07 13:09	12°☿31'55	26°08'15
evening set	2083 Aug 16 12:38	5°☿52'58		retrograde	2084 Jul 21 12:57	19°☿42'25	
min. Earth dist.	2083 Aug 20 04:18	3°☿11'26	0.61183 AU	evening set	2084 Jul 27 22:29	18°☿02'49	
inferior conj	2083 Aug 23 08:11	0°☿26'59	-4°-23'-34	min. Earth dist.	2084 Aug 01 01:48	15°☿27'11	0.59116 AU
minimum elong	2083 Aug 23 13:13	0°☿16'04	4°22'36	inferior conj	2084 Aug 04 09:02	12°☿58'06	-4°-53'-48
	2083 Aug 23 20:38	30°☿☿		minimum elong	2084 Aug 04 11:34	12°☿53'19	4°53'36
morning rise	2083 Aug 30 16:46	25°☿34'12		morning rise	2084 Aug 12 04:06	8°☿28'42	
direct	2083 Sep 02 01:37	25°☿11'22		direct	2084 Aug 14 14:40	8°☿08'25	
asc. node	2083 Sep 08 09:58	28°☿01'28		morning max el	2084 Aug 22 12:40	11°☿56'18	18°28'08
morning max el	2083 Sep 09 04:06	28°☿43'28	17°59'48	asc. node	2084 Aug 25 07:02	14°☿59'34	
	2083 Sep 10 09:22	0°☿			2084 Sep 03 14:59	0°☿	
morning set	2083 Sep 24 23:15	23°☿37'54		morning set	2084 Sep 07 14:04	7°☿30'54	
	2083 Sep 28 10:18	0°☿					
superior conj	2083 Oct 05 04:27	12°☿09'05	1°13'12	superior conj	2084 Sep 16 14:51	24°☿42'23	1°33'52
minimum elong	2083 Oct 05 08:55	12°☿28'41	1°12'42	minimum elong	2084 Sep 16 17:57	24°☿56'47	1°33'37
max. Earth dist.	2083 Oct 12 18:15	25°☿05'29	1.42175 AU		2084 Sep 19 12:14	0°☿	
	2083 Oct 15 18:01	0°☿		max. Earth dist.	2084 Sep 24 01:02	8°☿01'25	1.40219 AU
desc. node	2083 Oct 16 15:51	1°☿28'20		evening rise	2084 Sep 28 10:17	15°☿28'09	
evening rise	2083 Oct 18 20:15	4°☿58'06		desc. node	2084 Oct 02 12:51	22°☿10'43	
	2083 Nov 04 10:28	0°☿			2084 Oct 07 12:25	0°☿	
					2084 Oct 29 07:08	0°☿	

evening max el	2084 Nov 02 03:26	4° \mathbb{A} 09'46	23°39'22	evening rise	2085 Sep 10 00:19	27° \mathbb{M} 05'03	
retrograde	2084 Nov 12 20:03	10° \mathbb{A} 28'26			2085 Sep 11 16:37	0° \mathbb{A}	
evening set	2084 Nov 17 21:13	8° \mathbb{A} 23'39		desc. node	2085 Sep 19 09:53	12° \mathbb{A} 44'31	
asc. node	2084 Nov 21 06:16	4° \mathbb{A} 43'43			2085 Oct 01 00:38	0° \mathbb{M}	
inferior conj	2084 Nov 23 07:44	1° \mathbb{A} 57'59	0°42'11	evening max el	2085 Oct 15 15:35	17° \mathbb{M} 47'45	24°57'10
minimum elong	2084 Nov 23 06:45	2° \mathbb{A} 01'20	0°41'46	retrograde	2085 Oct 27 09:07	24° \mathbb{M} 36'31	
min. Earth dist.	2084 Nov 22 19:21	2° \mathbb{A} 40'16	0.67761 AU	evening set	2085 Nov 02 00:29	22° \mathbb{M} 15'22	
	2084 Nov 24 18:51	30° \mathbb{R} \mathbb{M}		min. Earth dist.	2085 Nov 06 14:15	17° \mathbb{M} 06'18	0.67357 AU
morning rise	2084 Nov 28 16:28	25° \mathbb{M} 49'10		inferior conj	2085 Nov 07 13:16	15° \mathbb{M} 50'31	0°-12'-6
direct	2084 Dec 02 17:27	24° \mathbb{M} 17'27		minimum elong	2085 Nov 07 13:34	15° \mathbb{M} 49'31	0°11'59
morning max el	2084 Dec 11 01:00	29° \mathbb{M} 06'31	20°56'24	transit middle	2085 Nov 07 13:34	15° \mathbb{M} 49'31	0°11'59
	2084 Dec 11 21:41	0° \mathbb{A}		transit begin	2085 Nov 07 11:42	15° \mathbb{M} 55'40	
greatest brilliancy	2084 Dec 16 15:08	5° \mathbb{A} 35'21	-0.5m	transit end	2085 Nov 07 15:26	15° \mathbb{M} 43'23	
desc. node	2084 Dec 29 12:09	23° \mathbb{A} 42'09		asc. node	2085 Nov 08 03:20	15° \mathbb{M} 04'23	
	2085 Jan 02 16:54	0° \mathbb{B}		morning rise	2085 Nov 13 03:13	9° \mathbb{M} 48'17	
morning set	2085 Jan 09 22:10	11° \mathbb{B} 06'17		direct	2085 Nov 16 15:35	8° \mathbb{M} 37'02	
max. Earth dist.	2085 Jan 18 05:33	24° \mathbb{B} 20'33	1.42751 AU	morning max el	2085 Nov 24 02:09	12° \mathbb{M} 50'43	19°47'29
	2085 Jan 21 16:10	0° \mathbb{A}		greatest brilliancy	2085 Dec 01 19:26	22° \mathbb{M} 22'53	-0.6m
					2085 Dec 07 02:14	0° \mathbb{A}	
superior conj	2085 Jan 25 04:41	5° \mathbb{A} 54'26	-2°-4'-25	desc. node	2085 Dec 16 09:10	14° \mathbb{A} 03'13	
minimum elong	2085 Jan 25 03:12	5° \mathbb{A} 48'05	2°04'25	morning set	2085 Dec 19 18:15	19° \mathbb{A} 15'21	
evening rise	2085 Feb 05 22:59	26° \mathbb{A} 28'39			2085 Dec 26 16:02	0° \mathbb{B}	
	2085 Feb 07 22:17	0° \mathbb{H}		max. Earth dist.	2085 Dec 31 16:32	7° \mathbb{B} 55'31	1.44208 AU
asc. node	2085 Feb 17 05:36	15° \mathbb{H} 48'22					
evening max el	2085 Feb 22 19:05	22° \mathbb{H} 56'20	18°07'15	superior conj	2086 Jan 05 10:22	15° \mathbb{B} 31'48	-1°-50'-25
retrograde	2085 Mar 01 09:31	26° \mathbb{H} 20'21		minimum elong	2086 Jan 05 03:26	15° \mathbb{B} 03'47	1°49'57
evening set	2085 Mar 04 01:29	25° \mathbb{H} 46'57			2086 Jan 14 05:15	0° \mathbb{A}	
inferior conj	2085 Mar 10 14:55	20° \mathbb{H} 44'32	3°34'50	evening rise	2086 Jan 18 23:51	8° \mathbb{A} 04'00	
minimum elong	2085 Mar 10 16:36	20° \mathbb{H} 40'25	3°34'41		2086 Feb 01 08:29	0° \mathbb{H}	
min. Earth dist.	2085 Mar 13 17:06	17° \mathbb{H} 43'01	0.61454 AU	asc. node	2086 Feb 04 02:38	3° \mathbb{H} 43'38	
morning rise	2085 Mar 17 04:56	14° \mathbb{H} 49'56		evening max el	2086 Feb 06 07:41	6° \mathbb{H} 13'19	18°15'41
direct	2085 Mar 24 00:58	12° \mathbb{H} 27'51		retrograde	2086 Feb 12 18:44	9° \mathbb{H} 41'04	
desc. node	2085 Mar 27 11:20	13° \mathbb{H} 00'47		evening set	2086 Feb 15 15:46	8° \mathbb{H} 57'20	
morning max el	2085 Apr 07 05:15	20° \mathbb{H} 22'32	27°47'31	inferior conj	2086 Feb 21 18:23	3° \mathbb{H} 35'04	3°43'12
	2085 Apr 15 12:00	0° \mathbb{Y}		minimum elong	2086 Feb 21 18:09	3° \mathbb{H} 35'45	3°43'11
	2085 May 04 05:25	0° \mathbb{B}		min. Earth dist.	2086 Feb 24 06:42	0° \mathbb{H} 48'41	0.63439 AU
morning set	2085 May 10 02:56	11° \mathbb{B} 35'13			2086 Feb 25 01:15	30° \mathbb{R} \mathbb{A}	
max. Earth dist.	2085 May 16 02:21	24° \mathbb{B} 14'23	1.32370 AU	morning rise	2086 Feb 27 18:40	27° \mathbb{A} 30'00	
asc. node	2085 May 16 04:52	24° \mathbb{B} 28'04		direct	2086 Mar 06 16:48	24° \mathbb{A} 46'09	
				desc. node	2086 Mar 14 08:23	27° \mathbb{A} 29'44	
superior conj	2085 May 17 12:20	27° \mathbb{B} 19'30	0°13'49		2086 Mar 17 15:13	0° \mathbb{H}	
minimum elong	2085 May 17 11:42	27° \mathbb{B} 16'02	0°13'40	morning max el	2086 Mar 20 12:53	2° \mathbb{H} 42'03	27°42'14
behind sun begin	2085 May 17 09:06	27° \mathbb{B} 01'48			2086 Apr 09 20:15	0° \mathbb{Y}	
behind sun end	2085 May 17 14:18	27° \mathbb{B} 30'16		morning set	2086 Apr 24 01:03	25° \mathbb{Y} 42'49	
	2085 May 18 17:41	0° \mathbb{H}			2086 Apr 26 03:56	0° \mathbb{B}	
evening rise	2085 May 24 10:41	12° \mathbb{H} 22'43		max. Earth dist.	2086 Apr 29 07:16	6° \mathbb{B} 31'59	1.32974 AU
	2085 Jun 02 09:09	0° \mathbb{B}					
evening max el	2085 Jun 19 05:19	23° \mathbb{B} 26'34	24°46'40	superior conj	2086 May 01 20:01	11° \mathbb{B} 55'47	0°-13'-6
desc. node	2085 Jun 23 10:34	26° \mathbb{B} 58'04		minimum elong	2086 May 01 20:39	11° \mathbb{B} 59'14	0°12'59
	2085 Jun 29 12:35	0° \mathbb{Q}		behind sun begin	2086 May 01 17:33	11° \mathbb{B} 42'37	
retrograde	2085 Jul 03 04:05	0° \mathbb{Q} 30'49		behind sun end	2086 May 01 23:45	12° \mathbb{B} 15'52	
	2085 Jul 06 19:59	30° \mathbb{R} \mathbb{B}		asc. node	2086 May 03 01:56	14° \mathbb{B} 36'57	
evening set	2085 Jul 08 08:31	29° \mathbb{B} 29'50		evening rise	2086 May 08 22:31	27° \mathbb{B} 12'30	
min. Earth dist.	2085 Jul 13 16:34	26° \mathbb{B} 41'13	0.57160 AU		2086 May 10 06:27	0° \mathbb{H}	
inferior conj	2085 Jul 16 14:16	24° \mathbb{B} 47'12	-4°-54'-43		2086 May 28 03:19	0° \mathbb{B}	
minimum elong	2085 Jul 16 11:52	24° \mathbb{B} 51'09	4°54'35	evening max el	2086 May 31 19:06	3° \mathbb{B} 57'23	23°11'39
morning rise	2085 Jul 24 18:58	20° \mathbb{B} 39'57		desc. node	2086 Jun 10 07:36	10° \mathbb{B} 05'31	
direct	2085 Jul 27 09:19	20° \mathbb{B} 20'55		retrograde	2086 Jun 14 06:55	10° \mathbb{B} 41'27	
morning max el	2085 Aug 05 12:46	24° \mathbb{B} 36'56	19°17'33	evening set	2086 Jun 17 23:16	10° \mathbb{B} 11'45	
	2085 Aug 10 04:19	0° \mathbb{Q}		min. Earth dist.	2086 Jun 25 04:43	6° \mathbb{B} 55'27	0.55661 AU
asc. node	2085 Aug 12 04:06	2° \mathbb{Q} 53'33		inferior conj	2086 Jun 26 23:52	5° \mathbb{B} 52'16	-4°-12'-26
morning set	2085 Aug 22 13:47	21° \mathbb{Q} 49'44		minimum elong	2086 Jun 26 16:42	6° \mathbb{B} 02'49	4°10'58
	2085 Aug 26 15:53	0° \mathbb{M}		morning rise	2086 Jul 05 13:13	1° \mathbb{B} 58'53	
				direct	2086 Jul 08 09:00	1° \mathbb{B} 39'42	
superior conj	2085 Aug 30 18:37	8° \mathbb{M} 07'25	1°43'56	morning max el	2086 Jul 19 02:01	6° \mathbb{B} 37'20	20°28'04
minimum elong	2085 Aug 30 19:50	8° \mathbb{M} 13'18	1°43'54	asc. node	2086 Jul 30 01:09	21° \mathbb{B} 30'51	
max. Earth dist.	2085 Sep 06 04:41	20° \mathbb{M} 15'00	1.38158 AU		2086 Aug 03 14:27	0° \mathbb{Q}	

morning set	2086 Aug 06 19:33	6°♎27'08			2087 Jul 26 08:25	0°♎	
superior conj	2086 Aug 14 10:54	22°♎10'10	1°45'16	superior conj	2087 Jul 29 11:48	6°♎38'30	1°39'33
minimum elong	2086 Aug 14 10:26	22°♎07'46	1°45'16	minimum elong	2087 Jul 29 10:09	6°♎29'49	1°39'26
	2086 Aug 18 09:03	0°♐		max. Earth dist.	2087 Aug 02 01:21	14°♎01'39	1.34657 AU
max. Earth dist.	2086 Aug 19 11:01	2°♐06'21	1.36250 AU	evening rise	2087 Aug 06 15:29	23°♎08'23	
evening rise	2086 Aug 23 11:38	9°♐42'52			2087 Aug 10 06:55	0°♐	
	2086 Sep 04 07:45	0°♑		desc. node	2087 Aug 24 03:57	23°♐04'39	
desc. node	2086 Sep 06 06:54	3°♑04'49			2087 Aug 28 23:42	0°♑	
	2086 Sep 26 16:35	0°♒		evening max el	2087 Sep 10 16:01	15°♑02'23	26°56'43
evening max el	2086 Sep 28 03:35	1°♒27'37	26°05'30	retrograde	2087 Sep 23 20:08	22°♑18'48	
retrograde	2086 Oct 10 17:23	8°♒35'35		evening set	2087 Sep 30 14:12	19°♑36'54	
evening set	2086 Oct 16 22:52	6°♒01'13		min. Earth dist.	2087 Oct 04 13:21	15°♑40'40	0.65528 AU
min. Earth dist.	2086 Oct 21 05:05	1°♒28'03	0.66617 AU	inferior conj	2087 Oct 06 11:28	13°♑27'38	-2°-8'00
	2086 Oct 22 09:23	30°♒♑		minimum elong	2087 Oct 06 14:54	13°♑17'44	2°06'41
inferior conj	2086 Oct 22 15:12	29°♑41'47	-1°-9'-23	morning rise	2087 Oct 12 17:08	7°♑47'17	
minimum elong	2086 Oct 22 17:02	29°♑36'06	1°08'38	asc. node	2087 Oct 12 21:23	7°♑42'10	
asc. node	2086 Oct 26 00:22	25°♑48'08		direct	2087 Oct 15 10:53	7°♑06'09	
morning rise	2086 Oct 28 12:12	23°♑48'54		morning max el	2087 Oct 21 23:56	10°♑39'02	18°15'49
direct	2086 Oct 31 14:05	22°♑54'38			2087 Nov 04 12:25	0°♒	
morning max el	2086 Nov 07 10:26	26°♑43'06	18°53'27	morning set	2087 Nov 09 20:19	8°♒41'30	
	2086 Nov 10 08:02	0°♒		desc. node	2087 Nov 20 03:13	25°♒18'15	
morning set	2086 Nov 29 05:04	28°♒15'09			2087 Nov 23 02:08	0°♓	
	2086 Nov 30 07:45	0°♓		superior conj	2087 Nov 24 20:02	2°♓45'38	0°-31'-10
desc. node	2086 Dec 03 06:11	4°♓36'35		minimum elong	2087 Nov 24 16:00	2°♓29'44	0°30'38
max. Earth dist.	2086 Dec 14 08:56	22°♓03'11	1.45021 AU	max. Earth dist.	2087 Nov 27 04:14	6°♓26'59	1.45100 AU
				evening rise	2087 Dec 11 05:37	28°♓26'01	
superior conj	2086 Dec 15 17:58	24°♓13'05	-1°-17'-27		2087 Dec 12 05:42	0°♔	
minimum elong	2086 Dec 15 09:18	23°♓39'00	1°16'30	greatest brilliancy	2087 Dec 26 11:44	21°♔54'14	-0.7m
	2086 Dec 19 09:53	0°♕			2088 Jan 01 09:30	0°♕	
evening rise	2086 Dec 31 02:11	18°♕41'57		evening max el	2088 Jan 04 03:19	3°♕07'36	19°25'58
	2087 Jan 07 01:32	0°♖		asc. node	2088 Jan 08 20:41	6°♕42'46	
evening max el	2087 Jan 20 19:10	19°♖38'25	18°42'21	retrograde	2088 Jan 11 07:42	7°♖15'45	
asc. node	2087 Jan 21 23:40	20°♖46'21		evening set	2088 Jan 14 17:31	6°♖07'44	
retrograde	2087 Jan 27 11:12	23°♖21'22		inferior conj	2088 Jan 20 07:22	0°♖11'30	3°11'20
evening set	2087 Jan 30 14:00	22°♖26'09		minimum elong	2088 Jan 20 04:56	0°♖19'24	3°10'49
inferior conj	2087 Feb 05 08:57	16°♖45'47	3°33'50		2088 Jan 20 10:54	30°♒♔	
minimum elong	2087 Feb 05 07:18	16°♖50'48	3°33'38	min. Earth dist.	2088 Jan 21 13:11	28°♔34'39	0.66374 AU
min. Earth dist.	2087 Feb 07 05:42	14°♖30'07	0.65106 AU	morning rise	2088 Jan 25 15:35	23°♔57'29	
morning rise	2087 Feb 10 23:24	10°♖34'54		direct	2088 Jan 31 20:43	21°♔13'03	
direct	2087 Feb 17 15:46	7°♖44'04		morning max el	2088 Feb 13 07:48	28°♔36'42	25°57'50
desc. node	2087 Mar 01 05:25	13°♖51'19			2088 Feb 14 15:56	0°♕	
morning max el	2087 Mar 02 22:25	15°♖30'22	27°03'08	desc. node	2088 Feb 16 02:26	1°♖34'19	
	2087 Mar 14 20:33	0°♗			2088 Mar 07 15:18	0°♗	
	2087 Apr 02 14:16	0°♘		morning set	2088 Mar 20 12:13	22°♗06'49	
morning set	2087 Apr 07 13:29	9°♘17'13		max. Earth dist.	2088 Mar 24 10:31	29°♗31'49	1.35544 AU
max. Earth dist.	2087 Apr 12 02:38	18°♘17'16	1.34028 AU		2088 Mar 24 16:21	0°♙	
				superior conj	2088 Mar 29 17:47	10°♙01'15	-1°-8'-41
superior conj	2087 Apr 15 22:38	26°♙12'01	0°-41'-4	minimum elong	2088 Mar 29 21:13	10°♙18'37	1°08'06
minimum elong	2087 Apr 16 00:43	26°♙22'54	0°40'39	asc. node	2088 Apr 05 20:00	24°♙35'17	
	2087 Apr 17 17:58	0°♚		evening rise	2088 Apr 06 15:57	26°♙17'34	
asc. node	2087 Apr 19 22:57	4°♚40'41			2088 Apr 08 11:47	0°♚	
evening rise	2087 Apr 23 08:55	11°♚52'47		evening max el	2088 Apr 24 19:04	25°♚41'52	20°17'26
	2087 May 02 18:39	0°♛			2088 May 01 01:11	0°♛	
evening max el	2087 May 13 13:51	14°♛34'12	21°38'07	retrograde	2088 May 05 11:47	0°♛52'52	
retrograde	2087 May 25 22:17	20°♛37'38		evening set	2088 May 07 12:54	0°♛42'18	
evening set	2087 May 28 10:35	20°♛23'24			2088 May 10 04:09	30°♒♚	
desc. node	2087 May 28 04:39	20°♛26'01		desc. node	2088 May 14 01:39	28°♚11'49	
inferior conj	2087 Jun 06 19:46	16°♛22'16	-2°-42'-44	inferior conj	2088 May 16 14:59	26°♚44'02	0°-44'-47
minimum elong	2087 Jun 06 12:39	16°♛32'14	2°40'28	minimum elong	2088 May 16 12:53	26°♚47'08	0°44'01
min. Earth dist.	2087 Jun 06 16:33	16°♛26'46	0.54938 AU	min. Earth dist.	2088 May 18 05:17	25°♚47'47	0.55167 AU
morning rise	2087 Jun 15 15:32	12°♛27'11		morning rise	2088 May 25 10:48	22°♚28'08	
direct	2087 Jun 18 20:29	12°♛04'40		direct	2088 May 29 08:06	21°♚55'24	
morning max el	2087 Jul 01 03:48	17°♛52'46	21°57'22	morning max el	2088 Jun 11 21:00	28°♚32'16	23°38'19
	2087 Jul 10 19:20	0°♜			2088 Jun 13 08:34	0°♛	
asc. node	2087 Jul 16 22:11	10°♜40'11					
morning set	2087 Jul 22 05:04	21°♜16'00					

asc. node	2088 Jul 02 19:13	0°☿13'24			2089 Jun 09 03:57	0°♊	
	2088 Jul 02 16:34	0°☿		asc. node	2089 Jun 19 16:17	20°♊03'51	
morning set	2088 Jul 05 16:33	6°☿11'10		morning set	2089 Jun 20 04:22	21°♊07'23	
					2089 Jun 24 07:20	0°☿	
superior conj	2088 Jul 12 18:27	21°☿23'47	1°28'05	superior conj	2089 Jun 27 04:36	6°☿18'53	1°11'54
minimum elong	2088 Jul 12 16:10	21°☿11'30	1°27'49	minimum elong	2089 Jun 27 02:13	6°☿05'50	1°11'31
max. Earth dist.	2088 Jul 15 01:04	26°☿15'57	1.33451 AU	max. Earth dist.	2089 Jun 28 08:14	8°☿49'46	1.32642 AU
	2088 Jul 16 19:37	0°♊		evening rise	2089 Jul 04 08:24	21°☿36'30	
evening rise	2088 Jul 20 07:35	7°♊09'42			2089 Jul 08 13:10	0°♊	
	2088 Aug 01 19:48	0°♊			2089 Jul 26 20:19	0°♊	
desc. node	2088 Aug 10 00:58	12°♊35'13		desc. node	2089 Jul 27 21:58	1°♊24'34	
evening max el	2088 Aug 23 03:35	28°♊20'12	27°23'31	evening max el	2089 Aug 05 12:08	11°♊08'28	27°20'08
	2088 Aug 24 23:32	0°♊		retrograde	2089 Aug 19 07:19	18°♊24'39	
retrograde	2088 Sep 05 16:52	5°♊38'02		evening set	2089 Aug 26 11:58	15°♊57'20	
evening set	2088 Sep 12 19:44	2°♊57'24		min. Earth dist.	2089 Aug 30 02:02	13°♊05'13	0.62312 AU
	2088 Sep 16 03:31	30°♊		inferior conj	2089 Sep 02 00:51	10°♊20'02	-3°-58'00
min. Earth dist.	2088 Sep 16 12:48	29°♊36'32	0.64085 AU	minimum elong	2089 Sep 02 06:14	10°♊07'26	3°56'40
inferior conj	2088 Sep 18 23:38	27°♊02'29	-3°-5'31	morning rise	2089 Sep 09 03:14	5°♊15'13	
minimum elong	2088 Sep 19 04:27	26°♊49'53	3°03'56	direct	2089 Sep 11 12:25	4°♊50'02	
morning rise	2088 Sep 25 15:16	21°♊38'13		asc. node	2089 Sep 15 15:29	6°♊07'46	
direct	2088 Sep 28 03:25	21°♊06'37		morning max el	2089 Sep 18 07:38	8°♊17'17	17°52'47
asc. node	2088 Sep 28 18:25	21°♊08'37			2089 Oct 02 11:45	0°♊	
morning max el	2088 Oct 04 15:57	24°♊32'27	17°55'19	morning set	2089 Oct 04 07:21	3°♊15'37	
	2088 Oct 09 02:47	0°♊					
morning set	2088 Oct 21 15:02	20°♊27'35		superior conj	2089 Oct 15 09:31	22°♊46'52	0°55'53
	2088 Oct 27 05:48	0°♊		minimum elong	2089 Oct 15 13:58	23°♊05'48	0°55'19
superior conj	2088 Nov 03 13:32	12°♊06'49	0°16'31		2089 Oct 19 16:35	0°♊	
minimum elong	2088 Nov 03 15:23	12°♊14'18	0°16'16	max. Earth dist.	2089 Oct 22 13:21	4°♊42'16	1.43143 AU
desc. node	2088 Nov 06 00:14	16°♊04'14		desc. node	2089 Oct 23 21:16	6°♊51'39	
max. Earth dist.	2088 Nov 08 22:46	20°♊46'16	1.44444 AU	evening rise	2089 Oct 30 02:44	16°♊44'23	
	2088 Nov 14 19:30	0°♊			2089 Nov 07 19:06	0°♊	
evening rise	2088 Nov 19 16:47	7°♊34'07		greatest brilliancy	2089 Nov 25 06:02	24°♊30'33	-0.4m
	2088 Dec 04 13:56	0°♊		evening max el	2089 Nov 30 03:53	0°♊08'02	21°35'11
greatest brilliancy	2088 Dec 11 02:08	9°♊10'11	-0.5m		2089 Nov 30 00:45	0°♊	
evening max el	2088 Dec 17 06:26	16°♊37'28	20°24'35	retrograde	2089 Dec 09 02:57	5°♊27'57	
retrograde	2088 Dec 25 05:38	21°♊19'00		asc. node	2089 Dec 12 14:44	4°♊20'50	
asc. node	2088 Dec 25 17:43	21°♊17'36		evening set	2089 Dec 13 07:52	3°♊50'02	
evening set	2088 Dec 29 00:05	19°♊56'45			2089 Dec 16 21:36	30°♊	
inferior conj	2089 Jan 03 10:55	13°♊47'33	2°38'48	inferior conj	2089 Dec 18 17:26	27°♊31'20	1°58'23
minimum elong	2089 Jan 03 08:18	13°♊56'27	2°38'03	minimum elong	2089 Dec 18 15:07	27°♊39'21	1°57'34
min. Earth dist.	2089 Jan 04 03:22	12°♊51'43	0.67234 AU	min. Earth dist.	2089 Dec 18 22:02	27°♊15'24	0.67711 AU
morning rise	2089 Jan 08 16:01	7°♊32'17		morning rise	2089 Dec 23 22:05	21°♊16'43	
direct	2089 Jan 14 06:55	5°♊03'41		direct	2089 Dec 28 21:50	19°♊09'11	
morning max el	2089 Jan 25 16:22	11°♊51'28	24°35'53	morning max el	2090 Jan 08 01:41	25°♊11'19	23°07'24
desc. node	2089 Feb 01 23:28	20°♊14'42			2090 Jan 12 09:56	0°♊	
	2089 Feb 09 05:41	0°♊		greatest brilliancy	2090 Jan 13 00:07	0°♊42'35	-0.3m
	2089 Feb 28 09:28	0°♊		desc. node	2090 Jan 19 20:31	9°♊36'09	
morning set	2089 Mar 02 15:53	3°♊56'24			2090 Feb 02 18:03	0°♊	
max. Earth dist.	2089 Mar 06 08:47	10°♊34'23	1.37456 AU	morning set	2090 Feb 11 18:14	14°♊30'03	
				max. Earth dist.	2090 Feb 16 03:45	21°♊58'10	1.39590 AU
superior conj	2089 Mar 13 02:15	23°♊14'23	-1°-33'-54		2090 Feb 20 17:00	0°♊	
minimum elong	2089 Mar 13 06:31	23°♊35'06	1°33'23	superior conj	2090 Feb 23 19:57	5°♊41'19	-1°-53'-50
	2089 Mar 16 12:56	0°♊		minimum elong	2090 Feb 23 23:48	5°♊59'04	1°53'35
evening rise	2089 Mar 21 17:15	10°♊19'42		evening rise	2090 Mar 05 09:58	23°♊51'41	
asc. node	2089 Mar 23 17:02	14°♊15'46			2090 Mar 08 15:21	0°♊	
	2089 Apr 01 12:51	0°♊		asc. node	2090 Mar 10 14:05	3°♊36'43	
evening max el	2089 Apr 07 11:54	7°♊29'04	19°15'15	evening max el	2090 Mar 21 14:26	19°♊52'51	18°33'12
retrograde	2089 Apr 16 12:28	11°♊51'12		retrograde	2090 Mar 29 07:15	23°♊39'29	
evening set	2089 Apr 18 14:32	11°♊38'11		evening set	2090 Mar 31 14:43	23°♊20'12	
inferior conj	2089 Apr 26 23:31	7°♊28'23	1°07'15	inferior conj	2090 Apr 08 04:40	18°♊51'35	2°30'09
minimum elong	2089 Apr 27 02:09	7°♊23'58	1°06'22	minimum elong	2090 Apr 08 08:39	18°♊43'46	2°29'07
min. Earth dist.	2089 Apr 29 20:11	5°♊34'10	0.56298 AU	min. Earth dist.	2090 Apr 11 14:38	16°♊12'37	0.58101 AU
desc. node	2089 Apr 30 22:39	4°♊52'34		morning rise	2090 Apr 15 22:17	13°♊29'25	
morning rise	2089 May 05 09:42	2°♊38'39		desc. node	2090 Apr 17 19:42	12°♊42'08	
direct	2089 May 10 06:30	1°♊44'03		direct	2090 Apr 21 19:29	12°♊01'17	
morning max el	2089 May 24 11:26	8°♊58'56	25°18'05				

morning max el	2090 May 06 04:42	19° Υ 39'58	26°40'50	morning rise	2091 Mar 28 06:09	25° Υ 09'19	
	2090 May 14 23:47	0° Υ		direct	2091 Apr 03 20:56	23° Υ 04'54	
	2090 Jun 01 17:10	0° Π		desc. node	2091 Apr 04 16:45	23° Υ 06'47	
morning set	2090 Jun 04 14:49	5° Π 58'16			2091 Apr 17 04:40	0° Υ	
asc. node	2090 Jun 06 13:20	10° Π 05'16		morning max el	2091 Apr 18 03:47	0° Υ 55'41	27°33'34
					2091 May 09 02:44	0° Υ	
superior conj	2090 Jun 11 16:17	21° Π 16'23	0°51'48	morning set	2091 May 19 22:11	20° Υ 37'59	
minimum elong	2090 Jun 11 14:16	21° Π 05'15	0°51'24	asc. node	2091 May 24 10:25	0° Π 13'06	
max. Earth dist.	2090 Jun 11 19:37	21° Π 34'43	1.32229 AU		2091 May 24 08:00	0° Π	
	2090 Jun 15 15:58	0° Σ		max. Earth dist.	2091 May 26 07:36	4° Π 19'37	1.32210 AU
evening rise	2090 Jun 18 15:03	6° Σ 19'09					
	2090 Jul 01 03:16	0° Ω		superior conj	2091 May 27 03:48	6° Π 10'30	0°28'28
desc. node	2090 Jul 14 19:00	19° Ω 14'44		minimum elong	2091 May 27 02:34	6° Π 03'39	0°28'12
evening max el	2090 Jul 18 15:13	23° Ω 15'04	26°43'41	evening rise	2091 Jun 03 01:17	21° Π 10'13	
	2090 Jul 29 05:28	0° η			2091 Jun 07 08:27	0° Σ	
retrograde	2090 Aug 01 14:18	0° η 28'21			2091 Jun 26 04:14	0° Ω	
	2090 Aug 04 21:37	30° \mathcal{R} Ω		evening max el	2091 Jun 30 11:22	4° Ω 35'10	25°36'12
evening set	2090 Aug 08 10:18	28° Ω 28'12		desc. node	2091 Jul 01 16:01	5° Ω 41'13	
min. Earth dist.	2090 Aug 12 05:04	25° Ω 51'25	0.60302 AU	retrograde	2091 Jul 14 11:43	11° Ω 43'38	
inferior conj	2090 Aug 15 11:37	23° Ω 10'48	-4°-39'-7	evening set	2091 Jul 20 10:07	10° Ω 20'50	
minimum elong	2090 Aug 15 15:54	23° Ω 01'59	4°38'30	min. Earth dist.	2091 Jul 24 23:34	7° Ω 41'29	0.58254 AU
morning rise	2090 Aug 23 00:47	18° Ω 28'02		inferior conj	2091 Jul 28 04:25	5° Ω 25'14	-4°-58'-38
direct	2090 Aug 25 09:52	18° Ω 06'39		minimum elong	2091 Jul 28 05:06	5° Ω 24'02	4°58'39
morning max el	2090 Sep 01 19:44	21° Ω 44'22	18°09'22	morning rise	2091 Aug 05 03:40	1° Ω 05'19	
asc. node	2090 Sep 02 12:33	22° Ω 26'40		direct	2091 Aug 07 15:32	0° Ω 45'45	
	2090 Sep 08 04:37	0° η		morning max el	2091 Aug 16 01:01	4° Ω 44'25	18°46'26
morning set	2090 Sep 17 15:18	16° η 48'12		asc. node	2091 Aug 20 09:37	9° Ω 50'05	
	2090 Sep 24 17:06	0° $\underline{\Omega}$			2091 Aug 31 23:26	0° η	
				morning set	2091 Sep 01 10:18	0° η 53'02	
superior conj	2090 Sep 27 07:17	4° $\underline{\Omega}$ 42'19	1°23'22				
minimum elong	2090 Sep 27 11:18	5° $\underline{\Omega}$ 00'26	1°22'57	superior conj	2091 Sep 10 01:40	17° η 38'52	1°39'19
max. Earth dist.	2090 Oct 04 22:21	18° $\underline{\Omega}$ 00'04	1.41367 AU	minimum elong	2091 Sep 10 03:59	17° η 49'47	1°39'11
evening rise	2090 Oct 10 03:41	26° $\underline{\Omega}$ 37'42			2091 Sep 16 19:03	0° $\underline{\Omega}$	
desc. node	2090 Oct 10 18:18	27° $\underline{\Omega}$ 36'43		max. Earth dist.	2091 Sep 17 03:07	0° $\underline{\Omega}$ 35'45	1.39344 AU
	2090 Oct 12 06:06	0° \mathcal{M}		evening rise	2091 Sep 21 04:02	7° $\underline{\Omega}$ 36'16	
	2090 Nov 01 13:26	0° \mathcal{J}		desc. node	2091 Sep 27 15:20	18° $\underline{\Omega}$ 15'50	
greatest brilliancy	2090 Nov 07 15:34	7° \mathcal{J} 50'53	-0.3m		2091 Oct 05 06:15	0° \mathcal{M}	
evening max el	2090 Nov 12 20:20	13° \mathcal{J} 40'36	22°53'24	evening max el	2091 Oct 26 09:36	27° \mathcal{M} 16'58	24°13'17
retrograde	2090 Nov 22 21:56	19° \mathcal{J} 39'09			2091 Oct 29 09:02	0° \mathcal{J}	
evening set	2090 Nov 27 15:10	17° \mathcal{J} 44'29		retrograde	2091 Nov 06 13:16	3° \mathcal{J} 49'12	
asc. node	2090 Nov 29 11:47	15° \mathcal{J} 55'29		evening set	2091 Nov 11 20:21	1° \mathcal{J} 37'30	
inferior conj	2090 Dec 03 00:58	11° \mathcal{J} 20'13	1°11'34		2091 Nov 13 12:30	30° $\mathcal{R}\mathcal{M}$	
minimum elong	2090 Dec 02 23:23	11° \mathcal{J} 25'40	1°10'55	asc. node	2091 Nov 16 08:51	26° \mathcal{M} 28'44	
min. Earth dist.	2090 Dec 02 18:43	11° \mathcal{J} 41'48	0.67835 AU	min. Earth dist.	2091 Nov 16 14:55	26° \mathcal{M} 08'23	0.67629 AU
morning rise	2090 Dec 08 07:33	5° \mathcal{J} 08'25		inferior conj	2091 Nov 17 07:43	25° \mathcal{M} 11'49	0°19'37
direct	2090 Dec 12 16:33	3° \mathcal{J} 23'40		minimum elong	2091 Nov 17 07:14	25° \mathcal{M} 13'26	0°19'25
morning max el	2090 Dec 21 15:04	8° \mathcal{J} 38'02	21°41'39	morning rise	2091 Nov 22 18:24	19° \mathcal{M} 05'20	
greatest brilliancy	2090 Dec 26 12:03	14° \mathcal{J} 09'22	-0.4m	direct	2091 Nov 26 13:52	17° \mathcal{M} 42'28	
desc. node	2091 Jan 06 17:33	29° \mathcal{J} 26'57		morning max el	2091 Dec 04 11:30	22° \mathcal{M} 15'02	20°25'20
	2091 Jan 07 02:40	0° \mathcal{Z}			2091 Dec 10 23:38	0° \mathcal{J}	
morning set	2091 Jan 22 15:25	23° \mathcal{Z} 40'07		greatest brilliancy	2091 Dec 10 19:50	29° \mathcal{M} 47'26	-0.5m
	2091 Jan 26 13:42	0° \approx		desc. node	2091 Dec 24 14:34	19° \mathcal{J} 38'37	
max. Earth dist.	2091 Jan 29 02:49	4° \approx 11'20	1.41678 AU		2091 Dec 31 09:30	0° \mathcal{Z}	
				morning set	2092 Jan 01 14:26	1° \mathcal{Z} 51'51	
superior conj	2091 Feb 05 17:50	17° \approx 10'05	-2°-4'-28	max. Earth dist.	2092 Jan 11 09:55	17° \mathcal{Z} 20'38	1.43440 AU
minimum elong	2091 Feb 05 19:02	17° \approx 15'23	2°04'28				
	2091 Feb 12 22:07	0° \mathcal{H}		superior conj	2092 Jan 17 14:48	27° \mathcal{Z} 28'39	-2°00'-49
evening rise	2091 Feb 16 14:34	6° \mathcal{H} 45'14		minimum elong	2092 Jan 17 10:56	27° \mathcal{Z} 12'37	2°00'40
asc. node	2091 Feb 25 11:08	22° \mathcal{H} 31'35			2092 Jan 19 03:09	0° \approx	
	2091 Mar 02 12:48	0° Υ		evening rise	2092 Jan 30 02:44	18° \approx 50'50	
evening max el	2091 Mar 04 23:27	2° Υ 44'46	18°11'10		2092 Feb 05 12:30	0° \mathcal{H}	
retrograde	2091 Mar 11 20:09	6° Υ 12'18		asc. node	2092 Feb 12 08:11	10° \mathcal{H} 51'15	
evening set	2091 Mar 14 09:15	5° Υ 44'24		evening max el	2092 Feb 16 11:35	15° \mathcal{H} 54'28	18°08'36
inferior conj	2091 Mar 21 06:35	0° Υ 54'26	3°19'33	retrograde	2092 Feb 22 23:15	19° \mathcal{H} 18'13	
minimum elong	2091 Mar 21 09:24	0° Υ 48'03	3°19'07	evening set	2092 Feb 25 17:28	18° \mathcal{H} 40'22	
	2091 Mar 22 06:23	30° $\mathcal{R}\mathcal{H}$		inferior conj	2092 Mar 03 01:52	13° \mathcal{H} 29'18	3°40'54
min. Earth dist.	2091 Mar 24 14:38	27° \mathcal{H} 53'53	0.60225 AU	minimum elong	2092 Mar 03 02:41	13° \mathcal{H} 27'09	3°40'51

min. Earth dist.	2092 Mar 05 22:33	10° K 32'04	0.62333 AU	inferior conj	2093 Feb 14 10:28	26° \approx 28'54	3°41'04
morning rise	2092 Mar 09 09:36	7° K 29'52		minimum elong	2093 Feb 14 09:34	26° \approx 31'33	3°41'01
direct	2092 Mar 16 07:46	4° K 56'55		min. Earth dist.	2093 Feb 16 16:03	23° \approx 54'28	0.64194 AU
desc. node	2092 Mar 21 13:46	6° K 14'09		morning rise	2093 Feb 20 06:07	20° \approx 20'55	
morning max el	2092 Mar 30 08:44	12° K 52'14	27°49'44	direct	2093 Feb 27 02:29	17° \approx 32'43	
	2092 Apr 13 00:48	0° Y		desc. node	2093 Mar 08 10:49	21° \approx 34'57	
	2092 Apr 30 12:23	0° B		morning max el	2093 Mar 12 17:37	25° \approx 25'26	27°29'26
morning set	2092 May 03 00:21	4° B 59'02			2093 Mar 16 22:33	0° K	
max. Earth dist.	2092 May 08 16:21	16° B 51'06	1.32583 AU		2093 Apr 06 12:25	0° Y	
asc. node	2092 May 10 07:27	20° B 22'21		morning set	2093 Apr 16 18:45	18° Y 53'20	
				max. Earth dist.	2093 Apr 21 17:49	28° Y 56'31	1.33372 AU
					2093 Apr 22 06:00	0° B	
superior conj	2092 May 10 13:23	20° B 54'32	0°02'37				
minimum elong	2092 May 10 13:15	20° B 53'50	0°02'36				
behind sun begin	2092 May 10 08:08	20° B 26'05		superior conj	2093 Apr 24 19:08	5° B 22'30	0°-24'-54
behind sun end	2092 May 10 18:22	21° B 21'37		minimum elong	2093 Apr 24 20:22	5° B 29'07	0°24'39
	2092 May 14 17:36	0° II		asc. node	2093 Apr 27 04:29	10° B 29'14	
evening rise	2092 May 17 13:03	6° II 02'05		evening rise	2093 May 02 00:29	20° B 48'20	
	2092 May 30 05:55	0° S			2093 May 06 12:34	0° II	
evening max el	2092 Jun 11 01:51	15° S 16'33	24°06'55	evening max el	2093 May 23 16:38	25° II 45'05	22°30'43
desc. node	2092 Jun 17 13:02	20° S 11'34			2093 May 29 03:19	0° S	
retrograde	2092 Jun 24 21:14	22° S 13'34		desc. node	2093 Jun 04 10:03	2° S 10'18	
evening set	2092 Jun 29 10:36	21° S 27'35		retrograde	2093 Jun 05 18:37	2° S 14'31	
min. Earth dist.	2092 Jul 05 12:36	18° S 28'51	0.56456 AU	evening set	2093 Jun 08 21:27	1° S 53'05	
inferior conj	2092 Jul 08 01:01	16° S 55'16	-4°-42'-42		2093 Jun 13 22:40	30° R II	
minimum elong	2092 Jul 07 20:17	17° S 02'38	4°42'08	min. Earth dist.	2093 Jun 17 00:00	28° II 21'30	0.55247 AU
morning rise	2092 Jul 16 09:30	12° S 55'12		inferior conj	2093 Jun 18 03:30	27° II 42'28	-3°-39'-37
direct	2092 Jul 19 02:12	12° S 36'07		minimum elong	2093 Jun 17 19:33	27° II 53'45	3°37'33
morning max el	2092 Jul 28 20:35	17° S 08'05	19°44'59	morning rise	2093 Jun 26 20:06	23° II 51'07	
asc. node	2092 Aug 06 06:40	28° S 03'47		direct	2093 Jun 29 19:11	23° II 31'07	
	2092 Aug 07 10:31	0° Q		morning max el	2093 Jul 11 04:49	28° II 48'57	21°04'09
morning set	2092 Aug 15 12:55	15° Q 20'50			2093 Jul 12 10:01	0° S	
	2092 Aug 22 18:56	0° P		asc. node	2093 Jul 24 03:42	16° S 55'42	
				morning set	2093 Jul 30 20:30	0° Q 03'51	
					2093 Jul 30 19:45	0° Q	
superior conj	2092 Aug 23 11:18	1° P 21'23	1°45'27				
minimum elong	2092 Aug 23 11:44	1° P 23'36	1°45'28	superior conj	2093 Aug 07 07:38	15° Q 36'21	1°43'37
max. Earth dist.	2092 Aug 29 07:39	12° P 38'53	1.37321 AU	minimum elong	2093 Aug 07 06:36	15° Q 31'00	1°43'35
evening rise	2092 Sep 02 03:39	19° P 40'24		max. Earth dist.	2093 Aug 11 17:02	24° Q 29'32	1.35524 AU
	2092 Sep 08 02:48	0° A			2093 Aug 14 12:53	0° P	
desc. node	2092 Sep 13 12:21	8° A 44'45		evening rise	2093 Aug 15 22:31	2° P 39'39	
	2092 Sep 28 08:37	0° M		desc. node	2093 Aug 31 09:22	28° P 57'19	
evening max el	2092 Oct 07 21:40	10° M 56'52	25°27'52		2093 Sep 01 01:52	0° A	
retrograde	2092 Oct 20 00:11	17° M 54'21		evening max el	2093 Sep 20 09:40	24° A 34'56	26°29'46
evening set	2092 Oct 25 21:45	15° M 27'04			2093 Sep 27 07:42	0° M	
min. Earth dist.	2092 Oct 30 08:17	10° M 33'16	0.67087 AU	retrograde	2093 Oct 03 06:06	1° M 47'50	
inferior conj	2092 Oct 31 11:55	9° M 04'14	0°-36'-6		2093 Oct 08 14:32	30° R A	
minimum elong	2092 Oct 31 12:51	9° M 01'15	0°35'43	evening set	2093 Oct 09 17:25	29° A 09'02	
asc. node	2092 Nov 02 05:52	6° M 52'21		min. Earth dist.	2093 Oct 13 20:26	24° A 51'54	0.66198 AU
morning rise	2092 Nov 06 04:39	3° M 05'46		inferior conj	2093 Oct 15 11:40	22° A 53'27	-1°-34'-14
direct	2092 Nov 09 12:24	2° M 02'05		minimum elong	2093 Oct 15 14:11	22° A 45'51	1°33'13
morning max el	2092 Nov 16 15:53	6° M 03'19	19°22'37	asc. node	2093 Oct 20 02:53	18° A 01'15	
greatest brilliancy	2092 Nov 25 22:19	17° M 56'39	-0.7m	morning rise	2093 Oct 21 12:12	17° A 05'49	
	2092 Dec 03 22:42	0° X		direct	2093 Oct 24 10:18	16° A 17'42	
desc. node	2092 Dec 10 11:36	10° X 05'40		morning max el	2093 Oct 31 02:45	19° A 58'16	18°35'27
morning set	2092 Dec 10 14:06	10° X 15'21			2093 Nov 07 20:50	0° M	
	2092 Dec 23 05:25	0° Z		morning set	2093 Nov 20 12:19	19° M 50'28	
max. Earth dist.	2092 Dec 24 00:13	1° Z 14'12	1.44642 AU		2093 Nov 26 21:45	0° X	
				desc. node	2093 Nov 27 08:38	0° X 43'02	
superior conj	2092 Dec 27 09:50	6° Z 38'06	-1°-38'-37				
minimum elong	2092 Dec 27 01:22	6° Z 04'23	1°37'54	superior conj	2093 Dec 06 12:21	15° X 07'47	0°-58'-47
evening rise	2093 Jan 10 18:23	0° \approx 02'16		minimum elong	2093 Dec 06 05:03	14° X 39'09	0°57'54
	2093 Jan 10 17:50	0° \approx		max. Earth dist.	2093 Dec 06 18:14	15° X 30'54	1.45144 AU
asc. node	2093 Jan 29 05:12	28° \approx 25'30			2093 Dec 15 23:14	0° Z	
evening max el	2093 Jan 29 23:58	29° \approx 15'07	18°24'48	evening rise	2093 Dec 22 10:41	10° Z 16'06	
	2093 Jan 30 18:31	0° K			2094 Jan 03 22:42	0° \approx	
retrograde	2093 Feb 05 12:05	2° K 48'02					
evening set	2093 Feb 08 11:31	1° K 59'26		evening max el	2094 Jan 13 10:08	12° \approx 41'33	18°58'54
	2093 Feb 11 03:38	30° R \approx		asc. node	2094 Jan 16 02:12	15° \approx 01'29	

retrograde	2094 Jan 20 06:44	16° \approx 34'34		asc. node	2095 Jan 02 23:13	0° \approx 24'45	
evening set	2094 Jan 23 12:16	15° \approx 34'09		retrograde	2095 Jan 04 04:08	0° \approx 32'46	
inferior conj	2094 Jan 29 04:45	9° \approx 46'31	3°25'41		2095 Jan 06 13:04	30° \approx 30'	
minimum elong	2094 Jan 29 02:41	9° \approx 52'59	3°25'21	evening set	2095 Jan 07 17:19	29° \approx 19'06	
min. Earth dist.	2094 Jan 30 18:58	7° \approx 46'45	0.65690 AU	inferior conj	2095 Jan 13 05:39	23° \approx 17'05	2°58'36
morning rise	2094 Feb 03 16:06	3° \approx 33'45		minimum elong	2095 Jan 13 03:04	23° \approx 25'38	2°57'59
direct	2094 Feb 10 04:02	0° \approx 44'18		min. Earth dist.	2095 Jan 14 05:40	21° \approx 57'19	0.66786 AU
morning max el	2094 Feb 23 03:32	8° \approx 23'25	26°38'06	morning rise	2095 Jan 18 12:09	17° \approx 02'06	
desc. node	2094 Feb 23 07:50	8° \approx 34'18		direct	2095 Jan 24 11:30	14° \approx 23'12	
	2094 Mar 12 00:53	0° \approx		morning max el	2095 Feb 05 12:27	21° \approx 33'52	25°24'19
	2094 Mar 29 22:12	0° \approx		desc. node	2095 Feb 10 04:52	26° \approx 44'02	
morning set	2094 Mar 31 01:59	2° \approx 10'38			2095 Feb 12 20:50	0° \approx	
max. Earth dist.	2094 Apr 04 08:29	10° \approx 28'07	1.34611 AU		2095 Mar 05 06:37	0° \approx	
				morning set	2095 Mar 13 17:20	14° \approx 36'44	
superior conj	2094 Apr 08 18:55	19° \approx 28'04	0°-52'-55	max. Earth dist.	2095 Mar 17 11:20	21° \approx 32'08	1.36308 AU
minimum elong	2094 Apr 08 21:36	19° \approx 41'57	0°52'26		2095 Mar 21 20:55	0° \approx	
	2094 Apr 13 19:52	0° \approx					
asc. node	2094 Apr 14 01:31	0° \approx 29'37		superior conj	2095 Mar 23 09:57	3° \approx 03'00	-1°-19'-49
evening rise	2094 Apr 16 09:44	5° \approx 22'52		minimum elong	2095 Mar 23 13:50	3° \approx 22'21	1°19'15
	2094 Apr 30 02:37	0° \approx		evening rise	2095 Mar 31 14:37	19° \approx 38'31	
evening max el	2094 May 05 15:22	6° \approx 33'05	21°01'50	asc. node	2095 Mar 31 22:33	20° \approx 18'37	
retrograde	2094 May 17 08:16	12° \approx 15'29			2095 Apr 05 21:09	0° \approx	
evening set	2094 May 19 13:28	12° \approx 03'57		evening max el	2095 Apr 18 01:44	17° \approx 57'47	19°48'41
desc. node	2094 May 22 07:04	11° \approx 20'27		retrograde	2095 Apr 28 00:48	22° \approx 46'29	
inferior conj	2094 May 28 21:23	8° \approx 05'55	-1°-54'-14	evening set	2095 Apr 30 01:16	22° \approx 35'30	
minimum elong	2094 May 28 16:03	8° \approx 13'28	1°52'23	inferior conj	2095 May 08 20:51	18° \approx 34'13	0°05'15
min. Earth dist.	2094 May 29 12:23	7° \approx 44'41	0.54908 AU	minimum elong	2095 May 08 21:05	18° \approx 33'52	0°05'10
morning rise	2094 Jun 06 18:12	4° \approx 04'02		transit middle	2095 May 08 21:05	18° \approx 33'52	0°05'10
direct	2094 Jun 10 04:41	3° \approx 38'32		transit begin	2095 May 08 17:20	18° \approx 39'38	
morning max el	2094 Jun 23 02:39	9° \approx 48'42	22°39'33	transit end	2095 May 09 00:50	18° \approx 28'05	
	2094 Jul 07 16:45	0° \approx		desc. node	2095 May 09 04:06	18° \approx 23'02	
asc. node	2094 Jul 11 00:45	6° \approx 16'33		min. Earth dist.	2095 May 11 02:13	17° \approx 12'09	0.55542 AU
morning set	2094 Jul 15 07:06	14° \approx 56'40		morning rise	2095 May 17 13:39	14° \approx 04'24	
				direct	2095 May 21 20:28	13° \approx 23'46	
superior conj	2094 Jul 22 11:21	0° \approx 13'49	1°35'20	morning max el	2095 Jun 04 17:51	20° \approx 19'17	24°21'45
minimum elong	2094 Jul 22 09:22	0° \approx 03'16	1°35'09		2095 Jun 12 23:50	0° \approx	
	2094 Jul 22 08:45	0° \approx		asc. node	2095 Jun 27 21:49	25° \approx 15'44	
max. Earth dist.	2094 Jul 25 11:11	6° \approx 31'24	1.34091 AU	morning set	2095 Jun 29 18:55	29° \approx 15'24	
evening rise	2094 Jul 30 08:07	16° \approx 22'30			2095 Jun 29 20:18	0° \approx	
	2094 Aug 06 15:28	0° \approx					
desc. node	2094 Aug 18 06:24	18° \approx 46'18		superior conj	2095 Jul 06 19:46	15° \approx 04'12	1°21'46
	2094 Aug 26 13:56	0° \approx		minimum elong	2095 Jul 06 17:23	14° \approx 51'15	1°21'26
evening max el	2094 Sep 02 21:46	8° \approx 03'44	27°11'23	max. Earth dist.	2095 Jul 08 14:17	18° \approx 53'56	1.33059 AU
retrograde	2094 Sep 16 06:38	15° \approx 22'17			2095 Jul 13 21:14	0° \approx	
evening set	2094 Sep 23 04:59	12° \approx 39'26		evening rise	2095 Jul 14 04:20	0° \approx 36'07	
min. Earth dist.	2094 Sep 27 01:14	8° \approx 58'42	0.64958 AU		2095 Jul 30 15:21	0° \approx	
inferior conj	2094 Sep 29 04:49	6° \approx 35'29	-2°-32'-46	desc. node	2095 Aug 05 03:25	8° \approx 01'08	
minimum elong	2094 Sep 29 08:54	6° \approx 24'11	2°31'16	evening max el	2095 Aug 16 08:30	21° \approx 11'11	27°26'02
morning rise	2094 Oct 05 14:37	1° \approx 01'42		retrograde	2095 Aug 30 00:56	28° \approx 28'37	
asc. node	2094 Oct 06 23:55	0° \approx 33'21		evening set	2095 Sep 06 05:22	25° \approx 52'18	
direct	2094 Oct 08 05:33	0° \approx 25'12		min. Earth dist.	2095 Sep 09 20:42	22° \approx 44'29	0.63368 AU
morning max el	2094 Oct 14 17:43	3° \approx 54'19	18°04'53	inferior conj	2095 Sep 12 12:45	20° \approx 04'18	-3°-28'-44
	2094 Nov 01 03:12	0° \approx		minimum elong	2095 Sep 12 17:56	19° \approx 51'16	3°27'11
morning set	2094 Nov 01 15:46	0° \approx 52'16		morning rise	2095 Sep 19 08:53	14° \approx 47'37	
desc. node	2094 Nov 14 05:40	21° \approx 26'57		direct	2095 Sep 21 19:21	14° \approx 19'10	
				asc. node	2095 Sep 23 20:59	14° \approx 40'06	
superior conj	2094 Nov 15 18:48	23° \approx 55'20	0°-10'-24	morning max el	2095 Sep 28 09:56	17° \approx 44'54	17°51'52
minimum elong	2094 Nov 15 17:30	23° \approx 50'09	0°10'14		2095 Oct 07 05:28	0° \approx	
behind sun begin	2094 Nov 15 09:06	23° \approx 16'40		morning set	2095 Oct 14 20:31	13° \approx 07'22	
behind sun end	2094 Nov 16 01:54	24° \approx 23'37			2095 Oct 24 16:12	0° \approx	
max. Earth dist.	2094 Nov 19 12:58	29° \approx 52'40	1.44906 AU				
	2094 Nov 19 14:49	0° \approx		superior conj	2095 Oct 26 23:03	3° \approx 48'43	0°34'35
evening rise	2094 Dec 02 05:44	19° \approx 40'44		minimum elong	2095 Oct 27 02:27	4° \approx 02'50	0°34'07
	2094 Dec 08 22:30	0° \approx		desc. node	2095 Nov 01 02:43	12° \approx 14'07	
greatest brilliancy	2094 Dec 20 07:00	16° \approx 55'25	-0.6m	max. Earth dist.	2095 Nov 02 05:56	14° \approx 03'36	1.43965 AU
evening max el	2094 Dec 27 16:16	26° \approx 10'59	19°49'18	evening rise	2095 Nov 11 14:15	28° \approx 44'41	
	2095 Jan 01 16:51	0° \approx			2095 Nov 12 09:49	0° \approx	

	2095 Dec 02 18:44	0°☿		max. Earth dist.	2096 Oct 14 18:46	27°☿46'56	1.42439 AU
greatest brilliancy	2095 Dec 05 05:04	3°☿13'35	-0.5m		2096 Oct 16 03:10	0°☿	
evening max el	2095 Dec 10 17:06	9°☿41'55	20°53'30	desc. node	2096 Oct 17 23:44	3°☿01'01	
retrograde	2095 Dec 19 01:55	14°☿39'04		evening rise	2096 Oct 21 05:00	8°☿09'36	
asc. node	2095 Dec 20 20:15	14°☿21'44			2096 Nov 04 15:04	0°☿	
evening set	2095 Dec 23 00:36	13°☿10'25		greatest brilliancy	2096 Nov 17 19:09	17°☿54'08	-0.3m
inferior conj	2095 Dec 28 10:43	6°☿57'02	2°22'31	evening max el	2096 Nov 22 12:22	23°☿13'37	22°07'52
minimum elong	2095 Dec 28 08:10	7°☿05'46	2°21'43	retrograde	2096 Dec 01 22:18	28°☿49'38	
min. Earth dist.	2095 Dec 28 22:02	6°☿18'12	0.67485 AU	evening set	2096 Dec 06 08:23	27°☿04'31	
morning rise	2096 Jan 02 15:19	0°☿41'53		asc. node	2096 Dec 06 17:19	26°☿45'49	
	2096 Jan 03 11:50	30°☿		inferior conj	2096 Dec 11 17:53	20°☿43'07	1°39'12
direct	2096 Jan 07 23:56	28°☿21'34		minimum elong	2096 Dec 11 15:50	20°☿50'13	1°38'26
	2096 Jan 13 00:35	0°☿		min. Earth dist.	2096 Dec 11 17:44	20°☿43'36	0.67812 AU
morning max el	2096 Jan 18 20:47	4°☿50'22	23°58'24	morning rise	2096 Dec 16 23:06	14°☿29'42	
desc. node	2096 Jan 28 01:55	15°☿43'51		direct	2096 Dec 21 16:31	12°☿31'53	
	2096 Feb 07 05:44	0°☿		morning max el	2096 Dec 31 07:22	18°☿12'42	22°30'08
morning set	2096 Feb 23 10:57	25°☿55'56		greatest brilliancy	2097 Jan 04 20:59	23°☿18'49	-0.3m
	2096 Feb 25 19:07	0°☿			2097 Jan 10 02:14	0°☿	
max. Earth dist.	2096 Feb 27 07:03	2°☿38'54	1.38352 AU	desc. node	2097 Jan 13 22:57	5°☿18'54	
					2097 Jan 30 09:15	0°☿	
superior conj	2096 Mar 05 12:45	15°☿58'31	-1°-43'-13	morning set	2097 Feb 03 00:54	5°☿53'11	
minimum elong	2096 Mar 05 17:02	16°☿18'56	1°42'48	max. Earth dist.	2097 Feb 08 03:32	14°☿23'38	1.40508 AU
	2096 Mar 12 18:07	0°☿					
evening rise	2096 Mar 14 12:40	3°☿28'59		superior conj	2097 Feb 15 22:37	28°☿02'06	-1°-59'-47
asc. node	2096 Mar 17 19:36	9°☿51'42		minimum elong	2097 Feb 16 01:40	28°☿15'51	1°59'38
	2096 Mar 30 22:23	0°☿			2097 Feb 17 00:40	0°☿	
evening max el	2096 Mar 30 23:09	0°☿01'51	18°54'54	evening rise	2097 Feb 26 00:40	16°☿45'39	
retrograde	2096 Apr 08 08:32	4°☿06'27		asc. node	2097 Mar 04 16:39	29°☿02'26	
evening set	2096 Apr 10 12:56	3°☿51'00			2097 Mar 05 05:51	0°☿	
	2096 Apr 17 22:52	30°☿		evening max el	2097 Mar 14 04:45	12°☿38'11	18°21'20
inferior conj	2096 Apr 18 13:41	29°☿33'43	1°46'35	retrograde	2097 Mar 21 11:33	16°☿14'55	
minimum elong	2096 Apr 18 17:19	29°☿27'14	1°45'27	evening set	2097 Mar 23 21:30	15°☿52'07	
min. Earth dist.	2096 Apr 21 18:10	27°☿18'19	0.57010 AU	inferior conj	2097 Mar 31 03:54	11°☿14'04	2°55'00
desc. node	2096 Apr 25 01:07	25°☿17'25		minimum elong	2097 Mar 31 07:35	11°☿06'21	2°54'12
morning rise	2096 Apr 26 17:25	24°☿29'44		min. Earth dist.	2097 Apr 03 14:25	8°☿23'05	0.58988 AU
direct	2096 May 02 01:19	23°☿21'49		morning rise	2097 Apr 07 13:45	5°☿40'57	
	2096 May 15 12:25	0°☿		desc. node	2097 Apr 11 22:08	4°☿06'55	
morning max el	2096 May 16 08:39	0°☿47'43	25°56'14	direct	2097 Apr 13 19:25	3°☿57'26	
	2096 Jun 05 19:48	0°☿		morning max el	2097 Apr 28 04:16	11°☿41'42	27°07'39
morning set	2096 Jun 13 06:21	14°☿47'00			2097 May 12 11:16	0°☿	
asc. node	2096 Jun 13 18:53	15°☿53'16		morning set	2097 May 28 15:44	29°☿34'03	
					2097 May 28 20:42	0°☿	
superior conj	2096 Jun 20 06:47	0°☿00'40	1°03'49	asc. node	2097 May 31 15:57	5°☿58'03	
minimum elong	2096 Jun 20 04:30	29°☿48'07	1°03'24				
	2096 Jun 20 06:40	0°☿		superior conj	2097 Jun 04 18:36	14°☿57'19	0°42'14
max. Earth dist.	2096 Jun 20 23:47	1°☿33'56	1.32425 AU	minimum elong	2097 Jun 04 16:51	14°☿47'44	0°41'54
evening rise	2096 Jun 27 07:58	15°☿10'37		max. Earth dist.	2097 Jun 04 12:04	14°☿21'23	1.32173 AU
	2096 Jul 04 21:14	0°☿		evening rise	2097 Jun 11 16:24	29°☿57'45	
desc. node	2096 Jul 22 00:27	26°☿27'38			2097 Jun 11 16:49	0°☿	
	2096 Jul 25 00:40	0°☿			2097 Jun 28 03:46	0°☿	
evening max el	2096 Jul 28 15:16	3°☿43'34	27°08'43	desc. node	2097 Jul 08 21:28	13°☿45'54	
retrograde	2096 Aug 11 12:05	10°☿57'37		evening max el	2097 Jul 10 15:26	15°☿30'29	26°18'22
evening set	2096 Aug 18 14:33	8°☿40'36		retrograde	2097 Jul 24 15:05	22°☿41'52	
min. Earth dist.	2096 Aug 22 05:31	5°☿56'51	0.61480 AU	evening set	2097 Jul 31 03:49	20°☿56'31	
inferior conj	2096 Aug 25 08:16	3°☿11'45	-4°-17'-21	min. Earth dist.	2097 Aug 04 04:19	18°☿21'20	0.59420 AU
minimum elong	2096 Aug 25 13:26	3°☿00'16	4°16'17	inferior conj	2097 Aug 07 11:48	15°☿48'33	-4°-50'-48
	2096 Aug 29 06:42	30°☿		minimum elong	2097 Aug 07 14:53	15°☿42'35	4°50'32
morning rise	2096 Sep 01 15:15	28°☿15'46		morning rise	2097 Aug 15 05:23	11°☿15'48	
direct	2096 Sep 04 00:09	27°☿52'21		direct	2097 Aug 17 15:29	10°☿55'18	
	2096 Sep 09 10:37	0°☿		morning max el	2097 Aug 25 10:02	14°☿40'06	18°22'39
asc. node	2096 Sep 09 18:04	0°☿14'49		asc. node	2097 Aug 27 15:09	17°☿03'26	
morning max el	2096 Sep 11 00:24	1°☿22'48	17°57'23		2097 Sep 05 00:04	0°☿	
morning set	2096 Sep 26 20:12	26°☿16'38		morning set	2097 Sep 10 09:22	10°☿05'00	
	2096 Sep 28 21:00	0°☿					
				superior conj	2097 Sep 19 13:48	27°☿26'42	1°31'26
superior conj	2096 Oct 07 06:28	15°☿02'11	1°09'02	minimum elong	2097 Sep 19 17:11	27°☿42'12	1°31'09
minimum elong	2096 Oct 07 11:00	15°☿21'56	1°08'30		2097 Sep 20 23:21	0°☿	

max. Earth dist.	2097 Sep 27 02:07	10° $\overline{49}$ '02	1.40521 AU	superior conj	2098 Sep 02 15:18	10° $\overline{44}$ '54	1°43'00
evening rise	2097 Oct 01 15:31	18° $\overline{29}$ '59		minimum elong	2098 Sep 02 16:48	10° $\overline{52}$ '07	1°42'56
desc. node	2097 Oct 04 20:47	23° $\overline{44}$ '34		max. Earth dist.	2098 Sep 09 05:40	23° $\overline{07}$ '05	1.38462 AU
	2097 Oct 08 19:50	0° \overline{M}		evening rise	2098 Sep 13 02:04	29° $\overline{57}$ '15	
	2097 Oct 30 02:07	0° \overline{A}			2098 Sep 13 02:42	0° \overline{A}	
evening max el	2097 Nov 05 03:07	6° $\overline{47}$ '46	23°27'25	desc. node	2098 Sep 21 17:49	14° $\overline{20}$ '06	
retrograde	2097 Nov 15 15:55	13° $\overline{01}$ '36			2098 Oct 02 03:59	0° \overline{M}	
evening set	2097 Nov 20 15:00	10° $\overline{59}$ '21		evening max el	2098 Oct 18 15:28	20° $\overline{25}$ '30	24°46'01
asc. node	2097 Nov 23 14:20	7° $\overline{50}$ '09		retrograde	2098 Oct 30 05:39	27° $\overline{10}$ '31	
min. Earth dist.	2097 Nov 25 14:27	5° $\overline{10}$ '57	0.67794 AU	evening set	2098 Nov 04 18:49	24° $\overline{51}$ '50	
inferior conj	2097 Nov 26 01:17	4° $\overline{33}$ '49	0°50'05	min. Earth dist.	2098 Nov 09 09:49	19° $\overline{37}$ '23	0.67437 AU
minimum elong	2097 Nov 26 00:08	4° $\overline{37}$ '45	0°49'36	inferior conj	2098 Nov 10 07:11	18° $\overline{26}$ '31	0°-3'-35
	2097 Nov 29 16:00	30° \overline{R}		minimum elong	2098 Nov 10 07:16	18° $\overline{26}$ '14	0°03'35
morning rise	2097 Dec 01 09:24	28° $\overline{24}$ '08		transit middle	2098 Nov 10 07:16	18° $\overline{26}$ '14	0°03'35
direct	2097 Dec 05 12:22	26° $\overline{49}$ '11		transit begin	2098 Nov 10 04:35	18° $\overline{35}$ '09	
	2097 Dec 12 03:01	0° \overline{A}		transit end	2098 Nov 10 09:58	18° $\overline{17}$ '19	
morning max el	2097 Dec 13 23:41	1° $\overline{44}$ '38	21°07'41	asc. node	2098 Nov 10 11:22	18° $\overline{12}$ '39	
greatest brilliancy	2097 Dec 19 08:40	7° $\overline{55}$ '55	-0.5m	morning rise	2098 Nov 15 20:13	12° $\overline{23}$ '01	
desc. node	2097 Dec 31 19:59	25° $\overline{19}$ '37		direct	2098 Nov 19 10:21	11° $\overline{08}$ '52	
	2098 Jan 03 23:19	0° \overline{C}		morning max el	2098 Nov 26 23:36	15° $\overline{27}$ '15	19°56'48
morning set	2098 Jan 13 10:49	14° $\overline{32}$ '50		greatest brilliancy	2098 Dec 04 07:15	24° $\overline{23}$ '48	-0.6m
max. Earth dist.	2098 Jan 21 06:04	27° $\overline{02}$ '07	1.42487 AU		2098 Dec 08 06:18	0° \overline{A}	
	2098 Jan 23 01:22	0° \overline{A}		desc. node	2098 Dec 18 17:03	15° $\overline{38}$ '52	
				morning set	2098 Dec 23 06:52	22° $\overline{40}$ '40	
superior conj	2098 Jan 28 10:19	9° $\overline{01}$ '33	-2°-4'-58		2098 Dec 28 00:01	0° \overline{C}	
minimum elong	2098 Jan 28 09:36	8° $\overline{58}$ '30	2°04'58	max. Earth dist.	2099 Jan 03 15:55	10° $\overline{30}$ '37	1.44028 AU
evening rise	2098 Feb 08 22:48	29° $\overline{19}$ '59					
	2098 Feb 09 07:41	0° \overline{H}		superior conj	2099 Jan 08 20:01	18° $\overline{50}$ '10	-1°-53'-47
asc. node	2098 Feb 19 13:40	17° $\overline{43}$ '28		minimum elong	2099 Jan 08 13:49	18° $\overline{24}$ '57	1°53'26
evening max el	2098 Feb 25 15:21	25° $\overline{38}$ '10	18°07'41		2099 Jan 15 14:15	0° \overline{A}	
retrograde	2098 Mar 04 07:09	29° $\overline{02}$ '45		evening rise	2099 Jan 22 02:46	11° $\overline{03}$ '55	
evening set	2098 Mar 06 22:20	28° $\overline{30}$ '52			2099 Feb 02 10:06	0° \overline{H}	
inferior conj	2098 Mar 13 13:42	23° $\overline{31}$ '44	3°31'38	asc. node	2099 Feb 06 10:41	5° $\overline{45}$ '54	
minimum elong	2098 Mar 13 15:41	23° $\overline{26}$ '57	3°31'24	evening max el	2099 Feb 09 03:57	8° $\overline{54}$ '04	18°13'16
min. Earth dist.	2098 Mar 16 17:39	20° $\overline{29}$ '36	0.61135 AU	retrograde	2099 Feb 15 14:52	12° $\overline{20}$ '19	
morning rise	2098 Mar 20 06:04	17° $\overline{39}$ '13		evening set	2099 Feb 18 11:09	11° $\overline{38}$ '09	
direct	2098 Mar 27 01:01	15° $\overline{21}$ '20		inferior conj	2099 Feb 24 15:10	6° $\overline{18}$ '51	3°43'09
desc. node	2098 Mar 29 19:10	15° $\overline{42}$ '33		minimum elong	2099 Feb 24 15:12	6° $\overline{18}$ '48	3°43'09
morning max el	2098 Apr 10 06:14	23° $\overline{15}$ '39	27°45'09	min. Earth dist.	2099 Feb 27 05:48	3° $\overline{29}$ '00	0.63163 AU
	2098 Apr 16 06:45	0° \overline{Y}		morning rise	2099 Mar 02 17:16	0° \overline{H} 15'08	
	2098 May 05 15:31	0° \overline{B}			2099 Mar 03 01:15	30° \overline{R}	
morning set	2098 May 12 21:09	14° $\overline{06}$ '58		direct	2099 Mar 09 15:44	27° $\overline{33}$ '32	
asc. node	2098 May 18 12:59	26° $\overline{07}$ '03		desc. node	2099 Mar 16 16:11	29° $\overline{51}$ '34	
max. Earth dist.	2098 May 18 23:08	27° $\overline{02}$ '15	1.32311 AU		2099 Mar 16 21:37	0° \overline{H}	
				morning max el	2099 Mar 23 13:10	5° $\overline{29}$ '39	27°45'16
superior conj	2098 May 20 05:27	29° $\overline{47}$ '49	0°17'45		2099 Apr 11 02:08	0° \overline{Y}	
minimum elong	2098 May 20 04:39	29° $\overline{43}$ '24	0°17'35	morning set	2099 Apr 26 20:22	28° $\overline{18}$ '28	
	2098 May 20 07:41	0° \overline{II}			2099 Apr 27 16:32	0° \overline{B}	
evening rise	2098 May 27 03:28	14° $\overline{49}$ '45		max. Earth dist.	2099 May 02 05:04	9° $\overline{23}$ '39	1.32858 AU
	2098 Jun 03 17:39	0° \overline{C}					
evening max el	2098 Jun 22 08:28	26° $\overline{31}$ '17	25°00'07	superior conj	2099 May 04 13:40	14° $\overline{26}$ '32	0°-8'-55
desc. node	2098 Jun 25 18:29	29° $\overline{27}$ '33		minimum elong	2099 May 04 14:05	14° $\overline{28}$ '51	0°08'50
	2098 Jun 26 12:10	0° \overline{Q}		behind sun begin	2099 May 04 09:41	14° $\overline{05}$ '06	
retrograde	2098 Jul 06 08:01	3° $\overline{37}$ '15		behind sun end	2099 May 04 18:30	14° $\overline{52}$ '38	
evening set	2098 Jul 11 17:25	2° $\overline{30}$ '43		asc. node	2099 May 05 10:00	16° $\overline{16}$ '20	
	2098 Jul 16 10:38	30° \overline{R}		evening rise	2099 May 11 15:18	29° $\overline{40}$ '25	
min. Earth dist.	2098 Jul 16 20:00	29° $\overline{44}$ '58	0.57430 AU		2099 May 11 19:01	0° \overline{II}	
inferior conj	2098 Jul 19 20:05	27° $\overline{44}$ '33	-4°-57'-8		2099 May 28 18:56	0° \overline{C}	
minimum elong	2098 Jul 19 18:32	27° $\overline{47}$ '10	4°57'05	evening max el	2099 Jun 03 22:12	7° $\overline{04}$ '00	23°26'03
morning rise	2098 Jul 27 23:25	23° $\overline{34}$ '15		desc. node	2099 Jun 12 15:27	12° $\overline{57}$ '49	
direct	2098 Jul 30 12:59	23° $\overline{15}$ '10		retrograde	2099 Jun 17 12:32	13° $\overline{51}$ '53	
morning max el	2098 Aug 08 11:35	27° $\overline{26}$ '21	19°08'48	evening set	2099 Jun 21 10:09	13° $\overline{18}$ '33	
	2098 Aug 10 21:38	0° \overline{Q}		min. Earth dist.	2099 Jun 28 08:19	10° $\overline{07}$ '08	0.55847 AU
asc. node	2098 Aug 14 12:11	4° $\overline{49}$ '58		inferior conj	2099 Jun 30 08:22	8° $\overline{55}$ '51	-4°-22'-3
morning set	2098 Aug 25 07:56	24° $\overline{20}$ '27		minimum elong	2099 Jun 30 01:42	9° $\overline{05}$ '48	4°20'49
	2098 Aug 28 04:13	0° \overline{M}		morning rise	2099 Jul 08 20:28	5° $\overline{01}$ '02	
				direct	2099 Jul 11 15:25	4° $\overline{41}$ '54	

morning max el	2099 Jul 22 02:27	9° \mathfrak{G} 32'41	20°16'13		2100 Jul 11 20:20	0° \mathfrak{G}	
asc. node	2099 Aug 01 09:14	23° \mathfrak{G} 21'23		asc. node	2100 Jul 19 06:17	12° \mathfrak{G} 26'43	
	2099 Aug 05 00:55	0° \mathcal{Q}		morning set	2100 Jul 24 22:00	23° \mathfrak{G} 43'07	
morning set	2099 Aug 09 12:54	8° \mathcal{Q} 55'14			2100 Jul 27 21:49	0° \mathcal{Q}	
superior conj	2099 Aug 17 05:55	24° \mathcal{Q} 42'24	1°45'33	superior conj	2100 Aug 01 05:44	9° \mathcal{Q} 07'45	1°40'49
minimum elong	2099 Aug 17 05:41	24° \mathcal{Q} 41'10	1°45'33	minimum elong	2100 Aug 01 04:14	8° \mathcal{Q} 59'52	1°40'43
	2099 Aug 19 21:33	0° \mathfrak{M}		max. Earth dist.	2100 Aug 05 00:24	16° \mathcal{Q} 54'39	1.34870 AU
max. Earth dist.	2099 Aug 22 11:15	5° \mathfrak{M} 00'08	1.36520 AU	evening rise	2100 Aug 09 12:08	25° \mathcal{Q} 45'50	
evening rise	2099 Aug 26 10:27	12° \mathfrak{M} 26'28			2100 Aug 11 17:56	0° \mathfrak{M}	
	2099 Sep 05 15:26	0° \mathfrak{L}		desc. node	2100 Aug 26 11:50	24° \mathfrak{M} 46'18	
desc. node	2099 Sep 08 14:50	4° \mathfrak{L} 42'42			2100 Aug 30 01:42	0° \mathfrak{L}	
	2099 Sep 27 05:56	0° \mathfrak{M}		evening max el	2100 Sep 13 15:55	17° \mathfrak{L} 42'08	26°50'29
evening max el	2099 Oct 01 03:31	4° \mathfrak{M} 05'43	25°56'18	retrograde	2100 Sep 26 18:06	24° \mathfrak{L} 57'38	
retrograde	2099 Oct 13 14:35	11° \mathfrak{M} 11'09		evening set	2100 Oct 03 10:34	22° \mathfrak{L} 16'18	
evening set	2099 Oct 19 18:01	8° \mathfrak{M} 38'36		min. Earth dist.	2100 Oct 07 10:43	18° \mathfrak{L} 14'43	0.65712 AU
min. Earth dist.	2099 Oct 24 01:22	3° \mathfrak{M} 59'59	0.66747 AU	inferior conj	2100 Oct 09 07:01	16° \mathfrak{L} 05'23	-1°-59'-9
inferior conj	2099 Oct 25 09:45	2° \mathfrak{M} 18'11	-1°00'-34	minimum elong	2100 Oct 09 10:13	15° \mathfrak{L} 56'02	1°57'54
minimum elong	2099 Oct 25 11:20	2° \mathfrak{M} 13'12	0°59'55	morning rise	2100 Oct 15 11:17	10° \mathfrak{L} 23'03	
	2099 Oct 27 06:57	30° \mathfrak{R} \mathfrak{L}		asc. node	2100 Oct 15 05:27	10° \mathfrak{L} 30'47	
asc. node	2099 Oct 28 08:24	28° \mathfrak{L} 49'13		direct	2100 Oct 18 06:08	9° \mathfrak{L} 40'10	
morning rise	2099 Oct 31 05:34	26° \mathfrak{L} 23'40		morning max el	2100 Oct 24 19:47	13° \mathfrak{L} 14'37	18°20'25
direct	2099 Nov 03 08:55	25° \mathfrak{L} 27'01			2100 Nov 05 19:08	0° \mathfrak{M}	
morning max el	2099 Nov 10 06:52	29° \mathfrak{L} 18'29	19°00'31	morning set	2100 Nov 13 01:03	11° \mathfrak{M} 43'09	
	2099 Nov 10 22:53	0° \mathfrak{M}		desc. node	2100 Nov 22 11:08	26° \mathfrak{M} 51'49	
	2099 Dec 01 15:18	0° \mathfrak{X}			2100 Nov 24 10:32	0° \mathfrak{X}	
morning set	2099 Dec 02 14:13	1° \mathfrak{X} 29'41		superior conj	2100 Nov 28 07:37	6° \mathfrak{X} 07'37	0°-38'-34
desc. node	2099 Dec 05 14:05	6° \mathfrak{X} 10'55		minimum elong	2100 Nov 28 02:38	5° \mathfrak{X} 48'01	0°37'55
max. Earth dist.	2099 Dec 17 07:58	24° \mathfrak{X} 35'46	1.44946 AU	max. Earth dist.	2100 Nov 30 03:16	8° \mathfrak{X} 59'20	1.45135 AU
					2100 Dec 13 13:08	0° \mathfrak{Z}	
superior conj	2099 Dec 19 06:09	27° \mathfrak{X} 37'44	-1°-23'-32	evening rise	2100 Dec 14 15:16	1° \mathfrak{Z} 42'25	
minimum elong	2099 Dec 18 21:18	27° \mathfrak{X} 02'49	1°22'37	greatest brilliancy	2100 Dec 28 18:37	23° \mathfrak{Z} 37'20	-0.7m
	2099 Dec 20 18:10	0° \mathfrak{Z}			2101 Jan 02 05:41	0° \mathfrak{Z}	
evening rise	2100 Jan 03 08:36	21° \mathfrak{Z} 50'42					
	2100 Jan 08 08:27	0° \mathfrak{Z}					
evening max el	2100 Jan 23 15:46	22° \mathfrak{Z} 18'31	18°37'14				
asc. node	2100 Jan 24 07:41	22° \mathfrak{Z} 57'36					
retrograde	2100 Jan 30 06:27	25° \mathfrak{Z} 58'21					
evening set	2100 Feb 02 08:24	25° \mathfrak{Z} 04'50					
inferior conj	2100 Feb 08 04:18	19° \mathfrak{Z} 26'59	3°36'08				
minimum elong	2100 Feb 08 02:49	19° \mathfrak{Z} 31'25	3°35'59				
min. Earth dist.	2100 Feb 10 03:19	17° \mathfrak{Z} 06'13	0.64885 AU				
morning rise	2100 Feb 13 20:00	13° \mathfrak{Z} 16'51					
direct	2100 Feb 20 13:37	10° \mathfrak{Z} 26'18					
desc. node	2100 Mar 03 13:14	15° \mathfrak{Z} 58'23					
morning max el	2100 Mar 05 22:34	18° \mathfrak{Z} 14'22	27°10'50				
	2100 Mar 15 20:30	0° \mathfrak{X}					
	2100 Apr 04 00:10	0° \mathfrak{Y}					
morning set	2100 Apr 10 10:27	11° \mathfrak{Y} 58'19					
max. Earth dist.	2100 Apr 15 02:06	21° \mathfrak{Y} 14'18	1.33847 AU				
superior conj	2100 Apr 18 17:10	28° \mathfrak{Y} 46'06	0°-36'-48				
minimum elong	2100 Apr 18 19:02	28° \mathfrak{Y} 55'53	0°36'26				
	2100 Apr 19 07:12	0° \mathfrak{X}					
asc. node	2100 Apr 22 07:01	6° \mathfrak{X} 21'03					
evening rise	2100 Apr 26 02:02	14° \mathfrak{X} 22'31					
	2100 May 04 00:59	0° \mathfrak{I}					
evening max el	2100 May 16 15:43	17° \mathfrak{I} 37'48	21°51'22				
retrograde	2100 May 29 05:04	23° \mathfrak{I} 48'17					
desc. node	2100 May 30 12:27	23° \mathfrak{I} 44'24					
evening set	2100 May 31 20:39	23° \mathfrak{I} 32'36					
inferior conj	2100 Jun 10 05:34	19° \mathfrak{I} 29'31	-2°-58'-51				
minimum elong	2100 Jun 09 22:01	19° \mathfrak{I} 40'04	2°56'33				
min. Earth dist.	2100 Jun 09 19:52	19° \mathfrak{I} 43'04	0.54991 AU				
morning rise	2100 Jun 19 00:39	15° \mathfrak{I} 36'07					
direct	2100 Jun 22 03:59	15° \mathfrak{I} 14'22					
morning max el	2100 Jul 04 05:46	20° \mathfrak{I} 54'24	21°43'09				

superior conj	2600 Apr 21 01:29	1°♄01'33	0°-43'-31	max. Earth dist.	2601 Mar 30 04:05	3°♄44'32	1.35880 AU
minimum elong	2600 Apr 21 03:43	1°♄13'11	0°43'05				
asc. node	2600 Apr 25 08:09	10°♄01'03		superior conj	2601 Apr 04 18:49	14°♄44'33	-1°-11'-19
evening rise	2600 Apr 28 13:39	16°♄48'09		minimum elong	2601 Apr 04 22:25	15°♄02'41	1°10'45
	2600 May 05 05:20	0°♄		asc. node	2601 Apr 12 05:12	29°♄54'40	
evening max el	2600 May 18 07:30	18°♄48'04	21°21'19		2601 Apr 12 06:15	0°♄	
retrograde	2600 May 30 09:20	24°♄42'48		evening rise	2601 Apr 12 19:52	1°♄09'28	
evening set	2600 Jun 01 17:59	24°♄30'03		evening max el	2601 Apr 30 15:02	0°♄02'51	20°03'49
desc. node	2600 Jun 02 05:47	24°♄24'18			2601 Apr 30 13:52	0°♄	
inferior conj	2600 Jun 11 02:55	20°♄30'57	-2°-32'00	retrograde	2601 May 10 23:53	5°♄04'22	
minimum elong	2600 Jun 10 20:05	20°♄40'32	2°29'45	evening set	2601 May 13 00:05	4°♄53'53	
min. Earth dist.	2600 Jun 11 07:50	20°♄24'05	0.54883 AU	desc. node	2601 May 20 02:48	2°♄00'40	
morning rise	2600 Jun 19 22:28	16°♄33'47		inferior conj	2601 May 21 23:43	0°♄54'29	0°-32'-53
direct	2600 Jun 23 06:39	16°♄09'33		minimum elong	2601 May 21 22:11	0°♄56'46	0°32'20
morning max el	2600 Jul 05 20:43	22°♄07'37	22°16'53		2601 May 23 12:03	30°♄	
	2600 Jul 12 16:03	0°♄		min. Earth dist.	2601 May 23 20:52	29°♄46'56	0.55294 AU
asc. node	2600 Jul 22 07:23	15°♄59'57		morning rise	2601 May 30 17:43	26°♄33'17	
morning set	2600 Jul 27 10:37	26°♄20'14		direct	2601 Jun 03 19:50	25°♄56'49	
	2600 Jul 29 04:23	0°♄			2601 Jun 14 08:23	0°♄	
				morning max el	2601 Jun 17 12:41	2°♄41'47	23°59'00
superior conj	2600 Aug 03 15:55	11°♄39'25	1°38'43		2601 Jul 06 08:31	0°♄	
minimum elong	2600 Aug 03 14:15	11°♄30'32	1°38'35	asc. node	2601 Jul 09 04:28	5°♄35'01	
max. Earth dist.	2600 Aug 06 23:28	18°♄34'27	1.34376 AU	morning set	2601 Jul 11 22:20	11°♄15'54	
evening rise	2600 Aug 11 16:24	27°♄59'50					
	2600 Aug 12 17:17	0°♄		superior conj	2601 Jul 18 23:29	26°♄27'14	1°27'02
desc. node	2600 Aug 29 05:09	28°♄07'05		minimum elong	2601 Jul 18 21:12	26°♄14'55	1°26'45
	2600 Aug 30 11:38	0°♄			2601 Jul 20 15:00	0°♄	
evening max el	2600 Sep 15 12:17	19°♄48'25	27°03'55	max. Earth dist.	2601 Jul 21 00:45	0°♄52'11	1.33239 AU
retrograde	2600 Sep 28 18:43	27°♄05'42		evening rise	2601 Jul 26 10:23	12°♄06'38	
evening set	2600 Oct 05 14:34	24°♄23'50			2601 Aug 04 22:54	0°♄	
min. Earth dist.	2600 Oct 09 12:35	20°♄34'26	0.65288 AU	desc. node	2601 Aug 16 02:09	17°♄34'12	
inferior conj	2600 Oct 11 13:14	18°♄16'31	-2°-13'-46		2601 Aug 25 23:46	0°♄	
minimum elong	2600 Oct 11 16:52	18°♄06'12	2°12'22	evening max el	2601 Aug 28 23:39	3°♄02'37	27°25'26
morning rise	2600 Oct 17 20:51	12°♄39'00		retrograde	2601 Sep 11 14:19	10°♄19'48	
asc. node	2600 Oct 18 06:33	12°♄28'16		evening set	2601 Sep 18 17:57	7°♄41'15	
direct	2600 Oct 20 13:07	12°♄00'15		min. Earth dist.	2601 Sep 22 10:21	4°♄26'16	0.63774 AU
morning max el	2600 Oct 27 01:28	15°♄30'50	18°09'56	inferior conj	2601 Sep 24 23:33	1°♄49'21	-3°-11'-55
	2600 Nov 06 12:10	0°♄		minimum elong	2601 Sep 25 04:35	1°♄36'27	3°10'17
morning set	2600 Nov 14 10:38	12°♄59'03			2601 Sep 26 19:16	30°♄	
	2600 Nov 24 21:51	0°♄		morning rise	2601 Oct 01 17:28	26°♄28'24	
desc. node	2600 Nov 25 04:25	0°♄26'20		direct	2601 Oct 04 04:33	25°♄58'32	
				asc. node	2601 Oct 05 03:38	26°♄03'10	
superior conj	2600 Nov 29 01:21	6°♄36'15	0°-25'-56	morning max el	2601 Oct 10 17:46	29°♄23'57	17°52'54
minimum elong	2600 Nov 28 22:03	6°♄23'08	0°25'30		2601 Oct 11 07:47	0°♄	
max. Earth dist.	2600 Dec 02 01:17	11°♄20'12	1.45057 AU	morning set	2601 Oct 27 10:12	24°♄59'55	
	2600 Dec 14 00:07	0°♄			2601 Oct 30 07:55	0°♄	
evening rise	2600 Dec 15 11:51	2°♄18'48					
greatest brilliancy	2601 Jan 01 03:06	27°♄39'51	-0.7m	superior conj	2601 Nov 08 23:41	16°♄12'41	0°20'53
	2601 Jan 02 18:45	0°♄		minimum elong	2601 Nov 09 01:55	16°♄21'49	0°20'33
evening max el	2601 Jan 09 02:39	7°♄50'23	19°36'10	desc. node	2601 Nov 12 01:27	21°♄12'41	
asc. node	2601 Jan 14 05:50	11°♄38'14		max. Earth dist.	2601 Nov 14 19:25	25°♄37'24	1.44273 AU
retrograde	2601 Jan 16 10:09	12°♄04'09			2601 Nov 17 13:38	0°♄	
evening set	2601 Jan 19 21:44	10°♄53'10		evening rise	2601 Nov 24 21:38	11°♄25'18	
inferior conj	2601 Jan 25 10:38	4°♄54'26	3°08'08		2601 Dec 07 04:41	0°♄	
minimum elong	2601 Jan 25 08:14	5°♄02'21	3°07'37	greatest brilliancy	2601 Dec 17 08:40	14°♄23'55	-0.5m
min. Earth dist.	2601 Jan 26 13:54	3°♄24'56	0.66600 AU	evening max el	2601 Dec 23 04:39	21°♄20'55	20°37'24
	2601 Jan 29 09:38	30°♄		retrograde	2601 Dec 31 08:07	26°♄09'23	
morning rise	2601 Jan 30 18:01	28°♄39'46		asc. node	2602 Jan 01 02:52	26°♄05'59	
direct	2601 Feb 05 20:35	25°♄57'35		evening set	2602 Jan 04 04:41	24°♄43'48	
	2601 Feb 14 14:06	0°♄		inferior conj	2602 Jan 09 15:01	18°♄32'34	2°35'22
morning max el	2601 Feb 18 03:10	3°♄15'49	25°42'39	minimum elong	2602 Jan 09 12:26	18°♄41'22	2°34'37
desc. node	2601 Feb 21 03:36	6°♄30'01		min. Earth dist.	2602 Jan 10 05:05	17°♄44'31	0.67394 AU
	2601 Mar 10 11:53	0°♄		morning rise	2602 Jan 14 19:45	12°♄17'21	
morning set	2601 Mar 26 08:10	26°♄35'10		direct	2602 Jan 20 07:52	9°♄52'15	
	2601 Mar 28 04:30	0°♄		morning max el	2602 Jan 31 11:36	16°♄31'31	24°18'26

desc. node	2602 Feb 08 00:38	25°☾14'24			2603 Jan 14 00:08	0°☾	
	2602 Feb 11 15:36	0°☾		greatest brilliancy	2603 Jan 18 13:20	5°☾05'17	-0.3m
	2602 Mar 03 11:49	0°☾		desc. node	2603 Jan 25 21:40	14°☾38'48	
morning set	2602 Mar 08 07:18	8°☾10'54			2603 Feb 05 11:44	0°☾	
max. Earth dist.	2602 Mar 12 01:09	14°☾48'52	1.37862 AU	morning set	2603 Feb 17 04:02	18°☾28'10	
				max. Earth dist.	2603 Feb 21 20:32	26°☾21'22	1.40020 AU
					2603 Feb 23 23:07	0°☾	
superior conj	2602 Mar 19 00:37	27°☾49'00	-1°-36'-33				
minimum elong	2602 Mar 19 05:01	28°☾10'10	1°36'03				
	2602 Mar 20 03:46	0°☾		superior conj	2603 Mar 01 14:37	10°☾04'36	-1°-56'-5
evening rise	2602 Mar 27 19:45	15°☾06'19		minimum elong	2603 Mar 01 18:25	10°☾21'57	1°55'50
asc. node	2602 Mar 30 02:13	19°☾33'30		evening rise	2603 Mar 11 10:20	28°☾31'09	
	2602 Apr 04 17:44	0°☾			2603 Mar 12 05:02	0°☾	
evening max el	2602 Apr 13 09:59	11°☾56'59	19°05'27	asc. node	2603 Mar 16 23:13	8°☾52'09	
retrograde	2602 Apr 22 03:39	16°☾11'36		evening max el	2603 Mar 27 13:59	24°☾25'59	18°27'18
evening set	2602 Apr 24 06:11	15°☾57'49		retrograde	2603 Apr 04 02:06	28°☾08'04	
inferior conj	2602 May 02 11:47	11°☾44'37	1°16'07	evening set	2603 Apr 06 10:17	27°☾47'31	
minimum elong	2602 May 02 14:38	11°☾39'41	1°15'10	inferior conj	2603 Apr 13 20:56	23°☾14'43	2°34'48
min. Earth dist.	2602 May 05 12:08	9°☾40'50	0.56577 AU	minimum elong	2603 Apr 14 00:48	23°☾06'54	2°33'50
desc. node	2602 May 06 23:50	8°☾44'04		min. Earth dist.	2603 Apr 17 07:27	20°☾29'44	0.58466 AU
morning rise	2602 May 10 18:53	6°☾48'40		morning rise	2603 Apr 21 11:06	17°☾47'11	
direct	2602 May 15 20:49	5°☾48'13		desc. node	2603 Apr 23 20:51	16°☾46'53	
morning max el	2602 May 30 03:10	13°☾08'15	25°36'52	direct	2603 Apr 27 12:06	16°☾12'17	
	2602 Jun 12 07:47	0°☾		morning max el	2603 May 11 21:28	23°☾54'21	26°54'43
morning set	2602 Jun 26 09:58	26°☾10'48			2603 May 17 09:51	0°☾	
asc. node	2602 Jun 26 01:30	25°☾26'14			2603 Jun 05 08:53	0°☾	
	2602 Jun 28 04:58	0°☾		morning set	2603 Jun 10 19:52	10°☾59'16	
				asc. node	2603 Jun 12 22:31	15°☾28'07	
superior conj	2602 Jul 03 10:05	11°☾22'49	1°10'39				
minimum elong	2602 Jul 03 07:43	11°☾09'52	1°10'17	superior conj	2603 Jun 17 21:51	26°☾19'42	0°50'21
max. Earth dist.	2602 Jul 04 08:56	13°☾27'56	1.32500 AU	minimum elong	2603 Jun 17 19:52	26°☾08'47	0°49'58
evening rise	2602 Jul 10 12:26	26°☾36'23		max. Earth dist.	2603 Jun 17 20:35	26°☾12'46	1.32157 AU
	2602 Jul 12 04:14	0°☾			2603 Jun 19 13:52	0°☾	
	2602 Jul 29 09:16	0°☾		evening rise	2603 Jun 24 19:52	11°☾20'30	
desc. node	2602 Aug 02 23:10	6°☾18'26			2603 Jul 04 09:27	0°☾	
evening max el	2602 Aug 11 07:28	15°☾44'17	27°15'59	desc. node	2603 Jul 20 20:11	24°☾01'30	
retrograde	2602 Aug 25 03:16	22°☾59'10		evening max el	2603 Jul 24 09:13	27°☾41'58	26°33'19
evening set	2602 Sep 01 07:18	20°☾36'03			2603 Jul 26 23:57	0°☾	
min. Earth dist.	2602 Sep 04 21:36	17°☾48'04	0.61940 AU	retrograde	2603 Aug 07 08:31	4°☾54'06	
inferior conj	2602 Sep 07 22:14	15°☾02'52	-4°-4'-41	evening set	2603 Aug 14 01:55	2°☾59'54	
minimum elong	2602 Sep 08 03:45	14°☾50'16	4°03'21	min. Earth dist.	2603 Aug 17 22:43	0°☾24'26	0.59900 AU
morning rise	2602 Sep 15 03:03	10°☾01'58			2603 Aug 18 11:22	30°☾	
direct	2602 Sep 17 11:41	9°☾37'58		inferior conj	2603 Aug 21 05:42	27°☾47'19	-4°-45'-7
asc. node	2602 Sep 22 00:41	11°☾09'53		minimum elong	2603 Aug 21 09:53	27°☾38'59	4°44'35
morning max el	2602 Sep 24 09:06	13°☾06'38	17°54'07	morning rise	2603 Aug 28 21:14	23°☾08'59	
	2602 Oct 05 19:30	0°☾		direct	2603 Aug 31 06:20	22°☾48'21	
morning set	2602 Oct 10 06:10	7°☾59'29		morning max el	2603 Sep 07 20:11	26°☾29'34	18°14'41
				asc. node	2603 Sep 08 21:43	27°☾34'54	
					2603 Sep 10 22:24	0°☾	
superior conj	2602 Oct 21 01:04	27°☾09'37	0°58'41	morning set	2603 Sep 23 16:43	21°☾40'24	
minimum elong	2602 Oct 21 05:28	27°☾28'32	0°58'07		2603 Sep 28 02:24	0°☾	
	2602 Oct 22 16:53	0°☾					
max. Earth dist.	2602 Oct 28 09:28	9°☾29'45	1.42865 AU				
desc. node	2602 Oct 29 22:29	12°☾00'25		superior conj	2603 Oct 03 03:18	9°☾19'11	1°24'46
evening rise	2602 Nov 04 09:52	20°☾43'50		minimum elong	2603 Oct 03 07:07	9°☾36'34	1°24'24
	2602 Nov 10 10:04	0°☾		max. Earth dist.	2603 Oct 10 17:41	22°☾41'09	1.41014 AU
greatest brilliancy	2602 Dec 01 06:08	29°☾25'59	-0.4m		2603 Oct 15 02:50	0°☾	
	2602 Dec 01 17:14	0°☾		evening rise	2603 Oct 15 15:18	0°☾50'56	
evening max el	2602 Dec 06 01:03	4°☾52'37	21°49'44	desc. node	2603 Oct 16 19:31	2°☾45'27	
retrograde	2602 Dec 15 05:08	10°☾20'08			2603 Nov 03 21:14	0°☾	
asc. node	2602 Dec 18 23:54	9°☾02'13		greatest brilliancy	2603 Nov 12 13:40	11°☾30'30	-0.2m
evening set	2602 Dec 19 12:28	8°☾38'44		evening max el	2603 Nov 18 16:41	18°☾26'32	23°08'39
inferior conj	2602 Dec 24 21:56	2°☾18'27	1°54'46	retrograde	2603 Nov 28 23:36	24°☾32'30	
minimum elong	2602 Dec 24 19:41	2°☾26'16	1°53'57	evening set	2603 Dec 03 19:26	22°☾34'26	
min. Earth dist.	2602 Dec 25 00:16	2°☾10'23	0.67808 AU	asc. node	2603 Dec 05 20:55	20°☾31'15	
	2602 Dec 26 14:28	30°☾		inferior conj	2603 Dec 09 05:31	16°☾09'06	1°07'44
morning rise	2602 Dec 30 02:41	26°☾04'25		minimum elong	2603 Dec 09 04:00	16°☾14'18	1°07'07
direct	2603 Jan 03 23:38	24°☾01'01		min. Earth dist.	2603 Dec 08 21:02	16°☾38'20	0.67868 AU
morning max el	2603 Jan 13 21:27	29°☾53'13	22°49'37	morning rise	2603 Dec 14 12:37	9°☾58'21	

direct	2603 Dec 18 18:59	8°♄17'47		transit middle	2604 Nov 22 11:37	0°♄03'34	0°15'18
morning max el	2603 Dec 27 12:03	13°♄22'47	21°25'08	transit begin	2604 Nov 22 10:42	0°♄06'38	
greatest brilliancy	2604 Jan 01 14:02	19°♄10'24	-0.4m	transit end	2604 Nov 22 12:32	0°♄00'29	
	2604 Jan 09 15:05	0°♄			2604 Nov 22 12:41	30°♄	
desc. node	2604 Jan 12 18:43	4°♄31'46		morning rise	2604 Nov 27 23:35	23°♄57'17	
morning set	2604 Jan 27 19:49	27°♄23'38		direct	2604 Dec 01 16:44	22°♄38'12	
	2604 Jan 29 11:13	0°♄		morning max el	2604 Dec 09 10:03	27°♄03'10	20°11'15
max. Earth dist.	2604 Feb 03 20:51	8°♄45'07	1.42074 AU		2604 Dec 12 02:28	0°♄	
				greatest brilliancy	2604 Dec 16 04:25	5°♄10'55	-0.6m
superior conj	2604 Feb 11 07:47	21°♄19'36	-2°-5'-35	desc. node	2604 Dec 29 15:46	24°♄45'23	
minimum elong	2604 Feb 11 08:34	21°♄22'59	2°05'35		2605 Jan 02 02:28	0°♄	
	2604 Feb 16 06:21	0°♄		morning set	2605 Jan 05 16:54	5°♄32'14	
evening rise	2604 Feb 22 11:56	11°♄15'28		max. Earth dist.	2605 Jan 16 05:23	22°♄04'29	1.43748 AU
asc. node	2604 Mar 02 20:14	27°♄43'54			2605 Jan 21 02:54	0°♄	
	2604 Mar 04 06:41	0°♄					
evening max el	2604 Mar 09 23:49	7°♄21'17	18°09'06	superior conj	2605 Jan 21 23:35	1°♄24'48	-1°-59'-55
retrograde	2604 Mar 16 17:57	10°♄46'58		minimum elong	2605 Jan 21 18:57	1°♄05'48	1°59'44
evening set	2604 Mar 19 07:51	10°♄17'24		evening rise	2605 Feb 03 20:19	23°♄10'59	
inferior conj	2604 Mar 26 02:24	5°♄23'25	3°20'47		2605 Feb 07 18:46	0°♄	
minimum elong	2604 Mar 26 04:59	5°♄17'21	3°20'24	asc. node	2605 Feb 17 17:15	16°♄00'15	
min. Earth dist.	2604 Mar 29 08:57	2°♄21'11	0.60615 AU	evening max el	2605 Feb 21 12:16	20°♄34'02	18°10'11
	2604 Apr 01 07:33	30°♄		retrograde	2605 Feb 27 23:09	23°♄58'07	
morning rise	2604 Apr 01 22:52	29°♄34'22		evening set	2605 Mar 02 18:23	23°♄18'12	
direct	2604 Apr 08 15:27	27°♄23'59		inferior conj	2605 Mar 09 00:34	18°♄03'30	3°39'50
desc. node	2604 Apr 09 17:52	27°♄27'23		minimum elong	2605 Mar 09 01:14	18°♄01'43	3°39'49
	2604 Apr 16 10:45	0°♄		min. Earth dist.	2605 Mar 11 18:46	15°♄08'37	0.62710 AU
morning max el	2604 Apr 22 21:48	5°♄17'21	27°40'31	morning rise	2605 Mar 15 05:55	12°♄01'25	
	2604 May 11 07:57	0°♄		direct	2605 Mar 22 04:06	9°♄24'46	
morning set	2604 May 25 02:17	25°♄35'15		desc. node	2605 Mar 27 14:55	10°♄48'58	
	2604 May 27 04:53	0°♄		morning max el	2605 Apr 05 03:42	17°♄21'15	27°49'02
asc. node	2604 May 29 19:33	5°♄36'01			2605 Apr 15 16:24	0°♄	
max. Earth dist.	2604 May 31 08:03	8°♄54'48	1.32205 AU		2605 May 04 01:53	0°♄	
				morning set	2605 May 09 03:02	9°♄50'42	
superior conj	2604 Jun 01 09:05	11°♄12'00	0°26'47	max. Earth dist.	2605 May 14 15:27	21°♄20'22	1.32663 AU
minimum elong	2604 Jun 01 07:54	11°♄05'31	0°26'32				
evening rise	2604 Jun 08 06:29	26°♄11'42		superior conj	2605 May 16 18:02	25°♄52'44	0°00'39
	2604 Jun 10 02:02	0°♄		minimum elong	2605 May 16 18:00	25°♄52'34	0°00'38
	2604 Jun 27 11:15	0°♄		behind sun begin	2605 May 16 12:48	25°♄24'25	
evening max el	2604 Jul 05 03:56	8°♄53'37	25°20'50	behind sun end	2605 May 16 23:12	26°♄20'44	
desc. node	2604 Jul 06 17:10	10°♄18'34		asc. node	2605 May 16 16:35	25°♄44'51	
retrograde	2604 Jul 19 03:58	16°♄00'34			2605 May 18 15:34	0°♄	
evening set	2604 Jul 24 21:26	14°♄44'28		evening rise	2605 May 23 18:18	11°♄02'16	
min. Earth dist.	2604 Jul 29 15:53	12°♄03'05	0.57872 AU		2605 Jun 02 11:29	0°♄	
inferior conj	2604 Aug 01 18:42	9°♄53'57	-5°-2'-10	evening max el	2605 Jun 16 17:48	19°♄29'30	23°48'55
minimum elong	2604 Aug 01 18:51	9°♄53'41	5°02'11	desc. node	2605 Jun 23 14:11	24°♄35'47	
morning rise	2604 Aug 09 19:55	5°♄38'17		retrograde	2605 Jun 30 11:02	26°♄22'39	
direct	2604 Aug 12 08:24	5°♄19'01		evening set	2605 Jul 04 18:06	25°♄42'06	
morning max el	2604 Aug 20 23:50	9°♄23'41	18°55'54	min. Earth dist.	2605 Jul 11 04:14	22°♄38'36	0.56158 AU
asc. node	2604 Aug 25 18:46	15°♄03'27		inferior conj	2605 Jul 13 11:26	21°♄14'54	-4°-41'-14
	2604 Sep 03 13:16	0°♄		minimum elong	2605 Jul 13 05:59	21°♄23'11	4°40'29
morning set	2604 Sep 06 13:33	5°♄51'16		morning rise	2605 Jul 21 21:15	17°♄17'41	
				direct	2605 Jul 24 15:21	16°♄58'23	
superior conj	2604 Sep 15 01:02	22°♄26'23	1°39'42	morning max el	2605 Aug 03 17:08	21°♄38'46	19°58'43
minimum elong	2604 Sep 15 03:10	22°♄36'31	1°39'35		2605 Aug 10 12:56	0°♄	
	2604 Sep 19 01:41	0°♄		asc. node	2605 Aug 12 15:50	3°♄20'49	
max. Earth dist.	2604 Sep 21 21:59	5°♄10'02	1.38966 AU	morning set	2605 Aug 21 17:24	20°♄22'58	
evening rise	2604 Sep 25 20:27	12°♄03'55			2605 Aug 26 10:34	0°♄	
desc. node	2604 Oct 02 16:32	23°♄24'01					
	2604 Oct 06 21:31	0°♄		superior conj	2605 Aug 29 13:02	6°♄16'10	1°45'12
	2604 Oct 29 05:24	0°♄		minimum elong	2605 Aug 29 13:22	6°♄17'48	1°45'12
evening max el	2604 Oct 31 05:40	2°♄04'39	24°28'06	max. Earth dist.	2605 Sep 04 03:10	17°♄09'45	1.36963 AU
retrograde	2604 Nov 11 14:17	8°♄42'53		evening rise	2605 Sep 08 00:07	24°♄19'56	
evening set	2604 Nov 17 00:00	6°♄28'20			2605 Sep 11 04:44	0°♄	
min. Earth dist.	2604 Nov 21 16:57	1°♄06'02	0.67587 AU	desc. node	2605 Sep 19 13:33	13°♄51'33	
asc. node	2604 Nov 21 17:58	1°♄02'38			2605 Sep 30 13:03	0°♄	
inferior conj	2604 Nov 22 11:59	0°♄02'18	0°15'28	evening max el	2605 Oct 13 17:52	15°♄45'43	25°40'54
minimum elong	2604 Nov 22 11:37	0°♄03'34	0°15'18	retrograde	2605 Oct 26 00:22	22°♄46'55	

evening set	2605 Nov 01 00:28	20° \mathbb{M} 17'34		evening max el	2606 Sep 26 06:06	29° \mathbb{A} 23'41	26°39'30
min. Earth dist.	2605 Nov 05 09:36	15° \mathbb{M} 30'49	0.66969 AU		2606 Sep 26 21:25	0° \mathbb{M}	
inferior conj	2605 Nov 06 15:36	13° \mathbb{M} 55'19	0°-40'-46	retrograde	2606 Oct 09 05:18	6° \mathbb{M} 38'01	
minimum elong	2605 Nov 06 16:39	13° \mathbb{M} 51'57	0°40'20	evening set	2606 Oct 15 18:49	3° \mathbb{M} 58'22	
asc. node	2605 Nov 08 15:02	11° \mathbb{M} 28'42			2606 Oct 19 16:37	30° \mathbb{R} \mathbb{A}	
morning rise	2605 Nov 12 09:39	7° \mathbb{M} 58'49		min. Earth dist.	2606 Oct 19 20:36	29° \mathbb{A} 48'21	0.66004 AU
direct	2605 Nov 15 15:24	6° \mathbb{M} 58'21		inferior conj	2606 Oct 21 14:20	27° \mathbb{A} 44'18	-1°-39'-33
morning max el	2605 Nov 22 15:53	10° \mathbb{M} 54'01	19°11'33	minimum elong	2606 Oct 21 17:01	27° \mathbb{A} 36'18	1°38'27
greatest brilliancy	2605 Dec 03 09:09	25° \mathbb{M} 00'12	-0.7m	asc. node	2606 Oct 26 12:07	22° \mathbb{A} 44'03	
	2605 Dec 06 16:32	0° \mathbb{A}		morning rise	2606 Oct 27 16:35	21° \mathbb{A} 59'14	
morning set	2605 Dec 15 19:37	14° \mathbb{A} 06'50		direct	2606 Oct 30 13:04	21° \mathbb{A} 13'45	
desc. node	2605 Dec 16 12:49	15° \mathbb{A} 13'44		morning max el	2606 Nov 06 03:53	24° \mathbb{A} 50'41	18°27'39
	2605 Dec 25 23:53	0° \mathbb{A}			2606 Nov 10 11:23	0° \mathbb{M}	
max. Earth dist.	2605 Dec 29 20:50	6° \mathbb{A} 05'18	1.44824 AU	morning set	2606 Nov 25 23:27	23° \mathbb{M} 59'33	
					2606 Nov 29 17:27	0° \mathbb{A}	
superior conj	2606 Jan 01 14:26	10° \mathbb{A} 24'41	-1°-35'-17	desc. node	2606 Dec 03 09:50	5° \mathbb{A} 51'51	
minimum elong	2606 Jan 01 05:36	9° \mathbb{A} 49'40	1°34'29				
	2606 Jan 13 18:12	0° \mathbb{A}		superior conj	2606 Dec 11 16:10	18° \mathbb{A} 54'09	0°-53'-45
evening rise	2606 Jan 16 07:25	4° \mathbb{A} 11'27		minimum elong	2606 Dec 11 09:24	18° \mathbb{A} 27'35	0°52'54
	2606 Feb 01 16:05	0° \mathbb{A}		max. Earth dist.	2606 Dec 12 15:31	20° \mathbb{A} 25'49	1.45185 AU
asc. node	2606 Feb 04 14:19	3° \mathbb{A} 30'48			2606 Dec 18 17:55	0° \mathbb{A}	
evening max el	2606 Feb 05 00:31	3° \mathbb{A} 57'18	18°29'54	evening rise	2606 Dec 27 19:06	14° \mathbb{A} 14'41	
retrograde	2606 Feb 11 13:26	7° \mathbb{A} 32'40			2607 Jan 06 19:15	0° \mathbb{A}	
evening set	2606 Feb 14 14:09	6° \mathbb{A} 41'35		greatest brilliancy	2607 Jan 08 22:19	3° \mathbb{A} 16'45	-0.7m
inferior conj	2606 Feb 20 11:26	1° \mathbb{A} 07'43	3°38'42	evening max el	2607 Jan 19 10:04	17° \mathbb{A} 25'04	19°07'15
minimum elong	2606 Feb 20 10:27	1° \mathbb{A} 10'37	3°38'39	asc. node	2607 Jan 22 11:23	20° \mathbb{A} 01'43	
	2606 Feb 21 10:21	30° \mathbb{R} \mathbb{A}		retrograde	2607 Jan 26 08:56	21° \mathbb{A} 22'35	
min. Earth dist.	2606 Feb 22 14:12	28° \mathbb{A} 38'40	0.64528 AU	evening set	2607 Jan 29 16:04	20° \mathbb{A} 19'18	
morning rise	2606 Feb 26 05:22	24° \mathbb{A} 58'06		inferior conj	2607 Feb 04 07:20	14° \mathbb{A} 28'44	3°22'39
direct	2606 Mar 05 00:22	22° \mathbb{A} 08'57		minimum elong	2607 Feb 04 05:16	14° \mathbb{A} 35'18	3°22'20
desc. node	2606 Mar 14 11:58	26° \mathbb{A} 20'49		min. Earth dist.	2607 Feb 05 18:48	12° \mathbb{A} 36'01	0.65961 AU
morning max el	2606 Mar 18 13:00	0° \mathbb{A} 00'24	27°21'46	morning rise	2607 Feb 09 17:35	8° \mathbb{A} 14'59	
	2606 Mar 18 12:51	0° \mathbb{A}		direct	2607 Feb 16 03:10	5° \mathbb{A} 26'59	
	2606 Apr 09 15:30	0° \mathbb{A}		morning max el	2607 Feb 28 22:56	13° \mathbb{A} 02'03	26°25'02
morning set	2606 Apr 22 19:25	23° \mathbb{A} 37'44		desc. node	2607 Mar 01 09:01	13° \mathbb{A} 27'39	
	2606 Apr 26 00:09	0° \mathbb{A}			2607 Mar 14 15:53	0° \mathbb{A}	
max. Earth dist.	2606 Apr 27 14:56	3° \mathbb{A} 18'28	1.33557 AU		2607 Apr 02 07:37	0° \mathbb{A}	
				morning set	2607 Apr 05 23:52	6° \mathbb{A} 45'30	
superior conj	2606 Apr 30 22:47	10° \mathbb{A} 16'13	0°-27'-11	max. Earth dist.	2607 Apr 10 03:19	14° \mathbb{A} 43'39	1.34902 AU
minimum elong	2606 May 01 00:09	10° \mathbb{A} 23'31	0°26'55				
asc. node	2606 May 03 13:38	15° \mathbb{A} 50'57		superior conj	2607 Apr 14 21:02	24° \mathbb{A} 15'42	0°-55'-29
evening rise	2606 May 08 05:31	25° \mathbb{A} 46'19		minimum elong	2607 Apr 14 23:53	24° \mathbb{A} 30'21	0°54'58
	2606 May 10 06:23	0° \mathbb{A}			2607 Apr 17 15:35	0° \mathbb{A}	
	2606 May 29 10:17	0° \mathbb{A}		asc. node	2607 Apr 20 10:41	5° \mathbb{A} 50'10	
evening max el	2606 May 29 09:21	29° \mathbb{A} 57'43	22°12'45	evening rise	2607 Apr 22 14:09	10° \mathbb{A} 17'27	
desc. node	2606 Jun 10 11:12	6° \mathbb{A} 18'19			2607 May 03 01:44	0° \mathbb{A}	
retrograde	2606 Jun 11 06:05	6° \mathbb{A} 19'45		evening max el	2607 May 11 09:56	10° \mathbb{A} 49'58	20°46'08
evening set	2606 Jun 14 03:49	6° \mathbb{A} 01'02		retrograde	2607 May 22 19:16	16° \mathbb{A} 22'59	
min. Earth dist.	2606 Jun 22 15:19	2° \mathbb{A} 22'06	0.55093 AU	evening set	2607 May 24 22:11	16° \mathbb{A} 12'10	
inferior conj	2606 Jun 23 11:08	1° \mathbb{A} 54'13	-3°-31'-43	desc. node	2607 May 28 08:12	15° \mathbb{A} 13'31	
minimum elong	2606 Jun 23 03:01	2° \mathbb{A} 05'38	3°29'30	inferior conj	2607 Jun 03 04:45	12° \mathbb{A} 14'39	-1°-42'-18
	2606 Jun 26 23:41	30° \mathbb{R} \mathbb{A}		minimum elong	2607 Jun 02 23:56	12° \mathbb{A} 21'32	1°40'35
morning rise	2606 Jul 02 04:14	28° \mathbb{A} 03'00		min. Earth dist.	2607 Jun 04 03:36	11° \mathbb{A} 42'00	0.54932 AU
direct	2606 Jul 05 05:50	27° \mathbb{A} 41'57		morning rise	2607 Jun 12 00:43	8° \mathbb{A} 09'16	
	2606 Jul 12 20:12	0° \mathbb{A}		direct	2607 Jun 15 15:11	7° \mathbb{A} 41'19	
morning max el	2606 Jul 16 22:53	3° \mathbb{A} 09'33	21°21'56	morning max el	2607 Jun 28 18:47	14° \mathbb{A} 00'40	23°00'03
asc. node	2606 Jul 30 12:54	22° \mathbb{A} 15'16			2607 Jul 11 00:37	0° \mathbb{A}	
	2606 Aug 03 13:23	0° \mathbb{A}		asc. node	2607 Jul 17 09:57	11° \mathbb{A} 37'43	
morning set	2606 Aug 06 01:49	5° \mathbb{A} 08'22		morning set	2607 Jul 21 12:49	20° \mathbb{A} 01'57	
					2607 Jul 26 04:54	0° \mathbb{A}	
superior conj	2606 Aug 13 11:04	20° \mathbb{A} 36'05	1°42'57				
minimum elong	2606 Aug 13 09:59	20° \mathbb{A} 30'25	1°42'54	superior conj	2607 Jul 28 15:55	5° \mathbb{A} 16'33	1°34'24
max. Earth dist.	2606 Aug 17 14:13	29° \mathbb{A} 01'49	1.35211 AU	minimum elong	2607 Jul 28 13:56	5° \mathbb{A} 05'53	1°34'12
	2606 Aug 18 01:53	0° \mathbb{A}		max. Earth dist.	2607 Jul 31 10:07	11° \mathbb{A} 06'48	1.33832 AU
evening rise	2606 Aug 21 22:05	7° \mathbb{A} 28'13		evening rise	2607 Aug 05 09:54	21° \mathbb{A} 17'11	
	2606 Sep 03 20:30	0° \mathbb{A}			2607 Aug 09 23:05	0° \mathbb{A}	
desc. node	2606 Sep 06 10:34	4° \mathbb{A} 02'08		desc. node	2607 Aug 24 07:34	23° \mathbb{A} 48'17	

	2607 Aug 28 17:21	0°♄		evening rise	2608 Jul 19 07:40	5°♄34'44	
evening max el	2607 Sep 08 18:07	12°♄49'58	27°16'33		2608 Aug 01 13:47	0°♄	
retrograde	2607 Sep 22 04:44	20°♄08'40		desc. node	2608 Aug 10 04:35	12°♄58'49	
evening set	2607 Sep 29 04:35	17°♄26'32		evening max el	2608 Aug 21 04:15	25°♄51'38	27°25'33
min. Earth dist.	2607 Oct 02 23:48	13°♄52'32	0.64683 AU		2608 Aug 26 05:45	0°♄	
inferior conj	2607 Oct 05 05:56	11°♄25'07	-2°-38'-46	retrograde	2608 Sep 03 21:48	3°♄08'35	
minimum elong	2607 Oct 05 10:13	11°♄13'27	2°37'13	evening set	2608 Sep 11 02:29	0°♄35'06	
morning rise	2607 Oct 11 17:51	5°♄54'30			2608 Sep 11 21:30	30°♄	
asc. node	2607 Oct 13 09:09	5°♄24'39		min. Earth dist.	2608 Sep 14 17:21	27°♄32'39	0.63021 AU
direct	2607 Oct 14 07:29	5°♄20'05		inferior conj	2608 Sep 17 11:40	24°♄50'30	-3°-35'-17
morning max el	2607 Oct 20 19:30	8°♄47'37	18°00'34	minimum elong	2608 Sep 17 17:03	24°♄37'17	3°33'44
	2607 Nov 04 04:36	0°♄		morning rise	2608 Sep 24 10:11	19°♄37'34	
morning set	2607 Nov 07 08:25	5°♄18'18		direct	2608 Sep 26 19:44	19°♄10'40	
desc. node	2607 Nov 20 06:53	26°♄36'29		asc. node	2608 Sep 29 06:11	19°♄39'03	
				morning max el	2608 Oct 03 11:43	22°♄36'49	17°51'07
superior conj	2607 Nov 21 02:06	27°♄53'35	0°-5'-26		2608 Oct 09 05:42	0°♄	
minimum elong	2607 Nov 21 01:26	27°♄50'55	0°05'22	morning set	2608 Oct 19 17:26	17°♄46'10	
behind sun begin	2607 Nov 20 15:27	27°♄10'52			2608 Oct 26 17:37	0°♄	
behind sun end	2607 Nov 21 11:25	28°♄30'55					
	2607 Nov 22 09:43	0°♄		superior conj	2608 Oct 31 11:39	8°♄03'24	0°38'16
max. Earth dist.	2607 Nov 25 10:16	4°♄47'58	1.44808 AU	minimum elong	2608 Oct 31 15:15	8°♄18'23	0°37'46
evening rise	2607 Dec 07 11:08	23°♄33'29		desc. node	2608 Nov 06 03:55	17°♄23'45	
	2607 Dec 11 15:42	0°♄		max. Earth dist.	2608 Nov 07 02:28	18°♄54'44	1.43743 AU
greatest brilliancy	2607 Dec 26 17:16	22°♄22'49	-0.6m		2608 Nov 14 02:37	0°♄	
	2608 Jan 01 18:25	0°♄		evening rise	2608 Nov 15 19:47	2°♄39'42	
evening max el	2608 Jan 02 15:09	0°♄55'07	20°00'32		2608 Dec 04 04:50	0°♄	
asc. node	2608 Jan 09 08:25	5°♄18'31		greatest brilliancy	2608 Dec 10 08:49	8°♄19'51	-0.4m
retrograde	2608 Jan 10 06:41	5°♄23'16		evening max el	2608 Dec 15 14:49	14°♄26'34	21°07'04
evening set	2608 Jan 13 21:45	4°♄06'26		retrograde	2608 Dec 24 04:22	19°♄31'13	
	2608 Jan 17 21:28	30°♄		asc. node	2608 Dec 26 05:25	19°♄08'07	
inferior conj	2608 Jan 19 09:20	28°♄01'56	2°55'17	evening set	2608 Dec 28 05:15	17°♄59'16	
minimum elong	2608 Jan 19 06:48	28°♄10'28	2°54'40	inferior conj	2609 Jan 02 15:03	11°♄43'58	2°19'03
min. Earth dist.	2608 Jan 20 06:51	26°♄49'52	0.66989 AU	minimum elong	2609 Jan 02 12:33	11°♄52'35	2°18'14
morning rise	2608 Jan 24 15:14	21°♄46'31		min. Earth dist.	2609 Jan 03 00:05	11°♄12'53	0.67620 AU
direct	2608 Jan 30 11:48	19°♄10'37		morning rise	2609 Jan 07 19:29	5°♄28'56	
morning max el	2608 Feb 11 07:47	26°♄14'31	25°07'50	direct	2609 Jan 13 01:16	3°♄12'25	
	2608 Feb 14 19:06	0°♄		morning max el	2609 Jan 23 16:15	9°♄32'10	23°40'31
desc. node	2608 Feb 16 06:03	1°♄42'27		desc. node	2609 Feb 02 03:07	20°♄45'45	
	2608 Mar 07 05:47	0°♄			2609 Feb 08 19:36	0°♄	
morning set	2608 Mar 18 11:26	18°♄59'50		morning set	2609 Feb 27 23:05	0°♄	
max. Earth dist.	2608 Mar 22 04:16	25°♄45'30	1.36683 AU		2609 Feb 28 00:04	0°♄04'11	
	2608 Mar 24 10:21	0°♄		max. Earth dist.	2609 Mar 03 23:17	6°♄56'28	1.38775 AU
superior conj	2608 Mar 28 09:53	7°♄43'05	-1°-22'-32	superior conj	2609 Mar 11 09:37	20°♄28'53	-1°-45'-47
minimum elong	2608 Mar 28 13:56	8°♄03'07	1°21'57	minimum elong	2609 Mar 11 14:00	20°♄49'29	1°45'21
evening rise	2608 Apr 05 17:58	24°♄28'44			2609 Mar 16 09:04	0°♄	
asc. node	2608 Apr 06 07:43	25°♄37'48		evening rise	2609 Mar 20 14:19	8°♄13'08	
	2608 Apr 08 12:33	0°♄		asc. node	2609 Mar 24 04:44	15°♄08'57	
evening max el	2608 Apr 22 22:32	22°♄21'38	19°36'35		2609 Apr 02 01:07	0°♄	
retrograde	2608 May 02 14:02	27°♄01'39		evening max el	2609 Apr 05 21:51	4°♄32'24	18°46'47
evening set	2608 May 04 14:16	26°♄50'24		retrograde	2609 Apr 14 01:17	8°♄30'40	
inferior conj	2608 May 13 06:48	22°♄46'45	0°16'16	evening set	2609 Apr 16 06:16	8°♄14'16	
minimum elong	2608 May 13 07:31	22°♄45'38	0°16'01	inferior conj	2609 Apr 24 03:37	3°♄53'17	1°53'40
desc. node	2608 May 14 05:14	22°♄11'10		minimum elong	2609 Apr 24 07:19	3°♄46'29	1°52'32
min. Earth dist.	2608 May 15 17:46	21°♄13'48	0.55738 AU	min. Earth dist.	2609 Apr 27 10:29	1°♄29'28	0.57331 AU
morning rise	2608 May 21 21:09	18°♄10'48			2609 Apr 29 17:16	30°♄	
direct	2608 May 26 09:02	17°♄25'30		desc. node	2609 May 01 02:15	29°♄14'01	
morning max el	2608 Jun 09 09:22	24°♄28'05	24°42'10	morning rise	2609 May 02 03:59	28°♄43'15	
	2608 Jun 14 11:16	0°♄		direct	2609 May 07 16:37	27°♄28'43	
	2608 Jul 02 15:23	0°♄			2609 May 15 17:51	0°♄	
asc. node	2608 Jul 03 06:59	1°♄19'59		morning max el	2609 May 22 00:45	4°♄59'13	26°13'13
morning set	2608 Jul 05 00:38	4°♄57'28			2609 Jun 09 05:46	0°♄	
				morning set	2609 Jun 19 11:43	19°♄49'56	
superior conj	2608 Jul 12 01:00	20°♄08'20	1°20'37	asc. node	2609 Jun 20 04:01	21°♄16'11	
minimum elong	2608 Jul 11 22:37	19°♄55'25	1°20'17		2609 Jun 24 04:49	0°♄	
max. Earth dist.	2608 Jul 13 14:27	23°♄31'33	1.32868 AU				
	2608 Jul 16 15:09	0°♄		superior conj	2609 Jun 26 12:17	5°♄04'57	1°02'29

minimum elong	2609 Jun 26 10:02	4° \mathfrak{S} 52'32	1°02'06	superior conj	2610 Jun 11 00:01	19° \mathbb{I} 59'57	0°40'42
max. Earth dist.	2609 Jun 27 00:33	6° \mathfrak{S} 12'25	1.32310 AU	minimum elong	2610 Jun 10 22:20	19° \mathbb{I} 50'38	0°40'22
evening rise	2609 Jul 03 12:19	20° \mathfrak{S} 11'34			2610 Jun 15 13:30	0° \mathfrak{S}	
	2609 Jul 08 09:11	0° \mathcal{Q}		evening rise	2610 Jun 17 21:22	4° \mathfrak{S} 59'12	
	2609 Jul 27 00:16	0° \mathfrak{M}			2610 Jul 01 03:32	0° \mathcal{Q}	
desc. node	2609 Jul 28 01:34	1° \mathfrak{M} 19'09		desc. node	2610 Jul 14 22:34	18° \mathcal{Q} 28'44	
evening max el	2609 Aug 03 09:59	8° \mathfrak{M} 15'58	27°01'56	evening max el	2610 Jul 16 08:47	19° \mathcal{Q} 53'22	26°05'37
retrograde	2609 Aug 17 07:28	15° \mathfrak{M} 28'56		retrograde	2610 Jul 30 08:25	27° \mathcal{Q} 03'09	
evening set	2609 Aug 24 08:23	13° \mathfrak{M} 17'00		evening set	2610 Aug 05 17:32	25° \mathcal{Q} 24'27	
min. Earth dist.	2609 Aug 28 00:16	10° \mathfrak{M} 36'09	0.61088 AU	min. Earth dist.	2610 Aug 09 21:21	22° \mathcal{Q} 49'02	0.59022 AU
inferior conj	2609 Aug 31 04:18	7° \mathfrak{M} 52'28	-4°-23'-55	inferior conj	2610 Aug 13 04:16	20° \mathcal{Q} 21'32	-4°-56'-4
minimum elong	2609 Aug 31 09:32	7° \mathfrak{M} 41'08	4°22'54	minimum elong	2610 Aug 13 07:04	20° \mathcal{Q} 16'15	4°55'51
morning rise	2609 Sep 07 13:42	3° \mathfrak{M} 00'33		morning rise	2610 Aug 21 00:03	15° \mathcal{Q} 53'03	
direct	2609 Sep 09 22:13	2° \mathfrak{M} 38'09		direct	2610 Aug 23 10:27	15° \mathcal{Q} 33'03	
asc. node	2609 Sep 16 03:13	5° \mathfrak{M} 20'04		morning max el	2610 Aug 31 09:46	19° \mathcal{Q} 22'25	18°29'42
morning max el	2609 Sep 17 01:30	6° \mathfrak{M} 11'07	18°00'23	asc. node	2610 Sep 03 00:16	22° \mathcal{Q} 13'35	
	2609 Oct 02 06:11	0° \mathfrak{A}			2610 Sep 08 07:30	0° \mathfrak{M}	
morning set	2609 Oct 02 20:12	1° \mathfrak{A} 04'38		morning set	2610 Sep 16 11:36	14° \mathfrak{M} 59'31	
					2610 Sep 24 07:53	0° \mathfrak{A}	
superior conj	2609 Oct 13 00:02	19° \mathfrak{A} 31'46	1°11'12	superior conj	2610 Sep 25 11:18	2° \mathfrak{A} 07'50	1°32'23
minimum elong	2609 Oct 13 04:26	19° \mathfrak{A} 51'06	1°10'42	minimum elong	2610 Sep 25 14:27	2° \mathfrak{A} 22'30	1°32'08
	2609 Oct 19 02:04	0° \mathfrak{M}		max. Earth dist.	2610 Oct 02 21:02	15° \mathfrak{A} 26'18	1.40149 AU
max. Earth dist.	2609 Oct 20 14:19	2° \mathfrak{M} 31'27	1.42122 AU	evening rise	2610 Oct 07 05:09	22° \mathfrak{A} 49'03	
desc. node	2609 Oct 24 00:55	8° \mathfrak{M} 10'15		desc. node	2610 Oct 10 21:56	28° \mathfrak{A} 52'50	
evening rise	2609 Oct 26 13:53	12° \mathfrak{M} 14'59			2610 Oct 11 14:39	0° \mathfrak{M}	
	2609 Nov 07 03:41	0° \mathfrak{A}			2610 Nov 01 03:05	0° \mathfrak{A}	
greatest brilliancy	2609 Nov 23 15:13	22° \mathfrak{A} 39'21	-0.3m	evening max el	2610 Nov 10 23:22	11° \mathfrak{A} 34'47	23°42'47
evening max el	2609 Nov 28 09:08	27° \mathfrak{A} 59'18	22°22'54	retrograde	2610 Nov 21 17:18	17° \mathfrak{A} 55'19	
	2609 Nov 30 12:10	0° \mathfrak{S}		evening set	2610 Nov 26 19:03	15° \mathfrak{A} 49'51	
retrograde	2609 Dec 08 00:20	3° \mathfrak{S} 42'54		asc. node	2610 Nov 29 23:29	12° \mathfrak{A} 24'45	
evening set	2609 Dec 12 12:52	1° \mathfrak{S} 54'26		min. Earth dist.	2610 Dec 01 16:43	10° \mathfrak{A} 08'14	0.67789 AU
asc. node	2609 Dec 13 02:27	1° \mathfrak{S} 25'13		inferior conj	2610 Dec 02 05:47	9° \mathfrak{A} 23'42	0°46'09
	2609 Dec 14 11:46	30° \mathfrak{R} \mathfrak{A}		minimum elong	2610 Dec 02 04:42	9° \mathfrak{A} 27'22	0°45'41
inferior conj	2609 Dec 17 22:27	25° \mathfrak{A} 31'46	1°35'33	morning rise	2610 Dec 07 14:34	3° \mathfrak{A} 15'22	
minimum elong	2609 Dec 17 20:28	25° \mathfrak{A} 38'39	1°34'47	direct	2610 Dec 11 15:05	1° \mathfrak{A} 44'22	
min. Earth dist.	2609 Dec 17 20:07	25° \mathfrak{A} 39'53	0.67879 AU	morning max el	2610 Dec 19 21:18	6° \mathfrak{A} 30'56	20°52'16
morning rise	2609 Dec 23 03:56	19° \mathfrak{A} 19'04		greatest brilliancy	2610 Dec 25 13:06	13° \mathfrak{A} 05'12	-0.5m
direct	2609 Dec 27 18:40	17° \mathfrak{A} 25'18		desc. node	2611 Jan 06 21:12	0° \mathfrak{S} 25'52	
morning max el	2610 Jan 06 03:35	22° \mathfrak{A} 56'15	22°12'45		2611 Jan 06 14:13	0° \mathfrak{S}	
greatest brilliancy	2610 Jan 10 17:59	28° \mathfrak{A} 05'22	-0.3m	morning set	2611 Jan 18 13:59	18° \mathfrak{S} 14'18	
	2610 Jan 12 07:00	0° \mathfrak{S}			2611 Jan 25 23:50	0° \approx	
desc. node	2610 Jan 20 00:09	10° \mathfrak{S} 23'19		max. Earth dist.	2611 Jan 27 00:59	1° \approx 41'50	1.42850 AU
	2610 Feb 02 04:39	0° \approx					
morning set	2610 Feb 08 08:17	9° \approx 45'12		superior conj	2611 Feb 02 22:15	13° \approx 06'27	-2°-5'-19
max. Earth dist.	2610 Feb 13 20:41	18° \approx 51'22	1.40931 AU	minimum elong	2611 Feb 02 20:56	13° \approx 00'53	2°05'19
	2610 Feb 20 07:48	0° \mathfrak{H}			2611 Feb 12 15:46	0° \mathfrak{H}	
superior conj	2610 Feb 21 15:27	2° \mathfrak{H} 20'29	-2°-1'-38	evening rise	2611 Feb 14 18:47	3° \mathfrak{H} 47'01	
minimum elong	2610 Feb 21 18:19	2° \mathfrak{H} 33'15	2°01'31	asc. node	2611 Feb 25 22:47	22° \mathfrak{H} 54'57	
evening rise	2610 Mar 03 23:53	21° \mathfrak{H} 21'55			2611 Mar 03 09:18	0° \mathfrak{Y}	
	2610 Mar 08 15:55	0° \mathfrak{Y}		evening max el	2611 Mar 03 16:02	0° \mathfrak{Y} 16'56	18°07'06
asc. node	2610 Mar 11 01:46	4° \mathfrak{Y} 17'02		retrograde	2611 Mar 10 05:59	3° \mathfrak{Y} 40'33	
evening max el	2610 Mar 20 04:45	17° \mathfrak{Y} 13'34	18°17'04	evening set	2611 Mar 12 22:05	3° \mathfrak{Y} 06'48	
retrograde	2610 Mar 27 07:40	20° \mathfrak{Y} 46'42			2611 Mar 17 10:17	30° \mathfrak{R} \mathfrak{H}	
evening set	2610 Mar 29 18:27	20° \mathfrak{Y} 22'23		inferior conj	2611 Mar 19 10:54	28° \mathfrak{H} 03'36	3°31'41
inferior conj	2610 Apr 05 21:46	15° \mathfrak{Y} 40'13	2°58'02	minimum elong	2611 Mar 19 12:41	27° \mathfrak{H} 59'11	3°31'31
minimum elong	2610 Apr 06 01:16	15° \mathfrak{Y} 32'41	2°57'18	min. Earth dist.	2611 Mar 22 12:44	25° \mathfrak{H} 01'48	0.61532 AU
min. Earth dist.	2610 Apr 09 07:50	12° \mathfrak{Y} 45'06	0.59376 AU	morning rise	2611 Mar 26 00:30	22° \mathfrak{H} 07'47	
morning rise	2610 Apr 13 04:17	10° \mathfrak{Y} 02'29		direct	2611 Apr 01 20:27	19° \mathfrak{H} 44'57	
desc. node	2610 Apr 17 23:17	8° \mathfrak{Y} 19'00		desc. node	2611 Apr 04 20:21	20° \mathfrak{H} 10'19	
direct	2610 Apr 19 13:02	8° \mathfrak{Y} 12'18		morning max el	2611 Apr 16 00:42	27° \mathfrak{H} 40'45	27°48'43
morning max el	2610 May 03 21:30	15° \mathfrak{Y} 59'14	27°18'36		2611 Apr 18 06:09	0° \mathfrak{Y}	
	2610 May 15 08:01	0° \mathfrak{S}			2611 May 09 00:50	0° \mathfrak{S}	
	2610 Jun 01 15:06	0° \mathbb{I}		morning set	2611 May 19 00:41	19° \mathfrak{S} 01'37	
morning set	2610 Jun 03 20:22	4° \mathbb{I} 33'27			2611 May 24 05:35	0° \mathbb{I}	
asc. node	2610 Jun 07 01:03	11° \mathbb{I} 20'48		asc. node	2611 May 24 22:06	1° \mathbb{I} 29'22	
max. Earth dist.	2610 Jun 10 12:48	18° \mathbb{I} 58'07	1.32135 AU	max. Earth dist.	2611 May 24 23:07	1° \mathbb{I} 34'56	1.32351 AU

superior conj	2611 May 26 10:31	4°II47'43	0°15'57	morning max el	2612 Mar 28 08:30	10°X01'34	27°41'29
minimum elong	2611 May 26 09:47	4°II43'43	0°15'48		2612 Apr 12 23:47	0°Y	
behind sun begin	2611 May 26 09:17	4°II41'00			2612 Apr 30 08:25	0°Z	
behind sun end	2611 May 26 10:17	4°II46'26		morning set	2612 May 01 22:21	3°Z07'02	
evening rise	2611 Jun 02 08:44	19°II50'33		max. Earth dist.	2612 May 07 03:34	13°Z50'08	1.32984 AU
	2611 Jun 07 07:43	0°S					
	2611 Jun 27 05:53	0°Q		superior conj	2612 May 09 18:00	19°Z22'37	0°-11'00
evening max el	2611 Jun 28 00:36	0°Q45'57	24°43'06	minimum elong	2612 May 09 18:32	19°Z25'32	0°10'55
desc. node	2611 Jul 01 19:35	3°Q58'56		behind sun begin	2612 May 09 14:38	19°Z04'36	
retrograde	2611 Jul 11 23:01	7°Q49'25		behind sun end	2612 May 09 22:26	19°Z46'29	
evening set	2611 Jul 17 02:47	6°Q49'16		asc. node	2612 May 10 19:09	21°Z37'57	
min. Earth dist.	2611 Jul 22 11:49	4°Q00'16	0.57079 AU		2612 May 14 16:10	0°II	
inferior conj	2611 Jul 25 08:34	2°Q08'24	-4°-58'-49	evening rise	2612 May 16 20:34	4°II39'33	
minimum elong	2611 Jul 25 06:21	2°Q12'03	4°58'42		2612 May 30 13:17	0°S	
	2611 Jul 28 19:39	30°RZ		evening max el	2612 Jun 08 14:16	11°S15'21	23°07'38
morning rise	2611 Aug 02 13:39	28°S02'00		desc. node	2612 Jun 17 16:37	17°S14'53	
direct	2611 Aug 05 04:15	27°S42'58		retrograde	2612 Jun 22 01:17	17°S58'12	
	2611 Aug 11 21:44	0°Q		evening set	2612 Jun 25 16:44	17°S29'07	
morning max el	2611 Aug 14 09:23	2°Q01'00	19°20'08	min. Earth dist.	2612 Jul 02 23:41	14°S11'54	0.55603 AU
asc. node	2611 Aug 20 21:20	10°Q04'11		inferior conj	2612 Jul 04 17:22	13°S11'06	-4°-17'-49
morning set	2611 Aug 31 11:44	29°Q19'47		minimum elong	2612 Jul 04 10:08	13°S21'41	4°16'23
	2611 Aug 31 19:48	0°R		morning rise	2612 Jul 13 06:32	9°S18'17	
				direct	2612 Jul 16 03:11	8°S58'42	
superior conj	2611 Sep 08 15:43	15°R34'51	1°43'06	morning max el	2612 Jul 26 21:58	13°S58'36	20°31'48
minimum elong	2611 Sep 08 17:03	15°R41'21	1°43'02	asc. node	2612 Aug 06 18:25	28°S38'53	
max. Earth dist.	2611 Sep 15 00:44	27°R38'57	1.38084 AU		2612 Aug 07 12:52	0°Q	
	2611 Sep 16 07:45	0°Z		morning set	2612 Aug 14 17:49	13°Q58'05	
evening rise	2611 Sep 18 20:15	4°Z29'17					
desc. node	2611 Sep 27 18:57	19°Z26'57		superior conj	2612 Aug 22 08:29	29°Q39'04	1°45'05
	2611 Oct 04 16:00	0°R		minimum elong	2612 Aug 22 08:09	29°Q37'22	1°45'05
evening max el	2611 Oct 24 11:34	25°R13'21	25°00'19		2612 Aug 22 12:36	0°R	
	2611 Oct 30 06:41	0°Z		max. Earth dist.	2612 Aug 27 07:28	9°R30'50	1.36176 AU
retrograde	2611 Nov 05 06:16	2°Z03'28		evening rise	2612 Aug 31 08:20	17°R09'29	
evening set	2611 Nov 10 22:06	29°R42'02			2612 Sep 07 14:55	0°Z	
	2611 Nov 10 13:22	30°RZ		desc. node	2612 Sep 13 15:57	9°Z47'50	
min. Earth dist.	2611 Nov 15 11:32	24°R34'42	0.67360 AU		2612 Sep 28 00:31	0°R	
inferior conj	2611 Nov 16 11:15	23°R16'47	0°-7'-59	evening max el	2612 Oct 05 23:44	8°R53'45	26°08'03
minimum elong	2611 Nov 16 11:27	23°R16'08	0°07'54	retrograde	2612 Oct 18 14:22	16°R02'14	
transit middle	2611 Nov 16 11:27	23°R16'08	0°07'54	evening set	2612 Oct 24 20:13	13°R27'57	
transit begin	2611 Nov 16 09:02	23°R24'05		min. Earth dist.	2612 Oct 29 02:12	8°R56'28	0.66597 AU
transit end	2611 Nov 16 13:52	23°R08'11		inferior conj	2612 Oct 30 13:02	7°R08'22	-1°-5'-32
asc. node	2611 Nov 16 20:33	22°R46'16		minimum elong	2612 Oct 30 14:46	7°R02'58	1°04'47
morning rise	2611 Nov 22 01:22	17°R15'07		asc. node	2612 Nov 02 17:38	3°R26'52	
direct	2611 Nov 25 13:19	16°R04'35		morning rise	2612 Nov 05 10:21	1°R16'07	
morning max el	2611 Dec 02 22:48	20°R16'07	19°44'02	direct	2612 Nov 08 11:49	0°R22'32	
	2611 Dec 10 19:22	0°Z		morning max el	2612 Nov 15 07:27	4°R09'24	18°50'47
greatest brilliancy	2611 Dec 10 19:21	29°R59'59	-0.6m		2612 Dec 03 10:42	0°Z	
desc. node	2611 Dec 24 18:15	20°Z45'55		morning set	2612 Dec 06 21:57	5°Z27'19	
morning set	2611 Dec 28 10:09	26°Z24'14		desc. node	2612 Dec 10 15:15	11°Z18'22	
	2611 Dec 30 17:54	0°Z		max. Earth dist.	2612 Dec 22 04:54	29°Z27'52	1.45065 AU
max. Earth dist.	2612 Jan 09 12:13	15°Z18'42	1.44281 AU		2612 Dec 22 13:04	0°Z	
superior conj	2612 Jan 14 02:48	22°Z41'17	-1°-51'-52	superior conj	2612 Dec 23 09:49	1°Z21'34	-1°-19'-18
minimum elong	2612 Jan 13 19:53	22°Z13'23	1°51'25	minimum elong	2612 Dec 23 01:00	0°Z46'55	1°18'20
	2612 Jan 18 14:34	0°X		evening rise	2613 Jan 07 19:34	25°Z54'07	
evening rise	2612 Jan 27 18:33	15°X19'30			2613 Jan 10 08:22	0°X	
	2612 Feb 05 11:48	0°X		evening max el	2613 Jan 28 16:05	27°X00'25	18°43'50
asc. node	2612 Feb 12 19:50	10°X53'19		asc. node	2613 Jan 29 16:54	28°X00'07	
evening max el	2612 Feb 15 04:41	13°X34'45	18°16'21		2613 Feb 01 12:19	0°X	
retrograde	2612 Feb 21 15:34	17°X02'27		retrograde	2613 Feb 04 08:19	0°X43'47	
evening set	2612 Feb 24 12:57	16°X18'05		evening set	2613 Feb 07 11:37	29°X47'43	
inferior conj	2612 Mar 01 14:59	10°X55'09	3°41'27		2613 Feb 07 02:48	30°RX	
minimum elong	2612 Mar 01 14:54	10°X55'25	3°41'27	inferior conj	2613 Feb 13 06:03	24°X06'46	3°33'29
min. Earth dist.	2612 Mar 04 02:52	8°X09'07	0.63522 AU	minimum elong	2613 Feb 13 04:32	24°X11'24	3°33'19
morning rise	2612 Mar 07 14:59	4°X49'07		min. Earth dist.	2613 Feb 15 02:19	21°X52'04	0.65186 AU
direct	2612 Mar 14 12:42	2°X05'05		morning rise	2613 Feb 18 20:17	17°X55'11	
desc. node	2612 Mar 21 17:25	4°X31'40		direct	2613 Feb 25 12:04	15°X04'39	

desc. node	2613 Mar 08 14:28	20° ≈ 47'21			2614 Feb 13 16:24	0° ≈	
morning max el	2613 Mar 10 18:08	22° ≈ 50'53	27°00'45	morning max el	2614 Feb 21 03:30	5° ≈ 57'37	25°54'12
	2613 Mar 17 02:10	0° ≈		desc. node	2614 Feb 23 11:29	8° ≈ 25'44	
	2613 Apr 06 06:23	0° ≈			2614 Mar 11 17:10	0° ≈	
morning set	2613 Apr 15 10:08	16° ≈ 38'51		morning set	2614 Mar 29 08:01	29° ≈ 25'27	
max. Earth dist.	2613 Apr 19 22:21	25° ≈ 33'08	1.34071 AU		2614 Mar 29 15:31	0° ≈	
	2613 Apr 22 02:32	0° ≈		max. Earth dist.	2614 Apr 02 05:42	6° ≈ 46'24	1.35616 AU
superior conj	2613 Apr 23 20:18	3° ≈ 37'07	0°-39'-11	superior conj	2614 Apr 07 14:56	17° ≈ 24'05	-1°-7'-13
minimum elong	2613 Apr 23 22:19	3° ≈ 47'37	0°38'49	minimum elong	2614 Apr 07 18:22	17° ≈ 41'24	1°06'39
asc. node	2613 Apr 27 16:11	11° ≈ 41'42			2614 Apr 13 18:25	0° ≈	
evening rise	2613 May 01 06:55	19° ≈ 18'55		asc. node	2614 Apr 14 13:13	1° ≈ 36'40	
	2613 May 06 14:16	0° ≈		evening rise	2614 Apr 15 13:47	3° ≈ 42'34	
evening max el	2613 May 21 09:11	21° ≈ 51'37	21°34'13		2614 Apr 30 20:56	0° ≈	
retrograde	2613 Jun 02 16:15	27° ≈ 53'37		evening max el	2614 May 03 14:46	2° ≈ 59'34	20°14'10
desc. node	2613 Jun 04 13:40	27° ≈ 45'27		retrograde	2614 May 14 05:56	8° ≈ 09'15	
evening set	2613 Jun 05 03:46	27° ≈ 39'41		evening set	2614 May 16 06:30	7° ≈ 58'51	
inferior conj	2613 Jun 14 12:50	23° ≈ 39'10	-2°-48'-46	desc. node	2614 May 22 10:41	5° ≈ 39'33	
minimum elong	2613 Jun 14 05:28	23° ≈ 49'27	2°46'26	inferior conj	2614 May 25 08:15	4° ≈ 00'17	0°-51'00
min. Earth dist.	2613 Jun 14 11:16	23° ≈ 41'21	0.54912 AU	minimum elong	2614 May 25 05:51	4° ≈ 03'50	0°50'08
morning rise	2613 Jun 23 07:55	19° ≈ 44'11		min. Earth dist.	2614 May 26 23:55	3° ≈ 01'48	0.55174 AU
direct	2613 Jun 26 14:16	19° ≈ 20'54			2614 Jun 02 05:54	30° ≈ 00'00	
morning max el	2613 Jul 08 23:01	25° ≈ 10'56	22°02'11	morning rise	2614 Jun 03 03:04	29° ≈ 43'43	
	2613 Jul 13 09:49	0° ≈		direct	2614 Jun 07 01:56	29° ≈ 09'53	
asc. node	2613 Jul 24 15:27	17° ≈ 46'10			2614 Jun 11 19:32	0° ≈	
morning set	2613 Jul 30 03:33	28° ≈ 47'28		morning max el	2614 Jun 20 15:46	5° ≈ 48'17	23°43'45
	2613 Jul 30 17:26	0° ≈			2614 Jul 07 18:02	0° ≈	
superior conj	2613 Aug 06 09:44	14° ≈ 08'26	1°40'00	asc. node	2614 Jul 11 12:28	7° ≈ 17'40	
minimum elong	2613 Aug 06 08:12	14° ≈ 00'20	1°39'55	morning set	2614 Jul 14 15:05	13° ≈ 42'26	
max. Earth dist.	2613 Aug 09 22:15	21° ≈ 02'58	1.34583 AU	superior conj	2614 Jul 21 16:38	28° ≈ 54'13	1°29'07
	2613 Aug 14 05:11	0° ≈		minimum elong	2614 Jul 21 14:25	28° ≈ 42'15	1°28'52
evening rise	2613 Aug 14 12:45	0° ≈			2614 Jul 22 04:51	0° ≈	
desc. node	2613 Aug 31 12:58	29° ≈ 48'56		max. Earth dist.	2614 Jul 23 22:13	3° ≈ 41'13	1.33380 AU
	2613 Aug 31 15:55	0° ≈		evening rise	2614 Jul 29 05:12	14° ≈ 03'40	
evening max el	2613 Sep 18 12:14	22° ≈ 28'42	26°58'22		2614 Aug 06 08:03	0° ≈	
retrograde	2613 Oct 01 16:53	29° ≈ 45'09		desc. node	2614 Aug 18 10:00	19° ≈ 21'19	
evening set	2613 Oct 08 11:13	27° ≈ 03'40			2614 Aug 26 13:50	0° ≈	
min. Earth dist.	2613 Oct 12 10:14	23° ≈ 08'58	0.65485 AU	evening max el	2614 Aug 31 23:48	5° ≈ 46'05	27°24'05
inferior conj	2613 Oct 14 09:02	20° ≈ 54'33	-2°-4'-46	retrograde	2614 Sep 14 13:24	13° ≈ 03'42	
minimum elong	2613 Oct 14 12:26	20° ≈ 44'48	2°03'27	evening set	2614 Sep 21 16:20	10° ≈ 23'46	
morning rise	2613 Oct 20 15:13	15° ≈ 14'56		min. Earth dist.	2614 Sep 25 09:21	7° ≈ 04'11	0.64020 AU
asc. node	2613 Oct 20 14:40	15° ≈ 15'36		inferior conj	2614 Sep 27 20:47	4° ≈ 29'23	-3°-3'-19
direct	2613 Oct 23 08:32	14° ≈ 34'29		minimum elong	2614 Sep 28 01:38	4° ≈ 16'44	3°01'43
morning max el	2613 Oct 29 21:14	18° ≈ 06'19	18°13'58		2614 Oct 02 20:41	30° ≈ 00'00	
	2613 Nov 07 17:31	0° ≈		morning rise	2614 Oct 04 13:07	29° ≈ 05'56	
morning set	2613 Nov 17 14:31	15° ≈ 58'03		direct	2614 Oct 07 00:48	28° ≈ 03'59	
	2613 Nov 26 06:24	0° ≈		asc. node	2614 Oct 07 11:42	28° ≈ 36'02	
desc. node	2613 Nov 27 12:16	1° ≈ 59'28			2614 Oct 11 03:57	0° ≈	
superior conj	2613 Dec 02 12:21	9° ≈ 56'11	0°-33'-18	morning max el	2614 Oct 13 13:27	2° ≈ 00'34	17°54'21
minimum elong	2613 Dec 02 08:04	9° ≈ 39'18	0°32'45	morning set	2614 Oct 30 10:29	27° ≈ 48'34	
max. Earth dist.	2613 Dec 05 00:15	13° ≈ 52'11	1.45115 AU		2614 Oct 31 17:12	0° ≈	
	2613 Dec 15 07:46	0° ≈		superior conj	2614 Nov 12 07:08	19° ≈ 22'07	0°14'13
evening rise	2613 Dec 18 21:56	5° ≈ 35'49		minimum elong	2614 Nov 12 08:43	19° ≈ 28'33	0°14'00
greatest brilliancy	2614 Jan 03 13:08	29° ≈ 35'06	-0.7m	behind sun begin	2614 Nov 12 03:40	19° ≈ 07'59	
	2614 Jan 03 19:59	0° ≈		behind sun end	2614 Nov 12 13:45	19° ≈ 49'05	
evening max el	2614 Jan 11 23:59	10° ≈ 29'46	19°28'11	desc. node	2614 Nov 14 09:17	22° ≈ 45'23	
asc. node	2614 Jan 16 13:56	14° ≈ 01'31		max. Earth dist.	2614 Nov 17 18:48	28° ≈ 11'47	1.44433 AU
retrograde	2614 Jan 19 04:59	14° ≈ 38'58			2614 Nov 18 22:04	0° ≈	
evening set	2614 Jan 22 15:24	13° ≈ 29'56		evening rise	2614 Nov 28 08:53	14° ≈ 44'22	
inferior conj	2614 Jan 28 04:51	7° ≈ 33'10	3°12'17		2614 Dec 08 10:01	0° ≈	
minimum elong	2614 Jan 28 02:30	7° ≈ 40'47	3°11'48	greatest brilliancy	2614 Dec 20 00:44	16° ≈ 40'57	-0.5m
min. Earth dist.	2614 Jan 29 10:09	5° ≈ 57'41	0.66448 AU	evening max el	2614 Dec 26 02:46	23° ≈ 59'53	20°27'24
morning rise	2614 Feb 02 12:52	1° ≈ 18'46		retrograde	2615 Jan 03 02:58	28° ≈ 42'58	
	2614 Feb 04 05:34	30° ≈ 00'00		asc. node	2615 Jan 03 10:58	28° ≈ 42'21	
direct	2614 Feb 08 17:21	28° ≈ 34'50		evening set	2615 Jan 06 22:04	27° ≈ 19'40	

inferior conj	2615 Jan 12 08:39	21°☿09'58	2°40'53	minimum elong	2615 Dec 27 13:00	5°☿02'58	2°00'33
minimum elong	2615 Jan 12 06:04	21°☿18'45	2°40'09	min. Earth dist.	2615 Dec 27 19:22	4°☿40'53	0.67772 AU
min. Earth dist.	2615 Jan 13 00:35	20°☿15'48	0.67302 AU		2615 Dec 31 11:18	30°☿☿	
morning rise	2615 Jan 17 13:36	14°☿54'35		morning rise	2616 Jan 01 19:55	28°☿40'24	
direct	2615 Jan 23 03:54	12°☿26'37		direct	2616 Jan 06 19:08	26°☿33'31	
morning max el	2615 Feb 03 12:03	19°☿12'40	24°31'26		2616 Jan 14 03:16	0°☿	
desc. node	2615 Feb 10 08:31	27°☿02'42		morning max el	2616 Jan 16 21:27	2°☿33'08	23°02'40
	2615 Feb 12 15:51	0°☿		greatest brilliancy	2616 Jan 21 17:43	7°☿58'01	-0.3m
	2615 Mar 04 20:22	0°☿		desc. node	2616 Jan 28 05:34	16°☿21'51	
morning set	2615 Mar 11 10:34	11°☿11'23			2616 Feb 06 17:49	0°☿	
max. Earth dist.	2615 Mar 15 03:35	17°☿48'45	1.37548 AU	morning set	2616 Feb 20 11:34	21°☿41'02	
				max. Earth dist.	2616 Feb 24 22:25	29°☿13'39	1.39697 AU
					2616 Feb 25 09:08	0°☿	
superior conj	2615 Mar 21 22:39	0°☿34'20	-1°-33'-3				
minimum elong	2615 Mar 22 03:01	0°☿55'24	1°32'29				
	2615 Mar 21 15:33	0°☿		superior conj	2616 Mar 03 15:20	12°☿57'50	-1°-53'-41
evening rise	2615 Mar 30 14:45	17°☿43'05		minimum elong	2616 Mar 03 19:22	13°☿16'22	1°53'23
asc. node	2615 Apr 01 10:15	21°☿17'52			2616 Mar 12 15:43	0°☿	
	2615 Apr 06 00:29	0°☿		evening rise	2616 Mar 13 06:57	1°☿12'58	
evening max el	2615 Apr 16 08:06	14°☿47'39	19°12'54	asc. node	2616 Mar 18 07:17	10°☿39'52	
retrograde	2615 Apr 25 07:16	19°☿08'36		evening max el	2616 Mar 29 11:00	27°☿12'01	18°31'45
evening set	2615 Apr 27 08:58	18°☿55'40			2616 Apr 02 05:50	0°☿	
inferior conj	2615 May 05 17:28	14°☿45'09	1°01'20	retrograde	2616 Apr 06 02:44	0°☿57'44	
minimum elong	2615 May 05 19:53	14°☿41'05	1°00'30	evening set	2616 Apr 08 10:03	0°☿38'23	
min. Earth dist.	2615 May 08 14:52	12°☿48'58	0.56332 AU		2616 Apr 10 03:49	30°☿☿	
desc. node	2615 May 09 07:41	12°☿22'08		inferior conj	2616 Apr 15 23:25	26°☿08'52	2°25'04
morning rise	2615 May 14 02:40	9°☿54'19		minimum elong	2616 Apr 16 03:19	26°☿01'09	2°24'02
direct	2615 May 19 00:50	8°☿58'13		min. Earth dist.	2616 Apr 19 09:33	23°☿28'31	0.58156 AU
morning max el	2615 Jun 02 06:09	16°☿14'24	25°23'17	morning rise	2616 Apr 23 16:15	20°☿45'32	
	2615 Jun 13 09:40	0°☿		desc. node	2616 Apr 25 04:44	20°☿05'44	
asc. node	2615 Jun 28 09:30	27°☿06'55		direct	2616 Apr 29 14:17	19°☿15'55	
morning set	2615 Jun 29 02:50	28°☿37'59		morning max el	2616 May 13 23:34	26°☿55'40	26°45'00
	2615 Jun 29 18:18	0°☿			2616 May 16 22:04	0°☿	
					2616 Jun 05 19:08	0°☿	
superior conj	2615 Jul 06 02:54	13°☿49'22	1°13'25	morning set	2616 Jun 12 13:05	13°☿27'33	
minimum elong	2615 Jul 06 00:31	13°☿36'20	1°13'03	asc. node	2616 Jun 14 06:32	17°☿07'25	
max. Earth dist.	2615 Jul 07 05:30	16°☿14'43	1.32581 AU				
evening rise	2615 Jul 13 06:14	29°☿05'46		superior conj	2616 Jun 19 14:36	28°☿46'22	0°53'41
	2615 Jul 13 16:47	0°☿		minimum elong	2616 Jun 19 12:32	28°☿34'58	0°53'17
	2615 Jul 30 11:46	0°☿		max. Earth dist.	2616 Jun 19 16:47	28°☿58'22	1.32179 AU
desc. node	2615 Aug 05 07:00	8°☿13'13			2616 Jun 20 03:59	0°☿	
evening max el	2615 Aug 14 08:13	18°☿33'15	27°19'29	evening rise	2616 Jun 26 13:01	13°☿48'10	
retrograde	2615 Aug 28 03:33	25°☿48'57			2616 Jul 04 18:14	0°☿	
evening set	2615 Sep 04 08:04	23°☿22'35		desc. node	2616 Jul 22 04:01	26°☿06'58	
min. Earth dist.	2615 Sep 07 22:15	20°☿31'17	0.62229 AU		2616 Jul 25 19:15	0°☿	
inferior conj	2615 Sep 10 21:23	17°☿46'18	-3°-57'-18	evening max el	2616 Jul 26 11:04	0°☿38'11	26°41'47
minimum elong	2615 Sep 11 02:56	17°☿33'25	3°55'54	retrograde	2616 Aug 09 10:06	7°☿50'41	
morning rise	2615 Sep 18 00:36	12°☿42'17		evening set	2616 Aug 16 05:48	5°☿51'35	
direct	2615 Sep 20 09:20	12°☿17'40		min. Earth dist.	2616 Aug 20 00:55	3°☿15'13	0.60211 AU
asc. node	2615 Sep 24 08:43	13°☿29'25		inferior conj	2616 Aug 23 07:23	0°☿35'44	-4°-40'-16
morning max el	2615 Sep 27 05:08	15°☿45'26	17°52'45	minimum elong	2616 Aug 23 11:55	0°☿26'28	4°39'35
	2615 Oct 07 03:33	0°☿			2616 Aug 24 00:59	30°☿☿	
morning set	2615 Oct 13 03:49	10°☿40'22		morning rise	2616 Aug 30 21:22	25°☿53'47	
				direct	2616 Sep 02 06:09	25°☿32'47	
superior conj	2615 Oct 24 04:28	0°☿07'04	0°53'41	morning max el	2616 Sep 09 17:03	29°☿11'40	18°10'17
minimum elong	2615 Oct 24 08:45	0°☿25'22	0°53'07	asc. node	2616 Sep 10 05:46	29°☿43'20	
	2615 Oct 24 02:48	0°☿			2616 Sep 10 12:09	0°☿	
max. Earth dist.	2615 Oct 31 09:17	12°☿07'37	1.43109 AU	morning set	2616 Sep 25 12:30	24°☿15'48	
desc. node	2615 Nov 01 06:20	13°☿33'06			2616 Sep 28 13:41	0°☿	
evening rise	2615 Nov 07 19:39	23°☿58'14					
	2615 Nov 11 17:16	0°☿		superior conj	2616 Oct 05 03:16	12°☿06'14	1°21'34
	2615 Dec 02 14:02	0°☿		minimum elong	2616 Oct 05 07:17	12°☿24'20	1°21'08
greatest brilliancy	2615 Dec 04 02:59	1°☿56'58	-0.4m	max. Earth dist.	2616 Oct 12 18:14	25°☿24'56	1.41313 AU
evening max el	2615 Dec 08 23:57	7°☿31'10	21°38'23		2616 Oct 15 12:05	0°☿	
retrograde	2615 Dec 18 00:15	12°☿52'56		evening rise	2616 Oct 17 21:52	3°☿56'22	
asc. node	2615 Dec 21 07:59	11°☿52'28		desc. node	2616 Oct 18 03:21	4°☿18'34	
evening set	2615 Dec 22 05:49	11°☿14'03			2616 Nov 04 01:04	0°☿	
inferior conj	2615 Dec 27 15:20	4°☿54'52	2°01'22	greatest brilliancy	2616 Nov 15 08:10	15°☿05'31	-0.2m

evening max el	2616 Nov 20 16:18	21°♂05'01	22°56'46	retrograde	2617 Nov 14 10:27	11°♂16'19	
retrograde	2616 Nov 30 19:11	27°♂05'18		evening set	2617 Nov 19 18:06	9°♂04'05	
evening set	2616 Dec 05 13:03	25°♂09'51		asc. node	2617 Nov 24 02:05	4°♂10'44	
asc. node	2616 Dec 07 05:01	23°♂33'39		min. Earth dist.	2617 Nov 24 12:15	3°♂36'47	0.67651 AU
inferior conj	2616 Dec 10 22:58	18°♂45'08	1°15'14	inferior conj	2617 Nov 25 05:44	2°♂37'59	0°23'41
minimum elong	2616 Dec 10 21:19	18°♂50'49	1°14'35	minimum elong	2617 Nov 25 05:10	2°♂39'55	0°23'26
min. Earth dist.	2616 Dec 10 16:05	19°♂08'52	0.67880 AU		2617 Nov 27 06:05	30°♂	
morning rise	2616 Dec 16 05:34	12°♂33'45		morning rise	2617 Nov 30 16:32	26°♂32'05	
direct	2616 Dec 20 14:05	10°♂49'42		direct	2617 Dec 04 11:34	25°♂09'56	
morning max el	2616 Dec 29 11:05	16°♂01'13	21°37'09	morning max el	2617 Dec 12 07:56	29°♂40'01	20°21'26
greatest brilliancy	2617 Jan 03 09:07	21°♂35'50	-0.4m		2617 Dec 12 15:48	0°♂	
	2617 Jan 09 17:49	0°♂		greatest brilliancy	2617 Dec 18 18:27	7°♂19'40	-0.5m
desc. node	2617 Jan 14 02:38	6°♂11'19		desc. node	2617 Dec 31 23:39	26°♂22'06	
	2617 Jan 29 19:23	0°♂			2618 Jan 03 09:17	0°♂	
morning set	2617 Jan 30 07:32	0°♂48'10		morning set	2618 Jan 09 06:05	8°♂59'44	
max. Earth dist.	2617 Feb 05 21:55	11°♂30'15	1.41788 AU	max. Earth dist.	2618 Jan 19 05:34	24°♂43'16	1.43534 AU
					2618 Jan 22 11:48	0°♂	
superior conj	2617 Feb 13 12:02	24°♂23'25	-2°-4'-59				
minimum elong	2617 Feb 13 13:28	24°♂29'37	2°05'00	superior conj	2618 Jan 25 07:48	4°♂39'18	-2°-1'-57
	2617 Feb 16 16:31	0°♂		minimum elong	2618 Jan 25 04:03	4°♂23'47	2°01'50
evening rise	2617 Feb 24 10:49	14°♂04'22		evening rise	2618 Feb 06 22:04	26°♂07'53	
asc. node	2617 Mar 05 04:20	29°♂36'30			2618 Feb 09 03:15	0°♂	
	2617 Mar 05 10:02	0°♂		asc. node	2618 Feb 20 01:24	17°♂58'58	
evening max el	2617 Mar 12 20:16	10°♂04'31	18°10'33	evening max el	2618 Feb 24 08:32	23°♂15'12	18°08'46
retrograde	2617 Mar 19 16:14	13°♂31'29		retrograde	2618 Mar 02 19:51	26°♂38'42	
evening set	2617 Mar 22 05:24	13°♂03'16		evening set	2618 Mar 05 14:18	26°♂00'22	
inferior conj	2617 Mar 29 02:06	8°♂12'23	3°15'38	inferior conj	2618 Mar 11 22:05	20°♂48'28	3°38'19
minimum elong	2617 Mar 29 04:58	8°♂05'50	3°15'11	minimum elong	2618 Mar 11 23:02	20°♂45'58	3°38'16
min. Earth dist.	2617 Apr 01 09:54	5°♂11'11	0.60296 AU	min. Earth dist.	2618 Mar 14 18:20	17°♂51'18	0.62415 AU
morning rise	2617 Apr 05 01:08	2°♂26'03		morning rise	2618 Mar 18 05:28	14°♂47'51	
direct	2617 Apr 11 16:05	0°♂20'39		direct	2618 Mar 25 03:21	12°♂14'29	
desc. node	2617 Apr 12 01:47	0°♂21'06		desc. node	2618 Mar 29 22:50	13°♂20'06	
morning max el	2617 Apr 25 22:57	8°♂12'22	27°36'00	morning max el	2618 Apr 08 04:14	20°♂10'43	27°50'07
	2617 May 12 13:17	0°♂			2618 Apr 16 14:31	0°♂	
morning set	2617 May 27 20:09	28°♂05'25			2618 May 05 12:20	0°♂	
	2617 May 28 18:09	0°♂		morning set	2618 May 11 21:55	12°♂24'20	
asc. node	2617 Jun 01 03:36	7°♂14'33		max. Earth dist.	2618 May 17 12:54	24°♂10'29	1.32572 AU
max. Earth dist.	2617 Jun 03 04:34	11°♂41'28	1.32174 AU				
superior conj	2617 Jun 04 02:03	13°♂39'22	0°30'33	superior conj	2618 May 19 11:28	28°♂22'01	0°04'45
minimum elong	2617 Jun 04 00:43	13°♂32'04	0°30'16	minimum elong	2618 May 19 11:14	28°♂20'48	0°04'42
evening rise	2617 Jun 10 23:18	28°♂38'31		behind sun begin	2618 May 19 06:16	27°♂53'49	
	2617 Jun 11 14:44	0°♂		behind sun end	2618 May 19 16:13	28°♂47'50	
	2617 Jun 28 09:02	0°♂		asc. node	2618 May 19 00:40	27°♂23'28	
evening max el	2617 Jul 08 06:54	11°♂56'16	25°33'12		2618 May 20 05:29	0°♂	
desc. node	2617 Jul 09 01:01	12°♂38'35		evening rise	2618 May 26 11:06	13°♂29'32	
retrograde	2617 Jul 22 06:59	19°♂03'50			2618 Jun 03 18:55	0°♂	
evening set	2617 Jul 28 04:53	17°♂41'56		evening max el	2618 Jun 19 21:04	22°♂35'28	24°03'10
min. Earth dist.	2617 Aug 01 19:00	15°♂02'38	0.58164 AU	desc. node	2618 Jun 25 22:03	27°♂16'07	
inferior conj	2617 Aug 04 23:18	12°♂48'15	-5°-1'-44	retrograde	2618 Jul 03 15:54	29°♂31'44	
minimum elong	2617 Aug 05 00:14	12°♂46'37	5°01'43	evening set	2618 Jul 08 04:32	28°♂46'25	
morning rise	2617 Aug 12 23:08	8°♂29'13		min. Earth dist.	2618 Jul 14 07:40	25°♂47'10	0.56377 AU
direct	2617 Aug 15 11:02	8°♂09'47		inferior conj	2618 Jul 16 18:57	24°♂15'49	-4°-47'-26
morning max el	2617 Aug 23 21:57	12°♂10'09	18°48'24	minimum elong	2618 Jul 16 14:18	24°♂23'02	4°46'54
asc. node	2617 Aug 28 02:50	17°♂02'54		morning rise	2618 Jul 25 03:35	20°♂16'39	
	2617 Sep 04 23:16	0°♂		direct	2618 Jul 27 20:47	19°♂57'26	
morning set	2617 Sep 09 08:03	8°♂22'47		morning max el	2618 Aug 06 16:56	24°♂31'28	19°48'07
					2618 Aug 11 11:39	0°♂	
superior conj	2617 Sep 17 22:26	25°♂05'39	1°38'06	asc. node	2618 Aug 14 23:54	5°♂13'40	
minimum elong	2617 Sep 18 00:51	25°♂17'02	1°37'56	morning set	2618 Aug 24 11:03	22°♂52'07	
	2617 Sep 20 13:11	0°♂			2618 Aug 27 23:21	0°♂	
max. Earth dist.	2617 Sep 24 23:14	8°♂01'00	1.39276 AU	superior conj	2618 Sep 01 08:39	8°♂50'18	1°44'54
evening rise	2617 Sep 28 23:26	14°♂59'12		minimum elong	2618 Sep 01 09:14	8°♂53'12	1°44'53
desc. node	2617 Oct 05 00:22	24°♂58'15		max. Earth dist.	2618 Sep 07 04:01	20°♂04'20	1.37245 AU
	2617 Oct 08 04:45	0°♂		evening rise	2618 Sep 10 23:59	27°♂06'33	
	2617 Oct 29 21:02	0°♂			2618 Sep 12 14:59	0°♂	
evening max el	2617 Nov 03 05:36	4°♂42'38	24°16'33	desc. node	2618 Sep 21 21:22	15°♂27'56	

	2618 Oct 01 15:29	0°♄		desc. node	2619 Sep 08 18:23	5°♄41'35	
evening max el	2618 Oct 16 17:44	18°♄23'24	25°30'44		2619 Sep 27 05:21	0°♄	
retrograde	2618 Oct 28 21:16	25°♄22'00		evening max el	2619 Sep 29 05:52	2°♄02'10	26°31'58
evening set	2618 Nov 03 19:17	22°♄54'31		retrograde	2619 Oct 12 03:04	9°♄15'36	
min. Earth dist.	2618 Nov 08 05:30	18°♄02'29	0.67085 AU	evening set	2619 Oct 18 14:40	6°♄37'01	
inferior conj	2618 Nov 09 09:52	16°♄31'21	0°-32'-1	min. Earth dist.	2619 Oct 22 17:29	2°♄21'30	0.66169 AU
minimum elong	2618 Nov 09 10:42	16°♄28'42	0°31'41	inferior conj	2619 Oct 24 09:26	0°♄21'18	-1°-30'-32
asc. node	2618 Nov 10 23:07	14°♄34'03		minimum elong	2619 Oct 24 11:52	0°♄13'58	1°29'32
morning rise	2618 Nov 15 02:52	10°♄33'32			2619 Oct 24 16:32	30°♄	
direct	2618 Nov 18 10:09	9°♄30'37		asc. node	2619 Oct 28 20:09	25°♄39'05	
morning max el	2618 Nov 25 12:44	13°♄29'53	19°19'27	morning rise	2619 Oct 30 10:23	24°♄34'21	
greatest brilliancy	2618 Dec 05 00:54	25°♄44'31	-0.7m	direct	2619 Nov 02 08:02	23°♄46'57	
	2618 Dec 07 21:51	0°♄		morning max el	2619 Nov 08 23:57	27°♄26'14	18°33'07
desc. node	2618 Dec 18 20:41	16°♄48'28			2619 Nov 11 07:12	0°♄	
morning set	2618 Dec 19 06:20	17°♄25'54		morning set	2619 Nov 29 05:48	27°♄05'29	
	2618 Dec 27 08:01	0°♄			2619 Dec 01 01:33	0°♄	
max. Earth dist.	2619 Jan 01 20:04	8°♄38'40	1.44708 AU	desc. node	2619 Dec 05 17:41	7°♄25'21	
superior conj	2619 Jan 05 01:53	13°♄47'05	-1°-40'-15	superior conj	2619 Dec 15 04:20	22°♄17'52	-1°00'-46
minimum elong	2619 Jan 04 17:22	13°♄13'11	1°39'31	minimum elong	2619 Dec 14 20:50	21°♄48'28	0°59'52
	2619 Jan 15 02:43	0°♄		max. Earth dist.	2619 Dec 15 14:12	22°♄56'36	1.45179 AU
evening rise	2619 Jan 19 12:31	7°♄16'40			2619 Dec 20 02:06	0°♄	
	2619 Feb 02 14:34	0°♄		evening rise	2619 Dec 31 03:35	17°♄27'57	
asc. node	2619 Feb 06 22:26	5°♄37'00			2620 Jan 08 01:08	0°♄	
evening max el	2619 Feb 07 20:54	6°♄36'50	18°25'46	evening max el	2620 Jan 22 06:57	20°♄04'17	19°00'40
retrograde	2619 Feb 14 09:05	10°♄09'59		asc. node	2620 Jan 24 19:27	22°♄17'54	
evening set	2619 Feb 17 08:53	9°♄20'41		retrograde	2620 Jan 29 03:57	23°♄57'57	
inferior conj	2619 Feb 23 07:17	3°♄49'29	3°39'55	evening set	2620 Feb 01 10:00	22°♄56'38	
minimum elong	2619 Feb 23 06:31	3°♄51'43	3°39'52	inferior conj	2620 Feb 07 02:02	17°♄08'32	3°25'54
min. Earth dist.	2619 Feb 25 12:24	1°♄15'39	0.64279 AU	minimum elong	2620 Feb 07 00:05	17°♄14'38	3°25'36
	2619 Feb 26 15:59	30°♄		min. Earth dist.	2620 Feb 08 15:46	15°♄09'47	0.65771 AU
morning rise	2619 Mar 01 02:40	27°♄40'34		morning rise	2620 Feb 12 13:11	10°♄55'10	
direct	2619 Mar 07 22:31	24°♄52'22		direct	2620 Feb 19 00:30	8°♄06'03	
desc. node	2619 Mar 16 19:53	28°♄34'24		desc. node	2620 Mar 02 16:55	15°♄28'58	
	2619 Mar 18 14:16	0°♄		morning max el	2620 Mar 02 23:16	15°♄44'52	26°35'02
morning max el	2619 Mar 21 13:17	2°♄45'36	27°27'53		2620 Mar 14 17:28	0°♄	
	2619 Apr 10 22:11	0°♄			2620 Apr 02 17:34	0°♄	
morning set	2619 Apr 25 15:46	26°♄16'28		morning set	2620 Apr 07 22:17	9°♄31'32	
	2619 Apr 27 12:45	0°♄		max. Earth dist.	2620 Apr 12 03:54	17°♄43'35	1.34668 AU
max. Earth dist.	2619 Apr 30 13:51	6°♄13'37	1.33394 AU				
				superior conj	2620 Apr 16 16:22	26°♄52'42	0°-51'-14
superior conj	2619 May 03 16:58	12°♄48'34	0°-22'-54	minimum elong	2620 Apr 16 19:00	27°♄06'18	0°50'44
minimum elong	2619 May 03 18:07	12°♄54'42	0°22'40		2620 Apr 18 04:30	0°♄	
asc. node	2619 May 05 21:43	17°♄30'21		asc. node	2620 Apr 21 18:45	7°♄31'18	
evening rise	2619 May 10 22:31	28°♄15'03		evening rise	2620 Apr 24 07:39	12°♄48'56	
	2619 May 11 18:33	0°♄			2620 May 03 05:56	0°♄	
	2619 May 29 15:18	0°♄		evening max el	2620 May 13 10:48	13°♄50'55	20°58'08
evening max el	2619 Jun 01 11:46	3°♄02'39	22°26'43	retrograde	2620 May 25 02:13	19°♄31'44	
desc. node	2619 Jun 12 19:05	9°♄24'06		evening set	2620 May 27 06:41	19°♄20'28	
retrograde	2619 Jun 14 12:48	9°♄31'02		desc. node	2620 May 29 16:07	18°♄44'09	
evening set	2619 Jun 17 14:42	9°♄10'07		inferior conj	2620 Jun 05 14:24	15°♄22'45	-2°00'-24
min. Earth dist.	2619 Jun 25 18:49	5°♄37'13	0.55193 AU	minimum elong	2620 Jun 05 08:48	15°♄30'42	1°58'27
inferior conj	2619 Jun 26 20:42	5°♄00'34	-3°-45'-22	min. Earth dist.	2620 Jun 06 07:04	14°♄59'08	0.54894 AU
minimum elong	2619 Jun 26 12:36	5°♄12'02	3°43'17	morning rise	2620 Jun 14 10:21	11°♄20'33	
morning rise	2619 Jul 05 12:52	1°♄09'40		direct	2620 Jun 17 22:26	10°♄54'04	
direct	2619 Jul 08 13:00	0°♄49'09		morning max el	2620 Jun 30 21:37	17°♄06'13	22°44'46
morning max el	2619 Jul 20 00:27	6°♄09'22	21°08'29		2620 Jul 11 04:17	0°♄	
asc. node	2619 Aug 01 20:56	24°♄03'13		asc. node	2620 Jul 18 17:58	13°♄22'07	
	2619 Aug 05 00:32	0°♄		morning set	2620 Jul 23 05:36	22°♄28'37	
morning set	2619 Aug 08 18:54	7°♄35'54			2620 Jul 26 18:34	0°♄	
superior conj	2619 Aug 16 05:25	23°♄06'38	1°43'43	superior conj	2620 Jul 30 09:24	7°♄44'37	1°36'02
minimum elong	2619 Aug 16 04:30	23°♄01'57	1°43'42	minimum elong	2620 Jul 30 07:31	7°♄34'33	1°35'53
	2619 Aug 19 14:35	0°♄		max. Earth dist.	2620 Aug 02 08:08	13°♄57'10	1.34014 AU
max. Earth dist.	2619 Aug 20 13:41	1°♄55'10	1.35443 AU	evening rise	2620 Aug 07 05:32	23°♄51'45	
evening rise	2619 Aug 24 19:30	10°♄07'54			2620 Aug 10 10:07	0°♄	
	2619 Sep 05 03:52	0°♄		desc. node	2620 Aug 25 15:24	25°♄31'58	

	2620 Aug 28 18:01	0°♄		superior conj	2621 Jul 14 17:58	22°♄35'05	1°23'01
evening max el	2620 Sep 10 18:01	15°♄30'55	27°12'41	minimum elong	2621 Jul 14 15:37	22°♄22'19	1°22'42
retrograde	2620 Sep 24 03:22	22°♄49'25		max. Earth dist.	2621 Jul 16 11:26	26°♄19'24	1.32992 AU
evening set	2620 Oct 01 01:52	20°♄07'12			2621 Jul 18 04:39	0°♄	
min. Earth dist.	2620 Oct 04 22:02	16°♄27'48	0.64901 AU	evening rise	2621 Jul 22 02:01	8°♄05'43	
inferior conj	2620 Oct 07 02:14	14°♄03'32	-2°-29'-53		2621 Aug 02 20:55	0°♄	
minimum elong	2620 Oct 07 06:18	13°♄52'17	2°28'23	desc. node	2621 Aug 12 12:26	14°♄48'46	
morning rise	2620 Oct 13 12:38	8°♄30'25		evening max el	2621 Aug 24 04:43	28°♄37'30	27°26'12
asc. node	2620 Oct 14 17:11	8°♄05'14			2621 Aug 25 16:54	0°♄	
direct	2620 Oct 16 03:06	7°♄54'35		retrograde	2621 Sep 06 21:20	5°♄54'26	
morning max el	2620 Oct 22 15:08	11°♄23'06	18°03'27	evening set	2621 Sep 14 01:46	3°♄19'02	
	2620 Nov 04 12:23	0°♄		min. Earth dist.	2621 Sep 17 17:07	0°♄12'18	0.63289 AU
morning set	2620 Nov 09 10:35	8°♄12'03			2621 Sep 17 22:12	30°♄	
desc. node	2620 Nov 21 14:41	28°♄09'04		inferior conj	2621 Sep 20 09:39	27°♄31'49	-3°-27'-8
	2620 Nov 22 18:23	0°♄		minimum elong	2621 Sep 20 14:56	27°♄18'38	3°25'32
superior conj	2620 Nov 23 11:42	1°♄09'11	0°-12'-40	morning rise	2621 Sep 27 06:32	22°♄15'55	
minimum elong	2620 Nov 23 10:08	1°♄02'55	0°12'27	direct	2621 Sep 29 16:33	21°♄48'01	
behind sun begin	2620 Nov 23 03:14	0°♄35'24		asc. node	2621 Oct 01 14:12	22°♄05'39	
behind sun end	2620 Nov 23 17:01	1°♄30'24		morning max el	2621 Oct 06 07:25	25°♄13'50	17°51'22
max. Earth dist.	2620 Nov 27 08:59	7°♄19'07	1.44911 AU		2621 Oct 10 06:19	0°♄	
evening rise	2620 Dec 09 21:55	26°♄51'41		morning set	2621 Oct 22 16:29	20°♄31'15	
	2620 Dec 11 22:43	0°♄			2621 Oct 28 03:23	0°♄	
greatest brilliancy	2620 Dec 28 06:50	24°♄31'30	-0.6m	superior conj	2621 Nov 03 17:16	11°♄07'23	0°32'16
	2621 Jan 01 09:45	0°♄		minimum elong	2621 Nov 03 20:27	11°♄20'34	0°31'50
evening max el	2621 Jan 04 12:48	3°♄34'23	19°51'44	desc. node	2621 Nov 08 11:43	18°♄56'16	
asc. node	2621 Jan 10 16:28	7°♄46'58		max. Earth dist.	2621 Nov 10 02:01	21°♄30'31	1.43940 AU
retrograde	2621 Jan 12 01:26	7°♄57'20			2621 Nov 15 10:37	0°♄	
evening set	2621 Jan 15 15:14	6°♄42'38		evening rise	2621 Nov 19 06:41	5°♄57'41	
inferior conj	2621 Jan 21 03:15	0°♄40'09	3°00'04		2621 Dec 05 08:01	0°♄	
minimum elong	2621 Jan 21 00:45	0°♄48'29	2°59'28	greatest brilliancy	2621 Dec 13 03:01	10°♄43'48	-0.5m
	2621 Jan 21 15:18	30°♄		evening max el	2621 Dec 18 13:22	17°♄06'06	20°56'27
min. Earth dist.	2621 Jan 22 02:46	29°♄21'52	0.66863 AU	retrograde	2621 Dec 26 23:14	22°♄04'51	
morning rise	2621 Jan 26 09:36	24°♄24'57		asc. node	2621 Dec 28 13:29	21°♄50'46	
direct	2621 Feb 01 08:20	21°♄46'36		evening set	2621 Dec 30 22:35	20°♄35'08	
morning max el	2621 Feb 13 08:07	28°♄55'51	25°20'14	inferior conj	2622 Jan 05 08:33	14°♄21'15	2°25'01
	2621 Feb 14 08:57	0°♄		minimum elong	2622 Jan 05 06:01	14°♄29'58	2°24'14
desc. node	2621 Feb 17 13:56	3°♄34'54		min. Earth dist.	2622 Jan 05 19:19	13°♄44'16	0.67552 AU
	2621 Mar 08 12:45	0°♄		morning rise	2622 Jan 10 13:02	8°♄06'10	
morning set	2621 Mar 21 12:40	21°♄54'38		direct	2622 Jan 15 21:05	5°♄46'32	
max. Earth dist.	2621 Mar 25 06:12	28°♄46'47	1.36393 AU	morning max el	2622 Jan 26 16:30	12°♄13'02	23°53'48
	2621 Mar 25 21:45	0°♄		desc. node	2622 Feb 04 10:57	22°♄31'56	
superior conj	2621 Mar 31 06:48	10°♄25'28	-1°-18'-37		2622 Feb 09 22:55	0°♄	
minimum elong	2621 Mar 31 10:43	10°♄44'55	1°18'01	morning set	2622 Mar 01 08:19	0°♄	
evening rise	2621 Apr 08 12:19	27°♄03'34		max. Earth dist.	2622 Mar 03 05:06	3°♄10'20	
asc. node	2621 Apr 08 15:47	27°♄21'04			2622 Mar 07 01:51	9°♄55'05	1.38458 AU
	2621 Apr 09 23:25	0°♄		superior conj	2622 Mar 14 08:46	23°♄18'10	-1°-42'-38
evening max el	2621 Apr 25 21:39	25°♄16'33	19°45'45	minimum elong	2622 Mar 14 13:11	23°♄39'08	1°42'11
	2621 May 04 15:11	0°♄			2622 Mar 17 20:33	0°♄	
retrograde	2621 May 05 19:07	0°♄03'49		evening rise	2622 Mar 23 09:58	10°♄52'32	
	2621 May 06 23:25	30°♄		asc. node	2622 Mar 26 12:49	16°♄55'09	
evening set	2621 May 07 19:09	29°♄52'56			2622 Apr 02 23:50	0°♄	
inferior conj	2621 May 16 14:20	25°♄51'07	0°00'-51	evening max el	2622 Apr 08 19:29	7°♄21'26	18°52'52
minimum elong	2621 May 16 14:18	25°♄51'10	0°00'52	retrograde	2622 Apr 17 03:36	11°♄25'04	
transit middle	2621 May 16 14:18	25°♄51'10	0°00'52	evening set	2622 Apr 19 07:44	11°♄09'37	
transit begin	2621 May 16 10:21	25°♄57'17		inferior conj	2622 Apr 27 07:57	6°♄51'24	1°40'58
transit end	2621 May 16 18:14	25°♄45'03		minimum elong	2622 Apr 27 11:25	6°♄45'11	1°39'52
desc. node	2621 May 16 13:09	25°♄52'58		min. Earth dist.	2622 Apr 30 12:53	4°♄34'17	0.57057 AU
min. Earth dist.	2621 May 18 20:49	24°♄26'55	0.55566 AU	desc. node	2622 May 03 10:10	2°♄45'49	
morning rise	2621 May 25 06:08	21°♄20'30		morning rise	2622 May 05 10:47	1°♄46'15	
direct	2621 May 29 14:32	20°♄38'30		direct	2622 May 10 19:46	0°♄36'53	
morning max el	2621 Jun 12 12:29	27°♄35'12	24°27'10	morning max el	2622 May 25 03:24	8°♄03'48	26°01'02
	2621 Jun 14 21:28	0°♄			2622 Jun 10 12:16	0°♄	
	2621 Jul 04 03:04	0°♄		morning set	2622 Jun 22 04:43	22°♄17'35	
asc. node	2621 Jul 05 15:01	3°♄01'52		asc. node	2622 Jun 22 12:04	22°♄56'27	
morning set	2621 Jul 07 17:24	7°♄24'07			2622 Jun 25 18:47	0°♄	

superior conj	2622 Jun 29 05:04	7°♄31'24	1°05'30	superior conj	2623 Jun 13 16:54	22°♂27'36	0°44'15
minimum elong	2622 Jun 29 02:46	7°♄18'45	1°05'06	minimum elong	2623 Jun 13 15:05	22°♂17'40	0°43'52
max. Earth dist.	2622 Jun 29 21:01	8°♄59'02	1.32369 AU	max. Earth dist.	2623 Jun 13 09:12	21°♂45'12	1.32131 AU
evening rise	2622 Jul 06 05:50	22°♄40'18			2623 Jun 17 03:14	0°♄	
	2622 Jul 09 20:32	0°♂		evening rise	2623 Jun 20 14:24	7°♄27'13	
	2622 Jul 27 20:41	0°♂			2623 Jul 02 09:05	0°♂	
desc. node	2622 Jul 30 09:28	3°♂18'08		desc. node	2623 Jul 17 06:29	20°♂40'40	
evening max el	2622 Aug 06 11:16	11°♂08'15	27°07'33	evening max el	2623 Jul 19 11:06	22°♂53'10	26°15'55
retrograde	2622 Aug 20 08:04	18°♂21'40			2623 Aug 01 04:22	0°♂	
evening set	2622 Aug 27 10:23	16°♂05'34		retrograde	2623 Aug 02 10:39	0°♂03'56	
min. Earth dist.	2622 Aug 31 01:32	13°♂22'33	0.61390 AU		2623 Aug 03 16:47	30°♂♂	
inferior conj	2622 Sep 03 04:28	10°♂38'04	-4°-17'-27	evening set	2623 Aug 08 23:01	28°♂19'32	
minimum elong	2622 Sep 03 09:51	10°♂26'12	4°16'18	min. Earth dist.	2623 Aug 12 23:58	25°♂44'35	0.59329 AU
morning rise	2622 Sep 10 12:17	5°♂42'56		inferior conj	2623 Aug 16 07:12	23°♂13'14	-4°-52'-47
direct	2622 Sep 12 20:49	5°♂20'00		minimum elong	2623 Aug 16 10:33	23°♂06'48	4°52'28
asc. node	2622 Sep 18 11:16	7°♂34'42		morning rise	2623 Aug 24 01:33	18°♂41'24	
morning max el	2622 Sep 19 21:49	8°♂51'11	17°57'48	direct	2623 Aug 26 11:26	18°♂21'13	
	2622 Oct 03 16:10	0°♂		morning max el	2623 Sep 03 07:13	22°♂07'24	18°23'59
morning set	2622 Oct 05 16:59	3°♂43'26		asc. node	2623 Sep 05 08:20	24°♂18'50	
					2623 Sep 09 11:28	0°♂	
superior conj	2622 Oct 16 01:53	22°♂24'53	1°06'59	morning set	2623 Sep 19 06:48	17°♂34'00	
minimum elong	2622 Oct 16 06:19	22°♂44'16	1°06'26		2623 Sep 25 19:18	0°♂	
	2622 Oct 20 11:47	0°♂		superior conj	2623 Sep 28 10:08	4°♂52'25	1°29'52
max. Earth dist.	2622 Oct 23 14:49	5°♂13'30	1.42389 AU	minimum elong	2623 Sep 28 13:33	5°♂08'08	1°29'34
desc. node	2622 Oct 26 08:45	9°♂43'15		max. Earth dist.	2623 Oct 05 21:59	18°♂14'12	1.40457 AU
evening rise	2622 Oct 29 22:27	15°♂26'20		evening rise	2623 Oct 10 10:12	25°♂50'54	
	2622 Nov 08 09:41	0°♂			2623 Oct 12 23:07	0°♂	
greatest brilliancy	2622 Nov 26 15:13	25°♂19'28	-0.3m	desc. node	2623 Oct 13 05:48	0°♂26'57	
	2622 Nov 30 17:29	0°♂			2623 Nov 02 03:43	0°♂	
evening max el	2622 Dec 01 08:24	0°♂38'29	22°11'10	evening max el	2623 Nov 13 23:03	14°♂13'12	23°30'51
retrograde	2622 Dec 10 19:38	6°♂16'26		retrograde	2623 Nov 24 13:11	20°♂28'57	
evening set	2622 Dec 15 06:20	4°♂30'23		evening set	2623 Nov 29 12:51	18°♂26'01	
asc. node	2622 Dec 15 10:32	4°♂21'47		asc. node	2623 Dec 02 07:34	15°♂31'10	
	2622 Dec 19 07:21	30°♂♂		inferior conj	2623 Dec 04 23:19	12°♂00'00	0°53'58
inferior conj	2622 Dec 20 15:51	28°♂08'27	1°42'32	minimum elong	2623 Dec 04 22:05	12°♂04'13	0°53'27
minimum elong	2622 Dec 20 13:45	28°♂15'42	1°41'46	min. Earth dist.	2623 Dec 04 11:50	12°♂39'18	0.67823 AU
min. Earth dist.	2622 Dec 20 15:06	28°♂11'04	0.67863 AU	morning rise	2623 Dec 10 07:28	5°♂50'45	
morning rise	2622 Dec 25 21:02	21°♂55'20		direct	2623 Dec 14 09:58	4°♂16'30	
direct	2622 Dec 30 13:56	19°♂58'13		morning max el	2623 Dec 22 19:55	9°♂09'24	21°03'30
morning max el	2623 Jan 09 03:18	25°♂36'28	22°25'33	greatest brilliancy	2623 Dec 28 06:24	15°♂25'32	-0.5m
	2623 Jan 13 02:42	0°♂			2624 Jan 07 19:10	0°♂	
greatest brilliancy	2623 Jan 13 16:48	0°♂42'14	-0.3m	desc. node	2624 Jan 09 05:02	2°♂04'10	
desc. node	2623 Jan 22 08:00	12°♂05'01		morning set	2624 Jan 22 02:43	21°♂41'47	
	2623 Feb 03 11:39	0°♂			2624 Jan 27 08:19	0°♂	
morning set	2623 Feb 11 17:47	13°♂04'20		max. Earth dist.	2624 Jan 30 01:23	4°♂23'31	1.42586 AU
max. Earth dist.	2623 Feb 16 22:34	21°♂42'29	1.40618 AU				
	2623 Feb 21 17:55	0°♂		superior conj	2624 Feb 06 04:06	16°♂14'55	-2°-5'-47
superior conj	2623 Feb 24 17:36	5°♂18'38	-1°-59'-53	minimum elong	2624 Feb 06 03:35	16°♂12'41	2°05'47
minimum elong	2623 Feb 24 20:51	5°♂33'17	1°59'44		2624 Feb 14 01:27	0°♂	
evening rise	2623 Mar 06 21:25	24°♂07'26		evening rise	2624 Feb 17 18:46	6°♂39'35	
	2623 Mar 10 00:49	0°♂		asc. node	2624 Feb 28 06:55	24°♂50'39	
asc. node	2623 Mar 13 09:52	6°♂07'23			2624 Mar 02 21:18	0°♂	
evening max el	2623 Mar 23 01:27	19°♂58'37	18°20'12	evening max el	2624 Mar 05 12:17	2°♂59'31	18°07'24
retrograde	2623 Mar 30 07:22	23°♂34'38		retrograde	2624 Mar 12 03:32	6°♂23'39	
evening set	2623 Apr 01 17:13	23°♂11'43		evening set	2624 Mar 14 18:50	5°♂51'25	
inferior conj	2623 Apr 08 23:01	18°♂32'45	2°50'20	inferior conj	2624 Mar 21 09:35	0°♂51'28	3°28'15
minimum elong	2623 Apr 09 02:41	18°♂25'01	2°49'32	minimum elong	2624 Mar 21 11:40	0°♂46'25	3°28'01
min. Earth dist.	2623 Apr 12 09:29	15°♂40'41	0.59053 AU		2624 Mar 22 06:39	30°♂♂	
morning rise	2623 Apr 16 08:13	12°♂58'21		min. Earth dist.	2624 Mar 24 13:14	27°♂48'56	0.61212 AU
desc. node	2623 Apr 20 07:12	11°♂27'42		morning rise	2624 Mar 28 01:31	24°♂57'45	
direct	2623 Apr 22 14:22	11°♂13'32		direct	2624 Apr 03 20:27	22°♂39'02	
morning max el	2623 May 06 23:21	18°♂58'59	27°11'04	desc. node	2624 Apr 06 04:14	22°♂54'17	
	2623 May 16 06:36	0°♂			2624 Apr 17 11:33	0°♂	
	2623 Jun 03 02:50	0°♂		morning max el	2624 Apr 18 01:37	0°♂34'23	27°46'40
morning set	2623 Jun 06 13:54	7°♂03'26			2624 May 09 08:40	0°♂	
asc. node	2623 Jun 09 09:09	13°♂00'37		morning set	2624 May 20 18:59	21°♂34'32	

	2624 May 24 19:09	0°♂		morning max el	2625 Mar 31 08:46	12°♂49'39	27°44'49
asc. node	2624 May 26 06:12	3°♂09'08			2625 Apr 14 02:23	0°♂	
max. Earth dist.	2624 May 26 19:58	4°♂23'58	1.32288 AU		2625 May 01 19:46	0°♂	
				morning set	2625 May 04 17:45	5°♂43'40	
superior conj	2624 May 28 03:41	7°♂17'06	0°19'54	max. Earth dist.	2625 May 10 01:27	16°♂42'47	1.32864 AU
minimum elong	2624 May 28 02:47	7°♂12'10	0°19'42				
evening rise	2624 Jun 04 01:32	22°♂18'35		superior conj	2625 May 12 11:42	21°♂54'17	0°-6'-49
	2624 Jun 07 18:42	0°♂		minimum elong	2625 May 12 12:02	21°♂56'04	0°06'45
	2624 Jun 26 12:13	0°♂		behind sun begin	2625 May 12 07:13	21°♂30'11	
evening max el	2624 Jun 30 03:50	3°♂51'59	24°56'41	behind sun end	2625 May 12 16:50	22°♂21'59	
desc. node	2624 Jul 03 03:32	6°♂28'19		asc. node	2625 May 13 03:14	23°♂18'04	
retrograde	2624 Jul 14 03:07	10°♂57'05			2625 May 16 05:30	0°♂	
evening set	2624 Jul 19 11:50	9°♂51'28		evening rise	2625 May 19 13:23	7°♂08'17	
min. Earth dist.	2624 Jul 24 15:19	7°♂05'28	0.57347 AU		2625 May 31 15:10	0°♂	
inferior conj	2624 Jul 27 14:34	5°♂07'08	-5°00'-56	evening max el	2625 Jun 11 17:24	14°♂22'50	23°22'03
minimum elong	2624 Jul 27 13:13	5°♂09'24	5°00'55	desc. node	2625 Jun 20 00:31	20°♂06'31	
morning rise	2624 Aug 04 18:20	0°♂57'40		retrograde	2625 Jun 25 06:56	21°♂09'34	
direct	2624 Aug 07 08:05	0°♂38'37		evening set	2625 Jun 29 03:43	20°♂36'51	
morning max el	2624 Aug 16 08:20	4°♂51'47	19°11'11	min. Earth dist.	2625 Jul 06 03:19	17°♂24'38	0.55783 AU
asc. node	2624 Aug 22 05:24	12°♂01'52		inferior conj	2625 Jul 08 01:58	16°♂15'45	-4°-27'-17
	2624 Sep 01 07:23	0°♂		minimum elong	2625 Jul 07 19:17	16°♂25'40	4°26'05
morning set	2624 Sep 02 05:51	1°♂51'11		morning rise	2625 Jul 16 13:58	12°♂21'35	
				direct	2625 Jul 19 09:41	12°♂02'08	
superior conj	2624 Sep 10 12:19	18°♂12'54	1°42'03	morning max el	2625 Jul 29 22:29	16°♂55'06	20°19'49
minimum elong	2624 Sep 10 13:56	18°♂20'43	1°41'58		2625 Aug 08 19:17	0°♂	
	2624 Sep 16 18:40	0°♂		asc. node	2625 Aug 09 02:27	0°♂30'24	
max. Earth dist.	2624 Sep 17 01:42	0°♂31'58	1.38392 AU	morning set	2625 Aug 17 11:10	16°♂27'04	
evening rise	2624 Sep 20 21:53	7°♂21'53			2625 Aug 24 01:27	0°♂	
desc. node	2624 Sep 29 02:49	21°♂02'54					
	2624 Oct 04 21:33	0°♂		superior conj	2625 Aug 25 03:28	2°♂12'03	1°45'16
evening max el	2624 Oct 26 11:29	27°♂51'44	24°49'14	minimum elong	2625 Aug 25 03:22	2°♂11'31	1°45'16
	2624 Oct 28 18:44	0°♂		max. Earth dist.	2625 Aug 30 07:44	12°♂25'50	1.36446 AU
retrograde	2624 Nov 07 02:50	4°♂38'02		evening rise	2625 Sep 03 07:05	19°♂53'47	
evening set	2624 Nov 12 16:29	2°♂19'00			2625 Sep 09 00:01	0°♂	
	2624 Nov 14 23:35	30°♂		desc. node	2625 Sep 15 23:51	11°♂26'20	
min. Earth dist.	2624 Nov 17 07:08	27°♂06'19	0.67446 AU		2625 Sep 28 22:33	0°♂	
inferior conj	2624 Nov 18 05:12	25°♂53'18	0°00'30	evening max el	2625 Oct 08 23:39	11°♂32'36	25°58'54
minimum elong	2624 Nov 18 05:11	25°♂53'21	0°00'29	retrograde	2625 Oct 21 11:33	18°♂38'40	
transit middle	2624 Nov 18 05:11	25°♂53'21	0°00'29	evening set	2625 Oct 27 15:25	16°♂06'07	
transit begin	2624 Nov 18 02:25	26°♂02'29		min. Earth dist.	2625 Oct 31 22:31	11°♂29'13	0.66736 AU
transit end	2624 Nov 18 07:56	25°♂44'14		inferior conj	2625 Nov 02 07:37	9°♂45'30	0°-56'-36
asc. node	2624 Nov 18 04:37	25°♂55'13		minimum elong	2625 Nov 02 09:07	9°♂40'50	0°55'59
morning rise	2624 Nov 23 18:23	19°♂50'22		asc. node	2625 Nov 05 01:39	6°♂29'30	
direct	2624 Nov 27 08:05	18°♂36'55		morning rise	2625 Nov 08 03:46	3°♂51'38	
morning max el	2624 Dec 04 20:11	22°♂53'02	19°53'12	direct	2625 Nov 11 06:41	2°♂55'43	
	2624 Dec 10 19:23	0°♂		morning max el	2625 Nov 18 03:50	6°♂45'23	18°57'40
greatest brilliancy	2624 Dec 12 06:45	1°♂59'48	-0.6m		2625 Dec 04 17:25	0°♂	
desc. node	2624 Dec 26 02:04	22°♂22'05		morning set	2625 Dec 10 06:52	8°♂41'39	
morning set	2624 Dec 30 22:37	29°♂49'37		desc. node	2625 Dec 12 23:05	12°♂53'07	
	2624 Dec 31 01:19	0°♂			2625 Dec 23 21:10	0°♂	
max. Earth dist.	2625 Jan 11 11:37	17°♂54'19	1.44105 AU	max. Earth dist.	2625 Dec 25 03:52	2°♂00'40	1.44998 AU
superior conj	2625 Jan 16 12:34	26°♂00'27	-1°-55'-10	superior conj	2625 Dec 26 21:57	4°♂46'24	-1°-25'-18
minimum elong	2625 Jan 16 06:24	25°♂35'28	1°54'49	minimum elong	2625 Dec 26 12:58	4°♂11'01	1°24'24
	2625 Jan 18 23:17	0°♂		evening rise	2626 Jan 11 02:08	29°♂03'38	
evening rise	2625 Jan 29 21:38	18°♂20'24			2626 Jan 11 15:59	0°♂	
	2625 Feb 05 17:58	0°♂		evening max el	2626 Jan 31 12:40	29°♂40'47	18°38'37
asc. node	2625 Feb 14 03:56	12°♂55'56			2626 Jan 31 20:21	0°♂	
evening max el	2625 Feb 17 00:58	16°♂16'08	18°13'50	asc. node	2626 Feb 01 00:58	0°♂11'12	
retrograde	2625 Feb 23 11:40	19°♂42'14		retrograde	2626 Feb 07 03:33	3°♂21'03	
evening set	2625 Feb 26 08:17	18°♂59'28		evening set	2626 Feb 10 05:57	2°♂26'41	
inferior conj	2625 Mar 04 11:42	13°♂39'28	3°41'12		2626 Feb 13 05:48	30°♂	
minimum elong	2625 Mar 04 11:52	13°♂39'01	3°41'12	inferior conj	2626 Feb 16 01:19	26°♂48'11	3°35'35
min. Earth dist.	2625 Mar 07 01:52	10°♂49'56	0.63244 AU	minimum elong	2626 Feb 15 23:59	26°♂52'13	3°35'28
morning rise	2625 Mar 10 13:30	7°♂34'43		min. Earth dist.	2626 Feb 17 23:50	24°♂28'19	0.64964 AU
direct	2625 Mar 17 11:36	4°♂52'54		morning rise	2626 Feb 21 16:47	20°♂37'18	
desc. node	2625 Mar 24 01:15	6°♂55'16		direct	2626 Feb 28 09:49	17°♂46'59	

desc. node	2626 Mar 10 22:16	22° \approx 55'39		min. Earth dist.	2627 Feb 01 06:33	8° \approx 31'07	0.66289 AU
morning max el	2626 Mar 13 18:14	25° \approx 35'07	27°08'41	morning rise	2627 Feb 05 07:53	3° \approx 58'25	
	2626 Mar 17 19:37	0° \mathbb{H}		direct	2627 Feb 11 14:12	1° \approx 12'58	
	2626 Apr 07 14:33	0° \mathbb{Y}		morning max el	2627 Feb 24 03:51	8° \approx 40'13	26°05'20
morning set	2626 Apr 18 07:12	19° \mathbb{Y} 20'52		desc. node	2627 Feb 25 19:19	10° \approx 23'11	
max. Earth dist.	2626 Apr 22 21:54	28° \mathbb{Y} 31'04	1.33882 AU		2627 Mar 12 21:33	0° \mathbb{H}	
	2626 Apr 23 15:18	0° \mathbb{B}			2627 Mar 31 02:11	0° \mathbb{Y}	
				morning set	2627 Apr 01 07:27	2° \mathbb{Y} 14'49	
superior conj	2626 Apr 26 14:53	6° \mathbb{B} 12'00	0°-34'-54	max. Earth dist.	2627 Apr 05 07:04	9° \mathbb{Y} 48'15	1.35356 AU
minimum elong	2626 Apr 26 16:40	6° \mathbb{B} 21'21	0°34'32				
asc. node	2626 Apr 30 00:16	13° \mathbb{B} 22'46		superior conj	2627 Apr 10 10:49	20° \mathbb{Y} 03'09	-1°-3'-5
evening rise	2626 May 04 00:03	21° \mathbb{B} 49'23		minimum elong	2627 Apr 10 14:03	20° \mathbb{Y} 19'35	1°02'31
	2626 May 08 00:14	0° \mathbb{II}			2627 Apr 15 06:49	0° \mathbb{B}	
evening max el	2626 May 24 10:59	24° \mathbb{II} 55'45	21°47'26	asc. node	2627 Apr 16 21:18	3° \mathbb{B} 19'09	
	2626 May 31 17:18	0° \mathbb{E}		evening rise	2627 Apr 18 07:33	6° \mathbb{B} 15'35	
retrograde	2626 Jun 05 23:02	1° \mathbb{E} 04'57			2627 May 01 13:47	0° \mathbb{II}	
desc. node	2626 Jun 06 21:31	1° \mathbb{E} 02'57		evening max el	2627 May 06 14:46	5° \mathbb{II} 57'45	20°24'59
evening set	2626 Jun 08 13:50	0° \mathbb{E} 49'36		retrograde	2627 May 17 12:21	11° \mathbb{II} 15'45	
	2626 Jun 11 11:09	30° \mathbb{R} \mathbb{II}		evening set	2627 May 19 13:27	11° \mathbb{II} 05'20	
inferior conj	2626 Jun 17 22:38	26° \mathbb{II} 47'13	-3°-4'-51	desc. node	2627 May 24 18:33	9° \mathbb{II} 17'30	
minimum elong	2626 Jun 17 14:52	26° \mathbb{II} 58'04	3°02'29	inferior conj	2627 May 28 17:07	7° \mathbb{II} 07'23	-1°-9'-16
min. Earth dist.	2626 Jun 17 14:36	26° \mathbb{II} 58'27	0.54957 AU	minimum elong	2627 May 28 13:51	7° \mathbb{II} 12'09	1°08'05
morning rise	2626 Jun 26 17:06	22° \mathbb{II} 54'01		min. Earth dist.	2627 May 30 03:02	6° \mathbb{II} 18'00	0.55066 AU
direct	2626 Jun 29 21:45	22° \mathbb{II} 31'36		morning rise	2627 Jun 06 12:31	2° \mathbb{II} 55'07	
morning max el	2626 Jul 12 01:05	28° \mathbb{II} 13'39	21°47'52	direct	2627 Jun 10 08:16	2° \mathbb{II} 23'36	
	2626 Jul 13 19:57	0° \mathbb{E}		morning max el	2627 Jun 23 18:50	8° \mathbb{II} 55'28	23°28'29
asc. node	2626 Jul 26 23:29	19° \mathbb{E} 33'25			2627 Jul 09 02:12	0° \mathbb{E}	
	2626 Aug 01 05:56	0° \mathbb{Q}		asc. node	2627 Jul 13 20:32	9° \mathbb{E} 01'56	
morning set	2626 Aug 01 20:28	1° \mathbb{Q} 15'21		morning set	2627 Jul 17 07:51	16° \mathbb{E} 09'57	
					2627 Jul 23 18:32	0° \mathbb{Q}	
superior conj	2626 Aug 09 03:39	16° \mathbb{Q} 38'24	1°41'11	superior conj	2627 Jul 24 09:51	1° \mathbb{Q} 22'25	1°31'07
minimum elong	2626 Aug 09 02:15	16° \mathbb{Q} 31'07	1°41'06	minimum elong	2627 Jul 24 07:42	1° \mathbb{Q} 10'52	1°30'53
max. Earth dist.	2626 Aug 12 21:14	24° \mathbb{Q} 20'40	1.34793 AU	max. Earth dist.	2627 Jul 26 19:50	6° \mathbb{Q} 31'44	1.33528 AU
	2626 Aug 15 17:14	0° \mathbb{P}		evening rise	2627 Aug 01 00:13	17° \mathbb{Q} 12'13	
evening rise	2626 Aug 17 09:20	3° \mathbb{P} 14'41			2627 Aug 07 17:36	0° \mathbb{P}	
	2626 Sep 01 20:59	0° \mathbb{A}		desc. node	2627 Aug 20 17:53	21° \mathbb{P} 08'43	
desc. node	2626 Sep 02 20:51	1° \mathbb{A} 31'11			2627 Aug 27 07:40	0° \mathbb{A}	
evening max el	2626 Sep 21 12:08	25° \mathbb{A} 09'16	26°52'15	evening max el	2627 Sep 03 23:50	8° \mathbb{A} 29'43	27°22'03
	2626 Sep 27 12:23	0° \mathbb{M}		retrograde	2627 Sep 17 12:25	15° \mathbb{A} 47'52	
retrograde	2626 Oct 04 14:54	2° \mathbb{M} 24'57		evening set	2627 Sep 24 14:26	13° \mathbb{A} 06'50	
	2626 Oct 10 23:30	30° \mathbb{R} \mathbb{A}		min. Earth dist.	2627 Sep 28 08:09	9° \mathbb{A} 42'24	0.64259 AU
evening set	2626 Oct 11 07:37	29° \mathbb{A} 43'59		inferior conj	2627 Sep 30 17:46	7° \mathbb{A} 09'57	-2°-54'-40
min. Earth dist.	2626 Oct 15 07:36	25° \mathbb{A} 43'58	0.65676 AU	minimum elong	2627 Sep 30 22:26	6° \mathbb{A} 57'36	2°53'03
inferior conj	2626 Oct 17 04:37	23° \mathbb{A} 33'06	-1°-55'-44	morning rise	2627 Oct 07 08:33	1° \mathbb{A} 44'00	
minimum elong	2626 Oct 17 07:46	23° \mathbb{A} 23'57	1°54'30	direct	2627 Oct 09 20:51	1° \mathbb{A} 11'55	
asc. node	2626 Oct 22 22:40	18° \mathbb{A} 06'05		asc. node	2627 Oct 09 19:43	1° \mathbb{A} 11'56	
morning rise	2626 Oct 23 09:24	17° \mathbb{A} 51'32		morning max el	2627 Oct 16 09:09	4° \mathbb{A} 37'58	17°56'11
direct	2626 Oct 26 03:49	17° \mathbb{A} 09'21		morning set	2627 Nov 02 11:17	0° \mathbb{M} 39'25	
morning max el	2626 Nov 01 17:04	20° \mathbb{A} 42'42	18°18'25		2627 Nov 02 02:01	0° \mathbb{M}	
	2626 Nov 08 21:10	0° \mathbb{M}					
morning set	2626 Nov 20 19:03	18° \mathbb{M} 59'44		superior conj	2627 Nov 15 15:13	22° \mathbb{M} 34'20	0°07'22
	2626 Nov 27 14:41	0° \mathbb{X}		minimum elong	2627 Nov 15 16:04	22° \mathbb{M} 37'45	0°07'15
desc. node	2626 Nov 29 20:07	3° \mathbb{X} 33'31		behind sun begin	2627 Nov 15 06:53	22° \mathbb{M} 00'33	
				behind sun end	2627 Nov 16 01:15	23° \mathbb{M} 14'54	
superior conj	2626 Dec 05 23:47	13° \mathbb{X} 18'18	0°-40'-40	desc. node	2627 Nov 16 17:09	24° \mathbb{M} 19'04	
minimum elong	2626 Dec 05 18:34	12° \mathbb{X} 57'45	0°39'59		2627 Nov 20 06:23	0° \mathbb{X}	
max. Earth dist.	2626 Dec 07 23:16	16° \mathbb{X} 25'02	1.45160 AU	max. Earth dist.	2627 Nov 20 17:58	0° \mathbb{X} 46'01	1.44580 AU
	2626 Dec 16 15:25	0° \mathbb{Z}		evening rise	2627 Dec 01 20:08	18° \mathbb{X} 04'22	
evening rise	2626 Dec 22 07:41	8° \mathbb{Z} 52'53			2627 Dec 09 15:43	0° \mathbb{Z}	
	2627 Jan 04 22:50	0° \approx		greatest brilliancy	2627 Dec 22 16:13	18° \mathbb{Z} 56'59	-0.6m
greatest brilliancy	2627 Jan 05 20:54	1° \approx 22'09	-0.7m	evening max el	2627 Dec 29 00:46	26° \mathbb{Z} 39'41	20°17'42
evening max el	2627 Jan 14 21:10	13° \approx 09'32	19°20'30		2628 Jan 01 23:49	0° \approx	
asc. node	2627 Jan 18 21:58	16° \approx 23'18		retrograde	2628 Jan 05 21:51	1° \approx 17'33	
retrograde	2627 Jan 21 23:51	17° \approx 14'25		asc. node	2628 Jan 05 18:59	1° \approx 17'28	
evening set	2627 Jan 25 09:06	16° \approx 07'22		evening set	2628 Jan 09 15:30	29° \mathbb{Z} 56'33	
inferior conj	2627 Jan 30 23:08	10° \approx 12'39	3°16'10		2628 Jan 09 13:34	30° \mathbb{R} \mathbb{Z}	
minimum elong	2627 Jan 30 20:54	10° \approx 19'55	3°15'45				

inferior conj	2628 Jan 15 02:24	23°☾48'31	2°46'11	minimum elong	2628 Dec 29 06:25	7°☾40'47	2°07'01
minimum elong	2628 Jan 14 23:49	23°☾57'15	2°45'30	min. Earth dist.	2628 Dec 29 14:35	7°☾12'28	0.67726 AU
min. Earth dist.	2628 Jan 15 20:14	22°☾48'07	0.67202 AU	morning rise	2629 Jan 03 13:16	1°☾17'42	
morning rise	2628 Jan 20 07:37	17°☾33'02			2629 Jan 05 08:47	30°☾☿	
direct	2628 Jan 26 00:06	15°☾02'12		direct	2629 Jan 08 14:47	29°☾07'21	
morning max el	2628 Feb 06 12:34	21°☾54'53	24°44'19		2629 Jan 12 03:19	0°☾	
desc. node	2628 Feb 12 16:22	28°☾52'47		morning max el	2629 Jan 18 21:33	5°☾14'12	23°15'50
	2628 Feb 13 13:58	0°☾		greatest brilliancy	2629 Jan 24 02:12	11°☾04'04	-0.2m
	2628 Mar 05 04:22	0°☾		desc. node	2629 Jan 29 13:25	18°☾06'27	
morning set	2628 Mar 13 13:20	14°☾11'21			2629 Feb 06 23:03	0°☾	
max. Earth dist.	2628 Mar 17 05:55	20°☾49'52	1.37238 AU	morning set	2629 Feb 22 18:33	24°☾53'24	
	2628 Mar 22 03:08	0°☾			2629 Feb 25 18:46	0°☾	
				max. Earth dist.	2629 Feb 27 00:33	2°☾08'47	1.39375 AU
superior conj	2628 Mar 23 20:26	3°☾19'46	-1°-29'-23				
minimum elong	2628 Mar 24 00:43	3°☾40'36	1°28'50	superior conj	2629 Mar 06 15:43	15°☾51'17	-1°-51'-2
evening rise	2628 Apr 01 09:37	20°☾20'15		minimum elong	2629 Mar 06 19:55	16°☾10'45	1°50'43
asc. node	2628 Apr 02 18:20	23°☾02'49			2629 Mar 14 02:35	0°☾	
	2628 Apr 06 08:40	0°☾		evening rise	2629 Mar 16 03:22	3°☾55'17	
evening max el	2628 Apr 18 06:30	17°☾40'22	19°20'49	asc. node	2629 Mar 20 15:23	12°☾28'02	
retrograde	2628 Apr 27 11:20	22°☾07'50			2629 Apr 01 08:16	0°☾	
evening set	2628 Apr 29 12:20	21°☾55'37		evening max el	2629 Apr 01 08:14	29°☾59'57	18°36'35
inferior conj	2628 May 07 23:43	17°☾47'42	0°45'48	retrograde	2629 Apr 09 03:48	3°☾49'39	
minimum elong	2628 May 08 01:36	17°☾44'37	0°45'08	evening set	2629 Apr 11 10:17	3°☾31'23	
min. Earth dist.	2628 May 10 17:49	15°☾59'25	0.56105 AU		2629 Apr 17 21:22	30°☾☿	
desc. node	2628 May 10 15:34	16°☾03'00		inferior conj	2629 Apr 19 02:25	29°☾04'59	2°14'31
morning rise	2628 May 16 10:51	13°☾02'02		minimum elong	2629 Apr 19 06:18	28°☾57'30	2°13'26
direct	2628 May 21 05:20	12°☾09'58		min. Earth dist.	2629 Apr 22 11:48	26°☾29'53	0.57860 AU
morning max el	2628 Jun 04 09:15	19°☾21'52	25°09'13	morning rise	2629 Apr 26 21:56	23°☾46'07	
	2628 Jun 13 08:38	0°☾		desc. node	2629 Apr 27 12:37	23°☾29'29	
asc. node	2628 Jun 29 17:36	28°☾49'00		direct	2629 May 02 16:51	22°☾21'48	
	2628 Jun 30 07:11	0°☾		morning max el	2629 May 17 01:51	29°☾58'39	26°34'30
morning set	2628 Jun 30 19:41	1°☾05'46			2629 May 17 02:24	0°☾	
					2629 Jun 07 04:29	0°☾	
superior conj	2628 Jul 07 19:47	16°☾16'45	1°16'06	morning set	2629 Jun 15 06:17	15°☾56'09	
minimum elong	2628 Jul 07 17:24	16°☾03'43	1°15'44	asc. node	2629 Jun 16 14:40	18°☾47'50	
max. Earth dist.	2628 Jul 09 02:08	19°☾02'11	1.32672 AU		2629 Jun 21 18:04	0°☾	
	2628 Jul 14 05:33	0°☾		superior conj	2629 Jun 22 07:25	1°☾13'31	0°56'55
evening rise	2628 Jul 15 00:11	1°☾36'16		minimum elong	2629 Jun 22 05:16	1°☾01'43	0°56'31
	2628 Jul 30 15:42	0°☾		max. Earth dist.	2629 Jun 22 13:03	1°☾44'34	1.32215 AU
desc. node	2628 Aug 06 14:54	10°☾07'35		evening rise	2629 Jun 29 06:17	16°☾16'41	
evening max el	2628 Aug 16 08:52	21°☾21'58	27°22'16		2629 Jul 06 03:49	0°☾	
retrograde	2628 Aug 30 03:41	28°☾38'18		desc. node	2629 Jul 24 11:56	28°☾11'06	
evening set	2628 Sep 06 08:27	26°☾09'07			2629 Jul 26 01:53	0°☾	
min. Earth dist.	2628 Sep 09 22:43	23°☾14'08	0.62513 AU	evening max el	2629 Jul 29 12:50	3°☾33'57	26°49'32
inferior conj	2628 Sep 12 20:15	20°☾29'47	-3°-49'-43	retrograde	2629 Aug 12 11:26	10°☾46'34	
minimum elong	2628 Sep 13 01:46	20°☾16'41	3°48'14	evening set	2629 Aug 19 09:10	8°☾42'48	
morning rise	2628 Sep 19 21:50	15°☾22'37		min. Earth dist.	2629 Aug 23 02:55	6°☾05'09	0.60518 AU
direct	2628 Sep 22 06:45	14°☾57'17		inferior conj	2629 Aug 26 08:40	3°☾23'52	-4°-34'-55
asc. node	2628 Sep 25 16:47	15°☾51'22		minimum elong	2629 Aug 26 13:30	3°☾13'46	4°34'06
morning max el	2628 Sep 29 01:06	18°☾24'22	17°51'45		2629 Aug 30 21:48	30°☾☿	
	2628 Oct 07 10:13	0°☾		morning rise	2629 Sep 02 21:04	28°☾38'18	
morning set	2628 Oct 15 01:47	13°☾22'44		direct	2629 Sep 05 05:39	28°☾16'53	
	2628 Oct 24 12:37	0°☾			2629 Sep 10 06:46	0°☾	
superior conj	2628 Oct 26 08:23	3°☾06'34	0°48'26	morning max el	2629 Sep 12 13:45	1°☾53'36	18°06'23
minimum elong	2628 Oct 26 12:29	3°☾23'57	0°47'52	asc. node	2629 Sep 12 13:51	1°☾53'51	
max. Earth dist.	2628 Nov 02 08:52	14°☾44'49	1.43341 AU	morning set	2629 Sep 28 08:33	26°☾52'41	
desc. node	2628 Nov 02 14:12	15°☾06'27			2629 Sep 30 00:37	0°☾	
evening rise	2628 Nov 10 05:45	27°☾14'11					
	2628 Nov 12 00:35	0°☾		superior conj	2629 Oct 08 03:41	14°☾55'20	1°18'05
	2628 Dec 02 13:05	0°☾		minimum elong	2629 Oct 08 07:52	15°☾14'02	1°17'38
greatest brilliancy	2628 Dec 05 23:15	4°☾27'14	-0.4m	max. Earth dist.	2629 Oct 15 18:53	28°☾09'22	1.41602 AU
evening max el	2628 Dec 10 22:49	10°☾10'52	21°27'17		2629 Oct 16 21:21	0°☾	
retrograde	2628 Dec 19 19:22	15°☾26'45		desc. node	2629 Oct 20 11:14	5°☾52'27	
asc. node	2628 Dec 22 16:02	14°☾41'41		evening rise	2629 Oct 21 04:59	7°☾04'05	
evening set	2628 Dec 23 23:14	13°☾50'22			2629 Nov 05 05:28	0°☾	
inferior conj	2628 Dec 29 08:49	7°☾32'28	2°07'50	greatest brilliancy	2629 Nov 18 15:54	18°☾08'33	-0.3m

evening max el	2629 Nov 23 15:52	23° ♂ 44'31	22°44'54	retrograde	2630 Nov 17 06:28	13° ♂ 50'22	
retrograde	2629 Dec 03 14:40	29° ♂ 38'58		evening set	2630 Nov 22 12:04	11° ♂ 40'26	
evening set	2629 Dec 08 06:38	27° ♂ 46'00		asc. node	2630 Nov 26 10:08	7° ♂ 19'11	
asc. node	2629 Dec 09 13:05	26° ♂ 35'21		inferior conj	2630 Nov 27 23:23	5° ♂ 14'17	0°31'49
inferior conj	2629 Dec 13 16:25	21° ♂ 21'59	1°22'38	minimum elong	2630 Nov 27 22:37	5° ♂ 16'51	0°31'30
minimum elong	2629 Dec 13 14:38	21° ♂ 28'08	1°21'56	min. Earth dist.	2630 Nov 27 07:26	6° ♂ 08'10	0.67709 AU
min. Earth dist.	2629 Dec 13 11:07	21° ♂ 40'16	0.67888 AU		2630 Dec 02 08:15	30° ♂	
morning rise	2629 Dec 18 22:34	15° ♂ 10'05		morning rise	2630 Dec 03 09:26	29° ♂ 07'32	
direct	2629 Dec 23 09:16	13° ♂ 22'34		direct	2630 Dec 07 06:23	27° ♂ 42'19	
morning max el	2630 Jan 01 10:18	18° ♂ 40'43	21°49'24		2630 Dec 12 16:33	0° ♂	
greatest brilliancy	2630 Jan 06 04:55	24° ♂ 04'01	-0.4m	morning max el	2630 Dec 15 06:00	2° ♂ 17'46	20°31'55
	2630 Jan 10 19:04	0° ♂		greatest brilliancy	2630 Dec 21 09:22	9° ♂ 32'11	-0.5m
desc. node	2630 Jan 16 10:27	7° ♂ 51'49		desc. node	2631 Jan 03 07:28	27° ♂ 59'30	
	2630 Jan 31 03:10	0° ♂			2631 Jan 04 15:33	0° ♂	
morning set	2630 Feb 02 18:43	4° ♂ 12'03		morning set	2631 Jan 12 19:15	12° ♂ 27'55	
max. Earth dist.	2630 Feb 08 23:17	14° ♂ 17'51	1.41497 AU	max. Earth dist.	2631 Jan 22 05:49	27° ♂ 23'11	1.43308 AU
					2631 Jan 23 20:33	0° ♂	
superior conj	2630 Feb 16 15:45	27° ♂ 26'21	-2°-4'-6	superior conj	2631 Jan 28 15:20	7° ♂ 52'22	-2°-3'-33
minimum elong	2630 Feb 16 17:45	27° ♂ 35'08	2°04'03	minimum elong	2631 Jan 28 12:28	7° ♂ 40'25	2°03'29
	2630 Feb 18 02:34	0° ♂		evening rise	2631 Feb 09 23:17	29° ♂ 03'47	
evening rise	2630 Feb 27 09:20	16° ♂ 52'57			2631 Feb 10 12:04	0° ♂	
	2630 Mar 06 15:33	0° ♂		asc. node	2631 Feb 22 09:27	19° ♂ 56'47	
asc. node	2630 Mar 07 12:26	1° ♂ 28'50		evening max el	2631 Feb 27 04:43	25° ♂ 56'42	18°07'47
evening max el	2630 Mar 15 16:46	12° ♂ 48'41	18°12'22	retrograde	2631 Mar 05 16:46	29° ♂ 20'01	
retrograde	2630 Mar 22 14:51	16° ♂ 17'20		evening set	2631 Mar 08 10:23	28° ♂ 43'17	
evening set	2630 Mar 25 03:14	15° ♂ 50'30		inferior conj	2631 Mar 14 19:50	23° ♂ 34'17	3°36'23
inferior conj	2630 Apr 01 02:10	11° ♂ 02'37	3°09'55	minimum elong	2631 Mar 14 21:05	23° ♂ 31'05	3°36'17
minimum elong	2630 Apr 01 05:17	10° ♂ 55'39	3°09'21	min. Earth dist.	2631 Mar 17 18:06	20° ♂ 35'08	0.62111 AU
min. Earth dist.	2630 Apr 04 10:59	8° ♂ 03'04	0.59979 AU	morning rise	2631 Mar 21 05:20	17° ♂ 35'12	
morning rise	2630 Apr 08 03:48	5° ♂ 19'08		direct	2631 Mar 28 02:41	15° ♂ 05'21	
desc. node	2630 Apr 14 09:38	3° ♂ 19'12		desc. node	2631 Apr 01 06:39	15° ♂ 54'30	
direct	2630 Apr 14 16:50	3° ♂ 18'57		morning max el	2631 Apr 11 04:51	23° ♂ 01'28	27°50'27
morning max el	2630 Apr 29 00:15	11° ♂ 08'56	27°30'40		2631 Apr 17 09:46	0° ♂	
	2630 May 13 17:05	0° ♂			2631 May 06 22:03	0° ♂	
	2630 May 30 07:02	0° ♂		morning set	2631 May 14 16:37	14° ♂ 58'07	
morning set	2630 May 30 13:55	0° ♂ 35'42		max. Earth dist.	2631 May 20 10:14	27° ♂ 00'55	1.32485 AU
asc. node	2630 Jun 03 11:43	8° ♂ 53'49		asc. node	2631 May 21 08:46	29° ♂ 02'47	
max. Earth dist.	2630 Jun 06 01:02	14° ♂ 28'25	1.32153 AU		2631 May 21 19:18	0° ♂	
superior conj	2630 Jun 06 18:59	16° ♂ 06'59	0°34'15	superior conj	2631 May 22 04:48	0° ♂ 51'36	0°08'48
minimum elong	2630 Jun 06 17:31	15° ♂ 58'55	0°33'57	minimum elong	2631 May 22 04:23	0° ♂ 49'21	0°08'43
	2630 Jun 13 03:46	0° ♂		behind sun begin	2631 May 22 00:02	0° ♂ 25'45	
evening rise	2630 Jun 13 16:11	1° ♂ 05'55		behind sun end	2631 May 22 08:43	1° ♂ 12'58	
	2630 Jun 29 09:38	0° ♂		evening rise	2631 May 29 03:51	15° ♂ 57'20	
desc. node	2630 Jul 11 08:56	14° ♂ 56'37			2631 Jun 05 03:29	0° ♂	
evening max el	2630 Jul 11 09:42	14° ♂ 58'26	25°45'03	evening max el	2631 Jun 23 00:19	25° ♂ 41'55	24°17'20
retrograde	2630 Jul 25 09:38	22° ♂ 06'41		desc. node	2631 Jun 28 05:56	29° ♂ 53'50	
evening set	2630 Jul 31 11:47	20° ♂ 38'54			2631 Jun 28 09:52	0° ♂	
min. Earth dist.	2630 Aug 04 21:58	18° ♂ 01'21	0.58458 AU	retrograde	2631 Jul 06 20:35	2° ♂ 41'04	
inferior conj	2630 Aug 08 03:25	15° ♂ 42'05	-5°00'-29	evening set	2631 Jul 11 14:41	1° ♂ 50'44	
minimum elong	2630 Aug 08 05:04	15° ♂ 39'06	5°00'26		2631 Jul 15 15:05	30° ♂	
morning rise	2630 Aug 16 01:52	11° ♂ 19'46		min. Earth dist.	2631 Jul 17 11:06	28° ♂ 55'25	0.56610 AU
direct	2630 Aug 18 13:14	11° ♂ 00'08		inferior conj	2631 Jul 20 02:06	27° ♂ 16'34	-4°-52'-34
morning max el	2630 Aug 26 19:51	14° ♂ 56'23	18°41'26	minimum elong	2631 Jul 19 22:18	27° ♂ 22'34	4°52'12
asc. node	2630 Aug 30 10:55	19° ♂ 04'13		morning rise	2631 Jul 28 09:31	23° ♂ 15'10	
	2630 Sep 06 08:05	0° ♂		direct	2631 Jul 31 01:48	22° ♂ 56'01	
morning set	2630 Sep 12 02:43	10° ♂ 55'36		morning max el	2631 Aug 09 16:31	27° ♂ 24'05	19°37'54
					2631 Aug 12 04:00	0° ♂	
superior conj	2630 Sep 20 20:11	27° ♂ 46'43	1°36'14	asc. node	2631 Aug 17 07:58	7° ♂ 08'04	
minimum elong	2630 Sep 20 22:52	27° ♂ 59'20	1°36'04	morning set	2631 Aug 27 04:47	25° ♂ 22'02	
	2630 Sep 22 00:37	0° ♂			2631 Aug 29 11:51	0° ♂	
max. Earth dist.	2630 Sep 28 00:31	10° ♂ 52'16	1.39582 AU	superior conj	2631 Sep 04 04:28	11° ♂ 25'41	1°44'24
evening rise	2630 Oct 02 02:55	17° ♂ 56'40		minimum elong	2631 Sep 04 05:19	11° ♂ 29'51	1°44'23
desc. node	2630 Oct 07 08:15	26° ♂ 33'12		max. Earth dist.	2631 Sep 10 04:51	22° ♂ 58'39	1.37534 AU
	2630 Oct 09 12:14	0° ♂		evening rise	2631 Sep 14 00:15	29° ♂ 54'47	
	2630 Oct 30 16:06	0° ♂					
evening max el	2630 Nov 06 05:26	7° ♂ 21'15	24°04'50				

	2631 Sep 14 01:25	0°♄		evening rise	2632 Aug 26 17:15	12°♄48'45	
desc. node	2631 Sep 24 05:17	17°♄04'42			2632 Sep 05 11:51	0°♄	
	2631 Oct 02 18:54	0°♄		desc. node	2632 Sep 10 02:19	7°♄20'56	
evening max el	2631 Oct 19 17:32	21°♄01'12	25°20'17		2632 Sep 26 19:17	0°♄	
retrograde	2631 Oct 31 18:02	27°♄57'03		evening max el	2632 Oct 01 05:38	4°♄40'23	26°23'58
evening set	2631 Nov 06 13:57	25°♄31'32		retrograde	2632 Oct 14 00:43	11°♄52'31	
min. Earth dist.	2631 Nov 11 01:14	20°♄34'12	0.67191 AU	evening set	2632 Oct 20 10:20	9°♄15'17	
inferior conj	2631 Nov 12 04:00	19°♄07'30	0°-23'-21	min. Earth dist.	2632 Oct 24 14:13	4°♄54'09	0.66325 AU
minimum elong	2631 Nov 12 04:36	19°♄05'34	0°23'07	inferior conj	2632 Oct 26 04:23	2°♄58'02	-1°-21'-34
asc. node	2631 Nov 13 07:09	17°♄40'35		minimum elong	2632 Oct 26 06:34	2°♄51'22	1°20'40
morning rise	2631 Nov 17 19:58	13°♄08'21			2632 Oct 28 17:46	30°♄	
direct	2631 Nov 21 04:50	12°♄02'53		asc. node	2632 Oct 30 04:10	28°♄35'52	
morning max el	2631 Nov 28 09:40	16°♄06'09	19°27'41	morning rise	2632 Nov 01 04:01	27°♄09'10	
greatest brilliancy	2631 Dec 07 05:01	27°♄16'10	-0.7m	direct	2632 Nov 04 02:56	26°♄19'44	
	2631 Dec 09 02:06	0°♄			2632 Nov 10 19:26	0°♄	
desc. node	2631 Dec 21 04:30	18°♄23'40		morning max el	2632 Nov 10 20:03	0°♄01'35	18°38'57
morning set	2631 Dec 22 17:30	20°♄46'46			2632 Dec 01 09:24	0°♄	
	2631 Dec 28 15:56	0°♄		morning set	2632 Dec 01 12:47	0°♄13'24	
max. Earth dist.	2632 Jan 04 19:14	11°♄12'21	1.44574 AU	desc. node	2632 Dec 07 01:34	8°♄59'18	
superior conj	2632 Jan 08 12:53	17°♄08'45	-1°-44'-47	superior conj	2632 Dec 17 16:36	25°♄42'13	-1°-7'-37
minimum elong	2632 Jan 08 04:48	16°♄36'31	1°44'09	minimum elong	2632 Dec 17 08:31	25°♄10'26	1°06'40
	2632 Jan 16 11:18	0°♄		max. Earth dist.	2632 Dec 17 12:49	25°♄27'20	1.45153 AU
evening rise	2632 Jan 22 17:01	10°♄20'41			2632 Dec 20 10:16	0°♄	
	2632 Feb 03 16:15	0°♄		evening rise	2633 Jan 02 11:36	20°♄40'21	
asc. node	2632 Feb 09 06:27	7°♄42'04			2633 Jan 08 07:38	0°♄	
evening max el	2632 Feb 10 17:11	9°♄16'47	18°22'07	evening max el	2633 Jan 24 03:46	22°♄43'55	18°54'26
retrograde	2632 Feb 17 04:47	12°♄47'53		asc. node	2633 Jan 26 03:27	24°♄32'39	
evening set	2632 Feb 20 03:42	12°♄00'20		retrograde	2633 Jan 30 22:59	26°♄33'48	
inferior conj	2632 Feb 26 03:19	6°♄32'00	3°40'45	evening set	2633 Feb 03 04:01	25°♄34'24	
minimum elong	2632 Feb 26 02:46	6°♄33'32	3°40'44	inferior conj	2633 Feb 08 20:50	19°♄48'47	3°28'48
min. Earth dist.	2632 Feb 28 10:48	3°♄53'34	0.64019 AU	minimum elong	2633 Feb 08 19:02	19°♄54'23	3°28'35
morning rise	2632 Mar 03 00:13	0°♄23'53		min. Earth dist.	2633 Feb 10 12:52	17°♄44'14	0.65575 AU
	2632 Mar 03 12:21	30°♄		morning rise	2633 Feb 14 09:00	13°♄35'57	
direct	2632 Mar 09 20:48	27°♄36'53		direct	2633 Feb 20 22:00	10°♄45'59	
	2632 Mar 16 21:41	0°♄		desc. node	2633 Mar 05 00:43	17°♄31'48	
desc. node	2632 Mar 18 03:40	0°♄50'23		morning max el	2633 Mar 05 23:27	18°♄27'52	26°44'30
morning max el	2632 Mar 23 13:34	5°♄31'43	27°33'20		2633 Mar 15 17:25	0°♄	
	2632 Apr 11 03:54	0°♄			2633 Apr 04 03:07	0°♄	
morning set	2632 Apr 27 11:49	28°♄54'57		morning set	2633 Apr 10 20:16	12°♄16'09	
	2632 Apr 28 00:57	0°♄		max. Earth dist.	2633 Apr 15 04:07	20°♄42'25	1.34449 AU
max. Earth dist.	2632 May 02 12:28	9°♄08'25	1.33239 AU				
				superior conj	2633 Apr 19 11:27	29°♄28'50	0°-46'-56
superior conj	2632 May 05 10:59	15°♄20'59	0°-18'-38	minimum elong	2633 Apr 19 13:52	29°♄41'21	0°46'29
minimum elong	2632 May 05 11:55	15°♄25'57	0°18'26		2633 Apr 19 17:28	0°♄	
asc. node	2632 May 07 05:47	19°♄10'11		asc. node	2633 Apr 24 02:48	9°♄12'07	
	2632 May 12 07:06	0°♄		evening rise	2633 Apr 27 01:02	15°♄19'46	
evening rise	2632 May 12 15:26	0°♄43'57			2633 May 04 12:26	0°♄	
	2632 May 29 05:30	0°♄		evening max el	2633 May 16 11:56	16°♄52'22	21°10'27
evening max el	2632 Jun 03 14:26	6°♄08'52	22°40'55	retrograde	2633 May 28 09:04	22°♄40'44	
desc. node	2632 Jun 14 02:57	12°♄26'25		evening set	2633 May 30 15:35	22°♄28'46	
retrograde	2632 Jun 16 19:23	12°♄42'56		desc. node	2633 May 31 23:56	22°♄10'56	
evening set	2632 Jun 20 01:45	12°♄19'29		inferior conj	2633 Jun 09 00:07	18°♄30'27	-2°-18'-5
min. Earth dist.	2632 Jun 27 22:26	8°♄52'20	0.55319 AU	minimum elong	2633 Jun 08 17:48	18°♄39'21	2°15'56
inferior conj	2632 Jun 29 06:07	8°♄07'02	-3°-57'-58	min. Earth dist.	2633 Jun 09 10:30	18°♄15'50	0.54882 AU
minimum elong	2632 Jun 28 22:12	8°♄18'23	3°56'06	morning rise	2633 Jun 17 19:53	14°♄31'05	
morning rise	2632 Jul 07 21:16	4°♄15'51		direct	2633 Jun 21 05:49	14°♄05'51	
direct	2632 Jul 10 20:03	3°♄55'47		morning max el	2633 Jul 04 00:12	20°♄10'28	22°29'40
morning max el	2632 Jul 22 01:48	9°♄08'46	20°55'17		2633 Jul 12 05:12	0°♄	
asc. node	2632 Aug 03 05:00	25°♄52'16		asc. node	2633 Jul 21 02:04	15°♄07'03	
	2632 Aug 05 10:45	0°♄		morning set	2633 Jul 25 22:24	24°♄54'57	
morning set	2632 Aug 10 12:01	10°♄03'41			2633 Jul 28 08:07	0°♄	
superior conj	2632 Aug 17 23:54	25°♄37'47	1°44'21	superior conj	2633 Aug 02 02:58	10°♄12'34	1°37'35
minimum elong	2632 Aug 17 23:11	25°♄34'07	1°44'19	minimum elong	2633 Aug 02 01:12	10°♄03'09	1°37'26
	2632 Aug 20 03:23	0°♄		max. Earth dist.	2633 Aug 05 06:22	16°♄47'38	1.34206 AU
max. Earth dist.	2632 Aug 22 13:17	4°♄48'41	1.35692 AU	evening rise	2633 Aug 10 01:23	26°♄26'41	

	2633 Aug 11 21:35	0° \cap		max. Earth dist.	2634 Jul 19 08:39	29° \ominus 07'48	1.33118 AU
desc. node	2633 Aug 27 23:19	27° \cap 14'57			2634 Jul 19 18:24	0° \cap	
	2633 Aug 29 20:23	0° $\underline{\cap}$		evening rise	2634 Jul 24 20:34	10° \cap 36'58	
evening max el	2633 Sep 13 17:57	18° $\underline{\cap}$ 11'21	27°08'15		2634 Aug 04 04:56	0° \cap	
retrograde	2633 Sep 27 01:49	25° $\underline{\cap}$ 29'19		desc. node	2634 Aug 14 20:19	16° \cap 37'37	
evening set	2633 Oct 03 22:54	22° $\underline{\cap}$ 47'16			2634 Aug 25 19:27	0° $\underline{\cap}$	
min. Earth dist.	2633 Oct 07 20:04	19° $\underline{\cap}$ 02'29	0.65109 AU	evening max el	2634 Aug 27 05:08	1° $\underline{\cap}$ 22'37	27°26'09
inferior conj	2633 Oct 09 22:21	16° $\underline{\cap}$ 41'33	-2°-20'-59	retrograde	2634 Sep 09 20:43	8° $\underline{\cap}$ 39'37	
minimum elong	2633 Oct 10 02:11	16° $\underline{\cap}$ 30'48	2°19'32	evening set	2634 Sep 17 00:46	6° $\underline{\cap}$ 02'26	
morning rise	2633 Oct 16 07:14	11° $\underline{\cap}$ 06'02		min. Earth dist.	2634 Sep 20 16:40	2° $\underline{\cap}$ 51'20	0.63551 AU
asc. node	2633 Oct 17 01:14	10° $\underline{\cap}$ 47'56		inferior conj	2634 Sep 23 07:24	0° $\underline{\cap}$ 12'42	-3°-18'-48
direct	2633 Oct 18 22:39	10° $\underline{\cap}$ 28'41		minimum elong	2634 Sep 23 12:33	29° \cap 59'39	3°17'10
morning max el	2633 Oct 25 10:47	13° $\underline{\cap}$ 58'15	18°06'47		2634 Sep 23 12:25	30° \cap	
	2633 Nov 05 19:29	0° \cap		morning rise	2634 Sep 30 02:41	24° \cap 54'01	
morning set	2633 Nov 12 13:24	11° \cap 07'35		direct	2634 Oct 02 13:15	24° \cap 25'05	
desc. node	2633 Nov 23 22:37	29° \cap 42'05		asc. node	2634 Oct 03 22:19	24° \cap 34'30	
	2633 Nov 24 03:05	0° \times		morning max el	2634 Oct 09 03:09	27° \cap 50'38	17°52'02
					2634 Oct 11 01:57	0° $\underline{\cap}$	
superior conj	2633 Nov 26 21:53	4° \times 26'27	0°-19'-59	morning set	2634 Oct 25 15:59	23° $\underline{\cap}$ 17'29	
minimum elong	2633 Nov 26 19:22	4° \times 16'25	0°19'39		2634 Oct 29 13:04	0° \cap	
max. Earth dist.	2633 Nov 30 07:50	9° \times 50'34	1.44996 AU				
evening rise	2633 Dec 13 08:33	0° \ominus 09'42		superior conj	2634 Nov 06 23:34	14° \cap 13'08	0°26'02
	2633 Dec 13 06:02	0° \ominus		minimum elong	2634 Nov 07 02:15	14° \cap 24'11	0°25'39
greatest brilliancy	2633 Dec 30 19:28	26° \ominus 36'41	-0.6m	desc. node	2634 Nov 10 19:39	20° \cap 28'58	
	2634 Jan 02 06:18	0° \approx		max. Earth dist.	2634 Nov 13 01:38	24° \cap 05'58	1.44127 AU
evening max el	2634 Jan 07 10:24	6° \approx 13'54	19°43'12		2634 Nov 16 18:54	0° \times	
asc. node	2634 Jan 13 00:30	10° \approx 13'38		evening rise	2634 Nov 22 17:47	9° \times 16'04	
retrograde	2634 Jan 14 20:12	10° \approx 31'47			2634 Dec 06 12:15	0° \ominus	
evening set	2634 Jan 18 08:48	9° \approx 19'04		greatest brilliancy	2634 Dec 15 20:32	13° \ominus 05'17	-0.5m
inferior conj	2634 Jan 23 21:17	3° \approx 18'38	3°04'36	evening max el	2634 Dec 21 11:49	19° \ominus 45'19	20°46'02
minimum elong	2634 Jan 23 18:50	3° \approx 26'45	3°04'03	retrograde	2634 Dec 29 18:09	24° \ominus 38'23	
min. Earth dist.	2634 Jan 24 22:49	1° \approx 54'15	0.66728 AU	asc. node	2634 Dec 30 21:33	24° \ominus 31'09	
	2634 Jan 26 10:39	30° \cap		evening set	2635 Jan 02 16:00	23° \ominus 10'53	
morning rise	2634 Jan 29 04:10	27° \ominus 03'41		inferior conj	2635 Jan 08 02:09	16° \ominus 58'23	2°30'52
direct	2634 Feb 04 04:59	24° \ominus 23'09		minimum elong	2635 Jan 07 23:35	17° \ominus 07'10	2°30'05
	2634 Feb 14 16:21	0° \approx		min. Earth dist.	2635 Jan 08 14:40	16° \ominus 15'30	0.67475 AU
morning max el	2634 Feb 16 08:27	1° \approx 37'17	25°32'23	morning rise	2635 Jan 13 06:45	10° \ominus 43'15	
desc. node	2634 Feb 19 21:46	5° \approx 28'19		direct	2635 Jan 18 17:01	8° \ominus 20'37	
	2634 Mar 09 19:10	0° \times		morning max el	2635 Jan 29 16:54	14° \ominus 53'57	24°07'02
morning set	2634 Mar 24 13:26	24° \times 47'43		desc. node	2635 Feb 06 18:51	24° \ominus 18'38	
	2634 Mar 27 09:05	0° \cap			2635 Feb 11 01:20	0° \approx	
max. Earth dist.	2634 Mar 28 08:06	1° \cap 48'24	1.36115 AU		2635 Mar 02 17:24	0° \times	
				morning set	2635 Mar 06 09:34	6° \times 14'23	
superior conj	2634 Apr 03 03:27	13° \cap 06'47	-1°-14'-36	max. Earth dist.	2635 Mar 10 04:29	12° \times 54'22	1.38139 AU
minimum elong	2634 Apr 03 07:13	13° \cap 25'33	1°14'01				
asc. node	2634 Apr 10 23:50	29° \cap 03'41		superior conj	2635 Mar 17 07:33	26° \times 05'58	-1°-39'-20
evening rise	2634 Apr 11 06:31	29° \cap 37'36		minimum elong	2635 Mar 17 11:59	26° \times 27'08	1°38'51
	2634 Apr 11 10:56	0° \times			2635 Mar 19 08:14	0° \cap	
evening max el	2634 Apr 28 20:58	28° \times 11'46	19°55'17	evening rise	2635 Mar 26 05:26	13° \cap 30'57	
	2634 Apr 30 22:33	0° \cap		asc. node	2635 Mar 28 20:52	18° \cap 40'22	
retrograde	2634 May 09 00:31	3° \cap 06'37			2635 Apr 04 02:41	0° \times	
evening set	2634 May 11 00:33	2° \cap 55'59		evening max el	2635 Apr 11 17:18	10° \times 10'51	18°59'25
	2634 May 18 03:10	30° \cap		retrograde	2635 Apr 20 06:26	14° \times 20'15	
desc. node	2634 May 18 20:58	29° \times 33'46		evening set	2635 Apr 22 09:41	14° \times 05'45	
inferior conj	2634 May 19 22:13	28° \times 55'37	0°-18'-28	inferior conj	2635 Apr 30 12:48	9° \times 50'15	1°27'29
minimum elong	2634 May 19 21:22	28° \times 56'54	0°18'09	minimum elong	2635 Apr 30 15:58	9° \times 44'41	1°26'27
min. Earth dist.	2634 May 21 23:50	27° \times 40'20	0.55411 AU	min. Earth dist.	2635 May 03 15:25	7° \times 40'11	0.56791 AU
morning rise	2634 May 28 15:15	24° \times 30'12		desc. node	2635 May 05 18:00	6° \times 20'06	
direct	2634 Jun 01 20:18	23° \times 51'15		morning rise	2635 May 08 17:59	4° \times 50'03	
	2634 Jun 14 21:32	0° \cap		direct	2635 May 13 23:12	3° \times 45'36	
morning max el	2634 Jun 15 15:35	0° \cap 41'45	24°12'08	morning max el	2635 May 28 06:13	11° \times 08'52	25°48'21
	2634 Jul 05 14:07	0° \ominus			2635 Jun 11 17:22	0° \cap	
asc. node	2634 Jul 07 23:08	4° \ominus 44'14		morning set	2635 Jun 24 21:42	24° \cap 44'59	
morning set	2634 Jul 10 10:11	9° \ominus 50'37		asc. node	2635 Jun 24 20:11	24° \cap 37'00	
					2635 Jun 27 08:36	0° \ominus	
superior conj	2634 Jul 17 11:02	25° \ominus 01'43	1°25'17				
minimum elong	2634 Jul 17 08:43	24° \ominus 49'12	1°25'00	superior conj	2635 Jul 01 21:53	9° \ominus 57'44	1°08'25

minimum elong	2635 Jul 01 19:33	9° \mathfrak{S} 44'54	1°08'02	superior conj	2636 Jun 15 09:43	24° \mathbb{I} 54'36	0°47'41
max. Earth dist.	2635 Jul 02 17:34	11° \mathfrak{S} 45'41	1.32433 AU	minimum elong	2636 Jun 15 07:48	24° \mathbb{I} 44'06	0°47'19
evening rise	2635 Jul 08 23:28	25° \mathfrak{S} 09'04		max. Earth dist.	2636 Jun 15 05:30	24° \mathbb{I} 31'24	1.32139 AU
	2635 Jul 11 08:28	0° \mathcal{Q}			2636 Jun 17 17:13	0° \mathfrak{S}	
	2635 Jul 28 19:55	0° \mathfrak{M}		evening rise	2636 Jun 22 07:27	9° \mathfrak{S} 54'42	
desc. node	2635 Aug 01 17:20	5° \mathfrak{M} 15'22			2636 Jul 02 16:09	0° \mathcal{Q}	
evening max el	2635 Aug 09 12:22	13° \mathfrak{M} 59'17	27°12'27	desc. node	2636 Jul 18 14:20	22° \mathcal{Q} 49'31	
retrograde	2635 Aug 23 08:35	21° \mathfrak{M} 13'26		evening max el	2636 Jul 21 13:13	25° \mathcal{Q} 51'02	26°25'33
evening set	2635 Aug 30 11:59	18° \mathfrak{M} 53'24			2636 Jul 26 16:24	0° \mathfrak{M}	
min. Earth dist.	2635 Sep 03 02:36	16° \mathfrak{M} 07'53	0.61689 AU	retrograde	2636 Aug 04 12:39	3° \mathfrak{M} 02'35	
inferior conj	2635 Sep 06 04:21	13° \mathfrak{M} 22'52	-4°-10'-34	evening set	2636 Aug 11 03:53	1° \mathfrak{M} 12'46	
minimum elong	2635 Sep 06 09:50	13° \mathfrak{M} 10'32	4°09'19		2636 Aug 13 04:06	30° \mathcal{R} \mathcal{Q}	
morning rise	2635 Sep 13 10:35	8° \mathfrak{M} 24'37		min. Earth dist.	2636 Aug 15 02:24	28° \mathcal{Q} 37'45	0.59639 AU
direct	2635 Sep 15 19:07	8° \mathfrak{M} 01'08		inferior conj	2636 Aug 18 09:39	26° \mathcal{Q} 03'04	-4°-48'-54
asc. node	2635 Sep 20 19:24	9° \mathfrak{M} 51'09		minimum elong	2636 Aug 18 13:29	25° \mathcal{Q} 55'32	4°48'27
morning max el	2635 Sep 22 18:05	11° \mathfrak{M} 30'49	17°55'36	morning rise	2636 Aug 26 02:31	21° \mathcal{Q} 27'45	
	2635 Oct 05 01:38	0° \mathfrak{A}		direct	2636 Aug 28 11:56	21° \mathcal{Q} 07'21	
morning set	2635 Oct 08 14:05	6° \mathfrak{A} 22'42		morning max el	2636 Sep 05 04:26	24° \mathcal{Q} 50'45	18°18'44
				asc. node	2636 Sep 06 16:27	26° \mathcal{Q} 24'48	
superior conj	2635 Oct 19 04:16	25° \mathfrak{A} 19'16	1°02'28		2636 Sep 09 12:10	0° \mathfrak{M}	
minimum elong	2635 Oct 19 08:42	25° \mathfrak{A} 38'29	1°01'55	morning set	2636 Sep 21 02:10	20° \mathfrak{M} 08'02	
	2635 Oct 21 21:41	0° \mathfrak{M}			2636 Sep 26 06:50	0° \mathfrak{A}	
max. Earth dist.	2635 Oct 26 15:05	7° \mathfrak{M} 53'45	1.42652 AU	superior conj	2636 Sep 30 09:18	7° \mathfrak{A} 37'07	1°27'06
desc. node	2635 Oct 28 16:40	11° \mathfrak{M} 16'07		minimum elong	2636 Sep 30 12:57	7° \mathfrak{A} 53'47	1°26'46
evening rise	2635 Nov 02 07:28	18° \mathfrak{M} 38'30		max. Earth dist.	2636 Oct 07 22:43	20° \mathfrak{A} 59'47	1.40761 AU
	2635 Nov 09 16:17	0° \mathfrak{A}		evening rise	2636 Oct 12 15:44	28° \mathfrak{A} 53'17	
greatest brilliancy	2635 Nov 29 13:51	27° \mathfrak{A} 55'13	-0.3m		2636 Oct 13 08:03	0° \mathfrak{M}	
	2635 Dec 01 07:34	0° \mathfrak{S}		desc. node	2636 Oct 14 13:41	2° \mathfrak{M} 00'19	
evening max el	2635 Dec 04 07:33	3° \mathfrak{S} 17'00	21°59'33		2636 Nov 02 05:54	0° \mathfrak{A}	
retrograde	2635 Dec 13 14:54	8° \mathfrak{S} 49'24		evening max el	2636 Nov 15 22:40	16° \mathfrak{A} 50'57	23°18'56
evening set	2635 Dec 17 23:48	7° \mathfrak{S} 05'48		retrograde	2636 Nov 26 08:59	23° \mathfrak{A} 01'36	
asc. node	2635 Dec 17 18:36	7° \mathfrak{S} 15'57		evening set	2636 Dec 01 06:33	21° \mathfrak{A} 01'17	
inferior conj	2635 Dec 23 09:16	0° \mathfrak{S} 44'42	1°49'26	asc. node	2636 Dec 03 15:40	18° \mathfrak{A} 35'37	
minimum elong	2635 Dec 23 07:05	0° \mathfrak{S} 52'17	1°48'37	inferior conj	2636 Dec 06 16:48	14° \mathfrak{A} 35'32	1°01'41
min. Earth dist.	2635 Dec 23 10:10	0° \mathfrak{S} 41'37	0.67839 AU	minimum elong	2636 Dec 06 15:25	14° \mathfrak{A} 40'19	1°01'07
	2635 Dec 23 22:11	30° \mathcal{R} \mathfrak{A}		min. Earth dist.	2636 Dec 06 06:55	15° \mathfrak{A} 09'30	0.67849 AU
morning rise	2635 Dec 28 14:11	24° \mathfrak{A} 31'05		morning rise	2636 Dec 12 00:21	8° \mathfrak{A} 25'28	
direct	2636 Jan 02 09:15	22° \mathfrak{A} 30'36		direct	2636 Dec 16 04:55	6° \mathfrak{A} 47'50	
morning max el	2636 Jan 12 03:10	28° \mathfrak{A} 16'20	22°38'27	morning max el	2636 Dec 24 18:39	11° \mathfrak{A} 47'14	21°15'00
	2636 Jan 13 18:38	0° \mathfrak{S}		greatest brilliancy	2636 Dec 30 00:20	17° \mathfrak{A} 47'12	-0.4m
greatest brilliancy	2636 Jan 16 17:05	3° \mathfrak{S} 22'55	-0.3m		2637 Jan 07 23:32	0° \mathfrak{S}	
desc. node	2636 Jan 24 15:53	13° \mathfrak{S} 46'55		desc. node	2637 Jan 10 12:55	3° \mathfrak{S} 42'31	
	2636 Feb 04 18:25	0° \mathfrak{A}		morning set	2637 Jan 24 15:09	25° \mathfrak{S} 07'56	
morning set	2636 Feb 15 02:40	16° \mathfrak{A} 21'19			2637 Jan 27 16:47	0° \mathfrak{A}	
max. Earth dist.	2636 Feb 20 00:30	24° \mathfrak{A} 33'54	1.40296 AU	max. Earth dist.	2637 Feb 01 01:56	7° \mathfrak{A} 05'38	1.42311 AU
	2636 Feb 23 04:04	0° \mathfrak{K}					
superior conj	2636 Feb 27 19:17	8° \mathfrak{K} 15'01	-1°-57'-54	superior conj	2637 Feb 08 09:23	19° \mathfrak{A} 21'20	-2°-5'-51
minimum elong	2636 Feb 27 22:52	8° \mathfrak{K} 31'17	1°57'42	minimum elong	2637 Feb 08 09:37	19° \mathfrak{A} 22'19	2°05'52
evening rise	2636 Mar 08 18:40	26° \mathfrak{K} 51'44			2637 Feb 14 11:26	0° \mathfrak{K}	
	2636 Mar 10 10:32	0° \mathfrak{Y}		evening rise	2637 Feb 19 18:21	9° \mathfrak{K} 30'27	
asc. node	2636 Mar 14 17:55	7° \mathfrak{Y} 56'31		asc. node	2637 Mar 01 14:56	26° \mathfrak{K} 44'39	
evening max el	2636 Mar 24 22:17	22° \mathfrak{Y} 44'07	18°23'49		2637 Mar 03 18:04	0° \mathfrak{Y}	
retrograde	2636 Apr 01 07:27	26° \mathfrak{Y} 23'18		evening max el	2637 Mar 08 08:37	5° \mathfrak{Y} 42'06	18°08'08
evening set	2636 Apr 03 16:22	26° \mathfrak{Y} 01'43		retrograde	2637 Mar 15 01:19	9° \mathfrak{Y} 06'56	
inferior conj	2636 Apr 11 00:45	21° \mathfrak{Y} 26'04	2°41'58	evening set	2637 Mar 17 15:51	8° \mathfrak{Y} 36'10	
minimum elong	2636 Apr 11 04:33	21° \mathfrak{Y} 18'14	2°41'03	inferior conj	2637 Mar 24 08:37	3° \mathfrak{Y} 39'28	3°24'15
min. Earth dist.	2636 Apr 14 11:22	18° \mathfrak{Y} 37'32	0.58732 AU	minimum elong	2637 Mar 24 10:59	3° \mathfrak{Y} 33'50	3°23'55
morning rise	2636 Apr 18 12:37	15° \mathfrak{Y} 55'13		min. Earth dist.	2637 Mar 27 13:55	0° \mathfrak{Y} 36'49	0.60891 AU
desc. node	2636 Apr 21 15:02	14° \mathfrak{Y} 40'17			2637 Mar 28 06:32	30° \mathcal{R} \mathfrak{K}	
direct	2636 Apr 24 16:02	14° \mathfrak{Y} 15'46		morning rise	2637 Mar 31 02:58	27° \mathfrak{K} 48'07	
morning max el	2636 May 09 01:20	21° \mathfrak{Y} 59'32	27°02'39	direct	2637 Apr 06 20:43	25° \mathfrak{K} 33'48	
	2636 May 16 02:14	0° \mathfrak{S}		desc. node	2637 Apr 08 12:04	25° \mathfrak{K} 41'21	
	2636 Jun 03 14:04	0° \mathbb{I}			2637 Apr 17 05:17	0° \mathfrak{Y}	
morning set	2636 Jun 08 07:18	9° \mathbb{I} 32'34		morning max el	2637 Apr 21 02:35	3° \mathfrak{Y} 28'16	27°43'43
asc. node	2636 Jun 10 17:13	14° \mathbb{I} 40'02			2637 May 10 15:43	0° \mathfrak{S}	
				morning set	2637 May 23 13:06	24° \mathfrak{S} 06'07	

	2637 May 26 08:39	0°♊		morning max el	2638 Apr 03 09:02	15°♎37'15	27°47'24
asc. node	2637 May 28 14:14	4°♊47'59			2638 Apr 15 03:42	0°♎	
max. Earth dist.	2637 May 29 16:38	7°♊11'37	1.32240 AU		2638 May 03 06:55	0°♎	
				morning set	2638 May 07 12:56	8°♎18'35	
superior conj	2637 May 30 20:45	9°♊45'26	0°23'47	max. Earth dist.	2638 May 12 23:08	19°♎33'55	1.32753 AU
minimum elong	2637 May 30 19:41	9°♊39'36	0°23'33				
evening rise	2637 Jun 06 18:18	24°♊45'46		superior conj	2638 May 15 05:16	24°♎24'32	0°-2'-37
	2637 Jun 09 06:31	0°♎		minimum elong	2638 May 15 05:24	24°♎25'13	0°02'37
	2637 Jun 27 02:29	0°♎		behind sun begin	2638 May 15 00:13	23°♎57'15	
evening max el	2637 Jul 03 06:56	6°♎56'13	25°09'49	behind sun end	2638 May 15 10:35	24°♎53'13	
desc. node	2637 Jul 05 11:20	8°♎53'28		asc. node	2638 May 15 11:15	24°♎56'52	
retrograde	2637 Jul 17 06:44	14°♎02'24			2638 May 17 19:09	0°♊	
evening set	2637 Jul 22 20:15	12°♎51'09		evening rise	2638 May 22 06:09	9°♊35'57	
min. Earth dist.	2637 Jul 27 18:42	10°♎07'46	0.57626 AU		2638 Jun 01 19:42	0°♎	
inferior conj	2637 Jul 30 19:59	8°♎03'30	-5°-2'-9	evening max el	2638 Jun 14 20:36	17°♎29'30	23°36'30
minimum elong	2637 Jul 30 19:29	8°♎04'23	5°02'10	desc. node	2638 Jun 22 08:21	22°♎53'39	
morning rise	2637 Aug 07 22:24	3°♎50'43		retrograde	2638 Jun 28 12:14	24°♎19'46	
direct	2637 Aug 10 11:24	3°♎31'36		evening set	2638 Jul 02 14:34	23°♎42'59	
morning max el	2637 Aug 19 06:53	7°♎40'09	19°02'46	min. Earth dist.	2638 Jul 09 06:52	20°♎35'34	0.55978 AU
asc. node	2637 Aug 24 13:28	13°♎59'40		inferior conj	2638 Jul 11 10:12	19°♎18'42	-4°-35'-33
	2637 Sep 02 18:35	0°♎		minimum elong	2638 Jul 11 04:10	19°♎27'47	4°34'37
morning set	2637 Sep 05 00:03	4°♎21'52		morning rise	2638 Jul 19 21:02	15°♎23'00	
				direct	2638 Jul 22 15:54	15°♎03'37	
superior conj	2637 Sep 13 09:09	20°♎50'38	1°40'49	morning max el	2638 Aug 01 22:43	19°♎49'45	20°08'18
minimum elong	2637 Sep 13 11:03	20°♎59'45	1°40'43		2638 Aug 09 23:37	0°♎	
	2637 Sep 18 05:57	0°♎		asc. node	2638 Aug 11 10:30	2°♎22'02	
max. Earth dist.	2637 Sep 20 02:42	3°♎23'31	1.38700 AU	morning set	2638 Aug 20 04:35	18°♎55'36	
evening rise	2637 Sep 23 23:56	10°♎14'49			2638 Aug 25 14:24	0°♎	
desc. node	2637 Oct 01 10:41	22°♎37'50					
	2637 Oct 06 03:56	0°♎		superior conj	2638 Aug 27 22:37	4°♎44'49	1°45'17
	2637 Oct 28 23:33	0°♎		minimum elong	2638 Aug 27 22:45	4°♎45'29	1°45'17
evening max el	2637 Oct 29 11:22	0°♎29'30	24°37'58	max. Earth dist.	2638 Sep 02 08:13	15°♎20'19	1.36720 AU
retrograde	2637 Nov 09 23:11	7°♎11'37		evening rise	2638 Sep 06 06:11	22°♎38'19	
evening set	2637 Nov 15 10:41	4°♎55'01			2638 Sep 10 09:40	0°♎	
	2637 Nov 19 19:39	30°♎		desc. node	2638 Sep 18 07:42	13°♎03'41	
min. Earth dist.	2637 Nov 20 02:35	29°♎37'07	0.67525 AU		2638 Sep 29 22:41	0°♎	
inferior conj	2637 Nov 20 23:01	28°♎29'05	0°08'52	evening max el	2638 Oct 11 23:33	14°♎10'42	25°49'22
minimum elong	2637 Nov 20 22:47	28°♎29'48	0°08'47	retrograde	2638 Oct 24 08:36	21°♎14'11	
transit middle	2637 Nov 20 22:47	28°♎29'48	0°08'47	evening set	2638 Oct 30 10:26	18°♎43'23	
transit begin	2637 Nov 20 20:29	28°♎37'31		min. Earth dist.	2638 Nov 03 18:39	14°♎01'10	0.66866 AU
transit end	2637 Nov 21 01:06	28°♎22'06		inferior conj	2638 Nov 05 02:04	12°♎21'51	0°-47'-47
asc. node	2637 Nov 20 12:41	29°♎03'29		minimum elong	2638 Nov 05 03:19	12°♎17'53	0°47'15
morning rise	2637 Nov 26 11:19	22°♎24'58		asc. node	2638 Nov 07 09:43	9°♎32'46	
direct	2637 Nov 30 02:51	21°♎08'30		morning rise	2638 Nov 10 21:04	6°♎26'31	
morning max el	2637 Dec 07 17:42	25°♎29'18	20°02'45	direct	2638 Nov 14 01:31	5°♎28'10	
	2637 Dec 11 16:52	0°♎		morning max el	2638 Nov 21 00:22	9°♎20'53	19°04'57
greatest brilliancy	2637 Dec 14 19:14	4°♎03'01	-0.6m		2638 Dec 05 23:47	0°♎	
desc. node	2637 Dec 28 09:56	23°♎58'07		morning set	2638 Dec 13 16:27	11°♎57'24	
	2638 Jan 01 08:40	0°♎		desc. node	2638 Dec 15 06:58	14°♎27'42	
morning set	2638 Jan 03 11:24	3°♎15'21			2638 Dec 25 05:24	0°♎	
max. Earth dist.	2638 Jan 14 11:11	20°♎30'08	1.43919 AU	max. Earth dist.	2638 Dec 28 03:01	4°♎33'38	1.44915 AU
superior conj	2638 Jan 19 21:45	29°♎17'19	-1°-58'00	superior conj	2638 Dec 30 09:54	8°♎10'07	-1°-30'-59
minimum elong	2638 Jan 19 16:25	28°♎55'32	1°57'44	minimum elong	2638 Dec 30 00:56	7°♎34'40	1°30'07
	2638 Jan 20 08:11	0°♎			2639 Jan 13 00:05	0°♎	
evening rise	2638 Feb 02 00:10	21°♎19'03		evening rise	2639 Jan 14 08:10	2°♎11'11	
	2638 Feb 07 01:20	0°♎			2639 Feb 01 07:14	0°♎	
asc. node	2638 Feb 16 11:58	14°♎56'13		asc. node	2639 Feb 03 09:01	2°♎19'50	
evening max el	2638 Feb 19 21:12	18°♎56'39	18°11'42	evening max el	2639 Feb 03 09:10	2°♎20'15	18°33'46
retrograde	2638 Feb 26 07:54	22°♎21'29		retrograde	2639 Feb 09 22:54	5°♎57'45	
evening set	2638 Mar 01 03:46	21°♎40'16		evening set	2639 Feb 13 00:25	5°♎05'06	
inferior conj	2638 Mar 07 08:38	16°♎23'07	3°40'30		2639 Feb 18 10:22	30°♎	
minimum elong	2638 Mar 07 09:05	16°♎21'56	3°40'30	inferior conj	2639 Feb 18 20:47	29°♎29'05	3°37'22
min. Earth dist.	2638 Mar 10 01:00	13°♎30'33	0.62960 AU	minimum elong	2639 Feb 18 19:38	29°♎32'30	3°37'17
morning rise	2638 Mar 13 12:19	10°♎19'46		min. Earth dist.	2639 Feb 20 21:35	27°♎04'10	0.64734 AU
direct	2638 Mar 20 10:34	7°♎40'36		morning rise	2639 Feb 24 13:32	23°♎18'52	
desc. node	2638 Mar 26 09:06	9°♎20'41		direct	2639 Mar 03 07:40	20°♎29'05	

desc. node	2639 Mar 13 06:08	25° \approx 05'13		min. Earth dist.	2640 Feb 04 03:10	11° \approx 04'18	0.66118 AU
morning max el	2639 Mar 16 18:24	28° \approx 19'04	27°16'01	morning rise	2640 Feb 08 03:07	6° \approx 37'52	
	2639 Mar 18 09:15	0° \approx		direct	2640 Feb 14 11:13	3° \approx 50'59	
	2639 Apr 08 22:20	0° \approx		morning max el	2640 Feb 27 04:15	11° \approx 22'39	26°16'07
morning set	2639 Apr 21 04:01	22° \approx 01'13		desc. node	2640 Feb 28 03:12	12° \approx 21'42	
	2639 Apr 25 04:07	0° \approx			2640 Mar 13 01:08	0° \approx	
max. Earth dist.	2639 Apr 25 21:17	1° \approx 27'48	1.33698 AU		2640 Mar 31 12:42	0° \approx	
				morning set	2640 Apr 03 06:34	5° \approx 02'44	
superior conj	2639 Apr 29 09:19	8° \approx 45'31	0°-30'-35	max. Earth dist.	2640 Apr 07 08:11	12° \approx 09'09	1.35105 AU
minimum elong	2639 Apr 29 10:53	8° \approx 53'44	0°30'17				
asc. node	2639 May 02 08:18	15° \approx 02'35		superior conj	2640 Apr 12 06:32	22° \approx 04'12	0°-58'-53
evening rise	2639 May 06 17:08	24° \approx 18'54		minimum elong	2640 Apr 12 09:33	22° \approx 05'40	0°58'21
	2639 May 09 11:15	0° \approx			2640 Apr 15 19:34	0° \approx	
evening max el	2639 May 27 13:05	28° \approx 00'16	22°01'03	asc. node	2640 Apr 18 05:21	5° \approx 00'35	
	2639 May 29 18:47	0° \approx		evening rise	2640 Apr 20 01:17	8° \approx 47'50	
retrograde	2639 Jun 09 05:58	4° \approx 16'37			2640 May 01 12:31	0° \approx	
desc. node	2639 Jun 09 05:21	4° \approx 16'37		evening max el	2640 May 08 15:06	8° \approx 56'43	20°36'15
evening set	2639 Jun 12 00:23	3° \approx 59'34		retrograde	2640 May 19 19:08	14° \approx 22'59	
inferior conj	2639 Jun 21 08:30	29° \approx 54'55	-3°-20'-10	evening set	2640 May 21 21:01	14° \approx 22'26	
minimum elong	2639 Jun 21 00:29	0° \approx 06'10	3°17'52	desc. node	2640 May 26 02:23	12° \approx 53'14	
min. Earth dist.	2639 Jun 20 18:00	0° \approx 15'14	0.55019 AU	inferior conj	2640 May 31 02:22	10° \approx 14'50	-1°-27'-39
	2639 Jun 21 04:53	30° \approx		minimum elong	2640 May 30 22:13	10° \approx 20'48	1°26'10
morning rise	2639 Jun 30 02:15	26° \approx 03'04		min. Earth dist.	2640 Jun 01 06:21	9° \approx 34'32	0.54982 AU
direct	2639 Jul 03 05:15	25° \approx 41'24		morning rise	2640 Jun 08 22:07	6° \approx 06'29	
	2639 Jul 13 16:27	0° \approx		direct	2640 Jun 12 14:55	5° \approx 37'01	
morning max el	2639 Jul 15 03:03	1° \approx 15'34	21°33'45	morning max el	2640 Jun 25 21:55	12° \approx 02'13	23°13'10
asc. node	2639 Jul 29 07:33	21° \approx 20'51			2640 Jul 09 09:02	0° \approx	
	2639 Aug 02 18:03	0° \approx		asc. node	2640 Jul 15 04:37	10° \approx 46'06	
morning set	2639 Aug 04 13:28	3° \approx 43'01		morning set	2640 Jul 19 00:40	18° \approx 37'11	
					2640 Jul 24 08:19	0° \approx	
superior conj	2639 Aug 11 21:43	19° \approx 08'24	1°42'13	superior conj	2640 Jul 26 03:14	3° \approx 50'38	1°32'59
minimum elong	2639 Aug 11 20:30	19° \approx 02'01	1°42'09	minimum elong	2640 Jul 26 01:10	3° \approx 39'34	1°32'47
max. Earth dist.	2639 Aug 15 20:30	27° \approx 01'42	1.35016 AU	max. Earth dist.	2640 Jul 28 17:39	9° \approx 22'09	1.33689 AU
	2639 Aug 17 05:39	0° \approx		evening rise	2640 Aug 02 19:30	19° \approx 46'06	
evening rise	2639 Aug 20 06:13	5° \approx 53'07			2640 Aug 08 03:52	0° \approx	
	2639 Sep 03 03:07	0° \approx		desc. node	2640 Aug 22 01:45	22° \approx 05'42	
desc. node	2639 Sep 05 04:44	3° \approx 12'07			2640 Aug 27 04:43	0° \approx	
evening max el	2639 Sep 24 11:58	27° \approx 48'32	26°45'32	evening max el	2640 Sep 05 23:49	11° \approx 12'01	27°19'18
	2639 Sep 26 22:05	0° \approx		retrograde	2640 Sep 19 11:21	18° \approx 30'33	
retrograde	2639 Oct 07 12:48	5° \approx 03'26		evening set	2640 Sep 26 12:17	15° \approx 48'48	
evening set	2639 Oct 14 03:50	2° \approx 23'06		min. Earth dist.	2640 Sep 30 06:47	12° \approx 19'14	0.64493 AU
	2639 Oct 16 16:10	30° \approx		inferior conj	2640 Oct 02 14:32	9° \approx 49'24	-2°-45'-52
min. Earth dist.	2639 Oct 18 04:47	28° \approx 17'44	0.65860 AU	minimum elong	2640 Oct 02 19:00	9° \approx 37'23	2°44'18
inferior conj	2639 Oct 20 00:02	26° \approx 10'29	-1°-46'-44	morning rise	2640 Oct 09 03:47	4° \approx 20'56	
minimum elong	2639 Oct 20 02:56	26° \approx 01'57	1°45'34	asc. node	2640 Oct 11 03:49	3° \approx 49'11	
asc. node	2639 Oct 25 06:45	20° \approx 57'35		direct	2640 Oct 11 16:45	3° \approx 47'40	
morning rise	2639 Oct 26 03:27	20° \approx 27'01		morning max el	2640 Oct 18 04:50	7° \approx 14'23	17°58'20
direct	2639 Oct 28 22:58	19° \approx 43'05			2640 Nov 02 10:39	0° \approx	
morning max el	2639 Nov 04 12:58	23° \approx 18'12	18°23'12	morning set	2640 Nov 04 12:31	3° \approx 30'40	
	2639 Nov 09 22:55	0° \approx					
morning set	2639 Nov 24 00:10	22° \approx 02'11		superior conj	2640 Nov 17 23:51	25° \approx 47'18	0°00'21
	2639 Nov 28 23:02	0° \approx		minimum elong	2640 Nov 17 23:54	25° \approx 47'28	0°00'20
desc. node	2639 Dec 02 04:02	5° \approx 07'10		behind sun begin	2640 Nov 17 13:34	25° \approx 05'50	
				behind sun end	2640 Nov 18 10:14	26° \approx 29'02	
superior conj	2639 Dec 09 11:31	16° \approx 40'30	0°-47'-56	desc. node	2640 Nov 18 01:06	25° \approx 52'22	
minimum elong	2639 Dec 09 05:25	16° \approx 16'30	0°47'10		2640 Nov 20 14:57	0° \approx	
max. Earth dist.	2639 Dec 10 22:11	18° \approx 56'41	1.45185 AU	max. Earth dist.	2640 Nov 22 16:51	3° \approx 18'09	1.44708 AU
	2639 Dec 17 23:26	0° \approx		evening rise	2640 Dec 04 07:16	21° \approx 23'26	
evening rise	2639 Dec 25 17:01	12° \approx 08'10			2640 Dec 09 22:05	0° \approx	
	2640 Jan 06 03:10	0° \approx		greatest brilliancy	2640 Dec 24 07:14	21° \approx 10'54	-0.6m
greatest brilliancy	2640 Jan 08 01:39	2° \approx 56'32	-0.7m	evening max el	2640 Dec 30 22:40	29° \approx 19'09	20°08'21
evening max el	2640 Jan 17 18:15	15° \approx 48'39	19°13'12		2640 Dec 31 15:00	0° \approx	
asc. node	2640 Jan 21 06:03	18° \approx 42'39		asc. node	2641 Jan 07 03:05	3° \approx 50'03	
retrograde	2640 Jan 24 18:49	19° \approx 49'28		retrograde	2641 Jan 07 16:44	3° \approx 51'50	
evening set	2640 Jan 28 02:55	18° \approx 44'26		evening set	2641 Jan 11 08:59	2° \approx 33'05	
inferior conj	2640 Feb 02 17:36	12° \approx 51'53	3°19'50		2641 Jan 14 01:30	30° \approx	
minimum elong	2640 Feb 02 15:27	12° \approx 58'46	3°19'28				

inferior conj	2641 Jan 16 20:14	26°☿26'55	2°51'21	evening set	2641 Dec 26 16:36	16°☿26'22	
minimum elong	2641 Jan 16 17:40	26°☿35'34	2°50'41	inferior conj	2642 Jan 01 02:17	10°☿09'51	2°14'09
min. Earth dist.	2641 Jan 17 16:02	25°☿20'13	0.67090 AU	minimum elong	2641 Dec 31 23:49	10°☿18'21	2°13'19
morning rise	2641 Jan 22 01:46	20°☿11'26		min. Earth dist.	2642 Jan 01 09:48	9°☿43'54	0.67673 AU
direct	2641 Jan 27 20:27	17°☿37'47		morning rise	2642 Jan 06 06:41	3°☿54'55	
morning max el	2641 Feb 08 13:03	24°☿36'43	24°57'04	direct	2642 Jan 11 10:31	1°☿41'11	
	2641 Feb 13 09:44	0°♊		morning max el	2642 Jan 21 21:42	7°☿55'03	23°29'05
desc. node	2641 Feb 14 00:17	0°♊43'47		greatest brilliancy	2642 Jan 28 01:18	14°☿55'03	-0.2m
	2641 Mar 06 12:04	0°♋		desc. node	2642 Jan 31 21:19	19°☿51'46	
morning set	2641 Mar 16 15:36	17°♋09'28			2642 Feb 08 03:39	0°♊	
max. Earth dist.	2641 Mar 20 08:09	23°♋51'01	1.36937 AU	morning set	2642 Feb 26 00:49	28°♊03'32	
	2641 Mar 23 14:43	0°♌			2642 Feb 27 04:15	0°♋	
				max. Earth dist.	2642 Mar 02 02:52	5°♋05'14	1.39054 AU
superior conj	2641 Mar 26 17:57	6°♌04'00	-1°-25'-38	superior conj	2642 Mar 09 15:38	18°♋43'14	-1°-48'-14
minimum elong	2641 Mar 26 22:07	6°♌24'27	1°25'03	minimum elong	2642 Mar 09 19:58	19°♋03'26	1°47'50
evening rise	2641 Apr 04 04:21	22°♌56'25			2642 Mar 15 13:44	0°♌	
asc. node	2641 Apr 05 02:25	24°♌46'43		evening rise	2642 Mar 18 23:30	6°♌36'27	
	2641 Apr 07 18:10	0°♍		asc. node	2642 Mar 22 23:26	14°♌15'17	
evening max el	2641 Apr 21 05:09	20°♍33'23	19°29'05		2642 Apr 01 16:55	0°♍	
retrograde	2641 Apr 30 15:41	25°♍07'32		evening max el	2642 Apr 04 05:36	2°♍48'13	18°41'51
evening set	2641 May 02 16:10	24°♍55'54		retrograde	2642 Apr 12 05:15	6°♍42'18	
inferior conj	2641 May 11 06:24	20°♍50'25	0°29'39	evening set	2642 Apr 14 10:55	6°♍25'04	
minimum elong	2641 May 11 07:39	20°♍48'23	0°29'12	inferior conj	2642 Apr 22 05:52	2°♍01'38	2°03'14
desc. node	2641 May 12 23:25	19°♍44'12		minimum elong	2642 Apr 22 09:40	1°♍54'29	2°02'07
min. Earth dist.	2641 May 13 20:50	19°♍10'15	0.55900 AU		2642 Apr 24 22:46	30°♌♌	
morning rise	2641 May 19 19:18	16°♍09'58		min. Earth dist.	2642 Apr 25 14:04	29°♌32'23	0.57573 AU
direct	2641 May 24 10:12	15°♍21'39		desc. node	2642 Apr 29 20:28	26°♌56'17	
morning max el	2641 Jun 07 12:22	22°♍28'45	24°54'48	morning rise	2642 Apr 30 04:01	26°♌47'27	
	2641 Jun 14 04:12	0°♎		direct	2642 May 05 19:39	25°♌28'24	
	2641 Jul 01 19:47	0°♏			2642 May 16 17:23	0°♍	
asc. node	2641 Jul 02 01:41	0°♏30'32		morning max el	2642 May 20 04:13	3°♍01'58	26°23'23
morning set	2641 Jul 03 12:31	3°♏32'43			2642 Jun 08 12:53	0°♎	
superior conj	2641 Jul 10 12:43	18°♏43'33	1°18'39	morning set	2642 Jun 17 23:22	18°♎24'12	
minimum elong	2641 Jul 10 10:20	18°♏30'34	1°18'20	asc. node	2642 Jun 18 22:44	20°♎27'53	
max. Earth dist.	2641 Jul 11 22:50	21°♏49'06	1.32772 AU		2642 Jun 23 08:09	0°♏	
	2641 Jul 15 18:43	0°♐		superior conj	2642 Jun 25 00:11	3°♏40'17	1°00'03
evening rise	2641 Jul 17 18:17	4°♐06'35		minimum elong	2642 Jun 24 21:58	3°♏28'07	0°59'40
	2641 Jul 31 21:06	0°♑		max. Earth dist.	2642 Jun 25 09:20	4°♏30'41	1.32258 AU
desc. node	2641 Aug 08 22:44	11°♑59'52		evening rise	2642 Jul 01 23:37	18°♏45'09	
evening max el	2641 Aug 19 09:28	24°♑09'34	27°24'21		2642 Jul 07 14:09	0°♐	
	2641 Aug 27 09:37	0°♒		desc. node	2642 Jul 26 19:44	0°♑13'10	
retrograde	2641 Sep 02 03:41	1°♒26'17			2642 Jul 26 15:24	0°♑	
	2641 Sep 07 13:59	30°♌♑		evening max el	2642 Aug 01 14:28	6°♑28'48	26°56'38
evening set	2641 Sep 09 08:27	28°♑54'41		retrograde	2642 Aug 15 12:29	13°♑41'36	
min. Earth dist.	2641 Sep 12 22:59	25°♑55'47	0.62789 AU	evening set	2642 Aug 22 12:04	11°♑33'20	
inferior conj	2641 Sep 15 18:49	23°♑12'27	-3°-41'-52	min. Earth dist.	2642 Aug 26 04:42	8°♑54'08	0.60823 AU
minimum elong	2641 Sep 16 00:17	22°♑59'15	3°40'20	inferior conj	2642 Aug 29 09:34	6°♑11'26	-4°-29'-7
morning rise	2641 Sep 22 18:46	18°♑02'09		minimum elong	2642 Aug 29 14:40	6°♑00'36	4°28'11
direct	2641 Sep 25 03:58	17°♑36'02		morning rise	2642 Sep 05 20:22	1°♑22'23	
asc. node	2641 Sep 28 00:53	18°♑14'56		direct	2642 Sep 08 04:51	1°♑00'29	
morning max el	2641 Oct 01 20:59	21°♑02'35	17°51'11	asc. node	2642 Sep 14 21:57	4°♑06'06	
	2641 Oct 08 15:14	0°♓		morning max el	2642 Sep 15 10:18	4°♑35'08	18°02'56
morning set	2641 Oct 18 00:08	16°♓05'59		morning set	2642 Oct 01 04:51	29°♑30'37	
	2641 Oct 25 22:29	0°♑			2642 Oct 01 11:11	0°♓	
superior conj	2641 Oct 29 12:54	6°♑07'33	0°42'53	superior conj	2642 Oct 11 04:35	17°♓46'09	1°14'20
minimum elong	2641 Oct 29 16:45	6°♑23'43	0°42'22	minimum elong	2642 Oct 11 08:54	18°♓05'15	1°13'52
desc. node	2641 Nov 04 22:05	16°♑39'36			2642 Oct 18 06:46	0°♑	
max. Earth dist.	2641 Nov 05 08:27	17°♑21'30	1.43562 AU	max. Earth dist.	2642 Oct 18 19:34	0°♑53'34	1.41888 AU
	2641 Nov 13 08:12	0°♒		desc. node	2642 Oct 22 19:05	7°♑26'14	
evening rise	2641 Nov 13 16:10	0°♒30'54		evening rise	2642 Oct 24 12:39	10°♑13'31	
	2641 Dec 03 14:04	0°☿			2642 Nov 06 10:29	0°♒	
greatest brilliancy	2641 Dec 08 18:53	6°☿55'31	-0.4m	greatest brilliancy	2642 Nov 21 19:38	20°♒59'46	-0.3m
evening max el	2641 Dec 13 21:35	12°☿50'30	21°16'21	evening max el	2642 Nov 26 15:20	26°♒24'02	22°32'59
retrograde	2641 Dec 22 14:22	18°☿00'20			2642 Nov 30 18:11	0°☿	
asc. node	2641 Dec 25 00:08	17°☿28'22					

retrograde	2642 Dec 06 10:00	2°☿12'36		retrograde	2643 Nov 20 02:27	16°♄24'39	
evening set	2642 Dec 11 00:08	0°☿22'03		evening set	2643 Nov 25 05:58	14°♄17'06	
	2642 Dec 11 10:28	30°♁♄		asc. node	2643 Nov 28 18:12	10°♄27'19	
asc. node	2642 Dec 11 21:10	29°♄35'09		min. Earth dist.	2643 Nov 30 02:34	8°♄39'48	0.67761 AU
inferior conj	2642 Dec 16 09:48	23°♄58'45	1°29'53	inferior conj	2643 Nov 30 16:58	7°♄50'52	0°39'50
minimum elong	2642 Dec 16 07:54	24°♄05'19	1°29'09	minimum elong	2643 Nov 30 16:02	7°♄54'03	0°39'27
min. Earth dist.	2642 Dec 16 06:06	24°♄11'34	0.67892 AU	morning rise	2643 Dec 06 02:19	1°♄43'18	
morning rise	2642 Dec 21 15:34	17°♄46'24		direct	2643 Dec 10 01:11	0°♄15'00	
direct	2642 Dec 26 04:27	15°♄55'29		morning max el	2643 Dec 18 04:15	4°♄56'12	20°42'40
morning max el	2643 Jan 04 09:38	21°♄20'21	22°01'49	greatest brilliancy	2643 Dec 24 01:12	11°♄48'08	-0.5m
greatest brilliancy	2643 Jan 09 01:34	26°♄34'41	-0.4m	desc. node	2644 Jan 05 15:22	29°♄37'51	
	2643 Jan 11 18:41	0°☿			2644 Jan 05 21:19	0°☿	
desc. node	2643 Jan 18 18:20	9°☿32'58		morning set	2644 Jan 16 08:22	15°☿56'28	
	2643 Feb 01 10:39	0°♁			2644 Jan 25 05:08	0°♁	
morning set	2643 Feb 06 05:14	7°♁33'58		max. Earth dist.	2644 Jan 25 06:08	0°♁04'01	1.43066 AU
max. Earth dist.	2643 Feb 12 00:45	17°♁06'20	1.41198 AU				
				superior conj	2644 Jan 31 22:17	11°♁04'07	-2°-4'-43
superior conj	2643 Feb 19 18:48	0°♁27'16	-2°-2'-52	minimum elong	2644 Jan 31 20:17	10°♁55'42	2°04'42
minimum elong	2643 Feb 19 21:18	0°♁38'22	2°02'48		2644 Feb 11 21:11	0°♁	
	2643 Feb 19 12:38	0°♁		evening rise	2644 Feb 13 00:02	1°♁58'52	
evening rise	2643 Mar 02 07:24	19°♁40'08		asc. node	2644 Feb 24 17:29	21°♁54'05	
	2643 Mar 07 22:40	0°♂		evening max el	2644 Mar 01 00:53	28°♁38'54	18°07'16
asc. node	2643 Mar 09 20:27	3°♂20'16			2644 Mar 02 13:12	0°♂	
evening max el	2643 Mar 18 13:17	15°♂33'03	18°14'42	retrograde	2644 Mar 07 13:53	2°♂02'20	
retrograde	2643 Mar 25 13:49	19°♂03'56		evening set	2644 Mar 10 06:41	1°♂27'12	
evening set	2643 Mar 28 01:21	18°♂38'28			2644 Mar 12 17:30	30°♁♄	
inferior conj	2643 Apr 04 02:37	13°♂53'37	3°03'31	inferior conj	2644 Mar 16 17:54	26°♁21'18	3°33'54
minimum elong	2643 Apr 04 05:56	13°♂46'18	3°02'52	minimum elong	2644 Mar 16 19:26	26°♁17'25	3°33'46
min. Earth dist.	2643 Apr 07 12:11	10°♂56'14	0.59654 AU	min. Earth dist.	2644 Mar 19 18:08	23°♁20'30	0.61796 AU
morning rise	2643 Apr 11 06:52	8°♂13'09		morning rise	2644 Mar 23 05:34	20°♁23'52	
desc. node	2643 Apr 16 17:30	6°♂21'06		direct	2644 Mar 30 02:12	17°♁57'46	
direct	2643 Apr 17 17:42	6°♂18'19		desc. node	2644 Apr 02 14:32	18°♁32'43	
morning max el	2643 May 02 01:40	14°♂06'38	27°24'36	morning max el	2644 Apr 13 05:35	25°♁53'52	27°49'57
	2643 May 14 19:10	0°♂			2644 Apr 17 01:03	0°♂	
	2643 May 31 19:26	0°♁			2644 May 07 06:58	0°♂	
morning set	2643 Jun 02 07:33	3°♁06'01		morning set	2644 May 16 11:09	17°♂32'05	
asc. node	2643 Jun 05 19:44	10°♁33'11			2644 May 22 08:58	0°♁	
				max. Earth dist.	2644 May 22 07:24	29°♂51'33	1.32408 AU
superior conj	2643 Jun 09 11:50	18°♁34'44	0°37'54	asc. node	2644 May 22 16:46	0°♁42'17	
minimum elong	2643 Jun 09 10:14	18°♁25'57	0°37'34				
max. Earth dist.	2643 Jun 08 21:29	17°♁15'48	1.32137 AU	superior conj	2644 May 23 22:02	3°♁21'30	0°12'50
	2643 Jun 14 17:04	0°☿		minimum elong	2644 May 23 21:26	3°♁18'16	0°12'42
evening rise	2643 Jun 16 09:04	3°☿33'45		behind sun begin	2644 May 23 18:20	3°♁01'21	
	2643 Jun 30 12:22	0°♁		behind sun end	2644 May 24 00:32	3°♁35'11	
desc. node	2643 Jul 13 16:45	17°♁12'28		evening rise	2644 May 30 20:36	18°♁25'37	
evening max el	2643 Jul 14 12:21	18°♁00'12	25°56'25		2644 Jun 05 13:02	0°☿	
retrograde	2643 Jul 28 12:07	25°♁09'16		evening max el	2644 Jun 25 03:33	28°☿48'32	24°31'18
evening set	2643 Aug 03 18:12	23°♁35'34			2644 Jun 26 10:29	0°♁	
min. Earth dist.	2643 Aug 08 00:45	20°♁59'24	0.58758 AU	desc. node	2644 Jun 29 13:46	2°♁28'33	
inferior conj	2643 Aug 11 07:08	18°♁35'32	-4°-58'-29	retrograde	2644 Jul 09 01:03	5°♁50'08	
minimum elong	2643 Aug 11 09:27	18°♁31'16	4°58'21	evening set	2644 Jul 14 00:28	4°♁54'32	
morning rise	2643 Aug 19 04:09	14°♁09'56		min. Earth dist.	2644 Jul 19 14:31	2°♁02'46	0.56860 AU
direct	2643 Aug 21 15:00	13°♁50'07		inferior conj	2644 Jul 22 08:49	0°♁16'45	-4°-56'-34
morning max el	2643 Aug 29 17:35	17°♁42'33	18°34'55	minimum elong	2644 Jul 22 05:53	0°♁21'29	4°56'22
asc. node	2643 Sep 01 18:58	21°♁07'10			2644 Jul 22 19:16	30°♁☿	
	2643 Sep 07 15:24	0°♁		morning rise	2644 Jul 30 14:59	26°☿12'46	
morning set	2643 Sep 14 21:34	13°♁29'26		direct	2644 Aug 02 06:21	25°☿53'41	
					2644 Aug 11 08:48	0°♁	
superior conj	2643 Sep 23 18:19	0°♁29'30	1°34'10	morning max el	2644 Aug 11 15:50	0°♁16'12	19°28'09
minimum elong	2643 Sep 23 21:16	0°♁43'17	1°33'56	asc. node	2644 Aug 18 16:01	9°♁03'40	
	2643 Sep 23 12:00	0°♁		morning set	2644 Aug 28 22:37	27°♁52'31	
max. Earth dist.	2643 Oct 01 01:47	13°♁43'04	1.39890 AU		2644 Aug 30 00:02	0°♁	
evening rise	2643 Oct 05 06:59	20°♁56'10					
desc. node	2643 Oct 09 16:05	28°♁08'03		superior conj	2644 Sep 06 00:33	14°♁02'07	1°43'44
	2643 Oct 10 20:02	0°♁		minimum elong	2644 Sep 06 01:40	14°♁07'36	1°43'41
	2643 Oct 31 13:41	0°♄		max. Earth dist.	2644 Sep 12 05:42	25°♁52'30	1.37830 AU
evening max el	2643 Nov 09 05:14	10°♄00'10	23°52'56		2644 Sep 14 12:03	0°♁	

evening rise	2644 Sep 16 00:58	2°♌44'38		superior conj	2645 Aug 20 18:33	28°♏09'49	1°44'49
desc. node	2644 Sep 25 13:06	18°♌40'59		minimum elong	2645 Aug 20 18:03	28°♏07'15	1°44'48
	2644 Oct 02 23:11	0°♌			2645 Aug 21 16:12	0°♏	
evening max el	2644 Oct 21 17:21	23°♌39'19	25°09'36	max. Earth dist.	2645 Aug 25 13:04	7°♏42'41	1.35947 AU
	2644 Oct 30 15:53	0°♌		evening rise	2645 Aug 29 15:20	15°♏31'05	
retrograde	2644 Nov 02 14:47	0°♌32'14			2645 Sep 06 20:16	0°♏	
	2644 Nov 05 09:17	30°♌		desc. node	2645 Sep 12 10:08	8°♏59'53	
evening set	2644 Nov 08 08:30	28°♌08'51			2645 Sep 27 12:59	0°♌	
min. Earth dist.	2644 Nov 12 20:55	23°♌06'10	0.67287 AU	evening max el	2645 Oct 04 05:28	7°♌19'20	26°15'38
inferior conj	2644 Nov 13 22:04	21°♌44'06	0°-14'-46	retrograde	2645 Oct 16 22:17	14°♌29'46	
minimum elong	2644 Nov 13 22:26	21°♌42'53	0°14'37	evening set	2645 Oct 23 05:51	11°♌54'07	
transit middle	2644 Nov 13 22:26	21°♌42'53	0°14'37	min. Earth dist.	2645 Oct 27 10:52	7°♌27'24	0.66471 AU
transit begin	2644 Nov 13 21:14	21°♌46'48		inferior conj	2645 Oct 28 23:14	5°♌35'31	-1°-12'-37
transit end	2644 Nov 13 23:38	21°♌38'57		minimum elong	2645 Oct 29 01:10	5°♌29'33	1°11'48
asc. node	2644 Nov 14 15:14	20°♌48'19		asc. node	2645 Nov 01 12:17	1°♌35'19	
morning rise	2644 Nov 19 13:01	15°♌43'36			2645 Nov 03 11:36	30°♌	
direct	2644 Nov 22 23:30	14°♌35'27		morning rise	2645 Nov 03 21:37	29°♌44'49	
morning max el	2644 Nov 30 06:48	18°♌43'04	19°36'18	direct	2645 Nov 06 21:52	28°♌53'12	
greatest brilliancy	2644 Dec 08 13:01	29°♌03'12	-0.6m		2645 Nov 10 11:02	0°♌	
	2644 Dec 09 05:00	0°♌		morning max el	2645 Nov 13 16:17	2°♌37'41	18°45'11
desc. node	2644 Dec 22 12:24	19°♌59'49			2645 Dec 02 16:47	0°♌	
morning set	2644 Dec 25 05:17	24°♌10'03		morning set	2645 Dec 04 20:31	3°♌24'18	
	2644 Dec 28 23:34	0°♌		desc. node	2645 Dec 09 09:26	10°♌33'57	
max. Earth dist.	2645 Jan 06 18:28	13°♌47'06	1.44424 AU	max. Earth dist.	2645 Dec 20 11:34	27°♌59'17	1.45114 AU
superior conj	2645 Jan 10 23:33	20°♌30'24	-1°-48'-54	superior conj	2645 Dec 21 04:59	29°♌07'41	-1°-14'-12
minimum elong	2645 Jan 10 16:04	20°♌00'21	1°48'22	minimum elong	2645 Dec 20 20:25	28°♌34'04	1°13'14
	2645 Jan 16 19:52	0°♌			2645 Dec 21 18:18	0°♌	
evening rise	2645 Jan 24 21:04	13°♌24'18		evening rise	2646 Jan 05 19:11	23°♌52'27	
	2645 Feb 03 20:00	0°♌			2646 Jan 09 14:33	0°♌	
asc. node	2645 Feb 10 14:31	9°♌46'46		evening max el	2646 Jan 27 00:33	25°♌24'28	18°48'31
evening max el	2645 Feb 12 13:29	11°♌57'46	18°18'51	asc. node	2646 Jan 28 11:35	26°♌46'45	
retrograde	2645 Feb 19 00:38	15°♌26'56		retrograde	2646 Feb 02 18:06	29°♌10'42	
evening set	2645 Feb 21 22:42	14°♌41'08		evening set	2646 Feb 05 22:11	28°♌13'05	
inferior conj	2645 Feb 27 23:35	9°♌15'43	3°41'13	inferior conj	2646 Feb 11 15:51	22°♌30'00	3°31'28
minimum elong	2645 Feb 27 23:17	9°♌16'33	3°41'13	minimum elong	2646 Feb 11 14:13	22°♌35'04	3°31'16
min. Earth dist.	2645 Mar 02 09:27	6°♌33'00	0.63753 AU	min. Earth dist.	2646 Feb 13 10:10	20°♌19'51	0.65374 AU
morning rise	2645 Mar 05 22:07	3°♌08'37		morning rise	2646 Feb 17 05:06	16°♌17'47	
direct	2645 Mar 12 19:22	0°♌23'04		direct	2646 Feb 23 19:39	13°♌27'21	
desc. node	2645 Mar 20 11:35	3°♌09'40		desc. node	2646 Mar 07 08:38	19°♌37'10	
morning max el	2645 Mar 26 13:52	8°♌19'05	27°38'03	morning max el	2646 Mar 08 23:38	21°♌11'41	26°53'24
	2645 Apr 12 08:29	0°♌			2646 Mar 16 15:15	0°♌	
	2645 Apr 29 12:46	0°♌			2646 Apr 05 12:08	0°♌	
morning set	2645 Apr 30 07:40	1°♌33'18		morning set	2646 Apr 13 17:58	15°♌00'10	
max. Earth dist.	2645 May 05 10:47	12°♌02'45	1.33097 AU	max. Earth dist.	2646 Apr 18 04:05	23°♌41'08	1.34242 AU
					2646 Apr 21 06:19	0°♌	
superior conj	2645 May 08 04:54	17°♌53'36	0°-14'-22	superior conj	2646 Apr 22 06:23	2°♌04'55	0°-42'-39
minimum elong	2645 May 08 05:37	17°♌57'25	0°14'14	minimum elong	2646 Apr 22 08:35	2°♌16'20	0°42'13
behind sun begin	2645 May 08 03:11	17°♌44'26		asc. node	2646 Apr 26 10:51	10°♌53'09	
behind sun end	2645 May 08 08:02	18°♌10'24		evening rise	2646 Apr 29 18:20	17°♌50'47	
asc. node	2645 May 09 13:48	20°♌50'14			2646 May 05 20:31	0°♌	
	2645 May 13 19:57	0°♌		evening max el	2646 May 19 13:20	19°♌55'16	21°23'06
evening rise	2645 May 15 08:18	3°♌13'12		retrograde	2646 May 31 15:54	25°♌51'03	
	2645 May 30 01:23	0°♌		evening set	2646 Jun 03 00:58	25°♌38'08	
evening max el	2645 Jun 06 17:16	9°♌16'03	22°55'15	desc. node	2646 Jun 03 07:51	25°♌34'53	
desc. node	2645 Jun 16 10:48	15°♌25'09		inferior conj	2646 Jun 12 09:56	21°♌38'51	-2°-35'-20
retrograde	2645 Jun 20 01:40	15°♌55'05		minimum elong	2646 Jun 12 02:59	21°♌48'35	2°33'03
evening set	2645 Jun 23 12:51	15°♌28'44		min. Earth dist.	2646 Jun 12 13:55	21°♌33'15	0.54888 AU
min. Earth dist.	2645 Jul 01 02:07	12°♌07'00	0.55465 AU	morning rise	2646 Jun 21 05:21	17°♌42'01	
inferior conj	2645 Jul 02 15:17	11°♌13'19	-4°-9'-28	direct	2646 Jun 24 13:22	17°♌17'52	
minimum elong	2645 Jul 02 07:41	11°♌24'20	4°07'50	morning max el	2646 Jul 07 02:39	23°♌14'44	22°14'50
morning rise	2645 Jul 11 05:22	7°♌21'23			2646 Jul 13 02:03	0°♌	
direct	2645 Jul 14 02:57	7°♌01'36		asc. node	2646 Jul 23 10:06	16°♌53'04	
morning max el	2645 Jul 25 02:52	12°♌07'29	20°42'30	morning set	2646 Jul 28 15:16	27°♌22'23	
asc. node	2645 Aug 05 13:03	27°♌42'23			2646 Jul 29 21:17	0°♌	
	2645 Aug 06 19:44	0°♌					
morning set	2645 Aug 13 05:14	12°♌32'09					

superior conj	2646 Aug 04 20:40	12°♎41'44	1°38'58	morning set	2647 Jul 13 02:58	12°♏18'11	
minimum elong	2646 Aug 04 19:01	12°♎33'01	1°38'52				
max. Earth dist.	2646 Aug 08 04:54	19°♎40'03	1.34403 AU	superior conj	2647 Jul 20 04:09	27°♏29'31	1°27'28
evening rise	2646 Aug 12 21:30	29°♎03'16		minimum elong	2647 Jul 20 01:53	27°♏17'17	1°27'13
	2646 Aug 13 09:13	0°♎			2647 Jul 21 08:04	0°♎	
desc. node	2646 Aug 30 07:10	28°♎57'53		max. Earth dist.	2647 Jul 22 06:05	1°♎57'52	1.33253 AU
	2646 Aug 30 23:49	0°♎		evening rise	2647 Jul 27 15:16	13°♎09'40	
evening max el	2646 Sep 16 17:58	20°♎52'38	27°03'14		2647 Aug 05 13:29	0°♎	
retrograde	2646 Sep 30 00:10	28°♎09'50		desc. node	2647 Aug 17 04:10	18°♎26'18	
evening set	2646 Oct 06 19:46	25°♎28'04			2647 Aug 26 05:50	0°♎	
min. Earth dist.	2646 Oct 10 17:56	21°♎37'56	0.65312 AU	evening max el	2647 Aug 30 05:23	4°♎07'35	27°25'20
inferior conj	2646 Oct 12 18:20	19°♎20'28	-2°-11'-59	retrograde	2647 Sep 12 19:52	11°♎24'49	
minimum elong	2646 Oct 12 21:55	19°♎10'15	2°10'37	evening set	2647 Sep 19 23:25	8°♎46'04	
morning rise	2646 Oct 19 01:45	13°♎42'40		min. Earth dist.	2647 Sep 23 15:55	5°♎30'25	0.63809 AU
asc. node	2646 Oct 19 09:21	13°♎34'05		inferior conj	2647 Sep 26 04:52	2°♎53'48	-3°-10'-17
direct	2646 Oct 21 18:09	13°♎03'41		minimum elong	2647 Sep 26 09:52	2°♎40'56	3°08'40
morning max el	2646 Oct 28 06:32	16°♎34'26	18°10'29		2647 Sep 29 04:34	30°♎	
	2646 Nov 07 01:25	0°♎		morning rise	2647 Oct 02 22:34	27°♎32'29	
morning set	2646 Nov 15 16:48	14°♎05'49		direct	2647 Oct 05 09:43	27°♎02'29	
	2646 Nov 25 11:34	0°♎		asc. node	2647 Oct 06 06:23	27°♎06'13	
desc. node	2646 Nov 26 06:27	1°♎15'41			2647 Oct 11 11:16	0°♎	
				morning max el	2647 Oct 11 22:50	0°♎27'54	17°53'05
superior conj	2646 Nov 30 08:34	7°♎46'05	0°-27'-21	morning set	2647 Oct 28 15:52	26°♎05'21	
minimum elong	2646 Nov 30 05:04	7°♎32'14	0°26'54		2647 Oct 30 22:25	0°♎	
max. Earth dist.	2646 Dec 03 06:50	12°♎23'24	1.45069 AU				
	2646 Dec 14 13:23	0°♎		superior conj	2647 Nov 10 06:25	17°♎21'09	0°19'34
evening rise	2646 Dec 16 18:57	3°♎28'09		minimum elong	2647 Nov 10 08:31	17°♎29'46	0°19'16
greatest brilliancy	2647 Jan 02 06:52	28°♎37'51	-0.7m	desc. node	2647 Nov 13 03:29	22°♎01'57	
	2647 Jan 03 05:54	0°♎		max. Earth dist.	2647 Nov 16 01:04	26°♎41'04	1.44301 AU
evening max el	2647 Jan 10 07:55	8°♎54'12	19°34'56		2647 Nov 18 03:11	0°♎	
asc. node	2647 Jan 15 08:38	12°♎39'14		evening rise	2647 Nov 26 04:56	12°♎35'06	
retrograde	2647 Jan 17 15:02	13°♎07'13			2647 Dec 07 17:05	0°♎	
evening set	2647 Jan 21 02:28	11°♎56'28		greatest brilliancy	2647 Dec 18 13:17	15°♎24'56	-0.5m
inferior conj	2647 Jan 26 15:26	5°♎58'00	3°08'55	evening max el	2647 Dec 24 10:04	22°♎24'46	20°35'53
minimum elong	2647 Jan 26 13:03	6°♎05'51	3°08'25	retrograde	2648 Jan 01 13:02	27°♎12'25	
min. Earth dist.	2647 Jan 27 19:00	4°♎27'38	0.66587 AU	asc. node	2648 Jan 02 05:40	27°♎09'45	
morning rise	2647 Jan 31 22:55	29°♎43'20		evening set	2648 Jan 05 09:24	25°♎47'08	
	2647 Jan 31 15:40	30°♎		inferior conj	2648 Jan 10 19:46	19°♎36'05	2°36'29
direct	2647 Feb 07 01:45	27°♎00'54		minimum elong	2648 Jan 10 17:11	19°♎44'53	2°35'44
	2647 Feb 14 10:54	0°♎		min. Earth dist.	2648 Jan 11 10:05	18°♎47'10	0.67388 AU
morning max el	2647 Feb 19 08:50	4°♎19'43	25°44'11	morning rise	2648 Jan 16 00:31	13°♎20'50	
desc. node	2647 Feb 22 05:41	7°♎23'47		direct	2648 Jan 21 12:58	10°♎55'18	
	2647 Mar 11 00:45	0°♎		morning max el	2648 Feb 01 17:19	17°♎35'30	24°20'12
morning set	2647 Mar 27 13:44	27°♎39'58		desc. node	2648 Feb 09 02:43	26°♎06'45	
	2647 Mar 28 20:06	0°♎			2648 Feb 12 02:19	0°♎	
max. Earth dist.	2647 Mar 31 09:52	4°♎50'45	1.35844 AU		2648 Mar 03 01:59	0°♎	
				morning set	2648 Mar 08 13:24	9°♎17'22	
superior conj	2647 Apr 05 23:52	15°♎47'54	-1°-10'-33	max. Earth dist.	2648 Mar 12 07:04	15°♎54'55	1.37820 AU
minimum elong	2647 Apr 06 03:27	16°♎05'54	1°09'57				
	2647 Apr 12 22:47	0°♎		superior conj	2648 Mar 19 05:59	28°♎53'18	-1°-35'-55
asc. node	2647 Apr 13 07:56	0°♎46'47		minimum elong	2648 Mar 19 10:23	29°♎14'30	1°35'23
evening rise	2647 Apr 14 00:36	2°♎11'54			2648 Mar 19 19:49	0°♎	
	2647 Apr 30 17:42	0°♎		evening rise	2648 Mar 28 00:41	16°♎09'26	
evening max el	2647 May 01 20:34	1°♎08'37	20°05'15	asc. node	2648 Mar 30 04:58	20°♎26'08	
retrograde	2647 May 12 06:20	6°♎11'24			2648 Apr 04 08:02	0°♎	
evening set	2647 May 14 06:32	6°♎00'57		evening max el	2648 Apr 13 15:17	13°♎01'46	19°06'26
desc. node	2647 May 21 04:52	3°♎14'29		retrograde	2648 Apr 22 09:45	17°♎17'19	
inferior conj	2647 May 23 06:29	2°♎01'43	0°-36'-23	evening set	2648 Apr 24 12:05	17°♎03'42	
minimum elong	2647 May 23 04:48	2°♎04'15	0°35'46	inferior conj	2648 May 02 18:07	12°♎50'53	1°13'17
min. Earth dist.	2647 May 25 02:52	0°♎55'29	0.55270 AU	minimum elong	2648 May 02 20:54	12°♎46'07	1°12'20
	2647 May 26 17:33	30°♎		min. Earth dist.	2648 May 05 18:05	10°♎48'10	0.56537 AU
morning rise	2647 Jun 01 00:33	27°♎41'17		desc. node	2648 May 07 01:54	9°♎57'28	
direct	2647 Jun 05 02:16	27°♎05'11		morning rise	2648 May 11 01:30	7°♎55'43	
	2647 Jun 13 23:33	0°♎		direct	2648 May 16 02:55	6°♎55'53	
morning max el	2647 Jun 18 18:43	3°♎49'16	23°56'58	morning max el	2648 May 30 09:10	14°♎15'25	25°35'07
	2647 Jul 07 00:03	0°♎			2648 Jun 11 20:26	0°♎	
asc. node	2647 Jul 10 07:10	6°♎27'32		asc. node	2648 Jun 26 04:12	26°♎18'10	

morning set	2648 Jun 26 14:37	27°II12'59			2649 Jun 05 00:38	0°II	
	2648 Jun 27 22:01	0°☿		morning set	2649 Jun 11 00:35	12°II01'29	
				asc. node	2649 Jun 13 01:15	16°II19'45	
superior conj	2648 Jul 03 14:42	12°☿24'51	1°11'16	superior conj	2649 Jun 18 02:29	27°II21'39	0°51'05
minimum elong	2648 Jul 03 12:20	12°☿11'53	1°10'52	minimum elong	2649 Jun 18 00:29	27°II10'38	0°50'41
max. Earth dist.	2648 Jul 04 14:06	14°☿32'58	1.32506 AU	max. Earth dist.	2649 Jun 18 01:42	27°II17'21	1.32158 AU
evening rise	2648 Jul 10 17:10	27°☿38'47			2649 Jun 19 07:14	0°☿	
	2648 Jul 11 20:41	0°♂		evening rise	2649 Jun 25 00:32	12°☿22'29	
	2648 Jul 28 21:08	0°♊			2649 Jul 04 00:18	0°♂	
desc. node	2648 Aug 03 01:11	7°♊11'48		desc. node	2649 Jul 20 22:11	24°♂56'42	
evening max el	2648 Aug 11 13:13	16°♊49'33	27°16'32	evening max el	2649 Jul 24 15:08	28°♂48'04	26°34'33
retrograde	2648 Aug 25 08:57	24°♊04'31			2649 Jul 25 22:34	0°♊	
evening set	2648 Sep 01 13:05	21°♊40'55		retrograde	2649 Aug 07 14:24	6°♊00'10	
min. Earth dist.	2648 Sep 05 03:22	18°♊52'27	0.61984 AU	evening set	2649 Aug 14 08:09	4°♊05'14	
inferior conj	2648 Sep 08 03:46	16°♊07'16	-4°-3'-26	min. Earth dist.	2649 Aug 18 04:41	1°♊29'40	0.59946 AU
minimum elong	2648 Sep 08 09:19	15°♊54'35	4°02'05		2649 Aug 20 02:03	30°♊♂	
morning rise	2648 Sep 15 08:25	11°♊05'55		inferior conj	2649 Aug 21 11:36	28°♂52'14	-4°-44'-29
direct	2648 Sep 17 17:01	10°♊41'51		minimum elong	2649 Aug 21 15:52	28°♂43'41	4°43'54
asc. node	2648 Sep 22 03:25	12°♊09'40		morning rise	2649 Aug 29 02:57	24°♂13'21	
morning max el	2648 Sep 24 14:11	14°♊10'22	17°53'51	direct	2649 Aug 31 11:57	23°♂52'41	
	2648 Oct 05 10:12	0°♊		morning max el	2649 Sep 08 01:24	27°♂33'36	18°13'59
morning set	2648 Oct 10 11:24	9°♊03'05		asc. node	2649 Sep 09 00:27	28°♂32'15	
					2649 Sep 10 07:10	0°♊	
superior conj	2648 Oct 21 07:07	28°♊15'31	0°57'42	morning set	2649 Sep 23 21:43	22°♊43'08	
minimum elong	2648 Oct 21 11:29	28°♊34'19	0°57'08		2649 Sep 27 18:08	0°♊	
	2648 Oct 22 07:30	0°♊					
max. Earth dist.	2648 Oct 28 15:00	10°♊32'46	1.42902 AU	superior conj	2649 Oct 03 08:51	10°♊23'28	1°24'07
desc. node	2648 Oct 30 00:29	12°♊49'06		minimum elong	2649 Oct 03 12:43	10°♊40'59	1°23'44
evening rise	2648 Nov 04 16:48	21°♊52'02		max. Earth dist.	2649 Oct 10 23:21	23°♊44'59	1.41059 AU
	2648 Nov 09 23:09	0°♊			2649 Oct 14 17:02	0°♊	
	2648 Dec 01 02:12	0°♊		evening rise	2649 Oct 15 21:47	1°♊57'45	
greatest brilliancy	2648 Dec 01 11:24	0°♊28'33	-0.4m	desc. node	2649 Oct 16 21:30	3°♊33'57	
evening max el	2648 Dec 06 06:31	5°♊55'59	21°48'10		2649 Nov 03 08:58	0°♊	
retrograde	2648 Dec 15 10:05	11°♊22'46		greatest brilliancy	2649 Nov 12 23:42	12°♊47'12	-0.2m
asc. node	2648 Dec 19 02:41	10°♊08'28		evening max el	2649 Nov 18 22:14	19°♊29'37	23°07'03
evening set	2648 Dec 19 17:11	9°♊41'41		retrograde	2649 Nov 29 04:37	25°♊34'50	
inferior conj	2648 Dec 25 02:39	3°♊21'34	1°56'08	evening set	2649 Dec 04 00:10	23°♊37'08	
minimum elong	2648 Dec 25 00:23	3°♊29'26	1°55'20	asc. node	2649 Dec 05 23:42	21°♊39'34	
min. Earth dist.	2648 Dec 25 05:13	3°♊12'40	0.67802 AU	inferior conj	2649 Dec 09 10:14	17°♊11'52	1°09'16
	2648 Dec 27 14:46	30°♊♊		minimum elong	2649 Dec 09 08:42	17°♊17'10	1°08'40
morning rise	2648 Dec 30 07:21	27°♊07'28		min. Earth dist.	2649 Dec 09 01:58	17°♊40'22	0.67868 AU
direct	2649 Jan 04 04:37	25°♊03'33		morning rise	2649 Dec 14 17:14	11°♊01'03	
	2649 Jan 13 03:54	0°♊		direct	2649 Dec 18 23:56	9°♊19'57	
morning max el	2649 Jan 14 03:06	0°♊56'51	22°51'29	morning max el	2649 Dec 27 17:32	14°♊25'52	21°26'48
greatest brilliancy	2649 Jan 18 19:18	6°♊09'51	-0.3m	greatest brilliancy	2650 Jan 01 18:54	20°♊11'28	-0.4m
desc. node	2649 Jan 25 23:45	15°♊29'58			2650 Jan 09 02:50	0°♊	
	2649 Feb 05 00:35	0°♊		desc. node	2650 Jan 12 20:45	5°♊21'48	
morning set	2649 Feb 17 10:50	19°♊36'55		morning set	2650 Jan 28 03:09	28°♊33'33	
max. Earth dist.	2649 Feb 22 02:29	27°♊26'56	1.39972 AU		2650 Jan 29 00:57	0°♊	
	2649 Feb 23 13:57	0°♊		max. Earth dist.	2650 Feb 04 02:40	9°♊49'29	1.42032 AU
superior conj	2649 Mar 01 20:26	11°♊10'28	-1°-55'-40	superior conj	2650 Feb 11 14:03	22°♊26'33	-2°-5'-33
minimum elong	2649 Mar 02 00:17	11°♊28'06	1°55'26	minimum elong	2650 Feb 11 14:57	22°♊30'30	2°05'33
evening rise	2649 Mar 11 15:34	29°♊35'27			2650 Feb 15 21:26	0°♊	
	2649 Mar 11 20:44	0°♊		evening rise	2650 Feb 22 17:28	12°♊20'26	
asc. node	2649 Mar 17 02:00	9°♊45'49		asc. node	2650 Mar 03 23:02	28°♊38'23	
evening max el	2649 Mar 27 19:12	25°♊30'37	18°27'52		2650 Mar 04 19:23	0°♊	
retrograde	2649 Apr 04 07:49	29°♊13'12		evening max el	2650 Mar 11 04:59	8°♊25'20	18°09'17
evening set	2649 Apr 06 15:50	28°♊52'51		retrograde	2650 Mar 17 23:21	11°♊51'08	
inferior conj	2649 Apr 14 02:54	24°♊20'31	2°32'46	evening set	2650 Mar 20 13:08	11°♊21'47	
minimum elong	2649 Apr 14 06:46	24°♊12'43	2°31'48	inferior conj	2650 Mar 27 07:59	6°♊28'13	3°19'36
min. Earth dist.	2649 Apr 17 13:23	21°♊36'09	0.58421 AU	minimum elong	2650 Mar 27 10:38	6°♊22'04	3°19'13
morning rise	2649 Apr 21 17:28	18°♊53'34		min. Earth dist.	2650 Mar 30 14:43	3°♊26'08	0.60571 AU
desc. node	2649 Apr 23 22:55	17°♊57'04		morning rise	2650 Apr 03 04:51	0°♊39'29	
direct	2649 Apr 27 18:01	17°♊19'26			2650 Apr 04 07:38	30°♊♊	
morning max el	2649 May 12 03:24	25°♊01'10	26°53'24	direct	2650 Apr 09 21:12	28°♊29'52	
	2649 May 16 17:38	0°♊					

desc. node	2650 Apr 10 19:57	28° Υ 32'23		direct	2651 Mar 23 09:37	10° Υ 29'15	
	2650 Apr 15 17:41	0° Υ		desc. node	2651 Mar 28 17:00	11° Υ 49'10	
morning max el	2650 Apr 24 03:37	6° Υ 22'58	27°39'54	morning max el	2651 Apr 06 09:24	18° Υ 25'42	27°49'16
	2650 May 11 21:39	0° Υ			2651 Apr 16 03:11	0° Υ	
morning set	2650 May 26 07:04	26° Υ 37'12			2651 May 04 17:35	0° Υ	
	2650 May 27 21:56	0° Π		morning set	2651 May 10 07:58	10° Υ 53'06	
asc. node	2650 May 30 22:18	6° Π 27'10		max. Earth dist.	2651 May 15 20:44	22° Υ 24'59	1.32647 AU
max. Earth dist.	2650 Jun 01 13:10	9° Π 58'53	1.32201 AU				
				superior conj	2651 May 17 22:46	26° Υ 54'35	0°01'31
superior conj	2650 Jun 02 13:45	12° Π 13'36	0°27'36	minimum elong	2651 May 17 22:42	26° Υ 54'13	0°01'30
minimum elong	2650 Jun 02 12:32	12° Π 06'56	0°27'20	behind sun begin	2651 May 17 17:31	26° Υ 26'08	
evening rise	2650 Jun 09 11:06	27° Π 13'07		behind sun end	2651 May 18 03:54	27° Υ 22'19	
	2650 Jun 10 18:50	0° Θ		asc. node	2651 May 17 19:21	26° Υ 36'00	
	2650 Jun 27 21:42	0° Ω			2651 May 19 08:55	0° Π	
evening max el	2650 Jul 06 10:00	10° Ω 00'12	25°22'36	evening rise	2651 May 24 22:57	12° Π 03'47	
desc. node	2650 Jul 07 19:13	11° Ω 16'21			2651 Jun 03 02:04	0° Θ	
retrograde	2650 Jul 20 10:02	17° Ω 07'12		evening max el	2651 Jun 17 23:56	20° Θ 36'38	23°50'57
evening set	2650 Jul 26 04:11	15° Ω 50'14		desc. node	2651 Jun 24 16:15	25° Θ 37'47	
min. Earth dist.	2650 Jul 30 22:00	13° Ω 09'11	0.57911 AU	retrograde	2651 Jul 01 17:23	27° Θ 30'14	
inferior conj	2650 Aug 03 01:00	10° Ω 59'23	-5°-2'-25	evening set	2651 Jul 06 01:19	26° Θ 48'58	
minimum elong	2650 Aug 03 01:18	10° Ω 58'51	5°02'26	min. Earth dist.	2651 Jul 12 10:23	23° Θ 46'07	0.56187 AU
morning rise	2650 Aug 11 02:02	6° Ω 43'15		inferior conj	2651 Jul 14 18:10	22° Θ 21'21	-4°-42'-44
direct	2650 Aug 13 14:24	6° Ω 23'58		minimum elong	2651 Jul 14 12:52	22° Θ 29'27	4°42'01
morning max el	2650 Aug 22 05:13	10° Ω 28'05	18°54'51	morning rise	2651 Jul 23 03:48	18° Θ 23'53	
asc. node	2650 Aug 26 21:30	15° Ω 58'48		direct	2651 Jul 25 21:48	18° Θ 04'35	
	2650 Sep 04 04:59	0° η		morning max el	2651 Aug 04 22:47	22° Θ 44'05	19°57'13
morning set	2650 Sep 07 18:25	6° η 53'42			2651 Aug 11 00:44	0° Ω	
				asc. node	2651 Aug 13 18:33	4° Ω 14'47	
superior conj	2650 Sep 16 06:18	23° η 29'51	1°39'22	morning set	2651 Aug 22 22:11	21° Ω 25'04	
minimum elong	2650 Sep 16 08:29	23° η 40'14	1°39'14		2651 Aug 27 03:13	0° η	
	2650 Sep 19 17:17	0° $\underline{\Omega}$		superior conj	2651 Aug 30 18:04	7° η 18'53	1°45'07
max. Earth dist.	2650 Sep 23 03:52	6° $\underline{\Omega}$ 15'31	1.39009 AU	minimum elong	2651 Aug 30 18:27	7° η 20'47	1°45'07
evening rise	2650 Sep 27 02:31	13° $\underline{\Omega}$ 09'46		max. Earth dist.	2651 Sep 05 08:59	18° η 15'38	1.37002 AU
desc. node	2650 Oct 03 18:32	24° $\underline{\Omega}$ 12'55		evening rise	2651 Sep 09 05:46	25° η 24'30	
	2650 Oct 07 10:44	0° \mathbb{M}			2651 Sep 11 19:40	0° $\underline{\Omega}$	
	2650 Oct 29 11:52	0° \mathcal{A}		desc. node	2651 Sep 20 15:34	14° $\underline{\Omega}$ 40'49	
evening max el	2650 Nov 01 11:18	3° \mathcal{A} 07'59	24°26'27		2651 Oct 01 00:17	0° \mathbb{M}	
retrograde	2650 Nov 12 19:24	9° \mathcal{A} 45'36		evening max el	2651 Oct 14 23:30	16° \mathbb{M} 48'55	25°39'25
evening set	2650 Nov 18 04:49	7° \mathcal{A} 31'23		retrograde	2651 Oct 27 05:35	23° \mathbb{M} 49'44	
asc. node	2650 Nov 22 20:44	2° \mathcal{A} 12'25		evening set	2651 Nov 02 05:22	21° \mathbb{M} 20'42	
min. Earth dist.	2650 Nov 22 21:56	2° \mathcal{A} 08'23	0.67600 AU	min. Earth dist.	2651 Nov 06 14:40	16° \mathbb{M} 33'12	0.66991 AU
inferior conj	2650 Nov 23 16:46	1° \mathcal{A} 05'18	0°17'11	inferior conj	2651 Nov 07 20:27	14° \mathbb{M} 58'14	0°-38'-57
minimum elong	2650 Nov 23 16:21	1° \mathcal{A} 06'43	0°17'00	minimum elong	2651 Nov 07 21:27	14° \mathbb{M} 55'01	0°38'32
	2650 Nov 24 12:23	30° $\mathbb{R}\mathbb{M}$		asc. node	2651 Nov 09 17:46	12° \mathbb{M} 37'40	
morning rise	2650 Nov 29 04:15	25° \mathbb{M} 00'10		morning rise	2651 Nov 13 14:21	9° \mathbb{M} 01'35	
direct	2650 Dec 02 21:40	23° \mathbb{M} 40'38		direct	2651 Nov 16 20:19	8° \mathbb{M} 00'46	
morning max el	2650 Dec 10 15:23	28° \mathbb{M} 06'13	20°12'37	morning max el	2651 Nov 23 21:04	11° \mathbb{M} 56'50	19°12'34
	2650 Dec 12 09:59	0° \mathcal{A}		greatest brilliancy	2651 Dec 04 08:03	25° \mathbb{M} 38'52	-0.7m
greatest brilliancy	2650 Dec 17 08:38	6° \mathcal{A} 09'53	-0.6m		2651 Dec 07 05:30	0° \mathcal{A}	
desc. node	2650 Dec 30 17:48	25° \mathcal{A} 34'47		morning set	2651 Dec 17 02:42	15° \mathcal{A} 15'16	
	2651 Jan 02 15:38	0° \mathcal{B}		desc. node	2651 Dec 17 14:51	16° \mathcal{A} 02'32	
morning set	2651 Jan 07 00:23	6° \mathcal{B} 42'12			2651 Dec 26 13:33	0° \mathcal{B}	
max. Earth dist.	2651 Jan 17 11:01	23° \mathcal{B} 07'27	1.43722 AU	max. Earth dist.	2651 Dec 31 02:18	7° \mathcal{B} 07'14	1.44813 AU
	2651 Jan 21 17:03	0° \approx					
superior conj	2651 Jan 23 06:22	2° \approx 32'54	-2°00'-24	superior conj	2652 Jan 02 21:39	11° \mathcal{B} 33'33	-1°-36'-16
minimum elong	2651 Jan 23 01:53	2° \approx 14'30	2°00'12	minimum elong	2652 Jan 02 12:51	10° \mathcal{B} 58'41	1°35'29
evening rise	2651 Feb 05 02:13	24° \approx 16'38			2652 Jan 14 08:23	0° \approx	
	2651 Feb 08 09:24	0° \mathcal{H}		evening rise	2652 Jan 17 13:45	5° \approx 17'51	
asc. node	2651 Feb 18 20:04	16° \mathcal{H} 55'38			2652 Feb 02 02:35	0° \mathcal{H}	
evening max el	2651 Feb 22 17:24	21° \mathcal{H} 37'24	18°09'58	asc. node	2652 Feb 05 17:05	4° \mathcal{H} 27'22	
retrograde	2651 Mar 01 04:19	25° \mathcal{H} 01'22		evening max el	2652 Feb 06 05:38	5° \mathcal{H} 00'05	18°29'18
evening set	2651 Mar 03 23:27	24° \mathcal{H} 21'40		retrograde	2652 Feb 12 18:26	8° \mathcal{H} 35'06	
inferior conj	2651 Mar 10 05:51	19° \mathcal{H} 07'19	3°39'24	evening set	2652 Feb 15 19:02	7° \mathcal{H} 44'15	
minimum elong	2651 Mar 10 06:34	19° \mathcal{H} 05'24	3°39'22	inferior conj	2652 Feb 21 16:27	2° \mathcal{H} 10'47	3°38'54
min. Earth dist.	2651 Mar 13 00:20	16° \mathcal{H} 12'05	0.62669 AU	minimum elong	2652 Feb 21 15:31	2° \mathcal{H} 13'33	3°38'49
morning rise	2651 Mar 16 11:29	13° \mathcal{H} 05'24			2652 Feb 23 12:57	30° $\mathbb{R}\approx$	

min. Earth dist.	2652 Feb 23 19:34	29° \approx 40'57	0.64490 AU	evening set	2653 Jan 29 20:49	21° \approx 21'45	
morning rise	2652 Feb 27 10:35	26° \approx 01'13		inferior conj	2653 Feb 04 12:10	15° \approx 31'33	3°23'17
direct	2652 Mar 05 05:41	23° \approx 12'13		minimum elong	2653 Feb 04 10:09	15° \approx 38'00	3°22'56
desc. node	2652 Mar 14 14:04	27° \approx 17'23		min. Earth dist.	2653 Feb 05 23:59	13° \approx 37'54	0.65935 AU
	2652 Mar 17 16:29	0° \approx		morning rise	2653 Feb 09 22:33	9° \approx 17'49	
morning max el	2652 Mar 18 18:41	1° \approx 04'07	27°22'47	direct	2653 Feb 16 08:23	6° \approx 29'37	
	2652 Apr 09 05:23	0° \approx		morning max el	2653 Mar 01 04:37	14° \approx 05'21	26°26'30
morning set	2652 Apr 23 00:37	24° \approx 41'07		desc. node	2653 Mar 01 11:06	14° \approx 21'48	
	2652 Apr 25 16:45	0° \approx			2653 Mar 14 03:34	0° \approx	
max. Earth dist.	2652 Apr 27 20:30	4° \approx 24'14	1.33526 AU		2653 Apr 01 22:51	0° \approx	
				morning set	2653 Apr 06 05:17	7° \approx 49'31	
superior conj	2652 May 01 03:40	11° \approx 18'48	0°-26'-18	max. Earth dist.	2653 Apr 10 09:02	15° \approx 49'30	1.34865 AU
minimum elong	2652 May 01 04:59	11° \approx 25'51	0°26'01				
asc. node	2652 May 03 16:25	16° \approx 42'32		superior conj	2653 Apr 15 02:02	25° \approx 18'29	0°-54'-38
evening rise	2652 May 08 10:12	26° \approx 48'22		minimum elong	2653 Apr 15 04:50	25° \approx 32'57	0°54'08
	2652 May 09 22:59	0° \approx			2653 Apr 17 08:28	0° \approx	
	2652 May 28 13:31	0° \approx		asc. node	2653 Apr 20 13:27	6° \approx 41'45	
evening max el	2652 May 29 15:24	1° \approx 05'20	22°14'50	evening rise	2653 Apr 22 18:53	11° \approx 19'27	
desc. node	2652 Jun 10 13:17	7° \approx 26'11			2653 May 02 15:04	0° \approx	
retrograde	2652 Jun 11 12:50	7° \approx 28'24		evening max el	2653 May 11 15:41	11° \approx 56'17	20°47'51
evening set	2652 Jun 14 11:11	7° \approx 09'22		retrograde	2653 May 23 01:57	17° \approx 13'03	
min. Earth dist.	2652 Jun 22 21:30	3° \approx 31'25	0.55105 AU	evening set	2653 May 25 05:02	17° \approx 19'40	
inferior conj	2652 Jun 23 18:16	3° \approx 02'10	-3°-34'-38	desc. node	2653 May 28 10:19	16° \approx 12'53	
minimum elong	2652 Jun 23 10:09	3° \approx 13'37	3°32'26	inferior conj	2653 Jun 03 11:48	13° \approx 12'09	-1°-45'-52
	2652 Jun 29 19:41	30° \approx		minimum elong	2653 Jun 03 06:49	13° \approx 12'15	1°44'06
morning rise	2652 Jul 02 11:11	29° \approx 11'04		min. Earth dist.	2653 Jun 04 09:45	12° \approx 15'05	0.54924 AU
direct	2652 Jul 05 12:37	28° \approx 15'04		morning rise	2653 Jun 12 07:42	9° \approx 17'17	
	2652 Jul 10 22:31	0° \approx		direct	2653 Jun 15 21:51	8° \approx 14'31	
morning max el	2652 Jul 17 04:51	4° \approx 16'33	21°19'56	morning max el	2653 Jun 29 00:51	15° \approx 10'48	22°57'53
asc. node	2652 Jul 30 15:38	23° \approx 08'40			2653 Jul 10 14:10	0° \approx	
	2652 Aug 03 05:37	0° \approx		asc. node	2653 Jul 17 12:42	12° \approx 30'03	
morning set	2652 Aug 06 06:32	6° \approx 10'36		morning set	2653 Jul 21 17:28	21° \approx 03'35	
					2653 Jul 25 22:07	0° \approx	
superior conj	2652 Aug 13 15:57	21° \approx 38'38	1°43'05	superior conj	2653 Jul 28 20:39	6° \approx 18'16	1°34'44
minimum elong	2652 Aug 13 14:54	21° \approx 33'11	1°43'04	minimum elong	2653 Jul 28 18:41	6° \approx 10'44	1°34'34
	2652 Aug 17 18:18	0° \approx		max. Earth dist.	2653 Jul 31 15:29	12° \approx 11'44	1.33858 AU
max. Earth dist.	2652 Aug 17 19:53	0° \approx 07'55	1.35247 AU	evening rise	2653 Aug 05 14:55	22° \approx 19'47	
evening rise	2652 Aug 22 03:25	8° \approx 32'05			2653 Aug 09 14:44	0° \approx	
	2652 Sep 03 10:07	0° \approx		desc. node	2653 Aug 24 09:37	24° \approx 38'49	
desc. node	2652 Sep 06 12:35	4° \approx 52'01			2653 Aug 28 04:13	0° \approx	
	2652 Sep 26 00:40	0° \approx		evening max el	2653 Sep 08 23:45	13° \approx 53'20	27°16'02
evening max el	2652 Sep 26 11:44	0° \approx 26'56	26°38'22	retrograde	2653 Sep 22 10:13	21° \approx 12'01	
retrograde	2652 Oct 09 10:38	7° \approx 14'07		evening set	2653 Sep 29 09:51	18° \approx 29'54	
evening set	2652 Oct 15 23:52	5° \approx 10'39		min. Earth dist.	2653 Oct 03 05:13	14° \approx 55'07	0.64715 AU
min. Earth dist.	2652 Oct 20 01:49	0° \approx 50'49	0.66033 AU	inferior conj	2653 Oct 05 11:05	12° \approx 28'08	-2°-37'-4
	2652 Oct 20 18:59	30° \approx		minimum elong	2653 Oct 05 15:20	12° \approx 16'31	2°35'31
inferior conj	2652 Oct 21 19:18	28° \approx 47'17	-1°-37'-43	morning rise	2653 Oct 11 22:47	6° \approx 57'10	
minimum elong	2652 Oct 21 21:56	28° \approx 39'25	1°36'39	asc. node	2653 Oct 13 11:53	6° \approx 28'08	
asc. node	2652 Oct 26 14:50	23° \approx 50'43		direct	2653 Oct 14 12:31	6° \approx 22'35	
morning rise	2652 Oct 27 21:23	23° \approx 01'57		morning max el	2653 Oct 21 00:31	9° \approx 50'12	18°00'53
direct	2652 Oct 30 18:00	22° \approx 16'13			2653 Nov 03 18:52	0° \approx	
morning max el	2652 Nov 06 08:58	25° \approx 53'26	18°28'20	morning set	2653 Nov 07 14:16	6° \approx 23'06	
	2652 Nov 09 21:36	0° \approx		desc. node	2653 Nov 20 08:52	27° \approx 12'41	
morning set	2652 Nov 26 05:54	25° \approx 10'07					
	2652 Nov 29 07:18	0° \approx		superior conj	2653 Nov 21 09:01	29° \approx 10'34	0°-6'-49
desc. node	2652 Dec 03 11:52	6° \approx 40'21		minimum elong	2653 Nov 21 08:12	28° \approx 15'81	0°06'43
				behind sun begin	2653 Nov 20 22:32	28° \approx 19'31	
superior conj	2652 Dec 11 23:29	20° \approx 30'21	0°-55'-5	behind sun end	2653 Nov 21 17:51	29° \approx 13'66	
minimum elong	2652 Dec 11 16:34	19° \approx 36'12	0°54'14		2653 Nov 21 23:38	0° \approx	
max. Earth dist.	2652 Dec 12 20:56	21° \approx 27'30	1.45189 AU	max. Earth dist.	2653 Nov 25 15:39	5° \approx 49'38	1.44824 AU
	2652 Dec 18 07:36	0° \approx		evening rise	2653 Dec 07 18:14	24° \approx 41'53	
evening rise	2652 Dec 28 01:54	15° \approx 22'20			2653 Dec 11 04:56	0° \approx	
	2653 Jan 06 08:31	0° \approx		greatest brilliancy	2653 Dec 26 21:33	23° \approx 22'04	-0.6m
greatest brilliancy	2653 Jan 08 23:25	4° \approx 03'23	-0.7m		2654 Jan 01 01:20	0° \approx	
evening max el	2653 Jan 19 15:14	18° \approx 27'51	19°06'17	evening max el	2654 Jan 02 20:27	1° \approx 58'13	19°59'16
asc. node	2653 Jan 22 14:08	21° \approx 00'18		asc. node	2654 Jan 09 11:10	6° \approx 19'55	
retrograde	2653 Jan 26 13:50	22° \approx 24'47					

retrograde	2654 Jan 10 11:33	6° 25 37		evening rise	2654 Nov 17 02:54	3° 2 48'06	
evening set	2654 Jan 14 02:27	5° 09 04			2654 Dec 04 16:38	0° 3	
	2654 Jan 18 21:33	30° 8		greatest brilliancy	2654 Dec 11 13:44	9° 3 21'00	-0.4m
inferior conj	2654 Jan 19 14:05	29° 3 04'53	2°56'14	evening max el	2654 Dec 16 20:14	15° 3 29'33	21°05'32
minimum elong	2654 Jan 19 11:33	29° 3 13'22	2°55'37	retrograde	2654 Dec 25 09:16	20° 3 33'20	
min. Earth dist.	2654 Jan 20 11:54	27° 3 51'53	0.66973 AU	asc. node	2654 Dec 27 08:12	20° 3 12'11	
morning rise	2654 Jan 24 20:02	22° 3 49'29		evening set	2654 Dec 29 09:56	19° 3 01'40	
direct	2654 Jan 30 16:55	20° 3 13'12		inferior conj	2655 Jan 03 19:45	12° 3 46'34	2°20'13
morning max el	2654 Feb 11 13:26	27° 3 17'53	25°09'35	minimum elong	2655 Jan 03 17:15	12° 3 55'11	2°19'26
	2654 Feb 14 02:22	0° 3		min. Earth dist.	2655 Jan 04 05:00	12° 3 14'41	0.67616 AU
desc. node	2654 Feb 16 08:06	2° 3 35'01		morning rise	2655 Jan 09 00:10	6° 3 31'32	
	2654 Mar 07 19:25	0° 3		direct	2655 Jan 14 06:17	4° 3 14'33	
morning set	2654 Mar 19 17:15	20° 3 05'07		morning max el	2655 Jan 24 21:52	10° 3 35'14	23°42'18
max. Earth dist.	2654 Mar 23 10:10	26° 3 51'36	1.36644 AU	desc. node	2655 Feb 03 05:06	21° 3 36'42	
	2654 Mar 25 02:16	0° 3			2655 Feb 09 07:39	0° 3	
					2655 Feb 28 13:43	0° 3	
superior conj	2654 Mar 29 15:05	8° 3 46'36	-1°-21'-47	morning set	2655 Mar 01 06:22	1° 3 10'40	
minimum elong	2654 Mar 29 19:08	9° 3 06'33	1°21'12	max. Earth dist.	2655 Mar 05 05:11	8° 3 01'41	1.38734 AU
evening rise	2654 Apr 06 22:49	25° 3 31'10					
asc. node	2654 Apr 07 10:29	26° 3 29'48		superior conj	2655 Mar 12 15:06	21° 3 33'00	-1°-45'-13
	2654 Apr 09 04:40	0° 3		minimum elong	2655 Mar 12 19:30	21° 3 53'43	1°44'48
evening max el	2654 Apr 24 04:00	23° 3 26'42	19°37'49		2655 Mar 17 01:12	0° 3	
retrograde	2654 May 03 20:20	28° 3 07'46		evening rise	2655 Mar 21 19:19	9° 3 15'55	
evening set	2654 May 05 20:29	27° 3 56'35		asc. node	2655 Mar 25 07:31	16° 3 01'26	
inferior conj	2654 May 14 13:27	23° 3 53'13	0°13'00		2655 Apr 02 12:04	0° 3	
minimum elong	2654 May 14 14:01	23° 3 52'19	0°12'46	evening max el	2655 Apr 07 03:05	5° 3 36'21	18°47'35
transit middle	2654 May 14 14:01	23° 3 52'19	0°12'46	retrograde	2655 Apr 15 07:09	9° 3 35'21	
transit begin	2654 May 14 11:40	23° 3 56'02		evening set	2655 Apr 17 11:59	9° 3 19'07	
transit end	2654 May 14 16:22	23° 3 48'36		inferior conj	2655 Apr 25 09:45	4° 3 58'32	1°51'09
desc. node	2654 May 15 07:20	23° 3 24'55		minimum elong	2655 Apr 25 13:24	4° 3 51'51	1°50'03
min. Earth dist.	2654 May 16 23:48	22° 3 21'30	0.55712 AU	min. Earth dist.	2655 Apr 28 16:21	2° 3 35'38	0.57288 AU
morning rise	2654 May 23 03:57	19° 3 18'03		desc. node	2655 May 02 04:19	0° 3 25'28	
direct	2654 May 27 15:24	18° 3 33'12		morning rise	2655 May 03 10:27	29° 3 49'12	
morning max el	2654 Jun 10 15:25	25° 3 34'57	24°40'09		2655 May 03 00:53	30° 3 49'12	
	2654 Jun 14 18:59	0° 3		direct	2655 May 08 22:36	28° 3 35'24	
	2654 Jul 03 07:57	0° 3			2655 May 14 21:52	0° 3	
asc. node	2654 Jul 04 09:44	2° 3 11'40		morning max el	2655 May 23 06:40	6° 3 05'28	26°11'43
morning set	2654 Jul 06 05:17	5° 3 58'54			2655 Jun 09 20:13	0° 3	
				morning set	2655 Jun 20 16:24	20° 3 11'43	
superior conj	2654 Jul 13 05:39	21° 3 09'45	1°21'08	asc. node	2655 Jun 21 06:46	22° 3 11'43	
minimum elong	2654 Jul 13 03:17	20° 3 56'52	1°20'48		2655 Jun 24 22:13	0° 3	
max. Earth dist.	2654 Jul 14 19:39	24° 3 35'57	1.32882 AU				
	2654 Jul 17 08:12	0° 3		superior conj	2655 Jun 27 16:56	6° 3 06'35	1°03'09
evening rise	2654 Jul 20 12:30	6° 3 36'42		minimum elong	2655 Jun 27 14:40	5° 3 54'07	1°02'45
	2654 Aug 02 03:44	0° 3		max. Earth dist.	2655 Jun 28 05:43	7° 3 16'52	1.32310 AU
desc. node	2654 Aug 11 06:38	13° 3 50'41		evening rise	2655 Jul 04 17:02	21° 3 13'30	
evening max el	2654 Aug 22 10:00	26° 3 55'57	27°25'44		2655 Jul 09 01:12	0° 3	
	2654 Aug 25 23:46	0° 3			2655 Jul 27 09:42	0° 3	
retrograde	2654 Sep 05 03:25	4° 3 12'51		desc. node	2655 Jul 29 03:39	2° 3 13'19	
evening set	2654 Sep 12 08:04	1° 3 39'06		evening max el	2655 Aug 04 15:53	9° 3 21'50	27°02'53
	2654 Sep 14 10:11	30° 3 40'00		retrograde	2655 Aug 18 13:15	16° 3 34'53	
min. Earth dist.	2654 Sep 15 23:00	28° 3 36'03	0.63059 AU	evening set	2655 Aug 25 14:26	14° 3 22'19	
inferior conj	2654 Sep 18 17:04	25° 3 54'08	-3°-33'-52	min. Earth dist.	2655 Aug 29 06:11	11° 3 41'13	0.61129 AU
minimum elong	2654 Sep 18 22:27	25° 3 40'55	3°32'16	inferior conj	2655 Sep 01 10:03	8° 3 57'25	-4°-22'-54
morning rise	2654 Sep 25 15:23	20° 3 40'46		minimum elong	2655 Sep 01 15:20	8° 3 45'58	4°21'50
direct	2654 Sep 28 00:57	20° 3 13'45		morning rise	2655 Sep 08 19:16	4° 3 05'02	
asc. node	2654 Sep 30 08:56	20° 3 39'52		direct	2655 Sep 11 03:45	3° 3 42'35	
morning max el	2654 Oct 04 16:46	23° 3 39'52	17°51'05	asc. node	2655 Sep 17 05:58	6° 3 19'00	
	2654 Oct 09 17:54	0° 3		morning max el	2655 Sep 18 06:42	7° 3 15'18	17°59'59
morning set	2654 Oct 20 22:52	18° 3 50'00			2655 Oct 02 21:32	0° 3	
	2654 Oct 27 08:24	0° 3		morning set	2655 Oct 04 01:25	2° 3 08'27	
superior conj	2654 Nov 01 18:02	9° 3 09'53	0°37'05	superior conj	2655 Oct 14 05:59	20° 3 37'34	1°10'20
minimum elong	2654 Nov 01 21:32	9° 3 24'31	0°36'37	minimum elong	2655 Oct 14 10:23	20° 3 56'53	1°09'49
desc. node	2654 Nov 07 05:53	18° 3 11'54			2655 Oct 19 16:33	0° 3	
max. Earth dist.	2654 Nov 08 08:03	19° 3 57'28	1.43775 AU	max. Earth dist.	2655 Oct 21 20:08	3° 3 35'50	1.42167 AU
	2654 Nov 14 16:10	0° 3		desc. node	2655 Oct 25 02:56	8° 3 59'00	

evening rise	2655 Oct 27 20:48	13° \mathbb{M} 23'20		evening rise	2656 Oct 07 11:33	23° \mathbb{L} 56'00	
	2655 Nov 07 16:19	0° \mathbb{X}		desc. node	2656 Oct 10 23:59	29° \mathbb{L} 41'55	
greatest brilliancy	2655 Nov 24 20:53	23° \mathbb{X} 42'50	-0.3m		2656 Oct 11 04:29	0° \mathbb{M}	
evening max el	2655 Nov 29 14:41	29° \mathbb{X} 02'34	22°21'09		2656 Oct 31 13:30	0° \mathbb{X}	
	2655 Nov 30 14:02	0° \mathbb{Z}		evening max el	2656 Nov 11 04:58	12° \mathbb{X} 38'08	23°41'04
retrograde	2655 Dec 09 05:18	4° \mathbb{Z} 45'20		retrograde	2656 Nov 21 22:23	18° \mathbb{X} 58'00	
evening set	2655 Dec 13 17:35	2° \mathbb{Z} 57'11		evening set	2656 Nov 26 23:50	16° \mathbb{X} 52'54	
asc. node	2655 Dec 14 05:13	2° \mathbb{Z} 32'23		asc. node	2656 Nov 30 02:14	13° \mathbb{X} 34'11	
	2655 Dec 16 13:41	30° \mathbb{R} \mathbb{X}		inferior conj	2656 Dec 02 10:32	10° \mathbb{X} 26'43	0°47'47
inferior conj	2655 Dec 19 03:10	26° \mathbb{X} 34'35	1°36'58	minimum elong	2656 Dec 02 09:26	10° \mathbb{X} 30'29	0°47'19
minimum elong	2655 Dec 19 01:10	26° \mathbb{X} 41'33	1°36'13	min. Earth dist.	2656 Dec 01 21:41	11° \mathbb{X} 10'35	0.67798 AU
min. Earth dist.	2655 Dec 19 01:03	26° \mathbb{X} 41'57	0.67886 AU	morning rise	2656 Dec 07 19:13	4° \mathbb{X} 18'16	
morning rise	2655 Dec 24 08:36	20° \mathbb{X} 21'50		direct	2656 Dec 11 20:02	2° \mathbb{X} 46'48	
direct	2655 Dec 28 23:39	18° \mathbb{X} 27'35		morning max el	2656 Dec 20 02:45	7° \mathbb{X} 34'11	20°53'45
morning max el	2656 Jan 07 09:09	23° \mathbb{X} 59'26	22°14'25	greatest brilliancy	2656 Dec 25 17:50	14° \mathbb{X} 05'59	-0.5m
greatest brilliancy	2656 Jan 11 23:23	29° \mathbb{X} 07'55	-0.3m		2657 Jan 06 02:45	0° \mathbb{Z}	
	2656 Jan 12 16:23	0° \mathbb{Z}		desc. node	2657 Jan 06 23:12	1° \mathbb{Z} 15'32	
desc. node	2656 Jan 21 02:09	11° \mathbb{Z} 13'26		morning set	2657 Jan 18 21:24	19° \mathbb{Z} 24'20	
	2656 Feb 02 18:03	0° \approx			2657 Jan 25 13:47	0° \approx	
morning set	2656 Feb 09 15:13	10° \approx 53'38		max. Earth dist.	2657 Jan 27 06:38	2° \approx 45'18	1.42813 AU
max. Earth dist.	2656 Feb 15 02:28	19° \approx 55'33	1.40889 AU				
	2656 Feb 20 22:53	0° \mathbb{X}		superior conj	2657 Feb 03 04:42	14° \approx 13'46	-2°-5'-30
				minimum elong	2657 Feb 03 03:31	14° \approx 08'49	2°05'30
superior conj	2656 Feb 22 21:21	3° \mathbb{X} 25'55	-2°-1'-22		2657 Feb 12 06:46	0° \mathbb{X}	
minimum elong	2656 Feb 23 00:18	3° \mathbb{X} 39'05	2°01'15	evening rise	2657 Feb 15 00:26	4° \mathbb{X} 52'13	
evening rise	2656 Mar 04 05:10	22° \mathbb{X} 25'43		asc. node	2657 Feb 26 01:35	23° \mathbb{X} 49'53	
	2656 Mar 08 07:06	0° \mathbb{Y}			2657 Mar 02 14:50	0° \mathbb{Y}	
asc. node	2656 Mar 11 04:33	5° \mathbb{Y} 10'31		evening max el	2657 Mar 03 21:08	1° \mathbb{Y} 20'45	18°07'09
evening max el	2656 Mar 20 09:53	18° \mathbb{Y} 17'11	18°17'30	retrograde	2657 Mar 10 11:16	4° \mathbb{Y} 44'26	
retrograde	2656 Mar 27 13:13	21° \mathbb{Y} 50'44		evening set	2657 Mar 13 03:14	4° \mathbb{Y} 10'54	
evening set	2656 Mar 29 23:50	21° \mathbb{Y} 26'39			2657 Mar 18 19:09	30° \mathbb{R} \mathbb{X}	
inferior conj	2656 Apr 06 03:30	16° \mathbb{Y} 44'56	2°56'25	inferior conj	2657 Mar 19 16:20	29° \mathbb{X} 08'12	3°30'54
minimum elong	2656 Apr 06 07:01	16° \mathbb{Y} 37'21	2°55'41	minimum elong	2657 Mar 19 18:10	29° \mathbb{X} 03'39	3°30'42
min. Earth dist.	2656 Apr 09 13:39	13° \mathbb{Y} 50'12	0.59326 AU	min. Earth dist.	2657 Mar 22 18:27	26° \mathbb{X} 06'14	0.61482 AU
morning rise	2656 Apr 13 10:24	11° \mathbb{Y} 07'39		morning rise	2657 Mar 26 06:16	23° \mathbb{X} 12'37	
desc. node	2656 Apr 18 01:21	9° \mathbb{Y} 26'17		direct	2657 Apr 02 02:02	20° \mathbb{X} 50'27	
direct	2656 Apr 19 18:45	9° \mathbb{Y} 18'14		desc. node	2657 Apr 04 22:23	21° \mathbb{X} 13'22	
morning max el	2656 May 04 03:20	17° \mathbb{Y} 05'03	27°17'43	morning max el	2657 Apr 16 06:28	28° \mathbb{X} 46'19	27°48'32
	2656 May 14 19:23	0° \mathbb{Z}			2657 Apr 17 11:23	0° \mathbb{Y}	
	2656 Jun 01 07:31	0° \mathbb{I}			2657 May 08 15:26	0° \mathbb{Z}	
morning set	2656 Jun 04 01:07	5° \mathbb{I} 35'38		morning set	2657 May 19 05:32	20° \mathbb{Z} 04'28	
asc. node	2656 Jun 07 03:49	12° \mathbb{I} 12'23			2657 May 23 22:44	0° \mathbb{I}	
max. Earth dist.	2656 Jun 10 17:56	20° \mathbb{I} 02'42	1.32128 AU	max. Earth dist.	2657 May 25 04:20	2° \mathbb{I} 40'07	1.32340 AU
				asc. node	2657 May 25 00:53	2° \mathbb{I} 21'19	
superior conj	2656 Jun 11 04:40	21° \mathbb{I} 01'50	0°41'28				
minimum elong	2656 Jun 11 02:57	20° \mathbb{I} 52'23	0°41'07	superior conj	2657 May 26 15:13	5° \mathbb{I} 50'06	0°16'47
	2656 Jun 15 06:44	0° \mathbb{Z}		minimum elong	2657 May 26 14:27	5° \mathbb{I} 45'54	0°16'38
evening rise	2656 Jun 18 02:01	6° \mathbb{Z} 01'06		evening rise	2657 Jun 02 13:22	20° \mathbb{I} 52'40	
	2656 Jun 30 17:06	0° \mathbb{Q}			2657 Jun 06 23:44	0° \mathbb{Z}	
desc. node	2656 Jul 15 00:41	19° \mathbb{Q} 25'31			2657 Jun 26 09:52	0° \mathbb{Q}	
evening max el	2656 Jul 16 14:48	21° \mathbb{Q} 00'12	26°07'11	evening max el	2657 Jun 28 06:44	1° \mathbb{Q} 53'37	24°45'03
retrograde	2656 Jul 30 14:25	28° \mathbb{Q} 10'07		desc. node	2657 Jul 01 21:41	4° \mathbb{Q} 59'07	
evening set	2656 Aug 06 00:04	26° \mathbb{Q} 30'32		retrograde	2657 Jul 12 05:16	8° \mathbb{Q} 57'16	
min. Earth dist.	2656 Aug 10 03:24	23° \mathbb{Q} 55'16	0.59065 AU	evening set	2657 Jul 17 09:49	7° \mathbb{Q} 56'17	
inferior conj	2656 Aug 13 10:23	21° \mathbb{Q} 27'12	-4°-55'-42	min. Earth dist.	2657 Jul 22 18:00	5° \mathbb{Q} 07'44	0.57118 AU
minimum elong	2656 Aug 13 13:18	21° \mathbb{Q} 21'42	4°55'29	inferior conj	2657 Jul 25 15:06	3° \mathbb{Q} 14'58	-4°-59'-32
morning rise	2656 Aug 21 05:59	16° \mathbb{Q} 58'15		minimum elong	2657 Jul 25 13:02	3° \mathbb{Q} 18'21	4°59'27
direct	2656 Aug 23 16:18	16° \mathbb{Q} 38'15			2657 Jul 31 07:00	30° \mathbb{R} \mathbb{Z}	
morning max el	2656 Aug 31 15:08	20° \mathbb{Q} 27'11	18°28'51	morning rise	2657 Aug 02 19:59	29° \mathbb{Z} 08'07	
asc. node	2656 Sep 03 03:00	23° \mathbb{Q} 10'26		direct	2657 Aug 05 10:27	28° \mathbb{Z} 49'05	
	2656 Sep 07 21:02	0° \mathbb{P}			2657 Aug 10 06:49	0° \mathbb{Q}	
morning set	2656 Sep 16 16:36	16° \mathbb{P} 02'41		morning max el	2657 Aug 14 14:55	3° \mathbb{Q} 06'26	19°18'51
	2656 Sep 23 23:36	0° \mathbb{L}		asc. node	2657 Aug 21 00:04	10° \mathbb{Q} 59'26	
				morning set	2657 Aug 31 16:34	0° \mathbb{P} 22'26	
superior conj	2656 Sep 25 16:48	3° \mathbb{L} 12'21	1°31'51		2657 Aug 31 12:03	0° \mathbb{P}	
minimum elong	2656 Sep 25 20:01	3° \mathbb{L} 27'14	1°31'35				
max. Earth dist.	2656 Oct 03 02:52	16° \mathbb{L} 31'24	1.40197 AU	superior conj	2657 Sep 08 20:53	16° \mathbb{P} 38'24	1°42'51

minimum elong	2657 Sep 08 22:16	16° \mathbb{M} 45'11	1°42'48	asc. node	2658 Aug 07 21:09	29° \mathfrak{S} 32'59	
max. Earth dist.	2657 Sep 15 06:32	28° \mathbb{M} 44'45	1.38128 AU		2658 Aug 08 03:22	0° \mathcal{O}	
	2657 Sep 15 23:03	0° $\underline{\mathfrak{A}}$		morning set	2658 Aug 15 22:31	15° \mathcal{O} 00'27	
evening rise	2657 Sep 19 02:08	5° $\underline{\mathfrak{A}}$ 34'58			2658 Aug 23 05:09	0° \mathbb{M}	
desc. node	2657 Sep 27 21:02	20° $\underline{\mathfrak{A}}$ 16'37					
	2657 Oct 04 04:30	0° \mathbb{M}		superior conj	2658 Aug 23 13:23	0° \mathbb{M} 41'56	1°45'07
evening max el	2657 Oct 24 17:12	26° \mathbb{M} 16'56	24°58'46	minimum elong	2658 Aug 23 13:06	0° \mathbb{M} 40'29	1°45'07
	2657 Oct 28 23:28	0° \mathfrak{A}		max. Earth dist.	2658 Aug 28 13:08	10° \mathbb{M} 36'58	1.36210 AU
retrograde	2657 Nov 05 11:28	3° \mathfrak{A} 06'35		evening rise	2658 Sep 01 13:47	18° \mathbb{M} 14'05	
evening set	2657 Nov 11 02:59	0° \mathfrak{A} 45'31			2658 Sep 08 05:14	0° $\underline{\mathfrak{A}}$	
	2657 Nov 11 23:00	30° \mathbb{R} \mathbb{M}		desc. node	2658 Sep 14 18:03	10° $\underline{\mathfrak{A}}$ 38'18	
min. Earth dist.	2657 Nov 15 16:35	25° \mathbb{M} 37'26	0.67374 AU		2658 Sep 28 09:44	0° \mathbb{M}	
inferior conj	2657 Nov 16 16:05	24° \mathbb{M} 20'10	0°-6'-11	evening max el	2658 Oct 07 05:24	9° \mathbb{M} 57'55	26°06'49
minimum elong	2657 Nov 16 16:14	24° \mathbb{M} 19'40	0°06'09	retrograde	2658 Oct 19 19:40	17° \mathbb{M} 06'09	
transit middle	2657 Nov 16 16:14	24° \mathbb{M} 19'40	0°06'09	evening set	2658 Oct 26 01:13	14° \mathbb{M} 32'11	
transit begin	2657 Nov 16 13:40	24° \mathbb{M} 28'05		min. Earth dist.	2658 Oct 30 07:21	9° \mathbb{M} 59'57	0.66615 AU
transit end	2657 Nov 16 18:47	24° \mathbb{M} 11'14		inferior conj	2658 Oct 31 17:57	8° \mathbb{M} 12'24	-1°-3'-39
asc. node	2657 Nov 16 23:17	23° \mathbb{M} 56'29		minimum elong	2658 Oct 31 19:39	8° \mathbb{M} 07'09	1°02'58
morning rise	2657 Nov 22 06:03	18° \mathbb{M} 18'20		asc. node	2658 Nov 03 20:20	4° \mathbb{M} 36'16	
direct	2657 Nov 25 18:15	17° \mathbb{M} 07'22		morning rise	2658 Nov 06 15:06	2° \mathbb{M} 19'57	
morning max el	2657 Dec 03 04:05	21° \mathbb{M} 19'30	19°45'15	direct	2658 Nov 09 16:47	1° \mathbb{M} 26'02	
	2657 Dec 10 06:27	0° \mathfrak{A}		morning max el	2658 Nov 16 12:36	5° \mathbb{M} 13'14	18°51'45
greatest brilliancy	2657 Dec 10 23:09	0° \mathfrak{A} 57'49	-0.6m		2658 Dec 03 23:56	0° \mathfrak{A}	
desc. node	2657 Dec 24 20:15	21° \mathfrak{A} 35'26		morning set	2658 Dec 08 04:54	6° \mathfrak{A} 36'33	
morning set	2657 Dec 28 17:32	27° \mathfrak{A} 34'15		desc. node	2658 Dec 11 17:19	12° \mathfrak{A} 08'12	
	2657 Dec 30 07:13	0° \mathfrak{C}			2658 Dec 23 02:30	0° \mathfrak{C}	
max. Earth dist.	2658 Jan 09 17:46	16° \mathfrak{C} 21'43	1.44260 AU	max. Earth dist.	2658 Dec 23 10:27	0° \mathfrak{C} 31'14	1.45061 AU
superior conj	2658 Jan 14 09:49	23° \mathfrak{C} 50'26	-1°-52'-34	superior conj	2658 Dec 24 17:16	2° \mathfrak{C} 32'24	-1°-20'-29
minimum elong	2658 Jan 14 03:02	23° \mathfrak{C} 23'01	1°52'08	minimum elong	2658 Dec 24 08:25	1° \mathfrak{C} 57'32	1°19'33
	2658 Jan 18 04:39	0° \approx		evening rise	2659 Jan 09 02:14	27° \mathfrak{C} 02'38	
evening rise	2658 Jan 28 00:39	16° \approx 26'05			2659 Jan 10 22:04	0° \approx	
	2658 Feb 05 01:31	0° \mathfrak{H}		evening max el	2659 Jan 29 21:15	28° \approx 04'22	18°42'58
asc. node	2658 Feb 12 22:37	11° \mathfrak{H} 49'41		asc. node	2659 Jan 30 19:38	28° \approx 58'31	
evening max el	2658 Feb 15 09:48	14° \mathfrak{H} 38'22	18°15'56		2659 Feb 01 01:05	0° \mathfrak{H}	
retrograde	2658 Feb 21 20:38	18° \mathfrak{H} 05'46		retrograde	2659 Feb 05 13:15	1° \mathfrak{H} 47'11	
evening set	2658 Feb 24 17:54	17° \mathfrak{H} 21'37		evening set	2659 Feb 08 16:27	0° \mathfrak{H} 51'19	
inferior conj	2658 Mar 02 20:07	11° \mathfrak{H} 59'07	3°41'17		2659 Feb 09 22:00	30° \mathbb{R} \approx	
minimum elong	2658 Mar 02 20:05	11° \mathfrak{H} 59'14	3°41'17	inferior conj	2659 Feb 14 11:00	25° \approx 10'44	3°33'48
min. Earth dist.	2658 Mar 05 08:20	9° \mathfrak{H} 12'32	0.63486 AU	minimum elong	2659 Feb 14 09:31	25° \approx 15'13	3°33'39
morning rise	2658 Mar 08 20:23	5° \mathfrak{H} 53'12		min. Earth dist.	2659 Feb 16 07:36	22° \approx 55'12	0.65163 AU
direct	2658 Mar 15 18:09	3° \mathfrak{H} 09'29		morning rise	2659 Feb 20 01:25	18° \approx 59'10	
desc. node	2658 Mar 22 19:25	5° \mathfrak{H} 30'31		direct	2659 Feb 26 17:22	16° \approx 08'40	
morning max el	2658 Mar 29 14:09	11° \mathfrak{H} 06'04	27°41'58	desc. node	2659 Mar 09 16:28	21° \approx 43'28	
	2658 Apr 13 12:08	0° \mathbb{Y}		morning max el	2659 Mar 11 23:46	23° \approx 55'07	27°01'49
	2658 May 01 00:29	0° \mathfrak{Y}			2659 Mar 17 10:48	0° \mathfrak{H}	
morning set	2658 May 03 03:18	4° \mathfrak{Y} 09'54			2659 Apr 06 20:48	0° \mathbb{Y}	
max. Earth dist.	2658 May 08 08:50	14° \mathfrak{Y} 55'04	1.32966 AU	morning set	2659 Apr 16 15:20	17° \mathbb{Y} 42'36	
				max. Earth dist.	2659 Apr 21 03:51	26° \mathbb{Y} 38'53	1.34044 AU
superior conj	2658 May 10 22:43	20° \mathfrak{Y} 24'52	0°-10'-9		2659 Apr 22 19:14	0° \mathfrak{Y}	
minimum elong	2658 May 10 23:13	20° \mathfrak{Y} 27'33	0°10'03	superior conj	2659 Apr 25 01:10	4° \mathfrak{Y} 39'56	0°-38'-20
behind sun begin	2658 May 10 19:04	20° \mathfrak{Y} 05'16		minimum elong	2659 Apr 25 03:08	4° \mathfrak{Y} 50'13	0°37'57
behind sun end	2658 May 11 03:22	20° \mathfrak{Y} 49'51		asc. node	2659 Apr 28 18:58	12° \mathfrak{Y} 33'51	
asc. node	2658 May 11 21:56	22° \mathfrak{Y} 29'47		evening rise	2659 May 02 11:33	20° \mathfrak{Y} 21'03	
	2658 May 15 09:17	0° \mathbb{I}			2659 May 07 05:58	0° \mathbb{I}	
evening rise	2658 May 18 01:09	5° \mathbb{I} 41'19		evening max el	2659 May 22 15:00	22° \mathbb{I} 58'32	21°36'04
	2658 May 31 01:34	0° \mathfrak{S}		retrograde	2659 Jun 03 22:48	29° \mathbb{I} 01'39	
evening max el	2658 Jun 09 20:18	12° \mathfrak{S} 22'42	23°09'40	desc. node	2659 Jun 05 15:42	28° \mathbb{I} 55'01	
desc. node	2658 Jun 18 18:41	18° \mathfrak{S} 19'11		evening set	2659 Jun 06 10:46	28° \mathbb{I} 47'33	
retrograde	2658 Jun 23 07:41	19° \mathfrak{S} 06'09		inferior conj	2659 Jun 15 19:48	24° \mathbb{I} 46'49	-2°-51'-59
evening set	2658 Jun 26 23:56	18° \mathfrak{S} 36'33		minimum elong	2659 Jun 15 12:20	24° \mathbb{I} 57'15	2°49'38
min. Earth dist.	2658 Jul 04 05:49	15° \mathfrak{S} 20'05	0.55625 AU	min. Earth dist.	2659 Jun 15 17:18	24° \mathbb{I} 50'19	0.54913 AU
inferior conj	2658 Jul 06 00:11	14° \mathfrak{S} 18'10	-4°-19'-56	morning rise	2659 Jun 24 14:44	20° \mathbb{I} 52'13	
minimum elong	2658 Jul 05 17:02	14° \mathfrak{S} 28'40	4°18'31	direct	2659 Jun 27 20:55	20° \mathbb{I} 29'01	
morning rise	2658 Jul 14 13:08	10° \mathfrak{S} 25'12		morning max el	2659 Jul 10 04:55	26° \mathbb{I} 17'58	22°00'14
direct	2658 Jul 17 09:43	10° \mathfrak{S} 05'37			2659 Jul 13 17:22	0° \mathfrak{S}	
morning max el	2658 Jul 28 03:40	15° \mathfrak{S} 04'35	20°30'08				

asc. node	2659 Jul 25 18:12	18° ☿ 39'47		direct	2660 Jun 07 08:26	0° II 19'05	
morning set	2659 Jul 31 08:11	29° ☿ 49'52		morning max el	2660 Jun 20 21:50	6° II 56'34	23°41'39
	2659 Jul 31 10:07	0° ♊			2660 Jul 07 09:01	0° ☿	
superior conj	2659 Aug 07 14:29	15° ♊ 11'04	1°40'15	asc. node	2660 Jul 11 15:15	8° ☿ 11'15	
minimum elong	2659 Aug 07 12:59	15° ♊ 03'08	1°40'09	morning set	2660 Jul 14 19:44	14° ☿ 45'21	
max. Earth dist.	2659 Aug 11 03:46	22° ♊ 33'16	1.34608 AU				
	2659 Aug 14 21:11	0° ♊		superior conj	2660 Jul 21 21:19	29° ☿ 57'07	1°29'33
evening rise	2659 Aug 15 17:52	1° ♊ 40'26		minimum elong	2660 Jul 21 19:07	29° ☿ 45'15	1°29'18
	2659 Sep 01 04:26	0° ♊			2660 Jul 21 21:51	0° ♊	
desc. node	2659 Sep 01 15:03	0° ♊ 40'12		max. Earth dist.	2660 Jul 24 03:34	4° ♊ 47'36	1.33399 AU
	2659 Sep 19 17:53	23° ♊ 33'07	26°57'34		2660 Jul 29 10:08	15° ♊ 42'20	
evening max el	2659 Sep 28 21:18	0° ♊		evening rise	2660 Aug 05 22:48	0° ♊	
	2659 Oct 02 22:16	0° ♊ 49'28			2660 Aug 18 12:03	20° ♊ 13'47	
retrograde	2659 Oct 06 16:58	30° ♊		desc. node	2660 Aug 25 21:33	0° ♊	
	2659 Oct 09 16:21	28° ♊ 08'05			2660 Sep 01 05:27	6° ♊ 51'06	27°23'48
evening set	2659 Oct 13 15:31	24° ♊ 12'38	0.65513 AU	evening max el	2660 Sep 14 18:54	14° ♊ 08'46	
	2659 Oct 15 14:05	21° ♊ 58'42	-2°-2'-59		2660 Sep 21 21:43	11° ♊ 28'42	
inferior conj	2659 Oct 15 17:25	21° ♊ 49'04	2°01'41	retrograde	2660 Sep 25 14:51	8° ♊ 08'23	0.64058 AU
	2659 Oct 21 20:04	16° ♊ 18'48			2660 Sep 28 02:02	5° ♊ 33'55	-3°-1'-43
minimum elong	2659 Oct 21 17:23	16° ♊ 22'10		min. Earth dist.	2660 Sep 28 06:51	5° ♊ 21'17	3°00'05
morning rise	2659 Oct 24 13:31	15° ♊ 38'07			2660 Oct 04 18:10	0° ♊ 10'05	
	2659 Oct 31 02:17	19° ♊ 10'08	18°14'34	morning rise	2660 Oct 05 04:56	30° ♊	
morning max el	2659 Nov 08 06:12	0° ♊			2660 Oct 07 05:55	29° ♊ 39'01	
	2659 Nov 18 20:45	17° ♊ 05'12		direct	2660 Oct 07 14:26	29° ♊ 39'39	
morning set	2659 Nov 26 20:03	0° ♊			2660 Oct 09 06:44	0° ♊	
	2659 Nov 28 14:19	2° ♊ 49'08		asc. node	2660 Oct 13 18:29	3° ♊ 04'35	17°54'31
desc. node				morning max el	2660 Oct 30 16:09	28° ♊ 54'01	
					2660 Oct 31 07:34	0° ♊	
superior conj	2659 Dec 03 19:37	11° ♊ 06'21	0°-34'-44	morning set			
minimum elong	2659 Dec 03 15:09	10° ♊ 48'45	0°34'08				
max. Earth dist.	2659 Dec 06 05:47	14° ♊ 55'28	1.45126 AU	superior conj	2660 Nov 12 13:50	20° ♊ 30'37	0°12'54
	2659 Dec 15 21:02	0° ♊			2660 Nov 12 15:16	20° ♊ 36'29	0°12'42
evening rise	2659 Dec 20 04:57	6° ♊ 45'13		minimum elong	2660 Nov 12 09:01	20° ♊ 10'59	
	2660 Jan 04 07:48	0° ♊			2660 Nov 12 21:32	21° ♊ 01'57	
greatest brilliancy	2660 Jan 04 16:38	0° ♊ 32'21	-0.7m	behind sun begin	2660 Nov 14 11:20	23° ♊ 34'54	
	2660 Jan 13 05:14	11° ♊ 33'49	19°27'03		2660 Nov 18 00:14	29° ♊ 14'51	1.44457 AU
evening max el	2660 Jan 17 16:39	15° ♊ 02'19		max. Earth dist.	2660 Nov 18 11:36	0° ♊	
	2660 Jan 20 09:53	15° ♊ 42'21			2660 Nov 28 16:02	15° ♊ 53'55	
asc. node	2660 Jan 23 20:09	14° ♊ 33'34		evening rise	2660 Dec 07 22:34	0° ♊	
	2660 Jan 29 09:39	8° ♊ 37'05	3°13'01		2660 Dec 20 05:16	17° ♊ 42'04	-0.5m
minimum elong	2660 Jan 29 07:21	8° ♊ 44'38	3°12'33	greatest brilliancy	2660 Dec 26 08:07	25° ♊ 03'59	20°26'03
	2660 Jan 30 15:16	7° ♊ 00'43	0.66429 AU		2661 Jan 03 07:53	29° ♊ 46'24	
min. Earth dist.	2660 Feb 03 17:47	2° ♊ 22'41		retrograde	2661 Jan 03 13:41	29° ♊ 46'04	
	2660 Feb 07 15:28	30° ♊			2661 Jan 07 02:47	28° ♊ 23'23	
morning rise	2660 Feb 09 22:32	29° ♊ 38'33		evening set	2661 Jan 12 13:24	22° ♊ 13'55	2°41'57
	2660 Feb 12 08:29	0° ♊			2661 Jan 12 10:49	22° ♊ 22'41	2°41'14
direct	2660 Feb 22 09:12	7° ♊ 02'02	25°55'47	inferior conj	2661 Jan 13 05:36	21° ♊ 18'51	0.67288 AU
	2660 Feb 24 13:31	9° ♊ 20'01			2661 Jan 17 18:22	15° ♊ 58'31	
morning max el	2660 Mar 11 05:37	0° ♊		min. Earth dist.	2661 Jan 23 08:58	13° ♊ 30'07	
	2660 Mar 29 06:54	0° ♊			2661 Feb 03 17:46	20° ♊ 17'11	24°33'16
morning set	2660 Mar 29 13:37	0° ♊ 30'53		morning max el	2661 Feb 10 10:32	27° ♊ 55'38	
	2660 Apr 02 11:31	7° ♊ 53'22	1.35577 AU		2661 Feb 12 01:43	0° ♊	
max. Earth dist.				desc. node	2661 Mar 04 10:12	0° ♊	
					2661 Mar 11 16:39	12° ♊ 18'42	
superior conj	2660 Apr 07 20:02	18° ♊ 28'07	-1°-6'-24	morning set	2661 Mar 15 09:36	18° ♊ 56'12	1.37504 AU
minimum elong	2660 Apr 07 23:25	18° ♊ 45'17	1°05'50		2661 Mar 21 07:23	0° ♊	
	2660 Apr 13 10:59	0° ♊		max. Earth dist.			
asc. node	2660 Apr 14 16:00	2° ♊ 29'28					
	2660 Apr 15 18:34	4° ♊ 45'44		superior conj	2661 Mar 22 04:02	1° ♊ 39'33	-1°-32'-21
evening rise	2660 Apr 30 05:06	0° ♊		minimum elong	2661 Mar 22 08:23	2° ♊ 00'38	1°31'49
	2660 May 03 20:23	4° ♊ 06'16	20°15'40		2661 Mar 30 19:43	18° ♊ 47'12	
evening max el	2660 May 14 12:31	9° ♊ 17'15		evening rise	2661 Apr 01 13:01	22° ♊ 11'17	
	2660 May 16 13:05	9° ♊ 06'52			2661 Apr 05 15:17	0° ♊	
desc. node	2660 May 22 12:43	6° ♊ 53'58		asc. node	2661 Apr 16 13:30	15° ♊ 53'41	19°13'57
	2660 May 25 15:09	5° ♊ 08'26	0°-54'-34		2661 Apr 25 13:29	20° ♊ 15'36	
inferior conj	2660 May 25 12:35	5° ♊ 12'13	0°53'38	retrograde	2661 Apr 27 15:02	20° ♊ 02'47	
	2660 May 27 05:58	4° ♊ 11'18	0.55152 AU		2661 May 05 23:59	15° ♊ 52'38	0°58'16
morning rise	2660 Jun 03 10:00	0° ♊ 52'36		evening set	2661 May 06 02:17	15° ♊ 48'45	0°57'28
					2661 May 08 20:55	13° ♊ 57'34	0.56300 AU

desc. node	2661 May 09 09:44	13°♄37'04		inferior conj	2662 Apr 17 05:29	27°♃15'38	2°22'53
morning rise	2661 May 14 09:26	11°♄02'31		minimum elong	2662 Apr 17 09:23	27°♃07'58	2°21'50
direct	2661 May 19 07:05	10°♄07'00		min. Earth dist.	2662 Apr 20 15:30	24°♃36'02	0.58116 AU
morning max el	2661 Jun 02 12:13	17°♄22'32	25°21'20	morning rise	2662 Apr 24 22:43	21°♃52'53	
	2661 Jun 12 21:14	0°♄		desc. node	2662 Apr 26 06:46	21°♃17'33	
asc. node	2661 Jun 28 12:17	27°♄59'46		direct	2662 Apr 30 20:19	20°♃24'02	
morning set	2661 Jun 29 07:29	29°♄40'33		morning max el	2662 May 15 05:33	28°♃03'20	26°43'32
	2661 Jun 29 11:10	0°♄			2662 May 17 03:15	0°♄	
					2662 Jun 06 10:28	0°♄	
superior conj	2661 Jul 06 07:33	14°♄51'49	1°14'00	morning set	2662 Jun 13 17:48	14°♄30'14	
minimum elong	2661 Jul 06 05:10	14°♄38'48	1°13'38	asc. node	2662 Jun 15 09:20	17°♄59'56	
max. Earth dist.	2661 Jul 07 10:39	17°♄19'55	1.32592 AU				
evening rise	2661 Jul 13 11:01	0°♄08'35		superior conj	2662 Jun 20 19:16	29°♄48'49	0°54'22
	2661 Jul 13 09:21	0°♄		minimum elong	2662 Jun 20 17:11	29°♄37'21	0°53'59
	2661 Jul 30 00:12	0°♄			2662 Jun 20 21:18	0°♄	
desc. node	2661 Aug 05 09:05	9°♄06'49		max. Earth dist.	2662 Jun 20 21:54	0°♄03'20	1.32185 AU
evening max el	2661 Aug 14 13:57	19°♄38'42	27°19'56	evening rise	2662 Jun 27 17:43	14°♄50'44	
retrograde	2661 Aug 28 09:14	26°♄54'28			2662 Jul 05 09:23	0°♄	
evening set	2661 Sep 04 13:46	24°♄27'42		desc. node	2662 Jul 23 06:06	27°♄02'25	
min. Earth dist.	2661 Sep 08 03:58	21°♄35'54	0.62269 AU		2662 Jul 25 22:48	0°♄	
inferior conj	2661 Sep 11 02:53	18°♄51'01	-3°-56'-1	evening max el	2662 Jul 27 16:59	1°♄44'37	26°42'55
minimum elong	2661 Sep 11 08:26	18°♄38'04	3°54'35	retrograde	2662 Aug 10 15:56	8°♄57'04	
morning rise	2661 Sep 18 05:54	13°♄46'33		evening set	2662 Aug 17 11:57	6°♄57'17	
direct	2661 Sep 20 14:36	13°♄21'52		min. Earth dist.	2662 Aug 21 06:52	4°♄20'44	0.60252 AU
asc. node	2661 Sep 24 11:29	14°♄30'04		inferior conj	2662 Aug 24 13:13	1°♄41'05	-4°-39'-29
morning max el	2661 Sep 27 10:13	16°♄49'34	17°52'33	minimum elong	2662 Aug 24 17:49	1°♄31'38	4°38'48
	2661 Oct 06 17:42	0°♄			2662 Aug 26 16:07	30°♄♂	
morning set	2661 Oct 13 09:06	11°♄44'40		morning rise	2662 Sep 01 02:59	26°♄58'36	
	2661 Oct 23 17:19	0°♄		direct	2662 Sep 03 11:43	26°♄037'35	
					2662 Sep 10 15:24	0°♄	
superior conj	2661 Oct 24 10:34	1°♄13'46	0°52'39	morning max el	2662 Sep 10 22:15	0°♄16'14	18°09'43
minimum elong	2661 Oct 24 14:49	1°♄31'53	0°52'05	asc. node	2662 Sep 11 08:32	0°♄41'44	
max. Earth dist.	2661 Oct 31 14:49	13°♄11'16	1.43142 AU	morning set	2662 Sep 26 17:35	25°♄19'37	
desc. node	2661 Nov 01 08:22	14°♄22'33			2662 Sep 29 05:13	0°♄	
evening rise	2661 Nov 08 02:37	25°♄07'13					
	2661 Nov 11 06:17	0°♄		superior conj	2662 Oct 06 08:56	13°♄11'44	1°20'51
	2661 Dec 01 23:50	0°♄		minimum elong	2662 Oct 06 12:59	13°♄29'57	1°20'26
greatest brilliancy	2661 Dec 04 08:11	3°♄00'07	-0.4m	max. Earth dist.	2662 Oct 14 00:00	26°♄30'04	1.41354 AU
evening max el	2661 Dec 09 05:25	8°♄35'22	21°36'51		2662 Oct 16 02:10	0°♄	
retrograde	2661 Dec 18 05:13	13°♄56'21		evening rise	2662 Oct 19 04:30	5°♄04'32	
asc. node	2661 Dec 21 10:43	12°♄59'12		desc. node	2662 Oct 19 05:25	5°♄08'16	
evening set	2661 Dec 22 10:33	12°♄17'48			2662 Nov 04 12:51	0°♄	
inferior conj	2661 Dec 27 20:04	5°♄58'48	2°02'43	greatest brilliancy	2662 Nov 16 15:10	16°♄13'49	-0.2m
minimum elong	2661 Dec 27 17:43	6°♄06'56	2°01'54	evening max el	2662 Nov 21 21:51	22°♄09'05	22°55'05
min. Earth dist.	2661 Dec 28 00:20	5°♄43'59	0.67765 AU	retrograde	2662 Dec 02 00:10	28°♄08'34	
	2662 Jan 01 17:33	30°♄♂		evening set	2662 Dec 06 17:46	26°♄13'27	
morning rise	2662 Jan 02 00:36	29°♄44'19		asc. node	2662 Dec 08 07:46	24°♄42'40	
direct	2662 Jan 07 00:09	27°♄36'54		inferior conj	2662 Dec 12 03:41	19°♄48'49	1°16'47
	2662 Jan 12 23:55	0°♄		minimum elong	2662 Dec 12 02:00	19°♄54'36	1°16'07
morning max el	2662 Jan 17 03:06	3°♄37'37	23°04'33	min. Earth dist.	2662 Dec 11 21:01	20°♄11'49	0.67887 AU
greatest brilliancy	2662 Jan 22 00:10	9°♄04'49	-0.3m	morning rise	2662 Dec 17 10:12	13°♄37'22	
desc. node	2662 Jan 28 07:34	17°♄13'44		direct	2662 Dec 21 19:03	11°♄52'47	
	2662 Feb 06 06:14	0°♄		morning max el	2662 Dec 30 16:35	17°♄05'10	21°38'47
morning set	2662 Feb 20 18:17	22°♄50'22		greatest brilliancy	2663 Jan 04 14:07	22°♄38'04	-0.4m
	2662 Feb 24 23:40	0°♄			2663 Jan 10 04:53	0°♄	
max. Earth dist.	2662 Feb 25 04:26	0°♄20'33	1.39651 AU	desc. node	2663 Jan 15 04:37	7°♄02'03	
					2663 Jan 30 08:53	0°♄	
superior conj	2662 Mar 04 21:05	14°♄04'24	-1°-53'-14	morning set	2663 Jan 31 14:42	1°♄58'13	
minimum elong	2662 Mar 05 01:10	14°♄23'09	1°52'55	max. Earth dist.	2663 Feb 07 03:38	12°♄34'56	1.41750 AU
	2662 Mar 13 07:22	0°♄					
evening rise	2662 Mar 14 12:09	2°♄18'01		superior conj	2663 Feb 14 18:09	25°♄30'27	-2°-4'-55
asc. node	2662 Mar 19 10:03	11°♄34'08		minimum elong	2663 Feb 14 19:42	25°♄37'10	2°04'54
evening max el	2662 Mar 30 16:16	28°♄17'39	18°32'24		2663 Feb 17 07:27	0°♄	
	2662 Apr 01 16:22	0°♄		evening rise	2663 Feb 25 16:14	15°♄09'29	
retrograde	2662 Apr 07 08:32	2°♄03'54			2663 Mar 05 23:37	0°♄	
evening set	2662 Apr 09 15:42	1°♄44'43		asc. node	2663 Mar 06 07:05	0°♄31'08	
	2662 Apr 13 10:30	30°♄♂		evening max el	2663 Mar 14 01:23	11°♄09'00	18°10'49

retrograde	2663 Mar 20 21:39	14°♄36'11		retrograde	2664 Mar 03 01:00	27°♄42'30	
evening set	2663 Mar 23 10:41	14°♄08'11		evening set	2664 Mar 05 19:20	27°♄04'23	
inferior conj	2663 Mar 30 07:42	9°♄17'43	3°14'25	inferior conj	2664 Mar 12 03:20	21°♄52'54	3°37'50
minimum elong	2663 Mar 30 10:36	9°♄11'05	3°13'56	minimum elong	2664 Mar 12 04:20	21°♄50'16	3°37'47
min. Earth dist.	2663 Apr 02 15:40	6°♄16'43	0.60248 AU	min. Earth dist.	2664 Mar 14 23:53	18°♄55'21	0.62368 AU
morning rise	2663 Apr 06 07:07	3°♄31'46		morning rise	2664 Mar 18 11:01	15°♄52'26	
direct	2663 Apr 12 21:47	1°♄27'08		direct	2664 Mar 25 08:48	13°♄19'37	
desc. node	2663 Apr 13 03:47	1°♄27'19		desc. node	2664 Mar 30 00:50	14°♄21'25	
morning max el	2663 Apr 27 04:44	9°♄18'41	27°35'24	morning max el	2664 Apr 08 09:55	21°♄15'58	27°50'20
	2663 May 13 02:16	0°♄			2664 Apr 16 00:08	0°♄	
morning set	2663 May 29 00:58	29°♄08'29			2664 May 05 03:34	0°♄	
	2663 May 29 10:53	0°♄		morning set	2664 May 12 02:50	13°♄27'47	
asc. node	2663 Jun 02 06:24	8°♄06'58		max. Earth dist.	2664 May 17 18:12	25°♄16'24	1.32552 AU
max. Earth dist.	2663 Jun 04 09:44	12°♄46'49	1.32166 AU	asc. node	2664 May 19 03:26	28°♄15'45	
superior conj	2663 Jun 05 06:45	14°♄42'08	0°31'21	superior conj	2664 May 19 16:11	29°♄24'58	0°05'37
minimum elong	2663 Jun 05 05:23	14°♄34'40	0°31'04	minimum elong	2664 May 19 15:55	29°♄23'30	0°05'34
evening rise	2663 Jun 12 03:58	29°♄41'12		behind sun begin	2664 May 19 11:03	28°♄57'01	
	2663 Jun 12 07:31	0°♄		behind sun end	2664 May 19 20:48	29°♄50'01	
	2663 Jun 28 20:20	0°♄			2664 May 19 22:38	0°♄	
evening max el	2663 Jul 09 13:01	13°♄04'13	25°34'58	evening rise	2664 May 26 15:43	14°♄32'11	
desc. node	2663 Jul 10 03:06	13°♄37'17			2664 Jun 03 09:45	0°♄	
retrograde	2663 Jul 23 13:03	20°♄11'51		evening max el	2664 Jun 20 03:15	23°♄44'05	24°05'17
evening set	2663 Jul 29 11:39	18°♄49'03		desc. node	2664 Jun 26 00:07	28°♄18'52	
min. Earth dist.	2663 Aug 03 01:09	16°♄10'04	0.58205 AU		2664 Jun 29 16:56	0°♄	
inferior conj	2663 Aug 06 05:37	13°♄55'00	-5°-1'-49	retrograde	2664 Jul 03 22:17	0°♄40'46	
minimum elong	2663 Aug 06 06:41	13°♄53'05	5°01'48	evening set	2664 Jul 08 11:48	29°♄54'40	
morning rise	2663 Aug 14 05:16	9°♄35'30			2664 Jul 08 05:07	30°♄	
direct	2663 Aug 16 17:05	9°♄16'01		min. Earth dist.	2664 Jul 14 13:51	26°♄56'05	0.56411 AU
morning max el	2663 Aug 25 03:22	13°♄15'50	18°47'22	inferior conj	2664 Jul 17 01:43	25°♄23'35	-4°-48'-46
asc. node	2663 Aug 29 05:36	17°♄59'51		minimum elong	2664 Jul 16 21:13	25°♄30'35	4°48'16
	2663 Sep 05 14:22	0°♄		morning rise	2664 Jul 25 10:10	21°♄24'06	
morning set	2663 Sep 10 12:58	9°♄26'31		direct	2664 Jul 28 03:15	21°♄04'54	
				morning max el	2664 Aug 06 22:36	25°♄38'02	19°46'34
superior conj	2663 Sep 19 03:47	26°♄10'28	1°37'41		2664 Aug 10 21:03	0°♄	
minimum elong	2663 Sep 19 06:15	26°♄22'06	1°37'32	asc. node	2664 Aug 15 02:40	6°♄09'09	
	2663 Sep 21 04:39	0°♄		morning set	2664 Aug 24 15:49	23°♄55'11	
max. Earth dist.	2663 Sep 26 05:08	9°♄07'30	1.39321 AU		2664 Aug 27 15:46	0°♄	
evening rise	2663 Sep 30 05:37	16°♄06'26		superior conj	2664 Sep 01 13:42	9°♄54'01	1°44'47
desc. node	2663 Oct 06 02:28	25°♄48'29		minimum elong	2664 Sep 01 14:20	9°♄57'11	1°44'46
	2663 Oct 08 17:55	0°♄		max. Earth dist.	2664 Sep 07 09:50	21°♄10'57	1.37290 AU
	2663 Oct 30 04:48	0°♄		evening rise	2664 Sep 11 05:41	28°♄12'06	
evening max el	2663 Nov 04 11:14	5°♄46'52	24°14'49		2664 Sep 12 05:53	0°♄	
retrograde	2663 Nov 15 15:32	12°♄19'52		desc. node	2664 Sep 21 23:29	16°♄18'15	
evening set	2663 Nov 20 22:53	10°♄07'59			2664 Oct 01 02:59	0°♄	
asc. node	2663 Nov 25 04:48	5°♄21'22		evening max el	2664 Oct 16 23:21	19°♄27'10	25°29'14
min. Earth dist.	2663 Nov 25 17:12	4°♄40'00	0.67667 AU	retrograde	2664 Oct 29 02:27	26°♄25'22	
inferior conj	2663 Nov 26 10:29	3°♄41'50	0°25'24	evening set	2664 Nov 04 00:10	23°♄58'11	
minimum elong	2663 Nov 26 09:53	3°♄43'53	0°25'08	min. Earth dist.	2664 Nov 08 10:32	19°♄05'25	0.67103 AU
	2663 Nov 29 08:13	30°♄		inferior conj	2664 Nov 09 14:42	17°♄34'51	0°-30'-14
morning rise	2663 Dec 01 21:11	27°♄35'49		minimum elong	2664 Nov 09 15:28	17°♄32'21	0°29'55
direct	2663 Dec 05 16:30	26°♄13'13		asc. node	2664 Nov 11 01:51	15°♄43'49	
	2663 Dec 12 19:16	0°♄		morning rise	2664 Nov 15 07:32	11°♄36'53	
morning max el	2663 Dec 13 13:17	0°♄43'54	20°22'48	direct	2664 Nov 18 15:02	10°♄33'36	
greatest brilliancy	2663 Dec 19 22:48	8°♄19'58	-0.5m	morning max el	2664 Nov 25 17:54	14°♄33'22	19°20'32
desc. node	2664 Jan 02 01:41	27°♄12'24		greatest brilliancy	2664 Dec 05 03:13	26°♄36'59	-0.7m
	2664 Jan 03 22:06	0°♄			2664 Dec 07 10:16	0°♄	
morning set	2664 Jan 10 13:31	10°♄10'18		desc. node	2664 Dec 18 22:44	17°♄38'21	
max. Earth dist.	2664 Jan 20 11:09	25°♄46'50	1.43507 AU	morning set	2664 Dec 19 13:28	18°♄35'27	
	2664 Jan 23 01:45	0°♄			2664 Dec 26 21:24	0°♄	
superior conj	2664 Jan 26 14:26	5°♄47'38	-2°-2'-20	max. Earth dist.	2665 Jan 02 01:34	9°♄41'43	1.44691 AU
minimum elong	2664 Jan 26 10:51	5°♄32'45	2°02'14	superior conj	2665 Jan 05 09:03	14°♄56'54	-1°-41'-10
evening rise	2664 Feb 08 03:51	27°♄13'50		minimum elong	2665 Jan 05 00:35	14°♄23'13	1°40'28
	2664 Feb 09 17:52	0°♄			2665 Jan 14 16:40	0°♄	
asc. node	2664 Feb 21 04:07	18°♄54'29		evening rise	2665 Jan 19 18:48	8°♄24'03	
evening max el	2664 Feb 25 13:36	24°♄19'03	18°08'37				

	2665 Feb 02 02:14	0°♄		evening rise	2665 Dec 31 10:19	18°♄36'08	
asc. node	2665 Feb 07 01:08	6°♄34'13			2666 Jan 07 14:27	0°♄	
evening max el	2665 Feb 08 02:00	7°♄40'45	18°25'13	evening max el	2666 Jan 22 12:07	21°♄07'53	18°59'44
retrograde	2665 Feb 14 14:04	11°♄13'33		asc. node	2666 Jan 24 22:10	23°♄16'54	
evening set	2665 Feb 17 13:45	10°♄24'30		retrograde	2666 Jan 29 08:50	25°♄00'58	
inferior conj	2665 Feb 23 12:18	4°♄53'44	3°39'59	evening set	2666 Feb 01 14:46	23°♄59'54	
minimum elong	2665 Feb 23 11:35	4°♄55'49	3°39'57	inferior conj	2666 Feb 07 06:53	18°♄12'09	3°26'23
min. Earth dist.	2665 Feb 25 17:46	2°♄19'09	0.64241 AU	minimum elong	2666 Feb 07 04:58	18°♄18'09	3°26'07
	2665 Feb 27 22:28	30°♄		min. Earth dist.	2666 Feb 08 20:57	16°♄12'32	0.65747 AU
morning rise	2665 Mar 01 07:55	28°♄44'51		morning rise	2666 Feb 12 18:10	11°♄58'49	
direct	2665 Mar 08 03:51	25°♄56'51		direct	2666 Feb 19 05:43	9°♄09'34	
desc. node	2665 Mar 16 21:52	29°♄32'19		desc. node	2666 Mar 03 18:54	16°♄23'58	
	2665 Mar 17 12:20	0°♄		morning max el	2666 Mar 04 04:52	16°♄48'50	26°36'21
morning max el	2665 Mar 21 18:58	3°♄50'27	27°28'46		2666 Mar 15 04:22	0°♄	
	2665 Apr 10 11:29	0°♄			2666 Apr 03 08:30	0°♄	
morning set	2665 Apr 25 20:52	27°♄20'29		morning set	2666 Apr 09 03:35	10°♄35'39	
	2665 Apr 27 05:02	0°♄		max. Earth dist.	2666 Apr 13 09:30	18°♄49'32	1.34638 AU
max. Earth dist.	2665 Apr 30 19:18	7°♄19'55	1.33368 AU				
				superior conj	2666 Apr 17 21:17	27°♄55'39	0°-50'-22
superior conj	2665 May 03 21:47	13°♄51'47	0°-22'00	minimum elong	2666 Apr 17 23:53	28°♄09'03	0°49'54
minimum elong	2665 May 03 22:53	13°♄57'41	0°21'47		2666 Apr 18 21:18	0°♄	
asc. node	2665 May 06 00:28	18°♄22'38		asc. node	2666 Apr 22 21:29	8°♄23'09	
evening rise	2665 May 11 03:09	29°♄17'42		evening rise	2666 Apr 25 12:20	13°♄51'05	
	2665 May 11 11:12	0°♄			2666 May 03 20:09	0°♄	
	2665 May 28 22:25	0°♄		evening max el	2666 May 14 16:30	14°♄57'13	20°59'48
evening max el	2665 Jun 01 17:48	4°♄10'49	22°28'46	retrograde	2666 May 26 08:44	20°♄39'10	
desc. node	2665 Jun 12 21:06	10°♄31'32		evening set	2666 May 28 13:27	20°♄27'49	
retrograde	2665 Jun 14 19:26	10°♄40'05		desc. node	2666 May 30 18:06	19°♄55'22	
evening set	2665 Jun 17 22:00	10°♄18'47		inferior conj	2666 Jun 06 21:19	16°♄30'05	-2°-3'-50
min. Earth dist.	2665 Jun 26 00:59	6°♄46'47	0.55211 AU	minimum elong	2666 Jun 06 15:34	16°♄38'13	2°01'50
inferior conj	2665 Jun 27 03:44	6°♄08'50	-3°-48'-1	min. Earth dist.	2666 Jun 07 13:07	16°♄07'42	0.54889 AU
minimum elong	2665 Jun 26 19:39	6°♄20'19	3°45'59	morning rise	2666 Jun 15 17:11	12°♄28'21	
morning rise	2665 Jul 05 19:43	2°♄17'55		direct	2666 Jun 19 05:01	12°♄02'01	
direct	2665 Jul 08 19:41	1°♄57'28		morning max el	2666 Jul 02 03:34	18°♄13'10	22°42'45
morning max el	2665 Jul 20 06:20	7°♄16'35	21°06'33		2666 Jul 11 16:44	0°♄	
asc. node	2665 Aug 01 23:43	24°♄57'28		asc. node	2666 Jul 19 20:46	14°♄15'10	
	2665 Aug 04 16:20	0°♄		morning set	2666 Jul 24 10:15	23°♄30'39	
morning set	2665 Aug 08 23:35	8°♄38'28			2666 Jul 27 11:38	0°♄	
superior conj	2665 Aug 16 10:16	24°♄09'34	1°43'51	superior conj	2666 Jul 31 14:08	8°♄46'50	1°36'22
minimum elong	2665 Aug 16 09:24	24°♄05'06	1°43'49	minimum elong	2666 Jul 31 12:16	8°♄36'55	1°36'13
	2665 Aug 19 06:59	0°♄		max. Earth dist.	2666 Aug 03 13:32	15°♄02'39	1.34036 AU
max. Earth dist.	2665 Aug 20 19:17	3°♄01'23	1.35482 AU	evening rise	2666 Aug 08 10:34	24°♄54'59	
evening rise	2665 Aug 25 00:50	11°♄12'13			2666 Aug 11 01:48	0°♄	
	2665 Sep 04 17:38	0°♄		desc. node	2666 Aug 26 17:28	26°♄23'11	
desc. node	2665 Sep 08 20:29	6°♄32'10			2666 Aug 29 05:20	0°♄	
	2665 Sep 26 11:07	0°♄		evening max el	2666 Sep 11 23:41	16°♄35'11	27°12'09
evening max el	2665 Sep 29 11:27	3°♄05'45	26°30'50	retrograde	2666 Sep 25 08:51	23°♄53'38	
retrograde	2665 Oct 12 08:23	10°♄19'01		evening set	2666 Oct 02 07:07	21°♄11'28	
evening set	2665 Oct 18 19:41	7°♄40'40		min. Earth dist.	2666 Oct 06 03:26	17°♄31'19	0.64930 AU
min. Earth dist.	2665 Oct 22 22:40	3°♄24'19	0.66193 AU	inferior conj	2666 Oct 08 07:23	15°♄07'28	-2°-28'-10
inferior conj	2665 Oct 24 14:22	1°♄24'39	-1°-28'-45	minimum elong	2666 Oct 08 11:24	14°♄56'19	2°26'40
minimum elong	2665 Oct 24 16:46	1°♄17'27	1°27'46	morning rise	2666 Oct 14 17:34	9°♄34'00	
	2665 Oct 25 18:51	30°♄		asc. node	2666 Oct 15 19:58	9°♄10'07	
asc. node	2665 Oct 28 22:54	26°♄46'27		direct	2666 Oct 17 08:09	8°♄57'59	
morning rise	2665 Oct 30 15:08	25°♄37'26		morning max el	2666 Oct 23 20:11	12°♄26'37	18°03'52
direct	2665 Nov 02 12:57	24°♄49'46			2666 Nov 05 02:15	0°♄	
morning max el	2665 Nov 09 05:00	28°♄29'21	18°33'51	morning set	2666 Nov 10 16:36	9°♄18'07	
	2665 Nov 10 14:48	0°♄		desc. node	2666 Nov 22 16:47	28°♄58'24	
morning set	2665 Nov 29 12:18	28°♄12'47			2666 Nov 23 08:09	0°♄	
	2665 Nov 30 15:11	0°♄					
desc. node	2665 Dec 05 19:45	8°♄14'46		superior conj	2666 Nov 24 18:47	2°♄18'23	0°-14'-4
				minimum elong	2666 Nov 24 17:01	2°♄11'23	0°13'51
superior conj	2665 Dec 15 11:38	23°♄27'41	-1°-2'-5	behind sun begin	2666 Nov 24 11:25	1°♄49'01	
minimum elong	2665 Dec 15 04:01	22°♄57'47	1°01'10	behind sun end	2666 Nov 24 22:38	2°♄33'44	
max. Earth dist.	2665 Dec 15 19:34	23°♄58'47	1.45176 AU	max. Earth dist.	2666 Nov 28 14:29	8°♄21'54	1.44927 AU
	2665 Dec 19 15:36	0°♄		evening rise	2666 Dec 11 05:03	28°♄00'52	

	2666 Dec 12 11:54	0°☿			2667 Oct 28 18:03	0°♄		
greatest brilliancy	2666 Dec 29 11:00	25°☿30'49	-0.6m					
	2667 Jan 01 18:54	0°♊		superior conj	2667 Nov 04 23:48	12°♄14'47	0°31'03	
evening max el	2667 Jan 05 18:07	4°♊38'05	19°50'28	minimum elong	2667 Nov 05 02:53	12°♄27'33	0°30'37	
asc. node	2667 Jan 11 19:12	8°♊48'29		desc. node	2667 Nov 09 13:49	19°♄45'16		
retrograde	2667 Jan 13 06:19	9°♊00'14		max. Earth dist.	2667 Nov 11 07:37	22°♄33'40	1.43974 AU	
evening set	2667 Jan 16 19:58	7°♊45'47			2667 Nov 16 00:09	0°♊		
inferior conj	2667 Jan 22 08:02	1°♊43'35	3°00'56	evening rise	2667 Nov 20 13:52	7°♊06'41		
minimum elong	2667 Jan 22 05:33	1°♊51'53	3°00'21		2667 Dec 05 20:07	0°☿		
min. Earth dist.	2667 Jan 23 07:51	0°♊24'25	0.66849 AU	greatest brilliancy	2667 Dec 14 07:47	11°☿44'48	-0.5m	
	2667 Jan 23 15:16	30°♋☿		evening max el	2667 Dec 19 18:47	18°☿09'22	20°54'57	
morning rise	2667 Jan 27 14:27	25°☿28'24		retrograde	2667 Dec 28 04:09	23°☿07'17		
direct	2667 Feb 02 13:30	22°☿49'43		asc. node	2667 Dec 29 16:15	22°☿54'45		
morning max el	2667 Feb 14 13:48	29°☿59'39	25°21'54	evening set	2668 Jan 01 03:19	21°☿37'50		
	2667 Feb 14 13:56	0°♌		inferior conj	2668 Jan 06 13:18	15°☿24'09	2°26'13	
desc. node	2667 Feb 18 15:58	4°♌28'02		minimum elong	2668 Jan 06 10:45	15°☿32'52	2°25'25	
	2667 Mar 09 02:04	0°♍		min. Earth dist.	2668 Jan 07 00:19	14°☿46'19	0.67547 AU	
morning set	2667 Mar 22 18:24	22°♍59'55		morning rise	2668 Jan 11 17:47	9°☿09'03		
max. Earth dist.	2667 Mar 26 12:03	29°♍53'04	1.36356 AU	direct	2668 Jan 17 02:09	6°☿48'58		
	2667 Mar 26 13:32	0°♎		morning max el	2668 Jan 27 22:11	13°☿16'25	23°55'36	
				desc. node	2668 Feb 05 13:01	23°☿23'26		
superior conj	2667 Apr 01 11:57	11°♎29'07	-1°-17'-51		2668 Feb 10 10:32	0°♌		
minimum elong	2667 Apr 01 15:51	11°♎48'28	1°17'15		2668 Feb 29 22:47	0°♍		
evening rise	2667 Apr 09 17:08	28°♎06'10		morning set	2668 Mar 03 11:22	4°♍17'05		
asc. node	2667 Apr 09 18:31	28°♎13'08		max. Earth dist.	2668 Mar 07 07:47	11°♍00'51	1.38410 AU	
	2667 Apr 10 15:43	0°♏						
evening max el	2667 Apr 27 03:07	26°♏21'54	19°47'01	superior conj	2668 Mar 14 14:14	24°♍22'39	-1°-42'-3	
	2667 May 02 03:05	0°♐		minimum elong	2668 Mar 14 18:40	24°♍43'43	1°41'35	
retrograde	2667 May 07 01:26	1°♐10'14			2668 Mar 17 12:38	0°♎		
evening set	2667 May 09 01:25	0°♐59'25		evening rise	2668 Mar 23 14:59	11°♎55'47		
	2667 May 12 07:27	30°♑♏		asc. node	2668 Mar 26 15:33	17°♎47'44		
inferior conj	2667 May 17 20:59	26°♑57'48	0°-4'-15		2668 Apr 02 12:27	0°♏		
minimum elong	2667 May 17 20:48	26°♑58'06	0°04'12	evening max el	2668 Apr 09 00:48	8°♏26'16	18°53'48	
transit middle	2667 May 17 20:48	26°♑58'06	0°04'12	retrograde	2668 Apr 17 09:39	12°♏30'46		
transit begin	2667 May 17 16:59	27°♏04'00		evening set	2668 Apr 19 13:36	12°♏15'29		
transit end	2667 May 18 00:36	26°♏52'12		inferior conj	2668 Apr 27 14:15	7°♏57'39	1°38'17	
desc. node	2667 May 17 15:08	27°♏06'51		minimum elong	2668 Apr 27 17:40	7°♏51'32	1°37'12	
min. Earth dist.	2667 May 20 02:48	25°♏34'52	0.55540 AU	min. Earth dist.	2668 Apr 30 18:51	5°♏41'33	0.57013 AU	
morning rise	2667 May 26 12:55	22°♏28'00		desc. node	2668 May 03 12:10	3°♏58'54		
direct	2667 May 30 20:55	21°♏46'23		morning rise	2668 May 05 17:24	2°♏53'14		
morning max el	2667 Jun 13 18:29	28°♏42'13	24°25'13	direct	2668 May 11 01:51	1°♏44'35		
	2667 Jun 15 02:01	0°♐		morning max el	2668 May 25 09:24	9°♏10'58	25°59'22	
	2667 Jul 04 19:16	0°♑			2668 Jun 10 02:04	0°♐		
asc. node	2667 Jul 06 17:47	3°♑54'13		morning set	2668 Jun 22 09:24	23°♐19'48		
morning set	2667 Jul 08 22:02	8°♑26'04		asc. node	2668 Jun 22 14:50	23°♐48'29		
					2668 Jun 25 12:02	0°♑		
superior conj	2667 Jul 15 22:38	23°♑37'00	1°23'30					
minimum elong	2667 Jul 15 20:18	23°♑24'18	1°23'12	superior conj	2668 Jun 29 09:43	8°♑33'28	1°06'08	
max. Earth dist.	2667 Jul 17 16:42	27°♑24'32	1.33002 AU	minimum elong	2668 Jun 29 07:25	8°♑20'46	1°05'45	
	2667 Jul 18 21:42	0°♒		max. Earth dist.	2668 Jun 30 02:13	10°♑04'02	1.32374 AU	
evening rise	2667 Jul 23 06:53	9°♒08'19		evening rise	2668 Jul 06 10:35	23°♑42'40		
	2667 Aug 03 11:05	0°♓			2668 Jul 09 12:44	0°♒		
desc. node	2667 Aug 13 14:29	15°♓41'00			2668 Jul 27 07:13	0°♓		
evening max el	2667 Aug 25 10:27	29°♓42'26	27°26'18	desc. node	2668 Jul 30 11:30	4°♓11'55		
	2667 Aug 25 17:55	0°♈		evening max el	2668 Aug 06 17:08	12°♓14'00	27°08'18	
retrograde	2667 Sep 08 02:56	6°♈59'23		retrograde	2668 Aug 20 13:50	19°♓27'28		
evening set	2667 Sep 15 07:20	4°♈23'44		evening set	2668 Aug 27 16:20	17°♓10'46		
min. Earth dist.	2667 Sep 18 22:46	1°♈16'23	0.63326 AU	min. Earth dist.	2668 Aug 31 07:23	14°♓27'24	0.61435 AU	
	2667 Sep 20 05:42	30°♉♓		inferior conj	2668 Sep 03 10:10	11°♓42'51	-4°-16'-17	
inferior conj	2667 Sep 21 15:02	28°♓36'09	-3°-25'-36	minimum elong	2668 Sep 03 15:35	11°♓30'52	4°15'07	
minimum elong	2667 Sep 21 20:18	28°♓22'59	3°24'00	morning rise	2668 Sep 10 17:47	6°♓47'15		
morning rise	2667 Sep 28 11:43	23°♓19'50		direct	2668 Sep 13 02:17	6°♓24'16		
direct	2667 Sep 30 21:48	22°♓51'50		asc. node	2668 Sep 18 14:04	8°♓34'03		
asc. node	2667 Oct 02 17:01	23°♓07'40		morning max el	2668 Sep 20 03:00	9°♓55'14	17°57'26	
morning max el	2667 Oct 07 12:31	26°♓17'34	17°51'24		2668 Oct 03 07:21	0°♈		
	2667 Oct 10 16:39	0°♉		morning set	2668 Oct 05 22:13	4°♈47'08		
morning set	2667 Oct 23 22:02	21°♈35'57						

superior conj	2668 Oct 16 07:52	23°♄30'41	1°06'03		2669 Sep 08 23:55	0°♍	
minimum elong	2668 Oct 16 12:18	23°♄50'01	1°05'31	morning set	2669 Sep 19 11:46	18°♍36'30	
	2668 Oct 20 02:22	0°♍			2669 Sep 25 11:08	0°♄	
max. Earth dist.	2668 Oct 23 20:32	6°♍17'17	1.42433 AU				
desc. node	2668 Oct 26 10:51	10°♍32'09		superior conj	2669 Sep 28 15:38	5°♄56'27	1°29'18
evening rise	2668 Oct 30 05:23	16°♍34'33		minimum elong	2669 Sep 28 19:06	6°♄12'21	1°28'59
	2668 Nov 07 22:33	0°♂		max. Earth dist.	2669 Oct 06 03:46	19°♄18'34	1.40499 AU
greatest brilliancy	2668 Nov 26 20:39	26°♂22'10	-0.3m	evening rise	2669 Oct 10 16:37	26°♄57'29	
	2668 Nov 29 23:30	0°♂			2669 Oct 12 13:10	0°♍	
evening max el	2668 Dec 01 13:56	1°♂41'38	22°09'30	desc. node	2669 Oct 13 07:52	1°♍15'45	
retrograde	2668 Dec 11 00:36	7°♂18'47			2669 Nov 01 14:46	0°♂	
evening set	2668 Dec 15 11:04	5°♂33'03		evening max el	2669 Nov 14 04:38	15°♂16'21	23°29'10
asc. node	2668 Dec 15 13:18	5°♂28'31		retrograde	2669 Nov 24 18:16	21°♂31'27	
	2668 Dec 20 06:29	30°♂♂		evening set	2669 Nov 29 17:37	19°♂28'54	
inferior conj	2668 Dec 20 20:35	29°♂11'11	1°43'59	asc. node	2669 Dec 02 10:20	16°♂40'11	
minimum elong	2668 Dec 20 18:28	29°♂18'31	1°43'11	min. Earth dist.	2669 Dec 04 16:47	13°♂41'30	0.67828 AU
min. Earth dist.	2668 Dec 20 20:03	29°♂13'02	0.67865 AU	inferior conj	2669 Dec 05 04:04	13°♂02'53	0°55'36
morning rise	2668 Dec 26 01:43	22°♂58'00		minimum elong	2669 Dec 05 02:48	13°♂07'13	0°55'05
direct	2668 Dec 30 18:56	21°♂00'24		morning rise	2669 Dec 10 12:06	6°♂53'33	
morning max el	2669 Jan 09 08:55	26°♂39'37	22°27'16	direct	2669 Dec 14 14:55	5°♂18'47	
	2669 Jan 12 10:46	0°♂		morning max el	2669 Dec 23 01:23	10°♂12'35	21°05'06
greatest brilliancy	2669 Jan 13 22:27	1°♂45'26	-0.3m	greatest brilliancy	2669 Dec 28 11:10	16°♂26'19	-0.5m
desc. node	2669 Jan 22 10:05	12°♂55'29			2670 Jan 07 07:29	0°♂	
	2669 Feb 03 00:55	0°♁		desc. node	2670 Jan 09 07:08	2°♂54'08	
morning set	2669 Feb 12 00:41	14°♁12'43		morning set	2670 Jan 22 10:11	22°♂51'50	
max. Earth dist.	2669 Feb 17 04:27	22°♁47'06	1.40572 AU		2670 Jan 26 22:14	0°♁	
	2669 Feb 21 08:57	0°♂		max. Earth dist.	2670 Jan 30 07:07	5°♁27'11	1.42550 AU
superior conj	2669 Feb 24 23:28	6°♂24'05	-1°-59'-35	superior conj	2670 Feb 06 10:31	17°♁22'02	-2°-5'-52
minimum elong	2669 Feb 25 02:48	6°♂39'06	1°59'25	minimum elong	2670 Feb 06 10:09	17°♁20'25	2°05'53
evening rise	2669 Mar 07 02:42	25°♂11'20			2670 Feb 13 16:34	0°♂	
	2669 Mar 09 16:16	0°♂		evening rise	2670 Feb 18 00:24	7°♂44'33	
asc. node	2669 Mar 13 12:36	7°♂00'35		asc. node	2670 Feb 28 09:39	25°♂44'50	
evening max el	2669 Mar 23 06:38	21°♂02'38	18°20'43		2670 Mar 03 07:08	0°♂	
retrograde	2669 Mar 30 13:00	24°♂39'08		evening max el	2670 Mar 06 17:25	4°♂03'02	18°07'27
evening set	2669 Apr 01 22:42	24°♂16'25		retrograde	2670 Mar 13 08:50	7°♂27'11	
inferior conj	2669 Apr 09 04:53	19°♂37'56	2°48'38	evening set	2670 Mar 16 00:01	6°♂55'11	
minimum elong	2669 Apr 09 08:34	19°♂30'11	2°47'47	inferior conj	2670 Mar 22 15:03	1°♂55'42	3°27'20
min. Earth dist.	2669 Apr 12 15:22	16°♂46'20	0.59003 AU	minimum elong	2670 Mar 22 17:11	1°♂50'32	3°27'04
morning rise	2669 Apr 16 14:27	14°♂03'59			2670 Mar 24 14:37	30°♂♂	
desc. node	2669 Apr 20 09:13	12°♂36'09		min. Earth dist.	2670 Mar 25 18:57	28°♂53'05	0.61167 AU
direct	2669 Apr 22 20:12	12°♂19'59		morning rise	2670 Mar 29 07:21	26°♂02'15	
morning max el	2669 May 07 05:14	20°♂05'15	27°09'58	direct	2670 Apr 05 02:07	23°♂44'10	
	2669 May 15 16:56	0°♂		desc. node	2670 Apr 07 06:17	23°♂57'30	
	2669 Jun 02 19:02	0°♂			2670 Apr 17 13:28	0°♂	
morning set	2669 Jun 06 18:37	8°♂05'22		morning max el	2670 Apr 19 07:23	1°♂39'27	27°46'19
asc. node	2669 Jun 09 11:53	13°♂51'56			2670 May 09 23:04	0°♂	
superior conj	2669 Jun 13 21:32	23°♂29'13	0°44'59	morning set	2670 May 21 23:48	22°♂36'28	
minimum elong	2669 Jun 13 19:42	23°♂19'09	0°44'37		2670 May 25 12:21	0°♂	
max. Earth dist.	2669 Jun 13 14:20	22°♂49'33	1.32131 AU	asc. node	2670 May 27 08:55	4°♂00'05	
	2669 Jun 16 20:36	0°♂		max. Earth dist.	2670 May 28 01:06	5°♂28'01	1.32280 AU
evening rise	2669 Jun 20 19:03	8°♂28'49		superior conj	2670 May 29 08:21	8°♂18'36	0°20'43
	2669 Jul 01 23:19	0°♂		minimum elong	2670 May 29 07:25	8°♂13'29	0°20'31
desc. node	2669 Jul 17 08:30	21°♂36'09		evening rise	2670 Jun 05 06:08	23°♂19'49	
evening max el	2669 Jul 19 17:03	23°♂59'06	26°17'18		2670 Jun 08 11:10	0°♂	
	2669 Jul 28 07:04	0°♍			2670 Jun 26 19:41	0°♂	
retrograde	2669 Aug 02 16:34	1°♍09'54		evening max el	2670 Jul 01 09:53	4°♂58'29	24°58'33
	2669 Aug 07 23:52	30°♂♂		desc. node	2670 Jul 04 05:31	7°♂26'47	
evening set	2669 Aug 09 05:23	29°♂24'40		retrograde	2670 Jul 15 09:13	12°♂03'42	
min. Earth dist.	2669 Aug 13 05:58	26°♂49'44	0.59373 AU	evening set	2670 Jul 20 18:42	10°♂57'13	
inferior conj	2669 Aug 16 13:11	24°♂17'58	-4°-52'-20	min. Earth dist.	2670 Jul 25 21:26	8°♂11'37	0.57385 AU
minimum elong	2669 Aug 16 16:39	24°♂11'17	4°51'59	inferior conj	2670 Jul 28 20:57	6°♂12'29	-5°-1'-33
morning rise	2669 Aug 24 07:21	19°♂45'37		minimum elong	2670 Jul 28 19:45	6°♂14'30	5°01'31
direct	2669 Aug 26 17:08	19°♂25'26		morning rise	2670 Aug 06 00:31	2°♂02'33	
morning max el	2669 Sep 03 12:29	23°♂11'16	18°23'14	direct	2670 Aug 08 14:10	1°♂43'29	
asc. node	2669 Sep 05 11:07	25°♂15'28		morning max el	2670 Aug 17 13:45	5°♂56'03	19°09'59

asc. node	2670 Aug 23 08:10	12°♎56'40		inferior conj	2671 Jul 09 08:50	17°♎22'36	-4°-29'-11
	2670 Sep 01 23:35	0°♏		minimum elong	2671 Jul 09 02:15	17°♎32'23	4°28'02
morning set	2670 Sep 03 10:38	2°♏52'59		morning rise	2671 Jul 17 20:37	13°♎28'17	
				direct	2671 Jul 20 16:16	13°♎08'49	
superior conj	2670 Sep 11 17:27	19°♏15'38	1°41'47	morning max el	2671 Jul 31 04:13	18°♎00'51	20°18'09
minimum elong	2670 Sep 11 19:08	19°♏23'42	1°41'42		2671 Aug 09 09:03	0°♎	
	2670 Sep 17 10:12	0°♎		asc. node	2671 Aug 10 05:12	1°♎24'22	
max. Earth dist.	2670 Sep 18 07:26	1°♎36'46	1.38433 AU	morning set	2671 Aug 18 15:53	17°♎29'06	
evening rise	2670 Sep 22 03:45	8°♎26'51			2671 Aug 24 18:06	0°♏	
desc. node	2670 Sep 30 04:52	21°♎51'46					
	2670 Oct 05 10:29	0°♏		superior conj	2671 Aug 26 08:24	3°♏14'35	1°45'16
evening max el	2670 Oct 27 17:04	28°♏54'42	24°47'40	minimum elong	2671 Aug 26 08:21	3°♏14'19	1°45'15
	2670 Oct 28 20:19	0°♏		max. Earth dist.	2671 Aug 31 13:30	13°♏31'49	1.36484 AU
retrograde	2670 Nov 08 07:58	5°♏40'30		evening rise	2671 Sep 04 12:36	20°♏58'04	
evening set	2670 Nov 13 21:17	3°♏21'51			2671 Sep 09 14:39	0°♎	
	2670 Nov 17 01:22	30°♏		desc. node	2671 Sep 17 01:52	12°♎15'50	
min. Earth dist.	2670 Nov 18 12:07	28°♏08'28	0.67458 AU		2671 Sep 29 08:48	0°♏	
inferior conj	2670 Nov 19 09:58	26°♏56'05	0°02'13	evening max el	2671 Oct 10 05:18	12°♏35'55	25°57'32
minimum elong	2670 Nov 19 09:54	26°♏56'16	0°02'12	retrograde	2671 Oct 22 16:48	19°♏41'36	
transit middle	2670 Nov 19 09:54	26°♏56'16	0°02'12	evening set	2671 Oct 28 20:21	17°♏09'20	
transit begin	2670 Nov 19 07:10	27°♏05'20		min. Earth dist.	2671 Nov 02 03:37	12°♏31'41	0.66758 AU
transit end	2670 Nov 19 12:38	26°♏47'13		inferior conj	2671 Nov 03 12:30	10°♏48'33	0°-54'-48
asc. node	2670 Nov 19 07:23	27°♏04'38		minimum elong	2671 Nov 03 13:56	10°♏44'01	0°54'12
morning rise	2670 Nov 24 23:00	20°♏53'00		asc. node	2671 Nov 06 04:25	7°♏37'59	
direct	2670 Nov 28 12:59	19°♏39'06		morning rise	2671 Nov 09 08:28	4°♏54'28	
morning max el	2670 Dec 06 01:27	23°♏55'48	19°54'30	direct	2671 Nov 12 11:36	3°♏58'11	
	2670 Dec 11 05:40	0°♏		morning max el	2671 Nov 19 08:58	7°♏48'13	18°58'37
greatest brilliancy	2670 Dec 13 10:42	2°♏57'43	-0.6m		2671 Dec 05 06:43	0°♏	
desc. node	2670 Dec 27 04:08	23°♏11'24		morning set	2671 Dec 11 13:48	9°♏49'52	
	2670 Dec 31 14:41	0°♏		desc. node	2671 Dec 14 01:09	13°♏42'12	
morning set	2671 Jan 01 06:03	0°♏59'15			2671 Dec 24 10:49	0°♏	
max. Earth dist.	2671 Jan 12 17:09	18°♏56'46	1.44085 AU	max. Earth dist.	2671 Dec 26 09:23	3°♏02'57	1.44991 AU
superior conj	2671 Jan 17 19:29	27°♏08'45	-1°-55'-47	superior conj	2671 Dec 28 05:17	5°♏55'50	-1°-26'-26
minimum elong	2671 Jan 17 13:28	26°♏44'18	1°55'27	minimum elong	2671 Dec 27 20:17	5°♏20'22	1°25'31
	2671 Jan 19 13:29	0°♏		evening rise	2672 Jan 12 08:38	0°♏10'43	
evening rise	2671 Jan 31 03:38	19°♏26'05			2672 Jan 12 05:59	0°♏	
	2671 Feb 06 08:13	0°♏			2672 Feb 01 01:13	0°♏	
asc. node	2671 Feb 15 06:40	13°♏51'08		evening max el	2672 Feb 01 17:49	0°♏43'45	18°37'52
evening max el	2671 Feb 18 06:03	17°♏18'56	18°13'27	asc. node	2672 Feb 02 03:42	1°♏08'21	
retrograde	2671 Feb 24 16:42	20°♏44'46		retrograde	2672 Feb 08 08:29	4°♏23'32	
evening set	2671 Feb 27 13:13	20°♏02'12		evening set	2672 Feb 11 10:47	3°♏29'23	
inferior conj	2671 Mar 05 16:50	14°♏42'36	3°40'55		2672 Feb 15 10:13	30°♏	
minimum elong	2671 Mar 05 17:04	14°♏42'00	3°40'56	inferior conj	2672 Feb 17 06:16	27°♏51'14	3°35'51
min. Earth dist.	2671 Mar 08 07:21	11°♏52'33	0.63207 AU	minimum elong	2672 Feb 17 04:59	27°♏55'08	3°35'44
morning rise	2671 Mar 11 18:55	8°♏37'59		min. Earth dist.	2672 Feb 19 05:08	25°♏30'35	0.64935 AU
direct	2671 Mar 18 17:02	5°♏56'33		morning rise	2672 Feb 22 21:56	21°♏40'23	
desc. node	2671 Mar 25 03:19	7°♏53'52		direct	2672 Feb 29 15:07	18°♏50'10	
morning max el	2671 Apr 01 14:24	13°♏53'20	27°45'15	desc. node	2672 Mar 11 00:21	23°♏51'27	
	2671 Apr 14 14:25	0°♏		morning max el	2672 Mar 13 23:53	26°♏38'37	27°09'45
	2671 May 02 11:49	0°♏			2672 Mar 17 03:08	0°♏	
morning set	2671 May 05 22:43	6°♏45'52			2672 Apr 07 04:54	0°♏	
max. Earth dist.	2671 May 11 06:43	17°♏47'05	1.32841 AU	morning set	2672 Apr 18 12:24	20°♏23'57	
				max. Earth dist.	2672 Apr 23 03:25	29°♏36'16	1.33853 AU
					2672 Apr 23 08:04	0°♏	
superior conj	2671 May 13 16:26	22°♏55'55	0°-5'-56				
minimum elong	2671 May 13 16:43	22°♏57'28	0°05'53	superior conj	2672 Apr 26 19:45	7°♏14'14	0°-34'-1
behind sun begin	2671 May 13 11:48	22°♏30'56		minimum elong	2672 Apr 26 21:29	7°♏23'22	0°33'41
behind sun end	2671 May 13 21:39	23°♏24'01		asc. node	2672 Apr 30 02:59	14°♏13'50	
asc. node	2671 May 14 05:58	24°♏08'55		evening rise	2672 May 04 04:43	22°♏51'00	
	2671 May 16 22:48	0°♏			2672 May 07 16:27	0°♏	
evening rise	2671 May 20 17:58	8°♏09'29		evening max el	2672 May 24 16:55	26°♏02'34	21°49'23
	2671 Jun 01 04:35	0°♏			2672 May 29 17:58	0°♏	
evening max el	2671 Jun 12 23:30	15°♏30'03	23°24'12	retrograde	2672 Jun 06 05:43	2°♏12'54	
desc. node	2671 Jun 21 02:31	21°♏09'51		desc. node	2672 Jun 06 23:33	2°♏11'38	
retrograde	2671 Jun 26 13:24	22°♏17'23		evening set	2672 Jun 08 21:01	1°♏57'19	
evening set	2671 Jun 30 11:01	21°♏44'05			2672 Jun 14 08:14	30°♏	
min. Earth dist.	2671 Jul 07 09:28	18°♏32'40	0.55805 AU				

inferior conj	2672 Jun 18 05:42	27°II54'39	-3°-7'-57	desc. node	2673 May 24 20:34	10°II30'47	
minimum elong	2672 Jun 17 21:52	28°II05'36	3°05'36	inferior conj	2673 May 29 00:05	8°II14'51	-1°-12'-54
min. Earth dist.	2672 Jun 17 20:43	28°II07'13	0.54961 AU	minimum elong	2673 May 28 20:38	8°II19'52	1°11'38
morning rise	2672 Jun 27 00:01	24°II01'45		min. Earth dist.	2673 May 30 09:09	7°II26'47	0.55055 AU
direct	2672 Jun 30 04:28	23°II39'25		morning rise	2673 Jun 06 19:29	4°II03'11	
morning max el	2672 Jul 12 07:01	29°II20'19	21°45'52	direct	2673 Jun 10 14:51	3°II31'57	
	2672 Jul 12 23:40	0°☿		morning max el	2673 Jun 24 00:56	10°II02'48	23°26'21
asc. node	2672 Jul 27 02:14	20°☿26'27			2673 Jul 08 16:53	0°☿	
	2672 Jul 31 22:36	0°♁		asc. node	2673 Jul 13 23:18	9°☿54'16	
morning set	2672 Aug 02 01:09	2°♁17'15		morning set	2673 Jul 17 12:31	17°☿11'47	
					2673 Jul 23 11:47	0°♁	
superior conj	2672 Aug 09 08:27	17°♁40'30	1°41'23	superior conj	2673 Jul 24 14:35	2°♁24'19	1°31'30
minimum elong	2672 Aug 09 07:06	17°♁33'25	1°41'19	minimum elong	2673 Jul 24 12:28	2°♁12'52	1°31'17
max. Earth dist.	2672 Aug 13 02:51	25°♁26'33	1.34826 AU	max. Earth dist.	2673 Jul 27 01:12	7°♁36'46	1.33550 AU
	2672 Aug 15 09:32	0°♊		evening rise	2673 Aug 01 05:12	18°♁14'52	
evening rise	2672 Aug 17 14:32	4°♊18'01			2673 Aug 07 08:54	0°♊	
	2672 Sep 01 10:07	0°♋		desc. node	2673 Aug 20 19:54	21°♊59'38	
desc. node	2672 Sep 02 22:53	2°♋21'12			2673 Aug 26 17:03	0°♋	
evening max el	2672 Sep 21 17:45	26°♋12'26	26°51'17	evening max el	2673 Sep 04 05:29	9°♋33'27	27°21'40
	2672 Sep 26 04:47	0°♌		retrograde	2673 Sep 17 17:56	16°♋51'38	
retrograde	2672 Oct 04 20:14	3°♌27'58		evening set	2673 Sep 24 19:47	14°♋10'31	
evening set	2672 Oct 11 12:43	0°♌47'07		min. Earth dist.	2673 Sep 28 13:37	10°♋45'21	0.64294 AU
	2672 Oct 12 10:37	30°♌♋		inferior conj	2673 Sep 30 22:59	8°♋13'15	-2°-52'-59
min. Earth dist.	2672 Oct 15 12:51	26°♋46'19	0.65706 AU	minimum elong	2673 Oct 01 03:37	8°♋00'56	2°51'24
inferior conj	2672 Oct 17 09:38	24°♋35'57	-1°-53'-57	morning rise	2673 Oct 07 13:34	2°♋46'56	
minimum elong	2672 Oct 17 12:44	24°♋26'55	1°52'44	asc. node	2673 Oct 09 22:31	2°♋14'50	
asc. node	2672 Oct 23 01:27	19°♋11'43		direct	2673 Oct 10 01:56	2°♋14'43	
morning rise	2672 Oct 23 14:14	18°♋54'07		morning max el	2673 Oct 16 14:11	5°♋40'49	17°56'25
direct	2672 Oct 26 08:47	18°♋11'43			2673 Nov 01 16:33	0°♌	
morning max el	2672 Nov 01 22:06	21°♋45'13	18°19'00	morning set	2673 Nov 02 17:00	1°♌43'54	
	2672 Nov 08 09:26	0°♌					
morning set	2672 Nov 21 01:17	20°♌05'39		superior conj	2673 Nov 15 21:59	23°♌41'52	0°06'02
	2672 Nov 27 04:36	0°♍		minimum elong	2673 Nov 15 22:41	23°♌44'42	0°05'56
desc. node	2672 Nov 29 22:12	4°♍22'11		behind sun begin	2673 Nov 15 13:07	23°♌05'58	
				behind sun end	2673 Nov 16 08:16	24°♌23'23	
superior conj	2672 Dec 06 07:00	14°♍27'09	0°-42'-3	desc. node	2673 Nov 16 19:13	25°♌07'32	
minimum elong	2672 Dec 06 01:37	14°♍05'56	0°41'22		2673 Nov 19 20:14	0°♎	
max. Earth dist.	2672 Dec 08 04:41	17°♍26'44	1.45164 AU	max. Earth dist.	2673 Nov 20 23:23	1°♎47'49	1.44599 AU
	2672 Dec 16 05:01	0°☿		evening rise	2673 Dec 02 03:15	19°♎12'43	
evening rise	2672 Dec 22 14:35	10°☿00'51			2673 Dec 09 04:43	0°☿	
	2673 Jan 04 11:26	0°♏		greatest brilliancy	2673 Dec 22 20:41	19°☿56'48	-0.6m
greatest brilliancy	2673 Jan 06 00:15	2°♏17'49	-0.7m	evening max el	2673 Dec 29 06:06	27°☿42'46	20°16'24
evening max el	2673 Jan 15 02:24	14°♏12'42	19°19'28		2673 Dec 31 17:48	0°♏	
asc. node	2673 Jan 19 00:44	17°♏22'57		asc. node	2674 Jan 05 21:47	2°♏19'41	
retrograde	2673 Jan 22 04:47	18°♏17'02		retrograde	2674 Jan 06 02:46	2°♏19'55	
evening set	2673 Jan 25 13:53	17°♏10'14		evening set	2674 Jan 09 20:13	0°♏59'12	
inferior conj	2673 Jan 31 03:59	11°♏15'50	3°16'53		2674 Jan 11 00:38	30°♏☿	
minimum elong	2673 Jan 31 01:45	11°♏23'01	3°16'28	inferior conj	2674 Jan 15 07:09	24°☿51'27	2°47'14
min. Earth dist.	2673 Feb 01 11:42	9°♏33'24	0.66264 AU	minimum elong	2674 Jan 15 04:34	25°☿00'10	2°46'32
morning rise	2673 Feb 05 12:49	5°♏01'38		min. Earth dist.	2674 Jan 16 01:16	23°☿50'09	0.67186 AU
direct	2673 Feb 11 19:23	2°♏15'57		morning rise	2674 Jan 20 12:24	18°☿35'58	
morning max el	2673 Feb 24 09:33	9°♏43'57	26°06'57	direct	2674 Jan 26 05:11	16°☿04'43	
desc. node	2673 Feb 25 21:23	11°♏17'10		morning max el	2674 Feb 06 18:16	22°☿58'22	24°46'08
	2673 Mar 12 09:49	0°♐		desc. node	2674 Feb 12 18:26	29°☿45'06	
	2673 Mar 30 17:35	0°♑			2674 Feb 12 23:16	0°♏	
morning set	2673 Apr 01 13:01	3°♑19'37		morning set	2674 Mar 05 18:16	0°♐	
max. Earth dist.	2673 Apr 05 12:56	10°♑54'55	1.35321 AU	max. Earth dist.	2674 Mar 14 19:19	15°♐17'21	
					2674 Mar 18 11:55	21°♐56'25	1.37196 AU
superior conj	2673 Apr 10 15:55	21°♑06'36	-1°-2'-14		2674 Mar 22 19:07	0°♑	
minimum elong	2673 Apr 10 19:06	21°♑22'51	1°01'41	superior conj	2674 Mar 25 01:44	4°♑23'47	-1°-28'-42
	2673 Apr 14 23:36	0°♒		minimum elong	2674 Mar 25 06:00	4°♑44'35	1°28'07
asc. node	2673 Apr 17 00:02	4°♒10'58		evening rise	2674 Apr 02 14:32	21°♑23'09	
evening rise	2673 Apr 18 12:22	7°♒18'12		asc. node	2674 Apr 03 21:05	23°♑55'03	
	2673 May 01 00:42	0°♓			2674 Apr 07 00:11	0°♒	
evening max el	2673 May 06 20:27	7°♓03'57	20°26'31	evening max el	2674 Apr 19 11:55	18°♒45'25	19°21'55
retrograde	2673 May 17 18:58	12°♓23'11					
evening set	2673 May 19 20:08	12°♓12'45					

retrograde	2674 Apr 28 17:33	23°♄13'50		retrograde	2675 Apr 10 09:38	4°♄54'43	
evening set	2674 Apr 30 18:26	23°♄01'43		evening set	2675 Apr 12 15:57	4°♄36'38	
inferior conj	2674 May 09 06:16	18°♄54'10	0°42'39	inferior conj	2675 Apr 20 08:30	0°♄10'39	2°12'16
minimum elong	2674 May 09 08:01	18°♄51'17	0°42'02	minimum elong	2675 Apr 20 12:22	0°♄03'14	2°11'10
desc. node	2674 May 11 17:36	17°♄16'59			2675 Apr 20 14:03	30°♄♂	
min. Earth dist.	2674 May 11 23:51	17°♄07'01	0.56077 AU	min. Earth dist.	2675 Apr 23 17:43	27°♄36'24	0.57816 AU
morning rise	2674 May 17 17:37	14°♄09'14		morning rise	2675 Apr 28 04:24	24°♄52'29	
direct	2674 May 22 11:39	13°♄17'40		desc. node	2675 Apr 28 14:39	24°♄40'44	
morning max el	2674 Jun 05 15:19	20°♄28'54	25°07'16	direct	2675 May 03 22:50	23°♄28'54	
	2674 Jun 13 19:17	0°♄			2675 May 17 04:05	0°♄	
asc. node	2674 Jun 30 20:21	29°♄40'39		morning max el	2675 May 18 07:47	1°♄05'19	26°33'02
	2674 Jul 01 00:04	0°♄			2675 Jun 07 19:34	0°♄	
morning set	2674 Jul 02 00:21	2°♄07'23		morning set	2675 Jun 16 10:58	16°♄58'10	
				asc. node	2675 Jun 17 17:23	19°♄39'25	
superior conj	2674 Jul 09 00:27	17°♄18'19	1°16'38		2675 Jun 22 11:27	0°♄	
minimum elong	2674 Jul 08 22:04	17°♄05'17	1°16'18	superior conj	2675 Jun 23 12:03	2°♄15'23	0°57'36
max. Earth dist.	2674 Jul 10 07:18	20°♄06'28	1.32682 AU	minimum elong	2675 Jun 23 09:53	2°♄03'30	0°57'12
	2674 Jul 14 22:26	0°♄		max. Earth dist.	2675 Jun 23 18:10	2°♄49'05	1.32217 AU
evening rise	2674 Jul 16 05:00	2°♄38'18		evening rise	2675 Jun 30 10:59	17°♄18'44	
	2674 Jul 31 04:54	0°♄			2675 Jul 06 19:22	0°♄	
desc. node	2674 Aug 07 16:55	10°♄59'55		desc. node	2675 Jul 25 13:57	29°♄05'44	
evening max el	2674 Aug 17 14:39	22°♄26'49	27°22'41		2675 Jul 26 08:28	0°♄	
retrograde	2674 Aug 31 09:25	29°♄43'15		evening max el	2675 Jul 30 18:46	4°♄40'07	26°50'39
evening set	2674 Sep 07 14:09	27°♄13'44		retrograde	2675 Aug 13 17:17	11°♄52'44	
min. Earth dist.	2674 Sep 11 04:28	24°♄18'12	0.62548 AU	evening set	2675 Aug 20 15:20	9°♄48'18	
inferior conj	2674 Sep 14 01:45	21°♄34'01	-3°-48'-20	min. Earth dist.	2675 Aug 24 08:54	7°♄10'28	0.60561 AU
minimum elong	2674 Sep 14 07:16	21°♄20'53	3°46'50	inferior conj	2675 Aug 27 14:30	4°♄29'00	-4°-34'-3
morning rise	2674 Sep 21 03:08	16°♄26'25		minimum elong	2675 Aug 27 19:25	4°♄18'44	4°33'13
direct	2674 Sep 23 12:02	16°♄01'01			2675 Sep 03 06:57	30°♄♂	
asc. node	2674 Sep 26 19:34	16°♄51'59		morning rise	2675 Sep 04 02:42	29°♄42'55	
morning max el	2674 Sep 30 06:13	19°♄28'04	17°51'40	direct	2675 Sep 06 11:14	29°♄21'27	
	2674 Oct 07 23:53	0°♄			2675 Sep 09 13:14	0°♄	
morning set	2674 Oct 16 07:13	14°♄27'01		asc. node	2675 Sep 13 16:37	2°♄52'16	
	2674 Oct 25 03:18	0°♄		morning max el	2675 Sep 13 18:58	2°♄57'55	18°05'51
superior conj	2674 Oct 27 14:42	4°♄13'25	0°47'19	morning set	2675 Sep 29 13:41	27°♄56'20	
minimum elong	2674 Oct 27 18:44	4°♄30'33	0°46'46		2675 Sep 30 16:09	0°♄	
max. Earth dist.	2674 Nov 03 14:32	15°♄48'26	1.43375 AU	superior conj	2675 Oct 09 09:27	16°♄00'47	1°17'19
desc. node	2674 Nov 03 16:15	15°♄55'23		minimum elong	2675 Oct 09 13:40	16°♄19'33	1°16'51
evening rise	2674 Nov 11 12:53	28°♄23'12		max. Earth dist.	2675 Oct 17 00:41	29°♄14'02	1.41647 AU
	2674 Nov 12 13:52	0°♄♂			2675 Oct 17 11:39	0°♄	
	2674 Dec 02 23:52	0°♄		desc. node	2675 Oct 21 13:16	6°♄41'33	
greatest brilliancy	2674 Dec 07 04:19	5°♄29'17	-0.4m	evening rise	2675 Oct 22 11:45	8°♄12'13	
evening max el	2674 Dec 12 04:17	11°♄14'24	21°25'40		2675 Nov 05 17:40	0°♄♂	
retrograde	2674 Dec 21 00:18	16°♄29'23		greatest brilliancy	2675 Nov 19 22:10	19°♄14'05	-0.3m
asc. node	2674 Dec 23 18:49	15°♄47'07		evening max el	2675 Nov 24 21:26	24°♄48'07	22°43'08
evening set	2674 Dec 25 03:56	14°♄53'20			2675 Dec 01 17:56	0°♄	
inferior conj	2674 Dec 30 13:32	8°♄35'37	2°09'08	retrograde	2675 Dec 04 19:38	0°♄41'41	
minimum elong	2674 Dec 30 11:07	8°♄43'58	2°08'19		2675 Dec 07 16:18	30°♄♂	
min. Earth dist.	2674 Dec 30 19:33	8°♄14'48	0.67725 AU	evening set	2675 Dec 09 11:21	28°♄49'04	
morning rise	2675 Jan 04 17:58	2°♄20'49		asc. node	2675 Dec 10 15:51	27°♄43'26	
direct	2675 Jan 09 19:50	0°♄09'57		inferior conj	2675 Dec 14 21:07	22°♄25'07	1°24'08
morning max el	2675 Jan 20 03:13	6°♄17'46	23°17'38	minimum elong	2675 Dec 14 19:19	22°♄31'22	1°23'26
greatest brilliancy	2675 Jan 25 09:41	12°♄13'07	-0.2m	min. Earth dist.	2675 Dec 14 16:03	22°♄42'40	0.67896 AU
desc. node	2675 Jan 30 15:30	18°♄57'48		morning rise	2675 Dec 20 03:12	16°♄13'10	
	2675 Feb 07 11:29	0°♄♂		direct	2675 Dec 24 14:14	14°♄25'08	
morning set	2675 Feb 24 01:03	26°♄00'59		morning max el	2676 Jan 02 15:48	19°♄44'06	21°51'03
	2675 Feb 26 09:27	0°♄♂		greatest brilliancy	2676 Jan 07 10:01	25°♄06'02	-0.4m
max. Earth dist.	2675 Feb 28 06:26	3°♄14'07	1.39331 AU		2676 Jan 11 05:44	0°♄	
superior conj	2675 Mar 07 21:19	16°♄56'13	-1°-50'-34	desc. node	2676 Jan 17 12:33	8°♄42'24	
minimum elong	2675 Mar 08 01:33	17°♄15'53	1°50'13		2676 Jan 31 16:41	0°♄♂	
	2675 Mar 14 18:32	0°♄♂		morning set	2676 Feb 04 01:49	5°♄21'16	
evening rise	2675 Mar 17 08:28	4°♄58'47		max. Earth dist.	2676 Feb 10 04:59	15°♄21'54	1.41456 AU
asc. node	2675 Mar 21 18:07	13°♄20'59					
	2675 Apr 01 12:28	0°♄		superior conj	2676 Feb 17 21:47	28°♄32'33	-2°-3'-56
evening max el	2675 Apr 02 13:29	1°♄04'24	18°37'20	minimum elong	2676 Feb 17 23:53	28°♄41'48	2°03'54

	2676 Feb 18 17:37	0° H		minimum elong	2677 Jan 28 19:14	8° \approx 49'09	2°03'48
evening rise	2676 Feb 28 14:41	17° H 57'18		evening rise	2677 Feb 10 05:03	0° H 09'38	
	2676 Mar 06 05:55	0° Y			2677 Feb 10 02:51	0° H	
asc. node	2676 Mar 07 15:09	2° Y 22'46		asc. node	2677 Feb 22 12:11	20° H 52'06	
evening max el	2676 Mar 15 21:53	13° Y 52'42	18°12'43	evening max el	2677 Feb 27 09:47	27° H 00'33	18°07'40
retrograde	2676 Mar 22 20:18	17° Y 21'42			2677 Mar 03 17:32	0° Y	
evening set	2676 Mar 25 08:33	16° Y 55'04		retrograde	2677 Mar 05 21:56	0° Y 23'50	
inferior conj	2676 Apr 01 07:49	12° Y 07'39	3°08'32		2677 Mar 08 02:42	30° R H	
minimum elong	2676 Apr 01 10:58	12° Y 00'36	3°07'58	evening set	2677 Mar 08 15:26	29° H 47'20	
min. Earth dist.	2676 Apr 04 16:45	9° Y 08'21	0.59925 AU	inferior conj	2677 Mar 15 01:07	24° H 38'48	3°35'46
morning rise	2676 Apr 08 09:49	6° Y 24'35		minimum elong	2677 Mar 15 02:26	24° H 35'27	3°35'40
desc. node	2676 Apr 14 11:42	4° Y 25'47		min. Earth dist.	2677 Mar 17 23:41	21° H 39'20	0.62064 AU
direct	2676 Apr 14 22:30	4° Y 25'14		morning rise	2677 Mar 21 10:56	18° H 39'52	
morning max el	2676 Apr 29 06:03	12° Y 15'06	27°30'00	direct	2677 Mar 28 08:10	16° H 10'36	
	2676 May 13 05:31	0° B		desc. node	2677 Apr 01 08:45	16° H 56'30	
	2676 May 29 23:36	0° II		morning max el	2677 Apr 11 10:33	24° H 06'50	27°50'31
morning set	2676 May 30 18:41	1° II 38'36			2677 Apr 16 18:09	0° Y	
asc. node	2676 Jun 03 14:26	9° II 45'45			2677 May 06 13:03	0° B	
				morning set	2677 May 14 21:29	16° B 01'13	
superior conj	2676 Jun 06 23:38	17° II 09'34	0°35'03	max. Earth dist.	2677 May 20 15:28	28° B 06'22	1.32470 AU
minimum elong	2676 Jun 06 22:08	17° II 01'20	0°34'44	asc. node	2677 May 21 11:27	29° B 54'31	
max. Earth dist.	2676 Jun 06 06:14	15° II 33'55	1.32145 AU		2677 May 21 12:28	0° II	
	2676 Jun 12 20:42	0° E					
evening rise	2676 Jun 13 20:49	2° E 08'29		superior conj	2677 May 22 09:28	1° II 54'09	0°09'40
	2676 Jun 28 21:54	0° Q		minimum elong	2677 May 22 09:01	1° II 51'42	0°09'34
desc. node	2676 Jul 11 10:56	15° Q 54'32		behind sun begin	2677 May 22 04:53	1° II 29'09	
evening max el	2676 Jul 11 15:49	16° Q 06'15	25°46'46	behind sun end	2677 May 22 13:10	2° II 14'15	
retrograde	2676 Jul 25 15:42	23° Q 14'31		evening rise	2677 May 29 08:26	16° II 59'36	
evening set	2676 Jul 31 18:30	21° Q 45'46			2677 Jun 04 18:51	0° E	
min. Earth dist.	2676 Aug 05 04:04	19° Q 08'31	0.58506 AU	evening max el	2677 Jun 23 06:25	26° E 49'49	24°19'21
inferior conj	2676 Aug 08 09:42	16° Q 48'33	-5°00'-25		2677 Jun 26 23:54	0° Q	
minimum elong	2676 Aug 08 11:29	16° Q 45'19	5°00'20	desc. node	2677 Jun 28 07:57	0° Q 55'14	
morning rise	2676 Aug 16 07:57	12° Q 25'44		retrograde	2677 Jul 07 02:51	3° Q 49'19	
direct	2676 Aug 18 19:14	12° Q 06'04		evening set	2677 Jul 11 21:48	2° Q 58'10	
morning max el	2676 Aug 27 01:15	16° Q 01'46	18°40'24	min. Earth dist.	2677 Jul 17 17:13	0° Q 03'25	0.56647 AU
asc. node	2676 Aug 30 13:40	20° Q 01'02			2677 Jul 17 19:27	30° R E	
	2676 Sep 05 22:45	0° M		inferior conj	2677 Jul 20 08:43	28° E 23'33	-4°-53'-38
morning set	2676 Sep 12 07:38	11° M 58'54		minimum elong	2677 Jul 20 05:04	28° E 29'20	4°53'19
				morning rise	2677 Jul 28 15:57	24° E 21'47	
superior conj	2676 Sep 21 01:34	28° M 51'12	1°35'48	direct	2677 Jul 31 08:06	24° E 02'40	
minimum elong	2676 Sep 21 04:18	29° M 04'03	1°35'36	morning max el	2677 Aug 09 22:05	28° E 29'55	19°36'28
	2676 Sep 21 16:14	0° A			2677 Aug 11 10:00	0° Q	
max. Earth dist.	2676 Sep 28 06:23	11° A 57'59	1.39632 AU	asc. node	2677 Aug 17 10:42	8° Q 03'12	
evening rise	2676 Oct 02 09:10	19° A 03'33		morning set	2677 Aug 27 09:32	26° Q 24'42	
desc. node	2676 Oct 07 10:16	27° A 22'31			2677 Aug 29 04:14	0° M	
	2676 Oct 09 01:43	0° M					
	2676 Oct 30 01:12	0° J		superior conj	2677 Sep 04 09:32	12° M 29'06	1°44'15
evening max el	2676 Nov 06 11:04	8° J 24'54	24°03'06	minimum elong	2677 Sep 04 10:26	12° M 33'33	1°44'13
retrograde	2676 Nov 17 11:33	14° J 53'20		max. Earth dist.	2677 Sep 10 10:37	24° M 04'40	1.37578 AU
evening set	2676 Nov 22 16:51	12° J 43'45			2677 Sep 13 16:30	0° A	
asc. node	2676 Nov 26 12:53	8° J 29'00		evening rise	2677 Sep 14 05:58	1° A 00'09	
min. Earth dist.	2676 Nov 27 12:23	7° J 10'48	0.67721 AU	desc. node	2677 Sep 24 07:16	17° A 54'15	
inferior conj	2676 Nov 28 04:07	6° J 17'33	0°33'29		2677 Oct 02 06:49	0° M	
minimum elong	2676 Nov 28 03:20	6° J 20'14	0°33'09	evening max el	2677 Oct 19 23:08	22° M 04'49	25°18'48
morning rise	2676 Dec 03 14:04	0° J 10'43		retrograde	2677 Oct 31 23:14	29° M 00'21	
	2676 Dec 03 20:03	30° R M		evening set	2677 Nov 06 18:49	26° M 35'10	
direct	2676 Dec 07 11:18	28° M 45'03		min. Earth dist.	2677 Nov 11 06:16	21° M 37'05	0.67205 AU
	2676 Dec 11 09:16	0° J		inferior conj	2677 Nov 12 08:49	20° M 11'00	0°-21'-35
morning max el	2676 Dec 15 11:22	3° J 21'14	20°33'22	minimum elong	2677 Nov 12 09:22	20° M 09'13	0°21'22
greatest brilliancy	2676 Dec 21 13:45	10° J 32'10	-0.5m	asc. node	2677 Nov 13 09:56	18° M 50'24	
desc. node	2677 Jan 03 09:34	28° J 49'45		morning rise	2677 Nov 18 00:37	14° M 11'41	
	2677 Jan 04 04:19	0° E		direct	2677 Nov 21 09:43	13° M 05'51	
morning set	2677 Jan 13 02:44	13° E 38'25		morning max el	2677 Nov 28 14:53	17° M 09'41	19°28'52
max. Earth dist.	2677 Jan 22 11:29	28° E 26'54	1.43275 AU	greatest brilliancy	2677 Dec 07 08:10	28° M 11'51	-0.7m
	2677 Jan 23 10:30	0° \approx			2677 Dec 08 14:07	0° J	
				desc. node	2677 Dec 21 06:34	19° J 13'37	
superior conj	2677 Jan 28 21:57	9° \approx 00'28	-2°-3'-51	morning set	2677 Dec 23 00:48	21° J 56'50	

	2677 Dec 28 05:15	0°☿		morning set	2678 Dec 02 19:24	1°☿21'26	
max. Earth dist.	2678 Jan 05 00:46	12°☿15'38	1.44554 AU	desc. node	2678 Dec 08 03:34	9°☿48'43	
superior conj	2678 Jan 08 20:03	18°☿18'45	-1°-45'-38	superior conj	2678 Dec 18 23:56	26°☿52'22	-1°-8'-52
minimum elong	2678 Jan 08 12:05	17°☿46'51	1°45'01	minimum elong	2678 Dec 18 15:44	26°☿20'11	1°07'55
	2678 Jan 16 01:16	0°☿		max. Earth dist.	2678 Dec 18 18:14	26°☿30'03	1.45152 AU
evening rise	2678 Jan 22 23:16	11°☿28'12			2678 Dec 20 23:43	0°☿	
	2678 Feb 03 04:51	0°☿		evening rise	2679 Jan 03 18:16	21°☿48'35	
asc. node	2678 Feb 09 09:14	8°☿39'20			2679 Jan 08 21:06	0°☿	
evening max el	2678 Feb 10 22:19	10°☿20'54	18°21'35	evening max el	2679 Jan 25 08:57	23°☿47'44	18°53'34
retrograde	2678 Feb 17 09:49	13°☿51'40		asc. node	2679 Jan 27 06:17	25°☿31'41	
evening set	2678 Feb 20 08:37	13°☿04'22		retrograde	2679 Feb 01 03:54	27°☿37'03	
inferior conj	2678 Feb 26 08:23	7°☿36'27	3°40'45	evening set	2679 Feb 04 08:50	26°☿37'52	
minimum elong	2678 Feb 26 07:54	7°☿37'50	3°40'43	inferior conj	2679 Feb 10 01:45	20°☿52'38	3°29'16
min. Earth dist.	2678 Feb 28 16:14	4°☿57'20	0.63984 AU	minimum elong	2679 Feb 09 23:59	20°☿58'07	3°29'02
morning rise	2678 Mar 04 05:32	1°☿28'24		min. Earth dist.	2679 Feb 11 18:07	18°☿47'13	0.65551 AU
	2678 Mar 06 08:45	30°☿		morning rise	2679 Feb 15 14:04	14°☿39'50	
direct	2678 Mar 11 02:12	28°☿41'37		direct	2679 Feb 22 03:16	11°☿49'48	
	2678 Mar 16 04:53	0°☿		desc. node	2679 Mar 06 02:48	18°☿27'29	
desc. node	2678 Mar 19 05:47	1°☿49'03		morning max el	2679 Mar 07 05:06	19°☿32'06	26°45'44
morning max el	2678 Mar 24 19:14	6°☿36'39	27°34'02		2679 Mar 16 03:34	0°☿	
	2678 Apr 11 16:52	0°☿			2679 Apr 04 17:49	0°☿	
morning set	2678 Apr 28 16:52	29°☿58'33		morning set	2679 Apr 12 01:34	13°☿20'27	
	2678 Apr 28 17:10	0°☿		max. Earth dist.	2679 Apr 16 09:41	21°☿48'32	1.34417 AU
max. Earth dist.	2678 May 03 17:50	10°☿14'05	1.33218 AU		2679 Apr 20 10:11	0°☿	
superior conj	2678 May 06 15:46	16°☿23'49	0°-17'-45	superior conj	2679 Apr 20 16:23	0°☿32'07	0°-46'-6
minimum elong	2678 May 06 16:39	16°☿28'33	0°17'34	minimum elong	2679 Apr 20 18:45	0°☿44'26	0°45'38
asc. node	2678 May 08 08:30	20°☿02'03		asc. node	2679 Apr 25 05:34	10°☿04'21	
	2678 May 12 23:58	0°☿		evening rise	2679 Apr 28 05:43	16°☿22'18	
evening rise	2678 May 13 20:02	1°☿46'14			2679 May 05 03:16	0°☿	
	2678 May 29 15:13	0°☿		evening max el	2679 May 17 17:43	17°☿59'32	21°12'14
evening max el	2678 Jun 04 20:24	7°☿16'28	22°42'55	retrograde	2679 May 29 15:41	23°☿49'02	
desc. node	2678 Jun 15 04:59	13°☿32'26		evening set	2679 May 31 22:31	23°☿36'58	
retrograde	2678 Jun 18 01:53	13°☿51'18		desc. node	2679 Jun 02 02:01	23°☿22'15	
evening set	2678 Jun 21 08:57	13°☿27'27		inferior conj	2679 Jun 10 07:08	19°☿38'35	-2°-21'-31
min. Earth dist.	2678 Jun 29 04:33	10°☿01'07	0.55336 AU	minimum elong	2679 Jun 10 00:40	19°☿47'41	2°19'20
inferior conj	2678 Jun 30 13:01	9°☿14'39	-4°00'-24	min. Earth dist.	2679 Jun 10 16:35	19°☿25'16	0.54875 AU
minimum elong	2678 Jun 30 05:08	9°☿25'57	3°58'34	morning rise	2679 Jun 19 02:46	15°☿39'42	
morning rise	2678 Jul 09 03:58	5°☿23'25		direct	2679 Jun 22 12:30	15°☿14'35	
direct	2678 Jul 12 02:38	5°☿03'22		morning max el	2679 Jul 05 06:11	21°☿18'11	22°27'41
morning max el	2678 Jul 23 07:34	10°☿15'23	20°53'30		2679 Jul 12 16:08	0°☿	
asc. node	2678 Aug 04 07:44	26°☿46'19		asc. node	2679 Jul 22 04:47	16°☿00'34	
	2678 Aug 06 02:08	0°☿		morning set	2679 Jul 27 03:05	25°☿57'55	
morning set	2678 Aug 11 16:42	11°☿06'11			2679 Jul 29 00:58	0°☿	
superior conj	2678 Aug 19 04:45	26°☿40'42	1°44'25	superior conj	2679 Aug 03 07:45	11°☿15'43	1°37'52
minimum elong	2678 Aug 19 04:05	26°☿37'16	1°44'25	minimum elong	2679 Aug 03 06:00	11°☿06'28	1°37'44
	2678 Aug 20 19:49	0°☿		max. Earth dist.	2679 Aug 06 11:53	17°☿54'26	1.34228 AU
max. Earth dist.	2678 Aug 23 18:53	5°☿54'49	1.35726 AU	evening rise	2679 Aug 11 06:30	27°☿30'57	
evening rise	2678 Aug 27 22:35	13°☿53'09			2679 Aug 12 13:17	0°☿	
	2678 Sep 06 01:49	0°☿		desc. node	2679 Aug 29 01:20	28°☿06'36	
desc. node	2678 Sep 11 04:17	8°☿11'10			2679 Aug 30 08:04	0°☿	
	2678 Sep 27 02:39	0°☿		evening max el	2679 Sep 14 23:39	19°☿16'24	27°07'34
evening max el	2678 Oct 02 11:14	5°☿44'23	26°22'50	retrograde	2679 Sep 28 07:17	26°☿34'16	
retrograde	2678 Oct 15 06:03	12°☿56'19		evening set	2679 Oct 05 04:09	23°☿52'17	
evening set	2678 Oct 21 15:20	10°☿19'22		min. Earth dist.	2679 Oct 09 01:28	20°☿06'43	0.65142 AU
min. Earth dist.	2678 Oct 25 19:23	5°☿57'27	0.66347 AU	inferior conj	2679 Oct 11 03:30	17°☿46'15	-2°-19'-11
inferior conj	2678 Oct 27 09:19	4°☿01'52	-1°-19'-46	minimum elong	2679 Oct 11 07:17	17°☿35'37	2°17'46
minimum elong	2678 Oct 27 11:28	3°☿55'20	1°18'53	morning rise	2679 Oct 17 12:11	12°☿10'24	
asc. node	2678 Oct 31 06:59	29°☿44'04		asc. node	2679 Oct 18 04:00	11°☿54'06	
	2678 Oct 31 00:02	30°☿		direct	2679 Oct 20 03:43	11°☿32'50	
morning rise	2678 Nov 02 08:47	28°☿12'45		morning max el	2679 Oct 26 15:52	15°☿02'30	18°07'13
direct	2678 Nov 05 07:53	27°☿23'01			2679 Nov 06 08:53	0°☿	
	2678 Nov 10 21:28	0°☿		morning set	2679 Nov 13 19:28	12°☿14'25	
morning max el	2678 Nov 12 01:09	1°☿05'10	18°39'45		2679 Nov 24 16:45	0°☿	
	2678 Dec 01 22:53	0°☿		desc. node	2679 Nov 25 00:37	0°☿31'34	

superior conj	2679 Nov 28 05:01	5°♂36'17	0°-21'-24	morning set	2680 Oct 25 21:34	24°♂22'44	
minimum elong	2679 Nov 28 02:18	5°♂25'31	0°21'02		2680 Oct 29 03:34	0°♂	
max. Earth dist.	2679 Dec 01 13:19	10°♂53'47	1.45015 AU				
	2679 Dec 13 19:12	0°♂		superior conj	2680 Nov 07 06:08	15°♂21'13	0°24'46
evening rise	2679 Dec 14 15:38	1°♂19'10		minimum elong	2680 Nov 07 08:42	15°♂31'49	0°24'24
greatest brilliancy	2679 Dec 31 23:28	27°♂35'43	-0.6m	desc. node	2680 Nov 10 21:40	21°♂18'19	
	2680 Jan 02 16:47	0°♂		max. Earth dist.	2680 Nov 13 07:10	25°♂09'22	1.44156 AU
evening max el	2680 Jan 08 15:42	7°♂17'51	19°42'00		2680 Nov 16 08:22	0°♂	
asc. node	2680 Jan 14 03:19	11°♂15'06		evening rise	2680 Nov 23 00:57	10°♂25'35	
retrograde	2680 Jan 16 01:06	11°♂34'59			2680 Dec 06 00:27	0°♂	
evening set	2680 Jan 19 13:33	10°♂22'31		greatest brilliancy	2680 Dec 16 01:08	14°♂06'28	-0.5m
inferior conj	2680 Jan 25 02:05	4°♂22'21	3°05'25	evening max el	2680 Dec 21 17:11	20°♂49'14	20°44'35
minimum elong	2680 Jan 24 23:39	4°♂30'24	3°04'53	retrograde	2680 Dec 29 23:03	25°♂41'32	
min. Earth dist.	2680 Jan 26 03:55	2°♂57'06	0.66714 AU	asc. node	2680 Dec 31 00:20	25°♂35'23	
	2680 Jan 28 13:04	30°♂		evening set	2681 Jan 02 20:43	24°♂14'19	
morning rise	2680 Jan 30 09:03	28°♂07'26		inferior conj	2681 Jan 08 06:53	18°♂02'01	2°31'59
direct	2680 Feb 05 10:10	25°♂26'37		minimum elong	2681 Jan 08 04:19	18°♂10'48	2°31'13
	2680 Feb 14 17:23	0°♂		min. Earth dist.	2681 Jan 08 19:39	17°♂18'16	0.67466 AU
morning max el	2680 Feb 17 14:08	2°♂41'26	25°33'59	morning rise	2681 Jan 13 11:29	11°♂46'52	
desc. node	2680 Feb 20 23:50	6°♂22'06		direct	2681 Jan 18 22:04	9°♂23'49	
	2680 Mar 09 08:07	0°♂		morning max el	2681 Jan 29 22:35	15°♂58'07	24°08'52
morning set	2680 Mar 24 19:06	25°♂53'19		desc. node	2681 Feb 06 20:53	25°♂11'04	
	2680 Mar 27 00:40	0°♂			2681 Feb 10 12:16	0°♂	
max. Earth dist.	2680 Mar 28 13:55	2°♂55'08	1.36074 AU		2681 Mar 02 07:31	0°♂	
				morning set	2681 Mar 06 15:46	7°♂21'49	
superior conj	2680 Apr 03 08:36	14°♂10'55	-1°-13'-50	max. Earth dist.	2681 Mar 10 10:29	14°♂01'20	1.38092 AU
minimum elong	2680 Apr 03 12:20	14°♂29'34	1°13'14				
evening rise	2680 Apr 11 11:20	0°♂40'49		superior conj	2681 Mar 17 13:00	27°♂11'12	-1°-38'-43
asc. node	2680 Apr 11 02:38	29°♂56'33		minimum elong	2681 Mar 17 17:26	27°♂32'26	1°38'13
	2680 Apr 11 03:18	0°♂			2681 Mar 19 00:08	0°♂	
evening max el	2680 Apr 29 02:32	29°♂18'11	19°56'41	evening rise	2681 Mar 26 10:26	14°♂35'01	
	2680 Apr 29 20:24	0°♂		asc. node	2681 Mar 28 23:41	19°♂34'03	
retrograde	2680 May 09 06:58	4°♂14'13			2681 Apr 03 16:17	0°♂	
evening set	2680 May 11 06:59	4°♂03'38		evening max el	2681 Apr 11 22:39	11°♂16'36	19°00'24
desc. node	2680 May 18 23:04	0°♂48'26		retrograde	2681 Apr 20 12:33	15°♂26'57	
inferior conj	2680 May 20 04:59	0°♂03'26	0°-21'-54	evening set	2681 Apr 22 15:37	15°♂12'36	
minimum elong	2680 May 20 03:59	0°♂04'58	0°21'33	inferior conj	2681 Apr 30 19:11	10°♂57'28	1°24'40
	2680 May 20 07:15	30°♂		minimum elong	2681 Apr 30 22:16	10°♂52'03	1°23'39
min. Earth dist.	2680 May 22 05:52	28°♂49'28	0.55386 AU	min. Earth dist.	2681 May 03 21:24	8°♂48'29	0.56752 AU
morning rise	2680 May 28 22:07	25°♂38'48		desc. node	2681 May 05 20:05	7°♂34'22	
direct	2680 Jun 02 02:44	25°♂00'15		morning rise	2681 May 09 00:39	5°♂58'00	
	2680 Jun 13 20:00	0°♂		direct	2681 May 14 05:20	4°♂54'14	
morning max el	2680 Jun 15 21:37	1°♂49'48	24°10'06	morning max el	2681 May 28 12:16	12°♂16'57	25°46'33
	2680 Jul 05 05:47	0°♂			2681 Jun 11 06:20	0°♂	
asc. node	2680 Jul 08 01:51	5°♂37'06		asc. node	2681 Jun 24 22:55	25°♂29'33	
morning set	2680 Jul 10 14:51	10°♂53'26		morning set	2681 Jun 25 02:22	25°♂47'44	
					2681 Jun 27 01:39	0°♂	
superior conj	2680 Jul 17 15:43	26°♂04'31	1°25'46				
minimum elong	2680 Jul 17 13:25	25°♂52'04	1°25'29	superior conj	2681 Jul 02 02:31	11°♂00'18	1°09'02
	2680 Jul 19 11:23	0°♂		minimum elong	2681 Jul 02 00:11	10°♂47'26	1°08'39
max. Earth dist.	2680 Jul 19 13:58	0°♂13'52	1.33134 AU	max. Earth dist.	2681 Jul 02 22:44	12°♂51'08	1.32442 AU
evening rise	2680 Jul 25 01:28	11°♂40'28		evening rise	2681 Jul 09 04:12	26°♂11'57	
	2680 Aug 03 19:17	0°♂			2681 Jul 11 00:45	0°♂	
desc. node	2680 Aug 14 22:22	17°♂30'19			2681 Jul 28 07:13	0°♂	
	2680 Aug 24 23:55	0°♂		desc. node	2681 Aug 01 19:23	6°♂09'24	
evening max el	2680 Aug 27 10:49	2°♂27'52	27°26'03	evening max el	2681 Aug 09 18:09	15°♂05'06	27°13'04
retrograde	2680 Sep 10 02:15	9°♂44'52		retrograde	2681 Aug 23 14:17	22°♂19'17	
evening set	2680 Sep 17 06:14	7°♂07'29		evening set	2681 Aug 30 17:48	19°♂58'43	
min. Earth dist.	2680 Sep 20 22:14	3°♂55'43	0.63590 AU	min. Earth dist.	2681 Sep 03 08:21	17°♂12'47	0.61731 AU
inferior conj	2680 Sep 23 12:43	1°♂17'23	-3°-17'-13	inferior conj	2681 Sep 06 09:54	14°♂27'46	-4°-9'-24
minimum elong	2680 Sep 23 17:51	1°♂04'21	3°15'35	minimum elong	2681 Sep 06 15:25	14°♂15'21	4°08'07
	2680 Sep 24 19:39	30°♂		morning rise	2681 Sep 13 15:56	9°♂29'04	
morning rise	2680 Sep 30 07:48	25°♂58'18		direct	2681 Sep 16 00:27	9°♂05'32	
direct	2680 Oct 02 18:25	25°♂29'15		asc. node	2681 Sep 20 22:05	10°♂51'05	
asc. node	2680 Oct 04 01:02	25°♂37'20		morning max el	2681 Sep 22 23:11	12°♂35'04	17°55'20
morning max el	2680 Oct 09 08:12	28°♂54'45	17°52'07		2681 Oct 04 16:25	0°♂	
	2680 Oct 10 08:57	0°♂		morning set	2681 Oct 08 19:18	7°♂26'55	

superior conj	2681 Oct 19 10:15	26° Ω 25'44	1°01'32		2682 Sep 09 22:25	0° η	
minimum elong	2681 Oct 19 14:41	26° Ω 44'51	1°00'58	morning set	2682 Sep 22 07:09	21° η 11'45	
	2681 Oct 21 12:08	0° \mathbb{M}			2682 Sep 26 22:24	0° Ω	
max. Earth dist.	2681 Oct 26 20:43	8° \mathbb{M} 57'58	1.42688 AU				
desc. node	2681 Oct 28 18:41	12° \mathbb{M} 05'29		superior conj	2682 Oct 01 14:52	8° Ω 42'27	1°26'30
evening rise	2681 Nov 02 14:23	19° \mathbb{M} 47'23		minimum elong	2682 Oct 01 18:33	8° Ω 59'17	1°26'08
	2681 Nov 09 05:05	0° \mathcal{A}		max. Earth dist.	2682 Oct 09 04:29	22° Ω 05'14	1.40802 AU
greatest brilliancy	2681 Nov 29 19:08	28° \mathcal{A} 58'29	-0.3m	evening rise	2682 Oct 13 22:14	0° \mathbb{M} 01'17	
	2681 Nov 30 15:25	0° \mathcal{B}			2682 Oct 13 21:55	0° \mathbb{M}	
evening max el	2681 Dec 04 13:00	4° \mathcal{B} 21'01	21°57'56	desc. node	2682 Oct 15 15:42	2° \mathbb{M} 50'02	
retrograde	2681 Dec 13 19:51	9° \mathcal{B} 52'38			2682 Nov 02 17:03	0° \mathcal{A}	
asc. node	2681 Dec 17 21:21	8° \mathcal{B} 23'11		evening max el	2682 Nov 17 04:15	17° \mathcal{A} 55'18	23°17'13
evening set	2681 Dec 18 04:29	8° \mathcal{B} 09'24		retrograde	2682 Nov 27 14:00	24° \mathcal{A} 05'15	
inferior conj	2681 Dec 23 13:57	1° \mathcal{B} 48'24	1°50'48	evening set	2682 Dec 02 11:18	22° \mathcal{A} 05'18	
minimum elong	2681 Dec 23 11:45	1° \mathcal{B} 56'02	1°50'01	asc. node	2682 Dec 04 18:22	19° \mathcal{A} 45'41	
min. Earth dist.	2681 Dec 23 15:04	1° \mathcal{B} 44'33	0.67837 AU	inferior conj	2682 Dec 07 21:31	15° \mathcal{A} 39'36	1°03'18
	2681 Dec 24 21:30	30° \mathbb{R} \mathcal{A}		minimum elong	2682 Dec 07 20:06	15° \mathcal{A} 44'29	1°02'43
morning rise	2681 Dec 28 18:50	25° \mathcal{A} 34'44		min. Earth dist.	2682 Dec 07 11:51	16° \mathcal{A} 12'50	0.67856 AU
direct	2682 Jan 02 14:13	23° \mathcal{A} 33'44		morning rise	2682 Dec 13 04:59	9° \mathcal{A} 29'25	
morning max el	2682 Jan 12 08:46	29° \mathcal{A} 20'31	22°40'14	direct	2682 Dec 17 09:51	7° \mathcal{A} 51'16	
	2682 Jan 13 00:11	0° \mathcal{B}		morning max el	2682 Dec 26 00:07	12° \mathcal{A} 51'31	21°16'37
greatest brilliancy	2682 Jan 16 22:58	4° \mathcal{B} 27'48	-0.3m	greatest brilliancy	2682 Dec 31 05:08	18° \mathcal{A} 49'13	-0.4m
desc. node	2682 Jan 24 17:55	14° \mathcal{B} 38'20			2683 Jan 08 11:14	0° \mathcal{B}	
	2682 Feb 04 07:15	0° \approx		desc. node	2683 Jan 11 14:56	4° \mathcal{B} 33'23	
morning set	2682 Feb 15 09:26	17° \approx 30'19		morning set	2683 Jan 25 22:30	26° \mathcal{B} 18'39	
max. Earth dist.	2682 Feb 20 06:23	25° \approx 39'42	1.40254 AU		2683 Jan 28 06:23	0° \approx	
	2682 Feb 22 18:48	0° \mathcal{H}		max. Earth dist.	2683 Feb 02 07:38	8° \approx 10'09	1.42279 AU
superior conj	2682 Feb 28 01:03	9° \mathcal{H} 21'03	-1°-57'-32	superior conj	2683 Feb 09 15:40	20° \approx 28'56	-2°-5'-52
minimum elong	2682 Feb 28 04:42	9° \mathcal{H} 37'38	1°57'20	minimum elong	2683 Feb 09 16:02	20° \approx 30'29	2°05'53
evening rise	2682 Mar 09 23:52	27° \mathcal{H} 56'12			2683 Feb 15 02:22	0° \mathcal{H}	
	2682 Mar 11 02:02	0° \mathcal{Y}		evening rise	2683 Feb 20 23:52	10° \mathcal{H} 35'53	
asc. node	2682 Mar 15 20:42	8° \mathcal{Y} 50'38		asc. node	2683 Mar 02 17:42	27° \mathcal{H} 39'34	
evening max el	2682 Mar 26 03:26	23° \mathcal{Y} 48'43	18°24'20		2683 Mar 04 05:49	0° \mathcal{Y}	
retrograde	2682 Apr 02 13:05	27° \mathcal{Y} 28'21		evening max el	2683 Mar 09 13:41	6° \mathcal{Y} 46'10	18°08'12
evening set	2682 Apr 04 21:50	27° \mathcal{Y} 06'58		retrograde	2683 Mar 16 06:35	10° \mathcal{Y} 11'04	
inferior conj	2682 Apr 12 06:37	22° \mathcal{Y} 31'47	2°40'03	evening set	2683 Mar 18 21:01	9° \mathcal{Y} 40'30	
minimum elong	2682 Apr 12 10:26	22° \mathcal{Y} 23'58	2°39'09	inferior conj	2683 Mar 25 14:05	4° \mathcal{Y} 44'14	3°23'12
min. Earth dist.	2682 Apr 15 17:13	19° \mathcal{Y} 43'49	0.58688 AU	minimum elong	2683 Mar 25 16:29	4° \mathcal{Y} 38'29	3°22'52
morning rise	2682 Apr 19 18:53	17° \mathcal{Y} 01'27		min. Earth dist.	2683 Mar 28 19:37	1° \mathcal{Y} 41'34	0.60848 AU
desc. node	2682 Apr 22 17:07	15° \mathcal{Y} 49'50			2683 Mar 30 19:41	30° \mathbb{R} \mathcal{H}	
direct	2682 Apr 25 21:54	15° \mathcal{Y} 22'46		morning rise	2683 Apr 01 08:49	28° \mathcal{H} 53'11	
morning max el	2682 May 10 07:13	23° \mathcal{Y} 06'18	27°01'27	direct	2683 Apr 08 02:21	26° \mathcal{H} 39'32	
	2682 May 16 11:04	0° \mathcal{B}		desc. node	2683 Apr 09 14:08	26° \mathcal{H} 45'47	
	2682 Jun 04 05:55	0° \mathbb{I}			2683 Apr 16 23:46	0° \mathcal{Y}	
morning set	2682 Jun 09 11:59	10° \mathbb{I} 34'57		morning max el	2683 Apr 22 08:18	4° \mathcal{Y} 33'49	27°43'16
asc. node	2682 Jun 11 19:58	15° \mathbb{I} 32'06			2683 May 11 05:33	0° \mathcal{B}	
				morning set	2683 May 24 17:53	25° \mathcal{B} 08'38	
superior conj	2682 Jun 16 14:19	25° \mathbb{I} 56'44	0°48'25		2683 May 27 01:37	0° \mathbb{I}	
minimum elong	2682 Jun 16 12:23	25° \mathbb{I} 46'07	0°48'02	asc. node	2683 May 29 17:00	5° \mathbb{I} 39'55	
max. Earth dist.	2682 Jun 16 10:34	25° \mathbb{I} 36'03	1.32137 AU	max. Earth dist.	2683 May 30 21:43	8° \mathbb{I} 16'13	1.32228 AU
	2682 Jun 18 10:30	0° \mathcal{B}					
evening rise	2682 Jun 23 12:04	10° \mathcal{B} 56'51		superior conj	2683 Jun 01 01:24	10° \mathbb{I} 47'36	0°24'35
	2682 Jul 03 06:41	0° \mathcal{Q}		minimum elong	2683 Jun 01 00:18	10° \mathbb{I} 41'35	0°24'21
desc. node	2682 Jul 19 16:23	23° \mathcal{Q} 45'37		evening rise	2683 Jun 07 22:53	25° \mathbb{I} 47'45	
evening max el	2682 Jul 22 19:08	26° \mathcal{Q} 57'43	26°26'57		2683 Jun 09 23:03	0° \mathcal{B}	
	2682 Jul 26 08:32	0° η			2683 Jun 27 11:41	0° \mathcal{Q}	
retrograde	2682 Aug 05 18:34	4° η 09'22		evening max el	2683 Jul 04 13:03	8° \mathcal{Q} 03'55	25°11'45
evening set	2682 Aug 12 10:12	2° η 18'46		desc. node	2683 Jul 06 13:25	9° \mathcal{Q} 52'43	
	2682 Aug 15 23:41	30° \mathbb{R} \mathcal{Q}		retrograde	2683 Jul 18 12:54	15° \mathcal{Q} 10'14	
min. Earth dist.	2682 Aug 16 08:24	29° \mathcal{Q} 43'43	0.59678 AU	evening set	2683 Jul 24 03:08	13° \mathcal{Q} 58'07	
inferior conj	2682 Aug 19 15:35	27° \mathcal{Q} 08'40	-4°-48'-22	min. Earth dist.	2683 Jul 29 00:50	11° \mathcal{Q} 15'10	0.57662 AU
minimum elong	2682 Aug 19 19:31	27° \mathcal{Q} 00'55	4°47'53	inferior conj	2683 Aug 01 02:23	9° \mathcal{Q} 10'06	-5°-2'-33
morning rise	2682 Aug 27 08:15	22° \mathcal{Q} 32'52		minimum elong	2683 Aug 01 02:02	9° \mathcal{Q} 10'42	5°02'34
direct	2682 Aug 29 17:34	22° \mathcal{Q} 12'27		morning rise	2683 Aug 09 04:36	4° \mathcal{Q} 56'51	
morning max el	2682 Sep 06 09:40	25° \mathcal{Q} 55'33	18°18'03	direct	2683 Aug 11 17:30	4° \mathcal{Q} 37'42	
asc. node	2682 Sep 07 19:09	27° \mathcal{Q} 22'34		morning max el	2683 Aug 20 12:20	8° \mathcal{Q} 45'41	19°01'36

asc. node	2683 Aug 25 16:12	14°♄55'45		inferior conj	2684 Jul 11 17:04	20°♄26'32	-4°-37'-17
	2683 Sep 03 10:18	0°♄		minimum elong	2684 Jul 11 11:09	20°♄35'27	4°36'22
morning set	2683 Sep 06 04:53	5°♄25'03		morning rise	2684 Jul 20 03:42	16°♄30'37	
				direct	2684 Jul 22 22:28	16°♄11'14	
superior conj	2683 Sep 14 14:22	21°♄54'46	1°40'29	morning max el	2684 Aug 02 04:27	20°♄56'24	20°06'40
minimum elong	2683 Sep 14 16:19	22°♄04'08	1°40'23		2684 Aug 09 12:03	0°♄	
	2683 Sep 18 21:20	0°♄		asc. node	2684 Aug 11 13:16	3°♄17'01	
max. Earth dist.	2683 Sep 21 08:33	4°♄29'46	1.38744 AU	morning set	2684 Aug 20 09:22	19°♄58'37	
evening rise	2683 Sep 25 05:56	11°♄21'15			2684 Aug 25 06:55	0°♄	
desc. node	2683 Oct 02 12:42	23°♄27'36					
	2683 Oct 06 16:51	0°♄		superior conj	2684 Aug 28 03:38	5°♄48'22	1°45'13
	2683 Oct 29 04:22	0°♄		minimum elong	2684 Aug 28 03:50	5°♄49'18	1°45'14
evening max el	2683 Oct 30 17:00	1°♄33'31	24°36'19	max. Earth dist.	2684 Sep 02 14:04	16°♄27'12	1.36764 AU
retrograde	2683 Nov 11 04:18	8°♄15'00		evening rise	2684 Sep 06 11:49	23°♄43'37	
evening set	2683 Nov 16 15:30	5°♄58'45			2684 Sep 10 00:21	0°♄	
min. Earth dist.	2683 Nov 21 07:33	0°♄40'09	0.67540 AU	desc. node	2684 Sep 18 09:44	13°♄53'41	
asc. node	2683 Nov 21 15:25	0°♄14'00			2684 Sep 29 09:25	0°♄	
	2683 Nov 21 19:37	30°♄		evening max el	2684 Oct 12 05:12	15°♄14'28	25°47'56
inferior conj	2683 Nov 22 03:47	29°♄32'44	0°10'37	retrograde	2684 Oct 24 13:49	22°♄17'32	
minimum elong	2683 Nov 22 03:31	29°♄33'37	0°10'30	evening set	2684 Oct 30 15:22	19°♄47'00	
transit middle	2683 Nov 22 03:31	29°♄33'37	0°10'30	min. Earth dist.	2684 Nov 03 23:45	15°♄04'02	0.66887 AU
transit begin	2683 Nov 22 01:25	29°♄40'36		inferior conj	2684 Nov 05 06:57	13°♄25'17	0°-45'-57
transit end	2683 Nov 22 05:37	29°♄26'38		minimum elong	2684 Nov 05 08:09	13°♄21'29	0°45'27
morning rise	2683 Nov 27 15:57	23°♄28'30		asc. node	2684 Nov 07 12:28	10°♄42'03	
direct	2683 Dec 01 07:46	22°♄11'34		morning rise	2684 Nov 11 01:47	7°♄29'46	
morning max el	2683 Dec 08 22:59	26°♄32'57	20°04'04	direct	2684 Nov 14 06:26	6°♄31'04	
	2683 Dec 12 01:26	0°♄		morning max el	2684 Nov 21 05:31	10°♄24'10	19°05'56
greatest brilliancy	2683 Dec 15 23:15	5°♄02'03	-0.6m		2684 Dec 05 12:46	0°♄	
desc. node	2683 Dec 29 11:58	24°♄48'10		morning set	2684 Dec 13 23:27	13°♄06'18	
	2684 Jan 01 21:43	0°♄		desc. node	2684 Dec 15 08:59	15°♄17'03	
morning set	2684 Jan 04 18:51	4°♄25'57			2684 Dec 24 18:54	0°♄	
max. Earth dist.	2684 Jan 15 16:46	21°♄33'39	1.43893 AU	max. Earth dist.	2684 Dec 28 08:31	5°♄36'22	1.44901 AU
	2684 Jan 20 22:09	0°♄					
				superior conj	2684 Dec 30 17:11	9°♄20'00	-1°-32'-2
superior conj	2684 Jan 21 04:37	0°♄26'24	-1°-58'-32	minimum elong	2684 Dec 30 08:13	8°♄44'34	1°31'11
minimum elong	2684 Jan 20 23:25	0°♄05'12	1°58'18		2685 Jan 12 13:59	0°♄	
evening rise	2684 Feb 03 06:07	22°♄25'36		evening rise	2685 Jan 14 14:35	3°♄18'46	
	2684 Feb 07 15:37	0°♄			2685 Jan 31 16:00	0°♄	
asc. node	2684 Feb 17 14:44	15°♄52'23		asc. node	2685 Feb 03 11:46	3°♄17'38	
evening max el	2684 Feb 21 02:17	20°♄00'40	18°11'25	evening max el	2685 Feb 03 14:20	3°♄24'10	18°33'08
retrograde	2684 Feb 27 12:58	23°♄25'19		retrograde	2685 Feb 10 03:54	7°♄01'16	
evening set	2684 Mar 01 08:45	22°♄44'18		evening set	2685 Feb 13 05:18	6°♄08'52	
inferior conj	2684 Mar 07 13:49	17°♄27'34	3°40'12	inferior conj	2685 Feb 19 01:47	0°♄33'13	3°37'37
minimum elong	2684 Mar 07 14:19	17°♄26'13	3°40'10	minimum elong	2685 Feb 19 00:41	0°♄36'29	3°37'31
min. Earth dist.	2684 Mar 10 06:31	14°♄34'32	0.62918 AU		2685 Feb 19 12:55	30°♄	
morning rise	2684 Mar 13 17:48	11°♄24'21		min. Earth dist.	2685 Feb 21 02:55	28°♄07'34	0.64698 AU
direct	2684 Mar 20 16:01	8°♄45'39		morning rise	2685 Feb 24 18:45	24°♄23'03	
desc. node	2684 Mar 26 11:10	10°♄21'08		direct	2685 Mar 03 13:00	21°♄33'24	
morning max el	2684 Apr 03 14:42	16°♄42'22	27°47'46	desc. node	2685 Mar 13 08:12	26°♄02'28	
	2684 Apr 14 14:44	0°♄		morning max el	2685 Mar 17 00:05	29°♄23'43	27°17'04
	2684 May 02 22:31	0°♄			2685 Mar 17 14:20	0°♄	
morning set	2684 May 07 17:54	9°♄22'01			2685 Apr 08 12:10	0°♄	
max. Earth dist.	2684 May 13 04:27	20°♄39'37	1.32734 AU	morning set	2685 Apr 21 09:12	23°♄05'13	
					2685 Apr 24 20:38	0°♄	
superior conj	2684 May 15 10:02	25°♄27'24	0°-1'-45	max. Earth dist.	2685 Apr 26 02:51	2°♄34'11	1.33675 AU
minimum elong	2684 May 15 10:07	25°♄27'52	0°01'45				
behind sun begin	2684 May 15 04:55	24°♄59'44		superior conj	2685 Apr 29 14:12	9°♄48'39	0°-29'-42
behind sun end	2684 May 15 15:19	25°♄56'02		minimum elong	2685 Apr 29 15:42	9°♄56'37	0°29'24
asc. node	2684 May 15 14:03	25°♄49'07		asc. node	2685 May 02 11:05	15°♄54'41	
	2684 May 17 12:19	0°♄		evening rise	2685 May 06 21:49	25°♄21'25	
evening rise	2684 May 22 10:47	10°♄38'26			2685 May 09 03:37	0°♄	
	2684 Jun 01 09:39	0°♄		evening max el	2685 May 27 19:01	29°♄07'34	22°02'54
evening max el	2684 Jun 15 02:47	18°♄37'56	23°38'36		2685 May 28 17:21	0°♄	
desc. node	2684 Jun 22 10:26	23°♄57'27		desc. node	2685 Jun 09 07:28	5°♄24'47	
retrograde	2684 Jun 28 18:41	25°♄28'42		retrograde	2685 Jun 09 12:32	5°♄24'53	
evening set	2684 Jul 02 21:53	24°♄51'14		evening set	2685 Jun 12 07:32	5°♄07'33	
min. Earth dist.	2684 Jul 09 13:03	21°♄44'34	0.56007 AU	min. Earth dist.	2685 Jun 21 00:08	1°♄24'07	0.55034 AU

inferior conj	2685 Jun 21 15:31	1°☿02'33	-3°-23'-6	desc. node	2686 May 27 04:29	14°♊05'50	
minimum elong	2685 Jun 21 07:27	1°☿13'51	3°20'48	inferior conj	2686 Jun 01 09:19	11°♊22'19	-1°-31'-10
	2685 Jun 23 12:39	30°♊11		minimum elong	2686 Jun 01 05:01	11°♊28'31	1°29'38
morning rise	2685 Jun 30 09:06	27°♊10'50		min. Earth dist.	2686 Jun 02 12:26	10°♊43'19	0.54976 AU
direct	2685 Jul 03 11:56	26°♊49'15		morning rise	2686 Jun 10 05:02	7°♊14'29	
	2685 Jul 12 11:24	0°☿		direct	2686 Jun 13 21:33	6°♊45'12	
morning max el	2685 Jul 15 08:57	2°☿22'16	21°31'49	morning max el	2686 Jun 27 03:58	13°♊09'21	23°11'02
asc. node	2685 Jul 29 10:19	22°☿14'14			2686 Jul 09 23:02	0°☿	
	2685 Aug 02 10:27	0°♊		asc. node	2686 Jul 16 07:22	11°☿38'30	
morning set	2685 Aug 04 18:10	4°♊45'08		morning set	2686 Jul 20 05:18	19°☿38'49	
					2686 Jul 25 01:32	0°♊	
superior conj	2685 Aug 12 02:33	20°♊10'46	1°42'23	superior conj	2686 Jul 27 07:56	4°♊52'23	1°33'22
minimum elong	2685 Aug 12 01:22	20°♊04'35	1°42'20	minimum elong	2686 Jul 27 05:54	4°♊41'26	1°33'09
max. Earth dist.	2685 Aug 16 02:03	28°♊20'06	1.35047 AU	max. Earth dist.	2686 Jul 29 22:58	10°♊26'56	1.33711 AU
	2685 Aug 16 22:01	0°♊		evening rise	2686 Aug 04 00:28	20°♊48'41	
evening rise	2685 Aug 20 11:28	6°♊56'43			2686 Aug 08 19:23	0°♊	
	2685 Sep 02 16:31	0°♊		desc. node	2686 Aug 23 03:50	23°♊45'32	
desc. node	2685 Sep 05 06:47	4°♊02'24			2686 Aug 27 15:01	0°♊	
evening max el	2685 Sep 24 17:35	28°♊52'04	26°44'35	evening max el	2686 Sep 07 05:28	12°♊15'52	27°18'55
	2685 Sep 25 22:40	0°♊		retrograde	2686 Sep 20 16:53	19°♊34'28	
retrograde	2685 Oct 07 18:10	6°♊06'56		evening set	2686 Sep 27 17:36	16°♊52'41	
evening set	2685 Oct 14 08:56	3°♊26'45		min. Earth dist.	2686 Oct 01 12:14	13°♊22'25	0.64522 AU
	2685 Oct 17 20:18	30°♊11		inferior conj	2686 Oct 03 19:44	10°♊52'57	-2°-44'-13
min. Earth dist.	2685 Oct 18 10:02	29°♊20'38	0.65883 AU	minimum elong	2686 Oct 04 00:10	10°♊41'00	2°42'39
inferior conj	2685 Oct 20 05:03	27°♊13'50	-1°-44'-56	morning rise	2686 Oct 10 08:46	5°♊24'08	
minimum elong	2685 Oct 20 07:54	27°♊05'26	1°43'48	asc. node	2686 Oct 12 06:34	4°♊52'49	
asc. node	2685 Oct 25 09:31	22°♊04'16		direct	2686 Oct 12 21:49	4°♊50'43	
morning rise	2685 Oct 26 08:17	21°♊30'08		morning max el	2686 Oct 19 09:54	8°♊17'34	17°58'40
direct	2685 Oct 29 03:56	20°♊45'58			2686 Nov 03 00:59	0°♊	
morning max el	2685 Nov 04 18:04	24°♊21'19	18°23'52	morning set	2686 Nov 05 18:22	4°♊35'52	
	2685 Nov 09 09:59	0°♊					
morning set	2685 Nov 24 06:33	23°♊09'01		superior conj	2686 Nov 19 06:45	26°♊55'38	0°-1'-2
	2685 Nov 28 12:48	0°♊		minimum elong	2686 Nov 19 06:38	26°♊55'08	0°01'02
desc. node	2685 Dec 02 06:01	5°♊55'58		behind sun begin	2686 Nov 18 20:17	26°♊13'26	
				behind sun end	2686 Nov 19 16:59	27°♊36'45	
superior conj	2685 Dec 09 18:48	17°♊50'06	0°-49'-19	desc. node	2686 Nov 19 03:04	26°♊40'47	
minimum elong	2685 Dec 09 12:33	17°♊25'29	0°48'31		2686 Nov 21 04:46	0°♊	
max. Earth dist.	2685 Dec 11 03:37	19°♊58'58	1.45185 AU	max. Earth dist.	2686 Nov 23 22:21	4°♊20'38	1.44728 AU
	2685 Dec 17 12:57	0°♊		evening rise	2686 Dec 05 14:25	22°♊32'10	
evening rise	2685 Dec 25 23:53	13°♊16'34			2686 Dec 10 11:11	0°♊	
	2686 Jan 05 16:02	0°♊		greatest brilliancy	2686 Dec 25 11:33	22°♊10'23	-0.6m
greatest brilliancy	2686 Jan 08 04:25	3°♊50'24	-0.7m		2686 Dec 31 19:27	0°♊	
evening max el	2686 Jan 17 23:29	16°♊52'21	19°12'14	evening max el	2687 Jan 01 03:59	0°♊22'14	20°07'01
asc. node	2686 Jan 21 08:49	19°♊42'28		asc. node	2687 Jan 08 05:51	4°♊51'44	
retrograde	2686 Jan 24 23:45	20°♊52'37		retrograde	2687 Jan 08 21:37	4°♊54'07	
evening set	2686 Jan 28 07:44	19°♊47'50		evening set	2687 Jan 12 13:41	3°♊35'39	
inferior conj	2686 Feb 02 22:28	13°♊55'38	3°20'28		2687 Jan 16 03:06	30°♊11	
minimum elong	2686 Feb 02 20:21	14°♊02'25	3°20'07	inferior conj	2687 Jan 18 00:58	27°♊29'46	2°52'16
min. Earth dist.	2686 Feb 04 08:22	12°♊07'08	0.66091 AU	minimum elong	2687 Jan 17 22:25	27°♊38'21	2°51'38
morning rise	2686 Feb 08 08:06	7°♊41'36		min. Earth dist.	2687 Jan 18 21:04	26°♊22'08	0.67079 AU
direct	2686 Feb 14 16:26	4°♊54'32		morning rise	2687 Jan 23 06:34	21°♊14'15	
morning max el	2686 Feb 27 09:58	12°♊26'52	26°17'39	direct	2687 Jan 29 01:34	18°♊40'12	
desc. node	2686 Feb 28 05:14	13°♊16'17		morning max el	2687 Feb 09 18:44	25°♊39'59	24°58'46
	2686 Mar 13 12:52	0°♊			2687 Feb 13 17:57	0°♊	
	2686 Apr 01 03:51	0°♊		desc. node	2687 Feb 15 02:16	1°♊35'51	
morning set	2686 Apr 04 12:03	6°♊07'35			2687 Mar 07 01:49	0°♊	
max. Earth dist.	2686 Apr 08 14:00	13°♊56'07	1.35072 AU	morning set	2687 Mar 17 21:26	18°♊14'46	
				max. Earth dist.	2687 Mar 21 13:58	24°♊56'40	1.36893 AU
superior conj	2686 Apr 13 11:34	23°♊44'43	0°-58'-2		2687 Mar 24 06:40	0°♊	
minimum elong	2686 Apr 13 14:33	24°♊00'01	0°57'30	superior conj	2687 Mar 27 23:09	7°♊07'30	-1°-24'-55
	2686 Apr 16 12:19	0°♊		minimum elong	2687 Mar 28 03:18	7°♊27'54	1°24'20
asc. node	2686 Apr 19 08:08	5°♊52'50		evening rise	2687 Apr 05 09:10	23°♊58'52	
evening rise	2686 Apr 21 06:02	9°♊50'31		asc. node	2687 Apr 06 05:11	25°♊38'58	
	2686 May 02 01:00	0°♊			2687 Apr 08 10:04	0°♊	
evening max el	2686 May 09 20:47	10°♊03'06	20°37'49	evening max el	2687 Apr 22 10:35	21°♊38'36	19°30'21
retrograde	2686 May 21 01:42	15°♊30'30					
evening set	2686 May 23 03:44	15°♊19'55					

retrograde	2687 May 01 21:59	26°♄13'49		evening max el	2688 Apr 04 10:50	3°♄52'19	18°42'40
evening set	2687 May 03 22:21	26°♄02'16		retrograde	2688 Apr 12 11:07	7°♄47'08	
inferior conj	2687 May 12 13:00	21°♄57'07	0°26'23	evening set	2688 Apr 14 16:37	7°♄30'04	
minimum elong	2687 May 12 14:08	21°♄55'18	0°25'59	inferior conj	2688 Apr 22 11:58	3°♄07'04	2°00'49
desc. node	2687 May 14 01:29	20°♄58'23		minimum elong	2688 Apr 22 15:44	3°♄00'01	1°59'43
min. Earth dist.	2687 May 15 02:51	20°♄18'12	0.55866 AU	min. Earth dist.	2688 Apr 25 19:59	0°♄38'42	0.57523 AU
morning rise	2687 May 21 02:06	17°♄17'30			2688 Apr 26 18:19	30°♄	
direct	2687 May 25 16:32	16°♄29'39		desc. node	2688 Apr 29 22:30	28°♄07'45	
morning max el	2687 Jun 08 18:24	23°♄36'02	24°52'50	morning rise	2688 Apr 30 10:28	27°♄53'38	
	2687 Jun 14 13:08	0°♄		direct	2688 May 06 01:36	26°♄35'21	
	2687 Jul 02 12:22	0°♄			2688 May 15 11:10	0°♄	
asc. node	2687 Jul 03 04:25	1°♄22'35		morning max el	2688 May 20 10:07	4°♄08'29	26°21'55
morning set	2687 Jul 04 17:10	4°♄34'41			2688 Jun 08 03:33	0°♄	
				morning set	2688 Jun 18 04:03	19°♄26'11	
superior conj	2687 Jul 11 17:22	19°♄45'29	1°19'13	asc. node	2688 Jun 19 01:28	21°♄19'35	
minimum elong	2687 Jul 11 15:00	19°♄32'31	1°18'52		2688 Jun 23 01:31	0°♄	
max. Earth dist.	2687 Jul 13 04:03	22°♄54'05	1.32785 AU				
	2687 Jul 16 11:38	0°♄		superior conj	2688 Jun 25 04:47	4°♄42'05	1°00'45
evening rise	2687 Jul 18 23:07	5°♄09'04		minimum elong	2688 Jun 25 02:34	4°♄29'51	1°00'20
	2687 Aug 01 10:42	0°♄		max. Earth dist.	2688 Jun 25 14:29	5°♄35'28	1.32261 AU
desc. node	2687 Aug 10 00:50	12°♄52'33		evening rise	2688 Jul 02 04:18	19°♄47'12	
evening max el	2687 Aug 20 15:14	25°♄14'29	27°24'36		2688 Jul 07 05:59	0°♄	
	2687 Aug 26 15:55	0°♄			2688 Jul 25 23:57	0°♄	
retrograde	2687 Sep 03 09:20	2°♄31'12		desc. node	2688 Jul 26 21:50	1°♄07'32	
evening set	2687 Sep 10 14:06	29°♄59'18		evening max el	2688 Aug 01 20:20	7°♄34'28	26°57'33
	2687 Sep 10 13:42	30°♄		retrograde	2688 Aug 15 18:15	14°♄47'10	
min. Earth dist.	2687 Sep 14 04:42	26°♄59'46	0.62829 AU	evening set	2688 Aug 22 18:05	12°♄38'14	
inferior conj	2687 Sep 17 00:16	24°♄16'40	-3°-40'-26	min. Earth dist.	2688 Aug 26 10:35	9°♄58'46	0.60872 AU
minimum elong	2687 Sep 17 05:44	24°♄03'26	3°38'53	inferior conj	2688 Aug 29 15:18	7°♄15'55	-4°-28'-7
morning rise	2687 Sep 24 00:00	19°♄05'54		minimum elong	2688 Aug 29 20:27	7°♄04'57	4°27'09
direct	2687 Sep 26 09:14	18°♄39'41		morning rise	2688 Sep 06 01:55	2°♄26'20	
asc. node	2687 Sep 29 03:36	19°♄15'51		direct	2688 Sep 08 10:23	2°♄04'23	
morning max el	2687 Oct 03 02:04	22°♄06'10	17°51'07	asc. node	2688 Sep 15 00:39	5°♄04'10	
	2687 Oct 09 04:02	0°♄		morning max el	2688 Sep 15 15:27	5°♄38'45	18°02'26
morning set	2687 Oct 19 05:36	17°♄10'16		morning set	2688 Oct 01 09:58	0°♄33'32	
	2687 Oct 26 13:13	0°♄			2688 Oct 01 02:44	0°♄	
superior conj	2687 Oct 30 19:17	7°♄14'27	0°41'45	superior conj	2688 Oct 11 10:22	18°♄50'55	1°13'33
minimum elong	2687 Oct 30 23:04	7°♄30'18	0°41'13	minimum elong	2688 Oct 11 14:42	19°♄10'03	1°13'02
desc. node	2687 Nov 06 00:08	17°♄28'18			2688 Oct 17 21:19	0°♄	
max. Earth dist.	2687 Nov 06 14:03	18°♄24'34	1.43599 AU	max. Earth dist.	2688 Oct 19 01:15	1°♄56'59	1.41933 AU
	2687 Nov 13 21:39	0°♄		desc. node	2688 Oct 22 21:09	8°♄14'46	
evening rise	2687 Nov 14 23:22	1°♄39'49		evening rise	2688 Oct 24 19:24	11°♄20'51	
	2687 Dec 04 01:30	0°♄			2688 Nov 05 23:07	0°♄	
greatest brilliancy	2687 Dec 09 23:48	7°♄56'50	-0.4m	greatest brilliancy	2688 Nov 22 01:34	22°♄03'41	-0.3m
evening max el	2687 Dec 15 03:02	13°♄53'37	21°14'43	evening max el	2688 Nov 26 20:52	27°♄26'57	22°31'19
retrograde	2687 Dec 23 19:15	19°♄02'32			2688 Nov 29 15:07	0°♄	
asc. node	2687 Dec 26 02:52	18°♄32'54		retrograde	2688 Dec 06 14:58	3°♄14'41	
evening set	2687 Dec 27 21:17	17°♄28'52		evening set	2688 Dec 11 04:50	1°♄24'29	
inferior conj	2688 Jan 02 06:59	11°♄12'32	2°15'22	asc. node	2688 Dec 11 23:52	0°♄42'24	
minimum elong	2688 Jan 02 04:31	11°♄21'03	2°14'33		2688 Dec 12 16:42	30°♄	
min. Earth dist.	2688 Jan 02 14:45	10°♄45'44	0.67673 AU	inferior conj	2688 Dec 16 14:30	25°♄01'15	1°31'22
morning rise	2688 Jan 07 11:23	4°♄57'34		minimum elong	2688 Dec 16 12:34	25°♄07'54	1°30'37
direct	2688 Jan 12 15:33	2°♄43'20		min. Earth dist.	2688 Dec 16 11:00	25°♄13'21	0.67894 AU
morning max el	2688 Jan 23 03:19	8°♄58'04	23°30'51	morning rise	2688 Dec 21 20:12	18°♄48'53	
desc. node	2688 Feb 01 23:18	20°♄42'31		direct	2688 Dec 26 09:24	16°♄57'28	
	2688 Feb 08 15:55	0°♄		morning max el	2689 Jan 04 15:11	22°♄23'18	22°03'33
morning set	2688 Feb 27 07:12	29°♄10'13		greatest brilliancy	2689 Jan 09 06:47	27°♄36'33	-0.4m
	2688 Feb 27 18:57	0°♄			2689 Jan 11 04:44	0°♄	
max. Earth dist.	2688 Mar 02 08:40	6°♄09'52	1.39009 AU	desc. node	2689 Jan 18 20:21	10°♄22'56	
					2689 Feb 01 00:09	0°♄	
superior conj	2688 Mar 09 21:10	19°♄47'28	-1°-47'-42	morning set	2689 Feb 06 12:20	8°♄42'53	
minimum elong	2688 Mar 10 01:31	20°♄07'49	1°47'19	max. Earth dist.	2689 Feb 12 06:38	18°♄10'47	1.41154 AU
	2688 Mar 15 05:50	0°♄			2689 Feb 19 03:45	0°♄	
evening rise	2688 Mar 19 04:31	7°♄39'17					
asc. node	2688 Mar 23 02:12	15°♄07'50		superior conj	2689 Feb 20 00:49	1°♄33'07	-2°-2'-40
	2688 Apr 01 02:09	0°♄		minimum elong	2689 Feb 20 03:25	1°♄44'40	2°02'35

evening rise	2689 Mar 02 12:46	20° Υ 44'13		asc. node	2690 Feb 24 20:15	22° Υ 48'29	
	2689 Mar 07 13:36	0° Υ		evening max el	2690 Mar 02 05:59	29° Υ 41'59	18°07'11
asc. node	2689 Mar 09 23:13	4° Υ 13'45			2690 Mar 02 13:24	0° Υ	
evening max el	2689 Mar 18 18:25	16° Υ 36'45	18°15'04	retrograde	2690 Mar 08 19:07	3° Υ 05'23	
retrograde	2689 Mar 25 19:20	20° Υ 08'00		evening set	2690 Mar 11 11:47	2° Υ 30'30	
evening set	2689 Mar 28 06:43	19° Υ 42'44			2690 Mar 15 06:07	30° Υ	
inferior conj	2689 Apr 04 08:19	14° Υ 58'20	3°02'01	inferior conj	2690 Mar 17 23:15	27° Υ 25'02	3°33'11
minimum elong	2689 Apr 04 11:41	14° Υ 50'58	3°01'21	minimum elong	2690 Mar 18 00:51	27° Υ 21'01	3°33'02
min. Earth dist.	2689 Apr 07 18:00	12° Υ 01'17	0.59603 AU	min. Earth dist.	2690 Mar 20 23:46	24° Υ 24'01	0.61755 AU
morning rise	2689 Apr 11 12:58	9° Υ 18'17		morning rise	2690 Mar 24 11:16	21° Υ 27'47	
desc. node	2689 Apr 16 19:31	7° Υ 27'58		direct	2690 Mar 31 07:46	19° Υ 02'15	
direct	2689 Apr 17 23:25	7° Υ 24'16		desc. node	2690 Apr 03 16:33	19° Υ 34'20	
morning max el	2689 May 02 07:31	15° Υ 12'27	27°23'46	morning max el	2690 Apr 14 11:19	26° Υ 58'20	27°49'49
	2689 May 14 07:04	0° Υ			2690 Apr 17 08:05	0° Υ	
	2689 May 31 11:59	0° Υ			2690 May 07 21:58	0° Υ	
morning set	2689 Jun 02 12:18	4° Υ 08'05		morning set	2690 May 17 15:59	18° Υ 33'49	
asc. node	2689 Jun 05 22:31	11° Υ 24'43			2690 May 23 02:19	0° Υ	
max. Earth dist.	2689 Jun 09 02:39	18° Υ 20'21	1.32132 AU	max. Earth dist.	2690 May 23 12:33	0° Υ 55'18	1.32394 AU
				asc. node	2690 May 23 19:34	1° Υ 33'22	
superior conj	2689 Jun 09 16:28	19° Υ 36'26	0°38'39				
minimum elong	2689 Jun 09 14:51	19° Υ 27'30	0°38'20	superior conj	2690 May 25 02:42	4° Υ 22'46	0°13'39
	2689 Jun 14 10:16	0° Υ		minimum elong	2690 May 25 02:04	4° Υ 19'19	0°13'32
evening rise	2689 Jun 16 13:41	4° Υ 35'24		behind sun begin	2690 May 24 23:22	4° Υ 04'34	
	2689 Jun 30 01:36	0° Υ		behind sun end	2690 May 25 04:47	4° Υ 34'04	
desc. node	2689 Jul 13 18:50	18° Υ 09'07		evening rise	2690 Jun 01 01:12	19° Υ 26'34	
evening max el	2689 Jul 14 18:22	19° Υ 06'43	25°58'01		2690 Jun 06 05:03	0° Υ	
retrograde	2689 Jul 28 18:04	26° Υ 15'49			2690 Jun 26 11:37	0° Υ	
evening set	2689 Aug 04 00:46	24° Υ 41'10		evening max el	2690 Jun 26 09:38	29° Υ 55'14	24°33'20
min. Earth dist.	2689 Aug 08 06:48	22° Υ 05'12	0.58805 AU	desc. node	2690 Jun 30 15:50	3° Υ 28'18	
inferior conj	2689 Aug 11 13:16	19° Υ 40'44	-4°-58'-14	retrograde	2690 Jul 10 07:19	6° Υ 57'14	
minimum elong	2689 Aug 11 15:43	19° Υ 36'12	4°58'05	evening set	2690 Jul 15 07:32	6° Υ 00'50	
morning rise	2689 Aug 19 10:08	15° Υ 14'38		min. Earth dist.	2690 Jul 20 20:40	3° Υ 09'37	0.56890 AU
direct	2689 Aug 21 20:52	14° Υ 54'48		inferior conj	2690 Jul 23 15:22	1° Υ 22'38	-4°-57'-31
morning max el	2689 Aug 29 22:54	18° Υ 46'42	18°33'58	minimum elong	2690 Jul 23 12:35	1° Υ 27'08	4°57'20
asc. node	2689 Sep 01 21:42	22° Υ 03'15			2690 Jul 25 20:01	30° Υ	
	2689 Sep 07 05:35	0° Υ		morning rise	2690 Jul 31 21:20	27° Υ 18'19	
morning set	2689 Sep 15 02:28	14° Υ 31'39		direct	2690 Aug 03 12:35	26° Υ 59'15	
	2689 Sep 23 03:49	0° Υ			2690 Aug 11 07:32	0° Υ	
				morning max el	2690 Aug 12 21:23	1° Υ 21'06	19°26'50
superior conj	2689 Sep 23 23:40	1° Υ 32'59	1°33'40	asc. node	2690 Aug 19 18:47	9° Υ 58'22	
minimum elong	2689 Sep 24 02:40	1° Υ 46'59	1°33'27	morning set	2690 Aug 30 03:25	28° Υ 54'41	
max. Earth dist.	2689 Oct 01 07:33	14° Υ 47'28	1.39938 AU		2690 Aug 30 16:28	0° Υ	
evening rise	2689 Oct 05 13:13	22° Υ 02'03					
desc. node	2689 Oct 09 18:10	28° Υ 56'43		superior conj	2690 Sep 07 05:40	15° Υ 05'07	1°43'31
	2689 Oct 10 09:55	0° Υ		minimum elong	2690 Sep 07 06:50	15° Υ 10'51	1°43'29
	2689 Oct 30 23:52	0° Υ		max. Earth dist.	2690 Sep 13 11:31	26° Υ 58'05	1.37870 AU
evening max el	2689 Nov 09 10:48	11° Υ 02'51	23°51'17		2690 Sep 15 03:22	0° Υ	
retrograde	2689 Nov 20 07:30	17° Υ 26'46		evening rise	2690 Sep 17 06:47	3° Υ 49'42	
evening set	2689 Nov 25 10:44	15° Υ 19'33		desc. node	2690 Sep 26 15:11	19° Υ 30'19	
asc. node	2689 Nov 28 20:55	11° Υ 36'19			2690 Oct 03 11:36	0° Υ	
inferior conj	2689 Nov 30 21:42	8° Υ 53'19	0°41'31	evening max el	2690 Oct 22 22:59	24° Υ 42'31	25°08'03
minimum elong	2689 Nov 30 20:44	8° Υ 56'37	0°41'06		2690 Oct 29 14:41	0° Υ	
min. Earth dist.	2689 Nov 30 07:30	9° Υ 41'35	0.67768 AU	retrograde	2690 Nov 03 19:59	1° Υ 35'02	
morning rise	2689 Dec 06 06:57	2° Υ 45'38			2690 Nov 08 12:30	30° Υ	
direct	2689 Dec 10 06:05	1° Υ 16'53		evening set	2690 Nov 09 13:22	29° Υ 12'01	
morning max el	2689 Dec 18 09:39	5° Υ 58'54	20°44'10	min. Earth dist.	2690 Nov 14 01:58	24° Υ 08'34	0.67303 AU
greatest brilliancy	2689 Dec 24 05:41	12° Υ 47'44	-0.5m	inferior conj	2690 Nov 15 02:54	22° Υ 47'06	0°-12'-57
	2690 Jan 05 10:05	0° Υ		minimum elong	2690 Nov 15 03:13	22° Υ 46'02	0°12'50
desc. node	2690 Jan 05 17:23	0° Υ 27'07		transit middle	2690 Nov 15 03:13	22° Υ 46'02	0°12'50
morning set	2690 Jan 16 15:50	17° Υ 06'15		transit begin	2690 Nov 15 01:31	22° Υ 51'34	
	2690 Jan 24 19:12	0° Υ		transit end	2690 Nov 15 04:55	22° Υ 40'29	
max. Earth dist.	2690 Jan 25 11:50	1° Υ 07'17	1.43033 AU	asc. node	2690 Nov 15 17:58	21° Υ 58'03	
				morning rise	2690 Nov 20 17:42	16° Υ 46'25	
superior conj	2690 Feb 01 04:49	12° Υ 11'17	-2°-4'-58	direct	2690 Nov 24 04:26	15° Υ 37'53	
minimum elong	2690 Feb 01 02:58	12° Υ 03'31	2°04'56	morning max el	2690 Dec 01 12:03	19° Υ 46'02	19°37'29
	2690 Feb 11 12:14	0° Υ		greatest brilliancy	2690 Dec 09 16:38	29° Υ 59'55	-0.6m
evening rise	2690 Feb 13 05:46	3° Υ 03'52			2690 Dec 09 16:39	0° Υ	

desc. node	2690 Dec 23 14:26	20°♄48'54		morning max el	2691 Nov 14 21:25	3°♄40'35	18°46'00
morning set	2690 Dec 26 12:36	25°♄19'23			2691 Dec 03 06:22	0°♄	
	2690 Dec 29 13:03	0°♄		morning set	2691 Dec 06 03:14	4°♄31'46	
max. Earth dist.	2691 Jan 07 23:59	14°♄49'28	1.44406 AU	desc. node	2691 Dec 10 11:29	11°♄22'44	
				max. Earth dist.	2691 Dec 21 16:58	29°♄01'02	1.45113 AU
superior conj	2691 Jan 12 06:38	21°♄39'10	-1°-49'-39		2691 Dec 22 07:59	0°♄	
minimum elong	2691 Jan 11 23:16	21°♄09'32	1°49'09				
	2691 Jan 17 10:04	0°♄		superior conj	2691 Dec 22 12:18	0°♄16'56	-1°-15'-25
evening rise	2691 Jan 26 03:14	14°♄30'32		minimum elong	2691 Dec 22 03:40	29°♄43'00	1°14'27
	2691 Feb 04 09:32	0°♄		evening rise	2692 Jan 07 01:46	24°♄59'33	
asc. node	2691 Feb 11 17:17	10°♄42'38			2692 Jan 10 04:23	0°♄	
evening max el	2691 Feb 13 18:37	13°♄00'47	18°18'22	evening max el	2692 Jan 28 05:43	26°♄27'22	18°47'44
retrograde	2691 Feb 20 05:41	16°♄29'38		asc. node	2692 Jan 29 14:18	27°♄44'23	
evening set	2691 Feb 23 03:39	15°♄44'03			2692 Feb 02 10:17	0°♄	
inferior conj	2691 Mar 01 04:42	10°♄19'03	3°41'06	retrograde	2692 Feb 03 23:02	0°♄13'04	
minimum elong	2691 Mar 01 04:28	10°♄19'44	3°41'06		2692 Feb 05 11:16	30°♄	
min. Earth dist.	2691 Mar 03 14:56	7°♄35'42	0.63720 AU	evening set	2692 Feb 07 03:00	29°♄15'42	
morning rise	2691 Mar 07 03:30	4°♄12'02		inferior conj	2692 Feb 12 20:47	23°♄32'59	3°31'50
direct	2691 Mar 14 00:48	1°♄26'46		minimum elong	2692 Feb 12 19:10	23°♄37'55	3°31'40
desc. node	2691 Mar 21 13:36	4°♄07'27		min. Earth dist.	2692 Feb 14 15:26	21°♄22'01	0.65345 AU
morning max el	2691 Mar 27 19:31	9°♄22'53	27°38'36	morning rise	2692 Feb 18 10:12	17°♄20'50	
	2691 Apr 12 21:19	0°♄		direct	2692 Feb 25 00:56	14°♄30'24	
	2691 Apr 30 05:05	0°♄		desc. node	2692 Mar 07 10:39	20°♄32'13	
morning set	2691 May 01 12:42	2°♄35'40		morning max el	2692 Mar 09 05:17	22°♄15'10	26°54'39
max. Earth dist.	2691 May 06 16:06	13°♄07'05	1.33076 AU		2692 Mar 16 00:47	0°♄	
					2692 Apr 05 02:48	0°♄	
superior conj	2691 May 09 09:42	18°♄55'18	0°-13'-30	morning set	2692 Apr 13 23:16	16°♄03'52	
minimum elong	2691 May 09 10:22	18°♄58'53	0°13'22	max. Earth dist.	2692 Apr 18 09:41	24°♄46'50	1.34210 AU
behind sun begin	2691 May 09 07:26	18°♄43'11			2692 Apr 20 23:08	0°♄	
behind sun end	2691 May 09 13:18	19°♄14'36					
asc. node	2691 May 10 16:37	21°♄41'25		superior conj	2692 Apr 22 11:20	3°♄07'42	0°-41'-46
	2691 May 14 13:10	0°♄		minimum elong	2692 Apr 22 13:29	3°♄18'53	0°41'21
evening rise	2691 May 16 12:56	4°♄14'24		asc. node	2692 Apr 26 13:39	11°♄44'54	
	2691 May 30 13:04	0°♄		evening rise	2692 Apr 29 23:03	18°♄52'51	
evening max el	2691 Jun 07 23:20	10°♄22'52	22°57'17		2692 May 05 12:02	0°♄	
desc. node	2691 Jun 17 12:51	16°♄29'31		evening max el	2692 May 19 19:14	21°♄02'09	21°24'56
retrograde	2691 Jun 21 08:13	17°♄02'36		retrograde	2692 May 31 22:35	26°♄59'03	
evening set	2691 Jun 24 20:06	16°♄35'49		evening set	2692 Jun 03 08:01	26°♄45'58	
min. Earth dist.	2691 Jul 02 08:16	13°♄14'54	0.55480 AU	desc. node	2692 Jun 03 09:52	26°♄45'08	
inferior conj	2691 Jul 03 22:11	12°♄20'04	-4°-11'-46	inferior conj	2692 Jun 12 17:01	22°♄46'32	-2°-38'-40
minimum elong	2691 Jul 03 14:38	12°♄31'01	4°10'09	minimum elong	2692 Jun 12 09:57	22°♄56'25	2°36'22
morning rise	2691 Jul 12 12:02	8°♄28'03		min. Earth dist.	2692 Jun 12 20:04	22°♄42'16	0.54888 AU
direct	2691 Jul 15 09:32	8°♄08'17		morning rise	2692 Jun 21 12:18	18°♄50'06	
morning max el	2691 Jul 26 08:38	13°♄13'17	20°40'49	direct	2692 Jun 24 20:06	18°♄26'03	
asc. node	2691 Aug 06 15:51	28°♄36'07		morning max el	2692 Jul 07 08:38	24°♄21'45	22°12'47
	2691 Aug 07 10:45	0°♄			2692 Jul 12 11:20	0°♄	
morning set	2691 Aug 14 09:58	13°♄34'12		asc. node	2692 Jul 23 12:55	17°♄46'18	
				morning set	2692 Jul 28 19:58	28°♄24'32	
superior conj	2691 Aug 21 23:29	29°♄12'21	1°44'52		2692 Jul 29 14:11	0°♄	
minimum elong	2691 Aug 21 23:01	29°♄10'01	1°44'51				
	2691 Aug 22 08:50	0°♄		superior conj	2692 Aug 05 01:28	13°♄44'03	1°39'15
max. Earth dist.	2691 Aug 26 18:48	8°♄48'46	1.35981 AU	minimum elong	2692 Aug 04 23:51	13°♄35'31	1°39'08
evening rise	2691 Aug 30 20:47	16°♄35'13		max. Earth dist.	2692 Aug 08 10:27	20°♄45'58	1.34431 AU
	2691 Sep 07 10:37	0°♄		evening rise	2692 Aug 13 02:39	0°♄06'45	
desc. node	2691 Sep 13 12:13	9°♄49'49			2692 Aug 13 01:16	0°♄	
	2691 Sep 27 21:48	0°♄		desc. node	2692 Aug 30 09:14	29°♄48'35	
evening max el	2691 Oct 05 11:08	8°♄22'47	26°14'22		2692 Aug 30 12:16	0°♄	
retrograde	2691 Oct 18 03:35	15°♄32'54		evening max el	2692 Sep 16 23:37	21°♄56'28	27°02'26
evening set	2691 Oct 24 10:51	12°♄57'31		retrograde	2692 Sep 30 05:33	29°♄13'30	
min. Earth dist.	2691 Oct 28 16:02	8°♄30'00	0.66497 AU	evening set	2692 Oct 07 00:56	26°♄31'51	
inferior conj	2691 Oct 30 04:10	6°♄38'41	-1°-10'-47	min. Earth dist.	2692 Oct 10 23:15	22°♄40'56	0.65344 AU
minimum elong	2691 Oct 30 06:03	6°♄32'52	1°10'00	inferior conj	2692 Oct 12 23:24	20°♄23'57	-2°-10'-14
asc. node	2691 Nov 02 15:01	2°♄43'25		minimum elong	2692 Oct 13 02:57	20°♄13'50	2°08'51
morning rise	2691 Nov 05 02:22	0°♄47'43		morning rise	2692 Oct 19 06:38	14°♄45'51	
	2691 Nov 07 06:08	30°♄		asc. node	2692 Oct 19 12:05	14°♄39'33	
direct	2691 Nov 08 02:49	29°♄55'47		direct	2692 Oct 21 23:10	14°♄06'38	
	2691 Nov 08 23:41	0°♄		morning max el	2692 Oct 28 11:34	17°♄37'28	18°10'59

	2692 Nov 06 14:38	0°♄		morning rise	2693 Oct 03 03:37	28°♄35'42	
morning set	2692 Nov 15 22:55	15°♄11'45		direct	2693 Oct 05 14:49	28°♄05'35	
	2692 Nov 25 01:27	0°♄		asc. node	2693 Oct 06 09:08	28°♄08'31	
desc. node	2692 Nov 26 08:31	2°♄04'30			2693 Oct 10 10:40	0°♄	
				morning max el	2693 Oct 12 03:52	1°♄31'02	17°53'16
superior conj	2692 Nov 30 15:43	8°♄54'59	0°-28'-46	morning set	2693 Oct 28 21:30	27°♄10'03	
minimum elong	2692 Nov 30 12:02	8°♄40'25	0°28'17		2693 Oct 30 13:01	0°♄	
max. Earth dist.	2692 Dec 03 12:16	13°♄25'23	1.45082 AU				
	2692 Dec 14 02:50	0°♄		superior conj	2693 Nov 10 13:05	18°♄28'55	0°18'17
evening rise	2692 Dec 17 01:57	4°♄36'27		minimum elong	2693 Nov 10 15:03	18°♄37'00	0°17'59
greatest brilliancy	2693 Jan 02 10:36	29°♄35'05	-0.7m	desc. node	2693 Nov 13 05:33	22°♄50'56	
	2693 Jan 02 17:32	0°♄		max. Earth dist.	2693 Nov 16 06:38	27°♄44'03	1.44322 AU
evening max el	2693 Jan 10 13:09	9°♄57'13	19°33'48		2693 Nov 17 16:51	0°♄	
asc. node	2693 Jan 15 11:20	13°♄39'21		evening rise	2693 Nov 26 12:07	13°♄44'12	
retrograde	2693 Jan 17 19:54	14°♄09'34			2693 Dec 07 05:38	0°♄	
evening set	2693 Jan 21 07:11	12°♄59'03		greatest brilliancy	2693 Dec 18 17:48	16°♄25'25	-0.5m
inferior conj	2693 Jan 26 20:13	7°♄00'53	3°09'41	evening max el	2693 Dec 24 15:25	23°♄28'19	20°34'27
minimum elong	2693 Jan 26 17:51	7°♄08'40	3°09'12	retrograde	2694 Jan 01 17:55	28°♄15'12	
min. Earth dist.	2693 Jan 28 00:05	5°♄29'37	0.66567 AU	asc. node	2694 Jan 02 08:22	28°♄13'11	
morning rise	2693 Feb 01 03:47	0°♄46'14		evening set	2694 Jan 05 14:05	26°♄50'13	
	2693 Feb 02 02:02	30°♄		inferior conj	2694 Jan 11 00:28	20°♄39'23	2°37'36
direct	2693 Feb 07 06:53	28°♄03'33		minimum elong	2694 Jan 10 21:54	20°♄48'10	2°36'51
	2693 Feb 13 03:02	0°♄		min. Earth dist.	2694 Jan 11 15:04	19°♄49'36	0.67378 AU
morning max el	2693 Feb 19 14:29	5°♄23'04	25°45'50	morning rise	2694 Jan 16 05:15	14°♄24'06	
desc. node	2693 Feb 22 07:42	8°♄16'56		direct	2694 Jan 21 18:01	11°♄58'09	
	2693 Mar 10 13:35	0°♄		morning max el	2694 Feb 01 23:01	18°♄39'20	24°22'01
morning set	2693 Mar 27 19:20	28°♄44'44		desc. node	2694 Feb 09 04:44	26°♄58'50	
	2693 Mar 28 11:42	0°♄			2694 Feb 11 12:49	0°♄	
max. Earth dist.	2693 Mar 31 15:44	5°♄57'12	1.35805 AU		2694 Mar 03 16:04	0°♄	
				morning set	2694 Mar 09 19:29	10°♄23'48	
superior conj	2693 Apr 06 04:58	16°♄51'14	-1°-9'-44	max. Earth dist.	2694 Mar 13 13:03	17°♄01'24	1.37779 AU
minimum elong	2693 Apr 06 08:31	17°♄09'06	1°09'10				
	2693 Apr 12 15:24	0°♄		superior conj	2694 Mar 20 11:19	29°♄57'34	-1°-35'-15
asc. node	2693 Apr 13 10:40	1°♄38'44		minimum elong	2694 Mar 20 15:43	0°♄18'47	1°34'44
evening rise	2693 Apr 14 05:23	3°♄14'22			2694 Mar 20 11:49	0°♄	
	2693 Apr 29 23:40	0°♄		evening rise	2694 Mar 29 05:37	17°♄12'32	
evening max el	2693 May 02 02:08	2°♄14'22	20°06'42	asc. node	2694 Mar 31 07:41	21°♄18'36	
retrograde	2693 May 12 12:49	7°♄18'25			2694 Apr 04 22:37	0°♄	
evening set	2693 May 14 13:02	7°♄07'59		evening max el	2694 Apr 14 20:37	14°♄06'39	19°07'26
desc. node	2693 May 21 06:54	4°♄28'14		retrograde	2694 Apr 23 15:51	18°♄23'06	
inferior conj	2693 May 23 13:20	3°♄08'52	0°-39'-54	evening set	2694 Apr 25 18:02	18°♄09'38	
minimum elong	2693 May 23 11:28	3°♄11'38	0°39'14	inferior conj	2694 May 04 00:31	13°♄57'12	1°10'20
min. Earth dist.	2693 May 25 08:54	2°♄03'57	0.55253 AU	minimum elong	2694 May 04 03:12	13°♄52'35	1°09'25
	2693 May 29 05:04	30°♄		min. Earth dist.	2694 May 07 00:03	11°♄55'35	0.56503 AU
morning rise	2693 Jun 01 07:28	28°♄49'07		desc. node	2694 May 08 03:55	11°♄11'04	
direct	2693 Jun 05 08:45	28°♄13'23		morning rise	2694 May 12 08:11	9°♄02'45	
	2693 Jun 12 06:43	0°♄		direct	2694 May 17 09:05	8°♄03'31	
morning max el	2693 Jun 19 00:46	4°♄56'26	23°54'50	morning max el	2694 May 31 15:10	15°♄22'29	25°33'15
	2693 Jul 06 15:33	0°♄			2694 Jun 12 08:50	0°♄	
asc. node	2693 Jul 10 09:57	7°♄19'51		asc. node	2694 Jun 27 06:59	27°♄10'08	
morning set	2693 Jul 13 07:36	13°♄19'45		morning set	2694 Jun 27 19:14	28°♄14'37	
					2694 Jun 28 15:06	0°♄	
superior conj	2693 Jul 20 08:49	28°♄31'05	1°27'55				
minimum elong	2693 Jul 20 06:34	28°♄18'56	1°27'39	superior conj	2694 Jul 04 19:18	13°♄26'23	1°11'50
	2693 Jul 21 01:18	0°♄		minimum elong	2694 Jul 04 16:56	13°♄13'24	1°11'28
max. Earth dist.	2693 Jul 22 11:20	3°♄02'30	1.33273 AU	max. Earth dist.	2694 Jul 05 19:13	15°♄37'16	1.32517 AU
evening rise	2693 Jul 27 20:10	14°♄11'55		evening rise	2694 Jul 11 21:54	28°♄40'39	
	2693 Aug 05 04:23	0°♄			2694 Jul 12 13:19	0°♄	
desc. node	2693 Aug 17 06:15	19°♄17'45			2694 Jul 29 09:23	0°♄	
	2693 Aug 25 12:57	0°♄		desc. node	2694 Aug 04 03:15	8°♄04'46	
evening max el	2693 Aug 30 11:03	5°♄11'34	27°25'12	evening max el	2694 Aug 12 18:58	17°♄54'23	27°17'07
retrograde	2693 Sep 13 01:24	12°♄28'52		retrograde	2694 Aug 26 14:37	25°♄09'29	
evening set	2693 Sep 20 04:49	9°♄49'57		evening set	2694 Sep 02 18:50	22°♄45'25	
min. Earth dist.	2693 Sep 23 21:25	6°♄33'40	0.63841 AU	min. Earth dist.	2694 Sep 06 09:07	19°♄56'29	0.62021 AU
inferior conj	2693 Sep 26 10:07	3°♄57'21	-3°-8'-44	inferior conj	2694 Sep 09 09:18	17°♄11'23	-4°-2'-11
minimum elong	2693 Sep 26 15:06	3°♄44'31	3°07'05	minimum elong	2694 Sep 09 14:51	16°♄58'37	4°00'49
	2693 Sep 30 17:07	30°♄		morning rise	2694 Sep 16 13:43	12°♄09'36	

direct	2694 Sep 18 22:18	11° \cap 45'29		min. Earth dist.	2695 Aug 19 10:42	2° \cap 35'34	0.59989 AU
asc. node	2694 Sep 23 06:11	13° \cap 09'26		inferior conj	2695 Aug 22 17:32	29° Ω 57'47	-4°-43'-46
morning max el	2694 Sep 25 19:16	15° \cap 13'55	17°53'39	minimum elong	2695 Aug 22 21:53	29° Ω 49'03	4°43'10
	2694 Oct 06 00:45	0° $\underline{\Omega}$			2695 Aug 22 16:27	30° $\mathbb{R}\Omega$	
morning set	2694 Oct 11 16:41	10° $\underline{\Omega}$ 06'55		morning rise	2695 Aug 30 08:42	25° Ω 18'23	
				direct	2695 Sep 01 17:38	24° Ω 57'42	
superior conj	2694 Oct 22 13:12	29° $\underline{\Omega}$ 21'46	0°56'42	morning max el	2695 Sep 09 06:40	28° Ω 38'20	18°13'19
minimum elong	2694 Oct 22 17:33	29° $\underline{\Omega}$ 40'26	0°56'08	asc. node	2695 Sep 10 03:15	29° Ω 30'27	
	2694 Oct 22 22:07	0° \mathbb{M}			2695 Sep 10 14:07	0° \cap	
max. Earth dist.	2694 Oct 29 20:38	11° \mathbb{M} 36'30	1.42935 AU	morning set	2695 Sep 25 02:46	23° \cap 46'47	
desc. node	2694 Oct 31 02:34	13° \mathbb{M} 38'16			2695 Sep 28 09:46	0° $\underline{\Omega}$	
evening rise	2694 Nov 05 23:49	23° \mathbb{M} 00'44					
	2694 Nov 10 12:12	0° \mathbb{X}		superior conj	2695 Oct 04 14:31	11° $\underline{\Omega}$ 28'44	1°23'26
	2694 Dec 01 11:31	0° \mathbb{Z}		minimum elong	2695 Oct 04 18:24	11° $\underline{\Omega}$ 46'22	1°23'03
greatest brilliancy	2694 Dec 02 16:39	1° \mathbb{Z} 31'20	-0.4m	max. Earth dist.	2695 Oct 12 05:06	24° $\underline{\Omega}$ 49'52	1.41104 AU
evening max el	2694 Dec 07 11:59	6° \mathbb{Z} 59'37	21°46'30		2695 Oct 15 07:08	0° \mathbb{M}	
retrograde	2694 Dec 16 15:01	12° \mathbb{Z} 25'38		evening rise	2695 Oct 17 04:24	3° \mathbb{M} 05'40	
asc. node	2694 Dec 20 05:24	11° \mathbb{Z} 14'58		desc. node	2695 Oct 17 23:35	4° \mathbb{M} 23'32	
evening set	2694 Dec 20 21:52	10° \mathbb{Z} 44'54			2695 Nov 03 20:38	0° \mathbb{X}	
inferior conj	2694 Dec 26 07:21	4° \mathbb{Z} 24'54	1°57'31	greatest brilliancy	2695 Nov 14 08:44	14° \mathbb{X} 01'27	-0.2m
minimum elong	2694 Dec 26 05:03	4° \mathbb{Z} 32'50	1°56'42	evening max el	2695 Nov 20 03:50	20° \mathbb{X} 33'30	23°05'19
min. Earth dist.	2694 Dec 26 10:08	4° \mathbb{Z} 15'12	0.67803 AU	retrograde	2695 Nov 30 09:39	26° \mathbb{X} 37'55	
	2694 Dec 29 16:36	30° $\mathbb{R}\mathbb{X}$		evening set	2695 Dec 05 04:55	24° \mathbb{X} 40'36	
morning rise	2694 Dec 31 12:00	28° \mathbb{X} 10'45		asc. node	2695 Dec 07 02:27	22° \mathbb{X} 48'44	
direct	2695 Jan 05 09:36	26° \mathbb{X} 06'18		inferior conj	2695 Dec 10 14:58	18° \mathbb{X} 15'23	1°10'52
	2695 Jan 13 05:38	0° \mathbb{Z}		minimum elong	2695 Dec 10 13:24	18° \mathbb{X} 20'47	1°10'14
morning max el	2695 Jan 15 08:42	2° \mathbb{Z} 00'36	22°53'14	min. Earth dist.	2695 Dec 10 06:54	18° \mathbb{X} 43'09	0.67876 AU
greatest brilliancy	2695 Jan 20 01:23	7° \mathbb{Z} 14'56	-0.3m	morning rise	2695 Dec 15 21:53	12° \mathbb{X} 04'29	
desc. node	2695 Jan 27 01:46	16° \mathbb{Z} 21'07		direct	2695 Dec 20 04:53	10° \mathbb{X} 22'52	
	2695 Feb 05 13:21	0° \approx		morning max el	2695 Dec 28 23:01	15° \mathbb{X} 29'37	21°28'25
morning set	2695 Feb 18 17:30	20° \approx 45'03		greatest brilliancy	2696 Jan 02 23:46	21° \mathbb{X} 13'13	-0.4m
max. Earth dist.	2695 Feb 23 08:16	28° \approx 31'53	1.39932 AU		2696 Jan 09 14:15	0° \mathbb{Z}	
	2695 Feb 24 04:43	0° \mathbb{H}		desc. node	2696 Jan 13 22:49	6° \mathbb{Z} 12'29	
				morning set	2696 Jan 29 10:27	29° \mathbb{Z} 43'45	
superior conj	2695 Mar 03 02:07	12° \mathbb{H} 15'42	-1°-55'-17		2696 Jan 29 14:33	0° \approx	
minimum elong	2695 Mar 03 06:02	12° \mathbb{H} 33'36	1°55'00	max. Earth dist.	2696 Feb 05 08:24	10° \approx 53'52	1.41995 AU
evening rise	2695 Mar 12 20:42	0° \mathbb{Y} 39'09					
	2695 Mar 12 12:29	0° \mathbb{Y}		superior conj	2696 Feb 12 20:16	23° \approx 33'42	-2°-5'-31
asc. node	2695 Mar 18 04:43	10° \mathbb{Y} 38'53		minimum elong	2696 Feb 12 21:19	23° \approx 38'13	2°05'31
evening max el	2695 Mar 29 00:21	26° \mathbb{Y} 34'39	18°28'27		2696 Feb 16 12:25	0° \mathbb{H}	
	2695 Apr 03 10:16	0° \mathbb{X}		evening rise	2696 Feb 23 22:58	13° \mathbb{H} 25'33	
retrograde	2695 Apr 05 13:28	0° \mathbb{X} 17'44		asc. node	2696 Mar 04 01:45	29° \mathbb{H} 32'45	
evening set	2695 Apr 07 21:19	29° \mathbb{Y} 57'36			2696 Mar 04 08:27	0° \mathbb{Y}	
	2695 Apr 07 17:49	30° $\mathbb{R}\mathbb{Y}$		evening max el	2696 Mar 11 10:05	9° \mathbb{Y} 29'26	18°09'26
inferior conj	2695 Apr 15 08:47	25° \mathbb{Y} 25'44	2°30'49	retrograde	2696 Mar 18 04:40	12° \mathbb{Y} 55'23	
minimum elong	2695 Apr 15 12:39	25° \mathbb{Y} 17'57	2°29'49	evening set	2696 Mar 20 18:21	12° \mathbb{Y} 26'13	
min. Earth dist.	2695 Apr 18 19:14	22° \mathbb{Y} 41'58	0.58374 AU	inferior conj	2696 Mar 27 13:30	7° \mathbb{Y} 33'07	3°18'30
morning rise	2695 Apr 22 23:43	19° \mathbb{Y} 59'22		minimum elong	2696 Mar 27 16:12	7° \mathbb{Y} 26'51	3°18'04
desc. node	2695 Apr 25 00:55	19° \mathbb{Y} 06'46		min. Earth dist.	2696 Mar 30 20:27	4° \mathbb{Y} 31'06	0.60524 AU
direct	2695 Apr 28 23:52	18° \mathbb{Y} 25'58		morning rise	2696 Apr 03 10:45	1° \mathbb{Y} 44'44	
morning max el	2695 May 13 09:15	26° \mathbb{Y} 07'29	26°52'12		2696 Apr 07 05:21	30° $\mathbb{R}\mathbb{H}$	
	2695 May 17 00:45	0° \mathbb{X}		direct	2696 Apr 10 02:51	29° \mathbb{H} 35'50	
	2695 Jun 05 16:15	0° \mathbb{H}		desc. node	2696 Apr 10 21:58	29° \mathbb{H} 37'37	
morning set	2695 Jun 12 05:17	13° \mathbb{H} 03'43			2696 Apr 13 02:16	0° \mathbb{Y}	
asc. node	2695 Jun 14 04:01	17° \mathbb{H} 11'43		morning max el	2696 Apr 24 09:21	7° \mathbb{Y} 28'48	27°39'25
					2696 May 11 11:00	0° \mathbb{X}	
superior conj	2695 Jun 19 07:06	28° \mathbb{H} 23'42	0°51'47	morning set	2696 May 26 11:52	27° \mathbb{X} 39'59	
minimum elong	2695 Jun 19 05:05	28° \mathbb{H} 12'35	0°51'24		2696 May 27 14:46	0° \mathbb{H}	
max. Earth dist.	2695 Jun 19 06:47	28° \mathbb{H} 21'57	1.32155 AU	asc. node	2696 May 31 01:03	7° \mathbb{H} 19'08	
	2695 Jun 20 00:35	0° \mathbb{S}		max. Earth dist.	2696 Jun 01 18:19	11° \mathbb{H} 03'59	1.32191 AU
evening rise	2695 Jun 26 05:11	13° \mathbb{S} 24'38					
	2695 Jul 04 15:16	0° Ω		superior conj	2696 Jun 02 18:25	13° \mathbb{H} 16'02	0°28'24
desc. node	2695 Jul 22 00:15	25° Ω 52'23		minimum elong	2696 Jun 02 17:10	13° \mathbb{H} 09'12	0°28'08
	2695 Jul 25 23:19	0° \cap		evening rise	2696 Jun 09 15:43	28° \mathbb{H} 15'25	
evening max el	2695 Jul 25 21:05	29° Ω 54'44	26°35'52		2696 Jun 10 11:32	0° \mathbb{S}	
retrograde	2695 Aug 08 20:20	7° \cap 06'53			2696 Jun 27 08:20	0° Ω	
evening set	2695 Aug 15 14:27	5° \cap 11'13		evening max el	2696 Jul 06 16:07	11° Ω 08'00	25°24'26

desc. node	2696 Jul 07 21:16	12°♌15'10		2697 Jun 02 16:36	0°♏	
retrograde	2696 Jul 20 16:09	18°♌15'01	evening max el	2697 Jun 18 06:03	21°♏44'50	23°52'56
evening set	2696 Jul 26 11:00	16°♌57'10	desc. node	2697 Jun 24 18:16	26°♏40'37	
min. Earth dist.	2696 Jul 31 04:07	14°♌16'30	0.57953 AU	retrograde	2697 Jul 01 23:41	28°♏38'48
inferior conj	2696 Aug 03 07:21	12°♌05'56	-5°-2'-39	evening set	2697 Jul 06 08:30	27°♏56'48
minimum elong	2696 Aug 03 07:48	12°♌05'09	5°02'39	min. Earth dist.	2697 Jul 12 16:31	24°♏54'36
morning rise	2696 Aug 11 08:13	7°♌49'19		inferior conj	2697 Jul 15 00:53	23°♏28'45
direct	2696 Aug 13 20:28	7°♌30'02		minimum elong	2697 Jul 14 19:43	23°♏36'40
morning max el	2696 Aug 22 10:40	11°♌33'33	18°53'42	morning rise	2697 Jul 23 10:20	19°♏31'01
asc. node	2696 Aug 27 00:18	16°♌55'20		direct	2697 Jul 26 04:15	19°♏11'43
	2696 Sep 03 20:25	0°♐		morning max el	2697 Aug 05 04:25	23°♏50'17
morning set	2696 Sep 07 23:18	7°♐56'47			2697 Aug 10 11:35	0°♑
				asc. node	2697 Aug 13 21:21	5°♑09'57
superior conj	2696 Sep 16 11:34	24°♐33'56	1°39'00	morning set	2697 Aug 23 02:56	22°♑27'52
minimum elong	2696 Sep 16 13:48	24°♐44'34	1°38'51		2697 Aug 26 19:43	0°♐
	2696 Sep 19 08:48	0°♑				
max. Earth dist.	2696 Sep 23 09:42	7°♑21'19	1.39057 AU	superior conj	2697 Aug 30 23:04	8°♐22'17
evening rise	2696 Sep 27 08:35	14°♑16'06		minimum elong	2697 Aug 30 23:31	8°♐24'27
desc. node	2696 Oct 03 20:37	25°♑02'40		max. Earth dist.	2697 Sep 05 14:45	19°♐22'01
	2696 Oct 06 23:55	0°♒		evening rise	2697 Sep 09 11:23	26°♐29'43
	2696 Oct 28 18:55	0°♑			2697 Sep 11 10:31	0°♑
evening max el	2696 Nov 01 16:56	4°♑11'41	24°24'52	desc. node	2697 Sep 20 17:39	15°♑31'02
retrograde	2696 Nov 13 00:31	10°♑48'42			2697 Sep 30 11:31	0°♒
evening set	2696 Nov 18 09:38	8°♑34'48		evening max el	2697 Oct 15 05:06	17°♒52'39
asc. node	2696 Nov 22 23:31	3°♑22'31		retrograde	2697 Oct 27 10:48	24°♒53'08
min. Earth dist.	2696 Nov 23 02:55	3°♑11'09	0.67610 AU	evening set	2697 Nov 02 10:17	22°♒24'23
inferior conj	2696 Nov 23 21:33	2°♑08'42	0°18'54	min. Earth dist.	2697 Nov 06 19:43	17°♒36'10
minimum elong	2696 Nov 23 21:06	2°♑10'15	0°18'42	inferior conj	2697 Nov 08 01:18	16°♒01'45
	2696 Nov 25 12:44	30°♒♒		minimum elong	2697 Nov 08 02:16	15°♒58'40
morning rise	2696 Nov 29 08:54	26°♒03'29		asc. node	2697 Nov 09 20:34	13°♒47'07
direct	2696 Dec 03 02:36	24°♒43'30		morning rise	2697 Nov 13 19:03	10°♒04'56
morning max el	2696 Dec 10 20:43	29°♒09'45	20°14'00	direct	2697 Nov 17 01:14	9°♒03'47
	2696 Dec 11 16:08	0°♑		morning max el	2697 Nov 24 02:14	13°♒00'16
greatest brilliancy	2696 Dec 17 12:45	7°♑09'08	-0.6m	greatest brilliancy	2697 Dec 04 08:16	26°♒23'20
desc. node	2696 Dec 30 19:52	26°♑25'01			2697 Dec 06 18:10	0°♑
	2697 Jan 02 04:33	0°♒		morning set	2697 Dec 17 09:44	16°♑24'32
morning set	2697 Jan 07 07:53	7°♒53'02		desc. node	2697 Dec 17 16:54	16°♑52'23
max. Earth dist.	2697 Jan 17 16:40	24°♒11'26	1.43688 AU		2697 Dec 26 02:57	0°♒
	2697 Jan 21 06:57	0°♑		max. Earth dist.	2697 Dec 31 07:47	8°♒10'13
						1.44796 AU
superior conj	2697 Jan 23 13:11	3°♑42'00	-2°00'-51	superior conj	2698 Jan 03 04:50	12°♒43'23
minimum elong	2697 Jan 23 08:52	3°♑24'14	2°00'41	minimum elong	2698 Jan 02 20:04	12°♒08'38
evening rise	2697 Feb 05 08:08	25°♑23'25			2698 Jan 13 22:16	0°♑
	2697 Feb 07 23:50	0°♒		evening rise	2698 Jan 17 20:04	6°♑25'25
asc. node	2697 Feb 18 22:48	17°♒51'54			2698 Feb 01 13:23	0°♒
evening max el	2697 Feb 22 22:32	22°♒42'01	18°09'46	asc. node	2698 Feb 05 19:51	5°♒25'04
retrograde	2697 Mar 01 09:30	26°♒05'52		evening max el	2698 Feb 06 10:46	6°♒04'10
evening set	2697 Mar 04 04:31	25°♒26'24		retrograde	2698 Feb 12 23:27	9°♒38'52
inferior conj	2697 Mar 10 11:07	20°♒12'29	3°38'57	evening set	2698 Feb 15 23:55	8°♒48'14
minimum elong	2697 Mar 10 11:54	20°♒10'24	3°38'56	inferior conj	2698 Feb 21 21:29	3°♒15'10
min. Earth dist.	2697 Mar 13 05:55	17°♒16'53	0.62624 AU	minimum elong	2698 Feb 21 20:35	3°♒17'47
morning rise	2697 Mar 16 17:05	14°♒10'43		min. Earth dist.	2698 Feb 24 00:57	0°♒44'36
direct	2697 Mar 23 15:08	11°♒35'05			2698 Feb 24 16:48	30°♒♑
desc. node	2697 Mar 28 19:00	12°♒50'44		morning rise	2698 Feb 27 15:50	27°♑05'38
morning max el	2697 Apr 06 15:07	19°♒31'34	27°49'30	direct	2698 Mar 06 11:01	24°♑16'48
	2697 Apr 15 13:16	0°♑		desc. node	2698 Mar 15 16:03	28°♑15'07
	2697 May 04 08:54	0°♒			2698 Mar 17 18:04	0°♒
morning set	2697 May 10 12:55	11°♒56'46		morning max el	2698 Mar 20 00:20	2°♒09'01
max. Earth dist.	2697 May 16 02:03	23°♒31'00	1.32635 AU		2698 Apr 09 18:51	0°♑
asc. node	2697 May 17 22:06	27°♒28'20		morning set	2698 Apr 24 05:42	25°♑45'04
					2698 Apr 26 09:07	0°♒
superior conj	2697 May 18 03:32	27°♒57'44	0°02'24	max. Earth dist.	2698 Apr 29 01:57	5°♒30'31
minimum elong	2697 May 18 03:25	27°♒57'06	0°02'22			1.33504 AU
behind sun begin	2697 May 17 22:16	27°♒29'11		superior conj	2698 May 02 08:28	12°♒21'55
behind sun end	2697 May 18 08:34	28°♒25'03		minimum elong	2698 May 02 09:45	12°♒28'44
	2697 May 19 02:03	0°♒		asc. node	2698 May 04 19:09	17°♒34'44
evening rise	2697 May 25 03:35	13°♒06'32		evening rise	2698 May 09 14:50	27°♒50'55

	2698 May 10 15:32	0°♂			2699 Apr 18 01:08	0°♂		
	2698 May 28 18:27	0°♂		asc. node	2699 Apr 21 16:11	7°♂34'14		
evening max el	2698 May 30 21:19	2°♂12'52	22°16'45	evening rise	2699 Apr 23 23:35	12°♂22'22		
desc. node	2698 Jun 11 15:16	8°♂33'44			2699 May 03 04:33	0°♂		
retrograde	2698 Jun 12 19:22	8°♂36'52		evening max el	2699 May 12 21:24	13°♂03'26	20°49'33	
evening set	2698 Jun 15 18:19	8°♂17'32		retrograde	2699 May 24 08:34	18°♂38'52		
min. Earth dist.	2698 Jun 24 03:35	4°♂40'26	0.55119 AU	evening set	2699 May 26 11:50	18°♂27'58		
inferior conj	2698 Jun 25 01:12	4°♂09'57	-3°-37'-21	desc. node	2699 May 29 12:17	17°♂38'30		
minimum elong	2698 Jun 24 17:04	4°♂21'26	3°35'11	inferior conj	2699 Jun 04 18:46	14°♂30'27	-1°-49'-25	
morning rise	2698 Jul 03 17:56	0°♂18'57		minimum elong	2699 Jun 04 13:38	14°♂37'46	1°47'36	
	2698 Jul 05 20:46	30°♂♂		min. Earth dist.	2699 Jun 05 15:49	14°♂00'27	0.54914 AU	
direct	2698 Jul 06 19:13	29°♂♂57'59		morning rise	2699 Jun 13 14:36	10°♂26'06		
	2698 Jul 07 17:31	0°♂		direct	2699 Jun 17 04:29	9°♂58'30		
morning max el	2698 Jul 18 10:41	5°♂23'26	21°18'06	morning max el	2699 Jun 30 06:51	16°♂15'47	22°55'47	
asc. node	2698 Jul 31 18:24	24°♂02'42			2699 Jul 11 03:03	0°♂		
	2698 Aug 03 21:36	0°♂		asc. node	2699 Jul 18 15:26	13°♂23'35		
morning set	2698 Aug 07 11:12	7°♂13'13		morning set	2699 Jul 22 22:05	22°♂06'21		
					2699 Jul 26 15:04	0°♂		
superior conj	2698 Aug 14 20:47	22°♂41'39	1°43'15					
minimum elong	2698 Aug 14 19:46	22°♂36'25	1°43'12	superior conj	2699 Jul 30 01:21	7°♂21'11	1°35'05	
	2698 Aug 18 10:37	0°♂		minimum elong	2699 Jul 29 23:24	7°♂10'48	1°34'55	
max. Earth dist.	2698 Aug 19 01:27	1°♂14'13	1.35276 AU	max. Earth dist.	2699 Aug 01 20:53	13°♂18'02	1.33881 AU	
evening rise	2698 Aug 23 08:41	9°♂36'27		evening rise	2699 Aug 06 19:56	23°♂23'41		
	2698 Sep 03 23:38	0°♂			2699 Aug 10 06:10	0°♂		
desc. node	2698 Sep 07 14:39	5°♂43'02		desc. node	2699 Aug 25 11:38	25°♂30'41		
	2698 Sep 26 04:41	0°♂			2699 Aug 28 14:58	0°♂		
evening max el	2698 Sep 27 17:21	1°♂31'21	26°37'21	evening max el	2699 Sep 10 05:23	14°♂58'09	27°15'30	
retrograde	2698 Oct 10 16:00	8°♂45'29		retrograde	2699 Sep 23 15:40	22°♂16'49		
evening set	2698 Oct 17 04:56	6°♂06'12		evening set	2699 Sep 30 15:06	19°♂34'44		
min. Earth dist.	2698 Oct 21 07:02	1°♂54'37	0.66055 AU	min. Earth dist.	2699 Oct 04 10:37	15°♂59'09	0.64747 AU	
	2698 Oct 22 21:28	30°♂♂		inferior conj	2699 Oct 06 16:13	13°♂32'36	-2°-35'-20	
inferior conj	2698 Oct 23 00:17	29°♂51'35	-1°-35'-55	minimum elong	2699 Oct 06 20:25	13°♂21'05	2°33'48	
minimum elong	2698 Oct 23 02:52	29°♂43'50	1°34'52	morning rise	2699 Oct 13 03:43	8°♂01'16		
asc. node	2698 Oct 27 17:36	24°♂58'44		asc. node	2699 Oct 14 14:38	7°♂33'09		
morning rise	2698 Oct 29 02:10	24°♂05'59		direct	2699 Oct 15 17:33	7°♂26'31		
direct	2698 Oct 31 22:58	23°♂19'59		morning max el	2699 Oct 22 05:33	10°♂54'15	18°01'16	
morning max el	2698 Nov 07 14:04	26°♂57'30	18°29'05		2699 Nov 04 08:47	0°♂		
	2698 Nov 10 06:37	0°♂		morning set	2699 Nov 08 20:11	7°♂29'27		
morning set	2698 Nov 27 12:25	26°♂14'13		desc. node	2699 Nov 21 10:59	28°♂14'36		
	2698 Nov 29 20:50	0°♂						
desc. node	2698 Dec 04 13:58	7°♂30'27		superior conj	2699 Nov 22 16:02	0°♂11'05	0°-8'-12	
				minimum elong	2699 Nov 22 15:01	0°♂07'02	0°08'05	
superior conj	2698 Dec 13 06:51	21°♂13'59	0°-56'-27	behind sun begin	2699 Nov 22 05:48	29°♂30'05		
minimum elong	2698 Dec 12 23:48	20°♂46'17	0°55'35	behind sun end	2699 Nov 23 00:14	0°♂43'56		
max. Earth dist.	2698 Dec 14 02:25	22°♂30'44	1.45193 AU		2699 Nov 22 13:16	0°♂		
	2698 Dec 18 20:57	0°♂		max. Earth dist.	2699 Nov 26 21:05	6°♂52'41	1.44844 AU	
evening rise	2698 Dec 29 08:45	16°♂31'19		evening rise	2699 Dec 09 01:23	25°♂51'30		
	2699 Jan 06 21:32	0°♂			2699 Dec 11 17:55	0°♂		
greatest brilliancy	2699 Jan 09 23:52	4°♂48'38	-0.8m	greatest brilliancy	2699 Dec 28 01:44	24°♂21'57	-0.6m	
evening max el	2699 Jan 20 20:26	19°♂31'53	19°05'18		2700 Jan 01 09:04	0°♂		
asc. node	2699 Jan 23 16:52	22°♂00'01		evening max el	2700 Jan 04 01:44	3°♂02'10	19°57'59	
retrograde	2699 Jan 27 18:44	23°♂28'12		asc. node	2700 Jan 10 13:53	7°♂22'04		
evening set	2699 Jan 31 01:35	22°♂25'26		retrograde	2700 Jan 11 16:25	7°♂28'48		
inferior conj	2699 Feb 05 17:02	16°♂35'35	3°23'49	evening set	2700 Jan 15 07:09	6°♂12'31		
minimum elong	2699 Feb 05 15:02	16°♂41'56	3°23'30	inferior conj	2700 Jan 20 18:51	0°♂08'37	2°57'11	
min. Earth dist.	2699 Feb 07 05:11	14°♂41'01	0.65913 AU	minimum elong	2700 Jan 20 16:19	0°♂17'03	2°56'33	
morning rise	2699 Feb 11 03:32	10°♂21'50			2700 Jan 20 21:25	30°♂♂		
direct	2699 Feb 17 13:37	7°♂33'30		min. Earth dist.	2700 Jan 21 16:57	28°♂54'42	0.66960 AU	
morning max el	2699 Mar 02 10:17	15°♂09'50	26°27'54	morning rise	2700 Jan 26 00:51	23°♂53'14		
desc. node	2699 Mar 02 13:07	15°♂17'00		direct	2700 Jan 31 22:03	21°♂16'34		
	2699 Mar 14 14:42	0°♂		morning max el	2700 Feb 12 19:07	28°♂22'03	25°11'19	
	2699 Apr 02 13:46	0°♂			2700 Feb 14 08:37	0°♂		
morning set	2699 Apr 07 10:41	8°♂54'25		desc. node	2700 Feb 17 10:11	3°♂28'31		
max. Earth dist.	2699 Apr 11 14:41	16°♂56'11	1.34830 AU		2700 Mar 08 08:44	0°♂		
				morning set	2700 Mar 20 23:04	21°♂11'22		
superior conj	2699 Apr 16 07:00	26°♂22'12	0°-53'-47	max. Earth dist.	2700 Mar 24 16:00	27°♂58'22	1.36598 AU	
minimum elong	2699 Apr 16 09:46	26°♂36'28	0°53'17		2700 Mar 25 17:56	0°♂		

superior conj	2700 Mar 30 20:18	9°Υ51'09	-1°-21'-2	morning set	2701 Mar 02 12:44	2°✠18'31	
minimum elong	2700 Mar 31 00:19	10°Υ11'02	1°20'27	max. Earth dist.	2701 Mar 06 11:11	9°✠08'26	1.38688 AU
evening rise	2700 Apr 08 03:39	26°Υ34'42					
asc. node	2700 Apr 08 13:12	27°Υ22'44		superior conj	2701 Mar 13 20:37	22°✠38'28	-1°-44'-40
	2700 Apr 09 20:39	0°♄		minimum elong	2701 Mar 14 01:03	22°✠59'19	1°44'13
evening max el	2700 Apr 25 09:30	24°♄33'18	19°39'10		2701 Mar 17 17:05	0°Υ	
retrograde	2700 May 05 02:44	29°♄15'31		evening rise	2701 Mar 23 00:22	10°Υ20'03	
evening set	2700 May 07 02:49	29°♄04'25		asc. node	2701 Mar 26 10:14	16°Υ54'47	
inferior conj	2700 May 15 20:11	25°♄01'21	0°09'33		2701 Apr 02 23:28	0°♄	
minimum elong	2700 May 15 20:36	25°♄00'41	0°09'25	evening max el	2701 Apr 08 08:23	6°♄41'47	18°48'26
transit middle	2700 May 15 20:36	25°♄00'41	0°09'25	retrograde	2701 Apr 16 13:07	10°♄41'36	
transit begin	2700 May 15 17:26	25°♄05'41		evening set	2701 Apr 18 17:47	10°♄25'31	
transit end	2700 May 15 23:47	24°♄55'42		inferior conj	2701 Apr 26 15:59	6°♄05'20	1°48'38
desc. node	2700 May 16 09:19	24°♄40'39		minimum elong	2701 Apr 26 19:35	5°♄58'45	1°47'30
min. Earth dist.	2700 May 18 05:53	23°♄30'57	0.55680 AU	min. Earth dist.	2701 Apr 29 22:19	3°♄43'25	0.57246 AU
morning rise	2700 May 24 10:51	20°♄27'05		desc. node	2701 May 03 06:22	1°♄38'45	
direct	2700 May 28 21:49	19°♄42'41		morning rise	2701 May 04 17:02	0°♄56'43	
morning max el	2700 Jun 11 21:30	26°♄43'36	24°38'04		2701 May 07 14:49	30°♄Υ	
	2700 Jun 15 01:10	0°♄		direct	2701 May 10 04:39	29°Υ43'41	
	2700 Jul 04 00:04	0°♄			2701 May 12 18:54	0°♄	
asc. node	2700 Jul 05 12:28	3°♄04'58		morning max el	2701 May 24 12:40	7°♄13'14	26°10'04
morning set	2700 Jul 07 09:56	7°♄02'01			2701 Jun 10 10:13	0°♄	
				morning set	2701 Jun 21 21:04	21°♄54'23	
superior conj	2700 Jul 14 10:19	22°♄12'50	1°21'38	asc. node	2701 Jun 22 09:31	23°♄00'09	
minimum elong	2700 Jul 14 07:57	21°♄59'59	1°21'20		2701 Jun 25 15:25	0°♄	
max. Earth dist.	2700 Jul 16 00:56	25°♄42'17	1.32898 AU				
	2700 Jul 18 01:00	0°♄		superior conj	2701 Jun 28 21:34	7°♄09'02	1°03'47
evening rise	2700 Jul 21 17:21	7°♄40'23		minimum elong	2701 Jun 28 19:17	6°♄56'31	1°03'24
	2700 Aug 02 17:29	0°♄		max. Earth dist.	2701 Jun 29 10:53	8°♄22'17	1.32317 AU
desc. node	2700 Aug 12 08:38	14°♄43'43		evening rise	2701 Jul 05 21:45	22°♄16'14	
evening max el	2700 Aug 23 15:44	28°♄01'37	27°25'48		2701 Jul 09 17:09	0°♄	
	2700 Aug 25 20:43	0°♄			2701 Jul 27 19:27	0°♄	
retrograde	2700 Sep 06 09:01	5°♄18'23		desc. node	2701 Jul 30 05:39	3°♄07'38	
evening set	2700 Sep 13 13:37	2°♄44'23		evening max el	2701 Aug 05 21:44	10°♄27'58	27°03'42
	2700 Sep 16 20:28	30°♄♄		retrograde	2701 Aug 19 18:59	17°♄40'58	
min. Earth dist.	2700 Sep 17 04:39	29°♄40'41	0.63103 AU	evening set	2701 Aug 26 20:23	15°♄27'46	
inferior conj	2700 Sep 19 22:27	26°♄59'01	-3°-32'-20	min. Earth dist.	2701 Aug 30 12:02	12°♄46'22	0.61174 AU
minimum elong	2700 Sep 20 03:49	26°♄45'46	3°30'44	inferior conj	2701 Sep 02 15:44	10°♄02'30	-4°-21'-50
morning rise	2700 Sep 26 20:33	21°♄45'10		minimum elong	2701 Sep 02 21:04	9°♄50'55	4°20'45
direct	2700 Sep 29 06:11	21°♄18'02		morning rise	2701 Sep 10 00:45	5°♄09'38	
asc. node	2700 Oct 01 11:41	21°♄41'58		direct	2701 Sep 12 09:12	4°♄47'08	
morning max el	2700 Oct 05 21:48	24°♄44'04	17°51'01	asc. node	2701 Sep 18 08:45	7°♄18'21	
	2700 Oct 10 05:12	0°♄		morning max el	2701 Sep 19 11:50	8°♄19'35	17°59'33
morning set	2700 Oct 22 04:19	19°♄54'53			2701 Oct 03 12:44	0°♄	
	2700 Oct 27 22:57	0°♄		morning set	2701 Oct 05 06:33	3°♄12'17	
superior conj	2700 Nov 03 00:25	10°♄17'26	0°35'55	superior conj	2701 Oct 15 11:50	21°♄43'24	1°09'28
minimum elong	2700 Nov 03 03:50	10°♄31'42	0°35'27	minimum elong	2701 Oct 15 16:14	22°♄02'43	1°08'58
desc. node	2700 Nov 08 07:59	19°♄01'33			2701 Oct 20 06:57	0°♄	
max. Earth dist.	2700 Nov 09 13:33	21°♄00'51	1.43808 AU	max. Earth dist.	2701 Oct 23 01:49	4°♄40'13	1.42206 AU
	2700 Nov 15 05:30	0°♄		desc. node	2701 Oct 26 04:59	9°♄48'25	
evening rise	2700 Nov 18 10:01	4°♄57'30		evening rise	2701 Oct 29 03:36	14°♄31'44	
	2700 Dec 05 04:16	0°♄			2701 Nov 08 04:52	0°♄	
greatest brilliancy	2700 Dec 12 18:34	10°♄22'56	-0.5m	greatest brilliancy	2701 Nov 26 02:39	24°♄47'22	-0.3m
evening max el	2700 Dec 18 01:39	16°♄33'33	21°04'02		2701 Nov 30 17:37	0°♄	
retrograde	2700 Dec 26 14:09	21°♄36'29		evening max el	2701 Nov 30 20:12	0°♄06'33	22°19'31
asc. node	2700 Dec 28 10:56	21°♄17'14		retrograde	2701 Dec 10 10:16	5°♄48'35	
evening set	2700 Dec 30 14:38	20°♄05'07		evening set	2701 Dec 14 22:19	4°♄00'45	
inferior conj	2701 Jan 05 00:27	13°♄50'13	2°21'29	asc. node	2701 Dec 15 07:59	3°♄40'18	
minimum elong	2701 Jan 04 21:57	13°♄58'51	2°20'40		2701 Dec 18 14:17	30°♄♄	
min. Earth dist.	2701 Jan 05 09:57	13°♄17'29	0.67609 AU	inferior conj	2701 Dec 20 07:53	27°♄38'14	1°38'27
morning rise	2701 Jan 10 04:53	7°♄35'10		minimum elong	2701 Dec 20 05:51	27°♄45'17	1°37'41
direct	2701 Jan 15 11:19	5°♄17'44		min. Earth dist.	2701 Dec 20 05:58	27°♄44'52	0.67884 AU
morning max el	2701 Jan 26 03:31	11°♄39'21	23°44'09	morning rise	2701 Dec 25 13:15	21°♄25'27	
desc. node	2701 Feb 04 07:13	22°♄29'04		direct	2701 Dec 30 04:37	19°♄30'41	
	2701 Feb 09 19:16	0°♄		morning max el	2702 Jan 08 14:45	25°♄03'36	22°16'13
	2701 Mar 01 04:02	0°♄		greatest brilliancy	2702 Jan 13 04:43	0°♄11'11	-0.3m

	2702 Jan 13 01:01	0°☿		desc. node	2703 Jan 09 01:17	2°☿05'50	
desc. node	2702 Jan 22 04:15	12°☿04'56		morning set	2703 Jan 21 04:46	20°☿34'30	
	2702 Feb 03 07:07	0°☿			2703 Jan 27 03:37	0°☿	
morning set	2702 Feb 10 22:15	12°☿03'29		max. Earth dist.	2703 Jan 29 12:14	3°☿48'53	1.42780 AU
max. Earth dist.	2702 Feb 16 08:26	21°☿01'30	1.40847 AU				
	2702 Feb 21 13:42	0°☿		superior conj	2703 Feb 05 11:06	15°☿21'09	-2°-5'-39
				minimum elong	2703 Feb 05 10:04	15°☿16'50	2°05'39
superior conj	2702 Feb 24 03:19	4°☿32'42	-2°-1'-6		2703 Feb 13 21:44	0°☿	
minimum elong	2702 Feb 24 06:22	4°☿46'17	2°00'59	evening rise	2703 Feb 17 06:03	5°☿57'30	
evening rise	2702 Mar 06 10:31	23°☿30'49		asc. node	2703 Feb 28 04:20	24°☿44'42	
	2702 Mar 09 22:11	0°☿			2703 Mar 03 22:27	0°☿	
asc. node	2702 Mar 13 07:17	6°☿04'40		evening max el	2703 Mar 06 02:13	2°☿24'27	18°07'10
evening max el	2702 Mar 22 15:03	19°☿21'54	18°17'52	retrograde	2703 Mar 12 16:30	5°☿48'12	
retrograde	2702 Mar 29 18:48	22°☿55'49		evening set	2703 Mar 15 08:22	5°☿14'53	
evening set	2702 Apr 01 05:15	22°☿31'57		inferior conj	2703 Mar 21 21:43	0°☿12'38	3°30'03
inferior conj	2702 Apr 08 09:17	17°☿50'39	2°54'48	minimum elong	2703 Mar 21 23:36	0°☿07'58	3°29'52
minimum elong	2702 Apr 08 12:50	17°☿43'02	2°54'01		2703 Mar 22 02:50	30°☿☿	
min. Earth dist.	2702 Apr 11 19:29	14°☿56'19	0.59282 AU	min. Earth dist.	2703 Mar 25 00:07	27°☿10'29	0.61436 AU
morning rise	2702 Apr 15 16:35	12°☿13'46		morning rise	2703 Mar 28 12:00	24°☿17'17	
desc. node	2702 Apr 20 03:25	10°☿34'42		direct	2703 Apr 04 07:36	21°☿55'42	
direct	2702 Apr 22 00:34	10°☿25'08		desc. node	2703 Apr 07 00:27	22°☿16'21	
morning max el	2702 May 06 09:13	18°☿11'43	27°16'43	morning max el	2703 Apr 18 12:12	29°☿51'36	27°48'22
	2702 May 16 06:15	0°☿			2703 Apr 18 15:34	0°☿	
	2702 Jun 02 23:46	0°☿			2703 May 10 05:55	0°☿	
morning set	2702 Jun 06 05:52	6°☿38'10		morning set	2703 May 21 10:25	21°☿07'16	
asc. node	2702 Jun 09 06:34	13°☿04'14			2703 May 25 15:52	0°☿	
				asc. node	2703 May 27 03:37	3°☿12'55	
superior conj	2702 Jun 13 09:20	22°☿04'03	0°42'14	max. Earth dist.	2703 May 27 09:32	3°☿45'01	1.32324 AU
minimum elong	2702 Jun 13 07:35	21°☿54'28	0°41'52				
max. Earth dist.	2702 Jun 12 23:03	21°☿07'27	1.32126 AU	superior conj	2703 May 28 19:56	6°☿52'28	0°17'38
	2702 Jun 16 23:58	0°☿		minimum elong	2703 May 28 19:07	6°☿48'03	0°17'27
evening rise	2702 Jun 20 06:40	7°☿03'16		evening rise	2703 Jun 04 18:00	21°☿54'46	
	2702 Jul 02 06:51	0°☿			2703 Jun 08 15:53	0°☿	
desc. node	2702 Jul 17 02:41	20°☿22'00			2703 Jun 27 15:07	0°☿	
evening max el	2702 Jul 18 20:47	22°☿07'00	26°08'41	evening max el	2703 Jun 30 12:53	3°☿01'35	24°47'05
retrograde	2702 Aug 01 20:22	29°☿17'03		desc. node	2703 Jul 03 23:42	5°☿59'21	
evening set	2702 Aug 08 06:33	27°☿36'36		retrograde	2703 Jul 14 11:35	10°☿05'31	
min. Earth dist.	2702 Aug 12 09:26	25°☿01'27	0.59106 AU	evening set	2703 Jul 19 16:53	9°☿03'42	
inferior conj	2702 Aug 15 16:27	22°☿32'52	-4°-55'-25	min. Earth dist.	2703 Jul 25 00:11	6°☿15'41	0.57151 AU
minimum elong	2702 Aug 15 19:29	22°☿27'07	4°55'09	inferior conj	2703 Jul 27 21:39	4°☿21'59	-5°00'-18
morning rise	2702 Aug 23 11:53	18°☿03'28		minimum elong	2703 Jul 27 19:45	4°☿25'07	5°00'13
direct	2702 Aug 25 22:05	17°☿43'27		morning rise	2703 Aug 05 02:21	0°☿14'43	
morning max el	2702 Sep 02 20:26	21°☿31'59	18°28'02		2703 Aug 06 11:19	30°☿☿	
asc. node	2702 Sep 05 05:48	24°☿07'43		direct	2703 Aug 07 16:41	29°☿55'41	
	2702 Sep 09 10:04	0°☿			2703 Aug 08 21:40	0°☿	
morning set	2702 Sep 18 21:32	17°☿05'56		morning max el	2703 Aug 16 20:30	4°☿12'27	19°17'34
	2702 Sep 25 15:16	0°☿		asc. node	2703 Aug 23 02:51	11°☿55'21	
					2703 Sep 02 04:10	0°☿	
superior conj	2702 Sep 27 22:15	4°☿16'59	1°31'19	morning set	2703 Sep 02 21:25	1°☿25'43	
minimum elong	2702 Sep 28 01:30	4°☿32'04	1°31'02				
max. Earth dist.	2702 Oct 05 08:40	17°☿36'43	1.40241 AU	superior conj	2703 Sep 11 02:05	17°☿42'34	1°42'37
evening rise	2702 Oct 09 17:53	25°☿03'07		minimum elong	2703 Sep 11 03:31	17°☿49'36	1°42'33
	2702 Oct 12 18:16	0°☿		max. Earth dist.	2703 Sep 17 12:26	29°☿51'23	1.38174 AU
desc. node	2702 Oct 13 02:00	0°☿31'14			2703 Sep 17 14:19	0°☿	
	2702 Nov 02 00:02	0°☿		evening rise	2703 Sep 21 08:04	6°☿41'16	
evening max el	2702 Nov 13 10:32	13°☿41'46	23°39'22	desc. node	2703 Sep 29 23:02	21°☿06'19	
retrograde	2702 Nov 24 03:26	20°☿00'59			2703 Oct 05 17:02	0°☿	
evening set	2702 Nov 29 04:35	17°☿56'15		evening max el	2703 Oct 26 22:50	27°☿20'46	24°57'07
asc. node	2702 Dec 02 05:03	14°☿43'37			2703 Oct 29 20:45	0°☿	
min. Earth dist.	2702 Dec 04 02:37	12°☿13'14	0.67808 AU	retrograde	2703 Nov 07 16:37	4°☿09'49	
inferior conj	2702 Dec 04 15:16	11°☿30'02	0°49'23	evening set	2703 Nov 13 07:49	1°☿49'07	
minimum elong	2702 Dec 04 14:08	11°☿33'55	0°48'55		2703 Nov 15 04:23	30°☿☿	
morning rise	2702 Dec 09 23:51	5°☿21'28		min. Earth dist.	2703 Nov 17 21:36	26°☿40'17	0.67394 AU
direct	2702 Dec 14 00:57	3°☿49'32		inferior conj	2703 Nov 18 20:53	25°☿23'37	0°-4'-27
morning max el	2702 Dec 22 08:09	8°☿37'43	20°55'14	minimum elong	2703 Nov 18 20:59	25°☿23'16	0°04'25
greatest brilliancy	2702 Dec 27 22:30	15°☿06'55	-0.5m	transit middle	2703 Nov 18 20:59	25°☿23'16	0°04'25
	2703 Jan 07 15:06	0°☿		transit begin	2703 Nov 18 18:19	25°☿32'02	

transit end	2703 Nov 18 23:39	25° \mathbb{M} 14'30		inferior conj	2704 Nov 01 22:51	9° \mathbb{M} 15'38	-1°-1'-51
asc. node	2703 Nov 19 02:04	25° \mathbb{M} 06'31		minimum elong	2704 Nov 02 00:29	9° \mathbb{M} 10'32	1°01'10
morning rise	2703 Nov 24 10:43	19° \mathbb{M} 21'36		asc. node	2704 Nov 04 23:06	5° \mathbb{M} 44'39	
direct	2703 Nov 27 23:10	18° \mathbb{M} 10'13		morning rise	2704 Nov 07 19:49	3° \mathbb{M} 22'57	
morning max el	2703 Dec 05 09:20	22° \mathbb{M} 22'53	19°46'25	direct	2704 Nov 10 21:42	2° \mathbb{M} 28'43	
	2703 Dec 11 17:11	0° \mathbb{A}		morning max el	2704 Nov 17 17:42	6° \mathbb{M} 16'13	18°52'37
greatest brilliancy	2703 Dec 13 03:02	1° \mathbb{A} 55'58	-0.6m		2704 Dec 04 13:17	0° \mathbb{A}	
desc. node	2703 Dec 26 22:18	22° \mathbb{A} 25'03		morning set	2704 Dec 09 11:41	7° \mathbb{A} 44'30	
morning set	2703 Dec 31 00:48	28° \mathbb{A} 43'48		desc. node	2704 Dec 12 19:21	12° \mathbb{A} 57'19	
	2703 Dec 31 20:32	0° \mathbb{C}			2704 Dec 23 16:06	0° \mathbb{C}	
max. Earth dist.	2704 Jan 11 23:12	17° \mathbb{C} 24'10	1.44241 AU	max. Earth dist.	2704 Dec 24 15:50	1° \mathbb{C} 33'15	1.45055 AU
superior conj	2704 Jan 16 16:44	24° \mathbb{C} 59'01	-1°-53'-15	superior conj	2704 Dec 26 00:33	3° \mathbb{C} 41'51	-1°-21'-39
minimum elong	2704 Jan 16 10:04	24° \mathbb{C} 32'05	1°52'49	minimum elong	2704 Dec 25 15:38	3° \mathbb{C} 06'48	1°20'42
	2704 Jan 19 18:45	0° \mathbb{D}		evening rise	2705 Jan 10 08:43	28° \mathbb{C} 09'52	
evening rise	2704 Jan 30 06:39	17° \mathbb{D} 32'08			2705 Jan 11 11:55	0° \mathbb{D}	
	2704 Feb 06 15:24	0° \mathbb{H}		evening max el	2705 Jan 31 02:22	29° \mathbb{D} 07'37	18°42'14
asc. node	2704 Feb 15 01:22	12° \mathbb{H} 45'40		asc. node	2705 Jan 31 22:24	29° \mathbb{D} 56'18	
evening max el	2704 Feb 17 14:52	15° \mathbb{H} 41'41	18°15'35		2705 Feb 01 00:00	0° \mathbb{H}	
retrograde	2704 Feb 24 01:39	19° \mathbb{H} 08'48		retrograde	2705 Feb 06 18:10	2° \mathbb{H} 49'57	
evening set	2704 Feb 26 22:50	18° \mathbb{H} 24'52		evening set	2705 Feb 09 21:15	1° \mathbb{H} 54'17	
inferior conj	2704 Mar 04 01:13	13° \mathbb{H} 02'48	3°41'05		2705 Feb 12 07:23	30° \mathbb{R}	
minimum elong	2704 Mar 04 01:14	13° \mathbb{H} 02'46	3°41'06	inferior conj	2705 Feb 15 15:54	26° \mathbb{R} 14'03	3°34'08
min. Earth dist.	2704 Mar 06 13:47	10° \mathbb{H} 15'38	0.63445 AU	minimum elong	2705 Feb 15 14:28	26° \mathbb{R} 18'25	3°33'59
morning rise	2704 Mar 10 01:45	6° \mathbb{H} 57'00		min. Earth dist.	2705 Feb 17 12:51	23° \mathbb{R} 57'45	0.65130 AU
direct	2704 Mar 16 23:34	4° \mathbb{H} 13'37		morning rise	2705 Feb 21 06:31	20° \mathbb{R} 02'35	
desc. node	2704 Mar 23 21:30	6° \mathbb{H} 29'20		direct	2705 Feb 27 22:37	17° \mathbb{R} 12'07	
morning max el	2704 Mar 30 19:46	12° \mathbb{H} 10'22	27°42'33	desc. node	2705 Mar 10 18:32	22° \mathbb{R} 39'20	
	2704 Apr 14 00:18	0° \mathbb{Y}		morning max el	2705 Mar 13 05:22	24° \mathbb{R} 58'54	27°03'01
	2704 May 01 16:27	0° \mathbb{B}			2705 Mar 17 19:04	0° \mathbb{H}	
morning set	2704 May 04 08:18	5° \mathbb{B} 13'02			2705 Apr 07 11:08	0° \mathbb{Y}	
max. Earth dist.	2704 May 09 14:10	16° \mathbb{B} 00'23	1.32943 AU	morning set	2705 Apr 17 20:33	18° \mathbb{Y} 46'22	
superior conj	2704 May 12 03:30	21° \mathbb{B} 27'25	0°-9'-15	max. Earth dist.	2705 Apr 22 09:25	27° \mathbb{Y} 44'56	1.34014 AU
minimum elong	2704 May 12 03:57	21° \mathbb{B} 29'51	0°09'11		2705 Apr 23 11:55	0° \mathbb{B}	
behind sun begin	2704 May 11 23:35	21° \mathbb{B} 06'24		superior conj	2705 Apr 26 06:02	5° \mathbb{B} 42'47	0°-37'-28
behind sun end	2704 May 12 08:19	21° \mathbb{B} 53'19		minimum elong	2705 Apr 26 07:57	5° \mathbb{B} 52'51	0°37'05
asc. node	2704 May 13 00:39	23° \mathbb{B} 21'18		asc. node	2705 Apr 29 21:41	13° \mathbb{B} 25'32	
	2704 May 16 02:25	0° \mathbb{I}		evening rise	2705 May 03 16:13	21° \mathbb{B} 23'16	
evening rise	2704 May 19 05:47	6° \mathbb{I} 43'24			2705 May 07 21:51	0° \mathbb{I}	
	2704 May 31 14:12	0° \mathbb{S}		evening max el	2705 May 23 20:53	24° \mathbb{I} 05'39	21°37'57
evening max el	2704 Jun 11 02:25	13° \mathbb{S} 30'39	23°11'47		2705 Jun 03 04:20	0° \mathbb{S}	
desc. node	2704 Jun 19 20:44	19° \mathbb{S} 23'49		retrograde	2705 Jun 05 05:24	0° \mathbb{S} 09'50	
retrograde	2704 Jun 24 14:11	20° \mathbb{S} 14'41		desc. node	2705 Jun 06 17:44	0° \mathbb{S} 04'36	
evening set	2704 Jun 28 07:16	19° \mathbb{S} 44'32			2705 Jun 07 07:22	30° \mathbb{R} \mathbb{I}	
min. Earth dist.	2704 Jul 05 12:01	16° \mathbb{S} 28'51	0.55649 AU	evening set	2705 Jun 07 17:52	29° \mathbb{I} 55'31	
inferior conj	2704 Jul 07 07:07	15° \mathbb{S} 25'46	-4°-21'-57	inferior conj	2705 Jun 17 02:51	25° \mathbb{I} 54'31	-2°-55'-12
minimum elong	2704 Jul 07 00:03	15° \mathbb{S} 36'09	4°20'36	minimum elong	2705 Jun 16 19:19	26° \mathbb{I} 05'04	2°52'50
morning rise	2704 Jul 15 19:51	11° \mathbb{S} 32'37		min. Earth dist.	2705 Jun 16 23:24	25° \mathbb{I} 59'20	0.54920 AU
direct	2704 Jul 18 16:19	11° \mathbb{S} 13'02		morning rise	2705 Jun 25 21:38	22° \mathbb{I} 00'11	
morning max el	2704 Jul 29 09:26	16° \mathbb{S} 11'00	20°28'25	direct	2705 Jun 29 03:40	21° \mathbb{I} 37'04	
asc. node	2704 Aug 08 23:53	0° \mathbb{Q} 27'11		morning max el	2705 Jul 11 10:51	27° \mathbb{I} 24'47	21°58'11
	2704 Aug 08 17:33	0° \mathbb{Q}			2705 Jul 13 23:50	0° \mathbb{S}	
morning set	2704 Aug 17 03:15	16° \mathbb{Q} 02'57		asc. node	2705 Jul 26 20:55	19° \mathbb{S} 32'39	
	2704 Aug 23 21:44	0° \mathbb{M}			2705 Aug 01 02:53	0° \mathbb{Q}	
superior conj	2704 Aug 24 18:20	1° \mathbb{M} 44'54	1°45'08	morning set	2705 Aug 01 12:50	0° \mathbb{Q} 51'46	
minimum elong	2704 Aug 24 18:06	1° \mathbb{M} 43'43	1°45'07	superior conj	2705 Aug 08 19:16	16° \mathbb{Q} 13'10	1°40'29
max. Earth dist.	2704 Aug 29 18:53	11° \mathbb{M} 43'18	1.36250 AU	minimum elong	2705 Aug 08 17:47	16° \mathbb{Q} 05'25	1°40'24
evening rise	2704 Sep 02 19:17	19° \mathbb{M} 18'43		max. Earth dist.	2705 Aug 12 09:16	23° \mathbb{Q} 38'46	1.34639 AU
	2704 Sep 08 19:43	0° \mathbb{U}			2705 Aug 15 13:25	0° \mathbb{M}	
desc. node	2704 Sep 15 20:04	11° \mathbb{U} 28'08		evening rise	2705 Aug 16 23:02	2° \mathbb{M} 43'43	
	2704 Sep 28 19:26	0° \mathbb{M}			2705 Sep 01 17:20	0° \mathbb{U}	
evening max el	2704 Oct 08 11:02	11° \mathbb{M} 01'24	26°05'29	desc. node	2705 Sep 02 17:04	1° \mathbb{U} 30'24	
retrograde	2704 Oct 21 00:55	18° \mathbb{M} 09'17		evening max el	2705 Sep 20 23:32	24° \mathbb{U} 36'38	26°56'42
evening set	2704 Oct 27 06:10	15° \mathbb{M} 35'36			2705 Sep 27 21:57	0° \mathbb{M}	
min. Earth dist.	2704 Oct 31 12:28	11° \mathbb{M} 02'35	0.66639 AU	retrograde	2705 Oct 04 03:38	1° \mathbb{M} 52'50	

	2705 Oct 09 19:21	30° $\text{R}\Omega$		evening set	2706 Sep 24 03:08	12° Ω 32'46	
evening set	2705 Oct 10 21:29	29° Ω 11'34		min. Earth dist.	2706 Sep 27 20:22	9° Ω 11'47	0.64088 AU
min. Earth dist.	2705 Oct 14 20:47	25° Ω 15'22	0.65540 AU	inferior conj	2706 Sep 30 07:17	6° Ω 37'38	-3°00'-3
inferior conj	2705 Oct 16 19:06	23° Ω 01'54	-2°-1'-11	minimum elong	2706 Sep 30 12:05	6° Ω 25'04	2°58'26
minimum elong	2705 Oct 16 22:24	22° Ω 52'23	1°59'54	morning rise	2706 Oct 06 23:13	1° Ω 13'28	
asc. node	2705 Oct 22 20:08	17° Ω 27'51		direct	2706 Oct 09 11:01	0° Ω 42'16	
morning rise	2705 Oct 23 00:54	17° Ω 21'45		asc. node	2706 Oct 09 17:11	0° Ω 42'36	
direct	2705 Oct 25 18:30	16° Ω 40'50		morning max el	2706 Oct 15 23:33	4° Ω 07'55	17°54'47
morning max el	2705 Nov 01 07:19	20° Ω 13'01	18°15'09	morning set	2706 Nov 01 21:55	29° Ω 59'11	
	2705 Nov 08 18:51	0° M			2706 Nov 01 22:06	0° M	
morning set	2705 Nov 20 02:58	18° M 11'25					
	2705 Nov 27 09:56	0° J		superior conj	2706 Nov 14 20:41	21° M 38'58	0°11'33
desc. node	2705 Nov 29 16:22	3° J 37'57		minimum elong	2706 Nov 14 21:59	21° M 44'15	0°11'22
				behind sun begin	2706 Nov 14 14:46	21° M 14'53	
superior conj	2705 Dec 05 02:50	12° J 15'33	0°-36'-8	behind sun end	2706 Nov 15 05:12	22° M 13'34	
minimum elong	2705 Dec 04 22:12	11° J 57'15	0°35'32	desc. node	2706 Nov 16 13:23	24° M 23'47	
max. Earth dist.	2705 Dec 07 11:17	15° J 57'48	1.45134 AU	max. Earth dist.	2706 Nov 20 05:52	0° J 17'56	1.44480 AU
	2705 Dec 16 10:32	0° Z			2706 Nov 20 01:21	0° J	
evening rise	2705 Dec 21 11:57	7° Z 53'38		evening rise	2706 Nov 30 23:20	17° J 03'18	
	2706 Jan 04 20:04	0° \approx			2706 Dec 09 11:21	0° Z	
greatest brilliancy	2706 Jan 05 20:05	1° \approx 28'30	-0.7m	greatest brilliancy	2706 Dec 22 09:45	18° Z 42'15	-0.5m
evening max el	2706 Jan 14 10:27	12° \approx 36'53	19°25'54	evening max el	2706 Dec 28 13:29	26° Z 07'24	20°24'34
asc. node	2706 Jan 18 19:25	16° \approx 02'10			2707 Jan 02 10:40	0° \approx	
retrograde	2706 Jan 21 14:45	16° \approx 44'45		retrograde	2707 Jan 05 12:48	0° \approx 49'01	
evening set	2706 Jan 25 00:52	15° \approx 36'13		asc. node	2707 Jan 05 16:27	0° \approx 48'53	
inferior conj	2706 Jan 30 14:26	9° \approx 40'02	3°13'45		2707 Jan 08 10:47	30° RZ	
minimum elong	2706 Jan 30 12:09	9° \approx 47'29	3°13'18	evening set	2707 Jan 09 07:30	29° Z 26'18	
min. Earth dist.	2706 Jan 31 20:21	8° \approx 02'45	0.66412 AU	inferior conj	2707 Jan 14 18:09	23° Z 17'03	2°43'02
morning rise	2706 Feb 04 22:40	3° \approx 25'36		minimum elong	2707 Jan 14 15:35	23° Z 25'49	2°42'18
direct	2706 Feb 11 03:40	0° \approx 41'15		min. Earth dist.	2707 Jan 15 10:37	22° Z 21'06	0.67282 AU
morning max el	2706 Feb 23 14:51	8° \approx 05'21	25°57'19	morning rise	2707 Jan 19 23:10	17° Z 01'37	
desc. node	2706 Feb 25 15:34	10° \approx 13'31		direct	2707 Jan 25 14:05	14° Z 32'47	
	2706 Mar 12 18:10	0° H		morning max el	2707 Feb 05 23:30	21° Z 20'45	24°35'00
	2706 Mar 30 22:26	0° Y		desc. node	2707 Feb 12 12:38	28° Z 47'50	
morning set	2706 Mar 31 19:06	1° Y 34'55			2707 Feb 13 11:36	0° \approx	
max. Earth dist.	2706 Apr 04 17:16	8° Y 59'08	1.35543 AU		2707 Mar 06 00:15	0° H	
				morning set	2707 Mar 13 22:38	13° H 24'17	
superior conj	2706 Apr 10 01:02	19° Y 30'46	-1°-5'-37	max. Earth dist.	2707 Mar 17 15:28	20° H 01'40	1.37465 AU
minimum elong	2706 Apr 10 04:23	19° Y 47'46	1°05'02		2707 Mar 22 23:29	0° Y	
	2706 Apr 15 03:45	0° Z					
asc. node	2706 Apr 16 18:43	3° Z 20'58		superior conj	2707 Mar 24 09:19	2° Y 43'03	-1°-31'-41
evening rise	2706 Apr 17 23:16	5° Z 47'31		minimum elong	2707 Mar 24 13:40	3° Y 04'06	1°31'07
	2706 May 01 14:46	0° II		evening rise	2707 Apr 02 00:37	19° Y 49'31	
evening max el	2706 May 06 01:56	5° II 11'29	20°17'09	asc. node	2707 Apr 03 15:45	23° Y 03'11	
retrograde	2706 May 16 18:59	10° II 23'43			2707 Apr 07 06:36	0° Z	
evening set	2706 May 18 19:34	10° II 13'21		evening max el	2707 Apr 18 18:49	16° Z 57'55	19°15'00
desc. node	2706 May 24 14:45	8° II 06'36		retrograde	2707 Apr 27 19:37	21° Z 20'46	
inferior conj	2706 May 27 21:56	6° II 15'00	0°-58'-6	evening set	2707 Apr 29 21:00	21° Z 08'06	
minimum elong	2706 May 27 19:12	6° II 19'01	0°57'06	inferior conj	2707 May 08 06:23	16° Z 58'19	0°55'17
min. Earth dist.	2706 May 29 11:56	5° II 19'10	0.55134 AU	minimum elong	2707 May 08 08:35	16° Z 54'38	0°54'31
morning rise	2706 Jun 05 16:49	1° II 59'50		min. Earth dist.	2707 May 11 02:53	15° Z 04'21	0.56264 AU
direct	2706 Jun 09 14:53	1° II 26'37		desc. node	2707 May 11 11:48	14° Z 50'05	
morning max el	2706 Jun 23 03:50	8° II 03'11	23°39'38	morning rise	2707 May 16 16:04	12° Z 08'59	
	2706 Jul 09 00:04	0° S		direct	2707 May 21 13:14	11° Z 13'59	
asc. node	2706 Jul 13 17:58	9° S 03'08		morning max el	2707 Jun 04 18:13	18° Z 28'59	25°19'32
morning set	2706 Jul 17 00:22	15° S 46'49			2707 Jun 14 08:44	0° II	
	2706 Jul 23 15:07	0° Ω		asc. node	2707 Jun 30 15:01	28° II 51'12	
					2707 Jul 01 04:09	0° S	
superior conj	2706 Jul 24 01:59	0° Ω 58'38	1°29'57	morning set	2707 Jul 01 12:07	0° S 42'01	
minimum elong	2706 Jul 23 23:48	0° Ω 46'52	1°29'44				
max. Earth dist.	2706 Jul 26 08:53	5° Ω 52'22	1.33414 AU	superior conj	2707 Jul 08 12:10	15° S 53'14	1°14'34
evening rise	2706 Jul 31 15:03	16° Ω 44'37		minimum elong	2707 Jul 08 09:47	15° S 40'12	1°14'12
	2706 Aug 07 13:58	0° M		max. Earth dist.	2707 Jul 09 15:48	18° S 24'11	1.32597 AU
desc. node	2706 Aug 20 14:03	21° M 04'54			2707 Jul 15 02:09	0° Ω	
	2706 Aug 27 06:10	0° Ω		evening rise	2707 Jul 15 15:45	1° Ω 10'24	
evening max el	2706 Sep 03 11:08	7° Ω 55'11	27°23'37		2707 Jul 31 13:05	0° M	
retrograde	2706 Sep 17 00:27	15° Ω 13'00		desc. node	2707 Aug 07 11:05	9° M 59'24	

evening max el	2707 Aug 16 19:43	20° $\mathring{\text{M}}$ 43'33	27°20'27	evening rise	2708 Jun 28 22:24	15° $\mathring{\text{S}}$ 52'36	
retrograde	2707 Aug 30 14:57	27° $\mathring{\text{M}}$ 59'27			2708 Jul 06 00:48	0° $\mathring{\text{O}}$	
evening set	2707 Sep 06 19:33	25° $\mathring{\text{M}}$ 32'17		desc. node	2708 Jul 24 08:07	27° $\mathring{\text{O}}$ 57'06	
min. Earth dist.	2707 Sep 10 09:44	22° $\mathring{\text{M}}$ 39'58	0.62308 AU		2708 Jul 26 03:48	0° $\mathring{\text{M}}$	
inferior conj	2707 Sep 13 08:25	19° $\mathring{\text{M}}$ 55'08	-3°-54'-41	evening max el	2708 Jul 28 22:57	2° $\mathring{\text{M}}$ 50'43	26°44'06
minimum elong	2707 Sep 13 13:59	19° $\mathring{\text{M}}$ 42'08	3°53'14	retrograde	2708 Aug 11 21:50	10° $\mathring{\text{M}}$ 03'06	
morning rise	2707 Sep 20 11:14	14° $\mathring{\text{M}}$ 50'14		evening set	2708 Aug 18 18:11	8° $\mathring{\text{M}}$ 02'36	
direct	2707 Sep 22 19:56	14° $\mathring{\text{M}}$ 25'28		min. Earth dist.	2708 Aug 22 12:52	5° $\mathring{\text{M}}$ 25'54	0.60298 AU
asc. node	2707 Sep 26 14:15	15° $\mathring{\text{M}}$ 30'08		inferior conj	2708 Aug 25 19:06	2° $\mathring{\text{M}}$ 45'59	-4°-38'-43
morning max el	2707 Sep 29 15:20	17° $\mathring{\text{M}}$ 53'05	17°52'22	minimum elong	2708 Aug 25 23:48	2° $\mathring{\text{M}}$ 36'21	4°37'58
	2707 Oct 08 07:50	0° $\mathring{\text{A}}$			2708 Aug 29 10:06	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$	
morning set	2707 Oct 15 14:27	12° $\mathring{\text{A}}$ 48'25		morning rise	2708 Sep 02 08:42	28° $\mathring{\text{O}}$ 02'56	
	2707 Oct 25 08:05	0° $\mathring{\text{M}}$		direct	2708 Sep 04 17:21	27° $\mathring{\text{O}}$ 41'53	
					2708 Sep 10 14:44	0° $\mathring{\text{M}}$	
superior conj	2707 Oct 26 16:47	2° $\mathring{\text{M}}$ 19'58	0°51'35	morning max el	2708 Sep 12 03:29	1° $\mathring{\text{M}}$ 20'14	18°09'05
minimum elong	2707 Oct 26 20:59	2° $\mathring{\text{M}}$ 37'52	0°51'02	asc. node	2708 Sep 12 11:18	1° $\mathring{\text{M}}$ 39'29	
max. Earth dist.	2707 Nov 02 20:25	14° $\mathring{\text{M}}$ 14'16	1.43179 AU	morning set	2708 Sep 27 22:39	26° $\mathring{\text{M}}$ 22'31	
desc. node	2707 Nov 03 10:24	15° $\mathring{\text{M}}$ 11'02			2708 Sep 29 20:57	0° $\mathring{\text{A}}$	
evening rise	2707 Nov 10 09:42	26° $\mathring{\text{M}}$ 15'39					
	2707 Nov 12 19:37	0° $\mathring{\text{A}}$		superior conj	2708 Oct 07 14:37	14° $\mathring{\text{A}}$ 16'18	1°20'08
	2707 Dec 03 10:16	0° $\mathring{\text{S}}$		minimum elong	2708 Oct 07 18:42	14° $\mathring{\text{A}}$ 34'37	1°19'41
greatest brilliancy	2707 Dec 06 13:22	4° $\mathring{\text{S}}$ 02'10	-0.4m	max. Earth dist.	2708 Oct 15 05:44	27° $\mathring{\text{A}}$ 33'57	1.41401 AU
evening max el	2707 Dec 11 10:55	9° $\mathring{\text{S}}$ 38'34	21°35'15		2708 Oct 16 16:35	0° $\mathring{\text{M}}$	
retrograde	2707 Dec 20 10:11	14° $\mathring{\text{S}}$ 58'43		evening rise	2708 Oct 20 11:08	6° $\mathring{\text{M}}$ 11'40	
asc. node	2707 Dec 23 13:30	14° $\mathring{\text{S}}$ 04'43		desc. node	2708 Oct 20 07:25	5° $\mathring{\text{M}}$ 56'37	
evening set	2707 Dec 24 15:17	13° $\mathring{\text{S}}$ 20'31			2708 Nov 05 01:04	0° $\mathring{\text{A}}$	
inferior conj	2707 Dec 30 00:48	7° $\mathring{\text{S}}$ 01'42	2°04'03	greatest brilliancy	2708 Nov 17 22:13	17° $\mathring{\text{A}}$ 21'05	-0.2m
minimum elong	2707 Dec 29 22:26	7° $\mathring{\text{S}}$ 09'52	2°03'14	evening max el	2708 Nov 23 03:26	23° $\mathring{\text{A}}$ 12'06	22°53'25
min. Earth dist.	2707 Dec 30 05:19	6° $\mathring{\text{S}}$ 46'01	0.67763 AU	retrograde	2708 Dec 03 05:12	29° $\mathring{\text{A}}$ 10'46	
morning rise	2708 Jan 04 05:18	0° $\mathring{\text{S}}$ 47'09		evening set	2708 Dec 07 22:32	27° $\mathring{\text{A}}$ 16'00	
	2708 Jan 05 05:30	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		asc. node	2708 Dec 09 10:34	25° $\mathring{\text{A}}$ 50'30	
direct	2708 Jan 09 05:11	28° $\mathring{\text{A}}$ 39'13		inferior conj	2708 Dec 13 08:25	20° $\mathring{\text{A}}$ 51'26	1°18'18
	2708 Jan 13 14:46	0° $\mathring{\text{S}}$		minimum elong	2708 Dec 13 06:43	20° $\mathring{\text{A}}$ 57'18	1°17'38
morning max el	2708 Jan 19 08:46	4° $\mathring{\text{S}}$ 40'56	23°06'20	min. Earth dist.	2708 Dec 13 01:58	21° $\mathring{\text{A}}$ 13'43	0.67890 AU
greatest brilliancy	2708 Jan 24 06:43	10° $\mathring{\text{S}}$ 10'47	-0.3m	morning rise	2708 Dec 18 14:52	14° $\mathring{\text{A}}$ 39'56	
desc. node	2708 Jan 30 09:40	18° $\mathring{\text{S}}$ 04'45		direct	2708 Dec 23 00:02	12° $\mathring{\text{A}}$ 54'50	
	2708 Feb 07 18:54	0° $\mathring{\text{A}}$		morning max el	2708 Dec 31 22:06	18° $\mathring{\text{A}}$ 08'07	21°40'28
morning set	2708 Feb 23 00:56	23° $\mathring{\text{A}}$ 58'09		greatest brilliancy	2709 Jan 05 19:03	23° $\mathring{\text{A}}$ 39'08	-0.4m
	2708 Feb 26 14:28	0° $\mathring{\text{A}}$			2709 Jan 10 16:03	0° $\mathring{\text{S}}$	
max. Earth dist.	2708 Feb 27 10:20	1° $\mathring{\text{A}}$ 25'35	1.39606 AU	desc. node	2709 Jan 16 06:41	7° $\mathring{\text{S}}$ 52'04	
					2709 Jan 30 22:33	0° $\mathring{\text{A}}$	
superior conj	2708 Mar 06 02:48	15° $\mathring{\text{A}}$ 09'25	-1°-52'-46	morning set	2709 Feb 01 21:58	3° $\mathring{\text{A}}$ 07'43	
minimum elong	2708 Mar 06 06:55	15° $\mathring{\text{A}}$ 28'25	1°52'28	max. Earth dist.	2709 Feb 08 09:29	13° $\mathring{\text{A}}$ 39'13	1.41707 AU
	2708 Mar 13 23:20	0° $\mathring{\text{Y}}$					
evening rise	2708 Mar 15 17:19	3° $\mathring{\text{Y}}$ 21'32		superior conj	2709 Feb 16 00:21	26° $\mathring{\text{A}}$ 37'00	-2°-4'-48
asc. node	2708 Mar 20 12:49	12° $\mathring{\text{Y}}$ 26'59		minimum elong	2709 Feb 16 02:01	26° $\mathring{\text{A}}$ 44'14	2°04'48
evening max el	2708 Mar 31 21:30	29° $\mathring{\text{Y}}$ 21'47	18°33'02		2709 Feb 17 22:34	0° $\mathring{\text{A}}$	
	2708 Apr 01 13:55	0° $\mathring{\text{S}}$		evening rise	2709 Feb 26 21:43	16° $\mathring{\text{A}}$ 14'09	
retrograde	2708 Apr 08 14:18	3° $\mathring{\text{S}}$ 08'37			2709 Mar 06 13:39	0° $\mathring{\text{Y}}$	
evening set	2708 Apr 10 21:19	2° $\mathring{\text{S}}$ 49'37		asc. node	2709 Mar 07 09:52	1° $\mathring{\text{Y}}$ 25'07	
	2708 Apr 16 07:05	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$		evening max el	2709 Mar 15 06:34	12° $\mathring{\text{Y}}$ 12'56	18°11'02
inferior conj	2708 Apr 18 11:30	28° $\mathring{\text{Y}}$ 21'00	2°20'44	retrograde	2709 Mar 22 03:06	15° $\mathring{\text{Y}}$ 40'19	
minimum elong	2708 Apr 18 15:24	28° $\mathring{\text{Y}}$ 13'22	2°19'40	evening set	2709 Mar 24 16:00	15° $\mathring{\text{Y}}$ 12'31	
min. Earth dist.	2708 Apr 21 21:27	25° $\mathring{\text{Y}}$ 42'07	0.58069 AU	inferior conj	2709 Mar 31 13:20	10° $\mathring{\text{Y}}$ 22'29	3°13'06
morning rise	2708 Apr 26 05:08	22° $\mathring{\text{Y}}$ 58'54		minimum elong	2709 Mar 31 16:17	10° $\mathring{\text{Y}}$ 15'46	3°12'37
desc. node	2708 Apr 27 08:51	22° $\mathring{\text{Y}}$ 28'01		min. Earth dist.	2709 Apr 03 21:26	7° $\mathring{\text{Y}}$ 21'44	0.60202 AU
direct	2708 May 02 02:16	21° $\mathring{\text{Y}}$ 30'49		morning rise	2709 Apr 07 13:09	4° $\mathring{\text{Y}}$ 36'54	
morning max el	2708 May 16 11:29	29° $\mathring{\text{Y}}$ 09'45	26°42'10	direct	2709 Apr 14 03:31	2° $\mathring{\text{Y}}$ 33'04	
	2708 May 17 07:41	0° $\mathring{\text{S}}$		desc. node	2709 Apr 14 05:54	2° $\mathring{\text{Y}}$ 33'06	
	2708 Jun 07 01:49	0° $\mathring{\text{II}}$		morning max el	2709 Apr 28 10:33	10° $\mathring{\text{Y}}$ 24'21	27°34'41
morning set	2708 Jun 14 22:31	15° $\mathring{\text{II}}$ 32'09			2709 May 13 15:14	0° $\mathring{\text{S}}$	
asc. node	2708 Jun 16 12:04	18° $\mathring{\text{II}}$ 51'19		morning set	2709 May 30 05:43	0° $\mathring{\text{II}}$ 10'21	
					2709 May 30 03:43	0° $\mathring{\text{II}}$	
superior conj	2708 Jun 21 23:54	0° $\mathring{\text{S}}$ 50'33	0°55'05	asc. node	2709 Jun 03 09:07	8° $\mathring{\text{II}}$ 57'56	
minimum elong	2708 Jun 21 21:48	0° $\mathring{\text{S}}$ 38'59	0°54'41	max. Earth dist.	2709 Jun 05 14:52	13° $\mathring{\text{II}}$ 50'57	1.32165 AU
	2708 Jun 21 14:44	0° $\mathring{\text{S}}$					
max. Earth dist.	2708 Jun 22 03:02	1° $\mathring{\text{S}}$ 07'48	1.32185 AU	superior conj	2709 Jun 06 11:23	15° $\mathring{\text{II}}$ 43'39	0°32'09

minimum elong	2709 Jun 06 10:00	15° Π 36'01	0°31'51	minimum elong	2710 May 21 20:35	0° Π 25'04	0°06'24
evening rise	2709 Jun 13 08:35	0° \mathfrak{S} 42'35		behind sun begin	2710 May 21 15:49	29° \mathfrak{S} 59'12	
	2709 Jun 13 00:34	0° \mathfrak{S}		behind sun end	2710 May 22 01:21	0° Π 50'58	
	2709 Jun 29 08:23	0° Ω			2710 May 21 15:58	0° Π	
evening max el	2709 Jul 10 19:03	14° Ω 10'29	25°36'37	evening rise	2710 May 28 20:19	15° Π 33'38	
desc. node	2709 Jul 11 05:09	14° Ω 34'16			2710 Jun 05 01:05	0° \mathfrak{S}	
retrograde	2709 Jul 24 19:01	21° Ω 18'06		evening max el	2710 Jun 22 09:17	24° \mathfrak{S} 50'46	24°07'12
evening set	2709 Jul 30 18:18	19° Ω 54'25		desc. node	2710 Jun 28 02:10	29° \mathfrak{S} 19'41	
min. Earth dist.	2709 Aug 04 07:13	17° Ω 15'43	0.58247 AU		2710 Jun 29 07:07	0° Ω	
inferior conj	2709 Aug 07 11:48	15° Ω 00'02	-5°-1'-53	retrograde	2710 Jul 06 04:30	1° Ω 47'48	
minimum elong	2709 Aug 07 13:01	14° Ω 57'52	5°01'52	evening set	2710 Jul 10 18:51	1° Ω 00'57	
morning rise	2709 Aug 15 11:17	10° Ω 40'04			2710 Jul 13 06:46	30° \mathfrak{R} \mathfrak{S}	
direct	2709 Aug 17 23:01	10° Ω 20'35		min. Earth dist.	2710 Jul 16 19:55	28° \mathfrak{S} 02'55	0.56445 AU
morning max el	2709 Aug 26 08:43	14° Ω 19'51	18°46'23	inferior conj	2710 Jul 19 08:18	26° \mathfrak{S} 29'25	-4°-49'-59
asc. node	2709 Aug 30 08:20	18° Ω 55'17		minimum elong	2710 Jul 19 03:56	26° \mathfrak{S} 36'12	4°49'32
	2709 Sep 06 05:35	0° \mathfrak{M}		morning rise	2710 Jul 27 16:33	22° \mathfrak{S} 29'39	
morning set	2709 Sep 11 17:51	10° \mathfrak{M} 28'40		direct	2710 Jul 30 09:32	22° \mathfrak{S} 10'26	
				morning max el	2710 Aug 09 04:08	26° \mathfrak{S} 42'46	19°45'09
superior conj	2709 Sep 20 09:05	27° \mathfrak{M} 13'43	1°37'17		2710 Aug 12 05:45	0° Ω	
minimum elong	2709 Sep 20 11:35	27° \mathfrak{M} 25'36	1°37'07	asc. node	2710 Aug 17 05:22	7° Ω 03'03	
	2709 Sep 21 20:25	0° \mathfrak{A}		morning set	2710 Aug 26 20:33	24° Ω 56'54	
max. Earth dist.	2709 Sep 27 10:57	10° \mathfrak{A} 12'19	1.39365 AU		2710 Aug 29 08:23	0° \mathfrak{M}	
evening rise	2709 Oct 01 11:44	17° \mathfrak{A} 12'04					
desc. node	2709 Oct 07 04:27	26° \mathfrak{A} 36'57		superior conj	2710 Sep 03 18:42	10° \mathfrak{M} 56'26	1°44'39
	2709 Oct 09 07:30	0° \mathfrak{M}		minimum elong	2710 Sep 03 19:23	10° \mathfrak{M} 59'52	1°44'38
	2709 Oct 30 13:29	0° \mathfrak{X}		max. Earth dist.	2710 Sep 09 15:33	22° \mathfrak{M} 16'08	1.37328 AU
evening max el	2709 Nov 05 16:50	6° \mathfrak{X} 49'52	24°13'12	evening rise	2710 Sep 13 11:19	29° \mathfrak{M} 16'24	
retrograde	2709 Nov 16 20:37	13° \mathfrak{X} 22'17			2710 Sep 13 21:04	0° \mathfrak{A}	
evening set	2709 Nov 22 03:41	11° \mathfrak{X} 10'43		desc. node	2710 Sep 24 01:27	17° \mathfrak{A} 07'10	
asc. node	2709 Nov 26 07:35	6° \mathfrak{X} 30'41			2710 Oct 02 14:51	0° \mathfrak{M}	
min. Earth dist.	2709 Nov 26 22:10	5° \mathfrak{X} 42'04	0.67675 AU	evening max el	2710 Oct 19 04:56	20° \mathfrak{M} 30'08	25°27'48
inferior conj	2709 Nov 27 15:15	4° \mathfrak{X} 44'32	0°27'04	retrograde	2710 Oct 31 07:38	27° \mathfrak{M} 28'02	
minimum elong	2709 Nov 27 14:36	4° \mathfrak{X} 46'43	0°26'48	evening set	2710 Nov 06 05:02	25° \mathfrak{M} 01'09	
	2709 Dec 01 12:17	30° \mathfrak{R} \mathfrak{M}		min. Earth dist.	2710 Nov 10 15:32	20° \mathfrak{M} 07'41	0.67119 AU
morning rise	2709 Dec 03 01:49	28° \mathfrak{M} 38'26		inferior conj	2710 Nov 11 19:30	18° \mathfrak{M} 37'38	0°-28'-27
direct	2709 Dec 06 21:25	27° \mathfrak{M} 15'23		minimum elong	2710 Nov 11 20:14	18° \mathfrak{M} 35'17	0°28'09
	2709 Dec 12 20:25	0° \mathfrak{X}		asc. node	2710 Nov 13 04:36	16° \mathfrak{M} 52'48	
morning max el	2709 Dec 14 18:38	1° \mathfrak{X} 46'46	20°24'16	morning rise	2710 Nov 17 12:11	12° \mathfrak{M} 39'31	
greatest brilliancy	2709 Dec 21 03:06	9° \mathfrak{X} 19'06	-0.5m	direct	2710 Nov 20 19:55	11° \mathfrak{M} 35'52	
desc. node	2710 Jan 03 03:43	28° \mathfrak{X} 01'46		morning max el	2710 Nov 27 23:05	15° \mathfrak{M} 36'08	19°21'39
	2710 Jan 04 11:06	0° \mathfrak{S}		greatest brilliancy	2710 Dec 07 05:55	27° \mathfrak{M} 30'07	-0.7m
morning set	2710 Jan 11 21:03	11° \mathfrak{S} 20'28			2710 Dec 08 22:47	0° \mathfrak{X}	
max. Earth dist.	2710 Jan 21 16:50	26° \mathfrak{S} 50'08	1.43475 AU	desc. node	2710 Dec 21 00:43	18° \mathfrak{X} 27'08	
	2710 Jan 23 15:49	0° \approx		morning set	2710 Dec 21 20:37	19° \mathfrak{X} 44'12	
					2710 Dec 28 10:58	0° \mathfrak{S}	
superior conj	2710 Jan 27 21:10	6° \approx 55'39	-2°-2'-43	max. Earth dist.	2711 Jan 04 07:03	10° \mathfrak{S} 43'53	1.44676 AU
minimum elong	2710 Jan 27 17:44	6° \approx 41'25	2°02'37				
evening rise	2710 Feb 09 09:42	28° \approx 19'33		superior conj	2711 Jan 07 16:10	16° \mathfrak{S} 05'39	-1°-42'-4
	2710 Feb 10 08:40	0° \mathfrak{X}		minimum elong	2711 Jan 07 07:47	15° \mathfrak{S} 32'14	1°41'22
asc. node	2710 Feb 22 06:54	19° \mathfrak{X} 49'44			2711 Jan 16 06:50	0° \approx	
evening max el	2710 Feb 26 18:43	25° \mathfrak{X} 22'38	18°08'27	evening rise	2711 Jan 22 01:01	9° \approx 30'17	
retrograde	2710 Mar 05 06:13	28° \mathfrak{X} 46'02			2711 Feb 03 14:35	0° \mathfrak{X}	
evening set	2710 Mar 08 00:25	28° \mathfrak{X} 08'09		asc. node	2711 Feb 09 03:55	7° \mathfrak{X} 30'33	
inferior conj	2710 Mar 14 08:39	22° \mathfrak{X} 57'05	3°37'17	evening max el	2711 Feb 10 07:05	8° \mathfrak{X} 43'34	18°24'42
minimum elong	2710 Mar 14 09:43	22° \mathfrak{X} 54'17	3°37'13	retrograde	2711 Feb 16 19:03	12° \mathfrak{X} 16'02	
min. Earth dist.	2710 Mar 17 05:30	19° \mathfrak{X} 59'13	0.62325 AU	evening set	2711 Feb 19 18:38	11° \mathfrak{X} 27'12	
morning rise	2710 Mar 20 16:39	16° \mathfrak{X} 56'47		inferior conj	2711 Feb 25 17:20	5° \mathfrak{X} 56'52	3°40'03
direct	2710 Mar 27 14:19	14° \mathfrak{X} 24'30		minimum elong	2711 Feb 25 16:40	5° \mathfrak{X} 58'48	3°40'01
desc. node	2710 Apr 01 02:55	15° \mathfrak{X} 22'37		min. Earth dist.	2711 Feb 27 23:10	3° \mathfrak{X} 21'33	0.64205 AU
morning max el	2710 Apr 10 15:38	22° \mathfrak{X} 20'50	27°50'24		2711 Mar 03 07:26	30° \mathfrak{R} \approx	
	2710 Apr 17 09:29	0° \mathfrak{Y}		morning rise	2711 Mar 03 13:10	29° \approx 48'02	
	2710 May 06 18:52	0° \mathfrak{S}		direct	2711 Mar 10 09:11	27° \approx 00'13	
morning set	2710 May 14 07:43	14° \mathfrak{S} 30'08			2711 Mar 18 07:32	0° \mathfrak{X}	
max. Earth dist.	2710 May 19 23:27	26° \mathfrak{S} 21'02	1.32542 AU	desc. node	2711 Mar 18 23:57	0° \mathfrak{X} 29'24	
asc. node	2710 May 21 06:10	29° \mathfrak{S} 06'50		morning max el	2711 Mar 24 00:37	4° \mathfrak{X} 54'13	27°29'36
					2711 Apr 12 00:54	0° \mathfrak{Y}	
superior conj	2710 May 21 20:54	0° Π 26'44	0°06'29	morning set	2711 Apr 28 01:57	28° \mathfrak{Y} 23'29	

	2711 Apr 28 21:28	0°♄		max. Earth dist.	2712 Apr 14 15:06	19°♃55'14	1.34601 AU
max. Earth dist.	2711 May 03 00:44	8°♄25'10	1.33340 AU				
superior conj	2711 May 06 02:35	14°♄54'03	0°-21'-8	superior conj	2712 Apr 19 02:14	28°♃58'31	0°-49'-32
minimum elong	2711 May 06 03:38	14°♄59'42	0°20'55	minimum elong	2712 Apr 19 04:47	29°♃11'44	0°49'02
asc. node	2711 May 08 03:13	19°♄14'03		asc. node	2712 Apr 19 14:07	0°♄	
evening rise	2711 May 13 07:46	0°♄19'26		evening rise	2712 Apr 24 00:15	9°♄14'59	
	2711 May 13 04:05	0°♄			2712 Apr 26 17:01	14°♄53'14	
	2711 May 30 06:51	0°♄			2712 May 04 10:40	0°♄	
evening max el	2711 Jun 03 23:50	5°♄18'13	22°30'51	evening max el	2712 May 15 22:19	16°♄04'05	21°01'38
desc. node	2711 Jun 14 23:11	11°♄38'05		retrograde	2712 May 27 15:26	21°♄47'16	
retrograde	2711 Jun 17 02:04	11°♄48'24		evening set	2712 May 29 20:25	21°♄35'50	
evening set	2711 Jun 20 05:18	11°♄26'45		desc. node	2712 May 31 20:13	21°♄07'08	
min. Earth dist.	2711 Jun 28 07:09	7°♄55'39	0.55226 AU	inferior conj	2712 Jun 08 04:24	17°♄38'03	-2°-7'-21
inferior conj	2711 Jun 29 10:46	7°♄16'25	-3°-50'-40	minimum elong	2712 Jun 07 22:30	17°♄46'24	2°05'19
minimum elong	2711 Jun 29 02:42	7°♄27'53	3°48'40	min. Earth dist.	2712 Jun 08 19:16	17°♄17'02	0.54882 AU
morning rise	2711 Jul 08 02:32	3°♄25'31		morning rise	2712 Jun 17 00:10	13°♄36'50	
direct	2711 Jul 11 02:21	3°♄05'06		direct	2712 Jun 20 11:44	13°♄10'39	
morning max el	2711 Jul 22 12:11	8°♄23'12	21°04'39	morning max el	2712 Jul 03 09:36	19°♄20'42	22°40'35
asc. node	2711 Aug 04 02:25	25°♄50'55		asc. node	2712 Jul 12 04:40	0°♄	
	2711 Aug 06 08:03	0°♄		morning set	2712 Jul 20 23:28	15°♄08'01	
morning set	2711 Aug 11 04:16	9°♄40'39			2712 Jul 25 14:54	24°♄32'50	
					2712 Jul 28 04:40	0°♄	
superior conj	2711 Aug 18 15:08	25°♄12'10	1°43'57	superior conj	2712 Aug 01 18:52	9°♄49'10	1°36'41
minimum elong	2711 Aug 18 14:18	25°♄07'56	1°43'56	minimum elong	2712 Aug 01 17:02	9°♄39'23	1°36'32
	2711 Aug 20 23:28	0°♄		max. Earth dist.	2712 Aug 04 18:58	16°♄08'24	1.34065 AU
max. Earth dist.	2711 Aug 23 00:56	4°♄07'28	1.35517 AU	evening rise	2712 Aug 09 15:38	25°♄58'19	
evening rise	2711 Aug 27 06:10	12°♄16'16			2712 Aug 11 17:36	0°♄	
	2711 Sep 06 07:35	0°♄		desc. node	2712 Aug 27 19:31	27°♄14'04	
desc. node	2711 Sep 10 22:29	7°♄22'09			2712 Aug 29 17:00	0°♄	
	2711 Sep 27 17:41	0°♄		evening max el	2712 Sep 13 05:19	17°♄38'54	27°11'27
evening max el	2711 Oct 01 17:04	4°♄09'16	26°29'40	retrograde	2712 Sep 26 14:16	24°♄57'12	
retrograde	2711 Oct 14 13:42	11°♄22'22		evening set	2712 Oct 03 12:19	22°♄15'08	
evening set	2711 Oct 21 00:42	8°♄44'15		min. Earth dist.	2712 Oct 07 08:48	18°♄34'10	0.64965 AU
min. Earth dist.	2711 Oct 25 03:51	4°♄27'06	0.66219 AU	inferior conj	2712 Oct 09 12:29	16°♄10'48	-2°-26'-25
inferior conj	2711 Oct 26 19:19	2°♄27'58	-1°-26'-54	minimum elong	2712 Oct 09 16:28	15°♄59'44	2°24'56
minimum elong	2711 Oct 26 21:39	2°♄20'54	1°25'58	morning rise	2712 Oct 15 22:28	10°♄36'59	
	2711 Oct 28 22:04	30°♄		asc. node	2712 Oct 16 22:40	10°♄14'30	
asc. node	2711 Oct 31 01:37	27°♄53'57		direct	2712 Oct 18 13:10	10°♄00'46	
morning rise	2711 Nov 01 19:53	26°♄40'29		morning max el	2712 Oct 25 01:11	13°♄29'30	18°04'15
direct	2711 Nov 04 17:52	25°♄52'33			2712 Nov 05 16:07	0°♄	
morning max el	2711 Nov 11 10:05	29°♄32'26	18°34'36	morning set	2712 Nov 11 22:31	10°♄23'26	
	2711 Nov 11 20:50	0°♄		desc. node	2712 Nov 23 18:48	29°♄47'02	
morning set	2711 Dec 01 18:51	29°♄20'04			2712 Nov 23 22:02	0°♄	
	2711 Dec 02 04:52	0°♄					
desc. node	2711 Dec 07 21:45	9°♄03'34		superior conj	2712 Nov 26 01:46	3°♄26'51	0°-15'-28
				minimum elong	2712 Nov 25 23:50	3°♄19'09	0°15'12
superior conj	2711 Dec 17 18:58	24°♄37'18	-1°-3'-23	behind sun begin	2712 Nov 25 20:06	3°♄04'16	
minimum elong	2711 Dec 17 11:14	24°♄06'55	1°02'28	behind sun end	2712 Nov 26 03:34	3°♄34'02	
max. Earth dist.	2711 Dec 18 00:57	25°♄00'47	1.45179 AU	max. Earth dist.	2712 Nov 29 19:51	9°♄23'47	1.44941 AU
	2711 Dec 21 05:12	0°♄		evening rise	2712 Dec 12 12:06	29°♄09'23	
evening rise	2712 Jan 02 17:03	19°♄43'54			2712 Dec 13 01:12	0°♄	
	2712 Jan 09 03:56	0°♄		greatest brilliancy	2712 Dec 30 15:08	26°♄29'47	-0.6m
evening max el	2712 Jan 24 17:16	22°♄10'53	18°58'50		2713 Jan 02 04:45	0°♄	
asc. node	2712 Jan 27 00:56	24°♄15'21		evening max el	2713 Jan 06 23:24	5°♄41'26	19°49'16
retrograde	2712 Jan 31 13:44	26°♄03'24		asc. node	2713 Jan 12 21:57	9°♄49'40	
evening set	2712 Feb 03 19:32	25°♄02'34		retrograde	2713 Jan 14 11:11	10°♄02'51	
inferior conj	2712 Feb 09 11:44	19°♄15'11	3°26'55	evening set	2713 Jan 18 00:41	8°♄48'39	
minimum elong	2712 Feb 09 09:52	19°♄21'04	3°26'38	inferior conj	2713 Jan 23 12:48	2°♄46'47	3°01'49
min. Earth dist.	2712 Feb 11 02:09	17°♄14'40	0.65722 AU	minimum elong	2713 Jan 23 10:19	2°♄55'01	3°01'15
morning rise	2712 Feb 14 23:11	13°♄01'53		min. Earth dist.	2713 Jan 24 12:54	1°♄26'42	0.66830 AU
direct	2712 Feb 21 10:58	10°♄12'29			2713 Jan 25 15:40	30°♄	
desc. node	2712 Mar 04 20:59	17°♄18'37		morning rise	2713 Jan 28 19:17	26°♄31'37	
morning max el	2712 Mar 05 10:31	17°♄52'17	26°37'43	direct	2713 Feb 03 18:37	23°♄52'36	
	2712 Mar 15 15:10	0°♄			2713 Feb 14 17:45	0°♄	
	2712 Apr 03 23:26	0°♄		morning max el	2713 Feb 15 19:27	1°♄03'17	25°23'38
morning set	2712 Apr 10 08:56	11°♄39'36		desc. node	2713 Feb 19 18:01	5°♄21'10	

	2713 Mar 09 15:16	0° H		min. Earth dist.	2714 Jan 08 05:15	15° Z 48'41	0.67538 AU
morning set	2713 Mar 24 00:09	24° H 05'29		morning rise	2714 Jan 12 22:30	10° Z 12'14	
	2713 Mar 27 05:14	0° Y		direct	2714 Jan 18 07:11	7° Z 51'42	
max. Earth dist.	2713 Mar 27 17:58	0° Y 59'45	1.36315 AU	morning max el	2714 Jan 29 03:50	14° Z 20'08	23°57'26
				desc. node	2714 Feb 06 15:02	24° Z 15'15	
superior conj	2713 Apr 02 17:09	12° Y 33'05	-1°-17'-4		2714 Feb 10 21:52	0° \approx	
minimum elong	2713 Apr 02 21:01	12° Y 52'19	1°16'29		2714 Mar 02 13:04	0° H	
evening rise	2713 Apr 10 21:59	29° Y 09'07		morning set	2714 Mar 05 17:37	5° H 24'05	
asc. node	2713 Apr 10 21:19	29° Y 05'44		max. Earth dist.	2714 Mar 09 13:47	12° H 07'12	1.38368 AU
	2713 Apr 11 08:03	0° B					
evening max el	2713 Apr 28 08:39	27° B 27'52	19°48'22	superior conj	2714 Mar 16 19:41	25° H 27'22	-1°-41'-27
	2713 May 01 10:41	0° II		minimum elong	2714 Mar 17 00:08	25° H 48'31	1°40'59
retrograde	2713 May 08 07:51	2° II 17'22			2714 Mar 19 04:38	0° Y	
evening set	2713 May 10 07:48	2° II 06'36		evening rise	2714 Mar 25 20:00	12° Y 59'14	
	2713 May 15 21:38	30° R B		asc. node	2714 Mar 28 18:21	18° Y 40'50	
desc. node	2713 May 18 17:13	28° B 21'24			2714 Apr 04 01:32	0° B	
inferior conj	2713 May 19 03:45	28° B 05'13	0°-7'-40	evening max el	2714 Apr 11 06:05	9° B 30'58	18°54'39
minimum elong	2713 May 19 03:24	28° B 05'45	0°07'34	retrograde	2714 Apr 19 15:37	13° B 36'17	
transit middle	2713 May 19 03:24	28° B 05'45	0°07'34	evening set	2714 Apr 21 19:24	13° B 21'09	
transit begin	2713 May 18 23:55	28° B 11'07		inferior conj	2714 Apr 29 20:29	9° B 03'40	1°35'37
transit end	2713 May 19 06:53	28° B 00'22		minimum elong	2714 Apr 29 23:50	8° B 57'42	1°34'33
min. Earth dist.	2713 May 21 08:51	26° B 43'35	0.55515 AU	min. Earth dist.	2714 May 03 00:46	6° B 48'34	0.56975 AU
morning rise	2713 May 27 19:48	23° B 36'12		desc. node	2714 May 05 14:15	5° B 11'34	
direct	2713 Jun 01 03:23	22° B 55'01		morning rise	2714 May 07 23:57	3° B 59'58	
morning max el	2713 Jun 15 00:34	29° B 49'57	24°23'09	direct	2714 May 13 07:54	2° B 51'59	
	2713 Jun 15 04:47	0° II		morning max el	2714 May 27 15:23	10° B 17'53	25°57'45
	2713 Jul 05 11:16	0° E			2714 Jun 11 15:39	0° II	
asc. node	2713 Jul 07 20:33	4° E 46'42		morning set	2714 Jun 24 14:06	24° II 21'58	
morning set	2713 Jul 10 02:43	9° E 28'19		asc. node	2714 Jun 24 17:38	24° II 40'36	
					2714 Jun 27 05:16	0° E	
superior conj	2713 Jul 17 03:19	24° E 39'13	1°23'59				
minimum elong	2713 Jul 17 01:00	24° E 26'34	1°23'41	superior conj	2714 Jul 01 14:22	9° E 35'27	1°06'46
max. Earth dist.	2713 Jul 18 22:00	28° E 29'57	1.33020 AU	minimum elong	2714 Jul 01 12:03	9° E 22'43	1°06'22
	2713 Jul 19 14:47	0° Q		max. Earth dist.	2714 Jul 02 07:22	11° E 08'48	1.32376 AU
evening rise	2713 Jul 24 11:46	10° Q 11'09		evening rise	2714 Jul 08 15:19	24° E 44'58	
	2713 Aug 04 01:24	0° np			2714 Jul 11 05:00	0° Q	
desc. node	2713 Aug 14 16:33	16° np 33'11			2714 Jul 28 18:04	0° np	
	2713 Aug 25 20:43	0° A		desc. node	2714 Aug 01 13:34	5° np 06'03	
evening max el	2713 Aug 26 16:11	0° A 47'06	27°26'17	evening max el	2714 Aug 08 22:59	13° np 19'57	27°09'08
retrograde	2713 Sep 09 08:29	8° A 03'56		retrograde	2714 Aug 22 19:37	20° np 33'34	
evening set	2713 Sep 16 12:49	5° A 28'03		evening set	2714 Aug 29 22:17	18° np 16'18	
min. Earth dist.	2713 Sep 20 04:22	2° A 20'03	0.63367 AU	min. Earth dist.	2714 Sep 02 13:14	15° np 32'39	0.61473 AU
inferior conj	2713 Sep 22 20:23	29° np 40'07	-3°-24'-5	inferior conj	2714 Sep 05 15:51	12° np 48'00	-4°-15'-10
minimum elong	2713 Sep 23 01:38	29° np 26'57	3°22'28	minimum elong	2714 Sep 05 21:18	12° np 35'55	4°13'58
	2713 Sep 22 12:29	30° R np		morning rise	2714 Sep 12 23:17	7° np 52'00	
morning rise	2713 Sep 29 16:52	24° np 23'23		direct	2714 Sep 15 07:45	7° np 28'58	
direct	2713 Oct 02 02:59	23° np 55'16		asc. node	2714 Sep 20 16:48	9° np 33'50	
asc. node	2713 Oct 03 19:44	24° np 09'23		morning max el	2714 Sep 22 08:10	10° np 59'44	17°57'05
morning max el	2713 Oct 08 17:33	27° np 20'56	17°51'25		2714 Oct 04 22:19	0° A	
	2713 Oct 11 02:02	0° A		morning set	2714 Oct 08 03:27	5° A 51'26	
morning set	2713 Oct 25 03:31	22° A 40'14					
	2713 Oct 29 08:44	0° M		superior conj	2714 Oct 18 13:51	24° A 37'08	1°05'09
superior conj	2713 Nov 06 06:14	13° M 21'49	0°29'50	minimum elong	2714 Oct 18 18:17	24° A 56'24	1°04'35
minimum elong	2713 Nov 06 09:13	13° M 34'11	0°29'25		2714 Oct 21 16:48	0° M	
desc. node	2713 Nov 10 15:49	20° M 33'59		max. Earth dist.	2714 Oct 26 02:16	7° M 21'56	1.42473 AU
max. Earth dist.	2713 Nov 12 13:09	23° M 36'33	1.44003 AU	desc. node	2714 Oct 28 12:52	11° M 21'30	
	2713 Nov 16 13:44	0° J		evening rise	2714 Nov 01 12:19	17° M 43'30	
evening rise	2713 Nov 21 20:59	8° J 15'26			2714 Nov 09 11:16	0° J	
	2713 Dec 06 08:15	0° Z		greatest brilliancy	2714 Nov 29 02:05	27° J 25'43	-0.3m
greatest brilliancy	2713 Dec 15 12:35	12° Z 46'07	-0.5m		2714 Dec 01 06:13	0° Z	
evening max el	2713 Dec 21 00:11	19° Z 12'50	20°53'30	evening max el	2714 Dec 03 19:26	2° Z 45'32	22°07'47
retrograde	2713 Dec 29 09:03	24° Z 09'59		retrograde	2714 Dec 13 05:34	8° Z 21'55	
asc. node	2713 Dec 30 19:01	23° Z 58'53		evening set	2714 Dec 17 15:47	6° Z 36'32	
evening set	2714 Jan 02 08:01	22° Z 40'49		asc. node	2714 Dec 17 16:03	6° Z 36'00	
inferior conj	2714 Jan 07 18:00	16° Z 27'18	2°27'21	inferior conj	2714 Dec 23 01:17	0° Z 14'45	1°45'23
minimum elong	2714 Jan 07 15:27	16° Z 36'02	2°26'35	minimum elong	2714 Dec 22 23:10	0° Z 22'09	1°44'36
				min. Earth dist.	2714 Dec 23 00:59	0° Z 15'49	0.67869 AU

	2714 Dec 23 05:33	30° RJ		minimum elong	2715 Dec 07 07:29	14° J 10'54	0°56'40
morning rise	2714 Dec 28 06:22	24° J 01'29		min. Earth dist.	2715 Dec 06 21:43	14° J 44'22	0.67841 AU
direct	2715 Jan 01 23:54	22° J 03'24		morning rise	2715 Dec 12 16:44	7° J 56'59	
morning max el	2715 Jan 11 14:30	27° J 43'36	22°28'59	direct	2715 Dec 16 19:51	6° J 21'44	
	2715 Jan 13 17:50	0° J		morning max el	2715 Dec 25 06:49	11° J 16'21	21°06'34
greatest brilliancy	2715 Jan 16 04:03	2° J 49'22	-0.3m	greatest brilliancy	2715 Dec 30 15:58	17° J 27'53	-0.5m
desc. node	2715 Jan 24 12:05	13° J 46'30			2716 Jan 08 19:29	0° J	
	2715 Feb 04 13:54	0° J		desc. node	2716 Jan 11 09:07	3° J 44'27	
morning set	2715 Feb 14 07:30	15° J 21'36		morning set	2716 Jan 24 17:28	24° J 02'01	
max. Earth dist.	2715 Feb 19 10:16	23° J 52'16	1.40531 AU		2716 Jan 28 11:55	0° J	
	2715 Feb 22 23:47	0° J		max. Earth dist.	2716 Feb 01 12:43	6° J 31'00	1.42514 AU
superior conj	2715 Feb 27 05:17	7° J 29'59	-1°-59'-16	superior conj	2716 Feb 08 16:49	18° J 29'23	-2°-5'-58
minimum elong	2715 Feb 27 08:41	7° J 45'20	1°59'06	minimum elong	2716 Feb 08 16:35	18° J 28'23	2°05'58
evening rise	2715 Mar 09 07:55	26° J 15'38			2716 Feb 15 07:29	0° J	
	2715 Mar 11 07:41	0° J		evening rise	2716 Feb 20 05:56	8° J 49'52	
asc. node	2715 Mar 15 15:23	7° J 54'31		asc. node	2716 Mar 01 12:24	26° J 39'54	
evening max el	2715 Mar 25 11:46	22° J 06'51	18°21'10		2716 Mar 03 17:42	0° J	
retrograde	2715 Apr 01 18:35	25° J 43'47		evening max el	2716 Mar 07 22:29	5° J 07'14	18°07'34
evening set	2715 Apr 04 04:06	25° J 21'17		retrograde	2716 Mar 14 14:06	8° J 31'29	
inferior conj	2715 Apr 11 10:40	20° J 43'15	2°46'50	evening set	2716 Mar 17 05:10	7° J 59'42	
minimum elong	2715 Apr 11 14:22	20° J 35'29	2°46'00	inferior conj	2716 Mar 23 20:29	3° J 00'43	3°26'24
min. Earth dist.	2715 Apr 14 21:12	17° J 52'05	0.58957 AU	minimum elong	2716 Mar 23 22:40	2° J 55'25	3°26'08
morning rise	2715 Apr 18 20:37	15° J 09'45			2716 Mar 26 23:47	30° RJ	
desc. node	2715 Apr 22 11:17	13° J 44'44		min. Earth dist.	2716 Mar 27 00:39	29° J 58'01	0.61117 AU
direct	2715 Apr 25 01:58	13° J 26'30		morning rise	2716 Mar 30 13:08	27° J 07'34	
morning max el	2715 May 09 11:05	21° J 11'35	27°08'56	direct	2716 Apr 06 07:42	24° J 50'09	
	2715 May 17 02:44	0° J		desc. node	2716 Apr 08 08:18	25° J 01'43	
	2715 Jun 04 11:03	0° J			2716 Apr 17 12:58	0° J	
morning set	2715 Jun 08 23:20	9° J 07'46		morning max el	2716 Apr 20 13:06	2° J 45'27	27°46'02
asc. node	2715 Jun 11 14:40	14° J 44'01			2716 May 10 13:01	0° J	
superior conj	2715 Jun 16 02:09	24° J 31'22	0°45'43	morning set	2716 May 23 04:37	23° J 39'46	
minimum elong	2715 Jun 16 00:18	24° J 21'11	0°45'21		2716 May 26 05:16	0° J	
max. Earth dist.	2715 Jun 15 19:25	23° J 54'14	1.32124 AU	asc. node	2716 May 28 11:41	4° J 52'35	
	2715 Jun 18 13:53	0° J		max. Earth dist.	2716 May 29 06:16	6° J 33'35	1.32268 AU
evening rise	2715 Jun 22 23:41	9° J 31'00		superior conj	2716 May 30 13:01	9° J 21'30	0°21'32
	2715 Jul 03 13:33	0° J		minimum elong	2716 May 30 12:03	9° J 16'11	0°21'20
desc. node	2715 Jul 19 10:36	22° J 32'51		evening rise	2716 Jun 06 10:44	24° J 22'30	
evening max el	2715 Jul 21 23:03	25° J 06'15	26°18'50		2716 Jun 09 03:27	0° J	
	2715 Jul 28 07:20	0° J			2716 Jun 27 03:29	0° J	
retrograde	2715 Aug 04 22:35	2° J 17'14		evening max el	2716 Jul 02 16:02	6° J 06'54	25°00'31
evening set	2715 Aug 11 11:51	0° J 31'10		desc. node	2716 Jul 05 07:35	8° J 27'01	
	2715 Aug 12 10:14	30° RJ		retrograde	2716 Jul 16 15:26	13° J 12'13	
min. Earth dist.	2715 Aug 15 12:00	27° J 56'20	0.59412 AU	evening set	2716 Jul 22 01:41	12° J 04'52	
inferior conj	2715 Aug 18 19:14	25° J 24'03	-4°-51'-52	min. Earth dist.	2716 Jul 27 03:37	9° J 19'41	0.57425 AU
minimum elong	2715 Aug 18 22:48	25° J 17'10	4°51'30	inferior conj	2716 Jul 30 03:26	7° J 19'43	-5°-2'-4
morning rise	2715 Aug 26 13:13	20° J 51'14		minimum elong	2716 Jul 30 02:24	7° J 21'28	5°02'03
direct	2715 Aug 28 22:54	20° J 31'03		morning rise	2716 Aug 07 06:48	3° J 09'17	
morning max el	2715 Sep 05 17:48	24° J 16'34	18°22'28	direct	2716 Aug 09 20:20	2° J 50'13	
asc. node	2715 Sep 07 13:51	26° J 13'19		morning max el	2716 Aug 18 19:15	7° J 02'09	19°08'45
	2715 Sep 10 11:23	0° J		asc. node	2716 Aug 24 10:54	13° J 53'00	
morning set	2715 Sep 21 16:48	19° J 40'25			2716 Sep 02 15:25	0° J	
	2715 Sep 27 02:43	0° J		morning set	2716 Sep 04 15:30	3° J 56'32	
superior conj	2715 Sep 30 21:11	7° J 01'49	1°28'42	superior conj	2716 Sep 12 22:41	20° J 20'09	1°41'29
minimum elong	2715 Oct 01 00:41	7° J 17'54	1°28'23	minimum elong	2716 Sep 13 00:25	20° J 28'29	1°41'25
max. Earth dist.	2715 Oct 08 09:37	20° J 24'22	1.40546 AU		2716 Sep 18 01:31	0° J	
evening rise	2715 Oct 12 23:06	28° J 05'24		max. Earth dist.	2716 Sep 19 13:19	2° J 43'26	1.38480 AU
	2715 Oct 14 03:01	0° J		evening rise	2716 Sep 23 09:46	9° J 33'37	
desc. node	2715 Oct 15 09:54	2° J 05'27		desc. node	2716 Oct 01 06:55	22° J 41'55	
	2715 Nov 03 01:42	0° J			2716 Oct 05 23:13	0° J	
evening max el	2715 Nov 16 10:13	16° J 20'18	23°27'24		2716 Oct 28 23:10	0° J	
retrograde	2715 Nov 26 23:18	22° J 34'39		evening max el	2716 Oct 28 22:42	29° J 58'53	24°46'00
evening set	2715 Dec 01 22:22	20° J 32'29		retrograde	2716 Nov 09 13:06	6° J 44'04	
asc. node	2715 Dec 04 13:04	17° J 49'55		evening set	2716 Nov 15 02:06	4° J 25'48	
inferior conj	2715 Dec 07 08:47	14° J 06'26	0°57'13		2716 Nov 19 02:20	30° RJ	

min. Earth dist.	2716 Nov 19 17:07	29° M 11'39	0.67475 AU		2717 Sep 29 19:04	0° M	
asc. node	2716 Nov 20 10:05	28° M 15'24		evening max el	2717 Oct 11 10:56	13° M 40'09	25°56'15
inferior conj	2716 Nov 20 14:45	27° M 59'56	0°04'00	retrograde	2717 Oct 23 22:04	20° M 45'32	
minimum elong	2716 Nov 20 14:39	28° M 00'16	0°03'57	evening set	2717 Oct 30 01:18	18° M 13'33	
transit middle	2716 Nov 20 14:39	28° M 00'16	0°03'57	min. Earth dist.	2717 Nov 03 08:43	13° M 35'11	0.66773 AU
transit begin	2716 Nov 20 11:58	28° M 09'08		inferior conj	2717 Nov 04 17:23	11° M 52'36	0°-52'-58
transit end	2716 Nov 20 17:19	27° M 51'25		minimum elong	2717 Nov 04 18:46	11° M 48'14	0°52'23
morning rise	2716 Nov 26 03:40	21° M 56'41		asc. node	2717 Nov 07 07:08	8° M 47'44	
direct	2716 Nov 29 17:54	20° M 42'21		morning rise	2717 Nov 10 13:11	5° M 58'22	
morning max el	2716 Dec 07 06:43	24° M 59'37	19°55'45	direct	2717 Nov 13 16:33	5° M 01'44	
	2716 Dec 11 15:09	0° ∞		morning max el	2717 Nov 20 14:07	8° M 52'09	18°59'39
greatest brilliancy	2716 Dec 14 14:41	3° ∞ 56'44	-0.6m		2717 Dec 05 19:40	0° ∞	
desc. node	2716 Dec 28 06:09	24° ∞ 01'27		morning set	2717 Dec 12 20:49	10° ∞ 59'33	
	2717 Jan 01 03:46	0° ∞		desc. node	2717 Dec 15 03:11	14° ∞ 32'12	
morning set	2717 Jan 02 13:26	2° ∞ 09'43			2717 Dec 25 00:10	0° ∞	
max. Earth dist.	2717 Jan 13 22:38	20° ∞ 00'01	1.44062 AU	max. Earth dist.	2717 Dec 27 14:57	4° ∞ 06'39	1.44981 AU
superior conj	2717 Jan 19 02:23	28° ∞ 17'57	-1°-56'-22	superior conj	2717 Dec 29 12:40	7° ∞ 06'44	-1°-27'-33
minimum elong	2717 Jan 18 20:30	27° ∞ 54'04	1°56'04	minimum elong	2717 Dec 29 03:39	6° ∞ 31'11	1°26'39
	2717 Jan 20 03:25	0° ≈			2718 Jan 12 19:42	0° ≈	
evening rise	2717 Feb 01 09:36	20° ≈ 32'46		evening rise	2718 Jan 13 15:10	1° ≈ 19'15	
	2717 Feb 06 22:18	0° ∞			2718 Feb 01 07:44	0° ∞	
asc. node	2717 Feb 16 09:24	14° ∞ 47'35		evening max el	2718 Feb 02 22:58	1° ∞ 48'05	18°37'06
evening max el	2717 Feb 19 11:07	18° ∞ 23'01	18°13'08	asc. node	2718 Feb 03 06:26	2° ∞ 06'45	
retrograde	2717 Feb 25 21:46	21° ∞ 48'38		retrograde	2718 Feb 09 13:26	5° ∞ 27'23	
evening set	2717 Feb 28 18:10	21° ∞ 06'17		evening set	2718 Feb 12 15:37	4° ∞ 33'27	
inferior conj	2717 Mar 06 21:59	15° ∞ 47'06	3°40'41		2718 Feb 17 13:37	30° R ≈	
minimum elong	2717 Mar 06 22:15	15° ∞ 46'20	3°40'40	inferior conj	2718 Feb 18 11:14	28° ≈ 55'41	3°36'06
min. Earth dist.	2717 Mar 09 12:49	12° ∞ 56'34	0.63166 AU	minimum elong	2718 Feb 18 09:59	28° ≈ 59'27	3°36'00
morning rise	2717 Mar 13 00:20	9° ∞ 42'39		min. Earth dist.	2718 Feb 20 10:26	26° ≈ 34'15	0.64907 AU
direct	2717 Mar 19 22:27	7° ∞ 01'37		morning rise	2718 Feb 24 03:06	22° ≈ 44'51	
desc. node	2717 Mar 26 05:20	8° ∞ 53'58		direct	2718 Mar 02 20:25	19° ≈ 54'45	
morning max el	2717 Apr 02 20:01	14° ∞ 58'27	27°45'41	desc. node	2718 Mar 13 02:22	24° ≈ 48'34	
	2717 Apr 15 01:46	0° ∞		morning max el	2718 Mar 16 05:32	27° ≈ 43'27	27°10'46
	2717 May 03 03:28	0° ∞			2718 Mar 18 09:30	0° ∞	
morning set	2717 May 07 03:38	7° ∞ 49'22			2718 Apr 08 18:50	0° ∞	
max. Earth dist.	2717 May 12 11:59	18° ∞ 52'50	1.32825 AU	morning set	2718 Apr 20 17:33	21° ∞ 28'01	
					2718 Apr 25 00:34	0° ∞	
superior conj	2717 May 14 21:08	23° ∞ 58'48	0°-5'-4	max. Earth dist.	2718 Apr 25 08:56	0° ∞ 42'39	1.33829 AU
minimum elong	2717 May 14 21:23	24° ∞ 00'09	0°05'02				
behind sun begin	2717 May 14 16:22	23° ∞ 33'05		superior conj	2718 Apr 29 00:35	8° ∞ 17'24	0°-33'-9
behind sun end	2717 May 15 02:25	24° ∞ 27'14		minimum elong	2718 Apr 29 02:17	8° ∞ 26'18	0°32'49
asc. node	2717 May 15 08:43	25° ∞ 01'17		asc. node	2718 May 02 05:45	15° ∞ 06'16	
	2717 May 17 15:53	0° ∞		evening rise	2718 May 06 09:20	23° ∞ 53'33	
evening rise	2717 May 21 22:33	9° ∞ 11'57			2718 May 09 08:35	0° ∞	
	2717 Jun 01 18:03	0° ∞		evening max el	2718 May 26 22:47	27° ∞ 09'54	21°51'15
evening max el	2717 Jun 14 05:33	16° ∞ 38'01	23°26'13		2718 May 30 06:51	0° ∞	
desc. node	2717 Jun 22 04:35	22° ∞ 13'50		retrograde	2718 Jun 08 12:15	3° ∞ 21'17	
retrograde	2717 Jun 27 19:42	23° ∞ 25'48		desc. node	2718 Jun 09 01:37	3° ∞ 20'34	
evening set	2717 Jul 01 18:11	22° ∞ 51'53		evening set	2718 Jun 11 04:04	3° ∞ 05'27	
min. Earth dist.	2717 Jul 08 15:35	19° ∞ 41'09	0.55835 AU		2718 Jun 18 19:14	30° R ∞	
inferior conj	2717 Jul 10 15:36	18° ∞ 29'59	-4°-31'-2	min. Earth dist.	2718 Jun 20 02:45	29° ∞ 16'21	0.54970 AU
minimum elong	2717 Jul 10 09:06	18° ∞ 39'38	4°29'55	inferior conj	2718 Jun 20 12:40	29° ∞ 02'28	-3°-11'00
morning rise	2717 Jul 19 03:11	14° ∞ 35'28		minimum elong	2718 Jun 20 04:46	29° ∞ 13'31	3°08'38
direct	2717 Jul 21 22:46	14° ∞ 15'58		morning rise	2718 Jun 29 06:49	25° ∞ 09'50	
morning max el	2717 Aug 01 09:51	19° ∞ 07'03	20°16'33	direct	2718 Jul 02 11:07	24° ∞ 14'33	
	2717 Aug 09 22:14	0° ∞			2718 Jul 14 00:53	0° ∞	
asc. node	2717 Aug 11 07:56	2° ∞ 19'00		morning max el	2718 Jul 14 12:53	0° ∞ 27'18	21°43'55
morning set	2717 Aug 19 20:36	18° ∞ 31'46		asc. node	2718 Jul 29 05:00	21° ∞ 20'13	
	2717 Aug 25 10:38	0° ∞			2718 Aug 02 15:02	0° ∞	
				morning set	2718 Aug 04 05:46	3° ∞ 19'37	
superior conj	2717 Aug 27 13:20	4° ∞ 17'47	1°45'14				
minimum elong	2717 Aug 27 13:20	4° ∞ 17'46	1°45'14	superior conj	2718 Aug 11 13:12	18° ∞ 43'06	1°41'36
max. Earth dist.	2717 Sep 01 19:10	14° ∞ 38'04	1.36521 AU	minimum elong	2718 Aug 11 11:53	18° ∞ 36'13	1°41'31
evening rise	2717 Sep 05 18:06	22° ∞ 03'01		max. Earth dist.	2718 Aug 15 08:21	26° ∞ 32'35	1.34853 AU
	2717 Sep 10 05:13	0° ∞			2718 Aug 17 01:44	0° ∞	
desc. node	2717 Sep 18 03:56	13° ∞ 06'18		evening rise	2718 Aug 19 19:41	5° ∞ 21'50	

	2718 Sep 02 23:11	0°♄				2719 Aug 09 00:03	0°♎		
desc. node	2718 Sep 05 00:57	3°♄12'17			desc. node	2719 Aug 22 21:59	22°♎52'00		
evening max el	2718 Sep 23 23:22	27°♄16'44	26°50'26			2719 Aug 28 02:27	0°♄		
	2718 Sep 27 00:57	0°♍			evening max el	2719 Sep 06 11:09	10°♄38'26	27°21'19	
retrograde	2718 Oct 07 01:36	4°♍32'14			retrograde	2719 Sep 19 23:28	17°♄56'42		
evening set	2718 Oct 13 17:50	1°♍51'30			evening set	2719 Sep 27 01:09	15°♄15'30		
	2718 Oct 15 18:23	30°♌♄			min. Earth dist.	2719 Sep 30 19:06	11°♄49'35	0.64329 AU	
min. Earth dist.	2718 Oct 17 18:07	27°♄49'59	0.65728 AU		inferior conj	2719 Oct 03 04:13	9°♄17'49	-2°-51'-21	
inferior conj	2718 Oct 19 14:39	25°♄40'04	-1°-52'-11		minimum elong	2719 Oct 03 08:49	9°♄05'34	2°49'44	
minimum elong	2718 Oct 19 17:42	25°♄31'09	1°50'58		morning rise	2719 Oct 09 18:36	3°♄51'10		
asc. node	2718 Oct 25 04:12	20°♄18'48			direct	2719 Oct 12 07:03	3°♄18'48		
morning rise	2718 Oct 25 19:03	19°♄57'59			asc. node	2719 Oct 12 01:15	3°♄19'06		
direct	2718 Oct 28 13:45	19°♄15'21			morning max el	2719 Oct 18 19:14	6°♄44'58	17°56'39	
morning max el	2718 Nov 04 03:10	22°♄49'06	18°19'41			2719 Nov 03 06:48	0°♍		
	2718 Nov 09 20:59	0°♍			morning set	2719 Nov 04 22:47	2°♍49'47		
morning set	2718 Nov 23 07:38	21°♍13'14							
	2718 Nov 28 18:12	0°♌			superior conj	2719 Nov 18 04:51	24°♍50'56	0°04'41	
desc. node	2718 Dec 02 00:13	5°♌11'52			minimum elong	2719 Nov 18 05:23	24°♍53'07	0°04'36	
					behind sun begin	2719 Nov 17 19:31	24°♍13'10		
superior conj	2718 Dec 08 14:20	15°♌37'39	0°-43'-28		behind sun end	2719 Nov 18 15:16	25°♍32'58		
minimum elong	2718 Dec 08 08:46	15°♌15'45	0°42'44		desc. node	2719 Nov 18 21:16	25°♍57'10		
max. Earth dist.	2718 Dec 10 10:15	18°♌30'20	1.45170 AU			2719 Nov 21 09:51	0°♌		
	2718 Dec 17 18:19	0°♎			max. Earth dist.	2719 Nov 23 04:51	2°♌50'59	1.44621 AU	
evening rise	2718 Dec 24 21:34	11°♎10'17			evening rise	2719 Dec 04 10:27	20°♌22'29		
	2719 Jan 05 23:54	0°♏				2719 Dec 10 17:30	0°♎		
greatest brilliancy	2719 Jan 08 03:20	3°♏13'32	-0.7m		greatest brilliancy	2719 Dec 25 01:09	20°♎57'42	-0.6m	
evening max el	2719 Jan 17 07:38	15°♏16'50	19°18'22		evening max el	2719 Dec 31 11:27	28°♎46'53	20°15'02	
asc. node	2719 Jan 21 03:29	18°♏23'25				2720 Jan 01 17:24	0°♏		
retrograde	2719 Jan 24 09:42	19°♏20'31			retrograde	2720 Jan 08 07:41	3°♏23'18		
evening set	2719 Jan 27 18:39	18°♏13'59			asc. node	2720 Jan 08 00:32	3°♏22'49		
inferior conj	2719 Feb 02 08:49	12°♏19'52	3°17'31		evening set	2720 Jan 12 00:58	2°♏02'52		
minimum elong	2719 Feb 02 06:37	12°♏26'58	3°17'08			2720 Jan 14 06:22	30°♏♎		
min. Earth dist.	2719 Feb 03 16:52	10°♏36'34	0.66246 AU		inferior conj	2720 Jan 17 11:55	25°♎55'24	2°48'13	
morning rise	2719 Feb 07 17:47	6°♏05'39			minimum elong	2720 Jan 17 09:21	26°♎04'04	2°47'33	
direct	2719 Feb 14 00:36	3°♏19'46			min. Earth dist.	2720 Jan 18 06:20	24°♎53'08	0.67175 AU	
morning max el	2719 Feb 26 15:15	10°♏48'25	26°08'24		morning rise	2720 Jan 22 17:13	19°♎39'51		
desc. node	2719 Feb 27 23:24	12°♏11'47			direct	2720 Jan 28 10:19	17°♎08'10		
	2719 Mar 13 21:45	0°♐			morning max el	2720 Feb 08 23:59	24°♎02'44	24°47'53	
	2719 Apr 01 08:47	0°♑				2720 Feb 14 07:55	0°♏		
morning set	2719 Apr 03 18:30	4°♑24'35			desc. node	2720 Feb 14 20:27	0°♏38'06		
max. Earth dist.	2719 Apr 07 18:38	12°♑01'26	1.35285 AU			2720 Mar 06 07:54	0°♐		
					morning set	2720 Mar 16 01:17	16°♐24'00		
superior conj	2719 Apr 12 20:56	22°♑10'13	-1°-1'-25		max. Earth dist.	2720 Mar 19 17:50	23°♐03'12	1.37153 AU	
minimum elong	2719 Apr 13 00:05	22°♑26'18	1°00'52			2720 Mar 23 10:55	0°♑		
	2719 Apr 16 16:16	0°♒							
asc. node	2719 Apr 19 02:49	5°♒03'34			superior conj	2720 Mar 26 07:03	5°♑28'29	-1°-27'-58	
evening rise	2719 Apr 20 17:06	8°♒21'00			minimum elong	2720 Mar 26 11:18	5°♑49'15	1°27'24	
	2719 May 02 12:11	0°♓			evening rise	2720 Apr 03 19:28	22°♑26'46		
evening max el	2719 May 09 02:04	8°♓10'32	20°28'06		asc. node	2720 Apr 04 23:52	24°♑48'08		
retrograde	2719 May 20 01:35	13°♓31'03				2720 Apr 07 15:43	0°♒		
evening set	2719 May 22 02:47	13°♓20'39			evening max el	2720 Apr 20 17:20	19°♒51'15	19°23'03	
desc. node	2719 May 26 22:38	11°♓44'20			retrograde	2720 Apr 29 23:47	24°♒20'40		
inferior conj	2719 May 31 06:59	9°♓22'50	-1°-16'-25		evening set	2720 May 02 00:32	24°♒08'40		
minimum elong	2719 May 31 03:23	9°♓28'05	1°15'07		inferior conj	2720 May 10 12:48	20°♒01'29	0°39'29	
min. Earth dist.	2719 Jun 01 15:12	8°♓36'05	0.55036 AU		minimum elong	2720 May 10 14:27	19°♒58'48	0°38'54	
morning rise	2719 Jun 09 02:23	5°♓11'49			desc. node	2720 May 12 19:40	18°♒31'49		
direct	2719 Jun 12 21:21	4°♓40'51			min. Earth dist.	2720 May 13 05:54	18°♒15'29	0.56043 AU	
morning max el	2719 Jun 26 06:58	11°♓10'48	23°24'17		morning rise	2720 May 19 00:23	15°♒17'20		
	2719 Jul 10 07:05	0°♔			direct	2720 May 23 17:55	14°♒26'18		
asc. node	2719 Jul 16 02:04	10°♔47'44			morning max el	2720 Jun 06 21:22	21°♒36'52	25°05'19	
morning set	2719 Jul 19 17:10	18°♔14'35				2720 Jun 14 05:06	0°♓		
	2719 Jul 25 04:49	0°♕			asc. node	2720 Jul 01 23:07	0°♔33'28		
						2720 Jul 01 16:40	0°♔		
superior conj	2719 Jul 26 19:17	3°♕27'11	1°31'55		morning set	2720 Jul 03 05:00	3°♔10'00		
minimum elong	2719 Jul 26 17:11	3°♕15'51	1°31'41						
max. Earth dist.	2719 Jul 29 06:34	8°♕43'03	1.33568 AU		superior conj	2720 Jul 10 05:06	18°♔20'53	1°17'12	
evening rise	2719 Aug 03 10:10	19°♕18'34			minimum elong	2720 Jul 10 02:43	18°♔07'53	1°16'51	

max. Earth dist.	2720 Jul 11 12:30	21°☿11'59	1.32693 AU		2721 Jun 23 04:46	0°☿	
	2720 Jul 15 15:10	0°♌					
evening rise	2720 Jul 17 09:48	3°♌41'19		superior conj	2721 Jun 24 16:41	3°☿17'44	0°58'16
	2720 Jul 31 18:04	0°♍		minimum elong	2721 Jun 24 14:31	3°☿05'46	0°57'53
desc. node	2720 Aug 08 19:01	11°♍53'22		max. Earth dist.	2721 Jun 24 23:17	3°☿54'07	1.32224 AU
evening max el	2720 Aug 18 20:23	23°♍32'14	27°22'58	evening rise	2721 Jul 01 15:41	18°☿21'15	
	2720 Aug 28 08:12	0°♎			2721 Jul 07 10:58	0°♌	
retrograde	2720 Sep 01 15:03	0°♎48'37		desc. node	2721 Jul 26 16:01	0°♍00'37	
	2720 Sep 05 17:35	30°♍♍			2721 Jul 26 15:48	0°♍	
evening set	2720 Sep 08 19:48	28°♍18'46		evening max el	2721 Aug 01 00:38	5°♍46'12	26°51'38
min. Earth dist.	2720 Sep 12 10:10	25°♍22'40	0.62591 AU	retrograde	2721 Aug 14 23:02	12°♍58'43	
inferior conj	2720 Sep 15 07:12	22°♍38'37	-3°-46'-57	evening set	2721 Aug 21 21:22	10°♍53'38	
minimum elong	2720 Sep 15 12:44	22°♍25'26	3°45'26	min. Earth dist.	2721 Aug 25 14:48	8°♍15'33	0.60606 AU
morning rise	2720 Sep 22 08:23	17°♍30'32		inferior conj	2721 Aug 28 20:15	5°♍33'57	-4°-33'-8
direct	2720 Sep 24 17:18	17°♍05'03		minimum elong	2721 Aug 29 01:13	5°♍23'32	4°32'17
asc. node	2720 Sep 27 22:18	17°♍52'58		morning rise	2721 Sep 05 08:16	0°♍47'21	
morning max el	2720 Oct 01 11:17	20°♍32'01	17°51'29	direct	2721 Sep 07 16:45	0°♍25'51	
	2720 Oct 08 13:10	0°♎		asc. node	2721 Sep 14 19:21	3°♍50'39	
morning set	2720 Oct 17 12:32	15°♎31'14		morning max el	2721 Sep 15 00:06	4°♍02'02	18°05'19
	2720 Oct 25 17:57	0°♏		morning set	2721 Sep 30 18:44	28°♍59'43	
					2721 Oct 01 07:39	0°♎	
superior conj	2720 Oct 28 20:54	5°♏20'05	0°46'14				
minimum elong	2720 Oct 29 00:53	5°♏36'58	0°45'41	superior conj	2721 Oct 10 15:09	17°♎05'55	1°16'33
desc. node	2720 Nov 04 18:19	16°♏44'38		minimum elong	2721 Oct 10 19:22	17°♎24'45	1°16'05
max. Earth dist.	2720 Nov 04 20:01	16°♏51'32	1.43409 AU		2721 Oct 18 02:00	0°♏	
evening rise	2720 Nov 12 19:54	29°♏31'57		max. Earth dist.	2721 Oct 18 06:21	0°♏18'14	1.41689 AU
	2720 Nov 13 03:08	0°♐		desc. node	2721 Oct 22 15:20	7°♏30'48	
	2720 Dec 03 10:47	0°♐		evening rise	2721 Oct 23 18:23	9°♏19'55	
greatest brilliancy	2720 Dec 08 09:26	6°♐31'52	-0.4m		2721 Nov 06 05:57	0°♐	
evening max el	2720 Dec 13 09:44	12°♐18'13	21°24'11	greatest brilliancy	2721 Nov 21 04:23	20°♐19'33	-0.3m
retrograde	2720 Dec 22 05:14	17°♐32'23		evening max el	2721 Nov 26 02:57	25°♐51'36	22°41'30
asc. node	2720 Dec 24 21:33	16°♐52'52			2721 Dec 01 00:41	0°♐	
evening set	2720 Dec 26 08:39	15°♐56'39		retrograde	2721 Dec 06 00:34	1°♐44'22	
inferior conj	2720 Dec 31 18:15	9°♐39'08	2°10'25	evening set	2721 Dec 10 16:02	29°♐52'04	
minimum elong	2720 Dec 31 15:49	9°♐47'31	2°09'37		2721 Dec 10 12:06	30°♐♍	
min. Earth dist.	2721 Jan 01 00:30	9°♐17'28	0.67716 AU	asc. node	2721 Dec 11 18:35	28°♐51'28	
morning rise	2721 Jan 05 22:39	3°♐24'20		inferior conj	2721 Dec 16 01:48	23°♐28'14	1°25'39
direct	2721 Jan 11 00:52	1°♐12'56		minimum elong	2721 Dec 15 23:58	23°♐34'33	1°24'56
morning max el	2721 Jan 21 08:52	7°♐21'50	23°19'32	min. Earth dist.	2721 Dec 15 20:57	23°♐45'02	0.67898 AU
greatest brilliancy	2721 Jan 26 17:04	13°♐22'25	-0.2m	morning rise	2721 Dec 21 07:49	17°♐16'13	
desc. node	2721 Jan 31 17:29	19°♐49'29		direct	2721 Dec 25 19:10	15°♐27'41	
	2721 Feb 07 23:38	0°♑		morning max el	2722 Jan 03 21:18	20°♐47'33	21°52'45
morning set	2721 Feb 25 07:40	27°♑09'42		greatest brilliancy	2722 Jan 08 15:06	26°♐08'05	-0.4m
	2721 Feb 26 23:55	0°♒			2722 Jan 11 16:05	0°♐	
max. Earth dist.	2721 Mar 01 12:28	4°♒20'50	1.39283 AU	desc. node	2722 Jan 18 14:31	9°♐32'49	
					2722 Feb 01 06:05	0°♑	
superior conj	2721 Mar 09 03:01	18°♒02'20	-1°-50'-4	morning set	2722 Feb 05 08:55	6°♑30'49	
minimum elong	2721 Mar 09 07:17	18°♒22'11	1°49'42	max. Earth dist.	2722 Feb 11 10:48	16°♑26'43	1.41414 AU
	2721 Mar 15 10:21	0°♓					
evening rise	2721 Mar 18 13:37	6°♓03'26		superior conj	2722 Feb 19 03:49	29°♑39'06	-2°-3'-48
asc. node	2721 Mar 22 20:54	14°♓14'55		minimum elong	2722 Feb 19 06:01	29°♑48'49	2°03'44
	2721 Apr 01 18:46	0°♔			2722 Feb 19 08:33	0°♒	
evening max el	2721 Apr 03 18:46	2°♔09'54	18°38'02	evening rise	2722 Mar 01 20:03	19°♒02'03	
retrograde	2721 Apr 11 15:28	6°♔00'50			2722 Mar 07 20:26	0°♓	
evening set	2721 Apr 13 21:39	5°♔42'55		asc. node	2722 Mar 09 17:55	3°♓16'59	
inferior conj	2721 Apr 21 14:38	1°♔17'22	2°09'54	evening max el	2722 Mar 18 03:01	14°♓56'58	18°13'03
minimum elong	2721 Apr 21 18:29	1°♔10'00	2°08'49	retrograde	2722 Mar 25 01:47	18°♓26'16	
	2721 Apr 23 06:58	30°♓♒		evening set	2722 Mar 27 13:53	17°♓59'51	
min. Earth dist.	2721 Apr 24 23:40	28°♓43'58	0.57774 AU	inferior conj	2722 Apr 03 13:29	13°♓12'49	3°07'09
morning rise	2721 Apr 29 10:54	25°♓59'51		minimum elong	2722 Apr 03 16:40	13°♓05'42	3°06'33
desc. node	2721 Apr 29 16:40	25°♓53'12		min. Earth dist.	2722 Apr 06 22:32	10°♓13'50	0.59878 AU
direct	2721 May 05 04:54	24°♓37'03		morning rise	2722 Apr 10 15:53	7°♓30'09	
	2721 May 17 03:14	0°♕		desc. node	2722 Apr 16 13:41	5°♓32'35	
morning max el	2721 May 19 13:45	2°♕12'55	26°31'30	direct	2722 Apr 17 04:14	5°♓31'34	
	2721 Jun 08 10:21	0°♖		morning max el	2722 May 01 11:51	13°♓21'10	27°29'13
morning set	2721 Jun 17 15:39	18°♖00'44			2722 May 14 17:45	0°♕	
asc. node	2721 Jun 18 20:11	20°♖31'49			2722 May 31 16:12	0°♖	

morning set	2722 Jun 01 23:26	2°♄40'54		2723 Apr 18 02:07	0°♄	
asc. node	2722 Jun 05 17:13	10°♄37'37		2723 May 08 04:03	0°♄	
max. Earth dist.	2722 Jun 08 11:21	16°♄38'29	1.32141 AU	morning set	2723 May 17 02:21	17°♄03'48
				max. Earth dist.	2723 May 22 20:42	29°♄11'17 1.32453 AU
superior conj	2722 Jun 09 04:16	18°♄11'32	0°35'49		2723 May 23 05:42	0°♄
minimum elong	2722 Jun 09 02:45	18°♄03'09	0°35'30	asc. node	2723 May 23 14:14	0°♄46'12
	2722 Jun 14 13:48	0°♄				
evening rise	2722 Jun 16 01:26	3°♄10'23		superior conj	2723 May 24 14:10	2°♄56'16 0°10'30
	2722 Jun 30 10:38	0°♄		minimum elong	2723 May 24 13:40	2°♄53'35 0°10'24
desc. node	2722 Jul 13 13:00	16°♄51'50		behind sun begin	2723 May 24 09:45	2°♄32'15
evening max el	2722 Jul 13 21:51	17°♄13'09	25°48'25	behind sun end	2723 May 24 17:35	3°♄14'55
retrograde	2722 Jul 27 21:41	24°♄21'30		evening rise	2723 May 31 13:03	18°♄01'25
evening set	2722 Aug 03 01:07	22°♄51'52			2723 Jun 06 10:29	0°♄
min. Earth dist.	2722 Aug 07 10:07	20°♄14'51	0.58545 AU	evening max el	2723 Jun 25 12:34	27°♄57'34 24°21'27
inferior conj	2722 Aug 10 15:51	17°♄54'17	-5°00'-19		2723 Jun 27 19:18	0°♄
minimum elong	2722 Aug 10 17:47	17°♄50'47	5°00'14	desc. node	2723 Jun 30 10:00	1°♄56'21
morning rise	2722 Aug 18 13:56	13°♄31'00		retrograde	2723 Jul 09 09:12	4°♄57'27
direct	2722 Aug 21 01:08	13°♄11'20		evening set	2723 Jul 14 04:58	4°♄05'28
morning max el	2722 Aug 29 06:35	17°♄06'33	18°39'28	min. Earth dist.	2723 Jul 19 23:22	1°♄11'19 0.56680 AU
asc. node	2722 Sep 01 16:24	20°♄57'33			2723 Jul 21 20:45	30°♄
	2722 Sep 07 13:12	0°♄		inferior conj	2723 Jul 22 15:22	29°♄30'23 -4°-54'-46
morning set	2722 Sep 14 12:33	13°♄01'59		minimum elong	2723 Jul 22 11:52	29°♄35'56 4°54'27
				morning rise	2723 Jul 30 22:24	25°♄28'17
superior conj	2722 Sep 23 06:55	29°♄55'32	1°35'21	direct	2723 Aug 02 14:26	25°♄09'10
minimum elong	2722 Sep 23 09:42	0°♄08'36	1°35'08	morning max el	2723 Aug 12 03:40	29°♄35'39 19°35'03
	2722 Sep 23 07:52	0°♄			2723 Aug 12 13:54	0°♄
max. Earth dist.	2722 Sep 30 12:15	13°♄03'45	1.39675 AU	asc. node	2723 Aug 19 13:28	8°♄58'19
evening rise	2722 Oct 04 15:23	20°♄10'21		morning set	2723 Aug 29 14:19	27°♄27'19
desc. node	2722 Oct 09 12:22	28°♄12'14			2723 Aug 30 20:39	0°♄
	2722 Oct 10 15:16	0°♄				
	2722 Oct 31 10:36	0°♄		superior conj	2723 Sep 06 14:37	13°♄32'31 1°44'05
evening max el	2722 Nov 08 16:39	9°♄28'40	24°01'23	minimum elong	2723 Sep 06 15:34	13°♄37'13 1°44'03
retrograde	2722 Nov 19 16:37	15°♄56'28		max. Earth dist.	2723 Sep 12 16:27	25°♄10'54 1.37621 AU
evening set	2722 Nov 24 21:37	13°♄47'14			2723 Sep 15 07:41	0°♄
asc. node	2722 Nov 28 15:35	9°♄39'09		evening rise	2723 Sep 16 11:45	2°♄05'32
min. Earth dist.	2722 Nov 29 17:18	8°♄13'35	0.67734 AU	desc. node	2723 Sep 26 09:22	18°♄44'04
inferior conj	2722 Nov 30 08:51	7°♄20'57	0°35'12		2723 Oct 03 18:58	0°♄
minimum elong	2722 Nov 30 08:01	7°♄23'47	0°34'50	evening max el	2723 Oct 22 04:45	23°♄08'13 25°17'14
morning rise	2722 Dec 05 18:41	1°♄14'02			2723 Nov 02 06:03	0°♄
	2722 Dec 08 04:45	30°♄		retrograde	2723 Nov 03 04:25	0°♄03'20
direct	2722 Dec 09 16:12	29°♄47'54			2723 Nov 04 02:20	30°♄
	2722 Dec 11 04:47	0°♄		evening set	2723 Nov 08 23:40	27°♄38'29
morning max el	2722 Dec 17 16:44	4°♄24'48	20°34'47	min. Earth dist.	2723 Nov 13 11:17	22°♄39'38 0.67225 AU
greatest brilliancy	2722 Dec 23 18:14	11°♄32'35	-0.5m	inferior conj	2723 Nov 14 13:38	21°♄14'09 0°-19'-47
desc. node	2723 Jan 05 11:35	29°♄39'42		minimum elong	2723 Nov 14 14:08	21°♄12'30 0°19'35
	2723 Jan 05 17:01	0°♄		asc. node	2723 Nov 15 12:38	20°♄00'06
morning set	2723 Jan 15 10:10	14°♄48'40		morning rise	2723 Nov 20 05:17	15°♄14'39
max. Earth dist.	2723 Jan 24 17:06	29°♄30'20	1.43247 AU	direct	2723 Nov 23 14:36	14°♄08'25
	2723 Jan 25 00:27	0°♄		morning max el	2723 Nov 30 20:06	18°♄12'48 19°29'59
				greatest brilliancy	2723 Dec 09 11:25	29°♄07'25 -0.7m
superior conj	2723 Jan 31 04:30	10°♄08'10	-2°-4'-9		2723 Dec 10 02:05	0°♄
minimum elong	2723 Jan 31 01:57	9°♄57'31	2°04'06	desc. node	2723 Dec 23 08:38	20°♄03'03
	2723 Feb 11 17:42	0°♄		morning set	2723 Dec 25 08:01	23°♄06'06
evening rise	2723 Feb 12 10:45	1°♄15'02			2723 Dec 29 18:42	0°♄
asc. node	2723 Feb 24 14:54	21°♄46'58		max. Earth dist.	2724 Jan 07 06:13	13°♄17'58 1.44537 AU
evening max el	2723 Mar 01 14:51	28°♄04'00	18°07'35			
	2723 Mar 03 22:04	0°♄		superior conj	2724 Jan 11 03:09	19°♄27'45 -1°-46'-27
retrograde	2723 Mar 08 03:07	1°♄27'16		minimum elong	2724 Jan 10 19:15	18°♄56'10 1°45'52
evening set	2723 Mar 10 20:30	0°♄51'00			2724 Jan 17 15:23	0°♄
	2723 Mar 12 09:48	30°♄		evening rise	2724 Jan 25 05:27	12°♄34'38
inferior conj	2723 Mar 17 06:26	25°♄42'53	3°35'09		2724 Feb 04 17:55	0°♄
minimum elong	2723 Mar 17 07:47	25°♄39'24	3°35'02	asc. node	2724 Feb 11 11:55	9°♄35'28
min. Earth dist.	2723 Mar 20 05:17	22°♄43'06	0.62018 AU	evening max el	2724 Feb 13 03:23	11°♄24'03 18°21'06
morning rise	2723 Mar 23 16:34	19°♄44'07		retrograde	2724 Feb 19 14:49	14°♄54'30
direct	2723 Mar 30 13:40	17°♄15'25		evening set	2724 Feb 22 13:30	14°♄07'27
desc. node	2723 Apr 03 10:43	17°♄58'03		inferior conj	2724 Feb 28 13:26	8°♄39'58 3°40'43
morning max el	2723 Apr 13 16:15	25°♄11'45	27°50'32	minimum elong	2724 Feb 28 13:00	8°♄41'12 3°40'42

min. Earth dist.	2724 Mar 01 21:39	6° ✕ 00'08	0.63945 AU	minimum elong	2725 Feb 11 04:54	22° ≈ 01'11	3°29'29
morning rise	2724 Mar 05 10:49	2° ✕ 32'00		min. Earth dist.	2725 Feb 12 23:21	19° ≈ 49'32	0.65523 AU
	2724 Mar 10 05:53	30° ℞		morning rise	2725 Feb 16 19:07	15° ≈ 43'04	
direct	2724 Mar 12 07:35	29° ≈ 45'25		direct	2725 Feb 23 08:32	12° ≈ 52'57	
	2724 Mar 14 11:02	0° ✕		desc. node	2725 Mar 07 04:51	19° ≈ 22'30	
desc. node	2724 Mar 20 07:47	2° ✕ 46'47		morning max el	2725 Mar 08 10:44	20° ≈ 35'39	26°47'02
morning max el	2724 Mar 26 00:53	7° ✕ 40'48	27°34'49		2725 Mar 16 13:36	0° ✕	
	2724 Apr 12 05:49	0° Υ			2725 Apr 05 08:35	0° Υ	
	2724 Apr 29 09:24	0° ♄		morning set	2725 Apr 13 06:53	14° Υ 24'11	
morning set	2724 Apr 29 21:57	1° ♄ 01'55		max. Earth dist.	2725 Apr 17 15:19	22° Υ 54'17	1.34387 AU
max. Earth dist.	2724 May 04 23:14	11° ♄ 19'36	1.33191 AU		2725 Apr 21 03:00	0° ♄	
superior conj	2724 May 07 20:35	17° ♄ 26'27	0°-16'-51	superior conj	2725 Apr 21 21:19	1° ♄ 34'48	0°-45'-12
minimum elong	2724 May 07 21:26	17° ♄ 30'57	0°16'41	minimum elong	2725 Apr 21 23:39	1° ♄ 46'54	0°44'47
asc. node	2724 May 09 11:16	20° ♄ 53'48		asc. node	2725 Apr 26 08:18	10° ♄ 55'46	
	2724 May 13 16:57	0° ♄		evening rise	2725 Apr 29 10:24	17° ♄ 24'13	
evening rise	2724 May 15 00:41	2° ♄ 48'21			2725 May 05 18:30	0° ♄	
	2724 May 30 01:39	0° ♄		evening max el	2725 May 18 23:32	19° ♄ 05'56	21°13'59
evening max el	2724 Jun 06 02:31	8° ♄ 24'28	22°45'03	retrograde	2725 May 30 22:16	24° ♄ 56'32	
desc. node	2724 Jun 16 07:00	14° ♄ 38'37		evening set	2725 Jun 02 05:27	24° ♄ 44'20	
retrograde	2724 Jun 19 08:31	15° ♄ 00'06		desc. node	2725 Jun 03 04:03	24° ♄ 32'37	
evening set	2724 Jun 22 16:20	14° ♄ 35'49		inferior conj	2725 Jun 11 14:09	20° ♄ 45'51	-2°-24'-52
min. Earth dist.	2724 Jun 30 10:48	11° ♄ 10'20	0.55355 AU	minimum elong	2725 Jun 11 07:33	20° ♄ 55'07	2°22'40
inferior conj	2724 Jul 01 20:05	10° ♄ 22'37	-4°-2'-53	min. Earth dist.	2725 Jun 11 22:42	20° ♄ 33'50	0.54875 AU
minimum elong	2724 Jul 01 12:14	10° ♄ 33'53	4°01'05	morning rise	2725 Jun 20 09:40	16° ♄ 47'22	
morning rise	2724 Jul 10 10:50	6° ♄ 31'18		direct	2725 Jun 23 19:13	16° ♄ 22'22	
direct	2724 Jul 13 09:21	6° ♄ 11'16		morning max el	2725 Jul 06 12:10	22° ♄ 24'51	22°25'37
morning max el	2724 Jul 24 13:27	11° ♄ 22'15	20°51'38		2725 Jul 13 02:46	0° ♄	
asc. node	2724 Aug 05 10:33	27° ♄ 40'31		asc. node	2725 Jul 23 07:36	16° ♄ 53'23	
	2724 Aug 06 17:22	0° ♄		morning set	2725 Jul 28 07:45	26° ♄ 59'30	
morning set	2724 Aug 12 21:26	12° ♄ 08'38			2725 Jul 29 18:02	0° ♄	
superior conj	2724 Aug 20 09:41	27° ♄ 43'33	1°44'30	superior conj	2725 Aug 04 12:30	12° ♄ 17'29	1°38'09
minimum elong	2724 Aug 20 09:03	27° ♄ 40'22	1°44'29	minimum elong	2725 Aug 04 10:47	12° ♄ 08'23	1°38'01
	2724 Aug 21 12:24	0° ♄		max. Earth dist.	2725 Aug 07 17:20	18° ♄ 59'32	1.34255 AU
max. Earth dist.	2724 Aug 25 00:35	7° ♄ 01'01	1.35766 AU	evening rise	2725 Aug 12 11:35	28° ♄ 33'45	
evening rise	2724 Aug 29 04:01	14° ♄ 57'31			2725 Aug 13 05:21	0° ♄	
	2724 Sep 06 16:02	0° ♄		desc. node	2725 Aug 30 03:23	28° ♄ 56'55	
desc. node	2724 Sep 12 06:22	9° ♄ 01'13			2725 Aug 30 20:22	0° ♄	
	2724 Sep 27 10:48	0° ♄		evening max el	2725 Sep 16 05:19	20° ♄ 19'54	27°06'54
evening max el	2724 Oct 03 16:53	6° ♄ 47'44	26°21'35	retrograde	2725 Sep 29 12:44	27° ♄ 37'37	
retrograde	2724 Oct 16 11:22	13° ♄ 59'22		evening set	2725 Oct 06 09:22	24° ♄ 55'44	
evening set	2724 Oct 22 20:21	11° ♄ 22'42		min. Earth dist.	2725 Oct 10 06:50	21° ♄ 09'25	0.65170 AU
min. Earth dist.	2724 Oct 27 00:34	6° ♄ 59'57	0.66373 AU	inferior conj	2725 Oct 12 08:36	18° ♄ 49'24	-2°-17'-28
inferior conj	2724 Oct 28 14:15	5° ♄ 04'55	-1°-17'-58	minimum elong	2725 Oct 12 12:21	18° ♄ 38'51	2°16'02
minimum elong	2724 Oct 28 16:21	4° ♄ 58'32	1°17'05	morning rise	2725 Oct 18 17:06	13° ♄ 13'13	
asc. node	2724 Nov 01 09:43	0° ♄ 51'41		asc. node	2725 Oct 19 06:48	12° ♄ 58'47	
	2724 Nov 02 10:30	30° ℞		direct	2725 Oct 21 08:45	12° ♄ 35'27	
morning rise	2724 Nov 03 13:33	29° ♄ 15'33		morning max el	2725 Oct 27 20:55	16° ♄ 05'15	18°07'41
direct	2724 Nov 06 12:49	28° ♄ 25'31			2725 Nov 06 22:28	0° ♄	
	2724 Nov 10 18:52	0° ♄		morning set	2725 Nov 15 01:31	13° ♄ 19'57	
morning max el	2724 Nov 13 06:15	2° ♄ 07'57	18°40'32		2725 Nov 25 06:41	0° ♄	
	2724 Dec 02 12:32	0° ♄		desc. node	2725 Nov 26 02:42	1° ♄ 20'16	
morning set	2724 Dec 04 02:03	2° ♄ 28'43		superior conj	2725 Nov 29 12:07	6° ♄ 44'56	0°-22'-48
desc. node	2724 Dec 09 05:40	10° ♄ 37'44		minimum elong	2725 Nov 29 09:14	6° ♄ 33'27	0°22'25
superior conj	2724 Dec 20 07:16	28° ♄ 01'49	-1°-10'-8	max. Earth dist.	2725 Dec 02 18:49	11° ♄ 55'57	1.45026 AU
minimum elong	2724 Dec 19 22:58	27° ♄ 29'15	1°09'11		2725 Dec 14 08:37	0° ♄	
max. Earth dist.	2724 Dec 19 23:36	27° ♄ 31'42	1.45149 AU	evening rise	2725 Dec 15 22:42	2° ♄ 27'37	
	2724 Dec 21 13:22	0° ♄		greatest brilliancy	2726 Jan 02 03:28	28° ♄ 33'56	-0.6m
evening rise	2725 Jan 05 00:56	22° ♄ 56'07			2726 Jan 03 03:52	0° ♄	
	2725 Jan 09 10:47	0° ♄		evening max el	2726 Jan 09 20:59	8° ♄ 21'07	19°40'48
evening max el	2725 Jan 26 14:07	24° ♄ 50'52	18°52'42	asc. node	2726 Jan 15 06:02	12° ♄ 15'43	
asc. node	2725 Jan 28 08:59	26° ♄ 29'45		retrograde	2726 Jan 17 06:00	12° ♄ 37'31	
retrograde	2725 Feb 02 08:49	28° ♄ 39'37		evening set	2726 Jan 20 18:18	11° ♄ 25'18	
evening set	2725 Feb 05 13:37	27° ♄ 40'40		inferior conj	2726 Jan 26 06:53	5° ♄ 25'25	3°06'15
inferior conj	2725 Feb 11 06:38	21° ♄ 55'48	3°29'42	minimum elong	2726 Jan 26 04:28	5° ♄ 33'24	3°05'43

min. Earth dist.	2726 Jan 27 09:00	3° \approx 59'18	0.66696 AU	asc. node	2727 Jan 02 03:06	26° Z 38'25	
	2726 Jan 30 17:19	30° R Z		evening set	2727 Jan 05 01:24	25° Z 16'38	
morning rise	2726 Jan 31 13:56	29° Z 10'31		inferior conj	2727 Jan 10 11:35	19° Z 04'32	2°33'06
direct	2726 Feb 06 15:20	26° Z 29'26		minimum elong	2727 Jan 10 09:02	19° Z 13'18	2°32'21
	2726 Feb 14 16:11	0° \approx		min. Earth dist.	2727 Jan 11 00:37	18° Z 19'56	0.67461 AU
morning max el	2726 Feb 18 19:49	3° \approx 44'56	25°35'39	morning rise	2727 Jan 15 16:13	12° Z 49'21	
desc. node	2726 Feb 22 01:53	7° \approx 15'13		direct	2727 Jan 21 03:06	10° Z 25'52	
	2726 Mar 10 21:08	0° H		morning max el	2727 Feb 01 04:14	17° Z 01'06	24°10'37
morning set	2726 Mar 27 00:46	26° H 58'03		desc. node	2727 Feb 08 22:55	26° Z 02'20	
	2726 Mar 28 16:21	0° Y			2727 Feb 11 23:20	0° \approx	
max. Earth dist.	2726 Mar 30 19:48	4° Y 01'19	1.36040 AU		2727 Mar 03 21:50	0° H	
				morning set	2727 Mar 08 21:52	8° H 27'36	
superior conj	2726 Apr 05 13:44	15° Y 14'07	-1°-13'-2	max. Earth dist.	2727 Mar 12 16:23	15° H 06'36	1.38049 AU
minimum elong	2726 Apr 05 17:26	15° Y 32'39	1°12'27				
	2726 Apr 12 19:54	0° R		superior conj	2727 Mar 19 18:21	28° H 14'49	-1°-38'-6
asc. node	2726 Apr 13 05:20	0° R 48'06		minimum elong	2727 Mar 19 22:48	28° H 36'05	1°37'35
evening rise	2726 Apr 13 16:09	1° R 43'02			2727 Mar 20 16:16	0° Y	
	2726 Apr 30 22:38	0° II		evening rise	2727 Mar 28 15:23	15° Y 37'29	
evening max el	2726 May 01 08:03	0° II 23'16	19°58'00	asc. node	2727 Mar 31 02:23	20° Y 25'55	
retrograde	2726 May 11 13:21	5° II 20'26			2727 Apr 05 06:32	0° R	
evening set	2726 May 13 13:20	5° II 09'54		evening max el	2727 Apr 14 03:55	12° R 20'41	19°01'21
desc. node	2726 May 21 01:04	2° II 01'40		retrograde	2727 Apr 22 18:35	16° R 31'57	
inferior conj	2726 May 22 11:43	1° II 09'50	0°-25'-22	evening set	2727 Apr 24 21:28	16° R 17'45	
minimum elong	2726 May 22 10:33	1° II 11'36	0°24'57	inferior conj	2727 May 03 01:28	12° R 03'00	1°21'52
	2726 May 24 09:56	30° R R		minimum elong	2727 May 03 04:29	11° R 57'44	1°20'52
min. Earth dist.	2726 May 24 11:51	29° R 57'09	0.55366 AU	min. Earth dist.	2727 May 06 03:20	9° R 55'02	0.56712 AU
morning rise	2726 May 31 04:57	26° R 45'57		desc. node	2727 May 07 22:05	8° R 46'58	
direct	2726 Jun 04 09:10	26° R 07'44		morning rise	2727 May 11 07:13	7° R 04'16	
	2726 Jun 14 15:45	0° II		direct	2727 May 16 11:22	6° R 01'08	
morning max el	2726 Jun 18 03:38	2° II 56'20	24°08'04	morning max el	2727 May 30 18:14	13° R 23'22	25°44'51
	2726 Jul 06 21:37	0° E			2727 Jun 12 19:20	0° II	
asc. node	2726 Jul 10 04:38	6° E 29'00		morning set	2727 Jun 27 07:01	26° II 49'19	
morning set	2726 Jul 12 19:29	11° E 54'42		asc. node	2727 Jun 27 01:39	26° II 21'02	
					2727 Jun 28 18:51	0° E	
superior conj	2726 Jul 19 20:23	27° E 05'45	1°26'13	superior conj	2727 Jul 04 07:09	12° E 01'46	1°09'38
minimum elong	2726 Jul 19 18:05	26° E 53'22	1°25'56	minimum elong	2727 Jul 04 04:48	11° E 48'52	1°09'16
	2726 Jul 21 04:39	0° Q		max. Earth dist.	2727 Jul 05 03:53	13° E 55'26	1.32445 AU
max. Earth dist.	2726 Jul 21 19:14	1° Q 18'16	1.33149 AU	evening rise	2727 Jul 11 08:57	27° E 13'45	
evening rise	2726 Jul 27 06:20	12° Q 42'23			2727 Jul 12 17:18	0° Q	
	2726 Aug 05 10:04	0° np			2727 Jul 29 19:03	0° np	
desc. node	2726 Aug 17 00:25	18° np 21'35		desc. node	2727 Aug 03 21:25	7° np 02'31	
	2726 Aug 26 05:52	0° A		evening max el	2727 Aug 11 23:58	16° np 10'16	27°13'45
evening max el	2726 Aug 29 16:32	3° A 31'53	27°26'04	retrograde	2727 Aug 25 20:02	23° np 24'35	
retrograde	2726 Sep 12 07:48	10° A 48'56		evening set	2727 Sep 01 23:40	21° np 03'29	
evening set	2726 Sep 19 11:43	8° A 11'21		min. Earth dist.	2727 Sep 05 14:09	18° np 17'10	0.61771 AU
min. Earth dist.	2726 Sep 23 03:48	4° A 58'58	0.63623 AU	inferior conj	2727 Sep 08 15:31	15° np 32'07	-4°-8'-9
inferior conj	2726 Sep 25 18:03	2° A 20'54	-3°-15'-40	minimum elong	2727 Sep 08 21:03	15° np 19'37	4°06'52
minimum elong	2726 Sep 25 23:10	2° A 07'53	3°14'01	morning rise	2727 Sep 15 21:21	10° np 32'58	
	2726 Sep 28 03:45	30° R np		direct	2727 Sep 18 05:51	10° np 09'23	
morning rise	2726 Oct 02 12:55	27° np 01'28		asc. node	2727 Sep 23 00:53	11° np 50'36	
direct	2726 Oct 04 23:36	26° np 32'18		morning max el	2727 Sep 25 04:19	13° np 38'47	17°55'03
asc. node	2726 Oct 06 03:52	26° np 39'11			2727 Oct 06 07:16	0° A	
morning max el	2726 Oct 11 13:15	29° np 57'44	17°52'14	morning set	2727 Oct 11 00:34	8° A 30'32	
	2726 Oct 11 14:10	0° A					
morning set	2726 Oct 28 03:09	25° A 26'58		superior conj	2727 Oct 21 16:20	27° A 31'36	1°00'32
	2726 Oct 30 18:18	0° M		minimum elong	2727 Oct 21 20:44	27° A 50'37	0°59'59
superior conj	2726 Nov 09 12:42	16° M 28'18	0°23'31		2727 Oct 23 02:50	0° M	
minimum elong	2726 Nov 09 15:10	16° M 38'25	0°23'10	max. Earth dist.	2727 Oct 29 02:24	10° M 01'25	1.42730 AU
desc. node	2726 Nov 12 23:43	22° M 06'46		desc. node	2727 Oct 30 20:45	12° M 54'09	
max. Earth dist.	2726 Nov 15 12:45	26° M 12'02	1.44184 AU	evening rise	2727 Nov 04 21:23	20° M 55'35	
	2726 Nov 17 22:07	0° A			2727 Nov 10 18:13	0° A	
evening rise	2726 Nov 25 08:07	11° A 34'06		greatest brilliancy	2727 Dec 02 00:23	0° Z 00'27	-0.4m
	2726 Dec 07 13:00	0° Z			2727 Dec 02 00:14	0° Z	
greatest brilliancy	2726 Dec 18 05:48	15° Z 06'48	-0.5m	evening max el	2727 Dec 06 18:29	5° Z 23'51	21°56'15
evening max el	2726 Dec 23 22:33	21° Z 52'04	20°43'07	retrograde	2727 Dec 16 00:47	10° Z 54'39	
retrograde	2727 Jan 01 03:56	26° Z 43'35		evening set	2727 Dec 20 09:11	9° Z 11'44	

asc. node	2727 Dec 20 00:07	9°☿29'05		retrograde	2728 Nov 28 19:02	25°♂07'25	
inferior conj	2727 Dec 25 18:39	2°☿50'50	1°52'12	evening set	2728 Dec 03 16:02	23°♂07'51	
minimum elong	2727 Dec 25 16:26	2°☿58'32	1°51'23	asc. node	2728 Dec 05 21:08	20°♂54'04	
min. Earth dist.	2727 Dec 25 19:59	2°☿46'12	0.67840 AU	min. Earth dist.	2728 Dec 08 16:47	17°♂14'42	0.67861 AU
	2727 Dec 27 21:07	30°♂♂		inferior conj	2728 Dec 09 02:14	16°♂42'12	1°04'53
morning rise	2727 Dec 30 23:29	26°♂37'05		minimum elong	2728 Dec 09 00:47	16°♂47'11	1°04'18
direct	2728 Jan 04 19:12	24°♂35'35		morning rise	2728 Dec 14 09:36	10°♂31'55	
	2728 Jan 14 04:59	0°☿		direct	2728 Dec 18 14:48	8°♂53'14	
morning max el	2728 Jan 14 14:22	0°☿23'21	22°41'56	morning max el	2728 Dec 27 05:35	13°♂54'23	21°18'14
greatest brilliancy	2728 Jan 19 04:52	5°☿31'30	-0.3m	greatest brilliancy	2729 Jan 01 09:59	19°♂50'03	-0.4m
desc. node	2728 Jan 26 19:58	15°☿28'36			2729 Jan 08 23:09	0°☿	
	2728 Feb 05 20:20	0°♂		desc. node	2729 Jan 12 17:01	5°☿23'14	
morning set	2728 Feb 17 16:09	18°♂37'52		morning set	2729 Jan 27 05:51	27°☿28'15	
max. Earth dist.	2728 Feb 22 12:11	26°♂43'49	1.40209 AU		2729 Jan 28 20:12	0°♂	
	2728 Feb 24 09:47	0°♂		max. Earth dist.	2729 Feb 03 13:20	9°♂13'40	1.42239 AU
superior conj	2728 Mar 01 06:47	10°♂25'45	-1°-57'-12	superior conj	2729 Feb 10 21:57	21°♂35'34	-2°-5'-53
minimum elong	2728 Mar 01 10:30	10°♂42'38	1°56'58	minimum elong	2729 Feb 10 22:27	21°♂37'43	2°05'54
evening rise	2728 Mar 11 05:02	28°♂59'23			2729 Feb 15 17:29	0°♂	
	2728 Mar 11 17:49	0°♂		evening rise	2729 Feb 22 05:24	11°♂40'30	
asc. node	2728 Mar 16 23:24	9°♂43'16		asc. node	2729 Mar 03 20:26	28°♂33'35	
evening max el	2728 Mar 27 08:35	24°♂52'17	18°24'55		2729 Mar 04 18:18	0°♂	
retrograde	2728 Apr 03 18:42	28°♂32'26		evening max el	2729 Mar 10 18:48	7°♂49'48	18°08'22
evening set	2728 Apr 06 03:18	28°♂11'15		retrograde	2729 Mar 17 11:56	11°♂14'49	
inferior conj	2728 Apr 13 12:28	23°♂36'34	2°38'12	evening set	2729 Mar 20 02:14	10°♂44'29	
minimum elong	2728 Apr 13 16:17	23°♂28'45	2°37'15	inferior conj	2729 Mar 26 19:36	5°♂48'40	3°22'08
min. Earth dist.	2728 Apr 16 23:04	20°♂49'09	0.58638 AU	minimum elong	2729 Mar 26 22:04	5°♂42'49	3°21'48
morning rise	2728 Apr 21 01:06	18°♂06'46		min. Earth dist.	2729 Mar 30 01:21	2°♂46'04	0.60799 AU
desc. node	2728 Apr 23 19:06	16°♂58'38		morning rise	2729 Apr 02 14:42	29°♂57'59	
direct	2728 Apr 27 03:42	16°♂28'52			2729 Apr 02 13:28	30°♂♂	
morning max el	2728 May 11 13:04	24°♂12'14	27°00'18	direct	2729 Apr 09 08:01	27°♂45'02	
	2728 May 16 19:33	0°♂		desc. node	2729 Apr 10 16:09	27°♂50'04	
	2728 Jun 04 21:47	0°♂			2729 Apr 16 13:01	0°♂	
morning set	2728 Jun 10 16:41	11°♂36'42		morning max el	2729 Apr 23 14:04	5°♂39'12	27°42'48
asc. node	2728 Jun 12 22:40	16°♂23'16			2729 May 11 19:19	0°♂	
superior conj	2728 Jun 17 18:56	26°♂58'13	0°49'08	morning set	2729 May 25 22:40	26°♂10'48	
minimum elong	2728 Jun 17 16:59	26°♂47'30	0°48'46		2729 May 27 18:37	0°♂	
max. Earth dist.	2728 Jun 17 15:40	26°♂40'16	1.32136 AU	asc. node	2729 May 30 19:43	6°♂31'09	
	2728 Jun 19 03:56	0°♂		max. Earth dist.	2729 Jun 01 02:52	9°♂20'40	1.32222 AU
evening rise	2728 Jun 24 16:42	11°♂58'24		superior conj	2729 Jun 02 06:03	11°♂49'24	0°25'24
	2728 Jul 03 21:33	0°♂		minimum elong	2729 Jun 02 04:55	11°♂43'12	0°25'09
desc. node	2728 Jul 20 18:25	24°♂40'45		evening rise	2729 Jun 09 03:30	26°♂49'20	
evening max el	2728 Jul 24 01:04	28°♂03'34	26°28'16		2729 Jun 10 15:46	0°♂	
	2728 Jul 26 05:16	0°♂			2729 Jun 27 21:42	0°♂	
retrograde	2728 Aug 07 00:27	5°♂15'14		evening max el	2729 Jul 05 19:06	9°♂10'41	25°13'33
evening set	2728 Aug 13 16:29	3°♂23'51		desc. node	2729 Jul 07 15:25	10°♂50'52	
min. Earth dist.	2728 Aug 17 14:23	0°♂48'44	0.59723 AU	retrograde	2729 Jul 19 18:57	16°♂17'00	
	2728 Aug 18 15:42	30°♂♂		evening set	2729 Jul 25 09:56	15°♂04'02	
inferior conj	2728 Aug 20 21:30	28°♂13'20	-4°-47'-44	min. Earth dist.	2729 Jul 30 06:57	12°♂21'25	0.57706 AU
minimum elong	2728 Aug 21 01:32	28°♂05'22	4°47'15	inferior conj	2729 Aug 02 08:43	10°♂15'36	-5°-2'-55
morning rise	2728 Aug 28 13:59	23°♂36'59		minimum elong	2729 Aug 02 08:31	10°♂15'57	5°02'55
direct	2728 Aug 30 23:13	23°♂16'34		morning rise	2729 Aug 10 10:45	6°♂01'51	
morning max el	2728 Sep 07 14:54	26°♂59'21	18°17'21	direct	2729 Aug 12 23:34	5°♂42'41	
asc. node	2728 Sep 08 21:54	28°♂19'31		morning max el	2729 Aug 21 17:44	9°♂50'04	19°00'27
	2728 Sep 10 07:54	0°♂		asc. node	2729 Aug 26 18:57	15°♂50'59	
morning set	2728 Sep 23 12:10	22°♂14'19			2729 Sep 04 02:07	0°♂	
	2728 Sep 27 14:15	0°♂		morning set	2729 Sep 07 09:42	6°♂27'03	
superior conj	2728 Oct 02 20:26	9°♂46'36	1°25'52	superior conj	2729 Sep 15 19:33	22°♂57'45	1°40'11
minimum elong	2728 Oct 03 00:09	10°♂03'34	1°25'30	minimum elong	2729 Sep 15 21:33	23°♂07'23	1°40'03
max. Earth dist.	2728 Oct 10 10:12	23°♂09'10	1.40847 AU		2729 Sep 19 13:00	0°♂	
	2728 Oct 14 12:11	0°♂		max. Earth dist.	2729 Sep 22 14:17	5°♂34'30	1.38788 AU
evening rise	2728 Oct 15 04:44	1°♂07'59		evening rise	2729 Sep 26 11:54	12°♂26'32	
desc. node	2728 Oct 16 17:47	3°♂38'44		desc. node	2729 Oct 03 14:47	24°♂16'35	
	2728 Nov 03 04:44	0°♂			2729 Oct 07 06:06	0°♂	
evening max el	2728 Nov 18 09:48	18°♂58'12	23°15'33		2729 Oct 29 10:29	0°♂	

evening max el	2729 Oct 31 22:37	2°♊36'33	24°34'45	max. Earth dist.	2730 Sep 04 19:50	17°♎33'12	1.36801 AU
retrograde	2729 Nov 12 09:25	9°♊17'28		evening rise	2730 Sep 08 17:22	24°♎48'07	
evening set	2729 Nov 17 20:18	7°♊01'36			2730 Sep 11 15:14	0°♎	
min. Earth dist.	2729 Nov 22 12:32	1°♊42'18	0.67549 AU	desc. node	2730 Sep 20 11:47	14°♎43'25	
asc. node	2729 Nov 22 18:11	1°♊23'31			2730 Sep 30 20:28	0°♎	
inferior conj	2729 Nov 23 08:33	0°♊35'32	0°12'20	evening max el	2730 Oct 14 10:52	16°♎18'06	25°46'34
minimum elong	2729 Nov 23 08:15	0°♊36'33	0°12'13	retrograde	2730 Oct 26 19:05	23°♎20'50	
transit middle	2729 Nov 23 08:15	0°♊36'33	0°12'13	evening set	2730 Nov 01 20:19	20°♎50'35	
transit begin	2729 Nov 23 06:26	0°♊42'36		min. Earth dist.	2730 Nov 06 04:50	16°♎06'54	0.66905 AU
transit end	2729 Nov 23 10:03	0°♊30'31		inferior conj	2730 Nov 07 11:49	14°♎28'43	0°-44'-9
	2729 Nov 23 19:14	30°♎		minimum elong	2730 Nov 07 12:59	14°♎25'03	0°43'40
morning rise	2729 Nov 28 20:35	24°♎31'11		asc. node	2730 Nov 09 15:14	11°♎51'21	
direct	2729 Dec 02 12:41	23°♎13'49		morning rise	2730 Nov 13 06:29	8°♎33'03	
morning max el	2729 Dec 10 04:16	27°♎35'48	20°05'25	direct	2730 Nov 16 11:22	7°♎33'59	
	2729 Dec 12 09:28	0°♊		morning max el	2730 Nov 23 10:42	11°♎27'30	19°07'00
greatest brilliancy	2729 Dec 17 03:22	6°♊00'36	-0.6m		2730 Dec 07 01:40	0°♊	
desc. node	2729 Dec 30 14:03	25°♊37'43		morning set	2730 Dec 16 06:33	14°♊15'30	
	2730 Jan 02 10:55	0°♊		desc. node	2730 Dec 17 11:06	16°♊06'45	
morning set	2730 Jan 06 02:18	5°♊35'50			2730 Dec 26 08:25	0°♊	
max. Earth dist.	2730 Jan 16 22:22	22°♊36'35	1.43868 AU	max. Earth dist.	2730 Dec 30 14:08	6°♊39'29	1.44891 AU
	2730 Jan 21 12:17	0°♊					
				superior conj	2731 Jan 02 00:32	10°♊30'00	-1°-33'-5
superior conj	2730 Jan 22 11:27	1°♊34'37	-1°-59'-3	minimum elong	2731 Jan 01 15:35	9°♊54'37	1°32'14
minimum elong	2730 Jan 22 06:25	1°♊14'00	1°58'50		2731 Jan 14 03:57	0°♊	
evening rise	2730 Feb 04 12:03	23°♊31'19		evening rise	2731 Jan 16 21:04	4°♊26'21	
	2730 Feb 08 06:10	0°♊			2731 Feb 02 01:53	0°♊	
asc. node	2730 Feb 18 17:29	16°♊47'38		asc. node	2731 Feb 05 14:32	4°♊14'54	
evening max el	2730 Feb 22 07:23	21°♊03'49	18°11'07	evening max el	2731 Feb 05 19:29	4°♊27'38	18°32'24
retrograde	2730 Feb 28 18:04	24°♊28'16		retrograde	2731 Feb 12 08:53	8°♊04'17	
evening set	2730 Mar 03 13:45	23°♊47'28		evening set	2731 Feb 15 10:10	7°♊12'07	
inferior conj	2730 Mar 09 19:01	18°♊31'07	3°39'47	inferior conj	2731 Feb 21 06:47	1°♊36'49	3°37'45
minimum elong	2730 Mar 09 19:35	18°♊29'38	3°39'47	minimum elong	2731 Feb 21 05:44	1°♊39'57	3°37'41
min. Earth dist.	2730 Mar 12 12:02	15°♊37'39	0.62881 AU		2731 Feb 22 15:20	30°♎	
morning rise	2730 Mar 15 23:18	12°♊28'03		min. Earth dist.	2731 Feb 23 08:16	29°♎10'24	0.64669 AU
direct	2730 Mar 22 21:29	9°♊49'48		morning rise	2731 Feb 26 23:58	25°♎26'39	
desc. node	2730 Mar 28 13:12	11°♊20'43		direct	2731 Mar 05 18:20	22°♎37'08	
morning max el	2730 Apr 05 20:21	17°♊46'28	27°48'03	desc. node	2731 Mar 15 10:16	26°♎59'10	
	2730 Apr 16 01:45	0°♊			2731 Mar 18 18:35	0°♊	
	2730 May 04 14:15	0°♊		morning max el	2731 Mar 19 05:45	0°♊27'46	27°17'59
morning set	2730 May 09 22:49	10°♊24'10			2731 Apr 10 02:03	0°♊	
max. Earth dist.	2730 May 15 09:41	21°♊43'58	1.32717 AU	morning set	2731 Apr 23 14:20	24°♊08'25	
					2731 Apr 26 13:14	0°♊	
superior conj	2730 May 17 14:44	26°♊29'03	0°00'-53	max. Earth dist.	2731 Apr 28 08:19	3°♊39'24	1.33649 AU
minimum elong	2730 May 17 14:46	26°♊29'16	0°00'54				
behind sun begin	2730 May 17 09:33	26°♊01'04		superior conj	2731 May 01 19:02	10°♊51'00	0°-28'-49
behind sun end	2730 May 17 19:59	26°♊57'29		minimum elong	2731 May 01 20:30	10°♊58'45	0°28'32
asc. node	2730 May 17 16:47	26°♊40'08		asc. node	2731 May 04 13:50	16°♊46'04	
	2730 May 19 05:39	0°♊		evening rise	2731 May 09 02:28	26°♊23'11	
evening rise	2730 May 24 15:22	11°♊39'41			2731 May 10 20:11	0°♊	
	2730 Jun 03 00:06	0°♊			2731 May 29 19:02	0°♊	
evening max el	2730 Jun 17 08:51	19°♊45'00	23°40'41	evening max el	2731 May 30 00:58	0°♊14'34	22°04'52
desc. node	2730 Jun 24 12:25	24°♊59'45		desc. node	2731 Jun 11 09:27	6°♊32'35	
retrograde	2730 Jul 01 01:02	26°♊36'16		retrograde	2731 Jun 11 19:10	6°♊32'57	
evening set	2730 Jul 05 05:05	25°♊58'08		evening set	2731 Jun 14 14:42	6°♊15'21	
min. Earth dist.	2730 Jul 11 19:09	22°♊52'12	0.56033 AU	inferior conj	2731 Jun 23 22:31	2°♊10'03	-3°-26'-2
inferior conj	2730 Jul 13 23:49	21°♊33'03	-4°-38'-55	minimum elong	2731 Jun 23 14:25	2°♊21'25	3°23'45
minimum elong	2730 Jul 13 18:01	21°♊41'48	4°38'03	min. Earth dist.	2731 Jun 23 06:14	2°♊32'54	0.55039 AU
morning rise	2730 Jul 22 10:14	17°♊36'56			2731 Jun 28 00:14	30°♎	
direct	2730 Jul 25 04:55	17°♊17'32		morning rise	2731 Jul 02 15:55	28°♎18'34	
morning max el	2730 Aug 04 10:05	22°♊01'49	20°05'07	direct	2731 Jul 05 18:34	27°♎57'03	
	2730 Aug 11 00:08	0°♊			2731 Jul 12 23:27	0°♊	
asc. node	2730 Aug 13 16:01	4°♊11'11		morning max el	2731 Jul 17 14:50	3°♊29'01	21°29'55
morning set	2730 Aug 22 14:06	21°♊00'42		asc. node	2731 Jul 31 13:05	23°♊07'49	
	2730 Aug 26 23:34	0°♊			2731 Aug 04 02:42	0°♊	
				morning set	2731 Aug 06 22:50	5°♊47'27	
superior conj	2730 Aug 30 08:36	6°♊51'03	1°45'11				
minimum elong	2730 Aug 30 08:50	6°♊52'14	1°45'10	superior conj	2731 Aug 14 07:22	21°♊13'23	1°42'34

minimum elong	2731 Aug 14 06:13	21°07'24	1°42'30	superior conj	2732 Jul 28 12:40	5°05'04	1°33'43
max. Earth dist.	2731 Aug 18 07:40	29°02'25	1.35077 AU	minimum elong	2732 Jul 28 10:39	5°04'15	1°33'32
	2731 Aug 18 14:22	0°00'		max. Earth dist.	2732 Jul 31 04:21	11°03'25	1.33733 AU
evening rise	2731 Aug 22 16:42	8°00'38		evening rise	2732 Aug 05 05:29	21°05'13	
	2731 Sep 04 05:59	0°00'			2732 Aug 09 10:48	0°00'	
desc. node	2731 Sep 07 08:48	4°05'24		desc. node	2732 Aug 24 05:48	24°03'55	
evening max el	2731 Sep 26 23:11	29°05'48	26°43'33		2732 Aug 28 01:26	0°00'	
	2731 Sep 27 00:56	0°00'		evening max el	2732 Sep 08 11:06	13°02'16	27°18'25
retrograde	2731 Oct 09 23:31	7°01'03		retrograde	2732 Sep 21 22:23	20°03'50	
evening set	2731 Oct 16 14:01	4°03'35		evening set	2732 Sep 28 22:53	17°05'02	
min. Earth dist.	2731 Oct 20 15:16	0°02'34	0.65911 AU	min. Earth dist.	2732 Oct 02 17:39	14°02'00	0.64559 AU
	2731 Oct 20 23:22	30°00'		inferior conj	2732 Oct 05 00:54	11°05'54	-2°-42'-30
inferior conj	2731 Oct 22 10:02	28°01'22	-1°-43'-8	minimum elong	2732 Oct 05 05:17	11°04'50	2°40'56
minimum elong	2731 Oct 22 12:50	28°09'05	1°42'00	morning rise	2732 Oct 11 13:44	6°02'43	
asc. node	2731 Oct 27 12:18	23°01'08		asc. node	2732 Oct 13 09:21	5°05'56	
morning rise	2731 Oct 28 13:05	22°03'25		direct	2732 Oct 14 02:53	5°05'40	
direct	2731 Oct 31 08:53	21°04'01		morning max el	2732 Oct 20 14:55	9°02'10	17°58'55
morning max el	2731 Nov 06 23:07	25°02'35	18°24'31		2732 Nov 03 15:10	0°00'	
	2731 Nov 10 20:23	0°00'		morning set	2732 Nov 07 00:08	5°04'11	
morning set	2731 Nov 26 12:55	24°01'59		desc. node	2732 Nov 20 05:06	27°02'53	
	2731 Nov 30 02:33	0°00'					
desc. node	2731 Dec 04 08:07	6°04'52		superior conj	2732 Nov 20 13:36	28°04'04	0°-2'-24
				minimum elong	2732 Nov 20 13:18	28°02'52	0°02'23
superior conj	2731 Dec 12 02:07	18°05'52	0°-50'-41	behind sun begin	2732 Nov 20 02:59	27°02'12	
minimum elong	2731 Dec 11 19:42	18°03'38	0°49'53	behind sun end	2732 Nov 20 23:37	28°04'19	
max. Earth dist.	2731 Dec 13 09:02	21°01'15	1.45189 AU		2732 Nov 21 18:31	0°00'	
	2731 Dec 19 02:27	0°00'		max. Earth dist.	2732 Nov 25 03:42	5°02'25	1.44748 AU
evening rise	2731 Dec 28 06:45	14°02'53		evening rise	2732 Dec 06 21:29	23°04'01	
	2732 Jan 07 05:00	0°00'			2732 Dec 11 00:12	0°00'	
greatest brilliancy	2732 Jan 10 07:03	4°04'44	-0.7m	greatest brilliancy	2732 Dec 26 15:54	23°01'28	-0.6m
evening max el	2732 Jan 20 04:42	17°05'58	19°11'14		2733 Jan 01 01:26	0°00'	
asc. node	2732 Jan 23 11:34	20°04'20		evening max el	2733 Jan 02 09:17	1°02'53	20°05'47
retrograde	2732 Jan 27 04:41	21°05'40		asc. node	2733 Jan 09 08:36	5°05'59	
evening set	2732 Jan 30 12:30	20°05'10		retrograde	2733 Jan 10 02:30	5°05'03	
inferior conj	2732 Feb 05 03:19	14°05'18	3°21'07	evening set	2733 Jan 13 18:24	4°03'52	
minimum elong	2732 Feb 05 01:14	15°06'00	3°20'45		2733 Jan 18 03:40	30°00'	
min. Earth dist.	2732 Feb 06 13:34	13°09'52	0.66066 AU	inferior conj	2733 Jan 19 05:43	28°03'17	2°53'17
morning rise	2732 Feb 10 13:05	8°04'51		minimum elong	2733 Jan 19 03:10	28°04'51	2°52'38
direct	2732 Feb 16 21:39	5°05'01		min. Earth dist.	2733 Jan 20 02:06	27°02'44	0.67061 AU
morning max el	2732 Feb 29 15:40	13°03'10	26°19'10	morning rise	2733 Jan 24 11:21	22°01'47	
desc. node	2732 Mar 01 07:20	14°01'10		direct	2733 Jan 30 06:40	19°04'30	
	2732 Mar 14 00:26	0°00'		morning max el	2733 Feb 11 00:25	26°04'04	25°00'36
	2732 Apr 01 18:56	0°00'			2733 Feb 14 01:20	0°00'	
morning set	2732 Apr 05 17:33	7°01'23		desc. node	2733 Feb 16 04:21	2°02'09	
max. Earth dist.	2732 Apr 09 19:47	15°02'54	1.35035 AU		2733 Mar 07 15:16	0°00'	
				morning set	2733 Mar 19 03:21	19°02'18	
superior conj	2732 Apr 14 16:37	24°04'27	0°-57'-11	max. Earth dist.	2733 Mar 22 19:57	26°04'02	1.36849 AU
minimum elong	2732 Apr 14 19:34	25°03'33	0°56'39		2733 Mar 24 22:22	0°00'	
	2732 Apr 17 05:03	0°00'					
asc. node	2732 Apr 20 10:52	6°04'50		superior conj	2733 Mar 29 04:25	8°01'12	-1°-24'-11
evening rise	2732 Apr 22 10:49	10°05'32		minimum elong	2733 Mar 29 08:34	8°03'23	1°23'35
	2732 May 02 13:55	0°00'		evening rise	2733 Apr 06 14:04	25°02'29	
evening max el	2732 May 11 02:30	11°09'57	20°39'27	asc. node	2733 Apr 07 07:54	26°03'14	
retrograde	2732 May 22 08:21	16°03'37			2733 Apr 09 01:55	0°00'	
evening set	2732 May 24 10:30	16°02'00		evening max el	2733 Apr 23 16:03	22°04'44	19°31'33
desc. node	2732 May 28 06:29	15°01'05		retrograde	2733 May 03 04:16	27°02'06	
inferior conj	2732 Jun 02 16:19	12°03'07	-1°-34'-48	evening set	2733 May 05 04:34	27°09'28	
minimum elong	2732 Jun 02 11:51	12°03'53	1°33'12	inferior conj	2733 May 13 19:39	23°04'37	0°23'06
min. Earth dist.	2732 Jun 03 18:34	11°02'45	0.54963 AU	minimum elong	2733 May 13 20:38	23°03'02	0°22'45
morning rise	2732 Jun 11 12:00	8°02'31		desc. node	2733 May 15 03:32	22°01'35	
direct	2732 Jun 15 04:09	7°02'40		min. Earth dist.	2733 May 16 08:54	21°02'57	0.55841 AU
morning max el	2732 Jun 28 10:03	14°01'19	23°08'54	morning rise	2733 May 22 08:57	18°02'54	
	2732 Jul 10 12:34	0°00'		direct	2733 May 26 22:57	17°03'24	
asc. node	2732 Jul 17 10:08	12°03'14		morning max el	2733 Jun 10 00:28	24°04'56	24°50'46
morning set	2732 Jul 21 09:59	20°04'12			2733 Jun 14 21:10	0°00'	
	2732 Jul 25 18:36	0°00'			2733 Jul 03 04:49	0°00'	
				asc. node	2733 Jul 04 07:10	2°01'45	

morning set	2733 Jul 05 21:48	5°♄36'52		2734 Jun 09 17:53	0°♂	
superior conj	2733 Jul 12 22:01	20°♄47'37	1°19'43	morning set	2734 Jun 20 08:42	20°♂28'35
minimum elong	2733 Jul 12 19:39	20°♄34'41	1°19'23	asc. node	2734 Jun 21 04:11	22°♂11'40
max. Earth dist.	2733 Jul 14 09:14	23°♄59'04	1.32800 AU		2734 Jun 24 18:47	0°♄
	2733 Jul 17 04:33	0°♂		superior conj	2734 Jun 27 09:25	5°♄44'20 1°01'24
evening rise	2733 Jul 20 03:55	6°♂11'43		minimum elong	2734 Jun 27 07:11	5°♄32'02 1°01'00
	2733 Aug 02 00:24	0°♄		max. Earth dist.	2734 Jun 27 19:36	6°♄40'22 1.32269 AU
desc. node	2733 Aug 11 02:49	13°♄45'00		evening rise	2734 Jul 04 09:01	20°♄49'41
evening max el	2733 Aug 21 20:57	26°♄19'30	27°24'51		2734 Jul 08 21:51	0°♂
	2733 Aug 26 06:31	0°♄			2734 Jul 27 08:58	0°♄
retrograde	2733 Sep 04 14:57	3°♄36'14		desc. node	2734 Jul 28 23:50	2°♄01'56
evening set	2733 Sep 11 19:41	1°♄04'04		evening max el	2734 Aug 04 02:12	8°♄40'32 26°58'29
	2733 Sep 13 05:35	30°♄		retrograde	2734 Aug 18 00:00	15°♄53'12
min. Earth dist.	2733 Sep 15 10:22	28°♄03'56	0.62866 AU	evening set	2734 Aug 25 00:05	13°♄43'40
inferior conj	2733 Sep 18 05:40	25°♄21'03	-3°-38'-59	min. Earth dist.	2734 Aug 28 16:27	11°♄03'56 0.60912 AU
minimum elong	2733 Sep 18 11:07	25°♄07'48	3°37'26	inferior conj	2734 Aug 31 21:01	8°♄21'00 -4°-27'-10
morning rise	2733 Sep 25 05:12	20°♄09'52		minimum elong	2734 Sep 01 02:13	8°♄09'52 4°26'10
direct	2733 Sep 27 14:26	19°♄43'33		morning rise	2734 Sep 08 07:26	3°♄30'57
asc. node	2733 Sep 30 06:22	20°♄17'12		direct	2734 Sep 10 15:52	3°♄08'56
morning max el	2733 Oct 04 07:06	23°♄10'00	17°51'04	asc. node	2734 Sep 17 03:24	6°♄03'11
	2733 Oct 09 16:17	0°♄		morning max el	2734 Sep 17 20:36	6°♄43'05 18°02'01
morning set	2733 Oct 20 10:59	18°♄14'49			2734 Oct 02 18:02	0°♄
	2733 Oct 27 03:50	0°♄		morning set	2734 Oct 03 15:06	1°♄37'32
superior conj	2733 Nov 01 01:35	8°♄21'37	0°40'35	superior conj	2734 Oct 13 16:11	19°♄56'51 1°12'43
minimum elong	2733 Nov 01 05:18	8°♄37'10	0°40'05	minimum elong	2734 Oct 13 20:31	20°♄16'00 1°12'13
desc. node	2733 Nov 07 02:08	18°♄17'32			2734 Oct 19 11:40	0°♄
max. Earth dist.	2733 Nov 07 19:36	19°♄28'07	1.43630 AU	max. Earth dist.	2734 Oct 21 07:00	3°♄01'52 1.41972 AU
	2733 Nov 14 10:57	0°♄		desc. node	2734 Oct 24 23:09	9°♄04'10
evening rise	2733 Nov 16 06:27	2°♄49'02		evening rise	2734 Oct 27 02:11	12°♄29'26
	2733 Dec 04 12:53	0°♄			2734 Nov 07 11:30	0°♄
greatest brilliancy	2733 Dec 11 04:45	8°♄59'07	-0.4m	greatest brilliancy	2734 Nov 24 07:20	23°♄08'18 -0.3m
evening max el	2733 Dec 16 08:27	14°♄57'36	21°13'13	evening max el	2734 Nov 29 02:23	28°♄30'57 22°29'35
retrograde	2733 Dec 25 00:09	20°♄05'41			2734 Nov 30 15:18	0°♄
asc. node	2733 Dec 27 05:37	19°♄38'17		retrograde	2734 Dec 08 19:54	4°♄17'51
evening set	2733 Dec 29 01:58	18°♄32'19		evening set	2734 Dec 13 09:31	2°♄27'58
inferior conj	2734 Jan 03 11:40	12°♄16'12	2°16'38	asc. node	2734 Dec 14 02:39	1°♄50'26
minimum elong	2734 Jan 03 09:12	12°♄24'44	2°15'49		2734 Dec 15 19:54	30°♄
min. Earth dist.	2734 Jan 03 19:41	11°♄48'33	0.67667 AU	inferior conj	2734 Dec 18 19:10	26°♄04'49 1°32'49
morning rise	2734 Jan 08 16:04	6°♄01'14		minimum elong	2734 Dec 18 17:14	26°♄11'33 1°32'05
direct	2734 Jan 13 20:34	3°♄46'30		min. Earth dist.	2734 Dec 18 15:53	26°♄16'12 0.67900 AU
morning max el	2734 Jan 24 08:58	10°♄02'13	23°32'42	morning rise	2734 Dec 24 00:49	19°♄52'24
desc. node	2734 Feb 03 01:23	21°♄34'43		direct	2734 Dec 28 14:21	18°♄00'29
	2734 Feb 09 03:43	0°♄		morning max el	2735 Jan 06 20:42	23°♄27'11 22°05'13
	2734 Feb 28 09:17	0°♄		greatest brilliancy	2735 Jan 11 12:05	28°♄39'37 -0.4m
morning set	2734 Feb 28 13:38	0°♄18'22			2735 Jan 12 14:06	0°♄
max. Earth dist.	2734 Mar 04 14:38	7°♄16'29	1.38964 AU	desc. node	2735 Jan 20 22:25	11°♄14'04
superior conj	2734 Mar 12 02:43	20°♄53'07	-1°-47'-10		2735 Feb 02 13:22	0°♄
minimum elong	2734 Mar 12 07:06	21°♄13'38	1°46'46	morning set	2735 Feb 08 19:18	9°♄52'12
	2734 Mar 16 21:39	0°♄		max. Earth dist.	2735 Feb 14 12:23	19°♄15'35 1.41114 AU
evening rise	2734 Mar 21 09:35	8°♄43'35			2735 Feb 20 18:37	0°♄
asc. node	2734 Mar 25 04:55	16°♄01'24		superior conj	2735 Feb 22 06:44	2°♄39'24 -2°-2'-27
	2734 Apr 02 12:10	0°♄		minimum elong	2735 Feb 22 09:26	2°♄51'22 2°02'22
evening max el	2734 Apr 06 16:06	4°♄57'45	18°43'28	evening rise	2735 Mar 04 18:02	21°♄48'47
retrograde	2734 Apr 14 17:01	8°♄53'17			2735 Mar 09 04:30	0°♄
evening set	2734 Apr 16 22:22	8°♄36'23		asc. node	2735 Mar 12 01:57	5°♄07'55
inferior conj	2734 Apr 24 18:09	4°♄13'45	1°58'23	evening max el	2735 Mar 20 23:31	17°♄41'06 18°15'28
minimum elong	2734 Apr 24 21:53	4°♄06'46	1°57'16	retrograde	2735 Mar 28 00:50	21°♄12'47
min. Earth dist.	2734 Apr 28 01:55	1°♄46'20	0.57484 AU	evening set	2735 Mar 30 12:04	20°♄47'44
	2734 Apr 30 19:23	30°♄		inferior conj	2735 Apr 06 14:00	16°♄03'47 3°00'30
desc. node	2734 May 02 00:33	29°♄20'36		minimum elong	2735 Apr 06 17:24	15°♄56'22 2°59'49
morning rise	2734 May 02 17:01	29°♄01'00		min. Earth dist.	2735 Apr 09 23:47	13°♄07'04 0.59551 AU
direct	2734 May 08 07:40	27°♄43'29		morning rise	2735 Apr 13 19:02	10°♄24'10
	2734 May 15 22:24	0°♄		desc. node	2735 Apr 18 21:35	8°♄35'40
morning max el	2734 May 22 16:05	5°♄16'00	26°20'17	direct	2735 Apr 20 05:06	8°♄30'58

morning max el	2735 May 04 13:21	16° Υ 19'04	27°22'59	morning max el	2736 Apr 15 17:02	28° Υ 04'05	27°49'48
	2735 May 15 18:24	0° Υ			2736 Apr 17 13:50	0° Υ	
	2735 Jun 02 04:15	0° Π			2736 May 08 12:29	0° Υ	
morning set	2735 Jun 04 17:04	5° Π 11'15		morning set	2736 May 18 20:52	19° Υ 37'21	
asc. node	2735 Jun 08 01:14	12° Π 16'57			2736 May 23 19:20	0° Π	
				max. Earth dist.	2736 May 24 17:47	2° Π 01'10	1.32377 AU
superior conj	2735 Jun 11 21:08	20° Π 39'17	0°39'27	asc. node	2736 May 24 22:16	2° Π 25'33	
minimum elong	2735 Jun 11 19:29	20° Π 30'13	0°39'06				
max. Earth dist.	2735 Jun 11 07:50	19° Π 26'04	1.32124 AU	superior conj	2736 May 26 07:24	5° Π 25'49	0°14'31
	2735 Jun 16 03:20	0° Σ		minimum elong	2736 May 26 06:44	5° Π 22'10	0°14'22
evening rise	2735 Jun 18 18:21	5° Σ 38'16		behind sun begin	2736 May 26 04:32	5° Π 10'10	
	2735 Jul 01 14:50	0° Ω		behind sun end	2736 May 26 08:56	5° Π 34'10	
desc. node	2735 Jul 15 20:51	19° Ω 06'50		evening rise	2736 Jun 02 05:48	20° Π 29'21	
evening max el	2735 Jul 17 00:28	20° Ω 14'41	25°59'39		2736 Jun 06 20:51	0° Σ	
retrograde	2735 Jul 31 00:07	27° Ω 23'52			2736 Jun 26 14:02	0° Ω	
evening set	2735 Aug 06 07:23	25° Ω 48'17		evening max el	2736 Jun 27 15:47	1° Ω 03'54	24°35'24
min. Earth dist.	2735 Aug 10 12:53	23° Ω 12'31	0.58849 AU	desc. node	2736 Jul 01 17:53	4° Ω 29'42	
inferior conj	2735 Aug 13 19:27	20° Ω 47'27	-4°-58'-1	retrograde	2736 Jul 11 13:38	8° Ω 06'12	
minimum elong	2735 Aug 13 22:02	20° Ω 42'40	4°57'50	evening set	2736 Jul 16 14:40	7° Ω 08'57	
morning rise	2735 Aug 21 16:08	16° Ω 20'50		min. Earth dist.	2736 Jul 22 02:52	4° Ω 18'16	0.56929 AU
direct	2735 Aug 24 02:46	16° Ω 01'00		inferior conj	2736 Jul 24 22:00	2° Ω 30'17	-4°-58'-22
morning max el	2735 Sep 01 04:16	19° Ω 52'25	18°33'03	minimum elong	2736 Jul 24 19:23	2° Ω 34'31	4°58'13
asc. node	2735 Sep 04 00:27	23° Ω 00'50			2736 Jul 29 02:25	30° Υ Σ	
	2735 Sep 08 19:05	0° Υ		morning rise	2736 Aug 02 03:48	28° Σ 25'33	
morning set	2735 Sep 17 07:26	15° Υ 35'36		direct	2736 Aug 04 18:54	28° Σ 06'29	
	2735 Sep 24 19:23	0° $\underline{\Delta}$			2736 Aug 10 23:06	0° Ω	
				morning max el	2736 Aug 14 02:59	2° Ω 27'35	19°25'25
superior conj	2735 Sep 26 05:08	2° $\underline{\Delta}$ 38'15	1°33'11	asc. node	2736 Aug 20 21:31	10° Ω 54'18	
minimum elong	2735 Sep 26 08:11	2° $\underline{\Delta}$ 52'28	1°32'55	morning set	2736 Aug 31 08:13	29° Ω 57'58	
max. Earth dist.	2735 Oct 03 13:27	15° $\underline{\Delta}$ 53'43	1.39986 AU		2736 Aug 31 08:38	0° Υ	
evening rise	2735 Oct 07 19:34	23° $\underline{\Delta}$ 09'46					
desc. node	2735 Oct 11 20:11	29° $\underline{\Delta}$ 46'32		superior conj	2736 Sep 08 10:48	16° Υ 09'12	1°43'19
	2735 Oct 11 23:31	0° Υ		minimum elong	2736 Sep 08 12:02	16° Υ 15'13	1°43'16
	2735 Nov 01 09:53	0° Υ		max. Earth dist.	2736 Sep 14 17:18	28° Υ 04'26	1.37919 AU
evening max el	2735 Nov 11 16:24	12° Υ 07'02	23°49'31		2736 Sep 15 18:34	0° $\underline{\Delta}$	
retrograde	2735 Nov 22 12:34	18° Υ 30'16		evening rise	2736 Sep 18 12:37	4° $\underline{\Delta}$ 55'47	
evening set	2735 Nov 27 15:30	16° Υ 23'24		desc. node	2736 Sep 27 17:12	20° $\underline{\Delta}$ 20'15	
asc. node	2735 Nov 30 23:42	12° Υ 46'29			2736 Oct 03 23:56	0° Υ	
min. Earth dist.	2735 Dec 02 12:26	10° Υ 44'44	0.67780 AU	evening max el	2736 Oct 24 04:35	25° Υ 46'23	25°06'31
inferior conj	2735 Dec 03 02:26	9° Υ 57'07	0°43'08		2736 Oct 29 03:53	0° Υ	
minimum elong	2735 Dec 03 01:26	10° Υ 00'32	0°42'43	retrograde	2736 Nov 05 01:10	2° Υ 38'28	
morning rise	2735 Dec 08 11:34	3° Υ 49'20		evening set	2736 Nov 10 18:14	0° Υ 15'48	
direct	2735 Dec 12 11:00	2° Υ 20'06			2736 Nov 11 01:30	30° Υ Υ	
morning max el	2735 Dec 20 15:03	7° Υ 02'55	20°45'38	min. Earth dist.	2736 Nov 15 07:00	25° Υ 11'36	0.67318 AU
greatest brilliancy	2735 Dec 26 10:15	13° Υ 48'47	-0.5m	inferior conj	2736 Nov 16 07:42	23° Υ 50'45	0°-11'-12
	2736 Jan 06 22:28	0° Σ		minimum elong	2736 Nov 16 07:59	23° Υ 49'50	0°11'06
desc. node	2736 Jan 07 19:27	1° Σ 17'47		transit middle	2736 Nov 16 07:59	23° Υ 49'50	0°11'06
morning set	2736 Jan 18 23:15	18° Σ 16'58		transit begin	2736 Nov 16 05:58	23° Υ 56'27	
	2736 Jan 26 08:58	0° \approx		transit end	2736 Nov 16 10:01	23° Υ 43'13	
max. Earth dist.	2736 Jan 27 17:28	2° \approx 11'14	1.43002 AU	asc. node	2736 Nov 16 20:45	23° Υ 08'12	
				morning rise	2736 Nov 21 22:22	17° Υ 49'54	
superior conj	2736 Feb 03 11:18	13° \approx 19'18	-2°-5'-10	direct	2736 Nov 25 09:20	16° Υ 40'58	
minimum elong	2736 Feb 03 09:36	13° \approx 12'10	2°05'10	morning max el	2736 Dec 02 17:17	20° Υ 49'42	19°38'39
	2736 Feb 13 03:03	0° Υ			2736 Dec 10 03:48	0° Υ	
evening rise	2736 Feb 15 11:26	4° Υ 09'39		greatest brilliancy	2736 Dec 10 20:13	0° Υ 57'22	-0.6m
asc. node	2736 Feb 26 23:00	23° Υ 43'49		desc. node	2736 Dec 24 16:29	21° Υ 39'02	
	2736 Mar 02 17:17	0° Υ		morning set	2736 Dec 27 19:55	26° Υ 29'39	
evening max el	2736 Mar 03 11:03	0° Υ 46'02	18°07'09		2736 Dec 30 02:15	0° Σ	
retrograde	2736 Mar 10 00:19	4° Υ 09'27		max. Earth dist.	2737 Jan 09 05:27	15° Σ 52'40	1.44383 AU
evening set	2736 Mar 12 16:51	3° Υ 34'48					
	2736 Mar 17 15:46	30° Υ Υ		superior conj	2737 Jan 13 13:42	22° Σ 48'57	-1°-50'-25
inferior conj	2736 Mar 19 04:35	28° Υ 29'48	3°32'27	minimum elong	2737 Jan 13 06:26	22° Σ 19'45	1°49'55
minimum elong	2736 Mar 19 06:15	28° Υ 25'39	3°32'18		2737 Jan 17 23:59	0° \approx	
min. Earth dist.	2736 Mar 22 05:23	25° Υ 28'32	0.61705 AU	evening rise	2737 Jan 27 09:22	15° \approx 37'49	
morning rise	2736 Mar 25 16:56	22° Υ 32'46			2737 Feb 04 22:56	0° Υ	
direct	2736 Apr 01 13:17	20° Υ 07'49		asc. node	2737 Feb 12 20:04	11° Υ 39'47	
desc. node	2736 Apr 04 18:39	20° Υ 37'16		evening max el	2737 Feb 14 23:43	14° Υ 05'04	18°17'56

retrograde	2737 Feb 21 10:43	17° ✕ 33'38		retrograde	2738 Feb 05 03:56	1° ✕ 16'28	
evening set	2737 Feb 24 08:35	16° ✕ 48'16		evening set	2738 Feb 08 07:48	0° ✕ 19'18	
inferior conj	2737 Mar 02 09:48	11° ✕ 23'42	3°41'00		2738 Feb 08 19:50	30° ℞	
minimum elong	2737 Mar 02 09:37	11° ✕ 24'14	3°41'00	inferior conj	2738 Feb 14 01:40	24° ≈ 36'58	3°32'13
min. Earth dist.	2737 Mar 04 20:23	8° ✕ 39'44	0.63681 AU	minimum elong	2738 Feb 14 00:06	24° ≈ 41'47	3°32'02
morning rise	2737 Mar 08 08:51	5° ✕ 16'48		min. Earth dist.	2738 Feb 15 20:40	22° ≈ 25'11	0.65319 AU
direct	2737 Mar 15 06:13	2° ✕ 31'48		morning rise	2738 Feb 19 15:16	18° ≈ 24'51	
desc. node	2737 Mar 22 15:41	5° ✕ 06'52		direct	2738 Feb 26 06:12	15° ≈ 34'25	
morning max el	2737 Mar 29 01:10	10° ✕ 28'06	27°39'15	desc. node	2738 Mar 09 12:43	21° ≈ 28'24	
	2737 Apr 13 09:35	0° Υ		morning max el	2738 Mar 11 10:52	23° ≈ 19'29	26°55'49
	2737 Apr 30 20:59	0° Υ			2738 Mar 17 09:36	0° ✕	
morning set	2737 May 02 17:44	3° ♄ 39'39			2738 Apr 06 17:11	0° Υ	
max. Earth dist.	2737 May 07 21:28	14° ♄ 13'14	1.33054 AU	morning set	2738 Apr 16 04:28	17° Υ 07'54	
				max. Earth dist.	2738 Apr 20 15:12	25° Υ 52'49	1.34183 AU
					2738 Apr 22 15:46	0° ♄	
superior conj	2737 May 10 14:28	19° ♄ 58'36	0°-12'-37				
minimum elong	2737 May 10 15:06	20° ♄ 01'56	0°12'30	superior conj	2738 Apr 24 16:12	4° ♄ 10'46	0°-40'-55
behind sun begin	2737 May 10 11:46	19° ♄ 44'03		minimum elong	2738 Apr 24 18:19	4° ♄ 21'45	0°40'30
behind sun end	2737 May 10 18:26	20° ♄ 19'50		asc. node	2738 Apr 28 16:24	12° ♄ 37'01	
asc. node	2737 May 11 19:20	22° ♄ 33'42		evening rise	2738 May 02 03:41	19° ♄ 55'13	
	2737 May 15 06:07	0° ♄			2738 May 07 03:37	0° ♄	
evening rise	2737 May 17 17:33	5° ♄ 17'10		evening max el	2738 May 22 01:01	22° ♄ 09'08	21°26'43
	2737 May 31 00:50	0° ♄		retrograde	2738 Jun 03 05:08	28° ♄ 07'07	
evening max el	2737 Jun 09 05:24	11° ♄ 31'17	22°59'22	desc. node	2738 Jun 05 11:55	27° ♄ 55'13	
desc. node	2737 Jun 18 14:55	17° ♄ 35'18		evening set	2738 Jun 05 14:57	27° ♄ 53'53	
retrograde	2737 Jun 22 14:43	18° ♄ 11'40		inferior conj	2738 Jun 14 23:58	23° ♄ 54'17	-2°-41'-57
evening set	2737 Jun 26 03:24	17° ♄ 44'24		minimum elong	2738 Jun 14 16:47	24° ♄ 04'19	2°39'37
min. Earth dist.	2737 Jul 03 14:27	14° ♄ 24'18	0.55504 AU	min. Earth dist.	2738 Jun 15 02:05	23° ♄ 51'18	0.54887 AU
inferior conj	2737 Jul 05 05:08	13° ♄ 28'16	-4°-13'-59	morning rise	2738 Jun 23 19:06	19° ♄ 58'15	
minimum elong	2737 Jul 04 21:39	13° ♄ 39'08	4°12'25	direct	2738 Jun 27 02:43	19° ♄ 34'18	
morning rise	2737 Jul 13 18:47	9° ♄ 36'08		morning max el	2738 Jul 09 14:32	25° ♄ 28'56	22°10'51
direct	2737 Jul 16 16:11	9° ♄ 16'21			2738 Jul 13 19:34	0° ♄	
morning max el	2737 Jul 27 14:26	14° ♄ 20'22	20°39'01	asc. node	2738 Jul 25 15:37	18° ♄ 39'45	
asc. node	2737 Aug 07 18:34	29° ♄ 30'41		morning set	2738 Jul 31 00:37	29° ♄ 27'12	
	2737 Aug 08 01:15	0° ♄			2738 Jul 31 06:54	0° ♄	
morning set	2737 Aug 15 14:40	14° ♄ 37'05					
				superior conj	2738 Aug 07 06:14	14° ♄ 46'56	1°39'29
superior conj	2737 Aug 23 04:23	0° ♄ 15'41	1°44'54	minimum elong	2738 Aug 07 04:39	14° ♄ 38'35	1°39'24
minimum elong	2737 Aug 23 03:58	0° ♄ 13'35	1°44'54	max. Earth dist.	2738 Aug 10 15:59	21° ♄ 52'32	1.34454 AU
	2737 Aug 23 01:19	0° ♄			2738 Aug 14 17:14	0° ♄	
max. Earth dist.	2737 Aug 28 00:28	9° ♄ 55'18	1.36021 AU	evening rise	2738 Aug 15 07:47	1° ♄ 10'49	
evening rise	2737 Sep 01 02:12	17° ♄ 40'08		desc. node	2738 Sep 01 11:14	0° ♄ 39'55	
	2737 Sep 08 00:52	0° ♄			2738 Sep 01 00:40	0° ♄	
desc. node	2737 Sep 14 14:14	10° ♄ 40'11		evening max el	2738 Sep 19 05:17	23° ♄ 01'15	27°01'41
	2737 Sep 28 06:49	0° ♄			2738 Sep 30 00:50	0° ♄	
evening max el	2737 Oct 06 16:46	9° ♄ 26'50	26°13'08	retrograde	2738 Oct 02 10:58	0° ♄ 18'12	
retrograde	2737 Oct 19 08:53	16° ♄ 36'37			2738 Oct 04 18:48	30° ℞	
evening set	2737 Oct 25 15:51	14° ♄ 01'31		evening set	2738 Oct 09 06:08	27° ♄ 36'38	
min. Earth dist.	2737 Oct 29 21:11	9° ♄ 33'14	0.66519 AU	min. Earth dist.	2738 Oct 13 04:36	23° ♄ 44'58	0.65374 AU
inferior conj	2737 Oct 31 09:05	7° ♄ 42'28	-1°-8'-58	inferior conj	2738 Oct 15 04:30	21° ♄ 28'26	-2°-8'-24
minimum elong	2737 Oct 31 10:56	7° ♄ 36'48	1°08'13	minimum elong	2738 Oct 15 08:00	21° ♄ 18'27	2°07'04
asc. node	2737 Nov 03 17:49	3° ♄ 52'04		morning rise	2738 Oct 21 11:31	15° ♄ 50'02	
morning rise	2737 Nov 06 07:07	1° ♄ 51'16		asc. node	2738 Oct 21 14:50	15° ♄ 46'09	
direct	2737 Nov 09 07:46	0° ♄ 59'01		direct	2738 Oct 24 04:12	15° ♄ 10'36	
morning max el	2737 Nov 16 02:31	4° ♄ 44'07	18°46'50	morning max el	2738 Oct 30 16:38	18° ♄ 41'34	18°11'31
	2737 Dec 03 19:41	0° ♄			2738 Nov 08 03:26	0° ♄	
morning set	2737 Dec 07 09:57	5° ♄ 40'04		morning set	2738 Nov 18 05:06	16° ♄ 18'51	
desc. node	2737 Dec 11 13:30	12° ♄ 12'18			2738 Nov 26 15:07	0° ♄	
	2737 Dec 22 21:25	0° ♄		desc. node	2738 Nov 28 10:32	2° ♄ 54'03	
max. Earth dist.	2737 Dec 22 22:25	0° ♄ 03'54	1.45107 AU				
				superior conj	2738 Dec 02 22:55	10° ♄ 05'01	0°-30'-11
superior conj	2737 Dec 23 19:36	1° ♄ 27'06	-1°-16'-37	minimum elong	2738 Dec 02 19:04	9° ♄ 49'45	0°29'40
minimum elong	2737 Dec 23 10:53	0° ♄ 52'54	1°15'40	max. Earth dist.	2738 Dec 05 17:47	14° ♄ 28'40	1.45097 AU
evening rise	2738 Jan 08 08:21	26° ♄ 07'43			2738 Dec 15 16:05	0° ♄	
	2738 Jan 10 18:01	0° ≈		evening rise	2738 Dec 19 09:00	5° ♄ 45'53	
evening max el	2738 Jan 29 10:53	27° ≈ 31'20	18°46'54		2739 Jan 04 05:12	0° ≈	
asc. node	2738 Jan 30 17:07	28° ≈ 43'11		greatest brilliancy	2739 Jan 04 14:22	0° ≈ 33'13	-0.7m
	2738 Feb 01 09:15	0° ✕					

evening max el	2739 Jan 12 18:24	11° \approx 01'07	19°32'37		2739 Nov 19 06:26	0° \approx	
asc. node	2739 Jan 17 14:08	14° \approx 40'19		evening rise	2739 Nov 28 19:19	14° \approx 53'41	
retrograde	2739 Jan 20 00:47	15° \approx 12'46			2739 Dec 08 18:11	0° \approx	
evening set	2739 Jan 23 11:55	14° \approx 02'30		greatest brilliancy	2739 Dec 20 22:16	17° \approx 25'55	-0.5m
inferior conj	2739 Jan 29 01:01	8° \approx 04'35	3°10'27	evening max el	2739 Dec 26 20:46	24° \approx 31'56	20°33'01
minimum elong	2739 Jan 28 22:40	8° \approx 12'17	3°09'58	retrograde	2740 Jan 03 22:48	29° \approx 18'03	
min. Earth dist.	2739 Jan 30 05:10	6° \approx 32'26	0.66552 AU	asc. node	2740 Jan 04 11:08	29° \approx 16'35	
morning rise	2739 Feb 03 08:41	1° \approx 49'56		evening set	2740 Jan 07 18:47	27° \approx 53'21	
	2739 Feb 05 22:52	30° \approx 07'00		inferior conj	2740 Jan 13 05:12	21° \approx 42'44	2°38'41
direct	2739 Feb 09 12:03	29° \approx 07'00		minimum elong	2740 Jan 13 02:38	21° \approx 51'31	2°37'57
	2739 Feb 13 08:17	0° \approx		min. Earth dist.	2740 Jan 13 20:04	20° \approx 52'04	0.67369 AU
morning max el	2739 Feb 21 20:08	6° \approx 27'08	25°47'24	morning rise	2740 Jan 18 10:01	15° \approx 27'24	
desc. node	2739 Feb 24 09:45	9° \approx 10'56		direct	2740 Jan 23 23:05	13° \approx 01'02	
	2739 Mar 12 02:08	0° \approx		morning max el	2740 Feb 04 04:42	19° \approx 43'12	24°23'48
morning set	2739 Mar 30 00:54	29° \approx 49'48		desc. node	2740 Feb 11 06:47	27° \approx 51'12	
	2739 Mar 30 03:07	0° \approx			2740 Feb 12 23:01	0° \approx	
max. Earth dist.	2739 Apr 02 21:29	7° \approx 03'38	1.35768 AU		2740 Mar 04 06:02	0° \approx	
				morning set	2740 Mar 11 01:33	11° \approx 30'29	
superior conj	2739 Apr 08 10:02	17° \approx 54'52	-1°-8'-57	max. Earth dist.	2740 Mar 14 19:00	18° \approx 07'54	1.37731 AU
minimum elong	2739 Apr 08 13:33	18° \approx 12'36	1°08'21		2740 Mar 21 03:44	0° \approx	
	2739 Apr 14 07:58	0° \approx		superior conj	2740 Mar 21 16:40	1° \approx 02'09	-1°-34'-36
asc. node	2739 Apr 15 13:26	2° \approx 31'13		minimum elong	2740 Mar 21 21:04	1° \approx 23'24	1°34'04
evening rise	2739 Apr 16 10:09	4° \approx 17'06		evening rise	2740 Mar 30 10:33	18° \approx 16'00	
	2739 May 01 07:08	0° \approx		asc. node	2740 Apr 01 10:27	22° \approx 11'44	
evening max el	2739 May 04 07:39	3° \approx 20'20	20°08'07		2740 Apr 05 13:21	0° \approx	
retrograde	2739 May 14 19:15	8° \approx 25'36		evening max el	2740 Apr 16 01:58	15° \approx 12'10	19°08'31
evening set	2739 May 16 19:28	8° \approx 15'12		retrograde	2740 Apr 24 22:01	19° \approx 29'37	
desc. node	2739 May 23 08:57	5° \approx 41'56		evening set	2740 Apr 27 00:02	19° \approx 16'18	
inferior conj	2739 May 25 20:04	4° \approx 16'11	0°-43'-23	inferior conj	2740 May 05 06:58	15° \approx 04'15	1°07'22
minimum elong	2739 May 25 18:03	4° \approx 19'13	0°42'39	minimum elong	2740 May 05 09:34	14° \approx 59'49	1°06'29
min. Earth dist.	2739 May 27 14:52	3° \approx 12'34	0.55231 AU	min. Earth dist.	2740 May 08 06:03	13° \approx 03'45	0.56463 AU
	2739 Jun 03 10:23	30° \approx 08'07		desc. node	2740 May 09 05:59	12° \approx 25'27	
morning rise	2739 Jun 03 14:15	29° \approx 57'11		morning rise	2740 May 13 14:53	10° \approx 10'33	
direct	2739 Jun 07 15:08	29° \approx 21'46		direct	2740 May 18 15:16	9° \approx 11'56	
	2739 Jun 11 18:13	0° \approx		morning max el	2740 Jun 01 21:14	16° \approx 30'23	25°31'24
morning max el	2739 Jun 21 06:45	6° \approx 03'55	23°52'51		2740 Jun 12 20:41	0° \approx	
	2739 Jul 08 06:42	0° \approx		asc. node	2740 Jun 28 09:42	28° \approx 02'34	
asc. node	2739 Jul 12 12:39	8° \approx 12'34		morning set	2740 Jun 28 23:54	29° \approx 17'12	
morning set	2739 Jul 15 12:14	14° \approx 22'16			2740 Jun 29 07:59	0° \approx	
				superior conj	2740 Jul 05 23:57	14° \approx 28'50	1°12'26
superior conj	2739 Jul 22 13:28	29° \approx 33'37	1°28'21	minimum elong	2740 Jul 05 21:34	14° \approx 15'50	1°12'03
minimum elong	2739 Jul 22 11:14	29° \approx 21'33	1°28'06	max. Earth dist.	2740 Jul 07 00:24	16° \approx 42'42	1.32525 AU
	2739 Jul 22 18:22	0° \approx		evening rise	2740 Jul 13 02:40	29° \approx 43'29	
max. Earth dist.	2739 Jul 24 16:38	4° \approx 08'21	1.33285 AU		2740 Jul 13 05:52	0° \approx	
evening rise	2739 Jul 30 01:03	15° \approx 15'11			2740 Jul 29 21:42	0° \approx	
	2739 Aug 06 19:10	0° \approx		desc. node	2740 Aug 05 05:16	8° \approx 58'21	
desc. node	2739 Aug 19 08:15	20° \approx 10'04		evening max el	2740 Aug 14 00:45	19° \approx 00'05	27°17'38
	2739 Aug 26 20:22	0° \approx		retrograde	2740 Aug 27 20:20	26° \approx 15'15	
evening max el	2739 Sep 01 16:43	6° \approx 16'41	27°25'02	evening set	2740 Sep 04 00:37	23° \approx 50'42	
retrograde	2739 Sep 15 06:56	13° \approx 34'05		min. Earth dist.	2740 Sep 07 14:52	21° \approx 01'18	0.62063 AU
evening set	2739 Sep 22 10:15	10° \approx 54'59		inferior conj	2740 Sep 10 14:50	18° \approx 16'14	-4°00'-55
min. Earth dist.	2739 Sep 26 02:56	7° \approx 38'03	0.63878 AU	minimum elong	2740 Sep 10 20:25	18° \approx 03'24	3°59'31
inferior conj	2739 Sep 28 15:24	5° \approx 02'00	-3°-7'-5	morning rise	2740 Sep 17 19:04	13° \approx 13'59	
minimum elong	2739 Sep 28 20:21	4° \approx 49'12	3°05'27	direct	2740 Sep 20 03:37	12° \approx 49'49	
	2739 Oct 04 15:13	30° \approx 09'44		asc. node	2740 Sep 24 08:53	14° \approx 09'48	
morning rise	2739 Oct 05 08:42	29° \approx 39'59		morning max el	2740 Sep 27 00:22	16° \approx 18'09	17°53'25
direct	2739 Oct 07 19:58	29° \approx 09'44			2740 Oct 06 15:02	0° \approx	
asc. node	2739 Oct 08 11:51	29° \approx 11'57		morning set	2740 Oct 12 21:58	11° \approx 11'10	
	2739 Oct 11 00:05	0° \approx					
morning max el	2739 Oct 14 08:55	2° \approx 35'11	17°53'25	superior conj	2740 Oct 23 19:20	0° \approx 28'25	0°55'41
morning set	2739 Oct 31 03:10	28° \approx 15'33		minimum elong	2740 Oct 23 23:39	0° \approx 46'55	0°55'07
	2739 Nov 01 03:28	0° \approx			2740 Oct 23 12:43	0° \approx	
superior conj	2739 Nov 12 19:47	19° \approx 37'20	0°16'58	max. Earth dist.	2740 Oct 31 02:16	12° \approx 40'19	1.42975 AU
minimum elong	2739 Nov 12 21:38	19° \approx 44'53	0°16'42	desc. node	2740 Nov 01 04:34	14° \approx 27'20	
desc. node	2739 Nov 15 07:33	23° \approx 40'08		evening rise	2740 Nov 07 06:50	24° \approx 09'39	
max. Earth dist.	2739 Nov 18 12:09	28° \approx 47'17	1.44352 AU				

	2740 Nov 11 01:17	0°♊		superior conj	2741 Oct 05 20:08	12°♊33'34	1°22'46
	2740 Dec 01 21:14	0°♋		minimum elong	2741 Oct 06 00:04	12°♊51'20	1°22'21
greatest brilliancy	2740 Dec 03 21:47	2°♋33'49	-0.4m	max. Earth dist.	2741 Oct 13 10:49	25°♊54'20	1.41144 AU
evening max el	2740 Dec 08 17:27	8°♋03'15	21°44'54		2741 Oct 15 21:22	0°♌	
retrograde	2740 Dec 17 19:58	13°♋28'26		evening rise	2741 Oct 18 10:59	4°♌13'14	
asc. node	2740 Dec 21 08:09	12°♋21'17		desc. node	2741 Oct 19 01:36	5°♌12'32	
evening set	2740 Dec 22 02:35	11°♋48'03			2741 Nov 04 08:28	0°♍	
inferior conj	2740 Dec 27 12:03	5°♋28'12	1°58'51	greatest brilliancy	2741 Nov 15 17:11	15°♍13'49	-0.2m
minimum elong	2740 Dec 27 09:45	5°♋36'10	1°58'03	evening max el	2741 Nov 21 09:25	21°♍37'20	23°03'37
min. Earth dist.	2740 Dec 27 15:05	5°♋17'40	0.67802 AU	retrograde	2741 Dec 01 14:41	27°♍40'59	
	2740 Dec 31 20:54	30°♌♊		evening set	2741 Dec 06 09:40	25°♍44'03	
morning rise	2741 Jan 01 16:41	29°♌13'59		asc. node	2741 Dec 08 05:12	23°♌57'51	
direct	2741 Jan 06 14:37	27°♌09'00		inferior conj	2741 Dec 11 19:42	19°♌18'54	1°12'26
	2741 Jan 13 04:32	0°♍		minimum elong	2741 Dec 11 18:06	19°♌24'25	1°11'48
morning max el	2741 Jan 16 14:20	3°♍04'21	22°55'01	min. Earth dist.	2741 Dec 11 11:51	19°♌45'56	0.67880 AU
greatest brilliancy	2741 Jan 21 07:39	8°♍20'32	-0.3m	morning rise	2741 Dec 17 02:32	13°♌07'56	
desc. node	2741 Jan 28 03:49	17°♍12'19		direct	2741 Dec 21 09:51	11°♌25'46	
	2741 Feb 06 02:01	0°♎		morning max el	2741 Dec 30 04:31	16°♌33'24	21°30'05
morning set	2741 Feb 20 00:10	21°♎53'20		greatest brilliancy	2742 Jan 04 04:41	22°♌14'59	-0.4m
max. Earth dist.	2741 Feb 24 14:09	29°♎37'17	1.39887 AU		2742 Jan 10 01:32	0°♏	
	2741 Feb 24 19:26	0°♐		desc. node	2742 Jan 15 00:51	7°♏03'02	
					2742 Jan 30 04:08	0°♑	
superior conj	2741 Mar 04 07:50	13°♐21'11	-1°-54'-51	morning set	2742 Jan 30 17:47	0°♑53'58	
minimum elong	2741 Mar 04 11:48	13°♐39'21	1°54'35	max. Earth dist.	2742 Feb 06 14:12	11°♑58'23	1.41960 AU
	2741 Mar 13 04:16	0°♒					
evening rise	2741 Mar 14 01:52	1°♒43'10		superior conj	2742 Feb 14 02:31	24°♑40'48	-2°-5'-27
asc. node	2741 Mar 19 07:30	11°♒32'28		minimum elong	2742 Feb 14 03:41	24°♑45'51	2°05'28
evening max el	2741 Mar 30 05:34	27°♒39'13	18°29'05		2742 Feb 17 03:26	0°♓	
	2741 Apr 02 04:50	0°♓		evening rise	2742 Feb 25 04:29	14°♓30'34	
retrograde	2741 Apr 06 19:11	1°♓22'49			2742 Mar 05 21:58	0°♑	
evening set	2741 Apr 09 02:54	1°♓02'52		asc. node	2742 Mar 06 04:32	0°♑27'05	
	2741 Apr 11 15:30	30°♒♑		evening max el	2742 Mar 13 15:12	10°♑33'18	18°09'34
inferior conj	2741 Apr 16 14:46	26°♑31'28	2°28'44	retrograde	2742 Mar 20 10:02	13°♑59'23	
minimum elong	2741 Apr 16 18:38	26°♑23'43	2°27'44	evening set	2742 Mar 22 23:35	13°♑30'25	
min. Earth dist.	2741 Apr 20 01:09	23°♑48'24	0.58330 AU	inferior conj	2742 Mar 29 19:04	8°♑37'43	3°17'17
morning rise	2741 Apr 24 06:05	21°♑05'41		minimum elong	2742 Mar 29 21:48	8°♑31'22	3°16'51
desc. node	2741 Apr 26 03:01	20°♑17'07		min. Earth dist.	2742 Apr 02 02:12	5°♑35'49	0.60482 AU
direct	2741 Apr 30 05:49	19°♑33'03		morning rise	2742 Apr 05 16:42	2°♑49'40	
morning max el	2741 May 14 15:10	27°♑14'12	26°50'51	direct	2742 Apr 12 08:32	0°♑41'30	
	2741 May 17 06:57	0°♒		desc. node	2742 Apr 13 00:04	0°♑42'40	
	2741 Jun 06 07:44	0°♓		morning max el	2742 Apr 26 15:07	8°♑34'11	27°38'48
morning set	2741 Jun 13 09:57	14°♓05'44			2742 May 13 00:19	0°♔	
asc. node	2741 Jun 15 06:45	18°♓03'24		morning set	2742 May 28 16:38	28°♔41'55	
					2742 May 29 07:41	0°♕	
superior conj	2741 Jun 20 11:43	29°♓25'29	0°52'30	asc. node	2742 Jun 02 03:49	8°♕10'27	
minimum elong	2741 Jun 20 09:41	29°♓14'16	0°52'06	max. Earth dist.	2742 Jun 03 23:26	12°♕08'04	1.32185 AU
max. Earth dist.	2741 Jun 20 11:52	29°♓26'18	1.32158 AU				
	2741 Jun 20 17:59	0°♖		superior conj	2742 Jun 04 23:04	14°♕17'36	0°29'12
evening rise	2741 Jun 27 09:50	14°♖26'29		minimum elong	2742 Jun 04 21:47	14°♕10'36	0°28'55
	2741 Jul 05 06:28	0°♗		evening rise	2742 Jun 11 20:20	29°♕16'50	
desc. node	2741 Jul 23 02:18	26°♗47'27			2742 Jun 12 04:29	0°♘	
	2741 Jul 26 02:06	0°♙			2742 Jun 28 19:41	0°♗	
evening max el	2741 Jul 27 02:59	1°♙00'39	26°37'06	evening max el	2742 Jul 08 22:10	12°♗14'36	25°26'13
retrograde	2741 Aug 10 02:10	8°♙12'48		desc. node	2742 Jul 09 23:20	13°♗12'52	
evening set	2741 Aug 16 20:39	6°♙16'25		retrograde	2742 Jul 22 22:11	19°♗21'39	
min. Earth dist.	2741 Aug 20 16:40	3°♙40'37	0.60030 AU	evening set	2742 Jul 28 17:44	18°♗02'55	
inferior conj	2741 Aug 23 23:23	1°♙02'36	-4°-43'-6	min. Earth dist.	2742 Aug 02 10:11	15°♗22'35	0.57992 AU
minimum elong	2741 Aug 24 03:49	0°♙53'40	4°42'28	inferior conj	2742 Aug 05 13:36	13°♗11'20	-5°-2'-50
	2741 Aug 25 06:53	30°♒♗		minimum elong	2742 Aug 05 14:13	13°♗10'16	5°02'51
morning rise	2741 Aug 31 14:21	26°♗22'41		morning rise	2742 Aug 13 14:17	8°♗54'14	
direct	2741 Sep 02 23:13	26°♗01'58		direct	2742 Aug 16 02:28	8°♗34'54	
morning max el	2741 Sep 10 11:51	29°♗42'20	18°12'43	morning max el	2742 Aug 24 16:02	12°♗37'53	18°52'40
	2741 Sep 10 19:03	0°♘		asc. node	2742 Aug 29 03:02	17°♗50'49	
asc. node	2741 Sep 11 05:57	0°♘27'55			2742 Sep 05 11:50	0°♙	
morning set	2741 Sep 26 07:48	24°♘49'56		morning set	2742 Sep 10 04:08	8°♙59'07	
	2741 Sep 29 01:28	0°♚					
				superior conj	2742 Sep 18 16:48	25°♙37'18	1°38'38

minimum elong	2742 Sep 18 19:05	25° \mathring{M} 48'11	1°38'29		2743 Aug 28 12:18	0° \mathring{M}	
	2742 Sep 21 00:30	0° \mathring{A}					
max. Earth dist.	2742 Sep 25 15:31	8° \mathring{A} 26'35	1.39098 AU	superior conj	2743 Sep 02 04:05	9° \mathring{M} 25'15	1°44'55
evening rise	2742 Sep 29 14:37	15° \mathring{A} 21'51		minimum elong	2743 Sep 02 04:35	9° \mathring{M} 27'41	1°44'55
desc. node	2742 Oct 05 22:37	25° \mathring{A} 51'36		max. Earth dist.	2743 Sep 07 20:36	20° \mathring{M} 28'16	1.37086 AU
	2742 Oct 08 13:19	0° \mathring{M}		evening rise	2743 Sep 11 17:01	27° \mathring{M} 34'30	
	2742 Oct 30 02:40	0° \mathring{A}			2743 Sep 13 01:33	0° \mathring{A}	
evening max el	2742 Nov 03 22:33	5° \mathring{A} 15'06	24°23'14	desc. node	2743 Sep 22 19:39	16° \mathring{A} 20'25	
retrograde	2742 Nov 15 05:37	11° \mathring{A} 51'29			2743 Oct 01 23:05	0° \mathring{M}	
evening set	2742 Nov 20 14:26	9° \mathring{A} 37'57		evening max el	2743 Oct 17 10:43	18° \mathring{M} 55'52	25°36'33
asc. node	2742 Nov 25 02:15	4° \mathring{A} 32'21		retrograde	2743 Oct 29 15:59	25° \mathring{M} 55'59	
min. Earth dist.	2742 Nov 25 07:52	4° \mathring{A} 13'37	0.67622 AU	evening set	2743 Nov 04 15:11	23° \mathring{M} 27'31	
inferior conj	2742 Nov 26 02:19	3° \mathring{A} 11'48	0°20'36	min. Earth dist.	2743 Nov 09 00:46	18° \mathring{M} 38'34	0.67028 AU
minimum elong	2742 Nov 26 01:49	3° \mathring{A} 13'28	0°20'24	inferior conj	2743 Nov 10 06:08	17° \mathring{M} 04'43	0°-35'-22
	2742 Nov 28 14:00	30° \mathring{R} \mathring{M}		minimum elong	2743 Nov 10 07:03	17° \mathring{M} 01'47	0°35'00
morning rise	2742 Dec 01 13:32	27° \mathring{M} 06'29		asc. node	2743 Nov 11 23:18	14° \mathring{M} 56'13	
direct	2742 Dec 05 07:31	25° \mathring{M} 46'02		morning rise	2743 Nov 15 23:43	11° \mathring{M} 07'43	
	2742 Dec 12 20:50	0° \mathring{A}		direct	2743 Nov 19 06:08	10° \mathring{M} 06'14	
morning max el	2742 Dec 13 02:02	0° \mathring{A} 12'57	20°15'23	morning max el	2743 Nov 26 07:24	14° \mathring{M} 03'09	19°14'39
greatest brilliancy	2742 Dec 19 16:55	8° \mathring{A} 08'07	-0.6m	greatest brilliancy	2743 Dec 06 09:03	27° \mathring{M} 09'21	-0.7m
desc. node	2743 Jan 01 21:52	27° \mathring{A} 14'34			2743 Dec 08 06:53	0° \mathring{A}	
	2743 Jan 03 17:35	0° \mathring{C}		morning set	2743 Dec 19 16:50	17° \mathring{A} 33'17	
morning set	2743 Jan 09 15:22	9° \mathring{C} 03'15		desc. node	2743 Dec 19 18:53	17° \mathring{A} 41'15	
max. Earth dist.	2743 Jan 19 22:21	25° \mathring{C} 14'48	1.43664 AU		2743 Dec 27 16:31	0° \mathring{C}	
	2743 Jan 22 21:01	0° \mathring{A}		max. Earth dist.	2744 Jan 02 13:16	9° \mathring{C} 12'31	1.44782 AU
superior conj	2743 Jan 25 19:57	4° \mathring{A} 50'12	-2°-1'-18	superior conj	2744 Jan 05 12:03	13° \mathring{C} 52'38	-1°-38'-13
minimum elong	2743 Jan 25 15:47	4° \mathring{A} 33'04	2°01'08	minimum elong	2744 Jan 05 03:20	13° \mathring{C} 18'03	1°37'27
evening rise	2743 Feb 07 14:01	26° \mathring{A} 29'07			2744 Jan 15 12:21	0° \mathring{A}	
	2743 Feb 09 14:32	0° \mathring{H}		evening rise	2744 Jan 20 02:24	7° \mathring{A} 32'15	
asc. node	2743 Feb 21 01:35	18° \mathring{H} 47'03			2744 Feb 03 00:58	0° \mathring{H}	
evening max el	2743 Feb 25 03:37	23° \mathring{H} 45'13	18°09'30	asc. node	2744 Feb 07 22:37	6° \mathring{H} 21'51	
retrograde	2743 Mar 03 14:37	27° \mathring{H} 08'55		evening max el	2744 Feb 08 15:52	7° \mathring{H} 07'20	18°28'07
evening set	2743 Mar 06 09:31	26° \mathring{H} 29'40		retrograde	2744 Feb 15 04:26	10° \mathring{H} 41'41	
inferior conj	2743 Mar 12 16:20	21° \mathring{H} 16'08	3°38'31	evening set	2744 Feb 18 04:47	9° \mathring{H} 51'18	
minimum elong	2743 Mar 12 17:11	21° \mathring{H} 13'55	3°38'28	inferior conj	2744 Feb 24 02:29	4° \mathring{H} 18'37	3°39'07
min. Earth dist.	2743 Mar 15 11:27	18° \mathring{H} 20'08	0.62584 AU	minimum elong	2744 Feb 24 01:38	4° \mathring{H} 21'05	3°39'03
morning rise	2743 Mar 18 22:37	15° \mathring{H} 14'30		min. Earth dist.	2744 Feb 26 06:18	1° \mathring{H} 47'19	0.64420 AU
direct	2743 Mar 25 20:36	12° \mathring{H} 39'23			2744 Feb 27 21:40	30° \mathring{R} \mathring{A}	
desc. node	2743 Mar 30 21:06	13° \mathring{H} 51'01		morning rise	2744 Feb 29 21:03	28° \mathring{A} 09'08	
morning max el	2743 Apr 08 20:48	20° \mathring{H} 35'55	27°49'43	direct	2744 Mar 07 16:21	25° \mathring{A} 20'27	
	2743 Apr 16 23:23	0° \mathring{Y}		desc. node	2744 Mar 16 18:07	29° \mathring{A} 12'08	
	2743 May 06 00:23	0° \mathring{C}			2744 Mar 17 18:03	0° \mathring{H}	
morning set	2743 May 12 17:51	12° \mathring{C} 59'09		morning max el	2744 Mar 21 06:00	3° \mathring{H} 12'59	27°24'35
max. Earth dist.	2743 May 18 07:18	24° \mathring{C} 35'33	1.32616 AU		2744 Apr 10 08:26	0° \mathring{Y}	
superior conj	2743 May 20 08:15	28° \mathring{C} 59'34	0°03'15	morning set	2744 Apr 25 10:50	26° \mathring{Y} 48'14	
minimum elong	2743 May 20 08:06	28° \mathring{C} 58'44	0°03'13		2744 Apr 27 01:35	0° \mathring{C}	
behind sun begin	2743 May 20 03:00	28° \mathring{C} 31'03		max. Earth dist.	2744 Apr 30 07:26	6° \mathring{C} 35'54	1.33479 AU
behind sun end	2743 May 20 13:12	29° \mathring{C} 26'26		superior conj	2744 May 03 13:18	13° \mathring{C} 24'15	0°-24'-31
asc. node	2743 May 20 00:53	28° \mathring{C} 19'37		minimum elong	2744 May 03 14:32	13° \mathring{C} 30'50	0°24'17
	2743 May 20 19:23	0° \mathring{I}		asc. node	2744 May 05 21:54	18° \mathring{C} 26'07	
evening rise	2743 May 27 08:11	14° \mathring{I} 08'02		evening rise	2744 May 10 19:29	28° \mathring{C} 52'43	
	2743 Jun 04 07:35	0° \mathring{C}			2744 May 11 08:19	0° \mathring{I}	
evening max el	2743 Jun 20 12:11	22° \mathring{C} 52'18	23°55'03		2744 May 29 01:04	0° \mathring{C}	
desc. node	2743 Jun 26 20:22	27° \mathring{C} 42'42		evening max el	2744 Jun 01 03:18	3° \mathring{C} 19'51	22°18'43
retrograde	2743 Jul 04 06:05	29° \mathring{C} 46'47		desc. node	2744 Jun 12 17:23	9° \mathring{C} 40'36	
evening set	2743 Jul 08 15:45	29° \mathring{C} 04'03		retrograde	2744 Jun 14 01:58	9° \mathring{C} 44'49	
min. Earth dist.	2743 Jul 14 22:40	26° \mathring{C} 02'33	0.56248 AU	evening set	2744 Jun 17 01:32	9° \mathring{C} 25'09	
inferior conj	2743 Jul 17 07:39	24° \mathring{C} 35'35	-4°-45'-39	min. Earth dist.	2744 Jun 25 09:43	5° \mathring{C} 48'57	0.55133 AU
minimum elong	2743 Jul 17 02:37	24° \mathring{C} 43'19	4°45'01	inferior conj	2744 Jun 26 08:13	5° \mathring{C} 17'12	-3°-40'-7
morning rise	2743 Jul 25 16:55	20° \mathring{C} 37'37		minimum elong	2744 Jun 26 00:04	5° \mathring{C} 28'43	3°37'58
direct	2743 Jul 28 10:42	20° \mathring{C} 18'20		morning rise	2744 Jul 05 00:46	1° \mathring{C} 26'17	
morning max el	2743 Aug 07 10:05	24° \mathring{C} 56'00	19°54'09	direct	2744 Jul 08 01:53	1° \mathring{C} 05'23	
	2743 Aug 11 21:45	0° \mathring{Q}		morning max el	2744 Jul 19 16:34	6° \mathring{C} 29'47	21°16'11
asc. node	2743 Aug 16 00:05	6° \mathring{Q} 04'25		asc. node	2744 Aug 01 21:08	24° \mathring{C} 55'48	
morning set	2743 Aug 25 07:42	23° \mathring{Q} 30'14			2744 Aug 04 13:38	0° \mathring{Q}	

morning set	2744 Aug 08 15:53	8°♎14'58		morning set	2745 Jul 24 02:44	23°♎07'43	
					2745 Jul 27 08:18	0°♎	
superior conj	2744 Aug 16 01:37	23°♎43'43	1°43'23	superior conj	2745 Jul 31 06:05	8°♎22'42	1°35'25
minimum elong	2744 Aug 16 00:38	23°♎38'42	1°43'21	minimum elong	2745 Jul 31 04:09	8°♎12'27	1°35'15
	2744 Aug 19 03:10	0°♎		max. Earth dist.	2745 Aug 03 02:14	14°♎22'38	1.33907 AU
max. Earth dist.	2744 Aug 20 07:01	2°♎19'37	1.35311 AU	evening rise	2745 Aug 08 00:58	24°♎26'07	
evening rise	2744 Aug 24 13:57	10°♎39'49			2745 Aug 10 22:02	0°♎	
	2744 Sep 04 13:33	0°♎		desc. node	2745 Aug 26 13:43	26°♎21'11	
desc. node	2744 Sep 08 16:42	6°♎32'47			2745 Aug 29 02:26	0°♎	
	2744 Sep 26 10:15	0°♎		evening max el	2745 Sep 11 11:00	16°♎01'24	27°14'58
evening max el	2744 Sep 28 22:56	2°♎34'12	26°36'16	retrograde	2745 Sep 24 21:07	23°♎20'01	
retrograde	2744 Oct 11 21:19	9°♎48'11		evening set	2745 Oct 01 20:20	20°♎37'58	
evening set	2744 Oct 18 09:57	7°♎09'05		min. Earth dist.	2745 Oct 05 16:00	17°♎01'36	0.64777 AU
min. Earth dist.	2744 Oct 22 12:12	2°♎56'44	0.66081 AU	inferior conj	2745 Oct 07 21:20	14°♎35'29	-2°-33'-38
inferior conj	2744 Oct 24 05:13	0°♎54'10	-1°-34'-6	minimum elong	2745 Oct 08 01:30	14°♎24'03	2°32'07
minimum elong	2744 Oct 24 07:46	0°♎46'33	1°33'05	morning rise	2745 Oct 14 08:38	9°♎03'48	
	2744 Oct 24 23:28	30°♎		asc. node	2745 Oct 15 17:21	8°♎36'42	
asc. node	2744 Oct 28 20:19	26°♎05'09		direct	2745 Oct 16 22:33	8°♎28'52	
morning rise	2744 Oct 30 06:56	25°♎08'20		morning max el	2745 Oct 23 10:33	11°♎56'44	18°01'38
direct	2744 Nov 02 03:53	24°♎22'05			2745 Nov 04 22:57	0°♎	
morning max el	2744 Nov 08 19:06	27°♎59'51	18°29'45	morning set	2745 Nov 10 02:03	8°♎34'12	
	2744 Nov 10 15:04	0°♎		desc. node	2745 Nov 22 12:58	29°♎02'41	
morning set	2744 Nov 28 18:49	27°♎20'27			2745 Nov 23 03:14	0°♎	
	2744 Nov 30 10:41	0°♎		superior conj	2745 Nov 23 22:57	1°♎18'55	0°-9'-36
desc. node	2744 Dec 05 15:56	8°♎18'39		minimum elong	2745 Nov 23 21:46	1°♎14'13	0°09'26
				behind sun begin	2745 Nov 23 13:06	0°♎39'29	
superior conj	2744 Dec 14 14:05	22°♎22'49	0°-57'-46	behind sun end	2745 Nov 24 06:27	1°♎48'54	
minimum elong	2744 Dec 14 06:54	21°♎54'35	0°56'53	max. Earth dist.	2745 Nov 28 02:30	7°♎54'23	1.44859 AU
max. Earth dist.	2744 Dec 15 07:43	23°♎32'01	1.45190 AU	evening rise	2745 Dec 10 08:26	26°♎59'33	
	2744 Dec 19 10:38	0°♎			2745 Dec 12 07:16	0°♎	
evening rise	2744 Dec 30 15:28	17°♎38'44		greatest brilliancy	2745 Dec 29 05:58	25°♎20'47	-0.6m
	2745 Jan 07 10:55	0°♎			2746 Jan 01 18:02	0°♎	
greatest brilliancy	2745 Jan 10 23:55	5°♎31'20	-0.8m	evening max el	2746 Jan 05 07:00	4°♎04'56	19°56'45
evening max el	2745 Jan 22 01:36	20°♎34'57	19°04'25	asc. node	2746 Jan 11 16:38	8°♎22'59	
asc. node	2745 Jan 24 19:38	22°♎58'47		retrograde	2746 Jan 12 21:16	8°♎30'48	
retrograde	2745 Jan 28 23:39	24°♎30'44		evening set	2746 Jan 16 11:51	7°♎14'47	
evening set	2745 Feb 01 06:22	23°♎28'12		inferior conj	2746 Jan 21 23:35	1°♎11'11	2°58'03
inferior conj	2745 Feb 06 21:53	17°♎38'45	3°24'23	minimum elong	2746 Jan 21 21:04	1°♎19'34	2°57'28
minimum elong	2745 Feb 06 19:55	17°♎45'00	3°24'05		2746 Jan 22 20:53	30°♎	
min. Earth dist.	2745 Feb 08 10:22	15°♎43'16	0.65883 AU	min. Earth dist.	2746 Jan 22 21:58	29°♎56'22	0.66944 AU
morning rise	2745 Feb 12 08:31	11°♎25'02		morning rise	2746 Jan 27 05:39	24°♎55'49	
direct	2745 Feb 18 18:50	8°♎36'32		direct	2746 Feb 02 03:09	22°♎18'48	
morning max el	2745 Mar 03 15:57	16°♎13'31	26°29'22	morning max el	2746 Feb 14 00:45	29°♎25'04	25°13'03
desc. node	2745 Mar 03 15:07	16°♎11'25			2746 Feb 14 14:24	0°♎	
	2745 Mar 15 01:49	0°♎		desc. node	2746 Feb 18 12:08	4°♎20'39	
	2745 Apr 03 04:45	0°♎			2746 Mar 08 22:12	0°♎	
morning set	2745 Apr 08 16:05	9°♎58'45		morning set	2746 Mar 22 04:49	22°♎16'19	
max. Earth dist.	2745 Apr 12 20:27	18°♎02'41	1.34797 AU	max. Earth dist.	2746 Mar 25 21:50	29°♎04'11	1.36557 AU
					2746 Mar 26 09:46	0°♎	
superior conj	2745 Apr 17 11:59	27°♎25'19	0°-52'-56	superior conj	2746 Apr 01 01:27	10°♎54'25	-1°-20'-17
minimum elong	2745 Apr 17 14:43	27°♎39'23	0°52'25	minimum elong	2746 Apr 01 05:27	11°♎14'12	1°19'41
	2745 Apr 18 17:57	0°♎		evening rise	2746 Apr 09 08:28	27°♎36'56	
asc. node	2745 Apr 22 18:57	8°♎26'07		asc. node	2746 Apr 09 15:58	28°♎14'45	
evening rise	2745 Apr 25 04:19	13°♎24'40			2746 Apr 10 12:57	0°♎	
	2745 May 03 18:37	0°♎		evening max el	2746 Apr 26 14:58	25°♎38'20	19°40'27
evening max el	2745 May 14 03:08	14°♎09'47	20°51'12		2746 May 03 15:35	0°♎	
retrograde	2745 May 25 15:10	19°♎46'18		retrograde	2746 May 06 09:03	0°♎21'37	
evening set	2745 May 27 18:39	19°♎35'21		evening set	2746 May 08 09:04	0°♎10'35	
desc. node	2745 May 30 14:22	18°♎50'12			2746 May 09 04:43	30°♎	
inferior conj	2745 Jun 06 01:46	15°♎37'47	-1°-52'-55	inferior conj	2746 May 17 02:50	26°♎07'45	0°06'13
minimum elong	2745 Jun 05 20:29	15°♎45'19	1°51'04	minimum elong	2746 May 17 03:06	26°♎07'20	0°06'07
min. Earth dist.	2745 Jun 06 21:55	15°♎09'05	0.54912 AU	transit middle	2746 May 17 03:06	26°♎07'20	0°06'07
morning rise	2745 Jun 14 21:32	11°♎33'54		transit begin	2746 May 16 23:28	26°♎13'01	
direct	2745 Jun 18 11:11	11°♎06'27		transit end	2746 May 17 06:44	26°♎01'38	
morning max el	2745 Jul 01 12:53	17°♎22'38	22°53'38				
	2745 Jul 11 15:53	0°♎					
asc. node	2745 Jul 19 18:10	14°♎15'44					

desc. node	2746 May 17 11:22	25°♄54'22		minimum elong	2747 Apr 28 01:44	7°♄04'19	1°44'56
min. Earth dist.	2746 May 19 11:52	24°♄38'39	0.55654 AU	min. Earth dist.	2747 May 01 04:14	4°♄49'49	0.57201 AU
morning rise	2746 May 25 17:40	21°♄34'18		desc. node	2747 May 04 08:24	2°♄50'43	
direct	2746 May 30 04:11	20°♄50'20		morning rise	2747 May 05 23:33	2°♄02'55	
morning max el	2746 Jun 13 03:30	27°♄50'21	24°36'03	direct	2747 May 11 10:39	0°♄50'37	
	2746 Jun 15 06:50	0°♄		morning max el	2747 May 25 18:38	8°♄19'41	26°08'30
	2746 Jul 04 16:23	0°♄			2747 Jun 11 00:14	0°♄	
asc. node	2746 Jul 06 15:14	3°♄56'43		morning set	2747 Jun 23 01:45	22°♄56'09	
morning set	2746 Jul 08 14:34	8°♄03'27		asc. node	2747 Jun 23 12:17	23°♄51'51	
					2747 Jun 26 08:44	0°♄	
superior conj	2746 Jul 15 14:58	23°♄14'15	1°22'09	superior conj	2747 Jun 30 02:11	8°♄10'38	1°04'26
minimum elong	2746 Jul 15 12:37	23°♄01'28	1°21'50	minimum elong	2747 Jun 29 23:54	7°♄58'04	1°04'02
max. Earth dist.	2746 Jul 17 06:09	26°♄46'40	1.32912 AU	max. Earth dist.	2747 Jun 30 16:03	9°♄26'52	1.32319 AU
	2746 Jul 18 18:10	0°♄		evening rise	2747 Jul 07 02:28	23°♄18'09	
evening rise	2746 Jul 22 22:12	8°♄42'26			2747 Jul 10 09:23	0°♄	
	2746 Aug 03 07:45	0°♄			2747 Jul 28 05:50	0°♄	
desc. node	2746 Aug 13 10:44	15°♄35'41		desc. node	2747 Jul 31 07:45	4°♄01'33	
evening max el	2746 Aug 24 21:29	29°♄06'00	27°25'57	evening max el	2747 Aug 07 03:37	11°♄33'33	27°04'34
	2746 Aug 25 20:51	0°♄		retrograde	2747 Aug 21 00:46	18°♄46'34	
retrograde	2746 Sep 07 14:38	6°♄22'47		evening set	2747 Aug 28 02:23	16°♄32'44	
evening set	2746 Sep 14 19:12	3°♄48'33		min. Earth dist.	2747 Aug 31 17:54	13°♄51'03	0.61219 AU
min. Earth dist.	2746 Sep 18 10:18	0°♄44'14	0.63137 AU	inferior conj	2747 Sep 03 21:28	11°♄07'04	-4°-20'-44
	2746 Sep 19 04:35	30°♄		minimum elong	2747 Sep 04 02:50	10°♄55'22	4°19'38
inferior conj	2746 Sep 21 03:50	28°♄02'50	-3°-30'-51	morning rise	2747 Sep 11 06:17	6°♄13'43	
minimum elong	2746 Sep 21 09:12	27°♄49'35	3°29'15	direct	2747 Sep 13 14:42	5°♄51'11	
morning rise	2746 Sep 28 01:44	22°♄48'34		asc. node	2747 Sep 19 11:29	8°♄17'06	
direct	2746 Sep 30 11:24	22°♄21'19		morning max el	2747 Sep 20 17:01	9°♄23'24	17°59'07
asc. node	2746 Oct 02 14:24	22°♄43'07			2747 Oct 04 04:03	0°♄	
morning max el	2746 Oct 07 02:53	25°♄47'19	17°51'04	morning set	2747 Oct 06 11:45	4°♄15'39	
	2746 Oct 10 16:04	0°♄					
morning set	2746 Oct 23 09:51	20°♄59'16		superior conj	2747 Oct 16 17:45	22°♄48'48	1°08'36
	2746 Oct 28 13:44	0°♄		minimum elong	2747 Oct 16 22:09	23°♄08'05	1°08'04
superior conj	2746 Nov 04 06:55	11°♄24'34	0°34'43		2747 Oct 20 21:35	0°♄	
minimum elong	2746 Nov 04 10:15	11°♄38'27	0°34'15	max. Earth dist.	2747 Oct 24 07:34	5°♄44'03	1.42250 AU
desc. node	2746 Nov 09 10:01	19°♄50'10		desc. node	2747 Oct 27 07:04	10°♄37'06	
max. Earth dist.	2746 Nov 10 19:12	22°♄03'59	1.43839 AU	evening rise	2747 Oct 30 10:29	15°♄39'38	
	2746 Nov 15 19:05	0°♄			2747 Nov 08 17:43	0°♄	
evening rise	2746 Nov 19 17:16	6°♄06'30		greatest brilliancy	2747 Nov 27 08:18	25°♄50'38	-0.3m
	2746 Dec 05 16:17	0°♄			2747 Nov 30 23:02	0°♄	
greatest brilliancy	2746 Dec 13 23:21	11°♄23'51	-0.5m	evening max el	2747 Dec 02 01:44	1°♄09'40	22°17'50
evening max el	2746 Dec 19 07:05	17°♄36'44	21°02'27	retrograde	2747 Dec 11 15:15	6°♄50'53	
retrograde	2746 Dec 27 19:02	22°♄38'46		evening set	2747 Dec 16 03:02	5°♄03'23	
asc. node	2746 Dec 29 13:39	22°♄21'20		asc. node	2747 Dec 16 10:42	4°♄47'20	
evening set	2746 Dec 31 19:19	21°♄07'40			2747 Dec 20 13:40	30°♄	
inferior conj	2747 Jan 06 05:10	14°♄52'57	2°22'39	inferior conj	2747 Dec 21 12:36	28°♄40'56	1°39'54
minimum elong	2747 Jan 06 02:39	15°♄01'37	2°21'52	minimum elong	2747 Dec 21 10:33	28°♄48'03	1°39'07
min. Earth dist.	2747 Jan 06 14:55	14°♄19'24	0.67607 AU	min. Earth dist.	2747 Dec 21 10:53	28°♄46'50	0.67887 AU
morning rise	2747 Jan 11 09:36	8°♄37'54		morning rise	2747 Dec 26 17:55	22°♄28'07	
direct	2747 Jan 16 16:22	6°♄19'59		direct	2747 Dec 31 09:36	20°♄32'51	
morning max el	2747 Jan 27 09:11	12°♄42'27	23°45'56	morning max el	2748 Jan 09 20:21	26°♄06'45	22°17'57
desc. node	2747 Feb 05 09:13	23°♄20'02			2748 Jan 13 09:26	0°♄	
	2747 Feb 10 07:03	0°♄		greatest brilliancy	2748 Jan 14 10:10	1°♄13'50	-0.3m
	2747 Mar 01 18:33	0°♄		desc. node	2748 Jan 23 06:17	12°♄55'09	
morning set	2747 Mar 03 19:01	3°♄24'54			2748 Feb 03 20:24	0°♄	
max. Earth dist.	2747 Mar 07 17:04	10°♄13'28	1.38644 AU	morning set	2748 Feb 12 05:12	13°♄12'03	
				max. Earth dist.	2748 Feb 17 14:17	22°♄05'57	1.40802 AU
superior conj	2747 Mar 15 02:05	23°♄42'28	-1°-44'-5		2748 Feb 22 04:43	0°♄	
minimum elong	2747 Mar 15 06:31	24°♄03'26	1°43'39	superior conj	2748 Feb 25 09:14	5°♄38'15	-2°00'-50
	2747 Mar 18 09:12	0°♄		minimum elong	2748 Feb 25 12:21	5°♄52'12	2°00'42
evening rise	2747 Mar 24 05:22	11°♄22'45		evening rise	2748 Mar 06 15:48	24°♄34'41	
asc. node	2747 Mar 27 13:00	17°♄47'13			2748 Mar 09 13:33	0°♄	
	2747 Apr 03 11:53	0°♄		asc. node	2748 Mar 13 10:03	6°♄58'02	
evening max el	2747 Apr 09 13:38	7°♄45'51	18°49'18	evening max el	2748 Mar 22 20:12	20°♄25'43	18°18'20
retrograde	2747 Apr 17 19:03	11°♄46'30		retrograde	2748 Mar 30 00:23	24°♄00'06	
evening set	2747 Apr 19 23:33	11°♄30'35		evening set	2748 Apr 01 10:40	23°♄36'27	
inferior conj	2747 Apr 27 22:11	7°♄10'47	1°46'02				

inferior conj	2748 Apr 08 15:04	18° Υ 55'39	2°53'08	evening set	2749 Mar 15 13:30	6° Υ 18'45	
minimum elong	2748 Apr 08 18:39	18° Υ 47'59	2°52'21	inferior conj	2749 Mar 22 03:07	1° Υ 16'58	3°29'14
min. Earth dist.	2748 Apr 12 01:20	16° Υ 01'43	0.59228 AU	minimum elong	2749 Mar 22 05:04	1° Υ 12'10	3°29'00
morning rise	2748 Apr 15 22:45	13° Υ 19'13			2749 Mar 23 10:14	30° \Re \mathcal{H}	
desc. node	2748 Apr 20 05:27	11° Υ 42'37		min. Earth dist.	2749 Mar 25 05:47	28° \mathcal{H} 14'40	0.61391 AU
direct	2748 Apr 22 06:20	11° Υ 31'24		morning rise	2749 Mar 28 17:45	25° \mathcal{H} 21'52	
morning max el	2748 May 06 15:06	19° Υ 17'55	27°15'48	direct	2749 Apr 04 13:11	23° \mathcal{H} 00'52	
	2748 May 15 16:50	0° \mathcal{B}		desc. node	2749 Apr 07 02:29	23° \mathcal{H} 19'20	
	2748 Jun 02 15:57	0° Π			2749 Apr 17 18:30	0° Υ	
morning set	2748 Jun 06 10:37	7° Π 40'36		morning max el	2749 Apr 18 17:55	0° Υ 56'45	27°48'08
asc. node	2748 Jun 09 09:21	13° Π 56'10			2749 May 09 20:18	0° \mathcal{B}	
max. Earth dist.	2748 Jun 13 04:14	22° Π 12'28	1.32120 AU	morning set	2749 May 21 15:14	22° \mathcal{B} 09'35	
					2749 May 25 09:00	0° Π	
superior conj	2748 Jun 13 13:59	23° Π 06'10	0°42'59	asc. node	2749 May 27 06:24	4° Π 04'29	
minimum elong	2748 Jun 13 12:13	22° Π 56'27	0°42'38	max. Earth dist.	2749 May 27 14:41	4° Π 49'27	1.32314 AU
	2748 Jun 16 17:15	0° \mathcal{B}					
evening rise	2748 Jun 20 11:19	8° \mathcal{B} 05'23		superior conj	2749 May 29 00:35	7° Π 54'19	0°18'27
	2748 Jul 01 20:51	0° \mathcal{Q}		minimum elong	2749 May 28 23:45	7° Π 49'43	0°18'17
desc. node	2748 Jul 17 04:45	21° \mathcal{Q} 18'36		evening rise	2749 Jun 04 22:34	22° Π 56'21	
evening max el	2748 Jul 19 02:50	23° \mathcal{Q} 13'57	26°10'13		2749 Jun 08 08:13	0° \mathcal{B}	
	2748 Jul 29 22:48	0° \mathcal{M}			2749 Jun 26 21:44	0° \mathcal{Q}	
retrograde	2748 Aug 02 02:23	0° \mathcal{M} 24'05		evening max el	2749 Jun 30 18:57	4° \mathcal{Q} 08'39	24°49'01
	2748 Aug 05 05:13	30° \mathcal{R} \mathcal{Q}		desc. node	2749 Jul 04 01:45	6° \mathcal{Q} 58'46	
evening set	2748 Aug 08 13:05	28° \mathcal{Q} 42'44		retrograde	2749 Jul 14 17:46	11° \mathcal{Q} 12'47	
min. Earth dist.	2748 Aug 12 15:32	26° \mathcal{Q} 07'40	0.59154 AU	evening set	2749 Jul 19 23:50	10° \mathcal{Q} 10'09	
inferior conj	2748 Aug 15 22:34	23° \mathcal{Q} 38'33	-4°-54'-59	min. Earth dist.	2749 Jul 25 06:18	7° \mathcal{Q} 22'36	0.57189 AU
minimum elong	2748 Aug 16 01:44	23° \mathcal{Q} 32'33	4°54'43	inferior conj	2749 Jul 28 04:07	5° \mathcal{Q} 28'01	-5°00'-59
morning rise	2748 Aug 23 17:50	19° \mathcal{Q} 08'37		minimum elong	2749 Jul 28 02:22	5° \mathcal{Q} 30'54	5°00'55
direct	2748 Aug 26 03:56	18° \mathcal{Q} 48'37		morning rise	2749 Aug 05 08:37	1° \mathcal{Q} 20'21	
morning max el	2748 Sep 03 01:46	22° \mathcal{Q} 36'40	18°27'07	direct	2749 Aug 07 22:51	1° \mathcal{Q} 01'19	
asc. node	2748 Sep 05 08:33	25° \mathcal{Q} 04'41		morning max el	2749 Aug 17 01:58	5° \mathcal{Q} 17'27	19°16'17
	2748 Sep 08 22:40	0° \mathcal{M}		asc. node	2749 Aug 23 05:36	12° \mathcal{Q} 50'33	
morning set	2748 Sep 19 02:30	18° \mathcal{M} 08'46			2749 Sep 01 20:20	0° \mathcal{M}	
	2748 Sep 25 07:03	0° \mathcal{Q}		morning set	2749 Sep 03 02:13	2° \mathcal{M} 28'01	
superior conj	2748 Sep 28 03:43	5° \mathcal{Q} 21'14	1°30'45	superior conj	2749 Sep 11 07:12	18° \mathcal{M} 45'45	1°42'21
minimum elong	2748 Sep 28 07:01	5° \mathcal{Q} 36'30	1°30'29	minimum elong	2749 Sep 11 08:42	18° \mathcal{M} 53'03	1°42'18
max. Earth dist.	2748 Oct 05 14:27	18° \mathcal{Q} 41'23	1.40291 AU		2749 Sep 17 05:47	0° \mathcal{Q}	
evening rise	2748 Oct 10 00:16	26° \mathcal{Q} 09'49		max. Earth dist.	2749 Sep 17 18:11	0° \mathcal{Q} 56'44	1.38217 AU
	2748 Oct 12 08:17	0° \mathcal{M}		evening rise	2749 Sep 21 13:55	7° \mathcal{Q} 46'36	
desc. node	2748 Oct 13 04:05	1° \mathcal{M} 20'13		desc. node	2749 Sep 30 01:06	21° \mathcal{Q} 55'41	
	2748 Nov 01 10:57	0° \mathcal{J}			2749 Oct 05 05:50	0° \mathcal{M}	
evening max el	2748 Nov 13 16:07	14° \mathcal{J} 44'49	23°37'40	evening max el	2749 Oct 27 04:27	28° \mathcal{M} 24'07	24°55'34
retrograde	2748 Nov 24 08:30	21° \mathcal{J} 03'25			2749 Oct 28 21:07	0° \mathcal{J}	
evening set	2748 Nov 29 09:21	18° \mathcal{J} 59'03		retrograde	2749 Nov 07 21:48	5° \mathcal{J} 12'41	
asc. node	2748 Dec 02 07:46	15° \mathcal{J} 52'49		evening set	2749 Nov 13 12:39	2° \mathcal{J} 52'22	
inferior conj	2748 Dec 04 20:01	12° \mathcal{J} 32'49	0°51'03		2749 Nov 16 07:12	30° \mathcal{R} \mathcal{M}	
minimum elong	2748 Dec 04 18:50	12° \mathcal{J} 36'50	0°50'33	min. Earth dist.	2749 Nov 18 02:36	27° \mathcal{M} 42'48	0.67407 AU
min. Earth dist.	2748 Dec 04 07:34	13° \mathcal{J} 15'19	0.67816 AU	inferior conj	2749 Nov 19 01:40	26° \mathcal{M} 26'47	0°-2'-40
morning rise	2748 Dec 10 04:29	6° \mathcal{J} 24'08		minimum elong	2749 Nov 19 01:44	26° \mathcal{M} 26'34	0°02'40
direct	2748 Dec 14 05:51	4° \mathcal{J} 51'43		transit middle	2749 Nov 19 01:44	26° \mathcal{M} 26'34	0°02'40
morning max el	2748 Dec 22 13:35	9° \mathcal{J} 40'46	20°56'45	transit begin	2749 Nov 18 23:01	26° \mathcal{M} 35'33	
greatest brilliancy	2748 Dec 28 03:06	16° \mathcal{J} 07'10	-0.5m	transit end	2749 Nov 19 04:28	26° \mathcal{M} 17'34	
	2749 Jan 07 03:29	0° \mathcal{B}		asc. node	2749 Nov 19 04:48	26° \mathcal{M} 16'28	
desc. node	2749 Jan 09 03:19	2° \mathcal{B} 55'34		morning rise	2749 Nov 24 15:22	20° \mathcal{M} 24'36	
morning set	2749 Jan 21 12:13	21° \mathcal{B} 44'33		direct	2749 Nov 28 04:05	19° \mathcal{M} 12'48	
	2749 Jan 26 17:29	0° \approx		morning max el	2749 Dec 05 14:35	23° \mathcal{M} 26'02	19°47'40
max. Earth dist.	2749 Jan 29 17:54	4° \approx 52'21	1.42743 AU		2749 Dec 11 03:36	0° \mathcal{J}	
				greatest brilliancy	2749 Dec 13 06:52	2° \mathcal{J} 53'47	-0.6m
superior conj	2749 Feb 05 17:33	16° \approx 28'28	-2°-5'-48	desc. node	2749 Dec 27 00:21	23° \mathcal{J} 14'37	
minimum elong	2749 Feb 05 16:41	16° \approx 24'47	2°05'49	morning set	2749 Dec 31 08:13	29° \mathcal{J} 53'51	
	2749 Feb 13 12:46	0° \mathcal{H}			2749 Dec 31 09:48	0° \mathcal{B}	
evening rise	2749 Feb 17 11:43	7° \mathcal{H} 02'43		max. Earth dist.	2750 Jan 12 04:46	18° \mathcal{B} 27'10	1.44218 AU
asc. node	2749 Feb 28 07:05	25° \mathcal{H} 39'15					
	2749 Mar 03 07:35	0° Υ		superior conj	2750 Jan 16 23:45	26° \mathcal{B} 08'12	-1°-53'-54
evening max el	2749 Mar 06 07:19	3° Υ 28'03	18°07'09	minimum elong	2750 Jan 16 17:13	25° \mathcal{B} 41'46	1°53'31
retrograde	2749 Mar 12 21:46	6° Υ 51'50			2750 Jan 19 08:48	0° \approx	

evening rise	2750 Jan 30 12:45	18° \approx 38'46		2751 Jan 12 01:45	0° \approx	
	2750 Feb 06 05:22	0° H		2751 Feb 01 03:15	0° H	
asc. node	2750 Feb 15 04:06	13° H 41'49		evening max el	2751 Feb 01 07:30	0° H 10'58 18°41'30
evening max el	2750 Feb 17 19:59	16° H 45'24	18°15'10	asc. node	2751 Feb 02 01:07	0° H 54'02
retrograde	2750 Feb 24 06:43	20° H 12'13		retrograde	2751 Feb 07 23:05	3° H 52'49
evening set	2750 Feb 27 03:47	19° H 28'30		evening set	2751 Feb 11 02:04	2° H 57'23
inferior conj	2750 Mar 05 06:22	14° H 06'51	3°40'54		2751 Feb 14 12:57	30° R \approx
minimum elong	2750 Mar 05 06:26	14° H 06'39	3°40'53	inferior conj	2751 Feb 16 20:50	27° \approx 17'29 3°34'25
min. Earth dist.	2750 Mar 07 19:16	11° H 19'07	0.63409 AU	minimum elong	2751 Feb 16 19:27	27° \approx 21'44 3°34'17
morning rise	2750 Mar 11 07:10	8° H 01'10		min. Earth dist.	2751 Feb 18 18:06	25° \approx 00'25 0.65101 AU
direct	2750 Mar 18 05:01	5° H 18'08		morning rise	2751 Feb 22 11:37	21° \approx 06'04
desc. node	2750 Mar 24 23:31	7° H 28'27		direct	2751 Mar 01 03:54	18° \approx 15'41
morning max el	2750 Apr 01 01:25	13° H 14'55	27°43'00	desc. node	2751 Mar 11 20:32	23° \approx 35'15
	2750 Apr 14 12:14	0° Y		morning max el	2751 Mar 14 10:59	26° \approx 02'49 27°04'08
	2750 May 02 08:23	0° B			2751 Mar 18 02:45	0° H
morning set	2750 May 05 13:16	6° B 15'51			2751 Apr 08 01:22	0° Y
max. Earth dist.	2750 May 10 19:26	17° B 05'15	1.32926 AU	morning set	2751 Apr 19 01:45	19° Y 50'07
				max. Earth dist.	2751 Apr 23 14:56	28° Y 50'43 1.33984 AU
					2751 Apr 24 04:32	0° B
superior conj	2750 May 13 08:14	22° B 29'35	0°-8'-24			
minimum elong	2750 May 13 08:39	22° B 31'48	0°08'19	superior conj	2751 Apr 27 10:55	6° B 45'40 0°-36'-35
behind sun begin	2750 May 13 04:06	22° B 07'21		minimum elong	2751 Apr 27 12:47	6° B 55'30 0°36'13
behind sun end	2750 May 13 13:12	22° B 56'16		asc. node	2751 May 01 00:27	14° B 17'30
asc. node	2750 May 14 03:25	24° B 12'54		evening rise	2751 May 04 20:52	22° B 25'30
	2750 May 16 19:37	0° II			2751 May 08 13:51	0° II
evening rise	2750 May 20 10:22	7° II 45'04		evening max el	2751 May 25 02:46	25° II 12'54 21°39'51
	2750 Jun 01 03:19	0° B			2751 May 31 18:33	0° B
evening max el	2750 Jun 12 08:27	14° B 37'50	23°13'47	retrograde	2751 Jun 06 12:01	1° B 18'14
desc. node	2750 Jun 20 22:46	20° B 27'34		desc. node	2751 Jun 07 19:46	1° B 14'13
retrograde	2750 Jun 25 20:35	21° B 22'24		evening set	2751 Jun 09 00:57	1° B 03'41
evening set	2750 Jun 29 14:26	20° B 51'43			2751 Jun 12 13:34	30° R II
min. Earth dist.	2750 Jul 06 18:06	17° B 36'47	0.55671 AU	inferior conj	2751 Jun 18 09:53	27° II 02'28 -2°-58'-23
inferior conj	2750 Jul 08 13:54	16° B 32'35	-4°-24'00	minimum elong	2751 Jun 18 02:15	27° II 13'09 2°56'01
minimum elong	2750 Jul 08 06:54	16° B 42'52	4°22'40	min. Earth dist.	2751 Jun 18 05:30	27° II 08'36 0.54921 AU
morning rise	2750 Jul 17 02:25	12° B 39'18		morning rise	2751 Jun 27 04:30	23° II 08'29
direct	2750 Jul 19 22:49	12° B 19'42		direct	2751 Jun 30 10:20	22° II 45'28
morning max el	2750 Jul 30 15:06	17° B 16'46	20°26'47	morning max el	2751 Jul 12 16:46	28° II 32'02 21°56'14
	2750 Aug 09 07:26	0° Q			2751 Jul 14 04:36	0° B
asc. node	2750 Aug 10 02:39	1° Q 21'22		asc. node	2751 Jul 27 23:41	20° B 26'27
morning set	2750 Aug 18 07:57	17° Q 05'09			2751 Aug 01 19:26	0° Q
	2750 Aug 24 14:21	0° H		morning set	2751 Aug 02 17:31	1° Q 54'29
superior conj	2750 Aug 25 23:14	2° H 47'36	1°45'08	superior conj	2751 Aug 10 00:03	17° Q 16'05 1°40'43
minimum elong	2750 Aug 25 23:03	2° H 46'40	1°45'08	minimum elong	2751 Aug 09 22:37	17° Q 08'32 1°40'37
max. Earth dist.	2750 Aug 31 00:35	12° H 49'26	1.36285 AU	max. Earth dist.	2751 Aug 13 14:51	24° Q 45'25 1.34666 AU
evening rise	2750 Sep 04 00:43	20° H 23'06			2751 Aug 16 05:32	0° H
	2750 Sep 09 10:16	0° B		evening rise	2751 Aug 18 04:13	3° H 47'52
desc. node	2750 Sep 16 22:06	12° B 18'12			2751 Sep 02 06:10	0° B
	2750 Sep 29 05:24	0° M		desc. node	2751 Sep 03 19:08	2° B 21'41
evening max el	2750 Oct 09 16:38	12° M 05'06	26°04'13	evening max el	2751 Sep 22 05:10	25° B 41'03 26°55'48
retrograde	2750 Oct 22 06:09	19° M 12'39			2751 Sep 27 10:13	0° M
evening set	2750 Oct 28 11:06	16° M 39'15		retrograde	2751 Oct 05 09:01	2° M 57'09
min. Earth dist.	2750 Nov 01 17:35	12° M 05'29	0.66661 AU	evening set	2751 Oct 12 02:37	0° M 16'01
inferior conj	2750 Nov 03 03:44	10° M 19'06	-1°00'-3		2751 Oct 12 10:23	30° R B
minimum elong	2750 Nov 03 05:19	10° M 14'09	0°59'23	min. Earth dist.	2751 Oct 16 02:04	26° B 19'02 0.65571 AU
asc. node	2750 Nov 06 01:50	6° M 53'26		inferior conj	2751 Oct 18 00:09	24° B 06'02 -1°-59'-25
morning rise	2750 Nov 09 00:32	4° M 26'12		minimum elong	2751 Oct 18 03:24	23° B 56'37 1°58'07
direct	2750 Nov 12 02:37	3° M 31'38		asc. node	2751 Oct 23 22:51	18° B 34'35
morning max el	2750 Nov 18 22:49	7° M 19'28	18°53'31	morning rise	2751 Oct 24 05:45	18° B 25'37
	2750 Dec 05 02:33	0° J		direct	2751 Oct 26 23:30	17° B 44'28
morning set	2750 Dec 10 18:30	8° J 52'46		morning max el	2751 Nov 02 12:22	21° B 16'46 18°15'41
desc. node	2750 Dec 13 21:21	13° J 46'32			2751 Nov 09 07:02	0° M
	2750 Dec 24 05:39	0° B		morning set	2751 Nov 21 09:11	19° M 18'17
max. Earth dist.	2750 Dec 25 21:19	2° B 35'48	1.45051 AU		2751 Nov 27 23:39	0° J
				desc. node	2751 Nov 30 18:24	4° J 27'19
superior conj	2750 Dec 27 07:49	4° B 51'31	-1°-22'-48			
minimum elong	2750 Dec 26 22:52	4° B 16'18	1°21'51	superior conj	2751 Dec 06 10:02	13° J 25'15 0°-37'-32
evening rise	2751 Jan 11 15:12	29° B 17'18				

minimum elong	2751 Dec 06 05:14	13° ♂ 06'16	0°36'54	desc. node	2752 Nov 16 15:28	25° ♂ 13'17	
max. Earth dist.	2751 Dec 08 16:43	17° ♂ 00'27	1.45147 AU		2752 Nov 19 14:59	0° ♂	
	2751 Dec 16 23:54	0° ♂		max. Earth dist.	2752 Nov 20 11:21	1° ♂ 21'02	1.44502 AU
evening rise	2751 Dec 22 18:52	9° ♂ 02'23		evening rise	2752 Dec 01 06:30	18° ♂ 12'45	
	2752 Jan 05 08:22	0° ♂			2752 Dec 09 00:03	0° ♂	
greatest brilliancy	2752 Jan 06 23:29	2° ♂ 24'59	-0.7m	greatest brilliancy	2752 Dec 22 14:11	19° ♂ 42'51	-0.5m
evening max el	2752 Jan 15 15:39	13° ♂ 40'23	19°24'49	evening max el	2752 Dec 28 18:49	27° ♂ 11'17	20°23'12
asc. node	2752 Jan 19 22:08	17° ♂ 02'20			2752 Dec 31 22:52	0° ♂	
retrograde	2752 Jan 22 19:37	17° ♂ 47'37		retrograde	2753 Jan 05 17:42	1° ♂ 52'09	
evening set	2752 Jan 26 05:36	16° ♂ 39'20		asc. node	2753 Jan 05 19:10	1° ♂ 52'08	
inferior conj	2752 Jan 31 19:15	10° ♂ 43'25	3°14'25	evening set	2753 Jan 09 12:12	0° ♂ 29'45	
minimum elong	2752 Jan 31 16:58	10° ♂ 50'48	3°14'00		2753 Jan 10 03:16	30° ♂	
min. Earth dist.	2752 Feb 02 01:28	9° ♂ 05'15	0.66392 AU	inferior conj	2753 Jan 14 22:53	24° ♂ 20'46	2°44'04
morning rise	2752 Feb 06 03:35	4° ♂ 29'00		minimum elong	2753 Jan 14 20:19	24° ♂ 29'30	2°43'22
direct	2752 Feb 12 08:49	1° ♂ 44'26		min. Earth dist.	2753 Jan 15 15:38	23° ♂ 23'54	0.67270 AU
morning max el	2752 Feb 24 20:30	9° ♂ 09'13	25°58'51	morning rise	2753 Jan 20 03:56	18° ♂ 05'17	
desc. node	2752 Feb 26 17:34	11° ♂ 07'25		direct	2753 Jan 25 19:10	15° ♂ 36'02	
	2752 Mar 12 06:25	0° ♂		morning max el	2753 Feb 06 05:12	22° ♂ 25'02	24°36'49
	2752 Mar 30 13:44	0° ♂		desc. node	2753 Feb 12 14:38	29° ♂ 40'33	
morning set	2752 Apr 01 00:38	2° ♂ 39'56			2753 Feb 12 20:53	0° ♂	
max. Earth dist.	2752 Apr 04 23:04	10° ♂ 05'53	1.35503 AU		2753 Mar 05 13:59	0° ♂	
				morning set	2753 Mar 14 04:40	14° ♂ 31'08	
superior conj	2752 Apr 10 06:05	20° ♂ 34'27	-1°-4'-47	max. Earth dist.	2753 Mar 17 21:27	21° ♂ 08'45	1.37421 AU
minimum elong	2752 Apr 10 09:25	20° ♂ 51'19	1°04'13		2753 Mar 22 15:17	0° ♂	
	2752 Apr 14 20:23	0° ♂					
asc. node	2752 Apr 16 21:28	4° ♂ 13'27		superior conj	2753 Mar 24 14:39	3° ♂ 47'54	-1°-30'-59
evening rise	2752 Apr 18 04:02	6° ♂ 50'26		minimum elong	2753 Mar 24 18:59	4° ♂ 08'57	1°30'26
	2752 May 01 01:03	0° ♂		evening rise	2753 Apr 02 05:33	20° ♂ 53'18	
evening max el	2752 May 06 07:34	6° ♂ 18'06	20°18'43	asc. node	2753 Apr 03 18:31	23° ♂ 56'23	
retrograde	2752 May 17 01:34	11° ♂ 31'38			2753 Apr 06 21:50	0° ♂	
evening set	2752 May 19 02:12	11° ♂ 21'17		evening max el	2753 Apr 19 00:14	18° ♂ 03'53	19°16'07
desc. node	2752 May 24 16:47	9° ♂ 20'44		retrograde	2753 Apr 28 01:51	22° ♂ 27'42	
inferior conj	2752 May 28 04:51	7° ♂ 23'01	-1°-1'-40	evening set	2753 Apr 30 03:05	22° ♂ 15'09	
minimum elong	2752 May 28 01:57	7° ♂ 27'17	1°00'36	inferior conj	2753 May 08 12:55	18° ♂ 05'45	0°52'09
min. Earth dist.	2752 May 29 18:00	6° ♂ 28'32	0.55116 AU	minimum elong	2753 May 08 15:01	18° ♂ 02'15	0°51'26
morning rise	2752 Jun 05 23:45	3° ♂ 08'31		min. Earth dist.	2753 May 11 08:55	16° ♂ 12'57	0.56231 AU
direct	2752 Jun 09 21:25	2° ♂ 35'36		desc. node	2753 May 11 13:48	16° ♂ 05'08	
morning max el	2752 Jun 23 09:55	9° ♂ 11'12	23°37'30	morning rise	2753 May 16 22:51	13° ♂ 17'11	
	2752 Jul 08 14:41	0° ♂		direct	2753 May 21 19:32	12° ♂ 22'44	
asc. node	2752 Jul 13 20:44	9° ♂ 56'17		morning max el	2753 Jun 05 00:17	19° ♂ 37'05	25°17'35
morning set	2752 Jul 17 05:00	16° ♂ 49'21			2753 Jun 13 19:26	0° ♂	
	2752 Jul 23 08:12	0° ♂		asc. node	2753 Jun 30 17:48	29° ♂ 44'01	
					2753 Jun 30 20:52	0° ♂	
superior conj	2752 Jul 24 06:41	2° ♂ 01'13	1°30'23	morning set	2753 Jul 01 16:47	1° ♂ 44'34	
minimum elong	2752 Jul 24 04:31	1° ♂ 49'33	1°30'08				
max. Earth dist.	2752 Jul 26 14:13	6° ♂ 58'12	1.33435 AU	superior conj	2753 Jul 08 16:49	16° ♂ 55'41	1°15'08
evening rise	2752 Jul 31 20:00	17° ♂ 47'57		minimum elong	2753 Jul 08 14:26	16° ♂ 42'39	1°14'46
	2752 Aug 07 05:04	0° ♂		max. Earth dist.	2753 Jul 09 20:59	19° ♂ 29'27	1.32610 AU
desc. node	2752 Aug 20 16:10	21° ♂ 57'04			2753 Jul 14 18:51	0° ♂	
	2752 Aug 26 15:03	0° ♂		evening rise	2753 Jul 15 20:33	2° ♂ 13'15	
evening max el	2752 Sep 03 16:48	8° ♂ 59'50	27°23'19		2753 Jul 31 02:00	0° ♂	
retrograde	2752 Sep 17 05:58	16° ♂ 17'40		desc. node	2753 Aug 07 13:10	10° ♂ 52'47	
evening set	2752 Sep 24 08:29	13° ♂ 37'20		evening max el	2753 Aug 17 01:27	21° ♂ 48'53	27°20'51
min. Earth dist.	2752 Sep 28 01:50	10° ♂ 15'38	0.64123 AU	retrograde	2753 Aug 30 20:36	29° ♂ 04'50	
inferior conj	2752 Sep 30 12:30	7° ♂ 41'49	-2°-58'-26	evening set	2753 Sep 07 01:14	26° ♂ 37'17	
minimum elong	2752 Sep 30 17:16	7° ♂ 29'18	2°56'48	min. Earth dist.	2753 Sep 10 15:28	23° ♂ 44'24	0.62346 AU
morning rise	2752 Oct 07 04:14	2° ♂ 17'18		inferior conj	2753 Sep 13 13:53	20° ♂ 59'43	-3°-53'-21
direct	2752 Oct 09 16:06	1° ♂ 45'58		minimum elong	2753 Sep 13 19:28	20° ♂ 46'39	3°51'53
asc. node	2752 Oct 09 19:55	1° ♂ 46'05		morning rise	2753 Sep 20 16:30	15° ♂ 54'22	
morning max el	2752 Oct 16 04:34	5° ♂ 11'41	17°55'00	direct	2753 Sep 23 01:12	15° ♂ 29'32	
	2752 Nov 01 12:30	0° ♂		asc. node	2753 Sep 26 17:00	16° ♂ 30'50	
morning set	2752 Nov 02 03:37	1° ♂ 04'35		morning max el	2753 Sep 29 20:24	18° ♂ 57'05	17°52'13
					2753 Oct 07 21:32	0° ♂	
superior conj	2752 Nov 15 03:26	22° ♂ 47'29	0°10'14	morning set	2753 Oct 15 19:46	13° ♂ 52'49	
minimum elong	2752 Nov 15 04:36	22° ♂ 52'09	0°10'03		2753 Oct 24 22:41	0° ♂	
behind sun begin	2752 Nov 14 20:37	22° ♂ 19'46					
behind sun end	2752 Nov 15 12:34	23° ♂ 24'30		superior conj	2753 Oct 26 22:57	3° ♂ 26'52	0°50'32

minimum elong	2753 Oct 27 03:07	3° \mathbb{M} 44'35	0°49'59	asc. node	2754 Sep 13 14:05	2° \mathbb{M} 38'20	
max. Earth dist.	2753 Nov 03 01:58	15° \mathbb{M} 18'01	1.43211 AU	morning set	2754 Sep 29 03:44	27° \mathbb{M} 26'41	
desc. node	2753 Nov 03 12:30	16° \mathbb{M} 00'44			2754 Sep 30 12:24	0° \mathbb{M}	
evening rise	2753 Nov 10 16:45	27° \mathbb{M} 24'52					
	2753 Nov 12 08:44	0° \mathbb{M}		superior conj	2754 Oct 08 20:19	15° \mathbb{M} 22'12	1°19'23
	2753 Dec 02 20:40	0° \mathbb{M}		minimum elong	2754 Oct 09 00:25	15° \mathbb{M} 40'37	1°18'57
greatest brilliancy	2753 Dec 06 18:29	5° \mathbb{M} 05'05	-0.4m	max. Earth dist.	2754 Oct 16 11:31	28° \mathbb{M} 39'24	1.41441 AU
evening max el	2753 Dec 11 16:22	10° \mathbb{M} 42'41	21°33'39		2754 Oct 17 06:43	0° \mathbb{M}	
retrograde	2753 Dec 20 15:07	16° \mathbb{M} 02'02		desc. node	2754 Oct 21 09:31	6° \mathbb{M} 46'45	
asc. node	2753 Dec 23 16:13	15° \mathbb{M} 11'08		evening rise	2754 Oct 21 17:49	7° \mathbb{M} 20'19	
evening set	2753 Dec 24 19:59	14° \mathbb{M} 24'10			2754 Nov 05 13:00	0° \mathbb{M}	
inferior conj	2753 Dec 30 05:30	8° \mathbb{M} 05'31	2°05'23	greatest brilliancy	2754 Nov 19 05:04	18° \mathbb{M} 29'17	-0.3m
minimum elong	2753 Dec 30 03:07	8° \mathbb{M} 13'44	2°04'33	evening max el	2754 Nov 24 09:02	24° \mathbb{M} 16'40	22°51'41
min. Earth dist.	2753 Dec 30 10:16	7° \mathbb{M} 49'01	0.67760 AU		2754 Dec 02 15:20	0° \mathbb{M}	
morning rise	2754 Jan 04 09:59	1° \mathbb{M} 50'57		retrograde	2754 Dec 04 10:12	0° \mathbb{M} 14'29	
	2754 Jan 07 12:51	30° \mathbb{R} \mathbb{M}			2754 Dec 06 03:18	30° \mathbb{R} \mathbb{M}	
direct	2754 Jan 09 10:12	29° \mathbb{M} 42'29		evening set	2754 Dec 09 03:16	28° \mathbb{M} 20'05	
	2754 Jan 11 09:44	0° \mathbb{M}		asc. node	2754 Dec 10 13:16	27° \mathbb{M} 00'00	
morning max el	2754 Jan 19 14:24	5° \mathbb{M} 45'10	23°08'09	inferior conj	2754 Dec 14 13:08	21° \mathbb{M} 55'36	1°19'53
greatest brilliancy	2754 Jan 24 13:22	11° \mathbb{M} 18'03	-0.3m	minimum elong	2754 Dec 14 11:24	22° \mathbb{M} 01'34	1°19'11
desc. node	2754 Jan 30 11:41	18° \mathbb{M} 56'32		min. Earth dist.	2754 Dec 14 06:54	22° \mathbb{M} 17'08	0.67896 AU
	2754 Feb 07 07:12	0° \mathbb{M}		morning rise	2754 Dec 19 19:30	15° \mathbb{M} 44'02	
morning set	2754 Feb 23 07:30	25° \mathbb{M} 06'33		direct	2754 Dec 24 05:00	13° \mathbb{M} 58'24	
	2754 Feb 26 04:59	0° \mathbb{M}		morning max el	2755 Jan 02 03:37	19° \mathbb{M} 12'32	21°42'08
max. Earth dist.	2754 Feb 27 16:12	2° \mathbb{M} 31'27	1.39566 AU	greatest brilliancy	2755 Jan 07 00:03	24° \mathbb{M} 41'48	-0.4m
					2755 Jan 11 02:35	0° \mathbb{M}	
superior conj	2754 Mar 07 08:26	16° \mathbb{M} 15'04	-1°-52'-19	desc. node	2755 Jan 17 08:44	8° \mathbb{M} 43'26	
minimum elong	2754 Mar 07 12:36	16° \mathbb{M} 34'17	1°51'59		2755 Jan 31 11:51	0° \mathbb{M}	
	2754 Mar 14 15:07	0° \mathbb{M}		morning set	2755 Feb 03 05:11	4° \mathbb{M} 18'13	
evening rise	2754 Mar 16 22:26	4° \mathbb{M} 25'40		max. Earth dist.	2755 Feb 09 15:18	14° \mathbb{M} 44'29	1.41671 AU
asc. node	2754 Mar 21 15:33	13° \mathbb{M} 20'32					
	2754 Apr 01 16:04	0° \mathbb{M}		superior conj	2755 Feb 17 06:29	27° \mathbb{M} 44'19	-2°-4'-42
evening max el	2754 Apr 02 02:41	0° \mathbb{M} 26'27	18°33'40	minimum elong	2755 Feb 17 08:15	27° \mathbb{M} 52'05	2°04'40
retrograde	2754 Apr 09 20:01	4° \mathbb{M} 13'51			2755 Feb 18 13:24	0° \mathbb{M}	
evening set	2754 Apr 12 02:52	3° \mathbb{M} 55'02		evening rise	2755 Feb 28 03:09	17° \mathbb{M} 19'28	
	2754 Apr 19 00:19	30° \mathbb{R} \mathbb{M}			2755 Mar 07 03:44	0° \mathbb{M}	
inferior conj	2754 Apr 19 17:29	29° \mathbb{M} 26'49	2°18'34	asc. node	2755 Mar 08 12:35	2° \mathbb{M} 19'37	
minimum elong	2754 Apr 19 21:22	29° \mathbb{M} 19'15	2°17'30	evening max el	2755 Mar 16 11:39	13° \mathbb{M} 17'19	18°11'14
min. Earth dist.	2754 Apr 23 03:20	26° \mathbb{M} 48'40	0.58027 AU	retrograde	2755 Mar 23 08:27	16° \mathbb{M} 44'54	
morning rise	2754 Apr 27 11:29	24° \mathbb{M} 05'22		evening set	2755 Mar 25 21:14	16° \mathbb{M} 17'19	
desc. node	2754 Apr 28 10:51	23° \mathbb{M} 39'05		inferior conj	2755 Apr 01 18:54	11° \mathbb{M} 27'41	3°11'51
direct	2754 May 03 08:11	22° \mathbb{M} 38'01		minimum elong	2755 Apr 01 21:54	11° \mathbb{M} 20'53	3°11'19
	2754 May 17 10:31	0° \mathbb{M}		min. Earth dist.	2755 Apr 05 03:10	8° \mathbb{M} 27'06	0.60157 AU
morning max el	2754 May 17 17:22	0° \mathbb{M} 16'34	26°40'49	morning rise	2755 Apr 08 19:06	5° \mathbb{M} 42'27	
	2754 Jun 07 16:54	0° \mathbb{M}		direct	2755 Apr 15 09:11	3° \mathbb{M} 39'23	
morning set	2754 Jun 16 03:12	16° \mathbb{M} 34'37		desc. node	2755 Apr 15 07:53	3° \mathbb{M} 39'24	
asc. node	2754 Jun 17 14:52	19° \mathbb{M} 43'44		morning max el	2755 Apr 29 16:19	11° \mathbb{M} 30'28	27°34'02
	2754 Jun 22 08:03	0° \mathbb{M}			2755 May 14 03:46	0° \mathbb{M}	
					2755 May 30 20:19	0° \mathbb{M}	
superior conj	2754 Jun 23 04:32	1° \mathbb{M} 52'50	0°55'45	morning set	2755 May 31 10:29	1° \mathbb{M} 13'08	
minimum elong	2754 Jun 23 02:25	1° \mathbb{M} 41'11	0°55'22	asc. node	2755 Jun 04 11:53	9° \mathbb{M} 50'09	
max. Earth dist.	2754 Jun 23 08:07	2° \mathbb{M} 12'36	1.32183 AU	max. Earth dist.	2755 Jun 06 19:59	14° \mathbb{M} 56'02	1.32155 AU
evening rise	2754 Jun 30 03:04	16° \mathbb{M} 55'01					
	2754 Jul 06 16:12	0° \mathbb{M}		superior conj	2755 Jun 07 16:01	16° \mathbb{M} 46'06	0°32'55
desc. node	2754 Jul 25 10:10	28° \mathbb{M} 52'36		minimum elong	2755 Jun 07 14:36	16° \mathbb{M} 38'18	0°32'38
	2754 Jul 26 09:35	0° \mathbb{M}			2755 Jun 13 17:29	0° \mathbb{M}	
evening max el	2754 Jul 30 04:53	3° \mathbb{M} 57'29	26°45'20	evening rise	2755 Jun 14 13:11	1° \mathbb{M} 44'58	
retrograde	2754 Aug 13 03:43	11° \mathbb{M} 09'53			2755 Jun 29 20:26	0° \mathbb{M}	
evening set	2754 Aug 20 00:22	9° \mathbb{M} 08'42		evening max el	2755 Jul 12 01:09	15° \mathbb{M} 18'27	25°38'27
min. Earth dist.	2754 Aug 23 18:51	6° \mathbb{M} 31'52	0.60338 AU	desc. node	2755 Jul 12 07:10	15° \mathbb{M} 32'43	
inferior conj	2754 Aug 27 00:58	3° \mathbb{M} 51'43	-4°-37'-53	retrograde	2755 Jul 26 01:06	22° \mathbb{M} 26'10	
minimum elong	2754 Aug 27 05:44	3° \mathbb{M} 41'54	4°37'08	evening set	2755 Aug 01 01:03	21° \mathbb{M} 01'33	
	2754 Sep 01 11:39	30° \mathbb{R} \mathbb{M}		min. Earth dist.	2755 Aug 05 13:19	18° \mathbb{M} 23'12	0.58287 AU
morning rise	2754 Sep 03 14:22	29° \mathbb{M} 08'09		inferior conj	2755 Aug 08 18:06	16° \mathbb{M} 06'49	-5°-1'-56
direct	2754 Sep 05 22:57	28° \mathbb{M} 47'04		minimum elong	2755 Aug 08 19:27	16° \mathbb{M} 04'23	5°01'54
	2754 Sep 10 05:30	0° \mathbb{M}		morning rise	2755 Aug 16 17:24	11° \mathbb{M} 46'23	
morning max el	2754 Sep 13 08:42	2° \mathbb{M} 25'10	18°08'30	direct	2755 Aug 19 05:01	11° \mathbb{M} 26'53	

morning max el	2755 Aug 27 14:07	15° Ω 25'35	18°45'20	inferior conj	2756 Jul 19 15:00	27° \mathfrak{G} 37'10	-4°-51'-15
asc. node	2755 Aug 31 11:08	19° Ω 52'28		minimum elong	2756 Jul 19 10:47	27° \mathfrak{G} 43'44	4°50'49
	2755 Sep 06 20:16	0° \mathfrak{M}		morning rise	2756 Jul 27 23:04	23° \mathfrak{G} 37'06	
morning set	2755 Sep 12 22:44	11° \mathfrak{M} 32'19		direct	2756 Jul 30 15:56	23° \mathfrak{G} 17'54	
				morning max el	2756 Aug 09 09:46	27° \mathfrak{G} 49'22	19°43'40
superior conj	2755 Sep 21 14:23	28° \mathfrak{M} 18'27	1°36'52		2756 Aug 11 12:32	0° Ω	
minimum elong	2755 Sep 21 16:57	28° \mathfrak{M} 30'34	1°36'41	asc. node	2756 Aug 17 08:10	7° Ω 58'51	
	2755 Sep 22 11:57	0° \mathfrak{A}		morning set	2756 Aug 27 01:20	26° Ω 00'14	
max. Earth dist.	2755 Sep 28 16:51	11° \mathfrak{A} 18'48	1.39412 AU		2756 Aug 29 00:44	0° \mathfrak{M}	
evening rise	2755 Oct 02 17:53	18° \mathfrak{A} 19'10					
desc. node	2755 Oct 08 06:32	27° \mathfrak{A} 27'07		superior conj	2756 Sep 03 23:46	12° \mathfrak{M} 00'28	1°44'31
	2755 Oct 09 20:51	0° \mathfrak{M}		minimum elong	2756 Sep 04 00:31	12° \mathfrak{M} 04'10	1°44'29
	2755 Oct 30 22:12	0° \mathfrak{A}		max. Earth dist.	2756 Sep 09 21:22	23° \mathfrak{M} 22'58	1.37373 AU
evening max el	2755 Nov 06 22:27	7° \mathfrak{A} 53'58	24°11'31	evening rise	2756 Sep 13 17:02	0° \mathfrak{A} 22'19	
retrograde	2755 Nov 18 01:41	14° \mathfrak{A} 25'45			2756 Sep 13 12:03	0° \mathfrak{A}	
evening set	2755 Nov 23 08:28	12° \mathfrak{A} 14'30		desc. node	2756 Sep 24 03:32	17° \mathfrak{A} 57'32	
asc. node	2755 Nov 27 10:19	7° \mathfrak{A} 41'08			2756 Oct 02 02:36	0° \mathfrak{M}	
min. Earth dist.	2755 Nov 28 03:07	6° \mathfrak{A} 45'10	0.67687 AU	evening max el	2756 Oct 19 10:32	21° \mathfrak{M} 34'04	25°26'17
inferior conj	2755 Nov 28 20:00	5° \mathfrak{A} 48'17	0°28'47	retrograde	2756 Oct 31 12:49	28° \mathfrak{M} 31'34	
minimum elong	2755 Nov 28 19:18	5° \mathfrak{A} 50'37	0°28'29	evening set	2756 Nov 06 09:54	26° \mathfrak{M} 05'00	
	2755 Dec 03 21:06	30° \mathfrak{R} \mathfrak{M}		min. Earth dist.	2756 Nov 10 20:34	21° \mathfrak{M} 10'46	0.67138 AU
morning rise	2755 Dec 04 06:26	29° \mathfrak{M} 42'05		inferior conj	2756 Nov 12 00:19	19° \mathfrak{M} 41'18	0°-26'-41
direct	2755 Dec 08 02:19	28° \mathfrak{M} 18'35		minimum elong	2756 Nov 12 01:01	19° \mathfrak{M} 39'05	0°26'24
	2755 Dec 12 16:19	0° \mathfrak{A}		asc. node	2756 Nov 13 07:22	18° \mathfrak{M} 02'42	
morning max el	2755 Dec 15 23:58	2° \mathfrak{A} 50'41	20°25'40	morning rise	2756 Nov 17 16:51	13° \mathfrak{M} 43'00	
greatest brilliancy	2755 Dec 22 07:19	10° \mathfrak{A} 19'03	-0.5m	direct	2756 Nov 21 00:49	12° \mathfrak{M} 39'00	
desc. node	2756 Jan 04 05:46	28° \mathfrak{A} 52'24		morning max el	2756 Nov 28 04:16	16° \mathfrak{M} 39'44	19°22'43
	2756 Jan 04 23:45	0° \mathfrak{G}		greatest brilliancy	2756 Dec 07 08:43	28° \mathfrak{M} 24'27	-0.7m
morning set	2756 Jan 13 04:31	12° \mathfrak{G} 31'30			2756 Dec 08 10:54	0° \mathfrak{A}	
max. Earth dist.	2756 Jan 22 22:28	27° \mathfrak{G} 54'18	1.43442 AU	desc. node	2756 Dec 21 02:48	19° \mathfrak{A} 17'12	
	2756 Jan 24 05:36	0° \mathfrak{A}		morning set	2756 Dec 22 03:46	20° \mathfrak{A} 53'52	
					2756 Dec 28 00:17	0° \mathfrak{G}	
superior conj	2756 Jan 29 03:51	8° \mathfrak{A} 04'32	-2°-3'-4	max. Earth dist.	2757 Jan 04 12:28	11° \mathfrak{G} 46'47	1.44655 AU
minimum elong	2756 Jan 29 00:34	7° \mathfrak{A} 50'58	2°03'00				
evening rise	2756 Feb 10 15:31	29° \mathfrak{A} 26'10		superior conj	2757 Jan 07 23:18	17° \mathfrak{G} 15'30	-1°-42'-58
	2756 Feb 10 23:15	0° \mathfrak{H}		minimum elong	2757 Jan 07 14:59	16° \mathfrak{G} 42'19	1°42'17
asc. node	2756 Feb 23 09:36	20° \mathfrak{H} 45'41			2757 Jan 15 20:44	0° \mathfrak{A}	
evening max el	2756 Feb 27 23:48	26° \mathfrak{H} 27'11	18°08'18	evening rise	2757 Jan 22 07:15	10° \mathfrak{A} 37'46	
retrograde	2756 Mar 05 11:23	29° \mathfrak{H} 50'32			2757 Feb 03 02:55	0° \mathfrak{H}	
evening set	2756 Mar 08 05:29	29° \mathfrak{H} 12'53		asc. node	2757 Feb 09 06:38	8° \mathfrak{H} 28'00	
inferior conj	2756 Mar 14 13:55	24° \mathfrak{H} 02'14	3°36'44	evening max el	2757 Feb 10 12:12	9° \mathfrak{H} 47'50	18°24'12
minimum elong	2756 Mar 14 15:03	23° \mathfrak{H} 59'18	3°36'40	retrograde	2757 Feb 17 00:05	13° \mathfrak{H} 20'01	
min. Earth dist.	2756 Mar 17 11:04	21° \mathfrak{H} 04'04	0.62279 AU	evening set	2757 Feb 19 23:32	12° \mathfrak{H} 31'25	
morning rise	2756 Mar 20 22:15	18° \mathfrak{H} 02'06		inferior conj	2757 Feb 25 22:23	7° \mathfrak{H} 01'30	3°40'03
direct	2756 Mar 27 19:49	15° \mathfrak{H} 30'23		minimum elong	2757 Feb 25 21:46	7° \mathfrak{H} 03'18	3°40'03
desc. node	2756 Apr 01 04:55	16° \mathfrak{H} 24'51		min. Earth dist.	2757 Feb 28 04:34	4° \mathfrak{H} 25'29	0.64165 AU
morning max el	2756 Apr 10 21:20	23° \mathfrak{H} 26'47	27°50'32	morning rise	2757 Mar 03 18:26	0° \mathfrak{H} 52'45	
	2756 Apr 16 18:01	0° \mathfrak{Y}			2757 Mar 04 22:25	30° \mathfrak{R} \mathfrak{A}	
	2756 May 06 09:47	0° \mathfrak{B}		direct	2757 Mar 10 14:32	28° \mathfrak{A} 05'08	
morning set	2756 May 14 12:37	15° \mathfrak{B} 33'51			2757 Mar 16 20:10	0° \mathfrak{H}	
max. Earth dist.	2756 May 20 04:43	27° \mathfrak{B} 27'04	1.32528 AU	desc. node	2757 Mar 19 01:57	1° \mathfrak{H} 27'55	
asc. node	2756 May 21 08:54	29° \mathfrak{B} 59'16		morning max el	2757 Mar 24 06:16	5° \mathfrak{H} 59'24	27°30'25
	2756 May 21 09:02	0° \mathfrak{H}			2757 Apr 11 13:50	0° \mathfrak{Y}	
				morning set	2757 Apr 28 07:01	29° \mathfrak{Y} 27'37	
superior conj	2756 May 22 01:37	1° \mathfrak{H} 29'56	0°07'20		2757 Apr 28 13:35	0° \mathfrak{B}	
minimum elong	2756 May 22 01:16	1° \mathfrak{H} 28'03	0°07'16	max. Earth dist.	2757 May 03 06:11	9° \mathfrak{B} 31'41	1.33321 AU
behind sun begin	2756 May 21 20:38	1° \mathfrak{H} 02'54					
behind sun end	2756 May 22 05:54	1° \mathfrak{H} 53'13		superior conj	2757 May 06 07:23	15° \mathfrak{B} 57'21	0°-20'-14
evening rise	2756 May 29 00:56	16° \mathfrak{H} 36'30		minimum elong	2757 May 06 08:24	16° \mathfrak{B} 02'46	0°20'02
	2756 Jun 04 16:16	0° \mathfrak{G}		asc. node	2757 May 08 05:55	20° \mathfrak{B} 06'15	
evening max el	2756 Jun 22 15:25	25° \mathfrak{G} 59'20	24°09'15		2757 May 12 20:51	0° \mathfrak{H}	
	2756 Jun 27 14:11	0° Ω		evening rise	2757 May 13 12:24	1° \mathfrak{H} 22'10	
desc. node	2756 Jun 28 04:10	0° Ω 22'03			2757 May 29 15:59	0° \mathfrak{G}	
retrograde	2756 Jul 06 10:50	2° Ω 56'47		evening max el	2757 Jun 04 05:47	6° \mathfrak{G} 25'58	22°32'46
evening set	2756 Jul 11 02:03	2° Ω 09'09		desc. node	2757 Jun 15 01:10	12° \mathfrak{G} 44'40	
	2756 Jul 15 17:21	30° \mathfrak{R} \mathfrak{G}		retrograde	2757 Jun 17 08:34	12° \mathfrak{G} 56'53	
min. Earth dist.	2756 Jul 17 02:05	29° \mathfrak{G} 11'44	0.56479 AU	evening set	2757 Jun 20 12:27	12° \mathfrak{G} 34'52	

min. Earth dist.	2757 Jun 28 13:15	9° \mathbb{D} 04'32	0.55246 AU	minimum elong	2758 Jun 09 05:21	18° \mathbb{H} 54'33	2°08'44
inferior conj	2757 Jun 29 17:40	8° \mathbb{D} 24'07	-3°-53'-10	min. Earth dist.	2758 Jun 10 01:21	18° \mathbb{H} 26'18	0.54881 AU
minimum elong	2757 Jun 29 09:37	8° \mathbb{D} 35'35	3°51'12	morning rise	2758 Jun 18 07:04	14° \mathbb{H} 45'12	
morning rise	2757 Jul 08 09:15	4° \mathbb{D} 33'11		direct	2758 Jun 21 18:25	14° \mathbb{H} 19'09	
direct	2757 Jul 11 08:57	4° \mathbb{D} 12'47		morning max el	2758 Jul 04 15:34	20° \mathbb{H} 28'04	22°38'29
morning max el	2757 Jul 22 17:59	9° \mathbb{D} 29'53	21°02'51		2758 Jul 12 16:04	0° \mathbb{D}	
asc. node	2757 Aug 04 05:11	26° \mathbb{D} 45'01		asc. node	2758 Jul 22 02:14	16° \mathbb{D} 01'12	
	2757 Aug 05 23:32	0° \mathbb{D}		morning set	2758 Jul 26 19:31	25° \mathbb{D} 34'59	
morning set	2757 Aug 11 08:57	10° \mathbb{D} 43'05			2758 Jul 28 21:39	0° \mathbb{D}	
superior conj	2757 Aug 18 19:59	26° \mathbb{D} 15'02	1°44'04	superior conj	2758 Aug 02 23:35	10° \mathbb{D} 51'28	1°36'59
minimum elong	2757 Aug 18 19:12	26° \mathbb{D} 11'01	1°44'02	minimum elong	2758 Aug 02 21:46	10° \mathbb{D} 41'51	1°36'50
	2757 Aug 20 15:57	0° \mathbb{D}		max. Earth dist.	2758 Aug 06 00:21	17° \mathbb{D} 13'57	1.34090 AU
max. Earth dist.	2757 Aug 23 06:29	5° \mathbb{D} 13'25	1.35550 AU	evening rise	2758 Aug 10 20:41	27° \mathbb{D} 01'40	
evening rise	2757 Aug 27 11:29	13° \mathbb{D} 20'33			2758 Aug 12 09:26	0° \mathbb{D}	
	2757 Sep 05 21:33	0° \mathbb{D}		desc. node	2758 Aug 28 21:33	28° \mathbb{D} 05'11	
desc. node	2757 Sep 11 00:32	8° \mathbb{D} 12'40			2758 Aug 30 04:47	0° \mathbb{D}	
	2757 Sep 27 00:44	0° \mathbb{D}		evening max el	2758 Sep 14 10:58	18° \mathbb{D} 43'11	27°10'53
evening max el	2757 Oct 01 22:41	5° \mathbb{D} 13'18	26°28'35	retrograde	2758 Sep 27 19:43	26° \mathbb{D} 01'27	
retrograde	2757 Oct 14 19:03	12° \mathbb{D} 26'17		evening set	2758 Oct 04 17:33	23° \mathbb{D} 19'28	
evening set	2757 Oct 21 05:44	9° \mathbb{D} 48'24		min. Earth dist.	2758 Oct 08 14:12	19° \mathbb{D} 37'44	0.64991 AU
min. Earth dist.	2757 Oct 25 09:02	5° \mathbb{D} 30'29	0.66239 AU	inferior conj	2758 Oct 10 17:36	17° \mathbb{D} 14'49	-2°-24'-42
inferior conj	2757 Oct 27 00:16	3° \mathbb{D} 31'53	-1°-25'-8	minimum elong	2758 Oct 10 21:32	17° \mathbb{D} 03'51	2°23'13
minimum elong	2757 Oct 27 02:33	3° \mathbb{D} 24'56	1°24'11	morning rise	2758 Oct 17 03:23	11° \mathbb{D} 40'41	
	2757 Oct 30 03:19	30° \mathbb{D}		asc. node	2758 Oct 18 01:28	11° \mathbb{D} 19'40	
asc. node	2757 Oct 31 04:24	29° \mathbb{D} 02'01		direct	2758 Oct 19 18:12	11° \mathbb{D} 04'16	
morning rise	2757 Nov 02 00:40	27° \mathbb{D} 44'08		morning max el	2758 Oct 26 06:14	14° \mathbb{D} 33'07	18°04'42
direct	2757 Nov 04 22:49	26° \mathbb{D} 55'55			2758 Nov 06 05:45	0° \mathbb{D}	
	2757 Nov 11 00:17	0° \mathbb{D}		morning set	2758 Nov 13 04:33	11° \mathbb{D} 29'47	
morning max el	2757 Nov 11 15:12	0° \mathbb{D} 36'08	18°35'25		2758 Nov 24 11:47	0° \mathbb{D}	
	2757 Dec 01 18:23	0° \mathbb{D}		desc. node	2758 Nov 24 20:52	0° \mathbb{D} 36'29	
morning set	2757 Dec 02 01:28	0° \mathbb{D} 28'12		superior conj	2758 Nov 27 08:52	4° \mathbb{D} 36'17	0°-16'-52
desc. node	2757 Dec 07 23:50	9° \mathbb{D} 53'24		minimum elong	2758 Nov 27 06:45	4° \mathbb{D} 27'52	0°16'36
superior conj	2757 Dec 18 02:21	25° \mathbb{D} 47'46	-1°-4'-43	max. Earth dist.	2758 Dec 01 01:21	10° \mathbb{D} 26'46	1.44958 AU
minimum elong	2757 Dec 17 18:29	25° \mathbb{D} 16'56	1°03'46	evening rise	2758 Dec 13 19:14	0° \mathbb{D} 18'43	
max. Earth dist.	2757 Dec 18 06:25	26° \mathbb{D} 03'43	1.45177 AU		2758 Dec 13 14:23	0° \mathbb{D}	
	2757 Dec 20 18:37	0° \mathbb{D}		greatest brilliancy	2758 Dec 31 19:12	27° \mathbb{D} 28'51	-0.6m
evening rise	2758 Jan 02 23:47	20° \mathbb{D} 52'32			2759 Jan 02 15:00	0° \mathbb{D}	
	2758 Jan 08 17:16	0° \mathbb{D}		evening max el	2759 Jan 08 04:41	6° \mathbb{D} 45'07	19°48'01
evening max el	2758 Jan 24 22:28	23° \mathbb{D} 15'00	18°57'56	asc. node	2759 Jan 14 00:43	10° \mathbb{D} 51'03	
asc. node	2758 Jan 27 03:40	25° \mathbb{D} 14'40		retrograde	2759 Jan 15 16:03	11° \mathbb{D} 05'45	
retrograde	2758 Jan 31 18:40	27° \mathbb{D} 06'55		evening set	2759 Jan 19 05:25	9° \mathbb{D} 51'47	
evening set	2758 Feb 04 00:20	26° \mathbb{D} 06'20		inferior conj	2759 Jan 24 17:35	3° \mathbb{D} 50'12	3°02'40
inferior conj	2758 Feb 09 16:38	20° \mathbb{D} 19'19	3°27'23	minimum elong	2759 Jan 24 15:07	3° \mathbb{D} 58'23	3°02'06
minimum elong	2758 Feb 09 14:48	20° \mathbb{D} 25'05	3°27'08	min. Earth dist.	2759 Jan 25 17:59	2° \mathbb{D} 29'13	0.66818 AU
min. Earth dist.	2758 Feb 11 07:24	18° \mathbb{D} 17'56	0.65695 AU		2759 Jan 27 17:09	30° \mathbb{D}	
morning rise	2758 Feb 15 04:14	14° \mathbb{D} 06'03		morning rise	2759 Jan 30 00:09	27° \mathbb{D} 35'03	
direct	2758 Feb 21 16:15	11° \mathbb{D} 16'33		direct	2759 Feb 04 23:47	24° \mathbb{D} 55'43	
desc. node	2758 Mar 05 23:01	18° \mathbb{D} 14'16			2759 Feb 14 19:58	0° \mathbb{D}	
morning max el	2758 Mar 06 16:11	18° \mathbb{D} 56'52	26°39'03	morning max el	2759 Feb 17 01:07	2° \mathbb{D} 07'03	25°25'17
	2758 Mar 16 01:24	0° \mathbb{D}		desc. node	2759 Feb 20 20:04	6° \mathbb{D} 14'27	
	2758 Apr 04 14:05	0° \mathbb{D}			2759 Mar 10 04:21	0° \mathbb{D}	
morning set	2758 Apr 11 14:17	12° \mathbb{D} 44'20		morning set	2759 Mar 25 05:52	25° \mathbb{D} 10'50	
max. Earth dist.	2758 Apr 15 20:46	21° \mathbb{D} 01'57	1.34570 AU		2759 Mar 27 20:51	0° \mathbb{D}	
				max. Earth dist.	2759 Mar 28 23:46	2° \mathbb{D} 06'00	1.36272 AU
superior conj	2758 Apr 20 07:11	0° \mathbb{D} 02'08	0°-48'-39	superior conj	2759 Apr 03 22:18	13° \mathbb{D} 36'53	-1°-16'-18
minimum elong	2758 Apr 20 09:41	0° \mathbb{D} 15'07	0°48'11	minimum elong	2759 Apr 04 02:08	13° \mathbb{D} 56'01	1°15'42
	2758 Apr 20 06:46	0° \mathbb{D}		evening rise	2759 Apr 12 02:46	0° \mathbb{D} 11'56	
asc. node	2758 Apr 25 02:57	10° \mathbb{D} 07'12		asc. node	2759 Apr 12 00:01	29° \mathbb{D} 58'00	
evening rise	2758 Apr 27 21:43	15° \mathbb{D} 56'02			2759 Apr 12 00:25	0° \mathbb{D}	
	2758 May 05 01:20	0° \mathbb{D}		evening max el	2759 Apr 29 14:11	28° \mathbb{D} 33'55	19°49'47
evening max el	2758 May 17 04:05	17° \mathbb{D} 11'12	21°03'21		2759 May 01 04:41	0° \mathbb{D}	
retrograde	2758 May 28 22:01	22° \mathbb{D} 55'26		retrograde	2759 May 09 14:17	3° \mathbb{D} 24'39	
evening set	2758 May 31 03:17	22° \mathbb{D} 43'54		evening set	2759 May 11 14:11	3° \mathbb{D} 13'56	
desc. node	2758 Jun 01 22:12	22° \mathbb{D} 18'50			2759 May 19 03:28	30° \mathbb{D}	
inferior conj	2758 Jun 09 11:24	18° \mathbb{D} 46'01	-2°-10'-48				

desc. node	2759 May 19 19:14	29°♄36'11			2760 Apr 03 15:05	0°♄	
inferior conj	2759 May 20 10:31	29°♄12'47	0°-11'-10	evening max el	2760 Apr 11 11:22	10°♄35'48	18°55'35
minimum elong	2759 May 20 10:01	29°♄13'34	0°10'59	retrograde	2760 Apr 19 21:38	14°♄42'01	
transit middle	2759 May 20 10:01	29°♄13'34	0°10'59	evening set	2760 Apr 22 01:15	14°♄27'03	
transit begin	2759 May 20 07:08	29°♄17'59		inferior conj	2760 Apr 30 02:46	10°♄09'59	1°32'56
transit end	2759 May 20 12:53	29°♄09'08		minimum elong	2760 Apr 30 06:03	10°♄04'08	1°31'52
min. Earth dist.	2759 May 22 14:55	27°♄52'29	0.55485 AU	min. Earth dist.	2760 May 03 06:42	7°♄55'54	0.56930 AU
morning rise	2759 May 29 02:42	24°♄44'37		desc. node	2760 May 05 16:17	6°♄24'45	
direct	2759 Jun 02 09:49	24°♄03'51		morning rise	2760 May 08 06:32	5°♄07'02	
	2759 Jun 15 05:24	0°♄		direct	2760 May 13 13:57	3°♄59'46	
morning max el	2759 Jun 16 06:37	0°♄57'53	24°21'06	morning max el	2760 May 27 21:23	11°♄25'12	25°56'05
	2759 Jul 06 03:03	0°♄			2760 Jun 11 04:53	0°♄	
asc. node	2759 Jul 08 23:17	5°♄39'29		morning set	2760 Jun 24 18:46	25°♄24'18	
morning set	2759 Jul 11 07:22	10°♄30'52		asc. node	2760 Jun 24 20:20	25°♄32'36	
					2760 Jun 26 22:24	0°♄	
superior conj	2759 Jul 18 08:00	25°♄41'45	1°24'28				
minimum elong	2759 Jul 18 05:41	25°♄29'09	1°24'11	superior conj	2760 Jul 01 19:00	10°♄37'35	1°07'23
max. Earth dist.	2759 Jul 20 03:18	29°♄35'49	1.33036 AU	minimum elong	2760 Jul 01 16:40	10°♄24'49	1°07'00
	2759 Jul 20 07:48	0°♄		max. Earth dist.	2760 Jul 02 12:34	12°♄14'04	1.32382 AU
evening rise	2759 Jul 25 16:39	11°♄14'22		evening rise	2760 Jul 08 20:03	25°♄47'25	
	2759 Aug 04 15:46	0°♄			2760 Jul 10 21:20	0°♄	
desc. node	2759 Aug 15 18:34	17°♄25'37			2760 Jul 28 05:19	0°♄	
	2759 Aug 26 00:39	0°♄		desc. node	2760 Aug 01 15:35	5°♄59'42	
evening max el	2759 Aug 27 21:56	1°♄52'14	27°26'15	evening max el	2760 Aug 09 04:47	14°♄25'27	27°09'49
retrograde	2759 Sep 10 14:04	9°♄09'00		retrograde	2760 Aug 23 01:17	21°♄39'03	
evening set	2759 Sep 17 18:21	6°♄32'53		evening set	2760 Aug 30 04:09	19°♄21'10	
min. Earth dist.	2759 Sep 21 09:59	3°♄24'14	0.63408 AU	min. Earth dist.	2760 Sep 02 19:03	16°♄37'08	0.61521 AU
inferior conj	2759 Sep 24 01:44	0°♄44'34	-3°-22'-30	inferior conj	2760 Sep 05 21:28	13°♄52'27	-4°-13'-58
minimum elong	2759 Sep 24 06:58	0°♄31'25	3°20'53	minimum elong	2760 Sep 06 02:57	13°♄40'15	4°12'46
	2759 Sep 24 19:36	30°♄		morning rise	2760 Sep 13 04:42	8°♄55'57	
morning rise	2759 Sep 30 22:01	25°♄27'24		direct	2760 Sep 15 13:08	8°♄32'53	
direct	2759 Oct 03 08:11	24°♄59'09		asc. node	2760 Sep 20 19:34	10°♄33'03	
asc. node	2759 Oct 04 22:31	25°♄11'40		morning max el	2760 Sep 22 13:16	12°♄03'25	17°56'42
morning max el	2759 Oct 09 22:36	28°♄24'46	17°51'27		2760 Oct 04 13:21	0°♄	
	2759 Oct 11 09:55	0°♄		morning set	2760 Oct 08 08:37	6°♄54'42	
morning set	2759 Oct 26 09:04	23°♄45'04					
	2759 Oct 29 23:23	0°♄		superior conj	2760 Oct 18 19:46	25°♄42'31	1°04'13
superior conj	2759 Nov 07 12:46	14°♄29'26	0°28'36	minimum elong	2760 Oct 19 00:11	26°♄01'44	1°03'41
minimum elong	2759 Nov 07 15:39	14°♄41'22	0°28'12		2760 Oct 21 07:28	0°♄	
desc. node	2759 Nov 11 17:55	21°♄23'12		max. Earth dist.	2760 Oct 26 07:52	8°♄25'12	1.42514 AU
max. Earth dist.	2759 Nov 13 18:44	24°♄39'47	1.44035 AU	desc. node	2760 Oct 28 14:56	12°♄10'18	
	2759 Nov 17 03:18	0°♄		evening rise	2760 Nov 01 19:09	18°♄51'17	
evening rise	2759 Nov 23 04:11	9°♄24'41			2760 Nov 09 00:15	0°♄	
	2759 Dec 06 20:29	0°♄		greatest brilliancy	2760 Nov 29 07:35	28°♄28'46	-0.3m
greatest brilliancy	2759 Dec 16 17:19	13°♄47'13	-0.5m		2760 Nov 30 13:58	0°♄	
evening max el	2759 Dec 22 05:35	20°♄16'22	20°51'58	evening max el	2760 Dec 04 00:54	3°♄48'41	22°06'11
retrograde	2759 Dec 30 13:57	25°♄12'39		retrograde	2760 Dec 13 10:31	9°♄24'21	
asc. node	2759 Dec 31 21:47	25°♄02'54		evening set	2760 Dec 17 20:29	7°♄39'17	
evening set	2760 Jan 03 12:43	23°♄43'46		asc. node	2760 Dec 17 18:49	7°♄42'38	
inferior conj	2760 Jan 08 22:43	17°♄30'26	2°28'33	inferior conj	2760 Dec 23 05:59	1°♄17'37	1°46'48
minimum elong	2760 Jan 08 20:11	17°♄39'10	2°27'45	minimum elong	2760 Dec 23 03:50	1°♄25'05	1°46'01
min. Earth dist.	2760 Jan 09 10:13	16°♄50'59	0.67533 AU	min. Earth dist.	2760 Dec 23 05:54	1°♄17'56	0.67865 AU
morning rise	2760 Jan 14 03:14	11°♄15'20			2760 Dec 24 04:29	30°♄	
direct	2760 Jan 19 12:14	8°♄54'22		morning rise	2760 Dec 28 11:00	25°♄04'19	
morning max el	2760 Jan 30 09:30	15°♄23'43	23°59'13	direct	2761 Jan 02 04:51	23°♄05'43	
desc. node	2760 Feb 07 17:08	25°♄07'08		morning max el	2761 Jan 11 20:06	28°♄47'02	22°30'48
	2760 Feb 11 09:05	0°♄			2761 Jan 13 00:12	0°♄	
	2760 Mar 02 03:21	0°♄		greatest brilliancy	2761 Jan 16 09:35	3°♄52'30	-0.3m
morning set	2760 Mar 05 23:51	6°♄30'50		desc. node	2761 Jan 24 14:10	14°♄37'25	
max. Earth dist.	2760 Mar 09 19:44	13°♄13'05	1.38323 AU		2761 Feb 04 02:55	0°♄	
				morning set	2761 Feb 14 14:26	16°♄30'35	
superior conj	2760 Mar 17 01:08	26°♄31'52	-1°-40'-51	max. Earth dist.	2761 Feb 19 16:11	24°♄57'32	1.40485 AU
minimum elong	2760 Mar 17 05:36	26°♄53'05	1°40'22		2761 Feb 22 14:38	0°♄	
	2760 Mar 18 20:39	0°♄		superior conj	2761 Feb 27 11:11	8°♄35'58	-1°-58'-56
evening rise	2760 Mar 26 00:59	14°♄02'30		minimum elong	2761 Feb 27 14:40	8°♄51'40	1°58'45
asc. node	2760 Mar 28 21:04	19°♄33'26		evening rise	2761 Mar 09 13:13	27°♄20'01	

	2761 Mar 10 23:12	0°♈		evening rise	2762 Feb 20 11:29	9°♋54'31	
asc. node	2761 Mar 15 18:07	8°♈48'02		asc. node	2762 Mar 02 15:09	27°♋34'02	
evening max el	2761 Mar 25 16:56	23°♈11'11	18°21'38		2762 Mar 04 05:18	0°♈	
retrograde	2761 Apr 02 00:13	26°♈48'32		evening max el	2762 Mar 09 03:34	6°♈10'30	18°07'38
evening set	2761 Apr 04 09:34	26°♈26'16		retrograde	2762 Mar 15 19:22	9°♈34'49	
inferior conj	2761 Apr 11 16:31	21°♈48'42	2°45'04	evening set	2762 Mar 18 10:19	9°♈03'14	
minimum elong	2761 Apr 11 20:14	21°♈40'55	2°44'11	inferior conj	2762 Mar 25 01:55	4°♈04'41	3°25'25
min. Earth dist.	2761 Apr 15 03:04	18°♈58'02	0.58910 AU	minimum elong	2762 Mar 25 04:09	3°♈59'17	3°25'08
morning rise	2761 Apr 19 02:52	16°♈15'41		min. Earth dist.	2762 Mar 28 06:20	1°♈01'56	0.61074 AU
desc. node	2761 Apr 22 13:19	14°♈53'42			2762 Mar 29 10:19	30°♋	
direct	2761 Apr 25 07:49	14°♈33'12		morning rise	2762 Mar 31 18:56	28°♋11'48	
morning max el	2761 May 09 16:59	22°♈18'05	27°07'49	direct	2762 Apr 07 13:18	25°♋55'02	
	2761 May 16 12:04	0°♉		desc. node	2762 Apr 09 10:21	26°♋04'58	
	2761 Jun 04 03:01	0°♊			2762 Apr 17 10:20	0°♈	
morning set	2761 Jun 09 04:04	10°♊09'58		morning max el	2762 Apr 21 18:49	3°♈50'13	27°45'40
asc. node	2761 Jun 11 17:23	15°♊35'30			2762 May 11 03:08	0°♉	
				morning set	2762 May 24 09:25	24°♉41'35	
superior conj	2761 Jun 16 06:47	25°♊33'15	0°46'28		2762 May 26 22:23	0°♊	
minimum elong	2761 Jun 16 04:55	25°♊22'57	0°46'05	asc. node	2762 May 29 14:25	5°♊43'29	
max. Earth dist.	2761 Jun 16 00:31	24°♊58'44	1.32123 AU	max. Earth dist.	2762 May 30 11:23	7°♊37'26	1.32256 AU
	2761 Jun 18 07:14	0°♊					
evening rise	2761 Jun 23 04:19	10°♊32'51		superior conj	2762 May 31 17:40	10°♊22'56	0°22'22
	2761 Jul 03 04:06	0°♋		minimum elong	2762 May 31 16:40	10°♊17'25	0°22'09
desc. node	2761 Jul 19 12:35	23°♋28'26		evening rise	2762 Jun 07 15:19	25°♊23'41	
evening max el	2761 Jul 22 04:59	26°♋12'25	26°20'13		2762 Jun 09 20:07	0°♊	
	2761 Jul 26 19:30	0°♌			2762 Jun 27 12:28	0°♋	
retrograde	2761 Aug 05 04:28	3°♌23'28		evening max el	2762 Jul 03 22:08	7°♋13'49	25°02'29
evening set	2761 Aug 11 18:12	1°♌36'35		desc. node	2762 Jul 06 09:35	9°♋25'38	
	2761 Aug 14 09:23	30°♌		retrograde	2762 Jul 17 21:38	14°♋19'20	
min. Earth dist.	2761 Aug 15 17:59	29°♋01'44	0.59457 AU	evening set	2762 Jul 23 08:36	13°♋11'08	
inferior conj	2761 Aug 19 01:12	26°♋29'01	-4°-51'-23	min. Earth dist.	2762 Jul 28 09:45	10°♋26'26	0.57458 AU
minimum elong	2761 Aug 19 04:53	26°♋21'54	4°50'59	inferior conj	2762 Jul 31 09:51	8°♋25'38	-5°-2'-37
morning rise	2761 Aug 26 19:01	21°♋55'42		minimum elong	2762 Jul 31 08:58	8°♋27'07	5°02'36
direct	2761 Aug 29 04:36	21°♋35'30		morning rise	2762 Aug 08 13:02	4°♋14'45	
morning max el	2761 Sep 05 23:02	25°♋20'38	18°21'40	direct	2762 Aug 11 02:26	3°♋55'41	
asc. node	2761 Sep 07 16:36	27°♋10'16		morning max el	2762 Aug 20 00:43	8°♋07'04	19°07'35
	2761 Sep 09 22:20	0°♌		asc. node	2762 Aug 25 13:38	14°♋48'20	
morning set	2761 Sep 21 21:43	20°♌42'56			2762 Sep 03 07:21	0°♌	
	2761 Sep 26 18:32	0°♍		morning set	2762 Sep 05 20:20	4°♌59'04	
superior conj	2761 Oct 01 02:39	8°♍05'48	1°28'07	superior conj	2762 Sep 14 03:53	21°♌23'38	1°41'12
minimum elong	2761 Oct 01 06:11	8°♍22'02	1°27'47	minimum elong	2762 Sep 14 05:39	21°♌32'14	1°41'06
max. Earth dist.	2761 Oct 08 15:16	21°♍28'21	1.40591 AU		2762 Sep 18 17:03	0°♍	
evening rise	2761 Oct 13 05:27	29°♍11'51		max. Earth dist.	2762 Sep 20 19:11	3°♍49'18	1.38523 AU
	2761 Oct 13 17:10	0°♎		evening rise	2762 Sep 24 15:43	10°♍39'22	
desc. node	2761 Oct 15 11:55	2°♎54'07		desc. node	2762 Oct 02 08:56	23°♍31'05	
	2761 Nov 02 13:06	0°♏			2762 Oct 06 12:15	0°♎	
evening max el	2761 Nov 16 15:44	17°♏23'11	23°25'45		2762 Oct 29 03:39	0°♏	
retrograde	2761 Nov 27 04:19	23°♏36'52		evening max el	2762 Oct 30 04:20	1°♏02'15	24°44'22
evening set	2761 Dec 02 03:05	21°♏35'04		retrograde	2762 Nov 10 18:13	7°♏46'49	
asc. node	2761 Dec 04 15:50	18°♏58'23		evening set	2762 Nov 16 06:55	5°♏28'54	
min. Earth dist.	2761 Dec 07 02:38	15°♏46'16	0.67846 AU	min. Earth dist.	2762 Nov 20 22:06	0°♏14'02	0.67492 AU
inferior conj	2761 Dec 07 13:29	15°♏09'02	0°58'47		2762 Nov 21 02:21	30°♎	
minimum elong	2761 Dec 07 12:09	15°♏13'36	0°58'15	inferior conj	2762 Nov 21 19:31	29°♎02'57	0°05'44
morning rise	2761 Dec 12 21:20	8°♏59'29		minimum elong	2762 Nov 21 19:23	29°♎03'26	0°05'41
direct	2761 Dec 17 00:45	7°♏23'44		transit middle	2762 Nov 21 19:23	29°♎03'26	0°05'41
morning max el	2761 Dec 25 12:13	12°♏19'12	21°08'08	transit begin	2762 Nov 21 16:48	29°♎12'00	
greatest brilliancy	2761 Dec 30 20:42	18°♏28'28	-0.5m	transit end	2762 Nov 21 21:58	28°♎54'52	
	2762 Jan 08 07:36	0°♐		asc. node	2762 Nov 21 12:51	29°♎25'08	
desc. node	2762 Jan 11 11:10	4°♐34'17		morning rise	2762 Nov 27 08:18	22°♎59'32	
morning set	2762 Jan 25 00:48	25°♐11'36		direct	2762 Nov 30 22:50	21°♎44'45	
	2762 Jan 28 01:45	0°♑		morning max el	2762 Dec 08 11:59	26°♎02'35	19°57'00
max. Earth dist.	2762 Feb 01 18:23	7°♑34'25	1.42478 AU		2762 Dec 12 00:18	0°♑	
				greatest brilliancy	2762 Dec 15 18:41	4°♑54'58	-0.6m
superior conj	2762 Feb 08 23:07	19°♑36'05	-2°-6'-2	desc. node	2762 Dec 29 08:13	24°♑50'50	
minimum elong	2762 Feb 08 23:02	19°♑35'42	2°06'03		2763 Jan 01 17:03	0°♒	
	2762 Feb 14 22:34	0°♒		morning set	2763 Jan 03 20:47	3°♒19'12	

max. Earth dist.	2763 Jan 15 04:10	21°☾02'30	1.44041 AU	max. Earth dist.	2763 Dec 28 20:22	5°☾08'24	1.44974 AU
superior conj	2763 Jan 20 09:13	29°☾26'02	-1°-56'-58	superior conj	2763 Dec 30 19:55	8°☾15'45	-1°-28'-38
minimum elong	2763 Jan 20 03:29	29°☾02'42	1°56'39	minimum elong	2763 Dec 30 10:54	7°☾40'09	1°27'45
	2763 Jan 20 17:34	0°☾			2764 Jan 13 09:44	0°☾	
evening rise	2763 Feb 02 15:33	21°☾38'20		evening rise	2764 Jan 14 21:35	2°☾25'56	
	2763 Feb 07 12:42	0°☾			2764 Feb 01 16:11	0°☾	
asc. node	2763 Feb 17 12:10	15°☾42'53		evening max el	2764 Feb 04 04:05	2°☾50'53	18°36'26
evening max el	2763 Feb 20 16:12	19°☾25'59	18°12'50	asc. node	2764 Feb 04 09:11	3°☾03'43	
retrograde	2763 Feb 27 02:49	22°☾51'22		retrograde	2764 Feb 10 18:23	6°☾29'48	
evening set	2763 Mar 01 23:08	22°☾09'13		evening set	2764 Feb 13 20:28	5°☾36'05	
inferior conj	2763 Mar 08 03:08	16°☾50'27	3°40'21	inferior conj	2764 Feb 19 16:12	29°☾58'40	3°36'21
minimum elong	2763 Mar 08 03:28	16°☾49'31	3°40'22	minimum elong	2764 Feb 19 14:59	0°☾02'18	3°36'15
min. Earth dist.	2763 Mar 10 18:17	13°☾59'26	0.63127 AU		2764 Feb 19 15:45	30°☾	
morning rise	2763 Mar 14 05:47	10°☾46'06		min. Earth dist.	2764 Feb 21 15:44	27°☾36'28	0.64872 AU
direct	2763 Mar 21 03:54	8°☾05'30		morning rise	2764 Feb 25 08:15	23°☾47'55	
desc. node	2763 Mar 27 07:23	9°☾52'59		direct	2764 Mar 03 01:42	20°☾57'54	
morning max el	2763 Apr 04 01:39	16°☾02'23	27°46'05	desc. node	2764 Mar 13 04:27	25°☾44'34	
	2763 Apr 15 13:15	0°☾		morning max el	2764 Mar 16 11:10	28°☾46'58	27°11'53
	2763 May 03 19:19	0°☾			2764 Mar 17 15:30	0°☾	
morning set	2763 May 08 08:35	8°☾51'40			2764 Apr 08 08:54	0°☾	
max. Earth dist.	2763 May 13 17:15	19°☾57'13	1.32806 AU	morning set	2764 Apr 20 22:45	22°☾31'27	
					2764 Apr 24 17:13	0°☾	
superior conj	2763 May 16 01:53	25°☾00'37	0°-4'-11	max. Earth dist.	2764 Apr 25 14:31	1°☾48'25	1.33799 AU
minimum elong	2763 May 16 02:05	25°☾01'42	0°04'10				
behind sun begin	2763 May 15 21:00	24°☾34'12		superior conj	2764 Apr 29 05:28	9°☾19'58	0°-32'-15
behind sun end	2763 May 16 07:11	25°☾29'12		minimum elong	2764 Apr 29 07:07	9°☾28'38	0°31'56
asc. node	2763 May 16 11:27	25°☾52'12		asc. node	2764 May 02 08:30	15°☾57'40	
	2763 May 18 09:12	0°☾		evening rise	2764 May 06 14:02	24°☾55'33	
evening rise	2763 May 23 03:10	10°☾13'19			2764 May 09 00:59	0°☾	
	2763 Jun 02 08:05	0°☾		evening max el	2764 May 27 04:45	28°☾17'02	21°53'12
evening max el	2763 Jun 15 11:41	17°☾45'21	23°28'20		2764 May 29 02:20	0°☾	
desc. node	2763 Jun 23 06:36	23°☾16'56		retrograde	2764 Jun 08 18:55	4°☾29'31	
retrograde	2763 Jun 29 02:08	24°☾33'40		desc. node	2764 Jun 09 03:38	4°☾29'13	
evening set	2763 Jul 03 01:29	23°☾59'07		evening set	2764 Jun 11 11:17	4°☾13'26	
min. Earth dist.	2763 Jul 09 21:45	20°☾49'10	0.55858 AU	inferior conj	2764 Jun 20 19:46	0°☾10'08	-3°-14'-6
inferior conj	2763 Jul 11 22:26	19°☾36'52	-4°-32'-50	minimum elong	2764 Jun 20 11:49	0°☾21'16	3°11'44
minimum elong	2763 Jul 11 16:04	19°☾46'23	4°31'47	min. Earth dist.	2764 Jun 20 08:54	0°☾25'20	0.54978 AU
morning rise	2763 Jul 20 09:49	15°☾42'10			2764 Jun 21 03:01	30°☾	
direct	2763 Jul 23 05:18	15°☾22'40		morning rise	2764 Jun 29 13:45	26°☾17'43	
morning max el	2763 Aug 02 15:34	20°☾12'48	20°14'57	direct	2764 Jul 02 17:54	25°☾55'31	
	2763 Aug 10 11:07	0°☾			2764 Jul 12 23:07	0°☾	
asc. node	2763 Aug 12 10:40	3°☾13'01		morning max el	2764 Jul 14 18:51	1°☾34'06	21°41'55
morning set	2763 Aug 21 01:22	19°☾34'04		asc. node	2764 Jul 29 07:45	22°☾13'18	
	2763 Aug 26 03:19	0°☾			2764 Aug 02 07:31	0°☾	
				morning set	2764 Aug 04 10:29	4°☾21'39	
superior conj	2763 Aug 28 18:20	5°☾20'36	1°45'13				
minimum elong	2763 Aug 28 18:22	5°☾20'51	1°45'12	superior conj	2764 Aug 11 18:03	19°☾45'25	1°41'47
max. Earth dist.	2763 Sep 03 01:00	15°☾44'24	1.36560 AU	minimum elong	2764 Aug 11 16:46	19°☾38'43	1°41'43
evening rise	2763 Sep 06 23:41	23°☾07'37		max. Earth dist.	2764 Aug 15 13:57	27°☾38'22	1.34885 AU
	2763 Sep 10 20:02	0°☾			2764 Aug 16 18:09	0°☾	
desc. node	2763 Sep 19 05:57	13°☾55'49		evening rise	2764 Aug 20 00:56	6°☾25'23	
	2763 Sep 30 05:49	0°☾			2764 Sep 02 12:37	0°☾	
evening max el	2763 Oct 12 16:35	14°☾43'28	25°54'49	desc. node	2764 Sep 05 02:58	4°☾02'14	
retrograde	2763 Oct 25 03:17	21°☾48'26		evening max el	2764 Sep 24 05:01	28°☾20'09	26°49'27
evening set	2763 Oct 31 06:14	19°☾16'45			2764 Sep 26 00:29	0°☾	
min. Earth dist.	2763 Nov 04 13:49	14°☾37'37	0.66799 AU	retrograde	2764 Oct 07 06:59	5°☾35'31	
inferior conj	2763 Nov 05 22:15	12°☾55'37	0°-51'-9	evening set	2764 Oct 13 22:56	2°☾54'55	
minimum elong	2763 Nov 05 23:36	12°☾51'22	0°50'35		2764 Oct 16 23:23	30°☾	
asc. node	2763 Nov 08 09:53	9°☾56'19		min. Earth dist.	2764 Oct 17 23:22	28°☾52'38	0.65756 AU
morning rise	2763 Nov 11 17:54	7°☾01'10		inferior conj	2764 Oct 19 19:40	26°☾43'11	-1°-50'-21
direct	2763 Nov 14 21:29	6°☾04'11		minimum elong	2764 Oct 19 22:40	26°☾34'24	1°49'10
morning max el	2763 Nov 21 19:16	9°☾54'55	19°00'35	asc. node	2764 Oct 25 06:57	21°☾24'57	
	2763 Dec 06 08:52	0°☾		morning rise	2764 Oct 25 23:53	21°☾00'51	
morning set	2763 Dec 14 03:44	12°☾07'32		direct	2764 Oct 28 18:44	20°☾17'59	
desc. node	2763 Dec 16 05:16	15°☾21'08		morning max el	2764 Nov 04 08:14	23°☾51'55	18°20'18
	2763 Dec 25 13:51	0°☾			2764 Nov 09 08:24	0°☾	

morning set	2764 Nov 23 13:58	22° \mathbb{M} 19'33		superior conj	2765 Nov 18 11:45	25° \mathbb{M} 59'12	0°03'18
	2764 Nov 28 08:07	0° \mathbb{X}		minimum elong	2765 Nov 18 12:08	26° \mathbb{M} 00'46	0°03'15
desc. node	2764 Dec 02 02:17	6° \mathbb{X} 00'34		behind sun begin	2765 Nov 18 02:02	25° \mathbb{M} 19'59	
				behind sun end	2765 Nov 18 22:13	26° \mathbb{M} 41'29	
superior conj	2764 Dec 08 21:37	16° \mathbb{X} 46'46	0°-44'-50	desc. node	2765 Nov 18 23:18	26° \mathbb{M} 45'52	
minimum elong	2764 Dec 08 15:53	16° \mathbb{X} 24'14	0°44'07		2765 Nov 20 23:41	0° \mathbb{X}	
max. Earth dist.	2764 Dec 10 15:43	19° \mathbb{X} 32'15	1.45176 AU	max. Earth dist.	2765 Nov 23 10:22	3° \mathbb{X} 53'33	1.44639 AU
	2764 Dec 17 07:56	0° \mathbb{Z}		evening rise	2765 Dec 04 17:41	21° \mathbb{X} 31'34	
evening rise	2764 Dec 25 04:29	12° \mathbb{Z} 18'15			2765 Dec 10 06:31	0° \mathbb{Z}	
	2765 Jan 05 12:49	0° \approx		greatest brilliancy	2765 Dec 25 05:33	21° \mathbb{Z} 57'37	-0.6m
greatest brilliancy	2765 Jan 08 06:22	4° \approx 07'50	-0.7m	evening max el	2765 Dec 31 16:48	29° \mathbb{Z} 50'17	20°13'39
evening max el	2765 Jan 17 12:50	16° \approx 19'44	19°17'19		2765 Dec 31 20:36	0° \approx	
asc. node	2765 Jan 21 06:14	19° \approx 22'37		asc. node	2766 Jan 08 03:17	4° \approx 25'06	
retrograde	2765 Jan 24 14:35	20° \approx 22'47		retrograde	2766 Jan 08 12:35	4° \approx 25'56	
evening set	2765 Jan 27 23:24	19° \approx 16'31		evening set	2766 Jan 12 05:40	3° \approx 05'48	
inferior conj	2765 Feb 02 13:38	13° \approx 22'44	3°18'13		2766 Jan 15 08:54	30° \mathbb{R} \mathbb{Z}	
minimum elong	2765 Feb 02 11:28	13° \approx 29'44	3°17'49	inferior conj	2766 Jan 17 16:41	26° \mathbb{Z} 58'35	2°49'16
min. Earth dist.	2765 Feb 03 22:00	11° \approx 38'30	0.66223 AU	minimum elong	2766 Jan 17 14:07	27° \mathbb{Z} 07'14	2°48'35
morning rise	2765 Feb 07 22:43	7° \approx 08'29		min. Earth dist.	2766 Jan 18 11:22	25° \mathbb{Z} 55'25	0.67164 AU
direct	2765 Feb 14 05:47	4° \approx 22'25		morning rise	2766 Jan 22 22:00	20° \mathbb{Z} 43'02	
morning max el	2765 Feb 26 20:56	11° \approx 51'46	26°09'56	direct	2766 Jan 28 15:26	18° \mathbb{Z} 10'54	
desc. node	2765 Feb 28 01:30	13° \approx 05'38		morning max el	2766 Feb 09 05:41	25° \mathbb{Z} 06'21	24°49'39
	2765 Mar 13 09:47	0° \mathbb{X}			2766 Feb 13 16:21	0° \approx	
	2765 Apr 01 00:06	0° \mathbb{Y}		desc. node	2766 Feb 14 22:33	1° \approx 30'40	
morning set	2765 Apr 03 23:59	5° \mathbb{Y} 28'42			2766 Mar 06 21:39	0° \mathbb{X}	
max. Earth dist.	2765 Apr 08 00:26	13° \mathbb{Y} 07'31	1.35249 AU	morning set	2766 Mar 17 07:12	17° \mathbb{X} 29'34	
				max. Earth dist.	2766 Mar 20 23:42	24° \mathbb{X} 09'02	1.37114 AU
superior conj	2765 Apr 13 01:57	23° \mathbb{Y} 13'01	-1°00'-35		2766 Mar 24 02:51	0° \mathbb{Y}	
minimum elong	2765 Apr 13 05:04	23° \mathbb{Y} 28'56	1°00'02				
	2765 Apr 16 09:06	0° \mathbb{Z}		superior conj	2766 Mar 27 12:18	6° \mathbb{Y} 32'04	-1°-27'-16
asc. node	2765 Apr 19 05:32	5° \mathbb{Z} 55'01		minimum elong	2766 Mar 27 16:33	6° \mathbb{Y} 52'47	1°26'41
evening rise	2765 Apr 20 21:50	9° \mathbb{Z} 22'59		evening rise	2766 Apr 05 00:20	23° \mathbb{Y} 29'13	
	2765 May 02 00:30	0° \mathbb{I}		asc. node	2766 Apr 06 02:35	25° \mathbb{Y} 40'01	
evening max el	2765 May 09 07:43	9° \mathbb{I} 16'16	20°29'40		2766 Apr 08 07:34	0° \mathbb{Z}	
retrograde	2765 May 20 08:10	14° \mathbb{I} 38'00		evening max el	2766 Apr 21 22:43	20° \mathbb{Z} 55'54	19°24'10
evening set	2765 May 22 09:27	14° \mathbb{I} 27'36		retrograde	2766 May 01 05:59	25° \mathbb{Z} 26'18	
desc. node	2765 May 27 00:41	12° \mathbb{I} 56'51		evening set	2766 May 03 06:37	25° \mathbb{Z} 14'24	
inferior conj	2765 May 31 13:55	10° \mathbb{I} 29'49	-1°-20'-1	inferior conj	2766 May 11 19:19	21° \mathbb{Z} 07'33	0°36'21
minimum elong	2765 May 31 10:08	10° \mathbb{I} 35'18	1°18'38	minimum elong	2766 May 11 20:50	21° \mathbb{Z} 05'05	0°35'48
min. Earth dist.	2765 Jun 01 21:15	9° \mathbb{I} 44'24	0.55025 AU	desc. node	2766 May 13 21:44	19° \mathbb{Z} 45'19	
morning rise	2765 Jun 09 09:18	6° \mathbb{I} 19'23		min. Earth dist.	2766 May 14 11:53	19° \mathbb{Z} 22'43	0.56013 AU
direct	2765 Jun 13 03:56	5° \mathbb{I} 48'39		morning rise	2766 May 20 07:06	16° \mathbb{Z} 24'11	
morning max el	2765 Jun 26 13:02	12° \mathbb{I} 17'37	23°22'09	direct	2766 May 25 00:11	15° \mathbb{Z} 33'39	
	2765 Jul 09 21:20	0° \mathbb{S}		morning max el	2766 Jun 08 03:22	22° \mathbb{Z} 43'30	25°03'23
asc. node	2765 Jul 16 04:49	11° \mathbb{S} 39'42			2766 Jun 14 14:41	0° \mathbb{I}	
morning set	2765 Jul 19 21:49	19° \mathbb{S} 15'56			2766 Jul 02 09:24	0° \mathbb{S}	
	2765 Jul 24 22:06	0° \mathbb{Q}		asc. node	2766 Jul 03 01:51	1° \mathbb{S} 24'56	
				morning set	2766 Jul 04 09:37	4° \mathbb{S} 11'18	
superior conj	2765 Jul 26 23:59	4° \mathbb{Q} 28'36	1°32'16				
minimum elong	2765 Jul 26 21:54	4° \mathbb{Q} 17'23	1°32'05	superior conj	2766 Jul 11 09:43	19° \mathbb{S} 22'08	1°17'44
max. Earth dist.	2765 Jul 29 11:53	9° \mathbb{Q} 47'36	1.33589 AU	minimum elong	2766 Jul 11 07:20	19° \mathbb{S} 09'08	1°17'23
evening rise	2765 Aug 03 15:08	20° \mathbb{Q} 20'47		max. Earth dist.	2766 Jul 12 17:38	22° \mathbb{S} 16'02	1.32704 AU
	2765 Aug 08 15:36	0° \mathbb{P}			2766 Jul 16 08:10	0° \mathbb{Q}	
desc. node	2765 Aug 22 23:59	23° \mathbb{P} 42'34		evening rise	2766 Jul 18 14:34	4° \mathbb{Q} 43'02	
	2765 Aug 27 12:40	0° \mathbb{A}			2766 Aug 01 07:43	0° \mathbb{P}	
evening max el	2765 Sep 06 16:48	11° \mathbb{A} 42'04	27°21'01	desc. node	2766 Aug 09 21:00	12° \mathbb{P} 45'22	
retrograde	2765 Sep 20 04:59	19° \mathbb{A} 00'27		evening max el	2766 Aug 20 02:07	24° \mathbb{P} 36'41	27°23'22
evening set	2765 Sep 27 06:30	16° \mathbb{A} 19'11			2766 Aug 27 05:12	0° \mathbb{A}	
min. Earth dist.	2765 Oct 01 00:35	12° \mathbb{A} 52'33	0.64357 AU	retrograde	2766 Sep 02 20:44	1° \mathbb{A} 53'09	
inferior conj	2765 Oct 03 09:26	10° \mathbb{A} 21'09	-2°-49'-39		2766 Sep 09 02:33	30° \mathbb{R} \mathbb{P}	
minimum elong	2765 Oct 03 14:00	10° \mathbb{A} 08'58	2°48'04	evening set	2766 Sep 10 01:28	29° \mathbb{P} 22'59	
morning rise	2765 Oct 09 23:36	4° \mathbb{A} 54'09		min. Earth dist.	2766 Sep 13 15:52	26° \mathbb{P} 26'20	0.62627 AU
asc. node	2765 Oct 12 04:01	4° \mathbb{A} 22'15		inferior conj	2766 Sep 16 12:40	23° \mathbb{P} 42'26	-3°-45'-34
direct	2765 Oct 12 12:06	4° \mathbb{A} 21'39		minimum elong	2766 Sep 16 18:12	23° \mathbb{P} 29'13	3°44'02
morning max el	2765 Oct 19 00:17	7° \mathbb{A} 47'57	17°56'58	morning rise	2766 Sep 23 13:38	18° \mathbb{P} 33'55	
	2765 Nov 02 21:14	0° \mathbb{M}		direct	2766 Sep 25 22:34	18° \mathbb{P} 08'21	
morning set	2765 Nov 05 04:35	3° \mathbb{M} 54'49		asc. node	2766 Sep 29 01:05	18° \mathbb{P} 53'21	

morning max el	2766 Oct 02 16:21	21° $\overline{\text{M}}$ 35'16	17°51'23	direct	2767 Sep 08 22:20	1° $\overline{\text{M}}$ 30'24	
	2766 Oct 09 02:15	0° $\underline{\text{A}}$		asc. node	2767 Sep 15 22:06	4° $\overline{\text{M}}$ 49'08	
morning set	2766 Oct 18 17:55	16° $\underline{\text{A}}$ 35'03		morning max el	2767 Sep 16 05:19	5° $\overline{\text{M}}$ 06'17	18°04'45
	2766 Oct 26 08:45	0° $\overline{\text{M}}$		morning set	2767 Oct 01 23:51	0° $\underline{\text{A}}$ 03'10	
					2767 Oct 01 23:10	0° $\underline{\text{A}}$	
superior conj	2766 Oct 30 03:09	6° $\overline{\text{M}}$ 26'29	0°45'07				
minimum elong	2766 Oct 30 07:05	6° $\overline{\text{M}}$ 43'07	0°44'35	superior conj	2767 Oct 11 20:55	18° $\underline{\text{A}}$ 11'10	1°15'46
desc. node	2766 Nov 05 20:18	17° $\overline{\text{M}}$ 33'06		minimum elong	2767 Oct 12 01:10	18° $\underline{\text{A}}$ 30'02	1°15'17
max. Earth dist.	2766 Nov 06 01:36	17° $\overline{\text{M}}$ 54'33	1.43442 AU		2767 Oct 18 16:28	0° $\overline{\text{M}}$	
	2766 Nov 13 16:34	0° $\overline{\text{A}}$		max. Earth dist.	2767 Oct 19 12:07	1° $\overline{\text{M}}$ 22'35	1.41736 AU
evening rise	2766 Nov 14 03:01	0° $\overline{\text{A}}$ 40'35		desc. node	2767 Oct 23 17:19	8° $\overline{\text{M}}$ 19'27	
	2766 Dec 03 22:03	0° $\overline{\text{B}}$		evening rise	2767 Oct 25 01:08	10° $\overline{\text{M}}$ 27'46	
greatest brilliancy	2766 Dec 09 14:30	7° $\overline{\text{B}}$ 33'47	-0.4m		2767 Nov 06 18:25	0° $\overline{\text{A}}$	
evening max el	2766 Dec 14 15:12	13° $\overline{\text{B}}$ 21'33	21°22'35	greatest brilliancy	2767 Nov 22 10:41	21° $\overline{\text{A}}$ 25'00	-0.3m
retrograde	2766 Dec 23 10:09	18° $\overline{\text{B}}$ 34'50		evening max el	2767 Nov 27 08:30	26° $\overline{\text{A}}$ 54'57	22°39'47
asc. node	2766 Dec 26 00:20	17° $\overline{\text{B}}$ 57'53			2767 Nov 30 18:41	0° $\overline{\text{B}}$	
evening set	2766 Dec 27 13:21	16° $\overline{\text{B}}$ 59'26		retrograde	2767 Dec 07 05:33	2° $\overline{\text{B}}$ 46'54	
inferior conj	2767 Jan 01 22:57	10° $\overline{\text{B}}$ 42'06	2°11'41	evening set	2767 Dec 11 20:46	0° $\overline{\text{B}}$ 54'55	
minimum elong	2767 Jan 01 20:31	10° $\overline{\text{B}}$ 50'31	2°10'53	asc. node	2767 Dec 12 21:22	29° $\overline{\text{A}}$ 59'10	
min. Earth dist.	2767 Jan 02 05:27	10° $\overline{\text{B}}$ 19'36	0.67715 AU		2767 Dec 12 21:02	30° $\overline{\text{R}}$ $\overline{\text{A}}$	
morning rise	2767 Jan 07 03:20	4° $\overline{\text{B}}$ 27'16		inferior conj	2767 Dec 17 06:30	24° $\overline{\text{A}}$ 31'08	1°27'07
direct	2767 Jan 12 05:53	2° $\overline{\text{B}}$ 15'22		minimum elong	2767 Dec 17 04:39	24° $\overline{\text{A}}$ 37'33	1°26'25
morning max el	2767 Jan 22 14:29	8° $\overline{\text{B}}$ 25'10	23°21'18	min. Earth dist.	2767 Dec 17 01:51	24° $\overline{\text{A}}$ 47'14	0.67903 AU
greatest brilliancy	2767 Jan 28 00:53	14° $\overline{\text{B}}$ 32'23	-0.2m	morning rise	2767 Dec 22 12:27	18° $\overline{\text{A}}$ 19'07	
desc. node	2767 Feb 01 19:34	20° $\overline{\text{B}}$ 40'44		direct	2767 Dec 27 00:07	16° $\overline{\text{A}}$ 30'04	
	2767 Feb 08 11:53	0° \approx		morning max el	2768 Jan 05 02:50	21° $\overline{\text{A}}$ 50'51	21°54'26
morning set	2767 Feb 26 14:08	28° \approx 16'57		greatest brilliancy	2768 Jan 09 20:09	27° $\overline{\text{A}}$ 09'50	-0.4m
	2767 Feb 27 14:32	0° $\overline{\text{K}}$			2768 Jan 12 02:13	0° $\overline{\text{B}}$	
max. Earth dist.	2767 Mar 02 18:20	5° $\overline{\text{K}}$ 25'56	1.39240 AU	desc. node	2768 Jan 19 16:34	10° $\overline{\text{B}}$ 23'15	
					2768 Feb 01 19:30	0° \approx	
superior conj	2767 Mar 10 08:35	19° $\overline{\text{K}}$ 06'59	-1°-49'-33	morning set	2768 Feb 06 16:02	7° \approx 40'11	
minimum elong	2767 Mar 10 12:54	19° $\overline{\text{K}}$ 27'01	1°49'12	max. Earth dist.	2768 Feb 12 16:37	17° \approx 31'15	1.41371 AU
	2767 Mar 16 02:21	0° $\overline{\text{Y}}$			2768 Feb 19 23:32	0° $\overline{\text{K}}$	
evening rise	2767 Mar 19 18:41	7° $\overline{\text{Y}}$ 06'37					
asc. node	2767 Mar 23 23:38	15° $\overline{\text{Y}}$ 07'32		superior conj	2768 Feb 20 09:52	0° $\overline{\text{K}}$ 45'27	-2°-3'-36
	2767 Apr 02 03:12	0° $\overline{\text{B}}$		minimum elong	2768 Feb 20 12:11	0° $\overline{\text{K}}$ 55'39	2°03'33
evening max el	2767 Apr 04 23:58	3° $\overline{\text{B}}$ 13'56	18°38'44	evening rise	2768 Mar 02 01:26	20° $\overline{\text{K}}$ 06'35	
retrograde	2767 Apr 12 21:14	7° $\overline{\text{B}}$ 05'31			2768 Mar 07 11:10	0° $\overline{\text{Y}}$	
evening set	2767 Apr 15 03:16	6° $\overline{\text{B}}$ 47'46		asc. node	2768 Mar 09 20:40	4° $\overline{\text{Y}}$ 10'54	
inferior conj	2767 Apr 22 20:40	2° $\overline{\text{B}}$ 22'39	2°07'38	evening max el	2768 Mar 18 08:08	16° $\overline{\text{Y}}$ 00'58	18°13'21
minimum elong	2767 Apr 23 00:29	2° $\overline{\text{B}}$ 15'22	2°06'31	retrograde	2768 Mar 25 07:14	19° $\overline{\text{Y}}$ 30'35	
min. Earth dist.	2767 Apr 26 05:34	29° $\overline{\text{Y}}$ 50'03	0.57728 AU	evening set	2768 Mar 27 19:12	19° $\overline{\text{Y}}$ 04'23	
	2767 Apr 26 00:04	30° $\overline{\text{R}}$ $\overline{\text{Y}}$		inferior conj	2768 Apr 03 19:07	14° $\overline{\text{Y}}$ 17'47	3°05'43
morning rise	2767 Apr 30 17:18	27° $\overline{\text{Y}}$ 05'49		minimum elong	2768 Apr 03 22:21	14° $\overline{\text{Y}}$ 10'36	3°05'07
desc. node	2767 Apr 30 18:45	27° $\overline{\text{Y}}$ 04'08		min. Earth dist.	2768 Apr 07 04:17	11° $\overline{\text{Y}}$ 19'06	0.59828 AU
direct	2767 May 06 10:50	25° $\overline{\text{Y}}$ 43'47		morning rise	2768 Apr 10 21:55	8° $\overline{\text{Y}}$ 35'31	
	2767 May 17 00:05	0° $\overline{\text{B}}$		desc. node	2768 Apr 16 15:47	6° $\overline{\text{Y}}$ 39'19	
morning max el	2767 May 20 19:39	3° $\overline{\text{B}}$ 19'16	26°30'06	direct	2768 Apr 17 09:56	6° $\overline{\text{Y}}$ 37'45	
	2767 Jun 09 01:08	0° $\overline{\text{II}}$		morning max el	2768 May 01 17:39	14° $\overline{\text{Y}}$ 27'11	27°28'28
morning set	2767 Jun 18 20:20	19° $\overline{\text{II}}$ 02'41			2768 May 14 05:42	0° $\overline{\text{B}}$	
asc. node	2767 Jun 19 22:53	21° $\overline{\text{II}}$ 23'17			2768 May 31 08:41	0° $\overline{\text{II}}$	
	2767 Jun 23 22:08	0° $\overline{\text{B}}$					
superior conj	2767 Jun 25 21:18	4° $\overline{\text{B}}$ 19'32	0°58'58	morning set	2768 Jun 02 04:11	3° $\overline{\text{II}}$ 43'17	
minimum elong	2767 Jun 25 19:07	4° $\overline{\text{B}}$ 07'29	0°58'33	asc. node	2768 Jun 05 19:54	11° $\overline{\text{II}}$ 29'01	
max. Earth dist.	2767 Jun 26 04:25	4° $\overline{\text{B}}$ 58'44	1.32223 AU	max. Earth dist.	2768 Jun 08 16:29	17° $\overline{\text{II}}$ 43'16	1.32136 AU
evening rise	2767 Jul 02 20:21	19° $\overline{\text{B}}$ 23'16		superior conj	2768 Jun 09 08:54	19° $\overline{\text{II}}$ 13'35	0°36'37
	2767 Jul 08 02:45	0° $\overline{\text{Q}}$		minimum elong	2768 Jun 09 07:21	19° $\overline{\text{II}}$ 05'03	0°36'17
	2767 Jul 26 23:53	0° $\overline{\text{M}}$			2768 Jun 14 06:55	0° $\overline{\text{B}}$	
desc. node	2767 Jul 27 18:01	0° $\overline{\text{M}}$ 55'10		evening rise	2768 Jun 16 06:03	4° $\overline{\text{B}}$ 12'22	
evening max el	2767 Aug 02 06:34	6° $\overline{\text{M}}$ 52'25	26°52'44		2768 Jun 29 23:39	0° $\overline{\text{Q}}$	
retrograde	2767 Aug 16 04:52	14° $\overline{\text{M}}$ 04'54		desc. node	2768 Jul 13 15:03	17° $\overline{\text{Q}}$ 49'02	
evening set	2767 Aug 23 03:30	11° $\overline{\text{M}}$ 59'07		evening max el	2768 Jul 14 03:52	18° $\overline{\text{Q}}$ 20'03	25°50'03
min. Earth dist.	2767 Aug 26 20:45	9° $\overline{\text{M}}$ 20'51	0.60651 AU	retrograde	2768 Jul 28 03:38	25° $\overline{\text{Q}}$ 28'27	
inferior conj	2767 Aug 30 02:04	6° $\overline{\text{M}}$ 39'04	-4°-32'-14	evening set	2768 Aug 03 07:42	23° $\overline{\text{Q}}$ 57'55	
minimum elong	2767 Aug 30 07:06	6° $\overline{\text{M}}$ 28'29	4°31'20	min. Earth dist.	2768 Aug 07 16:10	21° $\overline{\text{Q}}$ 21'08	0.58590 AU
morning rise	2767 Sep 06 13:53	1° $\overline{\text{M}}$ 51'56		inferior conj	2768 Aug 10 22:01	18° $\overline{\text{Q}}$ 59'57	-5°00'-11
				minimum elong	2768 Aug 11 00:04	18° $\overline{\text{Q}}$ 56'12	5°00'05

morning rise	2768 Aug 18 19:56	14°♊36'12		min. Earth dist.	2769 Jul 20 05:29	2°♊18'53	0.56717 AU
direct	2768 Aug 21 07:02	14°♊16'31		inferior conj	2769 Jul 22 21:56	0°♊36'58	-4°-55'-43
morning max el	2768 Aug 29 11:55	18°♊11'12	18°38'31	minimum elong	2769 Jul 22 18:35	0°♊42'17	4°55'28
asc. node	2768 Sep 01 19:07	21°♊53'53			2769 Jul 23 21:22	30°♋♌	
	2768 Sep 07 03:27	0°♎		morning rise	2769 Jul 31 04:48	26°♌34'30	
morning set	2768 Sep 14 17:27	14°♎04'47		direct	2769 Aug 02 20:43	26°♌15'23	
	2768 Sep 22 23:38	0°♏			2769 Aug 11 14:53	0°♏	
				morning max el	2769 Aug 12 09:13	0°♏41'07	19°33'40
superior conj	2768 Sep 23 12:17	0°♏59'30	1°34'53	asc. node	2769 Aug 19 16:09	9°♏53'07	
minimum elong	2768 Sep 23 15:07	1°♏12'48	1°34'40	morning set	2769 Aug 29 19:05	28°♏29'46	
max. Earth dist.	2768 Sep 30 18:03	14°♏08'48	1.39722 AU		2769 Aug 30 13:02	0°♐	
evening rise	2768 Oct 04 21:36	21°♏16'40					
desc. node	2768 Oct 09 14:21	29°♏01'04		superior conj	2769 Sep 06 19:41	14°♐35'44	1°43'54
	2768 Oct 10 05:01	0°♑		minimum elong	2769 Sep 06 20:42	14°♐40'43	1°43'52
	2768 Oct 30 20:27	0°♑		max. Earth dist.	2769 Sep 12 22:11	26°♐16'34	1.37663 AU
evening max el	2768 Nov 08 22:14	10°♑31'52	23°59'44		2769 Sep 14 22:57	0°♑	
retrograde	2768 Nov 19 21:40	16°♑59'05		evening rise	2769 Sep 16 17:29	3°♑10'43	
evening set	2768 Nov 25 02:23	14°♑50'11		desc. node	2769 Sep 26 11:23	19°♑33'31	
asc. node	2768 Nov 28 18:22	10°♑48'30			2769 Oct 03 07:13	0°♒	
min. Earth dist.	2768 Nov 29 22:15	9°♑15'51	0.67741 AU	evening max el	2769 Oct 22 10:21	24°♒11'42	25°15'45
inferior conj	2768 Nov 30 13:36	8°♑23'53	0°36'50		2769 Oct 30 01:30	0°♑	
minimum elong	2768 Nov 30 12:44	8°♑26'49	0°36'28	retrograde	2769 Nov 03 09:37	1°♑06'28	
morning rise	2768 Dec 05 23:19	2°♑16'52			2769 Nov 07 08:42	30°♒♓	
direct	2768 Dec 09 21:06	0°♑50'18		evening set	2769 Nov 09 04:32	28°♒41'56	
morning max el	2768 Dec 17 22:06	5°♑27'57	20°36'16	min. Earth dist.	2769 Nov 13 16:19	23°♒42'23	0.67239 AU
greatest brilliancy	2768 Dec 23 22:42	12°♑32'34	-0.5m	inferior conj	2769 Nov 14 18:27	22°♒17'27	0°-18'-1
	2769 Jan 05 05:41	0°♑		minimum elong	2769 Nov 14 18:54	22°♒15'58	0°17'50
desc. node	2769 Jan 05 13:36	0°♑29'28		asc. node	2769 Nov 15 15:24	21°♒09'51	
morning set	2769 Jan 15 17:39	15°♑59'07		morning rise	2769 Nov 20 09:57	16°♒17'47	
	2769 Jan 24 14:20	0°♒		direct	2769 Nov 23 19:31	15°♒11'11	
max. Earth dist.	2769 Jan 24 22:45	0°♒33'57	1.43209 AU	morning max el	2769 Dec 01 01:19	19°♒16'07	19°31'08
				greatest brilliancy	2769 Dec 09 14:51	0°♑03'48	-0.7m
superior conj	2769 Jan 31 11:06	11°♒16'15	-2°-4'-27		2769 Dec 09 13:47	0°♑	
minimum elong	2769 Jan 31 08:43	11°♒06'14	2°04'24	desc. node	2769 Dec 23 10:38	20°♑52'25	
	2769 Feb 11 08:31	0°♒		morning set	2769 Dec 25 15:15	24°♑15'38	
evening rise	2769 Feb 12 16:31	2°♒20'58			2769 Dec 29 08:04	0°♑	
asc. node	2769 Feb 24 17:42	22°♒42'33		max. Earth dist.	2770 Jan 07 11:44	14°♑20'50	1.44519 AU
evening max el	2769 Mar 01 19:58	29°♒08'11	18°07'31				
	2769 Mar 02 18:10	0°♒		superior conj	2770 Jan 11 10:13	20°♑36'58	-1°-47'-16
retrograde	2769 Mar 08 08:22	2°♒31'29		minimum elong	2770 Jan 11 02:25	20°♑05'46	1°46'41
evening set	2769 Mar 11 01:38	1°♒55'27			2770 Jan 17 05:25	0°♒	
	2769 Mar 14 02:04	30°♒♑		evening rise	2770 Jan 25 11:37	13°♒41'23	
inferior conj	2769 Mar 17 11:48	26°♒47'48	3°34'28		2770 Feb 04 07:08	0°♒	
minimum elong	2769 Mar 17 13:13	26°♒44'10	3°34'21	asc. node	2770 Feb 11 14:45	10°♒32'19	
min. Earth dist.	2769 Mar 20 10:57	23°♒47'45	0.61970 AU	evening max el	2770 Feb 13 08:30	12°♒27'41	18°20'39
morning rise	2769 Mar 23 22:16	20°♒49'14		retrograde	2770 Feb 19 19:51	15°♒57'50	
direct	2769 Mar 30 19:13	18°♒21'06		evening set	2770 Feb 22 18:26	15°♒11'00	
desc. node	2769 Apr 03 12:48	19°♒00'39		inferior conj	2770 Feb 28 18:32	9°♒43'57	3°40'40
morning max el	2769 Apr 13 22:00	26°♒17'29	27°50'31	minimum elong	2770 Feb 28 18:09	9°♒45'02	3°40'39
	2769 Apr 17 09:12	0°♒		min. Earth dist.	2770 Mar 03 03:05	7°♒03'28	0.63909 AU
	2769 May 07 18:48	0°♒		morning rise	2770 Mar 06 16:10	3°♒36'04	
morning set	2769 May 17 07:14	18°♒06'56		direct	2770 Mar 13 12:59	0°♒49'45	
	2769 May 22 22:51	0°♒		desc. node	2770 Mar 21 09:50	3°♒45'07	
max. Earth dist.	2769 May 23 01:57	0°♒16'46	1.32443 AU	morning max el	2770 Mar 27 06:33	8°♒45'23	27°35'29
asc. node	2769 May 23 16:58	1°♒37'59			2770 Apr 12 18:31	0°♒	
					2770 Apr 30 01:30	0°♒	
superior conj	2769 May 24 18:52	3°♒58'50	0°11'22	morning set	2770 May 01 02:59	2°♒05'17	
minimum elong	2769 May 24 18:20	3°♒55'56	0°11'15	max. Earth dist.	2770 May 06 04:36	12°♒25'08	1.33168 AU
behind sun begin	2769 May 24 14:41	3°♒36'01					
behind sun end	2769 May 24 22:00	4°♒15'52		superior conj	2770 May 09 01:22	18°♒29'07	0°-15'-59
evening rise	2769 May 31 17:40	19°♒03'41		minimum elong	2770 May 09 02:09	18°♒33'23	0°15'49
	2769 Jun 06 02:14	0°♒		behind sun begin	2770 May 09 01:29	18°♒29'47	
evening max el	2769 Jun 25 18:39	29°♒05'08	24°23'23	behind sun end	2770 May 09 02:50	18°♒36'59	
	2769 Jun 26 18:09	0°♒		asc. node	2770 May 10 14:02	21°♒45'46	
desc. node	2769 Jun 30 12:04	2°♒57'16			2770 May 14 09:57	0°♒	
retrograde	2769 Jul 09 15:26	6°♒05'18		evening rise	2770 May 16 05:18	3°♒50'30	
evening set	2769 Jul 14 12:02	5°♒12'32			2770 May 30 12:43	0°♒	

evening max el	2770 Jun 07 08:34	9° \mathfrak{G} 32'15	22°47'07	retrograde	2771 Jun 01 04:54	26° \mathbb{I} 05'05	
desc. node	2770 Jun 17 09:04	15° \mathfrak{G} 44'27		evening set	2771 Jun 03 12:27	25° \mathbb{I} 52'45	
retrograde	2770 Jun 20 15:05	16° \mathfrak{G} 08'38		desc. node	2771 Jun 04 06:07	25° \mathbb{I} 43'52	
evening set	2770 Jun 23 23:36	15° \mathfrak{G} 43'55		inferior conj	2771 Jun 12 21:12	21° \mathbb{I} 54'11	-2°-28'-19
min. Earth dist.	2770 Jul 01 16:57	12° \mathfrak{G} 19'15	0.55373 AU	minimum elong	2771 Jun 12 14:29	22° \mathbb{I} 03'37	2°26'04
inferior conj	2770 Jul 03 03:01	11° \mathfrak{G} 30'20	-4°-5'-17	min. Earth dist.	2771 Jun 13 04:49	21° \mathbb{I} 43'29	0.54870 AU
minimum elong	2770 Jul 02 19:13	11° \mathfrak{G} 41'34	4°03'31	morning rise	2771 Jun 21 16:36	17° \mathbb{I} 56'10	
morning rise	2770 Jul 11 17:33	7° \mathfrak{G} 38'57		direct	2771 Jun 25 01:55	17° \mathbb{I} 31'17	
direct	2770 Jul 14 15:56	7° \mathfrak{G} 18'56		morning max el	2771 Jul 07 18:09	23° \mathbb{I} 32'40	22°23'33
morning max el	2770 Jul 25 19:15	12° \mathfrak{G} 28'57	20°49'51		2771 Jul 13 12:19	0° \mathfrak{G}	
asc. node	2770 Aug 06 13:14	28° \mathfrak{G} 34'30		asc. node	2771 Jul 24 10:18	17° \mathfrak{G} 46'58	
	2770 Aug 07 08:19	0° \mathcal{Q}		morning set	2771 Jul 29 12:25	28° \mathfrak{G} 02'22	
morning set	2770 Aug 14 02:08	13° \mathcal{Q} 11'18			2771 Jul 30 10:48	0° \mathcal{Q}	
superior conj	2770 Aug 21 14:34	28° \mathcal{Q} 46'41	1°44'34	superior conj	2771 Aug 05 17:16	13° \mathcal{Q} 20'32	1°38'26
minimum elong	2770 Aug 21 13:59	28° \mathcal{Q} 43'44	1°44'34	minimum elong	2771 Aug 05 15:34	13° \mathcal{Q} 11'36	1°38'19
	2770 Aug 22 04:54	0° \mathfrak{P}		max. Earth dist.	2771 Aug 08 22:50	20° \mathcal{Q} 06'12	1.34282 AU
max. Earth dist.	2770 Aug 26 06:15	8° \mathfrak{P} 07'33	1.35800 AU	evening rise	2771 Aug 13 16:42	29° \mathcal{Q} 37'56	
evening rise	2770 Aug 30 09:25	16° \mathfrak{P} 02'14			2771 Aug 13 21:14	0° \mathfrak{P}	
	2770 Sep 07 06:12	0° \mathfrak{A}		desc. node	2771 Aug 31 05:26	29° \mathfrak{P} 48'27	
desc. node	2770 Sep 13 08:25	9° \mathfrak{A} 51'47			2771 Aug 31 08:31	0° \mathfrak{A}	
	2770 Sep 27 19:08	0° \mathfrak{M}		evening max el	2771 Sep 17 10:59	21° \mathfrak{A} 24'34	27°06'09
evening max el	2770 Oct 04 22:31	7° \mathfrak{M} 52'00	26°20'24	retrograde	2771 Sep 30 18:09	28° \mathfrak{A} 42'07	
retrograde	2770 Oct 17 16:42	15° \mathfrak{M} 03'28		evening set	2771 Oct 07 14:33	26° \mathfrak{A} 00'19	
evening set	2770 Oct 24 01:22	12° \mathfrak{M} 27'04		min. Earth dist.	2771 Oct 11 12:11	22° \mathfrak{A} 13'13	0.65204 AU
min. Earth dist.	2770 Oct 28 05:46	8° \mathfrak{M} 03'31	0.66395 AU	inferior conj	2771 Oct 13 13:41	19° \mathfrak{A} 53'41	-2°-15'-40
inferior conj	2770 Oct 29 19:12	6° \mathfrak{M} 09'04	-1°-16'-5	minimum elong	2771 Oct 13 17:23	19° \mathfrak{A} 43'14	2°14'15
minimum elong	2770 Oct 29 21:15	6° \mathfrak{M} 02'49	1°15'15	morning rise	2771 Oct 19 21:59	14° \mathfrak{A} 17'10	
asc. node	2770 Nov 02 12:26	2° \mathfrak{M} 00'34		asc. node	2771 Oct 20 09:30	14° \mathfrak{A} 04'45	
morning rise	2770 Nov 04 18:19	0° \mathfrak{M} 19'26		direct	2771 Oct 22 13:46	13° \mathfrak{A} 39'09	
	2770 Nov 05 09:49	30° \mathfrak{R} \mathfrak{A}		morning max el	2771 Oct 29 01:56	17° \mathfrak{A} 09'04	18°08'08
direct	2770 Nov 07 17:46	29° \mathfrak{A} 29'06			2771 Nov 07 11:37	0° \mathfrak{M}	
	2770 Nov 10 03:03	0° \mathfrak{M}		morning set	2771 Nov 16 07:35	14° \mathfrak{M} 26'34	
morning max el	2770 Nov 14 11:22	3° \mathfrak{M} 11'52	18°41'23		2771 Nov 25 20:24	0° \mathfrak{X}	
	2770 Dec 03 01:55	0° \mathfrak{X}		desc. node	2771 Nov 27 04:43	2° \mathfrak{X} 09'44	
morning set	2770 Dec 05 08:47	3° \mathfrak{X} 37'18		superior conj	2771 Nov 30 19:15	7° \mathfrak{X} 54'37	0°-24'-13
desc. node	2770 Dec 10 07:42	11° \mathfrak{X} 27'24		minimum elong	2771 Nov 30 16:10	7° \mathfrak{X} 42'25	0°23'49
max. Earth dist.	2770 Dec 21 05:05	28° \mathfrak{X} 34'44	1.45151 AU	max. Earth dist.	2771 Dec 04 00:15	12° \mathfrak{X} 58'49	1.45041 AU
superior conj	2770 Dec 21 14:41	29° \mathfrak{X} 12'25	-1°-11'-24		2771 Dec 14 21:50	0° \mathfrak{Z}	
minimum elong	2770 Dec 21 06:18	28° \mathfrak{X} 39'29	1°10'27	evening rise	2771 Dec 17 05:45	3° \mathfrak{Z} 36'58	
	2770 Dec 22 02:48	0° \mathfrak{Z}		greatest brilliancy	2772 Jan 03 07:21	29° \mathfrak{Z} 32'37	-0.6m
evening rise	2771 Jan 06 07:39	24° \mathfrak{Z} 04'37			2772 Jan 03 15:03	0° \approx	
	2771 Jan 10 00:20	0° \approx		evening max el	2772 Jan 11 02:15	9° \approx 25'04	19°39'37
evening max el	2771 Jan 27 19:17	25° \approx 54'39	18°51'48	asc. node	2772 Jan 16 08:47	13° \approx 17'01	
asc. node	2771 Jan 29 11:46	27° \approx 28'34		retrograde	2772 Jan 18 10:51	13° \approx 40'44	
retrograde	2771 Feb 03 13:44	29° \approx 42'48		evening set	2772 Jan 21 23:01	12° \approx 28'46	
evening set	2771 Feb 06 18:25	28° \approx 44'04		inferior conj	2772 Jan 27 11:40	6° \approx 29'11	3°07'04
inferior conj	2771 Feb 12 11:32	22° \approx 59'34	3°30'08	minimum elong	2772 Jan 27 09:15	6° \approx 37'07	3°06'33
minimum elong	2771 Feb 12 09:51	23° \approx 04'49	3°29'55	min. Earth dist.	2772 Jan 28 14:04	5° \approx 02'10	0.66679 AU
min. Earth dist.	2771 Feb 14 04:35	20° \approx 52'26	0.65500 AU	morning rise	2772 Feb 01 18:47	0° \approx 14'18	
morning rise	2771 Feb 18 00:11	16° \approx 46'53			2772 Feb 02 01:17	30° \mathfrak{R} \mathfrak{Z}	
direct	2771 Feb 24 13:49	13° \approx 56'42		direct	2772 Feb 07 20:28	27° \mathfrak{Z} 32'57	
desc. node	2771 Mar 08 06:54	20° \approx 18'07			2772 Feb 14 10:47	0° \approx	
morning max el	2771 Mar 09 16:22	21° \approx 39'46	26°48'16	morning max el	2772 Feb 20 01:29	4° \approx 49'09	25°37'19
	2771 Mar 16 23:07	0° \mathfrak{H}		desc. node	2772 Feb 23 03:57	8° \approx 09'10	
	2771 Apr 05 23:08	0° \mathfrak{Y}			2772 Mar 10 09:49	0° \mathfrak{H}	
morning set	2771 Apr 14 12:11	15° \mathfrak{Y} 28'25		morning set	2772 Mar 27 06:27	28° \mathfrak{H} 03'53	
max. Earth dist.	2771 Apr 18 20:51	24° \mathfrak{Y} 00'15	1.34353 AU		2772 Mar 28 07:46	0° \mathfrak{Y}	
	2771 Apr 21 19:41	0° \mathfrak{B}		max. Earth dist.	2772 Mar 31 01:40	5° \mathfrak{Y} 08'27	1.35998 AU
superior conj	2771 Apr 23 02:14	2° \mathfrak{B} 38'03	0°-44'-22	superior conj	2772 Apr 05 18:53	16° \mathfrak{Y} 18'28	-1°-12'-14
minimum elong	2771 Apr 23 04:32	2° \mathfrak{B} 49'56	0°43'55	minimum elong	2772 Apr 05 22:33	16° \mathfrak{Y} 36'52	1°11'39
asc. node	2771 Apr 27 11:05	11° \mathfrak{B} 48'09			2772 Apr 12 12:19	0° \mathfrak{B}	
evening rise	2771 Apr 30 15:05	18° \mathfrak{B} 26'45		asc. node	2772 Apr 13 08:08	1° \mathfrak{B} 41'10	
	2771 May 06 09:47	0° \mathbb{I}		evening rise	2772 Apr 13 20:57	2° \mathfrak{B} 46'26	
evening max el	2771 May 20 05:22	20° \mathbb{I} 13'17	21°15'50		2772 Apr 30 02:54	0° \mathbb{I}	

evening max el	2772 May 01 13:37	1°II30'00	19°59'26	asc. node	2773 Mar 31 05:09	21°Y19'25	
retrograde	2772 May 11 19:51	6°II28'26			2773 Apr 04 20:48	0°8	
evening set	2772 May 13 19:49	6°II17'57		evening max el	2773 Apr 14 09:14	13°826'14	19°02'17
desc. node	2772 May 21 03:08	3°II16'45		retrograde	2773 Apr 23 00:40	17°838'23	
inferior conj	2772 May 22 18:33	2°II18'05	0°-28'-54	evening set	2773 Apr 25 03:22	17°824'21	
minimum elong	2772 May 22 17:13	2°II20'06	0°28'25	inferior conj	2773 May 03 07:49	13°809'57	1°19'02
min. Earth dist.	2772 May 24 17:54	1°II06'45	0.55340 AU	minimum elong	2773 May 03 10:44	13°804'51	1°18'03
	2772 May 26 16:32	30°R8		min. Earth dist.	2773 May 06 09:17	11°803'03	0.56676 AU
morning rise	2772 May 31 11:52	27°855'01		desc. node	2773 May 08 00:10	10°800'59	
direct	2772 Jun 04 15:39	27°817'12		morning rise	2773 May 11 13:52	8°811'57	
	2772 Jun 13 05:14	0°II		direct	2773 May 16 17:30	7°809'27	
morning max el	2772 Jun 18 09:44	4°II04'54	24°05'58	morning max el	2773 May 31 00:14	14°831'08	25°43'04
	2772 Jul 06 12:55	0°8			2773 Jun 12 07:45	0°II	
asc. node	2772 Jul 10 07:23	7°822'23		morning set	2773 Jun 27 11:40	27°II51'50	
morning set	2772 Jul 13 00:08	12°857'46		asc. node	2773 Jun 27 04:25	27°II13'38	
					2773 Jun 28 11:49	0°8	
superior conj	2772 Jul 20 01:03	28°808'47	1°26'41	superior conj	2773 Jul 04 11:46	13°804'07	1°10'15
minimum elong	2772 Jul 19 22:47	27°856'28	1°26'24	minimum elong	2773 Jul 04 09:25	12°851'12	1°09'51
	2772 Jul 20 21:38	0°8		max. Earth dist.	2773 Jul 05 09:00	15°800'34	1.32452 AU
max. Earth dist.	2772 Jul 22 00:34	2°824'45	1.33166 AU	evening rise	2773 Jul 11 13:40	28°816'26	
evening rise	2772 Jul 27 11:14	13°846'07			2773 Jul 12 09:46	0°8	
	2772 Aug 05 00:38	0°8			2773 Jul 29 06:57	0°8	
desc. node	2772 Aug 17 02:26	19°814'16		desc. node	2773 Aug 03 23:28	7°856'29	
	2772 Aug 25 12:09	0°8		evening max el	2773 Aug 12 05:43	17°816'04	27°14'24
evening max el	2772 Aug 29 22:13	4°837'12	27°25'55	retrograde	2773 Aug 26 01:43	24°830'33	
retrograde	2772 Sep 12 13:19	11°854'11		evening set	2773 Sep 02 05:29	22°808'56	
evening set	2772 Sep 19 17:10	9°816'23		min. Earth dist.	2773 Sep 05 19:55	19°822'14	0.61811 AU
min. Earth dist.	2772 Sep 23 09:21	6°803'19	0.63665 AU	inferior conj	2773 Sep 08 21:05	16°837'10	-4°-6'-58
inferior conj	2772 Sep 25 23:20	3°825'34	-3°-14'-4	minimum elong	2773 Sep 09 02:39	16°824'34	4°05'38
minimum elong	2772 Sep 26 04:26	3°812'34	3°12'25	morning rise	2773 Sep 16 02:44	11°837'36	
	2772 Sep 29 15:01	30°R8		direct	2773 Sep 18 11:11	11°813'58	
morning rise	2772 Oct 02 18:01	28°805'43		asc. node	2773 Sep 23 03:36	12°850'54	
direct	2772 Oct 05 04:45	27°836'26		morning max el	2773 Sep 25 09:25	14°843'13	17°54'46
asc. node	2772 Oct 06 06:33	27°842'11			2773 Oct 05 21:45	0°8	
	2772 Oct 10 15:29	0°8		morning set	2773 Oct 11 05:47	9°834'55	
morning max el	2772 Oct 11 18:17	1°801'49	17°52'17	superior conj	2773 Oct 21 22:20	28°838'17	0°59'35
morning set	2772 Oct 28 08:41	26°832'06		minimum elong	2773 Oct 22 02:43	28°857'11	0°59'01
	2772 Oct 30 08:48	0°8			2773 Oct 22 17:19	0°8	
superior conj	2772 Nov 09 19:15	17°836'18	0°22'15	max. Earth dist.	2773 Oct 29 08:00	11°805'43	1.42766 AU
minimum elong	2772 Nov 09 21:36	17°845'55	0°21'55	desc. node	2773 Oct 30 22:44	13°843'38	
desc. node	2772 Nov 13 01:43	22°856'06		evening rise	2773 Nov 05 04:18	22°804'41	
max. Earth dist.	2772 Nov 15 18:14	27°815'20	1.44212 AU		2773 Nov 10 07:04	0°8	
	2772 Nov 17 11:38	0°8			2773 Dec 01 09:05	0°8	
evening rise	2772 Nov 25 15:15	12°843'30		greatest brilliancy	2773 Dec 02 05:41	1°804'00	-0.4m
	2772 Dec 07 01:20	0°8		evening max el	2773 Dec 06 23:57	6°828'06	21°54'37
greatest brilliancy	2772 Dec 18 10:27	16°808'12	-0.5m	retrograde	2773 Dec 16 05:44	11°858'08	
evening max el	2772 Dec 24 03:54	22°856'02	20°41'42	asc. node	2773 Dec 20 02:50	10°836'28	
retrograde	2773 Jan 01 08:49	27°846'49		evening set	2773 Dec 20 13:53	10°815'34	
asc. node	2773 Jan 02 05:49	27°842'34		inferior conj	2773 Dec 25 23:21	3°854'48	1°53'33
evening set	2773 Jan 05 06:06	26°820'09		minimum elong	2773 Dec 25 21:07	4°802'34	1°52'46
inferior conj	2773 Jan 10 16:17	20°808'14	2°34'14	min. Earth dist.	2773 Dec 26 00:55	3°849'21	0.67838 AU
minimum elong	2773 Jan 10 13:44	20°817'01	2°33'29		2773 Dec 28 22:22	30°R8	
min. Earth dist.	2773 Jan 11 05:34	19°822'49	0.67449 AU	morning rise	2773 Dec 31 04:08	27°840'58	
morning rise	2773 Jan 15 20:56	13°853'03		direct	2774 Jan 05 00:10	25°838'58	
direct	2773 Jan 21 08:08	11°829'09			2774 Jan 13 07:29	0°8	
morning max el	2773 Feb 01 09:54	18°805'25	24°12'28	morning max el	2774 Jan 14 19:58	1°827'47	22°43'43
desc. node	2773 Feb 09 00:57	26°854'59		greatest brilliancy	2774 Jan 19 10:42	6°836'34	-0.3m
	2773 Feb 11 09:47	0°8		desc. node	2774 Jan 26 21:58	16°820'17	
	2773 Mar 03 11:46	0°8			2774 Feb 05 08:55	0°8	
morning set	2773 Mar 09 04:02	9°834'59		morning set	2774 Feb 17 22:55	19°847'09	
max. Earth dist.	2773 Mar 12 22:23	16°813'44	1.38006 AU	max. Earth dist.	2774 Feb 22 18:04	27°849'54	1.40167 AU
					2774 Feb 24 00:22	0°8	
superior conj	2773 Mar 19 23:45	29°820'00	-1°-37'-27	superior conj	2774 Mar 02 12:33	11°832'05	-1°-56'-48
minimum elong	2773 Mar 20 04:12	29°841'19	1°36'57	minimum elong	2774 Mar 02 16:19	11°849'16	1°56'34
	2773 Mar 20 08:06	0°Y					
evening rise	2773 Mar 28 20:21	16°Y41'29					

evening rise	2774 Mar 12 10:14	0°♈04'10		2775 Feb 16 08:23	0°♈	
	2774 Mar 12 09:21	0°♈		evening rise	2775 Feb 23 10:51	12°♈45'39
asc. node	2774 Mar 18 02:10	10°♈37'28		asc. node	2775 Mar 04 23:12	29°♈28'25
evening max el	2774 Mar 28 13:45	25°♈57'10	18°25'26		2775 Mar 05 07:04	0°♈
retrograde	2774 Apr 05 00:21	29°♈37'46		evening max el	2775 Mar 11 23:53	8°♈53'59 18°08'32
evening set	2774 Apr 07 08:47	29°♈16'47		retrograde	2775 Mar 18 17:14	12°♈19'07
inferior conj	2774 Apr 14 18:21	24°♈42'32	2°36'14	evening set	2775 Mar 21 07:25	11°♈48'58
minimum elong	2774 Apr 14 22:11	24°♈34'43	2°35'18	inferior conj	2775 Mar 28 01:04	6°♈53'38 3°21'05
min. Earth dist.	2774 Apr 18 04:57	21°♈55'41	0.58596 AU	minimum elong	2775 Mar 28 03:35	6°♈47'41 3°20'43
morning rise	2774 Apr 22 07:23	19°♈13'14		min. Earth dist.	2775 Mar 31 07:02	3°♈51'04 0.60751 AU
desc. node	2774 Apr 24 21:11	18°♈08'39		morning rise	2775 Apr 03 20:33	1°♈03'16
direct	2774 Apr 28 09:34	17°♈36'04			2775 Apr 05 17:22	30°♈
morning max el	2774 May 12 18:56	25°♈19'07	26°59'03	direct	2775 Apr 10 13:39	28°♈51'01
	2774 May 17 03:03	0°♉		desc. node	2775 Apr 11 18:12	28°♈55'00
	2774 Jun 05 13:22	0°♊			2775 Apr 15 15:31	0°♈
morning set	2774 Jun 11 21:22	12°♊39'09		morning max el	2775 Apr 24 19:47	6°♈45'06 27°42'24
asc. node	2774 Jun 14 01:27	17°♊15'29			2775 May 12 08:43	0°♉
				morning set	2775 May 27 03:29	27°♉13'51
superior conj	2774 Jun 18 23:33	28°♊00'27	0°49'52		2775 May 28 11:25	0°♊
minimum elong	2774 Jun 18 21:35	27°♊49'36	0°49'28	asc. node	2775 May 31 22:30	7°♊23'28
max. Earth dist.	2774 Jun 18 20:44	27°♊44'55	1.32135 AU	max. Earth dist.	2775 Jun 02 08:01	10°♊25'55 1.32211 AU
	2774 Jun 19 21:15	0°♊				
evening rise	2774 Jun 25 21:21	13°♊00'40		superior conj	2775 Jun 03 10:43	12°♊52'07 0°26'13
	2774 Jul 04 12:25	0°♋		minimum elong	2775 Jun 03 09:34	12°♊45'45 0°25'58
desc. node	2774 Jul 21 20:29	25°♋36'48		evening rise	2775 Jun 10 08:07	27°♊51'54
evening max el	2774 Jul 25 07:00	29°♋10'20	26°29'37		2775 Jun 11 08:25	0°♊
	2774 Jul 26 04:26	0°♋			2775 Jun 28 07:57	0°♋
retrograde	2774 Aug 08 06:23	6°♋22'04		evening max el	2775 Jul 07 01:15	10°♋18'53 25°15'28
evening set	2774 Aug 14 22:47	4°♋29'57		desc. node	2775 Jul 08 17:30	11°♋50'23
min. Earth dist.	2774 Aug 18 20:22	1°♋54'48	0.59762 AU	retrograde	2775 Jul 21 01:07	17°♋25'18
	2774 Aug 21 06:53	30°♋		evening set	2775 Jul 26 16:50	16°♋11'26
inferior conj	2774 Aug 22 03:25	29°♋19'02	-4°-47'-9	min. Earth dist.	2775 Jul 31 13:08	13°♋29'13 0.57744 AU
minimum elong	2774 Aug 22 07:33	29°♋10'52	4°46'38	inferior conj	2775 Aug 03 15:07	11°♋22'40 -5°-3'-13
morning rise	2774 Aug 29 19:43	24°♋42'12		minimum elong	2775 Aug 03 15:05	11°♋22'44 5°03'15
direct	2774 Sep 01 04:51	24°♋21'46		morning rise	2775 Aug 11 16:58	7°♋08'26
morning max el	2774 Sep 08 20:08	28°♋04'19	18°16'42	direct	2775 Aug 14 05:41	6°♋49'15
asc. node	2774 Sep 10 00:38	29°♋17'38		morning max el	2775 Aug 22 23:13	10°♋56'02 18°59'20
	2774 Sep 10 15:38	0°♌		asc. node	2775 Aug 27 21:42	16°♋47'37
morning set	2774 Sep 24 17:11	23°♌18'11			2775 Sep 04 17:33	0°♌
	2774 Sep 28 05:51	0°♍		morning set	2775 Sep 08 14:36	7°♌30'49
superior conj	2774 Oct 04 02:00	10°♍52'02	1°25'13	superior conj	2775 Sep 17 00:51	24°♌02'31 1°39'49
minimum elong	2774 Oct 04 05:46	11°♍09'09	1°24'51	minimum elong	2775 Sep 17 02:55	24°♌12'24 1°39'43
max. Earth dist.	2774 Oct 11 16:00	24°♍14'41	1.40890 AU		2775 Sep 20 04:28	0°♍
	2774 Oct 15 02:11	0°♍		max. Earth dist.	2775 Sep 23 20:13	6°♍41'20 1.38835 AU
evening rise	2774 Oct 16 11:15	2°♍16'02		evening rise	2775 Sep 27 18:00	13°♍33'38
desc. node	2774 Oct 17 19:46	4°♍28'21		desc. node	2775 Oct 04 16:49	25°♍06'40
	2774 Nov 03 16:12	0°♎			2775 Oct 07 19:09	0°♍
evening max el	2774 Nov 19 15:22	20°♎02'18	23°13'49		2775 Oct 29 16:58	0°♎
retrograde	2774 Nov 30 00:03	26°♎10'43		evening max el	2775 Nov 02 04:15	3°♎40'48 24°33'02
evening set	2774 Dec 04 20:45	24°♎11'32		retrograde	2775 Nov 13 14:31	10°♎21'02
asc. node	2774 Dec 06 23:52	22°♎03'33		evening set	2775 Nov 19 01:07	8°♎05'31
inferior conj	2774 Dec 10 06:57	17°♎45'53	1°06'27	min. Earth dist.	2775 Nov 23 17:31	2°♎45'30 0.67567 AU
minimum elong	2774 Dec 10 05:28	17°♎50'59	1°05'51	asc. node	2775 Nov 23 20:54	2°♎34'15
min. Earth dist.	2774 Dec 09 21:42	18°♎17'41	0.67871 AU	inferior conj	2775 Nov 24 13:20	1°♎39'24 0°14'05
morning rise	2774 Dec 15 14:13	11°♎35'31		minimum elong	2775 Nov 24 12:59	1°♎40'33 0°13'56
direct	2774 Dec 19 19:44	9°♎56'19		transit middle	2775 Nov 24 12:59	1°♎40'33 0°13'56
morning max el	2774 Dec 28 11:02	14°♎58'17	21°19'46	transit begin	2775 Nov 24 11:34	1°♎45'16
greatest brilliancy	2775 Jan 02 14:51	20°♎52'00	-0.4m	transit end	2775 Nov 24 14:23	1°♎35'51
	2775 Jan 09 10:38	0°♏			2775 Nov 25 19:30	30°♏
desc. node	2775 Jan 13 18:59	6°♏13'45		morning rise	2775 Nov 30 01:15	25°♏34'54
morning set	2775 Jan 28 13:04	28°♏38'20		direct	2775 Dec 03 17:37	24°♏17'05
	2775 Jan 29 09:44	0°♐		morning max el	2775 Dec 11 09:34	28°♏39'37 20°06'43
max. Earth dist.	2775 Feb 04 18:58	10°♐17'48	1.42203 AU		2775 Dec 12 16:08	0°♐
				greatest brilliancy	2775 Dec 18 07:31	7°♐00'10 -0.6m
superior conj	2775 Feb 12 04:09	22°♐42'43	-2°-5'-54	desc. node	2775 Dec 31 16:02	26°♐27'43
minimum elong	2775 Feb 12 04:46	22°♐45'25	2°05'54		2776 Jan 02 23:52	0°♑

morning set	2776 Jan 07 09:43	6°☿46'18			2776 Dec 25 21:50	0°☿	
max. Earth dist.	2776 Jan 18 03:53	23°☿39'52	1.43844 AU	max. Earth dist.	2776 Dec 30 19:38	7°☿42'31	1.44878 AU
	2776 Jan 22 02:11	0°☿					
superior conj	2776 Jan 23 18:14	2°☿43'21	-1°-59'-34	superior conj	2777 Jan 02 07:47	11°☿40'02	-1°-34'-6
minimum elong	2776 Jan 23 13:21	2°☿23'21	1°59'20	minimum elong	2777 Jan 01 22:51	11°☿04'42	1°33'17
evening rise	2776 Feb 05 17:56	24°☿37'35		evening rise	2777 Jan 13 17:49	0°☿	
	2776 Feb 08 20:36	0°☿			2777 Jan 17 03:28	5°☿34'01	
asc. node	2776 Feb 19 20:14	17°☿43'38		asc. node	2777 Feb 01 12:21	0°☿	
evening max el	2776 Feb 23 12:27	22°☿07'44	18°10'53	evening max el	2777 Feb 05 17:16	5°☿12'35	
retrograde	2776 Feb 29 23:10	25°☿32'02		retrograde	2777 Feb 06 00:36	5°☿31'29	18°31'45
evening set	2776 Mar 03 18:44	24°☿51'27		evening set	2777 Feb 12 13:51	9°☿07'46	
inferior conj	2776 Mar 10 00:13	19°☿35'30	3°39'27	inferior conj	2777 Feb 15 15:01	8°☿15'50	
minimum elong	2776 Mar 10 00:50	19°☿33'51	3°39'25	minimum elong	2777 Feb 21 11:46	2°☿40'55	3°37'56
min. Earth dist.	2776 Mar 12 17:33	16°☿41'36	0.62836 AU	min. Earth dist.	2777 Feb 21 10:45	2°☿43'54	3°37'52
morning rise	2776 Mar 16 04:47	13°☿32'35			2777 Feb 23 13:36	0°☿13'43	0.64635 AU
direct	2776 Mar 23 02:55	10°☿54'49		morning rise	2777 Feb 23 18:22	30°☿	
desc. node	2776 Mar 28 15:14	12°☿21'19		direct	2777 Feb 27 05:09	26°☿30'46	
morning max el	2776 Apr 06 01:59	18°☿51'32	27°48'25	desc. node	2777 Mar 05 23:39	23°☿41'24	
	2776 Apr 15 12:08	0°☿			2777 Mar 15 12:16	27°☿56'25	
	2776 May 04 05:38	0°☿		morning max el	2777 Mar 17 21:14	0°☿	
morning set	2776 May 10 03:45	11°☿27'38			2777 Mar 19 11:25	1°☿32'23	27°18'58
max. Earth dist.	2776 May 15 14:59	22°☿49'48	1.32698 AU	morning set	2777 Apr 09 15:37	0°☿	
					2777 Apr 23 19:28	25°☿12'18	
superior conj	2776 May 17 19:28	27°☿31'57	0°00'-1	max. Earth dist.	2777 Apr 26 05:36	0°☿	
minimum elong	2776 May 17 19:28	27°☿31'57	0°00'02		2777 Apr 28 13:49	4°☿45'45	1.33624 AU
behind sun begin	2776 May 17 14:33	27°☿05'24		superior conj	2777 May 01 23:51	11°☿54'02	0°-27'-57
behind sun end	2776 May 18 00:22	27°☿58'31		minimum elong	2777 May 02 01:17	12°☿01'32	0°27'40
asc. node	2776 May 17 19:32	27°☿32'21		asc. node	2777 May 04 16:36	17°☿38'20	
	2776 May 18 22:47	0°☿		evening rise	2777 May 09 07:06	27°☿25'38	
evening rise	2776 May 24 19:59	12°☿42'14			2777 May 10 12:42	0°☿	
	2776 Jun 02 14:32	0°☿			2777 May 28 22:41	0°☿	
evening max el	2776 Jun 17 14:59	20°☿53'15	23°42'45	evening max el	2777 May 30 06:54	1°☿22'06	22°06'49
desc. node	2776 Jun 24 14:32	26°☿03'11		desc. node	2777 Jun 11 11:32	7°☿40'40	
retrograde	2776 Jul 01 07:23	27°☿44'57		retrograde	2777 Jun 12 01:46	7°☿41'28	
evening set	2776 Jul 05 12:20	27°☿06'07		evening set	2777 Jun 14 21:53	7°☿23'34	
min. Earth dist.	2776 Jul 12 01:18	24°☿00'52	0.56065 AU	min. Earth dist.	2777 Jun 23 12:18	3°☿42'02	0.55053 AU
inferior conj	2776 Jul 14 06:36	22°☿40'35	-4°-40'-31	inferior conj	2777 Jun 24 05:32	3°☿17'51	-3°-28'-55
minimum elong	2776 Jul 14 00:56	22°☿49'10	4°39'42	minimum elong	2777 Jun 23 21:23	3°☿29'17	3°26'39
morning rise	2776 Jul 22 16:50	18°☿44'14			2777 Jul 01 00:13	30°☿	
direct	2776 Jul 25 11:27	18°☿24'49		morning rise	2777 Jul 02 22:45	29°☿26'30	
morning max el	2776 Aug 04 15:46	23°☿08'08	20°03'32	direct	2777 Jul 06 01:15	29°☿05'02	
	2776 Aug 10 11:23	0°☿			2777 Jul 10 20:59	0°☿	
asc. node	2776 Aug 13 18:46	5°☿06'02		morning max el	2777 Jul 17 20:43	4°☿35'51	21°27'57
morning set	2776 Aug 22 18:51	22°☿03'30		asc. node	2777 Jul 31 15:49	24°☿01'25	
	2776 Aug 26 16:06	0°☿			2777 Aug 03 18:49	0°☿	
				morning set	2777 Aug 07 03:29	6°☿49'34	
superior conj	2776 Aug 30 13:36	7°☿54'23	1°45'06	superior conj	2777 Aug 14 12:09	22°☿15'48	1°42'43
minimum elong	2776 Aug 30 13:54	7°☿55'50	1°45'06	minimum elong	2777 Aug 14 11:03	22°☿10'02	1°42'40
max. Earth dist.	2776 Sep 05 01:35	18°☿39'33	1.36842 AU		2777 Aug 18 06:48	0°☿	
evening rise	2776 Sep 08 22:58	25°☿53'13		max. Earth dist.	2777 Aug 18 13:12	0°☿32'10	1.35110 AU
	2776 Sep 11 06:06	0°☿		evening rise	2777 Aug 22 21:55	9°☿04'19	
desc. node	2776 Sep 20 13:52	15°☿33'38			2777 Sep 03 19:37	0°☿	
	2776 Sep 30 07:37	0°☿		desc. node	2777 Sep 07 10:54	5°☿43'25	
evening max el	2776 Oct 14 16:30	17°☿21'56	25°45'10		2777 Sep 26 04:37	0°☿	
retrograde	2776 Oct 27 00:19	24°☿24'20		evening max el	2777 Sep 27 04:48	0°☿59'28	26°42'36
evening set	2776 Nov 02 01:14	21°☿54'22		retrograde	2777 Oct 10 04:51	8°☿14'13	
min. Earth dist.	2776 Nov 06 09:54	17°☿09'58	0.66924 AU	evening set	2777 Oct 16 19:05	5°☿34'21	
inferior conj	2776 Nov 07 16:41	15°☿32'19	0°-42'-19	min. Earth dist.	2777 Oct 20 20:29	1°☿26'41	0.65933 AU
minimum elong	2776 Nov 07 17:47	15°☿28'48	0°41'52		2777 Oct 22 01:51	30°☿	
asc. node	2776 Nov 09 17:57	13°☿00'57		inferior conj	2777 Oct 22 15:01	29°☿20'52	-1°-41'-20
morning rise	2776 Nov 13 11:12	9°☿36'30		minimum elong	2777 Oct 22 17:46	29°☿12'43	1°40'14
direct	2776 Nov 16 16:18	8°☿37'06		asc. node	2777 Oct 27 15:01	24°☿18'08	
morning max el	2776 Nov 23 15:52	12°☿31'01	19°08'01	morning rise	2777 Oct 28 17:53	23°☿36'40	
	2776 Dec 06 14:25	0°☿		direct	2777 Oct 31 13:49	22°☿52'01	
morning set	2776 Dec 16 13:36	15°☿24'45		morning max el	2777 Nov 07 04:11	26°☿27'53	18°25'14
desc. node	2776 Dec 17 13:06	16°☿56'19					

	2777 Nov 10 06:02	0°♄		morning set	2778 Nov 08 06:01	6°♄47'02	
morning set	2777 Nov 26 19:20	25°♄23'12		desc. node	2778 Nov 21 07:11	28°♄19'14	
	2777 Nov 29 16:14	0°♄					
desc. node	2777 Dec 04 10:08	7°♄34'36		superior conj	2778 Nov 21 20:35	29°♄13'07	0°-3'-48
				minimum elong	2778 Nov 21 20:08	29°♄11'17	0°03'45
superior conj	2777 Dec 12 09:26	20°♄09'53	0°-52'-4	behind sun begin	2778 Nov 21 09:56	28°♄30'18	
minimum elong	2777 Dec 12 02:52	19°♄44'03	0°51'14	behind sun end	2778 Nov 22 06:19	29°♄52'13	
max. Earth dist.	2777 Dec 13 14:31	22°♄04'05	1.45191 AU		2778 Nov 22 08:16	0°♄	
	2777 Dec 18 15:55	0°♄		max. Earth dist.	2778 Nov 26 09:11	6°♄25'45	1.44767 AU
evening rise	2777 Dec 28 13:38	15°♄33'46		evening rise	2778 Dec 08 04:43	24°♄50'36	
	2778 Jan 06 18:02	0°♄			2778 Dec 11 13:15	0°♄	
greatest brilliancy	2778 Jan 10 09:23	5°♄36'02	-0.7m	greatest brilliancy	2778 Dec 27 20:14	24°♄10'31	-0.6m
evening max el	2778 Jan 20 09:53	18°♄59'35	19°10'10		2779 Jan 01 08:42	0°♄	
asc. node	2778 Jan 23 14:19	21°♄41'36		evening max el	2779 Jan 03 14:37	2°♄29'40	20°04'24
retrograde	2778 Jan 27 09:34	22°♄58'39		asc. node	2779 Jan 10 11:19	6°♄56'09	
evening set	2778 Jan 30 17:15	21°♄54'24		retrograde	2779 Jan 11 07:24	7°♄00'01	
inferior conj	2778 Feb 05 08:09	16°♄02'53	3°21'40	evening set	2779 Jan 14 23:07	5°♄42'07	
minimum elong	2778 Feb 05 06:05	16°♄09'28	3°21'21	inferior conj	2779 Jan 20 10:29	29°♄36'49	2°54'12
min. Earth dist.	2778 Feb 06 18:42	14°♄12'33	0.66047 AU	minimum elong	2779 Jan 20 07:57	29°♄45'20	2°53'34
morning rise	2778 Feb 10 18:02	9°♄48'51			2779 Jan 20 03:35	30°♄	
direct	2778 Feb 17 02:51	7°♄01'24		min. Earth dist.	2779 Jan 21 07:10	28°♄27'19	0.67051 AU
morning max el	2778 Mar 01 21:19	14°♄35'01	26°20'33	morning rise	2779 Jan 25 16:10	23°♄21'18	
desc. node	2778 Mar 02 09:18	15°♄05'34		direct	2779 Jan 31 11:48	20°♄46'27	
	2778 Mar 14 11:49	0°♄		morning max el	2779 Feb 12 06:05	27°♄47'56	25°02'17
	2778 Apr 02 09:59	0°♄			2779 Feb 14 08:08	0°♄	
morning set	2778 Apr 06 22:55	8°♄16'46		desc. node	2779 Feb 17 06:21	3°♄21'54	
max. Earth dist.	2778 Apr 11 01:24	16°♄08'40	1.35002 AU		2779 Mar 08 04:44	0°♄	
				morning set	2779 Mar 20 09:11	20°♄26'53	
superior conj	2778 Apr 15 21:34	25°♄51'20	0°-56'-21	max. Earth dist.	2779 Mar 24 01:47	27°♄10'01	1.36811 AU
minimum elong	2778 Apr 16 00:28	26°♄06'15	0°55'49		2779 Mar 25 14:10	0°♄	
	2778 Apr 17 21:49	0°♄					
asc. node	2778 Apr 21 13:38	7°♄37'02		superior conj	2779 Mar 30 09:38	9°♄15'58	-1°-23'-26
evening rise	2778 Apr 23 15:29	11°♄55'30		minimum elong	2779 Mar 30 13:45	9°♄36'14	1°22'51
	2778 May 03 03:23	0°♄		evening rise	2779 Apr 07 18:55	26°♄05'07	
evening max el	2778 May 12 08:07	12°♄15'58	20°41'04	asc. node	2779 Apr 08 10:39	27°♄24'02	
retrograde	2778 May 23 14:54	17°♄45'50			2779 Apr 09 18:01	0°♄	
evening set	2778 May 25 17:10	17°♄35'13		evening max el	2779 Apr 24 21:27	23°♄49'45	19°32'43
desc. node	2778 May 29 08:31	16°♄31'09		retrograde	2779 May 04 10:29	28°♄26'59	
inferior conj	2778 Jun 03 23:12	13°♄37'43	-1°-38'-17	evening set	2779 May 06 10:41	28°♄15'36	
minimum elong	2778 Jun 03 18:34	13°♄44'22	1°36'38	inferior conj	2779 May 15 02:11	24°♄11'05	0°19'51
min. Earth dist.	2778 Jun 05 00:36	13°♄01'17	0.54950 AU	minimum elong	2779 May 15 03:02	24°♄09'43	0°19'33
morning rise	2778 Jun 12 18:49	9°♄31'00		desc. node	2779 May 16 05:32	23°♄27'16	
direct	2778 Jun 16 10:39	9°♄02'09		min. Earth dist.	2779 May 17 14:53	22°♄34'35	0.55810 AU
morning max el	2778 Jun 29 16:01	15°♄24'24	23°06'52	morning rise	2779 May 23 15:39	19°♄33'03	
	2778 Jul 11 01:51	0°♄		direct	2779 May 28 05:13	18°♄46'08	
asc. node	2778 Jul 18 12:53	13°♄24'33		morning max el	2779 Jun 11 06:27	25°♄50'57	24°48'51
morning set	2778 Jul 22 14:35	21°♄43'26			2779 Jun 15 04:32	0°♄	
	2778 Jul 26 11:42	0°♄			2779 Jul 03 21:11	0°♄	
				asc. node	2779 Jul 05 09:55	3°♄07'13	
superior conj	2778 Jul 29 17:21	6°♄57'13	1°34'05	morning set	2779 Jul 07 02:25	6°♄38'48	
minimum elong	2778 Jul 29 15:21	6°♄46'31	1°33'53				
max. Earth dist.	2778 Aug 01 09:41	12°♄38'21	1.33752 AU	superior conj	2779 Jul 14 02:38	21°♄49'32	1°20'15
evening rise	2778 Aug 06 10:27	22°♄55'16		minimum elong	2779 Jul 14 00:16	21°♄36'38	1°19'55
	2778 Aug 10 02:23	0°♄		max. Earth dist.	2779 Jul 15 14:26	25°♄04'04	1.32808 AU
desc. node	2778 Aug 25 07:53	25°♄28'31			2779 Jul 17 21:32	0°♄	
	2778 Aug 28 12:13	0°♄		evening rise	2779 Jul 21 08:42	7°♄14'11	
evening max el	2778 Sep 09 16:45	14°♄24'37	27°18'02		2779 Aug 02 14:18	0°♄	
retrograde	2778 Sep 23 03:53	21°♄43'15		desc. node	2779 Aug 12 04:54	14°♄37'43	
evening set	2778 Sep 30 04:12	19°♄01'27		evening max el	2779 Aug 23 02:41	27°♄24'30	27°25'06
min. Earth dist.	2778 Oct 03 23:06	15°♄29'38	0.64588 AU		2779 Aug 26 01:52	0°♄	
inferior conj	2778 Oct 06 06:05	13°♄00'56	-2°-40'-49	retrograde	2779 Sep 05 20:34	4°♄41'11	
minimum elong	2778 Oct 06 10:26	12°♄49'08	2°39'15	evening set	2779 Sep 13 01:17	2°♄08'42	
morning rise	2778 Oct 12 18:43	7°♄31'24			2779 Sep 15 17:21	30°♄	
asc. node	2778 Oct 14 12:03	7°♄01'14		min. Earth dist.	2779 Sep 16 16:01	29°♄07'59	0.62906 AU
direct	2778 Oct 15 07:56	6°♄57'39		inferior conj	2779 Sep 19 11:05	26°♄25'18	-3°-37'-32
morning max el	2778 Oct 21 19:57	10°♄24'42	17°59'16	minimum elong	2779 Sep 19 16:32	26°♄12'01	3°35'57
	2778 Nov 04 05:16	0°♄		morning rise	2779 Sep 26 10:24	21°♄13'37	

direct	2779 Sep 28 19:40	20° \mathbb{M} 47'12		morning rise	2780 Sep 08 12:59	4° \mathbb{M} 35'10	
asc. node	2779 Oct 01 09:06	21° \mathbb{M} 18'21		direct	2780 Sep 10 21:23	4° \mathbb{M} 13'07	
morning max el	2779 Oct 05 12:10	24° \mathbb{M} 13'35	17°50'59	asc. node	2780 Sep 17 06:09	7° \mathbb{M} 01'45	
	2779 Oct 10 04:05	0° $\underline{\mathbb{A}}$		morning max el	2780 Sep 18 01:45	7° \mathbb{M} 46'57	18°01'31
morning set	2779 Oct 21 16:24	19° $\underline{\mathbb{A}}$ 18'58			2780 Oct 02 09:26	0° $\underline{\mathbb{A}}$	
	2779 Oct 27 18:36	0° \mathbb{M}		morning set	2780 Oct 03 20:13	2° $\underline{\mathbb{A}}$ 40'46	
superior conj	2779 Nov 02 07:55	9° \mathbb{M} 28'20	0°39'27	superior conj	2780 Oct 13 22:00	21° $\underline{\mathbb{A}}$ 01'56	1°11'53
minimum elong	2779 Nov 02 11:33	9° \mathbb{M} 43'33	0°38'57	minimum elong	2780 Oct 14 02:20	21° $\underline{\mathbb{A}}$ 21'07	1°11'23
desc. node	2779 Nov 08 04:12	19° \mathbb{M} 06'23			2780 Oct 19 02:15	0° \mathbb{M}	
max. Earth dist.	2779 Nov 09 01:08	20° \mathbb{M} 30'59	1.43664 AU	max. Earth dist.	2780 Oct 21 12:41	4° \mathbb{M} 05'34	1.42017 AU
	2779 Nov 15 00:27	0° \mathbb{A}		desc. node	2780 Oct 25 01:13	9° \mathbb{M} 52'56	
evening rise	2779 Nov 17 13:33	3° \mathbb{A} 57'40		evening rise	2780 Oct 27 08:57	13° \mathbb{M} 37'01	
	2779 Dec 05 00:36	0° \mathbb{Z}			2780 Nov 07 00:13	0° \mathbb{A}	
greatest brilliancy	2779 Dec 12 09:44	10° \mathbb{Z} 00'51	-0.4m	greatest brilliancy	2780 Nov 24 13:11	24° \mathbb{A} 12'10	-0.3m
evening max el	2779 Dec 17 13:53	16° \mathbb{Z} 00'59	21°11'43	evening max el	2780 Nov 29 07:54	29° \mathbb{A} 34'00	22°27'58
retrograde	2779 Dec 26 05:04	21° \mathbb{Z} 08'13			2780 Nov 29 18:19	0° \mathbb{Z}	
asc. node	2779 Dec 28 08:20	20° \mathbb{Z} 43'02		retrograde	2780 Dec 09 00:52	5° \mathbb{Z} 20'09	
evening set	2779 Dec 30 06:41	19° \mathbb{Z} 35'09		evening set	2780 Dec 13 14:15	3° \mathbb{Z} 30'34	
inferior conj	2780 Jan 04 16:24	13° \mathbb{Z} 19'13	2°17'52	asc. node	2780 Dec 14 05:23	2° \mathbb{Z} 57'42	
minimum elong	2780 Jan 04 13:55	13° \mathbb{Z} 27'47	2°17'04		2780 Dec 16 20:50	30° \mathbb{R} \mathbb{A}	
min. Earth dist.	2780 Jan 05 00:39	12° \mathbb{Z} 50'45	0.67659 AU	inferior conj	2780 Dec 18 23:53	27° \mathbb{A} 07'30	1°34'18
morning rise	2780 Jan 09 20:46	7° \mathbb{Z} 04'16		minimum elong	2780 Dec 18 21:55	27° \mathbb{A} 14'18	1°33'33
direct	2780 Jan 15 01:37	4° \mathbb{Z} 49'03		min. Earth dist.	2780 Dec 18 20:49	27° \mathbb{A} 18'08	0.67899 AU
morning max el	2780 Jan 25 14:38	11° \mathbb{Z} 05'47	23°34'35	morning rise	2780 Dec 24 05:28	20° \mathbb{A} 55'03	
desc. node	2780 Feb 04 03:23	22° \mathbb{Z} 26'04		direct	2780 Dec 28 19:18	19° \mathbb{A} 02'38	
	2780 Feb 09 15:35	0° \approx		morning max el	2781 Jan 07 02:16	24° \mathbb{A} 30'18	22°06'59
	2780 Feb 28 23:44	0° \mathbb{H}		greatest brilliancy	2781 Jan 11 17:19	29° \mathbb{A} 41'41	-0.4m
morning set	2780 Feb 29 20:06	1° \mathbb{H} 26'03			2781 Jan 11 23:19	0° \mathbb{Z}	
max. Earth dist.	2780 Mar 04 20:39	8° \mathbb{H} 22'39	1.38916 AU	desc. node	2781 Jan 21 00:26	12° \mathbb{Z} 04'15	
					2781 Feb 02 02:40	0° \approx	
superior conj	2780 Mar 12 08:19	21° \mathbb{H} 58'21	-1°-46'-37	morning set	2781 Feb 09 02:22	11° \approx 01'21	
minimum elong	2780 Mar 12 12:44	22° \mathbb{H} 19'00	1°46'12	max. Earth dist.	2781 Feb 14 18:18	20° \approx 20'29	1.41067 AU
	2780 Mar 16 13:37	0° \mathbb{Y}			2781 Feb 20 09:34	0° \mathbb{H}	
evening rise	2780 Mar 21 14:41	9° \mathbb{Y} 47'25		superior conj	2781 Feb 22 12:45	3° \mathbb{H} 45'34	-2°-2'-14
asc. node	2780 Mar 25 07:41	16° \mathbb{Y} 54'30		minimum elong	2781 Feb 22 15:32	3° \mathbb{H} 57'58	2°02'07
	2780 Apr 01 23:17	0° \mathbb{Z}		evening rise	2781 Mar 04 23:24	22° \mathbb{H} 53'16	
evening max el	2780 Apr 06 21:24	6° \mathbb{Z} 02'42	18°44'15		2781 Mar 08 19:37	0° \mathbb{Y}	
retrograde	2780 Apr 14 22:56	9° \mathbb{Z} 58'58		asc. node	2781 Mar 12 04:43	6° \mathbb{Y} 01'39	
evening set	2780 Apr 17 04:08	9° \mathbb{Z} 42'14		evening max el	2781 Mar 21 04:43	18° \mathbb{Y} 45'20	18°15'52
inferior conj	2780 Apr 25 00:21	5° \mathbb{Z} 20'00	1°55'52	retrograde	2781 Mar 28 06:26	22° \mathbb{Y} 17'24	
minimum elong	2780 Apr 25 04:03	5° \mathbb{Z} 13'08	1°54'45	evening set	2781 Mar 30 17:30	21° \mathbb{Y} 52'35	
min. Earth dist.	2780 Apr 28 07:51	2° \mathbb{Z} 53'33	0.57441 AU	inferior conj	2781 Apr 06 19:48	17° \mathbb{Y} 09'04	2°58'56
desc. node	2780 May 02 02:34	0° \mathbb{Z} 33'11		minimum elong	2781 Apr 06 23:14	17° \mathbb{Y} 01'35	2°58'14
morning rise	2780 May 02 23:35	0° \mathbb{Z} 07'58		min. Earth dist.	2781 Apr 10 05:38	14° \mathbb{Y} 12'45	0.59504 AU
	2780 May 03 06:52	30° \mathbb{R} \mathbb{Y}		morning rise	2781 Apr 14 01:13	11° \mathbb{Y} 29'51	
direct	2780 May 08 13:44	28° \mathbb{Y} 51'13		desc. node	2781 Apr 18 23:36	9° \mathbb{Y} 43'22	
	2780 May 13 22:15	0° \mathbb{Z}		direct	2781 Apr 20 10:54	9° \mathbb{Y} 37'28	
morning max el	2780 May 22 22:05	6° \mathbb{Z} 23'13	26°18'41	morning max el	2781 May 04 19:13	17° \mathbb{Y} 25'17	27°21'59
	2780 Jun 09 08:07	0° \mathbb{H}			2781 May 15 05:36	0° \mathbb{Z}	
morning set	2780 Jun 20 13:24	21° \mathbb{H} 30'47			2781 Jun 01 20:37	0° \mathbb{H}	
asc. node	2780 Jun 21 06:58	23° \mathbb{H} 03'45		morning set	2781 Jun 04 21:48	6° \mathbb{H} 13'10	
	2780 Jun 24 12:05	0° \mathbb{Z}		asc. node	2781 Jun 08 04:01	13° \mathbb{H} 08'25	
superior conj	2780 Jun 27 14:03	6° \mathbb{Z} 46'19	1°02'03	max. Earth dist.	2781 Jun 11 12:57	20° \mathbb{H} 30'17	1.32125 AU
minimum elong	2780 Jun 27 11:48	6° \mathbb{Z} 33'58	1°01'40	superior conj	2781 Jun 12 01:46	21° \mathbb{H} 40'52	0°40'12
max. Earth dist.	2780 Jun 28 00:46	7° \mathbb{Z} 45'14	1.32274 AU	minimum elong	2781 Jun 12 00:06	21° \mathbb{H} 31'39	0°39'52
evening rise	2780 Jul 04 13:44	21° \mathbb{Z} 51'56			2781 Jun 15 20:39	0° \mathbb{Z}	
	2780 Jul 08 13:53	0° \mathbb{Q}		evening rise	2781 Jun 18 22:59	6° \mathbb{Z} 39'48	
	2780 Jul 26 18:35	0° \mathbb{M}			2781 Jul 01 04:39	0° \mathbb{Q}	
desc. node	2780 Jul 29 01:54	2° \mathbb{M} 56'10		desc. node	2781 Jul 15 22:54	20° \mathbb{Q} 02'55	
evening max el	2780 Aug 04 08:05	9° \mathbb{M} 46'20	26°59'23	evening max el	2781 Jul 17 06:26	21° \mathbb{Q} 20'42	26°01'08
retrograde	2780 Aug 18 05:45	16° \mathbb{M} 58'58		retrograde	2781 Jul 31 06:04	28° \mathbb{Q} 29'57	
evening set	2780 Aug 25 06:06	14° \mathbb{M} 48'47		evening set	2781 Aug 06 13:52	26° \mathbb{Q} 53'30	
min. Earth dist.	2780 Aug 28 22:21	12° \mathbb{M} 08'47	0.60958 AU	min. Earth dist.	2781 Aug 10 18:54	24° \mathbb{Q} 17'51	0.58891 AU
inferior conj	2780 Sep 01 02:45	9° \mathbb{M} 25'43	-4°-26'-7	inferior conj	2781 Aug 14 01:31	21° \mathbb{Q} 52'16	-4°-57'-44
minimum elong	2780 Sep 01 08:00	9° \mathbb{M} 14'27	4°25'06				

minimum elong	2781 Aug 14 04:13	21° Ω 47'14	4°57'33	evening set	2782 Jul 17 21:41	8° Ω 15'13	
morning rise	2781 Aug 21 22:02	17° Ω 25'12		min. Earth dist.	2782 Jul 23 09:00	5° Ω 25'02	0.56965 AU
direct	2781 Aug 24 08:34	17° Ω 05'21		inferior conj	2782 Jul 26 04:30	3° Ω 36'07	-4°-59'-14
morning max el	2781 Sep 01 09:34	20° Ω 56'22	18°32'13	minimum elong	2782 Jul 26 02:03	3° Ω 40'06	4°59'05
asc. node	2781 Sep 04 03:13	23° Ω 57'01			2782 Aug 01 19:38	30° \mathbb{R} \mathfrak{E}	
	2781 Sep 08 08:33	0° \mathfrak{M}		morning rise	2782 Aug 03 10:07	29° \mathfrak{E} 30'58	
morning set	2781 Sep 17 12:22	16° \mathfrak{M} 38'01		direct	2782 Aug 06 01:06	29° \mathfrak{E} 11'55	
	2781 Sep 24 11:15	0° $\underline{\mathfrak{A}}$			2782 Aug 10 01:50	0° Ω	
				morning max el	2782 Aug 15 08:30	3° Ω 32'20	19°24'06
superior conj	2781 Sep 26 10:33	3° $\underline{\mathfrak{A}}$ 42'03	1°32'40	asc. node	2782 Aug 22 00:17	11° Ω 49'01	
minimum elong	2781 Sep 26 13:39	3° $\underline{\mathfrak{A}}$ 56'28	1°32'25		2782 Sep 01 00:59	0° \mathfrak{M}	
max. Earth dist.	2781 Oct 03 19:15	16° $\underline{\mathfrak{A}}$ 58'23	1.40027 AU	morning set	2782 Sep 01 13:00	0° \mathfrak{M} 59'54	
evening rise	2781 Oct 08 01:52	24° $\underline{\mathfrak{A}}$ 16'03					
desc. node	2781 Oct 11 22:16	0° \mathfrak{M} 35'28		superior conj	2782 Sep 09 15:54	17° \mathfrak{M} 12'01	1°43'06
	2781 Oct 11 13:29	0° \mathfrak{M}		minimum elong	2782 Sep 09 17:11	17° \mathfrak{M} 18'17	1°43'03
	2781 Oct 31 20:27	0° \mathfrak{A}		max. Earth dist.	2782 Sep 15 23:05	29° \mathfrak{M} 09'44	1.37960 AU
evening max el	2781 Nov 11 22:00	13° \mathfrak{A} 10'14	23°47'51		2782 Sep 16 10:03	0° $\underline{\mathfrak{A}}$	
retrograde	2781 Nov 22 17:39	19° \mathfrak{A} 32'51		evening rise	2782 Sep 19 18:25	6° $\underline{\mathfrak{A}}$ 00'42	
evening set	2781 Nov 27 20:17	17° \mathfrak{A} 26'21		desc. node	2782 Sep 28 19:17	21° $\underline{\mathfrak{A}}$ 09'23	
asc. node	2781 Dec 01 02:25	13° \mathfrak{A} 55'57			2782 Oct 04 12:40	0° \mathfrak{M}	
min. Earth dist.	2781 Dec 02 17:22	11° \mathfrak{A} 47'00	0.67787 AU	evening max el	2782 Oct 25 10:11	26° \mathfrak{M} 49'23	25°04'58
inferior conj	2781 Dec 03 07:11	11° \mathfrak{A} 00'01	0°44'50		2782 Oct 28 23:38	0° \mathfrak{A}	
minimum elong	2781 Dec 03 06:08	11° \mathfrak{A} 03'34	0°44'23	retrograde	2782 Nov 06 06:20	3° \mathfrak{A} 41'03	
morning rise	2781 Dec 08 16:13	4° \mathfrak{A} 52'08		evening set	2782 Nov 11 23:04	1° \mathfrak{A} 18'45	
direct	2781 Dec 12 15:56	3° \mathfrak{A} 22'26			2782 Nov 13 08:22	30° \mathfrak{R} \mathfrak{M}	
morning max el	2781 Dec 20 20:29	8° \mathfrak{A} 06'04	20°47'10	min. Earth dist.	2782 Nov 16 12:00	26° \mathfrak{M} 13'48	0.67334 AU
greatest brilliancy	2781 Dec 26 14:54	14° \mathfrak{A} 49'10	-0.5m	inferior conj	2782 Nov 17 12:30	24° \mathfrak{M} 53'35	0°-9'-26
	2782 Jan 06 11:01	0° \mathfrak{E}		minimum elong	2782 Nov 17 12:44	24° \mathfrak{M} 52'48	0°09'21
desc. node	2782 Jan 07 21:30	2° \mathfrak{E} 07'27		transit middle	2782 Nov 17 12:44	24° \mathfrak{M} 52'48	0°09'21
morning set	2782 Jan 19 06:45	19° \mathfrak{E} 27'07		transit begin	2782 Nov 17 10:28	25° \mathfrak{M} 00'14	
	2782 Jan 25 22:54	0° \approx		transit end	2782 Nov 17 15:00	24° \mathfrak{M} 45'23	
max. Earth dist.	2782 Jan 27 23:11	3° \approx 14'45	1.42967 AU	asc. node	2782 Nov 17 23:28	24° \mathfrak{M} 17'42	
				morning rise	2782 Nov 23 03:00	18° \mathfrak{M} 52'32	
superior conj	2782 Feb 03 17:50	14° \approx 26'43	-2°-5'-23	direct	2782 Nov 26 14:13	17° \mathfrak{M} 43'11	
minimum elong	2782 Feb 03 16:18	14° \approx 20'15	2°05'22	morning max el	2782 Dec 03 22:31	21° \mathfrak{M} 52'30	19°39'52
	2782 Feb 12 18:03	0° \mathfrak{H}			2782 Dec 10 14:56	0° \mathfrak{A}	
evening rise	2782 Feb 15 17:09	5° \mathfrak{H} 14'54		greatest brilliancy	2782 Dec 11 23:53	1° \mathfrak{A} 54'10	-0.6m
asc. node	2782 Feb 27 01:45	24° \mathfrak{H} 38'20		desc. node	2782 Dec 25 18:33	22° \mathfrak{A} 28'07	
	2782 Mar 02 23:59	0° \mathfrak{Y}		morning set	2782 Dec 29 03:14	27° \mathfrak{A} 38'52	
evening max el	2782 Mar 04 16:10	1° \mathfrak{Y} 49'33	18°07'07		2782 Dec 30 15:43	0° \mathfrak{E}	
retrograde	2782 Mar 11 05:35	5° \mathfrak{Y} 12'59		max. Earth dist.	2783 Jan 10 10:55	16° \mathfrak{E} 54'45	1.44365 AU
evening set	2782 Mar 13 22:01	4° \mathfrak{Y} 38'33					
	2782 Mar 19 23:34	30° \mathfrak{R} \mathfrak{H}		superior conj	2783 Jan 14 20:43	23° \mathfrak{E} 57'25	-1°-51'-8
inferior conj	2782 Mar 20 10:00	29° \mathfrak{H} 34'02	3°31'42	minimum elong	2783 Jan 14 13:34	23° \mathfrak{E} 28'39	1°50'40
minimum elong	2782 Mar 20 11:43	29° \mathfrak{H} 29'44	3°31'31		2783 Jan 18 14:11	0° \approx	
min. Earth dist.	2782 Mar 23 11:05	26° \mathfrak{H} 32'32	0.61660 AU	evening rise	2783 Jan 28 15:28	16° \approx 43'40	
morning rise	2782 Mar 26 22:41	23° \mathfrak{H} 37'11			2783 Feb 05 12:49	0° \mathfrak{H}	
direct	2782 Apr 02 18:53	21° \mathfrak{H} 12'50		asc. node	2783 Feb 13 22:46	12° \mathfrak{H} 35'16	
desc. node	2782 Apr 05 20:39	21° \mathfrak{H} 39'37		evening max el	2783 Feb 16 04:48	15° \mathfrak{H} 07'51	18°17'31
morning max el	2782 Apr 16 22:48	29° \mathfrak{H} 09'08	27°49'38	retrograde	2783 Feb 22 15:45	18° \mathfrak{H} 36'07	
	2782 Apr 17 18:55	0° \mathfrak{Y}		evening set	2783 Feb 25 13:29	17° \mathfrak{H} 50'59	
	2782 May 09 03:07	0° \mathfrak{B}		inferior conj	2783 Mar 03 14:53	12° \mathfrak{H} 26'51	3°40'52
morning set	2782 May 20 01:44	20° \mathfrak{B} 39'34		minimum elong	2783 Mar 03 14:45	12° \mathfrak{H} 27'13	3°40'52
	2782 May 24 12:34	0° \mathfrak{I}		min. Earth dist.	2783 Mar 06 01:50	9° \mathfrak{H} 42'14	0.63642 AU
max. Earth dist.	2782 May 25 22:59	3° \mathfrak{I} 05'37	1.32366 AU	morning rise	2783 Mar 09 14:12	6° \mathfrak{H} 20'04	
asc. node	2782 May 26 01:04	3° \mathfrak{I} 16'51		direct	2783 Mar 16 11:38	3° \mathfrak{H} 35'20	
				desc. node	2783 Mar 23 17:42	6° \mathfrak{H} 04'46	
superior conj	2782 May 27 12:06	6° \mathfrak{I} 27'33	0°15'21	morning max el	2783 Mar 30 06:49	11° \mathfrak{H} 31'53	27°39'55
minimum elong	2782 May 27 11:24	6° \mathfrak{I} 23'41	0°15'12		2783 Apr 13 22:00	0° \mathfrak{Y}	
behind sun begin	2782 May 27 09:55	6° \mathfrak{I} 15'35			2783 May 01 13:04	0° \mathfrak{B}	
behind sun end	2782 May 27 12:53	6° \mathfrak{I} 31'48		morning set	2783 May 03 22:46	4° \mathfrak{B} 42'29	
evening rise	2782 Jun 03 10:25	21° \mathfrak{I} 30'47		max. Earth dist.	2783 May 09 02:49	15° \mathfrak{B} 18'08	1.33027 AU
	2782 Jun 07 13:06	0° \mathfrak{E}					
	2782 Jun 26 18:41	0° Ω		superior conj	2783 May 11 19:16	21° \mathfrak{B} 00'46	0°-11'-44
evening max el	2782 Jun 28 21:53	2° Ω 10'46	24°37'20	minimum elong	2783 May 11 19:51	21° \mathfrak{B} 03'52	0°11'37
desc. node	2782 Jul 02 19:55	5° Ω 29'15		behind sun begin	2783 May 11 16:10	20° \mathfrak{B} 44'10	
retrograde	2782 Jul 12 19:52	9° Ω 13'17		behind sun end	2783 May 11 23:31	21° \mathfrak{B} 23'36	

asc. node	2783 May 12 22:06	23°♄25'03		asc. node	2784 Apr 28 19:07	13°♄28'23	
	2783 May 15 23:18	0°♄		evening rise	2784 May 02 08:21	20°♄57'04	
evening rise	2783 May 18 22:11	6°♄18'51			2784 May 06 19:29	0°♄	
	2783 May 31 13:18	0°♄		evening max el	2784 May 22 06:54	23°♄16'00	21°28'38
evening max el	2783 Jun 10 11:32	12°♄38'58	23°01'32	retrograde	2784 Jun 03 11:47	29°♄15'09	
desc. node	2783 Jun 19 16:56	18°♄40'11		evening set	2784 Jun 05 22:03	29°♄01'45	
retrograde	2783 Jun 23 21:18	19°♄20'05		desc. node	2784 Jun 05 13:57	29°♄05'10	
evening set	2783 Jun 27 10:46	18°♄52'18		inferior conj	2784 Jun 15 07:04	25°♄01'58	-2°-45'-14
min. Earth dist.	2783 Jul 04 20:41	15°♄33'04	0.55524 AU	minimum elong	2784 Jun 14 23:47	25°♄12'09	2°42'54
inferior conj	2783 Jul 06 12:08	14°♄35'48	-4°-16'-14	min. Earth dist.	2784 Jun 15 08:13	25°♄00'21	0.54888 AU
minimum elong	2783 Jul 06 04:44	14°♄46'36	4°14'43	morning rise	2784 Jun 24 02:04	21°♄06'20	
morning rise	2783 Jul 15 01:35	10°♄43'34		direct	2784 Jun 27 09:30	20°♄42'30	
direct	2783 Jul 17 22:52	10°♄23'48		morning max el	2784 Jul 09 20:32	26°♄35'56	22°08'45
morning max el	2783 Jul 28 20:15	15°♄26'48	20°37'11		2784 Jul 13 02:52	0°♄	
asc. node	2783 Aug 08 21:21	0°♄24'49		asc. node	2784 Jul 25 18:23	19°♄32'50	
	2783 Aug 08 15:38	0°♄			2784 Jul 30 23:42	0°♄	
morning set	2783 Aug 16 19:23	15°♄39'19		morning set	2784 Jul 31 05:17	0°♄29'06	
	2783 Aug 23 17:58	0°♄					
superior conj	2783 Aug 24 09:18	1°♄18'21	1°44'56	superior conj	2784 Aug 07 11:00	15°♄48'59	1°39'45
minimum elong	2783 Aug 24 08:56	1°♄16'31	1°44'56	minimum elong	2784 Aug 07 09:26	15°♄40'48	1°39'38
max. Earth dist.	2783 Aug 29 06:11	11°♄01'23	1.36062 AU	max. Earth dist.	2784 Aug 10 21:30	22°♄58'11	1.34486 AU
evening rise	2783 Sep 02 07:40	18°♄44'27			2784 Aug 14 09:28	0°♄	
	2783 Sep 08 15:24	0°♄		evening rise	2784 Aug 15 12:55	2°♄13'59	
desc. node	2783 Sep 15 16:17	11°♄29'57			2784 Aug 31 13:33	0°♄	
	2783 Sep 28 16:26	0°♄		desc. node	2784 Sep 01 13:18	1°♄30'15	
evening max el	2783 Oct 07 22:23	10°♄30'03	26°11'48	evening max el	2784 Sep 19 10:55	24°♄04'34	27°00'50
retrograde	2783 Oct 20 14:09	17°♄39'28			2784 Sep 27 10:02	0°♄	
evening set	2783 Oct 26 20:48	15°♄04'41		retrograde	2784 Oct 02 16:20	1°♄21'18	
min. Earth dist.	2783 Oct 31 02:19	10°♄35'35	0.66545 AU		2784 Oct 07 12:33	30°♄	
inferior conj	2783 Nov 01 13:59	8°♄45'24	-1°-7'-10	evening set	2784 Oct 09 11:15	28°♄39'49	
minimum elong	2783 Nov 01 15:46	8°♄39'52	1°06'25	min. Earth dist.	2784 Oct 13 09:53	24°♄47'24	0.65406 AU
asc. node	2783 Nov 04 20:32	5°♄00'01		inferior conj	2784 Oct 15 09:32	22°♄31'21	-2°-6'-40
morning rise	2783 Nov 07 11:50	2°♄53'57		minimum elong	2784 Oct 15 12:59	22°♄21'28	2°05'19
direct	2783 Nov 10 12:41	2°♄01'23		morning rise	2784 Oct 21 16:22	16°♄52'40	
morning max el	2783 Nov 17 07:35	5°♄46'45	18°47'40	asc. node	2784 Oct 21 17:35	16°♄51'12	
	2783 Dec 04 09:12	0°♄		direct	2784 Oct 24 09:11	16°♄13'00	
morning set	2783 Dec 08 16:41	6°♄47'32		morning max el	2784 Oct 30 21:39	19°♄44'06	18°11'59
desc. node	2783 Dec 12 15:34	13°♄01'08			2784 Nov 07 16:20	0°♄	
	2783 Dec 23 11:06	0°♄		morning set	2784 Nov 18 11:10	17°♄24'18	
max. Earth dist.	2783 Dec 24 03:48	1°♄05'33	1.45104 AU	desc. node	2784 Nov 26 05:05	0°♄	
					2784 Nov 28 12:36	3°♄42'39	
superior conj	2783 Dec 25 02:54	2°♄36'19	-1°-17'-49	superior conj	2784 Dec 03 06:01	11°♄13'31	0°-31'-35
minimum elong	2783 Dec 24 18:08	2°♄01'52	1°16'52	minimum elong	2784 Dec 03 01:59	10°♄57'32	0°31'03
evening rise	2784 Jan 09 14:54	27°♄14'47		max. Earth dist.	2784 Dec 05 23:12	15°♄30'28	1.45105 AU
	2784 Jan 11 07:54	0°♄			2784 Dec 15 05:36	0°♄	
evening max el	2784 Jan 30 16:00	28°♄34'09	18°46'07	evening rise	2784 Dec 19 15:56	6°♄53'54	
asc. node	2784 Jan 31 19:48	29°♄40'34			2785 Jan 03 17:19	0°♄	
	2784 Feb 01 04:47	0°♄		greatest brilliancy	2785 Jan 04 18:06	1°♄30'27	-0.7m
retrograde	2784 Feb 06 08:49	2°♄18'45		evening max el	2785 Jan 12 23:38	12°♄04'10	19°31'31
evening set	2784 Feb 09 12:35	1°♄21'48		asc. node	2785 Jan 17 16:50	15°♄40'20	
	2784 Feb 11 08:13	30°♄		retrograde	2785 Jan 20 05:39	16°♄15'11	
inferior conj	2784 Feb 15 06:34	25°♄39'49	3°32'34	evening set	2785 Jan 23 16:39	15°♄05'09	
minimum elong	2784 Feb 15 05:02	25°♄44'31	3°32'24	inferior conj	2785 Jan 29 05:47	9°♄07'32	3°11'13
min. Earth dist.	2784 Feb 17 01:54	23°♄27'12	0.65289 AU	minimum elong	2785 Jan 29 03:27	9°♄15'10	3°10'45
morning rise	2784 Feb 20 20:20	19°♄27'46		min. Earth dist.	2785 Jan 30 10:14	7°♄34'31	0.66529 AU
direct	2784 Feb 27 11:26	16°♄37'20		morning rise	2785 Feb 03 13:32	2°♄52'55	
desc. node	2784 Mar 09 14:44	22°♄23'30		direct	2785 Feb 09 17:10	0°♄09'44	
morning max el	2784 Mar 11 16:29	24°♄22'45	26°57'03	morning max el	2785 Feb 22 01:48	7°♄30'38	25°49'03
	2784 Mar 16 18:18	0°♄		desc. node	2785 Feb 24 11:46	10°♄04'17	
	2784 Apr 06 07:40	0°♄			2785 Mar 11 14:41	0°♄	
morning set	2784 Apr 16 09:44	18°♄11'23			2785 Mar 29 18:35	0°♄	
max. Earth dist.	2784 Apr 20 20:47	26°♄58'25	1.34149 AU	morning set	2785 Mar 30 06:30	0°♄54'35	
	2784 Apr 22 08:31	0°♄		max. Earth dist.	2785 Apr 03 03:21	8°♄10'06	1.35731 AU
superior conj	2784 Apr 24 21:06	5°♄13'19	0°-40'-1	superior conj	2785 Apr 08 15:07	18°♄58'13	-1°-8'-7
minimum elong	2784 Apr 24 23:10	5°♄24'04	0°39'38	minimum elong	2785 Apr 08 18:36	19°♄15'48	1°07'33

	2785 Apr 14 00:39	0°♄		superior conj	2786 Mar 22 21:59	2°♃05'55	-1°-33'-57
asc. node	2785 Apr 15 16:09	3°♄23'01		minimum elong	2786 Mar 23 02:23	2°♃27'10	1°33'24
evening rise	2785 Apr 16 14:56	5°♄19'34		evening rise	2786 Mar 31 15:27	19°♃18'39	
	2785 Apr 30 16:00	0°♂		asc. node	2786 Apr 02 13:10	23°♃03'49	
evening max el	2785 May 04 13:14	4°♂26'07	20°09'34		2786 Apr 06 04:30	0°♄	
retrograde	2785 May 15 01:45	9°♂32'35		evening max el	2786 Apr 17 07:16	16°♄16'34	19°09'31
evening set	2785 May 17 01:59	9°♂22'13		retrograde	2786 Apr 26 04:06	20°♄34'58	
desc. node	2785 May 23 10:57	6°♂55'32		evening set	2786 Apr 28 05:57	20°♄21'47	
inferior conj	2785 May 26 02:55	5°♂23'18	0°-46'-57	inferior conj	2786 May 06 13:19	16°♄10'06	1°04'25
minimum elong	2785 May 26 00:43	5°♂26'34	0°46'09	minimum elong	2786 May 06 15:49	16°♄05'51	1°03'34
min. Earth dist.	2785 May 27 20:54	4°♂21'01	0.55213 AU	min. Earth dist.	2786 May 09 12:01	14°♄10'38	0.56427 AU
morning rise	2785 Jun 03 21:09	1°♂05'00		desc. node	2786 May 10 07:58	13°♄38'39	
direct	2785 Jun 07 21:38	0°♂29'54		morning rise	2786 May 14 21:30	11°♄17'08	
morning max el	2785 Jun 21 12:48	7°♂11'05	23°50'46	direct	2786 May 19 21:22	10°♄19'05	
	2785 Jul 07 21:49	0°♅		morning max el	2786 Jun 03 03:12	17°♄37'01	25°29'39
asc. node	2785 Jul 12 15:25	9°♅04'52			2786 Jun 13 08:25	0°♂	
morning set	2785 Jul 15 16:53	15°♅24'01		asc. node	2786 Jun 29 12:28	28°♂54'21	
	2785 Jul 22 11:37	0°♆		morning set	2786 Jun 30 04:34	0°♅18'59	
					2786 Jun 30 00:58	0°♅	
superior conj	2785 Jul 22 18:10	0°♆35'21	1°28'47	superior conj	2786 Jul 07 04:36	15°♅30'33	1°13'00
minimum elong	2785 Jul 22 15:57	0°♆23'22	1°28'32	minimum elong	2786 Jul 07 02:13	15°♅17'33	1°12'39
max. Earth dist.	2785 Jul 24 21:57	5°♆13'19	1.33305 AU	max. Earth dist.	2786 Jul 08 05:34	17°♅47'08	1.32528 AU
evening rise	2785 Jul 30 05:59	16°♆17'39			2786 Jul 13 22:38	0°♆	
	2785 Aug 06 10:18	0°♇		evening rise	2786 Jul 14 07:26	0°♆45'35	
desc. node	2785 Aug 19 10:19	21°♇01'24			2786 Jul 30 10:24	0°♇	
	2785 Aug 26 04:44	0°♁		desc. node	2786 Aug 06 07:18	9°♇51'31	
evening max el	2785 Sep 01 22:22	7°♁20'36	27°24'50	evening max el	2786 Aug 15 06:33	20°♇05'28	27°18'14
retrograde	2785 Sep 15 12:27	14°♁38'03		retrograde	2786 Aug 29 02:07	27°♇20'49	
evening set	2785 Sep 22 15:39	11°♁58'48		evening set	2786 Sep 05 06:26	24°♇55'49	
min. Earth dist.	2785 Sep 26 08:26	8°♁41'12	0.63914 AU	min. Earth dist.	2786 Sep 08 20:40	22°♇05'58	0.62100 AU
inferior conj	2785 Sep 28 20:39	6°♁05'26	-3°-5'-28	inferior conj	2786 Sep 11 20:25	19°♇20'57	-3°-59'-34
minimum elong	2785 Sep 29 01:35	5°♁52'41	3°03'50	minimum elong	2786 Sep 12 02:01	19°♇08'03	3°58'11
morning rise	2785 Oct 05 13:45	0°♁43'05		morning rise	2786 Sep 19 00:27	14°♇18'15	
direct	2785 Oct 08 01:05	0°♁12'43		direct	2786 Sep 21 08:59	13°♇54'02	
asc. node	2785 Oct 08 14:38	0°♁14'20		asc. node	2786 Sep 25 11:41	15°♇10'13	
morning max el	2785 Oct 14 13:56	3°♁38'09	17°53'34	morning max el	2786 Sep 28 05:32	17°♇22'18	17°53'13
morning set	2785 Oct 31 08:46	29°♁19'53			2786 Oct 07 05:11	0°♁	
	2785 Oct 31 18:06	0°♂		morning set	2786 Oct 14 03:20	12°♁15'31	
					2786 Oct 24 03:23	0°♂	
superior conj	2785 Nov 13 02:25	20°♂44'39	0°15'40	superior conj	2786 Oct 25 01:32	1°♂35'10	0°54'38
minimum elong	2785 Nov 13 04:08	20°♂51'40	0°15'25	minimum elong	2786 Oct 25 05:49	1°♂53'30	0°54'05
behind sun begin	2785 Nov 13 01:10	20°♂39'33		max. Earth dist.	2786 Nov 01 07:58	13°♂44'17	1.43014 AU
behind sun end	2785 Nov 13 07:06	21°♂03'46		desc. node	2786 Nov 02 06:40	15°♂16'36	
desc. node	2785 Nov 15 09:37	24°♂28'48		evening rise	2786 Nov 08 13:56	25°♂18'42	
max. Earth dist.	2785 Nov 18 17:37	29°♂49'35	1.44377 AU		2786 Nov 11 14:28	0°♂	
	2785 Nov 18 20:14	0°♂			2786 Dec 02 07:21	0°♂	
evening rise	2785 Nov 29 02:27	16°♂02'11		greatest brilliancy	2786 Dec 05 02:56	3°♂36'09	-0.4m
	2785 Dec 08 06:58	0°♂		evening max el	2786 Dec 09 22:56	9°♂06'47	21°43'13
greatest brilliancy	2785 Dec 21 02:49	18°♂26'05	-0.5m	retrograde	2786 Dec 19 00:55	14°♂31'05	
evening max el	2785 Dec 27 02:05	25°♂34'54	20°31'36	asc. node	2786 Dec 22 10:54	13°♂27'22	
	2786 Jan 02 04:32	0°♂		evening set	2786 Dec 23 07:17	12°♂51'03	
retrograde	2786 Jan 04 03:41	0°♂20'18		inferior conj	2786 Dec 28 16:46	6°♂31'20	2°00'13
asc. node	2786 Jan 04 13:52	0°♂19'18		minimum elong	2786 Dec 28 14:27	6°♂39'22	1°59'23
	2786 Jan 06 01:03	30°♂♂		min. Earth dist.	2786 Dec 28 20:02	6°♂19'59	0.67805 AU
evening set	2786 Jan 07 23:28	28°♂55'54		morning rise	2787 Jan 02 21:22	0°♂17'03	
inferior conj	2786 Jan 13 09:55	22°♂45'29	2°39'45		2787 Jan 03 05:34	30°♂♂	
minimum elong	2786 Jan 13 07:20	22°♂54'15	2°39'01	direct	2787 Jan 07 19:39	28°♂11'34	
min. Earth dist.	2786 Jan 14 01:02	21°♂53'57	0.67360 AU		2787 Jan 12 22:46	0°♂	
morning rise	2786 Jan 18 14:44	16°♂30'07		morning max el	2787 Jan 17 19:58	4°♂07'52	22°56'44
direct	2786 Jan 24 04:06	14°♂03'20		greatest brilliancy	2787 Jan 22 14:01	9°♂26'11	-0.3m
morning max el	2786 Feb 04 10:21	20°♂46'29	24°25'34	desc. node	2787 Jan 29 05:52	18°♂03'19	
desc. node	2786 Feb 11 08:48	28°♂42'58			2787 Feb 06 14:40	0°♂	
	2786 Feb 12 09:05	0°♂		morning set	2787 Feb 21 06:47	23°♂01'06	
	2786 Mar 04 20:03	0°♂			2787 Feb 25 10:10	0°♂	
morning set	2786 Mar 12 07:34	12°♂36'20		max. Earth dist.	2787 Feb 25 19:59	0°♂42'08	1.39845 AU
max. Earth dist.	2786 Mar 16 00:54	19°♂13'39	1.37690 AU				
	2786 Mar 21 19:44	0°♂					

superior conj	2787 Mar 05 13:30	14° ✕ 26'11	-1°-54'-27	morning set	2788 Feb 01 01:00	2° ≈ 03'41	
minimum elong	2787 Mar 05 17:31	14° ✕ 44'36	1°54'09	max. Earth dist.	2788 Feb 07 19:53	13° ≈ 02'22	1.41920 AU
	2787 Mar 13 20:07	0° Υ					
evening rise	2787 Mar 15 07:00	2° Υ 46'39		superior conj	2788 Feb 15 08:41	25° ≈ 47'33	-2°-5'-24
asc. node	2787 Mar 20 10:13	12° Υ 25'23		minimum elong	2788 Feb 15 09:59	25° ≈ 53'10	2°05'24
evening max el	2787 Mar 31 10:44	28° Υ 43'15	18°29'42		2788 Feb 17 18:24	0° ✕	
	2787 Apr 01 21:24	0° ♄		evening rise	2788 Feb 26 09:55	15° ✕ 35'23	
retrograde	2787 Apr 08 00:52	2° ♄ 27'24			2788 Mar 05 11:43	0° Υ	
evening set	2787 Apr 10 08:26	2° ♄ 07'37		asc. node	2788 Mar 06 07:15	1° Υ 21'18	
	2787 Apr 14 15:57	30° ♁		evening max el	2788 Mar 13 20:20	11° Υ 37'27	18°09'49
inferior conj	2787 Apr 17 20:41	27° Υ 36'42	2°26'42	retrograde	2788 Mar 20 15:26	15° Υ 03'44	
minimum elong	2787 Apr 18 00:34	27° Υ 28'58	2°25'41	evening set	2788 Mar 23 04:51	14° Υ 34'59	
min. Earth dist.	2787 Apr 21 07:02	24° Υ 54'16	0.58283 AU	inferior conj	2788 Mar 30 00:38	9° Υ 42'45	3°16'06
morning rise	2787 Apr 25 12:23	22° Υ 11'30		minimum elong	2788 Mar 30 03:25	9° Υ 36'17	3°15'39
desc. node	2787 Apr 27 05:01	21° Υ 27'06		min. Earth dist.	2788 Apr 02 07:56	6° Υ 40'59	0.60431 AU
direct	2787 May 01 11:42	20° Υ 39'37		morning rise	2788 Apr 05 22:39	3° Υ 55'05	
morning max el	2787 May 15 21:03	28° Υ 20'30	26°49'37	direct	2788 Apr 12 14:13	1° Υ 47'41	
	2787 May 17 12:14	0° ♄		desc. node	2788 Apr 13 02:04	1° Υ 48'22	
	2787 Jun 06 23:06	0° ♄		morning max el	2788 Apr 26 20:53	9° Υ 40'13	27°38'15
morning set	2787 Jun 14 14:39	15° ♄ 07'52			2788 May 12 13:13	0° ♄	
asc. node	2787 Jun 16 09:30	18° ♄ 55'07		morning set	2788 May 28 21:25	29° ♄ 44'47	
	2787 Jun 21 11:22	0° ♄			2788 May 29 00:21	0° ♄	
				asc. node	2788 Jun 02 06:33	9° ♄ 02'28	
superior conj	2787 Jun 21 16:21	0° ♄ 27'25	0°53'11	max. Earth dist.	2788 Jun 04 04:36	13° ♄ 13'20	1.32177 AU
minimum elong	2787 Jun 21 14:17	0° ♄ 16'06	0°52'48				
max. Earth dist.	2787 Jun 21 16:58	0° ♄ 30'52	1.32154 AU	superior conj	2788 Jun 05 03:43	15° ♄ 20'09	0°30'00
evening rise	2787 Jun 28 14:30	15° ♄ 28'33		minimum elong	2788 Jun 05 02:25	15° ♄ 12'57	0°29'43
	2787 Jul 05 21:46	0° ♄			2788 Jun 11 21:19	0° ♄	
desc. node	2787 Jul 24 04:20	27° ♄ 42'52		evening rise	2788 Jun 12 00:57	0° ♄ 19'15	
	2787 Jul 26 06:07	0° ♄			2788 Jun 28 07:12	0° ♄	
evening max el	2787 Jul 28 08:58	2° ♄ 07'18	26°38'25	evening max el	2788 Jul 09 04:18	13° ♄ 22'23	25°28'01
retrograde	2787 Aug 11 08:06	9° ♄ 19'30		desc. node	2788 Jul 10 01:19	14° ♄ 11'20	
evening set	2787 Aug 18 02:56	7° ♄ 22'22		retrograde	2788 Jul 23 04:16	20° ♄ 29'26	
min. Earth dist.	2787 Aug 21 22:42	4° ♄ 46'28	0.60071 AU	evening set	2788 Jul 29 00:32	19° ♄ 09'48	
inferior conj	2787 Aug 25 05:20	2° ♄ 08'09	-4°-42'-21	min. Earth dist.	2788 Aug 02 16:20	16° ♄ 29'48	0.58035 AU
minimum elong	2787 Aug 25 09:50	1° ♄ 59'02	4°41'42	inferior conj	2788 Aug 05 19:56	14° ♄ 17'49	-5°-3'-1
	2787 Aug 27 23:42	30° ♁		minimum elong	2788 Aug 05 20:42	14° ♄ 16'29	5°03'00
morning rise	2787 Sep 01 20:05	27° ♄ 27'42		morning rise	2788 Aug 13 20:26	10° ♄ 00'13	
direct	2787 Sep 04 04:52	27° ♄ 06'58		direct	2788 Aug 16 08:32	9° ♄ 40'52	
	2787 Sep 10 20:30	0° ♄		morning max el	2788 Aug 24 21:27	13° ♄ 43'16	18°51'34
morning max el	2787 Sep 11 17:07	0° ♄ 47'04	18°12'05	asc. node	2788 Aug 29 05:48	18° ♄ 47'19	
asc. node	2787 Sep 12 08:44	1° ♄ 26'12			2788 Sep 05 02:56	0° ♄	
morning set	2787 Sep 27 12:54	25° ♄ 53'39		morning set	2788 Sep 10 09:02	10° ♄ 02'21	
	2787 Sep 29 17:06	0° ♄					
				superior conj	2788 Sep 18 22:06	26° ♄ 41'35	1°38'15
superior conj	2787 Oct 07 01:50	13° ♄ 38'58	1°22'03	minimum elong	2788 Sep 19 00:27	26° ♄ 52'43	1°38'06
minimum elong	2787 Oct 07 05:47	13° ♄ 56'50	1°21'39		2788 Sep 20 16:06	0° ♄	
max. Earth dist.	2787 Oct 14 16:39	26° ♄ 59'24	1.41191 AU	max. Earth dist.	2788 Sep 25 21:22	9° ♄ 32'30	1.39145 AU
	2787 Oct 16 11:36	0° ♄		evening rise	2788 Sep 29 20:45	16° ♄ 28'31	
evening rise	2787 Oct 19 17:38	5° ♄ 21'14		desc. node	2788 Oct 06 00:42	26° ♄ 41'23	
desc. node	2787 Oct 20 03:41	6° ♄ 02'01			2788 Oct 08 02:40	0° ♄	
	2787 Nov 04 20:25	0° ♄			2788 Oct 29 10:48	0° ♄	
greatest brilliancy	2787 Nov 17 01:03	16° ♄ 24'17	-0.2m	evening max el	2788 Nov 04 04:12	6° ♄ 19'01	24°21'33
evening max el	2787 Nov 22 15:01	22° ♄ 41'01	23°01'53	retrograde	2788 Nov 15 10:43	12° ♄ 54'46	
retrograde	2787 Dec 02 19:42	28° ♄ 43'50		evening set	2788 Nov 20 19:14	10° ♄ 41'34	
evening set	2787 Dec 07 14:25	26° ♄ 47'16		asc. node	2788 Nov 25 05:01	5° ♄ 42'42	
asc. node	2787 Dec 09 07:57	25° ♄ 06'37		min. Earth dist.	2788 Nov 25 12:51	5° ♄ 16'34	0.67634 AU
min. Earth dist.	2787 Dec 12 16:49	20° ♄ 48'28	0.67889 AU	inferior conj	2788 Nov 26 07:05	4° ♄ 15'22	0°22'20
inferior conj	2787 Dec 13 00:26	20° ♄ 22'12	1°14'01	minimum elong	2788 Nov 26 06:33	4° ♄ 17'11	0°22'06
minimum elong	2787 Dec 12 22:48	20° ♄ 27'47	1°13'21		2788 Nov 29 17:16	30° ♁	
morning rise	2787 Dec 18 07:11	14° ♄ 11'08		morning rise	2788 Dec 01 18:11	28° ♄ 09'57	
direct	2787 Dec 22 14:50	12° ♄ 28'28		direct	2788 Dec 05 12:27	26° ♄ 49'04	
morning max el	2787 Dec 31 10:01	17° ♄ 36'55	21°31'40		2788 Dec 11 23:04	0° ♄	
greatest brilliancy	2788 Jan 05 09:39	23° ♄ 16'43	-0.4m	morning max el	2788 Dec 13 07:22	1° ♄ 16'36	20°16'46
	2788 Jan 10 12:40	0° ♄		greatest brilliancy	2788 Dec 19 21:09	9° ♄ 07'47	-0.5m
desc. node	2788 Jan 16 02:56	7° ♄ 53'33		desc. node	2789 Jan 01 23:59	28° ♄ 04'56	
	2788 Jan 30 17:41	0° ♄			2789 Jan 03 06:26	0° ♄	

morning set	2789 Jan 09 22:52	10°☿13'57			2789 Dec 07 19:12	0°☿	
max. Earth dist.	2789 Jan 20 03:59	26°☿18'32	1.43636 AU	desc. node	2789 Dec 19 21:00	18°☿31'39	
	2789 Jan 22 10:55	0°☿		morning set	2789 Dec 20 00:04	18°☿43'34	
					2789 Dec 27 05:48	0°☿	
superior conj	2789 Jan 26 02:43	5°☿58'54	-2°-1'-42	max. Earth dist.	2790 Jan 02 18:54	10°☿16'27	1.44766 AU
minimum elong	2789 Jan 25 22:42	5°☿42'24	2°01'34				
evening rise	2789 Feb 07 19:54	27°☿35'26		superior conj	2790 Jan 05 19:23	15°☿03'21	-1°-39'-12
	2789 Feb 09 05:08	0°☿		minimum elong	2790 Jan 05 10:43	14°☿28'56	1°38'26
asc. node	2789 Feb 21 04:18	19°☿42'41			2790 Jan 15 02:10	0°☿	
evening max el	2789 Feb 25 08:42	24°☿49'08	18°09'15	evening rise	2790 Jan 20 08:49	8°☿40'27	
retrograde	2789 Mar 03 19:44	28°☿12'44			2790 Feb 02 12:43	0°☿	
evening set	2789 Mar 06 14:32	27°☿33'43		asc. node	2790 Feb 08 01:20	7°☿19'28	
inferior conj	2789 Mar 12 21:34	22°☿20'36	3°38'01	evening max el	2790 Feb 08 21:00	8°☿11'34	18°27'26
minimum elong	2789 Mar 12 22:28	22°☿18'14	3°37'58	retrograde	2790 Feb 15 09:26	11°☿45'30	
min. Earth dist.	2789 Mar 15 16:59	19°☿24'13	0.62542 AU	evening set	2790 Feb 18 09:39	10°☿55'22	
morning rise	2789 Mar 19 04:09	16°☿19'06		inferior conj	2790 Feb 24 07:30	5°☿23'04	3°39'10
direct	2789 Mar 26 02:03	13°☿44'31		minimum elong	2790 Feb 24 06:43	5°☿25'23	3°39'08
desc. node	2789 Mar 30 23:07	14°☿52'12		min. Earth dist.	2790 Feb 26 11:40	2°☿51'02	0.64390 AU
morning max el	2789 Apr 09 02:28	21°☿41'04	27°49'53		2790 Mar 01 05:11	30°☿	
	2789 Apr 16 08:51	0°☿		morning rise	2790 Mar 02 02:18	29°☿13'36	
	2789 May 05 15:34	0°☿		direct	2790 Mar 08 21:43	26°☿25'05	
morning set	2789 May 12 22:42	14°☿02'05		desc. node	2790 Mar 17 20:11	0°☿10'10	
max. Earth dist.	2789 May 18 12:32	25°☿40'51	1.32603 AU		2790 Mar 17 14:47	0°☿	
asc. node	2789 May 20 03:35	29°☿11'18		morning max el	2790 Mar 22 11:40	4°☿17'54	27°25'23
					2790 Apr 10 21:40	0°☿	
superior conj	2789 May 20 12:56	0°☿01'57	0°04'07	morning set	2790 Apr 26 15:54	27°☿51'52	
minimum elong	2789 May 20 12:44	0°☿00'52	0°04'04		2790 Apr 27 17:52	0°☿	
behind sun begin	2789 May 20 07:41	29°☿33'32		max. Earth dist.	2790 May 01 12:49	7°☿41'37	1.33457 AU
behind sun end	2789 May 20 17:46	0°☿28'14					
	2789 May 20 12:34	0°☿		superior conj	2790 May 04 18:05	14°☿27'03	0°-23'-38
evening rise	2789 May 27 12:45	15°☿10'04		minimum elong	2790 May 04 19:17	14°☿33'24	0°23'25
	2789 Jun 03 22:39	0°☿		asc. node	2790 May 07 00:37	19°☿17'58	
evening max el	2789 Jun 20 18:14	23°☿59'51	23°57'03	evening rise	2790 May 12 00:05	29°☿54'54	
desc. node	2789 Jun 26 22:20	28°☿44'39			2790 May 12 01:03	0°☿	
	2789 Jun 29 14:44	0°☿			2790 May 29 08:41	0°☿	
retrograde	2789 Jul 04 12:20	0°☿54'44		evening max el	2790 Jun 02 09:12	4°☿27'11	22°20'40
evening set	2789 Jul 08 22:52	0°☿11'17		desc. node	2790 Jun 13 19:21	10°☿47'35	
	2789 Jul 09 12:16	30°☿		retrograde	2790 Jun 15 08:29	10°☿53'05	
min. Earth dist.	2789 Jul 15 04:44	27°☿10'25	0.56280 AU	evening set	2790 Jun 18 08:40	10°☿33'05	
inferior conj	2789 Jul 17 14:17	25°☿42'22	-4°-47'-3	min. Earth dist.	2790 Jun 26 15:47	6°☿57'45	0.55145 AU
minimum elong	2789 Jul 17 09:24	25°☿49'54	4°46'27	inferior conj	2790 Jun 27 15:07	6°☿24'48	-3°-42'-48
morning rise	2789 Jul 25 23:22	21°☿44'09		minimum elong	2790 Jun 27 06:58	6°☿36'20	3°40'41
direct	2789 Jul 28 17:03	21°☿24'51		morning rise	2790 Jul 06 07:29	2°☿33'57	
morning max el	2789 Aug 07 15:39	26°☿01'39	19°52'41	direct	2790 Jul 09 08:26	2°☿13'06	
	2789 Aug 11 06:51	0°☿		morning max el	2790 Jul 20 22:21	7°☿36'29	21°14'20
asc. node	2789 Aug 16 02:50	6°☿59'15		asc. node	2790 Aug 02 23:52	25°☿49'48	
morning set	2789 Aug 25 12:24	24°☿32'43			2790 Aug 05 05:21	0°☿	
	2789 Aug 28 04:48	0°☿		morning set	2790 Aug 09 20:30	9°☿17'23	
superior conj	2789 Sep 02 09:04	10°☿28'25	1°44'50	superior conj	2790 Aug 17 06:23	24°☿46'29	1°43'31
minimum elong	2789 Sep 02 09:37	10°☿31'07	1°44'49	minimum elong	2790 Aug 17 05:28	24°☿41'41	1°43'29
max. Earth dist.	2789 Sep 08 02:20	21°☿34'25	1.37123 AU		2790 Aug 19 19:35	0°☿	
evening rise	2789 Sep 11 22:37	28°☿39'31		max. Earth dist.	2790 Aug 21 12:33	3°☿25'46	1.35341 AU
	2789 Sep 12 16:34	0°☿		evening rise	2790 Aug 25 19:10	11°☿43'57	
desc. node	2789 Sep 22 21:41	17°☿10'27			2790 Sep 05 03:20	0°☿	
	2789 Oct 01 10:39	0°☿		desc. node	2790 Sep 09 18:41	7°☿23'21	
evening max el	2789 Oct 17 16:21	19°☿59'55	25°35'11		2790 Sep 26 16:12	0°☿	
retrograde	2789 Oct 29 21:13	26°☿59'46		evening max el	2790 Sep 30 04:30	3°☿38'17	26°35'16
evening set	2789 Nov 04 20:05	24°☿31'35		retrograde	2790 Oct 13 02:38	10°☿52'15	
min. Earth dist.	2789 Nov 09 05:49	19°☿41'56	0.67041 AU	evening set	2790 Oct 19 14:59	8°☿13'22	
inferior conj	2789 Nov 10 10:59	18°☿08'38	0°-33'-35	min. Earth dist.	2790 Oct 23 17:23	4°☿00'14	0.66101 AU
minimum elong	2789 Nov 10 11:51	18°☿05'51	0°33'13	inferior conj	2790 Oct 25 10:10	1°☿58'10	-1°-32'-20
asc. node	2789 Nov 12 02:03	16°☿06'16		minimum elong	2790 Oct 25 12:40	1°☿50'41	1°31'18
morning rise	2789 Nov 16 04:24	12°☿11'30			2790 Oct 27 02:35	30°☿	
direct	2789 Nov 19 11:02	11°☿09'38		asc. node	2790 Oct 29 23:06	27°☿12'56	
morning max el	2789 Nov 26 12:36	15°☿07'05	19°15'48	morning rise	2790 Oct 31 11:41	26°☿12'05	
greatest brilliancy	2789 Dec 06 10:11	27°☿57'39	-0.7m	direct	2790 Nov 03 08:48	25°☿25'34	

morning max el	2790 Nov 10 00:10	29°♄03'39	18°30'32		2791 Nov 05 12:42	0°♌	
	2790 Nov 10 21:40	0°♌		morning set	2791 Nov 11 07:56	9°♌40'20	
morning set	2790 Nov 30 01:20	28°♌28'31		desc. node	2791 Nov 23 15:01	29°♌52'19	
	2790 Dec 01 00:12	0°♊			2791 Nov 23 16:55	0°♊	
desc. node	2790 Dec 06 18:00	9°♊08'37					
				superior conj	2791 Nov 25 05:54	2°♊28'10	0°-10'-58
superior conj	2790 Dec 15 21:28	23°♊33'30	0°-59'-7	minimum elong	2791 Nov 25 04:33	2°♊22'45	0°10'48
minimum elong	2790 Dec 15 14:08	23°♊04'43	0°58'13	behind sun begin	2791 Nov 24 20:34	1°♊50'52	
max. Earth dist.	2790 Dec 16 13:09	24°♊35'06	1.45190 AU	behind sun end	2791 Nov 25 12:31	2°♊54'36	
	2790 Dec 19 23:59	0°♋		max. Earth dist.	2791 Nov 29 07:53	8°♊57'12	1.44877 AU
evening rise	2790 Dec 31 22:17	18°♋47'48		evening rise	2791 Dec 11 15:30	28°♊08'55	
	2791 Jan 08 00:03	0°♋			2791 Dec 12 20:19	0°♋	
greatest brilliancy	2791 Jan 11 21:10	6°♋04'12	-0.8m	greatest brilliancy	2791 Dec 30 10:13	26°♋20'56	-0.6m
evening max el	2791 Jan 23 06:48	21°♋39'09	19°03'27		2792 Jan 02 03:17	0°♋	
asc. node	2791 Jan 25 22:22	23°♋58'32		evening max el	2792 Jan 06 12:19	5°♋09'06	19°55'33
retrograde	2791 Jan 30 04:34	25°♋34'21		asc. node	2792 Jan 12 19:25	9°♋25'11	
evening set	2791 Feb 02 11:09	24°♋32'05		retrograde	2792 Jan 14 02:10	9°♋34'13	
inferior conj	2791 Feb 08 02:46	18°♋42'59	3°24'56	evening set	2792 Jan 17 16:35	8°♋18'27	
minimum elong	2791 Feb 08 00:49	18°♋49'07	3°24'38	inferior conj	2792 Jan 23 04:22	2°♋15'09	2°58'59
min. Earth dist.	2791 Feb 09 15:35	16°♋46'35	0.65860 AU	minimum elong	2792 Jan 23 01:52	2°♋23'29	2°58'23
morning rise	2791 Feb 13 13:32	12°♋29'17		min. Earth dist.	2792 Jan 24 03:02	0°♋59'26	0.66926 AU
direct	2791 Feb 20 00:05	9°♋40'37			2792 Jan 24 21:08	30°♋	
desc. node	2791 Mar 04 17:12	17°♋07'04		morning rise	2792 Jan 28 10:29	25°♋59'48	
morning max el	2791 Mar 04 21:37	17°♋18'08	26°30'45	direct	2792 Feb 03 08:18	23°♋22'26	
	2791 Mar 15 12:27	0°♌			2792 Feb 14 18:37	0°♌	
	2791 Apr 03 19:30	0°♍		morning max el	2792 Feb 15 06:26	0°♌29'31	25°14'48
morning set	2791 Apr 09 21:29	11°♍03'44		desc. node	2792 Feb 19 14:14	5°♌14'31	
max. Earth dist.	2791 Apr 14 02:07	19°♍09'24	1.34763 AU		2792 Mar 08 11:15	0°♌	
				morning set	2792 Mar 22 10:38	23°♌22'51	
superior conj	2791 Apr 18 16:58	28°♍29'06	0°-52'-4	max. Earth dist.	2792 Mar 26 03:47	0°♍11'44	1.36515 AU
minimum elong	2791 Apr 18 19:40	28°♍42'58	0°51'35		2792 Mar 26 01:17	0°♍	
	2791 Apr 19 10:35	0°♎					
asc. node	2791 Apr 23 21:39	9°♎18'27		superior conj	2792 Apr 01 06:42	11°♍59'19	-1°-19'-31
evening rise	2791 Apr 26 09:02	14°♎27'39		minimum elong	2792 Apr 01 10:40	12°♍19'00	1°18'55
	2791 May 04 08:48	0°♏		evening rise	2792 Apr 09 13:21	28°♍40'47	
evening max el	2791 May 15 08:52	15°♏16'59	20°52'54	asc. node	2792 Apr 09 18:42	29°♍07'47	
retrograde	2791 May 26 21:47	20°♏54'44			2792 Apr 10 05:05	0°♎	
evening set	2791 May 29 01:28	20°♏43'43		evening max el	2792 Apr 26 20:29	26°♎45'02	19°41'44
desc. node	2791 May 31 16:23	20°♏02'48			2792 May 01 03:06	0°♏	
inferior conj	2791 Jun 07 08:46	16°♏46'11	-1°-56'-28	retrograde	2792 May 06 15:26	1°♏29'23	
minimum elong	2791 Jun 07 03:19	16°♏53'55	1°54'33	evening set	2792 May 08 15:23	1°♏18'26	
min. Earth dist.	2791 Jun 08 04:02	16°♏18'47	0.54902 AU		2792 May 12 13:43	30°♎	
morning rise	2791 Jun 16 04:27	12°♏42'50		inferior conj	2792 May 17 09:34	27°♎15'51	0°02'49
direct	2791 Jun 19 17:49	12°♏15'34		minimum elong	2792 May 17 09:41	27°♎15'39	0°02'46
morning max el	2791 Jul 02 18:54	18°♏30'46	22°51'32	transit middle	2792 May 17 09:41	27°♎15'39	0°02'46
	2791 Jul 12 03:55	0°♐		transit begin	2792 May 17 05:49	27°♎21'43	
asc. node	2791 Jul 20 20:54	15°♐09'24		transit end	2792 May 17 13:34	27°♎09'35	
morning set	2791 Jul 25 07:22	24°♐10'40		desc. node	2792 May 17 13:26	27°♎09'48	
	2791 Jul 28 01:12	0°♑		min. Earth dist.	2792 May 19 17:55	25°♎48'03	0.55629 AU
				morning rise	2792 May 26 00:33	22°♎43'12	
superior conj	2791 Aug 01 10:48	9°♑25'48	1°35'44	direct	2792 May 30 10:39	21°♎59'39	
minimum elong	2791 Aug 01 08:54	9°♑15'41	1°35'35	morning max el	2792 Jun 13 09:35	28°♎58'46	24°33'58
max. Earth dist.	2791 Aug 04 07:38	15°♑29'09	1.33931 AU		2792 Jun 14 10:35	0°♏	
evening rise	2791 Aug 09 05:59	25°♑30'11			2792 Jul 04 08:19	0°♐	
	2791 Aug 11 13:37	0°♑		asc. node	2792 Jul 06 17:57	4°♐49'35	
desc. node	2791 Aug 27 15:42	27°♑12'53		morning set	2792 Jul 08 19:13	9°♐06'15	
	2791 Aug 29 13:42	0°♒					
evening max el	2791 Sep 12 16:39	17°♒06'17	27°14'23	superior conj	2792 Jul 15 19:38	24°♐16'59	1°22'39
retrograde	2791 Sep 26 02:35	24°♒24'48		minimum elong	2792 Jul 15 17:17	24°♐04'14	1°22'20
evening set	2791 Oct 03 01:35	21°♒42'48		max. Earth dist.	2792 Jul 17 11:25	27°♐52'32	1.32930 AU
min. Earth dist.	2791 Oct 06 21:24	18°♒05'38	0.64812 AU		2792 Jul 18 11:07	0°♑	
inferior conj	2791 Oct 09 02:28	15°♒39'57	-2°-31'-54	evening rise	2792 Jul 23 03:03	9°♑45'47	
minimum elong	2791 Oct 09 06:36	15°♒28'35	2°30'23		2792 Aug 02 21:53	0°♑	
morning rise	2791 Oct 15 13:34	10°♒07'53		desc. node	2792 Aug 13 12:44	16°♑28'23	
asc. node	2791 Oct 16 20:08	9°♒41'53			2792 Aug 24 22:28	0°♒	
direct	2791 Oct 18 03:36	9°♒32'46		evening max el	2792 Aug 25 03:11	0°♒11'15	27°26'00
morning max el	2791 Oct 24 15:34	13°♒00'44	18°01'57	retrograde	2792 Sep 07 20:10	7°♒27'58	

evening set	2792 Sep 15 00:42	4°♂53'29		evening set	2793 Aug 28 08:17	17°♂38'08	
min. Earth dist.	2792 Sep 18 15:56	1°♂48'31	0.63178 AU	min. Earth dist.	2793 Aug 31 23:43	14°♂56'06	0.61262 AU
	2792 Sep 20 12:05	30°♂		inferior conj	2793 Sep 04 03:06	12°♂12'04	-4°-19'-39
inferior conj	2792 Sep 21 09:11	29°♂07'24	-3°-29'-19	minimum elong	2793 Sep 04 08:31	12°♂00'15	4°18'31
minimum elong	2792 Sep 21 14:32	28°♂54'10	3°27'43	morning rise	2793 Sep 11 11:44	7°♂18'17	
morning rise	2792 Sep 28 06:53	23°♂52'43		direct	2793 Sep 13 20:08	6°♂55'41	
direct	2792 Sep 30 16:36	23°♂25'22		asc. node	2793 Sep 19 14:13	9°♂16'33	
asc. node	2792 Oct 02 17:10	23°♂45'10		morning max el	2793 Sep 20 22:08	10°♂27'42	17°58'45
morning max el	2792 Oct 07 07:55	26°♂51'16	17°51'03		2793 Oct 03 19:06	0°♂	
	2792 Oct 10 01:46	0°♂		morning set	2793 Oct 06 16:54	5°♂19'40	
morning set	2792 Oct 23 15:18	22°♂04'02					
	2792 Oct 28 04:20	0°♂		superior conj	2793 Oct 16 23:38	23°♂54'52	1°07'43
				minimum elong	2793 Oct 17 04:02	24°♂14'08	1°07'11
superior conj	2792 Nov 04 13:18	12°♂31'59	0°33'31		2793 Oct 20 12:03	0°♂	
minimum elong	2792 Nov 04 16:32	12°♂45'30	0°33'05	max. Earth dist.	2793 Oct 24 13:14	6°♂48'28	1.42288 AU
desc. node	2792 Nov 09 12:03	20°♂39'33		desc. node	2793 Oct 27 09:05	11°♂26'31	
max. Earth dist.	2792 Nov 11 00:41	23°♂07'17	1.43869 AU	evening rise	2793 Oct 30 17:18	16°♂48'13	
	2792 Nov 15 08:31	0°♂			2793 Nov 08 06:23	0°♂	
evening rise	2792 Nov 20 00:20	7°♂15'42		greatest brilliancy	2793 Nov 27 13:47	26°♂54'23	-0.3m
	2792 Dec 05 04:11	0°♂			2793 Nov 30 05:11	0°♂	
greatest brilliancy	2792 Dec 14 04:13	12°♂25'58	-0.5m	evening max el	2793 Dec 02 07:13	2°♂13'35	22°16'09
evening max el	2792 Dec 19 12:29	18°♂40'47	21°01'01	retrograde	2793 Dec 11 20:11	7°♂54'02	
retrograde	2792 Dec 27 23:56	23°♂42'03		evening set	2793 Dec 16 07:44	6°♂06'51	
asc. node	2792 Dec 29 16:27	23°♂26'18		asc. node	2793 Dec 16 13:29	5°♂54'55	
evening set	2793 Jan 01 00:02	22°♂11'14		inferior conj	2793 Dec 21 17:17	29°♂44'29	1°41'19
inferior conj	2793 Jan 06 09:53	15°♂56'43	2°23'52	minimum elong	2793 Dec 21 15:12	29°♂51'40	1°40'33
minimum elong	2793 Jan 06 07:22	16°♂05'24	2°23'05	min. Earth dist.	2793 Dec 21 15:47	29°♂49'39	0.67888 AU
min. Earth dist.	2793 Jan 06 19:53	15°♂22'19	0.67595 AU		2793 Dec 21 12:48	30°♂	
morning rise	2793 Jan 11 14:18	9°♂41'41		morning rise	2793 Dec 26 22:32	23°♂31'36	
direct	2793 Jan 16 21:24	7°♂23'18		direct	2793 Dec 31 14:32	21°♂35'52	
morning max el	2793 Jan 27 14:51	13°♂46'48	23°47'51	morning max el	2794 Jan 10 01:54	27°♂10'43	22°19'41
desc. node	2793 Feb 05 11:17	24°♂12'33			2794 Jan 12 16:52	0°♂	
	2793 Feb 09 18:17	0°♂		greatest brilliancy	2794 Jan 14 15:40	2°♂17'32	-0.3m
	2793 Mar 01 08:39	0°♂		desc. node	2794 Jan 23 08:20	13°♂46'23	
morning set	2793 Mar 04 01:25	4°♂33'19			2794 Feb 03 09:22	0°♂	
max. Earth dist.	2793 Mar 07 23:08	11°♂20'52	1.38595 AU	morning set	2794 Feb 12 12:06	14°♂21'20	
				max. Earth dist.	2794 Feb 17 20:07	23°♂11'19	1.40759 AU
superior conj	2793 Mar 15 07:39	24°♂48'33	-1°-43'-31		2794 Feb 21 19:28	0°♂	
minimum elong	2793 Mar 15 12:06	25°♂09'36	1°43'03	superior conj	2794 Feb 25 15:05	6°♂44'30	-2°00'-33
	2793 Mar 18 00:58	0°♂		minimum elong	2794 Feb 25 18:18	6°♂58'51	2°00'24
evening rise	2793 Mar 24 10:27	12°♂27'31		evening rise	2794 Mar 07 21:03	25°♂39'19	
asc. node	2793 Mar 27 15:46	18°♂41'10			2794 Mar 10 04:49	0°♂	
	2793 Apr 03 00:25	0°♂		asc. node	2794 Mar 14 12:48	7°♂52'14	
evening max el	2793 Apr 09 18:59	8°♂52'01	18°50'11	evening max el	2794 Mar 24 01:20	21°♂30'17	18°18'48
retrograde	2793 Apr 18 01:06	12°♂53'30		retrograde	2794 Mar 31 05:57	25°♂05'06	
evening set	2793 Apr 20 05:26	12°♂37'44		evening set	2794 Apr 02 16:05	24°♂41'40	
inferior conj	2793 Apr 28 04:31	8°♂18'17	1°43'24	inferior conj	2794 Apr 09 20:51	20°♂01'20	2°51'27
minimum elong	2793 Apr 28 08:00	8°♂11'57	1°42'18	minimum elong	2794 Apr 10 00:27	19°♂53'39	2°50'40
min. Earth dist.	2793 May 01 10:14	5°♂58'22	0.57161 AU	min. Earth dist.	2794 Apr 13 07:11	17°♂07'49	0.59179 AU
desc. node	2793 May 04 10:27	4°♂04'58		morning rise	2794 Apr 17 04:54	14°♂25'21	
morning rise	2793 May 06 06:13	3°♂11'08		desc. node	2794 Apr 21 07:30	12°♂51'16	
direct	2793 May 11 16:48	1°♂59'34		direct	2794 Apr 23 12:05	12°♂38'19	
morning max el	2793 May 26 00:40	9°♂28'01	26°06'45	morning max el	2794 May 07 20:58	20°♂24'43	27°14'50
	2793 Jun 10 13:43	0°♂			2794 May 16 02:50	0°♂	
morning set	2793 Jun 23 06:26	23°♂59'05		morning set	2794 Jun 03 07:56	0°♂	
asc. node	2793 Jun 23 15:00	24°♂44'20		asc. node	2794 Jun 07 15:22	8°♂43'30	
	2793 Jun 26 01:51	0°♂			2794 Jun 10 12:05	14°♂48'18	
superior conj	2793 Jun 30 06:51	9°♂13'22	1°05'04	superior conj	2794 Jun 14 18:38	24°♂08'44	0°43'44
minimum elong	2793 Jun 30 04:33	9°♂00'45	1°04'41	minimum elong	2794 Jun 14 16:50	23°♂58'53	0°43'23
max. Earth dist.	2793 Jun 30 21:13	10°♂32'23	1.32331 AU	max. Earth dist.	2794 Jun 14 09:23	23°♂17'47	1.32114 AU
evening rise	2793 Jul 07 07:14	24°♂21'08			2794 Jun 17 10:28	0°♂	
	2793 Jul 10 01:32	0°♂		evening rise	2794 Jun 21 15:58	9°♂07'58	
	2793 Jul 27 16:26	0°♂			2794 Jul 02 10:56	0°♂	
desc. node	2793 Jul 31 09:46	4°♂55'48		desc. node	2794 Jul 18 06:46	22°♂15'30	
evening max el	2793 Aug 07 09:27	12°♂39'33	27°05'17	evening max el	2794 Jul 20 08:51	24°♂21'22	26°11'46
retrograde	2793 Aug 21 06:28	19°♂52'33					

	2794 Jul 28 03:20	0°♍			2795 Jun 27 04:57	0°♌	
retrograde	2794 Aug 03 08:23	1°♍31'36		evening max el	2795 Jul 02 01:07	5°♌17'08	24°51'07
	2794 Aug 09 11:06	30°♌♌		desc. node	2795 Jul 05 03:47	7°♌59'17	
evening set	2794 Aug 09 19:35	29°♌49'22		retrograde	2795 Jul 16 00:03	12°♌21'31	
min. Earth dist.	2794 Aug 13 21:35	27°♌14'26	0.59196 AU	evening set	2795 Jul 21 06:56	11°♌18'00	
inferior conj	2794 Aug 17 04:40	24°♌44'47	-4°-54'-37	min. Earth dist.	2795 Jul 26 12:31	8°♌30'58	0.57226 AU
minimum elong	2794 Aug 17 07:56	24°♌38'33	4°54'18	inferior conj	2795 Jul 29 10:41	6°♌35'26	-5°-1'-39
morning rise	2794 Aug 24 23:44	20°♌14'22		minimum elong	2795 Jul 29 09:07	6°♌38'03	5°01'36
direct	2794 Aug 27 09:43	19°♌54'21		morning rise	2795 Aug 06 15:00	2°♌27'18	
morning max el	2794 Sep 04 07:05	23°♌42'01	18°26'18	direct	2795 Aug 09 05:06	2°♌08'17	
asc. node	2794 Sep 06 11:17	26°♌02'23		morning max el	2795 Aug 18 07:31	6°♌23'43	19°14'57
	2794 Sep 09 10:27	0°♍		asc. node	2795 Aug 24 08:20	13°♌46'41	
morning set	2794 Sep 20 07:28	19°♍12'36			2795 Sep 02 12:14	0°♍	
	2794 Sep 25 22:40	0°♎		morning set	2795 Sep 04 07:02	3°♍31'21	
superior conj	2794 Sep 29 09:13	6°♎26'31	1°30'13	superior conj	2795 Sep 12 12:22	19°♍49'58	1°42'06
minimum elong	2794 Sep 29 12:33	6°♎41'58	1°29'54	minimum elong	2795 Sep 12 13:56	19°♍57'32	1°42'01
max. Earth dist.	2794 Oct 06 20:17	19°♎47'20	1.40336 AU		2795 Sep 17 21:08	0°♎	
evening rise	2794 Oct 11 06:40	27°♎17'38		max. Earth dist.	2795 Sep 19 00:01	2°♎03'13	1.38266 AU
	2794 Oct 12 22:06	0°♏		evening rise	2795 Sep 22 19:50	8°♎52'59	
desc. node	2794 Oct 14 06:06	2°♏10'00		desc. node	2795 Oct 01 03:06	22°♎45'30	
	2794 Nov 01 21:44	0°♐			2795 Oct 05 18:35	0°♏	
evening max el	2794 Nov 14 21:42	15°♐49'00	23°35'54	evening max el	2795 Oct 28 10:04	29°♏27'55	24°53'55
retrograde	2794 Nov 25 13:33	22°♐06'56			2795 Oct 28 23:17	0°♐	
evening set	2794 Nov 30 14:06	20°♐02'55		retrograde	2795 Nov 09 02:56	6°♐15'54	
asc. node	2794 Dec 03 10:30	17°♐02'51		evening set	2795 Nov 14 17:28	3°♐55'59	
min. Earth dist.	2794 Dec 05 12:29	14°♐18'29	0.67827 AU		2795 Nov 18 08:36	30°♏♏	
inferior conj	2794 Dec 06 00:43	13°♐36'40	0°52'40	min. Earth dist.	2795 Nov 19 07:36	28°♏45'39	0.67425 AU
minimum elong	2794 Dec 05 23:31	13°♐40'48	0°52'10	inferior conj	2795 Nov 20 06:27	27°♏30'16	0°00'-56
morning rise	2794 Dec 11 09:06	7°♐27'52		minimum elong	2795 Nov 20 06:28	27°♏30'12	0°00'56
direct	2794 Dec 15 10:47	5°♐54'57		transit middle	2795 Nov 20 06:28	27°♏30'12	0°00'56
morning max el	2794 Dec 23 19:00	10°♐44'50	20°58'16	transit begin	2795 Nov 20 03:42	27°♏39'19	
greatest brilliancy	2794 Dec 29 07:48	17°♐08'41	-0.5m	transit end	2795 Nov 20 09:13	27°♏21'06	
	2795 Jan 07 15:32	0°♑		asc. node	2795 Nov 20 07:33	27°♏26'38	
desc. node	2795 Jan 10 05:22	3°♑46'15		morning rise	2795 Nov 25 20:00	21°♏27'56	
morning set	2795 Jan 22 19:35	22°♑55'06		direct	2795 Nov 29 08:58	20°♏15'42	
	2795 Jan 27 07:09	0°♒		morning max el	2795 Dec 06 19:48	24°♏29'30	19°48'53
max. Earth dist.	2795 Jan 30 23:31	5°♒56'18	1.42711 AU		2795 Dec 11 13:27	0°♑	
superior conj	2795 Feb 06 23:55	17°♒36'05	-2°-5'-55	greatest brilliancy	2795 Dec 14 10:40	3°♑51'56	-0.6m
minimum elong	2795 Feb 06 23:12	17°♒33'01	2°05'56	desc. node	2795 Dec 28 02:24	24°♑04'37	
	2795 Feb 14 03:38	0°♓			2795 Dec 31 22:58	0°♑	
evening rise	2795 Feb 18 17:18	8°♓08'08		morning set	2796 Jan 01 15:33	1°♑03'57	
asc. node	2795 Mar 01 09:49	26°♓34'13		max. Earth dist.	2796 Jan 13 10:12	19°♑30'00	1.44195 AU
	2795 Mar 03 17:42	0°♑		superior conj	2796 Jan 18 06:42	27°♑17'20	-1°-54'-34
evening max el	2795 Mar 07 12:22	4°♑31'57	18°07'12	minimum elong	2796 Jan 18 00:17	26°♑51'25	1°54'11
retrograde	2795 Mar 14 02:59	7°♑55'45			2796 Jan 19 22:45	0°♒	
evening set	2795 Mar 16 18:36	7°♑22'53		evening rise	2796 Jan 31 18:46	19°♒45'23	
inferior conj	2795 Mar 23 08:29	2°♑21'34	3°28'21		2796 Feb 06 19:23	0°♓	
minimum elong	2795 Mar 23 10:30	2°♑16'39	3°28'08	asc. node	2796 Feb 16 06:51	14°♓38'11	
	2795 Mar 25 18:11	30°♒♒		evening max el	2796 Feb 19 01:03	17°♓49'13	18°14'48
min. Earth dist.	2795 Mar 26 11:26	29°♓19'06	0.61343 AU	retrograde	2796 Feb 25 11:44	21°♓15'47	
morning rise	2795 Mar 29 23:28	26°♓26'43		evening set	2796 Feb 28 08:42	20°♓32'17	
direct	2795 Apr 05 18:45	24°♓06'19		inferior conj	2796 Mar 05 11:28	15°♓11'04	3°40'41
desc. node	2795 Apr 08 04:33	24°♓22'45		minimum elong	2796 Mar 05 11:35	15°♓10'43	3°40'40
	2795 Apr 17 19:35	0°♑		min. Earth dist.	2796 Mar 08 00:43	12°♓22'46	0.63368 AU
morning max el	2795 Apr 19 23:38	2°♑02'16	27°47'58	morning rise	2796 Mar 11 12:33	9°♓05'31	
	2795 May 10 10:24	0°♒		direct	2796 Mar 18 10:25	6°♓22'50	
morning set	2795 May 22 20:04	23°♒12'40		desc. node	2796 Mar 25 01:35	8°♓28'01	
	2795 May 26 01:57	0°♓		morning max el	2796 Apr 01 07:02	14°♓19'44	27°43'34
asc. node	2795 May 28 09:06	4°♓56'27			2796 Apr 13 23:48	0°♑	
max. Earth dist.	2795 May 28 19:50	5°♓54'43	1.32296 AU		2796 May 02 00:05	0°♒	
superior conj	2795 May 30 05:15	8°♓56'59	0°19'18	morning set	2796 May 05 18:15	7°♒19'28	
minimum elong	2795 May 30 04:23	8°♓52'11	0°19'06	max. Earth dist.	2796 May 11 00:46	18°♒11'07	1.32903 AU
evening rise	2795 Jun 06 03:10	23°♓58'46		superior conj	2796 May 13 13:00	23°♒32'36	0°-7'-30
	2795 Jun 09 00:30	0°♔		minimum elong	2796 May 13 13:22	23°♒34'35	0°07'27

behind sun begin	2796 May 13 08:39	23°♄09'15		superior conj	2797 Apr 27 15:46	7°♄48'31	0°-35'-43
behind sun end	2796 May 13 18:04	23°♄59'56		minimum elong	2797 Apr 27 17:36	7°♄58'07	0°35'21
asc. node	2796 May 14 06:08	25°♄04'57		asc. node	2797 May 01 03:10	15°♄09'15	
	2796 May 16 12:41	0°♄		evening rise	2797 May 05 01:31	23°♄27'40	
evening rise	2796 May 20 14:59	8°♄47'37			2797 May 08 06:01	0°♄	
	2796 May 31 16:35	0°♄		evening max el	2797 May 25 08:37	26°♄19'46	21°41'41
evening max el	2796 Jun 12 14:36	15°♄46'24	23°15'57		2797 May 29 22:45	0°♄	
desc. node	2796 Jun 21 00:47	21°♄32'30		retrograde	2797 Jun 06 18:35	2°♄26'08	
retrograde	2796 Jun 26 03:05	22°♄31'32		desc. node	2797 Jun 07 21:49	2°♄23'11	
evening set	2796 Jun 29 21:47	22°♄00'17		evening set	2797 Jun 09 07:59	2°♄11'24	
min. Earth dist.	2796 Jun 07 00:18	18°♄46'10	0.55696 AU		2797 Jun 15 07:28	30°♄	
inferior conj	2796 Jul 08 20:51	17°♄40'45	-4°-26'00	inferior conj	2797 Jun 18 16:51	28°♄09'54	-3°-1'-32
minimum elong	2796 Jul 08 13:57	17°♄50'54	4°24'44	minimum elong	2797 Jun 18 09:08	28°♄20'41	2°59'09
morning rise	2796 Jul 17 09:10	13°♄47'18		min. Earth dist.	2797 Jun 18 11:33	28°♄17'19	0.54927 AU
direct	2796 Jul 20 05:29	13°♄27'40		morning rise	2797 Jun 27 11:19	24°♄16'13	
morning max el	2796 Jul 30 20:53	18°♄23'44	20°25'02	direct	2797 Jun 30 16:59	23°♄53'17	
	2796 Aug 08 20:47	0°♄		morning max el	2797 Jul 12 22:40	29°♄38'43	21°54'18
asc. node	2796 Aug 10 05:22	2°♄16'05			2797 Jul 13 07:42	0°♄	
morning set	2796 Aug 18 12:41	18°♄08'05		asc. node	2797 Jul 28 02:25	21°♄19'34	
	2796 Aug 24 06:54	0°♄			2797 Aug 01 12:00	0°♄	
				morning set	2797 Aug 02 22:11	2°♄56'37	
superior conj	2796 Aug 26 04:11	3°♄51'01	1°45'07				
minimum elong	2796 Aug 26 04:03	3°♄50'20	1°45'08	superior conj	2797 Aug 10 04:51	18°♄18'26	1°40'55
max. Earth dist.	2796 Aug 31 06:21	13°♄56'11	1.36328 AU	minimum elong	2797 Aug 10 03:26	18°♄11'04	1°40'51
evening rise	2796 Sep 04 06:15	21°♄28'12		max. Earth dist.	2797 Aug 13 20:24	25°♄51'20	1.34693 AU
	2796 Sep 09 00:51	0°♄			2797 Aug 15 21:50	0°♄	
desc. node	2796 Sep 17 00:06	13°♄08'12		evening rise	2797 Aug 18 09:23	4°♄51'26	
	2796 Sep 28 15:39	0°♄			2797 Sep 01 19:18	0°♄	
evening max el	2796 Oct 09 22:17	13°♄08'54	26°02'50	desc. node	2797 Sep 03 21:07	3°♄12'05	
retrograde	2796 Oct 22 11:24	20°♄15'59		evening max el	2797 Sep 22 10:49	26°♄45'00	26°54'59
evening set	2796 Oct 28 16:03	17°♄42'53			2797 Sep 26 04:36	0°♄	
min. Earth dist.	2796 Nov 01 22:42	13°♄08'20	0.66686 AU	retrograde	2797 Oct 05 14:24	4°♄01'03	
inferior conj	2796 Nov 03 08:37	11°♄22'32	0°-58'-13	evening set	2797 Oct 12 07:46	1°♄20'00	
minimum elong	2796 Nov 03 10:09	11°♄17'43	0°57'35		2797 Oct 13 19:52	30°♄	
asc. node	2796 Nov 06 04:35	8°♄02'11		min. Earth dist.	2797 Oct 16 07:22	27°♄22'18	0.65597 AU
morning rise	2796 Nov 09 05:15	5°♄29'24		inferior conj	2797 Oct 18 05:13	25°♄09'45	-1°-57'-35
direct	2796 Nov 12 07:33	4°♄34'29		minimum elong	2797 Oct 18 08:25	25°♄00'28	1°56'20
morning max el	2796 Nov 19 03:55	8°♄22'38	18°54'24	morning rise	2797 Oct 24 10:37	19°♄29'04	
	2796 Dec 04 15:45	0°♄		asc. node	2797 Oct 24 01:38	19°♄40'58	
morning set	2796 Dec 11 01:19	10°♄01'01		direct	2797 Oct 27 04:31	18°♄47'42	
desc. node	2796 Dec 13 23:24	14°♄35'53		morning max el	2797 Nov 02 17:27	22°♄20'10	18°16'18
	2796 Dec 23 19:10	0°♄			2797 Nov 08 18:58	0°♄	
max. Earth dist.	2796 Dec 26 02:45	3°♄38'16	1.45042 AU	morning set	2797 Nov 21 15:27	20°♄25'03	
					2797 Nov 27 13:27	0°♄	
superior conj	2796 Dec 27 15:06	6°♄01'16	-1°-23'-56	desc. node	2797 Nov 30 20:25	5°♄16'21	
minimum elong	2796 Dec 27 06:07	5°♄25'54	1°23'01				
evening rise	2797 Jan 11 21:43	0°♄24'56		superior conj	2797 Dec 06 17:19	14°♄34'57	0°-38'-57
	2797 Jan 11 15:34	0°♄		minimum elong	2797 Dec 06 12:19	14°♄15'16	0°38'18
	2797 Jan 31 08:59	0°♄		max. Earth dist.	2797 Dec 08 22:14	18°♄03'13	1.45155 AU
evening max el	2797 Feb 01 12:39	1°♄14'36	18°40'44		2797 Dec 16 13:21	0°♄	
asc. node	2797 Feb 02 03:53	1°♄52'03		evening rise	2797 Dec 23 01:53	10°♄11'14	
retrograde	2797 Feb 08 04:01	4°♄55'57			2798 Jan 04 20:52	0°♄	
evening set	2797 Feb 11 06:52	4°♄00'45		greatest brilliancy	2798 Jan 07 02:57	3°♄21'37	-0.7m
	2797 Feb 15 16:33	30°♄		evening max el	2798 Jan 15 20:54	14°♄43'59	19°23'42
inferior conj	2797 Feb 17 01:45	28°♄21'14	3°34'44	asc. node	2798 Jan 20 00:55	18°♄02'33	
minimum elong	2797 Feb 17 00:24	28°♄25'20	3°34'36	retrograde	2798 Jan 23 00:32	18°♄50'36	
min. Earth dist.	2797 Feb 18 23:21	26°♄03'22	0.65070 AU	evening set	2798 Jan 26 10:22	17°♄42'33	
morning rise	2797 Feb 22 16:44	22°♄09'51		inferior conj	2798 Feb 01 00:04	11°♄46'57	3°15'09
direct	2797 Mar 01 09:10	19°♄19'32		minimum elong	2798 Jan 31 21:50	11°♄54'14	3°14'43
desc. node	2797 Mar 11 22:37	24°♄31'42		min. Earth dist.	2798 Feb 02 06:37	10°♄07'53	0.66373 AU
morning max el	2797 Mar 14 16:36	27°♄06'59	27°05'16	morning rise	2798 Feb 06 08:31	5°♄32'31	
	2797 Mar 17 09:44	0°♄		direct	2798 Feb 12 14:01	2°♄47'44	
	2797 Apr 07 15:27	0°♄		morning max el	2798 Feb 25 02:11	10°♄13'10	26°00'23
morning set	2797 Apr 19 06:56	20°♄53'52		desc. node	2798 Feb 26 19:40	12°♄01'36	
	2797 Apr 23 21:07	0°♄			2798 Mar 12 18:33	0°♄	
max. Earth dist.	2797 Apr 23 20:28	29°♄56'41	1.33958 AU		2798 Mar 31 05:01	0°♄	
				morning set	2798 Apr 02 06:09	3°♄44'33	

max. Earth dist.	2798 Apr 06 04:52	11°♈12'13	1.35470 AU		2799 Mar 06 03:51	0°♏	
				morning set	2799 Mar 15 10:38	15°♏36'49	
superior conj	2798 Apr 11 11:08	21°♈37'40	-1°-3'-58	max. Earth dist.	2799 Mar 19 03:20	22°♏14'30	1.37376 AU
minimum elong	2798 Apr 11 14:26	21°♈54'21	1°03'24		2799 Mar 23 07:14	0°♈	
	2798 Apr 15 13:08	0°♏					
asc. node	2798 Apr 18 00:13	5°♏05'19		superior conj	2799 Mar 25 19:56	4°♈51'37	-1°-30'-18
evening rise	2798 Apr 19 08:48	7°♏52'47		minimum elong	2799 Mar 26 00:16	5°♈12'39	1°29'44
	2798 May 01 12:18	0°♏		evening rise	2799 Apr 03 10:26	21°♈55'55	
evening max el	2798 May 07 13:08	7°♏23'45	20°20'10	asc. node	2799 Apr 04 21:17	24°♈48'39	
retrograde	2798 May 18 08:03	12°♏38'29			2799 Apr 07 13:25	0°♏	
evening set	2798 May 20 08:44	12°♏28'09		evening max el	2799 Apr 20 05:37	19°♏08'48	19°17'15
desc. node	2798 May 25 18:52	10°♏33'29		retrograde	2799 Apr 29 08:02	23°♏33'37	
inferior conj	2798 May 29 11:41	8°♏29'57	-1°-5'-11	evening set	2799 May 01 09:08	23°♏21'11	
minimum elong	2798 May 29 08:36	8°♏34'27	1°04'04	inferior conj	2799 May 09 19:25	19°♏12'12	0°49'05
min. Earth dist.	2798 May 31 00:02	7°♏36'43	0.55102 AU	minimum elong	2799 May 09 21:24	19°♏08'54	0°48'23
morning rise	2798 Jun 07 06:35	4°♏16'03		min. Earth dist.	2799 May 12 14:56	17°♏20'32	0.56193 AU
direct	2798 Jun 11 03:52	3°♏43'25		desc. node	2799 May 12 15:54	17°♏19'00	
morning max el	2798 Jun 24 15:55	10°♏18'04	23°35'28	morning rise	2799 May 18 05:35	14°♏24'24	
	2798 Jul 09 05:15	0°♏		direct	2799 May 23 01:47	13°♏30'30	
asc. node	2798 Jul 14 23:27	10°♏48'25		morning max el	2799 Jun 06 06:20	20°♏44'18	25°15'42
morning set	2798 Jul 18 09:39	17°♏51'05			2799 Jun 14 05:51	0°♏	
	2798 Jul 24 01:27	0°♏		asc. node	2799 Jul 01 20:31	0°♏35'49	
					2799 Jul 01 13:37	0°♏	
superior conj	2798 Jul 25 11:22	3°♏03'00	1°30'47	morning set	2799 Jul 02 21:26	2°♏46'35	
minimum elong	2798 Jul 25 09:13	2°♏51'26	1°30'33				
max. Earth dist.	2798 Jul 27 19:31	8°♏03'07	1.33449 AU	superior conj	2799 Jul 09 21:28	17°♏57'38	1°15'42
evening rise	2798 Aug 02 00:55	18°♏50'31		minimum elong	2799 Jul 09 19:06	17°♏44'36	1°15'20
	2798 Aug 07 20:24	0°♏		max. Earth dist.	2799 Jul 11 02:11	20°♏34'23	1.32618 AU
desc. node	2798 Aug 21 18:10	22°♏48'22			2799 Jul 15 11:43	0°♏	
	2798 Aug 27 00:30	0°♏		evening rise	2799 Jul 17 01:21	3°♏15'40	
evening max el	2798 Sep 04 22:28	10°♏04'08	27°23'06		2799 Jul 31 15:14	0°♏	
retrograde	2798 Sep 18 11:32	17°♏22'07		desc. node	2799 Aug 08 15:12	11°♏45'40	
evening set	2798 Sep 25 13:54	14°♏41'39		evening max el	2799 Aug 18 07:15	22°♏54'09	27°21'18
min. Earth dist.	2798 Sep 29 07:20	11°♏19'18	0.64154 AU		2799 Aug 30 03:50	0°♏	
inferior conj	2798 Oct 01 17:46	8°♏45'46	-2°-56'-46	retrograde	2799 Sep 01 02:20	0°♏10'10	
minimum elong	2798 Oct 01 22:31	8°♏33'18	2°55'08		2799 Sep 02 23:56	30°♏	
morning rise	2798 Oct 08 09:18	3°♏20'55		evening set	2799 Sep 08 06:59	27°♏42'13	
direct	2798 Oct 10 21:14	2°♏49'26		min. Earth dist.	2799 Sep 11 21:14	24°♏48'47	0.62387 AU
asc. node	2798 Oct 10 22:41	2°♏49'27		inferior conj	2799 Sep 14 19:25	22°♏04'14	-3°-51'-59
morning max el	2798 Oct 17 09:39	6°♏15'13	17°55'14	minimum elong	2799 Sep 15 01:00	21°♏51'06	3°50'30
	2798 Nov 02 02:58	0°♏		morning rise	2799 Sep 21 21:49	16°♏58'23	
morning set	2798 Nov 03 09:22	2°♏09'45		direct	2799 Sep 24 06:31	16°♏33'29	
				asc. node	2799 Sep 27 19:43	17°♏31'23	
superior conj	2798 Nov 16 10:15	23°♏55'40	0°08'52	morning max el	2799 Oct 01 01:31	20°♏00'57	17°52'03
minimum elong	2798 Nov 16 11:15	23°♏59'46	0°08'44		2799 Oct 08 11:04	0°♏	
behind sun begin	2798 Nov 16 02:40	23°♏24'55		morning set	2799 Oct 17 01:09	14°♏56'57	
behind sun end	2798 Nov 16 19:50	24°♏34'33			2799 Oct 25 13:27	0°♏	
desc. node	2798 Nov 17 17:27	26°♏01'53					
	2798 Nov 20 04:47	0°♏		superior conj	2799 Oct 28 05:13	4°♏33'30	0°49'27
max. Earth dist.	2798 Nov 21 16:53	2°♏23'48	1.44527 AU	minimum elong	2799 Oct 28 09:20	4°♏50'59	0°48'54
evening rise	2798 Dec 02 13:42	19°♏21'45		max. Earth dist.	2799 Nov 04 07:37	16°♏21'23	1.43251 AU
	2798 Dec 09 12:59	0°♏		desc. node	2799 Nov 04 14:29	16°♏49'18	
greatest brilliancy	2798 Dec 23 18:36	20°♏42'42	-0.5m	evening rise	2799 Nov 11 23:53	28°♏33'39	
evening max el	2798 Dec 30 00:10	28°♏14'26	20°21'48		2799 Nov 12 22:06	0°♏	
	2798 Dec 31 20:35	0°♏			2799 Dec 03 07:36	0°♏	
retrograde	2799 Jan 06 22:36	2°♏54'32		greatest brilliancy	2799 Dec 07 23:35	6°♏06'55	-0.4m
asc. node	2799 Jan 06 21:58	2°♏54'31		evening max el	2799 Dec 12 21:50	11°♏45'51	21°32'02
evening set	2799 Jan 10 16:56	1°♏32'25		retrograde	2799 Dec 21 20:03	17°♏04'18	
	2799 Jan 12 10:36	30°♏		asc. node	2799 Dec 24 19:01	16°♏16'20	
inferior conj	2799 Jan 16 03:39	25°♏23'39	2°45'05	evening set	2799 Dec 26 00:41	15°♏26'45	
minimum elong	2799 Jan 16 01:05	25°♏32'22	2°44'23	inferior conj	2799 Dec 31 10:13	9°♏08'16	2°06'39
min. Earth dist.	2799 Jan 16 20:40	24°♏25'53	0.67262 AU	minimum elong	2799 Dec 31 07:50	9°♏16'31	2°05'51
morning rise	2799 Jan 21 08:43	19°♏08'08		min. Earth dist.	2799 Dec 31 15:13	8°♏50'55	0.67761 AU
direct	2799 Jan 27 00:16	16°♏38'27		morning rise	2800 Jan 05 14:40	2°♏53'39	
morning max el	2799 Feb 07 10:54	23°♏28'21	24°38'32	direct	2800 Jan 10 15:15	0°♏44'39	
	2799 Feb 13 06:05	0°♏		morning max el	2800 Jan 20 20:02	6°♏48'18	23°09'54
desc. node	2799 Feb 13 16:41	0°♏32'36		greatest brilliancy	2800 Jan 25 20:11	12°♏24'42	-0.3m

desc. node	2800 Jan 31 13:43	19°☿47'17		min. Earth dist.	2800 Dec 14 11:49	23°♄19'09	0.67899 AU
	2800 Feb 07 19:41	0°♌		morning rise	2800 Dec 20 00:08	16°♄46'44	
morning set	2800 Feb 24 14:03	26°♌13'49		direct	2800 Dec 24 09:57	15°♄00'36	
	2800 Feb 26 19:42	0°♋		morning max el	2801 Jan 02 09:07	20°♄15'36	21°43'51
max. Earth dist.	2800 Feb 28 22:01	3°♋36'04	1.39520 AU	greatest brilliancy	2801 Jan 07 05:04	25°♄43'16	-0.4m
					2801 Jan 10 13:15	0°♄	
superior conj	2800 Mar 07 14:04	17°♋19'43	-1°-51'-50	desc. node	2801 Jan 17 10:45	9°♄33'25	
minimum elong	2800 Mar 07 18:17	17°♋39'09	1°51'31		2801 Jan 31 01:24	0°♌	
	2800 Mar 14 07:07	0°♍		morning set	2801 Feb 03 12:25	5°♌27'38	
evening rise	2800 Mar 17 03:32	5°♍28'54		max. Earth dist.	2801 Feb 09 21:06	15°♌48'39	1.41630 AU
asc. node	2800 Mar 21 18:20	14°♍13'22					
	2800 Mar 31 21:29	0°♎		superior conj	2801 Feb 17 12:37	28°♌50'39	-2°-4'-34
evening max el	2800 Apr 02 07:54	1°♎30'35	18°34'23	minimum elong	2801 Feb 17 14:31	28°♌58'55	2°04'32
retrograde	2800 Apr 10 01:47	5°♎18'35			2801 Feb 18 04:26	0°♋	
evening set	2800 Apr 12 08:30	4°♎59'56		evening rise	2801 Feb 28 08:35	18°♋23'51	
inferior conj	2800 Apr 19 23:30	0°♎32'12	2°16'21		2801 Mar 06 18:14	0°♍	
minimum elong	2800 Apr 20 03:23	0°♎24'40	2°15'17	asc. node	2801 Mar 08 15:22	3°♍13'27	
	2800 Apr 20 16:01	30°♎♍		evening max el	2801 Mar 16 16:46	14°♍20'57	18°11'28
min. Earth dist.	2800 Apr 23 09:14	27°♍54'50	0.57980 AU	retrograde	2801 Mar 23 13:52	17°♍48'48	
morning rise	2800 Apr 27 17:53	25°♍11'26		evening set	2801 Mar 26 02:32	17°♍21'25	
desc. node	2800 Apr 28 12:56	24°♍49'47		inferior conj	2801 Apr 02 00:31	12°♍32'13	3°10'30
direct	2800 May 03 14:08	23°♍44'50		minimum elong	2801 Apr 02 03:33	12°♍25'20	3°09'58
	2800 May 16 11:48	0°♏		min. Earth dist.	2801 Apr 05 08:56	9°♍31'51	0.60110 AU
morning max el	2800 May 17 23:16	1°♏22'58	26°39'25	morning rise	2801 Apr 09 01:06	6°♍47'22	
	2800 Jun 07 07:55	0°♐		desc. node	2801 Apr 15 09:57	4°♍45'13	
morning set	2800 Jun 16 07:52	17°♐36'25		direct	2801 Apr 15 14:52	4°♍45'06	
asc. node	2800 Jun 17 17:34	20°♐35'01		morning max el	2801 Apr 29 22:06	12°♍35'56	27°33'20
	2800 Jun 22 01:28	0°♑			2801 May 13 16:17	0°♏	
					2801 May 30 13:00	0°♐	
superior conj	2800 Jun 23 09:08	2°♑54'26	0°56'28	morning set	2801 May 31 15:13	2°♐14'58	
minimum elong	2800 Jun 23 07:00	2°♑42'42	0°56'03	asc. node	2801 Jun 04 14:37	10°♐41'17	
max. Earth dist.	2800 Jun 23 13:13	3°♑16'56	1.32188 AU	max. Earth dist.	2801 Jun 07 01:06	16°♐00'16	1.32151 AU
evening rise	2800 Jun 30 07:44	17°♑56'47					
	2800 Jul 06 07:53	0°♒		superior conj	2801 Jun 07 20:39	17°♐47'35	0°33'43
desc. node	2800 Jul 25 12:13	29°♒47'02		minimum elong	2801 Jun 07 19:12	17°♐39'37	0°33'25
	2800 Jul 25 16:38	0°♓			2801 Jun 13 10:37	0°♑	
evening max el	2800 Jul 30 10:45	5°♓03'03	26°46'24	evening rise	2801 Jun 14 17:47	2°♑46'21	
retrograde	2800 Aug 13 09:30	12°♓15'22			2801 Jun 29 09:08	0°♒	
evening set	2800 Aug 20 06:29	10°♓13'30		desc. node	2801 Jul 12 09:14	16°♒29'40	
min. Earth dist.	2800 Aug 24 00:47	7°♓36'27	0.60384 AU	evening max el	2801 Jul 12 07:10	16°♒24'45	25°40'07
inferior conj	2800 Aug 27 06:46	4°♓56'07	-4°-37'-4	retrograde	2801 Jul 26 07:04	23°♒32'27	
minimum elong	2800 Aug 27 11:35	4°♓46'08	4°36'16	evening set	2801 Aug 01 07:40	22°♒06'56	
morning rise	2800 Sep 03 19:57	0°♓12'02		min. Earth dist.	2801 Aug 05 19:20	19°♒28'51	0.58331 AU
	2800 Sep 04 15:36	30°♓♒		inferior conj	2801 Aug 09 00:16	17°♒11'48	-5°-1'-54
direct	2800 Sep 06 04:30	29°♒50'53		minimum elong	2801 Aug 09 01:46	17°♒09'07	5°01'52
	2800 Sep 07 16:51	0°♓		morning rise	2801 Aug 16 23:23	12°♒50'53	
morning max el	2800 Sep 13 13:52	3°♓28'43	18°07'56	direct	2801 Aug 19 10:55	12°♒31'22	
asc. node	2800 Sep 13 16:45	3°♓35'46		morning max el	2801 Aug 27 19:26	16°♒29'31	18°44'19
morning set	2800 Sep 29 08:47	28°♓29'28		asc. node	2801 Aug 31 13:48	20°♒47'50	
	2800 Sep 30 04:06	0°♔			2801 Sep 06 11:03	0°♓	
				morning set	2801 Sep 13 03:34	12°♓34'18	
superior conj	2800 Oct 09 02:01	16°♔26'45	1°18'40				
minimum elong	2800 Oct 09 06:08	16°♔45'14	1°18'12	superior conj	2801 Sep 21 19:39	29°♓21'35	1°36'27
max. Earth dist.	2800 Oct 16 17:12	29°♔43'05	1.41484 AU	minimum elong	2801 Sep 21 22:16	29°♓33'56	1°36'16
	2800 Oct 16 21:13	0°♕			2801 Sep 22 03:48	0°♔	
desc. node	2800 Oct 21 11:31	7°♕35'10		max. Earth dist.	2801 Sep 28 22:37	12°♔23'24	1.39455 AU
evening rise	2800 Oct 22 00:28	8°♕27'31		evening rise	2801 Oct 02 23:58	19°♔24'40	
	2800 Nov 05 01:23	0°♕		desc. node	2801 Oct 08 08:31	28°♔15'38	
greatest brilliancy	2800 Nov 19 11:42	19°♕35'29	-0.3m		2801 Oct 09 10:35	0°♕	
evening max el	2800 Nov 24 14:35	25°♕19'48	22°50'00		2801 Oct 30 07:39	0°♕	
	2800 Nov 30 08:57	0°♖		evening max el	2801 Nov 07 04:02	8°♕56'57	24°09'54
retrograde	2800 Dec 04 15:11	1°♖16'48		retrograde	2801 Nov 18 06:45	15°♕28'09	
	2800 Dec 08 12:07	30°♕♖		evening set	2801 Nov 23 13:13	13°♕17'15	
evening set	2800 Dec 09 07:59	29°♕22'45		asc. node	2801 Nov 27 13:02	8°♕50'29	
asc. node	2800 Dec 10 16:01	28°♕07'53		min. Earth dist.	2801 Nov 28 08:02	7°♕47'15	0.67695 AU
inferior conj	2800 Dec 14 17:50	22°♕58'21	1°21'23	inferior conj	2801 Nov 29 00:43	6°♕50'59	0°30'28
minimum elong	2800 Dec 14 16:05	23°♕04'25	1°20'42	minimum elong	2801 Nov 29 00:00	6°♕53'26	0°30'09

morning rise	2801 Dec 04 11:03	0°♂44'42		retrograde	2802 Nov 01 18:01	29°♂34'31	
	2801 Dec 05 15:57	30°♂♂		evening set	2802 Nov 07 14:47	27°♂08'15	
direct	2801 Dec 08 07:13	29°♂20'45		min. Earth dist.	2802 Nov 12 01:37	22°♂13'17	0.67155 AU
	2801 Dec 11 01:58	0°♂		inferior conj	2802 Nov 13 05:09	20°♂44'23	0°-24'-51
morning max el	2801 Dec 16 05:19	3°♂53'34	20°27'08	minimum elong	2802 Nov 13 05:47	20°♂42'20	0°24'36
greatest brilliancy	2801 Dec 22 11:38	11°♂18'18	-0.5m	asc. node	2802 Nov 14 10:04	19°♂12'16	
desc. node	2802 Jan 04 07:45	29°♂41'41		morning rise	2802 Nov 18 21:31	14°♂45'54	
	2802 Jan 04 12:38	0°♂		direct	2802 Nov 22 05:42	13°♂41'33	
morning set	2802 Jan 13 12:01	13°♂41'33		morning max el	2802 Nov 29 09:28	17°♂42'48	19°23'51
max. Earth dist.	2802 Jan 23 04:12	28°♂57'42	1.43414 AU	greatest brilliancy	2802 Dec 08 11:28	29°♂18'06	-0.7m
	2802 Jan 23 19:39	0°♂			2802 Dec 08 23:02	0°♂	
				desc. node	2802 Dec 22 04:47	20°♂06'14	
superior conj	2802 Jan 29 10:30	9°♂12'13	-2°-3'-26	morning set	2802 Dec 23 10:59	22°♂03'09	
minimum elong	2802 Jan 29 07:24	8°♂59'17	2°03'20		2802 Dec 28 13:46	0°♂	
evening rise	2802 Feb 10 21:19	0°♂31'27		max. Earth dist.	2803 Jan 05 18:00	12°♂49'20	1.44641 AU
	2802 Feb 10 14:08	0°♂					
asc. node	2802 Feb 23 12:23	21°♂40'25		superior conj	2803 Jan 09 06:30	18°♂24'48	-1°-43'-50
evening max el	2802 Feb 28 04:52	27°♂30'09	18°08'06	minimum elong	2803 Jan 08 22:15	17°♂51'56	1°43'11
	2802 Mar 03 10:10	0°♂			2803 Jan 16 10:49	0°♂	
retrograde	2802 Mar 06 16:32	0°♂53'24		evening rise	2803 Jan 23 13:32	11°♂44'33	
evening set	2802 Mar 09 10:30	0°♂15'59			2803 Feb 03 15:49	0°♂	
	2802 Mar 09 23:38	30°♂♂		asc. node	2803 Feb 10 09:24	9°♂24'26	
inferior conj	2802 Mar 15 19:11	25°♂05'44	3°36'10	evening max el	2803 Feb 11 17:19	10°♂50'58	18°23'37
minimum elong	2802 Mar 15 20:22	25°♂02'40	3°36'04	retrograde	2803 Feb 18 05:05	14°♂22'49	
min. Earth dist.	2802 Mar 18 16:38	22°♂07'13	0.62239 AU	evening set	2803 Feb 21 04:25	13°♂34'28	
morning rise	2802 Mar 22 03:50	19°♂05'44		inferior conj	2803 Feb 27 03:26	8°♂04'57	3°40'05
direct	2802 Mar 29 01:18	16°♂34'33		minimum elong	2803 Feb 27 02:52	8°♂06'35	3°40'03
desc. node	2802 Apr 02 06:58	17°♂25'34		min. Earth dist.	2803 Mar 01 09:59	5°♂28'12	0.64133 AU
morning max el	2802 Apr 12 03:02	24°♂31'00	27°50'35	morning rise	2803 Mar 04 23:44	1°♂56'14	
	2802 Apr 17 02:34	0°♂			2803 Mar 08 00:15	30°♂♂	
	2802 May 07 00:58	0°♂		direct	2803 Mar 11 19:55	29°♂08'48	
morning set	2802 May 15 17:29	16°♂35'42			2803 Mar 15 21:44	0°♂	
max. Earth dist.	2802 May 21 09:54	28°♂31'03	1.32510 AU	desc. node	2803 Mar 20 04:00	2°♂25'19	
asc. node	2802 May 22 11:40	0°♂50'14		morning max el	2803 Mar 25 11:56	7°♂03'19	27°31'09
	2802 May 22 02:23	0°♂			2803 Apr 12 02:57	0°♂	
					2803 Apr 29 05:55	0°♂	
superior conj	2802 May 23 06:17	2°♂31'15	0°08'11	morning set	2803 Apr 29 12:05	0°♂30'22	
minimum elong	2802 May 23 05:54	2°♂29'09	0°08'06	max. Earth dist.	2803 May 04 11:33	10°♂36'25	1.33296 AU
behind sun begin	2802 May 23 01:25	2°♂04'50					
behind sun end	2802 May 23 10:22	2°♂53'30		superior conj	2803 May 07 12:11	16°♂59'20	0°-19'-22
evening rise	2802 May 30 05:30	17°♂37'31		minimum elong	2803 May 07 13:09	17°♂04'31	0°19'10
	2802 Jun 05 07:58	0°♂		asc. node	2803 May 09 08:43	20°♂57'33	
evening max el	2802 Jun 23 21:31	27°♂06'18	24°11'22		2803 May 13 13:55	0°♂	
	2802 Jun 27 06:11	0°♂		evening rise	2803 May 14 17:02	2°♂23'39	
desc. node	2802 Jun 29 06:14	1°♂22'54			2803 May 30 02:10	0°♂	
retrograde	2802 Jul 07 17:10	4°♂04'15		evening max el	2803 Jun 05 11:48	7°♂32'59	22°34'50
evening set	2802 Jul 12 09:13	3°♂15'50		desc. node	2803 Jun 16 03:16	13°♂50'33	
min. Earth dist.	2802 Jul 18 08:12	0°♂19'04	0.56507 AU	retrograde	2803 Jun 18 15:10	14°♂04'50	
	2802 Jul 18 20:39	30°♂♂		evening set	2803 Jun 21 19:44	13°♂42'26	
inferior conj	2802 Jul 20 21:39	28°♂43'26	-4°-52'-28	min. Earth dist.	2803 Jun 29 19:25	10°♂13'00	0.55258 AU
minimum elong	2802 Jul 20 17:36	28°♂49'47	4°52'04	inferior conj	2803 Jul 01 00:39	9°♂31'22	-3°-55'-46
morning rise	2802 Jul 29 05:32	24°♂43'05		minimum elong	2803 Jun 30 16:38	9°♂42'49	3°53'50
direct	2802 Jul 31 22:16	24°♂23'53		morning rise	2803 Jul 09 16:02	5°♂40'27	
morning max el	2802 Aug 10 15:21	28°♂54'34	19°42'14	direct	2803 Jul 12 15:35	5°♂20'06	
	2802 Aug 11 17:58	0°♂		morning max el	2803 Jul 23 23:51	10°♂36'15	21°01'01
asc. node	2802 Aug 18 10:52	8°♂53'10		asc. node	2803 Aug 05 07:55	27°♂38'29	
morning set	2802 Aug 28 06:05	27°♂02'21			2803 Aug 06 14:56	0°♂	
	2802 Aug 29 17:15	0°♂		morning set	2803 Aug 12 13:39	11°♂45'14	
superior conj	2802 Sep 05 04:48	13°♂03'19	1°44'22	superior conj	2803 Aug 20 00:52	27°♂17'34	1°44'09
minimum elong	2802 Sep 05 05:36	13°♂07'17	1°44'21	minimum elong	2803 Aug 20 00:08	27°♂13'47	1°44'08
max. Earth dist.	2802 Sep 11 03:11	24°♂28'52	1.37413 AU		2803 Aug 21 08:34	0°♂	
	2802 Sep 14 03:19	0°♂		max. Earth dist.	2803 Aug 24 12:09	6°♂19'28	1.35585 AU
evening rise	2802 Sep 14 22:43	1°♂27'07		evening rise	2803 Aug 28 16:50	14°♂24'33	
desc. node	2802 Sep 25 05:33	18°♂46'49			2803 Sep 06 11:46	0°♂	
	2802 Oct 02 14:44	0°♂		desc. node	2803 Sep 12 02:35	9°♂02'39	
evening max el	2802 Oct 20 16:08	22°♂37'19	25°24'47		2803 Sep 27 08:36	0°♂	

evening max el	2803 Oct 03 04:18	6°♄16'39	26°27'24	retrograde	2804 Sep 28 01:09	27°♄05'10	
retrograde	2803 Oct 16 00:23	13°♄29'23		evening set	2804 Oct 04 22:46	24°♄23'16	
evening set	2803 Oct 22 10:45	10°♄51'45		min. Earth dist.	2804 Oct 08 19:35	20°♄40'44	0.65024 AU
min. Earth dist.	2803 Oct 26 14:13	6°♄33'02	0.66266 AU	inferior conj	2804 Oct 10 22:43	18°♄18'17	-2°-22'-56
inferior conj	2803 Oct 28 05:13	4°♄34'57	-1°-23'-16	minimum elong	2804 Oct 11 02:37	18°♄07'25	2°21'28
minimum elong	2803 Oct 28 07:27	4°♄28'09	1°22'22	morning rise	2804 Oct 17 08:18	12°♄43'47	
asc. node	2803 Nov 01 07:07	0°♄09'28		asc. node	2804 Oct 18 04:10	12°♄24'25	
	2803 Nov 01 11:33	30°♄		direct	2804 Oct 19 23:14	12°♄07'11	
morning rise	2803 Nov 03 05:26	28°♄46'56		morning max el	2804 Oct 26 11:16	15°♄36'08	18°05'06
direct	2803 Nov 06 03:46	27°♄58'26			2804 Nov 05 19:23	0°♄	
	2803 Nov 11 00:17	0°♄		morning set	2804 Nov 13 10:31	12°♄35'15	
morning max el	2803 Nov 12 20:16	1°♄38'56	18°36'09		2804 Nov 24 01:43	0°♄	
	2803 Dec 02 08:06	0°♄		desc. node	2804 Nov 24 22:53	1°♄25'03	
morning set	2803 Dec 03 08:01	1°♄35'13					
desc. node	2803 Dec 09 01:50	10°♄42'01		superior conj	2804 Nov 27 15:53	5°♄44'49	0°-18'-17
				minimum elong	2804 Nov 27 13:36	5°♄35'41	0°17'58
superior conj	2803 Dec 19 09:40	26°♄57'08	-1°-5'-59	max. Earth dist.	2804 Dec 01 06:45	11°♄28'44	1.44973 AU
minimum elong	2803 Dec 19 01:41	26°♄25'51	1°05'04		2804 Dec 13 03:45	0°♄	
max. Earth dist.	2803 Dec 19 11:45	27°♄05'21	1.45175 AU	evening rise	2804 Dec 14 02:16	1°♄27'07	
	2803 Dec 21 08:16	0°♄		greatest brilliancy	2804 Dec 31 23:18	28°♄27'36	-0.6m
evening rise	2804 Jan 04 06:30	22°♄00'10			2805 Jan 02 01:49	0°♄	
	2804 Jan 09 06:52	0°♄		evening max el	2805 Jan 08 09:57	7°♄48'22	19°46'51
evening max el	2804 Jan 26 03:40	24°♄18'18	18°57'05	asc. node	2805 Jan 14 03:27	11°♄51'58	
asc. node	2804 Jan 28 06:25	26°♄13'13		retrograde	2805 Jan 15 20:56	12°♄08'19	
retrograde	2804 Feb 01 23:36	28°♄09'40		evening set	2805 Jan 19 10:08	10°♄54'36	
evening set	2804 Feb 05 05:09	27°♄09'20		inferior conj	2805 Jan 24 22:21	4°♄53'19	3°03'31
inferior conj	2804 Feb 10 21:32	21°♄22'44	3°27'54	minimum elong	2805 Jan 24 19:54	5°♄01'26	3°02'59
minimum elong	2804 Feb 10 19:44	21°♄28'23	3°27'39	min. Earth dist.	2805 Jan 25 23:03	3°♄31'28	0.66798 AU
min. Earth dist.	2804 Feb 12 12:38	19°♄20'26	0.65665 AU		2805 Jan 28 20:09	30°♄	
morning rise	2804 Feb 16 09:16	15°♄09'31		morning rise	2805 Jan 30 05:00	28°♄38'12	
direct	2804 Feb 22 21:31	12°♄19'54		direct	2805 Feb 05 04:55	25°♄58'34	
desc. node	2804 Mar 06 01:02	19°♄09'18			2805 Feb 13 20:10	0°♄	
morning max el	2804 Mar 06 21:52	20°♄00'46	26°40'27	morning max el	2805 Feb 17 06:47	3°♄10'42	25°27'01
	2804 Mar 15 11:31	0°♄		desc. node	2805 Feb 20 22:05	7°♄07'30	
	2804 Apr 04 04:48	0°♄			2805 Mar 09 17:19	0°♄	
morning set	2804 Apr 11 19:41	13°♄48'46		morning set	2805 Mar 25 11:36	26°♄16'18	
max. Earth dist.	2804 Apr 16 02:29	22°♄08'26	1.34537 AU		2805 Mar 27 12:25	0°♄	
	2804 Apr 19 23:31	0°♄		max. Earth dist.	2805 Mar 29 05:41	3°♄12'49	1.36232 AU
superior conj	2804 Apr 20 12:11	1°♄05'27	0°-47'-47	superior conj	2805 Apr 04 03:28	14°♄40'47	-1°-15'-31
minimum elong	2804 Apr 20 14:40	1°♄18'14	0°47'18	minimum elong	2805 Apr 04 07:17	14°♄59'48	1°14'55
asc. node	2804 Apr 25 05:46	10°♄59'21			2805 Apr 11 16:51	0°♄	
evening rise	2804 Apr 28 02:29	16°♄58'35		evening rise	2805 Apr 12 07:36	1°♄14'51	
	2804 May 04 16:22	0°♄		asc. node	2805 Apr 12 02:48	0°♄50'29	
evening max el	2804 May 17 09:56	18°♄18'09	21°05'05	evening max el	2805 Apr 29 19:43	29°♄39'47	19°51'06
retrograde	2804 May 29 04:41	24°♄03'29			2805 Apr 30 04:12	0°♄	
evening set	2804 May 31 10:14	23°♄51'52		retrograde	2805 May 09 20:42	4°♄31'37	
desc. node	2804 Jun 02 00:17	23°♄30'16		evening set	2805 May 11 20:34	4°♄20'57	
inferior conj	2804 Jun 09 18:28	19°♄53'54	-2°-14'-18	desc. node	2805 May 19 21:18	0°♄50'24	
minimum elong	2804 Jun 09 12:17	20°♄02'38	2°12'11	inferior conj	2805 May 20 17:17	0°♄19'57	0°-14'-36
min. Earth dist.	2804 Jun 10 07:30	19°♄35'31	0.54879 AU	minimum elong	2805 May 20 16:37	0°♄20'58	0°14'23
morning rise	2804 Jun 18 14:02	15°♄53'33		transit middle	2805 May 20 16:37	0°♄20'58	0°14'23
direct	2804 Jun 22 01:12	15°♄27'36		transit begin	2805 May 20 14:54	0°♄23'36	
morning max el	2804 Jul 04 21:37	21°♄35'25	22°36'23	transit end	2805 May 20 18:20	0°♄18'20	
	2804 Jul 12 02:58	0°♄			2805 May 21 06:16	30°♄	
asc. node	2804 Jul 22 05:00	16°♄54'06		min. Earth dist.	2805 May 22 20:57	29°♄00'58	0.55466 AU
morning set	2804 Jul 27 00:13	26°♄37'06		morning rise	2805 May 29 09:35	25°♄52'33	
	2804 Jul 28 14:40	0°♄		direct	2805 Jun 02 16:17	25°♄12'10	
					2805 Jun 14 03:39	0°♄	
superior conj	2804 Aug 03 04:22	11°♄53'46	1°37'17	morning max el	2805 Jun 16 12:41	2°♄05'10	24°18'59
minimum elong	2804 Aug 03 02:35	11°♄44'17	1°37'09		2805 Jul 05 18:51	0°♄	
max. Earth dist.	2804 Aug 06 05:50	18°♄19'37	1.34117 AU	asc. node	2805 Jul 09 02:04	6°♄31'43	
evening rise	2804 Aug 11 01:47	28°♄04'59		morning set	2805 Jul 11 12:00	11°♄32'35	
	2804 Aug 12 01:25	0°♄					
desc. node	2804 Aug 28 23:37	28°♄56'00		superior conj	2805 Jul 18 12:40	26°♄43'26	1°24'57
	2804 Aug 29 16:54	0°♄		minimum elong	2805 Jul 18 10:21	26°♄30'54	1°24'39
evening max el	2804 Sep 14 16:38	19°♄47'03	27°10'13		2805 Jul 20 01:01	0°♄	

max. Earth dist.	2805 Jul 20 08:32	0°♎40'28	1.33053 AU	max. Earth dist.	2806 Jul 03 17:42	13°♊18'41	1.32389 AU
evening rise	2805 Jul 25 21:31	12°♎16'41		evening rise	2806 Jul 10 00:45	26°♊49'31	
	2805 Aug 04 06:27	0°♎			2806 Jul 11 13:48	0°♎	
desc. node	2805 Aug 15 20:38	18°♎17'28			2806 Jul 28 16:56	0°♎	
	2805 Aug 25 05:55	0°♎		desc. node	2806 Aug 02 17:39	6°♎53'23	
evening max el	2805 Aug 28 03:39	2°♎56'40	27°26'18	evening max el	2806 Aug 10 10:36	15°♎30'54	27°10'33
retrograde	2805 Sep 10 19:39	10°♎13'29		retrograde	2806 Aug 24 07:01	22°♎44'36	
evening set	2805 Sep 17 23:51	7°♎37'10		evening set	2806 Aug 31 10:01	20°♎26'09	
min. Earth dist.	2805 Sep 21 15:34	4°♎27'54	0.63440 AU	min. Earth dist.	2806 Sep 04 00:50	17°♎41'47	0.61560 AU
inferior conj	2805 Sep 24 07:04	1°♎48'31	-3°-20'-59	inferior conj	2806 Sep 07 03:05	14°♎57'03	-4°-12'-50
minimum elong	2805 Sep 24 12:18	1°♎35'23	3°19'21	minimum elong	2806 Sep 07 08:36	14°♎44'45	4°11'35
	2805 Sep 26 03:23	30°♎		morning rise	2806 Sep 14 10:07	10°♎00'07	
morning rise	2805 Oct 01 03:08	26°♎31'00		direct	2806 Sep 16 18:31	9°♎37'00	
direct	2805 Oct 03 13:22	26°♎02'38		asc. node	2806 Sep 21 22:17	11°♎32'31	
asc. node	2805 Oct 05 01:14	26°♎13'37		morning max el	2806 Sep 23 18:23	13°♎07'22	17°56'24
morning max el	2805 Oct 10 03:39	29°♎28'13	17°51'33		2806 Oct 05 04:11	0°♎	
	2805 Oct 10 16:04	0°♎		morning set	2806 Oct 09 13:49	7°♎58'34	
morning set	2805 Oct 26 14:38	24°♎49'53					
	2805 Oct 29 14:02	0°♎		superior conj	2806 Oct 20 01:45	26°♎48'36	1°03'18
superior conj	2805 Nov 07 19:20	15°♎37'09	0°27'21	minimum elong	2806 Oct 20 06:09	27°♎07'44	1°02'45
minimum elong	2805 Nov 07 22:06	15°♎48'37	0°26'58		2806 Oct 21 22:04	0°♎	
desc. node	2805 Nov 11 19:55	22°♎12'10		max. Earth dist.	2806 Oct 27 13:35	9°♎29'28	1.42551 AU
max. Earth dist.	2805 Nov 14 00:22	25°♎43'14	1.44061 AU	desc. node	2806 Oct 29 16:57	12°♎59'24	
	2805 Nov 16 16:53	0°♎		evening rise	2806 Nov 03 02:04	19°♎59'53	
evening rise	2805 Nov 23 11:24	10°♎34'05			2806 Nov 09 13:09	0°♎	
	2805 Dec 06 08:44	0°♎		greatest brilliancy	2806 Nov 30 12:59	29°♎32'01	-0.3m
greatest brilliancy	2805 Dec 16 21:59	14°♎48'20	-0.5m		2806 Nov 30 22:11	0°♎	
evening max el	2805 Dec 22 10:59	21°♎20'07	20°50'27	evening max el	2806 Dec 05 06:23	4°♎52'21	22°04'29
retrograde	2805 Dec 30 18:50	26°♎15'35		retrograde	2806 Dec 14 15:27	10°♎27'13	
asc. node	2806 Jan 01 00:29	26°♎07'08		asc. node	2806 Dec 18 21:31	8°♎49'43	
evening set	2806 Jan 03 17:25	24°♎46'59		evening set	2806 Dec 19 01:10	8°♎42'29	
inferior conj	2806 Jan 09 03:26	18°♎33'51	2°29'41	inferior conj	2806 Dec 24 10:39	2°♎20'54	1°48'12
minimum elong	2806 Jan 09 00:53	18°♎42'35	2°28'55	minimum elong	2806 Dec 24 08:29	2°♎28'25	1°47'25
min. Earth dist.	2806 Jan 09 15:11	17°♎53'32	0.67527 AU	min. Earth dist.	2806 Dec 24 10:47	2°♎20'26	0.67868 AU
morning rise	2806 Jan 14 07:57	12°♎18'44			2806 Dec 26 03:58	30°♎	
direct	2806 Jan 19 17:17	9°♎57'20		morning rise	2806 Dec 29 15:38	26°♎07'32	
morning max el	2806 Jan 30 15:11	16°♎27'37	24°01'02	direct	2807 Jan 03 09:48	24°♎08'25	
desc. node	2806 Feb 07 19:07	25°♎59'01		morning max el	2807 Jan 13 01:41	29°♎50'45	22°32'31
	2806 Feb 10 20:02	0°♎			2807 Jan 13 05:21	0°♎	
	2806 Mar 02 17:29	0°♎		greatest brilliancy	2807 Jan 17 15:15	4°♎56'25	-0.3m
morning set	2806 Mar 07 06:03	7°♎37'46		desc. node	2807 Jan 25 16:09	15°♎28'15	
max. Earth dist.	2806 Mar 11 01:42	14°♎19'26	1.38280 AU		2807 Feb 04 15:48	0°♎	
				morning set	2807 Feb 15 21:13	17°♎39'07	
superior conj	2806 Mar 18 06:33	27°♎36'30	-1°-40'-14	max. Earth dist.	2807 Feb 20 21:58	26°♎02'22	1.40443 AU
minimum elong	2806 Mar 18 11:01	27°♎57'47	1°39'45		2807 Feb 23 05:24	0°♎	
	2806 Mar 19 12:35	0°♎		superior conj	2807 Feb 28 16:57	9°♎41'32	-1°-58'-36
evening rise	2806 Mar 27 05:57	15°♎05'53		minimum elong	2807 Feb 28 20:30	9°♎57'34	1°58'25
asc. node	2806 Mar 29 23:49	20°♎26'22		evening rise	2807 Mar 10 18:24	28°♎24'01	
	2806 Apr 04 04:58	0°♎			2807 Mar 11 14:45	0°♎	
evening max el	2806 Apr 12 16:39	11°♎40'39	18°56'30	asc. node	2807 Mar 16 20:51	9°♎41'36	
retrograde	2806 Apr 21 03:39	15°♎47'46		evening max el	2807 Mar 26 22:03	24°♎15'21	18°22'10
evening set	2806 Apr 23 07:06	15°♎32'58		retrograde	2807 Apr 03 05:48	27°♎53'11	
inferior conj	2806 May 01 09:04	11°♎16'16	1°30'09	evening set	2807 Apr 05 14:59	27°♎31'08	
minimum elong	2806 May 01 12:17	11°♎10'34	1°29'08	inferior conj	2807 Apr 12 22:18	22°♎54'05	2°43'15
min. Earth dist.	2806 May 04 12:39	9°♎03'13	0.56892 AU	minimum elong	2807 Apr 13 02:03	22°♎46'17	2°42'22
desc. node	2806 May 06 18:19	7°♎37'58		min. Earth dist.	2807 Apr 16 08:54	20°♎03'54	0.58858 AU
morning rise	2806 May 09 13:09	6°♎14'01		morning rise	2807 Apr 20 09:02	17°♎21'35	
direct	2806 May 14 20:01	5°♎07'27		desc. node	2807 Apr 23 15:20	16°♎02'44	
morning max el	2806 May 29 03:22	12°♎32'21	25°54'20	direct	2807 Apr 26 13:35	15°♎39'53	
	2806 Jun 11 17:55	0°♎		morning max el	2807 May 10 22:50	23°♎24'42	27°06'47
morning set	2806 Jun 25 23:24	26°♎26'15			2807 May 16 20:44	0°♎	
asc. node	2806 Jun 25 23:06	26°♎24'41			2807 Jun 04 18:44	0°♎	
	2806 Jun 27 15:32	0°♎		morning set	2807 Jun 10 08:46	11°♎12'43	
				asc. node	2807 Jun 12 20:08	16°♎27'50	
superior conj	2806 Jul 02 23:36	11°♎39'21	1°08'00				
minimum elong	2806 Jul 02 21:16	11°♎26'33	1°07'37	superior conj	2807 Jun 17 11:25	26°♎35'44	0°47'12

minimum elong	2807 Jun 17 09:31	26° Π 25'19	0°46'50	asc. node	2808 May 29 17:10	6° Π 35'44	
max. Earth dist.	2807 Jun 17 05:39	26° Π 04'00	1.32117 AU	max. Earth dist.	2808 May 30 16:32	8° Π 42'49	1.32245 AU
	2807 Jun 19 00:29	0° \mathfrak{S}					
evening rise	2807 Jun 24 08:57	11° \mathfrak{S} 35'23		superior conj	2808 May 31 22:20	11° Π 25'39	0°23'11
	2807 Jul 03 18:40	0° Ω		minimum elong	2808 May 31 21:17	11° Π 19'57	0°22'58
desc. node	2807 Jul 20 14:39	24° Ω 25'04		evening rise	2808 Jun 07 19:55	26° Π 26'11	
evening max el	2807 Jul 23 10:58	27° Ω 19'42	26°21'41		2808 Jun 09 12:37	0° \mathfrak{S}	
	2807 Jul 26 12:54	0° \mathfrak{M}			2808 Jun 26 21:46	0° Ω	
retrograde	2807 Aug 06 10:26	4° \mathfrak{M} 30'49		evening max el	2808 Jul 04 04:14	8° Ω 21'49	25°04'23
evening set	2807 Aug 13 00:38	2° \mathfrak{M} 43'06		desc. node	2808 Jul 06 11:40	10° Ω 25'23	
min. Earth dist.	2807 Aug 17 00:03	0° \mathfrak{M} 08'15	0.59503 AU	retrograde	2808 Jul 18 03:47	15° Ω 27'25	
	2807 Aug 17 04:29	30° \mathfrak{R} Ω		evening set	2808 Jul 23 15:31	14° Ω 18'22	
inferior conj	2807 Aug 20 07:15	27° Ω 35'05	-4°-50'-49	min. Earth dist.	2808 Jul 28 15:53	11° Ω 34'04	0.57501 AU
minimum elong	2807 Aug 20 11:01	27° Ω 27'44	4°50'24	inferior conj	2808 Jul 31 16:16	9° Ω 32'27	-5°-3'-3
morning rise	2807 Aug 28 00:52	23° Ω 01'14		minimum elong	2808 Jul 31 15:33	9° Ω 33'39	5°03'03
direct	2807 Aug 30 10:21	22° Ω 41'02		morning rise	2808 Aug 08 19:17	5° Ω 21'04	
morning max el	2807 Sep 07 04:20	26° Ω 25'47	18°20'52	direct	2808 Aug 11 08:34	5° Ω 01'59	
asc. node	2807 Sep 08 19:20	28° Ω 08'10		morning max el	2808 Aug 20 06:11	9° Ω 12'45	19°06'20
	2807 Sep 10 08:03	0° \mathfrak{M}		asc. node	2808 Aug 25 16:23	15° Ω 44'29	
morning set	2807 Sep 23 02:42	21° \mathfrak{M} 46'32			2808 Sep 02 23:03	0° \mathfrak{M}	
	2807 Sep 27 10:12	0° \mathfrak{A}		morning set	2808 Sep 06 01:09	6° \mathfrak{M} 02'03	
superior conj	2807 Oct 02 08:11	9° \mathfrak{A} 10'55	1°27'30	superior conj	2808 Sep 14 09:03	22° \mathfrak{M} 27'32	1°40'53
minimum elong	2807 Oct 02 11:46	9° \mathfrak{A} 27'20	1°27'10	minimum elong	2808 Sep 14 10:54	22° \mathfrak{M} 36'23	1°40'48
max. Earth dist.	2807 Oct 09 21:01	22° \mathfrak{A} 33'28	1.40640 AU		2808 Sep 18 08:33	0° \mathfrak{A}	
evening rise	2807 Oct 14 11:56	0° \mathfrak{M} 19'31		max. Earth dist.	2808 Sep 21 00:56	4° \mathfrak{A} 55'02	1.38572 AU
	2807 Oct 14 07:12	0° \mathfrak{M}		evening rise	2808 Sep 24 21:39	11° \mathfrak{A} 45'28	
desc. node	2807 Oct 16 13:58	3° \mathfrak{M} 43'39		desc. node	2808 Oct 02 11:00	24° \mathfrak{A} 20'54	
	2807 Nov 03 00:26	0° \mathfrak{A}			2808 Oct 06 01:17	0° \mathfrak{M}	
evening max el	2807 Nov 17 21:18	18° \mathfrak{A} 26'55	23°24'01		2808 Oct 28 09:02	0° \mathfrak{A}	
retrograde	2807 Nov 28 09:20	24° \mathfrak{A} 39'54		evening max el	2808 Oct 30 09:57	2° \mathfrak{A} 05'59	24°42'48
evening set	2807 Dec 03 07:49	22° \mathfrak{A} 38'29		retrograde	2808 Nov 10 23:22	8° \mathfrak{A} 49'57	
asc. node	2807 Dec 05 18:33	20° \mathfrak{A} 07'54		evening set	2808 Nov 16 11:44	6° \mathfrak{A} 32'25	
inferior conj	2807 Dec 08 18:12	16° \mathfrak{A} 12'28	1°00'24	min. Earth dist.	2808 Nov 21 03:05	1° \mathfrak{A} 16'51	0.67504 AU
minimum elong	2807 Dec 08 16:50	16° \mathfrak{A} 17'09	0°59'50	asc. node	2808 Nov 21 15:35	0° \mathfrak{A} 35'23	
min. Earth dist.	2807 Dec 08 07:34	16° \mathfrak{A} 48'57	0.67855 AU	inferior conj	2808 Nov 22 00:18	0° \mathfrak{A} 06'25	0°07'29
morning rise	2807 Dec 14 01:57	10° \mathfrak{A} 02'48		minimum elong	2808 Nov 22 00:07	0° \mathfrak{A} 07'02	0°07'24
direct	2807 Dec 18 05:39	8° \mathfrak{A} 26'32		transit middle	2808 Nov 22 00:07	0° \mathfrak{A} 07'02	0°07'24
morning max el	2807 Dec 26 17:39	13° \mathfrak{A} 22'52	21°09'41	transit begin	2808 Nov 21 21:40	0° \mathfrak{A} 15'10	
greatest brilliancy	2808 Jan 01 01:23	19° \mathfrak{A} 29'39	-0.4m	transit end	2808 Nov 22 02:34	29° \mathfrak{M} 58'53	
	2808 Jan 08 19:22	0° \mathfrak{S}			2808 Nov 22 02:14	30° \mathfrak{R} \mathfrak{M}	
desc. node	2808 Jan 12 13:11	5° \mathfrak{S} 24'40		morning rise	2808 Nov 27 12:57	24° \mathfrak{M} 02'52	
morning set	2808 Jan 26 08:10	26° \mathfrak{S} 22'01		direct	2808 Dec 01 03:44	22° \mathfrak{M} 47'39	
	2808 Jan 28 15:22	0° \approx		morning max el	2808 Dec 08 17:15	27° \mathfrak{M} 06'04	19°58'18
max. Earth dist.	2808 Feb 03 00:00	8° \approx 38'20	1.42440 AU		2808 Dec 11 08:33	0° \mathfrak{A}	
superior conj	2808 Feb 10 05:27	20° \approx 43'36	-2°-6'-6	greatest brilliancy	2808 Dec 15 22:40	5° \mathfrak{A} 53'45	-0.6m
minimum elong	2808 Feb 10 05:30	20° \approx 43'49	2°06'07	desc. node	2808 Dec 29 10:13	25° \mathfrak{A} 40'50	
	2808 Feb 15 13:28	0° \mathfrak{H}			2809 Jan 01 06:05	0° \mathfrak{S}	
evening rise	2808 Feb 21 17:02	10° \mathfrak{H} 59'56		morning set	2809 Jan 04 04:13	4° \mathfrak{S} 29'46	
asc. node	2808 Mar 02 17:52	28° \mathfrak{H} 28'51		max. Earth dist.	2809 Jan 15 09:45	22° \mathfrak{S} 06'07	1.44012 AU
	2808 Mar 03 17:17	0° \mathfrak{Y}			2809 Jan 20 07:26	0° \approx	
evening max el	2808 Mar 09 08:38	7° \mathfrak{Y} 14'39	18°07'43	superior conj	2809 Jan 20 16:08	0° \approx 35'24	-1°-57'-32
retrograde	2808 Mar 16 00:38	10° \mathfrak{Y} 39'04		minimum elong	2809 Jan 20 10:33	0° \approx 12'38	1°57'15
evening set	2808 Mar 18 15:28	10° \mathfrak{Y} 07'42		evening rise	2809 Feb 02 21:33	22° \approx 45'14	
inferior conj	2808 Mar 25 07:21	5° \mathfrak{Y} 09'37	3°24'29		2809 Feb 07 02:55	0° \mathfrak{H}	
minimum elong	2808 Mar 25 09:38	5° \mathfrak{Y} 04'06	3°24'10	asc. node	2809 Feb 17 14:54	16° \mathfrak{H} 39'23	
min. Earth dist.	2808 Mar 28 12:01	2° \mathfrak{Y} 06'48	0.61025 AU	evening max el	2809 Feb 20 21:19	20° \mathfrak{H} 30'23	18°12'31
	2808 Mar 31 00:29	30° \mathfrak{R} \mathfrak{H}		retrograde	2809 Feb 27 07:54	23° \mathfrak{H} 55'32	
morning rise	2808 Apr 01 00:43	29° \mathfrak{H} 17'04		evening set	2809 Mar 02 04:08	23° \mathfrak{H} 13'36	
direct	2808 Apr 07 18:53	27° \mathfrak{H} 00'56		inferior conj	2809 Mar 08 08:19	17° \mathfrak{H} 55'15	3°40'04
desc. node	2808 Apr 09 12:22	27° \mathfrak{H} 09'23		minimum elong	2809 Mar 08 08:43	17° \mathfrak{H} 54'10	3°40'03
	2808 Apr 16 03:16	0° \mathfrak{Y}		min. Earth dist.	2809 Mar 10 23:48	15° \mathfrak{H} 03'45	0.63086 AU
morning max el	2808 Apr 22 00:32	4° \mathfrak{Y} 56'04	27°45'21	morning rise	2809 Mar 14 11:16	11° \mathfrak{H} 51'03	
	2808 May 10 16:47	0° \mathfrak{S}		direct	2809 Mar 21 09:22	9° \mathfrak{H} 10'53	
morning set	2808 May 24 14:13	25° \mathfrak{S} 44'42		desc. node	2809 Mar 27 09:23	10° \mathfrak{H} 53'29	
	2808 May 26 15:13	0° Π		morning max el	2809 Apr 04 07:19	17° \mathfrak{H} 07'47	27°46'28

	2809 Apr 15 00:03	0°♄		morning max el	2810 Mar 17 16:48	29°≈51'32	27°12'53
	2809 May 03 10:48	0°♄			2810 Mar 17 20:09	0°♄	
morning set	2809 May 08 13:33	9°♄55'15			2810 Apr 08 22:38	0°♄	
max. Earth dist.	2809 May 13 22:33	21°♄03'04	1.32790 AU	morning set	2810 Apr 22 03:54	23°♄35'24	
					2810 Apr 25 09:38	0°♄	
superior conj	2809 May 16 06:38	26°♄03'35	0°-3'-19	max. Earth dist.	2810 Apr 26 20:00	2°♄54'28	1.33773 AU
minimum elong	2809 May 16 06:47	26°♄04'27	0°03'18				
behind sun begin	2809 May 16 01:38	25°♄36'38		superior conj	2810 Apr 30 10:19	10°♄23'04	0°-31'-23
behind sun end	2809 May 16 11:57	26°♄32'18		minimum elong	2810 Apr 30 11:55	10°♄31'31	0°31'04
asc. node	2809 May 16 14:13	26°♄44'32		asc. node	2810 May 03 11:16	16°♄50'00	
	2809 May 18 02:19	0°♄		evening rise	2810 May 07 18:40	25°♄58'03	
evening rise	2809 May 23 07:47	11°♄15'52			2810 May 09 17:21	0°♄	
	2809 Jun 01 22:08	0°♄		evening max el	2810 May 28 10:38	29°♄24'34	21°55'07
evening max el	2809 Jun 15 17:47	18°♄53'28	23°30'21		2810 May 29 01:33	0°♄	
desc. node	2809 Jun 23 08:41	24°♄20'45		retrograde	2810 Jun 10 01:30	5°♄38'08	
retrograde	2809 Jun 29 08:30	25°♄42'15		desc. node	2810 Jun 10 05:40	5°♄38'04	
evening set	2809 Jul 03 08:41	25°♄07'04		evening set	2810 Jun 12 18:24	5°♄21'48	
min. Earth dist.	2809 Jul 10 03:52	21°♄57'50	0.55887 AU	min. Earth dist.	2810 Jun 21 14:59	1°♄34'42	0.54983 AU
inferior conj	2809 Jul 12 05:13	20°♄44'25	-4°-34'-37	inferior conj	2810 Jun 22 02:45	1°♄18'13	-3°-17'-6
minimum elong	2809 Jul 11 22:57	20°♄53'47	4°33'36	minimum elong	2810 Jun 21 18:44	1°♄29'27	3°14'45
morning rise	2809 Jul 20 16:25	16°♄49'31			2810 Jun 24 11:40	30°♄	
direct	2809 Jul 23 11:48	16°♄30'01		morning rise	2810 Jun 30 20:34	27°♄26'04	
morning max el	2809 Aug 02 21:14	21°♄19'11	20°13'19	direct	2810 Jul 04 00:31	27°♄03'57	
	2809 Aug 09 23:19	0°♄			2810 Jul 12 16:20	0°♄	
asc. node	2809 Aug 12 13:26	4°♄07'56		morning max el	2810 Jul 16 00:44	2°♄41'28	21°40'02
morning set	2809 Aug 21 06:04	20°♄36'50		asc. node	2810 Jul 30 10:30	23°♄07'28	
	2809 Aug 25 19:51	0°♄			2810 Aug 02 23:41	0°♄	
				morning set	2810 Aug 05 15:11	5°♄24'42	
superior conj	2809 Aug 28 23:16	6°♄23'53	1°45'10				
minimum elong	2809 Aug 28 23:22	6°♄24'22	1°45'10	superior conj	2810 Aug 12 22:52	20°♄48'44	1°41'59
max. Earth dist.	2809 Sep 03 06:45	16°♄50'57	1.36600 AU	minimum elong	2810 Aug 12 21:37	20°♄42'15	1°41'55
evening rise	2809 Sep 07 05:11	24°♄12'37		max. Earth dist.	2810 Aug 16 19:33	28°♄45'20	1.34912 AU
	2809 Sep 10 10:46	0°♄			2810 Aug 17 10:23	0°♄	
desc. node	2809 Sep 19 08:02	14°♄46'15		evening rise	2810 Aug 21 06:10	7°♄30'00	
	2809 Sep 29 16:37	0°♄			2810 Sep 03 01:51	0°♄	
evening max el	2809 Oct 12 22:12	15°♄47'27	25°53'30	desc. node	2810 Sep 06 05:04	4°♄53'52	
retrograde	2809 Oct 25 08:31	22°♄52'04		evening max el	2810 Sep 25 10:40	29°♄24'58	26°48'29
evening set	2809 Oct 31 11:10	20°♄20'40			2810 Sep 26 01:28	0°♄	
min. Earth dist.	2809 Nov 04 18:55	15°♄40'49	0.66818 AU	retrograde	2810 Oct 08 12:23	6°♄40'17	
inferior conj	2809 Nov 06 03:08	13°♄59'22	0°-49'-21	evening set	2810 Oct 15 04:04	3°♄59'50	
minimum elong	2809 Nov 06 04:26	13°♄55'17	0°48'48	min. Earth dist.	2810 Oct 19 04:38	29°♄56'47	0.65784 AU
asc. node	2809 Nov 08 12:38	11°♄05'47			2810 Oct 19 03:31	30°♄	
morning rise	2809 Nov 11 22:37	8°♄04'44		inferior conj	2810 Oct 21 00:42	27°♄47'48	-1°-48'-33
direct	2809 Nov 15 02:24	7°♄07'26		minimum elong	2810 Oct 21 03:40	27°♄39'07	1°47'21
morning max el	2809 Nov 22 00:24	10°♄58'31	19°01'33	asc. node	2810 Oct 26 09:41	22°♄32'47	
	2809 Dec 05 21:46	0°♄		morning rise	2810 Oct 27 04:44	22°♄05'13	
morning set	2809 Dec 14 10:39	13°♄16'31		direct	2810 Oct 29 23:44	21°♄22'06	
desc. node	2809 Dec 16 07:16	16°♄10'48		morning max el	2810 Nov 05 13:20	24°♄56'14	18°20'56
	2809 Dec 25 03:15	0°♄			2810 Nov 09 18:53	0°♄	
max. Earth dist.	2809 Dec 29 01:53	6°♄11'34	1.44964 AU	morning set	2810 Nov 24 20:19	23°♄27'20	
					2810 Nov 28 21:42	0°♄	
superior conj	2809 Dec 31 03:10	9°♄25'48	-1°-29'-43	desc. node	2810 Dec 03 04:20	6°♄50'30	
minimum elong	2809 Dec 30 18:08	8°♄50'10	1°28'50				
	2810 Jan 12 23:31	0°♄		superior conj	2810 Dec 10 04:56	17°♄57'18	0°-46'-15
evening rise	2810 Jan 15 04:01	3°≈33'46		minimum elong	2810 Dec 09 23:02	17°♄34'07	0°45'29
	2810 Feb 01 01:23	0°♄		max. Earth dist.	2810 Dec 11 21:11	20°♄35'30	1.45186 AU
asc. node	2810 Feb 04 11:57	4°♄01'46			2810 Dec 17 21:15	0°♄	
evening max el	2810 Feb 04 09:14	3°♄54'52	18°35'45	evening rise	2810 Dec 26 11:25	13°♄27'31	
retrograde	2810 Feb 10 23:22	7°♄33'22			2811 Jan 06 01:32	0°≈	
evening set	2810 Feb 14 01:19	6°♄39'53		greatest brilliancy	2811 Jan 09 09:24	5°≈03'16	-0.7m
inferior conj	2810 Feb 19 21:10	1°♄02'48	3°36'32	evening max el	2811 Jan 18 18:04	17°≈23'43	19°16'15
minimum elong	2810 Feb 19 20:00	1°♄06'17	3°36'28	asc. node	2811 Jan 22 08:59	20°≈22'49	
	2810 Feb 20 18:04	30°♄		retrograde	2811 Jan 25 19:29	21°≈26'09	
min. Earth dist.	2810 Feb 21 21:02	28°≈39'52	0.64842 AU	evening set	2811 Jan 29 04:10	20°≈20'08	
morning rise	2810 Feb 25 13:25	24°≈52'05		inferior conj	2811 Feb 03 18:29	14°≈26'39	3°18'49
direct	2810 Mar 04 07:00	22°≈02'10		minimum elong	2811 Feb 03 16:20	14°≈33'34	3°18'27
desc. node	2810 Mar 14 06:26	26°≈41'31		min. Earth dist.	2811 Feb 05 03:10	12°≈41'30	0.66204 AU

morning rise	2811 Feb 09 03:40	8° \approx 12'23		minimum elong	2812 Jan 18 18:52	28° ☿ 10'59	2°49'34
direct	2811 Feb 15 10:58	5° \approx 26'07		min. Earth dist.	2812 Jan 19 16:24	26° ☿ 58'16	0.67152 AU
morning max el	2811 Feb 28 02:36	12° \approx 56'06	26°11'24	morning rise	2812 Jan 24 02:47	21° ☿ 46'48	
desc. node	2811 Mar 01 03:29	14° \approx 00'14		direct	2812 Jan 29 20:33	19° ☿ 14'15	
	2811 Mar 13 21:21	0° ☿		morning max el	2812 Feb 10 11:23	26° ☿ 10'39	24°51'25
	2811 Apr 01 15:07	0° ☿			2812 Feb 13 23:59	0° \approx	
morning set	2811 Apr 05 05:27	6° ☿ 33'44		desc. node	2812 Feb 16 00:33	2° \approx 23'43	
max. Earth dist.	2811 Apr 09 06:10	14° ☿ 14'15	1.35212 AU		2812 Mar 06 11:05	0° ☿	
				morning set	2812 Mar 17 13:08	18° ☿ 36'16	
superior conj	2811 Apr 14 06:58	24° ☿ 16'47	0°-59'-45	max. Earth dist.	2812 Mar 21 05:36	25° ☿ 15'59	1.37068 AU
minimum elong	2811 Apr 14 10:03	24° ☿ 32'31	0°59'12		2812 Mar 23 18:31	0° ☿	
	2811 Apr 17 01:45	0° ☿					
asc. node	2811 Apr 20 08:19	6° ☿ 47'41		superior conj	2812 Mar 27 17:35	7° ☿ 36'54	-1°-26'-32
evening rise	2811 Apr 22 02:34	10° ☿ 25'56		minimum elong	2812 Mar 27 21:48	7° ☿ 57'34	1°25'58
	2811 May 02 13:05	0° ☿		evening rise	2812 Apr 05 05:13	24° ☿ 32'58	
evening max el	2811 May 10 13:22	10° ☿ 23'03	20°31'16	asc. node	2812 Apr 06 05:20	26° ☿ 33'17	
retrograde	2811 May 21 14:44	15° ☿ 46'04			2812 Apr 07 23:17	0° ☿	
evening set	2811 May 23 16:06	15° ☿ 35'39		evening max el	2812 Apr 22 04:10	22° ☿ 02'16	19°25'24
desc. node	2811 May 28 02:41	14° ☿ 10'23		retrograde	2812 May 01 12:17	26° ☿ 33'41	
inferior conj	2811 Jun 01 20:50	11° ☿ 37'56	-1°-23'-34	evening set	2812 May 03 12:47	26° ☿ 21'54	
minimum elong	2811 Jun 01 16:53	11° ☿ 43'39	1°22'08	inferior conj	2812 May 12 01:56	22° ☿ 15'25	0°33'03
min. Earth dist.	2811 Jun 03 03:19	10° ☿ 53'49	0.55008 AU	minimum elong	2812 May 12 03:19	22° ☿ 13'09	0°32'34
morning rise	2811 Jun 10 16:10	7° ☿ 28'07		desc. node	2812 May 13 23:42	21° ☿ 00'54	
direct	2811 Jun 14 10:28	6° ☿ 57'38		min. Earth dist.	2812 May 14 17:56	20° ☿ 31'50	0.55979 AU
morning max el	2811 Jun 27 19:03	13° ☿ 25'41	23°20'06	morning rise	2812 May 20 13:56	17° ☿ 32'53	
	2811 Jul 10 10:56	0° ☿		direct	2812 May 25 06:32	16° ☿ 42'50	
asc. node	2811 Jul 17 07:34	12° ☿ 33'14		morning max el	2812 Jun 08 09:26	23° ☿ 51'58	25°01'23
morning set	2811 Jul 21 02:27	20° ☿ 18'51			2812 Jun 13 23:05	0° ☿	
	2811 Jul 25 15:07	0° ☿			2812 Jul 02 01:44	0° ☿	
				asc. node	2812 Jul 03 04:37	2° ☿ 18'09	
superior conj	2811 Jul 28 04:41	5° ☿ 31'37	1°32'40	morning set	2812 Jul 04 14:16	5° ☿ 14'14	
minimum elong	2811 Jul 28 02:37	5° ☿ 20'31	1°32'28				
max. Earth dist.	2811 Jul 30 17:15	10° ☿ 53'59	1.33607 AU	superior conj	2812 Jul 11 14:22	20° ☿ 24'59	1°18'16
evening rise	2811 Aug 04 20:06	21° ☿ 24'39		minimum elong	2812 Jul 11 11:59	20° ☿ 12'01	1°17'56
	2811 Aug 09 06:55	0° ☿		max. Earth dist.	2812 Jul 12 22:50	23° ☿ 21'54	1.32717 AU
desc. node	2811 Aug 24 02:04	24° ☿ 35'01			2812 Jul 16 00:58	0° ☿	
	2811 Aug 27 22:46	0° ☿		evening rise	2812 Jul 18 19:22	5° ☿ 46'23	
evening max el	2811 Sep 07 22:27	12° ☿ 47'10	27°20'37		2812 Jul 31 21:12	0° ☿	
retrograde	2811 Sep 21 10:30	20° ☿ 05'36		desc. node	2812 Aug 09 23:03	13° ☿ 38'47	
evening set	2811 Sep 28 11:50	17° ☿ 24'17		evening max el	2812 Aug 20 07:51	25° ☿ 42'21	27°23'39
min. Earth dist.	2811 Oct 02 06:02	13° ☿ 56'54	0.64393 AU		2812 Aug 25 15:09	0° ☿	
inferior conj	2811 Oct 04 14:37	11° ☿ 25'51	-2°-47'-58	retrograde	2812 Sep 03 02:21	2° ☿ 58'48	
minimum elong	2811 Oct 04 19:09	11° ☿ 13'44	2°46'22	evening set	2812 Sep 10 07:06	0° ☿ 28'19	
morning rise	2811 Oct 11 04:35	5° ☿ 58'28			2812 Sep 10 22:54	30° ☿	
asc. node	2811 Oct 13 06:44	5° ☿ 26'49		min. Earth dist.	2812 Sep 13 21:33	27° ☿ 31'02	0.62668 AU
direct	2811 Oct 13 17:10	5° ☿ 25'50		inferior conj	2812 Sep 16 18:05	24° ☿ 47'20	-3°-44'-8
morning max el	2811 Oct 20 05:20	8° ☿ 52'13	17°57'14	minimum elong	2812 Sep 16 23:37	28° ☿ 34'05	3°42'35
	2811 Nov 03 11:21	0° ☿		morning rise	2812 Sep 23 18:51	19° ☿ 38'21	
morning set	2811 Nov 06 10:23	5° ☿ 00'52		direct	2812 Sep 26 03:47	19° ☿ 12'41	
				asc. node	2812 Sep 29 03:48	19° ☿ 54'49	
superior conj	2811 Nov 19 18:37	27° ☿ 08'22	0°01'56	morning max el	2812 Oct 02 21:23	22° ☿ 39'32	17°51'16
minimum elong	2811 Nov 19 18:50	27° ☿ 09'17	0°01'54		2812 Oct 08 14:38	0° ☿	
behind sun begin	2811 Nov 19 08:37	26° ☿ 27'59		morning set	2812 Oct 18 23:16	17° ☿ 39'50	
behind sun end	2811 Nov 20 05:04	27° ☿ 50'30			2812 Oct 25 23:20	0° ☿	
desc. node	2811 Nov 20 01:23	27° ☿ 35'41					
	2811 Nov 21 13:19	0° ☿		superior conj	2812 Oct 30 09:25	7° ☿ 33'51	0°44'00
max. Earth dist.	2811 Nov 24 15:50	4° ☿ 56'46	1.44663 AU	minimum elong	2812 Oct 30 13:18	7° ☿ 50'12	0°43'28
evening rise	2811 Dec 06 00:51	22° ☿ 41'15		desc. node	2812 Nov 05 22:23	18° ☿ 22'55	
	2811 Dec 10 19:22	0° ☿		max. Earth dist.	2812 Nov 06 07:06	18° ☿ 58'13	1.43476 AU
greatest brilliancy	2811 Dec 26 09:52	22° ☿ 58'00	-0.6m		2812 Nov 13 05:48	0° ☿	
	2812 Jan 01 01:38	0° \approx		evening rise	2812 Nov 14 10:06	1° ☿ 50'04	
evening max el	2812 Jan 01 22:06	0° \approx 54'16	20°12'19		2812 Dec 03 09:14	0° ☿	
asc. node	2812 Jan 09 05:59	5° \approx 27'52		greatest brilliancy	2812 Dec 09 19:28	8° ☿ 36'16	-0.4m
retrograde	2812 Jan 09 17:28	5° \approx 29'08		evening max el	2812 Dec 14 20:37	14° ☿ 25'40	21°21'01
evening set	2812 Jan 13 10:22	4° \approx 09'18		retrograde	2812 Dec 23 15:02	19° ☿ 38'06	
	2812 Jan 17 09:59	30° ☿		asc. node	2812 Dec 26 03:01	19° ☿ 03'44	
inferior conj	2812 Jan 18 21:25	28° ☿ 02'22	2°50'14	evening set	2812 Dec 27 18:01	18° ☿ 03'00	

inferior conj	2813 Jan 02 03:38	11°☿45'53	2°12'59	evening set	2813 Dec 12 01:29	1°☿58'52	
minimum elong	2813 Jan 02 01:11	11°☿54'20	2°12'10	asc. node	2813 Dec 13 00:03	1°☿08'09	
min. Earth dist.	2813 Jan 02 10:23	11°☿22'32	0.67711 AU		2813 Dec 14 01:46	30°☿☿	
morning rise	2813 Jan 07 08:01	5°☿31'03		inferior conj	2813 Dec 17 11:12	25°☿35'10	1°28'40
direct	2813 Jan 12 10:54	3°☿18'38		minimum elong	2813 Dec 17 09:20	25°☿41'40	1°27'56
morning max el	2813 Jan 22 20:07	9°☿29'23	23°23'09	min. Earth dist.	2813 Dec 17 06:46	25°☿50'32	0.67905 AU
greatest brilliancy	2813 Jan 28 09:10	15°☿44'41	-0.2m	morning rise	2813 Dec 22 17:05	19°☿23'06	
desc. node	2813 Feb 01 21:35	21°☿32'45		direct	2813 Dec 27 05:05	17°☿33'33	
	2813 Feb 07 23:45	0°☿		morning max el	2814 Jan 05 08:23	22°☿55'16	21°56'12
morning set	2813 Feb 26 20:37	29°☿25'11		greatest brilliancy	2814 Jan 10 01:17	28°☿12'50	-0.4m
	2813 Feb 27 04:52	0°☿			2814 Jan 11 11:41	0°☿	
max. Earth dist.	2813 Mar 03 00:14	6°☿32'13	1.39197 AU	desc. node	2814 Jan 19 18:37	11°☿14'40	
					2814 Feb 01 08:38	0°☿	
superior conj	2813 Mar 10 14:10	20°☿12'38	-1°-49'-3	morning set	2814 Feb 06 23:12	8°☿50'31	
minimum elong	2813 Mar 10 18:31	20°☿32'50	1°48'40	max. Earth dist.	2814 Feb 12 22:33	18°☿37'03	1.41334 AU
	2813 Mar 15 18:10	0°☿			2814 Feb 19 14:19	0°☿	
evening rise	2813 Mar 19 23:45	8°☿10'48					
asc. node	2813 Mar 24 02:21	16°☿01'03		superior conj	2814 Feb 20 15:56	1°☿52'34	-2°-3'-25
	2813 Apr 01 12:39	0°☿		minimum elong	2814 Feb 20 18:21	2°☿03'15	2°03'21
evening max el	2813 Apr 05 05:11	4°☿19'02	18°39'28	evening rise	2814 Mar 03 06:49	21°☿11'48	
retrograde	2813 Apr 13 03:03	8°☿11'16			2814 Mar 08 01:56	0°☿	
evening set	2813 Apr 15 08:56	7°☿53'41		asc. node	2814 Mar 10 23:22	5°☿05'05	
inferior conj	2813 Apr 23 02:45	3°☿28'57	2°05'16	evening max el	2814 Mar 19 13:15	17°☿05'24	18°13'36
minimum elong	2813 Apr 23 06:33	3°☿21'45	2°04'10	retrograde	2814 Mar 26 12:41	20°☿35'17	
min. Earth dist.	2813 Apr 26 11:28	0°☿57'13	0.57687 AU	evening set	2814 Mar 29 00:30	20°☿09'17	
	2813 Apr 27 20:32	30°☿☿		inferior conj	2814 Apr 05 00:47	15°☿23'06	3°04'18
morning rise	2813 Apr 30 23:46	28°☿12'49		minimum elong	2814 Apr 05 04:03	15°☿15'51	3°03'39
desc. node	2813 Apr 30 20:44	28°☿16'22		min. Earth dist.	2814 Apr 08 10:03	12°☿24'41	0.59786 AU
direct	2813 May 06 16:49	26°☿51'32		morning rise	2814 Apr 12 03:58	9°☿41'11	
	2813 May 15 16:21	0°☿		desc. node	2814 Apr 17 17:46	7°☿46'30	
morning max el	2813 May 21 01:34	4°☿26'28	26°28'34	direct	2814 Apr 18 15:39	7°☿44'13	
	2813 Jun 08 15:34	0°☿		morning max el	2814 May 02 23:28	15°☿33'24	27°27'37
morning set	2813 Jun 19 00:59	20°☿05'00			2814 May 14 17:21	0°☿	
asc. node	2813 Jun 20 01:39	22°☿15'40			2814 Jun 01 01:06	0°☿	
	2813 Jun 23 15:24	0°☿		morning set	2814 Jun 03 08:55	4°☿45'39	
				asc. node	2814 Jun 06 22:41	12°☿20'55	
superior conj	2813 Jun 26 01:53	5°☿21'39	0°59'36	max. Earth dist.	2814 Jun 09 21:35	18°☿47'53	1.32130 AU
minimum elong	2813 Jun 25 23:41	5°☿09'33	0°59'13				
max. Earth dist.	2813 Jun 26 09:30	6°☿03'32	1.32227 AU	superior conj	2814 Jun 10 13:32	20°☿15'36	0°37'22
evening rise	2813 Jul 03 01:01	20°☿25'35		minimum elong	2814 Jun 10 11:57	20°☿06'55	0°37'03
	2813 Jul 07 18:35	0°☿			2814 Jun 15 00:05	0°☿	
	2813 Jul 26 08:32	0°☿		evening rise	2814 Jun 17 10:40	5°☿14'21	
desc. node	2813 Jul 27 20:03	1°☿49'53			2814 Jun 30 12:55	0°☿	
evening max el	2813 Aug 02 12:26	7°☿58'36	26°53'47	desc. node	2814 Jul 14 17:04	18°☿46'15	
retrograde	2813 Aug 16 10:39	15°☿11'03		evening max el	2814 Jul 15 09:54	19°☿27'09	25°51'44
evening set	2813 Aug 23 09:33	13°☿04'37		retrograde	2814 Jul 29 09:38	26°☿35'39	
min. Earth dist.	2813 Aug 27 02:38	10°☿26'08	0.60691 AU	evening set	2814 Aug 04 14:19	25°☿04'12	
inferior conj	2813 Aug 30 07:49	7°☿44'11	-4°-31'-17	min. Earth dist.	2814 Aug 08 22:13	22°☿27'40	0.58629 AU
minimum elong	2813 Aug 30 12:55	7°☿33'27	4°30'23	inferior conj	2814 Aug 12 04:11	20°☿05'52	-5°00'-4
morning rise	2813 Sep 06 19:26	2°☿56'33		minimum elong	2814 Aug 12 06:22	20°☿01'52	4°59'57
direct	2813 Sep 09 03:50	2°☿34'58		morning rise	2814 Aug 20 01:55	15°☿41'39	
asc. node	2813 Sep 16 00:51	5°☿47'56		direct	2814 Aug 22 12:54	15°☿21'58	
morning max el	2813 Sep 16 10:27	6°☿10'37	18°04'16	morning max el	2814 Aug 30 17:15	19°☿16'08	18°37'36
	2813 Oct 01 14:31	0°☿		asc. node	2814 Sep 02 21:55	22°☿50'50	
morning set	2813 Oct 02 04:56	1°☿07'01			2814 Sep 07 17:16	0°☿	
				morning set	2814 Sep 15 22:21	15°☿07'58	
					2814 Sep 23 15:19	0°☿	
superior conj	2813 Oct 12 02:40	19°☿16'53	1°14'58				
minimum elong	2813 Oct 12 06:55	19°☿35'49	1°14'30				
	2813 Oct 18 06:48	0°☿		superior conj	2814 Sep 24 17:38	2°☿03'56	1°34'24
max. Earth dist.	2813 Oct 19 17:51	2°☿27'31	1.41774 AU	minimum elong	2814 Sep 24 20:31	2°☿17'27	1°34'12
desc. node	2813 Oct 23 19:24	9°☿09'16		max. Earth dist.	2814 Oct 01 23:55	15°☿14'39	1.39765 AU
evening rise	2813 Oct 25 07:51	11°☿36'14		evening rise	2814 Oct 06 03:48	22°☿23'32	
	2813 Nov 06 06:43	0°☿		desc. node	2814 Oct 10 16:24	29°☿50'44	
greatest brilliancy	2813 Nov 22 16:54	22°☿31'08	-0.3m		2814 Oct 10 18:42	0°☿	
evening max el	2813 Nov 27 14:04	27°☿59'22	22°38'06		2814 Oct 31 06:25	0°☿	
	2813 Nov 29 17:07	0°☿		evening max el	2814 Nov 10 03:50	11°☿35'44	23°58'03
retrograde	2813 Dec 07 10:32	3°☿50'30		retrograde	2814 Nov 21 02:45	18°☿02'21	

evening set	2814 Nov 26 07:10	15°♂53'47		desc. node	2815 Sep 27 13:26	20°♂23'24	
asc. node	2814 Nov 29 21:07	11°♂58'37			2815 Oct 03 19:35	0°♂	
min. Earth dist.	2814 Dec 01 03:11	10°♂18'46	0.67751 AU	evening max el	2815 Oct 23 15:58	25°♂15'20	25°14'11
inferior conj	2814 Dec 01 18:20	9°♂27'26	0°38'31		2815 Oct 29 09:56	0°♂	
minimum elong	2814 Dec 01 17:26	9°♂30'31	0°38'08	retrograde	2815 Nov 04 14:48	2°♂09'38	
morning rise	2814 Dec 07 03:56	3°♂20'19		evening set	2815 Nov 10 09:24	29°♂45'27	
direct	2814 Dec 11 02:00	1°♂53'18			2815 Nov 10 02:22	30°♂♂	
morning max el	2814 Dec 19 03:29	6°♂31'44	20°37'44	min. Earth dist.	2815 Nov 14 21:21	24°♂45'07	0.67258 AU
greatest brilliancy	2814 Dec 25 03:06	13°♂32'53	-0.5m	inferior conj	2815 Nov 15 23:16	23°♂20'47	0°-16'-15
	2815 Jan 05 18:11	0°♂		minimum elong	2815 Nov 15 23:41	23°♂19'27	0°16'05
desc. node	2815 Jan 06 15:39	1°♂19'53		transit middle	2815 Nov 15 23:41	23°♂19'27	0°16'05
morning set	2815 Jan 17 01:09	17°♂09'55		transit begin	2815 Nov 15 23:21	23°♂20'31	
	2815 Jan 25 04:08	0°♂		transit end	2815 Nov 16 00:01	23°♂18'22	
max. Earth dist.	2815 Jan 26 04:25	1°♂37'55	1.43178 AU	asc. node	2815 Nov 16 18:11	22°♂19'37	
				morning rise	2815 Nov 21 14:38	17°♂20'56	
superior conj	2815 Feb 01 17:42	12°♂24'31	-2°-4'-42	direct	2815 Nov 25 00:25	16°♂13'57	
minimum elong	2815 Feb 01 15:28	12°♂15'10	2°04'40	morning max el	2815 Dec 02 06:32	20°♂19'23	19°32'15
	2815 Feb 11 23:18	0°♂			2815 Dec 10 01:15	0°♂	
evening rise	2815 Feb 13 22:16	3°♂26'59		greatest brilliancy	2815 Dec 10 18:17	1°♂00'12	-0.6m
asc. node	2815 Feb 25 20:24	23°♂37'43		desc. node	2815 Dec 24 12:42	21°♂42'03	
	2815 Mar 02 20:12	0°♂		morning set	2815 Dec 26 22:30	25°♂25'10	
evening max el	2815 Mar 03 01:03	0°♂12'11	18°07'25		2815 Dec 29 21:26	0°♂	
retrograde	2815 Mar 09 13:35	3°♂35'28		max. Earth dist.	2816 Jan 08 17:09	15°♂23'18	1.44497 AU
evening set	2815 Mar 12 06:42	2°♂59'41					
	2815 Mar 16 12:56	30°♂♂		superior conj	2816 Jan 12 17:18	21°♂46'13	-1°-48'-4
inferior conj	2815 Mar 18 17:07	27°♂52'28	3°33'48	minimum elong	2816 Jan 12 09:36	21°♂15'23	1°47'30
minimum elong	2815 Mar 18 18:36	27°♂48'42	3°33'40		2816 Jan 17 19:26	0°♂	
min. Earth dist.	2815 Mar 21 16:34	24°♂52'09	0.61926 AU	evening rise	2816 Jan 26 17:47	14°♂48'11	
morning rise	2815 Mar 25 03:56	21°♂54'04			2816 Feb 04 20:31	0°♂	
direct	2815 Apr 01 00:45	19°♂26'30		asc. node	2816 Feb 12 17:27	11°♂28'54	
desc. node	2815 Apr 04 14:49	20°♂03'03		evening max el	2816 Feb 14 13:37	13°♂31'28	18°20'13
morning max el	2815 Apr 15 03:45	27°♂22'59	27°50'30	retrograde	2816 Feb 21 00:54	17°♂01'19	
	2815 Apr 17 15:35	0°♂		evening set	2816 Feb 23 23:22	16°♂14'43	
	2815 May 08 09:28	0°♂		inferior conj	2816 Feb 29 23:37	10°♂48'07	3°40'35
morning set	2815 May 18 12:08	19°♂10'02		minimum elong	2816 Feb 29 23:17	10°♂49'03	3°40'35
	2815 May 23 15:58	0°♂		min. Earth dist.	2816 Mar 03 08:33	8°♂06'57	0.63867 AU
max. Earth dist.	2815 May 24 07:11	1°♂22'01	1.32428 AU	morning rise	2816 Mar 06 21:30	4°♂40'21	
asc. node	2815 May 24 19:43	2°♂29'51		direct	2816 Mar 13 18:23	1°♂54'15	
				desc. node	2816 Mar 21 11:52	4°♂43'41	
superior conj	2815 May 25 23:36	5°♂01'26	0°12'14	morning max el	2816 Mar 27 12:14	9°♂50'09	27°36'13
minimum elong	2815 May 25 23:02	4°♂58'20	0°12'06		2816 Apr 12 06:59	0°♂	
behind sun begin	2815 May 25 19:41	4°♂40'03			2816 Apr 29 17:30	0°♂	
behind sun end	2815 May 26 02:23	5°♂16'37		morning set	2816 May 01 08:04	3°♂08'59	
evening rise	2815 Jun 01 22:18	20°♂05'59		max. Earth dist.	2816 May 06 10:03	13°♂31'11	1.33147 AU
	2815 Jun 06 18:06	0°♂					
	2815 Jun 26 19:20	0°♂		superior conj	2816 May 09 06:11	19°♂32'05	0°-15'-4
evening max el	2815 Jun 27 00:48	0°♂13'15	24°25'26	minimum elong	2816 May 09 06:56	19°♂36'06	0°14'56
desc. node	2815 Jul 01 14:05	3°♂58'26		behind sun begin	2816 May 09 05:03	19°♂26'01	
retrograde	2815 Jul 10 21:47	7°♂13'49		behind sun end	2816 May 09 08:49	19°♂46'12	
evening set	2815 Jul 15 19:13	6°♂20'15		asc. node	2816 May 10 16:45	22°♂37'29	
min. Earth dist.	2815 Jul 21 11:41	3°♂27'11	0.56750 AU		2816 May 14 02:58	0°♂	
inferior conj	2815 Jul 24 04:36	1°♂44'14	-4°-56'-47	evening rise	2816 May 16 09:57	4°♂52'55	
minimum elong	2815 Jul 24 01:25	1°♂49'19	4°56'32		2816 May 30 00:19	0°♂	
	2815 Jul 27 00:36	30°♂♂		evening max el	2816 Jun 07 14:38	10°♂40'04	22°49'08
morning rise	2815 Aug 01 11:16	27°♂41'26		desc. node	2816 Jun 17 11:07	16°♂50'04	
direct	2815 Aug 04 03:04	27°♂22'19		retrograde	2816 Jun 20 21:39	17°♂17'07	
	2815 Aug 11 11:03	0°♂		evening set	2816 Jun 24 06:53	16°♂51'57	
morning max el	2815 Aug 13 14:51	1°♂47'19	19°32'16	min. Earth dist.	2816 Jul 01 23:08	13°♂28'05	0.55397 AU
asc. node	2815 Aug 20 18:58	10°♂48'51		inferior conj	2816 Jul 03 09:59	12°♂37'58	-4°-7'-35
morning set	2815 Aug 30 23:55	29°♂32'53		minimum elong	2816 Jul 03 02:14	12°♂49'09	4°05'53
	2815 Aug 31 05:19	0°♂		morning rise	2816 Jul 12 00:20	8°♂46'28	
				direct	2816 Jul 14 22:37	8°♂26'28	
superior conj	2815 Sep 08 00:49	15°♂39'37	1°43'43	morning max el	2816 Jul 26 01:05	13°♂35'28	20°48'02
minimum elong	2815 Sep 08 01:53	15°♂44'52	1°43'41	asc. node	2816 Aug 06 16:01	29°♂28'31	
max. Earth dist.	2815 Sep 14 04:02	27°♂23'03	1.37708 AU		2816 Aug 06 23:08	0°♂	
	2815 Sep 15 14:13	0°♂		morning set	2816 Aug 14 06:51	14°♂13'30	
evening rise	2815 Sep 17 23:18	4°♂16'34					

superior conj	2816 Aug 21 19:28	29°♎49'19	1°44'39	superior conj	2817 Aug 05 22:00	14°♎22'24	1°38'42
minimum elong	2816 Aug 21 18:56	29°♎46'36	1°44'37	minimum elong	2817 Aug 05 20:21	14°♎13'38	1°38'35
	2816 Aug 21 21:33	0°♎		max. Earth dist.	2817 Aug 09 04:15	21°♎11'21	1.34312 AU
max. Earth dist.	2816 Aug 26 11:53	9°♎13'20	1.35838 AU	evening rise	2817 Aug 13 21:48	0°♎40'54	
evening rise	2816 Aug 30 14:49	17°♎06'22			2817 Aug 13 13:25	0°♎	
	2816 Sep 06 20:37	0°♎			2817 Aug 30 21:10	0°♎	
desc. node	2816 Sep 13 10:28	10°♎41'43		desc. node	2817 Aug 31 07:29	0°♎38'49	
	2816 Sep 27 04:09	0°♎		evening max el	2817 Sep 17 16:37	22°♎28'04	27°05'26
evening max el	2816 Oct 05 04:09	8°♎55'25	26°19'13	retrograde	2817 Sep 30 23:33	29°♎45'30	
retrograde	2816 Oct 17 22:00	16°♎06'36		evening set	2817 Oct 07 19:43	27°♎03'49	
evening set	2816 Oct 24 06:22	13°♎30'28		min. Earth dist.	2817 Oct 11 17:30	23°♎15'57	0.65231 AU
min. Earth dist.	2816 Oct 28 10:56	9°♎06'08	0.66418 AU	inferior conj	2817 Oct 13 18:45	20°♎56'53	-2°-13'-55
inferior conj	2816 Oct 30 00:08	7°♎12'14	-1°-14'-18	minimum elong	2817 Oct 13 22:25	20°♎46'32	2°12'31
minimum elong	2816 Oct 30 02:07	7°♎06'08	1°13'28	morning rise	2817 Oct 20 02:51	15°♎20'04	
asc. node	2816 Nov 02 15:14	3°♎08'20		asc. node	2817 Oct 20 12:16	15°♎09'42	
morning rise	2816 Nov 04 23:04	1°♎22'20		direct	2817 Oct 22 18:46	14°♎41'51	
direct	2816 Nov 07 22:43	0°♎31'42		morning max el	2817 Oct 29 06:57	18°♎11'53	18°08'39
morning max el	2816 Nov 14 16:28	4°♎14'47	18°42'11		2817 Nov 07 00:49	0°♎	
	2816 Dec 02 15:28	0°♎		morning set	2817 Nov 16 13:39	15°♎32'21	
morning set	2816 Dec 05 15:26	4°♎44'46			2817 Nov 25 10:20	0°♎	
desc. node	2816 Dec 10 09:45	12°♎16'27		desc. node	2817 Nov 27 06:47	2°♎58'31	
superior conj	2816 Dec 21 21:59	0°♎21'57	-1°-12'-39	superior conj	2817 Dec 01 02:22	9°♎03'26	0°-25'-38
minimum elong	2816 Dec 21 13:30	29°♎48'41	1°11'41	minimum elong	2817 Nov 30 23:06	8°♎50'31	0°25'12
max. Earth dist.	2816 Dec 21 10:28	29°♎36'46	1.45144 AU	max. Earth dist.	2817 Dec 04 05:43	14°♎01'03	1.45053 AU
	2816 Dec 21 16:23	0°♎			2817 Dec 14 11:15	0°♎	
evening rise	2817 Jan 06 14:16	25°♎12'13		evening rise	2817 Dec 17 12:48	4°♎45'26	
	2817 Jan 09 14:01	0°♎			2818 Jan 03 02:45	0°♎	
evening max el	2817 Jan 28 00:28	26°♎58'12	18°51'01	greatest brilliancy	2818 Jan 03 11:14	0°♎30'25	-0.7m
asc. node	2817 Jan 29 14:30	28°♎26'58		evening max el	2818 Jan 11 07:29	10°♎28'05	19°38'25
	2817 Jan 31 21:06	0°♎		asc. node	2818 Jan 16 11:32	14°♎17'18	
retrograde	2817 Feb 03 18:40	0°♎45'49		retrograde	2818 Jan 18 15:42	14°♎43'02	
evening set	2817 Feb 06 23:14	29°♎47'19		evening set	2818 Jan 22 03:43	13°♎31'17	
	2817 Feb 06 14:23	30°♎		inferior conj	2818 Jan 27 16:25	7°♎31'59	3°07'51
inferior conj	2817 Feb 12 16:27	24°♎03'12	3°30'32	minimum elong	2818 Jan 27 14:02	7°♎39'50	3°07'20
minimum elong	2817 Feb 12 14:48	24°♎08'20	3°30'20	min. Earth dist.	2818 Jan 28 19:08	6°♎04'05	0.66663 AU
min. Earth dist.	2817 Feb 14 09:50	21°♎55'14	0.65468 AU	morning rise	2818 Feb 01 23:38	1°♎17'07	
morning rise	2817 Feb 18 05:15	17°♎50'34			2818 Feb 03 15:17	30°♎	
direct	2817 Feb 24 19:06	15°♎00'21		direct	2818 Feb 08 01:35	28°♎35'29	
desc. node	2817 Mar 08 08:54	21°♎13'41			2818 Feb 12 23:05	0°♎	
morning max el	2817 Mar 09 22:01	22°♎43'53	26°49'36	morning max el	2818 Feb 20 07:06	5°♎52'19	25°38'57
	2817 Mar 16 08:16	0°♎		desc. node	2818 Feb 23 05:57	9°♎02'06	
	2817 Apr 05 13:34	0°♎			2818 Mar 10 22:36	0°♎	
morning set	2817 Apr 14 17:29	16°♎32'46		morning set	2818 Mar 28 12:02	29°♎08'21	
max. Earth dist.	2817 Apr 19 02:31	25°♎06'49	1.34323 AU		2818 Mar 28 23:19	0°♎	
	2817 Apr 21 12:19	0°♎		max. Earth dist.	2818 Apr 01 07:26	6°♎14'15	1.35958 AU
superior conj	2817 Apr 23 07:11	3°♎41'21	0°-43'-28	superior conj	2818 Apr 06 23:56	17°♎21'28	-1°-11'-27
minimum elong	2817 Apr 23 09:25	3°♎53'01	0°43'02	minimum elong	2818 Apr 07 03:35	17°♎39'44	1°10'52
asc. node	2817 Apr 27 13:47	12°♎39'58			2818 Apr 13 04:57	0°♎	
evening rise	2817 Apr 30 19:47	19°♎29'18		asc. node	2818 Apr 14 10:50	2°♎32'48	
	2817 May 06 01:17	0°♎		evening rise	2818 Apr 15 01:42	3°♎48'31	
evening max el	2817 May 20 11:13	21°♎20'23	21°17'37		2818 Apr 30 09:33	0°♎	
retrograde	2817 Jun 01 11:31	27°♎13'13		evening max el	2818 May 02 19:08	2°♎35'25	20°00'53
evening set	2817 Jun 03 19:27	27°♎00'44		retrograde	2818 May 13 02:17	7°♎35'07	
desc. node	2817 Jun 04 08:07	26°♎54'34		evening set	2818 May 15 02:15	7°♎24'40	
inferior conj	2817 Jun 13 04:15	23°♎01'58	-2°-31'-40	desc. node	2818 May 22 05:06	4°♎30'27	
minimum elong	2817 Jun 12 21:25	23°♎11'34	2°29'25	inferior conj	2818 May 24 01:19	3°♎24'58	0°-32'-26
min. Earth dist.	2817 Jun 13 10:56	22°♎52'37	0.54876 AU	minimum elong	2818 May 23 23:49	3°♎27'14	0°31'53
morning rise	2817 Jun 21 23:32	19°♎04'19		min. Earth dist.	2818 May 25 23:54	2°♎14'58	0.55316 AU
direct	2817 Jun 25 08:40	18°♎39'32			2818 May 30 05:20	30°♎	
morning max el	2817 Jul 08 00:07	24°♎39'38	22°21'25	morning rise	2818 Jun 01 18:43	29°♎02'40	
	2817 Jul 12 21:19	0°♎		direct	2818 Jun 05 22:04	28°♎25'15	
asc. node	2817 Jul 24 13:03	18°♎39'46			2818 Jun 12 10:17	0°♎	
morning set	2817 Jul 29 17:03	29°♎04'06		morning max el	2818 Jun 19 15:45	5°♎12'01	24°03'55
	2817 Jul 30 03:43	0°♎			2818 Jul 07 04:16	0°♎	
				asc. node	2818 Jul 11 10:06	8°♎14'32	

morning set	2818 Jul 14 04:46	13° $\overline{59}$ 36		morning set	2819 Jun 28 16:19	28° $\overline{\text{II}}$ 53'46	
					2819 Jun 29 04:50	0° $\overline{5}$	
superior conj	2818 Jul 21 05:43	29° $\overline{5}$ 10'37	1°27'07	superior conj	2819 Jul 05 16:23	14° $\overline{5}$ 05'55	1°10'50
minimum elong	2818 Jul 21 03:27	28° $\overline{5}$ 58'23	1°26'52	minimum elong	2819 Jul 05 14:01	13° $\overline{5}$ 52'58	1°10'28
	2818 Jul 21 14:51	0° $\overline{\Omega}$		max. Earth dist.	2819 Jul 06 14:12	16° $\overline{5}$ 05'28	1.32457 AU
max. Earth dist.	2818 Jul 23 05:52	3° $\overline{\Omega}$ 29'54	1.33182 AU	evening rise	2819 Jul 12 18:24	29° $\overline{5}$ 18'35	
evening rise	2818 Jul 28 16:07	14° $\overline{\Omega}$ 48'41			2819 Jul 13 02:24	0° $\overline{\Omega}$	
	2818 Aug 05 15:34	0° $\overline{\eta}$			2819 Jul 29 19:16	0° $\overline{\eta}$	
desc. node	2818 Aug 18 04:28	20° $\overline{\eta}$ 05'55		desc. node	2819 Aug 05 01:28	8° $\overline{\eta}$ 49'38	
	2818 Aug 25 19:29	0° $\overline{\Delta}$		evening max el	2819 Aug 13 11:30	18° $\overline{\eta}$ 21'19	27°15'01
evening max el	2818 Aug 31 03:56	5° $\overline{\Delta}$ 41'39	27°25'48	retrograde	2819 Aug 27 07:26	25° $\overline{\eta}$ 35'53	
retrograde	2818 Sep 13 18:53	12° $\overline{\Delta}$ 58'40		evening set	2819 Sep 03 11:18	23° $\overline{\eta}$ 13'45	
evening set	2818 Sep 20 22:37	10° $\overline{\Delta}$ 20'40		min. Earth dist.	2819 Sep 07 01:43	20° $\overline{\eta}$ 26'35	0.61856 AU
min. Earth dist.	2818 Sep 24 14:54	7° $\overline{\Delta}$ 06'57	0.63701 AU	inferior conj	2819 Sep 10 02:41	17° $\overline{\eta}$ 41'32	-4°-5'-40
inferior conj	2818 Sep 27 04:39	4° $\overline{\Delta}$ 29'28	-3°-12'-26	minimum elong	2819 Sep 10 08:16	17° $\overline{\eta}$ 28'51	4°04'20
minimum elong	2818 Sep 27 09:43	4° $\overline{\Delta}$ 16'30	3°10'48	morning rise	2819 Sep 17 08:08	12° $\overline{\eta}$ 41'29	
	2818 Oct 02 07:41	30° $\overline{\text{R}}$ $\overline{\eta}$		direct	2819 Sep 19 16:34	12° $\overline{\eta}$ 17'48	
morning rise	2818 Oct 03 23:07	29° $\overline{\eta}$ 09'16		asc. node	2819 Sep 24 06:21	13° $\overline{\eta}$ 50'31	
direct	2818 Oct 06 09:54	28° $\overline{\eta}$ 39'50		morning max el	2819 Sep 26 14:32	15° $\overline{\eta}$ 46'53	17°54'27
asc. node	2818 Oct 07 09:18	28° $\overline{\eta}$ 44'35			2819 Oct 06 12:18	0° $\overline{\Delta}$	
	2818 Oct 10 10:48	0° $\overline{\Delta}$		morning set	2819 Oct 12 11:02	10° $\overline{\Delta}$ 38'20	
morning max el	2818 Oct 12 23:20	2° $\overline{\Delta}$ 05'13	17°52'26				
morning set	2818 Oct 29 14:19	27° $\overline{\Delta}$ 36'53		superior conj	2819 Oct 23 04:24	29° $\overline{\Delta}$ 43'59	0°58'35
	2818 Oct 30 23:27	0° $\overline{\text{M}}$		minimum elong	2819 Oct 23 08:45	0° $\overline{\text{M}}$ 02'45	0°58'02
					2819 Oct 23 08:07	0° $\overline{\text{M}}$	
superior conj	2818 Nov 11 01:56	18° $\overline{\text{M}}$ 44'04	0°20'58	max. Earth dist.	2819 Oct 30 13:36	12° $\overline{\text{M}}$ 08'43	1.42808 AU
minimum elong	2818 Nov 11 04:09	18° $\overline{\text{M}}$ 53'11	0°20'38	desc. node	2819 Nov 01 00:49	14° $\overline{\text{M}}$ 32'16	
desc. node	2818 Nov 14 03:49	23° $\overline{\text{M}}$ 45'02		evening rise	2819 Nov 06 11:16	23° $\overline{\text{M}}$ 12'41	
max. Earth dist.	2818 Nov 16 23:52	28° $\overline{\text{M}}$ 18'22	1.44241 AU		2819 Nov 10 20:20	0° $\overline{\text{J}}$	
	2818 Nov 18 01:23	0° $\overline{\text{J}}$			2819 Dec 01 18:48	0° $\overline{\text{Z}}$	
evening rise	2818 Nov 26 22:31	13° $\overline{\text{J}}$ 52'40		greatest brilliancy	2819 Dec 03 11:00	2° $\overline{\text{Z}}$ 06'16	-0.4m
	2818 Dec 07 13:57	0° $\overline{\text{Z}}$		evening max el	2819 Dec 08 05:25	7° $\overline{\text{Z}}$ 30'59	21°53'00
greatest brilliancy	2818 Dec 19 15:01	17° $\overline{\text{Z}}$ 08'30	-0.5m	retrograde	2819 Dec 17 10:41	13° $\overline{\text{Z}}$ 00'17	
evening max el	2818 Dec 25 09:17	23° $\overline{\text{Z}}$ 59'13	20°40'10	asc. node	2819 Dec 21 05:35	11° $\overline{\text{Z}}$ 42'22	
retrograde	2819 Jan 02 13:42	28° $\overline{\text{Z}}$ 49'08		evening set	2819 Dec 21 18:35	11° $\overline{\text{Z}}$ 18'03	
asc. node	2819 Jan 03 08:33	28° $\overline{\text{Z}}$ 45'43		inferior conj	2819 Dec 27 04:03	4° $\overline{\text{Z}}$ 57'25	1°54'58
evening set	2819 Jan 06 10:46	27° $\overline{\text{Z}}$ 22'46		minimum elong	2819 Dec 27 01:48	5° $\overline{\text{Z}}$ 05'14	1°54'09
inferior conj	2819 Jan 11 21:00	21° $\overline{\text{Z}}$ 11'02	2°35'22	min. Earth dist.	2819 Dec 27 05:51	4° $\overline{\text{Z}}$ 51'09	0.67836 AU
minimum elong	2819 Jan 11 18:26	21° $\overline{\text{Z}}$ 19'48	2°34'36		2819 Dec 31 01:07	30° $\overline{\text{R}}$ $\overline{\text{J}}$	
min. Earth dist.	2819 Jan 12 10:32	20° $\overline{\text{Z}}$ 24'44	0.67445 AU	morning rise	2820 Jan 01 08:48	28° $\overline{\text{J}}$ 43'32	
morning rise	2819 Jan 17 01:40	14° $\overline{\text{Z}}$ 55'48		direct	2820 Jan 06 05:08	26° $\overline{\text{J}}$ 41'00	
direct	2819 Jan 22 13:11	12° $\overline{\text{Z}}$ 31'28			2820 Jan 13 08:12	0° $\overline{\text{Z}}$	
morning max el	2819 Feb 02 15:35	19° $\overline{\text{Z}}$ 08'40	24°14'14	morning max el	2820 Jan 16 01:35	2° $\overline{\text{Z}}$ 30'54	22°45'31
desc. node	2819 Feb 10 03:01	27° $\overline{\text{Z}}$ 46'35		greatest brilliancy	2820 Jan 20 16:35	7° $\overline{\text{Z}}$ 40'24	-0.3m
	2819 Feb 11 20:21	0° $\overline{\approx}$		desc. node	2820 Jan 28 00:04	17° $\overline{\text{Z}}$ 11'01	
	2819 Mar 04 01:56	0° $\overline{\text{K}}$			2820 Feb 05 21:46	0° $\overline{\approx}$	
morning set	2819 Mar 10 10:07	10° $\overline{\text{K}}$ 40'50		morning set	2820 Feb 19 05:43	20° $\overline{\approx}$ 55'17	
max. Earth dist.	2819 Mar 14 04:16	17° $\overline{\text{K}}$ 19'05	1.37961 AU	max. Earth dist.	2820 Feb 23 23:55	28° $\overline{\approx}$ 54'34	1.40120 AU
					2820 Feb 24 15:11	0° $\overline{\text{K}}$	
superior conj	2819 Mar 21 05:06	0° $\overline{\text{Y}}$ 23'40	-1°-36'-50	superior conj	2820 Mar 02 18:20	12° $\overline{\text{K}}$ 37'19	-1°-56'-25
minimum elong	2819 Mar 21 09:33	0° $\overline{\text{Y}}$ 45'01	1°36'18	minimum elong	2820 Mar 02 22:11	12° $\overline{\text{K}}$ 54'48	1°56'10
	2819 Mar 21 00:09	0° $\overline{\text{Y}}$			2820 Mar 12 01:10	0° $\overline{\text{Y}}$	
evening rise	2819 Mar 30 01:16	17° $\overline{\text{Y}}$ 43'57		evening rise	2820 Mar 12 15:27	1° $\overline{\text{Y}}$ 07'51	
asc. node	2819 Apr 01 07:51	22° $\overline{\text{Y}}$ 11'23		asc. node	2820 Mar 18 04:53	11° $\overline{\text{Y}}$ 30'24	
	2819 Apr 05 11:36	0° $\overline{\text{B}}$		evening max el	2820 Mar 28 18:56	27° $\overline{\text{Y}}$ 01'12	18°26'01
evening max el	2819 Apr 15 14:31	14° $\overline{\text{B}}$ 30'31	19°03'18		2820 Apr 01 23:45	0° $\overline{\text{B}}$	
retrograde	2819 Apr 24 06:44	18° $\overline{\text{B}}$ 43'37		retrograde	2820 Apr 05 06:02	0° $\overline{\text{B}}$ 42'20	
evening set	2819 Apr 26 09:15	18° $\overline{\text{B}}$ 29'44		evening set	2820 Apr 07 14:19	0° $\overline{\text{B}}$ 21'33	
inferior conj	2819 May 04 14:08	14° $\overline{\text{B}}$ 15'46	1°16'11		2820 Apr 08 15:05	30° $\overline{\text{R}}$ $\overline{\text{Y}}$	
minimum elong	2819 May 04 16:59	14° $\overline{\text{B}}$ 10'49	1°15'14	inferior conj	2820 Apr 15 00:16	25° $\overline{\text{Y}}$ 47'48	2°34'18
min. Earth dist.	2819 May 07 15:14	12° $\overline{\text{B}}$ 09'55	0.56631 AU	minimum elong	2820 Apr 15 04:07	25° $\overline{\text{Y}}$ 40'00	2°33'20
desc. node	2819 May 09 02:09	11° $\overline{\text{B}}$ 14'01		min. Earth dist.	2820 Apr 18 10:52	23° $\overline{\text{Y}}$ 01'32	0.58546 AU
morning rise	2819 May 12 20:27	9° $\overline{\text{B}}$ 18'31		morning rise	2820 Apr 22 13:41	20° $\overline{\text{Y}}$ 19'05	
direct	2819 May 17 23:34	8° $\overline{\text{B}}$ 16'40		desc. node	2820 Apr 24 23:12	19° $\overline{\text{Y}}$ 18'15	
morning max el	2819 Jun 01 06:14	15° $\overline{\text{B}}$ 37'56	25°41'22	direct	2820 Apr 28 15:27	18° $\overline{\text{Y}}$ 42'40	
	2819 Jun 12 20:01	0° $\overline{\text{II}}$					
asc. node	2819 Jun 28 07:07	28° $\overline{\text{II}}$ 05'20					

morning max el	2820 May 13 00:51	26° Υ 25'30	26°57'52	direct	2821 Apr 10 19:20	29° Υ 56'21	
	2820 May 16 09:59	0° \mathcal{B}		desc. node	2821 Apr 11 20:15	29° Υ 59'23	
	2820 Jun 05 04:57	0° Π			2821 Apr 11 22:43	0° Υ	
morning set	2820 Jun 12 02:06	13° Π 41'18		morning max el	2821 Apr 25 01:33	7° Υ 50'13	27°41'53
asc. node	2820 Jun 14 04:10	18° Π 07'00			2821 May 11 22:11	0° \mathcal{B}	
				morning set	2821 May 27 08:16	28° \mathcal{B} 15'38	
superior conj	2820 Jun 19 04:11	29° Π 02'21	0°50'35		2821 May 28 04:23	0° Π	
minimum elong	2820 Jun 19 02:12	28° Π 51'24	0°50'12	asc. node	2821 Jun 01 01:13	8° Π 14'20	
max. Earth dist.	2820 Jun 19 01:51	28° Π 49'31	1.32132 AU	max. Earth dist.	2821 Jun 02 13:08	11° Π 29'50	1.32204 AU
	2820 Jun 19 14:39	0° \mathcal{E}					
evening rise	2820 Jun 26 02:01	14° \mathcal{E} 02'37		superior conj	2821 Jun 03 15:22	13° Π 53'31	0°27'01
	2820 Jul 04 03:33	0° \mathcal{Q}		minimum elong	2821 Jun 03 14:11	13° Π 46'58	0°26'46
desc. node	2820 Jul 21 22:28	26° \mathcal{Q} 32'03		evening rise	2821 Jun 10 12:43	28° Π 53'06	
	2820 Jul 25 06:00	0° \mathcal{M}			2821 Jun 11 01:22	0° \mathcal{E}	
evening max el	2820 Jul 25 12:58	0° \mathcal{M} 16'41	26°30'57		2821 Jun 27 19:04	0° \mathcal{Q}	
retrograde	2820 Aug 08 12:18	7° \mathcal{M} 28'26		evening max el	2821 Jul 07 07:20	11° \mathcal{Q} 25'31	25°17'19
evening set	2820 Aug 15 05:07	5° \mathcal{M} 35'32		desc. node	2821 Jul 08 19:29	12° \mathcal{Q} 48'07	
min. Earth dist.	2820 Aug 19 02:23	3° \mathcal{M} 00'19	0.59809 AU	retrograde	2821 Jul 21 07:14	18° \mathcal{Q} 31'59	
inferior conj	2820 Aug 22 09:24	0° \mathcal{M} 24'10	-4°-46'-30	evening set	2821 Jul 26 23:38	17° \mathcal{Q} 17'16	
minimum elong	2820 Aug 22 13:37	0° \mathcal{M} 15'47	4°45'56	min. Earth dist.	2821 Jul 31 19:14	14° \mathcal{Q} 35'26	0.57781 AU
	2820 Aug 22 21:36	30° \mathcal{R} \mathcal{Q}		inferior conj	2821 Aug 03 21:27	12° \mathcal{Q} 28'09	-5°-3'-34
morning rise	2820 Aug 30 01:31	25° \mathcal{Q} 46'47		minimum elong	2821 Aug 03 21:34	12° \mathcal{Q} 27'57	5°03'34
direct	2820 Sep 01 10:34	25° \mathcal{Q} 26'20		morning rise	2821 Aug 11 23:07	8° \mathcal{Q} 13'26	
morning max el	2820 Sep 09 01:24	29° \mathcal{Q} 08'32	18°15'56	direct	2821 Aug 14 11:43	7° \mathcal{Q} 54'15	
	2820 Sep 09 21:47	0° \mathcal{M}		morning max el	2821 Aug 23 04:37	12° \mathcal{Q} 00'30	18°58'14
asc. node	2820 Sep 10 03:24	0° \mathcal{M} 15'04		asc. node	2821 Aug 28 00:27	17° \mathcal{Q} 43'01	
morning set	2820 Sep 24 22:11	24° \mathcal{M} 20'57			2821 Sep 04 09:05	0° \mathcal{M}	
	2820 Sep 27 21:39	0° \mathcal{A}		morning set	2821 Sep 08 19:28	8° \mathcal{M} 33'08	
superior conj	2820 Oct 04 07:35	11° \mathcal{A} 56'21	1°24'33	superior conj	2821 Sep 17 06:05	25° \mathcal{M} 05'51	1°39'29
minimum elong	2820 Oct 04 11:23	12° \mathcal{A} 13'36	1°24'11	minimum elong	2821 Sep 17 08:12	25° \mathcal{M} 15'59	1°39'21
max. Earth dist.	2820 Oct 11 21:41	25° \mathcal{A} 18'35	1.40939 AU		2821 Sep 19 20:12	0° \mathcal{A}	
	2820 Oct 14 16:33	0° \mathcal{M}		max. Earth dist.	2821 Sep 24 02:05	7° \mathcal{A} 46'45	1.38878 AU
evening rise	2820 Oct 16 17:46	3° \mathcal{M} 22'54		evening rise	2821 Sep 28 00:02	14° \mathcal{A} 39'18	
desc. node	2820 Oct 17 21:49	5° \mathcal{M} 17'00		desc. node	2821 Oct 04 18:50	25° \mathcal{A} 55'35	
	2820 Nov 03 04:09	0° \mathcal{A}			2821 Oct 07 08:33	0° \mathcal{M}	
evening max el	2820 Nov 19 20:56	21° \mathcal{A} 05'14	23°12'08		2821 Oct 29 00:28	0° \mathcal{A}	
retrograde	2820 Nov 30 05:05	27° \mathcal{A} 12'53		evening max el	2821 Nov 02 09:54	4° \mathcal{A} 44'07	24°31'25
evening set	2820 Dec 05 01:30	25° \mathcal{A} 14'05		retrograde	2821 Nov 13 19:39	11° \mathcal{A} 23'44	
asc. node	2820 Dec 07 02:39	23° \mathcal{A} 11'48		evening set	2821 Nov 19 05:56	9° \mathcal{A} 08'34	
inferior conj	2820 Dec 10 11:40	18° \mathcal{A} 48'29	1°08'01	asc. node	2821 Nov 23 23:41	3° \mathcal{A} 43'59	
minimum elong	2820 Dec 10 10:10	18° \mathcal{A} 53'41	1°07'25	min. Earth dist.	2821 Nov 23 22:31	3° \mathcal{A} 47'53	0.67580 AU
min. Earth dist.	2820 Dec 10 02:39	19° \mathcal{A} 19'32	0.67877 AU	inferior conj	2821 Nov 24 18:07	2° \mathcal{A} 42'24	0°15'48
morning rise	2820 Dec 15 18:52	12° \mathcal{A} 38'02		minimum elong	2821 Nov 24 17:44	2° \mathcal{A} 43'42	0°15'39
direct	2820 Dec 20 00:41	10° \mathcal{A} 58'20		transit middle	2821 Nov 24 17:44	2° \mathcal{A} 43'42	0°15'39
morning max el	2820 Dec 28 16:30	16° \mathcal{A} 01'09	21°21'22	transit begin	2821 Nov 24 17:00	2° \mathcal{A} 46'09	
greatest brilliancy	2821 Jan 02 19:42	21° \mathcal{A} 52'48	-0.4m	transit end	2821 Nov 24 18:28	2° \mathcal{A} 41'15	
	2821 Jan 08 22:14	0° \mathcal{B}			2821 Nov 26 20:17	30° \mathcal{R} \mathcal{M}	
desc. node	2821 Jan 13 21:06	7° \mathcal{B} 03'46		morning rise	2821 Nov 30 05:54	26° \mathcal{M} 37'47	
morning set	2821 Jan 28 20:24	29° \mathcal{B} 47'55		direct	2821 Dec 03 22:33	25° \mathcal{M} 19'31	
	2821 Jan 28 23:28	0° \approx		morning max el	2821 Dec 11 14:54	29° \mathcal{M} 42'41	20°08'04
max. Earth dist.	2821 Feb 05 00:43	11° \approx 21'33	1.42164 AU		2821 Dec 11 21:43	0° \mathcal{A}	
				greatest brilliancy	2821 Dec 18 11:38	7° \mathcal{A} 58'49	-0.6m
superior conj	2821 Feb 12 10:26	23° \approx 49'23	-2°-5'-53	desc. node	2821 Dec 31 18:08	27° \mathcal{A} 17'23	
minimum elong	2821 Feb 12 11:11	23° \approx 52'40	2°05'54		2822 Jan 02 12:58	0° \mathcal{B}	
	2821 Feb 15 23:28	0° \mathcal{H}		morning set	2822 Jan 07 17:12	7° \mathcal{B} 56'21	
evening rise	2821 Feb 23 16:24	13° \mathcal{H} 50'18		max. Earth dist.	2822 Jan 18 09:34	24° \mathcal{B} 43'03	1.43820 AU
	2821 Mar 04 20:27	0° Υ			2822 Jan 21 16:15	0° \approx	
asc. node	2821 Mar 05 01:57	0° Υ 22'20					
evening max el	2821 Mar 12 05:01	9° Υ 57'33	18°08'40	superior conj	2822 Jan 24 01:04	3° \approx 51'40	-2°00'-3
retrograde	2821 Mar 18 22:35	13° Υ 22'46		minimum elong	2822 Jan 23 20:20	3° \approx 32'17	1°59'51
evening set	2821 Mar 21 12:39	12° Υ 52'50		evening rise	2822 Feb 05 23:53	25° \approx 43'27	
inferior conj	2821 Mar 28 06:36	7° Υ 57'56	3°19'57		2822 Feb 08 11:14	0° \mathcal{H}	
minimum elong	2821 Mar 28 09:10	7° Υ 51'53	3°19'35	asc. node	2822 Feb 19 23:00	18° \mathcal{H} 38'54	
min. Earth dist.	2821 Mar 31 12:46	4° Υ 55'25	0.60707 AU	evening max el	2822 Feb 23 17:34	23° \mathcal{H} 11'04	18°10'35
morning rise	2821 Apr 04 02:27	2° Υ 07'53		retrograde	2822 Mar 02 04:17	26° \mathcal{H} 35'12	
	2821 Apr 09 16:16	30° \mathcal{R} \mathcal{H}		evening set	2822 Mar 04 23:45	25° \mathcal{H} 54'49	

inferior conj	2822 Mar 11 05:26	20° ✕ 39'15	3°39'00	inferior conj	2823 Feb 22 16:45	3° ✕ 44'09	3°38'05
minimum elong	2822 Mar 11 06:07	20° ✕ 37'28	3°38'59	minimum elong	2823 Feb 22 15:47	3° ✕ 46'59	3°38'01
min. Earth dist.	2822 Mar 13 23:04	17° ✕ 44'58	0.62798 AU	min. Earth dist.	2823 Feb 24 18:56	1° ✕ 16'11	0.64601 AU
morning rise	2822 Mar 17 10:19	14° ✕ 36'28			2823 Feb 25 22:08	30° ℞	
direct	2822 Mar 24 08:24	11° ✕ 59'11		morning rise	2823 Feb 28 10:21	27° ≈ 34'04	
desc. node	2822 Mar 29 17:19	13° ✕ 21'22		direct	2823 Mar 07 04:56	24° ≈ 44'50	
morning max el	2822 Apr 07 07:40	19° ✕ 55'53	27°48'39	desc. node	2823 Mar 16 14:21	28° ≈ 53'08	
	2822 Apr 15 22:28	0° Υ			2823 Mar 17 22:30	0° ✕	
	2822 May 04 21:09	0° ♄		morning max el	2823 Mar 20 17:03	2° ✕ 36'11	27°19'57
morning set	2822 May 11 08:40	12° ♄ 29'51			2823 Apr 10 05:14	0° Υ	
max. Earth dist.	2822 May 16 20:14	23° ♄ 54'05	1.32684 AU	morning set	2823 Apr 25 00:37	26° Υ 15'39	
asc. node	2822 May 18 22:15	28° ♄ 23'09			2823 Apr 26 22:04	0° ♄	
				max. Earth dist.	2823 Apr 29 19:20	5° ♄ 51'21	1.33595 AU
superior conj	2822 May 19 00:12	28° ♄ 33'38	0°00'51	superior conj	2823 May 03 04:42	12° ♄ 56'32	0°-27'-3
minimum elong	2822 May 19 00:09	28° ♄ 33'24	0°00'50	minimum elong	2823 May 03 06:05	13° ♄ 03'49	0°26'47
behind sun begin	2822 May 18 18:56	28° ♄ 05'14		asc. node	2823 May 05 19:19	18° ♄ 29'41	
behind sun end	2822 May 19 05:22	29° ♄ 01'37		evening rise	2823 May 10 11:45	28° ♄ 27'36	
	2822 May 19 16:08	0° ♄			2823 May 11 05:25	0° ♄	
evening rise	2822 May 26 00:35	13° ♄ 43'31			2823 May 29 04:12	0° ♄	
	2822 Jun 03 05:29	0° ♄		evening max el	2823 May 31 12:52	2° ♄ 29'21	22°08'49
evening max el	2822 Jun 18 21:03	22° ♄ 00'07	23°44'46	desc. node	2823 Jun 12 13:33	8° ♄ 48'23	
desc. node	2822 Jun 25 16:31	27° ♄ 05'01		retrograde	2823 Jun 13 08:24	8° ♄ 49'48	
retrograde	2822 Jul 02 13:41	28° ♄ 52'18		evening set	2823 Jun 16 05:07	8° ♄ 31'36	
evening set	2822 Jul 06 19:29	28° ♄ 12'47		min. Earth dist.	2823 Jun 24 18:26	4° ♄ 51'02	0.55062 AU
min. Earth dist.	2822 Jul 13 07:25	25° ♄ 08'13	0.56090 AU	inferior conj	2823 Jun 25 12:34	4° ♄ 25'33	-3°-31'-48
inferior conj	2822 Jul 15 13:18	23° ♄ 46'53	-4°-42'-4	minimum elong	2823 Jun 25 04:24	4° ♄ 37'02	3°29'33
minimum elong	2822 Jul 15 07:45	23° ♄ 55'18	4°41'18	morning rise	2823 Jul 04 05:37	0° ♄ 34'22	
morning rise	2822 Jul 23 23:20	19° ♄ 50'19		direct	2823 Jul 07 07:57	0° ♄ 12'57	
direct	2822 Jul 26 17:51	19° ♄ 30'55		morning max el	2823 Jul 19 02:37	5° ♄ 42'43	21°26'02
morning max el	2822 Aug 05 21:23	24° ♄ 13'21	20°02'03	asc. node	2823 Aug 01 18:33	24° ♄ 54'54	
	2822 Aug 10 22:07	0° ♄			2823 Aug 04 10:49	0° ♄	
asc. node	2822 Aug 14 21:30	6° ♄ 00'08		morning set	2823 Aug 08 08:10	7° ♄ 51'55	
morning set	2822 Aug 23 23:36	23° ♄ 05'37					
	2822 Aug 27 08:45	0° ♄		superior conj	2823 Aug 15 16:59	23° ♄ 18'28	1°42'52
superior conj	2822 Aug 31 18:35	8° ♄ 57'07	1°45'02	minimum elong	2823 Aug 15 15:55	23° ♄ 12'55	1°42'50
minimum elong	2822 Aug 31 18:56	8° ♄ 58'50	1°45'01		2823 Aug 18 23:16	0° ♄	
max. Earth dist.	2822 Sep 06 07:24	19° ♄ 45'38	1.36878 AU	max. Earth dist.	2823 Aug 19 18:48	1° ♄ 38'22	1.35141 AU
evening rise	2822 Sep 10 04:33	26° ♄ 57'48		evening rise	2823 Aug 24 03:11	10° ♄ 08'17	
	2822 Sep 11 21:09	0° ♄			2823 Sep 04 09:22	0° ♄	
desc. node	2822 Sep 21 15:51	16° ♄ 23'00		desc. node	2823 Sep 08 12:52	6° ♄ 33'35	
	2822 Sep 30 19:05	0° ♄			2823 Sep 26 09:24	0° ♄	
evening max el	2822 Oct 15 22:07	18° ♄ 25'20	25°43'45	evening max el	2823 Sep 28 10:25	2° ♄ 03'14	26°41'32
retrograde	2822 Oct 28 05:31	25° ♄ 27'24		retrograde	2823 Oct 11 10:12	9° ♄ 17'51	
evening set	2822 Nov 03 06:08	22° ♄ 57'44		evening set	2823 Oct 18 00:08	6° ♄ 38'09	
min. Earth dist.	2822 Nov 07 14:58	18° ♄ 12'36	0.66945 AU	min. Earth dist.	2823 Oct 22 01:40	2° ♄ 29'43	0.65961 AU
inferior conj	2822 Nov 08 21:32	16° ♄ 35'29	0°-40'-32	inferior conj	2823 Oct 23 19:59	0° ♄ 24'21	-1°-39'-31
minimum elong	2822 Nov 08 22:36	16° ♄ 32'08	0°40'05	minimum elong	2823 Oct 23 22:41	0° ♄ 16'21	1°38'25
asc. node	2822 Nov 10 20:44	14° ♄ 10'00			2823 Oct 24 04:13	30° ℞	
morning rise	2822 Nov 14 15:53	10° ♄ 39'31		asc. node	2823 Oct 28 17:46	25° ♄ 25'10	
direct	2822 Nov 17 21:13	9° ♄ 39'46		morning rise	2823 Oct 29 22:40	24° ♄ 39'54	
morning max el	2822 Nov 24 21:02	13° ♄ 34'04	19°09'02	direct	2823 Nov 01 18:46	23° ♄ 55'00	
	2822 Dec 07 03:13	0° ♄		morning max el	2823 Nov 08 09:14	27° ♄ 31'07	18°25'54
morning set	2822 Dec 17 20:38	16° ♄ 33'23			2823 Nov 10 14:47	0° ♄	
desc. node	2822 Dec 18 15:09	17° ♄ 45'29		morning set	2823 Nov 28 01:43	26° ♄ 30'08	
	2822 Dec 26 11:24	0° ♄			2823 Nov 30 05:59	0° ♄	
max. Earth dist.	2823 Jan 01 01:06	8° ♄ 44'44	1.44869 AU	desc. node	2823 Dec 05 12:10	8° ♄ 23'37	
superior conj	2823 Jan 03 15:00	12° ♄ 49'14	-1°-35'-8	superior conj	2823 Dec 13 16:43	21° ♄ 19'24	0°-53'-24
minimum elong	2823 Jan 03 06:07	12° ♄ 14'01	1°34'18	minimum elong	2823 Dec 13 10:00	20° ♄ 52'59	0°52'34
	2823 Jan 14 07:51	0° ≈		max. Earth dist.	2823 Dec 14 19:56	23° ♄ 06'12	1.45197 AU
evening rise	2823 Jan 18 09:49	6° ≈ 40'47			2823 Dec 19 05:28	0° ♄	
	2823 Feb 01 23:40	0° ✕		evening rise	2823 Dec 29 20:26	16° ♄ 41'47	
asc. node	2823 Feb 06 20:01	6° ✕ 09'22			2824 Jan 07 07:14	0° ≈	
evening max el	2823 Feb 07 05:42	6° ✕ 34'28	18°31'07	greatest brilliancy	2824 Jan 11 11:25	6° ≈ 26'45	-0.7m
retrograde	2823 Feb 13 18:50	10° ✕ 10'24		evening max el	2824 Jan 21 15:03	20° ≈ 02'39	19°09'12
evening set	2823 Feb 16 19:52	9° ✕ 18'41		asc. node	2824 Jan 24 17:03	22° ≈ 40'34	

retrograde	2824 Jan 28 14:27	24° \approx 01'07		asc. node	2825 Jan 10 14:04	7° \approx 58'13	
evening set	2824 Jan 31 21:59	22° \approx 57'08		retrograde	2825 Jan 11 12:16	8° \approx 02'56	
inferior conj	2824 Feb 06 12:58	17° \approx 05'58	3°22'17	evening set	2825 Jan 15 03:48	6° \approx 45'18	
minimum elong	2824 Feb 06 10:56	17° \approx 12'27	3°21'57	inferior conj	2825 Jan 20 15:13	0° \approx 40'19	2°55'10
min. Earth dist.	2824 Feb 07 23:52	15° \approx 14'43	0.66022 AU	minimum elong	2825 Jan 20 12:41	0° \approx 48'47	2°54'33
morning rise	2824 Feb 11 22:58	10° \approx 51'56			2825 Jan 21 03:12	30° \approx 00'	
direct	2824 Feb 18 08:02	8° \approx 04'18		min. Earth dist.	2825 Jan 21 12:11	29° \approx 29'54	0.67036 AU
morning max el	2824 Mar 02 02:58	15° \approx 38'37	26°22'00	morning rise	2825 Jan 25 20:58	24° \approx 24'48	
desc. node	2824 Mar 02 11:23	16° \approx 00'01		direct	2825 Jan 31 16:55	21° \approx 49'34	
	2824 Mar 13 23:04	0° \approx 00'		morning max el	2825 Feb 12 11:45	28° \approx 51'53	25°04'04
	2824 Apr 02 00:57	0° \approx 00'			2825 Feb 13 14:05	0° \approx 00'	
morning set	2824 Apr 07 04:20	9° \approx 21'06		desc. node	2825 Feb 17 08:25	4° \approx 15'05	
max. Earth dist.	2824 Apr 11 07:07	17° \approx 14'56	1.34965 AU		2825 Mar 07 18:02	0° \approx 00'	
				morning set	2825 Mar 20 15:01	21° \approx 32'55	
superior conj	2824 Apr 16 02:32	26° \approx 54'28	0°-55'-30	max. Earth dist.	2825 Mar 24 07:40	28° \approx 16'42	1.36770 AU
minimum elong	2824 Apr 16 05:24	27° \approx 09'12	0°54'59		2825 Mar 25 05:49	0° \approx 00'	
	2824 Apr 17 14:34	0° \approx 00'					
asc. node	2824 Apr 21 16:20	8° \approx 28'48		superior conj	2825 Mar 30 14:51	10° \approx 20'12	-1°-22'-42
evening rise	2824 Apr 23 20:11	12° \approx 57'52		minimum elong	2825 Mar 30 18:57	10° \approx 40'23	1°22'06
	2824 May 02 17:10	0° \approx 00'		evening rise	2825 Apr 07 23:46	27° \approx 08'17	
evening max el	2824 May 12 13:50	13° \approx 12'34	20°42'46	asc. node	2825 Apr 08 13:23	28° \approx 16'35	
retrograde	2824 May 23 21:33	18° \approx 15'39			2825 Apr 09 10:06	0° \approx 00'	
evening set	2824 May 25 23:58	18° \approx 14'30		evening max el	2825 Apr 25 02:54	24° \approx 55'34	19°33'58
desc. node	2824 May 29 10:35	17° \approx 14'44		retrograde	2825 May 04 16:47	29° \approx 33'51	
inferior conj	2824 Jun 04 06:12	14° \approx 15'30	-1°-41'-53	evening set	2825 May 06 16:55	29° \approx 22'33	
minimum elong	2824 Jun 04 01:24	14° \approx 15'23	1°40'10	inferior conj	2825 May 15 08:50	25° \approx 18'18	0°16'33
min. Earth dist.	2824 Jun 05 06:41	14° \approx 10'26	0.54941 AU	minimum elong	2825 May 15 09:33	25° \approx 17'10	0°16'17
morning rise	2824 Jun 13 01:47	10° \approx 13'21		desc. node	2825 May 16 07:36	24° \approx 41'58	
direct	2824 Jun 16 17:19	10° \approx 10'41		min. Earth dist.	2825 May 17 20:55	23° \approx 43'05	0.55784 AU
morning max el	2824 Jun 29 22:03	16° \approx 13'54	23°04'41	morning rise	2825 May 23 22:30	20° \approx 41'06	
	2824 Jul 10 14:45	0° \approx 00'		direct	2825 May 28 11:35	19° \approx 54'38	
asc. node	2824 Jul 18 15:35	14° \approx 17'06		morning max el	2825 Jun 11 12:29	26° \approx 58'35	24°46'47
morning set	2824 Jul 22 19:12	22° \approx 45'22			2825 Jun 14 10:46	0° \approx 00'	
	2824 Jul 26 04:50	0° \approx 00'			2825 Jul 03 13:26	0° \approx 00'	
				asc. node	2825 Jul 05 12:38	3° \approx 59'23	
superior conj	2824 Jul 29 22:02	7° \approx 59'15	1°34'25	morning set	2825 Jul 07 07:02	7° \approx 40'50	
minimum elong	2824 Jul 29 20:04	7° \approx 48'41	1°34'15				
max. Earth dist.	2824 Aug 01 15:01	13° \approx 43'36	1.33778 AU	superior conj	2825 Jul 14 07:17	22° \approx 51'32	1°20'45
evening rise	2824 Aug 06 15:26	23° \approx 58'12		minimum elong	2825 Jul 14 04:55	22° \approx 38'40	1°20'26
	2824 Aug 09 18:06	0° \approx 00'		max. Earth dist.	2825 Jul 15 19:37	26° \approx 08'58	1.32825 AU
desc. node	2824 Aug 25 09:53	26° \approx 19'23			2825 Jul 17 14:34	0° \approx 00'	
	2824 Aug 27 23:23	0° \approx 00'		evening rise	2825 Jul 21 13:31	8° \approx 16'44	
evening max el	2824 Sep 09 22:21	15° \approx 28'26	27°17'33		2825 Aug 02 04:24	0° \approx 00'	
retrograde	2824 Sep 23 09:21	22° \approx 47'07		desc. node	2825 Aug 12 06:54	15° \approx 29'56	
evening set	2824 Sep 30 09:27	20° \approx 05'19		evening max el	2825 Aug 23 08:24	28° \approx 29'14	27°25'17
min. Earth dist.	2824 Oct 04 04:30	16° \approx 32'43	0.64619 AU		2825 Aug 25 00:26	0° \approx 00'	
inferior conj	2824 Oct 06 11:12	14° \approx 04'27	-2°-39'-6	retrograde	2825 Sep 06 02:10	5° \approx 45'52	
minimum elong	2824 Oct 06 15:31	13° \approx 52'43	2°37'33	evening set	2825 Sep 13 06:51	3° \approx 13'08	
morning rise	2824 Oct 12 23:37	8° \approx 34'34		min. Earth dist.	2825 Sep 16 21:40	0° \approx 11'47	0.62943 AU
asc. node	2824 Oct 14 14:47	8° \approx 05'07			2825 Sep 17 02:39	30° \approx 00'	
direct	2824 Oct 15 12:56	8° \approx 00'39		inferior conj	2825 Sep 19 16:27	27° \approx 29'21	-3°-36'-5
morning max el	2824 Oct 22 00:57	11° \approx 27'49	17°59'36	minimum elong	2825 Sep 19 21:54	27° \approx 16'04	3°34'29
	2824 Nov 03 19:22	0° \approx 00'		morning rise	2825 Sep 26 15:34	22° \approx 17'14	
morning set	2824 Nov 08 11:50	7° \approx 52'24		direct	2825 Sep 29 00:52	21° \approx 50'43	
desc. node	2824 Nov 21 09:11	29° \approx 08'10		asc. node	2825 Oct 01 11:50	22° \approx 19'30	
	2824 Nov 21 22:05	0° \approx 00'		morning max el	2825 Oct 05 17:12	25° \approx 17'03	17°50'57
					2825 Oct 09 15:13	0° \approx 00'	
superior conj	2824 Nov 22 03:30	0° \approx 21'45	0°-5'-11	morning set	2825 Oct 21 21:49	20° \approx 23'19	
minimum elong	2824 Nov 22 02:52	0° \approx 19'13	0°05'07		2825 Oct 27 09:19	0° \approx 00'	
behind sun begin	2824 Nov 21 16:53	29° \approx 39'06					
behind sun end	2824 Nov 22 12:51	0° \approx 59'17		superior conj	2825 Nov 02 14:15	10° \approx 35'23	0°38'17
max. Earth dist.	2824 Nov 26 14:35	7° \approx 28'10	1.44783 AU	minimum elong	2825 Nov 02 17:49	10° \approx 50'16	0°37'48
evening rise	2824 Dec 08 11:50	25° \approx 25'40		desc. node	2825 Nov 08 06:12	19° \approx 55'22	
	2824 Dec 11 02:20	0° \approx 00'		max. Earth dist.	2825 Nov 09 06:41	21° \approx 34'20	1.43692 AU
greatest brilliancy	2824 Dec 28 00:31	25° \approx 10'26	-0.6m		2825 Nov 14 13:54	0° \approx 00'	
	2824 Dec 31 16:56	0° \approx 00'		evening rise	2825 Nov 17 20:40	5° \approx 06'49	
evening max el	2825 Jan 03 19:54	3° \approx 33'20	20°03'07		2825 Dec 04 12:19	0° \approx 00'	

greatest brilliancy	2825 Dec 12 14:40	11°☿02'55	-0.4m	greatest brilliancy	2826 Nov 25 19:06	25°♄17'16	-0.3m
evening max el	2825 Dec 17 19:19	17°☿04'54	21°10'10		2826 Nov 29 22:36	0°☿	
retrograde	2825 Dec 26 09:57	22°☿11'15		evening max el	2826 Nov 30 13:28	0°☿38'12	22°26'15
asc. node	2825 Dec 28 11:07	21°☿48'06		retrograde	2826 Dec 10 05:52	6°☿23'32	
evening set	2825 Dec 30 11:22	20°☿38'29		evening set	2826 Dec 14 18:59	4°☿34'16	
inferior conj	2826 Jan 04 21:05	14°☿22'46	2°19'06	asc. node	2826 Dec 15 08:10	4°☿05'53	
minimum elong	2826 Jan 04 18:36	14°☿31'21	2°18'18		2826 Dec 18 20:56	30°♁♄	
min. Earth dist.	2826 Jan 05 05:35	13°☿53'28	0.67654 AU	inferior conj	2826 Dec 20 04:36	28°♄11'16	1°35'45
morning rise	2826 Jan 10 01:27	8°☿07'48		minimum elong	2826 Dec 20 02:37	28°♄18'10	1°35'01
direct	2826 Jan 15 06:38	5°☿52'06		min. Earth dist.	2826 Dec 20 01:45	28°♄21'11	0.67903 AU
morning max el	2826 Jan 25 20:16	12°☿09'45	23°36'24	morning rise	2826 Dec 25 10:08	21°♄58'47	
desc. node	2826 Feb 04 05:27	23°☿18'04		direct	2826 Dec 30 00:17	20°♄05'52	
	2826 Feb 09 03:10	0°♁		morning max el	2827 Jan 08 07:51	25°♄34'31	22°08'43
	2826 Feb 28 14:02	0°♁			2827 Jan 12 07:43	0°☿	
morning set	2826 Mar 02 02:28	2°♁33'35		greatest brilliancy	2827 Jan 12 22:35	0°☿44'47	-0.3m
max. Earth dist.	2826 Mar 06 02:35	9°♁28'46	1.38876 AU	desc. node	2827 Jan 22 02:29	12°☿55'33	
					2827 Feb 02 15:43	0°♁	
superior conj	2826 Mar 13 13:50	23°♁03'23	-1°-46'-4	morning set	2827 Feb 10 09:25	12°♁11'10	
minimum elong	2826 Mar 13 18:16	23°♁24'10	1°45'39	max. Earth dist.	2827 Feb 16 00:10	21°♁25'58	1.41027 AU
	2826 Mar 17 05:31	0°♁			2827 Feb 21 00:20	0°♁	
evening rise	2826 Mar 22 19:43	10°♁51'02					
asc. node	2826 Mar 26 10:25	17°♁47'37		superior conj	2827 Feb 23 18:43	4°♁52'17	-2°-1'-58
	2826 Apr 02 11:09	0°♁		minimum elong	2827 Feb 23 21:36	5°♁05'06	2°01'52
evening max el	2826 Apr 08 02:37	7°♁07'17	18°45'00	evening rise	2827 Mar 06 04:44	23°♁58'14	
retrograde	2826 Apr 16 04:46	11°♁04'16			2827 Mar 09 10:43	0°♁	
evening set	2826 Apr 18 09:48	10°♁47'42		asc. node	2827 Mar 13 07:29	6°♁55'58	
inferior conj	2826 Apr 26 06:27	6°♁25'52	1°53'25	evening max el	2827 Mar 22 09:51	19°♁49'51	18°16'13
minimum elong	2826 Apr 26 10:07	6°♁19'05	1°52'19	retrograde	2827 Mar 29 11:57	23°♁22'17	
min. Earth dist.	2826 Apr 29 13:45	4°♁00'17	0.57399 AU	evening set	2827 Mar 31 22:51	22°♁57'41	
desc. node	2826 May 03 04:38	1°♁45'13		inferior conj	2827 Apr 08 01:30	18°♁14'35	2°57'21
morning rise	2826 May 04 06:01	1°♁14'32		minimum elong	2827 Apr 08 04:58	18°♁07'04	2°56'38
	2826 May 09 01:11	30°♁♁		min. Earth dist.	2827 Apr 11 11:26	15°♁18'38	0.59456 AU
direct	2826 May 09 19:42	29°♁58'32		morning rise	2827 Apr 15 07:19	12°♁35'48	
	2826 May 10 14:15	0°♁		desc. node	2827 Apr 20 01:41	10°♁51'22	
morning max el	2826 May 24 04:00	7°♁30'05	26°17'11	direct	2827 Apr 21 16:38	10°♁44'11	
	2826 Jun 09 22:07	0°♁		morning max el	2827 May 06 01:04	18°♁31'52	27°21'08
morning set	2826 Jun 21 18:05	22°♁33'09			2827 May 15 16:17	0°♁	
asc. node	2826 Jun 22 09:41	23°♁55'44			2827 Jun 02 12:44	0°♁	
	2826 Jun 25 05:20	0°♁		morning set	2827 Jun 06 02:34	7°♁16'04	
				asc. node	2827 Jun 09 06:44	14°♁00'28	
superior conj	2826 Jun 28 18:41	7°♁48'30	1°02'43				
minimum elong	2826 Jun 28 16:26	7°♁36'05	1°02'19	superior conj	2827 Jun 13 06:25	22°♁43'27	0°40'59
max. Earth dist.	2826 Jun 29 05:54	8°♁50'16	1.32275 AU	minimum elong	2827 Jun 13 04:43	22°♁34'05	0°40'37
evening rise	2826 Jul 05 18:26	22°♁54'24		max. Earth dist.	2827 Jun 12 18:05	21°♁35'33	1.32117 AU
	2826 Jul 09 05:58	0°♁			2827 Jun 16 13:50	0°♁	
	2826 Jul 27 04:32	0°♁		evening rise	2827 Jun 20 03:38	7°♁42'22	
desc. node	2826 Jul 30 03:55	3°♁50'44			2827 Jul 01 18:24	0°♁	
evening max el	2826 Aug 05 13:59	10°♁52'48	27°00'23	desc. node	2827 Jul 17 00:58	21°♁00'23	
retrograde	2826 Aug 19 11:33	18°♁05'27		evening max el	2827 Jul 18 12:29	22°♁28'22	26°02'46
evening set	2826 Aug 26 12:09	15°♁54'37		retrograde	2827 Aug 01 12:05	29°♁37'48	
min. Earth dist.	2826 Aug 30 04:16	13°♁14'23	0.61000 AU	evening set	2827 Aug 07 20:28	28°♁00'27	
inferior conj	2826 Sep 02 08:31	10°♁31'12	-4°-25'-7	min. Earth dist.	2827 Aug 12 01:00	25°♁25'01	0.58934 AU
minimum elong	2826 Sep 02 13:49	10°♁19'48	4°24'03	inferior conj	2827 Aug 15 07:42	22°♁58'49	-4°-57'-27
morning rise	2826 Sep 09 18:33	5°♁40'10		minimum elong	2827 Aug 15 10:31	22°♁53'33	4°57'14
direct	2826 Sep 12 02:55	5°♁18'04		morning rise	2827 Aug 23 04:02	18°♁31'18	
asc. node	2826 Sep 18 08:54	8°♁01'10		direct	2827 Aug 25 14:28	18°♁11'27	
morning max el	2826 Sep 19 06:57	8°♁51'39	18°01'04	morning max el	2827 Sep 02 14:56	22°♁01'59	18°31'18
	2826 Oct 03 00:37	0°♁		asc. node	2827 Sep 05 05:57	24°♁54'37	
morning set	2826 Oct 05 01:23	3°♁44'59			2827 Sep 08 21:12	0°♁	
				morning set	2827 Sep 18 17:20	17°♁41'49	
superior conj	2826 Oct 15 03:52	22°♁08'08	1°11'02		2827 Sep 25 02:54	0°♁	
minimum elong	2826 Oct 15 08:13	22°♁27'18	1°10'31				
	2826 Oct 19 16:41	0°♁		superior conj	2827 Sep 27 16:00	4°♁47'08	1°32'09
max. Earth dist.	2826 Oct 22 18:29	5°♁10'37	1.42058 AU	minimum elong	2827 Sep 27 19:09	5°♁01'45	1°31'52
desc. node	2826 Oct 26 03:14	10°♁42'20		max. Earth dist.	2827 Oct 05 01:05	18°♁04'14	1.40076 AU
evening rise	2826 Oct 28 15:47	14°♁45'49		evening rise	2827 Oct 09 08:12	25°♁23'31	
	2826 Nov 07 12:46	0°♁			2827 Oct 12 03:17	0°♁	

desc. node	2827 Oct 13 00:16	1°♄25'03		desc. node	2828 Sep 28 21:18	21°♄59'24	
	2827 Nov 01 06:59	0°♄			2828 Oct 04 01:13	0°♄	
evening max el	2827 Nov 13 03:36	14°♄14'08	23°46'09	evening max el	2828 Oct 25 15:49	27°♄53'28	25°03'23
retrograde	2827 Nov 23 22:43	20°♄36'08			2828 Oct 27 22:24	0°♄	
evening set	2827 Nov 29 01:03	18°♄30'00		retrograde	2828 Nov 06 11:31	4°♄44'37	
asc. node	2827 Dec 02 05:12	15°♄05'52		evening set	2828 Nov 12 03:55	2°♄22'40	
inferior conj	2827 Dec 04 11:56	12°♄03'37	0°46'27		2828 Nov 14 12:29	30°♄	
minimum elong	2827 Dec 04 10:51	12°♄07'17	0°46'00	min. Earth dist.	2828 Nov 16 17:01	27°♄16'58	0.67351 AU
min. Earth dist.	2827 Dec 03 22:20	12°♄49'55	0.67796 AU	inferior conj	2828 Nov 17 17:18	25°♄57'21	0°-7'-40
morning rise	2827 Dec 09 20:51	5°♄55'37		minimum elong	2828 Nov 17 17:29	25°♄56'44	0°07'36
direct	2827 Dec 13 20:51	4°♄25'29		transit middle	2828 Nov 17 17:29	25°♄56'44	0°07'36
morning max el	2827 Dec 22 01:53	9°♄09'55	20°48'38	transit begin	2828 Nov 17 15:03	26°♄04'46	
greatest brilliancy	2827 Dec 27 19:28	15°♄50'09	-0.5m	transit end	2828 Nov 17 19:56	25°♄48'42	
	2828 Jan 06 23:15	0°♄		asc. node	2828 Nov 18 02:14	25°♄28'07	
desc. node	2828 Jan 08 23:31	2°♄57'57		morning rise	2828 Nov 23 07:40	19°♄56'09	
morning set	2828 Jan 20 14:12	20°♄38'02		direct	2828 Nov 26 19:08	18°♄46'23	
	2828 Jan 26 12:33	0°♄		morning max el	2828 Dec 04 03:45	22°♄56'15	19°41'02
max. Earth dist.	2828 Jan 29 04:47	4°♄18'52	1.42928 AU		2828 Dec 10 01:25	0°♄	
				greatest brilliancy	2828 Dec 12 03:36	2°♄52'11	-0.6m
superior conj	2828 Feb 05 00:20	15°♄35'04	-2°-5'-35	desc. node	2828 Dec 25 20:33	23°♄18'05	
minimum elong	2828 Feb 04 22:57	15°♄29'14	2°05'34	morning set	2828 Dec 29 10:31	28°♄49'03	
	2828 Feb 13 08:47	0°♄			2828 Dec 30 04:52	0°♄	
evening rise	2828 Feb 16 22:50	6°♄21'08		max. Earth dist.	2829 Jan 10 16:23	17°♄57'57	1.44342 AU
asc. node	2828 Feb 28 04:31	25°♄34'12					
	2828 Mar 02 08:02	0°♄		superior conj	2829 Jan 15 03:43	25°♄06'59	-1°-51'-52
evening max el	2828 Mar 04 21:17	2°♄54'19	18°07'09	minimum elong	2829 Jan 14 20:41	24°♄38'42	1°51'24
retrograde	2828 Mar 11 10:52	6°♄17'49			2829 Jan 18 04:03	0°♄	
evening set	2828 Mar 14 03:10	5°♄43'37		evening rise	2829 Jan 28 21:33	17°♄50'48	
inferior conj	2828 Mar 20 15:24	0°♄39'35	3°30'53		2829 Feb 05 02:30	0°♄	
minimum elong	2828 Mar 20 17:11	0°♄35'09	3°30'43	asc. node	2829 Feb 14 01:33	13°♄32'23	
	2828 Mar 21 07:13	30°♄		evening max el	2829 Feb 16 09:54	16°♄12'11	18°17'08
min. Earth dist.	2828 Mar 23 16:47	27°♄37'53	0.61610 AU	retrograde	2829 Feb 22 20:47	19°♄40'10	
morning rise	2828 Mar 27 04:26	24°♄42'58		evening set	2829 Feb 25 18:26	18°♄55'15	
direct	2828 Apr 03 00:28	22°♄19'13		inferior conj	2829 Mar 03 20:00	13°♄31'34	3°40'43
desc. node	2828 Apr 05 22:43	22°♄43'32		minimum elong	2829 Mar 03 19:55	13°♄31'48	3°40'43
	2828 Apr 16 22:15	0°♄		min. Earth dist.	2829 Mar 06 07:17	10°♄46'22	0.63601 AU
morning max el	2828 Apr 17 04:34	0°♄15'34	27°49'30	morning rise	2829 Mar 09 19:34	7°♄24'55	
	2828 May 08 17:17	0°♄		direct	2829 Mar 16 17:03	4°♄40'30	
morning set	2828 May 20 06:36	21°♄43'22		desc. node	2829 Mar 23 19:44	7°♄04'24	
	2828 May 24 05:29	0°♄		morning max el	2829 Mar 30 12:28	12°♄37'13	27°40'31
max. Earth dist.	2828 May 26 04:14	4°♄11'45	1.32355 AU		2829 Apr 13 09:48	0°♄	
asc. node	2828 May 26 03:47	4°♄09'20			2829 May 01 04:47	0°♄	
				morning set	2829 May 04 03:45	5°♄46'23	
superior conj	2828 May 27 16:49	7°♄30'51	0°16'13	max. Earth dist.	2829 May 09 08:09	16°♄24'17	1.33009 AU
minimum elong	2828 May 27 16:04	7°♄26'46	0°16'03				
evening rise	2828 Jun 03 15:03	22°♄33'48		superior conj	2829 May 12 00:01	22°♄04'00	0°-10'-51
	2828 Jun 07 05:09	0°♄		minimum elong	2829 May 12 00:33	22°♄06'52	0°10'44
	2828 Jun 26 00:05	0°♄		behind sun begin	2829 May 11 20:35	21°♄45'37	
evening max el	2828 Jun 29 04:02	3°♄19'19	24°39'18	behind sun end	2829 May 12 04:31	22°♄28'09	
desc. node	2828 Jul 02 21:58	6°♄30'19		asc. node	2829 May 13 00:50	24°♄17'27	
retrograde	2828 Jul 13 02:09	10°♄22'02			2829 May 15 16:17	0°♄	
evening set	2828 Jul 18 04:45	9°♄23'08		evening rise	2829 May 19 02:47	7°♄21'34	
min. Earth dist.	2828 Jul 23 15:10	6°♄33'26	0.57005 AU		2829 May 31 01:58	0°♄	
inferior conj	2828 Jul 26 11:04	4°♄43'35	-4°-59'-59	evening max el	2829 Jun 10 17:34	13°♄47'10	23°03'33
minimum elong	2828 Jul 26 08:47	4°♄47'19	4°59'53	desc. node	2829 Jun 19 18:59	19°♄45'21	
morning rise	2828 Aug 03 16:30	0°♄37'59		retrograde	2829 Jun 24 03:44	20°♄28'48	
direct	2828 Aug 06 07:21	0°♄18'56		evening set	2829 Jun 27 17:59	20°♄00'31	
morning max el	2828 Aug 15 14:03	4°♄38'41	19°22'45	min. Earth dist.	2829 Jul 05 02:48	16°♄42'00	0.55550 AU
asc. node	2828 Aug 22 03:00	12°♄44'56		inferior conj	2829 Jul 06 18:59	15°♄43'37	-4°-18'-22
	2828 Aug 31 17:01	0°♄		minimum elong	2829 Jul 06 11:39	15°♄54'19	4°16'53
morning set	2828 Sep 01 17:49	2°♄03'17		morning rise	2829 Jul 15 08:14	11°♄51'12	
				direct	2829 Jul 18 05:25	11°♄31'26	
superior conj	2828 Sep 09 21:03	18°♄16'15	1°42'52	morning max el	2829 Jul 29 01:57	16°♄33'27	20°35'29
minimum elong	2828 Sep 09 22:23	18°♄22'48	1°42'49		2829 Aug 08 05:32	0°♄	
max. Earth dist.	2828 Sep 16 04:53	0°♄16'17	1.38006 AU	asc. node	2829 Aug 09 00:02	1°♄19'14	
	2828 Sep 16 01:20	0°♄		morning set	2829 Aug 17 00:04	16°♄42'07	
evening rise	2828 Sep 20 00:17	7°♄07'00			2829 Aug 23 10:30	0°♄	

superior conj	2829 Aug 24 14:12	2° \cap 21'39	1°44'57	superior conj	2830 Aug 08 15:43	16° Ω 51'55	1°39'59
minimum elong	2829 Aug 24 13:53	2° \cap 20'03	1°44'58	minimum elong	2830 Aug 08 14:12	16° Ω 43'54	1°39'54
max. Earth dist.	2829 Aug 29 11:50	12° \cap 07'55	1.36098 AU	max. Earth dist.	2830 Aug 12 02:59	24° Ω 04'40	1.34513 AU
evening rise	2829 Sep 02 13:05	19° \cap 49'25			2830 Aug 15 01:33	0° \cap	
	2829 Sep 08 05:49	0° Ω		evening rise	2830 Aug 16 18:01	3° \cap 18'06	
desc. node	2829 Sep 15 18:18	12° Ω 20'30			2830 Sep 01 02:17	0° Ω	
	2829 Sep 28 02:04	0° \cap		desc. node	2830 Sep 02 15:18	2° Ω 21'32	
evening max el	2829 Oct 08 04:01	11° \cap 34'28	26°10'35	evening max el	2830 Sep 20 16:33	25° Ω 09'12	27°00'02
retrograde	2829 Oct 20 19:26	18° \cap 43'39			2830 Sep 26 17:19	0° \cap	
evening set	2829 Oct 27 01:46	16° \cap 09'10		retrograde	2830 Oct 03 21:43	2° \cap 25'50	
min. Earth dist.	2829 Oct 31 07:28	11° \cap 39'18	0.66564 AU		2830 Oct 10 08:26	30° \cap	
inferior conj	2829 Nov 01 18:53	9° \cap 49'42	-1°-5'-18	evening set	2830 Oct 10 16:23	29° Ω 44'28	
minimum elong	2829 Nov 01 20:37	9° \cap 44'19	1°04'35	min. Earth dist.	2830 Oct 14 15:10	25° Ω 51'17	0.65434 AU
asc. node	2829 Nov 04 23:15	6° \cap 09'29		inferior conj	2830 Oct 16 14:34	23° Ω 35'42	-2°-4'-51
morning rise	2829 Nov 07 16:33	3° \cap 58'02		minimum elong	2830 Oct 16 17:59	23° Ω 25'56	2°03'32
direct	2829 Nov 10 17:37	3° \cap 05'08		morning rise	2830 Oct 22 21:13	17° Ω 56'44	
morning max el	2829 Nov 17 12:43	6° \cap 50'51	18°48'36	asc. node	2830 Oct 22 20:17	17° Ω 57'52	
	2829 Dec 03 22:19	0° \cap		direct	2830 Oct 25 14:10	17° Ω 16'51	
morning set	2829 Dec 08 23:32	7° \cap 56'49		morning max el	2830 Nov 01 02:41	20° Ω 48'05	18°12'33
desc. node	2829 Dec 12 17:35	13° \cap 51'09			2830 Nov 08 04:37	0° \cap	
	2829 Dec 23 00:26	0° Ω		morning set	2830 Nov 19 17:21	18° \cap 31'32	
max. Earth dist.	2829 Dec 24 09:18	2° Ω 09'00	1.45100 AU	desc. node	2830 Nov 26 18:45	0° \cap	
					2830 Nov 29 14:35	4° \cap 32'14	
superior conj	2829 Dec 25 10:18	3° Ω 47'18	-1°-19'-1	superior conj	2830 Dec 04 13:14	12° \cap 23'43	0°-33'00
minimum elong	2829 Dec 25 01:29	3° Ω 12'36	1°18'05	minimum elong	2830 Dec 04 09:01	12° \cap 07'02	0°32'26
evening rise	2830 Jan 09 21:33	28° Ω 23'32		max. Earth dist.	2830 Dec 07 04:43	16° \cap 33'52	1.45118 AU
	2830 Jan 10 21:28	0° \cap			2830 Dec 15 18:50	0° Ω	
evening max el	2830 Jan 30 21:10	29° \cap 38'25	18°45'16	evening rise	2830 Dec 20 22:58	8° Ω 03'23	
	2830 Jan 31 05:47	0° \cap			2831 Jan 04 05:21	0° \cap	
asc. node	2830 Jan 31 22:34	0° \cap 39'26		greatest brilliancy	2831 Jan 05 21:40	2° \cap 28'01	-0.7m
retrograde	2830 Feb 06 13:44	3° \cap 22'28		evening max el	2831 Jan 14 04:52	13° \cap 08'11	19°30'20
evening set	2830 Feb 09 17:23	2° \cap 25'44		asc. node	2831 Jan 18 19:35	16° \cap 41'14	
	2830 Feb 12 15:33	30° \cap		retrograde	2831 Jan 21 10:31	17° \cap 18'30	
inferior conj	2830 Feb 15 11:28	26° \cap 44'07	3°32'56	evening set	2831 Jan 24 21:22	16° \cap 08'43	
minimum elong	2830 Feb 15 09:59	26° \cap 48'40	3°32'46	inferior conj	2831 Jan 30 10:35	10° \cap 11'23	3°11'58
min. Earth dist.	2830 Feb 17 07:09	24° \cap 30'40	0.65263 AU	minimum elong	2831 Jan 30 08:16	10° \cap 18'56	3°11'30
morning rise	2830 Feb 21 01:25	20° \cap 32'06		min. Earth dist.	2831 Jan 31 15:20	8° \cap 37'28	0.66513 AU
direct	2830 Feb 27 16:43	17° \cap 41'41		morning rise	2831 Feb 04 18:26	3° \cap 56'44	
desc. node	2830 Mar 10 16:47	23° \cap 20'04		direct	2831 Feb 10 22:19	1° \cap 13'21	
morning max el	2830 Mar 12 22:06	25° \cap 27'23	26°58'13	morning max el	2831 Feb 23 07:29	8° \cap 34'54	25°50'38
	2830 Mar 17 02:04	0° \cap		desc. node	2831 Feb 25 13:49	10° \cap 58'33	
	2830 Apr 06 21:46	0° \cap			2831 Mar 12 02:54	0° \cap	
morning set	2830 Apr 17 14:57	19° \cap 15'49			2831 Mar 30 09:49	0° \cap	
max. Earth dist.	2830 Apr 22 02:19	28° \cap 04'53	1.34120 AU	morning set	2831 Mar 31 12:05	2° \cap 00'00	
	2830 Apr 23 01:00	0° Ω		max. Earth dist.	2831 Apr 04 09:09	9° \cap 17'01	1.35689 AU
superior conj	2830 Apr 26 01:58	6° \cap 16'47	0°-39'-10	superior conj	2831 Apr 09 20:12	20° \cap 02'15	-1°-7'-19
minimum elong	2830 Apr 26 03:59	6° \cap 27'19	0°38'46	minimum elong	2831 Apr 09 23:39	20° \cap 19'40	1°06'44
asc. node	2830 Apr 29 21:52	14° \cap 20'55			2831 Apr 14 17:11	0° \cap	
evening rise	2830 May 03 12:59	21° \cap 59'50		asc. node	2831 Apr 16 18:54	4° \cap 15'51	
	2830 May 07 11:18	0° \cap		evening rise	2831 Apr 17 19:41	6° \cap 22'43	
evening max el	2830 May 23 12:43	24° \cap 23'32	21°30'29		2831 May 01 01:37	0° \cap	
	2830 Jun 01 14:30	0° Ω		evening max el	2831 May 05 18:50	5° \cap 32'56	20°11'07
retrograde	2830 Jun 04 18:20	0° Ω 23'48		retrograde	2831 May 16 08:20	10° \cap 40'45	
desc. node	2830 Jun 06 16:00	0° Ω 15'32		evening set	2831 May 18 08:33	10° \cap 30'24	
evening set	2830 Jun 07 05:03	0° Ω 10'12		desc. node	2831 May 24 13:02	8° \cap 10'13	
	2830 Jun 08 00:28	30° \cap		inferior conj	2831 May 27 09:49	6° \cap 31'38	0°-50'-31
inferior conj	2830 Jun 16 14:04	26° \cap 10'14	-2°-48'-32	minimum elong	2831 May 27 07:27	6° \cap 35'09	0°49'39
minimum elong	2830 Jun 16 06:40	26° \cap 20'33	2°46'10	min. Earth dist.	2831 May 29 02:57	5° \cap 30'44	0.55188 AU
min. Earth dist.	2830 Jun 16 14:17	26° \cap 09'55	0.54890 AU	morning rise	2831 Jun 05 04:05	2° \cap 14'07	
morning rise	2830 Jun 25 08:55	22° \cap 14'57		direct	2831 Jun 09 04:08	1° \cap 39'22	
direct	2830 Jun 28 16:10	21° \cap 51'12		morning max el	2831 Jun 22 18:54	8° \cap 19'38	23°48'40
morning max el	2830 Jul 11 02:26	27° \cap 43'29	22°06'44		2831 Jul 08 12:25	0° Ω	
	2830 Jul 13 08:37	0° Ω		asc. node	2831 Jul 13 18:09	9° Ω 58'20	
asc. node	2830 Jul 26 21:05	20° Ω 26'32		morning set	2831 Jul 16 21:32	16° Ω 27'11	
	2830 Jul 31 16:14	0° Ω			2831 Jul 23 04:37	0° Ω	
morning set	2830 Aug 01 09:54	1° Ω 31'49					

superior conj	2831 Jul 23 22:51	1°♌38'31	1°29'13	morning set	2832 Jun 30 09:14	1°♎21'43	
minimum elong	2831 Jul 23 20:39	1°♌26'38	1°28'58				
max. Earth dist.	2831 Jul 26 03:20	6°♌20'04	1.33322 AU	superior conj	2832 Jul 07 09:14	16°♎33'09	1°13'36
evening rise	2831 Jul 31 10:54	17°♌21'34		minimum elong	2832 Jul 07 06:52	16°♎20'09	1°13'13
	2831 Aug 07 01:14	0°♍		max. Earth dist.	2832 Jul 08 10:45	18°♎52'39	1.32538 AU
desc. node	2831 Aug 20 12:20	21°♍54'00			2832 Jul 13 15:18	0°♏	
	2831 Aug 26 13:11	0°♎		evening rise	2832 Jul 14 12:12	1°♏48'32	
evening max el	2831 Sep 03 04:04	8°♎25'59	27°24'35		2832 Jul 29 23:11	0°♍	
retrograde	2831 Sep 16 17:58	15°♎43'26		desc. node	2832 Aug 06 09:23	10°♍45'13	
evening set	2831 Sep 23 21:04	13°♎04'00		evening max el	2832 Aug 15 12:18	21°♍11'04	27°18'43
min. Earth dist.	2831 Sep 27 13:58	9°♎45'41	0.63954 AU	retrograde	2832 Aug 29 07:48	28°♍26'29	
inferior conj	2831 Sep 30 01:56	7°♎10'15	-3°-3'-49	evening set	2832 Sep 05 12:11	26°♍01'03	
minimum elong	2831 Sep 30 06:50	6°♎57'31	3°02'11	min. Earth dist.	2832 Sep 09 02:25	23°♍10'41	0.62143 AU
morning rise	2831 Oct 06 18:50	1°♎47'30		inferior conj	2832 Sep 12 01:57	20°♍25'43	-3°-58'-17
direct	2831 Oct 09 06:12	1°♎17'00		minimum elong	2832 Sep 12 07:33	20°♍12'45	3°56'51
asc. node	2831 Oct 09 17:20	1°♎18'06		morning rise	2832 Sep 19 05:47	15°♍22'35	
morning max el	2831 Oct 15 18:59	4°♎42'25	17°53'42	direct	2832 Sep 21 14:18	14°♍58'17	
	2831 Nov 01 08:29	0°♏		asc. node	2832 Sep 25 14:23	16°♍10'43	
morning set	2831 Nov 01 14:25	0°♏25'25		morning max el	2832 Sep 28 10:37	18°♍26'26	17°52'58
					2832 Oct 06 19:03	0°♎	
superior conj	2831 Nov 14 09:06	21°♏53'10	0°14'21	morning set	2832 Oct 14 08:35	13°♎19'39	
minimum elong	2831 Nov 14 10:41	21°♏59'38	0°14'08		2832 Oct 23 18:03	0°♏	
behind sun begin	2831 Nov 14 05:50	21°♏39'48					
behind sun end	2831 Nov 14 15:33	22°♏19'26		superior conj	2832 Oct 25 07:38	2°♏41'40	0°53'37
desc. node	2831 Nov 16 11:36	25°♏18'07		minimum elong	2832 Oct 25 11:52	2°♏59'49	0°53'03
	2831 Nov 19 09:51	0°♐		max. Earth dist.	2832 Nov 01 13:28	14°♏47'41	1.43050 AU
max. Earth dist.	2831 Nov 19 23:07	0°♐52'53	1.44405 AU	desc. node	2832 Nov 02 08:39	16°♏05'41	
evening rise	2831 Nov 30 09:38	17°♐11'47		evening rise	2832 Nov 08 20:54	26°♏27'28	
	2831 Dec 08 19:35	0°♑			2832 Nov 11 03:38	0°♐	
greatest brilliancy	2831 Dec 22 07:22	19°♑27'06	-0.5m		2832 Dec 01 17:39	0°♑	
evening max el	2831 Dec 28 07:26	26°♑38'50	20°30'12	greatest brilliancy	2832 Dec 05 08:10	4°♑39'03	-0.4m
	2832 Jan 01 06:10	0°♒		evening max el	2832 Dec 10 04:24	10°♑10'37	21°41'39
retrograde	2832 Jan 05 08:35	1°♒23'29		retrograde	2832 Dec 19 05:52	15°♑34'08	
asc. node	2832 Jan 05 16:38	1°♒22'52		asc. node	2832 Dec 22 13:40	14°♑33'46	
evening set	2832 Jan 09 04:11	29°♑59'22		evening set	2832 Dec 23 12:00	13°♑54'27	
	2832 Jan 09 03:51	30°♒♑		inferior conj	2832 Dec 28 21:29	7°♑34'54	2°01'31
inferior conj	2832 Jan 14 14:39	23°♑49'11	2°40'49	minimum elong	2832 Dec 28 19:09	7°♑42'58	2°00'44
minimum elong	2832 Jan 14 12:05	23°♑57'56	2°40'06	min. Earth dist.	2832 Dec 29 00:59	7°♑22'42	0.67800 AU
min. Earth dist.	2832 Jan 15 06:02	22°♑56'45	0.67349 AU	morning rise	2833 Jan 03 02:02	1°♑20'34	
morning rise	2832 Jan 19 19:30	17°♑33'47			2833 Jan 05 00:39	30°♒♐	
direct	2832 Jan 25 09:11	15°♑06'34		direct	2833 Jan 08 00:39	29°♐14'33	
morning max el	2832 Feb 05 16:03	21°♑50'43	24°27'22		2833 Jan 11 06:13	0°♑	
desc. node	2832 Feb 12 10:51	29°♑35'41		morning max el	2833 Jan 18 01:36	5°♑11'55	22°58'35
	2832 Feb 12 18:35	0°♒		greatest brilliancy	2833 Jan 22 20:13	10°♑31'55	-0.3m
	2832 Mar 04 09:48	0°♓		desc. node	2833 Jan 29 07:52	18°♑54'50	
morning set	2832 Mar 12 13:39	13°♓43'17			2833 Feb 06 03:02	0°♒	
max. Earth dist.	2832 Mar 16 06:50	20°♓20'24	1.37644 AU	morning set	2833 Feb 21 13:31	24°♒10'02	
	2832 Mar 21 11:32	0°♔			2833 Feb 25 00:40	0°♓	
				max. Earth dist.	2833 Feb 26 01:56	1°♓48'16	1.39799 AU
superior conj	2832 Mar 23 03:20	3°♔10'48	-1°-33'-16				
minimum elong	2832 Mar 23 07:45	3°♔32'03	1°32'43	superior conj	2833 Mar 05 19:16	15°♓32'18	-1°-53'-59
evening rise	2832 Mar 31 20:25	20°♔22'25		minimum elong	2833 Mar 05 23:20	15°♓50'59	1°53'42
asc. node	2832 Apr 02 15:57	23°♔57'05			2833 Mar 13 11:51	0°♔	
	2832 Apr 05 19:38	0°♕		evening rise	2833 Mar 15 12:13	3°♔51'15	
evening max el	2832 Apr 17 12:39	17°♕22'20	19°10'36	asc. node	2833 Mar 20 13:01	13°♔19'22	
retrograde	2832 Apr 26 10:18	21°♕41'42		evening max el	2833 Mar 31 15:58	29°♔48'16	18°30'18
evening set	2832 Apr 28 11:59	21°♕28'39			2833 Mar 31 20:51	0°♕	
inferior conj	2832 May 06 19:47	17°♕17'22	1°01'26	retrograde	2833 Apr 08 06:36	3°♕32'56	
minimum elong	2832 May 06 22:11	17°♕13'17	1°00'36	evening set	2833 Apr 10 14:01	3°♕13'20	
min. Earth dist.	2832 May 09 18:02	15°♕19'02	0.56389 AU		2833 Apr 16 10:51	30°♒♔	
desc. node	2832 May 10 10:04	14°♕53'16		inferior conj	2833 Apr 18 02:41	28°♔42'51	2°24'34
morning rise	2832 May 15 04:13	12°♕25'10		minimum elong	2833 Apr 18 06:34	28°♔35'10	2°23'32
direct	2832 May 20 03:35	11°♕27'42		min. Earth dist.	2833 Apr 21 12:58	26°♔01'06	0.58240 AU
morning max el	2832 Jun 03 09:16	18°♕45'04	25°27'48	morning rise	2833 Apr 25 18:47	23°♔18'15	
	2832 Jun 12 19:25	0°♖		desc. node	2833 Apr 27 07:06	22°♔38'07	
asc. node	2832 Jun 29 15:12	29°♖46'59		direct	2833 May 01 17:39	21°♔47'07	
	2832 Jun 29 17:41	0°♗		morning max el	2833 May 16 02:59	29°♔27'36	26°48'16

	2833 May 16 16:05	0°♄		desc. node	2834 Apr 14 04:06	2°♅53'42	
	2833 Jun 06 14:15	0°♄		morning max el	2834 Apr 28 02:38	10°♅45'42	27°37'42
morning set	2833 Jun 14 19:22	16°♄10'18			2834 May 13 02:02	0°♄	
asc. node	2833 Jun 16 12:16	19°♄47'10			2834 May 29 17:05	0°♄	
	2833 Jun 21 04:43	0°♄		morning set	2834 May 30 02:12	0°♄47'03	
				asc. node	2834 Jun 03 09:20	9°♄54'08	
superior conj	2833 Jun 21 20:59	1°♄29'38	0°53'54	max. Earth dist.	2834 Jun 05 09:43	14°♄17'45	1.32167 AU
minimum elong	2833 Jun 21 18:55	1°♄18'13	0°53'30				
max. Earth dist.	2833 Jun 21 22:05	1°♄35'36	1.32156 AU	superior conj	2834 Jun 06 08:22	16°♄22'06	0°30'47
evening rise	2833 Jun 28 19:11	16°♄30'50		minimum elong	2834 Jun 06 07:02	16°♄14'44	0°30'31
	2833 Jul 05 13:11	0°♄			2834 Jun 12 14:20	0°♄	
desc. node	2833 Jul 24 06:25	28°♄38'15		evening rise	2834 Jun 13 05:33	1°♄21'05	
	2833 Jul 25 11:23	0°♄			2834 Jun 28 19:13	0°♄	
evening max el	2833 Jul 28 14:53	3°♄13'40	26°39'37	evening max el	2834 Jul 10 10:24	14°♄29'46	25°29'53
retrograde	2833 Aug 11 13:58	10°♄25'48		desc. node	2834 Jul 11 03:25	15°♄09'35	
evening set	2833 Aug 18 09:07	8°♄27'58		retrograde	2834 Jul 24 10:21	21°♄36'55	
min. Earth dist.	2833 Aug 22 04:39	5°♄51'56	0.60114 AU	evening set	2834 Jul 30 07:19	20°♄16'24	
inferior conj	2833 Aug 25 11:11	3°♄13'22	-4°-41'-36	min. Earth dist.	2834 Aug 03 22:28	17°♄36'46	0.58072 AU
minimum elong	2833 Aug 25 15:46	3°♄04'03	4°40'55	inferior conj	2834 Aug 07 02:15	15°♄24'05	-5°-3'-8
	2833 Aug 29 20:41	30°♄		minimum elong	2834 Aug 07 03:09	15°♄22'30	5°03'08
morning rise	2833 Sep 02 01:45	28°♄32'22		morning rise	2834 Aug 15 02:33	11°♄06'02	
direct	2833 Sep 04 10:27	28°♄11'36		direct	2834 Aug 17 14:34	10°♄46'40	
	2833 Sep 09 16:30	0°♄		morning max el	2834 Aug 26 02:51	14°♄48'31	18°50'33
morning max el	2833 Sep 11 22:19	1°♄51'26	18°11'28	asc. node	2834 Aug 30 08:30	19°♄43'36	
asc. node	2833 Sep 12 11:27	2°♄24'09			2834 Sep 05 17:50	0°♄	
morning set	2833 Sep 27 17:56	26°♄57'02		morning set	2834 Sep 11 13:56	11°♄05'39	
	2833 Sep 29 08:44	0°♄					
				superior conj	2834 Sep 20 03:25	27°♄45'58	1°37'51
superior conj	2833 Oct 07 07:27	14°♄43'59	1°21'21	minimum elong	2834 Sep 20 05:48	27°♄57'21	1°37'42
minimum elong	2833 Oct 07 11:26	15°♄01'59	1°20'56		2834 Sep 21 07:45	0°♄	
max. Earth dist.	2833 Oct 14 22:23	28°♄04'04	1.41234 AU	max. Earth dist.	2834 Sep 27 03:18	10°♄38'53	1.39190 AU
	2833 Oct 16 01:54	0°♄		evening rise	2834 Oct 01 02:54	17°♄35'19	
evening rise	2833 Oct 20 00:12	6°♄28'53		desc. node	2834 Oct 07 02:44	27°♄31'02	
desc. node	2833 Oct 20 05:41	6°♄51'08			2834 Oct 08 16:05	0°♄	
	2833 Nov 04 08:28	0°♄			2834 Oct 29 19:22	0°♄	
greatest brilliancy	2833 Nov 17 08:39	17°♄34'02	-0.2m	evening max el	2834 Nov 05 09:49	7°♄22'53	24°19'50
evening max el	2833 Nov 22 20:34	23°♄44'40	23°00'12	retrograde	2834 Nov 16 15:47	13°♄57'56	
retrograde	2833 Dec 03 00:41	29°♄46'40		evening set	2834 Nov 22 00:01	11°♄45'05	
evening set	2833 Dec 07 19:08	27°♄50'27		asc. node	2834 Nov 26 07:43	6°♄53'01	
asc. node	2833 Dec 09 10:42	26°♄15'14		min. Earth dist.	2834 Nov 26 17:48	6°♄19'23	0.67651 AU
inferior conj	2833 Dec 13 05:08	21°♄25'26	1°15'32	inferior conj	2834 Nov 27 11:50	5°♄18'50	0°24'03
minimum elong	2833 Dec 13 03:29	21°♄31'08	1°14'53	minimum elong	2834 Nov 27 11:15	5°♄20'47	0°23'48
min. Earth dist.	2833 Dec 12 21:43	21°♄51'00	0.67895 AU		2834 Dec 01 23:45	30°♄	
morning rise	2833 Dec 18 11:48	15°♄14'19		morning rise	2834 Dec 02 22:49	29°♄13'17	
direct	2833 Dec 22 19:47	13°♄31'07		direct	2834 Dec 06 17:22	27°♄51'57	
morning max el	2833 Dec 31 15:29	18°♄40'25	21°33'17		2834 Dec 11 21:40	0°♄	
greatest brilliancy	2834 Jan 05 14:36	24°♄18'27	-0.4m	morning max el	2834 Dec 14 12:41	2°♄20'04	20°18'07
	2834 Jan 09 23:35	0°♄		greatest brilliancy	2834 Dec 21 01:25	10°♄07'26	-0.5m
desc. node	2834 Jan 16 04:54	8°♄43'46		desc. node	2835 Jan 03 01:56	28°♄54'33	
	2834 Jan 30 07:10	0°♄			2835 Jan 03 19:18	0°♄	
morning set	2834 Feb 01 08:12	3°♄13'21		morning set	2835 Jan 11 06:16	11°♄24'03	
max. Earth dist.	2834 Feb 08 01:38	14°♄06'42	1.41884 AU	max. Earth dist.	2835 Jan 21 09:33	27°♄21'36	1.43611 AU
					2835 Jan 23 00:52	0°♄	
superior conj	2834 Feb 15 14:49	26°♄54'12	-2°-5'-20	superior conj	2835 Jan 27 09:22	7°♄06'51	-2°-2'-7
minimum elong	2834 Feb 15 16:14	27°♄00'20	2°05'19	minimum elong	2835 Jan 27 05:31	6°♄50'59	2°01'59
	2834 Feb 17 09:20	0°♄		evening rise	2835 Feb 09 01:41	28°♄40'57	
evening rise	2834 Feb 26 15:21	16°♄40'04			2835 Feb 09 19:50	0°♄	
	2834 Mar 06 01:47	0°♄		asc. node	2835 Feb 22 07:03	20°♄37'52	
asc. node	2834 Mar 07 10:02	2°♄15'36		evening max el	2835 Feb 26 13:44	25°♄52'25	18°09'05
evening max el	2834 Mar 15 01:25	12°♄41'15	18°10'01	retrograde	2835 Mar 05 00:51	29°♄15'56	
retrograde	2834 Mar 21 20:46	16°♄07'42		evening set	2835 Mar 07 19:32	28°♄37'07	
evening set	2834 Mar 24 10:05	15°♄39'09		inferior conj	2835 Mar 14 02:47	23°♄24'24	3°37'33
inferior conj	2834 Mar 31 06:10	10°♄47'20	3°14'53	minimum elong	2835 Mar 14 03:45	23°♄21'53	3°37'29
minimum elong	2834 Mar 31 09:00	10°♄40'47	3°14'25	min. Earth dist.	2835 Mar 16 22:31	20°♄27'38	0.62499 AU
min. Earth dist.	2834 Apr 03 13:39	7°♄45'43	0.60385 AU	morning rise	2835 Mar 20 09:41	17°♄23'03	
morning rise	2834 Apr 07 04:34	5°♄00'00		direct	2835 Mar 27 07:29	14°♄48'58	
direct	2834 Apr 13 19:53	2°♄53'22					

desc. node	2835 Apr 01 01:07	15° ✕ 52'48		min. Earth dist.	2836 Feb 27 17:01	3° ✕ 53'45	0.64353 AU
morning max el	2835 Apr 10 08:07	22° ✕ 45'34	27°50'05	morning rise	2836 Mar 02 07:31	0° ✕ 17'07	
	2835 Apr 16 18:03	0° Υ			2836 Mar 02 15:59	30° ℞	
	2835 May 06 06:45	0° ♄		direct	2836 Mar 09 03:00	27° ≈ 28'47	
morning set	2835 May 14 03:35	15° ♄ 04'40			2836 Mar 16 07:46	0° ✕	
max. Earth dist.	2835 May 19 17:46	26° ♄ 45'44	1.32584 AU	desc. node	2836 Mar 17 22:09	1° ✕ 07'17	
asc. node	2835 May 21 06:21	0° ♊ 02'56		morning max el	2836 Mar 22 17:19	5° ✕ 21'59	27°26'17
	2835 May 21 05:49	0° ♊			2836 Apr 10 10:53	0° Υ	
				morning set	2836 Apr 26 20:59	28° Υ 55'14	
superior conj	2835 May 21 17:37	1° ♊ 04'01	0°04'58		2836 Apr 27 10:08	0° ♄	
minimum elong	2835 May 21 17:23	1° ♊ 02'44	0°04'55	max. Earth dist.	2836 May 01 18:17	8° ♄ 47'22	1.33431 AU
behind sun begin	2835 May 21 12:25	0° ♊ 35'49					
behind sun end	2835 May 21 22:21	1° ♊ 29'40		superior conj	2836 May 04 22:53	15° ♄ 29'37	0°-22'-46
evening rise	2835 May 28 17:21	16° ♊ 11'52		minimum elong	2836 May 05 00:02	15° ♄ 35'44	0°22'32
	2835 Jun 04 13:57	0° ♄		asc. node	2836 May 07 03:23	20° ♄ 09'48	
evening max el	2835 Jun 22 00:22	25° ♄ 07'35	23°59'10		2836 May 11 17:54	0° ♊	
desc. node	2835 Jun 28 00:26	29° ♄ 46'46		evening rise	2836 May 12 04:43	0° ♊ 56'57	
	2835 Jun 28 09:50	0° ♊			2836 May 28 17:22	0° ♄	
retrograde	2835 Jul 05 18:42	2° ♊ 02'58		evening max el	2836 Jun 02 15:13	5° ♄ 34'42	22°22'42
evening set	2835 Jul 10 06:06	1° ♊ 18'45		desc. node	2836 Jun 13 21:24	11° ♄ 54'33	
	2835 Jul 13 09:58	30° ℞		retrograde	2836 Jun 15 15:07	12° ♄ 01'30	
min. Earth dist.	2835 Jul 16 10:53	28° ♄ 18'33	0.56309 AU	evening set	2836 Jun 18 15:57	11° ♄ 41'09	
inferior conj	2835 Jul 18 21:01	26° ♄ 49'24	-4°-48'-25	min. Earth dist.	2836 Jun 26 21:56	8° ♄ 06'42	0.55162 AU
minimum elong	2835 Jul 18 16:17	26° ♄ 56'43	4°47'52	inferior conj	2836 Jun 27 22:09	7° ♄ 32'27	-3°-45'-33
morning rise	2835 Jul 27 05:54	22° ♄ 50'55		minimum elong	2836 Jun 27 14:00	7° ♄ 44'00	3°43'26
direct	2835 Jul 29 23:29	22° ♄ 31'37		morning rise	2836 Jul 06 14:19	3° ♄ 41'37	
morning max el	2835 Aug 08 21:18	27° ♄ 07'34	19°51'10	direct	2836 Jul 09 15:07	3° ♄ 20'48	
	2835 Aug 11 14:43	0° ♊		morning max el	2836 Jul 21 04:14	8° ♄ 43'06	21°12'25
asc. node	2835 Aug 17 05:33	7° ♊ 53'56		asc. node	2836 Aug 03 02:37	26° ♄ 43'17	
morning set	2835 Aug 26 17:10	25° ♊ 35'22			2836 Aug 04 21:01	0° ♊	
	2835 Aug 28 21:18	0° ♊		morning set	2836 Aug 10 01:11	10° ♊ 19'24	
superior conj	2835 Sep 03 14:06	11° ♊ 31'43	1°44'43	superior conj	2836 Aug 17 11:15	25° ♊ 48'53	1°43'38
minimum elong	2835 Sep 03 14:42	11° ♊ 34'41	1°44'42	minimum elong	2836 Aug 17 10:21	25° ♊ 44'18	1°43'36
max. Earth dist.	2835 Sep 09 08:10	22° ♊ 40'48	1.37165 AU		2836 Aug 19 12:11	0° ♊	
evening rise	2835 Sep 13 04:18	29° ♊ 44'42		max. Earth dist.	2836 Aug 21 18:10	4° ♊ 31'31	1.35376 AU
	2835 Sep 13 07:42	0° ♊		evening rise	2836 Aug 26 00:29	12° ♊ 47'43	
desc. node	2835 Sep 23 23:46	18° ♊ 00'18			2836 Sep 04 17:26	0° ♊	
	2835 Oct 01 22:29	0° ♊		desc. node	2836 Sep 09 20:46	8° ♊ 13'27	
evening max el	2835 Oct 18 21:58	21° ♊ 03'24	25°33'39		2836 Sep 25 23:11	0° ♊	
retrograde	2835 Oct 31 02:24	28° ♊ 02'52		evening max el	2836 Sep 30 10:07	4° ♊ 41'37	26°34'10
evening set	2835 Nov 06 00:58	25° ♊ 34'59		retrograde	2836 Oct 13 07:59	11° ♊ 55'26	
min. Earth dist.	2835 Nov 10 10:51	20° ♊ 44'35	0.67062 AU	evening set	2836 Oct 19 20:01	9° ♊ 16'46	
inferior conj	2835 Nov 11 15:48	19° ♊ 11'50	0°-31'-44	min. Earth dist.	2836 Oct 23 22:35	5° ♊ 02'49	0.66125 AU
minimum elong	2835 Nov 11 16:37	19° ♊ 09'12	0°31'25	inferior conj	2836 Oct 25 15:07	3° ♊ 01'17	-1°-30'-30
asc. node	2835 Nov 13 04:44	17° ♊ 15'49		minimum elong	2836 Oct 25 17:34	2° ♊ 53'56	1°29'30
morning rise	2835 Nov 17 09:04	13° ♊ 14'32			2836 Oct 28 06:45	30° ℞	
direct	2835 Nov 20 15:56	12° ♊ 12'18		asc. node	2836 Oct 30 01:47	28° ♊ 20'07	
morning max el	2835 Nov 27 17:46	16° ♊ 10'12	19°16'51	morning rise	2836 Oct 31 16:27	27° ♊ 14'55	
greatest brilliancy	2835 Dec 07 11:59	28° ♊ 47'44	-0.7m	direct	2836 Nov 03 13:43	26° ♊ 28'09	
	2835 Dec 08 07:36	0° ♊		morning max el	2836 Nov 10 05:14	0° ♊ 06'32	18°31'16
desc. node	2835 Dec 20 23:00	19° ♊ 20'47			2836 Nov 10 02:37	0° ♊	
morning set	2835 Dec 21 07:10	19° ♊ 25'30		morning set	2836 Nov 30 07:51	29° ♊ 35'36	
	2835 Dec 27 19:17	0° ♊			2836 Nov 30 13:57	0° ♊	
max. Earth dist.	2836 Jan 04 00:21	11° ♊ 18'47	1.44752 AU	desc. node	2836 Dec 06 20:02	9° ♊ 25'28	
superior conj	2836 Jan 07 02:32	16° ♊ 12'33	-1°-40'-7	superior conj	2836 Dec 16 04:49	24° ♊ 43'09	-1°00'-27
minimum elong	2836 Jan 06 17:56	15° ♊ 38'21	1°39'24	minimum elong	2836 Dec 15 21:21	24° ♊ 13'51	0°59'33
	2836 Jan 15 16:12	0° ≈		max. Earth dist.	2836 Dec 16 18:35	25° ♊ 37'08	1.45189 AU
evening rise	2836 Jan 21 15:05	9° ≈ 47'12			2836 Dec 19 13:35	0° ♊	
	2836 Feb 03 01:05	0° ✕		evening rise	2837 Jan 01 05:05	19° ♊ 55'49	
asc. node	2836 Feb 09 04:03	8° ✕ 16'08			2837 Jan 07 13:30	0° ≈	
evening max el	2836 Feb 10 02:05	9° ✕ 14'44	18°26'52	evening max el	2837 Jan 23 11:58	22° ≈ 42'19	19°02'29
retrograde	2836 Feb 16 14:23	12° ✕ 48'19		asc. node	2837 Jan 26 01:04	24° ≈ 57'09	
evening set	2836 Feb 19 14:30	11° ✕ 58'26		retrograde	2837 Jan 30 09:27	26° ≈ 36'56	
inferior conj	2836 Feb 25 12:30	6° ✕ 26'33	3°39'16	evening set	2837 Feb 02 15:54	25° ≈ 34'55	
minimum elong	2836 Feb 25 11:45	6° ✕ 28'44	3°39'14	inferior conj	2837 Feb 08 07:36	19° ≈ 46'10	3°25'27

minimum elong	2837 Feb 08 05:42	19° \approx 52'12	3°25'10	inferior conj	2838 Jan 23 09:09	3° \approx 18'34	2°59'52
min. Earth dist.	2837 Feb 09 20:46	17° \approx 48'53	0.65836 AU	minimum elong	2838 Jan 23 06:40	3° \approx 26'51	2°59'17
morning rise	2837 Feb 13 18:31	13° \approx 32'30		min. Earth dist.	2838 Jan 24 08:07	2° \approx 01'56	0.66914 AU
direct	2837 Feb 20 05:19	10° \approx 43'40			2838 Jan 25 22:00	30° \approx 03'13	
desc. node	2837 Mar 04 19:12	18° \approx 01'33		morning rise	2838 Jan 28 15:21	27° \approx 03'13	
morning max el	2837 Mar 05 03:15	18° \approx 21'43	26°32'07	direct	2838 Feb 03 13:29	24° \approx 25'30	
	2837 Mar 14 23:06	0° \approx			2838 Feb 13 21:46	0° \approx	
	2837 Apr 03 10:22	0° \approx		morning max el	2838 Feb 15 12:08	1° \approx 33'14	25°16'29
morning set	2837 Apr 10 02:49	12° \approx 07'29		desc. node	2838 Feb 19 16:15	6° \approx 07'25	
max. Earth dist.	2837 Apr 14 07:43	20° \approx 14'56	1.34733 AU		2838 Mar 09 00:27	0° \approx	
				morning set	2838 Mar 23 16:24	24° \approx 27'57	
superior conj	2837 Apr 18 21:54	29° \approx 31'38	0°-51'-13		2838 Mar 26 16:59	0° \approx	
minimum elong	2837 Apr 19 00:33	29° \approx 45'18	0°50'44	max. Earth dist.	2838 Mar 27 09:40	1° \approx 17'45	1.36480 AU
	2837 Apr 19 03:24	0° \approx					
asc. node	2837 Apr 24 00:25	10° \approx 10'02		superior conj	2838 Apr 02 11:53	13° \approx 02'40	-1°-18'-44
evening rise	2837 Apr 26 13:42	15° \approx 29'23		minimum elong	2838 Apr 02 15:50	13° \approx 22'15	1°18'09
	2837 May 03 23:32	0° \approx		evening rise	2838 Apr 10 18:10	29° \approx 43'01	
evening max el	2837 May 15 14:34	16° \approx 22'51	20°54'34	asc. node	2838 Apr 10 21:27	29° \approx 59'34	
retrograde	2837 May 27 04:20	22° \approx 01'43			2838 Apr 10 21:32	0° \approx	
evening set	2837 May 29 08:14	21° \approx 50'38		evening max el	2838 Apr 28 01:56	27° \approx 49'48	19°42'57
desc. node	2837 May 31 18:25	21° \approx 13'44			2838 Apr 30 15:31	0° \approx	
inferior conj	2837 Jun 07 15:42	17° \approx 53'04	-1°-59'-55	retrograde	2838 May 07 21:42	2° \approx 35'12	
minimum elong	2837 Jun 07 10:06	18° \approx 01'01	1°57'58	evening set	2838 May 09 21:36	2° \approx 24'18	
min. Earth dist.	2837 Jun 08 10:06	17° \approx 26'56	0.54898 AU		2838 May 15 22:58	30° \approx 03'13	
morning rise	2837 Jun 16 11:18	13° \approx 50'11		inferior conj	2838 May 18 16:11	28° \approx 21'58	0°00'-30
direct	2837 Jun 20 00:25	13° \approx 23'04		minimum elong	2838 May 18 16:09	28° \approx 22'00	0°00'31
morning max el	2837 Jul 03 00:52	19° \approx 37'14	22°49'28	transit middle	2838 May 18 16:09	28° \approx 22'00	0°00'31
	2837 Jul 11 15:53	0° \approx		transit begin	2838 May 18 12:13	28° \approx 28'08	
asc. node	2837 Jul 20 23:41	16° \approx 01'48		transit end	2838 May 18 20:06	28° \approx 15'51	
morning set	2837 Jul 25 12:00	25° \approx 12'01		desc. node	2838 May 18 15:28	28° \approx 23'05	
	2837 Jul 27 18:22	0° \approx		min. Earth dist.	2838 May 20 23:55	26° \approx 55'23	0.55604 AU
				morning rise	2838 May 27 07:19	23° \approx 50'06	
superior conj	2837 Aug 01 15:30	10° \approx 27'18	1°36'04	direct	2838 May 31 17:00	23° \approx 06'59	
minimum elong	2837 Aug 01 13:38	10° \approx 17'20	1°35'54	morning max el	2838 Jun 14 15:35	0° \approx 05'14	24°31'59
max. Earth dist.	2837 Aug 04 12:59	16° \approx 33'47	1.33953 AU		2838 Jun 14 13:22	0° \approx	
evening rise	2837 Aug 09 11:00	26° \approx 32'40			2838 Jul 05 00:25	0° \approx	
	2837 Aug 11 05:37	0° \approx		asc. node	2838 Jul 07 20:44	5° \approx 41'25	
desc. node	2837 Aug 27 17:46	28° \approx 03'30		morning set	2838 Jul 09 23:50	10° \approx 07'29	
	2837 Aug 29 01:36	0° \approx					
evening max el	2837 Sep 12 22:18	18° \approx 09'55	27°13'55	superior conj	2838 Jul 17 00:16	25° \approx 18'12	1°23'08
retrograde	2837 Sep 26 08:05	25° \approx 28'27		minimum elong	2838 Jul 16 21:56	25° \approx 05'31	1°22'49
evening set	2837 Oct 03 06:51	22° \approx 46'31		max. Earth dist.	2838 Jul 18 16:37	28° \approx 56'51	1.32941 AU
min. Earth dist.	2837 Oct 07 02:49	19° \approx 08'36	0.64838 AU		2838 Jul 19 04:21	0° \approx	
inferior conj	2837 Oct 09 07:37	16° \approx 43'20	-2°-30'-12	evening rise	2838 Jul 24 07:52	10° \approx 47'37	
minimum elong	2837 Oct 09 11:43	16° \approx 32'04	2°28'40		2838 Aug 03 12:27	0° \approx	
morning rise	2837 Oct 15 18:31	11° \approx 10'57		desc. node	2838 Aug 14 14:48	17° \approx 20'10	
asc. node	2837 Oct 16 22:52	10° \approx 46'09			2838 Aug 25 02:00	0° \approx	
direct	2837 Oct 18 08:39	10° \approx 35'38		evening max el	2838 Aug 26 08:56	1° \approx 15'35	27°26'10
morning max el	2837 Oct 24 20:37	14° \approx 03'45	18°02'24	retrograde	2838 Sep 09 01:47	8° \approx 32'17	
	2837 Nov 05 02:34	0° \approx		evening set	2838 Sep 16 06:16	5° \approx 57'33	
morning set	2837 Nov 11 13:56	10° \approx 46'05		min. Earth dist.	2838 Sep 19 21:34	2° \approx 51'59	0.63214 AU
	2837 Nov 23 06:50	0° \approx		inferior conj	2838 Sep 22 14:35	0° \approx 11'07	-3°-27'-50
desc. node	2837 Nov 23 17:04	0° \approx 41'09		minimum elong	2838 Sep 22 19:56	29° \approx 57'52	3°26'12
					2838 Sep 22 19:04	30° \approx 03'13	
superior conj	2837 Nov 25 13:00	3° \approx 37'12	0°-12'-24	morning rise	2838 Sep 29 12:04	24° \approx 56'00	
minimum elong	2837 Nov 25 11:28	3° \approx 31'05	0°12'12	direct	2838 Oct 01 21:49	24° \approx 28'32	
behind sun begin	2837 Nov 25 04:25	3° \approx 02'53		asc. node	2838 Oct 03 19:56	24° \approx 46'27	
behind sun end	2837 Nov 25 18:31	3° \approx 59'15		morning max el	2838 Oct 08 12:59	27° \approx 54'24	17°51'04
max. Earth dist.	2837 Nov 29 13:25	9° \approx 59'50	1.44891 AU		2838 Oct 10 10:35	0° \approx	
evening rise	2837 Dec 11 22:44	29° \approx 18'13		morning set	2838 Oct 24 20:48	23° \approx 08'06	
	2837 Dec 12 09:34	0° \approx			2838 Oct 28 19:10	0° \approx	
greatest brilliancy	2837 Dec 30 14:25	27° \approx 20'16	-0.6m				
	2838 Jan 01 13:17	0° \approx		superior conj	2838 Nov 05 19:44	13° \approx 38'47	0°32'20
evening max el	2838 Jan 06 17:39	6° \approx 12'46	19°54'13	minimum elong	2838 Nov 05 22:54	13° \approx 51'54	0°31'53
asc. node	2838 Jan 12 22:07	10° \approx 26'43		desc. node	2838 Nov 10 14:06	21° \approx 28'01	
retrograde	2838 Jan 14 07:04	10° \approx 37'03		max. Earth dist.	2838 Nov 12 06:19	24° \approx 10'13	1.43899 AU
evening set	2838 Jan 17 21:20	9° \approx 21'34			2838 Nov 15 22:12	0° \approx	

evening rise	2838 Nov 21 07:30	8°♂24'19		greatest brilliancy	2839 Nov 28 19:24	27°♂57'28	-0.3m
	2838 Dec 05 16:26	0°♂			2839 Nov 30 12:37	0°♂	
greatest brilliancy	2838 Dec 15 09:07	13°♂27'13	-0.5m	evening max el	2839 Dec 03 12:44	3°♂16'31	22°14'30
evening max el	2838 Dec 20 17:56	19°♂44'00	20°59'30	retrograde	2839 Dec 13 01:09	8°♂56'13	
retrograde	2838 Dec 29 04:52	24°♂44'26		evening set	2839 Dec 17 12:27	7°♂09'21	
asc. node	2838 Dec 30 19:11	24°♂30'21		asc. node	2839 Dec 17 16:13	7°♂01'36	
evening set	2839 Jan 02 04:45	23°♂13'53		inferior conj	2839 Dec 22 21:59	0°♂47'04	1°42'45
inferior conj	2839 Jan 07 14:37	16°♂59'34	2°25'03	minimum elong	2839 Dec 22 19:54	0°♂54'20	1°41'58
minimum elong	2839 Jan 07 12:06	17°♂08'15	2°24'16	min. Earth dist.	2839 Dec 22 20:43	0°♂51'28	0.67889 AU
min. Earth dist.	2839 Jan 08 00:52	16°♂24'21	0.67590 AU		2839 Dec 23 11:36	30°♂♂	
morning rise	2839 Jan 12 19:02	10°♂44'32		morning rise	2839 Dec 28 03:12	24°♂34'08	
direct	2839 Jan 18 02:28	8°♂25'41		direct	2840 Jan 01 19:30	22°♂37'54	
morning max el	2839 Jan 28 20:32	14°♂50'10	23°49'41	morning max el	2840 Jan 11 07:29	28°♂13'47	22°21'26
desc. node	2839 Feb 06 13:18	25°♂03'49			2840 Jan 12 23:52	0°♂	
	2839 Feb 10 05:40	0°♂		greatest brilliancy	2840 Jan 15 21:04	3°♂19'58	-0.3m
	2839 Mar 01 23:00	0°♂		desc. node	2840 Jan 24 10:20	14°♂36'35	
morning set	2839 Mar 05 07:44	5°♂40'08			2840 Feb 03 22:30	0°♂	
max. Earth dist.	2839 Mar 09 05:07	12°♂26'38	1.38550 AU	morning set	2840 Feb 13 19:05	15°♂30'05	
				max. Earth dist.	2840 Feb 19 01:59	24°♂15'59	1.40711 AU
superior conj	2839 Mar 16 13:09	25°♂53'00	-1°-42'-55		2840 Feb 22 10:22	0°♂	
minimum elong	2839 Mar 16 17:38	26°♂14'10	1°42'27	superior conj	2840 Feb 26 21:01	7°♂50'19	-2°00'-15
	2839 Mar 18 17:00	0°♂		minimum elong	2840 Feb 27 00:18	8°♂05'02	2°00'05
evening rise	2839 Mar 25 15:29	13°♂30'40		evening rise	2840 Mar 08 02:21	26°♂43'32	
asc. node	2839 Mar 28 18:30	19°♂33'37			2840 Mar 09 20:18	0°♂	
	2839 Apr 03 13:48	0°♂		asc. node	2840 Mar 14 15:32	8°♂45'40	
evening max el	2839 Apr 11 00:16	9°♂56'26	18°51'02	evening max el	2840 Mar 24 06:31	22°♂34'29	18°19'16
retrograde	2839 Apr 19 07:04	13°♂58'44		retrograde	2840 Mar 31 11:35	26°♂09'46	
evening set	2839 Apr 21 11:14	13°♂43'08		evening set	2840 Apr 02 21:32	25°♂46'33	
inferior conj	2839 Apr 29 10:44	9°♂24'04	1°40'45	inferior conj	2840 Apr 10 02:40	21°♂06'41	2°49'44
minimum elong	2839 Apr 29 14:11	9°♂17'51	1°39'40	minimum elong	2840 Apr 10 06:18	20°♂58'58	2°48'55
min. Earth dist.	2839 May 02 16:10	7°♂05'09	0.57119 AU	min. Earth dist.	2840 Apr 13 13:03	18°♂13'38	0.59129 AU
desc. node	2839 May 05 12:29	5°♂17'26		morning rise	2840 Apr 17 11:08	15°♂31'11	
morning rise	2839 May 07 12:47	4°♂17'39		desc. node	2840 Apr 21 09:30	13°♂59'49	
direct	2839 May 12 22:51	3°♂06'48		direct	2840 Apr 23 17:54	13°♂44'57	
morning max el	2839 May 27 06:39	10°♂34'45	26°05'08	morning max el	2840 May 08 02:51	21°♂31'08	27°13'46
	2839 Jun 11 03:14	0°♂			2840 May 15 12:30	0°♂	
morning set	2839 Jun 24 11:07	25°♂00'56		morning set	2840 Jun 02 23:56	0°♂	
asc. node	2839 Jun 24 17:47	25°♂36'07		asc. node	2840 Jun 07 20:05	9°♂45'36	
	2839 Jun 26 19:06	0°♂			2840 Jun 10 14:49	15°♂39'47	
superior conj	2839 Jul 01 11:29	10°♂15'01	1°05'43	superior conj	2840 Jun 14 23:15	25°♂10'30	0°44'29
minimum elong	2839 Jul 01 09:11	10°♂02'22	1°05'19	minimum elong	2840 Jun 14 21:27	25°♂00'32	0°44'08
max. Earth dist.	2839 Jul 02 02:23	11°♂36'59	1.32334 AU	max. Earth dist.	2840 Jun 14 14:30	24°♂22'16	1.32115 AU
evening rise	2839 Jul 08 11:57	25°♂23'06			2840 Jun 17 03:50	0°♂	
	2839 Jul 10 17:56	0°♂		evening rise	2840 Jun 21 20:36	10°♂09'43	
	2839 Jul 28 03:35	0°♂			2840 Jul 02 01:27	0°♂	
desc. node	2839 Aug 01 11:50	5°♂49'32		desc. node	2840 Jul 18 08:50	23°♂11'16	
evening max el	2839 Aug 08 15:18	13°♂45'04	27°06'08	evening max el	2840 Jul 20 14:47	25°♂27'21	26°13'08
retrograde	2839 Aug 22 12:13	20°♂58'07			2840 Jul 26 09:02	0°♂	
evening set	2839 Aug 29 14:15	18°♂43'06		retrograde	2840 Aug 03 14:17	2°♂37'37	
min. Earth dist.	2839 Sep 02 05:35	16°♂00'46	0.61307 AU	evening set	2840 Aug 10 01:57	0°♂54'34	
inferior conj	2839 Sep 05 08:48	13°♂16'38	-4°-18'-31		2840 Aug 11 16:23	30°♂♂	
minimum elong	2839 Sep 05 14:15	13°♂04'41	4°17'21	min. Earth dist.	2840 Aug 14 03:33	28°♂19'38	0.59242 AU
morning rise	2839 Sep 12 17:15	8°♂22'23		inferior conj	2840 Aug 17 10:39	25°♂49'32	-4°-54'-8
direct	2839 Sep 15 01:37	7°♂59'44		minimum elong	2840 Aug 17 14:01	25°♂43'05	4°53'50
asc. node	2839 Sep 20 16:59	10°♂15'31		morning rise	2840 Aug 25 05:33	21°♂18'37	
morning max el	2839 Sep 22 03:17	11°♂31'28	17°58'20	direct	2840 Aug 27 15:26	20°♂58'36	
	2839 Oct 04 10:14	0°♂		morning max el	2840 Sep 04 12:20	24°♂45'55	18°25'30
morning set	2839 Oct 07 22:05	6°♂22'58		asc. node	2840 Sep 06 14:01	26°♂58'53	
					2840 Sep 08 21:53	0°♂	
superior conj	2839 Oct 18 05:33	25°♂00'11	1°06'49	morning set	2840 Sep 20 12:24	20°♂14'59	
minimum elong	2839 Oct 18 09:56	25°♂19'25	1°06'18		2840 Sep 25 14:34	0°♂	
	2839 Oct 21 02:47	0°♂		superior conj	2840 Sep 29 14:40	7°♂30'20	1°29'38
max. Earth dist.	2839 Oct 25 18:55	7°♂51'59	1.42332 AU	minimum elong	2840 Sep 29 18:03	7°♂45'59	1°29'20
desc. node	2839 Oct 28 11:08	12°♂15'04		max. Earth dist.	2840 Oct 07 02:00	20°♂51'27	1.40380 AU
evening rise	2839 Nov 01 00:09	17°♂55'58					
	2839 Nov 08 19:23	0°♂					

evening rise	2840 Oct 11 13:01	28° Ω 23'56		max. Earth dist.	2841 Sep 19 05:43	3° Ω 08'08	1.38309 AU
	2840 Oct 12 12:18	0° \mathbb{M}		evening rise	2841 Sep 23 01:40	9° Ω 57'58	
desc. node	2840 Oct 14 08:10	2° \mathbb{M} 58'45		desc. node	2841 Oct 01 05:10	23° Ω 34'39	
	2840 Nov 01 09:02	0° \mathcal{A}			2841 Oct 05 07:40	0° \mathbb{M}	
evening max el	2840 Nov 15 03:15	16° \mathcal{A} 51'54	23°34'15		2841 Oct 28 03:12	0° \mathcal{A}	
retrograde	2840 Nov 25 18:35	23° \mathcal{A} 09'11		evening max el	2841 Oct 28 15:38	0° \mathcal{A} 30'57	24°52'24
evening set	2840 Nov 30 18:50	21° \mathcal{A} 05'33		retrograde	2841 Nov 09 08:03	7° \mathcal{A} 18'29	
asc. node	2840 Dec 03 13:13	18° \mathcal{A} 11'43		evening set	2841 Nov 14 22:16	4° \mathcal{A} 58'55	
min. Earth dist.	2840 Dec 05 17:24	15° \mathcal{A} 20'25	0.67832 AU		2841 Nov 19 08:52	30° $\mathbb{R}\mathbb{M}$	
inferior conj	2840 Dec 06 05:26	14° \mathcal{A} 39'17	0°54'18	min. Earth dist.	2841 Nov 19 12:34	29° \mathbb{M} 47'52	0.67437 AU
minimum elong	2840 Dec 06 04:12	14° \mathcal{A} 43'32	0°53'47	inferior conj	2841 Nov 20 11:12	28° \mathbb{M} 33'08	0°00'49
morning rise	2840 Dec 11 13:42	8° \mathcal{A} 30'24		minimum elong	2841 Nov 20 11:11	28° \mathbb{M} 33'12	0°00'48
direct	2840 Dec 15 15:41	6° \mathcal{A} 56'59		transit middle	2841 Nov 20 11:11	28° \mathbb{M} 33'12	0°00'48
morning max el	2840 Dec 24 00:26	11° \mathcal{A} 47'45	20°59'50	transit begin	2841 Nov 20 08:25	28° \mathbb{M} 42'19	
greatest brilliancy	2840 Dec 29 12:32	18° \mathcal{A} 09'14	-0.5m	transit end	2841 Nov 20 13:56	28° \mathbb{M} 24'05	
	2841 Jan 07 03:43	0° \mathcal{B}		asc. node	2841 Nov 20 10:15	28° \mathbb{M} 36'14	
desc. node	2841 Jan 10 07:23	4° \mathcal{B} 35'51		morning rise	2841 Nov 26 00:37	22° \mathbb{M} 30'38	
morning set	2841 Jan 23 03:01	24° \mathcal{B} 05'07		direct	2841 Nov 29 13:51	21° \mathbb{M} 17'58	
	2841 Jan 26 20:57	0° \approx		morning max el	2841 Dec 07 01:03	25° \mathbb{M} 32'21	19°50'09
max. Earth dist.	2841 Jan 31 05:13	6° \approx 59'53	1.42671 AU		2841 Dec 10 22:57	0° \mathcal{A}	
				greatest brilliancy	2841 Dec 14 14:33	4° \mathcal{A} 49'45	-0.6m
superior conj	2841 Feb 07 06:21	18° \approx 43'20	-2°-6'-3	desc. node	2841 Dec 28 04:25	24° \mathcal{A} 53'51	
minimum elong	2841 Feb 07 05:47	18° \approx 40'55	2°06'04		2841 Dec 31 12:15	0° \mathcal{B}	
	2841 Feb 13 18:38	0° \mathcal{H}		morning set	2842 Jan 01 22:54	2° \mathcal{B} 13'33	
evening rise	2841 Feb 18 22:55	9° \mathcal{H} 13'18		max. Earth dist.	2842 Jan 13 15:42	20° \mathcal{B} 32'34	1.44174 AU
asc. node	2841 Mar 01 12:33	27° \mathcal{H} 28'45					
	2841 Mar 03 04:46	0° \mathcal{Y}		superior conj	2842 Jan 18 13:37	28° \mathcal{B} 25'48	-1°-55'-12
evening max el	2841 Mar 07 17:29	5° \mathcal{Y} 35'48	18°07'16	minimum elong	2842 Jan 18 07:21	28° \mathcal{B} 00'25	1°54'50
retrograde	2841 Mar 14 08:17	8° \mathcal{Y} 59'40			2842 Jan 19 12:49	0° \approx	
evening set	2841 Mar 16 23:46	8° \mathcal{Y} 27'02		evening rise	2842 Feb 01 00:46	20° \approx 51'17	
inferior conj	2841 Mar 23 13:57	3° \mathcal{Y} 26'14	3°27'28		2842 Feb 06 09:38	0° \mathcal{H}	
minimum elong	2841 Mar 23 16:00	3° \mathcal{Y} 21'11	3°27'13	asc. node	2842 Feb 16 09:34	15° \mathcal{H} 33'46	
min. Earth dist.	2841 Mar 26 17:09	0° \mathcal{Y} 23'39	0.61295 AU	evening max el	2842 Feb 19 06:08	18° \mathcal{H} 52'22	18°14'27
	2841 Mar 27 03:27	30° $\mathbb{R}\mathcal{H}$		retrograde	2842 Feb 25 16:46	22° \mathcal{H} 18'40	
morning rise	2841 Mar 30 05:17	27° \mathcal{H} 31'39		evening set	2842 Feb 28 13:39	21° \mathcal{H} 35'23	
direct	2841 Apr 06 00:23	25° \mathcal{H} 11'55		inferior conj	2842 Mar 06 16:35	16° \mathcal{H} 14'34	3°40'26
desc. node	2841 Apr 08 06:31	25° \mathcal{H} 26'20		minimum elong	2842 Mar 06 16:46	16° \mathcal{H} 14'04	3°40'26
	2841 Apr 16 18:32	0° \mathcal{Y}		min. Earth dist.	2842 Mar 09 06:11	13° \mathcal{H} 25'45	0.63329 AU
morning max el	2841 Apr 20 05:24	3° \mathcal{Y} 07'51	27°47'40	morning rise	2842 Mar 12 17:57	10° \mathcal{H} 09'11	
	2841 May 10 00:26	0° \mathcal{B}		direct	2842 Mar 19 15:51	7° \mathcal{H} 26'52	
morning set	2841 May 23 00:53	24° \mathcal{B} 15'09		desc. node	2842 Mar 26 03:33	9° \mathcal{H} 26'50	
	2841 May 25 18:59	0° \mathbb{I}		morning max el	2842 Apr 02 12:40	15° \mathcal{H} 23'51	27°44'04
asc. node	2841 May 28 11:51	5° \mathbb{I} 47'58			2842 Apr 14 11:20	0° \mathcal{Y}	
max. Earth dist.	2841 May 29 01:01	6° \mathbb{I} 59'30	1.32289 AU		2842 May 02 15:52	0° \mathcal{B}	
				morning set	2842 May 06 23:14	8° \mathcal{B} 22'15	
superior conj	2841 May 30 09:55	9° \mathbb{I} 59'01	0°20'08	max. Earth dist.	2842 May 12 06:03	19° \mathcal{B} 15'59	1.32880 AU
minimum elong	2841 May 30 09:01	9° \mathbb{I} 54'01	0°19'56				
evening rise	2841 Jun 06 07:46	25° \mathbb{I} 00'31		superior conj	2842 May 14 17:44	24° \mathcal{B} 34'48	0°-6'-38
	2841 Jun 08 17:02	0° \mathcal{E}		minimum elong	2842 May 14 18:03	24° \mathcal{B} 36'32	0°06'34
	2841 Jun 26 13:24	0° \mathcal{Q}		behind sun begin	2842 May 14 13:13	24° \mathcal{B} 10'28	
evening max el	2841 Jul 02 07:11	6° \mathcal{Q} 24'05	24°52'58	behind sun end	2842 May 14 22:54	25° \mathcal{B} 02'38	
desc. node	2841 Jul 05 05:49	8° \mathcal{Q} 58'18		asc. node	2842 May 15 08:53	25° \mathcal{B} 56'31	
retrograde	2841 Jul 16 06:10	13° \mathcal{Q} 28'32			2842 May 17 05:55	0° \mathbb{I}	
evening set	2841 Jul 21 13:49	12° \mathcal{Q} 24'10		evening rise	2842 May 21 19:34	9° \mathbb{I} 49'23	
min. Earth dist.	2841 Jul 26 18:37	9° \mathcal{Q} 37'32	0.57267 AU		2842 Jun 01 06:20	0° \mathcal{E}	
inferior conj	2841 Jul 29 17:05	7° \mathcal{Q} 41'10	-5°-2'-15	evening max el	2842 Jun 13 20:42	16° \mathcal{E} 54'09	23°18'06
minimum elong	2841 Jul 29 15:40	7° \mathcal{Q} 43'32	5°02'12	desc. node	2842 Jun 22 02:48	22° \mathcal{E} 36'31	
morning rise	2841 Aug 06 21:14	3° \mathcal{Q} 32'32		retrograde	2842 Jun 27 09:33	23° \mathcal{E} 39'55	
direct	2841 Aug 09 11:12	3° \mathcal{Q} 13'31		evening set	2842 Jul 01 05:06	23° \mathcal{E} 08'05	
morning max el	2841 Aug 18 12:57	7° \mathcal{Q} 28'18	19°13'41	min. Earth dist.	2842 Jul 08 06:28	19° \mathcal{E} 54'46	0.55720 AU
asc. node	2841 Aug 24 11:03	14° \mathcal{Q} 41'37		inferior conj	2842 Jul 10 03:45	18° \mathcal{E} 48'10	-4°-28'00
	2841 Sep 02 04:18	0° \mathbb{M}		minimum elong	2842 Jul 09 20:57	18° \mathcal{E} 58'13	4°26'46
morning set	2841 Sep 04 11:47	4° \mathbb{M} 33'16		morning rise	2842 Jul 18 15:52	14° \mathcal{E} 54'34	
				direct	2842 Jul 21 12:05	14° \mathcal{E} 34'57	
superior conj	2841 Sep 12 17:28	20° \mathbb{M} 52'47	1°41'50	morning max el	2842 Aug 01 02:37	19° \mathcal{E} 30'02	20°23'19
minimum elong	2841 Sep 12 19:05	21° \mathbb{M} 00'37	1°41'45		2842 Aug 09 09:48	0° \mathcal{Q}	
	2841 Sep 17 12:45	0° \mathcal{Q}		asc. node	2842 Aug 11 08:07	3° \mathcal{Q} 10'30	

morning set	2842 Aug 19 17:24	19°♂10'34		asc. node	2843 Jul 29 05:11	22°♂13'25	
	2842 Aug 24 23:32	0°♂			2843 Aug 02 04:24	0°♂	
superior conj	2842 Aug 27 09:07	4°♂54'00	1°45'08	morning set	2843 Aug 04 02:52	3°♂59'16	
minimum elong	2842 Aug 27 09:02	4°♂53'34	1°45'07	superior conj	2843 Aug 11 09:39	19°♂21'19	1°41'09
max. Earth dist.	2842 Sep 01 12:05	15°♂02'33	1.36368 AU	minimum elong	2843 Aug 11 08:17	19°♂14'08	1°41'04
evening rise	2842 Sep 05 11:45	22°♂32'56		max. Earth dist.	2843 Aug 15 02:01	26°♂58'01	1.34725 AU
	2842 Sep 09 15:34	0°♂			2843 Aug 16 14:07	0°♂	
desc. node	2842 Sep 18 02:11	13°♂58'24		evening rise	2843 Aug 19 14:35	5°♂55'31	
	2842 Sep 29 02:10	0°♂			2843 Sep 02 08:31	0°♂	
evening max el	2842 Oct 11 03:56	14°♂12'39	26°01'29	desc. node	2843 Sep 04 23:12	4°♂03'04	
retrograde	2842 Oct 23 16:39	21°♂19'22		evening max el	2843 Sep 23 16:27	27°♂49'00	26°54'00
evening set	2842 Oct 29 20:59	18°♂46'34			2843 Sep 26 02:30	0°♂	
min. Earth dist.	2842 Nov 03 03:48	14°♂11'16	0.66709 AU	retrograde	2843 Oct 06 19:45	5°♂04'51	
inferior conj	2842 Nov 04 13:29	12°♂26'02	0°-56'-24	evening set	2843 Oct 13 12:52	2°♂23'56	
minimum elong	2842 Nov 04 14:59	12°♂21'21	0°55'46		2843 Oct 16 02:14	30°♂	
asc. node	2842 Nov 07 07:18	9°♂11'11		min. Earth dist.	2843 Oct 17 12:38	28°♂25'26	0.65630 AU
morning rise	2842 Nov 10 09:58	6°♂32'41		inferior conj	2843 Oct 19 10:14	26°♂13'22	-1°-55'-48
direct	2842 Nov 13 12:28	5°♂37'26		minimum elong	2843 Oct 19 13:24	26°♂04'12	1°54'33
morning max el	2842 Nov 20 09:02	9°♂25'54	18°55'21	asc. node	2843 Oct 25 04:22	20°♂47'21	
	2842 Dec 05 04:53	0°♂		morning rise	2843 Oct 25 15:27	20°♂32'25	
morning set	2842 Dec 12 08:13	11°♂09'35		direct	2843 Oct 28 09:30	19°♂50'49	
desc. node	2842 Dec 15 01:28	15°♂25'20		morning max el	2843 Nov 03 22:29	23°♂23'26	18°16'50
	2842 Dec 24 08:42	0°♂			2843 Nov 09 06:30	0°♂	
max. Earth dist.	2842 Dec 27 08:14	4°♂40'51	1.45037 AU	morning set	2843 Nov 22 21:40	21°♂31'31	
					2843 Nov 28 03:16	0°♂	
superior conj	2842 Dec 28 22:26	7°♂11'10	-1°-25'-5	desc. node	2843 Dec 01 22:31	6°♂05'42	
minimum elong	2842 Dec 28 13:25	6°♂35'40	1°24'09				
	2843 Jan 12 05:25	0°♂		superior conj	2843 Dec 08 00:31	15°♂44'20	0°-40'-20
evening rise	2843 Jan 13 04:14	1°♂32'30		minimum elong	2843 Dec 07 19:21	15°♂23'59	0°39'40
	2843 Jan 31 16:33	0°♂		max. Earth dist.	2843 Dec 10 03:40	19°♂05'35	1.45162 AU
evening max el	2843 Feb 02 17:47	2°♂17'56	18°39'58		2843 Dec 17 02:48	0°♂	
asc. node	2843 Feb 03 06:36	2°♂49'36		evening rise	2843 Dec 24 08:48	11°♂19'46	
retrograde	2843 Feb 09 08:56	5°♂58'48			2844 Jan 05 09:29	0°♂	
evening set	2843 Feb 12 11:41	5°♂03'48		greatest brilliancy	2844 Jan 08 06:23	4°♂18'06	-0.7m
	2843 Feb 17 18:58	30°♂		evening max el	2844 Jan 17 02:08	15°♂47'34	19°22'38
inferior conj	2843 Feb 18 06:42	29°♂24'38	3°34'59	asc. node	2844 Jan 21 03:38	19°♂02'36	
minimum elong	2843 Feb 18 05:23	29°♂28'36	3°34'52	retrograde	2844 Jan 24 05:27	19°♂53'34	
min. Earth dist.	2843 Feb 20 04:38	27°♂05'59	0.65042 AU	evening set	2844 Jan 27 15:07	18°♂45'47	
morning rise	2843 Feb 23 21:51	23°♂13'17		inferior conj	2844 Feb 02 04:53	12°♂50'29	3°15'51
direct	2843 Mar 02 14:26	20°♂23'02		minimum elong	2844 Feb 02 02:40	12°♂57'41	3°15'26
desc. node	2843 Mar 13 00:37	25°♂27'39		min. Earth dist.	2844 Feb 03 11:44	11°♂10'31	0.66349 AU
morning max el	2843 Mar 15 22:14	28°♂10'49	27°06'22	morning rise	2844 Feb 07 13:26	6°♂36'03	
	2843 Mar 17 16:06	0°♂		direct	2844 Feb 13 19:11	3°♂51'03	
	2843 Apr 08 05:29	0°♂		morning max el	2844 Feb 26 07:53	11°♂17'17	26°02'01
morning set	2843 Apr 20 12:09	21°♂57'30		desc. node	2844 Feb 27 21:41	12°♂55'48	
	2843 Apr 24 13:41	0°♂			2844 Mar 12 06:26	0°♂	
max. Earth dist.	2843 Apr 25 02:00	1°♂02'26	1.33927 AU		2844 Mar 30 20:10	0°♂	
				morning set	2844 Apr 02 11:44	4°♂49'52	
superior conj	2843 Apr 28 20:39	8°♂51'17	0°-34'-49	max. Earth dist.	2844 Apr 06 10:42	12°♂19'13	1.35430 AU
minimum elong	2843 Apr 28 22:26	9°♂00'40	0°34'29				
asc. node	2843 May 02 05:55	16°♂01'03		superior conj	2844 Apr 11 16:14	22°♂41'37	-1°-3'-7
evening rise	2843 May 06 06:11	24°♂29'50		minimum elong	2844 Apr 11 19:30	22°♂58'09	1°02'34
	2843 May 08 22:18	0°♂			2844 Apr 15 05:46	0°♂	
evening max el	2843 May 26 14:33	27°♂27'11	21°43'39	asc. node	2844 Apr 18 02:58	5°♂57'48	
	2843 May 29 13:22	0°♂		evening rise	2844 Apr 19 13:36	8°♂55'54	
retrograde	2843 Jun 08 01:17	3°♂34'46			2844 May 01 00:01	0°♂	
desc. node	2843 Jun 08 23:50	3°♂32'44		evening max el	2844 May 07 18:49	8°♂30'35	20°21'44
evening set	2843 Jun 10 15:10	3°♂19'48		retrograde	2844 May 18 14:42	13°♂46'37	
	2843 Jun 18 17:50	30°♂		evening set	2844 May 20 15:25	13°♂36'17	
inferior conj	2843 Jun 19 23:58	29°♂18'04	-3°-4'-42	desc. node	2844 May 25 20:51	11°♂47'43	
minimum elong	2843 Jun 19 16:10	29°♂28'58	3°02'20	inferior conj	2844 May 29 18:39	9°♂38'11	-1°-8'-49
min. Earth dist.	2843 Jun 19 17:40	29°♂26'52	0.54928 AU	minimum elong	2844 May 29 15:24	9°♂42'55	1°07'38
morning rise	2843 Jun 28 18:16	25°♂24'45		min. Earth dist.	2844 May 31 06:08	8°♂46'18	0.55084 AU
direct	2843 Jul 01 23:44	25°♂01'54		morning rise	2844 Jun 07 13:33	5°♂24'58	
	2843 Jul 13 08:03	0°♂		direct	2844 Jun 11 10:26	4°♂52'37	
morning max el	2843 Jul 14 04:38	0°♂46'13	21°52'16	morning max el	2844 Jun 24 22:02	11°♂26'19	23°33'20

	2844 Jul 08 19:21	0°☿		direct	2845 May 23 08:01	14°♄38'43	
asc. node	2844 Jul 15 02:15	11°♄41'50		morning max el	2845 Jun 06 12:22	21°♄51'52	25°13'48
morning set	2844 Jul 18 14:20	18°♄53'53			2845 Jun 13 15:37	0°♄	
	2844 Jul 23 18:33	0°♄			2845 Jul 01 06:14	0°☿	
				asc. node	2845 Jul 01 23:18	1°☿28'22	
superior conj	2844 Jul 25 16:06	4°♄05'49	1°31'11	morning set	2845 Jul 03 02:06	3°☿48'53	
minimum elong	2844 Jul 25 13:58	3°♄54'22	1°30'58				
max. Earth dist.	2844 Jul 28 00:54	9°♄09'17	1.33471 AU	superior conj	2845 Jul 10 02:07	18°☿59'52	1°16'15
evening rise	2844 Aug 02 05:54	19°♄54'06		minimum elong	2845 Jul 09 23:44	18°☿46'51	1°15'54
	2844 Aug 07 11:42	0°♄		max. Earth dist.	2845 Jul 11 07:20	21°☿39'20	1.32626 AU
desc. node	2844 Aug 21 20:13	23°♄40'19			2845 Jul 15 04:34	0°♄	
	2844 Aug 26 10:13	0°♄		evening rise	2845 Jul 17 06:08	4°♄18'19	
evening max el	2844 Sep 05 04:07	11°♄08'46	27°22'44		2845 Jul 31 04:34	0°♄	
retrograde	2844 Sep 18 17:02	18°♄26'48		desc. node	2845 Aug 08 17:13	12°♄38'52	
evening set	2844 Sep 25 19:16	15°♄46'14		evening max el	2845 Aug 18 13:01	23°♄59'44	27°21'46
min. Earth dist.	2844 Sep 29 12:49	12°♄23'09	0.64193 AU		2845 Aug 26 22:14	0°♄	
inferior conj	2844 Oct 01 23:00	9°♄49'56	-2°-55'-6	retrograde	2845 Sep 01 08:03	1°♄15'51	
minimum elong	2844 Oct 02 03:42	9°♄37'31	2°53'28		2845 Sep 06 11:25	30°♄	
morning rise	2844 Oct 08 14:20	4°♄24'44		evening set	2845 Sep 08 12:42	28°♄47'33	
direct	2844 Oct 11 02:20	3°♄53'07		min. Earth dist.	2845 Sep 12 02:58	25°♄53'37	0.62424 AU
asc. node	2844 Oct 11 01:27	3°♄53'07		inferior conj	2845 Sep 15 00:56	23°♄09'10	-3°-50'-36
morning max el	2844 Oct 17 14:41	7°♄18'55	17°55'25	minimum elong	2845 Sep 15 06:31	22°♄55'59	3°49'06
	2844 Nov 01 17:20	0°♄		morning rise	2845 Sep 22 03:07	18°♄02'52	
morning set	2844 Nov 03 15:03	3°♄14'54		direct	2845 Sep 24 11:48	17°♄37'54	
				asc. node	2845 Sep 27 22:30	18°♄32'36	
superior conj	2844 Nov 16 16:59	25°♄03'53	0°07'34	morning max el	2845 Oct 01 06:38	21°♄05'20	17°51'54
minimum elong	2844 Nov 16 17:50	25°♄07'22	0°07'26		2845 Oct 08 00:06	0°♄	
behind sun begin	2844 Nov 16 08:46	24°♄30'32		morning set	2845 Oct 17 06:30	16°♄01'43	
behind sun end	2844 Nov 17 02:55	25°♄44'08			2845 Oct 25 04:03	0°♄	
desc. node	2844 Nov 17 19:32	26°♄51'16					
	2844 Nov 19 18:31	0°♄		superior conj	2845 Oct 28 11:26	5°♄40'46	0°48'21
max. Earth dist.	2844 Nov 21 22:17	3°♄26'18	1.44550 AU	minimum elong	2845 Oct 28 15:30	5°♄58'01	0°47'49
evening rise	2844 Dec 02 20:50	20°♄30'49		max. Earth dist.	2845 Nov 04 13:13	17°♄25'30	1.43285 AU
	2844 Dec 09 01:50	0°♄		desc. node	2845 Nov 04 16:33	17°♄39'02	
greatest brilliancy	2844 Dec 23 23:05	21°♄43'18	-0.5m	evening rise	2845 Nov 12 06:57	29°♄43'09	
evening max el	2844 Dec 30 05:29	29°♄18'06	20°20'28		2845 Nov 12 11:17	0°♄	
	2844 Dec 30 22:14	0°♄			2845 Dec 02 18:27	0°♄	
retrograde	2845 Jan 07 03:29	3°♄57'29		greatest brilliancy	2845 Dec 08 04:40	7°♄09'45	-0.4m
asc. node	2845 Jan 07 00:41	3°♄57'25		evening max el	2845 Dec 13 03:18	12°♄50'03	21°30'25
evening set	2845 Jan 10 21:38	2°♄35'40		retrograde	2845 Dec 22 00:58	18°♄07'37	
	2845 Jan 13 14:19	30°♄		asc. node	2845 Dec 24 21:43	17°♄22'35	
inferior conj	2845 Jan 16 08:22	26°♄27'10	2°46'08	evening set	2845 Dec 26 05:22	16°♄30'25	
minimum elong	2845 Jan 16 05:49	26°♄35'52	2°45'26	inferior conj	2845 Dec 31 14:55	10°♄12'06	2°07'59
min. Earth dist.	2845 Jan 17 01:41	25°♄28'28	0.67247 AU	minimum elong	2845 Dec 31 12:31	10°♄20'23	2°07'10
morning rise	2845 Jan 21 13:28	20°♄11'38		min. Earth dist.	2845 Dec 31 20:10	9°♄53'55	0.67760 AU
direct	2845 Jan 27 05:19	17°♄41'32		morning rise	2846 Jan 05 19:21	3°♄57'26	
morning max el	2845 Feb 07 16:34	24°♄32'25	24°40'21	direct	2846 Jan 10 20:16	1°♄47'55	
	2845 Feb 12 14:35	0°♄		morning max el	2846 Jan 21 01:40	7°♄52'33	23°11'41
desc. node	2845 Feb 13 18:44	1°♄25'27		greatest brilliancy	2846 Jan 26 03:07	13°♄32'50	-0.3m
	2845 Mar 05 17:25	0°♄		desc. node	2846 Jan 31 15:46	20°♄39'16	
morning set	2845 Mar 15 16:37	16°♄43'27			2846 Feb 07 07:44	0°♄	
max. Earth dist.	2845 Mar 19 09:17	23°♄21'24	1.37333 AU	morning set	2846 Feb 24 20:35	27°♄22'10	
	2845 Mar 22 22:58	0°♄			2846 Feb 26 10:05	0°♄	
				max. Earth dist.	2846 Mar 01 03:55	4°♄42'11	1.39478 AU
superior conj	2845 Mar 26 01:14	5°♄56'14	-1°-29'-36				
minimum elong	2845 Mar 26 05:34	6°♄17'14	1°29'01	superior conj	2846 Mar 08 19:41	18°♄25'24	-1°-51'-22
evening rise	2845 Apr 03 15:21	22°♄59'25		minimum elong	2846 Mar 08 23:56	18°♄45'01	1°51'01
asc. node	2845 Apr 05 00:00	25°♄41'26			2846 Mar 14 22:53	0°♄	
	2845 Apr 07 05:01	0°♄		evening rise	2846 Mar 18 08:38	6°♄33'05	
evening max el	2845 Apr 20 10:59	20°♄14'20	19°18'20	asc. node	2846 Mar 22 21:01	15°♄06'49	
retrograde	2845 Apr 29 14:13	24°♄40'06			2846 Apr 01 04:42	0°♄	
evening set	2845 May 01 15:11	24°♄27'48		evening max el	2846 Apr 03 13:06	2°♄35'29	18°35'03
inferior conj	2845 May 10 01:54	20°♄19'09	0°45'57	retrograde	2846 Apr 11 07:31	6°♄24'03	
minimum elong	2845 May 10 03:46	20°♄16'03	0°45'18	evening set	2846 Apr 13 14:05	6°♄05'34	
desc. node	2845 May 12 17:54	18°♄33'31		inferior conj	2846 Apr 21 05:31	1°♄38'15	2°14'09
min. Earth dist.	2845 May 12 20:57	18°♄28'36	0.56163 AU	minimum elong	2846 Apr 21 09:22	1°♄30'47	2°13'03
morning rise	2845 May 18 12:18	15°♄32'06			2846 Apr 23 08:07	30°♄	

min. Earth dist.	2846 Apr 24 15:07	29° Υ 01'39	0.57938 AU	inferior conj	2847 Apr 03 06:06	13° Υ 37'35	3°09'11
morning rise	2846 Apr 29 00:16	26° Υ 18'06		minimum elong	2847 Apr 03 09:11	13° Υ 30'38	3°08'38
desc. node	2846 Apr 29 14:55	26° Υ 01'17		min. Earth dist.	2847 Apr 06 14:39	10° Υ 37'28	0.60058 AU
direct	2846 May 04 20:06	24° Υ 52'16		morning rise	2847 Apr 10 07:04	7° Υ 53'09	
	2846 May 16 10:36	0° X		desc. node	2847 Apr 16 11:57	5° Υ 52'01	
morning max el	2846 May 19 05:09	2° X 29'57	26°38'01	direct	2847 Apr 16 20:31	5° Υ 51'40	
	2846 Jun 07 22:38	0° II		morning max el	2847 May 01 03:50	13° Υ 42'21	27°32'42
morning set	2846 Jun 17 12:32	18° II 38'49			2847 May 14 04:13	0° X	
asc. node	2846 Jun 18 20:19	21° II 27'13			2847 May 31 05:22	0° II	
	2846 Jun 22 18:45	0° S		morning set	2847 Jun 01 19:59	3° II 18'10	
				asc. node	2847 Jun 05 17:20	11° II 33'38	
superior conj	2846 Jun 24 13:45	3° S 56'40	0°57'08	max. Earth dist.	2847 Jun 08 06:15	17° II 05'53	1.32142 AU
minimum elong	2846 Jun 24 11:36	3° S 44'51	0°56'44				
max. Earth dist.	2846 Jun 24 18:18	4° S 21'45	1.32188 AU	superior conj	2847 Jun 09 01:17	18° II 50'28	0°34'30
evening rise	2846 Jul 01 12:23	18° S 59'11		minimum elong	2847 Jun 08 23:48	18° II 42'21	0°34'12
	2846 Jul 06 23:33	0° Q			2847 Jun 14 03:35	0° S	
	2846 Jul 26 00:07	0° P		evening rise	2847 Jun 15 22:24	3° S 49'11	
desc. node	2846 Jul 26 14:14	0° P 42'16			2847 Jun 29 21:46	0° Q	
evening max el	2846 Jul 31 16:41	6° P 09'48	26°47'36	desc. node	2847 Jul 13 11:13	17° Q 28'02	
retrograde	2846 Aug 14 15:21	13° P 22'09		evening max el	2847 Jul 13 13:16	17° Q 32'55	25°41'52
evening set	2846 Aug 21 12:39	11° P 19'36		retrograde	2847 Jul 27 13:07	24° Q 40'41	
min. Earth dist.	2846 Aug 25 06:45	8° P 42'24	0.60423 AU	evening set	2847 Aug 02 14:23	23° Q 14'15	
inferior conj	2846 Aug 28 12:36	6° P 01'53	-4°-36'-12	min. Earth dist.	2847 Aug 07 01:27	20° Q 36'28	0.58373 AU
minimum elong	2846 Aug 28 17:30	5° P 51'43	4°35'23	inferior conj	2847 Aug 10 06:32	18° Q 18'44	-5°-1'-54
morning rise	2846 Sep 05 01:36	1° P 17'17		minimum elong	2847 Aug 10 08:10	18° Q 15'47	5°01'50
direct	2846 Sep 07 10:05	0° P 56'07		morning rise	2847 Aug 18 05:28	13° Q 57'20	
asc. node	2846 Sep 14 19:32	4° P 34'50		direct	2847 Aug 20 16:55	13° Q 37'47	
morning max el	2846 Sep 14 19:04	4° P 33'40	18°07'24	morning max el	2847 Aug 29 00:49	17° Q 35'25	18°43'20
morning set	2846 Sep 30 13:53	29° P 33'45		asc. node	2847 Sep 01 16:34	21° Q 45'14	
	2846 Sep 30 19:30	0° A			2847 Sep 07 01:12	0° P	
				morning set	2847 Sep 14 08:30	13° P 38'18	
superior conj	2846 Oct 10 07:45	17° A 32'48	1°17'53		2847 Sep 22 19:22	0° A	
minimum elong	2846 Oct 10 11:54	17° A 51'21	1°17'26				
	2846 Oct 17 11:29	0° M		superior conj	2847 Sep 23 01:02	0° A 26'45	1°36'01
max. Earth dist.	2846 Oct 17 23:02	0° M 48'39	1.41529 AU	minimum elong	2847 Sep 23 03:42	0° A 39'20	1°35'49
desc. node	2846 Oct 22 13:34	8° M 25'05		max. Earth dist.	2847 Sep 30 04:31	13° A 30'01	1.39503 AU
evening rise	2846 Oct 23 07:11	9° M 36'15		evening rise	2847 Oct 04 06:13	20° A 32'16	
	2846 Nov 05 13:32	0° J		desc. node	2847 Oct 09 10:35	29° A 05'49	
greatest brilliancy	2846 Nov 20 18:11	20° J 42'25	-0.3m		2847 Oct 10 00:04	0° M	
evening max el	2846 Nov 25 20:08	26° J 24'00	22°48'14		2847 Oct 30 17:01	0° J	
	2846 Nov 29 22:45	0° Z		evening max el	2847 Nov 08 09:39	10° J 01'18	24°08'08
retrograde	2846 Dec 05 20:08	2° Z 20'08		retrograde	2847 Nov 19 11:49	16° J 31'48	
evening set	2846 Dec 10 12:41	0° Z 26'25		evening set	2847 Nov 24 18:00	14° J 21'15	
	2846 Dec 11 00:53	30° R J		asc. node	2847 Nov 28 15:47	10° J 01'03	
asc. node	2846 Dec 11 18:45	29° J 16'40		min. Earth dist.	2847 Nov 29 12:59	8° J 50'33	0.67710 AU
inferior conj	2846 Dec 15 22:32	24° J 02'05	1°22'55	inferior conj	2847 Nov 30 05:28	7° J 54'55	0°32'09
minimum elong	2846 Dec 15 20:45	24° J 08'15	1°22'13	minimum elong	2847 Nov 30 04:42	7° J 57'30	0°31'50
min. Earth dist.	2846 Dec 15 16:43	24° J 22'09	0.67909 AU	morning rise	2847 Dec 05 15:41	1° J 48'33	
morning rise	2846 Dec 21 04:45	17° J 50'25		direct	2847 Dec 09 12:08	0° J 24'08	
direct	2846 Dec 25 14:54	16° J 03'46		morning max el	2847 Dec 17 10:40	4° J 57'38	20°28'32
morning max el	2847 Jan 03 14:37	21° J 19'35	21°45'27	greatest brilliancy	2847 Dec 23 16:03	12° J 18'58	-0.5m
greatest brilliancy	2847 Jan 08 10:07	26° J 45'44	-0.4m	desc. node	2848 Jan 05 09:51	0° Z 32'25	
	2847 Jan 10 23:21	0° Z			2848 Jan 05 01:11	0° Z	
desc. node	2847 Jan 18 12:48	10° Z 24'30		morning set	2848 Jan 14 19:28	14° Z 52'25	
	2847 Jan 31 14:39	0° \approx			2848 Jan 24 09:23	0° \approx	
morning set	2847 Feb 04 19:29	6° \approx 37'23		max. Earth dist.	2848 Jan 24 09:47	0° \approx 01'34	1.43384 AU
max. Earth dist.	2847 Feb 11 02:47	16° \approx 53'10	1.41592 AU				
				superior conj	2848 Jan 30 17:07	10° \approx 20'44	-2°-3'-45
superior conj	2847 Feb 18 18:39	29° \approx 57'25	-2°-4'-26	minimum elong	2848 Jan 30 14:10	10° \approx 08'27	2°03'41
minimum elong	2847 Feb 18 20:39	0° H 06'10	2°04'24		2848 Feb 11 04:46	0° H	
	2847 Feb 18 19:14	0° H		evening rise	2848 Feb 12 03:04	1° H 37'40	
evening rise	2847 Mar 01 13:55	19° H 28'46		asc. node	2848 Feb 24 15:04	22° H 36'01	
	2847 Mar 07 08:43	0° Υ		evening max el	2848 Feb 29 09:55	28° H 34'19	18°07'59
asc. node	2847 Mar 09 18:02	4° Υ 07'46			2848 Mar 02 00:26	0° Υ	
evening max el	2847 Mar 17 21:51	15° Υ 25'23	18°11'47	retrograde	2848 Mar 06 21:41	1° Υ 57'34	
retrograde	2847 Mar 24 19:17	18° Υ 53'32		evening set	2848 Mar 09 15:32	1° Υ 20'23	
evening set	2847 Mar 27 07:48	18° Υ 26'22			2848 Mar 11 21:02	30° R H	

inferior conj	2848 Mar 16 00:27	26° Υ 10'35	3°35'34			2849 Feb 03 04:40	0° Υ	
minimum elong	2848 Mar 16 01:41	26° Υ 07'21	3°35'29	asc. node		2849 Feb 10 12:08	10° Υ 21'57	
min. Earth dist.	2848 Mar 18 22:12	23° Υ 11'42	0.62192 AU	evening max el		2849 Feb 11 22:26	11° Υ 55'24	18°23'04
morning rise	2848 Mar 22 09:25	20° Υ 10'44		retrograde		2849 Feb 18 10:07	15° Υ 26'53	
direct	2848 Mar 29 06:45	17° Υ 40'07		evening set		2849 Feb 21 09:19	14° Υ 38'47	
desc. node	2848 Apr 02 09:00	18° Υ 27'47		inferior conj		2849 Feb 27 08:30	9° Υ 09'42	3°40'03
morning max el	2848 Apr 12 08:43	25° Υ 36'41	27°50'42	minimum elong		2849 Feb 27 07:59	9° Υ 11'11	3°40'03
	2848 Apr 16 10:00	0° Υ		min. Earth dist.		2849 Mar 01 15:24	6° Υ 32'15	0.64097 AU
	2848 May 06 15:40	0° Υ		morning rise		2849 Mar 05 05:02	3° Υ 01'02	
morning set	2848 May 15 22:21	17° Υ 39'14		direct		2849 Mar 12 01:19	0° Υ 13'49	
max. Earth dist.	2848 May 21 15:10	29° Υ 37'04	1.32495 AU	desc. node		2849 Mar 20 06:03	3° Υ 24'08	
	2848 May 21 19:25	0° Υ		morning max el		2849 Mar 25 17:37	8° Υ 08'36	27°31'54
asc. node	2848 May 22 14:21	1° Υ 42'22				2849 Apr 11 15:34	0° Υ	
						2849 Apr 28 21:54	0° Υ	
superior conj	2848 May 23 10:57	3° Υ 34'14	0°09'03	morning set		2849 Apr 29 17:08	1° Υ 34'22	
minimum elong	2848 May 23 10:32	3° Υ 31'56	0°08'56	max. Earth dist.		2849 May 04 16:57	11° Υ 42'35	1.33274 AU
behind sun begin	2848 May 23 06:14	3° Υ 08'34						
behind sun end	2848 May 23 14:50	3° Υ 55'19		superior conj		2849 May 07 16:58	18° Υ 02'33	0°-18'-28
evening rise	2848 May 30 10:05	18° Υ 40'13		minimum elong		2849 May 07 17:53	18° Υ 07'29	0°18'18
	2848 Jun 04 23:30	0° Υ		asc. node		2849 May 09 11:24	21° Υ 49'41	
evening max el	2848 Jun 24 03:37	28° Υ 14'37	24°13'23			2849 May 13 06:46	0° Υ	
	2848 Jun 26 02:11	0° Υ		evening rise		2849 May 14 21:39	3° Υ 26'17	
desc. node	2848 Jun 29 08:14	2° Υ 24'48				2849 May 29 12:43	0° Υ	
retrograde	2848 Jul 07 23:26	5° Υ 12'54		evening max el		2849 Jun 05 17:48	8° Υ 41'00	22°36'50
evening set	2848 Jul 12 16:20	4° Υ 23'41		desc. node		2849 Jun 16 05:16	14° Υ 57'05	
min. Earth dist.	2848 Jul 18 14:19	1° Υ 27'29	0.56544 AU	retrograde		2849 Jun 18 21:42	15° Υ 13'37	
	2848 Jul 20 22:25	30° Υ		evening set		2849 Jun 22 02:58	14° Υ 50'49	
inferior conj	2848 Jul 21 04:16	29° Υ 50'47	-4°-53'-37	min. Earth dist.		2849 Jun 30 01:33	11° Υ 22'12	0.55278 AU
minimum elong	2848 Jul 21 00:22	29° Υ 56'55	4°53'14	inferior conj		2849 Jul 01 07:36	10° Υ 39'21	-3°-58'-14
morning rise	2848 Jul 29 11:59	25° Υ 50'05		minimum elong		2849 Jun 30 23:36	10° Υ 50'47	3°56'20
direct	2848 Aug 01 04:36	25° Υ 30'54		morning rise		2849 Jul 09 22:47	6° Υ 48'23	
	2848 Aug 10 20:37	0° Υ		direct		2849 Jul 12 22:12	6° Υ 28'04	
morning max el	2848 Aug 10 20:56	0° Υ 00'46	19°40'48	morning max el		2849 Jul 24 05:38	11° Υ 43'10	20°59'10
asc. node	2848 Aug 18 13:37	9° Υ 48'39		asc. node		2849 Aug 05 10:40	28° Υ 32'45	
morning set	2848 Aug 28 10:51	28° Υ 05'21				2849 Aug 06 05:58	0° Υ	
	2848 Aug 29 09:35	0° Υ		morning set		2849 Aug 12 18:18	12° Υ 47'46	
superior conj	2848 Sep 05 09:51	14° Υ 07'04	1°44'13	superior conj		2849 Aug 20 05:41	28° Υ 20'29	1°44'15
minimum elong	2848 Sep 05 10:42	14° Υ 11'17	1°44'11	minimum elong		2849 Aug 20 05:00	28° Υ 16'56	1°44'13
max. Earth dist.	2848 Sep 11 08:56	25° Υ 35'14	1.37455 AU			2849 Aug 21 01:05	0° Υ	
	2848 Sep 13 18:29	0° Υ		max. Earth dist.		2849 Aug 24 17:43	7° Υ 25'32	1.35619 AU
evening rise	2848 Sep 15 04:26	2° Υ 32'46		evening rise		2849 Aug 28 22:08	15° Υ 28'55	
desc. node	2848 Sep 25 07:36	19° Υ 36'59				2849 Sep 06 01:55	0° Υ	
	2848 Oct 02 02:48	0° Υ		desc. node		2849 Sep 12 04:37	9° Υ 53'09	
evening max el	2848 Oct 20 21:45	23° Υ 41'26	25°23'20			2849 Sep 26 16:44	0° Υ	
	2848 Oct 29 16:50	0° Υ		evening max el		2849 Oct 03 09:54	7° Υ 20'43	26°26'20
retrograde	2848 Nov 01 23:14	0° Υ 38'20		retrograde		2849 Oct 16 05:43	14° Υ 33'21	
	2848 Nov 05 00:24	30° Υ		evening set		2849 Oct 22 15:47	11° Υ 55'59	
evening set	2848 Nov 07 19:41	28° Υ 12'23		min. Earth dist.		2849 Oct 26 19:24	7° Υ 36'28	0.66285 AU
min. Earth dist.	2848 Nov 12 06:39	23° Υ 16'41	0.67168 AU	inferior conj		2849 Oct 28 10:10	5° Υ 38'55	-1°-21'-30
inferior conj	2848 Nov 13 09:59	21° Υ 48'22	0°-23'-5	minimum elong		2849 Oct 28 12:21	5° Υ 32'15	1°20'35
minimum elong	2848 Nov 13 10:34	21° Υ 46'28	0°22'50	asc. node		2849 Nov 01 09:55	1° Υ 17'43	
asc. node	2848 Nov 14 12:50	20° Υ 22'35		morning rise		2849 Nov 03 10:11	29° Υ 50'40	
morning rise	2848 Nov 19 02:12	15° Υ 49'44				2849 Nov 03 03:41	30° Υ	
direct	2848 Nov 22 10:37	14° Υ 44'59		direct		2849 Nov 06 08:42	29° Υ 01'52	
morning max el	2848 Nov 29 14:42	18° Υ 46'50	19°25'01			2849 Nov 09 15:56	0° Υ	
	2848 Dec 08 10:42	0° Υ		morning max el		2849 Nov 13 01:22	2° Υ 42'42	18°36'58
greatest brilliancy	2848 Dec 08 14:22	0° Υ 13'10	-0.7m			2849 Dec 01 21:31	0° Υ	
desc. node	2848 Dec 22 06:53	20° Υ 56'41		morning set		2849 Dec 03 14:40	2° Υ 43'37	
morning set	2848 Dec 23 18:16	23° Υ 13'38		desc. node		2849 Dec 09 03:54	11° Υ 31'57	
	2848 Dec 28 02:58	0° Υ						
max. Earth dist.	2849 Jan 05 23:34	13° Υ 53'08	1.44621 AU	superior conj		2849 Dec 19 17:03	28° Υ 07'53	-1°-7'-18
superior conj	2849 Jan 09 13:44	19° Υ 35'19	-1°-44'-43	minimum elong		2849 Dec 19 08:59	27° Υ 36'11	1°06'21
minimum elong	2849 Jan 09 05:34	19° Υ 02'44	1°44'04	max. Earth dist.		2849 Dec 19 17:14	28° Υ 08'33	1.45172 AU
	2849 Jan 16 00:38	0° Υ				2849 Dec 20 21:38	0° Υ	
evening rise	2849 Jan 23 19:50	12° Υ 52'32		evening rise		2850 Jan 04 13:16	23° Υ 09'07	
						2850 Jan 08 20:15	0° Υ	

evening max el	2850 Jan 26 08:52	25° \approx 22'33	18°56'08	asc. node	2851 Jan 15 06:15	12° \approx 53'43	
asc. node	2850 Jan 28 09:12	27° \approx 12'37		retrograde	2851 Jan 17 01:50	13° \approx 11'45	
retrograde	2850 Feb 02 04:31	29° \approx 13'18		evening set	2851 Jan 20 14:53	11° \approx 58'17	
evening set	2850 Feb 05 09:57	28° \approx 13'11		inferior conj	2851 Jan 26 03:09	5° \approx 57'16	3°04'22
inferior conj	2850 Feb 11 02:26	22° \approx 26'57	3°28'20	minimum elong	2851 Jan 26 00:43	6° \approx 05'20	3°03'49
minimum elong	2850 Feb 11 00:40	22° \approx 32'29	3°28'06	min. Earth dist.	2851 Jan 27 04:08	4° \approx 34'32	0.66784 AU
min. Earth dist.	2850 Feb 12 17:53	20° \approx 23'47	0.65644 AU	morning rise	2851 Jan 31 09:52	29° \approx 42'10	
morning rise	2850 Feb 16 14:20	16° \approx 13'46			2851 Jan 31 02:09	30° \approx 02'14	
direct	2850 Feb 23 02:47	13° \approx 24'03		direct	2851 Feb 06 10:06	27° \approx 02'14	
desc. node	2850 Mar 07 03:06	20° \approx 05'11			2851 Feb 13 16:56	0° \approx	
morning max el	2850 Mar 08 03:30	21° \approx 05'16	26°41'42	morning max el	2851 Feb 18 12:29	4° \approx 15'03	25°28'41
	2850 Mar 15 21:07	0° \approx		desc. node	2851 Feb 22 00:09	8° \approx 01'26	
	2850 Apr 04 19:18	0° \approx			2851 Mar 10 06:03	0° \approx	
morning set	2850 Apr 13 00:59	14° \approx 53'11		morning set	2851 Mar 26 17:19	27° \approx 22'07	
max. Earth dist.	2850 Apr 17 08:03	23° \approx 14'35	1.34507 AU		2851 Mar 28 03:51	0° \approx	
	2850 Apr 20 16:08	0° \approx		max. Earth dist.	2851 Mar 30 11:33	4° \approx 19'44	1.36194 AU
superior conj	2850 Apr 21 17:06	2° \approx 08'47	0°-46'-55	superior conj	2851 Apr 05 08:38	15° \approx 45'02	-1°-14'-44
minimum elong	2850 Apr 21 19:32	2° \approx 21'21	0°46'27	minimum elong	2851 Apr 05 12:26	16° \approx 03'56	1°14'08
asc. node	2850 Apr 26 08:29	11° \approx 51'26			2851 Apr 12 09:16	0° \approx	
evening rise	2850 Apr 29 07:09	18° \approx 01'08		asc. node	2851 Apr 13 05:32	1° \approx 43'02	
	2850 May 05 07:31	0° \approx		evening rise	2851 Apr 13 12:26	2° \approx 18'05	
evening max el	2850 May 18 15:40	19° \approx 25'08	21°06'49		2851 Apr 30 06:58	0° \approx	
retrograde	2850 May 30 11:15	25° \approx 11'37		evening max el	2851 May 01 01:14	0° \approx 45'56	19°52'25
evening set	2850 Jun 01 17:06	24° \approx 59'54		retrograde	2851 May 11 03:05	5° \approx 38'54	
desc. node	2850 Jun 03 02:17	24° \approx 41'37		evening set	2851 May 13 02:55	5° \approx 28'18	
inferior conj	2850 Jun 11 01:27	21° \approx 01'55	-2°-17'-44	desc. node	2851 May 20 23:19	2° \approx 04'57	
minimum elong	2850 Jun 10 19:07	21° \approx 10'50	2°15'34	inferior conj	2851 May 22 00:00	1° \approx 27'30	0°-18'-4
min. Earth dist.	2850 Jun 11 13:35	20° \approx 44'48	0.54872 AU	minimum elong	2851 May 21 23:10	1° \approx 28'46	0°17'47
morning rise	2850 Jun 19 20:54	17° \approx 02'03		min. Earth dist.	2851 May 24 02:56	0° \approx 09'49	0.55441 AU
direct	2850 Jun 23 07:50	16° \approx 36'15			2851 May 24 09:31	30° \approx 00'56	
morning max el	2850 Jul 06 03:35	22° \approx 43'02	22°34'21	morning rise	2851 May 30 16:25	27° \approx 00'56	
	2850 Jul 12 13:02	0° \approx		direct	2851 Jun 03 22:41	26° \approx 20'56	
asc. node	2850 Jul 23 07:43	17° \approx 47'37			2851 Jun 13 21:52	0° \approx	
morning set	2850 Jul 28 04:52	27° \approx 39'51		morning max el	2851 Jun 17 18:42	3° \approx 13'03	24°16'58
	2850 Jul 29 07:29	0° \approx			2851 Jul 06 10:19	0° \approx	
superior conj	2850 Aug 04 09:06	12° \approx 56'42	1°37'35	asc. node	2851 Jul 10 04:46	7° \approx 24'27	
minimum elong	2850 Aug 04 07:21	12° \approx 47'23	1°37'27	morning set	2851 Jul 12 16:39	12° \approx 35'13	
max. Earth dist.	2850 Aug 07 11:17	19° \approx 26'07	1.34140 AU	superior conj	2851 Jul 19 17:19	27° \approx 46'01	1°25'24
evening rise	2850 Aug 12 06:51	29° \approx 08'59		minimum elong	2851 Jul 19 15:01	27° \approx 33'34	1°25'07
	2850 Aug 12 17:18	0° \approx			2851 Jul 20 18:04	0° \approx	
desc. node	2850 Aug 30 01:38	29° \approx 47'34		max. Earth dist.	2851 Jul 21 13:50	1° \approx 46'24	1.33067 AU
	2850 Aug 30 04:58	0° \approx		evening rise	2851 Jul 27 02:23	13° \approx 19'58	
evening max el	2850 Sep 15 22:19	20° \approx 51'58	27°09'35		2851 Aug 04 21:03	0° \approx	
retrograde	2850 Sep 29 06:38	28° \approx 09'58		desc. node	2851 Aug 16 22:39	19° \approx 09'56	
evening set	2850 Oct 06 04:01	25° \approx 28'07			2851 Aug 25 11:48	0° \approx	
min. Earth dist.	2850 Oct 10 00:58	21° \approx 44'48	0.65056 AU	evening max el	2851 Aug 29 09:20	4° \approx 01'51	27°26'16
inferior conj	2850 Oct 12 03:51	19° \approx 22'49	-2°-21'-9	retrograde	2851 Sep 12 01:10	11° \approx 18'38	
minimum elong	2850 Oct 12 07:42	19° \approx 12'02	2°19'42	evening set	2851 Sep 19 05:19	8° \approx 42'06	
morning rise	2850 Oct 18 13:14	13° \approx 47'57		min. Earth dist.	2851 Sep 22 21:09	5° \approx 32'10	0.63481 AU
asc. node	2850 Oct 19 06:57	13° \approx 30'15		inferior conj	2851 Sep 25 12:23	2° \approx 53'04	-3°-19'-22
direct	2850 Oct 21 04:17	13° \approx 11'08		minimum elong	2851 Sep 25 17:36	2° \approx 39'56	3°17'45
morning max el	2850 Oct 27 16:19	16° \approx 40'12	18°05'32		2851 Sep 28 13:22	30° \approx 00'56	
	2850 Nov 06 08:39	0° \approx		morning rise	2851 Oct 02 08:16	27° \approx 35'08	
morning set	2850 Nov 14 16:33	13° \approx 41'57		direct	2851 Oct 04 18:33	27° \approx 06'38	
	2850 Nov 24 15:26	0° \approx		asc. node	2851 Oct 06 03:59	27° \approx 16'12	
desc. node	2850 Nov 26 00:57	2° \approx 14'47			2851 Oct 10 19:16	0° \approx	
superior conj	2850 Nov 28 23:00	6° \approx 54'38	0°-19'-41	morning max el	2851 Oct 11 08:41	0° \approx 32'08	17°51'36
minimum elong	2850 Nov 28 20:32	6° \approx 44'47	0°19'22	morning set	2851 Oct 27 20:09	25° \approx 54'44	
max. Earth dist.	2850 Dec 02 12:15	12° \approx 32'01	1.44989 AU		2851 Oct 30 04:38	0° \approx	
	2850 Dec 13 16:53	0° \approx		superior conj	2851 Nov 09 01:50	16° \approx 44'45	0°26'07
evening rise	2850 Dec 15 09:24	2° \approx 36'49		minimum elong	2851 Nov 09 04:30	16° \approx 55'47	0°25'44
greatest brilliancy	2851 Jan 02 03:24	29° \approx 27'11	-0.6m	desc. node	2851 Nov 12 21:58	23° \approx 01'23	
	2851 Jan 02 12:44	0° \approx		max. Earth dist.	2851 Nov 15 05:51	26° \approx 46'15	1.44092 AU
evening max el	2851 Jan 09 15:17	8° \approx 52'35	19°45'36		2851 Nov 17 06:29	0° \approx	

evening rise	2851 Nov 24 18:31	11°♄43'11			2852 Nov 30 06:59	0°♄	
	2851 Dec 06 21:04	0°♄		greatest brilliancy	2852 Nov 30 18:17	0°♄34'48	-0.3m
greatest brilliancy	2851 Dec 18 02:42	15°♄49'42	-0.5m	evening max el	2852 Dec 05 11:50	5°♄55'49	22°02'52
evening max el	2851 Dec 23 16:21	22°♄23'49	20°49'02	retrograde	2852 Dec 14 20:23	11°♄29'55	
retrograde	2851 Dec 31 23:44	27°♄18'32		evening set	2852 Dec 19 05:51	9°♄45'31	
asc. node	2852 Jan 02 03:15	27°♄11'15		asc. node	2852 Dec 19 00:16	9°♄56'27	
evening set	2852 Jan 04 22:07	25°♄50'12		inferior conj	2852 Dec 24 15:20	3°♄24'02	1°49'36
inferior conj	2852 Jan 10 08:09	19°♄37'16	2°30'52	minimum elong	2852 Dec 24 13:09	3°♄31'37	1°48'49
minimum elong	2852 Jan 10 05:36	19°♄46'01	2°30'05	min. Earth dist.	2852 Dec 24 15:42	3°♄22'47	0.67866 AU
min. Earth dist.	2852 Jan 10 20:09	18°♄56'06	0.67515 AU		2852 Dec 27 04:19	30°♄♂	
morning rise	2852 Jan 15 12:40	13°♄22'09		morning rise	2852 Dec 29 20:16	27°♄10'36	
direct	2852 Jan 20 22:19	11°♄00'18		direct	2853 Jan 03 14:45	25°♄11'00	
morning max el	2852 Jan 31 20:52	17°♄31'38	24°02'57		2853 Jan 12 09:05	0°♄	
desc. node	2852 Feb 08 21:12	26°♄51'22		morning max el	2853 Jan 13 07:16	0°♄54'22	22°34'19
	2852 Feb 11 06:42	0°♄		greatest brilliancy	2853 Jan 17 21:01	6°♄00'30	-0.3m
	2852 Mar 02 07:28	0°♄		desc. node	2853 Jan 25 18:13	16°♄19'20	
morning set	2852 Mar 07 12:21	8°♄45'28			2853 Feb 04 04:36	0°♄	
max. Earth dist.	2852 Mar 11 07:44	15°♄26'30	1.38230 AU	morning set	2853 Feb 16 04:03	18°♄47'59	
				max. Earth dist.	2853 Feb 21 03:52	27°♄07'47	1.40396 AU
superior conj	2852 Mar 18 12:02	28°♄41'56	-1°-39'-37		2853 Feb 22 20:06	0°♄	
minimum elong	2852 Mar 18 16:31	29°♄03'17	1°39'06				
	2852 Mar 19 04:23	0°♄		superior conj	2853 Feb 28 22:45	10°♄47'26	-1°-58'-15
evening rise	2852 Mar 27 10:59	16°♄10'05		minimum elong	2853 Mar 01 02:23	11°♄03'48	1°58'03
asc. node	2852 Mar 30 02:34	21°♄19'47		evening rise	2853 Mar 10 23:37	29°♄28'20	
	2852 Apr 03 19:02	0°♄			2853 Mar 11 06:19	0°♄	
evening max el	2852 Apr 12 22:00	12°♄46'28	18°57'27	asc. node	2853 Mar 16 23:35	10°♄35'21	
retrograde	2852 Apr 21 09:46	16°♄54'30		evening max el	2853 Mar 27 03:14	25°♄19'54	18°22'43
evening set	2852 Apr 23 13:02	16°♄39'52		retrograde	2853 Apr 03 11:27	28°♄58'13	
inferior conj	2852 May 01 15:27	12°♄23'32	1°27'22	evening set	2853 Apr 05 20:29	28°♄36'22	
minimum elong	2852 May 01 18:35	12°♄17'59	1°26'20	inferior conj	2853 Apr 13 04:12	23°♄59'47	2°41'23
min. Earth dist.	2852 May 04 18:40	10°♄11'34	0.56852 AU	minimum elong	2853 Apr 13 07:57	23°♄51'59	2°40'29
desc. node	2852 May 06 20:21	8°♄52'24		min. Earth dist.	2853 Apr 16 14:47	21°♄10'10	0.58812 AU
morning rise	2852 May 09 19:50	7°♄22'02		morning rise	2853 Apr 20 15:19	18°♄27'47	
direct	2852 May 15 02:09	6°♄16'09		desc. node	2853 Apr 23 17:23	17°♄12'14	
morning max el	2852 May 29 09:25	13°♄40'28	25°52'31	direct	2853 Apr 26 19:27	16°♄46'53	
	2852 Jun 11 06:28	0°♄		morning max el	2853 May 11 04:45	24°♄31'26	27°05'34
morning set	2852 Jun 26 04:04	27°♄28'55			2853 May 16 04:49	0°♄	
asc. node	2852 Jun 26 01:48	27°♄17'01			2853 Jun 04 10:26	0°♄	
	2852 Jun 27 08:30	0°♄		morning set	2853 Jun 10 13:28	12°♄14'54	
				asc. node	2853 Jun 12 22:51	17°♄19'25	
superior conj	2852 Jul 03 04:14	12°♄41'50	1°08'37				
minimum elong	2852 Jul 03 01:54	12°♄29'00	1°08'14	superior conj	2853 Jun 17 16:01	27°♄37'38	0°47'56
max. Earth dist.	2852 Jul 03 22:51	14°♄24'02	1.32399 AU	minimum elong	2853 Jun 17 14:06	27°♄27'05	0°47'33
evening rise	2852 Jul 10 05:30	27°♄52'16		max. Earth dist.	2853 Jun 17 10:44	27°♄08'32	1.32119 AU
	2852 Jul 11 06:16	0°♄			2853 Jun 18 17:51	0°♄	
	2852 Jul 28 04:44	0°♄		evening rise	2853 Jun 24 13:35	12°♄37'17	
desc. node	2852 Aug 02 19:38	7°♄47'05			2853 Jul 03 09:34	0°♄	
evening max el	2852 Aug 10 16:22	16°♄36'35	27°11'11	desc. node	2853 Jul 20 16:38	25°♄20'34	
retrograde	2852 Aug 24 12:42	23°♄50'19		evening max el	2853 Jul 23 16:54	28°♄25'57	26°23'03
evening set	2852 Aug 31 15:51	21°♄31'19			2853 Jul 25 10:31	0°♄	
min. Earth dist.	2852 Sep 04 06:36	18°♄46'33	0.61604 AU	retrograde	2853 Aug 06 16:21	5°♄37'06	
inferior conj	2852 Sep 07 08:40	16°♄01'48	-4°-11'-37	evening set	2853 Aug 13 06:57	3°♄48'35	
minimum elong	2852 Sep 07 14:13	15°♄49'24	4°10'21	min. Earth dist.	2853 Aug 17 06:02	1°♄13'43	0.59545 AU
morning rise	2852 Sep 14 15:31	11°♄04'25			2853 Aug 18 20:31	30°♄♂	
direct	2852 Sep 16 23:53	10°♄41'14		inferior conj	2853 Aug 20 13:11	28°♄40'10	-4°-50'-18
asc. node	2852 Sep 22 01:00	12°♄32'12		minimum elong	2853 Aug 20 17:04	28°♄32'36	4°49'51
morning max el	2852 Sep 23 23:29	14°♄11'26	17°56'04	morning rise	2853 Aug 28 06:37	24°♄05'48	
	2852 Oct 04 18:53	0°♄		direct	2853 Aug 30 16:00	23°♄45'36	
morning set	2852 Oct 09 19:00	9°♄02'23		morning max el	2853 Sep 07 09:34	27°♄30'03	18°20'09
				asc. node	2853 Sep 08 22:03	29°♄05'22	
superior conj	2852 Oct 20 07:42	27°♄54'36	1°02'21		2853 Sep 09 16:44	0°♄	
minimum elong	2852 Oct 20 12:05	28°♄13'39	1°01'48	morning set	2853 Sep 23 07:40	22°♄49'34	
	2852 Oct 21 12:42	0°♄			2853 Sep 27 01:58	0°♄	
max. Earth dist.	2852 Oct 27 19:11	10°♄33'13	1.42590 AU				
desc. node	2852 Oct 29 18:58	13°♄48'27		superior conj	2853 Oct 02 13:42	10°♄15'31	1°26'54
evening rise	2852 Nov 03 08:57	21°♄08'15		minimum elong	2853 Oct 02 17:19	10°♄32'05	1°26'33
	2852 Nov 09 02:09	0°♄		max. Earth dist.	2853 Oct 10 02:46	23°♄38'17	1.40681 AU

	2853 Oct 13 21:22	0°♄		max. Earth dist.	2854 Sep 22 06:45	6°♄00'38	1.38617 AU
evening rise	2853 Oct 14 18:23	1°♄26'44		evening rise	2854 Sep 26 03:38	12°♄51'16	
desc. node	2853 Oct 16 15:59	4°♄32'44		desc. node	2854 Oct 03 12:59	25°♄09'58	
	2853 Nov 02 11:58	0°♄			2854 Oct 06 14:31	0°♄	
evening max el	2853 Nov 18 02:52	19°♄30'36	23°22'19		2854 Oct 28 15:25	0°♄	
retrograde	2853 Nov 28 14:22	25°♄42'53		evening max el	2854 Oct 31 15:34	3°♄09'21	24°41'09
evening set	2853 Dec 03 12:33	23°♄41'50		retrograde	2854 Nov 12 04:28	9°♄52'43	
asc. node	2853 Dec 05 21:17	21°♄17'13		evening set	2854 Nov 17 16:32	7°♄35'33	
inferior conj	2853 Dec 08 22:54	17°♄15'51	1°02'00	min. Earth dist.	2854 Nov 22 08:04	2°♄19'16	0.67520 AU
minimum elong	2853 Dec 08 21:30	17°♄20'38	1°01'26	asc. node	2854 Nov 22 18:21	1°♄45'09	
min. Earth dist.	2853 Dec 08 12:29	17°♄51'36	0.67862 AU	inferior conj	2854 Nov 23 05:04	1°♄09'28	0°09'12
morning rise	2853 Dec 14 06:34	11°♄06'04		minimum elong	2854 Nov 23 04:50	1°♄10'14	0°09'07
direct	2853 Dec 18 10:35	9°♄29'16		transit middle	2854 Nov 23 04:50	1°♄10'14	0°09'07
morning max el	2853 Dec 26 23:06	14°♄26'29	21°11'17	transit begin	2854 Nov 23 02:33	1°♄17'49	
greatest brilliancy	2854 Jan 01 06:10	20°♄30'59	-0.4m	transit end	2854 Nov 23 07:07	1°♄02'40	
	2854 Jan 08 07:04	0°♄			2854 Nov 24 02:07	30°♄	
desc. node	2854 Jan 12 15:15	6°♄15'06		morning rise	2854 Nov 28 17:34	25°♄05'47	
morning set	2854 Jan 26 15:32	27°♄32'11		direct	2854 Dec 02 08:38	23°♄50'07	
	2854 Jan 28 05:00	0°♄		morning max el	2854 Dec 09 22:31	28°♄09'06	19°59'36
max. Earth dist.	2854 Feb 03 05:41	9°♄42'14	1.42406 AU		2854 Dec 11 16:02	0°♄	
				greatest brilliancy	2854 Dec 17 02:40	6°♄52'06	-0.6m
superior conj	2854 Feb 10 11:46	21°♄50'43	-2°-6'-8	desc. node	2854 Dec 30 12:17	26°♄30'25	
minimum elong	2854 Feb 10 11:57	21°♄51'31	2°06'10		2855 Jan 01 19:15	0°♄	
	2854 Feb 15 04:26	0°♄		morning set	2855 Jan 05 11:39	5°♄39'39	
evening rise	2854 Feb 21 22:35	12°♄04'55		max. Earth dist.	2855 Jan 16 15:16	23°♄08'46	1.43989 AU
asc. node	2854 Mar 03 20:36	29°♄23'13			2855 Jan 20 21:29	0°♄	
	2854 Mar 04 05:55	0°♄					
evening max el	2854 Mar 10 13:44	8°♄18'21	18°07'49	superior conj	2855 Jan 21 23:01	1°♄43'48	-1°-58'-5
retrograde	2854 Mar 17 05:56	11°♄42'48		minimum elong	2855 Jan 21 17:34	1°♄21'37	1°57'49
evening set	2854 Mar 19 20:38	11°♄11'39		evening rise	2855 Feb 04 03:31	23°♄51'05	
inferior conj	2854 Mar 26 12:48	6°♄14'01	3°23'26		2855 Feb 07 17:24	0°♄	
minimum elong	2854 Mar 26 15:09	6°♄08'24	3°23'08	asc. node	2855 Feb 18 17:39	17°♄34'50	
min. Earth dist.	2854 Mar 29 17:43	3°♄11'11	0.60980 AU	evening max el	2855 Feb 22 02:24	21°♄33'36	18°12'12
morning rise	2854 Apr 02 06:34	0°♄21'45		retrograde	2855 Feb 28 12:58	24°♄58'33	
	2854 Apr 02 20:14	30°♄		evening set	2855 Mar 03 09:06	24°♄16'50	
direct	2854 Apr 09 00:33	28°♄06'17		inferior conj	2855 Mar 09 13:28	18°♄58'53	3°39'45
desc. node	2854 Apr 10 14:26	28°♄13'20		minimum elong	2855 Mar 09 13:56	18°♄57'39	3°39'44
	2854 Apr 15 14:09	0°♄		min. Earth dist.	2855 Mar 12 05:18	16°♄06'53	0.63044 AU
morning max el	2854 Apr 23 06:16	6°♄01'19	27°44'58	morning rise	2855 Mar 15 16:42	12°♄54'50	
	2854 May 11 06:28	0°♄		direct	2855 Mar 22 14:47	10°♄15'06	
morning set	2854 May 25 19:01	26°♄46'57		desc. node	2855 Mar 28 11:30	11°♄53'06	
	2854 May 27 08:10	0°♄		morning max el	2855 Apr 05 12:58	18°♄12'03	27°46'56
asc. node	2854 May 30 19:53	7°♄27'03			2855 Apr 15 10:52	0°♄	
max. Earth dist.	2854 May 31 21:40	9°♄47'11	1.32234 AU		2855 May 04 02:22	0°♄	
				morning set	2855 May 09 18:32	10°♄58'11	
superior conj	2854 Jun 02 02:59	12°♄27'32	0°24'01	max. Earth dist.	2855 May 15 03:53	22°♄08'16	1.32767 AU
minimum elong	2854 Jun 02 01:55	12°♄21'39	0°23'46				
evening rise	2854 Jun 09 00:31	27°♄27'51		superior conj	2855 May 17 11:24	27°♄05'57	0°-2'-26
	2854 Jun 10 05:23	0°♄		minimum elong	2855 May 17 11:31	27°♄06'36	0°02'26
	2854 Jun 27 07:55	0°♄		behind sun begin	2855 May 17 06:19	26°♄38'33	
evening max el	2854 Jul 05 10:21	9°♄29'05	25°06'19	behind sun end	2855 May 17 16:43	27°♄34'41	
desc. node	2854 Jul 07 13:40	11°♄24'06		asc. node	2855 May 17 16:58	27°♄36'04	
retrograde	2854 Jul 19 09:57	16°♄34'48			2855 May 18 19:34	0°♄	
evening set	2854 Jul 24 22:26	15°♄24'54		evening rise	2855 May 24 12:25	12°♄17'51	
min. Earth dist.	2854 Jul 29 22:03	12°♄41'01	0.57539 AU		2855 Jun 02 12:35	0°♄	
inferior conj	2854 Aug 01 22:42	10°♄38'35	-5°-3'-31	evening max el	2855 Jun 16 23:58	20°♄01'32	23°32'31
minimum elong	2854 Aug 01 22:08	10°♄39'32	5°03'31	desc. node	2855 Jun 24 10:42	25°♄24'15	
morning rise	2854 Aug 10 01:31	6°♄26'45		retrograde	2855 Jun 30 15:00	26°♄50'51	
direct	2854 Aug 12 14:43	6°♄07'39		evening set	2855 Jul 04 16:04	26°♄15'02	
morning max el	2854 Aug 21 11:39	10°♄17'47	19°05'08	min. Earth dist.	2855 Jul 11 10:04	23°♄06'35	0.55913 AU
asc. node	2854 Aug 26 19:07	16°♄40'02		inferior conj	2855 Jul 13 12:08	21°♄51'58	-4°-36'-23
	2854 Sep 03 14:44	0°♄		minimum elong	2855 Jul 13 05:59	22°♄01'10	4°35'25
morning set	2854 Sep 07 05:58	7°♄04'38		morning rise	2855 Jul 21 23:08	17°♄56'52	
				direct	2855 Jul 24 18:26	17°♄37'22	
superior conj	2854 Sep 15 14:15	23°♄31'03	1°40'35	morning max el	2855 Aug 04 03:00	22°♄25'33	20°11'38
minimum elong	2854 Sep 15 16:09	23°♄40'10	1°40'29		2855 Aug 10 10:59	0°♄	
	2854 Sep 19 00:13	0°♄		asc. node	2855 Aug 13 16:11	5°♄02'26	

morning set	2855 Aug 22 10:51	21°♂39'25		asc. node	2856 Jul 30 13:14	24°♂00'26	
	2855 Aug 26 12:30	0°♂			2856 Aug 02 15:59	0°♂	
superior conj	2855 Aug 30 04:16	7°♂26'59	1°45'07	morning set	2856 Aug 05 19:51	6°♂26'31	
minimum elong	2855 Aug 30 04:25	7°♂27'44	1°45'07	superior conj	2856 Aug 13 03:41	21°♂50'47	1°42'09
max. Earth dist.	2855 Sep 04 12:35	17°♂57'27	1.36644 AU	minimum elong	2856 Aug 13 02:28	21°♂44'29	1°42'06
evening rise	2855 Sep 08 10:48	25°♂17'28		max. Earth dist.	2856 Aug 17 01:07	29°♂50'53	1.34945 AU
	2855 Sep 11 01:43	0°♂			2856 Aug 17 02:56	0°♂	
desc. node	2855 Sep 20 10:00	15°♂35'37		evening rise	2856 Aug 21 11:23	8°♂33'16	
	2855 Sep 30 03:49	0°♂			2856 Sep 02 15:34	0°♂	
evening max el	2855 Oct 14 03:51	16°♂50'45	25°52'03	desc. node	2856 Sep 06 07:03	5°♂43'35	
retrograde	2855 Oct 26 13:44	23°♂54'55			2856 Sep 25 04:43	0°♂	
evening set	2855 Nov 01 16:05	21°♂23'46		evening max el	2856 Sep 25 16:16	0°♂28'03	26°47'31
min. Earth dist.	2855 Nov 06 00:00	16°♂43'10	0.66843 AU	retrograde	2856 Oct 08 17:43	7°♂43'19	
inferior conj	2855 Nov 07 08:00	15°♂02'17	0°-47'-32	evening set	2856 Oct 15 09:10	5°♂03'00	
minimum elong	2855 Nov 07 09:15	14°♂58'21	0°47'01	min. Earth dist.	2856 Oct 19 09:52	0°♂59'12	0.65812 AU
asc. node	2855 Nov 09 15:25	12°♂14'23			2856 Oct 20 06:11	30°♂	
morning rise	2855 Nov 13 03:19	9°♂07'28		inferior conj	2856 Oct 21 05:43	28°♂50'39	-1°-46'-44
direct	2855 Nov 16 07:20	8°♂09'49		minimum elong	2856 Oct 21 08:37	28°♂42'07	1°45'34
morning max el	2855 Nov 23 05:32	12°♂01'15	19°02'29	asc. node	2856 Oct 26 12:27	23°♂38'49	
	2855 Dec 06 10:48	0°♂		morning rise	2856 Oct 27 09:33	23°♂07'50	
morning set	2855 Dec 15 17:35	14°♂24'34		direct	2856 Oct 30 04:41	22°♂24'30	
desc. node	2855 Dec 17 09:18	16°♂59'41		morning max el	2856 Nov 05 18:23	25°♂58'49	18°21'32
	2855 Dec 25 16:53	0°♂			2856 Nov 09 05:09	0°♂	
max. Earth dist.	2855 Dec 30 07:21	7°♂13'35	1.44954 AU	morning set	2856 Nov 25 02:36	24°♂33'23	
					2856 Nov 28 11:37	0°♂	
superior conj	2856 Jan 01 10:24	10°♂34'54	-1°-30'-47	desc. node	2856 Dec 03 06:19	7°♂38'53	
minimum elong	2856 Jan 01 01:23	9°♂59'15	1°29'54				
	2856 Jan 13 13:33	0°♂		superior conj	2856 Dec 10 12:09	19°♂06'11	0°-47'-36
evening rise	2856 Jan 16 10:26	4°♂40'35		minimum elong	2856 Dec 10 06:05	18°♂42'22	0°46'50
	2856 Feb 01 11:43	0°♂		max. Earth dist.	2856 Dec 12 02:34	21°♂37'10	1.45189 AU
evening max el	2856 Feb 05 14:21	4°♂57'52	18°35'04		2856 Dec 17 10:53	0°♂	
asc. node	2856 Feb 05 14:42	4°♂58'47		evening rise	2856 Dec 26 18:16	14°♂35'22	
retrograde	2856 Feb 12 04:19	8°♂35'56			2857 Jan 05 14:37	0°♂	
evening set	2856 Feb 15 06:09	7°♂42'41		greatest brilliancy	2857 Jan 09 12:29	5°♂57'53	-0.7m
inferior conj	2856 Feb 21 02:07	2°♂05'58	3°36'48	evening max el	2857 Jan 18 23:15	18°♂26'45	19°15'14
minimum elong	2856 Feb 21 01:00	2°♂09'18	3°36'42	asc. node	2857 Jan 22 11:45	21°♂22'05	
	2856 Feb 22 20:17	30°♂		retrograde	2857 Jan 26 00:24	22°♂28'38	
min. Earth dist.	2856 Feb 23 02:20	29°♂42'15	0.64807 AU	evening set	2857 Jan 29 08:55	21°♂22'52	
morning rise	2856 Feb 26 18:34	25°♂55'17		inferior conj	2857 Feb 03 23:18	15°♂29'44	3°19'29
direct	2856 Mar 04 12:17	23°♂05'29		minimum elong	2857 Feb 03 21:11	15°♂36'33	3°19'07
desc. node	2856 Mar 14 08:32	27°♂37'54		min. Earth dist.	2857 Feb 05 08:19	13°♂43'40	0.66178 AU
	2856 Mar 16 23:59	0°♂		morning rise	2857 Feb 09 08:36	9°♂15'28	
morning max el	2856 Mar 17 22:26	0°♂55'15	27°13'59	direct	2857 Feb 15 16:08	6°♂29'00	
	2856 Apr 08 12:26	0°♂		morning max el	2857 Feb 28 08:16	13°♂59'41	26°12'56
morning set	2856 Apr 22 09:05	24°♂38'45		desc. node	2857 Mar 01 05:33	14°♂54'22	
	2856 Apr 25 02:09	0°♂			2857 Mar 13 08:56	0°♂	
max. Earth dist.	2856 Apr 27 01:32	4°♂00'06	1.33744 AU		2857 Apr 01 06:13	0°♂	
				morning set	2857 Apr 05 10:56	7°♂38'04	
superior conj	2856 Apr 30 15:11	11°♂25'33	0°-30'-30	max. Earth dist.	2857 Apr 09 11:56	15°♂20'28	1.35177 AU
minimum elong	2856 Apr 30 16:44	11°♂33'46	0°30'11				
asc. node	2856 May 03 13:59	17°♂41'15		superior conj	2857 Apr 14 11:59	25°♂19'46	0°-58'-55
evening rise	2856 May 07 23:19	26°♂59'55		minimum elong	2857 Apr 14 15:02	25°♂35'19	0°58'22
	2856 May 09 09:57	0°♂			2857 Apr 16 18:32	0°♂	
	2856 May 28 03:52	0°♂		asc. node	2857 Apr 20 11:02	7°♂39'14	
evening max el	2856 May 28 16:35	0°♂31'33	21°57'04	evening rise	2857 Apr 22 07:18	11°♂28'06	
retrograde	2856 Jun 10 08:09	6°♂46'10			2857 May 02 02:22	0°♂	
desc. node	2856 Jun 10 07:45	6°♂46'10		evening max el	2857 May 10 19:00	11°♂28'54	20°32'50
evening set	2856 Jun 13 01:36	6°♂29'35		retrograde	2857 May 21 21:17	16°♂53'06	
inferior conj	2856 Jun 22 09:49	2°♂25'40	-3°-20'-6	evening set	2857 May 23 22:46	16°♂42'40	
minimum elong	2856 Jun 22 01:45	2°♂36'57	3°17'46	desc. node	2857 May 28 04:47	15°♂22'39	
min. Earth dist.	2856 Jun 21 21:06	2°♂43'28	0.54992 AU	inferior conj	2857 Jun 02 03:44	12°♂44'59	-1°-27'-7
	2856 Jun 27 00:58	30°♂		minimum elong	2857 Jun 01 23:38	12°♂50'56	1°25'38
morning rise	2856 Jul 01 03:27	28°♂33'43		min. Earth dist.	2857 Jun 03 09:23	12°♂02'08	0.54998 AU
direct	2856 Jul 04 07:14	28°♂11'41		morning rise	2857 Jun 10 23:03	8°♂35'42	
	2856 Jul 11 02:09	0°♂		direct	2857 Jun 14 17:00	8°♂05'27	
morning max el	2856 Jul 16 06:40	3°♂48'03	21°38'03	morning max el	2857 Jun 28 01:05	14°♂32'30	23°17'59

	2857 Jul 10 00:33	0°☿		direct	2858 May 26 12:47	17°♄50'03	
asc. node	2857 Jul 17 10:16	13°♄25'10		morning max el	2858 Jun 09 15:25	24°♄58'33	24°59'30
morning set	2857 Jul 21 07:05	21°♄20'18			2858 Jun 14 07:14	0°♄	
	2857 Jul 25 08:22	0°♄			2858 Jul 02 18:14	0°☿	
				asc. node	2858 Jul 04 07:18	3°☿09'35	
superior conj	2857 Jul 28 09:23	6°♄33'10	1°33'02	morning set	2858 Jul 05 18:54	6°☿15'47	
minimum elong	2857 Jul 28 07:20	6°♄22'11	1°32'50				
max. Earth dist.	2857 Jul 30 22:33	11°♄58'36	1.33628 AU	superior conj	2858 Jul 12 19:00	21°☿26'32	1°18'49
evening rise	2857 Aug 05 01:04	22°♄27'01		minimum elong	2858 Jul 12 16:37	21°☿13'34	1°18'29
	2857 Aug 08 22:39	0°♄		max. Earth dist.	2858 Jul 14 04:02	24°☿26'23	1.32725 AU
desc. node	2857 Aug 24 04:05	25°♄25'41			2858 Jul 16 18:02	0°♄	
	2857 Aug 27 09:37	0°♄		evening rise	2858 Jul 20 00:10	6°♄48'28	
evening max el	2857 Sep 08 04:05	13°♄50'47	27°20'15		2858 Aug 01 11:08	0°♄	
retrograde	2857 Sep 21 16:01	21°♄09'17		desc. node	2858 Aug 11 01:05	14°♄31'12	
evening set	2857 Sep 28 17:09	18°♄27'55		evening max el	2858 Aug 21 13:37	26°♄47'18	27°24'01
min. Earth dist.	2857 Oct 02 11:28	14°♄59'48	0.64424 AU		2858 Aug 25 08:05	0°♄	
inferior conj	2857 Oct 04 19:49	12°♄29'07	-2°-46'-16	retrograde	2858 Sep 04 08:02	4°♄03'48	
minimum elong	2857 Oct 05 00:19	12°♄17'03	2°44'41	evening set	2858 Sep 11 12:46	1°♄33'00	
morning rise	2857 Oct 11 09:35	7°♄01'23			2858 Sep 13 13:03	30°♄	
asc. node	2857 Oct 13 09:29	6°♄30'04		min. Earth dist.	2858 Sep 15 03:17	28°♄35'08	0.62705 AU
direct	2857 Oct 13 22:14	6°♄28'36		inferior conj	2858 Sep 17 23:33	25°♄51'38	-3°-42'-42
morning max el	2857 Oct 20 10:21	9°♄55'05	17°57'30	minimum elong	2858 Sep 18 05:05	25°♄38'21	3°41'08
	2857 Nov 03 01:42	0°♄		morning rise	2858 Sep 25 00:06	20°♄42'10	
morning set	2857 Nov 06 16:09	6°♄05'34		direct	2858 Sep 27 09:03	20°♄16'25	
				asc. node	2858 Sep 30 06:30	20°♄55'42	
superior conj	2857 Nov 20 01:27	28°♄16'14	0°00'32	morning max el	2858 Oct 04 02:29	23°♄43'13	17°51'12
minimum elong	2857 Nov 20 01:31	28°♄16'27	0°00'33		2858 Oct 09 02:44	0°♄	
behind sun begin	2857 Nov 19 15:14	27°♄34'58		morning set	2858 Oct 20 04:43	18°♄44'10	
behind sun end	2857 Nov 20 11:47	28°♄57'52			2858 Oct 26 14:09	0°♄	
desc. node	2857 Nov 20 03:22	28°♄23'57					
	2857 Nov 21 03:15	0°♄		superior conj	2858 Oct 31 15:47	8°♄40'46	0°42'51
max. Earth dist.	2857 Nov 24 21:17	5°♄58'50	1.44684 AU	minimum elong	2858 Oct 31 19:36	8°♄56'49	0°42'20
evening rise	2857 Dec 06 07:59	23°♄49'40		desc. node	2858 Nov 07 00:23	19°♄11'28	
	2857 Dec 10 08:33	0°♄		max. Earth dist.	2858 Nov 07 12:46	20°♄01'37	1.43514 AU
greatest brilliancy	2857 Dec 26 14:13	23°♄57'19	-0.6m		2858 Nov 13 19:19	0°♄	
	2857 Dec 31 08:34	0°♄		evening rise	2858 Nov 15 17:17	2°♄59'02	
evening max el	2858 Jan 02 03:24	1°♄57'03	20°10'58		2858 Dec 03 20:52	0°♄	
asc. node	2858 Jan 09 08:47	6°♄29'22		greatest brilliancy	2858 Dec 11 00:25	9°♄37'42	-0.4m
retrograde	2858 Jan 09 22:19	6°♄31'08		evening max el	2858 Dec 16 02:03	15°♄28'49	21°19'23
evening set	2858 Jan 13 15:03	5°♄11'35		retrograde	2858 Dec 24 19:56	20°♄40'19	
	2858 Jan 18 09:44	30°♄		asc. node	2858 Dec 27 05:47	20°♄08'20	
inferior conj	2858 Jan 19 02:08	29°♄04'55	2°51'11	evening set	2858 Dec 28 22:42	19°♄05'32	
minimum elong	2858 Jan 18 23:35	29°♄13'30	2°50'32	inferior conj	2859 Jan 03 08:20	12°♄48'35	2°14'13
min. Earth dist.	2858 Jan 19 21:24	27°♄59'55	0.67142 AU	minimum elong	2859 Jan 03 05:53	12°♄57'03	2°13'25
morning rise	2858 Jan 24 07:33	22°♄49'20		min. Earth dist.	2859 Jan 03 15:20	12°♄24'24	0.67713 AU
direct	2858 Jan 30 01:37	20°♄16'24		morning rise	2859 Jan 08 12:42	6°♄33'43	
morning max el	2858 Feb 10 17:01	27°♄13'38	24°53'06	direct	2859 Jan 13 15:56	4°♄20'48	
	2858 Feb 13 07:26	0°♄		morning max el	2859 Jan 24 01:44	10°♄32'26	23°24'53
desc. node	2858 Feb 16 02:34	3°♄15'43		greatest brilliancy	2859 Jan 29 18:06	16°♄57'49	-0.2m
	2858 Mar 07 00:43	0°♄		desc. node	2859 Feb 02 23:36	22°♄23'35	
morning set	2858 Mar 18 18:57	19°♄41'15			2859 Feb 08 11:49	0°♄	
max. Earth dist.	2858 Mar 22 11:24	26°♄21'22	1.37027 AU		2859 Feb 27 19:26	0°♄	
	2858 Mar 24 10:23	0°♄		morning set	2859 Feb 28 03:00	0°♄31'53	
				max. Earth dist.	2859 Mar 04 06:02	7°♄36'48	1.39154 AU
superior conj	2858 Mar 28 22:46	8°♄40'03	-1°-25'-50				
minimum elong	2858 Mar 29 02:59	9°♄00'40	1°25'14	superior conj	2859 Mar 11 19:42	21°♄16'51	-1°-48'-32
evening rise	2858 Apr 06 10:02	25°♄35'03		minimum elong	2859 Mar 12 00:04	21°♄37'13	1°48'09
asc. node	2858 Apr 07 08:05	27°♄25'04			2859 Mar 16 10:12	0°♄	
	2858 Apr 08 15:23	0°♄		evening rise	2859 Mar 21 04:47	9°♄13'38	
evening max el	2858 Apr 23 09:31	23°♄06'47	19°26'34	asc. node	2859 Mar 25 05:06	16°♄53'35	
retrograde	2858 May 02 18:27	27°♄39'12			2859 Apr 01 23:27	0°♄	
evening set	2858 May 04 18:52	27°♄27'31		evening max el	2859 Apr 06 10:23	5°♄22'58	18°40'15
inferior conj	2858 May 13 08:26	23°♄21'22	0°29'54	retrograde	2859 Apr 14 08:52	9°♄15'54	
minimum elong	2858 May 13 09:41	23°♄19'20	0°29'27	evening set	2859 Apr 16 14:35	8°♄58'29	
desc. node	2858 May 15 01:46	22°♄14'13		inferior conj	2859 Apr 24 08:49	4°♄34'10	2°02'54
min. Earth dist.	2858 May 15 23:54	21°♄38'57	0.55946 AU	minimum elong	2859 Apr 24 12:35	4°♄27'02	2°01'48
morning rise	2858 May 21 20:37	18°♄39'38		min. Earth dist.	2859 Apr 27 17:21	2°♄03'18	0.57640 AU

	2859 Apr 30 21:50	30°℞℣		inferior conj	2860 Apr 05 06:28	16°℣28'02	3°02'47
desc. node	2859 May 01 22:48	29°℣27'29		minimum elong	2860 Apr 05 09:47	16°℣20'44	3°02'09
morning rise	2859 May 02 06:10	29°℣18'45		min. Earth dist.	2860 Apr 08 15:52	13°℣29'56	0.59735 AU
direct	2859 May 07 22:46	27°℣58'13		morning rise	2860 Apr 12 10:03	10°℣46'33	
	2859 May 15 02:33	0°♄		desc. node	2860 Apr 17 19:50	8°℣53'30	
morning max el	2859 May 22 07:27	5°♄32'43	26°27'08	direct	2860 Apr 18 21:21	8°℣50'24	
	2859 Jun 09 05:59	0°♂		morning max el	2860 May 03 05:18	16°℣39'26	27°26'49
morning set	2859 Jun 20 05:38	21°♂06'49			2860 May 14 04:45	0°♄	
asc. node	2859 Jun 21 04:21	23°♂07'01			2860 May 31 17:25	0°♂	
	2859 Jun 24 08:45	0°♄		morning set	2860 Jun 03 13:40	5°♂47'59	
				asc. node	2860 Jun 07 01:25	13°♂12'34	
superior conj	2859 Jun 27 06:30	6°♄23'19	1°00'18	max. Earth dist.	2860 Jun 10 02:45	19°♂52'47	1.32126 AU
minimum elong	2859 Jun 27 04:17	6°♄11'08	0°59'53				
max. Earth dist.	2859 Jun 27 14:37	7°♄08'00	1.32228 AU	superior conj	2860 Jun 10 18:10	21°♂17'35	0°38'09
evening rise	2859 Jul 04 05:41	21°♄27'29		minimum elong	2860 Jun 10 16:33	21°♂08'45	0°37'49
	2859 Jul 08 10:37	0°♂			2860 Jun 14 17:19	0°♄	
	2859 Jul 26 17:53	0°♄		evening rise	2860 Jun 17 15:17	6°♄16'18	
desc. node	2859 Jul 28 22:06	2°♄44'14			2860 Jun 30 02:28	0°♂	
evening max el	2859 Aug 03 18:20	9°♄04'28	26°54'49	desc. node	2860 Jul 14 19:07	19°♂43'12	
retrograde	2859 Aug 17 16:26	16°♄16'53		evening max el	2860 Jul 15 15:57	20°♂34'01	25°53'21
evening set	2859 Aug 24 15:37	14°♄09'48		retrograde	2860 Jul 29 15:37	27°♂42'33	
min. Earth dist.	2859 Aug 28 08:33	11°♄31'05	0.60735 AU	evening set	2860 Aug 04 20:54	26°♂10'09	
inferior conj	2859 Aug 31 13:35	8°♄48'59	-4°-30'-20	min. Earth dist.	2860 Aug 09 04:16	23°♂33'50	0.58675 AU
minimum elong	2859 Aug 31 18:44	8°♄38'06	4°29'23	inferior conj	2860 Aug 12 10:21	21°♂11'25	-4°-59'-52
morning rise	2859 Sep 08 01:00	4°♄00'51		minimum elong	2860 Aug 12 12:40	21°♂07'10	4°59'44
direct	2859 Sep 10 09:23	3°♄39'12		morning rise	2860 Aug 20 07:54	16°♂46'43	
asc. node	2859 Sep 17 03:32	6°♄46'11		direct	2860 Aug 22 18:48	16°♂27'00	
morning max el	2859 Sep 17 15:37	7°♄14'35	18°03'47	morning max el	2860 Aug 30 22:35	20°♂20'39	18°36'39
	2859 Oct 02 05:59	0°♄		asc. node	2860 Sep 03 00:36	23°♂47'03	
morning set	2859 Oct 03 10:04	2°♄10'25			2860 Sep 07 06:50	0°♄	
				morning set	2860 Sep 16 03:15	16°♄10'38	
superior conj	2859 Oct 13 08:29	20°♄22'08	1°14'11		2860 Sep 23 07:09	0°♄	
minimum elong	2859 Oct 13 12:45	20°♄41'06	1°13'41				
	2859 Oct 18 21:24	0°♄		superior conj	2860 Sep 24 23:00	3°♄07'53	1°33'56
max. Earth dist.	2859 Oct 20 23:35	3°♄31'35	1.41818 AU	minimum elong	2860 Sep 25 01:56	3°♄21'37	1°33'42
desc. node	2859 Oct 24 21:25	9°♄57'55		max. Earth dist.	2860 Oct 02 05:44	16°♄19'41	1.39811 AU
evening rise	2859 Oct 26 14:38	12°♄44'05		evening rise	2860 Oct 06 10:03	23°♄29'55	
	2859 Nov 06 19:22	0°♄			2860 Oct 10 08:37	0°♄	
greatest brilliancy	2859 Nov 23 22:52	23°♄35'30	-0.3m	desc. node	2860 Oct 10 18:26	0°♄39'40	
evening max el	2859 Nov 28 19:37	29°♄02'38	22°36'23		2860 Oct 30 16:48	0°♄	
	2859 Nov 29 19:00	0°♄		evening max el	2860 Nov 10 09:27	12°♄39'08	23°56'23
retrograde	2859 Dec 08 15:30	4°♄52'57		retrograde	2860 Nov 21 07:50	19°♄05'09	
evening set	2859 Dec 13 06:12	3°♄01'38		evening set	2860 Nov 26 11:57	16°♄56'56	
asc. node	2859 Dec 14 02:48	2°♄15'45		asc. node	2860 Nov 29 23:51	13°♄08'20	
	2859 Dec 16 03:32	30°℞♄		inferior conj	2860 Dec 01 23:05	10°♄30'32	0°40'11
inferior conj	2859 Dec 18 15:55	26°♄38'01	1°30'09	minimum elong	2860 Dec 01 22:09	10°♄33'44	0°39'47
minimum elong	2859 Dec 18 14:01	26°♄44'36	1°29'25	min. Earth dist.	2860 Dec 01 08:08	11°♄21'14	0.67759 AU
min. Earth dist.	2859 Dec 18 11:42	26°♄52'39	0.67910 AU	morning rise	2860 Dec 07 08:35	4°♄23'20	
morning rise	2859 Dec 23 21:44	20°♄25'55		direct	2860 Dec 11 06:56	2°♄55'51	
direct	2859 Dec 28 10:03	18°♄35'51		morning max el	2860 Dec 19 08:54	7°♄35'05	20°39'15
morning max el	2860 Jan 06 13:56	23°♄58'28	21°57'54	greatest brilliancy	2860 Dec 25 07:35	14°♄33'00	-0.5m
greatest brilliancy	2860 Jan 11 06:31	29°♄14'57	-0.4m		2861 Jan 05 06:43	0°♄	
	2860 Jan 11 21:08	0°♄		desc. node	2861 Jan 06 17:41	2°♄09'43	
desc. node	2860 Jan 20 20:39	12°♄04'52		morning set	2861 Jan 17 08:40	18°♄20'26	
	2860 Feb 01 21:58	0°♄			2861 Jan 24 17:59	0°♄	
morning set	2860 Feb 08 06:18	9°♄59'36		max. Earth dist.	2861 Jan 26 10:10	2°♄41'50	1.43145 AU
max. Earth dist.	2860 Feb 14 04:22	19°♄41'23	1.41292 AU				
	2860 Feb 20 05:16	0°♄		superior conj	2861 Feb 02 00:18	13°♄32'26	-2°-4'-58
				minimum elong	2861 Feb 01 22:13	13°♄23'45	2°04'56
superior conj	2860 Feb 21 21:57	2°♄58'37	-2°-3'-13		2861 Feb 11 14:10	0°♄	
minimum elong	2860 Feb 22 00:29	3°♄09'44	2°03'09	evening rise	2861 Feb 14 04:02	4°♄32'38	
evening rise	2860 Mar 03 12:10	22°♄16'03		asc. node	2861 Feb 25 23:12	24°♄32'46	
	2860 Mar 07 16:58	0°℣			2861 Mar 02 01:39	0°℣	
asc. node	2860 Mar 11 02:08	5°℣58'54		evening max el	2861 Mar 03 06:09	1°℣15'48	18°07'17
evening max el	2860 Mar 19 18:23	18°℣09'16	18°13'57	retrograde	2861 Mar 09 18:48	4°℣39'02	
retrograde	2860 Mar 26 18:12	21°℣39'33		evening set	2861 Mar 12 11:47	4°℣03'29	
evening set	2860 Mar 29 05:51	21°℣13'46			2861 Mar 17 21:09	30°℞♄	

inferior conj	2861 Mar 18 22:28	28° Υ 56'43	3°33'05	minimum elong	2862 Jan 12 16:55	22° \eth 25'51	1°48'20
minimum elong	2861 Mar 19 00:00	28° Υ 52'49	3°32'57		2862 Jan 17 09:22	0° \approx	
min. Earth dist.	2861 Mar 21 22:12	25° Υ 56'08	0.61884 AU	evening rise	2862 Jan 27 00:03	15° \approx 55'38	
morning rise	2861 Mar 25 09:37	22° Υ 58'29			2862 Feb 04 10:02	0° Υ	
direct	2861 Apr 01 06:18	20° Υ 31'30		asc. node	2862 Feb 12 20:14	12° Υ 25'43	
desc. node	2861 Apr 04 16:53	21° Υ 05'10		evening max el	2862 Feb 14 18:45	14° Υ 35'22	18°19'40
morning max el	2861 Apr 15 09:28	28° Υ 28'01	27°50'24	retrograde	2862 Feb 21 05:56	18° Υ 04'52	
	2861 Apr 16 21:17	0° Υ		evening set	2862 Feb 24 04:17	17° Υ 18'30	
	2861 May 08 00:06	0° \eth		inferior conj	2862 Mar 02 04:43	11° Υ 52'19	3°40'31
morning set	2861 May 18 16:58	20° \eth 12'18		minimum elong	2862 Mar 02 04:27	11° Υ 53'06	3°40'29
	2861 May 23 09:09	0° Π		min. Earth dist.	2862 Mar 04 14:00	9° Υ 10'29	0.63836 AU
max. Earth dist.	2861 May 24 12:21	2° Π 26'26	1.32416 AU	morning rise	2862 Mar 08 02:52	5° Υ 44'37	
asc. node	2861 May 24 22:29	3° Π 21'17		direct	2862 Mar 14 23:49	2° Υ 58'46	
				desc. node	2862 Mar 22 13:56	5° Υ 42'20	
superior conj	2861 May 26 04:15	6° Π 03'12	0°13'03	morning max el	2862 Mar 28 17:53	10° Υ 54'47	27°36'49
minimum elong	2861 May 26 03:39	5° Π 59'53	0°12'56		2862 Apr 12 19:20	0° Υ	
behind sun begin	2861 May 26 00:39	5° Π 43'30			2862 Apr 30 09:31	0° \eth	
behind sun end	2861 May 26 06:39	6° Π 16'16		morning set	2862 May 02 13:05	4° \eth 12'03	
evening rise	2861 Jun 02 02:52	21° Π 07'26		max. Earth dist.	2862 May 07 15:21	14° \eth 36'10	1.33127 AU
	2861 Jun 06 10:14	0° \eth					
	2861 Jun 25 22:46	0° Ω		superior conj	2862 May 10 10:57	20° \eth 34'25	0°-14'-13
evening max el	2861 Jun 27 06:53	1° Ω 20'22	24°27'27	minimum elong	2862 May 10 11:40	20° \eth 38'12	0°14'04
desc. node	2861 Jul 01 16:08	4° Ω 58'40		behind sun begin	2862 May 10 09:07	20° \eth 24'37	
retrograde	2861 Jul 11 04:02	8° Ω 21'17		behind sun end	2862 May 10 14:12	20° \eth 51'48	
evening set	2861 Jul 16 02:16	7° Ω 26'55		asc. node	2862 May 11 19:32	23° \eth 29'13	
min. Earth dist.	2861 Jul 21 17:49	4° Ω 34'23	0.56783 AU		2862 May 14 20:05	0° Π	
inferior conj	2861 Jul 24 11:08	2° Ω 50'29	-4°-57'-44	evening rise	2862 May 17 14:34	5° Π 54'43	
minimum elong	2861 Jul 24 08:07	2° Ω 55'19	4°57'31		2862 May 30 12:31	0° \eth	
	2861 Jul 29 09:09	30° \eth		evening max el	2862 Jun 08 20:37	11° \eth 47'18	22°51'08
morning rise	2861 Aug 01 17:38	28° \eth 47'19		desc. node	2862 Jun 18 13:10	17° \eth 55'04	
direct	2861 Aug 04 09:17	28° \eth 28'14		retrograde	2862 Jun 22 04:08	18° \eth 25'05	
	2861 Aug 09 23:41	0° Ω		evening set	2862 Jun 25 14:05	17° \eth 59'30	
morning max el	2861 Aug 13 20:23	2° Ω 52'31	19°30'55	min. Earth dist.	2862 Jul 03 05:15	14° \eth 36'28	0.55413 AU
asc. node	2861 Aug 20 21:41	11° Ω 43'38		inferior conj	2862 Jul 04 16:52	13° \eth 45'12	-4°-9'-57
	2861 Aug 30 21:38	0° \mp		minimum elong	2862 Jul 04 09:10	13° \eth 56'19	4°08'15
morning set	2861 Aug 31 04:40	0° \mp 35'12		morning rise	2862 Jul 13 07:00	9° \eth 53'39	
				direct	2862 Jul 16 05:11	9° \eth 33'40	
superior conj	2861 Sep 08 05:53	16° \mp 42'46	1°43'31	morning max el	2862 Jul 27 06:50	14° \eth 41'46	20°46'17
minimum elong	2861 Sep 08 07:00	16° \mp 48'17	1°43'29	asc. node	2862 Aug 07 18:44	0° Ω 22'31	
max. Earth dist.	2861 Sep 14 09:48	28° \mp 28'48	1.37747 AU		2862 Aug 07 13:36	0° Ω	
	2861 Sep 15 05:37	0° \eth		morning set	2862 Aug 15 11:32	15° Ω 15'53	
evening rise	2861 Sep 18 05:03	5° \eth 21'45			2862 Aug 22 14:09	0° \mp	
desc. node	2861 Sep 27 15:27	21° \eth 12'52					
	2861 Oct 03 08:07	0° \mathbb{L}		superior conj	2862 Aug 23 00:20	0° \mp 52'09	1°44'41
evening max el	2861 Oct 23 21:35	26° \mathbb{L} 19'01	25°12'42	minimum elong	2862 Aug 22 23:51	0° \mp 49'41	1°44'41
	2861 Oct 28 02:53	0° \mathbb{A}		max. Earth dist.	2862 Aug 27 17:32	10° \mp 19'35	1.35871 AU
retrograde	2861 Nov 04 20:01	3° \mathbb{A} 13'03		evening rise	2862 Aug 31 20:10	18° \mp 10'47	
evening set	2861 Nov 10 14:18	0° \mathbb{A} 49'12			2862 Sep 07 11:01	0° \eth	
	2861 Nov 11 11:53	30° $\mathbb{R}\mathbb{L}$		desc. node	2862 Sep 14 12:29	11° \eth 31'56	
min. Earth dist.	2861 Nov 15 02:24	25° \mathbb{L} 48'07	0.67269 AU		2862 Sep 27 13:23	0° \mathbb{L}	
inferior conj	2861 Nov 16 04:06	24° \mathbb{L} 24'24	0°-14'-26	evening max el	2862 Oct 06 09:45	9° \mathbb{L} 59'17	26°18'01
minimum elong	2861 Nov 16 04:28	24° \mathbb{L} 23'12	0°14'18	retrograde	2862 Oct 19 03:18	17° \mathbb{L} 10'13	
transit middle	2861 Nov 16 04:28	24° \mathbb{L} 23'12	0°14'18	evening set	2862 Oct 25 11:21	14° \mathbb{L} 34'21	
transit begin	2861 Nov 16 03:09	24° \mathbb{L} 27'28		min. Earth dist.	2862 Oct 29 16:05	10° \mathbb{L} 09'15	0.66441 AU
transit end	2861 Nov 16 05:46	24° \mathbb{L} 18'57		inferior conj	2862 Oct 31 05:03	8° \mathbb{L} 15'53	-1°-12'-27
asc. node	2861 Nov 16 20:54	23° \mathbb{L} 29'57		minimum elong	2862 Oct 31 06:59	8° \mathbb{L} 09'56	1°11'40
morning rise	2861 Nov 21 19:18	18° \mathbb{L} 24'22		asc. node	2862 Nov 03 17:56	4° \mathbb{L} 16'50	
direct	2861 Nov 25 05:19	17° \mathbb{L} 16'59		morning rise	2862 Nov 06 03:47	2° \mathbb{L} 25'45	
morning max el	2861 Dec 02 11:48	21° \mathbb{L} 23'01	19°33'29	direct	2862 Nov 09 03:38	1° \mathbb{L} 34'47	
	2861 Dec 09 12:21	0° \mathbb{A}		morning max el	2862 Nov 15 21:33	5° \mathbb{L} 18'11	18°43'01
greatest brilliancy	2861 Dec 10 21:37	1° \mathbb{A} 56'36	-0.6m		2862 Dec 03 04:52	0° \mathbb{A}	
desc. node	2861 Dec 24 14:43	22° \mathbb{A} 31'51		morning set	2862 Dec 06 22:08	5° \mathbb{A} 52'54	
morning set	2861 Dec 27 05:53	26° \mathbb{A} 35'35		desc. node	2862 Dec 11 11:44	13° \mathbb{A} 05'44	
	2861 Dec 29 10:41	0° \eth			2862 Dec 22 05:52	0° \eth	
max. Earth dist.	2862 Jan 08 22:44	16° \eth 26'42	1.44478 AU	max. Earth dist.	2862 Dec 22 15:53	0° \eth 39'20	1.45141 AU
superior conj	2862 Jan 13 00:30	22° \eth 56'16	-1°-48'-52	superior conj	2862 Dec 23 05:20	1° \eth 32'06	-1°-13'-53

minimum elong	2862 Dec 22 20:46	0°☾58'29	1°12'56	minimum elong	2863 Dec 02 05:59	9°☾59'06	0°26'34
evening rise	2863 Jan 07 20:54	26°☾20'22		max. Earth dist.	2863 Dec 05 11:06	15°☾03'35	1.45067 AU
	2863 Jan 10 03:38	0°☾			2863 Dec 15 00:32	0°☾	
evening max el	2863 Jan 29 05:38	28°☾02'05	18°50'12	evening rise	2863 Dec 18 19:45	5°☾54'17	
asc. node	2863 Jan 30 17:15	29°☾25'39			2864 Jan 03 14:29	0°☾	
	2863 Jan 31 10:19	0°☾		greatest brilliancy	2864 Jan 04 15:06	1°☾28'54	-0.7m
retrograde	2863 Feb 04 23:35	1°☾49'08		evening max el	2864 Jan 12 12:43	11°☾31'52	19°37'18
evening set	2863 Feb 08 04:03	0°☾50'52		asc. node	2864 Jan 17 14:15	15°☾18'18	
	2863 Feb 09 08:44	30°☾		retrograde	2864 Jan 19 20:34	15°☾46'10	
inferior conj	2863 Feb 13 21:21	25°☾07'08	3°30'58	evening set	2864 Jan 23 08:27	14°☾34'39	
minimum elong	2863 Feb 13 19:44	25°☾12'09	3°30'46	inferior conj	2864 Jan 28 21:11	8°☾35'38	3°08'38
min. Earth dist.	2863 Feb 15 15:05	22°☾58'19	0.65439 AU	minimum elong	2864 Jan 28 18:49	8°☾43'25	3°08'09
morning rise	2863 Feb 19 10:19	18°☾54'34		min. Earth dist.	2864 Jan 30 00:12	7°☾06'51	0.66640 AU
direct	2863 Feb 26 00:22	16°☾04'19		morning rise	2864 Feb 03 04:29	2°☾20'48	
desc. node	2863 Mar 09 10:57	22°☾09'40			2864 Feb 07 00:39	30°☾	
morning max el	2863 Mar 11 03:40	23°☾48'17	26°50'53	direct	2864 Feb 09 06:43	29°☾38'54	
	2863 Mar 16 16:54	0°☾			2864 Feb 11 15:37	0°☾	
	2863 Apr 06 03:51	0°☾		morning max el	2864 Feb 21 12:46	6°☾56'31	25°40'40
morning set	2863 Apr 15 22:49	17°☾37'21		desc. node	2864 Feb 24 07:58	9°☾56'01	
max. Earth dist.	2863 Apr 20 08:09	26°☾13'26	1.34292 AU		2864 Mar 10 10:59	0°☾	
	2863 Apr 22 04:53	0°☾		morning set	2864 Mar 28 17:42	0°☾14'19	
					2864 Mar 28 14:34	0°☾	
superior conj	2863 Apr 24 12:08	4°☾44'56	0°-42'-35	max. Earth dist.	2864 Apr 01 13:21	7°☾21'47	1.35916 AU
minimum elong	2863 Apr 24 14:20	4°☾56'23	0°42'10				
asc. node	2863 Apr 28 16:34	13°☾32'25		superior conj	2864 Apr 07 05:04	18°☾25'57	-1°-10'-38
evening rise	2863 May 02 00:29	20°☾32'08		minimum elong	2864 Apr 07 08:41	18°☾44'05	1°10'03
	2863 May 06 16:55	0°☾			2864 Apr 12 21:23	0°☾	
evening max el	2863 May 21 17:04	22°☾27'53	21°19'25	asc. node	2864 Apr 14 13:35	3°☾25'50	
retrograde	2863 Jun 02 18:10	28°☾21'51		evening rise	2864 Apr 15 06:30	4°☾52'06	
evening set	2863 Jun 05 02:28	28°☾09'13			2864 Apr 29 17:18	0°☾	
desc. node	2863 Jun 05 10:11	28°☾05'35		evening max el	2864 May 03 00:43	3°☾42'19	20°02'19
inferior conj	2863 Jun 14 11:19	24°☾10'20	-2°-35'-3	retrograde	2864 May 13 08:48	8°☾43'14	
minimum elong	2863 Jun 14 04:21	24°☾20'06	2°32'46	evening set	2864 May 15 08:46	8°☾32'49	
min. Earth dist.	2863 Jun 14 17:02	24°☾02'19	0.54875 AU	desc. node	2864 May 22 07:12	5°☾45'22	
morning rise	2863 Jun 23 06:28	20°☾13'07		inferior conj	2864 May 24 08:11	4°☾33'13	0°-35'-57
direct	2863 Jun 26 15:24	19°☾48'27		minimum elong	2864 May 24 06:31	4°☾35'43	0°35'22
morning max el	2863 Jul 09 06:07	25°☾47'26	22°19'21	min. Earth dist.	2864 May 26 05:57	3°☾24'35	0.55298 AU
	2863 Jul 13 05:06	0°☾		morning rise	2864 Jun 02 01:40	0°☾11'40	
asc. node	2863 Jul 25 15:47	19°☾33'28			2864 Jun 02 18:59	30°☾	
morning set	2863 Jul 30 21:42	0°☾06'55		direct	2864 Jun 06 04:35	29°☾34'36	
	2863 Jul 30 20:23	0°☾			2864 Jun 09 13:13	0°☾	
				morning max el	2864 Jun 19 21:50	6°☾20'18	24°01'44
superior conj	2863 Aug 07 02:46	15°☾25'23	1°38'58		2864 Jul 06 19:16	0°☾	
minimum elong	2863 Aug 07 01:08	15°☾16'47	1°38'51	asc. node	2864 Jul 11 12:49	9°☾07'30	
max. Earth dist.	2863 Aug 10 09:47	22°☾18'02	1.34340 AU	morning set	2864 Jul 14 09:23	15°☾02'08	
	2863 Aug 14 05:27	0°☾					
evening rise	2863 Aug 15 02:54	1°☾45'01		superior conj	2864 Jul 21 10:23	0°☾13'07	1°27'35
	2863 Aug 31 09:43	0°☾		minimum elong	2864 Jul 21 08:08	0°☾00'58	1°27'18
desc. node	2863 Sep 01 09:30	1°☾30'10			2864 Jul 21 07:57	0°☾	
evening max el	2863 Sep 18 22:15	23°☾32'35	27°04'39	max. Earth dist.	2864 Jul 23 11:08	4°☾35'31	1.33204 AU
	2863 Sep 28 02:45	0°☾		evening rise	2864 Jul 28 21:01	15°☾51'51	
retrograde	2863 Oct 02 04:55	0°☾49'51			2864 Aug 05 06:29	0°☾	
	2863 Oct 06 00:53	30°☾		desc. node	2864 Aug 18 06:32	20°☾58'12	
evening set	2863 Oct 09 00:52	28°☾08'15			2864 Aug 25 03:17	0°☾	
min. Earth dist.	2863 Oct 12 22:50	24°☾19'36	0.65265 AU	evening max el	2864 Aug 31 09:35	6°☾46'21	27°25'39
inferior conj	2863 Oct 14 23:49	22°☾01'02	-2°-12'-8	retrograde	2864 Sep 14 00:23	14°☾03'26	
minimum elong	2863 Oct 15 03:26	21°☾50'47	2°10'44	evening set	2864 Sep 21 04:01	11°☾25'16	
morning rise	2863 Oct 21 07:43	16°☾23'53		min. Earth dist.	2864 Sep 24 20:24	8°☾10'54	0.63737 AU
asc. node	2863 Oct 21 14:58	16°☾15'44		inferior conj	2864 Sep 27 09:53	5°☾33'42	-3°-10'-52
direct	2863 Oct 23 23:46	15°☾45'27		minimum elong	2864 Sep 27 14:56	5°☾20'46	3°09'12
morning max el	2863 Oct 30 11:58	19°☾15'34	18°09'05	morning rise	2864 Oct 04 04:09	0°☾13'10	
	2863 Nov 07 13:37	0°☾			2864 Oct 04 19:20	30°☾	
morning set	2863 Nov 17 19:42	16°☾38'41		direct	2864 Oct 06 15:01	29°☾43'37	
	2863 Nov 26 00:06	0°☾		asc. node	2864 Oct 07 12:00	29°☾47'26	
desc. node	2863 Nov 28 08:45	3°☾47'39			2864 Oct 08 10:29	0°☾	
				morning max el	2864 Oct 13 04:20	3°☾09'00	17°52'34
superior conj	2863 Dec 02 09:26	10°☾12'44	0°-27'-2	morning set	2864 Oct 29 19:53	28°☾42'02	

	2864 Oct 30 13:57	0°♄		superior conj	2865 Oct 23 10:27	0°♄50'39	0°57'36
				minimum elong	2865 Oct 23 14:47	1°♄09'18	0°57'02
superior conj	2864 Nov 11 08:31	19°♄52'11	0°19'41	max. Earth dist.	2865 Oct 30 19:15	13°♄13'01	1.42842 AU
minimum elong	2864 Nov 11 10:37	20°♄00'47	0°19'23	desc. node	2865 Nov 01 02:50	15°♄21'46	
desc. node	2864 Nov 14 05:48	24°♄34'19		evening rise	2865 Nov 06 18:14	24°♄21'47	
max. Earth dist.	2864 Nov 17 05:21	29°♄21'38	1.44266 AU		2865 Nov 10 09:20	0°♄	
	2864 Nov 17 14:58	0°♄			2865 Dec 01 04:29	0°♄	
evening rise	2864 Nov 27 05:39	15°♄02'08		greatest brilliancy	2865 Dec 03 16:14	3°♄09'31	-0.4m
	2864 Dec 07 02:25	0°♄		evening max el	2865 Dec 08 10:53	8°♄35'05	21°51'21
greatest brilliancy	2864 Dec 19 19:33	18°♄09'37	-0.5m	retrograde	2865 Dec 17 15:36	14°♄03'34	
evening max el	2864 Dec 25 14:37	25°♄03'13	20°38'45	asc. node	2865 Dec 21 08:18	12°♄49'20	
retrograde	2865 Jan 02 18:34	29°♄52'24		evening set	2865 Dec 21 23:16	12°♄21'41	
asc. node	2865 Jan 03 11:16	29°♄49'43		inferior conj	2865 Dec 27 08:44	6°♄01'10	1°56'18
evening set	2865 Jan 06 15:27	28°♄26'19		minimum elong	2865 Dec 27 06:27	6°♄09'02	1°55'30
inferior conj	2865 Jan 12 01:42	22°♄14'48	2°36'26	min. Earth dist.	2865 Dec 27 10:46	5°♄54'06	0.67837 AU
minimum elong	2865 Jan 11 23:08	22°♄23'34	2°35'43		2866 Jan 01 07:37	30°♄	
min. Earth dist.	2865 Jan 12 15:30	21°♄27'37	0.67432 AU	morning rise	2866 Jan 01 13:26	29°♄47'14	
morning rise	2865 Jan 17 06:23	15°♄59'32		direct	2866 Jan 06 10:07	27°♄44'10	
direct	2865 Jan 22 18:12	13°♄34'47			2866 Jan 12 04:40	0°♄	
morning max el	2865 Feb 02 21:15	20°♄13'01	24°16'06	morning max el	2866 Jan 16 07:11	3°♄35'06	22°47'17
desc. node	2865 Feb 10 04:59	28°♄39'08		greatest brilliancy	2866 Jan 20 22:36	8°♄45'47	-0.3m
	2865 Feb 11 06:16	0°♄		desc. node	2866 Jan 28 02:02	18°♄02'25	
	2865 Mar 03 15:41	0°♄			2866 Feb 05 10:16	0°♄	
morning set	2865 Mar 10 16:16	11°♄48'19		morning set	2866 Feb 19 12:24	22°♄03'58	
max. Earth dist.	2865 Mar 14 10:17	18°♄26'28	1.37915 AU	max. Earth dist.	2866 Feb 24 05:44	0°♄00'01	1.40079 AU
	2865 Mar 20 15:53	0°♄			2866 Feb 24 05:43	0°♄	
superior conj	2865 Mar 21 10:29	1°♄28'59	-1°-36'-10	superior conj	2866 Mar 04 00:02	13°♄43'06	-1°-56'-1
minimum elong	2865 Mar 21 14:56	1°♄50'22	1°35'38	minimum elong	2866 Mar 04 03:56	14°♄00'51	1°55'46
evening rise	2865 Mar 30 06:13	18°♄48'07			2866 Mar 12 16:49	0°♄	
asc. node	2865 Apr 01 10:37	23°♄05'01		evening rise	2866 Mar 13 20:35	2°♄12'06	
	2865 Apr 05 02:19	0°♄		asc. node	2866 Mar 19 07:39	12°♄24'18	
evening max el	2865 Apr 15 19:52	15°♄36'31	19°04'20	evening max el	2866 Mar 30 00:05	28°♄05'51	18°26'36
retrograde	2865 Apr 24 12:52	19°♄50'35			2866 Apr 01 06:54	0°♄	
evening set	2865 Apr 26 15:15	19°♄36'51		retrograde	2866 Apr 06 11:41	1°♄47'28	
inferior conj	2865 May 04 20:34	15°♄23'15	1°13'14	evening set	2866 Apr 08 19:48	1°♄26'53	
minimum elong	2865 May 04 23:20	15°♄18'28	1°12'18		2866 Apr 12 00:08	30°♄	
min. Earth dist.	2865 May 07 21:15	13°♄18'30	0.56595 AU	inferior conj	2866 Apr 16 06:09	26°♄53'37	2°32'19
desc. node	2865 May 09 04:12	12°♄28'50		minimum elong	2866 Apr 16 09:59	26°♄45'51	2°31'21
morning rise	2865 May 13 03:11	10°♄26'43		min. Earth dist.	2866 Apr 19 16:43	24°♄07'57	0.58497 AU
direct	2865 May 18 05:45	9°♄25'31		morning rise	2866 Apr 23 19:56	21°♄25'29	
morning max el	2865 Jun 01 12:17	16°♄46'11	25°39'28	desc. node	2866 Apr 26 01:13	20°♄28'28	
	2865 Jun 12 07:40	0°♄		direct	2866 Apr 29 21:18	19°♄49'50	
asc. node	2865 Jun 28 09:53	28°♄58'04		morning max el	2866 May 14 06:44	27°♄32'29	26°56'43
morning set	2865 Jun 28 20:58	29°♄56'26			2866 May 16 15:47	0°♄	
	2865 Jun 28 21:39	0°♄			2866 Jun 05 20:13	0°♄	
superior conj	2865 Jul 05 21:01	15°♄08'26	1°11'27	morning set	2866 Jun 13 06:49	14°♄44'17	
minimum elong	2865 Jul 05 18:39	14°♄55'29	1°11'04	asc. node	2866 Jun 15 06:57	18°♄59'39	
max. Earth dist.	2865 Jul 06 19:21	17°♄10'50	1.32469 AU	superior conj	2866 Jun 20 08:50	0°♄05'07	0°51'18
evening rise	2865 Jul 12 23:09	0°♄21'27		minimum elong	2866 Jun 20 06:50	29°♄54'04	0°50'55
	2865 Jul 12 19:01	0°♄			2866 Jun 20 07:54	0°♄	
	2865 Jul 29 07:44	0°♄		max. Earth dist.	2866 Jun 20 06:59	29°♄54'54	1.32128 AU
desc. node	2865 Aug 05 03:33	9°♄43'30		evening rise	2866 Jun 27 06:41	15°♄05'27	
evening max el	2865 Aug 13 17:16	19°♄26'56	27°15'33		2866 Jul 04 18:38	0°♄	
retrograde	2865 Aug 27 13:07	26°♄41'34		desc. node	2866 Jul 23 00:33	27°♄28'35	
evening set	2865 Sep 03 17:05	24°♄18'56			2866 Jul 25 08:48	0°♄	
min. Earth dist.	2865 Sep 07 07:28	21°♄31'19	0.61896 AU	evening max el	2866 Jul 26 18:57	1°♄24'07	26°32'20
inferior conj	2865 Sep 10 08:13	18°♄46'18	-4°-4'-26	retrograde	2866 Aug 09 18:16	8°♄35'57	
minimum elong	2865 Sep 10 13:49	18°♄33'33	4°03'04	evening set	2866 Aug 16 11:28	6°♄42'16	
morning rise	2865 Sep 17 13:28	13°♄45'49		min. Earth dist.	2866 Aug 20 08:27	4°♄06'59	0.59852 AU
direct	2865 Sep 19 21:52	13°♄22'05		inferior conj	2866 Aug 23 15:23	1°♄30'29	-4°-45'-48
asc. node	2865 Sep 24 09:03	14°♄50'44		minimum elong	2866 Aug 23 19:41	1°♄21'54	4°45'14
morning max el	2865 Sep 26 19:37	16°♄51'04	17°54'13		2866 Aug 25 14:01	30°♄	
	2865 Oct 06 02:30	0°♄		morning rise	2866 Aug 31 07:19	26°♄52'34	
morning set	2865 Oct 12 16:16	11°♄42'38		direct	2866 Sep 02 16:16	26°♄32'06	
	2865 Oct 22 22:42	0°♄			2866 Sep 10 00:47	0°♄	

morning max el	2866 Sep 10 06:41	0° \cap 13'59	18°15'14	asc. node	2867 Aug 29 03:13	18° Ω 39'58	
asc. node	2866 Sep 11 06:08	1° \cap 13'42			2867 Sep 05 00:10	0° \cap	
morning set	2866 Sep 26 03:14	25° \cap 25'11		morning set	2867 Sep 10 00:20	9° \cap 36'50	
	2866 Sep 28 13:12	0° Ω					
superior conj	2866 Oct 05 13:13	13° Ω 02'12	1°23'53	superior conj	2867 Sep 18 11:20	26° \cap 10'30	1°39'07
minimum elong	2866 Oct 05 17:03	13° Ω 19'36	1°23'30	minimum elong	2867 Sep 18 13:31	26° \cap 20'54	1°39'00
max. Earth dist.	2866 Oct 13 03:28	26° Ω 24'13	1.40986 AU		2867 Sep 20 11:44	0° Ω	
	2866 Oct 15 06:39	0° \cap		max. Earth dist.	2867 Sep 25 07:56	8° Ω 53'18	1.38928 AU
evening rise	2866 Oct 18 00:22	4° \cap 31'23		evening rise	2867 Sep 29 06:06	15° Ω 46'14	
desc. node	2866 Oct 18 23:53	6° \cap 07'01		desc. node	2867 Oct 05 20:55	26° Ω 45'48	
	2866 Nov 03 15:51	0° \cap			2867 Oct 07 21:47	0° \cap	
greatest brilliancy	2866 Nov 14 15:03	14° \cap 47'40	-0.2m	evening max el	2867 Oct 29 08:13	0° \cap	
evening max el	2866 Nov 21 02:31	22° \cap 09'36	23°10'22		2867 Nov 03 15:32	5° \cap 48'14	24°29'45
retrograde	2866 Dec 01 10:06	28° \cap 16'27		retrograde	2867 Nov 15 00:45	12° \cap 27'11	
evening set	2866 Dec 06 06:14	26° \cap 18'02		evening set	2867 Nov 20 10:44	10° \cap 12'22	
asc. node	2866 Dec 08 05:21	24° \cap 21'35		min. Earth dist.	2867 Nov 25 03:29	4° \cap 50'59	0.67595 AU
inferior conj	2866 Dec 11 16:23	19° \cap 52'29	1°09'37	asc. node	2867 Nov 25 02:24	4° \cap 54'36	
minimum elong	2866 Dec 11 14:51	19° \cap 57'48	1°08'59	inferior conj	2867 Nov 25 22:53	3° \cap 46'09	0°17'33
min. Earth dist.	2866 Dec 11 07:35	20° \cap 22'47	0.67886 AU	minimum elong	2867 Nov 25 22:27	3° \cap 47'35	0°17'21
morning rise	2866 Dec 16 23:30	13° \cap 41'56			2867 Nov 28 22:44	30° \cap	
direct	2866 Dec 21 05:38	12° \cap 01'42		morning rise	2867 Dec 01 10:33	27° \cap 41'25	
morning max el	2866 Dec 29 21:58	17° \cap 05'20	21°22'57	direct	2867 Dec 05 03:28	26° \cap 22'42	
greatest brilliancy	2867 Jan 04 00:33	22° \cap 54'53	-0.4m		2867 Dec 12 01:03	0° \cap	
	2867 Jan 09 09:18	0° \cap		morning max el	2867 Dec 12 20:11	0° \cap 46'29	20°09'22
desc. node	2867 Jan 14 23:05	7° \cap 54'38		greatest brilliancy	2867 Dec 19 15:43	8° \cap 58'13	-0.6m
	2867 Jan 29 12:52	0° \cap		desc. node	2868 Jan 01 20:09	28° \cap 07'39	
morning set	2867 Jan 30 03:41	0° \cap 58'25			2868 Jan 03 01:47	0° \cap	
max. Earth dist.	2867 Feb 06 06:22	12° \cap 25'56	1.42130 AU	morning set	2868 Jan 09 00:38	9° \cap 07'07	
				max. Earth dist.	2868 Jan 19 15:09	25° \cap 46'54	1.43791 AU
					2868 Jan 22 06:03	0° \cap	
superior conj	2867 Feb 13 16:39	24° \cap 56'49	-2°-5'-52				
minimum elong	2867 Feb 13 17:33	25° \cap 00'40	2°05'52	superior conj	2868 Jan 25 07:52	5° \cap 00'47	-2°00'-31
	2867 Feb 16 14:16	0° \cap		minimum elong	2868 Jan 25 03:17	4° \cap 42'02	2°00'20
evening rise	2867 Feb 24 21:53	14° \cap 55'40		evening rise	2868 Feb 07 05:47	26° \cap 50'11	
	2867 Mar 05 09:55	0° \cap			2868 Feb 09 01:39	0° \cap	
asc. node	2867 Mar 06 04:41	1° \cap 17'08		asc. node	2868 Feb 21 01:43	19° \cap 35'07	
evening max el	2867 Mar 13 10:05	11° \cap 01'48	18°08'48	evening max el	2868 Feb 24 22:39	24° \cap 15'27	18°10'20
retrograde	2867 Mar 20 03:52	14° \cap 27'10		retrograde	2868 Mar 02 09:23	27° \cap 39'25	
evening set	2867 Mar 22 17:50	13° \cap 57'26		evening set	2868 Mar 05 04:45	26° \cap 59'16	
inferior conj	2867 Mar 29 12:04	9° \cap 02'58	3°18'52	inferior conj	2868 Mar 11 10:38	21° \cap 44'08	3°38'37
minimum elong	2867 Mar 29 14:41	8° \cap 56'48	3°18'28	minimum elong	2868 Mar 11 11:22	21° \cap 42'11	3°38'34
min. Earth dist.	2867 Apr 01 18:28	6° \cap 00'29	0.60659 AU	min. Earth dist.	2868 Mar 14 04:35	18° \cap 49'24	0.62754 AU
morning rise	2867 Apr 05 08:18	3° \cap 13'16		morning rise	2868 Mar 17 15:49	15° \cap 41'29	
direct	2867 Apr 12 00:57	1° \cap 02'25		direct	2868 Mar 24 13:51	13° \cap 04'42	
desc. node	2867 Apr 12 22:16	1° \cap 04'39		desc. node	2868 Mar 29 19:18	14° \cap 22'35	
morning max el	2867 Apr 26 07:16	8° \cap 56'10	27°41'29	morning max el	2868 Apr 07 13:20	21° \cap 01'28	27°48'58
	2867 May 12 11:09	0° \cap			2868 Apr 15 08:02	0° \cap	
morning set	2867 May 28 13:04	29° \cap 18'51			2868 May 04 12:16	0° \cap	
	2867 May 28 21:01	0° \cap		morning set	2868 May 11 13:36	13° \cap 33'34	
asc. node	2867 Jun 02 04:00	9° \cap 06'52		max. Earth dist.	2868 May 17 01:31	25° \cap 00'09	1.32667 AU
max. Earth dist.	2867 Jun 03 18:17	12° \cap 35'22	1.32190 AU				
				superior conj	2868 May 19 04:55	29° \cap 36'47	0°01'43
superior conj	2867 Jun 04 20:02	14° \cap 56'24	0°27'50	minimum elong	2868 May 19 04:50	29° \cap 36'20	0°01'42
minimum elong	2867 Jun 04 18:48	14° \cap 49'40	0°27'34	behind sun begin	2868 May 18 23:38	29° \cap 08'15	
evening rise	2867 Jun 11 17:20	29° \cap 55'51		behind sun end	2868 May 19 10:01	0° \cap 04'27	
	2867 Jun 11 18:07	0° \cap		asc. node	2868 May 19 01:02	29° \cap 15'48	
	2867 Jun 28 06:11	0° \cap			2868 May 19 09:12	0° \cap	
evening max el	2867 Jul 08 13:30	12° \cap 34'04	25°19'16	evening rise	2868 May 26 05:11	14° \cap 46'19	
desc. node	2867 Jul 09 21:35	13° \cap 47'46			2868 Jun 02 20:18	0° \cap	
retrograde	2867 Jul 22 13:25	19° \cap 40'37		evening max el	2868 Jun 19 03:12	23° \cap 08'44	23°46'52
evening set	2867 Jul 28 06:34	18° \cap 24'59		desc. node	2868 Jun 25 18:35	28° \cap 08'25	
min. Earth dist.	2867 Aug 02 01:24	15° \cap 43'36	0.57822 AU		2868 Jul 02 01:26	0° \cap	
inferior conj	2867 Aug 05 03:53	13° \cap 35'29	-5°-3'-48	retrograde	2868 Jul 02 20:04	0° \cap 01'22	
minimum elong	2867 Aug 05 04:09	13° \cap 35'01	5°03'50		2868 Jul 03 14:45	30° \cap	
morning rise	2867 Aug 13 05:22	9° \cap 20'17		evening set	2868 Jul 07 02:45	29° \cap 21'08	
direct	2867 Aug 15 17:52	9° \cap 01'04		min. Earth dist.	2868 Jul 13 13:33	26° \cap 17'15	0.56121 AU
morning max el	2867 Aug 24 10:06	13° \cap 06'43	18°57'02	inferior conj	2868 Jul 15 20:05	24° \cap 54'48	-4°-43'-39

minimum elong	2868 Jul 15 14:40	25°☿03'01	4°42'54	minimum elong	2869 Jun 25 11:16	5°☿44'37	3°32'22
morning rise	2868 Jul 24 05:56	20°☿57'59		morning rise	2869 Jul 04 12:19	1°☿42'02	
direct	2868 Jul 27 00:20	20°☿38'35		direct	2869 Jul 07 14:30	1°☿20'41	
morning max el	2868 Aug 06 03:03	25°☿20'03	20°00'28	morning max el	2869 Jul 19 08:26	6°☿49'26	21°24'13
	2868 Aug 10 07:36	0°♊		asc. node	2869 Aug 01 21:18	25°☿48'49	
asc. node	2868 Aug 15 00:16	6°♊55'31			2869 Aug 04 02:37	0°♊	
morning set	2868 Aug 24 04:20	24°♊08'47		morning set	2869 Aug 08 12:50	8°♊54'25	
	2868 Aug 27 01:12	0°♊					
superior conj	2868 Aug 31 23:35	10°♊00'50	1°44'57	superior conj	2869 Aug 15 21:48	24°♊21'19	1°43'02
minimum elong	2868 Aug 31 23:59	10°♊02'49	1°44'56	minimum elong	2869 Aug 15 20:46	24°♊15'59	1°42'59
max. Earth dist.	2868 Sep 06 13:12	20°♊52'34	1.36921 AU		2869 Aug 18 15:42	0°♊	
evening rise	2868 Sep 10 10:10	28°♊03'19		max. Earth dist.	2869 Aug 20 00:21	2°♊44'34	1.35168 AU
	2868 Sep 11 12:06	0°♊		evening rise	2869 Aug 24 08:25	11°♊12'29	
desc. node	2868 Sep 21 17:56	17°♊13'30			2869 Sep 03 23:07	0°♊	
	2868 Sep 30 06:32	0°♊		desc. node	2869 Sep 08 14:56	7°♊24'35	
evening max el	2868 Oct 16 03:44	19°♊29'19	25°42'19		2869 Sep 25 14:54	0°♊	
retrograde	2868 Oct 28 10:43	26°♊31'00		evening max el	2869 Sep 28 16:01	3°♊07'32	26°40'33
evening set	2868 Nov 03 11:03	24°♊01'36		retrograde	2869 Oct 11 15:34	10°♊22'08	
min. Earth dist.	2868 Nov 07 20:02	19°♊15'44	0.66965 AU	evening set	2869 Oct 18 05:13	7°♊42'37	
inferior conj	2868 Nov 09 02:23	17°♊39'11	0°-38'-43	min. Earth dist.	2869 Oct 22 06:53	3°♊33'26	0.65983 AU
minimum elong	2868 Nov 09 03:24	17°♊35'59	0°38'18	inferior conj	2869 Oct 24 00:59	1°♊28'32	-1°-37'-42
asc. node	2868 Nov 10 23:27	15°♊19'46		minimum elong	2869 Oct 24 03:38	1°♊20'39	1°36'37
morning rise	2868 Nov 14 20:35	11°♊43'01			2869 Oct 25 07:15	30°♊	
direct	2868 Nov 18 02:07	10°♊42'56		asc. node	2869 Oct 28 20:29	26°♊33'04	
morning max el	2868 Nov 25 02:10	14°♊37'38	19°10'02	morning rise	2869 Oct 30 03:28	25°♊43'50	
	2868 Dec 06 15:43	0°♊		direct	2869 Nov 01 23:44	24°♊58'41	
morning set	2868 Dec 18 03:38	17°♊42'36		morning max el	2869 Nov 08 14:20	28°♊35'04	18°26'37
desc. node	2868 Dec 18 17:10	18°♊35'18			2869 Nov 09 22:05	0°♊	
	2868 Dec 26 00:45	0°♊		morning set	2869 Nov 28 08:12	27°♊38'03	
max. Earth dist.	2869 Jan 01 06:35	9°♊47'48	1.44854 AU		2869 Nov 29 19:34	0°♊	
				desc. node	2869 Dec 05 14:13	9°♊13'25	
superior conj	2869 Jan 03 22:13	13°♊59'12	-1°-36'-7	superior conj	2869 Dec 14 00:05	22°♊29'59	0°-54'-47
minimum elong	2869 Jan 03 13:20	13°♊24'04	1°35'19	minimum elong	2869 Dec 13 17:13	22°♊02'59	0°53'55
	2869 Jan 13 21:41	0°♊		max. Earth dist.	2869 Dec 15 01:23	24°♊09'18	1.45200 AU
evening rise	2869 Jan 18 16:10	7°♊48'30			2869 Dec 18 18:50	0°♊	
	2869 Feb 01 11:11	0°♊		evening rise	2869 Dec 30 03:19	17°♊50'52	
asc. node	2869 Feb 06 22:45	7°♊07'01			2870 Jan 06 20:19	0°♊	
evening max el	2869 Feb 07 10:48	7°♊38'27	18°30'29	greatest brilliancy	2870 Jan 11 13:24	7°♊17'59	-0.7m
retrograde	2869 Feb 13 23:48	11°♊14'01		evening max el	2870 Jan 21 20:15	21°♊06'39	19°08'10
evening set	2869 Feb 17 00:42	10°♊22'33		asc. node	2870 Jan 24 19:45	23°♊40'17	
inferior conj	2869 Feb 22 21:43	4°♊48'22	3°38'12	retrograde	2870 Jan 28 19:21	25°♊04'31	
minimum elong	2869 Feb 22 20:48	4°♊51'04	3°38'09	evening set	2870 Feb 01 02:45	24°♊00'46	
min. Earth dist.	2869 Feb 25 00:15	2°♊19'42	0.64568 AU	inferior conj	2870 Feb 06 17:49	18°♊09'57	3°22'50
	2869 Feb 27 03:57	30°♊		minimum elong	2870 Feb 06 15:48	18°♊16'21	3°22'31
morning rise	2869 Feb 28 15:32	28°♊38'20		min. Earth dist.	2870 Feb 08 05:03	16°♊17'47	0.66002 AU
direct	2869 Mar 07 10:14	25°♊49'15		morning rise	2870 Feb 12 03:58	11°♊55'55	
desc. node	2869 Mar 16 16:19	29°♊50'40		direct	2870 Feb 18 13:15	9°♊08'07	
	2869 Mar 16 21:03	0°♊		morning max el	2870 Mar 03 08:37	16°♊42'58	26°23'23
morning max el	2869 Mar 20 22:40	3°♊40'53	27°20'51	desc. node	2870 Mar 03 13:22	16°♊55'00	
	2869 Apr 09 18:30	0°♊			2870 Mar 14 09:53	0°♊	
morning set	2869 Apr 25 05:41	27°♊19'24			2870 Apr 02 15:45	0°♊	
	2869 Apr 26 14:18	0°♊		morning set	2870 Apr 08 09:43	10°♊25'41	
max. Earth dist.	2869 Apr 30 00:45	6°♊57'17	1.33573 AU	max. Earth dist.	2870 Apr 12 12:47	18°♊21'22	1.34934 AU
superior conj	2869 May 03 09:29	13°♊59'26	0°-26'-11	superior conj	2870 Apr 17 07:29	27°♊57'48	0°-54'-39
minimum elong	2869 May 03 10:49	14°♊06'29	0°25'55	minimum elong	2870 Apr 17 10:19	28°♊12'20	0°54'08
asc. node	2869 May 05 22:04	19°♊21'50			2870 Apr 18 07:15	0°♊	
evening rise	2869 May 10 16:21	29°♊29'55		asc. node	2870 Apr 22 19:05	9°♊21'00	
	2869 May 10 22:05	0°♊		evening rise	2870 Apr 25 00:53	14°♊00'22	
	2869 May 28 11:01	0°♊			2870 May 03 07:17	0°♊	
evening max el	2869 May 31 18:44	3°♊36'34	22°10'42	evening max el	2870 May 13 19:28	14°♊28'54	20°44'21
desc. node	2869 Jun 12 15:34	9°♊55'48		retrograde	2870 May 25 04:03	20°♊01'07	
retrograde	2869 Jun 13 14:54	9°♊57'58		evening set	2870 May 27 06:38	19°♊50'25	
evening set	2869 Jun 16 12:12	9°♊39'28		desc. node	2870 May 30 12:34	18°♊55'46	
min. Earth dist.	2869 Jun 25 00:30	5°♊59'46	0.55073 AU	inferior conj	2870 Jun 05 13:04	15°♊52'57	-1°-45'-21
inferior conj	2869 Jun 25 19:28	5°♊33'06	-3°-34'-36	minimum elong	2870 Jun 05 08:07	16°♊00'02	1°43'35

min. Earth dist.	2870 Jun 06 12:43	15° Π 19'07	0.54932 AU		2871 May 09 20:16	30° \mathbb{R} \mathcal{B}	
morning rise	2870 Jun 14 08:35	11° Π 47'18		inferior conj	2871 May 16 15:29	26° \mathcal{B} 25'38	0°13'11
direct	2870 Jun 17 23:52	11° Π 18'49		minimum elong	2871 May 16 16:04	26° \mathcal{B} 24'44	0°12'59
morning max el	2870 Jul 01 04:01	17° Π 39'04	23°02'39	transit middle	2871 May 16 16:04	26° \mathcal{B} 24'44	0°12'59
	2870 Jul 11 03:14	0° \mathcal{E}		transit begin	2871 May 16 13:47	26° \mathcal{B} 28'21	
asc. node	2870 Jul 19 18:20	15° \mathcal{E} 10'08		transit end	2871 May 16 18:21	26° \mathcal{B} 21'06	
morning set	2870 Jul 23 23:49	23° \mathcal{E} 47'31		desc. node	2871 May 17 09:36	25° \mathcal{B} 56'50	
	2870 Jul 26 21:52	0° \mathcal{Q}		min. Earth dist.	2871 May 19 02:57	24° \mathcal{B} 51'42	0.55752 AU
				morning rise	2871 May 25 05:19	21° \mathcal{B} 49'17	
superior conj	2870 Jul 31 02:43	9° \mathcal{Q} 01'34	1°34'47	direct	2871 May 29 17:58	21° \mathcal{B} 03'17	
minimum elong	2870 Jul 31 00:46	8° \mathcal{Q} 51'08	1°34'36	morning max el	2871 Jun 12 18:32	28° \mathcal{B} 06'24	24°44'46
max. Earth dist.	2870 Aug 02 20:21	14° \mathcal{Q} 49'08	1.33796 AU		2871 Jun 14 15:47	0° Π	
evening rise	2870 Aug 07 20:24	25° \mathcal{Q} 01'26			2871 Jul 04 05:29	0° \mathcal{E}	
	2870 Aug 10 09:49	0° \mathbb{M}		asc. node	2871 Jul 06 15:23	4° \mathcal{E} 52'08	
desc. node	2870 Aug 26 11:57	27° \mathbb{M} 11'03		morning set	2871 Jul 08 11:41	8° \mathcal{E} 43'14	
	2870 Aug 28 10:40	0° \mathcal{A}					
evening max el	2870 Sep 11 03:59	16° \mathcal{A} 33'00	27°17'08	superior conj	2871 Jul 15 11:55	23° \mathcal{E} 53'54	1°21'16
retrograde	2870 Sep 24 14:50	23° \mathcal{A} 51'43		minimum elong	2871 Jul 15 09:34	23° \mathcal{E} 41'04	1°20'57
evening set	2870 Oct 01 14:44	21° \mathcal{A} 09'55		max. Earth dist.	2871 Jul 17 00:51	27° \mathcal{E} 14'28	1.32839 AU
min. Earth dist.	2870 Oct 05 09:55	17° \mathcal{A} 36'34	0.64649 AU		2871 Jul 18 07:35	0° \mathcal{Q}	
inferior conj	2870 Oct 07 16:22	15° \mathcal{A} 08'41	-2°-37'-24	evening rise	2871 Jul 22 18:21	9° \mathcal{Q} 19'41	
minimum elong	2870 Oct 07 20:39	14° \mathcal{A} 57'02	2°35'50		2871 Aug 02 18:33	0° \mathbb{M}	
morning rise	2870 Oct 14 04:35	9° \mathcal{A} 38'26		desc. node	2871 Aug 13 08:57	16° \mathbb{M} 22'42	
asc. node	2870 Oct 15 17:31	9° \mathcal{A} 09'49		evening max el	2871 Aug 24 14:09	29° \mathbb{M} 34'28	27°25'27
direct	2870 Oct 16 17:59	9° \mathcal{A} 04'21			2871 Aug 25 01:03	0° \mathcal{A}	
morning max el	2870 Oct 23 05:59	12° \mathcal{A} 31'39	17°59'58	retrograde	2871 Sep 07 07:46	6° \mathcal{A} 51'03	
	2870 Nov 04 09:16	0° \mathbb{M}		evening set	2871 Sep 14 12:25	4° \mathcal{A} 18'04	
morning set	2870 Nov 09 17:44	8° \mathbb{M} 58'25		min. Earth dist.	2871 Sep 18 03:20	1° \mathcal{A} 16'04	0.62983 AU
desc. node	2870 Nov 22 11:15	29° \mathbb{M} 57'34			2871 Sep 19 10:52	30° \mathbb{R} \mathbb{M}	
	2870 Nov 22 11:51	0° \mathcal{A}		inferior conj	2871 Sep 20 21:51	28° \mathbb{M} 33'53	-3°-34'-35
				minimum elong	2871 Sep 21 03:18	28° \mathbb{M} 20'35	3°32'59
superior conj	2870 Nov 23 10:27	1° \mathcal{A} 30'49	0°-6'-35	morning rise	2871 Sep 27 20:46	23° \mathbb{M} 21'19	
minimum elong	2870 Nov 23 09:40	1° \mathcal{A} 27'38	0°06'29	direct	2871 Sep 30 06:06	22° \mathbb{M} 54'41	
behind sun begin	2870 Nov 22 23:59	0° \mathcal{A} 48'47		asc. node	2871 Oct 02 14:35	23° \mathbb{M} 21'08	
behind sun end	2870 Nov 23 19:20	2° \mathcal{A} 06'26		morning max el	2871 Oct 06 22:15	26° \mathbb{M} 20'55	17°50'55
max. Earth dist.	2870 Nov 27 20:04	8° \mathcal{A} 31'07	1.44804 AU		2871 Oct 10 01:26	0° \mathcal{A}	
evening rise	2870 Dec 09 18:59	27° \mathcal{A} 08'57		morning set	2871 Oct 23 03:16	21° \mathcal{A} 27'58	
	2870 Dec 11 15:26	0° \mathcal{E}			2871 Oct 28 00:02	0° \mathbb{M}	
greatest brilliancy	2870 Dec 29 04:45	26° \mathcal{E} 10'05	-0.6m				
	2871 Jan 01 01:57	0° \approx		superior conj	2871 Nov 03 20:39	11° \mathbb{M} 42'40	0°37'07
evening max el	2871 Jan 05 01:12	4° \approx 36'56	20°01'49	minimum elong	2871 Nov 04 00:08	11° \mathbb{M} 57'13	0°36'38
asc. node	2871 Jan 11 16:47	9° \approx 00'03		desc. node	2871 Nov 09 08:17	20° \mathbb{M} 44'37	
retrograde	2871 Jan 12 17:08	9° \approx 05'43		max. Earth dist.	2871 Nov 10 12:15	22° \mathbb{M} 37'37	1.43727 AU
evening set	2871 Jan 16 08:31	7° \approx 48'23			2871 Nov 15 03:24	0° \mathcal{A}	
inferior conj	2871 Jan 21 19:58	1° \approx 43'39	2°56'05	evening rise	2871 Nov 19 03:50	6° \mathcal{A} 16'01	
minimum elong	2871 Jan 21 17:27	1° \approx 52'05	2°55'28		2871 Dec 05 00:13	0° \mathcal{E}	
min. Earth dist.	2871 Jan 22 17:14	0° \approx 32'20	0.67024 AU	greatest brilliancy	2871 Dec 13 19:31	12° \mathcal{E} 04'33	-0.4m
	2871 Jan 23 02:58	30° \mathbb{R} \mathcal{E}		evening max el	2871 Dec 19 00:45	18° \mathcal{E} 08'31	21°08'37
morning rise	2871 Jan 27 01:47	25° \mathcal{E} 28'09		retrograde	2871 Dec 27 14:51	23° \mathcal{E} 14'00	
direct	2871 Feb 01 22:03	22° \mathcal{E} 52'31		asc. node	2871 Dec 29 13:50	22° \mathcal{E} 52'52	
morning max el	2871 Feb 13 17:26	29° \mathcal{E} 55'40	25°05'46	evening set	2871 Dec 31 16:04	21° \mathcal{E} 41'31	
	2871 Feb 13 19:09	0° \approx		inferior conj	2872 Jan 06 01:48	15° \mathcal{E} 26'00	2°20'20
desc. node	2871 Feb 18 10:25	5° \approx 07'56		minimum elong	2872 Jan 05 23:19	15° \mathcal{E} 34'36	2°19'32
	2871 Mar 08 07:17	0° \mathcal{H}		min. Earth dist.	2872 Jan 06 10:33	14° \mathcal{E} 55'51	0.67650 AU
morning set	2871 Mar 21 20:50	22° \mathcal{H} 38'40		morning rise	2872 Jan 11 06:11	9° \mathcal{E} 11'01	
max. Earth dist.	2871 Mar 25 13:29	29° \mathcal{H} 22'58	1.36726 AU	direct	2872 Jan 16 11:41	6° \mathcal{E} 54'50	
	2871 Mar 25 21:27	0° \mathcal{Y}		morning max el	2872 Jan 27 01:55	13° \mathcal{E} 13'22	23°38'14
				desc. node	2872 Feb 05 07:28	24° \mathcal{E} 09'38	
superior conj	2871 Mar 31 20:03	11° \mathcal{Y} 24'14	-1°-21'-56		2872 Feb 09 14:43	0° \approx	
minimum elong	2871 Apr 01 00:08	11° \mathcal{Y} 44'20	1°21'21		2872 Feb 29 04:20	0° \mathcal{H}	
evening rise	2871 Apr 09 04:36	28° \mathcal{Y} 11'16		morning set	2872 Mar 02 08:51	3° \mathcal{H} 40'58	
asc. node	2871 Apr 09 16:07	29° \mathcal{Y} 09'06		max. Earth dist.	2872 Mar 06 08:31	10° \mathcal{H} 34'39	1.38829 AU
	2871 Apr 10 02:17	0° \mathcal{B}					
evening max el	2871 Apr 26 08:22	26° \mathcal{B} 01'26	19°35'15	superior conj	2872 Mar 13 19:23	24° \mathcal{H} 08'22	-1°-45'-31
	2871 May 02 06:09	0° Π		minimum elong	2872 Mar 13 23:50	24° \mathcal{H} 29'16	1°45'05
retrograde	2871 May 05 23:08	0° Π 40'48			2872 Mar 16 21:27	0° \mathcal{Y}	
evening set	2871 May 07 23:09	0° Π 29'35		evening rise	2872 Mar 23 00:46	11° \mathcal{Y} 54'40	

asc. node	2872 Mar 26 13:09	18° Υ 40'32		evening rise	2873 Mar 06 10:06	25° Υ 02'53	
	2872 Apr 01 23:37	0° Υ			2873 Mar 09 02:00	0° Υ	
evening max el	2872 Apr 08 07:54	8° Υ 12'13	18°45'51	asc. node	2873 Mar 13 10:12	7° Υ 49'35	
retrograde	2872 Apr 16 10:43	12° Υ 10'00		evening max el	2873 Mar 22 15:00	20° Υ 54'00	18°16'33
evening set	2872 Apr 18 15:36	11° Υ 53'35		retrograde	2873 Mar 29 17:30	24° Υ 26'47	
inferior conj	2872 Apr 26 12:40	7° Υ 32'09	1°50'53	evening set	2873 Apr 01 04:15	24° Υ 02'24	
minimum elong	2872 Apr 26 16:17	7° Υ 25'28	1°49'47	inferior conj	2873 Apr 08 07:16	19° Υ 19'45	2°55'46
min. Earth dist.	2872 Apr 29 19:42	5° Υ 07'32	0.57356 AU	minimum elong	2873 Apr 08 10:45	19° Υ 12'11	2°55'01
desc. node	2872 May 03 06:39	2° Υ 57'59		min. Earth dist.	2873 Apr 11 17:16	16° Υ 24'09	0.59411 AU
morning rise	2872 May 04 12:35	2° Υ 21'32		morning rise	2873 Apr 15 13:28	13° Υ 41'21	
direct	2872 May 10 01:44	1° Υ 06'18		desc. node	2873 Apr 20 03:41	11° Υ 59'10	
morning max el	2872 May 24 09:59	8° Υ 37'18	26°15'33	direct	2873 Apr 21 22:25	11° Υ 50'32	
	2872 Jun 09 11:54	0° Π		morning max el	2873 May 06 06:56	19° Υ 38'01	27°20'10
morning set	2872 Jun 21 22:44	23° Π 35'15			2873 May 15 02:46	0° Υ	
asc. node	2872 Jun 22 12:27	24° Π 47'44			2873 Jun 02 04:54	0° Π	
	2872 Jun 24 22:33	0° Υ		morning set	2873 Jun 06 07:18	8° Π 18'03	
				asc. node	2873 Jun 09 09:30	14° Π 51'58	
superior conj	2872 Jun 28 23:18	8° Υ 50'24	1°03'21	superior conj	2873 Jun 13 11:03	23° Π 45'04	0°41'43
minimum elong	2872 Jun 28 21:02	8° Υ 37'56	1°02'58	minimum elong	2873 Jun 13 09:19	23° Π 35'34	0°41'22
max. Earth dist.	2872 Jun 29 11:03	9° Υ 55'05	1.32283 AU	max. Earth dist.	2873 Jun 12 23:12	22° Π 39'52	1.32115 AU
evening rise	2872 Jul 05 23:08	23° Υ 56'32			2873 Jun 16 07:12	0° Υ	
	2872 Jul 08 22:13	0° Ω		evening rise	2873 Jun 20 08:15	8° Υ 43'56	
	2872 Jul 26 15:06	0° Π			2873 Jul 01 08:37	0° Ω	
desc. node	2872 Jul 30 05:58	4° Π 44'38		desc. node	2873 Jul 17 02:59	21° Ω 56'22	
evening max el	2872 Aug 05 19:50	11° Π 58'15	27°01'12	evening max el	2873 Jul 18 18:26	23° Ω 34'30	26°04'17
retrograde	2872 Aug 19 17:16	19° Π 10'50			2873 Jul 28 11:14	0° Π	
evening set	2872 Aug 26 18:06	16° Π 59'22		retrograde	2873 Aug 01 18:00	0° Π 43'58	
min. Earth dist.	2872 Aug 30 10:06	14° Π 18'50	0.61045 AU		2873 Aug 05 23:40	30° Ω	
inferior conj	2872 Sep 02 14:12	11° Π 35'33	-4°-24'-2	evening set	2873 Aug 08 02:55	29° Ω 05'45	
minimum elong	2872 Sep 02 19:32	11° Π 24'02	4°22'58	min. Earth dist.	2873 Aug 12 06:59	26° Ω 30'25	0.58977 AU
morning rise	2872 Sep 10 00:02	6° Π 44'03		inferior conj	2873 Aug 15 13:44	24° Ω 03'42	-4°-57'-8
direct	2872 Sep 12 08:21	6° Π 21'53		minimum elong	2873 Aug 15 16:41	23° Ω 58'11	4°56'54
asc. node	2872 Sep 18 11:39	8° Π 59'42		morning rise	2873 Aug 23 09:54	19° Ω 35'42	
morning max el	2872 Sep 19 12:03	9° Π 55'15	18°00'39	direct	2873 Aug 25 20:13	19° Ω 15'51	
	2872 Oct 02 15:54	0° Ω		morning max el	2873 Sep 02 20:12	23° Ω 05'55	18°30'26
morning set	2872 Oct 05 06:30	4° Ω 48'11		asc. node	2873 Sep 05 08:44	25° Ω 51'01	
					2873 Sep 08 09:37	0° Π	
superior conj	2872 Oct 15 09:41	23° Ω 13'19	1°10'11	morning set	2873 Sep 18 22:12	18° Π 44'05	
minimum elong	2872 Oct 15 14:03	23° Ω 32'30	1°09'41		2873 Sep 24 18:47	0° Ω	
	2872 Oct 19 07:21	0° Π		superior conj	2873 Sep 27 21:22	5° Ω 50'46	1°31'37
max. Earth dist.	2872 Oct 23 00:10	6° Π 14'28	1.42096 AU	minimum elong	2873 Sep 28 00:33	6° Ω 05'35	1°31'21
desc. node	2872 Oct 26 05:19	11° Π 31'20		max. Earth dist.	2873 Oct 05 06:48	19° Ω 08'39	1.40118 AU
evening rise	2872 Oct 28 22:34	15° Π 53'38		evening rise	2873 Oct 09 14:26	26° Ω 29'37	
	2872 Nov 07 01:33	0° Υ			2873 Oct 11 17:22	0° Π	
greatest brilliancy	2872 Nov 26 00:55	26° Υ 21'29	-0.3m	desc. node	2873 Oct 13 02:19	2° Π 13'54	
	2872 Nov 29 04:23	0° Υ			2873 Oct 31 17:58	0° Υ	
evening max el	2872 Nov 30 19:00	1° Υ 41'46	22°24'36	evening max el	2873 Nov 13 09:08	15° Υ 17'12	23°44'30
retrograde	2872 Dec 10 10:51	7° Υ 26'21		retrograde	2873 Nov 24 03:46	21° Υ 38'40	
evening set	2872 Dec 14 23:43	5° Υ 37'25		evening set	2873 Nov 29 05:48	19° Υ 32'52	
asc. node	2872 Dec 15 10:53	5° Υ 13'34		asc. node	2873 Dec 02 07:56	16° Υ 15'03	
	2872 Dec 19 20:10	30° Ω		min. Earth dist.	2873 Dec 04 03:15	13° Υ 52'07	0.67802 AU
inferior conj	2872 Dec 20 09:19	29° Υ 14'30	1°37'15	inferior conj	2873 Dec 04 16:39	13° Υ 06'28	0°48'06
minimum elong	2872 Dec 20 07:18	29° Υ 21'28	1°36'29	minimum elong	2873 Dec 04 15:32	13° Υ 10'16	0°47'38
min. Earth dist.	2872 Dec 20 06:40	29° Υ 23'41	0.67901 AU	morning rise	2873 Dec 10 01:27	6° Υ 58'22	
morning rise	2872 Dec 25 14:46	23° Υ 01'59		direct	2873 Dec 14 01:44	5° Υ 27'45	
direct	2872 Dec 30 05:15	21° Υ 08'33		morning max el	2873 Dec 22 07:17	10° Υ 13'03	20°50'11
morning max el	2873 Jan 08 13:26	26° Υ 38'14	22°10'32	greatest brilliancy	2873 Dec 27 23:59	16° Υ 50'16	-0.5m
	2873 Jan 11 15:40	0° Υ			2874 Jan 06 11:35	0° Υ	
greatest brilliancy	2873 Jan 13 03:54	1° Υ 47'34	-0.3m	desc. node	2874 Jan 09 01:33	3° Υ 47'46	
desc. node	2873 Jan 22 04:32	13° Υ 46'21		morning set	2874 Jan 20 21:40	21° Υ 48'13	
	2873 Feb 02 04:48	0° \approx			2874 Jan 26 02:22	0° \approx	
morning set	2873 Feb 10 16:31	13° \approx 20'44		max. Earth dist.	2874 Jan 29 10:29	5° \approx 22'28	1.42895 AU
max. Earth dist.	2873 Feb 16 06:09	22° \approx 31'25	1.40984 AU				
	2873 Feb 20 15:10	0° Υ		superior conj	2874 Feb 05 06:49	16° \approx 42'28	-2°-5'-45
superior conj	2873 Feb 24 00:44	5° Υ 58'43	-2°-1'-43	minimum elong	2874 Feb 05 05:36	16° \approx 37'17	2°05'45
minimum elong	2873 Feb 24 03:43	6° Υ 11'57	2°01'36				

	2874 Feb 12 23:45	0°♄			2874 Dec 30 18:13	0°♄	
evening rise	2874 Feb 17 04:30	7°♄26'20		max. Earth dist.	2875 Jan 11 21:50	19°♄00'12	1.44321 AU
asc. node	2874 Feb 28 07:14	26°♄28'33					
	2874 Mar 02 17:47	0°♄		superior conj	2875 Jan 16 10:43	26°♄15'39	-1°-52'-34
evening max el	2874 Mar 06 02:21	3°♄57'37	18°07'05	minimum elong	2875 Jan 16 03:48	25°♄47'49	1°52'07
retrograde	2874 Mar 12 16:05	7°♄21'07			2875 Jan 18 18:07	0°♄	
evening set	2874 Mar 15 08:15	6°♄47'10		evening rise	2875 Jan 30 03:38	18°♄56'55	
inferior conj	2874 Mar 21 20:46	1°♄43'34	3°30'05		2875 Feb 05 16:33	0°♄	
minimum elong	2874 Mar 21 22:36	1°♄39'01	3°29'54	asc. node	2875 Feb 15 04:15	14°♄28'09	
	2874 Mar 23 14:13	30°♄		evening max el	2875 Feb 17 14:59	17°♄15'25	18°16'44
min. Earth dist.	2874 Mar 24 22:26	28°♄41'39	0.61567 AU	retrograde	2875 Feb 24 01:49	20°♄43'05	
morning rise	2874 Mar 28 10:09	25°♄47'10		evening set	2875 Feb 26 23:21	19°♄58'24	
direct	2874 Apr 04 06:02	23°♄23'59		inferior conj	2875 Mar 05 01:06	14°♄35'09	3°40'32
desc. node	2874 Apr 07 00:43	23°♄45'55		minimum elong	2875 Mar 05 01:05	14°♄35'13	3°40'33
	2874 Apr 17 00:48	0°♄		min. Earth dist.	2875 Mar 07 12:45	11°♄49'20	0.63562 AU
morning max el	2874 Apr 18 10:17	1°♄20'20	27°49'21	morning rise	2875 Mar 11 00:56	8°♄28'36	
	2874 May 09 07:39	0°♄		direct	2875 Mar 17 22:28	5°♄44'30	
morning set	2874 May 21 11:27	22°♄45'30		desc. node	2875 Mar 24 21:45	8°♄02'54	
	2874 May 24 22:38	0°♄		morning max el	2875 Mar 31 18:06	13°♄41'20	27°41'06
asc. node	2874 May 27 06:32	5°♄00'29			2875 Apr 13 21:43	0°♄	
max. Earth dist.	2874 May 27 09:23	5°♄15'53	1.32339 AU		2875 May 01 20:41	0°♄	
				morning set	2875 May 05 08:46	6°♄49'13	
superior conj	2874 May 28 21:30	8°♄32'31	0°17'02	max. Earth dist.	2875 May 10 13:29	17°♄29'16	1.32988 AU
minimum elong	2874 May 28 20:43	8°♄28'15	0°16'52				
evening rise	2874 Jun 04 19:39	23°♄35'10		superior conj	2875 May 13 04:47	23°♄06'11	0°-9'-57
	2874 Jun 07 21:36	0°♄		minimum elong	2875 May 13 05:16	23°♄08'49	0°09'52
	2874 Jun 26 07:00	0°♄		behind sun begin	2875 May 13 01:04	22°♄46'15	
evening max el	2874 Jun 30 10:09	4°♄26'33	24°41'22	behind sun end	2875 May 13 09:29	23°♄31'25	
desc. node	2874 Jul 03 23:59	7°♄29'59		asc. node	2875 May 14 03:33	25°♄08'38	
retrograde	2874 Jul 14 08:25	11°♄29'38			2875 May 16 09:30	0°♄	
evening set	2874 Jul 19 11:49	10°♄29'55		evening rise	2875 May 20 07:24	8°♄23'15	
min. Earth dist.	2874 Jul 24 21:20	7°♄40'45	0.57037 AU		2875 May 31 15:15	0°♄	
inferior conj	2874 Jul 27 17:38	5°♄49'57	-5°00'-49	evening max el	2875 Jun 11 23:40	14°♄54'39	23°05'39
minimum elong	2874 Jul 27 15:30	5°♄53'25	5°00'43	desc. node	2875 Jun 20 21:00	20°♄49'40	
morning rise	2874 Aug 04 22:53	1°♄43'59		retrograde	2875 Jun 25 10:15	21°♄36'54	
direct	2874 Aug 07 13:35	1°♄24'57		evening set	2875 Jun 29 01:17	21°♄08'06	
morning max el	2874 Aug 16 19:36	5°♄44'02	19°21'25	min. Earth dist.	2875 Jul 06 08:59	17°♄50'24	0.55571 AU
asc. node	2874 Aug 23 05:46	13°♄40'14		inferior conj	2875 Jul 08 01:54	16°♄50'49	-4°-20'-28
	2874 Sep 01 09:09	0°♄		minimum elong	2875 Jul 07 18:39	17°♄01'26	4°19'03
morning set	2874 Sep 02 22:36	3°♄05'46		morning rise	2875 Jul 16 14:57	12°♄58'17	
				direct	2875 Jul 19 12:03	12°♄38'30	
superior conj	2874 Sep 11 02:10	19°♄19'34	1°42'38	morning max el	2875 Jul 30 07:44	17°♄39'34	20°33'44
minimum elong	2874 Sep 11 03:33	19°♄26'22	1°42'34		2875 Aug 08 19:16	0°♄	
	2874 Sep 16 16:51	0°♄		asc. node	2875 Aug 10 02:48	2°♄13'10	
max. Earth dist.	2874 Sep 17 10:42	1°♄22'04	1.38051 AU	morning set	2875 Aug 18 04:47	17°♄44'14	
evening rise	2874 Sep 21 06:07	8°♄12'25			2875 Aug 24 03:13	0°♄	
desc. node	2874 Sep 29 23:20	22°♄48'46					
	2874 Oct 04 14:05	0°♄		superior conj	2875 Aug 25 19:07	3°♄24'14	1°44'59
evening max el	2874 Oct 26 21:25	28°♄56'40	25°01'48	minimum elong	2875 Aug 25 18:51	3°♄22'53	1°44'58
	2874 Oct 27 23:53	0°♄		max. Earth dist.	2875 Aug 30 17:34	13°♄13'58	1.36137 AU
retrograde	2874 Nov 07 16:40	5°♄47'18		evening rise	2875 Sep 03 18:33	20°♄53'37	
evening set	2874 Nov 13 08:45	3°♄25'44			2875 Sep 08 20:33	0°♄	
	2874 Nov 16 14:24	30°♄		desc. node	2875 Sep 16 20:21	13°♄10'11	
min. Earth dist.	2874 Nov 17 22:01	28°♄19'16	0.67368 AU		2875 Sep 28 12:20	0°♄	
inferior conj	2874 Nov 18 22:05	27°♄00'17	0°-5'-54	evening max el	2875 Oct 09 09:38	12°♄37'34	26°09'15
minimum elong	2874 Nov 18 22:14	26°♄59'48	0°05'51	retrograde	2875 Oct 22 00:39	19°♄46'21	
transit middle	2874 Nov 18 22:14	26°♄59'48	0°05'51	evening set	2875 Oct 28 06:42	17°♄12'08	
transit begin	2874 Nov 18 19:39	27°♄08'17		min. Earth dist.	2875 Nov 01 12:34	12°♄41'29	0.66590 AU
transit end	2874 Nov 19 00:49	26°♄51'19		inferior conj	2875 Nov 02 23:46	10°♄52'28	-1°-3'-30
asc. node	2874 Nov 19 04:58	26°♄37'42		minimum elong	2875 Nov 03 01:27	10°♄47'14	1°02'48
morning rise	2874 Nov 24 12:18	20°♄58'54		asc. node	2875 Nov 06 01:59	7°♄17'21	
direct	2874 Nov 28 00:02	19°♄48'43		morning rise	2875 Nov 08 21:16	5°♄00'33	
morning max el	2874 Dec 05 08:58	23°♄59'07	19°42'13	direct	2875 Nov 11 22:31	4°♄07'19	
	2874 Dec 10 11:43	0°♄		morning max el	2875 Nov 18 17:47	7°♄53'20	18°49'26
greatest brilliancy	2874 Dec 13 07:18	3°♄49'20	-0.6m		2875 Dec 04 11:46	0°♄	
desc. node	2874 Dec 26 22:35	24°♄07'22		morning set	2875 Dec 10 06:15	9°♄04'05	
morning set	2874 Dec 30 17:49	29°♄58'26		desc. node	2875 Dec 13 19:38	14°♄39'55	

	2875 Dec 23 14:07	0°☿			2876 Nov 07 16:55	0°♄		
max. Earth dist.	2875 Dec 25 14:39	3°☿10'33	1.45093 AU	morning set	2876 Nov 19 23:31	19°♄37'18		
					2876 Nov 26 08:44	0°♄		
superior conj	2875 Dec 26 17:33	4°☿56'15	-1°-20'-12	desc. node	2876 Nov 29 16:41	5°♄20'58		
minimum elong	2875 Dec 26 08:40	4°☿21'20	1°19'15					
evening rise	2876 Jan 11 04:02	29°☿30'27		superior conj	2876 Dec 04 20:24	13°♄32'27	0°-34'-24	
	2876 Jan 11 11:22	0°♄		minimum elong	2876 Dec 04 16:00	13°♄15'04	0°33'49	
	2876 Jan 31 10:33	0°♄		max. Earth dist.	2876 Dec 07 10:08	17°♄35'41	1.45127 AU	
evening max el	2876 Feb 01 02:18	0°♄41'30	18°44'34		2876 Dec 15 08:23	0°☿		
asc. node	2876 Feb 02 01:16	1°♄37'00		evening rise	2876 Dec 21 05:56	9°☿11'27		
retrograde	2876 Feb 07 18:40	4°♄25'05			2877 Jan 03 17:51	0°♄		
evening set	2876 Feb 10 22:12	3°♄28'34		greatest brilliancy	2877 Jan 06 01:17	3°♄24'41	-0.7m	
	2876 Feb 14 19:40	30°♄		evening max el	2877 Jan 14 10:05	14°♄11'04	19°29'14	
inferior conj	2876 Feb 16 16:23	27°♄47'19	3°33'15	asc. node	2877 Jan 18 22:18	17°♄40'57		
minimum elong	2876 Feb 16 14:56	27°♄51'45	3°33'07	retrograde	2877 Jan 21 15:23	18°♄20'45		
min. Earth dist.	2876 Feb 18 12:24	25°♄33'06	0.65227 AU	evening set	2877 Jan 25 02:05	17°♄11'13		
morning rise	2876 Feb 22 06:31	21°♄35'24		inferior conj	2877 Jan 30 15:21	11°♄14'11	3°12'42	
direct	2876 Feb 28 21:59	18°♄45'01		minimum elong	2877 Jan 30 13:04	11°♄21'39	3°12'15	
desc. node	2876 Mar 10 18:47	24°♄15'41		min. Earth dist.	2877 Jan 31 20:25	9°♄39'21	0.66491 AU	
morning max el	2876 Mar 13 03:44	26°♄31'10	26°59'30	morning rise	2877 Feb 04 23:18	4°♄59'33		
	2876 Mar 16 09:32	0°♄		direct	2877 Feb 11 03:27	2°♄15'55		
	2876 Apr 06 11:55	0°♄		morning max el	2877 Feb 23 13:07	9°♄38'11	25°52'16	
morning set	2876 Apr 17 20:13	20°♄19'48		desc. node	2877 Feb 25 15:50	11°♄51'52		
max. Earth dist.	2876 Apr 22 07:57	29°♄11'12	1.34089 AU		2877 Mar 11 15:12	0°♄		
	2876 Apr 22 17:35	0°♄			2877 Mar 30 01:10	0°♄		
				morning set	2877 Mar 31 17:38	3°♄04'31		
superior conj	2876 Apr 26 06:54	7°♄19'51	0°-38'-15	max. Earth dist.	2877 Apr 04 14:59	10°♄23'20	1.35651 AU	
minimum elong	2876 Apr 26 08:52	7°♄30'09	0°37'53					
asc. node	2876 Apr 30 00:35	15°♄12'35		superior conj	2877 Apr 10 01:15	21°♄05'19	-1°-6'-30	
evening rise	2876 May 03 17:41	23°♄02'13		minimum elong	2877 Apr 10 04:40	21°♄22'36	1°05'55	
	2876 May 07 03:23	0°♄			2877 Apr 14 09:54	0°♄		
evening max el	2876 May 23 18:38	25°♄30'47	21°32'21	asc. node	2877 Apr 16 21:37	5°♄07'30		
	2876 May 29 20:25	0°♄		evening rise	2877 Apr 18 00:26	7°♄24'56		
retrograde	2876 Jun 05 01:00	1°♄32'07			2877 Apr 30 12:26	0°♄		
desc. node	2876 Jun 06 17:59	1°♄25'26		evening max el	2877 May 06 00:25	6°♄38'34	20°12'36	
evening set	2876 Jun 07 12:11	1°♄18'19		retrograde	2877 May 16 14:50	11°♄47'38		
	2876 Jun 11 15:31	30°♄		evening set	2877 May 18 15:06	11°♄37'19		
inferior conj	2876 Jun 16 21:10	27°♄18'04	-2°-51'-47	desc. node	2877 May 24 15:00	9°♄23'34		
minimum elong	2876 Jun 16 13:41	27°♄28'31	2°49'25	inferior conj	2877 May 27 16:40	7°♄38'39	0°-54'-7	
min. Earth dist.	2876 Jun 16 20:25	27°♄19'06	0.54897 AU	minimum elong	2877 May 27 14:08	7°♄42'24	0°53'10	
morning rise	2876 Jun 25 15:53	23°♄23'06		min. Earth dist.	2877 May 29 08:59	6°♄39'03	0.55172 AU	
direct	2876 Jun 28 22:57	22°♄59'26		morning rise	2877 Jun 05 10:59	3°♄21'47		
morning max el	2876 Jul 11 08:24	28°♄50'25	22°04'38	direct	2877 Jun 09 10:38	2°♄47'22		
	2876 Jul 12 13:04	0°♄		morning max el	2877 Jun 23 00:57	9°♄26'39	23°46'33	
asc. node	2876 Jul 26 23:50	21°♄19'30			2877 Jul 08 03:07	0°♄		
	2876 Jul 31 08:55	0°♄		asc. node	2877 Jul 13 20:54	10°♄50'28		
morning set	2876 Aug 01 14:35	2°♄33'42		morning set	2877 Jul 17 02:10	17°♄28'45		
					2877 Jul 22 21:55	0°♄		
superior conj	2876 Aug 08 20:31	17°♄53'58	1°40'14					
minimum elong	2876 Aug 08 19:02	17°♄46'09	1°40'08	superior conj	2877 Jul 24 03:32	2°♄40'07	1°29'37	
max. Earth dist.	2876 Aug 12 08:30	25°♄10'08	1.34545 AU	minimum elong	2877 Jul 24 01:21	2°♄28'20	1°29'24	
	2876 Aug 14 17:57	0°♄		max. Earth dist.	2877 Jul 26 08:38	7°♄24'47	1.33341 AU	
evening rise	2876 Aug 16 23:12	4°♄21'20		evening rise	2877 Jul 31 15:50	18°♄23'54		
	2876 Aug 31 15:30	0°♄			2877 Aug 06 16:37	0°♄		
desc. node	2876 Sep 02 17:21	3°♄11'44		desc. node	2877 Aug 20 14:21	22°♄45'06		
evening max el	2876 Sep 20 22:11	26°♄12'32	26°59'10		2877 Aug 25 22:32	0°♄		
	2876 Sep 25 09:30	0°♄		evening max el	2877 Sep 03 09:46	9°♄30'00	27°24'24	
retrograde	2876 Oct 04 03:05	3°♄29'02		retrograde	2877 Sep 16 23:31	16°♄47'33		
evening set	2876 Oct 10 21:31	0°♄47'47		evening set	2877 Sep 24 02:29	14°♄07'58		
	2876 Oct 11 19:58	30°♄		min. Earth dist.	2877 Sep 27 19:28	10°♄48'59	0.63985 AU	
min. Earth dist.	2876 Oct 14 20:27	26°♄53'50	0.65463 AU	inferior conj	2877 Sep 30 07:12	8°♄13'51	-3°-2'-10	
inferior conj	2876 Oct 16 19:37	24°♄38'43	-2°-3'-4	minimum elong	2877 Sep 30 12:04	8°♄01'11	3°00'32	
minimum elong	2876 Oct 16 22:58	24°♄29'04	2°01'46	morning rise	2877 Oct 06 23:53	2°♄50'47		
asc. node	2876 Oct 22 23:02	19°♄03'15		direct	2877 Oct 09 11:19	2°♄20'09		
morning rise	2876 Oct 23 02:03	18°♄59'29		asc. node	2877 Oct 09 20:07	2°♄20'50		
direct	2876 Oct 25 19:10	18°♄19'22		morning max el	2877 Oct 16 00:03	5°♄45'38	17°53'56	
morning max el	2876 Nov 01 07:42	21°♄50'44	18°13'06		2877 Oct 31 23:04	0°♄		

morning set	2877 Nov 01 20:08	1°♄30'22		morning max el	2878 Sep 29 15:44	19°♄30'11	17°52'45
					2878 Oct 07 08:47	0°♄	
superior conj	2877 Nov 14 15:54	23°♄01'16	0°13'02	morning set	2878 Oct 15 13:54	14°♄23'30	
minimum elong	2877 Nov 14 17:20	23°♄07'09	0°12'49		2878 Oct 24 08:51	0°♄	
behind sun begin	2877 Nov 14 11:12	22°♄42'08					
behind sun end	2877 Nov 14 23:28	23°♄32'08		superior conj	2878 Oct 26 13:47	3°♄47'57	0°52'33
desc. node	2877 Nov 16 13:42	26°♄07'08		minimum elong	2878 Oct 26 18:00	4°♄05'55	0°52'01
	2877 Nov 18 23:40	0°♄		max. Earth dist.	2878 Nov 02 19:05	15°♄51'00	1.43088 AU
max. Earth dist.	2877 Nov 20 04:44	1°♄55'55	1.44427 AU	desc. node	2878 Nov 03 10:43	16°♄54'33	
evening rise	2877 Nov 30 16:54	18°♄21'01		evening rise	2878 Nov 10 03:58	27°♄36'02	
	2877 Dec 08 08:25	0°♄			2878 Nov 11 16:59	0°♄	
greatest brilliancy	2877 Dec 22 11:50	20°♄27'14	-0.5m		2878 Dec 02 04:22	0°♄	
evening max el	2877 Dec 28 12:48	27°♄42'13	20°28'43	greatest brilliancy	2878 Dec 06 13:23	5°♄41'23	-0.4m
	2877 Dec 31 00:34	0°♄		evening max el	2878 Dec 11 09:52	11°♄13'52	21°40'00
retrograde	2878 Jan 05 13:29	2°♄26'03		retrograde	2878 Dec 20 10:48	16°♄36'35	
asc. node	2878 Jan 05 19:21	2°♄25'43		asc. node	2878 Dec 23 16:25	15°♄39'26	
evening set	2878 Jan 09 08:53	1°♄02'15		evening set	2878 Dec 24 16:42	14°♄57'13	
	2878 Jan 10 14:12	30°♄		inferior conj	2878 Dec 30 02:11	8°♄37'50	2°02'53
inferior conj	2878 Jan 14 19:23	24°♄52'16	2°41'55	minimum elong	2878 Dec 29 23:50	8°♄45'57	2°02'04
minimum elong	2878 Jan 14 16:49	25°♄01'01	2°41'11	min. Earth dist.	2878 Dec 30 05:56	8°♄24'48	0.67801 AU
min. Earth dist.	2878 Jan 15 11:02	23°♄58'57	0.67342 AU	morning rise	2879 Jan 04 06:43	2°♄23'27	
morning rise	2878 Jan 20 00:16	18°♄36'50		direct	2879 Jan 09 05:39	0°♄16'54	
direct	2878 Jan 25 14:16	16°♄09'11		morning max el	2879 Jan 19 07:13	6°♄15'17	23°00'21
morning max el	2878 Feb 05 21:46	22°♄54'17	24°29'08	greatest brilliancy	2879 Jan 24 02:28	11°♄37'06	-0.3m
	2878 Feb 12 03:58	0°♄		desc. node	2879 Jan 30 09:58	19°♄45'57	
desc. node	2878 Feb 12 12:55	0°♄27'49			2879 Feb 06 15:31	0°♄	
	2878 Mar 04 23:40	0°♄		morning set	2879 Feb 22 20:09	25°♄17'48	
morning set	2878 Mar 13 19:41	14°♄49'08			2879 Feb 25 15:18	0°♄	
max. Earth dist.	2878 Mar 17 12:45	21°♄26'09	1.37603 AU	max. Earth dist.	2879 Feb 27 07:43	2°♄52'58	1.39754 AU
	2878 Mar 22 03:28	0°♄					
superior conj	2878 Mar 24 08:39	4°♄14'33	-1°-32'-36	superior conj	2879 Mar 07 00:56	16°♄37'19	-1°-53'-33
minimum elong	2878 Mar 24 13:03	4°♄35'47	1°32'02	minimum elong	2879 Mar 07 05:03	16°♄56'14	1°53'15
evening rise	2878 Apr 02 01:19	21°♄25'00			2879 Mar 14 03:44	0°♄	
asc. node	2878 Apr 03 18:39	24°♄49'03		evening rise	2879 Mar 16 17:20	4°♄54'47	
	2878 Apr 06 11:08	0°♄		asc. node	2879 Mar 21 15:42	14°♄12'09	
evening max el	2878 Apr 18 17:59	18°♄26'56	19°11'40		2879 Apr 01 00:37	0°♄	
retrograde	2878 Apr 27 16:27	22°♄47'14		evening max el	2879 Apr 01 21:09	0°♄52'28	18°30'57
evening set	2878 Apr 29 17:58	22°♄34'20		retrograde	2879 Apr 09 12:20	4°♄37'42	
inferior conj	2878 May 08 02:13	18°♄23'27	0°58'25	evening set	2879 Apr 11 19:34	4°♄18'18	
minimum elong	2878 May 08 04:31	18°♄19'33	0°57'37	inferior conj	2879 Apr 19 08:39	29°♄48'18	2°22'29
min. Earth dist.	2878 May 11 00:01	16°♄26'13	0.56352 AU	minimum elong	2879 Apr 19 12:31	29°♄40'39	2°21'26
desc. node	2878 May 11 12:04	16°♄06'51			2879 Apr 19 02:43	30°♄	
morning rise	2878 May 16 10:54	13°♄32'02		min. Earth dist.	2879 Apr 22 18:52	27°♄07'14	0.58190 AU
direct	2878 May 21 09:46	12°♄35'08		morning rise	2879 Apr 27 01:07	24°♄24'21	
morning max el	2878 Jun 04 15:17	19°♄51'59	25°25'58	desc. node	2879 Apr 28 09:07	23°♄48'38	
	2878 Jun 13 06:14	0°♄		direct	2879 May 02 23:33	22°♄53'59	
	2878 Jun 30 10:30	0°♄			2879 May 16 18:38	0°♄	
asc. node	2878 Jun 30 17:57	0°♄38'48		morning max el	2879 May 17 08:52	0°♄34'11	26°47'00
morning set	2878 Jul 01 13:52	2°♄23'29			2879 Jun 07 05:16	0°♄	
				morning set	2879 Jun 16 00:05	17°♄12'43	
superior conj	2878 Jul 08 13:52	17°♄34'49	1°14'10	asc. node	2879 Jun 17 14:59	20°♄39'01	
minimum elong	2878 Jul 08 11:29	17°♄21'49	1°13'49		2879 Jun 21 22:03	0°♄	
max. Earth dist.	2878 Jul 09 15:55	19°♄57'16	1.32544 AU	superior conj	2879 Jun 23 01:37	2°♄31'51	0°54'36
	2878 Jul 14 08:11	0°♄		minimum elong	2879 Jun 22 23:32	2°♄20'21	0°54'13
evening rise	2878 Jul 15 16:58	2°♄50'37		max. Earth dist.	2879 Jun 23 03:12	2°♄40'35	1.32154 AU
	2878 Jul 30 12:21	0°♄		evening rise	2879 Jun 29 23:51	17°♄33'12	
desc. node	2878 Aug 07 11:22	11°♄37'58			2879 Jul 06 04:42	0°♄	
evening max el	2878 Aug 16 18:05	22°♄16'11	27°19'15	desc. node	2879 Jul 25 08:23	29°♄33'28	
retrograde	2878 Aug 30 13:32	29°♄31'45			2879 Jul 25 17:35	0°♄	
evening set	2878 Sep 06 17:59	27°♄05'52		evening max el	2879 Jul 29 20:51	4°♄20'23	26°40'52
min. Earth dist.	2878 Sep 10 08:12	24°♄15'00	0.62183 AU	retrograde	2879 Aug 12 19:52	11°♄32'31	
inferior conj	2878 Sep 13 07:31	21°♄30'06	-3°-56'-56	evening set	2879 Aug 19 15:24	9°♄33'57	
minimum elong	2878 Sep 13 13:08	21°♄17'04	3°55'29	min. Earth dist.	2879 Aug 23 10:41	6°♄57'48	0.60161 AU
morning rise	2878 Sep 20 11:08	16°♄26'30		inferior conj	2879 Aug 26 17:07	4°♄18'55	-4°-40'-49
direct	2878 Sep 22 19:38	16°♄02'09		minimum elong	2879 Aug 26 21:47	4°♄09'25	4°40'05
asc. node	2878 Sep 26 17:11	17°♄11'00			2879 Sep 02 05:32	30°♄	

morning rise	2879 Sep 03 07:30	29°♂37'22		inferior conj	2880 Aug 07 08:30	16°♂30'01	-5°-3'-15
direct	2879 Sep 05 16:08	29°♂16'34		minimum elong	2880 Aug 07 09:33	16°♂28'09	5°03'13
	2879 Sep 08 23:54	0°♂		morning rise	2880 Aug 15 08:38	12°♂11'28	
morning max el	2879 Sep 13 03:34	2°♂56'04	18°10'46	direct	2880 Aug 17 20:32	11°♂52'06	
asc. node	2879 Sep 13 14:14	3°♂22'30		morning max el	2880 Aug 26 08:13	15°♂53'22	18°49'28
morning set	2879 Sep 28 22:59	28°♂00'27		asc. node	2880 Aug 30 11:15	20°♂39'47	
	2879 Sep 30 00:21	0°♂			2880 Sep 05 08:35	0°♂	
				morning set	2880 Sep 11 18:46	12°♂08'23	
superior conj	2879 Oct 08 13:07	15°♂49'03	1°20'38	superior conj	2880 Sep 20 08:40	28°♂49'47	1°37'28
minimum elong	2879 Oct 08 17:08	16°♂07'08	1°20'13	minimum elong	2880 Sep 20 11:07	29°♂01'24	1°37'17
max. Earth dist.	2879 Oct 16 04:06	29°♂08'29	1.41284 AU		2880 Sep 20 23:30	0°♂	
	2879 Oct 16 16:19	0°♂		max. Earth dist.	2880 Sep 27 09:08	11°♂44'23	1.39237 AU
evening rise	2879 Oct 21 06:50	7°♂36'33		evening rise	2880 Oct 01 08:58	18°♂41'27	
desc. node	2879 Oct 21 07:44	7°♂40'08		desc. node	2880 Oct 07 04:44	28°♂20'11	
	2879 Nov 04 20:43	0°♂			2880 Oct 08 05:40	0°♂	
greatest brilliancy	2879 Nov 18 16:07	18°♂43'01	-0.2m		2880 Oct 29 04:28	0°♂	
evening max el	2879 Nov 24 02:08	24°♂48'02	22°58'28	evening max el	2880 Nov 05 15:25	8°♂26'20	24°18'12
	2879 Nov 30 20:32	0°♂		retrograde	2880 Nov 16 20:52	15°♂00'47	
retrograde	2879 Dec 04 05:41	0°♂49'10		evening set	2880 Nov 22 04:48	12°♂48'16	
	2879 Dec 07 08:45	30°♂		asc. node	2880 Nov 26 10:29	8°♂02'43	
evening set	2879 Dec 08 23:51	28°♂53'19		min. Earth dist.	2880 Nov 26 22:45	7°♂21'53	0.67661 AU
asc. node	2879 Dec 10 13:28	27°♂23'27		inferior conj	2880 Nov 27 16:35	6°♂21'58	0°25'44
inferior conj	2879 Dec 14 09:50	22°♂28'22	1°17'04	minimum elong	2880 Nov 27 15:58	6°♂24'04	0°25'28
minimum elong	2879 Dec 14 08:09	22°♂34'09	1°16'24	morning rise	2880 Dec 03 03:26	0°♂16'21	
min. Earth dist.	2879 Dec 14 02:38	22°♂53'11	0.67903 AU		2880 Dec 03 12:57	30°♂	
morning rise	2879 Dec 19 16:26	16°♂17'11		direct	2880 Dec 06 22:16	28°♂54'33	
direct	2879 Dec 24 00:44	14°♂33'28			2880 Dec 10 13:11	0°♂	
morning max el	2880 Jan 01 20:58	19°♂43'36	21°34'55	morning max el	2880 Dec 14 18:01	3°♂23'22	20°19'32
greatest brilliancy	2880 Jan 06 19:29	25°♂19'45	-0.4m	greatest brilliancy	2880 Dec 21 05:38	11°♂06'48	-0.5m
	2880 Jan 10 10:20	0°♂		desc. node	2881 Jan 03 04:01	29°♂44'37	
desc. node	2880 Jan 17 07:00	9°♂34'15			2881 Jan 03 08:06	0°♂	
	2880 Jan 30 20:40	0°♂		morning set	2881 Jan 11 13:46	12°♂34'34	
morning set	2880 Feb 02 15:25	4°♂23'00		max. Earth dist.	2881 Jan 21 15:12	28°♂25'18	1.43580 AU
max. Earth dist.	2880 Feb 09 07:22	15°♂10'47	1.41843 AU		2881 Jan 22 14:44	0°♂	
				superior conj	2881 Jan 27 16:06	8°♂15'22	-2°-2'-31
superior conj	2880 Feb 16 21:00	28°♂00'54	-2°-5'-14	minimum elong	2881 Jan 27 12:25	8°♂00'08	2°02'24
minimum elong	2880 Feb 16 22:32	28°♂07'34	2°05'14	evening rise	2881 Feb 09 07:33	29°♂47'10	
	2880 Feb 18 00:16	0°♂			2881 Feb 09 10:29	0°♂	
evening rise	2880 Feb 27 20:48	17°♂44'50		asc. node	2881 Feb 22 09:47	21°♂33'28	
	2880 Mar 05 16:04	0°♂		evening max el	2881 Feb 26 18:50	26°♂56'24	18°08'53
asc. node	2880 Mar 07 12:45	3°♂09'35			2881 Mar 03 06:41	0°♂	
evening max el	2880 Mar 15 06:32	13°♂45'13	18°10'13	retrograde	2881 Mar 05 06:01	0°♂19'50	
retrograde	2880 Mar 22 02:08	17°♂11'52			2881 Mar 07 05:32	30°♂	
evening set	2880 Mar 24 15:19	16°♂43'32		evening set	2881 Mar 08 00:34	29°♂41'16	
inferior conj	2880 Mar 31 11:43	11°♂52'09	3°13'39	inferior conj	2881 Mar 14 08:03	24°♂28'56	3°37'00
minimum elong	2880 Mar 31 14:36	11°♂45'31	3°13'10	minimum elong	2881 Mar 14 09:04	24°♂26'16	3°36'57
min. Earth dist.	2880 Apr 03 19:22	8°♂50'42	0.60337 AU	min. Earth dist.	2881 Mar 17 04:04	21°♂31'51	0.62456 AU
morning rise	2880 Apr 07 10:29	6°♂05'12		morning rise	2881 Mar 20 15:15	18°♂27'45	
direct	2880 Apr 14 01:32	3°♂59'19		direct	2881 Mar 27 12:58	15°♂54'12	
desc. node	2880 Apr 14 06:09	3°♂59'26		desc. node	2881 Apr 01 03:11	16°♂54'17	
morning max el	2880 Apr 28 08:23	11°♂51'29	27°37'07	morning max el	2881 Apr 10 13:48	23°♂50'49	27°50'14
	2880 May 12 14:33	0°♂			2881 Apr 16 02:35	0°♂	
	2880 May 29 09:40	0°♂		morning set	2881 May 05 21:44	0°♂	
morning set	2880 May 30 06:57	1°♂49'32			2881 May 14 08:28	16°♂07'35	
asc. node	2880 Jun 03 12:00	10°♂45'33		max. Earth dist.	2881 May 19 23:00	27°♂50'52	1.32571 AU
max. Earth dist.	2880 Jun 05 14:51	15°♂22'37	1.32161 AU		2881 May 20 22:59	0°♂	
				asc. node	2881 May 21 09:02	0°♂54'25	
superior conj	2880 Jun 06 13:00	17°♂24'13	0°31'36				
minimum elong	2880 Jun 06 11:38	17°♂16'41	0°31'18	superior conj	2881 May 21 22:18	2°♂06'21	0°05'50
	2880 Jun 12 07:21	0°♂		minimum elong	2881 May 21 22:02	2°♂04'52	0°05'46
evening rise	2880 Jun 13 10:09	2°♂23'05		behind sun begin	2881 May 21 17:10	1°♂38'29	
	2880 Jun 28 07:34	0°♂		behind sun end	2881 May 22 02:54	2°♂31'16	
evening max el	2880 Jul 10 16:27	15°♂36'58	25°31'37	evening rise	2881 May 28 21:56	17°♂13'51	
desc. node	2880 Jul 11 05:24	16°♂07'23			2881 Jun 04 05:24	0°♂	
retrograde	2880 Jul 24 16:22	22°♂44'07		evening max el	2881 Jun 22 06:25	26°♂15'02	24°01'10
evening set	2880 Jul 30 14:01	21°♂22'41					
min. Earth dist.	2880 Aug 04 04:31	18°♂43'23	0.58116 AU				

	2881 Jun 26 19:47	0°♎		evening rise	2882 May 13 09:19	1°♊59'06	
desc. node	2881 Jun 28 02:25	0°♎48'24			2882 May 29 02:50	0°♊	
retrograde	2881 Jul 06 00:56	3°♎10'50		evening max el	2882 Jun 03 21:11	6°♊42'19	22°24'45
evening set	2881 Jul 10 13:12	2°♎25'53		desc. node	2882 Jun 14 23:26	13°♊01'33	
	2881 Jul 15 18:08	30°♊		retrograde	2882 Jun 16 21:43	13°♊10'05	
min. Earth dist.	2881 Jul 16 16:58	29°♊26'17	0.56341 AU	evening set	2882 Jun 19 23:11	12°♊49'24	
inferior conj	2881 Jul 19 03:38	27°♊56'06	-4°-49'-43	min. Earth dist.	2882 Jun 28 04:03	9°♊15'52	0.55172 AU
minimum elong	2881 Jul 18 23:02	28°♊03'13	4°49'12	inferior conj	2882 Jun 29 05:08	8°♊40'21	-3°-48'-12
morning rise	2881 Jul 27 12:20	23°♊57'21		minimum elong	2882 Jun 28 20:59	8°♊51'55	3°46'08
direct	2881 Jul 30 05:48	23°♊38'04		morning rise	2882 Jul 07 21:05	4°♊49'36	
morning max el	2881 Aug 09 02:51	28°♊13'11	19°49'43	direct	2882 Jul 10 21:45	4°♊28'51	
	2881 Aug 10 21:06	0°♎		morning max el	2882 Jul 22 10:04	9°♊50'11	21°10'35
asc. node	2881 Aug 17 08:16	8°♎48'41		asc. node	2882 Aug 04 05:19	27°♊37'21	
morning set	2881 Aug 26 21:54	26°♎37'52			2882 Aug 05 12:20	0°♎	
	2881 Aug 28 13:46	0°♏		morning set	2882 Aug 11 05:53	11°♎22'18	
superior conj	2881 Sep 03 19:06	12°♏34'52	1°44'36	superior conj	2882 Aug 18 16:06	26°♎52'12	1°43'45
minimum elong	2881 Sep 03 19:45	12°♏38'06	1°44'35	minimum elong	2882 Aug 18 15:15	26°♎47'51	1°43'44
max. Earth dist.	2881 Sep 09 13:54	23°♏46'52	1.37204 AU		2882 Aug 20 04:39	0°♏	
	2881 Sep 12 22:52	0°♎		max. Earth dist.	2882 Aug 22 23:48	5°♏38'23	1.35407 AU
evening rise	2881 Sep 13 09:54	0°♎49'44		evening rise	2882 Aug 27 05:48	13°♏52'30	
desc. node	2881 Sep 24 01:44	18°♎49'58			2882 Sep 05 07:24	0°♎	
	2881 Oct 01 10:26	0°♏		desc. node	2882 Sep 10 22:46	9°♎04'15	
evening max el	2881 Oct 19 03:32	22°♏07'02	25°32'13		2882 Sep 26 06:23	0°♏	
retrograde	2881 Oct 31 07:35	29°♏06'13		evening max el	2882 Oct 01 15:45	5°♏46'08	26°33'02
evening set	2881 Nov 06 05:50	26°♏38'38		retrograde	2882 Oct 14 13:20	12°♏59'49	
min. Earth dist.	2881 Nov 10 15:52	21°♏47'31	0.67079 AU	evening set	2882 Oct 21 01:04	10°♏21'22	
inferior conj	2881 Nov 11 20:37	20°♏15'18	0°-29'-59	min. Earth dist.	2882 Oct 25 03:47	6°♏06'38	0.66152 AU
minimum elong	2881 Nov 11 21:24	20°♏12'50	0°29'39	inferior conj	2882 Oct 26 20:05	4°♏05'36	-1°-28'-39
asc. node	2881 Nov 13 07:31	18°♏25'22		minimum elong	2882 Oct 26 22:29	3°♏58'24	1°27'40
morning rise	2881 Nov 17 13:44	14°♏17'51			2882 Oct 30 13:58	30°♏	
direct	2881 Nov 20 20:49	13°♏15'17		asc. node	2882 Oct 31 04:32	29°♎28'31	
morning max el	2881 Nov 27 22:57	17°♏13'38	19°17'56	morning rise	2882 Nov 01 21:14	28°♎18'59	
greatest brilliancy	2881 Dec 07 14:14	29°♏39'49	-0.7m	direct	2882 Nov 04 18:40	27°♎31'56	
	2881 Dec 07 19:45	0°♏			2882 Nov 10 04:02	0°♏	
desc. node	2881 Dec 21 01:01	20°♏10'26		morning max el	2882 Nov 11 10:21	1°♏10'37	18°32'00
morning set	2881 Dec 21 14:16	21°♏01'49			2882 Dec 01 03:28	0°♏	
	2881 Dec 27 08:39	0°♏		morning set	2882 Dec 01 14:24	0°♏43'40	
max. Earth dist.	2882 Jan 04 05:50	12°♏21'35	1.44739 AU	desc. node	2882 Dec 07 22:04	10°♏47'14	
superior conj	2882 Jan 07 09:41	17°♏22'03	-1°-41'-4	superior conj	2882 Dec 17 12:10	25°♏53'35	-1°-1'-46
minimum elong	2882 Jan 07 01:08	16°♏48'05	1°40'19	minimum elong	2882 Dec 17 04:35	25°♏23'48	1°00'52
	2882 Jan 15 06:08	0°♏		max. Earth dist.	2882 Dec 18 00:01	26°♏40'03	1.45196 AU
evening rise	2882 Jan 21 21:20	10°♏54'16			2882 Dec 20 02:59	0°♏	
	2882 Feb 02 13:40	0°♏		evening rise	2883 Jan 02 11:51	21°♏04'26	
asc. node	2882 Feb 09 06:49	9°♏13'10			2883 Jan 08 02:49	0°♏	
evening max el	2882 Feb 10 07:10	10°♏18'15	18°26'19	evening max el	2883 Jan 24 17:09	23°♏46'03	19°01'32
retrograde	2882 Feb 16 19:22	13°♏51'30		asc. node	2883 Jan 27 03:51	25°♏56'22	
evening set	2882 Feb 19 19:22	13°♏01'51		retrograde	2883 Jan 31 14:21	27°♏40'01	
inferior conj	2882 Feb 25 17:31	7°♏30'21	3°39'18	evening set	2883 Feb 03 20:40	26°♏38'16	
minimum elong	2882 Feb 25 16:49	7°♏32'23	3°39'16	inferior conj	2883 Feb 09 12:28	20°♏49'53	3°25'57
min. Earth dist.	2882 Feb 27 22:24	4°♏56'49	0.64319 AU	minimum elong	2883 Feb 09 10:36	20°♏55'48	3°25'41
morning rise	2882 Mar 03 12:45	1°♏20'58		min. Earth dist.	2883 Feb 11 01:58	18°♏51'41	0.65814 AU
	2882 Mar 05 10:00	30°♏		morning rise	2883 Feb 14 23:32	14°♏36'13	
direct	2882 Mar 10 08:20	28°♏32'48		direct	2883 Feb 21 10:33	11°♏47'16	
	2882 Mar 15 17:08	0°♏		desc. node	2883 Mar 05 21:16	18°♏56'49	
desc. node	2882 Mar 19 00:13	2°♏04'57		morning max el	2883 Mar 06 08:54	19°♏25'50	26°33'26
morning max el	2882 Mar 23 22:57	6°♏26'19	27°27'06		2883 Mar 15 09:17	0°♏	
	2882 Apr 10 23:54	0°♏			2883 Apr 04 01:00	0°♏	
morning set	2882 Apr 28 02:03	29°♏58'42		morning set	2883 Apr 11 08:10	13°♏12'00	
	2882 Apr 28 02:19	0°♏		max. Earth dist.	2883 Apr 15 13:20	21°♏21'10	1.34697 AU
max. Earth dist.	2882 May 02 23:41	9°♏53'00	1.33404 AU		2883 Apr 19 20:02	0°♏	
superior conj	2882 May 06 03:40	16°♏32'18	0°-21'-53	superior conj	2883 Apr 20 02:51	0°♏35'04	0°-50'-22
minimum elong	2882 May 06 04:46	16°♏38'10	0°21'40	minimum elong	2883 Apr 20 05:28	0°♏48'32	0°49'53
asc. node	2882 May 08 06:05	21°♏01'30		asc. node	2883 Apr 25 03:09	11°♏02'16	
	2882 May 12 10:47	0°♏		evening rise	2883 Apr 27 18:24	16°♏32'04	

	2883 May 04 14:20	0°♂		evening rise	2884 Apr 10 23:01	0°♂46'37	
evening max el	2883 May 16 20:20	17°♂30'06	20°56'20		2884 Apr 10 13:47	0°♂	
retrograde	2883 May 28 11:00	23°♂10'09		asc. node	2884 Apr 11 00:13	0°♂52'40	
evening set	2883 May 30 15:07	22°♂59'00		evening max el	2884 Apr 28 07:27	28°♂56'23	19°44'17
desc. node	2883 Jun 01 20:28	22°♂26'03			2884 Apr 29 11:16	0°♂	
inferior conj	2883 Jun 08 22:43	19°♂01'25	-2°-3'-28	retrograde	2884 May 08 04:06	3°♂42'57	
minimum elong	2883 Jun 08 16:58	19°♂09'34	2°01'27	evening set	2884 May 10 03:57	3°♂32'07	
min. Earth dist.	2883 Jun 09 16:12	18°♂36'37	0.54888 AU		2884 May 18 03:32	30°♂♂	
morning rise	2883 Jun 17 18:14	14°♂59'03		inferior conj	2884 May 18 22:56	29°♂30'01	0°-3'-57
direct	2883 Jun 21 07:05	14°♂32'05		minimum elong	2884 May 18 22:45	29°♂30'18	0°03'54
morning max el	2883 Jul 04 06:53	20°♂45'13	22°47'22	transit middle	2884 May 18 22:45	29°♂30'18	0°03'54
	2883 Jul 12 02:56	0°♂		transit begin	2884 May 18 18:55	29°♂36'14	
asc. node	2883 Jul 22 02:22	16°♂55'08		transit end	2884 May 19 02:34	29°♂24'21	
morning set	2883 Jul 26 16:39	26°♂14'50		desc. node	2884 May 18 17:30	29°♂38'27	
	2883 Jul 28 11:14	0°♂		min. Earth dist.	2884 May 21 05:58	28°♂04'45	0.55578 AU
				morning rise	2884 May 27 14:12	24°♂58'59	
superior conj	2883 Aug 02 20:14	11°♂30'16	1°36'23	direct	2884 May 31 23:26	24°♂16'18	
minimum elong	2883 Aug 02 18:23	11°♂20'26	1°36'14		2884 Jun 13 13:19	0°♂	
max. Earth dist.	2883 Aug 05 18:25	17°♂40'14	1.33978 AU	morning max el	2884 Jun 14 21:39	1°♂13'37	24°29'54
evening rise	2883 Aug 10 16:03	27°♂36'39			2884 Jul 04 16:03	0°♂	
	2883 Aug 11 21:26	0°♂		asc. node	2884 Jul 07 23:27	6°♂34'24	
desc. node	2883 Aug 28 19:47	28°♂55'07		morning set	2884 Jul 10 04:29	11°♂10'19	
	2883 Aug 29 13:23	0°♂					
evening max el	2883 Sep 14 03:57	19°♂14'38	27°13'18	superior conj	2884 Jul 17 04:56	26°♂21'00	1°23'37
retrograde	2883 Sep 27 13:32	26°♂33'06		minimum elong	2884 Jul 17 02:36	26°♂08'21	1°23'19
evening set	2883 Oct 04 12:05	23°♂51'14			2884 Jul 18 21:22	0°♂	
min. Earth dist.	2883 Oct 08 08:13	20°♂12'30	0.64871 AU	max. Earth dist.	2884 Jul 18 21:53	0°♂02'45	1.32958 AU
inferior conj	2883 Oct 10 12:44	17°♂47'43	-2°-28'-24	evening rise	2884 Jul 24 12:43	11°♂51'00	
minimum elong	2883 Oct 10 16:48	17°♂36'31	2°26'55		2884 Aug 03 02:52	0°♂	
morning rise	2883 Oct 16 23:25	12°♂14'58		desc. node	2884 Aug 14 16:48	18°♂12'47	
asc. node	2883 Oct 18 01:35	11°♂51'29			2884 Aug 24 06:21	0°♂	
direct	2883 Oct 19 13:41	11°♂39'28		evening max el	2884 Aug 26 14:39	2°♂20'54	27°26'13
morning max el	2883 Oct 26 01:39	15°♂07'40	18°02'47	retrograde	2884 Sep 09 07:21	9°♂37'32	
	2883 Nov 05 16:06	0°♂		evening set	2884 Sep 16 11:47	7°♂02'34	
morning set	2883 Nov 12 19:52	11°♂52'26		min. Earth dist.	2884 Sep 20 03:10	3°♂56'21	0.63252 AU
	2883 Nov 23 20:33	0°♂		inferior conj	2884 Sep 22 19:55	1°♂15'45	-3°-26'-17
desc. node	2883 Nov 24 19:07	1°♂30'48		minimum elong	2884 Sep 23 01:15	1°♂02'30	3°24'40
					2884 Sep 24 02:51	30°♂♂	
superior conj	2883 Nov 26 20:02	4°♂46'42	0°-13'-48	morning rise	2884 Sep 29 17:12	26°♂00'13	
minimum elong	2883 Nov 26 18:19	4°♂39'52	0°13'35	direct	2884 Oct 02 03:00	25°♂32'37	
behind sun begin	2883 Nov 26 12:28	4°♂16'29		asc. node	2884 Oct 03 22:39	25°♂48'43	
behind sun end	2883 Nov 27 00:10	5°♂03'15		morning max el	2884 Oct 08 18:00	28°♂58'26	17°51'05
max. Earth dist.	2883 Nov 30 18:49	11°♂02'45	1.44909 AU		2884 Oct 09 17:28	0°♂	
	2883 Dec 12 22:39	0°♂		morning set	2884 Oct 25 02:16	24°♂13'10	
evening rise	2883 Dec 13 05:51	0°♂27'48			2884 Oct 28 09:45	0°♂	
greatest brilliancy	2883 Dec 31 18:34	28°♂20'04	-0.6m				
	2884 Jan 01 23:35	0°♂		superior conj	2884 Nov 06 02:11	14°♂46'39	0°31'07
evening max el	2884 Jan 07 22:56	7°♂16'50	19°52'57	minimum elong	2884 Nov 06 05:15	14°♂59'22	0°30'41
asc. node	2884 Jan 14 00:52	11°♂28'40		desc. node	2884 Nov 10 16:07	22°♂17'35	
retrograde	2884 Jan 15 11:56	11°♂40'22		max. Earth dist.	2884 Nov 12 11:52	25°♂13'58	1.43927 AU
evening set	2884 Jan 19 02:02	10°♂25'08			2884 Nov 15 11:39	0°♂	
inferior conj	2884 Jan 24 13:54	4°♂22'26	3°00'47	evening rise	2884 Nov 21 14:39	9°♂34'03	
minimum elong	2884 Jan 24 11:26	4°♂30'40	3°00'12		2884 Dec 05 04:27	0°♂	
min. Earth dist.	2884 Jan 25 13:11	3°♂04'53	0.66899 AU	greatest brilliancy	2884 Dec 15 13:54	14°♂29'17	-0.5m
	2884 Jan 28 00:16	30°♂♂		evening max el	2884 Dec 20 23:20	20°♂48'22	20°57'59
morning rise	2884 Jan 29 20:11	28°♂07'07		retrograde	2884 Dec 29 09:45	25°♂47'58	
direct	2884 Feb 04 18:37	25°♂29'03		asc. node	2884 Dec 30 21:56	25°♂35'24	
	2884 Feb 13 22:49	0°♂		evening set	2885 Jan 02 09:26	24°♂17'43	
morning max el	2884 Feb 16 17:48	2°♂37'33	25°18'13	inferior conj	2885 Jan 07 19:19	18°♂03'35	2°26'15
desc. node	2884 Feb 20 18:20	7°♂01'14		minimum elong	2885 Jan 07 16:47	18°♂12'17	2°25'28
	2884 Mar 08 13:18	0°♂		min. Earth dist.	2885 Jan 08 05:48	17°♂27'32	0.67582 AU
morning set	2884 Mar 23 22:12	25°♂34'12		morning rise	2885 Jan 12 23:45	11°♂48'33	
	2884 Mar 26 08:25	0°♂		direct	2885 Jan 18 07:30	9°♂29'16	
max. Earth dist.	2884 Mar 27 15:32	2°♂24'52	1.36438 AU	morning max el	2885 Jan 29 02:12	15°♂54'42	23°51'32
				desc. node	2885 Feb 06 15:22	25°♂56'32	
superior conj	2884 Apr 02 17:05	14°♂07'17	-1°-17'-59		2885 Feb 09 16:31	0°♂	
minimum elong	2884 Apr 02 21:00	14°♂26'46	1°17'22		2885 Mar 01 12:59	0°♂	

morning set	2885 Mar 05 14:01	6° ✕ 47'55		morning set	2886 Feb 03 11:11	0° ≈	
max. Earth dist.	2885 Mar 09 11:08	13° ✕ 33'43	1.38510 AU	max. Earth dist.	2886 Feb 14 02:01	16° ≈ 40'00	
superior conj	2885 Mar 16 18:37	26° ✕ 58'25	-1°-42'-19		2886 Feb 19 07:53	25° ≈ 22'05	1.40672 AU
minimum elong	2885 Mar 16 23:07	27° ✕ 19'39	1°41'51		2886 Feb 22 00:55	0° ✕	
	2885 Mar 18 08:47	0° Υ		superior conj	2886 Feb 27 02:54	8° ✕ 57'06	-1°-59'-55
evening rise	2885 Mar 25 20:29	14° Υ 34'44		minimum elong	2886 Feb 27 06:16	9° ✕ 12'11	1°59'46
asc. node	2885 Mar 28 21:15	20° Υ 27'06		evening rise	2886 Mar 09 07:38	27° ✕ 48'37	
	2885 Apr 03 03:22	0° ♄			2886 Mar 10 11:38	0° Υ	
evening max el	2885 Apr 11 05:31	11° ♄ 01'36	18°51'50	asc. node	2886 Mar 15 18:16	9° Υ 39'58	
retrograde	2885 Apr 19 12:59	15° ♄ 04'41		evening max el	2886 Mar 25 11:38	23° Υ 39'10	18°19'39
evening set	2885 Apr 21 16:59	14° ♄ 49'15		retrograde	2886 Apr 01 17:07	27° Υ 14'49	
inferior conj	2885 Apr 29 16:56	10° ♄ 30'33	1°38'08	evening set	2886 Apr 04 02:55	26° Υ 51'50	
minimum elong	2885 Apr 29 20:19	10° ♄ 24'27	1°37'03	inferior conj	2886 Apr 11 08:25	22° Υ 12'24	2°47'59
min. Earth dist.	2885 May 02 22:04	8° ♄ 12'35	0.57082 AU	minimum elong	2886 Apr 11 12:04	22° Υ 04'40	2°47'10
desc. node	2885 May 05 14:33	6° ♄ 30'33		min. Earth dist.	2886 Apr 14 18:51	19° Υ 19'47	0.59087 AU
morning rise	2885 May 07 19:18	5° ♄ 24'49		morning rise	2886 Apr 18 17:16	16° Υ 37'19	
direct	2885 May 13 04:52	4° ♄ 14'41		desc. node	2886 Apr 22 11:35	15° Υ 08'43	
morning max el	2885 May 27 12:37	11° ♄ 42'06	26°03'29	direct	2886 Apr 24 23:41	14° Υ 51'50	
	2885 Jun 10 16:19	0° ♅		morning max el	2886 May 09 08:41	22° Υ 37'48	27°12'43
morning set	2885 Jun 24 15:46	26° ♅ 03'20			2886 May 15 21:32	0° ♄	
asc. node	2885 Jun 24 20:31	26° ♅ 28'25			2886 Jun 03 15:42	0° ♅	
	2885 Jun 26 12:10	0° ♄		morning set	2886 Jun 09 00:47	10° ♅ 48'08	
				asc. node	2886 Jun 11 17:32	16° ♅ 31'49	
superior conj	2885 Jul 01 16:04	11° ♄ 17'12	1°06'20	superior conj	2886 Jun 16 03:51	26° ♅ 12'45	0°45'14
minimum elong	2885 Jul 01 13:46	11° ♄ 04'31	1°05'56	minimum elong	2886 Jun 16 02:01	26° ♅ 02'39	0°44'51
max. Earth dist.	2885 Jul 02 07:30	12° ♄ 42'00	1.32338 AU	max. Earth dist.	2886 Jun 15 19:33	25° ♅ 26'58	1.32110 AU
evening rise	2885 Jul 08 16:37	26° ♄ 25'34			2886 Jun 17 21:07	0° ♄	
	2885 Jul 10 10:17	0° ♄		evening rise	2886 Jun 23 01:13	11° ♄ 11'57	
	2885 Jul 27 14:53	0° ♅			2886 Jul 02 15:57	0° ♄	
desc. node	2885 Aug 01 13:49	6° ♅ 43'40		desc. node	2886 Jul 19 10:51	24° ♄ 07'54	
evening max el	2885 Aug 08 21:07	14° ♅ 51'10	27°06'59	evening max el	2886 Jul 21 20:44	26° ♄ 34'29	26°14'41
retrograde	2885 Aug 22 17:56	22° ♅ 04'19			2886 Jul 25 22:46	0° ♅	
evening set	2885 Aug 29 20:10	19° ♅ 48'41		retrograde	2886 Aug 04 20:15	3° ♅ 44'57	
min. Earth dist.	2885 Sep 02 11:24	17° ♅ 06'02	0.61345 AU	evening set	2886 Aug 11 08:24	2° ♅ 01'04	
inferior conj	2885 Sep 05 14:27	14° ♅ 21'50	-4°-17'-26		2886 Aug 14 14:45	30° ♄	
minimum elong	2885 Sep 05 19:56	14° ♅ 09'47	4°16'14	min. Earth dist.	2886 Aug 15 09:34	29° ♄ 26'15	0.59280 AU
morning rise	2885 Sep 12 22:42	9° ♅ 27'08		inferior conj	2886 Aug 18 16:41	26° ♄ 55'37	-4°-53'-45
direct	2885 Sep 15 07:01	9° ♅ 04'27		minimum elong	2886 Aug 18 20:10	26° ♄ 48'56	4°53'23
asc. node	2885 Sep 20 19:43	11° ♅ 15'19		morning rise	2886 Aug 26 11:25	22° ♄ 24'15	
morning max el	2885 Sep 22 08:24	12° ♅ 35'59	17°57'58	direct	2886 Aug 28 21:11	22° ♄ 04'14	
	2885 Oct 04 01:02	0° ♄		morning max el	2886 Sep 05 17:37	25° ♄ 51'11	18°24'42
morning set	2885 Oct 08 03:14	7° ♄ 27'16		asc. node	2886 Sep 07 16:45	27° ♄ 56'44	
					2886 Sep 09 08:04	0° ♅	
superior conj	2885 Oct 18 11:26	26° ♄ 06'37	1°05'56	morning set	2886 Sep 21 17:21	21° ♅ 18'44	
minimum elong	2885 Oct 18 15:49	26° ♄ 25'48	1°05'23		2886 Sep 26 06:13	0° ♄	
	2885 Oct 20 17:15	0° ♅		superior conj	2886 Sep 30 20:07	8° ♄ 35'31	1°29'04
max. Earth dist.	2885 Oct 26 00:38	8° ♅ 56'56	1.42367 AU	minimum elong	2886 Sep 30 23:33	8° ♄ 51'20	1°28'45
desc. node	2885 Oct 28 13:07	13° ♅ 04'42		max. Earth dist.	2886 Oct 08 07:46	21° ♄ 57'04	1.40425 AU
evening rise	2885 Nov 01 07:00	19° ♅ 05'00		evening rise	2886 Oct 12 19:23	29° ♄ 31'35	
	2885 Nov 08 08:05	0° ♄			2886 Oct 13 02:15	0° ♅	
greatest brilliancy	2885 Nov 29 01:01	29° ♄ 02'10	-0.3m	desc. node	2886 Oct 15 10:08	3° ♅ 48'19	
	2885 Nov 29 20:12	0° ♄			2886 Nov 01 20:11	0° ♄	
evening max el	2885 Dec 03 18:14	4° ♄ 21'02	22°12'50	evening max el	2886 Nov 16 08:48	17° ♄ 55'57	23°32'32
retrograde	2885 Dec 13 06:07	9° ♄ 59'59		retrograde	2886 Nov 26 23:37	24° ♄ 12'35	
evening set	2885 Dec 17 17:10	8° ♄ 13'27		evening set	2886 Dec 01 23:34	22° ♄ 09'18	
asc. node	2885 Dec 17 18:58	8° ♄ 09'47		asc. node	2886 Dec 04 15:59	19° ♄ 21'31	
inferior conj	2885 Dec 23 02:41	1° ♄ 51'16	1°44'11	inferior conj	2886 Dec 07 10:08	15° ♄ 43'02	0°55'53
minimum elong	2885 Dec 23 00:34	1° ♄ 58'35	1°43'24	minimum elong	2886 Dec 07 08:52	15° ♄ 47'23	0°55'22
min. Earth dist.	2885 Dec 23 01:38	1° ♄ 54'54	0.67889 AU	min. Earth dist.	2886 Dec 06 22:20	16° ♄ 23'27	0.67840 AU
	2885 Dec 24 11:07	30° ♄		morning rise	2886 Dec 12 18:19	9° ♄ 34'01	
morning rise	2885 Dec 28 07:50	25° ♄ 38'16		direct	2886 Dec 16 20:35	8° ♄ 00'07	
direct	2886 Jan 02 00:27	23° ♄ 41'31		morning max el	2886 Dec 25 05:50	12° ♄ 51'43	21°01'21
morning max el	2886 Jan 11 13:05	29° ♄ 18'28	22°23'14	greatest brilliancy	2886 Dec 30 17:10	19° ♄ 10'36	-0.5m
	2886 Jan 12 05:17	0° ♄			2887 Jan 07 15:30	0° ♄	
greatest brilliancy	2886 Jan 16 02:30	4° ♄ 24'03	-0.3m				
desc. node	2886 Jan 24 12:23	15° ♄ 28'28					

desc. node	2887 Jan 11 09:24	5°☿26'36		morning rise	2887 Nov 27 05:15	23°♄34'05	
morning set	2887 Jan 24 10:24	25°☿15'59		direct	2887 Nov 30 18:45	22°♄20'58	
	2887 Jan 27 10:28	0°≈		morning max el	2887 Dec 08 06:17	26°♄35'55	19°51'22
max. Earth dist.	2887 Feb 01 10:49	8°≈04'09	1.42633 AU		2887 Dec 11 07:35	0°♂	
				greatest brilliancy	2887 Dec 15 18:28	5°♂48'21	-0.6m
superior conj	2887 Feb 08 12:44	19°≈51'25	-2°-6'-9	desc. node	2887 Dec 29 06:25	25°♂43'45	
minimum elong	2887 Feb 08 12:18	19°≈49'36	2°06'10		2888 Jan 01 01:20	0°☿	
	2887 Feb 14 09:22	0°✕		morning set	2888 Jan 03 06:14	3°☿23'41	
evening rise	2887 Feb 20 04:31	10°✕19'18		max. Earth dist.	2888 Jan 14 21:10	21°☿35'37	1.44148 AU
asc. node	2887 Mar 02 15:17	28°✕24'14					
	2887 Mar 03 16:17	0°♀		superior conj	2888 Jan 19 20:30	29°☿34'54	-1°-55'-50
evening max el	2887 Mar 08 22:34	6°♀40'28	18°07'20	minimum elong	2888 Jan 19 14:22	29°☿10'03	1°55'28
retrograde	2887 Mar 15 13:33	10°♀04'24			2888 Jan 20 02:42	0°≈	
evening set	2887 Mar 18 04:55	9°♀31'59		evening rise	2888 Feb 02 06:45	21°≈57'56	
inferior conj	2887 Mar 24 19:22	4°♀31'39	3°26'32		2888 Feb 06 23:46	0°✕	
minimum elong	2887 Mar 24 21:29	4°♀26'29	3°26'17	asc. node	2888 Feb 17 12:19	16°✕30'23	
min. Earth dist.	2887 Mar 27 22:51	1°♀28'58	0.61246 AU	evening max el	2888 Feb 20 11:13	19°✕56'35	18°14'10
	2887 Mar 29 15:17	30°♁✕		retrograde	2888 Feb 26 21:50	23°✕22'40	
morning rise	2887 Mar 31 11:04	28°✕37'22		evening set	2888 Feb 29 18:37	22°✕39'35	
direct	2887 Apr 07 05:59	26°✕18'16		inferior conj	2888 Mar 06 21:44	17°✕19'13	3°40'12
desc. node	2887 Apr 09 08:36	26°✕30'53		minimum elong	2888 Mar 06 21:58	17°✕18'34	3°40'12
	2887 Apr 16 14:02	0°♀		min. Earth dist.	2888 Mar 09 11:40	14°✕29'53	0.63283 AU
morning max el	2887 Apr 21 11:08	4°♀14'10	27°47'24	morning rise	2888 Mar 12 23:22	11°✕13'59	
	2887 May 10 14:05	0°♄		direct	2888 Mar 19 21:17	8°✕32'04	
morning set	2887 May 24 05:43	25°♄18'40		desc. node	2888 Mar 26 05:38	10°✕27'05	
	2887 May 26 11:46	0°♁		morning max el	2888 Apr 02 18:19	16°✕29'11	27°44'36
asc. node	2887 May 29 14:33	6°♁40'16			2888 Apr 13 22:17	0°♀	
max. Earth dist.	2887 May 30 06:12	8°♁05'16	1.32279 AU		2888 May 02 07:19	0°♄	
				morning set	2888 May 07 04:12	9°♄26'06	
superior conj	2887 May 31 14:37	11°♁02'07	0°20'59	max. Earth dist.	2888 May 12 11:24	20°♄22'13	1.32863 AU
minimum elong	2887 May 31 13:40	10°♁56'55	0°20'46				
evening rise	2887 Jun 07 12:23	26°♁03'22		superior conj	2888 May 14 22:29	25°♄38'02	0°-5'-45
	2887 Jun 09 09:29	0°☿		minimum elong	2888 May 14 22:46	25°♄39'34	0°05'42
	2887 Jun 26 22:11	0°♁		behind sun begin	2888 May 14 17:48	25°♄12'52	
evening max el	2887 Jul 03 13:20	7°♁32'31	24°54'55	behind sun end	2888 May 15 03:43	26°♄06'17	
desc. node	2887 Jul 06 07:52	9°♁58'37		asc. node	2888 May 15 11:36	26°♄48'44	
retrograde	2887 Jul 17 12:25	14°♁37'06			2888 May 16 22:58	0°♁	
evening set	2887 Jul 22 20:48	13°♁31'54		evening rise	2888 May 22 00:12	10°♁52'10	
min. Earth dist.	2887 Jul 28 00:48	10°♁45'42	0.57307 AU		2888 May 31 20:13	0°☿	
inferior conj	2887 Jul 30 23:34	8°♁48'29	-5°-2'-48	evening max el	2888 Jun 14 02:48	18°☿02'24	23°20'06
minimum elong	2887 Jul 30 22:19	8°♁50'34	5°02'47	desc. node	2888 Jun 22 04:53	23°☿40'50	
morning rise	2887 Aug 08 03:32	4°♁39'23		retrograde	2888 Jun 27 15:55	24°☿48'34	
direct	2887 Aug 10 17:23	4°♁20'21		evening set	2888 Jul 01 12:20	24°☿16'08	
morning max el	2887 Aug 19 18:28	8°♁34'32	19°12'26	min. Earth dist.	2888 Jul 08 12:37	21°☿03'30	0.55752 AU
asc. node	2887 Aug 25 13:47	15°♁37'53		inferior conj	2888 Jul 10 10:34	19°☿55'48	-4°-29'-51
	2887 Sep 02 20:00	0°♁		minimum elong	2888 Jul 10 03:52	20°☿05'42	4°28'40
morning set	2887 Sep 05 16:38	5°♁36'48		morning rise	2888 Jul 18 22:30	16°☿01'57	
				direct	2888 Jul 21 18:38	15°☿42'20	
superior conj	2887 Sep 13 22:40	21°♁57'14	1°41'33	morning max el	2888 Aug 01 08:18	20°☿36'23	20°21'38
minimum elong	2887 Sep 14 00:21	22°♁05'20	1°41'28		2888 Aug 08 22:19	0°♁	
	2887 Sep 18 04:12	0°♁		asc. node	2888 Aug 11 10:49	4°♁04'52	
max. Earth dist.	2887 Sep 20 11:34	4°♁14'47	1.38357 AU	morning set	2888 Aug 19 22:07	20°♁13'08	
evening rise	2887 Sep 24 07:38	11°♁04'35			2888 Aug 24 16:09	0°♁	
desc. node	2887 Oct 02 07:09	24°♁24'30					
	2887 Oct 05 20:35	0°♄		superior conj	2888 Aug 27 14:03	5°♁57'03	1°45'06
	2887 Oct 28 07:58	0°♂		minimum elong	2888 Aug 27 14:01	5°♁56'52	1°45'06
evening max el	2887 Oct 29 21:15	1°♂34'58	24°50'46	max. Earth dist.	2888 Sep 01 17:46	16°♁08'40	1.36408 AU
retrograde	2887 Nov 10 13:10	8°♂21'51		evening rise	2888 Sep 05 17:15	23°♁37'40	
evening set	2887 Nov 16 03:04	6°♂02'39			2888 Sep 09 06:22	0°♁	
min. Earth dist.	2887 Nov 20 17:34	0°♂50'51	0.67454 AU	desc. node	2888 Sep 18 04:12	14°♁48'22	
	2887 Nov 21 08:57	30°♁♄			2888 Sep 28 12:55	0°♄	
inferior conj	2887 Nov 21 15:58	29°♄36'45	0°02'33	evening max el	2888 Oct 11 09:33	15°♄16'28	26°00'12
minimum elong	2887 Nov 21 15:54	29°♄36'58	0°02'31	retrograde	2888 Oct 23 21:53	22°♄22'53	
transit middle	2887 Nov 21 15:54	29°♄36'58	0°02'31	evening set	2888 Oct 30 01:56	19°♄50'21	
transit begin	2887 Nov 21 13:11	29°♄46'00		min. Earth dist.	2888 Nov 03 08:54	15°♄14'19	0.66727 AU
transit end	2887 Nov 21 18:38	29°♄27'58		inferior conj	2888 Nov 04 18:22	13°♄29'39	0°-54'-34
asc. node	2887 Nov 21 13:00	29°♄46'34		minimum elong	2888 Nov 04 19:49	13°♄25'08	0°53'59

asc. node	2888 Nov 07 10:03	10° \mathbb{M} 20'19		min. Earth dist.	2889 Oct 17 17:53	29° \mathbb{A} 28'35	0.65655 AU
morning rise	2888 Nov 10 14:40	7° \mathbb{M} 36'08		inferior conj	2889 Oct 19 15:15	27° \mathbb{A} 16'59	-1°-54'00
direct	2888 Nov 13 17:24	6° \mathbb{M} 40'32		minimum elong	2889 Oct 19 18:22	27° \mathbb{A} 07'56	1°52'46
morning max el	2888 Nov 20 14:10	10° \mathbb{M} 29'20	18°56'19	asc. node	2889 Oct 25 07:07	21° \mathbb{A} 53'50	
	2888 Dec 04 17:54	0° \mathbb{A}		morning rise	2889 Oct 25 20:17	21° \mathbb{A} 35'47	
morning set	2888 Dec 12 15:08	12° \mathbb{A} 18'27		direct	2889 Oct 28 14:28	20° \mathbb{A} 53'57	
desc. node	2888 Dec 15 03:27	16° \mathbb{A} 14'47		morning max el	2889 Nov 04 03:33	24° \mathbb{A} 26'47	18°17'28
	2888 Dec 23 22:08	0° \mathbb{B}			2889 Nov 08 17:31	0° \mathbb{M}	
max. Earth dist.	2888 Dec 27 13:42	5° \mathbb{B} 43'44	1.45026 AU	morning set	2889 Nov 23 03:56	22° \mathbb{M} 38'22	
					2889 Nov 27 17:03	0° \mathbb{A}	
superior conj	2888 Dec 29 05:45	8° \mathbb{B} 21'21	-1°-26'-12	desc. node	2889 Dec 02 00:29	6° \mathbb{A} 54'42	
minimum elong	2888 Dec 28 20:43	7° \mathbb{B} 45'45	1°25'17				
	2889 Jan 11 19:10	0° \mathbb{A}		superior conj	2889 Dec 08 07:46	16° \mathbb{A} 54'05	0°-41'-44
evening rise	2889 Jan 13 10:44	2° \mathbb{A} 40'27		minimum elong	2889 Dec 08 02:26	16° \mathbb{A} 33'03	0°41'02
	2889 Jan 31 01:11	0° \mathbb{H}		max. Earth dist.	2889 Dec 10 09:12	20° \mathbb{A} 08'29	1.45169 AU
evening max el	2889 Feb 02 22:56	3° \mathbb{H} 21'55	18°39'16		2889 Dec 16 16:13	0° \mathbb{B}	
asc. node	2889 Feb 03 09:22	3° \mathbb{H} 47'51		evening rise	2889 Dec 24 15:46	12° \mathbb{B} 28'34	
retrograde	2889 Feb 09 13:53	7° \mathbb{H} 02'21			2890 Jan 04 22:13	0° \mathbb{A}	
evening set	2889 Feb 12 16:32	6° \mathbb{H} 07'34		greatest brilliancy	2890 Jan 08 09:40	5° \mathbb{A} 14'02	-0.7m
inferior conj	2889 Feb 18 11:39	0° \mathbb{H} 28'45	3°35'17	evening max el	2890 Jan 17 07:21	16° \mathbb{A} 51'03	19°21'31
minimum elong	2889 Feb 18 10:23	0° \mathbb{H} 32'35	3°35'10	asc. node	2890 Jan 21 06:25	20° \mathbb{A} 02'35	
	2889 Feb 18 21:09	30° \mathbb{R} \mathbb{A}		retrograde	2890 Jan 24 10:19	20° \mathbb{A} 56'23	
min. Earth dist.	2889 Feb 20 09:56	28° \mathbb{A} 09'19	0.65008 AU	evening set	2890 Jan 27 19:51	19° \mathbb{A} 48'51	
morning rise	2889 Feb 24 03:00	24° \mathbb{A} 17'28		inferior conj	2890 Feb 02 09:41	13° \mathbb{A} 53'51	3°16'31
direct	2889 Mar 02 19:44	21° \mathbb{A} 27'17		minimum elong	2890 Feb 02 07:30	14° \mathbb{A} 00'58	3°16'06
desc. node	2889 Mar 13 02:41	26° \mathbb{A} 24'33		min. Earth dist.	2890 Feb 03 16:51	12° \mathbb{A} 12'58	0.66331 AU
morning max el	2889 Mar 16 03:53	29° \mathbb{A} 15'23	27°07'31	morning rise	2890 Feb 07 18:21	7° \mathbb{A} 39'22	
	2889 Mar 16 21:20	0° \mathbb{H}		direct	2890 Feb 14 00:21	4° \mathbb{A} 54'10	
	2889 Apr 07 19:14	0° \mathbb{Y}		morning max el	2890 Feb 26 13:33	12° \mathbb{A} 21'02	26°03'30
morning set	2889 Apr 20 17:21	23° \mathbb{Y} 01'49		desc. node	2890 Feb 27 23:43	13° \mathbb{A} 49'49	
	2889 Apr 24 06:05	0° \mathbb{B}			2890 Mar 12 18:15	0° \mathbb{H}	
max. Earth dist.	2889 Apr 25 07:35	2° \mathbb{B} 09'08	1.33899 AU		2890 Mar 31 11:18	0° \mathbb{Y}	
				morning set	2890 Apr 03 17:13	5° \mathbb{Y} 54'20	
superior conj	2889 Apr 29 01:31	9° \mathbb{B} 54'40	0°-33'-57	max. Earth dist.	2890 Apr 07 16:26	13° \mathbb{Y} 25'19	1.35391 AU
minimum elong	2889 Apr 29 03:15	10° \mathbb{B} 03'49	0°33'35				
asc. node	2889 May 02 08:40	16° \mathbb{B} 53'20		superior conj	2890 Apr 12 21:14	23° \mathbb{Y} 44'46	-1°-2'-19
evening rise	2889 May 06 10:50	25° \mathbb{B} 32'34		minimum elong	2890 Apr 13 00:27	24° \mathbb{Y} 01'07	1°01'45
	2889 May 08 14:35	0° \mathbb{I}			2890 Apr 15 22:29	0° \mathbb{B}	
evening max el	2889 May 26 20:27	28° \mathbb{I} 34'47	21°45'33	asc. node	2890 Apr 19 05:44	6° \mathbb{B} 49'56	
	2889 May 28 09:40	0° \mathbb{B}		evening rise	2890 Apr 20 18:18	9° \mathbb{B} 58'12	
retrograde	2889 Jun 08 07:52	4° \mathbb{B} 43'24			2890 May 01 12:26	0° \mathbb{I}	
desc. node	2889 Jun 09 01:55	4° \mathbb{B} 42'06		evening max el	2890 May 09 00:25	9° \mathbb{I} 36'45	20°23'20
evening set	2889 Jun 10 22:17	4° \mathbb{B} 28'12		retrograde	2890 May 19 21:17	14° \mathbb{I} 54'05	
inferior conj	2889 Jun 20 07:01	0° \mathbb{B} 26'09	-3°-7'-50	evening set	2890 May 21 22:02	14° \mathbb{I} 43'46	
minimum elong	2889 Jun 19 23:08	0° \mathbb{B} 37'09	3°05'27	desc. node	2890 May 26 22:56	13° \mathbb{I} 01'00	
min. Earth dist.	2889 Jun 19 23:46	0° \mathbb{B} 36'16	0.54938 AU	inferior conj	2890 May 31 01:32	10° \mathbb{I} 45'46	-1°-12'-23
	2889 Jun 21 01:45	30° \mathbb{R} \mathbb{I}		minimum elong	2890 May 30 22:07	10° \mathbb{I} 50'46	1°11'08
morning rise	2889 Jun 29 01:10	26° \mathbb{I} 33'05		min. Earth dist.	2890 Jun 01 12:10	9° \mathbb{I} 55'15	0.55063 AU
direct	2889 Jul 02 06:29	26° \mathbb{I} 10'18		morning rise	2890 Jun 08 20:26	6° \mathbb{I} 33'14	
	2889 Jul 12 05:03	0° \mathbb{B}		direct	2890 Jun 12 16:57	6° \mathbb{I} 01'11	
morning max el	2889 Jul 14 10:34	1° \mathbb{B} 53'23	21°50'13	morning max el	2890 Jun 26 04:04	12° \mathbb{I} 33'59	23°31'16
asc. node	2889 Jul 29 07:53	23° \mathbb{B} 06'45			2890 Jul 09 09:14	0° \mathbb{B}	
	2889 Aug 01 20:44	0° \mathbb{Q}		asc. node	2890 Jul 16 04:57	12° \mathbb{B} 34'36	
morning set	2889 Aug 04 07:30	5° \mathbb{Q} 01'29		morning set	2890 Jul 19 18:58	19° \mathbb{B} 56'18	
					2890 Jul 24 11:39	0° \mathbb{Q}	
superior conj	2889 Aug 11 14:25	20° \mathbb{Q} 23'44	1°41'20				
minimum elong	2889 Aug 11 13:05	20° \mathbb{Q} 16'45	1°41'17	superior conj	2890 Jul 26 20:47	5° \mathbb{Q} 08'18	1°31'35
max. Earth dist.	2889 Aug 15 07:30	28° \mathbb{Q} 03'46	1.34757 AU	minimum elong	2890 Jul 26 18:41	4° \mathbb{Q} 56'57	1°31'22
	2889 Aug 16 06:31	0° \mathbb{H}		max. Earth dist.	2890 Jul 29 06:16	10° \mathbb{Q} 15'15	1.33489 AU
evening rise	2889 Aug 19 19:45	6° \mathbb{H} 59'08		evening rise	2890 Aug 03 10:51	20° \mathbb{Q} 57'24	
	2889 Sep 01 21:56	0° \mathbb{A}			2890 Aug 08 03:07	0° \mathbb{H}	
desc. node	2889 Sep 05 01:14	4° \mathbb{A} 53'35		desc. node	2890 Aug 22 22:15	24° \mathbb{H} 32'10	
evening max el	2889 Sep 23 22:05	28° \mathbb{A} 52'51	26°53'08		2890 Aug 26 20:19	0° \mathbb{A}	
	2889 Sep 25 02:54	0° \mathbb{M}		evening max el	2890 Sep 06 09:48	12° \mathbb{A} 13'25	27°22'24
retrograde	2889 Oct 07 01:08	6° \mathbb{M} 08'37		retrograde	2890 Sep 19 22:34	19° \mathbb{A} 31'31	
evening set	2889 Oct 13 17:59	3° \mathbb{M} 27'49		evening set	2890 Sep 27 00:38	16° \mathbb{A} 50'50	
	2889 Oct 17 06:45	30° \mathbb{R} \mathbb{A}		min. Earth dist.	2890 Sep 30 18:19	13° \mathbb{A} 27'00	0.64229 AU

inferior conj	2890 Oct 03 04:14	10°♄54'08	-2°-53'-24	retrograde	2891 Sep 02 13:42	2°♄21'02	
minimum elong	2890 Oct 03 08:55	10°♄41'46	2°51'46	evening set	2891 Sep 09 18:22	29°♄52'22	
morning rise	2890 Oct 09 19:22	5°♄28'33			2891 Sep 09 13:50	30°♄	
direct	2890 Oct 12 07:25	4°♄56'48		min. Earth dist.	2891 Sep 13 08:41	26°♄57'52	0.62469 AU
asc. node	2890 Oct 12 04:09	4°♄56'54		inferior conj	2891 Sep 16 06:24	24°♄13'31	-3°-49'-12
morning max el	2890 Oct 18 19:44	8°♄22'39	17°55'38	minimum elong	2891 Sep 16 12:00	24°♄00'18	3°47'41
	2890 Nov 02 07:40	0°♄		morning rise	2891 Sep 23 08:24	19°♄06'45	
morning set	2890 Nov 04 20:47	4°♄20'14		direct	2891 Sep 25 17:05	18°♄41'42	
				asc. node	2891 Sep 29 01:11	19°♄33'09	
superior conj	2890 Nov 17 23:48	26°♄12'19	0°06'12	morning max el	2891 Oct 02 11:41	22°♄09'00	17°51'41
minimum elong	2890 Nov 18 00:31	26°♄15'12	0°06'06		2891 Oct 08 12:55	0°♄	
behind sun begin	2890 Nov 17 15:02	25°♄36'47		morning set	2891 Oct 18 11:49	17°♄05'30	
behind sun end	2890 Nov 18 10:00	26°♄53'33			2891 Oct 25 18:53	0°♄	
desc. node	2890 Nov 18 21:32	27°♄40'09					
	2890 Nov 20 08:18	0°♄		superior conj	2891 Oct 29 17:37	6°♄46'59	0°47'17
max. Earth dist.	2890 Nov 23 03:47	4°♄29'07	1.44576 AU	minimum elong	2891 Oct 29 21:38	7°♄04'00	0°46'44
evening rise	2890 Dec 04 04:02	21°♄40'03		desc. node	2891 Nov 05 18:34	18°♄27'37	
	2890 Dec 09 14:47	0°♄		max. Earth dist.	2891 Nov 05 18:41	18°♄28'07	1.43324 AU
greatest brilliancy	2890 Dec 25 03:33	22°♄43'32	-0.5m		2891 Nov 13 00:45	0°♄	
	2890 Dec 31 02:34	0°♄		evening rise	2891 Nov 13 13:59	0°♄51'29	
evening max el	2890 Dec 31 10:49	0°♄21'28	20°19'02		2891 Dec 03 05:46	0°♄	
retrograde	2891 Jan 08 08:22	5°♄00'04		greatest brilliancy	2891 Dec 09 09:44	8°♄11'33	-0.4m
asc. node	2891 Jan 08 03:27	4°♄59'50		evening max el	2891 Dec 14 08:43	13°♄53'08	21°28'52
evening set	2891 Jan 12 02:19	3°♄38'33		retrograde	2891 Dec 23 05:52	19°♄09'52	
	2891 Jan 15 15:46	30°♄		asc. node	2891 Dec 26 00:27	18°♄27'38	
inferior conj	2891 Jan 17 13:06	27°♄30'17	2°47'07	evening set	2891 Dec 27 10:03	17°♄33'00	
minimum elong	2891 Jan 17 10:33	27°♄38'57	2°46'26	inferior conj	2892 Jan 01 19:36	11°♄14'52	2°09'15
min. Earth dist.	2891 Jan 18 06:41	26°♄30'41	0.67239 AU	minimum elong	2892 Jan 01 17:11	11°♄23'13	2°08'27
morning rise	2891 Jan 22 18:15	21°♄14'42		min. Earth dist.	2892 Jan 02 01:06	10°♄55'50	0.67756 AU
direct	2891 Jan 28 10:25	18°♄44'10		morning rise	2892 Jan 07 00:01	5°♄00'12	
morning max el	2891 Feb 08 22:14	25°♄35'57	24°42'05	direct	2892 Jan 12 01:15	2°♄50'10	
	2891 Feb 12 22:47	0°♄		morning max el	2892 Jan 22 07:17	8°♄55'48	23°13'31
desc. node	2891 Feb 14 20:45	2°♄17'43		greatest brilliancy	2892 Jan 27 10:01	14°♄39'58	-0.2m
	2891 Mar 06 07:05	0°♄		desc. node	2892 Feb 01 17:47	21°♄30'15	
morning set	2891 Mar 16 22:34	17°♄49'14			2892 Feb 07 19:55	0°♄	
max. Earth dist.	2891 Mar 20 15:05	24°♄26'58	1.37289 AU	morning set	2892 Feb 26 03:10	28°♄29'59	
	2891 Mar 23 14:48	0°♄			2892 Feb 27 00:35	0°♄	
				max. Earth dist.	2892 Mar 01 09:50	5°♄47'35	1.39430 AU
superior conj	2891 Mar 27 06:31	7°♄00'03	-1°-28'-53				
minimum elong	2891 Mar 27 10:49	7°♄21'01	1°28'19	superior conj	2892 Mar 09 01:21	19°♄30'35	-1°-50'-52
evening rise	2891 Apr 04 20:14	24°♄02'07		minimum elong	2892 Mar 09 05:38	19°♄50'24	1°50'32
asc. node	2891 Apr 06 02:46	26°♄33'51			2892 Mar 14 14:48	0°♄	
	2891 Apr 07 20:51	0°♄		evening rise	2892 Mar 18 13:45	7°♄36'47	
evening max el	2891 Apr 21 16:21	21°♄19'20	19°19'29	asc. node	2892 Mar 22 23:48	16°♄00'01	
retrograde	2891 Apr 30 20:25	25°♄46'07			2892 Mar 31 13:37	0°♄	
evening set	2891 May 02 21:13	25°♄33'55		evening max el	2892 Apr 03 18:20	3°♄40'00	18°35'45
inferior conj	2891 May 11 08:22	21°♄25'41	0°42'52	retrograde	2892 Apr 11 13:18	7°♄29'10	
minimum elong	2891 May 11 10:08	21°♄22'47	0°42'14	evening set	2892 Apr 13 19:43	7°♄10'52	
desc. node	2891 May 13 19:58	19°♄47'29		inferior conj	2892 Apr 21 11:34	2°♄43'59	2°11'50
min. Earth dist.	2891 May 14 02:57	19°♄36'16	0.56123 AU	minimum elong	2892 Apr 21 15:24	2°♄36'35	2°10'46
morning rise	2891 May 19 18:59	16°♄39'27		min. Earth dist.	2892 Apr 24 21:02	0°♄08'11	0.57892 AU
direct	2891 May 24 14:13	15°♄46'36			2892 Apr 25 01:32	30°♄	
morning max el	2891 Jun 07 18:21	22°♄59'11	25°11'57	morning rise	2892 Apr 29 06:41	27°♄24'30	
	2891 Jun 14 00:48	0°♄		desc. node	2892 Apr 29 16:58	27°♄12'36	
	2891 Jul 01 22:45	0°♄		direct	2892 May 05 02:04	25°♄59'26	
asc. node	2891 Jul 03 02:00	2°♄20'31			2892 May 15 06:29	0°♄	
morning set	2891 Jul 04 06:44	4°♄51'08		morning max el	2892 May 19 11:05	3°♄36'42	26°36'36
					2892 Jun 07 13:17	0°♄	
superior conj	2891 Jul 11 06:45	20°♄02'02	1°16'49	morning set	2892 Jun 17 17:13	19°♄40'55	
minimum elong	2891 Jul 11 04:22	19°♄49'02	1°16'27	asc. node	2892 Jun 18 23:03	22°♄18'58	
max. Earth dist.	2891 Jul 12 12:32	22°♄44'33	1.32634 AU		2892 Jun 22 12:06	0°♄	
	2891 Jul 15 21:28	0°♄					
evening rise	2891 Jul 18 10:54	5°♄20'56		superior conj	2892 Jun 24 18:22	4°♄58'33	0°57'49
	2891 Jul 31 18:08	0°♄		minimum elong	2892 Jun 24 16:12	4°♄46'39	0°57'25
desc. node	2891 Aug 09 19:16	13°♄31'56		max. Earth dist.	2892 Jun 24 23:25	5°♄26'25	1.32189 AU
evening max el	2891 Aug 19 18:45	25°♄04'54	27°22'07	evening rise	2892 Jul 01 17:04	20°♄01'14	
	2891 Aug 26 02:06	0°♄			2892 Jul 06 15:25	0°♄	

	2892 Jul 25 08:30	0°♎		evening rise	2893 Jun 16 02:59	4°♌50'21	
desc. node	2892 Jul 26 16:17	1°♎36'54			2893 Jun 29 11:05	0°♌	
evening max el	2892 Jul 31 22:35	7°♎15'46	26°48'42	desc. node	2893 Jul 13 13:17	18°♌24'54	
retrograde	2892 Aug 14 21:09	14°♎28'01		evening max el	2893 Jul 13 19:17	18°♌39'18	25°43'36
evening set	2892 Aug 21 18:45	12°♎24'46		retrograde	2893 Jul 27 19:05	25°♌47'11	
min. Earth dist.	2892 Aug 25 12:40	9°♎47'23	0.60469 AU	evening set	2893 Aug 02 21:01	24°♌19'50	
inferior conj	2892 Aug 28 18:24	7°♎06'39	-4°-35'-19	min. Earth dist.	2893 Aug 07 07:30	21°♌42'20	0.58410 AU
minimum elong	2892 Aug 28 23:22	6°♎56'20	4°34'28	inferior conj	2893 Aug 10 12:43	19°♌23'59	-5°-1'-50
morning rise	2892 Sep 05 07:12	2°♎21'30		minimum elong	2893 Aug 10 14:29	19°♌20'46	5°01'46
direct	2892 Sep 07 15:38	2°♎00'17		morning rise	2893 Aug 18 11:28	15°♌02'09	
asc. node	2892 Sep 14 22:13	5°♎32'44		direct	2893 Aug 20 22:50	14°♌42'36	
morning max el	2892 Sep 15 00:13	5°♎37'33	18°06'49	morning max el	2893 Aug 29 06:09	18°♌39'42	18°42'24
	2892 Sep 30 11:04	0°♎		asc. node	2893 Sep 01 19:16	22°♌41'06	
morning set	2892 Sep 30 18:55	0°♎36'42			2893 Sep 06 15:20	0°♎	
				morning set	2893 Sep 14 13:24	14°♎40'54	
superior conj	2892 Oct 10 13:25	18°♎37'28	1°17'08		2893 Sep 22 11:13	0°♎	
minimum elong	2892 Oct 10 17:35	18°♎56'06	1°16'40				
	2892 Oct 17 02:03	0°♎		superior conj	2893 Sep 23 06:22	1°♎30'34	1°35'34
max. Earth dist.	2892 Oct 18 04:43	1°♎52'31	1.41575 AU	minimum elong	2893 Sep 23 09:05	1°♎43'23	1°35'22
desc. node	2892 Oct 22 15:34	9°♎13'38		max. Earth dist.	2893 Sep 30 10:24	14°♎35'28	1.39546 AU
evening rise	2892 Oct 23 13:48	10°♎43'29		evening rise	2893 Oct 04 12:24	21°♎38'33	
	2892 Nov 05 02:05	0°♏		desc. node	2893 Oct 09 12:36	29°♎54'50	
greatest brilliancy	2892 Nov 21 00:38	21°♏48'03	-0.3m		2893 Oct 09 13:53	0°♎	
evening max el	2892 Nov 26 01:39	27°♏27'00	22°46'35		2893 Oct 30 02:59	0°♏	
	2892 Nov 28 19:53	0°♏		evening max el	2893 Nov 08 15:15	11°♏04'40	24°06'26
retrograde	2892 Dec 06 01:05	3°♏22'19		retrograde	2893 Nov 19 16:54	17°♏34'33	
evening set	2892 Dec 10 17:23	1°♏28'55		evening set	2893 Nov 24 22:46	15°♏24'20	
asc. node	2892 Dec 11 21:28	0°♏24'16		asc. node	2893 Nov 28 18:29	11°♏10'52	
	2892 Dec 12 06:45	30°♏		min. Earth dist.	2893 Nov 29 17:55	9°♏52'58	0.67722 AU
inferior conj	2892 Dec 16 03:13	25°♏04'40	1°24'25	inferior conj	2893 Nov 30 10:13	8°♏57'57	0°33'52
minimum elong	2892 Dec 16 01:24	25°♏10'55	1°23'43	minimum elong	2893 Nov 30 09:24	9°♏00'40	0°33'31
min. Earth dist.	2892 Dec 15 21:37	25°♏24'02	0.67913 AU	morning rise	2893 Dec 05 20:19	2°♏51'28	
morning rise	2892 Dec 21 09:22	18°♏52'58		direct	2893 Dec 09 17:03	1°♏26'37	
direct	2892 Dec 25 19:50	17°♏05'48		morning max el	2893 Dec 17 16:02	6°♏00'48	20°29'57
morning max el	2893 Jan 03 20:06	22°♏22'32	21°47'08	greatest brilliancy	2893 Dec 23 20:28	13°♏18'44	-0.5m
greatest brilliancy	2893 Jan 08 15:09	27°♏47'11	-0.4m		2894 Jan 04 13:54	0°♏	
	2893 Jan 10 09:26	0°♏		desc. node	2894 Jan 05 11:50	1°♏21'52	
desc. node	2893 Jan 18 14:47	11°♏14'24		morning set	2894 Jan 15 02:55	16°♏02'24	
	2893 Jan 31 04:05	0°♏			2894 Jan 23 23:20	0°♏	
morning set	2893 Feb 05 02:37	7°♏46'26		max. Earth dist.	2894 Jan 24 15:25	1°♏04'43	1.43357 AU
max. Earth dist.	2893 Feb 11 08:36	17°♏57'28	1.41552 AU				
	2893 Feb 18 10:12	0°♏		superior conj	2894 Jan 30 23:43	11°♏28'15	-2°-4'-4
superior conj	2893 Feb 19 00:42	1°♏03'27	-2°-4'-17	minimum elong	2894 Jan 30 20:56	11°♏16'38	2°04'00
minimum elong	2893 Feb 19 02:49	1°♏12'41	2°04'14		2894 Feb 10 19:40	0°♏	
evening rise	2893 Mar 01 19:18	20°♏32'58		evening rise	2894 Feb 12 08:50	2°♏42'53	
	2893 Mar 06 23:34	0°♏		asc. node	2894 Feb 24 17:50	23°♏30'40	
asc. node	2893 Mar 09 20:49	5°♏01'28		evening max el	2894 Mar 01 15:00	29°♏37'24	18°07'50
evening max el	2893 Mar 18 02:58	16°♏28'56	18°12'03		2894 Mar 02 00:19	0°♏	
retrograde	2893 Mar 25 00:42	19°♏57'20		retrograde	2894 Mar 08 02:52	3°♏00'36	
evening set	2893 Mar 27 13:05	19°♏30'22		evening set	2894 Mar 10 20:35	2°♏23'39	
inferior conj	2893 Apr 03 11:43	14°♏41'59	3°07'48		2894 Mar 14 09:24	30°♏	
minimum elong	2893 Apr 03 14:50	14°♏34'57	3°07'14	inferior conj	2894 Mar 17 05:44	27°♏14'15	3°34'57
min. Earth dist.	2893 Apr 06 20:23	11°♏42'08	0.60014 AU	minimum elong	2894 Mar 17 07:03	27°♏10'53	3°34'51
morning rise	2893 Apr 10 13:04	8°♏57'54		min. Earth dist.	2894 Mar 20 03:48	24°♏15'05	0.62151 AU
desc. node	2893 Apr 16 13:59	6°♏57'55		morning rise	2894 Mar 23 15:03	21°♏14'33	
direct	2893 Apr 17 02:13	6°♏57'12		direct	2894 Mar 30 12:16	18°♏44'28	
morning max el	2893 May 01 09:37	14°♏47'38	27°31'57	desc. node	2894 Apr 03 11:01	19°♏28'52	
	2893 May 13 16:15	0°♏		morning max el	2894 Apr 13 14:24	26°♏41'04	27°50'42
	2893 May 30 21:56	0°♏			2894 Apr 16 17:14	0°♏	
morning set	2893 Jun 02 00:42	4°♏19'44		morning set	2894 May 07 06:34	0°♏	
asc. node	2893 Jun 05 20:06	12°♏24'45			2894 May 17 03:12	18°♏41'10	
max. Earth dist.	2893 Jun 08 11:19	18°♏09'37	1.32136 AU		2894 May 22 12:43	0°♏	
				max. Earth dist.	2894 May 22 20:21	0°♏41'09	1.32481 AU
superior conj	2893 Jun 09 05:54	19°♏51'42	0°35'17	asc. node	2894 May 23 17:09	2°♏33'29	
minimum elong	2893 Jun 09 04:24	19°♏43'26	0°34'58				
	2893 Jun 13 20:52	0°♏		superior conj	2894 May 24 15:39	4°♏35'41	0°09'52
				minimum elong	2894 May 24 15:11	4°♏33'09	0°09'47

behind sun begin	2894 May 24 11:05	4° Π 10'52		superior conj	2895 May 08 21:47	19° 8 04'48	0°-17'-36
behind sun end	2894 May 24 19:17	4° Π 55'26		minimum elong	2895 May 08 22:40	19° 8 09'30	0°17'24
evening rise	2894 May 31 14:41	19° Π 41'22		asc. node	2895 May 10 14:12	22° 8 41'12	
	2894 Jun 05 15:31	0° 6			2895 May 13 23:53	0° Π	
evening max el	2894 Jun 25 09:43	29° 6 21'29	24°15'26	evening rise	2895 May 16 02:17	4° Π 28'00	
	2894 Jun 26 02:03	0° 9			2895 May 30 00:07	0° 6	
desc. node	2894 Jun 30 10:19	3° 9 25'18		evening max el	2895 Jun 06 23:52	9° 6 48'25	22°38'56
retrograde	2894 Jul 09 05:45	6° 9 20'11		desc. node	2895 Jun 17 07:20	16° 6 02'54	
evening set	2894 Jul 13 23:28	5° 9 30'13		retrograde	2895 Jun 20 04:20	16° 6 21'52	
min. Earth dist.	2894 Jul 19 20:26	2° 9 34'36	0.56571 AU	evening set	2895 Jun 23 10:17	15° 6 58'39	
inferior conj	2894 Jul 22 10:53	0° 9 56'53	-4°-54'-45	min. Earth dist.	2895 Jul 01 07:45	12° 6 30'54	0.55294 AU
minimum elong	2894 Jul 22 07:08	1° 9 02'47	4°54'25	inferior conj	2895 Jul 02 14:37	11° 6 46'49	-4°00'-48
	2894 Jul 23 23:36	30° R 6		minimum elong	2895 Jul 02 06:39	11° 6 58'13	3°58'54
morning rise	2894 Jul 30 18:24	26° 6 55'54		morning rise	2895 Jul 11 05:36	7° 6 55'48	
direct	2894 Aug 02 10:54	26° 6 36'43		direct	2895 Jul 14 04:52	7° 6 35'30	
	2894 Aug 10 20:20	0° 9		morning max el	2895 Jul 25 11:30	12° 6 49'36	20°57'19
morning max el	2894 Aug 12 02:31	1° 9 05'52	19°39'26	asc. node	2895 Aug 06 13:26	29° 6 26'26	
asc. node	2894 Aug 19 16:21	10° 9 43'04			2895 Aug 06 20:56	0° 9	
morning set	2894 Aug 29 15:38	29° 9 07'35		morning set	2895 Aug 13 23:01	13° 9 49'53	
	2894 Aug 30 02:03	0° 9					
superior conj	2894 Sep 06 14:56	15° 9 10'05	1°44'03	superior conj	2895 Aug 21 10:35	29° 9 23'02	1°44'19
minimum elong	2894 Sep 06 15:50	15° 9 14'35	1°44'02	minimum elong	2895 Aug 21 09:56	29° 9 19'43	1°44'18
max. Earth dist.	2894 Sep 12 14:46	26° 9 41'11	1.37493 AU		2895 Aug 21 17:47	0° 9	
	2894 Sep 14 09:54	0° 9		max. Earth dist.	2895 Aug 25 23:23	8° 9 31'30	1.35655 AU
evening rise	2894 Sep 16 10:10	3° 9 37'45		evening rise	2895 Aug 30 03:32	16° 9 32'58	
desc. node	2894 Sep 26 09:39	20° 9 26'23			2895 Sep 06 16:21	0° 9	
	2894 Oct 02 15:14	0° 9		desc. node	2895 Sep 13 06:40	10° 9 43'02	
evening max el	2894 Oct 22 03:23	24° 9 44'43	25°21'47		2895 Sep 27 01:33	0° 9	
	2894 Oct 28 17:32	0° 9		evening max el	2895 Oct 04 15:32	8° 9 24'06	26°25'08
retrograde	2894 Nov 03 04:26	1° 9 41'13		retrograde	2895 Oct 17 11:02	15° 9 36'31	
	2894 Nov 08 01:43	30° R 9		evening set	2895 Oct 23 20:48	12° 9 59'24	
evening set	2894 Nov 09 00:33	29° 9 15'36		min. Earth dist.	2895 Oct 28 00:35	8° 9 39'04	0.66310 AU
min. Earth dist.	2894 Nov 13 11:40	24° 9 19'09	0.67188 AU	inferior conj	2895 Oct 29 15:06	6° 9 42'04	-1°-19'-39
inferior conj	2894 Nov 14 14:48	22° 9 51'24	0°-21'-15	minimum elong	2895 Oct 29 17:14	6° 9 35'33	1°18'46
minimum elong	2894 Nov 14 15:21	22° 9 49'39	0°21'03	asc. node	2895 Nov 02 12:36	2° 9 25'27	
asc. node	2894 Nov 15 15:32	21° 9 32'12		morning rise	2895 Nov 04 14:56	0° 9 53'33	
morning rise	2894 Nov 20 06:52	16° 9 52'35		direct	2895 Nov 07 13:38	0° 9 04'27	
direct	2894 Nov 23 15:31	15° 9 47'28		morning max el	2895 Nov 14 06:27	3° 9 45'36	18°37'45
morning max el	2894 Nov 30 19:55	19° 9 49'48	19°26'08		2895 Dec 02 11:10	0° 9	
	2894 Dec 08 22:27	0° 9		morning set	2895 Dec 04 21:17	3° 9 50'55	
greatest brilliancy	2894 Dec 09 17:29	1° 9 08'02	-0.7m	desc. node	2895 Dec 10 05:55	12° 9 20'42	
desc. node	2894 Dec 23 08:53	21° 9 45'37		superior conj	2895 Dec 21 00:25	29° 9 17'25	-1°-8'-35
morning set	2894 Dec 25 01:29	24° 9 22'35		minimum elong	2895 Dec 20 16:14	28° 9 45'17	1°07'38
	2894 Dec 28 16:28	0° 9		max. Earth dist.	2895 Dec 20 22:37	29° 9 10'21	1.45172 AU
max. Earth dist.	2895 Jan 07 05:02	14° 9 55'12	1.44608 AU		2895 Dec 21 11:16	0° 9	
superior conj	2895 Jan 10 20:50	20° 9 44'04	-1°-45'-33	evening rise	2896 Jan 05 19:58	24° 9 16'42	
minimum elong	2895 Jan 10 12:46	20° 9 11'49	1°44'57		2896 Jan 09 09:56	0° 9	
	2895 Jan 16 14:46	0° 9		evening max el	2896 Jan 27 14:01	26° 9 25'30	18°55'15
evening rise	2895 Jan 25 02:02	13° 9 58'44		asc. node	2896 Jan 29 11:53	28° 9 10'37	
	2895 Feb 03 18:04	0° 9			2896 Feb 01 17:10	0° 9	
asc. node	2895 Feb 11 14:51	11° 9 17'55		retrograde	2896 Feb 03 09:24	0° 9 15'41	
evening max el	2895 Feb 13 03:31	12° 9 58'13	18°22'33		2896 Feb 05 00:57	30° R 9	
retrograde	2895 Feb 19 15:06	16° 9 29'21		evening set	2896 Feb 06 14:42	29° 9 15'49	
evening set	2895 Feb 22 14:12	15° 9 41'30		inferior conj	2896 Feb 12 07:17	23° 9 29'57	3°28'47
inferior conj	2895 Feb 28 13:32	10° 9 12'51	3°40'04	minimum elong	2896 Feb 12 05:33	23° 9 35'22	3°28'34
minimum elong	2895 Feb 28 13:04	10° 9 14'12	3°40'02	min. Earth dist.	2896 Feb 13 23:05	21° 9 25'55	0.65617 AU
min. Earth dist.	2895 Mar 02 20:48	7° 9 34'41	0.64060 AU	morning rise	2896 Feb 17 19:21	17° 9 16'49	
morning rise	2895 Mar 06 10:19	4° 9 04'16		direct	2896 Feb 24 08:02	14° 9 27'00	
direct	2895 Mar 13 06:40	1° 9 17'15		desc. node	2896 Mar 07 05:07	20° 9 59'57	
desc. node	2895 Mar 21 08:04	4° 9 21'29		morning max el	2896 Mar 08 09:08	22° 9 08'41	26°43'02
morning max el	2895 Mar 26 23:16	9° 9 12'25	27°32'41		2896 Mar 15 06:40	0° 9	
	2895 Apr 12 04:20	0° 9		morning set	2896 Apr 04 09:53	0° 9	
	2895 Apr 29 14:04	0° 8		max. Earth dist.	2896 Apr 13 06:18	15° 9 56'54	
morning set	2895 Apr 30 22:13	2° 8 37'21			2896 Apr 17 13:39	24° 9 20'15	1.34475 AU
max. Earth dist.	2895 May 05 22:22	12° 8 47'47	1.33248 AU		2896 Apr 20 08:52	0° 8	

superior conj	2896 Apr 21 22:02	3°♄11'26	0°-46'-3	superior conj	2897 Apr 05 13:46	16°♄48'31	-1°-13'-55
minimum elong	2896 Apr 22 00:25	3°♄23'48	0°45'36	minimum elong	2897 Apr 05 17:31	17°♄07'18	1°13'20
asc. node	2896 Apr 26 11:14	12°♄43'02			2897 Apr 12 01:49	0°♄	
evening rise	2896 Apr 29 11:49	19°♄03'02		asc. node	2897 Apr 13 08:15	2°♄35'02	
	2896 May 04 23:02	0°♄		evening rise	2897 Apr 13 17:13	3°♄20'32	
evening max el	2896 May 18 21:28	20°♄31'34	21°08'36		2897 Apr 29 12:26	0°♄	
retrograde	2896 May 30 17:51	26°♄19'12		evening max el	2897 May 01 06:43	1°♄51'15	19°53'43
evening set	2896 Jun 02 00:02	26°♄07'21		retrograde	2897 May 11 09:26	6°♄45'22	
desc. node	2896 Jun 03 04:21	25°♄52'12		evening set	2897 May 13 09:15	6°♄34'48	
inferior conj	2896 Jun 11 08:29	22°♄09'17	-2°-21'-8	desc. node	2897 May 21 01:22	3°♄18'31	
minimum elong	2896 Jun 11 02:01	22°♄18'23	2°18'57	inferior conj	2897 May 22 06:42	2°♄34'11	0°-21'-30
min. Earth dist.	2896 Jun 11 19:41	21°♄53'29	0.54872 AU	minimum elong	2897 May 22 05:43	2°♄35'41	0°21'09
morning rise	2896 Jun 20 03:50	18°♄09'51		min. Earth dist.	2897 May 24 08:55	1°♄17'48	0.55421 AU
direct	2896 Jun 23 14:33	17°♄44'10			2897 May 26 15:24	30°♄	
morning max el	2896 Jul 06 09:34	23°♄49'48	22°32'13	morning rise	2897 May 30 23:14	28°♄08'23	
	2896 Jul 11 22:40	0°♄		direct	2897 Jun 04 05:06	27°♄28'47	
asc. node	2896 Jul 23 10:30	18°♄40'16			2897 Jun 12 10:57	0°♄	
morning set	2896 Jul 28 09:29	28°♄41'18		morning max el	2897 Jun 18 00:43	4°♄19'56	24°14'53
	2896 Jul 29 00:28	0°♄			2897 Jul 06 01:48	0°♄	
				asc. node	2897 Jul 10 07:32	8°♄16'32	
superior conj	2896 Aug 04 13:49	13°♄58'16	1°37'52	morning set	2897 Jul 12 21:15	13°♄36'37	
minimum elong	2896 Aug 04 12:05	13°♄49'07	1°37'44				
max. Earth dist.	2896 Aug 07 16:40	20°♄30'55	1.34168 AU	superior conj	2897 Jul 19 21:56	28°♄47'23	1°25'52
evening rise	2896 Aug 12 11:54	0°♄11'36		minimum elong	2897 Jul 19 19:39	28°♄34'59	1°25'35
	2896 Aug 12 09:31	0°♄			2897 Jul 20 11:21	0°♄	
	2896 Aug 29 17:35	0°♄		max. Earth dist.	2897 Jul 21 19:03	2°♄50'56	1.33084 AU
desc. node	2896 Aug 30 03:41	0°♄37'55		evening rise	2897 Jul 27 07:12	14°♄22'00	
evening max el	2896 Sep 16 03:56	21°♄55'20	27°08'59		2897 Aug 04 12:01	0°♄	
retrograde	2896 Sep 29 12:03	29°♄13'15		desc. node	2897 Aug 17 00:42	20°♄01'29	
evening set	2896 Oct 06 09:12	26°♄31'29			2897 Aug 24 18:53	0°♄	
min. Earth dist.	2896 Oct 10 06:19	22°♄47'25	0.65083 AU	evening max el	2897 Aug 29 15:01	5°♄05'53	27°26'16
inferior conj	2896 Oct 12 08:56	20°♄25'53	-2°-19'-26	retrograde	2897 Sep 12 06:42	12°♄22'40	
minimum elong	2896 Oct 12 12:45	20°♄15'13	2°17'59	evening set	2897 Sep 19 10:47	9°♄45'54	
morning rise	2896 Oct 18 18:06	14°♄50'44		min. Earth dist.	2897 Sep 23 02:41	6°♄35'22	0.63515 AU
asc. node	2896 Oct 19 09:40	14°♄34'49		inferior conj	2897 Sep 25 17:41	3°♄56'32	-3°-17'-52
direct	2896 Oct 21 09:17	14°♄13'42		minimum elong	2897 Sep 25 22:52	3°♄43'25	3°16'12
morning max el	2896 Oct 27 21:19	17°♄42'54	18°06'00		2897 Sep 30 02:45	30°♄	
	2896 Nov 05 22:00	0°♄		morning rise	2897 Oct 02 13:21	28°♄38'14	
morning set	2896 Nov 14 22:34	14°♄47'33		direct	2897 Oct 04 23:41	28°♄09'37	
	2896 Nov 24 05:23	0°♄		asc. node	2897 Oct 06 06:43	28°♄17'53	
desc. node	2896 Nov 26 02:57	3°♄03'26			2897 Oct 09 18:15	0°♄	
				morning max el	2897 Oct 11 13:41	1°♄35'05	17°51'41
superior conj	2896 Nov 29 06:05	8°♄03'29	0°-21'-7	morning set	2897 Oct 28 01:39	26°♄58'56	
minimum elong	2896 Nov 29 03:26	7°♄52'54	0°20'45		2897 Oct 29 19:22	0°♄	
max. Earth dist.	2896 Dec 02 17:43	13°♄34'20	1.44998 AU				
	2896 Dec 13 06:15	0°♄		superior conj	2897 Nov 09 08:19	17°♄51'51	0°24'52
evening rise	2896 Dec 15 16:30	3°♄45'39		minimum elong	2897 Nov 09 10:53	18°♄02'25	0°24'31
	2897 Jan 02 00:08	0°♄		desc. node	2897 Nov 12 23:58	23°♄49'59	
greatest brilliancy	2897 Jan 02 07:25	0°♄25'49	-0.6m	max. Earth dist.	2897 Nov 15 11:25	27°♄49'11	1.44116 AU
evening max el	2897 Jan 09 20:33	9°♄56'07	19°44'22		2897 Nov 16 20:14	0°♄	
asc. node	2897 Jan 15 08:56	13°♄54'40		evening rise	2897 Nov 25 01:39	12°♄51'57	
retrograde	2897 Jan 17 06:42	14°♄14'31			2897 Dec 06 09:35	0°♄	
evening set	2897 Jan 20 19:36	13°♄01'18		greatest brilliancy	2897 Dec 18 07:27	16°♄50'48	-0.5m
inferior conj	2897 Jan 26 07:55	7°♄00'36	3°05'11	evening max el	2897 Dec 23 21:44	23°♄27'12	20°47'33
minimum elong	2897 Jan 26 05:30	7°♄08'36	3°04'40	retrograde	2898 Jan 01 04:37	28°♄21'08	
min. Earth dist.	2897 Jan 27 09:11	5°♄36'58	0.66766 AU	asc. node	2898 Jan 02 05:58	28°♄14'58	
morning rise	2897 Jan 31 14:42	0°♄45'31		evening set	2898 Jan 05 02:48	26°♄53'05	
	2897 Feb 01 12:32	30°♄		inferior conj	2898 Jan 10 12:51	20°♄40'20	2°31'58
direct	2897 Feb 06 15:13	28°♄05'17		minimum elong	2898 Jan 10 10:18	20°♄49'05	2°31'13
	2897 Feb 12 08:59	0°♄		min. Earth dist.	2898 Jan 11 01:05	19°♄58'21	0.67507 AU
morning max el	2897 Feb 18 18:08	5°♄18'46	25°30'23	morning rise	2898 Jan 15 17:23	14°♄25'13	
desc. node	2897 Feb 22 02:08	8°♄54'39		direct	2898 Jan 21 03:20	12°♄02'55	
	2897 Mar 09 18:47	0°♄		morning max el	2898 Feb 01 02:32	18°♄35'15	24°04'45
morning set	2897 Mar 26 22:59	28°♄27'12		desc. node	2898 Feb 08 23:10	27°♄43'02	
	2897 Mar 27 19:20	0°♄			2898 Feb 10 17:15	0°♄	
max. Earth dist.	2897 Mar 30 17:26	5°♄26'13	1.36159 AU		2898 Mar 02 21:31	0°♄	
				morning set	2898 Mar 08 18:30	9°♄51'58	

max. Earth dist.	2898 Mar 12 13:40	16° ✕ 32'26	1.38189 AU	morning set	2899 Feb 17 10:53	19° ≈ 56'41	
				max. Earth dist.	2899 Feb 22 09:41	28° ≈ 12'48	1.40350 AU
superior conj	2898 Mar 19 17:26	29° ✕ 46'11	-1°-38'-59		2899 Feb 23 10:46	0° ✕	
minimum elong	2898 Mar 19 21:55	0° ∇ 07'35	1°38'29				
	2898 Mar 19 20:19	0° ∇		superior conj	2899 Mar 02 04:34	11° ✕ 53'12	-1°-57'-54
evening rise	2898 Mar 28 15:56	17° ∇ 13'06		minimum elong	2899 Mar 02 08:15	12° ✕ 09'53	1°57'41
asc. node	2898 Mar 31 05:17	22° ∇ 12'16			2899 Mar 11 21:57	0° ∇	
	2898 Apr 04 09:37	0° ✕		evening rise	2899 Mar 12 04:50	0° ∇ 32'33	
evening max el	2898 Apr 14 03:15	13° ✕ 50'51	18°58'20	asc. node	2899 Mar 18 02:18	11° ∇ 28'53	
retrograde	2898 Apr 22 15:45	17° ✕ 59'45		evening max el	2899 Mar 28 08:23	26° ∇ 24'15	18°23'14
evening set	2898 Apr 24 18:49	17° ✕ 45'16			2899 Apr 03 20:05	0° ✕	
inferior conj	2898 May 02 21:40	13° ✕ 29'19	1°24'35	retrograde	2899 Apr 04 17:05	0° ✕ 03'04	
minimum elong	2898 May 03 00:44	13° ✕ 23'54	1°23'35		2899 Apr 05 14:15	30° ℞ ∇	
min. Earth dist.	2898 May 06 00:33	11° ✕ 18'21	0.56813 AU	evening set	2899 Apr 07 01:57	29° ∇ 41'25	
desc. node	2898 May 07 22:21	10° ✕ 05'09		inferior conj	2899 Apr 14 10:02	25° ∇ 05'18	2°39'32
morning rise	2898 May 11 02:22	8° ✕ 28'33		minimum elong	2899 Apr 14 13:49	24° ∇ 57'30	2°38'36
direct	2898 May 16 08:10	7° ✕ 23'19		min. Earth dist.	2899 Apr 17 20:39	22° ∇ 16'12	0.58763 AU
morning max el	2898 May 30 15:22	14° ✕ 47'10	25°50'51	morning rise	2899 Apr 21 21:33	19° ∇ 33'50	
	2898 Jun 11 18:57	0° ∏		desc. node	2899 Apr 24 19:23	18° ∇ 21'40	
morning set	2898 Jun 27 08:43	28° ∏ 30'49		direct	2899 Apr 28 01:16	17° ∇ 53'41	
asc. node	2898 Jun 27 04:34	28° ∏ 08'57		morning max el	2899 May 12 10:36	25° ∇ 38'02	27°04'27
	2898 Jun 28 01:32	0° ☿			2899 May 16 12:12	0° ✕	
					2899 Jun 05 01:57	0° ∏	
superior conj	2898 Jul 04 08:51	13° ☿ 43'37	1°09'14	morning set	2899 Jun 11 18:10	13° ∏ 17'22	
minimum elong	2898 Jul 04 06:30	13° ☿ 30'45	1°08'51	asc. node	2899 Jun 14 01:35	18° ∏ 11'23	
max. Earth dist.	2898 Jul 05 03:59	15° ☿ 28'39	1.32402 AU				
evening rise	2898 Jul 11 10:12	28° ☿ 54'23		superior conj	2899 Jun 18 20:39	28° ∏ 39'50	0°48'40
	2898 Jul 11 22:53	0° ♈		minimum elong	2899 Jun 18 18:43	28° ∏ 29'11	0°48'17
	2898 Jul 28 16:53	0° ♐		max. Earth dist.	2899 Jun 18 15:51	28° ∏ 13'23	1.32116 AU
desc. node	2898 Aug 03 21:43	8° ♐ 40'49			2899 Jun 19 11:11	0° ☿	
evening max el	2898 Aug 11 22:10	17° ♐ 42'09	27°11'56	evening rise	2899 Jun 25 18:14	13° ☿ 39'31	
retrograde	2898 Aug 25 18:26	24° ♐ 56'04			2899 Jul 04 00:33	0° ♈	
evening set	2898 Sep 01 21:44	22° ♐ 36'32		desc. node	2899 Jul 21 18:43	26° ♈ 16'41	
min. Earth dist.	2898 Sep 05 12:25	19° ♐ 51'23	0.61645 AU	evening max el	2899 Jul 24 22:51	29° ♈ 32'39	26°24'25
inferior conj	2898 Sep 08 14:18	17° ♐ 06'35	-4°-10'-24		2899 Jul 25 10:31	0° ♐	
minimum elong	2898 Sep 08 19:52	16° ♐ 54'05	4°09'07	retrograde	2899 Aug 07 22:17	6° ♐ 43'52	
morning rise	2898 Sep 15 20:57	12° ♐ 08'46		evening set	2899 Aug 14 13:17	4° ♐ 54'35	
direct	2898 Sep 18 05:17	11° ♐ 45'32		min. Earth dist.	2899 Aug 18 12:02	2° ♐ 19'42	0.59590 AU
asc. node	2898 Sep 23 03:45	13° ♐ 31'59			2899 Aug 21 11:54	30° ℞ ♈	
morning max el	2898 Sep 25 04:37	15° ♐ 15'33	17°55'45	inferior conj	2899 Aug 21 19:10	29° ♈ 45'44	-4°-49'-40
	2898 Oct 05 09:27	0° ♊		minimum elong	2899 Aug 21 23:08	29° ♈ 37'57	4°49'13
morning set	2898 Oct 11 00:14	10° ♊ 06'17		morning rise	2899 Aug 29 12:25	25° ♈ 10'51	
				direct	2899 Aug 31 21:42	24° ♈ 50'38	
superior conj	2898 Oct 21 13:42	29° ♊ 00'42	1°01'24	morning max el	2899 Sep 08 14:50	28° ♈ 34'47	18°19'24
minimum elong	2898 Oct 21 18:05	29° ♊ 19'40	1°00'50		2899 Sep 09 23:42	0° ♐	
	2898 Oct 22 03:25	0° ♋		asc. node	2899 Sep 10 00:48	0° ♐ 03'02	
max. Earth dist.	2898 Oct 29 00:51	11° ♋ 37'03	1.42632 AU	morning set	2899 Sep 24 12:41	23° ♐ 52'54	
desc. node	2898 Oct 30 21:01	14° ♋ 37'31			2899 Sep 27 17:43	0° ♊	
evening rise	2898 Nov 04 15:53	22° ♋ 16'44					
	2898 Nov 09 15:14	0° ♌		superior conj	2899 Oct 03 19:16	11° ♊ 20'21	1°26'15
	2898 Nov 30 16:16	0° ♍		minimum elong	2899 Oct 03 22:55	11° ♊ 37'05	1°25'55
greatest brilliancy	2898 Dec 01 23:41	1° ♍ 37'50	-0.3m	max. Earth dist.	2899 Oct 11 08:31	24° ♊ 43'03	1.40729 AU
evening max el	2898 Dec 06 17:19	6° ♍ 59'16	22°01'12		2899 Oct 14 11:36	0° ♋	
retrograde	2898 Dec 16 01:20	12° ♍ 32'35		evening rise	2899 Oct 16 00:51	2° ♋ 34'05	
evening set	2898 Dec 20 10:33	10° ♍ 48'32		desc. node	2899 Oct 17 18:04	5° ♋ 22'08	
asc. node	2898 Dec 20 02:59	11° ♍ 03'10			2899 Nov 02 23:40	0° ♌	
inferior conj	2898 Dec 25 20:02	4° ♍ 27'09	1°51'00	evening max el	2899 Nov 19 08:26	20° ♌ 34'05	23°20'38
minimum elong	2898 Dec 25 17:50	4° ♍ 34'48	1°50'12	retrograde	2899 Nov 29 19:25	26° ♌ 45'37	
min. Earth dist.	2898 Dec 25 20:37	4° ♍ 25'06	0.67866 AU	evening set	2899 Dec 04 17:17	24° ♌ 44'57	
	2898 Dec 29 06:13	30° ℞ ♌		asc. node	2899 Dec 07 00:00	22° ♌ 26'20	
morning rise	2898 Dec 31 00:55	28° ♌ 13'38		min. Earth dist.	2899 Dec 09 17:25	18° ♌ 54'02	0.67868 AU
direct	2899 Jan 04 19:42	26° ♌ 13'32		inferior conj	2899 Dec 10 03:37	18° ♌ 18'59	1°03'37
	2899 Jan 12 10:50	0° ♎		minimum elong	2899 Dec 10 02:12	18° ♌ 23'53	1°03'01
morning max el	2899 Jan 14 12:52	1° ♎ 57'56	22°36'05	morning rise	2899 Dec 15 11:12	12° ♌ 09'07	
greatest brilliancy	2899 Jan 19 02:41	7° ♎ 04'14	-0.3m	direct	2899 Dec 19 15:32	10° ♌ 31'49	
desc. node	2899 Jan 26 20:12	17° ♎ 10'06		morning max el	2899 Dec 28 04:33	15° ♌ 29'54	21°12'51
	2899 Feb 04 17:21	0° ♏		greatest brilliancy	2900 Jan 02 11:01	21° ♌ 32'20	-0.4m

	2900 Jan 08 18:38	0°☿			2900 Nov 26 02:41	30°♍	
desc. node	2900 Jan 13 17:16	7°☿05'17		morning rise	2900 Nov 29 22:13	26°♍09'05	
morning set	2900 Jan 27 22:53	28°☿42'27		direct	2900 Dec 03 13:33	24°♍52'59	
	2900 Jan 28 18:34	0°≈		morning max el	2900 Dec 11 03:48	29°♍12'33	20°00'54
max. Earth dist.	2900 Feb 04 11:21	10°≈46'17	1.42364 AU		2900 Dec 11 22:10	0°♊	
				greatest brilliancy	2900 Dec 18 06:42	7°♊51'01	-0.6m
superior conj	2900 Feb 11 18:05	22°≈58'09	-2°-6'-11	desc. node	2900 Dec 31 14:19	27°♊20'23	
minimum elong	2900 Feb 11 18:25	22°≈59'34	2°06'11		2901 Jan 02 08:15	0°☿	
	2900 Feb 15 19:17	0°☿		morning set	2901 Jan 06 19:03	6°☿49'58	
evening rise	2900 Feb 23 04:08	13°☿10'21		max. Earth dist.	2901 Jan 17 20:49	24°☿12'06	1.43964 AU
asc. node	2900 Mar 04 23:20	0°♊18'07			2901 Jan 21 11:22	0°≈	
	2900 Mar 04 18:49	0°♊					
evening max el	2900 Mar 11 18:52	9°♊22'52	18°07'59	superior conj	2901 Jan 23 05:52	2°≈52'41	-1°-58'-37
retrograde	2900 Mar 18 11:17	12°♊47'26		minimum elong	2901 Jan 23 00:34	2°≈31'05	1°58'23
evening set	2900 Mar 21 01:52	12°♊16'30		evening rise	2901 Feb 05 09:27	24°≈57'31	
inferior conj	2900 Mar 27 18:20	7°♊19'22	3°22'26		2901 Feb 08 07:48	0°☿	
minimum elong	2900 Mar 27 20:44	7°♊13'38	3°22'05	asc. node	2901 Feb 19 20:23	18°☿30'52	
min. Earth dist.	2900 Mar 30 23:27	4°♊16'33	0.60928 AU	evening max el	2901 Feb 23 07:29	22°☿37'33	18°11'55
morning rise	2900 Apr 03 12:27	1°♊27'27		retrograde	2901 Mar 01 18:04	26°☿02'19	
	2900 Apr 06 06:16	30°♊☿		evening set	2901 Mar 04 14:05	25°☿20'48	
direct	2900 Apr 10 06:13	29°☿12'41		inferior conj	2901 Mar 10 18:40	20°☿03'15	3°39'23
desc. node	2900 Apr 11 16:24	29°☿18'25		minimum elong	2901 Mar 10 19:10	20°☿01'53	3°39'23
	2900 Apr 14 10:12	0°♊		min. Earth dist.	2901 Mar 13 10:48	17°☿10'49	0.63003 AU
morning max el	2900 Apr 24 12:03	7°♊07'38	27°44'35	morning rise	2901 Mar 16 22:11	13°☿59'22	
	2900 May 11 19:43	0°♊		direct	2901 Mar 23 20:14	11°☿20'04	
morning set	2900 May 26 23:50	27°♊50'09		desc. node	2901 Mar 29 13:28	12°☿53'23	
	2900 May 28 00:53	0°♊		morning max el	2901 Apr 06 18:36	19°☿17'02	27°47'17
asc. node	2900 May 31 22:39	8°♊19'20			2901 Apr 15 21:08	0°♊	
max. Earth dist.	2900 Jun 02 02:51	10°♊52'46	1.32228 AU		2901 May 04 17:42	0°♊	
				morning set	2901 May 10 23:27	12°♊01'23	
superior conj	2900 Jun 03 07:40	13°♊30'20	0°24'50	max. Earth dist.	2901 May 16 09:09	23°♊13'42	1.32750 AU
minimum elong	2900 Jun 03 06:33	13°♊24'15	0°24'36				
evening rise	2900 Jun 10 05:08	28°♊30'26		superior conj	2901 May 18 16:07	28°♊08'36	0°-1'-34
	2900 Jun 10 22:05	0°☿		minimum elong	2901 May 18 16:11	28°♊09'00	0°01'34
	2900 Jun 27 18:25	0°♊		behind sun begin	2901 May 18 10:58	27°♊40'48	
evening max el	2900 Jul 06 16:27	10°♊36'55	25°08'09	behind sun end	2901 May 18 21:24	28°♊37'13	
desc. node	2900 Jul 08 15:43	12°♊23'23		asc. node	2901 May 18 19:42	28°♊28'03	
retrograde	2900 Jul 20 16:04	17°♊42'37			2901 May 19 12:42	0°♊	
evening set	2900 Jul 26 05:18	16°♊31'49		evening rise	2901 May 25 17:00	13°♊20'05	
min. Earth dist.	2900 Jul 31 04:12	13°♊48'18	0.57584 AU		2901 Jun 03 03:11	0°☿	
inferior conj	2900 Aug 03 05:05	11°♊45'07	-5°-3'-53	evening max el	2901 Jun 18 06:02	21°☿09'26	23°34'35
minimum elong	2900 Aug 03 04:41	11°♊45'47	5°03'53	desc. node	2901 Jun 25 12:43	26°☿27'33	
morning rise	2900 Aug 11 07:44	7°♊32'44		retrograde	2901 Jul 01 21:19	27°☿59'15	
direct	2900 Aug 13 20:49	7°♊13'39		evening set	2901 Jul 05 23:16	27°☿22'46	
morning max el	2900 Aug 22 17:05	11°♊23'08	19°03'55	min. Earth dist.	2901 Jul 12 16:11	24°☿15'02	0.55941 AU
asc. node	2900 Aug 27 21:51	17°♊36'02		inferior conj	2901 Jul 14 18:54	22°☿59'18	-4°-38'-7
	2900 Sep 04 06:13	0°♊		minimum elong	2901 Jul 14 12:52	23°☿08'21	4°37'10
morning set	2900 Sep 08 10:48	8°♊07'27		morning rise	2901 Jul 23 05:42	19°☿04'01	
				direct	2901 Jul 26 00:56	18°☿44'29	
superior conj	2900 Sep 16 19:27	24°♊34'50	1°40'16	morning max el	2901 Aug 05 08:38	23°☿31'44	20°10'02
minimum elong	2900 Sep 16 21:23	24°♊44'13	1°40'09		2901 Aug 10 21:54	0°♊	
	2900 Sep 19 15:51	0°♊		asc. node	2901 Aug 14 18:56	5°♊57'18	
max. Earth dist.	2900 Sep 23 12:32	7°♊06'19	1.38664 AU	morning set	2901 Aug 23 15:33	22°♊42'08	
evening rise	2900 Sep 27 09:36	13°♊57'19			2901 Aug 27 05:02	0°♊	
desc. node	2900 Oct 04 15:06	25°♊59'48					
	2900 Oct 07 03:46	0°♍		superior conj	2901 Aug 31 09:13	8°♊30'16	1°45'04
	2900 Oct 28 22:23	0°♊		minimum elong	2901 Aug 31 09:25	8°♊31'17	1°45'04
evening max el	2900 Nov 01 21:11	4°♊13'02	24°39'34	max. Earth dist.	2901 Sep 05 18:18	19°♊03'55	1.36682 AU
retrograde	2900 Nov 13 09:35	10°♊55'50		evening rise	2901 Sep 09 16:19	26°♊22'33	
evening set	2900 Nov 18 21:21	8°♊39'02			2901 Sep 11 16:38	0°♊	
min. Earth dist.	2900 Nov 23 13:03	3°♊22'03	0.67532 AU	desc. node	2901 Sep 21 12:06	16°♊26'09	
asc. node	2900 Nov 23 21:04	2°♊55'27			2901 Sep 30 15:00	0°♍	
inferior conj	2900 Nov 24 09:50	2°♊12'54	0°10'58	evening max el	2901 Oct 15 09:30	17°♍54'58	25°50'42
minimum elong	2900 Nov 24 09:34	2°♊13'49	0°10'50	retrograde	2901 Oct 27 18:59	24°♍58'50	
transit middle	2900 Nov 24 09:34	2°♊13'49	0°10'50	evening set	2901 Nov 02 21:01	22°♍27'59	
transit begin	2900 Nov 24 07:31	2°♊20'38		min. Earth dist.	2901 Nov 07 05:05	17°♍46'40	0.66860 AU
transit end	2900 Nov 24 11:37	2°♊07'00		inferior conj	2901 Nov 08 12:52	16°♍06'20	0°-45'-43

minimum elong	2901 Nov 08 14:04	16° \mathbb{M} 02'32	0°45'12	min. Earth dist.	2902 Oct 21 15:04	2° \mathbb{M} 02'49	0.65840 AU
asc. node	2901 Nov 10 18:07	13° \mathbb{M} 24'20		inferior conj	2902 Oct 23 10:41	29° \mathbb{A} 54'45	-1°-44'-57
morning rise	2901 Nov 14 08:01	10° \mathbb{M} 11'22		minimum elong	2902 Oct 23 13:33	29° \mathbb{A} 46'20	1°43'47
direct	2901 Nov 17 12:15	9° \mathbb{M} 13'21			2902 Oct 23 08:54	30° \mathbb{R} \mathbb{A}	
morning max el	2901 Nov 24 10:42	13° \mathbb{M} 05'11	19°03'31	asc. node	2902 Oct 28 15:11	24° \mathbb{A} 46'12	
	2901 Dec 06 23:27	0° \mathbb{A}		morning rise	2902 Oct 29 14:20	24° \mathbb{A} 11'40	
morning set	2901 Dec 17 00:39	15° \mathbb{A} 34'20		direct	2902 Nov 01 09:37	23° \mathbb{A} 28'06	
desc. node	2901 Dec 18 11:23	17° \mathbb{A} 49'56		morning max el	2902 Nov 07 23:25	27° \mathbb{A} 02'38	18°22'10
	2901 Dec 26 06:13	0° \mathbb{C}			2902 Nov 10 14:11	0° \mathbb{M}	
max. Earth dist.	2901 Dec 31 12:56	8° \mathbb{C} 17'16	1.44945 AU	morning set	2902 Nov 27 08:55	25° \mathbb{M} 40'46	
					2902 Nov 30 01:14	0° \mathbb{A}	
superior conj	2902 Jan 02 17:46	11° \mathbb{C} 45'36	-1°-31'-51	desc. node	2902 Dec 05 08:24	8° \mathbb{A} 28'46	
minimum elong	2902 Jan 02 08:44	11° \mathbb{C} 09'58	1°30'59				
	2902 Jan 14 03:17	0° \mathbb{A}		superior conj	2902 Dec 12 19:24	20° \mathbb{A} 16'20	0°-48'-59
evening rise	2902 Jan 17 16:56	5° \mathbb{A} 48'54		minimum elong	2902 Dec 12 13:11	19° \mathbb{A} 51'54	0°48'11
	2902 Feb 01 22:24	0° \mathbb{H}		max. Earth dist.	2902 Dec 14 08:00	22° \mathbb{A} 40'04	1.45196 AU
asc. node	2902 Feb 06 17:25	5° \mathbb{H} 56'40			2902 Dec 19 00:14	0° \mathbb{C}	
evening max el	2902 Feb 06 19:29	6° \mathbb{H} 01'57	18°34'19	evening rise	2902 Dec 29 01:07	15° \mathbb{C} 44'17	
retrograde	2902 Feb 13 09:16	9° \mathbb{H} 39'34			2903 Jan 07 03:32	0° \mathbb{A}	
evening set	2902 Feb 16 10:59	8° \mathbb{H} 46'32		greatest brilliancy	2903 Jan 11 15:21	6° \mathbb{A} 52'37	-0.7m
inferior conj	2902 Feb 22 07:05	3° \mathbb{H} 10'10	3°36'57	evening max el	2903 Jan 21 04:26	19° \mathbb{A} 30'39	19°14'12
minimum elong	2902 Feb 22 06:01	3° \mathbb{H} 13'23	3°36'52	asc. node	2903 Jan 24 14:26	22° \mathbb{A} 22'00	
min. Earth dist.	2902 Feb 24 07:39	0° \mathbb{H} 45'40	0.64779 AU	retrograde	2903 Jan 28 05:17	23° \mathbb{A} 31'56	
	2902 Feb 24 23:34	30° \mathbb{R} \mathbb{A}		evening set	2903 Jan 31 13:39	22° \mathbb{A} 26'27	
morning rise	2902 Feb 27 23:44	26° \mathbb{A} 59'30		inferior conj	2903 Feb 06 04:07	16° \mathbb{A} 33'38	3°20'05
direct	2902 Mar 06 17:35	24° \mathbb{A} 09'50		minimum elong	2903 Feb 06 02:01	16° \mathbb{A} 40'22	3°19'44
desc. node	2902 Mar 16 10:32	28° \mathbb{A} 35'04		min. Earth dist.	2903 Feb 07 13:27	14° \mathbb{A} 46'39	0.66156 AU
	2902 Mar 18 01:57	0° \mathbb{H}		morning rise	2903 Feb 11 13:32	10° \mathbb{A} 19'22	
morning max el	2902 Mar 20 04:05	1° \mathbb{H} 59'53	27°14'57	direct	2903 Feb 17 21:19	7° \mathbb{A} 32'42	
	2902 Apr 10 01:55	0° \mathbb{Y}		morning max el	2903 Mar 02 13:57	15° \mathbb{A} 04'07	26°14'26
morning set	2902 Apr 24 14:13	25° \mathbb{Y} 42'40		desc. node	2903 Mar 03 07:35	15° \mathbb{A} 49'18	
	2902 Apr 26 18:28	0° \mathbb{B}			2903 Mar 14 20:04	0° \mathbb{H}	
max. Earth dist.	2902 Apr 29 07:00	5° \mathbb{B} 06'10	1.33717 AU		2903 Apr 02 21:03	0° \mathbb{Y}	
				morning set	2903 Apr 07 16:24	8° \mathbb{Y} 43'19	
superior conj	2902 May 02 20:00	12° \mathbb{B} 28'36	0°-29'-37	max. Earth dist.	2903 Apr 11 17:39	16° \mathbb{Y} 27'19	1.35138 AU
minimum elong	2902 May 02 21:31	12° \mathbb{B} 36'35	0°29'19				
asc. node	2902 May 05 16:44	18° \mathbb{B} 33'29		superior conj	2903 Apr 16 17:00	26° \mathbb{Y} 23'44	0°-58'-3
evening rise	2902 May 10 03:57	28° \mathbb{B} 02'22		minimum elong	2903 Apr 16 20:01	26° \mathbb{Y} 39'06	0°57'32
	2902 May 11 02:30	0° \mathbb{I}			2903 Apr 18 11:08	0° \mathbb{B}	
	2902 May 29 07:59	0° \mathbb{C}		asc. node	2903 Apr 22 13:46	8° \mathbb{B} 31'52	
evening max el	2902 May 30 22:28	1° \mathbb{C} 39'06	21°59'00	evening rise	2903 Apr 24 12:02	12° \mathbb{B} 31'15	
desc. node	2902 Jun 12 09:44	7° \mathbb{C} 54'43			2903 May 03 15:46	0° \mathbb{I}	
retrograde	2902 Jun 12 14:45	7° \mathbb{C} 54'49		evening max el	2903 May 13 00:41	12° \mathbb{I} 36'06	20°34'28
evening set	2902 Jun 15 08:43	7° \mathbb{C} 37'58		retrograde	2903 May 24 03:56	18° \mathbb{I} 01'36	
min. Earth dist.	2902 Jun 24 03:09	3° \mathbb{C} 52'51	0.54997 AU	evening set	2903 May 26 05:30	17° \mathbb{I} 51'09	
inferior conj	2902 Jun 24 16:48	3° \mathbb{C} 33'44	-3°-23'-4	desc. node	2903 May 30 06:45	16° \mathbb{I} 36'27	
minimum elong	2902 Jun 24 08:41	3° \mathbb{C} 45'06	3°20'45	inferior conj	2903 Jun 04 10:42	13° \mathbb{I} 53'33	-1°-30'-43
	2902 Jul 02 07:05	30° \mathbb{R} \mathbb{I}		minimum elong	2903 Jun 04 06:25	13° \mathbb{I} 59'44	1°29'11
morning rise	2902 Jul 03 10:15	29° \mathbb{I} 42'02		min. Earth dist.	2903 Jun 05 15:29	13° \mathbb{I} 12'02	0.54981 AU
direct	2902 Jul 06 13:52	29° \mathbb{I} 20'04		morning rise	2903 Jun 13 05:59	9° \mathbb{I} 44'54	
	2902 Jul 10 16:58	0° \mathbb{C}		direct	2903 Jun 16 23:34	9° \mathbb{I} 14'53	
morning max el	2902 Jul 18 12:32	4° \mathbb{C} 55'22	21°36'08	morning max el	2903 Jun 30 07:08	15° \mathbb{I} 41'00	23°15'52
asc. node	2902 Aug 01 16:00	24° \mathbb{C} 54'41			2903 Jul 11 13:26	0° \mathbb{C}	
	2902 Aug 04 07:54	0° \mathbb{Q}		asc. node	2903 Jul 19 13:02	14° \mathbb{C} 19'06	
morning set	2902 Aug 08 00:30	7° \mathbb{Q} 29'20		morning set	2903 Jul 23 11:44	22° \mathbb{C} 23'27	
					2903 Jul 27 01:18	0° \mathbb{Q}	
superior conj	2902 Aug 15 08:27	22° \mathbb{Q} 53'53	1°42'20	superior conj	2903 Jul 30 14:05	7° \mathbb{Q} 36'23	1°33'24
minimum elong	2902 Aug 15 07:17	22° \mathbb{Q} 47'48	1°42'16	minimum elong	2903 Jul 30 12:03	7° \mathbb{Q} 25'32	1°33'13
	2902 Aug 18 19:17	0° \mathbb{H}		max. Earth dist.	2903 Aug 02 03:56	13° \mathbb{Q} 05'14	1.33650 AU
max. Earth dist.	2902 Aug 19 06:42	0° \mathbb{H} 57'41	1.34974 AU	evening rise	2903 Aug 07 06:02	23° \mathbb{Q} 31'05	
evening rise	2902 Aug 23 16:34	9° \mathbb{H} 37'38			2903 Aug 10 14:07	0° \mathbb{H}	
	2902 Sep 04 05:07	0° \mathbb{A}		desc. node	2903 Aug 26 06:05	26° \mathbb{H} 17'50	
desc. node	2902 Sep 08 09:05	6° \mathbb{A} 34'47			2903 Aug 28 20:20	0° \mathbb{A}	
	2902 Sep 26 08:42	0° \mathbb{M}		evening max el	2903 Sep 10 09:42	14° \mathbb{A} 55'45	27°19'48
evening max el	2902 Sep 27 21:52	1° \mathbb{M} 32'25	26°46'32	retrograde	2903 Sep 23 21:29	22° \mathbb{A} 14'16	
retrograde	2902 Oct 10 23:02	8° \mathbb{M} 47'34		evening set	2903 Sep 30 22:26	19° \mathbb{A} 32'51	
evening set	2902 Oct 17 14:13	6° \mathbb{M} 07'23					

min. Earth dist.	2903 Oct 04 16:54	16°♄03'58	0.64461 AU		2904 Aug 25 04:38	0°♄	
inferior conj	2903 Oct 07 00:59	13°♄33'38	-2°-44'-35	retrograde	2904 Sep 05 13:39	5°♄09'14	
minimum elong	2903 Oct 07 05:27	13°♄21'39	2°42'59	evening set	2904 Sep 12 18:22	2°♄38'08	
morning rise	2903 Oct 13 14:33	8°♄05'33			2904 Sep 16 00:07	30°♄	
asc. node	2903 Oct 15 12:14	7°♄34'39		min. Earth dist.	2904 Sep 16 08:57	29°♄39'41	0.62745 AU
direct	2903 Oct 16 03:17	7°♄32'36		inferior conj	2904 Sep 19 04:58	26°♄56'22	-3°-41'-14
morning max el	2903 Oct 22 15:21	10°♄59'07	17°57'43	minimum elong	2904 Sep 19 10:29	26°♄43'03	3°39'40
	2903 Nov 04 15:43	0°♄		morning rise	2904 Sep 26 05:18	21°♄46'27	
morning set	2903 Nov 08 21:52	7°♄11'17		direct	2904 Sep 28 14:16	21°♄20'36	
				asc. node	2904 Oct 01 09:16	21°♄57'16	
superior conj	2903 Nov 22 08:14	29°♄24'58	0°00'-48	morning max el	2904 Oct 05 07:31	24°♄47'21	17°51'06
minimum elong	2903 Nov 22 08:09	29°♄24'36	0°00'48		2904 Oct 09 14:02	0°♄	
behind sun begin	2903 Nov 21 21:50	28°♄43'02		morning set	2904 Oct 21 10:04	19°♄48'50	
behind sun end	2903 Nov 22 18:27	0°♄06'05			2904 Oct 27 04:47	0°♄	
desc. node	2903 Nov 22 05:24	29°♄13'30					
	2903 Nov 22 16:56	0°♄		superior conj	2904 Nov 01 22:02	9°♄47'59	0°41'44
max. Earth dist.	2903 Nov 27 02:36	7°♄01'27	1.44706 AU	minimum elong	2904 Nov 02 01:47	10°♄03'45	0°41'13
evening rise	2903 Dec 08 15:03	24°♄58'58		desc. node	2904 Nov 08 02:26	20°♄01'06	
	2903 Dec 11 21:29	0°♄		max. Earth dist.	2904 Nov 08 18:17	21°♄05'17	1.43546 AU
greatest brilliancy	2903 Dec 28 18:35	24°♄57'52	-0.6m		2904 Nov 14 08:38	0°♄	
	2904 Jan 01 16:11	0°♄		evening rise	2904 Nov 17 00:19	4°♄08'19	
evening max el	2904 Jan 04 08:40	3°♄00'59	20°09'41		2904 Dec 04 08:21	0°♄	
asc. node	2904 Jan 11 11:28	7°♄31'58		greatest brilliancy	2904 Dec 12 05:25	10°♄40'20	-0.4m
retrograde	2904 Jan 12 03:11	7°♄34'20		evening max el	2904 Dec 17 07:29	16°♄33'00	21°17'52
evening set	2904 Jan 15 19:44	6°♄15'04		retrograde	2904 Dec 26 00:49	21°♄43'38	
inferior conj	2904 Jan 21 06:51	0°♄08'41	2°52'10	asc. node	2904 Dec 28 08:30	21°♄14'01	
minimum elong	2904 Jan 21 04:19	0°♄17'14	2°51'31	evening set	2904 Dec 30 03:23	20°♄09'10	
	2904 Jan 21 09:26	30°♄		inferior conj	2905 Jan 04 13:01	13°♄52'25	2°15'29
min. Earth dist.	2904 Jan 22 02:25	29°♄02'44	0.67126 AU	minimum elong	2905 Jan 04 10:33	13°♄00'54	2°14'41
morning rise	2904 Jan 26 12:19	23°♄53'06		min. Earth dist.	2905 Jan 04 20:15	13°♄27'24	0.67706 AU
direct	2904 Feb 01 06:41	21°♄19'45		morning rise	2905 Jan 09 17:23	7°♄37'32	
morning max el	2904 Feb 12 22:40	28°♄17'54	24°54'54	direct	2905 Jan 14 20:56	5°♄24'07	
	2904 Feb 14 13:42	0°♄		morning max el	2905 Jan 25 07:22	11°♄36'45	23°26'45
desc. node	2904 Feb 18 04:37	4°♄09'07		greatest brilliancy	2905 Jan 31 03:35	18°♄13'56	-0.2m
	2904 Mar 07 13:55	0°♄		desc. node	2905 Feb 04 01:38	23°♄15'52	
morning set	2904 Mar 20 00:52	20°♄48'00			2905 Feb 08 23:21	0°♄	
max. Earth dist.	2904 Mar 23 17:20	27°♄28'39	1.36983 AU		2905 Feb 28 09:35	0°♄	
	2904 Mar 25 01:55	0°♄		morning set	2905 Mar 01 09:28	1°♄40'19	
				max. Earth dist.	2905 Mar 05 12:02	8°♄43'40	1.39110 AU
superior conj	2904 Mar 30 04:02	9°♄44'58	-1°-25'-5				
minimum elong	2904 Mar 30 08:13	10°♄05'31	1°24'30	superior conj	2905 Mar 13 01:17	22°♄22'46	-1°-48'00
evening rise	2904 Apr 07 14:55	26°♄38'52		minimum elong	2905 Mar 13 05:41	22°♄43'18	1°47'36
asc. node	2904 Apr 08 10:46	28°♄18'05			2905 Mar 17 01:56	0°♄	
	2904 Apr 09 07:18	0°♄		evening rise	2905 Mar 22 09:52	10°♄18'09	
evening max el	2904 Apr 24 14:57	24°♄13'05	19°27'45	asc. node	2905 Mar 26 07:48	17°♄47'13	
retrograde	2904 May 04 00:43	28°♄46'32			2905 Apr 02 10:43	0°♄	
evening set	2904 May 06 01:01	28°♄34'55		evening max el	2905 Apr 07 15:39	6°♄28'26	18°40'59
inferior conj	2904 May 14 15:01	24°♄29'07	0°26'38	retrograde	2905 Apr 15 14:42	10°♄22'00	
minimum elong	2904 May 14 16:09	24°♄27'17	0°26'14	evening set	2905 Apr 17 20:17	10°♄04'45	
desc. node	2904 May 16 03:47	23°♄29'34		inferior conj	2905 Apr 25 14:56	5°♄40'49	2°00'31
min. Earth dist.	2904 May 17 05:56	22°♄47'54	0.55917 AU	minimum elong	2905 Apr 25 18:40	5°♄33'46	1°59'24
morning rise	2904 May 23 03:25	19°♄48'11		min. Earth dist.	2905 Apr 28 23:15	3°♄10'51	0.57601 AU
direct	2904 May 27 19:07	18°♄59'06		desc. node	2905 May 03 00:48	0°♄40'13	
morning max el	2904 Jun 10 21:28	26°♄06'48	24°57'29	morning rise	2905 May 03 12:40	0°♄26'04	
	2904 Jun 14 14:02	0°♄			2905 May 04 13:25	30°♄	
	2904 Jul 03 10:24	0°♄		direct	2905 May 09 04:48	29°♄06'16	
asc. node	2904 Jul 05 10:03	4°♄02'33			2905 May 13 21:45	0°♄	
morning set	2904 Jul 06 23:31	7°♄18'28		morning max el	2905 May 23 13:23	6°♄40'13	26°25'35
					2905 Jun 09 20:00	0°♄	
superior conj	2904 Jul 13 23:38	22°♄29'09	1°19'20	morning set	2905 Jun 21 10:19	22°♄09'21	
minimum elong	2904 Jul 13 21:16	22°♄16'14	1°19'00	asc. node	2905 Jun 22 07:06	23°♄59'20	
max. Earth dist.	2904 Jul 15 09:12	25°♄31'55	1.32739 AU		2905 Jun 25 01:58	0°♄	
	2904 Jul 17 10:57	0°♄					
evening rise	2904 Jul 21 04:57	7°♄51'35		superior conj	2905 Jun 28 11:07	7°♄25'39	1°00'57
	2904 Aug 02 01:01	0°♄		minimum elong	2905 Jun 28 08:54	7°♄13'24	1°00'33
desc. node	2904 Aug 12 03:06	15°♄24'18		max. Earth dist.	2905 Jun 28 19:43	8°♄13'00	1.32234 AU
evening max el	2904 Aug 22 19:20	27°♄52'46	27°24'16	evening rise	2905 Jul 05 10:23	22°♄30'03	

	2905 Jul 09 02:40	0°♎			2906 Jun 16 10:30	0°♏	
	2905 Jul 27 03:34	0°♐		evening rise	2906 Jun 19 19:55	7°♏18'49	
desc. node	2905 Jul 30 00:07	3°♐38'54			2906 Jul 01 16:08	0°♎	
evening max el	2905 Aug 05 00:12	10°♐10'44	26°55'48	desc. node	2906 Jul 16 21:08	20°♎40'44	
retrograde	2905 Aug 18 22:11	17°♐23'07		evening max el	2906 Jul 17 22:00	21°♎41'41	25°55'01
evening set	2905 Aug 25 21:38	15°♐15'23		retrograde	2906 Jul 31 21:40	28°♎50'22	
min. Earth dist.	2905 Aug 29 14:26	12°♐36'27	0.60776 AU	evening set	2906 Aug 07 03:32	27°♎17'04	
inferior conj	2905 Sep 01 19:19	9°♐54'14	-4°-29'-21	min. Earth dist.	2906 Aug 11 10:21	24°♎40'59	0.58714 AU
minimum elong	2905 Sep 02 00:31	9°♐43'11	4°28'23	inferior conj	2906 Aug 14 16:32	22°♎17'57	-4°-59'-40
morning rise	2905 Sep 09 06:32	5°♐05'36		minimum elong	2906 Aug 14 18:59	22°♎13'26	4°59'31
direct	2905 Sep 11 14:52	4°♐43'55		morning rise	2906 Aug 22 13:55	17°♎52'48	
asc. node	2905 Sep 18 06:19	7°♐45'17		direct	2906 Aug 25 00:43	17°♎33'05	
morning max el	2905 Sep 18 20:46	8°♐19'03	18°03'20	morning max el	2906 Sep 02 03:57	21°♎26'17	18°35'45
	2905 Oct 02 21:14	0°♑		asc. node	2906 Sep 05 03:23	24°♎44'35	
morning set	2905 Oct 04 15:10	3°♑14'25			2906 Sep 08 19:43	0°♐	
				morning set	2906 Sep 18 08:13	17°♐14'34	
superior conj	2905 Oct 14 14:15	21°♑28'00	1°13'21		2906 Sep 24 22:49	0°♑	
minimum elong	2905 Oct 14 18:32	21°♑47'00	1°12'52				
	2905 Oct 19 11:51	0°♒		superior conj	2906 Sep 27 04:27	4°♑13'07	1°33'26
max. Earth dist.	2905 Oct 22 05:20	4°♒36'32	1.41859 AU	minimum elong	2906 Sep 27 07:26	4°♑27'03	1°33'12
desc. node	2905 Oct 25 23:28	10°♒47'35		max. Earth dist.	2906 Oct 04 11:38	17°♑26'05	1.39857 AU
evening rise	2905 Oct 27 21:21	13°♒52'33		evening rise	2906 Oct 08 16:22	24°♑37'36	
	2905 Nov 07 07:51	0°♓			2906 Oct 11 22:22	0°♒	
greatest brilliancy	2905 Nov 25 04:48	24°♓40'40	-0.3m	desc. node	2906 Oct 12 20:30	1°♒29'43	
	2905 Nov 29 22:30	0°♓			2906 Nov 01 03:09	0°♓	
evening max el	2905 Nov 30 01:08	0°♓06'39	22°34'41	evening max el	2906 Nov 12 15:03	13°♓43'19	23°54'36
retrograde	2905 Dec 09 20:27	5°♓56'08		retrograde	2906 Nov 23 12:54	20°♓08'39	
evening set	2905 Dec 14 10:54	4°♓05'08		evening set	2906 Nov 28 16:43	18°♓00'47	
asc. node	2905 Dec 15 05:33	3°♓23'54		asc. node	2906 Dec 02 02:36	14°♓18'35	
	2905 Dec 18 04:01	30°♒♓		min. Earth dist.	2906 Dec 03 13:04	12°♓24'23	0.67773 AU
inferior conj	2905 Dec 19 20:36	27°♓41'36	1°31'38	inferior conj	2906 Dec 04 03:49	11°♓34'19	0°41'51
minimum elong	2905 Dec 19 18:41	27°♓48'16	1°30'53	minimum elong	2906 Dec 04 02:51	11°♓37'39	0°41'26
min. Earth dist.	2905 Dec 19 16:35	27°♓55'30	0.67915 AU	morning rise	2906 Dec 09 13:13	5°♓27'00	
morning rise	2905 Dec 25 02:22	21°♓29'27		direct	2906 Dec 13 11:51	3°♓59'03	
direct	2905 Dec 29 15:00	19°♓38'53		morning max el	2906 Dec 21 14:17	8°♓39'01	20°40'40
morning max el	2906 Jan 07 19:26	25°♓02'23	21°59'34	greatest brilliancy	2906 Dec 27 12:10	15°♓34'03	-0.5m
	2906 Jan 12 05:52	0°♓			2907 Jan 06 19:03	0°♓	
greatest brilliancy	2906 Jan 12 11:41	0°♓17'43	-0.4m	desc. node	2907 Jan 08 19:45	3°♓00'14	
desc. node	2906 Jan 21 22:41	12°♓55'57		morning set	2907 Jan 19 16:04	19°♓30'55	
	2906 Feb 02 11:03	0°♐			2907 Jan 26 07:41	0°♐	
morning set	2906 Feb 09 13:17	11°♐09'03		max. Earth dist.	2907 Jan 28 15:45	3°♐45'30	1.43115 AU
max. Earth dist.	2906 Feb 15 10:07	20°♐46'14	1.41253 AU				
	2906 Feb 20 20:01	0°♑		superior conj	2907 Feb 04 06:47	14°♐40'16	-2°-5'-11
				minimum elong	2907 Feb 04 04:52	14°♐32'14	2°05'10
superior conj	2906 Feb 23 03:54	4°♑05'01	-2°-3'-1		2907 Feb 13 04:57	0°♑	
minimum elong	2906 Feb 23 06:31	4°♑16'36	2°02'56	evening rise	2907 Feb 16 09:42	5°♑38'14	
evening rise	2906 Mar 05 17:28	23°♑20'42		asc. node	2907 Feb 28 01:54	25°♑27'47	
	2906 Mar 09 08:00	0°♒			2907 Mar 03 09:06	0°♒	
asc. node	2906 Mar 13 04:51	6°♒52'57		evening max el	2907 Mar 05 11:12	2°♒19'34	18°07'15
evening max el	2906 Mar 21 23:29	19°♒13'33	18°14'18	retrograde	2907 Mar 11 23:58	5°♒42'49	
retrograde	2906 Mar 28 23:40	22°♒44'11		evening set	2907 Mar 14 16:51	5°♒07'30	
evening set	2906 Mar 31 11:10	22°♒18'37		inferior conj	2907 Mar 21 03:46	0°♒01'11	3°32'22
inferior conj	2906 Apr 07 12:07	17°♒33'18	3°01'20	minimum elong	2907 Mar 21 05:22	29°♒57'09	3°32'14
minimum elong	2906 Apr 07 15:28	17°♒25'56	3°00'40		2907 Mar 21 04:15	30°♒♑	
min. Earth dist.	2906 Apr 10 21:37	14°♒35'31	0.59686 AU	min. Earth dist.	2907 Mar 24 03:48	27°♒00'19	0.61836 AU
morning rise	2906 Apr 14 16:05	11°♒52'13		morning rise	2907 Mar 27 15:14	24°♒03'09	
desc. node	2906 Apr 19 21:50	10°♒00'54		direct	2907 Apr 03 11:48	21°♒36'44	
direct	2906 Apr 21 03:02	9°♒56'51		desc. node	2907 Apr 06 18:54	22°♒07'38	
morning max el	2906 May 05 11:05	17°♒45'44	27°26'03	morning max el	2907 Apr 17 15:10	29°♒33'22	27°50'24
	2906 May 15 15:41	0°♓			2907 Apr 18 01:47	0°♒	
	2906 Jun 02 09:35	0°♑			2907 May 09 14:27	0°♓	
morning set	2906 Jun 05 18:26	6°♑50'50		morning set	2907 May 20 21:49	21°♓15'26	
asc. node	2906 Jun 09 04:09	14°♑04'38			2907 May 25 02:09	0°♑	
				max. Earth dist.	2907 May 26 17:34	3°♑31'57	1.32399 AU
superior conj	2906 Jun 12 22:49	22°♑20'07	0°38'55	asc. node	2907 May 27 01:11	4°♑13'10	
minimum elong	2906 Jun 12 21:11	22°♑11'08	0°38'35				
max. Earth dist.	2906 Jun 12 07:53	20°♑57'58	1.32118 AU	superior conj	2907 May 28 08:56	7°♑05'51	0°13'55

minimum elong	2907 May 28 08:17	7°II02'20	0°13'46		2908 Apr 13 07:23	0°Υ	
behind sun begin	2907 May 28 05:43	6°II48'16			2908 May 01 01:19	0°Ϣ	
behind sun end	2907 May 28 10:52	7°II16'24		morning set	2908 May 03 18:06	5°Ϣ15'40	
evening rise	2907 Jun 04 07:27	22°II09'49		max. Earth dist.	2908 May 08 20:42	15°Ϣ41'58	1.33104 AU
	2907 Jun 08 02:19	0°Ϣ					
	2907 Jun 27 03:20	0°Ω		superior conj	2908 May 11 15:42	21°Ϣ37'20	0°-13'-19
evening max el	2907 Jun 29 13:01	2°Ω28'37	24°29'31	minimum elong	2908 May 11 16:22	21°Ϣ40'52	0°13'12
desc. node	2907 Jul 03 18:10	5°Ω59'45		behind sun begin	2908 May 11 13:20	21°Ϣ24'40	
retrograde	2907 Jul 13 10:21	9°Ω29'51		behind sun end	2908 May 11 19:24	21°Ϣ57'05	
evening set	2907 Jul 18 09:24	8°Ω34'39		asc. node	2908 May 12 22:13	24°Ϣ21'07	
min. Earth dist.	2907 Jul 23 23:59	5°Ω42'40	0.56819 AU		2908 May 15 13:06	0°Π	
inferior conj	2907 Jul 26 17:46	3°Ω57'45	-4°-58'-40	evening rise	2908 May 18 19:09	6°Π57'05	
minimum elong	2907 Jul 26 14:54	4°Ω02'20	4°58'29		2908 May 31 00:59	0°Ϣ	
	2907 Aug 03 14:50	30°ϢϢ		evening max el	2908 Jun 10 02:41	12°Ϣ55'24	22°53'15
morning rise	2907 Aug 04 00:05	29°Ϣ54'12		desc. node	2908 Jun 19 15:09	19°Ϣ00'38	
direct	2907 Aug 06 15:35	29°Ϣ35'07		retrograde	2908 Jun 23 10:39	19°Ϣ33'51	
	2907 Aug 09 13:57	0°Ω		evening set	2908 Jun 26 21:23	19°Ϣ07'47	
morning max el	2907 Aug 16 01:58	3°Ω58'39	19°29'30	min. Earth dist.	2908 Jul 04 11:26	15°Ϣ45'33	0.55436 AU
asc. node	2907 Aug 23 00:26	12°Ω39'18		inferior conj	2908 Jul 05 23:49	14°Ϣ53'05	-4°-12'-13
	2907 Sep 01 13:47	0°Π		minimum elong	2908 Jul 05 16:11	15°Ϣ04'07	4°10'34
morning set	2907 Sep 02 09:28	1°Π38'13		morning rise	2908 Jul 14 13:45	11°Ϣ01'24	
				direct	2908 Jul 17 11:50	10°Ϣ41'25	
superior conj	2907 Sep 10 10:59	17°Π46'35	1°43'20	morning max el	2908 Jul 28 12:37	15°Ϣ48'28	20°44'27
minimum elong	2907 Sep 10 12:10	17°Π52'22	1°43'16		2908 Aug 08 03:45	0°Ω	
max. Earth dist.	2907 Sep 16 15:36	29°Π35'10	1.37793 AU	asc. node	2908 Aug 08 21:29	1°Ω16'44	
	2907 Sep 16 20:59	0°Ϣ		morning set	2908 Aug 16 16:12	16°Ω18'15	
evening rise	2907 Sep 20 10:51	6°Ϣ27'34			2908 Aug 23 06:48	0°Π	
desc. node	2907 Sep 29 17:31	22°Ϣ02'50					
	2907 Oct 04 20:42	0°Π		superior conj	2908 Aug 24 05:12	1°Π54'56	1°44'44
evening max el	2907 Oct 26 03:12	27°Π22'47	25°11'09	minimum elong	2908 Aug 24 04:46	1°Π52'42	1°44'43
	2907 Oct 29 00:16	0°Ϣ		max. Earth dist.	2908 Aug 28 23:08	11°Π25'31	1.35911 AU
retrograde	2907 Nov 07 01:12	4°Ϣ16'22		evening rise	2908 Sep 02 01:34	19°Π15'07	
evening set	2907 Nov 12 19:09	1°Ϣ52'52			2908 Sep 08 01:34	0°Ϣ	
	2907 Nov 14 17:15	30°ϢΠ		desc. node	2908 Sep 15 14:31	12°Ϣ21'58	
min. Earth dist.	2907 Nov 17 07:24	26°Π51'02	0.67286 AU		2908 Sep 27 23:04	0°Π	
inferior conj	2907 Nov 18 08:54	25°Π27'55	0°-12'-40	evening max el	2908 Oct 07 15:22	11°Π02'52	26°16'49
minimum elong	2907 Nov 18 09:13	25°Π26'53	0°12'32	retrograde	2908 Oct 20 08:35	18°Π13'31	
transit middle	2907 Nov 18 09:13	25°Π26'53	0°12'32	evening set	2908 Oct 26 16:19	15°Π37'58	
transit begin	2907 Nov 18 07:27	25°Π32'37		min. Earth dist.	2908 Oct 30 21:13	11°Π12'03	0.66462 AU
transit end	2907 Nov 18 10:58	25°Π21'09		inferior conj	2908 Nov 01 09:57	9°Π19'16	-1°-10'-40
asc. node	2907 Nov 18 23:38	24°Π40'02		minimum elong	2908 Nov 01 11:50	9°Π13'27	1°09'52
morning rise	2907 Nov 23 23:56	19°Π27'43		asc. node	2908 Nov 04 20:42	5°Π24'59	
direct	2907 Nov 27 10:13	18°Π19'56		morning rise	2908 Nov 07 08:30	3°Π28'53	
morning max el	2907 Dec 04 17:00	22°Π26'32	19°34'39	direct	2908 Nov 10 08:33	2°Π37'37	
	2907 Dec 10 23:07	0°Ϣ		morning max el	2908 Nov 17 02:37	6°Π21'19	18°43'52
greatest brilliancy	2907 Dec 13 01:03	2°Ϣ53'20	-0.6m		2908 Dec 03 18:15	0°Ϣ	
desc. node	2907 Dec 26 16:48	23°Ϣ21'49		morning set	2908 Dec 08 04:50	7°Ϣ00'58	
morning set	2907 Dec 29 13:09	27°Ϣ45'28		desc. node	2908 Dec 12 13:48	13°Ϣ55'15	
	2907 Dec 30 23:55	0°Ϣ			2908 Dec 22 19:22	0°Ϣ	
max. Earth dist.	2908 Jan 11 04:11	17°Ϣ29'33	1.44458 AU	max. Earth dist.	2908 Dec 23 21:19	1°Ϣ41'52	1.45135 AU
superior conj	2908 Jan 15 07:34	24°Ϣ05'44	-1°-49'-39	superior conj	2908 Dec 24 12:41	2°Ϣ42'13	-1°-15'-8
minimum elong	2908 Jan 15 00:05	23°Ϣ35'44	1°49'07	minimum elong	2908 Dec 24 04:03	2°Ϣ08'18	1°14'10
	2908 Jan 18 23:17	0°≈		evening rise	2909 Jan 09 03:33	27°Ϣ28'31	
evening rise	2908 Jan 29 06:11	17°≈02'34			2909 Jan 10 17:17	0°≈	
	2908 Feb 05 23:40	0°Ϣ		evening max el	2909 Jan 30 10:47	29°≈05'44	18°49'19
asc. node	2908 Feb 14 22:56	13°Ϣ22'20			2909 Jan 31 09:10	0°Ϣ	
evening max el	2908 Feb 16 23:49	15°Ϣ39'09	18°19'13	asc. node	2909 Jan 31 19:58	0°Ϣ24'04	
retrograde	2908 Feb 23 10:56	19°Ϣ08'20		retrograde	2909 Feb 06 04:28	2°Ϣ52'12	
evening set	2908 Feb 26 09:10	18°Ϣ22'13		evening set	2909 Feb 09 08:49	1°Ϣ54'09	
inferior conj	2908 Mar 03 09:46	12°Ϣ56'27	3°40'23		2909 Feb 11 17:48	30°Ϣ≈	
minimum elong	2908 Mar 03 09:33	12°Ϣ57'05	3°40'23	inferior conj	2909 Feb 15 02:13	26°≈10'48	3°31'19
min. Earth dist.	2908 Mar 05 19:25	10°Ϣ13'59	0.63796 AU	minimum elong	2909 Feb 15 00:39	26°≈15'40	3°31'08
morning rise	2908 Mar 09 08:10	6°Ϣ48'52		min. Earth dist.	2909 Feb 16 20:18	24°≈01'08	0.65414 AU
direct	2908 Mar 16 05:12	4°Ϣ03'16		morning rise	2909 Feb 20 15:22	19°≈58'15	
desc. node	2908 Mar 23 15:56	6°Ϣ41'05		direct	2909 Feb 27 05:37	17°≈07'59	
morning max el	2908 Mar 29 23:31	11°Ϣ59'31	27°37'31	desc. node	2909 Mar 10 12:59	23°≈05'25	

morning max el	2909 Mar 12 09:15	24° ≈ 52'13	26°52'05	morning max el	2910 Feb 22 18:27	8° ≈ 00'29	25°42'16
	2909 Mar 17 01:09	0° ✕		desc. node	2910 Feb 25 10:02	10° ≈ 49'51	
	2909 Apr 06 18:07	0° Υ			2910 Mar 11 23:23	0° ✕	
morning set	2909 Apr 17 04:01	18° Υ 41'02			2910 Mar 30 05:56	0° Υ	
max. Earth dist.	2909 Apr 21 13:40	27° Υ 19'06	1.34265 AU	morning set	2910 Mar 30 23:19	1° Υ 19'10	
	2909 Apr 22 21:29	0° ⋈		max. Earth dist.	2910 Apr 03 19:09	8° Υ 28'03	1.35882 AU
superior conj	2909 Apr 25 16:59	5° ⋈ 47'36	0°-41'-43	superior conj	2910 Apr 09 10:10	19° Υ 29'19	-1°-9'-50
minimum elong	2909 Apr 25 19:08	5° ⋈ 58'50	0°41'18	minimum elong	2910 Apr 09 13:45	19° Υ 47'18	1°09'15
asc. node	2909 Apr 29 19:15	14° ⋈ 23'57			2910 Apr 14 14:02	0° ⋈	
evening rise	2909 May 03 05:07	21° ⋈ 34'02		asc. node	2910 Apr 16 16:17	4° ⋈ 17'36	
	2909 May 07 08:49	0° ♊		evening rise	2910 Apr 17 11:16	5° ⋈ 54'28	
evening max el	2909 May 22 22:48	23° ♊ 34'16	21°21'11		2910 May 01 02:38	0° ♊	
retrograde	2909 Jun 04 00:40	29° ♊ 29'19		evening max el	2910 May 05 06:13	4° ♊ 47'40	20°03'40
evening set	2909 Jun 06 09:21	29° ♊ 16'33		retrograde	2910 May 15 15:11	9° ♊ 49'45	
desc. node	2909 Jun 06 12:09	29° ♊ 15'16		evening set	2910 May 17 15:08	9° ♊ 39'22	
inferior conj	2909 Jun 15 18:14	25° ♊ 17'32	-2°-38'-22	desc. node	2910 May 24 09:12	6° ♊ 58'34	
minimum elong	2909 Jun 15 11:10	25° ♊ 27'27	2°36'02	inferior conj	2910 May 26 14:54	5° ♊ 39'53	0°-39'-27
min. Earth dist.	2909 Jun 15 23:04	25° ♊ 10'47	0.54874 AU	minimum elong	2910 May 26 13:04	5° ♊ 42'38	0°38'47
morning rise	2909 Jun 24 13:16	21° ♊ 20'44		min. Earth dist.	2910 May 28 11:55	4° ♊ 32'32	0.55277 AU
direct	2909 Jun 27 22:01	20° ♊ 56'10		morning rise	2910 Jun 04 08:27	1° ♊ 19'05	
morning max el	2909 Jul 10 12:00	26° ♊ 54'04	22°17'22	direct	2910 Jun 08 10:58	0° ♊ 42'21	
	2909 Jul 13 12:04	0° ♋		morning max el	2910 Jun 22 03:49	7° ♊ 27'08	23°59'45
asc. node	2909 Jul 26 18:31	20° ♋ 26'26			2910 Jul 08 10:15	0° ♋	
	2909 Jul 31 13:07	0° ♌		asc. node	2910 Jul 13 15:32	9° ♋ 59'39	
morning set	2909 Aug 01 02:20	1° ♌ 08'48		morning set	2910 Jul 16 14:00	16° ♋ 03'55	
					2910 Jul 23 01:11	0° ♌	
superior conj	2909 Aug 08 07:29	16° ♌ 27'28	1°39'13	superior conj	2910 Jul 23 15:01	1° ♌ 14'53	1°28'00
minimum elong	2909 Aug 08 05:53	16° ♌ 19'02	1°39'07	minimum elong	2910 Jul 23 12:47	1° ♌ 02'48	1°27'45
max. Earth dist.	2909 Aug 11 15:13	23° ♌ 23'37	1.34364 AU	max. Earth dist.	2910 Jul 25 16:25	5° ♌ 40'37	1.33216 AU
	2909 Aug 14 21:42	0° ♍		evening rise	2910 Jul 31 01:52	16° ♌ 54'21	
evening rise	2909 Aug 16 07:58	2° ♍ 48'14			2910 Aug 06 21:38	0° ♍	
	2909 Aug 31 22:35	0° ♎		desc. node	2910 Aug 20 08:30	21° ♍ 49'44	
desc. node	2909 Sep 02 11:30	2° ♎ 20'44			2910 Aug 26 11:46	0° ♎	
evening max el	2909 Sep 20 03:54	24° ♎ 36'37	27°03'58	evening max el	2910 Sep 02 15:15	7° ♎ 50'49	27°25'34
	2909 Sep 27 02:50	0° ♏		retrograde	2910 Sep 16 05:54	15° ♎ 07'58	
retrograde	2909 Oct 03 10:20	1° ♏ 53'46		evening set	2910 Sep 23 09:28	12° ♎ 29'37	
	2909 Oct 09 04:01	30° ♏ ♎		min. Earth dist.	2910 Sep 27 01:56	9° ♎ 14'36	0.63773 AU
evening set	2909 Oct 10 06:03	29° ♎ 12'15		inferior conj	2910 Sep 29 15:11	6° ♎ 37'40	-3°-9'-13
min. Earth dist.	2909 Oct 14 04:09	25° ♎ 22'51	0.65292 AU	minimum elong	2910 Sep 29 20:12	6° ♎ 24'46	3°07'34
inferior conj	2909 Oct 16 04:54	23° ♎ 04'44	-2°-10'-21	morning rise	2910 Oct 06 09:15	1° ♎ 16'46	
minimum elong	2909 Oct 16 08:28	22° ♎ 54'36	2°08'58	direct	2910 Oct 08 20:10	0° ♎ 47'06	
morning rise	2909 Oct 22 12:35	17° ♎ 27'17		asc. node	2910 Oct 09 14:46	0° ♎ 50'06	
asc. node	2909 Oct 22 17:44	17° ♎ 21'23		morning max el	2910 Oct 15 09:23	4° ♎ 12'26	17°52'42
direct	2909 Oct 25 04:46	16° ♎ 48'38		morning set	2910 Nov 01 01:30	29° ♎ 46'42	
morning max el	2909 Oct 31 17:01	20° ♎ 18'54	18°09'37		2910 Nov 01 04:35	0° ♏	
	2909 Nov 08 02:15	0° ♏					
morning set	2909 Nov 19 01:50	17° ♏ 45'09		superior conj	2910 Nov 13 15:08	20° ♏ 59'44	0°18'23
	2909 Nov 26 13:57	0° ♐		minimum elong	2910 Nov 13 17:07	21° ♏ 07'49	0°18'07
desc. node	2909 Nov 29 10:49	4° ♐ 36'58		desc. node	2910 Nov 16 07:50	25° ♏ 23'03	
					2910 Nov 19 04:46	0° ♐	
superior conj	2909 Dec 03 16:38	11° ♐ 22'20	0°-28'-27	max. Earth dist.	2910 Nov 19 10:52	0° ♐ 24'17	1.44294 AU
minimum elong	2909 Dec 03 13:01	11° ♐ 07'59	0°27'59	evening rise	2910 Nov 29 12:49	16° ♐ 10'54	
max. Earth dist.	2909 Dec 06 16:40	16° ♐ 06'37	1.45078 AU		2910 Dec 08 15:09	0° ♑	
	2909 Dec 15 13:52	0° ♑		greatest brilliancy	2910 Dec 22 00:10	19° ♑ 10'06	-0.5m
evening rise	2909 Dec 20 02:52	7° ♑ 03'32		evening max el	2910 Dec 27 19:59	26° ♑ 06'24	20°37'20
	2910 Jan 04 02:28	0° ≈			2911 Jan 01 16:20	0° ≈	
greatest brilliancy	2910 Jan 05 18:56	2° ≈ 27'05	-0.7m	retrograde	2911 Jan 04 23:29	0° ≈ 54'52	
evening max el	2910 Jan 13 18:00	12° ≈ 35'39	19°36'05	asc. node	2911 Jan 05 14:02	0° ≈ 52'50	
asc. node	2910 Jan 18 17:00	16° ≈ 19'08			2911 Jan 08 01:46	30° ♒ ♑	
retrograde	2910 Jan 21 01:28	16° ≈ 49'12		evening set	2911 Jan 08 20:11	29° ♑ 29'03	
evening set	2910 Jan 24 13:11	15° ≈ 37'57		inferior conj	2911 Jan 14 06:26	23° ♑ 17'45	2°37'34
inferior conj	2910 Jan 30 01:59	9° ≈ 39'12	3°09'26	minimum elong	2911 Jan 14 03:53	23° ♑ 26'31	2°36'50
minimum elong	2910 Jan 29 23:38	9° ≈ 46'55	3°08'56	min. Earth dist.	2911 Jan 14 20:31	22° ♑ 29'42	0.67422 AU
min. Earth dist.	2910 Jan 31 05:17	8° ≈ 09'32	0.66625 AU	morning rise	2911 Jan 19 11:08	17° ♑ 02'28	
morning rise	2910 Feb 04 09:23	3° ≈ 24'22		direct	2911 Jan 24 23:16	14° ♑ 37'17	
direct	2910 Feb 10 11:53	0° ≈ 42'13					

morning max el	2911 Feb 05 02:58	21°☿16'32	24°17'56		2912 Jan 12 18:51	0°☿	
desc. node	2911 Feb 12 07:05	29°☿31'13		morning max el	2912 Jan 18 12:49	4°☿38'13	22°49'03
	2911 Feb 12 16:10	0°♊		greatest brilliancy	2912 Jan 23 04:41	9°☿50'13	-0.3m
	2911 Mar 05 05:35	0°♋		desc. node	2912 Jan 30 04:07	18°☿53'11	
morning set	2911 Mar 12 22:26	12°♋54'56			2912 Feb 06 22:56	0°♌	
max. Earth dist.	2911 Mar 16 16:16	19°♋32'43	1.37867 AU	morning set	2912 Feb 21 19:09	23°♌12'04	
	2911 Mar 22 07:46	0°♍			2912 Feb 25 20:24	0°♋	
				max. Earth dist.	2912 Feb 26 11:37	1°♋05'01	1.40029 AU
superior conj	2911 Mar 23 15:54	2°♍33'26	-1°-35'-30	superior conj	2912 Mar 05 05:48	14°♋48'26	-1°-55'-37
minimum elong	2911 Mar 23 20:21	2°♍54'50	1°34'58	minimum elong	2912 Mar 05 09:46	15°♋06'29	1°55'21
evening rise	2911 Apr 01 11:12	19°♍51'25			2912 Mar 13 08:38	0°♎	
asc. node	2911 Apr 03 13:20	23°♍57'30		evening rise	2912 Mar 15 01:48	3°♎15'57	
	2911 Apr 06 17:26	0°♏		asc. node	2912 Mar 20 10:23	13°♎17'26	
evening max el	2911 Apr 18 01:14	16°♏41'40	19°05'22	evening max el	2912 Mar 31 05:19	29°♎10'17	18°27'14
retrograde	2911 Apr 26 19:02	20°♏56'43			2912 Apr 01 02:57	0°♐	
evening set	2911 Apr 28 21:14	20°♏43'07		retrograde	2912 Apr 07 17:25	2°♐52'27	
inferior conj	2911 May 07 03:00	16°♐29'54	1°10'18	evening set	2912 Apr 10 01:23	2°♐32'03	
minimum elong	2911 May 07 05:41	16°♐25'18	1°09'23		2912 Apr 14 21:26	30°♑♎	
min. Earth dist.	2911 May 10 03:16	14°♐26'16	0.56556 AU	inferior conj	2912 Apr 17 12:08	27°♎59'17	2°30'18
desc. node	2911 May 11 06:15	13°♐42'53		minimum elong	2912 Apr 17 15:59	27°♎51'32	2°29'18
morning rise	2911 May 15 09:53	11°♐34'09		min. Earth dist.	2912 Apr 20 22:40	25°♎14'17	0.58449 AU
direct	2911 May 20 11:56	10°♐33'33		morning rise	2912 Apr 25 02:19	22°♎31'44	
morning max el	2911 Jun 03 18:21	17°♐53'41	25°37'37	desc. node	2912 Apr 27 03:18	21°♎38'43	
	2911 Jun 13 19:07	0°♒		direct	2912 May 01 03:15	20°♎56'52	
asc. node	2911 Jun 30 12:35	29°♒49'55		morning max el	2912 May 15 12:40	28°♎39'12	26°55'24
	2911 Jun 30 14:30	0°♓			2912 May 16 20:42	0°♐	
morning set	2911 Jul 01 01:38	0°♓58'35			2912 Jun 06 11:30	0°♒	
				morning set	2912 Jun 14 11:31	15°♒46'15	
superior conj	2911 Jul 08 01:40	16°♓10'27	1°12'02	asc. node	2912 Jun 16 09:38	19°♒50'53	
minimum elong	2911 Jul 07 23:18	15°♓57'29	1°11'40		2912 Jun 21 01:20	0°♓	
max. Earth dist.	2911 Jul 09 00:32	18°♓15'45	1.32477 AU				
	2911 Jul 14 11:48	0°♑		superior conj	2912 Jun 21 13:27	1°♓06'49	0°52'02
evening rise	2911 Jul 15 03:55	1°♑23'48		minimum elong	2912 Jun 21 11:26	0°♓55'39	0°51'38
	2911 Jul 30 20:33	0°♒		max. Earth dist.	2912 Jun 21 12:06	0°♓59'18	1.32133 AU
desc. node	2911 Aug 07 05:32	10°♒36'31		evening rise	2912 Jun 28 11:21	16°♓07'12	
evening max el	2911 Aug 15 23:04	20°♒32'14	27°16'07		2912 Jul 05 10:07	0°♑	
retrograde	2911 Aug 29 18:51	27°♒46'57		desc. node	2912 Jul 24 02:34	28°♑23'15	
evening set	2911 Sep 05 22:53	25°♒23'50			2912 Jul 25 13:35	0°♒	
min. Earth dist.	2911 Sep 09 13:15	22°♒35'45	0.61939 AU	evening max el	2912 Jul 28 00:52	2°♒29'48	26°33'32
inferior conj	2911 Sep 12 13:48	19°♒50'45	-4°-3'-8	retrograde	2912 Aug 11 00:06	9°♒41'32	
minimum elong	2911 Sep 12 19:25	19°♒37'55	4°01'45	evening set	2912 Aug 17 17:41	7°♒47'08	
morning rise	2911 Sep 19 18:51	14°♒49'49		min. Earth dist.	2912 Aug 21 14:26	5°♒11'42	0.59897 AU
direct	2911 Sep 22 03:13	14°♒26'01		inferior conj	2912 Aug 24 21:15	2°♒34'56	-4°-45'-8
asc. node	2911 Sep 26 11:49	15°♒50'39		minimum elong	2912 Aug 25 01:38	2°♒26'09	4°44'31
morning max el	2911 Sep 29 00:45	17°♒54'52	17°53'56		2912 Aug 28 08:07	30°♑♒♑	
	2911 Oct 07 16:38	0°♓		morning rise	2912 Sep 01 12:59	27°♑♑56'28	
morning set	2911 Oct 14 21:33	12°♓46'18		direct	2912 Sep 03 21:51	27°♑♑35'59	
	2911 Oct 24 13:32	0°♔			2912 Sep 10 00:23	0°♒	
superior conj	2911 Oct 25 16:32	1°♔56'37	0°56'35	morning max el	2912 Sep 11 11:53	1°♒17'34	18°14'34
minimum elong	2911 Oct 25 20:50	2°♔15'07	0°56'02	asc. node	2912 Sep 12 08:52	2°♒10'44	
max. Earth dist.	2911 Nov 02 00:51	14°♔16'12	1.42883 AU	morning set	2912 Sep 27 08:14	26°♒27'44	
desc. node	2911 Nov 03 04:52	16°♔10'21			2912 Sep 29 05:02	0°♓	
evening rise	2911 Nov 09 01:13	25°♔30'00		superior conj	2912 Oct 06 18:48	14°♓06'23	1°23'13
	2911 Nov 11 22:40	0°♊		minimum elong	2912 Oct 06 22:40	14°♓23'54	1°22'49
	2911 Dec 02 14:49	0°☿		max. Earth dist.	2912 Oct 14 09:11	27°♓28'09	1.41028 AU
greatest brilliancy	2911 Dec 05 21:27	4°☿11'34	-0.4m		2912 Oct 15 21:07	0°♔	
evening max el	2911 Dec 10 16:21	9°☿38'05	21°49'44	evening rise	2912 Oct 19 06:53	5°♔38'13	
retrograde	2911 Dec 19 20:33	15°☿05'45		desc. node	2912 Oct 20 01:54	6°♔55'30	
asc. node	2911 Dec 23 11:05	13°☿55'04			2912 Nov 04 04:00	0°♊	
evening set	2911 Dec 24 03:59	13°☿24'12		greatest brilliancy	2912 Nov 16 04:12	16°♊14'03	-0.2m
inferior conj	2911 Dec 29 13:26	7°☿03'49	1°57'40	evening max el	2912 Nov 22 08:05	23°♊12'43	23°08'42
minimum elong	2911 Dec 29 11:09	7°☿11'44	1°56'52	retrograde	2912 Dec 02 15:06	29°♊18'49	
min. Earth dist.	2911 Dec 29 15:43	6°☿55'56	0.67835 AU	evening set	2912 Dec 07 10:58	27°♊20'46	
morning rise	2912 Jan 03 18:06	0°☿49'49		asc. node	2912 Dec 09 08:07	25°♊29'54	
	2912 Jan 04 20:16	30°♑♒♒		inferior conj	2912 Dec 12 21:06	20°♊55'16	1°11'10
direct	2912 Jan 08 15:07	28°♊46'14					

minimum elong	2912 Dec 12 19:32	21°♂00'41	1°10'33	minimum elong	2913 Nov 27 03:08	4°♂50'22	0°19'02
min. Earth dist.	2912 Dec 12 12:31	21°♂24'51	0.67891 AU		2913 Dec 01 03:15	30°♂♂	
morning rise	2912 Dec 18 04:07	14°♂44'39		morning rise	2913 Dec 02 15:08	28°♂43'58	
direct	2912 Dec 22 10:34	13°♂03'53		direct	2913 Dec 06 08:21	27°♂24'47	
morning max el	2912 Dec 31 03:26	18°♂08'24	21°24'36		2913 Dec 12 01:53	0°♂	
greatest brilliancy	2913 Jan 05 05:25	23°♂55'56	-0.4m	morning max el	2913 Dec 14 01:27	1°♂49'11	20°10'45
	2913 Jan 09 20:30	0°♂		greatest brilliancy	2913 Dec 20 19:50	9°♂56'44	-0.6m
desc. node	2913 Jan 16 01:10	8°♂44'43		desc. node	2914 Jan 02 22:11	28°♂56'58	
	2913 Jan 30 02:28	0°♂			2914 Jan 03 14:50	0°♂	
morning set	2913 Jan 31 11:01	2°♂08'07		morning set	2914 Jan 10 08:04	10°♂16'49	
max. Earth dist.	2913 Feb 07 12:06	13°♂29'45	1.42091 AU	max. Earth dist.	2914 Jan 20 20:44	26°♂49'38	1.43767 AU
					2914 Jan 22 20:05	0°♂	
superior conj	2913 Feb 14 22:55	26°♂03'31	-2°-5'-49	superior conj	2914 Jan 26 14:37	6°♂08'35	-2°00'-59
minimum elong	2913 Feb 14 23:56	26°♂07'55	2°05'50	minimum elong	2914 Jan 26 10:12	5°♂50'26	2°00'48
	2913 Feb 17 05:16	0°♂		evening rise	2914 Feb 08 11:39	27°♂55'30	
evening rise	2913 Feb 26 03:24	16°♂00'19			2914 Feb 09 16:24	0°♂	
	2913 Mar 05 23:53	0°♂		asc. node	2914 Feb 22 04:28	20°♂29'58	
asc. node	2913 Mar 07 07:26	2°♂11'06		evening max el	2914 Feb 26 03:42	25°♂18'14	18°10'04
evening max el	2913 Mar 14 15:13	12°♂05'28	18°08'58	retrograde	2914 Mar 04 14:28	28°♂42'05	
retrograde	2913 Mar 21 09:15	15°♂30'58		evening set	2914 Mar 07 09:43	28°♂02'08	
evening set	2913 Mar 23 23:04	15°♂01'27		inferior conj	2914 Mar 13 15:49	22°♂47'23	3°38'09
inferior conj	2913 Mar 30 17:37	10°♂07'25	3°17'41	minimum elong	2914 Mar 13 16:36	22°♂45'17	3°38'08
minimum elong	2913 Mar 30 20:17	10°♂01'10	3°17'17	min. Earth dist.	2914 Mar 16 10:05	19°♂52'14	0.62713 AU
min. Earth dist.	2913 Apr 03 00:13	7°♂05'03	0.60612 AU	morning rise	2914 Mar 19 21:18	16°♂44'53	
morning rise	2913 Apr 06 14:14	4°♂18'05		direct	2914 Mar 26 19:15	14°♂08'35	
direct	2913 Apr 13 06:38	2°♂07'59		desc. node	2914 Mar 31 21:23	15°♂22'27	
desc. node	2913 Apr 14 00:20	2°♂09'30		morning max el	2914 Apr 09 18:59	22°♂05'25	27°49'16
morning max el	2913 Apr 27 13:02	10°♂01'31	27°40'57		2914 Apr 16 17:40	0°♂	
	2913 May 13 00:09	0°♂			2914 May 06 03:35	0°♂	
morning set	2913 May 29 17:51	0°♂20'52		morning set	2914 May 13 18:31	14°♂35'51	
	2913 May 29 13:48	0°♂		max. Earth dist.	2914 May 19 06:47	26°♂04'42	1.32645 AU
asc. node	2913 Jun 03 06:42	9°♂57'53		superior conj	2914 May 21 09:37	0°♂38'31	0°02'35
max. Earth dist.	2913 Jun 04 23:25	13°♂39'37	1.32184 AU	minimum elong	2914 May 21 09:30	0°♂37'51	0°02'34
				behind sun begin	2914 May 21 04:20	0°♂09'57	
superior conj	2913 Jun 06 00:41	15°♂58'03	0°28'39	behind sun end	2914 May 21 14:39	1°♂05'48	
minimum elong	2913 Jun 05 23:26	15°♂51'09	0°28'22	asc. node	2914 May 21 03:45	0°♂06'44	
	2913 Jun 12 11:10	0°♂			2914 May 21 02:30	0°♂	
evening rise	2913 Jun 12 21:56	0°♂57'19		evening rise	2914 May 28 09:46	15°♂47'43	
	2913 Jun 28 18:08	0°♂			2914 Jun 04 11:35	0°♂	
evening max el	2913 Jul 09 19:33	13°♂40'39	25°21'02	evening max el	2914 Jun 21 09:20	24°♂16'16	23°49'02
desc. node	2913 Jul 10 23:35	14°♂45'21		desc. node	2914 Jun 27 20:36	29°♂10'37	
retrograde	2913 Jul 23 19:26	20°♂47'11			2914 Jun 29 13:51	0°♂	
evening set	2913 Jul 29 13:18	19°♂30'42		retrograde	2914 Jul 05 02:29	1°♂09'27	
min. Earth dist.	2913 Aug 03 07:29	16°♂49'38	0.57865 AU	evening set	2914 Jul 09 10:02	0°♂28'30	
inferior conj	2913 Aug 06 10:10	14°♂40'48	-5°-4'-2		2914 Jul 10 18:29	30°♂♂	
minimum elong	2913 Aug 06 10:35	14°♂40'04	5°04'03	min. Earth dist.	2914 Jul 15 19:42	27°♂25'23	0.56147 AU
morning rise	2913 Aug 14 11:28	10°♂25'07		inferior conj	2914 Jul 18 02:52	26°♂01'45	-4°-45'-9
direct	2913 Aug 16 23:54	10°♂05'52		minimum elong	2914 Jul 17 21:36	26°♂09'47	4°44'27
morning max el	2913 Aug 25 15:28	14°♂10'55	18°55'55	morning rise	2914 Jul 26 12:32	22°♂04'44	
asc. node	2913 Aug 30 05:55	19°♂35'11		direct	2914 Jul 29 06:49	21°♂45'20	
	2913 Sep 05 15:23	0°♂		morning max el	2914 Aug 08 08:43	26°♂25'54	19°58'53
morning set	2913 Sep 11 05:08	10°♂38'48			2914 Aug 11 16:15	0°♂	
superior conj	2913 Sep 19 16:32	27°♂13'28	1°38'46	asc. node	2914 Aug 17 02:58	7°♂49'56	
minimum elong	2913 Sep 19 18:45	27°♂24'06	1°38'38	morning set	2914 Aug 26 09:04	25°♂11'09	
	2913 Sep 21 03:35	0°♂			2914 Aug 28 17:47	0°♂	
max. Earth dist.	2913 Sep 26 13:41	9°♂58'00	1.38972 AU	superior conj	2914 Sep 03 04:34	11°♂03'48	1°44'51
evening rise	2913 Sep 30 12:05	16°♂51'32		minimum elong	2914 Sep 03 05:01	11°♂06'03	1°44'51
desc. node	2913 Oct 06 22:53	27°♂34'20		max. Earth dist.	2914 Sep 08 19:01	21°♂58'53	1.36963 AU
	2913 Oct 08 11:25	0°♂		evening rise	2914 Sep 12 15:46	29°♂08'06	
	2913 Oct 29 16:49	0°♂			2914 Sep 13 03:17	0°♂	
evening max el	2913 Nov 04 21:07	6°♂51'10	24°28'08	desc. node	2914 Sep 23 19:54	18°♂02'48	
retrograde	2913 Nov 16 05:49	13°♂29'31			2914 Oct 01 18:22	0°♂	
evening set	2913 Nov 21 15:30	11°♂15'03		evening max el	2914 Oct 18 09:20	20°♂32'34	25°40'50
asc. node	2913 Nov 26 05:10	6°♂03'50		retrograde	2914 Oct 30 15:54	27°♂33'51	
min. Earth dist.	2913 Nov 26 08:25	5°♂53'00	0.67607 AU				
inferior conj	2913 Nov 27 03:37	4°♂48'47	0°19'13				

evening set	2914 Nov 05 15:55	25° \mathbb{M} 04'43		retrograde	2915 Oct 13 20:52	11° \mathbb{M} 25'12	
min. Earth dist.	2914 Nov 10 01:03	20° \mathbb{M} 18'07	0.66988 AU	evening set	2915 Oct 20 10:14	8° \mathbb{M} 45'52	
inferior conj	2914 Nov 11 07:13	18° \mathbb{M} 42'07	0°-36'-55	min. Earth dist.	2915 Oct 24 12:05	4° \mathbb{M} 35'52	0.66013 AU
minimum elong	2914 Nov 11 08:10	18° \mathbb{M} 39'04	0°36'31	inferior conj	2915 Oct 26 05:56	2° \mathbb{M} 31'28	-1°-35'-52
asc. node	2914 Nov 13 02:11	16° \mathbb{M} 28'43		minimum elong	2915 Oct 26 08:32	2° \mathbb{M} 23'43	1°34'49
morning rise	2914 Nov 17 01:15	12° \mathbb{M} 45'47			2915 Oct 28 10:48	30° \mathbb{R} $\underline{\mathbb{A}}$	
direct	2914 Nov 20 07:00	11° \mathbb{M} 45'21		asc. node	2915 Oct 30 23:13	27° $\underline{\mathbb{A}}$ 39'42	
morning max el	2914 Nov 27 07:19	15° \mathbb{M} 40'28	19°11'02	morning rise	2915 Nov 01 08:14	26° $\underline{\mathbb{A}}$ 46'30	
greatest brilliancy	2914 Dec 08 00:55	29° \mathbb{M} 47'26	-0.7m	direct	2915 Nov 04 04:38	26° $\underline{\mathbb{A}}$ 01'07	
	2914 Dec 08 04:17	0° \mathbb{A}		morning max el	2915 Nov 10 19:22	29° $\underline{\mathbb{A}}$ 37'43	18°27'15
morning set	2914 Dec 20 10:39	18° \mathbb{A} 51'04			2915 Nov 11 04:05	0° \mathbb{M}	
desc. node	2914 Dec 20 19:11	19° \mathbb{A} 24'14		morning set	2915 Nov 30 14:33	28° \mathbb{M} 44'23	
	2914 Dec 27 14:19	0° \mathbb{B}			2915 Dec 01 09:24	0° \mathbb{A}	
max. Earth dist.	2915 Jan 03 12:04	10° \mathbb{B} 50'01	1.44843 AU	desc. node	2915 Dec 07 16:13	10° \mathbb{A} 01'59	
superior conj	2915 Jan 06 05:24	15° \mathbb{B} 08'14	-1°-37'-6	superior conj	2915 Dec 16 07:18	23° \mathbb{A} 38'58	0°-56'-6
minimum elong	2915 Jan 05 20:34	14° \mathbb{B} 33'14	1°36'18	minimum elong	2915 Dec 16 00:17	23° \mathbb{A} 11'24	0°55'15
	2915 Jan 15 11:43	0° \mathbb{A}		max. Earth dist.	2915 Dec 17 06:41	25° \mathbb{A} 10'43	1.45202 AU
evening rise	2915 Jan 20 22:30	8° \mathbb{A} 55'06			2915 Dec 20 08:27	0° \mathbb{B}	
	2915 Feb 02 23:24	0° \mathbb{H}		evening rise	2916 Jan 01 10:03	18° \mathbb{B} 58'28	
asc. node	2915 Feb 09 01:29	8° \mathbb{H} 03'35			2916 Jan 08 09:42	0° \mathbb{A}	
evening max el	2915 Feb 09 15:53	8° \mathbb{H} 41'17	18°29'51	greatest brilliancy	2916 Jan 13 15:23	8° \mathbb{A} 08'22	-0.7m
retrograde	2915 Feb 16 04:44	12° \mathbb{H} 16'26		evening max el	2916 Jan 24 01:24	22° \mathbb{A} 09'40	19°07'14
evening set	2915 Feb 19 05:31	11° \mathbb{H} 25'13		asc. node	2916 Jan 26 22:31	24° \mathbb{A} 39'08	
inferior conj	2915 Feb 25 02:41	5° \mathbb{H} 51'25	3°38'20	retrograde	2916 Jan 31 00:14	26° \mathbb{A} 07'00	
minimum elong	2915 Feb 25 01:49	5° \mathbb{H} 53'58	3°38'17	evening set	2916 Feb 03 07:29	25° \mathbb{A} 03'30	
min. Earth dist.	2915 Feb 27 05:33	3° \mathbb{H} 21'58	0.64535 AU	inferior conj	2916 Feb 08 22:38	19° \mathbb{A} 13'04	3°23'26
morning rise	2915 Mar 02 20:42	29° \mathbb{A} 41'23		minimum elong	2916 Feb 08 20:39	19° \mathbb{A} 19'21	3°23'07
	2915 Mar 02 12:00	30° \mathbb{R} \mathbb{A}		min. Earth dist.	2916 Feb 10 10:12	17° \mathbb{A} 19'58	0.65974 AU
direct	2915 Mar 09 15:31	26° \mathbb{A} 52'27		morning rise	2916 Feb 14 08:54	12° \mathbb{A} 59'03	
	2915 Mar 17 16:56	0° \mathbb{H}		direct	2916 Feb 20 18:25	10° \mathbb{A} 11'03	
desc. node	2915 Mar 18 18:24	0° \mathbb{H} 47'20		morning max el	2916 Mar 04 14:15	17° \mathbb{A} 46'34	26°24'52
morning max el	2915 Mar 23 04:18	4° \mathbb{H} 44'28	27°21'48	desc. node	2916 Mar 04 15:26	17° \mathbb{A} 49'32	
	2915 Apr 11 07:53	0° \mathbb{Y}			2916 Mar 14 20:38	0° \mathbb{H}	
morning set	2915 Apr 27 10:48	28° \mathbb{Y} 22'22			2916 Apr 03 06:34	0° \mathbb{Y}	
	2915 Apr 28 06:40	0° \mathbb{B}		morning set	2916 Apr 09 15:08	11° \mathbb{Y} 30'05	
max. Earth dist.	2915 May 02 06:11	8° \mathbb{B} 02'23	1.33544 AU	max. Earth dist.	2916 Apr 13 18:30	19° \mathbb{Y} 27'38	1.34898 AU
superior conj	2915 May 05 14:18	15° \mathbb{B} 01'37	0°-25'-18	superior conj	2916 Apr 18 12:29	29° \mathbb{Y} 00'59	0°-53'-48
minimum elong	2915 May 05 15:35	15° \mathbb{B} 08'25	0°25'03	minimum elong	2916 Apr 18 15:17	29° \mathbb{Y} 15'19	0°53'17
asc. node	2915 May 08 00:46	20° \mathbb{B} 13'00			2916 Apr 18 23:58	0° \mathbb{B}	
evening rise	2915 May 12 20:58	0° \mathbb{I} 31'33		asc. node	2916 Apr 23 21:49	10° \mathbb{B} 12'52	
	2915 May 12 14:58	0° \mathbb{I}		evening rise	2916 Apr 26 05:37	15° \mathbb{B} 02'45	
	2915 May 29 19:06	0° \mathbb{B}			2916 May 03 21:46	0° \mathbb{I}	
evening max el	2915 Jun 03 00:42	4° \mathbb{B} 43'44	22°12'45	evening max el	2916 May 15 01:12	15° \mathbb{I} 35'24	20°46'01
desc. node	2915 Jun 14 17:38	11° \mathbb{B} 03'05		retrograde	2916 May 26 10:39	21° \mathbb{I} 08'48	
retrograde	2915 Jun 15 21:34	11° \mathbb{B} 06'12		evening set	2916 May 28 13:25	20° \mathbb{I} 58'03	
evening set	2915 Jun 18 19:27	10° \mathbb{B} 47'24		desc. node	2916 May 31 14:38	20° \mathbb{I} 07'55	
min. Earth dist.	2915 Jun 27 06:38	7° \mathbb{B} 08'41	0.55081 AU	inferior conj	2916 Jun 06 20:04	17° \mathbb{I} 00'35	-1°-48'-55
inferior conj	2915 Jun 28 02:31	6° \mathbb{B} 40'42	-3°-37'-27	minimum elong	2916 Jun 06 14:57	17° \mathbb{I} 07'54	1°47'06
minimum elong	2915 Jun 27 18:18	6° \mathbb{B} 52'15	3°35'14	min. Earth dist.	2916 Jun 07 18:50	16° \mathbb{I} 28'03	0.54924 AU
morning rise	2915 Jul 06 19:11	2° \mathbb{B} 49'46		morning rise	2916 Jun 15 15:30	12° \mathbb{I} 55'28	
direct	2915 Jul 09 21:10	2° \mathbb{B} 28'30		direct	2916 Jun 19 06:30	12° \mathbb{I} 27'09	
morning max el	2915 Jul 21 14:20	7° \mathbb{B} 56'11	21°22'16	morning max el	2916 Jul 02 10:03	18° \mathbb{I} 46'24	23°00'32
asc. node	2915 Aug 04 00:00	26° \mathbb{B} 42'08			2916 Jul 11 15:20	0° \mathbb{B}	
	2915 Aug 05 18:20	0° \mathbb{Q}		asc. node	2916 Jul 20 21:03	16° \mathbb{B} 02'41	
morning set	2915 Aug 10 17:30	9° \mathbb{Q} 56'34		morning set	2916 Jul 25 04:29	24° \mathbb{B} 49'32	
					2916 Jul 27 14:58	0° \mathbb{Q}	
superior conj	2915 Aug 18 02:37	25° \mathbb{Q} 23'47	1°43'10	superior conj	2916 Aug 01 07:28	10° \mathbb{Q} 03'43	1°35'06
minimum elong	2915 Aug 18 01:38	25° \mathbb{Q} 18'39	1°43'08	minimum elong	2916 Aug 01 05:32	9° \mathbb{Q} 53'25	1°34'56
	2915 Aug 20 08:18	0° \mathbb{P}		max. Earth dist.	2916 Aug 04 01:44	15° \mathbb{Q} 54'28	1.33820 AU
max. Earth dist.	2915 Aug 22 05:58	3° \mathbb{P} 50'38	1.35204 AU	evening rise	2916 Aug 09 01:26	26° \mathbb{Q} 04'30	
evening rise	2915 Aug 26 13:41	12° \mathbb{P} 16'15			2916 Aug 11 01:44	0° \mathbb{P}	
	2915 Sep 05 13:10	0° \mathbb{A}		desc. node	2916 Aug 27 13:57	28° \mathbb{P} 01'52	
desc. node	2915 Sep 10 16:55	8° \mathbb{A} 14'29			2916 Aug 28 22:22	0° \mathbb{A}	
	2915 Sep 26 21:32	0° \mathbb{M}		evening max el	2916 Sep 12 09:38	17° \mathbb{A} 36'53	27°16'36
evening max el	2915 Sep 30 21:35	4° \mathbb{M} 10'43	26°39'27				

retrograde	2916 Sep 25 20:19	24°♄55'32		minimum elong	2917 Jul 16 14:14	24°♄42'48	1°21'27
evening set	2916 Oct 02 20:00	22°♄13'47		max. Earth dist.	2917 Jul 18 06:03	28°♄19'04	1.32849 AU
min. Earth dist.	2916 Oct 06 15:20	18°♄39'39	0.64682 AU		2917 Jul 19 00:46	0°♄	
inferior conj	2916 Oct 08 21:31	16°♄12'10	-2°-35'-39	evening rise	2917 Jul 23 23:11	10°♄21'58	
minimum elong	2916 Oct 09 01:45	16°♄00'36	2°34'07		2917 Aug 03 08:59	0°♄	
morning rise	2916 Oct 15 09:31	10°♄41'34		desc. node	2917 Aug 14 10:59	17°♄14'54	
asc. node	2916 Oct 16 20:15	10°♄13'51			2917 Aug 25 03:32	0°♄	
direct	2916 Oct 17 23:02	10°♄07'18		evening max el	2917 Aug 25 19:54	0°♄39'24	27°25'42
morning max el	2916 Oct 24 11:00	13°♄34'43	18°00'17	retrograde	2917 Sep 08 13:24	7°♄56'03	
	2916 Nov 04 23:14	0°♄		evening set	2917 Sep 15 18:02	5°♄22'48	
morning set	2916 Nov 10 23:34	10°♄03'33		min. Earth dist.	2917 Sep 19 09:01	2°♄20'14	0.63017 AU
	2916 Nov 23 01:47	0°♄			2917 Sep 21 18:28	30°♄	
desc. node	2916 Nov 23 13:14	0°♄46'09		inferior conj	2917 Sep 22 03:17	29°♄38'17	-3°-33'-6
				minimum elong	2917 Sep 22 08:43	29°♄24'58	3°31'29
superior conj	2916 Nov 24 17:22	2°♄39'06	0°-7'-58	morning rise	2917 Sep 29 01:58	24°♄25'18	
minimum elong	2916 Nov 24 16:23	2°♄35'12	0°07'50	direct	2917 Oct 01 11:20	23°♄58'34	
behind sun begin	2916 Nov 24 07:07	1°♄58'01		asc. node	2917 Oct 03 17:19	24°♄22'47	
behind sun end	2916 Nov 25 01:40	3°♄12'20		morning max el	2917 Oct 08 03:20	27°♄24'46	17°50'56
max. Earth dist.	2916 Nov 29 01:28	9°♄33'09	1.44822 AU		2917 Oct 10 10:39	0°♄	
evening rise	2916 Dec 11 02:04	28°♄17'31		morning set	2917 Oct 24 08:47	22°♄32'46	
	2916 Dec 12 04:40	0°♄			2917 Oct 28 14:45	0°♄	
greatest brilliancy	2916 Dec 30 09:01	27°♄09'30	-0.6m				
	2917 Jan 01 11:41	0°♄		superior conj	2917 Nov 05 03:06	12°♄50'10	0°35'55
evening max el	2917 Jan 06 06:29	5°♄40'09	20°00'33	minimum elong	2917 Nov 05 06:30	13°♄04'21	0°35'27
asc. node	2917 Jan 12 19:33	10°♄01'30		desc. node	2917 Nov 10 10:17	21°♄33'37	
retrograde	2917 Jan 13 22:00	10°♄08'10		max. Earth dist.	2917 Nov 11 17:54	23°♄41'24	1.43759 AU
evening set	2917 Jan 17 13:12	8°♄51'06			2917 Nov 15 16:55	0°♄	
inferior conj	2917 Jan 23 00:42	2°♄46'41	2°57'00	evening rise	2917 Nov 20 11:01	7°♄25'26	
minimum elong	2917 Jan 22 22:12	2°♄55'04	2°56'24		2917 Dec 05 12:12	0°♄	
min. Earth dist.	2917 Jan 23 22:15	1°♄34'27	0.67010 AU	greatest brilliancy	2917 Dec 15 00:22	13°♄06'14	-0.4m
	2917 Jan 25 03:09	30°♄		evening max el	2917 Dec 20 06:11	19°♄12'14	21°07'02
morning rise	2917 Jan 28 06:34	26°♄31'11		retrograde	2917 Dec 28 19:45	24°♄16'50	
direct	2917 Feb 03 03:09	23°♄55'12		asc. node	2917 Dec 30 16:35	23°♄57'35	
	2917 Feb 13 23:06	0°♄		evening set	2918 Jan 01 20:45	22°♄44'38	
morning max el	2917 Feb 14 23:04	0°♄59'08	25°07'29	inferior conj	2918 Jan 07 06:31	16°♄29'18	2°21'32
desc. node	2917 Feb 19 12:28	6°♄00'44		minimum elong	2918 Jan 07 04:01	16°♄37'55	2°20'44
	2917 Mar 08 20:28	0°♄		min. Earth dist.	2918 Jan 07 15:30	15°♄58'20	0.67649 AU
morning set	2917 Mar 23 02:36	23°♄44'01		morning rise	2918 Jan 12 10:53	10°♄14'19	
	2917 Mar 26 13:05	0°♄		direct	2918 Jan 17 16:43	7°♄57'40	
max. Earth dist.	2917 Mar 26 19:22	0°♄29'14	1.36688 AU	morning max el	2918 Jan 28 07:34	14°♄17'06	23°39'59
				desc. node	2918 Feb 06 09:31	25°♄01'21	
superior conj	2917 Apr 02 01:14	12°♄27'52	-1°-21'-12		2918 Feb 10 02:05	0°♄	
minimum elong	2917 Apr 02 05:18	12°♄47'53	1°20'36		2918 Mar 01 18:35	0°♄	
evening rise	2917 Apr 10 09:25	29°♄13'50		morning set	2918 Mar 04 15:09	4°♄47'58	
asc. node	2917 Apr 10 18:52	0°♄01'18		max. Earth dist.	2918 Mar 08 14:24	11°♄40'15	1.38788 AU
	2917 Apr 10 18:36	0°♄					
evening max el	2917 Apr 27 13:47	27°♄06'31	19°36'27	superior conj	2918 Mar 16 00:51	25°♄12'58	-1°-44'-57
	2917 May 01 05:52	0°♄		minimum elong	2918 Mar 16 05:19	25°♄33'59	1°44'31
retrograde	2917 May 07 05:21	1°♄46'52			2918 Mar 18 13:22	0°♄	
evening set	2917 May 09 05:19	1°♄35'44		evening rise	2918 Mar 25 05:46	12°♄57'56	
	2917 May 13 16:52	30°♄		asc. node	2918 Mar 28 15:55	19°♄33'27	
inferior conj	2917 May 17 22:03	27°♄32'03	0°09'55		2918 Apr 03 12:41	0°♄	
minimum elong	2917 May 17 22:29	27°♄31'22	0°09'45	evening max el	2918 Apr 10 13:07	9°♄16'38	18°46'39
transit middle	2917 May 17 22:29	27°♄31'22	0°09'45	retrograde	2918 Apr 18 16:35	13°♄15'10	
transit begin	2917 May 17 19:23	27°♄36'17		evening set	2918 Apr 20 21:18	12°♄58'56	
transit end	2917 May 18 01:36	27°♄26'27		inferior conj	2918 Apr 28 18:48	8°♄37'50	1°48'22
desc. node	2917 May 18 11:40	27°♄10'28		minimum elong	2918 Apr 28 22:22	8°♄31'16	1°47'16
min. Earth dist.	2917 May 20 08:55	25°♄59'19	0.55727 AU	min. Earth dist.	2918 May 02 01:34	6°♄14'09	0.57314 AU
morning rise	2917 May 26 12:03	22°♄56'29		desc. node	2918 May 05 08:43	4°♄10'02	
direct	2917 May 31 00:17	22°♄10'53		morning rise	2918 May 06 19:03	3°♄27'56	
morning max el	2917 Jun 14 00:31	29°♄13'13	24°42'50	direct	2918 May 12 07:42	2°♄13'24	
	2917 Jun 14 19:44	0°♄		morning max el	2918 May 26 15:53	9°♄43'53	26°14'01
	2917 Jun 04 21:34	0°♄			2918 Jun 11 01:30	0°♄	
asc. node	2917 Jul 07 18:07	5°♄43'58		morning set	2918 Jun 24 03:23	24°♄37'11	
morning set	2917 Jul 09 16:19	9°♄44'57		asc. node	2918 Jun 24 15:10	25°♄39'28	
					2918 Jun 26 15:46	0°♄	
superior conj	2917 Jul 16 16:35	24°♄55'35	1°21'46				

superior conj	2018 Jul 01 03:54	9°52'11	1°04'00	max. Earth dist.	2019 Jun 15 04:21	23°45'17	1.32110 AU
minimum elong	2018 Jul 01 01:37	9°39'40	1°03'36				
max. Earth dist.	2018 Jul 01 16:09	10°59'36	1.32284 AU	superior conj	2019 Jun 15 15:40	24°47'36	0°42'29
evening rise	2018 Jul 08 03:49	24°58'36		minimum elong	2019 Jun 15 13:55	24°37'58	0°42'08
	2018 Jul 10 14:32	0°0			2019 Jun 18 00:24	0°5	
	2018 Jul 28 01:57	0°0		evening rise	2019 Jun 22 12:52	9°46'29	
desc. node	2018 Aug 01 08:01	5°38'52			2019 Jul 02 22:49	0°0	
evening max el	2018 Aug 08 01:42	13°04'16	27°02'10	desc. node	2019 Jul 19 05:01	22°53'28	
retrograde	2018 Aug 21 23:03	20°16'57		evening max el	2019 Jul 21 00:27	24°41'56	26°05'51
evening set	2018 Aug 29 00:07	18°04'53			2019 Jul 28 02:46	0°0	
min. Earth dist.	2018 Sep 01 15:58	15°24'07	0.61083 AU	retrograde	2019 Aug 03 23:59	1°51'29	
inferior conj	2018 Sep 04 19:55	12°40'42	-4°-23'00	evening set	2019 Aug 10 09:26	0°12'21	
minimum elong	2018 Sep 05 01:19	12°29'03	4°21'54		2019 Aug 10 19:00	30°0	
morning rise	2018 Sep 12 05:33	7°48'45		min. Earth dist.	2019 Aug 14 13:02	27°37'09	0.59022 AU
direct	2018 Sep 14 13:51	7°26'32		inferior conj	2019 Aug 17 19:50	25°09'52	-4°-56'-46
asc. node	2018 Sep 20 14:22	9°58'57		minimum elong	2019 Aug 17 22:54	25°04'07	4°56'31
morning max el	2018 Sep 21 17:14	10°59'41	18°00'15	morning rise	2019 Aug 25 15:50	20°41'22	
	2018 Oct 04 06:58	0°0		direct	2019 Aug 28 02:02	20°21'30	
morning set	2018 Oct 07 11:41	5°52'18		morning max el	2019 Sep 05 01:31	24°11'09	18°29'34
				asc. node	2019 Sep 07 11:25	26°48'22	
superior conj	2018 Oct 17 15:35	24°19'27	1°09'19		2019 Sep 09 21:06	0°0	
minimum elong	2018 Oct 17 19:57	24°38'37	1°08'48	morning set	2019 Sep 21 03:09	19°47'39	
	2018 Oct 20 21:55	0°0			2019 Sep 26 10:30	0°0	
max. Earth dist.	2018 Oct 25 05:57	7°19'18	1.42139 AU				
desc. node	2018 Oct 28 07:19	12°20'32		superior conj	2019 Sep 30 02:50	6°55'45	1°31'05
evening rise	2018 Oct 31 05:25	17°02'18		minimum elong	2019 Sep 30 06:04	7°10'45	1°30'48
	2018 Nov 08 14:18	0°0		max. Earth dist.	2019 Oct 07 12:38	20°14'20	1.40165 AU
greatest brilliancy	2018 Nov 28 06:33	27°25'27	-0.3m	evening rise	2019 Oct 11 20:47	27°37'05	
	2018 Nov 30 11:03	0°0			2019 Oct 13 07:20	0°0	
evening max el	2018 Dec 03 00:32	2°45'35	22°22'51	desc. node	2019 Oct 15 04:20	3°03'25	
retrograde	2018 Dec 12 15:48	8°29'20			2019 Nov 02 04:54	0°0	
evening set	2018 Dec 17 04:25	6°40'44		evening max el	2019 Nov 15 14:44	16°21'09	23°42'46
asc. node	2018 Dec 17 13:37	6°21'15		retrograde	2019 Nov 26 08:49	22°41'58	
inferior conj	2018 Dec 22 14:00	0°17'53	1°38'41	evening set	2019 Dec 01 10:33	20°36'32	
minimum elong	2018 Dec 22 11:59	0°24'55	1°37'55	asc. node	2019 Dec 04 10:39	17°25'03	
min. Earth dist.	2018 Dec 22 11:34	0°26'19	0.67908 AU	inferior conj	2019 Dec 06 21:22	14°10'06	0°49'44
	2018 Dec 22 19:10	30°0		minimum elong	2019 Dec 06 20:13	14°14'01	0°49'15
morning rise	2018 Dec 27 19:25	24°05'18		min. Earth dist.	2019 Dec 06 08:11	14°55'04	0.67812 AU
direct	2019 Jan 01 10:13	22°11'24		morning rise	2019 Dec 12 06:04	8°01'53	
morning max el	2019 Jan 10 19:00	27°41'59	22°12'12	direct	2019 Dec 16 06:38	6°30'47	
	2019 Jan 12 22:50	0°0		morning max el	2019 Dec 24 12:42	11°16'56	20°51'41
greatest brilliancy	2019 Jan 15 09:17	2°50'44	-0.3m	greatest brilliancy	2019 Dec 30 04:35	17°51'19	-0.5m
desc. node	2019 Jan 24 06:33	14°37'12			2020 Jan 07 23:37	0°0	
	2019 Feb 03 17:48	0°0		desc. node	2020 Jan 11 03:34	4°38'12	
morning set	2019 Feb 12 23:27	14°29'49		morning set	2020 Jan 23 05:05	22°58'57	
max. Earth dist.	2019 Feb 18 11:55	23°36'10	1.40942 AU		2020 Jan 27 15:59	0°0	
	2019 Feb 22 05:54	0°0		max. Earth dist.	2020 Jan 31 16:08	6°26'31	1.42861 AU
superior conj	2019 Feb 26 06:38	7°04'47	-2°-1'-26	superior conj	2020 Feb 07 13:17	17°50'26	-2°-5'-55
minimum elong	2019 Feb 26 09:41	7°18'25	2°01'20	minimum elong	2020 Feb 07 12:12	17°45'54	2°05'55
evening rise	2019 Mar 08 15:22	26°07'17			2020 Feb 14 14:33	0°0	
	2019 Mar 10 17:18	0°0		evening rise	2020 Feb 19 10:09	8°32'08	
asc. node	2019 Mar 15 12:57	8°43'36		asc. node	2020 Mar 01 09:59	27°23'48	
evening max el	2019 Mar 24 20:07	21°58'18	18°17'00		2020 Mar 03 04:16	0°0	
retrograde	2019 Mar 31 23:02	25°31'32		evening max el	2020 Mar 07 07:24	5°01'44	18°07'04
evening set	2019 Apr 03 09:37	25°07'22		retrograde	2020 Mar 13 21:17	8°25'14	
inferior conj	2019 Apr 10 12:59	20°25'11	2°54'07	evening set	2020 Mar 16 13:20	7°51'31	
minimum elong	2019 Apr 10 16:31	20°17'35	2°53'22	inferior conj	2020 Mar 23 02:06	2°48'25	3°29'16
min. Earth dist.	2019 Apr 13 23:04	17°29'58	0.59359 AU	minimum elong	2020 Mar 23 04:00	2°43'43	3°29'04
morning rise	2019 Apr 17 19:34	14°47'15			2020 Mar 25 22:17	30°0	
desc. node	2019 Apr 22 05:45	13°07'23		min. Earth dist.	2020 Mar 26 04:03	29°46'19	0.61521 AU
direct	2019 Apr 24 04:07	12°57'15		morning rise	2020 Mar 29 15:50	26°52'14	
morning max el	2019 May 08 12:46	20°44'38	27°19'16	direct	2020 Apr 05 11:34	24°29'40	
	2019 May 16 12:36	0°0		desc. node	2020 Apr 08 02:46	24°49'23	
	2019 Jun 03 20:47	0°0			2020 Apr 17 01:06	0°0	
morning set	2019 Jun 08 12:01	9°20'55		morning max el	2020 Apr 19 15:59	2°26'04	27°49'10
asc. node	2019 Jun 11 12:13	15°44'08			2020 May 09 21:37	0°0	

morning set	2920 May 22 16:14	23°♄48'29		desc. node	2921 Mar 25 23:48	9°♁02'47	
	2920 May 25 15:32	0°♂		morning max el	2921 Apr 01 23:44	14°♁46'36	27°41'35
asc. node	2920 May 28 09:15	5°♂52'32			2921 Apr 14 09:05	0°♁	
max. Earth dist.	2920 May 28 14:31	6°♂21'06	1.32329 AU		2921 May 02 12:17	0°♄	
				morning set	2921 May 06 13:44	7°♄52'46	
superior conj	2920 May 30 02:07	9°♂35'02	0°17'52	max. Earth dist.	2921 May 11 18:46	18°♄34'52	1.32971 AU
minimum elong	2920 May 30 01:18	9°♂30'33	0°17'42				
evening rise	2920 Jun 06 00:12	24°♂37'23		superior conj	2921 May 14 09:30	24°♄09'03	0°-9'-5
	2920 Jun 08 13:57	0°♄		minimum elong	2921 May 14 09:57	24°♄11'28	0°09'00
	2920 Jun 26 14:38	0°♄		behind sun begin	2921 May 14 05:32	23°♄47'45	
evening max el	2920 Jul 01 16:11	5°♄34'12	24°43'18	behind sun end	2921 May 14 14:22	24°♄35'11	
desc. node	2920 Jul 05 02:02	8°♄30'07		asc. node	2921 May 15 06:17	26°♄00'50	
retrograde	2920 Jul 15 14:34	12°♄37'28			2921 May 17 02:34	0°♂	
evening set	2920 Jul 20 18:45	11°♄36'55		evening rise	2921 May 21 11:58	9°♂25'36	
min. Earth dist.	2920 Jul 26 03:26	8°♄48'12	0.57076 AU		2921 Jun 01 04:42	0°♄	
inferior conj	2920 Jul 29 00:04	6°♄56'31	-5°-1'-30	evening max el	2921 Jun 13 05:40	16°♄02'26	23°07'39
minimum elong	2920 Jul 28 22:06	6°♄59'44	5°01'26	desc. node	2921 Jun 21 23:03	21°♄54'14	
morning rise	2920 Aug 06 05:08	2°♄50'06		retrograde	2921 Jun 26 16:38	22°♄45'15	
direct	2920 Aug 08 19:44	2°♄31'04		evening set	2921 Jun 30 08:27	22°♄15'57	
morning max el	2920 Aug 18 01:03	6°♄49'28	19°20'07	min. Earth dist.	2921 Jul 07 15:04	18°♄59'00	0.55595 AU
asc. node	2920 Aug 24 08:28	14°♄35'40		inferior conj	2921 Jul 09 08:42	17°♄58'18	-4°-22'-33
	2920 Sep 02 01:07	0°♄		minimum elong	2921 Jul 09 01:32	18°♄08'48	4°21'09
morning set	2920 Sep 04 03:21	4°♄08'25		morning rise	2921 Jul 17 21:33	14°♄05'37	
				direct	2921 Jul 20 18:34	13°♄45'50	
superior conj	2920 Sep 12 07:14	20°♄23'05	1°42'23	morning max el	2921 Jul 31 13:25	18°♄45'57	20°32'02
minimum elong	2920 Sep 12 08:41	20°♄30'10	1°42'20		2921 Aug 09 08:27	0°♄	
	2920 Sep 17 08:20	0°♄		asc. node	2921 Aug 11 05:30	3°♄07'37	
max. Earth dist.	2920 Sep 18 16:23	2°♄27'43	1.38093 AU	morning set	2921 Aug 19 09:26	18°♄46'45	
evening rise	2920 Sep 22 11:54	9°♄18'03			2921 Aug 24 19:48	0°♄	
desc. node	2920 Oct 01 01:20	23°♄38'27					
	2920 Oct 05 02:56	0°♄		superior conj	2921 Aug 26 23:58	4°♄27'12	1°44'59
evening max el	2920 Oct 28 03:00	0°♄00'35	25°00'19	minimum elong	2921 Aug 26 23:45	4°♄26'06	1°44'59
	2920 Oct 28 02:46	0°♄		max. Earth dist.	2921 Aug 31 23:10	14°♄20'09	1.36173 AU
retrograde	2920 Nov 08 21:50	6°♄50'50		evening rise	2921 Sep 04 23:55	21°♄58'13	
evening set	2920 Nov 14 13:35	4°♄29'38			2921 Sep 09 11:11	0°♄	
	2920 Nov 18 15:26	30°♄		desc. node	2921 Sep 17 22:21	14°♄00'29	
min. Earth dist.	2920 Nov 19 03:01	29°♄22'26	0.67377 AU		2921 Sep 28 22:37	0°♄	
inferior conj	2920 Nov 20 02:51	28°♄04'05	0°-4'-8	evening max el	2921 Oct 10 15:14	13°♄41'38	26°08'04
minimum elong	2920 Nov 20 02:58	28°♄03'45	0°04'06	retrograde	2921 Oct 23 05:55	20°♄50'07	
transit middle	2920 Nov 20 02:58	28°♄03'45	0°04'06	evening set	2921 Oct 29 11:39	18°♄16'11	
transit begin	2920 Nov 20 00:17	28°♄12'34		min. Earth dist.	2921 Nov 02 17:40	13°♄44'48	0.66608 AU
transit end	2920 Nov 20 05:38	27°♄54'57		inferior conj	2921 Nov 04 04:38	11°♄56'19	-1°-1'-41
asc. node	2920 Nov 20 07:41	27°♄48'14		minimum elong	2921 Nov 04 06:17	11°♄51'14	1°01'00
morning rise	2920 Nov 25 16:56	22°♄02'33		asc. node	2921 Nov 07 04:43	8°♄26'25	
direct	2920 Nov 29 04:54	20°♄51'56		morning rise	2921 Nov 10 01:58	6°♄04'11	
morning max el	2920 Dec 06 14:12	25°♄02'58	19°43'31	direct	2921 Nov 13 03:25	5°♄10'38	
	2920 Dec 10 21:14	0°♄		morning max el	2921 Nov 19 22:53	8°♄57'00	18°50'22
greatest brilliancy	2920 Dec 14 10:57	4°♄47'17	-0.6m		2921 Dec 05 00:50	0°♄	
desc. node	2920 Dec 28 00:35	24°♄57'34		morning set	2921 Dec 11 13:03	10°♄12'59	
	2920 Dec 31 07:16	0°♄		desc. node	2921 Dec 14 21:35	15°♄29'33	
morning set	2921 Jan 01 01:15	1°♄09'24			2921 Dec 24 03:28	0°♄	
max. Earth dist.	2921 Jan 13 03:23	20°♄04'01	1.44297 AU	max. Earth dist.	2921 Dec 26 20:09	4°♄13'56	1.45085 AU
superior conj	2921 Jan 17 17:48	27°♄25'51	-1°-53'-16	superior conj	2921 Dec 28 00:53	6°♄06'50	-1°-21'-23
minimum elong	2921 Jan 17 11:02	26°♄58'32	1°52'51	minimum elong	2921 Dec 27 15:57	5°♄31'42	1°20'26
	2921 Jan 19 07:54	0°♄		evening rise	2922 Jan 12 10:36	0°♄38'55	
evening rise	2921 Jan 31 09:47	20°♄04'33			2922 Jan 12 00:58	0°♄	
	2921 Feb 06 06:25	0°♁			2922 Jan 31 16:59	0°♁	
asc. node	2921 Feb 16 07:00	15°♁25'13		evening max el	2922 Feb 02 07:28	1°♁45'47	18°43'46
evening max el	2921 Feb 18 20:05	18°♁19'53	18°16'16	asc. node	2922 Feb 03 04:02	2°♁35'47	
retrograde	2921 Feb 25 06:51	21°♁47'15		retrograde	2922 Feb 08 23:36	5°♁28'51	
evening set	2921 Feb 28 04:17	21°♁02'47		evening set	2922 Feb 12 03:02	4°♁32'33	
inferior conj	2921 Mar 06 06:13	15°♁39'57	3°40'22		2922 Feb 16 22:42	30°♁	
minimum elong	2921 Mar 06 06:15	15°♁39'52	3°40'21	inferior conj	2922 Feb 17 21:20	28°♁55'139	3°33'34
min. Earth dist.	2921 Mar 08 18:12	12°♁53'34	0.63527 AU	minimum elong	2922 Feb 17 19:55	28°♁55'57	3°33'26
morning rise	2921 Mar 12 06:20	9°♁33'32		min. Earth dist.	2922 Feb 19 17:40	26°♁36'38	0.65200 AU
direct	2921 Mar 19 03:54	6°♁49'45		morning rise	2922 Feb 23 11:38	22°♁39'46	

direct	2922 Mar 02 03:17	19° 49 26		minimum elong	2923 Feb 01 17:55	12° 25 35	3°12'58
desc. node	2922 Mar 12 20:49	25° 12 25		min. Earth dist.	2923 Feb 03 01:32	10° 42 29	0.66470 AU
morning max el	2922 Mar 15 09:23	27° 35 54	27°00'38	morning rise	2923 Feb 07 04:13	6° 03 34	
	2922 Mar 17 16:02	0° 11		direct	2923 Feb 13 08:37	3° 19 42	
	2922 Apr 08 01:48	0° 10		morning max el	2923 Feb 25 18:48	10° 42 42	25°53'52
morning set	2922 Apr 20 01:26	21° 10 24'09		desc. node	2923 Feb 27 17:51	12° 46 19	
	2922 Apr 24 10:00	0° 08			2923 Mar 13 03:03	0° 11	
max. Earth dist.	2922 Apr 24 13:29	0° 08 17'37	1.34062 AU		2923 Mar 31 16:12	0° 10	
				morning set	2923 Apr 02 23:14	4° 10 16	
superior conj	2922 Apr 28 11:47	8° 23 17	0°-37'-23	max. Earth dist.	2923 Apr 06 20:50	11° 30 42	1.35612 AU
minimum elong	2922 Apr 28 13:42	8° 33 22	0°37'00				
asc. node	2922 May 02 03:21	16° 05 05		superior conj	2923 Apr 12 06:21	22° 09 42	-1°-5'-40
evening rise	2922 May 05 22:21	24° 04 58		minimum elong	2923 Apr 12 09:44	22° 26 49	1°05'06
	2922 May 08 19:29	0° 02			2923 Apr 16 02:25	0° 08	
evening max el	2922 May 26 00:29	26° 38 19	21°34'11	asc. node	2923 Apr 19 00:24	6° 00 35	
	2922 May 30 03:20	0° 02		evening rise	2923 Apr 20 05:14	8° 28 28	
retrograde	2922 Jun 07 07:36	2° 40 45			2923 May 01 23:40	0° 02	
desc. node	2922 Jun 08 20:04	2° 35 28		evening max el	2923 May 08 06:02	7° 45 36	20°14'06
evening set	2922 Jun 09 19:13	2° 26 47		retrograde	2923 May 18 21:24	12° 55 57	
	2922 Jun 16 07:31	30° 12		evening set	2923 May 20 21:41	12° 45 38	
inferior conj	2922 Jun 19 04:10	28° 26 20	-2°-55'-1	desc. node	2923 May 26 17:06	10° 38 06	
minimum elong	2922 Jun 18 20:35	28° 36 55	2°52'38	inferior conj	2923 May 29 23:34	8° 47 04	0°-57'-39
min. Earth dist.	2922 Jun 19 02:29	28° 28 41	0.54898 AU	minimum elong	2923 May 29 20:51	8° 51 04	0°56'40
morning rise	2922 Jun 27 22:44	24° 31 45		min. Earth dist.	2923 May 31 15:04	7° 48 49	0.55154 AU
direct	2922 Jul 01 05:37	24° 08 11		morning rise	2923 Jun 07 17:54	4° 30 53	
morning max el	2922 Jul 13 14:20	29° 58 05	22°02'40	direct	2923 Jun 11 17:08	3° 56 47	
	2922 Jul 13 15:09	0° 02		morning max el	2923 Jun 25 07:01	10° 35 06	23°44'25
asc. node	2922 Jul 29 02:33	22° 13 26			2923 Jul 09 17:16	0° 02	
	2922 Aug 02 01:16	0° 01		asc. node	2923 Jul 15 23:37	11° 43 46	
morning set	2922 Aug 03 19:14	3° 36 44		morning set	2923 Jul 19 06:49	18° 31 42	
					2923 Jul 24 14:58	0° 01	
superior conj	2922 Aug 11 01:17	18° 57 11	1°40'27				
minimum elong	2922 Aug 10 23:50	18° 49 33	1°40'22	superior conj	2923 Jul 26 08:14	3° 43 05	1°30'04
max. Earth dist.	2922 Aug 14 14:03	26° 17 08	1.34572 AU	minimum elong	2923 Jul 26 06:04	3° 31 23	1°29'48
	2922 Aug 16 10:08	0° 07		max. Earth dist.	2923 Jul 28 13:58	8° 31 00	1.33361 AU
evening rise	2922 Aug 19 04:20	5° 25 46		evening rise	2923 Aug 02 20:46	19° 27 36	
	2922 Sep 02 04:30	0° 01			2923 Aug 08 07:50	0° 07	
desc. node	2922 Sep 04 19:24	4° 03 21		desc. node	2923 Aug 22 16:27	23° 37 39	
evening max el	2922 Sep 23 03:49	27° 17 20	26°58'19		2923 Aug 27 07:57	0° 01	
	2922 Sep 26 05:19	0° 01		evening max el	2923 Sep 05 15:24	10° 34 58	27°24'06
retrograde	2922 Oct 06 08:26	4° 33 42		retrograde	2923 Sep 19 05:01	17° 52 34	
evening set	2922 Oct 13 02:39	1° 52 33		evening set	2923 Sep 26 07:51	15° 12 51	
	2922 Oct 15 04:12	30° 12		min. Earth dist.	2923 Sep 30 00:57	11° 53 10	0.64023 AU
min. Earth dist.	2922 Oct 17 01:45	27° 57 50	0.65495 AU	inferior conj	2923 Oct 02 12:25	9° 18 21	-3°00'-31
inferior conj	2922 Oct 19 00:39	25° 43 12	-2°-1'-16	minimum elong	2923 Oct 02 17:16	9° 05 43	2°58'53
minimum elong	2922 Oct 19 03:59	25° 33 39	1°59'58	morning rise	2923 Oct 09 04:55	3° 54 55	
morning rise	2922 Oct 25 06:55	20° 03 39		direct	2923 Oct 11 16:25	3° 24 09	
asc. node	2922 Oct 25 01:45	20° 10 13		asc. node	2923 Oct 11 22:47	3° 24 31	
direct	2922 Oct 28 00:10	19° 23 19		morning max el	2923 Oct 18 05:04	6° 49 39	17°54'06
morning max el	2922 Nov 03 12:45	22° 54 47	18°13'38		2923 Nov 02 13:25	0° 01	
	2922 Nov 09 04:30	0° 01		morning set	2923 Nov 04 01:47	2° 35 48	
morning set	2922 Nov 22 05:40	20° 44 22					
	2922 Nov 27 22:25	0° 01		superior conj	2923 Nov 16 22:34	24° 09 40	0°11'43
desc. node	2922 Dec 01 18:39	6° 10 28		minimum elong	2923 Nov 16 23:53	24° 14 59	0°11'31
				behind sun begin	2923 Nov 16 16:48	23° 46 09	
superior conj	2922 Dec 07 03:34	14° 42 24	0°-35'-48	behind sun end	2923 Nov 17 06:57	24° 43 47	
minimum elong	2922 Dec 06 23:00	14° 24 19	0°35'11	desc. node	2923 Nov 18 15:43	26° 56 33	
max. Earth dist.	2922 Dec 09 15:35	18° 38 45	1.45139 AU		2923 Nov 20 13:20	0° 01	
	2922 Dec 16 21:39	0° 01		max. Earth dist.	2923 Nov 22 10:10	2° 58 54	1.44452 AU
evening rise	2922 Dec 23 12:53	10° 20 40		evening rise	2923 Dec 03 00:01	19° 30 24	
	2923 Jan 05 06:12	0° 01			2923 Dec 09 21:08	0° 01	
greatest brilliancy	2923 Jan 08 04:57	4° 22 36	-0.7m	greatest brilliancy	2923 Dec 24 16:18	21° 28 02	-0.5m
evening max el	2923 Jan 16 15:19	15° 15 11	19°28'09	evening max el	2923 Dec 30 18:07	28° 46 07	20°27'23
asc. node	2923 Jan 21 01:04	18° 41 51			2924 Jan 01 00:22	0° 01	
retrograde	2923 Jan 23 20:18	19° 24 15		retrograde	2924 Jan 07 18:22	3° 29 14	
evening set	2923 Jan 27 06:51	18° 14 57		asc. node	2924 Jan 07 22:05	3° 29 06	
inferior conj	2923 Feb 01 20:11	12° 18 11	3°13'24	evening set	2924 Jan 11 13:35	2° 05 43	

	2924 Jan 13 19:25	30° $\text{R}\overline{\text{Z}}$		asc. node	2924 Dec 24 19:06	16° $\overline{\text{Z}}45'40$	
inferior conj	2924 Jan 17 00:06	25° $\overline{\text{Z}}56'00$	2°42'56	evening set	2924 Dec 25 21:21	16° $\overline{\text{Z}}00'36$	
minimum elong	2924 Jan 16 21:32	26° $\overline{\text{Z}}04'43$	2°42'14	inferior conj	2924 Dec 31 06:51	9° $\overline{\text{Z}}41'22$	2°04'11
min. Earth dist.	2924 Jan 17 16:02	25° $\overline{\text{Z}}01'45$	0.67327 AU	minimum elong	2924 Dec 31 04:29	9° $\overline{\text{Z}}49'32$	2°03'22
morning rise	2924 Jan 22 05:00	19° $\overline{\text{Z}}40'31$		min. Earth dist.	2924 Dec 31 10:50	9° $\overline{\text{Z}}27'31$	0.67798 AU
direct	2924 Jan 27 19:19	17° $\overline{\text{Z}}12'26$		morning rise	2925 Jan 05 11:21	3° $\overline{\text{Z}}26'58$	
morning max el	2924 Feb 08 03:27	23° $\overline{\text{Z}}58'35$	24°31'00	direct	2925 Jan 10 10:38	1° $\overline{\text{Z}}19'52$	
	2924 Feb 13 12:39	0° \approx		morning max el	2925 Jan 20 12:49	7° $\overline{\text{Z}}19'16$	23°02'09
desc. node	2924 Feb 14 14:54	1° \approx 20'35		greatest brilliancy	2925 Jan 25 08:53	12° $\overline{\text{Z}}43'31$	-0.3m
	2924 Mar 05 13:10	0° H		desc. node	2925 Jan 31 11:57	20° $\overline{\text{Z}}37'26$	
morning set	2924 Mar 15 01:46	15° $\text{H}56'33$			2925 Feb 07 03:40	0° \approx	
max. Earth dist.	2924 Mar 18 18:46	22° $\text{H}33'39$	1.37553 AU	morning set	2925 Feb 24 02:44	26° \approx 26'12	
	2924 Mar 22 19:05	0° Y			2925 Feb 26 05:42	0° H	
				max. Earth dist.	2925 Feb 28 13:34	3° $\text{H}58'41$	1.39710 AU
superior conj	2924 Mar 25 14:01	5° $\text{Y}19'54$	-1°-31'-54				
minimum elong	2924 Mar 25 18:25	5° $\text{Y}41'09$	1°31'20	superior conj	2925 Mar 08 06:35	17° $\text{H}42'58$	-1°-53'-6
evening rise	2924 Apr 03 06:16	22° $\text{Y}29'15$		minimum elong	2925 Mar 08 10:45	18° $\text{H}02'06$	1°52'47
asc. node	2924 Apr 04 21:27	25° $\text{Y}42'49$			2925 Mar 14 19:29	0° Y	
	2924 Apr 07 02:30	0° B		evening rise	2925 Mar 17 22:26	5° $\text{Y}58'56$	
evening max el	2924 Apr 19 23:24	19° $\text{B}33'21$	19°12'47	asc. node	2925 Mar 22 18:28	15° $\text{Y}05'56$	
retrograde	2924 Apr 28 22:41	23° $\text{B}54'39$			2925 Apr 01 06:43	0° B	
evening set	2924 May 01 00:03	23° $\text{B}41'53$		evening max el	2925 Apr 03 02:20	1° $\text{B}57'16$	18°31'37
inferior conj	2924 May 09 08:45	19° $\text{B}31'23$	0°55'17	retrograde	2925 Apr 10 18:02	5° $\text{B}43'03$	
minimum elong	2924 May 09 10:57	19° $\text{B}27'42$	0°54'32	evening set	2925 Apr 13 01:08	5° $\text{B}23'50$	
min. Earth dist.	2924 May 12 06:04	17° $\text{B}35'20$	0.56316 AU	inferior conj	2925 Apr 20 14:37	0° $\text{B}54'16$	2°20'18
desc. node	2924 May 12 14:06	17° $\text{B}22'24$		minimum elong	2925 Apr 20 18:29	0° $\text{B}46'40$	2°19'16
morning rise	2924 May 17 17:42	14° $\text{B}40'44$			2925 Apr 21 18:02	30° RY	
direct	2924 May 22 16:04	13° $\text{B}44'26$		min. Earth dist.	2925 Apr 24 00:45	28° $\text{Y}13'57$	0.58145 AU
morning max el	2924 Jun 05 21:23	21° $\text{B}00'39$	25°23'59	morning rise	2925 Apr 28 07:28	25° $\text{Y}30'58$	
	2924 Jun 13 16:08	0° II		desc. node	2925 Apr 29 11:08	24° $\text{Y}59'46$	
	2924 Jul 01 03:01	0° E		direct	2925 May 04 05:29	24° $\text{Y}01'20$	
asc. node	2924 Jul 01 20:42	1° $\text{E}31'48$			2925 May 16 19:11	0° B	
morning set	2924 Jul 02 18:32	3° $\text{E}26'26$		morning max el	2925 May 18 14:45	1° $\text{B}41'10$	26°45'40
					2925 Jun 07 20:04	0° II	
superior conj	2924 Jul 09 18:31	18° $\text{E}37'38$	1°14'45	morning set	2925 Jun 17 04:45	18° $\text{II}15'12$	
minimum elong	2924 Jul 09 16:08	18° $\text{E}24'38$	1°14'23	asc. node	2925 Jun 18 17:46	21° $\text{II}31'26$	
max. Earth dist.	2924 Jul 10 21:06	21° $\text{E}03'00$	1.32559 AU		2925 Jun 22 15:20	0° E	
	2924 Jul 15 00:57	0° Q					
evening rise	2924 Jul 16 21:45	3° $\text{Q}53'49$		superior conj	2925 Jun 24 06:14	3° $\text{E}34'09$	0°55'18
	2924 Jul 31 01:33	0° H		minimum elong	2925 Jun 24 04:07	3° $\text{E}22'33$	0°54'54
desc. node	2924 Aug 08 13:27	12° $\text{H}31'39$		max. Earth dist.	2925 Jun 24 08:17	3° $\text{E}45'28$	1.32154 AU
evening max el	2924 Aug 17 23:49	23° $\text{H}21'45$	27°19'38	evening rise	2925 Jul 01 04:30	18° $\text{E}35'36$	
	2924 Aug 28 00:53	0° A			2925 Jul 06 20:19	0° Q	
retrograde	2924 Aug 31 19:10	0° $\text{A}37'17$		desc. node	2925 Jul 26 10:27	0° $\text{H}28'59$	
	2924 Sep 04 10:20	30° RH			2925 Jul 26 00:36	0° H	
evening set	2924 Sep 07 23:39	28° $\text{H}11'00$		evening max el	2925 Jul 31 02:46	5° $\text{H}27'01$	26°42'05
min. Earth dist.	2924 Sep 11 13:55	25° $\text{H}19'35$	0.62225 AU	retrograde	2925 Aug 14 01:43	12° $\text{H}39'08$	
inferior conj	2924 Sep 14 12:59	22° $\text{H}34'48$	-3°-55'-36	evening set	2925 Aug 20 21:35	10° $\text{H}39'52$	
minimum elong	2924 Sep 14 18:36	22° $\text{H}21'43$	3°54'08	min. Earth dist.	2925 Aug 24 16:39	8° $\text{H}03'34$	0.60203 AU
morning rise	2924 Sep 21 16:24	17° $\text{H}30'44$		inferior conj	2925 Aug 27 22:58	5° $\text{H}24'27$	-4°-40'00
direct	2924 Sep 24 00:53	17° $\text{H}06'19$		minimum elong	2925 Aug 28 03:43	5° $\text{H}14'46$	4°39'16
asc. node	2924 Sep 27 19:51	18° $\text{H}11'36$		morning rise	2925 Sep 04 13:09	0° $\text{H}42'23$	
morning max el	2924 Sep 30 20:47	20° $\text{H}34'16$	17°52'33	direct	2925 Sep 06 21:43	0° $\text{H}21'33$	
	2924 Oct 07 22:03	0° A		morning max el	2925 Sep 14 08:45	4° $\text{H}00'46$	18°10'09
morning set	2924 Oct 16 19:10	15° $\text{A}27'47$		asc. node	2925 Sep 14 16:56	4° $\text{H}20'55$	
	2924 Oct 24 23:32	0° M		morning set	2925 Sep 30 04:00	29° $\text{H}04'14$	
					2925 Sep 30 15:51	0° A	
superior conj	2924 Oct 27 19:54	4° $\text{M}54'39$	0°51'32				
minimum elong	2924 Oct 28 00:04	5° $\text{M}12'26$	0°50'58	superior conj	2925 Oct 09 18:45	16° $\text{A}54'32$	1°19'55
max. Earth dist.	2924 Nov 04 00:37	16° $\text{M}54'41$	1.43123 AU	minimum elong	2925 Oct 09 22:48	17° $\text{A}12'44$	1°19'29
desc. node	2924 Nov 04 12:45	17° $\text{M}44'00$			2925 Oct 17 06:38	0° M	
evening rise	2924 Nov 11 10:56	28° $\text{M}44'59$		max. Earth dist.	2925 Oct 17 09:49	0° $\text{M}13'29$	1.41326 AU
	2924 Nov 12 06:12	0° A		desc. node	2925 Oct 22 09:46	8° $\text{M}29'51$	
	2924 Dec 02 15:06	0° $\overline{\text{Z}}$		evening rise	2925 Oct 22 13:27	8° $\text{M}44'44$	
greatest brilliancy	2924 Dec 07 18:29	6° $\overline{\text{Z}}44'07$	-0.4m		2925 Nov 05 08:51	0° A	
evening max el	2924 Dec 12 15:17	12° $\overline{\text{Z}}17'45$	21°38'25	greatest brilliancy	2925 Nov 19 23:22	19° $\text{A}52'10$	-0.2m
retrograde	2924 Dec 21 15:42	17° $\overline{\text{Z}}39'38$		evening max el	2925 Nov 25 07:41	25° $\text{A}52'11$	22°56'44

	2925 Nov 30 04:34	0°☿		evening max el	2926 Nov 07 21:01	9°☿30'04	24°16'28
retrograde	2925 Dec 05 10:38	1°☿52'30		retrograde	2926 Nov 19 01:55	16°☿03'50	
evening set	2925 Dec 10 04:33	29°☿57'00		evening set	2926 Nov 24 09:33	13°☿51'38	
	2925 Dec 10 03:06	30°☿☿		asc. node	2926 Nov 28 13:10	9°☿12'49	
asc. node	2925 Dec 11 16:08	28°☿32'38		min. Earth dist.	2926 Nov 29 03:40	8°☿24'34	0.67677 AU
inferior conj	2925 Dec 15 14:31	23°☿32'08	1°18'38	inferior conj	2926 Nov 29 21:18	7°☿25'17	0°27'27
minimum elong	2925 Dec 15 12:49	23°☿38'01	1°17'57	minimum elong	2926 Nov 29 20:38	7°☿27'30	0°27'09
min. Earth dist.	2925 Dec 15 07:32	23°☿56'13	0.67909 AU	morning rise	2926 Dec 05 08:02	1°☿19'33	
morning rise	2925 Dec 20 21:02	17°☿20'52			2926 Dec 08 10:24	30°☿☿	
direct	2925 Dec 25 05:39	15°☿36'38		direct	2926 Dec 09 03:09	29°☿☿57'19	
morning max el	2926 Jan 03 02:26	20°☿47'36	21°36'34		2926 Dec 09 20:09	0°☿	
greatest brilliancy	2926 Jan 08 00:24	26°☿21'55	-0.4m	morning max el	2926 Dec 16 23:18	4°☿26'47	20°20'53
	2926 Jan 10 20:36	0°☿		greatest brilliancy	2926 Dec 23 09:51	12°☿06'19	-0.5m
desc. node	2926 Jan 18 08:59	10°☿25'05			2927 Jan 04 20:49	0°☿	
	2926 Jan 31 09:56	0°☿☿		desc. node	2927 Jan 05 06:01	0°☿34'34	
morning set	2926 Feb 03 22:36	5°☿☿33'04		morning set	2927 Jan 13 21:10	13°☿44'52	
max. Earth dist.	2926 Feb 10 13:05	16°☿☿15'24	1.41808 AU	max. Earth dist.	2927 Jan 23 20:48	29°☿28'45	1.43551 AU
					2927 Jan 24 04:34	0°☿☿	
superior conj	2926 Feb 18 03:06	29°☿☿07'50	-2°-5'-8				
minimum elong	2926 Feb 18 04:45	29°☿☿15'01	2°05'07	superior conj	2927 Jan 29 22:46	9°☿☿23'35	-2°-2'-53
	2926 Feb 18 15:04	0°☿☿		minimum elong	2927 Jan 29 19:14	9°☿☿09'00	2°02'47
evening rise	2926 Mar 01 02:12	18°☿☿49'44			2927 Feb 11 01:10	0°☿☿	
	2926 Mar 07 06:28	0°☿☿		evening rise	2927 Feb 11 13:20	0°☿☿53'02	
asc. node	2926 Mar 09 15:28	4°☿☿03'54		asc. node	2927 Feb 24 12:29	22°☿☿28'45	
evening max el	2926 Mar 17 11:35	14°☿☿49'11	18°10'25	evening max el	2927 Feb 28 23:53	28°☿☿00'04	18°08'41
retrograde	2926 Mar 24 07:28	18°☿☿16'02			2927 Mar 03 09:12	0°☿☿	
evening set	2926 Mar 26 20:31	17°☿☿47'54		retrograde	2927 Mar 07 11:07	1°☿☿23'25	
inferior conj	2926 Apr 02 17:14	12°☿☿56'55	3°12'24	evening set	2927 Mar 10 05:34	0°☿☿45'04	
minimum elong	2926 Apr 02 20:10	12°☿☿50'12	3°11'54		2927 Mar 11 14:07	30°☿☿☿	
min. Earth dist.	2926 Apr 06 01:04	9°☿☿55'36	0.60291 AU	inferior conj	2927 Mar 16 13:15	25°☿☿33'10	3°36'31
morning rise	2926 Apr 09 16:23	7°☿☿10'19		minimum elong	2927 Mar 16 14:20	25°☿☿30'21	3°36'26
direct	2926 Apr 16 07:09	5°☿☿05'11		min. Earth dist.	2927 Mar 19 09:35	22°☿☿35'42	0.62410 AU
desc. node	2926 Apr 16 08:09	5°☿☿05'11		morning rise	2927 Mar 22 20:46	19°☿☿32'07	
morning max el	2926 Apr 30 14:06	12°☿☿57'07	27°36'33	direct	2927 Mar 29 18:24	16°☿☿59'06	
	2926 May 14 02:49	0°☿☿		desc. node	2927 Apr 03 05:11	17°☿☿55'32	
	2926 May 31 02:11	0°☿☿☿		morning max el	2927 Apr 12 19:28	24°☿☿55'50	27°50'27
morning set	2926 Jun 01 11:42	2°☿☿☿52'01			2927 Apr 17 10:37	0°☿☿	
asc. node	2926 Jun 05 14:47	11°☿☿☿37'38			2927 May 07 12:36	0°☿☿	
max. Earth dist.	2926 Jun 07 19:57	16°☿☿☿27'23	1.32150 AU	morning set	2927 May 16 13:23	17°☿☿☿10'42	
				max. Earth dist.	2927 May 22 04:16	28°☿☿☿56'18	1.32552 AU
superior conj	2926 Jun 08 17:37	18°☿☿☿26'23	0°32'22		2927 May 22 16:06	0°☿☿☿	
minimum elong	2926 Jun 08 16:13	18°☿☿☿18'42	0°32'05	asc. node	2927 May 23 11:48	1°☿☿☿46'28	
	2926 Jun 14 00:23	0°☿☿☿					
evening rise	2926 Jun 15 14:44	3°☿☿☿25'10		superior conj	2927 May 24 03:01	3°☿☿☿08'59	0°06'41
	2926 Jun 29 20:10	0°☿☿☿		minimum elong	2927 May 24 02:42	3°☿☿☿07'15	0°06'37
evening max el	2926 Jul 12 22:33	16°☿☿☿44'40	25°33'29	behind sun begin	2927 May 23 21:58	2°☿☿☿41'30	
desc. node	2926 Jul 13 07:27	17°☿☿☿05'42		behind sun end	2927 May 24 07:27	3°☿☿☿33'00	
retrograde	2926 Jul 26 22:27	23°☿☿☿51'55		evening rise	2927 May 31 02:32	18°☿☿☿16'08	
evening set	2926 Aug 01 20:48	22°☿☿☿29'34			2927 Jun 05 20:57	0°☿☿☿	
min. Earth dist.	2926 Aug 06 10:37	19°☿☿☿50'39	0.58155 AU	evening max el	2927 Jun 24 12:35	27°☿☿☿23'21	24°03'18
inferior conj	2926 Aug 09 14:48	17°☿☿☿36'32	-5°-3'-18		2927 Jun 27 12:22	0°☿☿☿	
minimum elong	2926 Aug 09 16:00	17°☿☿☿34'24	5°03'17	desc. node	2927 Jun 30 04:27	1°☿☿☿50'39	
morning rise	2926 Aug 17 14:45	13°☿☿☿17'31		retrograde	2927 Jul 08 07:20	4°☿☿☿19'36	
direct	2926 Aug 20 02:34	12°☿☿☿58'08		evening set	2927 Jul 12 20:28	3°☿☿☿33'51	
morning max el	2926 Aug 28 13:37	16°☿☿☿58'50	18°48'24	min. Earth dist.	2927 Jul 18 23:08	0°☿☿☿34'56	0.56372 AU
asc. node	2926 Sep 01 13:59	21°☿☿☿36'30			2927 Jul 19 22:02	30°☿☿☿☿	
	2926 Sep 06 22:58	0°☿☿☿		inferior conj	2927 Jul 21 10:23	29°☿☿☿03'38	-4°-51'-4
morning set	2926 Sep 13 23:38	13°☿☿☿11'41		minimum elong	2927 Jul 21 05:56	29°☿☿☿10'32	4°50'34
				morning rise	2927 Jul 29 18:54	25°☿☿☿04'36	
superior conj	2926 Sep 22 13:57	29°☿☿☿54'09	1°37'02	direct	2927 Aug 01 12:15	24°☿☿☿45'19	
minimum elong	2926 Sep 22 16:27	0°☿☿☿06'01	1°36'53	morning max el	2927 Aug 11 08:31	29°☿☿☿19'33	19°48'12
	2926 Sep 22 15:11	0°☿☿☿			2927 Aug 12 01:19	0°☿☿☿	
max. Earth dist.	2926 Sep 29 15:01	12°☿☿☿50'36	1.39285 AU	asc. node	2927 Aug 19 11:03	9°☿☿☿44'02	
evening rise	2926 Oct 03 15:06	19°☿☿☿48'12		morning set	2927 Aug 29 02:41	27°☿☿☿40'52	
desc. node	2926 Oct 09 06:47	29°☿☿☿09'56			2927 Aug 30 06:10	0°☿☿☿	
	2926 Oct 09 19:15	0°☿☿☿					
	2926 Oct 30 13:49	0°☿☿☿		superior conj	2927 Sep 06 00:10	13°☿☿☿38'33	1°44'27

minimum elong	2927 Sep 06 00:52	13° $\mathring{\text{M}}$ 42'02	1°44'27	superior conj	2928 Aug 19 20:57	27° $\mathring{\text{O}}$ 54'35	1°43'52
max. Earth dist.	2927 Sep 11 19:45	24° $\mathring{\text{M}}$ 53'35	1.37249 AU	minimum elong	2928 Aug 19 20:09	27° $\mathring{\text{O}}$ 50'27	1°43'50
	2927 Sep 14 14:06	0° $\mathring{\text{A}}$			2928 Aug 20 21:20	0° $\mathring{\text{M}}$	
evening rise	2927 Sep 15 15:37	1° $\mathring{\text{A}}$ 55'15		max. Earth dist.	2928 Aug 24 05:22	6° $\mathring{\text{M}}$ 43'54	1.35439 AU
desc. node	2927 Sep 26 03:48	19° $\mathring{\text{A}}$ 39'55		evening rise	2928 Aug 28 11:06	14° $\mathring{\text{M}}$ 56'15	
	2927 Oct 02 22:33	0° $\mathring{\text{M}}$			2928 Sep 05 21:42	0° $\mathring{\text{A}}$	
evening max el	2927 Oct 21 09:09	23° $\mathring{\text{M}}$ 10'33	25°30'41	desc. node	2928 Sep 12 00:50	9° $\mathring{\text{A}}$ 54'21	
	2927 Oct 31 22:39	0° $\mathring{\text{A}}$			2928 Sep 26 14:29	0° $\mathring{\text{M}}$	
retrograde	2927 Nov 02 12:46	0° $\mathring{\text{A}}$ 09'20		evening max el	2928 Oct 02 21:22	6° $\mathring{\text{M}}$ 49'34	26°31'59
	2927 Nov 04 01:35	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		retrograde	2928 Oct 15 18:42	14° $\mathring{\text{M}}$ 03'09	
evening set	2927 Nov 08 10:43	27° $\mathring{\text{M}}$ 42'03		evening set	2928 Oct 22 06:07	11° $\mathring{\text{M}}$ 24'55	
min. Earth dist.	2927 Nov 12 20:55	22° $\mathring{\text{M}}$ 50'10	0.67101 AU	min. Earth dist.	2928 Oct 26 08:59	7° $\mathring{\text{M}}$ 09'25	0.66174 AU
inferior conj	2927 Nov 14 01:27	21° $\mathring{\text{M}}$ 18'32	0°-28'-10	inferior conj	2928 Oct 28 01:04	5° $\mathring{\text{M}}$ 08'53	-1°-26'-51
minimum elong	2927 Nov 14 02:10	21° $\mathring{\text{M}}$ 16'12	0°27'52	minimum elong	2928 Oct 28 03:25	5° $\mathring{\text{M}}$ 01'48	1°25'53
asc. node	2927 Nov 15 10:13	19° $\mathring{\text{M}}$ 34'56		asc. node	2928 Nov 01 07:17	0° $\mathring{\text{M}}$ 35'57	
morning rise	2927 Nov 19 18:25	15° $\mathring{\text{M}}$ 20'53			2928 Nov 02 01:50	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
direct	2927 Nov 23 01:42	14° $\mathring{\text{M}}$ 17'58		morning rise	2928 Nov 03 02:01	29° $\mathring{\text{A}}$ 22'00	
morning max el	2927 Nov 30 04:07	18° $\mathring{\text{M}}$ 16'45	19°18'57	direct	2928 Nov 05 23:38	28° $\mathring{\text{A}}$ 34'41	
	2927 Dec 09 07:47	0° $\mathring{\text{A}}$			2928 Nov 10 00:21	0° $\mathring{\text{M}}$	
greatest brilliancy	2927 Dec 09 16:33	0° $\mathring{\text{A}}$ 31'54	-0.7m	morning max el	2928 Nov 12 15:26	2° $\mathring{\text{M}}$ 13'40	18°32'45
desc. node	2927 Dec 23 03:03	20° $\mathring{\text{A}}$ 59'45			2928 Dec 01 17:08	0° $\mathring{\text{A}}$	
morning set	2927 Dec 23 21:21	22° $\mathring{\text{A}}$ 10'44		morning set	2928 Dec 02 20:56	1° $\mathring{\text{A}}$ 50'55	
	2927 Dec 28 22:05	0° $\mathring{\text{A}}$		desc. node	2928 Dec 09 00:06	11° $\mathring{\text{A}}$ 36'12	
max. Earth dist.	2928 Jan 06 11:14	13° $\mathring{\text{A}}$ 23'51	1.44723 AU				
				superior conj	2928 Dec 18 19:30	27° $\mathring{\text{A}}$ 03'16	-1°-3'-6
superior conj	2928 Jan 09 16:49	18° $\mathring{\text{A}}$ 31'16	-1°-41'-57	minimum elong	2928 Dec 18 11:47	26° $\mathring{\text{A}}$ 33'00	1°02'10
minimum elong	2928 Jan 09 08:19	17° $\mathring{\text{A}}$ 57'31	1°41'15	max. Earth dist.	2928 Dec 19 05:26	27° $\mathring{\text{A}}$ 42'13	1.45194 AU
	2928 Jan 16 20:07	0° $\mathring{\text{A}}$			2928 Dec 20 16:33	0° $\mathring{\text{A}}$	
evening rise	2928 Jan 24 03:36	12° $\mathring{\text{A}}$ 01'07		evening rise	2929 Jan 03 18:37	22° $\mathring{\text{A}}$ 12'27	
	2928 Feb 04 02:33	0° $\mathring{\text{A}}$			2929 Jan 08 16:19	0° $\mathring{\text{A}}$	
asc. node	2928 Feb 11 09:31	10° $\mathring{\text{A}}$ 09'51		evening max el	2929 Jan 25 22:20	24° $\mathring{\text{A}}$ 49'29	19°00'37
evening max el	2928 Feb 12 12:15	11° $\mathring{\text{A}}$ 21'39	18°25'46	asc. node	2929 Jan 28 06:34	26° $\mathring{\text{A}}$ 55'06	
retrograde	2928 Feb 19 00:21	14° $\mathring{\text{A}}$ 54'35		retrograde	2929 Feb 01 19:16	28° $\mathring{\text{A}}$ 42'52	
evening set	2928 Feb 22 00:14	14° $\mathring{\text{A}}$ 05'10		evening set	2929 Feb 05 01:27	27° $\mathring{\text{A}}$ 41'21	
inferior conj	2928 Feb 27 22:31	8° $\mathring{\text{A}}$ 34'06	3°39'22	inferior conj	2929 Feb 10 17:21	21° $\mathring{\text{A}}$ 53'21	3°26'26
minimum elong	2928 Feb 27 21:52	8° $\mathring{\text{A}}$ 35'59	3°39'20	minimum elong	2929 Feb 10 15:30	21° $\mathring{\text{A}}$ 59'10	3°26'11
min. Earth dist.	2928 Mar 01 03:45	5° $\mathring{\text{A}}$ 59'50	0.64282 AU	min. Earth dist.	2929 Feb 12 07:11	19° $\mathring{\text{A}}$ 54'16	0.65789 AU
morning rise	2928 Mar 04 17:59	2° $\mathring{\text{A}}$ 24'46		morning rise	2929 Feb 16 04:33	15° $\mathring{\text{A}}$ 39'43	
	2928 Mar 08 23:43	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		direct	2929 Feb 22 15:48	12° $\mathring{\text{A}}$ 50'38	
direct	2928 Mar 11 13:39	29° $\mathring{\text{A}}$ 36'46		desc. node	2929 Mar 06 23:16	19° $\mathring{\text{A}}$ 51'43	
	2928 Mar 14 06:25	0° $\mathring{\text{A}}$		morning max el	2929 Mar 07 14:33	20° $\mathring{\text{A}}$ 29'43	26°34'47
desc. node	2928 Mar 20 02:13	3° $\mathring{\text{A}}$ 02'34			2929 Mar 15 19:15	0° $\mathring{\text{A}}$	
morning max el	2928 Mar 25 04:34	7° $\mathring{\text{A}}$ 30'37	27°27'58		2929 Apr 04 15:38	0° $\mathring{\text{Y}}$	
	2928 Apr 11 12:46	0° $\mathring{\text{Y}}$		morning set	2929 Apr 12 13:31	14° $\mathring{\text{Y}}$ 16'02	
	2928 Apr 28 18:27	0° $\mathring{\text{A}}$		max. Earth dist.	2929 Apr 16 18:59	22° $\mathring{\text{Y}}$ 27'13	1.34667 AU
morning set	2928 Apr 29 07:08	1° $\mathring{\text{A}}$ 02'06			2929 Apr 20 12:45	0° $\mathring{\text{A}}$	
max. Earth dist.	2928 May 04 05:07	10° $\mathring{\text{A}}$ 58'37	1.33381 AU				
				superior conj	2929 Apr 21 07:48	1° $\mathring{\text{A}}$ 37'57	0°-49'-30
superior conj	2928 May 07 08:28	17° $\mathring{\text{A}}$ 34'53	0°-20'-59	minimum elong	2929 Apr 21 10:22	1° $\mathring{\text{A}}$ 51'12	0°49'01
minimum elong	2928 May 07 09:32	17° $\mathring{\text{A}}$ 40'31	0°20'47	asc. node	2929 Apr 26 05:52	11° $\mathring{\text{A}}$ 53'54	
asc. node	2928 May 09 08:50	21° $\mathring{\text{A}}$ 53'10		evening rise	2929 Apr 28 23:05	17° $\mathring{\text{A}}$ 34'08	
	2928 May 13 03:44	0° $\mathring{\text{II}}$			2929 May 05 05:31	0° $\mathring{\text{II}}$	
evening rise	2928 May 14 13:56	3° $\mathring{\text{II}}$ 01'07		evening max el	2929 May 18 02:03	18° $\mathring{\text{II}}$ 36'13	20°57'59
	2928 May 29 13:08	0° $\mathring{\text{A}}$		retrograde	2929 May 29 17:31	24° $\mathring{\text{II}}$ 17'20	
evening max el	2928 Jun 05 03:08	7° $\mathring{\text{A}}$ 49'29	22°26'42	evening set	2929 May 31 21:54	24° $\mathring{\text{II}}$ 06'06	
desc. node	2928 Jun 16 01:29	14° $\mathring{\text{A}}$ 07'51		desc. node	2929 Jun 02 22:30	23° $\mathring{\text{II}}$ 36'52	
retrograde	2928 Jun 18 04:14	14° $\mathring{\text{A}}$ 18'07		inferior conj	2929 Jun 10 05:39	20° $\mathring{\text{II}}$ 08'27	-2°-6'-51
evening set	2928 Jun 21 06:22	13° $\mathring{\text{A}}$ 57'05		minimum elong	2929 Jun 09 23:45	20° $\mathring{\text{II}}$ 16'48	2°04'50
min. Earth dist.	2928 Jun 29 10:10	10° $\mathring{\text{A}}$ 24'21	0.55188 AU	min. Earth dist.	2929 Jun 10 22:15	19° $\mathring{\text{II}}$ 44'55	0.54886 AU
inferior conj	2928 Jun 30 12:04	9° $\mathring{\text{A}}$ 47'39	-3°-50'-49	morning rise	2929 Jun 19 01:04	16° $\mathring{\text{II}}$ 06'33	
minimum elong	2928 Jun 30 03:55	9° $\mathring{\text{A}}$ 59'13	3°48'46	direct	2929 Jun 22 13:44	15° $\mathring{\text{II}}$ 39'42	
morning rise	2928 Jul 09 03:50	5° $\mathring{\text{A}}$ 56'54		morning max el	2929 Jul 05 12:50	21° $\mathring{\text{II}}$ 51'45	22°45'19
direct	2928 Jul 12 04:21	5° $\mathring{\text{A}}$ 36'11			2929 Jul 12 13:44	0° $\mathring{\text{A}}$	
morning max el	2928 Jul 23 15:54	10° $\mathring{\text{A}}$ 56'31	21°08'45	asc. node	2929 Jul 23 05:08	17° $\mathring{\text{A}}$ 47'39	
asc. node	2928 Aug 05 08:06	28° $\mathring{\text{A}}$ 30'58		morning set	2929 Jul 27 21:16	27° $\mathring{\text{A}}$ 16'18	
	2928 Aug 06 03:38	0° $\mathring{\text{O}}$			2929 Jul 29 04:18	0° $\mathring{\text{O}}$	
morning set	2928 Aug 12 10:34	12° $\mathring{\text{O}}$ 24'19					

superior conj	2929 Aug 04 00:56	12°♎31'54	1°36'42	direct	2930 Jun 03 05:47	25°♊23'57	
minimum elong	2929 Aug 03 23:07	12°♎22'14	1°36'33		2930 Jun 14 11:08	0°♊	
max. Earth dist.	2929 Aug 06 23:47	18°♎45'06	1.34000 AU	morning max el	2930 Jun 17 03:38	2°♊20'23	24°27'55
evening rise	2929 Aug 11 21:04	28°♎39'17			2930 Jul 06 07:46	0°♊	
	2929 Aug 12 13:34	0°♎		asc. node	2930 Jul 10 02:12	7°♊26'25	
desc. node	2929 Aug 29 21:52	29°♎45'51		morning set	2930 Jul 12 09:06	12°♊11'58	
	2929 Aug 30 01:41	0°♎					
evening max el	2929 Sep 15 09:36	20°♎18'24	27°12'49	superior conj	2930 Jul 19 09:34	27°♊22'38	1°24'06
retrograde	2929 Sep 28 19:00	27°♎36'51		minimum elong	2930 Jul 19 07:15	27°♊10'02	1°23'48
evening set	2929 Oct 05 17:21	24°♎55'01			2930 Jul 20 14:36	0°♎	
min. Earth dist.	2929 Oct 09 13:37	21°♎15'33	0.64898 AU	max. Earth dist.	2930 Jul 21 03:07	1°♎07'33	1.32970 AU
inferior conj	2929 Oct 11 17:53	18°♎51'11	-2°-26'-42	evening rise	2930 Jul 26 17:33	12°♎53'18	
minimum elong	2929 Oct 11 21:54	18°♎40'05	2°25'11		2930 Aug 04 17:37	0°♎	
morning rise	2929 Oct 18 04:21	13°♎18'05		desc. node	2930 Aug 16 18:53	19°♎04'51	
asc. node	2929 Oct 19 04:21	12°♎55'59			2930 Aug 25 12:00	0°♎	
direct	2929 Oct 20 18:43	12°♎42'23		evening max el	2930 Aug 28 20:23	3°♎25'32	27°26'19
morning max el	2929 Oct 27 06:41	16°♎10'44	18°03'12	retrograde	2930 Sep 11 12:56	10°♎42'11	
	2929 Nov 06 05:43	0°♎		evening set	2930 Sep 18 17:19	8°♎06'59	
morning set	2929 Nov 14 01:50	12°♎57'58		min. Earth dist.	2930 Sep 22 08:47	5°♎00'09	0.63289 AU
	2929 Nov 24 10:31	0°♎		inferior conj	2930 Sep 25 01:17	2°♎19'48	-3°-24'-44
desc. node	2929 Nov 25 21:08	2°♎19'28		minimum elong	2930 Sep 25 06:36	2°♎06'33	3°23'06
					2930 Sep 27 11:48	30°♎	
superior conj	2929 Nov 28 03:03	5°♎55'19	0°-15'-13	morning rise	2930 Oct 01 22:21	27°♎03'51	
minimum elong	2929 Nov 28 01:10	5°♎47'47	0°14'57	direct	2930 Oct 04 08:12	26°♎36'08	
behind sun begin	2929 Nov 27 21:02	5°♎31'18		asc. node	2930 Oct 06 01:23	26°♎50'29	
behind sun end	2929 Nov 28 05:18	6°♎04'15			2930 Oct 10 22:18	0°♎	
max. Earth dist.	2929 Dec 02 00:20	12°♎05'12	1.44927 AU	morning max el	2930 Oct 10 23:03	0°♎01'53	17°51'09
	2929 Dec 13 12:00	0°♎		morning set	2930 Oct 27 07:49	25°♎17'42	
evening rise	2929 Dec 14 12:57	1°♎36'25			2930 Oct 30 00:31	0°♎	
greatest brilliancy	2930 Jan 01 22:42	29°♎18'46	-0.6m				
	2930 Jan 02 10:33	0°♎		superior conj	2930 Nov 08 08:43	15°♎53'57	0°29'53
evening max el	2930 Jan 09 04:13	8°♎19'50	19°51'41	minimum elong	2930 Nov 08 11:41	16°♎06'15	0°29'28
asc. node	2930 Jan 15 03:36	12°♎29'27		desc. node	2930 Nov 12 18:11	23°♎06'24	
retrograde	2930 Jan 16 16:47	12°♎42'35		max. Earth dist.	2930 Nov 14 17:28	26°♎17'00	1.43960 AU
evening set	2930 Jan 20 06:45	11°♎27'36			2930 Nov 17 01:23	0°♎	
inferior conj	2930 Jan 25 18:40	5°♎25'10	3°01'35	evening rise	2930 Nov 23 21:53	10°♎43'03	
minimum elong	2930 Jan 25 16:12	5°♎33'21	3°01'02		2930 Dec 06 16:52	0°♎	
min. Earth dist.	2930 Jan 26 18:13	4°♎06'45	0.66888 AU	greatest brilliancy	2930 Dec 17 18:37	15°♎29'58	-0.5m
	2930 Jan 30 04:13	30°♎		evening max el	2930 Dec 23 04:44	21°♎51'26	20°56'25
morning rise	2930 Jan 31 01:00	29°♎09'52		retrograde	2930 Dec 31 14:37	26°♎50'10	
direct	2930 Feb 05 23:45	26°♎31'28		asc. node	2931 Jan 02 00:38	26°♎39'04	
	2930 Feb 13 21:53	0°♎		evening set	2931 Jan 04 14:07	25°♎20'11	
morning max el	2930 Feb 17 23:27	3°♎40'39	25°19'50	inferior conj	2931 Jan 10 00:01	19°♎06'14	2°27'24
desc. node	2930 Feb 21 20:19	7°♎53'40		minimum elong	2931 Jan 09 21:29	19°♎14'56	2°26'38
	2930 Mar 10 02:20	0°♎		min. Earth dist.	2931 Jan 10 10:45	18°♎29'21	0.67580 AU
morning set	2930 Mar 26 03:52	26°♎38'46		morning rise	2931 Jan 15 04:27	12°♎51'10	
	2930 Mar 28 00:02	0°♎		direct	2931 Jan 20 12:32	10°♎31'26	
max. Earth dist.	2930 Mar 29 21:17	3°♎30'15	1.36398 AU	morning max el	2931 Jan 31 07:50	16°♎57'44	23°53'17
				desc. node	2931 Feb 08 17:22	26°♎47'38	
superior conj	2930 Apr 04 22:11	15°♎10'18	-1°-17'-12		2931 Feb 11 03:35	0°♎	
minimum elong	2930 Apr 05 02:06	15°♎29'41	1°16'37		2931 Mar 03 03:14	0°♎	
	2930 Apr 12 06:20	0°♎		morning set	2931 Mar 07 20:14	7°♎54'06	
evening rise	2930 Apr 13 03:47	1°♎48'39		max. Earth dist.	2931 Mar 11 17:00	14°♎38'48	1.38466 AU
asc. node	2930 Apr 13 02:56	1°♎44'19					
evening max el	2930 Apr 30 12:54	0°♎01'23	19°45'36	superior conj	2931 Mar 19 00:03	28°♎02'18	-1°-41'-44
	2930 Apr 30 12:20	0°♎		minimum elong	2931 Mar 19 04:33	28°♎23'37	1°41'15
retrograde	2930 May 10 10:26	4°♎49'05			2931 Mar 20 00:48	0°♎	
evening set	2930 May 12 10:13	4°♎38'18		evening rise	2931 Mar 28 01:27	15°♎37'22	
desc. node	2930 May 20 19:30	0°♎52'00		asc. node	2931 Mar 30 23:57	21°♎19'13	
inferior conj	2930 May 21 05:34	0°♎36'25	0°-7'-21		2931 Apr 04 17:33	0°♎	
minimum elong	2930 May 21 05:14	0°♎36'56	0°07'14	evening max el	2931 Apr 13 10:45	12°♎05'41	18°52'44
transit middle	2930 May 21 05:14	0°♎36'56	0°07'14	retrograde	2931 Apr 21 18:56	16°♎09'41	
transit begin	2930 May 21 01:43	0°♎42'23		evening set	2931 Apr 23 22:46	15°♎54'24	
transit end	2930 May 21 08:46	0°♎31'29		inferior conj	2931 May 01 23:09	11°♎36'07	1°35'28
	2930 May 22 05:01	30°♎		minimum elong	2931 May 02 02:28	11°♎30'08	1°34'24
min. Earth dist.	2930 May 23 11:56	29°♎12'26	0.55550 AU	min. Earth dist.	2931 May 05 03:58	9°♎19'08	0.57038 AU
morning rise	2930 May 29 20:59	26°♎06'14		desc. node	2931 May 07 16:32	7°♎42'57	

morning rise	2931 May 10 01:49	6°♄31'07		morning rise	2932 Apr 19 23:28	17°♃42'45	
direct	2931 May 15 10:50	5°♄21'43		desc. node	2932 Apr 23 13:33	16°♃17'08	
morning max el	2931 May 29 18:33	12°♄48'40	26°01'50	direct	2932 Apr 26 05:29	15°♃58'04	
	2931 Jun 12 05:18	0°♄		morning max el	2932 May 10 14:34	23°♃43'53	27°11'38
morning set	2931 Jun 26 20:23	27°♄05'00			2932 May 16 06:13	0°♄	
asc. node	2931 Jun 26 23:14	27°♄20'00			2932 Jun 04 07:30	0°♄	
	2931 Jun 28 05:18	0°♄		morning set	2932 Jun 10 05:28	11°♄49'56	
				asc. node	2932 Jun 12 20:16	17°♄23'14	
superior conj	2931 Jul 03 20:39	12°♄18'41	1°06'57	superior conj	2932 Jun 17 08:27	27°♄14'15	0°45'57
minimum elong	2931 Jul 03 18:20	12°♄05'57	1°06'34	minimum elong	2932 Jun 17 06:36	27°♄04'01	0°45'36
max. Earth dist.	2931 Jul 04 12:38	13°♄46'29	1.32343 AU	max. Earth dist.	2932 Jun 17 00:38	26°♄31'13	1.32109 AU
evening rise	2931 Jul 10 21:18	27°♄27'22			2932 Jun 18 14:32	0°♄	
	2931 Jul 12 02:52	0°♄		evening rise	2932 Jun 24 05:49	12°♄13'25	
	2931 Jul 29 02:44	0°♄			2932 Jul 03 06:51	0°♄	
desc. node	2931 Aug 03 15:52	7°♄37'02		desc. node	2932 Jul 20 12:51	25°♄03'17	
evening max el	2931 Aug 11 02:54	15°♄56'13	27°07'44	evening max el	2932 Jul 23 02:39	27°♄40'19	26°16'05
retrograde	2931 Aug 24 23:36	23°♄09'22			2932 Jul 25 18:11	0°♄	
evening set	2931 Sep 01 02:01	20°♄53'09		retrograde	2932 Aug 06 02:07	4°♄50'49	
min. Earth dist.	2931 Sep 04 17:11	18°♄10'09	0.61389 AU	evening set	2932 Aug 12 14:45	3°♄06'05	
inferior conj	2931 Sep 07 20:03	15°♄25'53	-4°-16'-14	min. Earth dist.	2932 Aug 16 15:33	0°♄31'16	0.59326 AU
minimum elong	2931 Sep 08 01:35	15°♄13'44	4°15'02		2932 Aug 17 08:21	30°♄	
morning rise	2931 Sep 15 04:06	10°♄30'44		inferior conj	2932 Aug 19 22:39	28°♄00'12	-4°-53'-14
direct	2931 Sep 17 12:24	10°♄07'59		minimum elong	2932 Aug 20 02:14	27°♄53'17	4°52'52
asc. node	2931 Sep 22 22:26	12°♄14'01		morning rise	2932 Aug 27 17:12	23°♄28'19	
morning max el	2931 Sep 24 13:29	13°♄39'19	17°57'37	direct	2932 Aug 30 02:52	23°♄08'18	
	2931 Oct 05 15:59	0°♄		morning max el	2932 Sep 06 22:50	26°♄54'51	18°23'53
morning set	2931 Oct 10 08:23	8°♄30'20		asc. node	2932 Sep 08 19:29	28°♄53'13	
					2932 Sep 09 17:35	0°♄	
superior conj	2931 Oct 20 17:20	27°♄11'49	1°05'01	morning set	2932 Sep 22 22:14	22°♄20'49	
minimum elong	2931 Oct 20 21:43	27°♄30'57	1°04'29		2932 Sep 26 22:09	0°♄	
	2931 Oct 22 08:05	0°♄		superior conj	2932 Oct 02 01:32	9°♄39'03	1°28'29
max. Earth dist.	2931 Oct 28 06:18	10°♄00'17	1.42407 AU	minimum elong	2932 Oct 02 05:00	9°♄55'02	1°28'10
desc. node	2931 Oct 30 15:13	13°♄53'24		max. Earth dist.	2932 Oct 09 13:24	23°♄00'47	1.40468 AU
evening rise	2931 Nov 03 13:51	20°♄12'41			2932 Oct 13 16:36	0°♄	
	2931 Nov 09 21:13	0°♄		evening rise	2932 Oct 14 01:41	0°♄37'36	
	2931 Dec 01 04:52	0°♄		desc. node	2932 Oct 16 12:12	4°♄36'58	
greatest brilliancy	2931 Dec 01 06:31	0°♄05'01	-0.3m		2932 Nov 02 07:50	0°♄	
evening max el	2931 Dec 05 23:43	5°♄24'04	22°11'11	evening max el	2932 Nov 17 14:19	18°♄58'45	23°30'56
retrograde	2931 Dec 15 11:04	11°♄02'15		retrograde	2932 Nov 28 04:39	25°♄14'49	
evening set	2931 Dec 19 21:51	9°♄16'03		evening set	2932 Dec 03 04:18	23°♄11'54	
asc. node	2931 Dec 19 21:39	9°♄16'27		asc. node	2932 Dec 05 18:42	20°♄30'15	
inferior conj	2931 Dec 25 07:22	2°♄53'57	1°45'38	min. Earth dist.	2932 Dec 08 03:14	17°♄25'21	0.67843 AU
minimum elong	2931 Dec 25 05:14	3°♄01'20	1°44'50	inferior conj	2932 Dec 08 14:50	16°♄45'39	0°57'31
min. Earth dist.	2931 Dec 25 06:32	2°♄56'50	0.67887 AU	minimum elong	2932 Dec 08 13:32	16°♄50'07	0°56'59
	2931 Dec 27 10:51	30°♄		morning rise	2932 Dec 13 22:54	10°♄36'31	
morning rise	2931 Dec 30 12:27	26°♄40'54		direct	2932 Dec 18 01:28	9°♄02'08	
direct	2932 Jan 04 05:24	24°♄43'39		morning max el	2932 Dec 26 11:14	13°♄54'38	21°02'58
	2932 Jan 13 09:59	0°♄		greatest brilliancy	2932 Dec 31 21:48	20°♄10'54	-0.5m
morning max el	2932 Jan 13 18:41	0°♄21'39	22°25'01		2933 Jan 08 03:26	0°♄	
greatest brilliancy	2932 Jan 18 08:04	5°♄27'04	-0.3m	desc. node	2933 Jan 12 11:26	6°♄16'24	
desc. node	2932 Jan 26 14:25	16°♄18'52		morning set	2933 Jan 25 17:49	26°♄25'56	
	2932 Feb 05 00:09	0°♄			2933 Jan 28 00:11	0°♄	
morning set	2932 Feb 16 08:57	17°♄48'38		max. Earth dist.	2933 Feb 02 16:32	9°♄07'45	1.42597 AU
max. Earth dist.	2932 Feb 21 13:48	26°♄26'55	1.40627 AU				
	2932 Feb 23 15:44	0°♄		superior conj	2933 Feb 09 19:07	20°♄58'27	-2°-6'-15
superior conj	2932 Feb 29 08:47	10°♄02'41	-1°-59'-37	minimum elong	2933 Feb 09 18:51	20°♄57'17	2°06'16
minimum elong	2932 Feb 29 12:13	10°♄18'08	1°59'26		2933 Feb 15 00:22	0°♄	
evening rise	2932 Mar 10 12:54	28°♄52'32		evening rise	2933 Feb 21 10:08	11°♄24'13	
	2932 Mar 11 03:15	0°♄		asc. node	2933 Mar 03 18:00	29°♄18'19	
asc. node	2932 Mar 16 20:59	10°♄33'06			2933 Mar 04 04:43	0°♄	
evening max el	2932 Mar 26 16:46	24°♄42'59	18°20'06	evening max el	2933 Mar 10 03:39	7°♄43'46	18°07'21
retrograde	2932 Apr 02 22:42	28°♄19'04		retrograde	2933 Mar 16 18:48	11°♄07'44	
evening set	2932 Apr 05 08:19	27°♄56'19		evening set	2933 Mar 19 10:03	10°♄35'33	
inferior conj	2932 Apr 12 14:13	23°♄17'21	2°46'15	inferior conj	2933 Mar 26 00:47	5°♄35'39	3°25'36
minimum elong	2932 Apr 12 17:54	23°♄09'36	2°45'23	minimum elong	2933 Mar 26 02:57	5°♄30'21	3°25'19
min. Earth dist.	2932 Apr 16 00:41	20°♄25'12	0.59039 AU				

min. Earth dist.	2933 Mar 29 04:31	2°♊32'53	0.61206 AU	evening max el	2934 Feb 21 16:21	21°♋00'09	18°13'47
	2933 Apr 01 06:16	30°♋		retrograde	2934 Feb 28 02:55	24°♋25'57	
morning rise	2933 Apr 01 16:52	29°♋41'37		evening set	2934 Mar 02 23:35	23°♋43'05	
direct	2933 Apr 08 11:35	27°♋23'08		inferior conj	2934 Mar 09 02:54	18°♋23'07	3°39'54
desc. node	2933 Apr 10 10:35	27°♋34'01		minimum elong	2934 Mar 09 03:12	18°♋22'19	3°39'53
	2933 Apr 16 05:49	0°♊		min. Earth dist.	2934 Mar 11 17:10	15°♋33'16	0.63247 AU
morning max el	2933 Apr 22 16:50	5°♊18'53	27°47'02	morning rise	2934 Mar 15 04:50	12°♋17'59	
	2933 May 11 03:57	0°♋		direct	2934 Mar 22 02:45	9°♋36'28	
morning set	2933 May 25 10:30	26°♋20'19		desc. node	2934 Mar 28 07:39	11°♋26'25	
	2933 May 27 04:48	0°♋		morning max el	2934 Apr 04 23:59	17°♋33'34	27°45'00
asc. node	2933 May 30 17:19	7°♋31'16			2934 Apr 15 09:15	0°♊	
max. Earth dist.	2933 May 31 11:17	9°♋08'53	1.32269 AU		2934 May 03 22:57	0°♋	
				morning set	2934 May 09 09:10	10°♋28'39	
superior conj	2933 Jun 01 19:14	12°♋03'20	0°21'47	max. Earth dist.	2934 May 14 16:41	21°♋26'50	1.32847 AU
minimum elong	2933 Jun 01 18:15	11°♋57'57	0°21'34				
evening rise	2933 Jun 08 16:57	27°♋04'20		superior conj	2934 May 17 03:15	26°♋40'01	0°-4'-52
	2933 Jun 10 02:18	0°♋		minimum elong	2934 May 17 03:29	26°♋41'17	0°04'50
	2933 Jun 27 08:06	0°♋		behind sun begin	2934 May 16 22:26	26°♋14'05	
evening max el	2933 Jul 04 19:23	8°♋39'05	24°56'51	behind sun end	2934 May 17 08:32	27°♋08'31	
desc. node	2933 Jul 07 09:51	10°♋57'03		asc. node	2934 May 17 14:21	27°♋39'53	
retrograde	2933 Jul 18 18:35	15°♋43'53			2934 May 18 16:16	0°♋	
evening set	2933 Jul 24 03:43	14°♋37'52		evening rise	2934 May 24 04:49	11°♋53'39	
min. Earth dist.	2933 Jul 29 06:54	11°♋52'09	0.57341 AU		2934 Jun 02 10:39	0°♋	
inferior conj	2933 Aug 01 05:59	9°♋54'05	-5°-3'-24	evening max el	2934 Jun 16 08:53	19°♋09'32	23°22'09
minimum elong	2933 Aug 01 04:53	9°♋55'54	5°03'23	desc. node	2934 Jun 24 06:53	24°♋43'53	
morning rise	2933 Aug 09 09:46	5°♋44'34		retrograde	2934 Jun 29 22:20	25°♋56'14	
direct	2933 Aug 11 23:29	5°♋25'32		evening set	2934 Jul 03 19:33	25°♋23'13	
morning max el	2933 Aug 20 23:55	9°♋39'08	19°11'13	min. Earth dist.	2934 Jul 10 18:45	22°♋11'22	0.55774 AU
asc. node	2933 Aug 26 16:33	16°♋33'02		inferior conj	2934 Jul 12 17:22	21°♋02'33	-4°-31'-43
	2933 Sep 03 11:50	0°♋		minimum elong	2934 Jul 12 10:47	21°♋12'19	4°30'36
morning set	2933 Sep 06 21:25	6°♋38'52		morning rise	2934 Jul 21 05:06	17°♋08'34	
				direct	2934 Jul 24 01:09	16°♋48'56	
superior conj	2933 Sep 15 03:48	23°♋00'12	1°41'16	morning max el	2934 Aug 03 14:00	21°♋42'05	20°20'01
minimum elong	2933 Sep 15 05:31	23°♋08'34	1°41'11		2934 Aug 10 10:25	0°♋	
	2933 Sep 18 19:55	0°♋		asc. node	2934 Aug 13 13:36	4°♋59'03	
max. Earth dist.	2933 Sep 21 17:20	5°♋19'58	1.38398 AU	morning set	2934 Aug 22 02:50	21°♋15'19	
evening rise	2933 Sep 25 13:30	12°♋09'47			2934 Aug 26 08:51	0°♋	
desc. node	2933 Oct 03 09:13	25°♋13'41					
	2933 Oct 06 09:51	0°♋		superior conj	2934 Aug 29 19:00	6°♋59'45	1°45'05
	2933 Oct 28 13:57	0°♋		minimum elong	2934 Aug 29 19:01	6°♋59'49	1°45'05
evening max el	2933 Oct 31 02:52	2°♋38'13	24°49'13	max. Earth dist.	2934 Sep 03 23:33	17°♋14'56	1.36445 AU
retrograde	2933 Nov 11 18:20	9°♋24'35		evening rise	2934 Sep 07 22:45	24°♋42'06	
evening set	2933 Nov 17 07:54	7°♋05'45			2934 Sep 10 21:20	0°♋	
min. Earth dist.	2933 Nov 21 22:33	1°♋53'14	0.67466 AU	desc. node	2934 Sep 20 06:15	15°♋38'07	
inferior conj	2933 Nov 22 20:45	0°♋39'47	0°04'18		2934 Sep 30 00:01	0°♋	
minimum elong	2933 Nov 22 20:39	0°♋40'09	0°04'16	evening max el	2934 Oct 13 15:10	16°♋19'48	25°58'50
transit middle	2933 Nov 22 20:39	0°♋40'09	0°04'16	retrograde	2934 Oct 26 03:05	20°♋25'49	
transit begin	2933 Nov 22 17:59	0°♋48'57		evening set	2934 Nov 01 06:51	20°♋53'34	
transit end	2933 Nov 22 23:18	0°♋31'20		min. Earth dist.	2934 Nov 05 14:00	16°♋16'47	0.66752 AU
asc. node	2933 Nov 22 15:44	0°♋56'23		inferior conj	2934 Nov 06 23:14	14°♋32'41	0°-52'-47
	2933 Nov 23 08:49	30°♋		minimum elong	2934 Nov 07 00:38	14°♋28'18	0°52'11
morning rise	2933 Nov 28 09:53	24°♋36'58		asc. node	2934 Nov 09 12:48	11°♋28'51	
direct	2933 Dec 01 23:40	23°♋23'25		morning rise	2934 Nov 12 19:22	8°♋38'56	
morning max el	2933 Dec 09 11:32	27°♋38'57	19°52'40	direct	2934 Nov 15 22:19	7°♋43'01	
	2933 Dec 11 15:33	0°♋		morning max el	2934 Nov 22 19:17	11°♋32'08	18°57'13
greatest brilliancy	2933 Dec 16 22:18	6°♋46'09	-0.6m		2934 Dec 06 07:00	0°♋	
desc. node	2933 Dec 30 08:29	26°♋33'24		morning set	2934 Dec 14 21:58	13°♋26'22	
	2934 Jan 01 14:31	0°♋		desc. node	2934 Dec 17 05:32	17°♋03'56	
morning set	2934 Jan 04 13:40	4°♋33'45			2934 Dec 25 11:45	0°♋	
max. Earth dist.	2934 Jan 16 02:46	22°♋38'41	1.44124 AU	max. Earth dist.	2934 Dec 29 19:07	6°♋45'42	1.45018 AU
	2934 Jan 20 16:41	0°♋					
superior conj	2934 Jan 21 03:29	0°♋43'50	-1°-56'-26	superior conj	2934 Dec 31 12:59	9°♋30'32	-1°-27'-19
minimum elong	2934 Jan 20 21:30	0°♋19'31	1°56'07	minimum elong	2934 Dec 31 03:56	8°♋54'51	1°26'24
evening rise	2934 Feb 03 12:49	23°♋04'19			2935 Jan 13 09:05	0°♋	
	2934 Feb 07 14:07	0°♋		evening rise	2935 Jan 15 17:10	3°♋47'28	
asc. node	2934 Feb 18 15:02	17°♋26'06		evening max el	2935 Feb 01 11:00	0°♋	
					2935 Feb 05 04:04	4°♋25'13	18°38'36

asc. node	2935 Feb 05 12:04	4° H 45'12		evening rise	2935 Dec 26 22:37	13° Z 36'37	
retrograde	2935 Feb 11 18:51	8° H 05'14			2936 Jan 06 11:07	0° \approx	
evening set	2935 Feb 14 21:23	7° H 10'40		greatest brilliancy	2936 Jan 10 12:59	6° \approx 09'50	-0.7m
inferior conj	2935 Feb 20 16:36	1° H 32'13	3°35'31	evening max el	2936 Jan 19 12:31	17° \approx 54'12	19°20'30
minimum elong	2935 Feb 20 15:23	1° H 35'55	3°35'25	asc. node	2936 Jan 23 09:07	21° \approx 02'07	
	2935 Feb 21 23:07	30° R \approx		retrograde	2936 Jan 26 15:12	21° \approx 58'58	
min. Earth dist.	2935 Feb 22 15:13	29° \approx 12'01	0.64972 AU	evening set	2936 Jan 30 00:35	20° \approx 51'42	
morning rise	2935 Feb 26 08:09	25° \approx 21'00		inferior conj	2936 Feb 04 14:29	14° \approx 57'01	3°17'11
direct	2935 Mar 05 01:01	22° \approx 30'55		minimum elong	2936 Feb 04 12:19	15° \approx 04'03	3°16'48
desc. node	2935 Mar 15 04:42	27° \approx 20'53		min. Earth dist.	2936 Feb 05 21:58	13° \approx 15'12	0.66304 AU
	2935 Mar 18 01:45	0° H		morning rise	2936 Feb 09 23:14	8° \approx 42'33	
morning max el	2935 Mar 18 09:32	0° H 19'26	27°08'42	direct	2936 Feb 16 05:28	5° \approx 57'08	
	2935 Apr 09 08:58	0° Y		morning max el	2936 Feb 28 19:12	13° \approx 24'48	26°05'08
morning set	2935 Apr 22 22:36	24° Y 05'51		desc. node	2936 Mar 01 01:45	14° \approx 43'58	
	2935 Apr 25 22:31	0° B			2936 Mar 13 05:50	0° H	
max. Earth dist.	2935 Apr 27 13:11	3° B 15'27	1.33869 AU		2936 Apr 01 02:18	0° Y	
				morning set	2936 Apr 04 22:45	6° Y 59'24	
superior conj	2935 May 01 06:26	10° B 57'49	0°-33'-2	max. Earth dist.	2936 Apr 08 22:17	14° Y 32'25	1.35351 AU
minimum elong	2935 May 01 08:08	11° B 06'44	0°32'42				
asc. node	2935 May 04 11:24	17° B 45'08		superior conj	2936 Apr 14 02:17	24° Y 48'29	-1°-1'-28
evening rise	2935 May 08 15:33	26° B 35'06		minimum elong	2936 Apr 14 05:28	25° Y 04'40	1°00'55
	2935 May 10 07:03	0° II			2936 Apr 16 15:07	0° B	
evening max el	2935 May 29 02:24	29° II 42'18	21°47'27	asc. node	2936 Apr 20 08:25	7° B 42'03	
	2935 May 29 09:46	0° Z		evening rise	2936 Apr 21 23:03	11° B 01'06	
retrograde	2935 Jun 10 14:32	5° Z 52'00			2936 May 02 01:16	0° II	
desc. node	2935 Jun 11 03:54	5° Z 51'17		evening max el	2936 May 10 06:04	10° II 43'26	20°24'55
evening set	2935 Jun 13 05:28	5° Z 36'33		retrograde	2936 May 21 03:52	16° II 02'02	
min. Earth dist.	2935 Jun 22 05:55	1° Z 45'38	0.54947 AU	evening set	2936 May 23 04:43	15° II 51'43	
inferior conj	2935 Jun 22 14:06	1° Z 34'12	-3°-10'-56	desc. node	2936 May 28 00:56	14° II 14'46	
minimum elong	2935 Jun 22 06:09	1° Z 45'18	3°08'34	inferior conj	2936 Jun 01 08:30	11° II 53'46	-1°-16'-1
	2935 Jun 25 11:12	30° R II		minimum elong	2936 Jun 01 04:55	11° II 59'00	1°14'42
morning rise	2935 Jul 01 08:06	27° II 41'23		min. Earth dist.	2936 Jun 02 18:16	11° II 04'36	0.55052 AU
direct	2935 Jul 04 13:13	27° II 18'42		morning rise	2936 Jun 10 03:25	7° II 41'50	
	2935 Jul 12 20:52	0° Z		direct	2936 Jun 13 23:33	7° II 10'03	
morning max el	2935 Jul 16 16:31	3° Z 00'35	21°48'11	morning max el	2936 Jun 27 10:10	13° II 41'49	23°29'02
asc. node	2935 Jul 31 10:39	24° Z 00'21			2936 Jul 09 22:51	0° Z	
	2935 Aug 03 12:59	0° Q		asc. node	2936 Jul 17 07:42	13° Z 27'21	
morning set	2935 Aug 06 12:12	6° Q 03'51		morning set	2936 Jul 20 23:35	20° Z 58'19	
					2936 Jul 25 04:49	0° Q	
superior conj	2935 Aug 13 19:14	21° Q 26'20	1°41'33				
minimum elong	2935 Aug 13 17:56	21° Q 19'33	1°41'28	superior conj	2936 Jul 28 01:28	6° Q 10'23	1°31'58
max. Earth dist.	2935 Aug 17 13:04	29° Q 09'53	1.34789 AU	minimum elong	2936 Jul 27 23:23	5° Q 59'09	1°31'45
	2935 Aug 17 22:58	0° H		max. Earth dist.	2936 Jul 30 11:34	11° Q 20'25	1.33513 AU
evening rise	2935 Aug 22 00:58	8° H 02'57		evening rise	2936 Aug 04 15:48	22° Q 00'14	
	2935 Sep 03 11:29	0° Z			2936 Aug 08 18:43	0° H	
desc. node	2935 Sep 07 03:15	5° Z 44'04		desc. node	2936 Aug 24 00:16	25° H 23'23	
evening max el	2935 Sep 26 03:41	29° Z 56'31	26°52'09		2936 Aug 27 06:54	0° Z	
	2935 Sep 26 05:08	0° M		evening max el	2936 Sep 07 15:25	13° Z 17'26	27°22'04
retrograde	2935 Oct 09 06:28	7° M 12'11		retrograde	2936 Sep 21 04:03	20° Z 35'36	
evening set	2935 Oct 15 23:04	4° M 31'32		evening set	2936 Sep 28 05:57	17° Z 54'50	
min. Earth dist.	2935 Oct 19 23:07	0° M 31'32	0.65686 AU	min. Earth dist.	2936 Oct 01 23:45	14° Z 30'17	0.64261 AU
	2935 Oct 20 10:05	30° R Z		inferior conj	2936 Oct 04 09:25	11° Z 57'47	-2°-51'-44
inferior conj	2935 Oct 21 20:15	28° Z 20'22	-1°-52'-12	minimum elong	2936 Oct 04 14:03	11° Z 45'29	2°50'07
minimum elong	2935 Oct 21 23:19	28° Z 11'27	1°50'59	morning rise	2936 Oct 11 00:20	6° Z 31'51	
asc. node	2935 Oct 27 09:51	23° Z 00'10		asc. node	2936 Oct 13 06:54	6° Z 00'15	
morning rise	2935 Oct 28 01:06	22° Z 38'56		direct	2936 Oct 13 12:27	5° Z 59'59	
direct	2935 Oct 30 19:26	21° Z 56'53		morning max el	2936 Oct 20 00:44	9° Z 25'56	17°55'53
morning max el	2935 Nov 06 08:34	25° Z 29'51	18°18'02		2936 Nov 02 21:58	0° M	
	2935 Nov 10 04:00	0° M		morning set	2936 Nov 06 02:30	5° M 25'22	
morning set	2935 Nov 25 10:09	23° M 44'39					
	2935 Nov 29 06:54	0° X		superior conj	2936 Nov 19 06:35	27° M 20'39	0°04'51
desc. node	2935 Dec 04 02:34	7° X 43'47		minimum elong	2936 Nov 19 07:08	27° M 22'55	0°04'46
				behind sun begin	2936 Nov 18 21:21	26° M 43'15	
superior conj	2935 Dec 10 14:57	18° X 03'10	0°-43'-6	behind sun end	2936 Nov 19 16:56	28° M 02'30	
minimum elong	2935 Dec 10 09:26	17° X 41'29	0°42'24	desc. node	2936 Nov 19 23:35	28° M 29'24	
max. Earth dist.	2935 Dec 12 14:33	21° X 10'20	1.45177 AU		2936 Nov 20 22:06	0° X	
	2935 Dec 18 05:45	0° Z		max. Earth dist.	2936 Nov 24 09:15	5° X 31'57	1.44595 AU

evening rise	2936 Dec 05 11:11	22° ♄ 49'14		desc. node	2937 Nov 06 20:35	19° ♄ 16'49	
	2936 Dec 10 03:43	0° ♄		max. Earth dist.	2937 Nov 07 00:13	19° ♄ 31'33	1.43358 AU
greatest brilliancy	2936 Dec 26 07:55	23° ♄ 43'48	-0.6m		2937 Nov 13 14:07	0° ♄	
	2936 Dec 31 08:28	0° \approx		evening rise	2937 Nov 14 21:01	2° ♄ 00'25	
evening max el	2937 Jan 01 16:07	1° \approx 25'07	20°17'40		2937 Dec 03 17:06	0° ♄	
asc. node	2937 Jan 09 06:09	6° \approx 02'29		greatest brilliancy	2937 Dec 10 14:47	9° ♄ 13'57	-0.4m
retrograde	2937 Jan 09 13:14	6° \approx 02'58		evening max el	2937 Dec 15 14:08	14° ♄ 56'50	21°27'15
evening set	2937 Jan 13 06:59	4° \approx 41'44		retrograde	2937 Dec 24 10:44	20° ♄ 12'42	
	2937 Jan 17 16:06	30° ♄		asc. node	2937 Dec 27 03:11	19° ♄ 33'07	
inferior conj	2937 Jan 18 17:48	28° ♄ 33'45	2°48'09	evening set	2937 Dec 28 14:42	18° ♄ 36'09	
minimum elong	2937 Jan 18 15:15	28° ♄ 42'23	2°47'28	inferior conj	2938 Jan 03 00:15	12° ♄ 18'14	2°10'32
min. Earth dist.	2937 Jan 19 11:40	27° ♄ 33'13	0.67227 AU	minimum elong	2938 Jan 02 21:50	12° ♄ 26'35	2°09'43
morning rise	2937 Jan 23 22:59	22° ♄ 18'09		min. Earth dist.	2938 Jan 03 06:00	11° ♄ 58'21	0.67756 AU
direct	2937 Jan 29 15:29	19° ♄ 47'11		morning rise	2938 Jan 08 04:39	6° ♄ 03'31	
morning max el	2937 Feb 10 03:55	26° ♄ 39'56	24°43'52	direct	2938 Jan 13 06:14	3° ♄ 52'58	
	2937 Feb 13 06:15	0° \approx		morning max el	2938 Jan 23 12:51	9° ♄ 59'31	23°15'17
desc. node	2937 Feb 15 22:48	3° \approx 10'35		greatest brilliancy	2938 Jan 28 17:04	15° ♄ 48'05	-0.2m
	2937 Mar 06 20:30	0° ♄		desc. node	2938 Feb 02 19:50	22° ♄ 21'57	
morning set	2937 Mar 18 04:29	18° ♄ 55'33			2938 Feb 08 07:49	0° \approx	
max. Earth dist.	2937 Mar 21 20:59	25° ♄ 33'35	1.37246 AU	morning set	2938 Feb 27 09:37	29° \approx 37'38	
	2937 Mar 24 06:27	0° ♄			2938 Feb 27 14:57	0° ♄	
				max. Earth dist.	2938 Mar 03 15:35	6° ♄ 52'45	1.39388 AU
superior conj	2937 Mar 28 11:46	8° ♄ 04'24	-1°-28'-11	superior conj	2938 Mar 11 06:54	20° ♄ 35'38	-1°-50'-23
minimum elong	2937 Mar 28 16:03	8° ♄ 25'19	1°27'36	minimum elong	2938 Mar 11 11:13	20° ♄ 55'39	1°50'01
evening rise	2937 Apr 06 01:05	25° ♄ 05'21			2938 Mar 16 06:38	0° ♄	
asc. node	2937 Apr 07 05:26	27° ♄ 26'21		evening rise	2938 Mar 20 18:47	8° ♄ 40'24	
	2937 Apr 08 12:40	0° ♄		asc. node	2938 Mar 25 02:29	16° ♄ 53'02	
evening max el	2937 Apr 22 21:43	22° ♄ 24'54	19°20'38		2938 Apr 01 23:39	0° ♄	
retrograde	2937 May 02 02:37	26° ♄ 52'40		evening max el	2938 Apr 05 23:29	4° ♄ 44'29	18°36'27
evening set	2937 May 04 03:18	26° ♄ 40'36		retrograde	2938 Apr 13 19:02	8° ♄ 34'19	
inferior conj	2937 May 12 14:54	22° ♄ 32'42	0°39'41	evening set	2938 Apr 16 01:17	8° ♄ 16'11	
minimum elong	2937 May 12 16:32	22° ♄ 30'01	0°39'06	inferior conj	2938 Apr 23 17:32	3° ♄ 49'44	2°09'37
desc. node	2937 May 14 21:57	21° ♄ 02'08		minimum elong	2938 Apr 23 21:21	3° ♄ 42'23	2°08'32
min. Earth dist.	2937 May 15 08:56	20° ♄ 44'30	0.56091 AU	min. Earth dist.	2938 Apr 27 02:54	1° ♄ 14'42	0.57844 AU
morning rise	2937 May 21 01:44	17° ♄ 47'16			2938 Apr 28 22:08	30° ♄	
direct	2937 May 25 20:31	16° ♄ 54'56		morning rise	2938 May 01 13:01	28° ♄ 30'58	
morning max el	2937 Jun 09 00:23	24° ♄ 06'49	25°09'59	desc. node	2938 May 01 18:58	28° ♄ 24'01	
	2937 Jun 14 09:13	0° ♄		direct	2938 May 07 07:56	27° ♄ 06'38	
	2937 Jul 02 15:09	0° ♄			2938 May 15 21:45	0° ♄	
asc. node	2937 Jul 04 04:44	3° ♄ 12'50		morning max el	2938 May 21 16:56	4° ♄ 43'32	26°35'16
morning set	2937 Jul 05 11:21	5° ♄ 53'15			2938 Jun 09 03:37	0° ♄	
				morning set	2938 Jun 19 21:54	20° ♄ 43'36	
superior conj	2937 Jul 12 11:21	21° ♄ 04'05	1°17'21	asc. node	2938 Jun 21 01:46	23° ♄ 11'12	
minimum elong	2937 Jul 12 08:59	20° ♄ 51'06	1°17'00		2938 Jun 24 05:19	0° ♄	
max. Earth dist.	2937 Jul 13 17:40	23° ♄ 49'28	1.32648 AU				
	2937 Jul 16 14:26	0° ♄		superior conj	2938 Jun 26 22:59	6° ♄ 01'05	0°58'30
evening rise	2937 Jul 19 15:40	6° ♄ 23'27		minimum elong	2938 Jun 26 20:48	5° ♄ 49'07	0°58'06
	2937 Aug 01 07:54	0° ♄		max. Earth dist.	2938 Jun 27 04:32	6° ♄ 31'44	1.32187 AU
desc. node	2937 Aug 10 21:16	14° ♄ 24'37		evening rise	2938 Jul 03 21:44	21° ♄ 03'59	
evening max el	2937 Aug 21 00:28	26° ♄ 09'56	27°22'29		2938 Jul 08 07:15	0° ♄	
	2937 Aug 25 15:37	0° ♄			2938 Jul 26 17:12	0° ♄	
retrograde	2937 Sep 03 19:20	3° ♄ 26'06		desc. node	2938 Jul 28 18:16	2° ♄ 32'12	
evening set	2937 Sep 11 00:01	0° ♄ 57'06		evening max el	2938 Aug 03 04:31	8° ♄ 22'48	26°49'51
	2937 Sep 12 07:09	30° ♄		retrograde	2938 Aug 17 03:01	15° ♄ 35'01	
min. Earth dist.	2937 Sep 14 14:22	28° ♄ 02'00	0.62507 AU	evening set	2938 Aug 24 00:55	13° ♄ 31'05	
inferior conj	2937 Sep 17 11:51	25° ♄ 17'50	-3°-47'-48	min. Earth dist.	2938 Aug 27 18:37	10° ♄ 53'32	0.60514 AU
minimum elong	2937 Sep 17 17:26	25° ♄ 04'34	3°46'16	inferior conj	2938 Aug 31 00:15	8° ♄ 12'34	-4°-34'-23
morning rise	2937 Sep 24 13:38	20° ♄ 10'37		minimum elong	2938 Aug 31 05:17	8° ♄ 02'05	4°33'31
direct	2937 Sep 26 22:19	19° ♄ 45'29		morning rise	2938 Sep 07 12:51	3° ♄ 26'53	
asc. node	2937 Sep 30 03:57	20° ♄ 33'57		direct	2938 Sep 09 21:14	3° ♄ 05'37	
morning max el	2937 Oct 03 16:44	23° ♄ 12'44	17°51'33	morning max el	2938 Sep 17 05:26	6° ♄ 42'36	18°06'14
	2937 Oct 09 01:12	0° ♄		asc. node	2938 Sep 17 01:00	6° ♄ 31'58	
morning set	2937 Oct 19 17:07	18° ♄ 09'41			2938 Oct 02 02:25	0° ♄	
	2937 Oct 26 09:38	0° ♄		morning set	2938 Oct 03 00:01	1° ♄ 40'52	
superior conj	2937 Oct 30 23:49	7° ♄ 53'42	0°46'11	superior conj	2938 Oct 12 19:10	19° ♄ 43'24	1°16'21
minimum elong	2937 Oct 31 03:46	8° ♄ 10'28	0°45'39				

minimum elong	2938 Oct 12 23:21	20°♄02'05	1°15'53	superior conj	2939 Sep 25 11:43	2°♄35'17	1°35'07
	2938 Oct 18 16:28	0°♄		minimum elong	2939 Sep 25 14:29	2°♄48'19	1°34'54
max. Earth dist.	2938 Oct 20 10:28	2°♄57'36	1.41622 AU	max. Earth dist.	2939 Oct 02 16:15	15°♄41'31	1.39595 AU
desc. node	2938 Oct 24 17:36	10°♄03'14		evening rise	2939 Oct 06 18:36	22°♄45'35	
evening rise	2938 Oct 25 20:32	11°♄52'02			2939 Oct 11 03:37	0°♄	
	2938 Nov 06 14:28	0°♄		desc. node	2939 Oct 11 14:38	0°♄44'34	
greatest brilliancy	2938 Nov 23 07:01	22°♄54'24	-0.3m		2939 Oct 31 13:02	0°♄	
evening max el	2938 Nov 28 07:12	28°♄30'58	22°44'50	evening max el	2939 Nov 10 20:50	12°♄08'30	24°04'46
	2938 Nov 29 20:10	0°♄		retrograde	2939 Nov 21 21:58	18°♄37'47	
retrograde	2938 Dec 08 06:03	4°♄25'25		evening set	2939 Nov 27 03:33	16°♄27'53	
evening set	2938 Dec 12 22:05	2°♄32'22		asc. node	2939 Nov 30 21:16	12°♄20'50	
asc. node	2938 Dec 14 00:14	1°♄32'39		min. Earth dist.	2939 Dec 01 22:52	10°♄55'50	0.67734 AU
	2938 Dec 15 09:45	30°♄		inferior conj	2939 Dec 02 14:57	10°♄01'27	0°35'31
inferior conj	2938 Dec 18 07:54	26°♄08'11	1°25'55	minimum elong	2939 Dec 02 14:07	10°♄04'18	0°35'10
minimum elong	2938 Dec 18 06:04	26°♄14'31	1°25'12	morning rise	2939 Dec 08 00:57	3°♄54'54	
min. Earth dist.	2938 Dec 18 02:31	26°♄26'48	0.67920 AU	direct	2939 Dec 11 21:57	2°♄29'36	
morning rise	2938 Dec 23 13:59	19°♄56'25		morning max el	2939 Dec 19 21:23	7°♄04'31	20°31'22
direct	2938 Dec 28 00:46	18°♄08'45		greatest brilliancy	2939 Dec 26 00:51	14°♄19'00	-0.5m
morning max el	2939 Jan 06 01:35	23°♄26'21	21°48'46		2940 Jan 06 02:22	0°♄	
greatest brilliancy	2939 Jan 10 20:11	28°♄49'28	-0.4m	desc. node	2940 Jan 07 13:54	2°♄12'24	
	2939 Jan 11 18:53	0°♄		morning set	2940 Jan 17 10:22	17°♄13'10	
desc. node	2939 Jan 20 16:52	12°♄05'30			2940 Jan 25 13:02	0°♄	
	2939 Feb 01 17:15	0°♄		max. Earth dist.	2940 Jan 26 21:03	2°♄08'43	1.43322 AU
morning set	2939 Feb 07 09:43	8°♄56'11					
max. Earth dist.	2939 Feb 13 14:22	19°♄02'15	1.41512 AU	superior conj	2940 Feb 02 06:20	12°♄36'46	-2°-4'-22
	2939 Feb 20 00:58	0°♄		minimum elong	2940 Feb 02 03:41	12°♄25'47	2°04'19
					2940 Feb 12 10:19	0°♄	
superior conj	2939 Feb 21 06:45	2°♄10'12	-2°-4'-7	evening rise	2940 Feb 14 14:35	3°♄49'13	
minimum elong	2939 Feb 21 08:58	2°♄19'55	2°04'04	asc. node	2940 Feb 26 20:34	24°♄26'29	
evening rise	2939 Mar 04 00:40	21°♄37'50			2940 Mar 02 03:55	0°♄	
	2939 Mar 08 14:22	0°♄		evening max el	2940 Mar 02 20:05	0°♄41'49	18°07'44
asc. node	2939 Mar 11 23:31	5°♄55'39		retrograde	2940 Mar 09 08:04	4°♄05'01	
evening max el	2939 Mar 20 08:03	17°♄33'11	18°12'19	evening set	2940 Mar 12 01:39	3°♄28'19	
retrograde	2939 Mar 27 06:05	21°♄01'52			2940 Mar 16 18:49	30°♄	
evening set	2939 Mar 29 18:20	20°♄35'07		inferior conj	2940 Mar 18 11:03	28°♄19'21	3°34'17
inferior conj	2939 Apr 05 17:17	15°♄47'11	3°06'26	minimum elong	2940 Mar 18 12:25	28°♄15'51	3°34'12
minimum elong	2939 Apr 05 20:27	15°♄40'05	3°05'51	min. Earth dist.	2940 Mar 21 09:23	25°♄19'54	0.62104 AU
min. Earth dist.	2939 Apr 09 02:06	12°♄47'32	0.59964 AU	morning rise	2940 Mar 24 20:40	22°♄19'51	
morning rise	2939 Apr 12 19:01	10°♄03'28		direct	2940 Mar 31 17:46	19°♄50'19	
desc. node	2939 Apr 18 16:02	8°♄04'46		desc. node	2940 Apr 04 13:04	20°♄31'34	
direct	2939 Apr 19 07:50	8°♄03'34		morning max el	2940 Apr 14 20:07	27°♄47'00	27°50'46
morning max el	2939 May 03 15:23	15°♄53'53	27°31'19		2940 Apr 16 23:09	0°♄	
	2939 May 15 03:40	0°♄			2940 May 07 21:01	0°♄	
	2939 Jun 01 14:10	0°♄		morning set	2940 May 18 08:05	19°♄44'45	
morning set	2939 Jun 04 05:28	5°♄22'48			2940 May 23 05:42	0°♄	
asc. node	2939 Jun 07 22:47	13°♄16'48		max. Earth dist.	2940 May 24 01:36	1°♄46'59	1.32467 AU
max. Earth dist.	2939 Jun 10 16:29	19°♄15'10	1.32127 AU	asc. node	2940 May 24 19:51	3°♄25'39	
superior conj	2939 Jun 11 10:32	20°♄54'25	0°36'04	superior conj	2940 May 25 20:21	5°♄38'43	0°10'45
minimum elong	2939 Jun 11 09:00	20°♄45'59	0°35'45	minimum elong	2940 May 25 19:50	5°♄35'58	0°10'38
	2939 Jun 15 13:56	0°♄		behind sun begin	2940 May 25 15:59	5°♄14'58	
evening rise	2939 Jun 18 07:36	5°♄53'01		behind sun end	2940 May 25 23:42	5°♄57'00	
	2939 Jul 01 00:19	0°♄		evening rise	2940 Jun 01 19:17	20°♄44'05	
desc. node	2939 Jul 15 15:17	19°♄22'58			2940 Jun 06 07:22	0°♄	
evening max el	2939 Jul 16 01:21	19°♄47'15	25°45'20		2940 Jun 26 03:38	0°♄	
retrograde	2939 Jul 30 01:07	26°♄55'12		evening max el	2940 Jun 26 15:49	0°♄29'48	24°17'27
evening set	2939 Aug 05 03:42	25°♄26'56		desc. node	2940 Jul 01 12:19	4°♄26'57	
min. Earth dist.	2939 Aug 09 13:35	22°♄49'43	0.58454 AU	retrograde	2940 Jul 10 12:01	7°♄28'53	
inferior conj	2939 Aug 12 18:57	20°♄30'41	-5°-1'-45	evening set	2940 Jul 15 06:35	6°♄38'07	
minimum elong	2939 Aug 12 20:52	20°♄27'13	5°01'40	min. Earth dist.	2940 Jul 21 02:35	3°♄43'04	0.56607 AU
morning rise	2939 Aug 20 17:32	16°♄08'22		inferior conj	2940 Jul 23 17:30	2°♄04'20	-4°-55'-49
direct	2939 Aug 23 04:47	15°♄48'48		minimum elong	2940 Jul 23 13:55	2°♄10'00	4°55'31
morning max el	2939 Aug 31 11:32	19°♄45'20	18°41'23		2940 Jul 27 04:46	30°♄	
asc. node	2939 Sep 03 22:02	23°♄38'20		morning rise	2940 Aug 01 00:51	28°♄03'01	
	2939 Sep 08 04:52	0°♄		direct	2940 Aug 03 17:13	27°♄43'50	
morning set	2939 Sep 16 18:18	15°♄44'29			2940 Aug 10 14:04	0°♄	
	2939 Sep 24 02:55	0°♄		morning max el	2940 Aug 13 08:06	2°♄12'12	19°38'00

asc. node	2940 Aug 20 19:04	11°♄38'41			2941 Aug 07 11:27	0°♄	
morning set	2940 Aug 30 20:24	0°♄10'45		asc. node	2941 Aug 07 16:08	0°♄20'43	
	2940 Aug 30 18:15	0°♄		morning set	2941 Aug 15 03:42	14°♄52'47	
					2941 Aug 22 10:19	0°♄	
superior conj	2940 Sep 07 19:59	16°♄13'58	1°43'53	superior conj	2941 Aug 22 15:27	0°♄26'24	1°44'24
minimum elong	2940 Sep 07 20:57	16°♄18'45	1°43'51	minimum elong	2941 Aug 22 14:51	0°♄23'19	1°44'23
max. Earth dist.	2940 Sep 13 20:32	27°♄47'39	1.37537 AU	max. Earth dist.	2941 Aug 27 05:01	9°♄38'15	1.35686 AU
	2940 Sep 15 01:11	0°♄		evening rise	2941 Aug 31 08:53	17°♄37'52	
evening rise	2940 Sep 17 15:54	4°♄43'34			2941 Sep 07 06:38	0°♄	
desc. node	2940 Sep 27 11:40	21°♄16'29		desc. node	2941 Sep 14 08:40	11°♄33'53	
	2940 Oct 03 03:35	0°♄			2941 Sep 27 10:24	0°♄	
evening max el	2940 Oct 23 08:59	25°♄48'42	25°20'18	evening max el	2941 Oct 05 21:10	9°♄28'45	26°24'00
	2940 Oct 28 07:06	0°♄		retrograde	2941 Oct 18 16:23	16°♄41'00	
retrograde	2940 Nov 04 09:37	2°♄44'50		evening set	2941 Oct 25 01:49	14°♄04'08	
evening set	2940 Nov 10 05:25	0°♄19'32		min. Earth dist.	2941 Oct 29 05:46	9°♄43'01	0.66332 AU
	2940 Nov 10 14:23	30°♄		inferior conj	2941 Oct 30 20:03	7°♄46'34	-1°-17'-47
min. Earth dist.	2940 Nov 14 16:42	25°♄22'21	0.67204 AU	minimum elong	2941 Oct 30 22:08	7°♄40'11	1°16'56
inferior conj	2940 Nov 15 19:38	23°♄55'10	0°-19'-30	asc. node	2941 Nov 03 15:21	3°♄34'30	
minimum elong	2940 Nov 15 20:08	23°♄53'34	0°19'18	morning rise	2941 Nov 05 19:42	1°♄57'46	
asc. node	2940 Nov 16 18:19	22°♄42'18		direct	2941 Nov 08 18:35	1°♄08'22	
morning rise	2940 Nov 21 11:33	17°♄56'11		morning max el	2941 Nov 15 11:34	4°♄49'51	18°38'34
direct	2940 Nov 24 20:25	16°♄50'42			2941 Dec 03 00:28	0°♄	
morning max el	2940 Dec 02 01:07	20°♄53'32	19°27'14	morning set	2941 Dec 06 03:58	4°♄59'39	
	2940 Dec 09 09:41	0°♄		desc. node	2941 Dec 11 07:59	13°♄10'52	
greatest brilliancy	2940 Dec 10 20:41	2°♄04'03	-0.7m				
desc. node	2940 Dec 24 10:56	22°♄35'44		superior conj	2941 Dec 22 07:48	0°♄28'16	-1°-9'-51
morning set	2940 Dec 26 08:39	25°♄32'26		minimum elong	2941 Dec 21 23:31	29°♄55'45	1°08'54
	2940 Dec 29 05:40	0°♄		max. Earth dist.	2941 Dec 22 04:06	0°♄13'43	1.45174 AU
max. Earth dist.	2941 Jan 08 10:29	15°♄58'20	1.44589 AU		2941 Dec 22 00:36	0°♄	
				evening rise	2942 Jan 07 02:41	25°♄25'32	
superior conj	2941 Jan 12 03:55	21°♄53'47	-1°-46'-24		2942 Jan 09 23:22	0°♄	
minimum elong	2941 Jan 11 19:56	21°♄21'52	1°45'47	evening max el	2942 Jan 28 19:11	27°♄29'35	18°54'20
	2941 Jan 17 04:36	0°♄		asc. node	2942 Jan 30 14:39	29°♄09'45	
evening rise	2941 Jan 26 08:13	15°♄06'02			2942 Jan 31 17:58	0°♄	
	2941 Feb 04 07:23	0°♄		retrograde	2942 Feb 04 14:18	1°♄19'07	
asc. node	2941 Feb 12 17:38	12°♄15'08		evening set	2942 Feb 07 19:29	0°♄19'29	
evening max el	2941 Feb 14 08:36	14°♄02'14	18°22'03		2942 Feb 08 07:20	30°♄	
retrograde	2941 Feb 20 20:06	17°♄33'04		inferior conj	2942 Feb 13 12:10	24°♄33'59	3°29'13
evening set	2941 Feb 23 19:05	16°♄45'26		minimum elong	2942 Feb 13 10:28	24°♄39'17	3°29'00
inferior conj	2941 Mar 01 18:35	11°♄17'13	3°39'59	min. Earth dist.	2942 Feb 15 04:18	22°♄29'05	0.65595 AU
minimum elong	2941 Mar 01 18:10	11°♄18'24	3°39'59	morning rise	2942 Feb 19 00:23	18°♄20'52	
min. Earth dist.	2941 Mar 04 02:12	8°♄38'21	0.64026 AU	direct	2942 Feb 25 13:18	15°♄30'59	
morning rise	2941 Mar 07 15:36	5°♄08'41		desc. node	2942 Mar 09 07:10	21°♄55'52	
direct	2941 Mar 14 12:01	2°♄21'54		morning max el	2942 Mar 10 14:45	23°♄13'04	26°44'16
desc. node	2941 Mar 22 10:07	5°♄20'08			2942 Mar 16 15:30	0°♄	
morning max el	2941 Mar 28 04:53	10°♄17'16	27°33'22		2942 Apr 06 00:10	0°♄	
	2941 Apr 12 16:38	0°♄		morning set	2942 Apr 15 11:34	17°♄01'15	
morning set	2941 Apr 30 05:56	0°♄		max. Earth dist.	2942 Apr 19 19:11	25°♄26'22	1.34444 AU
	2941 May 02 03:14	3°♄40'56			2942 Apr 22 01:24	0°♄	
max. Earth dist.	2941 May 07 03:42	13°♄53'29	1.33227 AU				
superior conj	2941 May 10 02:32	20°♄07'39	0°-16'-43	superior conj	2942 Apr 24 02:56	4°♄14'46	0°-45'-11
minimum elong	2941 May 10 03:22	20°♄12'07	0°16'33	minimum elong	2942 Apr 24 05:16	4°♄26'54	0°44'44
asc. node	2941 May 11 16:54	23°♄33'10		asc. node	2942 Apr 28 13:57	13°♄35'15	
	2941 May 14 16:51	0°♄		evening rise	2942 May 01 16:28	20°♄05'36	
evening rise	2941 May 17 06:52	5°♄30'18			2942 May 06 14:34	0°♄	
	2941 May 30 11:51	0°♄		evening max el	2942 May 21 03:12	21°♄38'38	21°10'21
evening max el	2941 Jun 08 05:49	10°♄56'06	22°40'55	retrograde	2942 Jun 02 00:24	27°♄27'23	
desc. node	2941 Jun 18 09:19	17°♄08'49		evening set	2942 Jun 04 06:54	27°♄15'25	
retrograde	2941 Jun 21 10:51	17°♄30'19		desc. node	2942 Jun 05 06:21	27°♄03'15	
evening set	2941 Jun 24 17:28	17°♄06'44		inferior conj	2942 Jun 13 15:25	23°♄17'15	-2°-24'-33
min. Earth dist.	2941 Jul 02 13:50	13°♄39'48	0.55309 AU	minimum elong	2942 Jun 13 08:49	23°♄26'32	2°22'19
inferior conj	2941 Jul 03 21:29	12°♄54'32	-4°-3'-11	min. Earth dist.	2942 Jun 14 01:43	23°♄02'45	0.54867 AU
minimum elong	2941 Jul 03 13:33	13°♄05'54	4°01'21	morning rise	2942 Jun 22 10:39	19°♄18'17	
morning rise	2941 Jul 12 12:16	9°♄03'30		direct	2942 Jun 25 21:08	18°♄52'43	
direct	2941 Jul 15 11:25	8°♄43'13		morning max el	2942 Jul 08 15:28	24°♄57'16	22°30'13
morning max el	2941 Jul 26 17:16	13°♄56'25	20°55'35		2942 Jul 13 07:08	0°♄	

asc. node	2942 Jul 25 13:10	19° ♄ 33'43		morning rise	2943 Jun 02 06:07	29° ♄ 17'15	
morning set	2942 Jul 30 14:06	29° ♄ 44'02		direct	2943 Jun 06 11:32	28° ♄ 38'04	
	2942 Jul 30 17:09	0° ♄			2943 Jun 12 12:33	0° ♄	
				morning max el	2943 Jun 20 06:46	5° ♄ 28'17	24°12'47
superior conj	2942 Aug 06 18:31	15° ♄ 01'11	1°38'09		2943 Jul 07 16:50	0° ♄	
minimum elong	2942 Aug 06 16:49	14° ♄ 52'11	1°38'02	asc. node	2943 Jul 12 10:13	9° ♄ 09'38	
max. Earth dist.	2942 Aug 09 22:06	21° ♄ 37'24	1.34190 AU	morning set	2943 Jul 15 01:52	14° ♄ 39'29	
	2942 Aug 14 01:32	0° ♄					
evening rise	2942 Aug 14 16:56	1° ♄ 15'38		superior conj	2943 Jul 22 02:35	29° ♄ 50'12	1°26'19
	2942 Aug 31 06:00	0° ♄		minimum elong	2943 Jul 22 00:18	29° ♄ 37'53	1°26'03
desc. node	2942 Sep 01 05:40	1° ♄ 29'26			2943 Jul 22 04:23	0° ♄	
evening max el	2942 Sep 18 09:34	23° ♄ 00'12	27°08'19	max. Earth dist.	2943 Jul 24 00:20	3° ♄ 57'06	1.33101 AU
	2942 Sep 29 07:06	0° ♄		evening rise	2943 Jul 29 12:04	15° ♄ 25'29	
retrograde	2942 Oct 01 17:27	0° ♄ 18'02			2943 Aug 06 02:49	0° ♄	
	2942 Oct 04 01:34	30° ♄		desc. node	2943 Aug 19 02:40	20° ♄ 53'54	
evening set	2942 Oct 08 14:23	27° ♄ 36'22			2943 Aug 26 02:13	0° ♄	
min. Earth dist.	2942 Oct 12 11:39	23° ♄ 51'31	0.65113 AU	evening max el	2943 Aug 31 20:42	6° ♄ 11'10	27°26'12
inferior conj	2942 Oct 14 14:01	21° ♄ 30'27	-2°-17'-37	retrograde	2943 Sep 14 12:13	13° ♄ 27'56	
minimum elong	2942 Oct 14 17:47	21° ♄ 19'52	2°16'12	evening set	2943 Sep 21 16:13	10° ♄ 50'56	
morning rise	2942 Oct 20 22:58	15° ♄ 54'57		min. Earth dist.	2943 Sep 25 08:13	7° ♄ 39'45	0.63554 AU
asc. node	2942 Oct 21 12:23	15° ♄ 40'56		inferior conj	2943 Sep 27 22:58	5° ♄ 01'11	-3°-16'-15
direct	2942 Oct 23 14:17	15° ♄ 17'42		minimum elong	2943 Sep 28 04:08	4° ♄ 48'06	3°14'35
morning max el	2942 Oct 30 02:20	18° ♄ 47'00	18°06'28		2943 Oct 04 02:26	30° ♄	
	2942 Nov 07 10:50	0° ♄		morning rise	2943 Oct 04 18:26	29° ♄ 42'30	
morning set	2942 Nov 17 04:36	15° ♄ 54'24		direct	2943 Oct 07 04:49	29° ♄ 13'45	
	2942 Nov 25 19:05	0° ♄		asc. node	2943 Oct 08 09:26	29° ♄ 20'47	
desc. node	2942 Nov 28 05:00	3° ♄ 53'12			2943 Oct 10 06:24	0° ♄	
				morning max el	2943 Oct 13 18:42	2° ♄ 39'11	17°51'46
superior conj	2942 Dec 01 13:12	9° ♄ 13'21	0°-22'-31	morning set	2943 Oct 30 07:11	28° ♄ 04'11	
minimum elong	2942 Dec 01 10:21	9° ♄ 02'03	0°22'09		2943 Oct 31 09:53	0° ♄	
max. Earth dist.	2942 Dec 04 23:09	14° ♄ 37'27	1.45017 AU				
	2942 Dec 14 19:24	0° ♄		superior conj	2943 Nov 11 14:52	18° ♄ 59'59	0°23'36
evening rise	2942 Dec 17 23:34	4° ♄ 55'12		minimum elong	2943 Nov 11 17:19	19° ♄ 10'05	0°23'16
	2943 Jan 03 11:37	0° ♄		desc. node	2943 Nov 15 01:59	24° ♄ 39'26	
greatest brilliancy	2943 Jan 04 11:19	1° ♄ 24'42	-0.6m	max. Earth dist.	2943 Nov 17 16:57	28° ♄ 52'44	1.44145 AU
evening max el	2943 Jan 12 01:48	11° ♄ 00'03	19°43'09		2943 Nov 18 09:48	0° ♄	
asc. node	2943 Jan 17 11:40	14° ♄ 56'02		evening rise	2943 Nov 27 08:49	14° ♄ 01'36	
retrograde	2943 Jan 19 11:32	15° ♄ 17'43			2943 Dec 07 21:58	0° ♄	
evening set	2943 Jan 23 00:18	14° ♄ 04'44		greatest brilliancy	2943 Dec 20 12:03	17° ♄ 52'05	-0.5m
inferior conj	2943 Jan 28 12:40	8° ♄ 04'19	3°06'02	evening max el	2943 Dec 26 03:06	24° ♄ 31'13	20°46'04
minimum elong	2943 Jan 28 10:16	8° ♄ 12'15	3°05'30	retrograde	2944 Jan 03 09:29	29° ♄ 24'21	
min. Earth dist.	2943 Jan 29 14:14	6° ♄ 39'46	0.66751 AU	asc. node	2944 Jan 04 08:42	29° ♄ 19'10	
morning rise	2943 Feb 02 19:33	1° ♄ 49'15		evening set	2944 Jan 07 07:28	27° ♄ 56'35	
	2943 Feb 05 09:23	30° ♄		inferior conj	2944 Jan 12 17:32	21° ♄ 44'01	2°33'08
direct	2943 Feb 08 20:21	29° ♄ 08'43		minimum elong	2944 Jan 12 14:59	21° ♄ 52'46	2°32'22
	2943 Feb 12 14:09	0° ♄		min. Earth dist.	2944 Jan 13 06:02	21° ♄ 01'12	0.67498 AU
morning max el	2943 Feb 20 23:47	6° ♄ 22'53	25°32'03	morning rise	2944 Jan 17 22:05	15° ♄ 28'52	
desc. node	2943 Feb 24 04:13	9° ♄ 48'37		direct	2944 Jan 23 08:22	13° ♄ 06'10	
	2943 Mar 11 07:15	0° ♄		morning max el	2944 Feb 03 08:12	19° ♄ 39'28	24°06'36
morning set	2943 Mar 29 04:39	29° ♄ 32'56		desc. node	2944 Feb 11 01:15	28° ♄ 35'41	
	2943 Mar 29 10:36	0° ♄			2944 Feb 12 03:23	0° ♄	
max. Earth dist.	2943 Apr 01 23:14	6° ♄ 33'04	1.36116 AU		2944 Mar 03 11:20	0° ♄	
				morning set	2944 Mar 10 00:41	10° ♄ 59'15	
superior conj	2943 Apr 07 18:53	17° ♄ 52'44	-1°-13'-9	max. Earth dist.	2944 Mar 13 19:40	17° ♄ 39'22	1.38145 AU
minimum elong	2943 Apr 07 22:37	18° ♄ 11'23	1°12'33				
	2943 Apr 13 18:14	0° ♄		superior conj	2944 Mar 20 22:50	0° ♄ 51'13	-1°-38'-21
asc. node	2943 Apr 15 10:58	3° ♄ 27'48		minimum elong	2944 Mar 21 03:20	1° ♄ 12'41	1°37'50
evening rise	2943 Apr 15 22:00	4° ♄ 23'48			2944 Mar 20 12:04	0° ♄	
	2943 Apr 30 19:17	0° ♄		evening rise	2944 Mar 29 20:54	18° ♄ 16'55	
evening max el	2943 May 03 12:14	2° ♄ 57'49	19°55'09	asc. node	2944 Apr 01 08:00	23° ♄ 05'26	
retrograde	2943 May 13 15:53	7° ♄ 53'11			2944 Apr 05 00:16	0° ♄	
evening set	2943 May 15 15:40	7° ♄ 42'40		evening max el	2944 Apr 15 08:32	14° ♄ 56'14	18°59'17
desc. node	2943 May 23 03:23	4° ♄ 33'31		retrograde	2944 Apr 23 21:47	19° ♄ 06'01	
inferior conj	2943 May 24 13:29	3° ♄ 42'15	0°-25'-1	evening set	2944 Apr 26 00:42	18° ♄ 51'41	
minimum elong	2943 May 24 12:20	3° ♄ 44'00	0°24'37	inferior conj	2944 May 04 04:00	14° ♄ 36'07	1°21'49
min. Earth dist.	2943 May 26 14:56	2° ♄ 27'13	0.55394 AU	minimum elong	2944 May 04 06:59	14° ♄ 30'52	1°20'48
	2943 May 31 07:08	30° ♄		min. Earth dist.	2944 May 07 06:30	12° ♄ 26'13	0.56775 AU

desc. node	2944 May 09 00:26	11°♄19'00		inferior conj	2945 Apr 15 15:54	26°♃11'01	2°37'37
morning rise	2944 May 12 08:59	9°♄36'04		minimum elong	2945 Apr 15 19:41	26°♃03'13	2°36'41
direct	2944 May 17 14:17	8°♄31'31		min. Earth dist.	2945 Apr 19 02:31	23°♃22'27	0.58722 AU
morning max el	2944 May 31 21:23	15°♄54'50	25°49'04	morning rise	2945 Apr 23 03:48	20°♃40'02	
	2944 Jun 12 06:54	0°♂		desc. node	2945 Apr 25 21:28	19°♃31'20	
asc. node	2944 Jun 28 07:16	29°♂01'10		direct	2945 Apr 29 07:08	19°♃00'37	
morning set	2944 Jun 28 13:20	29°♂33'08		morning max el	2945 May 13 16:29	26°♃44'39	27°03'15
	2944 Jun 28 18:25	0°♄			2945 May 16 18:47	0°♄	
					2945 Jun 05 17:24	0°♂	
superior conj	2944 Jul 05 13:26	14°♄45'44	1°09'50	morning set	2945 Jun 12 22:52	14°♂19'31	
minimum elong	2944 Jul 05 11:05	14°♄32'51	1°09'27	asc. node	2945 Jun 15 04:19	19°♂03'03	
max. Earth dist.	2944 Jul 06 09:07	16°♄33'41	1.32411 AU				
evening rise	2944 Jul 12 14:54	29°♄56'49		superior conj	2945 Jun 20 01:16	29°♂41'43	0°49'23
	2944 Jul 12 15:31	0°♂		minimum elong	2945 Jun 19 23:19	29°♂30'58	0°49'00
	2944 Jul 29 05:16	0°♄		max. Earth dist.	2945 Jun 19 20:54	29°♂17'41	1.32116 AU
desc. node	2944 Aug 04 23:41	9°♄34'18			2945 Jun 20 04:35	0°♄	
evening max el	2944 Aug 13 03:55	18°♄47'36	27°12'35	evening rise	2945 Jun 26 22:51	14°♄41'24	
retrograde	2944 Aug 27 00:05	26°♄01'35			2945 Jul 04 15:45	0°♂	
evening set	2944 Sep 03 03:32	23°♄41'30		desc. node	2945 Jul 22 20:44	27°♂12'11	
min. Earth dist.	2944 Sep 06 18:10	20°♄55'57	0.61686 AU		2945 Jul 25 12:40	0°♄	
inferior conj	2944 Sep 09 19:51	18°♄11'09	-4°-9'-14	evening max el	2945 Jul 26 04:46	0°♄38'55	26°25'47
minimum elong	2944 Sep 10 01:27	17°♄58'34	4°07'54	retrograde	2945 Aug 09 04:10	7°♄50'13	
morning rise	2944 Sep 17 02:19	13°♄12'53		evening set	2945 Aug 15 19:36	6°♄00'09	
direct	2944 Sep 19 10:37	12°♄49'37		min. Earth dist.	2945 Aug 19 18:00	3°♄25'15	0.59630 AU
asc. node	2944 Sep 24 06:29	14°♄31'44		inferior conj	2945 Aug 23 01:06	0°♄50'53	-4°-49'-8
morning max el	2944 Sep 26 09:41	16°♄19'28	17°55'27	minimum elong	2945 Aug 23 05:10	0°♄42'54	4°48'38
	2944 Oct 05 23:48	0°♂			2945 Aug 24 03:19	30°♄♂	
morning set	2944 Oct 12 05:24	11°♂10'07		morning rise	2945 Aug 30 18:10	26°♂15'31	
				direct	2945 Sep 02 03:21	25°♂55'17	
superior conj	2944 Oct 22 19:39	0°♄06'49	1°00'26	morning max el	2945 Sep 09 20:04	29°♂39'07	18°18'41
minimum elong	2944 Oct 23 00:01	0°♄25'41	0°59'53		2945 Sep 10 04:35	0°♄	
	2944 Oct 22 18:05	0°♄		asc. node	2945 Sep 11 03:32	1°♄00'31	
max. Earth dist.	2944 Oct 30 06:27	12°♄41'00	1.42666 AU	morning set	2945 Sep 25 17:38	24°♄55'58	
desc. node	2944 Oct 31 23:00	15°♄26'37			2945 Sep 28 09:29	0°♂	
evening rise	2944 Nov 05 22:46	23°♄25'21					
	2944 Nov 10 04:17	0°♄		superior conj	2945 Oct 05 00:46	12°♂24'56	1°25'38
	2944 Dec 01 01:45	0°♄		minimum elong	2945 Oct 05 04:27	12°♂41'48	1°25'16
greatest brilliancy	2944 Dec 03 05:07	2°♄41'36	-0.3m	max. Earth dist.	2945 Oct 12 14:12	25°♂47'38	1.40771 AU
evening max el	2944 Dec 07 22:48	8°♄03'19	21°59'35		2945 Oct 15 01:52	0°♄	
retrograde	2944 Dec 17 06:17	13°♄35'56		evening rise	2945 Oct 17 07:16	3°♄41'12	
asc. node	2944 Dec 21 05:44	12°♄10'26		desc. node	2945 Oct 18 20:01	6°♄11'01	
evening set	2944 Dec 21 15:16	11°♄52'13			2945 Nov 03 11:28	0°♄	
inferior conj	2944 Dec 27 00:43	5°♄30'58	1°52'23	evening max el	2945 Nov 20 13:59	21°♄37'41	23°18'58
minimum elong	2944 Dec 26 22:30	5°♄38'40	1°51'36	retrograde	2945 Dec 01 00:26	27°♄48'30	
min. Earth dist.	2944 Dec 27 01:32	5°♄28'07	0.67863 AU	evening set	2945 Dec 05 22:01	25°♄48'13	
	2944 Dec 31 10:58	30°♄♄		asc. node	2945 Dec 08 02:47	23°♄35'19	
morning rise	2945 Jan 01 05:33	29°♄17'24		inferior conj	2945 Dec 11 08:20	19°♄22'16	1°05'09
direct	2945 Jan 06 00:40	27°♄16'45		minimum elong	2945 Dec 11 06:52	19°♄27'17	1°04'35
	2945 Jan 12 09:16	0°♄		min. Earth dist.	2945 Dec 10 22:20	19°♄56'36	0.67874 AU
morning max el	2945 Jan 15 18:29	3°♄02'16	22°37'55	morning rise	2945 Dec 16 15:48	13°♄12'19	
greatest brilliancy	2945 Jan 20 08:22	8°♄08'41	-0.3m	direct	2945 Dec 20 20:27	11°♄34'30	
desc. node	2945 Jan 27 22:16	18°♄01'49		morning max el	2945 Dec 29 09:59	16°♄33'25	21°14'26
	2945 Feb 05 05:52	0°♄		greatest brilliancy	2946 Jan 03 15:45	22°♄33'35	-0.4m
morning set	2945 Feb 18 17:44	21°♄06'07			2946 Jan 09 05:59	0°♄	
max. Earth dist.	2945 Feb 23 15:38	29°♄18'51	1.40309 AU	desc. node	2946 Jan 14 19:17	7°♄55'40	
	2945 Feb 24 01:17	0°♄		morning set	2946 Jan 29 06:13	29°♄52'40	
					2946 Jan 29 08:05	0°♄	
superior conj	2945 Mar 03 10:24	12°♄59'36	-1°-57'-30	max. Earth dist.	2946 Feb 05 17:02	11°♄50'21	1.42328 AU
minimum elong	2945 Mar 03 14:09	13°♄16'36	1°57'18				
	2945 Mar 12 13:32	0°♄		superior conj	2946 Feb 13 00:23	24°♄05'25	-2°-6'-12
evening rise	2945 Mar 13 10:05	1°♄37'19		minimum elong	2946 Feb 13 00:51	24°♄07'25	2°06'13
asc. node	2945 Mar 19 05:03	12°♄22'47			2946 Feb 16 10:09	0°♄	
evening max el	2945 Mar 29 13:33	27°♄28'54	18°23'42	evening rise	2946 Feb 24 09:41	14°♄15'32	
	2945 Apr 01 20:13	0°♄			2946 Mar 05 08:11	0°♄	
retrograde	2945 Apr 05 22:43	1°♄08'08		asc. node	2946 Mar 06 02:06	1°♄12'44	
evening set	2945 Apr 08 07:24	0°♄46'42		evening max el	2946 Mar 12 23:57	10°♄26'47	18°08'05
	2945 Apr 10 05:36	30°♄♄		retrograde	2946 Mar 19 16:34	13°♄51'27	

evening set	2946 Mar 22 07:02	13° Υ 20'43		asc. node	2947 Feb 20 23:09	19° X 26'32	
inferior conj	2946 Mar 28 23:47	8° Υ 24'02	3°21'21	evening max el	2947 Feb 24 12:34	23° X 41'03	18°11'40
minimum elong	2946 Mar 29 02:15	8° Υ 18'11	3°21'01	retrograde	2947 Mar 02 23:09	27° X 05'39	
min. Earth dist.	2946 Apr 01 05:10	5° Υ 21'12	0.60883 AU	evening set	2947 Mar 05 19:04	26° X 24'21	
morning rise	2946 Apr 04 18:17	2° Υ 32'24		inferior conj	2947 Mar 11 23:50	21° X 07'13	3°39'02
direct	2946 Apr 11 11:51	0° Υ 18'20		minimum elong	2947 Mar 12 00:24	21° X 05'40	3°39'01
desc. node	2946 Apr 12 18:30	0° Υ 22'56		min. Earth dist.	2947 Mar 14 16:17	18° X 14'20	0.62958 AU
morning max el	2946 Apr 25 17:47	8° Υ 13'09	27°44'11	morning rise	2947 Mar 18 03:39	15° X 03'28	
	2946 May 12 08:57	0° B		direct	2947 Mar 25 01:40	12° X 24'38	
morning set	2946 May 28 04:40	28° B 52'43		desc. node	2947 Mar 30 15:32	13° X 53'31	
	2946 May 28 17:40	0° II		morning max el	2947 Apr 08 00:15	20° X 21'41	27°47'42
asc. node	2946 Jun 02 01:23	9° II 10'51			2947 Apr 16 07:10	0° Υ	
max. Earth dist.	2946 Jun 03 08:00	11° II 57'26	1.32216 AU		2947 May 05 09:00	0° B	
				morning set	2947 May 12 04:24	13° B 04'25	
superior conj	2946 Jun 04 12:21	14° II 32'31	0°25'40	max. Earth dist.	2947 May 17 14:27	24° B 19'03	1.32732 AU
minimum elong	2946 Jun 04 11:13	14° II 26'16	0°25'24				
evening rise	2946 Jun 11 09:46	29° II 32'25		superior conj	2947 May 19 20:51	29° B 11'04	0°00'-41
	2946 Jun 11 14:58	0° B		minimum elong	2947 May 19 20:53	29° B 11'15	0°00'41
	2946 Jun 28 05:30	0° Q		behind sun begin	2947 May 19 15:39	28° B 43'00	
evening max el	2946 Jul 07 22:36	11° Q 44'34	25°10'04	behind sun end	2947 May 20 02:06	29° B 39'31	
desc. node	2946 Jul 09 17:46	13° Q 22'21		asc. node	2947 May 19 22:25	29° B 19'33	
retrograde	2946 Jul 21 22:16	18° Q 50'22			2947 May 20 05:54	0° II	
evening set	2946 Jul 27 12:12	17° Q 38'43		evening rise	2947 May 26 21:37	14° II 22'10	
min. Earth dist.	2946 Aug 01 10:21	14° Q 55'39	0.57619 AU		2947 Jun 03 18:04	0° B	
inferior conj	2946 Aug 04 11:30	12° Q 51'39	-5°-4'-15	evening max el	2947 Jun 19 12:10	22° B 17'14	23°36'39
minimum elong	2946 Aug 04 11:16	12° Q 52'03	5°04'17	desc. node	2947 Jun 26 14:49	27° B 30'37	
morning rise	2946 Aug 12 13:58	8° Q 38'49		retrograde	2947 Jul 03 03:41	29° B 07'30	
direct	2946 Aug 15 02:56	8° Q 19'42		evening set	2947 Jul 07 06:31	28° B 30'20	
morning max el	2946 Aug 23 22:34	12° Q 28'39	19°02'46	min. Earth dist.	2947 Jul 13 22:21	25° B 23'18	0.55972 AU
asc. node	2946 Aug 29 00:35	18° Q 32'02		inferior conj	2947 Jul 16 01:42	24° B 06'27	-4°-39'-43
	2946 Sep 04 21:32	0° M		minimum elong	2947 Jul 15 19:48	24° B 15'20	4°38'51
morning set	2946 Sep 09 15:40	9° M 10'35		morning rise	2947 Jul 24 12:19	20° B 10'55	
				direct	2947 Jul 27 07:27	19° B 51'24	
superior conj	2946 Sep 18 00:41	25° M 38'55	1°39'56	morning max el	2947 Aug 06 14:19	24° B 37'39	20°08'25
minimum elong	2946 Sep 18 02:41	25° M 48'34	1°39'49		2947 Aug 11 08:08	0° Q	
	2946 Sep 20 07:31	0° B		asc. node	2947 Aug 15 21:38	6° Q 51'28	
max. Earth dist.	2946 Sep 24 18:26	8° B 12'39	1.38710 AU	morning set	2947 Aug 24 20:17	23° Q 44'25	
evening rise	2946 Sep 28 15:37	15° B 03'40			2947 Aug 27 21:41	0° M	
desc. node	2946 Oct 05 17:04	26° B 49'07					
	2946 Oct 07 17:07	0° M		superior conj	2947 Sep 01 14:11	9° M 33'03	1°45'00
	2946 Oct 29 06:00	0° A		minimum elong	2947 Sep 01 14:26	9° M 34'20	1°45'00
evening max el	2946 Nov 03 02:48	5° A 16'39	24°37'54	max. Earth dist.	2947 Sep 07 00:04	20° M 09'53	1.36724 AU
retrograde	2946 Nov 14 14:40	11° A 58'46		evening rise	2947 Sep 10 21:53	27° M 27'05	
evening set	2946 Nov 20 02:09	9° A 42'18			2947 Sep 12 07:46	0° B	
asc. node	2946 Nov 24 23:49	4° A 05'22		desc. node	2947 Sep 22 14:07	17° B 15'37	
min. Earth dist.	2946 Nov 24 18:02	4° A 24'36	0.67550 AU		2947 Oct 01 02:37	0° M	
inferior conj	2946 Nov 25 14:36	3° A 16'06	0°12'40	evening max el	2947 Oct 16 15:05	18° M 58'07	25°49'18
minimum elong	2946 Nov 25 14:17	3° A 17'09	0°12'32	retrograde	2947 Oct 29 00:10	26° M 01'37	
transit middle	2946 Nov 25 14:17	3° A 17'09	0°12'32	evening set	2947 Nov 04 01:54	23° M 31'03	
transit begin	2946 Nov 25 12:33	3° A 22'57		min. Earth dist.	2947 Nov 08 10:08	18° M 49'00	0.66882 AU
transit end	2946 Nov 25 16:02	3° A 11'20		inferior conj	2947 Nov 09 17:43	17° M 09'13	0°-43'-53
	2946 Nov 28 04:16	30° R M		minimum elong	2947 Nov 09 18:51	17° M 05'34	0°43'25
morning rise	2946 Dec 01 02:51	27° M 12'08		asc. node	2947 Nov 11 20:51	14° M 33'04	
direct	2946 Dec 04 18:28	25° M 55'34		morning rise	2947 Nov 15 12:41	11° M 14'04	
	2946 Dec 12 02:44	0° A		direct	2947 Nov 18 17:09	10° M 15'43	
morning max el	2946 Dec 12 09:04	0° A 15'42	20°02'09	morning max el	2947 Nov 25 15:48	14° M 07'54	19°04'29
greatest brilliancy	2946 Dec 19 10:45	8° A 49'40	-0.6m		2947 Dec 07 12:16	0° A	
desc. node	2947 Jan 01 16:19	28° A 09'51		morning set	2947 Dec 18 07:33	16° A 42'28	
	2947 Jan 02 21:18	0° B		desc. node	2947 Dec 19 13:22	18° A 38'44	
morning set	2947 Jan 08 02:25	7° B 59'46			2947 Dec 26 19:47	0° B	
max. Earth dist.	2947 Jan 19 02:20	25° B 14'55	1.43939 AU	max. Earth dist.	2948 Jan 01 18:19	9° B 19'12	1.44932 AU
	2947 Jan 22 01:19	0° \approx					
superior conj	2947 Jan 24 12:39	4° \approx 00'59	-1°-59'-10	superior conj	2948 Jan 04 00:56	12° B 54'38	-1°-32'-53
minimum elong	2947 Jan 24 07:30	3° \approx 39'58	1°58'54	minimum elong	2948 Jan 03 15:56	12° B 19'03	1°32'02
evening rise	2947 Feb 06 15:21	26° \approx 03'23			2948 Jan 14 17:15	0° \approx	
	2947 Feb 08 22:19	0° X		evening rise	2948 Jan 18 23:17	6° \approx 55'40	
					2948 Feb 02 09:50	0° X	

asc. node	2948 Feb 07 20:10	6° Υ 53'48			2949 Jan 06 16:45	0° \approx	
evening max el	2948 Feb 08 00:34	7° Υ 05'06	18°33'42	greatest brilliancy	2949 Jan 11 18:04	7° \approx 45'52	-0.7m
retrograde	2948 Feb 14 14:12	10° Υ 42'22		evening max el	2949 Jan 21 09:36	20° \approx 33'33	19°13'09
evening set	2948 Feb 17 15:49	9° Υ 49'34		asc. node	2949 Jan 24 17:11	23° \approx 20'59	
inferior conj	2948 Feb 23 12:02	4° Υ 13'36	3°37'09	retrograde	2949 Jan 28 10:08	24° \approx 34'13	
minimum elong	2948 Feb 23 11:00	4° Υ 16'39	3°37'05	evening set	2949 Jan 31 18:21	23° \approx 28'59	
min. Earth dist.	2948 Feb 25 12:56	1° Υ 48'18	0.64741 AU	inferior conj	2949 Feb 06 08:54	17° \approx 36'30	3°20'42
	2948 Feb 27 03:51	30° \Re \approx		minimum elong	2949 Feb 06 06:50	17° \approx 43'08	3°20'21
morning rise	2948 Feb 29 04:53	28° \approx 02'58		min. Earth dist.	2949 Feb 07 18:33	15° \approx 48'37	0.66135 AU
direct	2948 Mar 06 22:50	25° \approx 13'25		morning rise	2949 Feb 11 18:26	11° \approx 22'13	
desc. node	2948 Mar 16 12:33	29° \approx 31'45		direct	2949 Feb 18 02:28	8° \approx 35'21	
	2948 Mar 17 02:16	0° Υ		morning max el	2949 Mar 02 19:34	16° \approx 07'25	26°15'53
morning max el	2948 Mar 20 09:42	3° Υ 03'52	27°16'02	desc. node	2949 Mar 03 09:35	16° \approx 43'12	
	2948 Apr 09 15:21	0° Υ			2949 Mar 14 07:17	0° Υ	
morning set	2948 Apr 24 19:22	26° Υ 46'20			2949 Apr 02 12:01	0° Υ	
	2948 Apr 26 10:47	0° \Re		morning set	2949 Apr 07 21:47	9° Υ 47'06	
max. Earth dist.	2948 Apr 29 12:33	6° \Re 12'22	1.33689 AU	max. Earth dist.	2949 Apr 11 23:18	17° Υ 32'54	1.35105 AU
superior conj	2948 May 03 00:50	13° \Re 31'24	0°-28'-44	superior conj	2949 Apr 16 21:56	27° Υ 26'15	0°-57'-14
minimum elong	2948 May 03 02:18	13° \Re 39'08	0°28'26	minimum elong	2949 Apr 17 00:54	27° Υ 41'26	0°56'42
asc. node	2948 May 05 19:28	19° \Re 25'15			2949 Apr 18 03:55	0° \Re	
evening rise	2948 May 10 08:35	29° \Re 04'36		asc. node	2949 Apr 22 16:30	9° \Re 23'24	
	2948 May 10 19:10	0° Π		evening rise	2949 Apr 24 16:42	13° \Re 32'56	
	2948 May 28 13:53	0° \Im			2949 May 03 05:51	0° Π	
evening max el	2948 May 31 04:25	2° \Im 46'25	22°00'57	evening max el	2949 May 13 06:17	13° Π 41'41	20°36'05
desc. node	2948 Jun 12 11:48	9° \Im 02'47		retrograde	2949 May 24 10:28	19° Π 08'23	
retrograde	2948 Jun 12 21:21	9° \Im 03'09		evening set	2949 May 26 12:08	18° Π 57'55	
evening set	2948 Jun 15 15:55	8° \Im 46'00		desc. node	2949 May 30 08:48	17° Π 48'14	
inferior conj	2948 Jun 24 23:50	4° \Im 41'23	-3°-26'-2	inferior conj	2949 Jun 04 17:35	15° Π 00'22	-1°-34'-15
minimum elong	2948 Jun 24 15:41	4° \Im 52'49	3°23'43	minimum elong	2949 Jun 04 13:08	15° Π 06'47	1°32'39
min. Earth dist.	2948 Jun 24 09:15	5° \Im 01'49	0.55012 AU	min. Earth dist.	2949 Jun 05 21:29	14° Π 20'10	0.54969 AU
morning rise	2948 Jul 03 17:08	0° \Im 49'50		morning rise	2949 Jun 13 12:49	10° Π 52'19	
direct	2948 Jul 06 20:36	0° \Im 27'55		direct	2949 Jun 17 06:06	10° Π 22'30	
morning max el	2948 Jul 18 18:26	6° \Im 02'02	21°34'06	morning max el	2949 Jun 30 13:07	16° Π 47'41	23°13'47
asc. node	2948 Aug 01 18:40	25° \Im 47'36			2949 Jul 11 02:18	0° \Im	
	2948 Aug 03 23:53	0° Ω		asc. node	2949 Jul 19 15:44	15° \Im 11'10	
morning set	2948 Aug 08 05:08	8° Ω 31'05		morning set	2949 Jul 23 16:20	23° \Im 24'56	
					2949 Jul 26 18:30	0° Ω	
superior conj	2948 Aug 15 13:14	23° Ω 55'54	1°42'29	superior conj	2949 Jul 30 18:45	8° Ω 37'59	1°33'46
minimum elong	2948 Aug 15 12:07	23° Ω 50'02	1°42'27	minimum elong	2949 Jul 30 16:45	8° Ω 27'15	1°33'35
	2948 Aug 18 11:54	0° \mathfrak{M}		max. Earth dist.	2949 Aug 02 09:15	14° Ω 10'05	1.33670 AU
max. Earth dist.	2948 Aug 19 12:12	2° \mathfrak{M} 02'57	1.35009 AU	evening rise	2949 Aug 07 10:59	24° Ω 33'33	
evening rise	2948 Aug 23 21:47	10° \mathfrak{M} 40'54			2949 Aug 10 06:00	0° \mathfrak{M}	
	2948 Sep 03 19:06	0° $\underline{\Delta}$		desc. node	2949 Aug 26 08:07	27° \mathfrak{M} 08'41	
desc. node	2948 Sep 08 11:08	7° $\underline{\Delta}$ 24'40			2949 Aug 28 07:43	0° $\underline{\Delta}$	
	2948 Sep 25 14:10	0° \mathfrak{M}		evening max el	2949 Sep 10 15:20	15° $\underline{\Delta}$ 59'29	27°19'25
evening max el	2948 Sep 28 03:27	2° \mathfrak{M} 35'30	26°45'33	retrograde	2949 Sep 24 02:59	23° $\underline{\Delta}$ 18'05	
retrograde	2948 Oct 11 04:22	9° \mathfrak{M} 50'33		evening set	2949 Oct 01 03:44	20° $\underline{\Delta}$ 36'39	
evening set	2948 Oct 17 19:16	7° \mathfrak{M} 10'31		min. Earth dist.	2949 Oct 04 22:20	17° $\underline{\Delta}$ 06'59	0.64492 AU
min. Earth dist.	2948 Oct 21 20:16	3° \mathfrak{M} 05'12	0.65864 AU	inferior conj	2949 Oct 07 06:09	14° $\underline{\Delta}$ 37'03	-2°-42'-52
inferior conj	2948 Oct 23 15:38	0° \mathfrak{M} 57'36	-1°-43'-7	minimum elong	2949 Oct 07 10:34	14° $\underline{\Delta}$ 25'07	2°41'16
minimum elong	2948 Oct 23 18:27	0° \mathfrak{M} 49'19	1°42'00	morning rise	2949 Oct 13 19:30	9° $\underline{\Delta}$ 08'36	
	2948 Oct 24 11:21	30° \Re $\underline{\Delta}$		asc. node	2949 Oct 15 14:55	8° $\underline{\Delta}$ 38'14	
asc. node	2948 Oct 28 17:53	25° $\underline{\Delta}$ 52'28		direct	2949 Oct 16 08:19	8° $\underline{\Delta}$ 35'30	
morning rise	2948 Oct 29 19:06	25° $\underline{\Delta}$ 14'16		morning max el	2949 Oct 22 20:23	12° $\underline{\Delta}$ 02'08	17°58'03
direct	2948 Nov 01 14:32	24° $\underline{\Delta}$ 30'28			2949 Nov 04 05:54	0° \mathfrak{M}	
morning max el	2948 Nov 08 04:27	28° $\underline{\Delta}$ 05'16	18°22'51	morning set	2949 Nov 09 03:42	8° \mathfrak{M} 16'25	
	2948 Nov 09 22:31	0° \mathfrak{M}		desc. node	2949 Nov 22 07:24	0° \mathfrak{M} 02'03	
morning set	2948 Nov 27 15:15	26° \mathfrak{M} 47'10			2949 Nov 22 06:53	0° \mathfrak{M}	
	2948 Nov 29 15:07	0° \mathfrak{M}					
desc. node	2948 Dec 05 10:23	9° \mathfrak{M} 17'18		superior conj	2949 Nov 22 15:10	0° \mathfrak{M} 33'22	0°-2'-12
				minimum elong	2949 Nov 22 14:54	0° \mathfrak{M} 32'16	0°02'11
superior conj	2948 Dec 13 02:40	21° \mathfrak{M} 25'32	0°-50'-21	behind sun begin	2949 Nov 22 04:37	29° \mathfrak{M} 50'51	
minimum elong	2948 Dec 12 20:17	21° \mathfrak{M} 00'29	0°49'33	behind sun end	2949 Nov 23 01:11	1° \mathfrak{M} 13'37	
max. Earth dist.	2948 Dec 14 13:27	23° \mathfrak{M} 42'08	1.45198 AU	max. Earth dist.	2949 Nov 27 08:05	8° \mathfrak{M} 03'48	1.44726 AU
	2948 Dec 18 13:50	0° \mathfrak{M}		evening rise	2949 Dec 08 22:15	26° \mathfrak{M} 07'51	
evening rise	2948 Dec 29 07:59	16° \mathfrak{M} 52'16					

	2949 Dec 11 10:41	0°☿		max. Earth dist.	2950 Nov 09 23:49	22°☿07'54	1.43583 AU
greatest brilliancy	2949 Dec 28 22:56	25°☿57'25	-0.6m		2950 Nov 14 22:18	0°☿	
	2950 Jan 01 00:57	0°☿		evening rise	2950 Nov 18 07:25	5°☿16'39	
evening max el	2950 Jan 04 13:58	4°☿04'05	20°08'18		2950 Dec 04 20:20	0°☿	
asc. node	2950 Jan 11 14:12	8°☿33'35		greatest brilliancy	2950 Dec 13 10:24	11°☿41'39	-0.4m
retrograde	2950 Jan 12 08:03	8°☿36'38		evening max el	2950 Dec 18 12:55	17°☿35'56	21°16'20
evening set	2950 Jan 16 00:25	7°☿17'39		retrograde	2950 Dec 27 05:43	22°☿45'42	
inferior conj	2950 Jan 21 11:35	1°☿11'33	2°53'07	asc. node	2950 Dec 29 11:14	22°☿18'20	
minimum elong	2950 Jan 21 09:03	1°☿20'03	2°52'29	evening set	2950 Dec 31 08:05	21°☿11'31	
	2950 Jan 22 08:49	30°☿☿		inferior conj	2951 Jan 05 17:43	14°☿54'58	2°16'43
min. Earth dist.	2950 Jan 22 07:25	0°☿04'41	0.67117 AU	minimum elong	2951 Jan 05 15:15	15°☿03'30	2°15'55
morning rise	2950 Jan 26 17:06	24°☿55'56		min. Earth dist.	2951 Jan 06 01:12	14°☿29'07	0.67702 AU
direct	2950 Feb 01 11:48	22°☿22'10		morning rise	2951 Jan 10 22:04	8°☿40'05	
morning max el	2950 Feb 13 04:19	29°☿21'06	24°56'36	direct	2951 Jan 16 01:58	6°☿26'12	
	2950 Feb 13 19:30	0°☿		morning max el	2951 Jan 26 13:00	12°☿39'46	23°28'34
desc. node	2950 Feb 18 06:38	5°☿01'20		greatest brilliancy	2951 Feb 01 14:49	19°☿34'14	-0.2m
	2950 Mar 08 03:22	0°☿		desc. node	2951 Feb 05 03:40	24°☿06'49	
morning set	2950 Mar 21 06:41	21°☿52'59			2951 Feb 09 11:08	0°☿	
max. Earth dist.	2950 Mar 24 23:06	28°☿33'49	1.36943 AU		2951 Mar 01 00:00	0°☿	
	2950 Mar 25 17:41	0°☿		morning set	2951 Mar 02 15:55	2°☿47'23	
				max. Earth dist.	2951 Mar 06 17:56	9°☿48'54	1.39063 AU
superior conj	2950 Mar 31 09:13	10°☿48'05	-1°-24'-22	superior conj	2951 Mar 14 06:52	23°☿27'22	-1°-47'-27
minimum elong	2950 Mar 31 13:24	11°☿08'35	1°23'46	minimum elong	2951 Mar 14 11:17	23°☿48'03	1°47'04
evening rise	2950 Apr 08 19:44	27°☿40'53			2951 Mar 17 17:55	0°☿	
asc. node	2950 Apr 09 13:32	29°☿09'54		evening rise	2951 Mar 23 14:56	11°☿21'20	
	2950 Apr 09 23:35	0°☿		asc. node	2951 Mar 27 10:34	18°☿39'55	
evening max el	2950 Apr 25 20:19	25°☿17'32	19°28'56		2951 Apr 02 22:59	0°☿	
retrograde	2950 May 05 06:54	29°☿52'01		evening max el	2951 Apr 08 20:54	7°☿32'43	18°41'46
evening set	2950 May 07 07:06	29°☿40'30		retrograde	2951 Apr 16 20:34	11°☿27'02	
inferior conj	2950 May 15 21:31	25°☿35'02	0°23'26	evening set	2951 Apr 19 01:59	11°☿09'57	
minimum elong	2950 May 15 22:31	25°☿33'26	0°23'04	inferior conj	2951 Apr 26 21:04	6°☿46'26	1°58'04
desc. node	2950 May 17 05:50	24°☿42'51		minimum elong	2951 Apr 27 00:46	6°☿39'29	1°56'58
min. Earth dist.	2950 May 18 11:54	23°☿55'00	0.55884 AU	min. Earth dist.	2951 Apr 30 05:10	4°☿17'21	0.57555 AU
morning rise	2950 May 24 10:06	20°☿54'55		desc. node	2951 May 04 02:52	1°☿51'58	
direct	2950 May 29 01:20	20°☿06'18		morning rise	2951 May 04 19:08	1°☿32'24	
morning max el	2950 Jun 12 03:25	27°☿13'19	24°55'36	direct	2951 May 10 10:47	0°☿13'23	
	2950 Jun 14 20:19	0°☿		morning max el	2951 May 24 19:20	7°☿46'54	26°24'06
	2950 Jul 04 02:41	0°☿			2951 Jun 10 09:59	0°☿	
asc. node	2950 Jul 06 12:47	4°☿54'14		morning set	2951 Jun 22 15:00	23°☿11'24	
morning set	2950 Jul 08 04:09	8°☿20'00		asc. node	2951 Jun 23 09:50	24°☿11'05	
					2951 Jun 25 19:15	0°☿	
superior conj	2950 Jul 15 04:14	23°☿30'40	1°19'52	superior conj	2951 Jun 29 15:45	8°☿27'30	1°01'37
minimum elong	2950 Jul 15 01:53	23°☿17'46	1°19'32	minimum elong	2951 Jun 29 13:31	8°☿15'12	1°01'13
max. Earth dist.	2950 Jul 16 14:22	26°☿36'25	1.32747 AU	max. Earth dist.	2951 Jun 30 00:54	9°☿17'50	1.32237 AU
	2950 Jul 18 04:06	0°☿		evening rise	2951 Jul 06 15:05	23°☿32'09	
evening rise	2950 Jul 22 09:43	8°☿53'38			2951 Jul 09 18:54	0°☿	
	2950 Aug 02 15:16	0°☿			2951 Jul 27 13:52	0°☿	
desc. node	2950 Aug 13 05:09	16°☿16'32		desc. node	2951 Jul 31 02:10	4°☿33'08	
evening max el	2950 Aug 24 01:04	28°☿57'26	27°24'34	evening max el	2951 Aug 06 06:07	11°☿16'41	26°56'47
	2950 Aug 25 04:17	0°☿		retrograde	2951 Aug 20 03:59	18°☿29'00	
retrograde	2950 Sep 06 19:17	6°☿13'55		evening set	2951 Aug 27 03:42	16°☿20'36	
evening set	2950 Sep 13 23:59	3°☿42'31		min. Earth dist.	2951 Aug 30 20:21	13°☿41'25	0.60823 AU
min. Earth dist.	2950 Sep 17 14:38	0°☿43'29	0.62785 AU	inferior conj	2951 Sep 03 01:06	10°☿59'03	-4°-28'-21
	2950 Sep 18 09:02	30°☿☿		minimum elong	2951 Sep 03 06:21	10°☿47'52	4°27'21
inferior conj	2950 Sep 20 10:24	28°☿00'21	-3°-39'-48	morning rise	2951 Sep 10 12:08	6°☿09'54	
minimum elong	2950 Sep 20 15:56	27°☿47'01	3°38'12	direct	2951 Sep 12 20:25	5°☿48'10	
morning rise	2950 Sep 27 10:32	22°☿49'58		asc. node	2951 Sep 19 09:02	8°☿43'45	
direct	2950 Sep 29 19:32	22°☿24'02		morning max el	2951 Sep 20 01:57	9°☿23'00	18°02'48
asc. node	2950 Oct 02 11:59	22°☿58'03			2951 Oct 03 12:36	0°☿	
morning max el	2950 Oct 06 12:36	25°☿50'41	17°50'59	morning set	2951 Oct 05 20:17	4°☿17'34	
	2950 Oct 10 00:52	0°☿					
morning set	2950 Oct 22 15:28	20°☿52'39		superior conj	2951 Oct 15 20:03	22°☿33'00	1°12'32
	2950 Oct 27 19:42	0°☿		minimum elong	2951 Oct 16 00:20	22°☿52'01	1°12'02
superior conj	2950 Nov 03 04:20	10°☿54'21	0°40'35		2951 Oct 20 02:35	0°☿	
minimum elong	2950 Nov 03 08:01	11°☿09'47	0°40'05	max. Earth dist.	2951 Oct 23 11:04	5°☿40'24	1.41906 AU
desc. node	2950 Nov 09 04:26	20°☿49'24					

desc. node	2951 Oct 27 01:28	11° \mathbb{M} 36'01		max. Earth dist.	2952 Oct 04 17:24	18° \mathbb{L} 30'45	1.39901 AU
evening rise	2951 Oct 29 04:07	15° \mathbb{M} 00'04		evening rise	2952 Oct 08 22:36	25° \mathbb{L} 43'44	
	2951 Nov 07 20:43	0° \mathbb{J}			2952 Oct 11 12:28	0° \mathbb{M}	
greatest brilliancy	2951 Nov 26 10:49	25° \mathbb{J} 44'52	-0.3m	desc. node	2952 Oct 12 22:31	2° \mathbb{M} 18'25	
	2951 Nov 30 03:54	0° \mathbb{Z}			2952 Oct 31 14:01	0° \mathbb{J}	
evening max el	2951 Dec 01 06:40	1° \mathbb{Z} 09'35	22°33'00	evening max el	2952 Nov 12 20:37	14° \mathbb{J} 46'23	23°52'57
retrograde	2951 Dec 11 01:25	6° \mathbb{Z} 58'16		retrograde	2952 Nov 23 17:57	21° \mathbb{J} 11'10	
evening set	2951 Dec 15 15:37	5° \mathbb{Z} 07'34		evening set	2952 Nov 28 21:28	19° \mathbb{J} 03'39	
asc. node	2951 Dec 16 08:17	4° \mathbb{Z} 31'02		asc. node	2952 Dec 02 05:19	15° \mathbb{J} 27'57	
	2951 Dec 20 03:18	30° \mathbb{R} \mathbb{J}		min. Earth dist.	2952 Dec 03 18:00	13° \mathbb{J} 26'34	0.67781 AU
inferior conj	2951 Dec 21 01:19	28° \mathbb{J} 44'06	1°33'05	inferior conj	2952 Dec 04 08:33	12° \mathbb{J} 37'09	0°43'31
minimum elong	2951 Dec 20 23:22	28° \mathbb{J} 50'51	1°32'21	minimum elong	2952 Dec 04 07:32	12° \mathbb{J} 40'36	0°43'05
min. Earth dist.	2951 Dec 20 21:30	28° \mathbb{J} 57'17	0.67918 AU	morning rise	2952 Dec 09 17:50	6° \mathbb{J} 29'43	
morning rise	2951 Dec 26 07:00	22° \mathbb{J} 31'55		direct	2952 Dec 13 16:45	5° \mathbb{J} 01'20	
direct	2951 Dec 30 19:57	20° \mathbb{J} 40'51		morning max el	2952 Dec 21 19:40	9° \mathbb{J} 42'06	20°42'10
morning max el	2952 Jan 09 00:59	26° \mathbb{J} 05'18	22°01'15	greatest brilliancy	2952 Dec 27 16:42	16° \mathbb{J} 34'08	-0.5m
	2952 Jan 12 14:23	0° \mathbb{Z}			2953 Jan 06 07:28	0° \mathbb{Z}	
greatest brilliancy	2952 Jan 13 16:51	1° \mathbb{Z} 19'24	-0.4m	desc. node	2953 Jan 08 21:44	3° \mathbb{Z} 49'48	
desc. node	2952 Jan 23 00:42	13° \mathbb{Z} 45'58		morning set	2953 Jan 19 23:32	20° \mathbb{Z} 41'03	
	2952 Feb 03 00:18	0° \approx			2953 Jan 25 21:31	0° \approx	
morning set	2952 Feb 10 20:21	12° \approx 17'52		max. Earth dist.	2953 Jan 28 21:25	4° \approx 48'54	1.43082 AU
max. Earth dist.	2952 Feb 16 15:59	21° \approx 50'38	1.41209 AU				
	2952 Feb 21 10:55	0° \mathbb{H}		superior conj	2953 Feb 04 13:20	15° \approx 47'49	-2°-5'-25
				minimum elong	2953 Feb 04 11:34	15° \approx 40'26	2°05'24
superior conj	2952 Feb 24 09:55	5° \mathbb{H} 10'54	-2°-2'-47		2953 Feb 12 19:52	0° \mathbb{H}	
minimum elong	2952 Feb 24 12:37	5° \mathbb{H} 22'54	2°02'42	evening rise	2953 Feb 16 15:25	6° \mathbb{H} 43'36	
evening rise	2952 Mar 05 22:50	24° \mathbb{H} 24'52		asc. node	2953 Feb 28 04:39	26° \mathbb{H} 22'31	
	2952 Mar 08 23:17	0° \mathbb{Y}			2953 Mar 02 18:10	0° \mathbb{Y}	
asc. node	2952 Mar 13 07:37	7° \mathbb{Y} 46'31		evening max el	2953 Mar 05 16:17	3° \mathbb{Y} 23'03	18°07'10
evening max el	2952 Mar 22 04:38	20° \mathbb{Y} 17'19	18°14'39	retrograde	2953 Mar 12 05:12	6° \mathbb{Y} 46'19	
retrograde	2952 Mar 29 05:10	23° \mathbb{Y} 48'17		evening set	2953 Mar 14 21:57	6° \mathbb{Y} 11'13	
evening set	2952 Mar 31 16:32	23° \mathbb{Y} 22'57		inferior conj	2953 Mar 21 09:07	1° \mathbb{Y} 05'22	3°31'38
inferior conj	2952 Apr 07 17:49	18° \mathbb{Y} 38'03	2°59'47	minimum elong	2953 Mar 21 10:46	1° \mathbb{Y} 01'11	3°31'28
minimum elong	2952 Apr 07 21:12	18° \mathbb{Y} 30'38	2°59'07		2953 Mar 22 10:54	30° \mathbb{R} \mathbb{H}	
min. Earth dist.	2952 Apr 11 03:23	15° \mathbb{Y} 40'37	0.59638 AU	min. Earth dist.	2953 Mar 24 09:27	28° \mathbb{H} 04'15	0.61793 AU
morning rise	2952 Apr 14 22:10	12° \mathbb{Y} 57'22		morning rise	2953 Mar 27 20:56	25° \mathbb{H} 07'30	
desc. node	2952 Apr 19 23:54	11° \mathbb{Y} 07'55		direct	2953 Apr 03 17:20	22° \mathbb{H} 41'39	
direct	2952 Apr 21 08:46	11° \mathbb{Y} 02'47		desc. node	2953 Apr 06 20:56	23° \mathbb{H} 09'55	
morning max el	2952 May 05 16:54	18° \mathbb{Y} 51'27	27°25'12		2953 Apr 17 05:13	0° \mathbb{Y}	
	2952 May 15 02:27	0° \mathbb{X}		morning max el	2953 Apr 17 20:52	0° \mathbb{Y} 38'18	27°50'16
	2952 Jun 02 01:48	0° \mathbb{I}			2953 May 09 04:50	0° \mathbb{X}	
morning set	2952 Jun 05 23:09	7° \mathbb{I} 52'39		morning set	2953 May 21 02:39	22° \mathbb{X} 17'37	
asc. node	2952 Jun 09 06:54	14° \mathbb{I} 55'53			2953 May 24 19:17	0° \mathbb{I}	
max. Earth dist.	2952 Jun 12 12:59	22° \mathbb{I} 02'05	1.32115 AU	max. Earth dist.	2953 May 26 22:44	4° \mathbb{I} 36'15	1.32388 AU
				asc. node	2953 May 27 03:57	5° \mathbb{I} 04'28	
superior conj	2952 Jun 13 03:26	23° \mathbb{I} 21'35	0°39'41				
minimum elong	2952 Jun 13 01:47	23° \mathbb{I} 12'27	0°39'20	superior conj	2953 May 28 13:36	8° \mathbb{I} 07'30	0°14'44
	2952 Jun 16 03:52	0° \mathbb{S}		minimum elong	2953 May 28 12:55	8° \mathbb{I} 03'47	0°14'36
evening rise	2952 Jun 20 00:32	8° \mathbb{S} 20'13		behind sun begin	2953 May 28 10:53	7° \mathbb{I} 52'41	
	2952 Jul 01 06:17	0° \mathbb{Q}		behind sun end	2953 May 28 14:57	8° \mathbb{I} 14'54	
desc. node	2952 Jul 16 23:12	21° \mathbb{Q} 37'01		evening rise	2953 Jun 04 12:02	23° \mathbb{I} 11'10	
evening max el	2952 Jul 18 03:58	22° \mathbb{Q} 47'49	25°56'35		2953 Jun 07 18:43	0° \mathbb{S}	
retrograde	2952 Aug 01 03:35	29° \mathbb{Q} 56'35			2953 Jun 26 09:36	0° \mathbb{Q}	
evening set	2952 Aug 07 10:02	28° \mathbb{Q} 22'26		evening max el	2953 Jun 29 19:03	3° \mathbb{Q} 35'21	24°31'27
min. Earth dist.	2952 Aug 11 16:22	25° \mathbb{Q} 46'30	0.58756 AU	desc. node	2953 Jul 03 20:13	6° \mathbb{Q} 59'27	
inferior conj	2952 Aug 14 22:37	23° \mathbb{Q} 22'55	-4°-59'-25	retrograde	2953 Jul 13 16:32	10° \mathbb{Q} 36'53	
minimum elong	2952 Aug 15 01:12	23° \mathbb{Q} 18'09	4°59'15	evening set	2953 Jul 18 16:22	9° \mathbb{Q} 40'53	
morning rise	2952 Aug 22 19:50	18° \mathbb{Q} 57'18		min. Earth dist.	2953 Jul 24 06:03	6° \mathbb{Q} 49'25	0.56852 AU
direct	2952 Aug 25 06:31	18° \mathbb{Q} 37'36		inferior conj	2953 Jul 27 00:14	5° \mathbb{Q} 03'34	-4°-59'-33
morning max el	2952 Sep 02 09:15	22° \mathbb{Q} 30'20	18°34'52	minimum elong	2953 Jul 26 21:32	5° \mathbb{Q} 07'55	4°59'23
asc. node	2952 Sep 05 06:05	25° \mathbb{Q} 40'39		morning rise	2953 Aug 04 06:22	0° \mathbb{Q} 59'39	
	2952 Sep 08 08:26	0° \mathbb{P}		direct	2953 Aug 06 21:45	0° \mathbb{Q} 40'34	
morning set	2952 Sep 18 13:07	18° \mathbb{P} 16'58		morning max el	2953 Aug 16 07:27	5° \mathbb{Q} 03'29	19°28'13
	2952 Sep 24 14:45	0° \mathbb{L}		asc. node	2953 Aug 23 03:08	13° \mathbb{Q} 33'54	
					2953 Sep 01 06:01	0° \mathbb{P}	
superior conj	2952 Sep 27 09:49	5° \mathbb{L} 16'49	1°32'56	morning set	2953 Sep 02 14:12	2° \mathbb{P} 40'18	
minimum elong	2952 Sep 27 12:51	5° \mathbb{L} 30'58	1°32'41				

superior conj	2953 Sep 10 16:03	18° \mathbb{M} 49'31	1°43'06	morning max el	2954 Jul 29 18:22	16° \mathfrak{S} 54'51	20°42'41
minimum elong	2953 Sep 10 17:17	18° \mathbb{M} 55'34	1°43'04		2954 Aug 08 17:35	0° \mathcal{O}	
	2953 Sep 16 12:33	0° \mathfrak{A}		asc. node	2954 Aug 10 00:11	2° \mathcal{O} 10'45	
max. Earth dist.	2953 Sep 16 21:21	0° \mathfrak{A} 40'39	1.37832 AU	morning set	2954 Aug 17 20:53	17° \mathcal{O} 20'40	
evening rise	2953 Sep 20 16:35	7° \mathfrak{A} 32'34			2954 Aug 23 23:27	0° \mathbb{M}	
desc. node	2953 Sep 29 19:32	22° \mathfrak{A} 52'06					
	2953 Oct 04 09:32	0° \mathbb{M}		superior conj	2954 Aug 25 10:04	2° \mathbb{M} 57'49	1°44'46
evening max el	2953 Oct 26 08:46	28° \mathbb{M} 26'02	25°09'37	minimum elong	2954 Aug 25 09:41	2° \mathbb{M} 55'50	1°44'46
	2953 Oct 28 00:40	0° \mathfrak{A}		max. Earth dist.	2954 Aug 30 04:50	12° \mathbb{M} 31'57	1.35946 AU
retrograde	2953 Nov 07 06:21	5° \mathfrak{A} 19'13		evening rise	2954 Sep 03 06:58	20° \mathbb{M} 19'39	
evening set	2953 Nov 12 23:58	2° \mathfrak{A} 56'05			2954 Sep 08 16:10	0° \mathfrak{A}	
	2953 Nov 15 20:03	30° \mathbb{R}		desc. node	2954 Sep 16 16:33	13° \mathfrak{A} 12'15	
min. Earth dist.	2953 Nov 17 12:23	27° \mathbb{M} 53'31	0.67302 AU		2954 Sep 28 09:00	0° \mathbb{M}	
inferior conj	2953 Nov 18 13:40	26° \mathbb{M} 31'00	0°-10'-52	evening max el	2954 Oct 08 20:58	12° \mathbb{M} 06'42	26°15'33
minimum elong	2953 Nov 18 13:56	26° \mathbb{M} 30'06	0°10'47	retrograde	2954 Oct 21 13:50	19° \mathbb{M} 17'04	
transit middle	2953 Nov 18 13:56	26° \mathbb{M} 30'06	0°10'47	evening set	2954 Oct 27 21:16	16° \mathbb{M} 41'48	
transit begin	2953 Nov 18 11:52	26° \mathbb{M} 36'52		min. Earth dist.	2954 Nov 01 02:21	12° \mathbb{M} 15'05	0.66487 AU
transit end	2953 Nov 18 16:01	26° \mathbb{M} 23'19		inferior conj	2954 Nov 02 14:50	10° \mathbb{M} 22'53	-1°-8'-48
asc. node	2953 Nov 19 02:20	25° \mathbb{M} 49'46		minimum elong	2954 Nov 02 16:40	10° \mathbb{M} 17'12	1°08'03
morning rise	2953 Nov 24 04:34	20° \mathbb{M} 30'37		asc. node	2954 Nov 05 23:21	6° \mathbb{M} 33'40	
direct	2953 Nov 27 15:05	19° \mathbb{M} 22'25		morning rise	2954 Nov 08 13:13	4° \mathbb{M} 32'15	
morning max el	2953 Dec 04 22:13	23° \mathbb{M} 29'35	19°35'49	direct	2954 Nov 11 13:27	3° \mathbb{M} 40'39	
	2953 Dec 10 09:38	0° \mathfrak{A}		morning max el	2954 Nov 18 07:42	7° \mathbb{M} 24'39	18°44'42
greatest brilliancy	2953 Dec 13 04:38	3° \mathfrak{A} 50'08	-0.6m		2954 Dec 04 07:34	0° \mathfrak{A}	
desc. node	2953 Dec 26 18:46	24° \mathfrak{A} 10'55		morning set	2954 Dec 09 11:32	8° \mathfrak{A} 09'00	
morning set	2953 Dec 29 20:24	28° \mathfrak{A} 54'48		desc. node	2954 Dec 13 15:48	14° \mathfrak{A} 44'25	
	2953 Dec 30 13:16	0° \mathfrak{C}			2954 Dec 23 08:52	0° \mathfrak{C}	
max. Earth dist.	2954 Jan 11 09:39	18° \mathfrak{C} 31'59	1.44442 AU	max. Earth dist.	2954 Dec 25 02:42	2° \mathfrak{C} 44'08	1.45135 AU
superior conj	2954 Jan 15 14:34	25° \mathfrak{C} 14'27	-1°-50'-23	superior conj	2954 Dec 25 20:00	3° \mathfrak{C} 52'03	-1°-16'-21
minimum elong	2954 Jan 15 07:12	24° \mathfrak{C} 44'52	1°49'53	minimum elong	2954 Dec 25 11:17	3° \mathfrak{C} 17'50	1°15'23
	2954 Jan 18 13:18	0° \approx		evening rise	2955 Jan 10 10:08	28° \mathfrak{C} 36'12	
evening rise	2954 Jan 29 12:16	18° \approx 08'42			2955 Jan 11 07:00	0° \approx	
	2954 Feb 05 13:36	0° \mathfrak{H}		evening max el	2955 Jan 31 15:54	0° \mathfrak{H} 08'56	18°48'29
asc. node	2954 Feb 15 01:40	14° \mathfrak{H} 18'14			2955 Jan 31 12:25	0° \mathfrak{H}	
evening max el	2954 Feb 17 04:53	16° \mathfrak{H} 42'08	18°18'46	asc. node	2955 Feb 01 22:40	1° \mathfrak{H} 21'59	
retrograde	2954 Feb 23 15:55	20° \mathfrak{H} 11'00		retrograde	2955 Feb 07 09:20	3° \mathfrak{H} 54'51	
evening set	2954 Feb 26 14:03	19° \mathfrak{H} 25'06		evening set	2955 Feb 10 13:34	2° \mathfrak{H} 57'01	
inferior conj	2954 Mar 04 14:49	13° \mathfrak{H} 59'47	3°40'17		2955 Feb 13 22:51	30° \mathbb{R}	
minimum elong	2954 Mar 04 14:39	14° \mathfrak{H} 00'16	3°40'16	inferior conj	2955 Feb 16 07:05	27° \approx 14'01	3°31'41
min. Earth dist.	2954 Mar 07 00:49	11° \mathfrak{H} 16'39	0.63760 AU	minimum elong	2955 Feb 16 05:33	27° \approx 18'46	3°31'31
morning rise	2954 Mar 10 13:29	7° \mathfrak{H} 52'17		min. Earth dist.	2955 Feb 18 01:30	25° \approx 03'32	0.65387 AU
direct	2954 Mar 17 10:34	5° \mathfrak{H} 06'57		morning rise	2955 Feb 21 20:24	21° \approx 01'32	
desc. node	2954 Mar 24 17:57	7° \mathfrak{H} 39'09		direct	2955 Feb 28 10:51	18° \approx 11'15	
morning max el	2954 Mar 31 05:08	13° \mathfrak{H} 03'26	27°38'09	desc. node	2955 Mar 11 14:58	24° \approx 00'48	
	2954 Apr 13 19:24	0° \mathbb{Y}		morning max el	2955 Mar 13 14:50	25° \approx 55'51	26°53'18
	2954 May 01 17:12	0° \mathfrak{B}			2955 Mar 17 08:58	0° \mathfrak{H}	
morning set	2954 May 04 23:06	6° \mathfrak{B} 18'30			2955 Apr 07 08:19	0° \mathbb{Y}	
max. Earth dist.	2954 May 10 02:00	16° \mathfrak{B} 46'51	1.33079 AU	morning set	2955 Apr 18 09:15	19° \mathbb{Y} 44'49	
				max. Earth dist.	2955 Apr 22 19:12	28° \mathbb{Y} 24'51	1.34231 AU
superior conj	2954 May 12 20:27	22° \mathfrak{B} 39'30	0°-12'-27		2955 Apr 23 14:03	0° \mathfrak{B}	
minimum elong	2954 May 12 21:04	22° \mathfrak{B} 42'49	0°12'19	superior conj	2955 Apr 26 21:51	6° \mathfrak{B} 50'27	0°-40'-51
behind sun begin	2954 May 12 17:39	22° \mathfrak{B} 24'30		minimum elong	2955 Apr 26 23:58	7° \mathfrak{B} 01'28	0°40'26
behind sun end	2954 May 13 00:29	23° \mathfrak{B} 01'08		asc. node	2955 Apr 30 22:00	15° \mathfrak{B} 15'56	
asc. node	2954 May 14 00:59	25° \mathfrak{B} 12'41		evening rise	2955 May 04 09:45	22° \mathfrak{B} 36'13	
	2954 May 16 06:17	0° \mathbb{I}			2955 May 08 00:48	0° \mathbb{I}	
evening rise	2954 May 19 23:44	7° \mathbb{I} 58'45		evening max el	2955 May 24 04:39	24° \mathbb{I} 41'26	21°23'04
	2954 May 31 14:00	0° \mathfrak{S}			2955 Jun 01 08:24	0° \mathfrak{S}	
evening max el	2954 Jun 11 08:44	14° \mathfrak{S} 02'56	22°55'21	retrograde	2955 Jun 05 07:17	0° \mathfrak{S} 37'40	
desc. node	2954 Jun 20 17:13	20° \mathfrak{S} 05'33		evening set	2955 Jun 07 16:23	0° \mathfrak{S} 24'43	
retrograde	2954 Jun 24 17:10	20° \mathfrak{S} 42'05		desc. node	2955 Jun 07 14:13	0° \mathfrak{S} 25'40	
evening set	2954 Jun 28 04:40	20° \mathfrak{S} 15'33			2955 Jun 09 09:56	30° \mathbb{R}	
min. Earth dist.	2954 Jul 05 17:34	16° \mathfrak{S} 54'09	0.55454 AU	inferior conj	2955 Jun 17 01:18	26° \mathbb{I} 25'33	-2°-41'-41
inferior conj	2954 Jul 07 06:44	16° \mathfrak{S} 00'29	-4°-14'-30	minimum elong	2955 Jun 16 18:06	26° \mathbb{I} 35'37	2°39'21
minimum elong	2954 Jul 06 23:09	16° \mathfrak{S} 11'28	4°12'54	min. Earth dist.	2955 Jun 17 05:09	26° \mathbb{I} 20'09	0.54873 AU
morning rise	2954 Jul 15 20:27	12° \mathfrak{S} 08'42		morning rise	2955 Jun 25 20:12	22° \mathbb{I} 29'09	
direct	2954 Jul 18 18:24	11° \mathfrak{S} 48'44					

direct	2955 Jun 29 04:44	22°II04'42		morning rise	2956 Jun 04 15:21	2°II27'35	
morning max el	2955 Jul 11 17:58	28°II01'25	22°15'16	direct	2956 Jun 08 17:27	1°II51'12	
	2955 Jul 13 17:29	0°☿		morning max el	2956 Jun 22 09:53	8°II35'01	23°57'37
asc. node	2955 Jul 27 21:14	21°☿19'47			2956 Jul 08 00:54	0°☿	
	2955 Aug 01 05:43	0°♊		asc. node	2956 Jul 13 18:19	10°☿52'38	
morning set	2955 Aug 02 06:57	2°♊11'04		morning set	2956 Jul 16 18:38	17°☿06'15	
					2956 Jul 22 18:21	0°♊	
superior conj	2955 Aug 09 12:12	17°♊29'53	1°39'29	superior conj	2956 Jul 23 19:41	2°♊17'11	1°28'27
minimum elong	2955 Aug 09 10:39	17°♊21'38	1°39'22	minimum elong	2956 Jul 23 17:28	2°♊05'11	1°28'11
max. Earth dist.	2955 Aug 12 20:41	24°♊29'33	1.34394 AU	max. Earth dist.	2956 Jul 25 21:43	6°♊46'11	1.33236 AU
	2955 Aug 15 13:58	0°♋		evening rise	2956 Jul 31 06:46	17°♊57'21	
evening rise	2955 Aug 17 13:04	3°♋51'47			2956 Aug 06 12:51	0°♋	
	2955 Sep 01 11:36	0°♌		desc. node	2956 Aug 20 10:35	22°♋41'47	
desc. node	2955 Sep 03 13:35	3°♌11'44			2956 Aug 25 20:42	0°♌	
evening max el	2955 Sep 21 09:31	25°♌40'32	27°03'11	evening max el	2956 Sep 02 20:55	8°♌55'18	27°25'24
	2955 Sep 26 15:15	0°♍		retrograde	2956 Sep 16 11:24	16°♌12'28	
retrograde	2955 Oct 04 15:42	2°♍57'32		evening set	2956 Sep 23 14:51	13°♌33'55	
evening set	2955 Oct 11 11:10	0°♍16'07		min. Earth dist.	2956 Sep 27 07:26	10°♌18'14	0.63808 AU
	2955 Oct 11 19:06	30°♎		inferior conj	2956 Sep 29 20:26	7°♌41'36	-3°-7'-38
min. Earth dist.	2955 Oct 15 09:26	26°♌25'57	0.65322 AU	minimum elong	2956 Sep 30 01:26	7°♌28'45	3°05'59
inferior conj	2955 Oct 17 09:55	24°♌08'19	-2°-8'-34	morning rise	2956 Oct 06 14:17	2°♌20'21	
minimum elong	2955 Oct 17 13:27	23°♌58'18	2°07'13	direct	2956 Oct 09 01:16	1°♌50'33	
morning rise	2955 Oct 23 17:25	18°♌30'35		asc. node	2956 Oct 09 17:29	1°♌52'51	
asc. node	2955 Oct 23 20:24	18°♌27'05		morning max el	2956 Oct 15 14:23	5°♌15'53	17°52'50
direct	2955 Oct 26 09:44	17°♌51'42			2956 Oct 31 19:06	0°♍	
morning max el	2955 Nov 01 22:00	21°♌22'07	18°10'08	morning set	2956 Nov 01 07:04	0°♍51'34	
	2955 Nov 08 14:34	0°♎					
morning set	2955 Nov 20 07:54	18°♎51'25		superior conj	2956 Nov 13 21:44	22°♎07'37	0°17'07
	2955 Nov 27 03:47	0°♏		minimum elong	2956 Nov 13 23:35	22°♎15'11	0°16'51
desc. node	2955 Nov 30 12:51	5°♏26'09		desc. node	2956 Nov 16 09:52	26°♎12'18	
					2956 Nov 18 18:29	0°♏	
superior conj	2955 Dec 04 23:46	12°♏31'43	0°-29'-52	max. Earth dist.	2956 Nov 19 16:22	1°♏27'26	1.44316 AU
minimum elong	2955 Dec 04 19:57	12°♏16'39	0°29'21	evening rise	2956 Nov 29 19:57	17°♏20'11	
max. Earth dist.	2955 Dec 07 22:06	17°♏09'14	1.45088 AU		2956 Dec 08 03:47	0°♐	
	2955 Dec 16 03:12	0°♑		greatest brilliancy	2956 Dec 22 04:47	20°♐11'22	-0.5m
evening rise	2955 Dec 21 09:52	8°♑12'31		evening max el	2956 Dec 28 01:20	27°♐10'21	20°35'54
	2956 Jan 04 14:37	0°♒			2956 Dec 31 05:29	0°♒	
greatest brilliancy	2956 Jan 06 22:41	3°♒25'06	-0.7m	retrograde	2957 Jan 05 04:23	1°♒58'06	
evening max el	2956 Jan 14 23:14	13°♒39'25	19°34'55	asc. node	2957 Jan 05 16:45	1°♒56'37	
asc. node	2956 Jan 19 19:41	17°♒19'55		evening set	2957 Jan 09 00:52	0°♒32'35	
retrograde	2956 Jan 22 06:19	17°♒52'17			2957 Jan 09 17:01	30°♓	
evening set	2956 Jan 25 17:53	16°♒41'16		inferior conj	2957 Jan 14 11:09	24°♓21'30	2°38'38
inferior conj	2956 Jan 31 06:45	10°♒42'50	3°10'11	minimum elong	2957 Jan 14 08:35	24°♓30'14	2°37'55
minimum elong	2956 Jan 31 04:25	10°♒50'28	3°09'43	min. Earth dist.	2957 Jan 15 01:28	23°♓32'35	0.67411 AU
min. Earth dist.	2956 Feb 01 10:21	9°♒12'16	0.66605 AU	morning rise	2957 Jan 19 15:51	18°♓06'11	
morning rise	2956 Feb 05 14:14	4°♒28'00		direct	2957 Jan 25 04:18	15°♓40'34	
direct	2956 Feb 11 17:00	1°♒45'36		morning max el	2957 Feb 05 08:39	22°♓20'51	24°19'46
morning max el	2956 Feb 24 00:06	9°♒04'36	25°43'56	desc. node	2957 Feb 12 09:03	0°♒23'45	
desc. node	2956 Feb 26 12:00	11°♒43'42			2957 Feb 12 01:29	0°♒	
	2956 Mar 11 11:32	0°♓			2957 Mar 04 19:14	0°♓	
	2956 Mar 29 21:06	0°♔		morning set	2957 Mar 13 04:31	14°♓01'53	
morning set	2956 Mar 31 04:56	2°♔24'38		max. Earth dist.	2957 Mar 16 22:14	20°♓39'30	1.37828 AU
max. Earth dist.	2956 Apr 04 01:02	9°♔35'10	1.35845 AU		2957 Mar 21 23:29	0°♕	
superior conj	2956 Apr 09 15:16	20°♕33'18	-1°-9'-1	superior conj	2957 Mar 23 21:15	3°♕38'11	-1°-34'-50
minimum elong	2956 Apr 09 18:49	20°♕51'09	1°08'26	minimum elong	2957 Mar 24 01:42	3°♕59'36	1°34'18
	2956 Apr 14 06:35	0°♖		evening rise	2957 Apr 01 16:08	20°♕54'58	
asc. node	2956 Apr 16 19:03	5°♖10'18		asc. node	2957 Apr 03 16:05	24°♕50'33	
evening rise	2956 Apr 17 16:03	6°♖57'33			2957 Apr 06 08:41	0°♖	
	2956 Apr 30 12:43	0°♗		evening max el	2957 Apr 18 06:31	17°♖46'44	19°06'18
evening max el	2956 May 05 11:47	5°♗54'00	20°05'06	retrograde	2957 Apr 27 01:06	22°♖02'37	
retrograde	2956 May 15 21:41	10°♗57'20		evening set	2957 Apr 29 03:06	21°♖49'11	
evening set	2956 May 17 21:38	10°♗46'59		inferior conj	2957 May 07 09:19	17°♖36'21	1°07'22
desc. node	2956 May 24 11:13	8°♗12'53		minimum elong	2957 May 07 11:54	17°♖31'55	1°06'30
inferior conj	2956 May 26 21:44	6°♗47'39	0°-42'-59	min. Earth dist.	2957 May 10 09:12	15°♖33'44	0.56523 AU
minimum elong	2956 May 26 19:44	6°♗50'38	0°42'15	desc. node	2957 May 11 08:15	14°♖56'36	
min. Earth dist.	2956 May 28 17:56	5°♗41'38	0.55258 AU				

morning rise	2957 May 15 16:29	12°♄41'19		minimum elong	2958 Apr 18 21:53	28°♅57'32	2°27'15
direct	2957 May 20 18:02	11°♄41'18		min. Earth dist.	2958 Apr 22 04:32	26°♅20'52	0.58406 AU
morning max el	2957 Jun 04 00:20	19°♄00'54	25°35'52	morning rise	2958 Apr 26 08:36	23°♅38'16	
	2957 Jun 13 06:07	0°♂		desc. node	2958 Apr 28 05:17	22°♅49'21	
	2957 Jun 30 07:15	0°♂		direct	2958 May 02 09:07	22°♅04'09	
asc. node	2957 Jun 30 15:23	0°♂42'28		morning max el	2958 May 16 18:32	29°♅46'09	26°54'08
morning set	2957 Jul 01 06:17	2°♂00'51			2958 May 17 00:11	0°♄	
					2958 Jun 07 02:30	0°♂	
superior conj	2957 Jul 08 06:17	17°♂12'36	1°12'37	morning set	2958 Jun 15 16:12	16°♂48'51	
minimum elong	2957 Jul 08 03:55	16°♂59'38	1°12'14	asc. node	2958 Jun 17 12:25	20°♂43'19	
max. Earth dist.	2957 Jul 09 05:39	19°♂20'36	1.32481 AU		2958 Jun 21 18:37	0°♂	
	2957 Jul 14 04:35	0°♂					
evening rise	2957 Jul 15 08:39	2°♂26'18		superior conj	2958 Jun 22 18:04	2°♂09'13	0°52'44
	2957 Jul 30 09:29	0°♂		minimum elong	2958 Jun 22 16:02	1°♂57'58	0°52'20
desc. node	2957 Aug 07 07:36	11°♂30'17		max. Earth dist.	2958 Jun 22 17:10	2°♂04'12	1.32130 AU
evening max el	2957 Aug 16 04:50	21°♂37'59	27°16'46	evening rise	2958 Jun 29 15:59	17°♂09'42	
retrograde	2957 Aug 30 00:35	28°♂52'54			2958 Jul 06 01:33	0°♂	
evening set	2957 Sep 06 04:42	26°♂29'19		desc. node	2958 Jul 25 04:38	29°♂19'18	
min. Earth dist.	2957 Sep 09 19:01	23°♂40'49	0.61976 AU		2958 Jul 25 19:01	0°♂	
inferior conj	2957 Sep 12 19:22	20°♂55'49	-4°-1'-51	evening max el	2958 Jul 29 06:49	3°♂36'52	26°34'53
minimum elong	2957 Sep 13 01:01	20°♂42'54	4°00'27	retrograde	2958 Aug 12 06:02	10°♂48'41	
morning rise	2957 Sep 20 00:13	15°♂54'27		evening set	2958 Aug 18 23:58	8°♂53'33	
direct	2957 Sep 22 08:35	15°♂30'36		min. Earth dist.	2958 Aug 22 20:25	6°♂18'05	0.59937 AU
asc. node	2957 Sep 26 14:34	16°♂51'19		inferior conj	2958 Aug 26 03:11	3°♂40'58	-4°-44'-23
morning max el	2957 Sep 29 05:52	18°♂59'20	17°53'42	minimum elong	2958 Aug 26 07:40	3°♂32'00	4°43'46
	2957 Oct 07 06:20	0°♂			2958 Aug 31 09:54	30°♂♂	
morning set	2957 Oct 15 02:49	13°♂50'50		morning rise	2958 Sep 02 18:44	29°♂01'59	
	2957 Oct 24 04:11	0°♂		direct	2958 Sep 05 03:31	28°♂41'29	
					2958 Sep 09 15:33	0°♂	
superior conj	2957 Oct 25 22:37	3°♂03'29	0°55'35	morning max el	2958 Sep 12 17:08	2°♂22'49	18°13'54
minimum elong	2957 Oct 26 02:53	3°♂21'50	0°55'01	asc. node	2958 Sep 13 11:37	3°♂09'24	
max. Earth dist.	2957 Nov 02 06:27	15°♂20'24	1.42919 AU	morning set	2958 Sep 28 13:16	27°♂31'48	
desc. node	2957 Nov 03 06:55	17°♂00'04			2958 Sep 29 20:35	0°♂	
evening rise	2957 Nov 09 08:12	26°♂39'13					
	2957 Nov 11 11:46	0°♂		superior conj	2958 Oct 08 00:25	15°♂12'02	1°22'31
	2957 Dec 02 01:05	0°♂		minimum elong	2958 Oct 08 04:19	15°♂29'41	1°22'08
greatest brilliancy	2957 Dec 06 02:44	5°♂15'04	-0.4m	max. Earth dist.	2958 Oct 15 14:58	28°♂33'40	1.41074 AU
evening max el	2957 Dec 10 21:50	10°♂42'20	21°48'07		2958 Oct 16 11:22	0°♂	
retrograde	2957 Dec 20 01:30	16°♂09'14		evening rise	2958 Oct 20 13:26	6°♂46'26	
asc. node	2957 Dec 23 13:47	15°♂02'08		desc. node	2958 Oct 21 03:57	7°♂45'26	
evening set	2957 Dec 24 08:41	14°♂28'01			2958 Nov 04 15:58	0°♂	
inferior conj	2957 Dec 29 18:09	8°♂07'47	1°59'02	greatest brilliancy	2958 Nov 17 14:18	17°♂31'59	-0.2m
minimum elong	2957 Dec 29 15:51	8°♂15'45	1°58'13	evening max el	2958 Nov 23 13:39	24°♂16'48	23°06'59
min. Earth dist.	2957 Dec 29 20:39	7°♂59'04	0.67834 AU		2958 Dec 01 14:23	0°♂	
morning rise	2958 Jan 03 22:46	1°♂53'43		retrograde	2958 Dec 03 20:06	0°♂22'03	
	2958 Jan 07 09:18	30°♂♂			2958 Dec 05 23:04	30°♂♂	
direct	2958 Jan 08 20:06	29°♂49'37		evening set	2958 Dec 08 15:41	28°♂24'21	
	2958 Jan 10 08:11	0°♂		asc. node	2958 Dec 10 10:49	26°♂39'09	
morning max el	2958 Jan 18 18:26	5°♂42'37	22°50'51	min. Earth dist.	2958 Dec 13 17:26	22°♂27'45	0.67899 AU
greatest brilliancy	2958 Jan 23 10:39	10°♂55'39	-0.3m	inferior conj	2958 Dec 14 01:48	21°♂58'55	1°12'45
desc. node	2958 Jan 30 06:07	19°♂44'54		minimum elong	2958 Dec 14 00:12	22°♂04'26	1°12'06
	2958 Feb 06 11:10	0°♂		morning rise	2958 Dec 19 08:44	15°♂48'13	
morning set	2958 Feb 22 01:52	24°♂21'10		direct	2958 Dec 23 15:31	14°♂06'55	
	2958 Feb 25 10:47	0°♂		morning max el	2959 Jan 01 08:53	19°♂12'18	21°26'11
max. Earth dist.	2958 Feb 26 17:30	2°♂11'02	1.39987 AU	greatest brilliancy	2959 Jan 06 10:16	24°♂57'51	-0.4m
					2959 Jan 10 07:11	0°♂	
superior conj	2958 Mar 06 11:33	15°♂54'38	-1°-55'-12	desc. node	2959 Jan 17 03:10	9°♂35'31	
minimum elong	2958 Mar 06 15:33	16°♂12'57	1°54'55		2959 Jan 30 15:46	0°♂	
	2958 Mar 14 00:16	0°♂		morning set	2959 Feb 01 18:15	3°♂18'30	
evening rise	2958 Mar 16 06:58	4°♂20'35		max. Earth dist.	2959 Feb 08 17:47	14°♂34'21	1.42049 AU
asc. node	2958 Mar 21 13:07	14°♂11'20					
	2958 Apr 01 04:21	0°♂		superior conj	2959 Feb 16 05:06	27°♂11'01	-2°-5'-47
evening max el	2958 Apr 01 10:28	0°♂15'09	18°27'47	minimum elong	2959 Feb 16 06:15	27°♂15'59	2°05'47
retrograde	2958 Apr 08 23:04	3°♂57'48			2959 Feb 17 19:59	0°♂	
evening set	2958 Apr 11 06:52	3°♂37'35		evening rise	2959 Feb 27 08:51	17°♂05'53	
	2958 Apr 17 14:25	30°♂♂			2959 Mar 06 13:48	0°♂	
inferior conj	2958 Apr 18 18:02	29°♂05'16	2°28'15	asc. node	2959 Mar 08 10:08	3°♂06'04	

evening max el	2959 Mar 15 20:20	13° Υ 10'20	18°09'12	evening max el	2960 Feb 27 08:45	26° Υ 22'34	18°09'53
retrograde	2959 Mar 22 14:36	16° Υ 36'01		retrograde	2960 Mar 04 19:34	29° Υ 46'19	
evening set	2959 Mar 25 04:18	16° Υ 06'43		evening set	2960 Mar 07 14:43	29° Υ 06'36	
inferior conj	2959 Mar 31 23:09	11° Υ 13'09	3°16'33	inferior conj	2960 Mar 13 21:01	23° Υ 52'15	3°37'44
minimum elong	2959 Apr 01 01:52	11° Υ 06'48	3°16'07	minimum elong	2960 Mar 13 21:51	23° Υ 50'01	3°37'41
min. Earth dist.	2959 Apr 04 05:56	8° Υ 10'54	0.60560 AU	min. Earth dist.	2960 Mar 16 15:35	20° Υ 56'44	0.62666 AU
morning rise	2959 Apr 07 20:08	5° Υ 24'11		morning rise	2960 Mar 20 02:48	17° Υ 49'56	
direct	2959 Apr 14 12:18	3° Υ 14'50		direct	2960 Mar 27 00:41	15° Υ 14'08	
desc. node	2959 Apr 15 02:19	3° Υ 15'48		desc. node	2960 Mar 31 23:21	16° Υ 23'57	
morning max el	2959 Apr 28 18:47	11° Υ 08'14	27°40'27	morning max el	2960 Apr 10 00:37	23° Υ 11'02	27°49'33
	2959 May 13 12:33	0° Υ			2960 Apr 16 02:18	0° Υ	
	2959 May 30 06:13	0° Υ			2960 May 05 18:26	0° Υ	
morning set	2959 May 30 22:38	1° Υ 24'25		morning set	2960 May 13 23:24	15° Υ 39'33	
asc. node	2959 Jun 04 09:26	10° Υ 50'37		max. Earth dist.	2960 May 19 12:03	27° Υ 10'52	1.32631 AU
max. Earth dist.	2959 Jun 06 04:35	14° Υ 45'34	1.32178 AU		2960 May 20 19:31	0° Υ	
				asc. node	2960 May 21 06:27	0° Υ 59'10	
superior conj	2959 Jun 07 05:21	17° Υ 01'15	0°29'27	superior conj	2960 May 21 14:18	1° Υ 41'41	0°03'27
minimum elong	2959 Jun 07 04:03	16° Υ 54'10	0°29'11	minimum elong	2960 May 21 14:08	1° Υ 40'46	0°03'25
	2959 Jun 13 03:59	0° Υ		behind sun begin	2960 May 21 09:02	1° Υ 13'07	
evening rise	2959 Jun 14 02:33	2° Υ 00'22		behind sun end	2960 May 21 19:14	2° Υ 08'26	
	2959 Jun 29 06:02	0° Υ		evening rise	2960 May 28 14:21	16° Υ 50'30	
evening max el	2959 Jul 11 01:40	14° Υ 49'00	25°22'50		2960 Jun 04 02:47	0° Υ	
desc. node	2959 Jul 12 01:37	15° Υ 44'34		evening max el	2960 Jun 21 15:23	25° Υ 24'28	23°51'01
retrograde	2959 Jul 25 01:30	21° Υ 55'31		desc. node	2960 Jun 27 22:36	0° Υ 13'23	
evening set	2959 Jul 30 20:06	20° Υ 38'07			2960 Jun 27 13:09	0° Υ	
min. Earth dist.	2959 Aug 04 13:38	17° Υ 57'23	0.57909 AU	retrograde	2960 Jul 05 08:44	2° Υ 18'02	
inferior conj	2959 Aug 07 16:30	15° Υ 47'51	-5°-4'-13	evening set	2960 Jul 09 17:10	1° Υ 36'22	
minimum elong	2959 Aug 07 17:05	15° Υ 46'50	5°04'13		2960 Jul 13 12:26	30° Υ	
morning rise	2959 Aug 15 17:38	11° Υ 31'39		min. Earth dist.	2960 Jul 16 01:46	28° Υ 33'52	0.56183 AU
direct	2959 Aug 18 05:57	11° Υ 12'24		inferior conj	2960 Jul 18 09:32	27° Υ 09'08	-4°-46'-36
morning max el	2959 Aug 26 20:53	15° Υ 16'49	18°54'47	minimum elong	2960 Jul 18 04:24	27° Υ 16'59	4°45'56
asc. node	2959 Aug 31 08:40	20° Υ 32'06		morning rise	2960 Jul 26 19:02	23° Υ 11'51	
	2959 Sep 06 06:04	0° Υ		direct	2960 Jul 29 13:14	22° Υ 52'27	
morning set	2959 Sep 12 10:00	11° Υ 42'26		morning max el	2960 Aug 08 14:18	27° Υ 32'06	19°57'20
					2960 Aug 10 23:23	0° Υ	
superior conj	2959 Sep 20 21:48	28° Υ 18'08	1°38'23	asc. node	2960 Aug 17 05:42	8° Υ 45'05	
minimum elong	2959 Sep 21 00:05	28° Υ 29'01	1°38'15	morning set	2960 Aug 26 13:46	26° Υ 13'55	
	2959 Sep 21 19:13	0° Υ			2960 Aug 28 10:13	0° Υ	
max. Earth dist.	2959 Sep 27 19:32	11° Υ 40'28	1.39021 AU	superior conj	2960 Sep 03 09:32	12° Υ 07'12	1°44'45
evening rise	2959 Oct 01 18:10	17° Υ 58'32		minimum elong	2960 Sep 03 10:02	12° Υ 09'43	1°44'45
desc. node	2959 Oct 08 00:58	28° Υ 24'36		max. Earth dist.	2960 Sep 09 00:42	23° Υ 05'04	1.37004 AU
	2959 Oct 09 00:49	0° Υ		evening rise	2960 Sep 12 21:21	0° Υ 13'19	
	2959 Oct 30 01:27	0° Υ			2960 Sep 12 18:24	0° Υ	
evening max el	2959 Nov 06 02:43	7° Υ 55'18	24°26'27	desc. node	2960 Sep 23 21:58	18° Υ 53'11	
retrograde	2959 Nov 17 10:52	14° Υ 32'59			2960 Oct 01 06:10	0° Υ	
evening set	2959 Nov 22 20:17	12° Υ 18'51		evening max el	2960 Oct 18 14:56	21° Υ 36'36	25°39'27
asc. node	2959 Nov 27 07:51	7° Υ 14'26		retrograde	2960 Oct 30 21:06	28° Υ 37'37	
min. Earth dist.	2959 Nov 27 13:22	6° Υ 56'06	0.67622 AU	evening set	2960 Nov 05 20:48	26° Υ 08'46	
inferior conj	2959 Nov 28 08:21	5° Υ 52'32	0°20'58	min. Earth dist.	2960 Nov 10 06:05	21° Υ 21'28	0.67002 AU
minimum elong	2959 Nov 28 07:50	5° Υ 54'14	0°20'44	inferior conj	2960 Nov 11 12:02	19° Υ 46'01	0°-35'-7
morning rise	2959 Dec 03 19:46	29° Υ 47'35		minimum elong	2960 Nov 11 12:56	19° Υ 43'06	0°34'44
	2959 Dec 03 13:03	30° Υ		asc. node	2960 Nov 13 04:54	17° Υ 38'44	
direct	2959 Dec 07 13:15	28° Υ 27'58		morning rise	2960 Nov 17 05:54	13° Υ 49'32	
	2959 Dec 11 21:02	0° Υ		direct	2960 Nov 20 11:53	12° Υ 48'45	
morning max el	2959 Dec 15 06:44	2° Υ 52'56	20°12'04	morning max el	2960 Nov 27 12:28	16° Υ 44'20	19°12'09
greatest brilliancy	2959 Dec 22 00:00	10° Υ 56'27	-0.6m		2960 Dec 07 16:26	0° Υ	
desc. node	2960 Jan 04 00:12	29° Υ 47'21		greatest brilliancy	2960 Dec 07 23:20	0° Υ 25'36	-0.7m
	2960 Jan 04 03:34	0° Υ		morning set	2960 Dec 20 17:47	20° Υ 01'04	
morning set	2960 Jan 11 15:28	11° Υ 27'26		desc. node	2960 Dec 20 21:15	20° Υ 14'31	
max. Earth dist.	2960 Jan 22 02:15	27° Υ 53'08	1.43737 AU		2960 Dec 27 03:34	0° Υ	
	2960 Jan 23 09:50	0° Υ		max. Earth dist.	2961 Jan 03 17:37	11° Υ 53'41	1.44828 AU
superior conj	2960 Jan 27 21:20	7° Υ 17'24	-2°-1'-25	superior conj	2961 Jan 06 12:40	16° Υ 18'46	-1°-38'-5
minimum elong	2960 Jan 27 17:04	6° Υ 59'53	2°01'16	minimum elong	2961 Jan 06 03:52	15° Υ 43'54	1°37'18
evening rise	2960 Feb 09 17:29	29° Υ 01'58			2961 Jan 15 01:27	0° Υ	
	2960 Feb 10 06:52	0° Υ					
asc. node	2960 Feb 23 07:09	21° Υ 26'00					

evening rise	2961 Jan 21 04:52	10° \approx 03'13			2961 Dec 19 21:50	0° \approx	
	2961 Feb 02 11:36	0° \approx		evening rise	2962 Jan 01 16:52	20° \approx 07'17	
asc. node	2961 Feb 09 04:10	9° \approx 01'16			2962 Jan 07 22:54	0° \approx	
evening max el	2961 Feb 09 20:59	9° \approx 45'31	18°29'12	greatest brilliancy	2962 Jan 13 16:40	8° \approx 56'50	-0.7m
retrograde	2961 Feb 16 09:42	13° \approx 20'18		evening max el	2962 Jan 24 06:34	23° \approx 13'31	19°06'15
evening set	2961 Feb 19 10:22	12° \approx 29'19		asc. node	2962 Jan 27 01:13	25° \approx 38'35	
inferior conj	2961 Feb 25 07:40	6° \approx 55'54	3°38'25	retrograde	2962 Jan 31 05:07	27° \approx 10'14	
minimum elong	2961 Feb 25 06:51	6° \approx 58'19	3°38'23	evening set	2962 Feb 03 12:14	26° \approx 07'00	
min. Earth dist.	2961 Feb 27 10:54	4° \approx 25'41	0.64501 AU	inferior conj	2962 Feb 09 03:28	20° \approx 16'54	3°23'56
morning rise	2961 Mar 03 01:54	0° \approx 45'53		minimum elong	2962 Feb 09 01:32	20° \approx 23'05	3°23'39
	2961 Mar 04 01:33	30° \approx		min. Earth dist.	2962 Feb 10 15:22	18° \approx 22'54	0.65954 AU
direct	2961 Mar 09 20:49	27° \approx 57'06		morning rise	2962 Feb 14 13:53	14° \approx 02'52	
	2961 Mar 16 06:49	0° \approx		direct	2962 Feb 20 23:39	11° \approx 14'42	
desc. node	2961 Mar 18 20:24	1° \approx 45'17		desc. node	2962 Mar 05 17:26	18° \approx 44'36	
morning max el	2961 Mar 23 09:56	5° \approx 49'28	27°22'43	morning max el	2962 Mar 05 19:54	18° \approx 50'47	26°26'15
	2961 Apr 10 20:48	0° \approx			2962 Mar 15 06:57	0° \approx	
morning set	2961 Apr 27 15:53	29° \approx 26'26			2962 Apr 03 21:12	0° \approx	
	2961 Apr 27 22:44	0° \approx		morning set	2962 Apr 10 20:31	12° \approx 34'41	
max. Earth dist.	2961 May 02 11:38	9° \approx 08'45	1.33519 AU	max. Earth dist.	2962 Apr 15 00:05	20° \approx 33'45	1.34862 AU
superior conj	2961 May 05 19:05	16° \approx 04'49	0°-24'-25	superior conj	2962 Apr 19 17:26	0° \approx 04'24	0°-52'-56
minimum elong	2961 May 05 20:20	16° \approx 11'23	0°24'10	minimum elong	2962 Apr 19 20:11	0° \approx 18'32	0°52'27
asc. node	2961 May 08 03:29	21° \approx 05'18			2962 Apr 19 16:35	0° \approx	
	2961 May 12 07:42	0° \approx		asc. node	2962 Apr 25 00:32	11° \approx 05'06	
evening rise	2961 May 13 01:34	1° \approx 34'09		evening rise	2962 Apr 27 10:17	16° \approx 05'22	
	2961 May 29 03:53	0° \approx			2962 May 04 12:24	0° \approx	
evening max el	2961 Jun 03 06:37	5° \approx 51'30	22°14'43	evening max el	2962 May 16 06:54	16° \approx 42'22	20°47'44
desc. node	2961 Jun 14 19:37	12° \approx 10'42		retrograde	2962 May 27 17:17	22° \approx 17'01	
retrograde	2961 Jun 16 04:08	12° \approx 14'55		evening set	2962 May 29 20:13	22° \approx 10'14	
evening set	2961 Jun 19 02:37	11° \approx 55'48		desc. node	2962 Jun 01 16:38	21° \approx 12'03	
min. Earth dist.	2961 Jun 27 12:41	8° \approx 17'59	0.55095 AU	inferior conj	2962 Jun 08 03:02	18° \approx 10'49	-1°-52'-27
inferior conj	2961 Jun 28 09:28	7° \approx 48'43	-3°-40'-11	minimum elong	2962 Jun 07 21:46	18° \approx 16'20	1°50'35
minimum elong	2961 Jun 28 01:15	8° \approx 00'18	3°38'00	min. Earth dist.	2962 Jun 09 00:55	17° \approx 13'35	0.54910 AU
morning rise	2961 Jul 07 01:57	3° \approx 57'52		morning rise	2962 Jun 16 22:24	14° \approx 04'15	
direct	2961 Jul 10 03:47	3° \approx 36'39		direct	2962 Jun 20 13:05	13° \approx 13'08	
morning max el	2961 Jul 21 20:09	9° \approx 03'16	21°20'21	morning max el	2962 Jul 03 16:04	19° \approx 15'42	22°58'28
asc. node	2961 Aug 04 02:45	27° \approx 36'21			2962 Jul 12 02:43	0° \approx	
	2961 Aug 05 09:45	0° \approx		asc. node	2962 Jul 21 23:48	16° \approx 56'23	
morning set	2961 Aug 10 22:07	10° \approx 59'06		morning set	2962 Jul 26 09:07	25° \approx 52'27	
					2962 Jul 28 07:51	0° \approx	
superior conj	2961 Aug 18 07:24	26° \approx 26'40	1°43'18	superior conj	2962 Aug 02 12:10	11° \approx 06'45	1°35'27
minimum elong	2961 Aug 18 06:27	26° \approx 21'45	1°43'16	minimum elong	2962 Aug 02 10:16	10° \approx 56'36	1°35'17
	2961 Aug 20 00:48	0° \approx		max. Earth dist.	2962 Aug 05 07:08	17° \approx 01'00	1.33842 AU
max. Earth dist.	2961 Aug 22 11:30	4° \approx 56'55	1.35236 AU	evening rise	2962 Aug 10 06:26	27° \approx 08'30	
evening rise	2961 Aug 26 18:54	13° \approx 20'28			2962 Aug 11 17:31	0° \approx	
	2961 Sep 05 03:10	0° \approx		desc. node	2962 Aug 28 16:00	28° \approx 53'47	
desc. node	2961 Sep 10 18:58	9° \approx 05'19			2962 Aug 29 10:01	0° \approx	
	2961 Sep 26 04:32	0° \approx		evening max el	2962 Sep 13 15:17	18° \approx 41'47	27°16'04
evening max el	2961 Oct 01 03:10	5° \approx 14'48	26°38'26	retrograde	2962 Sep 27 01:48	26° \approx 00'23	
retrograde	2961 Oct 14 02:11	12° \approx 29'13		evening set	2962 Oct 04 01:16	23° \approx 18'39	
evening set	2961 Oct 20 15:16	9° \approx 50'04		min. Earth dist.	2962 Oct 07 20:45	19° \approx 43'44	0.64718 AU
min. Earth dist.	2961 Oct 24 17:16	5° \approx 13'18	0.66036 AU	inferior conj	2962 Oct 10 02:40	17° \approx 16'39	-2°-33'-55
inferior conj	2961 Oct 26 10:52	3° \approx 13'52	-1°-34'-6	minimum elong	2962 Oct 10 06:52	17° \approx 05'10	2°32'22
minimum elong	2961 Oct 26 13:26	3° \approx 12'46	1°33'02	morning rise	2962 Oct 16 14:29	11° \approx 45'40	
	2961 Oct 29 16:40	30° \approx		asc. node	2962 Oct 17 23:01	11° \approx 18'58	
asc. node	2961 Oct 31 01:57	28° \approx 47'23		direct	2962 Oct 19 04:05	11° \approx 11'14	
morning rise	2961 Nov 01 12:59	27° \approx 50'10		morning max el	2962 Oct 25 16:02	14° \approx 38'42	18°00'35
direct	2961 Nov 04 09:33	27° \approx 04'32			2962 Nov 05 12:54	0° \approx	
	2961 Nov 10 07:12	0° \approx		morning set	2962 Nov 12 05:26	11° \approx 09'33	
morning max el	2961 Nov 11 00:25	0° \approx 14'27	18°27'59		2962 Nov 23 15:34	0° \approx	
morning set	2961 Nov 30 20:59	29° \approx 15'20		desc. node	2962 Nov 24 15:18	1° \approx 35'43	
	2961 Nov 30 22:58	0° \approx					
desc. node	2961 Dec 07 18:16	10° \approx 51'46		superior conj	2962 Nov 26 00:18	3° \approx 48'09	0°-9'-20
superior conj	2961 Dec 16 14:37	24° \approx 49'17	0°-57'-28	minimum elong	2962 Nov 25 23:09	3° \approx 43'35	0°09'12
minimum elong	2961 Dec 16 07:28	24° \approx 21'12	0°56'34	behind sun begin	2962 Nov 25 14:25	3° \approx 08'33	
max. Earth dist.	2961 Dec 17 12:08	26° \approx 13'46	1.45205 AU	behind sun end	2962 Nov 26 07:54	4° \approx 18'35	

max. Earth dist.	2962 Nov 30 06:50	10° \mathcal{A} 35'48	1.44844 AU		2963 Oct 10 18:25	0° \mathcal{A}	
evening rise	2962 Dec 12 09:10	29° \mathcal{A} 26'49		morning set	2963 Oct 25 14:11	23° \mathcal{A} 37'13	
	2962 Dec 12 17:47	0° \mathcal{B}			2963 Oct 29 05:29	0° \mathcal{M}	
greatest brilliancy	2962 Dec 31 13:18	28° \mathcal{B} 09'30	-0.6m				
	2963 Jan 01 21:47	0° \mathcal{A}		superior conj	2963 Nov 06 09:26	13° \mathcal{M} 57'14	0°34'45
evening max el	2963 Jan 07 11:46	6° \mathcal{A} 43'55	19°59'17	minimum elong	2963 Nov 06 12:45	14° \mathcal{M} 11'03	0°34'17
asc. node	2963 Jan 13 22:17	11° \mathcal{A} 03'22		desc. node	2963 Nov 11 12:21	22° \mathcal{M} 22'53	
retrograde	2963 Jan 15 02:52	11° \mathcal{A} 11'09		max. Earth dist.	2963 Nov 12 23:25	24° \mathcal{M} 44'31	1.43793 AU
evening set	2963 Jan 18 17:55	9° \mathcal{A} 54'20			2963 Nov 16 06:30	0° \mathcal{A}	
inferior conj	2963 Jan 24 05:28	3° \mathcal{A} 50'12	2°57'53	evening rise	2963 Nov 21 18:06	8° \mathcal{A} 34'20	
minimum elong	2963 Jan 24 02:58	3° \mathcal{A} 58'33	2°57'18		2963 Dec 06 00:19	0° \mathcal{B}	
min. Earth dist.	2963 Jan 25 03:18	2° \mathcal{A} 37'04	0.66997 AU	greatest brilliancy	2963 Dec 16 05:16	14° \mathcal{B} 08'00	-0.4m
	2963 Jan 27 04:30	30° \mathcal{R} \mathcal{B}		evening max el	2963 Dec 21 11:35	20° \mathcal{B} 15'51	21°05'33
morning rise	2963 Jan 29 11:23	27° \mathcal{B} 34'43		retrograde	2963 Dec 30 00:38	25° \mathcal{B} 19'37	
direct	2963 Feb 04 08:16	24° \mathcal{B} 58'22		asc. node	2963 Dec 31 19:19	25° \mathcal{B} 02'11	
	2963 Feb 14 01:20	0° \mathcal{A}		evening set	2964 Jan 03 01:27	23° \mathcal{B} 47'42	
morning max el	2963 Feb 16 04:43	2° \mathcal{A} 03'03	25°09'11	inferior conj	2964 Jan 08 11:12	17° \mathcal{B} 32'34	2°22'45
desc. node	2963 Feb 20 14:29	6° \mathcal{A} 53'57		minimum elong	2964 Jan 08 08:42	17° \mathcal{B} 41'11	2°21'57
	2963 Mar 09 09:27	0° \mathcal{H}		min. Earth dist.	2964 Jan 08 20:26	17° \mathcal{B} 00'47	0.67641 AU
morning set	2963 Mar 24 08:24	24° \mathcal{H} 49'54		morning rise	2964 Jan 13 15:35	11° \mathcal{B} 17'35	
	2963 Mar 27 04:34	0° \mathcal{Y}		direct	2964 Jan 18 21:45	9° \mathcal{B} 00'28	
max. Earth dist.	2963 Mar 28 01:12	1° \mathcal{Y} 35'42	1.36645 AU	morning max el	2964 Jan 29 13:13	15° \mathcal{B} 20'55	23°41'51
				desc. node	2964 Feb 07 11:33	25° \mathcal{B} 53'15	
superior conj	2963 Apr 03 06:27	13° \mathcal{Y} 32'05	-1°-20'-26		2964 Feb 10 13:12	0° \mathcal{A}	
minimum elong	2963 Apr 03 10:29	13° \mathcal{Y} 52'01	1°19'50		2964 Mar 01 08:40	0° \mathcal{H}	
	2963 Apr 11 10:54	0° \mathcal{B}		morning set	2964 Mar 04 21:32	5° \mathcal{H} 55'41	
evening rise	2963 Apr 11 14:16	0° \mathcal{B} 17'00		max. Earth dist.	2964 Mar 08 20:25	12° \mathcal{H} 46'51	1.38742 AU
asc. node	2963 Apr 11 21:35	0° \mathcal{B} 53'49					
evening max el	2963 Apr 28 19:15	28° \mathcal{B} 12'28	19°37'42	superior conj	2964 Mar 16 06:24	26° \mathcal{H} 18'19	-1°-44'-23
	2963 Apr 30 20:45	0° \mathcal{I}		minimum elong	2964 Mar 16 10:53	26° \mathcal{H} 39'27	1°43'55
retrograde	2963 May 08 11:39	2° \mathcal{I} 53'55			2964 Mar 18 05:11	0° \mathcal{Y}	
evening set	2963 May 10 11:33	2° \mathcal{I} 42'51		evening rise	2964 Mar 25 10:50	14° \mathcal{Y} 01'57	
	2963 May 17 00:17	30° \mathcal{R} \mathcal{B}		asc. node	2964 Mar 28 18:38	20° \mathcal{Y} 26'38	
inferior conj	2963 May 19 04:42	28° \mathcal{B} 39'28	0°06'33		2964 Apr 03 02:04	0° \mathcal{B}	
minimum elong	2963 May 19 04:59	28° \mathcal{B} 39'01	0°06'27	evening max el	2964 Apr 10 18:24	10° \mathcal{B} 21'48	18°47'27
transit middle	2963 May 19 04:59	28° \mathcal{B} 39'01	0°06'27	retrograde	2964 Apr 18 22:31	14° \mathcal{B} 21'06	
transit begin	2963 May 19 01:24	28° \mathcal{B} 44'40		evening set	2964 Apr 21 03:04	14° \mathcal{B} 05'01	
transit end	2963 May 19 08:34	28° \mathcal{B} 33'21		inferior conj	2964 Apr 29 01:00	9° \mathcal{B} 44'18	1°45'48
desc. node	2963 May 19 13:41	28° \mathcal{B} 25'17		minimum elong	2964 Apr 29 04:31	9° \mathcal{B} 37'51	1°44'42
min. Earth dist.	2963 May 21 14:56	27° \mathcal{B} 07'59	0.55695 AU	min. Earth dist.	2964 May 02 07:29	7° \mathcal{B} 21'35	0.57274 AU
morning rise	2963 May 27 18:51	24° \mathcal{B} 04'43		desc. node	2964 May 05 10:42	5° \mathcal{B} 23'07	
direct	2963 Jun 01 06:39	23° \mathcal{B} 19'35		morning rise	2964 May 07 01:35	4° \mathcal{B} 35'06	
	2963 Jun 14 21:35	0° \mathcal{I}		direct	2964 May 12 13:45	3° \mathcal{B} 21'17	
morning max el	2963 Jun 15 06:33	0° \mathcal{I} 21'06	24°40'51	morning max el	2964 May 26 21:51	10° \mathcal{B} 51'13	26°12'23
	2963 Jul 05 13:19	0° \mathcal{B}			2964 Jun 10 14:46	0° \mathcal{I}	
asc. node	2963 Jul 08 20:51	6° \mathcal{B} 36'45		morning set	2964 Jun 24 08:03	25° \mathcal{I} 39'29	
morning set	2963 Jul 10 20:58	10° \mathcal{B} 47'32		asc. node	2964 Jun 24 17:54	26° \mathcal{I} 31'34	
					2964 Jun 26 08:54	0° \mathcal{B}	
superior conj	2963 Jul 17 21:13	25° \mathcal{B} 58'08	1°22'17				
minimum elong	2963 Jul 17 18:53	25° \mathcal{B} 45'24	1°21'58	superior conj	2964 Jul 01 08:31	10° \mathcal{B} 54'15	1°04'38
max. Earth dist.	2963 Jul 19 11:18	29° \mathcal{B} 24'49	1.32863 AU	minimum elong	2964 Jul 01 06:14	10° \mathcal{B} 41'41	1°04'14
	2963 Jul 19 17:49	0° \mathcal{Q}		max. Earth dist.	2964 Jul 01 21:17	12° \mathcal{B} 04'28	1.32290 AU
evening rise	2963 Jul 25 04:00	11° \mathcal{Q} 25'06		evening rise	2964 Jul 08 08:31	26° \mathcal{B} 00'55	
	2963 Aug 03 23:23	0° \mathcal{M}			2964 Jul 10 06:56	0° \mathcal{Q}	
desc. node	2963 Aug 15 13:01	18° \mathcal{M} 07'41			2964 Jul 27 13:11	0° \mathcal{M}	
	2963 Aug 25 07:16	0° \mathcal{A}		desc. node	2964 Aug 01 10:02	6° \mathcal{M} 32'49	
evening max el	2963 Aug 27 01:37	1° \mathcal{A} 44'38	27°25'49	evening max el	2964 Aug 08 07:29	14° \mathcal{M} 09'54	27°03'00
retrograde	2963 Sep 09 18:59	9° \mathcal{A} 01'11		retrograde	2964 Aug 22 04:43	21° \mathcal{M} 22'34	
evening set	2963 Sep 16 23:34	6° \mathcal{A} 27'39		evening set	2964 Aug 29 06:01	19° \mathcal{M} 09'53	
min. Earth dist.	2963 Sep 20 14:38	3° \mathcal{A} 24'27	0.63059 AU	min. Earth dist.	2964 Sep 01 21:47	16° \mathcal{M} 28'48	0.61126 AU
inferior conj	2963 Sep 23 08:39	0° \mathcal{A} 42'44	-3°-31'-33	inferior conj	2964 Sep 05 01:34	13° \mathcal{M} 45'19	-4°-21'-53
minimum elong	2963 Sep 23 14:04	0° \mathcal{A} 29'25	3°29'56	minimum elong	2964 Sep 05 07:00	13° \mathcal{M} 33'32	4°20'47
	2963 Sep 24 02:10	30° \mathcal{R} \mathcal{M}		morning rise	2964 Sep 12 11:01	8° \mathcal{M} 52'54	
morning rise	2963 Sep 30 07:09	25° \mathcal{M} 29'17		direct	2964 Sep 14 19:17	8° \mathcal{M} 30'38	
direct	2963 Oct 02 16:33	25° \mathcal{M} 02'27		asc. node	2964 Sep 20 17:07	10° \mathcal{M} 57'54	
asc. node	2963 Oct 04 20:04	25° \mathcal{M} 24'35		morning max el	2964 Sep 21 22:19	12° \mathcal{M} 03'30	17°59'50
morning max el	2963 Oct 09 08:22	28° \mathcal{M} 28'34	17°50'52		2964 Oct 03 22:00	0° \mathcal{A}	

morning set	2964 Oct 07 16:47	6°♄55'42		morning max el	2965 Sep 05 06:47	25°♄15'39	18°28'47
				asc. node	2965 Sep 07 14:09	27°♄45'18	
superior conj	2964 Oct 17 21:23	25°♄24'47	1°08'27		2965 Sep 09 07:57	0°♄	
minimum elong	2964 Oct 18 01:45	25°♄43'56	1°07'56	morning set	2965 Sep 21 08:05	20°♄50'44	
	2964 Oct 20 12:36	0°♄			2965 Sep 26 02:19	0°♄	
max. Earth dist.	2964 Oct 25 11:35	8°♄23'10	1.42179 AU				
desc. node	2964 Oct 28 09:22	13°♄09'37		superior conj	2965 Sep 30 08:16	8°♄00'14	1°30'32
evening rise	2964 Oct 31 12:09	18°♄10'08		minimum elong	2965 Sep 30 11:32	8°♄15'26	1°30'15
	2964 Nov 08 03:12	0°♄		max. Earth dist.	2965 Oct 07 18:27	21°♄19'39	1.40207 AU
greatest brilliancy	2964 Nov 28 12:09	28°♄28'59	-0.3m	evening rise	2965 Oct 12 03:07	28°♄44'05	
	2964 Nov 29 18:37	0°♄			2965 Oct 12 21:26	0°♄	
evening max el	2964 Dec 03 05:59	3°♄48'51	22°21'13	desc. node	2965 Oct 15 06:23	3°♄52'50	
retrograde	2964 Dec 12 20:42	9°♄31'51			2965 Nov 01 16:04	0°♄	
evening set	2964 Dec 17 09:05	7°♄43'33		evening max el	2965 Nov 15 20:17	17°♄24'45	23°41'02
asc. node	2964 Dec 17 16:21	7°♄28'20		retrograde	2965 Nov 26 13:51	23°♄44'54	
inferior conj	2964 Dec 22 18:40	1°♄20'47	1°40'08	evening set	2965 Dec 01 15:17	21°♄39'49	
minimum elong	2964 Dec 22 16:37	1°♄27'54	1°39'22	asc. node	2965 Dec 04 13:22	18°♄34'38	
min. Earth dist.	2964 Dec 22 16:27	1°♄28'29	0.67909 AU	min. Earth dist.	2965 Dec 06 13:05	15°♄57'40	0.67823 AU
	2964 Dec 23 18:07	30°♄		inferior conj	2965 Dec 07 02:04	15°♄13'22	0°51'23
morning rise	2964 Dec 28 00:01	25°♄08'09		minimum elong	2965 Dec 07 00:53	15°♄17'23	0°50'53
direct	2965 Jan 01 15:07	23°♄13'46		morning rise	2965 Dec 12 10:40	9°♄05'01	
morning max el	2965 Jan 11 00:31	28°♄45'19	22°13'55	direct	2965 Dec 16 11:32	7°♄33'26	
	2965 Jan 12 05:14	0°♄		morning max el	2965 Dec 24 18:05	12°♄20'22	20°53'10
greatest brilliancy	2965 Jan 15 14:38	3°♄53'27	-0.3m	greatest brilliancy	2965 Dec 30 09:15	18°♄52'14	-0.5m
desc. node	2965 Jan 24 08:35	15°♄27'52			2966 Jan 07 11:40	0°♄	
	2965 Feb 03 06:46	0°♄		desc. node	2966 Jan 11 05:38	5°♄28'21	
morning set	2965 Feb 13 06:21	15°♄38'32		morning set	2966 Jan 23 12:27	24°♄08'56	
max. Earth dist.	2965 Feb 18 17:44	24°♄40'53	1.40901 AU		2966 Jan 27 05:41	0°♄	
	2965 Feb 21 20:39	0°♄		max. Earth dist.	2966 Jan 31 21:45	7°♄29'58	1.42830 AU
superior conj	2965 Feb 26 12:29	8°♄10'30	-2°-1'-11	superior conj	2966 Feb 07 19:39	18°♄57'33	-2°-6'-3
minimum elong	2965 Feb 26 15:38	8°♄24'32	2°01'02	minimum elong	2966 Feb 07 18:44	18°♄53'39	2°06'04
evening rise	2965 Mar 08 20:37	27°♄11'21			2966 Feb 14 05:27	0°♄	
	2965 Mar 10 08:45	0°♄		evening rise	2966 Feb 19 15:44	9°♄37'03	
asc. node	2965 Mar 15 15:39	9°♄37'02		asc. node	2966 Mar 02 12:40	28°♄18'04	
evening max el	2965 Mar 25 01:12	23°♄02'04	18°17'23		2966 Mar 03 15:43	0°♄	
retrograde	2965 Apr 01 04:33	26°♄35'42		evening max el	2966 Mar 08 12:27	6°♄05'01	18°07'04
evening set	2965 Apr 03 14:58	26°♄11'46		retrograde	2966 Mar 15 02:29	9°♄28'32	
inferior conj	2965 Apr 10 18:42	21°♄30'00	2°52'30	evening set	2966 Mar 17 18:24	8°♄55'02	
minimum elong	2965 Apr 10 22:15	21°♄22'22	2°51'43	inferior conj	2966 Mar 24 07:28	3°♄52'24	3°28'24
min. Earth dist.	2965 Apr 14 04:51	18°♄35'11	0.59314 AU	minimum elong	2966 Mar 24 09:24	3°♄47'35	3°28'12
morning rise	2965 Apr 18 01:40	15°♄52'28		min. Earth dist.	2966 Mar 27 09:41	0°♄50'07	0.61477 AU
desc. node	2965 Apr 22 07:44	14°♄15'04			2966 Mar 28 07:32	30°♄	
direct	2965 Apr 24 09:51	14°♄03'14		morning rise	2966 Mar 30 21:32	27°♄56'26	
morning max el	2965 May 08 18:34	21°♄50'24	27°18'19	direct	2966 Apr 06 17:07	25°♄34'28	
	2965 May 15 22:13	0°♄		desc. node	2966 Apr 09 04:46	25°♄52'03	
	2965 Jun 03 12:45	0°♄			2966 Apr 16 23:26	0°♄	
morning set	2965 Jun 08 16:43	10°♄22'44		morning max el	2966 Apr 20 21:40	3°♄30'54	27°48'57
asc. node	2965 Jun 11 14:57	16°♄35'30			2966 May 10 11:38	0°♄	
				morning set	2966 May 23 21:02	24°♄50'37	
superior conj	2965 Jun 15 20:16	25°♄49'06	0°43'13		2966 May 26 08:32	0°♄	
minimum elong	2965 Jun 15 18:29	25°♄39'20	0°42'52	asc. node	2966 May 29 11:58	6°♄43'42	
max. Earth dist.	2965 Jun 15 09:24	24°♄49'18	1.32104 AU	max. Earth dist.	2966 May 29 19:39	7°♄25'23	1.32315 AU
	2965 Jun 17 17:49	0°♄					
evening rise	2965 Jun 22 17:27	10°♄47'58		superior conj	2966 May 31 06:46	10°♄36'43	0°18'42
	2965 Jul 02 13:25	0°♄		minimum elong	2966 May 31 05:54	10°♄32'03	0°18'31
desc. node	2965 Jul 19 07:01	23°♄49'28		evening rise	2966 Jun 07 04:46	25°♄38'50	
evening max el	2965 Jul 21 06:25	25°♄48'19	26°07'25		2966 Jun 09 06:35	0°♄	
	2965 Jul 26 11:27	0°♄			2966 Jun 26 23:17	0°♄	
retrograde	2965 Aug 04 05:57	2°♄58'02		evening max el	2966 Jul 02 22:17	6°♄41'28	24°45'19
evening set	2965 Aug 10 15:54	1°♄18'02		desc. node	2966 Jul 06 04:01	9°♄29'32	
	2965 Aug 12 22:00	30°♄		retrograde	2966 Jul 16 20:48	13°♄44'58	
min. Earth dist.	2965 Aug 14 19:01	28°♄42'59	0.59059 AU	evening set	2966 Jul 22 01:46	12°♄43'34	
inferior conj	2965 Aug 18 01:53	26°♄15'10	-4°-56'-26	min. Earth dist.	2966 Jul 27 09:34	9°♄55'21	0.57110 AU
minimum elong	2965 Aug 18 05:03	26°♄09'11	4°56'09	inferior conj	2966 Jul 30 06:34	8°♄02'46	-5°-2'-15
morning rise	2965 Aug 25 21:41	21°♄46'13		minimum elong	2966 Jul 30 04:45	8°♄05'44	5°02'11
direct	2965 Aug 28 07:47	21°♄26'21		morning rise	2966 Aug 07 11:26	3°♄55'55	

direct	2966 Aug 10 01:53	3°♄36'53		evening set	2967 Jul 01 15:47	23°♄23'42	
morning max el	2966 Aug 19 06:33	7°♄54'40	19°18'51	min. Earth dist.	2967 Jul 08 21:16	20°♄07'33	0.55621 AU
asc. node	2966 Aug 25 11:12	15°♄30'56		inferior conj	2967 Jul 10 15:38	19°♄05'40	-4°-24'-36
	2966 Sep 02 17:04	0°♄		minimum elong	2967 Jul 10 08:33	19°♄16'03	4°23'15
morning set	2966 Sep 05 08:09	5°♄10'55		morning rise	2967 Jul 19 04:17	15°♄12'49	
				direct	2967 Jul 22 01:12	14°♄53'01	
superior conj	2966 Sep 13 12:22	21°♄26'29	1°42'09	morning max el	2967 Aug 01 19:10	19°♄52'07	20°30'16
minimum elong	2966 Sep 13 13:52	21°♄33'50	1°42'04		2967 Aug 09 21:20	0°♄	
	2966 Sep 17 23:58	0°♄		asc. node	2967 Aug 12 08:16	4°♄01'43	
max. Earth dist.	2966 Sep 19 22:12	3°♄33'37	1.38136 AU	morning set	2967 Aug 20 14:09	19°♄48'53	
evening rise	2966 Sep 23 17:46	10°♄23'37			2967 Aug 25 12:32	0°♄	
desc. node	2966 Oct 02 03:23	24°♄27'52					
	2966 Oct 05 16:00	0°♄		superior conj	2967 Aug 28 04:53	5°♄29'48	1°44'59
	2966 Oct 28 07:12	0°♄		minimum elong	2967 Aug 28 04:43	5°♄28'57	1°44'59
evening max el	2966 Oct 29 08:36	1°♄03'54	24°58'42	max. Earth dist.	2967 Sep 02 04:52	15°♄25'58	1.36214 AU
retrograde	2966 Nov 10 02:57	7°♄53'38		evening rise	2967 Sep 06 05:24	23°♄02'29	
evening set	2966 Nov 15 18:23	5°♄32'47			2967 Sep 10 02:06	0°♄	
min. Earth dist.	2966 Nov 20 08:00	0°♄24'49	0.67395 AU	desc. node	2967 Sep 19 00:22	14°♄49'58	
	2966 Nov 20 15:34	30°♄			2967 Sep 29 09:26	0°♄	
inferior conj	2966 Nov 21 07:37	29°♄07'07	0°-2'-22	evening max el	2967 Oct 11 20:52	14°♄44'51	26°06'45
minimum elong	2966 Nov 21 07:41	29°♄06'56	0°02'21	retrograde	2967 Oct 24 11:09	21°♄52'58	
transit middle	2966 Nov 21 07:41	29°♄06'56	0°02'21	evening set	2967 Oct 30 16:35	19°♄19'20	
transit begin	2966 Nov 21 04:56	29°♄15'57		min. Earth dist.	2967 Nov 03 22:47	14°♄47'10	0.66630 AU
transit end	2966 Nov 21 10:25	28°♄57'55		inferior conj	2967 Nov 05 09:31	12°♄59'16	0°-59'-53
asc. node	2966 Nov 21 10:24	28°♄57'59		minimum elong	2967 Nov 05 11:06	12°♄54'19	0°59'13
morning rise	2966 Nov 26 21:33	23°♄05'23		asc. node	2967 Nov 08 07:28	9°♄34'37	
direct	2966 Nov 30 09:47	21°♄54'21		morning rise	2967 Nov 11 06:40	7°♄06'55	
morning max el	2966 Dec 07 19:25	26°♄05'56	19°44'43	direct	2967 Nov 14 08:20	6°♄13'01	
	2966 Dec 11 06:25	0°♄		morning max el	2967 Nov 21 03:58	9°♄59'41	18°51'16
greatest brilliancy	2966 Dec 15 14:42	5°♄44'41	-0.6m		2967 Dec 05 14:06	0°♄	
desc. node	2966 Dec 29 02:40	25°♄47'06		morning set	2967 Dec 12 19:53	11°♄20'52	
	2966 Dec 31 20:33	0°♄		desc. node	2967 Dec 15 23:42	16°♄18'42	
morning set	2967 Jan 02 08:33	2°♄18'49			2967 Dec 24 17:06	0°♄	
max. Earth dist.	2967 Jan 14 08:50	21°♄06'16	1.44277 AU	max. Earth dist.	2967 Dec 28 01:35	5°♄15'56	1.45077 AU
superior conj	2967 Jan 19 00:45	28°♄34'22	-1°-53'-56	superior conj	2967 Dec 29 08:12	7°♄16'19	-1°-22'-33
minimum elong	2967 Jan 18 18:06	28°♄07'32	1°53'32	minimum elong	2967 Dec 28 23:14	6°♄41'01	1°21'36
	2967 Jan 19 21:55	0°♄			2968 Jan 12 14:51	0°♄	
evening rise	2967 Feb 01 15:48	21°♄10'29		evening rise	2968 Jan 13 17:10	1°♄46'15	
	2967 Feb 06 20:39	0°♄			2968 Feb 01 01:15	0°♄	
asc. node	2967 Feb 17 09:41	16°♄20'45		evening max el	2968 Feb 03 12:36	2°♄48'56	18°42'59
evening max el	2967 Feb 20 01:08	19°♄22'56	18°15'54	asc. node	2968 Feb 04 06:44	3°♄33'15	
retrograde	2967 Feb 26 11:51	22°♄50'02		retrograde	2968 Feb 10 04:29	6°♄31'29	
evening set	2967 Mar 01 09:11	22°♄05'47		evening set	2968 Feb 13 07:49	5°♄35'24	
inferior conj	2967 Mar 07 11:17	16°♄43'22	3°40'08	inferior conj	2968 Feb 19 02:14	29°♄54'53	3°33'53
minimum elong	2967 Mar 07 11:22	16°♄43'08	3°40'09	minimum elong	2968 Feb 19 00:52	29°♄59'03	3°33'45
min. Earth dist.	2967 Mar 09 23:38	13°♄56'24	0.63486 AU		2968 Feb 19 00:33	30°♄	
morning rise	2967 Mar 13 11:41	10°♄37'06		min. Earth dist.	2968 Feb 20 22:54	27°♄39'03	0.65169 AU
direct	2967 Mar 20 09:17	7°♄53'38		morning rise	2968 Feb 24 16:43	23°♄43'02	
desc. node	2967 Mar 27 01:49	10°♄01'27		direct	2968 Mar 02 08:31	20°♄52'45	
morning max el	2967 Apr 03 05:21	15°♄50'39	27°42'11	desc. node	2968 Mar 12 22:53	26°♄08'15	
	2967 Apr 14 20:28	0°♄		morning max el	2968 Mar 15 14:59	28°♄39'32	27°01'49
	2967 May 03 03:58	0°♄			2968 Mar 16 22:06	0°♄	
morning set	2967 May 07 18:43	8°♄55'39			2968 Apr 07 15:47	0°♄	
max. Earth dist.	2967 May 13 00:04	19°♄39'57	1.32948 AU	morning set	2968 Apr 20 06:39	22°♄27'34	
					2968 Apr 24 02:33	0°♄	
superior conj	2967 May 15 14:16	25°♄11'21	0°-8'-11	max. Earth dist.	2968 Apr 24 19:03	1°♄23'18	1.34035 AU
minimum elong	2967 May 15 14:40	25°♄13'31	0°08'08				
behind sun begin	2967 May 15 10:04	24°♄48'50		superior conj	2968 Apr 28 16:39	9°♄25'45	0°-36'-30
behind sun end	2967 May 15 19:15	25°♄38'14		minimum elong	2968 Apr 28 18:31	9°♄35'36	0°36'08
asc. node	2967 May 16 09:00	26°♄52'11		asc. node	2968 May 02 06:02	16°♄56'17	
	2967 May 17 19:46	0°♄		evening rise	2968 May 06 02:59	25°♄06'44	
evening rise	2967 May 22 16:35	10°♄27'26			2968 May 08 11:53	0°♄	
	2967 Jun 01 18:36	0°♄		evening max el	2968 May 26 06:20	27°♄44'48	21°36'01
evening max el	2967 Jun 14 11:47	17°♄10'10	23°09'47		2968 May 28 20:02	0°♄	
desc. node	2967 Jun 23 01:01	22°♄58'27		retrograde	2968 Jun 07 14:10	3°♄48'19	
retrograde	2967 Jun 27 23:06	23°♄53'34		desc. node	2968 Jun 08 22:04	3°♄44'16	

evening set	2968 Jun 10 02:15	3° $\overline{34}$ 09		retrograde	2969 May 19 03:52	14° \overline{II} 02'27	
	2968 Jun 18 16:08	30° \overline{R} \overline{II}		evening set	2969 May 21 04:10	13° \overline{II} 52'10	
inferior conj	2968 Jun 19 11:10	29° \overline{II} 33'27	-2°-58'-11	desc. node	2969 May 26 19:07	11° \overline{II} 50'44	
minimum elong	2968 Jun 19 03:30	29° \overline{II} 44'09	2°55'48	inferior conj	2969 May 30 06:22	9° \overline{II} 53'40	-1°-1'-11
min. Earth dist.	2968 Jun 19 08:32	29° \overline{II} 37'07	0.54905 AU	minimum elong	2969 May 30 03:29	9° \overline{II} 57'55	1°00'08
morning rise	2968 Jun 28 05:36	25° \overline{II} 39'12		min. Earth dist.	2969 May 31 21:03	8° \overline{II} 56'42	0.55139 AU
direct	2968 Jul 01 12:19	25° \overline{II} 15'43		morning rise	2969 Jun 08 00:44	5° \overline{II} 38'08	
	2968 Jul 12 15:10	0° $\overline{3}$		direct	2969 Jun 11 23:35	5° \overline{II} 04'20	
morning max el	2968 Jul 13 20:15	1° $\overline{3}$ 04'27	22°00'38	morning max el	2969 Jun 25 13:01	11° \overline{II} 41'41	23°42'21
asc. node	2968 Jul 29 05:19	23° $\overline{3}$ 06'13			2969 Jul 09 07:32	0° $\overline{3}$	
	2968 Aug 01 17:48	0° \overline{II}		asc. node	2969 Jul 16 02:21	12° $\overline{3}$ 35'39	
morning set	2968 Aug 03 23:53	4° \overline{II} 38'11		morning set	2969 Jul 19 11:26	19° $\overline{3}$ 32'58	
					2969 Jul 24 08:17	0° \overline{II}	
superior conj	2968 Aug 11 06:02	19° \overline{II} 58'50	1°40'40	superior conj	2969 Jul 26 12:53	4° \overline{II} 44'22	1°30'27
minimum elong	2968 Aug 11 04:37	19° \overline{II} 51'23	1°40'35	minimum elong	2969 Jul 26 10:44	4° \overline{II} 32'46	1°30'13
max. Earth dist.	2968 Aug 14 19:32	27° \overline{II} 22'12	1.34601 AU	max. Earth dist.	2969 Jul 28 19:14	9° \overline{II} 35'27	1.33379 AU
	2968 Aug 16 02:41	0° \overline{II}		evening rise	2969 Aug 03 01:39	20° \overline{II} 29'38	
evening rise	2968 Aug 19 09:28	6° \overline{II} 28'32			2969 Aug 07 23:27	0° \overline{II}	
	2968 Sep 01 18:04	0° \overline{II}		desc. node	2969 Aug 22 18:25	24° \overline{II} 28'23	
desc. node	2968 Sep 04 21:23	4° \overline{II} 53'05			2969 Aug 26 18:10	0° \overline{II}	
evening max el	2968 Sep 23 09:27	28° \overline{II} 20'33	26°57'32	evening max el	2969 Sep 05 21:02	11° \overline{II} 38'38	27°23'55
	2968 Sep 25 04:51	0° \overline{II}		retrograde	2969 Sep 19 10:32	18° \overline{II} 56'22	
retrograde	2968 Oct 06 13:49	5° \overline{II} 36'49		evening set	2969 Sep 26 13:14	16° \overline{II} 16'32	
evening set	2968 Oct 13 07:48	2° \overline{II} 55'46		min. Earth dist.	2969 Sep 30 06:26	12° \overline{II} 56'11	0.64055 AU
	2968 Oct 16 09:27	30° \overline{R} \overline{II}		inferior conj	2969 Oct 02 17:40	10° \overline{II} 21'38	-2°-58'-52
min. Earth dist.	2968 Oct 17 07:02	29° \overline{II} 00'19	0.65519 AU	minimum elong	2969 Oct 02 22:29	10° \overline{II} 09'03	2°57'14
inferior conj	2968 Oct 19 05:42	26° \overline{II} 46'09	-1°-59'-30	morning rise	2969 Oct 09 09:57	4° \overline{II} 57'52	
minimum elong	2968 Oct 19 08:59	26° \overline{II} 36'43	1°58'12	direct	2969 Oct 11 21:31	4° \overline{II} 27'00	
morning rise	2968 Oct 25 11:45	21° \overline{II} 06'22		asc. node	2969 Oct 12 01:36	4° \overline{II} 27'09	
asc. node	2968 Oct 25 04:33	21° \overline{II} 15'41		morning max el	2969 Oct 18 10:06	7° \overline{II} 52'31	17°54'17
direct	2968 Oct 28 05:08	20° \overline{II} 25'48			2969 Nov 02 04:00	0° \overline{II}	
morning max el	2968 Nov 03 17:47	23° \overline{II} 57'27	18°14'13	morning set	2969 Nov 04 07:26	3° \overline{II} 40'08	
	2968 Nov 08 15:59	0° \overline{II}					
morning set	2968 Nov 22 11:53	21° \overline{II} 50'28		superior conj	2969 Nov 17 05:15	25° \overline{II} 17'04	0°10'23
	2968 Nov 27 12:22	0° \overline{II}		minimum elong	2969 Nov 17 06:25	25° \overline{II} 21'48	0°10'14
desc. node	2968 Dec 01 20:43	6° \overline{II} 59'17		behind sun begin	2969 Nov 16 22:35	24° \overline{II} 49'54	
				behind sun end	2969 Nov 17 14:15	25° \overline{II} 53'39	
superior conj	2968 Dec 07 10:48	15° \overline{II} 51'36	0°-37'-12	desc. node	2969 Nov 18 17:44	27° \overline{II} 44'54	
minimum elong	2968 Dec 07 06:03	15° \overline{II} 32'49	0°36'35		2969 Nov 20 03:17	0° \overline{II}	
max. Earth dist.	2968 Dec 09 21:07	19° \overline{II} 41'14	1.45142 AU	max. Earth dist.	2969 Nov 22 15:38	4° \overline{II} 01'05	1.44474 AU
	2968 Dec 16 11:10	0° \overline{II}		evening rise	2969 Dec 03 07:09	20° \overline{II} 38'49	
evening rise	2968 Dec 23 19:55	11° \overline{II} 29'17			2969 Dec 09 10:09	0° \overline{II}	
	2969 Jan 04 18:53	0° \overline{II}		greatest brilliancy	2969 Dec 24 20:51	22° \overline{II} 28'11	-0.5m
greatest brilliancy	2969 Jan 08 08:32	5° \overline{II} 19'29	-0.7m	evening max el	2969 Dec 30 23:27	29° \overline{II} 49'05	20°25'59
evening max el	2969 Jan 16 20:35	16° \overline{II} 18'40	19°27'00		2969 Dec 31 03:44	0° \overline{II}	
asc. node	2969 Jan 21 03:48	19° \overline{II} 41'56		retrograde	2970 Jan 07 23:16	4° \overline{II} 31'29	
retrograde	2969 Jan 24 01:12	20° \overline{II} 27'04		asc. node	2970 Jan 08 00:52	4° \overline{II} 31'27	
evening set	2969 Jan 27 11:37	19° \overline{II} 18'02		evening set	2970 Jan 11 18:17	3° \overline{II} 08'15	
inferior conj	2969 Feb 02 00:59	13° \overline{II} 21'34	3°14'09		2970 Jan 14 21:33	30° \overline{R} \overline{II}	
minimum elong	2969 Feb 01 22:45	13° \overline{II} 28'52	3°13'43	inferior conj	2970 Jan 17 04:50	26° \overline{II} 58'46	2°43'59
min. Earth dist.	2969 Feb 03 06:39	11° \overline{II} 44'58	0.66449 AU	minimum elong	2970 Jan 17 02:16	27° \overline{II} 07'27	2°43'17
morning rise	2969 Feb 07 09:08	7° \overline{II} 06'55		min. Earth dist.	2970 Jan 17 21:02	26° \overline{II} 03'37	0.67316 AU
direct	2969 Feb 13 13:48	4° \overline{II} 22'50		morning rise	2970 Jan 22 09:45	20° \overline{II} 43'15	
morning max el	2969 Feb 26 00:30	11° \overline{II} 46'32	25°55'28	direct	2970 Jan 28 00:22	18° \overline{II} 14'44	
desc. node	2969 Feb 27 19:56	13° \overline{II} 40'19		morning max el	2970 Feb 08 09:07	25° \overline{II} 01'51	24°32'46
	2969 Mar 12 14:57	0° \overline{II}			2970 Feb 12 21:12	0° \overline{II}	
	2969 Mar 31 07:23	0° \overline{II}		desc. node	2970 Feb 14 16:58	2° \overline{II} 12'37	
morning set	2969 Apr 03 04:48	5° \overline{II} 14'50			2970 Mar 06 02:53	0° \overline{II}	
max. Earth dist.	2969 Apr 07 02:40	12° \overline{II} 37'00	1.35579 AU	morning set	2970 Mar 16 07:47	17° \overline{II} 02'23	
				max. Earth dist.	2970 Mar 20 00:39	23° \overline{II} 39'23	1.37509 AU
superior conj	2969 Apr 12 11:25	23° \overline{II} 12'48	-1°-4'-50		2970 Mar 23 10:55	0° \overline{II}	
minimum elong	2969 Apr 12 14:46	23° \overline{II} 29'45	1°04'16				
	2969 Apr 15 19:10	0° \overline{II}		superior conj	2970 Mar 26 19:20	6° \overline{II} 23'42	-1°-31'-13
asc. node	2969 Apr 19 03:05	6° \overline{II} 52'01		minimum elong	2970 Mar 26 23:42	6° \overline{II} 44'55	1°30'38
evening rise	2969 Apr 20 10:00	9° \overline{II} 30'39		evening rise	2970 Apr 04 11:10	23° \overline{II} 31'54	
	2969 May 01 11:54	0° \overline{II}		asc. node	2970 Apr 06 00:08	26° \overline{II} 34'46	
evening max el	2969 May 08 11:35	8° \overline{II} 50'56	20°15'30				

	2970 Apr 07 18:16	0°♄		evening rise	2971 Mar 19 03:33	7°♁02'22	
evening max el	2970 Apr 21 04:44	20°♄38'03	19°13'51	asc. node	2971 Mar 23 21:10	15°♁58'45	
retrograde	2970 Apr 30 04:49	25°♄00'20			2971 Apr 01 14:51	0°♄	
evening set	2970 May 02 06:02	24°♄47'41		evening max el	2971 Apr 04 07:32	3°♄01'35	18°32'19
inferior conj	2970 May 10 15:11	20°♄37'35	0°52'16	retrograde	2971 Apr 11 23:46	6°♄47'58	
minimum elong	2970 May 10 17:16	20°♄34'04	0°51'31	evening set	2971 Apr 14 06:43	6°♄28'55	
min. Earth dist.	2970 May 13 12:04	18°♄42'37	0.56280 AU	inferior conj	2971 Apr 21 20:37	1°♄59'50	2°18'10
desc. node	2970 May 13 16:08	18°♄36'03		minimum elong	2971 Apr 22 00:27	1°♄52'17	2°17'06
morning rise	2970 May 19 00:22	15°♄47'42			2971 Apr 24 09:39	30°♁♁	
direct	2970 May 23 22:14	14°♄51'56		min. Earth dist.	2971 Apr 25 06:38	29°♁20'17	0.58096 AU
morning max el	2970 Jun 07 03:23	22°♄07'35	25°22'08	morning rise	2971 Apr 29 13:50	26°♁37'11	
	2970 Jun 14 01:53	0°♁		desc. node	2971 Apr 30 13:10	26°♁10'37	
	2970 Jul 01 19:39	0°♄		direct	2971 May 05 11:24	25°♁08'21	
asc. node	2970 Jul 02 23:23	2°♄23'22			2971 May 16 17:29	0°♄	
morning set	2970 Jul 03 23:10	4°♄28'13		morning max el	2971 May 19 20:39	2°♄47'49	26°44'19
					2971 Jun 08 10:46	0°♁	
superior conj	2970 Jul 10 23:08	19°♄39'22	1°15'18	morning set	2971 Jun 18 09:25	19°♁17'19	
minimum elong	2970 Jul 10 20:46	19°♄26'22	1°14'57	asc. node	2971 Jun 19 20:25	22°♁22'46	
max. Earth dist.	2970 Jul 12 02:16	22°♄07'35	1.32566 AU		2971 Jun 23 08:41	0°♄	
	2970 Jul 15 17:57	0°♁					
evening rise	2970 Jul 18 02:31	4°♁55'58		superior conj	2971 Jun 25 10:50	4°♄36'02	0°56'00
	2970 Jul 31 15:08	0°♁		minimum elong	2971 Jun 25 08:43	4°♄24'21	0°55'36
desc. node	2970 Aug 09 15:27	13°♁24'20		max. Earth dist.	2971 Jun 25 13:24	4°♄50'10	1.32157 AU
evening max el	2970 Aug 19 05:35	24°♁26'50	27°20'07	evening rise	2971 Jul 02 09:09	19°♄37'38	
	2970 Aug 26 16:40	0°♁			2971 Jul 07 12:10	0°♁	
retrograde	2970 Sep 02 00:54	1°♁42'28			2971 Jul 26 08:36	0°♁	
	2970 Sep 08 00:53	30°♁♁		desc. node	2971 Jul 27 12:27	1°♁23'37	
evening set	2970 Sep 09 05:24	29°♁15'47		evening max el	2971 Aug 01 08:39	6°♁32'54	26°43'12
min. Earth dist.	2970 Sep 12 19:39	26°♁23'52	0.62267 AU	retrograde	2971 Aug 15 07:30	13°♁44'55	
inferior conj	2970 Sep 15 18:30	23°♁39'09	-3°-54'-12	evening set	2971 Aug 22 03:42	11°♁44'57	
minimum elong	2970 Sep 16 00:08	23°♁26'01	3°52'44	min. Earth dist.	2971 Aug 25 22:35	9°♁08'27	0.60251 AU
morning rise	2970 Sep 22 21:44	18°♁34'37		inferior conj	2971 Aug 29 04:46	6°♁29'08	-4°-39'-10
direct	2970 Sep 25 06:12	18°♁10'08		minimum elong	2971 Aug 29 09:35	6°♁19'16	4°38'24
asc. node	2970 Sep 28 22:37	19°♁11'58		morning rise	2971 Sep 05 18:46	1°♁46'30	
morning max el	2970 Oct 02 01:54	21°♁38'01	17°52'20	direct	2971 Sep 08 03:16	1°♁25'39	
	2970 Oct 08 11:06	0°♁		morning max el	2971 Sep 15 13:55	5°♁04'34	18°09'33
morning set	2970 Oct 18 00:29	16°♁31'37		asc. node	2971 Sep 15 19:37	5°♁18'34	
	2970 Oct 25 14:25	0°♁		morning set	2971 Oct 01 09:02	0°♁07'07	
					2971 Oct 01 07:31	0°♁	
superior conj	2970 Oct 29 02:04	6°♁00'53	0°50'27				
minimum elong	2970 Oct 29 06:11	6°♁18'27	0°49'54	superior conj	2971 Oct 11 00:24	17°♁59'07	1°19'11
max. Earth dist.	2970 Nov 05 06:12	17°♁57'46	1.43164 AU	minimum elong	2971 Oct 11 04:28	18°♁17'23	1°18'44
desc. node	2970 Nov 05 14:46	18°♁32'33			2971 Oct 17 21:14	0°♁	
evening rise	2970 Nov 12 17:59	29°♁53'23		max. Earth dist.	2971 Oct 18 15:30	1°♁17'22	1.41372 AU
	2970 Nov 12 19:41	0°♁		desc. node	2971 Oct 23 11:47	9°♁18'28	
	2970 Dec 03 02:19	0°♄		evening rise	2971 Oct 23 20:02	9°♁51'55	
greatest brilliancy	2970 Dec 08 23:37	7°♄45'54	-0.4m		2971 Nov 05 21:21	0°♁	
evening max el	2970 Dec 13 20:44	13°♄20'41	21°36'48	greatest brilliancy	2971 Nov 21 06:18	20°♁59'19	-0.2m
retrograde	2970 Dec 22 20:37	18°♄41'41		evening max el	2971 Nov 26 13:12	26°♁55'11	22°55'04
asc. node	2970 Dec 25 21:53	17°♄50'43			2971 Nov 29 23:10	0°♄	
evening set	2970 Dec 27 02:02	17°♄03'00		retrograde	2971 Dec 06 15:35	2°♄54'43	
inferior conj	2971 Jan 01 11:31	10°♄43'56	2°05'29	evening set	2971 Dec 11 09:15	0°♄59'33	
minimum elong	2971 Jan 01 09:10	10°♄52'08	2°04'40		2971 Dec 12 11:15	30°♁♁	
min. Earth dist.	2971 Jan 01 15:46	10°♄29'13	0.67797 AU	asc. node	2971 Dec 12 18:53	29°♁40'21	
morning rise	2971 Jan 06 16:00	4°♄29'28		inferior conj	2971 Dec 16 19:12	24°♁34'46	1°20'08
direct	2971 Jan 11 15:38	2°♄21'51		minimum elong	2971 Dec 16 17:28	24°♁40'45	1°19'28
morning max el	2971 Jan 21 18:25	8°♄22'15	23°03'55	min. Earth dist.	2971 Dec 16 12:26	24°♁58'07	0.67914 AU
greatest brilliancy	2971 Jan 26 15:20	13°♄49'02	-0.3m	morning rise	2971 Dec 22 01:38	18°♁23'28	
desc. node	2971 Feb 01 14:00	21°♄28'15		direct	2971 Dec 26 10:34	16°♁38'43	
	2971 Feb 07 15:58	0°♁		morning max el	2972 Jan 04 07:54	21°♁50'33	21°38'13
morning set	2971 Feb 25 09:19	27°♁33'45		greatest brilliancy	2972 Jan 09 05:23	27°♁23'12	-0.4m
	2971 Feb 26 20:14	0°♁			2972 Jan 11 06:52	0°♄	
max. Earth dist.	2971 Mar 01 19:23	5°♁03'27	1.39662 AU	desc. node	2972 Jan 19 11:02	11°♄15'15	
					2972 Jan 31 23:22	0°♁	
superior conj	2971 Mar 09 12:14	18°♁47'52	-1°-52'-39	morning set	2972 Feb 05 05:48	6°♁42'25	
minimum elong	2971 Mar 09 16:26	19°♁07'14	1°52'19	max. Earth dist.	2972 Feb 11 18:48	17°♁19'18	1.41765 AU
	2971 Mar 15 11:22	0°♁					

superior conj	2972 Feb 19 09:14	0° Υ 14'15	-2°-5'-1	minimum elong	2973 Jan 30 02:03	10° \approx 17'32	2°03'09
minimum elong	2972 Feb 19 11:00	0° Υ 21'57	2°05'00		2973 Feb 10 15:56	0° Υ	
	2972 Feb 19 05:57	0° Υ		evening rise	2973 Feb 11 19:07	1° Υ 58'36	
evening rise	2972 Mar 01 07:37	19° Υ 54'16		asc. node	2973 Feb 24 15:14	23° Υ 23'51	
	2972 Mar 06 21:07	0° Υ		evening max el	2973 Mar 01 04:56	29° Υ 03'22	18°08'30
asc. node	2972 Mar 09 18:12	4° Υ 57'53			2973 Mar 02 05:16	0° Υ	
evening max el	2972 Mar 17 16:42	15° Υ 53'11	18°10'42	retrograde	2973 Mar 07 16:15	2° Υ 26'39	
retrograde	2972 Mar 24 12:53	19° Υ 20'17		evening set	2973 Mar 10 10:34	1° Υ 48'32	
evening set	2972 Mar 27 01:48	18° Υ 52'22			2973 Mar 13 05:42	30° Υ	
inferior conj	2972 Apr 02 22:50	14° Υ 01'50	3°11'05	inferior conj	2973 Mar 16 18:30	26° Υ 37'02	3°35'55
minimum elong	2972 Apr 03 01:48	13° Υ 55'02	3°10'35	minimum elong	2973 Mar 16 19:38	26° Υ 34'05	3°35'51
min. Earth dist.	2972 Apr 06 06:49	11° Υ 00'45	0.60239 AU	min. Earth dist.	2973 Mar 19 15:08	23° Υ 39'12	0.62369 AU
morning rise	2972 Apr 09 22:22	8° Υ 15'39		morning rise	2973 Mar 23 02:20	20° Υ 36'08	
desc. node	2972 Apr 16 10:12	6° Υ 11'20		direct	2973 Mar 29 23:51	18° Υ 03'38	
direct	2972 Apr 16 12:50	6° Υ 11'18		desc. node	2973 Apr 03 07:15	18° Υ 56'36	
morning max el	2972 Apr 30 19:52	14° Υ 03'02	27°35'56	morning max el	2973 Apr 13 01:08	26° Υ 00'26	27°50'35
	2972 May 13 14:48	0° Υ			2973 Apr 16 18:10	0° Υ	
	2972 May 30 18:36	0° Υ			2973 May 07 03:27	0° Υ	
morning set	2972 Jun 01 16:27	3° Υ 54'32		morning set	2973 May 16 18:15	18° Υ 13'10	
asc. node	2972 Jun 05 17:28	12° Υ 29'06			2973 May 22 09:17	0° Υ	
max. Earth dist.	2972 Jun 08 01:06	17° Υ 32'21	1.32145 AU	max. Earth dist.	2973 May 22 09:28	0° Υ 01'02	1.32534 AU
				asc. node	2973 May 23 14:31	2° Υ 37'47	
superior conj	2972 Jun 08 22:15	19° Υ 28'32	0°33'11				
minimum elong	2972 Jun 08 20:49	19° Υ 20'41	0°32'53	superior conj	2973 May 24 07:41	4° Υ 10'53	0°07'32
	2972 Jun 13 17:31	0° Υ		minimum elong	2973 May 24 07:20	4° Υ 08'57	0°07'28
evening rise	2972 Jun 15 19:20	4° Υ 27'12		behind sun begin	2973 May 24 02:44	3° Υ 43'57	
	2972 Jun 29 09:10	0° Υ		behind sun end	2973 May 24 11:56	4° Υ 33'58	
evening max el	2972 Jul 13 04:35	17° Υ 51'39	25°35'11	evening rise	2973 May 31 07:05	19° Υ 17'46	
desc. node	2972 Jul 13 09:27	18° Υ 03'12			2973 Jun 05 12:46	0° Υ	
retrograde	2972 Jul 27 04:25	24° Υ 58'52		evening max el	2973 Jun 24 18:41	28° Υ 30'56	24°05'24
evening set	2972 Aug 02 03:27	23° Υ 35'37			2973 Jun 26 09:36	0° Υ	
min. Earth dist.	2972 Aug 06 16:41	20° Υ 56'58	0.58201 AU	desc. node	2973 Jun 30 06:27	2° Υ 52'06	
inferior conj	2972 Aug 09 21:01	18° Υ 42'10	-5°-3'-19	retrograde	2973 Jul 08 13:40	5° Υ 27'39	
minimum elong	2972 Aug 09 22:22	18° Υ 39'47	5°03'17	evening set	2973 Jul 13 03:39	4° Υ 41'09	
morning rise	2972 Aug 17 20:48	14° Υ 22'39		min. Earth dist.	2973 Jul 19 05:14	1° Υ 42'53	0.56401 AU
direct	2972 Aug 20 08:32	14° Υ 03'14		inferior conj	2973 Jul 21 17:04	0° Υ 10'30	-4°-52'-19
morning max el	2972 Aug 28 18:57	18° Υ 03'21	18°47'20	minimum elong	2973 Jul 21 12:46	0° Υ 17'11	4°51'52
asc. node	2972 Sep 01 16:40	22° Υ 32'20			2973 Jul 21 23:50	30° Υ	
	2972 Sep 06 13:14	0° Υ		morning rise	2973 Jul 30 01:23	26° Υ 11'11	
morning set	2972 Sep 14 04:27	14° Υ 14'03		direct	2973 Aug 01 18:36	25° Υ 51'55	
	2972 Sep 22 07:04	0° Υ			2973 Aug 11 02:59	0° Υ	
				morning max el	2973 Aug 11 14:07	0° Υ 25'20	19°46'44
superior conj	2972 Sep 22 19:12	0° Υ 57'37	1°36'39	asc. node	2973 Aug 19 13:44	10° Υ 38'51	
minimum elong	2972 Sep 22 21:45	1° Υ 09'42	1°36'27	morning set	2973 Aug 29 07:25	28° Υ 43'28	
max. Earth dist.	2972 Sep 29 20:44	13° Υ 55'26	1.39331 AU		2973 Aug 29 22:34	0° Υ	
evening rise	2972 Oct 03 21:10	20° Υ 53'59					
desc. node	2972 Oct 09 08:47	29° Υ 58'48		superior conj	2973 Sep 06 05:11	14° Υ 41'52	1°44'19
	2972 Oct 09 09:05	0° Υ		minimum elong	2973 Sep 06 05:56	14° Υ 45'38	1°44'18
	2972 Oct 29 23:38	0° Υ		max. Earth dist.	2973 Sep 12 01:34	26° Υ 00'00	1.37289 AU
evening max el	2972 Nov 08 02:35	10° Υ 33'14	24°14'51		2973 Sep 14 05:25	0° Υ	
retrograde	2972 Nov 19 06:58	17° Υ 06'24		evening rise	2973 Sep 15 21:17	3° Υ 00'30	
evening set	2972 Nov 24 14:18	14° Υ 54'34		desc. node	2973 Sep 26 05:47	20° Υ 29'36	
asc. node	2972 Nov 28 15:55	10° Υ 22'16			2973 Oct 02 10:48	0° Υ	
min. Earth dist.	2972 Nov 29 08:35	9° Υ 26'50	0.67686 AU	evening max el	2973 Oct 21 14:46	24° Υ 14'19	25°29'11
inferior conj	2972 Nov 30 02:01	8° Υ 28'10	0°29'07		2973 Oct 29 03:39	0° Υ	
minimum elong	2972 Nov 30 01:19	8° Υ 30'31	0°28'49	retrograde	2973 Nov 02 17:58	1° Υ 12'45	
morning rise	2972 Dec 05 12:38	2° Υ 22'22			2973 Nov 06 22:26	30° Υ	
direct	2972 Dec 09 08:02	0° Υ 59'41		evening set	2973 Nov 08 15:35	28° Υ 45'47	
morning max el	2972 Dec 17 04:37	5° Υ 29'50	20°22'18	min. Earth dist.	2973 Nov 13 01:57	23° Υ 53'10	0.67119 AU
greatest brilliancy	2972 Dec 23 14:09	13° Υ 05'45	-0.5m	inferior conj	2973 Nov 14 06:16	22° Υ 22'05	0°-26'-22
	2973 Jan 04 09:33	0° Υ		minimum elong	2973 Nov 14 06:57	22° Υ 19'54	0°26'05
desc. node	2973 Jan 05 08:03	1° Υ 24'20		asc. node	2973 Nov 15 12:57	20° Υ 44'49	
morning set	2973 Jan 14 04:37	14° Υ 54'58		morning rise	2973 Nov 19 23:04	16° Υ 24'16	
	2973 Jan 23 18:27	0° Υ		direct	2973 Nov 23 06:36	15° Υ 20'59	
max. Earth dist.	2973 Jan 24 02:26	0° Υ 32'05	1.43523 AU	morning max el	2973 Nov 30 09:18	19° Υ 20'17	19°20'04
					2973 Dec 08 19:31	0° Υ	
superior conj	2973 Jan 30 05:25	10° Υ 31'28	-2°-3'-15	greatest brilliancy	2973 Dec 09 18:54	1° Υ 24'28	-0.7m

desc. node	2973 Dec 23 05:06	21° ♄ 49'30		morning set	2974 Dec 04 03:25	2° ♄ 58'24	
morning set	2973 Dec 24 04:32	23° ♄ 20'21		desc. node	2974 Dec 10 02:07	12° ♄ 25'34	
	2973 Dec 28 11:25	0° ♄					
max. Earth dist.	2974 Jan 06 16:47	14° ♄ 26'58	1.44711 AU	superior conj	2974 Dec 20 02:48	28° ♄ 13'09	-1°-4'-23
				minimum elong	2974 Dec 19 18:57	27° ♄ 42'24	1°03'28
superior conj	2974 Jan 10 00:01	19° ♄ 41'02	-1°-42'-52	max. Earth dist.	2974 Dec 20 10:44	28° ♄ 44'20	1.45196 AU
minimum elong	2974 Jan 09 15:36	19° ♄ 07'33	1°42'10		2974 Dec 21 06:02	0° ♄	
	2974 Jan 16 10:02	0° ♄		evening rise	2975 Jan 05 01:19	23° ♄ 20'38	
evening rise	2974 Jan 24 09:54	13° ♄ 08'22			2975 Jan 09 05:47	0° ♄	
	2974 Feb 03 15:38	0° ♄		evening max el	2975 Jan 27 03:30	25° ♄ 53'05	18°59'43
asc. node	2974 Feb 11 12:17	11° ♄ 06'45		asc. node	2975 Jan 29 09:19	27° ♄ 54'04	
evening max el	2974 Feb 12 17:21	12° ♄ 25'08	18°25'09	retrograde	2975 Feb 03 00:09	29° ♄ 45'55	
retrograde	2974 Feb 19 05:20	15° ♄ 57'41		evening set	2975 Feb 06 06:13	28° ♄ 44'38	
evening set	2974 Feb 22 05:05	15° ♄ 08'31		inferior conj	2975 Feb 11 22:12	22° ♄ 57'01	3°26'57
inferior conj	2974 Feb 28 03:32	9° ♄ 37'51	3°39'22	minimum elong	2975 Feb 11 20:23	23° ♄ 02'43	3°26'42
minimum elong	2974 Feb 28 02:56	9° ♄ 39'35	3°39'20	min. Earth dist.	2975 Feb 13 12:23	20° ♄ 57'02	0.65762 AU
min. Earth dist.	2974 Mar 02 09:07	7° ♄ 02'51	0.64251 AU	morning rise	2975 Feb 17 09:33	16° ♄ 43'26	
morning rise	2974 Mar 05 23:14	3° ♄ 28'32		direct	2975 Feb 23 21:01	13° ♄ 54'14	
direct	2974 Mar 12 19:00	0° ♄ 40'43		desc. node	2975 Mar 08 01:21	20° ♄ 47'12	
desc. node	2974 Mar 21 04:18	4° ♄ 00'18		morning max el	2975 Mar 08 20:11	21° ♄ 33'51	26°36'11
morning max el	2974 Mar 26 10:13	8° ♄ 34'52	27°28'44		2975 Mar 16 04:46	0° ♄	
	2974 Apr 12 01:31	0° ♄			2975 Apr 05 06:04	0° ♄	
	2974 Apr 29 10:32	0° ♄		morning set	2975 Apr 13 18:54	15° ♄ 20'48	
morning set	2974 Apr 30 12:12	2° ♄ 05'19		max. Earth dist.	2975 Apr 18 00:39	23° ♄ 33'46	1.34632 AU
max. Earth dist.	2974 May 05 10:28	12° ♄ 03'46	1.33355 AU		2975 Apr 21 05:19	0° ♄	
superior conj	2974 May 08 13:16	18° ♄ 37'21	0°-20'-7	superior conj	2975 Apr 22 12:47	2° ♄ 41'36	0°-48'-38
minimum elong	2974 May 08 14:17	18° ♄ 42'44	0°19'55	minimum elong	2975 Apr 22 15:18	2° ♄ 54'39	0°48'09
asc. node	2974 May 10 11:35	22° ♄ 44'48		asc. node	2975 Apr 27 08:38	12° ♄ 46'18	
	2974 May 13 20:45	0° ♄		evening rise	2975 Apr 30 03:49	18° ♄ 37'00	
evening rise	2974 May 15 18:33	4° ♄ 03'02			2975 May 05 20:45	0° ♄	
	2974 May 30 00:04	0° ♄		evening max el	2975 May 19 07:50	19° ♄ 43'32	20°59'43
evening max el	2974 Jun 06 09:07	8° ♄ 57'02	22°28'46	retrograde	2975 May 31 00:09	25° ♄ 25'51	
desc. node	2974 Jun 17 03:30	15° ♄ 14'24		evening set	2975 Jun 02 04:48	25° ♄ 14'32	
retrograde	2974 Jun 19 10:52	15° ♄ 26'37		desc. node	2975 Jun 04 00:33	24° ♄ 48'57	
evening set	2974 Jun 22 13:37	15° ♄ 05'13		inferior conj	2975 Jun 11 12:41	21° ♄ 16'53	-2°-10'-24
min. Earth dist.	2974 Jun 30 16:19	11° ♄ 33'25	0.55197 AU	minimum elong	2975 Jun 11 06:39	21° ♄ 25'26	2°08'19
inferior conj	2974 Jul 01 19:03	10° ♄ 55'29	-3°-53'-27	min. Earth dist.	2975 Jun 12 04:23	20° ♄ 54'40	0.54878 AU
minimum elong	2974 Jul 01 10:55	11° ♄ 07'03	3°51'26	morning rise	2975 Jun 20 08:01	17° ♄ 15'29	
morning rise	2974 Jul 10 10:37	7° ♄ 04'47		direct	2975 Jun 23 20:25	16° ♄ 48'48	
direct	2974 Jul 13 10:57	6° ♄ 44'08		morning max el	2975 Jul 06 18:52	22° ♄ 59'50	22°43'13
morning max el	2974 Jul 24 21:45	12° ♄ 03'30	21°06'55		2975 Jul 12 23:31	0° ♄	
asc. node	2974 Aug 06 10:48	29° ♄ 25'01		asc. node	2975 Jul 24 07:52	18° ♄ 41'12	
	2974 Aug 06 18:34	0° ♄		morning set	2975 Jul 29 01:57	28° ♄ 19'13	
morning set	2974 Aug 13 15:16	13° ♄ 27'05			2975 Jul 29 21:05	0° ♄	
superior conj	2974 Aug 21 01:48	28° ♄ 57'44	1°43'57	superior conj	2975 Aug 05 05:41	13° ♄ 34'58	1°36'59
minimum elong	2974 Aug 21 01:03	28° ♄ 53'50	1°43'56	minimum elong	2975 Aug 05 03:54	13° ♄ 25'26	1°36'51
	2974 Aug 21 13:53	0° ♄		max. Earth dist.	2975 Aug 08 05:14	19° ♄ 51'37	1.34025 AU
max. Earth dist.	2974 Aug 25 11:02	7° ♄ 50'40	1.35473 AU	evening rise	2975 Aug 13 02:08	29° ♄ 43'20	
evening rise	2974 Aug 29 16:26	16° ♄ 00'51			2975 Aug 13 05:32	0° ♄	
	2974 Sep 06 11:56	0° ♄		desc. node	2975 Aug 30 23:50	0° ♄ 37'12	
desc. node	2974 Sep 13 02:49	10° ♄ 44'47			2975 Aug 30 13:53	0° ♄	
	2974 Sep 26 22:51	0° ♄		evening max el	2975 Sep 16 15:15	21° ♄ 23'05	27°12'10
evening max el	2974 Oct 04 02:57	7° ♄ 53'35	26°30'48	retrograde	2975 Sep 30 00:27	28° ♄ 41'22	
retrograde	2974 Oct 17 00:00	15° ♄ 06'59		evening set	2975 Oct 06 22:33	25° ♄ 59'36	
evening set	2974 Oct 23 11:08	12° ♄ 29'00		min. Earth dist.	2975 Oct 10 19:00	22° ♄ 19'21	0.64934 AU
min. Earth dist.	2974 Oct 27 14:10	8° ♄ 12'40	0.66203 AU	inferior conj	2975 Oct 12 23:00	19° ♄ 55'25	-2°-24'-54
inferior conj	2974 Oct 29 06:00	6° ♄ 12'39	-1°-24'-59	minimum elong	2975 Oct 13 02:58	19° ♄ 44'24	2°23'25
minimum elong	2974 Oct 29 08:18	6° ♄ 05'43	1°24'03	morning rise	2975 Oct 19 09:16	14° ♄ 21'57	
asc. node	2974 Nov 02 10:01	1° ♄ 43'57		asc. node	2975 Oct 20 07:04	14° ♄ 01'22	
morning rise	2974 Nov 04 06:47	0° ♄ 25'30		direct	2975 Oct 21 23:45	13° ♄ 46'04	
	2974 Nov 05 05:04	30° ♄		morning max el	2975 Oct 28 11:42	17° ♄ 14'29	18°03'33
direct	2974 Nov 07 04:33	29° ♄ 37'55			2975 Nov 06 18:59	0° ♄	
	2974 Nov 09 04:52	0° ♄		morning set	2975 Nov 15 07:44	14° ♄ 03'58	
morning max el	2974 Nov 13 20:30	3° ♄ 17'09	18°33'27		2975 Nov 25 00:19	0° ♄	
	2974 Dec 02 06:42	0° ♄		desc. node	2975 Nov 26 23:08	3° ♄ 08'43	

superior conj	2975 Nov 29 10:01	7°♂04'21	0°-16'-36	asc. node	2976 Oct 06 04:06	27°♂52'55	
minimum elong	2975 Nov 29 07:57	6°♂56'07	0°16'19		2976 Oct 09 23:16	0°♂	
max. Earth dist.	2975 Dec 03 05:42	13°♂07'46	1.44944 AU	morning max el	2976 Oct 11 04:04	1°♂05'54	17°51'12
	2975 Dec 14 01:11	0°♂		morning set	2976 Oct 27 13:18	26°♂22'48	
evening rise	2975 Dec 15 19:58	2°♂45'25			2976 Oct 29 15:06	0°♂	
	2976 Jan 02 21:38	0°♂					
greatest brilliancy	2976 Jan 03 02:49	0°♂18'12	-0.6m	superior conj	2976 Nov 08 15:10	17°♂01'51	0°28'39
evening max el	2976 Jan 10 09:28	9°♂23'36	19°50'29	minimum elong	2976 Nov 08 18:01	17°♂13'43	0°28'15
asc. node	2976 Jan 16 06:21	13°♂30'57		desc. node	2976 Nov 12 20:09	23°♂55'43	
retrograde	2976 Jan 17 21:38	13°♂45'36		max. Earth dist.	2976 Nov 14 23:01	27°♂20'48	1.43989 AU
evening set	2976 Jan 21 11:26	12°♂30'52			2976 Nov 16 14:54	0°♂	
inferior conj	2976 Jan 26 23:24	6°♂28'45	3°02'29	evening rise	2976 Nov 24 05:00	11°♂52'40	
minimum elong	2976 Jan 26 20:57	6°♂36'52	3°01'55		2976 Dec 06 05:04	0°♂	
min. Earth dist.	2976 Jan 27 23:15	5°♂09'26	0.66870 AU	greatest brilliancy	2976 Dec 17 23:20	16°♂31'49	-0.5m
morning rise	2976 Feb 01 05:49	0°♂13'28		evening max el	2976 Dec 23 10:06	22°♂55'35	20°54'56
	2976 Feb 01 11:54	30°♂♂		retrograde	2976 Dec 31 19:29	27°♂53'31	
direct	2976 Feb 07 04:51	27°♂34'46		asc. node	2977 Jan 02 03:22	27°♂43'46	
	2976 Feb 13 16:40	0°♂		evening set	2977 Jan 04 18:47	26°♂23'48	
morning max el	2976 Feb 19 05:05	4°♂44'43	25°21'34	inferior conj	2977 Jan 10 04:42	20°♂10'03	2°28'34
desc. node	2976 Feb 22 22:23	8°♂47'25		minimum elong	2977 Jan 10 02:10	20°♂18'45	2°27'48
	2976 Mar 09 14:57	0°♂		min. Earth dist.	2977 Jan 10 15:41	19°♂32'20	0.67574 AU
morning set	2976 Mar 26 09:35	27°♂44'43		morning rise	2977 Jan 15 09:09	13°♂54'59	
	2976 Mar 27 15:21	0°♂		direct	2977 Jan 20 17:32	11°♂34'48	
max. Earth dist.	2976 Mar 30 03:11	4°♂37'27	1.36359 AU	morning max el	2977 Jan 31 13:29	18°♂02'04	23°55'07
				desc. node	2977 Feb 08 19:23	27°♂40'10	
superior conj	2976 Apr 05 03:21	16°♂14'39	-1°-16'-26		2977 Feb 10 14:02	0°♂	
minimum elong	2976 Apr 05 07:14	16°♂33'56	1°15'50		2977 Mar 02 17:05	0°♂	
	2976 Apr 11 22:41	0°♂		morning set	2977 Mar 08 02:26	9°♂01'36	
evening rise	2976 Apr 13 08:36	2°♂51'59		max. Earth dist.	2977 Mar 11 22:56	15°♂45'36	1.38424 AU
asc. node	2976 Apr 13 05:40	2°♂37'07					
	2976 Apr 29 15:58	0°♂		superior conj	2977 Mar 19 05:27	29°♂07'30	-1°-41'-6
evening max el	2976 Apr 30 18:23	1°♂07'34	19°46'53	minimum elong	2977 Mar 19 09:58	29°♂28'54	1°40'38
retrograde	2976 May 10 16:46	5°♂56'20			2977 Mar 19 16:31	0°♂	
evening set	2976 May 12 16:31	5°♂45'37		evening rise	2977 Mar 28 06:25	16°♂41'19	
desc. node	2976 May 20 21:35	2°♂06'32		asc. node	2977 Mar 31 02:41	22°♂12'38	
inferior conj	2976 May 21 12:15	1°♂43'56	0°-10'-44		2977 Apr 04 07:46	0°♂	
minimum elong	2976 May 21 11:46	1°♂44'41	0°10'35	evening max el	2977 Apr 13 16:00	13°♂10'58	18°53'36
transit middle	2976 May 21 11:46	1°♂44'41	0°10'35	retrograde	2977 Apr 22 00:54	17°♂15'46	
transit begin	2976 May 21 08:48	1°♂49'16		evening set	2977 Apr 24 04:33	17°♂00'39	
transit end	2976 May 21 14:44	1°♂40'06		inferior conj	2977 May 02 05:22	12°♂42'42	1°32'47
min. Earth dist.	2976 May 23 17:55	0°♂21'15	0.55528 AU	minimum elong	2977 May 02 08:37	12°♂36'52	1°31'44
	2976 May 24 08:06	30°♂♂		min. Earth dist.	2977 May 05 09:52	10°♂26'44	0.57001 AU
morning rise	2976 May 30 03:48	27°♂14'32		desc. node	2977 May 07 18:36	8°♂56'18	
direct	2976 Jun 03 12:11	26°♂32'39		morning rise	2977 May 10 08:22	7°♂38'24	
	2976 Jun 13 04:33	0°♂		direct	2977 May 15 16:51	6°♂29'40	
morning max el	2976 Jun 17 09:39	3°♂28'09	24°25'52	morning max el	2977 May 30 00:29	13°♂56'02	26°00'08
	2976 Jul 05 23:10	0°♂			2977 Jun 11 17:48	0°♂	
asc. node	2976 Jul 10 04:54	8°♂19'00		morning set	2977 Jun 27 01:00	28°♂07'16	
morning set	2976 Jul 12 13:44	13°♂14'17		asc. node	2977 Jun 27 01:56	28°♂12'09	
					2977 Jun 27 22:16	0°♂	
superior conj	2976 Jul 19 14:12	28°♂24'54	1°24'34				
minimum elong	2976 Jul 19 11:53	28°♂12'22	1°24'17	superior conj	2977 Jul 04 01:15	13°♂20'49	1°07'35
	2976 Jul 20 07:43	0°♂		minimum elong	2977 Jul 03 22:55	13°♂08'03	1°07'11
max. Earth dist.	2976 Jul 21 08:20	2°♂12'55	1.32985 AU	max. Earth dist.	2977 Jul 04 17:42	14°♂51'16	1.32350 AU
evening rise	2976 Jul 26 22:23	13°♂56'13		evening rise	2977 Jul 11 01:59	28°♂29'47	
	2976 Aug 04 08:21	0°♂			2977 Jul 11 19:25	0°♂	
desc. node	2976 Aug 16 20:52	19°♂57'12			2977 Jul 28 14:40	0°♂	
	2976 Aug 24 18:17	0°♂		desc. node	2977 Aug 03 17:54	8°♂31'06	
evening max el	2976 Aug 29 02:04	4°♂30'38	27°26'25	evening max el	2977 Aug 11 08:41	17°♂02'05	27°08'31
retrograde	2976 Sep 11 18:28	11°♂47'19		retrograde	2977 Aug 25 05:19	24°♂15'24	
evening set	2976 Sep 18 22:49	9°♂11'53		evening set	2977 Sep 01 07:54	21°♂58'36	
min. Earth dist.	2976 Sep 22 14:21	6°♂04'27	0.63324 AU	min. Earth dist.	2977 Sep 04 22:57	19°♂15'19	0.61426 AU
inferior conj	2976 Sep 25 06:37	3°♂24'21	-3°-23'-12	inferior conj	2977 Sep 08 01:40	16°♂30'58	-4°-15'-8
minimum elong	2976 Sep 25 11:54	3°♂11'08	3°21'33	minimum elong	2977 Sep 08 07:13	16°♂18'42	4°13'53
	2976 Sep 28 23:48	30°♂♂		morning rise	2977 Sep 15 09:31	11°♂35'24	
morning rise	2976 Oct 02 03:28	28°♂08'02		direct	2977 Sep 17 17:47	11°♂12'37	
direct	2976 Oct 04 13:22	27°♂40'12		asc. node	2977 Sep 23 01:08	13°♂13'53	

morning max el	2977 Sep 24 18:36	14° \mathbb{M} 43'47	17°57'19	morning rise	2978 Aug 28 23:02	24° \mathcal{O} 34'10	
	2977 Oct 05 06:31	0° \mathcal{A}		direct	2978 Aug 31 08:36	24° \mathcal{O} 14'08	
morning set	2977 Oct 10 13:34	9° \mathcal{A} 34'43		morning max el	2978 Sep 08 04:08	28° \mathcal{O} 00'21	18°23'08
				asc. node	2978 Sep 09 22:11	29° \mathcal{O} 51'18	
superior conj	2977 Oct 20 23:16	28° \mathcal{A} 18'22	1°04'06		2978 Sep 10 01:11	0° \mathbb{M}	
minimum elong	2977 Oct 21 03:39	28° \mathcal{A} 37'26	1°03'33	morning set	2978 Sep 24 03:14	23° \mathbb{M} 24'58	
	2977 Oct 21 22:39	0° \mathbb{M}			2978 Sep 27 13:47	0° \mathcal{A}	
max. Earth dist.	2977 Oct 28 12:00	11° \mathbb{M} 05'07	1.42445 AU				
desc. node	2977 Oct 30 17:10	14° \mathbb{M} 42'50		superior conj	2978 Oct 03 07:05	10° \mathcal{A} 44'44	1°27'53
evening rise	2977 Nov 03 20:43	21° \mathbb{M} 21'44		minimum elong	2978 Oct 03 10:36	11° \mathcal{A} 00'54	1°27'33
	2977 Nov 09 10:04	0° \mathcal{A}		max. Earth dist.	2978 Oct 10 19:15	24° \mathcal{A} 06'52	1.40514 AU
	2977 Nov 30 13:39	0° \mathcal{B}			2978 Oct 14 06:39	0° \mathbb{M}	
greatest brilliancy	2977 Dec 01 11:53	1° \mathcal{B} 08'39	-0.3m	evening rise	2978 Oct 15 08:10	1° \mathbb{M} 45'52	
evening max el	2977 Dec 06 05:11	6° \mathcal{B} 28'11	22°09'29	desc. node	2978 Oct 17 14:12	5° \mathbb{M} 26'51	
retrograde	2977 Dec 15 15:59	12° \mathcal{B} 05'33			2978 Nov 02 19:13	0° \mathcal{A}	
evening set	2977 Dec 20 02:31	10° \mathcal{B} 19'41		evening max el	2978 Nov 18 19:54	20° \mathcal{A} 03'08	23°29'09
asc. node	2977 Dec 20 00:23	10° \mathcal{B} 23'56		retrograde	2978 Nov 29 09:41	26° \mathcal{A} 18'26	
inferior conj	2977 Dec 25 12:01	3° \mathcal{B} 57'40	1°47'00	evening set	2978 Dec 04 09:02	24° \mathcal{A} 15'54	
minimum elong	2977 Dec 25 09:52	4° \mathcal{B} 05'07	1°46'14	asc. node	2978 Dec 06 21:25	21° \mathcal{A} 40'20	
min. Earth dist.	2977 Dec 25 11:24	3° \mathcal{B} 59'47	0.67892 AU	inferior conj	2978 Dec 09 19:33	17° \mathcal{A} 49'38	0°59'07
	2977 Dec 28 12:08	30° \mathcal{R} \mathcal{A}		minimum elong	2978 Dec 09 18:13	17° \mathcal{A} 54'14	0°58'34
morning rise	2977 Dec 30 17:04	27° \mathcal{A} 44'32		min. Earth dist.	2978 Dec 09 08:10	18° \mathcal{A} 28'38	0.67855 AU
direct	2978 Jan 04 10:20	25° \mathcal{A} 46'48		morning rise	2978 Dec 15 03:31	11° \mathcal{A} 40'24	
	2978 Jan 12 12:32	0° \mathcal{B}		direct	2978 Dec 19 06:23	10° \mathcal{A} 05'29	
morning max el	2978 Jan 14 00:13	1° \mathcal{B} 25'45	22°26'43	morning max el	2978 Dec 27 16:40	14° \mathcal{A} 58'49	21°04'29
greatest brilliancy	2978 Jan 18 13:41	6° \mathcal{B} 31'18	-0.3m	greatest brilliancy	2979 Jan 02 02:33	21° \mathcal{A} 12'43	-0.5m
desc. node	2978 Jan 26 16:24	17° \mathcal{B} 10'10			2979 Jan 08 14:55	0° \mathcal{B}	
	2978 Feb 04 12:47	0° \mathcal{A}		desc. node	2979 Jan 13 13:26	7° \mathcal{B} 07'07	
morning set	2978 Feb 16 15:43	18° \mathcal{A} 57'33		morning set	2979 Jan 27 01:10	27° \mathcal{B} 36'33	
max. Earth dist.	2978 Feb 21 19:32	27° \mathcal{A} 32'02	1.40586 AU		2979 Jan 28 13:38	0° \mathcal{A}	
	2978 Feb 23 06:17	0° \mathcal{K}		max. Earth dist.	2979 Feb 03 22:08	10° \mathcal{A} 11'51	1.42564 AU
superior conj	2978 Mar 01 14:32	11° \mathcal{K} 08'37	-1°-59'-17	superior conj	2979 Feb 11 01:26	22° \mathcal{A} 06'08	-2°-6'-20
minimum elong	2978 Mar 01 18:03	11° \mathcal{K} 24'25	1°59'06	minimum elong	2979 Feb 11 01:18	22° \mathcal{A} 05'34	2°06'20
evening rise	2978 Mar 11 18:04	29° \mathcal{K} 56'54			2979 Feb 15 15:07	0° \mathcal{K}	
	2978 Mar 11 18:43	0° \mathcal{Y}		evening rise	2979 Feb 22 15:40	12° \mathcal{K} 29'44	
asc. node	2978 Mar 17 23:43	11° \mathcal{Y} 27'09		asc. node	2979 Mar 04 20:45	0° \mathcal{Y} 13'25	
evening max el	2978 Mar 27 21:51	25° \mathcal{Y} 47'24	18°20'35		2979 Mar 04 17:21	0° \mathcal{Y}	
retrograde	2978 Apr 04 04:14	29° \mathcal{Y} 23'58		evening max el	2979 Mar 11 08:42	8° \mathcal{Y} 47'55	18°07'25
evening set	2978 Apr 06 13:42	29° \mathcal{Y} 01'25		retrograde	2979 Mar 18 00:02	12° \mathcal{Y} 11'55	
inferior conj	2978 Apr 13 19:58	24° \mathcal{Y} 22'56	2°44'27	evening set	2979 Mar 20 15:09	11° \mathcal{Y} 39'58	
minimum elong	2978 Apr 13 23:40	24° \mathcal{Y} 15'10	2°43'36	inferior conj	2979 Mar 27 06:10	6° \mathcal{Y} 40'32	3°24'39
min. Earth dist.	2978 Apr 17 06:29	21° \mathcal{Y} 31'14	0.58989 AU	minimum elong	2979 Mar 27 08:23	6° \mathcal{Y} 35'08	3°24'22
morning rise	2978 Apr 21 05:35	18° \mathcal{Y} 48'49		min. Earth dist.	2979 Mar 30 10:10	3° \mathcal{Y} 37'41	0.61157 AU
desc. node	2978 Apr 24 15:36	17° \mathcal{Y} 26'11		morning rise	2979 Apr 02 22:36	0° \mathcal{Y} 46'47	
direct	2978 Apr 27 11:12	17° \mathcal{Y} 04'54			2979 Apr 04 05:06	30° \mathcal{R} \mathcal{K}	
morning max el	2978 May 11 20:23	24° \mathcal{Y} 50'36	27°10'38	direct	2979 Apr 09 17:10	28° \mathcal{K} 28'57	
	2978 May 16 14:00	0° \mathcal{B}		desc. node	2979 Apr 11 12:39	28° \mathcal{K} 38'16	
	2978 Jun 04 22:59	0° \mathbb{I}			2979 Apr 15 13:01	0° \mathcal{Y}	
morning set	2978 Jun 11 10:10	12° \mathbb{I} 52'51		morning max el	2979 Apr 23 22:32	6° \mathcal{Y} 24'42	27°46'47
asc. node	2978 Jun 13 22:59	18° \mathbb{I} 15'30			2979 May 11 17:18	0° \mathcal{B}	
max. Earth dist.	2978 Jun 18 05:44	27° \mathbb{I} 36'33	1.32104 AU	morning set	2979 May 26 15:17	27° \mathcal{B} 23'30	
					2979 May 27 21:30	0° \mathbb{I}	
superior conj	2978 Jun 18 13:04	28° \mathbb{I} 16'52	0°46'43	asc. node	2979 May 31 20:01	8° \mathbb{I} 23'30	
minimum elong	2978 Jun 18 11:11	28° \mathbb{I} 06'32	0°46'20	max. Earth dist.	2979 Jun 01 16:25	10° \mathbb{I} 14'19	1.32256 AU
	2978 Jun 19 07:46	0° \mathcal{B}					
evening rise	2978 Jun 25 10:26	13° \mathcal{B} 16'05		superior conj	2979 Jun 02 23:53	13° \mathbb{I} 06'07	0°22'37
	2978 Jul 03 21:39	0° \mathcal{O}		minimum elong	2979 Jun 02 22:52	13° \mathbb{I} 00'33	0°22'23
desc. node	2978 Jul 21 14:54	26° \mathcal{O} 00'10		evening rise	2979 Jun 09 21:31	28° \mathbb{I} 06'53	
evening max el	2978 Jul 24 08:38	28° \mathcal{O} 47'49	26°17'35		2979 Jun 10 18:56	0° \mathcal{B}	
	2978 Jul 25 16:09	0° \mathbb{M}			2979 Jun 27 18:10	0° \mathcal{O}	
retrograde	2978 Aug 07 08:06	5° \mathbb{M} 58'25		evening max el	2979 Jul 06 01:28	9° \mathcal{O} 47'14	24°58'48
evening set	2978 Aug 13 21:10	4° \mathbb{M} 12'51		desc. node	2979 Jul 08 11:56	11° \mathcal{O} 57'04	
min. Earth dist.	2978 Aug 17 21:35	1° \mathbb{M} 38'05	0.59368 AU	retrograde	2979 Jul 20 00:43	16° \mathcal{O} 52'08	
	2978 Aug 20 01:07	30° \mathcal{R} \mathcal{O}		evening set	2979 Jul 25 10:38	15° \mathcal{O} 45'15	
inferior conj	2978 Aug 21 04:40	29° \mathcal{O} 06'34	-4°-52'-45	min. Earth dist.	2979 Jul 30 13:02	12° \mathcal{O} 59'57	0.57382 AU
minimum elong	2978 Aug 21 08:22	28° \mathcal{O} 59'25	4°52'21	inferior conj	2979 Aug 02 12:25	11° \mathcal{O} 01'03	-5°-3'-52

minimum elong	2979 Aug 02 11:29	11°02'37	5°03'52	desc. node	2980 Jun 24 08:58	25°047'55	
morning rise	2979 Aug 10 16:01	6°051'03		retrograde	2980 Jun 30 04:42	27°04'54	
direct	2979 Aug 13 05:38	6°032'00		evening set	2980 Jul 04 02:47	26°031'17	
morning max el	2979 Aug 22 05:23	10°044'57	19°09'57	min. Earth dist.	2980 Jul 11 00:52	23°020'09	0.55803 AU
asc. node	2979 Aug 27 19:15	17°029'06		inferior conj	2980 Jul 13 00:11	22°010'11	-4°-33'-33
	2979 Sep 04 03:20	0°00		minimum elong	2980 Jul 12 17:42	22°019'49	4°32'27
morning set	2979 Sep 08 02:13	7°042'00		morning rise	2980 Jul 21 11:44	18°016'00	
				direct	2980 Jul 24 07:42	17°056'21	
superior conj	2979 Sep 16 08:57	24°004'14	1°40'58	morning max el	2980 Aug 03 19:41	22°048'31	20°18'20
minimum elong	2979 Sep 16 10:44	24°012'51	1°40'53		2980 Aug 09 21:42	0°00	
	2979 Sep 19 11:31	0°00		asc. node	2980 Aug 13 16:18	5°053'42	
max. Earth dist.	2979 Sep 22 23:04	6°025'53	1.38444 AU	morning set	2980 Aug 22 07:31	22°017'54	
evening rise	2979 Sep 26 19:24	13°015'59			2980 Aug 26 01:26	0°00	
desc. node	2979 Oct 04 11:14	26°003'33					
	2979 Oct 06 23:00	0°00		superior conj	2980 Aug 29 23:54	8°002'49	1°45'02
	2979 Oct 28 20:26	0°00		minimum elong	2980 Aug 29 23:58	8°003'08	1°45'03
evening max el	2979 Nov 01 08:29	3°042'13	24°47'39	max. Earth dist.	2980 Sep 04 05:13	18°021'09	1.36485 AU
retrograde	2979 Nov 12 23:27	10°028'04		evening rise	2980 Sep 08 04:12	25°046'50	
evening set	2979 Nov 18 12:43	8°009'37			2980 Sep 10 12:16	0°00	
min. Earth dist.	2979 Nov 23 03:33	2°056'22	0.67478 AU	desc. node	2980 Sep 20 08:17	16°028'16	
asc. node	2979 Nov 23 18:28	2°007'00			2980 Sep 29 11:10	0°00	
inferior conj	2979 Nov 24 01:32	1°043'35	0°06'04	evening max el	2980 Oct 13 20:47	17°023'41	25°57'34
minimum elong	2979 Nov 24 01:23	1°044'05	0°05'59	retrograde	2980 Oct 26 08:20	24°029'22	
transit middle	2979 Nov 24 01:23	1°044'05	0°05'59	evening set	2980 Nov 01 11:47	21°057'22	
transit begin	2979 Nov 23 22:49	1°052'34		min. Earth dist.	2980 Nov 05 19:05	17°019'52	0.66768 AU
transit end	2979 Nov 24 03:56	1°035'36		inferior conj	2980 Nov 07 04:07	15°036'19	0°-50'-57
	2979 Nov 25 09:16	30°00		minimum elong	2980 Nov 07 05:27	15°032'06	0°50'24
morning rise	2979 Nov 29 14:31	25°040'37		asc. node	2980 Nov 09 15:32	12°038'08	
direct	2979 Dec 03 04:34	24°026'38		morning rise	2980 Nov 13 00:04	9°042'25	
morning max el	2979 Dec 10 16:48	28°042'45	19°53'58	direct	2980 Nov 16 03:13	8°046'08	
	2979 Dec 11 22:11	0°00		morning max el	2980 Nov 23 00:23	12°035'39	18°58'12
greatest brilliancy	2979 Dec 18 02:12	7°044'56	-0.6m		2980 Dec 05 19:48	0°00	
desc. node	2979 Dec 31 10:29	27°023'35		morning set	2980 Dec 15 04:53	14°035'28	
	2980 Jan 02 03:27	0°00		desc. node	2980 Dec 17 07:30	17°053'33	
morning set	2980 Jan 05 21:06	5°044'36			2980 Dec 25 01:06	0°00	
max. Earth dist.	2980 Jan 17 08:18	23°042'22	1.44099 AU	max. Earth dist.	2980 Dec 30 00:41	7°049'13	1.45006 AU
	2980 Jan 21 06:26	0°00					
superior conj	2980 Jan 22 10:27	1°053'30	-1°-57'-2	superior conj	2980 Dec 31 20:18	10°040'59	-1°-28'-25
minimum elong	2980 Jan 22 04:36	1°029'46	1°56'43	minimum elong	2980 Dec 31 11:14	10°005'13	1°27'31
evening rise	2980 Feb 04 18:50	24°011'28			2981 Jan 12 22:47	0°00	
	2980 Feb 08 04:20	0°00		evening rise	2981 Jan 15 23:42	4°055'46	
asc. node	2980 Feb 19 17:48	18°022'49			2981 Jan 31 21:17	0°00	
evening max el	2980 Feb 22 21:26	22°043'31	18°13'26	evening max el	2981 Feb 05 09:13	5°029'25	18°37'50
retrograde	2980 Feb 29 07:58	25°030'05		asc. node	2981 Feb 05 14:51	5°043'34	
evening set	2980 Mar 03 04:32	24°047'25		retrograde	2981 Feb 11 23:48	9°008'57	
inferior conj	2980 Mar 09 08:03	19°027'52	3°39'37	evening set	2981 Feb 15 02:12	8°014'37	
minimum elong	2980 Mar 09 08:24	19°026'55	3°39'36	inferior conj	2981 Feb 20 21:33	2°036'31	3°35'45
min. Earth dist.	2980 Mar 11 22:39	16°037'31	0.63207 AU	minimum elong	2981 Feb 20 20:22	2°040'04	3°35'39
morning rise	2980 Mar 15 10:16	13°022'53		min. Earth dist.	2981 Feb 22 20:29	0°015'33	0.64944 AU
direct	2980 Mar 22 08:11	10°041'47			2981 Feb 23 01:48	30°00	
desc. node	2980 Mar 28 09:41	12°026'52		morning rise	2981 Feb 26 13:17	26°025'19	
morning max el	2980 Apr 05 05:36	18°038'52	27°45'26	direct	2981 Mar 05 06:18	23°035'19	
	2980 Apr 14 19:36	0°00		desc. node	2981 Mar 15 06:43	28°017'57	
	2980 May 03 14:14	0°00			2981 Mar 17 04:35	0°00	
morning set	2980 May 09 14:07	11°032'16		morning max el	2981 Mar 18 15:10	1°024'07	27°09'42
max. Earth dist.	2980 May 14 21:58	22°032'43	1.32830 AU	morning set	2981 Apr 08 22:29	0°00	
					2981 Apr 23 03:44	25°009'39	
superior conj	2980 May 17 07:58	27°042'59	0°-4'00		2981 Apr 25 14:49	0°00	
minimum elong	2980 May 17 08:09	27°044'03	0°03'58	max. Earth dist.	2981 Apr 27 18:39	4°021'21	1.33846 AU
behind sun begin	2980 May 17 03:02	27°016'26		superior conj	2981 May 01 11:15	12°000'43	0°-32'-10
behind sun end	2980 May 17 13:17	28°011'41		minimum elong	2981 May 01 12:54	12°009'24	0°31'50
asc. node	2980 May 17 17:06	28°032'16		asc. node	2981 May 04 14:09	18°037'19	
	2980 May 18 09:20	0°00		evening rise	2981 May 08 20:09	27°037'21	
evening rise	2980 May 24 09:24	12°056'12			2981 May 09 23:34	0°00	
	2980 Jun 02 01:04	0°00			2981 May 28 12:34	0°00	
evening max el	2980 Jun 16 14:57	20°017'43	23°24'12	evening max el	2981 May 29 08:13	0°049'17	21°49'17

retrograde	2981 Jun 10 21:03	7° ☿ 00'01		2982 May 02 14:35	0° II	
desc. node	2981 Jun 11 05:58	6° ☿ 59'42		evening max el	2982 May 11 11:38	11° II 49'37 20°26'25
evening set	2981 Jun 13 12:29	6° ☿ 44'21		retrograde	2982 May 22 10:22	17° II 09'26
inferior conj	2981 Jun 22 21:00	2° ☿ 41'44 -3°-13'-59		evening set	2982 May 24 11:16	16° II 59'07
minimum elong	2981 Jun 22 13:00	2° ☿ 52'55 3°11'36		desc. node	2982 May 29 02:59	15° II 27'38
min. Earth dist.	2981 Jun 22 11:55	2° ☿ 54'25 0.54952 AU		inferior conj	2982 Jun 02 15:19	13° II 01'14 -1°-19'-30
	2981 Jun 28 02:36	30° R II		minimum elong	2982 Jun 02 11:34	13° II 06'42 1°18'09
morning rise	2981 Jul 01 14:50	28° II 49'11		min. Earth dist.	2982 Jun 04 00:16	12° II 13'19 0.55036 AU
direct	2981 Jul 04 19:47	28° II 26'35		morning rise	2982 Jun 11 10:13	8° II 49'54
	2981 Jul 11 03:39	0° ☿		direct	2982 Jun 15 06:00	8° II 18'22
morning max el	2981 Jul 16 22:21	4° ☿ 07'24 21°46'18		morning max el	2982 Jun 28 16:08	14° II 49'13 23°27'00
asc. node	2981 Jul 31 13:22	24° ☿ 53'55			2982 Jul 10 12:07	0° ☿
	2981 Aug 03 05:02	0° Ω		asc. node	2982 Jul 18 10:24	14° ☿ 20'09
morning set	2981 Aug 06 16:50	7° Ω 06'19		morning set	2982 Jul 22 04:12	22° ☿ 00'36
					2982 Jul 25 21:54	0° Ω
superior conj	2981 Aug 13 23:59	22° Ω 29'01 1°41'44		superior conj	2982 Jul 29 06:07	7° Ω 12'45 1°32'21
minimum elong	2981 Aug 13 22:44	22° Ω 22'26 1°41'40		minimum elong	2982 Jul 29 04:03	7° Ω 01'37 1°32'08
	2981 Aug 17 15:24	0° ☿		max. Earth dist.	2982 Jul 31 16:51	12° Ω 25'58 1.33530 AU
max. Earth dist.	2981 Aug 17 18:36	0° ☿ 16'14 1.34814 AU		evening rise	2982 Aug 05 20:42	23° Ω 03'23
evening rise	2981 Aug 22 06:07	9° ☿ 06'53			2982 Aug 09 10:19	0° ☿
	2981 Sep 03 01:04	0° ☿		desc. node	2982 Aug 25 02:19	26° ☿ 15'17
desc. node	2981 Sep 07 05:18	6° ☿ 35'07			2982 Aug 27 17:37	0° ☿
	2981 Sep 25 08:32	0° ☿		evening max el	2982 Sep 08 21:01	14° ☿ 21'58 27°21'44
evening max el	2981 Sep 26 09:17	1° ☿ 00'48 26°51'17		retrograde	2982 Sep 22 09:33	21° ☿ 40'13
retrograde	2981 Oct 09 11:49	8° ☿ 16'25		evening set	2982 Sep 29 11:15	18° ☿ 59'23
evening set	2981 Oct 16 04:10	5° ☿ 35'52		min. Earth dist.	2982 Oct 03 05:10	15° ☿ 34'07 0.64295 AU
min. Earth dist.	2981 Oct 20 04:21	1° ☿ 35'08 0.65711 AU		inferior conj	2982 Oct 05 14:35	13° ☿ 01'55 -2°-50'-3
	2981 Oct 21 13:06	30° R ☿		minimum elong	2982 Oct 05 19:12	12° ☿ 49'41 2°48'25
inferior conj	2981 Oct 22 01:16	29° ☿ 24'25 -1°-50'-23		morning rise	2982 Oct 12 05:19	7° ☿ 35'38
minimum elong	2981 Oct 22 04:17	29° ☿ 15'37 1°49'11		asc. node	2982 Oct 14 09:35	7° ☿ 04'10
asc. node	2981 Oct 27 12:33	24° ☿ 07'18		direct	2982 Oct 14 17:31	7° ☿ 03'37
morning rise	2981 Oct 28 05:55	23° ☿ 42'43		morning max el	2982 Oct 21 05:45	10° ☿ 29'38 17°56'08
direct	2981 Oct 31 00:24	23° ☿ 00'26			2982 Nov 03 12:10	0° ☿
morning max el	2981 Nov 06 13:37	26° ☿ 33'35 18°18'39		morning set	2982 Nov 07 08:13	6° ☿ 30'42
	2981 Nov 09 13:32	0° ☿				
morning set	2981 Nov 25 16:26	24° ☿ 51'51		superior conj	2982 Nov 20 13:21	28° ☿ 29'01 0°03'30
	2981 Nov 28 20:36	0° ☿		minimum elong	2982 Nov 20 13:45	28° ☿ 30'37 0°03'27
desc. node	2981 Dec 04 04:33	8° ☿ 33'12		behind sun begin	2982 Nov 20 03:44	27° ☿ 50'05
				behind sun end	2982 Nov 20 23:46	29° ☿ 11'04
superior conj	2981 Dec 10 22:12	19° ☿ 13'15 0°-44'-30		desc. node	2982 Nov 21 01:35	29° ☿ 18'25
minimum elong	2981 Dec 10 16:32	18° ☿ 50'55 0°43'46			2982 Nov 21 11:54	0° ☿
max. Earth dist.	2981 Dec 12 20:01	22° ☿ 13'19 1.45184 AU		max. Earth dist.	2982 Nov 25 14:38	6° ☿ 34'25 1.44619 AU
	2981 Dec 17 19:07	0° ☿		evening rise	2982 Dec 06 18:17	23° ☿ 58'10
evening rise	2981 Dec 27 05:33	14° ☿ 45'44			2982 Dec 10 16:43	0° ☿
	2982 Jan 05 23:57	0° ☿		greatest brilliancy	2982 Dec 27 12:18	24° ☿ 43'51 -0.6m
greatest brilliancy	2982 Jan 10 16:18	7° ☿ 06'16 -0.7m			2982 Dec 31 15:42	0° ☿
evening max el	2982 Jan 19 17:44	18° ☿ 58'07 19°19'25		evening max el	2983 Jan 02 21:24	2° ☿ 28'33 20°16'22
asc. node	2982 Jan 23 11:52	22° ☿ 02'21		asc. node	2983 Jan 10 08:51	7° ☿ 04'49
retrograde	2982 Jan 26 20:06	23° ☿ 02'17		retrograde	2983 Jan 10 18:06	7° ☿ 05'38
evening set	2982 Jan 30 05:20	21° ☿ 55'15		evening set	2983 Jan 14 11:41	5° ☿ 44'42
inferior conj	2982 Feb 04 19:18	16° ☿ 00'53 3°17'50		inferior conj	2983 Jan 19 22:31	29° ☿ 36'59 2°49'07
minimum elong	2982 Feb 04 17:09	16° ☿ 07'49 3°17'27		minimum elong	2983 Jan 19 19:59	29° ☿ 45'35 2°48'28
min. Earth dist.	2982 Feb 06 03:06	14° ☿ 18'11 0.66284 AU			2983 Jan 19 15:43	30° R ☿
morning rise	2982 Feb 10 04:10	9° ☿ 46'24		min. Earth dist.	2983 Jan 20 16:41	28° ☿ 35'31 0.67212 AU
direct	2982 Feb 16 10:39	7° ☿ 00'46		morning rise	2983 Jan 25 03:44	23° ☿ 21'22
morning max el	2982 Mar 01 00:52	14° ☿ 29'05 26°06'38		direct	2983 Jan 30 20:33	20° ☿ 49'59
desc. node	2982 Mar 02 03:45	15° ☿ 38'31		morning max el	2983 Feb 11 09:35	27° ☿ 43'44 24°45'41
	2982 Mar 13 17:07	0° ☿			2983 Feb 13 13:08	0° ☿
	2982 Apr 01 17:11	0° ☿		desc. node	2983 Feb 17 00:47	4° ☿ 03'10
morning set	2982 Apr 06 04:13	8° ☿ 04'20			2983 Mar 07 09:51	0° ☿
max. Earth dist.	2982 Apr 10 04:01	15° ☿ 38'58 1.35317 AU		morning set	2983 Mar 19 10:28	20° ☿ 02'05
				max. Earth dist.	2983 Mar 23 02:55	26° ☿ 40'26 1.37197 AU
superior conj	2982 Apr 15 07:18	25° ☿ 52'03 -1°00'-38			2983 Mar 24 22:03	0° ☿
minimum elong	2982 Apr 15 10:27	26° ☿ 08'03 1°00'05				
	2982 Apr 17 07:45	0° ☿		superior conj	2983 Mar 29 17:03	9° ☿ 09'02 -1°-27'-27
asc. node	2982 Apr 21 11:11	8° ☿ 34'30		minimum elong	2983 Mar 29 21:20	9° ☿ 29'55 1°26'53
evening rise	2982 Apr 23 03:47	12° ☿ 03'50				

evening rise	2983 Apr 07 05:59	26° Υ 08'53		minimum elong	2984 Mar 11 16:51	22° Υ 01'00	1°49'31
asc. node	2983 Apr 08 08:12	28° Υ 19'25			2984 Mar 15 22:29	0° Υ	
	2983 Apr 09 04:34	0° \mathcal{B}		evening rise	2984 Mar 20 23:52	9° Υ 44'08	
evening max el	2983 Apr 24 03:09	23° \mathcal{B} 30'57	19°21'50	asc. node	2984 Mar 25 05:13	17° Υ 46'16	
retrograde	2983 May 03 08:53	27° \mathcal{B} 59'45			2984 Apr 01 10:38	0° \mathcal{B}	
evening set	2983 May 05 09:27	27° \mathcal{B} 47'47		evening max el	2984 Apr 06 04:44	5° \mathcal{B} 49'17	18°37'13
inferior conj	2983 May 13 21:30	23° \mathcal{B} 40'17	0°36'26	retrograde	2984 Apr 14 00:52	9° \mathcal{B} 39'45	
minimum elong	2983 May 13 23:00	23° \mathcal{B} 37'48	0°35'54	evening set	2984 Apr 16 06:58	9° \mathcal{B} 21'48	
desc. node	2983 May 15 23:59	22° \mathcal{B} 17'23		inferior conj	2984 Apr 23 23:38	4° \mathcal{B} 55'46	2°07'16
min. Earth dist.	2983 May 16 14:59	21° \mathcal{B} 53'19	0.56057 AU	minimum elong	2984 Apr 24 03:26	4° \mathcal{B} 48'30	2°06'11
morning rise	2983 May 22 08:33	18° \mathcal{B} 55'40		min. Earth dist.	2984 Apr 27 08:48	2° \mathcal{B} 21'38	0.57800 AU
direct	2983 May 27 02:51	18° \mathcal{B} 03'51			2984 May 01 01:41	30° $\mathcal{R}\Upsilon$	
morning max el	2983 Jun 10 06:28	25° \mathcal{B} 15'01	25°07'57	morning rise	2984 May 01 19:30	29° Υ 37'42	
	2983 Jun 14 16:44	0° Π		desc. node	2984 May 01 21:00	29° Υ 35'55	
	2983 Jul 03 07:23	0° \mathcal{E}		direct	2984 May 07 13:57	28° Υ 14'09	
asc. node	2983 Jul 05 07:27	4° \mathcal{E} 05'27			2984 May 14 05:18	0° \mathcal{B}	
morning set	2983 Jul 06 15:59	6° \mathcal{E} 55'46		morning max el	2984 May 21 22:52	5° \mathcal{B} 50'31	26°33'45
					2984 Jun 08 17:50	0° Π	
superior conj	2983 Jul 13 15:59	22° \mathcal{E} 06'31	1°17'54	morning set	2984 Jun 20 02:33	21° Π 45'36	
minimum elong	2983 Jul 13 13:37	21° \mathcal{E} 53'33	1°17'33	asc. node	2984 Jun 21 04:31	24° Π 03'05	
max. Earth dist.	2983 Jul 14 22:52	24° \mathcal{E} 54'54	1.32662 AU		2984 Jun 23 22:36	0° \mathcal{E}	
	2983 Jul 17 07:24	0° Ω					
evening rise	2983 Jul 20 20:27	7° Ω 26'21		superior conj	2984 Jun 27 03:35	7° \mathcal{E} 02'53	0°59'10
	2983 Aug 01 21:47	0° \mathcal{M}		minimum elong	2984 Jun 27 01:23	6° \mathcal{E} 50'50	0°58'47
desc. node	2983 Aug 11 23:19	15° \mathcal{M} 17'39		max. Earth dist.	2984 Jun 27 09:38	7° \mathcal{E} 36'15	1.32195 AU
evening max el	2983 Aug 22 06:12	27° \mathcal{M} 15'08	27°22'47	evening rise	2984 Jul 04 02:23	22° \mathcal{E} 05'57	
	2983 Aug 25 10:13	0° \mathcal{A}			2984 Jul 07 23:22	0° Ω	
retrograde	2983 Sep 05 00:57	4° \mathcal{A} 31'15			2984 Jul 26 02:48	0° \mathcal{M}	
evening set	2983 Sep 12 05:38	2° \mathcal{A} 01'54		desc. node	2984 Jul 28 20:20	3° \mathcal{M} 26'32	
	2983 Sep 14 19:59	30° $\mathcal{R}\mathcal{M}$		evening max el	2984 Aug 03 10:22	9° \mathcal{M} 28'23	26°50'51
min. Earth dist.	2983 Sep 15 20:04	29° \mathcal{M} 06'12	0.62549 AU	retrograde	2984 Aug 17 08:45	16° \mathcal{M} 40'31	
inferior conj	2983 Sep 18 17:16	26° \mathcal{M} 22'12	-3°-46'-23	evening set	2984 Aug 24 06:57	14° \mathcal{M} 35'56	
minimum elong	2983 Sep 18 22:52	26° \mathcal{M} 08'55	3°44'50	min. Earth dist.	2984 Aug 28 00:31	11° \mathcal{M} 58'08	0.60558 AU
morning rise	2983 Sep 25 18:51	21° \mathcal{M} 14'30		inferior conj	2984 Aug 31 05:59	9° \mathcal{M} 17'01	-4°-33'-28
direct	2983 Sep 28 03:32	20° \mathcal{M} 49'18		minimum elong	2984 Aug 31 11:04	9° \mathcal{M} 06'23	4°32'34
asc. node	2983 Oct 01 06:37	21° \mathcal{M} 34'45		morning rise	2984 Sep 07 18:24	4° \mathcal{M} 30'49	
morning max el	2983 Oct 04 21:46	24° \mathcal{M} 16'27	17°51'24	direct	2984 Sep 10 02:45	4° \mathcal{M} 09'31	
	2983 Oct 09 12:57	0° \mathcal{A}		asc. node	2984 Sep 17 03:41	7° \mathcal{M} 29'52	
morning set	2983 Oct 20 22:27	19° \mathcal{A} 13'47		morning max el	2984 Sep 17 10:33	7° \mathcal{M} 46'13	18°05'42
	2983 Oct 27 00:27	0° \mathcal{M}			2984 Oct 01 17:54	0° \mathcal{A}	
				morning set	2984 Oct 03 05:04	2° \mathcal{A} 43'51	
superior conj	2983 Nov 01 06:01	9° \mathcal{M} 00'18	0°45'06				
minimum elong	2983 Nov 01 09:55	9° \mathcal{M} 16'48	0°44'33	superior conj	2984 Oct 13 00:51	20° \mathcal{A} 48'11	1°15'35
desc. node	2983 Nov 07 22:37	20° \mathcal{M} 05'47		minimum elong	2984 Oct 13 05:03	21° \mathcal{A} 06'55	1°15'06
max. Earth dist.	2983 Nov 08 05:45	20° \mathcal{M} 34'43	1.43394 AU		2984 Oct 18 07:07	0° \mathcal{M}	
	2983 Nov 14 03:36	0° \mathcal{A}		max. Earth dist.	2984 Oct 20 16:08	4° \mathcal{M} 01'28	1.41662 AU
evening rise	2983 Nov 16 04:03	3° \mathcal{A} 09'06		desc. node	2984 Oct 24 19:39	10° \mathcal{M} 52'06	
	2983 Dec 04 04:39	0° \mathcal{B}		evening rise	2984 Oct 26 03:11	12° \mathcal{M} 59'29	
greatest brilliancy	2983 Dec 11 19:46	10° \mathcal{B} 15'49	-0.4m		2984 Nov 06 03:07	0° \mathcal{A}	
evening max el	2983 Dec 16 19:32	16° \mathcal{B} 00'11	21°25'43	greatest brilliancy	2984 Nov 23 13:21	24° \mathcal{A} 00'07	-0.3m
retrograde	2983 Dec 25 15:37	21° \mathcal{B} 15'11		evening max el	2984 Nov 28 12:44	29° \mathcal{A} 34'27	22°43'09
asc. node	2983 Dec 28 05:52	20° \mathcal{B} 38'16			2984 Nov 28 23:00	0° \mathcal{B}	
evening set	2983 Dec 29 19:22	19° \mathcal{B} 38'57		retrograde	2984 Dec 08 11:00	5° \mathcal{B} 28'07	
inferior conj	2984 Jan 04 04:56	13° \mathcal{B} 21'12	2°11'48	evening set	2984 Dec 13 02:47	3° \mathcal{B} 35'23	
minimum elong	2984 Jan 04 02:30	13° \mathcal{B} 29'36	2°11'00	asc. node	2984 Dec 14 02:54	2° \mathcal{B} 40'45	
min. Earth dist.	2984 Jan 04 10:55	13° \mathcal{B} 00'29	0.67751 AU		2984 Dec 16 10:41	30° $\mathcal{R}\mathcal{A}$	
morning rise	2984 Jan 09 09:18	7° \mathcal{B} 06'28		inferior conj	2984 Dec 18 12:35	27° \mathcal{A} 11'18	1°27'26
direct	2984 Jan 14 11:14	4° \mathcal{B} 55'24		minimum elong	2984 Dec 18 10:44	27° \mathcal{A} 17'43	1°26'43
morning max el	2984 Jan 24 18:27	11° \mathcal{B} 02'57	23°17'07	min. Earth dist.	2984 Dec 18 07:25	27° \mathcal{A} 29'12	0.67922 AU
greatest brilliancy	2984 Jan 30 00:25	16° \mathcal{B} 56'47	-0.2m	morning rise	2984 Dec 23 18:36	20° \mathcal{A} 59'30	
desc. node	2984 Feb 03 21:49	23° \mathcal{B} 13'08		direct	2984 Dec 28 05:42	19° \mathcal{A} 11'19	
	2984 Feb 08 19:41	0° \approx		morning max el	2985 Jan 06 07:06	24° \mathcal{A} 29'48	21°50'31
	2984 Feb 28 05:17	0° \mathcal{H}		greatest brilliancy	2985 Jan 11 01:14	29° \mathcal{A} 51'23	-0.4m
morning set	2984 Feb 28 16:07	0° \mathcal{H} 45'22			2985 Jan 11 04:02	0° \mathcal{B}	
max. Earth dist.	2984 Mar 03 21:28	7° \mathcal{H} 58'19	1.39341 AU	desc. node	2985 Jan 20 18:52	12° \mathcal{B} 55'56	
					2985 Feb 01 06:29	0° \approx	
superior conj	2984 Mar 11 12:30	21° \mathcal{H} 40'48	-1°-49'-53	morning set	2985 Feb 07 16:52	10° \approx 05'44	

max. Earth dist.	2985 Feb 13 20:13	20° \approx 06'57	1.41473 AU	superior conj	2986 Feb 02 12:54	13° \approx 44'11	-2°-4'-39
	2985 Feb 19 15:47	0° \mathbb{H}		minimum elong	2986 Feb 02 10:26	13° \approx 33'53	2°04'36
					2986 Feb 12 01:13	0° \mathbb{H}	
superior conj	2985 Feb 21 12:50	3° \mathbb{H} 16'37	-2°-3'-57	evening rise	2986 Feb 14 20:20	4° \mathbb{H} 54'21	
minimum elong	2985 Feb 21 15:09	3° \mathbb{H} 26'49	2°03'53	asc. node	2986 Feb 26 23:18	25° \mathbb{H} 20'57	
evening rise	2985 Mar 04 06:03	22° \mathbb{H} 42'22			2986 Mar 02 10:37	0° \mathbb{Y}	
	2985 Mar 08 05:24	0° \mathbb{Y}		evening max el	2986 Mar 04 01:08	1° \mathbb{Y} 44'51	18°07'36
asc. node	2985 Mar 12 02:15	6° \mathbb{Y} 49'24		retrograde	2986 Mar 10 13:13	5° \mathbb{Y} 07'59	
evening max el	2985 Mar 20 13:10	18° \mathbb{Y} 36'59	18°12'35	evening set	2986 Mar 13 06:41	4° \mathbb{Y} 31'31	
retrograde	2985 Mar 27 11:32	22° \mathbb{Y} 05'58			2986 Mar 19 01:46	30° \mathbb{R} \mathbb{H}	
evening set	2985 Mar 29 23:38	21° \mathbb{Y} 39'26		inferior conj	2986 Mar 19 16:19	29° \mathbb{H} 23'00	3°33'41
inferior conj	2985 Apr 05 22:56	16° \mathbb{Y} 51'54	3°05'02	minimum elong	2986 Mar 19 17:44	29° \mathbb{H} 19'21	3°33'33
minimum elong	2985 Apr 06 02:08	16° \mathbb{Y} 44'44	3°04'25	min. Earth dist.	2986 Mar 22 14:58	26° \mathbb{H} 23'13	0.62059 AU
min. Earth dist.	2985 Apr 09 07:52	13° \mathbb{Y} 52'31	0.59918 AU	morning rise	2986 Mar 26 02:15	23° \mathbb{H} 23'38	
morning rise	2985 Apr 13 01:03	11° \mathbb{Y} 08'34		direct	2986 Apr 01 23:15	20° \mathbb{H} 54'39	
desc. node	2985 Apr 18 18:03	9° \mathbb{Y} 11'17		desc. node	2986 Apr 05 15:05	21° \mathbb{H} 32'52	
direct	2985 Apr 19 13:31	9° \mathbb{Y} 09'27		morning max el	2986 Apr 16 01:49	28° \mathbb{H} 51'29	27°50'51
morning max el	2985 May 03 21:11	16° \mathbb{Y} 59'32	27°30'33		2986 Apr 17 04:41	0° \mathbb{Y}	
	2985 May 14 15:01	0° \mathbb{B}			2986 May 08 11:37	0° \mathbb{B}	
	2985 Jun 01 06:30	0° \mathbb{I}		morning set	2986 May 19 12:59	20° \mathbb{B} 47'08	
morning set	2985 Jun 04 10:13	6° \mathbb{I} 24'47			2986 May 23 22:52	0° \mathbb{I}	
asc. node	2985 Jun 08 01:34	14° \mathbb{I} 08'19		max. Earth dist.	2986 May 25 06:49	2° \mathbb{I} 51'33	1.32448 AU
max. Earth dist.	2985 Jun 10 21:36	20° \mathbb{I} 19'29	1.32122 AU	asc. node	2986 May 25 22:38	4° \mathbb{I} 17'02	
superior conj	2985 Jun 11 15:10	21° \mathbb{I} 56'03	0°36'50	superior conj	2986 May 27 01:03	6° \mathbb{I} 40'36	0°11'35
minimum elong	2985 Jun 11 13:36	21° \mathbb{I} 47'27	0°36'31	minimum elong	2986 May 27 00:31	6° \mathbb{I} 37'39	0°11'28
	2985 Jun 15 07:16	0° \mathbb{E}		behind sun begin	2986 May 26 20:55	6° \mathbb{I} 18'06	
evening rise	2985 Jun 18 12:13	6° \mathbb{E} 54'35		behind sun end	2986 May 27 04:06	6° \mathbb{I} 57'12	
	2985 Jun 30 14:05	0° \mathbb{Q}		evening rise	2986 Jun 02 23:53	21° \mathbb{I} 45'39	
desc. node	2985 Jul 15 17:21	20° \mathbb{Q} 19'48			2986 Jun 06 23:34	0° \mathbb{E}	
evening max el	2985 Jul 16 07:23	20° \mathbb{Q} 53'50	25°47'00		2986 Jun 26 07:23	0° \mathbb{Q}	
retrograde	2985 Jul 30 07:06	28° \mathbb{Q} 01'49		evening max el	2986 Jun 27 21:58	1° \mathbb{Q} 37'25	24°19'34
evening set	2985 Aug 05 10:19	26° \mathbb{Q} 32'38		desc. node	2986 Jul 02 14:22	5° \mathbb{Q} 27'48	
min. Earth dist.	2985 Aug 09 19:37	23° \mathbb{Q} 55'42	0.58496 AU	retrograde	2986 Jul 11 18:23	8° \mathbb{Q} 36'57	
inferior conj	2985 Aug 13 01:07	21° \mathbb{Q} 36'01	-5°-1'-37	evening set	2986 Jul 16 13:48	7° \mathbb{Q} 45'22	
minimum elong	2985 Aug 13 03:11	21° \mathbb{Q} 32'17	5°01'31	min. Earth dist.	2986 Jul 22 08:46	4° \mathbb{Q} 50'57	0.56638 AU
morning rise	2985 Aug 20 23:32	17° \mathbb{Q} 13'13		inferior conj	2986 Jul 25 00:12	3° \mathbb{Q} 11'10	-4°-56'-56
direct	2985 Aug 23 10:41	16° \mathbb{Q} 53'39		minimum elong	2986 Jul 24 20:46	3° \mathbb{Q} 16'35	4°56'39
morning max el	2985 Aug 31 16:52	20° \mathbb{Q} 49'40	18°40'25		2986 Jul 30 18:14	30° \mathbb{R} \mathbb{E}	
asc. node	2985 Sep 04 00:47	24° \mathbb{Q} 34'27		morning rise	2986 Aug 02 07:21	29° \mathbb{E} 09'31	
	2985 Sep 07 18:16	0° \mathbb{M}		direct	2986 Aug 04 23:34	28° \mathbb{E} 50'22	
morning set	2985 Sep 16 23:10	16° \mathbb{M} 46'54			2986 Aug 09 21:40	0° \mathbb{Q}	
	2985 Sep 23 18:50	0° \mathbb{A}		morning max el	2986 Aug 14 13:43	3° \mathbb{Q} 17'57	19°36'33
				asc. node	2986 Aug 21 21:51	12° \mathbb{Q} 33'47	
superior conj	2985 Sep 25 17:02	3° \mathbb{A} 38'55	1°34'38		2986 Aug 31 10:34	0° \mathbb{M}	
minimum elong	2985 Sep 25 19:51	3° \mathbb{A} 52'10	1°34'26	morning set	2986 Sep 01 01:11	1° \mathbb{M} 13'17	
max. Earth dist.	2985 Oct 02 22:04	16° \mathbb{A} 46'34	1.39640 AU				
evening rise	2985 Oct 07 00:45	23° \mathbb{A} 51'36		superior conj	2986 Sep 09 01:04	17° \mathbb{M} 17'16	1°43'41
	2985 Oct 10 17:37	0° \mathbb{M}		minimum elong	2986 Sep 09 02:06	17° \mathbb{M} 22'18	1°43'40
desc. node	2985 Oct 11 16:40	1° \mathbb{M} 33'27		max. Earth dist.	2986 Sep 15 02:23	28° \mathbb{M} 53'49	1.37582 AU
	2985 Oct 30 23:34	0° \mathbb{J}			2986 Sep 15 16:41	0° \mathbb{A}	
evening max el	2985 Nov 11 02:25	13° \mathbb{J} 11'35	24°03'05	evening rise	2986 Sep 18 21:39	5° \mathbb{A} 48'48	
retrograde	2985 Nov 22 03:01	19° \mathbb{J} 40'15		desc. node	2986 Sep 28 13:42	22° \mathbb{A} 05'52	
evening set	2985 Nov 27 08:18	17° \mathbb{J} 30'41			2986 Oct 03 16:16	0° \mathbb{M}	
asc. node	2985 Nov 30 23:58	13° \mathbb{J} 30'11		evening max el	2986 Oct 24 14:34	26° \mathbb{M} 51'45	25°18'43
min. Earth dist.	2985 Dec 02 03:46	11° \mathbb{J} 57'57	0.67744 AU		2986 Oct 28 02:59	0° \mathbb{J}	
inferior conj	2985 Dec 02 19:40	11° \mathbb{J} 04'12	0°37'12	retrograde	2986 Nov 05 14:47	3° \mathbb{J} 47'29	
minimum elong	2985 Dec 02 18:47	11° \mathbb{J} 07'10	0°36'49	evening set	2986 Nov 11 10:16	1° \mathbb{J} 22'30	
morning rise	2985 Dec 08 05:33	4° \mathbb{J} 57'33			2986 Nov 12 21:08	30° \mathbb{R} \mathbb{M}	
direct	2985 Dec 12 02:50	3° \mathbb{J} 31'47		min. Earth dist.	2986 Nov 15 21:43	26° \mathbb{M} 24'33	0.67226 AU
morning max el	2985 Dec 20 02:44	8° \mathbb{J} 07'28	20°32'49	inferior conj	2986 Nov 17 00:25	24° \mathbb{M} 57'58	0°-17'-42
greatest brilliancy	2985 Dec 26 05:12	15° \mathbb{J} 18'29	-0.5m	minimum elong	2986 Nov 17 00:52	24° \mathbb{M} 56'30	0°17'32
	2986 Jan 05 14:57	0° \mathbb{E}		asc. node	2986 Nov 17 21:02	23° \mathbb{M} 51'37	
desc. node	2986 Jan 07 15:54	3° \mathbb{E} 01'51		morning rise	2986 Nov 22 16:11	18° \mathbb{M} 58'45	
morning set	2986 Jan 17 17:49	18° \mathbb{E} 23'03		direct	2986 Nov 26 01:18	17° \mathbb{M} 52'54	
	2986 Jan 25 02:55	0° \mathbb{A}		morning max el	2986 Dec 03 06:18	21° \mathbb{M} 56'14	19°28'18
max. Earth dist.	2986 Jan 27 02:43	3° \mathbb{A} 11'55	1.43293 AU		2986 Dec 09 20:53	0° \mathbb{J}	

greatest brilliancy	2986 Dec 11 23:54	2°♂59'11	-0.7m		2987 Dec 03 14:05	0°♂	
desc. node	2986 Dec 25 12:56	23°♂24'34		morning set	2987 Dec 07 10:30	6°♂06'24	
morning set	2986 Dec 27 15:48	26°♂41'07		desc. node	2987 Dec 12 09:59	13°♂59'20	
	2986 Dec 29 19:08	0°♂			2987 Dec 22 14:16	0°♂	
max. Earth dist.	2987 Jan 09 15:52	17°♂00'03	1.44572 AU				
				superior conj	2987 Dec 23 15:02	1°♂37'10	-1°-11'-6
superior conj	2987 Jan 13 10:58	23°♂02'18	-1°-47'-12	minimum elong	2987 Dec 23 06:39	1°♂04'17	1°10'08
minimum elong	2987 Jan 13 03:04	22°♂30'44	1°46'37	max. Earth dist.	2987 Dec 23 09:24	1°♂15'04	1.45170 AU
	2987 Jan 17 18:41	0°♂		evening rise	2988 Jan 08 09:16	26°♂32'38	
evening rise	2987 Jan 27 14:22	16°♂12'06			2988 Jan 10 13:08	0°♂	
	2987 Feb 04 21:06	0°♂		evening max el	2988 Jan 30 00:19	28°♂32'30	18°53'31
asc. node	2987 Feb 13 20:20	13°♂10'58		asc. node	2988 Jan 31 17:21	0°♂07'37	
evening max el	2987 Feb 15 13:40	15°♂05'03	18°21'34		2988 Jan 31 13:42	0°♂	
retrograde	2987 Feb 22 01:05	18°♂35'34		retrograde	2988 Feb 05 19:10	2°♂21'29	
evening set	2987 Feb 24 23:57	17°♂48'10		evening set	2988 Feb 09 00:14	1°♂22'06	
inferior conj	2987 Mar 02 23:36	12°♂20'22	3°39'57		2988 Feb 10 19:08	30°♂	
minimum elong	2987 Mar 02 23:14	12°♂21'24	3°39'56	inferior conj	2988 Feb 14 17:01	25°♂36'59	3°29'37
min. Earth dist.	2987 Mar 05 07:35	9°♂40'49	0.63987 AU	minimum elong	2988 Feb 14 15:21	25°♂42'09	3°29'25
morning rise	2987 Mar 08 20:52	6°♂11'56		min. Earth dist.	2988 Feb 16 09:29	23°♂31'13	0.65565 AU
direct	2987 Mar 15 17:21	3°♂25'20		morning rise	2988 Feb 20 05:24	19°♂23'55	
desc. node	2987 Mar 23 12:07	6°♂17'40		direct	2988 Feb 26 18:31	16°♂33'59	
morning max el	2987 Mar 29 10:29	11°♂20'58	27°34'09	desc. node	2988 Mar 09 09:08	22°♂50'45	
	2987 Apr 13 05:01	0°♂		morning max el	2988 Mar 10 20:21	24°♂16'32	26°45'36
	2987 Apr 30 21:56	0°♂			2988 Mar 16 00:11	0°♂	
morning set	2987 May 03 08:17	4°♂43'49			2988 Apr 05 14:32	0°♂	
max. Earth dist.	2987 May 08 09:04	14°♂58'29	1.33201 AU	morning set	2988 Apr 15 16:51	18°♂05'02	
				max. Earth dist.	2988 Apr 20 00:48	26°♂32'18	1.34413 AU
					2988 Apr 21 18:02	0°♂	
superior conj	2987 May 11 07:19	21°♂09'48	0°-15'-49				
minimum elong	2987 May 11 08:06	21°♂14'02	0°15'40	superior conj	2988 Apr 24 07:50	5°♂17'30	0°-44'-18
behind sun begin	2987 May 11 07:06	21°♂08'39		minimum elong	2988 Apr 24 10:08	5°♂29'26	0°43'52
behind sun end	2987 May 11 09:07	21°♂19'25		asc. node	2988 Apr 28 16:40	14°♂26'49	
asc. node	2987 May 12 19:39	24°♂24'28		evening rise	2988 May 01 21:08	21°♂07'34	
	2987 May 15 10:01	0°♂			2988 May 06 06:25	0°♂	
evening rise	2987 May 18 11:29	6°♂31'55		evening max el	2988 May 21 09:00	22°♂45'06	21°12'06
	2987 May 31 00:16	0°♂		retrograde	2988 Jun 02 06:58	28°♂34'54	
evening max el	2987 Jun 09 11:51	12°♂03'24	22°43'00	evening set	2988 Jun 04 13:49	28°♂22'48	
desc. node	2987 Jun 19 11:24	18°♂14'12		desc. node	2988 Jun 05 08:22	28°♂13'28	
retrograde	2987 Jun 22 17:24	18°♂38'24		inferior conj	2988 Jun 13 22:24	24°♂24'31	-2°-27'-53
evening set	2987 Jun 26 00:45	18°♂14'24		minimum elong	2988 Jun 13 15:41	24°♂33'57	2°25'39
min. Earth dist.	2987 Jul 03 20:00	14°♂48'20	0.55327 AU	min. Earth dist.	2988 Jun 14 07:47	24°♂11'19	0.54868 AU
inferior conj	2987 Jul 05 04:28	14°♂01'51	-4°-5'-37	morning rise	2988 Jun 22 17:31	20°♂25'57	
minimum elong	2987 Jul 04 20:35	14°♂13'11	4°03'49	direct	2988 Jun 26 03:50	20°♂00'29	
morning rise	2987 Jul 13 19:03	10°♂10'46		morning max el	2988 Jul 08 21:26	26°♂03'53	22°28'08
direct	2987 Jul 16 18:04	9°♂50'30			2988 Jul 12 14:57	0°♂	
morning max el	2987 Jul 27 23:06	15°♂02'44	20°53'43	asc. node	2988 Jul 25 15:55	20°♂26'19	
	2987 Aug 08 01:53	0°♂			2988 Jul 30 10:00	0°♂	
asc. node	2987 Aug 08 18:53	1°♂14'23		morning set	2988 Jul 30 18:44	0°♂45'34	
morning set	2987 Aug 16 08:24	15°♂54'43					
	2987 Aug 23 03:04	0°♂		superior conj	2988 Aug 06 23:15	16°♂02'53	1°38'26
superior conj	2987 Aug 23 20:19	1°♂28'44	1°44'28	minimum elong	2988 Aug 06 21:35	15°♂54'04	1°38'18
minimum elong	2987 Aug 23 19:46	1°♂25'53	1°44'27	max. Earth dist.	2988 Aug 10 03:32	22°♂42'29	1.34218 AU
max. Earth dist.	2987 Aug 28 10:38	10°♂43'51	1.35724 AU		2988 Aug 13 17:53	0°♂	
evening rise	2987 Sep 01 14:14	18°♂41'41		evening rise	2988 Aug 14 22:01	2°♂18'25	
	2987 Sep 07 21:17	0°♂			2988 Aug 30 18:58	0°♂	
desc. node	2987 Sep 15 10:44	12°♂23'37		desc. node	2988 Sep 01 07:45	2°♂19'52	
	2987 Sep 27 20:05	0°♂		evening max el	2988 Sep 18 15:11	24°♂03'34	27°07'38
evening max el	2987 Oct 07 02:46	10°♂31'44	26°22'48		2988 Sep 26 15:35	0°♂	
retrograde	2987 Oct 19 21:40	17°♂43'41		retrograde	2988 Oct 01 22:50	1°♂21'17	
evening set	2987 Oct 26 06:47	15°♂07'06			2988 Oct 06 20:14	30°♂	
min. Earth dist.	2987 Oct 30 10:54	10°♂45'12	0.66358 AU	evening set	2988 Oct 08 19:33	28°♂39'41	
inferior conj	2987 Nov 01 00:57	8°♂49'17	-1°-15'-59	min. Earth dist.	2988 Oct 12 16:59	24°♂54'05	0.65143 AU
minimum elong	2987 Nov 01 03:00	8°♂43'02	1°15'08	inferior conj	2988 Oct 14 19:05	22°♂33'29	-2°-15'-52
asc. node	2987 Nov 04 18:04	4°♂41'52		minimum elong	2988 Oct 14 22:48	22°♂23'00	2°14'27
morning rise	2987 Nov 07 00:26	3°♂00'14		morning rise	2988 Oct 21 03:50	16°♂57'40	
direct	2987 Nov 09 23:29	2°♂10'32		asc. node	2988 Oct 21 15:06	16°♂45'38	
morning max el	2987 Nov 16 16:37	5°♂52'17	18°39'19	direct	2988 Oct 23 19:17	16°♂20'13	

morning max el	2988 Oct 30 07:20	19° Ω 49'38	18°06'55	asc. node	2989 Oct 08 12:09	0° Ω 23'07	
	2988 Nov 06 23:48	0° \mathbb{M}		morning max el	2989 Oct 13 23:45	3° Ω 42'39	17°51'55
morning set	2988 Nov 17 10:36	16° \mathbb{M} 59'43		morning set	2989 Oct 30 12:49	29° Ω 09'03	
	2988 Nov 25 09:07	0° \mathcal{A}			2989 Oct 31 00:34	0° \mathbb{M}	
desc. node	2988 Nov 28 07:01	4° \mathcal{A} 41'41					
				superior conj	2989 Nov 11 21:31	20° \mathbb{M} 07'48	0°22'20
superior conj	2988 Dec 01 20:14	10° \mathcal{A} 21'42	0°-23'-56	minimum elong	2989 Nov 11 23:51	20° \mathbb{M} 17'24	0°21'59
minimum elong	2988 Dec 01 17:13	10° \mathcal{A} 09'42	0°23'31	desc. node	2989 Nov 15 04:04	25° \mathbb{M} 28'28	
max. Earth dist.	2988 Dec 05 04:36	15° \mathcal{A} 39'26	1.45031 AU		2989 Nov 17 23:35	0° \mathcal{A}	
	2988 Dec 14 08:53	0° \mathcal{C}		max. Earth dist.	2989 Nov 17 22:35	29° \mathbb{M} 55'58	1.44175 AU
evening rise	2988 Dec 18 06:34	6° \mathcal{C} 03'20		evening rise	2989 Nov 27 16:05	15° \mathcal{A} 10'52	
	2989 Jan 02 23:38	0° \approx			2989 Dec 07 10:37	0° \mathcal{C}	
greatest brilliancy	2989 Jan 04 15:16	2° \approx 22'36	-0.6m	greatest brilliancy	2989 Dec 20 16:36	18° \mathcal{C} 52'27	-0.5m
evening max el	2989 Jan 12 07:01	12° \approx 02'50	19°41'57	evening max el	2989 Dec 26 08:28	25° \mathcal{C} 34'28	20°44'31
asc. node	2989 Jan 17 14:22	15° \approx 56'09			2990 Jan 01 07:38	0° \approx	
retrograde	2989 Jan 19 16:22	16° \approx 19'46		retrograde	2990 Jan 03 14:21	0° \approx 26'46	
evening set	2989 Jan 23 04:58	15° \approx 07'01		asc. node	2990 Jan 04 11:23	0° \approx 22'31	
inferior conj	2989 Jan 28 17:24	9° \approx 06'53	3°06'47		2990 Jan 05 18:37	30° \mathbb{R} \mathcal{C}	
minimum elong	2989 Jan 28 15:01	9° \approx 14'45	3°06'17	evening set	2990 Jan 07 12:09	28° \mathcal{C} 59'18	
min. Earth dist.	2989 Jan 29 19:15	7° \approx 41'29	0.66736 AU	inferior conj	2990 Jan 12 22:14	22° \mathcal{C} 46'55	2°34'14
morning rise	2989 Feb 03 00:21	2° \approx 51'51		minimum elong	2990 Jan 12 19:41	22° \mathcal{C} 55'39	2°33'29
direct	2989 Feb 09 01:26	0° \approx 11'03		min. Earth dist.	2990 Jan 13 11:00	22° \mathcal{C} 03'13	0.67496 AU
morning max el	2989 Feb 21 05:23	7° \approx 25'52	25°33'40	morning rise	2990 Jan 18 02:49	16° \mathcal{C} 31'43	
desc. node	2989 Feb 24 06:10	10° \approx 41'14		direct	2990 Jan 23 13:24	14° \mathcal{C} 08'35	
	2989 Mar 10 19:50	0° \mathcal{H}		morning max el	2990 Feb 03 13:51	20° \mathcal{C} 42'47	24°08'20
morning set	2989 Mar 29 10:14	0° \mathcal{Y} 37'12		desc. node	2990 Feb 11 03:14	29° \mathcal{C} 27'12	
	2989 Mar 29 02:02	0° \mathcal{Y}			2990 Feb 11 13:30	0° \approx	
max. Earth dist.	2989 Apr 02 04:59	7° \mathcal{Y} 38'36	1.36079 AU		2990 Mar 04 01:19	0° \mathcal{H}	
				morning set	2990 Mar 11 06:47	12° \mathcal{H} 05'11	
superior conj	2989 Apr 07 23:56	18° \mathcal{Y} 55'32	-1°-12'-21	max. Earth dist.	2990 Mar 15 01:32	18° \mathcal{H} 44'43	1.38103 AU
minimum elong	2989 Apr 08 03:38	19° \mathcal{Y} 14'03	1°11'46		2990 Mar 21 04:00	0° \mathcal{Y}	
	2989 Apr 13 10:55	0° \mathcal{B}					
asc. node	2989 Apr 15 13:41	4° \mathcal{B} 19'22		superior conj	2990 Mar 22 04:10	1° \mathcal{Y} 54'57	-1°-37'-43
evening rise	2989 Apr 16 02:44	5° \mathcal{B} 25'39		minimum elong	2990 Mar 22 08:40	2° \mathcal{Y} 16'27	1°37'12
	2989 Apr 30 04:01	0° \mathbb{I}		evening rise	2990 Mar 31 01:48	19° \mathcal{Y} 19'27	
evening max el	2989 May 03 17:41	4° \mathbb{I} 02'42	19°56'30	asc. node	2990 Apr 02 10:43	23° \mathcal{Y} 57'32	
retrograde	2989 May 13 22:13	8° \mathbb{I} 59'14			2990 Apr 05 15:23	0° \mathcal{B}	
evening set	2989 May 15 21:58	8° \mathbb{I} 48'45		evening max el	2990 Apr 16 13:47	16° \mathcal{B} 00'23	19°00'15
desc. node	2989 May 23 05:21	5° \mathbb{I} 46'30		retrograde	2990 Apr 25 03:48	20° \mathcal{B} 11'07	
inferior conj	2989 May 24 20:09	4° \mathbb{I} 48'28	0°-28'-28	evening set	2990 Apr 27 06:31	19° \mathcal{B} 56'56	
minimum elong	2989 May 24 18:50	4° \mathbb{I} 50'28	0°27'59	inferior conj	2990 May 05 10:16	15° \mathcal{B} 41'46	1°18'58
min. Earth dist.	2989 May 26 20:53	3° \mathbb{I} 34'43	0.55372 AU	minimum elong	2990 May 05 13:10	15° \mathcal{B} 36'39	1°18'01
morning rise	2989 Jun 02 12:52	0° \mathbb{I} 24'15		min. Earth dist.	2990 May 08 12:25	13° \mathcal{B} 32'52	0.56733 AU
	2989 Jun 04 04:24	30° \mathbb{R} \mathcal{B}		desc. node	2990 May 10 02:24	12° \mathcal{B} 31'49	
direct	2989 Jun 06 17:52	29° \mathcal{B} 45'25		morning rise	2990 May 13 15:32	10° \mathcal{B} 42'26	
	2989 Jun 09 06:51	0° \mathbb{I}		direct	2990 May 18 20:18	9° \mathcal{B} 38'32	
morning max el	2989 Jun 20 12:43	6° \mathbb{I} 34'42	24°10'49	morning max el	2990 Jun 02 03:20	17° \mathcal{B} 01'23	25°47'23
	2989 Jul 07 07:59	0° \mathcal{E}			2990 Jun 12 18:44	0° \mathbb{I}	
asc. node	2989 Jul 12 12:58	10° \mathcal{E} 01'35		asc. node	2990 Jun 29 10:00	29° \mathbb{I} 52'57	
morning set	2989 Jul 15 06:29	15° \mathcal{E} 40'55			2990 Jun 29 11:21	0° \mathcal{E}	
	2989 Jul 21 21:42	0° \mathcal{Q}		morning set	2990 Jun 29 17:58	0° \mathcal{E} 34'51	
superior conj	2989 Jul 22 07:13	0° \mathcal{Q} 51'39	1°26'47	superior conj	2990 Jul 06 18:02	15° \mathcal{E} 47'17	1°10'25
minimum elong	2989 Jul 22 04:57	0° \mathcal{Q} 39'24	1°26'31	minimum elong	2990 Jul 06 15:41	15° \mathcal{E} 34'23	1°10'03
max. Earth dist.	2989 Jul 24 05:34	5° \mathcal{Q} 01'40	1.33113 AU	max. Earth dist.	2990 Jul 07 14:15	17° \mathcal{E} 38'11	1.32414 AU
evening rise	2989 Jul 29 16:55	16° \mathcal{Q} 27'39			2990 Jul 13 08:19	0° \mathcal{Q}	
	2989 Aug 05 18:01	0° \mathbb{N}		evening rise	2990 Jul 13 19:36	0° \mathcal{Q} 58'44	
desc. node	2989 Aug 19 04:44	21° \mathbb{N} 45'38			2990 Jul 29 18:00	0° \mathbb{N}	
	2989 Aug 25 10:28	0° \mathcal{A}		desc. node	2990 Aug 06 01:45	10° \mathbb{N} 27'39	
evening max el	2989 Sep 01 02:24	7° \mathcal{A} 15'33	27°26'12	evening max el	2990 Aug 14 09:43	19° \mathbb{N} 52'56	27°13'18
retrograde	2989 Sep 14 17:47	14° \mathcal{A} 32'26		retrograde	2990 Aug 28 05:50	27° \mathbb{N} 07'04	
evening set	2989 Sep 21 21:42	11° \mathcal{A} 55'15		evening set	2990 Sep 04 09:23	24° \mathbb{N} 46'26	
min. Earth dist.	2989 Sep 25 13:47	8° \mathcal{A} 43'27	0.63587 AU	min. Earth dist.	2990 Sep 07 23:57	22° \mathbb{N} 00'31	0.61725 AU
inferior conj	2989 Sep 28 04:17	6° \mathcal{A} 05'08	-3°-14'-39	inferior conj	2990 Sep 11 01:27	19° \mathbb{N} 15'41	-4°-7'-57
minimum elong	2989 Sep 28 09:26	5° \mathcal{A} 52'05	3°12'59	minimum elong	2990 Sep 11 07:05	19° \mathbb{N} 03'00	4°06'37
morning rise	2989 Oct 04 23:32	0° \mathcal{A} 46'06		morning rise	2990 Sep 18 07:43	14° \mathbb{N} 16'58	
direct	2989 Oct 07 09:59	0° \mathcal{A} 17'13		direct	2990 Sep 20 15:59	13° \mathbb{N} 53'39	

asc. node	2990 Sep 25 09:13	15° \cap 31'28		inferior conj	2991 Aug 24 07:04	1° \cap 56'16	-4°-48'-29
morning max el	2990 Sep 27 14:49	17° \cap 23'22	17°55'11	minimum elong	2991 Aug 24 11:14	1° \cap 48'04	4°47'57
	2990 Oct 06 14:03	0° $\underline{\cap}$			2991 Aug 26 20:35	30° \mathbb{R} Ω	
morning set	2990 Oct 13 10:40	12° $\underline{\cap}$ 13'59		morning rise	2991 Aug 31 23:57	27° Ω 20'21	
	2990 Oct 23 08:54	0° \mathbb{L}		direct	2991 Sep 03 09:03	27° Ω 00'07	
					2991 Sep 10 06:14	0° \cap	
superior conj	2990 Oct 24 01:43	1° \mathbb{L} 12'58	0°59'27	morning max el	2991 Sep 11 01:19	0° \cap 43'35	18°17'56
minimum elong	2990 Oct 24 06:03	1° \mathbb{L} 31'44	0°58'54	asc. node	2991 Sep 12 06:18	1° \cap 58'10	
max. Earth dist.	2990 Oct 31 12:09	13° \mathbb{L} 44'54	1.42706 AU	morning set	2991 Sep 26 22:37	25° \cap 59'03	
desc. node	2990 Nov 02 01:06	16° \mathbb{L} 15'46			2991 Sep 29 01:15	0° $\underline{\cap}$	
evening rise	2990 Nov 07 05:45	24° \mathbb{L} 33'54					
	2990 Nov 10 17:31	0° \mathbb{Z}		superior conj	2991 Oct 06 06:18	13° $\underline{\cap}$ 29'35	1°24'59
	2990 Dec 01 11:47	0° \mathbb{Z}		minimum elong	2991 Oct 06 10:02	13° $\underline{\cap}$ 46'36	1°24'38
greatest brilliancy	2990 Dec 04 10:26	3° \mathbb{Z} 44'16	-0.3m	max. Earth dist.	2991 Oct 13 19:55	26° $\underline{\cap}$ 52'07	1.40817 AU
evening max el	2990 Dec 09 04:18	9° \mathbb{Z} 06'42	21°57'55		2991 Oct 15 16:15	0° \mathbb{L}	
retrograde	2990 Dec 18 11:15	14° \mathbb{Z} 38'31		evening rise	2991 Oct 18 13:45	4° \mathbb{L} 48'27	
asc. node	2990 Dec 22 08:26	13° \mathbb{Z} 16'58		desc. node	2991 Oct 19 22:07	7° \mathbb{L} 00'20	
evening set	2990 Dec 22 19:58	12° \mathbb{Z} 55'08			2991 Nov 03 23:27	0° \mathbb{Z}	
inferior conj	2990 Dec 28 05:26	6° \mathbb{Z} 34'00	1°53'48	evening max el	2991 Nov 21 19:34	22° \mathbb{Z} 41'14	23°17'17
minimum elong	2990 Dec 28 03:11	6° \mathbb{Z} 41'46	1°52'59	retrograde	2991 Dec 02 05:28	28° \mathbb{Z} 51'21	
min. Earth dist.	2990 Dec 28 06:29	6° \mathbb{Z} 30'22	0.67865 AU	evening set	2991 Dec 07 02:46	26° \mathbb{Z} 51'25	
morning rise	2991 Jan 02 10:13	0° \mathbb{Z} 20'22		asc. node	2991 Dec 09 05:31	24° \mathbb{Z} 44'27	
	2991 Jan 02 20:13	30° \mathbb{R} \mathbb{Z}		min. Earth dist.	2991 Dec 12 03:17	20° \mathbb{Z} 59'07	0.67879 AU
direct	2991 Jan 07 05:40	28° \mathbb{Z} 19'13		inferior conj	2991 Dec 12 13:03	20° \mathbb{Z} 25'32	1°06'47
	2991 Jan 12 03:01	0° \mathbb{Z}		minimum elong	2991 Dec 12 11:34	20° \mathbb{Z} 30'39	1°06'10
morning max el	2991 Jan 17 00:07	4° \mathbb{Z} 05'47	22°39'40	morning rise	2991 Dec 17 20:26	14° \mathbb{Z} 15'28	
greatest brilliancy	2991 Jan 21 14:15	9° \mathbb{Z} 12'54	-0.3m	direct	2991 Dec 22 01:23	12° \mathbb{Z} 37'09	
desc. node	2991 Jan 29 00:18	18° \mathbb{Z} 52'39		morning max el	2991 Dec 30 15:27	17° \mathbb{Z} 36'56	21°16'03
	2991 Feb 05 18:30	0° \approx		greatest brilliancy	2992 Jan 04 20:30	23° \mathbb{Z} 34'43	-0.4m
morning set	2991 Feb 20 00:31	22° \approx 14'28			2992 Jan 09 17:10	0° \mathbb{Z}	
	2991 Feb 24 15:54	0° \mathbb{X}		desc. node	2992 Jan 15 21:21	8° \mathbb{Z} 46'09	
max. Earth dist.	2991 Feb 24 21:28	0° \mathbb{X} 23'42	1.40265 AU		2992 Jan 29 21:34	0° \approx	
				morning set	2992 Jan 30 13:36	1° \approx 02'59	
superior conj	2991 Mar 04 16:11	14° \mathbb{X} 05'01	-1°-57'-8	max. Earth dist.	2992 Feb 06 22:45	12° \approx 54'29	1.42291 AU
minimum elong	2991 Mar 04 20:00	14° \mathbb{X} 22'20	1°56'54				
	2991 Mar 13 05:16	0° \mathbb{Y}		superior conj	2992 Feb 14 06:43	25° \approx 12'48	-2°-6'-12
evening rise	2991 Mar 14 15:17	2° \mathbb{Y} 41'10		minimum elong	2992 Feb 14 07:19	25° \approx 15'24	2°06'13
asc. node	2991 Mar 20 07:45	13° \mathbb{Y} 15'57			2992 Feb 17 01:00	0° \mathbb{X}	
evening max el	2991 Mar 30 18:42	28° \mathbb{Y} 33'04	18°24'15	evening rise	2992 Feb 25 15:15	15° \mathbb{X} 20'51	
	2991 Apr 01 10:35	0° \mathbb{Z}			2992 Mar 04 21:51	0° \mathbb{Y}	
retrograde	2991 Apr 07 04:21	2° \mathbb{Z} 12'47		asc. node	2992 Mar 06 04:48	2° \mathbb{Y} 07'05	
evening set	2991 Apr 09 12:53	1° \mathbb{Z} 51'33		evening max el	2992 Mar 13 05:04	11° \mathbb{Y} 30'47	18°08'09
	2991 Apr 13 07:32	30° \mathbb{R} \mathbb{Y}		retrograde	2992 Mar 19 21:52	14° \mathbb{Y} 55'32	
inferior conj	2991 Apr 16 21:46	27° \mathbb{Y} 16'24	2°35'42	evening set	2992 Mar 22 12:13	14° \mathbb{Y} 25'02	
minimum elong	2991 Apr 17 01:34	27° \mathbb{Y} 08'37	2°34'45	inferior conj	2992 Mar 29 05:16	9° \mathbb{Y} 28'46	3°20'17
min. Earth dist.	2991 Apr 20 08:24	24° \mathbb{Y} 28'23	0.58672 AU	minimum elong	2992 Mar 29 07:46	9° \mathbb{Y} 22'49	3°19'55
morning rise	2991 Apr 24 10:03	21° \mathbb{Y} 45'59		min. Earth dist.	2992 Apr 01 10:52	6° \mathbb{Y} 25'58	0.60840 AU
desc. node	2991 Apr 26 23:26	20° \mathbb{Y} 40'59		morning rise	2992 Apr 05 00:08	3° \mathbb{Y} 37'30	
direct	2991 Apr 30 12:59	20° \mathbb{Y} 07'21		direct	2992 Apr 11 17:29	1° \mathbb{Y} 24'06	
morning max el	2991 May 14 22:22	27° \mathbb{Y} 51'13	27°02'06	desc. node	2992 Apr 12 20:30	1° \mathbb{Y} 27'41	
	2991 May 17 00:28	0° \mathbb{Z}		morning max el	2992 Apr 25 23:30	9° \mathbb{Y} 18'42	27°43'42
	2991 Jun 06 08:40	0° \mathbb{H}			2992 May 11 21:57	0° \mathbb{Z}	
morning set	2991 Jun 14 03:34	15° \mathbb{H} 21'54		morning set	2992 May 28 09:25	29° \mathbb{Z} 55'02	
asc. node	2991 Jun 16 07:04	19° \mathbb{H} 55'04			2992 May 28 10:23	0° \mathbb{H}	
	2991 Jun 20 21:55	0° \mathbb{S}		asc. node	2992 Jun 02 04:07	10° \mathbb{H} 02'29	
				max. Earth dist.	2992 Jun 03 13:06	13° \mathbb{H} 01'54	1.32210 AU
superior conj	2991 Jun 21 05:53	0° \mathbb{S} 43'50	0°50'06				
minimum elong	2991 Jun 21 03:54	0° \mathbb{S} 32'57	0°49'44	superior conj	2992 Jun 04 16:58	15° \mathbb{H} 34'26	0°26'27
max. Earth dist.	2991 Jun 21 02:01	0° \mathbb{S} 22'33	1.32113 AU	minimum elong	2992 Jun 04 15:48	15° \mathbb{H} 28'00	0°26'12
evening rise	2991 Jun 28 03:30	15° \mathbb{S} 43'33			2992 Jun 11 07:54	0° \mathbb{S}	
	2991 Jul 05 07:04	0° Ω		evening rise	2992 Jun 11 14:20	0° \mathbb{S} 34'08	
desc. node	2991 Jul 23 22:45	28° Ω 07'51			2992 Jun 27 17:05	0° Ω	
	2991 Jul 25 16:17	0° \cap		evening max el	2992 Jul 08 04:38	12° Ω 51'35	25°11'54
evening max el	2991 Jul 27 10:43	1° \cap 45'31	26°27'10	desc. node	2992 Jul 09 19:45	14° Ω 20'39	
retrograde	2991 Aug 10 10:05	8° \cap 56'50		retrograde	2992 Jul 22 04:20	19° Ω 57'26	
evening set	2991 Aug 17 01:56	7° \cap 05'59		evening set	2992 Jul 27 18:59	18° Ω 44'56	
min. Earth dist.	2991 Aug 21 00:03	4° \cap 31'00	0.59676 AU	min. Earth dist.	2992 Aug 01 16:25	16° Ω 02'16	0.57659 AU

inferior conj	2992 Aug 04 17:49	13° Ω 57'31	-5°-4'-37	evening max el	2993 Jun 19 18:11	23° Θ 24'36	23°38'37
minimum elong	2992 Aug 04 17:44	13° Ω 57'39	5°04'37	desc. node	2993 Jun 26 16:46	28° Θ 33'04	
morning rise	2992 Aug 12 20:06	9° Ω 44'12			2993 Jun 30 19:44	0° Ω	
direct	2992 Aug 15 08:58	9° Ω 25'04		retrograde	2993 Jul 03 09:58	0° Ω 15'18	
morning max el	2992 Aug 24 03:57	13° Ω 33'26	19°01'36		2993 Jul 06 00:54	30° \mathbb{R} Θ	
asc. node	2992 Aug 29 03:21	19° Ω 27'50		evening set	2993 Jul 07 13:38	29° Θ 37'29	
	2992 Sep 04 12:44	0° \mathbb{M}		min. Earth dist.	2993 Jul 14 04:24	26° Θ 31'09	0.55999 AU
morning set	2992 Sep 09 20:27	10° \mathbb{M} 13'02		inferior conj	2993 Jul 16 08:22	25° Θ 13'14	-4°-41'-21
				minimum elong	2993 Jul 16 02:35	25° Θ 21'57	4°40'30
superior conj	2992 Sep 18 05:50	26° \mathbb{M} 42'20	1°39'36	morning rise	2993 Jul 24 18:48	21° Θ 17'31	
minimum elong	2992 Sep 18 07:54	26° \mathbb{M} 52'13	1°39'29	direct	2993 Jul 27 13:50	20° Θ 58'00	
	2992 Sep 19 23:17	0° $\underline{\Omega}$		morning max el	2993 Aug 06 19:54	25° Θ 43'21	20°06'53
max. Earth dist.	2992 Sep 25 00:10	9° $\underline{\Omega}$ 17'57	1.38752 AU		2993 Aug 10 17:23	0° Ω	
evening rise	2992 Sep 28 21:33	16° $\underline{\Omega}$ 09'21		asc. node	2993 Aug 16 00:23	7° Ω 46'11	
desc. node	2992 Oct 05 19:07	27° $\underline{\Omega}$ 38'36		morning set	2993 Aug 25 00:58	24° Ω 46'50	
	2992 Oct 07 06:35	0° \mathbb{M}			2993 Aug 27 14:14	0° \mathbb{M}	
	2992 Oct 28 14:07	0° \mathbb{X}					
evening max el	2992 Nov 03 08:25	6° \mathbb{X} 20'22	24°36'21	superior conj	2993 Sep 01 19:06	10° \mathbb{M} 36'02	1°44'56
retrograde	2992 Nov 14 19:48	13° \mathbb{X} 01'56		minimum elong	2993 Sep 01 19:24	10° \mathbb{M} 37'34	1°44'56
evening set	2992 Nov 20 06:58	10° \mathbb{X} 45'50		max. Earth dist.	2993 Sep 07 05:47	21° \mathbb{M} 16'13	1.36760 AU
min. Earth dist.	2992 Nov 24 23:00	5° \mathbb{X} 27'27	0.67558 AU	evening rise	2993 Sep 11 03:22	28° \mathbb{M} 31'50	
asc. node	2992 Nov 25 02:33	5° \mathbb{X} 15'38			2993 Sep 11 22:51	0° $\underline{\Omega}$	
inferior conj	2992 Nov 25 19:22	4° \mathbb{X} 19'35	0°14'24	desc. node	2993 Sep 22 16:07	18° $\underline{\Omega}$ 05'37	
minimum elong	2992 Nov 25 19:01	4° \mathbb{X} 20'46	0°14'16		2993 Sep 30 14:14	0° \mathbb{M}	
transit middle	2992 Nov 25 19:01	4° \mathbb{X} 20'46	0°14'16	evening max el	2993 Oct 16 20:39	20° \mathbb{M} 01'51	25°47'57
transit begin	2992 Nov 25 17:42	4° \mathbb{X} 25'08		retrograde	2993 Oct 29 05:20	27° \mathbb{M} 05'02	
transit end	2992 Nov 25 20:19	4° \mathbb{X} 16'24		evening set	2993 Nov 04 06:47	24° \mathbb{M} 34'44	
	2992 Nov 29 07:56	30° \mathbb{R} \mathbb{M}		min. Earth dist.	2993 Nov 08 15:10	19° \mathbb{M} 51'58	0.66900 AU
morning rise	2992 Dec 01 07:28	28° \mathbb{M} 15'31		inferior conj	2993 Nov 09 22:32	18° \mathbb{M} 12'44	0°-42'-7
direct	2992 Dec 04 23:22	26° \mathbb{M} 58'30		minimum elong	2993 Nov 09 23:38	18° \mathbb{M} 09'15	0°41'39
	2992 Dec 11 04:45	0° \mathbb{X}		asc. node	2993 Nov 11 23:35	15° \mathbb{M} 42'23	
morning max el	2992 Dec 12 14:21	1° \mathbb{X} 19'17	20°03'34	morning rise	2993 Nov 15 17:21	12° \mathbb{M} 17'25	
greatest brilliancy	2992 Dec 19 14:43	9° \mathbb{X} 48'27	-0.6m	direct	2993 Nov 18 22:01	11° \mathbb{M} 18'43	
desc. node	2993 Jan 01 18:23	29° \mathbb{X} 00'10		morning max el	2993 Nov 25 20:55	15° \mathbb{M} 11'18	19°05'30
	2993 Jan 02 10:09	0° $\overline{\Theta}$			2993 Dec 07 00:46	0° \mathbb{X}	
morning set	2993 Jan 08 09:57	9° $\overline{\Theta}$ 10'48		morning set	2993 Dec 18 14:31	17° \mathbb{X} 51'31	
max. Earth dist.	2993 Jan 19 08:02	26° $\overline{\Theta}$ 19'01	1.43911 AU	desc. node	2993 Dec 19 15:24	19° \mathbb{X} 28'29	
	2993 Jan 21 15:06	0° \approx			2993 Dec 26 09:09	0° $\overline{\Theta}$	
				max. Earth dist.	2994 Jan 01 23:48	10° $\overline{\Theta}$ 22'12	1.44920 AU
superior conj	2993 Jan 24 19:36	5° \approx 10'29	-1°-59'-40				
minimum elong	2993 Jan 24 14:36	4° \approx 50'06	1°59'27	superior conj	2994 Jan 04 08:09	14° $\overline{\Theta}$ 04'33	-1°-33'-55
evening rise	2993 Feb 06 21:23	27° \approx 10'24		minimum elong	2994 Jan 03 23:10	13° $\overline{\Theta}$ 29'01	1°33'04
	2993 Feb 08 12:44	0° \mathbb{X}			2994 Jan 14 07:03	0° \approx	
asc. node	2993 Feb 21 01:51	20° \mathbb{X} 22'36		evening rise	2994 Jan 19 05:39	8° \approx 03'18	
evening max el	2993 Feb 24 17:41	24° \mathbb{X} 45'20	18°11'19		2994 Feb 01 21:33	0° \mathbb{X}	
retrograde	2993 Mar 03 04:15	28° \mathbb{X} 09'42		asc. node	2994 Feb 07 22:52	7° \mathbb{X} 51'24	
evening set	2993 Mar 06 00:03	27° \mathbb{X} 28'37		evening max el	2994 Feb 08 05:41	8° \mathbb{X} 08'58	18°33'03
inferior conj	2993 Mar 12 05:02	22° \mathbb{X} 11'53	3°38'38	retrograde	2994 Feb 14 19:11	11° \mathbb{X} 45'51	
minimum elong	2993 Mar 12 05:39	22° \mathbb{X} 10'12	3°38'36	evening set	2994 Feb 17 20:39	10° \mathbb{X} 53'18	
min. Earth dist.	2993 Mar 14 21:48	19° \mathbb{X} 18'34	0.62922 AU	inferior conj	2994 Feb 23 17:00	5° \mathbb{X} 17'41	3°37'17
morning rise	2993 Mar 18 09:09	16° \mathbb{X} 08'15		minimum elong	2994 Feb 23 16:02	5° \mathbb{X} 20'36	3°37'14
direct	2993 Mar 25 07:09	13° \mathbb{X} 29'54		min. Earth dist.	2994 Feb 25 18:15	2° \mathbb{X} 51'39	0.64707 AU
desc. node	2993 Mar 30 17:33	14° \mathbb{X} 54'19			2994 Feb 28 10:30	30° \mathbb{R} \approx	
morning max el	2993 Apr 08 05:55	21° \mathbb{X} 26'54	27°47'57	morning rise	2994 Mar 01 10:04	29° \approx 07'07	
	2993 Apr 15 16:42	0° \mathbb{Y}		direct	2994 Mar 08 04:08	26° \approx 17'41	
	2993 May 05 00:10	0° \mathbb{Z}			2994 Mar 16 23:38	0° \mathbb{X}	
morning set	2993 May 12 09:19	14° \mathbb{Z} 07'22		desc. node	2994 Mar 17 14:34	0° \mathbb{X} 29'08	
max. Earth dist.	2993 May 17 19:42	25° \mathbb{Z} 24'09	1.32720 AU	morning max el	2994 Mar 21 15:21	4° \mathbb{X} 08'30	27°17'03
	2993 May 19 23:04	0° \mathbb{H}			2994 Apr 10 04:32	0° \mathbb{Y}	
				morning set	2994 Apr 26 00:31	27° \mathbb{Y} 50'27	
superior conj	2993 May 20 01:33	0° \mathbb{H} 13'29	0°00'11		2994 Apr 27 02:57	0° \mathbb{Z}	
minimum elong	2993 May 20 01:33	0° \mathbb{H} 13'24	0°00'10	max. Earth dist.	2994 Apr 30 18:03	7° \mathbb{Z} 18'41	1.33662 AU
behind sun begin	2993 May 19 20:20	29° \mathbb{Z} 45'13					
behind sun end	2993 May 20 06:45	0° \mathbb{H} 41'36		superior conj	2994 May 04 05:40	14° \mathbb{Z} 34'39	0°-27'-49
asc. node	2993 May 20 01:08	0° \mathbb{H} 11'13		minimum elong	2994 May 04 07:06	14° \mathbb{Z} 42'09	0°27'33
evening rise	2993 May 27 02:11	15° \mathbb{H} 24'06		asc. node	2994 May 06 22:10	20° \mathbb{Z} 17'17	
	2993 Jun 03 09:11	0° $\overline{\Theta}$			2994 May 11 11:50	0° \mathbb{H}	

evening rise	1994 May 11 13:14	0° Π 07'16		evening rise	1995 Apr 25 21:26	14° \mathcal{B} 36'14	
	1994 May 28 20:57	0° \mathfrak{G}			1995 May 03 19:56	0° Π	
evening max el	1994 Jun 01 10:20	3° \mathfrak{G} 54'11	22°02'54	evening max el	1995 May 14 12:00	14° Π 49'10	20°37'46
desc. node	1994 Jun 13 13:47	10° \mathfrak{G} 11'10		retrograde	1995 May 25 17:07	20° Π 17'06	
retrograde	1994 Jun 14 03:57	10° \mathfrak{G} 11'58		evening set	1995 May 27 18:56	20° Π 06'37	
evening set	1994 Jun 16 23:05	9° \mathfrak{G} 54'33		desc. node	1995 May 31 10:48	19° Π 01'58	
min. Earth dist.	1994 Jun 25 15:22	6° \mathfrak{G} 11'20	0.55021 AU	inferior conj	1995 Jun 06 00:36	16° Π 09'06	-1°-37'-51
inferior conj	1994 Jun 26 06:51	5° \mathfrak{G} 49'37	-3°-28'-55	minimum elong	1995 Jun 05 19:59	16° Π 15'44	1°36'12
minimum elong	1994 Jun 25 22:39	6° \mathfrak{G} 01'07	3°26'38	min. Earth dist.	1995 Jun 07 03:36	15° Π 30'16	0.54959 AU
morning rise	1994 Jul 04 23:58	1° \mathfrak{G} 58'15		morning rise	1995 Jun 14 19:48	12° Π 01'36	
direct	1994 Jul 08 03:14	1° \mathfrak{G} 36'26		direct	1995 Jun 18 12:46	11° Π 32'00	
morning max el	1994 Jul 20 00:19	7° \mathfrak{G} 09'28	21°32'10	morning max el	1995 Jul 01 19:12	17° Π 56'09	23°11'34
asc. node	1994 Aug 02 21:24	26° \mathfrak{G} 41'47			1995 Jul 11 14:25	0° \mathfrak{G}	
	1994 Aug 04 15:32	0° \mathcal{Q}		asc. node	1995 Jul 20 18:27	16° \mathfrak{G} 04'35	
morning set	1994 Aug 09 09:48	9° \mathcal{Q} 33'58		morning set	1995 Jul 24 20:57	24° \mathfrak{G} 27'41	
					1995 Jul 27 11:27	0° \mathcal{Q}	
superior conj	1994 Aug 16 18:02	24° \mathcal{Q} 59'05	1°42'40	superior conj	1995 Jul 31 23:27	9° \mathcal{Q} 40'51	1°34'07
minimum elong	1994 Aug 16 16:57	24° \mathcal{Q} 53'26	1°42'36	minimum elong	1995 Jul 31 21:28	9° \mathcal{Q} 30'15	1°33'56
	1994 Aug 19 04:21	0° \mathfrak{P}		max. Earth dist.	1995 Aug 03 14:36	15° \mathcal{Q} 16'10	1.33697 AU
max. Earth dist.	1994 Aug 20 17:46	3° \mathfrak{P} 09'40	1.35039 AU	evening rise	1995 Aug 08 15:58	25° \mathcal{Q} 37'17	
evening rise	1994 Aug 25 03:00	11° \mathfrak{P} 45'23			1995 Aug 10 21:44	0° \mathfrak{P}	
	1994 Sep 04 08:54	0° \mathfrak{A}		desc. node	1995 Aug 27 10:09	28° \mathfrak{P} 00'27	
desc. node	1994 Sep 09 13:08	8° \mathfrak{A} 15'41			1995 Aug 28 19:06	0° \mathfrak{A}	
	1994 Sep 25 20:02	0° \mathfrak{M}		evening max el	1995 Sep 11 20:57	17° \mathfrak{A} 04'00	27°18'55
evening max el	1994 Sep 29 09:01	3° \mathfrak{M} 39'48	26°44'31	retrograde	1995 Sep 25 08:26	24° \mathfrak{A} 22'33	
retrograde	1994 Oct 12 09:41	10° \mathfrak{M} 54'46		evening set	1995 Oct 02 08:59	21° \mathfrak{A} 41'08	
evening set	1994 Oct 19 00:18	8° \mathfrak{M} 14'54		min. Earth dist.	1995 Oct 06 03:44	18° \mathfrak{A} 10'42	0.64525 AU
min. Earth dist.	1994 Oct 23 01:27	4° \mathfrak{M} 08'48	0.65893 AU	inferior conj	1995 Oct 08 11:16	15° \mathfrak{A} 41'10	-2°-41'-8
inferior conj	1994 Oct 24 20:36	2° \mathfrak{M} 01'39	-1°-41'-19	minimum elong	1995 Oct 08 15:40	15° \mathfrak{A} 29'19	2°39'34
minimum elong	1994 Oct 24 23:22	1° \mathfrak{M} 53'30	1°40'12	morning rise	1995 Oct 15 00:25	10° \mathfrak{A} 12'21	
	1994 Oct 26 14:57	30° \mathfrak{R} \mathfrak{A}		asc. node	1995 Oct 16 17:39	9° \mathfrak{A} 42'36	
asc. node	1994 Oct 29 20:37	26° \mathfrak{A} 59'58		direct	1995 Oct 17 13:19	9° \mathfrak{A} 39'06	
morning rise	1994 Oct 30 23:53	26° \mathfrak{A} 18'05		morning max el	1995 Oct 24 01:22	13° \mathfrak{A} 05'51	17°58'22
direct	1994 Nov 02 19:28	25° \mathfrak{A} 34'02			1995 Nov 04 19:47	0° \mathfrak{M}	
morning max el	1994 Nov 09 09:29	29° \mathfrak{A} 09'02	18°23'28	morning set	1995 Nov 10 09:29	9° \mathfrak{M} 22'10	
	1994 Nov 10 05:00	0° \mathfrak{M}			1995 Nov 22 20:38	0° \mathfrak{J}	
morning set	1994 Nov 28 21:33	27° \mathfrak{M} 54'24		desc. node	1995 Nov 23 09:29	0° \mathfrak{J} 51'47	
	1994 Nov 30 04:45	0° \mathfrak{J}					
desc. node	1994 Dec 06 12:25	10° \mathfrak{J} 06'58		superior conj	1995 Nov 23 22:00	1° \mathfrak{J} 42'12	0°-3'-34
superior conj	1994 Dec 14 09:52	22° \mathfrak{J} 35'23	0°-51'-42	minimum elong	1995 Nov 23 21:35	1° \mathfrak{J} 40'30	0°03'32
minimum elong	1994 Dec 14 03:21	22° \mathfrak{J} 09'44	0°50'53	behind sun begin	1995 Nov 23 11:24	0° \mathfrak{J} 59'33	
max. Earth dist.	1994 Dec 15 18:46	24° \mathfrak{J} 44'33	1.45204 AU	behind sun end	1995 Nov 24 07:45	2° \mathfrak{J} 21'24	
	1994 Dec 19 03:14	0° \mathfrak{Z}		max. Earth dist.	1995 Nov 28 13:29	9° \mathfrak{J} 06'40	1.44745 AU
evening rise	1994 Dec 30 14:45	18° \mathfrak{Z} 00'44		evening rise	1995 Dec 10 05:20	27° \mathfrak{J} 17'14	
	1995 Jan 07 05:50	0° \approx			1995 Dec 11 23:40	0° \mathfrak{Z}	
greatest brilliancy	1995 Jan 12 20:46	8° \approx 39'51	-0.7m	greatest brilliancy	1995 Dec 30 03:14	26° \mathfrak{Z} 57'48	-0.6m
evening max el	1995 Jan 22 14:45	21° \approx 37'15	19°12'13		1996 Jan 01 10:04	0° \approx	
asc. node	1995 Jan 25 19:53	24° \approx 20'39		evening max el	1996 Jan 05 19:15	5° \approx 08'05	20°07'02
retrograde	1995 Jan 29 15:00	25° \approx 37'21		asc. node	1996 Jan 12 16:55	9° \approx 36'03	
evening set	1995 Feb 01 23:06	24° \approx 32'22		retrograde	1996 Jan 13 12:54	9° \approx 39'53	
inferior conj	1995 Feb 07 13:42	18° \approx 40'15	3°21'17	evening set	1996 Jan 17 05:06	8° \approx 21'11	
minimum elong	1995 Feb 07 11:40	18° \approx 46'47	3°20'58	inferior conj	1996 Jan 22 16:18	2° \approx 15'21	2°54'05
min. Earth dist.	1995 Feb 08 23:42	16° \approx 51'24	0.66108 AU	minimum elong	1996 Jan 22 13:47	2° \approx 23'50	2°53'27
morning rise	1995 Feb 12 23:22	12° \approx 25'57		min. Earth dist.	1996 Jan 23 12:26	1° \approx 07'34	0.67101 AU
direct	1995 Feb 19 07:37	9° \approx 38'55			1996 Jan 24 08:50	30° \mathfrak{R} \mathfrak{Z}	
morning max el	1995 Mar 04 01:12	17° \approx 11'41	26°17'24	morning rise	1996 Jan 27 21:52	25° \mathfrak{Z} 59'45	
desc. node	1995 Mar 04 11:37	17° \approx 38'10		direct	1996 Feb 02 16:53	23° \mathfrak{Z} 25'35	
	1995 Mar 14 17:57	0° \mathfrak{H}			1996 Feb 13 23:48	0° \approx	
	1995 Apr 03 02:39	0° \mathfrak{Y}		morning max el	1996 Feb 14 09:59	0° \approx 25'27	24°58'24
morning set	1995 Apr 09 03:14	10° \mathfrak{Y} 52'26		desc. node	1996 Feb 19 08:40	5° \approx 54'49	
max. Earth dist.	1995 Apr 13 05:04	18° \mathfrak{Y} 40'11	1.35064 AU		1996 Mar 07 16:21	0° \mathfrak{H}	
				morning set	1996 Mar 21 12:34	22° \mathfrak{H} 59'45	
superior conj	1995 Apr 18 02:57	28° \mathfrak{Y} 30'20	0°-56'-22	max. Earth dist.	1996 Mar 25 05:01	29° \mathfrak{H} 41'10	1.36898 AU
minimum elong	1995 Apr 18 05:53	28° \mathfrak{Y} 45'19	0°55'51		1996 Mar 25 09:05	0° \mathfrak{Y}	
	1995 Apr 18 20:26	0° \mathfrak{B}					
asc. node	1995 Apr 23 19:11	10° \mathfrak{B} 15'57		superior conj	1996 Mar 31 14:28	11° \mathfrak{Y} 53'04	-1°-23'-37

minimum elong	2996 Mar 31 18:38	12° Υ 13'29	1°23'01	superior conj	2997 Mar 14 12:22	24° Υ 32'41	-1°-46'-56
evening rise	2996 Apr 09 00:36	28° Υ 44'47		minimum elong	2997 Mar 14 16:49	24° Υ 53'30	1°46'30
asc. node	2996 Apr 09 16:14	0° Υ 03'04			2997 Mar 17 09:41	0° Υ	
	2996 Apr 09 15:37	0° Υ		evening rise	2997 Mar 23 19:57	12° Υ 25'14	
evening max el	2996 Apr 26 01:48	26° Υ 24'11	19°30'12	asc. node	2997 Mar 27 13:17	19° Υ 33'14	
	2996 May 01 02:40	0° Π			2997 Apr 02 11:37	0° Υ	
retrograde	2996 May 05 13:14	0° Π 59'42		evening max el	2997 Apr 09 02:05	8° Υ 37'38	18°42'31
evening set	2996 May 07 13:20	0° Π 48'17		retrograde	2997 Apr 17 02:22	12° Υ 32'40	
	2996 May 10 05:58	30° Υ		evening set	2997 Apr 19 07:38	12° Υ 15'45	
inferior conj	2996 May 16 04:11	26° Υ 43'07	0°20'05	inferior conj	2997 Apr 27 03:08	7° Υ 52'37	1°55'40
minimum elong	2996 May 16 05:03	26° Υ 41'44	0°19'47	minimum elong	2997 Apr 27 06:48	7° Υ 45'45	1°54'33
desc. node	2996 May 17 07:49	25° Υ 58'36		min. Earth dist.	2997 Apr 30 11:03	5° Υ 24'23	0.57511 AU
min. Earth dist.	2996 May 18 17:57	25° Υ 04'22	0.55855 AU	desc. node	2997 May 04 04:52	3° Υ 04'23	
morning rise	2996 May 24 16:57	22° Υ 03'50		morning rise	2997 May 05 01:33	2° Υ 39'17	
direct	2996 May 29 07:45	21° Υ 15'41		direct	2997 May 10 16:43	1° Υ 21'00	
morning max el	2996 Jun 12 09:29	28° Υ 21'51	24°53'31	morning max el	2997 May 25 01:14	8° Υ 54'03	26°22'39
	2996 Jun 14 00:49	0° Π			2997 Jun 09 23:34	0° Π	
	2996 Jul 03 18:34	0° Υ		morning set	2997 Jun 22 19:41	24° Π 14'07	
asc. node	2996 Jul 06 15:31	5° Υ 47'12		asc. node	2997 Jun 23 12:35	25° Π 43'32	
morning set	2996 Jul 08 08:47	9° Υ 22'49			2997 Jun 25 12:21	0° Υ	
superior conj	2996 Jul 15 08:54	24° Υ 33'25	1°20'23	superior conj	2997 Jun 29 20:22	9° Υ 30'02	1°02'15
minimum elong	2996 Jul 15 06:32	24° Υ 20'33	1°20'04	minimum elong	2997 Jun 29 18:07	9° Υ 17'40	1°01'52
max. Earth dist.	2996 Jul 16 19:35	27° Υ 42'09	1.32766 AU	max. Earth dist.	2997 Jun 30 06:01	10° Υ 23'09	1.32236 AU
	2996 Jul 17 21:06	0° Ω		evening rise	2997 Jul 06 19:46	24° Υ 34'56	
evening rise	2996 Jul 22 14:33	9° Ω 56'55			2997 Jul 09 11:04	0° Ω	
	2996 Aug 02 05:29	0° Π			2997 Jul 27 00:19	0° Π	
desc. node	2996 Aug 13 07:10	17° Π 09'25		desc. node	2997 Jul 31 04:09	5° Π 27'59	
	2996 Aug 24 05:39	0° Ω		evening max el	2997 Aug 06 12:00	12° Π 23'27	26°57'48
evening max el	2996 Aug 24 06:46	0° Ω 02'41	27°24'44	retrograde	2997 Aug 20 09:47	19° Π 35'47	
retrograde	2996 Sep 07 00:51	7° Ω 19'05		evening set	2997 Aug 27 09:46	17° Π 26'44	
evening set	2996 Sep 14 05:32	4° Ω 47'26		min. Earth dist.	2997 Aug 31 02:15	14° Π 47'21	0.60865 AU
min. Earth dist.	2996 Sep 17 20:16	1° Ω 47'45	0.62826 AU	inferior conj	2997 Sep 03 06:52	12° Π 04'48	-4°-27'-19
	2996 Sep 19 17:08	30° Υ		minimum elong	2997 Sep 03 12:11	11° Π 53'29	4°26'17
inferior conj	2996 Sep 20 15:47	29° Π 04'50	-3°-38'-18	morning rise	2997 Sep 10 17:43	7° Π 15'10	
minimum elong	2996 Sep 20 21:17	28° Π 51'30	3°36'43	direct	2997 Sep 13 01:57	6° Π 53'23	
morning rise	2996 Sep 27 15:42	23° Π 54'01		asc. node	2997 Sep 19 11:48	9° Π 43'24	
direct	2996 Sep 30 00:44	23° Π 27'59		morning max el	2997 Sep 20 07:07	10° Π 27'58	18°02'18
asc. node	2996 Oct 02 14:43	23° Π 59'32			2997 Oct 03 03:38	0° Ω	
morning max el	2996 Oct 06 17:36	26° Π 54'32	17°50'55	morning set	2997 Oct 06 01:24	5° Ω 21'56	
	2996 Oct 09 10:31	0° Ω					
morning set	2996 Oct 22 20:50	21° Ω 57'12		superior conj	2997 Oct 16 01:51	23° Ω 39'16	1°11'42
	2996 Oct 27 10:24	0° Π		minimum elong	2997 Oct 16 06:09	23° Ω 58'18	1°11'12
					2997 Oct 19 17:04	0° Π	
superior conj	2996 Nov 03 10:36	12° Π 01'30	0°39'27	max. Earth dist.	2997 Oct 23 16:50	6° Π 45'38	1.41948 AU
minimum elong	2996 Nov 03 14:12	12° Π 16'38	0°38'57	desc. node	2997 Oct 27 03:31	12° Π 25'54	
desc. node	2996 Nov 09 06:30	21° Π 39'02		evening rise	2997 Oct 29 10:53	16° Π 08'56	
max. Earth dist.	2996 Nov 10 05:19	23° Π 11'20	1.43613 AU		2997 Nov 07 09:18	0° Υ	
	2996 Nov 14 11:44	0° Υ		greatest brilliancy	2997 Nov 26 16:45	26° Υ 50'15	-0.3m
evening rise	2996 Nov 18 14:28	6° Υ 25'53			2997 Nov 29 09:51	0° Υ	
	2996 Dec 04 08:06	0° Υ		evening max el	2997 Dec 01 12:12	2° Υ 13'54	22°31'17
greatest brilliancy	2996 Dec 13 15:19	12° Υ 44'00	-0.4m	retrograde	2997 Dec 11 06:22	8° Υ 01'45	
evening max el	2996 Dec 18 18:18	18° Υ 39'58	21°14'47	evening set	2997 Dec 15 20:19	6° Υ 11'23	
retrograde	2996 Dec 27 10:35	23° Υ 48'53		asc. node	2997 Dec 16 11:01	5° Υ 39'25	
asc. node	2996 Dec 29 13:58	23° Υ 23'39		inferior conj	2997 Dec 21 05:59	29° Υ 47'59	1°34'34
evening set	2996 Dec 31 12:44	22° Υ 15'00		minimum elong	2997 Dec 21 04:01	29° Υ 54'48	1°33'49
inferior conj	2997 Jan 05 22:23	15° Υ 58'40	2°17'58	min. Earth dist.	2997 Dec 21 02:23	0° Υ 00'27	0.67923 AU
minimum elong	2997 Jan 05 19:55	16° Υ 07'12	2°17'09		2997 Dec 21 02:31	30° Υ	
min. Earth dist.	2997 Jan 06 06:07	15° Υ 31'58	0.67697 AU	morning rise	2997 Dec 26 11:37	23° Υ 35'45	
morning rise	2997 Jan 11 02:44	9° Υ 43'46		direct	2997 Dec 31 00:53	21° Υ 44'12	
direct	2997 Jan 16 06:57	7° Υ 29'23		morning max el	2998 Jan 09 06:30	27° Υ 09'34	22°02'57
morning max el	2997 Jan 26 18:35	13° Υ 43'51	23°30'23		2998 Jan 11 21:47	0° Υ	
desc. node	2997 Feb 05 05:43	24° Υ 59'02		greatest brilliancy	2998 Jan 13 22:04	2° Υ 22'34	-0.4m
	2997 Feb 08 22:26	0° \approx		desc. node	2998 Jan 23 02:46	14° Υ 37'30	
	2997 Feb 28 14:06	0° Υ			2998 Feb 02 13:11	0° \approx	
morning set	2997 Mar 02 22:17	3° Υ 55'12		morning set	2998 Feb 11 03:22	13° \approx 27'42	
max. Earth dist.	2997 Mar 06 23:49	10° Υ 55'00	1.39021 AU	max. Earth dist.	2998 Feb 16 21:48	22° \approx 56'03	1.41170 AU

	2000 Feb 21 01:31	0°♄		max. Earth dist.	2000 Jan 30 02:58	5°♄52'42	1.43048 AU
superior conj	2000 Feb 24 15:52	6°♄17'37	-2°-2'-33	superior conj	2000 Feb 05 19:47	16°♄55'52	-2°-5'-37
minimum elong	2000 Feb 24 18:40	6°♄30'04	2°02'28	minimum elong	2000 Feb 05 18:11	16°♄49'07	2°05'37
evening rise	2000 Mar 07 04:08	25°♄29'48			2000 Feb 13 10:34	0°♄	
	2000 Mar 09 14:26	0°♄		evening rise	2000 Feb 17 21:04	7°♄49'31	
asc. node	2000 Mar 14 10:19	8°♄40'42		asc. node	2000 Mar 01 07:21	27°♄17'53	
evening max el	2000 Mar 23 09:43	21°♄21'42	18°14'58		2000 Mar 03 04:05	0°♄	
retrograde	2000 Mar 30 10:37	24°♄53'01		evening max el	2000 Mar 06 21:19	4°♄27'17	18°07'08
evening set	2000 Apr 01 21:49	24°♄27'53		retrograde	2000 Mar 13 10:23	7°♄50'34	
inferior conj	2000 Apr 08 23:27	19°♄43'26	2°58'17	evening set	2000 Mar 16 03:00	7°♄15'43	
minimum elong	2000 Apr 09 02:52	19°♄35'58	2°57'34	inferior conj	2000 Mar 22 14:26	2°♄10'19	3°30'51
min. Earth dist.	2000 Apr 12 09:08	16°♄46'17	0.59590 AU	minimum elong	2000 Mar 22 16:08	2°♄06'01	3°30'42
morning rise	2000 Apr 16 04:11	14°♄03'07			2000 Mar 24 18:09	30°♄	
desc. node	2000 Apr 21 01:55	12°♄15'40		min. Earth dist.	2000 Mar 25 15:03	29°♄08'58	0.61745 AU
direct	2000 Apr 22 14:26	12°♄09'20		morning rise	2000 Mar 29 02:34	26°♄12'40	
morning max el	2000 May 06 22:42	19°♄57'53	27°24'25	direct	2000 Apr 04 22:50	23°♄47'23	
	2000 May 15 12:36	0°♄		desc. node	2000 Apr 07 22:57	24°♄13'08	
	2000 Jun 02 17:43	0°♄			2000 Apr 17 06:44	0°♄	
morning set	2000 Jun 07 03:53	8°♄55'35		morning max el	2000 Apr 19 02:34	1°♄44'08	27°50'14
asc. node	2000 Jun 10 09:36	15°♄48'03			2000 May 09 18:49	0°♄	
				morning set	2000 May 22 07:30	23°♄21'05	
superior conj	2000 Jun 14 08:03	24°♄24'12	0°40'27		2000 May 25 12:08	0°♄	
minimum elong	2000 Jun 14 06:22	24°♄14'55	0°40'06	max. Earth dist.	2000 May 28 03:55	5°♄41'57	1.32372 AU
max. Earth dist.	2000 Jun 13 18:07	23°♄07'26	1.32105 AU	asc. node	2000 May 28 06:38	5°♄56'38	
	2000 Jun 16 21:03	0°♄					
evening rise	2000 Jun 21 05:08	9°♄22'49		superior conj	2000 May 29 18:16	9°♄10'30	0°15'36
	2000 Jun 01 20:20	0°♄		minimum elong	2000 May 29 17:33	9°♄06'34	0°15'26
desc. node	2000 Jul 18 01:11	22°♄34'36		behind sun begin	2000 May 29 16:20	8°♄59'56	
evening max el	2000 Jul 19 10:02	23°♄55'45	25°58'18	behind sun end	2000 May 29 18:46	9°♄13'12	
	2000 Jul 28 04:18	0°♄		evening rise	2000 Jun 05 16:37	24°♄13'52	
retrograde	2000 Aug 02 09:37	1°♄04'40			2000 Jun 08 10:58	0°♄	
	2000 Aug 07 13:41	30°♄			2000 Jun 26 16:24	0°♄	
evening set	2000 Aug 08 16:40	29°♄29'35		evening max el	2000 Jul 01 01:10	4°♄43'52	24°33'31
min. Earth dist.	2000 Aug 12 22:26	26°♄53'54	0.58798 AU	desc. node	2000 Jul 04 22:11	8°♄00'30	
inferior conj	2000 Aug 16 04:49	24°♄29'40	-4°-59'-11	retrograde	2000 Jul 14 22:49	11°♄45'43	
minimum elong	2000 Aug 16 07:31	24°♄24'39	4°58'59	evening set	2000 Jul 19 23:28	10°♄48'54	
morning rise	2000 Aug 24 01:51	20°♄03'36		min. Earth dist.	2000 Jul 25 12:13	7°♄57'57	0.56888 AU
direct	2000 Aug 26 12:25	19°♄43'53		inferior conj	2000 Jul 28 06:49	6°♄11'07	-5°00'-25
morning max el	2000 Sep 03 14:36	23°♄36'07	18°33'55	minimum elong	2000 Jul 28 04:17	6°♄15'12	5°00'16
asc. node	2000 Sep 06 08:51	26°♄38'28		morning rise	2000 Aug 05 12:46	2°♄06'48	
	2000 Sep 08 20:09	0°♄		direct	2000 Aug 08 04:02	1°♄47'43	
morning set	2000 Sep 19 18:02	19°♄20'50		morning max el	2000 Aug 17 13:01	6°♄09'55	19°26'50
	2000 Sep 25 06:25	0°♄		asc. node	2000 Aug 24 05:53	14°♄29'58	
					2000 Sep 01 21:57	0°♄	
superior conj	2000 Sep 28 15:13	6°♄21'58	1°32'25	morning set	2000 Sep 03 19:00	3°♄43'41	
minimum elong	2000 Sep 28 18:18	6°♄36'19	1°32'10				
max. Earth dist.	2000 Oct 05 23:16	19°♄37'00	1.39950 AU	superior conj	2000 Sep 11 21:10	19°♄53'43	1°42'53
evening rise	2000 Oct 10 04:53	26°♄51'16		minimum elong	2000 Sep 11 22:27	20°♄00'02	1°42'50
	2000 Oct 12 02:21	0°♄			2000 Sep 17 03:59	0°♄	
desc. node	2000 Oct 14 00:32	3°♄08'17		max. Earth dist.	2000 Sep 18 03:08	1°♄47'12	1.37879 AU
	2000 Nov 01 00:47	0°♄		evening rise	2000 Sep 21 22:25	8°♄38'47	
evening max el	2000 Nov 14 02:10	15°♄50'19	23°51'12	desc. node	2000 Sep 30 21:32	23°♄42'04	
retrograde	2000 Nov 24 22:59	22°♄14'27			2000 Oct 04 22:18	0°♄	
evening set	2000 Nov 30 02:13	20°♄07'16		evening max el	2000 Oct 27 14:21	29°♄29'56	25°08'02
asc. node	2000 Dec 03 08:04	16°♄37'50			2000 Oct 28 02:46	0°♄	
min. Earth dist.	2000 Dec 04 22:55	14°♄29'28	0.67794 AU	retrograde	2000 Nov 08 11:30	6°♄22'36	
inferior conj	2000 Dec 05 13:16	13°♄40'44	0°45'08	evening set	2000 Nov 14 04:48	3°♄59'49	
minimum elong	2000 Dec 05 12:13	13°♄44'18	0°44'42		2000 Nov 17 21:34	30°♄	
morning rise	2000 Dec 10 22:26	7°♄33'11		min. Earth dist.	2000 Nov 18 17:23	28°♄56'30	0.67321 AU
direct	2000 Dec 14 21:38	6°♄04'20		inferior conj	2000 Nov 19 18:27	27°♄34'34	0°-9'-8
morning max el	2000 Dec 23 01:01	10°♄45'53	20°43'35	minimum elong	2000 Nov 19 18:41	27°♄33'49	0°09'02
greatest brilliancy	2000 Dec 28 21:09	17°♄34'48	-0.5m	transit middle	2000 Nov 19 18:41	27°♄33'49	0°09'02
	2000 Jan 06 19:35	0°♄		transit begin	2000 Nov 19 16:23	27°♄41'22	
desc. node	2000 Jan 09 23:48	4°♄40'27		transit end	2000 Nov 19 20:59	27°♄26'17	
morning set	2000 Jan 21 06:54	21°♄51'38		asc. node	2000 Nov 20 05:06	26°♄59'51	
	2000 Jan 26 11:05	0°♄		morning rise	2000 Nov 25 09:13	21°♄34'00	

direct	2999 Nov 28 19:58	20° \mathbb{M} 25'25		morning rise	3000 Nov 09 17:56	5° \mathbb{M} 35'52	
morning max el	2999 Dec 06 03:24	24° \mathbb{M} 33'05	19°36'56	direct	3000 Nov 12 18:23	4° \mathbb{M} 43'57	
	2999 Dec 10 19:32	0° \mathbb{M}		morning max el	3000 Nov 19 12:48	8° \mathbb{M} 28'17	18°45'36
greatest brilliancy	2999 Dec 14 08:14	4° \mathbb{M} 47'33	-0.6m		3000 Dec 04 20:46	0° \mathbb{M}	
desc. node	2999 Dec 27 20:49	25° \mathbb{M} 00'57		morning set	3000 Dec 10 18:19	9° \mathbb{M} 17'35	
morning set	2999 Dec 31 03:37	0° \mathbb{C} 04'33		desc. node	3000 Dec 14 17:51	15° \mathbb{M} 34'10	
	2999 Dec 31 02:26	0° \mathbb{C}			3000 Dec 23 22:18	0° \mathbb{C}	
max. Earth dist.	3000 Jan 12 15:03	19° \mathbb{C} 34'42	1.44421 AU	max. Earth dist.	3000 Dec 26 08:11	3° \mathbb{C} 47'12	1.45131 AU
superior conj	3000 Jan 16 21:33	26° \mathbb{C} 23'44	-1°-51'-8	superior conj	3000 Dec 27 03:21	5° \mathbb{C} 02'28	-1°-17'-34
minimum elong	3000 Jan 16 14:18	25° \mathbb{C} 54'35	1°50'38	minimum elong	3000 Dec 26 18:34	4° \mathbb{C} 28'00	1°16'36
	3000 Jan 19 03:09	0° \mathbb{C}		evening rise	3001 Jan 11 16:46	29° \mathbb{C} 44'30	
evening rise	3000 Jan 30 18:21	19° \mathbb{C} 15'33			3001 Jan 11 20:37	0° \mathbb{C}	
	3000 Feb 06 03:27	0° \mathbb{H}			3001 Jan 31 18:00	0° \mathbb{H}	
asc. node	3000 Feb 16 04:23	15° \mathbb{H} 14'55		evening max el	3001 Feb 01 21:03	1° \mathbb{H} 12'50	18°47'39
evening max el	3000 Feb 18 09:57	17° \mathbb{H} 46'04	18°18'20	asc. node	3001 Feb 03 01:24	2° \mathbb{H} 20'31	
retrograde	3000 Feb 24 20:54	21° \mathbb{H} 14'38		retrograde	3001 Feb 08 14:14	4° \mathbb{H} 58'11	
evening set	3000 Feb 27 18:56	20° \mathbb{H} 28'57		evening set	3001 Feb 11 18:21	4° \mathbb{H} 00'35	
inferior conj	3000 Mar 05 19:53	15° \mathbb{H} 04'04	3°40'07		3001 Feb 16 02:11	30° \mathbb{R}	
minimum elong	3000 Mar 05 19:46	15° \mathbb{H} 04'24	3°40'08	inferior conj	3001 Feb 17 11:59	28° \mathbb{R} 17'57	3°32'03
min. Earth dist.	3000 Mar 08 06:14	12° \mathbb{H} 20'19	0.63721 AU	minimum elong	3001 Feb 17 10:29	28° \mathbb{R} 22'34	3°31'53
morning rise	3000 Mar 11 18:47	8° \mathbb{H} 56'42		min. Earth dist.	3001 Feb 19 06:44	26° \mathbb{R} 06'39	0.65361 AU
direct	3000 Mar 18 15:56	6° \mathbb{H} 11'39		morning rise	3001 Feb 23 01:29	22° \mathbb{R} 05'30	
desc. node	3000 Mar 25 20:00	8° \mathbb{H} 38'21		direct	3001 Mar 01 16:07	19° \mathbb{R} 15'13	
morning max el	3000 Apr 01 10:44	14° \mathbb{H} 08'17	27°38'47	desc. node	3001 Mar 12 17:03	24° \mathbb{R} 57'03	
	3000 Apr 14 06:57	0° \mathbb{Y}		morning max el	3001 Mar 14 20:28	27° \mathbb{R} 00'08	26°54'29
	3000 May 02 08:49	0° \mathbb{C}			3001 Mar 17 15:58	0° \mathbb{H}	
morning set	3000 May 06 04:04	7° \mathbb{C} 22'01			3001 Apr 07 22:17	0° \mathbb{Y}	
max. Earth dist.	3000 May 11 07:19	17° \mathbb{C} 52'35	1.33060 AU	morning set	3001 Apr 19 14:28	20° \mathbb{Y} 48'48	
				max. Earth dist.	3001 Apr 24 00:43	29° \mathbb{Y} 30'52	1.34205 AU
					3001 Apr 24 06:30	0° \mathbb{C}	
superior conj	3000 May 14 01:11	23° \mathbb{C} 42'20	0°-11'-33				
minimum elong	3000 May 14 01:45	23° \mathbb{C} 45'25	0°11'27	superior conj	3001 Apr 28 02:43	7° \mathbb{C} 53'28	0°-39'-58
behind sun begin	3000 May 13 22:01	23° \mathbb{C} 25'22		minimum elong	3001 Apr 28 04:47	8° \mathbb{C} 04'15	0°39'34
behind sun end	3000 May 14 05:30	24° \mathbb{C} 05'29		asc. node	3001 May 02 00:41	16° \mathbb{C} 07'41	
asc. node	3000 May 15 03:39	26° \mathbb{C} 04'29		evening rise	3001 May 05 14:23	23° \mathbb{C} 38'29	
	3000 May 16 23:20	0° \mathbb{H}			3001 May 08 16:55	0° \mathbb{H}	
evening rise	3000 May 21 04:19	9° \mathbb{H} 01'03		evening max el	3001 May 25 10:25	25° \mathbb{H} 48'12	21°24'50
	3000 Jun 01 03:17	0° \mathbb{C}			3001 May 30 23:29	0° \mathbb{C}	
evening max el	3000 Jun 12 14:43	15° \mathbb{C} 10'37	22°57'21	retrograde	3001 Jun 06 13:48	1° \mathbb{C} 45'28	
desc. node	3000 Jun 21 19:12	21° \mathbb{C} 10'23		evening set	3001 Jun 08 23:18	1° \mathbb{C} 32'21	
retrograde	3000 Jun 25 23:36	21° \mathbb{C} 50'20		desc. node	3001 Jun 08 16:14	1° \mathbb{C} 35'20	
evening set	3000 Jun 29 11:50	21° \mathbb{C} 23'21			3001 Jun 13 15:58	30° \mathbb{R}	
min. Earth dist.	3000 Jul 06 23:40	18° \mathbb{C} 02'42	0.55476 AU	inferior conj	3001 Jun 18 08:13	27° \mathbb{H} 32'59	-2°-44'-57
inferior conj	3000 Jul 08 13:33	17° \mathbb{C} 07'54	-4°-16'-39	minimum elong	3001 Jun 18 00:56	27° \mathbb{H} 43'12	2°42'35
minimum elong	3000 Jul 08 06:02	17° \mathbb{C} 18'47	4°15'06	min. Earth dist.	3001 Jun 18 11:11	27° \mathbb{H} 28'50	0.54877 AU
morning rise	3000 Jul 17 03:04	13° \mathbb{C} 15'59		morning rise	3001 Jun 27 02:59	23° \mathbb{H} 36'56	
direct	3000 Jul 20 00:56	12° \mathbb{C} 56'00		direct	3001 Jun 30 11:21	23° \mathbb{H} 12'34	
morning max el	3000 Jul 31 00:05	18° \mathbb{C} 01'11	20°41'00	morning max el	3001 Jul 12 23:50	29° \mathbb{H} 08'07	22°13'17
	3000 Aug 09 07:01	0° \mathbb{Q}			3001 Jul 13 21:25	0° \mathbb{C}	
asc. node	3000 Aug 11 02:54	3° \mathbb{Q} 04'56		asc. node	3001 Jul 28 23:56	22° \mathbb{C} 12'46	
morning set	3000 Aug 19 01:34	18° \mathbb{Q} 23'09			3001 Aug 01 22:16	0° \mathbb{Q}	
	3000 Aug 24 16:05	0° \mathbb{M}		morning set	3001 Aug 03 11:34	3° \mathbb{Q} 13'05	
superior conj	3000 Aug 26 14:57	4° \mathbb{M} 00'48	1°44'48	superior conj	3001 Aug 10 16:55	18° \mathbb{Q} 32'05	1°39'43
minimum elong	3000 Aug 26 14:37	3° \mathbb{M} 59'03	1°44'48	minimum elong	3001 Aug 10 15:23	18° \mathbb{Q} 24'01	1°39'38
max. Earth dist.	3000 Aug 31 10:28	13° \mathbb{M} 38'11	1.35981 AU	max. Earth dist.	3001 Aug 14 02:07	25° \mathbb{Q} 35'11	1.34418 AU
evening rise	3000 Sep 04 12:21	21° \mathbb{M} 24'13			3001 Aug 16 06:19	0° \mathbb{M}	
	3000 Sep 09 06:51	0° \mathbb{Q}		evening rise	3001 Aug 18 18:08	4° \mathbb{M} 55'09	
desc. node	3000 Sep 17 18:32	14° \mathbb{Q} 02'23			3001 Sep 02 00:45	0° \mathbb{Q}	
	3000 Sep 28 19:10	0° \mathbb{M}		desc. node	3001 Sep 04 15:33	4° \mathbb{Q} 02'23	
evening max el	3000 Oct 10 02:36	13° \mathbb{M} 10'46	26°14'22	evening max el	3001 Sep 22 15:08	26° \mathbb{Q} 44'40	27°02'29
retrograde	3000 Oct 22 19:07	20° \mathbb{M} 20'52			3001 Sep 26 09:21	0° \mathbb{M}	
evening set	3000 Oct 29 02:15	17° \mathbb{M} 45'52		retrograde	3001 Oct 02 21:05	4° \mathbb{M} 01'39	
min. Earth dist.	3000 Nov 02 07:29	13° \mathbb{M} 18'24	0.66506 AU	evening set	3001 Oct 12 16:20	1° \mathbb{M} 20'20	
inferior conj	3000 Nov 03 19:44	11° \mathbb{M} 26'45	-1°-6'-59		3001 Oct 14 05:00	30° \mathbb{R}	
minimum elong	3000 Nov 03 21:32	11° \mathbb{M} 21'13	1°06'14	min. Earth dist.	3001 Oct 16 14:44	27° \mathbb{Q} 29'26	0.65347 AU
asc. node	3000 Nov 07 02:07	7° \mathbb{M} 42'30					

inferior conj	3001 Oct 18 14:59	25°♄12'14	-2°-6'-46	minimum elong	3002 Oct 02 06:41	8°♄33'03	3°04'19
minimum elong	3001 Oct 18 18:28	25°♄02'19	2°05'26	morning rise	3002 Oct 08 19:22	3°♄24'14	
morning rise	3001 Oct 24 22:16	19°♄34'14		direct	3002 Oct 11 06:24	2°♄54'18	
asc. node	3001 Oct 24 23:10	19°♄33'10		asc. node	3002 Oct 11 20:13	2°♄55'59	
direct	3001 Oct 27 14:45	18°♄55'07		morning max el	3002 Oct 17 19:26	6°♄19'39	17°53'00
morning max el	3001 Nov 03 03:02	22°♄25'38	18°10'42		3002 Nov 02 09:37	0°♄	
	3001 Nov 09 02:31	0°♄		morning set	3002 Nov 03 12:43	1°♄56'43	
morning set	3001 Nov 21 14:04	19°♄58'05					
	3001 Nov 27 17:37	0°♄		superior conj	3002 Nov 16 04:26	23°♄15'48	0°15'47
desc. node	3001 Dec 01 14:51	6°♄15'21		minimum elong	3002 Nov 16 06:09	23°♄22'49	0°15'33
				behind sun begin	3002 Nov 16 03:29	23°♄11'54	
superior conj	3001 Dec 06 06:57	13°♄41'19	0°-31'-17	behind sun end	3002 Nov 16 08:50	23°♄33'44	
minimum elong	3001 Dec 06 02:57	13°♄25'32	0°30'45	desc. node	3002 Nov 18 11:53	27°♄01'17	
max. Earth dist.	3001 Dec 09 03:36	18°♄12'08	1.45101 AU		3002 Nov 20 08:16	0°♄	
	3001 Dec 16 16:33	0°♄		max. Earth dist.	3002 Nov 21 21:57	2°♄30'37	1.44344 AU
evening rise	3001 Dec 22 16:54	9°♄21'31		evening rise	3002 Dec 02 03:11	18°♄29'32	
	3002 Jan 05 02:58	0°♄			3002 Dec 09 16:34	0°♄	
greatest brilliancy	3002 Jan 08 02:22	4°♄22'37	-0.7m	greatest brilliancy	3002 Dec 24 09:19	21°♄11'49	-0.5m
evening max el	3002 Jan 16 04:28	14°♄42'51	19°33'44	evening max el	3002 Dec 30 06:42	28°♄13'49	20°34'26
asc. node	3002 Jan 20 22:27	18°♄20'20			3003 Jan 01 03:19	0°♄	
retrograde	3002 Jan 23 11:10	18°♄55'01		retrograde	3003 Jan 07 09:16	3°♄00'44	
evening set	3002 Jan 26 22:37	17°♄44'14		asc. node	3003 Jan 07 19:31	2°♄59'44	
inferior conj	3002 Feb 01 11:32	11°♄46'04	3°10'57	evening set	3003 Jan 11 05:34	1°♄35'31	
minimum elong	3002 Feb 01 09:13	11°♄53'38	3°10'28		3003 Jan 12 23:57	30°♄	
min. Earth dist.	3002 Feb 02 15:26	10°♄14'37	0.66590 AU	inferior conj	3003 Jan 16 15:52	25°♄24'38	2°39'44
morning rise	3002 Feb 06 19:07	5°♄31'14		minimum elong	3003 Jan 16 13:19	25°♄33'22	2°39'00
direct	3002 Feb 12 22:09	2°♄48'35		min. Earth dist.	3003 Jan 17 06:28	24°♄34'50	0.67404 AU
morning max el	3002 Feb 25 05:45	10°♄08'12	25°45'30	morning rise	3003 Jan 21 20:37	19°♄09'16	
desc. node	3002 Feb 27 14:05	12°♄37'25		direct	3003 Jan 27 09:22	16°♄43'13	
	3002 Mar 12 23:40	0°♄		morning max el	3003 Feb 07 14:20	23°♄24'27	24°21'32
	3002 Mar 31 12:19	0°♄			3003 Feb 13 10:39	0°♄	
morning set	3002 Apr 02 10:29	3°♄29'21		desc. node	3003 Feb 14 11:08	1°♄15'57	
max. Earth dist.	3002 Apr 06 06:48	10°♄41'19	1.35805 AU		3003 Mar 06 09:00	0°♄	
				morning set	3003 Mar 15 10:36	15°♄08'07	
superior conj	3002 Apr 11 20:19	21°♄36'37	-1°-8'-13	max. Earth dist.	3003 Mar 19 04:08	21°♄45'25	1.37783 AU
minimum elong	3002 Apr 11 23:50	21°♄54'18	1°07'38		3003 Mar 23 15:18	0°♄	
	3002 Apr 15 23:13	0°♄		superior conj	3003 Mar 26 02:36	4°♄42'19	-1°-34'-10
asc. node	3002 Apr 18 21:45	6°♄02'16		minimum elong	3003 Mar 26 07:03	5°♄03'45	1°33'37
evening rise	3002 Apr 19 20:48	7°♄59'59		evening rise	3003 Apr 03 21:04	21°♄57'57	
	3002 May 01 23:45	0°♄		asc. node	3003 Apr 05 18:49	25°♄42'59	
evening max el	3002 May 07 17:19	6°♄59'56	20°06'36		3003 Apr 08 00:10	0°♄	
retrograde	3002 May 18 04:10	12°♄04'35		evening max el	3003 Apr 20 11:51	18°♄51'39	19°07'20
evening set	3002 May 20 04:07	11°♄54'15		retrograde	3003 Apr 29 07:13	23°♄08'30	
desc. node	3002 May 26 13:16	9°♄26'43		evening set	3003 May 01 09:03	22°♄55'13	
inferior conj	3002 May 29 04:33	7°♄55'04	0°-46'-32	inferior conj	3003 May 09 15:43	18°♄42'47	1°04'27
minimum elong	3002 May 29 02:23	7°♄58'19	0°45'45	minimum elong	3003 May 09 18:13	18°♄38'32	1°03'35
min. Earth dist.	3002 May 30 23:58	6°♄50'24	0.55234 AU	min. Earth dist.	3003 May 12 15:10	16°♄41'18	0.56482 AU
morning rise	3002 Jun 06 22:13	3°♄35'44		desc. node	3003 May 13 10:19	16°♄10'23	
direct	3002 Jun 10 23:53	2°♄59'44		morning rise	3003 May 17 23:09	13°♄48'32	
morning max el	3002 Jun 24 15:55	9°♄42'38	23°55'33	direct	3003 May 23 00:12	12°♄49'08	
	3002 Jul 09 15:19	0°♄		morning max el	3003 Jun 06 06:21	20°♄08'14	25°34'02
asc. node	3002 Jul 15 21:00	11°♄45'08			3003 Jun 14 16:40	0°♄	
morning set	3002 Jul 18 23:16	18°♄08'32			3003 Jul 01 23:57	0°♄	
	3002 Jul 24 11:31	0°♄		asc. node	3003 Jul 02 18:03	1°♄34'15	
superior conj	3002 Jul 26 00:21	3°♄19'29	1°28'52	morning set	3003 Jul 03 10:55	3°♄02'53	
minimum elong	3002 Jul 25 22:09	3°♄07'35	1°28'38				
max. Earth dist.	3002 Jul 28 03:02	7°♄51'51	1.33252 AU	superior conj	3003 Jul 10 10:53	18°♄14'29	1°13'12
evening rise	3002 Aug 02 11:40	19°♄00'23		minimum elong	3003 Jul 10 08:31	18°♄01'30	1°12'49
	3002 Aug 08 04:09	0°♄		max. Earth dist.	3003 Jul 11 10:49	20°♄25'31	1.32491 AU
desc. node	3002 Aug 22 12:35	23°♄33'36			3003 Jul 15 21:29	0°♄	
	3002 Aug 27 06:03	0°♄		evening rise	3003 Jul 17 13:23	3°♄28'32	
evening max el	3002 Sep 05 02:37	10°♄00'06	27°25'14		3003 Jul 31 22:45	0°♄	
retrograde	3002 Sep 18 16:56	17°♄17'18		desc. node	3003 Aug 09 09:36	12°♄23'09	
evening set	3002 Sep 25 20:17	14°♄38'34		evening max el	3003 Aug 18 10:33	22°♄42'52	27°17'16
min. Earth dist.	3002 Sep 29 12:58	11°♄22'13	0.63845 AU	retrograde	3003 Sep 01 06:14	29°♄57'50	
inferior conj	3002 Oct 02 01:43	8°♄45'52	-3°-5'-58	evening set	3003 Sep 08 10:26	27°♄33'47	

min. Earth dist.	3003 Sep 12 00:45	24° $\overline{\text{M}}$ 44'46	0.62020 AU	retrograde	3004 Aug 13 11:51	11° $\overline{\text{M}}$ 54'20	
inferior conj	3003 Sep 15 00:52	21° $\overline{\text{M}}$ 59'50	-4°00'-33	evening set	3004 Aug 20 06:09	9° $\overline{\text{M}}$ 58'29	
minimum elong	3003 Sep 15 06:32	21° $\overline{\text{M}}$ 46'51	3°59'07	min. Earth dist.	3004 Aug 24 02:21	7° $\overline{\text{M}}$ 22'54	0.59983 AU
morning rise	3003 Sep 22 05:32	16° $\overline{\text{M}}$ 58'00		inferior conj	3004 Aug 27 09:02	4° $\overline{\text{M}}$ 45'28	-4°-43'-41
direct	3003 Sep 24 13:52	16° $\overline{\text{M}}$ 34'06		minimum elong	3004 Aug 27 13:35	4° $\overline{\text{M}}$ 36'19	4°43'01
asc. node	3003 Sep 28 17:16	17° $\overline{\text{M}}$ 50'59		morning rise	3004 Sep 04 00:24	0° $\overline{\text{M}}$ 05'58	
morning max el	3003 Oct 01 10:55	20° $\overline{\text{M}}$ 02'43	17°53'27		3004 Sep 04 09:28	30° $\overline{\text{R}}$ Ω	
	3003 Oct 08 19:58	0° $\overline{\text{A}}$		direct	3004 Sep 06 09:06	29° $\overline{\text{O}}$ 45'26	
morning set	3003 Oct 17 08:02	14° $\overline{\text{A}}$ 54'13			3004 Sep 08 07:47	0° $\overline{\text{M}}$	
	3003 Oct 25 19:05	0° $\overline{\text{M}}$		morning max el	3004 Sep 13 22:18	3° $\overline{\text{M}}$ 26'26	18°13'12
				asc. node	3004 Sep 14 14:19	4° $\overline{\text{M}}$ 06'36	
superior conj	3003 Oct 28 04:40	4° $\overline{\text{M}}$ 09'15	0°54'34	morning set	3004 Sep 29 18:13	28° $\overline{\text{M}}$ 34'13	
minimum elong	3003 Oct 28 08:54	4° $\overline{\text{M}}$ 27'26	0°54'01		3004 Sep 30 12:21	0° $\overline{\text{A}}$	
max. Earth dist.	3003 Nov 04 11:59	16° $\overline{\text{M}}$ 23'19	1.42954 AU	superior conj	3004 Oct 09 05:56	16° $\overline{\text{A}}$ 16'02	1°21'51
desc. node	3003 Nov 05 08:55	17° $\overline{\text{M}}$ 48'36		minimum elong	3004 Oct 09 09:51	16° $\overline{\text{A}}$ 33'47	1°21'26
evening rise	3003 Nov 11 15:08	27° $\overline{\text{M}}$ 47'20		max. Earth dist.	3004 Oct 16 20:33	29° $\overline{\text{A}}$ 37'10	1.41117 AU
	3003 Nov 13 01:10	0° $\overline{\text{X}}$			3004 Oct 17 01:56	0° $\overline{\text{M}}$	
	3003 Dec 03 11:51	0° $\overline{\text{Z}}$		evening rise	3004 Oct 21 19:53	7° $\overline{\text{M}}$ 53'00	
greatest brilliancy	3003 Dec 08 08:01	6° $\overline{\text{Z}}$ 17'39	-0.4m	desc. node	3004 Oct 22 05:55	8° $\overline{\text{M}}$ 33'45	
evening max el	3003 Dec 13 03:17	11° $\overline{\text{Z}}$ 45'37	21°46'32		3004 Nov 05 04:20	0° $\overline{\text{X}}$	
retrograde	3003 Dec 22 06:26	17° $\overline{\text{Z}}$ 11'46		greatest brilliancy	3004 Nov 18 23:34	18° $\overline{\text{X}}$ 46'15	-0.2m
asc. node	3003 Dec 25 16:33	16° $\overline{\text{Z}}$ 08'04		evening max el	3004 Nov 24 19:10	25° $\overline{\text{X}}$ 19'47	23°05'21
evening set	3003 Dec 26 13:23	15° $\overline{\text{Z}}$ 30'54			3004 Nov 30 12:36	0° $\overline{\text{Z}}$	
inferior conj	3003 Dec 31 22:50	9° $\overline{\text{Z}}$ 10'49	2°00'22	retrograde	3004 Dec 05 01:05	1° $\overline{\text{Z}}$ 24'18	
minimum elong	3003 Dec 31 20:31	9° $\overline{\text{Z}}$ 18'50	1°59'34		3004 Dec 09 03:08	30° $\overline{\text{R}}$ X	
min. Earth dist.	3004 Jan 01 01:35	9° $\overline{\text{Z}}$ 01'15	0.67829 AU	evening set	3004 Dec 09 20:23	29° $\overline{\text{X}}$ 26'58	
morning rise	3004 Jan 06 03:25	2° $\overline{\text{Z}}$ 56'42		asc. node	3004 Dec 11 13:35	27° $\overline{\text{X}}$ 47'10	
direct	3004 Jan 11 01:05	0° $\overline{\text{Z}}$ 52'03		inferior conj	3004 Dec 15 06:28	23° $\overline{\text{X}}$ 01'35	1°14'15
morning max el	3004 Jan 21 00:03	6° $\overline{\text{Z}}$ 46'09	22°52'43	minimum elong	3004 Dec 15 04:51	23° $\overline{\text{X}}$ 07'12	1°13'38
greatest brilliancy	3004 Jan 25 16:38	12° $\overline{\text{Z}}$ 00'13	-0.3m	min. Earth dist.	3004 Dec 14 22:19	23° $\overline{\text{X}}$ 29'42	0.67901 AU
desc. node	3004 Feb 01 08:10	20° $\overline{\text{Z}}$ 36'03		morning rise	3004 Dec 20 13:19	16° $\overline{\text{X}}$ 50'50	
	3004 Feb 07 23:32	0° $\overline{\approx}$		direct	3004 Dec 24 20:25	15° $\overline{\text{X}}$ 09'01	
morning set	3004 Feb 24 08:38	25° $\overline{\approx}$ 29'40		morning max el	3005 Jan 02 14:19	20° $\overline{\text{X}}$ 15'16	21°27'51
	3004 Feb 27 01:18	0° $\overline{\text{X}}$		greatest brilliancy	3005 Jan 07 15:05	25° $\overline{\text{X}}$ 58'46	-0.4m
max. Earth dist.	3004 Feb 28 23:24	3° $\overline{\text{X}}$ 16'22	1.39942 AU		3005 Jan 10 17:54	0° $\overline{\text{Z}}$	
superior conj	3004 Mar 07 17:19	17° $\overline{\text{X}}$ 00'15	-1°-54'-45	desc. node	3005 Jan 18 05:10	10° $\overline{\text{Z}}$ 25'31	
minimum elong	3004 Mar 07 21:23	17° $\overline{\text{X}}$ 18'49	1°54'29		3005 Jan 31 05:15	0° $\overline{\approx}$	
	3004 Mar 14 16:05	0° $\overline{\text{Y}}$		morning set	3005 Feb 03 01:31	4° $\overline{\approx}$ 28'08	
evening rise	3004 Mar 17 12:11	5° $\overline{\text{Y}}$ 24'37		max. Earth dist.	3005 Feb 09 23:33	15° $\overline{\approx}$ 38'28	1.42011 AU
asc. node	3004 Mar 22 15:52	15° $\overline{\text{Y}}$ 04'38					
	3004 Apr 01 09:17	0° $\overline{\text{B}}$		superior conj	3005 Feb 17 11:18	28° $\overline{\approx}$ 17'38	-2°-5'-43
evening max el	3004 Apr 02 15:40	1° $\overline{\text{B}}$ 19'28	18°28'20	minimum elong	3005 Feb 17 12:35	28° $\overline{\approx}$ 23'09	2°05'43
retrograde	3004 Apr 10 04:45	5° $\overline{\text{B}}$ 02'36			3005 Feb 18 10:53	0° $\overline{\text{X}}$	
evening set	3004 Apr 12 12:24	4° $\overline{\text{B}}$ 42'36		evening rise	3005 Feb 28 14:20	18° $\overline{\text{X}}$ 10'28	
inferior conj	3004 Apr 19 23:58	0° $\overline{\text{B}}$ 10'44	2°26'11		3005 Mar 07 04:12	0° $\overline{\text{Y}}$	
minimum elong	3004 Apr 20 03:49	0° $\overline{\text{B}}$ 03'01	2°25'10	asc. node	3005 Mar 09 12:54	4° $\overline{\text{Y}}$ 00'03	
	3004 Apr 20 05:19	30° $\overline{\text{R}}$ Y		evening max el	3005 Mar 17 01:25	14° $\overline{\text{Y}}$ 13'49	18°09'20
min. Earth dist.	3004 Apr 23 10:26	27° $\overline{\text{Y}}$ 26'59	0.58362 AU	retrograde	3005 Mar 23 19:54	17° $\overline{\text{Y}}$ 39'37	
morning rise	3004 Apr 27 14:56	24° $\overline{\text{Y}}$ 44'20		evening set	3005 Mar 26 09:30	17° $\overline{\text{Y}}$ 10'31	
desc. node	3004 Apr 29 07:21	23° $\overline{\text{Y}}$ 59'35		inferior conj	3005 Apr 02 04:40	12° $\overline{\text{Y}}$ 17'22	3°15'19
direct	3004 May 03 15:02	23° $\overline{\text{Y}}$ 10'57		minimum elong	3005 Apr 02 07:26	12° $\overline{\text{Y}}$ 10'55	3°14'53
	3004 May 17 02:22	0° $\overline{\text{B}}$		min. Earth dist.	3005 Apr 05 11:38	9° $\overline{\text{Y}}$ 15'13	0.60518 AU
morning max el	3004 May 18 00:26	0° $\overline{\text{B}}$ 52'35	26°52'50	morning rise	3005 Apr 09 02:02	6° $\overline{\text{Y}}$ 28'43	
	3004 Jun 07 17:30	0° $\overline{\text{II}}$		direct	3005 Apr 15 17:57	4° $\overline{\text{Y}}$ 20'06	
morning set	3004 Jun 16 20:53	17° $\overline{\text{II}}$ 50'44		desc. node	3005 Apr 16 04:23	4° $\overline{\text{Y}}$ 20'38	
asc. node	3004 Jun 18 15:07	21° $\overline{\text{II}}$ 34'40		morning max el	3005 Apr 30 00:31	12° $\overline{\text{Y}}$ 13'15	27°39'53
	3004 Jun 22 12:01	0° $\overline{\text{E}}$			3005 May 14 01:08	0° $\overline{\text{B}}$	
					3005 May 30 22:54	0° $\overline{\text{II}}$	
superior conj	3004 Jun 23 22:40	3° $\overline{\text{E}}$ 10'50	0°53'26	morning set	3005 Jun 01 03:23	2° $\overline{\text{II}}$ 26'06	
minimum elong	3004 Jun 23 20:37	2° $\overline{\text{E}}$ 59'29	0°53'02	asc. node	3005 Jun 05 12:10	11° $\overline{\text{II}}$ 41'30	
max. Earth dist.	3004 Jun 23 22:14	3° $\overline{\text{E}}$ 08'22	1.32132 AU	max. Earth dist.	3005 Jun 07 09:40	15° $\overline{\text{II}}$ 49'22	1.32169 AU
evening rise	3004 Jun 30 20:37	18° $\overline{\text{E}}$ 11'22					
	3004 Jul 06 17:16	0° $\overline{\text{O}}$		superior conj	3005 Jun 08 09:58	18° $\overline{\text{II}}$ 02'34	0°30'15
desc. node	3004 Jul 26 06:37	0° $\overline{\text{M}}$ 13'58		minimum elong	3005 Jun 08 08:39	17° $\overline{\text{II}}$ 55'19	0°29'58
	3004 Jul 26 01:47	0° $\overline{\text{M}}$			3005 Jun 13 21:11	0° $\overline{\text{E}}$	
evening max el	3004 Jul 30 12:41	4° $\overline{\text{M}}$ 42'34	26°36'06	evening rise	3005 Jun 15 07:07	3° $\overline{\text{E}}$ 01'32	

	2005 Jun 29 18:42	0°♎		minimum elong	3006 May 23 18:48	2°♊42'21	0°04'17
evening max el	2005 Jul 12 07:44	15°♎55'43	25°24'41	behind sun begin	3006 May 23 13:46	2°♊15'04	
desc. node	2005 Jul 13 03:38	16°♎42'07		behind sun end	3006 May 23 23:50	3°♊09'39	
retrograde	2005 Jul 26 07:35	23°♎02'20		evening rise	3006 May 30 18:56	17°♊51'58	
evening set	2005 Aug 01 02:52	21°♎44'03			3006 Jun 05 18:27	0°♊	
min. Earth dist.	2005 Aug 05 19:42	19°♎03'43	0.57945 AU	evening max el	3006 Jun 23 21:30	26°♊31'45	23°53'06
inferior conj	2005 Aug 08 22:48	16°♎53'28	-5°-4'-24		3006 Jun 28 01:14	0°♎	
minimum elong	2005 Aug 08 23:31	16°♎52'11	5°04'24	desc. node	3006 Jun 30 00:40	1°♎15'07	
morning rise	2005 Aug 16 23:45	12°♎36'49		retrograde	3006 Jul 07 15:04	3°♎25'48	
direct	2005 Aug 19 11:57	12°♎17'34		evening set	3006 Jul 12 00:22	2°♎43'24	
morning max el	2005 Aug 28 02:16	16°♎21'26	18°53'43		3006 Jul 17 19:27	30°♊♊	
asc. node	2005 Sep 01 11:21	21°♎27'43		min. Earth dist.	3006 Jul 18 07:55	29°♊41'34	0.56211 AU
	2005 Sep 06 20:45	0°♎		inferior conj	3006 Jul 20 16:16	28°♊15'46	-4°-47'-59
morning set	2005 Sep 13 14:50	12°♎44'57		minimum elong	3006 Jul 20 11:16	28°♊23'24	4°47'23
				morning rise	3006 Jul 29 01:34	24°♊18'14	
superior conj	2005 Sep 22 03:02	29°♎21'42	1°38'01	direct	3006 Jul 31 19:39	23°♊58'50	
minimum elong	2005 Sep 22 05:22	29°♎32'49	1°37'51	morning max el	3006 Aug 10 19:56	28°♊37'37	19°55'50
	2005 Sep 22 11:04	0°♎			3006 Aug 12 05:07	0°♎	
max. Earth dist.	2005 Sep 29 01:25	12°♎10'10	1.39065 AU	asc. node	3006 Aug 19 08:23	9°♎39'16	
evening rise	2005 Oct 03 00:12	19°♎04'25		morning set	3006 Aug 28 18:32	27°♎16'12	
desc. node	2005 Oct 09 02:56	29°♎13'28			3006 Aug 30 02:47	0°♎	
	2005 Oct 09 14:32	0°♎					
	2005 Oct 30 10:46	0°♎		superior conj	3006 Sep 05 14:33	13°♎10'07	1°44'38
evening max el	2005 Nov 07 08:19	8°♎58'32	24°24'47	minimum elong	3006 Sep 05 15:06	13°♎12'54	1°44'38
retrograde	2005 Nov 18 15:56	15°♎35'33		max. Earth dist.	3006 Sep 11 06:31	24°♎11'13	1.37045 AU
evening set	2005 Nov 24 01:03	13°♎21'45			3006 Sep 14 09:45	0°♎	
asc. node	2005 Nov 28 10:35	8°♎23'59		evening rise	3006 Sep 15 02:59	1°♎18'05	
min. Earth dist.	2005 Nov 28 18:18	7°♎58'19	0.67636 AU	desc. node	3006 Sep 25 23:58	19°♎42'30	
inferior conj	2005 Nov 29 13:05	6°♎55'23	0°22'39		3006 Oct 02 18:21	0°♎	
minimum elong	2005 Nov 29 12:32	6°♎57'14	0°22'26	evening max el	3006 Oct 20 20:31	22°♎39'41	25°37'55
morning rise	2005 Dec 05 00:22	0°♎50'20		retrograde	3006 Nov 02 02:16	29°♎40'19	
	2005 Dec 06 11:10	30°♎♎		evening set	3006 Nov 08 01:40	27°♎11'47	
direct	2005 Dec 08 18:08	29°♎30'15		min. Earth dist.	3006 Nov 12 11:06	22°♎23'44	0.67026 AU
	2005 Dec 11 03:38	0°♎		inferior conj	3006 Nov 13 16:51	20°♎48'49	0°-33'-17
morning max el	2005 Dec 16 12:01	3°♎55'52	20°13'25	minimum elong	3006 Nov 13 17:42	20°♎46'03	0°32'56
greatest brilliancy	2005 Dec 23 04:08	11°♎55'11	-0.6m	asc. node	3006 Nov 15 07:36	18°♎47'43	
	2006 Jan 04 16:28	0°♎		morning rise	3006 Nov 19 10:34	14°♎52'10	
desc. node	2006 Jan 05 02:11	0°♎36'40		direct	3006 Nov 22 16:46	13°♎51'02	
morning set	2006 Jan 12 22:53	12°♎37'15		morning max el	3006 Nov 29 17:36	17°♎47'00	19°13'08
max. Earth dist.	2006 Jan 23 07:50	28°♎56'05	1.43710 AU		3006 Dec 09 04:44	0°♎	
	2006 Jan 23 23:46	0°♎		greatest brilliancy	3006 Dec 09 23:50	1°♎10'21	-0.7m
				desc. node	3006 Dec 22 23:14	21°♎03'15	
superior conj	2006 Jan 29 04:03	8°♎25'18	-2°-1'-52	morning set	3006 Dec 23 00:47	21°♎09'18	
minimum elong	2006 Jan 28 23:57	8°♎08'25	2°01'42		3006 Dec 28 17:07	0°♎	
evening rise	2006 Feb 10 23:19	0°♎07'28		max. Earth dist.	3007 Jan 05 22:59	12°♎55'18	1.44815 AU
	2006 Feb 10 21:36	0°♎					
asc. node	2006 Feb 24 09:54	22°♎21'07		superior conj	3007 Jan 08 19:47	17°♎27'27	-1°-39'-2
evening max el	2006 Feb 28 13:49	27°♎25'46	18°09'41	minimum elong	3007 Jan 08 11:03	16°♎52'46	1°38'16
	2006 Mar 03 21:58	0°♎			3007 Jan 16 15:31	0°♎	
retrograde	2006 Mar 07 00:41	0°♎49'25		evening rise	3007 Jan 23 11:08	11°♎09'32	
evening set	2006 Mar 09 19:43	0°♎09'55			3007 Feb 04 00:25	0°♎	
	2006 Mar 10 03:49	30°♎♎		asc. node	3007 Feb 11 06:55	9°♎57'47	
inferior conj	2006 Mar 16 02:14	24°♎55'58	3°37'14	evening max el	3007 Feb 12 02:04	10°♎48'26	18°28'39
minimum elong	2006 Mar 16 03:08	24°♎53'34	3°37'11	retrograde	3007 Feb 18 14:40	14°♎22'54	
min. Earth dist.	2006 Mar 18 21:06	22°♎00'04	0.62624 AU	evening set	3007 Feb 21 15:13	13°♎32'09	
morning rise	2006 Mar 22 08:19	18°♎53'46		inferior conj	3007 Feb 27 12:39	7°♎59'10	3°38'33
direct	2006 Mar 29 06:08	16°♎18'28		minimum elong	3007 Feb 27 11:53	8°♎01'25	3°38'30
desc. node	2006 Apr 03 01:24	17°♎24'24		min. Earth dist.	3007 Mar 01 16:14	5°♎28'10	0.64461 AU
morning max el	2006 Apr 12 06:16	24°♎15'24	27°49'47	morning rise	3007 Mar 05 07:06	1°♎49'12	
	2006 Apr 17 10:53	0°♎			3007 Mar 08 00:29	30°♎♎	
	2006 May 07 09:29	0°♎		direct	3007 Mar 12 02:06	29°♎00'35	
morning set	2006 May 16 04:18	16°♎41'53			3007 Mar 16 11:00	0°♎	
max. Earth dist.	2006 May 21 17:17	28°♎15'23	1.32614 AU	desc. node	3007 Mar 20 22:26	2°♎42'18	
	2006 May 22 12:46	0°♎		morning max el	3007 Mar 25 15:35	6°♎53'22	27°23'42
asc. node	2006 May 23 09:11	1°♎50'14			3007 Apr 12 09:48	0°♎	
				morning set	3007 Apr 29 21:01	0°♎29'58	
superior conj	2006 May 23 19:01	2°♎43'28	0°04'20		3007 Apr 29 14:53	0°♎	

max. Earth dist.	3007 May 04 17:09	10°♄14'45	1.33490 AU	max. Earth dist.	3008 Apr 16 05:46	21°♃39'47	1.34827 AU
					3008 Apr 20 09:17	0°♄	
superior conj	3007 May 07 23:56	17°♄07'32	0°-23'-31	superior conj	3008 Apr 20 22:24	1°♄07'16	0°-52'-6
minimum elong	3007 May 08 01:07	17°♄13'52	0°23'16	minimum elong	3008 Apr 21 01:06	1°♄21'12	0°51'35
asc. node	3007 May 10 06:14	21°♄56'57		asc. node	3008 Apr 26 03:17	11°♄56'48	
	3007 May 14 00:38	0°♂		evening rise	3008 Apr 28 14:59	17°♄07'26	
evening rise	3007 May 15 06:13	2°♂36'21			3008 May 05 03:27	0°♂	
	3007 May 30 13:41	0°♂		evening max el	3008 May 17 12:37	17°♂48'41	20°49'26
evening max el	3007 Jun 05 12:38	6°♂59'05	22°16'45	retrograde	3008 May 28 23:54	23°♂24'29	
desc. node	3007 Jun 16 21:40	13°♂17'58		evening set	3008 May 31 03:02	23°♂13'38	
retrograde	3007 Jun 18 10:47	13°♂23'28		desc. node	3008 Jun 02 18:43	22°♂32'07	
evening set	3007 Jun 21 09:55	13°♂04'01		inferior conj	3008 Jun 09 10:01	19°♂16'12	-1°-55'-59
min. Earth dist.	3007 Jun 29 18:51	9°♂27'06	0.55110 AU	minimum elong	3008 Jun 09 04:36	19°♂23'56	1°54'04
inferior conj	3007 Jun 30 16:32	8°♂56'31	-3°-43'00	min. Earth dist.	3008 Jun 10 07:00	18°♂46'18	0.54904 AU
minimum elong	3007 Jun 30 08:19	9°♂08'08	3°40'50	morning rise	3008 Jun 18 05:19	15°♂12'08	
morning rise	3007 Jul 09 08:50	5°♂05'45		direct	3008 Jun 21 19:46	14°♂44'10	
direct	3007 Jul 12 10:32	4°♂44'34		morning max el	3008 Jul 04 22:05	21°♂01'24	22°56'19
morning max el	3007 Jul 24 02:04	10°♂10'05	21°18'23		3008 Jul 12 13:51	0°♂	
asc. node	3007 Aug 06 05:27	28°♂29'39		asc. node	3008 Jul 23 02:32	17°♂48'45	
	3007 Aug 07 01:08	0°♂		morning set	3008 Jul 27 13:45	26°♂54'03	
morning set	3007 Aug 13 02:49	12°♂01'13			3008 Jul 29 00:56	0°♂	
superior conj	3007 Aug 20 12:16	27°♂29'08	1°43'25	superior conj	3008 Aug 03 16:53	12°♂08'29	1°35'46
minimum elong	3007 Aug 20 11:21	27°♂24'27	1°43'24	minimum elong	3008 Aug 03 15:00	11°♂58'28	1°35'37
	3007 Aug 21 17:30	0°♂		max. Earth dist.	3008 Aug 06 12:30	18°♂05'56	1.33867 AU
max. Earth dist.	3007 Aug 24 17:06	6°♂02'40	1.35272 AU	evening rise	3008 Aug 11 11:27	28°♂11'10	
evening rise	3007 Aug 29 00:13	14°♂24'17			3008 Aug 12 09:39	0°♂	
	3007 Sep 06 17:29	0°♂		desc. node	3008 Aug 29 18:01	29°♂44'21	
desc. node	3007 Sep 12 20:59	9°♂55'09			3008 Aug 29 22:15	0°♂	
	3007 Sep 27 12:25	0°♂		evening max el	3008 Sep 14 20:55	19°♂45'26	27°15'35
evening max el	3007 Oct 03 08:46	6°♂18'05	26°37'19	retrograde	3008 Sep 28 07:16	27°♂04'03	
retrograde	3007 Oct 16 07:32	13°♂32'20		evening set	3008 Oct 05 06:32	24°♂22'22	
evening set	3007 Oct 22 20:18	10°♂53'24		min. Earth dist.	3008 Oct 09 02:10	20°♂46'39	0.64746 AU
min. Earth dist.	3007 Oct 26 22:27	6°♂41'50	0.66063 AU	inferior conj	3008 Oct 11 07:49	18°♂20'01	-2°-32'-11
inferior conj	3007 Oct 28 15:50	4°♂38'26	-1°-32'-14	minimum elong	3008 Oct 11 11:59	18°♂08'37	2°30'39
minimum elong	3007 Oct 28 18:20	4°♂30'57	1°31'13	morning rise	3008 Oct 17 19:25	12°♂48'42	
asc. node	3007 Nov 02 04:39	29°♂54'23		asc. node	3008 Oct 19 01:44	12°♂23'07	
	3007 Nov 02 01:50	30°♂		direct	3008 Oct 20 09:07	12°♂14'05	
morning rise	3007 Nov 03 17:45	28°♂52'57		morning max el	3008 Oct 26 21:03	15°♂41'41	18°00'58
direct	3007 Nov 06 14:28	28°♂07'03			3008 Nov 06 02:38	0°♂	
	3007 Nov 11 06:32	0°♂		morning set	3008 Nov 13 11:21	12°♂15'00	
morning max el	3007 Nov 13 05:29	1°♂44'15	18°28'41		3008 Nov 24 05:31	0°♂	
	3007 Dec 02 12:46	0°♂		desc. node	3008 Nov 25 17:18	2°♂24'23	
morning set	3007 Dec 03 03:26	0°♂58'48		superior conj	3008 Nov 27 07:18	4°♂56'52	0°-10'-45
desc. node	3007 Dec 09 20:16	11°♂40'23		minimum elong	3008 Nov 27 05:59	4°♂51'36	0°10'35
superior conj	3007 Dec 18 21:55	25°♂58'33	0°-58'-47	behind sun begin	3008 Nov 26 21:55	4°♂19'18	
minimum elong	3007 Dec 18 14:37	25°♂29'55	0°57'54	behind sun end	3008 Nov 27 14:03	5°♂23'51	
max. Earth dist.	3007 Dec 19 17:32	27°♂15'31	1.45207 AU	max. Earth dist.	3008 Dec 01 12:19	11°♂38'17	1.44859 AU
	3007 Dec 21 11:28	0°♂			3008 Dec 13 07:02	0°♂	
evening rise	3008 Jan 03 23:38	21°♂14'58		evening rise	3008 Dec 13 16:20	0°♂35'52	
	3008 Jan 09 12:24	0°♂		greatest brilliancy	3009 Jan 01 17:31	29°♂08'55	-0.6m
greatest brilliancy	3008 Jan 15 17:32	9°♂42'43	-0.8m		3009 Jan 02 08:23	0°♂	
evening max el	3008 Jan 26 11:44	24°♂16'26	19°05'18	evening max el	3009 Jan 08 17:04	7°♂47'23	19°57'57
asc. node	3008 Jan 29 03:57	26°♂37'07		asc. node	3009 Jan 15 01:00	12°♂04'50	
retrograde	3008 Feb 02 10:00	28°♂12'34		retrograde	3009 Jan 16 07:43	12°♂13'49	
evening set	3008 Feb 05 16:59	27°♂09'35		evening set	3009 Jan 19 22:37	10°♂57'17	
inferior conj	3008 Feb 11 08:18	21°♂19'51	3°24'30	inferior conj	3009 Jan 25 10:12	4°♂53'27	2°58'48
minimum elong	3008 Feb 11 06:23	21°♂25'56	3°24'12	minimum elong	3009 Jan 25 07:44	5°♂01'44	2°58'12
min. Earth dist.	3008 Feb 12 20:32	19°♂24'56	0.65927 AU	min. Earth dist.	3009 Jan 26 08:20	3°♂39'24	0.66985 AU
morning rise	3008 Feb 16 18:50	15°♂05'51			3009 Jan 29 07:23	30°♂	
direct	3008 Feb 23 04:51	12°♂17'32		morning rise	3009 Jan 30 16:12	28°♂37'58	
desc. node	3008 Mar 06 19:30	19°♂39'05		direct	3009 Feb 05 13:24	26°♂01'14	
morning max el	3008 Mar 07 01:32	19°♂54'15	26°27'41		3009 Feb 14 01:36	0°♂	
	3008 Mar 15 17:11	0°♂		morning max el	3009 Feb 17 10:22	3°♂06'38	25°10'53
	3008 Apr 04 11:52	0°♂		desc. node	3009 Feb 21 16:32	7°♂46'53	
morning set	3008 Apr 12 01:53	13°♂38'46					

	3009 Mar 09 22:26	0° H		min. Earth dist.	3010 Jan 10 01:21	18° Z 02'54	0.67639 AU
morning set	3009 Mar 25 14:10	25° H 55'07		morning rise	3010 Jan 14 20:16	12° Z 20'30	
	3009 Mar 27 20:06	0° Y		direct	3010 Jan 20 02:45	10° Z 02'57	
max. Earth dist.	3009 Mar 29 07:01	2° Y 41'36	1.36608 AU	morning max el	3010 Jan 30 18:50	16° Z 24'18	23°43'37
				desc. node	3010 Feb 08 13:33	26° Z 44'41	
superior conj	3009 Apr 04 11:36	14° Y 35'34	-1°-19'-40		3010 Feb 11 00:15	0° \approx	
minimum elong	3009 Apr 04 15:37	14° Y 55'24	1°19'05		3010 Mar 02 22:49	0° H	
	3009 Apr 12 03:20	0° B		morning set	3010 Mar 07 03:48	7° H 02'26	
evening rise	3009 Apr 12 19:04	1° B 19'24		max. Earth dist.	3010 Mar 11 02:18	13° H 52'22	1.38699 AU
asc. node	3009 Apr 13 00:19	1° B 45'52					
evening max el	3009 Apr 30 00:40	29° B 17'31	19°38'57	superior conj	3010 Mar 18 11:51	27° H 22'44	-1°-43'-47
	3009 Apr 30 18:52	0° II		minimum elong	3010 Mar 18 16:21	27° H 43'58	1°43'20
retrograde	3009 May 09 17:56	4° II 00'03			3010 Mar 19 21:04	0° Y	
evening set	3009 May 11 17:45	3° II 49'03		evening rise	3010 Mar 27 15:48	15° Y 05'01	
inferior conj	3009 May 20 11:18	29° B 45'56	0°03'15	asc. node	3010 Mar 30 21:22	21° Y 19'20	
minimum elong	3009 May 20 11:27	29° B 45'43	0°03'11		3010 Apr 04 15:58	0° B	
transit middle	3009 May 20 11:27	29° B 45'43	0°03'11	evening max el	3010 Apr 12 23:36	11° B 26'07	18°48'17
transit begin	3009 May 20 07:36	29° B 51'45		retrograde	3010 Apr 21 04:23	15° B 26'14	
transit end	3009 May 20 15:18	29° B 39'39		evening set	3010 Apr 23 08:46	15° B 10'19	
	3009 May 20 02:20	30° R B		inferior conj	3010 May 01 07:08	10° B 50'01	1°43'14
desc. node	3009 May 20 15:45	29° B 38'56		minimum elong	3010 May 01 10:35	10° B 43'40	1°42'09
min. Earth dist.	3009 May 22 20:55	28° B 15'41	0.55669 AU	min. Earth dist.	3010 May 04 13:21	8° B 28'13	0.57229 AU
morning rise	3009 May 29 01:37	25° B 12'01		desc. node	3010 May 07 12:45	6° B 35'19	
direct	3009 Jun 02 12:58	24° B 27'19		morning rise	3010 May 09 08:02	5° B 41'32	
	3009 Jun 14 21:39	0° II		direct	3010 May 14 19:42	4° B 28'29	
morning max el	3009 Jun 16 12:32	1° II 27'58	24°38'51	morning max el	3010 May 29 03:46	11° B 58'00	26°10'52
	3009 Jul 06 05:06	0° S			3010 Jun 12 03:49	0° II	
asc. node	3009 Jul 09 23:35	7° S 28'42		morning set	3010 Jun 26 12:42	26° II 41'43	
morning set	3009 Jul 12 01:34	11° S 49'07		asc. node	3010 Jun 26 20:38	27° II 23'33	
					3010 Jun 28 01:58	0° S	
superior conj	3009 Jul 19 01:50	26° S 59'42	1°22'46				
minimum elong	3009 Jul 18 23:30	26° S 47'00	1°22'28	superior conj	3010 Jul 03 13:07	11° S 56'18	1°05'17
	3009 Jul 20 11:03	0° Q		minimum elong	3010 Jul 03 10:49	11° S 43'41	1°04'53
max. Earth dist.	3009 Jul 20 16:29	0° Q 29'24	1.32875 AU	max. Earth dist.	3010 Jul 04 02:26	13° S 09'33	1.32291 AU
evening rise	3009 Jul 26 08:48	12° Q 27'15		evening rise	3010 Jul 10 13:12	27° S 03'18	
	3009 Aug 04 14:07	0° M			3010 Jul 11 23:24	0° Q	
desc. node	3009 Aug 16 15:03	18° M 59'39			3010 Jul 29 00:40	0° M	
	3009 Aug 25 12:22	0° A		desc. node	3010 Aug 03 12:04	7° M 27'07	
evening max el	3009 Aug 28 07:21	2° A 49'15	27°26'01	evening max el	3010 Aug 10 13:22	15° M 16'05	27°03'55
retrograde	3009 Sep 11 00:35	10° A 05'48		retrograde	3010 Aug 24 10:29	22° M 28'49	
evening set	3009 Sep 18 05:08	7° A 32'01		evening set	3010 Aug 31 12:01	20° M 15'29	
min. Earth dist.	3009 Sep 21 20:16	4° A 28'15	0.63096 AU	min. Earth dist.	3010 Sep 04 03:39	17° M 34'08	0.61171 AU
inferior conj	3009 Sep 24 14:02	1° A 46'44	-3°-30'-5	inferior conj	3010 Sep 07 07:17	14° M 50'31	-4°-20'-48
minimum elong	3009 Sep 24 19:27	1° A 33'25	3°28'26	minimum elong	3010 Sep 07 12:45	14° M 38'37	4°19'38
	3009 Sep 26 10:35	30° R M		morning rise	3010 Sep 14 16:32	9° M 57'37	
morning rise	3009 Oct 01 12:19	26° M 32'52		direct	3010 Sep 17 00:46	9° M 35'19	
direct	3009 Oct 03 21:46	26° M 05'54		asc. node	3010 Sep 22 19:49	11° M 57'18	
asc. node	3009 Oct 05 22:48	26° M 26'00		morning max el	3010 Sep 24 03:29	13° M 07'55	17°59'24
morning max el	3009 Oct 10 13:24	29° M 31'58	17°50'50		3010 Oct 05 12:52	0° A	
	3009 Oct 11 00:25	0° A		morning set	3010 Oct 09 21:57	7° A 59'35	
morning set	3009 Oct 26 19:38	24° A 41'27					
	3009 Oct 29 20:18	0° M		superior conj	3010 Oct 20 03:17	26° A 30'42	1°07'34
				minimum elong	3010 Oct 20 07:38	26° A 49'49	1°07'02
superior conj	3009 Nov 07 15:49	15° M 04'09	0°33'33		3010 Oct 22 03:18	0° M	
minimum elong	3009 Nov 07 19:03	15° M 17'36	0°33'06	max. Earth dist.	3010 Oct 27 17:20	9° M 27'36	1.42224 AU
desc. node	3009 Nov 12 14:19	23° M 11'25		desc. node	3010 Oct 30 11:21	13° M 58'32	
max. Earth dist.	3009 Nov 14 05:00	25° M 47'37	1.43824 AU	evening rise	3010 Nov 02 19:00	19° M 18'31	
	3009 Nov 16 20:11	0° J			3010 Nov 09 16:09	0° J	
evening rise	3009 Nov 23 01:13	9° J 43'09		greatest brilliancy	3010 Nov 30 17:49	29° J 32'50	-0.3m
	3009 Dec 06 12:35	0° Z			3010 Dec 01 02:48	0° Z	
greatest brilliancy	3009 Dec 17 10:07	15° Z 09'23	-0.5m	evening max el	3010 Dec 05 11:29	4° Z 52'18	22°19'30
evening max el	3009 Dec 22 16:59	21° Z 19'11	21°04'00	retrograde	3010 Dec 15 01:39	10° Z 34'30	
retrograde	3009 Dec 31 05:30	26° Z 22'06		evening set	3010 Dec 19 13:46	8° Z 46'31	
asc. node	3010 Jan 01 22:03	26° Z 06'21		asc. node	3010 Dec 19 19:05	8° Z 35'30	
evening set	3010 Jan 04 06:07	24° Z 50'28		inferior conj	3010 Dec 24 23:21	2° Z 23'49	1°41'32
inferior conj	3010 Jan 09 15:53	18° Z 35'30	2°23'54	minimum elong	3010 Dec 24 21:16	2° Z 31'00	1°40'46
minimum elong	3010 Jan 09 13:23	18° Z 44'09	2°23'07	min. Earth dist.	3010 Dec 24 21:20	2° Z 30'46	0.67913 AU

	3010 Dec 26 17:36	30° RJ		inferior conj	3011 Dec 09 06:46	16° J 16'29	0°53'00
morning rise	3010 Dec 30 04:38	26° J 11'08		minimum elong	3011 Dec 09 05:33	16° J 20'38	0°52'30
direct	3011 Jan 03 20:03	24° J 16'15		morning rise	3011 Dec 14 15:16	10° J 08'02	
	3011 Jan 13 10:29	0° C		direct	3011 Dec 18 16:25	8° J 35'58	
morning max el	3011 Jan 13 06:03	29° J 48'48	22°15'37	morning max el	3011 Dec 26 23:28	13° J 23'45	20°54'42
greatest brilliancy	3011 Jan 17 19:58	4° C 56'10	-0.3m	greatest brilliancy	3012 Jan 01 13:54	19° J 53'05	-0.5m
desc. node	3011 Jan 26 10:34	16° C 18'27			3012 Jan 08 23:34	0° C	
	3011 Feb 04 19:40	0° \approx		desc. node	3012 Jan 13 07:36	6° C 18'22	
morning set	3011 Feb 15 13:16	16° \approx 47'25		morning set	3012 Jan 25 19:51	25° C 19'19	
max. Earth dist.	3011 Feb 20 23:31	25° \approx 45'36	1.40858 AU		3012 Jan 28 19:15	0° \approx	
	3011 Feb 23 11:20	0° K		max. Earth dist.	3012 Feb 03 03:21	8° \approx 33'44	1.42792 AU
superior conj	3011 Feb 28 18:22	9° K 16'24	-2°00'-53	superior conj	3012 Feb 10 02:04	20° \approx 05'15	-2°-6'-13
minimum elong	3011 Feb 28 21:36	9° K 30'49	2°00'45	minimum elong	3012 Feb 10 01:18	20° \approx 01'59	2°06'12
evening rise	3011 Mar 11 01:53	28° K 15'38			3012 Feb 15 20:14	0° K	
	3011 Mar 12 00:12	0° Y		evening rise	3012 Feb 21 21:21	10° K 42'40	
asc. node	3011 Mar 17 18:24	10° Y 30'47		asc. node	3012 Mar 03 15:25	29° K 13'15	
evening max el	3011 Mar 27 06:18	24° Y 06'08	18°17'48		3012 Mar 04 03:37	0° Y	
retrograde	3011 Apr 03 10:04	27° Y 40'10		evening max el	3012 Mar 09 17:31	7° Y 09'11	18°07'06
evening set	3011 Apr 05 20:18	27° Y 16'27		retrograde	3012 Mar 16 07:44	10° Y 32'45	
inferior conj	3011 Apr 13 00:23	22° Y 35'10	2°50'49	evening set	3012 Mar 18 23:32	9° Y 59'29	
minimum elong	3011 Apr 13 03:58	22° Y 27'30	2°50'02	inferior conj	3012 Mar 25 12:51	4° Y 57'19	3°27'33
min. Earth dist.	3011 Apr 16 10:36	19° Y 40'45	0.59265 AU	minimum elong	3012 Mar 25 14:51	4° Y 52'23	3°27'19
morning rise	3011 Apr 20 07:45	16° Y 58'05		min. Earth dist.	3012 Mar 28 15:21	1° Y 54'54	0.61430 AU
desc. node	3011 Apr 24 09:46	15° Y 23'13			3012 Mar 30 19:54	30° RK	
direct	3011 Apr 26 15:33	15° Y 09'37		morning rise	3012 Apr 01 03:17	29° K 01'37	
morning max el	3011 May 11 00:22	22° Y 56'40	27°17'23	direct	3012 Apr 07 22:41	26° K 40'17	
	3011 May 17 07:10	0° B		desc. node	3012 Apr 10 06:47	26° K 55'50	
	3011 Jun 05 04:28	0° II			3012 Apr 16 17:55	0° Y	
morning set	3011 Jun 10 21:25	11° II 25'10		morning max el	3012 Apr 22 03:22	4° Y 36'40	27°48'43
asc. node	3011 Jun 13 17:39	17° II 27'18			3012 May 11 01:18	0° B	
max. Earth dist.	3011 Jun 17 14:29	25° II 54'06	1.32100 AU	morning set	3012 May 25 01:50	25° B 53'30	
					3012 May 27 01:22	0° II	
superior conj	3011 Jun 18 00:51	26° II 51'14	0°43'59	asc. node	3012 May 30 14:42	7° II 35'41	
minimum elong	3011 Jun 17 23:04	26° II 41'20	0°43'37	max. Earth dist.	3012 May 31 00:48	8° II 30'30	1.32306 AU
	3011 Jun 19 11:07	0° S					
evening rise	3011 Jun 24 22:03	11° S 50'04		superior conj	3012 Jun 01 11:24	11° II 39'08	0°19'32
	3011 Jul 04 04:05	0° Q		minimum elong	3012 Jun 01 10:31	11° II 34'17	0°19'20
desc. node	3011 Jul 21 09:05	24° Q 46'04		evening rise	3012 Jun 08 09:20	26° II 40'59	
evening max el	3011 Jul 23 12:20	26° Q 55'03	26°08'54		3012 Jun 09 23:10	0° S	
	3011 Jul 27 03:11	0° P			3012 Jun 27 08:29	0° Q	
retrograde	3011 Aug 06 11:51	4° P 04'52		evening max el	3012 Jul 04 04:20	7° Q 48'58	24°47'13
evening set	3011 Aug 12 22:19	2° P 24'02		desc. node	3012 Jul 07 06:06	10° Q 29'20	
	3011 Aug 16 18:55	30° RQ		retrograde	3012 Jul 18 02:57	14° Q 52'36	
min. Earth dist.	3011 Aug 17 01:00	29° Q 49'04	0.59103 AU	evening set	3012 Jul 23 08:40	13° Q 50'24	
inferior conj	3011 Aug 20 07:54	27° Q 20'44	-4°-55'-59	min. Earth dist.	3012 Jul 28 15:39	11° Q 02'38	0.57148 AU
minimum elong	3011 Aug 20 11:11	27° Q 14'31	4°55'42	inferior conj	3012 Jul 31 12:58	9° Q 09'10	-5°-2'-52
morning rise	3011 Aug 28 03:32	22° Q 51'18		minimum elong	3012 Jul 31 11:20	9° Q 11'53	5°02'49
direct	3011 Aug 30 13:32	22° Q 31'26		morning rise	3012 Aug 08 17:41	5° Q 01'52	
morning max el	3011 Sep 07 12:03	26° Q 20'19	18°27'56	direct	3012 Aug 11 08:00	4° Q 42'51	
asc. node	3011 Sep 09 16:50	28° Q 42'20		morning max el	3012 Aug 20 12:00	9° Q 00'01	19°17'35
	3011 Sep 10 17:47	0° P		asc. node	3012 Aug 26 13:53	16° Q 26'22	
morning set	3011 Sep 23 13:00	21° P 53'45			3012 Sep 03 08:50	0° P	
	3011 Sep 27 18:09	0° U		morning set	3012 Sep 06 12:54	6° P 13'34	
superior conj	3011 Oct 02 13:41	9° U 04'39	1°29'59	superior conj	3012 Sep 14 17:28	22° P 30'01	1°41'53
minimum elong	3011 Oct 02 17:00	9° U 20'02	1°29'41	minimum elong	3012 Sep 14 19:01	22° P 37'37	1°41'49
max. Earth dist.	3011 Oct 10 00:09	22° U 24'25	1.40253 AU		3012 Sep 18 15:34	0° U	
evening rise	3011 Oct 14 09:25	29° U 50'54		max. Earth dist.	3012 Sep 21 03:55	4° U 39'19	1.38179 AU
	3011 Oct 14 11:36	0° M		evening rise	3012 Sep 24 23:35	11° U 29'16	
desc. node	3011 Oct 17 08:23	4° M 41'59		desc. node	3012 Oct 03 05:25	25° U 17'37	
	3011 Nov 03 03:27	0° J			3012 Oct 06 05:06	0° M	
evening max el	3011 Nov 18 01:49	18° J 28'08	23°39'23		3012 Oct 28 12:31	0° J	
retrograde	3011 Nov 28 18:52	24° J 47'40		evening max el	3012 Oct 30 14:10	2° J 07'37	24°57'11
evening set	3011 Dec 03 20:01	22° J 42'58		retrograde	3012 Nov 11 08:06	8° J 56'52	
asc. node	3011 Dec 06 16:05	19° J 44'00		evening set	3012 Nov 16 23:12	6° J 36'23	
min. Earth dist.	3011 Dec 08 18:00	17° J 00'06	0.67829 AU	min. Earth dist.	3012 Nov 21 12:59	1° J 27'42	0.67408 AU

inferior conj	3012 Nov 22 12:23	0°♂10'38	0°00'-36		3013 Sep 29 20:09	0°♂	
minimum elong	3012 Nov 22 12:24	0°♂10'34	0°00'37	evening max el	3013 Oct 13 02:30	15°♂49'19	26°05'27
transit middle	3012 Nov 22 12:24	0°♂10'34	0°00'37	retrograde	3013 Oct 25 16:25	22°♂57'08	
transit begin	3012 Nov 22 09:39	0°♂19'41		evening set	3013 Oct 31 21:33	20°♂23'47	
transit end	3012 Nov 22 15:10	0°♂01'29		min. Earth dist.	3013 Nov 05 03:54	15°♂50'52	0.66652 AU
asc. node	3012 Nov 22 13:06	0°♂08'17		inferior conj	3013 Nov 06 14:25	14°♂03'33	0°-58'00
	3012 Nov 22 15:37	30°♂		minimum elong	3013 Nov 06 15:57	13°♂58'44	0°57'22
morning rise	3012 Nov 28 02:10	24°♂08'44		asc. node	3013 Nov 09 10:08	10°♂44'27	
direct	3012 Dec 01 14:41	22°♂57'16		morning rise	3013 Nov 12 11:23	8°♂10'58	
morning max el	3012 Dec 09 00:39	27°♂09'27	19°45'57	direct	3013 Nov 15 13:16	7°♂16'44	
	3012 Dec 11 14:40	0°♂		morning max el	3013 Nov 22 09:05	11°♂03'43	18°52'12
greatest brilliancy	3012 Dec 16 18:31	6°♂42'55	-0.6m		3013 Dec 06 03:00	0°♂	
desc. node	3012 Dec 30 04:38	26°♂36'47		morning set	3013 Dec 14 02:45	12°♂30'04	
	3013 Jan 01 09:38	0°♂		desc. node	3013 Dec 17 01:42	17°♂08'38	
morning set	3013 Jan 03 15:52	3°♂28'57			3013 Dec 25 06:26	0°♂	
max. Earth dist.	3013 Jan 15 14:21	22°♂09'34	1.44256 AU	max. Earth dist.	3013 Dec 29 07:04	6°♂19'13	1.45075 AU
superior conj	3013 Jan 20 07:41	29°♂43'33	-1°-54'-36	superior conj	3013 Dec 30 15:33	8°♂26'56	-1°-23'-42
minimum elong	3013 Jan 20 01:10	29°♂17'14	1°54'12	minimum elong	3013 Dec 30 06:32	7°♂51'28	1°22'46
	3013 Jan 20 11:45	0°♂			3014 Jan 13 04:30	0°♂	
evening rise	3013 Feb 02 21:49	22°♂17'09		evening rise	3014 Jan 14 23:43	2°♂54'33	
	3013 Feb 07 10:47	0°♂			3014 Feb 01 10:21	0°♂	
asc. node	3013 Feb 18 12:27	17°♂17'13		evening max el	3014 Feb 04 17:44	3°♂52'49	18°42'11
evening max el	3013 Feb 21 06:13	20°♂26'47	18°15'31	asc. node	3014 Feb 05 09:28	4°♂31'29	
retrograde	3013 Feb 27 16:52	23°♂53'35		retrograde	3014 Feb 11 09:24	7°♂34'52	
evening set	3013 Mar 02 14:07	23°♂09'33		evening set	3014 Feb 14 12:37	6°♂39'00	
inferior conj	3013 Mar 08 16:24	17°♂47'33	3°39'55	inferior conj	3014 Feb 20 07:09	0°♂58'48	3°34'09
minimum elong	3013 Mar 08 16:33	17°♂47'10	3°39'55	minimum elong	3014 Feb 20 05:49	1°♂02'50	3°34'02
min. Earth dist.	3013 Mar 11 05:04	15°♂00'03	0.63449 AU		3014 Feb 21 02:25	30°♂	
morning rise	3013 Mar 14 17:04	11°♂41'23		min. Earth dist.	3014 Feb 22 04:10	28°♂42'11	0.65144 AU
direct	3013 Mar 21 14:43	8°♂58'18		morning rise	3014 Feb 25 21:50	24°♂47'00	
desc. node	3013 Mar 28 03:49	11°♂00'52		direct	3014 Mar 04 13:48	21°♂56'45	
morning max el	3013 Apr 04 10:58	16°♂55'22	27°42'39	desc. node	3014 Mar 15 00:52	27°♂04'39	
	3013 Apr 15 07:26	0°♂		morning max el	3014 Mar 17 20:35	29°♂43'48	27°02'55
	3013 May 03 19:27	0°♂			3014 Mar 18 02:59	0°♂	
morning set	3013 May 08 23:39	9°♂58'48			3014 Apr 09 05:30	0°♂	
max. Earth dist.	3013 May 14 05:19	20°♂45'10	1.32929 AU	morning set	3014 Apr 22 11:50	23°♂31'34	
					3014 Apr 25 18:54	0°♂	
superior conj	3013 May 16 18:58	26°♂13'53	0°-7'-20	max. Earth dist.	3014 Apr 27 00:33	2°♂29'17	1.34005 AU
minimum elong	3013 May 16 19:20	26°♂15'50	0°07'16				
behind sun begin	3013 May 16 14:35	25°♂50'18		superior conj	3014 Apr 30 21:30	10°♂28'52	0°-35'-38
behind sun end	3013 May 17 00:05	26°♂41'23		minimum elong	3014 Apr 30 23:20	10°♂38'29	0°35'16
asc. node	3013 May 17 11:45	27°♂44'15		asc. node	3014 May 04 08:49	17°♂48'42	
	3013 May 18 12:54	0°♂		evening rise	3014 May 08 07:38	26°♂09'13	
evening rise	3013 May 23 21:09	11°♂29'30			3014 May 10 04:15	0°♂	
	3013 Jun 02 08:42	0°♂		evening max el	3014 May 28 12:11	28°♂52'16	21°37'54
evening max el	3013 Jun 15 17:49	18°♂17'57	23°11'50		3014 May 29 17:22	0°♂	
desc. node	3013 Jun 24 03:05	24°♂02'42		retrograde	3014 Jun 09 20:45	4°♂56'56	
retrograde	3013 Jun 29 05:30	25°♂01'55		desc. node	3014 Jun 11 00:07	4°♂53'57	
evening set	3013 Jul 02 22:59	24°♂31'31		evening set	3014 Jun 12 09:18	4°♂42'33	
min. Earth dist.	3013 Jul 10 03:23	21°♂16'08	0.55642 AU	inferior conj	3014 Jun 21 18:10	0°♂41'38	-3°-1'-22
inferior conj	3013 Jul 11 22:26	20°♂13'08	-4°-26'-38	minimum elong	3014 Jun 21 10:25	0°♂52'28	2°58'58
minimum elong	3013 Jul 11 15:27	20°♂23'25	4°25'19	min. Earth dist.	3014 Jun 21 14:36	0°♂46'37	0.54906 AU
morning rise	3013 Jul 20 10:53	16°♂20'09			3014 Jun 23 00:06	30°♂	
direct	3013 Jul 23 07:42	16°♂00'22		morning rise	3014 Jun 30 12:27	26°♂47'45	
morning max el	3013 Aug 03 00:51	20°♂58'31	20°28'37	direct	3014 Jul 03 18:58	26°♂24'21	
	3013 Aug 10 09:32	0°♂			3014 Jul 13 10:56	0°♂	
asc. node	3013 Aug 13 10:57	4°♂56'14		morning max el	3014 Jul 16 02:09	2°♂11'58	21°58'39
morning set	3013 Aug 21 18:51	20°♂51'44		asc. node	3014 Jul 31 08:02	24°♂00'10	
	3013 Aug 26 05:07	0°♂			3014 Aug 03 09:58	0°♂	
				morning set	3014 Aug 06 04:31	5°♂41'02	
superior conj	3013 Aug 29 09:48	6°♂33'10	1°44'59				
minimum elong	3013 Aug 29 09:41	6°♂32'34	1°44'59	superior conj	3014 Aug 13 10:47	21°♂01'53	1°40'54
max. Earth dist.	3013 Sep 03 10:36	16°♂32'49	1.36249 AU	minimum elong	3014 Aug 13 09:25	20°♂54'38	1°40'49
evening rise	3013 Sep 07 10:52	24°♂07'35		max. Earth dist.	3014 Aug 17 01:03	28°♂28'55	1.34629 AU
	3013 Sep 10 16:53	0°♂			3014 Aug 17 19:00	0°♂	
desc. node	3013 Sep 20 02:27	15°♂40'48		evening rise	3014 Aug 21 14:36	7°♂32'48	

	2014 Sep 03 07:24	0°♄				2015 Aug 09 14:50	0°♍	
desc. node	2014 Sep 06 23:28	5°♄44'37			desc. node	2015 Aug 24 20:28	25°♍20'47	
evening max el	2014 Sep 25 15:04	29°♄25'08	26°56'39			2015 Aug 28 04:18	0°♄	
	2014 Sep 26 05:49	0°♍			evening max el	2015 Sep 08 02:40	12°♄43'36	27°23'37
retrograde	2014 Oct 08 19:11	6°♍41'19			retrograde	2015 Sep 21 16:00	20°♄01'23	
evening set	2014 Oct 15 12:54	4°♍00'22			evening set	2015 Sep 28 18:34	17°♄21'24	
min. Earth dist.	2014 Oct 19 12:16	0°♍04'10	0.65549 AU		min. Earth dist.	2015 Oct 02 11:54	14°♄00'19	0.64092 AU
	2014 Oct 19 13:45	30°♌♄			inferior conj	2015 Oct 04 22:52	11°♄26'06	-2°-57'-14
inferior conj	2014 Oct 21 10:43	27°♄50'26	-1°-57'-41		minimum elong	2015 Oct 05 03:39	11°♄13'35	2°55'35
minimum elong	2014 Oct 21 13:57	27°♄41'08	1°56'24		morning rise	2015 Oct 11 14:57	6°♄01'59	
asc. node	2014 Oct 27 07:12	22°♄22'44			direct	2015 Oct 14 02:34	5°♄30'59	
morning rise	2014 Oct 27 16:34	22°♄10'24			asc. node	2015 Oct 14 04:17	5°♄31'00	
direct	2014 Oct 30 10:06	21°♄29'35			morning max el	2015 Oct 20 15:05	8°♄56'32	17°54'28
morning max el	2014 Nov 05 22:49	25°♄01'25	18°14'47			2015 Nov 03 18:13	0°♍	
	2014 Nov 10 02:32	0°♍			morning set	2015 Nov 06 13:04	4°♍45'41	
morning set	2014 Nov 24 18:05	22°♍57'41						
	2014 Nov 29 02:03	0°♌			superior conj	2015 Nov 19 11:57	26°♍25'43	0°09'04
desc. node	2014 Dec 03 22:45	7°♌49'07			minimum elong	2015 Nov 19 12:58	26°♍29'52	0°08'55
					behind sun begin	2015 Nov 19 04:31	25°♍55'28	
superior conj	2014 Dec 09 18:02	17°♌01'47	0°-38'-37		behind sun end	2015 Nov 19 21:26	27°♍04'13	
minimum elong	2014 Dec 09 13:06	16°♌42'19	0°37'58		desc. node	2015 Nov 20 19:46	28°♍34'36	
max. Earth dist.	2014 Dec 12 02:34	20°♌44'22	1.45153 AU			2015 Nov 21 16:56	0°♌	
	2014 Dec 18 00:27	0°♎			max. Earth dist.	2015 Nov 24 21:04	5°♌04'21	1.44496 AU
evening rise	2014 Dec 26 02:53	12°♎38'39			evening rise	2015 Dec 05 14:17	21°♌48'30	
	2015 Jan 06 07:27	0°♏				2015 Dec 10 22:53	0°♎	
greatest brilliancy	2015 Jan 10 11:59	6°♏16'42	-0.7m		greatest brilliancy	2015 Dec 27 01:21	23°♎29'25	-0.5m
evening max el	2015 Jan 19 01:48	17°♏22'45	19°25'53			2016 Jan 01 08:37	0°♏	
asc. node	2015 Jan 23 06:29	20°♏42'34			evening max el	2016 Jan 02 04:46	0°♏53'19	20°24'37
retrograde	2015 Jan 26 06:04	21°♏30'30			retrograde	2016 Jan 10 04:08	5°♏34'59	
evening set	2015 Jan 29 16:20	20°♏21'43			asc. node	2016 Jan 10 03:32	5°♏34'59	
inferior conj	2015 Feb 04 05:47	14°♏25'33	3°14'50		evening set	2016 Jan 13 22:58	4°♏12'03	
minimum elong	2015 Feb 04 03:33	14°♏32'47	3°14'25			2016 Jan 17 22:30	30°♏♎	
min. Earth dist.	2015 Feb 05 11:45	12°♏48'02	0.66428 AU		inferior conj	2016 Jan 19 09:32	28°♎02'49	2°45'01
morning rise	2015 Feb 09 14:01	8°♏10'54			minimum elong	2016 Jan 19 06:59	28°♎11'30	2°44'20
direct	2015 Feb 15 18:57	5°♏26'36			min. Earth dist.	2016 Jan 20 02:01	27°♎06'46	0.67303 AU
morning max el	2015 Feb 28 06:11	12°♏51'02	25°57'05		morning rise	2016 Jan 24 14:29	21°♎47'17	
desc. node	2015 Mar 01 21:56	14°♏34'52			direct	2016 Jan 30 05:25	19°♎18'20	
	2015 Mar 14 02:27	0°♐			morning max el	2016 Feb 10 14:48	26°♎06'28	24°34'37
	2015 Apr 01 22:16	0°♑				2016 Feb 14 04:48	0°♏	
morning set	2015 Apr 05 10:22	6°♑20'30			desc. node	2016 Feb 16 18:57	3°♏05'50	
max. Earth dist.	2015 Apr 09 08:29	13°♑44'22	1.35539 AU			2016 Mar 06 16:10	0°♐	
					morning set	2016 Mar 17 13:48	18°♐09'34	
superior conj	2015 Apr 14 16:29	24°♑17'06	-1°-4'00		max. Earth dist.	2016 Mar 21 06:35	24°♐46'40	1.37467 AU
minimum elong	2015 Apr 14 19:48	24°♑33'53	1°03'27			2016 Mar 24 02:27	0°♑	
	2015 Apr 17 11:41	0°♒						
asc. node	2015 Apr 21 05:52	7°♒45'06			superior conj	2016 Mar 28 00:38	7°♑28'47	-1°-30'-30
evening rise	2015 Apr 22 14:46	10°♒34'04			minimum elong	2016 Mar 28 05:01	7°♑49'59	1°29'56
	2015 May 03 00:19	0°♓			evening rise	2016 Apr 05 16:04	24°♑35'50	
evening max el	2015 May 10 17:12	9°♓58'01	20°17'03		asc. node	2016 Apr 07 02:52	27°♑28'06	
retrograde	2015 May 21 10:27	15°♓10'51				2016 Apr 08 09:55	0°♒	
evening set	2015 May 23 10:47	15°♓00'35			evening max el	2016 Apr 22 10:04	21°♒43'52	19°14'54
desc. node	2015 May 28 21:07	13°♓05'19			retrograde	2016 May 01 10:58	26°♒07'04	
inferior conj	2015 Jun 01 13:17	11°♓02'12	-1°-4'-47		evening set	2016 May 03 12:01	25°♒54'33	
minimum elong	2015 Jun 01 10:14	11°♓06'41	1°03'41		inferior conj	2016 May 11 21:38	21°♒44'48	0°49'10
min. Earth dist.	2015 Jun 03 03:07	10°♓06'36	0.55119 AU		minimum elong	2016 May 11 23:36	21°♒41'29	0°48'29
morning rise	2015 Jun 10 07:40	6°♓47'23			desc. node	2016 May 14 18:09	19°♒50'47	
direct	2015 Jun 14 06:08	6°♓13'53			min. Earth dist.	2016 May 14 18:02	19°♒50'58	0.56249 AU
morning max el	2015 Jun 27 19:06	12°♓50'18	23°40'12		morning rise	2016 May 20 07:03	16°♒55'40	
	2015 Jul 10 21:06	0°♔			direct	2016 May 25 04:27	16°♒00'26	
asc. node	2015 Jul 18 05:07	13°♔29'24			morning max el	2016 Jun 08 09:23	23°♒15'26	25°20'13
morning set	2015 Jul 21 16:04	20°♔36'00				2016 Jun 14 10:44	0°♓	
	2015 Jul 26 01:17	0°♕				2016 Jul 02 12:02	0°♔	
					asc. node	2016 Jul 04 02:10	3°♔16'14	
superior conj	2015 Jul 28 17:33	5°♕47'24	1°30'51		morning set	2016 Jul 05 03:47	5°♔30'39	
minimum elong	2015 Jul 28 15:25	5°♕35'55	1°30'38					
max. Earth dist.	2015 Jul 31 00:34	10°♕41'53	1.33399 AU		superior conj	2016 Jul 12 03:44	20°♔41'41	1°15'52
evening rise	2015 Aug 05 06:34	21°♕33'25			minimum elong	2016 Jul 12 01:22	20°♔28'42	1°15'30

max. Earth dist.	2016 Jul 13 07:21	23° $\overline{5}$ 12'37	1.32576 AU		2017 Jun 24 01:55	0° $\overline{5}$	
	2016 Jul 16 10:50	0° $\overline{9}$					
evening rise	2016 Jul 19 07:14	5° $\overline{9}$ 58'40		superior conj	2017 Jun 26 15:25	5° $\overline{5}$ 38'15	0°56'41
	2016 Aug 01 04:44	0° $\overline{7}$		minimum elong	2017 Jun 26 13:17	5° $\overline{5}$ 26'30	0°56'17
desc. node	2016 Aug 10 17:29	14° $\overline{7}$ 17'45		max. Earth dist.	2017 Jun 26 18:26	5° $\overline{5}$ 54'53	1.32159 AU
evening max el	2016 Aug 20 11:17	25° $\overline{7}$ 32'18	27°20'37	evening rise	2017 Jul 03 13:47	20° $\overline{5}$ 39'59	
	2016 Aug 26 01:02	0° $\overline{5}$			2017 Jul 08 04:02	0° $\overline{9}$	
retrograde	2016 Sep 03 06:32	2° $\overline{5}$ 48'02			2017 Jul 26 17:03	0° $\overline{7}$	
evening set	2016 Sep 10 11:04	0° $\overline{5}$ 20'59		desc. node	2017 Jul 28 14:30	2° $\overline{7}$ 18'54	
	2016 Sep 10 23:11	30° $\overline{8}$ $\overline{7}$		evening max el	2017 Aug 02 14:33	7° $\overline{7}$ 39'30	26°44'24
min. Earth dist.	2016 Sep 14 01:21	27° $\overline{7}$ 28'32	0.62304 AU	retrograde	2017 Aug 16 13:20	14° $\overline{7}$ 51'29	
inferior conj	2016 Sep 16 23:58	24° $\overline{7}$ 43'55	-3°-52'-53	evening set	2017 Aug 23 09:50	12° $\overline{7}$ 50'50	
minimum elong	2016 Sep 17 05:37	24° $\overline{7}$ 30'43	3°51'22	min. Earth dist.	2017 Aug 27 04:30	10° $\overline{7}$ 14'13	0.60290 AU
morning rise	2016 Sep 24 02:59	19° $\overline{7}$ 38'56		inferior conj	2017 Aug 30 10:35	7° $\overline{7}$ 34'40	-4°-38'-20
direct	2016 Sep 26 11:27	19° $\overline{7}$ 14'23		minimum elong	2017 Aug 30 15:28	7° $\overline{7}$ 24'38	4°37'32
asc. node	2016 Sep 30 01:20	20° $\overline{7}$ 12'55		morning rise	2017 Sep 07 00:24	2° $\overline{7}$ 51'31	
morning max el	2016 Oct 03 06:56	22° $\overline{7}$ 42'11	17°52'09	direct	2017 Sep 09 08:49	2° $\overline{7}$ 30'37	
	2016 Oct 08 23:31	0° $\overline{5}$		asc. node	2017 Sep 16 22:23	6° $\overline{7}$ 17'19	
morning set	2016 Oct 19 05:45	17° $\overline{5}$ 36'03		morning max el	2017 Sep 16 19:05	6° $\overline{7}$ 09'18	18°08'59
	2016 Oct 26 05:06	0° $\overline{7}$			2017 Oct 01 22:56	0° $\overline{5}$	
				morning set	2017 Oct 02 14:04	1° $\overline{5}$ 11'00	
superior conj	2016 Oct 30 08:10	7° $\overline{7}$ 07'47	0°49'24				
minimum elong	2016 Oct 30 12:14	7° $\overline{7}$ 25'08	0°48'51	superior conj	2017 Oct 12 06:03	19° $\overline{5}$ 04'41	1°18'26
max. Earth dist.	2016 Nov 06 11:42	19° $\overline{7}$ 01'34	1.43195 AU	minimum elong	2017 Oct 12 10:08	19° $\overline{5}$ 23'02	1°18'00
desc. node	2016 Nov 06 16:47	19° $\overline{7}$ 22'11			2017 Oct 18 11:39	0° $\overline{7}$	
	2016 Nov 13 08:54	0° $\overline{7}$		max. Earth dist.	2017 Oct 19 21:15	2° $\overline{7}$ 22'34	1.41415 AU
evening rise	2016 Nov 14 00:56	1° $\overline{7}$ 02'36		desc. node	2017 Oct 24 13:48	10° $\overline{7}$ 08'08	
	2016 Dec 03 13:20	0° $\overline{5}$		evening rise	2017 Oct 25 02:38	11° $\overline{7}$ 00'05	
greatest brilliancy	2016 Dec 10 04:47	8° $\overline{5}$ 49'19	-0.4m		2017 Nov 06 09:40	0° $\overline{7}$	
evening max el	2016 Dec 15 02:10	14° $\overline{5}$ 25'07	21°35'15	greatest brilliancy	2017 Nov 22 13:14	22° $\overline{7}$ 07'26	-0.2m
retrograde	2016 Dec 24 01:31	19° $\overline{5}$ 45'19		evening max el	2017 Nov 27 18:44	27° $\overline{7}$ 59'14	22°53'22
asc. node	2016 Dec 27 00:33	18° $\overline{5}$ 57'24			2017 Nov 29 21:53	0° $\overline{5}$	
evening set	2016 Dec 28 06:43	18° $\overline{5}$ 06'57		retrograde	2017 Dec 07 20:32	3° $\overline{5}$ 57'55	
inferior conj	2017 Jan 02 16:12	11° $\overline{5}$ 48'05	2°06'48	evening set	2017 Dec 12 13:56	2° $\overline{5}$ 03'05	
minimum elong	2017 Jan 02 13:50	11° $\overline{5}$ 56'19	2°06'00	asc. node	2017 Dec 13 21:35	0° $\overline{5}$ 49'07	
min. Earth dist.	2017 Jan 02 20:42	11° $\overline{5}$ 32'32	0.67792 AU		2017 Dec 14 15:32	30° $\overline{8}$ $\overline{7}$	
morning rise	2017 Jan 07 20:39	5° $\overline{5}$ 33'35		inferior conj	2017 Dec 17 23:52	25° $\overline{7}$ 38'23	1°21'40
direct	2017 Jan 12 20:36	3° $\overline{5}$ 25'27		minimum elong	2017 Dec 17 22:06	25° $\overline{7}$ 44'27	1°20'58
morning max el	2017 Jan 23 00:02	9° $\overline{5}$ 26'52	23°05'46	min. Earth dist.	2017 Dec 17 17:19	26° $\overline{7}$ 00'59	0.67921 AU
greatest brilliancy	2017 Jan 27 21:45	14° $\overline{5}$ 56'02	-0.3m	morning rise	2017 Dec 23 06:14	19° $\overline{7}$ 27'00	
desc. node	2017 Feb 02 15:59	22° $\overline{5}$ 20'25		direct	2017 Dec 27 15:30	17° $\overline{7}$ 41'44	
	2017 Feb 08 03:44	0° $\overline{7}$		morning max el	2018 Jan 05 13:21	22° $\overline{7}$ 54'27	21°39'52
morning set	2017 Feb 26 15:57	28° $\overline{7}$ 42'53		greatest brilliancy	2018 Jan 10 10:18	28° $\overline{7}$ 25'20	-0.4m
	2017 Feb 27 10:23	0° $\overline{7}$			2018 Jan 11 16:30	0° $\overline{5}$	
max. Earth dist.	2017 Mar 03 01:20	6° $\overline{7}$ 10'09	1.39620 AU	desc. node	2018 Jan 20 13:01	12° $\overline{5}$ 06'06	
					2018 Feb 01 12:30	0° $\overline{7}$	
superior conj	2017 Mar 10 17:55	19° $\overline{7}$ 54'13	-1°-52'-10	morning set	2018 Feb 06 12:57	7° $\overline{7}$ 52'31	
minimum elong	2017 Mar 10 22:10	20° $\overline{7}$ 13'48	1°51'50	max. Earth dist.	2018 Feb 13 00:33	18° $\overline{7}$ 24'12	1.41724 AU
	2017 Mar 16 03:00	0° $\overline{7}$			2018 Feb 19 20:37	0° $\overline{7}$	
evening rise	2017 Mar 20 08:41	8° $\overline{7}$ 07'10					
asc. node	2017 Mar 24 23:53	16° $\overline{7}$ 52'41		superior conj	2018 Feb 20 15:19	1° $\overline{7}$ 21'22	-2°-4'-55
	2017 Apr 02 00:03	0° $\overline{5}$		minimum elong	2018 Feb 20 17:12	1° $\overline{7}$ 29'35	2°04'52
evening max el	2017 Apr 05 12:43	4° $\overline{7}$ 06'49	18°32'55	evening rise	2018 Mar 03 13:00	20° $\overline{7}$ 59'30	
retrograde	2017 Apr 13 05:28	7° $\overline{7}$ 53'43			2018 Mar 08 11:45	0° $\overline{7}$	
evening set	2017 Apr 15 12:16	7° $\overline{7}$ 34'51		asc. node	2018 Mar 11 20:54	5° $\overline{7}$ 52'27	
inferior conj	2017 Apr 23 02:35	3° $\overline{7}$ 06'10	2°15'56	evening max el	2018 Mar 19 21:48	16° $\overline{7}$ 57'48	18°10'58
minimum elong	2017 Apr 23 06:25	2° $\overline{7}$ 58'40	2°14'52	retrograde	2018 Mar 26 18:16	20° $\overline{7}$ 25'09	
min. Earth dist.	2017 Apr 26 12:31	0° $\overline{7}$ 27'20	0.58057 AU	evening set	2018 Mar 29 07:04	19° $\overline{7}$ 57'27	
	2017 Apr 27 03:31	30° $\overline{8}$ $\overline{7}$		inferior conj	2018 Apr 05 04:24	15° $\overline{7}$ 07'21	3°09'48
morning rise	2017 Apr 30 20:11	27° $\overline{7}$ 44'07		minimum elong	2018 Apr 05 07:25	15° $\overline{7}$ 00'28	3°09'16
desc. node	2017 May 01 15:10	27° $\overline{7}$ 22'18		min. Earth dist.	2018 Apr 08 12:32	12° $\overline{7}$ 06'28	0.60189 AU
direct	2017 May 06 17:21	26° $\overline{7}$ 16'01		morning rise	2018 Apr 12 04:19	9° $\overline{7}$ 21'32	
	2017 May 16 12:12	0° $\overline{5}$		direct	2018 Apr 18 18:30	7° $\overline{7}$ 17'59	
morning max el	2017 May 21 02:32	3° $\overline{7}$ 55'00	26°42'53	desc. node	2018 Apr 18 12:11	7° $\overline{7}$ 18'10	
	2017 Jun 09 01:11	0° $\overline{7}$		morning max el	2018 May 03 01:38	15° $\overline{7}$ 09'33	27°35'18
morning set	2017 Jun 19 14:04	20° $\overline{7}$ 19'44			2018 May 15 02:21	0° $\overline{5}$	
asc. node	2017 Jun 20 23:11	23° $\overline{7}$ 15'09			2018 Jun 01 10:50	0° $\overline{7}$	

morning set	2018 Jun 03 21:14	4°II57'41		morning set	2019 May 18 23:09	19°816'44	
asc. node	2018 Jun 07 20:12	13°II21'28			2019 May 24 02:16	0°II	
max. Earth dist.	2018 Jun 10 06:15	18°II37'50	1.32138 AU	max. Earth dist.	2019 May 24 14:46	1°II07'06	1.32518 AU
				asc. node	2019 May 25 17:14	3°II29'58	
superior conj	2018 Jun 11 02:55	20°II31'22	0°33'58	superior conj	2019 May 26 12:24	5°II13'54	0°08'24
minimum elong	2018 Jun 11 01:27	20°II23'20	0°33'40	minimum elong	2019 May 26 12:00	5°II11'44	0°08'19
	2018 Jun 15 10:35	0°☿		behind sun begin	2019 May 26 07:33	4°II47'37	
evening rise	2018 Jun 17 23:58	5°☿29'57		behind sun end	2019 May 26 16:26	5°II35'53	
	2018 Jun 30 22:17	0°♁		evening rise	2019 Jun 02 11:42	20°II20'28	
desc. node	2018 Jul 15 11:30	19°♁01'37			2019 Jun 07 04:34	0°☿	
evening max el	2018 Jul 15 10:40	18°♁59'38	25°36'56	evening max el	2019 Jun 27 00:48	29°☿39'13	24°07'26
retrograde	2018 Jul 29 10:27	26°♁06'54			2019 Jun 27 09:31	0°♁	
evening set	2018 Aug 04 10:11	24°♁42'44		desc. node	2019 Jul 02 08:31	3°♁54'11	
min. Earth dist.	2018 Aug 08 22:48	22°♁04'22	0.58243 AU	retrograde	2019 Jul 10 19:58	6°♁36'18	
inferior conj	2018 Aug 12 03:17	19°♁48'55	-5°-3'-18	evening set	2019 Jul 15 10:49	5°♁49'01	
minimum elong	2018 Aug 12 04:47	19°♁46'15	5°03'16	min. Earth dist.	2019 Jul 21 11:23	2°♁51'20	0.56439 AU
morning rise	2018 Aug 20 02:54	15°♁28'55		inferior conj	2019 Jul 23 23:45	1°♁17'51	-4°-53'-31
direct	2018 Aug 22 14:32	15°♁09'30		minimum elong	2019 Jul 23 19:36	1°♁24'19	4°53'06
morning max el	2018 Aug 31 00:21	19°♁09'02	18°46'19		2019 Jul 26 02:59	30°☿☿	
asc. node	2018 Sep 03 19:25	23°♁29'25		morning rise	2019 Aug 01 07:55	27°☿18'13	
	2018 Sep 08 02:57	0°♎		direct	2019 Aug 04 01:00	26°☿58'57	
morning set	2018 Sep 16 09:22	15°♎17'47			2019 Aug 12 00:32	0°♁	
	2018 Sep 23 22:47	0°♏		morning max el	2019 Aug 13 19:44	1°♁31'30	19°45'13
superior conj	2018 Sep 25 00:33	2°♏02'28	1°36'12	asc. node	2019 Aug 21 16:29	11°♁34'03	
minimum elong	2018 Sep 25 03:09	2°♏14'47	1°36'01	morning set	2019 Aug 31 12:10	29°♁46'12	
max. Earth dist.	2018 Oct 02 02:39	15°♏01'55	1.39379 AU		2019 Aug 31 14:55	0°♎	
evening rise	2018 Oct 06 03:21	22°♏01'13		superior conj	2019 Sep 08 10:13	15°♎45'17	1°44'10
	2018 Oct 10 22:46	0°♐		minimum elong	2019 Sep 08 11:02	15°♎49'19	1°44'09
desc. node	2018 Oct 11 10:51	0°♐48'50		max. Earth dist.	2019 Sep 14 07:17	27°♎05'57	1.37334 AU
	2018 Oct 31 09:30	0°♑			2019 Sep 15 20:49	0°♏	
evening max el	2018 Nov 10 08:10	11°♑37'12	24°13'07	evening rise	2019 Sep 18 02:58	4°♏05'44	
retrograde	2018 Nov 21 12:00	18°♑09'42		desc. node	2019 Sep 28 07:53	21°♏19'37	
evening set	2018 Nov 26 19:04	15°♑58'11			2019 Oct 03 23:12	0°♐	
asc. node	2018 Nov 30 18:38	11°♑32'32		evening max el	2019 Oct 23 20:21	25°♐17'54	25°27'44
min. Earth dist.	2018 Dec 01 13:31	10°♑29'45	0.67702 AU		2019 Oct 29 12:53	0°♑	
inferior conj	2018 Dec 02 06:45	9°♑31'43	0°30'49	retrograde	2019 Nov 04 23:10	2°♑16'00	
minimum elong	2018 Dec 02 06:01	9°♑34'12	0°30'30	evening set	2019 Nov 10 20:28	29°♐49'19	
morning rise	2018 Dec 07 17:16	3°♑25'48			2019 Nov 10 15:19	30°☿♐	
direct	2018 Dec 11 12:55	2°♑02'40		min. Earth dist.	2019 Nov 15 06:58	24°♐55'59	0.67135 AU
morning max el	2018 Dec 19 09:56	6°♑33'27	20°23'40	inferior conj	2019 Nov 16 11:05	23°♐25'28	0°-24'-34
greatest brilliancy	2018 Dec 25 18:30	14°♑05'51	-0.5m	minimum elong	2019 Nov 16 11:43	23°♐23'25	0°24'19
	2019 Jan 05 22:06	0°☿		asc. node	2019 Nov 17 15:41	21°♐54'34	
desc. node	2019 Jan 07 10:04	2°☿14'27		morning rise	2019 Nov 22 03:44	17°♐27'29	
morning set	2019 Jan 16 12:01	16°☿05'19		direct	2019 Nov 25 11:29	16°♐23'50	
	2019 Jan 25 08:11	0°♊		morning max el	2019 Dec 02 14:29	20°♐23'39	19°21'10
max. Earth dist.	2019 Jan 26 07:57	1°♊35'24	1.43492 AU		2019 Dec 10 07:02	0°♑	
superior conj	2019 Feb 01 12:01	11°♊39'39	-2°-3'-36	greatest brilliancy	2019 Dec 11 21:30	2°♑17'53	-0.7m
minimum elong	2019 Feb 01 08:49	11°♊26'22	2°03'31	desc. node	2019 Dec 25 07:08	22°♑39'11	
	2019 Feb 12 06:35	0°♋		morning set	2019 Dec 26 11:42	24°♑29'50	
evening rise	2019 Feb 14 00:52	3°♋04'30			2019 Dec 30 00:45	0°☿	
asc. node	2019 Feb 26 17:56	24°♋19'17		max. Earth dist.	2020 Jan 08 22:15	15°☿29'48	1.44692 AU
	2019 Mar 03 07:04	0°♌		superior conj	2020 Jan 12 07:10	20°☿50'39	-1°-43'-44
evening max el	2019 Mar 03 09:59	0°♌07'21	18°08'24	minimum elong	2020 Jan 11 22:49	20°☿17'26	1°43'05
retrograde	2019 Mar 09 21:25	3°♌30'38			2020 Jan 17 23:54	0°♊	
evening set	2019 Mar 12 15:36	2°♌52'45		evening rise	2020 Jan 26 16:09	14°♊15'33	
	2019 Mar 16 16:14	30°☿♋			2020 Feb 05 04:51	0°♋	
inferior conj	2019 Mar 18 23:45	27°♋41'41	3°35'23	asc. node	2020 Feb 13 14:59	12°♋03'41	
minimum elong	2019 Mar 19 00:56	27°♋38'35	3°35'18	evening max el	2020 Feb 14 22:27	13°♋28'56	18°24'37
min. Earth dist.	2019 Mar 21 20:42	24°♋43'30	0.62319 AU	retrograde	2020 Feb 21 10:20	17°♋01'09	
morning rise	2019 Mar 25 07:53	21°♋40'57		evening set	2020 Feb 24 09:58	16°♋12'13	
direct	2019 Apr 01 05:18	19°♋09'00		inferior conj	2020 Mar 01 08:33	10°♋41'58	3°39'22
desc. node	2019 Apr 05 09:14	19°♋58'31		minimum elong	2020 Mar 01 08:00	10°♋43'34	3°39'22
morning max el	2019 Apr 15 06:48	27°♋05'56	27°50'47	min. Earth dist.	2020 Mar 03 14:30	8°♋06'14	0.64211 AU
	2019 Apr 18 00:43	0°♌		morning rise	2020 Mar 07 04:29	4°♋32'43	
	2019 May 08 17:57	0°♍					

direct	3020 Mar 14 00:20	1° ✕ 45'06		desc. node	3021 Mar 09 03:19	21° ≈ 42'05	
desc. node	3020 Mar 22 06:16	4° ✕ 58'23		morning max el	3021 Mar 10 01:47	22° ≈ 37'31	26°37'28
morning max el	3020 Mar 27 15:53	9° ✕ 39'37	27°29'36		3021 Mar 16 14:03	0° ✕	
	3020 Apr 12 13:56	0° γ			3021 Apr 05 20:31	0° γ	
	3020 Apr 30 02:26	0° ♄		morning set	3021 Apr 15 00:11	16° γ 24'34	
morning set	3020 May 01 17:17	3° ♄ 09'11		max. Earth dist.	3021 Apr 19 06:10	24° γ 39'10	1.34599 AU
max. Earth dist.	3020 May 06 15:55	13° ♄ 10'02	1.33330 AU		3021 Apr 21 21:57	0° ♄	
superior conj	3020 May 09 18:03	19° ♄ 40'25	0°-19'-13	superior conj	3021 Apr 23 17:40	3° ♄ 44'16	0°-47'-46
minimum elong	3020 May 09 19:01	19° ♄ 45'34	0°19'02	minimum elong	3021 Apr 23 20:09	3° ♄ 57'06	0°47'19
asc. node	3020 May 11 14:18	23° ♄ 36'52		asc. node	3021 Apr 28 11:21	13° ♄ 37'55	
	3020 May 14 13:42	0° ♁		evening rise	3021 May 01 08:26	19° ♄ 38'52	
evening rise	3020 May 16 23:10	5° ♁ 05'31			3021 May 06 12:18	0° ♁	
	3020 May 30 11:28	0° ♄		evening max el	3021 May 20 13:32	20° ♁ 49'53	21°01'28
evening max el	3020 Jun 07 15:08	10° ♄ 04'59	22°30'49	retrograde	3021 Jun 01 06:42	26° ♁ 33'22	
desc. node	3020 Jun 18 05:31	16° ♄ 21'02		evening set	3021 Jun 03 11:37	26° ♁ 21'58	
retrograde	3020 Jun 20 17:28	16° ♄ 35'22		desc. node	3021 Jun 05 02:31	25° ♁ 59'52	
evening set	3020 Jun 23 20:53	16° ♄ 13'35		inferior conj	3021 Jun 12 19:38	22° ♁ 24'19	-2°-13'-50
min. Earth dist.	3020 Jul 01 22:27	12° ♄ 42'39	0.55217 AU	minimum elong	3021 Jun 12 13:27	22° ♁ 33'03	2°11'43
inferior conj	3020 Jul 03 02:03	12° ♄ 03'26	-3°-56'00	min. Earth dist.	3021 Jun 13 10:27	22° ♁ 03'22	0.54869 AU
minimum elong	3020 Jul 02 17:57	12° ♄ 14'59	3°54'02	morning rise	3021 Jun 21 14:51	18° ♁ 23'25	
morning rise	3020 Jul 11 17:26	8° ♄ 12'42		direct	3021 Jun 25 03:00	17° ♁ 56'53	
direct	3020 Jul 14 17:38	7° ♄ 52'04		morning max el	3021 Jul 08 00:49	24° ♁ 06'52	22°41'10
morning max el	3020 Jul 26 03:36	13° ♄ 10'21	21°04'59		3021 Jul 13 08:44	0° ♄	
	3020 Aug 07 09:18	0° ♁		asc. node	3021 Jul 25 10:37	19° ♄ 34'17	
asc. node	3020 Aug 07 13:33	0° ♁ 18'58		morning set	3021 Jul 30 06:34	29° ♄ 21'20	
morning set	3020 Aug 14 19:54	14° ♁ 29'16			3021 Jul 30 13:56	0° ♁	
superior conj	3020 Aug 22 06:38	0° ♁ 00'18	1°44'03	superior conj	3021 Aug 06 10:24	14° ♁ 37'15	1°37'18
minimum elong	3020 Aug 22 05:55	29° ♁ 56'38	1°44'02	minimum elong	3021 Aug 06 08:38	14° ♁ 27'53	1°37'10
	3020 Aug 22 06:34	0° ♁		max. Earth dist.	3021 Aug 09 10:38	20° ♁ 57'22	1.34048 AU
max. Earth dist.	3020 Aug 26 16:35	8° ♁ 56'26	1.35511 AU		3021 Aug 13 21:40	0° ♁	
evening rise	3020 Aug 30 21:44	17° ♁ 04'50		evening rise	3021 Aug 14 07:10	0° ♁ 46'42	
	3020 Sep 07 02:25	0° ♁			3021 Aug 31 02:26	0° ♁	
desc. node	3020 Sep 14 04:54	11° ♁ 35'04		desc. node	3021 Sep 01 01:53	1° ♁ 28'21	
	3020 Sep 27 07:50	0° ♁		evening max el	3021 Sep 17 20:54	22° ♁ 27'19	27°11'33
evening max el	3020 Oct 05 08:33	8° ♁ 57'01	26°29'43	retrograde	3021 Oct 01 05:53	29° ♁ 45'31	
retrograde	3020 Oct 18 05:19	16° ♁ 10'16		evening set	3021 Oct 08 03:47	27° ♁ 03'50	
evening set	3020 Oct 24 16:09	13° ♁ 32'31		min. Earth dist.	3021 Oct 12 00:22	23° ♁ 22'48	0.64966 AU
min. Earth dist.	3020 Oct 28 19:20	9° ♁ 15'23	0.66224 AU	inferior conj	3021 Oct 14 04:07	20° ♁ 59'17	-2°-23'-9
inferior conj	3020 Oct 30 10:56	7° ♁ 15'55	-1°-23'-13	minimum elong	3021 Oct 14 08:02	20° ♁ 48'23	2°21'39
minimum elong	3020 Oct 30 13:11	7° ♁ 09'06	1°22'16	morning rise	3021 Oct 20 14:11	15° ♁ 25'29	
asc. node	3020 Nov 03 12:45	2° ♁ 51'28		asc. node	3021 Oct 21 09:48	15° ♁ 06'29	
morning rise	3020 Nov 05 11:31	1° ♁ 28'30		direct	3021 Oct 23 04:47	14° ♁ 49'23	
direct	3020 Nov 08 09:28	0° ♁ 40'38		morning max el	3021 Oct 29 16:43	18° ♁ 17'53	18°03'57
morning max el	3020 Nov 15 01:33	4° ♁ 20'11	18°34'13		3021 Nov 07 08:10	0° ♁	
	3020 Dec 02 20:17	0° ♁		morning set	3021 Nov 16 13:43	15° ♁ 09'53	
morning set	3020 Dec 05 09:57	4° ♁ 05'47			3021 Nov 25 14:15	0° ♁	
desc. node	3020 Dec 11 04:10	13° ♁ 14'49		desc. node	3021 Nov 28 01:12	3° ♁ 57'54	
superior conj	3020 Dec 21 10:07	29° ♁ 22'58	-1°-5'-42	superior conj	3021 Nov 30 17:04	8° ♁ 13'23	0°-18'00
minimum elong	3020 Dec 21 02:10	28° ♁ 51'46	1°04'45	minimum elong	3021 Nov 30 14:49	8° ♁ 04'26	0°17'43
max. Earth dist.	3020 Dec 21 16:10	29° ♁ 46'44	1.45195 AU	max. Earth dist.	3021 Dec 04 11:09	14° ♁ 10'17	1.44963 AU
	3020 Dec 21 19:33	0° ♄			3021 Dec 14 14:30	0° ♄	
evening rise	3021 Jan 06 08:03	24° ♄ 28'45		evening rise	3021 Dec 17 03:06	3° ♄ 54'26	
	3021 Jan 09 19:19	0° ≈			3022 Jan 03 09:06	0° ≈	
evening max el	3021 Jan 28 08:39	26° ≈ 56'28	18°58'46	greatest brilliancy	3022 Jan 04 06:55	1° ≈ 17'10	-0.6m
asc. node	3021 Jan 30 12:02	28° ≈ 52'39		evening max el	3022 Jan 11 14:44	10° ≈ 26'58	19°49'12
	3021 Feb 01 05:15	0° ✕		asc. node	3022 Jan 17 09:03	14° ≈ 31'53	
retrograde	3021 Feb 04 05:02	0° ✕ 48'40		retrograde	3022 Jan 19 02:28	14° ≈ 48'09	
evening set	3021 Feb 07 10:57	29° ≈ 47'38		evening set	3022 Jan 22 16:08	13° ≈ 33'40	
	3021 Feb 07 02:35	30° ℞		inferior conj	3022 Jan 28 04:08	7° ≈ 31'50	3°03'17
inferior conj	3021 Feb 13 03:02	24° ≈ 00'22	3°27'22	minimum elong	3022 Jan 28 01:43	7° ≈ 39'54	3°02'45
minimum elong	3021 Feb 13 01:15	24° ≈ 05'57	3°27'09	min. Earth dist.	3022 Jan 29 04:17	6° ≈ 11'36	0.66858 AU
min. Earth dist.	3021 Feb 14 17:33	21° ≈ 59'31	0.65740 AU	morning rise	3022 Feb 02 10:38	1° ≈ 16'32	
morning rise	3021 Feb 18 14:32	17° ≈ 46'48			3022 Feb 04 01:58	30° ℞	
direct	3021 Feb 25 02:15	14° ≈ 57'28		direct	3022 Feb 08 09:57	28° ♄ 37'31	

	2022 Feb 13 04:52	0°♊		evening set	2023 Jan 06 23:28	27°♊26'18	
morning max el	2022 Feb 20 10:42	5°♊48'07	25°23'12	inferior conj	2023 Jan 12 09:23	21°♊12'43	2°29'44
desc. node	2022 Feb 24 00:22	9°♊40'20		minimum elong	2023 Jan 12 06:51	21°♊21'25	2°28'58
	2022 Mar 11 03:40	0°♋		min. Earth dist.	2023 Jan 12 20:37	20°♊34'10	0.67566 AU
morning set	2022 Mar 28 15:16	28°♋49'35		morning rise	2023 Jan 17 13:50	14°♊57'39	
	2022 Mar 29 06:47	0°♌		direct	2023 Jan 22 22:33	12°♊37'01	
max. Earth dist.	2022 Apr 01 08:58	5°♌43'12	1.36320 AU	morning max el	2023 Feb 02 19:08	19°♊05'19	23°56'57
				desc. node	2023 Feb 10 21:26	28°♊31'41	
superior conj	2022 Apr 07 08:28	17°♌17'56	-1°-15'-39		2023 Feb 12 00:35	0°♋	
minimum elong	2022 Apr 07 12:19	17°♌37'06	1°15'03		2023 Mar 04 07:06	0°♋	
	2022 Apr 13 15:15	0°♌		morning set	2023 Mar 10 08:42	10°♋08'20	
asc. node	2022 Apr 15 08:22	3°♌28'54		max. Earth dist.	2023 Mar 14 04:54	16°♋51'31	1.38376 AU
evening rise	2022 Apr 15 13:22	3°♌54'14					
	2022 Apr 30 22:07	0°♍		superior conj	2023 Mar 21 10:55	0°♌11'59	-1°-40'-30
evening max el	2022 May 02 23:49	2°♍12'43	19°48'11	minimum elong	2023 Mar 21 15:26	0°♌33'27	1°40'00
retrograde	2022 May 12 23:04	7°♍02'39			2023 Mar 21 08:23	0°♌	
evening set	2022 May 14 22:46	6°♍51'59		evening rise	2023 Mar 30 11:24	17°♌44'33	
desc. node	2022 May 22 23:32	3°♍20'13		asc. node	2023 Apr 02 05:23	23°♌05'07	
inferior conj	2022 May 23 18:53	2°♍50'33	0°-14'-10		2023 Apr 05 22:25	0°♍	
minimum elong	2022 May 23 18:14	2°♍51'32	0°13'56	evening max el	2023 Apr 15 21:17	14°♍15'43	18°54'31
transit middle	2022 May 23 18:14	2°♍51'32	0°13'56	retrograde	2023 Apr 24 06:55	18°♍21'24	
transit begin	2022 May 23 16:19	2°♍54'31		evening set	2023 Apr 26 10:23	18°♍06'27	
transit end	2022 May 23 20:10	2°♍48'34		inferior conj	2023 May 04 11:38	13°♍48'53	1°30'02
min. Earth dist.	2022 May 25 23:52	1°♍29'07	0.55498 AU	minimum elong	2023 May 04 14:50	13°♍43'11	1°29'00
	2022 May 28 14:29	30°♎♌		min. Earth dist.	2023 May 07 15:48	11°♍33'56	0.56958 AU
morning rise	2022 Jun 01 10:33	28°♎21'59		desc. node	2023 May 09 20:34	10°♎09'33	
direct	2022 Jun 05 18:31	27°♎40'30		morning rise	2023 May 12 14:57	8°♎45'19	
	2022 Jun 13 16:13	0°♍		direct	2023 May 17 22:56	7°♎37'17	
morning max el	2022 Jun 19 15:37	4°♍35'12	24°23'55	morning max el	2023 Jun 01 06:29	15°♎03'10	25°58'27
	2022 Jul 07 14:29	0°♎			2023 Jun 13 06:05	0°♍	
asc. node	2022 Jul 12 07:38	9°♎11'23		morning set	2023 Jun 29 05:40	29°♍09'23	
morning set	2022 Jul 14 18:21	14°♎16'19		asc. node	2023 Jun 29 04:40	29°♍04'08	
					2023 Jun 29 15:14	0°♎	
superior conj	2022 Jul 21 18:49	29°♎26'53	1°25'03				
minimum elong	2022 Jul 21 16:32	29°♎14'25	1°24'46	superior conj	2023 Jul 06 05:52	14°♎22'43	1°08'11
	2022 Jul 22 00:55	0°♏		minimum elong	2023 Jul 06 03:32	14°♎09'55	1°07'49
max. Earth dist.	2022 Jul 23 13:36	3°♏18'17	1.32997 AU	max. Earth dist.	2023 Jul 06 22:52	15°♎56'10	1.32355 AU
evening rise	2022 Jul 29 03:12	14°♏58'53		evening rise	2023 Jul 13 06:42	29°♎32'00	
	2022 Aug 05 23:17	0°♐			2023 Jul 13 12:06	0°♏	
desc. node	2022 Aug 18 22:53	20°♐49'18			2023 Jul 30 02:59	0°♐	
	2022 Aug 26 01:27	0°♑		desc. node	2023 Aug 05 19:53	9°♐24'32	
evening max el	2022 Aug 31 07:46	5°♑35'26	27°26'26	evening max el	2023 Aug 13 14:29	18°♐07'32	27°09'15
retrograde	2022 Sep 14 00:01	12°♑52'04		retrograde	2023 Aug 27 11:01	25°♐20'55	
evening set	2022 Sep 21 04:18	10°♑16'23		evening set	2023 Sep 03 13:47	23°♐03'33	
min. Earth dist.	2022 Sep 24 19:56	7°♑08'19	0.63365 AU	min. Earth dist.	2023 Sep 07 04:45	20°♐19'53	0.61472 AU
inferior conj	2022 Sep 27 11:57	4°♑28'28	-3°-21'-36	inferior conj	2023 Sep 10 07:17	17°♐35'28	-4°-13'-54
minimum elong	2022 Sep 27 17:13	4°♑15'16	3°19'57	minimum elong	2023 Sep 10 12:53	17°♐23'06	4°12'39
	2022 Oct 02 17:40	30°♒♐		morning rise	2023 Sep 17 14:57	12°♐39'27	
morning rise	2022 Oct 04 08:36	29°♒11'43		direct	2023 Sep 19 23:11	12°♐16'37	
direct	2022 Oct 06 18:33	28°♒43'46		asc. node	2023 Sep 25 03:53	14°♒13'12	
asc. node	2022 Oct 08 06:50	28°♒54'58		morning max el	2023 Sep 26 23:42	15°♒47'33	17°56'56
	2022 Oct 10 17:46	0°♑			2023 Oct 06 21:07	0°♑	
morning max el	2022 Oct 13 09:06	2°♑09'23	17°51'12	morning set	2023 Oct 12 18:44	10°♑38'04	
morning set	2022 Oct 29 18:47	27°♑27'08					
	2022 Oct 31 05:51	0°♒		superior conj	2023 Oct 23 05:12	29°♑23'50	1°03'09
				minimum elong	2023 Oct 23 09:33	29°♑42'50	1°02'37
superior conj	2022 Nov 10 21:37	18°♒08'53	0°27'25		2023 Oct 23 13:30	0°♒	
minimum elong	2022 Nov 11 00:23	18°♒20'19	0°27'02	max. Earth dist.	2023 Oct 30 17:36	12°♒08'26	1.42488 AU
desc. node	2022 Nov 14 22:13	24°♒44'33		desc. node	2023 Nov 01 19:14	15°♒31'34	
max. Earth dist.	2022 Nov 17 04:33	28°♒23'30	1.44022 AU	evening rise	2023 Nov 06 03:34	22°♒29'34	
	2022 Nov 18 04:42	0°♓			2023 Nov 10 23:18	0°♓	
evening rise	2022 Nov 26 12:07	13°♓01'16			2023 Dec 01 23:13	0°♑	
	2022 Dec 07 17:38	0°♑		greatest brilliancy	2023 Dec 03 17:15	2°♑11'09	-0.3m
greatest brilliancy	2022 Dec 20 04:04	17°♑32'34	-0.5m	evening max el	2023 Dec 08 10:38	7°♑31'04	22°07'51
evening max el	2022 Dec 25 15:28	23°♑58'36	20°53'27	retrograde	2023 Dec 17 20:54	13°♑07'42	
retrograde	2023 Jan 03 00:22	28°♑55'43		evening set	2023 Dec 22 07:12	11°♑22'09	
asc. node	2023 Jan 04 06:04	28°♑47'15		asc. node	2023 Dec 22 03:06	11°♑30'15	

inferior conj	2023 Dec 27 16:42	5°☾00'14	1°48'26	evening max el	2024 Nov 20 01:29	21°☾06'24	23°27'27
minimum elong	2023 Dec 27 14:32	5°☾07'45	1°47'38	retrograde	2024 Nov 30 14:44	27°☾21'00	
min. Earth dist.	2023 Dec 27 16:19	5°☾01'34	0.67892 AU	evening set	2024 Dec 05 13:47	25°☾18'52	
	2023 Dec 31 15:05	30°☾☾		asc. node	2024 Dec 08 00:08	22°☾49'22	
morning rise	2024 Jan 01 21:42	28°☾47'02		min. Earth dist.	2024 Dec 10 13:05	19°☾30'55	0.67862 AU
direct	2024 Jan 06 15:17	26°☾48'48		inferior conj	2024 Dec 11 00:16	18°☾52'37	1°00'45
	2024 Jan 13 13:07	0°☾		minimum elong	2024 Dec 10 22:54	18°☾57'18	1°00'11
morning max el	2024 Jan 16 05:47	2°☾28'47	22°28'28	morning rise	2024 Dec 16 08:08	12°☾43'16	
greatest brilliancy	2024 Jan 20 19:17	7°☾34'23	-0.3m	direct	2024 Dec 20 11:20	11°☾07'50	
desc. node	2024 Jan 28 18:28	18°☾00'40		morning max el	2024 Dec 28 22:07	16°☾02'02	21°06'03
	2024 Feb 06 01:37	0°☾		greatest brilliancy	2025 Jan 03 07:20	22°☾13'42	-0.5m
morning set	2024 Feb 18 22:34	20°☾05'52			2025 Jan 09 02:31	0°☾	
max. Earth dist.	2024 Feb 24 01:23	28°☾36'40	1.40541 AU	desc. node	2025 Jan 14 15:31	7°☾57'12	
	2024 Feb 24 20:59	0°☾		morning set	2025 Jan 28 08:33	28°☾46'26	
					2025 Jan 29 03:16	0°☾	
superior conj	2024 Mar 02 20:22	12°☾13'59	-1°-58'-57	max. Earth dist.	2025 Feb 05 03:50	11°☾15'29	1.42530 AU
minimum elong	2024 Mar 02 23:57	12°☾30'08	1°58'45				
	2024 Mar 12 10:25	0°☾		superior conj	2025 Feb 12 07:48	23°☾13'04	-2°-6'-23
evening rise	2024 Mar 12 23:18	1°☾00'42		minimum elong	2025 Feb 12 07:48	23°☾13'07	2°06'24
asc. node	2024 Mar 19 02:25	12°☾20'10			2025 Feb 16 06:04	0°☾	
evening max el	2024 Mar 29 03:01	26°☾51'16	18°21'05	evening rise	2025 Feb 23 21:15	13°☾34'33	
	2024 Apr 02 18:51	0°☾			2025 Mar 05 06:38	0°☾	
retrograde	2024 Apr 05 09:51	0°☾28'18		asc. node	2025 Mar 05 23:27	1°☾07'22	
evening set	2024 Apr 07 19:09	0°☾05'57		evening max el	2025 Mar 12 13:48	9°☾51'19	18°07'28
	2024 Apr 08 02:30	30°☾☾		retrograde	2025 Mar 19 05:19	13°☾15'22	
inferior conj	2024 Apr 15 01:48	25°☾27'56	2°42'40	evening set	2025 Mar 21 20:19	12°☾43'37	
minimum elong	2024 Apr 15 05:30	25°☾20'09	2°41'47	inferior conj	2025 Mar 28 11:37	7°☾44'39	3°23'39
min. Earth dist.	2024 Apr 18 12:20	22°☾36'43	0.58944 AU	minimum elong	2025 Mar 28 13:54	7°☾39'08	3°23'21
morning rise	2024 Apr 22 11:48	19°☾54'17		min. Earth dist.	2025 Mar 31 15:51	4°☾41'44	0.61114 AU
desc. node	2024 Apr 25 17:37	18°☾34'50		morning rise	2025 Apr 04 04:25	1°☾51'10	
direct	2024 Apr 28 17:01	18°☾11'08			2025 Apr 07 23:46	30°☾☾	
morning max el	2024 May 13 02:14	25°☾56'34	27°09'30	direct	2025 Apr 10 22:48	29°☾33'59	
	2024 May 16 21:23	0°☾		desc. node	2025 Apr 12 14:40	29°☾41'49	
	2024 Jun 05 14:34	0°☾			2025 Apr 14 00:08	0°☾	
morning set	2024 Jun 12 14:51	13°☾54'26		morning max el	2025 Apr 25 04:16	7°☾29'37	27°46'24
asc. node	2024 Jun 15 01:42	19°☾06'38		morning set	2025 May 12 06:46	0°☾	
					2025 May 27 20:05	28°☾25'18	
superior conj	2024 Jun 19 17:40	29°☾18'10	0°47'26		2025 May 28 14:25	0°☾	
minimum elong	2024 Jun 19 15:46	29°☾07'42	0°47'04	asc. node	2025 Jun 01 22:45	9°☾14'24	
max. Earth dist.	2024 Jun 19 10:48	28°☾40'21	1.32103 AU	max. Earth dist.	2025 Jun 02 21:32	11°☾18'12	1.32247 AU
	2024 Jun 20 01:15	0°☾					
evening rise	2024 Jun 26 15:03	14°☾17'22		superior conj	2025 Jun 04 04:32	14°☾07'31	0°23'26
	2024 Jul 04 12:55	0°☾		minimum elong	2025 Jun 04 03:29	14°☾01'46	0°23'12
desc. node	2024 Jul 22 16:54	26°☾55'15		evening rise	2025 Jun 11 02:06	29°☾08'03	
evening max el	2024 Jul 25 14:33	29°☾53'36	26°19'01		2025 Jun 11 11:55	0°☾	
	2024 Jul 25 17:15	0°☾			2025 Jun 28 05:10	0°☾	
retrograde	2024 Aug 08 14:01	7°☾04'18		evening max el	2025 Jul 07 07:33	10°☾53'52	25°00'42
evening set	2024 Aug 15 03:31	5°☾17'56		desc. node	2025 Jul 09 13:55	12°☾55'14	
min. Earth dist.	2024 Aug 19 03:33	2°☾43'11	0.59407 AU	retrograde	2025 Jul 21 06:51	17°☾58'51	
inferior conj	2024 Aug 22 10:38	0°☾11'14	-4°-52'-14	evening set	2025 Jul 26 17:30	16°☾51'08	
minimum elong	2024 Aug 22 14:26	0°☾03'53	4°51'49	min. Earth dist.	2025 Jul 31 19:09	14°☾06'14	0.57417 AU
	2024 Aug 22 16:27	30°☾☾		inferior conj	2025 Aug 03 18:47	12°☾06'34	-5°-4'-24
morning rise	2024 Aug 30 04:49	25°☾38'22		minimum elong	2025 Aug 03 18:01	12°☾07'52	5°04'23
direct	2024 Sep 01 14:16	25°☾18'20		morning rise	2025 Aug 11 22:12	7°☾56'05	
morning max el	2024 Sep 09 09:22	29°☾04'15	18°22'24	direct	2025 Aug 14 11:42	7°☾37'03	
	2024 Sep 10 07:27	0°☾		morning max el	2025 Aug 23 10:49	11°☾49'26	19°08'48
asc. node	2024 Sep 11 00:56	0°☾48'08		asc. node	2025 Aug 28 21:59	18°☾24'14	
morning set	2024 Sep 25 08:12	24°☾27'36			2025 Sep 04 18:54	0°☾	
	2024 Sep 28 05:42	0°☾		morning set	2025 Sep 09 07:02	8°☾44'12	
superior conj	2024 Oct 04 12:35	11°☾48'54	1°27'17	superior conj	2025 Sep 17 14:07	25°☾07'24	1°40'40
minimum elong	2024 Oct 04 16:08	12°☾05'13	1°26'57	minimum elong	2025 Sep 17 15:57	25°☾16'16	1°40'34
max. Earth dist.	2024 Oct 12 01:01	25°☾11'22	1.40556 AU		2025 Sep 20 03:20	0°☾	
	2024 Oct 14 21:03	0°☾		max. Earth dist.	2025 Sep 24 04:54	7°☾31'25	1.38485 AU
evening rise	2024 Oct 16 14:34	2°☾52'37		evening rise	2025 Sep 28 01:20	14°☾21'27	
desc. node	2024 Oct 18 16:15	6°☾15'44		desc. node	2025 Oct 05 13:16	26°☾52'38	
	2024 Nov 03 07:03	0°☾			2025 Oct 07 12:27	0°☾	

	2025 Oct 29 03:51	0°♄		minimum elong	2026 Sep 01 04:58	9°♄06'09	1°45'00
evening max el	2025 Nov 02 14:05	4°♄45'30	24°46'02	max. Earth dist.	2026 Sep 06 10:58	19°♄27'16	1.36525 AU
retrograde	2025 Nov 14 04:34	11°♄30'47		evening rise	2026 Sep 10 09:44	26°♄51'21	
evening set	2025 Nov 19 17:32	9°♄12'41			2026 Sep 12 03:24	0°♄	
min. Earth dist.	2025 Nov 24 08:32	3°♄58'44	0.67494 AU	desc. node	2026 Sep 22 10:17	17°♄17'49	
asc. node	2025 Nov 24 21:12	3°♄16'46			2026 Sep 30 22:40	0°♄	
inferior conj	2025 Nov 25 06:18	2°♄46'35	0°07'48	evening max el	2026 Oct 16 02:24	18°♄27'04	25°56'10
minimum elong	2025 Nov 25 06:06	2°♄47'14	0°07'44	retrograde	2026 Oct 28 13:33	25°♄32'23	
transit middle	2025 Nov 25 06:06	2°♄47'14	0°07'44	evening set	2026 Nov 03 16:42	23°♄00'40	
transit begin	2025 Nov 25 03:41	2°♄55'16		min. Earth dist.	2026 Nov 08 00:09	18°♄22'26	0.66791 AU
transit end	2025 Nov 25 08:31	2°♄39'12		inferior conj	2026 Nov 09 08:57	16°♄39'26	0°-49'-9
	2025 Nov 27 10:17	30°♄♄		minimum elong	2026 Nov 09 10:15	16°♄35'21	0°48'36
morning rise	2025 Nov 30 19:09	26°♄43'28		asc. node	2026 Nov 11 18:16	13°♄46'53	
direct	2025 Dec 04 09:28	25°♄29'02		morning rise	2026 Nov 15 04:45	10°♄45'20	
morning max el	2025 Dec 11 22:03	29°♄45'44	19°55'15	direct	2026 Nov 18 08:07	9°♄48'43	
	2025 Dec 12 03:42	0°♄		morning max el	2026 Nov 25 05:30	13°♄38'34	18°59'09
greatest brilliancy	2025 Dec 19 06:09	8°♄43'02	-0.6m		2026 Dec 07 08:41	0°♄	
desc. node	2026 Jan 01 12:33	28°♄13'05		morning set	2026 Dec 17 11:48	15°♄43'47	
	2026 Jan 02 16:36	0°♄		desc. node	2026 Dec 19 09:35	18°♄42'48	
morning set	2026 Jan 07 04:30	6°♄54'14			2026 Dec 26 14:41	0°♄	
max. Earth dist.	2026 Jan 18 13:49	24°♄44'48	1.44080 AU	max. Earth dist.	2027 Jan 01 06:08	8°♄51'26	1.44999 AU
	2026 Jan 21 20:27	0°♄					
				superior conj	2027 Jan 03 03:35	11°♄50'24	-1°-29'-31
superior conj	2026 Jan 23 17:19	3°♄01'43	-1°-57'-36	minimum elong	2027 Jan 02 18:30	11°♄14'37	1°28'36
minimum elong	2026 Jan 23 11:37	2°♄38'33	1°57'19		2027 Jan 14 12:42	0°♄	
evening rise	2026 Feb 06 00:48	25°♄17'05		evening rise	2027 Jan 18 06:08	6°♄02'51	
	2026 Feb 08 18:52	0°♄			2027 Feb 02 08:27	0°♄	
asc. node	2026 Feb 20 20:30	19°♄17'53		evening max el	2027 Feb 07 14:18	6°♄32'22	18°37'06
evening max el	2026 Feb 24 02:29	23°♄07'22	18°13'05	asc. node	2027 Feb 07 17:32	6°♄40'32	
retrograde	2026 Mar 02 13:00	26°♄32'42		retrograde	2027 Feb 14 04:42	10°♄11'28	
evening set	2026 Mar 05 09:28	25°♄50'16		evening set	2027 Feb 17 06:59	9°♄17'21	
inferior conj	2026 Mar 11 13:10	20°♄31'07	3°39'17	inferior conj	2027 Feb 23 02:28	3°♄39'37	3°35'58
minimum elong	2026 Mar 11 13:35	20°♄30'00	3°39'17	minimum elong	2027 Feb 23 01:19	3°♄43'02	3°35'53
min. Earth dist.	2026 Mar 14 04:06	17°♄40'16	0.63168 AU	min. Earth dist.	2027 Feb 25 01:45	1°♄17'50	0.64913 AU
morning rise	2026 Mar 17 15:41	14°♄26'17			2027 Feb 26 05:00	30°♄♄	
direct	2026 Mar 24 13:36	11°♄45'35		morning rise	2027 Feb 28 18:24	27°♄28'26	
desc. node	2026 Mar 30 11:43	13°♄25'58		direct	2027 Mar 07 11:33	24°♄38'34	
morning max el	2026 Apr 07 11:14	19°♄42'45	27°45'54	desc. node	2027 Mar 17 08:46	29°♄14'09	
	2026 Apr 16 06:01	0°♄			2027 Mar 18 06:13	0°♄	
	2026 May 05 05:41	0°♄		morning max el	2027 Mar 20 20:46	2°♄27'42	27°10'48
morning set	2026 May 11 19:05	12°♄34'47			2027 Apr 10 12:03	0°♄	
max. Earth dist.	2026 May 17 03:15	23°♄37'23	1.32807 AU	morning set	2027 Apr 25 08:53	26°♄12'58	
					2027 Apr 27 07:12	0°♄	
superior conj	2026 May 19 12:42	28°♄44'58	0°-3'-7	max. Earth dist.	2027 Apr 30 00:10	5°♄27'00	1.33817 AU
minimum elong	2026 May 19 12:51	28°♄45'47	0°03'06				
behind sun begin	2026 May 19 07:40	28°♄17'51		superior conj	2027 May 03 16:05	13°♄03'09	0°-31'-16
behind sun end	2026 May 19 18:02	29°♄13'43		minimum elong	2027 May 03 17:41	13°♄11'36	0°30'58
asc. node	2026 May 19 19:49	29°♄23'24		asc. node	2027 May 06 16:49	19°♄28'32	
	2026 May 20 02:36	0°♄		evening rise	2027 May 11 00:47	28°♄39'11	
evening rise	2026 May 26 13:59	13°♄57'45			2027 May 11 16:16	0°♄	
	2026 Jun 03 15:56	0°♄			2027 May 29 17:25	0°♄	
evening max el	2026 Jun 18 21:04	21°♄25'14	23°26'20	evening max el	2027 May 31 14:07	1°♄56'16	21°51'14
desc. node	2026 Jun 26 10:56	26°♄51'04		retrograde	2027 Jun 13 03:41	8°♄08'07	
retrograde	2026 Jul 02 11:06	28°♄12'59		desc. node	2027 Jun 13 07:58	8°♄08'03	
evening set	2026 Jul 06 10:05	27°♄38'44		evening set	2027 Jun 15 19:38	7°♄52'13	
min. Earth dist.	2026 Jul 13 07:02	24°♄28'24	0.55827 AU	min. Earth dist.	2027 Jun 24 18:00	4°♄03'20	0.54960 AU
inferior conj	2026 Jul 15 07:02	23°♄17'15	-4°-35'-22	inferior conj	2027 Jun 25 04:03	3°♄49'17	-3°-17'00
minimum elong	2026 Jul 15 00:40	23°♄26'44	4°34'19	minimum elong	2027 Jun 24 19:59	4°♄00'33	3°14'38
morning rise	2026 Jul 23 18:24	19°♄22'55		morning rise	2027 Jul 03 21:44	29°♄57'00	
direct	2026 Jul 26 14:16	19°♄03'16			2027 Jul 03 16:41	30°♄♄	
morning max el	2026 Aug 06 01:23	23°♄54'27	20°16'40	direct	2027 Jul 07 02:30	29°♄34'29	
	2026 Aug 11 08:25	0°♄			2027 Jul 10 10:05	0°♄	
asc. node	2026 Aug 15 19:03	6°♄47'58		morning max el	2027 Jul 19 04:17	5°♄14'08	21°44'16
morning set	2026 Aug 24 12:14	23°♄20'09		asc. node	2027 Aug 02 16:06	25°♄47'04	
	2026 Aug 27 18:08	0°♄			2027 Aug 04 21:05	0°♄	
				morning set	2027 Aug 08 21:28	8°♄08'05	
superior conj	2026 Sep 01 04:51	9°♄05'34	1°45'01				

superior conj	3027 Aug 16 04:44	23°♊31'01	1°41'55	superior conj	3028 Jul 30 10:47	8°♊14'30	1°32'43
minimum elong	3027 Aug 16 03:31	23°♊24'38	1°41'51	minimum elong	3028 Jul 30 08:44	8°♊03'29	1°32'31
	3027 Aug 19 08:01	0°♎		max. Earth dist.	3028 Aug 01 22:08	13°♊30'51	1.33553 AU
max. Earth dist.	3027 Aug 20 00:07	1°♎21'44	1.34847 AU	evening rise	3028 Aug 07 01:38	24°♊05'56	
evening rise	3027 Aug 24 11:16	10°♎10'04			3028 Aug 10 02:10	0°♎	
	3027 Sep 04 14:59	0°♊		desc. node	3028 Aug 26 04:18	27°♎06'08	
desc. node	3027 Sep 09 07:17	7°♊25'01			3028 Aug 28 04:51	0°♊	
	3027 Sep 26 13:28	0°♌		evening max el	3028 Sep 10 02:36	15°♊25'37	27°21'24
evening max el	3027 Sep 28 14:52	2°♌03'59	26°50'22	retrograde	3028 Sep 23 15:00	22°♊43'56	
retrograde	3027 Oct 11 17:08	9°♌19'32		evening set	3028 Sep 30 16:32	20°♊03'03	
evening set	3027 Oct 18 09:14	6°♌39'06		min. Earth dist.	3028 Oct 04 10:35	16°♊37'02	0.64327 AU
min. Earth dist.	3027 Oct 22 09:34	2°♌37'36	0.65737 AU	inferior conj	3028 Oct 06 19:45	14°♊05'11	-2°-48'-22
inferior conj	3027 Oct 24 06:14	0°♌27'22	-1°-48'-36	minimum elong	3028 Oct 07 00:19	13°♊53'01	2°46'45
minimum elong	3027 Oct 24 09:12	0°♌18'41	1°47'24	morning rise	3028 Oct 13 10:16	8°♊38'34	
	3027 Oct 24 15:38	30°♋♊		direct	3028 Oct 15 22:32	8°♊06'24	
asc. node	3027 Oct 29 15:18	25°♊13'18		asc. node	3028 Oct 15 12:21	8°♊07'20	
morning rise	3027 Oct 30 10:41	24°♊45'25		morning max el	3028 Oct 22 10:44	11°♊32'29	17°56'22
direct	3027 Nov 02 05:18	24°♊02'54			3028 Nov 04 02:26	0°♌	
morning max el	3027 Nov 08 18:37	27°♊36'17	18°19'17	morning set	3028 Nov 08 13:54	7°♌35'21	
	3027 Nov 10 22:23	0°♌					
morning set	3027 Nov 27 22:41	25°♌58'11		superior conj	3028 Nov 21 20:05	29°♌36'47	0°02'09
	3027 Nov 30 10:28	0°♌		minimum elong	3028 Nov 21 20:20	29°♌37'48	0°02'07
desc. node	3027 Dec 06 06:35	9°♌22'09		behind sun begin	3028 Nov 21 10:10	28°♌56'43	
				behind sun end	3028 Nov 22 06:30	0°♌18'49	
superior conj	3027 Dec 13 05:26	20°♌22'35	0°-45'-53	desc. node	3028 Nov 22 03:37	0°♌07'11	
minimum elong	3027 Dec 12 23:35	19°♌59'36	0°45'08		3028 Nov 22 01:50	0°♌	
max. Earth dist.	3027 Dec 15 01:27	23°♌15'36	1.45185 AU	max. Earth dist.	3028 Nov 26 20:01	7°♌36'31	1.44636 AU
	3027 Dec 19 08:38	0°♏		evening rise	3028 Dec 08 01:22	25°♌06'49	
evening rise	3027 Dec 29 12:27	15°♏54'10			3028 Dec 11 05:48	0°♏	
	3028 Jan 07 12:59	0°♏		greatest brilliancy	3028 Dec 28 16:45	25°♏44'08	-0.6m
greatest brilliancy	3028 Jan 12 19:30	8°♏01'51	-0.7m		3028 Dec 31 23:54	0°♏	
evening max el	3028 Jan 21 22:56	20°♏01'38	19°18'21	evening max el	3029 Jan 04 02:41	3°♏31'55	20°15'03
asc. node	3028 Jan 25 14:35	23°♏02'06		asc. node	3029 Jan 11 11:37	8°♏07'04	
retrograde	3028 Jan 29 00:59	24°♏05'12		retrograde	3029 Jan 11 22:57	8°♏08'18	
evening set	3028 Feb 01 10:04	22°♏58'27		evening set	3029 Jan 15 16:21	6°♏47'39	
inferior conj	3028 Feb 07 00:05	17°♏04'25	3°18'29	inferior conj	3029 Jan 21 03:14	0°♏40'13	2°50'07
minimum elong	3028 Feb 06 21:58	17°♏11'15	3°18'07	minimum elong	3029 Jan 21 00:42	0°♏48'47	2°49'27
min. Earth dist.	3028 Feb 08 08:12	15°♏20'48	0.66260 AU		3029 Jan 21 15:07	30°♋♏	
morning rise	3028 Feb 12 09:04	10°♏49'55		min. Earth dist.	3029 Jan 21 21:40	29°♏37'50	0.67198 AU
direct	3028 Feb 18 15:48	8°♏04'05		morning rise	3029 Jan 26 08:29	24°♏24'35	
morning max el	3028 Mar 02 06:32	15°♏33'08	26°08'12	direct	3029 Feb 01 01:36	21°♏52'47	
desc. node	3028 Mar 03 05:47	16°♏33'01		morning max el	3029 Feb 12 15:13	28°♏47'26	24°47'28
	3028 Mar 14 04:15	0°♋			3029 Feb 13 19:13	0°♏	
	3028 Apr 02 08:02	0°♐		desc. node	3029 Feb 18 02:49	4°♏55'53	
morning set	3028 Apr 07 09:42	9°♐09'07			3029 Mar 07 23:08	0°♋	
max. Earth dist.	3028 Apr 11 09:47	16°♐45'36	1.35284 AU	morning set	3029 Mar 20 16:21	21°♋08'02	
				max. Earth dist.	3029 Mar 24 08:48	27°♋46'43	1.37158 AU
					3029 Mar 25 13:39	0°♐	
superior conj	3028 Apr 16 12:19	26°♐55'27	0°-59'-47				
minimum elong	3028 Apr 16 15:25	27°♐11'16	0°59'14				
	3028 Apr 18 00:25	0°♑		superior conj	3029 Mar 30 22:18	10°♐13'02	-1°-26'-45
asc. node	3028 Apr 22 13:51	9°♑26'16		minimum elong	3029 Mar 31 02:34	10°♐33'52	1°26'09
evening rise	3028 Apr 24 08:31	13°♑06'22		evening rise	3029 Apr 08 10:50	27°♐11'45	
	3028 May 03 04:20	0°♒		asc. node	3029 Apr 09 10:54	29°♐11'38	
evening max el	3028 May 12 17:15	12°♒55'44	20°27'56		3029 Apr 09 20:39	0°♑	
retrograde	3028 May 23 16:55	18°♒16'44		evening max el	3029 Apr 25 08:29	24°♑35'56	19°22'55
evening set	3028 May 25 17:53	18°♒06'25		retrograde	3029 May 04 15:00	29°♑05'41	
desc. node	3028 May 30 04:59	16°♒40'25		evening set	3029 May 06 15:28	28°♑53'49	
inferior conj	3028 Jun 03 22:13	14°♒08'35	-1°-23'-5	inferior conj	3029 May 15 03:57	24°♑46'40	0°33'18
minimum elong	3028 Jun 03 18:17	14°♒14'17	1°21'40	minimum elong	3029 May 15 05:20	24°♑44'24	0°32'48
min. Earth dist.	3028 Jun 05 06:19	13°♒21'59	0.55026 AU	desc. node	3029 May 17 01:59	23°♑31'15	
morning rise	3028 Jun 12 17:05	9°♒57'50		min. Earth dist.	3029 May 17 20:57	23°♑00'49	0.56027 AU
direct	3028 Jun 16 12:31	9°♒26'33		morning rise	3029 May 23 15:12	20°♑02'49	
morning max el	3028 Jun 29 22:09	15°♒56'25	23°24'51	direct	3029 May 28 09:03	19°♑11'30	
	3028 Jul 11 01:08	0°♓		morning max el	3029 Jun 11 12:26	26°♑22'01	25°06'04
asc. node	3028 Jul 19 13:07	15°♓12'32			3029 Jun 14 23:38	0°♒	
morning set	3028 Jul 23 08:48	23°♓02'18			3029 Jul 03 23:38	0°♓	
	3028 Jul 26 15:05	0°♈		asc. node	3029 Jul 06 10:09	4°♓57'21	

morning set	3029 Jul 07 20:36	7°♄57'40		morning max el	3030 May 24 04:47	6°♄57'39	26°32'18
					3030 Jun 10 07:47	0°♄	
superior conj	3029 Jul 14 20:36	23°♄08'24	1°18'26	morning set	3030 Jun 22 07:13	22°♄48'09	
minimum elong	3029 Jul 14 18:14	22°♄55'27	1°18'06	asc. node	3030 Jun 23 07:11	24°♄55'02	
max. Earth dist.	3029 Jul 16 04:00	25°♄59'33	1.32670 AU		3030 Jun 25 15:47	0°♄	
	3029 Jul 18 00:29	0°♄					
evening rise	3029 Jul 22 01:13	8°♄28'43		superior conj	3030 Jun 29 08:12	8°♄05'15	0°59'51
	3029 Aug 02 11:55	0°♄		minimum elong	3030 Jun 29 06:00	7°♄53'07	0°59'27
desc. node	3029 Aug 13 01:18	16°♄10'18		max. Earth dist.	3030 Jun 29 14:46	8°♄41'26	1.32197 AU
evening max el	3029 Aug 23 11:57	28°♄20'23	27°23'11	evening rise	3030 Jul 06 07:04	23°♄08'32	
	3029 Aug 25 08:08	0°♄			3030 Jul 09 15:28	0°♄	
retrograde	3029 Sep 06 06:38	5°♄36'35			3030 Jul 27 12:40	0°♄	
evening set	3029 Sep 13 11:18	3°♄06'55		desc. node	3030 Jul 30 22:20	4°♄21'25	
min. Earth dist.	3029 Sep 17 01:46	0°♄10'40	0.62586 AU	evening max el	3030 Aug 05 16:17	10°♄34'58	26°51'55
	3029 Sep 17 06:24	30°♄		retrograde	3030 Aug 19 14:33	17°♄47'05	
inferior conj	3029 Sep 19 22:44	27°♄26'49	-3°-44'-56	evening set	3030 Aug 26 13:03	15°♄41'50	
minimum elong	3029 Sep 20 04:20	27°♄13'30	3°43'23	min. Earth dist.	3030 Aug 30 06:28	13°♄03'49	0.60602 AU
morning rise	3029 Sep 27 00:06	22°♄18'40		inferior conj	3030 Sep 02 11:47	10°♄22'33	-4°-32'-31
direct	3029 Sep 29 08:49	21°♄53'23		minimum elong	3030 Sep 02 16:56	10°♄11'45	4°31'35
asc. node	3029 Oct 02 09:23	22°♄35'57		morning rise	3030 Sep 10 00:01	5°♄35'51	
morning max el	3029 Oct 06 02:51	25°♄20'29	17°51'18	direct	3030 Sep 12 08:18	5°♄14'30	
	3029 Oct 09 23:58	0°♄		asc. node	3030 Sep 19 06:25	8°♄28'51	
morning set	3029 Oct 22 03:50	20°♄18'18		morning max el	3030 Sep 19 15:45	8°♄50'55	18°05'11
	3029 Oct 27 15:15	0°♄			3030 Oct 03 09:11	0°♄	
				morning set	3030 Oct 05 10:11	3°♄47'50	
superior conj	3029 Nov 02 12:18	10°♄07'20	0°43'57				
minimum elong	3029 Nov 02 16:08	10°♄23'33	0°43'26	superior conj	3030 Oct 15 06:38	21°♄53'58	1°14'47
desc. node	3029 Nov 09 00:38	20°♄54'56		minimum elong	3030 Oct 15 10:51	22°♄12'45	1°14'18
max. Earth dist.	3029 Nov 09 11:21	21°♄38'21	1.43429 AU		3030 Oct 19 21:41	0°♄	
	3029 Nov 14 17:04	0°♄		max. Earth dist.	3030 Oct 22 21:54	5°♄06'22	1.41708 AU
evening rise	3029 Nov 17 11:08	4°♄18'13		desc. node	3030 Oct 26 21:40	11°♄41'28	
	3029 Dec 04 16:18	0°♄		evening rise	3030 Oct 28 09:55	14°♄07'50	
greatest brilliancy	3029 Dec 13 00:50	11°♄18'07	-0.4m		3030 Nov 07 15:43	0°♄	
evening max el	3029 Dec 18 00:59	17°♄03'55	21°24'08	greatest brilliancy	3030 Nov 25 19:31	25°♄05'37	-0.3m
retrograde	3029 Dec 26 20:32	22°♄18'00			3030 Nov 30 03:22	0°♄	
asc. node	3029 Dec 29 08:38	21°♄43'35		evening max el	3030 Nov 30 18:16	0°♄38'12	22°41'27
evening set	3029 Dec 31 00:03	20°♄42'06		retrograde	3030 Dec 10 15:57	6°♄31'02	
inferior conj	3030 Jan 05 09:37	14°♄24'31	2°13'04	evening set	3030 Dec 15 07:30	4°♄38'37	
minimum elong	3030 Jan 05 07:11	14°♄32'57	2°12'16	asc. node	3030 Dec 16 05:40	3°♄48'47	
min. Earth dist.	3030 Jan 05 15:51	14°♄02'58	0.67748 AU		3030 Dec 19 10:34	30°♄	
morning rise	3030 Jan 10 13:59	8°♄09'46		inferior conj	3030 Dec 20 17:17	28°♄14'37	1°28'55
direct	3030 Jan 15 16:15	5°♄58'12		minimum elong	3030 Dec 20 15:24	28°♄21'07	1°28'11
morning max el	3030 Jan 26 00:05	12°♄06'43	23°18'55	min. Earth dist.	3030 Dec 20 12:20	28°♄31'46	0.67928 AU
greatest brilliancy	3030 Jan 31 07:56	18°♄06'15	-0.2m	morning rise	3030 Dec 25 23:14	22°♄02'46	
desc. node	3030 Feb 04 23:52	24°♄04'49		direct	3030 Dec 30 10:39	20°♄14'05	
	3030 Feb 09 07:20	0°♄		morning max el	3031 Jan 08 12:37	25°♄33'27	21°52'11
	3030 Feb 28 19:31	0°♄			3031 Jan 12 12:38	0°♄	
morning set	3030 Mar 01 22:37	1°♄53'18		greatest brilliancy	3031 Jan 13 06:21	0°♄53'42	-0.4m
max. Earth dist.	3030 Mar 06 03:22	9°♄04'10	1.39295 AU	desc. node	3031 Jan 22 20:56	13°♄46'52	
					3031 Feb 02 19:34	0°♄	
superior conj	3030 Mar 13 18:05	22°♄46'10	-1°-49'-22	morning set	3031 Feb 09 23:58	11°♄15'25	
minimum elong	3030 Mar 13 22:29	23°♄06'33	1°48'59	max. Earth dist.	3031 Feb 16 01:57	21°♄11'35	1.41428 AU
	3030 Mar 17 14:16	0°♄			3031 Feb 21 06:28	0°♄	
evening rise	3030 Mar 23 04:56	10°♄48'04					
asc. node	3030 Mar 27 07:56	18°♄39'31		superior conj	3031 Feb 23 18:51	4°♄23'20	-2°-3'-45
	3030 Apr 02 22:21	0°♄		minimum elong	3031 Feb 23 21:17	4°♄34'01	2°03'42
evening max el	3030 Apr 08 09:57	6°♄54'11	18°37'58	evening rise	3031 Mar 06 11:24	23°♄47'19	
retrograde	3030 Apr 16 06:40	10°♄45'18			3031 Mar 09 20:24	0°♄	
evening set	3030 Apr 18 12:36	10°♄27'31		asc. node	3031 Mar 14 04:59	7°♄43'50	
inferior conj	3030 Apr 26 05:42	6°♄01'54	2°04'56	evening max el	3031 Mar 22 18:18	19°♄41'43	18°12'58
minimum elong	3030 Apr 26 09:28	5°♄54'42	2°03'51	retrograde	3031 Mar 29 17:03	23°♄11'05	
min. Earth dist.	3030 Apr 29 14:42	3°♄28'36	0.57755 AU	evening set	3031 Apr 01 05:00	22°♄44'46	
desc. node	3030 May 03 23:02	0°♄47'57		inferior conj	3031 Apr 08 04:37	17°♄57'41	3°03'34
morning rise	3030 May 04 01:55	0°♄44'31		minimum elong	3031 Apr 08 07:51	17°♄50'27	3°02'57
	3030 May 05 22:30	30°♄		min. Earth dist.	3031 Apr 11 13:40	14°♄58'37	0.59863 AU
direct	3030 May 09 19:56	29°♄21'44		morning rise	3031 Apr 15 07:07	12°♄14'47	
	3030 May 13 18:40	0°♄		desc. node	3031 Apr 20 20:05	10°♄19'04	

direct	3031 Apr 21 19:14	10° Υ 16'30		desc. node	3032 Apr 06 17:09	22° $\cancel{\text{K}}$ 35'35	
morning max el	3031 May 06 03:00	18° Υ 06'26	27°29'50		3032 Apr 17 08:38	0° Υ	
	3031 May 16 01:40	0° B		morning max el	3032 Apr 17 07:30	29° $\cancel{\text{K}}$ 57'12	27°50'53
	3031 Jun 02 22:28	0° Π			3032 May 09 01:49	0° B	
morning set	3031 Jun 06 14:59	7° Π 28'08		morning set	3032 May 20 17:50	21° B 50'27	
asc. node	3031 Jun 10 04:15	15° Π 00'38			3032 May 24 15:47	0° Π	
max. Earth dist.	3031 Jun 13 02:48	21° Π 25'26	1.32117 AU	max. Earth dist.	3032 May 26 12:02	3° Π 57'15	1.32434 AU
				asc. node	3032 May 27 01:19	5° Π 09'05	
superior conj	3031 Jun 13 19:49	22° Π 59'03	0°37'38				
minimum elong	3031 Jun 13 18:14	22° Π 50'18	0°37'18	superior conj	3032 May 28 05:42	7° Π 43'23	0°12'27
	3031 Jun 17 00:22	0° S		minimum elong	3032 May 28 05:08	7° Π 40'13	0°12'19
evening rise	3031 Jun 20 16:51	7° S 57'33		behind sun begin	3032 May 28 01:51	7° Π 22'21	
	3031 Jul 02 03:48	0° Ω		behind sun end	3032 May 28 08:24	7° Π 58'04	
desc. node	3031 Jul 17 19:21	21° Ω 17'37		evening rise	3032 Jun 04 04:27	22° Π 48'08	
evening max el	3031 Jul 18 13:27	22° Ω 01'41	25°48'38		3032 Jun 07 15:41	0° S	
retrograde	3031 Aug 01 13:07	29° Ω 09'42			3032 Jun 26 12:21	0° Ω	
evening set	3031 Aug 07 16:57	27° Ω 39'36		evening max el	3032 Jun 29 04:03	2° Ω 45'31	24°21'35
min. Earth dist.	3031 Aug 12 01:42	25° Ω 02'52	0.58545 AU	desc. node	3032 Jul 03 16:21	6° Ω 29'00	
inferior conj	3031 Aug 15 07:20	22° Ω 42'32	-5°-1'-28	retrograde	3032 Jul 13 00:39	9° Ω 45'22	
minimum elong	3031 Aug 15 09:31	22° Ω 38'33	5°01'20	evening set	3032 Jul 17 20:52	8° Ω 52'59	
morning rise	3031 Aug 23 05:35	18° Ω 19'15		min. Earth dist.	3032 Jul 23 14:52	5° Ω 59'08	0.56674 AU
direct	3031 Aug 25 16:38	17° Ω 59'40		inferior conj	3032 Jul 26 06:46	4° Ω 18'19	-4°-57'-55
morning max el	3031 Sep 02 22:13	21° Ω 55'08	18°39'24	minimum elong	3032 Jul 26 03:30	4° Ω 23'31	4°57'40
asc. node	3031 Sep 06 03:29	25° Ω 31'31		morning rise	3032 Aug 03 13:45	0° Ω 16'19	
	3031 Sep 09 06:56	0° M			3032 Aug 05 05:29	30° R S	
morning set	3031 Sep 19 04:03	17° M 50'20		direct	3032 Aug 06 05:50	29° S 57'10	
	3031 Sep 25 10:37	0° A			3032 Aug 07 05:54	0° Ω	
				morning max el	3032 Aug 15 19:16	4° Ω 24'00	19°35'08
superior conj	3031 Sep 27 22:23	4° A 43'34	1°34'11	asc. node	3032 Aug 23 00:32	13° Ω 29'15	
minimum elong	3031 Sep 28 01:15	4° A 57'02	1°33'57		3032 Sep 01 02:40	0° M	
max. Earth dist.	3031 Oct 05 03:51	17° A 52'13	1.39688 AU	morning set	3032 Sep 02 05:55	2° M 16'13	
evening rise	3031 Oct 09 06:59	24° A 58'38					
	3031 Oct 12 07:31	0° M		superior conj	3032 Sep 10 06:06	18° M 21'00	1°43'30
desc. node	3031 Oct 13 18:41	2° M 23'03		minimum elong	3032 Sep 10 07:11	18° M 26'19	1°43'29
	3031 Nov 01 10:05	0° J			3032 Sep 16 08:05	0° A	
evening max el	3031 Nov 13 08:00	14° J 15'29	24°01'23	max. Earth dist.	3032 Sep 16 08:07	0° A 00'10	1.37625 AU
retrograde	3031 Nov 24 08:04	20° J 43'31		evening rise	3032 Sep 20 03:22	6° A 54'32	
evening set	3031 Nov 29 13:04	18° J 34'19		desc. node	3032 Sep 29 15:41	22° A 55'48	
asc. node	3031 Dec 03 02:43	14° J 40'16			3032 Oct 04 04:52	0° M	
min. Earth dist.	3031 Dec 04 08:42	13° J 00'53	0.67755 AU	evening max el	3032 Oct 25 20:09	27° M 55'52	25°17'14
inferior conj	3031 Dec 05 00:24	12° J 07'46	0°38'51		3032 Oct 28 01:45	0° J	
minimum elong	3031 Dec 04 23:29	12° J 10'52	0°38'28	retrograde	3032 Nov 06 19:58	4° J 51'16	
morning rise	3031 Dec 10 10:10	6° J 01'01		evening set	3032 Nov 12 15:07	2° J 26'37	
direct	3031 Dec 14 07:44	4° J 34'49			3032 Nov 15 01:20	30° R M	
morning max el	3031 Dec 22 08:05	9° J 11'14	20°34'15	min. Earth dist.	3032 Nov 17 02:44	27° M 27'56	0.67239 AU
greatest brilliancy	3031 Dec 28 09:39	16° J 19'01	-0.5m	inferior conj	3032 Nov 18 05:13	26° M 01'56	0°-15'-55
	3032 Jan 07 03:15	0° S		minimum elong	3032 Nov 18 05:37	26° M 00'38	0°15'46
desc. node	3032 Jan 09 17:59	3° S 52'24		transit middle	3032 Nov 18 05:37	26° M 00'38	0°15'46
morning set	3032 Jan 20 01:16	19° S 33'49		transit begin	3032 Nov 18 04:59	26° M 02'42	
	3032 Jan 26 16:33	0° \approx		transit end	3032 Nov 18 06:16	25° M 58'33	
max. Earth dist.	3032 Jan 29 08:20	4° \approx 15'52	1.43260 AU	asc. node	3032 Nov 18 23:46	25° M 02'07	
				morning rise	3032 Nov 23 20:50	20° M 02'34	
superior conj	3032 Feb 04 19:29	14° \approx 52'32	-2°-4'-55	direct	3032 Nov 27 06:10	18° M 56'20	
minimum elong	3032 Feb 04 17:10	14° \approx 42'52	2°04'53	morning max el	3032 Dec 04 11:30	23° M 00'15	19°29'30
	3032 Feb 13 15:53	0° K			3032 Dec 10 07:22	0° J	
evening rise	3032 Feb 17 02:04	6° K 00'28		greatest brilliancy	3032 Dec 13 03:03	3° J 55'21	-0.7m
asc. node	3032 Feb 29 02:02	26° K 16'31		desc. node	3032 Dec 26 14:59	24° J 15'00	
	3032 Mar 02 18:42	0° Υ		morning set	3032 Dec 28 23:07	27° J 51'44	
evening max el	3032 Mar 05 06:12	2° Υ 49'02	18°07'30		3032 Dec 30 08:15	0° S	
retrograde	3032 Mar 11 18:24	6° Υ 12'11		max. Earth dist.	3033 Jan 10 21:25	18° S 03'52	1.44554 AU
evening set	3032 Mar 14 11:44	5° Υ 35'57					
inferior conj	3032 Mar 20 21:36	0° Υ 27'53	3°32'58	superior conj	3033 Jan 14 18:08	24° S 12'42	-1°-48'-2
minimum elong	3032 Mar 20 23:05	0° Υ 24'06	3°32'51	minimum elong	3033 Jan 14 10:21	23° S 41'31	1°47'27
	3032 Mar 21 08:29	30° R K			3033 Jan 18 08:25	0° \approx	
min. Earth dist.	3032 Mar 23 20:34	27° K 27'47	0.62012 AU	evening rise	3033 Jan 28 20:38	17° \approx 19'56	
morning rise	3032 Mar 27 07:53	24° K 28'41			3033 Feb 05 10:38	0° K	
direct	3032 Apr 03 04:44	22° K 00'16		asc. node	3033 Feb 14 23:04	14° K 08'14	

evening max el	3033 Feb 16 18:45	16° ✕ 09'19	18°21'00	asc. node	3034 Feb 01 20:06	1° ✕ 06'35	
retrograde	3033 Feb 23 06:04	19° ✕ 39'28		retrograde	3034 Feb 07 00:03	3° ✕ 24'54	
evening set	3033 Feb 26 04:50	18° ✕ 52'19		evening set	3034 Feb 10 05:00	2° ✕ 25'44	
inferior conj	3033 Mar 04 04:39	13° ✕ 24'55	3°39'52		3034 Feb 13 01:54	30° ℞	
minimum elong	3033 Mar 04 04:20	13° ✕ 25'48	3°39'51	inferior conj	3034 Feb 15 21:52	26° ≈ 40'59	3°30'03
min. Earth dist.	3033 Mar 06 12:59	10° ✕ 44'41	0.63954 AU	minimum elong	3034 Feb 15 20:15	26° ≈ 46'02	3°29'50
morning rise	3033 Mar 10 02:09	7° ✕ 16'33		min. Earth dist.	3034 Feb 17 14:41	24° ≈ 34'21	0.65539 AU
direct	3033 Mar 16 22:45	4° ✕ 30'10		morning rise	3034 Feb 21 10:25	20° ≈ 27'58	
desc. node	3033 Mar 24 14:12	7° ✕ 16'43		direct	3034 Feb 27 23:45	17° ≈ 37'59	
morning max el	3033 Mar 30 16:08	12° ✕ 26'00	27°34'49	desc. node	3034 Mar 11 11:13	23° ≈ 46'53	
	3033 Apr 13 16:53	0° Υ		morning max el	3034 Mar 13 01:56	25° ≈ 20'55	26°46'52
	3033 May 01 13:38	0° ♄			3034 Mar 17 08:03	0° ✕	
morning set	3033 May 04 13:17	5° ♄ 47'32			3034 Apr 07 04:35	0° Υ	
max. Earth dist.	3033 May 09 14:22	16° ♄ 04'07	1.33178 AU	morning set	3034 Apr 17 22:08	19° Υ 09'40	
				max. Earth dist.	3034 Apr 22 06:22	27° Υ 38'45	1.34379 AU
					3034 Apr 23 10:26	0° ♄	
superior conj	3033 May 12 12:03	22° ♄ 12'46	0°-14'-57				
minimum elong	3033 May 12 12:48	22° ♄ 16'45	0°14'48	superior conj	3034 Apr 26 12:45	6° ♄ 21'08	0°-43'-26
behind sun begin	3033 May 12 10:47	22° ♄ 05'59		minimum elong	3034 Apr 26 15:00	6° ♄ 32'50	0°43'00
behind sun end	3033 May 12 14:49	22° ♄ 27'32		asc. node	3034 Apr 30 19:23	15° ♄ 19'15	
asc. node	3033 May 13 22:21	25° ♄ 16'32		evening rise	3034 May 04 01:48	22° ♄ 10'26	
	3033 May 16 03:01	0° ♄			3034 May 07 22:12	0° ♄	
evening rise	3033 May 19 16:03	7° ♄ 34'19			3034 May 23 14:47	23° ♄ 52'45	21°13'56
	3033 May 31 12:52	0° ♄		evening max el	3034 Jun 04 13:35	29° ♄ 43'45	
evening max el	3033 Jun 10 17:50	13° ♄ 11'20	22°45'03	retrograde	3034 Jun 06 20:47	29° ♄ 31'32	
desc. node	3033 Jun 20 13:23	19° ♄ 20'02		evening set	3034 Jun 07 10:25	29° ♄ 24'54	
retrograde	3033 Jun 23 23:53	19° ♄ 47'06		desc. node	3034 Jun 16 05:26	25° ♄ 33'11	-2°-31'-20
evening set	3033 Jun 27 07:57	19° ♄ 22'40		inferior conj	3034 Jun 15 22:35	25° ♄ 42'48	2°29'03
min. Earth dist.	3033 Jul 05 02:07	15° ♄ 57'26	0.55343 AU	minimum elong	3034 Jun 16 13:53	25° ♄ 21'18	0.54861 AU
inferior conj	3033 Jul 06 11:21	15° ♄ 09'47	-4°-8'00	min. Earth dist.	3034 Jun 25 00:26	21° ♄ 35'06	
minimum elong	3033 Jul 06 03:30	15° ♄ 21'03	4°06'14	morning rise	3034 Jun 28 10:32	21° ♄ 09'46	
morning rise	3033 Jul 15 01:44	11° ♄ 18'38		direct	3034 Jul 11 03:24	27° ♄ 12'07	22°26'05
direct	3033 Jul 18 00:37	10° ♄ 58'24		morning max el	3034 Jul 13 21:04	0° ♄	
morning max el	3033 Jul 29 04:51	16° ♄ 09'40	20°51'57		3034 Jul 27 18:37	21° ♄ 20'18	
	3033 Aug 08 15:45	0° ♄		asc. node	3034 Aug 01 02:29	0° ♄	
asc. node	3033 Aug 09 21:35	2° ♄ 08'51		morning set	3034 Aug 01 23:23	1° ♄ 48'51	
morning set	3033 Aug 17 13:02	16° ♄ 57'35					
	3033 Aug 23 19:38	0° ♄		superior conj	3034 Aug 09 03:59	17° ♄ 06'20	1°38'41
superior conj	3033 Aug 25 01:08	2° ♄ 32'01	1°44'30	minimum elong	3034 Aug 09 02:21	16° ♄ 57'41	1°38'35
minimum elong	3033 Aug 25 00:38	2° ♄ 29'25	1°44'31	max. Earth dist.	3034 Aug 12 09:02	23° ♄ 49'39	1.34243 AU
max. Earth dist.	3033 Aug 29 16:14	11° ♄ 50'35	1.35758 AU		3034 Aug 15 09:58	0° ♄	
evening rise	3033 Sep 02 19:34	19° ♄ 46'31		evening rise	3034 Aug 17 03:06	3° ♄ 22'58	
	3033 Sep 08 11:45	0° ♄			3034 Sep 01 07:40	0° ♄	
desc. node	3033 Sep 16 12:41	13° ♄ 14'08		desc. node	3034 Sep 03 09:42	3° ♄ 11'29	
	3033 Sep 28 05:40	0° ♄		evening max el	3034 Sep 20 20:50	25° ♄ 08'40	27°06'53
evening max el	3033 Oct 08 08:20	11° ♄ 36'02	26°21'37		3034 Sep 26 22:21	0° ♄	
retrograde	3033 Oct 21 02:56	18° ♄ 47'46		retrograde	3034 Oct 04 04:14	2° ♄ 26'11	
evening set	3033 Oct 27 11:45	16° ♄ 11'28			3034 Oct 10 16:47	30° ℞	
min. Earth dist.	3033 Oct 31 16:02	11° ♄ 48'46	0.66382 AU	evening set	3034 Oct 11 00:44	29° ♄ 44'40	
inferior conj	3033 Nov 02 05:51	9° ♄ 53'23	-1°-14'-9	min. Earth dist.	3034 Oct 14 22:19	25° ♄ 58'17	0.65179 AU
minimum elong	3033 Nov 02 07:50	9° ♄ 47'17	1°13'20	inferior conj	3034 Oct 17 00:09	23° ♄ 38'08	-2°-14'-3
asc. node	3033 Nov 05 20:48	5° ♄ 50'36		minimum elong	3034 Oct 17 03:50	23° ♄ 27'46	2°12'39
morning rise	3033 Nov 08 05:08	4° ♄ 04'05		morning rise	3034 Oct 23 08:44	18° ♄ 01'58	
direct	3033 Nov 11 04:24	3° ♄ 14'05		asc. node	3034 Oct 23 17:50	17° ♄ 52'02	
morning max el	3033 Nov 17 21:40	6° ♄ 56'07	18°40'07	direct	3034 Oct 26 00:17	17° ♄ 24'18	
	3033 Dec 04 03:21	0° ♄		morning max el	3034 Nov 01 12:21	20° ♄ 53'47	18°07'19
morning set	3033 Dec 08 17:07	7° ♄ 14'47			3034 Nov 08 12:06	0° ♄	
desc. node	3033 Dec 13 11:59	14° ♄ 49'07		morning set	3034 Nov 19 16:35	18° ♄ 06'23	
	3033 Dec 23 03:37	0° ♄			3034 Nov 26 22:51	0° ♄	
				desc. node	3034 Nov 30 08:59	5° ♄ 31'11	
superior conj	3033 Dec 24 22:20	2° ♄ 47'37	-1°-12'-21				
minimum elong	3033 Dec 24 13:52	2° ♄ 14'22	1°11'23	superior conj	3034 Dec 04 03:17	11° ♄ 31'19	0°-25'-20
max. Earth dist.	3033 Dec 24 14:46	2° ♄ 17'53	1.45170 AU	minimum elong	3034 Dec 04 00:04	11° ♄ 18'36	0°24'54
evening rise	3034 Jan 09 15:55	27° ♄ 41'07		max. Earth dist.	3034 Dec 07 10:01	16° ♄ 42'27	1.45048 AU
	3034 Jan 11 02:37	0° ≈			3034 Dec 15 22:04	0° ♄	
evening max el	3034 Jan 31 05:27	29° ≈ 36'29	18°52'39	evening rise	3034 Dec 20 13:34	7° ♄ 12'36	
	3034 Jan 31 14:51	0° ✕			3035 Jan 04 11:33	0° ≈	

greatest brilliancy	3035 Jan 06 19:10	3° \approx 21'28	-0.6m		3036 Jan 01 12:02	0° \approx	
evening max el	3035 Jan 14 12:15	13° \approx 06'49	19°40'47	retrograde	3036 Jan 05 19:14	1° \approx 30'02	
asc. node	3035 Jan 19 17:08	16° \approx 57'25		asc. node	3036 Jan 06 14:09	1° \approx 26'35	
retrograde	3035 Jan 21 21:13	17° \approx 23'01		evening set	3036 Jan 09 16:50	0° \approx 02'50	
evening set	3035 Jan 25 09:41	16° \approx 10'31			3036 Jan 09 18:20	30° \approx 3	
inferior conj	3035 Jan 30 22:09	10° \approx 10'39	3°07'36	inferior conj	3036 Jan 15 02:56	23° \approx 50'40	2°35'20
minimum elong	3035 Jan 30 19:47	10° \approx 18'27	3°07'06	minimum elong	3036 Jan 15 00:23	23° \approx 59'24	2°34'36
min. Earth dist.	3035 Feb 01 00:18	8° \approx 44'23	0.66718 AU	min. Earth dist.	3036 Jan 15 15:58	23° \approx 06'06	0.67485 AU
morning rise	3035 Feb 05 05:12	3° \approx 55'37		morning rise	3036 Jan 20 07:31	17° \approx 35'26	
direct	3035 Feb 11 06:33	1° \approx 14'34		direct	3036 Jan 25 18:25	15° \approx 31'53	
morning max el	3035 Feb 23 11:01	8° \approx 30'09	25°35'19	morning max el	3036 Feb 05 19:31	21° \approx 347'06	24°10'11
desc. node	3035 Feb 26 08:14	11° \approx 35'23			3036 Feb 12 22:59	0° \approx	
	3035 Mar 12 07:58	0° \approx		desc. node	3036 Feb 13 05:16	0° \approx 19'53	
	3035 Mar 30 17:08	0° \approx			3036 Mar 04 14:55	0° \approx	
morning set	3035 Mar 31 15:53	1° \approx 43'03		morning set	3036 Mar 12 12:57	13° \approx 12'43	
max. Earth dist.	3035 Apr 04 10:50	8° \approx 45'51	1.36039 AU	max. Earth dist.	3036 Mar 16 07:31	19° \approx 51'52	1.38058 AU
					3036 Mar 21 19:38	0° \approx	
superior conj	3035 Apr 10 05:03	19° \approx 59'56	-1°-11'-33				
minimum elong	3035 Apr 10 08:44	20° \approx 18'19	1°10'58	superior conj	3036 Mar 23 09:35	3° \approx 00'17	-1°-37'-4
	3035 Apr 15 03:21	0° \approx		minimum elong	3036 Mar 23 14:05	3° \approx 21'49	1°36'32
asc. node	3035 Apr 17 16:25	5° \approx 12'17		evening rise	3036 Apr 01 06:47	20° \approx 23'38	
evening rise	3035 Apr 18 07:32	6° \approx 29'08		asc. node	3036 Apr 03 13:29	24° \approx 51'07	
	3035 May 01 13:24	0° \approx			3036 Apr 06 06:24	0° \approx	
evening max el	3035 May 05 23:14	5° \approx 09'24	19°57'54	evening max el	3036 Apr 17 19:07	17° \approx 06'11	19°01'12
retrograde	3035 May 16 04:41	10° \approx 07'09		retrograde	3036 Apr 26 09:53	21° \approx 17'48	
evening set	3035 May 18 04:25	9° \approx 56'43		evening set	3036 Apr 28 12:27	21° \approx 03'47	
desc. node	3035 May 25 07:27	7° \approx 01'18		inferior conj	3036 May 06 16:38	16° \approx 48'58	1°16'07
inferior conj	3035 May 27 02:56	5° \approx 56'35	0°-31'-57	minimum elong	3036 May 06 19:27	16° \approx 44'01	1°15'10
minimum elong	3035 May 27 01:28	5° \approx 58'49	0°31'26	min. Earth dist.	3036 May 09 18:23	14° \approx 41'07	0.56698 AU
min. Earth dist.	3035 May 29 02:53	4° \approx 44'10	0.55349 AU	desc. node	3036 May 11 04:29	13° \approx 46'12	
morning rise	3035 Jun 04 19:44	1° \approx 33'09		morning rise	3036 May 14 22:11	11° \approx 50'21	
direct	3035 Jun 09 00:19	0° \approx 54'41		direct	3036 May 20 02:26	10° \approx 47'04	
morning max el	3035 Jun 22 18:46	7° \approx 43'01	24°08'44	morning max el	3036 Jun 03 09:21	18° \approx 09'20	25°45'34
	3035 Jul 08 22:37	0° \approx			3036 Jun 13 05:53	0° \approx	
asc. node	3035 Jul 14 15:39	10° \approx 54'35			3036 Jun 30 04:04	0° \approx	
morning set	3035 Jul 17 11:07	16° \approx 43'49		morning set	3036 Jun 30 22:37	1° \approx 37'28	
	3035 Jul 23 14:47	0° \approx		asc. node	3036 Jun 30 12:43	0° \approx 45'20	
superior conj	3035 Jul 24 11:53	1° \approx 54'28	1°27'14	superior conj	3036 Jul 07 22:40	16° \approx 49'45	1°11'02
minimum elong	3035 Jul 24 09:38	1° \approx 42'18	1°26'58	minimum elong	3036 Jul 07 20:19	16° \approx 36'50	1°10'39
max. Earth dist.	3035 Jul 26 10:52	6° \approx 07'50	1.33131 AU	max. Earth dist.	3036 Jul 08 19:23	18° \approx 43'22	1.32423 AU
evening rise	3035 Jul 31 21:48	17° \approx 31'10			3036 Jul 14 01:04	0° \approx	
	3035 Aug 07 09:05	0° \approx		evening rise	3036 Jul 15 00:21	2° \approx 01'30	
desc. node	3035 Aug 21 06:45	22° \approx 38'08			3036 Jul 30 06:49	0° \approx	
	3035 Aug 26 18:58	0° \approx		desc. node	3036 Aug 07 03:47	11° \approx 21'28	
evening max el	3035 Sep 03 08:03	8° \approx 20'43	27°26'06	evening max el	3036 Aug 15 15:29	20° \approx 58'40	27°13'55
retrograde	3035 Sep 16 23:17	15° \approx 37'36		retrograde	3036 Aug 29 11:32	28° \approx 12'52	
evening set	3035 Sep 24 03:08	13° \approx 00'14		evening set	3036 Sep 05 15:11	25° \approx 51'45	
min. Earth dist.	3035 Sep 27 19:19	9° \approx 47'45	0.63625 AU	min. Earth dist.	3036 Sep 09 05:42	23° \approx 05'24	0.61765 AU
inferior conj	3035 Sep 30 09:34	7° \approx 09'44	-3°-13'-1	inferior conj	3036 Sep 12 07:00	20° \approx 20'33	-4°-6'-44
minimum elong	3035 Sep 30 14:41	6° \approx 56'42	3°11'22	minimum elong	3036 Sep 12 12:39	20° \approx 07'48	4°05'22
morning rise	3035 Oct 07 04:36	1° \approx 50'20		morning rise	3036 Sep 19 13:04	15° \approx 21'25	
direct	3035 Oct 09 15:07	1° \approx 21'20		direct	3036 Sep 21 21:19	14° \approx 58'02	
asc. node	3035 Oct 10 14:51	1° \approx 26'12		asc. node	3036 Sep 26 11:54	16° \approx 31'38	
morning max el	3035 Oct 16 04:46	4° \approx 46'42	17°52'00	morning max el	3036 Sep 28 19:54	18° \approx 27'39	17°54'55
morning set	3035 Nov 01 18:21	0° \approx 14'15			3036 Oct 07 03:56	0° \approx	
	3035 Nov 01 15:03	0° \approx		morning set	3036 Oct 14 15:53	13° \approx 18'14	
					3036 Oct 23 23:36	0° \approx	
superior conj	3035 Nov 14 04:03	21° \approx 15'51	0°21'03				
minimum elong	3035 Nov 14 06:15	21° \approx 24'57	0°20'45	superior conj	3036 Oct 25 07:43	2° \approx 19'30	0°58'29
desc. node	3035 Nov 17 06:02	26° \approx 17'45		minimum elong	3036 Oct 25 12:02	2° \approx 38'08	0°57'55
	3035 Nov 19 13:13	0° \approx		max. Earth dist.	3036 Nov 01 17:46	14° \approx 49'04	1.42742 AU
max. Earth dist.	3035 Nov 20 04:04	0° \approx 59'21	1.44202 AU	desc. node	3036 Nov 03 03:04	17° \approx 05'02	
evening rise	3035 Nov 29 23:11	16° \approx 20'19		evening rise	3036 Nov 08 12:40	25° \approx 142'48	
	3035 Dec 08 23:07	0° \approx			3036 Nov 11 06:38	0° \approx	
greatest brilliancy	3035 Dec 22 21:13	19° \approx 53'51	-0.5m		3036 Dec 01 21:55	0° \approx	
evening max el	3035 Dec 28 13:48	26° \approx 38'28	20°43'05	greatest brilliancy	3036 Dec 05 15:39	4° \approx 47'20	-0.3m

evening max el	3036 Dec 10 09:44	10°☿10'38	21°56'16		3037 Oct 16 06:30	0°♄	
retrograde	3036 Dec 19 16:10	15°☿41'39		evening rise	3037 Oct 19 20:18	5°♄56'43	
asc. node	3036 Dec 23 11:11	14°☿23'47		desc. node	3037 Oct 21 00:06	7°♄50'02	
evening set	3036 Dec 24 00:38	13°☿58'37			3037 Nov 04 11:20	0°♄	
inferior conj	3036 Dec 29 10:06	7°☿37'35	1°55'07	evening max el	3037 Nov 23 01:08	23°♄45'29	23°15'30
minimum elong	3036 Dec 29 07:51	7°☿45'24	1°54'20	retrograde	3037 Dec 03 10:29	29°♄54'48	
min. Earth dist.	3036 Dec 29 11:22	7°☿33'09	0.67865 AU	evening set	3037 Dec 08 07:29	27°♄55'15	
morning rise	3037 Jan 03 14:51	1°☿23'53		asc. node	3037 Dec 10 08:13	25°♄54'06	
	3037 Jan 05 17:19	30°♄17'19		inferior conj	3037 Dec 13 17:45	21°♄29'23	1°08'22
direct	3037 Jan 08 10:38	29°♄22'13		minimum elong	3037 Dec 13 16:14	21°♄34'36	1°07'45
	3037 Jan 11 08:28	0°☿		min. Earth dist.	3037 Dec 13 08:12	22°♄02'14	0.67890 AU
morning max el	3037 Jan 18 05:41	5°☿09'47	22°41'24	morning rise	3037 Dec 19 01:03	15°♄19'13	
greatest brilliancy	3037 Jan 22 20:10	10°☿17'50	-0.3m	direct	3037 Dec 23 06:19	13°♄40'21	
desc. node	3037 Jan 30 02:18	19°☿43'58		morning max el	3037 Dec 31 20:54	18°♄40'58	21°17'36
	3037 Feb 06 06:53	0°♄		greatest brilliancy	3038 Jan 06 01:21	24°♄36'39	-0.4m
morning set	3037 Feb 21 07:13	23°♄23'05			3038 Jan 10 04:01	0°☿	
	3037 Feb 25 06:21	0°♄		desc. node	3038 Jan 16 23:20	9°☿36'46	
max. Earth dist.	3037 Feb 26 03:18	1°♄29'05	1.40224 AU		3038 Jan 30 10:56	0°♄	
				morning set	3038 Jan 31 20:51	2°♄13'10	
superior conj	3037 Mar 05 21:54	15°♄10'44	-1°-56'-45	max. Earth dist.	3038 Feb 08 04:23	13°♄58'35	1.42258 AU
minimum elong	3037 Mar 06 01:46	15°♄28'20	1°56'31				
	3037 Mar 13 20:55	0°♄		superior conj	3038 Feb 15 12:55	26°♄19'55	-2°-6'-12
evening rise	3037 Mar 15 20:26	3°♄45'19		minimum elong	3038 Feb 15 13:39	26°♄23'04	2°06'12
asc. node	3037 Mar 21 10:31	14°♄09'46			3038 Feb 17 15:47	0°♄	
evening max el	3037 Mar 31 23:50	29°♄37'27	18°24'48	evening rise	3038 Feb 26 20:42	16°♄25'50	
	3037 Apr 01 09:20	0°♄			3038 Mar 06 11:46	0°♄	
retrograde	3037 Apr 08 09:57	3°♄17'38		asc. node	3038 Mar 08 07:33	3°♄01'38	
evening set	3037 Apr 10 18:20	2°♄56'36		evening max el	3038 Mar 15 10:06	12°♄34'35	18°08'17
	3037 Apr 16 02:02	30°♄02'02		retrograde	3038 Mar 22 03:07	15°♄59'26	
inferior conj	3037 Apr 18 03:37	28°♄21'55	2°33'44	evening set	3038 Mar 24 17:21	15°♄29'08	
minimum elong	3037 Apr 18 07:25	28°♄14'09	2°32'48	inferior conj	3038 Mar 31 10:42	10°♄33'19	3°19'11
min. Earth dist.	3037 Apr 21 14:14	25°♄34'27	0.58626 AU	minimum elong	3038 Mar 31 13:15	10°♄27'15	3°18'49
morning rise	3037 Apr 25 16:16	22°♄52'02		min. Earth dist.	3038 Apr 03 16:31	7°♄30'31	0.60793 AU
desc. node	3037 Apr 28 01:30	21°♄50'43		morning rise	3038 Apr 07 05:57	4°♄42'21	
direct	3037 May 01 18:48	21°♄14'09		direct	3038 Apr 13 23:05	2°♄29'39	
morning max el	3037 May 16 04:13	28°♄57'48	27°00'57	desc. node	3038 Apr 14 22:33	2°♄32'20	
	3037 May 17 05:02	0°♄		morning max el	3038 Apr 28 05:11	10°♄24'07	27°43'19
	3037 Jun 06 23:47	0°♄			3038 May 13 10:43	0°♄	
morning set	3037 Jun 15 08:16	16°♄24'20			3038 May 30 02:58	0°♄	
asc. node	3037 Jun 17 09:48	20°♄47'01		morning set	3038 May 30 14:11	0°♄57'36	
	3037 Jun 21 15:15	0°♄		asc. node	3038 Jun 04 06:50	10°♄54'19	
				max. Earth dist.	3038 Jun 05 18:11	14°♄06'41	1.32197 AU
superior conj	3037 Jun 22 10:29	1°♄46'02	0°50'50				
minimum elong	3037 Jun 22 08:30	1°♄35'03	0°50'26	superior conj	3038 Jun 06 21:35	16°♄36'41	0°27'16
max. Earth dist.	3037 Jun 22 07:05	1°♄27'17	1.32109 AU	minimum elong	3038 Jun 06 20:23	16°♄30'04	0°27'01
evening rise	3037 Jun 29 08:08	16°♄45'49			3038 Jun 13 00:51	0°♄	
	3037 Jul 05 22:30	0°♄		evening rise	3038 Jun 13 18:54	1°♄36'13	
desc. node	3037 Jul 25 00:48	29°♄03'53			3038 Jun 29 04:55	0°♄	
	3037 Jul 25 21:03	0°♄		evening max el	3038 Jul 10 10:44	13°♄59'25	25°13'52
evening max el	3037 Jul 28 16:41	2°♄52'28	26°28'35	desc. node	3038 Jul 11 21:50	15°♄19'43	
retrograde	3037 Aug 11 16:02	10°♄03'52		retrograde	3038 Jul 24 10:28	21°♄05'23	
evening set	3037 Aug 18 08:16	8°♄12'15		evening set	3038 Jul 30 01:53	19°♄52'00	
min. Earth dist.	3037 Aug 22 06:04	5°♄37'15	0.59714 AU	min. Earth dist.	3038 Aug 03 22:35	17°♄09'44	0.57698 AU
inferior conj	3037 Aug 25 13:01	3°♄02'08	-4°-47'-51	inferior conj	3038 Aug 07 00:13	15°♄04'12	-5°-4'-54
minimum elong	3037 Aug 25 17:17	2°♄53'44	4°47'18	minimum elong	3038 Aug 07 00:17	15°♄04'03	5°04'55
	3037 Aug 29 18:17	30°♄02'02		morning rise	3038 Aug 15 02:19	10°♄50'24	
morning rise	3037 Sep 02 05:43	28°♄25'43		direct	3038 Aug 17 15:05	10°♄31'15	
direct	3037 Sep 04 14:42	28°♄05'28		morning max el	3038 Aug 26 09:23	14°♄39'01	19°00'26
	3037 Sep 10 02:16	0°♄		asc. node	3038 Aug 31 06:02	20°♄23'59	
morning max el	3037 Sep 12 06:34	1°♄48'39	18°17'16		3038 Sep 06 03:37	0°♄	
asc. node	3037 Sep 13 08:58	2°♄56'16		morning set	3038 Sep 12 01:17	11°♄16'12	
morning set	3037 Sep 28 03:39	27°♄03'02					
	3037 Sep 29 16:52	0°♄		superior conj	3038 Sep 20 11:03	27°♄46'28	1°39'15
				minimum elong	3038 Sep 20 13:10	27°♄56'37	1°39'07
superior conj	3037 Oct 07 11:54	14°♄35'12	1°24'20		3038 Sep 21 15:01	0°♄	
minimum elong	3037 Oct 07 15:40	14°♄52'21	1°23'57	max. Earth dist.	3038 Sep 27 06:00	10°♄24'08	1.38798 AU
max. Earth dist.	3037 Oct 15 01:45	27°♄57'54	1.40860 AU	evening rise	3038 Oct 01 03:34	17°♄15'48	

desc. node	3038 Oct 07 21:08	28° Ω 28'16		morning set	3039 Aug 27 05:41	25° Ω 49'23	
	3038 Oct 08 20:03	0° \mathbb{M}			3039 Aug 29 06:47	0° \mathbb{M}	
	3038 Oct 29 22:38	0° \mathcal{A}					
evening max el	3038 Nov 05 14:02	7° \mathcal{A} 24'13	24°34'41	superior conj	3039 Sep 04 00:03	11° \mathbb{M} 39'08	1°44'50
retrograde	3038 Nov 17 00:53	14° \mathcal{A} 05'08		minimum elong	3039 Sep 04 00:25	11° \mathbb{M} 40'56	1°44'51
evening set	3038 Nov 22 11:45	11° \mathcal{A} 49'23		max. Earth dist.	3039 Sep 09 11:32	22° \mathbb{M} 22'27	1.36804 AU
min. Earth dist.	3038 Nov 27 03:57	6° \mathcal{A} 30'18	0.67573 AU	evening rise	3039 Sep 13 08:56	29° \mathbb{M} 36'41	
asc. node	3038 Nov 27 05:15	6° \mathcal{A} 26'01			3039 Sep 13 14:05	0° $\underline{\Omega}$	
inferior conj	3038 Nov 28 00:06	5° \mathcal{A} 23'05	0°16'09	desc. node	3039 Sep 24 18:08	18° $\underline{\Omega}$ 55'22	
minimum elong	3038 Nov 27 23:43	5° \mathcal{A} 24'24	0°15'59		3039 Oct 02 02:07	0° \mathbb{M}	
transit middle	3038 Nov 27 23:43	5° \mathcal{A} 24'24	0°15'59	evening max el	3039 Oct 19 02:16	21° \mathbb{M} 05'21	25°46'33
transit begin	3038 Nov 27 23:14	5° \mathcal{A} 26'00		retrograde	3039 Oct 31 10:32	28° \mathbb{M} 08'10	
transit end	3038 Nov 28 00:12	5° \mathcal{A} 22'48		evening set	3039 Nov 06 11:41	25° \mathbb{M} 38'08	
	3038 Dec 02 15:10	30° $\mathbb{R}\mathbb{M}$		min. Earth dist.	3039 Nov 10 20:13	20° \mathbb{M} 54'37	0.66919 AU
morning rise	3038 Dec 03 12:05	29° \mathbb{M} 18'53		inferior conj	3039 Nov 12 03:22	19° \mathbb{M} 15'57	0°-40'-17
direct	3038 Dec 07 04:15	28° \mathbb{M} 01'25		minimum elong	3039 Nov 12 04:25	19° \mathbb{M} 12'37	0°39'51
	3038 Dec 12 02:46	0° \mathcal{A}		asc. node	3039 Nov 14 02:17	16° \mathbb{M} 51'38	
morning max el	3038 Dec 14 19:36	2° \mathcal{A} 22'46	20°04'52	morning rise	3039 Nov 17 22:01	13° \mathbb{M} 20'28	
greatest brilliancy	3038 Dec 21 18:44	10° \mathcal{A} 47'24	-0.6m	direct	3039 Nov 21 02:54	12° \mathbb{M} 21'26	
desc. node	3039 Jan 03 20:22	29° \mathcal{A} 50'04		morning max el	3039 Nov 28 02:02	16° \mathbb{M} 14'25	19°06'31
	3039 Jan 03 23:00	0° \mathcal{B}			3039 Dec 08 13:14	0° \mathcal{A}	
morning set	3039 Jan 10 17:22	10° \mathcal{B} 21'13		morning set	3039 Dec 20 21:32	19° \mathcal{A} 00'27	
max. Earth dist.	3039 Jan 21 13:33	27° \mathcal{B} 22'15	1.43885 AU	desc. node	3039 Dec 21 17:23	20° \mathcal{A} 17'48	
	3039 Jan 23 04:54	0° \approx			3039 Dec 27 22:35	0° \mathcal{B}	
				max. Earth dist.	3040 Jan 04 05:20	11° \mathcal{B} 25'05	1.44905 AU
superior conj	3039 Jan 27 02:24	6° \approx 19'16	-2°00'-10				
minimum elong	3039 Jan 26 21:34	5° \approx 59'29	1°59'58	superior conj	3040 Jan 06 15:26	15° \mathcal{B} 14'25	-1°-34'-56
evening rise	3039 Feb 09 03:17	28° \approx 16'40		minimum elong	3040 Jan 06 06:28	14° \mathcal{B} 38'57	1°34'07
	3039 Feb 10 03:14	0° \mathcal{H}			3040 Jan 15 20:54	0° \approx	
asc. node	3039 Feb 23 04:34	21° \mathcal{H} 18'24		evening rise	3040 Jan 21 12:05	9° \approx 10'53	
evening max el	3039 Feb 26 22:43	25° \mathcal{H} 49'03	18°11'02		3040 Feb 03 09:41	0° \mathcal{H}	
retrograde	3039 Mar 05 09:17	29° \mathcal{H} 13'16		asc. node	3040 Feb 10 01:36	8° \mathcal{H} 48'50	
evening set	3039 Mar 08 05:00	28° \mathcal{H} 32'24		evening max el	3040 Feb 10 10:47	9° \mathcal{H} 12'39	18°32'22
inferior conj	3039 Mar 14 10:11	23° \mathcal{H} 16'04	3°38'15	retrograde	3040 Feb 17 00:07	12° \mathcal{H} 49'06	
minimum elong	3039 Mar 14 10:52	23° \mathcal{H} 14'14	3°38'13	evening set	3040 Feb 20 01:28	11° \mathcal{H} 56'48	
min. Earth dist.	3039 Mar 17 03:16	20° \mathcal{H} 22'18	0.62879 AU	inferior conj	3040 Feb 25 21:57	6° \mathcal{H} 21'33	3°37'28
morning rise	3039 Mar 20 14:36	17° \mathcal{H} 12'35		minimum elong	3040 Feb 25 21:01	6° \mathcal{H} 24'20	3°37'24
direct	3039 Mar 27 12:33	14° \mathcal{H} 34'42		min. Earth dist.	3040 Feb 27 23:32	3° \mathcal{H} 54'46	0.64675 AU
desc. node	3039 Apr 01 19:34	15° \mathcal{H} 54'51		morning rise	3040 Mar 02 15:13	0° \mathcal{H} 11'00	
morning max el	3039 Apr 10 11:32	22° \mathcal{H} 31'45	27°48'19		3040 Mar 02 20:32	30° $\mathbb{R}\approx$	
	3039 Apr 17 01:50	0° \mathcal{Y}		direct	3040 Mar 09 09:25	27° \approx 21'43	
	3039 May 06 15:11	0° \mathcal{B}			3040 Mar 16 17:12	0° \mathcal{H}	
morning set	3039 May 14 14:14	15° \mathcal{B} 10'32		desc. node	3040 Mar 18 16:35	1° \mathcal{H} 26'19	
max. Earth dist.	3039 May 20 00:58	26° \mathcal{B} 29'42	1.32701 AU	morning max el	3040 Mar 22 20:58	5° \mathcal{H} 12'51	27°18'01
	3039 May 21 16:10	0° \mathbb{I}			3040 Apr 10 17:39	0° \mathcal{Y}	
				morning set	3040 Apr 27 05:37	28° \mathcal{Y} 53'50	
superior conj	3039 May 22 06:15	1° \mathbb{I} 16'03	0°01'03		3040 Apr 27 19:09	0° \mathcal{B}	
minimum elong	3039 May 22 06:12	1° \mathbb{I} 15'46	0°01'03	max. Earth dist.	3040 May 01 23:30	8° \mathcal{B} 24'19	1.33641 AU
behind sun begin	3039 May 22 00:59	0° \mathbb{I} 47'34					
behind sun end	3039 May 22 11:25	1° \mathbb{I} 44'00		superior conj	3040 May 05 10:28	15° \mathcal{B} 37'08	0°-26'-57
asc. node	3039 May 22 03:52	1° \mathbb{I} 03'11		minimum elong	3040 May 05 11:50	15° \mathcal{B} 44'25	0°26'40
evening rise	3039 May 29 06:46	16° \mathbb{I} 26'21		asc. node	3040 May 08 00:54	21° \mathcal{B} 08'58	
	3039 Jun 05 00:24	0° \mathcal{B}			3040 May 12 04:41	0° \mathbb{I}	
evening max el	3039 Jun 22 00:18	24° \mathcal{B} 32'45	23°40'45	evening rise	3040 May 12 17:50	1° \mathbb{I} 09'09	
desc. node	3039 Jun 28 18:49	29° \mathcal{B} 36'09			3040 May 29 05:23	0° \mathcal{B}	
	3039 Jun 29 14:25	0° Ω		evening max el	3040 Jun 02 16:11	5° \mathcal{B} 00'53	22°04'46
retrograde	3039 Jul 05 16:21	1° Ω 23'55		desc. node	3040 Jun 14 15:50	11° \mathcal{B} 18'15	
evening set	3039 Jul 09 20:54	0° Ω 45'25		retrograde	3040 Jun 15 10:28	11° \mathcal{B} 19'38	
	3039 Jul 11 22:52	30° $\mathbb{R}\mathcal{B}$		evening set	3040 Jun 18 06:10	11° \mathcal{B} 01'56	
min. Earth dist.	3039 Jul 16 10:32	27° \mathcal{B} 39'48	0.56030 AU	min. Earth dist.	3040 Jun 26 21:24	7° \mathcal{B} 19'38	0.55032 AU
inferior conj	3039 Jul 18 15:10	26° \mathcal{B} 20'42	-4°-42'-57	inferior conj	3040 Jun 27 13:45	6° \mathcal{B} 56'41	-3°-31'-48
minimum elong	3039 Jul 18 09:32	26° \mathcal{B} 29'14	4°42'09	minimum elong	3040 Jun 27 05:32	7° \mathcal{B} 08'14	3°29'30
morning rise	3039 Jul 27 01:26	22° \mathcal{B} 24'45		morning rise	3040 Jul 06 06:42	3° \mathcal{B} 05'28	
direct	3039 Jul 29 20:21	22° \mathcal{B} 05'14		direct	3040 Jul 09 09:48	2° \mathcal{B} 43'42	
morning max el	3039 Aug 09 01:35	26° \mathcal{B} 49'37	20°05'14	morning max el	3040 Jul 21 06:08	8° \mathcal{B} 15'41	21°30'17
	3039 Aug 12 01:24	0° Ω		asc. node	3040 Aug 04 00:08	27° \mathcal{B} 34'57	
asc. node	3039 Aug 18 03:05	8° Ω 40'50			3040 Aug 05 07:12	0° Ω	

morning set	3040 Aug 10 14:26	10°♊35'46		morning set	3041 Jul 26 01:33	25°♊29'10	
					3041 Jul 28 04:35	0°♊	
superior conj	3040 Aug 17 22:49	26°♊01'11	1°42'48	superior conj	3041 Aug 02 04:07	10°♊42'27	1°34'28
minimum elong	3040 Aug 17 21:46	25°♊55'44	1°42'46	minimum elong	3041 Aug 02 02:09	10°♊31'59	1°34'17
	3040 Aug 19 21:01	0°♊		max. Earth dist.	3041 Aug 04 19:53	16°♊20'52	1.33715 AU
max. Earth dist.	3040 Aug 21 23:17	4°♊15'10	1.35069 AU	evening rise	3041 Aug 09 20:55	26°♊39'46	
evening rise	3040 Aug 26 08:12	12°♊48'46			3041 Aug 11 13:46	0°♊	
	3040 Sep 04 23:03	0°♊		desc. node	3041 Aug 28 12:11	28°♊51'23	
desc. node	3040 Sep 10 15:09	9°♊05'46			3041 Aug 29 06:57	0°♊	
	3040 Sep 26 02:56	0°♊		evening max el	3041 Sep 13 02:34	18°♊07'53	27°18'33
evening max el	3040 Sep 30 14:36	4°♊43'16	26°43'35	retrograde	3041 Sep 26 13:57	25°♊26'31	
retrograde	3040 Oct 13 15:01	11°♊58'14		evening set	3041 Oct 03 14:17	22°♊45'04	
evening set	3040 Oct 20 05:23	9°♊18'31		min. Earth dist.	3041 Oct 07 09:09	19°♊13'55	0.64555 AU
min. Earth dist.	3040 Oct 24 06:40	5°♊11'40	0.65915 AU	inferior conj	3041 Oct 09 16:27	16°♊44'44	-2°-39'-27
inferior conj	3040 Oct 26 01:35	3°♊05'00	-1°-39'-30	minimum elong	3041 Oct 09 20:48	16°♊32'58	2°37'52
minimum elong	3040 Oct 26 04:18	2°♊56'58	1°38'24	morning rise	3041 Oct 16 05:24	11°♊15'35	
	3040 Oct 28 19:46	30°♊		asc. node	3041 Oct 17 20:23	10°♊46'33	
asc. node	3040 Oct 30 23:20	28°♊06'54		direct	3041 Oct 18 18:23	10°♊42'09	
morning rise	3040 Nov 01 04:40	27°♊21'10		morning max el	3041 Oct 25 06:24	14°♊09'01	17°58'40
direct	3040 Nov 04 00:24	26°♊36'53			3041 Nov 05 09:45	0°♊	
	3040 Nov 10 09:38	0°♊		morning set	3041 Nov 11 15:19	10°♊27'20	
morning max el	3040 Nov 10 14:32	0°♊12'09	18°24'11		3041 Nov 23 10:37	0°♊	
morning set	3040 Nov 30 03:58	29°♊01'28		desc. node	3041 Nov 24 11:27	1°♊40'14	
	3040 Nov 30 18:31	0°♊					
desc. node	3040 Dec 07 14:24	10°♊55'54		superior conj	3041 Nov 25 04:54	2°♊50'29	0°-4'-58
				minimum elong	3041 Nov 25 04:18	2°♊48'04	0°04'53
superior conj	3040 Dec 15 17:13	23°♊45'19	0°-53'-5	behind sun begin	3041 Nov 24 18:19	2°♊07'55	
minimum elong	3040 Dec 15 10:32	23°♊19'04	0°52'14	behind sun end	3041 Nov 25 14:17	3°♊28'10	
max. Earth dist.	3040 Dec 17 00:14	25°♊47'05	1.45205 AU	max. Earth dist.	3041 Nov 29 18:55	10°♊08'53	1.44766 AU
	3040 Dec 19 16:44	0°♊		evening rise	3041 Dec 11 12:27	28°♊25'51	
evening rise	3040 Dec 31 21:39	19°♊09'27			3041 Dec 12 12:55	0°♊	
	3041 Jan 07 19:03	0°♊		greatest brilliancy	3041 Dec 31 07:33	27°♊57'16	-0.6m
greatest brilliancy	3041 Jan 13 23:26	9°♊33'21	-0.7m		3042 Jan 01 20:03	0°♊	
evening max el	3041 Jan 23 19:58	22°♊40'58	19°11'10	evening max el	3042 Jan 07 00:34	6°♊11'12	20°05'45
asc. node	3041 Jan 26 22:37	25°♊20'11		asc. node	3042 Jan 13 19:40	10°♊37'32	
retrograde	3041 Jan 30 19:55	26°♊40'29		retrograde	3042 Jan 14 17:47	10°♊42'12	
evening set	3041 Feb 03 03:52	25°♊35'45		evening set	3042 Jan 18 09:49	9°♊23'47	
inferior conj	3041 Feb 08 18:34	19°♊43'59	3°21'53	inferior conj	3042 Jan 23 21:03	3°♊18'15	2°54'59
minimum elong	3041 Feb 08 16:33	19°♊50'25	3°21'33	minimum elong	3042 Jan 23 18:33	3°♊26'41	2°54'23
min. Earth dist.	3041 Feb 10 04:53	17°♊54'13	0.66085 AU	min. Earth dist.	3042 Jan 24 17:29	2°♊09'32	0.67087 AU
morning rise	3041 Feb 14 04:21	13°♊29'41			3042 Jan 26 09:21	30°♊	
direct	3041 Feb 20 12:50	10°♊42'26		morning rise	3042 Jan 29 02:40	27°♊02'39	
morning max el	3041 Mar 05 06:53	18°♊15'47	26°18'51	direct	3042 Feb 03 22:01	24°♊28'06	
desc. node	3041 Mar 05 13:37	18°♊32'53			3042 Feb 14 03:10	0°♊	
	3041 Mar 15 04:30	0°♊		morning max el	3042 Feb 15 15:40	1°♊28'49	25°00'09
	3041 Apr 03 17:22	0°♊		desc. node	3042 Feb 20 10:39	6°♊47'10	
morning set	3041 Apr 10 08:40	11°♊56'49			3042 Mar 09 05:31	0°♊	
max. Earth dist.	3041 Apr 14 10:47	19°♊46'22	1.35034 AU	morning set	3042 Mar 23 18:26	24°♊05'19	
					3042 Mar 27 00:39	0°♊	
superior conj	3041 Apr 19 07:56	29°♊33'23	0°-55'-31	max. Earth dist.	3042 Mar 27 10:53	0°♊47'17	1.36853 AU
minimum elong	3041 Apr 19 10:49	29°♊48'11	0°55'00				
	3041 Apr 19 13:08	0°♊		superior conj	3042 Apr 02 19:42	12°♊56'51	-1°-22'-51
asc. node	3041 Apr 24 21:56	11°♊07'47		minimum elong	3042 Apr 02 23:50	13°♊17'12	1°22'16
evening rise	3041 Apr 27 02:09	15°♊38'26		evening rise	3042 Apr 11 05:27	29°♊47'30	
	3041 May 04 10:36	0°♊			3042 Apr 11 07:57	0°♊	
evening max el	3041 May 15 17:37	15°♊54'57	20°39'18	asc. node	3042 Apr 11 18:59	0°♊55'19	
retrograde	3041 May 26 23:36	21°♊24'01		evening max el	3042 Apr 28 07:15	27°♊29'37	19°31'27
evening set	3041 May 29 01:34	21°♊13'29			3042 May 01 08:56	0°♊	
desc. node	3041 Jun 01 12:52	20°♊13'32		retrograde	3042 May 07 19:32	2°♊06'11	
inferior conj	3041 Jun 07 07:27	17°♊15'59	-1°-41'-20	evening set	3042 May 09 19:33	1°♊54'51	
minimum elong	3041 Jun 07 02:41	17°♊22'51	1°39'38		3042 May 14 20:31	30°♊	
min. Earth dist.	3041 Jun 08 09:38	16°♊38'22	0.54951 AU	inferior conj	3042 May 18 10:49	27°♊50'01	0°16'47
morning rise	3041 Jun 16 02:36	13°♊09'00		minimum elong	3042 May 18 11:33	27°♊48'51	0°16'31
direct	3041 Jun 19 19:17	12°♊39'36		desc. node	3042 May 19 09:53	27°♊12'58	
morning max el	3041 Jul 03 01:09	19°♊02'46	23°09'31	min. Earth dist.	3042 May 20 23:58	26°♊12'32	0.55823 AU
	3041 Jul 12 02:26	0°♊		morning rise	3042 May 26 23:46	23°♊11'33	
asc. node	3041 Jul 21 21:10	16°♊56'50					

direct	3042 May 31 14:07	22°♄23'53		morning rise	3043 May 07 08:05	3°♄45'56	
morning max el	3042 Jun 14 15:33	29°♄29'16	24°51'30	direct	3043 May 12 22:44	2°♄28'25	
	3042 Jun 15 04:15	0°♄		morning max el	3043 May 27 07:11	10°♄00'55	26°21'04
	3042 Jul 05 10:31	0°♄			3043 Jun 11 13:03	0°♄	
asc. node	3042 Jul 08 18:14	6°♄39'16		morning set	3043 Jun 25 00:20	25°♄16'00	
morning set	3042 Jul 10 13:25	10°♄24'46		asc. node	3043 Jun 25 15:18	26°♄35'08	
					3043 Jun 27 05:33	0°♄	
superior conj	3042 Jul 17 13:32	25°♄35'19	1°20'55	superior conj	3043 Jul 02 00:58	10°♄31'43	1°02'56
minimum elong	3042 Jul 17 11:11	25°♄22'30	1°20'35	minimum elong	3043 Jul 01 22:43	10°♄19'18	1°02'31
max. Earth dist.	3042 Jul 19 00:49	28°♄47'10	1.32779 AU	max. Earth dist.	3043 Jul 02 11:09	11°♄27'46	1.32245 AU
	3042 Jul 19 14:17	0°♄		evening rise	3043 Jul 09 00:27	25°♄36'51	
evening rise	3042 Jul 24 19:23	10°♄59'23			3043 Jul 11 03:32	0°♄	
	3042 Aug 03 20:00	0°♄			3043 Jul 28 11:30	0°♄	
desc. node	3042 Aug 15 09:14	18°♄01'50		desc. node	3043 Aug 02 06:15	6°♄21'50	
	3042 Aug 25 08:47	0°♄		evening max el	3043 Aug 08 17:49	13°♄28'37	26°58'39
evening max el	3042 Aug 26 12:32	1°♄07'33	27°24'57	retrograde	3043 Aug 22 15:28	20°♄40'52	
retrograde	3042 Sep 09 06:28	8°♄23'56		evening set	3043 Aug 29 15:42	18°♄31'12	
evening set	3042 Sep 16 11:09	5°♄51'59		min. Earth dist.	3043 Sep 02 08:05	15°♄51'30	0.60912 AU
min. Earth dist.	3042 Sep 20 01:58	2°♄51'41	0.62866 AU	inferior conj	3043 Sep 05 12:32	13°♄08'52	-4°-26'-16
inferior conj	3042 Sep 22 21:12	0°♄09'00	-3°-36'-50	minimum elong	3043 Sep 05 17:54	12°♄57'24	4°25'13
minimum elong	3042 Sep 23 02:43	29°♄55'39	3°35'13	morning rise	3043 Sep 12 23:11	8°♄18'44	
	3042 Sep 23 00:55	30°♄		direct	3043 Sep 15 07:25	7°♄56'54	
morning rise	3042 Sep 29 20:55	24°♄57'43		asc. node	3043 Sep 21 14:28	10°♄41'22	
direct	3042 Oct 02 05:58	24°♄31'35		morning max el	3043 Sep 22 12:13	11°♄31'12	18°01'50
asc. node	3042 Oct 04 17:25	25°♄00'41			3043 Oct 04 18:54	0°♄	
morning max el	3042 Oct 08 22:40	27°♄58'04	17°50'51	morning set	3043 Oct 08 06:29	6°♄24'39	
	3042 Oct 10 19:08	0°♄					
morning set	3042 Oct 25 02:16	23°♄01'22		superior conj	3043 Oct 18 07:37	24°♄43'54	1°10'52
	3042 Oct 29 01:17	0°♄		minimum elong	3043 Oct 18 11:55	25°♄02'56	1°10'21
superior conj	3042 Nov 05 16:58	13°♄08'17	0°38'17		3043 Oct 21 07:55	0°♄	
minimum elong	3042 Nov 05 20:30	13°♄23'04	0°37'48	max. Earth dist.	3043 Oct 25 22:28	7°♄48'55	1.41989 AU
desc. node	3042 Nov 11 08:31	22°♄27'34		desc. node	3043 Oct 29 05:33	13°♄14'21	
max. Earth dist.	3042 Nov 12 10:55	24°♄14'23	1.43650 AU	evening rise	3043 Oct 31 17:36	17°♄16'08	
	3042 Nov 16 01:26	0°♄			3043 Nov 08 22:19	0°♄	
evening rise	3042 Nov 20 21:37	7°♄34'36		greatest brilliancy	3043 Nov 28 22:34	27°♄53'59	-0.3m
	3042 Dec 05 20:16	0°♄			3043 Nov 30 17:09	0°♄	
greatest brilliancy	3042 Dec 15 20:15	13°♄45'18	-0.4m	evening max el	3043 Dec 03 17:41	3°♄16'51	22°29'37
evening max el	3042 Dec 20 23:44	19°♄43'01	21°13'13	retrograde	3043 Dec 13 11:18	9°♄03'56	
retrograde	3042 Dec 29 15:28	24°♄51'03		evening set	3043 Dec 18 01:00	7°♄13'54	
asc. node	3042 Dec 31 16:42	24°♄27'54		asc. node	3043 Dec 18 13:42	6°♄46'31	
evening set	3043 Jan 02 17:25	23°♄17'27		inferior conj	3043 Dec 23 10:39	0°♄50'35	1°36'02
inferior conj	3043 Jan 08 03:05	17°♄01'17	2°19'09	minimum elong	3043 Dec 23 08:40	0°♄57'28	1°35'16
minimum elong	3043 Jan 08 00:36	17°♄09'51	2°18'22	min. Earth dist.	3043 Dec 23 07:16	1°♄02'18	0.67924 AU
min. Earth dist.	3043 Jan 08 11:04	16°♄33'46	0.67695 AU		3043 Dec 24 01:18	30°♄	
morning rise	3043 Jan 13 07:26	10°♄46'23		morning rise	3043 Dec 28 16:14	24°♄38'18	
direct	3043 Jan 18 11:59	8°♄31'31		direct	3044 Jan 02 05:49	22°♄46'16	
morning max el	3043 Jan 29 00:14	14°♄46'56	23°32'10	morning max el	3044 Jan 11 12:02	28°♄12'36	22°04'43
desc. node	3043 Feb 07 07:42	25°♄49'56			3044 Jan 13 04:49	0°♄	
	3043 Feb 10 09:52	0°♄		greatest brilliancy	3044 Jan 16 03:18	3°♄24'37	-0.4m
	3043 Mar 02 04:22	0°♄		desc. node	3044 Jan 25 04:45	15°♄27'35	
morning set	3043 Mar 05 04:41	5°♄02'10			3044 Feb 04 02:17	0°♄	
max. Earth dist.	3043 Mar 09 05:41	12°♄00'09	1.38972 AU	morning set	3044 Feb 13 10:26	14°♄36'41	
				max. Earth dist.	3044 Feb 19 03:39	24°♄00'33	1.41126 AU
superior conj	3043 Mar 16 17:55	25°♄37'16	-1°-46'-22		3044 Feb 22 16:19	0°♄	
minimum elong	3043 Mar 16 22:24	25°♄58'13	1°45'57	superior conj	3044 Feb 26 21:52	7°♄23'32	-2°-2'-19
	3043 Mar 19 01:36	0°♄		minimum elong	3044 Feb 27 00:46	7°♄36'24	2°02'12
evening rise	3043 Mar 26 01:00	13°♄28'28		evening rise	3044 Mar 08 09:28	26°♄33'58	
asc. node	3043 Mar 29 16:02	20°♄25'57			3044 Mar 10 05:50	0°♄	
	3043 Apr 04 00:54	0°♄		asc. node	3044 Mar 15 13:04	9°♄34'10	
evening max el	3043 Apr 11 07:21	9°♄42'11	18°43'22	evening max el	3044 Mar 24 14:50	22°♄25'28	18°15'20
retrograde	3043 Apr 19 08:17	13°♄37'59		retrograde	3044 Mar 31 16:08	25°♄57'11	
evening set	3043 Apr 21 13:23	13°♄21'14		evening set	3044 Apr 03 03:10	25°♄32'17	
inferior conj	3043 Apr 29 09:18	8°♄58'31	1°53'08	inferior conj	3044 Apr 10 05:10	20°♄48'16	2°56'42
minimum elong	3043 Apr 29 12:56	8°♄51'45	1°52'03	minimum elong	3044 Apr 10 08:36	20°♄40'46	2°55'59
min. Earth dist.	3043 May 02 16:58	6°♄31'15	0.57465 AU	min. Earth dist.	3044 Apr 13 14:56	17°♄51'28	0.59541 AU
desc. node	3043 May 06 06:55	4°♄16'40					

morning rise	3044 Apr 17 10:16	15° Υ 08'23		min. Earth dist.	3045 Mar 26 20:38	0° Υ 12'27	0.61702 AU
desc. node	3044 Apr 22 03:56	13° Υ 23'04			3045 Mar 27 01:53	30° \Re H	
direct	3044 Apr 23 20:08	13° Υ 15'24		morning rise	3045 Mar 30 08:13	27° H 16'35	
morning max el	3044 May 08 04:32	21° Υ 03'47	27°23'32	direct	3045 Apr 06 04:22	24° H 51'52	
	3044 May 15 22:31	0° Z		desc. node	3045 Apr 09 00:57	25° H 15'10	
	3044 Jun 03 09:41	0° Π			3045 Apr 17 06:50	0° Υ	
morning set	3044 Jun 08 08:36	9° Π 57'34		morning max el	3045 Apr 20 08:15	2° Υ 48'41	27°50'08
asc. node	3044 Jun 11 12:21	16° Π 39'31			3045 May 10 08:57	0° Z	
max. Earth dist.	3044 Jun 14 23:14	24° Π 11'52	1.32102 AU	morning set	3045 May 23 12:19	24° Z 23'07	
					3045 May 26 05:11	0° Π	
superior conj	3044 Jun 15 12:39	25° Π 25'47	0°41'12	asc. node	3045 May 29 09:24	6° Π 47'54	
minimum elong	3044 Jun 15 10:57	25° Π 16'22	0°40'52	max. Earth dist.	3045 May 29 09:03	6° Π 46'03	1.32355 AU
	3044 Jun 17 14:27	0° Z					
evening rise	3044 Jun 22 09:44	10° Z 24'22		superior conj	3045 May 30 22:55	10° Π 12'03	0°16'25
	3044 Jul 02 10:52	0° Ω		minimum elong	3045 May 30 22:10	10° Π 07'55	0°16'16
desc. node	3044 Jul 19 03:14	23° Ω 30'45		evening rise	3045 Jun 06 21:10	25° Π 15'07	
evening max el	3044 Jul 20 15:59	25° Ω 01'55	25°59'50		3045 Jun 09 03:35	0° Z	
	3044 Jul 27 03:45	0° H			3045 Jun 27 00:31	0° Ω	
retrograde	3044 Aug 03 15:31	2° H 10'51		evening max el	3045 Jul 02 07:16	5° Ω 51'05	24°35'36
evening set	3044 Aug 09 23:08	0° H 34'51		desc. node	3045 Jul 06 00:14	9° Ω 00'18	
	3044 Aug 11 01:29	30° \Re Ω		retrograde	3045 Jul 16 05:05	12° Ω 53'17	
min. Earth dist.	3044 Aug 14 04:25	27° Ω 59'19	0.58843 AU	evening set	3045 Jul 21 06:33	11° Ω 55'39	
inferior conj	3044 Aug 17 10:52	25° Ω 34'31	-4°-58'-51	min. Earth dist.	3045 Jul 26 18:22	9° Ω 05'16	0.56920 AU
minimum elong	3044 Aug 17 13:41	25° Ω 29'15	4°58'38	inferior conj	3045 Jul 29 13:22	7° Ω 17'28	-5°-1'-16
morning rise	3044 Aug 25 07:44	21° Ω 07'56		minimum elong	3045 Jul 29 11:00	7° Ω 21'18	5°01'09
direct	3044 Aug 27 18:11	20° Ω 48'13		morning rise	3045 Aug 06 19:09	3° Ω 12'46	
morning max el	3044 Sep 04 19:52	24° Ω 39'58	18°33'00	direct	3045 Aug 09 10:15	2° Ω 53'43	
asc. node	3044 Sep 07 11:32	27° Ω 34'29		morning max el	3045 Aug 18 18:32	7° Ω 15'14	19°25'29
	3044 Sep 09 07:34	0° H		asc. node	3045 Aug 25 08:36	15° Ω 25'04	
morning set	3044 Sep 20 22:52	20° H 22'52			3045 Sep 02 13:57	0° H	
	3044 Sep 25 22:25	0° Z		morning set	3045 Sep 04 23:45	4° H 46'04	
superior conj	3044 Sep 29 20:32	7° Z 25'18	1°31'54	superior conj	3045 Sep 13 02:14	20° H 56'56	1°42'39
minimum elong	3044 Sep 29 23:39	7° Z 39'51	1°31'39	minimum elong	3045 Sep 13 03:35	21° H 03'31	1°42'36
max. Earth dist.	3044 Oct 07 04:58	20° Z 41'09	1.39994 AU		3045 Sep 17 19:37	0° Z	
evening rise	3044 Oct 11 11:03	27° Z 56'59		max. Earth dist.	3045 Sep 19 08:56	2° Z 53'03	1.37923 AU
	3044 Oct 12 16:38	0° H		evening rise	3045 Sep 23 04:12	9° Z 44'06	
desc. node	3044 Oct 15 02:33	3° H 56'53		desc. node	3045 Oct 01 23:34	24° Z 31'31	
	3044 Nov 01 12:05	0° Z			3045 Oct 05 11:21	0° H	
evening max el	3044 Nov 15 07:41	16° Z 53'05	23°49'34		3045 Oct 28 06:36	0° Z	
retrograde	3044 Nov 26 04:00	23° Z 16'39		evening max el	3045 Oct 28 19:56	0° Z 33'10	25°06'28
evening set	3044 Dec 01 06:56	21° Z 09'49		retrograde	3045 Nov 09 16:38	7° Z 25'24	
asc. node	3044 Dec 04 10:45	17° Z 46'48		evening set	3045 Nov 15 09:37	5° Z 02'58	
min. Earth dist.	3044 Dec 06 03:48	15° Z 31'21	0.67800 AU		3045 Nov 19 22:02	30° \Re H	
inferior conj	3044 Dec 06 17:56	14° Z 43'15	0°46'48	min. Earth dist.	3045 Nov 19 22:23	29° H 58'52	0.67339 AU
minimum elong	3044 Dec 06 16:51	14° Z 46'57	0°46'20	inferior conj	3045 Nov 20 23:13	28° H 37'35	0°-7'-20
morning rise	3044 Dec 12 03:00	8° Z 35'37		minimum elong	3045 Nov 20 23:24	28° H 36'59	0°07'17
direct	3044 Dec 16 02:29	7° Z 06'17		transit middle	3045 Nov 20 23:24	28° H 36'59	0°07'17
morning max el	3044 Dec 24 06:22	11° Z 48'42	20°45'06	transit begin	3045 Nov 20 20:56	28° H 45'06	
greatest brilliancy	3044 Dec 30 01:38	18° Z 34'35	-0.5m	transit end	3045 Nov 21 01:53	28° H 28'52	
	3045 Jan 07 07:50	0° Z		asc. node	3045 Nov 21 07:46	28° H 09'39	
desc. node	3045 Jan 11 01:46	5° Z 29'51		morning rise	3045 Nov 26 13:50	22° H 36'49	
morning set	3045 Jan 22 14:20	23° Z 01'31		direct	3045 Nov 30 00:50	21° H 27'50	
	3045 Jan 27 00:51	0° \approx		morning max el	3045 Dec 07 08:36	25° H 36'02	19°38'06
max. Earth dist.	3045 Jan 31 08:39	6° \approx 56'05	1.43015 AU		3045 Dec 11 05:03	0° Z	
				greatest brilliancy	3045 Dec 15 11:48	5° Z 44'19	-0.6m
superior conj	3045 Feb 07 02:16	18° \approx 03'03	-2°-5'-50	desc. node	3045 Dec 28 22:48	25° Z 50'08	
minimum elong	3045 Feb 07 00:49	17° \approx 56'58	2°05'49		3045 Dec 31 15:44	0° Z	
	3045 Feb 14 01:29	0° H		morning set	3046 Jan 01 10:52	1° Z 13'54	
evening rise	3045 Feb 19 02:44	8° H 54'29		max. Earth dist.	3046 Jan 13 20:28	20° Z 36'57	1.44403 AU
asc. node	3045 Mar 02 10:05	28° H 12'12					
	3045 Mar 03 15:12	0° Υ		superior conj	3046 Jan 18 04:33	27° Z 32'28	-1°-51'-50
evening max el	3045 Mar 08 02:22	5° Υ 30'20	18°07'04	minimum elong	3046 Jan 17 21:25	27° Z 03'47	1°51'23
retrograde	3045 Mar 14 15:34	8° Υ 53'35			3046 Jan 19 17:08	0° \approx	
evening set	3045 Mar 17 08:03	8° Υ 18'59		evening rise	3046 Feb 01 00:27	20° \approx 21'45	
inferior conj	3045 Mar 23 19:44	3° Υ 14'02	3°30'06		3046 Feb 06 17:34	0° H	
minimum elong	3045 Mar 23 21:30	3° Υ 09'36	3°29'55	asc. node	3046 Feb 17 07:05	16° H 10'42	

evening max el	3046 Feb 19 15:00	18° Υ 49'07	18°17'54	asc. node	3047 Feb 04 04:06	3° Υ 18'19	
retrograde	3046 Feb 26 01:54	22° Υ 17'22		retrograde	3047 Feb 09 19:08	6° Υ 00'56	
evening set	3046 Feb 28 23:49	21° Υ 31'55		evening set	3047 Feb 12 23:09	5° Υ 03'33	
inferior conj	3046 Mar 07 00:56	16° Υ 07'27	3°39'58		3047 Feb 18 04:14	30° Υ	
minimum elong	3046 Mar 07 00:52	16° Υ 07'37	3°39'58	inferior conj	3047 Feb 18 16:53	29° \approx 21'17	3°32'23
min. Earth dist.	3046 Mar 09 11:38	13° Υ 23'04	0.63685 AU	minimum elong	3047 Feb 18 15:25	29° \approx 25'47	3°32'14
morning rise	3046 Mar 13 00:06	10° Υ 00'11		min. Earth dist.	3047 Feb 20 11:57	27° \approx 09'11	0.65329 AU
direct	3046 Mar 19 21:18	7° Υ 15'24		morning rise	3047 Feb 24 06:32	23° \approx 08'54	
desc. node	3046 Mar 26 21:58	9° Υ 36'34		direct	3047 Mar 02 21:21	20° \approx 18'39	
morning max el	3046 Apr 02 16:19	15° Υ 12'09	27°39'23	desc. node	3047 Mar 13 19:01	25° \approx 52'43	
	3046 Apr 14 18:32	0° Υ		morning max el	3047 Mar 16 02:04	28° \approx 04'01	26°55'46
	3046 May 03 00:33	0° Υ			3047 Mar 17 22:24	0° Υ	
morning set	3046 May 07 09:04	8° Υ 24'42			3047 Apr 08 12:13	0° Υ	
max. Earth dist.	3046 May 12 12:36	18° Υ 57'14	1.33036 AU	morning set	3047 Apr 20 19:44	21° Υ 52'57	
					3047 Apr 24 22:57	0° Υ	
superior conj	3046 May 15 05:56	24° Υ 44'23	0°-10'-41	max. Earth dist.	3047 Apr 25 06:21	0° Υ 37'13	1.34174 AU
minimum elong	3046 May 15 06:28	24° Υ 47'13	0°10'35				
behind sun begin	3046 May 15 02:27	24° Υ 25'40		superior conj	3047 Apr 29 07:39	8° Υ 56'41	0°-39'-5
behind sun end	3046 May 15 10:29	25° Υ 08'47		minimum elong	3047 Apr 29 09:40	9° Υ 07'15	0°38'41
asc. node	3046 May 16 06:25	26° Υ 55'55		asc. node	3047 May 03 03:27	16° Υ 59'48	
	3046 May 17 16:33	0° Υ		evening rise	3047 May 06 19:05	24° Υ 41'01	
evening rise	3046 May 22 08:55	10° Υ 02'37			3047 May 09 09:10	0° Υ	
	3046 Jun 01 17:03	0° Υ		evening max el	3047 May 26 16:19	26° Υ 55'33	21°26'41
evening max el	3046 Jun 13 20:47	16° Υ 18'05	22°59'28		3047 May 30 09:08	0° Υ	
desc. node	3046 Jun 22 21:14	22° Υ 14'58		retrograde	3047 Jun 07 20:27	2° Υ 53'55	
retrograde	3046 Jun 27 06:07	22° Υ 58'32		desc. node	3047 Jun 09 18:15	2° Υ 45'34	
evening set	3046 Jun 30 19:08	22° Υ 31'03		evening set	3047 Jun 10 06:22	2° Υ 40'38	
min. Earth dist.	3046 Jul 08 05:50	19° Υ 11'16	0.55493 AU		3047 Jun 17 05:53	30° Υ	
inferior conj	3046 Jul 09 20:29	18° Υ 15'17	-4°-18'-53	inferior conj	3047 Jun 19 15:18	28° Υ 41'04	-2°-48'-14
minimum elong	3046 Jul 09 13:02	18° Υ 26'06	4°17'22	minimum elong	3047 Jun 19 07:54	28° Υ 51'25	2°45'52
morning rise	3046 Jul 18 09:48	14° Υ 23'18		min. Earth dist.	3047 Jun 19 17:18	28° Υ 38'17	0.54879 AU
direct	3046 Jul 21 07:33	14° Υ 03'20		morning rise	3047 Jun 28 09:56	24° Υ 45'25	
morning max el	3046 Aug 01 05:52	19° Υ 07'35	20°39'14	direct	3047 Jul 01 18:06	24° Υ 21'09	
	3046 Aug 09 20:05	0° Υ			3047 Jul 13 23:04	0° Υ	
asc. node	3046 Aug 12 05:39	3° Υ 59'07		morning max el	3047 Jul 14 05:49	0° Υ 15'32	22°11'14
morning set	3046 Aug 20 06:16	19° Υ 25'34		asc. node	3047 Jul 30 02:43	23° Υ 06'20	
	3046 Aug 25 08:48	0° Υ			3047 Aug 02 14:43	0° Υ	
				morning set	3047 Aug 04 16:15	4° Υ 15'34	
superior conj	3046 Aug 27 19:51	5° Υ 03'39	1°44'50				
minimum elong	3046 Aug 27 19:33	5° Υ 02'09	1°44'49	superior conj	3047 Aug 11 21:43	19° Υ 34'45	1°39'58
max. Earth dist.	3046 Sep 01 16:11	14° Υ 44'33	1.36019 AU	minimum elong	3047 Aug 11 20:13	19° Υ 26'51	1°39'52
evening rise	3046 Sep 05 17:47	22° Υ 28'42		max. Earth dist.	3047 Aug 15 07:40	26° Υ 41'29	1.34448 AU
	3046 Sep 09 21:41	0° Υ			3047 Aug 16 22:44	0° Υ	
desc. node	3046 Sep 18 20:36	14° Υ 52'29		evening rise	3047 Aug 19 23:18	5° Υ 58'57	
	3046 Sep 29 05:45	0° Υ			3047 Sep 02 14:04	0° Υ	
evening max el	3046 Oct 11 08:13	14° Υ 14'15	26°13'03	desc. node	3047 Sep 05 17:37	4° Υ 53'17	
retrograde	3046 Oct 24 00:23	21° Υ 23'58		evening max el	3047 Sep 23 20:46	27° Υ 48'41	27°01'38
evening set	3046 Oct 30 07:12	18° Υ 49'14			3047 Sep 26 07:08	0° Υ	
min. Earth dist.	3046 Nov 03 12:36	14° Υ 20'59	0.66534 AU	retrograde	3047 Oct 07 02:27	5° Υ 05'29	
inferior conj	3046 Nov 05 00:37	12° Υ 29'53	-1°-5'-9	evening set	3047 Oct 13 21:29	2° Υ 24'16	
minimum elong	3046 Nov 05 02:22	12° Υ 24'30	1°04'25		3047 Oct 16 11:44	30° Υ	
asc. node	3046 Nov 08 04:49	8° Υ 50'48		min. Earth dist.	3047 Oct 17 20:02	28° Υ 32'35	0.65380 AU
morning rise	3046 Nov 10 22:39	6° Υ 38'46		inferior conj	3047 Oct 19 20:02	26° Υ 15'52	-2°-4'-59
direct	3046 Nov 13 23:18	5° Υ 46'32		minimum elong	3047 Oct 19 23:28	26° Υ 06'04	2°03'38
morning max el	3046 Nov 20 17:52	9° Υ 31'08	18°46'24	morning rise	3047 Oct 26 03:08	20° Υ 37'34	
	3046 Dec 05 10:05	0° Υ		asc. node	3047 Oct 26 01:53	20° Υ 39'05	
morning set	3046 Dec 12 00:59	10° Υ 25'04		direct	3047 Oct 28 19:44	19° Υ 58'14	
desc. node	3046 Dec 15 19:52	16° Υ 23'06		morning max el	3047 Nov 04 08:04	23° Υ 28'52	18°11'11
	3046 Dec 24 11:53	0° Υ			3047 Nov 09 14:07	0° Υ	
max. Earth dist.	3046 Dec 27 13:32	4° Υ 48'59	1.45127 AU	morning set	3047 Nov 22 20:09	21° Υ 04'11	
					3047 Nov 28 07:31	0° Υ	
superior conj	3046 Dec 28 10:36	6° Υ 11'44	-1°-18'-45	desc. node	3047 Dec 02 16:55	7° Υ 04'26	
minimum elong	3046 Dec 28 01:45	5° Υ 37'00	1°17'47				
	3047 Jan 12 10:25	0° Υ		superior conj	3047 Dec 07 14:03	14° Υ 50'22	0°-32'-41
evening rise	3047 Jan 12 23:17	0° Υ		minimum elong	3047 Dec 07 09:53	14° Υ 33'53	0°32'08
	3047 Feb 01 01:31	0° Υ		max. Earth dist.	3047 Dec 10 09:01	19° Υ 14'24	1.45113 AU
evening max el	3047 Feb 03 02:11	2° Υ 16'06	18°46'53		3047 Dec 17 05:59	0° Υ	

evening rise	3047 Dec 23 23:52	10°☿30'01		evening rise	3048 Dec 02 10:23	19°♄39'11	
	3048 Jan 05 15:29	0°♈			3048 Dec 09 05:17	0°☿	
greatest brilliancy	3048 Jan 09 06:08	5°♈20'19	-0.7m	greatest brilliancy	3048 Dec 24 13:47	22°☿12'35	-0.5m
evening max el	3048 Jan 17 09:41	15°♈46'14	19°32'37	evening max el	3048 Dec 30 12:03	29°☿17'44	20°32'58
asc. node	3048 Jan 22 01:09	19°♈20'36			3048 Dec 31 04:58	0°♈	
retrograde	3048 Jan 24 16:02	19°♈57'46		retrograde	3049 Jan 07 14:09	4°♈03'52	
evening set	3048 Jan 28 03:20	18°♈47'14		asc. node	3049 Jan 07 22:11	4°♈03'14	
inferior conj	3048 Feb 02 16:18	12°♈49'20	3°11'40	evening set	3049 Jan 11 10:15	2°♈38'57	
minimum elong	3048 Feb 02 14:01	12°♈56'50	3°11'13		3049 Jan 14 03:24	30°♈☿	
min. Earth dist.	3048 Feb 03 20:30	11°♈17'01	0.66569 AU	inferior conj	3049 Jan 16 20:35	26°☿28'17	2°40'48
morning rise	3048 Feb 07 23:58	6°♈34'32		minimum elong	3049 Jan 16 18:02	26°☿36'59	2°40'05
direct	3048 Feb 14 03:16	3°♈51'39		min. Earth dist.	3049 Jan 17 11:27	25°☿37'34	0.67396 AU
morning max el	3048 Feb 26 11:24	11°♈12'00	25°47'09	morning rise	3049 Jan 22 01:21	20°☿12'51	
desc. node	3048 Feb 28 16:05	13°♈31'07		direct	3049 Jan 27 14:25	17°☿46'23	
	3048 Mar 12 11:34	0°♈		morning max el	3049 Feb 07 20:01	24°☿28'35	24°23'18
	3048 Mar 31 03:24	0°♈			3049 Feb 12 19:12	0°♈	
morning set	3048 Apr 02 16:04	4°♈34'27		desc. node	3049 Feb 14 13:08	2°♈08'29	
max. Earth dist.	3048 Apr 06 12:39	11°♈48'06	1.35768 AU		3049 Mar 05 22:31	0°♈	
				morning set	3049 Mar 15 16:37	16°♈14'43	
superior conj	3048 Apr 12 01:23	22°♈40'16	-1°-7'-23	max. Earth dist.	3049 Mar 19 10:04	22°♈51'58	1.37741 AU
minimum elong	3048 Apr 12 04:52	22°♈57'48	1°06'49		3049 Mar 23 06:58	0°♈	
	3048 Apr 15 15:49	0°♈					
asc. node	3048 Apr 19 00:29	6°♈54'30		superior conj	3049 Mar 26 07:54	5°♈46'46	-1°-33'-29
evening rise	3048 Apr 20 01:34	9°♈02'45		minimum elong	3049 Mar 26 12:21	6°♈08'12	1°32'56
	3048 May 01 11:28	0°♈		evening rise	3049 Apr 04 01:57	23°♈01'14	
evening max el	3048 May 07 22:52	8°♈05'53	20°08'00	asc. node	3049 Apr 05 21:31	26°♈35'40	
retrograde	3048 May 18 10:37	13°♈11'44			3049 Apr 07 15:43	0°♈	
evening set	3048 May 20 10:35	13°♈01'26		evening max el	3049 Apr 20 17:08	19°♈56'46	19°08'22
desc. node	3048 May 26 15:17	10°♈40'20		retrograde	3049 Apr 29 13:18	24°♈14'34	
inferior conj	3048 May 29 11:21	9°♈02'20	0°-50'-3	evening set	3049 May 01 14:59	24°♈01'24	
minimum elong	3048 May 29 09:00	9°♈05'49	0°49'12	inferior conj	3049 May 09 22:06	19°♈49'21	1°01'27
min. Earth dist.	3048 May 31 05:58	7°♈58'57	0.55218 AU	minimum elong	3049 May 10 00:29	19°♈45'17	1°00'38
morning rise	3048 Jun 07 05:04	4°♈43'41		min. Earth dist.	3049 May 12 21:07	17°♈48'56	0.56448 AU
direct	3048 Jun 11 06:19	4°♈08'00		desc. node	3049 May 13 12:18	17°♈24'24	
morning max el	3048 Jun 24 21:56	10°♈49'55	23°53'28	morning rise	3049 May 18 05:46	14°♈55'50	
	3048 Jul 09 05:34	0°♈		direct	3049 May 23 06:19	13°♈57'00	
asc. node	3048 Jul 15 23:47	12°♈37'48		morning max el	3049 Jun 06 12:20	21°♈15'33	25°32'11
morning set	3048 Jul 19 03:54	19°♈10'31			3049 Jun 14 02:40	0°♈	
	3048 Jul 24 04:45	0°♈			3049 Jul 01 16:32	0°♈	
				asc. node	3049 Jul 02 20:49	2°♈26'35	
superior conj	3048 Jul 26 05:01	4°♈21'27	1°29'18	morning set	3049 Jul 03 15:32	4°♈04'57	
minimum elong	3048 Jul 26 02:50	4°♈09'39	1°29'03				
max. Earth dist.	3048 Jul 28 08:17	8°♈56'51	1.33269 AU	superior conj	3049 Jul 10 15:29	19°♈16'27	1°13'46
evening rise	3048 Aug 02 16:33	20°♈03'04		minimum elong	3049 Jul 10 13:07	19°♈03'28	1°13'24
	3048 Aug 07 19:37	0°♈		max. Earth dist.	3049 Jul 11 15:56	21°♈30'16	1.32498 AU
desc. node	3048 Aug 22 14:38	24°♈25'25			3049 Jul 15 14:24	0°♈	
	3048 Aug 26 15:51	0°♈		evening rise	3049 Jul 17 18:06	4°♈30'53	
evening max el	3048 Sep 05 08:16	11°♈04'38	27°25'07		3049 Jul 31 12:10	0°♈	
retrograde	3048 Sep 18 22:30	18°♈22'00		desc. node	3049 Aug 09 11:39	13°♈16'34	
evening set	3048 Sep 26 01:43	15°♈43'08		evening max el	3049 Aug 18 16:19	23°♈48'26	27°17'53
min. Earth dist.	3048 Sep 29 18:28	12°♈26'08	0.63876 AU		3049 Aug 27 12:51	0°♈	
inferior conj	3048 Oct 02 06:59	9°♈50'03	-3°-4'-21	retrograde	3049 Sep 01 11:58	1°♈03'33	
minimum elong	3048 Oct 02 11:56	9°♈37'17	3°02'41		3049 Sep 06 06:02	30°♈♈	
morning rise	3048 Oct 09 00:25	4°♈28'07		evening set	3049 Sep 08 16:12	28°♈39'03	
direct	3048 Oct 11 11:31	3°♈58'04		min. Earth dist.	3049 Sep 12 06:30	25°♈49'35	0.62056 AU
asc. node	3048 Oct 11 22:57	3°♈59'12		inferior conj	3049 Sep 15 06:25	23°♈04'42	-3°-59'-14
morning max el	3048 Oct 18 00:28	7°♈23'26	17°53'12	minimum elong	3049 Sep 15 12:05	22°♈51'39	3°57'47
	3048 Nov 02 00:03	0°♈		morning rise	3049 Sep 22 10:51	18°♈02'25	
morning set	3048 Nov 03 18:23	3°♈02'05		direct	3049 Sep 24 19:09	17°♈38'28	
				asc. node	3049 Sep 28 20:01	18°♈51'41	
superior conj	3048 Nov 16 11:08	24°♈24'13	0°14'29	morning max el	3049 Oct 01 16:01	21°♈07'01	17°53'15
minimum elong	3048 Nov 16 12:43	24°♈30'41	0°14'15		3049 Oct 08 09:04	0°♈	
behind sun begin	3048 Nov 16 08:01	24°♈11'27		morning set	3049 Oct 17 13:20	15°♈58'44	
behind sun end	3048 Nov 16 17:26	24°♈49'54			3049 Oct 25 09:48	0°♈	
desc. node	3048 Nov 18 13:57	27°♈50'46					
	3048 Nov 19 22:00	0°♈		superior conj	3049 Oct 28 10:47	5°♈16'13	0°53'32
max. Earth dist.	3048 Nov 22 03:30	3°♈34'03	1.44367 AU	minimum elong	3049 Oct 28 14:59	5°♈34'13	0°52'58

max. Earth dist.	3049 Nov 04 17:39	17° \mathbb{M} 27'42	1.42991 AU	minimum elong	3050 Oct 10 15:32	17° \mathbb{A} 39'36	1°20'44
desc. node	3049 Nov 05 10:58	18° \mathbb{M} 38'14			3050 Oct 17 16:18	0° \mathbb{M}	
evening rise	3049 Nov 11 22:10	28° \mathbb{M} 56'39		max. Earth dist.	3050 Oct 18 02:17	0° \mathbb{M} 42'25	1.41164 AU
	3049 Nov 12 14:24	0° \mathbb{A}		evening rise	3050 Oct 23 02:30	9° \mathbb{M} 01'23	
	3049 Dec 02 22:38	0° \mathbb{B}		desc. node	3050 Oct 23 07:59	9° \mathbb{M} 23'41	
greatest brilliancy	3049 Dec 08 13:12	7° \mathbb{B} 20'39	-0.4m		3050 Nov 05 16:30	0° \mathbb{A}	
evening max el	3049 Dec 13 08:44	12° \mathbb{B} 49'37	21°44'51	greatest brilliancy	3050 Nov 20 08:04	19° \mathbb{A} 59'15	-0.2m
retrograde	3049 Dec 22 11:21	18° \mathbb{B} 14'54		evening max el	3050 Nov 26 00:43	26° \mathbb{A} 23'59	23°03'36
asc. node	3049 Dec 25 19:14	17° \mathbb{B} 14'34			3050 Nov 30 03:07	0° \mathbb{B}	
evening set	3049 Dec 26 18:03	16° \mathbb{B} 34'22		retrograde	3050 Dec 06 06:03	2° \mathbb{B} 27'40	
inferior conj	3050 Jan 01 03:30	10° \mathbb{B} 14'26	2°01'43	evening set	3050 Dec 11 01:05	0° \mathbb{B} 30'42	
minimum elong	3050 Jan 01 01:11	10° \mathbb{B} 22'30	2°00'54		3050 Dec 11 15:05	30° \mathbb{R} \mathbb{A}	
min. Earth dist.	3050 Jan 01 06:30	10° \mathbb{B} 04'03	0.67832 AU	asc. node	3050 Dec 12 16:16	28° \mathbb{A} 56'28	
morning rise	3050 Jan 06 08:03	4° \mathbb{B} 00'15		inferior conj	3050 Dec 16 11:10	24° \mathbb{A} 05'25	1°15'50
direct	3050 Jan 11 06:04	1° \mathbb{B} 55'04		minimum elong	3050 Dec 16 09:30	24° \mathbb{A} 11'07	1°15'11
morning max el	3050 Jan 21 05:39	7° \mathbb{B} 50'10	22°54'26	min. Earth dist.	3050 Dec 16 03:14	24° \mathbb{A} 32'46	0.67909 AU
greatest brilliancy	3050 Jan 25 22:49	13° \mathbb{B} 05'55	-0.3m	morning rise	3050 Dec 21 17:55	17° \mathbb{A} 54'33	
desc. node	3050 Feb 01 10:10	21° \mathbb{B} 27'33		direct	3050 Dec 26 01:20	16° \mathbb{A} 12'14	
	3050 Feb 07 11:40	0° \mathbb{A}		morning max el	3051 Jan 03 19:47	21° \mathbb{A} 19'18	21°29'28
morning set	3050 Feb 24 15:14	26° \mathbb{A} 37'59		greatest brilliancy	3051 Jan 08 19:55	27° \mathbb{A} 00'45	-0.4m
	3050 Feb 26 15:38	0° \mathbb{H}			3051 Jan 11 04:02	0° \mathbb{B}	
max. Earth dist.	3050 Mar 01 05:09	4° \mathbb{H} 21'33	1.39899 AU	desc. node	3051 Jan 19 07:12	11° \mathbb{B} 16'35	
					3051 Jan 31 18:27	0° \mathbb{A}	
superior conj	3050 Mar 08 22:58	18° \mathbb{H} 05'46	-1°-54'-20	morning set	3051 Feb 04 08:46	5° \mathbb{A} 38'33	
minimum elong	3050 Mar 09 03:05	18° \mathbb{H} 24'36	1°54'02	max. Earth dist.	3051 Feb 11 05:13	16° \mathbb{A} 42'59	1.41973 AU
	3050 Mar 15 07:46	0° \mathbb{Y}					
evening rise	3050 Mar 18 17:16	6° \mathbb{Y} 28'38		superior conj	3051 Feb 18 17:29	29° \mathbb{A} 25'01	-2°-5'-39
asc. node	3050 Mar 23 18:32	15° \mathbb{Y} 58'02		minimum elong	3051 Feb 18 18:53	29° \mathbb{A} 31'05	2°05'39
	3050 Apr 01 16:17	0° \mathbb{B}			3051 Feb 19 01:33	0° \mathbb{H}	
evening max el	3050 Apr 03 20:48	2° \mathbb{B} 24'05	18°28'59	evening rise	3051 Mar 01 19:46	19° \mathbb{H} 15'49	
retrograde	3050 Apr 11 10:24	6° \mathbb{B} 07'46			3051 Mar 07 18:34	0° \mathbb{Y}	
evening set	3050 Apr 13 17:54	5° \mathbb{B} 47'58		asc. node	3051 Mar 10 15:34	4° \mathbb{Y} 54'34	
inferior conj	3050 Apr 21 05:52	1° \mathbb{B} 16'35	2°24'08	evening max el	3051 Mar 18 06:28	15° \mathbb{Y} 18'13	18°09'31
minimum elong	3050 Apr 21 09:43	1° \mathbb{B} 08'55	2°23'06	retrograde	3051 Mar 25 01:13	18° \mathbb{Y} 44'13	
	3050 Apr 22 20:02	30° \mathbb{R} \mathbb{Y}		evening set	3051 Mar 27 14:41	18° \mathbb{Y} 15'20	
min. Earth dist.	3050 Apr 24 16:16	28° \mathbb{Y} 33'30	0.58313 AU	inferior conj	3051 Apr 03 10:09	13° \mathbb{Y} 22'37	3°14'09
morning rise	3050 Apr 28 21:12	25° \mathbb{Y} 50'49		minimum elong	3051 Apr 03 12:58	13° \mathbb{Y} 16'05	3°13'40
desc. node	3050 Apr 30 09:19	25° \mathbb{Y} 10'25		min. Earth dist.	3051 Apr 06 17:19	10° \mathbb{Y} 20'34	0.60468 AU
direct	3050 May 04 20:53	24° \mathbb{Y} 18'12		morning rise	3051 Apr 10 07:54	7° \mathbb{Y} 34'20	
	3050 May 17 02:20	0° \mathbb{B}		direct	3051 Apr 16 23:33	5° \mathbb{Y} 26'28	
morning max el	3050 May 19 06:16	1° \mathbb{B} 59'34	26°51'36	desc. node	3051 Apr 17 06:22	5° \mathbb{Y} 26'42	
	3050 Jun 08 08:08	0° \mathbb{H}		morning max el	3051 May 01 06:13	13° \mathbb{Y} 19'26	27°39'23
morning set	3050 Jun 18 01:33	18° \mathbb{H} 53'33			3051 May 14 13:07	0° \mathbb{B}	
asc. node	3050 Jun 19 17:50	22° \mathbb{H} 27'09			3051 May 31 15:13	0° \mathbb{H}	
	3050 Jun 23 05:13	0° \mathbb{B}		morning set	3051 Jun 02 08:07	3° \mathbb{H} 29'12	
				asc. node	3051 Jun 06 14:51	12° \mathbb{H} 33'47	
superior conj	3050 Jun 25 03:16	4° \mathbb{B} 13'28	0°54'08	max. Earth dist.	3051 Jun 08 14:47	16° \mathbb{H} 54'51	1.32160 AU
minimum elong	3050 Jun 25 01:11	4° \mathbb{B} 02'01	0°53'45				
max. Earth dist.	3050 Jun 25 03:19	4° \mathbb{B} 13'44	1.32130 AU	superior conj	3051 Jun 09 14:34	19° \mathbb{H} 05'18	0°31'03
evening rise	3050 Jul 02 01:15	19° \mathbb{B} 14'07		minimum elong	3051 Jun 09 13:13	18° \mathbb{H} 57'53	0°30'46
	3050 Jul 07 08:54	0° \mathbb{B}			3051 Jun 14 14:09	0° \mathbb{B}	
	3050 Jul 26 08:58	0° \mathbb{H}		evening rise	3051 Jun 16 11:41	4° \mathbb{B} 04'08	
desc. node	3050 Jul 27 08:38	1° \mathbb{H} 09'53			3051 Jun 30 07:20	0° \mathbb{B}	
evening max el	3050 Jul 31 18:37	5° \mathbb{H} 49'44	26°37'23	evening max el	3051 Jul 13 13:46	17° \mathbb{B} 03'34	25°26'28
retrograde	3050 Aug 14 17:44	13° \mathbb{H} 01'30		desc. node	3051 Jul 14 05:38	17° \mathbb{B} 40'45	
evening set	3050 Aug 21 12:24	11° \mathbb{H} 04'55		retrograde	3051 Jul 27 13:36	24° \mathbb{B} 10'11	
min. Earth dist.	3050 Aug 25 08:21	8° \mathbb{H} 29'11	0.60027 AU	evening set	3051 Aug 02 09:36	22° \mathbb{B} 51'00	
inferior conj	3050 Aug 28 14:56	5° \mathbb{H} 51'28	-4°-42'-53	min. Earth dist.	3051 Aug 07 01:45	20° \mathbb{B} 11'01	0.57990 AU
minimum elong	3050 Aug 28 19:34	5° \mathbb{H} 42'07	4°42'12	inferior conj	3051 Aug 10 05:03	18° \mathbb{B} 00'01	-5°-4'-31
morning rise	3050 Sep 05 06:06	1° \mathbb{H} 11'25		minimum elong	3051 Aug 10 05:56	17° \mathbb{B} 58'28	5°04'31
direct	3050 Sep 07 14:44	0° \mathbb{H} 50'51		morning rise	3051 Aug 18 05:51	13° \mathbb{B} 42'52	
morning max el	3050 Sep 15 03:31	4° \mathbb{H} 31'33	18°12'33	direct	3051 Aug 20 17:57	13° \mathbb{B} 23'35	
asc. node	3050 Sep 15 17:04	5° \mathbb{H} 05'20		morning max el	3051 Aug 29 07:38	17° \mathbb{B} 26'52	18°52'36
morning set	3050 Sep 30 23:14	29° \mathbb{H} 38'15		asc. node	3051 Sep 02 14:06	22° \mathbb{B} 24'24	
	3050 Oct 01 03:51	0° \mathbb{A}			3051 Sep 07 10:59	0° \mathbb{H}	
				morning set	3051 Sep 14 19:39	13° \mathbb{H} 48'05	
superior conj	3050 Oct 10 11:35	17° \mathbb{A} 21'44	1°21'08				

superior conj	3051 Sep 23 08:15	0°♂25'51	1°37'37			3052 Aug 11 08:22	0°♂	
minimum elong	3051 Sep 23 10:38	0°♂37'13	1°37'28	asc. node		3052 Aug 19 11:08	10°♂34'38	
	3051 Sep 23 02:49	0°♂		morning set		3052 Aug 28 23:13	28°♂19'02	
max. Earth dist.	3051 Sep 30 07:10	13°♂15'54	1.39111 AU			3052 Aug 29 19:08	0°♂	
evening rise	3051 Oct 04 06:13	20°♂10'52						
desc. node	3051 Oct 10 04:59	0°♂03'22		superior conj		3052 Sep 05 19:30	14°♂13'34	1°44'32
	3051 Oct 10 04:09	0°♂		minimum elong		3052 Sep 05 20:07	14°♂16'36	1°44'31
	3051 Oct 30 20:11	0°♂		max. Earth dist.		3052 Sep 11 12:14	25°♂17'40	1.37086 AU
evening max el	3051 Nov 08 13:54	10°♂02'34	24°23'12			3052 Sep 14 01:00	0°♂	
retrograde	3051 Nov 19 21:01	16°♂39'01		evening rise		3052 Sep 15 08:33	2°♂23'20	
evening set	3051 Nov 25 05:50	14°♂25'33		desc. node		3052 Sep 26 02:00	20°♂32'45	
asc. node	3051 Nov 29 13:19	9°♂34'27				3052 Oct 02 06:27	0°♂	
min. Earth dist.	3051 Nov 29 23:14	9°♂01'27	0.67644 AU	evening max el		3052 Oct 21 02:05	23°♂43'37	25°36'33
inferior conj	3051 Nov 30 17:49	7°♂59'09	0°24'22			3052 Oct 29 18:21	0°♂	
minimum elong	3051 Nov 30 17:14	8°♂01'07	0°24'07	retrograde		3052 Nov 02 07:27	0°♂43'58	
morning rise	3051 Dec 06 04:59	1°♂54'01				3052 Nov 05 14:32	30°♂	
direct	3051 Dec 09 23:01	0°♂33'29		evening set		3052 Nov 08 06:33	28°♂15'43	
morning max el	3051 Dec 17 17:20	4°♂59'48	20°14'51	min. Earth dist.		3052 Nov 12 16:08	23°♂26'57	0.67041 AU
greatest brilliancy	3051 Dec 24 08:15	12°♂54'54	-0.6m	inferior conj		3052 Nov 13 21:40	21°♂52'35	0°-31'-32
	3052 Jan 05 05:00	0°♂		minimum elong		3052 Nov 13 22:29	21°♂49'58	0°31'11
desc. node	3052 Jan 06 04:14	1°♂27'22		asc. node		3052 Nov 15 10:22	19°♂57'34	
morning set	3052 Jan 14 06:25	13°♂48'40		morning rise		3052 Nov 19 15:14	15°♂55'46	
max. Earth dist.	3052 Jan 24 13:33	0°♂00'41	1.43678 AU	direct		3052 Nov 22 21:39	14°♂54'18	
	3052 Jan 24 13:22	0°♂		morning max el		3052 Nov 29 22:46	18°♂50'45	19°14'13
						3052 Dec 08 16:32	0°♂	
superior conj	3052 Jan 30 10:52	9°♂34'51	-2°-2'-16	greatest brilliancy		3052 Dec 10 00:41	1°♂57'32	-0.7m
minimum elong	3052 Jan 30 06:55	9°♂18'37	2°02'09	morning set		3052 Dec 23 07:53	22°♂19'04	
	3052 Feb 11 12:02	0°♂		desc. node		3052 Dec 23 01:16	21°♂53'23	
evening rise	3052 Feb 12 05:14	1°♂14'38				3052 Dec 28 06:21	0°♂	
asc. node	3052 Feb 25 12:36	23°♂17'23		max. Earth dist.		3053 Jan 06 04:30	13°♂58'50	1.44798 AU
evening max el	3052 Feb 29 18:55	28°♂30'31	18°09'25					
	3052 Mar 02 11:15	0°♂		superior conj		3053 Jan 09 02:59	18°♂37'44	-1°-39'-59
retrograde	3052 Mar 07 05:50	1°♂54'02		minimum elong		3053 Jan 08 18:17	18°♂03'14	1°39'14
evening set	3052 Mar 10 00:44	1°♂14'46				3053 Jan 16 05:14	0°♂	
	3052 Mar 12 01:45	30°♂		evening rise		3053 Jan 23 17:28	12°♂17'31	
inferior conj	3052 Mar 16 07:28	26°♂01'14	3°36'43			3053 Feb 03 13:08	0°♂	
minimum elong	3052 Mar 16 08:26	25°♂58'41	3°36'40	asc. node		3053 Feb 11 09:39	10°♂55'35	
min. Earth dist.	3052 Mar 19 02:39	23°♂04'57	0.62581 AU	evening max el		3053 Feb 12 07:11	11°♂52'47	18°28'03
morning rise	3052 Mar 22 13:53	19°♂59'10		retrograde		3053 Feb 18 19:41	15°♂26'54	
direct	3052 Mar 29 11:37	17°♂24'24		evening set		3053 Feb 21 20:06	14°♂36'24	
desc. node	3052 Apr 03 03:23	18°♂26'27		inferior conj		3053 Feb 27 17:41	9°♂03'47	3°38'34
morning max el	3052 Apr 12 11:58	25°♂21'21	27°49'58	minimum elong		3053 Feb 27 16:57	9°♂05'54	3°38'33
	3052 Apr 16 18:25	0°♂		min. Earth dist.		3053 Mar 01 21:36	6°♂32'05	0.64428 AU
	3052 May 07 00:07	0°♂		morning rise		3053 Mar 05 12:21	2°♂53'52	
morning set	3052 May 16 09:12	17°♂45'29		direct		3053 Mar 12 07:27	0°♂05'24	
max. Earth dist.	3052 May 21 22:32	29°♂21'16	1.32601 AU	desc. node		3053 Mar 21 00:26	3°♂40'33	
	3052 May 22 05:45	0°♂		morning max el		3053 Mar 25 21:14	7°♂58'29	27°24'33
asc. node	3052 May 23 11:53	2°♂42'30				3053 Apr 11 22:24	0°♂	
						3053 Apr 29 06:49	0°♂	
superior conj	3052 May 23 23:42	3°♂46'28	0°05'11	morning set		3053 Apr 30 02:07	1°♂34'01	
minimum elong	3052 May 23 23:27	3°♂45'08	0°05'08	max. Earth dist.		3053 May 04 22:34	11°♂20'53	1.33467 AU
behind sun begin	3052 May 23 18:30	3°♂18'19						
behind sun end	3052 May 24 04:24	4°♂11'59		superior conj		3053 May 08 04:44	18°♂10'45	0°-22'-37
evening rise	3052 May 30 23:31	18°♂54'35		minimum elong		3053 May 08 05:53	18°♂16'50	0°22'24
	3052 Jun 05 10:01	0°♂		asc. node		3053 May 10 08:57	22°♂49'09	
evening max el	3052 Jun 24 03:34	27°♂39'54	23°55'07			3053 May 13 17:29	0°♂	
	3052 Jun 26 18:59	0°♂		evening rise		3053 May 15 10:51	3°♂38'59	
desc. node	3052 Jun 30 02:39	2°♂17'30				3053 May 30 00:03	0°♂	
retrograde	3052 Jul 07 21:21	4°♂34'20		evening max el		3053 Jun 05 18:34	8°♂06'55	22°18'43
evening set	3052 Jul 12 07:30	3°♂51'12		desc. node		3053 Jun 16 23:39	14°♂25'18	
min. Earth dist.	3052 Jul 18 13:59	0°♂50'01	0.56243 AU	retrograde		3053 Jun 18 17:20	14°♂32'14	
	3052 Jul 19 22:56	30°♂		evening set		3053 Jun 21 17:05	14°♂12'28	
inferior conj	3052 Jul 20 22:55	29°♂23'08	-4°-49'-22	min. Earth dist.		3053 Jun 30 00:58	10°♂36'26	0.55121 AU
minimum elong	3052 Jul 20 18:04	29°♂30'35	4°48'48	inferior conj		3053 Jun 30 23:29	10°♂04'39	-3°-45'-40
morning rise	3052 Jul 29 08:03	25°♂25'20		minimum elong		3053 Jun 30 15:15	10°♂16'17	3°43'33
direct	3052 Aug 01 02:00	25°♂05'57		morning rise		3053 Jul 09 15:35	6°♂13'58	
morning max el	3052 Aug 11 01:31	29°♂43'50	19°54'18	direct		3053 Jul 12 17:07	5°♂52'50	

morning max el	3053 Jul 24 07:55	11°☿17'24	21°16'33	morning max el	3054 Jul 06 04:06	22°♄09'38	22°54'13
asc. node	3053 Aug 06 08:11	29°☿24'05			3054 Jul 13 00:00	0°☿	
	3053 Aug 06 16:05	0°♄		asc. node	3054 Jul 24 05:14	18°☿42'22	
morning set	3053 Aug 13 07:30	13°♄04'18		morning set	3054 Jul 28 18:23	27°☿57'02	
					3054 Jul 29 17:42	0°♄	
superior conj	3053 Aug 20 17:05	28°♄32'35	1°43'33	superior conj	3054 Aug 04 21:36	13°♄11'37	1°36'06
minimum elong	3053 Aug 20 16:14	28°♄28'07	1°43'31	minimum elong	3054 Aug 04 19:45	13°♄01'44	1°35'56
	3053 Aug 21 10:00	0°♄		max. Earth dist.	3054 Aug 07 17:54	19°♄12'27	1.33891 AU
max. Earth dist.	3053 Aug 24 22:42	7°♄09'34	1.35301 AU	evening rise	3054 Aug 12 16:29	29°♄15'17	
evening rise	3053 Aug 29 05:30	15°♄29'08			3054 Aug 13 01:34	0°♄	
	3053 Sep 06 07:36	0°♄			3054 Aug 30 10:19	0°♄	
desc. node	3053 Sep 12 23:02	10°♄46'25		desc. node	3054 Aug 30 20:03	0°♄36'17	
	3053 Sep 26 20:21	0°♄		evening max el	3054 Sep 16 02:33	20°♄50'21	27°15'01
evening max el	3053 Oct 03 14:23	7°♄22'46	26°36'15	retrograde	3054 Sep 29 12:43	28°♄08'53	
retrograde	3053 Oct 16 12:53	14°♄36'55		evening set	3054 Oct 06 11:46	25°♄27'14	
evening set	3053 Oct 23 01:21	11°♄58'11		min. Earth dist.	3054 Oct 10 07:33	21°♄50'44	0.64781 AU
min. Earth dist.	3053 Oct 27 03:39	7°♄45'50	0.66089 AU	inferior conj	3054 Oct 12 12:56	19°♄24'32	-2°-30'-24
inferior conj	3053 Oct 28 20:48	5°♄42'55	-1°-30'-25	minimum elong	3054 Oct 12 17:03	19°♄13'13	2°28'53
minimum elong	3053 Oct 28 23:16	5°♄35'34	1°29'24	morning rise	3054 Oct 19 00:19	13°♄52'50	
asc. node	3053 Nov 02 07:24	1°♄02'51		asc. node	3054 Oct 20 04:27	13°♄28'27	
morning rise	3053 Nov 03 22:33	29°♄57'09		direct	3054 Oct 21 14:08	13°♄18'02	
	3053 Nov 03 20:26	30°♄		morning max el	3054 Oct 28 02:04	16°♄45'44	18°01'20
direct	3053 Nov 06 19:26	29°♄11'00			3054 Nov 06 15:58	0°♄	
	3053 Nov 09 20:03	0°♄		morning set	3054 Nov 14 17:14	13°♄21'16	
morning max el	3053 Nov 13 10:33	2°♄48'26	18°29'23		3054 Nov 24 19:18	0°♄	
	3053 Dec 02 02:14	0°♄		desc. node	3054 Nov 26 19:23	3°♄14'14	
morning set	3053 Dec 03 09:55	2°♄06'53					
desc. node	3053 Dec 09 22:20	12°♄30'28		superior conj	3054 Nov 28 14:16	6°♄06'12	0°-12'-8
				minimum elong	3054 Nov 28 12:46	6°♄00'14	0°11'57
superior conj	3053 Dec 19 05:14	27°♄09'06	-1°00'-7	behind sun begin	3054 Nov 28 05:34	5°♄31'26	
minimum elong	3053 Dec 18 21:48	26°♄39'57	0°59'13	behind sun end	3054 Nov 28 19:58	6°♄29'01	
max. Earth dist.	3053 Dec 19 22:55	28°♄18'30	1.45211 AU	max. Earth dist.	3054 Dec 02 17:43	12°♄41'15	1.44880 AU
	3053 Dec 21 00:48	0°♄			3054 Dec 13 20:08	0°♄	
evening rise	3054 Jan 04 06:25	22°♄23'53		evening rise	3054 Dec 14 23:25	1°♄45'18	
	3054 Jan 09 01:39	0°♄			3055 Jan 02 19:10	0°♄	
greatest brilliancy	3054 Jan 15 17:53	10°♄27'40	-0.8m	greatest brilliancy	3055 Jan 02 21:42	0°♄08'47	-0.6m
evening max el	3054 Jan 26 16:56	25°♄20'35	19°04'21	evening max el	3055 Jan 09 22:20	8°♄51'19	19°56'43
asc. node	3054 Jan 29 06:42	27°♄36'45		asc. node	3055 Jan 16 03:42	13°♄06'43	
retrograde	3054 Feb 02 14:54	29°♄16'06		retrograde	3055 Jan 17 12:34	13°♄16'59	
evening set	3054 Feb 05 21:45	28°♄13'23		evening set	3055 Jan 21 03:18	12°♄00'42	
inferior conj	3054 Feb 11 13:09	22°♄24'01	3°24'59	inferior conj	3055 Jan 26 14:56	5°♄57'10	2°59'42
minimum elong	3054 Feb 11 11:17	22°♄29'59	3°24'43	minimum elong	3055 Jan 26 12:28	6°♄05'24	2°59'07
min. Earth dist.	3054 Feb 13 01:45	20°♄28'10	0.65903 AU	min. Earth dist.	3055 Jan 27 13:22	4°♄42'12	0.66968 AU
morning rise	3054 Feb 16 23:50	16°♄10'01		morning rise	3055 Jan 31 21:00	29°♄41'42	
direct	3054 Feb 23 10:04	13°♄21'33			3055 Jan 31 13:06	30°♄	
desc. node	3054 Mar 07 21:30	20°♄34'36		direct	3055 Feb 06 18:31	27°♄04'37	
morning max el	3054 Mar 08 07:12	20°♄58'50	26°29'05		3055 Feb 13 22:31	0°♄	
	3054 Mar 16 02:47	0°♄		morning max el	3055 Feb 18 16:02	4°♄10'52	25°12'40
	3054 Apr 05 02:13	0°♄		desc. node	3055 Feb 22 18:34	8°♄40'31	
morning set	3054 Apr 13 07:17	14°♄43'54			3055 Mar 10 11:04	0°♄	
max. Earth dist.	3054 Apr 17 11:27	22°♄46'45	1.34791 AU	morning set	3055 Mar 26 19:59	27°♄01'37	
	3054 Apr 21 01:46	0°♄			3055 Mar 28 11:21	0°♄	
superior conj	3054 Apr 22 03:23	2°♄11'15	0°-51'-13	max. Earth dist.	3055 Mar 30 12:54	3°♄48'51	1.36561 AU
minimum elong	3054 Apr 22 06:03	2°♄24'59	0°50'44	superior conj	3055 Apr 05 16:49	15°♄40'25	-1°-18'-54
asc. node	3054 Apr 27 06:00	12°♄49'22		minimum elong	3055 Apr 05 20:49	16°♄00'09	1°18'18
evening rise	3054 Apr 29 19:42	18°♄10'37			3055 Apr 12 19:35	0°♄	
	3054 May 05 18:30	0°♄		evening rise	3055 Apr 13 23:55	2°♄23'13	
evening max el	3054 May 18 18:22	18°♄56'09	20°51'08	asc. node	3055 Apr 14 03:02	2°♄38'57	
retrograde	3054 May 30 06:31	24°♄33'07			3055 Apr 30 20:21	0°♄	
evening set	3054 Jun 01 09:51	24°♄22'13		evening max el	3055 May 01 06:12	0°♄24'25	19°40'18
desc. node	3054 Jun 03 20:41	23°♄44'51		retrograde	3055 May 11 00:21	5°♄08'05	
inferior conj	3054 Jun 10 17:01	20°♄24'47	-1°-59'-31	evening set	3055 May 13 00:06	4°♄57'10	
minimum elong	3054 Jun 10 11:26	20°♄32'43	1°57'34	inferior conj	3055 May 21 18:03	0°♄54'18	0°00'-14
min. Earth dist.	3054 Jun 11 13:06	19°♄56'12	0.54895 AU	minimum elong	3055 May 21 18:03	0°♄54'19	0°00'14
morning rise	3054 Jun 19 12:14	16°♄21'15		transit middle	3055 May 21 18:03	0°♄54'19	0°00'14
direct	3054 Jun 23 02:26	15°♄53'27					

transit begin	3055 May 21 14:07	1°II00'29		retrograde	3056 Apr 21 10:19	16°832'15	
transit end	3055 May 21 21:59	0°II48'09		evening set	3056 Apr 23 14:32	16°816'30	
desc. node	3055 May 21 17:43	0°II54'51		inferior conj	3056 May 01 13:20	11°856'34	1°40'38
	3055 May 23 04:38	30°R8		minimum elong	3056 May 01 16:44	11°850'21	1°39'33
min. Earth dist.	3055 May 24 02:58	29°825'25	0.55640 AU	min. Earth dist.	3056 May 04 19:16	9°835'46	0.57188 AU
morning rise	3055 May 30 08:32	26°821'15		desc. node	3056 May 07 14:45	7°848'37	
direct	3055 Jun 03 19:25	25°837'00		morning rise	3056 May 09 14:35	6°848'48	
	3055 Jun 14 17:57	0°II		direct	3056 May 15 01:42	5°836'29	
morning max el	3055 Jun 17 18:37	2°II36'43	24°36'44	morning max el	3056 May 29 09:43	13°805'28	26°09'12
	3055 Jul 06 20:26	0°8			3056 Jun 11 16:29	0°II	
asc. node	3055 Jul 11 02:18	8°821'55		morning set	3056 Jun 26 17:20	27°II44'07	
morning set	3055 Jul 13 06:12	12°852'10		asc. node	3056 Jun 26 23:21	28°II15'50	
					3056 Jun 27 18:57	0°8	
superior conj	3055 Jul 20 06:29	28°802'40	1°23'15				
minimum elong	3055 Jul 20 04:10	27°850'01	1°22'58	superior conj	3056 Jul 03 17:42	12°858'29	1°05'54
	3055 Jul 21 04:05	0°8		minimum elong	3056 Jul 03 15:24	12°845'50	1°05'31
max. Earth dist.	3055 Jul 21 21:45	1°835'35	1.32894 AU	max. Earth dist.	3056 Jul 04 07:32	14°814'36	1.32297 AU
evening rise	3055 Jul 27 13:39	13°830'50		evening rise	3056 Jul 10 17:52	28°805'45	
	3055 Aug 05 04:44	0°8			3056 Jul 11 15:55	0°8	
desc. node	3055 Aug 17 17:02	19°852'25			3056 Jul 28 12:28	0°8	
	3055 Aug 25 18:06	0°8		desc. node	3056 Aug 03 14:02	8°821'04	
evening max el	3055 Aug 29 13:02	3°854'37	27°26'03	evening max el	3056 Aug 10 19:10	16°822'02	27°04'46
retrograde	3055 Sep 12 06:07	11°811'03		retrograde	3056 Aug 24 16:12	23°834'47	
evening set	3055 Sep 19 10:38	8°837'03		evening set	3056 Aug 31 17:56	21°820'50	
min. Earth dist.	3055 Sep 23 01:52	5°832'36	0.63138 AU	min. Earth dist.	3056 Sep 04 09:27	18°839'12	0.61213 AU
inferior conj	3055 Sep 25 19:22	2°851'21	-3°-28'-30	inferior conj	3056 Sep 07 12:56	15°855'28	-4°-19'-40
minimum elong	3055 Sep 26 00:46	2°838'02	3°26'52	minimum elong	3056 Sep 07 18:27	15°843'27	4°18'29
	3055 Sep 28 21:16	30°R8		morning rise	3056 Sep 14 21:59	11°802'07	
morning rise	3055 Oct 02 17:27	27°837'03		direct	3056 Sep 17 06:11	10°839'46	
direct	3055 Oct 05 02:56	27°809'58		asc. node	3056 Sep 22 22:34	12°856'47	
asc. node	3055 Oct 07 01:30	27°828'08		morning max el	3056 Sep 24 08:34	14°812'09	17°58'59
	3055 Oct 11 03:17	0°8			3056 Oct 05 03:34	0°8	
morning max el	3055 Oct 11 18:24	0°835'56	17°50'49	morning set	3056 Oct 10 03:03	9°803'26	
morning set	3055 Oct 28 01:03	25°846'15					
	3055 Oct 30 10:57	0°8		superior conj	3056 Oct 20 09:07	27°836'37	1°06'40
superior conj	3055 Nov 08 22:12	16°811'40	0°32'22	minimum elong	3056 Oct 20 13:28	27°855'42	1°06'09
minimum elong	3055 Nov 09 01:20	16°824'43	0°31'55		3056 Oct 21 17:58	0°8	
desc. node	3055 Nov 13 16:23	24°801'02		max. Earth dist.	3056 Oct 27 23:00	10°832'02	1.42262 AU
max. Earth dist.	3055 Nov 15 10:28	26°850'57	1.43855 AU	desc. node	3056 Oct 30 13:22	14°847'58	
	3055 Nov 17 09:45	0°8		evening rise	3056 Nov 03 01:48	20°827'01	
evening rise	3055 Nov 24 08:19	10°852'30			3056 Nov 09 05:03	0°8	
	3055 Dec 07 00:46	0°8			3056 Nov 30 11:21	0°8	
greatest brilliancy	3055 Dec 18 14:53	16°811'08	-0.5m	greatest brilliancy	3056 Nov 30 23:29	0°837'11	-0.3m
evening max el	3055 Dec 23 22:21	22°823'06	21°02'30	evening max el	3056 Dec 05 16:58	5°856'20	22°17'49
retrograde	3056 Jan 01 10:20	27°825'10		retrograde	3056 Dec 15 06:35	11°837'45	
asc. node	3056 Jan 03 00:44	27°811'04		evening set	3056 Dec 19 18:27	9°850'06	
evening set	3056 Jan 05 10:46	25°853'49		asc. node	3056 Dec 19 21:47	9°843'15	
inferior conj	3056 Jan 10 20:33	19°839'03	2°25'07	inferior conj	3056 Dec 25 04:00	3°827'28	1°43'00
minimum elong	3056 Jan 10 18:02	19°847'43	2°24'20	minimum elong	3056 Dec 25 01:55	3°834'44	1°42'13
min. Earth dist.	3056 Jan 11 06:16	19°805'36	0.67631 AU	min. Earth dist.	3056 Dec 25 02:13	3°833'42	0.67913 AU
morning rise	3056 Jan 16 00:55	13°824'03			3056 Dec 27 18:13	30°R8	
direct	3056 Jan 21 07:44	11°806'02		morning rise	3056 Dec 30 09:15	27°814'44	
morning max el	3056 Feb 01 00:27	17°828'19	23°45'29	direct	3057 Jan 04 00:59	25°819'21	
desc. node	3056 Feb 09 15:37	27°837'01			3057 Jan 12 13:59	0°8	
	3056 Feb 11 10:54	0°8		morning max el	3057 Jan 13 11:37	0°852'56	22°17'23
	3056 Mar 02 12:43	0°8		greatest brilliancy	3057 Jan 18 01:21	5°859'41	-0.3m
morning set	3056 Mar 07 10:06	8°810'02		desc. node	3057 Jan 26 12:38	17°809'56	
max. Earth dist.	3056 Mar 11 08:14	14°858'52	1.38654 AU		3057 Feb 04 08:21	0°8	
				morning set	3057 Feb 15 20:12	17°856'55	
superior conj	3056 Mar 18 17:19	28°827'56	-1°-43'-13	max. Earth dist.	3057 Feb 21 05:25	26°851'13	1.40818 AU
minimum elong	3056 Mar 18 21:50	28°849'17	1°42'44		3057 Feb 23 01:52	0°8	
	3056 Mar 19 12:47	0°8		superior conj	3057 Mar 01 00:15	10°822'46	-2°00'-35
evening rise	3056 Mar 27 20:48	16°808'55		minimum elong	3057 Mar 01 03:34	10°837'34	2°00'26
asc. node	3056 Mar 31 00:03	22°812'27		evening rise	3057 Mar 11 07:08	29°820'16	
	3056 Apr 04 06:02	0°8			3057 Mar 11 15:38	0°8	
evening max el	3056 Apr 13 04:51	12°831'18	18°49'08	asc. node	3057 Mar 17 21:04	11°824'28	

evening max el	3057 Mar 27 11:24	25° Υ 10'23	18°18'11		3058 Mar 04 16:07	0° Υ	
retrograde	3057 Apr 03 15:34	28° Υ 44'48		evening max el	3058 Mar 10 22:34	8° Υ 12'49	18°07'07
evening set	3057 Apr 06 01:39	28° Υ 21'18		retrograde	3058 Mar 17 12:57	11° Υ 36'26	
inferior conj	3057 Apr 13 06:07	23° Υ 40'27	2°49'08	evening set	3058 Mar 20 04:37	11° Υ 03'24	
minimum elong	3057 Apr 13 09:43	23° Υ 32'46	2°48'19	inferior conj	3058 Mar 26 18:12	6° Υ 01'41	3°26'39
min. Earth dist.	3057 Apr 16 16:24	20° Υ 46'26	0.59220 AU	minimum elong	3058 Mar 26 20:15	5° Υ 56'38	3°26'24
morning rise	3057 Apr 20 13:52	18° Υ 03'48		min. Earth dist.	3058 Mar 29 20:59	2° Υ 59'06	0.61383 AU
desc. node	3057 Apr 24 11:47	16° Υ 31'38		morning rise	3058 Apr 02 08:59	0° Υ 06'15	
direct	3057 Apr 26 21:18	16° Υ 16'06			3058 Apr 02 12:40	30° \Re \times	
morning max el	3057 May 11 06:12	24° Υ 02'58	27°16'24	direct	3058 Apr 09 04:13	27° \times 45'29	
	3057 May 16 15:34	0° \Re		desc. node	3058 Apr 11 08:50	27° \times 59'10	
	3057 Jun 04 20:06	0° Π			3058 Apr 16 07:22	0° Υ	
morning set	3057 Jun 11 02:07	12° Π 27'28		morning max el	3058 Apr 23 09:04	5° Υ 41'53	27°48'33
asc. node	3057 Jun 13 20:22	18° Π 19'00			3058 May 11 14:53	0° \Re	
				morning set	3058 May 26 06:41	26° \Re 56'16	
superior conj	3057 Jun 18 05:27	27° Π 53'13	0°44'43		3058 May 27 18:11	0° Π	
minimum elong	3057 Jun 18 03:38	27° Π 43'11	0°44'21	asc. node	3058 May 31 17:24	8° Π 27'13	
max. Earth dist.	3057 Jun 17 19:34	26° Π 58'41	1.32095 AU	max. Earth dist.	3058 Jun 01 05:57	9° Π 35'22	1.32291 AU
	3057 Jun 19 04:28	0° \Im					
evening rise	3057 Jun 25 02:39	12° \Im 52'01		superior conj	3058 Jun 02 16:05	12° Π 41'30	0°20'23
	3057 Jul 03 18:57	0° Ω		minimum elong	3058 Jun 02 15:10	12° Π 36'26	0°20'10
desc. node	3057 Jul 21 11:03	25° Ω 42'17		evening rise	3058 Jun 09 13:56	27° Π 43'05	
evening max el	3057 Jul 23 18:19	28° Ω 01'56	26°10'29		3058 Jun 10 15:53	0° \Im	
	3057 Jul 25 23:16	0° \mathfrak{M}			3058 Jun 27 18:18	0° Ω	
retrograde	3057 Aug 06 17:49	5° \mathfrak{M} 11'55		evening max el	3058 Jul 05 10:29	8° Ω 56'57	24°49'15
evening set	3057 Aug 13 04:47	3° \mathfrak{M} 30'12		desc. node	3058 Jul 08 08:04	11° Ω 29'10	
min. Earth dist.	3057 Aug 17 07:02	0° \mathfrak{M} 55'21	0.59144 AU	retrograde	3058 Jul 19 09:14	16° Ω 00'50	
	3057 Aug 18 12:54	30° \Re Ω		evening set	3058 Jul 24 15:44	14° Ω 57'48	
inferior conj	3057 Aug 20 13:58	28° Ω 26'30	-4°-55'-37	min. Earth dist.	3058 Jul 29 21:50	12° Ω 10'32	0.57184 AU
minimum elong	3057 Aug 20 17:22	28° Ω 20'02	4°55'17	inferior conj	3058 Aug 01 19:31	10° Ω 16'09	-5°-3'-32
morning rise	3057 Aug 28 09:25	23° Ω 56'35		minimum elong	3058 Aug 01 18:02	10° Ω 18'36	5°03'30
direct	3057 Aug 30 19:18	23° Ω 36'44		morning rise	3058 Aug 10 00:03	6° Ω 08'25	
morning max el	3057 Sep 07 17:20	27° Ω 25'12	18°27'06	direct	3058 Aug 12 14:15	5° Ω 49'24	
asc. node	3057 Sep 09 19:36	29° Ω 39'49		morning max el	3058 Aug 21 17:33	10° Ω 05'56	19°16'17
	3057 Sep 10 02:21	0° \mathfrak{M}		asc. node	3058 Aug 27 16:39	17° Ω 22'20	
morning set	3057 Sep 23 17:55	22° \mathfrak{M} 57'02			3058 Sep 04 00:28	0° \mathfrak{M}	
	3057 Sep 27 09:56	0° $\underline{\mathfrak{A}}$		morning set	3058 Sep 07 17:45	7° \mathfrak{M} 16'40	
superior conj	3057 Oct 02 19:07	10° $\underline{\mathfrak{A}}$ 09'21	1°29'24	superior conj	3058 Sep 15 22:39	23° \mathfrak{M} 33'59	1°41'36
minimum elong	3057 Oct 02 22:29	10° $\underline{\mathfrak{A}}$ 24'55	1°29'06	minimum elong	3058 Sep 16 00:16	23° \mathfrak{M} 41'51	1°41'31
max. Earth dist.	3057 Oct 10 05:57	23° $\underline{\mathfrak{A}}$ 29'51	1.40299 AU		3058 Sep 19 07:15	0° $\underline{\mathfrak{A}}$	
	3057 Oct 14 01:48	0° \mathfrak{M}		max. Earth dist.	3058 Sep 22 09:46	5° $\underline{\mathfrak{A}}$ 45'33	1.38227 AU
evening rise	3057 Oct 14 15:46	0° \mathfrak{M} 58'07		evening rise	3058 Sep 26 05:31	12° $\underline{\mathfrak{A}}$ 35'23	
desc. node	3057 Oct 17 10:22	5° \mathfrak{M} 31'14		desc. node	3058 Oct 04 07:24	26° $\underline{\mathfrak{A}}$ 07'00	
	3057 Nov 02 14:55	0° \Re			3058 Oct 06 18:19	0° \mathfrak{M}	
evening max el	3057 Nov 18 07:21	19° \Re 31'43	23°37'38		3058 Oct 28 18:47	0° \Re	
retrograde	3057 Nov 28 23:53	25° \Re 50'35		evening max el	3058 Oct 31 19:47	3° \Re 11'08	24°55'32
evening set	3057 Dec 04 00:44	23° \Re 46'14		retrograde	3058 Nov 12 13:14	9° \Re 59'45	
asc. node	3057 Dec 06 18:50	20° \Re 53'19		evening set	3058 Nov 18 04:01	7° \Re 39'39	
inferior conj	3057 Dec 09 11:28	17° \Re 19'45	0°54'36	min. Earth dist.	3058 Nov 22 17:58	2° \Re 30'13	0.67428 AU
minimum elong	3057 Dec 09 10:13	17° \Re 24'00	0°54'06	inferior conj	3058 Nov 23 17:10	1° \Re 13'45	0°01'07
min. Earth dist.	3057 Dec 08 22:54	18° \Re 02'39	0.67841 AU	minimum elong	3058 Nov 23 17:08	1° \Re 13'51	0°01'07
morning rise	3057 Dec 14 19:51	11° \Re 11'09		transit middle	3058 Nov 23 17:08	1° \Re 13'51	0°01'07
direct	3057 Dec 18 21:18	9° \Re 38'36		transit begin	3058 Nov 23 14:23	1° \Re 22'57	
morning max el	3057 Dec 27 04:51	14° \Re 27'13	20°56'11	transit end	3058 Nov 23 19:54	1° \Re 04'46	
greatest brilliancy	3058 Jan 01 18:30	20° \Re 53'50	-0.5m	asc. node	3058 Nov 23 15:53	1° \Re 18'01	
	3058 Jan 08 11:20	0° \Re			3058 Nov 24 15:44	30° \Re \mathfrak{M}	
desc. node	3058 Jan 13 09:39	7° \Re 08'42		morning rise	3058 Nov 29 06:49	25° \mathfrak{M} 11'42	
morning set	3058 Jan 26 03:12	26° \Re 29'27		direct	3058 Dec 02 19:35	23° \mathfrak{M} 59'48	
	3058 Jan 28 08:50	0° \approx		morning max el	3058 Dec 10 05:52	28° \mathfrak{M} 12'29	19°47'07
max. Earth dist.	3058 Feb 03 08:55	9° \approx 37'10	1.42758 AU		3058 Dec 11 22:07	0° \Re	
				greatest brilliancy	3058 Dec 17 22:23	7° \Re 40'48	-0.6m
superior conj	3058 Feb 10 08:27	21° \approx 12'35	-2°-6'-19	desc. node	3058 Dec 31 06:41	27° \Re 26'19	
minimum elong	3058 Feb 10 07:49	21° \approx 09'57	2°06'20		3059 Jan 01 22:49	0° \Re	
	3058 Feb 15 11:04	0° \times		morning set	3059 Jan 04 23:09	4° \Re 38'21	
evening rise	3058 Feb 22 02:57	11° \times 47'53		max. Earth dist.	3059 Jan 16 19:46	23° \Re 11'49	1.44234 AU
asc. node	3058 Mar 04 18:07	0° Υ 07'46			3059 Jan 21 01:42	0° \approx	

superior conj	3059 Jan 21 14:35	0° \approx 52'02	-1°-55'-14	minimum elong	3059 Dec 31 13:47	9° \approx 00'46	1°23'54
minimum elong	3059 Jan 21 08:12	0° \approx 26'13	1°54'52		3060 Jan 13 18:21	0° \approx	
evening rise	3059 Feb 04 03:49	23° \approx 23'09		evening rise	3060 Jan 16 06:13	4° \approx 01'52	
	3059 Feb 08 01:07	0° \approx			3060 Feb 01 20:28	0° \approx	
asc. node	3059 Feb 19 15:10	18° \approx 12'58		evening max el	3060 Feb 05 22:52	4° \approx 56'10	18°41'27
evening max el	3059 Feb 22 11:17	21° \approx 30'06	18°15'11	asc. node	3060 Feb 06 12:13	5° \approx 29'08	
retrograde	3059 Feb 28 21:53	24° \approx 56'39		retrograde	3060 Feb 12 14:20	8° \approx 37'44	
evening set	3059 Mar 03 19:02	24° \approx 12'49		evening set	3060 Feb 15 17:26	7° \approx 42'06	
inferior conj	3059 Mar 09 21:30	18° \approx 51'16	3°39'40	inferior conj	3060 Feb 21 12:04	2° \approx 02'15	3°34'26
minimum elong	3059 Mar 09 21:42	18° \approx 50'43	3°39'41	minimum elong	3060 Feb 21 10:47	2° \approx 06'09	3°34'19
min. Earth dist.	3059 Mar 12 10:31	16° \approx 03'12	0.63407 AU		3060 Feb 23 04:21	30° \approx	
morning rise	3059 Mar 15 22:26	12° \approx 45'14		min. Earth dist.	3060 Feb 23 09:25	29° \approx 44'52	0.65111 AU
direct	3059 Mar 22 20:06	10° \approx 02'30		morning rise	3060 Feb 27 02:56	25° \approx 50'30	
desc. node	3059 Mar 29 05:53	12° \approx 00'05		direct	3060 Mar 04 19:04	23° \approx 00'20	
morning max el	3059 Apr 05 16:34	17° \approx 59'42	27°43'14	desc. node	3060 Mar 15 02:56	28° \approx 00'54	
	3059 Apr 15 18:12	0° \approx			3060 Mar 17 06:54	0° \approx	
	3059 May 04 10:55	0° \approx		morning max el	3060 Mar 18 02:13	0° \approx 47'44	27°04'04
morning set	3059 May 10 04:38	11° \approx 01'51			3060 Apr 08 19:10	0° \approx	
max. Earth dist.	3059 May 15 10:39	21° \approx 50'31	1.32908 AU	morning set	3060 Apr 22 17:01	24° \approx 35'12	
					3060 Apr 25 11:17	0° \approx	
superior conj	3059 May 17 23:43	27° \approx 16'19	0°-6'-26	max. Earth dist.	3060 Apr 27 06:06	3° \approx 35'13	1.33978 AU
minimum elong	3059 May 18 00:02	27° \approx 18'02	0°06'24				
behind sun begin	3059 May 17 19:09	26° \approx 51'47		superior conj	3060 May 01 02:21	11° \approx 31'34	0°-34'-44
behind sun end	3059 May 18 04:55	27° \approx 44'18		minimum elong	3060 May 01 04:09	11° \approx 40'58	0°34'23
asc. node	3059 May 18 14:26	28° \approx 35'31		asc. node	3060 May 04 11:29	18° \approx 40'04	
	3059 May 19 06:05	0° \approx		evening rise	3060 May 08 12:16	27° \approx 11'16	
evening rise	3059 May 25 01:45	12° \approx 31'27			3060 May 09 20:47	0° \approx	
	3059 Jun 02 23:08	0° \approx			3060 May 28 18:27	0° \approx	
evening max el	3059 Jun 16 23:55	19° \approx 25'35	23°13'54	evening max el	3060 May 28 18:02	29° \approx 15'00	21°39'44
desc. node	3059 Jun 25 05:07	25° \approx 06'33		retrograde	3060 Jun 10 03:18	6° \approx 04'42	
retrograde	3059 Jun 30 11:57	26° \approx 10'05		desc. node	3060 Jun 11 02:09	6° \approx 02'37	
evening set	3059 Jul 04 06:15	25° \approx 39'07		evening set	3060 Jun 12 16:21	5° \approx 50'05	
min. Earth dist.	3059 Jul 11 09:31	22° \approx 24'30	0.55668 AU	inferior conj	3060 Jun 22 01:09	1° \approx 48'53	-3°-4'-29
inferior conj	3059 Jul 13 05:18	21° \approx 20'20	-4°-28'-32	minimum elong	3060 Jun 21 17:20	1° \approx 59'49	3°02'05
minimum elong	3059 Jul 12 22:24	21° \approx 30'29	4°27'18	min. Earth dist.	3060 Jun 21 20:40	1° \approx 55'09	0.54914 AU
morning rise	3059 Jul 21 17:33	17° \approx 27'10			3060 Jun 25 09:40	30° \approx	
direct	3059 Jul 24 14:17	17° \approx 07'23		morning rise	3060 Jun 30 19:17	27° \approx 15'54	
morning max el	3059 Aug 04 06:35	22° \approx 04'33	20°26'55	direct	3060 Jul 04 01:39	27° \approx 13'56	
	3059 Aug 10 21:20	0° \approx			3060 Jul 12 01:34	0° \approx	
asc. node	3059 Aug 14 13:41	5° \approx 50'16		morning max el	3060 Jul 16 08:02	3° \approx 18'19	21°56'39
morning set	3059 Aug 22 23:34	21° \approx 53'54		asc. node	3060 Jul 31 10:44	24° \approx 52'47	
	3059 Aug 26 21:52	0° \approx			3060 Aug 03 02:15	0° \approx	
				morning set	3060 Aug 06 09:09	6° \approx 42'37	
superior conj	3059 Aug 30 14:44	7° \approx 35'48	1°44'59				
minimum elong	3059 Aug 30 14:40	7° \approx 35'27	1°44'58	superior conj	3060 Aug 13 15:32	22° \approx 03'40	1°41'06
max. Earth dist.	3059 Sep 04 16:18	17° \approx 38'44	1.36288 AU	minimum elong	3060 Aug 13 14:12	21° \approx 05'36	1°41'01
evening rise	3059 Sep 08 16:20	25° \approx 11'52			3060 Aug 17 11:38	0° \approx	
	3059 Sep 11 07:57	0° \approx		max. Earth dist.	3060 Aug 17 06:32	29° \approx 03'40	1.34658 AU
desc. node	3059 Sep 21 04:27	16° \approx 30'14		evening rise	3060 Aug 21 19:44	8° \approx 35'47	
	3059 Sep 30 07:23	0° \approx			3060 Sep 02 21:11	0° \approx	
evening max el	3059 Oct 14 08:07	16° \approx 52'37	26°04'10	desc. node	3060 Sep 07 01:28	6° \approx 34'33	
retrograde	3059 Oct 26 21:39	24° \approx 00'06			3060 Sep 25 08:56	0° \approx	
evening set	3059 Nov 02 02:30	21° \approx 27'01		evening max el	3060 Sep 25 20:40	0° \approx 28'26	26°55'50
min. Earth dist.	3059 Nov 06 09:01	16° \approx 53'21	0.66674 AU	retrograde	3060 Oct 09 00:32	7° \approx 44'34	
inferior conj	3059 Nov 07 19:18	15° \approx 06'36	0°-56'-12	evening set	3060 Oct 15 18:01	5° \approx 03'44	
minimum elong	3059 Nov 07 20:47	15° \approx 01'57	0°55'35	min. Earth dist.	3060 Oct 19 17:31	1° \approx 06'49	0.65574 AU
asc. node	3059 Nov 10 12:55	11° \approx 52'51			3060 Oct 20 16:49	30° \approx	
morning rise	3059 Nov 13 16:06	9° \approx 13'49		inferior conj	3060 Oct 21 15:44	28° \approx 53'31	-1°-55'-52
direct	3059 Nov 16 18:12	8° \approx 19'15		minimum elong	3060 Oct 21 18:55	28° \approx 44'20	1°54'37
morning max el	3059 Nov 23 14:12	12° \approx 06'34	18°53'06	asc. node	3060 Oct 27 09:58	23° \approx 28'34	
	3059 Dec 06 16:06	0° \approx		morning rise	3060 Oct 27 21:24	23° \approx 13'15	
morning set	3059 Dec 15 09:34	13° \approx 38'01		direct	3060 Oct 30 15:05	22° \approx 32'13	
desc. node	3059 Dec 18 03:44	17° \approx 57'38		morning max el	3060 Nov 06 03:50	26° \approx 04'12	18°15'23
	3059 Dec 25 20:01	0° \approx			3060 Nov 09 12:45	0° \approx	
max. Earth dist.	3059 Dec 30 12:32	7° \approx 21'29	1.45066 AU	morning set	3060 Nov 25 00:17	24° \approx 03'47	
					3060 Nov 28 16:00	0° \approx	
superior conj	3059 Dec 31 22:50	9° \approx 36'22	-1°-24'-51	desc. node	3060 Dec 04 00:45	8° \approx 37'44	

superior conj	3060 Dec 10 01:13	18° ♄ 10'48	0°-40'00	behind sun end	3061 Nov 20 04:37	28° ♄ 13'55	
minimum elong	3060 Dec 09 20:07	17° ♄ 50'39	0°39'21	desc. node	3061 Nov 20 21:47	29° ♄ 23'22	
max. Earth dist.	3060 Dec 12 08:02	21° ♄ 46'32	1.45162 AU		3061 Nov 21 06:52	0° ♄	
	3060 Dec 17 14:01	0° ♄		max. Earth dist.	3061 Nov 25 02:38	6° ♄ 07'11	1.44522 AU
evening rise	3060 Dec 26 09:50	13° ♄ 46'50		evening rise	3061 Dec 05 21:31	22° ♄ 57'39	
	3061 Jan 05 20:25	0° ♄			3061 Dec 10 11:56	0° ♄	
greatest brilliancy	3061 Jan 10 15:26	7° ♄ 12'46	-0.7m	greatest brilliancy	3061 Dec 27 05:45	24° ♄ 29'13	-0.5m
evening max el	3061 Jan 19 06:59	18° ♄ 25'34	19°24'45		3061 Dec 31 15:23	0° ♄	
asc. node	3061 Jan 23 09:16	21° ♄ 41'59		evening max el	3062 Jan 02 10:05	1° ♄ 56'25	20°23'08
retrograde	3061 Jan 26 10:55	22° ♄ 32'40		retrograde	3062 Jan 10 09:00	6° ♄ 37'15	
evening set	3061 Jan 29 21:02	21° ♄ 24'08		asc. node	3062 Jan 10 06:16	6° ♄ 37'11	
inferior conj	3061 Feb 04 10:32	15° ♄ 28'16	3°15'31	evening set	3062 Jan 14 03:38	5° ♄ 14'38	
minimum elong	3061 Feb 04 08:21	15° ♄ 35'24	3°15'06		3062 Jan 18 22:10	30° ♄	
min. Earth dist.	3061 Feb 05 16:50	13° ♄ 49'51	0.66411 AU	inferior conj	3062 Jan 19 14:14	29° ♄ 05'38	2°46'03
morning rise	3061 Feb 09 18:54	9° ♄ 13'35		minimum elong	3062 Jan 19 11:41	29° ♄ 14'17	2°45'21
direct	3061 Feb 16 00:03	6° ♄ 29'04		min. Earth dist.	3062 Jan 20 07:00	28° ♄ 08'40	0.67297 AU
morning max el	3061 Feb 28 11:47	13° ♄ 54'08	25°58'34	morning rise	3062 Jan 24 19:14	22° ♄ 50'02	
desc. node	3061 Mar 01 23:58	15° ♄ 28'21		direct	3062 Jan 30 10:29	20° ♄ 20'39	
	3061 Mar 13 14:06	0° ♄		morning max el	3062 Feb 10 20:28	27° ♄ 09'43	24°36'20
	3061 Apr 01 13:21	0° ♄			3062 Feb 13 12:15	0° ♄	
morning set	3061 Apr 05 15:49	7° ♄ 24'20		desc. node	3062 Feb 16 21:00	3° ♄ 57'52	
max. Earth dist.	3061 Apr 09 14:11	14° ♄ 49'49	1.35503 AU		3062 Mar 07 05:44	0° ♄	
				morning set	3062 Mar 18 19:43	19° ♄ 14'57	
superior conj	3061 Apr 14 21:27	25° ♄ 19'34	-1°-3'-12	max. Earth dist.	3062 Mar 22 12:24	25° ♄ 51'55	1.37425 AU
minimum elong	3061 Apr 15 00:44	25° ♄ 36'11	1°02'37		3062 Mar 24 18:13	0° ♄	
	3061 Apr 17 04:26	0° ♄		superior conj	3062 Mar 29 05:53	8° ♄ 32'10	-1°-29'-49
asc. node	3061 Apr 21 08:33	8° ♄ 36'23		minimum elong	3062 Mar 29 10:15	8° ♄ 53'20	1°29'14
evening rise	3061 Apr 22 19:26	11° ♄ 35'43		evening rise	3062 Apr 06 20:55	25° ♄ 38'04	
	3061 May 02 13:35	0° ♄		asc. node	3062 Apr 08 05:35	28° ♄ 19'55	
evening max el	3061 May 10 22:43	11° ♄ 03'14	20°18'34		3062 Apr 09 01:57	0° ♄	
retrograde	3061 May 21 16:55	16° ♄ 17'20		evening max el	3062 Apr 23 15:23	22° ♄ 48'18	19°16'00
evening set	3061 May 23 17:17	16° ♄ 07'05		retrograde	3062 May 02 17:05	27° ♄ 12'29	
desc. node	3061 May 28 23:08	14° ♄ 17'42		evening set	3062 May 04 18:00	27° ♄ 00'06	
inferior conj	3061 Jun 01 20:04	12° ♄ 08'49	-1°-8'-20	inferior conj	3062 May 13 04:02	22° ♄ 50'46	0°46'07
minimum elong	3061 Jun 01 16:51	12° ♄ 13'32	1°07'09	minimum elong	3062 May 13 05:54	22° ♄ 47'39	0°45'27
min. Earth dist.	3061 Jun 03 09:05	11° ♄ 14'30	0.55100 AU	desc. node	3062 May 15 20:11	21° ♄ 04'13	
morning rise	3061 Jun 10 14:28	7° ♄ 54'38		min. Earth dist.	3062 May 15 23:59	20° ♄ 58'04	0.56210 AU
direct	3061 Jun 14 12:32	7° ♄ 21'27		morning rise	3062 May 21 13:41	18° ♄ 02'27	
morning max el	3061 Jun 28 01:05	13° ♄ 56'58	23°38'10	direct	3062 May 26 10:37	17° ♄ 07'46	
	3061 Jul 10 10:43	0° ♄		morning max el	3062 Jun 09 15:21	24° ♄ 22'13	25°18'23
asc. node	3061 Jul 18 07:47	14° ♄ 21'15			3062 Jun 14 19:10	0° ♄	
morning set	3061 Jul 21 20:39	21° ♄ 37'32			3062 Jul 03 04:27	0° ♄	
	3061 Jul 25 18:31	0° ♄		asc. node	3062 Jul 05 04:49	4° ♄ 07'46	
superior conj	3061 Jul 28 22:12	6° ♄ 49'01	1°31'15	morning set	3062 Jul 06 08:23	6° ♄ 32'21	
minimum elong	3061 Jul 28 20:05	6° ♄ 37'38	1°31'02				
max. Earth dist.	3061 Jul 31 05:51	11° ♄ 46'44	1.33414 AU	superior conj	3062 Jul 13 08:19	21° ♄ 43'18	1°16'25
evening rise	3061 Aug 05 11:28	22° ♄ 35'48		minimum elong	3062 Jul 13 05:57	21° ♄ 30'20	1°16'04
	3061 Aug 09 06:35	0° ♄		max. Earth dist.	3062 Jul 14 12:30	24° ♄ 17'16	1.32584 AU
desc. node	3061 Aug 24 22:28	26° ♄ 11'56			3062 Jul 17 03:55	0° ♄	
	3061 Aug 27 15:04	0° ♄		evening rise	3062 Jul 20 11:57	7° ♄ 00'44	
evening max el	3061 Sep 08 08:19	13° ♄ 47'46	27°23'24		3062 Aug 01 18:40	0° ♄	
retrograde	3061 Sep 21 21:33	21° ♄ 05'40		desc. node	3062 Aug 11 19:28	15° ♄ 10'16	
evening set	3061 Sep 28 23:56	18° ♄ 25'33		evening max el	3062 Aug 21 17:00	26° ♄ 37'07	27°21'03
min. Earth dist.	3061 Oct 02 17:22	15° ♄ 03'47	0.64123 AU		3062 Aug 25 17:05	0° ♄	
inferior conj	3061 Oct 05 04:06	12° ♄ 29'53	-2°-55'-30	retrograde	3062 Sep 04 12:11	3° ♄ 52'55	
minimum elong	3061 Oct 05 08:51	12° ♄ 17'24	2°53'53	evening set	3062 Sep 11 16:45	1° ♄ 25'29	
morning rise	3061 Oct 11 19:58	7° ♄ 05'24			3062 Sep 13 14:29	30° ♄	
direct	3061 Oct 14 07:39	6° ♄ 34'15		min. Earth dist.	3062 Sep 15 07:04	28° ♄ 32'28	0.62346 AU
asc. node	3061 Oct 14 06:59	6° ♄ 34'15		inferior conj	3062 Sep 18 05:26	25° ♄ 47'57	-3°-51'-28
morning max el	3061 Oct 20 20:08	9° ♄ 59'53	17°54'44	minimum elong	3062 Sep 18 11:05	25° ♄ 34'43	3°49'57
	3061 Nov 03 08:36	0° ♄		morning rise	3062 Sep 25 08:15	20° ♄ 42'31	
morning set	3061 Nov 06 18:48	5° ♄ 50'47		direct	3062 Sep 27 16:43	20° ♄ 17'54	
				asc. node	3062 Oct 01 04:02	21° ♄ 13'06	
superior conj	3061 Nov 19 18:46	27° ♄ 33'58	0°07'43	morning max el	3062 Oct 04 11:59	23° ♄ 45'35	17°51'58
minimum elong	3061 Nov 19 19:39	27° ♄ 37'31	0°07'35		3062 Oct 09 11:40	0° ♄	
behind sun begin	3061 Nov 19 10:40	27° ♄ 01'02		morning set	3062 Oct 20 11:03	18° ♄ 39'43	

	3062 Oct 26 20:03	0°♄			3063 Oct 02 14:30	0°♄	
				morning set	3063 Oct 03 19:04	2°♄13'46	
superior conj	3062 Oct 31 14:21	8°♄13'57	0°48'19				
minimum elong	3062 Oct 31 18:22	8°♄31'04	0°47'47	superior conj	3063 Oct 13 11:41	20°♄09'08	1°17'42
max. Earth dist.	3062 Nov 07 17:14	20°♄04'24	1.43232 AU	minimum elong	3063 Oct 13 15:47	20°♄27'33	1°17'15
desc. node	3062 Nov 07 18:47	20°♄10'43			3063 Oct 19 02:21	0°♄	
	3062 Nov 13 22:28	0°♄		max. Earth dist.	3063 Oct 21 02:53	3°♄26'13	1.41459 AU
evening rise	3062 Nov 15 07:59	2°♄10'59		desc. node	3063 Oct 25 15:47	10°♄56'34	
	3062 Dec 04 00:52	0°♄		evening rise	3063 Oct 26 09:13	12°♄07'08	
greatest brilliancy	3062 Dec 11 09:54	9°♄51'15	-0.4m		3063 Nov 06 22:21	0°♄	
evening max el	3062 Dec 16 07:37	15°♄28'16	21°33'39	greatest brilliancy	3063 Nov 23 20:05	23°♄14'22	-0.3m
retrograde	3062 Dec 25 06:26	20°♄47'38		evening max el	3063 Nov 29 00:17	29°♄02'24	22°51'44
asc. node	3062 Dec 28 03:17	20°♄02'36			3063 Nov 29 23:48	0°♄	
evening set	3062 Dec 29 11:24	19°♄09'36		retrograde	3063 Dec 09 01:31	5°♄00'18	
inferior conj	3063 Jan 03 20:54	12°♄50'55	2°08'07	evening set	3063 Dec 13 18:39	3°♄05'49	
minimum elong	3063 Jan 03 18:30	12°♄59'12	2°07'18	asc. node	3063 Dec 15 00:20	1°♄56'59	
min. Earth dist.	3063 Jan 04 01:38	12°♄34'30	0.67789 AU		3063 Dec 16 17:10	30°♄	
morning rise	3063 Jan 09 01:18	6°♄36'23		inferior conj	3063 Dec 19 04:34	26°♄41'11	1°23'10
direct	3063 Jan 14 01:36	4°♄27'43		minimum elong	3063 Dec 19 02:47	26°♄47'21	1°22'29
morning max el	3063 Jan 24 05:39	10°♄30'09	23°07'37	min. Earth dist.	3063 Dec 18 22:14	27°♄03'04	0.67921 AU
greatest brilliancy	3063 Jan 29 04:20	16°♄02'10	-0.3m	morning rise	3063 Dec 24 10:51	20°♄29'47	
desc. node	3063 Feb 03 18:03	23°♄11'33		direct	3063 Dec 28 20:26	18°♄44'00	
	3063 Feb 08 15:44	0°♄		morning max el	3064 Jan 06 18:51	23°♄57'37	21°41'35
morning set	3063 Feb 27 22:33	29°♄50'40		greatest brilliancy	3064 Jan 11 15:15	29°♄26'42	-0.4m
	3063 Feb 28 00:48	0°♄			3064 Jan 12 01:59	0°♄	
max. Earth dist.	3063 Mar 04 07:11	7°♄15'10	1.39574 AU	desc. node	3064 Jan 21 15:03	12°♄56'26	
					3064 Feb 02 01:46	0°♄	
superior conj	3063 Mar 11 23:35	20°♄59'17	-1°-51'-40	morning set	3064 Feb 07 20:12	9°♄02'16	
minimum elong	3063 Mar 12 03:52	21°♄19'05	1°51'20	max. Earth dist.	3064 Feb 14 06:25	19°♄28'55	1.41683 AU
	3063 Mar 16 18:53	0°♄			3064 Feb 20 11:25	0°♄	
evening rise	3063 Mar 21 13:48	9°♄10'43					
asc. node	3063 Mar 26 02:37	17°♄45'34		superior conj	3064 Feb 21 21:29	2°♄28'04	-2°-4'-46
	3063 Apr 02 10:38	0°♄		minimum elong	3064 Feb 21 23:29	2°♄36'47	2°04'44
evening max el	3063 Apr 06 17:55	5°♄11'04	18°33'35	evening rise	3064 Mar 03 18:28	22°♄04'16	
retrograde	3063 Apr 14 11:14	8°♄58'35			3064 Mar 08 02:41	0°♄	
evening set	3063 Apr 16 17:52	8°♄39'54		asc. node	3064 Mar 11 23:40	6°♄46'25	
inferior conj	3063 Apr 24 08:36	4°♄11'40	2°13'42	evening max el	3064 Mar 20 02:56	18°♄01'42	18°11'10
minimum elong	3063 Apr 24 12:25	4°♄04'13	2°12'38	retrograde	3064 Mar 26 23:41	21°♄29'17	
min. Earth dist.	3063 Apr 27 18:25	1°♄33'36	0.58011 AU	evening set	3064 Mar 29 12:21	21°♄01'47	
	3063 Apr 30 00:51	30°♄		inferior conj	3064 Apr 05 10:01	16°♄12'06	3°08'25
morning rise	3063 May 02 02:35	28°♄50'19		minimum elong	3064 Apr 05 13:05	16°♄05'09	3°07'52
desc. node	3063 May 02 17:13	28°♄33'20		min. Earth dist.	3064 Apr 08 18:17	13°♄11'27	0.60146 AU
direct	3063 May 07 23:17	27°♄22'59		morning rise	3064 Apr 12 10:20	10°♄26'37	
	3063 May 16 02:15	0°♄		desc. node	3064 Apr 18 14:15	8°♄24'21	
morning max el	3063 May 22 08:26	5°♄01'32	26°41'30	direct	3064 Apr 19 00:12	8°♄23'52	
	3063 Jun 09 15:33	0°♄		morning max el	3064 May 03 07:26	16°♄15'10	27°34'34
morning set	3063 Jun 20 18:44	21°♄21'43			3064 May 14 13:53	0°♄	
asc. node	3063 Jun 22 01:52	24°♄06'39			3064 Jun 01 03:12	0°♄	
	3063 Jun 24 19:14	0°♄		morning set	3064 Jun 04 01:58	5°♄59'30	
				asc. node	3064 Jun 07 22:55	14°♄12'33	
superior conj	3063 Jun 27 20:01	6°♄40'02	0°57'22	max. Earth dist.	3064 Jun 10 11:20	19°♄41'55	1.32134 AU
minimum elong	3063 Jun 27 17:52	6°♄28'12	0°56'58				
max. Earth dist.	3063 Jun 27 23:33	6°♄59'27	1.32161 AU	superior conj	3064 Jun 11 07:32	21°♄32'49	0°34'46
evening rise	3063 Jul 04 18:26	21°♄41'55		minimum elong	3064 Jun 11 06:02	21°♄24'38	0°34'26
	3063 Jul 08 20:06	0°♄			3064 Jun 15 03:54	0°♄	
	3063 Jul 27 02:17	0°♄		evening rise	3064 Jun 18 04:33	6°♄31'18	
desc. node	3063 Jul 29 16:28	3°♄13'20			3064 Jun 30 11:57	0°♄	
evening max el	3063 Aug 03 20:26	8°♄45'25	26°45'32	evening max el	3064 Jul 15 16:42	20°♄06'09	25°38'39
retrograde	3063 Aug 17 19:09	15°♄57'19		desc. node	3064 Jul 15 13:30	19°♄58'29	
evening set	3063 Aug 24 15:58	13°♄55'58		retrograde	3064 Jul 29 16:27	27°♄13'28	
min. Earth dist.	3063 Aug 28 10:26	11°♄19'10	0.60337 AU	evening set	3064 Aug 04 16:50	25°♄48'25	
inferior conj	3063 Aug 31 16:25	8°♄39'22	-4°-37'-29	min. Earth dist.	3064 Aug 09 04:50	23°♄10'22	0.58283 AU
minimum elong	3063 Aug 31 21:22	8°♄29'10	4°36'38	inferior conj	3064 Aug 12 09:29	20°♄54'16	-5°-3'-18
morning rise	3063 Sep 08 06:02	3°♄55'40		minimum elong	3064 Aug 12 11:07	20°♄51'21	5°03'15
direct	3063 Sep 10 14:24	3°♄34'44		morning rise	3064 Aug 20 08:55	16°♄33'49	
morning max el	3063 Sep 18 00:15	7°♄13'06	18°08'21	direct	3064 Aug 22 20:27	16°♄14'23	
asc. node	3063 Sep 18 01:05	7°♄15'06		morning max el	3064 Aug 31 05:41	20°♄13'23	18°45'19

asc. node	3064 Sep 03 22:08	24°♄25'18			3065 Jul 28 09:42	30°♄☿	
	3064 Sep 07 16:32	0°♄		morning rise	3065 Aug 01 14:20	28°♄24'17	
morning set	3064 Sep 16 14:13	16°♄20'15		direct	3065 Aug 04 07:17	28°♄05'02	
	3064 Sep 23 14:44	0°♄			3065 Aug 10 15:58	0°♄	
				morning max el	3065 Aug 14 01:18	2°♄36'50	19°43'50
superior conj	3064 Sep 25 05:50	3°♄06'04	1°35'46	asc. node	3065 Aug 21 19:11	12°♄28'37	
minimum elong	3064 Sep 25 08:29	3°♄18'37	1°35'34		3065 Aug 31 07:16	0°♄	
max. Earth dist.	3064 Oct 02 08:29	16°♄07'13	1.39422 AU	morning set	3065 Aug 31 16:55	0°♄48'35	
evening rise	3064 Oct 06 09:27	23°♄07'12					
	3064 Oct 10 12:44	0°♄		superior conj	3065 Sep 08 15:15	16°♄48'24	1°44'01
desc. node	3064 Oct 11 12:49	1°♄37'36		minimum elong	3065 Sep 08 16:07	16°♄52'42	1°43'59
	3064 Oct 30 19:50	0°♄		max. Earth dist.	3065 Sep 14 13:04	28°♄12'02	1.37372 AU
evening max el	3064 Nov 10 13:46	12°♄40'36	24°11'29		3065 Sep 15 12:18	0°♄	
retrograde	3064 Nov 21 17:06	19°♄12'32		evening rise	3065 Sep 18 08:39	5°♄10'48	
evening set	3064 Nov 26 23:52	17°♄01'20		desc. node	3065 Sep 28 09:51	22°♄08'57	
asc. node	3064 Nov 30 21:22	12°♄42'17			3065 Oct 03 11:47	0°♄	
inferior conj	3064 Dec 02 11:30	10°♄34'51	0°32'30	evening max el	3065 Oct 24 01:56	26°♄21'19	25°26'14
minimum elong	3064 Dec 02 10:43	10°♄37'27	0°32'10		3065 Oct 28 06:13	0°♄	
min. Earth dist.	3064 Dec 01 18:28	11°♄32'14	0.67710 AU	retrograde	3065 Nov 05 04:20	3°♄19'04	
morning rise	3064 Dec 07 21:53	4°♄28'50		evening set	3065 Nov 11 01:19	0°♄52'43	
direct	3064 Dec 11 17:50	3°♄05'15			3065 Nov 12 00:26	30°♄♄	
morning max el	3064 Dec 19 15:17	7°♄36'47	20°25'08	min. Earth dist.	3065 Nov 15 11:58	25°♄58'38	0.67154 AU
greatest brilliancy	3064 Dec 25 22:45	15°♄05'16	-0.5m	inferior conj	3065 Nov 16 15:54	24°♄28'40	0°-22'-46
	3065 Jan 05 10:40	0°♄		minimum elong	3065 Nov 16 16:29	24°♄26'47	0°22'32
desc. node	3065 Jan 07 12:05	3°♄04'19		asc. node	3065 Nov 17 18:25	23°♄04'08	
morning set	3065 Jan 16 19:34	17°♄16'00		morning rise	3065 Nov 22 08:23	18°♄30'30	
	3065 Jan 24 21:57	0°♄		direct	3065 Nov 25 16:22	17°♄26'30	
max. Earth dist.	3065 Jan 26 13:42	2°♄39'20	1.43461 AU	morning max el	3065 Dec 02 19:40	21°♄26'47	19°22'15
					3065 Dec 09 18:20	0°♄	
superior conj	3065 Feb 01 18:45	12°♄48'06	-2°-3'-57	greatest brilliancy	3065 Dec 12 00:23	3°♄12'06	-0.7m
minimum elong	3065 Feb 01 15:42	12°♄35'28	2°03'52	desc. node	3065 Dec 25 09:07	23°♄28'23	
	3065 Feb 11 21:18	0°♄		morning set	3065 Dec 26 18:50	25°♄38'53	
evening rise	3065 Feb 14 06:44	4°♄10'39			3065 Dec 29 14:08	0°♄	
asc. node	3065 Feb 26 20:42	25°♄14'40		max. Earth dist.	3066 Jan 09 03:39	16°♄31'59	1.44676 AU
	3065 Mar 02 12:17	0°♄					
evening max el	3065 Mar 03 15:07	1°♄11'14	18°08'13	superior conj	3066 Jan 12 14:16	21°♄59'43	-1°-44'-37
retrograde	3065 Mar 10 02:37	4°♄34'26		minimum elong	3066 Jan 12 06:00	21°♄26'49	1°43'57
evening set	3065 Mar 12 20:41	3°♄56'48			3066 Jan 17 13:51	0°♄	
	3065 Mar 18 00:07	30°♄♄		evening rise	3066 Jan 26 22:21	15°♄22'11	
inferior conj	3065 Mar 19 05:04	28°♄46'08	3°34'45		3066 Feb 04 18:20	0°♄	
minimum elong	3065 Mar 19 06:19	28°♄42'53	3°34'39	asc. node	3066 Feb 13 17:44	13°♄00'20	
min. Earth dist.	3065 Mar 22 02:17	25°♄47'39	0.62278 AU	evening max el	3066 Feb 15 03:32	14°♄32'18	18°24'08
morning rise	3065 Mar 25 13:32	22°♄45'33		retrograde	3066 Feb 21 15:20	18°♄04'13	
direct	3065 Apr 01 10:51	20°♄14'08		evening set	3066 Feb 24 14:51	17°♄15'32	
desc. node	3065 Apr 05 11:18	21°♄00'19		inferior conj	3066 Mar 02 13:35	11°♄45'44	3°39'24
morning max el	3065 Apr 15 12:32	28°♄11'03	27°50'49	minimum elong	3066 Mar 02 13:05	11°♄47'09	3°39'22
	3065 Apr 17 06:38	0°♄		min. Earth dist.	3066 Mar 04 19:54	9°♄09'15	0.64172 AU
	3065 May 08 08:32	0°♄		morning rise	3066 Mar 08 09:45	5°♄36'33	
morning set	3065 May 19 04:02	20°♄19'15		direct	3066 Mar 15 05:40	2°♄49'07	
	3065 May 23 19:25	0°♄		desc. node	3066 Mar 23 08:21	5°♄56'23	
max. Earth dist.	3065 May 24 19:59	2°♄11'42	1.32507 AU	morning max el	3066 Mar 28 21:32	10°♄44'00	27°30'28
asc. node	3065 May 25 19:59	4°♄21'15			3066 Apr 13 02:14	0°♄	
					3066 Apr 30 18:18	0°♄	
superior conj	3065 May 26 17:06	6°♄15'53	0°09'16	morning set	3066 May 02 22:23	4°♄12'57	
minimum elong	3065 May 26 16:40	6°♄13'30	0°09'10	max. Earth dist.	3066 May 07 21:23	14°♄16'04	1.33303 AU
behind sun begin	3065 May 26 12:25	5°♄50'22					
behind sun end	3065 May 26 20:55	6°♄36'39		superior conj	3066 May 10 22:53	20°♄43'24	0°-18'-19
evening rise	3065 Jun 02 16:18	21°♄22'06		minimum elong	3066 May 10 23:48	20°♄48'19	0°18'08
	3065 Jun 06 20:44	0°♄		asc. node	3066 May 12 17:02	24°♄28'46	
	3065 Jun 26 12:07	0°♄			3066 May 15 06:43	0°♄	
evening max el	3065 Jun 27 06:52	0°♄46'17	24°09'24	evening rise	3066 May 18 03:49	6°♄07'58	
desc. node	3065 Jul 02 10:33	4°♄54'56			3066 May 30 23:24	0°♄	
retrograde	3065 Jul 11 02:14	7°♄43'48		evening max el	3066 Jun 08 21:11	11°♄13'00	22°32'52
evening set	3065 Jul 15 17:55	6°♄55'45		desc. node	3066 Jun 19 07:35	17°♄27'40	
min. Earth dist.	3065 Jul 21 17:30	3°♄58'39	0.56468 AU	retrograde	3066 Jun 22 00:05	17°♄44'15	
inferior conj	3065 Jul 24 06:21	2°♄24'11	-4°-54'-40	evening set	3066 Jun 25 04:12	17°♄22'05	
minimum elong	3065 Jul 24 02:21	2°♄30'26	4°54'18	min. Earth dist.	3066 Jul 03 04:38	13°♄52'02	0.55234 AU

inferior conj	3066 Jul 04 09:05	13°☿11'34	-3°-58'-35	min. Earth dist.	3067 Jun 14 16:34	23°♂13'14	0.54867 AU
minimum elong	3066 Jul 04 01:00	13°☿23'05	3°56'38	morning rise	3067 Jun 22 21:50	19°♂32'22	
morning rise	3066 Jul 13 00:16	9°☿20'50		direct	3067 Jun 26 09:46	19°♂05'58	
direct	3066 Jul 16 00:20	9°☿00'13		morning max el	3067 Jul 09 06:50	25°♂14'47	22°38'58
morning max el	3066 Jul 27 09:28	14°☿17'31	21°03'05		3067 Jul 13 16:53	0°☿	
	3066 Aug 07 23:43	0°♂		asc. node	3067 Jul 26 13:17	20°☿27'25	
asc. node	3066 Aug 08 16:14	1°♂12'58		morning set	3067 Jul 31 11:11	0°♂23'43	
morning set	3066 Aug 16 00:36	15°♂31'56			3067 Jul 31 06:39	0°♂	
	3066 Aug 22 23:13	0°♍					
superior conj	3066 Aug 23 11:30	1°♍03'23	1°44'08	superior conj	3067 Aug 07 15:06	15°♂39'45	1°37'35
minimum elong	3066 Aug 23 10:50	0°♍59'57	1°44'07	minimum elong	3067 Aug 07 13:22	15°♂30'32	1°37'27
max. Earth dist.	3066 Aug 27 22:13	10°♍02'55	1.35547 AU	max. Earth dist.	3067 Aug 10 16:02	22°♂03'14	1.34079 AU
evening rise	3066 Sep 01 03:05	18°♍09'23		evening rise	3067 Aug 14 13:52	0°♍	
	3066 Sep 07 16:54	0°♎			3067 Aug 15 12:12	1°♍50'14	
desc. node	3066 Sep 15 06:53	12°♎25'18		desc. node	3067 Aug 31 15:09	0°♎	
	3066 Sep 27 17:03	0°♌		evening max el	3067 Sep 02 03:55	2°♎19'22	
evening max el	3066 Oct 06 14:09	10°♌00'55	26°28'31		3067 Sep 19 02:30	23°♎31'19	27°10'53
retrograde	3066 Oct 19 10:37	17°♌13'56		retrograde	3067 Sep 28 08:48	0°♌	
evening set	3066 Oct 25 21:08	14°♌36'26			3067 Oct 02 11:16	0°♌49'24	
min. Earth dist.	3066 Oct 30 00:29	10°♌18'30	0.66252 AU	evening set	3067 Oct 06 07:44	30°♌♎	
inferior conj	3066 Oct 31 15:51	8°♌19'34	-1°-21'-20	min. Earth dist.	3067 Oct 09 08:57	28°♎07'49	
minimum elong	3066 Oct 31 18:03	8°♌12'54	1°20'26	inferior conj	3067 Oct 13 05:43	24°♎25'58	0.64997 AU
asc. node	3066 Nov 04 15:26	3°♌59'34		minimum elong	3067 Oct 15 09:10	22°♎02'58	-2°-21'-22
morning rise	3066 Nov 06 16:15	2°♌31'52		morning rise	3067 Oct 15 13:03	21°♎52'09	2°19'54
direct	3066 Nov 09 14:22	1°♌43'43		asc. node	3067 Oct 21 19:02	16°♎28'50	
morning max el	3066 Nov 16 06:36	5°♌23'34	18°34'58	direct	3067 Oct 22 12:28	16°♎11'33	
	3066 Dec 03 09:47	0°♏		morning max el	3067 Oct 24 09:45	15°♎52'32	
morning set	3066 Dec 06 16:29	5°♏13'17			3067 Oct 30 21:41	19°♎21'08	18°04'22
desc. node	3066 Dec 12 06:08	14°♏03'55		morning set	3067 Nov 07 21:05	0°♌	
	3066 Dec 22 09:03	0°♐			3067 Nov 17 19:38	16°♌15'48	
superior conj	3066 Dec 22 17:23	0°♐32'41	-1°-6'-58	desc. node	3067 Nov 26 04:06	0°♏	
minimum elong	3066 Dec 22 09:19	0°♐01'03	1°06'01		3067 Nov 29 03:10	4°♏46'56	
max. Earth dist.	3066 Dec 22 21:30	0°♐48'50	1.45197 AU	superior conj	3067 Dec 02 00:04	9°♏22'28	0°-19'-25
evening rise	3067 Jan 07 14:42	25°♐36'35		minimum elong	3067 Dec 01 21:39	9°♏12'48	0°19'05
	3067 Jan 10 08:52	0°♑		max. Earth dist.	3067 Dec 05 16:33	15°♏12'52	1.44976 AU
evening max el	3067 Jan 29 13:46	27°♑59'47	18°57'54		3067 Dec 15 03:44	0°♐	
asc. node	3067 Jan 31 14:45	29°♑51'11		evening rise	3067 Dec 18 10:09	5°♐03'33	
	3067 Jan 31 19:18	0°♒			3068 Jan 03 20:41	0°♑	
retrograde	3067 Feb 05 09:53	1°♒51'25		greatest brilliancy	3068 Jan 05 10:58	2°♑16'25	-0.6m
evening set	3067 Feb 08 15:42	0°♒50'38		evening max el	3068 Jan 12 19:58	11°♑30'47	19°47'59
	3067 Feb 09 19:40	30°♒♑		asc. node	3068 Jan 18 11:46	15°♑33'17	
inferior conj	3067 Feb 14 07:52	25°♑03'44	3°27'52	retrograde	3068 Jan 20 07:17	15°♑51'13	
minimum elong	3067 Feb 14 06:07	25°♑09'12	3°27'38	evening set	3068 Jan 23 20:48	14°♑36'59	
min. Earth dist.	3067 Feb 15 22:44	23°♑01'59	0.65711 AU	inferior conj	3068 Jan 29 08:52	8°♑35'27	3°04'08
morning rise	3067 Feb 19 19:31	18°♑50'13		minimum elong	3068 Jan 29 06:27	8°♑43'27	3°03'36
direct	3067 Feb 26 07:27	16°♑00'46		min. Earth dist.	3068 Jan 30 09:18	7°♑14'19	0.66841 AU
desc. node	3067 Mar 10 05:22	22°♑37'23		morning rise	3068 Feb 03 15:25	2°♑20'11	
morning max el	3067 Mar 11 07:24	23°♑41'24	26°38'53		3068 Feb 07 12:00	30°♒♐	
	3067 Mar 16 22:50	0°♒		direct	3068 Feb 09 15:02	29°♐40'51	
	3067 Apr 06 10:45	0°♑			3068 Feb 11 20:40	0°♑	
morning set	3067 Apr 16 05:31	17°♑29'10		morning max el	3068 Feb 21 16:19	6°♑52'10	25°24'56
max. Earth dist.	3067 Apr 20 11:49	25°♑45'47	1.34562 AU	desc. node	3068 Feb 25 02:23	10°♑34'00	
	3067 Apr 22 14:26	0°♓			3068 Mar 10 16:02	0°♒	
superior conj	3067 Apr 24 22:36	4°♓47'48	0°-46'-54	morning set	3068 Mar 28 20:57	29°♒55'23	
minimum elong	3067 Apr 25 01:03	5°♓00'25	0°46'26		3068 Mar 28 21:58	0°♑	
asc. node	3067 Apr 29 14:03	14°♓30'12		max. Earth dist.	3068 Apr 01 14:48	6°♑50'11	1.36279 AU
evening rise	3067 May 02 13:07	20°♓41'39		superior conj	3068 Apr 07 13:36	18°♑22'09	-1°-14'-52
	3067 May 07 03:54	0°♈		minimum elong	3068 Apr 07 17:25	18°♑41'12	1°14'16
evening max el	3067 May 21 19:21	21°♈57'24	21°03'18		3068 Apr 13 07:40	0°♓	
retrograde	3067 Jun 02 13:22	27°♈42'02		asc. node	3068 Apr 15 11:05	4°♓21'42	
evening set	3067 Jun 04 18:35	27°♈30'32		evening rise	3068 Apr 15 18:09	4°♓57'27	
desc. node	3067 Jun 06 04:36	27°♈11'45			3068 Apr 30 05:34	0°♈	
inferior conj	3067 Jun 14 02:43	23°♈32'48	-2°-17'-20	evening max el	3068 May 03 05:19	3°♈19'01	19°49'33
minimum elong	3067 Jun 13 20:23	23°♈41'43	2°15'11	retrograde	3068 May 13 05:28	8°♈10'09	
				evening set	3068 May 15 05:08	7°♈59'32	

desc. node	3068 May 23 01:36	4°II34'56		retrograde	3069 Apr 24 12:51	19°827'07	
inferior conj	3068 May 24 01:37	3°II58'17	0°-17'-37	evening set	3069 Apr 26 16:08	19°812'19	
minimum elong	3068 May 24 00:49	3°II59'31	0°17'20	inferior conj	3069 May 04 17:50	14°855'09	1°27'19
min. Earth dist.	3068 May 26 05:53	2°II38'11	0.55475 AU	minimum elong	3069 May 04 20:57	14°849'36	1°26'19
	3068 May 31 08:09	30°R8		min. Earth dist.	3069 May 07 21:40	12°841'11	0.56916 AU
morning rise	3068 Jun 01 17:24	29°830'31		desc. node	3069 May 09 22:36	11°822'41	
direct	3068 Jun 06 00:55	28°849'27		morning rise	3069 May 12 21:26	9°852'19	
	3068 Jun 11 15:13	0°II		direct	3069 May 18 04:54	8°844'58	
morning max el	3068 Jun 19 21:39	5°II43'10	24°21'49	morning max el	3069 Jun 01 12:25	16°810'26	25°56'52
	3068 Jul 07 05:29	0°8			3069 Jun 12 17:56	0°II	
asc. node	3068 Jul 12 10:20	10°804'04		morning set	3069 Jun 29 10:19	0°812'03	
morning set	3068 Jul 14 22:57	15°818'44		asc. node	3069 Jun 29 07:24	29°II56'37	
					3069 Jun 29 08:02	0°8	
superior conj	3068 Jul 21 23:27	0°829'16	1°25'31				
minimum elong	3068 Jul 21 21:10	0°816'52	1°25'14	superior conj	3069 Jul 06 10:28	15°825'14	1°08'49
	3068 Jul 21 18:04	0°8		minimum elong	3069 Jul 06 08:08	15°812'24	1°08'25
max. Earth dist.	3068 Jul 23 18:50	4°823'50	1.33015 AU	max. Earth dist.	3069 Jul 07 04:02	17°801'38	1.32355 AU
evening rise	3068 Jul 29 08:03	16°801'54		evening rise	3069 Jul 13 11:25	0°834'51	
	3068 Aug 05 14:17	0°8			3069 Jul 13 04:43	0°8	
desc. node	3068 Aug 19 00:55	21°841'38			3069 Jul 29 15:21	0°8	
	3068 Aug 25 09:13	0°8		desc. node	3069 Aug 05 21:56	10°819'01	
evening max el	3068 Aug 31 13:27	6°840'18	27°26'25	evening max el	3069 Aug 13 20:19	19°814'03	27°10'04
retrograde	3068 Sep 14 05:33	13°856'54		retrograde	3069 Aug 27 16:47	26°827'34	
evening set	3068 Sep 21 09:45	11°820'59		evening set	3069 Sep 03 19:43	24°809'37	
min. Earth dist.	3068 Sep 25 01:29	8°812'18	0.63403 AU	min. Earth dist.	3069 Sep 07 10:36	21°825'37	0.61512 AU
inferior conj	3068 Sep 27 17:15	5°832'42	-3°-20'-3	inferior conj	3069 Sep 10 12:58	18°841'08	-4°-12'-43
minimum elong	3068 Sep 27 22:30	5°819'31	3°18'23	minimum elong	3069 Sep 10 18:35	18°828'40	4°11'25
morning rise	3068 Oct 04 13:41	0°815'35		morning rise	3069 Sep 17 20:26	13°844'39	
	3068 Oct 05 09:10	30°R8		direct	3069 Sep 20 04:37	13°821'47	
direct	3068 Oct 06 23:41	29°847'30		asc. node	3069 Sep 25 06:35	15°813'39	
asc. node	3068 Oct 08 09:32	29°857'15		morning max el	3069 Sep 27 04:52	16°852'31	17°56'35
	3068 Oct 08 14:00	0°8			3069 Oct 06 11:16	0°8	
morning max el	3068 Oct 13 14:06	3°813'04	17°51'14	morning set	3069 Oct 12 23:58	11°842'45	
morning set	3068 Oct 30 00:15	28°831'53					
	3068 Oct 30 20:28	0°8		superior conj	3069 Oct 23 11:12	0°830'44	1°02'13
superior conj	3068 Nov 11 04:04	19°816'30	0°26'11	minimum elong	3069 Oct 23 15:33	0°849'38	1°01'39
minimum elong	3068 Nov 11 06:44	19°827'29	0°25'49		3069 Oct 23 04:08	0°8	
desc. node	3068 Nov 15 00:11	25°833'38		max. Earth dist.	3069 Oct 30 23:20	13°813'22	1.42530 AU
max. Earth dist.	3068 Nov 17 10:05	29°826'55	1.44050 AU	desc. node	3069 Nov 01 21:14	16°821'12	
	3068 Nov 17 18:21	0°8		evening rise	3069 Nov 06 10:31	23°838'53	
evening rise	3068 Nov 26 19:14	14°810'35			3069 Nov 10 12:17	0°8	
	3068 Dec 07 06:03	0°8			3069 Dec 01 08:47	0°8	
greatest brilliancy	3068 Dec 20 08:45	18°834'03	-0.5m	greatest brilliancy	3069 Dec 03 22:43	3°815'05	-0.3m
evening max el	3068 Dec 25 20:49	25°802'28	20°51'56	evening max el	3069 Dec 08 16:08	8°835'14	22°06'07
retrograde	3069 Jan 03 05:12	29°858'47		retrograde	3069 Dec 18 01:51	14°811'04	
asc. node	3069 Jan 04 08:48	29°851'28		evening set	3069 Dec 22 11:54	12°825'52	
evening set	3069 Jan 07 04:07	28°829'38		asc. node	3069 Dec 22 05:50	12°837'43	
inferior conj	3069 Jan 12 14:03	22°816'15	2°30'50	inferior conj	3069 Dec 27 21:23	6°804'01	1°49'48
minimum elong	3069 Jan 12 11:31	22°824'57	2°30'05	minimum elong	3069 Dec 27 19:12	6°811'36	1°49'01
min. Earth dist.	3069 Jan 13 01:31	21°836'52	0.67560 AU	min. Earth dist.	3069 Dec 27 21:14	6°804'35	0.67896 AU
morning rise	3069 Jan 17 18:31	16°801'09			3070 Jan 01 22:04	30°R8	
direct	3069 Jan 23 03:32	13°840'06		morning rise	3070 Jan 02 02:21	29°850'45	
morning max el	3069 Feb 03 00:45	20°809'21	23°58'45	direct	3070 Jan 06 20:14	27°852'01	
desc. node	3069 Feb 10 23:24	29°823'52			3070 Jan 12 09:12	0°8	
	3069 Feb 11 10:36	0°8		morning max el	3070 Jan 16 11:22	3°833'02	22°30'11
	3069 Mar 03 20:52	0°8		greatest brilliancy	3070 Jan 21 00:53	8°838'34	-0.3m
morning set	3069 Mar 10 14:51	11°815'21		desc. node	3070 Jan 28 20:26	18°852'02	
max. Earth dist.	3069 Mar 14 10:49	17°857'50	1.38335 AU		3070 Feb 05 14:05	0°8	
	3069 Mar 21 00:06	0°8		morning set	3070 Feb 19 05:23	21°815'00	
					3070 Feb 24 11:25	0°8	
superior conj	3069 Mar 21 16:17	1°816'43	-1°-39'-52	max. Earth dist.	3070 Feb 24 07:11	29°842'02	1.40500 AU
minimum elong	3069 Mar 21 20:49	1°838'15	1°39'23				
evening rise	3069 Mar 30 16:20	18°848'01		superior conj	3070 Mar 04 02:10	13°820'10	-1°-58'-36
asc. node	3069 Apr 02 08:08	23°858'17		minimum elong	3070 Mar 04 05:49	13°836'38	1°58'24
	3069 Apr 05 13:12	0°8			3070 Mar 13 01:57	0°8	
evening max el	3069 Apr 16 02:30	15°820'34	18°55'24	evening rise	3070 Mar 14 04:31	2°805'17	
				asc. node	3070 Mar 20 05:10	13°814'16	

evening max el	3070 Mar 30 08:07	27° Υ 55'48	18°21'33	evening rise	3071 Feb 25 02:48	14° Υ 40'21	
	3070 Apr 01 21:00	0° Υ			3071 Mar 05 19:56	0° Υ	
retrograde	3070 Apr 06 15:25	1° Υ 33'15		asc. node	3071 Mar 07 02:13	2° Υ 02'44	
evening set	3070 Apr 09 00:32	1° Υ 11'08		evening max el	3071 Mar 13 18:53	10° Υ 55'57	18°07'35
	3070 Apr 11 15:46	30° Υ		retrograde	3071 Mar 20 10:36	14° Υ 20'07	
inferior conj	3070 Apr 16 07:34	26° Υ 33'34	2°40'49	evening set	3071 Mar 23 01:29	13° Υ 48'35	
minimum elong	3070 Apr 16 11:17	26° Υ 25'47	2°39'56	inferior conj	3071 Mar 29 17:04	8° Υ 50'05	3°22'39
min. Earth dist.	3070 Apr 19 18:09	23° Υ 42'49	0.58895 AU	minimum elong	3071 Mar 29 19:24	8° Υ 44'27	3°22'20
morning rise	3070 Apr 23 17:57	21° Υ 00'25		min. Earth dist.	3071 Apr 01 21:33	5° Υ 47'07	0.61065 AU
desc. node	3070 Apr 26 19:39	19° Υ 44'13		morning rise	3071 Apr 05 10:13	2° Υ 56'55	
direct	3070 Apr 29 22:47	19° Υ 18'00		direct	3071 Apr 12 04:24	0° Υ 40'24	
morning max el	3070 May 14 08:03	27° Υ 03'17	27°08'30	desc. node	3071 Apr 13 16:41	0° Υ 46'53	
	3070 May 17 03:38	0° Υ		morning max el	3071 Apr 26 09:59	8° Υ 35'58	27°46'05
	3070 Jun 06 05:48	0° Υ			3071 May 12 19:40	0° Υ	
morning set	3070 Jun 13 19:34	14° Υ 57'24		morning set	3071 May 29 00:53	29° Υ 28'48	
asc. node	3070 Jun 16 04:26	19° Υ 59'04			3071 May 29 06:56	0° Υ	
				asc. node	3071 Jun 03 01:30	10° Υ 07'02	
superior conj	3070 Jun 20 22:17	0° Υ 20'52	0°48'10	max. Earth dist.	3071 Jun 04 02:42	12° Υ 23'58	1.32237 AU
minimum elong	3070 Jun 20 20:22	0° Υ 10'18	0°47'47				
max. Earth dist.	3070 Jun 20 15:53	29° Υ 45'40	1.32095 AU	superior conj	3071 Jun 05 09:11	15° Υ 10'37	0°24'15
	3070 Jun 20 18:29	0° Υ		minimum elong	3071 Jun 05 08:06	15° Υ 04'40	0°24'01
evening rise	3070 Jun 27 19:40	15° Υ 20'05		evening rise	3071 Jun 12 06:42	0° Υ 10'55	
	3070 Jul 05 04:02	0° Υ			3071 Jun 12 04:39	0° Υ	
desc. node	3070 Jul 23 18:59	27° Υ 52'14			3071 Jun 28 16:11	0° Υ	
	3070 Jul 25 19:29	0° Υ		evening max el	3071 Jul 08 13:40	12° Υ 02'20	25°02'38
evening max el	3070 Jul 26 20:32	1° Υ 01'13	26°20'32	desc. node	3071 Jul 10 15:59	13° Υ 55'15	
retrograde	3070 Aug 09 20:00	8° Υ 12'04		retrograde	3071 Jul 22 13:02	19° Υ 07'24	
evening set	3070 Aug 16 09:57	6° Υ 24'54		evening set	3071 Jul 28 00:26	17° Υ 58'49	
min. Earth dist.	3070 Aug 20 09:36	3° Υ 50'12	0.59449 AU	min. Earth dist.	3071 Aug 02 01:18	15° Υ 14'21	0.57457 AU
inferior conj	3070 Aug 23 16:41	1° Υ 17'45	-4°-51'-40	inferior conj	3071 Aug 05 01:14	13° Υ 13'51	-5°-4'-48
minimum elong	3070 Aug 23 20:35	1° Υ 10'11	4°51'13	minimum elong	3071 Aug 05 00:37	13° Υ 14'52	5°04'49
	3070 Aug 25 09:40	30° Υ		morning rise	3071 Aug 13 04:28	9° Υ 02'52	
morning rise	3070 Aug 31 10:41	26° Υ 44'23		direct	3071 Aug 15 17:50	8° Υ 43'49	
direct	3070 Sep 02 20:02	26° Υ 24'21		morning max el	3071 Aug 24 16:17	12° Υ 55'35	19°07'35
	3070 Sep 10 10:31	0° Υ		asc. node	3071 Aug 30 00:42	19° Υ 20'43	
morning max el	3070 Sep 10 14:41	0° Υ 09'54	18°21'36		3071 Sep 05 10:00	0° Υ	
asc. node	3070 Sep 12 03:38	1° Υ 46'29		morning set	3071 Sep 10 11:51	9° Υ 47'45	
morning set	3070 Sep 26 13:12	25° Υ 31'43					
	3070 Sep 28 21:20	0° Υ		superior conj	3071 Sep 18 19:19	26° Υ 11'54	1°40'21
				minimum elong	3071 Sep 18 21:12	26° Υ 21'02	1°40'15
superior conj	3070 Oct 05 18:07	12° Υ 54'29	1°26'39		3071 Sep 20 18:58	0° Υ	
minimum elong	3070 Oct 05 21:43	13° Υ 10'58	1°26'19	max. Earth dist.	3071 Sep 25 10:44	8° Υ 38'03	1.38532 AU
max. Earth dist.	3070 Oct 13 06:46	26° Υ 17'01	1.40605 AU	evening rise	3071 Sep 29 07:18	15° Υ 28'10	
	3070 Oct 15 11:14	0° Υ		desc. node	3071 Oct 06 15:19	27° Υ 42'52	
evening rise	3070 Oct 17 21:02	4° Υ 00'41			3071 Oct 08 01:44	0° Υ	
desc. node	3070 Oct 19 18:16	7° Υ 05'34			3071 Oct 29 11:29	0° Υ	
	3070 Nov 03 18:45	0° Υ		evening max el	3071 Nov 03 19:43	5° Υ 49'47	24°44'25
evening max el	3070 Nov 21 07:03	22° Υ 10'31	23°25'43	retrograde	3071 Nov 15 09:42	12° Υ 34'26	
retrograde	3070 Dec 01 19:46	28° Υ 24'23		evening set	3071 Nov 20 22:21	10° Υ 16'42	
evening set	3070 Dec 06 18:31	26° Υ 22'37		min. Earth dist.	3071 Nov 25 13:31	5° Υ 02'02	0.67509 AU
asc. node	3070 Dec 09 02:52	23° Υ 59'09		asc. node	3071 Nov 25 23:54	4° Υ 27'37	
inferior conj	3070 Dec 12 05:00	19° Υ 56'22	1°02'21	inferior conj	3071 Nov 26 11:04	3° Υ 50'31	0°09'34
minimum elong	3070 Dec 12 03:35	20° Υ 01'11	1°01'46	minimum elong	3071 Nov 26 10:50	3° Υ 51'18	0°09'28
min. Earth dist.	3070 Dec 11 18:02	20° Υ 33'57	0.67872 AU	transit middle	3071 Nov 26 10:50	3° Υ 51'18	0°09'28
morning rise	3070 Dec 17 12:46	13° Υ 46'55		transit begin	3071 Nov 26 08:36	3° Υ 58'44	
direct	3070 Dec 21 16:15	12° Υ 11'00		transit end	3071 Nov 26 13:04	3° Υ 43'53	
morning max el	3070 Dec 30 03:33	17° Υ 06'01	21°07'33		3071 Nov 29 13:12	30° Υ	
greatest brilliancy	3071 Jan 04 12:06	23° Υ 15'25	-0.5m	morning rise	3071 Dec 01 23:48	27° Υ 47'15	
	3071 Jan 09 13:42	0° Υ		direct	3071 Dec 05 14:23	26° Υ 32'22	
desc. node	3071 Jan 15 17:30	8° Υ 47'49			3071 Dec 12 06:47	0° Υ	
morning set	3071 Jan 29 15:52	29° Υ 57'04		morning max el	3071 Dec 13 03:19	0° Υ 49'38	19°56'30
	3071 Jan 29 16:37	0° Υ		greatest brilliancy	3071 Dec 20 10:07	9° Υ 42'08	-0.6m
max. Earth dist.	3071 Feb 06 09:26	12° Υ 19'42	1.42492 AU	desc. node	3072 Jan 02 14:32	29° Υ 03'16	
					3072 Jan 03 05:26	0° Υ	
superior conj	3071 Feb 13 14:07	24° Υ 20'54	-2°-6'-26	morning set	3072 Jan 08 11:52	8° Υ 04'52	
minimum elong	3071 Feb 13 14:16	24° Υ 21'33	2°06'27	max. Earth dist.	3072 Jan 19 19:22	25° Υ 48'32	1.44055 AU
	3071 Feb 16 20:44	0° Υ			3072 Jan 22 10:09	0° Υ	

superior conj	3072 Jan 25 00:11	4° \approx 11'05	-1°-58'-10	minimum elong	3073 Jan 03 01:51	12° \approx 25'32	1°29'43
minimum elong	3072 Jan 24 18:38	3° \approx 48'30	1°57'53		3073 Jan 14 02:20	0° \approx	
evening rise	3072 Feb 07 06:46	26° \approx 24'01		evening rise	3073 Jan 18 12:39	7° \approx 11'25	
	3072 Feb 09 09:10	0° \approx			3073 Feb 01 19:47	0° \approx	
asc. node	3072 Feb 21 23:14	20° \approx 14'24		asc. node	3073 Feb 07 20:15	7° \approx 38'41	
evening max el	3072 Feb 25 07:34	24° \approx 11'40	18°12'45	evening max el	3073 Feb 07 19:25	7° \approx 36'36	18°36'19
retrograde	3072 Mar 02 18:03	27° \approx 36'46		retrograde	3073 Feb 14 09:37	11° \approx 15'14	
evening set	3072 Mar 05 14:25	26° \approx 54'33		evening set	3073 Feb 17 11:48	10° \approx 21'21	
inferior conj	3072 Mar 11 18:19	21° \approx 35'48	3°38'58	inferior conj	3073 Feb 23 07:24	4° \approx 43'57	3°36'10
minimum elong	3072 Mar 11 18:47	21° \approx 34'33	3°38'57	minimum elong	3073 Feb 23 06:18	4° \approx 47'14	3°36'04
min. Earth dist.	3072 Mar 14 09:33	18° \approx 44'30	0.63128 AU	min. Earth dist.	3073 Feb 25 07:02	2° \approx 21'24	0.64886 AU
morning rise	3072 Mar 17 21:06	15° \approx 31'06			3073 Feb 27 10:17	30° \approx	
direct	3072 Mar 24 19:01	12° \approx 50'51		morning rise	3073 Feb 28 23:33	28° \approx 32'48	
desc. node	3072 Mar 30 13:43	14° \approx 26'34		direct	3073 Mar 07 16:49	25° \approx 43'01	
morning max el	3072 Apr 07 16:50	20° \approx 48'02	27°46'16	desc. node	3073 Mar 17 10:45	0° \approx 11'26	
	3072 Apr 15 15:40	0° \approx			3073 Mar 17 05:09	0° \approx	
	3072 May 04 20:45	0° \approx		morning max el	3073 Mar 21 02:23	3° \approx 32'25	27°11'47
morning set	3072 May 11 23:58	13° \approx 38'10			3073 Apr 10 01:15	0° \approx	
max. Earth dist.	3072 May 17 08:29	24° \approx 42'58	1.32793 AU	morning set	3073 Apr 25 14:00	27° \approx 16'53	
					3073 Apr 26 23:21	0° \approx	
superior conj	3072 May 19 17:23	29° \approx 47'47	0°-2'-16	max. Earth dist.	3073 Apr 30 05:37	6° \approx 33'06	1.33792 AU
minimum elong	3072 May 19 17:29	29° \approx 48'22	0°02'14				
behind sun begin	3072 May 19 12:16	29° \approx 20'14		superior conj	3073 May 03 20:53	14° \approx 06'11	0°-30'-24
behind sun end	3072 May 19 22:42	0° \approx 16'31		minimum elong	3073 May 03 22:26	14° \approx 14'24	0°30'06
asc. node	3072 May 19 22:33	0° \approx 15'38		asc. node	3073 May 06 19:34	20° \approx 20'52	
	3072 May 19 19:39	0° \approx		evening rise	3073 May 11 05:22	29° \approx 41'36	
evening rise	3072 May 26 18:33	15° \approx 00'07			3073 May 11 08:53	0° \approx	
	3072 Jun 03 06:49	0° \approx			3073 May 28 23:39	0° \approx	
evening max el	3072 Jun 19 03:05	22° \approx 33'07	23°28'20	evening max el	3073 May 31 19:56	3° \approx 03'29	21°53'06
desc. node	3072 Jun 26 12:59	27° \approx 54'31		retrograde	3073 Jun 13 10:11	9° \approx 16'24	
retrograde	3072 Jul 02 17:24	29° \approx 21'19		desc. node	3073 Jun 13 09:59	9° \approx 16'24	
evening set	3072 Jul 06 17:13	28° \approx 46'27		evening set	3073 Jun 16 02:40	9° \approx 00'14	
min. Earth dist.	3072 Jul 13 13:06	25° \approx 36'48	0.55854 AU	inferior conj	3073 Jun 25 10:57	4° \approx 57'00	-3°-20'00
inferior conj	3072 Jul 15 13:45	24° \approx 24'36	-4°-37'-8	minimum elong	3073 Jun 25 02:50	5° \approx 08'21	3°17'37
minimum elong	3072 Jul 15 07:29	24° \approx 33'56	4°36'07	min. Earth dist.	3073 Jun 25 00:01	5° \approx 12'19	0.54966 AU
morning rise	3072 Jul 24 00:54	20° \approx 30'03		morning rise	3073 Jul 04 04:28	1° \approx 04'57	
direct	3072 Jul 26 20:42	20° \approx 10'24		direct	3073 Jul 07 09:04	0° \approx 42'31	
morning max el	3072 Aug 06 07:00	25° \approx 00'40	20°15'07	morning max el	3073 Jul 19 10:06	6° \approx 21'05	21°42'22
	3072 Aug 10 18:05	0° \approx		asc. node	3073 Aug 02 18:48	26° \approx 40'52	
asc. node	3072 Aug 15 21:45	7° \approx 42'45			3073 Aug 04 12:49	0° \approx	
morning set	3072 Aug 24 16:56	24° \approx 23'03		morning set	3073 Aug 09 02:04	9° \approx 10'35	
	3072 Aug 27 10:38	0° \approx					
superior conj	3072 Sep 01 09:46	10° \approx 09'01	1°44'57	superior conj	3073 Aug 16 09:28	24° \approx 33'48	1°42'06
minimum elong	3072 Sep 01 09:56	10° \approx 09'51	1°44'58	minimum elong	3073 Aug 16 08:17	24° \approx 27'37	1°42'02
max. Earth dist.	3072 Sep 06 16:41	20° \approx 34'00	1.36559 AU		3073 Aug 19 00:30	0° \approx	
evening rise	3072 Sep 10 15:13	27° \approx 56'35		max. Earth dist.	3073 Aug 20 05:35	2° \approx 27'58	1.34873 AU
	3072 Sep 11 18:24	0° \approx		evening rise	3073 Aug 24 16:24	11° \approx 14'06	
desc. node	3072 Sep 22 12:20	18° \approx 08'31			3073 Sep 04 04:46	0° \approx	
	3072 Sep 30 10:05	0° \approx		desc. node	3073 Sep 09 09:20	8° \approx 16'12	
evening max el	3072 Oct 16 08:01	19° \approx 31'35	25°54'52		3073 Sep 25 18:52	0° \approx	
retrograde	3072 Oct 28 18:46	26° \approx 36'38		evening max el	3073 Sep 28 20:27	3° \approx 08'25	26°49'29
evening set	3072 Nov 03 21:38	24° \approx 05'12		retrograde	3073 Oct 11 22:28	10° \approx 23'57	
min. Earth dist.	3072 Nov 08 05:14	19° \approx 26'14	0.66809 AU	evening set	3073 Oct 18 14:18	7° \approx 43'38	
inferior conj	3072 Nov 09 13:49	17° \approx 43'48	0°-47'-16	min. Earth dist.	3073 Oct 22 14:46	3° \approx 41'25	0.65761 AU
minimum elong	3072 Nov 09 15:04	17° \approx 39'52	0°46'46	inferior conj	3073 Oct 24 11:12	1° \approx 31'37	-1°-46'-47
asc. node	3072 Nov 11 20:56	14° \approx 57'12		minimum elong	3073 Oct 24 14:08	1° \approx 23'04	1°45'36
morning rise	3072 Nov 15 09:26	11° \approx 49'31			3073 Oct 25 19:04	30° \approx	
direct	3072 Nov 18 13:02	10° \approx 52'33		asc. node	3073 Oct 29 17:58	26° \approx 20'50	
morning max el	3072 Nov 25 10:38	14° \approx 42'46	19°00'11	morning rise	3073 Oct 30 15:28	25° \approx 49'26	
	3072 Dec 06 21:08	0° \approx		direct	3073 Nov 02 10:14	25° \approx 06'40	
morning set	3072 Dec 17 18:49	16° \approx 53'40		morning max el	3073 Nov 08 23:39	28° \approx 40'17	18°19'58
desc. node	3072 Dec 19 11:35	19° \approx 33'00			3073 Nov 10 05:33	0° \approx	
	3072 Dec 26 03:55	0° \approx		morning set	3073 Nov 28 05:01	27° \approx 05'51	
max. Earth dist.	3073 Jan 01 11:41	9° \approx 55'13	1.44991 AU		3073 Nov 30 00:05	0° \approx	
				desc. node	3073 Dec 06 08:36	10° \approx 11'56	
superior conj	3073 Jan 03 10:56	13° \approx 01'21	-1°-30'-35	superior conj	3073 Dec 13 12:44	21° \approx 33'04	0°-47'-17

minimum elong	3073 Dec 13 06:43	21° ♂ 09'26	0°46'31	behind sun end	3074 Nov 23 13:14	1° ♂ 27'24	
max. Earth dist.	3073 Dec 15 06:56	24° ♂ 18'56	1.45193 AU	desc. node	3074 Nov 23 05:38	0° ♂ 56'45	
	3073 Dec 18 21:57	0° ♂		max. Earth dist.	3074 Nov 28 01:26	8° ♂ 39'35	1.44658 AU
evening rise	3073 Dec 29 19:23	17° ♂ 03'26		evening rise	3074 Dec 09 08:32	26° ♂ 16'29	
	3074 Jan 07 01:54	0° ♂			3074 Dec 11 18:45	0° ♂	
greatest brilliancy	3074 Jan 12 22:27	8° ♂ 57'05	-0.7m	greatest brilliancy	3074 Dec 29 21:09	26° ♂ 44'49	-0.6m
evening max el	3074 Jan 22 04:07	21° ♂ 05'35	19°17'16		3075 Jan 01 08:40	0° ♂	
asc. node	3074 Jan 25 17:16	24° ♂ 02'07		evening max el	3075 Jan 05 08:00	4° ♂ 35'58	20°13'42
retrograde	3074 Jan 29 05:50	25° ♂ 08'29		asc. node	3075 Jan 12 14:18	9° ♂ 09'49	
evening set	3074 Feb 01 14:47	24° ♂ 02'00		retrograde	3075 Jan 13 03:50	9° ♂ 11'34	
inferior conj	3074 Feb 07 04:53	18° ♂ 08'16	3°19'06	evening set	3075 Jan 16 21:03	7° ♂ 51'12	
minimum elong	3074 Feb 07 02:48	18° ♂ 15'02	3°18'45	inferior conj	3075 Jan 22 07:58	1° ♂ 44'02	2°51'05
min. Earth dist.	3074 Feb 08 13:20	16° ♂ 23'44	0.66241 AU	minimum elong	3075 Jan 22 05:26	1° ♂ 52'35	2°50'26
morning rise	3074 Feb 12 13:59	11° ♂ 53'45		min. Earth dist.	3075 Jan 23 02:41	0° ♂ 40'44	0.67186 AU
direct	3074 Feb 18 20:58	9° ♂ 07'43			3075 Jan 23 14:51	30° R ♂	
morning max el	3074 Mar 03 12:12	16° ♂ 37'27	26°09'41	morning rise	3075 Jan 27 13:16	25° ♂ 28'24	
desc. node	3074 Mar 04 07:47	17° ♂ 27'44		direct	3075 Feb 02 06:42	22° ♂ 56'09	
	3074 Mar 14 15:05	0° ♂		morning max el	3075 Feb 13 20:54	29° ♂ 51'43	24°49'15
	3074 Apr 02 22:43	0° ♂			3075 Feb 14 00:10	0° ♂	
morning set	3074 Apr 08 15:10	10° ♂ 14'08		desc. node	3075 Feb 19 04:49	5° ♂ 49'00	
max. Earth dist.	3074 Apr 12 15:30	17° ♂ 52'16	1.35245 AU		3075 Mar 08 12:13	0° ♂	
				morning set	3075 Mar 21 22:17	22° ♂ 14'35	
superior conj	3074 Apr 17 17:18	27° ♂ 59'10	0°-58'-56	max. Earth dist.	3075 Mar 25 14:41	28° ♂ 53'28	1.37115 AU
minimum elong	3074 Apr 17 20:23	28° ♂ 14'48	0°58'24		3075 Mar 26 05:07	0° ♂	
	3074 Apr 18 16:58	0° ♂					
asc. node	3074 Apr 23 16:36	10° ♂ 18'52		superior conj	3075 Apr 01 03:34	11° ♂ 17'40	-1°-25'-59
evening rise	3074 Apr 25 13:13	14° ♂ 09'14		minimum elong	3075 Apr 01 07:49	11° ♂ 38'27	1°25'25
	3074 May 03 18:19	0° ♂		evening rise	3075 Apr 09 15:43	28° ♂ 15'16	
evening max el	3074 May 13 22:53	14° ♂ 02'35	20°29'34	asc. node	3075 Apr 10 13:38	0° ♂ 04'33	
retrograde	3074 May 24 23:31	19° ♂ 24'52			3075 Apr 10 12:43	0° ♂	
evening set	3074 May 27 00:34	19° ♂ 14'33		evening max el	3075 Apr 26 13:54	25° ♂ 41'48	19°24'05
desc. node	3074 May 31 07:00	17° ♂ 53'57			3075 May 03 20:28	0° ♂	
inferior conj	3074 Jun 05 05:08	15° ♂ 16'49	-1°-26'-39	retrograde	3075 May 05 21:15	0° ♂ 12'34	
minimum elong	3074 Jun 05 01:03	15° ♂ 22'46	1°25'11	evening set	3075 May 07 21:35	0° ♂ 00'48	
min. Earth dist.	3074 Jun 06 12:22	14° ♂ 31'34	0.55009 AU		3075 May 07 23:14	30° R ♂	
morning rise	3074 Jun 14 00:00	11° ♂ 06'44		inferior conj	3075 May 16 10:30	25° ♂ 53'59	0°30'04
direct	3074 Jun 17 19:04	10° ♂ 35'41		minimum elong	3075 May 16 11:46	25° ♂ 51'56	0°29'37
morning max el	3074 Jul 01 04:12	17° ♂ 04'37	23°22'43	desc. node	3075 May 18 04:02	24° ♂ 46'07	
	3074 Jul 11 13:31	0° ♂		min. Earth dist.	3075 May 19 02:59	24° ♂ 09'20	0.55996 AU
asc. node	3074 Jul 20 15:51	16° ♂ 06'02		morning rise	3075 May 24 21:59	21° ♂ 10'57	
morning set	3074 Jul 24 13:24	24° ♂ 05'03		direct	3075 May 29 15:21	20° ♂ 20'08	
	3074 Jul 27 08:02	0° ♂		morning max el	3075 Jun 12 18:27	27° ♂ 29'53	25°04'03
					3075 Jun 15 05:16	0° ♂	
superior conj	3074 Jul 31 15:26	9° ♂ 17'19	1°33'05		3075 Jul 04 15:40	0° ♂	
minimum elong	3074 Jul 31 13:25	9° ♂ 06'26	1°32'53	asc. node	3075 Jul 07 12:54	5° ♂ 49'59	
max. Earth dist.	3074 Aug 03 03:28	14° ♂ 37'06	1.33574 AU	morning set	3075 Jul 09 01:13	8° ♂ 59'58	
evening rise	3074 Aug 08 06:34	25° ♂ 09'36					
	3074 Aug 10 17:52	0° ♂		superior conj	3075 Jul 16 01:13	24° ♂ 10'37	1°18'58
desc. node	3074 Aug 27 06:20	27° ♂ 58'13		minimum elong	3075 Jul 15 22:51	23° ♂ 57'43	1°18'37
	3074 Aug 28 16:04	0° ♂		max. Earth dist.	3075 Jul 17 09:09	27° ♂ 04'42	1.32685 AU
evening max el	3074 Sep 11 08:14	16° ♂ 30'27	27°21'01		3075 Jul 18 17:33	0° ♂	
retrograde	3074 Sep 24 20:29	23° ♂ 48'49		evening rise	3075 Jul 23 05:59	9° ♂ 31'25	
evening set	3074 Oct 01 21:51	21° ♂ 07'51			3075 Aug 03 02:09	0° ♂	
min. Earth dist.	3074 Oct 05 16:02	17° ♂ 41'05	0.64362 AU	desc. node	3075 Aug 14 03:22	17° ♂ 03'10	
inferior conj	3074 Oct 08 00:55	15° ♂ 09'36	-2°-46'-41	evening max el	3075 Aug 24 17:38	29° ♂ 25'18	27°23'27
minimum elong	3074 Oct 08 05:28	14° ♂ 57'29	2°45'03		3075 Aug 25 08:31	0° ♂	
morning rise	3074 Oct 14 15:13	9° ♂ 42'36		retrograde	3075 Sep 07 12:13	6° ♂ 41'28	
asc. node	3074 Oct 16 15:02	9° ♂ 11'42		evening set	3075 Sep 14 16:54	4° ♂ 11'30	
direct	3074 Oct 17 03:34	9° ♂ 10'17		min. Earth dist.	3075 Sep 18 07:25	1° ♂ 14'39	0.62627 AU
morning max el	3074 Oct 23 15:44	12° ♂ 36'27	17°56'38		3075 Sep 19 15:07	30° R ♂	
	3074 Nov 04 16:23	0° ♂		inferior conj	3075 Sep 21 04:08	28° ♂ 30'59	-3°-43'-31
morning set	3074 Nov 09 19:39	8° ♂ 41'09		minimum elong	3075 Sep 21 09:44	28° ♂ 17'37	3°41'56
	3074 Nov 22 15:36	0° ♂		morning rise	3075 Sep 28 05:18	23° ♂ 22'22	
				direct	3075 Sep 30 14:01	22° ♂ 56'59	
superior conj	3074 Nov 23 02:56	0° ♂ 45'49	0°00'46	asc. node	3075 Oct 03 12:05	23° ♂ 36'47	
minimum elong	3074 Nov 23 03:01	0° ♂ 46'08	0°00'46	morning max el	3075 Oct 07 07:52	26° ♂ 24'00	17°51'09
behind sun begin	3074 Nov 22 16:47	0° ♂ 04'48			3075 Oct 10 10:13	0° ♂	

morning set	3075 Oct 23 09:08	21° Ω 22'16		morning set	3076 Oct 05 15:13	4° Ω 50'55	
	3075 Oct 28 06:05	0° \mathbb{M}					
superior conj	3075 Nov 03 18:28	11° \mathbb{M} 13'49	0°42'52	superior conj	3076 Oct 15 12:18	22° Ω 58'49	1°13'59
minimum elong	3075 Nov 03 22:15	11° \mathbb{M} 29'46	0°42'20	minimum elong	3076 Oct 15 16:32	23° Ω 17'38	1°13'30
desc. node	3075 Nov 10 02:40	21° \mathbb{M} 44'00			3076 Oct 19 12:24	0° \mathbb{M}	
max. Earth dist.	3075 Nov 10 16:48	22° \mathbb{M} 41'18	1.43460 AU	max. Earth dist.	3076 Oct 23 03:35	6° \mathbb{M} 10'25	1.41749 AU
	3075 Nov 15 06:36	0° \mathbb{X}		desc. node	3076 Oct 26 23:42	12° \mathbb{M} 30'24	
evening rise	3075 Nov 18 18:08	5° \mathbb{X} 26'54		evening rise	3076 Oct 28 16:31	15° \mathbb{M} 15'14	
	3075 Dec 05 04:04	0° \mathbb{Z}			3076 Nov 07 04:30	0° \mathbb{X}	
greatest brilliancy	3075 Dec 14 05:56	12° \mathbb{Z} 20'44	-0.4m	greatest brilliancy	3076 Nov 26 01:48	26° \mathbb{X} 11'09	-0.3m
evening max el	3075 Dec 19 06:25	18° \mathbb{Z} 07'48	21°22'38		3076 Nov 29 09:05	0° \mathbb{Z}	
retrograde	3075 Dec 28 01:26	23° \mathbb{Z} 21'05		evening max el	3076 Nov 30 23:47	1° \mathbb{Z} 41'36	22°39'49
asc. node	3075 Dec 30 11:20	22° \mathbb{Z} 49'08		retrograde	3076 Dec 10 20:54	7° \mathbb{Z} 33'39	
evening set	3076 Jan 01 04:45	21° \mathbb{Z} 45'28		evening set	3076 Dec 15 12:11	5° \mathbb{Z} 41'33	
inferior conj	3076 Jan 06 14:19	15° \mathbb{Z} 28'07	2°14'20	asc. node	3076 Dec 16 08:24	4° \mathbb{Z} 56'31	
minimum elong	3076 Jan 06 11:52	15° \mathbb{Z} 36'34	2°13'32		3076 Dec 20 09:42	30° \mathbb{R} \mathbb{X}	
min. Earth dist.	3076 Jan 06 20:47	15° \mathbb{Z} 05'43	0.67739 AU	inferior conj	3076 Dec 20 21:57	29° \mathbb{X} 17'37	1°30'23
morning rise	3076 Jan 11 18:39	9° \mathbb{Z} 13'21		minimum elong	3076 Dec 20 20:03	29° \mathbb{X} 24'12	1°29'40
direct	3076 Jan 16 21:15	7° \mathbb{Z} 01'17		min. Earth dist.	3076 Dec 20 17:12	29° \mathbb{X} 34'04	0.67928 AU
morning max el	3076 Jan 27 05:43	13° \mathbb{Z} 10'48	23°20'50	morning rise	3076 Dec 26 03:50	23° \mathbb{X} 05'45	
greatest brilliancy	3076 Feb 01 15:30	19° \mathbb{Z} 16'12	-0.2m	direct	3076 Dec 30 15:34	21° \mathbb{X} 16'33	
desc. node	3076 Feb 06 01:51	24° \mathbb{Z} 56'38		morning max el	3077 Jan 08 18:07	26° \mathbb{X} 36'53	21°53'54
	3076 Feb 09 18:44	0° \approx			3077 Jan 11 20:40	0° \mathbb{Z}	
	3076 Feb 29 09:36	0° \mathbb{H}		greatest brilliancy	3077 Jan 13 11:23	1° \mathbb{Z} 55'37	-0.4m
morning set	3076 Mar 02 05:11	3° \mathbb{H} 01'51		desc. node	3077 Jan 22 22:53	14° \mathbb{Z} 37'15	
max. Earth dist.	3076 Mar 06 09:24	10° \mathbb{H} 10'53	1.39250 AU		3077 Feb 02 08:37	0° \approx	
				morning set	3077 Feb 10 07:05	12° \approx 25'00	
superior conj	3076 Mar 13 23:45	23° \mathbb{H} 52'06	-1°-48'-50	max. Earth dist.	3077 Feb 16 07:49	22° \approx 16'35	1.41386 AU
minimum elong	3076 Mar 14 04:10	24° \mathbb{H} 12'39	1°48'27		3077 Feb 20 21:10	0° \mathbb{H}	
	3076 Mar 17 05:59	0° \mathbb{Y}		superior conj	3077 Feb 24 00:54	5° \mathbb{H} 29'52	-2°-3'-35
evening rise	3076 Mar 23 10:05	11° \mathbb{Y} 52'30		minimum elong	3077 Feb 24 03:25	5° \mathbb{H} 41'00	2°03'29
asc. node	3076 Mar 27 10:41	19° \mathbb{Y} 33'04		evening rise	3077 Mar 06 16:46	24° \mathbb{H} 52'02	
	3076 Apr 02 10:39	0° \mathbb{B}			3077 Mar 09 11:33	0° \mathbb{Y}	
evening max el	3076 Apr 08 15:12	7° \mathbb{B} 59'18	18°38'38	asc. node	3077 Mar 14 07:43	8° \mathbb{Y} 37'47	
retrograde	3076 Apr 16 12:28	11° \mathbb{B} 51'03		evening max el	3077 Mar 22 23:25	20° \mathbb{Y} 45'51	18°13'16
evening set	3076 Apr 18 18:16	11° \mathbb{B} 33'26		retrograde	3077 Mar 29 22:30	24° \mathbb{Y} 15'30	
inferior conj	3076 Apr 26 11:48	7° \mathbb{B} 08'12	2°02'32	evening set	3077 Apr 01 10:18	23° \mathbb{Y} 49'24	
minimum elong	3076 Apr 26 15:32	7° \mathbb{B} 01'05	2°01'26	inferior conj	3077 Apr 08 10:16	19° \mathbb{Y} 02'44	3°02'07
min. Earth dist.	3076 Apr 29 20:37	4° \mathbb{B} 35'44	0.57716 AU	minimum elong	3077 Apr 08 13:32	18° \mathbb{Y} 55'27	3°01'28
morning rise	3076 May 04 08:23	1° \mathbb{B} 51'28		min. Earth dist.	3077 Apr 11 19:25	16° \mathbb{Y} 03'58	0.59816 AU
desc. node	3076 May 04 01:03	2° \mathbb{B} 00'15		morning rise	3077 Apr 15 13:09	13° \mathbb{Y} 20'13	
direct	3076 May 10 01:57	0° \mathbb{B} 29'26		desc. node	3077 Apr 20 22:05	11° \mathbb{Y} 26'10	
morning max el	3076 May 24 10:43	8° \mathbb{B} 04'47	26°30'46	direct	3077 Apr 22 00:57	11° \mathbb{Y} 22'42	
	3076 Jun 09 21:35	0° \mathbb{I}		morning max el	3077 May 06 08:49	19° \mathbb{Y} 12'26	27°29'04
morning set	3076 Jun 22 11:54	23° \mathbb{I} 50'16			3077 May 15 12:13	0° \mathbb{B}	
asc. node	3076 Jun 23 09:58	25° \mathbb{I} 47'04			3077 Jun 02 14:33	0° \mathbb{I}	
	3076 Jun 25 09:01	0° \mathbb{E}		morning set	3077 Jun 06 19:44	8° \mathbb{I} 30'26	
superior conj	3076 Jun 29 12:49	9° \mathbb{E} 07'09	1°00'31	asc. node	3077 Jun 10 07:01	15° \mathbb{I} 52'19	
minimum elong	3076 Jun 29 10:36	8° \mathbb{E} 54'58	1°00'06	max. Earth dist.	3077 Jun 13 07:55	22° \mathbb{I} 29'58	1.32111 AU
max. Earth dist.	3076 Jun 29 19:52	9° \mathbb{E} 46'00	1.32203 AU	superior conj	3077 Jun 14 00:28	24° \mathbb{I} 01'00	0°38'24
evening rise	3076 Jul 06 11:45	24° \mathbb{E} 10'37		minimum elong	3077 Jun 13 22:51	23° \mathbb{I} 52'07	0°38'04
	3076 Jul 09 07:46	0° \mathbb{Q}			3077 Jun 16 17:42	0° \mathbb{E}	
	3076 Jul 26 23:08	0° \mathbb{P}		evening rise	3077 Jun 20 21:28	8° \mathbb{E} 59'26	
desc. node	3076 Jul 31 00:24	5° \mathbb{P} 15'45			3077 Jul 01 17:57	0° \mathbb{Q}	
evening max el	3076 Aug 05 22:08	11° \mathbb{P} 40'43	26°52'55	desc. node	3077 Jul 17 21:24	22° \mathbb{Q} 14'40	
retrograde	3076 Aug 19 20:17	18° \mathbb{P} 52'44		evening max el	3077 Jul 18 19:29	23° \mathbb{Q} 08'40	25°50'19
evening set	3076 Aug 26 19:04	16° \mathbb{P} 46'50			3077 Jul 30 03:32	0° \mathbb{P}	
min. Earth dist.	3076 Aug 30 12:19	14° \mathbb{P} 08'36	0.60645 AU	retrograde	3077 Aug 01 19:07	0° \mathbb{P} 16'48	
inferior conj	3076 Sep 02 17:31	11° \mathbb{P} 27'11	-4°-31'-32		3077 Aug 04 10:21	30° \mathbb{R} \mathbb{Q}	
minimum elong	3076 Sep 02 22:43	11° \mathbb{P} 16'14	4°30'35	evening set	3077 Aug 07 23:34	28° \mathbb{Q} 45'48	
morning rise	3076 Sep 10 05:34	6° \mathbb{P} 39'58		min. Earth dist.	3077 Aug 12 07:46	26° \mathbb{Q} 09'20	0.58583 AU
direct	3076 Sep 12 13:48	6° \mathbb{P} 18'35		inferior conj	3077 Aug 15 13:31	23° \mathbb{Q} 48'23	-5°-1'-16
asc. node	3076 Sep 19 09:10	9° \mathbb{P} 27'11		minimum elong	3077 Aug 15 15:50	23° \mathbb{Q} 44'08	5°01'08
morning max el	3076 Sep 19 20:52	9° \mathbb{P} 54'43	18°04'39	morning rise	3077 Aug 23 11:35	19° \mathbb{Q} 24'39	
	3076 Oct 03 00:30	0° \mathbb{U}		direct	3077 Aug 25 22:32	19° \mathbb{Q} 05'04	

morning max el	3077 Sep 03 03:34	23°00'03	18°38'28	minimum elong	3078 Jul 27 10:18	5°03'03	4°58'40
asc. node	3077 Sep 06 06:13	26°02'16		morning rise	3078 Aug 04 20:13	1°02'24	
	3077 Sep 08 19:11	0°00		direct	3078 Aug 07 12:09	1°03'36	
morning set	3077 Sep 19 08:58	18°05'32		morning max el	3078 Aug 17 00:51	5°02'40	19°33'42
	3077 Sep 25 02:29	0°00		asc. node	3078 Aug 24 03:16	14°02'18	
					3078 Sep 01 18:49	0°00	
superior conj	3077 Sep 28 03:45	5°04'56	1°33'41	morning set	3078 Sep 03 10:41	3°00'18	42
minimum elong	3077 Sep 28 06:40	6°01'37	1°33'27				
max. Earth dist.	3077 Oct 05 09:44	18°05'59	1.39734 AU	superior conj	3078 Sep 11 11:11	19°02'16	1°43'19
evening rise	3077 Oct 09 13:12	26°05'25		minimum elong	3078 Sep 11 12:19	19°02'50	1°43'16
	3077 Oct 11 21:33	0°00			3078 Sep 16 23:42	0°00	
desc. node	3077 Oct 13 20:45	3°00'12	31	max. Earth dist.	3078 Sep 17 13:54	1°00'06	1.37670 AU
	3077 Oct 31 20:54	0°00		evening rise	3078 Sep 21 09:08	7°00'59	45
evening max el	3077 Nov 13 13:34	15°00'18	54	desc. node	3078 Sep 30 17:46	23°00'45	23
retrograde	3077 Nov 24 13:06	21°00'46	18		3078 Oct 04 17:47	0°00	
evening set	3077 Nov 29 17:48	19°00'37	26	evening max el	3078 Oct 27 01:44	28°00'59	00
asc. node	3077 Dec 03 05:25	15°00'49	55		3078 Oct 28 03:16	0°00	
min. Earth dist.	3077 Dec 04 13:37	14°00'03	18	retrograde	3078 Nov 08 01:07	5°00'53	57
inferior conj	3077 Dec 05 05:07	13°00'10	49	evening set	3078 Nov 13 19:56	3°00'29	39
minimum elong	3077 Dec 05 04:09	13°00'14	03		3078 Nov 17 03:17	30°00'00	
morning rise	3077 Dec 10 14:46	7°00'03	57	min. Earth dist.	3078 Nov 18 07:43	28°00'30	12
direct	3077 Dec 14 12:37	5°00'37	18	inferior conj	3078 Nov 19 09:59	27°00'04	48
morning max el	3077 Dec 22 13:25	10°00'14	26	minimum elong	3078 Nov 19 10:21	27°00'03	38
greatest brilliancy	3077 Dec 28 14:08	17°00'19	08	transit middle	3078 Nov 19 10:21	27°00'03	38
	3078 Jan 06 15:37	0°00		transit begin	3078 Nov 19 08:57	27°00'08	11
desc. node	3078 Jan 09 19:57	4°00'04	02	transit end	3078 Nov 19 11:45	26°00'59	05
morning set	3078 Jan 20 08:39	20°00'04	33	asc. node	3078 Nov 20 02:26	26°00'11	37
	3078 Jan 26 06:18	0°00		morning rise	3078 Nov 25 01:27	21°00'05	15
max. Earth dist.	3078 Jan 29 13:52	5°00'18	50	direct	3078 Nov 28 11:02	19°00'58	36
				morning max el	3078 Dec 05 16:40	24°00'03	04
superior conj	3078 Feb 05 01:59	15°00'59	56		3078 Dec 10 17:46	0°00	
minimum elong	3078 Feb 04 23:50	15°00'50	56	greatest brilliancy	3078 Dec 14 06:23	4°00'51	03
	3078 Feb 13 06:42	0°00		desc. node	3078 Dec 27 17:01	25°00'04	09
evening rise	3078 Feb 17 07:44	7°00'05	40	morning set	3078 Dec 30 06:17	29°00'00	39
asc. node	3078 Mar 01 04:44	27°00'11	11		3078 Dec 30 21:37	0°00	
	3078 Mar 03 04:17	0°00		max. Earth dist.	3079 Jan 12 02:48	19°00'05	49
evening max el	3078 Mar 06 11:14	3°00'52	27				
retrograde	3078 Mar 12 23:35	7°00'15	36	superior conj	3079 Jan 16 01:09	25°00'02	20
evening set	3078 Mar 15 16:48	6°00'39	36	minimum elong	3079 Jan 15 17:27	24°00'05	32
inferior conj	3078 Mar 22 02:54	1°00'31	59		3079 Jan 18 22:25	0°00	
minimum elong	3078 Mar 22 04:26	1°00'28	04	evening rise	3079 Jan 30 02:44	18°00'26	05
	3078 Mar 23 14:49	30°00'00			3079 Feb 06 00:32	0°00	
min. Earth dist.	3078 Mar 25 02:09	28°00'11	36	asc. node	3079 Feb 16 01:44	15°00'04	10
morning rise	3078 Mar 28 13:30	25°00'11	36	evening max el	3079 Feb 17 23:48	17°00'12	26
direct	3078 Apr 04 10:13	23°00'05	07	retrograde	3079 Feb 24 11:03	20°00'11	42
desc. node	3078 Apr 07 19:06	23°00'37	35	evening set	3079 Feb 27 09:41	19°00'55	22
	3078 Apr 17 11:33	0°00		inferior conj	3079 Mar 05 09:40	14°00'11	28
morning max el	3078 Apr 18 13:11	1°00'02	09	minimum elong	3079 Mar 05 09:25	14°00'11	29
	3078 May 09 16:02	0°00		min. Earth dist.	3079 Mar 07 18:22	11°00'11	47
morning set	3078 May 21 22:41	22°00'53	10	morning rise	3079 Mar 11 07:25	8°00'20	11
	3078 May 25 08:47	0°00		direct	3079 Mar 18 04:05	5°00'34	02
max. Earth dist.	3078 May 27 17:15	5°00'02	18	desc. node	3079 Mar 25 16:08	8°00'14	45
asc. node	3078 May 28 04:02	6°00'00	39	morning max el	3079 Mar 31 21:45	13°00'11	30
					3079 Apr 14 04:43	0°00	
superior conj	3078 May 29 10:23	8°00'11	45		3079 May 02 05:21	0°00	
minimum elong	3078 May 29 09:46	8°00'11	42	morning set	3079 May 05 18:20	6°00'08	50
behind sun begin	3078 May 29 06:52	8°00'11	26	max. Earth dist.	3079 May 10 19:46	17°00'09	55
behind sun end	3078 May 29 12:40	8°00'11	58				
evening rise	3078 Jun 05 09:03	23°00'11	50	superior conj	3079 May 13 16:50	23°00'15	29
	3078 Jun 08 08:03	0°00		minimum elong	3079 May 13 17:32	23°00'19	14
	3078 Jun 26 18:42	0°00		behind sun begin	3079 May 13 14:53	23°00'05	04
evening max el	3078 Jun 30 10:11	3°00'53	15	behind sun end	3079 May 13 20:11	23°00'33	24
desc. node	3078 Jul 04 18:24	7°00'29	45	asc. node	3079 May 15 01:04	26°00'08	17
retrograde	3078 Jul 14 06:58	10°00'53	27		3079 May 16 20:06	0°00	
evening set	3078 Jul 19 04:01	10°00'00	15	evening rise	3079 May 20 20:40	8°00'11	36
min. Earth dist.	3078 Jul 24 21:01	7°00'06	57		3079 Jun 01 01:58	0°00	
inferior conj	3078 Jul 27 13:24	5°00'25	06	evening max el	3079 Jun 11 23:55	14°00'09	19

desc. node	3079 Jun 21 15:22	20°☿25'39		retrograde	3080 Jun 04 20:07	0°☿51'10	
retrograde	3079 Jun 25 06:29	20°☿55'49		evening set	3080 Jun 07 03:42	0°☿38'49	
evening set	3079 Jun 28 15:18	20°☿30'55		desc. node	3080 Jun 07 12:23	0°☿34'44	
min. Earth dist.	3079 Jul 06 08:18	17°☿06'31	0.55367 AU		3080 Jun 09 15:27	30°☿II	
inferior conj	3079 Jul 07 18:22	16°☿17'36	-4°-10'-22	inferior conj	3080 Jun 16 12:24	26°II40'20	-2°-34'-40
minimum elong	3079 Jul 07 10:35	16°☿28'49	4°08'39	minimum elong	3080 Jun 16 05:26	26°II50'07	2°32'22
morning rise	3079 Jul 16 08:33	12°☿26'20		min. Earth dist.	3080 Jun 16 19:56	26°II29'45	0.54861 AU
direct	3079 Jul 19 07:18	12°☿06'06		morning rise	3080 Jun 25 07:17	22°II42'41	
morning max el	3079 Jul 30 10:40	17°☿16'17	20°50'02	direct	3080 Jun 28 17:11	22°II17'28	
	3079 Aug 09 05:27	0°♊		morning max el	3080 Jul 11 09:20	28°II18'39	22°24'02
asc. node	3079 Aug 11 00:19	3°♊02'48			3080 Jul 13 02:20	0°☿	
morning set	3079 Aug 18 17:43	17°♊59'42		asc. node	3080 Jul 27 21:22	22°☿13'06	
	3079 Aug 24 12:23	0°♋			3080 Jul 31 19:10	0°♊	
				morning set	3080 Aug 02 04:00	2°♊50'28	
superior conj	3079 Aug 26 06:01	3°♋34'33	1°44'34	superior conj	3080 Aug 09 08:43	18°♊08'07	1°38'57
minimum elong	3079 Aug 26 05:33	3°♋32'12	1°44'33	minimum elong	3080 Aug 09 07:06	17°♊59'38	1°38'51
max. Earth dist.	3079 Aug 30 21:53	12°♋56'22	1.35800 AU	max. Earth dist.	3080 Aug 12 14:27	24°♊54'49	1.34270 AU
evening rise	3079 Sep 04 00:57	20°♋50'36			3080 Aug 15 02:25	0°♋	
	3079 Sep 09 02:35	0°♌		evening rise	3080 Aug 17 08:10	4°♋25'52	
desc. node	3079 Sep 17 14:46	14°♌03'59			3080 Aug 31 20:56	0°♌	
	3079 Sep 28 15:57	0°♍		desc. node	3080 Sep 03 11:45	4°♌01'51	
evening max el	3079 Oct 09 13:56	12°♍39'09	26°20'23	evening max el	3080 Sep 21 02:29	26°♌12'16	27°06'12
retrograde	3079 Oct 22 08:12	19°♍50'36			3080 Sep 25 14:14	0°♍	
evening set	3079 Oct 28 16:43	17°♍14'34		retrograde	3080 Oct 04 09:39	3°♍29'41	
min. Earth dist.	3079 Nov 01 21:11	12°♍51'03	0.66406 AU	evening set	3080 Oct 11 05:55	0°♍48'16	
inferior conj	3079 Nov 03 10:44	10°♍56'15	-1°-12'-20		3080 Oct 12 04:52	30°☿♌	
minimum elong	3079 Nov 03 12:41	10°♍50'18	1°11'32	min. Earth dist.	3080 Oct 15 03:39	27°♌01'08	0.65207 AU
asc. node	3079 Nov 06 23:29	6°♍58'18		inferior conj	3080 Oct 17 05:14	24°♌41'26	-2°-12'-18
morning rise	3079 Nov 09 09:50	5°♍06'41		minimum elong	3080 Oct 17 08:53	24°♌31'10	2°10'53
direct	3079 Nov 12 09:17	4°♍16'24		morning rise	3080 Oct 23 13:36	19°♌04'58	
morning max el	3079 Nov 19 02:43	7°♍58'43	18°40'56	asc. node	3080 Oct 23 20:34	18°♌57'12	
	3079 Dec 04 16:50	0°♎		direct	3080 Oct 26 05:18	18°♌27'05	
morning set	3079 Dec 09 23:45	8°♎22'05		morning max el	3080 Nov 01 17:22	21°♌56'42	18°07'50
desc. node	3079 Dec 14 14:03	15°♎38'05			3080 Nov 08 00:25	0°♍	
	3079 Dec 23 17:15	0°♏		morning set	3080 Nov 19 22:41	19°♍12'18	
superior conj	3079 Dec 26 05:40	3°♏57'03	-1°-13'-36		3080 Nov 26 12:50	0°♎	
minimum elong	3079 Dec 25 21:06	3°♏23'27	1°12'38	desc. node	3080 Nov 30 11:04	6°♎20'08	
max. Earth dist.	3079 Dec 25 20:09	3°♏19'43	1.45166 AU	superior conj	3080 Dec 04 10:26	12°♎40'23	0°-26'-45
evening rise	3080 Jan 10 22:33	28°♏48'38		minimum elong	3080 Dec 04 07:03	12°♎26'57	0°26'18
	3080 Jan 11 16:23	0°♐		max. Earth dist.	3080 Dec 07 15:31	17°♎44'54	1.45060 AU
	3080 Jan 31 19:34	0°♑			3080 Dec 15 11:31	0°♏	
evening max el	3080 Feb 01 10:34	0°♑39'31	18°51'46	evening rise	3080 Dec 20 20:40	8°♏21'25	
asc. node	3080 Feb 02 22:45	2°♑04'22			3081 Jan 03 23:50	0°♐	
retrograde	3080 Feb 08 04:54	4°♑27'22		greatest brilliancy	3081 Jan 06 23:04	4°♐19'32	-0.6m
evening set	3080 Feb 11 09:44	3°♑28'26		evening max el	3081 Jan 14 17:31	14°♐10'09	19°39'33
	3080 Feb 15 05:34	30°☿♐		asc. node	3081 Jan 19 19:48	17°♐57'51	
inferior conj	3080 Feb 17 02:43	27°♐44'02	3°30'25	retrograde	3081 Jan 22 02:04	18°♐25'37	
minimum elong	3080 Feb 17 01:08	27°♐48'58	3°30'14	evening set	3081 Jan 25 14:24	17°♐13'22	
min. Earth dist.	3080 Feb 18 19:52	25°♐36'34	0.65513 AU	inferior conj	3081 Jan 31 02:55	11°♐13'47	3°08'22
morning rise	3080 Feb 22 15:26	21°♐31'05		minimum elong	3081 Jan 31 00:35	11°♐21'31	3°07'53
direct	3080 Feb 29 04:58	18°♐41'02		min. Earth dist.	3081 Feb 01 05:22	9°♐46'37	0.66703 AU
desc. node	3080 Mar 11 13:12	24°♐41'58		morning rise	3081 Feb 05 10:04	4°♐58'45	
morning max el	3080 Mar 13 07:31	26°♐24'21	26°48'09	direct	3081 Feb 11 11:41	2°♐17'26	
	3080 Mar 16 15:40	0°♒		morning max el	3081 Feb 23 16:41	9°♐33'39	25°36'57
	3080 Apr 06 18:44	0°♓		desc. node	3081 Feb 26 10:15	12°♐28'39	
morning set	3080 Apr 18 03:22	20°♓13'11			3081 Mar 11 20:14	0°♑	
max. Earth dist.	3080 Apr 22 11:54	28°♓44'13	1.34349 AU		3081 Mar 30 08:25	0°♒	
	3080 Apr 23 03:00	0°♈		morning set	3081 Mar 31 21:30	2°♓47'38	
superior conj	3080 Apr 26 17:37	7°♈23'37	0°-42'-33	max. Earth dist.	3081 Apr 04 16:40	9°♓51'49	1.36003 AU
minimum elong	3080 Apr 26 19:50	7°♈35'06	0°42'08	superior conj	3081 Apr 10 10:08	21°♓02'59	-1°-10'-44
asc. node	3080 Apr 30 22:05	16°♈10'37		minimum elong	3081 Apr 10 13:47	21°♓21'14	1°10'10
evening rise	3080 May 04 06:25	23°♈12'10			3081 Apr 14 20:02	0°♈	
	3080 May 07 14:21	0°♉		asc. node	3081 Apr 17 19:07	6°♈03'47	
evening max el	3080 May 23 20:33	24°♉59'03	21°15'43	evening rise	3081 Apr 18 12:17	7°♈31'11	
	3080 May 31 06:06	0°☿					

	3081 May 01 00:07	0°♂			3082 Apr 06 21:50	0°♂	
evening max el	3081 May 06 04:43	6°♂14'29	19°59'15	evening max el	3082 Apr 19 00:25	18°♂10'49	19°02'12
retrograde	3081 May 16 11:03	11°♂13'26		retrograde	3082 Apr 27 15:59	22°♂23'22	
evening set	3081 May 18 10:46	11°♂03'02		evening set	3082 Apr 29 18:20	22°♂09'30	
desc. node	3081 May 25 09:25	8°♂14'29		inferior conj	3082 May 07 22:58	17°♂55'05	1°13'14
inferior conj	3081 May 27 09:39	7°♂03'05	0°-35'-27	minimum elong	3082 May 08 01:43	17°♂50'19	1°12'18
minimum elong	3081 May 27 08:00	7°♂05'33	0°34'51	min. Earth dist.	3082 May 11 00:21	15°♂48'19	0.56656 AU
min. Earth dist.	3081 May 29 08:51	5°♂51'56	0.55326 AU	desc. node	3082 May 12 06:28	14°♂59'42	
morning rise	3081 Jun 05 02:32	2°♂40'24		morning rise	3082 May 16 04:48	12°♂57'15	
direct	3081 Jun 09 06:42	2°♂02'18		direct	3082 May 21 08:32	11°♂54'36	
morning max el	3081 Jun 23 00:46	8°♂49'46	24°06'44	morning max el	3082 Jun 04 15:21	19°♂16'25	25°43'50
	3081 Jul 08 13:19	0°♂			3082 Jun 13 16:48	0°♂	
asc. node	3081 Jul 14 18:25	11°♂46'46			3082 Jun 30 20:48	0°♂	
morning set	3081 Jul 17 15:44	17°♂45'24		asc. node	3082 Jul 01 15:27	1°♂37'19	
	3081 Jul 23 08:04	0°♂		morning set	3082 Jul 02 03:17	2°♂39'35	
superior conj	3081 Jul 24 16:31	2°♂56'02	1°27'40	superior conj	3082 Jul 09 03:18	17°♂51'44	1°11'37
minimum elong	3081 Jul 24 14:17	2°♂43'57	1°27'25	minimum elong	3082 Jul 09 00:56	17°♂38'48	1°11'15
max. Earth dist.	3081 Jul 26 16:09	7°♂12'43	1.33143 AU	max. Earth dist.	3082 Jul 10 00:33	19°♂48'21	1.32428 AU
evening rise	3081 Aug 01 02:39	18°♂33'27			3082 Jul 14 17:58	0°♂	
	3081 Aug 07 00:29	0°♂		evening rise	3082 Jul 16 05:06	3°♂03'50	
desc. node	3081 Aug 21 08:46	23°♂29'36			3082 Jul 30 19:58	0°♂	
	3081 Aug 26 04:14	0°♂		desc. node	3082 Aug 08 05:47	12°♂14'44	
evening max el	3081 Sep 03 13:45	9°♂25'05	27°26'04	evening max el	3082 Aug 16 21:17	22°♂04'11	27°14'34
retrograde	3081 Sep 17 04:50	16°♂42'03		retrograde	3082 Aug 30 17:16	29°♂18'32	
evening set	3081 Sep 24 08:36	14°♂04'27		evening set	3082 Sep 06 21:02	26°♂56'53	
min. Earth dist.	3081 Sep 28 00:52	10°♂51'22	0.63661 AU	min. Earth dist.	3082 Sep 10 11:31	24°♂10'06	0.61809 AU
inferior conj	3081 Sep 30 14:54	8°♂13'35	-3°-11'-25	inferior conj	3082 Sep 13 12:37	21°♂25'15	-4°-5'-25
minimum elong	3081 Sep 30 19:59	8°♂00'36	3°09'44	minimum elong	3082 Sep 13 18:17	21°♂12'24	4°04'02
morning rise	3081 Oct 07 09:43	2°♂53'49		morning rise	3082 Sep 20 18:29	16°♂25'38	
direct	3081 Oct 09 20:17	2°♂24'42		direct	3082 Sep 23 02:42	16°♂02'13	
asc. node	3081 Oct 10 17:38	2°♂28'38		asc. node	3082 Sep 27 14:41	17°♂31'41	
morning max el	3081 Oct 16 09:49	5°♂50'01	17°52'06	morning max el	3082 Sep 30 01:02	19°♂31'39	17°54'36
	3081 Nov 01 05:44	0°♂			3082 Oct 07 17:40	0°♂	
morning set	3081 Nov 01 23:56	1°♂18'44		morning set	3082 Oct 15 21:08	14°♂21'59	
					3082 Oct 24 14:30	0°♂	
superior conj	3081 Nov 14 10:38	22°♂23'13	0°19'47	superior conj	3082 Oct 26 13:47	3°♂25'31	0°57'28
minimum elong	3081 Nov 14 12:44	22°♂31'49	0°19'29	minimum elong	3082 Oct 26 18:04	3°♂44'00	0°56'56
desc. node	3081 Nov 17 08:05	27°♂06'27		max. Earth dist.	3082 Nov 02 23:22	15°♂52'24	1.42785 AU
	3081 Nov 19 03:08	0°♂		desc. node	3082 Nov 04 05:07	17°♂53'52	
max. Earth dist.	3081 Nov 20 09:39	2°♂02'10	1.44232 AU	evening rise	3082 Nov 09 19:38	26°♂51'05	
evening rise	3081 Nov 30 06:22	17°♂29'01			3082 Nov 11 20:01	0°♂	
	3081 Dec 08 11:57	0°♂			3082 Dec 02 08:35	0°♂	
greatest brilliancy	3081 Dec 23 01:53	20°♂54'19	-0.5m	greatest brilliancy	3082 Dec 06 20:57	5°♂49'41	-0.4m
evening max el	3081 Dec 28 19:11	27°♂41'29	20°41'38	evening max el	3082 Dec 11 15:12	11°♂13'40	21°54'37
	3081 Dec 31 07:07	0°♂		retrograde	3082 Dec 20 21:06	16°♂43'53	
retrograde	3082 Jan 06 00:08	2°♂32'16		asc. node	3082 Dec 24 13:56	15°♂29'41	
asc. node	3082 Jan 06 16:52	2°♂29'35		evening set	3082 Dec 25 05:20	15°♂01'11	
evening set	3082 Jan 09 21:32	1°♂05'22		inferior conj	3082 Dec 30 14:48	8°♂40'17	1°56'30
	3082 Jan 11 03:47	30°♂		minimum elong	3082 Dec 30 12:32	8°♂48'09	1°55'42
inferior conj	3082 Jan 15 07:40	24°♂53'23	2°36'27	min. Earth dist.	3082 Dec 30 16:19	8°♂35'01	0.67866 AU
minimum elong	3082 Jan 15 05:07	25°♂02'06	2°35'42	morning rise	3083 Jan 04 19:30	2°♂26'29	
min. Earth dist.	3082 Jan 15 20:56	24°♂07'58	0.67478 AU	direct	3083 Jan 09 15:35	0°♂24'18	
morning rise	3082 Jan 20 12:15	18°♂38'08		morning max el	3083 Jan 19 11:16	6°♂12'54	22°43'08
direct	3082 Jan 25 23:28	16°♂14'08		greatest brilliancy	3083 Jan 24 01:59	11°♂21'37	-0.3m
morning max el	3082 Feb 06 01:12	22°♂50'23	24°11'58	desc. node	3083 Jan 31 04:21	20°♂34'40	
	3082 Feb 12 08:28	0°♂			3083 Feb 06 19:23	0°♂	
desc. node	3082 Feb 13 07:18	1°♂11'33		morning set	3083 Feb 22 13:58	24°♂31'10	
	3082 Mar 05 04:44	0°♂			3083 Feb 25 20:54	0°♂	
morning set	3082 Mar 13 19:05	14°♂18'55		max. Earth dist.	3083 Feb 27 09:05	2°♂33'40	1.40176 AU
max. Earth dist.	3082 Mar 17 13:26	20°♂57'34	1.38012 AU				
	3082 Mar 22 11:27	0°♂		superior conj	3083 Mar 07 03:40	16°♂16'00	-1°-56'-22
superior conj	3082 Mar 24 14:58	4°♂04'20	-1°-36'-24	minimum elong	3083 Mar 07 07:36	16°♂33'54	1°56'06
minimum elong	3082 Mar 24 19:28	4°♂25'54	1°35'52		3083 Mar 14 12:42	0°♂	
evening rise	3082 Apr 02 11:44	21°♂26'30		evening rise	3083 Mar 17 01:38	4°♂49'05	
asc. node	3082 Apr 04 16:10	25°♂43'15		asc. node	3083 Mar 22 13:13	15°♂02'44	

	3083 Apr 01 12:36	0°♄		minimum elong	3084 Feb 16 20:04	27°≈30'39	2°06'11
evening max el	3083 Apr 02 05:00	0°♄41'36	18°25'22		3084 Feb 18 06:36	0°♄	
retrograde	3083 Apr 09 15:36	4°♄22'18		evening rise	3084 Feb 28 02:13	17°♄30'48	
evening set	3083 Apr 11 23:49	4°♄01'28			3084 Mar 06 01:57	0°♄	
	3083 Apr 18 17:19	30°♄♂		asc. node	3084 Mar 08 10:15	3°♄55'48	
inferior conj	3083 Apr 19 09:30	29°♄27'16	2°31'48	evening max el	3084 Mar 15 15:12	13°♄38'32	18°08'25
minimum elong	3083 Apr 19 13:18	29°♄19'31	2°30'49	retrograde	3084 Mar 22 08:27	17°♄03'29	
min. Earth dist.	3083 Apr 22 20:06	26°♄40'23	0.58578 AU	evening set	3084 Mar 24 22:33	16°♄33'25	
morning rise	3083 Apr 26 22:32	23°♄57'56		inferior conj	3084 Mar 31 16:12	11°♄38'03	3°18'04
desc. node	3083 Apr 29 03:30	23°♄00'32		minimum elong	3084 Mar 31 18:48	11°♄31'54	3°17'40
direct	3083 May 03 00:39	22°♄20'50		min. Earth dist.	3084 Apr 03 22:13	8°♄35'20	0.60746 AU
	3083 May 17 08:22	0°♄		morning rise	3084 Apr 07 11:49	5°♄47'25	
morning max el	3083 May 17 10:05	0°♄04'12	26°59'44	direct	3084 Apr 14 04:45	3°♄35'26	
	3083 Jun 07 14:49	0°♄		desc. node	3084 Apr 15 00:32	3°♄37'22	
morning set	3083 Jun 16 12:57	17°♄26'23		morning max el	3084 Apr 28 10:55	11°♄29'44	27°42'49
asc. node	3083 Jun 18 12:29	21°♄38'28			3084 May 12 23:17	0°♄	
	3083 Jun 22 08:37	0°♄			3084 May 29 19:32	0°♄	
				morning set	3084 May 30 18:56	1°♄59'55	
superior conj	3083 Jun 23 15:05	2°♄47'50	0°51'32	asc. node	3084 Jun 04 09:31	11°♄45'39	
minimum elong	3083 Jun 23 13:05	2°♄36'45	0°51'09	max. Earth dist.	3084 Jun 05 23:18	15°♄11'13	1.32191 AU
max. Earth dist.	3083 Jun 23 12:10	2°♄31'45	1.32110 AU				
evening rise	3083 Jun 30 12:45	17°♄47'40		superior conj	3084 Jun 07 02:13	17°♄38'36	0°28'05
	3083 Jul 06 14:09	0°♄		minimum elong	3084 Jun 07 00:59	17°♄31'49	0°27'49
desc. node	3083 Jul 26 02:48	29°♄58'58			3084 Jun 12 17:55	0°♄	
	3083 Jul 26 03:10	0°♄		evening rise	3084 Jun 13 23:28	2°♄37'56	
evening max el	3083 Jul 29 22:35	3°♄58'31	26°29'51		3084 Jun 28 17:17	0°♄	
retrograde	3083 Aug 12 21:54	11°♄09'54		evening max el	3084 Jul 10 16:46	15°♄06'19	25°15'39
evening set	3083 Aug 19 14:30	9°♄17'33		desc. node	3084 Jul 11 23:48	16°♄17'42	
min. Earth dist.	3083 Aug 23 12:01	6°♄42'27	0.59759 AU	retrograde	3084 Jul 24 16:28	22°♄12'17	
inferior conj	3083 Aug 26 18:55	4°♄07'01	-4°-47'-9	evening set	3084 Jul 30 08:37	20°♄58'01	
minimum elong	3083 Aug 26 23:15	3°♄58'25	4°46'35	min. Earth dist.	3084 Aug 04 04:38	18°♄16'06	0.57739 AU
	3083 Sep 02 01:39	30°♄♂		inferior conj	3084 Aug 07 06:29	16°♄09'52	-5°-5'-11
morning rise	3083 Sep 03 11:25	29°♄30'04		minimum elong	3084 Aug 07 06:43	16°♄09'28	5°05'11
direct	3083 Sep 05 20:19	29°♄09'47		morning rise	3084 Aug 15 08:25	11°♄55'35	
	3083 Sep 09 11:26	0°♄		direct	3084 Aug 17 21:04	11°♄36'26	
morning max el	3083 Sep 13 11:46	2°♄52'42	18°16'34	morning max el	3084 Aug 26 14:44	15°♄43'36	18°59'19
asc. node	3083 Sep 14 11:43	3°♄53'41		asc. node	3084 Aug 31 08:45	21°♄19'37	
morning set	3083 Sep 29 08:37	28°♄05'52			3084 Sep 05 18:25	0°♄	
	3083 Sep 30 08:39	0°♄		morning set	3084 Sep 12 06:04	12°♄18'36	
superior conj	3083 Oct 08 17:27	15°♄39'36	1°23'40	superior conj	3084 Sep 20 16:13	28°♄49'53	1°38'54
minimum elong	3083 Oct 08 21:15	15°♄56'53	1°23'17	minimum elong	3084 Sep 20 18:23	29°♄00'15	1°38'46
max. Earth dist.	3083 Oct 16 07:26	29°♄02'04	1.40905 AU		3084 Sep 21 06:53	0°♄	
	3083 Oct 16 21:03	0°♄		max. Earth dist.	3084 Sep 27 11:47	11°♄29'30	1.38841 AU
evening rise	3083 Oct 21 02:46	7°♄03'42		evening rise	3084 Oct 01 09:31	18°♄21'31	
desc. node	3083 Oct 22 02:09	8°♄38'57		desc. node	3084 Oct 07 23:09	29°♄17'33	
	3083 Nov 04 23:35	0°♄			3084 Oct 08 09:44	0°♄	
evening max el	3083 Nov 24 06:41	24°♄48'44	23°13'50		3084 Oct 29 07:39	0°♄	
	3083 Nov 30 22:43	0°♄		evening max el	3084 Nov 05 19:36	8°♄27'38	24°33'04
retrograde	3083 Dec 04 15:29	0°♄57'17		retrograde	3084 Nov 17 05:56	15°♄07'58	
	3083 Dec 08 01:03	30°♄♂		evening set	3084 Nov 22 16:30	12°♄52'34	
evening set	3083 Dec 09 12:12	28°♄58'06		asc. node	3084 Nov 27 07:58	7°♄35'51	
asc. node	3083 Dec 11 10:56	27°♄02'38		min. Earth dist.	3084 Nov 27 08:53	7°♄32'49	0.67586 AU
inferior conj	3083 Dec 14 22:27	22°♄32'17	1°09'56	inferior conj	3084 Nov 28 04:50	6°♄26'14	0°17'52
minimum elong	3083 Dec 14 20:54	22°♄37'37	1°09'19	minimum elong	3084 Nov 28 04:24	6°♄27'42	0°17'41
min. Earth dist.	3083 Dec 14 13:06	23°♄04'25	0.67895 AU	morning rise	3084 Dec 03 16:41	0°♄21'55	
morning rise	3083 Dec 20 05:39	16°♄22'03			3084 Dec 04 06:04	30°♄♂	
direct	3083 Dec 24 11:15	14°♄42'39		direct	3084 Dec 07 09:08	29°♄04'00	
morning max el	3084 Jan 02 02:21	19°♄44'09	21°19'14		3084 Dec 10 16:46	0°♄	
greatest brilliancy	3084 Jan 07 06:11	25°♄37'49	-0.4m	morning max el	3084 Dec 15 00:52	3°♄25'58	20°06'13
	3084 Jan 10 14:51	0°♄		greatest brilliancy	3084 Dec 21 22:50	11°♄46'21	-0.6m
desc. node	3084 Jan 18 01:23	10°♄27'00			3085 Jan 03 11:51	0°♄	
	3084 Jan 31 00:22	0°♄		desc. node	3085 Jan 03 22:25	0°♄39'54	
morning set	3084 Feb 02 04:11	3°≈23'06		morning set	3085 Jan 11 00:47	11°♄31'18	
max. Earth dist.	3084 Feb 09 10:06	15°≈02'36	1.42219 AU	max. Earth dist.	3085 Jan 21 19:07	28°♄25'21	1.43862 AU
					3085 Jan 22 18:45	0°≈	
superior conj	3084 Feb 16 19:11	27°≈26'54	-2°-6'-10				

superior conj	3085 Jan 27 09:10	7° \approx 27'33	-2°00'-39			3085 Dec 27 11:56	0° \approx	
minimum elong	3085 Jan 27 04:29	7° \approx 08'24	2°00'27	max. Earth dist.		3086 Jan 04 10:49	12° \approx 28'05	1.44897 AU
evening rise	3085 Feb 09 09:08	29° \approx 22'30						
	3085 Feb 09 17:50	0° \approx		superior conj		3086 Jan 06 22:41	16° \approx 24'24	-1°-35'-57
asc. node	3085 Feb 23 07:16	22° \approx 13'40		minimum elong		3086 Jan 06 13:44	15° \approx 49'03	1°35'08
evening max el	3085 Feb 27 03:46	26° \approx 52'20	18°10'46			3086 Jan 15 10:42	0° \approx	
	3085 Mar 03 19:41	0° \approx		evening rise		3086 Jan 21 18:27	10° \approx 18'25	
retrograde	3085 Mar 05 14:21	0° \approx 16'24				3086 Feb 02 22:08	0° \approx	
	3085 Mar 07 09:05	30° \approx		asc. node		3086 Feb 10 04:17	9° \approx 45'59	
evening set	3085 Mar 08 09:57	29° \approx 35'45		evening max el		3086 Feb 10 15:52	10° \approx 16'07	18°31'41
inferior conj	3085 Mar 14 15:20	24° \approx 19'48	3°37'48	retrograde		3086 Feb 17 05:03	13° \approx 52'10	
minimum elong	3085 Mar 14 16:05	24° \approx 17'49	3°37'46	evening set		3086 Feb 20 06:17	13° \approx 00'06	
min. Earth dist.	3085 Mar 17 08:45	21° \approx 25'37	0.62839 AU	inferior conj		3086 Feb 26 02:54	7° \approx 25'14	3°37'34
morning rise	3085 Mar 20 20:04	18° \approx 16'28		minimum elong		3086 Feb 26 02:01	7° \approx 27'52	3°37'31
direct	3085 Mar 27 17:57	15° \approx 39'03		min. Earth dist.		3086 Feb 28 04:51	4° \approx 57'39	0.64644 AU
desc. node	3085 Apr 01 21:34	16° \approx 55'02		morning rise		3086 Mar 03 20:23	1° \approx 14'40	
morning max el	3085 Apr 10 17:09	23° \approx 36'07	27°48'37			3086 Mar 05 12:52	30° \approx	
	3085 Apr 16 10:39	0° \approx		direct		3086 Mar 10 14:42	28° \approx 25'32	
	3085 May 06 06:12	0° \approx				3086 Mar 16 04:03	0° \approx	
morning set	3085 May 14 19:07	16° \approx 13'10		desc. node		3086 Mar 19 18:37	2° \approx 23'26	
max. Earth dist.	3085 May 20 06:11	27° \approx 34'31	1.32681 AU	morning max el		3086 Mar 24 02:36	6° \approx 17'01	27°18'57
	3085 May 21 09:20	0° \approx				3086 Apr 11 06:39	0° \approx	
				morning set		3086 Apr 28 10:43	29° \approx 57'22	
superior conj	3085 May 22 10:55	2° \approx 18'07	0°01'56			3086 Apr 28 11:15	0° \approx	
minimum elong	3085 May 22 10:50	2° \approx 17'38	0°01'54	max. Earth dist.		3086 May 03 04:56	9° \approx 30'03	1.33611 AU
behind sun begin	3085 May 22 05:38	1° \approx 49'32						
behind sun end	3085 May 22 16:01	2° \approx 45'45		superior conj		3086 May 06 15:16	16° \approx 39'52	0°-26'-4
asc. node	3085 May 22 06:33	1° \approx 54'28		minimum elong		3086 May 06 16:36	16° \approx 46'54	0°25'48
evening rise	3085 May 29 11:19	17° \approx 28'04		asc. node		3086 May 09 03:36	22° \approx 00'40	
	3085 Jun 04 15:52	0° \approx				3086 May 12 21:31	0° \approx	
evening max el	3085 Jun 22 06:23	25° \approx 40'26	23°42'52	evening rise		3086 May 13 22:26	2° \approx 11'20	
	3085 Jun 27 17:37	0° \approx				3086 May 29 14:33	0° \approx	
desc. node	3085 Jun 28 20:48	0° \approx 38'40		evening max el		3086 Jun 03 22:08	6° \approx 08'35	22°06'49
retrograde	3085 Jul 05 22:42	2° \approx 32'09		desc. node		3086 Jun 15 17:49	12° \approx 26'16	
evening set	3085 Jul 10 04:07	1° \approx 52'57		retrograde		3086 Jun 16 17:08	12° \approx 28'26	
	3085 Jul 14 13:45	30° \approx		evening set		3086 Jun 19 13:24	12° \approx 10'27	
min. Earth dist.	3085 Jul 16 16:38	28° \approx 48'04	0.56055 AU	min. Earth dist.		3086 Jun 28 03:30	8° \approx 29'08	0.55039 AU
inferior conj	3085 Jul 18 21:55	27° \approx 27'51	-4°-44'-31	inferior conj		3086 Jun 28 20:48	8° \approx 04'52	-3°-34'-40
minimum elong	3085 Jul 18 16:24	27° \approx 36'12	4°43'45	minimum elong		3086 Jun 28 12:33	8° \approx 16'27	3°32'24
morning rise	3085 Jul 27 07:59	23° \approx 31'42		morning rise		3086 Jul 07 13:34	4° \approx 13'49	
direct	3085 Jul 30 02:48	23° \approx 12'11		direct		3086 Jul 10 16:29	3° \approx 52'08	
morning max el	3085 Aug 09 07:13	27° \approx 55'41	20°03'41	morning max el		3086 Jul 22 12:02	9° \approx 23'03	21°28'19
	3085 Aug 11 07:59	0° \approx		asc. node		3086 Aug 05 02:50	28° \approx 28'58	
asc. node	3085 Aug 18 05:47	9° \approx 35'36				3086 Aug 05 22:31	0° \approx	
morning set	3085 Aug 27 10:23	26° \approx 52'07		morning set		3086 Aug 11 19:05	11° \approx 38'29	
	3085 Aug 28 23:15	0° \approx						
				superior conj		3086 Aug 19 03:37	27° \approx 04'13	1°42'57
superior conj	3085 Sep 04 05:01	12° \approx 42'28	1°44'47	minimum elong		3086 Aug 19 02:36	26° \approx 58'59	1°42'55
minimum elong	3085 Sep 04 05:26	12° \approx 44'32	1°44'46			3086 Aug 20 13:35	0° \approx	
max. Earth dist.	3085 Sep 09 17:19	23° \approx 29'08	1.36841 AU	max. Earth dist.		3086 Aug 23 04:53	5° \approx 21'50	1.35102 AU
	3085 Sep 13 05:18	0° \approx		evening rise		3086 Aug 27 13:26	13° \approx 53'07	
evening rise	3085 Sep 13 14:30	0° \approx 41'53				3086 Sep 05 13:09	0° \approx	
desc. node	3085 Sep 24 20:09	19° \approx 45'32		desc. node		3086 Sep 11 17:10	9° \approx 56'29	
	3085 Oct 01 14:02	0° \approx				3086 Sep 26 10:15	0° \approx	
evening max el	3085 Oct 19 07:53	22° \approx 09'24	25°45'06	evening max el		3086 Oct 01 20:12	5° \approx 47'19	26°42'32
retrograde	3085 Oct 31 15:44	29° \approx 11'53		retrograde		3086 Oct 14 20:21	13° \approx 02'12	
evening set	3085 Nov 06 16:34	26° \approx 42'08		evening set		3086 Oct 21 10:25	10° \approx 22'39	
min. Earth dist.	3085 Nov 11 01:15	21° \approx 57'54	0.66941 AU	min. Earth dist.		3086 Oct 25 11:52	6° \approx 14'59	0.65943 AU
inferior conj	3085 Nov 12 08:12	20° \approx 19'46	0°-38'-28	inferior conj		3086 Oct 27 06:32	4° \approx 08'49	-1°-37'-40
minimum elong	3085 Nov 12 09:12	20° \approx 16'34	0°38'03	minimum elong		3086 Oct 27 09:12	4° \approx 00'56	1°36'35
asc. node	3085 Nov 14 05:00	18° \approx 01'29				3086 Oct 31 03:31	30° \approx	
morning rise	3085 Nov 18 02:41	14° \approx 24'07		asc. node		3086 Nov 01 02:03	29° \approx 14'21	
direct	3085 Nov 21 07:48	13° \approx 24'44		morning rise		3086 Nov 02 09:26	28° \approx 24'44	
morning max el	3085 Nov 28 07:11	17° \approx 18'07	19°07'33	direct		3086 Nov 05 05:18	27° \approx 40'12	
	3085 Dec 08 01:24	0° \approx				3086 Nov 10 10:46	0° \approx	
morning set	3085 Dec 21 04:35	20° \approx 09'49		morning max el		3086 Nov 11 19:35	1° \approx 15'44	18°24'51
desc. node	3085 Dec 21 19:27	21° \approx 07'44		morning set		3086 Dec 01 10:21	0° \approx	

	3086 Dec 01 08:09	0°♊		desc. node	3087 Nov 25 13:30	2°♊29'48	
desc. node	3086 Dec 08 16:29	11°♊45'41					
superior conj	3086 Dec 17 00:31	24°♊55'30	0°-54'-26	superior conj	3087 Nov 26 11:46	3°♊59'23	0°-6'-19
minimum elong	3086 Dec 16 17:41	24°♊28'40	0°53'35	minimum elong	3087 Nov 26 11:00	3°♊56'20	0°06'14
max. Earth dist.	3086 Dec 18 05:38	26°♊49'49	1.45208 AU	behind sun begin	3087 Nov 26 01:19	3°♊17'21	
	3086 Dec 20 06:08	0°♋		behind sun end	3087 Nov 26 20:42	4°♊35'15	
evening rise	3087 Jan 02 04:31	20°♋18'19		max. Earth dist.	3087 Dec 01 00:16	11°♊11'35	1.44782 AU
	3087 Jan 08 08:14	0°♌		evening rise	3087 Dec 12 19:34	29°♊35'19	
greatest brilliancy	3087 Jan 15 01:52	10°♌26'25	-0.7m		3087 Dec 13 01:58	0°♋	
evening max el	3087 Jan 25 01:09	23°♌44'56	19°10'10	greatest brilliancy	3088 Jan 01 11:55	28°♋57'56	-0.6m
asc. node	3087 Jan 28 01:20	26°♌19'53			3088 Jan 02 06:11	0°♌	
retrograde	3087 Feb 01 00:49	27°♌43'51		evening max el	3088 Jan 08 05:52	7°♌15'25	20°04'27
evening set	3087 Feb 04 08:36	26°♌39'23		asc. node	3088 Jan 14 22:23	11°♌40'03	
inferior conj	3087 Feb 09 23:23	20°♌47'59	3°22'28	retrograde	3088 Jan 15 22:39	11°♌45'40	
minimum elong	3087 Feb 09 21:24	20°♌54'18	3°22'09	evening set	3088 Jan 19 14:31	10°♌27'31	
min. Earth dist.	3087 Feb 11 10:02	18°♌57'18	0.66061 AU	inferior conj	3088 Jan 25 01:47	4°♌22'19	2°55'57
morning rise	3087 Feb 15 09:18	14°♌33'41		minimum elong	3088 Jan 24 23:18	4°♌30'42	2°55'20
direct	3087 Feb 21 18:02	11°♌46'15		min. Earth dist.	3088 Jan 25 22:31	3°♌12'40	0.67072 AU
morning max el	3087 Mar 06 12:33	19°♌20'18	26°20'22		3088 Jan 28 11:32	30°♌♋	
desc. node	3087 Mar 06 15:41	19°♌28'12		morning rise	3088 Jan 30 07:28	28°♋06'43	
	3087 Mar 15 14:36	0°♍		direct	3088 Feb 05 03:06	25°♋31'47	
	3087 Apr 04 07:51	0°♎			3088 Feb 14 04:13	0°♌	
morning set	3087 Apr 11 14:08	13°♎02'03		morning max el	3088 Feb 16 21:19	2°♌33'19	25°01'56
max. Earth dist.	3087 Apr 15 16:30	20°♎53'20	1.34998 AU	desc. node	3088 Feb 21 12:44	7°♌41'01	
	3087 Apr 20 05:39	0°♏			3088 Mar 08 18:16	0°♍	
superior conj	3087 Apr 20 12:57	0°♏37'22	0°-54'-39	morning set	3088 Mar 24 00:17	25°♍11'55	
minimum elong	3087 Apr 20 15:48	0°♏51'58	0°54'08		3088 Mar 26 15:57	0°♎	
asc. node	3087 Apr 26 00:39	12°♏00'15		max. Earth dist.	3088 Mar 27 16:49	1°♎54'38	1.36815 AU
evening rise	3087 Apr 28 06:53	16°♏41'35					
	3087 May 05 01:18	0°♐		superior conj	3088 Apr 03 00:56	14°♎01'37	-1°-22'-6
evening max el	3087 May 16 23:20	17°♐02'12	20°40'57	minimum elong	3088 Apr 03 05:03	14°♎21'53	1°21'30
retrograde	3087 May 28 06:15	22°♐32'29		evening rise	3088 Apr 11 10:19	0°♏51'08	
evening set	3087 May 30 08:21	22°♐21'56			3088 Apr 11 00:09	0°♏	
desc. node	3087 Jun 02 14:51	21°♐26'44		asc. node	3088 Apr 11 21:41	1°♏48'11	
inferior conj	3087 Jun 08 14:27	18°♐24'28	-1°-44'-57	evening max el	3088 Apr 28 12:39	28°♏35'34	19°32'35
minimum elong	3087 Jun 08 09:31	18°♐31'33	1°43'11		3088 Apr 30 02:30	0°♐	
min. Earth dist.	3087 Jun 09 15:45	17°♐48'11	0.54940 AU	retrograde	3088 May 08 01:44	3°♐13'07	
morning rise	3087 Jun 17 09:33	14°♐18'02		evening set	3088 May 10 01:41	3°♐01'52	
direct	3087 Jun 21 01:54	13°♐48'50			3088 May 17 01:24	30°♌♏	
morning max el	3087 Jul 04 07:13	20°♐11'00	23°07'22	inferior conj	3088 May 18 17:23	28°♏57'18	0°13'29
	3087 Jul 12 13:37	0°♑		minimum elong	3088 May 18 17:58	28°♏56'22	0°13'16
asc. node	3087 Jul 22 23:55	17°♑50'21		transit middle	3088 May 18 17:58	28°♏56'22	0°13'16
morning set	3087 Jul 27 06:12	26°♑32'00		transit begin	3088 May 18 15:48	28°♏59'51	
	3087 Jul 28 21:29	0°♒		transit end	3088 May 18 20:09	28°♏52'54	
superior conj	3087 Aug 03 08:50	11°♒45'23	1°34'48	desc. node	3088 May 19 11:54	28°♏27'40	
minimum elong	3087 Aug 03 06:54	11°♒35'02	1°34'38	min. Earth dist.	3088 May 21 05:58	27°♏21'01	0.55799 AU
max. Earth dist.	3087 Aug 06 01:15	17°♒27'05	1.33740 AU	morning rise	3088 May 27 06:31	24°♏19'38	
evening rise	3087 Aug 11 01:55	27°♒43'34		direct	3088 May 31 20:27	23°♏32'24	
	3087 Aug 12 05:40	0°♓			3088 Jun 14 05:43	0°♐	
desc. node	3087 Aug 29 14:10	29°♓42'53		morning max el	3088 Jun 14 21:33	0°♐36'58	24°49'31
	3087 Aug 29 18:49	0°♑			3088 Jul 05 02:13	0°♑	
evening max el	3087 Sep 14 08:11	19°♑12'28	27°18'03	asc. node	3088 Jul 08 20:58	7°♑31'53	
retrograde	3087 Sep 27 19:25	26°♑31'04		morning set	3088 Jul 10 18:03	11°♑27'08	
evening set	3087 Oct 04 19:33	23°♑49'38					
min. Earth dist.	3087 Oct 08 14:34	20°♑17'41	0.64590 AU	superior conj	3088 Jul 17 18:10	26°♑37'39	1°21'24
inferior conj	3087 Oct 10 21:35	17°♑48'54	-2°-37'-42	minimum elong	3088 Jul 17 15:49	26°♑24'52	1°21'05
minimum elong	3087 Oct 11 01:55	17°♑37'13	2°36'08	max. Earth dist.	3088 Jul 19 05:59	29°♑52'21	1.32790 AU
morning rise	3087 Oct 17 10:20	12°♑19'23			3088 Jul 19 07:23	0°♒	
asc. node	3087 Oct 18 23:08	11°♑51'09		evening rise	3088 Jul 25 00:10	12°♒02'15	
direct	3087 Oct 19 23:25	11°♑45'47			3088 Aug 03 10:32	0°♓	
morning max el	3087 Oct 26 11:24	15°♑12'44	17°58'58	desc. node	3088 Aug 15 11:11	18°♓54'31	
	3087 Nov 05 23:25	0°♔			3088 Aug 24 12:56	0°♑	
morning set	3087 Nov 12 21:06	11°♔33'05		evening max el	3088 Aug 26 18:16	2°♑13'05	27°25'15
	3087 Nov 24 00:26	0°♕		retrograde	3088 Sep 09 12:07	9°♑29'29	
				evening set	3088 Sep 16 16:45	6°♑57'15	
				min. Earth dist.	3088 Sep 20 07:37	3°♑56'23	0.62901 AU
				inferior conj	3088 Sep 23 02:37	1°♑13'55	-3°-35'-19

minimum elong	3088 Sep 23 08:07	1°♄00'32	3°33'42	minimum elong	3089 Sep 05 23:40	14°♊02'54	4°24'09
	3088 Sep 24 09:29	30°♊00'		morning rise	3089 Sep 13 04:43	9°♊23'55	
morning rise	3088 Sep 30 02:07	26°♊02'11		direct	3089 Sep 15 12:54	9°♊02'02	
direct	3088 Oct 02 11:12	25°♊35'57		asc. node	3089 Sep 21 17:13	11°♊41'06	
asc. node	3088 Oct 04 20:11	26°♊02'45		morning max el	3089 Sep 22 17:22	12°♊36'05	18°01'25
morning max el	3088 Oct 09 03:43	29°♊02'23	17°50'48		3089 Oct 04 09:43	0°♄	
	3088 Oct 10 01:48	0°♄		morning set	3089 Oct 08 11:37	7°♄29'08	
morning set	3088 Oct 25 07:41	24°♄06'25					
	3088 Oct 28 15:57	0°♌		superior conj	3089 Oct 18 13:26	25°♄50'20	1°10'01
superior conj	3088 Nov 05 23:17	14°♌15'58	0°37'07	minimum elong	3089 Oct 18 17:45	26°♄09'21	1°09'30
minimum elong	3088 Nov 06 02:44	14°♌30'25	0°36'38		3089 Oct 20 22:29	0°♌	
desc. node	3088 Nov 11 10:31	23°♌17'13		max. Earth dist.	3089 Oct 26 04:14	8°♌54'17	1.42031 AU
max. Earth dist.	3088 Nov 12 16:30	25°♌18'29	1.43681 AU	desc. node	3089 Oct 29 07:32	14°♌04'03	
	3088 Nov 15 14:52	0°♌		evening rise	3089 Nov 01 00:23	18°♌25'08	
evening rise	3088 Nov 21 04:43	8°♌44'18			3089 Nov 08 11:02	0°♌	
	3088 Dec 05 08:10	0°♌		greatest brilliancy	3089 Nov 29 04:21	28°♌58'54	-0.3m
greatest brilliancy	3088 Dec 16 01:13	14°♌48'05	-0.4m		3089 Nov 30 00:43	0°♌	
evening max el	3088 Dec 21 05:10	20°♌47'30	21°11'41	evening max el	3089 Dec 03 23:11	4°♌21'04	22°27'53
retrograde	3088 Dec 29 20:22	25°♌54'41		retrograde	3089 Dec 13 16:13	10°♌07'19	
asc. node	3088 Dec 31 19:26	25°♌33'31		evening set	3089 Dec 18 05:41	8°♌17'36	
evening set	3089 Jan 02 22:07	24°♌21'22		asc. node	3089 Dec 18 16:28	7°♌54'34	
inferior conj	3089 Jan 08 07:47	18°♌05'24	2°20'24	inferior conj	3089 Dec 23 15:20	1°♌54'21	1°37'28
minimum elong	3089 Jan 08 05:18	18°♌13'59	2°19'36	minimum elong	3089 Dec 23 13:19	2°♌01'19	1°36'43
min. Earth dist.	3089 Jan 08 16:00	17°♌37'04	0.67689 AU	min. Earth dist.	3089 Dec 23 12:09	2°♌05'19	0.67930 AU
morning rise	3089 Jan 13 12:07	11°♌50'30			3089 Dec 25 00:44	30°♊00'	
direct	3089 Jan 18 17:00	9°♌35'09		morning rise	3089 Dec 28 20:50	25°♌42'00	
morning max el	3089 Jan 29 05:52	15°♌51'33	23°34'02	direct	3090 Jan 02 10:44	23°♌49'28	
desc. node	3089 Feb 07 09:46	26°♌42'37		morning max el	3090 Jan 11 17:33	29°♌16'44	22°06'24
	3089 Feb 09 20:42	0°♌			3090 Jan 12 10:25	0°♌	
	3089 Mar 01 18:14	0°♌		greatest brilliancy	3090 Jan 16 08:33	4°♌27'50	-0.4m
morning set	3089 Mar 05 11:05	6°♌10'34		desc. node	3090 Jan 25 06:48	16°♌19'02	
max. Earth dist.	3089 Mar 09 11:41	13°♌07'15	1.38930 AU		3090 Feb 03 15:01	0°♌	
				morning set	3090 Feb 13 17:23	15°♌46'23	
superior conj	3089 Mar 16 23:28	26°♌43'10	-1°-45'-48	max. Earth dist.	3090 Feb 19 09:24	25°♌05'44	1.41082 AU
minimum elong	3089 Mar 17 03:58	27°♌04'15	1°45'22		3090 Feb 22 06:48	0°♌	
	3089 Mar 18 17:13	0°♌		superior conj	3090 Feb 27 03:46	8°♌30'15	-2°-2'-3
evening rise	3089 Mar 26 06:03	14°♌32'58		minimum elong	3090 Feb 27 06:45	8°♌43'32	2°01'57
asc. node	3089 Mar 29 18:43	21°♌19'36		evening rise	3090 Mar 09 14:44	27°♌39'01	
	3089 Apr 03 14:20	0°♌			3090 Mar 10 21:02	0°♌	
evening max el	3089 Apr 11 12:35	10°♌47'38	18°44'07	asc. node	3090 Mar 16 15:45	10°♌28'36	
retrograde	3089 Apr 19 14:08	14°♌44'08		evening max el	3090 Mar 25 19:56	23°♌30'23	18°15'46
evening set	3089 Apr 21 19:04	14°♌27'33		retrograde	3090 Apr 01 21:39	27°♌02'32	
inferior conj	3089 Apr 29 15:26	10°♌05'11	1°50'40	evening set	3090 Apr 04 08:31	26°♌37'51	
minimum elong	3089 Apr 29 19:01	9°♌58'32	1°49'33	inferior conj	3090 Apr 11 10:52	21°♌54'18	2°55'06
min. Earth dist.	3089 May 02 22:51	7°♌38'51	0.57427 AU	minimum elong	3090 Apr 11 14:20	21°♌46'45	2°54'22
desc. node	3089 May 06 08:56	5°♌29'43		min. Earth dist.	3090 Apr 14 20:43	18°♌57'53	0.59488 AU
morning rise	3089 May 07 14:33	4°♌53'17		morning rise	3090 Apr 18 16:21	16°♌14'53	
direct	3089 May 13 04:45	3°♌36'30		desc. node	3090 Apr 23 05:58	14°♌31'49	
morning max el	3089 May 27 13:06	11°♌08'27	26°19'28	direct	3090 Apr 25 01:50	14°♌22'41	
	3089 Jun 11 02:06	0°♌		morning max el	3090 May 09 10:20	22°♌10'56	27°22'40
morning set	3089 Jun 25 04:58	26°♌18'34			3090 May 16 07:32	0°♌	
asc. node	3089 Jun 25 17:59	27°♌27'24			3090 Jun 04 01:16	0°♌	
	3089 Jun 26 22:34	0°♌		morning set	3090 Jun 09 13:20	11°♌00'59	
superior conj	3089 Jul 02 05:34	11°♌34'06	1°03'34	asc. node	3090 Jun 12 15:00	17°♌31'56	
minimum elong	3089 Jul 02 03:18	11°♌21'38	1°03'10	max. Earth dist.	3090 Jun 16 04:22	25°♌17'47	1.32098 AU
max. Earth dist.	3089 Jul 02 16:14	12°♌32'50	1.32249 AU	superior conj	3090 Jun 16 17:17	26°♌28'53	0°41'59
evening rise	3089 Jul 09 05:07	26°♌39'30		minimum elong	3090 Jun 16 15:33	26°♌19'20	0°41'37
	3089 Jul 10 19:54	0°♌			3090 Jun 18 07:36	0°♌	
	3089 Jul 27 22:44	0°♌		evening rise	3090 Jun 23 14:21	11°♌27'27	
desc. node	3089 Aug 02 08:13	7°♌16'25			3090 Jul 03 01:16	0°♌	
evening max el	3089 Aug 08 23:41	14°♌35'10	26°59'39	desc. node	3090 Jul 20 05:14	24°♌28'15	
retrograde	3089 Aug 22 21:13	21°♌47'29		evening max el	3090 Jul 21 22:00	26°♌09'49	26°01'24
evening set	3089 Aug 29 21:43	19°♌37'11			3090 Jul 26 14:11	0°♌	
min. Earth dist.	3089 Sep 02 13:57	16°♌57'15	0.60951 AU	retrograde	3090 Aug 04 21:30	3°♌18'50	
inferior conj	3089 Sep 05 18:16	14°♌14'29	-4°-25'-14	evening set	3090 Aug 11 05:40	1°♌41'56	

	3090 Aug 14 03:25	30° \mathbb{R} Ω		retrograde	3091 Jul 17 11:18	14° Ω 01'49	
min. Earth dist.	3090 Aug 15 10:27	29° Ω 06'33	0.58889 AU	evening set	3091 Jul 22 13:33	13° Ω 03'20	
inferior conj	3090 Aug 18 16:59	26° Ω 41'10	-4°-58'-32	min. Earth dist.	3091 Jul 28 00:28	10° Ω 13'26	0.56962 AU
minimum elong	3090 Aug 18 19:56	26° Ω 35'39	4°58'17	inferior conj	3091 Jul 30 19:53	8° Ω 24'40	-5°-2'00
morning rise	3090 Aug 26 13:41	22° Ω 14'05		minimum elong	3091 Jul 30 17:40	8° Ω 28'15	5°01'54
direct	3090 Aug 29 00:02	21° Ω 54'22		morning rise	3091 Aug 08 01:29	4° Ω 19'30	
morning max el	3090 Sep 06 01:11	25° Ω 45'40	18°32'06	direct	3091 Aug 10 16:27	4° Ω 00'28	
asc. node	3090 Sep 08 14:14	28° Ω 32'14		morning max el	3091 Aug 20 00:02	8° Ω 21'15	19°24'06
	3090 Sep 09 17:40	0° \mathbb{M}		asc. node	3091 Aug 26 11:17	16° Ω 20'48	
morning set	3090 Sep 22 03:48	21° \mathbb{M} 26'48			3091 Sep 03 05:43	0° \mathbb{M}	
	3090 Sep 26 14:07	0° $\underline{\Omega}$		morning set	3091 Sep 06 04:30	5° \mathbb{M} 49'02	
superior conj	3090 Oct 01 01:58	8° $\underline{\Omega}$ 30'35	1°31'23	superior conj	3091 Sep 14 07:19	22° \mathbb{M} 00'44	1°42'25
minimum elong	3090 Oct 01 05:08	8° $\underline{\Omega}$ 45'20	1°31'06	minimum elong	3091 Sep 14 08:43	22° \mathbb{M} 07'35	1°42'22
max. Earth dist.	3090 Oct 08 10:45	21° $\underline{\Omega}$ 47'09	1.40042 AU		3091 Sep 18 11:12	0° $\underline{\Omega}$	
evening rise	3090 Oct 12 17:23	29° $\underline{\Omega}$ 04'43		max. Earth dist.	3091 Sep 20 14:37	3° $\underline{\Omega}$ 58'59	1.37968 AU
	3090 Oct 13 06:39	0° \mathbb{M}		evening rise	3091 Sep 24 09:59	10° $\underline{\Omega}$ 49'56	
desc. node	3090 Oct 16 04:33	4° \mathbb{M} 46'44		desc. node	3091 Oct 03 01:33	25° $\underline{\Omega}$ 21'17	
	3090 Nov 01 23:09	0° \mathbb{M}			3091 Oct 06 00:21	0° \mathbb{M}	
evening max el	3090 Nov 16 13:15	17° \mathbb{M} 57'15	23°47'49		3091 Oct 28 11:19	0° \mathbb{M}	
retrograde	3090 Nov 27 09:02	24° \mathbb{M} 20'08		evening max el	3091 Oct 30 01:30	1° \mathbb{M} 37'03	25°04'58
evening set	3090 Dec 02 11:39	22° \mathbb{M} 13'39		retrograde	3091 Nov 10 21:47	8° \mathbb{M} 28'53	
asc. node	3090 Dec 05 13:29	18° \mathbb{M} 56'51		evening set	3091 Nov 16 14:26	6° \mathbb{M} 06'48	
inferior conj	3090 Dec 07 22:38	15° \mathbb{M} 47'02	0°48'25	min. Earth dist.	3091 Nov 21 03:22	1° \mathbb{M} 01'58	0.67350 AU
minimum elong	3090 Dec 07 21:31	15° \mathbb{M} 50'51	0°47'57		3091 Nov 21 22:18	30° \mathbb{M}	
min. Earth dist.	3090 Dec 07 08:42	16° \mathbb{M} 34'28	0.67812 AU	inferior conj	3091 Nov 22 04:00	29° \mathbb{M} 41'19	0°-5'-35
morning rise	3090 Dec 13 07:36	9° \mathbb{M} 39'16		minimum elong	3091 Nov 22 04:08	29° \mathbb{M} 40'52	0°05'32
direct	3090 Dec 17 07:22	8° \mathbb{M} 09'29		transit middle	3091 Nov 22 04:08	29° \mathbb{M} 40'52	0°05'32
morning max el	3090 Dec 25 11:44	12° \mathbb{M} 52'40	20°46'34	transit begin	3091 Nov 22 01:31	29° \mathbb{M} 49'24	
greatest brilliancy	3090 Dec 31 06:14	19° \mathbb{M} 35'51	-0.5m	transit end	3091 Nov 22 06:44	29° \mathbb{M} 32'19	
	3091 Jan 07 19:41	0° \mathbb{M}		asc. node	3091 Nov 22 10:31	29° \mathbb{M} 19'58	
desc. node	3091 Jan 12 03:49	6° \mathbb{M} 20'36		morning rise	3091 Nov 27 18:27	23° \mathbb{M} 40'23	
morning set	3091 Jan 23 21:43	24° \mathbb{M} 12'13		direct	3091 Dec 01 05:42	22° \mathbb{M} 30'59	
	3091 Jan 27 14:20	0° \approx		morning max el	3091 Dec 08 13:48	26° \mathbb{M} 39'48	19°39'21
max. Earth dist.	3091 Feb 01 14:12	7° \approx 59'57	1.42980 AU		3091 Dec 11 13:38	0° \mathbb{M}	
superior conj	3091 Feb 08 08:42	19° \approx 11'05	-2°-6'00	greatest brilliancy	3091 Dec 16 15:22	6° \mathbb{M} 41'54	-0.6m
minimum elong	3091 Feb 08 07:24	19° \approx 05'38	2°06'00	desc. node	3091 Dec 30 00:50	26° \mathbb{M} 40'25	
	3091 Feb 14 16:08	0° \mathbb{M}			3092 Jan 01 04:45	0° \mathbb{M}	
evening rise	3091 Feb 20 08:21	10° \mathbb{M} 00'22		morning set	3092 Jan 02 18:14	2° \mathbb{M} 24'33	
asc. node	3091 Mar 03 12:47	29° \mathbb{M} 07'34		max. Earth dist.	3092 Jan 15 02:00	21° \mathbb{M} 40'36	1.44379 AU
	3091 Mar 04 02:40	0° \mathbb{M}		superior conj	3092 Jan 19 11:37	28° \mathbb{M} 42'31	-1°-52'-35
evening max el	3091 Mar 09 07:24	6° \mathbb{M} 34'39	18°07'04	minimum elong	3092 Jan 19 04:36	28° \mathbb{M} 14'18	1°52'07
retrograde	3091 Mar 15 20:45	9° \mathbb{M} 57'57			3092 Jan 20 06:51	0° \approx	
evening set	3091 Mar 18 13:07	9° \mathbb{M} 23'34		evening rise	3092 Feb 02 06:35	21° \approx 29'14	
inferior conj	3091 Mar 25 01:03	4° \mathbb{M} 19'08	3°29'17		3092 Feb 07 07:30	0° \mathbb{M}	
minimum elong	3091 Mar 25 02:53	4° \mathbb{M} 14'34	3°29'06	asc. node	3092 Feb 18 09:49	17° \mathbb{M} 07'46	
min. Earth dist.	3091 Mar 28 02:15	1° \mathbb{M} 17'18	0.61651 AU	evening max el	3092 Feb 20 20:06	19° \mathbb{M} 53'31	18°17'27
	3091 Mar 29 12:05	30° \mathbb{M}		retrograde	3092 Feb 27 06:55	23° \mathbb{M} 21'28	
morning rise	3091 Mar 31 13:53	28° \mathbb{M} 21'54		evening set	3092 Mar 01 04:44	22° \mathbb{M} 36'14	
direct	3091 Apr 07 09:51	25° \mathbb{M} 57'48		inferior conj	3092 Mar 07 06:01	17° \mathbb{M} 12'12	3°39'48
desc. node	3091 Apr 10 03:00	26° \mathbb{M} 18'50		minimum elong	3092 Mar 07 06:01	17° \mathbb{M} 12'13	3°39'48
	3091 Apr 17 03:35	0° \mathbb{M}		min. Earth dist.	3092 Mar 09 17:05	14° \mathbb{M} 27'13	0.63646 AU
morning max el	3091 Apr 21 13:56	3° \mathbb{M} 54'44	27°50'04	morning rise	3092 Mar 13 05:28	11° \mathbb{M} 05'03	
	3091 May 10 22:33	0° \mathbb{M}		direct	3092 Mar 20 02:43	8° \mathbb{M} 20'33	
morning set	3091 May 24 17:09	25° \mathbb{M} 26'44		desc. node	3092 Mar 27 00:03	10° \mathbb{M} 36'24	
	3091 May 26 21:53	0° \mathbb{M}		morning max el	3092 Apr 02 21:58	16° \mathbb{M} 17'27	27°40'00
max. Earth dist.	3091 May 30 14:15	7° \mathbb{M} 52'06	1.32343 AU		3092 Apr 14 05:29	0° \mathbb{M}	
asc. node	3091 May 30 12:02	7° \mathbb{M} 40'06			3092 May 02 15:56	0° \mathbb{M}	
superior conj	3091 Jun 01 03:34	11° \mathbb{M} 15'10	0°17'17	morning set	3092 May 07 14:03	9° \mathbb{M} 28'36	
minimum elong	3091 Jun 01 02:46	11° \mathbb{M} 10'50	0°17'06	max. Earth dist.	3092 May 12 17:55	20° \mathbb{M} 03'16	1.33016 AU
evening rise	3091 Jun 08 01:44	26° \mathbb{M} 17'57		superior conj	3092 May 15 10:40	25° \mathbb{M} 47'35	0°-9'-48
	3091 Jun 09 20:00	0° \mathbb{M}		minimum elong	3092 May 15 11:10	25° \mathbb{M} 50'11	0°09'43
	3091 Jun 27 09:02	0° Ω		behind sun begin	3092 May 15 06:54	25° \mathbb{M} 27'21	
evening max el	3091 Jul 03 13:21	6° Ω 59'27	24°37'34	behind sun end	3092 May 15 15:25	26° \mathbb{M} 13'02	
desc. node	3091 Jul 07 02:14	10° Ω 01'05		asc. node	3092 May 16 09:05	27° \mathbb{M} 48'03	

	3092 May 17 09:34	0°♂		evening rise	3093 May 06 23:42	25°♂43'20	
evening rise	3092 May 22 13:29	11°♂05'17			3093 May 09 01:28	0°♂	
	3092 Jun 01 06:52	0°♂		evening max el	3093 May 26 22:07	28°♂02'44	21°28'32
evening max el	3092 Jun 14 02:49	17°♂26'20	23°01'32		3093 May 29 02:50	0°♂	
desc. node	3092 Jun 22 23:16	23°♂20'05		retrograde	3093 Jun 08 03:02	4°♂02'17	
retrograde	3092 Jun 27 12:32	24°♂07'22		desc. node	3093 Jun 09 20:17	3°♂55'30	
evening set	3092 Jul 01 02:22	23°♂39'22		evening set	3093 Jun 10 13:23	3°♂48'50	
min. Earth dist.	3092 Jul 08 11:58	20°♂20'22	0.55518 AU	inferior conj	3093 Jun 19 22:17	29°♂49'07	-2°-51'-32
inferior conj	3092 Jul 10 03:21	19°♂23'14	-4°-20'-59	minimum elong	3093 Jun 19 14:47	29°♂59'36	2°49'08
minimum elong	3092 Jul 09 20:00	19°♂33'56	4°19'31		3093 Jun 19 14:30	30°♂♂	
morning rise	3092 Jul 18 16:30	15°♂31'06		min. Earth dist.	3093 Jun 19 23:21	29°♂47'38	0.54876 AU
direct	3092 Jul 21 14:09	15°♂11'08		morning rise	3093 Jun 28 16:47	25°♂53'53	
morning max el	3092 Aug 01 11:35	20°♂14'20	20°37'26	direct	3093 Jul 02 00:46	25°♂29'43	
	3092 Aug 09 08:33	0°♂			3093 Jul 12 21:47	0°♂	
asc. node	3092 Aug 12 08:20	4°♂53'35		morning max el	3093 Jul 14 11:45	1°♂23'01	22°09'15
morning set	3092 Aug 20 10:55	20°♂28'10		asc. node	3093 Jul 30 05:24	23°♂59'57	
	3092 Aug 25 01:25	0°♂			3093 Aug 02 06:57	0°♂	
				morning set	3093 Aug 04 20:54	5°♂18'24	
superior conj	3092 Aug 28 00:42	6°♂06'41	1°44'50	superior conj	3093 Aug 12 02:28	20°♂37'46	1°40'11
minimum elong	3092 Aug 28 00:27	6°♂05'27	1°44'50	minimum elong	3093 Aug 12 01:01	20°♂30'03	1°40'07
max. Earth dist.	3092 Sep 01 21:47	15°♂50'46	1.36059 AU	max. Earth dist.	3093 Aug 15 13:13	27°♂48'17	1.34473 AU
evening rise	3092 Sep 05 23:10	23°♂33'21			3093 Aug 16 15:04	0°♂	
	3092 Sep 09 12:30	0°♂		evening rise	3093 Aug 20 04:26	7°♂03'10	
desc. node	3092 Sep 18 22:34	15°♂42'36			3093 Sep 02 03:23	0°♂	
	3092 Sep 28 16:28	0°♂		desc. node	3093 Sep 05 19:36	5°♂44'29	
evening max el	3092 Oct 11 13:48	15°♂18'09	26°11'51	evening max el	3093 Sep 24 02:26	28°♂53'22	27°00'49
retrograde	3092 Oct 24 05:37	22°♂27'34			3093 Sep 25 07:05	0°♂	
evening set	3092 Oct 30 12:09	19°♂53'08		retrograde	3093 Oct 07 07:50	6°♂10'02	
min. Earth dist.	3092 Nov 03 17:43	15°♂24'07	0.66554 AU	evening set	3093 Oct 14 02:38	3°♂28'53	
inferior conj	3092 Nov 05 05:31	13°♂33'35	-1°-3'-20		3093 Oct 17 16:53	30°♂♂	
minimum elong	3092 Nov 05 07:12	13°♂28'21	1°02'38	min. Earth dist.	3093 Oct 18 01:21	29°♂36'27	0.65413 AU
asc. node	3092 Nov 08 07:35	9°♂59'32		inferior conj	3093 Oct 20 01:06	27°♂20'11	-2°-3'-8
morning rise	3092 Nov 11 03:22	7°♂42'14		minimum elong	3093 Oct 20 04:30	27°♂10'30	2°01'49
direct	3092 Nov 14 04:12	6°♂49'41		morning rise	3093 Oct 26 08:01	21°♂41'35	
morning max el	3092 Nov 20 22:57	10°♂34'35	18°47'16	asc. node	3093 Oct 26 04:37	21°♂45'47	
	3092 Dec 04 23:10	0°♂		direct	3093 Oct 29 00:45	21°♂02'01	
morning set	3092 Dec 12 07:43	11°♂33'31		morning max el	3093 Nov 04 13:06	24°♂32'46	18°11'40
desc. node	3092 Dec 15 21:51	17°♂12'38			3093 Nov 09 01:02	0°♂	
	3092 Dec 24 01:17	0°♂		morning set	3093 Nov 23 02:17	22°♂10'57	
max. Earth dist.	3092 Dec 27 18:59	5°♂51'55	1.45121 AU		3093 Nov 27 21:18	0°♂	
				desc. node	3093 Dec 02 18:54	7°♂53'45	
superior conj	3092 Dec 28 17:54	7°♂21'57	-1°-19'-56	superior conj	3093 Dec 07 21:13	16°♂00'04	0°-34'-5
minimum elong	3092 Dec 28 09:00	6°♂46'59	1°18'59	minimum elong	3093 Dec 07 16:52	15°♂42'53	0°33'31
	3093 Jan 12 00:03	0°♂		max. Earth dist.	3093 Dec 10 14:30	20°♂17'23	1.45127 AU
evening rise	3093 Jan 13 05:52	1°♂59'56			3093 Dec 16 19:20	0°♂	
	3093 Jan 31 10:04	0°♂		evening rise	3093 Dec 24 06:52	11°♂39'04	
evening max el	3093 Feb 03 07:20	3°♂19'58	18°46'04		3094 Jan 05 04:03	0°♂	
asc. node	3093 Feb 04 06:53	4°♂16'50		greatest brilliancy	3094 Jan 09 09:52	6°♂18'11	-0.7m
retrograde	3093 Feb 10 00:02	7°♂04'16		evening max el	3094 Jan 17 14:56	16°♂49'55	19°31'28
evening set	3093 Feb 13 03:56	6°♂07'05		asc. node	3094 Jan 22 03:56	20°♂21'09	
inferior conj	3093 Feb 18 21:46	0°♂25'10	3°32'42	retrograde	3094 Jan 24 20:55	21°♂00'46	
minimum elong	3093 Feb 18 20:21	0°♂29'32	3°32'33	evening set	3094 Jan 28 08:04	19°♂50'28	
	3093 Feb 19 05:58	30°♂♂		inferior conj	3094 Feb 02 21:05	13°♂52'51	3°12'23
min. Earth dist.	3093 Feb 20 17:11	28°♂12'15	0.65303 AU	minimum elong	3094 Feb 02 18:49	14°♂00'16	3°11'57
morning rise	3093 Feb 24 11:37	24°♂12'49		min. Earth dist.	3094 Feb 04 01:34	12°♂19'38	0.66551 AU
direct	3093 Mar 03 02:36	21°♂22'34		morning rise	3094 Feb 08 04:51	7°♂38'01	
desc. node	3093 Mar 13 21:05	26°♂49'02		direct	3094 Feb 14 08:24	4°♂54'54	
morning max el	3093 Mar 16 07:40	29°♂08'11	26°56'55	morning max el	3094 Feb 26 17:04	12°♂15'58	25°48'44
	3093 Mar 17 03:52	0°♂		desc. node	3094 Feb 28 18:07	14°♂25'10	
	3093 Apr 08 01:59	0°♂			3094 Mar 12 23:17	0°♂	
morning set	3093 Apr 21 00:57	22°♂56'55		morning set	3094 Mar 31 18:24	0°♂	
	3093 Apr 24 15:19	0°♂		max. Earth dist.	3094 Apr 03 21:39	5°♂39'31	
max. Earth dist.	3093 Apr 25 11:51	1°♂43'07	1.34144 AU		3094 Apr 07 18:25	12°♂54'34	1.35729 AU
				superior conj	3094 Apr 13 06:28	23°♂43'57	-1°-6'-35
superior conj	3093 Apr 29 12:30	9°♂59'43	0°-38'-13				
minimum elong	3093 Apr 29 14:29	10°♂10'03	0°37'49				
asc. node	3093 May 03 06:10	17°♂51'48					

minimum elong	3094 Apr 13 09:55	24° Υ 01'20	1°06'00		3095 Mar 23 22:36	0° Υ	
	3094 Apr 16 08:25	0° \mathcal{B}					
asc. node	3094 Apr 20 03:14	7° \mathcal{B} 46'53		superior conj	3095 Mar 27 13:16	6° Υ 51'26	-1°-32'-48
evening rise	3094 Apr 21 06:19	10° \mathcal{B} 05'33		minimum elong	3095 Mar 27 17:42	7° Υ 12'52	1°32'15
	3094 May 01 23:44	0° Π		evening rise	3095 Apr 05 06:54	24° Υ 04'46	
evening max el	3094 May 09 04:25	9° Π 12'05	20°09'28	asc. node	3095 Apr 07 00:16	27° Υ 28'41	
retrograde	3094 May 19 17:07	14° Π 19'11			3095 Apr 08 07:23	0° \mathcal{B}	
evening set	3094 May 21 17:05	14° Π 08'55		evening max el	3095 Apr 21 22:29	21° \mathcal{B} 02'17	19°09'25
desc. node	3094 May 27 17:20	11° Π 54'09		retrograde	3095 Apr 30 19:27	25° \mathcal{B} 21'03	
inferior conj	3094 May 30 18:09	10° Π 09'58	0°-53'-35	evening set	3095 May 02 20:58	25° \mathcal{B} 08'01	
minimum elong	3094 May 30 15:38	10° Π 13'42	0°52'40	inferior conj	3095 May 11 04:32	20° \mathcal{B} 56'22	0°58'26
min. Earth dist.	3094 Jun 01 11:58	9° Π 07'54	0.55194 AU	minimum elong	3095 May 11 06:49	20° \mathcal{B} 52'28	0°57'38
morning rise	3094 Jun 08 11:54	5° Π 52'03		min. Earth dist.	3095 May 14 03:08	18° \mathcal{B} 57'03	0.56410 AU
direct	3094 Jun 12 12:45	5° Π 16'42		desc. node	3095 May 14 14:21	18° \mathcal{B} 38'53	
morning max el	3094 Jun 26 03:58	11° Π 57'44	23°51'27	morning rise	3095 May 19 12:28	16° \mathcal{B} 03'35	
	3094 Jul 09 19:24	0° \mathfrak{S}		direct	3095 May 24 12:30	15° \mathcal{B} 05'21	
asc. node	3094 Jul 17 02:27	13° \mathfrak{S} 30'35		morning max el	3095 Jun 07 18:21	22° \mathcal{B} 23'18	25°30'19
morning set	3094 Jul 20 08:32	20° \mathfrak{S} 13'11			3095 Jun 14 12:02	0° Π	
	3094 Jul 24 21:51	0° \mathcal{Q}			3095 Jul 02 08:59	0° \mathfrak{S}	
				asc. node	3095 Jul 03 23:30	3° \mathfrak{S} 18'47	
superior conj	3094 Jul 27 09:41	5° \mathcal{Q} 24'07	1°29'43	morning set	3095 Jul 04 20:10	5° \mathfrak{S} 07'21	
minimum elong	3094 Jul 27 07:31	5° \mathcal{Q} 12'24	1°29'28				
max. Earth dist.	3094 Jul 29 13:37	10° \mathcal{Q} 02'58	1.33285 AU	superior conj	3095 Jul 11 20:06	20° \mathfrak{S} 18'43	1°14'21
evening rise	3094 Aug 03 21:27	21° \mathcal{Q} 06'29		minimum elong	3095 Jul 11 17:44	20° \mathfrak{S} 05'44	1°13'59
	3094 Aug 08 11:04	0° \mathfrak{M}		max. Earth dist.	3095 Jul 12 21:04	22° \mathfrak{S} 35'22	1.32507 AU
desc. node	3094 Aug 23 16:38	25° \mathfrak{M} 17'31			3095 Jul 16 07:20	0° \mathcal{Q}	
	3094 Aug 27 01:53	0° \mathfrak{L}		evening rise	3095 Jul 18 22:51	5° \mathcal{Q} 33'31	
evening max el	3094 Sep 06 13:55	12° \mathfrak{L} 09'30	27°24'53		3095 Aug 01 01:45	0° \mathfrak{M}	
retrograde	3094 Sep 20 03:59	19° \mathfrak{L} 26'56		desc. node	3095 Aug 10 13:39	14° \mathfrak{M} 09'45	
evening set	3094 Sep 27 07:06	16° \mathfrak{L} 47'54		evening max el	3095 Aug 19 22:03	24° \mathfrak{M} 53'46	27°18'22
min. Earth dist.	3094 Sep 30 23:58	13° \mathfrak{L} 30'12	0.63916 AU		3095 Aug 26 13:29	0° \mathfrak{L}	
inferior conj	3094 Oct 03 12:14	10° \mathfrak{L} 54'25	-3°-2'-39	retrograde	3095 Sep 02 17:38	2° \mathfrak{L} 08'56	
minimum elong	3094 Oct 03 17:09	10° \mathfrak{L} 41'40	3°01'00	evening set	3095 Sep 09 21:55	29° \mathfrak{M} 44'00	
morning rise	3094 Oct 10 05:29	5° \mathfrak{L} 32'06			3095 Sep 09 12:01	30° \mathfrak{R} \mathfrak{M}	
direct	3094 Oct 12 16:38	5° \mathfrak{L} 01'55		min. Earth dist.	3095 Sep 13 12:13	26° \mathfrak{M} 54'02	0.62098 AU
asc. node	3094 Oct 13 01:39	5° \mathfrak{L} 02'37		inferior conj	3095 Sep 16 11:54	24° \mathfrak{M} 09'12	-3°-57'-53
morning max el	3094 Oct 19 05:29	8° \mathfrak{L} 27'15	17°53'19	minimum elong	3095 Sep 16 17:35	23° \mathfrak{M} 56'06	3°56'25
	3094 Nov 02 14:28	0° \mathfrak{M}		morning rise	3095 Sep 23 16:09	19° \mathfrak{M} 06'28	
morning set	3094 Nov 04 23:59	4° \mathfrak{M} 07'06		direct	3095 Sep 26 00:26	18° \mathfrak{M} 42'27	
				asc. node	3095 Sep 29 22:41	19° \mathfrak{M} 51'56	
superior conj	3094 Nov 17 17:47	25° \mathfrak{M} 32'10	0°13'10	morning max el	3095 Oct 02 21:05	22° \mathfrak{M} 10'53	17°53'00
minimum elong	3094 Nov 17 19:14	25° \mathfrak{M} 38'05	0°12'58		3095 Oct 08 21:51	0° \mathfrak{L}	
behind sun begin	3094 Nov 17 13:15	25° \mathfrak{M} 13'41		morning set	3095 Oct 18 18:34	17° \mathfrak{L} 02'37	
behind sun end	3094 Nov 18 01:12	26° \mathfrak{M} 02'27			3095 Oct 26 00:40	0° \mathfrak{M}	
desc. node	3094 Nov 19 15:56	28° \mathfrak{M} 39'42					
	3094 Nov 20 11:50	0° \mathcal{X}		superior conj	3095 Oct 29 16:51	6° \mathfrak{M} 22'26	0°52'30
max. Earth dist.	3094 Nov 23 08:56	4° \mathcal{X} 36'43	1.44396 AU	minimum elong	3095 Oct 29 21:01	6° \mathfrak{M} 40'16	0°51'56
evening rise	3094 Dec 03 17:30	20° \mathcal{X} 48'11		max. Earth dist.	3095 Nov 05 23:11	18° \mathfrak{M} 30'59	1.43029 AU
	3094 Dec 09 18:08	0° \mathfrak{Z}		desc. node	3095 Nov 06 12:57	19° \mathfrak{M} 27'00	
greatest brilliancy	3094 Dec 25 18:18	23° \mathfrak{Z} 13'07	-0.5m	evening rise	3095 Nov 13 05:07	0° \mathcal{X} 05'07	
	3094 Dec 31 09:15	0° \approx			3095 Nov 13 03:49	0° \mathcal{X}	
evening max el	3094 Dec 31 17:21	0° \approx 21'06	20°31'35		3095 Dec 03 09:46	0° \mathfrak{Z}	
retrograde	3095 Jan 08 19:01	5° \approx 06'30		greatest brilliancy	3095 Dec 09 18:18	8° \mathfrak{Z} 22'48	-0.4m
asc. node	3095 Jan 09 00:56	5° \approx 06'10		evening max el	3095 Dec 14 14:09	13° \mathfrak{Z} 52'55	21°43'15
evening set	3095 Jan 12 14:56	3° \approx 41'53		retrograde	3095 Dec 23 16:15	19° \mathfrak{Z} 17'21	
	3095 Jan 16 04:38	30° \mathfrak{R} \mathfrak{Z}		asc. node	3095 Dec 26 21:57	18° \mathfrak{Z} 20'16	
inferior conj	3095 Jan 18 01:17	27° \mathfrak{Z} 31'27	2°41'51	evening set	3095 Dec 27 22:42	17° \mathfrak{Z} 37'11	
minimum elong	3095 Jan 17 22:44	27° \mathfrak{Z} 40'08	2°41'08	inferior conj	3096 Jan 02 08:10	11° \mathfrak{Z} 17'23	2°03'01
min. Earth dist.	3095 Jan 18 16:25	26° \mathfrak{Z} 39'50	0.67384 AU	minimum elong	3096 Jan 02 05:49	11° \mathfrak{Z} 25'30	2°02'13
morning rise	3095 Jan 23 06:04	21° \mathfrak{Z} 15'59		min. Earth dist.	3096 Jan 02 11:23	11° \mathfrak{Z} 06'11	0.67830 AU
direct	3095 Jan 28 19:27	18° \mathfrak{Z} 49'05		morning rise	3096 Jan 07 12:41	5° \mathfrak{Z} 03'10	
morning max el	3095 Feb 09 01:41	25° \mathfrak{Z} 32'19	24°25'08	direct	3096 Jan 12 11:02	2° \mathfrak{Z} 57'28	
	3095 Feb 13 03:23	0° \approx		morning max el	3096 Jan 22 11:14	8° \mathfrak{Z} 53'34	22°56'13
desc. node	3095 Feb 15 15:10	3° \approx 00'51		greatest brilliancy	3096 Jan 27 05:05	14° \mathfrak{Z} 11'21	-0.3m
	3095 Mar 06 12:00	0° \mathfrak{X}		desc. node	3096 Feb 02 12:11	22° \mathfrak{Z} 18'36	
morning set	3095 Mar 16 22:43	17° \mathfrak{X} 21'27			3096 Feb 07 23:47	0° \approx	
max. Earth dist.	3095 Mar 20 16:00	23° \mathfrak{X} 58'29	1.37693 AU	morning set	3096 Feb 25 21:50	27° \approx 45'56	

	3096 Feb 27 06:01	0°♂				3097 Jan 10 14:01	0°♂		
max. Earth dist.	3096 Mar 01 11:00	5°♂26'46	1.39855 AU	desc. node		3097 Jan 19 09:12	12°♂06'56		
						3097 Jan 31 07:45	0°≈		
superior conj	3096 Mar 09 04:37	19°♂10'58	-1°-53'-53	morning set		3097 Feb 04 15:59	6°≈48'12		
minimum elong	3096 Mar 09 08:47	19°♂30'02	1°53'35	max. Earth dist.		3097 Feb 11 10:57	17°≈47'07	1.41940 AU	
	3096 Mar 14 23:34	0°♀							
evening rise	3096 Mar 18 22:23	7°♀32'19		superior conj		3097 Feb 18 23:38	0°♂31'33	-2°-5'-33	
asc. node	3096 Mar 23 21:17	16°♀51'17		minimum elong		3097 Feb 19 01:09	0°♂38'09	2°05'33	
	3096 Apr 01 01:02	0°♂				3097 Feb 18 16:21	0°♂		
evening max el	3096 Apr 04 01:58	3°♂28'20	18°29'36	evening rise		3097 Mar 02 01:11	20°♂20'19		
retrograde	3096 Apr 11 16:04	7°♂12'32				3097 Mar 07 09:17	0°♀		
evening set	3096 Apr 13 23:25	6°♂52'54		asc. node		3097 Mar 10 18:18	5°♀48'27		
inferior conj	3096 Apr 21 11:48	2°♂21'58	2°21'59	evening max el		3097 Mar 18 11:33	16°♀21'45	18°09'42	
minimum elong	3096 Apr 21 15:38	2°♂14'20	2°20'58	retrograde		3097 Mar 25 06:33	19°♀47'54		
	3096 Apr 24 11:24	30°♂♀		evening set		3097 Mar 27 19:53	19°♀19'13		
min. Earth dist.	3096 Apr 24 22:08	29°♀39'35	0.58270 AU	inferior conj		3097 Apr 03 15:40	14°♀26'54	3°12'53	
morning rise	3096 Apr 29 03:31	26°♀56'47		minimum elong		3097 Apr 03 18:32	14°♀20'17	3°12'24	
desc. node	3096 Apr 30 11:23	26°♀20'47		min. Earth dist.		3097 Apr 06 23:00	11°♀25'01	0.60425 AU	
direct	3096 May 05 02:48	25°♀24'55		morning rise		3097 Apr 10 13:48	8°♀38'58		
	3096 May 16 00:03	0°♂		direct		3097 Apr 17 05:12	6°♀31'51		
morning max el	3096 May 19 12:08	3°♂05'55	26°50'16	desc. node		3097 Apr 17 08:25	6°♀31'54		
	3096 Jun 07 22:48	0°♂		morning max el		3097 May 01 11:56	14°♀24'34	27°38'47	
morning set	3096 Jun 18 06:12	19°♂55'16				3097 May 14 01:09	0°♂		
asc. node	3096 Jun 19 20:33	23°♂18'32				3097 May 31 07:41	0°♂		
	3096 Jun 22 22:36	0°♂		morning set		3097 Jun 02 12:51	4°♂30'58		
				asc. node		3097 Jun 06 17:35	13°♂24'56		
superior conj	3096 Jun 25 07:51	5°♂14'57	0°54'50	max. Earth dist.		3097 Jun 08 19:52	17°♂58'49	1.32152 AU	
minimum elong	3096 Jun 25 05:45	5°♂03'25	0°54'26						
max. Earth dist.	3096 Jun 25 08:21	5°♂17'46	1.32131 AU	superior conj		3097 Jun 09 19:11	20°♂06'45	0°31'50	
evening rise	3096 Jul 02 05:52	20°♂15'42		minimum elong		3097 Jun 09 17:48	19°♂59'10	0°31'33	
	3096 Jul 07 00:53	0°♂				3097 Jun 14 07:25	0°♂		
	3096 Jul 25 17:14	0°♂		evening rise		3097 Jun 16 16:16	5°♂05'28		
desc. node	3096 Jul 27 10:40	2°♂04'38				3097 Jun 29 20:35	0°♂		
evening max el	3096 Aug 01 00:31	6°♂55'40	26°38'40	evening max el		3097 Jul 13 19:50	18°♂10'20	25°28'18	
retrograde	3096 Aug 14 23:34	14°♂07'26		desc. node		3097 Jul 14 07:41	18°♂38'14		
evening set	3096 Aug 21 18:35	12°♂10'08		retrograde		3097 Jul 27 19:37	25°♂17'01		
min. Earth dist.	3096 Aug 25 14:18	9°♂34'17	0.60066 AU	evening set		3097 Aug 02 16:20	23°♂56'57		
inferior conj	3096 Aug 28 20:46	6°♂56'20	-4°-42'-9	min. Earth dist.		3097 Aug 07 07:50	21°♂17'19	0.58027 AU	
minimum elong	3096 Aug 29 01:29	6°♂46'47	4°41'25	inferior conj		3097 Aug 10 11:19	19°♂05'36	-5°-4'-38	
morning rise	3096 Sep 05 11:44	2°♂15'45		minimum elong		3097 Aug 10 12:21	19°♂03'48	5°04'37	
direct	3096 Sep 07 20:18	1°♂55'10		morning rise		3097 Aug 18 11:55	14°♂48'00		
morning max el	3096 Sep 15 08:41	5°♂35'36	18°11'58	direct		3097 Aug 20 23:58	14°♂28'42		
asc. node	3096 Sep 15 19:43	6°♂02'59		morning max el		3097 Aug 29 13:00	18°♂31'26	18°51'34	
	3096 Sep 30 19:27	0°♂		asc. node		3097 Sep 02 16:47	23°♂20'07		
morning set	3096 Oct 01 04:16	0°♂41'31				3097 Sep 07 01:06	0°♂		
				morning set		3097 Sep 15 00:30	14°♂50'42		
superior conj	3096 Oct 10 17:12	18°♂26'43	1°20'26			3097 Sep 22 18:45	0°♂		
minimum elong	3096 Oct 10 21:11	18°♂44'41	1°20'00						
	3096 Oct 17 06:52	0°♂		superior conj		3097 Sep 23 13:30	1°♂29'34	1°37'13	
max. Earth dist.	3096 Oct 18 08:04	1°♂47'13	1.41205 AU	minimum elong		3097 Sep 23 15:57	1°♂41'10	1°37'03	
evening rise	3096 Oct 23 09:05	10°♂09'05		max. Earth dist.		3097 Sep 30 13:01	14°♂21'31	1.39154 AU	
desc. node	3096 Oct 23 09:58	10°♂12'40		evening rise		3097 Oct 04 12:18	21°♂17'00		
	3096 Nov 05 04:54	0°♂				3097 Oct 09 18:01	0°♂		
greatest brilliancy	3096 Nov 20 16:02	21°♂10'09	-0.2m	desc. node		3097 Oct 10 06:59	0°♂52'25		
evening max el	3096 Nov 26 06:16	27°♂27'41	23°01'52			3097 Oct 30 06:04	0°♂		
	3096 Nov 29 00:10	0°♂		evening max el		3097 Nov 08 19:31	11°♂06'01	24°21'29	
retrograde	3096 Dec 06 11:01	3°♂30'34		retrograde		3097 Nov 20 02:05	17°♂41'50		
evening set	3096 Dec 11 05:47	1°♂33'57		evening set		3097 Nov 25 10:36	15°♂28'42		
asc. node	3096 Dec 12 18:57	0°♂05'12		asc. node		3097 Nov 29 16:00	10°♂44'21		
	3096 Dec 12 20:53	30°♂♀		min. Earth dist.		3097 Nov 30 04:10	10°♂03'55	0.67659 AU	
inferior conj	3096 Dec 16 15:51	25°♂08'44	1°17'23	inferior conj		3097 Nov 30 22:33	9°♂02'15	0°26'05	
minimum elong	3096 Dec 16 14:10	25°♂14'32	1°16'44	minimum elong		3097 Nov 30 21:55	9°♂04'21	0°25'49	
min. Earth dist.	3096 Dec 16 08:08	25°♂35'21	0.67917 AU	morning rise		3097 Dec 06 09:35	2°♂57'00		
morning rise	3096 Dec 21 22:32	18°♂57'48		direct		3097 Dec 10 03:55	1°♂36'01		
direct	3096 Dec 26 06:16	17°♂14'56		morning max el		3097 Dec 17 22:38	6°♂02'57	20°16'14	
morning max el	3097 Jan 04 01:15	22°♂22'51	21°31'06	greatest brilliancy		3097 Dec 24 12:28	13°♂54'04	-0.5m	
greatest brilliancy	3097 Jan 09 00:50	28°♂02'26	-0.4m			3098 Jan 04 17:45	0°♂		

desc. node	3098 Jan 06 06:14	2°☾16'53		asc. node	3098 Nov 16 13:04	21°♊06'53	
morning set	3098 Jan 14 13:52	14°☾58'41		morning rise	3098 Nov 20 19:53	16°♊58'35	
	3098 Jan 24 03:15	0°☾		direct	3098 Nov 24 02:32	15°♊56'45	
max. Earth dist.	3098 Jan 24 19:08	1°☾03'38	1.43654 AU	morning max el	3098 Dec 01 03:56	19°♊53'40	19°15'17
					3098 Dec 09 04:21	0°☾	
superior conj	3098 Jan 30 17:34	10°☾42'45	-2°-2'-41	greatest brilliancy	3098 Dec 11 01:53	2°☾45'12	-0.7m
minimum elong	3098 Jan 30 13:48	10°☾27'10	2°02'33	desc. node	3098 Dec 24 03:15	22°☾42'23	
	3098 Feb 11 02:47	0°☾		morning set	3098 Dec 24 15:00	23°☾27'58	
evening rise	3098 Feb 12 11:03	2°☾20'07			3098 Dec 28 19:49	0°☾	
asc. node	3098 Feb 25 15:19	24°☾12'15		max. Earth dist.	3099 Jan 07 10:00	15°☾01'13	1.44783 AU
evening max el	3098 Mar 01 23:57	29°☾33'34	18°09'12				
	3098 Mar 02 10:53	0°☾		superior conj	3099 Jan 10 10:13	19°☾47'04	-1°-40'-55
retrograde	3098 Mar 08 10:55	2°☾57'00		minimum elong	3099 Jan 10 01:35	19°☾12'47	1°40'12
evening set	3098 Mar 11 05:42	2°☾17'58			3099 Jan 16 19:12	0°☾	
	3098 Mar 14 13:46	30°☾		evening rise	3099 Jan 24 23:48	13°☾24'25	
inferior conj	3098 Mar 17 12:40	27°☾04'51	3°36'14		3099 Feb 04 02:21	0°☾	
minimum elong	3098 Mar 17 13:41	27°☾02'09	3°36'10	asc. node	3099 Feb 12 12:22	11°☾52'08	
min. Earth dist.	3098 Mar 20 08:10	24°☾08'09	0.62538 AU	evening max el	3099 Feb 13 12:17	12°☾55'56	18°27'26
morning rise	3098 Mar 23 19:23	21°☾02'55		retrograde	3099 Feb 20 00:39	16°☾29'41	
direct	3098 Mar 30 17:02	18°☾28'40		evening set	3099 Feb 23 00:57	15°☾39'26	
desc. node	3098 Apr 04 05:27	19°☾27'05		inferior conj	3099 Feb 28 22:40	10°☾07'14	3°38'40
morning max el	3098 Apr 13 17:37	26°☾25'43	27°50'13	minimum elong	3099 Feb 28 21:59	10°☾09'12	3°38'38
	3098 Apr 17 01:47	0°☾		min. Earth dist.	3099 Mar 03 02:57	7°☾34'47	0.64393 AU
	3098 May 07 14:54	0°☾		morning rise	3099 Mar 06 17:34	3°☾57'21	
morning set	3098 May 17 14:06	18°☾48'02		direct	3099 Mar 13 12:46	1°☾09'03	
	3098 May 22 22:55	0°☾		desc. node	3099 Mar 22 02:29	4°☾37'51	
max. Earth dist.	3098 May 23 03:48	0°☾26'11	1.32581 AU	morning max el	3099 Mar 27 02:53	9°☾02'31	27°25'27
asc. node	3098 May 24 14:38	3°☾33'52			3099 Apr 12 11:05	0°☾	
					3099 Apr 29 22:52	0°☾	
superior conj	3098 May 25 04:24	4°☾48'30	0°06'03	morning set	3099 May 01 07:12	2°☾37'10	
minimum elong	3098 May 25 04:07	4°☾46'56	0°05'59	max. Earth dist.	3099 May 06 04:01	12°☾26'16	1.33443 AU
behind sun begin	3098 May 24 23:17	4°☾20'40					
behind sun end	3098 May 25 08:58	5°☾13'13		superior conj	3099 May 09 09:32	19°☾13'04	0°-21'-44
evening rise	3098 Jun 01 04:07	19°☾56'19		minimum elong	3099 May 09 10:38	19°☾18'55	0°21'31
	3098 Jun 06 01:56	0°☾		asc. node	3099 May 11 11:41	23°☾40'31	
evening max el	3098 Jun 25 09:43	28°☾47'37	23°57'15		3099 May 14 10:33	0°☾	
	3098 Jun 26 17:00	0°☾		evening rise	3099 May 16 15:28	4°☾40'43	
desc. node	3098 Jul 01 04:43	3°☾19'21			3099 May 30 11:18	0°☾	
retrograde	3098 Jul 09 03:45	5°☾42'32		evening max el	3099 Jun 07 00:32	9°☾13'56	22°20'42
evening set	3098 Jul 13 14:46	4°☾58'38		desc. node	3099 Jun 18 01:45	15°☾31'39	
min. Earth dist.	3098 Jul 19 20:09	1°☾58'08	0.56273 AU	retrograde	3099 Jun 19 23:56	15°☾40'10	
inferior conj	3098 Jul 22 05:41	0°☾30'07	-4°-50'-44	evening set	3099 Jun 23 00:19	15°☾20'03	
minimum elong	3098 Jul 22 00:59	0°☾37'21	4°50'12	min. Earth dist.	3099 Jul 01 07:06	11°☾44'55	0.55137 AU
	3098 Jul 23 01:24	30°☾		inferior conj	3099 Jul 02 06:29	11°☾11'53	-3°-48'-23
morning rise	3098 Jul 30 14:38	26°☾32'03		minimum elong	3099 Jul 01 22:15	11°☾23'32	3°46'16
direct	3098 Aug 02 08:28	26°☾12'40		morning rise	3099 Jul 10 22:24	7°☾21'14	
	3098 Aug 11 08:49	0°☾		direct	3099 Jul 13 23:45	7°☾00'10	
morning max el	3098 Aug 12 07:11	0°☾49'40	19°52'46	morning max el	3099 Jul 25 13:46	12°☾23'40	21°14'37
asc. node	3098 Aug 20 13:51	11°☾29'12		asc. node	3099 Aug 07 10:55	0°☾17'15	
morning set	3098 Aug 30 03:59	29°☾21'26			3099 Aug 07 07:06	0°☾	
	3098 Aug 30 11:36	0°☾		morning set	3099 Aug 14 12:09	14°☾05'56	
superior conj	3098 Sep 07 00:32	15°☾16'37	1°44'23	superior conj	3099 Aug 21 21:54	29°☾34'33	1°43'39
minimum elong	3098 Sep 07 01:12	15°☾19'55	1°44'23	minimum elong	3099 Aug 21 21:05	29°☾30'19	1°43'38
max. Earth dist.	3098 Sep 12 18:04	26°☾23'48	1.37128 AU		3099 Aug 22 02:49	0°☾	
	3098 Sep 14 16:30	0°☾		max. Earth dist.	3099 Aug 26 04:14	8°☾14'47	1.35336 AU
evening rise	3098 Sep 16 14:13	3°☾28'12		evening rise	3099 Aug 30 10:45	16°☾32'25	
desc. node	3098 Sep 27 04:00	21°☾22'02			3099 Sep 06 22:11	0°☾	
	3098 Oct 02 18:55	0°☾		desc. node	3099 Sep 14 01:03	11°☾35'59	
evening max el	3098 Oct 22 07:42	24°☾46'53	25°35'04		3099 Sep 27 05:17	0°☾	
	3098 Oct 28 20:32	0°☾		evening max el	3099 Oct 04 19:57	8°☾25'41	26°35'14
retrograde	3098 Nov 03 12:39	1°☾46'52		retrograde	3099 Oct 17 18:12	15°☾39'46	
	3098 Nov 08 14:25	30°☾		evening set	3099 Oct 24 06:23	13°☾01'15	
evening set	3098 Nov 09 11:26	29°☾18'53		min. Earth dist.	3099 Oct 28 08:51	8°☾48'06	0.66110 AU
min. Earth dist.	3098 Nov 13 21:10	24°☾29'22	0.67060 AU	inferior conj	3099 Oct 30 01:45	6°☾45'42	-1°-28'-35
inferior conj	3098 Nov 15 02:30	22°☾55'34	0°-29'-42	minimum elong	3099 Oct 30 04:09	6°☾38'29	1°27'36
minimum elong	3098 Nov 15 03:16	22°☾53'07	0°29'23	asc. node	3099 Nov 03 10:07	2°☾09'41	

morning rise	3099 Nov 05 03:18	0°♄59'41		asc. node	3100 Oct 21 07:10	14°♄32'31	
direct	3099 Nov 08 00:21	0°♄13'16		direct	3100 Oct 22 19:09	14°♄20'37	
morning max el	3099 Nov 14 15:36	3°♄51'00	18°30'07	morning max el	3100 Oct 29 07:04	17°♄48'26	18°01'41
	3099 Dec 02 15:59	0°♄			3100 Nov 07 05:26	0°♄	
morning set	3099 Dec 04 16:23	3°♄13'40		morning set	3100 Nov 15 23:06	14°♄26'16	
desc. node	3099 Dec 11 00:17	13°♄18'57			3100 Nov 25 09:21	0°♄	
				desc. node	3100 Nov 27 21:19	4°♄02'26	
superior conj	3099 Dec 20 12:33	28°♄18'35	-1°-1'-27				
minimum elong	3099 Dec 20 04:59	27°♄48'54	1°00'32	superior conj	3100 Nov 29 21:11	7°♄14'19	0°-13'-32
max. Earth dist.	3099 Dec 21 04:17	29°♄20'20	1.45206 AU	minimum elong	3100 Nov 29 19:31	7°♄07'39	0°13'18
	3099 Dec 21 14:24	0°♄		behind sun begin	3100 Nov 29 13:25	6°♄43'17	
evening rise	3100 Jan 05 13:13	23°♄31'56		behind sun end	3100 Nov 30 01:36	7°♄32'01	
	3100 Jan 09 15:10	0°♄		max. Earth dist.	3100 Dec 03 23:09	13°♄43'14	1.44895 AU
greatest brilliancy	3100 Jan 16 17:03	11°♄07'14	-0.8m		3100 Dec 14 09:31	0°♄	
evening max el	3100 Jan 27 22:07	26°♄24'03	19°03'25	evening rise	3100 Dec 16 06:28	2°♄53'38	
asc. node	3100 Jan 30 09:26	28°♄35'38			3101 Jan 03 06:32	0°♄	
	3100 Feb 01 23:27	0°♄		greatest brilliancy	3101 Jan 04 01:56	1°♄07'55	-0.6m
retrograde	3100 Feb 03 19:49	0°♄19'00					
	3100 Feb 05 15:15	30°♄					
evening set	3100 Feb 07 02:32	29°♄16'32					
inferior conj	3100 Feb 12 18:01	23°♄27'33	3°25'31				
minimum elong	3100 Feb 12 16:10	23°♄33'24	3°25'15				
min. Earth dist.	3100 Feb 14 06:56	21°♄30'48	0.65876 AU				
morning rise	3100 Feb 18 04:50	17°♄13'35					
direct	3100 Feb 24 15:18	14°♄24'58					
desc. node	3100 Mar 08 23:30	21°♄29'32					
morning max el	3100 Mar 09 12:51	22°♄02'47	26°30'31				
	3100 Mar 16 12:13	0°♄					
	3100 Apr 05 16:40	0°♄					
morning set	3100 Apr 14 12:40	15°♄48'09					
max. Earth dist.	3100 Apr 18 17:09	23°♄52'59	1.34762 AU				
	3100 Apr 21 18:22	0°♄					
superior conj	3100 Apr 23 08:21	3°♄14'16	0°-50'-21				
minimum elong	3100 Apr 23 10:58	3°♄27'47	0°49'51				
asc. node	3100 Apr 28 08:44	13°♄41'06					
evening rise	3100 May 01 00:24	19°♄12'47					
	3100 May 06 09:59	0°♄					
evening max el	3100 May 20 00:03	20°♄02'15	20°52'45				
retrograde	3100 May 31 13:02	25°♄40'18					
evening set	3100 Jun 02 16:37	25°♄29'19					
desc. node	3100 Jun 04 22:46	24°♄55'48					
inferior conj	3100 Jun 11 23:57	21°♄31'52	-2°-2'-58				
minimum elong	3100 Jun 11 18:13	21°♄40'01	2°00'58				
min. Earth dist.	3100 Jun 12 19:10	21°♄04'33	0.54893 AU				
morning rise	3100 Jun 20 19:06	17°♄28'48					
direct	3100 Jun 24 09:03	17°♄01'10					
morning max el	3100 Jul 07 10:04	23°♄16'17	22°52'05				
	3100 Jul 13 09:54	0°♄					
asc. node	3100 Jul 25 07:58	19°♄34'38					
morning set	3100 Jul 29 22:59	28°♄58'22					
	3100 Jul 30 10:42	0°♄					
superior conj	3100 Aug 06 02:17	14°♄13'07	1°36'24				
minimum elong	3100 Aug 06 00:27	14°♄03'23	1°36'15				
max. Earth dist.	3100 Aug 08 23:13	20°♄17'05	1.33915 AU				
evening rise	3100 Aug 13 21:28	0°♄17'44					
	3100 Aug 13 17:52	0°♄					
	3100 Aug 30 22:59	0°♄					
desc. node	3100 Aug 31 22:06	1°♄26'44					
evening max el	3100 Sep 17 08:10	21°♄53'49	27°14'31				
retrograde	3100 Sep 30 18:10	29°♄12'17					
evening set	3100 Oct 07 17:00	26°♄30'41					
min. Earth dist.	3100 Oct 11 12:56	22°♄53'27	0.64810 AU				
inferior conj	3100 Oct 13 18:03	20°♄27'39	-2°-28'-41				
minimum elong	3100 Oct 13 22:08	20°♄16'25	2°27'10				
morning rise	3100 Oct 20 05:14	14°♄55'36					

superior conj	3100 Apr 23 08:21	3°♄14'16	0°-50'-21	morning set	3101 Mar 28 01:42	28°♄06'42	
minimum elong	3100 Apr 23 10:58	3°♄27'47	0°49'51		3101 Mar 29 02:46	0°♄	
asc. node	3100 Apr 28 08:44	13°♄41'06		max. Earth dist.	3101 Mar 31 18:44	4°♄54'53	1.36521 AU
evening rise	3100 May 01 00:24	19°♄12'47					
	3100 May 06 09:59	0°♄		superior conj	3101 Apr 06 21:58	16°♄43'51	-1°-18'-7
evening max el	3100 May 20 00:03	20°♄02'15	20°52'45	minimum elong	3101 Apr 07 01:56	17°♄03'29	1°17'31
retrograde	3100 May 31 13:02	25°♄40'18			3101 Apr 13 12:05	0°♄	
evening set	3100 Jun 02 16:37	25°♄29'19		evening rise	3101 Apr 15 04:42	3°♄25'36	
desc. node	3100 Jun 04 22:46	24°♄55'48		asc. node	3101 Apr 15 05:46	3°♄31'01	
inferior conj	3100 Jun 11 23:57	21°♄31'52	-2°-2'-58		3101 May 01 01:10	0°♄	
minimum elong	3100 Jun 11 18:13	21°♄40'01	2°00'58	evening max el	3101 May 02 11:37	1°♄29'35	19°41'34
min. Earth dist.	3100 Jun 12 19:10	21°♄04'33	0.54893 AU	retrograde	3101 May 12 06:38	6°♄14'20	
morning rise	3100 Jun 20 19:06	17°♄28'48		evening set	3101 May 14 06:19	6°♄03'29	
direct	3100 Jun 24 09:03	17°♄01'10		desc. node	3101 May 22 19:45	2°♄08'33	
morning max el	3100 Jul 07 10:04	23°♄16'17	22°52'05	inferior conj	3101 May 23 00:40	2°♄00'51	0°-3'-35
	3100 Jul 13 09:54	0°♄		minimum elong	3101 May 23 00:30	2°♄01'06	0°03'33
asc. node	3100 Jul 25 07:58	19°♄34'38		transit middle	3101 May 23 00:30	2°♄01'06	0°03'33
morning set	3100 Jul 29 22:59	28°♄58'22		transit begin	3101 May 22 20:40	2°♄07'06	
	3100 Jul 30 10:42	0°♄		transit end	3101 May 23 04:21	1°♄55'06	
				min. Earth dist.	3101 May 25 08:55	0°♄33'15	0.55614 AU
superior conj	3100 Aug 06 02:17	14°♄13'07	1°36'24		3101 May 26 07:05	30°♄	
minimum elong	3100 Aug 06 00:27	14°♄03'23	1°36'15	morning rise	3101 May 31 15:17	27°♄28'38	
max. Earth dist.	3100 Aug 08 23:13	20°♄17'05	1.33915 AU	direct	3101 Jun 05 01:46	26°♄44'48	
evening rise	3100 Aug 13 21:28	0°♄17'44			3101 Jun 14 10:50	0°♄	
	3100 Aug 13 17:52	0°♄		morning max el	3101 Jun 19 00:36	3°♄43'40	24°34'44
	3100 Aug 30 22:59	0°♄			3101 Jul 07 11:52	0°♄	
desc. node	3100 Aug 31 22:06	1°♄26'44		asc. node	3101 Jul 12 05:00	9°♄13'51	
evening max el	3100 Sep 17 08:10	21°♄53'49	27°14'31	morning set	3101 Jul 14 10:49	13°♄53'52	
retrograde	3100 Sep 30 18:10	29°♄12'17					
evening set	3100 Oct 07 17:00	26°♄30'41		superior conj	3101 Jul 21 11:07	29°♄04'21	1°23'45
min. Earth dist.	3100 Oct 11 12:56	22°♄53'27	0.64810 AU	minimum elong	3101 Jul 21 08:48	28°♄51'46	1°23'27
inferior conj	3100 Oct 13 18:03	20°♄27'39	-2°-28'-41		3101 Jul 21 21:21	0°♄	
minimum elong	3100 Oct 13 22:08	20°♄16'25	2°27'10	max. Earth dist.	3101 Jul 23 02:58	2°♄40'25	1.32907 AU
morning rise	3100 Oct 20 05:14	14°♄55'36		evening rise	3101 Jul 28 18:28	14°♄33'11	
asc. node	3100 Oct 21 07:10	14°♄32'31			3101 Aug 05 19:42	0°♄	
direct	3100 Oct 22 19:09	14°♄20'37		desc. node	3101 Aug 18 19:06	20°♄44'35	
morning max el	3100 Oct 29 07:04	17°♄48'26	18°01'41		3101 Aug 26 00:54	0°♄	
	3100 Nov 07 05:26	0°♄		evening max el	3101 Aug 30 18:46	4°♄59'23	27°26'11
morning set	3100 Nov 15 23:06	14°♄26'16		retrograde	3101 Sep 13 11:42	12°♄15'50	
	3100 Nov 25 09:21	0°♄		evening set	3101 Sep 20 16:10	9°♄41'35	
desc. node	3100 Nov 27 21:19	4°♄02'26		min. Earth dist.	3101 Sep 24 07:29	6°♄36'31	0.63175 AU
				inferior conj	3101 Sep 27 00:44	3°♄55'32	-3°-26'-57
superior conj	3100 Nov 29 21:11	7°♄14'19	0°-13'-32	minimum elong	3101 Sep 27 06:07	3°♄42'13	3°25'18
minimum elong	3100 Nov 29 19:31	7°♄07'39	0°13'18		3101 Oct 01 11:56	30°♄	
behind sun begin	3100 Nov 29 13:25	6°♄43'17		morning rise	3101 Oct 03 22:36	28°♄40'49	
behind sun end	3100 Nov 30 01:36	7°♄32'01		direct	3101 Oct 06 08:08	28°♄13'37	
max. Earth dist.	3100 Dec 03 23:09	13°♄43'14	1.44895 AU	asc. node	3101 Oct 08 04:11	28°♄29'55	
	3100 Dec 14 09:31	0°♄			3101 Oct 11 01:29	0°♄	
evening rise	3100 Dec 16 06:28	2°♄53'38		morning max el	3101 Oct 12 23:27	1°♄39'31	17°50'51
	3101 Jan 03 06:32	0°♄		morning set	3101 Oct 29 06:33	26°♄50'49	
greatest brilliancy	3101 Jan 04 01:56	1°♄07'55	-0.6m		3101 Oct 31 01:45	0°♄	
evening max el	3101 Jan 11 03:37	9°♄54'24	19°55'28				
asc. node	3101 Jan 17 06:27	14°♄07'40		superior conj	3101 Nov 10 04:40	17°♄18'57	0°31'09
retrograde	3101 Jan 18 17:25	14°♄19'17		minimum elong	3101 Nov 10 07:42	17°♄31'35	0°30'42
evening set	3101 Jan 22 08:00	13°♄03'16		desc. node	3101 Nov 14 18:23	24°♄49'44	
inferior conj	3101 Jan 27 19:40	7°♄00'01	3°00'31	max. Earth dist.	3101 Nov 16 16:05	27°♄54'11	1.43890 AU
minimum elong	3101 Jan 27 17:13	7°♄08'12	2°59'58		3101 Nov 17 23:30	0°♄	
min. Earth dist.	3101 Jan 28 18:23	5°♄44'09	0.66953 AU	evening rise	3101 Nov 25 15:30	12°♄01'31	
morning rise	3101 Feb 02 01:47	0°♄44'34			3101 Dec 07 13:12	0°♄	
	3101 Feb 02 23:07	30°♄		greatest brilliancy	3101 Dec 19 19:39	17°♄12'09	-0.5m
direct	3101 Feb 07 23:36	28°♄07'09		evening max el	3101 Dec 25 03:44	23°♄26'17	21°00'56
	3101 Feb 13 14:53	0°♄		retrograde	3102 Jan 02 15:12	28°♄27'29	
morning max el	3101 Feb 19 21:39	5°♄14'09	25°14'22	asc. node	3102 Jan 04 03:27	28°♄14'54	
desc. node	3101 Feb 23 20:31	9°♄33'04		evening set	3102 Jan 06 15:26	26°♄56'24	
	3101 Mar 10 23:50	0°♄		inferior conj	3102 Jan 12 01:14	20°♄41'49	2°26'15

minimum elong	3102 Jan 11 22:43	20°☿50'29	2°25'29	min. Earth dist.	3102 Dec 27 07:06	4°☿35'49	0.67915 AU
min. Earth dist.	3102 Jan 12 11:12	20°☿07'31	0.67628 AU		3102 Dec 30 20:14	30°☿17'34	
morning rise	3102 Jan 17 05:36	14°☿26'48		morning rise	3103 Jan 01 13:52	28°☿17'34	
direct	3102 Jan 22 12:44	12°☿08'19		direct	3103 Jan 06 05:55	26°☿21'42	
morning max el	3102 Feb 02 06:04	18°☿31'33	23°47'17		3103 Jan 13 15:44	0°☿	
desc. node	3102 Feb 10 17:34	28°☿28'12		morning max el	3103 Jan 15 17:10	1°☿56'17	22°19'09
	3102 Feb 11 21:34	0°☿		greatest brilliancy	3103 Jan 20 06:52	7°☿02'49	-0.3m
	3102 Mar 04 02:45	0°☿		desc. node	3103 Jan 28 14:37	18°☿00'26	
morning set	3102 Mar 09 16:21	9°☿16'43			3103 Feb 05 21:07	0°☿	
max. Earth dist.	3102 Mar 13 14:06	16°☿04'14	1.38607 AU	morning set	3103 Feb 18 03:08	19°☿05'47	
				max. Earth dist.	3103 Feb 23 11:14	27°☿55'57	1.40771 AU
superior conj	3102 Mar 20 22:45	29°☿32'19	-1°-42'-36		3103 Feb 24 16:29	0°☿	
minimum elong	3102 Mar 21 03:18	29°☿53'44	1°42'08				
	3102 Mar 21 04:37	0°☿		superior conj	3103 Mar 03 06:08	11°☿28'39	-2°00'-17
evening rise	3102 Mar 30 01:45	17°☿12'00		minimum elong	3103 Mar 03 09:31	11°☿43'49	2°00'07
asc. node	3102 Apr 02 02:47	23°☿05'11			3103 Mar 13 07:10	0°☿	
	3102 Apr 05 20:32	0°☿		evening rise	3103 Mar 13 12:23	0°☿24'30	
evening max el	3102 Apr 15 10:05	13°☿35'53	18°50'03	asc. node	3103 Mar 19 23:48	12°☿18'11	
retrograde	3102 Apr 23 16:16	17°☿37'42		evening max el	3103 Mar 29 16:32	26°☿14'42	18°18'41
evening set	3102 Apr 25 20:18	17°☿22'07		retrograde	3103 Apr 05 21:09	29°☿49'36	
inferior conj	3102 May 03 19:32	13°☿02'35	1°37'57	evening set	3103 Apr 08 07:05	29°☿26'19	
minimum elong	3102 May 03 22:53	12°☿56'29	1°36'54	inferior conj	3103 Apr 15 11:55	24°☿45'58	2°47'23
min. Earth dist.	3102 May 07 01:10	10°☿42'47	0.57142 AU	minimum elong	3103 Apr 15 15:32	24°☿38'15	2°46'34
desc. node	3102 May 09 16:46	9°☿01'27		min. Earth dist.	3103 Apr 18 22:15	21°☿52'23	0.59166 AU
morning rise	3102 May 11 21:06	7°☿55'34		morning rise	3103 Apr 22 20:02	19°☿09'48	
direct	3102 May 17 07:41	6°☿43'58		desc. node	3103 Apr 26 13:47	17°☿40'32	
morning max el	3102 May 31 15:39	14°☿12'29	26°07'36	direct	3103 Apr 29 03:04	17°☿22'54	
	3102 Jun 13 04:56	0°☿		morning max el	3103 May 13 12:04	25°☿09'40	27°15'25
morning set	3102 Jun 28 21:58	28°☿46'18			3103 May 17 23:13	0°☿	
asc. node	3102 Jun 29 02:02	29°☿07'45			3103 Jun 06 11:33	0°☿	
	3102 Jun 29 11:54	0°☿		morning set	3103 Jun 13 06:50	13°☿30'11	
superior conj	3102 Jul 05 22:17	14°☿00'29	1°06'33	asc. node	3103 Jun 15 23:06	19°☿11'11	
minimum elong	3102 Jul 05 19:59	13°☿47'47	1°06'09	superior conj	3103 Jun 20 10:04	28°☿55'35	0°45'28
max. Earth dist.	3102 Jul 06 12:41	15°☿19'36	1.32302 AU	minimum elong	3103 Jun 20 08:14	28°☿45'26	0°45'06
evening rise	3102 Jul 12 22:33	29°☿08'03		max. Earth dist.	3103 Jun 20 00:43	28°☿03'59	1.32092 AU
	3102 Jul 13 08:33	0°☿			3103 Jun 20 21:46	0°☿	
	3102 Jul 30 00:37	0°☿		evening rise	3103 Jun 27 07:16	13°☿54'24	
desc. node	3102 Aug 05 16:07	9°☿15'05			3103 Jul 05 09:56	0°☿	
evening max el	3102 Aug 13 00:58	17°☿27'39	27°05'32	desc. node	3103 Jul 23 13:06	26°☿38'45	
retrograde	3102 Aug 26 21:54	24°☿40'27		evening max el	3103 Jul 26 00:17	29°☿08'52	26°11'57
evening set	3102 Sep 02 23:49	22°☿25'55			3103 Jul 26 22:22	0°☿	
min. Earth dist.	3102 Sep 06 15:15	19°☿43'56	0.61259 AU	retrograde	3103 Aug 08 23:46	6°☿18'51	
inferior conj	3102 Sep 09 18:34	17°☿00'07	-4°-18'-30	evening set	3103 Aug 15 11:13	4°☿36'17	
minimum elong	3102 Sep 10 00:07	16°☿47'59	4°17'18	min. Earth dist.	3103 Aug 19 13:03	2°☿01'29	0.59192 AU
morning rise	3102 Sep 17 03:26	12°☿06'19			3103 Aug 22 05:26	30°☿	
direct	3102 Sep 19 11:36	11°☿43'54		inferior conj	3103 Aug 22 20:00	29°☿32'07	-4°-55'-6
asc. node	3102 Sep 25 01:13	13°☿55'49		minimum elong	3103 Aug 22 23:31	29°☿25'25	4°54'45
morning max el	3102 Sep 26 13:41	15°☿16'03	17°58'36	morning rise	3103 Aug 30 15:17	25°☿01'40	
	3102 Oct 06 18:14	0°☿		direct	3103 Sep 02 01:03	24°☿41'49	
morning set	3102 Oct 12 08:13	10°☿06'57		morning max el	3103 Sep 09 22:36	28°☿29'51	18°26'13
superior conj	3102 Oct 22 15:00	28°☿42'13	1°05'47		3103 Sep 11 09:23	0°☿	
minimum elong	3102 Oct 22 19:21	29°☿01'15	1°05'14	asc. node	3103 Sep 11 22:17	0°☿36'55	
	3102 Oct 23 08:48	0°☿		morning set	3103 Sep 25 22:49	23°☿59'54	
max. Earth dist.	3102 Oct 30 04:39	11°☿35'46	1.42305 AU		3103 Sep 29 01:47	0°☿	
desc. node	3102 Nov 01 15:25	15°☿36'53		superior conj	3103 Oct 05 00:33	11°☿13'40	1°28'50
evening rise	3102 Nov 05 08:38	21°☿35'04		minimum elong	3103 Oct 05 03:57	11°☿29'24	1°28'31
	3102 Nov 10 18:11	0°☿		max. Earth dist.	3103 Oct 12 11:39	24°☿34'28	1.40347 AU
	3102 Dec 01 20:34	0°☿			3103 Oct 15 16:08	0°☿	
greatest brilliancy	3102 Dec 03 04:57	1°☿40'14	-0.3m	evening rise	3103 Oct 16 22:05	2°☿04'53	
evening max el	3102 Dec 07 22:27	6°☿59'35	22°16'09	desc. node	3103 Oct 19 12:26	6°☿20'28	
retrograde	3102 Dec 17 11:31	12°☿40'14			3103 Nov 04 02:37	0°☿	
evening set	3102 Dec 21 23:08	10°☿52'55		evening max el	3103 Nov 20 12:54	20°☿35'06	23°35'59
asc. node	3102 Dec 22 00:27	10°☿50'14		retrograde	3103 Dec 01 04:56	26°☿53'21	
inferior conj	3102 Dec 27 08:41	4°☿30'22	1°44'26	evening set	3103 Dec 06 05:28	24°☿49'22	
minimum elong	3102 Dec 27 06:34	4°☿37'41	1°43'38	asc. node	3103 Dec 08 21:30	22°☿02'46	

min. Earth dist.	3103 Dec 11 03:49	19°♄05'06	0.67846 AU	min. Earth dist.	3104 Nov 23 22:59	3°♄33'18	0.67442 AU
inferior conj	3103 Dec 11 16:10	18°♄22'53	0°56'15	inferior conj	3104 Nov 24 21:57	2°♄17'29	0°02'55
minimum elong	3103 Dec 11 14:53	18°♄27'16	0°55'43	minimum elong	3104 Nov 24 21:53	2°♄17'44	0°02'52
morning rise	3103 Dec 17 00:28	12°♄14'12		transit middle	3104 Nov 24 21:53	2°♄17'44	0°02'52
direct	3103 Dec 21 02:12	10°♄41'09		transit begin	3104 Nov 24 19:10	2°♄26'43	
morning max el	3103 Dec 29 10:16	15°♄30'39	20°57'44	transit end	3104 Nov 25 00:36	2°♄08'46	
greatest brilliancy	3104 Jan 03 23:08	21°♄54'39	-0.5m	asc. node	3104 Nov 24 18:34	2°♄28'42	
	3104 Jan 09 22:57	0°♄			3104 Nov 26 16:39	30°♄♌	
desc. node	3104 Jan 15 11:40	7°♄58'50		morning rise	3104 Nov 30 11:27	26°♌15'16	
morning set	3104 Jan 28 10:37	27°♄39'52		direct	3104 Dec 04 00:29	25°♌02'57	
	3104 Jan 29 22:21	0°♄		morning max el	3104 Dec 11 11:07	29°♌16'12	19°48'23
max. Earth dist.	3104 Feb 05 14:37	10°♄41'12	1.42723 AU		3104 Dec 12 04:06	0°♄	
				greatest brilliancy	3104 Dec 19 02:10	8°♄39'04	-0.6m
superior conj	3104 Feb 12 14:52	22°♄20'11	-2°-6'-26	desc. node	3105 Jan 01 08:43	28°♄16'26	
minimum elong	3104 Feb 12 14:24	22°♄18'11	2°06'27		3105 Jan 02 11:48	0°♄	
	3104 Feb 17 01:51	0°♄		morning set	3105 Jan 06 06:35	5°♄49'01	
evening rise	3104 Feb 24 08:34	12°♄53'20		max. Earth dist.	3105 Jan 18 01:20	24°♄15'21	1.44214 AU
	3104 Mar 05 05:02	0°♄			3105 Jan 21 15:28	0°♄	
asc. node	3104 Mar 05 20:51	1°♄02'30					
evening max el	3104 Mar 12 03:39	9°♄16'41	18°07'07	superior conj	3105 Jan 22 21:36	2°♄01'40	-1°-55'-52
retrograde	3104 Mar 18 18:11	12°♄40'19		minimum elong	3105 Jan 22 15:22	1°♄36'25	1°55'31
evening set	3104 Mar 21 09:44	12°♄07'30		evening rise	3105 Feb 05 09:55	24°♄30'14	
inferior conj	3104 Mar 27 23:36	7°♄06'15	3°25'45		3105 Feb 08 15:22	0°♄	
minimum elong	3104 Mar 28 01:42	7°♄01'05	3°25'29	asc. node	3105 Feb 20 17:53	19°♄09'16	
min. Earth dist.	3104 Mar 31 02:38	4°♄03'33	0.61339 AU	evening max el	3105 Feb 23 16:23	22°♄34'05	18°14'44
morning rise	3104 Apr 03 14:44	1°♄11'04		retrograde	3105 Mar 02 02:56	26°♄00'19	
	3104 Apr 05 15:16	30°♄♌		evening set	3105 Mar 04 23:58	25°♄16'43	
direct	3104 Apr 10 09:49	28°♄50'55		inferior conj	3105 Mar 11 02:37	19°♄55'33	3°39'25
desc. node	3104 Apr 12 10:49	29°♄02'48		minimum elong	3105 Mar 11 02:52	19°♄54'51	3°39'24
	3104 Apr 15 10:34	0°♄		min. Earth dist.	3105 Mar 13 15:59	17°♄06'56	0.63373 AU
morning max el	3104 Apr 24 14:47	6°♄47'17	27°48'17	morning rise	3105 Mar 17 03:51	13°♄49'38	
	3104 May 12 04:17	0°♄		direct	3105 Mar 24 01:32	11°♄07'15	
morning set	3104 May 27 11:28	27°♄58'48		desc. node	3105 Mar 30 07:53	12°♄59'46	
	3104 May 28 10:58	0°♄		morning max el	3105 Apr 06 22:12	19°♄04'25	27°43'40
asc. node	3104 Jun 01 20:10	9°♄19'05			3105 Apr 16 04:35	0°♄	
max. Earth dist.	3104 Jun 02 11:04	10°♄39'57	1.32279 AU		3105 May 05 02:15	0°♄	
				morning set	3105 May 11 09:36	12°♄04'55	
superior conj	3104 Jun 03 20:43	13°♄43'35	0°21'11	max. Earth dist.	3105 May 16 15:55	22°♄55'32	1.32889 AU
minimum elong	3104 Jun 03 19:46	13°♄38'20	0°20'59				
evening rise	3104 Jun 10 18:30	28°♄44'53		superior conj	3105 May 19 04:27	28°♄18'47	0°-5'-35
	3104 Jun 11 08:41	0°♄		minimum elong	3105 May 19 04:44	28°♄20'15	0°05'32
	3104 Jun 28 04:44	0°♄		behind sun begin	3105 May 18 23:44	27°♄53'24	
evening max el	3104 Jul 06 16:33	10°♄04'28	24°51'15	behind sun end	3105 May 19 09:43	28°♄47'07	
desc. node	3104 Jul 09 10:06	12°♄28'38		asc. node	3105 May 19 17:13	29°♄27'29	
retrograde	3104 Jul 20 15:24	17°♄08'33			3105 May 19 23:14	0°♄	
evening set	3104 Jul 25 22:41	16°♄04'40		evening rise	3105 May 26 06:20	13°♄33'26	
min. Earth dist.	3104 Jul 31 03:59	13°♄17'53	0.57219 AU		3105 Jun 03 13:48	0°♄	
inferior conj	3104 Aug 03 01:59	11°♄22'39	-5°-4'-9	evening max el	3105 Jun 18 05:57	20°♄33'17	23°15'58
minimum elong	3104 Aug 03 00:40	11°♄24'49	5°04'07	desc. node	3105 Jun 26 07:08	26°♄10'24	
morning rise	3104 Aug 11 06:19	7°♄14'29		retrograde	3105 Jul 01 18:21	27°♄18'22	
direct	3104 Aug 13 20:23	6°♄55'28		evening set	3105 Jul 05 13:28	26°♄46'51	
morning max el	3104 Aug 22 23:01	11°♄11'22	19°15'01	min. Earth dist.	3105 Jul 12 15:37	23°♄33'02	0.55687 AU
asc. node	3104 Aug 28 19:22	18°♄18'04		inferior conj	3105 Jul 14 12:06	22°♄27'44	-4°-30'-32
	3104 Sep 04 15:57	0°♄		minimum elong	3105 Jul 14 05:18	22°♄37'46	4°29'18
morning set	3104 Sep 08 22:31	8°♄19'28		morning rise	3105 Jul 23 00:10	18°♄34'28	
				direct	3105 Jul 25 20:49	18°♄14'40	
superior conj	3104 Sep 17 03:46	24°♄37'42	1°41'19	morning max el	3105 Aug 05 12:17	23°♄10'57	20°25'17
minimum elong	3104 Sep 17 05:26	24°♄45'49	1°41'15		3105 Aug 11 08:19	0°♄	
	3104 Sep 19 22:57	0°♄		asc. node	3105 Aug 15 16:27	6°♄45'04	
max. Earth dist.	3104 Sep 23 15:32	6°♄51'34	1.38270 AU	morning set	3105 Aug 24 04:16	22°♄56'43	
evening rise	3104 Sep 27 11:23	13°♄41'18			3105 Aug 27 14:27	0°♄	
desc. node	3104 Oct 05 09:27	26°♄56'53					
	3104 Oct 07 07:36	0°♄		superior conj	3105 Aug 31 19:38	8°♄39'06	1°44'57
	3104 Oct 29 01:37	0°♄		minimum elong	3105 Aug 31 19:37	8°♄39'01	1°44'57
evening max el	3104 Nov 02 01:24	4°♄15'04	24°53'58	max. Earth dist.	3105 Sep 05 22:02	18°♄45'34	1.36324 AU
retrograde	3104 Nov 13 18:23	11°♄03'11		evening rise	3105 Sep 09 21:47	26°♄16'53	
evening set	3104 Nov 19 08:51	8°♄43'28			3105 Sep 11 22:55	0°♄	

desc. node	3105 Sep 22 06:29	17° Ω 20'44		evening rise	3106 Aug 24 00:54	9° η 40'18	
	3105 Sep 30 18:35	0° \mathbb{M}			3106 Sep 04 10:45	0° Ω	
evening max el	3105 Oct 15 13:44	17° \mathbb{M} 56'46	26°02'50	desc. node	3106 Sep 09 03:30	7° Ω 25'57	
retrograde	3105 Oct 28 02:53	25° \mathbb{M} 03'52			3106 Sep 26 12:47	0° \mathbb{M}	
evening set	3105 Nov 03 07:25	22° \mathbb{M} 31'03		evening max el	3106 Sep 28 02:16	1° \mathbb{M} 33'01	26°54'55
min. Earth dist.	3105 Nov 07 14:06	17° \mathbb{M} 56'40	0.66699 AU	retrograde	3106 Oct 11 05:52	8° \mathbb{M} 49'02	
inferior conj	3105 Nov 09 00:10	16° \mathbb{M} 10'27	0°-54'-23	evening set	3106 Oct 17 23:06	6° \mathbb{M} 08'18	
minimum elong	3105 Nov 09 01:36	16° \mathbb{M} 05'56	0°53'46	min. Earth dist.	3106 Oct 21 22:46	2° \mathbb{M} 10'37	0.65606 AU
asc. node	3105 Nov 11 15:37	13° \mathbb{M} 02'15		inferior conj	3106 Oct 23 20:44	29° Ω 57'47	-1°-54'-4
morning rise	3105 Nov 14 20:48	10° \mathbb{M} 17'27		minimum elong	3106 Oct 23 23:52	29° Ω 48'43	1°52'49
direct	3105 Nov 17 23:06	9° \mathbb{M} 22'33			3106 Oct 23 19:59	30° \mathbb{R} Ω	
morning max el	3105 Nov 24 19:18	13° \mathbb{M} 10'10	18°53'59	asc. node	3106 Oct 29 12:40	24° Ω 35'41	
	3105 Dec 07 04:54	0° \mathbb{A}		morning rise	3106 Oct 30 02:13	24° Ω 17'13	
morning set	3105 Dec 16 16:22	14° \mathbb{A} 46'39		direct	3106 Nov 01 20:02	23° Ω 35'58	
desc. node	3105 Dec 19 05:44	18° \mathbb{A} 47'17		morning max el	3106 Nov 08 08:51	27° Ω 08'05	18°15'55
	3105 Dec 26 09:25	0° \mathbb{B}			3106 Nov 10 21:46	0° \mathbb{M}	
max. Earth dist.	3105 Dec 31 17:58	8° \mathbb{B} 24'18	1.45061 AU	morning set	3106 Nov 27 06:27	25° \mathbb{M} 10'45	
					3106 Nov 30 05:41	0° \mathbb{A}	
superior conj	3106 Jan 02 06:05	10° \mathbb{B} 46'22	-1°-25'-58	desc. node	3106 Dec 06 02:46	9° \mathbb{A} 27'20	
minimum elong	3106 Jan 01 21:01	10° \mathbb{B} 10'39	1°25'02				
	3106 Jan 14 08:03	0° \approx		superior conj	3106 Dec 12 08:22	19° \mathbb{A} 20'36	0°-41'-24
evening rise	3106 Jan 17 12:42	5° \approx 09'42		minimum elong	3106 Dec 12 03:05	18° \mathbb{A} 59'47	0°40'42
	3106 Feb 02 07:06	0° \mathbb{H}		max. Earth dist.	3106 Dec 14 13:25	22° \mathbb{A} 49'17	1.45172 AU
evening max el	3106 Feb 07 03:59	5° \mathbb{H} 59'57	18°40'42		3106 Dec 19 03:20	0° \mathbb{B}	
asc. node	3106 Feb 07 14:54	6° \mathbb{H} 27'05		evening rise	3106 Dec 28 16:42	14° \mathbb{B} 55'44	
retrograde	3106 Feb 13 19:15	9° \mathbb{H} 41'03			3107 Jan 07 09:11	0° \approx	
evening set	3106 Feb 16 22:14	8° \mathbb{H} 45'38		greatest brilliancy	3107 Jan 12 18:52	8° \approx 09'46	-0.7m
inferior conj	3106 Feb 22 16:59	3° \mathbb{H} 06'10	3°34'41	evening max el	3107 Jan 21 12:09	19° \approx 29'25	19°23'42
minimum elong	3106 Feb 22 15:44	3° \mathbb{H} 09'56	3°34'34	asc. node	3107 Jan 25 11:55	22° \approx 42'15	
min. Earth dist.	3106 Feb 24 14:40	0° \mathbb{H} 47'59	0.65080 AU	retrograde	3107 Jan 28 15:47	23° \approx 35'55	
	3106 Feb 25 07:05	30° \mathbb{R} \approx		evening set	3107 Feb 01 01:44	22° \approx 27'39	
morning rise	3106 Feb 28 08:02	26° \approx 54'27		inferior conj	3107 Feb 06 15:19	16° \approx 32'05	3°16'10
direct	3106 Mar 07 00:18	24° \approx 04'22		minimum elong	3107 Feb 06 13:08	16° \approx 39'08	3°15'47
desc. node	3106 Mar 17 04:55	28° \approx 57'34		min. Earth dist.	3107 Feb 07 21:55	14° \approx 52'45	0.66388 AU
	3106 Mar 18 09:11	0° \mathbb{H}		morning rise	3107 Feb 11 23:46	10° \approx 17'24	
morning max el	3106 Mar 20 07:50	1° \mathbb{H} 52'10	27°05'14	direct	3107 Feb 18 05:11	7° \approx 32'40	
	3106 Apr 10 08:35	0° \mathbb{Y}		morning max el	3107 Mar 02 17:26	14° \approx 58'30	26°00'10
morning set	3106 Apr 24 22:14	25° \mathbb{Y} 39'32		desc. node	3107 Mar 04 01:57	16° \approx 22'56	
	3106 Apr 27 03:30	0° \mathbb{B}			3107 Mar 15 01:12	0° \mathbb{H}	
max. Earth dist.	3106 Apr 29 11:39	4° \mathbb{B} 41'40	1.33948 AU		3107 Apr 03 04:03	0° \mathbb{Y}	
				morning set	3107 Apr 07 21:20	8° \mathbb{Y} 29'53	
superior conj	3106 May 03 07:14	12° \mathbb{B} 35'01	0°-33'-51	max. Earth dist.	3107 Apr 11 19:59	15° \mathbb{Y} 57'10	1.35464 AU
minimum elong	3106 May 03 08:59	12° \mathbb{B} 44'11	0°33'30				
asc. node	3106 May 06 14:15	19° \mathbb{B} 32'30		superior conj	3107 Apr 17 02:30	26° \mathbb{Y} 23'45	-1°-2'-21
evening rise	3106 May 10 16:56	28° \mathbb{B} 14'03		minimum elong	3107 Apr 17 05:44	26° \mathbb{Y} 40'12	1°01'48
	3106 May 11 13:17	0° \mathbb{II}			3107 Apr 18 20:55	0° \mathbb{B}	
	3106 May 29 21:34	0° \mathbb{B}		asc. node	3107 Apr 23 11:15	9° \mathbb{B} 29'07	
evening max el	3106 May 30 23:55	1° \mathbb{B} 06'48	21°41'38	evening rise	3107 Apr 25 00:11	12° \mathbb{B} 39'04	
retrograde	3106 Jun 12 09:57	7° \mathbb{B} 13'38			3107 May 04 02:57	0° \mathbb{II}	
desc. node	3106 Jun 13 04:09	7° \mathbb{B} 12'19		evening max el	3107 May 13 04:19	12° \mathbb{II} 10'09	20°20'05
evening set	3106 Jun 14 23:28	6° \mathbb{B} 58'49		retrograde	3107 May 23 23:27	17° \mathbb{II} 25'29	
inferior conj	3106 Jun 24 08:12	2° \mathbb{B} 57'22	-3°-7'-38	evening set	3107 May 25 23:53	17° \mathbb{II} 15'15	
minimum elong	3106 Jun 24 00:17	3° \mathbb{B} 08'25	3°05'14	desc. node	3107 May 31 01:10	15° \mathbb{II} 31'41	
min. Earth dist.	3106 Jun 24 02:45	3° \mathbb{B} 04'58	0.54916 AU	inferior conj	3107 Jun 04 02:57	13° \mathbb{II} 17'02	-1°-11'-52
	3106 Jun 30 04:35	30° \mathbb{R} \mathbb{II}		minimum elong	3107 Jun 03 23:33	13° \mathbb{II} 22'00	1°10'39
morning rise	3106 Jul 03 02:10	29° \mathbb{II} 04'04		min. Earth dist.	3107 Jun 05 15:08	12° \mathbb{II} 24'02	0.55087 AU
direct	3106 Jul 06 08:19	28° \mathbb{II} 40'52		morning rise	3107 Jun 12 21:21	9° \mathbb{II} 03'29	
	3106 Jul 12 04:36	0° \mathbb{B}		direct	3107 Jun 16 19:02	8° \mathbb{II} 30'34	
morning max el	3106 Jul 18 13:59	4° \mathbb{B} 26'08	21°54'39	morning max el	3107 Jun 30 07:07	15° \mathbb{II} 05'06	23°36'01
asc. node	3106 Aug 02 13:29	25° \mathbb{B} 47'07			3107 Jul 11 23:44	0° \mathbb{B}	
	3106 Aug 04 18:08	0° \mathbb{Q}		asc. node	3107 Jul 20 10:31	15° \mathbb{B} 14'33	
morning set	3106 Aug 08 13:49	7° \mathbb{Q} 45'44		morning set	3107 Jul 24 01:16	22° \mathbb{B} 40'06	
					3107 Jul 27 11:34	0° \mathbb{Q}	
superior conj	3106 Aug 15 20:19	23° \mathbb{Q} 06'58	1°41'18				
minimum elong	3106 Aug 15 19:01	23° \mathbb{Q} 00'06	1°41'14	superior conj	3107 Jul 31 02:51	7° \mathbb{Q} 51'36	1°31'39
	3106 Aug 19 04:02	0° $\mathbb{\eta}$		minimum elong	3107 Jul 31 00:45	7° \mathbb{Q} 40'20	1°31'25
max. Earth dist.	3106 Aug 19 12:07	0° $\mathbb{\eta}$ 41'11	1.34686 AU	max. Earth dist.	3107 Aug 02 11:06	12° \mathbb{Q} 52'24	1.33436 AU

evening rise	3107 Aug 07 16:22	23°♎39'09		minimum elong	3108 Jul 14 10:33	22°♎32'42	1°16'37
	3107 Aug 10 22:14	0°♎		max. Earth dist.	3108 Jul 15 17:37	25°♎22'21	1.32597 AU
desc. node	3107 Aug 27 00:31	27°♎04'01			3108 Jul 17 20:54	0°♎	
	3107 Aug 29 01:55	0°♎		evening rise	3108 Jul 21 16:42	8°♎03'31	
evening max el	3107 Sep 10 13:55	14°♎52'24	27°23'07		3108 Aug 02 08:39	0°♎	
retrograde	3107 Sep 24 03:01	22°♎10'24		desc. node	3108 Aug 12 21:31	16°♎03'34	
evening set	3107 Oct 01 05:15	19°♎30'12		evening max el	3108 Aug 22 22:43	27°♎42'31	27°21'28
min. Earth dist.	3107 Oct 04 22:47	16°♎07'44	0.64156 AU		3108 Aug 25 13:03	0°♎	
inferior conj	3107 Oct 07 09:16	13°♎34'08	-2°-53'-52	retrograde	3108 Sep 05 17:49	4°♎58'22	
minimum elong	3107 Oct 07 13:59	13°♎21'43	2°52'13	evening set	3108 Sep 12 22:24	2°♎30'34	
morning rise	3107 Oct 14 00:55	8°♎09'20			3108 Sep 16 02:30	30°♎♎	
asc. node	3107 Oct 16 09:42	7°♎38'07		min. Earth dist.	3108 Sep 16 12:45	29°♎37'00	0.62382 AU
direct	3107 Oct 16 12:41	7°♎38'03		inferior conj	3108 Sep 19 10:52	26°♎52'39	-3°-50'-6
morning max el	3107 Oct 23 01:06	11°♎03'45	17°54'57	minimum elong	3108 Sep 19 16:31	26°♎39'22	3°48'34
	3107 Nov 04 22:44	0°♎		morning rise	3108 Sep 26 13:28	21°♎46'45	
morning set	3107 Nov 09 00:27	6°♎56'19		direct	3108 Sep 28 21:55	21°♎22'04	
				asc. node	3108 Oct 02 06:45	22°♎14'10	
superior conj	3107 Nov 22 01:28	28°♎42'36	0°06'23	morning max el	3108 Oct 05 17:01	24°♎49'42	17°51'51
minimum elong	3107 Nov 22 02:12	28°♎45'31	0°06'16		3108 Oct 09 22:58	0°♎	
behind sun begin	3107 Nov 21 16:49	28°♎07'25		morning set	3108 Oct 21 16:21	19°♎44'21	
behind sun end	3107 Nov 22 11:35	29°♎23'33			3108 Oct 27 10:47	0°♎	
desc. node	3107 Nov 22 23:48	0°♎13'00					
	3107 Nov 22 20:35	0°♎		superior conj	3108 Nov 01 20:31	9°♎21'05	0°47'14
max. Earth dist.	3107 Nov 27 08:02	7°♎10'18	1.44542 AU	minimum elong	3108 Nov 02 00:29	9°♎37'58	0°46'42
evening rise	3107 Dec 08 04:37	24°♎07'11		desc. node	3108 Nov 08 20:50	21°♎00'29	
	3107 Dec 12 00:45	0°♎		max. Earth dist.	3108 Nov 08 22:49	21°♎08'32	1.43265 AU
greatest brilliancy	3107 Dec 29 10:09	25°♎30'03	-0.5m		3108 Nov 14 11:48	0°♎	
	3108 Jan 01 22:50	0°♎		evening rise	3108 Nov 16 15:00	3°♎20'22	
evening max el	3108 Jan 04 15:22	3°♎00'30	20°21'48		3108 Dec 04 12:14	0°♎	
asc. node	3108 Jan 12 08:56	7°♎40'22		greatest brilliancy	3108 Dec 12 14:58	10°♎54'11	-0.4m
retrograde	3108 Jan 12 13:51	7°♎40'36		evening max el	3108 Dec 17 13:02	16°♎32'27	21°32'03
evening set	3108 Jan 16 08:18	6°♎18'16		retrograde	3108 Dec 26 11:19	21°♎50'56	
inferior conj	3108 Jan 21 18:55	0°♎09'32	2°47'02	asc. node	3108 Dec 29 05:59	21°♎08'43	
minimum elong	3108 Jan 21 16:23	0°♎18'10	2°46'22	evening set	3108 Dec 30 16:03	20°♎13'14	
	3108 Jan 21 21:44	30°♎♎		inferior conj	3109 Jan 05 01:33	13°♎54'43	2°09'24
min. Earth dist.	3108 Jan 22 11:58	29°♎11'39	0.67284 AU	minimum elong	3109 Jan 04 23:09	14°♎03'02	2°08'35
morning rise	3108 Jan 26 23:58	23°♎53'55		min. Earth dist.	3109 Jan 05 06:31	13°♎37'29	0.67788 AU
direct	3108 Feb 01 15:31	21°♎24'07		morning rise	3109 Jan 10 05:57	7°♎40'09	
morning max el	3108 Feb 13 02:07	28°♎14'08	24°38'08	direct	3109 Jan 15 06:35	5°♎30'57	
	3108 Feb 14 18:31	0°♎		morning max el	3109 Jan 25 11:14	11°♎34'21	23°09'23
desc. node	3108 Feb 18 22:58	4°♎50'59		greatest brilliancy	3109 Jan 30 11:04	17°♎09'48	-0.3m
	3108 Mar 07 18:51	0°♎		desc. node	3109 Feb 04 20:01	24°♎03'25	
morning set	3108 Mar 20 01:40	20°♎21'54			3109 Feb 09 03:20	0°♎	
max. Earth dist.	3108 Mar 23 18:20	26°♎59'14	1.37382 AU		3109 Feb 28 14:54	0°♎	
	3108 Mar 25 09:37	0°♎		morning set	3109 Mar 01 05:02	0°♎58'53	
				max. Earth dist.	3109 Mar 05 12:59	8°♎20'55	1.39532 AU
superior conj	3108 Mar 30 11:09	9°♎37'08	-1°-29'-5				
minimum elong	3108 Mar 30 15:30	9°♎58'16	1°28'31	superior conj	3109 Mar 13 05:09	22°♎04'51	-1°-51'-12
evening rise	3108 Apr 08 01:47	26°♎41'55		minimum elong	3109 Mar 13 09:29	22°♎24'50	1°50'50
asc. node	3108 Apr 09 08:16	29°♎13'06			3109 Mar 17 10:33	0°♎	
	3108 Apr 09 17:47	0°♎		evening rise	3109 Mar 22 18:51	10°♎14'48	
evening max el	3108 Apr 24 20:44	23°♎54'19	19°17'06	asc. node	3109 Mar 27 05:18	18°♎39'05	
retrograde	3108 May 03 23:14	28°♎19'26			3109 Apr 02 21:52	0°♎	
evening set	3108 May 06 00:02	28°♎07'10		evening max el	3109 Apr 07 23:04	6°♎15'56	18°34'16
inferior conj	3108 May 14 10:31	23°♎58'11	0°42'57	retrograde	3109 Apr 15 16:56	10°♎04'02	
minimum elong	3108 May 14 12:16	23°♎55'17	0°42'20	evening set	3109 Apr 17 23:25	9°♎45'32	
desc. node	3108 May 16 22:10	22°♎19'14		inferior conj	3109 Apr 25 14:34	5°♎17'44	2°11'29
min. Earth dist.	3108 May 17 05:58	22°♎06'39	0.56180 AU	minimum elong	3109 Apr 25 18:22	5°♎10'21	2°10'24
morning rise	3108 May 22 20:24	19°♎10'37		min. Earth dist.	3109 Apr 29 00:16	2°♎40'27	0.57965 AU
direct	3108 May 27 16:52	18°♎16'28		morning rise	3109 May 03 08:54	29°♎57'04	
morning max el	3108 Jun 10 21:22	25°♎30'13	25°16'24		3109 May 03 06:30	30°♎♎	
	3108 Jun 15 02:28	0°♎		desc. node	3109 May 03 19:11	29°♎45'02	
	3108 Jul 03 20:36	0°♎		direct	3109 May 09 05:10	28°♎30'28	
asc. node	3108 Jul 06 07:33	5°♎00'30			3109 May 15 06:56	0°♎	
morning set	3108 Jul 07 12:59	7°♎34'46		morning max el	3109 May 23 14:17	6°♎08'39	26°40'09
					3109 Jun 10 05:32	0°♎	
superior conj	3108 Jul 14 12:55	22°♎45'39	1°16'58	morning set	3109 Jun 21 23:24	22°♎24'31	

asc. node	3109 Jun 23 04:36	24°II59'12			3110 Jun 02 19:15	0°II	
	3109 Jun 25 12:22	0°☿		morning set	3110 Jun 06 06:43	7°II02'36	
				asc. node	3110 Jun 10 01:39	15°II04'54	
superior conj	3109 Jun 29 00:38	7°☿42'40	0°58'02	max. Earth dist.	3110 Jun 12 16:29	20°II47'29	1.32124 AU
minimum elong	3109 Jun 28 22:28	7°☿30'45	0°57'39				
max. Earth dist.	3109 Jun 29 04:38	8°☿04'44	1.32161 AU	superior conj	3110 Jun 13 12:09	22°II35'33	0°35'32
evening rise	3109 Jul 05 23:05	22°☿44'44		minimum elong	3110 Jun 13 10:38	22°II27'13	0°35'14
	3109 Jul 09 12:07	0°♂			3110 Jun 16 21:01	0°☿	
	3109 Jul 27 11:44	0°♊		evening rise	3110 Jun 20 09:08	7°☿34'00	
desc. node	3109 Jul 30 18:31	4°♊08'55			3110 Jul 02 01:33	0°♂	
evening max el	3109 Aug 05 02:21	9°♊52'27	26°46'42	desc. node	3110 Jul 17 15:32	20°♂17'53	
retrograde	3109 Aug 19 00:59	17°♊04'22		evening max el	3110 Jul 17 22:47	21°♂14'12	25°40'25
evening set	3109 Aug 25 22:08	15°♊02'20		retrograde	3110 Jul 31 22:30	28°♂21'36	
min. Earth dist.	3109 Aug 29 16:24	12°♊25'22	0.60379 AU	evening set	3110 Aug 06 23:32	26°♂55'36	
inferior conj	3109 Sep 01 22:15	9°♊45'21	-4°-36'-33	min. Earth dist.	3110 Aug 11 10:55	24°♂17'53	0.58326 AU
minimum elong	3109 Sep 02 03:16	9°♊34'59	4°35'42	inferior conj	3110 Aug 14 15:45	22°♂01'03	-5°-3'-14
morning rise	3109 Sep 09 11:40	5°♊01'08		minimum elong	3110 Aug 14 17:32	21°♂57'52	5°03'10
direct	3109 Sep 11 20:00	4°♊40'10		morning rise	3110 Aug 22 15:01	17°♂40'07	
morning max el	3109 Sep 19 05:27	8°♊18'15	18°07'48	direct	3110 Aug 25 02:27	17°♂20'41	
asc. node	3109 Sep 19 03:49	8°♊14'18		morning max el	3110 Sep 02 11:04	21°♂19'07	18°44'16
	3109 Oct 03 05:45	0°♊		asc. node	3110 Sep 06 00:53	25°♂22'33	
morning set	3109 Oct 05 00:10	3°♊18'12			3110 Sep 09 05:25	0°♊	
				morning set	3110 Sep 18 19:06	17°♊23'47	
					3110 Sep 25 06:30	0°♊	
superior conj	3109 Oct 14 17:25	21°♊15'21	1°16'55				
minimum elong	3109 Oct 14 21:32	21°♊33'51	1°16'28				
	3109 Oct 19 16:49	0°♋		superior conj	3110 Sep 27 11:08	4°♊10'44	1°35'19
max. Earth dist.	3109 Oct 22 08:41	4°♋31'48	1.41503 AU	minimum elong	3110 Sep 27 13:50	4°♊23'30	1°35'07
desc. node	3109 Oct 26 17:52	11°♋46'46		max. Earth dist.	3110 Oct 04 14:18	17°♊13'17	1.39470 AU
evening rise	3109 Oct 27 15:55	13°♋16'02		evening rise	3110 Oct 08 15:36	24°♊14'10	
	3109 Nov 07 10:45	0°♋			3110 Oct 12 02:35	0°♋	
greatest brilliancy	3109 Nov 25 02:43	24°♋21'58	-0.3m	desc. node	3110 Oct 13 14:54	2°♋27'41	
evening max el	3109 Nov 30 05:51	0°☿06'56	22°49'57		3110 Nov 01 06:11	0°♋	
	3109 Nov 30 03:06	0°☿		evening max el	3110 Nov 12 19:22	13°♋44'41	24°09'49
retrograde	3109 Dec 10 06:29	6°☿03'57		retrograde	3110 Nov 23 22:10	20°♋16'00	
evening set	3109 Dec 14 23:22	4°☿09'48		evening set	3110 Nov 29 04:38	18°♋05'08	
asc. node	3109 Dec 16 03:02	3°☿06'09		asc. node	3110 Dec 03 00:05	13°♋52'42	
	3109 Dec 18 17:44	30°♌♋		min. Earth dist.	3110 Dec 03 23:24	12°♋35'21	0.67720 AU
inferior conj	3109 Dec 20 09:15	27°♋45'14	1°24'43	inferior conj	3110 Dec 04 16:14	11°♋38'35	0°34'12
minimum elong	3109 Dec 20 07:27	27°♋51'30	1°24'00	minimum elong	3110 Dec 04 15:25	11°♋41'19	0°33'51
min. Earth dist.	3109 Dec 20 03:08	28°♋06'23	0.67930 AU	morning rise	3110 Dec 10 02:30	5°♋32'30	
morning rise	3109 Dec 25 15:28	21°♋33'46		direct	3110 Dec 13 22:43	4°♋08'27	
direct	3109 Dec 30 01:23	19°♋47'28		morning max el	3110 Dec 21 20:38	8°♋40'44	20°26'34
morning max el	3110 Jan 08 00:20	25°♋01'55	21°43'14	greatest brilliancy	3110 Dec 28 03:01	16°♋05'26	-0.5m
	3110 Jan 12 10:40	0°☿			3111 Jan 06 22:58	0°☿	
greatest brilliancy	3110 Jan 12 20:15	0°☿29'22	-0.4m	desc. node	3111 Jan 09 14:08	3°☿54'59	
desc. node	3110 Jan 22 17:05	13°☿47'43		morning set	3111 Jan 19 03:03	18°☿27'10	
	3110 Feb 02 14:45	0°♌			3111 Jan 26 11:31	0°♌	
morning set	3110 Feb 09 03:20	10°♌12'28		max. Earth dist.	3111 Jan 28 19:22	3°♌43'40	1.43427 AU
max. Earth dist.	3110 Feb 15 12:09	20°♌33'48	1.41646 AU				
	3110 Feb 21 02:00	0°♍		superior conj	3111 Feb 04 01:25	13°♌57'02	-2°-4'-16
				minimum elong	3111 Feb 03 22:32	13°♌45'05	2°04'12
superior conj	3110 Feb 23 03:33	3°♍35'09	-2°-4'-37		3111 Feb 13 11:51	0°♍	
minimum elong	3110 Feb 23 05:40	3°♍44'23	2°04'34	evening rise	3111 Feb 16 12:33	5°♍17'17	
evening rise	3110 Mar 05 23:50	23°♍09'23		asc. node	3111 Feb 28 23:23	26°♍10'28	
	3110 Mar 09 17:33	0°♎			3111 Mar 03 19:24	0°♎	
asc. node	3110 Mar 14 02:20	7°♎40'46		evening max el	3111 Mar 05 20:11	2°♎15'45	18°08'04
evening max el	3110 Mar 22 08:00	19°♎06'03	18°11'25	retrograde	3111 Mar 12 07:47	5°♎38'53	
retrograde	3110 Mar 29 05:03	22°♎33'54		evening set	3111 Mar 15 01:43	5°♎01'29	
evening set	3110 Mar 31 17:34	22°♎06'37		inferior conj	3111 Mar 21 10:20	29°♎51'16	3°34'08
inferior conj	3110 Apr 07 15:34	17°♎17'20	3°07'06	minimum elong	3111 Mar 21 11:38	29°♎47'53	3°34'02
minimum elong	3110 Apr 07 18:40	17°♎10'19	3°06'31		3111 Mar 21 06:57	30°♎♋	
min. Earth dist.	3110 Apr 11 00:00	14°♎16'53	0.60096 AU	min. Earth dist.	3111 Mar 24 07:52	26°♎52'26	0.62231 AU
morning rise	3110 Apr 14 16:15	11°♎32'15		morning rise	3111 Mar 27 19:07	23°♎50'50	
desc. node	3110 Apr 20 16:14	9°♎31'09		direct	3111 Apr 03 16:20	21°♎19'58	
direct	3110 Apr 21 05:49	9°♎30'16		desc. node	3111 Apr 07 13:16	22°♎02'53	
morning max el	3110 May 05 13:10	17°♎21'25	27°33'58	morning max el	3111 Apr 17 18:15	29°♎17'00	27°50'56
	3110 May 16 00:50	0°♏			3111 Apr 18 11:14	0°♎	

	3111 May 09 22:44	0°♄		morning rise	3112 Mar 09 15:01	6°♄41'09	
morning set	3111 May 21 08:55	21°♄22'53		direct	3112 Mar 16 11:01	3°♄53'55	
	3111 May 25 12:18	0°♄		desc. node	3112 Mar 24 10:19	6°♄55'02	
max. Earth dist.	3111 May 27 01:14	3°♄17'42	1.32492 AU	morning max el	3112 Mar 30 03:09	11°♄49'01	27°31'13
asc. node	3111 May 27 22:42	5°♄13'37			3112 Apr 13 14:13	0°♄	
					3112 May 01 10:01	0°♄	
superior conj	3111 May 28 21:47	7°♄18'57	0°10'07	morning set	3112 May 04 03:25	5°♄16'38	
minimum elong	3111 May 28 21:19	7°♄16'21	0°10'01	max. Earth dist.	3112 May 09 02:44	15°♄21'50	1.33283 AU
behind sun begin	3111 May 28 17:16	6°♄54'23					
behind sun end	3111 May 29 01:21	7°♄38'20		superior conj	3112 May 12 03:38	21°♄46'16	0°-17'-26
evening rise	3111 Jun 04 20:53	22°♄24'50		minimum elong	3112 May 12 04:31	21°♄50'57	0°17'16
	3111 Jun 08 12:46	0°♄		asc. node	3112 May 13 19:43	25°♄20'40	
	3111 Jun 27 15:55	0°♄			3112 May 15 23:43	0°♄	
evening max el	3111 Jun 29 12:59	1°♄54'47	24°11'28	evening rise	3112 May 19 08:24	7°♄10'15	
desc. node	3111 Jul 04 12:32	5°♄56'48			3112 May 31 11:51	0°♄	
retrograde	3111 Jul 13 08:33	8°♄52'40		evening max el	3112 Jun 10 03:06	12°♄20'25	22°34'49
evening set	3111 Jul 18 01:05	8°♄03'49		desc. node	3112 Jun 20 09:32	18°♄33'27	
min. Earth dist.	3111 Jul 23 23:38	5°♄07'20	0.56504 AU	retrograde	3112 Jun 23 06:33	18°♄52'25	
inferior conj	3111 Jul 26 13:01	3°♄31'48	-4°-55'-50	evening set	3112 Jun 26 11:20	18°♄29'53	
minimum elong	3111 Jul 26 09:11	3°♄37'48	4°55'29	min. Earth dist.	3112 Jul 04 10:43	15°♄00'39	0.55251 AU
	3111 Aug 02 06:09	30°♄		inferior conj	3112 Jul 05 15:57	14°♄19'02	-4°-1'-2
morning rise	3111 Aug 03 20:50	29°♄31'32		minimum elong	3112 Jul 05 07:53	14°♄30'31	3°59'08
direct	3111 Aug 06 13:39	29°♄12'18		morning rise	3112 Jul 14 06:56	10°♄28'16	
	3111 Aug 10 16:18	0°♄		direct	3112 Jul 17 06:52	10°♄07'41	
morning max el	3111 Aug 16 06:54	3°♄43'15	19°42'19	morning max el	3112 Jul 28 15:14	15°♄24'02	21°01'18
asc. node	3111 Aug 23 21:57	13°♄24'19			3112 Aug 08 13:52	0°♄	
	3111 Sep 01 23:25	0°♄		asc. node	3112 Aug 09 18:59	2°♄07'05	
morning set	3111 Sep 02 21:39	1°♄51'34		morning set	3112 Aug 17 05:15	16°♄34'23	
					3112 Aug 23 15:53	0°♄	
superior conj	3111 Sep 10 20:16	17°♄52'06	1°43'51				
minimum elong	3111 Sep 10 21:11	17°♄56'39	1°43'49	superior conj	3112 Aug 24 16:19	2°♄06'15	1°44'13
max. Earth dist.	3111 Sep 16 18:49	29°♄18'25	1.37418 AU	minimum elong	3112 Aug 24 15:41	2°♄03'03	1°44'12
	3111 Sep 17 03:45	0°♄		max. Earth dist.	3112 Aug 29 03:46	11°♄09'02	1.35579 AU
evening rise	3111 Sep 20 14:19	6°♄16'21		evening rise	3112 Sep 02 08:22	19°♄13'43	
desc. node	3111 Sep 30 11:54	22°♄59'05			3112 Sep 08 07:27	0°♄	
	3111 Oct 05 00:23	0°♄		desc. node	3112 Sep 16 08:54	13°♄15'48	
evening max el	3111 Oct 26 07:30	27°♄25'02	25°24'46		3112 Sep 28 02:36	0°♄	
	3111 Oct 29 03:40	0°♄		evening max el	3112 Oct 07 19:44	11°♄05'00	26°27'25
retrograde	3111 Nov 07 09:30	4°♄22'28		retrograde	3112 Oct 20 15:56	18°♄17'51	
evening set	3111 Nov 13 06:11	1°♄56'25		evening set	3112 Oct 27 02:08	15°♄40'36	
	3111 Nov 15 05:48	30°♄		min. Earth dist.	3112 Oct 31 05:39	11°♄21'53	0.66274 AU
min. Earth dist.	3111 Nov 17 17:00	27°♄01'35	0.67170 AU	inferior conj	3112 Nov 01 20:46	9°♄23'27	-1°-19'-32
inferior conj	3111 Nov 18 20:42	25°♄32'12	0°-21'00	minimum elong	3112 Nov 01 22:55	9°♄16'56	1°18'38
minimum elong	3111 Nov 18 21:14	25°♄30'28	0°20'47	asc. node	3112 Nov 05 18:11	5°♄07'54	
asc. node	3111 Nov 19 21:09	24°♄14'02		morning rise	3112 Nov 07 21:00	3°♄35'31	
morning rise	3111 Nov 24 13:02	19°♄33'51		direct	3112 Nov 10 19:18	2°♄47'03	
direct	3111 Nov 27 21:14	18°♄29'30		morning max el	3112 Nov 17 11:41	6°♄27'12	18°35'45
morning max el	3111 Dec 05 00:50	22°♄30'18	19°23'21		3112 Dec 03 23:11	0°♄	
	3111 Dec 11 05:10	0°♄		morning set	3112 Dec 07 23:05	6°♄21'22	
greatest brilliancy	3111 Dec 14 03:06	4°♄06'14	-0.7m	desc. node	3112 Dec 13 08:12	14°♄53'41	
desc. node	3111 Dec 27 11:10	24°♄18'26			3112 Dec 22 22:28	0°♄	
morning set	3111 Dec 29 02:00	26°♄48'43					
	3111 Dec 31 03:20	0°♄		superior conj	3112 Dec 24 00:44	1°♄43'05	-1°-8'-16
max. Earth dist.	3112 Jan 11 09:07	17°♄35'11	1.44655 AU	minimum elong	3112 Dec 23 16:34	1°♄11'02	1°07'18
				max. Earth dist.	3112 Dec 24 02:54	1°♄51'36	1.45195 AU
superior conj	3112 Jan 14 21:25	23°♄09'45	-1°-45'-29	evening rise	3113 Jan 08 21:26	26°♄45'11	
minimum elong	3112 Jan 14 13:14	22°♄37'08	1°44'50		3113 Jan 10 22:20	0°♄	
	3112 Jan 19 03:37	0°♄		evening max el	3113 Jan 30 18:57	29°♄03'48	18°57'00
evening rise	3112 Jan 29 04:37	16°♄29'52			3113 Jan 31 18:06	0°♄	
	3112 Feb 06 07:46	0°♄		asc. node	3113 Feb 01 17:27	0°♄50'12	
asc. node	3112 Feb 15 20:26	13°♄57'35		retrograde	3113 Feb 06 14:47	2°♄54'49	
evening max el	3112 Feb 17 08:38	15°♄36'31	18°23'35	evening set	3113 Feb 09 20:28	1°♄54'16	
retrograde	3112 Feb 23 20:20	19°♄08'07			3113 Feb 12 04:27	30°♄	
evening set	3112 Feb 26 19:43	18°♄19'40		inferior conj	3113 Feb 15 12:44	26°♄07'45	3°28'17
inferior conj	3112 Mar 03 18:37	12°♄50'16	3°39'20	minimum elong	3113 Feb 15 11:01	26°♄13'06	3°28'04
minimum elong	3112 Mar 03 18:10	12°♄51'33	3°39'20	min. Earth dist.	3113 Feb 17 03:56	24°♄05'06	0.65685 AU
min. Earth dist.	3112 Mar 06 01:17	10°♄13'06	0.64136 AU	morning rise	3113 Feb 21 00:32	19°♄54'15	

direct	3113 Feb 27 12:42	17° 33 04'43		morning rise	3114 Feb 04 20:15	3° 33 23'23	
desc. node	3113 Mar 11 07:22	23° 33 33'05		direct	3114 Feb 10 20:10	0° 33 43'45	
morning max el	3113 Mar 12 13:02	24° 33 45'47	26°40'12	morning max el	3114 Feb 22 21:58	7° 33 55'50	25°26'39
	3113 Mar 17 07:01	0° 33 ✕		desc. node	3114 Feb 26 04:25	11° 33 27'21	
	3113 Apr 07 00:52	0° 33 ∇			3114 Mar 12 04:24	0° 33 ✕	
morning set	3113 Apr 17 10:50	18° 33 ∇33'38			3114 Mar 30 13:11	0° 33 ∇	
max. Earth dist.	3113 Apr 21 17:25	26° 33 ∇52'12	1.34532 AU	morning set	3114 Mar 31 02:40	1° 33 ∇00'55	
	3113 Apr 23 06:52	0° 33 ♄		max. Earth dist.	3114 Apr 03 20:38	7° 33 ∇56'46	1.36234 AU
superior conj	3113 Apr 26 03:31	5° 33 ♄51'10	0°-46'-1	superior conj	3114 Apr 09 18:44	19° 33 ∇26'09	-1°-14'-4
minimum elong	3113 Apr 26 05:55	6° 33 ♄03'34	0°45'34	minimum elong	3114 Apr 09 22:32	19° 33 ∇45'04	1°13'28
asc. node	3113 Apr 30 16:44	15° 33 ♄22'10			3114 Apr 15 00:08	0° 33 ♄	
evening rise	3113 May 03 17:47	21° 33 ♄44'11		evening rise	3114 Apr 17 22:56	6° 33 ♄00'28	
	3113 May 07 19:42	0° 33 ♄		asc. node	3114 Apr 17 13:46	5° 33 ♄13'59	
evening max el	3113 May 23 01:04	23° 33 ♄04'12	21°05'00		3114 May 01 14:23	0° 33 ♄	
retrograde	3113 Jun 03 19:53	28° 33 ♄49'54		evening max el	3114 May 05 10:51	4° 33 ♄25'22	19°51'00
evening set	3113 Jun 06 01:25	28° 33 ♄38'17		retrograde	3114 May 15 11:56	9° 33 ♄17'44	
desc. node	3113 Jun 07 06:33	28° 33 ♄22'41		evening set	3114 May 17 11:33	9° 33 ♄07'10	
inferior conj	3113 Jun 15 09:38	24° 33 ♄40'28	-2°-20'-44	desc. node	3114 May 25 03:35	5° 33 ♄49'55	
minimum elong	3113 Jun 15 03:11	24° 33 ♄49'34	2°18'33	inferior conj	3114 May 26 08:26	5° 33 ♄06'07	0°-21'-11
min. Earth dist.	3113 Jun 15 22:36	24° 33 ♄22'11	0.54864 AU	minimum elong	3114 May 26 07:28	5° 33 ♄07'36	0°20'49
morning rise	3113 Jun 24 04:40	20° 33 ♄40'29		min. Earth dist.	3114 May 28 11:56	3° 33 ♄47'24	0.55447 AU
direct	3113 Jun 27 16:24	20° 33 ♄14'11		morning rise	3114 Jun 04 00:19	0° 33 ♄39'11	
morning max el	3113 Jul 10 12:45	26° 33 ♄21'55	22°36'56		3114 Jun 07 12:09	30° 33 ♄	
	3113 Jul 14 00:09	0° 33 ♄		direct	3114 Jun 08 07:23	29° 33 ♄58'33	
asc. node	3113 Jul 27 16:00	21° 33 ♄20'33			3114 Jun 09 02:34	0° 33 ♄	
	3113 Jul 31 23:19	0° 33 ♄		morning max el	3114 Jun 22 03:43	6° 33 ♄51'17	24°19'41
morning set	3113 Aug 01 15:47	1° 33 ♄25'54			3114 Jul 08 20:17	0° 33 ♄	
superior conj	3113 Aug 08 19:47	16° 33 ♄42'07	1°37'52	asc. node	3114 Jul 14 13:02	10° 33 ♄56'50	
minimum elong	3113 Aug 08 18:05	16° 33 ♄33'03	1°37'45	morning set	3114 Jul 17 03:35	16° 33 ♄21'16	
max. Earth dist.	3113 Aug 11 21:26	23° 33 ♄09'02	1.34102 AU		3114 Jul 23 11:13	0° 33 ♄	
	3113 Aug 15 06:07	0° 33 ♄		superior conj	3114 Jul 24 04:06	1° 33 ♄31'45	1°25'59
evening rise	3113 Aug 16 17:13	2° 33 ♄53'39		minimum elong	3114 Jul 24 01:50	1° 33 ♄19'25	1°25'42
	3113 Sep 01 04:00	0° 33 ♄		max. Earth dist.	3114 Jul 26 00:08	5° 33 ♄29'40	1.33034 AU
desc. node	3113 Sep 03 05:54	3° 33 ♄10'27		evening rise	3114 Jul 31 12:55	17° 33 ♄05'04	
evening max el	3113 Sep 20 08:07	24° 33 ♄35'41	27°10'17		3114 Aug 07 05:24	0° 33 ♄	
	3113 Sep 27 08:08	0° 33 ♄		desc. node	3114 Aug 21 02:54	22° 33 ♄33'43	
retrograde	3113 Oct 03 16:40	1° 33 ♄53'41			3114 Aug 26 17:33	0° 33 ♄	
	3113 Oct 09 11:44	30° 33 ♄		evening max el	3114 Sep 02 19:08	7° 33 ♄45'11	27°26'21
evening set	3113 Oct 10 14:08	29° 33 ♄12'10		retrograde	3114 Sep 16 11:04	15° 33 ♄01'44	
min. Earth dist.	3113 Oct 14 11:03	25° 33 ♄29'34	0.65028 AU	evening set	3114 Sep 23 15:13	12° 33 ♄25'37	
inferior conj	3113 Oct 16 14:15	23° 33 ♄07'00	-2°-19'-35	min. Earth dist.	3114 Sep 27 07:03	9° 33 ♄16'15	0.63444 AU
minimum elong	3113 Oct 16 18:06	22° 33 ♄56'17	2°18'08	inferior conj	3114 Sep 29 22:33	6° 33 ♄36'56	-3°-18'-25
morning rise	3113 Oct 22 23:55	17° 33 ♄32'31		minimum elong	3114 Sep 30 03:48	6° 33 ♄23'46	3°16'45
asc. node	3113 Oct 23 15:12	17° 33 ♄17'00		morning rise	3114 Oct 06 18:47	1° 33 ♄19'25	
direct	3113 Oct 25 14:45	16° 33 ♄56'01		direct	3114 Oct 09 04:51	0° 33 ♄51'12	
morning max el	3113 Nov 01 02:42	20° 33 ♄24'44	18°04'48	asc. node	3114 Oct 10 12:15	0° 33 ♄59'37	
	3113 Nov 08 09:44	0° 33 ♄		morning max el	3114 Oct 15 19:07	4° 33 ♄16'41	17°51'17
morning set	3113 Nov 19 01:38	17° 33 ♄21'58		morning set	3114 Nov 01 05:46	29° 33 ♄36'34	
	3113 Nov 26 18:00	0° 33 ♄			3114 Nov 01 11:09	0° 33 ♄	
desc. node	3113 Nov 30 05:13	5° 33 ♄36'15		superior conj	3114 Nov 13 10:35	20° 33 ♄23'59	0°24'56
superior conj	3113 Dec 03 07:07	10° 33 ♄31'37	0°-20'-49	minimum elong	3114 Nov 13 13:08	20° 33 ♄34'31	0°24'35
minimum elong	3113 Dec 03 04:30	10° 33 ♄21'14	0°20'29	desc. node	3114 Nov 17 02:15	26° 33 ♄22'43	
max. Earth dist.	3113 Dec 06 22:00	16° 33 ♄15'32	1.44995 AU		3114 Nov 19 08:09	0° 33 ♄	
	3113 Dec 15 17:02	0° 33 ♄		max. Earth dist.	3114 Nov 19 15:36	0° 33 ♄29'53	1.44081 AU
evening rise	3113 Dec 19 17:11	6° 33 ♄12'28		evening rise	3114 Nov 29 02:24	15° 33 ♄19'37	
	3114 Jan 04 08:34	0° 33 ♄			3114 Dec 08 18:40	0° 33 ♄	
greatest brilliancy	3114 Jan 06 14:58	3° 33 ♄15'07	-0.6m	greatest brilliancy	3114 Dec 22 13:22	19° 33 ♄34'44	-0.5m
evening max el	3114 Jan 14 01:13	12° 33 ♄34'11	19°46'46	evening max el	3114 Dec 28 02:11	26° 33 ♄05'46	20°50'27
asc. node	3114 Jan 19 14:28	16° 33 ♄34'09			3115 Jan 01 21:34	0° 33 ♄	
retrograde	3114 Jan 21 12:08	16° 33 ♄53'52		retrograde	3115 Jan 05 10:04	1° 33 ♄01'16	
evening set	3114 Jan 25 01:30	15° 33 ♄39'52		asc. node	3115 Jan 06 11:30	0° 33 ♄55'04	
inferior conj	3114 Jan 30 13:36	9° 33 ♄38'37	3°04'58		3115 Jan 08 16:52	30° 33 ♄	
minimum elong	3114 Jan 30 11:13	9° 33 ♄46'33	3°04'26	evening set	3115 Jan 09 08:47	29° 33 ♄32'24	
min. Earth dist.	3114 Jan 31 14:20	8° 33 ♄16'36	0.66824 AU	inferior conj	3115 Jan 14 18:45	23° 33 ♄19'12	2°32'00

minimum elong	3115 Jan 14 16:12	23°☿27'55	2°31'14	min. Earth dist.	3115 Dec 30 02:08	7°☿06'47	0.67893 AU
min. Earth dist.	3115 Jan 15 06:28	22°☿38'58	0.67552 AU	morning rise	3116 Jan 04 06:58	0°☿53'41	
morning rise	3115 Jan 19 23:13	17°☿04'04			3116 Jan 05 12:01	30°☿☿	
direct	3115 Jan 25 08:33	14°☿42'36		direct	3116 Jan 09 01:11	28°☿☿54'25	
morning max el	3115 Feb 05 06:24	21°☿12'47	24°00'34		3116 Jan 12 22:05	0°☿	
	3115 Feb 12 20:32	0°☿		morning max el	3116 Jan 18 16:58	4°☿36'33	22°32'00
desc. node	3115 Feb 13 01:29	0°☿15'46		greatest brilliancy	3116 Jan 23 06:31	9°☿42'07	-0.3m
	3115 Mar 05 10:42	0°☿		desc. node	3116 Jan 30 22:31	19°☿43'03	
morning set	3115 Mar 12 21:04	12°☿22'06			3116 Feb 07 02:38	0°☿	
max. Earth dist.	3115 Mar 16 16:45	19°☿03'51	1.38287 AU	morning set	3116 Feb 21 12:16	22°☿23'49	
	3115 Mar 22 15:52	0°☿			3116 Feb 26 01:57	0°☿	
				max. Earth dist.	3116 Feb 26 13:06	0°☿47'17	1.40456 AU
superior conj	3115 Mar 23 21:43	2°☿21'15	-1°-39'-15				
minimum elong	3115 Mar 24 02:15	2°☿42'50	1°38'44	superior conj	3116 Mar 05 08:02	14°☿25'57	-1°-58'-14
evening rise	3115 Apr 01 21:19	19°☿51'21		minimum elong	3116 Mar 05 11:45	14°☿42'45	1°58'01
asc. node	3115 Apr 04 10:49	24°☿50'48			3116 Mar 13 17:38	0°☿	
	3115 Apr 07 04:16	0°☿		evening rise	3116 Mar 15 09:46	3°☿09'26	
evening max el	3115 Apr 18 07:48	16°☿25'36	18°56'23	asc. node	3116 Mar 21 07:52	14°☿07'27	
retrograde	3115 Apr 26 18:55	20°☿33'06		evening max el	3116 Mar 31 13:17	28°☿59'55	18°22'02
evening set	3115 Apr 28 22:02	20°☿18'29			3116 Apr 01 15:46	0°☿	
inferior conj	3115 May 07 00:10	16°☿01'43	1°24'33	retrograde	3116 Apr 07 21:01	2°☿37'47	
minimum elong	3115 May 07 03:13	15°☿56'18	1°23'32	evening set	3116 Apr 10 05:59	2°☿15'53	
min. Earth dist.	3115 May 10 03:39	13°☿48'48	0.56873 AU		3116 Apr 14 13:23	30°☿☿	
desc. node	3115 May 12 00:38	12°☿36'26		inferior conj	3116 Apr 17 13:24	27°☿38'49	2°38'59
morning rise	3115 May 15 04:04	10°☿59'37		minimum elong	3116 Apr 17 17:09	27°☿31'02	2°38'03
direct	3115 May 20 11:00	9°☿52'58		min. Earth dist.	3116 Apr 21 00:00	24°☿48'34	0.58849 AU
morning max el	3115 Jun 03 18:26	17°☿17'56	25°55'06	morning rise	3116 Apr 25 00:10	22°☿06'09	
	3115 Jun 14 05:27	0°☿		desc. node	3116 Apr 27 21:41	20°☿53'23	
asc. node	3115 Jul 01 10:05	0°☿48'31		direct	3116 May 01 04:38	20°☿24'30	
	3115 Jul 01 00:51	0°☿		morning max el	3116 May 15 13:57	28°☿09'35	27°07'22
morning set	3115 Jul 01 14:58	1°☿14'13			3116 May 17 09:09	0°☿	
					3116 Jun 06 21:05	0°☿	
superior conj	3115 Jul 08 15:05	16°☿27'11	1°09'25	morning set	3116 Jun 15 00:17	15°☿59'22	
minimum elong	3115 Jul 08 12:45	16°☿14'20	1°09'02	asc. node	3116 Jun 17 07:09	20°☿50'23	
max. Earth dist.	3115 Jul 09 09:11	18°☿06'38	1.32365 AU		3116 Jun 21 11:55	0°☿	
	3115 Jul 14 21:33	0°☿					
evening rise	3115 Jul 15 16:08	1°☿37'06		superior conj	3116 Jun 22 02:54	1°☿22'33	0°48'54
	3115 Jul 31 04:13	0°☿		minimum elong	3116 Jun 22 00:58	1°☿11'51	0°48'31
desc. node	3115 Aug 07 23:55	11°☿12'11		max. Earth dist.	3116 Jun 21 20:59	0°☿49'57	1.32094 AU
evening max el	3115 Aug 16 02:06	20°☿19'13	27°10'43	evening rise	3116 Jun 29 00:18	16°☿21'45	
retrograde	3115 Aug 29 22:28	27°☿32'44			3116 Jul 05 19:32	0°☿	
evening set	3115 Sep 06 01:32	25°☿14'13		desc. node	3116 Jul 24 20:57	28°☿47'23	
min. Earth dist.	3115 Sep 09 16:21	22°☿29'49	0.61558 AU		3116 Jul 25 23:45	0°☿	
inferior conj	3115 Sep 12 18:32	19°☿45'18	-4°-11'-28	evening max el	3116 Jul 28 02:28	2°☿07'15	26°21'55
minimum elong	3115 Sep 13 00:11	19°☿32'44	4°10'09	retrograde	3116 Aug 11 01:54	9°☿18'09	
morning rise	3115 Sep 20 01:49	14°☿48'21		evening set	3116 Aug 17 16:17	7°☿30'11	
direct	3115 Sep 22 09:58	14°☿25'26		min. Earth dist.	3116 Aug 21 15:36	4°☿55'27	0.59493 AU
asc. node	3115 Sep 27 09:19	16°☿12'52		inferior conj	3116 Aug 24 22:38	2°☿22'35	-4°-51'-7
morning max el	3115 Sep 29 09:56	17°☿55'59	17°56'14	minimum elong	3116 Aug 25 02:39	2°☿14'47	4°50'37
	3115 Oct 08 01:28	0°☿			3116 Aug 28 04:27	30°☿☿	
morning set	3115 Oct 15 05:07	12°☿45'57		morning rise	3116 Sep 01 16:28	27°☿48'42	
	3115 Oct 24 19:04	0°☿		direct	3116 Sep 04 01:43	27°☿28'40	
					3116 Sep 10 10:13	0°☿	
superior conj	3115 Oct 25 17:07	1°☿36'08	1°01'16	morning max el	3116 Sep 11 19:55	1°☿13'51	18°20'50
minimum elong	3115 Oct 25 21:27	1°☿54'57	1°00'43	asc. node	3116 Sep 13 06:23	2°☿43'31	
max. Earth dist.	3115 Nov 02 04:55	14°☿16'39	1.42567 AU	morning set	3116 Sep 27 18:07	26°☿34'12	
desc. node	3115 Nov 03 23:16	17°☿09'55			3116 Sep 29 13:13	0°☿	
evening rise	3115 Nov 08 17:22	24°☿46'44					
	3115 Nov 12 01:36	0°☿		superior conj	3116 Oct 06 23:35	13°☿58'28	1°26'02
	3115 Dec 02 18:57	0°☿		minimum elong	3116 Oct 07 03:13	14°☿15'05	1°25'41
greatest brilliancy	3115 Dec 06 04:10	4°☿18'07	-0.3m	max. Earth dist.	3116 Oct 14 12:27	27°☿21'06	1.40649 AU
evening max el	3115 Dec 10 21:36	9°☿38'30	22°04'30		3116 Oct 16 01:46	0°☿	
retrograde	3115 Dec 20 06:48	15°☿13'36		evening rise	3116 Oct 19 03:24	5°☿07'12	
asc. node	3115 Dec 24 08:34	13°☿44'15		desc. node	3116 Oct 20 20:16	7°☿54'09	
evening set	3115 Dec 24 16:35	13°☿28'44			3116 Nov 04 06:52	0°☿	
inferior conj	3115 Dec 30 02:04	7°☿07'01	1°51'13	evening max el	3116 Nov 22 12:34	23°☿13'28	23°24'03
minimum elong	3115 Dec 29 23:52	7°☿14'39	1°50'25	retrograde	3116 Dec 03 00:45	29°☿26'39	

evening set	3116 Dec 07 23:14	27° ♂ 25'15		min. Earth dist.	3117 Nov 26 18:28	6° ♂ 04'16	0.67528 AU
asc. node	3116 Dec 10 05:38	25° ♂ 07'32		asc. node	3117 Nov 27 02:39	5° ♂ 37'09	
inferior conj	3116 Dec 13 09:40	20° ♂ 59'02	1°03'54	inferior conj	3117 Nov 27 15:49	4° ♂ 53'23	0°11'17
minimum elong	3116 Dec 13 08:14	21° ♂ 03'57	1°03'20	minimum elong	3117 Nov 27 15:32	4° ♂ 54'19	0°11'10
min. Earth dist.	3116 Dec 12 22:56	21° ♂ 35'53	0.67879 AU	transit middle	3117 Nov 27 15:32	4° ♂ 54'19	0°11'10
morning rise	3116 Dec 18 17:21	14° ♂ 49'28		transit begin	3117 Nov 27 13:33	5° ♂ 00'57	
direct	3116 Dec 22 21:08	13° ♂ 13'02		transit end	3117 Nov 27 17:32	4° ♂ 47'41	
morning max el	3116 Dec 31 08:57	18° ♂ 08'55	21°09'07		3117 Dec 01 18:25	30° ♂ 00'00	
greatest brilliancy	3117 Jan 05 16:46	24° ♂ 15'52	-0.4m	morning rise	3117 Dec 03 04:24	28° ♂ 49'59	
	3117 Jan 10 00:57	0° ♂		direct	3117 Dec 06 19:16	27° ♂ 34'39	
desc. node	3117 Jan 16 19:33	9° ♂ 37'45			3117 Dec 12 07:10	0° ♂	
	3117 Jan 30 06:11	0° ♂		morning max el	3117 Dec 14 08:33	1° ♂ 52'26	19°57'44
morning set	3117 Jan 30 23:12	1° ♂ 06'39		greatest brilliancy	3117 Dec 21 14:05	10° ♂ 40'16	-0.6m
max. Earth dist.	3117 Feb 07 15:04	13° ♂ 23'00	1.42458 AU	desc. node	3118 Jan 03 16:34	29° ♂ 52'36	
					3118 Jan 03 18:31	0° ♂	
superior conj	3117 Feb 14 20:25	25° ♂ 27'33	-2°-6'-28	morning set	3118 Jan 09 19:11	9° ♂ 14'13	
minimum elong	3117 Feb 14 20:42	25° ♂ 28'49	2°06'29	max. Earth dist.	3118 Jan 21 00:50	26° ♂ 50'50	1.44033 AU
	3117 Feb 17 11:38	0° ♂			3118 Jan 23 00:06	0° ♂	
evening rise	3117 Feb 26 08:20	15° ♂ 44'54					
	3117 Mar 06 09:51	0° ♂		superior conj	3118 Jan 26 06:59	5° ♂ 19'02	-1°-58'-43
asc. node	3117 Mar 08 04:55	2° ♂ 56'34		minimum elong	3118 Jan 26 01:35	4° ♂ 57'01	1°58'27
evening max el	3117 Mar 14 23:56	11° ♂ 59'05	18°07'38	evening rise	3118 Feb 08 12:40	27° ♂ 29'29	
retrograde	3117 Mar 21 15:50	15° ♂ 23'18			3118 Feb 09 23:46	0° ♂	
evening set	3117 Mar 24 06:36	14° ♂ 51'59		asc. node	3118 Feb 23 01:57	21° ♂ 09'29	
inferior conj	3117 Mar 30 22:28	9° ♂ 53'55	3°21'36	evening max el	3118 Feb 26 12:36	25° ♂ 14'34	18°12'27
minimum elong	3117 Mar 31 00:51	9° ♂ 48'10	3°21'17	retrograde	3118 Mar 04 23:04	28° ♂ 39'27	
min. Earth dist.	3117 Apr 03 03:12	6° ♂ 50'54	0.61021 AU	evening set	3118 Mar 07 19:20	27° ♂ 57'26	
morning rise	3117 Apr 06 15:59	4° ♂ 01'04		inferior conj	3118 Mar 13 23:25	22° ♂ 39'06	3°38'35
direct	3117 Apr 13 09:59	1° ♂ 45'10		minimum elong	3118 Mar 13 23:57	22° ♂ 37'41	3°38'35
desc. node	3117 Apr 14 18:43	1° ♂ 50'27		min. Earth dist.	3118 Mar 16 15:00	19° ♂ 47'18	0.63087 AU
morning max el	3117 Apr 27 15:40	9° ♂ 40'37	27°45'46	morning rise	3118 Mar 20 02:30	16° ♂ 34'31	
	3117 May 13 08:44	0° ♂		direct	3118 Mar 27 00:23	13° ♂ 54'42	
	3117 May 29 23:42	0° ♂		desc. node	3118 Apr 01 15:45	15° ♂ 25'56	
morning set	3117 May 30 05:41	0° ♂ 30'48		morning max el	3118 Apr 09 22:26	21° ♂ 51'57	27°46'42
asc. node	3117 Jun 04 04:12	10° ♂ 58'00			3118 Apr 17 01:19	0° ♂	
max. Earth dist.	3117 Jun 05 07:48	13° ♂ 28'01	1.32222 AU		3118 May 06 11:59	0° ♂	
				morning set	3118 May 14 04:54	14° ♂ 40'37	
superior conj	3117 Jun 06 13:51	16° ♂ 12'14	0°25'04	max. Earth dist.	3118 May 19 13:45	25° ♂ 47'39	1.32771 AU
minimum elong	3117 Jun 06 12:44	16° ♂ 06'06	0°24'50				
	3117 Jun 12 21:43	0° ♂		superior conj	3118 May 21 22:05	0° ♂ 49'40	0°-1'-22
evening rise	3117 Jun 13 11:17	1° ♂ 12'19		minimum elong	3118 May 21 22:10	0° ♂ 50'03	0°01'23
	3117 Jun 29 03:58	0° ♂		behind sun begin	3118 May 21 16:55	0° ♂ 21'47	
evening max el	3117 Jul 09 19:47	13° ♂ 09'38	25°04'39	behind sun end	3118 May 22 03:24	1° ♂ 18'19	
desc. node	3117 Jul 11 17:57	14° ♂ 53'50			3118 May 21 12:53	0° ♂	
retrograde	3117 Jul 23 19:15	20° ♂ 14'54		asc. node	3118 May 22 01:13	1° ♂ 06'35	
evening set	3117 Jul 29 07:24	19° ♂ 05'27		evening rise	3118 May 28 23:08	16° ♂ 01'38	
min. Earth dist.	3117 Aug 03 07:27	16° ♂ 21'29	0.57492 AU		3118 Jun 04 22:06	0° ♂	
inferior conj	3117 Aug 06 07:41	14° ♂ 20'08	-5°-5'-16	evening max el	3118 Jun 21 09:13	23° ♂ 40'40	23°30'29
minimum elong	3117 Aug 06 07:15	14° ♂ 20'53	5°05'16	desc. node	3118 Jun 28 14:59	28° ♂ 57'25	
morning rise	3117 Aug 14 10:44	10° ♂ 08'43			3118 Jul 01 09:31	0° ♂	
direct	3117 Aug 17 00:00	9° ♂ 49'39		retrograde	3118 Jul 04 23:50	0° ♂ 29'25	
morning max el	3117 Aug 25 21:46	14° ♂ 00'50	19°06'21		3118 Jul 08 15:39	30° ♂ 00'00	
asc. node	3117 Aug 31 03:26	20° ♂ 16'27		evening set	3118 Jul 09 00:30	29° ♂ 53'54	
	3117 Sep 06 01:06	0° ♂		min. Earth dist.	3118 Jul 15 19:14	26° ♂ 45'02	0.55879 AU
morning set	3117 Sep 11 16:41	10° ♂ 50'28		inferior conj	3118 Jul 17 20:35	25° ♂ 31'40	-4°-38'-50
				minimum elong	3118 Jul 17 14:27	25° ♂ 40'51	4°37'53
superior conj	3117 Sep 20 00:30	27° ♂ 15'32	1°40'02	morning rise	3118 Jul 26 07:33	21° ♂ 36'57	
minimum elong	3117 Sep 20 02:27	27° ♂ 24'55	1°39'55	direct	3118 Jul 29 03:14	21° ♂ 17'18	
	3117 Sep 21 10:49	0° ♂		morning max el	3118 Aug 08 12:42	26° ♂ 06'37	20°13'28
max. Earth dist.	3117 Sep 26 16:36	9° ♂ 43'58	1.38579 AU		3118 Aug 12 02:55	0° ♂	
evening rise	3117 Sep 30 13:16	16° ♂ 34'04		asc. node	3118 Aug 18 00:27	8° ♂ 36'58	
desc. node	3117 Oct 07 17:17	28° ♂ 31'56		morning set	3118 Aug 26 21:39	25° ♂ 25'21	
	3117 Oct 08 15:19	0° ♂			3118 Aug 29 03:17	0° ♂	
	3117 Oct 29 19:55	0° ♂					
evening max el	3117 Nov 05 01:19	6° ♂ 53'04	24°42'44	superior conj	3118 Sep 03 14:43	11° ♂ 11'50	1°44'54
retrograde	3117 Nov 16 14:47	13° ♂ 37'02		minimum elong	3118 Sep 03 14:56	11° ♂ 12'56	1°44'54
evening set	3117 Nov 22 03:07	11° ♂ 19'39		max. Earth dist.	3118 Sep 08 22:29	21° ♂ 40'19	1.36601 AU

evening rise	3118 Sep 12 20:46	29° \cap 01'09		evening rise	3119 Aug 26 21:37	12° \cap 17'37	
	3118 Sep 13 09:42	0° Δ			3119 Sep 05 18:55	0° Δ	
desc. node	3118 Sep 24 14:19	18° Δ 57'54		desc. node	3119 Sep 11 11:19	9° Δ 06'09	
	3118 Oct 01 21:58	0° \cap			3119 Sep 27 01:28	0° \cap	
evening max el	3118 Oct 18 13:37	20° \cap 34'43	25°53'26	evening max el	3119 Oct 01 02:02	4° \cap 11'46	26°48'30
retrograde	3118 Oct 30 23:57	27° \cap 39'21		retrograde	3119 Oct 14 03:48	11° \cap 27'14	
evening set	3118 Nov 06 02:31	25° \cap 08'12		evening set	3119 Oct 20 19:22	8° \cap 47'04	
min. Earth dist.	3118 Nov 10 10:17	20° \cap 28'29	0.66834 AU	min. Earth dist.	3119 Oct 24 19:58	4° \cap 44'05	0.65789 AU
inferior conj	3118 Nov 11 18:39	18° \cap 46'36	0°-45'-28	inferior conj	3119 Oct 26 16:11	2° \cap 34'44	-1°-44'-56
minimum elong	3118 Nov 11 19:51	18° \cap 42'50	0°44'58	minimum elong	3119 Oct 26 19:04	2° \cap 26'19	1°43'48
asc. node	3118 Nov 13 23:40	16° \cap 05'44			3119 Oct 28 23:12	30° \cap	
morning rise	3118 Nov 17 14:07	12° \cap 52'08		asc. node	3119 Oct 31 20:42	27° Δ 27'15	
direct	3118 Nov 20 17:55	11° \cap 54'50		morning rise	3119 Nov 01 20:15	26° Δ 52'18	
morning max el	3118 Nov 27 15:44	15° \cap 45'23	19°01'06	direct	3119 Nov 04 15:11	26° Δ 09'18	
	3118 Dec 08 09:50	0° \nearrow		morning max el	3119 Nov 11 04:41	29° Δ 43'07	18°20'35
morning set	3118 Dec 20 01:40	18° \nearrow 01'29			3119 Nov 11 11:20	0° \cap	
desc. node	3118 Dec 21 13:36	20° \nearrow 21'52		morning set	3119 Nov 30 11:18	28° \cap 12'12	
	3118 Dec 27 17:31	0° \searrow			3119 Dec 01 13:58	0° \nearrow	
max. Earth dist.	3119 Jan 03 17:05	10° \searrow 57'00	1.44981 AU	desc. node	3119 Dec 08 10:38	11° \nearrow 00'42	
superior conj	3119 Jan 05 18:06	14° \searrow 10'13	-1°-31'-39	superior conj	3119 Dec 15 19:57	22° \nearrow 42'13	0°-48'-39
minimum elong	3119 Jan 05 09:02	13° \searrow 34'25	1°30'46	minimum elong	3119 Dec 15 13:47	22° \nearrow 17'57	0°47'52
	3119 Jan 15 16:17	0° \approx		max. Earth dist.	3119 Dec 17 12:19	25° \nearrow 20'48	1.45199 AU
evening rise	3119 Jan 20 19:01	8° \approx 18'05			3119 Dec 20 11:32	0° \searrow	
	3119 Feb 03 07:51	0° \nearrow		evening rise	3120 Jan 01 02:14	18° \searrow 11'27	
asc. node	3119 Feb 09 22:58	8° \nearrow 35'36			3120 Jan 08 15:09	0° \approx	
evening max el	3119 Feb 10 00:30	8° \nearrow 39'32	18°35'41	greatest brilliancy	3120 Jan 15 01:30	9° \approx 51'39	-0.7m
retrograde	3119 Feb 16 14:33	12° \nearrow 17'47		evening max el	3120 Jan 24 09:17	22° \approx 08'31	19°16'13
evening set	3119 Feb 19 16:36	11° \nearrow 24'08		asc. node	3120 Jan 27 19:59	25° \approx 01'12	
inferior conj	3119 Feb 25 12:19	5° \nearrow 47'06	3°36'21	retrograde	3120 Jan 31 10:41	26° \approx 10'50	
minimum elong	3119 Feb 25 11:16	5° \nearrow 50'15	3°36'17	evening set	3120 Feb 03 19:29	25° \approx 04'36	
min. Earth dist.	3119 Feb 27 12:17	3° \nearrow 23'47	0.64849 AU	inferior conj	3120 Feb 09 09:40	19° \approx 11'13	3°19'44
	3119 Mar 02 17:41	30° \cap		minimum elong	3120 Feb 09 07:36	19° \approx 17'52	3°19'23
morning rise	3119 Mar 03 04:39	29° \approx 36'00		min. Earth dist.	3120 Feb 10 18:26	17° \approx 25'44	0.66219 AU
direct	3119 Mar 09 22:04	26° \approx 46'20		morning rise	3120 Feb 14 18:53	12° \approx 56'40	
	3119 Mar 18 01:28	0° \nearrow		direct	3120 Feb 21 02:06	10° \approx 10'26	
desc. node	3119 Mar 19 12:47	1° \nearrow 07'52		morning max el	3120 Mar 04 17:49	17° \approx 40'50	26°11'10
morning max el	3119 Mar 23 07:59	4° \nearrow 36'09	27°12'53	desc. node	3120 Mar 05 09:50	18° \approx 21'49	
	3119 Apr 11 14:30	0° \cap			3120 Mar 15 01:54	0° \nearrow	
morning set	3119 Apr 27 19:08	28° \cap 20'22		morning set	3120 Apr 03 13:30	0° \cap	
	3119 Apr 28 15:34	0° \searrow		max. Earth dist.	3120 Apr 09 20:34	11° \cap 18'09	
max. Earth dist.	3119 May 02 11:09	7° \searrow 38'57	1.33764 AU		3120 Apr 13 21:12	18° \cap 58'11	1.35211 AU
superior conj	3119 May 06 01:43	15° \searrow 08'48	0°-29'-30	superior conj	3120 Apr 18 22:16	29° \cap 01'52	0°-58'-6
minimum elong	3119 May 06 03:13	15° \searrow 16'47	0°29'12	minimum elong	3120 Apr 19 01:18	29° \cap 17'19	0°57'33
asc. node	3119 May 08 22:15	21° \searrow 12'14			3120 Apr 19 09:39	0° \searrow	
evening rise	3119 May 13 10:00	0° \cap 43'38		asc. node	3120 Apr 24 19:17	11° \searrow 10'17	
	3119 May 13 01:41	0° \cap		evening rise	3120 Apr 26 17:53	15° \searrow 11'08	
	3119 May 30 07:17	0° \searrow			3120 May 04 08:50	0° \cap	
evening max el	3119 Jun 03 01:51	4° \searrow 10'36	21°55'02	evening max el	3120 May 15 04:27	15° \cap 08'10	20°31'07
desc. node	3119 Jun 15 11:59	10° \searrow 24'28		retrograde	3120 May 26 06:00	20° \cap 31'38	
retrograde	3119 Jun 15 16:47	10° \searrow 24'34		evening set	3120 May 28 07:09	20° \cap 21'18	
evening set	3119 Jun 18 09:50	10° \searrow 08'08		desc. node	3120 Jun 01 09:00	19° \cap 05'51	
inferior conj	3119 Jun 27 17:59	6° \searrow 04'34	-3°-23'00	inferior conj	3120 Jun 06 11:58	16° \cap 23'37	-1°-30'-12
minimum elong	3119 Jun 27 09:49	6° \searrow 15'59	3°20'38	minimum elong	3120 Jun 06 07:43	16° \cap 29'47	1°28'39
min. Earth dist.	3119 Jun 27 06:07	6° \searrow 21'10	0.54977 AU	min. Earth dist.	3120 Jun 07 18:22	15° \cap 39'38	0.54997 AU
morning rise	3119 Jul 06 11:20	2° \searrow 12'43		morning rise	3120 Jun 15 06:48	12° \cap 14'05	
direct	3119 Jul 09 15:45	1° \searrow 50'21		direct	3120 Jun 19 01:34	11° \cap 43'16	
morning max el	3119 Jul 21 16:00	7° \searrow 27'46	21°40'23	morning max el	3120 Jul 02 10:10	18° \cap 11'16	23°20'40
asc. node	3119 Aug 04 21:29	27° \searrow 33'55			3120 Jul 12 01:49	0° \searrow	
	3119 Aug 06 04:34	0° \cap		asc. node	3120 Jul 21 18:33	16° \searrow 58'04	
morning set	3119 Aug 11 06:43	10° \cap 12'34		morning set	3120 Jul 25 18:01	25° \searrow 06'34	
					3120 Jul 28 01:12	0° \cap	
superior conj	3119 Aug 18 14:16	25° \cap 36'03	1°42'16	superior conj	3120 Aug 01 20:07	10° \cap 18'57	1°33'26
minimum elong	3119 Aug 18 13:08	25° \cap 30'05	1°42'13	minimum elong	3120 Aug 01 18:06	10° \cap 08'11	1°33'16
	3119 Aug 20 17:12	0° \cap		max. Earth dist.	3120 Aug 04 08:45	15° \cap 41'50	1.33591 AU
max. Earth dist.	3119 Aug 22 11:08	3° \cap 33'38	1.34905 AU				

evening rise	3120 Aug 09 11:30	26°♎12'05		superior conj	3121 Jul 17 05:49	25°♎12'14	1°19'29
	3120 Aug 11 09:54	0°♎		minimum elong	3121 Jul 17 03:27	24°♎59'21	1°19'09
desc. node	3120 Aug 28 08:19	28°♎49'03		max. Earth dist.	3121 Jul 18 14:18	28°♎09'15	1.32694 AU
	3120 Aug 29 03:48	0°♎			3121 Jul 19 10:44	0°♎	
evening max el	3120 Sep 12 13:53	17°♎34'31	27°20'43	evening rise	3121 Jul 24 10:44	10°♎33'34	
retrograde	3120 Sep 26 02:02	24°♎53'01			3121 Aug 03 16:37	0°♎	
evening set	3120 Oct 03 03:11	22°♎12'01		desc. node	3121 Aug 15 05:21	17°♎55'30	
min. Earth dist.	3120 Oct 06 21:29	18°♎44'32	0.64389 AU		3121 Aug 25 10:44	0°♎	
inferior conj	3120 Oct 09 06:07	16°♎13'24	-2°-44'-56	evening max el	3121 Aug 25 23:22	0°♎30'19	27°23'51
minimum elong	3120 Oct 09 10:37	16°♎01'22	2°43'20	retrograde	3121 Sep 08 17:53	7°♎46'34	
morning rise	3120 Oct 15 20:12	10°♎46'03		evening set	3121 Sep 15 22:34	5°♎16'17	
asc. node	3120 Oct 17 17:45	10°♎15'35		min. Earth dist.	3121 Sep 19 13:08	2°♎18'52	0.62663 AU
direct	3120 Oct 18 08:37	10°♎13'35			3121 Sep 21 23:22	30°♎	
morning max el	3120 Oct 24 20:46	13°♎39'55	17°56'59	inferior conj	3121 Sep 22 09:36	29°♎35'22	-3°-42'-4
	3120 Nov 05 06:24	0°♎		minimum elong	3121 Sep 22 15:11	29°♎21'59	3°40'28
morning set	3120 Nov 11 01:29	9°♎46'44		morning rise	3121 Sep 29 10:33	24°♎26'19	
	3120 Nov 23 05:31	0°♎		direct	3121 Oct 01 19:17	24°♎00'51	
				asc. node	3121 Oct 04 14:50	24°♎37'56	
superior conj	3120 Nov 24 09:51	1°♎54'33	0°00'-37	morning max el	3121 Oct 08 12:56	27°♎27'48	17°51'05
minimum elong	3120 Nov 24 09:47	1°♎54'17	0°00'37		3121 Oct 10 19:22	0°♎	
behind sun begin	3120 Nov 23 23:32	1°♎12'53		morning set	3121 Oct 24 14:33	22°♎26'45	
behind sun end	3120 Nov 24 20:02	2°♎35'37			3121 Oct 28 20:56	0°♎	
desc. node	3120 Nov 24 07:38	1°♎45'38					
max. Earth dist.	3120 Nov 29 07:00	9°♎42'37	1.44679 AU	superior conj	3121 Nov 05 00:47	12°♎20'54	0°41'43
evening rise	3120 Dec 10 15:46	27°♎25'56		minimum elong	3121 Nov 05 04:30	12°♎36'33	0°41'12
	3120 Dec 12 07:52	0°♎		desc. node	3121 Nov 11 04:40	22°♎32'58	
greatest brilliancy	3120 Dec 31 01:28	27°♎44'41	-0.6m	max. Earth dist.	3121 Nov 11 22:25	23°♎44'56	1.43495 AU
	3121 Jan 01 18:12	0°♎			3121 Nov 15 20:10	0°♎	
evening max el	3121 Jan 06 13:19	5°♎39'31	20°12'17	evening rise	3121 Nov 20 01:17	6°♎36'08	
asc. node	3121 Jan 13 17:02	10°♎11'56			3121 Dec 05 15:58	0°♎	
retrograde	3121 Jan 14 08:42	10°♎14'17		greatest brilliancy	3121 Dec 15 10:56	13°♎22'53	-0.4m
evening set	3121 Jan 18 01:44	8°♎54'13		evening max el	3121 Dec 20 11:53	19°♎11'31	21°21'01
inferior conj	3121 Jan 23 12:41	2°♎47'20	2°52'04	retrograde	3121 Dec 29 06:20	24°♎23'55	
minimum elong	3121 Jan 23 10:10	2°♎55'49	2°51'25	asc. node	3121 Dec 31 14:05	23°♎54'18	
min. Earth dist.	3121 Jan 24 07:42	1°♎43'06	0.67178 AU	evening set	3122 Jan 02 09:27	22°♎48'36	
	3121 Jan 25 14:59	30°♎		inferior conj	3122 Jan 07 19:01	16°♎31'27	2°15'35
morning rise	3121 Jan 28 18:03	26°♎31'39		minimum elong	3122 Jan 07 16:34	16°♎39'56	2°14'47
direct	3121 Feb 03 11:49	23°♎58'59		min. Earth dist.	3122 Jan 08 01:44	16°♎08'13	0.67740 AU
	3121 Feb 14 04:09	0°♎		morning rise	3122 Jan 12 23:20	10°♎16'40	
morning max el	3121 Feb 15 02:35	0°♎55'23	24°50'57	direct	3122 Jan 18 02:17	8°♎04'05	
desc. node	3121 Feb 20 06:54	6°♎41'46		morning max el	3122 Jan 28 11:21	14°♎14'32	23°22'37
	3121 Mar 09 01:23	0°♎		greatest brilliancy	3122 Feb 02 23:40	20°♎27'35	-0.2m
morning set	3121 Mar 23 04:08	23°♎20'03		desc. node	3122 Feb 07 03:56	25°♎48'22	
	3121 Mar 26 20:40	0°♎			3122 Feb 10 06:07	0°♎	
max. Earth dist.	3121 Mar 26 20:29	29°♎59'11	1.37076 AU		3122 Mar 01 23:45	0°♎	
				morning set	3122 Mar 04 11:38	4°♎09'25	
superior conj	3121 Apr 02 08:46	12°♎21'13	-1°-25'-16	max. Earth dist.	3122 Mar 08 15:15	11°♎16'16	1.39207 AU
minimum elong	3121 Apr 02 13:00	12°♎41'56	1°24'41				
evening rise	3121 Apr 10 20:32	29°♎17'42		superior conj	3122 Mar 16 05:19	24°♎57'07	-1°-48'-18
	3121 Apr 11 05:00	0°♎		minimum elong	3122 Mar 16 09:46	25°♎17'50	1°47'54
asc. node	3121 Apr 11 16:20	0°♎56'30			3122 Mar 18 21:47	0°♎	
evening max el	3121 Apr 27 19:15	26°♎46'37	19°25'14	evening rise	3122 Mar 25 15:08	12°♎56'03	
	3121 May 02 02:28	0°♎		asc. node	3122 Mar 29 13:23	20°♎25'59	
retrograde	3121 May 07 03:25	1°♎18'21			3122 Apr 03 23:37	0°♎	
evening set	3121 May 09 03:39	1°♎06'41		evening max el	3122 Apr 10 20:24	9°♎03'50	18°39'22
	3121 May 12 12:32	30°♎		retrograde	3122 Apr 18 18:16	12°♎56'16	
inferior conj	3121 May 17 16:59	27°♎00'13	0°26'54	evening set	3122 Apr 20 23:54	12°♎38'50	
minimum elong	3121 May 17 18:07	26°♎58'22	0°26'29	inferior conj	3122 Apr 28 17:52	8°♎14'01	2°00'10
desc. node	3121 May 19 06:04	25°♎59'47		minimum elong	3122 Apr 28 21:34	8°♎06'59	1°59'04
min. Earth dist.	3121 May 20 08:55	25°♎16'45	0.55964 AU	min. Earth dist.	3122 May 02 02:31	5°♎42'25	0.57670 AU
morning rise	3121 May 26 04:40	22°♎17'59		desc. node	3122 May 06 03:07	3°♎12'08	
direct	3121 May 30 21:36	21°♎27'39		morning rise	3122 May 06 14:48	2°♎58'01	
morning max el	3121 Jun 14 00:25	28°♎36'42	25°02'09	direct	3122 May 12 07:52	1°♎36'45	
	3121 Jun 15 09:59	0°♎		morning max el	3122 May 26 16:37	9°♎11'39	26°29'19
	3121 Jul 05 07:41	0°♎			3122 Jun 11 11:07	0°♎	
asc. node	3121 Jul 08 15:35	6°♎41'45		morning set	3122 Jun 24 16:33	24°♎52'39	
morning set	3121 Jul 10 05:49	10°♎01'38		asc. node	3122 Jun 25 12:39	26°♎38'59	

	3122 Jun 27 02:08	0°☿		morning set	3123 Jun 09 00:27	9°♊32'56	
				asc. node	3123 Jun 12 09:42	16°♊43'58	
superior conj	3122 Jul 01 17:24	10°♊09'20	1°01'11	max. Earth dist.	3123 Jun 15 13:01	23°♊34'52	1.32107 AU
minimum elong	3122 Jul 01 15:11	9°♊57'05	1°00'47				
max. Earth dist.	3122 Jul 02 00:59	10°♊51'05	1.32204 AU	superior conj	3123 Jun 16 05:03	25°♊03'07	0°39'11
evening rise	3122 Jul 08 16:25	25°♊13'02		minimum elong	3123 Jun 16 03:24	24°♊54'05	0°38'50
	3122 Jul 11 00:05	0°♊			3123 Jun 18 10:58	0°☿	
	3122 Jul 28 09:53	0°♊		evening rise	3123 Jun 23 02:02	10°♊01'30	
desc. node	3122 Aug 02 02:22	6°♊10'19			3123 Jul 03 08:15	0°♊	
evening max el	3122 Aug 08 04:02	12°♊47'05	26°53'58	desc. node	3123 Jul 19 23:24	23°♊11'36	
retrograde	3122 Aug 22 02:05	19°♊59'04		evening max el	3123 Jul 21 01:27	24°♊15'32	25°51'55
evening set	3122 Aug 29 01:09	17°♊52'29			3123 Jul 29 01:45	0°♊	
min. Earth dist.	3122 Sep 01 18:14	15°♊14'03	0.60692 AU	retrograde	3123 Aug 04 01:01	1°♊23'43	
inferior conj	3122 Sep 04 23:18	12°♊32'26	-4°-30'-34		3123 Aug 09 23:06	30°♊♊	
minimum elong	3122 Sep 05 04:34	12°♊21'20	4°29'34	evening set	3123 Aug 10 06:05	29°♊51'48	
morning rise	3122 Sep 12 11:09	7°♊44'42		min. Earth dist.	3123 Aug 14 13:45	27°♊15'33	0.58628 AU
direct	3122 Sep 14 19:20	7°♊23'16		inferior conj	3123 Aug 17 19:36	24°♊54'00	-5°-1'-4
asc. node	3122 Sep 21 11:53	10°♊26'01		minimum elong	3123 Aug 17 22:03	24°♊49'31	5°00'55
morning max el	3122 Sep 22 02:02	10°♊59'06	18°04'06	morning rise	3123 Aug 25 17:31	20°♊29'48	
	3122 Oct 04 15:39	0°♊		direct	3123 Aug 28 04:21	20°♊10'13	
morning set	3122 Oct 07 20:18	5°♊54'32		morning max el	3123 Sep 05 08:50	24°♊04'40	18°37'31
				asc. node	3123 Sep 08 08:55	27°♊24'50	
superior conj	3122 Oct 17 18:03	24°♊04'17	1°13'11		3123 Sep 10 06:47	0°♊	
minimum elong	3122 Oct 17 22:18	24°♊23'07	1°12'41	morning set	3123 Sep 21 13:48	19°♊56'14	
	3122 Oct 21 03:06	0°♊			3123 Sep 26 18:22	0°♊	
max. Earth dist.	3122 Oct 25 09:17	7°♊14'52	1.41793 AU				
desc. node	3122 Oct 29 01:41	13°♊19'22		superior conj	3123 Sep 30 09:03	6°♊51'56	1°33'12
evening rise	3122 Oct 30 23:14	16°♊23'17		minimum elong	3123 Sep 30 12:01	7°♊05'50	1°32'57
	3122 Nov 08 17:18	0°♊		max. Earth dist.	3123 Oct 07 15:27	20°♊03'03	1.39778 AU
greatest brilliancy	3122 Nov 28 08:00	27°♊16'42	-0.3m	evening rise	3123 Oct 11 19:20	27°♊11'46	
	3122 Nov 30 15:41	0°♊			3123 Oct 13 11:39	0°♊	
evening max el	3122 Dec 03 05:20	2°♊45'21	22°38'07	desc. node	3123 Oct 15 22:41	4°♊01'32	
retrograde	3122 Dec 13 01:52	8°♊36'35			3123 Nov 02 07:53	0°♊	
evening set	3122 Dec 17 16:54	6°♊44'49		evening max el	3123 Nov 15 19:06	16°♊22'30	23°58'03
asc. node	3122 Dec 18 11:09	6°♊04'29		retrograde	3123 Nov 26 18:09	22°♊49'23	
inferior conj	3122 Dec 23 02:39	0°♊20'57	1°31'51	evening set	3123 Dec 01 22:33	20°♊40'50	
minimum elong	3122 Dec 23 00:43	0°♊27'37	1°31'08	asc. node	3123 Dec 05 08:10	16°♊59'40	
min. Earth dist.	3122 Dec 22 22:06	0°♊36'40	0.67932 AU	inferior conj	3123 Dec 07 09:49	14°♊14'12	0°42'10
	3122 Dec 23 08:43	30°♊♊		minimum elong	3123 Dec 07 08:50	14°♊17'34	0°41'46
morning rise	3122 Dec 28 08:27	24°♊09'02		min. Earth dist.	3123 Dec 06 18:32	15°♊06'02	0.67773 AU
direct	3123 Jan 01 20:31	22°♊19'21		morning rise	3123 Dec 12 19:21	8°♊07'15	
morning max el	3123 Jan 10 23:38	27°♊40'37	21°55'37	direct	3123 Dec 16 17:28	6°♊40'09	
	3123 Jan 13 03:54	0°♊		morning max el	3123 Dec 24 18:47	11°♊18'08	20°37'12
greatest brilliancy	3123 Jan 15 16:28	2°♊57'53	-0.4m	greatest brilliancy	3123 Dec 30 18:29	18°♊19'22	-0.5m
desc. node	3123 Jan 25 00:57	15°♊28'14			3124 Jan 08 03:43	0°♊	
	3123 Feb 03 21:34	0°♊		desc. node	3124 Jan 11 21:57	5°♊32'26	
morning set	3123 Feb 12 14:12	13°♊34'48		morning set	3124 Jan 22 16:11	21°♊54'59	
max. Earth dist.	3123 Feb 18 13:40	23°♊21'42	1.41344 AU		3124 Jan 27 19:48	0°♊	
	3123 Feb 22 11:47	0°♊		max. Earth dist.	3124 Jan 31 19:35	6°♊23'20	1.43191 AU
superior conj	3123 Feb 26 06:57	6°♊36'39	-2°-3'-21	superior conj	3124 Feb 07 08:37	17°♊08'45	-2°-5'-26
minimum elong	3123 Feb 26 09:35	6°♊48'15	2°03'17	minimum elong	3124 Feb 07 06:37	17°♊00'25	2°05'24
evening rise	3123 Mar 08 22:09	25°♊57'00			3124 Feb 14 21:18	0°♊	
	3123 Mar 11 02:45	0°♊		evening rise	3124 Feb 19 13:32	8°♊12'17	
asc. node	3123 Mar 16 10:27	9°♊31'56		asc. node	3124 Mar 02 07:29	28°♊07'01	
evening max el	3123 Mar 25 04:31	21°♊50'10	18°13'32		3124 Mar 03 14:34	0°♊	
retrograde	3123 Apr 01 03:56	25°♊20'09		evening max el	3124 Mar 07 16:20	4°♊57'03	18°07'20
evening set	3123 Apr 03 15:35	24°♊54'16		retrograde	3124 Mar 14 04:48	8°♊20'11	
inferior conj	3123 Apr 10 15:53	20°♊08'02	3°00'36	evening set	3124 Mar 16 21:53	7°♊44'26	
minimum elong	3123 Apr 10 19:12	20°♊00'41	2°59'57	inferior conj	3124 Mar 23 08:14	2°♊37'16	3°31'33
min. Earth dist.	3123 Apr 14 01:09	17°♊09'34	0.59769 AU	minimum elong	3124 Mar 23 09:50	2°♊33'13	3°31'24
morning rise	3123 Apr 17 19:10	14°♊25'54			3124 Mar 25 22:14	30°♊♊	
desc. node	3123 Apr 23 00:09	12°♊33'38		min. Earth dist.	3124 Mar 26 07:47	29°♊36'38	0.61921 AU
direct	3123 Apr 24 06:37	12°♊29'12		morning rise	3124 Mar 29 19:11	26°♊38'27	
morning max el	3123 May 08 14:36	20°♊18'45	27°28'15	direct	3124 Apr 05 15:46	24°♊11'09	
	3123 May 16 22:15	0°♊		desc. node	3124 Apr 08 21:10	24°♊40'54	
	3123 Jun 04 06:26	0°♊			3124 Apr 17 12:22	0°♊	

morning max el	3124 Apr 19 18:55	2°♿08'11	27°50'49	minimum elong	3125 Mar 06 14:32	15°♿33'22	3°39'41
	3124 May 10 05:56	0°♿		min. Earth dist.	3125 Mar 08 23:48	12°♿51'12	0.63874 AU
morning set	3124 May 23 03:31	23°♿56'18		morning rise	3125 Mar 12 12:44	9°♿24'38	
	3124 May 26 01:38	0°♿		direct	3125 Mar 19 09:27	6°♿38'44	
max. Earth dist.	3124 May 28 22:25	6°♿07'33	1.32409 AU	desc. node	3125 Mar 26 18:11	9°♿13'48	
asc. node	3124 May 29 06:44	6°♿52'31		morning max el	3125 Apr 02 03:22	14°♿35'08	27°36'18
					3125 Apr 14 16:08	0°♿	
superior conj	3124 May 30 15:03	9°♿48'10	0°14'09		3125 May 02 20:53	0°♿	
minimum elong	3124 May 30 14:24	9°♿44'35	0°13'59	morning set	3125 May 06 23:21	7°♿54'44	
behind sun begin	3124 May 30 11:56	9°♿31'14		max. Earth dist.	3125 May 12 01:07	18°♿15'50	1.33129 AU
behind sun end	3124 May 30 16:51	9°♿57'57					
evening rise	3124 Jun 06 13:37	24°♿52'17		superior conj	3125 May 14 21:35	24°♿18'33	0°-13'-10
	3124 Jun 09 00:27	0°♿		minimum elong	3125 May 14 22:15	24°♿22'04	0°13'02
	3124 Jun 27 02:02	0°♿		behind sun begin	3125 May 14 19:08	24°♿05'24	
evening max el	3124 Jul 01 16:11	5°♿00'43	24°25'34	behind sun end	3125 May 15 01:22	24°♿38'45	
desc. node	3124 Jul 05 20:26	8°♿30'14		asc. node	3125 May 16 03:47	27°♿00'27	
retrograde	3124 Jul 15 13:08	12°♿01'12			3125 May 17 13:07	0°♿	
evening set	3124 Jul 20 10:59	11°♿07'14		evening rise	3125 May 22 01:15	9°♿39'03	
min. Earth dist.	3124 Jul 26 03:05	8°♿14'26	0.56743 AU		3125 Jun 01 15:20	0°♿	
inferior conj	3124 Jul 28 19:52	6°♿31'39	-4°-59'-47	evening max el	3125 Jun 13 05:57	15°♿27'30	22°49'14
minimum elong	3124 Jul 28 16:56	6°♿36'21	4°59'36	desc. node	3125 Jun 22 17:26	21°♿31'22	
morning rise	3124 Aug 06 02:31	2°♿28'55		retrograde	3125 Jun 26 13:00	22°♿04'40	
direct	3124 Aug 08 18:20	2°♿09'48		evening set	3125 Jun 29 22:33	21°♿39'20	
morning max el	3124 Aug 18 06:19	6°♿35'11	19°32'21	min. Earth dist.	3125 Jul 07 14:26	18°♿15'46	0.55385 AU
asc. node	3124 Aug 25 05:56	15°♿19'26		inferior conj	3125 Jul 09 01:17	17°♿25'41	-4°-12'-40
	3124 Sep 02 10:48	0°♿		minimum elong	3125 Jul 08 17:33	17°♿36'50	4°11'00
morning set	3124 Sep 04 15:23	4°♿21'18		morning rise	3125 Jul 17 15:15	13°♿34'20	
				direct	3125 Jul 20 13:54	13°♿14'07	
superior conj	3124 Sep 12 16:11	20°♿27'38	1°43'06	morning max el	3125 Jul 31 16:26	18°♿23'22	20°48'16
minimum elong	3124 Sep 12 17:22	20°♿33'28	1°43'04		3125 Aug 09 18:33	0°♿	
	3124 Sep 17 15:16	0°♿		asc. node	3125 Aug 12 02:58	3°♿57'12	
max. Earth dist.	3124 Sep 18 19:34	2°♿11'49	1.37710 AU	morning set	3125 Aug 19 22:23	19°♿02'42	
evening rise	3124 Sep 22 14:48	9°♿05'06			3125 Aug 25 04:58	0°♿	
desc. node	3124 Oct 01 19:42	24°♿34'58					
	3124 Oct 05 06:40	0°♿		superior conj	3125 Aug 27 10:52	4°♿38'02	1°44'36
	3124 Oct 28 06:10	0°♿		minimum elong	3125 Aug 27 10:28	4°♿35'55	1°44'36
evening max el	3124 Oct 28 07:15	0°♿02'39	25°14'11	max. Earth dist.	3125 Sep 01 03:32	14°♿03'18	1.35835 AU
retrograde	3124 Nov 09 06:15	6°♿57'15		evening rise	3125 Sep 05 06:20	21°♿55'41	
evening set	3124 Nov 15 00:45	4°♿33'17			3125 Sep 09 17:13	0°♿	
	3124 Nov 19 04:19	30°♿		desc. node	3125 Sep 18 16:45	14°♿54'44	
min. Earth dist.	3124 Nov 19 12:41	29°♿33'06	0.67273 AU		3125 Sep 29 02:08	0°♿	
inferior conj	3124 Nov 20 14:45	28°♿08'17	0°-12'-23	evening max el	3125 Oct 10 19:32	13°♿43'39	26°19'09
minimum elong	3124 Nov 20 15:04	28°♿07'16	0°12'15	retrograde	3125 Oct 23 13:28	20°♿54'48	
transit middle	3124 Nov 20 15:04	28°♿07'16	0°12'15	evening set	3125 Oct 29 21:40	18°♿19'03	
transit begin	3124 Nov 20 13:15	28°♿13'12		min. Earth dist.	3125 Nov 03 02:18	13°♿54'44	0.66431 AU
transit end	3124 Nov 20 16:53	28°♿01'21		inferior conj	3125 Nov 04 15:38	12°♿00'30	-1°-10'-28
asc. node	3124 Nov 21 05:11	27°♿21'32		minimum elong	3125 Nov 04 17:31	11°♿54'41	1°09'41
morning rise	3124 Nov 26 06:04	22°♿08'34		asc. node	3125 Nov 08 02:11	8°♿07'28	
direct	3124 Nov 29 15:53	21°♿01'32		morning rise	3125 Nov 10 14:33	6°♿10'40	
morning max el	3124 Dec 06 21:50	25°♿06'32	19°31'46	direct	3125 Nov 13 14:12	5°♿20'03	
	3124 Dec 11 03:25	0°♿		morning max el	3125 Nov 20 07:47	9°♿02'41	18°41'44
greatest brilliancy	3124 Dec 15 09:49	5°♿47'55	-0.6m		3125 Dec 05 05:59	0°♿	
desc. node	3124 Dec 28 18:58	25°♿53'49		morning set	3125 Dec 11 06:24	9°♿30'31	
	3124 Dec 31 10:46	0°♿		desc. node	3125 Dec 15 16:00	16°♿27'45	
morning set	3124 Dec 31 13:28	0°♿10'28			3125 Dec 24 06:36	0°♿	
max. Earth dist.	3125 Jan 13 08:13	20°♿08'48	1.44515 AU	max. Earth dist.	3125 Dec 27 01:32	4°♿22'34	1.45167 AU
superior conj	3125 Jan 17 08:10	26°♿30'50	-1°-49'-36	superior conj	3125 Dec 27 12:56	5°♿07'20	-1°-14'-49
minimum elong	3125 Jan 17 00:35	26°♿00'26	1°49'03	minimum elong	3125 Dec 27 04:18	4°♿33'26	1°13'52
	3125 Jan 19 12:11	0°♿		evening rise	3126 Jan 12 05:08	29°♿56'52	
evening rise	3125 Jan 31 08:51	19°♿33'08			3126 Jan 12 05:55	0°♿	
	3125 Feb 06 14:21	0°♿			3126 Feb 01 02:01	0°♿	
asc. node	3125 Feb 17 04:30	16°♿01'12		evening max el	3126 Feb 02 15:42	1°♿43'25	18°50'58
evening max el	3125 Feb 19 04:53	18°♿16'26	18°20'08	asc. node	3126 Feb 04 01:31	3°♿03'08	
retrograde	3125 Feb 25 16:03	21°♿45'59		retrograde	3126 Feb 09 09:47	5°♿30'42	
evening set	3125 Feb 28 14:35	20°♿59'17		evening set	3126 Feb 12 14:30	4°♿31'59	
inferior conj	3125 Mar 06 14:44	15°♿32'47	3°39'41		3126 Feb 17 08:05	30°♿	

inferior conj	3126 Feb 18 07:35	28° \approx 47'57	3°30'48	asc. node	3127 Jan 21 22:32	18° \approx 59'04	
minimum elong	3126 Feb 18 06:02	28° \approx 52'45	3°30'38	retrograde	3127 Jan 24 06:55	19° \approx 29'00	
min. Earth dist.	3126 Feb 20 01:04	26° \approx 39'39	0.65484 AU	evening set	3127 Jan 27 19:06	18° \approx 16'58	
morning rise	3126 Feb 23 20:28	22° \approx 35'02		inferior conj	3127 Feb 02 07:40	12° \approx 17'41	3°09'09
direct	3126 Mar 02 10:12	19° \approx 44'58		minimum elong	3127 Feb 02 05:20	12° \approx 25'21	3°08'40
desc. node	3126 Mar 13 15:13	25° \approx 38'05		min. Earth dist.	3127 Feb 03 10:25	10° \approx 49'37	0.66683 AU
morning max el	3126 Mar 15 13:08	27° \approx 28'43	26°49'26	morning rise	3127 Feb 07 14:53	6° \approx 02'40	
	3126 Mar 17 22:20	0° \approx		direct	3127 Feb 13 16:48	3° \approx 21'05	
	3126 Apr 08 08:33	0° \approx		morning max el	3127 Feb 25 22:19	10° \approx 38'02	25°38'40
morning set	3126 Apr 20 08:39	21° \approx 17'56		desc. node	3127 Feb 28 12:16	13° \approx 22'55	
max. Earth dist.	3126 Apr 24 17:29	29° \approx 50'57	1.34314 AU		3127 Mar 13 08:01	0° \approx	
	3126 Apr 24 19:17	0° \approx			3127 Mar 31 23:20	0° \approx	
				morning set	3127 Apr 03 03:10	3° \approx 53'46	
superior conj	3126 Apr 28 22:32	8° \approx 27'26	0°-41'-41	max. Earth dist.	3127 Apr 06 22:32	10° \approx 59'23	1.35960 AU
minimum elong	3126 Apr 29 00:42	8° \approx 38'42	0°41'16				
asc. node	3126 May 03 00:49	17° \approx 03'18		superior conj	3127 Apr 12 15:16	22° \approx 07'38	-1°-9'-56
evening rise	3126 May 06 11:06	24° \approx 15'17		minimum elong	3127 Apr 12 18:53	22° \approx 25'45	1°09'20
	3126 May 09 06:22	0° \approx			3127 Apr 16 12:26	0° \approx	
evening max el	3126 May 26 02:25	26° \approx 07'09	21°17'37	asc. node	3127 Apr 19 21:53	6° \approx 57'07	
	3126 May 31 02:23	0° \approx		evening rise	3127 Apr 20 17:05	8° \approx 34'56	
retrograde	3126 Jun 07 02:48	2° \approx 00'26			3127 May 02 11:08	0° \approx	
evening set	3126 Jun 09 10:45	1° \approx 47'55		evening max el	3127 May 08 10:18	7° \approx 21'38	20°00'44
desc. node	3126 Jun 09 14:28	1° \approx 46'14		retrograde	3127 May 18 17:35	12° \approx 21'53	
	3126 Jun 14 17:17	30° \approx		evening set	3127 May 20 17:17	12° \approx 11'31	
inferior conj	3126 Jun 18 19:30	27° \approx 49'18	-2°-38'-5	desc. node	3127 May 27 11:29	9° \approx 29'48	
minimum elong	3126 Jun 18 12:25	27° \approx 59'14	2°35'45	inferior conj	3127 May 29 16:31	8° \approx 11'43	0°-39'-1
min. Earth dist.	3126 Jun 19 02:03	27° \approx 40'06	0.54860 AU	minimum elong	3127 May 29 14:42	8° \approx 14'27	0°38'22
morning rise	3126 Jun 27 14:15	23° \approx 52'04		min. Earth dist.	3127 May 31 14:55	7° \approx 01'58	0.55303 AU
direct	3126 Jun 30 23:56	23° \approx 26'59		morning rise	3127 Jun 07 09:28	3° \approx 49'49	
morning max el	3126 Jul 13 15:19	29° \approx 26'58	22°21'54	direct	3127 Jun 11 13:12	3° \approx 12'07	
	3126 Jul 14 05:13	0° \approx		morning max el	3127 Jun 25 06:52	9° \approx 58'36	24°04'34
asc. node	3126 Jul 30 00:02	23° \approx 06'54			3127 Jul 10 03:25	0° \approx	
	3126 Aug 02 11:29	0° \approx		asc. node	3127 Jul 16 21:08	12° \approx 40'12	
morning set	3126 Aug 04 08:39	3° \approx 53'35		morning set	3127 Jul 19 20:22	18° \approx 48'33	
					3127 Jul 25 01:07	0° \approx	
superior conj	3126 Aug 11 13:27	19° \approx 11'23	1°39'13	superior conj	3127 Jul 26 21:12	3° \approx 59'10	1°28'06
minimum elong	3126 Aug 11 11:53	19° \approx 03'04	1°39'07	minimum elong	3127 Jul 26 18:59	3° \approx 47'09	1°27'51
max. Earth dist.	3126 Aug 14 19:57	26° \approx 01'42	1.34301 AU	max. Earth dist.	3127 Jul 28 21:28	8° \approx 19'08	1.33165 AU
	3126 Aug 16 18:41	0° \approx		evening rise	3127 Aug 03 07:33	19° \approx 37'15	
evening rise	3126 Aug 19 13:17	5° \approx 30'16			3127 Aug 08 15:44	0° \approx	
	3126 Sep 02 10:02	0° \approx		desc. node	3127 Aug 23 10:48	24° \approx 22'11	
desc. node	3126 Sep 05 13:47	4° \approx 53'27			3127 Aug 27 13:38	0° \approx	
evening max el	3126 Sep 23 08:06	27° \approx 16'54	27°05'23	evening max el	3127 Sep 05 19:25	10° \approx 30'15	27°25'52
	3126 Sep 26 10:01	0° \approx		retrograde	3127 Sep 19 10:20	17° \approx 47'10	
retrograde	3126 Oct 06 15:00	4° \approx 34'09		evening set	3127 Sep 26 14:00	15° \approx 09'22	
evening set	3126 Oct 13 11:03	1° \approx 52'50		min. Earth dist.	3127 Sep 30 06:22	11° \approx 55'36	0.63701 AU
	3126 Oct 15 13:20	30° \approx		inferior conj	3127 Oct 02 20:09	9° \approx 18'07	-3°-9'-47
min. Earth dist.	3126 Oct 17 08:57	28° \approx 04'54	0.65239 AU	minimum elong	3127 Oct 03 01:13	9° \approx 05'09	3°08'06
inferior conj	3126 Oct 19 10:16	25° \approx 45'41	-2°-10'-27	morning rise	3127 Oct 09 14:47	3° \approx 57'58	
minimum elong	3126 Oct 19 13:52	25° \approx 35'32	2°09'05	direct	3127 Oct 12 01:24	3° \approx 28'43	
morning rise	3126 Oct 25 18:26	20° \approx 08'55		asc. node	3127 Oct 12 20:18	3° \approx 31'49	
asc. node	3126 Oct 25 23:13	20° \approx 03'28		morning max el	3127 Oct 18 14:49	6° \approx 54'01	17°52'11
direct	3126 Oct 28 10:17	19° \approx 30'48			3127 Nov 02 20:10	0° \approx	
morning max el	3126 Nov 03 22:22	23° \approx 00'30	18°08'19	morning set	3127 Nov 04 05:28	2° \approx 23'54	
	3126 Nov 09 12:04	0° \approx					
morning set	3126 Nov 22 04:44	20° \approx 18'59		superior conj	3127 Nov 16 17:11	23° \approx 31'20	0°18'30
	3126 Nov 28 02:36	0° \approx		minimum elong	3127 Nov 16 19:09	23° \approx 39'25	0°18'13
desc. node	3126 Dec 02 13:04	7° \approx 09'43		desc. node	3127 Nov 19 10:05	27° \approx 55'55	
					3127 Nov 20 16:49	0° \approx	
superior conj	3126 Dec 06 17:32	13° \approx 50'07	0°-28'-9	max. Earth dist.	3127 Nov 22 15:07	3° \approx 05'32	1.44256 AU
minimum elong	3126 Dec 06 13:57	13° \approx 35'58	0°27'41	evening rise	3127 Dec 02 13:29	18° \approx 38'33	
max. Earth dist.	3126 Dec 09 20:55	18° \approx 47'50	1.45073 AU		3127 Dec 10 00:33	0° \approx	
	3126 Dec 17 00:44	0° \approx		greatest brilliancy	3127 Dec 25 06:28	21° \approx 55'43	-0.5m
evening rise	3126 Dec 23 03:40	9° \approx 30'47		evening max el	3127 Dec 31 00:31	28° \approx 45'37	20°40'11
	3127 Jan 05 12:02	0° \approx					
greatest brilliancy	3127 Jan 09 02:55	5° \approx 18'18	-0.6m	retrograde	3128 Jan 01 06:58	0° \approx	
evening max el	3127 Jan 16 22:45	15° \approx 14'13	19°38'23		3128 Jan 08 04:59	3° \approx 35'37	

asc. node	3128 Jan 08 19:35	3° \approx 33'35		evening max el	3128 Dec 12 20:40	12° \approx 17'59	21°52'58
evening set	3128 Jan 12 02:11	2° \approx 09'01		retrograde	3128 Dec 22 02:01	17° \approx 47'25	
	3128 Jan 14 08:39	30° \approx 00'		asc. node	3128 Dec 25 16:37	16° \approx 36'51	
inferior conj	3128 Jan 17 12:20	25° \approx 57'15	2°37'31	evening set	3128 Dec 26 10:01	16° \approx 05'03	
minimum elong	3128 Jan 17 09:47	26° \approx 05'57	2°36'48	inferior conj	3128 Dec 31 19:28	9° \approx 44'17	1°57'51
min. Earth dist.	3128 Jan 18 01:52	25° \approx 10'57	0.67467 AU	minimum elong	3128 Dec 31 17:11	9° \approx 52'12	1°57'03
morning rise	3128 Jan 22 16:57	19° \approx 41'57		min. Earth dist.	3128 Dec 31 21:13	9° \approx 38'12	0.67866 AU
direct	3128 Jan 28 04:28	17° \approx 17'32		morning rise	3129 Jan 06 00:08	3° \approx 30'25	
morning max el	3128 Feb 08 06:51	23° \approx 54'48	24°13'48	direct	3129 Jan 10 20:33	1° \approx 27'42	
	3128 Feb 13 17:09	0° \approx		morning max el	3129 Jan 20 16:51	7° \approx 17'20	22°44'55
desc. node	3128 Feb 15 09:18	2° \approx 04'21		greatest brilliancy	3129 Jan 25 07:49	12° \approx 26'43	-0.3m
	3128 Mar 05 18:10	0° \approx		desc. node	3129 Feb 01 06:20	21° \approx 26'28	
morning set	3128 Mar 15 01:11	15° \approx 26'10			3129 Feb 07 07:26	0° \approx	
max. Earth dist.	3128 Mar 18 19:24	22° \approx 04'34	1.37970 AU	morning set	3129 Feb 23 20:41	25° \approx 40'15	
	3128 Mar 23 03:00	0° \approx			3129 Feb 26 11:08	0° \approx	
				max. Earth dist.	3129 Feb 28 14:54	3° \approx 39'26	1.40136 AU
superior conj	3128 Mar 25 20:19	5° \approx 09'22	-1°-35'-44				
minimum elong	3128 Mar 26 00:50	5° \approx 30'58	1°35'12	superior conj	3129 Mar 08 09:23	17° \approx 22'08	-1°-55'-56
evening rise	3128 Apr 03 16:40	22° \approx 30'20		minimum elong	3129 Mar 08 13:22	17° \approx 40'18	1°55'41
asc. node	3128 Apr 05 18:55	26° \approx 36'41			3129 Mar 15 04:17	0° \approx	
	3128 Apr 07 13:12	0° \approx		evening rise	3129 Mar 18 06:47	5° \approx 53'38	
evening max el	3128 Apr 20 05:41	19° \approx 16'14	19°03'09	asc. node	3129 Mar 23 15:57	15° \approx 56'42	
retrograde	3128 Apr 28 22:01	23° \approx 29'41			3129 Apr 01 18:23	0° \approx	
evening set	3128 May 01 00:12	23° \approx 15'59		evening max el	3129 Apr 03 10:07	1° \approx 46'16	18°25'53
inferior conj	3128 May 09 05:17	19° \approx 01'57	1°10'21	retrograde	3129 Apr 10 21:12	5° \approx 27'25	
minimum elong	3128 May 09 07:56	18° \approx 57'21	1°09'27	evening set	3129 Apr 13 05:15	5° \approx 06'47	
min. Earth dist.	3128 May 12 06:17	16° \approx 56'13	0.56618 AU	inferior conj	3129 Apr 20 15:19	0° \approx 33'01	2°29'47
desc. node	3128 May 13 08:31	16° \approx 13'46		minimum elong	3129 Apr 20 19:08	0° \approx 25'17	2°28'49
morning rise	3128 May 17 11:23	14° \approx 04'51			3129 Apr 21 07:31	30° \approx 00'	
direct	3128 May 22 14:38	13° \approx 02'49		min. Earth dist.	3129 Apr 24 01:56	27° \approx 46'43	0.58534 AU
morning max el	3128 Jun 05 21:20	20° \approx 24'08	25°42'05	morning rise	3129 Apr 28 04:45	25° \approx 04'14	
	3128 Jun 14 03:03	0° \approx		desc. node	3129 Apr 30 05:32	24° \approx 10'45	
	3128 Jul 01 13:20	0° \approx		direct	3129 May 04 06:28	23° \approx 27'50	
asc. node	3128 Jul 02 18:12	2° \approx 30'03			3129 May 17 09:55	0° \approx	
morning set	3128 Jul 03 07:56	3° \approx 42'16		morning max el	3129 May 18 15:54	1° \approx 10'55	26°58'34
					3129 Jun 08 05:34	0° \approx	
superior conj	3128 Jul 10 07:54	18° \approx 54'15	1°12'13	morning set	3129 Jun 17 17:37	18° \approx 28'58	
minimum elong	3128 Jul 10 05:32	18° \approx 41'19	1°11'50	asc. node	3129 Jun 19 15:14	22° \approx 30'48	
max. Earth dist.	3128 Jul 11 05:41	20° \approx 53'43	1.32432 AU		3129 Jun 23 01:52	0° \approx	
	3128 Jul 15 10:47	0° \approx					
evening rise	3128 Jul 17 09:48	4° \approx 06'42		superior conj	3129 Jun 24 19:41	3° \approx 50'12	0°52'15
	3128 Jul 31 09:09	0° \approx		minimum elong	3129 Jun 24 17:39	3° \approx 39'01	0°51'52
desc. node	3128 Aug 09 07:49	13° \approx 08'45		max. Earth dist.	3129 Jun 24 17:12	3° \approx 36'34	1.32105 AU
evening max el	3128 Aug 18 03:03	23° \approx 10'17	27°15'14	evening rise	3129 Jul 01 17:22	18° \approx 50'05	
	3128 Aug 28 21:13	0° \approx			3129 Jul 07 05:47	0° \approx	
retrograde	3128 Aug 31 22:59	0° \approx 24'48			3129 Jul 26 09:50	0° \approx	
	3128 Sep 03 22:50	30° \approx 00'		desc. node	3129 Jul 27 04:51	0° \approx 55'07	
evening set	3128 Sep 08 02:52	28° \approx 02'39		evening max el	3129 Jul 31 04:32	5° \approx 05'42	26°31'17
min. Earth dist.	3128 Sep 11 17:18	25° \approx 15'27	0.61848 AU	retrograde	3129 Aug 14 03:50	12° \approx 17'11	
inferior conj	3128 Sep 14 18:12	22° \approx 30'34	-4°-4'-9	evening set	3129 Aug 20 20:50	10° \approx 24'05	
minimum elong	3128 Sep 14 23:54	22° \approx 17'40	4°02'44	min. Earth dist.	3129 Aug 24 18:01	7° \approx 48'58	0.59799 AU
morning rise	3128 Sep 21 23:52	17° \approx 30'32		inferior conj	3129 Aug 28 00:52	5° \approx 13'09	-4°-46'-29
direct	3128 Sep 24 08:02	17° \approx 07'04		minimum elong	3129 Aug 28 05:18	5° \approx 04'20	4°45'52
asc. node	3128 Sep 28 17:23	18° \approx 32'26		morning rise	3129 Sep 04 17:11	0° \approx 35'40	
morning max el	3128 Oct 01 06:08	20° \approx 36'21	17°54'18	direct	3129 Sep 07 02:00	0° \approx 15'23	
	3128 Oct 08 06:52	0° \approx		morning max el	3129 Sep 14 17:01	3° \approx 58'00	18°15'51
morning set	3128 Oct 17 02:21	15° \approx 26'35		asc. node	3129 Sep 15 14:25	4° \approx 52'14	
	3128 Oct 25 05:11	0° \approx		morning set	3129 Sep 30 13:37	29° \approx 09'54	
					3129 Oct 01 00:11	0° \approx	
superior conj	3128 Oct 27 19:48	4° \approx 32'27	0°56'29				
minimum elong	3128 Oct 28 00:04	4° \approx 50'48	0°55'55	superior conj	3129 Oct 09 23:01	16° \approx 45'12	1°22'59
max. Earth dist.	3128 Nov 04 04:59	16° \approx 56'56	1.42822 AU	minimum elong	3129 Oct 10 02:51	17° \approx 02'37	1°22'36
desc. node	3128 Nov 05 07:06	18° \approx 43'31			3129 Oct 17 11:24	0° \approx	
evening rise	3128 Nov 11 02:34	28° \approx 00'26		max. Earth dist.	3129 Oct 17 13:11	0° \approx 07'35	1.40953 AU
	3128 Nov 12 09:10	0° \approx		evening rise	3129 Oct 22 09:17	8° \approx 11'53	
	3128 Dec 02 19:06	0° \approx		desc. node	3129 Oct 23 04:08	9° \approx 28'36	
greatest brilliancy	3128 Dec 08 02:16	6° \approx 53'26	-0.4m		3129 Nov 05 11:41	0° \approx	

evening max el	3129 Nov 25 12:13	25°♂52'46	23°12'04		3130 Oct 30 16:52	0°♂	
	3129 Nov 30 08:20	0°♂		evening max el	3130 Nov 08 01:12	9°♂31'38	24°31'22
retrograde	3129 Dec 05 20:27	2°♂00'28		retrograde	3130 Nov 19 11:00	16°♂11'16	
evening set	3129 Dec 10 16:54	0°♂01'40		evening set	3130 Nov 24 21:16	13°♂56'12	
	3129 Dec 10 17:42	30°♂♂		asc. node	3130 Nov 29 10:40	8°♂46'15	
asc. node	3129 Dec 12 13:38	28°♂11'52		min. Earth dist.	3130 Nov 29 13:50	8°♂35'44	0.67604 AU
min. Earth dist.	3129 Dec 15 18:00	24°♂07'17	0.67907 AU	inferior conj	3130 Nov 30 09:34	7°♂29'47	0°19'36
inferior conj	3129 Dec 16 03:07	23°♂35'53	1°11'29	minimum elong	3130 Nov 30 09:06	7°♂31'23	0°19'23
minimum elong	3129 Dec 16 01:33	23°♂41'19	1°10'51	morning rise	3130 Dec 05 21:18	1°♂25'21	
morning rise	3129 Dec 21 10:14	17°♂25'33		direct	3130 Dec 09 14:01	0°♂06'59	
direct	3129 Dec 25 16:09	15°♂45'39		morning max el	3130 Dec 17 06:08	4°♂29'31	20°07'30
morning max el	3130 Jan 03 07:45	20°♂47'56	21°20'45	greatest brilliancy	3130 Dec 24 02:56	12°♂45'36	-0.6m
greatest brilliancy	3130 Jan 08 10:59	26°♂39'33	-0.4m		3131 Jan 05 00:35	0°♂	
	3130 Jan 11 01:12	0°♂		desc. node	3131 Jan 06 00:23	1°♂29'48	
desc. node	3130 Jan 19 03:21	11°♂17'37		morning set	3131 Jan 13 08:08	12°♂41'32	
	3130 Jan 31 13:37	0°♂		max. Earth dist.	3131 Jan 24 00:38	29°♂28'36	1.43836 AU
morning set	3130 Feb 03 11:23	4°♂33'12			3131 Jan 24 08:29	0°♂	
max. Earth dist.	3130 Feb 10 15:42	16°♂06'43	1.42181 AU				
				superior conj	3131 Jan 29 15:53	8°♂36'06	-2°-1'-7
superior conj	3130 Feb 18 01:22	28°♂34'07	-2°-6'-9	minimum elong	3131 Jan 29 11:22	8°♂17'34	2°00'55
minimum elong	3130 Feb 18 02:22	28°♂38'26	2°06'09		3131 Feb 11 08:21	0°♂	
	3130 Feb 18 21:15	0°♂		evening rise	3131 Feb 11 14:59	0°♂28'39	
evening rise	3130 Mar 01 07:40	18°♂36'01		asc. node	3131 Feb 25 09:59	23°♂09'27	
	3130 Mar 07 16:12	0°♂		evening max el	3131 Mar 01 08:48	27°♂56'12	18°10'32
asc. node	3130 Mar 10 12:58	4°♂50'33			3131 Mar 03 20:10	0°♂	
evening max el	3130 Mar 17 20:15	14°♂42'49	18°08'35	retrograde	3131 Mar 07 19:25	1°♂20'08	
retrograde	3130 Mar 24 13:43	18°♂07'55		evening set	3131 Mar 10 14:54	0°♂39'42	
evening set	3130 Mar 27 03:43	17°♂38'02			3131 Mar 11 19:14	30°♂♂	
inferior conj	3130 Apr 02 21:39	12°♂43'07	3°16'56	inferior conj	3131 Mar 16 20:30	25°♂24'09	3°37'24
minimum elong	3130 Apr 03 00:18	12°♂36'52	3°16'31	minimum elong	3131 Mar 16 21:17	25°♂22'01	3°37'21
min. Earth dist.	3130 Apr 06 03:53	9°♂40'27	0.60696 AU	min. Earth dist.	3131 Mar 19 14:12	22°♂29'34	0.62794 AU
morning rise	3130 Apr 09 17:38	6°♂52'50		morning rise	3131 Mar 23 01:31	19°♂20'59	
direct	3130 Apr 16 10:20	4°♂41'34		direct	3131 Mar 29 23:21	16°♂44'03	
desc. node	3130 Apr 17 02:33	4°♂42'51		desc. node	3131 Apr 03 23:35	17°♂56'00	
morning max el	3130 Apr 30 16:36	12°♂35'43	27°42'25	morning max el	3131 Apr 12 22:46	24°♂41'11	27°48'57
	3130 May 14 11:26	0°♂			3131 Apr 17 18:44	0°♂	
	3130 May 31 11:53	0°♂			3131 May 07 20:56	0°♂	
morning set	3130 Jun 01 23:42	3°♂03'03		morning set	3131 May 17 00:00	17°♂16'23	
asc. node	3130 Jun 06 12:15	12°♂37'59		max. Earth dist.	3131 May 22 11:26	28°♂40'05	1.32665 AU
max. Earth dist.	3130 Jun 08 04:26	16°♂16'40	1.32180 AU		3131 May 23 02:22	0°♂	
				asc. node	3131 May 24 09:16	2°♂46'31	
superior conj	3130 Jun 09 06:51	18°♂41'23	0°28'53				
minimum elong	3130 Jun 09 05:35	18°♂34'25	0°28'37	superior conj	3131 May 24 15:36	3°♂20'49	0°02'48
	3130 Jun 14 10:54	0°♂		minimum elong	3131 May 24 15:28	3°♂20'04	0°02'46
evening rise	3130 Jun 16 04:03	3°♂40'34		behind sun begin	3131 May 24 10:19	2°♂52'11	
	3130 Jun 30 05:44	0°♂		behind sun end	3131 May 24 20:38	3°♂47'59	
evening max el	3130 Jul 12 22:54	16°♂14'38	25°17'34	evening rise	3131 May 31 15:53	18°♂30'22	
desc. node	3130 Jul 14 01:51	17°♂16'56			3131 Jun 06 07:26	0°♂	
retrograde	3130 Jul 26 22:36	23°♂20'39		evening max el	3131 Jun 24 12:26	26°♂48'14	23°44'53
evening set	3130 Aug 01 15:29	22°♂05'29			3131 Jun 28 06:59	0°♂	
min. Earth dist.	3130 Aug 06 10:46	19°♂23'58	0.57779 AU	desc. node	3131 Jun 30 22:52	1°♂41'14	
inferior conj	3130 Aug 09 12:51	17°♂16'57	-5°-5'-24	retrograde	3131 Jul 08 04:57	3°♂40'22	
minimum elong	3130 Aug 09 13:15	17°♂16'16	5°05'25	evening set	3131 Jul 12 11:16	3°♂00'27	
morning rise	3130 Aug 17 14:36	13°♂02'10			3131 Jul 18 20:10	30°♂♂	
direct	3130 Aug 20 03:10	12°♂43'00		min. Earth dist.	3131 Jul 18 22:44	29°♂56'12	0.56087 AU
morning max el	3130 Aug 28 20:11	16°♂49'34	18°58'11	inferior conj	3131 Jul 21 04:36	28°♂34'55	-4°-46'00
asc. node	3130 Sep 02 11:27	22°♂16'20		minimum elong	3131 Jul 20 23:13	28°♂43'05	4°45'17
	3130 Sep 07 08:44	0°♂		morning rise	3131 Jul 29 14:29	24°♂38'31	
morning set	3130 Sep 14 10:56	13°♂22'13		direct	3131 Aug 01 09:12	24°♂18'59	
				morning max el	3131 Aug 11 12:49	29°♂01'33	20°02'10
superior conj	3130 Sep 22 21:29	29°♂54'31	1°38'31		3131 Aug 12 12:48	0°♂	
minimum elong	3130 Sep 22 23:42	0°♂05'09	1°38'23	asc. node	3131 Aug 20 08:29	10°♂30'14	
	3130 Sep 22 22:38	0°♂		morning set	3131 Aug 29 15:06	27°♂54'40	
max. Earth dist.	3130 Sep 29 17:40	12°♂36'10	1.38891 AU		3131 Aug 30 15:45	0°♂	
evening rise	3130 Oct 03 15:35	19°♂28'27					
	3130 Oct 09 23:19	0°♂		superior conj	3131 Sep 06 09:59	13°♂45'37	1°44'40
desc. node	3130 Oct 10 01:09	0°♂07'26		minimum elong	3131 Sep 06 10:27	13°♂47'56	1°44'40

max. Earth dist.	3131 Sep 11 23:02	24° \cap 35'16	1.36881 AU	minimum elong	3132 Aug 20 07:25	28° Ω 01'25	1°43'03
	3131 Sep 14 20:39	0° $\underline{\Delta}$			3132 Aug 21 06:18	0° \cap	
evening rise	3131 Sep 15 20:05	1° $\underline{\Delta}$ 46'49		max. Earth dist.	3132 Aug 24 10:22	6° \cap 27'17	1.35131 AU
desc. node	3131 Sep 26 22:12	20° $\underline{\Delta}$ 35'30		evening rise	3132 Aug 28 18:38	14° \cap 56'37	
	3131 Oct 03 02:10	0° \cap			3132 Sep 06 03:29	0° $\underline{\Delta}$	
evening max el	3131 Oct 21 13:28	23° \cap 13'07	25°43'43	desc. node	3132 Sep 12 19:14	10° $\underline{\Delta}$ 46'52	
	3131 Oct 31 19:21	0° \propto			3132 Sep 26 18:16	0° \cap	
retrograde	3131 Nov 02 20:56	0° \propto 15'19		evening max el	3132 Oct 03 01:47	6° \cap 51'00	26°41'36
	3131 Nov 04 20:25	30° \cap		retrograde	3132 Oct 16 01:42	14° \cap 05'51	
evening set	3131 Nov 08 21:28	27° \cap 45'51		evening set	3132 Oct 22 15:29	11° \cap 26'28	
min. Earth dist.	3131 Nov 13 06:18	23° \cap 00'54	0.66957 AU	min. Earth dist.	3132 Oct 26 17:04	7° \cap 18'05	0.65964 AU
inferior conj	3131 Nov 14 13:02	21° \cap 23'19	0°-36'-38	inferior conj	3132 Oct 28 11:31	5° \cap 12'22	-1°-35'-51
minimum elong	3131 Nov 14 13:59	21° \cap 20'16	0°36'15	minimum elong	3132 Oct 28 14:08	5° \cap 04'36	1°34'47
asc. node	3131 Nov 16 07:42	19° \cap 11'11		asc. node	3132 Nov 02 04:45	0° \cap 21'41	
morning rise	3131 Nov 20 07:22	15° \cap 27'30			3132 Nov 02 16:53	30° \cap	
direct	3131 Nov 23 12:42	14° \cap 27'46		morning rise	3132 Nov 03 14:13	29° $\underline{\Delta}$ 28'02	
morning max el	3131 Nov 30 12:20	18° \cap 21'35	19°08'36	direct	3132 Nov 06 10:15	28° $\underline{\Delta}$ 43'14	
	3131 Dec 09 13:27	0° \propto			3132 Nov 10 05:51	0° \cap	
morning set	3131 Dec 23 11:38	21° \propto 19'09		morning max el	3132 Nov 13 00:38	2° \cap 19'04	18°25'34
desc. node	3131 Dec 23 21:26	21° \propto 57'15			3132 Dec 01 21:51	0° \propto	
	3131 Dec 29 01:17	0° \propto		morning set	3132 Dec 02 16:47	1° \propto 16'08	
max. Earth dist.	3132 Jan 06 16:19	13° \propto 31'04	1.44884 AU	desc. node	3132 Dec 09 18:28	12° \propto 34'46	
superior conj	3132 Jan 09 05:56	17° \propto 34'24	-1°-36'-57	superior conj	3132 Dec 18 07:50	26° \propto 05'26	0°-55'-48
minimum elong	3132 Jan 08 21:01	16° \propto 59'09	1°36'09	minimum elong	3132 Dec 18 00:51	25° \propto 38'01	0°54'56
	3132 Jan 17 00:29	0° \approx		max. Earth dist.	3132 Dec 19 11:07	27° \propto 52'33	1.45212 AU
evening rise	3132 Jan 24 00:50	11° \approx 26'03			3132 Dec 20 19:37	0° \propto	
	3132 Feb 04 10:48	0° \propto		evening rise	3133 Jan 03 11:22	21° \propto 26'48	
asc. node	3132 Feb 12 07:01	10° \propto 43'21			3133 Jan 08 21:34	0° \approx	
evening max el	3132 Feb 12 20:58	11° \propto 19'53	18°31'02	greatest brilliancy	3133 Jan 16 03:59	11° \approx 17'43	-0.7m
retrograde	3132 Feb 19 10:00	14° \propto 55'34		evening max el	3133 Jan 26 06:20	24° \approx 48'16	19°09'08
evening set	3132 Feb 22 11:07	14° \propto 03'44		asc. node	3133 Jan 29 04:03	27° \approx 18'56	
inferior conj	3132 Feb 28 07:53	8° \propto 29'14	3°37'41	retrograde	3133 Feb 02 05:41	28° \approx 46'32	
minimum elong	3132 Feb 28 07:03	8° \propto 31'44	3°37'38	evening set	3133 Feb 05 13:21	27° \approx 42'20	
min. Earth dist.	3132 Mar 01 10:10	6° \propto 00'53	0.64611 AU	inferior conj	3133 Feb 11 04:12	21° \approx 51'16	3°22'59
morning rise	3132 Mar 05 01:35	2° \propto 18'43		minimum elong	3133 Feb 11 02:15	21° \approx 57'29	3°22'41
	3132 Mar 08 22:08	30° \cap		min. Earth dist.	3133 Feb 12 15:12	19° \approx 59'40	0.66042 AU
direct	3132 Mar 11 19:59	29° \approx 29'43		morning rise	3133 Feb 16 14:15	15° \approx 36'57	
	3132 Mar 14 21:38	0° \propto		direct	3133 Feb 22 23:14	12° \approx 49'20	
desc. node	3132 Mar 20 20:37	3° \propto 20'54		desc. node	3133 Mar 07 17:39	20° \approx 22'35	
morning max el	3132 Mar 25 08:14	7° \propto 21'31	27°19'53	morning max el	3133 Mar 07 18:12	20° \approx 23'57	26°21'43
	3132 Apr 11 19:25	0° \propto			3133 Mar 16 00:39	0° \propto	
	3132 Apr 29 03:16	0° \propto			3133 Apr 04 22:26	0° \propto	
morning set	3132 Apr 29 15:48	1° \propto 00'59		morning set	3133 Apr 12 19:29	14° \propto 05'59	
max. Earth dist.	3132 May 04 10:24	10° \propto 36'01	1.33587 AU	max. Earth dist.	3133 Apr 16 22:06	21° \propto 58'54	1.34963 AU
					3133 Apr 20 22:17	0° \propto	
superior conj	3132 May 07 20:03	17° \propto 42'35	0°-25'-11	superior conj	3133 Apr 21 17:53	1° \propto 40'05	0°-53'-49
minimum elong	3132 May 07 21:20	17° \propto 49'23	0°24'55	minimum elong	3133 Apr 21 20:41	1° \propto 54'29	0°53'18
asc. node	3132 May 10 06:19	22° \propto 52'33		asc. node	3133 Apr 27 03:23	12° \propto 52'01	
	3132 May 13 14:25	0° \cap		evening rise	3133 Apr 29 11:32	17° \propto 43'29	
evening rise	3132 May 15 03:02	3° \cap 13'28			3133 May 05 16:27	0° \cap	
	3132 May 30 00:37	0° \propto		evening max el	3133 May 18 04:59	18° \cap 08'18	20°42'38
evening max el	3132 Jun 05 04:01	7° \propto 15'40	22°08'44	retrograde	3133 May 29 12:49	23° \cap 39'47	
desc. node	3132 Jun 16 19:53	13° \propto 33'22		evening set	3133 May 31 15:04	23° \cap 29'12	
retrograde	3132 Jun 17 23:39	13° \propto 36'27		desc. node	3133 Jun 03 16:53	22° \cap 38'31	
evening set	3132 Jun 20 20:31	13° \propto 18'10		inferior conj	3133 Jun 09 21:22	19° \cap 31'48	-1°-48'-27
min. Earth dist.	3132 Jun 29 09:34	9° \propto 37'43	0.55053 AU	minimum elong	3133 Jun 09 16:16	19° \cap 39'06	1°46'39
inferior conj	3132 Jun 30 03:43	9° \propto 12'12	-3°-37'-28	min. Earth dist.	3133 Jun 10 21:48	18° \cap 56'49	0.54926 AU
minimum elong	3132 Jun 29 19:27	9° \propto 23'50	3°35'13	morning rise	3133 Jun 18 16:24	15° \cap 25'57	
morning rise	3132 Jul 08 20:19	5° \propto 21'15		direct	3133 Jun 22 08:28	14° \cap 56'56	
direct	3132 Jul 11 23:05	4° \propto 59'37		morning max el	3133 Jul 05 13:12	21° \cap 18'09	23°05'18
morning max el	3132 Jul 23 17:52	10° \propto 29'28	21°26'25		3133 Jul 13 00:27	0° \propto	
asc. node	3132 Aug 06 05:33	29° \propto 22'18		asc. node	3133 Jul 24 02:38	18° \propto 43'05	
	3132 Aug 06 13:46	0° \cap		morning set	3133 Jul 28 10:49	27° \propto 34'00	
morning set	3132 Aug 12 23:42	12° \cap 40'22			3133 Jul 29 14:26	0° \cap	
superior conj	3132 Aug 20 08:23	28° \cap 06'27	1°43'05				

superior conj	3133 Aug 04 13:30	12°♎47'31	1°35'09	direct	3134 Jun 03 02:43	24°♊40'18	
minimum elong	3133 Aug 04 11:36	12°♎37'18	1°34'59		3134 Jun 15 05:09	0°♊	
max. Earth dist.	3133 Aug 07 06:37	18°♎32'36	1.33760 AU	morning max el	3134 Jun 17 03:32	1°♊44'04	24°47'34
evening rise	3133 Aug 12 06:53	28°♎46'39			3134 Jul 06 17:51	0°♊	
	3133 Aug 12 21:46	0°♎		asc. node	3134 Jul 10 23:41	8°♊24'04	
	3133 Aug 30 07:01	0°♎		morning set	3134 Jul 12 22:39	12°♊29'01	
desc. node	3133 Aug 30 16:15	0°♎34'19					
evening max el	3133 Sep 15 13:50	20°♎16'46	27°17'37	superior conj	3134 Jul 19 22:46	27°♊39'29	1°21'55
retrograde	3133 Sep 29 00:54	27°♎35'24		minimum elong	3134 Jul 19 20:26	27°♊26'45	1°21'36
evening set	3133 Oct 06 00:51	24°♎53'59			3134 Jul 21 00:36	0°♎	
min. Earth dist.	3133 Oct 09 20:00	21°♎21'14	0.64621 AU	max. Earth dist.	3134 Jul 21 11:10	0°♎57'21	1.32803 AU
inferior conj	3133 Oct 12 02:45	18°♎52'52	-2°-35'-58	evening rise	3134 Jul 27 04:57	13°♎04'40	
minimum elong	3133 Oct 12 07:02	18°♎41'15	2°34'24		3134 Aug 05 01:18	0°♎	
morning rise	3133 Oct 18 15:17	13°♎22'58		desc. node	3134 Aug 17 13:16	19°♎46'52	
asc. node	3133 Oct 20 01:49	12°♎55'40			3134 Aug 25 18:26	0°♎	
direct	3133 Oct 21 04:28	12°♎49'12		evening max el	3134 Aug 28 23:57	3°♎17'42	27°25'25
morning max el	3133 Oct 27 16:26	16°♎16'15	17°59'19	retrograde	3134 Sep 11 17:40	10°♎34'01	
	3133 Nov 06 13:02	0°♎		evening set	3134 Sep 18 22:17	8°♎01'30	
morning set	3133 Nov 14 02:59	12°♎38'48		min. Earth dist.	3134 Sep 22 13:14	5°♎00'01	0.62943 AU
	3133 Nov 24 14:22	0°♎		inferior conj	3134 Sep 25 07:59	2°♎17'45	-3°-33'-49
desc. node	3133 Nov 26 15:32	3°♎18'53		minimum elong	3134 Sep 25 13:28	2°♎04'22	3°32'11
					3134 Sep 27 18:57	30°♎	
superior conj	3133 Nov 27 18:45	5°♎08'19	0°-7'-44	morning rise	3134 Oct 02 07:17	27°♎05'33	
minimum elong	3133 Nov 27 17:49	5°♎04'34	0°07'37	direct	3134 Oct 04 16:23	26°♎39'12	
behind sun begin	3133 Nov 27 08:31	4°♎27'12		asc. node	3134 Oct 06 22:52	27°♎03'46	
behind sun end	3133 Nov 28 03:07	5°♎41'53			3134 Oct 11 06:28	0°♎	
max. Earth dist.	3133 Dec 02 05:46	12°♎14'20	1.44803 AU	morning max el	3134 Oct 11 08:44	0°♎05'33	17°50'43
	3133 Dec 13 15:11	0°♎		morning set	3134 Oct 27 13:03	25°♎10'16	
evening rise	3133 Dec 14 02:46	0°♎44'37			3134 Oct 30 06:51	0°♎	
greatest brilliancy	3134 Jan 02 16:13	29°♎57'40	-0.6m				
	3134 Jan 02 16:54	0°♎		superior conj	3134 Nov 08 05:36	15°♎22'26	0°35'58
evening max el	3134 Jan 09 11:10	8°♎18'52	20°03'05	minimum elong	3134 Nov 08 08:58	15°♎36'32	0°35'29
asc. node	3134 Jan 16 01:06	12°♎41'38		desc. node	3134 Nov 13 12:33	24°♎05'54	
retrograde	3134 Jan 17 03:31	12°♎48'17		max. Earth dist.	3134 Nov 14 21:58	26°♎21'03	1.43712 AU
evening set	3134 Jan 20 19:13	11°♎30'25			3134 Nov 17 04:39	0°♎	
inferior conj	3134 Jan 26 06:32	5°♎25'28	2°56'49	evening rise	3134 Nov 23 11:47	9°♎52'45	
minimum elong	3134 Jan 26 04:03	5°♎33'49	2°56'14		3134 Dec 06 20:29	0°♎	
min. Earth dist.	3134 Jan 27 03:32	4°♎14'55	0.67063 AU	greatest brilliancy	3134 Dec 18 06:08	15°♎49'36	-0.4m
	3134 Jan 30 15:30	30°♎		evening max el	3134 Dec 23 10:35	21°♎50'48	21°10'11
morning rise	3134 Jan 31 12:16	29°♎09'52		retrograde	3135 Jan 01 01:15	26°♎57'08	
direct	3134 Feb 06 08:13	26°♎34'32		asc. node	3135 Jan 02 22:07	26°♎37'54	
	3134 Feb 14 03:11	0°♎		evening set	3135 Jan 05 02:47	25°♎24'07	
morning max el	3134 Feb 18 02:58	3°♎36'50	25°03'37	inferior conj	3135 Jan 10 12:28	19°♎08'22	2°21'36
desc. node	3134 Feb 22 14:42	8°♎33'36		minimum elong	3135 Jan 10 09:58	19°♎16'57	2°20'49
	3134 Mar 10 07:12	0°♎		min. Earth dist.	3135 Jan 10 20:55	18°♎39'10	0.67681 AU
morning set	3134 Mar 26 06:05	26°♎17'12		morning rise	3135 Jan 15 16:47	12°♎53'27	
	3134 Mar 28 07:26	0°♎		direct	3135 Jan 20 22:00	10°♎37'37	
max. Earth dist.	3134 Mar 29 22:35	3°♎00'12	1.36774 AU	morning max el	3135 Jan 31 11:31	16°♎55'01	23°35'55
				desc. node	3135 Feb 09 11:45	27°♎33'59	
superior conj	3134 Apr 05 06:08	15°♎05'10	-1°-21'-20		3135 Feb 11 07:39	0°♎	
minimum elong	3134 Apr 05 10:14	15°♎25'20	1°20'45		3135 Mar 03 08:17	0°♎	
	3134 Apr 12 16:35	0°♎		morning set	3135 Mar 07 17:32	7°♎18'05	
evening rise	3134 Apr 13 15:08	1°♎53'35		max. Earth dist.	3135 Mar 11 17:41	14°♎13'22	1.38884 AU
asc. node	3134 Apr 14 00:26	2°♎40'14					
evening max el	3134 Apr 30 18:04	29°♎40'39	19°33'49	superior conj	3135 Mar 19 05:02	27°♎48'14	-1°-45'-13
	3134 May 01 02:10	0°♎		minimum elong	3135 Mar 19 09:33	28°♎09'26	1°44'47
retrograde	3134 May 10 08:00	4°♎19'16			3135 Mar 20 09:01	0°♎	
evening set	3134 May 12 07:51	4°♎08'06		evening rise	3135 Mar 28 11:07	15°♎36'35	
inferior conj	3134 May 20 23:57	0°♎03'52	0°10'11	asc. node	3135 Mar 31 21:28	22°♎12'28	
minimum elong	3134 May 21 00:24	0°♎03'09	0°10'01		3135 Apr 05 04:21	0°♎	
transit middle	3134 May 21 00:24	0°♎03'09	0°10'01	evening max el	3135 Apr 13 17:50	11°♎52'15	18°44'52
transit begin	3134 May 20 21:21	0°♎08'00		retrograde	3135 Apr 21 20:01	15°♎49'30	
transit end	3134 May 21 03:26	29°♎58'18		evening set	3135 Apr 24 00:47	15°♎33'05	
	3134 May 21 02:23	30°♎		inferior conj	3135 May 01 21:35	11°♎11'08	1°48'05
desc. node	3134 May 21 13:55	29°♎41'36		minimum elong	3135 May 02 01:07	11°♎04'34	1°47'00
min. Earth dist.	3134 May 23 11:57	28°♎28'48	0.55766 AU	min. Earth dist.	3135 May 05 04:45	8°♎45'43	0.57385 AU
morning rise	3134 May 29 13:15	25°♎27'03		desc. node	3135 May 08 10:55	6°♎42'13	

morning rise	3135 May 09 21:03	5°♄59'55		morning rise	3136 Apr 19 22:28	17°♃20'08	
direct	3135 May 15 10:45	4°♄43'54		desc. node	3136 Apr 24 07:56	15°♃39'29	
morning max el	3135 May 29 19:04	12°♄15'20	26°17'52	direct	3136 Apr 26 07:36	15°♃28'43	
	3135 Jun 12 15:04	0°♄		morning max el	3136 May 10 16:10	23°♃16'43	27°21'41
morning set	3135 Jun 27 09:37	27°♄20'26			3136 May 16 16:30	0°♄	
asc. node	3135 Jun 27 20:44	28°♄19'14			3136 Jun 04 17:04	0°♄	
	3135 Jun 28 15:40	0°♄		morning set	3136 Jun 10 18:01	12°♄02'33	
				asc. node	3136 Jun 13 17:46	18°♄23'11	
superior conj	3135 Jul 04 10:09	12°♄35'43	1°04'12	superior conj	3136 Jun 17 21:52	27°♄30'06	0°42'43
minimum elong	3135 Jul 04 07:52	12°♄23'12	1°03'49	minimum elong	3136 Jun 17 20:07	27°♄20'25	0°42'22
max. Earth dist.	3135 Jul 04 21:21	13°♄37'23	1.32254 AU	max. Earth dist.	3136 Jun 17 09:25	26°♄21'30	1.32095 AU
evening rise	3135 Jul 11 09:47	27°♄41'22			3136 Jun 19 01:04	0°♄	
	3135 Jul 12 12:31	0°♄		evening rise	3136 Jun 24 18:56	12°♄28'37	
	3135 Jul 29 10:33	0°♄			3136 Jul 03 16:14	0°♄	
desc. node	3135 Aug 04 10:15	8°♄10'06		desc. node	3136 Jul 21 07:15	25°♄24'00	
evening max el	3135 Aug 11 05:29	15°♄40'29	27°00'31	evening max el	3136 Jul 23 03:56	27°♄15'46	26°02'58
retrograde	3135 Aug 25 02:54	22°♄52'45			3136 Jul 26 07:54	0°♄	
evening set	3135 Sep 01 03:38	20°♄41'48		retrograde	3136 Aug 06 03:26	4°♄24'57	
min. Earth dist.	3135 Sep 04 19:45	18°♄01'36	0.60997 AU	evening set	3136 Aug 12 12:07	2°♄47'13	
inferior conj	3135 Sep 07 23:55	15°♄18'42	-4°-24'-8	min. Earth dist.	3136 Aug 16 16:27	0°♄11'58	0.58927 AU
minimum elong	3135 Sep 08 05:22	15°♄06'59	4°23'02		3136 Aug 16 23:07	30°♄	
morning rise	3135 Sep 15 10:11	10°♄27'39		inferior conj	3136 Aug 19 23:01	27°♄46'03	-4°-58'-11
direct	3135 Sep 17 18:20	10°♄05'43		minimum elong	3136 Aug 20 02:06	27°♄40'18	4°57'56
asc. node	3135 Sep 23 19:55	12°♄39'28		morning rise	3136 Aug 27 19:33	23°♄18'33	
morning max el	3135 Sep 24 22:27	13°♄39'28	18°00'56	direct	3136 Aug 30 05:47	22°♄58'50	
	3135 Oct 06 00:43	0°♄		morning max el	3136 Sep 07 06:27	26°♄49'44	18°31'16
morning set	3135 Oct 10 16:39	8°♄31'52		asc. node	3136 Sep 09 16:58	29°♄28'41	
					3136 Sep 10 03:06	0°♄	
superior conj	3135 Oct 20 19:10	26°♄54'57	1°09'10	morning set	3136 Sep 23 08:42	22°♄29'21	
minimum elong	3135 Oct 20 23:29	27°♄13'59	1°08'39		3136 Sep 27 06:05	0°♄	
	3135 Oct 22 13:23	0°♄		superior conj	3136 Oct 02 07:21	9°♄34'30	1°30'50
max. Earth dist.	3135 Oct 28 09:50	9°♄57'35	1.42072 AU	minimum elong	3136 Oct 02 10:33	9°♄49'27	1°30'34
desc. node	3135 Oct 31 09:34	14°♄52'33		max. Earth dist.	3136 Oct 09 16:32	22°♄52'00	1.40084 AU
evening rise	3135 Nov 03 07:02	19°♄32'13		evening rise	3136 Oct 13 23:38	0°♄11'07	
	3135 Nov 10 00:10	0°♄			3136 Oct 13 20:58	0°♄	
	3135 Dec 01 09:17	0°♄		desc. node	3136 Oct 17 06:35	5°♄35'42	
greatest brilliancy	3135 Dec 01 10:12	0°♄02'48	-0.3m		3136 Nov 02 10:41	0°♄	
evening max el	3135 Dec 06 04:39	5°♄23'59	22°26'18	evening max el	3136 Nov 17 18:48	19°♄00'25	23°46'08
retrograde	3135 Dec 15 21:09	11°♄09'31		retrograde	3136 Nov 28 14:04	25°♄22'42	
evening set	3135 Dec 20 10:21	9°♄20'06		evening set	3136 Dec 03 16:23	23°♄16'35	
asc. node	3135 Dec 20 19:08	9°♄01'31		asc. node	3136 Dec 06 16:09	20°♄06'12	
inferior conj	3135 Dec 25 19:59	2°♄56'56	1°38'55	min. Earth dist.	3136 Dec 08 13:37	17°♄36'41	0.67820 AU
minimum elong	3135 Dec 25 17:57	3°♄03'59	1°38'10	inferior conj	3136 Dec 09 03:20	16°♄49'55	0°50'05
min. Earth dist.	3135 Dec 25 17:01	3°♄07'11	0.67927 AU	minimum elong	3136 Dec 09 02:11	16°♄53'52	0°49'36
	3135 Dec 28 00:31	30°♄		morning rise	3136 Dec 14 12:11	10°♄42'02	
morning rise	3135 Dec 31 01:26	26°♄44'35		direct	3136 Dec 18 12:14	9°♄11'47	
direct	3136 Jan 04 15:39	24°♄51'32		morning max el	3136 Dec 26 17:07	13°♄55'46	20°48'04
	3136 Jan 13 15:06	0°♄		greatest brilliancy	3137 Jan 01 10:48	20°♄36'11	-0.5m
morning max el	3136 Jan 13 23:04	0°♄19'51	22°08'11		3137 Jan 08 07:39	0°♄	
greatest brilliancy	3136 Jan 18 13:44	5°♄29'50	-0.3m	desc. node	3137 Jan 13 05:49	7°♄10'17	
desc. node	3136 Jan 27 08:46	17°♄09'16		morning set	3137 Jan 25 05:08	25°♄22'15	
	3136 Feb 05 03:55	0°♄			3137 Jan 28 03:59	0°♄	
morning set	3136 Feb 16 00:25	16°♄55'29		max. Earth dist.	3137 Feb 02 19:49	9°♄03'16	1.42946 AU
max. Earth dist.	3136 Feb 21 15:19	26°♄10'46	1.41038 AU				
	3136 Feb 23 21:27	0°♄		superior conj	3137 Feb 09 15:09	20°♄18'24	-2°-6'-10
superior conj	3136 Feb 29 09:44	9°♄36'18	-2°-1'-48	minimum elong	3137 Feb 09 14:01	20°♄13'36	2°06'10
minimum elong	3136 Feb 29 12:48	9°♄49'59	2°01'40		3137 Feb 15 06:58	0°♄	
evening rise	3136 Mar 10 20:03	28°♄43'20		evening rise	3137 Feb 21 14:00	11°♄05'31	
	3136 Mar 11 12:31	0°♄		asc. node	3137 Mar 04 15:29	0°♄01'59	
asc. node	3136 Mar 17 18:28	11°♄22'05			3137 Mar 04 14:58	0°♄	
evening max el	3136 Mar 27 01:03	24°♄34'15	18°16'07	evening max el	3137 Mar 10 12:29	7°♄38'07	18°07'04
retrograde	3136 Apr 03 03:10	28°♄06'45		retrograde	3137 Mar 17 01:59	11°♄01'27	
evening set	3136 Apr 05 13:52	27°♄42'18		evening set	3137 Mar 19 18:14	10°♄27'18	
inferior conj	3136 Apr 12 16:35	22°♄59'10	2°53'28	inferior conj	3137 Mar 26 06:26	5°♄23'18	3°28'28
minimum elong	3136 Apr 12 20:04	22°♄51'34	2°52'43	minimum elong	3137 Mar 26 08:19	5°♄18'37	3°28'15
min. Earth dist.	3136 Apr 16 02:30	20°♄03'08	0.59445 AU				

min. Earth dist.	3137 Mar 29 07:55	2°Υ21'18	0.61607 AU	evening max el	3138 Feb 22 01:09	20°✕56'32	18°17'06
	3137 Apr 01 01:09	30°℞✕		retrograde	3138 Feb 28 11:55	24°✕24'12	
morning rise	3137 Apr 01 19:36	29°✕26'17		evening set	3138 Mar 03 09:38	23°✕39'12	
direct	3137 Apr 08 15:25	27°✕02'46		inferior conj	3138 Mar 09 11:06	18°✕15'36	3°39'38
desc. node	3137 Apr 11 04:58	27°✕21'33		minimum elong	3138 Mar 09 11:08	18°✕15'28	3°39'37
	3137 Apr 16 21:01	0°Υ		min. Earth dist.	3138 Mar 11 22:30	15°✕30'01	0.63603 AU
morning max el	3137 Apr 22 19:39	4°Υ59'40	27°49'52	morning rise	3138 Mar 15 10:48	12°✕08'35	
	3137 May 11 12:19	0°♄		direct	3138 Mar 22 08:07	9°✕24'25	
morning set	3137 May 25 21:58	26°♄28'51		desc. node	3138 Mar 29 02:02	11°✕34'55	
	3137 May 27 14:49	0°♁		morning max el	3138 Apr 05 03:35	17°✕21'33	27°40'40
asc. node	3137 May 31 14:48	8°♁31'20			3138 Apr 15 16:28	0°Υ	
max. Earth dist.	3137 May 31 19:25	8°♁56'21	1.32332 AU		3138 May 04 07:26	0°♄	
				morning set	3138 May 09 19:05	10°♄31'48	
superior conj	3137 Jun 02 08:14	12°♁16'49	0°18'06	max. Earth dist.	3138 May 14 23:17	21°♄08'45	1.32992 AU
minimum elong	3137 Jun 02 07:24	12°♁12'17	0°17'56				
evening rise	3137 Jun 09 06:20	27°♁19'20		superior conj	3138 May 17 15:28	26°♄50'10	0°-8'-54
	3137 Jun 10 12:48	0°♄		minimum elong	3138 May 17 15:54	26°♄52'31	0°08'49
	3137 Jun 27 18:41	0°♁		behind sun begin	3138 May 17 11:26	26°♄28'33	
evening max el	3137 Jul 04 19:26	8°♁06'23	24°39'31	behind sun end	3138 May 17 20:22	27°♄16'31	
desc. node	3137 Jul 08 04:16	11°♁00'21		asc. node	3138 May 18 11:50	28°♄39'41	
retrograde	3137 Jul 18 17:31	15°♁08'58			3138 May 19 02:44	0°♁	
evening set	3137 Jul 23 20:33	14°♁09'42		evening rise	3138 May 24 18:07	12°♁07'22	
min. Earth dist.	3137 Jul 29 06:35	11°♁20'17	0.56996 AU		3138 Jun 02 21:09	0°♄	
inferior conj	3137 Aug 01 02:22	9°♁30'38	-5°-2'-46	evening max el	3138 Jun 16 08:58	18°♄34'20	23°03'39
minimum elong	3137 Aug 01 00:20	9°♁33'57	5°02'41	desc. node	3138 Jun 25 01:16	24°♄24'41	
morning rise	3137 Aug 09 07:47	5°♁25'03		retrograde	3138 Jun 29 19:05	25°♄15'58	
direct	3137 Aug 11 22:38	5°♁06'01		evening set	3138 Jul 03 09:44	24°♄47'26	
morning max el	3137 Aug 21 05:33	9°♁26'12	19°22'49	min. Earth dist.	3138 Jul 10 18:10	21°♄29'15	0.55543 AU
asc. node	3137 Aug 27 14:01	17°♁15'46		inferior conj	3138 Jul 12 10:20	20°♄30'54	-4°-23'-8
	3137 Sep 03 21:34	0°♄		minimum elong	3138 Jul 12 03:03	20°♄41'30	4°21'42
morning set	3137 Sep 07 09:17	6°♄51'15		morning rise	3138 Jul 20 23:16	16°♄38'37	
				direct	3138 Jul 23 20:49	16°♄18'38	
superior conj	3137 Sep 15 12:25	23°♄03'50	1°42'10	morning max el	3138 Aug 03 17:23	21°♄20'49	20°35'38
minimum elong	3137 Sep 15 13:52	23°♄10'57	1°42'07		3138 Aug 10 20:37	0°♁	
	3137 Sep 19 03:00	0°♁		asc. node	3138 Aug 14 11:06	5°♁47'50	
max. Earth dist.	3137 Sep 21 20:25	5°♁04'35	1.38011 AU	morning set	3138 Aug 22 15:38	21°♁30'29	
evening rise	3137 Sep 25 15:48	11°♁55'09			3138 Aug 26 18:10	0°♄	
desc. node	3137 Oct 04 03:37	26°♁10'36		superior conj	3138 Aug 30 05:37	7°♄09'27	1°44'51
	3137 Oct 06 13:40	0°♁		minimum elong	3138 Aug 30 05:26	7°♄08'27	1°44'51
	3137 Oct 28 17:16	0°♄		max. Earth dist.	3138 Sep 04 03:30	16°♄56'51	1.36101 AU
evening max el	3137 Oct 31 07:06	2°♄40'12	25°03'22	evening rise	3138 Sep 08 04:38	24°♄37'45	
retrograde	3137 Nov 12 02:55	9°♄31'31			3138 Sep 11 03:34	0°♁	
evening set	3137 Nov 17 19:14	7°♄09'48		desc. node	3138 Sep 21 00:38	16°♁32'25	
min. Earth dist.	3137 Nov 22 08:20	2°♄04'13	0.67369 AU		3138 Sep 30 03:37	0°♁	
inferior conj	3137 Nov 23 08:45	0°♄44'10	0°-3'-48	evening max el	3138 Oct 13 19:25	16°♁21'26	26°10'31
minimum elong	3137 Nov 23 08:51	0°♄43'52	0°03'47	retrograde	3138 Oct 26 10:51	23°♁30'31	
transit middle	3137 Nov 23 08:51	0°♄43'52	0°03'47	evening set	3138 Nov 01 17:05	20°♁56'22	
transit begin	3137 Nov 23 06:09	0°♄52'43		min. Earth dist.	3138 Nov 05 22:50	16°♁26'34	0.66579 AU
transit end	3137 Nov 23 11:33	0°♄35'02		inferior conj	3138 Nov 07 10:23	14°♁36'37	-1°-1'-31
asc. node	3137 Nov 23 13:12	0°♄29'37		minimum elong	3138 Nov 07 12:01	14°♁31'32	1°00'49
	3137 Nov 23 22:17	30°℞♁		asc. node	3138 Nov 10 10:16	11°♁07'51	
morning rise	3137 Nov 28 23:04	24°♁43'04		morning rise	3138 Nov 13 08:03	8°♁45'02	
direct	3137 Dec 02 10:35	23°♁33'13		direct	3138 Nov 16 09:06	7°♁52'09	
morning max el	3137 Dec 09 19:01	27°♁42'35	19°40'31	morning max el	3138 Nov 23 04:01	11°♁37'21	18°48'09
	3137 Dec 11 21:41	0°♄			3138 Dec 06 12:21	0°♄	
greatest brilliancy	3137 Dec 17 19:06	7°♄39'03	-0.6m	morning set	3138 Dec 14 14:28	12°♄41'15	
desc. node	3137 Dec 31 02:53	27°♄29'34		desc. node	3138 Dec 17 23:55	18°♄01'45	
	3138 Jan 01 18:03	0°♄			3138 Dec 25 14:54	0°♄	
morning set	3138 Jan 04 01:29	3°♄33'36		max. Earth dist.	3138 Dec 30 00:22	6°♄53'50	1.45116 AU
max. Earth dist.	3138 Jan 16 07:24	22°♄42'31	1.44360 AU				
				superior conj	3138 Dec 31 01:12	8°♄31'22	-1°-21'-7
superior conj	3138 Jan 20 18:34	29°♄50'49	-1°-53'-15	minimum elong	3138 Dec 30 16:14	7°♄56'12	1°20'09
minimum elong	3138 Jan 20 11:40	29°♄23'05	1°52'50		3139 Jan 13 13:52	0°♄	
	3138 Jan 20 20:51	0°♄		evening rise	3139 Jan 15 12:25	3°♄07'14	
evening rise	3138 Feb 03 12:36	22°♄35'02			3139 Feb 01 19:47	0°✕	
	3138 Feb 07 21:48	0°✕		evening max el	3139 Feb 05 12:26	4°✕23'03	18°45'17
asc. node	3138 Feb 19 12:30	18°✕03'16					

asc. node	3139 Feb 06 09:32	5° K 14'16		evening rise	3139 Dec 26 13:50	12° Z 47'37	
retrograde	3139 Feb 12 04:55	8° K 06'51			3140 Jan 06 16:47	0° \approx	
evening set	3139 Feb 15 08:42	7° K 09'53		greatest brilliancy	3140 Jan 11 13:31	7° \approx 15'30	-0.7m
inferior conj	3139 Feb 21 02:39	1° K 28'20	3°33'01	evening max el	3140 Jan 19 20:08	17° \approx 53'21	19°30'19
minimum elong	3139 Feb 21 01:16	1° K 32'34	3°32'53	asc. node	3140 Jan 24 06:36	21° \approx 21'16	
	3139 Feb 22 07:26	30° R \approx		retrograde	3140 Jan 27 01:46	22° \approx 03'32	
min. Earth dist.	3139 Feb 22 22:24	29° \approx 14'35	0.65271 AU	evening set	3140 Jan 30 12:46	20° \approx 53'30	
morning rise	3139 Feb 26 16:40	25° \approx 16'03		inferior conj	3140 Feb 05 01:50	14° \approx 56'11	3°13'06
direct	3139 Mar 05 07:50	22° \approx 25'49		minimum elong	3140 Feb 04 23:36	15° \approx 03'30	3°12'40
desc. node	3139 Mar 15 23:06	27° \approx 44'44		min. Earth dist.	3140 Feb 06 06:38	13° \approx 22'03	0.66531 AU
	3139 Mar 18 08:33	0° K		morning rise	3140 Feb 10 09:42	8° \approx 41'20	
morning max el	3139 Mar 18 13:16	0° K 11'50	26°58'11	direct	3140 Feb 16 13:31	5° \approx 58'00	
	3139 Apr 09 15:42	0° Y		morning max el	3140 Feb 28 22:42	13° \approx 19'46	25°50'21
morning set	3139 Apr 23 06:11	24° Y 00'45		desc. node	3140 Mar 01 20:08	15° \approx 19'02	
	3139 Apr 26 07:40	0° B			3140 Mar 13 10:51	0° K	
max. Earth dist.	3139 Apr 27 17:26	2° B 49'12	1.34112 AU		3140 Apr 01 09:21	0° Y	
				morning set	3140 Apr 05 03:12	6° Y 44'22	
superior conj	3139 May 01 17:23	11° B 02'36	0°-37'-19	max. Earth dist.	3140 Apr 09 00:14	14° Y 01'09	1.35693 AU
minimum elong	3139 May 01 19:19	11° B 12'42	0°36'57				
asc. node	3139 May 05 08:52	18° B 43'25		superior conj	3140 Apr 14 11:31	24° Y 47'21	-1°-5'-44
evening rise	3139 May 09 04:22	26° B 45'32		minimum elong	3140 Apr 14 14:55	25° Y 04'34	1°05'11
	3139 May 10 17:56	0° II			3140 Apr 17 01:01	0° B	
evening max el	3139 May 29 03:59	29° II 09'49	21°30'25	asc. node	3140 Apr 21 05:54	8° B 38'43	
	3139 May 30 01:20	0° B		evening rise	3140 Apr 22 11:03	11° B 08'01	
retrograde	3139 Jun 10 09:39	5° B 10'29			3140 May 02 12:36	0° II	
desc. node	3139 Jun 11 22:18	5° B 05'08		evening max el	3140 May 10 09:57	10° II 17'53	20°10'55
evening set	3139 Jun 12 20:27	4° B 56'50		retrograde	3140 May 20 23:35	15° II 26'12	
inferior conj	3139 Jun 22 05:21	0° B 56'54	-2°-54'-44	evening set	3140 May 22 23:33	15° II 15'58	
minimum elong	3139 Jun 21 21:45	1° B 07'31	2°52'21	desc. node	3140 May 28 19:19	13° II 07'30	
min. Earth dist.	3139 Jun 22 05:27	0° B 56'46	0.54882 AU	inferior conj	3140 Jun 01 00:56	11° II 17'07	0°-57'-8
	3139 Jun 23 22:22	30° R II		minimum elong	3140 May 31 22:16	11° II 21'06	0°56'09
morning rise	3139 Jun 30 23:43	27° II 02'01		min. Earth dist.	3140 Jun 02 17:57	10° II 16'22	0.55177 AU
direct	3139 Jul 04 07:30	26° II 37'58		morning rise	3140 Jun 09 18:44	6° II 59'54	
	3139 Jul 13 16:43	0° B		direct	3140 Jun 13 19:12	6° II 24'52	
morning max el	3139 Jul 16 17:42	2° B 30'02	22°07'08	morning max el	3140 Jun 27 09:58	13° II 04'58	23°49'21
asc. node	3139 Aug 01 08:10	24° B 53'09			3140 Jul 10 09:06	0° B	
	3139 Aug 03 23:14	0° Q		asc. node	3140 Jul 18 05:11	14° B 23'06	
morning set	3139 Aug 07 01:32	6° Q 20'14		morning set	3140 Jul 21 13:08	21° B 14'57	
					3140 Jul 25 15:03	0° Q	
superior conj	3139 Aug 14 07:13	21° Q 39'45	1°40'25	superior conj	3140 Jul 28 14:19	6° Q 25'54	1°30'07
minimum elong	3139 Aug 14 05:47	21° Q 32'14	1°40'20	minimum elong	3140 Jul 28 12:10	6° Q 14'17	1°29'53
max. Earth dist.	3139 Aug 17 18:40	28° Q 53'41	1.34505 AU	max. Earth dist.	3140 Jul 30 18:53	11° Q 08'00	1.33303 AU
	3139 Aug 18 07:40	0° H		evening rise	3140 Aug 05 02:19	22° Q 08'59	
evening rise	3139 Aug 22 09:32	8° H 06'17			3140 Aug 09 02:45	0° H	
	3139 Sep 03 17:06	0° A		desc. node	3140 Aug 24 18:40	26° H 08'55	
desc. node	3139 Sep 07 21:39	6° A 34'47			3140 Aug 27 12:30	0° A	
	3139 Sep 26 09:24	0° M		evening max el	3140 Sep 07 19:32	13° A 13'36	27°24'42
evening max el	3139 Sep 26 08:02	29° A 56'44	27°00'01	retrograde	3140 Sep 21 09:28	20° A 31'07	
retrograde	3139 Oct 09 13:12	7° M 13'16		evening set	3140 Sep 28 12:28	17° A 51'55	
evening set	3139 Oct 16 07:45	4° M 32'14		min. Earth dist.	3140 Oct 02 05:26	14° A 33'34	0.63950 AU
min. Earth dist.	3139 Oct 20 06:36	0° M 39'04	0.65441 AU	inferior conj	3140 Oct 04 17:27	11° A 58'03	-3°-1'-1
	3139 Oct 20 20:25	30° R A		minimum elong	3140 Oct 04 22:21	11° A 45'22	2°59'21
inferior conj	3139 Oct 22 06:07	28° A 23'15	-2°-1'-23	morning rise	3140 Oct 11 10:30	6° A 35'24	
minimum elong	3139 Oct 22 09:28	28° A 13'41	2°00'04	direct	3140 Oct 13 21:42	6° A 05'06	
asc. node	3139 Oct 28 07:21	22° A 51'19		asc. node	3140 Oct 14 04:25	6° A 05'30	
morning rise	3139 Oct 28 12:49	22° A 44'24		morning max el	3140 Oct 20 10:29	9° A 30'27	17°53'28
direct	3139 Oct 31 05:43	22° A 04'37			3140 Nov 03 04:55	0° M	
morning max el	3139 Nov 06 18:06	25° A 35'31	18°12'12	morning set	3140 Nov 06 05:34	5° M 11'41	
	3139 Nov 10 11:36	0° M					
morning set	3139 Nov 25 08:24	23° M 16'53		superior conj	3140 Nov 19 00:23	26° M 39'47	0°11'52
	3139 Nov 29 11:15	0° J		minimum elong	3140 Nov 19 01:42	26° M 45'08	0°11'40
desc. node	3139 Dec 04 20:57	8° J 42'43		behind sun begin	3140 Nov 18 18:46	26° M 16'49	
				behind sun end	3140 Nov 19 08:38	27° M 13'24	
superior conj	3139 Dec 10 04:21	17° J 09'05	0°-35'-29	desc. node	3140 Nov 20 17:57	29° M 28'36	
minimum elong	3139 Dec 09 23:49	16° J 51'12	0°34'53		3140 Nov 21 01:44	0° J	
max. Earth dist.	3139 Dec 12 19:56	21° J 19'40	1.45133 AU	max. Earth dist.	3140 Nov 24 14:24	5° J 39'22	1.44420 AU
	3139 Dec 18 08:48	0° Z					

evening rise	3140 Dec 05 00:36	21°♂56'56		max. Earth dist.	3141 Nov 07 04:45	19°♂34'44	1.43070 AU
	3140 Dec 10 07:05	0°♂		desc. node	3141 Nov 07 14:59	20°♂16'25	
greatest brilliancy	3140 Dec 26 22:51	24°♂13'40	-0.5m		3141 Nov 13 17:12	0°♂	
	3140 Dec 31 15:13	0°♂		evening rise	3141 Nov 14 12:09	1°♂14'10	
evening max el	3141 Jan 01 22:39	1°♂24'20	20°30'09		3141 Dec 03 21:00	0°♂	
retrograde	3141 Jan 09 23:52	6°♂09'01		greatest brilliancy	3141 Dec 10 23:27	9°♂25'21	-0.4m
asc. node	3141 Jan 10 03:39	6°♂08'53		evening max el	3141 Dec 15 19:35	14°♂56'30	21°41'36
evening set	3141 Jan 13 19:35	4°♂44'41		retrograde	3141 Dec 24 21:08	20°♂20'04	
	3141 Jan 18 04:38	30°♂		asc. node	3141 Dec 28 00:40	19°♂26'06	
inferior conj	3141 Jan 19 05:57	28°♂34'28	2°42'52	evening set	3141 Dec 29 03:21	18°♂40'14	
minimum elong	3141 Jan 19 03:25	28°♂43'09	2°42'10	inferior conj	3142 Jan 03 12:49	12°♂20'36	2°04'20
min. Earth dist.	3141 Jan 19 21:21	27°♂41'59	0.67375 AU	minimum elong	3142 Jan 03 10:28	12°♂28'45	2°03'31
morning rise	3141 Jan 24 10:46	22°♂18'59		min. Earth dist.	3142 Jan 03 16:18	12°♂08'32	0.67832 AU
direct	3141 Jan 30 00:27	19°♂51'39		morning rise	3142 Jan 08 17:19	6°♂06'18	
morning max el	3141 Feb 10 07:18	26°♂35'53	24°26'53	direct	3142 Jan 13 16:00	4°♂00'05	
	3141 Feb 13 11:01	0°♂		morning max el	3142 Jan 23 16:47	9°♂57'10	22°57'57
desc. node	3141 Feb 16 17:09	3°♂53'04		greatest brilliancy	3142 Jan 28 11:18	15°♂16'50	-0.3m
	3141 Mar 07 01:27	0°♂		desc. node	3142 Feb 03 14:12	23°♂09'55	
morning set	3141 Mar 18 04:41	18°♂27'31			3142 Feb 08 11:44	0°♂	
max. Earth dist.	3141 Mar 21 21:49	25°♂04'17	1.37651 AU	morning set	3142 Feb 27 04:25	28°♂53'59	
	3141 Mar 24 14:13	0°♂			3142 Feb 27 20:17	0°♂	
				max. Earth dist.	3142 Mar 03 16:46	6°♂31'48	1.39810 AU
superior conj	3141 Mar 28 18:32	7°♂55'27	-1°-32'-8	superior conj	3142 Mar 11 10:16	20°♂16'19	-1°-53'-26
minimum elong	3141 Mar 28 22:58	8°♂16'51	1°31'33	minimum elong	3142 Mar 11 14:28	20°♂35'37	1°53'07
evening rise	3141 Apr 06 11:45	25°♂07'38			3142 Mar 16 15:17	0°♂	
asc. node	3141 Apr 08 02:56	28°♂20'58		evening rise	3142 Mar 21 03:29	8°♂36'10	
	3141 Apr 08 23:13	0°♂		asc. node	3142 Mar 25 23:58	17°♂44'26	
evening max el	3141 Apr 23 03:46	22°♂07'05	19°10'28		3142 Apr 02 10:56	0°♂	
retrograde	3141 May 02 01:32	26°♂26'48		evening max el	3142 Apr 06 07:06	4°♂32'47	18°30'14
evening set	3141 May 04 02:52	26°♂13'55		retrograde	3142 Apr 13 21:44	8°♂17'33	
inferior conj	3141 May 12 10:52	22°♂02'40	0°55'25	evening set	3142 Apr 16 04:55	7°♂58'06	
minimum elong	3141 May 12 13:03	21°♂58'57	0°54'40	inferior conj	3142 Apr 23 17:42	3°♂27'38	2°19'54
min. Earth dist.	3141 May 15 09:03	20°♂04'25	0.56371 AU	minimum elong	3142 Apr 23 21:31	3°♂20'03	2°18'51
desc. node	3141 May 15 16:19	19°♂52'39		min. Earth dist.	3142 Apr 27 03:58	0°♂45'55	0.58221 AU
morning rise	3141 May 20 19:02	17°♂10'40			3142 Apr 28 05:10	30°♂	
direct	3141 May 25 18:36	16°♂12'59		morning rise	3142 May 01 09:46	28°♂03'05	
morning max el	3141 Jun 09 00:18	23°♂30'27	25°28'34	desc. node	3142 May 02 13:21	27°♂31'37	
	3141 Jun 14 20:51	0°♂		direct	3142 May 07 08:38	26°♂31'58	
	3141 Jul 03 01:21	0°♂			3142 May 16 17:59	0°♂	
asc. node	3141 Jul 05 02:13	4°♂11'05		morning max el	3142 May 21 17:58	4°♂12'39	26°49'01
morning set	3141 Jul 06 00:48	6°♂09'39			3142 Jun 09 13:08	0°♂	
superior conj	3141 Jul 13 00:43	21°♂20'57	1°14'54	morning set	3142 Jun 20 10:52	20°♂57'52	
minimum elong	3141 Jul 12 22:21	21°♂07'58	1°14'33	asc. node	3142 Jun 21 23:14	24°♂10'37	
max. Earth dist.	3141 Jul 14 02:13	23°♂40'29	1.32512 AU		3142 Jun 24 15:48	0°♂	
	3141 Jul 17 00:19	0°♂		superior conj	3142 Jun 27 12:26	6°♂17'21	0°55'32
evening rise	3141 Jul 20 03:35	6°♂36'09		minimum elong	3142 Jun 27 10:20	6°♂05'44	0°55'08
	3141 Aug 01 15:28	0°♂		max. Earth dist.	3142 Jun 27 13:26	6°♂22'53	1.32128 AU
desc. node	3141 Aug 11 15:39	15°♂03'12		evening rise	3142 Jul 04 10:29	21°♂18'14	
evening max el	3141 Aug 21 03:49	25°♂59'31	27°18'56		3142 Jul 08 16:47	0°♂	
	3141 Aug 26 01:11	0°♂			3142 Jul 27 01:52	0°♂	
retrograde	3141 Sep 03 23:20	3°♂14'51		desc. node	3142 Jul 29 12:40	3°♂00'08	
evening set	3141 Sep 11 03:41	0°♂49'29		evening max el	3142 Aug 03 06:26	8°♂02'31	26°39'54
	3141 Sep 12 07:34	30°♂		retrograde	3142 Aug 17 05:25	15°♂14'15	
min. Earth dist.	3141 Sep 14 17:58	27°♂59'02	0.62139 AU	evening set	3142 Aug 24 00:46	13°♂16'14	
inferior conj	3141 Sep 17 17:27	25°♂14'14	-3°-56'-29	min. Earth dist.	3142 Aug 27 20:15	10°♂40'15	0.60111 AU
minimum elong	3141 Sep 17 23:09	25°♂01'04	3°55'01	inferior conj	3142 Aug 31 02:38	8°♂02'01	-4°-41'-17
morning rise	3141 Sep 24 21:29	20°♂11'02		minimum elong	3142 Aug 31 07:25	7°♂52'18	4°40'33
direct	3141 Sep 27 05:46	19°♂46'57		morning rise	3142 Sep 07 17:25	3°♂20'53	
asc. node	3141 Oct 01 01:26	20°♂52'54		direct	3142 Sep 10 01:53	3°♂00'16	
morning max el	3141 Oct 04 02:11	23°♂15'17	17°52'46	morning max el	3142 Sep 17 13:53	6°♂40'25	18°11'19
	3141 Oct 09 10:03	0°♂		asc. node	3142 Sep 17 22:27	7°♂01'34	
morning set	3141 Oct 19 23:52	18°♂07'03			3142 Oct 02 10:55	0°♂	
	3141 Oct 26 15:29	0°♂		morning set	3142 Oct 03 09:17	1°♂45'15	
superior conj	3141 Oct 30 23:00	7°♂29'16	0°51'26	superior conj	3142 Oct 12 22:50	19°♂32'05	1°19'42
minimum elong	3141 Oct 31 03:07	7°♂46'54	0°50'53				

minimum elong	3142 Oct 13 02:50	19°♄50'09	1°19'16	superior conj	3143 Sep 25 18:46	2°♄33'56	1°36'49
	3142 Oct 18 21:24	0°♄		minimum elong	3143 Sep 25 21:15	2°♄45'46	1°36'38
max. Earth dist.	3142 Oct 20 13:46	2°♄52'04	1.41253 AU	max. Earth dist.	3143 Oct 02 18:50	15°♄27'31	1.39201 AU
evening rise	3142 Oct 25 15:39	11°♄17'00		evening rise	3143 Oct 06 18:23	22°♄23'42	
desc. node	3142 Oct 25 12:01	11°♄02'14			3143 Oct 11 07:48	0°♄	
	3142 Nov 06 17:20	0°♄		desc. node	3143 Oct 12 09:02	1°♄42'21	
greatest brilliancy	3142 Nov 22 23:32	22°♄19'43	-0.2m		3143 Oct 31 16:03	0°♄	
evening max el	3142 Nov 28 11:48	28°♄31'26	23°00'10	evening max el	3143 Nov 11 01:06	12°♄10'00	24°19'51
	3142 Nov 30 00:37	0°♄		retrograde	3143 Nov 22 07:09	18°♄45'13	
retrograde	3142 Dec 08 16:00	4°♄33'29		evening set	3143 Nov 27 15:22	16°♄32'25	
evening set	3142 Dec 13 10:30	2°♄37'13		asc. node	3143 Dec 01 18:44	11°♄54'43	
asc. node	3142 Dec 14 21:41	1°♄13'47		min. Earth dist.	3143 Dec 02 09:07	11°♄06'58	0.67670 AU
	3142 Dec 15 23:37	30°♄		inferior conj	3143 Dec 03 03:18	10°♄05'55	0°27'47
inferior conj	3142 Dec 18 20:32	26°♄12'03	1°18'56	minimum elong	3143 Dec 03 02:37	10°♄08'10	0°27'30
minimum elong	3142 Dec 18 18:50	26°♄17'57	1°18'15	morning rise	3143 Dec 08 14:12	4°♄00'35	
min. Earth dist.	3142 Dec 18 13:02	26°♄37'57	0.67923 AU	direct	3143 Dec 12 08:49	2°♄39'09	
morning rise	3142 Dec 24 03:08	20°♄01'05		morning max el	3143 Dec 20 03:57	7°♄06'45	20°17'37
direct	3142 Dec 28 11:12	18°♄17'42		greatest brilliancy	3143 Dec 26 16:43	14°♄54'02	-0.5m
morning max el	3143 Jan 06 06:42	23°♄26'29	21°32'43		3144 Jan 06 06:14	0°♄	
greatest brilliancy	3143 Jan 11 05:47	29°♄04'21	-0.4m	desc. node	3144 Jan 08 08:18	3°♄07'26	
	3143 Jan 11 23:34	0°♄		morning set	3144 Jan 16 21:18	16°♄09'27	
desc. node	3143 Jan 21 11:15	12°♄57'45			3144 Jan 25 16:52	0°♄	
	3143 Feb 01 20:54	0°♄		max. Earth dist.	3144 Jan 27 00:45	2°♄07'36	1.43625 AU
morning set	3143 Feb 06 23:11	7°♄58'14					
max. Earth dist.	3143 Feb 13 16:40	18°♄51'41	1.41898 AU	superior conj	3144 Feb 02 00:16	11°♄51'27	-2°-3'-3
	3143 Feb 20 06:59	0°♄		minimum elong	3144 Feb 01 20:38	11°♄36'31	2°02'57
					3144 Feb 12 17:19	0°♄	
superior conj	3143 Feb 21 05:46	1°♄38'40	-2°-5'-28	evening rise	3144 Feb 14 16:53	3°♄26'30	
minimum elong	3143 Feb 21 07:25	1°♄45'49	2°05'27	asc. node	3144 Feb 27 18:03	25°♄08'00	
evening rise	3143 Mar 04 06:37	21°♄25'33			3144 Mar 02 14:27	0°♄	
	3143 Mar 08 23:57	0°♄		evening max el	3144 Mar 03 05:01	0°♄37'40	18°09'00
asc. node	3143 Mar 12 21:00	6°♄42'59		retrograde	3144 Mar 09 16:03	4°♄01'02	
evening max el	3143 Mar 20 16:39	17°♄26'19	18°09'56	evening set	3144 Mar 12 10:43	3°♄22'13	
retrograde	3143 Mar 27 11:56	20°♄52'42			3144 Mar 16 22:34	30°♄	
evening set	3143 Mar 30 01:08	20°♄24'14		inferior conj	3144 Mar 18 17:54	28°♄09'30	3°35'39
inferior conj	3143 Apr 05 21:14	15°♄32'22	3°11'37	minimum elong	3144 Mar 18 18:58	28°♄06'39	3°35'36
minimum elong	3143 Apr 06 00:08	15°♄25'40	3°11'08	min. Earth dist.	3144 Mar 21 13:42	25°♄12'27	0.62497 AU
min. Earth dist.	3143 Apr 09 04:43	12°♄30'40	0.60374 AU	morning rise	3144 Mar 25 00:56	22°♄07'43	
morning rise	3143 Apr 12 19:44	9°♄44'49		direct	3144 Mar 31 22:29	19°♄33'59	
direct	3143 Apr 19 10:52	7°♄38'29		desc. node	3144 Apr 05 07:27	20°♄28'48	
desc. node	3143 Apr 19 10:23	7°♄38'29		morning max el	3144 Apr 14 23:16	27°♄31'03	27°50'21
morning max el	3143 May 03 17:41	15°♄31'02	27°38'13		3144 Apr 17 08:04	0°♄	
	3143 May 15 12:34	0°♄			3144 May 08 05:21	0°♄	
	3143 Jun 01 23:50	0°♄		morning set	3144 May 18 18:57	19°♄51'07	
morning set	3143 Jun 04 17:37	5°♄34'05			3144 May 23 15:54	0°♄	
asc. node	3143 Jun 08 20:17	14°♄17'08		max. Earth dist.	3144 May 24 09:00	1°♄31'31	1.32567 AU
max. Earth dist.	3143 Jun 11 01:00	19°♄04'20	1.32147 AU	asc. node	3144 May 25 17:20	4°♄25'46	
superior conj	3143 Jun 11 23:48	21°♄09'30	0°32'38	superior conj	3144 May 26 09:04	5°♄51'01	0°06'54
minimum elong	3143 Jun 11 22:24	21°♄01'45	0°32'20	minimum elong	3144 May 26 08:44	5°♄49'14	0°06'50
	3143 Jun 16 00:29	0°♄		behind sun begin	3144 May 26 04:01	5°♄23'39	
evening rise	3143 Jun 18 20:51	6°♄08'07		behind sun end	3144 May 26 13:27	6°♄14'52	
	3143 Jul 01 09:50	0°♄		evening rise	3144 Jun 02 08:40	20°♄58'31	
evening max el	3143 Jul 16 01:53	19°♄18'09	25°30'04		3144 Jun 06 17:51	0°♄	
desc. node	3143 Jul 16 09:40	19°♄36'32		evening max el	3144 Jun 26 15:45	29°♄55'27	23°59'16
retrograde	3143 Jul 30 01:38	26°♄24'50			3144 Jun 26 17:39	0°♄	
evening set	3143 Aug 04 23:03	25°♄03'51		desc. node	3144 Jul 02 06:40	4°♄21'12	
min. Earth dist.	3143 Aug 09 13:55	22°♄24'31	0.58071 AU	retrograde	3144 Jul 10 10:00	6°♄50'50	
inferior conj	3143 Aug 12 17:35	20°♄12'08	-5°-4'-42	evening set	3144 Jul 14 21:54	6°♄06'12	
minimum elong	3143 Aug 12 18:46	20°♄10'03	5°04'40	min. Earth dist.	3144 Jul 21 02:13	3°♄06'19	0.56302 AU
morning rise	3143 Aug 20 18:01	15°♄54'02		inferior conj	3144 Jul 23 12:19	1°♄37'16	-4°-52'-3
direct	3143 Aug 23 05:57	15°♄34'43		minimum elong	3144 Jul 23 07:46	1°♄44'17	4°51'32
morning max el	3143 Aug 31 18:21	19°♄36'51	18°50'30		3144 Jul 26 05:41	30°♄	
asc. node	3143 Sep 04 19:30	24°♄16'51		morning rise	3144 Jul 31 21:05	27°♄38'57	
	3143 Sep 08 14:39	0°♄		direct	3144 Aug 03 14:48	27°♄19'34	
morning set	3143 Sep 17 05:20	15°♄54'00			3144 Aug 11 04:27	0°♄	
	3143 Sep 24 10:33	0°♄		morning max el	3144 Aug 13 12:45	1°♄55'46	19°51'19

asc. node	3144 Aug 21 16:34	12°♎24'28			3145 Aug 07 21:34	0°♎	
morning set	3144 Aug 31 08:42	0°♎24'28		asc. node	3145 Aug 08 13:38	1°♎11'39	
	3144 Aug 31 03:51	0°♎		morning set	3145 Aug 15 16:47	15°♎08'50	
					3145 Aug 22 19:23	0°♎	
superior conj	3144 Sep 08 05:31	16°♎20'21	1°44'17	superior conj	3145 Aug 23 02:42	0°♎37'51	1°43'46
minimum elong	3144 Sep 08 06:14	16°♎23'55	1°44'15	minimum elong	3145 Aug 23 01:55	0°♎33'50	1°43'44
max. Earth dist.	3144 Sep 13 23:49	27°♎30'31	1.37165 AU	max. Earth dist.	3145 Aug 27 09:49	9°♎21'36	1.35367 AU
	3144 Sep 15 07:51	0°♎		evening rise	3145 Aug 31 16:00	17°♎37'08	
evening rise	3144 Sep 17 19:50	4°♎33'52			3145 Sep 07 12:32	0°♎	
desc. node	3144 Sep 28 06:03	22°♎12'33		desc. node	3145 Sep 15 03:03	12°♎26'55	
	3144 Oct 03 07:14	0°♎			3145 Sep 27 14:07	0°♎	
evening max el	3144 Oct 23 13:19	25°♎51'23	25°33'38	evening max el	3145 Oct 06 01:32	9°♎30'12	26°34'09
	3144 Oct 28 10:10	0°♎		retrograde	3145 Oct 18 23:31	16°♎44'11	
retrograde	3144 Nov 04 17:52	2°♎51'05		evening set	3145 Oct 25 11:24	14°♎05'52	
evening set	3144 Nov 10 16:20	0°♎23'24		min. Earth dist.	3145 Oct 29 14:01	9°♎51'56	0.66135 AU
	3144 Nov 11 03:02	30°♎		inferior conj	3145 Oct 31 06:41	7°♎50'02	-1°-26'-46
min. Earth dist.	3144 Nov 15 02:12	25°♎33'10	0.67076 AU	minimum elong	3145 Oct 31 09:02	7°♎42'57	1°25'47
inferior conj	3144 Nov 16 07:20	23°♎59'54	0°-27'-53	asc. node	3145 Nov 04 12:50	3°♎18'09	
minimum elong	3144 Nov 16 08:03	23°♎57'36	0°27'35	morning rise	3145 Nov 06 08:02	2°♎03'45	
asc. node	3144 Nov 17 15:47	22°♎17'33		direct	3145 Nov 09 05:14	1°♎17'04	
morning rise	3144 Nov 22 00:34	18°♎02'46		morning max el	3145 Nov 15 20:39	4°♎55'06	18°30'52
direct	3144 Nov 25 07:26	17°♎00'33			3145 Dec 03 05:22	0°♎	
morning max el	3144 Dec 02 09:07	20°♎57'58	19°16'24	morning set	3145 Dec 05 22:53	4°♎21'55	
	3144 Dec 09 15:33	0°♎		desc. node	3145 Dec 12 02:22	14°♎09'13	
greatest brilliancy	3144 Dec 12 03:34	3°♎35'58	-0.7m				
desc. node	3144 Dec 25 05:22	23°♎33'03		superior conj	3145 Dec 21 19:53	29°♎29'20	-1°-2'-46
morning set	3144 Dec 25 22:12	24°♎38'23		minimum elong	3145 Dec 21 12:12	28°♎59'10	1°01'51
	3144 Dec 29 08:58	0°♎			3145 Dec 22 03:42	0°♎	
max. Earth dist.	3145 Jan 08 15:33	16°♎05'05	1.44771 AU	max. Earth dist.	3145 Dec 22 09:41	0°♎23'27	1.45210 AU
				evening rise	3146 Jan 06 20:00	24°♎41'00	
superior conj	3145 Jan 11 17:28	20°♎57'42	-1°-41'-51		3146 Jan 10 04:27	0°♎	
minimum elong	3145 Jan 11 08:54	20°♎23'39	1°41'08	evening max el	3146 Jan 29 03:16	27°♎28'13	19°02'27
	3145 Jan 17 08:53	0°♎		asc. node	3146 Jan 31 12:07	29°♎35'07	
evening rise	3145 Jan 26 06:09	14°♎32'31			3146 Feb 01 02:11	0°♎	
	3145 Feb 04 15:29	0°♎		retrograde	3146 Feb 05 00:41	1°♎22'34	
asc. node	3145 Feb 13 15:05	12°♎49'35		evening set	3146 Feb 08 07:16	0°♎20'20	
evening max el	3145 Feb 14 17:23	14°♎00'05	18°26'47		3146 Feb 08 19:19	30°♎	
retrograde	3145 Feb 21 05:36	17°♎33'25		inferior conj	3146 Feb 13 22:50	24°♎31'43	3°26'01
evening set	3145 Feb 24 05:47	16°♎43'26		minimum elong	3146 Feb 13 21:02	24°♎37'28	3°25'45
inferior conj	3145 Mar 02 03:40	11°♎11'37	3°38'39	min. Earth dist.	3146 Feb 15 12:07	22°♎34'04	0.65852 AU
minimum elong	3145 Mar 02 03:02	11°♎13'27	3°38'38	morning rise	3146 Feb 19 09:48	18°♎17'47	
min. Earth dist.	3145 Mar 04 08:18	8°♎38'24	0.64363 AU	direct	3146 Feb 25 20:31	15°♎29'00	
morning rise	3145 Mar 07 22:47	5°♎01'45		desc. node	3146 Mar 10 01:34	22°♎25'24	
direct	3145 Mar 14 18:06	2°♎13'37		morning max el	3146 Mar 10 18:29	23°♎07'24	26°31'55
desc. node	3145 Mar 23 04:31	5°♎36'05			3146 Mar 16 21:02	0°♎	
morning max el	3145 Mar 28 08:32	10°♎07'22	27°26'15		3146 Apr 06 06:49	0°♎	
	3145 Apr 12 23:22	0°♎		morning set	3146 Apr 15 18:03	16°♎53'16	
	3145 Apr 30 14:40	0°♎		max. Earth dist.	3146 Apr 19 22:46	24°♎59'43	1.34725 AU
morning set	3145 May 02 12:16	3°♎40'56			3146 Apr 22 10:46	0°♎	
max. Earth dist.	3145 May 07 09:23	13°♎32'05	1.33418 AU				
				superior conj	3146 Apr 24 13:18	4°♎18'13	0°-49'-28
superior conj	3145 May 10 14:18	20°♎16'02	0°-20'-51	minimum elong	3146 Apr 24 15:53	4°♎31'32	0°49'00
minimum elong	3145 May 10 15:22	20°♎21'39	0°20'39	asc. node	3146 Apr 29 11:25	14°♎33'37	
asc. node	3145 May 12 14:23	24°♎32'34		evening rise	3146 May 02 05:05	20°♎15'56	
	3145 May 15 03:29	0°♎			3146 May 07 01:24	0°♎	
evening rise	3145 May 17 20:03	5°♎43'07		evening max el	3146 May 21 05:47	21°♎09'51	20°54'30
	3145 May 30 22:54	0°♎		retrograde	3146 Jun 01 19:40	26°♎49'07	
evening max el	3145 Jun 08 06:28	10°♎21'43	22°22'43	evening set	3146 Jun 03 23:28	26°♎38'04	
desc. node	3145 Jun 19 03:42	16°♎38'34		desc. node	3146 Jun 06 00:44	26°♎08'25	
retrograde	3145 Jun 21 06:30	16°♎48'52		inferior conj	3146 Jun 13 06:58	22°♎40'38	-2°-6'-32
evening set	3145 Jun 24 07:29	16°♎28'26		minimum elong	3146 Jun 13 01:05	22°♎48'59	2°04'29
min. Earth dist.	3145 Jul 02 13:10	12°♎54'12	0.55147 AU	min. Earth dist.	3146 Jun 14 01:17	22°♎14'38	0.54884 AU
inferior conj	3145 Jul 03 13:24	12°♎19'56	-3°-51'-1	morning rise	3146 Jun 22 02:02	18°♎38'07	
minimum elong	3145 Jul 03 05:11	12°♎31'34	3°48'56	direct	3146 Jun 25 15:42	18°♎10'39	
morning rise	3145 Jul 12 05:08	8°♎29'20		morning max el	3146 Jul 08 16:05	24°♎24'44	22°49'57
direct	3145 Jul 15 06:19	8°♎08'19			3146 Jul 13 18:30	0°♎	
morning max el	3145 Jul 26 19:35	13°♎30'51	21°12'46				

asc. node	3146 Jul 26 10:41	20° $\overline{28}$ 28'36		transit middle	3147 May 24 07:02	3° $\overline{\text{II}}$ 09'12	0°06'54
morning set	3146 Jul 31 03:36	0° $\overline{01}$ 1'31		transit begin	3147 May 24 03:28	3° $\overline{\text{II}}$ 14'44	
	3146 Jul 31 03:19	0° $\overline{01}$		transit end	3147 May 24 10:35	3° $\overline{\text{II}}$ 03'40	
				min. Earth dist.	3147 May 26 14:55	1° $\overline{\text{II}}$ 42'23	0.55590 AU
superior conj	3146 Aug 07 06:58	15° $\overline{01}$ 16'21	1°36'42		3147 May 29 15:18	30° $\overline{\text{R}}$ 8	
minimum elong	3146 Aug 07 05:10	15° $\overline{01}$ 06'46	1°36'34	morning rise	3147 Jun 01 22:06	28° $\overline{8}$ 37'17	
max. Earth dist.	3146 Aug 10 04:36	21° $\overline{01}$ 23'47	1.33941 AU	direct	3147 Jun 06 08:09	27° $\overline{8}$ 53'54	
	3146 Aug 14 09:54	0° $\overline{\text{II}}$			3147 Jun 13 20:10	0° $\overline{\text{II}}$	
evening rise	3146 Aug 15 02:28	1° $\overline{\text{II}}$ 21'58		morning max el	3147 Jun 20 06:38	4° $\overline{\text{II}}$ 51'50	24°32'39
	3146 Aug 31 11:26	0° $\overline{01}$			3147 Jul 08 02:55	0° $\overline{01}$	
desc. node	3146 Sep 02 00:02	2° $\overline{01}$ 18'22		asc. node	3147 Jul 13 07:42	10° $\overline{01}$ 06'43	
evening max el	3146 Sep 18 13:46	22° $\overline{01}$ 58'41	27°13'54	morning set	3147 Jul 15 15:25	14° $\overline{01}$ 56'27	
	3146 Sep 29 14:26	0° $\overline{\text{II}}$					
retrograde	3146 Oct 01 23:35	0° $\overline{\text{II}}$ 17'03		superior conj	3147 Jul 22 15:43	0° $\overline{01}$ 06'52	1°24'13
	3146 Oct 04 06:40	30° $\overline{\text{R}}$ 0		minimum elong	3147 Jul 22 13:25	29° $\overline{01}$ 54'20	1°23'56
evening set	3146 Oct 08 22:12	27° $\overline{01}$ 35'30			3147 Jul 22 14:27	0° $\overline{01}$	
min. Earth dist.	3146 Oct 12 18:17	23° $\overline{01}$ 57'27	0.64845 AU	max. Earth dist.	3147 Jul 24 08:10	3° $\overline{01}$ 46'02	1.32923 AU
inferior conj	3146 Oct 14 23:08	21° $\overline{01}$ 32'06	-2°-26'-55	evening rise	3147 Jul 29 23:16	15° $\overline{01}$ 36'17	
minimum elong	3146 Oct 15 03:11	21° $\overline{01}$ 20'58	2°25'24		3147 Aug 06 10:37	0° $\overline{\text{II}}$	
morning rise	3146 Oct 21 10:07	15° $\overline{01}$ 59'42		desc. node	3147 Aug 19 21:04	21° $\overline{\text{II}}$ 37'00	
asc. node	3146 Oct 22 09:54	15° $\overline{01}$ 37'59			3147 Aug 26 08:13	0° $\overline{01}$	
direct	3146 Oct 24 00:09	15° $\overline{01}$ 24'31		evening max el	3147 Sep 01 00:26	6° $\overline{01}$ 04'32	27°26'16
morning max el	3146 Oct 30 12:02	18° $\overline{01}$ 52'23	18°02'02	retrograde	3147 Sep 14 17:13	13° $\overline{01}$ 20'56	
	3146 Nov 07 18:21	0° $\overline{\text{II}}$		evening set	3147 Sep 21 21:39	10° $\overline{01}$ 46'25	
morning set	3146 Nov 17 04:57	15° $\overline{\text{II}}$ 32'32		min. Earth dist.	3147 Sep 25 13:03	7° $\overline{01}$ 40'45	0.63214 AU
	3146 Nov 25 23:07	0° $\overline{01}$		inferior conj	3147 Sep 28 06:03	5° $\overline{01}$ 00'01	-3°-25'-24
desc. node	3146 Nov 28 23:21	4° $\overline{01}$ 52'14		minimum elong	3147 Sep 28 11:25	4° $\overline{01}$ 46'43	3°23'44
					3147 Oct 04 13:13	30° $\overline{\text{R}}$ 0	
superior conj	3146 Dec 01 04:07	8° $\overline{01}$ 23'43	0°-14'-55	morning rise	3147 Oct 05 03:42	29° $\overline{\text{II}}$ 44'53	
minimum elong	3146 Dec 01 02:16	8° $\overline{01}$ 16'21	0°14'41	direct	3147 Oct 07 13:17	29° $\overline{\text{II}}$ 17'35	
behind sun begin	3146 Nov 30 21:45	7° $\overline{01}$ 58'16		asc. node	3147 Oct 09 06:56	29° $\overline{\text{II}}$ 32'11	
behind sun end	3146 Dec 01 06:48	8° $\overline{01}$ 34'24			3147 Oct 10 12:23	0° $\overline{01}$	
max. Earth dist.	3146 Dec 05 04:29	14° $\overline{01}$ 46'08	1.44911 AU	morning max el	3147 Oct 14 04:26	2° $\overline{01}$ 43'24	17°50'50
	3146 Dec 14 22:36	0° $\overline{01}$		morning set	3147 Oct 30 11:57	27° $\overline{01}$ 55'34	
evening rise	3146 Dec 17 13:32	4° $\overline{01}$ 03'13			3147 Oct 31 16:22	0° $\overline{\text{II}}$	
	3147 Jan 03 17:48	0° $\overline{\approx}$					
greatest brilliancy	3147 Jan 05 06:07	2° $\overline{\approx}$ 08'05	-0.6m	superior conj	3147 Nov 11 11:00	18° $\overline{\text{II}}$ 26'25	0°29'56
evening max el	3147 Jan 12 08:52	10° $\overline{\approx}$ 58'41	19°54'14	minimum elong	3147 Nov 11 13:57	18° $\overline{\text{II}}$ 38'40	0°29'32
asc. node	3147 Jan 18 09:09	15° $\overline{\approx}$ 09'44		desc. node	3147 Nov 15 20:22	25° $\overline{\text{II}}$ 39'06	
retrograde	3147 Jan 19 22:15	15° $\overline{\approx}$ 22'48		max. Earth dist.	3147 Nov 17 21:35	28° $\overline{\text{II}}$ 57'43	1.43917 AU
evening set	3147 Jan 23 12:41	14° $\overline{\approx}$ 07'02			3147 Nov 18 13:07	0° $\overline{01}$	
inferior conj	3147 Jan 29 00:23	8° $\overline{\approx}$ 04'06	3°01'26	evening rise	3147 Nov 26 22:32	13° $\overline{01}$ 10'49	
minimum elong	3147 Jan 28 21:57	8° $\overline{\approx}$ 12'13	3°00'52		3147 Dec 08 01:29	0° $\overline{01}$	
min. Earth dist.	3147 Jan 29 23:24	6° $\overline{\approx}$ 47'18	0.66936 AU	greatest brilliancy	3147 Dec 21 00:30	18° $\overline{01}$ 14'27	-0.5m
morning rise	3147 Feb 03 06:35	1° $\overline{\approx}$ 48'39		evening max el	3147 Dec 26 09:07	24° $\overline{01}$ 30'32	20°59'29
	3147 Feb 05 20:17	30° $\overline{\text{R}}$ 0		retrograde	3148 Jan 03 20:04	29° $\overline{01}$ 30'58	
direct	3147 Feb 09 04:42	29° $\overline{01}$ 10'54		asc. node	3148 Jan 05 06:11	29° $\overline{01}$ 19'49	
	3147 Feb 12 19:39	0° $\overline{\approx}$		evening set	3148 Jan 07 20:06	28° $\overline{01}$ 00'09	
morning max el	3147 Feb 21 03:17	6° $\overline{\approx}$ 18'40	25°16'08	inferior conj	3148 Jan 13 05:54	21° $\overline{01}$ 45'46	2°27'27
desc. node	3147 Feb 24 22:36	10° $\overline{\approx}$ 27'15		minimum elong	3148 Jan 13 03:23	21° $\overline{01}$ 54'27	2°26'41
	3147 Mar 11 12:08	0° $\overline{\text{II}}$		min. Earth dist.	3148 Jan 13 16:07	21° $\overline{01}$ 10'39	0.67617 AU
morning set	3147 Mar 29 07:29	29° $\overline{01}$ 13'12		morning rise	3148 Jan 18 10:17	15° $\overline{01}$ 30'46	
	3147 Mar 29 17:51	0° $\overline{\text{II}}$		direct	3148 Jan 23 17:44	13° $\overline{01}$ 11'49	
max. Earth dist.	3147 Apr 02 00:38	6° $\overline{\text{II}}$ 02'28	1.36481 AU	morning max el	3148 Feb 03 11:43	19° $\overline{01}$ 36'06	23°49'11
				desc. node	3148 Feb 11 19:36	29° $\overline{01}$ 21'00	
superior conj	3147 Apr 08 03:09	17° $\overline{\text{II}}$ 48'40	-1°-17'-20		3148 Feb 12 07:36	0° $\overline{\approx}$	
minimum elong	3147 Apr 08 07:05	18° $\overline{\text{II}}$ 08'12	1°16'44		3148 Mar 03 16:22	0° $\overline{\text{II}}$	
	3147 Apr 14 04:23	0° $\overline{01}$		morning set	3148 Mar 09 22:41	10° $\overline{\text{II}}$ 24'57	
evening rise	3147 Apr 16 09:31	4° $\overline{01}$ 29'20		max. Earth dist.	3148 Mar 13 20:09	17° $\overline{\text{II}}$ 11'45	1.38563 AU
asc. node	3147 Apr 16 08:26	4° $\overline{01}$ 23'53			3148 Mar 20 20:09	0° $\overline{\text{II}}$	
	3147 May 01 07:32	0° $\overline{\text{II}}$					
evening max el	3147 May 03 17:05	2° $\overline{\text{II}}$ 36'03	19°42'50	superior conj	3148 Mar 21 04:15	0° $\overline{\text{II}}$ 38'11	-1°-42'00
retrograde	3147 May 13 12:56	7° $\overline{\text{II}}$ 21'54		minimum elong	3148 Mar 21 08:48	0° $\overline{\text{II}}$ 59'41	1°41'31
evening set	3147 May 15 12:35	7° $\overline{\text{II}}$ 11'06		evening rise	3148 Mar 30 06:47	18° $\overline{\text{II}}$ 16'33	
desc. node	3147 May 23 21:46	3° $\overline{\text{II}}$ 23'36		asc. node	3148 Apr 02 05:28	23° $\overline{\text{II}}$ 58'45	
inferior conj	3147 May 24 07:20	3° $\overline{\text{II}}$ 08'43	0°-7'00		3148 Apr 05 11:02	0° $\overline{01}$	
minimum elong	3147 May 24 07:02	3° $\overline{\text{II}}$ 09'12	0°06'54	evening max el	3148 Apr 15 15:22	14° $\overline{01}$ 41'36	18°50'52

retrograde	3148 Apr 23 22:13	18°♄44'12		evening max el	3149 Mar 29 21:39	27°♃19'15	18°19'09
evening set	3148 Apr 26 02:05	18°♄28'46			3149 Apr 02 11:55	0°♄	
inferior conj	3148 May 04 01:46	14°♄09'34	1°35'19	retrograde	3149 Apr 06 02:43	0°♄54'36	
minimum elong	3148 May 04 05:03	14°♄03'36	1°34'14	evening set	3149 Apr 08 12:28	0°♄31'33	
min. Earth dist.	3148 May 07 07:05	11°♄50'47	0.57107 AU		3149 Apr 09 20:39	30°♄	
desc. node	3148 May 09 18:48	10°♄15'15		inferior conj	3149 Apr 15 17:40	25°♃51'40	2°45'38
morning rise	3148 May 12 03:39	9°♄03'14		minimum elong	3149 Apr 15 21:19	25°♃43'56	2°44'48
direct	3148 May 17 13:46	7°♄52'20		min. Earth dist.	3149 Apr 19 04:04	22°♃58'30	0.59116 AU
morning max el	3148 May 31 21:38	15°♄20'14	26°05'52	morning rise	3149 Apr 23 02:10	20°♃15'57	
	3148 Jun 12 16:56	0°♄		desc. node	3149 Apr 26 15:49	18°♃49'37	
morning set	3148 Jun 29 02:37	29°♄48'45		direct	3149 Apr 29 08:48	18°♃29'49	
asc. node	3148 Jun 29 04:44	29°♄59'56		morning max el	3149 May 13 17:54	26°♃16'26	27°14'26
	3148 Jun 29 04:44	0°♄			3149 May 17 06:03	0°♄	
					3149 Jun 06 02:50	0°♄	
superior conj	3148 Jul 06 02:54	15°♄02'44	1°07'10	morning set	3149 Jun 13 11:34	14°♄33'03	
minimum elong	3148 Jul 06 00:35	14°♄50'01	1°06'46	asc. node	3149 Jun 16 01:47	20°♄03'09	
max. Earth dist.	3148 Jul 06 17:47	16°♄24'35	1.32311 AU	max. Earth dist.	3149 Jun 20 05:49	29°♄09'12	1.32087 AU
evening rise	3148 Jul 13 03:15	0°♄10'35					
	3148 Jul 13 01:13	0°♄		superior conj	3149 Jun 20 14:42	29°♄58'10	0°46'13
	3148 Jul 29 12:59	0°♄		minimum elong	3149 Jun 20 12:51	29°♄47'54	0°45'51
desc. node	3148 Aug 05 18:05	10°♄08'58			3149 Jun 20 15:03	0°♄	
evening max el	3148 Aug 13 06:45	18°♄33'30	27°06'20	evening rise	3149 Jun 27 11:55	14°♄56'59	
retrograde	3148 Aug 27 03:35	25°♄46'22			3149 Jul 05 01:03	0°♄	
evening set	3148 Sep 03 05:42	23°♄31'15		desc. node	3149 Jul 23 15:06	27°♄35'21	
min. Earth dist.	3148 Sep 06 21:02	20°♄48'58	0.61298 AU		3149 Jul 25 23:32	0°♄	
inferior conj	3148 Sep 10 00:11	18°♄05'04	-4°-17'-22	evening max el	3149 Jul 26 06:17	0°♄16'12	26°13'27
minimum elong	3148 Sep 10 05:46	17°♄52'50	4°16'08	retrograde	3149 Aug 09 05:45	7°♄26'18	
morning rise	3148 Sep 17 08:52	13°♄10'50		evening set	3149 Aug 15 17:41	5°♄42'53	
direct	3148 Sep 19 17:00	12°♄48'23		min. Earth dist.	3149 Aug 19 19:05	3°♄08'09	0.59233 AU
asc. node	3148 Sep 25 03:58	14°♄55'31		inferior conj	3149 Aug 23 02:03	0°♄38'18	-4°-54'-38
morning max el	3148 Sep 26 18:47	16°♄20'20	17°58'14	minimum elong	3149 Aug 23 05:41	0°♄31'22	4°54'16
	3148 Oct 06 08:36	0°♄			3149 Aug 23 22:16	30°♄	
morning set	3148 Oct 12 13:21	11°♄10'57		morning rise	3149 Aug 30 21:10	26°♄07'21	
				direct	3149 Sep 02 06:50	25°♄47'29	
superior conj	3148 Oct 22 20:52	29°♄48'18	1°04'52	morning max el	3149 Sep 10 03:55	29°♄35'11	18°25'26
minimum elong	3148 Oct 23 01:12	0°♄07'17	1°04'20		3149 Sep 10 14:03	0°♄	
	3148 Oct 22 23:32	0°♄		asc. node	3149 Sep 12 01:00	1°♄34'46	
max. Earth dist.	3148 Oct 30 10:19	12°♄40'14	1.42344 AU	morning set	3149 Sep 26 03:49	25°♄03'46	
desc. node	3148 Nov 01 17:23	16°♄26'08			3149 Sep 28 17:31	0°♄	
evening rise	3148 Nov 05 15:25	22°♄43'36					
	3148 Nov 10 07:13	0°♄		superior conj	3149 Oct 05 06:04	12°♄19'00	1°28'15
	3148 Dec 01 05:59	0°♄		minimum elong	3149 Oct 05 09:31	12°♄34'54	1°27'55
greatest brilliancy	3148 Dec 03 10:26	2°♄44'00	-0.3m	max. Earth dist.	3149 Oct 12 17:29	25°♄40'17	1.40393 AU
evening max el	3148 Dec 08 03:53	8°♄03'23	22°14'29		3149 Oct 15 06:23	0°♄	
retrograde	3148 Dec 17 16:25	13°♄43'16		evening rise	3149 Oct 17 04:31	3°♄12'44	
evening set	3148 Dec 22 03:48	11°♄56'16		desc. node	3149 Oct 19 14:26	7°♄10'04	
asc. node	3148 Dec 22 03:13	11°♄57'26			3149 Nov 03 14:17	0°♄	
inferior conj	3148 Dec 27 13:20	5°♄33'49	1°45'48	evening max el	3149 Nov 20 18:28	21°♄39'04	23°34'12
minimum elong	3148 Dec 27 11:12	5°♄41'12	1°45'02	retrograde	3149 Dec 01 09:57	27°♄56'34	
min. Earth dist.	3148 Dec 27 11:59	5°♄38'30	0.67917 AU	evening set	3149 Dec 06 10:12	25°♄52'57	
	3149 Jan 01 01:10	30°♄		asc. node	3149 Dec 09 00:15	23°♄12'21	
morning rise	3149 Jan 01 18:28	29°♄20'56		inferior conj	3149 Dec 11 20:52	19°♄26'26	0°57'50
direct	3149 Jan 06 10:50	27°♄24'34		minimum elong	3149 Dec 11 19:33	19°♄30'56	0°57'18
	3149 Jan 12 14:04	0°♄		min. Earth dist.	3149 Dec 11 08:43	20°♄07'58	0.67860 AU
morning max el	3149 Jan 15 22:42	3°♄00'10	22°20'52	morning rise	3149 Dec 17 05:04	13°♄17'38	
greatest brilliancy	3149 Jan 20 12:18	8°♄06'20	-0.3m	direct	3149 Dec 21 07:07	11°♄44'05	
desc. node	3149 Jan 28 16:38	18°♄51'40		morning max el	3149 Dec 29 15:40	16°♄34'22	20°59'13
	3149 Feb 05 09:40	0°♄		greatest brilliancy	3150 Jan 04 03:54	22°♄56'06	-0.5m
morning set	3149 Feb 18 10:00	20°♄14'56			3150 Jan 09 10:20	0°♄	
max. Earth dist.	3149 Feb 23 17:00	29°♄01'04	1.40727 AU	desc. node	3150 Jan 15 13:42	8°♄49'17	
	3149 Feb 24 06:55	0°♄		morning set	3150 Jan 28 17:56	28°♄49'58	
					3150 Jan 29 11:49	0°♄	
superior conj	3149 Mar 03 11:58	12°♄34'49	-1°-59'-58	max. Earth dist.	3150 Feb 05 20:10	11°♄44'42	1.42689 AU
minimum elong	3149 Mar 03 15:26	12°♄50'21	1°59'47				
	3149 Mar 12 22:38	0°♄		superior conj	3150 Feb 12 21:11	23°♄27'27	-2°-6'-31
evening rise	3149 Mar 13 17:37	1°♄29'04		minimum elong	3150 Feb 12 20:52	23°♄26'04	2°06'32
asc. node	3149 Mar 20 02:31	13°♄12'10			3150 Feb 16 16:36	0°♄	

evening rise	3150 Feb 24 14:07	13° Υ 58'28		max. Earth dist.	3151 Jan 19 06:48	25° \eth 18'11	1.44190 AU
	3150 Mar 05 18:17	0° Υ			3151 Jan 22 05:17	0° \approx	
asc. node	3150 Mar 06 23:34	1° Υ 57'12					
evening max el	3150 Mar 13 08:42	10° Υ 20'31	18°07'13	superior conj	3151 Jan 24 04:31	3° \approx 10'35	-1°-56'-29
retrograde	3150 Mar 19 23:24	13° Υ 44'12		minimum elong	3151 Jan 23 22:25	2° \approx 45'53	1°56'09
evening set	3150 Mar 22 14:50	13° Υ 11'37		evening rise	3151 Feb 06 15:55	25° \approx 36'38	
inferior conj	3150 Mar 29 04:59	8° Υ 10'51	3°24'48		3151 Feb 09 05:42	0° Υ	
minimum elong	3150 Mar 29 07:08	8° Υ 05'33	3°24'32	asc. node	3151 Feb 21 20:36	20° Υ 05'20	
min. Earth dist.	3150 Apr 01 08:17	5° Υ 08'00	0.61288 AU	evening max el	3151 Feb 24 21:26	23° Υ 37'45	18°14'23
morning rise	3150 Apr 04 20:27	2° Υ 15'57		retrograde	3151 Mar 03 07:57	27° Υ 03'45	
	3150 Apr 10 12:57	30° Υ		evening set	3151 Mar 06 04:53	26° Υ 20'22	
direct	3150 Apr 11 15:22	29° Υ 56'25		inferior conj	3151 Mar 12 07:43	20° Υ 59'36	3°39'08
	3150 Apr 12 18:08	0° Υ		minimum elong	3151 Mar 12 08:01	20° Υ 58'45	3°39'08
desc. node	3150 Apr 13 12:53	0° Υ 06'40		min. Earth dist.	3151 Mar 14 21:25	18° Υ 10'28	0.63331 AU
morning max el	3150 Apr 25 20:28	7° Υ 52'51	27°48'07	morning rise	3151 Mar 18 09:13	14° Υ 53'50	
	3150 May 12 17:25	0° \eth		direct	3151 Mar 25 06:56	12° Υ 11'50	
morning set	3150 May 28 16:18	29° \eth 01'55		desc. node	3151 Mar 31 09:56	13° Υ 59'32	
	3150 May 29 03:35	0° Π		morning max el	3151 Apr 08 03:48	20° Υ 09'07	27°44'14
asc. node	3150 Jun 02 22:50	10° Π 10'54			3151 Apr 16 14:35	0° Υ	
max. Earth dist.	3150 Jun 03 16:15	11° Π 45'27	1.32264 AU		3151 May 05 17:25	0° \eth	
				morning set	3151 May 12 14:33	13° \eth 08'18	
superior conj	3150 Jun 05 01:23	14° Π 46'17	0°22'02	max. Earth dist.	3151 May 17 21:13	24° \eth 01'13	1.32868 AU
minimum elong	3150 Jun 05 00:23	14° Π 40'50	0°21'49				
evening rise	3150 Jun 11 23:05	29° Π 47'20		superior conj	3151 May 20 09:11	29° \eth 21'33	0°-4'-41
	3150 Jun 12 01:28	0° \eth		minimum elong	3151 May 20 09:25	29° \eth 22'48	0°04'39
	3150 Jun 28 15:33	0° Ω		behind sun begin	3151 May 20 04:20	28° \eth 55'28	
evening max el	3150 Jul 07 22:42	11° Ω 12'43	24°53'15	behind sun end	3151 May 20 14:29	29° \eth 50'10	
desc. node	3150 Jul 10 12:09	13° Ω 28'36		asc. node	3151 May 20 19:54	0° Π 19'18	
retrograde	3150 Jul 21 21:38	18° Ω 16'55			3151 May 20 16:19	0° Π	
evening set	3150 Jul 27 05:42	17° Ω 12'09		evening rise	3151 May 27 10:55	14° Π 35'46	
min. Earth dist.	3150 Aug 01 10:10	14° Ω 25'50	0.57260 AU		3151 Jun 04 04:36	0° \eth	
inferior conj	3150 Aug 04 08:29	12° Ω 29'42	-5°-4'-40	evening max el	3151 Jun 19 12:04	21° \eth 41'29	23°18'06
minimum elong	3150 Aug 04 07:21	12° Ω 31'36	5°04'40	desc. node	3151 Jun 27 09:09	27° \eth 14'31	
morning rise	3150 Aug 12 12:40	8° Ω 21'01		retrograde	3151 Jul 03 00:46	28° \eth 27'05	
direct	3150 Aug 15 02:36	8° Ω 02'01		evening set	3151 Jul 06 20:46	27° \eth 54'58	
morning max el	3150 Aug 24 04:32	12° Ω 17'13	19°13'42	min. Earth dist.	3151 Jul 13 21:47	24° \eth 41'55	0.55716 AU
asc. node	3150 Aug 29 22:04	19° Ω 13'54		inferior conj	3151 Jul 15 19:00	23° \eth 35'26	-4°-32'-24
	3150 Sep 05 07:16	0° Υ		minimum elong	3151 Jul 15 12:18	23° \eth 45'20	4°31'14
morning set	3150 Sep 10 03:19	9° Υ 22'24		morning rise	3151 Jul 24 06:52	19° \eth 41'58	
				direct	3151 Jul 27 03:26	19° \eth 22'10	
superior conj	3150 Sep 18 08:55	25° Υ 41'30	1°41'03	morning max el	3151 Aug 06 18:00	24° \eth 17'24	20°23'31
minimum elong	3150 Sep 18 10:39	25° Υ 49'53	1°40'57		3151 Aug 11 18:33	0° Ω	
	3150 Sep 20 14:43	0° \eth		asc. node	3151 Aug 16 19:07	7° Ω 39'23	
max. Earth dist.	3150 Sep 24 21:19	7° \eth 57'30	1.38319 AU	morning set	3151 Aug 25 08:57	23° Ω 59'07	
evening rise	3150 Sep 28 17:17	14° \eth 47'15			3151 Aug 28 07:06	0° Υ	
desc. node	3150 Oct 06 11:28	27° \eth 46'21					
	3150 Oct 07 21:01	0° \mathbb{L}		superior conj	3151 Sep 02 00:32	9° Υ 41'57	1°44'55
	3150 Oct 29 09:11	0° \mathbb{L}		minimum elong	3151 Sep 02 00:34	9° Υ 42'07	1°44'56
evening max el	3150 Nov 03 07:00	5° \mathbb{L} 18'36	24°52'22	max. Earth dist.	3151 Sep 07 03:43	19° Υ 51'36	1.36367 AU
retrograde	3150 Nov 14 23:30	12° \mathbb{L} 06'11		evening rise	3151 Sep 11 03:16	27° Υ 21'25	
evening set	3150 Nov 20 13:39	9° \mathbb{L} 46'49			3151 Sep 12 14:05	0° \eth	
min. Earth dist.	3150 Nov 25 03:58	4° \mathbb{L} 35'55	0.67457 AU	desc. node	3151 Sep 23 08:28	18° \eth 10'22	
asc. node	3150 Nov 25 21:18	3° \mathbb{L} 38'41			3151 Oct 01 06:10	0° \mathbb{L}	
inferior conj	3150 Nov 26 02:43	3° \mathbb{L} 20'46	0°04'39	evening max el	3151 Oct 16 19:20	19° \mathbb{L} 00'09	26°01'31
minimum elong	3150 Nov 26 02:36	3° \mathbb{L} 21'09	0°04'36	retrograde	3151 Oct 29 08:05	26° \mathbb{L} 06'52	
transit middle	3150 Nov 26 02:36	3° \mathbb{L} 21'09	0°04'36	evening set	3151 Nov 04 12:20	23° \mathbb{L} 34'20	
transit begin	3150 Nov 25 23:57	3° \mathbb{L} 29'54		min. Earth dist.	3151 Nov 08 19:11	18° \mathbb{L} 59'12	0.66720 AU
transit end	3150 Nov 26 05:15	3° \mathbb{L} 12'24		inferior conj	3151 Nov 10 05:01	17° \mathbb{L} 13'32	0°-52'-33
	3150 Nov 28 18:37	30° \mathbb{L}		minimum elong	3151 Nov 10 06:25	17° \mathbb{L} 09'11	0°51'58
morning rise	3150 Dec 01 16:04	27° \mathbb{L} 18'23		asc. node	3151 Nov 12 18:21	14° \mathbb{L} 10'52	
direct	3150 Dec 05 05:22	26° \mathbb{L} 05'37		morning rise	3151 Nov 16 01:28	11° \mathbb{L} 20'21	
	3150 Dec 12 08:29	0° \mathbb{L}		direct	3151 Nov 19 04:00	10° \mathbb{L} 25'06	
morning max el	3150 Dec 12 16:20	0° \mathbb{L} 19'27	19°49'37	morning max el	3151 Nov 26 00:22	14° \mathbb{L} 13'03	18°54'55
greatest brilliancy	3150 Dec 20 05:58	9° \mathbb{L} 37'00	-0.6m		3151 Dec 07 17:44	0° \mathbb{L}	
desc. node	3151 Jan 02 10:45	29° \mathbb{L} 06'15		morning set	3151 Dec 17 23:12	15° \mathbb{L} 54'53	
	3151 Jan 03 00:50	0° \eth		desc. node	3151 Dec 20 07:45	19° \mathbb{L} 36'30	
morning set	3151 Jan 07 13:55	6° \eth 58'59			3151 Dec 26 22:56	0° \eth	

max. Earth dist.	3152 Jan 01 23:26	9°☾26'48	1.45052 AU	morning set	3152 Nov 27 12:42	26°☾17'21	
					3152 Nov 29 19:33	0°☾	
superior conj	3152 Jan 03 13:22	11°☾56'02	-1°-27'-5	desc. node	3152 Dec 06 04:46	10°☾16'17	
minimum elong	3152 Jan 03 04:16	11°☾20'13	1°26'10				
	3152 Jan 14 21:51	0°☾		superior conj	3152 Dec 12 15:37	20°☾30'07	0°-42'-47
evening rise	3152 Jan 18 19:12	6°☾17'14		minimum elong	3152 Dec 12 10:09	20°☾08'37	0°42'05
	3152 Feb 02 18:22	0°☾		max. Earth dist.	3152 Dec 14 18:55	23°☾51'54	1.45180 AU
evening max el	3152 Feb 08 09:05	7°☾03'17	18°39'55		3152 Dec 18 16:50	0°☾	
asc. node	3152 Feb 08 17:39	7°☾24'40		evening rise	3152 Dec 28 23:40	16°☾04'21	
retrograde	3152 Feb 15 00:08	10°☾43'53			3153 Jan 06 22:13	0°☾	
evening set	3152 Feb 18 03:00	9°☾48'42		greatest brilliancy	3153 Jan 12 22:15	9°☾05'56	-0.7m
inferior conj	3152 Feb 23 21:52	4°☾09'34	3°34'55	evening max el	3153 Jan 21 17:22	20°☾32'42	19°22'33
minimum elong	3152 Feb 23 20:40	4°☾13'12	3°34'49	asc. node	3153 Jan 25 14:40	23°☾41'55	
min. Earth dist.	3152 Feb 25 19:53	1°☾50'35	0.65052 AU	retrograde	3153 Jan 28 20:39	24°☾38'32	
	3152 Feb 27 10:50	30°☾		evening set	3153 Feb 01 06:27	23°☾30'32	
morning rise	3152 Feb 29 13:06	27°☾57'52		inferior conj	3153 Feb 06 20:06	17°☾35'15	3°16'50
direct	3152 Mar 07 05:32	25°☾07'52		minimum elong	3153 Feb 06 17:57	17°☾42'13	3°16'27
desc. node	3152 Mar 17 06:58	29°☾53'53		min. Earth dist.	3153 Feb 08 03:00	15°☾55'02	0.66370 AU
	3152 Mar 17 09:51	0°☾		morning rise	3153 Feb 12 04:40	11°☾20'33	
morning max el	3152 Mar 20 13:24	2°☾55'56	27°06'18	direct	3153 Feb 18 10:19	8°☾35'36	
	3152 Apr 09 22:01	0°☾		morning max el	3153 Mar 02 23:04	16°☾02'05	26°01'40
morning set	3152 Apr 25 03:21	26°☾42'43		desc. node	3153 Mar 04 04:00	17°☾16'57	
	3152 Apr 26 19:48	0°☾			3153 Mar 14 12:21	0°☾	
max. Earth dist.	3152 Apr 29 17:06	5°☾47'01	1.33922 AU		3153 Apr 02 18:55	0°☾	
				morning set	3153 Apr 08 02:47	9°☾34'02	
superior conj	3152 May 03 12:02	13°☾37'18	0°-32'-59	max. Earth dist.	3153 Apr 12 01:40	17°☾02'50	1.35431 AU
minimum elong	3152 May 03 13:44	13°☾46'13	0°32'38				
asc. node	3152 May 06 16:56	20°☾23'51		superior conj	3153 Apr 17 07:29	27°☾26'31	-1°-1'-32
evening rise	3152 May 10 21:31	29°☾15'41		minimum elong	3153 Apr 17 10:42	27°☾42'47	1°00'58
	3152 May 11 06:00	0°☾			3153 Apr 18 13:37	0°☾	
	3152 May 29 02:59	0°☾		asc. node	3153 Apr 23 13:58	10°☾20'40	
evening max el	3152 May 31 05:42	2°☾13'13	21°43'29	evening rise	3153 Apr 25 04:53	13°☾40'58	
retrograde	3152 Jun 12 16:28	8°☾21'09			3153 May 03 16:59	0°☾	
desc. node	3152 Jun 13 06:09	8°☾20'24		evening max el	3153 May 13 09:51	13°☾15'28	20°21'34
evening set	3152 Jun 15 06:28	8°☾06'08		retrograde	3153 May 24 05:55	18°☾32'01	
inferior conj	3152 Jun 24 15:06	4°☾04'26	-3°-10'-45	evening set	3153 May 26 06:22	18°☾21'47	
minimum elong	3152 Jun 24 07:08	4°☾15'34	3°08'20	desc. node	3153 May 31 03:11	16°☾43'50	
min. Earth dist.	3152 Jun 24 08:45	4°☾13'19	0.54920 AU	inferior conj	3153 Jun 04 09:42	14°☾23'40	-1°-15'-24
morning rise	3152 Jul 03 08:56	0°☾11'28		minimum elong	3153 Jun 04 06:09	14°☾28'53	1°14'06
	3152 Jul 04 07:52	30°☾		min. Earth dist.	3153 Jun 05 21:06	13°☾31'56	0.55069 AU
direct	3152 Jul 06 14:55	29°☾48'20		morning rise	3153 Jun 13 04:06	10°☾10'46	
	3152 Jul 08 20:59	0°☾		direct	3153 Jun 17 01:25	9°☾38'07	
morning max el	3152 Jul 18 19:50	5°☾32'32	21°52'44	morning max el	3153 Jun 30 13:04	16°☾11'47	23°34'01
asc. node	3152 Aug 02 16:10	26°☾40'03			3153 Jul 11 12:38	0°☾	
	3152 Aug 04 10:05	0°☾		asc. node	3153 Jul 20 13:11	16°☾06'40	
morning set	3152 Aug 08 18:26	8°☾47'38		morning set	3153 Jul 24 05:52	23°☾41'49	
					3153 Jul 27 04:43	0°☾	
superior conj	3152 Aug 16 01:03	24°☾09'07	1°41'29				
minimum elong	3152 Aug 15 23:47	24°☾02'27	1°41'26	superior conj	3153 Jul 31 07:29	8°☾53'23	1°32'01
	3152 Aug 18 20:40	0°☾		minimum elong	3153 Jul 31 05:25	8°☾42'13	1°31'49
max. Earth dist.	3152 Aug 19 17:37	1°☾46'57	1.34712 AU	max. Earth dist.	3153 Aug 02 16:24	13°☾57'30	1.33450 AU
evening rise	3152 Aug 24 06:01	10°☾43'40		evening rise	3153 Aug 07 21:15	24°☾41'43	
	3152 Sep 04 00:42	0°☾			3153 Aug 10 14:07	0°☾	
desc. node	3152 Sep 09 05:28	8°☾16'11		desc. node	3153 Aug 27 02:29	27°☾55'10	
	3152 Sep 25 18:00	0°☾			3153 Aug 28 13:13	0°☾	
evening max el	3152 Sep 28 07:52	2°☾36'47	26°54'04	evening max el	3153 Sep 10 19:31	15°☾56'33	27°22'51
retrograde	3152 Oct 11 11:13	9°☾52'45		retrograde	3153 Sep 24 08:31	23°☾14'41	
evening set	3152 Oct 18 04:12	7°☾12'07		evening set	3153 Oct 01 10:36	20°☾34'23	
min. Earth dist.	3152 Oct 22 04:01	3°☾13'41	0.65633 AU	min. Earth dist.	3153 Oct 05 04:14	17°☾11'13	0.64190 AU
inferior conj	3152 Oct 24 01:45	1°☾01'18	-1°-52'-13	inferior conj	3153 Oct 07 14:28	14°☾37'55	-2°-52'-9
minimum elong	3152 Oct 24 04:50	0°☾52'21	1°51'00	minimum elong	3153 Oct 07 19:09	14°☾25'34	2°50'31
	3152 Oct 24 23:05	30°☾		morning rise	3153 Oct 14 05:56	9°☾12'45	
asc. node	3152 Oct 29 15:23	25°☾42'09		direct	3153 Oct 16 17:46	8°☾41'20	
morning rise	3152 Oct 30 07:02	25°☾20'29		asc. node	3153 Oct 16 12:24	8°☾41'35	
direct	3152 Nov 02 00:59	24°☾39'00		morning max el	3153 Oct 23 06:08	12°☾07'05	17°55'10
morning max el	3152 Nov 08 13:53	28°☾11'17	18°16'31		3153 Nov 04 12:58	0°☾	
	3152 Nov 10 05:52	0°☾		morning set	3153 Nov 09 06:09	8°☾01'12	

superior conj	3153 Nov 22 08:13	29° \mathbb{M} 50'29	0°05'01	morning max el	3154 Oct 06 22:05	25° \mathbb{M} 53'15	17°51'40
minimum elong	3153 Nov 22 08:48	29° \mathbb{M} 52'49	0°04'57		3154 Oct 10 09:42	0° \mathbb{M}	
behind sun begin	3153 Nov 21 23:06	29° \mathbb{M} 13'28		morning set	3154 Oct 22 21:40	20° \mathbb{M} 48'06	
behind sun end	3153 Nov 22 18:30	0° \mathbb{M} 32'07			3154 Oct 28 01:45	0° \mathbb{M}	
	3153 Nov 22 10:34	0° \mathbb{M}					
desc. node	3153 Nov 23 01:46	1° \mathbb{M} 01'28		superior conj	3154 Nov 03 02:42	10° \mathbb{M} 27'16	0°46'08
max. Earth dist.	3153 Nov 27 13:27	8° \mathbb{M} 12'30	1.44569 AU	minimum elong	3154 Nov 03 06:37	10° \mathbb{M} 43'54	0°45'37
evening rise	3153 Dec 08 11:45	25° \mathbb{M} 15'49		desc. node	3154 Nov 09 22:48	21° \mathbb{M} 48'49	
	3153 Dec 11 13:53	0° \mathbb{M}		max. Earth dist.	3154 Nov 10 04:21	22° \mathbb{M} 11'21	1.43304 AU
greatest brilliancy	3153 Dec 29 14:34	26° \mathbb{M} 29'51	-0.5m		3154 Nov 15 01:28	0° \mathbb{M}	
	3154 Jan 01 07:30	0° \mathbb{M}		evening rise	3154 Nov 17 22:02	4° \mathbb{M} 28'39	
evening max el	3154 Jan 04 20:40	4° \mathbb{M} 03'27	20°20'26		3154 Dec 05 00:05	0° \mathbb{M}	
asc. node	3154 Jan 12 11:42	8° \mathbb{M} 42'20		greatest brilliancy	3154 Dec 13 20:00	11° \mathbb{M} 55'43	-0.4m
retrograde	3154 Jan 12 18:43	8° \mathbb{M} 42'48		evening max el	3154 Dec 18 18:27	17° \mathbb{M} 35'23	21°30'29
evening set	3154 Jan 16 12:59	7° \mathbb{M} 20'46		retrograde	3154 Dec 27 16:13	22° \mathbb{M} 52'58	
inferior conj	3154 Jan 21 23:38	1° \mathbb{M} 12'18	2°48'02	asc. node	3154 Dec 30 08:44	22° \mathbb{M} 13'26	
minimum elong	3154 Jan 21 21:07	1° \mathbb{M} 20'53	2°47'23	evening set	3154 Dec 31 20:44	21° \mathbb{M} 15'36	
min. Earth dist.	3154 Jan 22 16:59	0° \mathbb{M} 13'28	0.67273 AU	inferior conj	3155 Jan 06 06:14	14° \mathbb{M} 57'14	2°10'39
	3154 Jan 22 20:58	30° \mathbb{R}		minimum elong	3155 Jan 06 03:49	15° \mathbb{M} 05'35	2°09'51
morning rise	3154 Jan 27 04:43	24° \mathbb{M} 56'38		min. Earth dist.	3155 Jan 06 11:27	14° \mathbb{M} 39'11	0.67786 AU
direct	3154 Feb 01 20:35	22° \mathbb{M} 26'24		morning rise	3155 Jan 11 10:36	8° \mathbb{M} 42'39	
morning max el	3154 Feb 13 07:46	29° \mathbb{M} 17'23	24°39'54	direct	3155 Jan 16 11:36	6° \mathbb{M} 32'57	
	3154 Feb 14 00:23	0° \mathbb{M}		morning max el	3155 Jan 26 16:50	12° \mathbb{M} 37'18	23°11'10
desc. node	3154 Feb 19 01:01	5° \mathbb{M} 43'10		greatest brilliancy	3155 Jan 31 17:57	18° \mathbb{M} 16'37	-0.3m
	3154 Mar 08 08:11	0° \mathbb{M}		desc. node	3155 Feb 05 22:03	24° \mathbb{M} 54'14	
morning set	3154 Mar 21 07:38	21° \mathbb{M} 27'41			3155 Feb 09 15:07	0° \mathbb{M}	
max. Earth dist.	3154 Mar 25 00:12	28° \mathbb{M} 05'03	1.37336 AU		3155 Mar 01 05:14	0° \mathbb{M}	
	3154 Mar 26 01:14	0° \mathbb{M}		morning set	3155 Mar 02 11:33	2° \mathbb{M} 06'10	
				max. Earth dist.	3155 Mar 06 18:52	9° \mathbb{M} 25'57	1.39486 AU
superior conj	3154 Mar 31 16:26	10° \mathbb{M} 40'57	-1°-28'-22				
minimum elong	3154 Mar 31 20:46	11° \mathbb{M} 02'04	1°27'48	superior conj	3155 Mar 14 10:46	23° \mathbb{M} 09'35	-1°-50'-41
evening rise	3154 Apr 09 06:40	27° \mathbb{M} 44'38		minimum elong	3155 Mar 14 15:08	23° \mathbb{M} 29'46	1°50'20
asc. node	3154 Apr 10 11:00	0° \mathbb{M} 05'18			3155 Mar 18 02:25	0° \mathbb{M}	
	3154 Apr 10 09:56	0° \mathbb{M}		evening rise	3155 Mar 23 23:57	11° \mathbb{M} 18'06	
evening max el	3154 Apr 26 02:06	24° \mathbb{M} 59'19	19°18'14	asc. node	3155 Mar 28 08:03	19° \mathbb{M} 31'52	
retrograde	3154 May 05 05:25	29° \mathbb{M} 25'26			3155 Apr 03 10:03	0° \mathbb{M}	
evening set	3154 May 07 06:05	29° \mathbb{M} 13'17		evening max el	3155 Apr 09 04:18	7° \mathbb{M} 20'10	18°34'59
inferior conj	3154 May 15 17:01	25° \mathbb{M} 04'41	0°39'50	retrograde	3155 Apr 16 22:43	11° \mathbb{M} 08'52	
minimum elong	3154 May 15 18:39	25° \mathbb{M} 01'59	0°39'14	evening set	3155 Apr 19 05:03	10° \mathbb{M} 50'33	
desc. node	3154 May 18 00:13	23° \mathbb{M} 33'16		inferior conj	3155 Apr 26 20:36	6° \mathbb{M} 23'10	2°09'11
min. Earth dist.	3154 May 18 11:59	23° \mathbb{M} 14'18	0.56145 AU	minimum elong	3155 Apr 27 00:23	6° \mathbb{M} 15'51	2°08'07
morning rise	3154 May 24 03:07	20° \mathbb{M} 17'55		min. Earth dist.	3155 Apr 30 06:08	3° \mathbb{M} 46'42	0.57921 AU
direct	3154 May 28 23:05	19° \mathbb{M} 24'18		morning rise	3155 May 04 15:19	1° \mathbb{M} 03'09	
morning max el	3154 Jun 12 03:23	26° \mathbb{M} 37'25	25°14'29	desc. node	3155 May 04 21:16	0° \mathbb{M} 56'07	
	3154 Jun 15 09:07	0° \mathbb{M}			3155 May 07 11:36	30° \mathbb{R}	
	3154 Jun 04 12:47	0° \mathbb{M}		direct	3155 May 10 11:09	29° \mathbb{M} 37'20	
asc. node	3154 Jul 07 10:14	5° \mathbb{M} 52'18			3155 May 13 11:34	0° \mathbb{M}	
morning set	3154 Jul 08 17:37	8° \mathbb{M} 36'42		morning max el	3155 May 24 20:11	7° \mathbb{M} 15'01	26°38'42
					3155 Jun 10 19:34	0° \mathbb{M}	
superior conj	3154 Jul 15 17:33	23° \mathbb{M} 47'30	1°17'31	morning set	3155 Jun 23 04:03	23° \mathbb{M} 26'04	
minimum elong	3154 Jul 15 15:11	23° \mathbb{M} 34'33	1°17'10	asc. node	3155 Jun 24 07:18	25° \mathbb{M} 50'20	
max. Earth dist.	3154 Jul 16 22:47	26° \mathbb{M} 27'08	1.32606 AU		3155 Jun 26 05:41	0° \mathbb{M}	
	3154 Jul 18 14:03	0° \mathbb{M}					
evening rise	3154 Jul 22 21:28	9° \mathbb{M} 05'49		superior conj	3155 Jun 30 05:13	8° \mathbb{M} 44'00	0°58'44
	3154 Aug 02 22:55	0° \mathbb{M}		minimum elong	3155 Jun 30 03:02	8° \mathbb{M} 32'00	0°58'19
desc. node	3154 Aug 13 23:31	16° \mathbb{M} 56'05		max. Earth dist.	3155 Jun 30 09:43	9° \mathbb{M} 08'46	1.32167 AU
evening max el	3154 Aug 24 04:28	28° \mathbb{M} 47'30	27°21'51	evening rise	3155 Jul 07 03:44	23° \mathbb{M} 46'14	
	3154 Aug 25 12:10	0° \mathbb{M}			3155 Jul 10 04:29	0° \mathbb{M}	
retrograde	3154 Sep 06 23:29	6° \mathbb{M} 03'21			3155 Jul 27 22:07	0° \mathbb{M}	
evening set	3154 Sep 14 04:04	3° \mathbb{M} 35'12		desc. node	3155 Jul 31 20:33	5° \mathbb{M} 02'53	
min. Earth dist.	3154 Sep 17 18:27	0° \mathbb{M} 41'05	0.62424 AU	evening max el	3155 Aug 06 08:12	10° \mathbb{M} 57'45	26°47'46
	3154 Sep 18 12:18	30° \mathbb{R}		retrograde	3155 Aug 20 06:44	18° \mathbb{M} 09'35	
inferior conj	3154 Sep 20 16:20	27° \mathbb{M} 56'51	-3°-48'-41	evening set	3155 Aug 27 04:11	16° \mathbb{M} 06'54	
minimum elong	3154 Sep 20 22:00	27° \mathbb{M} 43'31	3°47'07	min. Earth dist.	3155 Aug 30 22:18	13° \mathbb{M} 29'42	0.60422 AU
morning rise	3154 Sep 27 18:44	22° \mathbb{M} 50'28		inferior conj	3155 Sep 03 04:00	10° \mathbb{M} 49'33	-4°-35'-41
direct	3154 Sep 30 03:12	22° \mathbb{M} 25'42		minimum elong	3155 Sep 03 09:05	10° \mathbb{M} 39'01	4°34'47
asc. node	3154 Oct 03 09:27	23° \mathbb{M} 14'40		morning rise	3155 Sep 10 17:13	6° \mathbb{M} 04'49	

direct	3155 Sep 13 01:30	5° \cap 43'48		morning rise	3156 Aug 22 20:59	18° Ω 44'35	
asc. node	3155 Sep 20 06:30	9° \cap 11'50		direct	3156 Aug 25 08:19	18° Ω 25'07	
morning max el	3155 Sep 20 10:35	9° \cap 21'37	18°07'16	morning max el	3156 Sep 02 16:21	22° Ω 23'03	18°43'19
	3155 Oct 03 21:14	0° $\underline{\Omega}$		asc. node	3156 Sep 06 03:33	26° Ω 18'07	
morning set	3155 Oct 06 05:12	4° $\underline{\Omega}$ 20'56			3156 Sep 08 18:08	0° \cap	
				morning set	3156 Sep 18 23:56	18° \cap 25'57	
superior conj	3155 Oct 15 23:05	22° $\underline{\Omega}$ 19'52	1°16'10		3156 Sep 24 22:32	0° $\underline{\Omega}$	
minimum elong	3155 Oct 16 03:14	22° $\underline{\Omega}$ 38'25	1°15'42				
	3155 Oct 20 07:39	0° \cap		superior conj	3156 Sep 27 16:24	5° $\underline{\Omega}$ 14'05	1°34'52
max. Earth dist.	3155 Oct 23 14:23	5° \cap 35'39	1.41544 AU	minimum elong	3156 Sep 27 19:09	5° $\underline{\Omega}$ 27'05	1°34'40
desc. node	3155 Oct 27 19:51	12° \cap 35'08		max. Earth dist.	3156 Oct 04 20:05	18° $\underline{\Omega}$ 18'06	1.39511 AU
evening rise	3155 Oct 28 22:33	14° \cap 23'12		evening rise	3156 Oct 08 21:42	25° $\underline{\Omega}$ 19'57	
	3155 Nov 07 23:35	0° \mathcal{A}			3156 Oct 11 16:45	0° \cap	
greatest brilliancy	3155 Nov 26 09:16	25° \mathcal{A} 28'02	-0.3m	desc. node	3156 Oct 13 16:52	3° \cap 16'18	
	3155 Nov 30 08:20	0° \mathcal{B}			3156 Oct 31 17:01	0° \mathcal{A}	
evening max el	3155 Dec 01 11:22	1° \mathcal{B} 10'05	22°48'17	evening max el	3156 Nov 13 00:56	14° \mathcal{A} 47'47	24°08'09
retrograde	3155 Dec 11 11:26	7° \mathcal{B} 06'19		retrograde	3156 Nov 24 03:12	21° \mathcal{A} 18'31	
evening set	3155 Dec 16 04:04	5° \mathcal{B} 12'29		evening set	3156 Nov 29 09:22	19° \mathcal{A} 08'00	
asc. node	3155 Dec 17 05:45	4° \mathcal{B} 13'51		asc. node	3156 Dec 03 02:47	15° \mathcal{A} 02'05	
	3155 Dec 20 17:03	30° \cap \mathcal{A}		min. Earth dist.	3156 Dec 04 04:18	13° \mathcal{A} 37'32	0.67731 AU
inferior conj	3155 Dec 21 13:56	28° \mathcal{A} 48'02	1°26'12	inferior conj	3156 Dec 04 20:56	12° \mathcal{A} 41'23	0°35'52
minimum elong	3155 Dec 21 12:06	28° \mathcal{A} 54'22	1°25'30	minimum elong	3156 Dec 04 20:05	12° \mathcal{A} 44'15	0°35'31
min. Earth dist.	3155 Dec 21 08:02	29° \mathcal{A} 08'27	0.67932 AU	morning rise	3156 Dec 10 07:05	6° \mathcal{A} 35'12	
morning rise	3155 Dec 26 20:05	22° \mathcal{A} 36'31		direct	3156 Dec 14 03:35	5° \mathcal{A} 10'43	
direct	3155 Dec 31 06:19	20° \mathcal{A} 49'42		morning max el	3156 Dec 22 01:57	9° \mathcal{A} 43'43	20°28'00
morning max el	3156 Jan 09 05:51	26° \mathcal{A} 05'03	21°44'57	greatest brilliancy	3156 Dec 28 07:23	17° \mathcal{A} 04'59	-0.5m
	3156 Jan 12 19:10	0° \mathcal{B}			3157 Jan 06 11:27	0° \mathcal{B}	
greatest brilliancy	3156 Jan 14 01:16	1° \mathcal{B} 30'53	-0.4m	desc. node	3157 Jan 09 16:07	4° \mathcal{B} 44'24	
desc. node	3156 Jan 23 19:06	14° \mathcal{B} 37'52		morning set	3157 Jan 19 10:29	19° \mathcal{B} 37'03	
	3156 Feb 03 03:56	0° \approx			3157 Jan 26 01:18	0° \approx	
morning set	3156 Feb 10 10:31	11° \approx 21'49		max. Earth dist.	3157 Jan 29 00:59	4° \approx 46'43	1.43401 AU
max. Earth dist.	3156 Feb 16 17:57	21° \approx 38'06	1.41607 AU				
	3156 Feb 21 16:46	0° \mathcal{H}		superior conj	3157 Feb 04 08:00	15° \approx 04'28	-2°-4'-34
				minimum elong	3157 Feb 04 05:17	14° \approx 53'11	2°04'30
superior conj	3156 Feb 24 09:39	4° \mathcal{H} 41'26	-2°-4'-27		3157 Feb 13 02:40	0° \mathcal{H}	
minimum elong	3156 Feb 24 11:52	4° \mathcal{H} 51'09	2°04'24	evening rise	3157 Feb 16 18:17	6° \mathcal{H} 22'23	
evening rise	3156 Mar 06 05:14	24° \mathcal{H} 13'48		asc. node	3157 Mar 01 02:08	27° \mathcal{H} 05'00	
	3156 Mar 09 08:43	0° \cap			3157 Mar 03 04:31	0° \cap	
asc. node	3156 Mar 14 05:06	8° \cap 34'29		evening max el	3157 Mar 06 01:12	3° \cap 18'36	18°07'54
evening max el	3156 Mar 22 13:07	20° \cap 09'45	18°11'40	retrograde	3157 Mar 12 12:53	6° \cap 41'42	
retrograde	3156 Mar 29 10:29	23° \cap 37'52		evening set	3157 Mar 15 06:42	6° \cap 04'32	
evening set	3156 Mar 31 22:52	23° \cap 10'47		inferior conj	3157 Mar 21 15:33	0° \cap 54'44	3°33'31
inferior conj	3156 Apr 07 21:11	18° \cap 21'55	3°05'41	minimum elong	3157 Mar 21 16:55	0° \cap 51'13	3°33'24
minimum elong	3156 Apr 08 00:19	18° \cap 14'50	3°05'06		3157 Mar 22 12:39	30° \cap \mathcal{H}	
min. Earth dist.	3156 Apr 11 05:44	15° \cap 21'44	0.60050 AU	min. Earth dist.	3157 Mar 24 13:24	27° \mathcal{H} 55'33	0.62189 AU
morning rise	3156 Apr 14 22:16	12° \cap 37'13		morning rise	3157 Mar 28 00:40	24° \mathcal{H} 54'27	
desc. node	3156 Apr 20 18:18	10° \cap 37'26		direct	3157 Apr 03 21:46	22° \mathcal{H} 24'07	
direct	3156 Apr 21 11:30	10° \cap 36'01		desc. node	3157 Apr 07 15:20	23° \mathcal{H} 04'00	
morning max el	3156 May 05 18:56	18° \cap 26'53	27°33'13		3157 Apr 17 15:17	0° \cap	
	3156 May 15 11:44	0° \mathcal{B}		morning max el	3157 Apr 17 23:54	0° \cap 21'16	27°51'02
	3156 Jun 02 11:26	0° \cap			3157 May 09 13:07	0° \mathcal{B}	
morning set	3156 Jun 06 11:26	8° \cap 04'21		morning set	3157 May 21 13:46	22° \mathcal{B} 25'04	
asc. node	3156 Jun 10 04:22	15° \cap 55'57			3157 May 25 05:23	0° \cap	
max. Earth dist.	3156 Jun 12 21:34	21° \cap 51'31	1.32121 AU	max. Earth dist.	3157 May 27 06:25	4° \cap 22'08	1.32473 AU
				asc. node	3157 May 28 01:25	6° \cap 04'45	
superior conj	3156 Jun 13 16:45	23° \cap 36'57	0°36'19				
minimum elong	3156 Jun 13 15:13	23° \cap 28'28	0°36'00	superior conj	3157 May 29 02:27	8° \cap 20'36	0°10'58
	3156 Jun 16 14:24	0° \mathcal{B}		minimum elong	3157 May 29 01:56	8° \cap 17'48	0°10'51
evening rise	3156 Jun 20 13:44	8° \mathcal{B} 35'18		behind sun begin	3157 May 28 22:08	7° \cap 57'08	
	3156 Jul 01 15:44	0° Ω		behind sun end	3157 May 29 05:44	8° \cap 38'28	
desc. node	3156 Jul 17 17:35	21° Ω 53'20		evening rise	3157 Jun 05 01:26	23° \cap 26'12	
evening max el	3156 Jul 18 04:46	22° Ω 20'20	25°42'04		3157 Jun 08 05:09	0° \mathcal{B}	
retrograde	3156 Aug 01 04:25	29° Ω 27'46			3157 Jun 26 21:33	0° Ω	
evening set	3156 Aug 07 06:06	28° Ω 00'53		evening max el	3157 Jun 29 19:05	3° Ω 02'07	24°13'35
min. Earth dist.	3156 Aug 11 16:55	25° Ω 23'24	0.58367 AU	desc. node	3157 Jul 04 14:36	6° Ω 57'36	
inferior conj	3156 Aug 14 21:53	23° Ω 05'58	-5°-3'-8	retrograde	3157 Jul 13 14:53	10° Ω 00'27	
minimum elong	3156 Aug 14 23:47	23° Ω 02'31	5°03'04	evening set	3157 Jul 18 08:15	9° Ω 10'50	

min. Earth dist.	3157 Jul 24 05:45	6°♂14'59	0.56534 AU	min. Earth dist.	3158 Jul 05 16:53	16°♂09'31	0.55266 AU
inferior conj	3157 Jul 26 19:39	4°♂38'22	-4°-56'-56	inferior conj	3158 Jul 06 22:56	15°♂26'40	-4°-3'-33
minimum elong	3157 Jul 26 15:59	4°♂44'08	4°56'37	minimum elong	3158 Jul 06 14:54	15°♂38'07	4°01'40
morning rise	3157 Aug 04 03:18	0°♂37'48		morning rise	3158 Jul 15 13:43	11°♂35'52	
direct	3157 Aug 06 19:58	0°♂18'35		direct	3158 Jul 18 13:29	11°♂15'20	
morning max el	3157 Aug 16 12:29	4°♂48'46	19°40'52	morning max el	3158 Jul 29 21:03	16°♂30'40	20°59'24
asc. node	3157 Aug 24 00:37	14°♂18'57			3158 Aug 09 03:43	0°♂	
	3157 Sep 01 15:38	0°♂		asc. node	3158 Aug 10 21:40	3°♂00'48	
morning set	3157 Sep 03 02:23	2°♂53'54		morning set	3158 Aug 18 09:53	17°♂36'33	
					3158 Aug 24 08:37	0°♂	
superior conj	3157 Sep 11 01:17	18°♂55'11	1°43'40	superior conj	3158 Aug 25 21:08	3°♂08'48	1°44'17
minimum elong	3157 Sep 11 02:15	19°♂00'01	1°43'39	minimum elong	3158 Aug 25 20:33	3°♂05'49	1°44'16
	3157 Sep 16 19:22	0°♂					
max. Earth dist.	3157 Sep 17 00:36	0°♂24'28	1.37459 AU	max. Earth dist.	3158 Aug 30 09:22	12°♂14'58	1.35617 AU
evening rise	3157 Sep 20 20:00	7°♂21'23		evening rise	3158 Sep 03 13:41	20°♂17'43	
desc. node	3157 Sep 30 13:54	23°♂48'27			3158 Sep 08 22:13	0°♂	
	3157 Oct 04 13:14	0°♂		desc. node	3158 Sep 17 10:55	14°♂05'44	
evening max el	3157 Oct 26 13:05	28°♂28'23	25°23'14		3158 Sep 28 12:39	0°♂	
	3157 Oct 28 04:02	0°♂		evening max el	3158 Oct 09 01:18	12°♂08'15	26°26'15
retrograde	3157 Nov 07 14:40	5°♂25'28		retrograde	3158 Oct 21 21:12	19°♂20'53	
evening set	3157 Nov 13 11:01	2°♂59'44		evening set	3158 Oct 28 07:06	16°♂43'54	
	3157 Nov 16 08:42	30°♂		min. Earth dist.	3158 Nov 01 10:47	12°♂24'23	0.66298 AU
min. Earth dist.	3157 Nov 17 21:59	28°♂04'09	0.67189 AU	inferior conj	3158 Nov 03 01:40	10°♂26'30	-1°-17'-41
inferior conj	3157 Nov 19 01:29	26°♂35'21	0°-19'-11	minimum elong	3158 Nov 03 03:46	10°♂20'07	1°16'49
minimum elong	3157 Nov 19 01:58	26°♂33'46	0°19'00	asc. node	3158 Nov 06 20:51	6°♂15'33	
asc. node	3157 Nov 19 23:49	25°♂23'45		morning rise	3158 Nov 09 01:42	4°♂38'18	
morning rise	3157 Nov 24 17:39	20°♂36'49		direct	3158 Nov 12 00:11	3°♂49'33	
direct	3157 Nov 28 02:05	19°♂32'04		morning max el	3158 Nov 18 16:42	7°♂29'59	18°36'30
morning max el	3157 Dec 05 06:00	23°♂33'25	19°24'28		3158 Dec 04 12:40	0°♂	
	3157 Dec 10 15:44	0°♂		morning set	3158 Dec 09 05:36	7°♂28'37	
greatest brilliancy	3157 Dec 14 05:57	5°♂00'24	-0.7m	desc. node	3158 Dec 14 10:10	15°♂42'33	
desc. node	3157 Dec 27 13:08	25°♂07'36			3158 Dec 23 12:00	0°♂	
morning set	3157 Dec 29 09:10	27°♂57'57					
	3157 Dec 30 16:40	0°♂		superior conj	3158 Dec 25 08:01	2°♂52'43	-1°-9'-32
max. Earth dist.	3158 Jan 11 14:35	18°♂37'39	1.44640 AU	minimum elong	3158 Dec 24 23:44	2°♂20'15	1°08'35
				max. Earth dist.	3158 Dec 25 08:13	2°♂53'30	1.45191 AU
superior conj	3158 Jan 15 04:32	24°♂18'55	-1°-46'-19	evening rise	3159 Jan 10 04:06	27°♂53'08	
minimum elong	3158 Jan 14 20:26	23°♂46'39	1°45'42		3159 Jan 11 11:56	0°♂	
	3158 Jan 18 17:32	0°♂			3159 Jan 31 21:14	0°♂	
evening rise	3158 Jan 29 10:49	17°♂36'29		evening max el	3159 Feb 01 00:06	0°♂07'23	18°56'07
	3158 Feb 05 21:32	0°♂		asc. node	3159 Feb 02 20:10	1°♂48'50	
asc. node	3158 Feb 15 23:09	14°♂53'49		retrograde	3159 Feb 07 19:39	3°♂57'51	
evening max el	3158 Feb 17 13:40	16°♂39'34	18°23'02	evening set	3159 Feb 11 01:13	2°♂57'32	
retrograde	3158 Feb 24 01:16	20°♂10'48			3159 Feb 14 09:18	30°♂	
evening set	3158 Feb 27 00:33	19°♂22'36		inferior conj	3159 Feb 16 17:34	27°♂11'24	3°28'44
inferior conj	3158 Mar 04 23:36	13°♂53'38	3°39'19	minimum elong	3159 Feb 16 15:54	27°♂16'39	3°28'31
minimum elong	3158 Mar 04 23:12	13°♂54'45	3°39'18	min. Earth dist.	3159 Feb 18 09:07	25°♂07'53	0.65657 AU
min. Earth dist.	3158 Mar 07 06:38	11°♂15'44	0.64101 AU	morning rise	3159 Feb 22 05:32	20°♂57'59	
morning rise	3158 Mar 10 20:15	7°♂44'34		direct	3159 Feb 28 17:54	18°♂08'21	
direct	3158 Mar 17 16:21	4°♂57'31		desc. node	3159 Mar 12 09:21	24°♂28'37	
desc. node	3158 Mar 25 12:21	7°♂52'45		morning max el	3159 Mar 13 18:38	25°♂49'53	26°41'35
morning max el	3158 Mar 31 08:45	12°♂52'55	27°32'00		3159 Mar 17 14:45	0°♂	
	3158 Apr 14 02:13	0°♂			3159 Apr 07 14:54	0°♂	
	3158 May 02 01:48	0°♂		morning set	3159 Apr 18 16:09	19°♂38'06	
morning set	3158 May 05 08:26	6°♂19'37		max. Earth dist.	3159 Apr 22 23:03	27°♂58'42	1.34501 AU
max. Earth dist.	3158 May 10 08:03	16°♂26'52	1.33256 AU		3159 Apr 23 23:18	0°♂	
superior conj	3158 May 13 08:23	22°♂48'32	0°-16'-33	superior conj	3159 Apr 27 08:27	6°♂54'31	0°-45'-9
minimum elong	3158 May 13 09:13	22°♂52'58	0°16'23	minimum elong	3159 Apr 27 10:48	7°♂06'42	0°44'41
asc. node	3158 May 14 22:27	26°♂12'10		asc. node	3159 May 01 19:29	16°♂14'23	
	3158 May 16 16:51	0°♂		evening rise	3159 May 04 22:28	22°♂46'46	
evening rise	3158 May 20 12:58	8°♂11'58			3159 May 08 11:39	0°♂	
	3158 Jun 01 00:47	0°♂		evening max el	3159 May 24 06:51	24°♂11'09	21°06'43
evening max el	3158 Jun 11 09:07	13°♂27'56	22°36'56	retrograde	3159 Jun 05 02:27	29°♂57'58	
desc. node	3158 Jun 21 11:37	19°♂39'16		evening set	3159 Jun 07 08:18	29°♂46'14	
retrograde	3158 Jun 24 13:07	20°♂00'48		desc. node	3159 Jun 08 08:36	29°♂33'37	
evening set	3158 Jun 27 18:37	19°♂37'51		inferior conj	3159 Jun 16 16:38	25°♂48'20	-2°-24'-10

minimum elong	3159 Jun 16 10:03	25° Π 57'37	2°21'56	inferior conj	3160 May 26 15:05	6° Π 13'09	0°-24'-35
min. Earth dist.	3159 Jun 17 04:41	25° Π 31'21	0.54864 AU	minimum elong	3160 May 26 13:58	6° Π 14'52	0°24'11
morning rise	3159 Jun 25 11:34	21° Π 48'48		min. Earth dist.	3160 May 28 17:52	4° Π 55'42	0.55428 AU
direct	3159 Jun 28 23:06	21° Π 22'38		morning rise	3160 Jun 04 07:05	1° Π 46'59	
morning max el	3159 Jul 11 18:44	27° Π 29'15	22°34'49	direct	3160 Jun 08 13:45	1° Π 06'43	
	3159 Jul 14 06:13	0° \mathfrak{C}		morning max el	3160 Jun 22 09:42	7° Π 58'31	24°17'41
asc. node	3159 Jul 28 18:43	22° \mathfrak{C} 13'36			3160 Jul 08 10:59	0° \mathfrak{C}	
	3159 Aug 01 15:58	0° \mathcal{Q}		asc. node	3160 Jul 14 15:46	11° \mathfrak{C} 49'18	
morning set	3159 Aug 02 20:24	2° \mathcal{Q} 28'01		morning set	3160 Jul 17 08:12	17° \mathfrak{C} 23'17	
					3160 Jul 23 04:28	0° \mathcal{Q}	
superior conj	3159 Aug 10 00:30	17° \mathcal{Q} 44'23	1°38'09	superior conj	3160 Jul 24 08:45	2° \mathcal{Q} 33'44	1°26'26
minimum elong	3159 Aug 09 22:50	17° \mathcal{Q} 35'30	1°38'01	minimum elong	3160 Jul 24 06:29	2° \mathcal{Q} 21'29	1°26'10
max. Earth dist.	3159 Aug 13 02:50	24° \mathcal{Q} 14'40	1.34130 AU	max. Earth dist.	3160 Jul 26 05:21	6° \mathcal{Q} 34'45	1.33047 AU
	3159 Aug 15 22:30	0° \mathfrak{M}		evening rise	3160 Jul 31 17:45	18° \mathcal{Q} 07'45	
evening rise	3159 Aug 17 22:16	3° \mathfrak{M} 56'58			3160 Aug 06 20:42	0° \mathfrak{M}	
	3159 Sep 01 17:06	0° \mathfrak{A}		desc. node	3160 Aug 21 04:58	23° \mathfrak{M} 25'56	
desc. node	3159 Sep 04 07:57	4° \mathfrak{A} 01'18			3160 Aug 26 02:25	0° \mathfrak{A}	
evening max el	3159 Sep 21 13:44	25° \mathfrak{A} 39'33	27°09'37	evening max el	3160 Sep 03 00:50	8° \mathfrak{A} 50'07	27°26'24
	3159 Sep 26 20:23	0° \mathfrak{M}		retrograde	3160 Sep 16 16:38	16° \mathfrak{A} 06'46	
retrograde	3159 Oct 04 22:03	2° \mathfrak{M} 57'23		evening set	3160 Sep 23 20:43	13° \mathfrak{A} 30'27	
evening set	3159 Oct 11 19:18	0° \mathfrak{M} 15'56		min. Earth dist.	3160 Sep 27 12:37	10° \mathfrak{A} 20'29	0.63477 AU
	3159 Oct 12 03:14	30° \mathfrak{R} \mathfrak{A}		inferior conj	3160 Sep 30 03:53	7° \mathfrak{A} 41'25	-3°-16'-50
min. Earth dist.	3159 Oct 15 16:22	26° \mathfrak{A} 32'34	0.65059 AU	minimum elong	3160 Sep 30 09:06	7° \mathfrak{A} 28'16	3°15'09
inferior conj	3159 Oct 17 19:19	24° \mathfrak{A} 10'27	-2°-17'-49	morning rise	3160 Oct 06 23:54	2° \mathfrak{A} 23'32	
minimum elong	3159 Oct 17 23:07	23° \mathfrak{A} 59'50	2°16'23	direct	3160 Oct 09 10:02	1° \mathfrak{A} 55'13	
morning rise	3159 Oct 24 04:47	18° \mathfrak{A} 35'38		asc. node	3160 Oct 10 14:57	2° \mathfrak{A} 02'22	
asc. node	3159 Oct 24 17:54	18° \mathfrak{A} 22'01		morning max el	3160 Oct 16 00:10	5° \mathfrak{A} 20'40	17°51'24
direct	3159 Oct 26 19:44	17° \mathfrak{A} 58'55		morning set	3160 Nov 01 11:20	0° \mathfrak{M} 41'47	
morning max el	3159 Nov 02 07:40	21° \mathfrak{A} 27'43	18°05'13		3160 Nov 01 01:44	0° \mathfrak{M}	
	3159 Nov 08 22:11	0° \mathfrak{M}					
morning set	3159 Nov 20 07:33	18° \mathfrak{M} 27'33		superior conj	3160 Nov 13 17:09	21° \mathfrak{M} 32'04	0°23'40
	3159 Nov 27 07:58	0° \mathfrak{J}		minimum elong	3160 Nov 13 19:35	21° \mathfrak{M} 42'07	0°23'19
desc. node	3159 Dec 01 07:12	6° \mathfrak{J} 25'01		desc. node	3160 Nov 17 04:15	27° \mathfrak{M} 12'00	
					3160 Nov 18 21:52	0° \mathfrak{J}	
superior conj	3159 Dec 04 14:05	11° \mathfrak{J} 40'18	0°-22'-13	max. Earth dist.	3160 Nov 19 21:13	1° \mathfrak{J} 33'38	1.44110 AU
minimum elong	3159 Dec 04 11:18	11° \mathfrak{J} 29'12	0°21'50	evening rise	3160 Nov 29 09:35	16° \mathfrak{J} 29'14	
max. Earth dist.	3159 Dec 08 03:23	17° \mathfrak{J} 17'49	1.45006 AU		3160 Dec 08 07:12	0° \mathfrak{C}	
	3159 Dec 16 06:22	0° \mathfrak{C}		greatest brilliancy	3160 Dec 22 18:03	20° \mathfrak{C} 36'10	-0.5m
evening rise	3159 Dec 21 00:11	7° \mathfrak{C} 21'08		evening max el	3160 Dec 28 07:33	27° \mathfrak{C} 09'42	20°48'57
	3160 Jan 04 20:37	0° \approx			3160 Dec 31 11:43	0° \approx	
greatest brilliancy	3160 Jan 07 19:02	4° \approx 14'10	-0.6m	retrograde	3161 Jan 05 14:57	2° \approx 04'24	
evening max el	3160 Jan 15 06:28	13° \approx 37'49	19°45'35	asc. node	3161 Jan 06 14:13	1° \approx 59'13	
asc. node	3160 Jan 20 17:11	17° \approx 35'13		evening set	3161 Jan 09 13:28	0° \approx 35'49	
retrograde	3160 Jan 22 16:59	17° \approx 56'47			3161 Jan 10 06:53	30° \mathfrak{R} \mathfrak{C}	
evening set	3160 Jan 26 06:12	16° \approx 43'02		inferior conj	3161 Jan 14 23:27	24° \mathfrak{C} 22'49	2°33'06
inferior conj	3160 Jan 31 18:21	10° \approx 42'05	3°05'45	minimum elong	3161 Jan 14 20:54	24° \mathfrak{C} 31'31	2°32'22
minimum elong	3160 Jan 31 15:58	10° \approx 49'57	3°05'15	min. Earth dist.	3161 Jan 15 11:26	23° \mathfrak{C} 41'42	0.67546 AU
min. Earth dist.	3160 Feb 01 19:21	9° \approx 19'12	0.66805 AU	morning rise	3161 Jan 20 03:56	18° \mathfrak{C} 07'39	
morning rise	3160 Feb 06 01:04	4° \approx 26'52		direct	3161 Jan 25 13:35	15° \mathfrak{C} 45'44	
direct	3160 Feb 12 01:15	1° \approx 46'58		morning max el	3161 Feb 05 12:04	22° \mathfrak{C} 16'54	24°02'23
morning max el	3160 Feb 24 03:36	8° \approx 59'48	25°28'21		3161 Feb 12 05:57	0° \approx	
desc. node	3160 Feb 27 06:23	12° \approx 20'52		desc. node	3161 Feb 13 03:27	1° \approx 07'59	
	3160 Mar 11 16:31	0° \mathfrak{H}			3161 Mar 05 00:18	0° \mathfrak{H}	
	3160 Mar 30 04:16	0° \mathfrak{Y}		morning set	3161 Mar 13 03:15	13° \mathfrak{H} 29'17	
morning set	3160 Mar 31 08:20	2° \mathfrak{Y} 06'26		max. Earth dist.	3161 Mar 16 22:41	20° \mathfrak{H} 10'23	1.38243 AU
max. Earth dist.	3160 Apr 04 02:31	9° \mathfrak{Y} 03'43	1.36198 AU		3161 Mar 22 07:29	0° \mathfrak{Y}	
superior conj	3160 Apr 09 23:51	20° \mathfrak{Y} 30'07	-1°-13'-16	superior conj	3161 Mar 24 03:07	3° \mathfrak{Y} 26'09	-1°-38'-36
minimum elong	3160 Apr 10 03:37	20° \mathfrak{Y} 48'54	1°12'40	minimum elong	3161 Mar 24 07:40	3° \mathfrak{Y} 47'48	1°38'06
	3160 Apr 14 16:38	0° \mathfrak{B}		evening rise	3161 Apr 02 02:16	20° \mathfrak{Y} 55'03	
asc. node	3160 Apr 17 16:31	6° \mathfrak{B} 06'34		asc. node	3161 Apr 04 13:33	25° \mathfrak{Y} 44'02	
evening rise	3160 Apr 18 03:43	7° \mathfrak{B} 03'25			3161 Apr 06 19:25	0° \mathfrak{B}	
	3160 May 01 00:22	0° \mathfrak{I}		evening max el	3161 Apr 18 13:04	17° \mathfrak{B} 30'48	18°57'19
evening max el	3160 May 05 16:19	5° \mathfrak{I} 31'05	19°52'16	retrograde	3161 Apr 27 00:57	21° \mathfrak{B} 39'13	
retrograde	3160 May 15 18:15	10° \mathfrak{I} 24'33		evening set	3161 Apr 29 03:52	21° \mathfrak{B} 24'45	
evening set	3160 May 17 17:51	10° \mathfrak{I} 14'03		inferior conj	3161 May 07 06:27	17° \mathfrak{B} 08'21	1°21'43
desc. node	3160 May 25 05:37	7° \mathfrak{I} 03'45					

minimum elong	3161 May 07 09:25	17°♄03'06	1°20'44	evening set	3162 Apr 11 11:27	3°♄21'29	
min. Earth dist.	3161 May 10 09:35	14°♄56'28	0.56834 AU		3162 Apr 17 06:14	30°♄	
desc. node	3161 May 12 02:39	13°♄50'13		inferior conj	3162 Apr 18 19:15	28°♄44'56	2°37'04
morning rise	3161 May 15 10:39	12°♄06'59		minimum elong	3162 Apr 18 23:00	28°♄37'09	2°36'09
direct	3161 May 20 17:03	11°♄00'59		min. Earth dist.	3162 Apr 22 05:52	25°♄55'13	0.58796 AU
morning max el	3161 Jun 04 00:24	18°♄25'25	25°53'22	morning rise	3162 Apr 26 06:24	23°♄12'50	
	3161 Jun 13 16:31	0°♄		desc. node	3162 Apr 28 23:41	22°♄03'40	
	3161 Jun 30 17:31	0°♄		direct	3162 May 02 10:26	21°♄31'59	
morning set	3161 Jul 01 19:36	2°♄16'39		morning max el	3162 May 16 19:49	29°♄16'56	27°06'17
asc. node	3161 Jul 01 12:49	1°♄40'57			3162 May 17 13:07	0°♄	
					3162 Jun 07 11:56	0°♄	
superior conj	3161 Jul 08 19:41	17°♄29'28	1°10'02	morning set	3162 Jun 16 04:59	17°♄02'39	
minimum elong	3161 Jul 08 17:20	17°♄16'36	1°09'39	asc. node	3162 Jun 18 09:53	21°♄43'11	
max. Earth dist.	3161 Jul 09 14:18	19°♄11'43	1.32371 AU		3162 Jun 22 05:06	0°♄	
	3161 Jul 14 14:21	0°♄					
evening rise	3161 Jul 15 20:50	2°♄39'43		superior conj	3162 Jun 23 07:31	2°♄25'33	0°49'38
	3161 Jul 30 17:09	0°♄		minimum elong	3162 Jun 23 05:33	2°♄14'44	0°49'15
desc. node	3161 Aug 08 02:00	12°♄06'17		max. Earth dist.	3162 Jun 23 02:07	1°♄55'50	1.32091 AU
evening max el	3161 Aug 16 07:54	21°♄25'12	27°11'27	evening rise	3162 Jun 30 04:56	17°♄24'48	
retrograde	3161 Aug 30 04:12	28°♄38'53			3162 Jul 06 10:54	0°♄	
evening set	3161 Sep 06 07:24	26°♄19'49		desc. node	3162 Jul 25 23:00	29°♄44'05	
min. Earth dist.	3161 Sep 09 22:09	23°♄35'04	0.61597 AU		3162 Jul 26 04:43	0°♄	
inferior conj	3161 Sep 13 00:09	20°♄50'30	-4°-10'-14	evening max el	3162 Jul 29 08:26	3°♄14'49	26°23'19
minimum elong	3161 Sep 13 05:50	20°♄37'50	4°08'54	retrograde	3162 Aug 12 07:50	10°♄25'42	
morning rise	3161 Sep 20 07:14	15°♄53'07		evening set	3162 Aug 18 22:39	8°♄36'54	
direct	3161 Sep 22 15:21	15°♄30'09		min. Earth dist.	3162 Aug 22 21:37	6°♄02'08	0.59541 AU
asc. node	3161 Sep 27 12:01	17°♄13'06		inferior conj	3162 Aug 26 04:38	3°♄28'52	-4°-50'-27
morning max el	3161 Sep 29 15:04	19°♄00'33	17°55'56	minimum elong	3162 Aug 26 08:44	3°♄20'51	4°49'57
	3161 Oct 07 15:13	0°♄			3162 Aug 31 06:14	30°♄	
morning set	3161 Oct 15 10:20	13°♄50'23		morning rise	3162 Sep 02 22:17	28°♄54'25	
	3161 Oct 24 09:50	0°♄		direct	3162 Sep 05 07:25	28°♄34'22	
					3162 Sep 10 02:01	0°♄	
superior conj	3161 Oct 25 23:07	2°♄42'47	1°00'18	morning max el	3162 Sep 13 01:10	2°♄19'11	18°20'01
minimum elong	3161 Oct 26 03:26	3°♄01'30	0°59'45	asc. node	3162 Sep 14 09:05	3°♄41'45	
max. Earth dist.	3161 Nov 02 10:37	15°♄21'13	1.42607 AU	morning set	3162 Sep 28 23:05	27°♄37'59	
desc. node	3161 Nov 04 01:18	17°♄59'28			3162 Sep 30 04:51	0°♄	
evening rise	3161 Nov 09 00:18	25°♄55'48					
	3161 Nov 11 14:45	0°♄		superior conj	3162 Oct 08 05:06	15°♄03'47	1°25'24
	3161 Dec 02 05:10	0°♄		minimum elong	3162 Oct 08 08:46	15°♄20'34	1°25'03
greatest brilliancy	3161 Dec 06 09:29	5°♄21'23	-0.3m	max. Earth dist.	3162 Oct 15 18:10	28°♄26'22	1.40698 AU
evening max el	3161 Dec 11 03:04	10°♄42'26	22°02'48		3162 Oct 16 16:07	0°♄	
retrograde	3161 Dec 20 11:44	16°♄16'42		evening rise	3162 Oct 20 09:52	6°♄15'04	
asc. node	3161 Dec 24 11:15	14°♄51'21		desc. node	3162 Oct 21 22:19	8°♄43'59	
evening set	3161 Dec 24 21:16	14°♄32'11			3162 Nov 04 18:50	0°♄	
inferior conj	3161 Dec 30 06:45	8°♄10'33	1°52'35	evening max el	3162 Nov 23 18:07	24°♄17'30	23°22'20
minimum elong	3161 Dec 30 04:31	8°♄18'15	1°51'48		3162 Dec 01 14:13	0°♄	
min. Earth dist.	3161 Dec 30 07:02	8°♄09'31	0.67896 AU	retrograde	3162 Dec 04 05:46	0°♄29'57	
morning rise	3162 Jan 04 11:36	1°♄57'08			3162 Dec 06 17:29	30°♄	
	3162 Jan 08 12:40	30°♄		evening set	3162 Dec 09 03:57	28°♄28'55	
direct	3162 Jan 09 06:08	29°♄57'23		asc. node	3162 Dec 11 08:18	26°♄17'12	
	3162 Jan 09 23:56	0°♄		min. Earth dist.	3162 Dec 14 03:50	22°♄38'51	0.67887 AU
morning max el	3162 Jan 18 22:33	5°♄40'30	22°33'43	inferior conj	3162 Dec 14 14:22	22°♄02'43	1°05'31
greatest brilliancy	3162 Jan 23 12:16	10°♄46'32	-0.3m	minimum elong	3162 Dec 14 12:54	22°♄07'45	1°04'55
desc. node	3162 Jan 31 00:30	20°♄34'15		morning rise	3162 Dec 19 21:57	15°♄53'03	
	3162 Feb 06 14:58	0°♄		direct	3162 Dec 24 02:03	14°♄16'06	
morning set	3162 Feb 21 19:03	23°♄32'45		morning max el	3163 Jan 01 14:21	19°♄12'50	21°10'41
	3162 Feb 25 16:18	0°♄		greatest brilliancy	3163 Jan 06 21:28	25°♄17'23	-0.4m
max. Earth dist.	3162 Feb 26 18:52	1°♄52'28	1.40410 AU		3163 Jan 10 11:43	0°♄	
				desc. node	3163 Jan 17 21:33	10°♄28'30	
superior conj	3162 Mar 06 13:48	15°♄31'59	-1°-57'-52		3163 Jan 30 19:27	0°♄	
minimum elong	3162 Mar 06 17:35	15°♄49'06	1°57'39	morning set	3163 Feb 01 06:31	2°♄17'16	
	3162 Mar 14 09:11	0°♄		max. Earth dist.	3163 Feb 08 20:41	14°♄27'18	1.42420 AU
evening rise	3162 Mar 16 14:57	4°♄13'55					
asc. node	3162 Mar 22 10:35	15°♄01'27		superior conj	3163 Feb 16 02:42	26°♄35'17	-2°-6'-30
	3162 Apr 01 16:28	0°♄		minimum elong	3163 Feb 16 03:08	26°♄37'08	2°06'30
evening max el	3162 Apr 01 18:25	0°♄04'47	18°22'36		3163 Feb 18 02:15	0°♄	
retrograde	3162 Apr 09 02:38	3°♄43'11		evening rise	3163 Feb 27 13:52	16°♄50'32	

	3163 Mar 06 23:42	0°♄		superior conj	3164 Jan 27 13:54	6°≈28'45	-1°-59'-15
asc. node	3163 Mar 09 07:37	3°♄51'32		minimum elong	3164 Jan 27 08:39	6°≈07'22	1°59'00
evening max el	3163 Mar 16 04:59	13°♄03'32	18°07'44	evening rise	3164 Feb 09 18:40	28°≈36'43	
retrograde	3163 Mar 22 21:05	16°♄27'49			3164 Feb 10 14:04	0°♄	
evening set	3163 Mar 25 11:43	15°♄56'44		asc. node	3164 Feb 24 04:38	22°♄05'57	
inferior conj	3163 Apr 01 03:52	10°♄59'07	3°20'36	evening max el	3164 Feb 27 17:40	26°♄19'02	18°12'06
minimum elong	3163 Apr 01 06:19	10°♄53'17	3°20'14	retrograde	3164 Mar 05 04:07	29°♄43'42	
min. Earth dist.	3163 Apr 04 08:51	7°♄56'06	0.60972 AU	evening set	3164 Mar 08 00:16	29°♄01'54	
morning rise	3163 Apr 07 21:46	5°♄06'36		inferior conj	3164 Mar 14 04:34	23°♄43'57	3°38'15
direct	3163 Apr 14 15:34	2°♄51'23		minimum elong	3164 Mar 14 05:08	23°♄42'23	3°38'13
desc. node	3163 Apr 15 20:43	2°♄55'35		min. Earth dist.	3164 Mar 16 20:28	20°♄51'41	0.63049 AU
morning max el	3163 Apr 28 21:21	10°♄46'45	27°45'26	morning rise	3164 Mar 20 07:56	17°♄39'31	
	3163 May 13 21:13	0°♄		direct	3164 Mar 27 05:48	15°♄00'07	
	3163 May 30 16:05	0°♄		desc. node	3164 Apr 01 17:44	16°♄26'52	
morning set	3163 May 31 10:27	1°♄34'02		morning max el	3164 Apr 10 04:03	22°♄57'20	27°47'04
asc. node	3163 Jun 05 06:55	11°♄50'27			3164 Apr 16 10:07	0°♄	
max. Earth dist.	3163 Jun 06 12:55	14°♄33'30	1.32213 AU		3164 May 06 02:50	0°♄	
				morning set	3164 May 14 09:48	15°♄44'07	
superior conj	3163 Jun 07 18:27	17°♄15'04	0°25'53	max. Earth dist.	3164 May 19 18:59	26°♄53'20	1.32755 AU
minimum elong	3163 Jun 07 17:18	17°♄08'45	0°25'38		3164 May 21 05:53	0°♄	
	3163 Jun 13 14:35	0°♄					
evening rise	3163 Jun 14 15:50	2°♄14'56		superior conj	3164 May 22 02:47	1°♄52'36	0°00'-30
	3163 Jun 29 15:51	0°♄		minimum elong	3164 May 22 02:48	1°♄52'42	0°00'31
evening max el	3163 Jul 11 01:50	14°♄17'36	25°06'30	behind sun begin	3164 May 21 21:34	1°♄24'25	
desc. node	3163 Jul 12 20:00	15°♄53'14		behind sun end	3164 May 22 08:02	2°♄21'00	
retrograde	3163 Jul 25 01:18	21°♄22'54		asc. node	3164 May 22 03:57	1°♄58'55	
evening set	3163 Jul 30 14:13	20°♄12'35		evening rise	3164 May 29 03:41	17°♄04'05	
min. Earth dist.	3163 Aug 04 13:33	17°♄29'00	0.57535 AU		3164 Jun 04 13:21	0°♄	
inferior conj	3163 Aug 07 14:02	15°♄26'53	-5°-5'-37	evening max el	3164 Jun 21 15:14	24°♄48'41	23°32'31
minimum elong	3163 Aug 07 13:45	15°♄27'22	5°05'38	desc. node	3164 Jun 28 17:00	0°♄00'45	
morning rise	3163 Aug 15 16:55	11°♄14'58			3164 Jun 28 16:24	0°♄	
direct	3163 Aug 18 06:04	10°♄55'54		retrograde	3164 Jul 05 06:08	1°♄37'56	
morning max el	3163 Aug 27 03:10	15°♄06'26	19°05'08	evening set	3164 Jul 09 07:39	1°♄01'47	
asc. node	3163 Sep 01 06:08	21°♄12'46			3164 Jul 12 01:49	30°♄	
	3163 Sep 06 15:51	0°♄		min. Earth dist.	3164 Jul 16 01:17	27°♄53'38	0.55906 AU
morning set	3163 Sep 12 21:27	11°♄53'30		inferior conj	3164 Jul 18 03:17	26°♄39'09	-4°-40'-32
				minimum elong	3164 Jul 17 21:16	26°♄48'09	4°39'37
superior conj	3163 Sep 21 05:38	28°♄19'30	1°39'41	morning rise	3164 Jul 26 14:05	22°♄44'15	
minimum elong	3163 Sep 21 07:38	28°♄29'08	1°39'35	direct	3164 Jul 29 09:40	22°♄24'36	
	3163 Sep 22 02:34	0°♄		morning max el	3164 Aug 08 18:18	27°♄13'00	20°11'52
max. Earth dist.	3163 Sep 27 22:18	10°♄49'47	1.38625 AU		3164 Aug 11 10:17	0°♄	
evening rise	3163 Oct 01 19:10	17°♄40'16		asc. node	3164 Aug 18 03:11	9°♄32'04	
desc. node	3163 Oct 08 19:20	29°♄21'56		morning set	3164 Aug 27 02:19	26°♄28'10	
	3163 Oct 09 04:49	0°♄			3164 Aug 28 19:44	0°♄	
	3163 Oct 30 04:32	0°♄					
evening max el	3163 Nov 06 06:54	7°♄57'04	24°41'11	superior conj	3164 Sep 03 19:36	12°♄15'11	1°44'50
retrograde	3163 Nov 17 19:52	14°♄40'29		minimum elong	3164 Sep 03 19:52	12°♄16'33	1°44'50
evening set	3163 Nov 23 07:54	12°♄23'29		max. Earth dist.	3164 Sep 09 04:10	22°♄46'57	1.36639 AU
min. Earth dist.	3163 Nov 27 23:25	7°♄07'24	0.67539 AU	evening rise	3164 Sep 13 02:13	0°♄06'13	
asc. node	3163 Nov 28 05:20	6°♄47'47			3164 Sep 13 00:51	0°♄	
inferior conj	3163 Nov 28 20:33	5°♄57'09	0°13'02	desc. node	3164 Sep 24 16:20	19°♄48'22	
minimum elong	3163 Nov 28 20:14	5°♄58'14	0°12'54		3164 Oct 01 09:46	0°♄	
transit middle	3163 Nov 28 20:14	5°♄58'14	0°12'54	evening max el	3164 Oct 18 19:11	21°♄38'49	25°52'06
transit begin	3163 Nov 28 18:33	6°♄03'47		retrograde	3164 Oct 31 05:08	28°♄43'07	
transit end	3163 Nov 28 21:54	5°♄52'41		evening set	3164 Nov 06 07:23	26°♄12'13	
morning rise	3163 Dec 04 09:00	29°♄53'38		min. Earth dist.	3164 Nov 10 15:19	21°♄31'48	0.66854 AU
	3163 Dec 04 05:26	30°♄		inferior conj	3164 Nov 11 23:28	19°♄50'27	0°-43'-40
direct	3163 Dec 08 00:08	28°♄37'52		minimum elong	3164 Nov 12 00:37	19°♄46'49	0°43'11
	3163 Dec 12 01:17	0°♄		asc. node	3164 Nov 14 02:22	17°♄15'26	
morning max el	3163 Dec 15 13:47	2°♄56'15	19°59'05	morning rise	3164 Nov 17 18:46	13°♄55'49	
greatest brilliancy	3163 Dec 22 18:00	11°♄39'17	-0.6m	direct	3164 Nov 20 22:48	12°♄58'10	
	3164 Jan 04 07:13	0°♄		morning max el	3164 Nov 27 20:50	16°♄49'06	19°02'04
desc. node	3164 Jan 04 18:34	0°♄43'02			3164 Dec 07 22:05	0°♄	
morning set	3164 Jan 11 02:39	10°♄25'19		morning set	3164 Dec 20 08:34	19°♄10'39	
max. Earth dist.	3164 Jan 22 06:25	27°♄54'54	1.44006 AU	desc. node	3164 Dec 21 15:34	21°♄11'42	
	3164 Jan 23 13:42	0°♄			3164 Dec 27 06:48	0°♄	
				max. Earth dist.	3165 Jan 03 22:34	12°♄00'20	1.44972 AU

superior conj	3165 Jan 06 01:18	15°☿20'21	-1°-32'-41	superior conj	3165 Dec 16 03:10	23°♄52'20	0°-50'-2
minimum elong	3165 Jan 05 16:14	14°☿44'34	1°31'50	minimum elong	3165 Dec 15 20:50	23°♄27'28	0°49'13
	3165 Jan 15 05:57	0°≈		max. Earth dist.	3165 Dec 17 17:41	26°♄23'39	1.45209 AU
evening rise	3165 Jan 21 01:24	9°≈25'58			3165 Dec 20 00:52	0°☿	
	3165 Feb 02 19:59	0°☿		evening rise	3166 Jan 01 09:04	19°☿20'19	
evening max el	3165 Feb 10 05:36	9°☿43'30	18°34'59		3166 Jan 08 04:13	0°≈	
asc. node	3165 Feb 10 01:40	9°☿33'26		greatest brilliancy	3166 Jan 15 04:30	10°≈47'00	-0.7m
retrograde	3165 Feb 16 19:28	13°☿21'19		evening max el	3166 Jan 24 14:27	23°≈12'21	19°15'12
evening set	3165 Feb 19 21:24	12°☿27'54		asc. node	3166 Jan 27 22:42	26°≈01'03	
inferior conj	3165 Feb 25 17:15	6°☿51'13	3°36'30	retrograde	3166 Jan 31 15:34	27°≈14'05	
minimum elong	3165 Feb 25 16:15	6°☿54'13	3°36'26	evening set	3166 Feb 04 00:13	26°≈08'06	
min. Earth dist.	3165 Feb 27 17:33	4°☿27'09	0.64819 AU	inferior conj	3166 Feb 09 14:28	20°≈15'02	3°20'17
morning rise	3165 Mar 03 09:47	0°☿40'08		minimum elong	3166 Feb 09 12:26	20°≈21'35	3°19'58
	3165 Mar 04 05:57	30°☿≈		min. Earth dist.	3166 Feb 10 23:34	18°≈28'38	0.66197 AU
direct	3165 Mar 10 03:19	27°≈50'35		morning rise	3166 Feb 14 23:49	14°≈00'29	
	3165 Mar 16 16:26	0°☿		direct	3166 Feb 21 07:15	11°≈14'03	
desc. node	3165 Mar 19 14:45	2°☿05'08		morning max el	3166 Mar 05 23:27	18°≈45'07	26°12'39
morning max el	3165 Mar 23 13:35	5°☿40'45	27°13'54	desc. node	3166 Mar 06 11:48	19°≈16'37	
	3165 Apr 11 03:25	0°☿			3166 Mar 15 12:11	0°☿	
morning set	3165 Apr 28 00:16	29°☿24'24			3166 Apr 04 03:59	0°☿	
	3165 Apr 28 07:35	0°♄		morning set	3166 Apr 11 02:01	12°☿23'16	
max. Earth dist.	3165 May 02 16:35	8°♄45'03	1.33735 AU	max. Earth dist.	3166 Apr 15 02:54	20°☿04'56	1.35173 AU
superior conj	3165 May 06 06:31	16°♄11'59	0°-28'-38	superior conj	3166 Apr 20 03:16	0°♄05'44	0°-57'-15
minimum elong	3165 May 06 07:59	16°♄19'44	0°28'20	minimum elong	3166 Apr 20 06:15	0°♄21'00	0°56'43
asc. node	3165 May 09 00:59	22°♄04'35			3166 Apr 20 02:08	0°♄	
	3165 May 12 18:25	0°♄		asc. node	3166 Apr 25 22:01	12°♄02'56	
evening rise	3165 May 13 14:36	1°♄46'13		evening rise	3166 Apr 27 22:37	16°♄14'12	
	3165 May 29 15:45	0°♄			3166 May 04 23:24	0°♄	
evening max el	3165 Jun 03 07:44	5°♄18'22	21°57'00	evening max el	3166 May 16 10:07	16°♄15'11	20°32'44
retrograde	3165 Jun 15 23:24	11°♄33'26		retrograde	3166 May 27 12:34	21°♄39'55	
desc. node	3165 Jun 15 14:00	11°♄33'05		evening set	3166 May 29 13:50	21°♄29'34	
evening set	3165 Jun 18 16:58	11°♄16'46		desc. node	3166 Jun 02 11:02	20°♄19'13	
min. Earth dist.	3165 Jun 27 12:11	7°♄30'49	0.54980 AU	inferior conj	3166 Jun 07 18:54	17°♄31'57	-1°-33'-45
inferior conj	3165 Jun 28 00:58	7°♄12'55	-3°-25'-57	minimum elong	3166 Jun 07 14:28	17°♄38'21	1°32'09
minimum elong	3165 Jun 27 16:45	7°♄24'25	3°23'37	min. Earth dist.	3166 Jun 09 00:27	16°♄49'15	0.54982 AU
morning rise	3165 Jul 06 18:08	3°♄21'18		morning rise	3166 Jun 16 13:41	13°♄22'59	
direct	3165 Jul 09 22:22	2°♄59'01		direct	3166 Jun 20 08:06	12°♄52'24	
morning max el	3165 Jul 21 21:52	8°♄35'25	21°38'28	morning max el	3166 Jul 03 16:12	19°♄19'28	23°18'35
asc. node	3165 Aug 05 00:13	28°♄28'21			3166 Jul 12 13:18	0°♄	
	3165 Aug 05 19:53	0°♄		asc. node	3166 Jul 22 21:16	17°♄51'37	
morning set	3165 Aug 11 11:23	11°♄15'47		morning set	3166 Jul 26 22:39	26°♄09'28	
					3166 Jul 28 18:05	0°♄	
superior conj	3165 Aug 18 19:03	26°♄39'32	1°42'26	superior conj	3166 Aug 03 00:48	11°♄21'58	1°33'49
minimum elong	3165 Aug 18 17:57	26°♄33'46	1°42'23	minimum elong	3166 Aug 02 22:49	11°♄11'19	1°33'37
	3165 Aug 20 09:41	0°♄		max. Earth dist.	3166 Aug 05 14:06	16°♄48'06	1.33613 AU
max. Earth dist.	3165 Aug 22 16:44	4°♄40'52	1.34934 AU	evening rise	3166 Aug 10 16:28	27°♄15'56	
evening rise	3165 Aug 27 02:49	13°♄22'23			3166 Aug 12 01:46	0°♄	
	3165 Sep 05 08:51	0°♄		desc. node	3166 Aug 29 10:24	29°♄41'16	
desc. node	3165 Sep 11 13:22	9°♄57'41			3166 Aug 29 15:30	0°♄	
	3165 Sep 26 08:15	0°♄		evening max el	3166 Sep 13 19:30	18°♄39'22	27°20'17
evening max el	3165 Oct 01 07:37	5°♄16'28	26°47'30	retrograde	3166 Sep 27 07:30	25°♄57'52	
retrograde	3165 Oct 14 09:08	12°♄31'51		evening set	3166 Oct 04 08:28	23°♄16'50	
evening set	3165 Oct 21 00:26	9°♄51'51		min. Earth dist.	3166 Oct 08 02:54	19°♄48'36	0.64425 AU
min. Earth dist.	3165 Oct 25 01:12	5°♄48'04	0.65819 AU	inferior conj	3166 Oct 10 11:16	17°♄17'50	-2°-43'-13
inferior conj	3165 Oct 26 21:10	3°♄39'11	-1°-43'-7	minimum elong	3166 Oct 10 15:45	17°♄05'52	2°41'37
minimum elong	3165 Oct 27 00:00	3°♄30'54	1°41'58	morning rise	3166 Oct 17 01:10	11°♄50'07	
	3165 Oct 30 05:58	30°♄≈		asc. node	3166 Oct 18 20:27	11°♄20'10	
asc. node	3165 Oct 31 23:24	28°♄35'08		direct	3166 Oct 19 13:40	11°♄17'29	
morning rise	3165 Nov 02 01:04	27°♄56'29		morning max el	3166 Oct 26 01:47	14°♄43'53	17°57'13
direct	3165 Nov 04 20:07	27°♄13'16			3166 Nov 05 20:08	0°♄	
	3165 Nov 10 13:55	0°♄		morning set	3166 Nov 12 07:14	10°♄52'28	
morning max el	3165 Nov 11 09:43	0°♄47'15	18°21'10		3166 Nov 23 19:20	0°♄	
morning set	3165 Nov 30 17:34	29°♄19'38		desc. node	3166 Nov 25 09:42	2°♄35'18	
	3165 Dec 01 03:34	0°♄					
desc. node	3165 Dec 08 12:37	11°♄50'28		superior conj	3166 Nov 25 16:40	3°♄03'25	0°-1°-59

minimum elong	3166 Nov 25 16:25	3°♂02'26	0°01'59			3167 Oct 11 02:58	0°♂	
behind sun begin	3166 Nov 25 06:11	2°♂21'08		morning set		3167 Oct 25 19:54	23°♂31'16	
behind sun end	3166 Nov 26 02:40	3°♂43'41				3167 Oct 29 11:43	0°♂	
max. Earth dist.	3166 Nov 30 12:22	10°♂45'26	1.44701 AU					
evening rise	3166 Dec 11 22:52	28°♂35'16		superior conj		3167 Nov 06 07:02	13°♂27'59	0°40'35
	3166 Dec 12 20:54	0°♂		minimum elong		3167 Nov 06 10:40	13°♂43'20	0°40'05
greatest brilliancy	3167 Jan 01 05:47	28°♂45'02	-0.6m	desc. node		3167 Nov 12 06:44	23°♂22'32	
	3167 Jan 02 04:06	0°♂		max. Earth dist.		3167 Nov 13 03:57	24°♂48'31	1.43527 AU
evening max el	3167 Jan 07 18:36	6°♂43'23	20°10'59			3167 Nov 16 09:42	0°♂	
asc. node	3167 Jan 14 19:43	11°♂14'20		evening rise		3167 Nov 21 08:19	7°♂45'17	
retrograde	3167 Jan 15 13:33	11°♂17'22				3167 Dec 06 03:54	0°♂	
evening set	3167 Jan 19 06:25	9°♂57'36		greatest brilliancy		3167 Dec 16 15:53	14°♂25'07	-0.4m
inferior conj	3167 Jan 24 17:24	3°♂50'59	2°53'00	evening max el		3167 Dec 21 17:16	20°♂15'22	21°19'27
minimum elong	3167 Jan 24 14:54	3°♂59'27	2°52'22	retrograde		3167 Dec 30 11:11	25°♂26'54	
min. Earth dist.	3167 Jan 25 12:43	2°♂45'49	0.67163 AU	asc. node		3168 Jan 01 16:46	24°♂59'33	
	3167 Jan 27 16:14	30°♂♂		evening set		3168 Jan 03 14:05	23°♂51'53	
morning rise	3167 Jan 29 22:48	27°♂35'18		inferior conj		3168 Jan 08 23:40	17°♂34'56	2°16'50
direct	3167 Feb 04 16:53	25°♂02'15		minimum elong		3168 Jan 08 21:13	17°♂43'26	2°16'02
	3167 Feb 14 06:20	0°♂		min. Earth dist.		3168 Jan 09 06:38	17°♂10'52	0.67736 AU
morning max el	3167 Feb 16 08:14	1°♂59'33	24°52'44	morning rise		3168 Jan 14 03:59	11°♂20'08	
desc. node	3167 Feb 21 08:52	7°♂34'53		direct		3168 Jan 19 07:16	9°♂07'03	
	3167 Mar 09 14:13	0°♂		morning max el		3168 Jan 29 16:57	15°♂18'26	23°24'26
morning set	3167 Mar 24 10:02	24°♂26'40		greatest brilliancy		3168 Feb 04 08:16	21°♂40'40	-0.2m
	3167 Mar 27 11:58	0°♂		desc. node		3168 Feb 08 05:55	26°♂40'09	
max. Earth dist.	3167 Mar 28 02:24	1°♂06'17	1.37032 AU			3168 Feb 10 17:12	0°♂	
						3168 Mar 01 13:45	0°♂	
superior conj	3167 Apr 03 14:02	13°♂26'02	-1°-24'-31	morning set		3168 Mar 04 18:01	5°♂17'06	
minimum elong	3167 Apr 03 18:15	13°♂46'41	1°23'56	max. Earth dist.		3168 Mar 08 21:07	12°♂22'10	1.39165 AU
	3167 Apr 11 21:08	0°♂						
evening rise	3167 Apr 12 01:25	0°♂21'25		superior conj		3168 Mar 16 10:51	26°♂02'17	-1°-47'-46
asc. node	3167 Apr 12 19:04	1°♂49'38		minimum elong		3168 Mar 16 15:19	26°♂23'08	1°47'21
evening max el	3167 Apr 29 00:41	27°♂52'51	19°26'26			3168 Mar 18 13:29	0°♂	
	3167 May 01 13:01	0°♂		evening rise		3168 Mar 25 20:09	13°♂59'47	
retrograde	3167 May 08 09:40	2°♂25'34		asc. node		3168 Mar 29 16:06	21°♂19'07	
evening set	3167 May 10 09:48	2°♂14'00				3168 Apr 03 12:58	0°♂	
	3167 May 15 23:06	30°♂♂		evening max el		3168 Apr 11 01:35	10°♂08'29	18°40'06
inferior conj	3167 May 18 23:34	28°♂07'52	0°23'35	retrograde		3168 Apr 19 00:03	14°♂01'35	
minimum elong	3167 May 19 00:34	28°♂06'14	0°23'14	evening set		3168 Apr 21 05:32	13°♂44'19	
desc. node	3167 May 20 08:03	27°♂15'04		inferior conj		3168 Apr 28 23:54	9°♂19'52	1°57'46
min. Earth dist.	3167 May 21 14:56	26°♂25'38	0.55935 AU	minimum elong		3168 Apr 29 03:34	9°♂12'56	1°56'40
morning rise	3167 May 27 11:27	23°♂26'26		min. Earth dist.		3168 May 02 08:21	6°♂49'08	0.57629 AU
direct	3167 Jun 01 03:57	22°♂36'34		desc. node		3168 May 06 05:05	4°♂24'11	
morning max el	3167 Jun 15 06:28	29°♂44'50	25°00'09	morning rise		3168 May 06 21:12	4°♂04'33	
	3167 Jun 15 12:46	0°♂		direct		3168 May 12 13:49	2°♂44'01	
	3167 Jul 05 23:25	0°♂		morning max el		3168 May 26 22:29	10°♂18'24	26°27'50
asc. node	3167 Jul 09 18:21	7°♂34'37				3168 Jun 11 00:26	0°♂	
morning set	3167 Jul 11 10:27	11°♂04'14		morning set		3168 Jun 24 21:11	25°♂54'42	
				asc. node		3168 Jun 25 15:24	27°♂31'04	
						3168 Jun 26 19:15	0°♂	
superior conj	3167 Jul 18 10:27	26°♂14'46	1°20'00					
minimum elong	3167 Jul 18 08:06	26°♂01'55	1°19'41	superior conj		3168 Jul 01 21:59	11°♂11'13	1°01'49
max. Earth dist.	3167 Jul 19 19:29	29°♂14'43	1.32708 AU	minimum elong		3168 Jul 01 19:45	10°♂58'54	1°01'26
	3167 Jul 20 03:50	0°♂		max. Earth dist.		3168 Jul 02 06:02	11°♂55'35	1.32206 AU
evening rise	3167 Jul 25 15:32	11°♂36'35		evening rise		3168 Jul 08 21:03	26°♂15'07	
	3167 Aug 04 07:07	0°♂				3168 Jul 10 16:32	0°♂	
desc. node	3167 Aug 16 07:24	18°♂48'31				3168 Jul 27 21:04	0°♂	
	3167 Aug 25 14:14	0°♂		desc. node		3168 Aug 02 04:24	7°♂04'47	
evening max el	3167 Aug 27 05:05	1°♂35'38	27°24'07	evening max el		3168 Aug 08 09:53	13°♂53'10	26°55'02
retrograde	3167 Sep 09 23:28	8°♂51'50		retrograde		3168 Aug 22 07:51	21°♂05'11	
evening set	3167 Sep 17 04:08	6°♂21'15		evening set		3168 Aug 29 07:11	18°♂57'58	
min. Earth dist.	3167 Sep 20 18:47	3°♂23'13	0.62702 AU	min. Earth dist.		3168 Sep 02 00:06	16°♂19'20	0.60729 AU
inferior conj	3167 Sep 23 14:59	0°♂39'56	-3°-40'-35	inferior conj		3168 Sep 05 05:02	13°♂37'33	-4°-29'-33
minimum elong	3167 Sep 23 20:34	0°♂26'32	3°38'59	minimum elong		3168 Sep 05 10:21	13°♂26'18	4°28'33
	3167 Sep 24 07:43	30°♂♂		morning rise		3168 Sep 12 16:41	8°♂49'21	
morning rise	3167 Sep 30 15:43	25°♂30'24		direct		3168 Sep 15 00:50	8°♂27'52	
direct	3167 Oct 03 00:29	25°♂04'50		asc. node		3168 Sep 21 14:36	11°♂24'59	
asc. node	3167 Oct 05 17:31	25°♂39'19		morning max el		3168 Sep 22 07:10	12°♂03'28	18°03'40
morning max el	3167 Oct 09 17:57	28°♂31'44	17°51'00					

	3168 Oct 04 06:39	0°♄		direct	3169 Aug 28 10:12	21°♄15'31	
morning set	3168 Oct 08 01:23	6°♄58'30		morning max el	3169 Sep 05 14:09	25°♄09'30	18°36'36
				asc. node	3169 Sep 08 11:39	28°♄21'44	
superior conj	3168 Oct 17 23:49	25°♄10'09	1°12'21		3169 Sep 09 17:34	0°♄	
minimum elong	3168 Oct 18 04:04	25°♄29'01	1°11'52	morning set	3169 Sep 21 18:40	20°♄59'16	
	3168 Oct 20 17:46	0°♄			3169 Sep 26 10:14	0°♄	
max. Earth dist.	3168 Oct 25 15:03	8°♄19'56	1.41832 AU				
desc. node	3168 Oct 29 03:45	14°♄09'09		superior conj	3169 Sep 30 14:23	7°♄56'15	1°32'41
evening rise	3168 Oct 31 05:58	17°♄31'52		minimum elong	3169 Sep 30 17:24	8°♄10'20	1°32'27
	3168 Nov 08 06:02	0°♄		max. Earth dist.	3169 Oct 07 21:17	21°♄08'41	1.39822 AU
greatest brilliancy	3168 Nov 28 14:00	28°♄22'10	-0.3m	evening rise	3169 Oct 12 01:32	28°♄18'30	
	3168 Nov 29 22:53	0°♄			3169 Oct 13 01:49	0°♄	
evening max el	3168 Dec 03 10:51	3°♄49'32	22°36'22	desc. node	3169 Oct 16 00:45	4°♄51'05	
retrograde	3168 Dec 13 06:48	9°♄39'57			3169 Nov 01 19:02	0°♄	
evening set	3168 Dec 17 21:35	7°♄48'30		evening max el	3169 Nov 16 00:40	17°♄26'06	23°56'20
asc. node	3168 Dec 18 13:48	7°♄12'59		retrograde	3169 Nov 26 23:11	23°♄52'21	
inferior conj	3168 Dec 23 07:19	1°♄24'42	1°33'23	evening set	3169 Dec 02 03:17	21°♄44'09	
minimum elong	3168 Dec 23 05:22	1°♄31'27	1°32'38	asc. node	3169 Dec 05 10:50	18°♄09'27	
min. Earth dist.	3168 Dec 23 02:59	1°♄39'42	0.67938 AU	min. Earth dist.	3169 Dec 06 23:25	16°♄08'39	0.67784 AU
	3168 Dec 24 07:58	30°♄		inferior conj	3169 Dec 07 14:30	15°♄17'28	0°43'51
morning rise	3168 Dec 28 13:04	25°♄12'44		minimum elong	3169 Dec 07 13:29	15°♄20'56	0°43'25
direct	3169 Jan 02 01:27	23°♄22'33		morning rise	3169 Dec 12 23:56	9°♄10'24	
morning max el	3169 Jan 11 05:09	28°♄44'42	21°57'19	direct	3169 Dec 16 22:20	7°♄42'49	
	3169 Jan 12 10:06	0°♄		morning max el	3169 Dec 25 00:07	12°♄21'35	20°38'39
greatest brilliancy	3169 Jan 15 21:38	4°♄00'47	-0.4m	greatest brilliancy	3169 Dec 30 22:53	19°♄19'32	-0.5m
desc. node	3169 Jan 25 02:58	16°♄19'21			3170 Jan 07 15:47	0°♄	
	3169 Feb 03 10:23	0°♄		desc. node	3170 Jan 12 00:00	6°♄22'41	
morning set	3169 Feb 12 21:14	14°♄44'25		morning set	3170 Jan 22 23:36	23°♄05'22	
max. Earth dist.	3169 Feb 18 19:28	24°♄26'41	1.41309 AU		3170 Jan 27 09:24	0°♄	
	3169 Feb 22 02:20	0°♄		max. Earth dist.	3170 Feb 01 01:11	7°♄26'56	1.43159 AU
superior conj	3169 Feb 26 12:55	7°♄43'04	-2°-3'-8	superior conj	3170 Feb 07 15:08	18°♄16'35	-2°-5'-39
minimum elong	3169 Feb 26 15:38	7°♄55'06	2°03'02	minimum elong	3170 Feb 07 13:18	18°♄08'55	2°05'38
evening rise	3169 Mar 09 03:27	27°♄01'33			3170 Feb 14 12:01	0°♄	
	3169 Mar 10 18:01	0°♄		evening rise	3170 Feb 19 19:12	9°♄17'52	
asc. node	3169 Mar 16 13:06	10°♄25'36		asc. node	3170 Mar 03 10:07	29°♄01'42	
evening max el	3169 Mar 25 09:34	22°♄53'59	18°13'49		3170 Mar 04 01:50	0°♄	
retrograde	3169 Apr 01 09:20	26°♄24'18		evening max el	3170 Mar 08 21:22	6°♄00'40	18°07'15
evening set	3169 Apr 03 20:50	25°♄58'38		retrograde	3170 Mar 15 09:57	9°♄23'46	
inferior conj	3169 Apr 10 21:29	21°♄12'49	2°59'08	evening set	3170 Mar 18 02:53	8°♄48'16	
minimum elong	3169 Apr 11 00:50	21°♄05'25	2°58'26	inferior conj	3170 Mar 24 13:30	3°♄41'34	3°30'50
min. Earth dist.	3169 Apr 14 06:53	18°♄14'37	0.59725 AU	minimum elong	3170 Mar 24 15:09	3°♄37'23	3°30'40
morning rise	3169 Apr 18 01:09	15°♄31'03		min. Earth dist.	3170 Mar 27 13:20	0°♄40'39	0.61875 AU
desc. node	3169 Apr 23 02:07	13°♄40'41			3170 Mar 28 06:29	30°♄	
direct	3169 Apr 24 12:15	13°♄35'07		morning rise	3170 Mar 31 00:47	27°♄42'56	
morning max el	3169 May 08 20:21	21°♄24'28	27°27'27	direct	3170 Apr 06 21:15	25°♄16'12	
	3169 May 16 07:58	0°♄		desc. node	3170 Apr 09 23:09	25°♄43'19	
	3169 Jun 03 22:17	0°♄			3170 Apr 17 11:21	0°♄	
morning set	3169 Jun 09 05:08	10°♄35'02		morning max el	3170 Apr 21 00:35	3°♄13'21	27°50'49
asc. node	3169 Jun 12 12:25	17°♄35'38			3170 May 10 19:49	0°♄	
				morning set	3170 May 24 08:21	24°♄59'05	
superior conj	3169 Jun 16 09:37	26°♄04'52	0°39'55		3170 May 26 18:30	0°♄	
minimum elong	3169 Jun 16 07:57	25°♄55'42	0°39'35	max. Earth dist.	3170 May 30 03:36	7°♄12'35	1.32393 AU
max. Earth dist.	3169 Jun 15 18:04	24°♄39'18	1.32100 AU	asc. node	3170 May 30 09:26	7°♄44'11	
	3169 Jun 18 04:18	0°♄					
evening rise	3169 Jun 23 06:36	11°♄03'14		superior conj	3170 May 31 19:42	10°♄50'27	0°14'59
	3169 Jul 02 22:47	0°♄		minimum elong	3170 May 31 19:00	10°♄46'40	0°14'50
desc. node	3169 Jul 20 01:24	24°♄08'26		behind sun begin	3170 May 31 17:09	10°♄36'35	
evening max el	3169 Jul 21 07:27	25°♄22'29	25°53'37	behind sun end	3170 May 31 20:51	10°♄56'45	
	3169 Jul 27 05:12	0°♄		evening rise	3170 Jun 07 18:10	25°♄54'16	
retrograde	3169 Aug 04 07:00	2°♄30'48			3170 Jun 09 17:00	0°♄	
evening set	3169 Aug 10 12:39	0°♄57'58			3170 Jun 27 10:13	0°♄	
	3169 Aug 12 07:38	30°♄		evening max el	3170 Jul 02 22:17	6°♄08'33	24°27'38
min. Earth dist.	3169 Aug 14 19:45	28°♄21'58	0.58667 AU	desc. node	3170 Jul 06 22:24	9°♄30'42	
inferior conj	3169 Aug 18 01:44	25°♄59'47	-5°00'-51	retrograde	3170 Jul 16 19:24	13°♄09'22	
minimum elong	3169 Aug 18 04:19	25°♄55'02	5°00'40	evening set	3170 Jul 21 18:05	12°♄14'34	
morning rise	3169 Aug 25 23:28	21°♄35'06		min. Earth dist.	3170 Jul 27 09:14	9°♄22'20	0.56779 AU

inferior conj	3170 Jul 30 02:28	7°♎38'33	-5°00'-45	evening max el	3171 Jun 14 11:55	16°♊34'39	22°51'11
minimum elong	3170 Jul 29 23:41	7°♎42'59	5°00'33	desc. node	3171 Jun 23 19:25	22°♊35'50	
morning rise	3170 Aug 07 08:56	3°♎35'25		retrograde	3171 Jun 27 19:25	23°♊12'26	
direct	3170 Aug 10 00:37	3°♎16'18		evening set	3171 Jul 01 05:43	22°♊46'39	
morning max el	3170 Aug 19 11:53	7°♎40'56	19°30'56	min. Earth dist.	3171 Jul 08 20:33	19°♊23'51	0.55409 AU
asc. node	3170 Aug 26 08:42	16°♎14'53		inferior conj	3171 Jul 10 08:07	18°♊32'37	-4°-14'-53
	3170 Sep 03 02:44	0°♏		minimum elong	3171 Jul 10 00:27	18°♊43'42	4°13'15
morning set	3170 Sep 05 20:08	5°♏23'51		morning rise	3171 Jul 18 21:55	14°♊41'10	
				direct	3171 Jul 21 20:29	14°♊20'57	
superior conj	3170 Sep 13 21:15	21°♏30'58	1°42'53	morning max el	3171 Aug 01 22:11	19°♊29'14	20°46'29
minimum elong	3170 Sep 13 22:30	21°♏37'04	1°42'51		3171 Aug 10 07:31	0°♎	
	3170 Sep 18 06:58	0°♎		asc. node	3171 Aug 13 05:44	4°♎50'57	
max. Earth dist.	3170 Sep 20 01:19	3°♎17'35	1.37756 AU	morning set	3171 Aug 21 03:03	20°♎04'27	
evening rise	3170 Sep 23 20:33	10°♎10'24			3171 Aug 25 21:48	0°♏	
desc. node	3170 Oct 02 21:45	25°♎24'26					
	3170 Oct 05 19:48	0°♏		superior conj	3171 Aug 28 15:43	5°♏40'12	1°44'39
	3170 Oct 28 10:36	0°♏		minimum elong	3171 Aug 28 15:21	5°♏38'19	1°44'38
evening max el	3170 Oct 29 12:49	1°♏05'51	25°12'40	max. Earth dist.	3171 Sep 02 09:06	15°♏08'32	1.35871 AU
retrograde	3170 Nov 10 11:23	8°♏00'02		evening rise	3171 Sep 06 11:40	22°♏59'21	
evening set	3170 Nov 16 05:35	5°♏36'25			3171 Sep 10 08:15	0°♎	
min. Earth dist.	3170 Nov 20 17:41	0°♏35'27	0.67288 AU	desc. node	3171 Sep 19 18:46	15°♎44'13	
	3170 Nov 21 04:36	30°♏			3171 Sep 29 12:58	0°♏	
inferior conj	3170 Nov 21 19:31	29°♏11'15	0°-10'-37	evening max el	3171 Oct 12 01:07	14°♏46'44	26°18'00
minimum elong	3170 Nov 21 19:47	29°♏10'23	0°10'30	retrograde	3171 Oct 24 18:44	21°♏57'38	
transit middle	3170 Nov 21 19:47	29°♏10'23	0°10'30	evening set	3171 Oct 31 02:38	19°♏22'09	
transit begin	3170 Nov 21 17:40	29°♏17'17		min. Earth dist.	3171 Nov 04 07:26	14°♏57'04	0.66451 AU
transit end	3170 Nov 21 21:54	29°♏03'30		inferior conj	3171 Nov 05 20:31	13°♏03'22	-1°-8'-41
asc. node	3170 Nov 22 07:54	28°♏31'04		minimum elong	3171 Nov 05 22:22	12°♏57'43	1°07'54
morning rise	3170 Nov 27 10:41	23°♏11'21		asc. node	3171 Nov 09 04:57	9°♏15'10	
direct	3170 Nov 30 20:44	22°♏03'55		morning rise	3171 Nov 11 19:16	7°♏13'19	
morning max el	3170 Dec 08 03:01	26°♏09'28	19°32'56	direct	3171 Nov 14 19:06	6°♏22'23	
	3170 Dec 11 12:38	0°♏		morning max el	3171 Nov 21 12:51	10°♏05'20	18°42'36
greatest brilliancy	3170 Dec 16 13:09	6°♏43'50	-0.6m		3171 Dec 05 19:20	0°♏	
desc. node	3170 Dec 29 21:01	26°♏43'24		morning set	3171 Dec 12 13:05	10°♏38'02	
	3171 Jan 01 00:01	0°♏		desc. node	3171 Dec 16 18:03	17°♏16'45	
morning set	3171 Jan 01 20:43	1°♏19'58			3171 Dec 24 20:11	0°♏	
max. Earth dist.	3171 Jan 14 13:38	21°♏11'14	1.44492 AU				
				superior conj	3171 Dec 28 20:15	6°♏16'55	-1°-16'-4
superior conj	3171 Jan 18 15:15	27°♏40'04	-1°-50'-21	minimum elong	3171 Dec 28 11:32	5°♏42'43	1°15'05
minimum elong	3171 Jan 18 07:46	27°♏10'05	1°49'50	max. Earth dist.	3171 Dec 28 06:57	5°♏24'44	1.45158 AU
	3171 Jan 20 02:04	0°♏			3172 Jan 12 19:38	0°♏	
evening rise	3171 Feb 01 15:00	20°♏39'55		evening rise	3172 Jan 13 11:45	1°♏04'34	
	3171 Feb 07 04:20	0°♏			3172 Feb 01 10:04	0°♏	
asc. node	3171 Feb 18 07:10	16°♏57'28		evening max el	3172 Feb 03 20:53	2°♏47'01	18°50'09
evening max el	3171 Feb 20 09:58	19°♏20'05	18°19'41	asc. node	3172 Feb 05 04:13	4°♏01'20	
retrograde	3171 Feb 26 21:03	22°♏49'20		retrograde	3172 Feb 10 14:42	6°♏33'44	
evening set	3171 Mar 01 19:28	22°♏02'52		evening set	3172 Feb 13 19:19	5°♏35'15	
inferior conj	3171 Mar 07 19:47	16°♏36'48	3°39'33		3172 Feb 19 09:47	30°♏	
minimum elong	3171 Mar 07 19:38	16°♏37'14	3°39'33	inferior conj	3172 Feb 19 12:30	29°♏51'37	3°31'09
min. Earth dist.	3171 Mar 10 05:12	13°♏54'35	0.63835 AU	minimum elong	3172 Feb 19 10:59	29°♏56'17	3°31'00
morning rise	3171 Mar 13 18:02	10°♏28'45		min. Earth dist.	3172 Feb 21 06:19	27°♏42'28	0.65453 AU
direct	3171 Mar 20 14:49	7°♏43'07		morning rise	3172 Feb 25 01:32	23°♏38'44	
desc. node	3171 Mar 27 20:11	10°♏12'33		direct	3172 Mar 02 15:28	20°♏48'40	
morning max el	3171 Apr 03 08:59	15°♏39'40	27°36'59	desc. node	3172 Mar 13 17:14	26°♏33'53	
	3171 Apr 15 03:26	0°♏		morning max el	3172 Mar 15 18:46	28°♏32'47	26°50'43
	3171 May 03 12:26	0°♏			3172 Mar 17 04:23	0°♏	
morning set	3171 May 08 04:21	8°♏57'58			3172 Apr 07 22:24	0°♏	
max. Earth dist.	3171 May 13 06:28	19°♏21'16	1.33112 AU	morning set	3172 Apr 20 13:55	22°♏21'54	
					3172 Apr 24 11:41	0°♏	
superior conj	3171 May 16 02:20	25°♏21'02	0°-12'-15	max. Earth dist.	3172 Apr 24 23:06	0°♏57'09	1.34288 AU
minimum elong	3171 May 16 02:57	25°♏24'18	0°12'09				
behind sun begin	3171 May 15 23:27	25°♏05'36		superior conj	3172 Apr 29 03:26	9°♏30'21	0°-40'-47
behind sun end	3171 May 16 06:27	25°♏43'02		minimum elong	3172 Apr 29 05:33	9°♏41'23	0°40'23
asc. node	3171 May 17 06:27	27°♏51'51		asc. node	3172 May 03 03:30	17°♏54'45	
	3171 May 18 06:16	0°♏		evening rise	3172 May 06 15:46	25°♏17'25	
evening rise	3171 May 23 05:51	10°♏40'58			3172 May 08 22:43	0°♏	
	3171 Jun 02 05:12	0°♏		evening max el	3172 May 26 08:12	27°♏13'35	21°19'19

	3172 May 29 14:55	0°☿		evening rise	3173 Apr 20 21:50	9°♄37'11	
retrograde	3172 Jun 07 09:19	3°☿07'51			3173 May 01 23:12	0°♄	
evening set	3172 Jun 09 17:39	2°☿55'12		evening max el	3173 May 08 15:50	8°♄27'19	20°02'12
desc. node	3172 Jun 09 16:27	2°☿55'44		retrograde	3173 May 19 00:03	13°♄28'50	
	3172 Jun 17 04:30	30°♄		evening set	3173 May 20 23:46	13°♄18'31	
inferior conj	3172 Jun 19 02:27	28°♄56'22	-2°-41'-20	desc. node	3173 May 27 13:27	10°♄43'33	
minimum elong	3172 Jun 18 19:15	29°♄06'27	2°39'00	inferior conj	3173 May 29 23:19	9°♄18'52	0°-42'-36
min. Earth dist.	3172 Jun 19 08:05	28°♄48'28	0.54865 AU	minimum elong	3173 May 29 21:20	9°♄21'50	0°41'52
morning rise	3172 Jun 27 21:05	24°♄59'31		min. Earth dist.	3173 May 31 20:56	8°♄10'27	0.55279 AU
direct	3172 Jul 01 06:36	24°♄34'31		morning rise	3173 Jun 07 16:20	4°♄57'43	
	3172 Jul 13 06:35	0°☿		direct	3173 Jun 11 19:38	4°♄20'23	
morning max el	3172 Jul 13 21:13	0°☿33'19	22°19'51	morning max el	3173 Jun 25 12:54	11°♄05'55	24°02'28
asc. node	3172 Jul 30 02:46	23°☿59'31			3173 Jul 09 17:32	0°☿	
	3172 Aug 02 04:01	0°♄		asc. node	3173 Jul 16 23:49	13°☿32'24	
morning set	3172 Aug 04 13:15	4°♄54'57		morning set	3173 Jul 20 00:59	19°☿50'28	
					3173 Jul 24 18:22	0°♄	
superior conj	3172 Aug 11 18:09	20°♄12'56	1°39'28				
minimum elong	3172 Aug 11 16:37	20°♄04'47	1°39'21	superior conj	3173 Jul 27 01:51	5°♄01'04	1°28'32
max. Earth dist.	3172 Aug 15 01:21	27°♄06'37	1.34328 AU	minimum elong	3173 Jul 26 23:39	4°♄49'09	1°28'18
	3172 Aug 16 11:17	0°♄		max. Earth dist.	3173 Jul 29 02:45	9°♄24'21	1.33183 AU
evening rise	3172 Aug 19 18:20	6°♄32'55		evening rise	3173 Aug 03 12:26	20°♄39'53	
	3172 Sep 01 23:37	0°♄			3173 Aug 08 07:20	0°♄	
desc. node	3172 Sep 05 15:48	5°♄43'33		desc. node	3173 Aug 23 12:49	25°♄13'43	
evening max el	3172 Sep 23 13:42	28°♄20'18	27°04'43		3173 Aug 26 23:42	0°♄	
	3172 Sep 25 09:20	0°♄		evening max el	3173 Sep 06 01:06	11°♄34'34	27°25'43
retrograde	3172 Oct 06 20:23	5°♄37'28		retrograde	3173 Sep 19 15:52	18°♄51'33	
evening set	3172 Oct 13 16:12	2°♄56'14		evening set	3173 Sep 26 19:25	16°♄13'36	
	3172 Oct 16 18:59	30°♄		min. Earth dist.	3173 Sep 30 11:53	12°♄59'09	0.63739 AU
min. Earth dist.	3172 Oct 17 14:15	29°♄07'35	0.65267 AU	inferior conj	3173 Oct 03 01:25	10°♄21'56	-3°-8'-6
inferior conj	3172 Oct 19 15:20	26°♄48'49	-2°-8'-42	minimum elong	3173 Oct 03 06:28	10°♄09'01	3°06'26
minimum elong	3172 Oct 19 18:53	26°♄38'46	2°07'20	morning rise	3173 Oct 09 19:51	5°♄01'26	
morning rise	3172 Oct 25 23:18	21°♄11'46		direct	3173 Oct 12 06:32	4°♄32'04	
asc. node	3172 Oct 26 02:00	21°♄08'37		asc. node	3173 Oct 12 23:02	4°♄34'26	
direct	3172 Oct 28 15:16	20°♄33'26		morning max el	3173 Oct 18 19:51	7°♄57'20	17°52'19
morning max el	3172 Nov 04 03:23	24°♄03'15	18°08'48		3173 Nov 02 10:47	0°♄	
	3172 Nov 08 23:34	0°♄		morning set	3173 Nov 04 11:04	3°♄28'31	
morning set	3172 Nov 22 10:47	21°♄24'35					
	3172 Nov 27 16:39	0°♄		superior conj	3173 Nov 16 23:50	24°♄38'54	0°17'12
desc. node	3172 Dec 02 15:06	7°♄58'18		minimum elong	3173 Nov 17 01:40	24°♄46'27	0°16'56
				desc. node	3173 Nov 19 12:09	28°♄44'41	
superior conj	3172 Dec 07 00:36	14°♄58'39	0°-29'-33		3173 Nov 20 06:47	0°♄	
minimum elong	3172 Dec 06 20:51	14°♄43'47	0°29'03	max. Earth dist.	3173 Nov 22 20:39	4°♄08'10	1.44287 AU
max. Earth dist.	3172 Dec 10 02:23	19°♄49'55	1.45085 AU	evening rise	3173 Dec 02 20:40	19°♄47'22	
	3172 Dec 16 14:16	0°☿			3173 Dec 09 13:29	0°☿	
evening rise	3172 Dec 23 10:39	10°☿38'54		greatest brilliancy	3173 Dec 25 10:59	22°☿55'42	-0.5m
	3173 Jan 05 00:41	0°☿		evening max el	3173 Dec 31 05:51	29°☿48'28	20°38'42
greatest brilliancy	3173 Jan 09 06:47	6°☿15'58	-0.7m		3173 Dec 31 10:22	0°☿	
evening max el	3173 Jan 17 03:58	16°☿17'05	19°37'14	retrograde	3174 Jan 08 09:50	4°☿37'40	
asc. node	3173 Jan 22 01:16	19°☿59'00		asc. node	3174 Jan 08 22:18	4°☿36'11	
retrograde	3173 Jan 24 11:46	20°☿31'11		evening set	3174 Jan 12 06:51	3°☿11'21	
evening set	3173 Jan 27 23:48	19°☿19'24			3174 Jan 15 10:26	30°☿	
inferior conj	3173 Feb 02 12:26	13°☿20'23	3°09'53	inferior conj	3174 Jan 17 17:01	26°☿59'46	2°38'37
minimum elong	3173 Feb 02 10:08	13°☿27'58	3°09'26	minimum elong	3174 Jan 17 14:29	27°☿08'28	2°37'53
min. Earth dist.	3173 Feb 03 15:28	11°☿51'26	0.66664 AU	min. Earth dist.	3174 Jan 18 06:49	26°☿12'35	0.67461 AU
morning rise	3173 Feb 07 19:45	7°☿05'22		morning rise	3174 Jan 22 21:40	20°☿44'25	
direct	3173 Feb 13 21:55	4°☿23'31		direct	3174 Jan 28 09:29	18°☿19'35	
morning max el	3173 Feb 26 03:57	11°☿41'12	25°40'18	morning max el	3174 Feb 08 12:30	24°☿57'48	24°15'34
desc. node	3173 Feb 28 14:17	14°☿16'00			3174 Feb 13 01:51	0°☿	
	3173 Mar 12 20:00	0°☿		desc. node	3174 Feb 15 11:21	2°☿55'57	
	3173 Mar 31 14:27	0°☿			3174 Mar 06 07:52	0°☿	
morning set	3173 Apr 03 08:46	4°☿58'22		morning set	3174 Mar 16 07:16	16°☿32'03	
max. Earth dist.	3173 Apr 07 04:19	12°☿05'20	1.35918 AU	max. Earth dist.	3174 Mar 20 01:15	23°☿09'54	1.37921 AU
					3174 Mar 23 18:46	0°☿	
superior conj	3173 Apr 12 20:20	23°☿10'48	-1°-9'-7				
minimum elong	3173 Apr 12 23:55	23°☿28'46	1°08'32	superior conj	3174 Mar 27 01:40	6°☿13'09	-1°-35'-6
	3173 Apr 16 05:05	0°☿		minimum elong	3174 Mar 27 06:10	6°☿34'45	1°34'32
asc. node	3173 Apr 20 00:34	7°☿48'43		evening rise	3174 Apr 04 21:34	23°☿32'57	

asc. node	3174 Apr 06 21:36	27°♊28'40			3175 Mar 15 20:04	0°♊	
	3174 Apr 08 04:55	0°♋		evening rise	3175 Mar 19 11:57	6°♊57'18	
evening max el	3174 Apr 21 10:59	20°♋20'53	19°04'13	asc. node	3175 Mar 24 18:38	16°♊49'36	
retrograde	3174 Apr 30 04:07	24°♋35'20			3175 Apr 02 02:19	0°♋	
evening set	3174 May 02 06:08	24°♋21'46		evening max el	3175 Apr 04 15:17	2°♋50'22	18°26'29
inferior conj	3174 May 10 11:39	20°♋08'11	1°07'25	retrograde	3175 Apr 12 02:51	6°♋32'03	
minimum elong	3174 May 10 14:13	20°♋03'45	1°06'32	evening set	3175 Apr 14 10:45	6°♋11'37	
min. Earth dist.	3174 May 13 12:15	18°♋03'33	0.56574 AU	inferior conj	3175 Apr 21 21:13	1°♋38'21	2°27'47
desc. node	3174 May 14 10:30	17°♋27'28		minimum elong	3175 Apr 22 01:02	1°♋30'38	2°26'47
morning rise	3174 May 18 18:01	15°♋11'52			3175 Apr 23 21:37	30°♋♊	
direct	3174 May 23 20:43	14°♋10'29		min. Earth dist.	3175 Apr 25 07:48	28°♊52'40	0.58484 AU
morning max el	3174 Jun 07 03:20	21°♋31'20	25°40'18	morning rise	3175 Apr 29 11:01	26°♊10'11	
	3174 Jun 14 12:57	0°♋		desc. node	3175 May 01 07:32	25°♊20'51	
	3174 Jul 02 05:52	0°♌		direct	3175 May 05 12:20	24°♊34'32	
asc. node	3174 Jul 03 20:52	3°♌21'47			3175 May 17 09:36	0°♌	
morning set	3174 Jul 04 12:33	4°♌44'16		morning max el	3175 May 19 21:47	2°♌17'22	26°57'21
					3175 Jun 08 20:16	0°♌	
superior conj	3174 Jul 11 12:30	19°♌56'07	1°12'48	morning set	3175 Jun 18 22:18	19°♌31'06	
minimum elong	3174 Jul 11 10:08	19°♌43'10	1°12'26	asc. node	3175 Jun 20 17:54	23°♌22'18	
max. Earth dist.	3174 Jul 12 10:51	21°♌58'41	1.32441 AU		3175 Jun 23 19:12	0°♌	
	3174 Jul 16 03:47	0°♍					
evening rise	3174 Jul 18 14:32	5°♍08'55		superior conj	3175 Jun 26 00:16	4°♌52'03	0°52'57
	3174 Jul 31 22:45	0°♍		minimum elong	3175 Jun 25 22:13	4°♌40'46	0°52'34
desc. node	3174 Aug 10 09:49	14°♍01'38		max. Earth dist.	3175 Jun 25 22:18	4°♌41'10	1.32104 AU
evening max el	3174 Aug 19 08:47	24°♍15'12	27°15'45	evening rise	3175 Jul 02 21:59	19°♌52'00	
	3174 Aug 27 05:49	0°♎			3175 Jul 07 21:40	0°♍	
retrograde	3174 Sep 02 04:38	1°♎29'44			3175 Jul 26 17:37	0°♍	
	3174 Sep 07 20:46	30°♎♍		desc. node	3175 Jul 28 06:48	1°♍50'01	
evening set	3174 Sep 09 08:35	29°♍07'06		evening max el	3175 Aug 01 10:25	6°♍11'46	26°32'34
min. Earth dist.	3174 Sep 12 23:01	26°♍19'24	0.61895 AU	retrograde	3175 Aug 15 09:39	13°♍23'13	
inferior conj	3174 Sep 15 23:43	23°♍34'34	-4°-2'-47	evening set	3175 Aug 22 03:03	11°♍29'21	
minimum elong	3174 Sep 16 05:25	23°♍21'35	4°01'22	min. Earth dist.	3175 Aug 25 23:59	8°♍54'08	0.59847 AU
morning rise	3174 Sep 23 05:11	18°♍34'02		inferior conj	3175 Aug 29 06:45	6°♍17'58	-4°-45'-45
direct	3174 Sep 25 13:20	18°♍10'31		minimum elong	3175 Aug 29 11:16	6°♍08'57	4°45'06
asc. node	3174 Sep 29 20:04	19°♍31'58		morning rise	3175 Sep 05 22:53	1°♍39'57	
morning max el	3174 Oct 02 11:11	21°♍39'40	17°54'00	direct	3175 Sep 08 07:37	1°♍19'38	
	3174 Oct 08 20:01	0°♎		morning max el	3175 Sep 15 22:11	5°♍01'53	18°15'06
morning set	3174 Oct 18 07:32	16°♎29'43		asc. node	3175 Sep 16 17:07	5°♍49'37	
	3174 Oct 25 20:13	0°♏		morning set	3175 Oct 01 18:32	0°♎12'24	
					3175 Oct 01 15:55	0°♎	
superior conj	3174 Oct 29 01:48	5°♏37'54	0°55'29				
minimum elong	3174 Oct 29 06:02	5°♏56'07	0°54'56	superior conj	3175 Oct 11 04:31	17°♎49'15	1°22'19
max. Earth dist.	3174 Nov 05 10:30	17°♏59'40	1.42861 AU	minimum elong	3175 Oct 11 08:23	18°♎06'47	1°21'55
desc. node	3174 Nov 06 09:10	19°♏32'07			3175 Oct 18 02:05	0°♏	
evening rise	3174 Nov 12 09:28	29°♏08'12		max. Earth dist.	3175 Oct 18 18:46	1°♏11'12	1.40999 AU
	3174 Nov 12 22:42	0°♐		evening rise	3175 Oct 23 15:43	9°♏18'29	
	3174 Dec 03 06:14	0°♐		desc. node	3175 Oct 24 06:09	10°♏17'14	
greatest brilliancy	3174 Dec 09 07:31	7°♐55'34	-0.4m		3175 Nov 06 00:12	0°♐	
evening max el	3174 Dec 14 02:05	13°♐20'49	21°51'21	greatest brilliancy	3175 Nov 20 04:26	19°♐28'07	-0.2m
retrograde	3174 Dec 23 06:55	18°♐49'28		evening max el	3175 Nov 26 17:43	26°♐55'38	23°10'25
asc. node	3174 Dec 26 19:19	17°♐42'24			3175 Nov 30 03:24	0°♐	
evening set	3174 Dec 27 14:40	17°♐07'27		retrograde	3175 Dec 07 01:24	3°♐02'36	
inferior conj	3175 Jan 02 00:06	10°♐46'51	1°59'13	evening set	3175 Dec 11 21:34	1°♐04'10	
minimum elong	3175 Jan 01 21:49	10°♐54'48	1°58'24		3175 Dec 13 01:17	30°♐♎	
min. Earth dist.	3175 Jan 02 02:06	10°♐39'56	0.67864 AU	asc. node	3175 Dec 13 16:22	29°♐19'52	
morning rise	3175 Jan 07 04:44	4°♐32'56		inferior conj	3175 Dec 17 07:47	24°♐38'28	1°13'02
direct	3175 Jan 12 01:29	2°♐29'41		minimum elong	3175 Dec 17 06:10	24°♐44'00	1°12'24
morning max el	3175 Jan 21 22:26	8°♐20'24	22°46'44	min. Earth dist.	3175 Dec 16 22:53	25°♐09'06	0.67911 AU
greatest brilliancy	3175 Jan 26 13:45	13°♐30'46	-0.3m	morning rise	3175 Dec 22 14:48	18°♐28'03	
desc. node	3175 Feb 02 08:24	22°♐17'18		direct	3175 Dec 26 21:02	16°♐47'38	
	3175 Feb 07 19:44	0°♑		morning max el	3176 Jan 04 13:09	21°♐50'47	21°22'23
morning set	3175 Feb 25 03:25	26°♑48'19		greatest brilliancy	3176 Jan 09 15:44	27°♐40'15	-0.4m
	3175 Feb 27 01:34	0°♒			3176 Jan 11 11:31	0°♐	
max. Earth dist.	3175 Mar 01 20:44	4°♒44'10	1.40089 AU	desc. node	3176 Jan 20 05:24	12°♐07'45	
					3176 Feb 01 03:00	0°♑	
superior conj	3175 Mar 09 15:08	18°♒27'21	-1°-55'-32	morning set	3176 Feb 04 18:38	5°♑42'43	
minimum elong	3175 Mar 09 19:10	18°♒45'48	1°55'15	max. Earth dist.	3176 Feb 11 21:23	17°♑10'26	1.42145 AU

superior conj	3176 Feb 19 07:34	29° 34 40'40	-2°-6'-6	minimum elong	3177 Jan 29 18:17	9° 34 26'26	2°01'23
minimum elong	3176 Feb 19 08:42	29° 34 45'32	2°06'06		3177 Feb 10 22:59	0° 34	
	3176 Feb 19 12:03	0° 34		evening rise	3177 Feb 11 20:52	1° 34 34'30	
evening rise	3176 Mar 01 13:08	19° 34 40'32		asc. node	3177 Feb 25 12:42	24° 34 04'36	
	3176 Mar 07 06:48	0° 34		evening max el	3177 Mar 01 13:52	28° 34 59'31	18°10'15
asc. node	3176 Mar 10 15:40	5° 34 44'18			3177 Mar 02 15:54	0° 34	
evening max el	3176 Mar 18 01:19	15° 34 46'11	18°08'43	retrograde	3177 Mar 08 00:30	2° 34 23'17	
retrograde	3176 Mar 24 19:00	19° 34 11'24		evening set	3177 Mar 10 19:52	1° 34 43'05	
evening set	3176 Mar 27 08:52	18° 34 41'44			3177 Mar 13 10:37	30° 34	
inferior conj	3176 Apr 03 03:06	13° 34 47'14	3°15'45	inferior conj	3177 Mar 17 01:40	26° 34 27'55	3°36'54
minimum elong	3176 Apr 03 05:48	13° 34 40'53	3°15'20	minimum elong	3177 Mar 17 02:32	26° 34 25'38	3°36'51
min. Earth dist.	3176 Apr 06 09:33	10° 34 44'38	0.60653 AU	min. Earth dist.	3177 Mar 19 19:42	23° 34 32'55	0.62755 AU
morning rise	3176 Apr 09 23:28	7° 34 57'17		morning rise	3177 Mar 23 07:00	20° 34 24'51	
direct	3176 Apr 16 15:56	5° 34 46'43		direct	3177 Mar 30 04:46	17° 34 48'25	
desc. node	3176 Apr 17 04:34	5° 34 47'30		desc. node	3177 Apr 04 01:37	18° 34 56'25	
morning max el	3176 Apr 30 22:18	13° 34 40'38	27°41'56	morning max el	3177 Apr 13 04:24	25° 34 45'34	27°49'12
	3176 May 13 23:38	0° 34			3177 Apr 17 02:29	0° 34	
	3176 May 31 04:23	0° 34			3177 May 07 11:46	0° 34	
morning set	3176 Jun 02 04:27	4° 34 04'53		morning set	3177 May 17 04:54	18° 34 18'48	
asc. node	3176 Jun 06 14:57	13° 34 29'01		max. Earth dist.	3177 May 22 16:39	29° 34 44'37	1.32647 AU
max. Earth dist.	3176 Jun 08 09:30	17° 34 20'38	1.32169 AU		3177 May 22 19:32	0° 34	
				asc. node	3177 May 24 11:59	3° 34 37'38	
superior conj	3176 Jun 09 11:27	19° 34 42'51	0°29'41				
minimum elong	3176 Jun 09 10:09	19° 34 35'43	0°29'24	superior conj	3177 May 24 20:18	4° 34 22'41	0°03'40
	3176 Jun 14 04:07	0° 34		minimum elong	3177 May 24 20:08	4° 34 21'44	0°03'37
evening rise	3176 Jun 16 08:36	4° 34 41'53		behind sun begin	3177 May 24 15:02	3° 34 54'08	
	3176 Jun 29 18:48	0° 34		behind sun end	3177 May 25 01:14	4° 34 49'22	
evening max el	3176 Jul 13 04:57	17° 34 21'36	25°19'29	evening rise	3177 May 31 20:28	19° 34 31'54	
desc. node	3176 Jul 14 03:48	18° 34 14'41			3177 Jun 05 23:18	0° 34	
retrograde	3176 Jul 27 04:42	24° 34 27'44		evening max el	3177 Jun 24 18:32	27° 34 55'44	23°47'00
evening set	3176 Aug 01 22:17	23° 34 21'42			3177 Jun 27 02:09	0° 34	
min. Earth dist.	3176 Aug 06 16:50	20° 34 23'07	0.57815 AU	desc. node	3177 Jul 01 00:50	2° 34 43'12	
inferior conj	3176 Aug 09 19:11	18° 34 22'50	-5°-5'-39	retrograde	3177 Jul 08 11:19	4° 34 48'24	
minimum elong	3176 Aug 09 19:43	18° 34 21'53	5°05'39	evening set	3177 Jul 12 18:29	4° 34 07'47	
morning rise	3176 Aug 17 20:45	14° 34 20'36		min. Earth dist.	3177 Jul 19 04:50	1° 34 04'16	0.56110 AU
direct	3176 Aug 20 09:12	13° 34 24'25			3177 Jul 20 23:25	30° 34	
morning max el	3176 Aug 29 01:34	17° 34 25'42	18°57'04	inferior conj	3177 Jul 21 11:20	29° 34 41'53	-4°-47'-30
asc. node	3176 Sep 02 14:10	23° 34 21'14		minimum elong	3177 Jul 21 06:05	29° 34 49'51	4°46'49
	3176 Sep 06 22:58	0° 34		morning rise	3177 Jul 29 21:01	25° 34 45'16	
morning set	3176 Sep 14 15:45	14° 34 24'53		direct	3177 Aug 01 15:37	25° 34 25'46	
	3176 Sep 22 14:33	0° 34			3177 Aug 11 15:13	0° 34	
				morning max el	3177 Aug 11 18:27	0° 34 07'28	20°00'40
superior conj	3176 Sep 23 02:41	0° 34 58'11	1°38'09	asc. node	3177 Aug 20 11:13	11° 34 24'59	
minimum elong	3176 Sep 23 04:57	1° 34 09'03	1°38'00	morning set	3177 Aug 29 19:51	28° 34 57'21	
max. Earth dist.	3176 Sep 29 23:30	13° 34 41'56	1.38935 AU		3177 Aug 30 08:11	0° 34	
evening rise	3176 Oct 03 21:35	20° 34 34'28					
	3176 Oct 09 13:08	0° 34		superior conj	3177 Sep 06 14:59	14° 34 24'55	1°44'35
desc. node	3176 Oct 10 03:09	0° 34 56'38		minimum elong	3177 Sep 06 15:30	14° 34 51'30	1°44'34
	3176 Oct 30 02:34	0° 34		max. Earth dist.	3177 Sep 12 04:53	25° 34 22'04	1.36920 AU
evening max el	3176 Nov 08 06:48	10° 34 35'08	24°29'42		3177 Sep 14 12:03	0° 34	
retrograde	3176 Nov 19 16:04	17° 34 14'07		evening rise	3177 Sep 16 01:41	2° 34 51'57	
evening set	3176 Nov 25 02:03	14° 34 59'24		desc. node	3177 Sep 27 00:10	21° 34 25'12	
asc. node	3176 Nov 29 13:23	9° 34 56'05			3177 Oct 02 14:28	0° 34	
min. Earth dist.	3176 Nov 29 18:46	9° 34 38'15	0.67619 AU	evening max el	3177 Oct 21 19:04	24° 34 16'45	25°42'14
inferior conj	3176 Nov 30 14:18	8° 34 32'56	0°21'18		3177 Oct 29 06:02	0° 34	
minimum elong	3176 Nov 30 13:47	8° 34 34'40	0°21'05	retrograde	3177 Nov 03 02:07	1° 34 18'35	
morning rise	3176 Dec 06 01:54	2° 34 28'23			3177 Nov 07 11:34	30° 34	
direct	3176 Dec 09 18:54	1° 34 09'33		evening set	3177 Nov 09 02:21	28° 34 49'24	
morning max el	3176 Dec 17 11:24	5° 34 32'43	20°08'50	min. Earth dist.	3177 Nov 13 11:20	24° 34 03'42	0.66982 AU
greatest brilliancy	3176 Dec 24 07:01	13° 34 44'28	-0.6m	inferior conj	3177 Nov 14 17:52	22° 34 26'39	0°-34'-50
	3177 Jan 04 13:21	0° 34		minimum elong	3177 Nov 14 18:46	22° 34 23'46	0°34'27
desc. node	3177 Jan 06 02:26	2° 34 19'41		asc. node	3177 Nov 16 10:26	20° 34 20'34	
morning set	3177 Jan 13 15:33	13° 34 51'35		morning rise	3177 Nov 20 12:02	16° 34 30'40	
	3177 Jan 23 22:17	0° 34		direct	3177 Nov 23 17:35	15° 34 30'35	
max. Earth dist.	3177 Jan 24 06:14	0° 34 31'51	1.43812 AU	morning max el	3177 Nov 30 17:28	19° 34 24'46	19°09'34
					3177 Dec 09 01:21	0° 34	
superior conj	3177 Jan 29 22:39	9° 34 44'21	-2°-1'-33	morning set	3177 Dec 23 18:37	22° 34 27'46	

desc. node	3177 Dec 23 23:28	22°♄46'41		desc. node	3178 Dec 10 20:30	13°♄24'05	
	3177 Dec 28 14:43	0°♄					
max. Earth dist.	3178 Jan 06 21:43	14°♄33'18	1.44873 AU	superior conj	3178 Dec 19 15:05	27°♄15'06	0°-57'-8
				minimum elong	3178 Dec 19 07:57	26°♄47'09	0°56'15
superior conj	3178 Jan 09 13:05	18°♄43'37	-1°-37'-56	max. Earth dist.	3178 Dec 20 16:27	28°♄54'40	1.45216 AU
minimum elong	3178 Jan 09 04:13	18°♄08'31	1°37'08		3178 Dec 21 09:06	0°♄	
	3178 Jan 16 14:22	0°♄		evening rise	3179 Jan 04 18:07	22°♄35'00	
evening rise	3178 Jan 24 07:09	12°♄32'56			3179 Jan 09 10:55	0°♄	
	3178 Feb 03 23:48	0°♄		greatest brilliancy	3179 Jan 17 06:08	12°♄09'11	-0.7m
asc. node	3178 Feb 12 09:44	11°♄40'14		evening max el	3179 Jan 27 11:28	25°♄51'41	19°08'10
evening max el	3178 Feb 13 02:02	12°♄23'08	18°30'26	asc. node	3179 Jan 30 06:46	28°♄18'02	
retrograde	3178 Feb 19 14:58	15°♄58'28		retrograde	3179 Feb 03 10:32	29°♄49'21	
evening set	3178 Feb 22 15:57	15°♄06'53		evening set	3179 Feb 06 18:04	28°♄45'25	
inferior conj	3178 Feb 28 12:51	9°♄32'47	3°37'47	inferior conj	3179 Feb 12 09:00	22°♄54'43	3°23'33
minimum elong	3178 Feb 28 12:03	9°♄35'08	3°37'45	minimum elong	3179 Feb 12 07:05	23°♄00'50	3°23'15
min. Earth dist.	3178 Mar 02 15:29	7°♄03'41	0.64574 AU	min. Earth dist.	3179 Feb 13 20:20	21°♄02'11	0.66016 AU
morning rise	3178 Mar 06 06:45	3°♄22'19		morning rise	3179 Feb 17 19:11	16°♄40'24	
direct	3178 Mar 13 01:16	0°♄33'27		direct	3179 Feb 24 04:24	13°♄52'39	
desc. node	3178 Mar 21 22:41	4°♄18'13		desc. node	3179 Mar 08 19:44	21°♄17'39	
morning max el	3178 Mar 26 13:51	8°♄25'41	27°20'53	morning max el	3179 Mar 08 23:49	21°♄27'55	26°23'11
	3178 Apr 12 08:05	0°♄			3179 Mar 16 10:14	0°♄	
	3178 Apr 29 19:14	0°♄			3179 Apr 05 12:47	0°♄	
morning set	3178 Apr 30 20:57	2°♄04'45		morning set	3179 Apr 14 00:52	15°♄10'41	
max. Earth dist.	3178 May 05 15:53	11°♄41'59	1.33559 AU	max. Earth dist.	3179 Apr 18 03:48	23°♄05'37	1.34928 AU
					3179 Apr 21 14:46	0°♄	
superior conj	3178 May 09 00:54	18°♄45'33	0°-24'-17	superior conj	3179 Apr 22 22:50	2°♄43'34	0°-52'-57
minimum elong	3178 May 09 02:08	18°♄52'06	0°24'02	minimum elong	3179 Apr 23 01:36	2°♄57'46	0°52'26
asc. node	3178 May 11 09:02	23°♄44'18		asc. node	3179 Apr 28 06:04	13°♄44'02	
	3178 May 14 07:21	0°♄		evening rise	3179 Apr 30 16:14	18°♄46'09	
evening rise	3178 May 16 07:41	4°♄15'52			3179 May 06 07:41	0°♄	
	3178 May 30 11:18	0°♄		evening max el	3179 May 19 10:39	19°♄15'02	20°44'16
evening max el	3178 Jun 06 10:00	8°♄23'23	22°10'44	retrograde	3179 May 30 19:22	24°♄47'40	
desc. node	3178 Jun 17 21:52	14°♄41'00		evening set	3179 Jun 01 21:48	24°♄37'02	
retrograde	3178 Jun 19 06:17	14°♄45'12		desc. node	3179 Jun 04 18:55	23°♄50'43	
evening set	3178 Jun 22 03:45	14°♄26'36		inferior conj	3179 Jun 11 04:18	20°♄39'39	-1°-52'00
min. Earth dist.	3178 Jun 30 15:43	10°♄47'06	0.55063 AU	minimum elong	3179 Jun 10 23:03	20°♄47'10	1°50'07
inferior conj	3178 Jul 01 10:46	10°♄20'19	-3°-40'-18	min. Earth dist.	3179 Jun 12 03:51	20°♄05'57	0.54921 AU
minimum elong	3178 Jul 01 02:28	10°♄31'59	3°38'04	morning rise	3179 Jun 19 23:17	16°♄34'18	
morning rise	3178 Jul 10 03:10	6°♄29'30		direct	3179 Jun 23 15:06	16°♄05'28	
direct	3178 Jul 13 05:46	6°♄07'55		morning max el	3179 Jul 06 19:12	22°♄25'39	23°03'10
morning max el	3178 Jul 24 23:46	11°♄36'44	21°24'30		3179 Jul 13 10:35	0°♄	
asc. node	3178 Aug 07 08:17	0°♄16'16		asc. node	3179 Jul 25 05:20	19°♄35'54	
	3178 Aug 07 04:42	0°♄		morning set	3179 Jul 29 15:25	28°♄36'06	
morning set	3178 Aug 14 04:24	13°♄43'08			3179 Jul 30 07:20	0°♄	
superior conj	3178 Aug 21 13:14	29°♄09'32	1°43'13	superior conj	3179 Aug 05 18:11	13°♄49'45	1°35'28
minimum elong	3178 Aug 21 12:18	29°♄04'44	1°43'11	minimum elong	3179 Aug 05 16:18	13°♄39'41	1°35'19
	3178 Aug 21 22:57	0°♄		max. Earth dist.	3179 Aug 08 11:55	19°♄37'57	1.33783 AU
max. Earth dist.	3178 Aug 25 15:59	7°♄33'49	1.35164 AU	evening rise	3179 Aug 13 11:51	29°♄49'47	
evening rise	3178 Aug 29 23:55	16°♄01'02			3179 Aug 13 13:55	0°♄	
	3178 Sep 06 17:50	0°♄			3179 Aug 30 19:24	0°♄	
desc. node	3178 Sep 13 21:11	11°♄37'15		desc. node	3179 Aug 31 18:13	1°♄25'22	
	3178 Sep 27 02:39	0°♄		evening max el	3179 Sep 16 19:27	21°♄21'04	27°17'12
evening max el	3178 Oct 04 07:23	7°♄54'59	26°40'30	retrograde	3179 Sep 30 06:22	28°♄39'43	
retrograde	3178 Oct 17 07:02	15°♄09'43		evening set	3179 Oct 07 06:06	25°♄58'19	
evening set	3178 Oct 23 20:31	12°♄30'32		min. Earth dist.	3179 Oct 11 01:24	22°♄24'50	0.64649 AU
min. Earth dist.	3178 Oct 27 22:15	8°♄21'21	0.65992 AU	inferior conj	3179 Oct 13 07:53	19°♄56'52	-2°-34'-12
inferior conj	3178 Oct 29 16:28	6°♄16'06	-1°-34'00	minimum elong	3179 Oct 13 12:07	19°♄45'20	2°32'39
minimum elong	3178 Oct 29 19:02	6°♄08'28	1°32'58	morning rise	3179 Oct 19 20:12	14°♄26'38	
asc. node	3178 Nov 03 07:30	1°♄29'12		asc. node	3179 Oct 21 04:32	14°♄00'19	
morning rise	3178 Nov 04 18:59	0°♄31'30		direct	3179 Oct 22 09:28	13°♄52'42	
	3178 Nov 06 01:50	30°♄		morning max el	3179 Oct 28 21:25	17°♄19'52	17°59'40
direct	3178 Nov 07 15:11	29°♄46'27			3179 Nov 07 02:24	0°♄	
	3178 Nov 09 04:58	0°♄		morning set	3179 Nov 15 08:49	13°♄44'43	
morning max el	3178 Nov 14 05:41	3°♄22'30	18°26'13		3179 Nov 25 04:13	0°♄	
	3178 Dec 02 11:30	0°♄		desc. node	3179 Nov 27 17:31	4°♄08'14	
morning set	3178 Dec 03 23:09	2°♄23'14					

superior conj	3179 Nov 29 01:40	6°♊17'26	0°-9'-7	morning rise	3180 Oct 02 12:25	28°♍09'37	
minimum elong	3179 Nov 29 00:34	6°♊13'00	0°08'59	direct	3180 Oct 04 21:34	27°♍43'09	
behind sun begin	3179 Nov 28 15:46	5°♊37'42		asc. node	3180 Oct 07 01:35	28°♍05'37	
behind sun end	3179 Nov 29 09:21	6°♊48'14			3180 Oct 10 07:08	0°♊	
max. Earth dist.	3179 Dec 03 11:13	13°♊17'24	1.44820 AU	morning max el	3180 Oct 11 13:44	1°♊09'27	17°50'44
	3179 Dec 14 04:17	0°♊		morning set	3180 Oct 27 18:28	26°♊15'08	
evening rise	3179 Dec 15 09:53	1°♊54'07			3180 Oct 29 21:33	0°♍	
	3180 Jan 03 03:46	0°♋					
greatest brilliancy	3180 Jan 03 20:26	0°♋57'43	-0.6m	superior conj	3180 Nov 08 11:56	16°♍30'00	0°34'46
evening max el	3180 Jan 10 16:27	9°♋22'51	20°01'47	minimum elong	3180 Nov 08 15:13	16°♍43'45	0°34'19
asc. node	3180 Jan 17 03:49	13°♋43'43		desc. node	3180 Nov 13 14:32	24°♍55'14	
retrograde	3180 Jan 18 08:21	13°♋51'28		max. Earth dist.	3180 Nov 15 03:33	27°♍24'57	1.43742 AU
evening set	3180 Jan 21 23:53	12°♋33'53			3180 Nov 16 18:13	0°♊	
inferior conj	3180 Jan 27 11:14	6°♋29'14	2°57'45	evening rise	3180 Nov 23 18:54	11°♊02'21	
minimum elong	3180 Jan 27 08:46	6°♋37'31	2°57'09		3180 Dec 06 08:37	0°♊	
min. Earth dist.	3180 Jan 28 08:32	5°♋17'46	0.67050 AU	greatest brilliancy	3180 Dec 18 10:58	16°♊51'44	-0.4m
morning rise	3180 Feb 01 17:02	0°♋13'38		evening max el	3180 Dec 23 15:58	22°♊54'52	21°08'35
	3180 Feb 01 23:13	30°♋♊		retrograde	3181 Jan 01 06:05	28°♊00'20	
direct	3180 Feb 07 13:19	27°♊37'55		asc. node	3181 Jan 03 00:51	27°♊42'51	
	3180 Feb 13 21:54	0°♋		evening set	3181 Jan 05 07:26	26°♊27'35	
morning max el	3180 Feb 19 08:36	4°♋41'01	25°05'20	inferior conj	3181 Jan 10 17:07	20°♊12'02	2°22'48
desc. node	3180 Feb 23 16:45	9°♋27'12		minimum elong	3181 Jan 10 14:37	20°♊20'38	2°22'01
	3180 Mar 09 19:47	0°♌		min. Earth dist.	3181 Jan 11 01:49	19°♊42'00	0.67680 AU
morning set	3180 Mar 26 11:51	27°♌23'10		morning rise	3181 Jan 15 21:26	13°♊57'05	
	3180 Mar 27 22:39	0°♍		direct	3181 Jan 21 02:59	11°♊40'48	
max. Earth dist.	3180 Mar 30 04:25	4°♍06'55	1.36736 AU	morning max el	3181 Jan 31 17:05	17°♊59'03	23°37'42
				desc. node	3181 Feb 09 13:47	28°♊26'15	
superior conj	3180 Apr 05 11:17	16°♍09'23	-1°-20'-35		3181 Feb 10 18:11	0°♋	
minimum elong	3180 Apr 05 15:21	16°♍29'28	1°19'59		3181 Mar 02 22:07	0°♌	
	3180 Apr 12 08:53	0°♌		morning set	3181 Mar 07 23:47	8°♌25'28	
evening rise	3180 Apr 13 19:55	2°♌56'44		max. Earth dist.	3181 Mar 11 23:30	15°♌19'12	1.38843 AU
asc. node	3180 Apr 14 03:06	3°♌32'47					
	3180 Apr 30 05:03	0°♍		superior conj	3181 Mar 19 10:28	28°♌53'11	-1°-44'-39
evening max el	3180 Apr 30 23:28	0°♍46'25	19°35'02	minimum elong	3181 Mar 19 15:00	29°♌14'30	1°44'12
retrograde	3180 May 10 14:14	5°♍26'05			3181 Mar 20 00:40	0°♍	
evening set	3180 May 12 14:00	5°♍14'59		evening rise	3181 Mar 28 16:04	16°♍40'11	
inferior conj	3180 May 21 06:31	1°♍10'59	0°06'53	asc. node	3181 Apr 01 00:09	23°♍05'35	
minimum elong	3180 May 21 06:49	1°♍10'31	0°06'46		3181 Apr 04 18:33	0°♌	
transit middle	3180 May 21 06:49	1°♍10'31	0°06'46	evening max el	3181 Apr 13 22:59	12°♌57'00	18°45'40
transit begin	3180 May 21 03:17	1°♍16'08		retrograde	3181 Apr 22 01:49	16°♌55'03	
transit end	3180 May 21 10:22	1°♍04'53		evening set	3181 Apr 24 06:25	16°♌38'48	
desc. node	3180 May 21 15:57	0°♍56'00		inferior conj	3181 May 02 03:39	12°♌17'14	1°45'36
	3180 May 23 03:16	30°♌♌		minimum elong	3181 May 02 07:08	12°♌10'47	1°44'31
min. Earth dist.	3180 May 23 17:54	29°♌37'12	0.55741 AU	min. Earth dist.	3181 May 05 10:36	9°♌52'44	0.57341 AU
morning rise	3180 May 29 20:00	26°♌35'00		desc. node	3181 May 08 12:57	7°♌54'46	
direct	3180 Jun 03 09:02	25°♌48'41		morning rise	3181 May 10 03:27	7°♌06'45	
	3180 Jun 14 01:16	0°♍		direct	3181 May 15 16:38	5°♌51'29	
morning max el	3180 Jun 17 09:29	2°♍51'34	24°45'32	morning max el	3181 May 30 00:56	13°♌22'29	26°16'22
	3180 Jul 06 09:15	0°♎			3181 Jun 12 03:35	0°♍	
asc. node	3180 Jul 11 02:21	9°♎16'20		morning set	3181 Jun 27 14:14	28°♍23'06	
morning set	3180 Jul 13 03:13	13°♎31'04		asc. node	3181 Jun 27 23:23	29°♍11'29	
					3181 Jun 28 08:32	0°♎	
superior conj	3180 Jul 20 03:21	28°♎41'29	1°22'24				
minimum elong	3180 Jul 20 01:01	28°♎28'48	1°22'05	superior conj	3181 Jul 04 14:43	13°♎38'12	1°04'51
	3180 Jul 20 17:46	0°♏		minimum elong	3181 Jul 04 12:26	13°♎25'38	1°04'27
max. Earth dist.	3180 Jul 21 16:18	2°♏02'16	1.32817 AU	max. Earth dist.	3181 Jul 05 02:27	14°♎42'49	1.32255 AU
evening rise	3180 Jul 27 09:42	14°♏07'15		evening rise	3181 Jul 11 14:26	28°♎44'09	
	3180 Aug 04 16:09	0°♐			3181 Jul 12 05:01	0°♏	
desc. node	3180 Aug 17 15:14	20°♐39'12			3181 Jul 28 22:22	0°♐	
	3180 Aug 25 00:40	0°♑		desc. node	3181 Aug 04 12:14	9°♐04'48	
evening max el	3180 Aug 29 05:39	4°♑22'44	27°25'39	evening max el	3181 Aug 11 11:20	16°♐47'08	27°01'28
retrograde	3180 Sep 11 23:14	11°♑39'05		retrograde	3181 Aug 25 08:39	23°♐59'26	
evening set	3180 Sep 19 03:50	9°♑06'19		evening set	3181 Sep 01 09:37	21°♐47'51	
min. Earth dist.	3180 Sep 22 18:51	6°♑04'15	0.62977 AU	min. Earth dist.	3181 Sep 05 01:36	19°♐07'24	0.61040 AU
inferior conj	3180 Sep 25 13:20	3°♑22'13	-3°-32'-19	inferior conj	3181 Sep 08 05:38	16°♐24'21	-4°-23'-3
minimum elong	3180 Sep 25 18:49	3°♑08'49	3°30'40	minimum elong	3181 Sep 08 11:07	16°♐12'31	4°21'54
	3180 Sep 29 07:39	30°♐♐		morning rise	3181 Sep 15 15:42	11°♐32'50	

direct	3181 Sep 17 23:48	11° $\mathring{\text{M}}$ 10'51		inferior conj	3182 Aug 21 05:05	28° $\mathring{\text{O}}$ 52'22	-4°-57'-48
asc. node	3181 Sep 23 22:37	13° $\mathring{\text{M}}$ 39'16		minimum elong	3182 Aug 21 08:17	28° $\mathring{\text{O}}$ 46'23	4°57'32
morning max el	3181 Sep 25 03:35	14° $\mathring{\text{M}}$ 44'22	18°00'30	morning rise	3182 Aug 29 01:27	24° $\mathring{\text{O}}$ 24'22	
	3181 Oct 05 15:17	0° $\mathring{\text{A}}$		direct	3182 Aug 31 11:34	24° $\mathring{\text{O}}$ 04'40	
morning set	3181 Oct 10 21:47	9° $\mathring{\text{A}}$ 36'18		morning max el	3182 Sep 08 11:44	27° $\mathring{\text{O}}$ 55'05	18°30'22
					3182 Sep 10 10:47	0° $\mathring{\text{M}}$	
superior conj	3181 Oct 21 01:01	28° $\mathring{\text{A}}$ 01'25	1°08'17	asc. node	3182 Sep 10 19:39	0° $\mathring{\text{M}}$ 26'17	
minimum elong	3181 Oct 21 05:20	28° $\mathring{\text{A}}$ 20'24	1°07'46	morning set	3182 Sep 24 13:35	23° $\mathring{\text{M}}$ 32'50	
	3181 Oct 22 04:03	0° $\mathring{\text{M}}$			3182 Sep 27 21:51	0° $\mathring{\text{A}}$	
max. Earth dist.	3181 Oct 28 15:35	11° $\mathring{\text{M}}$ 02'43	1.42114 AU				
desc. node	3181 Oct 31 11:33	15° $\mathring{\text{M}}$ 42'09		superior conj	3182 Oct 03 12:44	10° $\mathring{\text{A}}$ 39'21	1°30'18
evening rise	3181 Nov 03 13:51	20° $\mathring{\text{M}}$ 41'15		minimum elong	3182 Oct 03 15:59	10° $\mathring{\text{A}}$ 54'28	1°30'00
	3181 Nov 09 13:01	0° $\mathring{\text{A}}$		max. Earth dist.	3182 Oct 10 22:14	23° $\mathring{\text{A}}$ 57'22	1.40132 AU
	3181 Nov 30 17:56	0° $\mathring{\text{B}}$			3182 Oct 14 11:10	0° $\mathring{\text{M}}$	
greatest brilliancy	3181 Dec 01 15:58	1° $\mathring{\text{B}}$ 07'42	-0.3m	evening rise	3182 Oct 15 05:53	1° $\mathring{\text{M}}$ 18'20	
evening max el	3181 Dec 06 10:10	6° $\mathring{\text{B}}$ 28'17	22°24'34	desc. node	3182 Oct 18 08:34	6° $\mathring{\text{M}}$ 25'14	
retrograde	3181 Dec 16 02:06	12° $\mathring{\text{B}}$ 13'00			3182 Nov 02 22:07	0° $\mathring{\text{A}}$	
evening set	3181 Dec 20 15:02	10° $\mathring{\text{B}}$ 23'55		evening max el	3182 Nov 19 00:20	20° $\mathring{\text{A}}$ 04'21	23°44'30
asc. node	3181 Dec 20 21:53	10° $\mathring{\text{B}}$ 09'34		retrograde	3182 Nov 29 19:06	26° $\mathring{\text{A}}$ 26'04	
inferior conj	3181 Dec 26 00:39	4° $\mathring{\text{B}}$ 00'48	1°40'20	evening set	3182 Dec 04 21:08	24° $\mathring{\text{A}}$ 20'18	
minimum elong	3181 Dec 25 22:36	4° $\mathring{\text{B}}$ 07'55	1°39'35	asc. node	3182 Dec 07 18:55	21° $\mathring{\text{A}}$ 16'06	
min. Earth dist.	3181 Dec 25 21:54	4° $\mathring{\text{B}}$ 10'19	0.67931 AU	inferior conj	3182 Dec 10 08:03	17° $\mathring{\text{A}}$ 53'38	0°51'41
	3181 Dec 29 02:01	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		minimum elong	3182 Dec 10 06:52	17° $\mathring{\text{A}}$ 57'42	0°51'12
morning rise	3181 Dec 31 06:02	27° $\mathring{\text{A}}$ 48'23		min. Earth dist.	3182 Dec 09 18:32	18° $\mathring{\text{A}}$ 39'43	0.67826 AU
direct	3182 Jan 04 20:34	25° $\mathring{\text{A}}$ 54'51		morning rise	3182 Dec 15 16:47	11° $\mathring{\text{A}}$ 45'39	
	3182 Jan 12 17:32	0° $\mathring{\text{B}}$		direct	3182 Dec 19 17:07	10° $\mathring{\text{A}}$ 14'55	
morning max el	3182 Jan 14 04:36	1° $\mathring{\text{B}}$ 24'08	22°09'54	morning max el	3182 Dec 27 22:30	14° $\mathring{\text{A}}$ 59'47	20°49'36
greatest brilliancy	3182 Jan 18 19:01	6° $\mathring{\text{B}}$ 33'16	-0.3m	greatest brilliancy	3183 Jan 02 15:20	21° $\mathring{\text{A}}$ 37'15	-0.5m
desc. node	3182 Jan 27 10:48	18° $\mathring{\text{B}}$ 00'47			3183 Jan 08 19:12	0° $\mathring{\text{B}}$	
	3182 Feb 04 16:30	0° $\mathring{\text{A}}$		desc. node	3183 Jan 14 07:49	8° $\mathring{\text{B}}$ 01'04	
morning set	3182 Feb 16 07:23	18° $\mathring{\text{A}}$ 05'12		morning set	3183 Jan 26 12:36	26° $\mathring{\text{B}}$ 33'32	
max. Earth dist.	3182 Feb 21 21:08	27° $\mathring{\text{A}}$ 16'12	1.40998 AU		3183 Jan 28 17:19	0° $\mathring{\text{A}}$	
	3182 Feb 23 11:52	0° $\mathring{\text{H}}$		max. Earth dist.	3183 Feb 04 01:28	10° $\mathring{\text{A}}$ 07'51	1.42908 AU
superior conj	3182 Mar 01 15:38	10° $\mathring{\text{H}}$ 42'56	-2°-1'-31	superior conj	3183 Feb 10 21:40	21° $\mathring{\text{A}}$ 27'03	-2°-6'-20
minimum elong	3182 Mar 01 18:48	10° $\mathring{\text{H}}$ 57'02	2°01'23	minimum elong	3183 Feb 10 20:41	21° $\mathring{\text{A}}$ 22'54	2°06'20
evening rise	3182 Mar 12 01:19	29° $\mathring{\text{H}}$ 48'14			3183 Feb 15 21:31	0° $\mathring{\text{H}}$	
	3182 Mar 12 03:51	0° $\mathring{\text{Y}}$		evening rise	3183 Feb 22 19:41	12° $\mathring{\text{H}}$ 12'02	
asc. node	3182 Mar 18 21:11	12° $\mathring{\text{Y}}$ 16'19			3183 Mar 05 03:23	0° $\mathring{\text{Y}}$	
evening max el	3182 Mar 28 06:07	25° $\mathring{\text{Y}}$ 38'44	18°16'28	asc. node	3183 Mar 05 18:14	0° $\mathring{\text{Y}}$ 57'52	
retrograde	3182 Apr 04 08:37	29° $\mathring{\text{Y}}$ 11'37		evening max el	3183 Mar 11 17:34	8° $\mathring{\text{Y}}$ 42'58	18°07'03
evening set	3182 Apr 06 19:10	28° $\mathring{\text{Y}}$ 47'23		retrograde	3183 Mar 18 07:14	12° $\mathring{\text{Y}}$ 06'19	
inferior conj	3182 Apr 13 22:14	24° $\mathring{\text{Y}}$ 04'43	2°51'50	evening set	3183 Mar 20 23:20	11° $\mathring{\text{Y}}$ 32'25	
minimum elong	3182 Apr 14 01:45	23° $\mathring{\text{Y}}$ 57'06	2°51'04	inferior conj	3183 Mar 27 11:49	6° $\mathring{\text{Y}}$ 28'54	3°27'35
min. Earth dist.	3182 Apr 17 08:14	21° $\mathring{\text{Y}}$ 09'02	0.59395 AU	minimum elong	3183 Mar 27 13:45	6° $\mathring{\text{Y}}$ 24'04	3°27'22
morning rise	3182 Apr 21 04:30	18° $\mathring{\text{Y}}$ 26'07		min. Earth dist.	3183 Mar 30 13:34	3° $\mathring{\text{Y}}$ 26'43	0.61560 AU
desc. node	3182 Apr 25 10:00	16° $\mathring{\text{Y}}$ 47'54		morning rise	3183 Apr 03 01:20	0° $\mathring{\text{Y}}$ 32'07	
direct	3182 Apr 27 13:16	16° $\mathring{\text{Y}}$ 35'28			3183 Apr 03 20:56	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$	
morning max el	3182 May 11 21:57	24° $\mathring{\text{Y}}$ 23'23	27°20'50	direct	3183 Apr 09 21:00	28° $\mathring{\text{H}}$ 09'11	
	3182 May 17 00:32	0° $\mathring{\text{B}}$		desc. node	3183 Apr 12 07:02	28° $\mathring{\text{H}}$ 25'54	
	3182 Jun 05 08:28	0° $\mathring{\text{II}}$			3183 Apr 16 07:03	0° $\mathring{\text{Y}}$	
morning set	3182 Jun 11 22:43	13° $\mathring{\text{II}}$ 05'34		morning max el	3183 Apr 24 01:22	6° $\mathring{\text{Y}}$ 06'04	27°49'41
asc. node	3182 Jun 14 20:25	19° $\mathring{\text{II}}$ 15'20			3183 May 12 01:35	0° $\mathring{\text{B}}$	
max. Earth dist.	3182 Jun 18 14:30	27° $\mathring{\text{II}}$ 26'58	1.32088 AU	morning set	3183 May 27 02:47	27° $\mathring{\text{B}}$ 32'24	
					3183 May 28 07:25	0° $\mathring{\text{II}}$	
superior conj	3182 Jun 19 02:27	28° $\mathring{\text{II}}$ 32'47	0°43'29	asc. node	3183 Jun 01 17:29	9° $\mathring{\text{II}}$ 23'41	
minimum elong	3182 Jun 19 00:40	28° $\mathring{\text{II}}$ 22'58	0°43'07	max. Earth dist.	3183 Jun 02 00:34	10° $\mathring{\text{II}}$ 02'02	1.32322 AU
	3182 Jun 19 18:17	0° $\mathring{\text{B}}$					
evening rise	3182 Jun 25 23:31	13° $\mathring{\text{B}}$ 31'17		superior conj	3183 Jun 03 12:53	13° $\mathring{\text{II}}$ 19'52	0°18'57
	3182 Jul 04 07:01	0° $\mathring{\text{O}}$		minimum elong	3183 Jun 03 12:02	13° $\mathring{\text{II}}$ 15'09	0°18'45
desc. node	3182 Jul 22 09:16	26° $\mathring{\text{O}}$ 21'13		evening rise	3183 Jun 10 10:55	28° $\mathring{\text{II}}$ 22'04	
evening max el	3182 Jul 24 09:53	28° $\mathring{\text{O}}$ 23'18	26°04'32		3183 Jun 11 05:26	0° $\mathring{\text{B}}$	
	3182 Jul 26 04:42	0° $\mathring{\text{M}}$			3183 Jun 28 04:33	0° $\mathring{\text{O}}$	
retrograde	3182 Aug 07 09:22	5° $\mathring{\text{M}}$ 32'35		evening max el	3183 Jul 06 01:30	9° $\mathring{\text{O}}$ 14'33	24°41'28
evening set	3182 Aug 13 18:36	3° $\mathring{\text{M}}$ 53'58		desc. node	3183 Jul 09 06:18	12° $\mathring{\text{O}}$ 00'48	
min. Earth dist.	3182 Aug 17 22:27	1° $\mathring{\text{M}}$ 18'51	0.58972 AU	retrograde	3183 Jul 19 23:42	16° $\mathring{\text{O}}$ 17'20	
	3182 Aug 19 17:13	30° $\mathring{\text{R}}$ $\mathring{\text{O}}$		evening set	3183 Jul 25 03:31	15° $\mathring{\text{O}}$ 17'15	

min. Earth dist.	3183 Jul 30 12:43	12°028'19	0.57034 AU			3184 Jun 02 11:35	0°09	
inferior conj	3183 Aug 02 08:51	10°037'45	-5°-3'-26	evening max el		3184 Jun 16 14:58	19°042'13	23°05'39
minimum elong	3183 Aug 02 06:58	10°040'49	5°03'23	desc. node		3184 Jun 25 03:19	25°029'09	
morning rise	3183 Aug 10 14:06	6°031'45		retrograde		3184 Jun 30 01:28	26°024'23	
direct	3183 Aug 13 04:49	6°012'43		evening set		3184 Jul 03 16:53	25°055'22	
morning max el	3183 Aug 22 11:02	10°032'14	19°21'29	min. Earth dist.		3184 Jul 11 00:15	22°037'55	0.55565 AU
asc. node	3183 Aug 28 16:42	18°011'40		inferior conj		3184 Jul 12 17:07	21°038'27	-4°-25'-10
	3183 Sep 04 13:03	0°00		minimum elong		3184 Jul 12 09:55	21°048'58	4°23'47
morning set	3183 Sep 08 14:02	7°054'22		morning rise		3184 Jul 21 05:51	17°046'03	
				direct		3184 Jul 24 03:19	17°026'04	
superior conj	3183 Sep 16 17:30	24°007'47	1°41'55	morning max el		3184 Aug 03 23:04	22°027'20	20°33'59
minimum elong	3183 Sep 16 19:00	24°015'09	1°41'51			3184 Aug 10 07:56	0°00	
	3183 Sep 19 18:39	0°00		asc. node		3184 Aug 14 13:45	6°042'18	
max. Earth dist.	3183 Sep 23 02:07	6°010'42	1.38056 AU	morning set		3184 Aug 22 20:19	22°033'21	
evening rise	3183 Sep 26 21:35	13°001'09				3184 Aug 26 10:46	0°00	
desc. node	3183 Oct 05 05:36	27°000'29						
	3183 Oct 07 02:51	0°00		superior conj		3184 Aug 30 10:30	8°012'50	1°44'51
	3183 Oct 28 23:42	0°00		minimum elong		3184 Aug 30 10:21	8°012'05	1°44'51
evening max el	3183 Nov 01 12:40	3°044'10	25°01'52	max. Earth dist.		3184 Sep 04 09:10	18°003'40	1.36134 AU
retrograde	3183 Nov 13 08:04	10°035'00		evening rise		3184 Sep 08 10:03	25°042'49	
evening set	3183 Nov 19 00:04	8°013'39				3184 Sep 10 18:30	0°00	
min. Earth dist.	3183 Nov 23 13:20	3°007'20	0.67382 AU	desc. node		3184 Sep 21 02:38	17°023'02	
inferior conj	3183 Nov 24 13:32	1°047'54	0°-2'-4			3184 Sep 29 14:38	0°00	
minimum elong	3183 Nov 24 13:35	1°047'44	0°02'03	evening max el		3184 Oct 14 01:02	17°025'58	26°09'17
transit middle	3183 Nov 24 13:35	1°047'44	0°02'03	retrograde		3184 Oct 26 16:06	24°034'44	
transit begin	3183 Nov 24 10:50	1°056'46		evening set		3184 Nov 01 22:02	22°000'52	
transit end	3183 Nov 24 16:20	1°038'43		min. Earth dist.		3184 Nov 06 03:57	17°030'19	0.66601 AU
asc. node	3183 Nov 24 15:57	1°039'57		inferior conj		3184 Nov 07 15:16	15°040'55	0°-59'-38
	3183 Nov 25 22:57	30°000'00		minimum elong		3184 Nov 07 16:52	15°035'59	0°58'59
morning rise	3183 Nov 30 03:42	25°046'38		asc. node		3184 Nov 10 12:58	12°017'33	
direct	3183 Dec 03 15:29	24°036'23		morning rise		3184 Nov 13 12:46	9°049'07	
morning max el	3183 Dec 11 00:13	28°046'18	19°41'43	direct		3184 Nov 16 14:02	8°055'53	
	3183 Dec 12 04:18	0°00		morning max el		3184 Nov 23 09:07	12°041'24	18°49'02
greatest brilliancy	3183 Dec 18 22:48	8°037'08	-0.6m			3184 Dec 06 01:09	0°00	
desc. node	3184 Jan 01 04:51	28°019'37		morning set		3184 Dec 14 21:16	13°050'16	
	3184 Jan 02 07:01	0°00		desc. node		3184 Dec 18 01:54	18°051'39	
morning set	3184 Jan 05 08:46	4°043'58				3184 Dec 25 04:13	0°00	
max. Earth dist.	3184 Jan 17 12:53	23°046'02	1.44336 AU	max. Earth dist.		3184 Dec 30 05:51	7°057'11	1.45113 AU
	3184 Jan 21 10:30	0°00						
superior conj	3184 Jan 22 01:33	1°000'32	-1°-53'-57	superior conj		3184 Dec 31 08:31	9°041'56	-1°-22'-16
minimum elong	3184 Jan 21 18:47	0°033'18	1°53'31	minimum elong		3184 Dec 30 23:31	9°006'34	1°21'20
evening rise	3184 Feb 04 18:41	23°042'19				3185 Jan 13 03:27	0°00	
	3184 Feb 08 11:51	0°00		evening rise		3185 Jan 15 18:58	4°015'39	
asc. node	3184 Feb 20 15:17	19°000'23				3185 Feb 01 05:58	0°00	
evening max el	3184 Feb 23 06:15	22°000'58	18°16'42	evening max el		3185 Feb 05 17:35	5°027'08	18°44'29
retrograde	3184 Feb 29 16:57	25°028'21		asc. node		3185 Feb 06 12:18	6°012'50	
evening set	3184 Mar 03 14:34	24°043'33		retrograde		3185 Feb 12 09:49	9°010'23	
inferior conj	3184 Mar 09 16:12	19°020'23	3°39'24	evening set		3185 Feb 15 13:30	8°013'40	
minimum elong	3184 Mar 09 16:19	19°020'06	3°39'24	inferior conj		3185 Feb 21 07:33	2°032'26	3°33'19
min. Earth dist.	3184 Mar 12 03:57	16°034'14	0.63566 AU	minimum elong		3185 Feb 21 06:13	2°036'33	3°33'11
morning rise	3184 Mar 15 16:11	13°013'29		min. Earth dist.		3185 Feb 23 03:38	0°017'54	0.65244 AU
direct	3184 Mar 22 13:31	10°029'39				3185 Feb 23 09:39	30°000'00	
desc. node	3184 Mar 29 04:04	12°034'53		morning rise		3185 Feb 26 21:45	26°020'11	
morning max el	3184 Apr 05 09:13	18°026'50	27°41'11	direct		3185 Mar 05 13:06	23°030'01	
	3184 Apr 15 02:51	0°00		desc. node		3185 Mar 16 01:07	28°041'23	
	3184 May 03 22:39	0°00				3185 Mar 17 11:38	0°00	
morning set	3184 May 10 00:02	11°035'24		morning max el		3185 Mar 18 18:52	1°016'21	26°59'21
max. Earth dist.	3184 May 15 04:34	22°014'28	1.32975 AU	morning set		3185 Apr 09 05:08	0°00	
						3185 Apr 23 11:23	25°005'04	
superior conj	3184 May 17 20:11	27°053'06	0°-8'-2	max. Earth dist.		3185 Apr 25 23:51	0°00	
minimum elong	3184 May 17 20:35	27°055'14	0°07'57			3185 Apr 27 22:57	3°055'32	1.34082 AU
behind sun begin	3184 May 17 15:56	27°030'19		superior conj		3185 May 01 22:15	12°006'00	0°-36'-27
behind sun end	3184 May 18 01:13	28°020'11		minimum elong		3185 May 02 00:08	12°015'52	0°36'04
asc. node	3184 May 18 14:33	29°031'53		asc. node		3185 May 05 11:36	19°035'52	
	3184 May 18 19:46	0°00		evening rise		3185 May 09 09:00	27°048'15	
evening rise	3184 May 24 22:42	13°009'48				3185 May 10 10:22	0°00	

	3185 May 29 02:46	0°☿		asc. node	3186 Apr 22 08:38	9°♄31'35	
evening max el	3185 May 29 09:48	0°☿17'19	21°32'15	evening rise	3186 Apr 23 15:48	12°♄11'17	
retrograde	3185 Jun 10 16:12	6°☿19'05			3186 May 03 01:43	0°♄	
desc. node	3185 Jun 12 00:20	6°☿14'57		evening max el	3186 May 11 15:32	11°♄24'48	20°12'28
evening set	3185 Jun 13 03:28	6°☿05'14		retrograde	3186 May 22 06:08	16°♄34'29	
inferior conj	3185 Jun 22 12:19	2°☿05'04	-2°-57'-59	evening set	3186 May 24 06:08	16°♄24'15	
minimum elong	3185 Jun 22 04:38	2°☿15'49	2°55'34	desc. node	3186 May 29 21:21	14°♄22'02	
min. Earth dist.	3185 Jun 22 11:29	2°☿06'14	0.54883 AU	inferior conj	3186 Jun 02 07:50	12°♄25'33	-1°00'-44
	3185 Jun 26 09:42	30°♄		minimum elong	3186 Jun 02 04:59	12°♄29'46	0°59'42
morning rise	3185 Jul 01 06:32	28°♄10'32		min. Earth dist.	3186 Jun 04 00:00	11°♄26'10	0.55155 AU
direct	3185 Jul 04 14:08	27°♄46'34		morning rise	3186 Jun 11 01:40	8°♄09'02	
	3185 Jul 12 04:53	0°☿		direct	3186 Jun 15 01:43	7°♄34'21	
morning max el	3185 Jul 16 23:35	3°☿37'28	22°05'08	morning max el	3186 Jun 28 16:03	14°♄13'30	23°47'11
asc. node	3185 Aug 01 10:49	25°☿46'46			3186 Jul 10 22:14	0°☿	
	3185 Aug 03 15:13	0°♄		asc. node	3186 Jul 19 07:52	15°☿16'23	
morning set	3185 Aug 07 06:09	7°♄22'59		morning set	3186 Jul 22 17:44	22°☿17'50	
					3186 Jul 26 08:04	0°♄	
superior conj	3185 Aug 14 11:56	22°♄42'41	1°40'38	superior conj	3186 Jul 29 18:58	7°♄28'46	1°30'31
minimum elong	3185 Aug 14 10:32	22°♄35'21	1°40'34	minimum elong	3186 Jul 29 16:50	7°♄17'15	1°30'18
max. Earth dist.	3185 Aug 18 00:09	0°♄00'13	1.34532 AU	max. Earth dist.	3186 Aug 01 00:12	12°♄14'14	1.33324 AU
	3185 Aug 18 00:07	0°♄		evening rise	3186 Aug 06 07:13	23°♄12'34	
evening rise	3185 Aug 22 14:38	9°♄10'24			3186 Aug 09 18:21	0°♄	
	3185 Sep 03 06:41	0°♄		desc. node	3186 Aug 25 20:39	27°♄01'02	
desc. node	3185 Sep 07 23:39	7°♄26'02			3186 Aug 27 23:10	0°♄	
	3185 Sep 25 12:38	0°♄		evening max el	3186 Sep 09 01:09	14°♄18'23	27°24'25
evening max el	3185 Sep 26 13:37	1°♄01'14	26°59'11	retrograde	3186 Sep 22 14:56	21°♄35'53	
retrograde	3185 Oct 09 18:31	8°♄17'42		evening set	3186 Sep 29 17:47	18°♄56'32	
evening set	3185 Oct 16 12:50	5°♄36'46		min. Earth dist.	3186 Oct 03 10:52	15°♄37'28	0.63989 AU
min. Earth dist.	3185 Oct 20 11:51	1°♄42'51	0.65470 AU	inferior conj	3186 Oct 05 22:38	13°♄02'16	-2°-59'-21
	3185 Oct 21 23:49	30°♄		minimum elong	3186 Oct 06 03:30	12°♄49'38	2°57'41
inferior conj	3185 Oct 22 11:07	29°♄27'29	-1°-59'-32	morning rise	3186 Oct 12 15:29	7°♄39'14	
minimum elong	3185 Oct 22 14:25	29°♄18'02	1°58'15	direct	3186 Oct 15 02:45	7°♄08'48	
asc. node	3185 Oct 28 10:00	23°♄58'10		asc. node	3186 Oct 15 07:03	7°♄08'58	
morning rise	3185 Oct 28 17:38	23°♄48'21		morning max el	3186 Oct 21 15:27	10°♄34'10	17°53'37
direct	3185 Oct 31 10:40	23°♄08'21			3186 Nov 03 19:10	0°♄	
morning max el	3185 Nov 06 23:06	26°♄39'22	18°12'46	morning set	3186 Nov 07 11:09	6°♄16'47	
	3185 Nov 09 21:04	0°♄					
morning set	3185 Nov 25 14:33	24°♄23'54		superior conj	3186 Nov 20 07:01	27°♄47'54	0°10'33
	3185 Nov 29 01:00	0°♄		minimum elong	3186 Nov 20 08:11	27°♄52'40	0°10'23
desc. node	3185 Dec 04 22:56	9°♄32'15		behind sun begin	3186 Nov 20 00:29	27°♄21'14	
				behind sun end	3186 Nov 20 15:54	28°♄24'04	
superior conj	3185 Dec 10 11:31	18°♄19'01	0°-36'-53	desc. node	3186 Nov 21 19:56	0°♄17'45	
minimum elong	3185 Dec 10 06:49	18°♄00'26	0°36'16		3186 Nov 21 15:33	0°♄	
max. Earth dist.	3185 Dec 13 01:22	22°♄22'38	1.45146 AU	max. Earth dist.	3186 Nov 25 19:49	6°♄42'14	1.44444 AU
	3185 Dec 17 22:07	0°☿		evening rise	3186 Dec 06 07:42	23°♄06'06	
evening rise	3185 Dec 26 20:47	13°☿56'47			3186 Dec 10 19:57	0°☿	
	3186 Jan 06 05:29	0°☿		greatest brilliancy	3186 Dec 28 03:17	25°☿14'13	-0.5m
greatest brilliancy	3186 Jan 11 17:04	8°☿12'54	-0.7m		3186 Dec 31 22:16	0°☿	
evening max el	3186 Jan 20 01:20	18°☿57'07	19°29'11	evening max el	3187 Jan 03 03:56	2°☿27'58	20°28'46
asc. node	3186 Jan 24 09:18	22°☿21'43		retrograde	3187 Jan 11 04:42	7°☿11'52	
retrograde	3186 Jan 27 06:36	23°☿06'39		asc. node	3187 Jan 11 06:19	7°☿11'51	
evening set	3186 Jan 30 17:27	21°☿56'51		evening set	3187 Jan 15 00:13	5°☿47'50	
inferior conj	3186 Feb 05 06:36	15°☿59'50	3°13'49	inferior conj	3187 Jan 20 10:37	29°☿37'52	2°43'54
minimum elong	3186 Feb 05 04:22	16°☿07'05	3°13'24	minimum elong	3187 Jan 20 08:05	29°☿46'31	2°43'13
min. Earth dist.	3186 Feb 06 11:42	14°☿24'47	0.66511 AU		3187 Jan 20 04:07	30°☿	
morning rise	3186 Feb 10 14:33	9°☿44'59		min. Earth dist.	3187 Jan 21 02:18	28°☿44'29	0.67363 AU
direct	3186 Feb 16 18:37	7°☿01'24		morning rise	3187 Jan 25 15:28	23°☿22'20	
morning max el	3186 Mar 01 04:20	14°☿23'55	25°51'59	direct	3187 Jan 31 05:28	20°☿54'34	
desc. node	3186 Mar 02 22:10	16°☿13'24		morning max el	3187 Feb 11 12:57	27°☿39'49	24°28'42
	3186 Mar 13 22:06	0°☿			3187 Feb 13 17:53	0°☿	
	3186 Apr 02 00:06	0°☿		desc. node	3187 Feb 17 19:11	4°☿45'45	
morning set	3186 Apr 06 08:46	7°☿49'53			3187 Mar 07 10:42	0°☿	
max. Earth dist.	3186 Apr 10 06:02	15°☿08'14	1.35649 AU	morning set	3187 Mar 19 14:41	19°☿34'08	
				max. Earth dist.	3187 Mar 23 03:43	26°☿10'54	1.37606 AU
superior conj	3186 Apr 15 16:34	25°☿51'27	-1°-4'-55		3187 Mar 25 05:42	0°☿	
minimum elong	3186 Apr 15 19:57	26°☿08'31	1°04'21				
	3186 Apr 17 17:30	0°☿					

superior conj	3187 Mar 29 23:50	9°Υ00'00	-1°-31'-25	superior conj	3188 Mar 11 15:57	21°✠22'01	-1°-52'-57
minimum elong	3187 Mar 30 04:15	9°Υ21'24	1°30'52	minimum elong	3188 Mar 11 20:12	21°✠41'32	1°52'39
evening rise	3187 Apr 07 16:38	26°Υ11'03			3188 Mar 16 06:59	0°Υ	
asc. node	3187 Apr 09 05:40	29°Υ13'54		evening rise	3188 Mar 21 08:37	9°Υ40'19	
	3187 Apr 09 15:04	0°♄		asc. node	3188 Mar 26 02:41	18°Υ37'54	
evening max el	3187 Apr 24 09:05	23°♄12'33	19°11'32		3188 Apr 01 21:47	0°♄	
retrograde	3187 May 03 07:39	27°♄33'12		evening max el	3188 Apr 06 12:16	5°♄37'21	18°30'49
evening set	3187 May 05 08:51	27°♄20'27		retrograde	3188 Apr 14 03:25	9°♄22'39	
inferior conj	3187 May 13 17:18	23°♄09'36	0°52'24	evening set	3188 Apr 16 10:27	9°♄03'23	
minimum elong	3187 May 13 19:23	23°♄06'04	0°51'40	inferior conj	3188 Apr 23 23:39	4°♄33'18	2°17'43
min. Earth dist.	3187 May 16 15:01	21°♄12'30	0.56336 AU	minimum elong	3188 Apr 24 03:27	4°♄25'46	2°16'40
desc. node	3187 May 16 18:23	21°♄07'01		min. Earth dist.	3188 Apr 27 09:50	1°♄52'18	0.58180 AU
morning rise	3187 May 22 01:43	18°♄18'23			3188 Apr 30 03:32	30°♄Υ	
direct	3187 May 27 00:48	17°♄21'15		morning rise	3188 May 01 16:06	29°Υ09'23	
morning max el	3187 Jun 10 06:19	24°♄38'08	25°26'40	desc. node	3188 May 02 15:24	28°Υ42'31	
	3187 Jun 15 04:52	0°♄		direct	3188 May 07 14:32	27°Υ39'00	
	3187 Jul 03 17:35	0°♄			3188 May 15 06:24	0°♄	
asc. node	3187 Jul 06 04:55	5°♄03'23		morning max el	3188 May 21 23:50	5°♄19'13	26°47'40
morning set	3187 Jul 07 05:24	7°♄11'51			3188 Jun 09 03:23	0°♄	
				morning set	3188 Jun 20 15:31	21°♄59'53	
superior conj	3187 Jul 14 05:17	22°♄23'00	1°15'28	asc. node	3188 Jun 22 01:58	25°♄02'22	
minimum elong	3187 Jul 14 02:55	22°♄10'02	1°15'07		3188 Jun 24 09:04	0°♄	
max. Earth dist.	3187 Jul 15 07:19	24°♄45'25	1.32523 AU				
	3187 Jul 17 17:21	0°♄		superior conj	3188 Jun 27 17:02	7°♄19'09	0°56'13
evening rise	3187 Jul 21 08:17	7°♄38'35		minimum elong	3188 Jun 27 14:55	7°♄07'27	0°55'49
	3187 Aug 02 05:26	0°♄		max. Earth dist.	3188 Jun 27 18:29	7°♄27'11	1.32130 AU
desc. node	3187 Aug 12 17:41	15°♄56'14		evening rise	3188 Jul 04 15:08	22°♄20'09	
evening max el	3187 Aug 22 09:30	27°♄04'34	27°19'24		3188 Jul 08 08:56	0°♄	
	3187 Aug 25 19:02	0°♄			3188 Jul 26 11:17	0°♄	
retrograde	3187 Sep 05 04:57	4°♄19'58		desc. node	3188 Jul 29 14:42	3°♄54'59	
evening set	3187 Sep 12 09:21	1°♄54'12		evening max el	3188 Aug 03 12:19	9°♄08'34	26°41'07
	3187 Sep 14 21:30	30°♄♄		retrograde	3188 Aug 17 11:15	16°♄20'16	
min. Earth dist.	3187 Sep 15 23:40	29°♄03'12	0.62179 AU	evening set	3188 Aug 24 06:55	14°♄21'34	
inferior conj	3187 Sep 18 22:54	26°♄18'30	-3°-55'-11	min. Earth dist.	3188 Aug 28 02:11	11°♄45'28	0.60152 AU
minimum elong	3187 Sep 19 04:36	26°♄05'16	3°53'39	inferior conj	3188 Aug 31 08:27	9°♄06'58	-4°-40'-30
morning rise	3187 Sep 26 02:44	21°♄14'51		minimum elong	3188 Aug 31 13:19	8°♄57'04	4°39'43
direct	3187 Sep 28 11:00	20°♄50'42		morning rise	3188 Sep 07 23:03	4°♄25'18	
asc. node	3187 Oct 02 04:06	21°♄53'10		direct	3188 Sep 10 07:28	4°♄04'40	
morning max el	3187 Oct 05 07:12	24°♄18'55	17°52'33	morning max el	3188 Sep 17 19:03	7°♄44'32	18°10'42
	3187 Oct 09 21:48	0°♄		asc. node	3188 Sep 18 01:10	7°♄59'31	
morning set	3187 Oct 21 05:04	19°♄10'48			3188 Oct 02 02:26	0°♄	
	3187 Oct 27 06:22	0°♄		morning set	3188 Oct 03 14:17	2°♄48'24	
superior conj	3187 Nov 01 05:02	8°♄35'25	0°50'24	superior conj	3188 Oct 13 04:26	20°♄36'52	1°18'58
minimum elong	3187 Nov 01 09:07	8°♄52'51	0°49'51	minimum elong	3188 Oct 13 08:27	20°♄55'01	1°18'32
max. Earth dist.	3187 Nov 08 10:14	20°♄37'55	1.43104 AU		3188 Oct 18 12:05	0°♄	
desc. node	3187 Nov 08 16:57	21°♄05'17		max. Earth dist.	3188 Oct 20 19:28	3°♄56'28	1.41296 AU
	3187 Nov 14 06:40	0°♄		evening rise	3188 Oct 25 22:12	12°♄24'23	
evening rise	3187 Nov 15 19:03	2°♄22'37		desc. node	3188 Oct 25 13:59	11°♄51'03	
	3187 Dec 04 08:24	0°♄			3188 Nov 06 05:57	0°♄	
greatest brilliancy	3187 Dec 12 04:40	10°♄28'12	-0.4m	greatest brilliancy	3188 Nov 23 06:56	23°♄28'40	-0.2m
evening max el	3187 Dec 17 01:00	16°♄00'10	21°40'02	evening max el	3188 Nov 28 17:20	29°♄34'49	22°58'28
retrograde	3187 Dec 26 02:02	21°♄22'57			3188 Nov 29 03:28	0°♄	
asc. node	3187 Dec 29 03:21	20°♄32'04		retrograde	3188 Dec 08 20:56	5°♄36'01	
evening set	3187 Dec 30 08:01	19°♄43'26		evening set	3188 Dec 13 15:10	3°♄40'06	
inferior conj	3188 Jan 04 17:28	13°♄23'59	2°05'38	asc. node	3188 Dec 15 00:24	2°♄21'54	
minimum elong	3188 Jan 04 15:07	13°♄32'11	2°04'50		3188 Dec 17 00:23	30°♄♄	
min. Earth dist.	3188 Jan 04 21:12	13°♄11'05	0.67827 AU	min. Earth dist.	3188 Dec 18 17:54	27°♄40'10	0.67930 AU
morning rise	3188 Jan 09 21:56	7°♄09'39		inferior conj	3188 Dec 19 01:12	27°♄15'00	1°20'25
direct	3188 Jan 14 20:57	5°♄02'54		minimum elong	3188 Dec 18 23:28	27°♄21'00	1°19'45
morning max el	3188 Jan 24 22:22	11°♄01'01	22°59'48	morning rise	3188 Dec 24 07:43	21°♄03'57	
greatest brilliancy	3188 Jan 29 17:26	16°♄22'18	-0.3m	direct	3188 Dec 28 16:06	19°♄20'04	
desc. node	3188 Feb 04 16:11	24°♄01'27		morning max el	3189 Jan 06 12:08	24°♄29'39	21°34'20
	3188 Feb 08 23:30	0°♄			3189 Jan 11 08:49	0°♄	
morning set	3188 Feb 28 11:03	0°♄02'28		greatest brilliancy	3189 Jan 11 10:40	0°♄05'42	-0.4m
	3188 Feb 28 10:27	0°♄		desc. node	3189 Jan 21 13:13	13°♄47'52	
max. Earth dist.	3188 Mar 03 22:38	7°♄37'33	1.39768 AU		3189 Feb 01 10:07	0°♄	

morning set	3189 Feb 07 06:19	9° \approx 07'35		max. Earth dist.	3190 Jan 27 06:17	3° \approx 10'19	1.43598 AU
max. Earth dist.	3189 Feb 13 22:22	19° \approx 55'40	1.41861 AU				
	3189 Feb 19 21:42	0° \mathbb{H}		superior conj	3190 Feb 02 06:52	12° \approx 58'59	-2°-3'-26
				minimum elong	3190 Feb 02 03:25	12° \approx 44'43	2°03'19
superior conj	3189 Feb 21 11:52	2° \mathbb{H} 45'01	-2°-5'-22		3190 Feb 12 08:04	0° \mathbb{H}	
minimum elong	3189 Feb 21 13:38	2° \mathbb{H} 52'40	2°05'20	evening rise	3190 Feb 14 22:38	4° \mathbb{H} 31'43	
evening rise	3189 Mar 04 12:00	22° \mathbb{H} 29'57		asc. node	3190 Feb 27 20:46	26° \mathbb{H} 02'51	
	3189 Mar 08 14:53	0° \mathbb{Y}			3190 Mar 02 20:59	0° \mathbb{Y}	
asc. node	3189 Mar 12 23:44	7° \mathbb{Y} 36'53		evening max el	3190 Mar 04 10:03	1° \mathbb{Y} 40'47	18°08'50
evening max el	3189 Mar 20 21:42	18° \mathbb{Y} 29'52	18°10'08	retrograde	3190 Mar 10 21:10	5° \mathbb{Y} 04'04	
retrograde	3189 Mar 27 17:14	21° \mathbb{Y} 56'27		evening set	3190 Mar 13 15:42	4° \mathbb{Y} 25'29	
evening set	3189 Mar 30 06:20	21° \mathbb{Y} 28'11			3190 Mar 19 05:05	30° \mathbb{R} \mathbb{H}	
inferior conj	3189 Apr 06 02:44	16° \mathbb{Y} 36'44	3°10'21	inferior conj	3190 Mar 19 23:06	29° \mathbb{H} 13'10	3°35'08
minimum elong	3189 Apr 06 05:41	16° \mathbb{Y} 29'57	3°09'50	minimum elong	3190 Mar 20 00:14	29° \mathbb{H} 10'11	3°35'04
min. Earth dist.	3189 Apr 09 10:24	13° \mathbb{Y} 35'11	0.60327 AU	min. Earth dist.	3190 Mar 22 19:12	26° \mathbb{H} 15'46	0.62450 AU
morning rise	3189 Apr 13 01:37	10° \mathbb{Y} 49'32		morning rise	3190 Mar 26 06:26	23° \mathbb{H} 11'33	
direct	3189 Apr 19 16:27	8° \mathbb{Y} 43'57		direct	3190 Apr 02 03:54	20° \mathbb{H} 38'20	
desc. node	3189 Apr 19 12:25	8° \mathbb{Y} 44'02		desc. node	3190 Apr 06 09:27	21° \mathbb{H} 29'41	
morning max el	3189 May 03 23:24	16° \mathbb{Y} 36'21	27°37'41	morning max el	3190 Apr 16 04:54	28° \mathbb{H} 35'30	27°50'36
	3189 May 14 23:58	0° \mathbb{B}			3190 Apr 17 13:48	0° \mathbb{Y}	
	3189 Jun 01 16:05	0° \mathbb{II}			3190 May 08 19:51	0° \mathbb{B}	
morning set	3189 Jun 04 22:23	6° \mathbb{II} 36'21		morning set	3190 May 19 23:50	20° \mathbb{B} 53'44	
asc. node	3189 Jun 08 23:02	15° \mathbb{II} 08'39			3190 May 24 08:58	0° \mathbb{II}	
max. Earth dist.	3189 Jun 11 06:08	20° \mathbb{II} 08'53	1.32136 AU	max. Earth dist.	3190 May 25 14:15	2° \mathbb{II} 36'27	1.32549 AU
				asc. node	3190 May 26 20:04	5° \mathbb{II} 17'12	
superior conj	3189 Jun 12 04:27	22° \mathbb{II} 11'26	0°33'26				
minimum elong	3189 Jun 12 03:01	22° \mathbb{II} 03'31	0°33'07	superior conj	3190 May 27 13:45	6° \mathbb{II} 53'07	0°07'46
	3189 Jun 15 17:46	0° \mathbb{S}		minimum elong	3190 May 27 13:23	6° \mathbb{II} 51'06	0°07'41
evening rise	3189 Jun 19 01:28	7° \mathbb{S} 09'57		behind sun begin	3190 May 27 08:49	6° \mathbb{II} 26'17	
	3189 Jun 30 23:31	0° \mathbb{Q}		behind sun end	3190 May 27 17:57	7° \mathbb{II} 15'56	
desc. node	3189 Jul 16 11:44	20° \mathbb{Q} 34'26		evening rise	3190 Jun 03 13:15	22° \mathbb{II} 00'17	
evening max el	3189 Jul 16 08:00	20° \mathbb{Q} 25'32	25°31'54		3190 Jun 07 10:02	0° \mathbb{S}	
retrograde	3189 Jul 30 07:43	27° \mathbb{Q} 32'19			3190 Jun 26 20:34	0° \mathbb{Q}	
evening set	3189 Aug 05 05:49	26° \mathbb{Q} 10'25		evening max el	3190 Jun 27 21:52	1° \mathbb{Q} 03'01	24°01'22
min. Earth dist.	3189 Aug 09 20:02	23° \mathbb{Q} 31'28	0.58109 AU	desc. node	3190 Jul 03 08:46	5° \mathbb{Q} 22'45	
inferior conj	3189 Aug 12 23:53	21° \mathbb{Q} 18'22	-5°-4'-43	retrograde	3190 Jul 11 16:20	7° \mathbb{Q} 58'51	
minimum elong	3189 Aug 13 01:13	21° \mathbb{Q} 16'01	5°04'42	evening set	3190 Jul 16 05:05	7° \mathbb{Q} 13'28	
morning rise	3189 Aug 21 00:08	16° \mathbb{Q} 59'48		min. Earth dist.	3190 Jul 22 08:22	4° \mathbb{Q} 14'13	0.56334 AU
direct	3189 Aug 23 11:58	16° \mathbb{Q} 40'29		inferior conj	3190 Jul 24 19:01	2° \mathbb{Q} 44'04	-4°-53'-18
morning max el	3189 Aug 31 23:46	20° \mathbb{Q} 42'03	18°49'27	minimum elong	3190 Jul 24 14:37	2° \mathbb{Q} 50'53	4°52'50
asc. node	3189 Sep 04 22:13	25° \mathbb{Q} 13'13			3190 Jul 29 15:49	30° \mathbb{R} \mathbb{S}	
	3189 Sep 08 03:55	0° \mathbb{P}		morning rise	3190 Aug 02 03:37	28° \mathbb{S} 45'28	
morning set	3189 Sep 17 10:14	16° \mathbb{P} 57'07		direct	3190 Aug 04 21:12	28° \mathbb{S} 26'07	
	3189 Sep 24 02:29	0° \mathbb{L}			3190 Aug 10 16:17	0° \mathbb{Q}	
				morning max el	3190 Aug 14 18:23	3° \mathbb{Q} 01'27	19°49'48
superior conj	3189 Sep 26 00:04	3° \mathbb{L} 38'08	1°36'23	asc. node	3190 Aug 22 19:17	13° \mathbb{Q} 19'02	
minimum elong	3189 Sep 26 02:37	3° \mathbb{L} 50'13	1°36'12		3190 Aug 31 20:13	0° \mathbb{P}	
max. Earth dist.	3189 Oct 03 00:45	16° \mathbb{L} 33'38	1.39249 AU	morning set	3190 Sep 01 13:27	1° \mathbb{P} 26'47	
evening rise	3189 Oct 07 00:31	23° \mathbb{L} 30'14					
	3189 Oct 10 21:46	0° \mathbb{M}		superior conj	3190 Sep 09 10:33	17° \mathbb{P} 23'20	1°44'07
desc. node	3189 Oct 12 11:02	2° \mathbb{M} 31'35		minimum elong	3190 Sep 09 11:19	17° \mathbb{P} 27'10	1°44'06
	3189 Oct 31 02:27	0° \mathbb{X}		max. Earth dist.	3190 Sep 15 05:35	28° \mathbb{P} 36'22	1.37209 AU
evening max el	3189 Nov 11 06:41	13° \mathbb{X} 13'24	24°18'07		3190 Sep 15 23:28	0° \mathbb{L}	
retrograde	3189 Nov 22 12:11	19° \mathbb{X} 47'55		evening rise	3190 Sep 19 01:30	5° \mathbb{L} 38'40	
evening set	3189 Nov 27 20:08	17° \mathbb{X} 35'26		desc. node	3190 Sep 29 08:06	23° \mathbb{L} 01'58	
asc. node	3189 Dec 01 21:26	13° \mathbb{X} 04'23			3190 Oct 03 19:59	0° \mathbb{M}	
min. Earth dist.	3189 Dec 02 14:02	12° \mathbb{X} 09'17	0.67688 AU	evening max el	3190 Oct 24 18:53	26° \mathbb{M} 54'23	25°32'09
inferior conj	3189 Dec 03 08:01	11° \mathbb{X} 08'52	0°29'29		3190 Oct 28 06:11	0° \mathbb{X}	
minimum elong	3189 Dec 03 07:19	11° \mathbb{X} 11'15	0°29'11	retrograde	3190 Nov 05 23:02	3° \mathbb{X} 53'46	
morning rise	3189 Dec 08 18:49	5° \mathbb{X} 03'25		evening set	3190 Nov 11 21:11	1° \mathbb{X} 26'23	
direct	3189 Dec 12 13:42	3° \mathbb{X} 41'33			3190 Nov 13 09:43	30° \mathbb{R} \mathbb{M}	
morning max el	3189 Dec 20 09:14	8° \mathbb{X} 09'45	20°18'56	min. Earth dist.	3190 Nov 16 07:13	26° \mathbb{M} 35'25	0.67096 AU
greatest brilliancy	3189 Dec 26 20:58	15° \mathbb{X} 53'14	-0.5m	inferior conj	3190 Nov 17 12:08	25° \mathbb{M} 02'42	0°-26'-3
	3190 Jan 05 18:52	0° \mathbb{Z}		minimum elong	3190 Nov 17 12:48	25° \mathbb{M} 00'33	0°25'48
desc. node	3190 Jan 08 10:15	3° \mathbb{Z} 56'44		asc. node	3190 Nov 18 18:28	23° \mathbb{M} 26'45	
morning set	3190 Jan 17 04:40	17° \mathbb{Z} 19'05		morning rise	3190 Nov 23 05:13	19° \mathbb{M} 05'24	
	3190 Jan 25 06:41	0° \approx		direct	3190 Nov 26 12:18	18° \mathbb{M} 02'50	

morning max el	3190 Dec 03 14:16	22° \mathbb{M} 00'42	19°17'26		3191 Dec 03 19:03	0° \mathcal{Z}	
	3190 Dec 10 02:49	0° \mathcal{Z}		morning set	3191 Dec 07 05:22	5° \mathcal{Z} 28'45	
greatest brilliancy	3190 Dec 13 05:43	4° \mathcal{Z} 27'06	-0.7m	desc. node	3191 Dec 13 04:21	14° \mathcal{Z} 57'49	
desc. node	3190 Dec 26 07:19	24° \mathcal{Z} 21'51			3191 Dec 22 17:20	0° \mathcal{Z}	
morning set	3190 Dec 27 05:15	25° \mathcal{Z} 46'55					
	3190 Dec 29 22:25	0° \mathcal{Z}		superior conj	3191 Dec 23 03:10	0° \mathcal{Z} 38'38	-1°-4'-5
max. Earth dist.	3191 Jan 09 20:56	17° \mathcal{Z} 06'59	1.44755 AU	minimum elong	3191 Dec 22 19:22	0° \mathcal{Z} 07'59	1°03'09
				max. Earth dist.	3191 Dec 23 15:05	1° \mathcal{Z} 25'21	1.45210 AU
superior conj	3191 Jan 13 00:34	22° \mathcal{Z} 06'31	-1°-42'-45	evening rise	3192 Jan 08 02:43	25° \mathcal{Z} 48'39	
minimum elong	3191 Jan 12 16:04	21° \mathcal{Z} 32'44	1°42'03		3192 Jan 10 18:04	0° \approx	
	3191 Jan 17 22:50	0° \approx		evening max el	3192 Jan 30 08:24	28° \approx 31'03	19°01'29
evening rise	3191 Jan 27 12:23	15° \approx 38'59			3192 Jan 31 22:17	0° \mathcal{H}	
	3191 Feb 05 05:01	0° \mathcal{H}		asc. node	3192 Feb 01 14:49	0° \mathcal{H} 33'15	
asc. node	3191 Feb 14 17:48	13° \mathcal{H} 45'58		retrograde	3192 Feb 06 05:31	2° \mathcal{H} 24'45	
evening max el	3191 Feb 15 22:26	15° \mathcal{H} 03'07	18°26'15	evening set	3192 Feb 09 11:58	1° \mathcal{H} 22'47	
retrograde	3191 Feb 22 10:33	18° \mathcal{H} 36'09			3192 Feb 11 06:20	30° \mathcal{R} \approx	
evening set	3191 Feb 25 10:37	17° \mathcal{H} 46'23		inferior conj	3192 Feb 15 03:38	25° \approx 34'32	3°26'28
inferior conj	3191 Mar 03 08:38	12° \mathcal{H} 15'00	3°38'42	minimum elong	3192 Feb 15 01:51	25° \approx 40'09	3°26'13
minimum elong	3191 Mar 03 08:04	12° \mathcal{H} 16'40	3°38'41	min. Earth dist.	3192 Feb 16 17:14	23° \approx 35'59	0.65830 AU
min. Earth dist.	3191 Mar 05 13:39	9° \mathcal{H} 41'01	0.64324 AU	morning rise	3192 Feb 20 14:45	19° \approx 20'36	
morning rise	3191 Mar 09 03:59	6° \mathcal{H} 05'11		direct	3192 Feb 27 01:42	16° \approx 31'42	
direct	3191 Mar 15 23:23	3° \mathcal{H} 17'13		desc. node	3192 Mar 10 03:31	23° \approx 19'45	
desc. node	3191 Mar 24 06:29	6° \mathcal{H} 33'26		morning max el	3192 Mar 11 00:03	24° \approx 10'34	26°33'14
morning max el	3191 Mar 29 14:08	11° \mathcal{H} 11'19	27°27'09		3192 Mar 16 05:50	0° \mathcal{H}	
	3191 Apr 13 11:39	0° \mathcal{Y}			3192 Apr 05 21:10	0° \mathcal{Y}	
	3191 May 01 06:31	0° \mathcal{B}		morning set	3192 Apr 15 23:18	17° \mathcal{Y} 56'34	
morning set	3191 May 03 17:19	4° \mathcal{B} 44'08		max. Earth dist.	3192 Apr 20 04:17	26° \mathcal{Y} 04'47	1.34694 AU
max. Earth dist.	3191 May 08 14:49	14° \mathcal{B} 37'41	1.33393 AU		3192 Apr 22 03:22	0° \mathcal{B}	
superior conj	3191 May 11 19:04	21° \mathcal{B} 18'25	0°-19'-58	superior conj	3192 Apr 24 18:10	5° \mathcal{B} 20'24	0°-48'-38
minimum elong	3191 May 11 20:05	21° \mathcal{B} 23'47	0°19'46	minimum elong	3192 Apr 24 20:42	5° \mathcal{B} 33'30	0°48'09
asc. node	3191 May 13 17:07	25° \mathcal{B} 24'08		asc. node	3192 Apr 29 14:08	15° \mathcal{B} 24'57	
	3191 May 15 20:33	0° \mathbb{I}		evening rise	3192 May 02 09:41	21° \mathcal{B} 17'18	
evening rise	3191 May 19 00:38	6° \mathbb{I} 44'56			3192 May 06 17:17	0° \mathbb{I}	
	3191 May 31 11:10	0° \mathcal{E}		evening max el	3192 May 21 11:26	22° \mathbb{I} 15'30	20°56'11
evening max el	3191 Jun 09 12:25	11° \mathcal{E} 28'51	22°24'43	retrograde	3192 Jun 02 02:10	27° \mathbb{I} 55'53	
desc. node	3191 Jun 20 05:45	17° \mathcal{E} 44'38		evening set	3192 Jun 04 06:12	27° \mathbb{I} 44'46	
retrograde	3191 Jun 22 13:02	17° \mathcal{E} 56'50		desc. node	3192 Jun 06 02:44	27° \mathbb{I} 18'41	
evening set	3191 Jun 25 14:42	17° \mathcal{E} 36'02		inferior conj	3192 Jun 13 13:50	23° \mathbb{I} 47'19	-2°-9'-56
min. Earth dist.	3191 Jul 03 19:17	14° \mathcal{E} 02'39	0.55165 AU	minimum elong	3192 Jun 13 07:49	23° \mathbb{I} 55'51	2°07'51
inferior conj	3191 Jul 04 20:22	13° \mathcal{E} 27'08	-3°-53'-39	min. Earth dist.	3192 Jun 14 07:16	23° \mathbb{I} 22'35	0.54877 AU
minimum elong	3191 Jul 04 12:09	13° \mathcal{E} 38'47	3°51'35	morning rise	3192 Jun 22 08:49	19° \mathbb{I} 45'17	
morning rise	3191 Jul 13 11:54	9° \mathcal{E} 36'32		direct	3192 Jun 25 22:15	19° \mathbb{I} 17'57	
direct	3191 Jul 16 12:57	9° \mathcal{E} 15'33		morning max el	3192 Jul 08 21:59	25° \mathbb{I} 31'01	22°47'55
morning max el	3191 Jul 28 01:24	14° \mathcal{E} 37'03	21°10'52		3192 Jul 13 02:45	0° \mathcal{E}	
	3191 Aug 08 12:00	0° \mathcal{Q}		asc. node	3192 Jul 26 13:23	21° \mathcal{E} 20'54	
asc. node	3191 Aug 09 16:20	2° \mathcal{Q} 04'50			3192 Jul 30 20:10	0° \mathcal{Q}	
morning set	3191 Aug 16 21:25	16° \mathcal{Q} 10'29		morning set	3192 Jul 31 08:11	1° \mathcal{Q} 02'52	
	3191 Aug 23 12:14	0° \mathcal{M}					
				superior conj	3192 Aug 07 11:38	16° \mathcal{Q} 17'52	1°37'01
superior conj	3191 Aug 24 07:30	1° \mathcal{M} 39'54	1°43'52	minimum elong	3192 Aug 07 09:52	16° \mathcal{Q} 08'27	1°36'52
minimum elong	3191 Aug 24 06:46	1° \mathcal{M} 36'06	1°43'50	max. Earth dist.	3192 Aug 10 09:57	22° \mathcal{Q} 28'39	1.33962 AU
max. Earth dist.	3191 Aug 28 15:21	10° \mathcal{M} 26'51	1.35402 AU		3192 Aug 14 02:18	0° \mathcal{M}	
evening rise	3191 Sep 01 21:17	18° \mathcal{M} 40'34		evening rise	3192 Aug 15 07:27	2° \mathcal{M} 24'31	
	3191 Sep 08 03:17	0° \mathcal{A}			3192 Aug 31 00:24	0° \mathcal{A}	
desc. node	3191 Sep 16 05:07	13° \mathcal{A} 16'45		desc. node	3192 Sep 02 02:06	3° \mathcal{A} 09'06	
	3191 Sep 27 23:47	0° \mathbb{M}		evening max el	3192 Sep 18 19:24	24° \mathcal{A} 02'27	27°13'24
evening max el	3191 Oct 07 07:07	10° \mathbb{M} 33'17	26°33'04		3192 Sep 26 21:13	0° \mathbb{M}	
retrograde	3191 Oct 20 04:50	17° \mathbb{M} 47'07		retrograde	3192 Oct 02 05:01	1° \mathbb{M} 20'50	
evening set	3191 Oct 26 16:24	15° \mathbb{M} 09'01			3192 Oct 07 03:16	30° \mathcal{R} \mathcal{A}	
min. Earth dist.	3191 Oct 30 19:10	10° \mathbb{M} 54'18	0.66158 AU	evening set	3192 Oct 09 03:25	28° \mathcal{A} 39'21	
inferior conj	3191 Nov 01 11:36	8° \mathbb{M} 52'55	-1°-24'-55	min. Earth dist.	3192 Oct 12 23:40	25° \mathcal{A} 00'32	0.64872 AU
minimum elong	3191 Nov 01 13:54	8° \mathbb{M} 45'59	1°23'59	inferior conj	3192 Oct 15 04:15	22° \mathcal{A} 35'37	-2°-25'-9
asc. node	3191 Nov 05 15:31	4° \mathbb{M} 25'20		minimum elong	3192 Oct 15 08:15	22° \mathcal{A} 24'35	2°23'39
morning rise	3191 Nov 07 12:46	3° \mathbb{M} 06'23		morning rise	3192 Oct 21 15:01	17° \mathcal{A} 02'53	
direct	3191 Nov 10 10:08	2° \mathbb{M} 19'24		asc. node	3192 Oct 22 12:33	16° \mathcal{A} 42'42	
morning max el	3191 Nov 17 01:41	5° \mathbb{M} 57'46	18°31'36	direct	3192 Oct 24 05:09	16° \mathcal{A} 27'30	

morning max el	3192 Oct 30 17:03	19°♄55'30	18°02'29	min. Earth dist.	3193 Sep 25 18:37	8°♄44'21	0.63251 AU
	3192 Nov 07 07:17	0°♄		inferior conj	3193 Sep 28 11:23	6°♄03'51	-3°-23'-51
morning set	3192 Nov 17 10:56	16°♄38'20		minimum elong	3193 Sep 28 16:44	5°♄50'33	3°22'10
	3192 Nov 25 13:08	0°♄		morning rise	3193 Oct 05 08:50	0°♄48'18	
desc. node	3192 Nov 29 01:23	5°♄41'08		direct	3193 Oct 07 18:27	0°♄20'52	
				asc. node	3193 Oct 09 09:37	0°♄33'49	
superior conj	3192 Dec 01 11:11	9°♄32'43	0°-16'-21	morning max el	3193 Oct 14 09:27	3°♄46'38	17°50'52
minimum elong	3192 Dec 01 09:10	9°♄24'38	0°16'05	morning set	3193 Oct 30 17:26	28°♄59'49	
behind sun begin	3192 Dec 01 07:54	9°♄19'37			3193 Oct 31 07:11	0°♄	
behind sun end	3192 Dec 01 10:26	9°♄29'40					
max. Earth dist.	3192 Dec 05 09:59	15°♄48'44	1.44929 AU	superior conj	3193 Nov 11 17:27	19°♄33'26	0°28'43
	3192 Dec 14 11:57	0°♄		minimum elong	3193 Nov 11 20:18	19°♄45'15	0°28'18
evening rise	3192 Dec 17 20:43	5°♄12'20		desc. node	3193 Nov 15 22:24	26°♄27'49	
	3193 Jan 03 05:35	0°♄		max. Earth dist.	3193 Nov 18 03:09	0°♄00'37	1.43948 AU
greatest brilliancy	3193 Jan 05 10:13	3°♄06'59	-0.6m		3193 Nov 18 02:59	0°♄	
evening max el	3193 Jan 12 14:09	12°♄01'56	19°52'53	evening rise	3193 Nov 27 05:41	14°♄19'35	
asc. node	3193 Jan 18 11:49	16°♄10'37			3193 Dec 07 14:05	0°♄	
retrograde	3193 Jan 20 03:05	16°♄25'13		greatest brilliancy	3193 Dec 21 05:16	19°♄15'26	-0.5m
evening set	3193 Jan 23 17:21	15°♄09'42		evening max el	3193 Dec 26 14:31	25°♄33'48	20°57'57
inferior conj	3193 Jan 29 05:07	9°♄07'03	3°02'15		3194 Jan 01 11:10	0°♄	
minimum elong	3193 Jan 29 02:42	9°♄15'08	3°01'43	retrograde	3194 Jan 04 00:57	0°♄33'23	
min. Earth dist.	3193 Jan 30 04:25	7°♄49'22	0.66926 AU	asc. node	3194 Jan 05 08:51	0°♄23'39	
morning rise	3193 Feb 03 11:23	2°♄51'37			3194 Jan 06 11:32	30°♄	
direct	3193 Feb 09 09:48	0°♄13'32		evening set	3194 Jan 08 00:47	29°♄02'52	
morning max el	3193 Feb 21 08:55	7°♄21'56	25°17'46	inferior conj	3194 Jan 13 10:36	22°♄48'40	2°28'36
desc. node	3193 Feb 25 00:34	11°♄19'55		minimum elong	3194 Jan 13 08:05	22°♄57'21	2°27'51
	3193 Mar 11 00:41	0°♄		min. Earth dist.	3194 Jan 13 21:03	22°♄12'43	0.67611 AU
	3193 Mar 29 09:12	0°♄		morning rise	3194 Jan 18 14:59	16°♄33'39	
morning set	3193 Mar 29 13:09	0°♄17'48		direct	3194 Jan 23 22:45	14°♄14'16	
max. Earth dist.	3193 Apr 02 06:22	7°♄07'48	1.36444 AU	morning max el	3194 Feb 03 17:22	20°♄39'32	23°51'01
				desc. node	3194 Feb 11 21:37	0°♄12'31	
superior conj	3193 Apr 08 08:15	18°♄51'38	-1°-16'-33		3194 Feb 11 17:44	0°♄	
minimum elong	3193 Apr 08 12:10	19°♄11'03	1°15'58		3194 Mar 04 06:14	0°♄	
	3193 Apr 13 20:59	0°♄		morning set	3194 Mar 11 04:58	11°♄31'48	
asc. node	3193 Apr 16 11:09	5°♄15'32		max. Earth dist.	3194 Mar 15 02:07	18°♄17'39	1.38518 AU
evening rise	3193 Apr 16 14:16	5°♄31'14			3194 Mar 21 11:56	0°♄	
	3193 Apr 30 15:57	0°♄					
evening max el	3193 May 03 22:28	3°♄40'44	19°44'06	superior conj	3194 Mar 22 09:44	1°♄42'41	-1°-41'-22
retrograde	3193 May 13 19:12	8°♄27'43		minimum elong	3194 Mar 22 14:17	2°♄04'17	1°40'53
evening set	3193 May 15 18:47	8°♄16'59		evening rise	3194 Mar 31 11:47	19°♄19'44	
desc. node	3193 May 23 23:45	4°♄36'46		asc. node	3194 Apr 03 08:11	24°♄51'16	
inferior conj	3193 May 24 13:55	4°♄14'50	0°-10'-22		3194 Apr 06 02:02	0°♄	
minimum elong	3193 May 24 13:27	4°♄15'34	0°10'13	evening max el	3194 Apr 16 20:37	15°♄46'06	18°51'44
transit middle	3193 May 24 13:27	4°♄15'34	0°10'13	retrograde	3194 Apr 25 04:11	19°♄49'34	
transit begin	3193 May 24 10:25	4°♄20'16		evening set	3194 Apr 27 07:52	19°♄34'18	
transit end	3193 May 24 16:29	4°♄10'51		inferior conj	3194 May 05 07:59	15°♄15'31	1°32'35
min. Earth dist.	3193 May 26 20:51	2°♄49'45	0.55561 AU	minimum elong	3194 May 05 11:13	15°♄09'41	1°31'33
	3193 Jun 01 10:27	30°♄		min. Earth dist.	3194 May 08 13:00	12°♄57'43	0.57063 AU
morning rise	3193 Jun 02 04:48	29°♄44'14		desc. node	3194 May 10 20:47	11°♄28'10	
direct	3193 Jun 06 14:25	29°♄01'16		morning rise	3194 May 13 10:12	10°♄09'55	
	3193 Jun 11 16:41	0°♄		direct	3194 May 18 19:47	8°♄59'45	
morning max el	3193 Jun 20 12:34	5°♄58'21	24°30'42	morning max el	3194 Jun 02 03:37	16°♄27'11	26°04'14
	3193 Jul 07 18:01	0°♄			3194 Jun 13 04:46	0°♄	
asc. node	3193 Jul 13 10:26	10°♄58'42			3194 Jun 29 21:36	0°♄	
morning set	3193 Jul 15 20:00	15°♄57'56		morning set	3194 Jun 30 07:15	0°♄50'48	
	3193 Jul 22 07:45	0°♄		asc. node	3194 Jun 30 07:29	0°♄51'59	
superior conj	3193 Jul 22 20:18	1°♄08'19	1°24'42	superior conj	3194 Jul 07 07:29	16°♄04'33	1°07'47
minimum elong	3193 Jul 22 18:01	0°♄55'51	1°24'24	minimum elong	3194 Jul 07 05:10	15°♄51'48	1°07'24
max. Earth dist.	3193 Jul 24 13:21	4°♄50'43	1.32934 AU	max. Earth dist.	3194 Jul 07 22:56	17°♄29'28	1.32315 AU
evening rise	3193 Jul 30 04:02	16°♄38'23			3194 Jul 13 18:02	0°♄	
	3193 Aug 06 01:51	0°♄		evening rise	3194 Jul 14 07:56	1°♄12'43	
desc. node	3193 Aug 19 23:06	22°♄28'53			3194 Jul 30 01:42	0°♄	
	3193 Aug 25 16:25	0°♄		desc. node	3194 Aug 06 20:07	11°♄02'35	
evening max el	3193 Sep 01 06:07	7°♄08'58	27°26'23	evening max el	3194 Aug 14 12:34	19°♄39'02	27°07'08
retrograde	3193 Sep 14 22:46	14°♄25'23		retrograde	3194 Aug 28 09:17	26°♄51'56	
evening set	3193 Sep 22 03:09	11°♄50'37		evening set	3194 Sep 04 11:36	24°♄36'13	

min. Earth dist.	3194 Sep 08 02:51	21° $\mathring{\text{M}}$ 53'35	0.61344 AU		3195 Jul 26 02:53	0° $\mathring{\text{M}}$	
inferior conj	3194 Sep 11 05:50	19° $\mathring{\text{M}}$ 09'36	-4°-16'-11	evening max el	3195 Jul 27 12:11	1° $\mathring{\text{M}}$ 22'08	26°14'52
minimum elong	3194 Sep 11 11:27	18° $\mathring{\text{M}}$ 57'15	4°14'55	retrograde	3195 Aug 10 11:38	8° $\mathring{\text{M}}$ 32'21	
morning rise	3194 Sep 18 14:19	14° $\mathring{\text{M}}$ 14'53		evening set	3195 Aug 17 00:01	6° $\mathring{\text{M}}$ 48'09	
direct	3194 Sep 20 22:25	13° $\mathring{\text{M}}$ 52'24		min. Earth dist.	3195 Aug 21 01:03	4° $\mathring{\text{M}}$ 13'26	0.59275 AU
asc. node	3194 Sep 26 06:41	15° $\mathring{\text{M}}$ 54'42		inferior conj	3195 Aug 24 08:01	1° $\mathring{\text{M}}$ 43'08	-4°-54'-7
morning max el	3194 Sep 27 23:53	17° $\mathring{\text{M}}$ 24'05	17°57'49	minimum elong	3195 Aug 24 11:45	1° $\mathring{\text{M}}$ 35'59	4°53'44
	3194 Oct 06 22:55	0° $\mathring{\text{L}}$			3195 Aug 26 15:46	30° $\mathring{\text{R}}$ 0	
morning set	3194 Oct 13 18:28	12° $\mathring{\text{L}}$ 14'11		morning rise	3195 Sep 01 02:57	27° $\mathring{\text{L}}$ 11'44	
	3194 Oct 23 14:30	0° $\mathring{\text{M}}$		direct	3195 Sep 03 12:30	26° $\mathring{\text{L}}$ 51'52	
					3195 Sep 10 16:02	0° $\mathring{\text{M}}$	
superior conj	3194 Oct 24 02:44	0° $\mathring{\text{M}}$ 53'36	1°03'57	morning max el	3195 Sep 11 09:09	0° $\mathring{\text{M}}$ 39'13	18°24'39
minimum elong	3194 Oct 24 07:04	1° $\mathring{\text{M}}$ 12'31	1°03'25	asc. node	3195 Sep 13 03:44	2° $\mathring{\text{M}}$ 31'40	
max. Earth dist.	3194 Oct 31 15:56	13° $\mathring{\text{M}}$ 43'40	1.42385 AU	morning set	3195 Sep 27 08:43	26° $\mathring{\text{M}}$ 06'21	
desc. node	3194 Nov 02 19:26	17° $\mathring{\text{M}}$ 14'51			3195 Sep 29 09:26	0° $\mathring{\text{L}}$	
evening rise	3194 Nov 06 22:13	23° $\mathring{\text{M}}$ 51'19					
	3194 Nov 10 20:31	0° $\mathring{\text{X}}$		superior conj	3195 Oct 06 11:29	13° $\mathring{\text{L}}$ 23'01	1°27'38
	3194 Dec 01 15:59	0° $\mathring{\text{Z}}$		minimum elong	3195 Oct 06 14:58	13° $\mathring{\text{L}}$ 39'06	1°27'19
greatest brilliancy	3194 Dec 04 16:03	3° $\mathring{\text{Z}}$ 47'22	-0.3m	max. Earth dist.	3195 Oct 13 23:09	26° $\mathring{\text{L}}$ 44'33	1.40435 AU
evening max el	3194 Dec 09 09:22	9° $\mathring{\text{Z}}$ 06'32	22°12'52		3195 Oct 15 20:54	0° $\mathring{\text{M}}$	
retrograde	3194 Dec 18 21:23	14° $\mathring{\text{Z}}$ 45'42		evening rise	3195 Oct 18 10:50	4° $\mathring{\text{M}}$ 19'14	
evening set	3194 Dec 23 08:30	12° $\mathring{\text{Z}}$ 59'02		desc. node	3195 Oct 20 16:28	7° $\mathring{\text{M}}$ 59'01	
asc. node	3194 Dec 23 05:55	13° $\mathring{\text{Z}}$ 04'12			3195 Nov 04 02:16	0° $\mathring{\text{X}}$	
inferior conj	3194 Dec 28 18:02	6° $\mathring{\text{Z}}$ 36'40	1°47'14	evening max el	3195 Nov 22 00:01	22° $\mathring{\text{X}}$ 42'20	23°32'34
minimum elong	3194 Dec 28 15:53	6° $\mathring{\text{Z}}$ 44'07	1°46'27	retrograde	3195 Dec 02 14:59	28° $\mathring{\text{X}}$ 59'12	
min. Earth dist.	3194 Dec 28 16:54	6° $\mathring{\text{Z}}$ 40'35	0.67915 AU	evening set	3195 Dec 07 14:56	26° $\mathring{\text{X}}$ 55'58	
morning rise	3195 Jan 02 23:06	0° $\mathring{\text{Z}}$ 23'45		asc. node	3195 Dec 10 02:57	24° $\mathring{\text{X}}$ 21'29	
	3195 Jan 03 11:01	30° $\mathring{\text{R}}$ 0		min. Earth dist.	3195 Dec 12 13:39	21° $\mathring{\text{X}}$ 10'17	0.67863 AU
direct	3195 Jan 07 15:46	28° $\mathring{\text{X}}$ 26'52		inferior conj	3195 Dec 13 01:34	20° $\mathring{\text{X}}$ 29'28	0°59'28
	3195 Jan 12 07:16	0° $\mathring{\text{Z}}$		minimum elong	3195 Dec 13 00:13	20° $\mathring{\text{X}}$ 34'05	0°58'55
morning max el	3195 Jan 17 04:17	4° $\mathring{\text{Z}}$ 03'34	22°22'39	morning rise	3195 Dec 18 09:40	14° $\mathring{\text{X}}$ 20'33	
greatest brilliancy	3195 Jan 21 17:43	9° $\mathring{\text{Z}}$ 09'07	-0.3m	direct	3195 Dec 22 12:00	12° $\mathring{\text{X}}$ 46'30	
desc. node	3195 Jan 29 18:39	19° $\mathring{\text{Z}}$ 42'19		morning max el	3195 Dec 30 21:05	17° $\mathring{\text{X}}$ 37'41	21°00'48
	3195 Feb 05 22:16	0° $\mathring{\text{W}}$		greatest brilliancy	3196 Jan 05 08:33	23° $\mathring{\text{X}}$ 56'52	-0.5m
morning set	3195 Feb 19 16:57	21° $\mathring{\text{W}}$ 23'59			3196 Jan 09 21:37	0° $\mathring{\text{Z}}$	
	3195 Feb 24 21:25	0° $\mathring{\text{X}}$		desc. node	3196 Jan 16 15:42	9° $\mathring{\text{Z}}$ 39'22	
max. Earth dist.	3195 Feb 24 22:55	0° $\mathring{\text{X}}$ 06'18	1.40682 AU	morning set	3196 Jan 30 01:23	0° $\mathring{\text{W}}$ 00'29	
					3196 Jan 30 01:15	0° $\mathring{\text{W}}$	
superior conj	3195 Mar 04 17:53	13° $\mathring{\text{X}}$ 40'53	-1°-59'-38	max. Earth dist.	3196 Feb 07 01:52	12° $\mathring{\text{W}}$ 48'47	1.42651 AU
minimum elong	3195 Mar 04 21:25	13° $\mathring{\text{X}}$ 56'47	1°59'27				
	3195 Mar 13 14:14	0° $\mathring{\text{Y}}$		superior conj	3196 Feb 14 03:37	24° $\mathring{\text{W}}$ 35'11	-2°-6'-37
evening rise	3195 Mar 14 22:55	2° $\mathring{\text{Y}}$ 33'32		minimum elong	3196 Feb 14 03:26	24° $\mathring{\text{W}}$ 34'26	2°06'37
asc. node	3195 Mar 21 05:14	14° $\mathring{\text{Y}}$ 05'42			3196 Feb 17 07:19	0° $\mathring{\text{X}}$	
evening max el	3195 Mar 31 02:48	28° $\mathring{\text{Y}}$ 23'32	18°19'35	evening rise	3196 Feb 25 19:45	15° $\mathring{\text{X}}$ 04'06	
	3195 Apr 01 23:44	0° $\mathring{\text{Z}}$			3196 Mar 05 07:49	0° $\mathring{\text{Y}}$	
retrograde	3195 Apr 07 08:19	1° $\mathring{\text{Z}}$ 59'18		asc. node	3196 Mar 07 02:17	2° $\mathring{\text{Y}}$ 51'57	
evening set	3195 Apr 09 17:53	1° $\mathring{\text{Z}}$ 36'28		evening max el	3196 Mar 13 13:48	11° $\mathring{\text{Y}}$ 24'41	18°07'14
	3195 Apr 13 00:27	30° $\mathring{\text{R}}$ 0		retrograde	3196 Mar 20 04:41	14° $\mathring{\text{Y}}$ 48'26	
inferior conj	3195 Apr 16 23:29	26° $\mathring{\text{Y}}$ 57'03	2°43'51	evening set	3196 Mar 22 20:00	14° $\mathring{\text{Y}}$ 16'04	
minimum elong	3195 Apr 17 03:08	26° $\mathring{\text{Y}}$ 49'18	2°42'59	inferior conj	3196 Mar 29 10:25	9° $\mathring{\text{Y}}$ 15'45	3°23'51
min. Earth dist.	3195 Apr 20 09:54	24° $\mathring{\text{Y}}$ 04'22	0.59072 AU	minimum elong	3196 Mar 29 12:38	9° $\mathring{\text{Y}}$ 10'21	3°23'33
morning rise	3195 Apr 24 08:22	21° $\mathring{\text{Y}}$ 21'48		min. Earth dist.	3196 Apr 01 13:59	6° $\mathring{\text{Y}}$ 12'50	0.61244 AU
desc. node	3195 Apr 27 17:50	19° $\mathring{\text{Y}}$ 58'36		morning rise	3196 Apr 05 02:16	3° $\mathring{\text{Y}}$ 21'08	
direct	3195 Apr 30 14:38	19° $\mathring{\text{Y}}$ 36'26		direct	3196 Apr 11 21:00	1° $\mathring{\text{Y}}$ 02'15	
morning max el	3195 May 14 23:46	27° $\mathring{\text{Y}}$ 22'48	27°13'20	desc. node	3196 Apr 13 14:52	1° $\mathring{\text{Y}}$ 10'56	
	3195 May 17 12:13	0° $\mathring{\text{Z}}$		morning max el	3196 Apr 26 02:12	8° $\mathring{\text{Y}}$ 58'31	27°47'46
	3195 Jun 06 18:08	0° $\mathring{\text{II}}$			3196 May 12 06:24	0° $\mathring{\text{Z}}$	
morning set	3195 Jun 14 16:15	15° $\mathring{\text{II}}$ 34'59		morning set	3196 May 28 21:05	0° $\mathring{\text{II}}$ 04'24	
asc. node	3195 Jun 17 04:32	20° $\mathring{\text{II}}$ 54'44			3196 May 28 20:14	0° $\mathring{\text{II}}$	
	3195 Jun 21 08:27	0° $\mathring{\text{Z}}$		asc. node	3196 Jun 03 01:34	11° $\mathring{\text{II}}$ 02'30	
				max. Earth dist.	3196 Jun 03 21:23	12° $\mathring{\text{II}}$ 50'01	1.32258 AU
superior conj	3195 Jun 21 19:18	0° $\mathring{\text{Z}}$ 59'47	0°46'57				
minimum elong	3195 Jun 21 17:25	0° $\mathring{\text{Z}}$ 49'23	0°46'35	superior conj	3196 Jun 05 06:02	15° $\mathring{\text{II}}$ 48'19	0°22'51
max. Earth dist.	3195 Jun 21 10:53	0° $\mathring{\text{Z}}$ 13'21	1.32088 AU	minimum elong	3196 Jun 05 05:00	15° $\mathring{\text{II}}$ 42'40	0°22'38
evening rise	3195 Jun 28 16:31	15° $\mathring{\text{Z}}$ 58'33			3196 Jun 11 18:27	0° $\mathring{\text{Z}}$	
	3195 Jul 05 16:30	0° $\mathring{\text{L}}$		evening rise	3196 Jun 12 03:40	0° $\mathring{\text{Z}}$ 49'06	
desc. node	3195 Jul 24 17:08	28° $\mathring{\text{L}}$ 30'51			3196 Jun 28 03:04	0° $\mathring{\text{L}}$	

evening max el	3196 Jul 08 04:44	12°♎19'38	24°55'05	behind sun begin	3197 May 20 08:57	29°♊57'31	
desc. node	3196 Jul 10 14:09	14°♎27'18		behind sun end	3197 May 20 19:15	0°♊53'01	
retrograde	3196 Jul 22 03:44	19°♎23'54		asc. node	3197 May 20 22:37	1°♊11'10	
evening set	3196 Jul 27 12:32	18°♎18'20		evening rise	3197 May 27 15:30	15°♊38'00	
min. Earth dist.	3196 Aug 01 16:14	15°♎32'25	0.57298 AU		3197 Jun 03 19:38	0°♊	
inferior conj	3196 Aug 04 14:50	13°♎35'30	-5°-5'-12	evening max el	3197 Jun 19 18:10	22°♊49'38	23°20'13
minimum elong	3196 Aug 04 13:51	13°♎37'09	5°05'11	desc. node	3197 Jun 27 11:09	28°♊18'26	
morning rise	3196 Aug 12 18:50	9°♎26'22		retrograde	3197 Jul 03 07:11	29°♊35'48	
direct	3196 Aug 15 08:38	9°♎07'21		evening set	3197 Jul 07 04:03	29°♊03'04	
morning max el	3196 Aug 24 09:56	13°♎22'00	19°12'30	min. Earth dist.	3197 Jul 14 03:56	25°♊50'49	0.55741 AU
asc. node	3196 Aug 30 00:48	20°♎09'17		inferior conj	3197 Jul 16 01:51	24°♊43'10	-4°-34'-18
	3196 Sep 04 22:31	0°♎		minimum elong	3197 Jul 15 19:16	24°♊52'55	4°33'10
morning set	3196 Sep 10 08:05	10°♎24'44		morning rise	3197 Jul 24 13:32	20°♊49'32	
				direct	3197 Jul 27 09:59	20°♊29'44	
superior conj	3196 Sep 18 14:01	26°♎44'46	1°40'44	morning max el	3197 Aug 06 23:42	25°♊23'58	20°21'49
minimum elong	3196 Sep 18 15:48	26°♎53'25	1°40'39		3197 Aug 11 03:47	0°♎	
	3196 Sep 20 06:35	0°♎		asc. node	3197 Aug 16 21:50	8°♎34'11	
max. Earth dist.	3196 Sep 25 03:04	9°♎03'03	1.38359 AU	morning set	3197 Aug 25 13:38	25°♎01'52	
evening rise	3196 Sep 28 23:07	15°♎52'43			3197 Aug 27 23:39	0°♎	
desc. node	3196 Oct 06 13:30	28°♎35'49					
	3196 Oct 07 10:33	0°♎		superior conj	3197 Sep 02 05:26	10°♎45'13	1°44'54
	3196 Oct 28 17:16	0°♎		minimum elong	3197 Sep 02 05:31	10°♎45'38	1°44'53
evening max el	3196 Nov 03 12:33	6°♎22'03	24°50'48	max. Earth dist.	3197 Sep 07 09:26	20°♎58'17	1.36407 AU
retrograde	3196 Nov 15 04:35	13°♎09'05		evening rise	3197 Sep 11 08:44	28°♎26'25	
evening set	3196 Nov 20 18:25	10°♎50'04			3197 Sep 12 05:14	0°♎	
min. Earth dist.	3196 Nov 25 08:54	5°♎38'28	0.67472 AU	desc. node	3197 Sep 23 10:31	19°♎00'45	
asc. node	3196 Nov 25 23:59	4°♎48'37			3197 Sep 30 17:48	0°♎	
inferior conj	3196 Nov 26 07:27	4°♎23'55	0°06'24	evening max el	3197 Oct 17 00:55	20°♎04'03	26°00'09
minimum elong	3196 Nov 26 07:17	4°♎24'27	0°06'20	retrograde	3197 Oct 29 13:16	27°♎10'25	
transit middle	3196 Nov 26 07:17	4°♎24'27	0°06'20	evening set	3197 Nov 04 17:13	24°♎38'10	
transit begin	3196 Nov 26 04:45	4°♎32'52		min. Earth dist.	3197 Nov 09 00:14	20°♎02'16	0.66743 AU
transit end	3196 Nov 26 09:50	4°♎16'04		inferior conj	3197 Nov 10 09:50	18°♎17'10	0°-50'-44
	3196 Nov 29 22:37	30°♎		minimum elong	3197 Nov 10 11:11	18°♎12'58	0°50'10
morning rise	3196 Dec 01 20:40	28°♎21'24		asc. node	3197 Nov 12 21:01	15°♎20'11	
direct	3196 Dec 05 10:14	27°♎08'11		morning rise	3197 Nov 16 06:08	12°♎23'48	
	3196 Dec 11 10:19	0°♎		direct	3197 Nov 19 08:52	11°♎28'12	
morning max el	3196 Dec 12 21:33	1°♎22'35	19°50'52	morning max el	3197 Nov 26 05:26	15°♎16'27	18°55'50
greatest brilliancy	3196 Dec 20 09:51	10°♎35'12	-0.6m		3197 Dec 07 06:20	0°♎	
desc. node	3197 Jan 02 12:44	29°♎55'47		morning set	3197 Dec 18 06:02	17°♎03'28	
	3197 Jan 02 13:50	0°♎		desc. node	3197 Dec 20 09:46	20°♎26'08	
morning set	3197 Jan 07 21:13	8°♎08'43			3197 Dec 26 12:20	0°♎	
max. Earth dist.	3197 Jan 19 12:16	26°♎20'55	1.44169 AU	max. Earth dist.	3198 Jan 02 04:49	10°♎29'19	1.45047 AU
	3197 Jan 21 19:06	0°♎					
superior conj	3197 Jan 24 11:22	4°♎19'08	-1°-57'-4	superior conj	3198 Jan 03 20:35	13°♎05'48	-1°-28'-11
minimum elong	3197 Jan 24 05:24	3°♎54'59	1°56'46	minimum elong	3198 Jan 03 11:28	12°♎29'55	1°27'16
evening rise	3197 Feb 06 21:51	26°♎42'40			3198 Jan 14 11:35	0°♎	
	3197 Feb 08 20:06	0°♎		evening rise	3198 Jan 19 01:37	7°♎24'43	
asc. node	3197 Feb 21 23:17	21°♎01'00			3198 Feb 02 06:02	0°♎	
evening max el	3197 Feb 25 02:29	24°♎41'11	18°14'04	evening max el	3198 Feb 08 14:09	8°♎06'39	18°39'12
retrograde	3197 Mar 03 12:58	28°♎06'57		asc. node	3198 Feb 08 20:18	8°♎22'06	
evening set	3197 Mar 06 09:48	27°♎23'47		retrograde	3198 Feb 15 05:00	11°♎46'50	
inferior conj	3197 Mar 12 12:49	22°♎03'27	3°38'50	evening set	3198 Feb 18 07:46	10°♎51'51	
minimum elong	3197 Mar 12 13:11	22°♎02'26	3°38'50	inferior conj	3198 Feb 24 02:45	5°♎13'04	3°35'08
min. Earth dist.	3197 Mar 15 02:51	19°♎13'47	0.63289 AU	minimum elong	3198 Feb 24 01:35	5°♎16'34	3°35'03
morning rise	3197 Mar 18 14:36	15°♎57'49		min. Earth dist.	3198 Feb 26 01:06	2°♎53'18	0.65020 AU
direct	3197 Mar 25 12:19	13°♎16'13			3198 Feb 28 16:36	30°♎	
desc. node	3197 Mar 31 11:53	14°♎59'05		morning rise	3198 Mar 01 18:11	29°♎01'26	
morning max el	3197 Apr 08 09:25	21°♎13'38	27°44'45	direct	3198 Mar 08 10:44	26°♎11'29	
	3197 Apr 16 00:17	0°♎			3198 Mar 17 07:55	0°♎	
	3197 May 05 08:31	0°♎		desc. node	3198 Mar 18 08:56	0°♎50'21	
morning set	3197 May 12 19:31	14°♎11'34		morning max el	3198 Mar 21 18:59	3°♎59'57	27°07'27
max. Earth dist.	3197 May 18 02:30	25°♎06'41	1.32846 AU		3198 Apr 10 11:12	0°♎	
	3197 May 20 09:24	0°♎		morning set	3198 Apr 26 08:31	27°♎46'48	
					3198 Apr 27 11:54	0°♎	
superior conj	3197 May 20 13:55	0°♎24'16	0°-3'-48	max. Earth dist.	3198 Apr 30 22:37	6°♎53'23	1.33889 AU
minimum elong	3197 May 20 14:06	0°♎25'15	0°03'47	superior conj	3198 May 04 16:52	14°♎40'30	0°-32'-5

minimum elong	3198 May 04 18:31	14°♄49'12	0°31'46	minimum elong	3199 Apr 18 15:40	28°♄46'38	1°00'08
asc. node	3198 May 07 19:37	21°♄15'57			3199 Apr 19 06:05	0°♄	
	3198 May 11 22:38	0°♄		asc. node	3199 Apr 24 16:39	11°♄13'14	
evening rise	3198 May 12 02:08	0°♄18'18		evening rise	3199 Apr 26 09:36	14°♄44'08	
	3198 May 29 09:29	0°♄			3199 May 04 07:03	0°♄	
evening max el	3198 Jun 01 11:37	3°♄21'08	21°45'29	evening max el	3199 May 14 15:28	14°♄22'25	20°23'08
retrograde	3198 Jun 13 23:07	9°♄30'15		retrograde	3199 May 25 12:29	19°♄40'13	
desc. node	3198 Jun 14 08:10	9°♄29'55		evening set	3199 May 27 13:00	19°♄30'00	
evening set	3198 Jun 16 13:39	9°♄14'59		desc. node	3199 Jun 01 05:10	17°♄57'46	
inferior conj	3198 Jun 25 22:11	5°♄13'00	-3°-13'-50	inferior conj	3199 Jun 05 16:37	15°♄31'58	-1°-19'00
minimum elong	3198 Jun 25 14:09	5°♄24'14	3°11'26	minimum elong	3199 Jun 05 12:53	15°♄37'25	1°17'38
min. Earth dist.	3198 Jun 25 14:51	5°♄23'16	0.54926 AU	min. Earth dist.	3199 Jun 07 03:09	14°♄41'35	0.55054 AU
morning rise	3198 Jul 04 15:52	1°♄20'20		morning rise	3199 Jun 14 11:01	11°♄19'42	
direct	3198 Jul 07 21:39	0°♄57'18		direct	3199 Jun 18 07:59	10°♄47'20	
morning max el	3198 Jul 20 01:46	6°♄40'19	21°50'38	morning max el	3199 Jul 01 19:07	17°♄20'02	23°31'52
asc. node	3198 Aug 03 18:53	27°♄34'05			3199 Jul 12 00:52	0°♄	
	3198 Aug 05 01:43	0°♄		asc. node	3199 Jul 21 15:56	17°♄00'05	
morning set	3198 Aug 09 23:03	9°♄50'21		morning set	3199 Jul 25 10:28	24°♄44'30	
					3199 Jul 27 21:42	0°♄	
superior conj	3198 Aug 17 05:48	25°♄12'02	1°41'41	superior conj	3199 Aug 01 12:09	9°♄56'07	1°32'24
minimum elong	3198 Aug 17 04:34	25°♄05'34	1°41'37	minimum elong	3199 Aug 01 10:06	9°♄45'04	1°32'12
	3198 Aug 19 13:13	0°♄		max. Earth dist.	3199 Aug 03 21:43	15°♄03'31	1.33473 AU
max. Earth dist.	3198 Aug 20 23:08	2°♄53'23	1.34748 AU	evening rise	3199 Aug 09 02:12	25°♄45'15	
evening rise	3198 Aug 25 11:11	11°♄47'46			3199 Aug 11 05:57	0°♄	
	3198 Sep 04 14:38	0°♄		desc. node	3199 Aug 28 04:31	28°♄47'05	
desc. node	3198 Sep 10 07:31	9°♄07'12			3199 Aug 29 00:39	0°♄	
	3198 Sep 25 23:59	0°♄		evening max el	3199 Sep 12 01:07	17°♄01'05	27°22'29
evening max el	3198 Sep 29 13:26	3°♄40'42	26°53'05	retrograde	3199 Sep 25 13:58	24°♄19'15	
retrograde	3198 Oct 12 16:31	10°♄56'31		evening set	3199 Oct 02 15:54	21°♄38'52	
evening set	3198 Oct 19 09:15	8°♄16'01		min. Earth dist.	3199 Oct 06 09:40	18°♄14'57	0.64226 AU
min. Earth dist.	3198 Oct 23 09:12	4°♄16'49	0.65663 AU	inferior conj	3199 Oct 08 19:38	15°♄42'00	-2°-50'-28
inferior conj	3198 Oct 25 06:42	2°♄04'54	-1°-50'-26	minimum elong	3199 Oct 09 00:18	15°♄29'42	2°48'50
minimum elong	3198 Oct 25 09:44	1°♄56'05	1°49'13	morning rise	3199 Oct 15 10:54	10°♄16'28	
	3198 Oct 27 02:57	30°♄		direct	3199 Oct 17 22:47	9°♄44'55	
asc. node	3198 Oct 30 18:04	26°♄48'48		asc. node	3199 Oct 17 15:08	9°♄45'26	
morning rise	3198 Oct 31 11:47	26°♄23'50		morning max el	3199 Oct 24 11:06	13°♄10'43	17°55'22
direct	3198 Nov 03 05:54	25°♄42'07			3199 Nov 05 02:59	0°♄	
morning max el	3198 Nov 09 18:52	29°♄14'36	18°17'06	morning set	3199 Nov 10 11:48	9°♄06'25	
	3198 Nov 10 12:19	0°♄			3199 Nov 23 00:25	0°♄	
morning set	3198 Nov 28 18:52	27°♄24'01					
	3198 Nov 30 09:19	0°♄		superior conj	3199 Nov 23 14:56	0°♄58'51	0°03'42
desc. node	3198 Dec 07 06:49	11°♄05'52		minimum elong	3199 Nov 23 15:21	1°♄00'32	0°03'38
				behind sun begin	3199 Nov 23 05:24	0°♄20'15	
superior conj	3198 Dec 13 22:46	21°♄39'44	0°-44'-10	behind sun end	3199 Nov 24 01:17	1°♄40'44	
minimum elong	3198 Dec 13 17:09	21°♄17'36	0°43'27	desc. node	3199 Nov 24 03:50	1°♄51'02	
max. Earth dist.	3198 Dec 16 00:17	24°♄54'29	1.45185 AU	max. Earth dist.	3199 Nov 28 18:50	9°♄15'17	1.44589 AU
	3198 Dec 19 06:13	0°♄		evening rise	3199 Dec 09 18:49	26°♄25'02	
evening rise	3198 Dec 30 06:32	17°♄13'07			3199 Dec 12 02:51	0°♄	
	3199 Jan 07 11:10	0°♄		greatest brilliancy	3199 Dec 30 19:02	27°♄30'42	-0.5m
greatest brilliancy	3199 Jan 14 01:34	10°♄02'26	-0.7m		3200 Jan 01 16:33	0°♄	
evening max el	3199 Jan 22 22:31	21°♄36'30	19°21'30	evening max el	3200 Jan 06 01:57	5°♄07'18	20°19'05
asc. node	3199 Jan 26 17:19	24°♄41'59		retrograde	3200 Jan 13 23:33	9°♄45'55	
retrograde	3199 Jan 30 01:29	25°♄41'43		asc. node	3200 Jan 13 14:23	9°♄45'07	
evening set	3199 Feb 02 11:08	24°♄33'58		evening set	3200 Jan 17 17:38	8°♄24'10	
inferior conj	3199 Feb 08 00:50	18°♄39'01	3°17'28	inferior conj	3200 Jan 23 04:19	2°♄15'58	2°49'01
minimum elong	3199 Feb 07 22:43	18°♄45'53	3°17'06	minimum elong	3200 Jan 23 01:48	2°♄24'31	2°48'22
min. Earth dist.	3199 Feb 09 08:04	16°♄57'52	0.66346 AU	min. Earth dist.	3200 Jan 23 21:56	1°♄16'14	0.67260 AU
morning rise	3199 Feb 13 09:31	12°♄24'17			3200 Jan 24 20:47	30°♄	
direct	3199 Feb 19 15:26	9°♄39'08		morning rise	3200 Jan 28 09:26	26°♄00'18	
morning max el	3199 Mar 04 04:42	17°♄06'23	26°03'16	direct	3200 Feb 03 01:37	23°♄29'38	
desc. node	3199 Mar 05 05:58	18°♄11'36			3200 Feb 14 04:47	0°♄	
	3199 Mar 14 23:01	0°♄		morning max el	3200 Feb 14 13:24	0°♄21'33	24°41'40
	3199 Apr 03 09:29	0°♄		desc. node	3200 Feb 20 03:01	6°♄36'16	
morning set	3199 Apr 09 08:17	10°♄39'23			3200 Mar 07 21:10	0°♄	
max. Earth dist.	3199 Apr 13 07:27	18°♄10'02	1.35392 AU	morning set	3200 Mar 21 13:32	22°♄34'08	
				max. Earth dist.	3200 Mar 25 06:01	29°♄11'34	1.37296 AU
superior conj	3199 Apr 18 12:30	28°♄30'32	-1°00'-40				

	3200 Mar 25 16:35	0°♿			3201 Feb 09 02:23	0°♿	
					3201 Feb 28 19:12	0°♿	
superior conj	3200 Mar 31 21:40	11°♿45'26	-1°-27'-40	morning set	3201 Mar 02 18:03	3°♿14'29	
minimum elong	3200 Apr 01 01:59	12°♿06'29	1°27'04	max. Earth dist.	3201 Mar 07 00:42	10°♿32'00	1.39444 AU
evening rise	3200 Apr 09 11:31	28°♿47'58					
	3200 Apr 10 01:59	0°♿		superior conj	3201 Mar 14 16:21	24°♿15'17	-1°-50'-12
asc. node	3200 Apr 10 13:41	0°♿58'04		minimum elong	3201 Mar 14 20:45	24°♿35'39	1°49'49
evening max el	3200 Apr 26 07:25	26°♿04'43	19°19'19		3201 Mar 17 18:03	0°♿	
	3200 May 02 06:53	0°♿		evening rise	3201 Mar 24 05:01	12°♿22'18	
retrograde	3200 May 05 11:32	0°♿31'47		asc. node	3201 Mar 28 10:44	20°♿25'20	
evening set	3200 May 07 12:04	0°♿19'45			3201 Apr 02 22:34	0°♿	
	3200 May 08 19:14	30°♿		evening max el	3201 Apr 09 09:27	8°♿25'01	18°35'38
inferior conj	3200 May 15 23:25	26°♿11'30	0°36'41	retrograde	3201 Apr 17 04:24	12°♿14'20	
minimum elong	3200 May 16 00:56	26°♿09'00	0°36'09	evening set	3201 Apr 19 10:35	11°♿56'10	
desc. node	3200 May 18 02:11	24°♿47'37		inferior conj	3201 Apr 27 02:34	7°♿29'12	2°06'56
min. Earth dist.	3200 May 18 17:55	24°♿22'13	0.56112 AU	minimum elong	3201 Apr 27 06:19	7°♿21'57	2°05'50
morning rise	3200 May 24 09:44	21°♿25'31		min. Earth dist.	3201 Apr 30 11:59	4°♿53'29	0.57878 AU
direct	3200 May 29 05:16	20°♿32'23		morning rise	3201 May 04 21:38	2°♿09'49	
morning max el	3200 Jun 12 09:20	27°♿44'53	25°12'40	desc. node	3201 May 04 23:14	2°♿07'55	
	3200 Jun 14 14:32	0°♿		direct	3201 May 10 17:02	0°♿44'44	
	3200 Jul 04 04:43	0°♿		morning max el	3201 May 25 02:02	8°♿22'00	26°37'21
asc. node	3200 Jul 07 13:00	6°♿45'04			3201 Jun 10 09:10	0°♿	
morning set	3200 Jul 08 22:15	9°♿39'14		morning set	3201 Jun 23 08:42	24°♿28'44	
				asc. node	3201 Jun 24 10:01	26°♿42'46	
superior conj	3200 Jul 15 22:10	24°♿50'00	1°18'02		3201 Jun 25 22:45	0°♿	
minimum elong	3200 Jul 15 19:48	24°♿37'04	1°17'42				
max. Earth dist.	3200 Jul 17 03:55	27°♿32'25	1.32613 AU	superior conj	3201 Jun 30 09:48	9°♿46'29	0°59'23
	3200 Jul 18 07:07	0°♿		minimum elong	3201 Jun 30 07:37	9°♿34'25	0°59'00
evening rise	3200 Jul 23 02:14	10°♿08'46		max. Earth dist.	3201 Jun 30 14:47	10°♿13'56	1.32164 AU
	3200 Aug 02 13:09	0°♿		evening rise	3201 Jul 07 08:23	24°♿48'55	
desc. node	3200 Aug 14 01:31	17°♿49'28			3201 Jul 09 20:42	0°♿	
evening max el	3200 Aug 24 10:12	29°♿53'25	27°22'19		3201 Jul 27 08:29	0°♿	
	3200 Aug 24 13:00	0°♿		desc. node	3201 Jul 31 22:33	5°♿58'13	
retrograde	3200 Sep 07 05:11	7°♿09'22		evening max el	3201 Aug 06 14:08	12°♿04'50	26°48'58
evening set	3200 Sep 14 09:46	4°♿40'54		retrograde	3201 Aug 20 12:34	19°♿16'40	
min. Earth dist.	3200 Sep 18 00:10	1°♿46'15	0.62461 AU	evening set	3201 Aug 27 10:20	17°♿13'18	
	3200 Sep 19 21:31	30°♿		min. Earth dist.	3201 Aug 31 04:14	14°♿35'58	0.60463 AU
inferior conj	3200 Sep 20 21:50	29°♿02'07	-3°-47'-14	inferior conj	3201 Sep 03 09:50	11°♿55'35	-4°-34'-43
minimum elong	3200 Sep 21 03:30	28°♿48'45	3°45'40	minimum elong	3201 Sep 03 14:59	11°♿44'54	4°33'49
morning rise	3200 Sep 28 00:01	23°♿55'18		morning rise	3201 Sep 10 22:52	7°♿10'21	
direct	3200 Sep 30 08:29	23°♿30'27		direct	3201 Sep 13 07:04	6°♿49'18	
asc. node	3200 Oct 03 12:12	24°♿16'26		asc. node	3201 Sep 20 09:16	10°♿11'19	
morning max el	3200 Oct 07 03:10	26°♿57'56	17°51'32	morning max el	3201 Sep 20 15:47	10°♿26'50	18°06'42
	3200 Oct 09 19:08	0°♿			3201 Oct 03 12:19	0°♿	
morning set	3200 Oct 23 03:01	21°♿53'10		morning set	3201 Oct 06 10:17	5°♿25'19	
	3200 Oct 27 16:29	0°♿					
superior conj	3200 Nov 03 08:55	11°♿34'49	0°45'02	superior conj	3201 Oct 16 04:48	23°♿25'59	1°15'22
minimum elong	3200 Nov 03 12:47	11°♿51'12	0°44'30	minimum elong	3201 Oct 16 08:58	23°♿44'35	1°14'54
desc. node	3200 Nov 10 00:52	22°♿38'48			3201 Oct 19 22:13	0°♿	
max. Earth dist.	3200 Nov 10 09:56	23°♿15'36	1.43340 AU	max. Earth dist.	3201 Oct 23 20:11	6°♿41'13	1.41591 AU
	3200 Nov 14 14:51	0°♿		desc. node	3201 Oct 27 21:54	13°♿25'07	
evening rise	3200 Nov 18 05:06	5°♿38'23		evening rise	3201 Oct 29 05:13	15°♿31'53	
	3200 Dec 04 11:42	0°♿			3201 Nov 07 12:11	0°♿	
greatest brilliancy	3200 Dec 14 01:04	12°♿58'43	-0.4m	greatest brilliancy	3201 Nov 26 15:42	26°♿34'44	-0.3m
evening max el	3200 Dec 18 23:54	18°♿39'42	21°28'52		3201 Nov 29 14:15	0°♿	
retrograde	3200 Dec 27 21:06	23°♿56'24		evening max el	3201 Dec 01 16:54	2°♿14'13	22°46'33
asc. node	3200 Dec 30 11:26	23°♿19'30		retrograde	3201 Dec 11 16:23	8°♿09'35	
evening set	3201 Jan 01 01:24	22°♿19'21		evening set	3201 Dec 16 08:45	6°♿16'05	
inferior conj	3201 Jan 06 10:55	16°♿01'11	2°11'56	asc. node	3201 Dec 17 08:29	5°♿22'21	
minimum elong	3201 Jan 06 08:30	16°♿09'34	2°11'08	inferior conj	3201 Dec 21 18:37	29°♿51'40	1°27'43
min. Earth dist.	3201 Jan 06 16:22	15°♿42'16	0.67786 AU	minimum elong	3201 Dec 21 16:46	29°♿58'06	1°26'59
morning rise	3201 Jan 11 15:16	9°♿46'33		min. Earth dist.	3201 Dec 21 12:55	0°♿11'23	0.67941 AU
direct	3201 Jan 16 16:35	7°♿36'20			3201 Dec 21 16:13	30°♿	
morning max el	3201 Jan 26 22:26	13°♿41'37	23°12'56	morning rise	3201 Dec 27 00:42	23°♿40'07	
greatest brilliancy	3201 Feb 01 00:55	19°♿24'58	-0.2m	direct	3201 Dec 31 11:15	21°♿52'48	
desc. node	3201 Feb 06 00:05	25°♿46'25		morning max el	3202 Jan 09 11:19	27°♿09'01	21°46'33
					3202 Jan 12 02:41	0°♿	

greatest brilliancy	3202 Jan 14 06:18	2°☿33'22	-0.4m	greatest brilliancy	3202 Dec 29 11:45	18°♄05'29	-0.5m
desc. node	3202 Jan 23 21:08	15°☿29'06			3203 Jan 06 23:36	0°☿	
	3202 Feb 02 16:49	0°♊		desc. node	3203 Jan 10 18:10	5°☿35'07	
morning set	3202 Feb 10 17:34	12°♊31'40		morning set	3203 Jan 20 17:53	20°☿47'48	
max. Earth dist.	3202 Feb 16 23:40	22°♊42'58	1.41565 AU		3203 Jan 26 14:48	0°♊	
	3202 Feb 21 07:16	0°♋		max. Earth dist.	3203 Jan 30 06:31	5°♊50'31	1.43369 AU
superior conj	3202 Feb 24 15:40	5°♋48'21	-2°-4'-17	superior conj	3203 Feb 05 14:34	16°♊12'55	-2°-4'-51
minimum elong	3202 Feb 24 17:59	5°♋58'33	2°04'14	minimum elong	3203 Feb 05 12:01	16°♊02'17	2°04'49
evening rise	3202 Mar 07 10:34	25°♋18'54			3203 Feb 13 17:13	0°♋	
	3202 Mar 09 23:44	0°♌		evening rise	3203 Feb 18 00:00	7°♋28'38	
asc. node	3202 Mar 15 07:46	9°♌28'54		asc. node	3203 Mar 02 04:48	28°♋00'34	
evening max el	3202 Mar 23 18:11	21°♌14'24	18°11'59		3203 Mar 03 14:19	0°♌	
retrograde	3202 Mar 30 15:53	24°♌42'50		evening max el	3203 Mar 07 06:14	4°♌22'51	18°07'47
evening set	3202 Apr 02 04:07	24°♌15'58		retrograde	3203 Mar 13 18:02	7°♌45'57	
inferior conj	3202 Apr 09 02:46	19°♌27'32	3°04'18	evening set	3203 Mar 16 11:43	7°♌09'01	
minimum elong	3202 Apr 09 05:57	19°♌20'23	3°03'41	inferior conj	3203 Mar 22 20:48	1°♌59'40	3°32'51
min. Earth dist.	3202 Apr 12 11:26	16°♌27'37	0.59999 AU	minimum elong	3203 Mar 22 22:13	1°♌56'00	3°32'44
morning rise	3202 Apr 16 04:13	13°♌43'13			3203 Mar 24 19:07	30°♌	
desc. node	3202 Apr 21 20:16	11°♌44'55		min. Earth dist.	3203 Mar 25 18:57	29°♌00'11	0.62143 AU
direct	3202 Apr 22 17:09	11°♌42'49		morning rise	3203 Mar 29 06:14	25°♌59'33	
morning max el	3202 May 07 00:41	19°♌33'33	27°32'34	direct	3203 Apr 05 03:12	23°♌29'46	
	3202 May 15 21:51	0°♍		desc. node	3203 Apr 08 17:19	24°♌06'41	
	3202 Jun 03 03:13	0°♎			3203 Apr 17 17:17	0°♌	
morning set	3202 Jun 07 16:10	9°♎07'37		morning max el	3203 Apr 19 05:32	1°♌27'00	27°51'05
asc. node	3202 Jun 11 07:03	16°♎48'24			3203 May 10 03:02	0°♍	
max. Earth dist.	3202 Jun 14 02:42	22°♎57'12	1.32114 AU	morning set	3203 May 22 18:35	23°♍28'23	
					3203 May 25 22:10	0°♎	
superior conj	3202 Jun 14 21:22	24°♎39'53	0°37'06	max. Earth dist.	3203 May 28 11:36	5°♎27'48	1.32461 AU
minimum elong	3202 Jun 14 19:48	24°♎31'14	0°36'47	asc. node	3203 May 29 04:05	6°♎56'46	
	3202 Jun 17 07:33	0°☿					
evening rise	3202 Jun 21 18:19	9°☿38'10		superior conj	3203 May 30 07:05	9°♎23'22	0°11'49
	3202 Jul 02 05:45	0°♏		minimum elong	3203 May 30 06:31	9°♎20'21	0°11'42
desc. node	3202 Jul 18 19:33	22°♏51'22		behind sun begin	3203 May 30 03:00	9°♎01'12	
evening max el	3202 Jul 19 10:48	23°♏28'23	25°43'47	behind sun end	3203 May 30 10:03	9°♎39'31	
	3202 Jul 29 13:00	0°♐		evening rise	3203 Jun 06 05:59	24°♎28'39	
retrograde	3202 Aug 02 10:24	0°♐35'53			3203 Jun 08 21:26	0°☿	
	3202 Aug 06 07:17	30°♐			3203 Jun 27 04:04	0°♏	
evening set	3202 Aug 08 12:45	29°♏08'04		evening max el	3203 Jul 01 01:05	4°♏09'56	24°15'32
min. Earth dist.	3202 Aug 12 22:59	26°♏30'51	0.58410 AU	desc. node	3203 Jul 05 16:33	7°♏58'40	
inferior conj	3202 Aug 16 04:05	24°♏12'45	-5°-3'-2	retrograde	3203 Jul 14 21:04	11°♏08'35	
minimum elong	3202 Aug 16 06:08	24°♏09'03	5°02'56	evening set	3203 Jul 19 15:15	10°♏18'11	
morning rise	3202 Aug 24 03:01	19°♏50'54		min. Earth dist.	3203 Jul 25 11:47	7°♏22'51	0.56568 AU
direct	3202 Aug 26 14:15	19°♏31'26		inferior conj	3203 Jul 28 02:10	5°♏45'15	-4°-57'-59
morning max el	3202 Sep 03 21:42	23°♏28'47	18°42'19	minimum elong	3203 Jul 27 22:39	5°♏50'47	4°57'42
asc. node	3202 Sep 07 06:18	27°♏15'34		morning rise	3203 Aug 05 09:38	1°♏44'21	
	3202 Sep 09 05:51	0°♑		direct	3203 Aug 08 02:11	1°♏25'08	
morning set	3202 Sep 20 04:49	19°♑29'44		morning max el	3203 Aug 17 17:59	5°♏54'34	19°39'29
	3202 Sep 25 14:19	0°♒		asc. node	3203 Aug 25 03:19	15°♏14'19	
					3203 Sep 02 07:38	0°♑	
superior conj	3202 Sep 28 21:44	6°♒19'03	1°34'24	morning set	3203 Sep 04 07:05	3°♑56'42	
minimum elong	3202 Sep 29 00:32	6°♒32'16	1°34'11				
max. Earth dist.	3202 Oct 06 01:55	19°♒24'25	1.39559 AU	superior conj	3203 Sep 12 06:17	19°♑58'45	1°43'30
evening rise	3202 Oct 10 03:53	26°♒27'16		minimum elong	3203 Sep 12 07:19	20°♑03'51	1°43'28
	3202 Oct 12 06:43	0°♓			3203 Sep 17 10:55	0°♒	
desc. node	3202 Oct 14 18:55	4°♓06'24		max. Earth dist.	3203 Sep 18 06:17	1°♒30'33	1.37498 AU
	3202 Nov 01 03:44	0°♄		evening rise	3203 Sep 22 01:39	8°♒26'54	
evening max el	3202 Nov 14 06:29	15°♄51'52	24°06'26	desc. node	3203 Oct 01 15:55	24°♒38'33	
retrograde	3202 Nov 25 08:14	22°♄21'59			3203 Oct 05 02:02	0°♓	
evening set	3202 Nov 30 14:07	20°♄11'48		evening max el	3203 Oct 27 18:39	29°♓32'28	25°21'48
asc. node	3202 Dec 04 05:31	16°♄12'22			3203 Oct 28 06:01	0°♄	
min. Earth dist.	3202 Dec 05 09:13	14°♄40'38	0.67744 AU	retrograde	3203 Nov 08 19:50	6°♄29'14	
inferior conj	3202 Dec 06 01:39	13°♄45'08	0°37'32	evening set	3203 Nov 14 15:51	4°♄03'49	
minimum elong	3202 Dec 06 00:46	13°♄48'07	0°37'10		3203 Nov 18 10:27	30°♓	
morning rise	3202 Dec 11 11:41	7°♄38'50		min. Earth dist.	3203 Nov 19 02:59	29°♓07'31	0.67202 AU
direct	3202 Dec 15 08:28	6°♄13'54		inferior conj	3203 Nov 20 06:15	27°♓39'16	0°-17'-25
morning max el	3202 Dec 23 07:16	10°♄47'35	20°29'24	minimum elong	3203 Nov 20 06:42	27°♓37'50	0°17'14

asc. node	3203 Nov 21 02:32	26° \mathbb{M} 34'08		minimum elong	3204 Nov 03 08:36	11° \mathbb{M} 24'08	1°15'02
morning rise	3203 Nov 25 22:17	21° \mathbb{M} 40'35		asc. node	3204 Nov 06 23:35	7° \mathbb{M} 23'56	
direct	3203 Nov 29 06:57	20° \mathbb{M} 35'27		morning rise	3204 Nov 09 06:24	5° \mathbb{M} 41'55	
morning max el	3203 Dec 06 11:11	24° \mathbb{M} 37'21	19°25'39	direct	3204 Nov 12 05:03	4° \mathbb{M} 52'52	
	3203 Dec 11 01:35	0° \mathbb{A}		morning max el	3204 Nov 18 21:44	8° \mathbb{M} 33'38	18°37'21
greatest brilliancy	3203 Dec 15 08:56	5° \mathbb{A} 55'57	-0.7m		3204 Dec 04 01:56	0° \mathbb{A}	
desc. node	3203 Dec 28 15:12	25° \mathbb{A} 58'04		morning set	3204 Dec 09 12:13	8° \mathbb{A} 36'54	
morning set	3203 Dec 30 16:25	29° \mathbb{A} 08'20		desc. node	3204 Dec 14 12:12	16° \mathbb{A} 32'25	
	3203 Dec 31 05:46	0° \mathbb{B}			3204 Dec 23 01:22	0° \mathbb{B}	
max. Earth dist.	3204 Jan 12 20:06	19° \mathbb{B} 41'18	1.44623 AU				
				superior conj	3204 Dec 25 15:21	4° \mathbb{B} 03'11	-1°-10'-48
superior conj	3204 Jan 16 11:41	25° \mathbb{B} 29'11	-1°-47'-9	minimum elong	3204 Dec 25 06:59	3° \mathbb{B} 30'21	1°09'50
minimum elong	3204 Jan 16 03:41	24° \mathbb{B} 57'16	1°46'33	max. Earth dist.	3204 Dec 25 13:39	3° \mathbb{B} 56'32	1.45191 AU
	3204 Jan 19 07:13	0° \mathbb{C}		evening rise	3205 Jan 10 10:48	29° \mathbb{B} 01'41	
evening rise	3204 Jan 30 17:04	18° \mathbb{C} 44'12			3205 Jan 11 01:25	0° \mathbb{C}	
	3204 Feb 06 11:09	0° \mathbb{H}			3205 Jan 31 02:46	0° \mathbb{H}	
asc. node	3204 Feb 17 01:49	15° \mathbb{H} 50'54		evening max el	3205 Feb 01 05:14	1° \mathbb{H} 11'11	18°55'12
evening max el	3204 Feb 18 18:44	17° \mathbb{H} 43'43	18°22'28	asc. node	3205 Feb 02 22:52	2° \mathbb{H} 47'35	
retrograde	3204 Feb 25 06:14	21° \mathbb{H} 14'34		retrograde	3205 Feb 08 00:31	5° \mathbb{H} 01'02	
evening set	3204 Feb 28 05:23	20° \mathbb{H} 26'37		evening set	3205 Feb 11 05:58	4° \mathbb{H} 00'57	
inferior conj	3204 Mar 05 04:37	14° \mathbb{H} 58'04	3°39'13		3205 Feb 15 12:12	30° \mathbb{R}	
minimum elong	3204 Mar 05 04:16	14° \mathbb{H} 59'03	3°39'13	inferior conj	3205 Feb 16 22:25	28° \mathbb{C} 15'11	3°29'08
min. Earth dist.	3204 Mar 07 12:00	12° \mathbb{H} 19'29	0.64068 AU	minimum elong	3205 Feb 16 20:47	28° \mathbb{C} 20'18	3°28'56
morning rise	3204 Mar 11 01:30	8° \mathbb{H} 49'04		min. Earth dist.	3205 Feb 18 14:18	26° \mathbb{C} 10'48	0.65634 AU
direct	3204 Mar 17 21:42	6° \mathbb{H} 02'15		morning rise	3205 Feb 22 10:32	22° \mathbb{C} 01'47	
desc. node	3204 Mar 25 14:22	8° \mathbb{H} 51'35		direct	3205 Feb 28 23:08	19° \mathbb{C} 12'05	
morning max el	3204 Mar 31 14:22	13° \mathbb{H} 57'52	27°32'42	desc. node	3205 Mar 12 11:24	25° \mathbb{C} 24'24	
	3204 Apr 13 13:45	0° \mathbb{Y}		morning max el	3205 Mar 14 00:13	26° \mathbb{C} 53'59	26°42'50
	3204 May 01 17:20	0° \mathbb{B}			3205 Mar 16 21:52	0° \mathbb{H}	
morning set	3204 May 05 13:25	7° \mathbb{B} 23'13			3205 Apr 07 04:49	0° \mathbb{Y}	
max. Earth dist.	3204 May 10 13:22	17° \mathbb{B} 32'36	1.33235 AU	morning set	3205 Apr 18 21:25	20° \mathbb{Y} 42'19	
				max. Earth dist.	3205 Apr 23 04:34	29° \mathbb{Y} 04'35	1.34468 AU
superior conj	3204 May 13 13:07	23° \mathbb{B} 51'21	0°-15'-40		3205 Apr 23 15:39	0° \mathbb{B}	
minimum elong	3204 May 13 13:54	23° \mathbb{B} 55'33	0°15'31				
behind sun begin	3204 May 13 12:39	23° \mathbb{B} 48'52		superior conj	3205 Apr 27 13:20	7° \mathbb{B} 57'42	0°-44'-16
behind sun end	3204 May 13 15:09	24° \mathbb{B} 02'15		minimum elong	3205 Apr 27 15:39	8° \mathbb{B} 09'40	0°43'50
asc. node	3204 May 15 01:06	27° \mathbb{B} 04'00		asc. node	3205 May 01 22:09	17° \mathbb{B} 06'17	
	3204 May 16 09:51	0° \mathbb{I}		evening rise	3205 May 05 03:05	23° \mathbb{B} 49'11	
evening rise	3204 May 20 17:31	9° \mathbb{I} 14'12			3205 May 08 03:42	0° \mathbb{I}	
	3204 May 31 13:59	0° \mathbb{E}		evening max el	3205 May 24 12:36	25° \mathbb{I} 18'16	21°08'32
evening max el	3204 Jun 11 15:02	14° \mathbb{E} 35'29	22°38'55		3205 May 31 04:31	0° \mathbb{E}	
desc. node	3204 Jun 21 13:34	20° \mathbb{E} 44'49		retrograde	3205 Jun 05 09:02	1° \mathbb{E} 06'17	
retrograde	3204 Jun 24 19:34	21° \mathbb{E} 09'03		evening set	3205 Jun 07 15:13	0° \mathbb{E} 54'26	
evening set	3204 Jun 28 01:45	20° \mathbb{E} 45'43		desc. node	3205 Jun 08 10:35	0° \mathbb{E} 44'42	
min. Earth dist.	3204 Jul 05 22:56	17° \mathbb{E} 18'10	0.55284 AU		3205 Jun 10 20:41	30° \mathbb{R}	
inferior conj	3204 Jul 07 05:46	16° \mathbb{E} 34'09	-4°-5'-55	inferior conj	3205 Jun 16 23:38	26° \mathbb{I} 56'29	-2°-27'-36
minimum elong	3204 Jul 06 21:47	16° \mathbb{E} 45'34	4°04'05	minimum elong	3205 Jun 16 16:55	27° \mathbb{I} 05'57	2°25'20
morning rise	3204 Jul 15 20:22	12° \mathbb{E} 43'17		min. Earth dist.	3205 Jun 17 10:45	26° \mathbb{I} 40'49	0.54857 AU
direct	3204 Jul 18 20:00	12° \mathbb{E} 22'46		morning rise	3205 Jun 25 18:27	22° \mathbb{I} 57'27	
morning max el	3204 Jul 30 02:45	17° \mathbb{E} 37'07	20°57'37	direct	3205 Jun 29 05:44	22° \mathbb{I} 31'26	
	3204 Aug 08 17:09	0° \mathbb{Q}		morning max el	3205 Jul 12 00:41	28° \mathbb{I} 36'57	22°32'44
asc. node	3204 Aug 11 00:21	3° \mathbb{Q} 54'53			3205 Jul 13 10:37	0° \mathbb{E}	
morning set	3204 Aug 18 14:29	18° \mathbb{Q} 38'49		asc. node	3205 Jul 28 21:24	23° \mathbb{E} 07'09	
	3204 Aug 24 01:18	0° \mathbb{M}			3205 Aug 01 08:23	0° \mathbb{Q}	
				morning set	3205 Aug 03 01:01	3° \mathbb{Q} 30'41	
superior conj	3204 Aug 26 01:54	4° \mathbb{M} 11'29	1°44'21				
minimum elong	3204 Aug 26 01:22	4° \mathbb{M} 08'45	1°44'20	superior conj	3205 Aug 10 05:12	18° \mathbb{Q} 47'12	1°38'25
max. Earth dist.	3204 Aug 30 14:53	13° \mathbb{M} 20'56	1.35649 AU	minimum elong	3205 Aug 10 03:33	18° \mathbb{Q} 38'28	1°38'18
evening rise	3204 Sep 03 18:56	21° \mathbb{M} 21'55		max. Earth dist.	3205 Aug 13 08:16	25° \mathbb{Q} 21'04	1.34155 AU
	3204 Sep 08 12:57	0° \mathbb{L}			3205 Aug 15 14:48	0° \mathbb{M}	
desc. node	3204 Sep 17 12:54	14° \mathbb{L} 56'05		evening rise	3205 Aug 18 03:19	5° \mathbb{M} 00'52	
	3204 Sep 27 22:49	0° \mathbb{M}			3205 Sep 01 06:13	0° \mathbb{L}	
evening max el	3204 Oct 09 06:51	13° \mathbb{M} 12'15	26°25'10	desc. node	3205 Sep 04 09:55	4° \mathbb{L} 52'31	
retrograde	3204 Oct 22 02:28	20° \mathbb{M} 24'45		evening max el	3205 Sep 21 19:22	26° \mathbb{L} 44'07	27°08'56
evening set	3204 Oct 28 12:04	17° \mathbb{M} 48'01			3205 Sep 25 14:07	0° \mathbb{M}	
min. Earth dist.	3204 Nov 01 15:55	13° \mathbb{M} 27'43	0.66318 AU	retrograde	3205 Oct 05 03:28	4° \mathbb{M} 01'49	
inferior conj	3204 Nov 03 06:33	11° \mathbb{M} 30'22	-1°-15'-53	evening set	3205 Oct 12 00:29	1° \mathbb{M} 20'27	

	3205 Oct 13 13:40	30° $\text{R}\Omega$		min. Earth dist.	3206 Sep 28 18:08	11° Ω 24'10	0.63518 AU
min. Earth dist.	3205 Oct 15 21:42	27° Ω 36'18	0.65091 AU	inferior conj	3206 Oct 01 09:09	8° Ω 45'23	-3°-15'-12
inferior conj	3205 Oct 18 00:23	25° Ω 14'38	-2°-16'-2	minimum elong	3206 Oct 01 14:21	8° Ω 32'16	3°13'32
minimum elong	3205 Oct 18 04:09	25° Ω 04'07	2°14'36	morning rise	3206 Oct 08 04:59	3° Ω 27'06	
morning rise	3205 Oct 24 09:39	19° Ω 39'28		direct	3206 Oct 10 15:09	2° Ω 58'39	
asc. node	3205 Oct 24 20:38	19° Ω 27'49		asc. node	3206 Oct 11 17:41	3° Ω 04'41	
direct	3205 Oct 27 00:45	19° Ω 02'33		morning max el	3206 Oct 17 05:09	6° Ω 24'02	17°51'27
morning max el	3205 Nov 02 12:40	22° Ω 31'26	18°05'39		3206 Nov 01 16:22	0° M	
	3205 Nov 08 10:06	0° M		morning set	3206 Nov 02 16:48	1° M 46'08	
morning set	3205 Nov 20 13:33	19° M 33'56					
	3205 Nov 26 21:49	0° J		superior conj	3206 Nov 14 23:36	22° M 39'14	0°22'25
desc. node	3205 Dec 01 09:14	7° J 14'31		minimum elong	3206 Nov 15 01:55	22° M 48'49	0°22'06
				desc. node	3206 Nov 18 06:16	28° M 00'54	
superior conj	3205 Dec 04 21:09	12° J 49'46	0°-23'-37		3206 Nov 19 11:44	0° J	
minimum elong	3205 Dec 04 18:11	12° J 37'58	0°23'14	max. Earth dist.	3206 Nov 21 02:40	2° J 36'20	1.44136 AU
max. Earth dist.	3205 Dec 08 08:49	18° J 20'42	1.45022 AU	evening rise	3206 Nov 30 16:39	17° J 37'56	
	3205 Dec 15 19:38	0° C			3206 Dec 08 19:54	0° C	
evening rise	3205 Dec 21 07:15	8° C 30'27		greatest brilliancy	3206 Dec 23 22:48	21° C 37'29	-0.5m
	3206 Jan 04 08:45	0° \approx		evening max el	3206 Dec 29 12:55	28° C 13'16	20°47'32
greatest brilliancy	3206 Jan 07 23:02	5° \approx 13'15	-0.6m		3206 Dec 31 09:43	0° \approx	
evening max el	3206 Jan 15 11:44	14° \approx 41'41	19°44'22	retrograde	3207 Jan 06 19:50	3° \approx 07'15	
asc. node	3206 Jan 20 19:55	18° \approx 36'24		asc. node	3207 Jan 07 16:58	3° \approx 02'58	
retrograde	3206 Jan 22 21:50	18° \approx 59'54		evening set	3207 Jan 10 18:09	1° \approx 38'56	
evening set	3206 Jan 26 10:54	17° \approx 46'24			3207 Jan 12 13:24	30° RC	
inferior conj	3206 Jan 31 23:06	11° \approx 45'43	3°06'34	inferior conj	3207 Jan 16 04:08	25° C 26'07	2°34'15
minimum elong	3206 Jan 31 20:45	11° \approx 53'31	3°06'04	minimum elong	3207 Jan 16 01:36	25° C 34'50	2°33'30
min. Earth dist.	3206 Feb 02 00:25	10° \approx 21'56	0.66789 AU	min. Earth dist.	3207 Jan 16 16:22	24° C 44'11	0.67532 AU
morning rise	3206 Feb 06 05:54	5° \approx 30'30		morning rise	3207 Jan 21 08:38	19° C 10'58	
direct	3206 Feb 12 06:23	2° \approx 50'18		direct	3207 Jan 26 18:36	16° C 48'36	
morning max el	3206 Feb 24 09:15	10° \approx 03'49	25°30'01	morning max el	3207 Feb 06 17:45	23° C 20'53	24°04'18
desc. node	3206 Feb 27 08:27	13° \approx 14'45			3207 Feb 12 15:02	0° \approx	
	3206 Mar 12 04:31	0° H		desc. node	3207 Feb 14 05:30	2° \approx 00'23	
	3206 Mar 30 19:19	0° Y			3207 Mar 05 13:51	0° H	
morning set	3206 Apr 01 14:01	3° Y 11'57		morning set	3207 Mar 14 09:30	14° H 36'47	
max. Earth dist.	3206 Apr 05 08:22	10° Y 10'27	1.36158 AU	max. Earth dist.	3207 Mar 18 04:44	21° H 17'25	1.38196 AU
					3207 Mar 22 23:04	0° Y	
superior conj	3206 Apr 11 05:00	21° Y 34'07	-1°-12'-28				
minimum elong	3206 Apr 11 08:44	21° Y 52'46	1°11'51	superior conj	3207 Mar 25 08:36	4° Y 31'24	-1°-37'-58
	3206 Apr 15 09:08	0° B		minimum elong	3207 Mar 25 13:08	4° Y 53'05	1°37'26
asc. node	3206 Apr 18 19:13	6° B 58'49		evening rise	3207 Apr 03 07:17	21° Y 59'02	
evening rise	3206 Apr 19 08:31	8° B 06'26		asc. node	3207 Apr 05 16:17	26° Y 37'06	
	3206 May 01 11:10	0° I			3207 Apr 07 10:44	0° B	
evening max el	3206 May 06 21:49	6° I 37'09	19°53'37	evening max el	3207 Apr 19 18:23	18° B 36'14	18°58'13
retrograde	3206 May 17 00:39	11° I 31'50		retrograde	3207 Apr 28 07:00	22° B 45'30	
evening set	3206 May 19 00:13	11° I 21'22		evening set	3207 Apr 30 09:45	22° B 31'11	
desc. node	3206 May 26 07:38	8° I 18'06		inferior conj	3207 May 08 12:47	18° B 15'10	1°18'53
inferior conj	3206 May 27 21:49	7° I 20'41	0°-28'-5	minimum elong	3207 May 08 15:40	18° B 10'03	1°17'55
minimum elong	3206 May 27 20:32	7° I 22'39	0°27'37	min. Earth dist.	3207 May 11 15:33	16° B 04'20	0.56798 AU
min. Earth dist.	3206 May 29 23:52	6° I 04'33	0.55402 AU	desc. node	3207 May 13 04:40	15° B 04'17	
morning rise	3206 Jun 05 13:56	2° I 55'19		morning rise	3207 May 16 17:17	13° B 14'31	
direct	3206 Jun 09 20:10	2° I 15'28		direct	3207 May 21 23:11	12° B 09'10	
morning max el	3206 Jun 23 15:45	9° I 06'22	24°15'36	morning max el	3207 Jun 05 06:26	19° B 33'01	25°51'34
	3206 Jul 09 01:22	0° S			3207 Jun 14 03:11	0° I	
asc. node	3206 Jul 15 18:28	12° S 41'55			3207 Jul 01 10:10	0° S	
morning set	3206 Jul 18 12:49	18° S 25'41		asc. node	3207 Jul 02 15:31	2° S 32'54	
	3206 Jul 23 21:38	0° Ω		morning set	3207 Jul 03 00:15	3° S 18'51	
superior conj	3206 Jul 25 13:23	3° Ω 36'05	1°26'53	superior conj	3207 Jul 10 00:18	18° S 31'29	1°10'37
minimum elong	3206 Jul 25 11:08	3° Ω 23'54	1°26'37	minimum elong	3207 Jul 09 21:57	18° S 18'35	1°10'15
max. Earth dist.	3206 Jul 27 10:38	7° Ω 40'29	1.33065 AU	max. Earth dist.	3207 Jul 10 19:26	20° S 16'31	1.32380 AU
evening rise	3206 Aug 01 22:36	19° Ω 10'45			3207 Jul 15 07:17	0° Ω	
	3206 Aug 07 12:03	0° M		evening rise	3207 Jul 17 01:33	3° Ω 42'00	
desc. node	3206 Aug 22 06:57	24° M 17'53			3207 Jul 31 06:26	0° M	
	3206 Aug 26 11:46	0° Ω		desc. node	3207 Aug 09 03:58	12° M 59'26	
evening max el	3206 Sep 04 06:29	9° Ω 54'46	27°26'19	evening max el	3207 Aug 17 13:37	22° M 30'21	27°12'05
retrograde	3206 Sep 17 22:06	17° Ω 11'21		retrograde	3207 Aug 31 09:51	29° M 44'07	
evening set	3206 Sep 25 02:08	14° Ω 34'48		evening set	3207 Sep 07 13:11	27° M 24'33	

min. Earth dist.	3207 Sep 11 03:53	24° \cap 39'23	0.61640 AU	retrograde	3208 Aug 12 13:45	11° \cap 31'57	
inferior conj	3207 Sep 14 05:42	21° \cap 54'47	-4°-8'-59	evening set	3208 Aug 19 04:58	9° \cap 42'25	
minimum elong	3207 Sep 14 11:24	21° \cap 42'02	4°07'38	min. Earth dist.	3208 Aug 23 03:36	7° \cap 07'39	0.59581 AU
morning rise	3207 Sep 21 12:36	16° \cap 56'58		inferior conj	3208 Aug 26 10:34	4° \cap 33'59	-4°-49'-52
direct	3207 Sep 23 20:41	16° \cap 33'57		minimum elong	3208 Aug 26 14:47	4° \cap 25'45	4°49'19
asc. node	3207 Sep 28 14:44	18° \cap 12'38		morning rise	3208 Sep 03 04:02	29° Ω 59'01	
morning max el	3207 Sep 30 20:08	20° \cap 04'10	17°55'36		3208 Sep 03 02:38	30° \mathbb{R} Ω	
	3207 Oct 08 04:50	0° $\underline{\Omega}$		direct	3208 Sep 05 13:04	29° Ω 38'58	
morning set	3207 Oct 16 15:29	14° $\underline{\Omega}$ 53'42			3208 Sep 07 22:01	0° \cap	
	3207 Oct 25 00:47	0° \mathbb{L}		morning max el	3208 Sep 13 06:24	3° \cap 23'31	18°19'19
				asc. node	3208 Sep 14 11:46	4° \cap 39'09	
superior conj	3207 Oct 27 05:01	3° \mathbb{L} 48'16	0°59'20	morning set	3208 Sep 29 04:03	28° \cap 41'06	
minimum elong	3207 Oct 27 09:19	4° \mathbb{L} 06'52	0°58'47		3208 Sep 29 20:36	0° $\underline{\Omega}$	
max. Earth dist.	3207 Nov 03 16:08	16° \mathbb{L} 24'21	1.42645 AU				
desc. node	3207 Nov 05 03:17	18° \mathbb{L} 48'06		superior conj	3208 Oct 08 10:37	16° $\underline{\Omega}$ 08'27	1°24'46
evening rise	3207 Nov 10 07:05	27° \mathbb{L} 03'35		minimum elong	3208 Oct 08 14:19	16° $\underline{\Omega}$ 25'22	1°24'23
	3207 Nov 12 04:09	0° \mathbb{X}		max. Earth dist.	3208 Oct 15 23:56	29° $\underline{\Omega}$ 31'17	1.40741 AU
	3207 Dec 02 15:50	0° \mathbb{Z}			3208 Oct 16 06:39	0° \mathbb{L}	
greatest brilliancy	3207 Dec 07 14:49	6° \mathbb{Z} 24'05	-0.3m	evening rise	3208 Oct 20 16:19	7° \mathbb{L} 22'20	
evening max el	3207 Dec 12 08:29	11° \mathbb{Z} 45'32	22°01'14	desc. node	3208 Oct 22 00:18	9° \mathbb{L} 32'58	
retrograde	3207 Dec 21 16:37	17° \mathbb{Z} 19'04			3208 Nov 04 07:04	0° \mathbb{X}	
asc. node	3207 Dec 25 14:00	15° \mathbb{Z} 57'27		evening max el	3208 Nov 23 23:39	25° \mathbb{X} 20'55	23°20'35
evening set	3207 Dec 26 01:55	15° \mathbb{Z} 34'52			3208 Nov 29 15:35	0° \mathbb{Z}	
inferior conj	3207 Dec 31 11:23	9° \mathbb{Z} 13'23	1°53'57	retrograde	3208 Dec 04 10:45	1° \mathbb{Z} 32'34	
minimum elong	3207 Dec 31 09:09	9° \mathbb{Z} 21'07	1°53'09		3208 Dec 08 18:17	30° \mathbb{R} \mathbb{X}	
min. Earth dist.	3207 Dec 31 11:55	9° \mathbb{Z} 11'32	0.67892 AU	evening set	3208 Dec 09 08:38	29° \mathbb{X} 31'55	
morning rise	3208 Jan 05 16:12	2° \mathbb{Z} 59'53		asc. node	3208 Dec 11 11:00	27° \mathbb{X} 25'57	
direct	3208 Jan 10 11:03	0° \mathbb{Z} 59'37		inferior conj	3208 Dec 14 19:02	23° \mathbb{X} 05'44	1°07'05
morning max el	3208 Jan 20 04:05	6° \mathbb{Z} 43'48	22°35'31	minimum elong	3208 Dec 14 17:32	23° \mathbb{X} 10'52	1°06'29
greatest brilliancy	3208 Jan 24 17:55	11° \mathbb{Z} 50'04	-0.3m	min. Earth dist.	3208 Dec 14 08:43	23° \mathbb{X} 41'09	0.67897 AU
desc. node	3208 Feb 01 02:31	21° \mathbb{Z} 25'08		morning rise	3208 Dec 20 02:31	16° \mathbb{X} 55'58	
	3208 Feb 07 03:20	0° \approx		direct	3208 Dec 24 06:57	15° \mathbb{X} 18'29	
morning set	3208 Feb 23 01:50	24° \approx 41'17		morning max el	3209 Jan 01 19:45	20° \mathbb{X} 16'02	21°12'13
	3208 Feb 26 06:42	0° \mathbb{H}		greatest brilliancy	3209 Jan 07 02:16	26° \mathbb{X} 18'31	-0.4m
max. Earth dist.	3208 Feb 28 00:42	2° \mathbb{H} 57'29	1.40364 AU		3209 Jan 09 22:26	0° \mathbb{Z}	
				desc. node	3209 Jan 17 23:34	11° \mathbb{Z} 18'36	
superior conj	3208 Mar 06 19:34	16° \mathbb{H} 37'36	-1°-57'-29		3209 Jan 30 08:52	0° \approx	
minimum elong	3208 Mar 06 23:25	16° \mathbb{H} 55'02	1°57'15	morning set	3209 Feb 01 13:46	3° \approx 26'46	
	3208 Mar 14 00:51	0° \mathbb{Y}		max. Earth dist.	3209 Feb 09 02:17	15° \approx 30'38	1.42386 AU
evening rise	3208 Mar 16 20:08	5° \mathbb{Y} 17'57					
asc. node	3208 Mar 22 13:18	15° \mathbb{Y} 54'51		superior conj	3209 Feb 16 08:55	27° \approx 41'50	-2°-6'-30
	3208 Mar 31 21:02	0° \mathbb{B}		minimum elong	3209 Feb 16 09:29	27° \approx 44'17	2°06'31
evening max el	3208 Apr 01 23:33	1° \mathbb{B} 08'57	18°23'08		3209 Feb 17 17:03	0° \mathbb{H}	
retrograde	3208 Apr 09 08:14	4° \mathbb{B} 47'49		evening rise	3209 Feb 27 19:19	17° \mathbb{H} 55'01	
evening set	3208 Apr 11 16:54	4° \mathbb{B} 26'19			3209 Mar 06 14:00	0° \mathbb{Y}	
	3208 Apr 18 20:21	30° \mathbb{R} \mathbb{Y}		asc. node	3209 Mar 09 10:19	4° \mathbb{Y} 45'30	
inferior conj	3208 Apr 19 01:05	29° \mathbb{Y} 50'13	2°35'09	evening max el	3209 Mar 16 10:02	14° \mathbb{Y} 06'55	18°07'53
minimum elong	3208 Apr 19 04:51	29° \mathbb{Y} 42'27	2°34'13	retrograde	3209 Mar 23 02:20	17° \mathbb{Y} 31'17	
min. Earth dist.	3208 Apr 22 11:43	27° \mathbb{Y} 01'03	0.58751 AU	evening set	3209 Mar 25 16:51	17° \mathbb{Y} 00'24	
morning rise	3208 Apr 26 12:37	24° \mathbb{Y} 18'38		inferior conj	3209 Apr 01 09:18	12° \mathbb{Y} 03'15	3°19'30
desc. node	3208 Apr 29 01:42	23° \mathbb{Y} 13'07		minimum elong	3209 Apr 01 11:47	11° \mathbb{Y} 57'18	3°19'09
direct	3208 May 02 16:16	22° \mathbb{Y} 38'31		min. Earth dist.	3209 Apr 04 14:30	9° \mathbb{Y} 00'13	0.60923 AU
	3208 May 16 16:06	0° \mathbb{B}		morning rise	3209 Apr 08 03:33	6° \mathbb{Y} 11'03	
morning max el	3208 May 17 01:40	0° \mathbb{B} 23'10	27°05'06	direct	3209 Apr 14 21:10	3° \mathbb{Y} 56'31	
	3208 Jun 07 02:54	0° \mathbb{I}		desc. node	3209 Apr 15 22:44	3° \mathbb{Y} 59'44	
morning set	3208 Jun 16 09:40	18° \mathbb{I} 04'34		morning max el	3209 Apr 29 03:02	11° \mathbb{Y} 51'47	27°45'05
asc. node	3208 Jun 18 12:34	22° \mathbb{I} 34'29			3209 May 13 09:45	0° \mathbb{B}	
	3208 Jun 21 22:29	0° \mathbb{E}			3209 May 30 08:37	0° \mathbb{I}	
				morning set	3209 May 31 15:13	2° \mathbb{I} 36'13	
superior conj	3208 Jun 23 12:07	3° \mathbb{E} 27'11	0°50'21	asc. node	3209 Jun 05 09:35	12° \mathbb{I} 41'36	
minimum elong	3208 Jun 23 10:08	3° \mathbb{E} 16'17	0°49'58	max. Earth dist.	3209 Jun 06 18:02	15° \mathbb{I} 37'57	1.32201 AU
max. Earth dist.	3208 Jun 23 07:10	2° \mathbb{E} 59'58	1.32090 AU				
evening rise	3208 Jun 30 09:33	18° \mathbb{E} 26'28		superior conj	3209 Jun 07 23:05	18° \mathbb{I} 16'53	0°26'42
	3208 Jul 06 02:40	0° Ω		minimum elong	3209 Jun 07 21:54	18° \mathbb{I} 10'23	0°26'27
	3208 Jul 25 11:10	0° \cap			3209 Jun 13 07:42	0° \mathbb{E}	
desc. node	3208 Jul 26 00:58	0° \cap 39'16		evening rise	3209 Jun 14 20:24	3° \mathbb{E} 16'34	
evening max el	3208 Jul 29 14:22	4° \cap 21'00	26°24'43		3209 Jun 29 04:21	0° Ω	

evening max el	3209 Jul 11 07:56	15°♂24'58	25°08'28	superior conj	3210 May 23 07:29	2°♂54'54	0°00'23
desc. node	3209 Jul 12 21:59	16°♂51'43		minimum elong	3210 May 23 07:28	2°♂54'48	0°00'22
retrograde	3209 Jul 25 07:26	22°♂30'21		behind sun begin	3210 May 23 02:14	2°♂26'32	
evening set	3209 Jul 30 21:06	21°♂19'09		behind sun end	3210 May 23 12:42	3°♂23'05	
min. Earth dist.	3209 Aug 04 19:41	18°♂36'00	0.57573 AU	asc. node	3210 May 23 06:37	2°♂50'12	
inferior conj	3209 Aug 07 20:26	16°♂33'04	-5°-5'-57	evening rise	3210 May 30 08:15	18°♂06'03	
minimum elong	3209 Aug 07 20:19	16°♂33'16	5°05'58		3210 Jun 05 04:55	0°♂	
morning rise	3209 Aug 15 23:08	12°♂20'39		evening max el	3210 Jun 22 21:22	25°♂56'42	23°34'41
direct	3209 Aug 18 12:10	12°♂01'35			3210 Jun 27 22:19	0°♂	
morning max el	3209 Aug 27 08:36	16°♂11'29	19°03'55	desc. node	3210 Jun 29 19:00	1°♂03'45	
asc. node	3209 Sep 01 08:48	22°♂08'21		retrograde	3210 Jul 06 12:32	2°♂46'28	
	3209 Sep 06 06:30	0°♂		evening set	3210 Jul 10 14:59	2°♂09'37	
morning set	3209 Sep 13 02:15	12°♂56'03			3210 Jul 15 14:49	30°♂♂	
				min. Earth dist.	3210 Jul 17 07:27	29°♂02'14	0.55935 AU
superior conj	3209 Sep 21 10:49	29°♂23'02	1°39'22	inferior conj	3210 Jul 19 10:09	27°♂46'33	-4°-42'-11
minimum elong	3209 Sep 21 12:52	29°♂32'55	1°39'14	minimum elong	3210 Jul 19 04:16	27°♂55'23	4°41'19
	3209 Sep 21 18:30	0°♂		morning rise	3210 Jul 27 20:46	23°♂51'26	
max. Earth dist.	3209 Sep 28 04:08	11°♂55'30	1.38672 AU	direct	3210 Jul 30 16:14	23°♂31'46	
evening rise	3209 Oct 02 01:08	18°♂46'06		morning max el	3210 Aug 10 00:01	28°♂19'09	20°10'11
desc. node	3209 Oct 08 21:19	0°♂10'58			3210 Aug 11 16:15	0°♂	
	3209 Oct 08 18:35	0°♂		asc. node	3210 Aug 19 05:52	10°♂26'25	
	3209 Oct 29 13:47	0°♂		morning set	3210 Aug 28 07:02	27°♂30'31	
evening max el	3209 Nov 06 12:28	9°♂00'14	24°39'29		3210 Aug 29 12:19	0°♂	
retrograde	3209 Nov 18 00:55	15°♂43'01		superior conj	3210 Sep 05 00:34	13°♂18'03	1°44'45
evening set	3209 Nov 23 12:39	13°♂26'22		minimum elong	3210 Sep 05 00:53	13°♂19'41	1°44'45
min. Earth dist.	3209 Nov 28 04:21	8°♂09'34	0.67557 AU	max. Earth dist.	3210 Sep 10 09:56	23°♂53'00	1.36685 AU
asc. node	3209 Nov 28 08:02	7°♂57'21			3210 Sep 13 16:18	0°♂	
inferior conj	3209 Nov 29 01:16	6°♂59'59	0°14'45	evening rise	3210 Sep 14 07:48	1°♂10'51	
minimum elong	3209 Nov 29 00:54	7°♂01'12	0°14'36	desc. node	3210 Sep 25 18:18	20°♂37'38	
transit middle	3209 Nov 29 00:54	7°♂01'12	0°14'36		3210 Oct 01 22:00	0°♂	
transit begin	3209 Nov 28 23:42	7°♂05'11		evening max el	3210 Oct 20 00:47	22°♂41'53	25°50'39
transit end	3209 Nov 29 02:06	6°♂57'12		retrograde	3210 Nov 01 10:19	29°♂45'47	
morning rise	3209 Dec 04 13:35	0°♂56'19		evening set	3210 Nov 07 12:16	27°♂15'10	
	3209 Dec 06 08:03	30°♂♂		min. Earth dist.	3210 Nov 11 20:21	22°♂34'00	0.66877 AU
direct	3209 Dec 08 04:59	29°♂40'05		inferior conj	3210 Nov 13 04:18	20°♂53'12	0°-41'-51
	3209 Dec 10 03:33	0°♂		minimum elong	3210 Nov 13 05:24	20°♂49'43	0°41'24
morning max el	3209 Dec 15 19:00	3°♂59'02	20°00'21	asc. node	3210 Nov 15 05:05	18°♂24'03	
greatest brilliancy	3209 Dec 22 21:58	12°♂37'26	-0.6m	morning rise	3210 Nov 18 23:26	14°♂58'24	
	3210 Jan 03 20:11	0°♂		direct	3210 Nov 22 03:40	14°♂00'24	
desc. node	3210 Jan 04 20:36	1°♂32'29		morning max el	3210 Nov 29 01:55	17°♂51'42	19°03'02
morning set	3210 Jan 11 09:59	11°♂34'46			3210 Dec 08 10:28	0°♂	
max. Earth dist.	3210 Jan 22 11:52	28°♂57'09	1.43983 AU	morning set	3210 Dec 21 15:30	20°♂18'47	
	3210 Jan 23 03:36	0°♂		desc. node	3210 Dec 22 17:37	22°♂00'42	
					3210 Dec 27 20:21	0°♂	
superior conj	3210 Jan 27 20:40	7°♂36'41	-1°-59'-46	max. Earth dist.	3211 Jan 05 04:00	13°♂02'20	1.44960 AU
minimum elong	3210 Jan 27 15:34	7°♂15'53	1°59'32				
evening rise	3210 Feb 10 00:32	29°♂42'09		superior conj	3211 Jan 07 08:32	16°♂29'28	-1°-33'-43
	3210 Feb 10 04:41	0°♂		minimum elong	3211 Jan 06 23:29	15°♂53'44	1°32'53
asc. node	3210 Feb 24 07:20	23°♂01'01			3211 Jan 15 19:52	0°♂	
evening max el	3210 Feb 27 22:41	27°♂22'00	18°11'50	evening rise	3211 Jan 22 07:48	10°♂32'50	
	3210 Mar 03 09:11	0°♂			3211 Feb 03 08:39	0°♂	
retrograde	3210 Mar 06 09:08	0°♂46'31		asc. node	3211 Feb 11 04:22	10°♂30'12	
evening set	3210 Mar 09 05:11	0°♂04'56		evening max el	3211 Feb 11 10:40	10°♂46'25	18°34'17
	3210 Mar 09 09:11	30°♂♂		retrograde	3211 Feb 18 00:22	14°♂23'50	
inferior conj	3210 Mar 15 09:40	24°♂47'23	3°37'52	evening set	3211 Feb 21 02:11	13°♂30'40	
minimum elong	3210 Mar 15 10:18	24°♂45'40	3°37'51	inferior conj	3211 Feb 26 22:09	7°♂54'21	3°36'42
min. Earth dist.	3210 Mar 18 01:54	21°♂54'39	0.63003 AU	minimum elong	3211 Feb 26 21:12	7°♂57'12	3°36'37
morning rise	3210 Mar 21 13:20	18°♂43'07		min. Earth dist.	3211 Feb 28 22:48	5°♂29'29	0.64785 AU
direct	3210 Mar 28 11:10	16°♂04'09		morning rise	3211 Mar 04 14:54	1°♂43'17	
desc. node	3210 Apr 02 19:47	17°♂26'41			3211 Mar 07 02:42	30°♂♂	
morning max el	3210 Apr 11 09:38	24°♂01'28	27°47'33	direct	3211 Mar 11 08:33	28°♂53'51	
	3210 Apr 16 18:46	0°♂			3211 Mar 15 22:38	0°♂	
	3210 May 06 17:45	0°♂		desc. node	3211 Mar 20 16:50	3°♂01'45	
morning set	3210 May 15 14:44	16°♂47'00		morning max el	3211 Mar 24 19:11	6°♂44'23	27°14'57
max. Earth dist.	3210 May 21 00:16	27°♂58'35	1.32732 AU		3211 Apr 11 16:25	0°♂	
	3210 May 21 23:00	0°♂			3211 Apr 28 23:43	0°♂	






























































































































morning set	3211 Apr 29 05:23	0°♄27'32		morning set	3212 Apr 11 07:26	13°♄27'19	
max. Earth dist.	3211 May 03 22:04	9°♄50'31	1.33708 AU	max. Earth dist.	3212 Apr 15 08:35	21°♄10'41	1.35141 AU
					3212 Apr 19 18:48	0°♄	
superior conj	3211 May 07 11:19	17°♄14'14	0°-27'-44	superior conj	3212 Apr 20 08:14	1°♄08'28	0°-56'-24
minimum elong	3211 May 07 12:45	17°♄21'44	0°27'27	minimum elong	3212 Apr 20 11:11	1°♄23'32	0°55'52
asc. node	3211 May 10 03:39	22°♄55'42		asc. node	3212 Apr 26 00:43	12°♄54'16	
	3211 May 13 11:22	0°♄		evening rise	3212 Apr 28 03:18	17°♄16'04	
evening rise	3211 May 14 19:12	2°♄47'51			3212 May 04 14:28	0°♄	
	3211 May 30 01:25	0°♄		evening max el	3212 May 16 15:42	17°♄20'44	20°34'17
evening max el	3211 Jun 04 13:36	6°♄25'03	21°58'55	retrograde	3212 May 27 19:05	22°♄46'37	
desc. node	3211 Jun 16 16:02	12°♄40'23		evening set	3212 May 29 20:27	22°♄36'15	
retrograde	3211 Jun 17 05:58	12°♄41'09		desc. node	3212 Jun 02 13:05	21°♄30'45	
evening set	3211 Jun 20 00:05	12°♄24'13		inferior conj	3212 Jun 08 01:44	18°♄38'41	-1°-37'-16
inferior conj	3211 Jun 29 07:56	8°♄20'02	-3°-28'-53	minimum elong	3212 Jun 07 21:09	18°♄45'18	1°35'37
minimum elong	3211 Jun 28 23:41	8°♄31'35	3°26'33	min. Earth dist.	3212 Jun 09 06:28	17°♄57'14	0.54971 AU
min. Earth dist.	3211 Jun 28 18:14	8°♄39'14	0.54990 AU	morning rise	3212 Jun 16 20:29	14°♄30'17	
morning rise	3211 Jul 08 00:57	4°♄28'37		direct	3212 Jun 20 14:35	13°♄59'55	
direct	3211 Jul 11 05:00	4°♄06'24		morning max el	3212 Jul 03 22:09	20°♄26'01	23°16'32
morning max el	3211 Jul 23 03:45	9°♄41'42	21°36'32		3212 Jul 12 00:39	0°♄	
asc. node	3211 Aug 06 02:55	29°♄21'16		asc. node	3212 Jul 22 23:58	18°♄43'39	
	3211 Aug 06 11:18	0°♄		morning set	3212 Jul 27 03:15	27°♄10'54	
morning set	3211 Aug 12 16:01	12°♄17'26			3212 Jul 28 11:11	0°♄	
superior conj	3211 Aug 19 23:50	27°♄41'28	1°42'34	superior conj	3212 Aug 03 05:28	12°♄23'29	1°34'09
minimum elong	3211 Aug 19 22:46	27°♄35'55	1°42'32	minimum elong	3212 Aug 03 03:30	12°♄12'58	1°33'59
	3211 Aug 21 02:30	0°♄		max. Earth dist.	3212 Aug 05 19:23	17°♄52'48	1.33631 AU
max. Earth dist.	3211 Aug 23 22:15	5°♄46'14	1.34965 AU	evening rise	3212 Aug 10 21:24	28°♄18'19	
evening rise	3211 Aug 28 08:00	14°♄25'34			3212 Aug 11 17:58	0°♄	
	3211 Sep 05 23:17	0°♄			3212 Aug 29 03:45	0°♄	
desc. node	3211 Sep 12 15:20	10°♄47'18		desc. node	3212 Aug 29 12:22	0°♄31'54	
	3211 Sep 26 16:09	0°♄		evening max el	3212 Sep 14 01:06	19°♄43'09	27°19'57
evening max el	3211 Oct 02 13:12	6°♄19'39	26°46'34	retrograde	3212 Sep 27 13:00	27°♄01'46	
retrograde	3211 Oct 15 14:28	13°♄35'00		evening set	3212 Oct 04 13:47	24°♄20'43	
evening set	3211 Oct 22 05:30	10°♄55'08		min. Earth dist.	3212 Oct 08 08:20	20°♄51'45	0.64456 AU
min. Earth dist.	3211 Oct 26 06:25	6°♄50'36	0.65844 AU	inferior conj	3212 Oct 10 16:28	18°♄21'19	-2°-41'-29
inferior conj	3211 Oct 28 02:09	4°♄42'11	-1°-41'-17	minimum elong	3212 Oct 10 20:54	18°♄09'25	2°39'54
minimum elong	3211 Oct 28 04:56	4°♄34'01	1°40'10	morning rise	3212 Oct 17 06:08	12°♄53'15	
	3211 Nov 01 16:11	30°♄		asc. node	3212 Oct 18 23:12	12°♄23'55	
asc. node	3211 Nov 02 02:09	29°♄41'34		direct	3212 Oct 19 18:44	12°♄20'29	
morning rise	3211 Nov 03 05:51	28°♄59'13		morning max el	3212 Oct 26 06:48	15°♄46'57	17°57'30
direct	3211 Nov 06 01:03	28°♄15'46			3212 Nov 05 09:59	0°♄	
	3211 Nov 10 12:33	0°♄		morning set	3212 Nov 12 13:00	11°♄57'23	
morning max el	3211 Nov 12 14:46	1°♄50'01	18°21'49		3212 Nov 23 09:23	0°♄	
morning set	3211 Dec 01 23:54	0°♄26'05		desc. node	3212 Nov 25 11:38	3°♄23'38	
	3211 Dec 01 17:26	0°♄		superior conj	3212 Nov 25 23:29	4°♄11'22	0°-3'-23
desc. node	3211 Dec 09 14:37	12°♄39'07		minimum elong	3212 Nov 25 23:05	4°♄09'47	0°03'19
superior conj	3211 Dec 17 10:26	25°♄01'39	0°-51'-23	behind sun begin	3212 Nov 25 12:56	3°♄28'52	
minimum elong	3211 Dec 17 03:57	24°♄36'10	0°50'34	behind sun end	3212 Nov 26 09:14	4°♄50'37	
max. Earth dist.	3211 Dec 18 23:08	27°♄25'48	1.45211 AU	max. Earth dist.	3212 Nov 30 17:47	11°♄47'33	1.44723 AU
	3211 Dec 20 14:27	0°♄		evening rise	3212 Dec 12 05:58	29°♄43'49	
evening rise	3212 Jan 02 15:57	20°♄28'32			3212 Dec 12 10:10	0°♄	
	3212 Jan 08 17:33	0°♄		greatest brilliancy	3213 Jan 01 10:09	29°♄44'37	-0.6m
greatest brilliancy	3212 Jan 16 07:27	11°♄41'16	-0.7m		3213 Jan 01 14:41	0°♄	
evening max el	3212 Jan 25 19:38	24°♄15'33	19°14'09	evening max el	3213 Jan 07 23:53	7°♄46'19	20°09'38
asc. node	3212 Jan 29 01:26	27°♄00'12		asc. node	3213 Jan 14 22:30	12°♄15'45	
retrograde	3212 Feb 01 20:27	28°♄16'40		retrograde	3213 Jan 15 18:24	12°♄19'32	
evening set	3212 Feb 05 04:57	27°♄10'58		evening set	3213 Jan 19 11:06	11°♄00'02	
inferior conj	3212 Feb 10 19:17	21°♄18'14	3°20'55	inferior conj	3213 Jan 24 22:07	4°♄53'42	2°53'55
minimum elong	3212 Feb 10 17:16	21°♄24'42	3°20'34	minimum elong	3213 Jan 24 19:38	5°♄02'07	2°53'18
min. Earth dist.	3212 Feb 12 04:42	19°♄30'56	0.66175 AU	min. Earth dist.	3213 Jan 25 17:43	3°♄47'37	0.67154 AU
morning rise	3212 Feb 16 04:45	15°♄03'40			3213 Jan 28 18:49	30°♄	
direct	3212 Feb 22 12:26	12°♄17'02		morning rise	3213 Jan 30 03:34	28°♄38'00	
morning max el	3212 Mar 06 05:06	19°♄48'46	26°14'07	direct	3213 Feb 04 21:58	26°♄04'33	
desc. node	3212 Mar 06 13:52	20°♄11'04			3213 Feb 13 06:52	0°♄	
	3212 Mar 14 22:25	0°♄		morning max el	3213 Feb 16 13:51	3°♄02'40	24°54'25
	3212 Apr 03 18:35	0°♄					

desc. node	3213 Feb 21 10:53	8° \approx 27'14		direct	3214 Jan 19 12:16	10° \approx 09'16	
	3213 Mar 09 03:14	0° \times		morning max el	3214 Jan 29 22:32	16° \approx 21'34	23°26'10
morning set	3213 Mar 24 15:51	25° \times 31'51		greatest brilliancy	3214 Feb 04 17:37	22° \approx 55'17	-0.2m
	3213 Mar 27 03:27	0° γ		desc. node	3214 Feb 08 07:55	27° \approx 31'15	
max. Earth dist.	3213 Mar 28 08:11	2° γ 11'46	1.36990 AU		3214 Feb 10 04:20	0° \approx	
					3214 Mar 02 03:52	0° \times	
superior conj	3213 Apr 03 19:13	14° γ 29'25	-1°-23'-47	morning set	3214 Mar 06 00:24	6° \times 24'01	
minimum elong	3213 Apr 03 23:25	14° γ 50'00	1°23'11	max. Earth dist.	3214 Mar 10 02:57	13° \times 27'13	1.39120 AU
	3213 Apr 11 13:32	0° δ					
evening rise	3213 Apr 12 06:13	1° δ 23'43		superior conj	3214 Mar 17 16:22	27° \times 06'49	-1°-47'-13
asc. node	3213 Apr 12 21:47	2° δ 41'31		minimum elong	3214 Mar 17 20:52	27° \times 27'48	1°46'48
evening max el	3213 Apr 29 06:03	28° δ 57'38	19°27'36		3214 Mar 19 05:18	0° γ	
	3213 Apr 30 09:20	0° Π		evening rise	3214 Mar 27 01:10	15° γ 02'57	
retrograde	3213 May 08 15:51	3° Π 31'24		asc. node	3214 Mar 30 18:49	22° γ 11'52	
evening set	3213 May 10 15:53	3° Π 19'55			3214 Apr 04 02:49	0° δ	
	3213 May 18 01:22	30° $\text{R}\delta$		evening max el	3214 Apr 12 06:46	11° δ 12'45	18°40'52
inferior conj	3213 May 19 06:04	29° δ 14'08	0°20'24	retrograde	3214 Apr 20 05:51	15° δ 06'34	
minimum elong	3213 May 19 06:56	29° δ 12'43	0°20'04	evening set	3214 Apr 22 11:09	14° δ 49'28	
desc. node	3213 May 20 10:06	28° δ 28'41		inferior conj	3214 Apr 30 05:57	10° δ 25'26	1°55'21
min. Earth dist.	3213 May 21 20:54	27° δ 33'04	0.55901 AU	minimum elong	3214 Apr 30 09:35	10° δ 18'35	1°54'15
morning rise	3213 May 27 18:07	24° δ 33'32		min. Earth dist.	3214 May 03 14:11	7° δ 55'36	0.57584 AU
direct	3213 Jun 01 10:10	23° δ 44'09		desc. node	3214 May 07 07:08	5° δ 35'54	
	3213 Jun 14 14:08	0° Π		morning rise	3214 May 08 03:35	5° δ 10'50	
morning max el	3213 Jun 15 12:26	0° Π 51'44	24°58'16	direct	3214 May 13 19:44	3° δ 51'03	
	3213 Jul 05 15:08	0° E		morning max el	3214 May 28 04:21	11° δ 24'59	26°26'22
asc. node	3213 Jul 09 21:01	8° E 26'24			3214 Jun 11 13:32	0° Π	
morning set	3213 Jul 11 15:04	12° E 06'07		morning set	3214 Jun 26 01:49	26° Π 56'41	
				asc. node	3214 Jun 26 18:03	28° Π 22'34	
superior conj	3213 Jul 18 15:04	27° E 16'37	1°20'32		3214 Jun 27 12:19	0° E	
minimum elong	3213 Jul 18 12:43	27° E 03'48	1°20'12				
	3213 Jul 19 21:03	0° Ω		superior conj	3214 Jul 03 02:33	12° E 12'59	1°02'29
max. Earth dist.	3213 Jul 20 00:40	0° Ω 19'37	1.32716 AU	minimum elong	3214 Jul 03 00:18	12° E 00'37	1°02'05
evening rise	3213 Jul 25 20:19	12° Ω 39'00		max. Earth dist.	3214 Jul 03 11:08	13° E 00'15	1.32210 AU
	3213 Aug 03 21:50	0° P		evening rise	3214 Jul 10 01:42	27° E 17'09	
desc. node	3213 Aug 16 09:24	19° P 40'59			3214 Jul 11 09:05	0° Ω	
	3213 Aug 24 19:01	0° A			3214 Jul 28 08:38	0° P	
evening max el	3213 Aug 27 10:50	2° A 40'49	27°24'26	desc. node	3214 Aug 03 06:26	7° P 58'56	
retrograde	3213 Sep 10 05:07	9° A 57'00		evening max el	3214 Aug 09 15:42	14° P 58'54	26°56'00
evening set	3213 Sep 17 09:46	7° A 26'07		retrograde	3214 Aug 23 13:32	22° P 10'52	
min. Earth dist.	3213 Sep 21 00:28	4° A 27'31	0.62742 AU	evening set	3214 Aug 30 13:08	20° P 03'01	
inferior conj	3213 Sep 23 20:26	1° A 44'24	-3°-39'-6	min. Earth dist.	3214 Sep 03 05:56	17° P 24'06	0.60774 AU
minimum elong	3213 Sep 24 02:01	1° A 30'58	3°37'28	inferior conj	3214 Sep 06 10:43	14° P 42'12	-4°-28'-32
	3213 Sep 25 17:00	30° RP		minimum elong	3214 Sep 06 16:05	14° P 30'49	4°27'30
morning rise	3213 Sep 30 20:57	26° P 34'24		morning rise	3214 Sep 13 22:10	9° P 53'30	
direct	3213 Oct 03 05:44	26° P 08'44		direct	3214 Sep 16 06:18	9° P 31'58	
asc. node	3213 Oct 05 20:14	26° P 40'39		asc. node	3214 Sep 22 17:14	12° P 23'23	
morning max el	3213 Oct 09 23:01	29° P 35'33	17°50'54	morning max el	3214 Sep 23 12:16	13° P 07'18	18°03'11
	3213 Oct 10 08:41	0° A			3214 Oct 04 21:40	0° A	
morning set	3213 Oct 26 01:17	24° A 35'35		morning set	3214 Oct 09 06:27	8° A 01'46	
	3213 Oct 29 02:36	0° M					
superior conj	3213 Nov 06 13:21	14° M 34'52	0°39'25	superior conj	3214 Oct 19 05:34	26° A 15'17	1°11'32
minimum elong	3213 Nov 06 16:55	14° M 49'53	0°38'56	minimum elong	3214 Oct 19 09:49	26° A 34'10	1°11'01
desc. node	3213 Nov 12 08:41	24° M 11'06			3214 Oct 21 08:38	0° M	
max. Earth dist.	3213 Nov 13 09:33	25° M 51'49	1.43566 AU	max. Earth dist.	3214 Oct 26 20:43	9° M 23'53	1.41875 AU
	3213 Nov 15 23:25	0° A		desc. node	3214 Oct 30 05:43	14° M 57'50	
evening rise	3213 Nov 21 15:26	8° A 54'08		evening rise	3214 Nov 01 12:40	18° M 39'32	
	3213 Dec 05 16:07	0° \approx			3214 Nov 08 19:03	0° A	
greatest brilliancy	3213 Dec 16 20:49	15° \approx 26'37	-0.4m	greatest brilliancy	3214 Nov 29 19:54	29° A 26'32	-0.3m
evening max el	3213 Dec 21 22:41	21° \approx 18'33	21°17'52		3214 Nov 30 07:01	0° \approx	
retrograde	3213 Dec 30 16:03	26° \approx 29'08		evening max el	3214 Dec 04 16:20	4° \approx 52'48	22°34'42
asc. node	3214 Jan 01 19:31	26° \approx 03'54		retrograde	3214 Dec 14 11:43	10° \approx 42'26	
evening set	3214 Jan 03 18:45	24° \approx 54'26		evening set	3214 Dec 19 02:15	8° \approx 51'17	
inferior conj	3214 Jan 09 04:21	18° \approx 37'38	2°18'01	asc. node	3214 Dec 19 16:30	8° \approx 20'19	
minimum elong	3214 Jan 09 01:53	18° \approx 46'09	2°17'14	inferior conj	3214 Dec 24 11:58	2° \approx 27'36	1°34'49
min. Earth dist.	3214 Jan 09 11:33	18° \approx 12'45	0.67736 AU	minimum elong	3214 Dec 24 10:00	2° \approx 34'25	1°34'05
morning rise	3214 Jan 14 08:39	12° \approx 22'49		min. Earth dist.	3214 Dec 24 07:51	2° \approx 41'51	0.67940 AU
					3214 Dec 26 07:28	30° RA	

morning rise	3214 Dec 29 17:39	26° ♄ 15'35		minimum elong	3215 Dec 08 18:08	16° ♄ 24'17	0°45'03
direct	3215 Jan 03 06:21	24° ♄ 24'53		morning rise	3215 Dec 14 04:30	10° ♄ 13'31	
morning max el	3215 Jan 12 10:39	29° ♄ 48'00	21°59'02	direct	3215 Dec 18 03:12	8° ♄ 45'29	
	3215 Jan 12 15:24	0° ♄		morning max el	3215 Dec 26 05:28	13° ♄ 25'03	20°40'09
greatest brilliancy	3215 Jan 17 02:48	5° ♄ 02'57	-0.4m	greatest brilliancy	3216 Jan 01 03:24	20° ♄ 20'06	-0.5m
desc. node	3215 Jan 26 04:57	17° ♄ 09'47			3216 Jan 08 03:44	0° ♄	
	3215 Feb 03 23:17	0° ♄		desc. node	3216 Jan 13 01:58	7° ♄ 12'41	
morning set	3215 Feb 14 04:16	15° ♄ 53'37		morning set	3216 Jan 24 07:01	24° ♄ 15'47	
max. Earth dist.	3215 Feb 20 01:15	25° ♄ 31'17	1.41265 AU		3216 Jan 27 22:56	0° ♄	
	3215 Feb 22 16:55	0° ♄		max. Earth dist.	3216 Feb 02 06:50	8° ♄ 30'45	1.43129 AU
superior conj	3215 Feb 27 18:53	8° ♄ 49'16	-2°-2'-54	superior conj	3216 Feb 08 21:37	19° ♄ 24'20	-2°-5'-52
minimum elong	3215 Feb 27 21:42	9° ♄ 01'45	2°02'48	minimum elong	3216 Feb 08 19:56	19° ♄ 17'19	2°05'51
evening rise	3215 Mar 10 08:46	28° ♄ 06'01			3216 Feb 15 02:43	0° ♄	
	3215 Mar 11 09:21	0° ♄		evening rise	3216 Feb 21 00:52	10° ♄ 23'23	
asc. node	3215 Mar 17 15:51	11° ♄ 19'35		asc. node	3216 Mar 03 12:52	29° ♄ 56'42	
evening max el	3215 Mar 26 14:40	23° ♄ 58'05	18°14'11		3216 Mar 03 13:45	0° ♄	
retrograde	3215 Apr 02 14:49	27° ♄ 28'47		evening max el	3216 Mar 09 02:23	7° ♄ 04'12	18°07'09
evening set	3215 Apr 05 02:09	27° ♄ 03'21		retrograde	3216 Mar 15 15:06	10° ♄ 27'17	
inferior conj	3215 Apr 12 03:09	22° ♄ 17'57	2°57'33	evening set	3216 Mar 18 07:55	9° ♄ 52'00	
minimum elong	3215 Apr 12 06:31	22° ♄ 10'31	2°56'52	inferior conj	3216 Mar 24 18:48	4° ♄ 45'45	3°30'03
min. Earth dist.	3215 Apr 15 12:38	19° ♄ 20'06	0.59675 AU	minimum elong	3216 Mar 24 20:30	4° ♄ 41'26	3°29'53
morning rise	3215 Apr 19 07:11	16° ♄ 36'37		min. Earth dist.	3216 Mar 27 18:55	1° ♄ 44'35	0.61834 AU
desc. node	3215 Apr 24 04:09	14° ♄ 48'18			3216 Mar 29 16:59	30° ♄	
direct	3215 Apr 25 17:56	14° ♄ 41'29		morning rise	3216 Mar 31 06:24	28° ♄ 47'17	
morning max el	3215 May 10 02:07	22° ♄ 30'39	27°26'36	direct	3216 Apr 07 02:44	26° ♄ 21'08	
	3215 May 16 17:06	0° ♄		desc. node	3216 Apr 10 01:10	26° ♄ 45'47	
	3215 Jun 04 13:58	0° ♄			3216 Apr 16 07:25	0° ♄	
morning set	3215 Jun 10 09:49	11° ♄ 37'21		morning max el	3216 Apr 21 06:15	4° ♄ 18'19	27°50'42
asc. node	3215 Jun 13 15:06	18° ♄ 27'16			3216 May 10 09:35	0° ♄	
max. Earth dist.	3215 Jun 16 23:09	25° ♄ 44'00	1.32097 AU	morning set	3216 May 24 13:08	26° ♄ 01'26	
					3216 May 26 11:21	0° ♄	
superior conj	3215 Jun 17 14:12	27° ♄ 06'49	0°40'42	max. Earth dist.	3216 May 30 08:42	8° ♄ 17'04	1.32379 AU
minimum elong	3215 Jun 17 12:30	26° ♄ 57'31	0°40'20	asc. node	3216 May 30 12:09	8° ♄ 35'44	
	3215 Jun 18 21:38	0° ♄					
evening rise	3215 Jun 24 11:10	12° ♄ 05'08		superior conj	3216 Jun 01 00:19	11° ♄ 52'18	0°15'49
	3215 Jul 03 13:31	0° ♄		minimum elong	3216 May 31 23:35	11° ♄ 48'19	0°15'39
desc. node	3215 Jul 21 03:26	25° ♄ 05'02		behind sun begin	3216 May 31 22:43	11° ♄ 43'35	
evening max el	3215 Jul 22 13:23	26° ♄ 29'03	25°55'10	behind sun end	3216 Jun 01 00:27	11° ♄ 53'03	
	3215 Jul 26 18:33	0° ♄		evening rise	3216 Jun 07 22:42	26° ♄ 55'50	
retrograde	3215 Aug 05 12:53	3° ♄ 37'26			3216 Jun 09 09:40	0° ♄	
evening set	3215 Aug 11 19:07	2° ♄ 03'43			3216 Jun 26 19:15	0° ♄	
	3215 Aug 15 07:06	30° ♄		evening max el	3216 Jul 03 04:20	7° ♄ 15'54	24°29'39
min. Earth dist.	3215 Aug 16 01:43	29° ♄ 27'52	0.58710 AU	desc. node	3216 Jul 07 00:26	10° ♄ 30'51	
inferior conj	3215 Aug 19 07:47	27° ♄ 05'06	-5°00'-34	retrograde	3216 Jul 17 01:38	14° ♄ 17'02	
minimum elong	3215 Aug 19 10:29	27° ♄ 00'07	5°00'22	evening set	3216 Jul 22 01:06	13° ♄ 21'27	
morning rise	3215 Aug 27 05:21	22° ♄ 39'58		min. Earth dist.	3216 Jul 27 15:18	10° ♄ 29'45	0.56811 AU
direct	3215 Aug 29 15:58	22° ♄ 20'23		inferior conj	3216 Jul 30 08:58	8° ♄ 45'01	-5°-1'-35
morning max el	3215 Sep 06 19:24	26° ♄ 13'53	18°35'42	minimum elong	3216 Jul 30 06:21	8° ♄ 49'13	5°01'26
asc. node	3215 Sep 09 14:17	29° ♄ 18'05		morning rise	3216 Aug 07 15:15	4° ♄ 41'31	
	3215 Sep 10 03:28	0° ♄		direct	3216 Aug 10 06:46	4° ♄ 22'26	
morning set	3215 Sep 22 23:31	22° ♄ 01'56		morning max el	3216 Aug 19 17:22	8° ♄ 46'24	19°29'36
	3215 Sep 27 02:10	0° ♄		asc. node	3216 Aug 26 11:21	17° ♄ 10'00	
					3216 Sep 02 18:31	0° ♄	
superior conj	3215 Oct 01 19:42	9° ♄ 00'14	1°32'12	morning set	3216 Sep 06 00:52	6° ♄ 26'30	
minimum elong	3215 Oct 01 22:45	9° ♄ 14'31	1°31'56				
max. Earth dist.	3215 Oct 09 02:59	22° ♄ 13'34	1.39865 AU	superior conj	3216 Sep 14 02:17	22° ♄ 34'30	1°42'40
evening rise	3215 Oct 13 07:42	29° ♄ 24'53		minimum elong	3216 Sep 14 03:35	22° ♄ 40'51	1°42'38
	3215 Oct 13 16:05	0° ♄			3216 Sep 17 22:38	0° ♄	
desc. node	3215 Oct 17 02:44	5° ♄ 40'09		max. Earth dist.	3216 Sep 20 07:04	4° ♄ 23'48	1.37795 AU
	3215 Nov 02 06:22	0° ♄		evening rise	3216 Sep 24 02:17	11° ♄ 16'01	
evening max el	3215 Nov 17 06:11	18° ♄ 29'35	23°54'41	desc. node	3216 Oct 02 23:45	26° ♄ 14'19	
retrograde	3215 Nov 28 04:12	24° ♄ 55'16			3216 Oct 05 08:54	0° ♄	
evening set	3215 Dec 03 08:00	22° ♄ 47'25			3216 Oct 27 15:46	0° ♄	
asc. node	3215 Dec 06 13:31	19° ♄ 19'08		evening max el	3216 Oct 29 18:25	2° ♄ 09'53	25°11'09
min. Earth dist.	3215 Dec 08 04:18	17° ♄ 11'14	0.67791 AU	retrograde	3216 Nov 10 16:33	9° ♄ 03'41	
inferior conj	3215 Dec 08 19:12	16° ♄ 20'40	0°45'29	evening set	3216 Nov 16 10:24	6° ♄ 40'25	

min. Earth dist.	3216 Nov 20 22:40	1°♂38'43	0.67303 AU	desc. node	3217 Sep 19 20:47	16°♂34'45	
inferior conj	3216 Nov 22 00:18	0°♂15'08	0°-8'-47		3217 Sep 28 23:46	0°♂	
minimum elong	3216 Nov 22 00:31	0°♂14'24	0°08'43	evening max el	3217 Oct 12 06:43	15°♂50'49	26°16'47
transit middle	3216 Nov 22 00:31	0°♂14'24	0°08'43	retrograde	3217 Oct 24 23:59	23°♂01'26	
transit begin	3216 Nov 21 22:11	0°♂22'03		evening set	3217 Oct 31 07:35	20°♂26'14	
transit end	3216 Nov 22 02:52	0°♂06'46		min. Earth dist.	3217 Nov 04 12:33	16°♂00'22	0.66475 AU
asc. node	3216 Nov 22 10:33	29°♂41'46		inferior conj	3217 Nov 06 01:24	14°♂07'15	-1°-6'-49
	3216 Nov 22 04:57	30°♂		minimum elong	3217 Nov 06 03:12	14°♂01'43	1°06'05
morning rise	3216 Nov 27 15:18	24°♂15'02		asc. node	3217 Nov 09 07:37	10°♂24'07	
direct	3216 Dec 01 01:36	23°♂07'11		morning rise	3217 Nov 11 23:58	8°♂16'56	
morning max el	3216 Dec 08 08:13	27°♂13'19	19°34'08	direct	3217 Nov 15 00:00	7°♂25'41	
	3216 Dec 10 20:48	0°♂		morning max el	3217 Nov 21 17:54	11°♂08'55	18°43'26
greatest brilliancy	3216 Dec 16 16:32	7°♂40'45	-0.6m		3217 Dec 05 08:24	0°♂	
desc. node	3216 Dec 29 23:01	27°♂33'25		morning set	3217 Dec 12 19:46	11°♂46'29	
	3216 Dec 31 13:05	0°♂		desc. node	3217 Dec 16 20:03	18°♂06'26	
morning set	3217 Jan 02 04:02	2°♂30'20			3217 Dec 24 09:34	0°♂	
max. Earth dist.	3217 Jan 14 19:09	22°♂14'37	1.44476 AU	max. Earth dist.	3217 Dec 28 12:20	6°♂27'32	1.45153 AU
superior conj	3217 Jan 18 22:20	28°♂49'53	-1°-51'-6	superior conj	3217 Dec 29 03:35	7°♂27'22	-1°-17'-16
minimum elong	3217 Jan 18 14:58	28°♂20'22	1°50'37	minimum elong	3217 Dec 28 18:47	6°♂52'52	1°16'18
	3217 Jan 19 15:47	0°♂			3218 Jan 12 09:11	0°♂	
evening rise	3217 Feb 01 21:10	21°♂47'07		evening rise	3218 Jan 13 18:23	2°♂13'04	
	3217 Feb 06 18:20	0°♂			3218 Jan 31 18:59	0°♂	
asc. node	3217 Feb 18 09:54	17°♂54'06		evening max el	3218 Feb 04 02:02	3°♂51'10	18°49'19
evening max el	3217 Feb 20 15:02	20°♂23'50	18°19'10	asc. node	3218 Feb 05 06:56	5°♂00'06	
retrograde	3217 Feb 27 02:01	23°♂52'43		retrograde	3218 Feb 10 19:36	7°♂37'21	
evening set	3217 Mar 02 00:20	23°♂06'30		evening set	3218 Feb 14 00:05	6°♂39'05	
inferior conj	3217 Mar 08 00:49	17°♂40'50	3°39'25	inferior conj	3218 Feb 19 17:22	0°♂55'49	3°31'32
minimum elong	3217 Mar 08 00:44	17°♂41'06	3°39'24	minimum elong	3218 Feb 19 15:54	1°♂00'22	3°31'22
min. Earth dist.	3217 Mar 10 10:35	14°♂57'59	0.63802 AU		3218 Feb 20 11:23	30°♂	
morning rise	3217 Mar 13 23:21	11°♂32'52		min. Earth dist.	3218 Feb 21 11:32	28°♂45'50	0.65424 AU
direct	3217 Mar 20 20:13	8°♂47'29		morning rise	3218 Feb 25 06:35	24°♂43'00	
desc. node	3217 Mar 27 22:13	11°♂11'24		direct	3218 Mar 03 20:43	21°♂52'55	
morning max el	3217 Apr 03 14:35	16°♂44'10	27°37'34	desc. node	3218 Mar 14 19:16	27°♂30'23	
	3217 Apr 14 14:27	0°♂		morning max el	3218 Mar 17 00:23	29°♂37'25	26°52'00
	3217 May 03 03:52	0°♂			3218 Mar 17 09:16	0°♂	
morning set	3217 May 08 09:20	10°♂01'06			3218 Apr 08 11:57	0°♂	
max. Earth dist.	3217 May 13 11:43	20°♂26'17	1.33089 AU	morning set	3218 Apr 21 19:13	23°♂26'43	
					3218 Apr 25 03:54	0°♂	
superior conj	3217 May 16 07:04	26°♂23'31	0°-11'-24	max. Earth dist.	3218 Apr 26 04:43	2°♂04'01	1.34257 AU
minimum elong	3217 May 16 07:38	26°♂26'33	0°11'17				
behind sun begin	3217 May 16 03:50	26°♂06'09		superior conj	3218 Apr 30 08:22	10°♂34'11	0°-39'-54
behind sun end	3217 May 16 11:27	26°♂46'58		minimum elong	3218 Apr 30 10:26	10°♂44'59	0°39'30
asc. node	3217 May 17 09:12	28°♂43'46		asc. node	3218 May 04 06:16	18°♂47'29	
	3217 May 17 23:22	0°♂		evening rise	3218 May 07 20:27	26°♂20'30	
evening rise	3217 May 23 10:25	11°♂42'56			3218 May 09 14:59	0°♂	
	3217 Jun 01 19:17	0°♂		evening max el	3218 May 27 14:02	28°♂21'19	21°21'07
evening max el	3217 Jun 14 17:56	17°♂42'25	22°53'17		3218 May 29 09:43	0°♂	
desc. node	3217 Jun 23 21:28	23°♂40'54		retrograde	3218 Jun 08 15:55	4°♂16'44	
retrograde	3217 Jun 28 01:54	24°♂20'56		desc. node	3218 Jun 10 18:30	4°♂06'31	
evening set	3217 Jul 01 12:57	23°♂54'41		evening set	3218 Jun 11 00:40	4°♂03'55	
min. Earth dist.	3217 Jul 09 02:41	20°♂32'44	0.55425 AU	inferior conj	3218 Jun 20 09:29	0°♂04'57	-2°-44'-41
inferior conj	3217 Jul 10 15:01	19°♂40'21	-4°-17'-10	minimum elong	3218 Jun 20 02:10	0°♂15'12	2°42'19
minimum elong	3217 Jul 10 07:24	19°♂51'21	4°15'34	min. Earth dist.	3218 Jun 20 14:11	29°♂58'22	0.54865 AU
morning rise	3217 Jul 19 04:36	15°♂48'50			3218 Jun 20 13:01	30°♂	
direct	3217 Jul 22 03:02	15°♂28'38		morning rise	3218 Jun 29 04:00	26°♂08'32	
morning max el	3217 Aug 02 03:55	20°♂35'58	20°44'43	direct	3218 Jul 02 13:19	25°♂43'39	
	3217 Aug 09 19:45	0°♂			3218 Jul 13 04:15	0°♂	
asc. node	3217 Aug 13 08:25	5°♂45'20		morning max el	3218 Jul 15 03:12	1°♂41'19	22°17'46
morning set	3217 Aug 21 07:43	21°♂07'11		asc. node	3218 Jul 31 05:30	24°♂53'30	
	3217 Aug 25 14:27	0°♂			3218 Aug 02 20:10	0°♂	
				morning set	3218 Aug 05 17:54	5°♂57'55	
superior conj	3217 Aug 28 20:34	6°♂43'21	1°44'40				
minimum elong	3217 Aug 28 20:15	6°♂41'43	1°44'40	superior conj	3218 Aug 12 22:54	21°♂16'02	1°39'42
max. Earth dist.	3217 Sep 02 14:44	16°♂15'09	1.35908 AU	minimum elong	3218 Aug 12 21:24	21°♂08'04	1°39'36
evening rise	3217 Sep 06 17:02	24°♂04'07		max. Earth dist.	3218 Aug 16 06:51	28°♂13'20	1.34357 AU
	3217 Sep 09 23:08	0°♂			3218 Aug 17 03:41	0°♂	

evening rise	3218 Aug 20 23:26	7° \mathbb{M} 37'07		evening rise	3219 Aug 04 17:17	21° Ω 42'55	
	3218 Sep 02 13:02	0° \mathbb{A}			3219 Aug 08 22:53	0° \mathbb{M}	
desc. node	3218 Sep 06 17:48	6° \mathbb{A} 34'52		desc. node	3219 Aug 24 14:51	26° \mathbb{M} 05'54	
evening max el	3218 Sep 24 19:19	29° \mathbb{A} 24'46	27°03'55		3219 Aug 27 09:56	0° \mathbb{A}	
	3218 Sep 25 10:16	0° \mathbb{M}		evening max el	3219 Sep 07 06:42	12° \mathbb{A} 39'22	27°25'37
retrograde	3218 Oct 08 01:43	6° \mathbb{M} 41'45		retrograde	3219 Sep 20 21:21	19° \mathbb{A} 56'28	
evening set	3218 Oct 14 21:19	4° \mathbb{M} 00'35		evening set	3219 Sep 28 00:48	17° \mathbb{A} 18'21	
	3218 Oct 18 23:32	30° \mathbb{R} \mathbb{A}		min. Earth dist.	3219 Oct 01 17:22	14° \mathbb{A} 03'16	0.63772 AU
min. Earth dist.	3218 Oct 18 19:31	0° \mathbb{M} 11'10	0.65300 AU	inferior conj	3219 Oct 04 06:39	11° \mathbb{A} 26'19	-3°-6'-30
inferior conj	3218 Oct 20 20:22	27° \mathbb{A} 52'52	-2°-6'-54	minimum elong	3219 Oct 04 11:41	11° \mathbb{A} 13'26	3°04'49
minimum elong	3218 Oct 20 23:52	27° \mathbb{A} 42'56	2°05'32	morning rise	3219 Oct 11 00:52	6° \mathbb{A} 05'29	
morning rise	3218 Oct 27 04:08	22° \mathbb{A} 15'30		direct	3219 Oct 13 11:37	5° \mathbb{A} 36'00	
asc. node	3218 Oct 27 04:41	22° \mathbb{A} 14'50		asc. node	3219 Oct 14 01:44	5° \mathbb{A} 37'44	
direct	3218 Oct 29 20:14	21° \mathbb{A} 36'57		morning max el	3219 Oct 20 00:50	9° \mathbb{A} 01'15	17°52'27
morning max el	3218 Nov 05 08:21	25° \mathbb{A} 06'52	18°09'16		3219 Nov 03 01:07	0° \mathbb{M}	
	3218 Nov 09 10:14	0° \mathbb{M}		morning set	3219 Nov 05 16:36	4° \mathbb{M} 33'46	
morning set	3218 Nov 23 16:47	22° \mathbb{M} 30'59					
	3218 Nov 28 06:27	0° \mathbb{X}		superior conj	3219 Nov 18 06:22	25° \mathbb{M} 47'06	0°15'55
desc. node	3218 Dec 03 17:04	8° \mathbb{X} 47'42		minimum elong	3219 Nov 18 08:05	25° \mathbb{M} 54'07	0°15'40
				behind sun begin	3219 Nov 18 05:44	25° \mathbb{M} 44'28	
superior conj	3218 Dec 08 07:38	16° \mathbb{X} 08'04	0°-30'-57	behind sun end	3219 Nov 18 10:26	26° \mathbb{M} 03'46	
minimum elong	3218 Dec 08 03:42	15° \mathbb{X} 52'31	0°30'25	desc. node	3219 Nov 20 14:06	29° \mathbb{M} 34'05	
max. Earth dist.	3218 Dec 11 07:46	20° \mathbb{X} 52'44	1.45095 AU		3219 Nov 20 20:30	0° \mathbb{X}	
	3218 Dec 17 03:32	0° \mathbb{Z}		max. Earth dist.	3219 Nov 24 02:06	5° \mathbb{X} 11'34	1.44310 AU
evening rise	3218 Dec 24 17:35	11° \mathbb{Z} 47'59		evening rise	3219 Dec 04 03:45	20° \mathbb{X} 56'52	
	3219 Jan 05 13:07	0° \mathbb{A}			3219 Dec 10 02:08	0° \mathbb{Z}	
greatest brilliancy	3219 Jan 10 10:39	7° \mathbb{A} 14'45	-0.7m	greatest brilliancy	3219 Dec 26 15:34	23° \mathbb{Z} 57'14	-0.5m
evening max el	3219 Jan 18 09:12	17° \mathbb{A} 21'14	19°36'07		3219 Dec 31 15:12	0° \mathbb{A}	
asc. node	3219 Jan 23 03:58	21° \mathbb{A} 00'07		evening max el	3220 Jan 01 11:09	0° \mathbb{A} 52'40	20°37'18
retrograde	3219 Jan 25 16:38	21° \mathbb{A} 34'40		retrograde	3220 Jan 09 14:42	5° \mathbb{A} 41'10	
evening set	3219 Jan 29 04:31	20° \mathbb{A} 23'08		asc. node	3220 Jan 10 00:59	5° \mathbb{A} 40'09	
inferior conj	3219 Feb 03 17:11	14° \mathbb{A} 24'24	3°10'39	evening set	3220 Jan 13 11:31	4° \mathbb{A} 15'08	
minimum elong	3219 Feb 03 14:54	14° \mathbb{A} 31'55	3°10'12		3220 Jan 17 11:10	30° \mathbb{R} \mathbb{Z}	
min. Earth dist.	3219 Feb 04 20:31	12° \mathbb{A} 54'35	0.66641 AU	inferior conj	3220 Jan 18 21:42	28° \mathbb{Z} 03'47	2°39'39
morning rise	3219 Feb 09 00:35	8° \mathbb{A} 09'25		minimum elong	3220 Jan 18 19:09	28° \mathbb{Z} 12'28	2°38'57
direct	3219 Feb 15 03:01	5° \mathbb{A} 27'19		min. Earth dist.	3220 Jan 19 11:46	27° \mathbb{Z} 15'42	0.67448 AU
morning max el	3219 Feb 27 09:36	12° \mathbb{A} 45'48	25°42'01	morning rise	3220 Jan 24 02:21	21° \mathbb{Z} 48'24	
desc. node	3219 Mar 01 16:17	15° \mathbb{A} 10'29		direct	3220 Jan 29 14:29	19° \mathbb{Z} 23'07	
	3219 Mar 13 07:24	0° \mathbb{X}		morning max el	3220 Feb 09 18:09	26° \mathbb{Z} 02'24	24°17'26
	3219 Apr 01 05:12	0° \mathbb{Y}			3220 Feb 13 09:29	0° \mathbb{A}	
morning set	3219 Apr 04 14:23	6° \mathbb{Y} 04'24		desc. node	3220 Feb 16 13:18	3° \mathbb{A} 48'55	
max. Earth dist.	3219 Apr 08 10:13	13° \mathbb{Y} 13'05	1.35881 AU		3220 Mar 05 21:03	0° \mathbb{X}	
				morning set	3220 Mar 16 13:22	17° \mathbb{X} 39'39	
superior conj	3219 Apr 14 01:27	24° \mathbb{Y} 15'21	-1°-8'-17	max. Earth dist.	3220 Mar 20 07:13	24° \mathbb{X} 17'20	1.37877 AU
minimum elong	3219 Apr 14 04:59	24° \mathbb{Y} 33'10	1°07'42		3220 Mar 23 10:08	0° \mathbb{Y}	
	3219 Apr 16 21:29	0° \mathbb{Z}		superior conj	3220 Mar 27 07:00	7° \mathbb{Y} 18'33	-1°-34'-24
asc. node	3219 Apr 21 03:18	8° \mathbb{Z} 41'47		minimum elong	3220 Mar 27 11:30	7° \mathbb{Y} 40'10	1°33'51
evening rise	3219 Apr 22 02:37	10° \mathbb{Z} 40'47		evening rise	3220 Apr 05 02:29	24° \mathbb{Y} 37'11	
	3219 May 02 11:33	0° \mathbb{I}		asc. node	3220 Apr 07 00:19	28° \mathbb{Y} 22'17	
evening max el	3219 May 09 21:21	9° \mathbb{I} 33'56	20°03'33		3220 Apr 07 20:26	0° \mathbb{Z}	
retrograde	3219 May 20 06:29	14° \mathbb{I} 36'36		evening max el	3220 Apr 21 16:17	21° \mathbb{Z} 26'48	19°05'13
evening set	3219 May 22 06:11	14° \mathbb{I} 26'18		retrograde	3220 Apr 30 10:11	25° \mathbb{Z} 42'11	
desc. node	3219 May 28 15:31	11° \mathbb{I} 57'48		evening set	3220 May 02 12:03	25° \mathbb{Z} 28'45	
inferior conj	3219 May 31 06:05	10° \mathbb{I} 26'45	0°-46'-4	inferior conj	3220 May 10 18:01	21° \mathbb{Z} 15'31	1°04'26
minimum elong	3219 May 31 03:56	10° \mathbb{I} 29'58	0°45'18	minimum elong	3220 May 10 20:29	21° \mathbb{Z} 11'15	1°03'36
min. Earth dist.	3219 Jun 02 02:54	9° \mathbb{I} 19'39	0.55264 AU	min. Earth dist.	3220 May 13 18:12	19° \mathbb{Z} 11'58	0.56541 AU
morning rise	3219 Jun 08 23:11	6° \mathbb{I} 06'18		desc. node	3220 May 14 12:32	18° \mathbb{Z} 42'12	
direct	3219 Jun 13 02:05	5° \mathbb{I} 29'18		morning rise	3220 May 19 00:39	16° \mathbb{Z} 19'54	
morning max el	3219 Jun 26 18:55	12° \mathbb{I} 13'50	24°00'22	direct	3220 May 24 02:51	15° \mathbb{Z} 19'07	
	3219 Jul 10 07:14	0° \mathbb{Z}		morning max el	3220 Jun 07 09:19	22° \mathbb{Z} 39'20	25°38'25
asc. node	3219 Jul 18 02:33	14° \mathbb{Z} 25'26			3220 Jun 13 22:01	0° \mathbb{I}	
morning set	3219 Jul 21 05:35	20° \mathbb{Z} 52'52			3220 Jul 01 22:11	0° \mathbb{Z}	
	3219 Jul 25 11:29	0° \mathbb{Q}		asc. node	3220 Jul 03 23:35	4° \mathbb{Z} 14'27	
				morning set	3220 Jul 04 17:08	5° \mathbb{Z} 46'47	
superior conj	3219 Jul 28 06:28	6° \mathbb{Q} 03'25	1°28'58	superior conj	3220 Jul 11 17:04	20° \mathbb{Z} 58'30	1°13'23
minimum elong	3219 Jul 28 04:17	5° \mathbb{Q} 51'36	1°28'43				
max. Earth dist.	3219 Jul 30 07:59	10° \mathbb{Q} 29'48	1.33200 AU				

minimum elong	3220 Jul 11 14:43	20°  45'33	1°13'00	asc. node	3221 Jun 20 20:37	24°  15'01	
max. Earth dist.	3220 Jul 12 15:55	23°  03'43	1.32452 AU		3221 Jun 23 12:18	0° 	
	3220 Jul 15 20:43	0° 					
evening rise	3220 Jul 18 19:14	6°  11'38		superior conj	3221 Jun 26 04:52	5°  54'59	0°53'41
	3220 Jul 31 12:23	0° 		minimum elong	3221 Jun 26 02:48	5°  43'36	0°53'17
desc. node	3220 Aug 10 11:52	14°  15'23		max. Earth dist.	3221 Jun 26 03:23	5°  46'51	1.32103 AU
evening max el	3220 Aug 19 14:30	25°  20'53	27°16'21	evening rise	3221 Jul 03 02:37	20°  55'02	
	3220 Aug 25 11:50	0° 			3221 Jul 07 13:27	0° 	
retrograde	3220 Sep 02 10:19	2°  35'33			3221 Jul 26 01:42	0° 	
evening set	3220 Sep 09 14:19	0°  12'28		desc. node	3221 Jul 28 08:52	2°  19'11	26°33'52
	3220 Sep 09 21:48	30°  19'11		evening max el	3221 Aug 01 16:22	7°  19'11	26°33'52
min. Earth dist.	3220 Sep 13 04:43	27°  24'20	0.61931 AU	retrograde	3221 Aug 15 15:32	14°  19'11	
inferior conj	3220 Sep 16 05:13	24°  39'31	-4°-1'-31	evening set	3221 Aug 22 09:18	12°  35'59	
minimum elong	3220 Sep 16 10:56	24°  26'27	4°00'04	min. Earth dist.	3221 Aug 26 05:58	10°  00'38	0.59892 AU
morning rise	3220 Sep 23 10:29	19°  38'34		inferior conj	3221 Aug 29 12:39	7°  24'10	-4°-44'-58
direct	3220 Sep 25 18:36	19°  14'59		minimum elong	3221 Aug 29 17:15	7°  14'58	4°44'18
asc. node	3220 Sep 29 22:46	20°  32'37		morning rise	3221 Sep 06 04:36	2°  45'35	
morning max el	3220 Oct 02 16:15	22°  44'04	17°53'47	direct	3221 Sep 08 13:15	2°  25'15	
	3220 Oct 08 08:25	0° 		morning max el	3221 Sep 16 03:24	6°  07'11	18°14'25
morning set	3220 Oct 18 12:46	17°  34'14		asc. node	3221 Sep 16 19:48	6°  48'18	
	3220 Oct 25 10:58	0° 			3221 Oct 01 07:22	0° 	
				morning set	3221 Oct 01 23:33	1°  16'31	
superior conj	3220 Oct 29 07:50	6°  44'46	0°54'28				
minimum elong	3220 Oct 29 12:02	7°  02'49	0°53'55	superior conj	3221 Oct 11 10:07	18°  55'01	1°21'37
max. Earth dist.	3220 Nov 05 16:07	19°  04'04	1.42898 AU	minimum elong	3221 Oct 11 14:01	19°  12'39	1°21'13
desc. node	3220 Nov 06 11:08	20°  12'40			3221 Oct 17 16:33	0° 	
	3220 Nov 12 11:58	0° 		max. Earth dist.	3221 Oct 19 00:31	2°  16'43	1.41046 AU
evening rise	3220 Nov 12 16:24	0°  17'24		evening rise	3221 Oct 23 22:17	10°  16'43	
	3220 Dec 02 17:10	0° 		desc. node	3221 Oct 24 08:11	11°  07'09	
greatest brilliancy	3220 Dec 09 12:40	8°  58'42	-0.4m		3221 Nov 05 12:28	0° 	
evening max el	3220 Dec 14 07:29	14°  24'52	21°49'42	greatest brilliancy	3221 Nov 20 18:17	20°  57'54	-0.2m
retrograde	3220 Dec 23 11:48	19°  52'40		evening max el	3221 Nov 26 23:15	27°  59'49	23°08'40
asc. node	3220 Dec 26 22:00	18°  49'01			3221 Nov 29 02:10	0° 	
evening set	3220 Dec 27 19:18	18°  10'59		retrograde	3221 Dec 07 06:21	4°  05'57	
inferior conj	3221 Jan 02 04:45	11°  50'30	2°00'30	evening set	3221 Dec 12 02:15	2°  07'52	
minimum elong	3221 Jan 02 02:26	11°  58'31	1°59'43	asc. node	3221 Dec 13 19:01	0° 	
min. Earth dist.	3221 Jan 02 06:58	11°  42'47	0.67866 AU		3221 Dec 14 05:23	30°  19'11	
morning rise	3221 Jan 07 09:21	5°  36'31		min. Earth dist.	3221 Dec 17 03:46	26°  12'07	0.67921 AU
direct	3221 Jan 12 06:25	3°  32'45		inferior conj	3221 Dec 17 12:26	25°  42'14	1°14'35
morning max el	3221 Jan 22 03:58	9°  24'27	22°48'27	minimum elong	3221 Dec 17 10:49	25°  47'51	1°13'56
greatest brilliancy	3221 Jan 26 19:46	14°  36'13	-0.3m	morning rise	3221 Dec 22 19:23	19°  31'43	
desc. node	3221 Feb 02 10:20	23°  08'46		direct	3221 Dec 27 01:56	17°  50'46	
	3221 Feb 07 07:37	0° 		morning max el	3222 Jan 04 18:34	22°  54'44	21°23'58
morning set	3221 Feb 25 10:01	27°  56'54		greatest brilliancy	3222 Jan 09 20:33	28°  42'11	-0.4m
	3221 Feb 26 15:42	0° 			3222 Jan 10 21:12	0° 	
max. Earth dist.	3221 Mar 02 02:27	5°  49'32	1.40044 AU	desc. node	3222 Jan 20 07:23	12°  58'34	
					3222 Jan 31 16:07	0° 	
superior conj	3221 Mar 09 20:46	19°  33'10	-1°-55'-6	morning set	3222 Feb 05 01:50	6°  52'53	
minimum elong	3221 Mar 10 00:52	19°  51'53	1°54'49	max. Earth dist.	3222 Feb 12 02:59	18°  14'38	1.42108 AU
	3221 Mar 15 11:38	0° 			3222 Feb 19 02:37	0° 	
evening rise	3221 Mar 19 17:02	8°  01'36					
asc. node	3221 Mar 24 21:20	17°  43'32		superior conj	3222 Feb 19 13:43	0° 	-2°-6'-3
	3221 Apr 01 11:24	0° 		minimum elong	3222 Feb 19 14:59	0° 	2°06'02
evening max el	3221 Apr 04 20:24	3°  55'17	18°27'07	evening rise	3222 Mar 02 18:32	20°  45'42	
retrograde	3221 Apr 12 08:28	7°  37'30			3222 Mar 07 21:21	0° 	
evening set	3221 Apr 14 16:13	7°  17'16		asc. node	3222 Mar 11 18:21	6°  38'56	
inferior conj	3221 Apr 22 03:05	2°  44'30	2°25'43	evening max el	3222 Mar 19 06:21	16°  50'28	18°08'54
minimum elong	3221 Apr 22 06:53	2°  36'49	2°24'44	retrograde	3222 Mar 26 00:17	20°  15'52	
min. Earth dist.	3221 Apr 25 13:37	29°  59'27	0.58434 AU	evening set	3222 Mar 28 14:01	19°  46'24	
	3221 Apr 25 13:20	30°  19'11		inferior conj	3222 Apr 04 08:33	14°  52'21	3°14'37
morning rise	3221 Apr 29 17:15	27°  16'56		minimum elong	3222 Apr 04 11:18	14°  45'54	3°14'10
desc. node	3221 May 01 09:31	26°  31'50		min. Earth dist.	3222 Apr 07 15:12	11°  49'50	0.60601 AU
direct	3221 May 05 18:10	25°  42'04		morning rise	3222 Apr 11 05:17	9°  02'46	
	3221 May 16 06:05	0° 		direct	3222 Apr 17 21:31	6°  52'56	
morning max el	3221 May 20 03:37	3°  24'39	26°56'09	desc. node	3222 Apr 18 06:34	6°  53'20	
	3221 Jun 08 10:34	0°		morning max el	3222 May 02 03:59	14° 46'46	27°41'32
morning set	3221 Jun 19 02:58	20° 34'15			3222 May 14 11:13	0°	

	3222 May 31 20:31	0°♂			3223 May 08 02:13	0°♂	
morning set	3222 Jun 03 09:12	5°♂08'13		morning set	3223 May 18 09:48	19°♂22'21	
asc. node	3222 Jun 07 17:39	14°♂21'31			3223 May 23 12:28	0°♂	
max. Earth dist.	3222 Jun 09 14:38	18°♂26'23	1.32158 AU	max. Earth dist.	3223 May 23 21:56	0°♂50'34	1.32631 AU
				asc. node	3223 May 25 14:42	4°♂29'58	
superior conj	3222 Jun 10 16:04	20°♂45'50	0°30'29				
minimum elong	3222 Jun 10 14:44	20°♂38'31	0°30'13	superior conj	3223 May 26 01:00	5°♂25'39	0°04'31
	3222 Jun 14 21:08	0°♂		minimum elong	3223 May 26 00:47	5°♂24'28	0°04'29
evening rise	3222 Jun 17 13:10	5°♂44'42		behind sun begin	3223 May 25 19:45	4°♂57'15	
	3222 Jun 30 07:50	0°♂		behind sun end	3223 May 26 05:48	5°♂51'42	
evening max el	3222 Jul 14 11:02	18°♂29'51	25°21'19	evening rise	3223 Jun 02 01:02	20°♂34'29	
desc. node	3222 Jul 15 05:52	19°♂13'50			3223 Jun 06 15:06	0°♂	
retrograde	3222 Jul 28 10:44	25°♂35'59		evening max el	3223 Jun 26 00:38	29°♂04'00	23°49'04
evening set	3222 Aug 03 05:04	24°♂19'03			3223 Jun 27 00:34	0°♂	
min. Earth dist.	3222 Aug 07 22:57	21°♂38'19	0.57860 AU	desc. node	3223 Jul 02 02:53	3°♂45'56	
inferior conj	3222 Aug 11 01:30	19°♂29'46	-5°-5'-46	retrograde	3223 Jul 09 17:39	5°♂57'07	
minimum elong	3222 Aug 11 02:13	19°♂28'32	5°05'46	evening set	3223 Jul 14 01:41	5°♂15'47	
morning rise	3222 Aug 19 02:55	15°♂14'01		min. Earth dist.	3223 Jul 20 10:56	2°♂12'56	0.56143 AU
direct	3222 Aug 21 15:17	14°♂54'49		inferior conj	3223 Jul 22 18:03	0°♂49'25	-4°-48'-57
morning max el	3222 Aug 30 06:58	19°♂00'11	18°55'53	minimum elong	3223 Jul 22 12:57	0°♂57'11	4°48'18
asc. node	3222 Sep 03 16:52	24°♂08'54			3223 Jul 24 02:54	30°♂♂	
	3222 Sep 07 12:41	0°♂		morning rise	3223 Jul 31 03:35	26°♂52'33	
morning set	3222 Sep 15 20:34	15°♂28'08		direct	3223 Aug 02 22:04	26°♂33'03	
	3222 Sep 23 06:23	0°♂			3223 Aug 11 13:58	0°♂	
superior conj	3222 Sep 24 07:53	2°♂02'24	1°37'46	morning max el	3223 Aug 13 00:04	1°♂13'49	19°59'04
minimum elong	3222 Sep 24 10:13	2°♂13'31	1°37'37	asc. node	3223 Aug 21 13:56	12°♂20'07	
max. Earth dist.	3222 Oct 01 05:15	14°♂47'43	1.38985 AU	morning set	3223 Aug 31 00:32	0°♂00'05	
evening rise	3222 Oct 05 03:36	21°♂40'56			3223 Aug 31 00:31	0°♂	
	3222 Oct 10 02:56	0°♂		superior conj	3223 Sep 07 19:55	15°♂52'14	1°44'27
desc. node	3222 Oct 11 05:13	1°♂46'34		minimum elong	3223 Sep 07 20:30	15°♂55'05	1°44'27
	3222 Oct 30 12:26	0°♂		max. Earth dist.	3223 Sep 13 10:36	26°♂48'24	1.36963 AU
evening max el	3222 Nov 09 12:23	11°♂38'58	24°28'06		3223 Sep 15 03:30	0°♂	
retrograde	3222 Nov 20 21:08	18°♂17'20		evening rise	3223 Sep 17 07:14	3°♂57'02	
evening set	3222 Nov 26 06:49	16°♂02'58		desc. node	3223 Sep 28 02:14	22°♂15'23	
asc. node	3222 Nov 30 16:04	11°♂06'26			3223 Oct 03 02:52	0°♂	
min. Earth dist.	3222 Nov 30 23:42	10°♂41'08	0.67630 AU	evening max el	3223 Oct 23 00:38	25°♂20'25	25°40'51
inferior conj	3222 Dec 01 19:02	9°♂36'27	0°23'02		3223 Oct 28 15:52	0°♂	
minimum elong	3222 Dec 01 18:28	9°♂38'19	0°22'47	retrograde	3223 Nov 04 07:18	2°♂21'55	
morning rise	3222 Dec 07 06:30	3°♂31'48		evening set	3223 Nov 10 07:14	29°♂53'00	
direct	3222 Dec 10 23:47	2°♂12'32			3223 Nov 10 03:52	30°♂♂	
morning max el	3222 Dec 18 16:40	6°♂36'19	20°10'12	min. Earth dist.	3223 Nov 14 16:22	25°♂06'35	0.67000 AU
greatest brilliancy	3222 Dec 25 11:06	14°♂43'50	-0.6m	inferior conj	3223 Nov 15 22:41	23°♂30'04	0°-33'-2
	3223 Jan 05 01:53	0°♂		minimum elong	3223 Nov 15 23:32	23°♂27'20	0°32'40
desc. node	3223 Jan 07 04:26	3°♂09'55		asc. node	3223 Nov 17 13:09	21°♂30'11	
morning set	3223 Jan 14 23:00	15°♂02'25		morning rise	3223 Nov 21 16:41	17°♂33'56	
	3223 Jan 24 11:53	0°♂		direct	3223 Nov 24 22:27	16°♂33'30	
max. Earth dist.	3223 Jan 25 11:50	1°♂35'44	1.43782 AU	morning max el	3223 Dec 01 22:36	20°♂28'08	19°10'36
					3223 Dec 09 12:56	0°♂	
superior conj	3223 Jan 31 05:25	10°♂53'25	-2°-2'00	greatest brilliancy	3223 Dec 12 16:33	4°♂35'58	-0.7m
minimum elong	3223 Jan 31 01:13	10°♂36'10	2°01'51	morning set	3223 Dec 25 01:37	23°♂36'54	
	3223 Feb 11 13:26	0°♂		desc. node	3223 Dec 25 01:28	23°♂36'18	
evening rise	3223 Feb 13 02:45	2°♂41'11			3223 Dec 29 04:02	0°♂	
asc. node	3223 Feb 26 15:24	25°♂00'38		max. Earth dist.	3224 Jan 08 03:14	15°♂36'26	1.44859 AU
	3223 Mar 02 17:25	0°♂					
evening max el	3223 Mar 02 18:55	0°♂03'47	18°10'00	superior conj	3224 Jan 10 20:15	19°♂53'24	-1°-38'-53
retrograde	3223 Mar 09 05:35	3°♂27'27		minimum elong	3224 Jan 10 11:26	19°♂18'27	1°38'07
evening set	3223 Mar 12 00:51	2°♂47'28			3224 Jan 17 04:08	0°♂	
	3223 Mar 15 20:51	30°♂♂		evening rise	3224 Jan 25 13:29	13°♂40'28	
inferior conj	3223 Mar 18 06:52	27°♂32'42	3°36'27		3224 Feb 04 12:53	0°♂	
minimum elong	3223 Mar 18 07:46	27°♂30'17	3°36'23	asc. node	3224 Feb 13 12:27	12°♂37'32	
min. Earth dist.	3223 Mar 21 01:12	24°♂37'17	0.62711 AU	evening max el	3224 Feb 14 07:08	13°♂26'53	18°29'47
morning rise	3223 Mar 24 12:29	21°♂29'47		retrograde	3224 Feb 20 19:55	17°♂01'50	
direct	3223 Mar 31 10:11	18°♂53'50		evening set	3224 Feb 23 20:47	10°♂10'29	
desc. node	3223 Apr 05 03:36	19°♂57'57		inferior conj	3224 Feb 29 17:49	10°♂36'45	3°37'51
morning max el	3223 Apr 14 10:03	26°♂51'03	27°49'30	minimum elong	3224 Feb 29 17:04	10°♂38'58	3°37'49
	3223 Apr 17 09:12	0°♂		min. Earth dist.	3224 Mar 02 20:47	8°♂06'55	0.64543 AU

morning rise	3224 Mar 06 11:56	4° ✕ 26'18		morning rise	3225 Feb 18 00:08	17° ≈ 43'56	
direct	3224 Mar 13 06:33	1° ✕ 37'35		direct	3225 Feb 24 09:35	14° ≈ 55'59	
desc. node	3224 Mar 22 00:38	5° ✕ 15'44		desc. node	3225 Mar 08 21:41	22° ≈ 12'24	
morning max el	3224 Mar 26 19:28	9° ✕ 30'07	27°21'46	morning max el	3225 Mar 09 05:25	22° ≈ 31'47	26°24'33
	3224 Apr 11 20:32	0° Υ			3225 Mar 15 19:29	0° ✕	
	3224 Apr 29 11:06	0° ✕			3225 Apr 05 03:07	0° Υ	
morning set	3224 May 01 02:00	3° ✕ 08'10		morning set	3225 Apr 14 06:14	16° Υ 14'57	
max. Earth dist.	3224 May 05 21:15	12° ✕ 47'25	1.33535 AU	max. Earth dist.	3225 Apr 18 09:24	24° Υ 11'28	1.34895 AU
					3225 Apr 21 07:18	0° ✕	
superior conj	3224 May 09 05:40	19° ✕ 48'08	0°-23'-24	superior conj	3225 Apr 23 03:47	3° ✕ 46'38	0°-52'-5
minimum elong	3224 May 09 06:51	19° ✕ 54'27	0°23'10	minimum elong	3225 Apr 23 06:30	4° ✕ 00'38	0°51'35
asc. node	3224 May 11 11:46	24° ✕ 36'12		asc. node	3225 Apr 28 08:48	14° ✕ 36'01	
	3224 May 14 00:19	0° Π		evening rise	3225 Apr 30 20:54	19° ✕ 48'24	
evening rise	3224 May 16 12:16	5° Π 17'51			3225 May 05 23:11	0° Π	
	3224 May 29 22:39	0° ☾		evening max el	3225 May 19 16:17	20° Π 21'17	20°45'54
evening max el	3224 Jun 06 15:52	9° ☾ 30'35	22°12'41	retrograde	3225 May 31 01:52	25° Π 55'06	
desc. node	3224 Jun 17 23:52	15° ☾ 47'55		evening set	3225 Jun 02 04:29	25° Π 44'25	
retrograde	3224 Jun 19 12:50	15° ☾ 53'23		desc. node	3225 Jun 04 20:53	25° Π 02'19	
evening set	3224 Jun 22 10:53	15° ☾ 34'29		inferior conj	3225 Jun 11 11:10	21° Π 47'05	-1°-55'-27
min. Earth dist.	3224 Jun 30 21:46	11° ☾ 55'54	0.55071 AU	minimum elong	3225 Jun 11 05:46	21° Π 54'48	1°53'33
inferior conj	3224 Jul 01 17:40	11° ☾ 27'54	-3°-43'-3	min. Earth dist.	3225 Jun 12 09:53	21° Π 14'37	0.54908 AU
minimum elong	3224 Jul 01 09:22	11° ☾ 39'35	3°40'51	morning rise	3225 Jun 20 06:04	17° Π 42'16	
morning rise	3224 Jul 10 09:53	7° ☾ 37'12		direct	3225 Jun 23 21:37	17° Π 13'37	
direct	3224 Jul 13 12:17	7° ☾ 15'42		morning max el	3225 Jul 07 01:08	23° Π 32'53	23°01'09
morning max el	3224 Jul 25 05:35	12° ☾ 43'32	21°22'40		3225 Jul 12 20:01	0° ☾	
	3224 Aug 06 19:23	0° ♊		asc. node	3225 Jul 25 08:03	20° ☾ 28'59	
asc. node	3224 Aug 07 11:00	1° ♊ 10'13		morning set	3225 Jul 29 20:02	29° ☾ 38'24	
morning set	3224 Aug 14 09:03	14° ♊ 45'42			3225 Jul 30 00:08	0° ♊	
superior conj	3224 Aug 21 18:01	0° ♐ 12'27	1°43'21	superior conj	3225 Aug 05 22:52	14° ♊ 52'11	1°35'48
minimum elong	3224 Aug 21 17:08	0° ♐ 07'52	1°43'19	minimum elong	3225 Aug 05 21:00	14° ♊ 42'15	1°35'38
	3224 Aug 21 15:37	0° ♐		max. Earth dist.	3225 Aug 08 17:16	20° ♊ 43'44	1.33802 AU
max. Earth dist.	3224 Aug 25 21:33	8° ♐ 40'17	1.35192 AU		3225 Aug 13 06:06	0° ♐	
evening rise	3224 Aug 30 05:09	17° ♐ 05'20		evening rise	3225 Aug 13 16:49	0° ♐ 53'11	
	3224 Sep 06 08:16	0° ♑			3225 Aug 30 07:55	0° ♑	
desc. node	3224 Sep 13 23:15	12° ♑ 28'11		desc. node	3225 Aug 31 20:16	2° ♑ 16'54	
	3224 Sep 26 11:25	0° ♒		evening max el	3225 Sep 17 01:03	22° ♑ 25'31	27°16'41
evening max el	3224 Oct 04 12:58	8° ♒ 59'10	26°39'29	retrograde	3225 Sep 30 11:49	29° ♑ 44'08	
retrograde	3224 Oct 17 12:22	16° ♒ 13'50		evening set	3225 Oct 07 11:20	27° ♑ 02'45	
evening set	3224 Oct 24 01:34	13° ♒ 34'50		min. Earth dist.	3225 Oct 11 06:46	23° ♑ 28'30	0.64684 AU
min. Earth dist.	3224 Oct 28 03:27	9° ♒ 24'52	0.66018 AU	inferior conj	3225 Oct 13 13:00	21° ♑ 00'56	-2°-32'-28
inferior conj	3224 Oct 29 21:26	7° ♒ 20'06	-1°-32'-10	minimum elong	3225 Oct 13 17:12	20° ♑ 49'29	2°30'54
minimum elong	3224 Oct 29 23:57	7° ♒ 12'37	1°31'08	morning rise	3225 Oct 20 01:07	15° ♑ 30'18	
asc. node	3224 Nov 03 10:11	2° ♒ 37'11		asc. node	3225 Oct 21 07:13	15° ♑ 05'07	
morning rise	3224 Nov 04 23:46	1° ♒ 35'14		direct	3225 Oct 22 14:29	14° ♑ 56'11	
direct	3224 Nov 07 20:07	0° ♒ 49'56		morning max el	3225 Oct 29 02:25	18° ♑ 23'26	17°59'59
morning max el	3224 Nov 14 10:45	4° ♒ 26'14	18°26'54		3225 Nov 06 15:37	0° ♒	
	3224 Dec 02 01:05	0° ♓		morning set	3225 Nov 15 14:39	14° ♒ 50'19	
morning set	3224 Dec 04 05:34	3° ♓ 30'44			3225 Nov 24 18:11	0° ♓	
desc. node	3224 Dec 10 22:31	14° ♓ 13'36		desc. node	3225 Nov 27 19:33	4° ♓ 57'22	
superior conj	3224 Dec 19 22:22	28° ♓ 25'11	0°-58'-29	superior conj	3225 Nov 29 08:34	7° ♓ 26'03	0°-10'-30
minimum elong	3224 Dec 19 15:07	27° ♓ 56'41	0°57'35	minimum elong	3225 Nov 29 07:17	7° ♓ 20'55	0°10'21
	3224 Dec 20 22:32	0° ♈		behind sun begin	3225 Nov 28 23:08	6° ♓ 48'14	
max. Earth dist.	3224 Dec 20 21:50	29° ♓ 57'13	1.45222 AU	behind sun end	3225 Nov 29 15:26	7° ♓ 53'34	
evening rise	3225 Jan 05 00:56	23° ♈ 43'34		max. Earth dist.	3225 Dec 03 16:35	14° ♓ 19'44	1.44843 AU
	3225 Jan 09 00:17	0° ≈			3225 Dec 13 17:32	0° ♈	
greatest brilliancy	3225 Jan 17 08:08	13° ≈ 00'12	-0.7m	evening rise	3225 Dec 15 16:56	3° ♈ 02'55	
evening max el	3225 Jan 27 16:38	26° ≈ 55'13	19°07'10		3226 Jan 02 15:06	0° ≈	
asc. node	3225 Jan 30 09:29	29° ≈ 17'08		greatest brilliancy	3226 Jan 04 00:38	1° ≈ 57'04	-0.6m
	3225 Jan 31 12:51	0° ✕		evening max el	3226 Jan 10 21:42	10° ≈ 26'07	20°00'31
retrograde	3225 Feb 03 15:25	0° ✕ 52'18		asc. node	3226 Jan 17 06:29	14° ≈ 44'58	
evening set	3225 Feb 06 22:48	29° ≈ 48'36		retrograde	3226 Jan 18 13:11	14° ≈ 53'55	
	3225 Feb 06 15:19	30° ♐		evening set	3226 Jan 22 04:33	13° ≈ 36'36	
inferior conj	3225 Feb 12 13:49	23° ≈ 58'15	3°24'01	inferior conj	3226 Jan 27 15:57	7° ≈ 32'14	2°58'37
minimum elong	3225 Feb 12 11:56	24° ≈ 04'15	3°23'45	minimum elong	3226 Jan 27 13:29	7° ≈ 40'28	2°58'03
min. Earth dist.	3225 Feb 14 01:29	22° ≈ 04'48	0.65995 AU				

min. Earth dist.	3226 Jan 28 13:32	6° \approx 19'51	0.67035 AU	greatest brilliancy	3226 Dec 19 15:45	17° $\overline{3}$ 52'53	-0.4m
morning rise	3226 Feb 01 21:49	1° \approx 16'39		evening max el	3226 Dec 24 21:19	23° $\overline{3}$ 58'04	21°07'04
	3226 Feb 03 13:20	30° \overline{R} $\overline{3}$		retrograde	3227 Jan 02 10:55	29° $\overline{3}$ 02'40	
direct	3226 Feb 07 18:24	28° $\overline{3}$ 40'35		asc. node	3227 Jan 04 03:30	28° $\overline{3}$ 46'56	
	3226 Feb 12 09:58	0° \approx		evening set	3227 Jan 06 12:04	27° $\overline{3}$ 30'12	
morning max el	3226 Feb 19 14:14	5° \approx 44'29	25°07'05	inferior conj	3227 Jan 11 21:46	21° $\overline{3}$ 14'50	2°23'59
desc. node	3226 Feb 23 18:44	10° \approx 19'58		minimum elong	3227 Jan 11 19:16	21° $\overline{3}$ 23'27	2°23'13
	3226 Mar 10 08:24	0° \overline{H}		min. Earth dist.	3227 Jan 12 06:43	20° $\overline{3}$ 43'58	0.67674 AU
morning set	3226 Mar 27 17:38	28° \overline{H} 28'50		morning rise	3227 Jan 17 02:05	14° $\overline{3}$ 59'53	
	3226 Mar 28 13:55	0° \overline{Y}		direct	3227 Jan 22 07:58	12° $\overline{3}$ 43'07	
max. Earth dist.	3226 Mar 31 10:16	5° \overline{Y} 13'18	1.36691 AU	morning max el	3227 Feb 01 22:42	19° $\overline{3}$ 02'20	23°39'31
				desc. node	3227 Feb 10 15:46	29° $\overline{3}$ 17'38	
superior conj	3226 Apr 06 16:28	17° \overline{Y} 13'22	-1°-19'-49		3227 Feb 11 04:42	0° \approx	
minimum elong	3226 Apr 06 20:31	17° \overline{Y} 33'22	1°19'13		3227 Mar 03 12:02	0° \overline{H}	
	3226 Apr 13 01:17	0° $\overline{8}$		morning set	3227 Mar 09 06:05	9° \overline{H} 32'24	
evening rise	3226 Apr 15 00:44	3° $\overline{8}$ 59'38		max. Earth dist.	3227 Mar 13 05:24	16° \overline{H} 24'52	1.38797 AU
asc. node	3226 Apr 15 05:49	4° $\overline{8}$ 25'11					
	3226 Apr 30 10:26	0° \overline{II}		superior conj	3227 Mar 20 15:56	29° \overline{H} 57'46	-1°-44'-4
evening max el	3226 May 02 04:54	1° \overline{II} 52'11	19°36'19	minimum elong	3227 Mar 20 20:29	0° \overline{Y} 19'11	1°43'37
retrograde	3226 May 11 20:32	6° \overline{II} 32'56			3227 Mar 20 16:24	0° \overline{Y}	
evening set	3226 May 13 20:14	6° \overline{II} 21'55		evening rise	3227 Mar 29 21:03	17° \overline{Y} 43'27	
inferior conj	3226 May 22 13:09	2° \overline{II} 18'13	0°03'28	asc. node	3227 Apr 02 02:49	23° \overline{Y} 58'09	
minimum elong	3226 May 22 13:19	2° \overline{II} 17'58	0°03'25		3227 Apr 05 09:09	0° $\overline{8}$	
transit middle	3226 May 22 13:19	2° \overline{II} 17'58	0°03'25	evening max el	3227 Apr 15 04:13	14° $\overline{8}$ 01'33	18°46'31
transit begin	3226 May 22 09:29	2° \overline{II} 24'01		retrograde	3227 Apr 23 07:44	18° $\overline{8}$ 00'23	
transit end	3226 May 22 17:08	2° \overline{II} 11'54		evening set	3227 Apr 25 12:10	17° $\overline{8}$ 44'18	
desc. node	3226 May 22 17:54	2° \overline{II} 10'42		inferior conj	3227 May 03 09:49	13° $\overline{8}$ 23'06	1°43'00
min. Earth dist.	3226 May 24 23:53	0° \overline{II} 45'43	0.55711 AU	minimum elong	3227 May 03 13:15	13° $\overline{8}$ 16'46	1°41'56
	3226 May 26 06:19	30° \overline{R} $\overline{8}$		min. Earth dist.	3227 May 06 16:28	10° $\overline{8}$ 59'35	0.57300 AU
morning rise	3226 May 31 02:48	27° $\overline{8}$ 43'03		desc. node	3227 May 09 14:56	9° $\overline{8}$ 07'20	
direct	3226 Jun 04 15:24	26° $\overline{8}$ 57'11		morning rise	3227 May 11 09:57	8° $\overline{8}$ 13'19	
	3226 Jun 13 16:48	0° \overline{II}		direct	3227 May 16 22:38	6° $\overline{8}$ 58'47	
morning max el	3226 Jun 18 15:31	3° \overline{II} 59'14	24°43'30	morning max el	3227 May 31 06:51	14° $\overline{8}$ 29'11	26°14'43
	3226 Jul 07 00:28	0° $\overline{3}$			3227 Jun 12 15:59	0° \overline{II}	
asc. node	3226 Jul 12 05:05	10° $\overline{3}$ 08'56		morning set	3227 Jun 28 18:51	29° \overline{II} 24'42	
morning set	3226 Jul 14 07:50	14° $\overline{3}$ 33'18		asc. node	3227 Jun 29 02:07	0° $\overline{3}$ 03'09	
					3227 Jun 29 01:32	0° $\overline{3}$	
superior conj	3226 Jul 21 07:58	29° $\overline{3}$ 43'39	1°22'54				
minimum elong	3226 Jul 21 05:39	29° $\overline{3}$ 31'01	1°22'35	superior conj	3227 Jul 05 19:17	14° $\overline{3}$ 39'35	1°05'28
	3226 Jul 21 10:58	0° \overline{Q}		minimum elong	3227 Jul 05 16:59	14° $\overline{3}$ 26'58	1°05'05
max. Earth dist.	3226 Jul 22 21:31	3° \overline{Q} 07'38	1.32832 AU	max. Earth dist.	3227 Jul 06 07:31	15° $\overline{3}$ 46'57	1.32263 AU
evening rise	3226 Jul 28 14:30	15° \overline{Q} 10'01		evening rise	3227 Jul 12 19:05	29° $\overline{3}$ 45'47	
	3226 Aug 05 07:07	0° \overline{np}			3227 Jul 12 21:49	0° \overline{Q}	
desc. node	3226 Aug 18 17:15	21° \overline{np} 31'34			3227 Jul 29 10:48	0° \overline{np}	
	3226 Aug 25 07:42	0° \overline{A}		desc. node	3227 Aug 05 14:15	9° \overline{np} 58'11	
evening max el	3226 Aug 30 11:20	5° \overline{A} 27'39	27°25'47	evening max el	3227 Aug 12 17:07	17° \overline{np} 52'12	27°02'20
retrograde	3226 Sep 13 04:46	12° \overline{A} 43'57		retrograde	3227 Aug 26 14:20	25° \overline{np} 04'34	
evening set	3226 Sep 20 09:20	10° \overline{A} 10'55		evening set	3227 Sep 02 15:31	22° \overline{np} 52'23	
min. Earth dist.	3226 Sep 24 00:27	7° \overline{A} 08'12	0.63018 AU	min. Earth dist.	3227 Sep 06 07:23	20° \overline{np} 11'38	0.61080 AU
inferior conj	3226 Sep 26 18:41	4° \overline{A} 26'25	-3°-30'-46	inferior conj	3227 Sep 09 11:15	17° \overline{np} 28'30	-4°-21'-56
minimum elong	3226 Sep 27 00:09	4° \overline{A} 13'02	3°29'07	minimum elong	3227 Sep 09 16:47	17° \overline{np} 16'32	4°20'47
	3226 Oct 02 02:36	30° \overline{R} \overline{np}		morning rise	3227 Sep 16 21:07	12° \overline{np} 36'32	
morning rise	3226 Oct 03 17:33	29° \overline{np} 13'22		direct	3227 Sep 19 05:12	12° \overline{np} 14'30	
direct	3226 Oct 06 02:44	28° \overline{np} 46'48		asc. node	3227 Sep 25 01:19	14° \overline{np} 37'51	
asc. node	3226 Oct 08 04:16	29° \overline{np} 07'12		morning max el	3227 Sep 26 08:39	15° \overline{np} 47'49	18°00'07
	3226 Oct 10 00:52	0° \overline{A}			3227 Oct 06 05:56	0° \overline{A}	
morning max el	3226 Oct 12 18:44	2° \overline{A} 12'59	17°50'41	morning set	3227 Oct 12 02:53	10° \overline{A} 39'29	
morning set	3226 Oct 28 23:51	27° \overline{A} 19'23					
	3226 Oct 30 12:22	0° \overline{M}		superior conj	3227 Oct 22 06:50	29° \overline{A} 06'39	1°07'24
				minimum elong	3227 Oct 22 11:08	29° \overline{A} 25'38	1°06'53
superior conj	3226 Nov 09 18:16	17° \overline{M} 36'54	0°33'35		3227 Oct 22 18:58	0° \overline{M}	
minimum elong	3226 Nov 09 21:28	17° \overline{M} 50'16	0°33'08	max. Earth dist.	3227 Oct 29 21:15	12° \overline{M} 06'35	1.42151 AU
desc. node	3226 Nov 14 16:34	25° \overline{M} 44'13		desc. node	3227 Nov 01 13:36	16° \overline{M} 31'06	
max. Earth dist.	3226 Nov 16 09:04	28° \overline{M} 27'55	1.43777 AU	evening rise	3227 Nov 04 20:37	21° \overline{M} 49'06	
	3226 Nov 17 08:00	0° \overline{A}			3227 Nov 10 02:11	0° \overline{A}	
evening rise	3226 Nov 25 01:58	12° \overline{A} 11'04			3227 Dec 01 03:16	0° $\overline{3}$	
	3226 Dec 06 21:03	0° $\overline{3}$		greatest brilliancy	3227 Dec 02 21:36	2° $\overline{3}$ 11'24	-0.3m

evening max el	3227 Dec 07 15:39	7°☿31'43	22°22'52		3228 Oct 14 01:39	0°♄	
retrograde	3227 Dec 17 07:01	13°☿15'41		evening rise	3228 Oct 15 12:10	2°♄24'42	
evening set	3227 Dec 21 19:43	11°☿26'55		desc. node	3228 Oct 18 10:37	7°♄14'10	
asc. node	3227 Dec 22 00:32	11°☿16'55			3228 Nov 02 09:56	0°♄	
inferior conj	3227 Dec 27 05:19	5°☿03'53	1°41'50	evening max el	3228 Nov 19 05:53	21°♄07'32	23°42'48
minimum elong	3227 Dec 27 03:14	5°☿11'05	1°41'03	retrograde	3228 Nov 30 00:08	27°♄28'39	
min. Earth dist.	3227 Dec 27 02:47	5°☿12'40	0.67933 AU	evening set	3228 Dec 05 01:52	25°♄23'14	
	3227 Dec 31 05:25	30°♄		asc. node	3228 Dec 07 21:36	22°♄25'18	
morning rise	3228 Jan 01 10:39	28°♄51'25		min. Earth dist.	3228 Dec 09 23:25	19°♄41'57	0.67835 AU
direct	3228 Jan 06 01:30	26°♄57'23		inferior conj	3228 Dec 10 12:44	18°♄56'33	0°53'20
	3228 Jan 12 17:44	0°☿		minimum elong	3228 Dec 10 11:31	19°♄00'43	0°52'50
morning max el	3228 Jan 15 10:09	2°☿27'39	22°11'40	morning rise	3228 Dec 15 21:22	12°♄48'27	
greatest brilliancy	3228 Jan 20 00:23	7°☿36'07	-0.3m	direct	3228 Dec 19 22:00	11°♄17'12	
desc. node	3228 Jan 28 12:49	18°☿51'29		morning max el	3228 Dec 28 03:53	16°♄02'56	20°51'07
	3228 Feb 05 05:13	0°♄		greatest brilliancy	3229 Jan 02 19:54	22°♄37'33	-0.5m
morning set	3228 Feb 17 14:21	19°♄14'11			3229 Jan 08 06:52	0°☿	
max. Earth dist.	3228 Feb 23 02:59	28°♄21'05	1.40958 AU	desc. node	3229 Jan 14 09:52	8°☿50'57	
	3228 Feb 24 02:25	0°♄		morning set	3229 Jan 26 20:00	27°☿43'26	
					3229 Jan 28 06:55	0°♄	
superior conj	3228 Mar 01 21:33	11°♄48'47	-2°-1'-14	max. Earth dist.	3229 Feb 04 07:06	11°♄11'06	1.42877 AU
minimum elong	3228 Mar 02 00:48	12°♄03'16	2°01'05				
	3228 Mar 11 19:23	0°♄		superior conj	3229 Feb 11 04:05	22°♄34'06	-2°-6'-28
evening rise	3228 Mar 12 06:36	0°♄52'21		minimum elong	3229 Feb 11 03:16	22°♄30'37	2°06'28
asc. node	3228 Mar 18 23:51	13°♄09'28			3229 Feb 15 12:21	0°♄	
evening max el	3228 Mar 28 11:13	26°♄42'25	18°16'51	evening rise	3229 Feb 23 01:19	13°♄16'52	
	3228 Apr 02 15:53	0°♄			3229 Mar 04 16:35	0°♄	
retrograde	3228 Apr 04 14:07	0°♄15'42		asc. node	3229 Mar 05 20:54	1°♄51'48	
	3228 Apr 06 13:09	30°♄		evening max el	3229 Mar 11 22:35	9°♄46'00	18°07'00
evening set	3228 Apr 07 00:30	29°♄51'41		retrograde	3229 Mar 18 12:24	13°♄09'21	
inferior conj	3228 Apr 14 03:57	25°♄09'26	2°50'12	evening set	3229 Mar 21 04:23	12°♄35'40	
minimum elong	3228 Apr 14 07:29	25°♄01'48	2°49'24	inferior conj	3229 Mar 27 17:08	7°♄32'37	3°26'45
min. Earth dist.	3228 Apr 17 14:02	22°♄14'07	0.59351 AU	minimum elong	3229 Mar 27 19:07	7°♄27'41	3°26'31
morning rise	3228 Apr 21 10:36	19°♄31'14		min. Earth dist.	3229 Mar 30 19:10	4°♄30'14	0.61516 AU
desc. node	3228 Apr 25 11:59	17°♄55'40		morning rise	3229 Apr 03 07:00	1°♄36'05	
direct	3228 Apr 27 18:59	17°♄41'22			3229 Apr 06 05:02	30°♄	
morning max el	3228 May 12 03:46	25°♄29'05	27°19'52	direct	3229 Apr 10 02:32	29°♄13'44	
	3228 May 16 08:15	0°♄		desc. node	3229 Apr 12 09:01	29°♄28'28	
	3228 Jun 05 00:01	0°♄			3229 Apr 14 04:21	0°♄	
morning set	3228 Jun 12 03:24	14°♄07'11		morning max el	3229 Apr 24 07:03	7°♄10'39	27°49'34
asc. node	3228 Jun 14 23:10	20°♄06'34			3229 May 11 15:02	0°♄	
				morning set	3229 May 27 07:37	28°♄34'34	
superior conj	3228 Jun 19 07:02	29°♄34'03	0°44'13		3229 May 28 00:14	0°♄	
minimum elong	3228 Jun 19 05:14	29°♄24'07	0°43'51	asc. node	3229 Jun 01 20:13	10°♄14'50	
max. Earth dist.	3228 Jun 18 19:35	28°♄30'54	1.32085 AU	max. Earth dist.	3229 Jun 02 05:42	11°♄06'17	1.32305 AU
	3228 Jun 19 11:45	0°♄					
evening rise	3228 Jun 26 04:06	14°♄32'32		superior conj	3229 Jun 03 17:33	14°♄21'36	0°19'47
	3228 Jul 03 22:19	0°♄		minimum elong	3229 Jun 03 16:39	14°♄16'40	0°19'35
desc. node	3228 Jul 22 11:16	27°♄16'46		evening rise	3229 Jun 10 15:29	29°♄23'31	
evening max el	3228 Jul 24 15:50	29°♄29'16	26°06'04		3229 Jun 10 22:22	0°♄	
	3228 Jul 25 04:57	0°♄			3229 Jun 27 15:17	0°♄	
retrograde	3228 Aug 07 15:18	6°♄38'39		evening max el	3229 Jul 06 07:37	10°♄21'56	24°43'32
evening set	3228 Aug 14 01:01	4°♄59'09		desc. node	3229 Jul 09 08:17	13°♄00'10	
min. Earth dist.	3228 Aug 18 04:26	2°♄24'10	0.59012 AU	retrograde	3229 Jul 20 05:57	17°♄25'00	
inferior conj	3228 Aug 21 11:06	29°♄57'10	-4°-57'-25	evening set	3229 Jul 25 10:34	16°♄24'03	
minimum elong	3228 Aug 21 14:25	29°♄50'56	4°57'07	min. Earth dist.	3229 Jul 30 18:53	13°♄35'39	0.57068 AU
	3228 Aug 21 09:36	30°♄		inferior conj	3229 Aug 02 15:23	11°♄44'10	-5°-4'-10
morning rise	3228 Aug 29 07:18	25°♄28'40		minimum elong	3229 Aug 02 13:41	11°♄46'57	5°04'06
direct	3228 Aug 31 17:18	25°♄08'58		morning rise	3229 Aug 10 20:28	7°♄37'44	
morning max el	3228 Sep 08 16:59	28°♄59'01	18°29'33	direct	3229 Aug 13 11:02	7°♄18'43	
	3228 Sep 09 17:07	0°♄		morning max el	3229 Aug 22 16:34	11°♄37'33	19°20'09
asc. node	3228 Sep 10 22:24	1°♄22'48		asc. node	3229 Aug 28 19:28	19°♄07'05	
morning set	3228 Sep 24 18:29	24°♄35'17			3229 Sep 04 04:35	0°♄	
	3228 Sep 27 13:50	0°♄		morning set	3229 Sep 08 18:49	8°♄56'47	
superior conj	3228 Oct 03 18:07	11°♄43'12	1°29'44	superior conj	3229 Sep 16 22:37	25°♄11'02	1°41'39
minimum elong	3228 Oct 03 21:25	11°♄58'31	1°29'27	minimum elong	3229 Sep 17 00:11	25°♄18'40	1°41'35
max. Earth dist.	3228 Oct 11 04:01	25°♄02'08	1.40173 AU		3229 Sep 19 10:32	0°♄	

max. Earth dist.	3229 Sep 23 07:55	7°♄16'21	1.38101 AU	morning set	3230 Aug 24 01:00	23°♄35'15	
evening rise	3229 Sep 27 03:26	14°♄06'31			3230 Aug 27 03:33	0°♄	
desc. node	3229 Oct 05 07:38	27°♄49'43					
	3229 Oct 06 16:21	0°♄		superior conj	3230 Aug 31 15:23	9°♄15'09	1°44'51
	3229 Oct 28 07:04	0°♄		minimum elong	3230 Aug 31 15:17	9°♄14'39	1°44'50
evening max el	3229 Nov 01 18:16	4°♄47'19	25°00'16	max. Earth dist.	3230 Sep 05 14:49	19°♄09'15	1.36174 AU
retrograde	3229 Nov 13 13:12	11°♄37'37		evening rise	3230 Sep 09 15:27	26°♄46'44	
evening set	3229 Nov 19 04:52	9°♄16'39			3230 Sep 11 09:46	0°♄	
min. Earth dist.	3229 Nov 23 18:19	4°♄09'34	0.67399 AU	desc. node	3230 Sep 22 04:40	18°♄12'29	
inferior conj	3229 Nov 24 18:18	2°♄50'47	0°00'18		3230 Sep 30 02:16	0°♄	
minimum elong	3229 Nov 24 18:18	2°♄50'46	0°00'18	evening max el	3230 Oct 15 06:37	18°♄28'55	26°08'01
transit middle	3229 Nov 24 18:18	2°♄50'46	0°00'18	retrograde	3230 Oct 27 21:19	25°♄37'19	
transit begin	3229 Nov 24 15:32	2°♄59'52		evening set	3230 Nov 03 02:57	23°♄03'42	
transit end	3229 Nov 24 21:04	2°♄41'40		min. Earth dist.	3230 Nov 07 09:02	18°♄32'25	0.66623 AU
asc. node	3229 Nov 24 18:40	2°♄49'34		inferior conj	3230 Nov 08 20:08	16°♄43'34	0°-57'-51
	3229 Nov 27 00:14	30°♄		minimum elong	3230 Nov 08 21:40	16°♄38'47	0°57'12
morning rise	3229 Nov 30 08:19	26°♄49'21		asc. node	3230 Nov 11 15:43	13°♄25'28	
direct	3229 Dec 03 20:21	25°♄38'40		morning rise	3230 Nov 14 17:27	10°♄51'33	
morning max el	3229 Dec 11 05:25	29°♄49'07	19°42'55	direct	3230 Nov 17 18:55	9°♄58'00	
	3229 Dec 11 09:44	0°♄		morning max el	3230 Nov 24 14:10	13°♄43'50	18°49'54
greatest brilliancy	3229 Dec 19 02:27	9°♄34'09	-0.6m		3230 Dec 06 14:12	0°♄	
desc. node	3230 Jan 01 06:53	29°♄09'01		morning set	3230 Dec 16 03:59	14°♄57'46	
	3230 Jan 01 20:12	0°♄		desc. node	3230 Dec 19 03:56	19°♄40'32	
morning set	3230 Jan 05 16:05	5°♄53'26			3230 Dec 25 17:49	0°♄	
max. Earth dist.	3230 Jan 17 18:19	24°♄48'15	1.44315 AU	max. Earth dist.	3230 Dec 31 11:15	8°♄59'07	1.45102 AU
	3230 Jan 21 00:25	0°♄					
				superior conj	3231 Jan 01 15:45	10°♄51'10	-1°-23'-27
superior conj	3230 Jan 22 08:32	2°♄09'13	-1°-54'-37	minimum elong	3231 Jan 01 06:43	10°♄15'37	1°22'29
minimum elong	3230 Jan 22 01:54	1°♄42'29	1°54'13		3231 Jan 13 17:15	0°♄	
evening rise	3230 Feb 05 00:45	24°♄48'28		evening rise	3231 Jan 17 01:29	5°♄22'55	
	3230 Feb 08 02:14	0°♄			3231 Feb 01 16:56	0°♄	
asc. node	3230 Feb 20 17:57	19°♄55'53		evening max el	3231 Feb 06 22:42	6°♄30'31	18°43'44
evening max el	3230 Feb 23 11:19	23°♄04'06	18°16'17	asc. node	3231 Feb 07 14:59	7°♄10'28	
retrograde	3230 Mar 01 21:57	26°♄31'12		retrograde	3231 Feb 13 14:44	10°♄13'18	
evening set	3230 Mar 04 19:27	25°♄46'38		evening set	3231 Feb 16 18:18	9°♄16'48	
inferior conj	3230 Mar 10 21:16	20°♄23'52	3°39'10	inferior conj	3231 Feb 22 12:27	3°♄35'58	3°33'34
minimum elong	3230 Mar 10 21:26	20°♄23'26	3°39'10	minimum elong	3231 Feb 22 11:09	3°♄39'55	3°33'28
min. Earth dist.	3230 Mar 13 09:22	17°♄37'08	0.63527 AU	min. Earth dist.	3231 Feb 24 08:52	1°♄20'38	0.65210 AU
morning rise	3230 Mar 16 21:31	14°♄17'06			3231 Feb 25 12:34	30°♄	
direct	3230 Mar 23 18:54	11°♄33'35		morning rise	3231 Feb 28 02:50	27°♄23'45	
desc. node	3230 Mar 30 06:04	13°♄33'43		direct	3231 Mar 06 18:19	24°♄33'39	
morning max el	3230 Apr 06 14:48	19°♄30'51	27°41'47	desc. node	3231 Mar 17 03:05	29°♄37'31	
	3230 Apr 15 13:14	0°♄			3231 Mar 17 13:21	0°♄	
	3230 May 04 13:59	0°♄		morning max el	3231 Mar 20 00:29	2°♄20'23	27°00'34
morning set	3230 May 11 05:01	12°♄38'12			3231 Apr 09 18:33	0°♄	
max. Earth dist.	3230 May 16 09:52	23°♄19'26	1.32954 AU	morning set	3231 Apr 24 16:36	26°♄08'55	
					3231 Apr 26 16:05	0°♄	
superior conj	3230 May 19 00:55	28°♄55'16	0°-7'-8	max. Earth dist.	3231 Apr 29 04:32	5°♄01'46	1.34057 AU
minimum elong	3230 May 19 01:17	28°♄57'09	0°07'05				
behind sun begin	3230 May 18 20:29	28°♄31'25		superior conj	3231 May 03 03:07	13°♄08'54	0°-35'-32
behind sun end	3230 May 19 06:04	29°♄22'54		minimum elong	3231 May 03 04:58	13°♄18'32	0°35'11
asc. node	3230 May 19 17:14	0°♄23'00		asc. node	3231 May 06 14:16	20°♄27'21	
	3230 May 19 12:58	0°♄		evening rise	3231 May 10 13:38	28°♄50'26	
evening rise	3230 May 26 03:17	14°♄11'27			3231 May 11 03:00	0°♄	
	3230 Jun 03 02:27	0°♄			3231 May 29 06:49	0°♄	
evening max el	3230 Jun 17 21:02	20°♄49'36	23°07'44	evening max el	3231 May 30 15:38	1°♄24'05	21°34'03
desc. node	3230 Jun 26 05:19	26°♄32'57		retrograde	3231 Jun 11 22:45	7°♄26'52	
retrograde	3230 Jul 01 07:55	27°♄32'22		desc. node	3231 Jun 13 02:19	7°♄23'49	
evening set	3230 Jul 05 00:09	27°♄02'49		evening set	3231 Jun 14 10:28	7°♄12'49	
min. Earth dist.	3230 Jul 12 06:24	23°♄46'11	0.55589 AU	inferior conj	3231 Jun 23 19:18	3°♄12'23	-3°-1'-6
inferior conj	3230 Jul 14 00:00	22°♄45'33	-4°-27'-11	minimum elong	3231 Jun 23 11:31	3°♄23'14	2°58'42
minimum elong	3230 Jul 13 16:54	22°♄55'56	4°25'51	min. Earth dist.	3231 Jun 23 17:31	3°♄14'51	0.54892 AU
morning rise	3230 Jul 22 12:34	18°♄53'01			3231 Jun 30 06:41	30°♄	
direct	3230 Jul 25 09:56	18°♄33'01		morning rise	3231 Jul 02 13:23	29°♄18'09	
morning max el	3230 Aug 05 04:49	23°♄33'19	20°32'13	direct	3231 Jul 05 20:48	28°♄54'17	
	3230 Aug 10 18:46	0°♄			3231 Jul 11 05:02	0°♄	
asc. node	3230 Aug 15 16:31	7°♄36'18		morning max el	3231 Jul 18 05:28	4°♄43'58	22°03'06

asc. node	3231 Aug 02 13:32	26° $\overline{5}$ 39'37			3232 Jul 10 11:19	0° $\overline{5}$	
	3231 Aug 04 07:17	0° $\overline{9}$		asc. node	3232 Jul 19 10:34	16° $\overline{5}$ 08'34	
morning set	3231 Aug 08 10:45	8° $\overline{9}$ 24'33		morning set	3232 Jul 22 22:19	23° $\overline{5}$ 19'30	
					3232 Jul 26 01:15	0° $\overline{9}$	
superior conj	3231 Aug 15 16:39	23° $\overline{9}$ 44'26	1°40'51	superior conj	3232 Jul 29 23:36	8° $\overline{9}$ 30'29	1°30'55
minimum elong	3231 Aug 15 15:18	23° $\overline{9}$ 37'18	1°40'46	minimum elong	3232 Jul 29 21:29	8° $\overline{9}$ 19'05	1°30'42
	3231 Aug 18 16:50	0° $\overline{7}$		max. Earth dist.	3232 Aug 01 05:26	13° $\overline{9}$ 19'03	1.33341 AU
max. Earth dist.	3231 Aug 19 05:37	1° $\overline{7}$ 05'26	1.34562 AU	evening rise	3232 Aug 06 12:06	24° $\overline{9}$ 15'04	
evening rise	3231 Aug 23 19:44	10° $\overline{7}$ 13'20			3232 Aug 09 10:15	0° $\overline{7}$	
	3231 Sep 03 20:42	0° $\overline{5}$		desc. node	3232 Aug 25 22:40	27° $\overline{7}$ 52'21	
desc. node	3231 Sep 09 01:40	8° $\overline{5}$ 16'05			3232 Aug 27 10:22	0° $\overline{5}$	
	3231 Sep 25 17:31	0° $\overline{7}$		evening max el	3232 Sep 09 06:47	15° $\overline{5}$ 22'36	27°24'13
evening max el	3231 Sep 27 19:11	2° $\overline{7}$ 04'25	26°58'22	retrograde	3232 Sep 22 20:27	22° $\overline{5}$ 40'16	
retrograde	3231 Oct 10 23:50	9° $\overline{7}$ 20'48		evening set	3232 Sep 29 23:09	20° $\overline{5}$ 00'48	
evening set	3231 Oct 17 17:55	6° $\overline{7}$ 39'58		min. Earth dist.	3232 Oct 03 16:19	16° $\overline{5}$ 41'04	0.64019 AU
min. Earth dist.	3231 Oct 21 17:05	2° $\overline{7}$ 45'19	0.65497 AU	inferior conj	3232 Oct 06 03:51	14° $\overline{5}$ 06'09	-2°-57'-39
inferior conj	3231 Oct 23 16:07	0° $\overline{7}$ 30'23	-1°-57'-46	minimum elong	3232 Oct 06 08:41	13° $\overline{5}$ 53'34	2°56'00
minimum elong	3231 Oct 23 19:22	0° $\overline{7}$ 21'04	1°56'29	morning rise	3232 Oct 12 20:29	8° $\overline{5}$ 42'47	
	3231 Oct 24 02:44	30° $\overline{7}$ $\overline{5}$		direct	3232 Oct 15 07:49	8° $\overline{5}$ 12'13	
morning rise	3231 Oct 29 22:26	24° $\overline{5}$ 51'00		asc. node	3232 Oct 15 09:46	8° $\overline{5}$ 12'15	
asc. node	3231 Oct 29 12:45	25° $\overline{5}$ 03'40		morning max el	3232 Oct 21 20:29	11° $\overline{5}$ 37'39	17°53'52
direct	3231 Nov 01 15:36	24° $\overline{5}$ 10'47			3232 Nov 03 09:27	0° $\overline{7}$	
morning max el	3231 Nov 08 04:05	27° $\overline{5}$ 41'55	18°13'18	morning set	3232 Nov 07 16:51	7° $\overline{7}$ 21'58	
	3231 Nov 10 05:54	0° $\overline{7}$					
morning set	3231 Nov 26 20:38	25° $\overline{7}$ 29'34		superior conj	3232 Nov 20 13:46	28° $\overline{7}$ 56'11	0°09'13
	3231 Nov 29 15:00	0° $\overline{7}$		minimum elong	3232 Nov 20 14:48	29° $\overline{7}$ 00'22	0°09'03
desc. node	3231 Dec 06 00:57	10° $\overline{7}$ 20'56		behind sun begin	3232 Nov 20 06:27	28° $\overline{7}$ 26'19	
				behind sun end	3232 Nov 20 23:09	29° $\overline{7}$ 34'20	
superior conj	3231 Dec 11 18:36	19° $\overline{7}$ 27'37	0°-38'-16		3232 Nov 21 05:29	0° $\overline{7}$	
minimum elong	3231 Dec 11 13:43	19° $\overline{7}$ 08'22	0°37'38	desc. node	3232 Nov 21 22:00	1° $\overline{7}$ 06'56	
max. Earth dist.	3231 Dec 14 06:46	23° $\overline{7}$ 24'33	1.45153 AU	max. Earth dist.	3232 Nov 26 01:20	7° $\overline{7}$ 45'11	1.44470 AU
	3231 Dec 18 11:40	0° $\overline{7}$		evening rise	3232 Dec 06 14:54	24° $\overline{7}$ 15'22	
evening rise	3231 Dec 28 03:40	15° $\overline{7}$ 04'45			3232 Dec 10 08:57	0° $\overline{7}$	
	3232 Jan 06 18:28	0° $\overline{7}$		greatest brilliancy	3232 Dec 28 07:42	26° $\overline{7}$ 14'19	-0.5m
greatest brilliancy	3232 Jan 12 20:42	9° $\overline{7}$ 09'49	-0.7m		3232 Dec 31 06:23	0° $\overline{7}$	
evening max el	3232 Jan 21 06:30	20° $\overline{7}$ 00'04	19°28'06	evening max el	3233 Jan 03 09:15	3° $\overline{7}$ 31'17	20°27'19
asc. node	3232 Jan 25 12:01	23° $\overline{7}$ 21'20		retrograde	3233 Jan 11 09:32	8° $\overline{7}$ 14'23	
retrograde	3232 Jan 28 11:27	24° $\overline{7}$ 09'00		asc. node	3233 Jan 11 09:01	8° $\overline{7}$ 14'23	
evening set	3232 Jan 31 22:08	22° $\overline{7}$ 59'27		evening set	3233 Jan 15 04:53	6° $\overline{7}$ 50'39	
inferior conj	3232 Feb 06 11:20	17° $\overline{7}$ 02'43	3°14'29	inferior conj	3233 Jan 20 15:19	0° $\overline{7}$ 40'55	2°44'56
minimum elong	3232 Feb 06 09:08	17° $\overline{7}$ 09'53	3°14'05	minimum elong	3233 Jan 20 12:47	0° $\overline{7}$ 49'33	2°44'15
min. Earth dist.	3232 Feb 07 16:45	15° $\overline{7}$ 26'47	0.66489 AU		3233 Jan 21 03:20	30° $\overline{7}$ $\overline{5}$	
morning rise	3232 Feb 11 19:24	10° $\overline{7}$ 47'52		min. Earth dist.	3233 Jan 21 07:16	29° $\overline{7}$ 46'36	0.67356 AU
direct	3232 Feb 17 23:43	8° $\overline{7}$ 04'04		morning rise	3233 Jan 25 20:11	24° $\overline{7}$ 25'19	
morning max el	3232 Mar 01 09:56	15° $\overline{7}$ 27'19	25°53'34	direct	3233 Jan 31 10:30	21° $\overline{7}$ 57'08	
desc. node	3232 Mar 03 00:07	17° $\overline{7}$ 06'58		morning max el	3233 Feb 11 18:35	28° $\overline{7}$ 43'18	24°30'27
	3232 Mar 13 09:21	0° $\overline{7}$			3233 Feb 13 00:08	0° $\overline{7}$	
	3232 Apr 01 14:56	0° $\overline{7}$		desc. node	3233 Feb 17 21:12	5° $\overline{7}$ 38'00	
morning set	3232 Apr 06 14:15	8° $\overline{7}$ 54'21			3233 Mar 07 04:00	0° $\overline{7}$	
max. Earth dist.	3232 Apr 10 11:47	16° $\overline{7}$ 14'23	1.35613 AU	morning set	3233 Mar 19 16:39	20° $\overline{7}$ 40'05	
				max. Earth dist.	3233 Mar 23 09:34	27° $\overline{7}$ 16'43	1.37562 AU
superior conj	3232 Apr 15 21:34	26° $\overline{7}$ 54'31	-1°-4'-5		3233 Mar 24 21:15	0° $\overline{7}$	
minimum elong	3232 Apr 16 00:55	27° $\overline{7}$ 11'24	1°03'31				
	3232 Apr 17 10:07	0° $\overline{7}$		superior conj	3233 Mar 30 05:05	10° $\overline{7}$ 03'54	-1°-30'-44
asc. node	3232 Apr 22 11:18	10° $\overline{7}$ 23'12		minimum elong	3233 Mar 30 09:30	10° $\overline{7}$ 25'17	1°30'09
evening rise	3232 Apr 23 20:30	13° $\overline{7}$ 13'29		evening rise	3233 Apr 07 21:29	27° $\overline{7}$ 13'48	
	3232 May 02 15:29	0° $\overline{7}$		asc. node	3233 Apr 09 08:20	0° $\overline{7}$ 06'03	
evening max el	3232 May 11 21:03	12° $\overline{7}$ 30'22	20°13'55		3233 Apr 09 07:06	0° $\overline{7}$	
retrograde	3232 May 22 12:34	17° $\overline{7}$ 41'16		evening max el	3233 Apr 24 14:23	24° $\overline{7}$ 17'28	19°12'38
evening set	3232 May 24 12:36	17° $\overline{7}$ 31'04		retrograde	3233 May 03 13:45	28° $\overline{7}$ 39'06	
desc. node	3232 May 29 23:18	15° $\overline{7}$ 34'55		evening set	3233 May 05 14:48	28° $\overline{7}$ 26'29	
inferior conj	3232 Jun 02 14:36	13° $\overline{7}$ 32'27	-1°-4'-18	inferior conj	3233 May 13 23:42	24° $\overline{7}$ 16'03	0°49'19
minimum elong	3232 Jun 02 11:35	13° $\overline{7}$ 36'55	1°03'11	minimum elong	3233 May 14 01:40	24° $\overline{7}$ 12'43	0°48'38
min. Earth dist.	3232 Jun 04 05:58	12° $\overline{7}$ 34'22	0.55139 AU	desc. node	3233 May 16 20:20	22° $\overline{7}$ 21'05	
morning rise	3232 Jun 11 08:27	9° $\overline{7}$ 16'35		min. Earth dist.	3233 May 16 20:58	22° $\overline{7}$ 20'04	0.56298 AU
direct	3232 Jun 15 08:05	8° $\overline{7}$ 42'13		morning rise	3233 May 22 08:21	19° $\overline{7}$ 25'37	
morning max el	3232 Jun 28 22:01	15° $\overline{7}$ 20'25	23°45'06				

direct	3233 May 27 06:57	18°♄29'04		morning rise	3234 May 02 22:27	0°♄16'01	
morning max el	3233 Jun 10 12:18	25°♄45'24	25°24'48		3234 May 03 11:57	30°♄16'01	
	3233 Jun 14 12:09	0°♄		desc. node	3234 May 03 17:24	29°♄53'58	
	3233 Jul 03 09:45	0°♄		direct	3234 May 08 20:26	28°♄46'24	
asc. node	3233 Jul 06 07:36	5°♄55'27			3234 May 14 07:51	0°♄	
morning set	3233 Jul 07 10:00	8°♄13'56		morning max el	3234 May 23 05:43	6°♄26'18	26°46'22
					3234 Jun 09 17:18	0°♄	
superior conj	3233 Jul 14 09:52	23°♄25'01	1°16'01	morning set	3234 Jun 21 20:12	23°♄02'36	
minimum elong	3233 Jul 14 07:31	23°♄12'03	1°15'41	asc. node	3234 Jun 23 04:39	25°♄54'34	
max. Earth dist.	3233 Jul 15 12:28	25°♄50'26	1.32532 AU		3234 Jun 25 02:12	0°♄	
	3233 Jul 17 10:26	0°♄					
evening rise	3233 Jul 21 13:01	8°♄41'02		superior conj	3234 Jun 28 21:38	8°♄21'40	0°56'54
	3233 Aug 01 19:35	0°♄		minimum elong	3234 Jun 28 19:30	8°♄09'53	0°56'31
desc. node	3233 Aug 12 19:40	16°♄49'09		max. Earth dist.	3234 Jun 28 23:36	8°♄32'33	1.32131 AU
evening max el	3233 Aug 22 15:14	28°♄09'50	27°19'52	evening rise	3234 Jul 05 19:46	23°♄22'49	
	3233 Aug 24 16:25	0°♄			3234 Jul 09 01:03	0°♄	
retrograde	3233 Sep 05 10:37	5°♄25'16			3234 Jul 26 21:01	0°♄	
evening set	3233 Sep 12 15:03	2°♄59'06		desc. node	3234 Jul 30 16:40	4°♄50'08	
min. Earth dist.	3233 Sep 16 05:23	0°♄07'34	0.62221 AU	evening max el	3234 Aug 04 18:13	10°♄15'17	26°42'17
	3233 Sep 16 08:45	30°♄		retrograde	3234 Aug 18 17:04	17°♄26'55	
inferior conj	3233 Sep 19 04:23	27°♄22'57	-3°-53'-44	evening set	3234 Aug 25 13:06	15°♄27'30	
minimum elong	3233 Sep 19 10:06	27°♄09'41	3°52'14	min. Earth dist.	3234 Aug 29 08:09	12°♄51'13	0.60202 AU
morning rise	3233 Sep 26 08:01	22°♄18'50		inferior conj	3234 Sep 01 14:19	10°♄12'28	-4°-39'-37
direct	3233 Sep 28 16:16	21°♄54'38		minimum elong	3234 Sep 01 19:15	10°♄02'23	4°38'48
asc. node	3233 Oct 02 06:49	22°♄53'45		morning rise	3234 Sep 09 04:44	5°♄30'15	
morning max el	3233 Oct 05 12:15	25°♄22'45	17°52'21	direct	3234 Sep 11 13:05	5°♄09'35	
	3233 Oct 09 08:51	0°♄		morning max el	3234 Sep 19 00:14	8°♄49'05	18°10'01
morning set	3233 Oct 21 10:21	20°♄14'49		asc. node	3234 Sep 19 03:53	8°♄58'01	
	3233 Oct 26 21:19	0°♄			3234 Oct 02 17:49	0°♄	
				morning set	3234 Oct 04 19:17	3°♄51'45	
superior conj	3233 Nov 01 11:10	9°♄41'52	0°49'19				
minimum elong	3233 Nov 01 15:12	9°♄59'05	0°48'47	superior conj	3234 Oct 14 10:03	21°♄41'53	1°18'14
max. Earth dist.	3233 Nov 08 15:47	21°♄41'16	1.43142 AU	minimum elong	3234 Oct 14 14:05	22°♄00'07	1°17'48
desc. node	3233 Nov 08 19:01	21°♄54'26			3234 Oct 19 02:48	0°♄	
	3233 Nov 13 20:13	0°♄		max. Earth dist.	3234 Oct 22 01:06	5°♄00'42	1.41344 AU
evening rise	3233 Nov 16 02:03	3°♄31'15		desc. node	3234 Oct 26 16:01	12°♄40'18	
	3233 Dec 03 20:00	0°♄		evening rise	3234 Oct 27 04:46	13°♄31'59	
greatest brilliancy	3233 Dec 12 09:47	11°♄30'30	-0.4m		3234 Nov 06 18:37	0°♄	
evening max el	3233 Dec 17 06:25	17°♄03'33	21°38'26	greatest brilliancy	3234 Nov 24 14:14	24°♄37'26	-0.2m
retrograde	3233 Dec 26 06:56	22°♄25'30			3234 Nov 29 07:51	0°♄	
asc. node	3233 Dec 29 06:04	21°♄37'36		evening max el	3234 Nov 29 22:51	0°♄38'22	22°56'48
evening set	3233 Dec 30 12:41	20°♄46'19		retrograde	3234 Dec 10 01:54	6°♄38'46	
inferior conj	3234 Jan 04 22:09	14°♄27'02	2°06'58	evening set	3234 Dec 14 19:53	4°♄43'11	
minimum elong	3234 Jan 04 19:46	14°♄35'15	2°06'09	asc. node	3234 Dec 16 03:08	3°♄30'11	
min. Earth dist.	3234 Jan 05 02:06	14°♄13'18	0.67826 AU		3234 Dec 19 00:11	30°♄	
morning rise	3234 Jan 10 02:35	8°♄12'39		inferior conj	3234 Dec 20 05:53	28°♄18'11	1°21'58
direct	3234 Jan 15 01:56	6°♄05'22		minimum elong	3234 Dec 20 04:07	28°♄24'16	1°21'16
morning max el	3234 Jan 25 03:58	12°♄04'31	23°01'35	min. Earth dist.	3234 Dec 19 22:48	28°♄42'37	0.67934 AU
greatest brilliancy	3234 Jan 29 23:49	17°♄28'07	-0.3m	morning rise	3234 Dec 25 12:19	22°♄07'05	
desc. node	3234 Feb 04 18:16	24°♄52'52		direct	3234 Dec 29 21:01	20°♄22'41	
	3234 Feb 08 11:14	0°♄		morning max el	3235 Jan 07 17:35	25°♄33'08	21°36'00
	3234 Feb 28 00:39	0°♄			3235 Jan 11 17:29	0°♄	
morning set	3234 Feb 28 17:39	1°♄10'27		greatest brilliancy	3235 Jan 12 15:32	1°♄07'16	-0.4m
max. Earth dist.	3234 Mar 05 04:26	8°♄42'38	1.39721 AU	desc. node	3235 Jan 22 15:18	14°♄38'47	
					3235 Feb 01 23:11	0°♄	
superior conj	3234 Mar 12 21:36	22°♄27'19	-1°-52'-30	morning set	3235 Feb 08 13:32	10°♄17'35	
minimum elong	3234 Mar 13 01:53	22°♄47'03	1°52'09	max. Earth dist.	3235 Feb 15 04:07	21°♄00'17	1.41819 AU
	3234 Mar 16 22:42	0°♄			3235 Feb 20 12:18	0°♄	
evening rise	3234 Mar 22 13:42	10°♄44'07					
asc. node	3234 Mar 27 05:22	19°♄30'59		superior conj	3235 Feb 22 18:01	3°♄52'05	-2°-5'-14
	3234 Apr 02 09:26	0°♄		minimum elong	3235 Feb 22 19:54	4°♄00'15	2°05'13
evening max el	3234 Apr 07 17:27	6°♄42'01	18°31'32	evening rise	3235 Mar 05 17:27	23°♄35'04	
retrograde	3234 Apr 15 09:08	10°♄27'54			3235 Mar 09 05:49	0°♄	
evening set	3234 Apr 17 16:01	10°♄08'50		asc. node	3235 Mar 14 02:25	8°♄31'07	
inferior conj	3234 Apr 25 05:37	5°♄39'14	2°15'33	evening max el	3235 Mar 22 02:48	19°♄34'10	18°10'21
minimum elong	3234 Apr 25 09:25	5°♄31'45	2°14'29	retrograde	3235 Mar 28 22:37	23°♄00'59	
min. Earth dist.	3234 Apr 28 15:43	2°♄58'59	0.58129 AU	evening set	3235 Mar 31 11:34	22°♄32'55	

inferior conj	3235 Apr 07 08:17	17° Υ 41'53	3°09'02	minimum elong	3236 Mar 20 05:31	0° Υ 14'46	3°34'27
minimum elong	3235 Apr 07 11:16	17° Υ 35'02	3°08'30		3236 Mar 20 11:09	30° \Re H	
min. Earth dist.	3235 Apr 10 16:07	14° Υ 40'31	0.60279 AU	min. Earth dist.	3236 Mar 23 00:43	27° H 20'07	0.62410 AU
morning rise	3235 Apr 14 07:33	11° Υ 55'03		morning rise	3236 Mar 26 11:59	24° H 16'23	
direct	3235 Apr 20 22:06	9° Υ 50'14		direct	3236 Apr 02 09:22	21° H 43'41	
desc. node	3235 Apr 20 14:27	9° Υ 50'31		desc. node	3236 Apr 06 11:30	22° H 31'41	
morning max el	3235 May 05 05:08	17° Υ 42'24	27°37'04	morning max el	3236 Apr 16 10:35	29° H 40'54	27°50'42
	3235 May 15 10:51	0° B			3236 Apr 16 18:11	0° Υ	
	3235 Jun 02 08:07	0° H			3236 May 08 10:04	0° B	
morning set	3235 Jun 06 03:07	7° H 39'00		morning set	3236 May 20 04:42	21° B 56'45	
asc. node	3235 Jun 10 01:42	16° H 00'25			3236 May 24 01:54	0° H	
max. Earth dist.	3235 Jun 12 11:14	21° H 13'53	1.32130 AU	max. Earth dist.	3236 May 25 19:26	3° H 41'35	1.32534 AU
				asc. node	3236 May 26 22:45	6° H 08'53	
superior conj	3235 Jun 13 09:04	23° H 13'43	0°34'13				
minimum elong	3235 Jun 13 07:35	23° H 05'38	0°33'54	superior conj	3236 May 27 18:25	7° H 55'33	0°08'37
	3235 Jun 16 10:59	0° B		minimum elong	3236 May 27 18:01	7° H 53'20	0°08'31
evening rise	3235 Jun 20 06:02	8° B 12'07		behind sun begin	3236 May 27 13:36	7° H 29'24	
	3235 Jul 01 13:22	0° B		behind sun end	3236 May 27 22:25	8° H 17'17	
evening max el	3235 Jul 17 14:01	21° B 32'52	25°33'38	evening rise	3236 Jun 03 17:48	23° H 02'22	
desc. node	3235 Jul 17 13:41	21° B 32'05			3236 Jun 07 02:14	0° B	
retrograde	3235 Jul 31 13:43	28° B 39'41			3236 Jun 26 01:00	0° B	
evening set	3235 Aug 06 12:29	27° B 16'54		evening max el	3236 Jun 28 03:54	2° B 10'42	24°03'23
min. Earth dist.	3235 Aug 11 02:03	24° B 38'16	0.58152 AU	desc. node	3236 Jul 03 10:43	6° B 24'09	
inferior conj	3235 Aug 14 06:06	22° B 24'28	-5°-4'-46	retrograde	3236 Jul 11 22:35	9° B 06'58	
minimum elong	3235 Aug 14 07:35	22° B 21'51	5°04'42	evening set	3236 Jul 16 12:10	8° B 20'50	
morning rise	3235 Aug 22 06:12	18° B 05'26		min. Earth dist.	3236 Jul 22 14:25	5° B 22'13	0.56362 AU
direct	3235 Aug 24 17:55	17° B 46'07		inferior conj	3236 Jul 25 01:36	3° B 51'03	-4°-54'-32
morning max el	3235 Sep 02 05:06	21° B 47'08	18°48'23	minimum elong	3236 Jul 24 21:21	3° B 57'38	4°54'06
asc. node	3235 Sep 06 00:57	26° B 09'48			3236 Aug 01 21:35	30° \Re B	
	3235 Sep 08 16:39	0° B		morning rise	3236 Aug 02 10:01	29° B 52'11	
morning set	3235 Sep 18 15:03	18° B 00'06		direct	3236 Aug 05 03:27	29° B 32'51	
	3235 Sep 24 18:23	0° B			3236 Aug 08 06:39	0° B	
superior conj	3235 Sep 27 05:18	4° B 42'13	1°35'58	morning max el	3236 Aug 14 23:55	4° B 07'23	19°48'22
minimum elong	3235 Sep 27 07:54	4° B 54'31	1°35'46	asc. node	3236 Aug 22 21:59	14° B 14'17	
max. Earth dist.	3235 Oct 04 06:32	17° B 39'21	1.39294 AU		3236 Aug 31 12:22	0° B	
evening rise	3235 Oct 08 06:34	24° B 36'38		morning set	3236 Sep 01 18:09	2° B 29'38	
	3235 Oct 11 11:46	0° B					
desc. node	3235 Oct 13 13:02	3° B 21'03		superior conj	3236 Sep 09 15:31	18° B 26'53	1°43'59
	3235 Oct 31 12:58	0° B		minimum elong	3236 Sep 09 16:20	18° B 30'59	1°43'57
evening max el	3235 Nov 12 12:16	14° B 17'15	24°16'29	max. Earth dist.	3236 Sep 15 11:20	29° B 42'59	1.37247 AU
retrograde	3235 Nov 23 17:15	20° B 51'11			3236 Sep 15 14:58	0° B	
evening set	3235 Nov 29 00:53	18° B 39'02		evening rise	3236 Sep 19 07:05	6° B 44'06	
asc. node	3235 Dec 03 00:11	14° B 14'30		desc. node	3236 Sep 29 10:02	23° B 51'53	
min. Earth dist.	3235 Dec 03 18:57	13° B 12'12	0.67698 AU		3236 Oct 03 08:36	0° B	
inferior conj	3235 Dec 04 12:44	12° B 12'25	0°31'09	evening max el	3236 Oct 25 00:25	27° B 58'18	25°30'41
minimum elong	3235 Dec 04 12:00	12° B 14'55	0°30'51		3236 Oct 27 05:02	0° B	
morning rise	3235 Dec 09 23:25	6° B 06'53		retrograde	3236 Nov 06 04:10	4° B 57'22	
direct	3235 Dec 13 18:35	4° B 44'34		evening set	3236 Nov 12 02:01	2° B 30'17	
morning max el	3235 Dec 21 14:33	9° B 13'29	20°20'22		3236 Nov 14 13:51	30° \Re B	
greatest brilliancy	3235 Dec 28 01:10	16° B 53'02	-0.5m	min. Earth dist.	3236 Nov 16 12:13	27° B 38'35	0.67116 AU
	3236 Jan 06 07:11	0° B		inferior conj	3236 Nov 17 16:55	26° B 06'25	0°-24'-18
desc. node	3236 Jan 09 12:20	4° B 47'21		minimum elong	3236 Nov 17 17:32	26° B 04'25	0°24'02
morning set	3236 Jan 18 12:09	18° B 30'04		asc. node	3236 Nov 18 21:13	24° B 36'39	
	3236 Jan 25 20:14	0° \approx		morning rise	3236 Nov 23 09:50	20° B 08'56	
max. Earth dist.	3236 Jan 28 11:58	4° \approx 14'35	1.43568 AU	direct	3236 Nov 26 17:09	19° B 06'02	
				morning max el	3236 Dec 03 19:24	23° B 04'21	19°18'29
superior conj	3236 Feb 03 13:36	14° \approx 07'54	-2°-3'-46		3236 Dec 09 13:28	0° B	
minimum elong	3236 Feb 03 10:18	13° \approx 54'16	2°03'41	greatest brilliancy	3236 Dec 13 08:04	5° B 19'58	-0.7m
	3236 Feb 12 22:36	0° H		desc. node	3236 Dec 26 09:20	25° B 11'50	
evening rise	3236 Feb 16 04:30	5° H 38'19		morning set	3236 Dec 27 12:18	26° B 56'23	
asc. node	3236 Feb 28 23:29	26° H 58'31			3236 Dec 29 11:37	0° B	
	3236 Mar 02 04:58	0° Υ		max. Earth dist.	3237 Jan 10 02:20	18° B 09'51	1.44742 AU
evening max el	3236 Mar 04 15:08	2° Υ 44'58	18°08'36				
retrograde	3236 Mar 11 02:17	6° Υ 08'09		superior conj	3237 Jan 13 07:39	23° B 16'09	-1°-43'-38
evening set	3236 Mar 13 20:42	5° Υ 29'48		minimum elong	3237 Jan 12 23:13	22° B 42'37	1°42'57
inferior conj	3236 Mar 20 04:20	0° Υ 17'53	3°34'32		3237 Jan 17 12:34	0° \approx	
				evening rise	3237 Jan 27 18:35	16° \approx 46'11	

	3237 Feb 04 18:30	0°♄		asc. node	3238 Feb 01 17:31	1°♄32'20	
asc. node	3237 Feb 14 20:30	14°♄43'01		retrograde	3238 Feb 06 10:21	3°♄27'56	
evening max el	3237 Feb 16 03:29	16°♄06'49	18°25'42	evening set	3238 Feb 09 16:41	2°♄26'12	
retrograde	3237 Feb 22 15:30	19°♄39'31			3238 Feb 12 12:33	30°♄	
evening set	3237 Feb 25 15:27	18°♄50'00		inferior conj	3238 Feb 15 08:27	26°♄38'19	3°26'56
inferior conj	3237 Mar 03 13:37	13°♄19'02	3°38'41	minimum elong	3238 Feb 15 06:42	26°♄43'50	3°26'42
minimum elong	3237 Mar 03 13:05	13°♄20'33	3°38'40	min. Earth dist.	3238 Feb 16 22:23	24°♄38'52	0.65804 AU
min. Earth dist.	3237 Mar 05 18:58	10°♄44'19	0.64289 AU	morning rise	3238 Feb 20 19:42	20°♄24'25	
morning rise	3237 Mar 09 09:11	7°♄09'16		direct	3238 Feb 27 06:52	17°♄35'24	
direct	3237 Mar 16 04:40	4°♄21'28		desc. node	3238 Mar 11 05:34	24°♄15'27	
desc. node	3237 Mar 24 08:32	7°♄31'41		morning max el	3238 Mar 12 05:38	25°♄14'49	26°34'36
morning max el	3237 Mar 29 19:43	12°♄15'55	27°28'00		3238 Mar 16 13:46	0°♄	
	3237 Apr 12 23:33	0°♄			3238 Apr 06 11:07	0°♄	
	3237 Apr 30 22:09	0°♄		morning set	3238 Apr 17 04:37	19°♄01'26	
morning set	3237 May 03 22:23	5°♄48'02		max. Earth dist.	3238 Apr 21 09:54	27°♄11'35	1.34658 AU
max. Earth dist.	3237 May 08 20:11	15°♄43'37	1.33364 AU		3238 Apr 22 19:40	0°♄	
superior conj	3237 May 11 23:51	22°♄21'33	0°-19'-4	superior conj	3238 Apr 25 23:05	6°♄24'12	0°-47'-45
minimum elong	3237 May 12 00:49	22°♄26'41	0°18'53	minimum elong	3238 Apr 26 01:35	6°♄37'05	0°47'17
asc. node	3237 May 13 19:47	26°♄16'09		asc. node	3238 Apr 30 16:49	16°♄17'22	
	3237 May 15 13:31	0°♄		evening rise	3238 May 03 14:21	22°♄20'20	
evening rise	3237 May 19 05:14	7°♄47'31			3238 May 07 09:02	0°♄	
	3237 May 30 23:39	0°♄		evening max el	3238 May 22 17:11	23°♄23'04	20°57'57
evening max el	3237 Jun 09 18:23	12°♄36'59	22°26'47	retrograde	3238 Jun 03 08:45	29°♄04'36	
desc. node	3237 Jun 20 07:44	18°♄51'37		evening set	3238 Jun 05 13:04	28°♄53'24	
retrograde	3237 Jun 22 19:36	19°♄05'56		desc. node	3238 Jun 07 04:46	28°♄30'48	
evening set	3237 Jun 25 21:56	18°♄44'46		inferior conj	3238 Jun 14 20:50	24°♄55'53	-2°-13'-26
min. Earth dist.	3237 Jul 04 01:25	15°♄12'18	0.55175 AU	minimum elong	3238 Jun 14 14:40	25°♄04'38	2°11'18
inferior conj	3237 Jul 05 03:20	14°♄35'34	-3°-56'-14	min. Earth dist.	3238 Jun 15 13:20	24°♄32'31	0.54871 AU
minimum elong	3237 Jul 04 19:08	14°♄47'12	3°54'13	morning rise	3238 Jun 23 15:43	20°♄54'22	
morning rise	3237 Jul 13 18:41	10°♄45'01		direct	3238 Jun 27 04:56	20°♄27'10	
direct	3237 Jul 16 19:34	10°♄24'05		morning max el	3238 Jul 10 03:58	26°♄39'09	22°45'48
morning max el	3237 Jul 28 07:14	15°♄44'37	21°09'01		3238 Jul 13 09:25	0°♄	
	3237 Aug 08 01:49	0°♄		asc. node	3238 Jul 27 16:02	22°♄14'23	
asc. node	3237 Aug 09 19:01	2°♄59'25			3238 Jul 31 12:42	0°♄	
morning set	3237 Aug 17 02:05	17°♄13'46		morning set	3238 Aug 01 12:48	2°♄05'43	
	3237 Aug 23 04:48	0°♄					
				superior conj	3238 Aug 08 16:19	17°♄20'52	1°37'18
superior conj	3237 Aug 24 12:20	2°♄43'33	1°43'57	minimum elong	3238 Aug 08 14:35	17°♄11'36	1°37'10
minimum elong	3237 Aug 24 11:38	2°♄40'00	1°43'56	max. Earth dist.	3238 Aug 11 15:20	23°♄35'04	1.33989 AU
max. Earth dist.	3237 Aug 28 20:58	11°♄34'01	1.35435 AU		3238 Aug 14 18:31	0°♄	
evening rise	3237 Sep 02 02:34	19°♄45'40		evening rise	3238 Aug 16 12:28	3°♄28'32	
	3237 Sep 07 17:47	0°♄			3238 Aug 31 13:15	0°♄	
desc. node	3237 Sep 16 07:03	14°♄07'37		desc. node	3238 Sep 03 04:05	4°♄00'36	
	3237 Sep 27 09:19	0°♄		evening max el	3238 Sep 20 01:00	25°♄07'08	27°12'48
evening max el	3237 Oct 07 12:41	11°♄37'50	26°31'54		3238 Sep 26 03:51	0°♄	
retrograde	3237 Oct 20 10:07	18°♄51'29		retrograde	3238 Oct 03 10:25	2°♄25'24	
evening set	3237 Oct 26 21:23	16°♄13'37		evening set	3238 Oct 10 08:36	29°♄43'59	
min. Earth dist.	3237 Oct 31 00:18	11°♄58'07	0.66187 AU		3238 Oct 10 00:11	30°♄	
inferior conj	3237 Nov 01 16:30	9°♄57'13	-1°-23'-5	min. Earth dist.	3238 Oct 14 05:00	26°♄04'23	0.64904 AU
minimum elong	3237 Nov 01 18:46	9°♄50'25	1°22'09	inferior conj	3238 Oct 16 09:19	23°♄39'55	-2°-23'-21
asc. node	3237 Nov 05 18:14	5°♄33'54		minimum elong	3238 Oct 16 13:16	23°♄28'59	2°21'52
morning rise	3237 Nov 07 17:30	4°♄10'24		morning rise	3238 Oct 22 19:52	18°♄06'50	
direct	3237 Nov 10 15:03	3°♄23'09		asc. node	3238 Oct 23 15:15	17°♄48'14	
morning max el	3237 Nov 17 06:43	7°♄01'45	18°32'18	direct	3238 Oct 25 10:08	17°♄31'16	
	3237 Dec 03 08:23	0°♄		morning max el	3238 Oct 31 22:01	20°♄59'21	18°02'52
morning set	3237 Dec 07 11:49	6°♄36'38			3238 Nov 07 19:42	0°♄	
desc. node	3237 Dec 13 06:21	15°♄47'37		morning set	3238 Nov 18 16:49	17°♄44'37	
	3237 Dec 22 06:40	0°♄			3238 Nov 26 02:56	0°♄	
				desc. node	3238 Nov 30 03:23	6°♄30'45	
superior conj	3237 Dec 23 10:24	1°♄48'48	-1°-5'-22	superior conj	3238 Dec 02 18:08	10°♄42'06	0°-17'-44
minimum elong	3237 Dec 23 02:29	1°♄17'43	1°04'26	minimum elong	3238 Dec 02 15:56	10°♄33'19	0°17'27
max. Earth dist.	3237 Dec 23 20:22	2°♄27'55	1.45215 AU	max. Earth dist.	3238 Dec 06 15:23	16°♄51'47	1.44946 AU
evening rise	3238 Jan 08 09:22	26°♄57'03			3238 Dec 15 01:05	0°♄	
	3238 Jan 10 07:28	0°♄			3238 Dec 19 03:44	6°♄21'46	
evening max el	3238 Jan 30 13:30	29°♄34'49	19°00'35	evening rise	3239 Jan 03 17:18	0°♄	
	3238 Jan 30 23:33	0°♄					

greatest brilliancy	3239 Jan 06 14:18	4°06'43	-0.6m		3239 Dec 08 02:28	0°0	
evening max el	3239 Jan 13 19:22	13°06'01	19°51'40	greatest brilliancy	3239 Dec 22 09:57	20°017'15	-0.5m
asc. node	3239 Jan 19 14:33	17°12'22		evening max el	3239 Dec 27 19:52	26°037'59	20°56'26
retrograde	3239 Jan 21 07:54	17°28'33			3239 Dec 31 17:43	0°0	
evening set	3239 Jan 24 22:01	16°13'18		retrograde	3240 Jan 05 05:48	1°36'45	
inferior conj	3239 Jan 30 09:49	10°10'56	3°03'06	asc. node	3240 Jan 06 11:35	1°28'16	
minimum elong	3239 Jan 30 07:25	10°18'56	3°02'34	evening set	3240 Jan 09 05:26	0°06'31	
min. Earth dist.	3239 Jan 31 09:25	8°52'21	0.66910 AU		3240 Jan 09 08:48	30°0	
morning rise	3239 Feb 04 16:10	3°55'31		inferior conj	3240 Jan 14 15:15	23°052'31	2°29'45
direct	3239 Feb 10 14:53	1°17'07		minimum elong	3240 Jan 14 12:44	24°01'12	2°29'00
morning max el	3239 Feb 22 14:32	8°26'18	25°19'30	min. Earth dist.	3240 Jan 15 01:58	23°015'43	0.67606 AU
desc. node	3239 Feb 26 02:36	12°13'57		morning rise	3240 Jan 19 19:39	17°037'27	
	3239 Mar 11 12:44	0°0		direct	3240 Jan 25 03:44	15°017'39	
	3239 Mar 30 00:09	0°0		morning max el	3240 Feb 04 22:59	21°043'49	23°52'49
morning set	3239 Mar 30 18:51	1°023'59			3240 Feb 12 03:14	0°0	
max. Earth dist.	3239 Apr 03 12:13	8°015'05	1.36403 AU	desc. node	3240 Feb 12 23:38	1°05'07	
					3240 Mar 03 19:48	0°0	
superior conj	3239 Apr 09 13:23	19°056'15	-1°-15'-47	morning set	3240 Mar 11 11:09	12°039'09	
minimum elong	3239 Apr 09 17:16	20°015'33	1°15'10	max. Earth dist.	3240 Mar 15 08:01	19°024'09	1.38478 AU
	3239 Apr 14 13:18	0°0			3240 Mar 21 03:29	0°0	
evening rise	3239 Apr 17 19:03	6°034'52					
asc. node	3239 Apr 17 13:51	6°08'33		superior conj	3240 Mar 22 15:07	2°047'41	-1°-40'-46
	3239 May 01 01:03	0°0		minimum elong	3240 Mar 22 19:41	3°09'21	1°40'16
evening max el	3239 May 05 03:57	4°047'21	19°45'26	evening rise	3240 Mar 31 16:43	20°023'27	
retrograde	3239 May 15 01:33	9°035'28		asc. node	3240 Apr 03 10:54	25°044'30	
evening set	3239 May 17 01:06	9°024'47			3240 Apr 05 17:03	0°0	
desc. node	3239 May 25 01:47	5°051'51		evening max el	3240 Apr 17 01:48	16°051'04	18°52'35
inferior conj	3239 May 25 20:37	5°022'49	0°-13'-49	retrograde	3240 Apr 25 10:05	20°055'23	
minimum elong	3239 May 25 19:59	5°023'47	0°13'36	evening set	3240 Apr 27 13:35	20°040'17	
transit middle	3239 May 25 19:59	5°023'47	0°13'36	inferior conj	3240 May 05 14:09	16°021'53	1°29'56
transit begin	3239 May 25 17:55	5°027'00		minimum elong	3240 May 05 17:18	16°016'11	1°28'54
transit end	3239 May 25 22:04	5°020'35		min. Earth dist.	3240 May 08 18:52	14°005'01	0.57023 AU
min. Earth dist.	3239 May 28 02:50	3°059'04	0.55538 AU	desc. node	3240 May 10 22:49	12°041'22	
morning rise	3239 Jun 03 11:38	0°053'02		morning rise	3240 May 13 16:40	11°016'59	
direct	3239 Jun 07 20:49	0°010'28		direct	3240 May 19 01:44	10°007'30	
morning max el	3239 Jun 21 18:34	7°006'34	24°28'37	morning max el	3240 Jun 02 09:31	17°034'29	26°02'38
	3239 Jul 08 08:39	0°0			3240 Jun 12 16:05	0°0	
asc. node	3239 Jul 14 13:06	11°051'31			3240 Jun 29 14:17	0°0	
morning set	3239 Jul 17 00:36	17°000'36		morning set	3240 Jun 30 11:53	1°053'21	
	3239 Jul 23 00:53	0°0		asc. node	3240 Jun 30 10:10	1°044'18	
superior conj	3239 Jul 24 00:56	2°010'56	1°25'09	superior conj	3240 Jul 07 12:05	17°006'56	1°08'23
minimum elong	3239 Jul 23 22:39	1°058'32	1°24'53	minimum elong	3240 Jul 07 09:45	16°054'09	1°08'00
max. Earth dist.	3239 Jul 25 18:34	5°056'23	1.32952 AU	max. Earth dist.	3240 Jul 08 04:02	18°034'41	1.32316 AU
evening rise	3239 Jul 31 08:52	17°041'38			3240 Jul 13 10:48	0°0	
	3239 Aug 06 17:00	0°0		evening rise	3240 Jul 14 12:37	2°015'24	
desc. node	3239 Aug 21 01:06	23°021'22			3240 Jul 29 14:29	0°0	
	3239 Aug 26 00:54	0°0		desc. node	3240 Aug 06 22:07	11°056'49	
evening max el	3239 Sep 02 11:47	8°014'09	27°26'26	evening max el	3240 Aug 14 18:23	20°045'22	27°07'59
retrograde	3239 Sep 16 04:17	15°030'33		retrograde	3240 Aug 28 15:02	27°058'24	
evening set	3239 Sep 23 08:36	12°055'34		evening set	3240 Sep 04 17:31	25°042'04	
min. Earth dist.	3239 Sep 27 00:10	9°048'40	0.63287 AU	min. Earth dist.	3240 Sep 08 08:40	22°059'08	0.61382 AU
inferior conj	3239 Sep 29 16:41	7°008'25	-3°-22'-15	inferior conj	3240 Sep 11 11:29	20°015'04	-4°-15'00
minimum elong	3239 Sep 29 22:01	6°055'08	3°20'35	minimum elong	3240 Sep 11 17:08	20°002'37	4°13'43
morning rise	3239 Oct 06 13:55	1°052'29		morning rise	3240 Sep 18 19:46	15°019'55	
direct	3239 Oct 08 23:36	1°024'56		direct	3240 Sep 21 03:49	14°057'23	
asc. node	3239 Oct 10 12:19	1°036'20		asc. node	3240 Sep 26 09:23	16°054'56	
morning max el	3239 Oct 15 14:26	4°050'38	17°50'56	morning max el	3240 Sep 28 05:01	18°028'54	17°57'29
morning set	3239 Oct 31 22:53	0°004'56			3240 Oct 06 12:45	0°0	
	3239 Oct 31 21:46	0°0		morning set	3240 Oct 13 23:40	13°018'50	
					3240 Oct 23 05:12	0°0	
superior conj	3239 Nov 12 23:53	20°041'23	0°27'29				
minimum elong	3239 Nov 13 02:38	20°052'46	0°27'06	superior conj	3240 Oct 24 08:41	2°000'26	1°03'01
desc. node	3239 Nov 17 00:24	27°017'23		minimum elong	3240 Oct 24 13:00	2°019'17	1°02'28
	3239 Nov 18 16:38	0°0		max. Earth dist.	3240 Oct 31 21:41	14°048'54	1.42423 AU
max. Earth dist.	3239 Nov 19 08:41	1°004'27	1.43976 AU	desc. node	3240 Nov 02 21:26	18°004'39	
evening rise	3239 Nov 28 12:49	15°029'18		evening rise	3240 Nov 07 05:07	25°000'42	

	3240 Nov 10 09:33	0°♊		superior conj	3241 Oct 06 16:57	14°♊28'11	1°27'03
	3240 Dec 01 01:52	0°♋		minimum elong	3241 Oct 06 20:28	14°♊44'25	1°26'42
greatest brilliancy	3240 Dec 04 21:34	4°♋51'45	-0.3m	max. Earth dist.	3241 Oct 14 04:53	27°♊50'03	1.40482 AU
evening max el	3240 Dec 09 14:53	10°♋11'03	22°11'08		3241 Oct 15 11:15	0°♌	
retrograde	3240 Dec 19 02:20	15°♋49'25		evening rise	3241 Oct 18 17:12	5°♌26'53	
asc. node	3240 Dec 23 08:38	14°♋12'04		desc. node	3241 Oct 20 18:26	8°♌48'34	
evening set	3240 Dec 23 13:12	14°♋03'04			3241 Nov 03 14:10	0°♍	
inferior conj	3240 Dec 28 22:42	7°♋40'47	1°48'38	evening max el	3241 Nov 22 05:33	23°♍46'19	23°30'52
minimum elong	3240 Dec 28 20:32	7°♋48'18	1°47'51		3241 Dec 02 01:53	0°♎	
min. Earth dist.	3240 Dec 28 21:47	7°♋43'57	0.67918 AU	retrograde	3241 Dec 02 20:00	0°♎02'32	
morning rise	3241 Jan 03 03:44	1°♋27'47			3241 Dec 03 13:48	30°♎♊	
	3241 Jan 05 11:12	30°♎♊		evening set	3241 Dec 07 19:40	27°♎45'40	
direct	3241 Jan 07 20:44	29°♎30'24		asc. node	3241 Dec 10 05:41	25°♎31'10	
	3241 Jan 10 09:43	0°♏		inferior conj	3241 Dec 13 06:16	21°♎33'10	1°01'03
morning max el	3241 Jan 17 09:52	5°♏08'06	22°24'23	minimum elong	3241 Dec 13 04:53	21°♎37'53	1°00'30
greatest brilliancy	3241 Jan 21 23:16	10°♏13'29	-0.3m	min. Earth dist.	3241 Dec 12 18:34	22°♎13'15	0.67871 AU
desc. node	3241 Jan 29 20:41	20°♏34'07		morning rise	3241 Dec 18 14:15	15°♎24'08	
	3241 Feb 05 10:32	0°♐		direct	3241 Dec 22 16:53	13°♎49'35	
morning set	3241 Feb 19 23:48	22°♐33'26		morning max el	3241 Dec 31 02:28	18°♎41'37	21°02'20
	3241 Feb 24 11:42	0°♑		greatest brilliancy	3242 Jan 05 13:07	24°♎58'03	-0.5m
max. Earth dist.	3241 Feb 25 04:44	1°♑11'54	1.40643 AU		3242 Jan 09 08:31	0°♒	
				desc. node	3242 Jan 16 17:43	10°♒30'10	
superior conj	3241 Mar 04 23:42	14°♑47'15	-1°-59'-17		3242 Jan 29 14:30	0°♓	
minimum elong	3241 Mar 05 03:19	15°♑03'30	1°59'06	morning set	3242 Jan 30 08:45	1°♓11'18	
	3241 Mar 13 05:42	0°♒		max. Earth dist.	3242 Feb 07 07:28	13°♓53'00	1.42613 AU
evening rise	3241 Mar 15 04:08	3°♒38'12					
asc. node	3241 Mar 21 07:57	14°♒59'41		superior conj	3242 Feb 14 09:59	25°♓43'11	-2°-6'-40
evening max el	3241 Mar 31 07:53	29°♒27'56	18°20'00	minimum elong	3242 Feb 14 09:57	25°♓43'03	2°06'41
	3241 Mar 31 21:31	0°♓			3242 Feb 16 21:53	0°♑	
retrograde	3241 Apr 07 13:48	3°♓04'05		evening rise	3242 Feb 26 01:20	16°♑10'00	
evening set	3241 Apr 09 23:13	2°♓41'28			3242 Mar 05 21:29	0°♒	
	3241 Apr 14 19:01	30°♒♑		asc. node	3242 Mar 08 05:00	3°♒47'10	
inferior conj	3241 Apr 17 05:12	28°♒02'30	2°42'03	evening max el	3242 Mar 14 18:52	12°♒29'09	18°07'17
minimum elong	3241 Apr 17 08:52	27°♒54'45	2°41'11	retrograde	3242 Mar 21 09:56	15°♒52'57	
min. Earth dist.	3241 Apr 20 15:41	25°♒10'15	0.59026 AU	evening set	3242 Mar 24 01:06	15°♒20'49	
morning rise	3241 Apr 24 14:28	22°♒27'44		inferior conj	3242 Mar 30 15:49	10°♒20'57	3°22'50
desc. node	3241 Apr 27 19:53	21°♒07'40		minimum elong	3242 Mar 30 18:05	10°♒15'26	3°22'32
direct	3241 Apr 30 20:22	20°♒43'07		min. Earth dist.	3242 Apr 02 19:38	7°♒17'58	0.61197 AU
morning max el	3241 May 15 05:34	28°♒29'20	27°12'20	morning rise	3242 Apr 06 08:01	4°♒26'38	
	3241 May 16 17:16	0°♓		direct	3242 Apr 13 02:34	2°♒08'23	
	3241 Jun 06 09:09	0°♔		desc. node	3242 Apr 14 16:55	2°♒15'40	
morning set	3241 Jun 14 20:56	16°♔37'41		morning max el	3242 Apr 27 07:54	10°♒04'34	27°47'29
asc. node	3241 Jun 17 07:13	21°♔46'48			3242 May 12 19:02	0°♕	
	3241 Jun 21 01:42	0°♕			3242 May 29 12:40	0°♔	
superior conj	3241 Jun 21 23:53	2°♕02'11	0°47'41	morning set	3242 May 30 01:53	1°♔07'39	
minimum elong	3241 Jun 21 21:59	1°♕51'41	0°47'18	asc. node	3242 Jun 04 04:15	11°♔54'40	
max. Earth dist.	3241 Jun 21 15:57	1°♕18'24	1.32080 AU	max. Earth dist.	3242 Jun 05 02:30	13°♔55'27	1.32247 AU
evening rise	3241 Jun 28 21:06	17°♕00'58		superior conj	3242 Jun 06 10:41	16°♔51'08	0°23'41
	3241 Jul 05 07:53	0°♌		minimum elong	3242 Jun 06 09:37	16°♔45'19	0°23'27
desc. node	3241 Jul 24 19:09	29°♌27'30			3242 Jun 12 11:19	0°♖	
	3241 Jul 25 07:07	0°♍		evening rise	3242 Jun 13 08:14	1°♖51'41	
evening max el	3241 Jul 27 18:09	2°♍29'33	26°16'26		3242 Jun 28 14:43	0°♌	
retrograde	3241 Aug 10 17:36	9°♍39'54		evening max el	3242 Jul 09 10:50	13°♌27'51	24°57'03
evening set	3241 Aug 17 06:28	7°♍54'51		desc. node	3242 Jul 11 16:09	15°♌27'04	
min. Earth dist.	3241 Aug 21 07:05	5°♍20'13	0.59317 AU	retrograde	3242 Jul 23 09:55	20°♌32'15	
inferior conj	3241 Aug 24 14:04	2°♍49'24	-4°-53'-37	evening set	3242 Jul 28 19:29	19°♌25'50	
minimum elong	3241 Aug 24 17:54	2°♍42'02	4°53'11	min. Earth dist.	3242 Aug 02 22:22	16°♌40'22	0.57337 AU
	3241 Aug 28 13:56	30°♌♍		inferior conj	3242 Aug 05 21:17	14°♌42'36	-5°-5'-40
morning rise	3241 Sep 01 08:50	28°♌17'29		minimum elong	3242 Aug 05 20:28	14°♌43'58	5°05'40
direct	3241 Sep 03 18:16	27°♌57'38		morning rise	3242 Aug 14 01:07	10°♌32'59	
	3241 Sep 09 12:22	0°♎		direct	3242 Aug 16 14:49	10°♌13'58	
morning max el	3241 Sep 11 14:26	1°♎44'35	18°23'49	morning max el	3242 Aug 25 15:25	14°♌27'58	19°11'13
asc. node	3241 Sep 13 06:27	3°♎29'42		asc. node	3242 Aug 31 03:29	21°♌05'27	
morning set	3241 Sep 27 13:39	27°♎10'05			3242 Sep 05 13:22	0°♏	
	3241 Sep 29 01:07	0°♐		morning set	3242 Sep 11 12:52	11°♏27'54	

superior conj	3242 Sep 19 19:10	27° $\overline{\text{M}}$ 48'49	1°40'26	morning rise	3243 Jul 25 20:03	21° $\overline{\text{S}}$ 56'18	
minimum elong	3242 Sep 19 21:00	27° $\overline{\text{M}}$ 57'43	1°40'20	direct	3243 Jul 28 16:25	21° $\overline{\text{S}}$ 36'29	
	3242 Sep 20 22:23	0° $\underline{\text{A}}$		morning max el	3243 Aug 08 05:18	26° $\overline{\text{S}}$ 29'47	20°20'13
max. Earth dist.	3242 Sep 26 08:50	10° $\underline{\text{A}}$ 09'09	1.38408 AU		3243 Aug 11 12:06	0° Ω	
evening rise	3242 Sep 30 05:00	16° $\underline{\text{A}}$ 58'55		asc. node	3243 Aug 18 00:30	9° Ω 28'21	
desc. node	3242 Oct 07 15:27	29° $\underline{\text{A}}$ 25'24		morning set	3243 Aug 26 18:18	26° Ω 04'11	
	3242 Oct 08 00:05	0° $\overline{\text{M}}$			3243 Aug 28 16:16	0° $\overline{\text{M}}$	
	3242 Oct 29 01:44	0° $\overline{\text{A}}$					
evening max el	3242 Nov 04 18:09	7° $\overline{\text{A}}$ 25'48	24°49'13	superior conj	3243 Sep 03 10:19	11° $\overline{\text{M}}$ 48'02	1°44'50
retrograde	3242 Nov 16 09:41	14° $\overline{\text{A}}$ 12'11		minimum elong	3243 Sep 03 10:27	11° $\overline{\text{M}}$ 48'43	1°44'51
evening set	3242 Nov 21 23:13	11° $\overline{\text{A}}$ 53'33		max. Earth dist.	3243 Sep 08 15:07	22° $\overline{\text{M}}$ 04'24	1.36444 AU
min. Earth dist.	3242 Nov 26 13:51	6° $\overline{\text{A}}$ 41'12	0.67487 AU	evening rise	3243 Sep 12 14:11	29° $\overline{\text{M}}$ 30'57	
asc. node	3242 Nov 27 02:43	5° $\overline{\text{A}}$ 58'43			3243 Sep 12 20:32	0° $\underline{\text{A}}$	
inferior conj	3242 Nov 27 12:11	5° $\overline{\text{A}}$ 27'19	0°08'07	desc. node	3243 Sep 24 12:28	19° $\underline{\text{A}}$ 50'31	
minimum elong	3242 Nov 27 11:59	5° $\overline{\text{A}}$ 27'59	0°08'02		3243 Oct 01 05:39	0° $\overline{\text{M}}$	
transit middle	3242 Nov 27 11:59	5° $\overline{\text{A}}$ 27'59	0°08'02	evening max el	3243 Oct 18 06:30	21° $\overline{\text{M}}$ 07'47	25°58'51
transit begin	3242 Nov 27 09:36	5° $\overline{\text{A}}$ 35'55		retrograde	3243 Oct 30 18:28	28° $\overline{\text{M}}$ 13'51	
transit end	3242 Nov 27 14:23	5° $\overline{\text{A}}$ 20'03		evening set	3243 Nov 05 22:07	25° $\overline{\text{M}}$ 41'51	
	3242 Dec 02 06:39	30° $\overline{\text{R}}$ $\overline{\text{M}}$		min. Earth dist.	3243 Nov 10 05:17	21° $\overline{\text{M}}$ 05'14	0.66762 AU
morning rise	3242 Dec 03 01:16	29° $\overline{\text{M}}$ 24'38		inferior conj	3243 Nov 11 14:41	19° $\overline{\text{M}}$ 20'42	0°-48'-53
direct	3242 Dec 06 15:06	28° $\overline{\text{M}}$ 10'59		minimum elong	3243 Nov 11 15:59	19° $\overline{\text{M}}$ 16'39	0°48'21
	3242 Dec 11 07:45	0° $\overline{\text{A}}$		asc. node	3243 Nov 13 23:43	16° $\overline{\text{M}}$ 29'24	
morning max el	3242 Dec 14 02:45	2° $\overline{\text{A}}$ 25'55	19°52'07	morning rise	3243 Nov 17 10:48	13° $\overline{\text{M}}$ 27'08	
greatest brilliancy	3242 Dec 21 13:41	11° $\overline{\text{A}}$ 33'26	-0.6m	direct	3243 Nov 20 13:45	12° $\overline{\text{M}}$ 31'12	
	3243 Jan 03 02:43	0° $\overline{\text{S}}$		morning max el	3243 Nov 27 10:32	16° $\overline{\text{M}}$ 19'49	18°56'49
desc. node	3243 Jan 03 14:43	0° $\overline{\text{S}}$ 45'40			3243 Dec 07 18:49	0° $\overline{\text{A}}$	
morning set	3243 Jan 09 04:33	9° $\overline{\text{S}}$ 18'55		morning set	3243 Dec 19 12:55	18° $\overline{\text{A}}$ 12'15	
max. Earth dist.	3243 Jan 20 17:45	27° $\overline{\text{S}}$ 24'09	1.44141 AU	desc. node	3243 Dec 21 11:44	21° $\overline{\text{A}}$ 15'31	
	3243 Jan 22 08:48	0° \approx			3243 Dec 27 01:45	0° $\overline{\text{S}}$	
				max. Earth dist.	3244 Jan 03 10:18	11° $\overline{\text{S}}$ 32'14	1.45036 AU
superior conj	3243 Jan 25 18:16	5° \approx 28'20	-1°-57'-41				
minimum elong	3243 Jan 25 12:27	5° \approx 04'45	1°57'22	superior conj	3244 Jan 05 03:52	14° $\overline{\text{S}}$ 15'50	-1°-29'-17
evening rise	3243 Feb 08 03:51	27° \approx 49'28		minimum elong	3244 Jan 04 18:45	13° $\overline{\text{S}}$ 39'54	1°28'23
	3243 Feb 09 10:25	0° $\overline{\text{K}}$			3244 Jan 15 01:17	0° \approx	
asc. node	3243 Feb 23 02:01	21° $\overline{\text{K}}$ 57'27		evening rise	3244 Jan 20 08:05	8° \approx 32'33	
evening max el	3243 Feb 26 07:34	25° $\overline{\text{K}}$ 45'22	18°13'44		3244 Feb 02 17:59	0° $\overline{\text{K}}$	
retrograde	3243 Mar 04 18:00	29° $\overline{\text{K}}$ 10'54		asc. node	3244 Feb 09 23:02	9° $\overline{\text{K}}$ 20'00	
evening set	3243 Mar 07 14:43	28° $\overline{\text{K}}$ 27'57		evening max el	3244 Feb 09 19:16	9° $\overline{\text{K}}$ 10'29	18°38'29
inferior conj	3243 Mar 13 17:56	23° $\overline{\text{K}}$ 08'01	3°38'32	retrograde	3244 Feb 16 09:56	12° $\overline{\text{K}}$ 50'13	
minimum elong	3243 Mar 13 18:21	23° $\overline{\text{K}}$ 06'52	3°38'31	evening set	3244 Feb 19 12:34	11° $\overline{\text{K}}$ 55'28	
min. Earth dist.	3243 Mar 16 08:17	20° $\overline{\text{K}}$ 17'53	0.63247 AU	inferior conj	3244 Feb 25 07:40	6° $\overline{\text{K}}$ 17'01	3°35'22
morning rise	3243 Mar 19 20:00	17° $\overline{\text{K}}$ 02'32		minimum elong	3244 Feb 25 06:34	6° $\overline{\text{K}}$ 20'23	3°35'17
direct	3243 Mar 26 17:43	14° $\overline{\text{K}}$ 21'21		min. Earth dist.	3244 Feb 27 06:22	3° $\overline{\text{K}}$ 56'30	0.64987 AU
desc. node	3243 Apr 01 13:56	15° $\overline{\text{K}}$ 59'33		morning rise	3244 Mar 01 23:18	0° $\overline{\text{K}}$ 05'25	
morning max el	3243 Apr 09 15:01	22° $\overline{\text{K}}$ 18'47	27°45'12		3244 Mar 02 01:52	30° $\overline{\text{R}}$ \approx	
	3243 Apr 16 09:23	0° $\overline{\text{Y}}$		direct	3244 Mar 08 16:01	27° \approx 15'34	
	3243 May 05 23:26	0° $\overline{\text{S}}$			3244 Mar 16 02:05	0° $\overline{\text{K}}$	
morning set	3243 May 14 00:25	15° $\overline{\text{S}}$ 14'53		desc. node	3244 Mar 18 10:58	1° $\overline{\text{K}}$ 47'20	
max. Earth dist.	3243 May 19 07:47	26° $\overline{\text{S}}$ 12'19	1.32832 AU	morning max el	3244 Mar 22 00:36	5° $\overline{\text{K}}$ 04'22	27°08'33
	3243 May 21 02:26	0° $\overline{\text{II}}$			3244 Apr 10 00:13	0° $\overline{\text{Y}}$	
				morning set	3244 Apr 26 13:40	28° $\overline{\text{Y}}$ 50'39	
superior conj	3243 May 21 18:36	1° $\overline{\text{II}}$ 26'57	0°-2'-55		3244 Apr 27 03:57	0° $\overline{\text{S}}$	
minimum elong	3243 May 21 18:45	1° $\overline{\text{II}}$ 27'44	0°02'55	max. Earth dist.	3244 May 01 04:07	7° $\overline{\text{S}}$ 59'30	1.33864 AU
behind sun begin	3243 May 21 13:33	0° $\overline{\text{II}}$ 59'42					
behind sun end	3243 May 21 23:57	1° $\overline{\text{II}}$ 55'46		superior conj	3244 May 04 21:41	15° $\overline{\text{S}}$ 43'26	0°-31'-12
asc. node	3243 May 22 01:17	2° $\overline{\text{II}}$ 02'59		minimum elong	3244 May 04 23:17	15° $\overline{\text{S}}$ 51'53	0°30'52
evening rise	3243 May 28 20:04	16° $\overline{\text{II}}$ 40'14		asc. node	3244 May 07 22:19	22° $\overline{\text{S}}$ 07'49	
	3243 Jun 04 10:53	0° $\overline{\text{S}}$			3244 May 11 15:23	0° $\overline{\text{II}}$	
evening max el	3243 Jun 21 00:10	23° $\overline{\text{S}}$ 57'10	23°22'10	evening rise	3244 May 12 06:44	1° $\overline{\text{II}}$ 20'35	
desc. node	3243 Jun 28 13:10	29° $\overline{\text{S}}$ 21'38			3244 May 28 17:26	0° $\overline{\text{S}}$	
	3243 Jun 30 04:13	0° Ω		evening max el	3244 Jun 01 17:26	4° $\overline{\text{S}}$ 28'06	21°47'19
retrograde	3243 Jul 04 13:29	0° Ω 43'45		retrograde	3244 Jun 14 05:37	10° $\overline{\text{S}}$ 38'12	
evening set	3243 Jul 08 11:10	0° Ω 10'25		desc. node	3244 Jun 14 10:12	10° $\overline{\text{S}}$ 38'07	
	3243 Jul 09 01:11	30° $\overline{\text{R}}$ $\overline{\text{S}}$		evening set	3244 Jun 16 20:40	10° $\overline{\text{S}}$ 22'42	
min. Earth dist.	3243 Jul 15 09:58	26° $\overline{\text{S}}$ 58'51	0.55770 AU	inferior conj	3244 Jun 26 05:07	6° $\overline{\text{S}}$ 20'24	-3°-16'-53
inferior conj	3243 Jul 17 08:33	25° $\overline{\text{S}}$ 50'08	-4°-36'-3	minimum elong	3244 Jun 25 21:01	6° $\overline{\text{S}}$ 31'44	3°14'28
minimum elong	3243 Jul 17 02:04	25° $\overline{\text{S}}$ 59'44	4°34'59	min. Earth dist.	3244 Jun 25 20:52	6° $\overline{\text{S}}$ 31'56	0.54935 AU

morning rise	3244 Jul 04 22:38	2° $\overline{5}$ 27'56		morning rise	3245 Jun 14 17:55	12° \overline{II} 28'08	
direct	3244 Jul 08 04:14	2° $\overline{5}$ 05'00		direct	3245 Jun 18 14:31	11° \overline{II} 56'01	
morning max el	3244 Jul 20 07:36	7° $\overline{5}$ 46'51	21°48'41	morning max el	3245 Jul 02 01:10	18° \overline{II} 27'48	23°29'43
asc. node	3244 Aug 03 21:32	28° $\overline{5}$ 27'06			3245 Jul 11 12:46	0° $\overline{5}$	
	3244 Aug 04 17:19	0° \overline{Q}		asc. node	3245 Jul 21 18:36	17° $\overline{5}$ 52'45	
morning set	3244 Aug 10 03:39	10° \overline{Q} 52'14		morning set	3245 Jul 25 15:05	25° $\overline{5}$ 46'48	
					3245 Jul 27 14:43	0° \overline{Q}	
superior conj	3244 Aug 17 10:31	26° \overline{Q} 14'10	1°41'51	superior conj	3245 Aug 01 16:49	10° \overline{Q} 58'29	1°32'47
minimum elong	3244 Aug 17 09:19	26° \overline{Q} 07'54	1°41'48	minimum elong	3245 Aug 01 14:48	10° \overline{Q} 47'33	1°32'35
	3244 Aug 19 05:55	0° \overline{np}		max. Earth dist.	3245 Aug 04 03:03	16° \overline{Q} 09'17	1.33494 AU
max. Earth dist.	3244 Aug 21 04:34	3° \overline{np} 58'53	1.34775 AU	evening rise	3245 Aug 09 07:08	26° \overline{Q} 48'26	
evening rise	3244 Aug 25 16:18	12° \overline{np} 51'08			3245 Aug 10 21:56	0° \overline{np}	
	3244 Sep 04 04:48	0° \overline{u}		desc. node	3245 Aug 28 06:32	29° \overline{np} 38'35	
desc. node	3244 Sep 10 09:30	9° \overline{u} 57'29			3245 Aug 28 12:24	0° \overline{u}	
	3244 Sep 25 06:46	0° \overline{m}		evening max el	3245 Sep 12 06:46	18° \overline{u} 05'27	27°22'07
evening max el	3244 Sep 29 18:59	4° \overline{m} 44'23	26°52'14	retrograde	3245 Sep 25 19:29	25° \overline{u} 23'39	
retrograde	3244 Oct 12 21:50	12° \overline{m} 00'13		evening set	3245 Oct 02 21:13	22° \overline{u} 43'10	
evening set	3244 Oct 19 14:19	9° \overline{m} 19'51		min. Earth dist.	3245 Oct 06 15:07	19° \overline{u} 18'30	0.64263 AU
min. Earth dist.	3244 Oct 23 14:24	5° \overline{m} 19'56	0.65687 AU	inferior conj	3245 Oct 09 00:50	16° \overline{u} 45'54	-2°-48'-44
inferior conj	3244 Oct 25 11:40	3° \overline{m} 08'26	-1°-48'-36	minimum elong	3245 Oct 09 05:27	16° \overline{u} 33'40	2°47'06
minimum elong	3244 Oct 25 14:40	2° \overline{m} 59'44	1°47'24	morning rise	3245 Oct 15 15:53	11° \overline{u} 19'59	
	3244 Oct 28 08:25	30° \overline{R} \overline{u}		asc. node	3245 Oct 17 17:48	10° \overline{u} 49'11	
asc. node	3244 Oct 30 20:45	27° \overline{u} 55'29		direct	3245 Oct 18 03:50	10° \overline{u} 48'17	
morning rise	3244 Oct 31 16:34	27° \overline{u} 27'08		morning max el	3245 Oct 24 16:07	14° \overline{u} 14'10	17°55'36
direct	3244 Nov 03 10:50	26° \overline{u} 45'12			3245 Nov 04 16:59	0° \overline{m}	
	3244 Nov 09 16:37	0° \overline{m}		morning set	3245 Nov 10 17:31	10° \overline{m} 11'32	
morning max el	3244 Nov 09 23:53	0° \overline{m} 17'52	18°17'44		3245 Nov 22 14:24	0° \overline{x}	
morning set	3244 Nov 29 01:08	28° \overline{m} 30'46		superior conj	3245 Nov 23 21:43	2° \overline{x} 07'01	0°02'20
	3244 Nov 29 23:08	0° \overline{x}		minimum elong	3245 Nov 23 21:59	2° \overline{x} 08'08	0°02'18
desc. node	3244 Dec 07 08:46	11° \overline{x} 54'44		behind sun begin	3245 Nov 23 11:54	1° \overline{x} 27'16	
superior conj	3244 Dec 14 05:59	22° \overline{x} 49'16	0°-45'-34	behind sun end	3245 Nov 24 08:05	2° \overline{x} 48'56	
minimum elong	3244 Dec 14 00:12	22° \overline{x} 26'29	0°44'49	desc. node	3245 Nov 24 05:50	2° \overline{x} 39'52	
max. Earth dist.	3244 Dec 16 05:44	25° \overline{x} 56'57	1.45195 AU	max. Earth dist.	3245 Nov 29 00:18	10° \overline{x} 17'50	1.44614 AU
	3244 Dec 18 19:43	0° \overline{z}		evening rise	3245 Dec 10 01:59	27° \overline{x} 33'59	
evening rise	3244 Dec 30 13:26	18° \overline{z} 21'34			3245 Dec 11 16:01	0° \overline{z}	
	3245 Jan 07 00:18	0° \overline{z}		greatest brilliancy	3245 Dec 30 23:24	28° \overline{z} 30'30	-0.6m
greatest brilliancy	3245 Jan 14 04:46	10° \overline{z} 57'57	-0.7m		3246 Jan 01 02:22	0° \overline{z}	
evening max el	3245 Jan 23 03:41	22° \overline{z} 39'38	19°20'25	evening max el	3246 Jan 06 07:15	6° \overline{z} 10'27	20°17'42
asc. node	3245 Jan 26 20:04	25° \overline{z} 41'24		asc. node	3246 Jan 13 17:06	10° \overline{z} 47'02	
retrograde	3245 Jan 30 06:20	26° \overline{z} 44'13		retrograde	3246 Jan 14 04:25	10° \overline{z} 48'16	
evening set	3245 Feb 02 15:51	25° \overline{z} 36'43		evening set	3246 Jan 17 22:18	9° \overline{z} 26'48	
inferior conj	3245 Feb 08 05:38	19° \overline{z} 42'05	3°18'07	inferior conj	3246 Jan 23 09:02	3° \overline{z} 18'51	2°49'59
minimum elong	3245 Feb 08 03:32	19° \overline{z} 48'52	3°17'45	minimum elong	3246 Jan 23 06:31	3° \overline{z} 27'22	2°49'20
min. Earth dist.	3245 Feb 09 13:11	17° \overline{z} 59'59	0.66326 AU	min. Earth dist.	3246 Jan 24 02:56	2° \overline{z} 18'12	0.67251 AU
morning rise	3245 Feb 13 14:25	13° \overline{z} 27'19			3246 Jan 25 21:10	30° \overline{R} \overline{z}	
direct	3245 Feb 19 20:33	10° \overline{z} 41'57		morning rise	3246 Jan 28 14:11	27° \overline{z} 03'08	
morning max el	3245 Mar 04 10:20	18° \overline{z} 09'54	26°04'47	direct	3246 Feb 03 06:41	24° \overline{z} 32'03	
desc. node	3245 Mar 05 08:00	19° \overline{z} 05'37			3246 Feb 13 08:13	0° \overline{z}	
	3245 Mar 14 09:41	0° \overline{x}		morning max el	3246 Feb 14 19:03	1° \overline{z} 24'52	24°43'24
	3245 Apr 03 00:08	0° \overline{y}		desc. node	3246 Feb 20 05:02	7° \overline{z} 28'31	
morning set	3245 Apr 09 13:45	11° \overline{y} 43'53			3246 Mar 08 10:17	0° \overline{x}	
max. Earth dist.	3245 Apr 13 13:10	19° \overline{y} 16'11	1.35351 AU	morning set	3246 Mar 22 19:27	23° \overline{x} 39'46	
superior conj	3245 Apr 18 17:30	29° \overline{y} 33'42	0°-59'-51		3246 Mar 26 08:05	0° \overline{y}	
minimum elong	3245 Apr 18 20:38	29° \overline{y} 49'37	0°59'17	max. Earth dist.	3246 Mar 26 11:50	0° \overline{y} 17'11	1.37251 AU
	3245 Apr 18 22:40	0° \overline{z}		superior conj	3246 Apr 02 02:55	12° \overline{y} 49'11	-1°-26'-56
asc. node	3245 Apr 24 19:23	12° \overline{z} 05'14		minimum elong	3246 Apr 02 07:14	13° \overline{y} 10'11	1°26'21
evening rise	3245 Apr 26 14:17	15° \overline{z} 46'28		evening rise	3246 Apr 10 16:22	29° \overline{y} 50'37	
	3245 May 03 21:36	0° \overline{II}			3246 Apr 10 18:15	0° \overline{z}	
evening max el	3245 May 14 21:05	15° \overline{II} 28'45	20°24'47	asc. node	3246 Apr 11 16:26	1° \overline{z} 50'18	
retrograde	3245 May 25 19:04	20° \overline{II} 47'53		evening max el	3246 Apr 27 12:48	27° \overline{z} 09'53	19°20'30
evening set	3245 May 27 19:40	20° \overline{II} 37'40			3246 May 01 03:44	0° \overline{II}	
desc. node	3245 Jun 01 07:13	19° \overline{II} 10'57		retrograde	3246 May 06 17:45	1° \overline{II} 37'57	
inferior conj	3245 Jun 05 23:33	16° \overline{II} 39'45	-1°-22'-36	evening set	3246 May 08 18:09	1° \overline{II} 26'02	
minimum elong	3245 Jun 05 19:39	16° \overline{II} 45'26	1°21'11		3246 May 12 18:04	30° \overline{R} \overline{z}	
min. Earth dist.	3245 Jun 07 09:12	15° \overline{II} 50'42	0.55034 AU				

inferior conj	3246 May 17 05:56	27°♄18'11	0°33'32	retrograde	3247 Apr 18 10:10	13°♄19'16	
minimum elong	3246 May 17 07:20	27°♄15'53	0°33'01	evening set	3247 Apr 20 16:12	13°♄01'17	
desc. node	3246 May 19 04:16	26°♄01'48		inferior conj	3247 Apr 28 08:35	8°♄34'42	2°04'35
min. Earth dist.	3246 May 19 23:54	25°♄30'06	0.56075 AU	minimum elong	3247 Apr 28 12:19	8°♄27'32	2°03'30
morning rise	3246 May 25 16:28	22°♄33'02		min. Earth dist.	3247 May 01 17:52	5°♄59'48	0.57835 AU
direct	3246 May 30 11:32	21°♄40'25		morning rise	3247 May 06 04:02	3°♄16'01	
morning max el	3246 Jun 13 15:21	28°♄52'16	25°10'44	desc. node	3247 May 06 01:17	3°♄19'19	
	3246 Jun 14 18:48	0°♄		direct	3247 May 11 22:58	1°♄51'41	
	3246 Jul 04 20:36	0°♄		morning max el	3247 May 26 07:55	9°♄28'26	26°35'55
asc. node	3246 Jul 08 15:40	7°♄37'01			3247 Jun 10 22:43	0°♄	
morning set	3246 Jul 10 02:52	10°♄41'15		morning set	3247 Jun 24 13:22	25°♄30'31	
				asc. node	3247 Jun 25 12:45	27°♄34'14	
					3247 Jun 26 15:57	0°♄	
superior conj	3246 Jul 17 02:46	25°♄51'54	1°18'36	superior conj	3247 Jul 01 14:24	10°♄48'03	1°00'04
minimum elong	3246 Jul 17 00:25	25°♄39'00	1°18'15	minimum elong	3247 Jul 01 12:12	10°♄35'55	0°59'39
max. Earth dist.	3246 Jul 18 09:06	28°♄37'25	1.32626 AU	max. Earth dist.	3247 Jul 01 19:52	11°♄18'14	1.32167 AU
	3246 Jul 19 00:18	0°♄		evening rise	3247 Jul 08 13:01	25°♄50'39	
evening rise	3246 Jul 24 06:59	11°♄11'09			3247 Jul 10 13:13	0°♄	
	3246 Aug 03 03:44	0°♄			3247 Jul 27 19:36	0°♄	
desc. node	3246 Aug 15 03:34	18°♄42'00		desc. node	3247 Aug 02 00:35	6°♄52'19	
	3246 Aug 24 15:58	0°♄		evening max el	3247 Aug 07 19:58	13°♄10'20	26°50'01
evening max el	3246 Aug 25 15:54	0°♄58'04	27°22'37	retrograde	3247 Aug 21 18:19	20°♄22'05	
retrograde	3246 Sep 08 10:46	8°♄13'59		evening set	3247 Aug 28 16:22	18°♄18'03	
evening set	3246 Sep 15 15:23	5°♄45'10		min. Earth dist.	3247 Sep 01 10:05	15°♄40'32	0.60507 AU
min. Earth dist.	3246 Sep 19 05:51	2°♄49'55	0.62505 AU	inferior conj	3247 Sep 04 15:34	12°♄59'57	-4°-33'-47
inferior conj	3246 Sep 22 03:15	0°♄05'56	-3°-45'-48	minimum elong	3247 Sep 04 20:47	12°♄49'06	4°32'50
minimum elong	3246 Sep 22 08:55	29°♄52'32	3°44'12	morning rise	3247 Sep 12 04:25	8°♄14'11	
	3246 Sep 22 05:46	30°♄		direct	3247 Sep 14 12:35	7°♄53'05	
morning rise	3246 Sep 29 05:14	24°♄58'38		asc. node	3247 Sep 21 11:55	11°♄09'06	
direct	3246 Oct 01 13:43	24°♄33'42		morning max el	3247 Sep 21 20:54	11°♄30'20	18°06'08
asc. node	3246 Oct 04 14:52	25°♄16'44			3247 Oct 04 03:37	0°♄	
morning max el	3246 Oct 08 08:11	28°♄01'04	17°51'21	morning set	3247 Oct 07 15:17	6°♄27'57	
	3246 Oct 10 03:44	0°♄					
morning set	3246 Oct 24 08:18	22°♄56'34		superior conj	3247 Oct 17 10:26	24°♄30'21	1°14'36
	3246 Oct 28 07:30	0°♄		minimum elong	3247 Oct 17 14:36	24°♄49'00	1°14'07
superior conj	3246 Nov 04 15:04	12°♄40'42	0°43'56		3247 Oct 20 13:08	0°♄	
minimum elong	3246 Nov 04 18:52	12°♄56'49	0°43'25	max. Earth dist.	3247 Oct 25 01:48	7°♄44'46	1.41633 AU
desc. node	3246 Nov 11 02:51	23°♄27'10		desc. node	3247 Oct 28 23:52	14°♄13'27	
max. Earth dist.	3246 Nov 11 15:22	24°♄17'59	1.43375 AU	evening rise	3247 Oct 30 11:47	16°♄38'48	
	3246 Nov 15 04:37	0°♄			3247 Nov 08 01:11	0°♄	
evening rise	3246 Nov 19 12:05	6°♄46'25		greatest brilliancy	3247 Nov 27 22:04	27°♄40'08	-0.3m
	3246 Dec 04 23:46	0°♄			3247 Nov 29 21:27	0°♄	
greatest brilliancy	3246 Dec 15 06:09	14°♄00'33	-0.4m	evening max el	3247 Dec 02 22:23	3°♄17'07	22°44'54
evening max el	3246 Dec 20 05:18	19°♄42'45	21°27'19	retrograde	3247 Dec 12 21:18	9°♄11'42	
retrograde	3246 Dec 29 01:58	24°♄58'38		evening set	3247 Dec 17 13:25	7°♄18'31	
asc. node	3246 Dec 31 14:08	24°♄24'15		asc. node	3247 Dec 18 11:10	6°♄29'38	
evening set	3247 Jan 02 06:04	23°♄21'53		inferior conj	3247 Dec 22 23:16	0°♄54'11	1°29'10
inferior conj	3247 Jan 07 15:34	17°♄03'56	2°13'10	minimum elong	3247 Dec 22 21:23	1°♄00'41	1°28'27
minimum elong	3247 Jan 07 13:09	17°♄12'20	2°12'23	min. Earth dist.	3247 Dec 22 17:46	1°♄13'11	0.67944 AU
min. Earth dist.	3247 Jan 07 21:17	16°♄44'10	0.67780 AU		3247 Dec 23 14:59	30°♄	
morning rise	3247 Jan 12 19:54	10°♄49'17		morning rise	3247 Dec 28 05:16	24°♄42'35	
direct	3247 Jan 17 21:34	8°♄38'34		direct	3248 Jan 01 16:08	22°♄54'47	
morning max el	3247 Jan 28 04:01	14°♄44'51	23°14'48	morning max el	3248 Jan 10 16:46	28°♄11'54	21°48'14
greatest brilliancy	3247 Feb 02 07:47	20°♄32'04	-0.2m		3248 Jan 12 09:46	0°♄	
desc. node	3247 Feb 07 02:04	26°♄37'30		greatest brilliancy	3248 Jan 15 11:17	3°♄34'43	-0.4m
	3247 Feb 09 13:46	0°♄		desc. node	3248 Jan 24 23:05	16°♄19'00	
	3247 Mar 01 09:21	0°♄			3248 Feb 03 05:54	0°♄	
morning set	3247 Mar 04 00:36	4°♄22'10		morning set	3248 Feb 12 00:39	13°♄40'36	
max. Earth dist.	3247 Mar 08 06:36	11°♄37'20	1.39399 AU	max. Earth dist.	3248 Feb 18 05:29	23°♄47'15	1.41527 AU
					3248 Feb 21 21:58	0°♄	
superior conj	3247 Mar 15 22:00	25°♄20'21	-1°-49'-40	superior conj	3248 Feb 25 21:41	6°♄54'14	-2°-4'-6
minimum elong	3247 Mar 16 02:26	25°♄40'54	1°49'17	minimum elong	3248 Feb 26 00:07	7°♄04'54	2°04'02
	3247 Mar 18 09:50	0°♄		evening rise	3248 Mar 07 15:55	26°♄22'56	
evening rise	3247 Mar 25 10:07	13°♄25'52			3248 Mar 09 15:04	0°♄	
asc. node	3247 Mar 29 13:29	21°♄18'16		asc. node	3248 Mar 15 10:31	10°♄22'20	
	3247 Apr 03 11:47	0°♄					
evening max el	3247 Apr 10 14:40	9°♄29'20	18°36'18				


































































































































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retrograde	3248 Mar 30 21:14	25° Υ 46'18		evening max el	3249 Mar 07 11:14	5° Υ 25'43	18°07'39
evening set	3248 Apr 02 09:20	25° Υ 19'39		retrograde	3249 Mar 13 23:09	8° Υ 48'46	
inferior conj	3248 Apr 09 08:19	20° Υ 31'37	3°02'51	evening set	3249 Mar 16 16:42	8° Υ 12'06	
minimum elong	3248 Apr 09 11:32	20° Υ 24'24	3°02'14	inferior conj	3249 Mar 23 02:02	3° Υ 03'10	3°32'11
min. Earth dist.	3248 Apr 12 17:07	17° Υ 31'55	0.59955 AU	minimum elong	3249 Mar 23 03:30	2° Υ 59'22	3°32'03
morning rise	3248 Apr 16 10:09	14° Υ 47'39		min. Earth dist.	3249 Mar 26 00:28	0° Υ 03'23	0.62100 AU
desc. node	3248 Apr 21 22:18	12° Υ 50'53			3249 Mar 26 01:51	30° \Re \times	
direct	3248 Apr 22 22:46	12° Υ 48'00		morning rise	3249 Mar 29 11:47	27° \times 03'12	
morning max el	3248 May 07 06:26	20° Υ 38'33	27°31'51	direct	3249 Apr 05 08:39	24° \times 33'57	
	3248 May 15 08:05	0° \mathcal{B}		desc. node	3249 Apr 08 19:18	25° \times 07'59	
	3248 Jun 02 19:14	0° Π			3249 Apr 16 18:07	0° Υ	
morning set	3248 Jun 07 20:53	10° Π 09'08		morning max el	3249 Apr 19 11:10	2° Υ 31'15	27°51'07
asc. node	3248 Jun 11 09:48	17° Π 39'26			3249 May 09 17:08	0° \mathcal{B}	
max. Earth dist.	3248 Jun 14 07:45	24° Π 00'57	1.32104 AU	morning set	3249 May 22 23:24	24° \mathcal{B} 30'22	
					3249 May 25 15:10	0° Π	
superior conj	3248 Jun 15 01:57	25° Π 41'02	0°37'52	max. Earth dist.	3249 May 28 16:45	6° Π 31'51	1.32444 AU
minimum elong	3248 Jun 15 00:22	25° Π 32'15	0°37'32	asc. node	3249 May 29 06:49	7° Π 47'54	
	3248 Jun 17 01:00	0° \mathfrak{S}					
evening rise	3248 Jun 21 22:53	10° \mathfrak{S} 39'16		superior conj	3249 May 30 11:43	10° Π 24'51	0°12'39
	3248 Jul 01 20:21	0° Ω		minimum elong	3249 May 30 11:08	10° Π 21'38	0°12'32
desc. node	3248 Jul 18 21:36	23° Ω 48'01		behind sun begin	3249 May 30 07:56	10° Π 04'14	
evening max el	3248 Jul 19 16:49	24° Ω 34'51	25°45'33	behind sun end	3249 May 30 14:19	10° Π 39'01	
	3248 Jul 27 01:12	0° \mathfrak{M}		evening rise	3249 Jun 06 10:32	25° Π 29'50	
retrograde	3248 Aug 02 16:24	1° \mathfrak{M} 42'30			3249 Jun 08 14:05	0° \mathfrak{S}	
evening set	3248 Aug 08 19:22	0° \mathfrak{M} 13'47			3249 Jun 26 11:53	0° Ω	
	3248 Aug 09 06:44	30° \Re Ω		evening max el	3249 Jul 01 07:10	5° Ω 17'02	24°17'38
min. Earth dist.	3248 Aug 13 05:00	27° Ω 36'53	0.58446 AU	desc. node	3249 Jul 05 18:36	8° Ω 59'01	
inferior conj	3248 Aug 16 10:15	25° Ω 18'08	-5°-2'-53	retrograde	3249 Jul 15 03:21	12° Ω 16'08	
minimum elong	3248 Aug 16 12:27	25° Ω 14'10	5°02'47	evening set	3249 Jul 19 22:22	11° Ω 24'57	
morning rise	3248 Aug 24 09:00	20° Ω 55'50		min. Earth dist.	3249 Jul 25 17:55	8° Ω 30'13	0.56597 AU
direct	3248 Aug 26 20:07	20° Ω 36'22		inferior conj	3249 Jul 28 08:46	6° Ω 51'36	-4°-59'-2
morning max el	3248 Sep 04 03:01	24° Ω 33'14	18°41'22	minimum elong	3249 Jul 28 05:25	6° Ω 56'54	4°58'46
asc. node	3248 Sep 07 08:58	28° Ω 11'41		morning rise	3249 Aug 05 16:03	2° Ω 50'24	
	3248 Sep 08 17:09	0° \mathfrak{M}		direct	3249 Aug 08 08:28	2° Ω 31'12	
morning set	3248 Sep 20 09:40	20° \mathfrak{M} 32'22		morning max el	3249 Aug 17 23:32	6° Ω 59'55	19°38'05
	3248 Sep 25 06:18	0° $\underline{\Omega}$		asc. node	3249 Aug 25 06:01	16° Ω 09'00	
					3249 Sep 01 23:42	0° \mathfrak{M}	
superior conj	3248 Sep 29 03:02	7° $\underline{\Omega}$ 22'54	1°33'55	morning set	3249 Sep 04 11:50	4° \mathfrak{M} 59'02	
minimum elong	3248 Sep 29 05:53	7° $\underline{\Omega}$ 36'19	1°33'42				
max. Earth dist.	3248 Oct 06 07:47	20° $\underline{\Omega}$ 29'56	1.39603 AU	superior conj	3249 Sep 12 11:19	21° \mathfrak{M} 01'51	1°43'18
evening rise	3248 Oct 10 10:02	27° $\underline{\Omega}$ 33'31		minimum elong	3249 Sep 12 12:25	21° \mathfrak{M} 07'12	1°43'16
	3248 Oct 11 20:58	0° \mathfrak{M}			3249 Sep 17 02:41	0° $\underline{\Omega}$	
desc. node	3248 Oct 14 20:54	4° \mathfrak{M} 55'19		max. Earth dist.	3249 Sep 18 12:04	2° $\underline{\Omega}$ 36'26	1.37541 AU
	3248 Oct 31 14:53	0° \mathcal{J}		evening rise	3249 Sep 22 07:22	9° $\underline{\Omega}$ 31'57	
evening max el	3248 Nov 14 12:02	16° \mathcal{J} 55'01	24°04'44	desc. node	3249 Oct 01 17:56	25° $\underline{\Omega}$ 27'55	
retrograde	3248 Nov 25 13:15	23° \mathcal{J} 24'30			3249 Oct 04 15:10	0° \mathfrak{M}	
evening set	3248 Nov 30 18:51	21° \mathcal{J} 14'38			3249 Oct 27 09:53	0° \mathcal{J}	
asc. node	3248 Dec 04 08:11	17° \mathcal{J} 21'47		evening max el	3249 Oct 28 00:12	0° \mathcal{J} 35'31	25°20'14
min. Earth dist.	3248 Dec 05 14:06	15° \mathcal{J} 42'48	0.67758 AU	retrograde	3249 Nov 09 00:58	7° \mathcal{J} 31'53	
inferior conj	3248 Dec 06 06:20	14° \mathcal{J} 47'54	0°39'13	evening set	3249 Nov 14 20:40	5° \mathcal{J} 06'48	
minimum elong	3248 Dec 06 05:25	14° \mathcal{J} 51'02	0°38'49		3249 Nov 19 10:59	30° \Re \mathfrak{M}	
morning rise	3248 Dec 11 16:16	8° \mathcal{J} 41'30		min. Earth dist.	3249 Nov 19 07:57	0° \mathcal{J} 09'45	0.67222 AU
direct	3248 Dec 15 13:19	7° \mathcal{J} 16'08		inferior conj	3249 Nov 20 11:01	28° \mathfrak{M} 42'05	0°-15'-36
morning max el	3248 Dec 23 12:34	11° \mathcal{J} 50'32	20°30'47	minimum elong	3249 Nov 20 11:25	28° \mathfrak{M} 40'48	0°15'27
greatest brilliancy	3248 Dec 29 16:06	19° \mathcal{J} 05'01	-0.5m	transit middle	3249 Nov 20 11:25	28° \mathfrak{M} 40'48	0°15'27
	3249 Jan 06 11:53	0° \mathfrak{Z}		transit begin	3249 Nov 20 10:35	28° \mathfrak{M} 43'30	
desc. node	3249 Jan 10 20:07	6° \mathfrak{Z} 24'26		transit end	3249 Nov 20 12:15	28° \mathfrak{M} 38'06	
morning set	3249 Jan 21 01:14	21° \mathfrak{Z} 57'24		asc. node	3249 Nov 21 05:12	27° \mathfrak{M} 43'35	
	3249 Jan 26 04:32	0° \approx		morning rise	3249 Nov 26 02:54	22° \mathfrak{M} 43'12	
max. Earth dist.	3249 Jan 30 12:04	6° \approx 53'22	1.43341 AU	direct	3249 Nov 29 11:48	21° \mathfrak{M} 37'42	
				morning max el	3249 Dec 06 16:19	25° \mathfrak{M} 40'05	19°26'43
superior conj	3249 Feb 05 21:05	17° \approx 20'06	-2°-5'-8		3249 Dec 10 11:13	0° \mathcal{J}	
minimum elong	3249 Feb 05 18:41	17° \approx 10'08	2°05'05	greatest brilliancy	3249 Dec 15 12:08	6° \mathcal{J} 51'06	-0.7m
	3249 Feb 13 08:01	0° \times		desc. node	3249 Dec 28 17:10	26° \mathcal{J} 46'57	
evening rise	3249 Feb 18 05:41	8° \times 33'34		morning set	3249 Dec 30 23:32	0° \mathfrak{Z} 17'03	
asc. node	3249 Mar 02 07:31	28° \times 55'00			3249 Dec 30 19:08	0° \mathfrak{Z}	

max. Earth dist.	3250 Jan 13 01:26	20°☾43'03	1.44606 AU	superior conj	3250 Dec 26 22:38	5°☾12'36	-1°-12'-3
				minimum elong	3250 Dec 26 14:10	4°☾39'23	1°11'05
superior conj	3250 Jan 16 18:42	26°☾37'45	-1°-47'-57	max. Earth dist.	3250 Dec 26 19:01	4°☾58'26	1.45189 AU
minimum elong	3250 Jan 16 10:48	26°☾06'12	1°47'23	evening rise	3251 Jan 11 17:25	0°☾09'13	
	3250 Jan 18 21:09	0°☾			3251 Jan 11 15:07	0°☾	
evening rise	3250 Jan 30 23:11	19°☾50'20			3251 Jan 31 10:14	0°☾	
	3250 Feb 06 01:09	0°☾		evening max el	3251 Feb 02 10:21	2°☾14'17	18°54'21
asc. node	3250 Feb 17 04:31	16°☾46'54		asc. node	3251 Feb 04 01:32	3°☾45'33	
evening max el	3250 Feb 18 23:47	18°☾46'42	18°22'01	retrograde	3251 Feb 09 05:23	6°☾03'33	
retrograde	3250 Feb 25 11:11	22°☾17'15		evening set	3251 Feb 12 10:42	5°☾03'42	
evening set	3250 Feb 28 10:14	21°☾29'32			3251 Feb 17 13:49	30°☾	
inferior conj	3250 Mar 06 09:37	16°☾01'26	3°39'11	inferior conj	3251 Feb 18 03:15	29°☾18'19	3°29'32
minimum elong	3250 Mar 06 09:19	16°☾02'16	3°39'10	minimum elong	3251 Feb 18 01:39	29°☾23'18	3°29'21
min. Earth dist.	3250 Mar 08 17:22	13°☾22'08	0.64028 AU	min. Earth dist.	3251 Feb 19 19:28	27°☾13'05	0.65606 AU
morning rise	3250 Mar 12 06:45	9°☾52'32		morning rise	3251 Feb 23 15:32	23°☾04'57	
direct	3250 Mar 19 03:00	7°☾05'56		direct	3251 Mar 02 04:21	20°☾15'12	
desc. node	3250 Mar 26 16:20	9°☾49'28		desc. node	3251 Mar 13 13:23	26°☾19'33	
morning max el	3250 Apr 01 19:58	15°☾01'52	27°33'29	morning max el	3251 Mar 15 05:48	27°☾57'33	26°44'09
	3250 Apr 14 01:16	0°☾			3251 Mar 17 04:29	0°☾	
	3250 May 02 08:55	0°☾			3251 Apr 07 18:44	0°☾	
morning set	3250 May 06 18:27	8°☾26'25		morning set	3251 Apr 20 02:40	21°☾46'04	
max. Earth dist.	3250 May 11 18:46	18°☾38'07	1.33211 AU	max. Earth dist.	3251 Apr 24 08:03	0°☾	
					3251 Apr 24 10:08	0°☾10'23	1.34438 AU
superior conj	3250 May 14 17:53	24°☾53'50	0°-14'-47	superior conj	3251 Apr 28 18:13	9°☾00'25	0°-43'-24
minimum elong	3250 May 14 18:37	24°☾57'47	0°14'38	minimum elong	3251 Apr 28 20:29	9°☾12'10	0°42'58
behind sun begin	3250 May 14 16:27	24°☾46'13		asc. node	3251 May 03 00:53	17°☾58'00	
behind sun end	3250 May 14 20:47	25°☾09'22		evening rise	3251 May 06 07:43	24°☾51'08	
asc. node	3250 May 16 03:51	27°☾55'42			3251 May 08 19:58	0°☾	
	3250 May 17 02:58	0°☾		evening max el	3251 May 25 18:20	26°☾24'39	21°10'16
evening rise	3250 May 21 22:08	10°☾16'10			3251 May 30 06:57	0°☾	
	3250 Jun 01 03:39	0°☾		retrograde	3251 Jun 06 15:33	2°☾13'42	
evening max el	3250 Jun 12 21:04	15°☾43'02	22°40'58	evening set	3251 Jun 08 22:04	2°☾01'44	
desc. node	3250 Jun 22 15:36	21°☾50'13		desc. node	3251 Jun 09 12:37	1°☾54'39	
retrograde	3250 Jun 26 02:07	22°☾17'20			3251 Jun 14 16:18	30°☾	
evening set	3250 Jun 29 09:02	21°☾53'35		inferior conj	3251 Jun 18 06:34	28°☾03'39	-2°-30'-56
min. Earth dist.	3250 Jul 07 05:04	18°☾26'52	0.55304 AU	minimum elong	3251 Jun 17 23:43	28°☾13'17	2°28'38
inferior conj	3250 Jul 08 12:43	17°☾41'38	-4°-8'-21	min. Earth dist.	3251 Jun 18 16:47	27°☾49'17	0.54859 AU
minimum elong	3250 Jul 08 04:47	17°☾53'00	4°06'33	morning rise	3251 Jun 27 01:16	24°☾05'02	
morning rise	3250 Jul 17 03:07	13°☾50'42		direct	3251 Jun 30 12:21	23°☾39'07	
direct	3250 Jul 20 02:39	13°☾30'11		morning max el	3251 Jul 13 06:35	29°☾43'29	22°30'40
morning max el	3250 Jul 31 08:34	18°☾43'33	20°55'46		3251 Jul 13 13:36	0°☾	
	3250 Aug 09 06:17	0°☾		asc. node	3251 Jul 30 00:09	23°☾59'51	
asc. node	3250 Aug 12 03:04	4°☾48'37			3251 Aug 02 00:56	0°☾	
morning set	3250 Aug 19 19:10	19°☾40'57		morning set	3251 Aug 04 05:37	4°☾32'14	
	3250 Aug 24 18:07	0°☾					
superior conj	3250 Aug 27 06:47	5°☾14'03	1°44'24	superior conj	3251 Aug 11 09:54	19°☾48'53	1°38'41
minimum elong	3250 Aug 27 06:17	5°☾11'33	1°44'23	minimum elong	3251 Aug 11 08:17	19°☾40'20	1°38'34
max. Earth dist.	3250 Aug 31 20:31	14°☾26'46	1.35686 AU	max. Earth dist.	3251 Aug 14 13:39	26°☾26'02	1.34181 AU
evening rise	3250 Sep 05 00:18	22°☾26'00			3251 Aug 16 07:23	0°☾	
	3250 Sep 09 03:56	0°☾		evening rise	3251 Aug 19 08:21	6°☾03'39	
desc. node	3250 Sep 18 14:57	15°☾46'00			3251 Sep 01 19:43	0°☾	
	3250 Sep 28 09:27	0°☾		desc. node	3251 Sep 05 11:58	5°☾43'04	
evening max el	3250 Oct 10 12:27	14°☾15'37	26°23'59	evening max el	3251 Sep 23 00:58	27°☾47'50	27°08'21
retrograde	3250 Oct 23 07:45	21°☾27'51			3251 Sep 25 11:53	0°☾	
evening set	3250 Oct 29 17:02	18°☾51'22		retrograde	3251 Oct 06 08:52	5°☾05'31	
min. Earth dist.	3250 Nov 02 21:03	14°☾30'16	0.66343 AU	evening set	3251 Oct 13 05:40	2°☾24'13	
inferior conj	3250 Nov 04 11:26	12°☾33'29	-1°-14'-1		3251 Oct 15 20:43	30°☾	
minimum elong	3250 Nov 04 13:26	12°☾27'23	1°13'12	min. Earth dist.	3251 Oct 17 03:02	28°☾39'20	0.65116 AU
asc. node	3250 Nov 08 02:15	8°☾31'52		inferior conj	3251 Oct 19 05:28	26°☾18'07	-2°-14'-16
morning rise	3250 Nov 10 11:06	6°☾44'46		minimum elong	3251 Oct 19 09:10	26°☾07'43	2°12'50
direct	3250 Nov 13 09:57	5°☾55'24		morning rise	3251 Oct 25 14:30	20°☾42'41	
morning max el	3250 Nov 20 02:47	9°☾36'28	18°38'08	asc. node	3251 Oct 25 23:19	20°☾33'07	
	3250 Dec 04 15:22	0°☾		direct	3251 Oct 28 05:44	20°☾05'32	
morning set	3250 Dec 10 18:48	9°☾44'10		morning max el	3251 Nov 03 17:41	23°☾34'33	18°06'10
desc. node	3250 Dec 15 14:12	17°☾21'15			3251 Nov 08 21:45	0°☾	
	3250 Dec 23 14:58	0°☾		morning set	3251 Nov 21 19:36	20°☾40'05	

	3251 Nov 27 11:47	0°♊		superior conj	3252 Nov 15 06:08	23°♌46'59	0°21'10
desc. node	3251 Dec 02 11:15	8°♊03'36		minimum elong	3252 Nov 15 08:20	23°♌56'05	0°20'50
				desc. node	3252 Nov 18 08:17	28°♌50'00	
superior conj	3251 Dec 06 04:17	13°♊59'07	0°-25'-3		3252 Nov 19 01:34	0°♊	
minimum elong	3251 Dec 06 01:07	13°♊46'35	0°24'37	max. Earth dist.	3252 Nov 21 08:16	3°♊39'47	1.44162 AU
max. Earth dist.	3251 Dec 09 14:19	19°♊23'31	1.45033 AU	evening rise	3252 Nov 30 23:49	18°♊47'16	
	3251 Dec 16 08:59	0°♊			3252 Dec 08 08:37	0°♊	
evening rise	3251 Dec 22 14:22	9°♊39'40		greatest brilliancy	3252 Dec 24 03:27	22°♊38'39	-0.5m
	3252 Jan 04 21:05	0°♊		evening max el	3252 Dec 29 18:17	29°♊17'00	20°46'01
greatest brilliancy	3252 Jan 09 02:59	6°♊11'53	-0.6m		3252 Dec 30 11:30	0°♊	
evening max el	3252 Jan 16 17:00	15°♊45'23	19°43'07	retrograde	3253 Jan 07 00:43	4°♊10'09	
asc. node	3252 Jan 21 22:35	19°♊37'17		asc. node	3253 Jan 07 19:39	4°♊06'43	
retrograde	3252 Jan 24 02:41	20°♊02'51		evening set	3253 Jan 10 22:50	2°♊42'08	
evening set	3252 Jan 27 15:36	18°♊49'35			3253 Jan 13 16:28	30°♋♊	
inferior conj	3252 Feb 02 03:51	12°♊49'12	3°07'21	inferior conj	3253 Jan 16 08:49	26°♊29'30	2°35'20
minimum elong	3252 Feb 02 01:31	12°♊56'56	3°06'52	minimum elong	3253 Jan 16 06:17	26°♊38'12	2°34'36
min. Earth dist.	3252 Feb 03 05:28	11°♊24'31	0.66774 AU	min. Earth dist.	3253 Jan 16 21:18	25°♊46'42	0.67527 AU
morning rise	3252 Feb 07 10:44	6°♊33'59		morning rise	3253 Jan 21 13:20	20°♊14'18	
direct	3252 Feb 13 11:30	3°♊53'30		direct	3253 Jan 26 23:37	17°♊51'31	
morning max el	3252 Feb 25 14:53	11°♊07'39	25°31'40	morning max el	3253 Feb 06 23:24	24°♊24'47	24°06'05
desc. node	3252 Feb 28 10:26	14°♊08'17			3253 Feb 11 23:43	0°♊	
	3252 Mar 11 16:24	0°♋		desc. node	3253 Feb 14 07:28	2°♊52'29	
	3252 Mar 30 10:20	0°♋			3253 Mar 05 03:21	0°♋	
morning set	3252 Apr 01 19:38	4°♋17'00		morning set	3253 Mar 14 15:38	15°♋43'30	
max. Earth dist.	3252 Apr 05 14:10	11°♋16'47	1.36122 AU	max. Earth dist.	3253 Mar 18 10:38	22°♋23'33	1.38153 AU
					3253 Mar 22 14:39	0°♋	
superior conj	3252 Apr 11 10:04	22°♋37'36	-1°-11'-39				
minimum elong	3252 Apr 11 13:47	22°♋56'07	1°11'04	superior conj	3253 Mar 25 13:57	5°♋35'53	-1°-37'-18
	3252 Apr 15 01:41	0°♋		minimum elong	3253 Mar 25 18:30	5°♋57'37	1°36'47
asc. node	3252 Apr 18 21:55	7°♋50'55		evening rise	3253 Apr 03 12:12	23°♋02'17	
evening rise	3252 Apr 19 13:16	9°♋08'54		asc. node	3253 Apr 05 18:58	27°♋29'48	
	3252 Apr 30 22:50	0°♌			3253 Apr 07 02:15	0°♋	
evening max el	3252 May 07 03:16	7°♌42'36	19°54'57	evening max el	3253 Apr 19 23:37	19°♋41'03	18°59'09
retrograde	3252 May 17 07:00	12°♌38'27		retrograde	3253 Apr 28 12:59	23°♋51'13	
evening set	3252 May 19 06:32	12°♌28'02		evening set	3253 Apr 30 15:33	23°♋37'04	
desc. node	3252 May 26 09:39	9°♌31'37		inferior conj	3253 May 08 19:02	19°♋21'28	1°16'02
inferior conj	3252 May 28 04:30	8°♌27'31	0°-31'-32	minimum elong	3253 May 08 21:50	19°♋16'31	1°15'06
minimum elong	3252 May 28 03:03	8°♌29'43	0°31'00	min. Earth dist.	3253 May 11 21:27	17°♋11'40	0.56756 AU
min. Earth dist.	3252 May 30 05:50	7°♌12'40	0.55381 AU	desc. node	3253 May 13 06:40	16°♋17'47	
morning rise	3252 Jun 05 20:42	4°♌02'54		morning rise	3253 May 16 23:49	14°♋21'34	
direct	3252 Jun 10 02:31	3°♌23'26		direct	3253 May 22 05:12	13°♋16'53	
morning max el	3252 Jun 23 21:43	10°♌13'25	24°13'33	morning max el	3253 Jun 05 12:23	20°♋40'19	25°49'53
	3252 Jul 08 15:38	0°♍			3253 Jun 13 13:21	0°♌	
asc. node	3252 Jul 15 21:12	13°♍34'18			3253 Jul 01 02:40	0°♍	
morning set	3252 Jul 18 17:23	19°♍27'23		asc. node	3253 Jul 02 18:15	3°♍25'22	
	3252 Jul 23 14:53	0°♎		morning set	3253 Jul 03 04:52	4°♍21'18	
superior conj	3252 Jul 25 17:59	4°♎37'44	1°27'20	superior conj	3253 Jul 10 04:53	19°♍33'45	1°11'13
minimum elong	3252 Jul 25 15:45	4°♎25'38	1°27'04	minimum elong	3253 Jul 10 02:32	19°♍20'51	1°10'50
max. Earth dist.	3252 Jul 27 15:50	8°♎45'16	1.33079 AU	max. Earth dist.	3253 Jul 11 00:34	21°♍21'49	1.32384 AU
evening rise	3252 Aug 02 03:25	20°♎13'05			3253 Jul 15 00:11	0°♎	
	3252 Aug 07 03:36	0°♏		evening rise	3253 Jul 17 06:15	4°♎44'38	
desc. node	3252 Aug 22 09:00	25°♏09'43			3253 Jul 30 19:47	0°♏	
	3252 Aug 25 21:37	0°♏		desc. node	3253 Aug 09 06:01	13°♏53'22	
evening max el	3252 Sep 04 12:09	10°♏59'14	27°26'20	evening max el	3253 Aug 17 19:23	23°♏36'16	27°12'47
retrograde	3252 Sep 18 03:39	18°♏15'55			3253 Aug 27 05:28	0°♏	
evening set	3252 Sep 25 07:35	15°♏39'09		retrograde	3253 Aug 31 15:33	0°♏50'10	
min. Earth dist.	3252 Sep 28 23:40	12°♏27'55	0.63551 AU		3253 Sep 04 21:58	30°♏♏	
inferior conj	3252 Oct 01 14:27	9°♏49'23	-3°-13'-38	evening set	3253 Sep 07 19:01	28°♏30'02	
minimum elong	3252 Oct 01 19:37	9°♏36'17	3°11'56	min. Earth dist.	3253 Sep 11 09:40	25°♏44'28	0.61684 AU
morning rise	3252 Oct 08 10:04	4°♏30'45		inferior conj	3253 Sep 14 11:18	22°♏59'50	-4°-7'-42
direct	3252 Oct 10 20:17	4°♏02'11		minimum elong	3253 Sep 14 17:01	22°♏47'00	4°06'19
asc. node	3252 Oct 11 20:24	4°♏07'11		morning rise	3253 Sep 21 18:00	18°♏01'32	
morning max el	3252 Oct 17 10:10	7°♏27'33	17°51'33	direct	3253 Sep 24 02:02	17°♏38'29	
	3252 Nov 01 06:57	0°♐		asc. node	3253 Sep 28 17:27	19°♏12'54	
morning set	3252 Nov 02 22:20	2°♐50'57		morning max el	3253 Oct 01 01:13	21°♏08'31	17°55'15
					3253 Oct 07 17:58	0°♏	

morning set	3253 Oct 16 20:40	15°♄57'45		asc. node	3254 Sep 15 14:29	5°♊37'05	
	3253 Oct 24 15:38	0°♌		morning set	3254 Sep 30 08:58	29°♊44'21	
					3254 Sep 30 12:15	0°♌	
superior conj	3253 Oct 27 11:00	4°♌54'35	0°58'22	superior conj	3254 Oct 09 16:06	17°♌13'12	1°24'06
minimum elong	3253 Oct 27 15:16	5°♌13'03	0°57'49	minimum elong	3254 Oct 09 19:50	17°♌30'15	1°23'44
max. Earth dist.	3253 Nov 03 21:44	17°♌28'19	1.42686 AU		3254 Oct 16 21:11	0°♌	
desc. node	3253 Nov 05 05:18	19°♌37'26		max. Earth dist.	3254 Oct 17 05:32	0°♌35'44	1.40788 AU
evening rise	3253 Nov 10 13:59	28°♌12'16		evening rise	3254 Oct 21 22:41	8°♌29'34	
	3253 Nov 11 17:28	0°♌		desc. node	3254 Oct 23 02:20	10°♌22'26	
	3253 Dec 02 02:35	0°♌			3254 Nov 04 19:19	0°♌	
greatest brilliancy	3253 Dec 07 20:15	7°♌27'36	-0.3m	evening max el	3254 Nov 25 05:10	26°♌24'34	23°18'57
evening max el	3253 Dec 12 13:56	12°♌49'16	21°59'35		3254 Nov 29 07:05	0°♌	
retrograde	3253 Dec 21 21:33	18°♌22'03		retrograde	3254 Dec 05 15:44	2°♌35'30	
asc. node	3253 Dec 25 16:41	17°♌04'14		evening set	3254 Dec 10 13:20	0°♌35'14	
evening set	3253 Dec 26 06:36	16°♌38'11			3254 Dec 11 05:12	30°♌	
inferior conj	3253 Dec 31 16:03	10°♌16'48	1°55'19	asc. node	3254 Dec 12 13:42	28°♌35'03	
minimum elong	3253 Dec 31 13:48	10°♌24'36	1°54'31	inferior conj	3254 Dec 15 23:42	24°♌09'07	1°08'40
min. Earth dist.	3253 Dec 31 16:49	10°♌14'09	0.67892 AU	minimum elong	3254 Dec 15 22:11	24°♌14'21	1°08'03
morning rise	3254 Jan 05 20:49	4°♌03'15		min. Earth dist.	3254 Dec 15 13:37	24°♌43'46	0.67900 AU
direct	3254 Jan 10 15:59	2°♌02'27		morning rise	3254 Dec 21 07:06	17°♌59'15	
morning max el	3254 Jan 20 09:40	7°♌47'43	22°37'17	direct	3254 Dec 25 11:50	16°♌21'16	
greatest brilliancy	3254 Jan 24 23:32	12°♌54'03	-0.3m	morning max el	3255 Jan 03 01:09	21°♌19'42	21°13'51
desc. node	3254 Feb 01 04:30	22°♌16'25		greatest brilliancy	3255 Jan 08 07:00	27°♌19'57	-0.4m
	3254 Feb 06 15:27	0°♌			3255 Jan 10 08:42	0°♌	
morning set	3254 Feb 23 08:37	25°♌50'19		desc. node	3255 Jan 19 01:32	12°♌09'13	
	3254 Feb 25 20:56	0°♌			3255 Jan 30 22:02	0°♌	
max. Earth dist.	3254 Feb 28 06:30	4°♌02'51	1.40319 AU	morning set	3255 Feb 02 21:07	4°♌37'36	
				max. Earth dist.	3255 Feb 10 07:58	16°♌35'19	1.42343 AU
superior conj	3254 Mar 08 01:22	17°♌43'44	-1°-57'-6				
minimum elong	3254 Mar 08 05:16	18°♌01'28	1°56'51	superior conj	3255 Feb 17 15:14	28°♌49'50	-2°-6'-31
	3254 Mar 14 16:26	0°♌		minimum elong	3255 Feb 17 15:57	28°♌52'53	2°06'31
evening rise	3254 Mar 18 01:20	6°♌22'31			3255 Feb 18 07:34	0°♌	
asc. node	3254 Mar 23 16:00	16°♌48'35		evening rise	3255 Mar 01 00:52	19°♌00'59	
	3254 Apr 01 03:45	0°♌			3255 Mar 07 04:11	0°♌	
evening max el	3254 Apr 03 04:40	2°♌13'38	18°23'38	asc. node	3255 Mar 10 13:01	5°♌40'42	
retrograde	3254 Apr 10 13:50	5°♌52'58		evening max el	3255 Mar 17 15:08	15°♌11'49	18°08'00
evening set	3254 Apr 12 22:19	5°♌31'41		retrograde	3255 Mar 24 07:38	18°♌36'19	
inferior conj	3254 Apr 20 06:54	0°♌56'04	2°33'13	evening set	3255 Mar 26 22:03	18°♌05'38	
minimum elong	3254 Apr 20 10:39	0°♌48'18	2°32'16	inferior conj	3255 Apr 02 14:47	13°♌08'57	3°18'25
	3254 Apr 21 09:58	30°♌		minimum elong	3255 Apr 02 17:19	13°♌02'54	3°18'02
min. Earth dist.	3254 Apr 23 17:32	28°♌07'26	0.58703 AU	min. Earth dist.	3255 Apr 05 20:12	10°♌05'57	0.60876 AU
morning rise	3254 Apr 27 18:48	25°♌25'01		morning rise	3255 Apr 09 09:24	7°♌17'04	
desc. node	3254 Apr 30 03:41	24°♌23'18		direct	3255 Apr 16 02:48	5°♌03'15	
direct	3254 May 03 22:04	23°♌45'39		desc. node	3255 Apr 17 00:42	5°♌05'37	
	3254 May 16 17:05	0°♌		morning max el	3255 Apr 30 08:46	12°♌58'19	27°44'37
morning max el	3254 May 18 07:29	1°♌30'04	27°03'58		3255 May 13 21:43	0°♌	
	3254 Jun 07 17:31	0°♌			3255 May 31 00:52	0°♌	
morning set	3254 Jun 17 14:20	19°♌07'16		morning set	3255 Jun 01 19:59	3°♌39'27	
asc. node	3254 Jun 19 15:16	23°♌26'44		asc. node	3255 Jun 06 12:18	13°♌33'56	
	3254 Jun 22 15:41	0°♌		max. Earth dist.	3255 Jun 07 23:09	16°♌43'26	1.32196 AU
superior conj	3254 Jun 24 16:41	4°♌29'37	0°51'04	superior conj	3255 Jun 09 03:42	19°♌19'41	0°27'31
minimum elong	3254 Jun 24 14:41	4°♌18'37	0°50'41	minimum elong	3255 Jun 09 02:29	19°♌13'00	0°27'15
max. Earth dist.	3254 Jun 24 12:13	4°♌05'00	1.32089 AU		3255 Jun 14 00:42	0°♌	
evening rise	3254 Jul 01 14:08	19°♌28'55		evening rise	3255 Jun 16 00:59	4°♌19'08	
	3254 Jul 06 18:23	0°♌			3255 Jun 29 17:00	0°♌	
	3254 Jul 25 18:13	0°♌		evening max el	3255 Jul 12 13:58	16°♌32'39	25°10'15
desc. node	3254 Jul 27 03:01	1°♌35'18		desc. node	3255 Jul 14 00:00	17°♌50'38	
evening max el	3254 Jul 30 20:14	5°♌27'45	26°26'03	retrograde	3255 Jul 26 13:29	23°♌38'00	
retrograde	3254 Aug 13 19:36	12°♌38'43		evening set	3255 Aug 01 03:51	22°♌25'57	
evening set	3254 Aug 20 11:13	10°♌48'26		min. Earth dist.	3255 Aug 06 01:44	19°♌43'09	0.57615 AU
min. Earth dist.	3254 Aug 24 09:32	8°♌13'36	0.59627 AU	inferior conj	3255 Aug 09 02:43	17°♌39'29	-5°-6'-14
inferior conj	3254 Aug 27 16:28	5°♌39'33	-4°-49'-9	minimum elong	3255 Aug 09 02:45	17°♌39'25	5°06'16
minimum elong	3254 Aug 27 20:46	5°♌31'07	4°48'36	morning rise	3255 Aug 17 05:16	13°♌26'35	
morning rise	3254 Sep 04 09:46	1°♌04'05		direct	3255 Aug 19 18:11	13°♌07'30	
direct	3254 Sep 06 18:42	0°♌44'01		morning max el	3255 Aug 28 13:58	17°♌16'49	19°02'46
morning max el	3254 Sep 14 11:36	4°♌28'13	18°18'33				

asc. node	3255 Sep 02 11:30	23°04'34"		minimum elong	3256 Jul 19 11:08	29°02'54"	4°42'59"
	3255 Sep 06 20:45	0°00'		morning rise	3256 Jul 28 03:19	24°58'55"	
morning set	3255 Sep 14 07:01	13°05'00"		direct	3256 Jul 30 22:41	24°53'16"	
	3255 Sep 22 10:21	0°00'		morning max el	3256 Aug 10 05:38	29°25'42"	20°08'37"
					3256 Aug 10 19:59	0°00'	
superior conj	3255 Sep 22 15:57	0°02'56"	1°39'01"	asc. node	3256 Aug 19 08:34	11°02'13"	39'
minimum elong	3255 Sep 22 18:03	0°03'04"	1°38'53"	morning set	3256 Aug 28 11:44	28°03'41"	
max. Earth dist.	3255 Sep 29 09:52	13°01'23"	1.38717 AU		3256 Aug 29 04:40	0°00'	
evening rise	3255 Oct 03 07:02	19°05'13"					
	3255 Oct 09 08:17	0°00'		superior conj	3256 Sep 05 05:30	14°02'14"	1°44'41"
desc. node	3255 Oct 09 23:21	1°00'55"		minimum elong	3256 Sep 05 05:53	14°02'34"	1°44'40"
	3255 Oct 29 23:09	0°00'		max. Earth dist.	3256 Sep 10 15:41	25°00'04"	1.36722 AU
evening max el	3255 Nov 07 18:01	10°04'05"	24°37'55"		3256 Sep 13 07:35	0°00'	
retrograde	3255 Nov 19 05:58	16°04'17"		evening rise	3256 Sep 14 13:20	2°01'25"	
evening set	3255 Nov 24 17:24	14°02'57"		desc. node	3256 Sep 25 20:23	21°02'30"	
asc. node	3255 Nov 29 10:43	9°07'40"			3256 Oct 01 10:03	0°00'	
min. Earth dist.	3255 Nov 29 09:16	9°01'29"	0.67569 AU	evening max el	3256 Oct 20 06:23	23°04'23"	25°49'15"
inferior conj	3255 Nov 30 05:59	8°03'31"	0°16'29"		3256 Oct 28 19:37	0°00'	
minimum elong	3255 Nov 30 05:35	8°04'53"	0°16'18"	retrograde	3256 Nov 01 15:30	0°04'58"	
morning rise	3255 Dec 05 18:10	1°05'44"			3256 Nov 05 04:35	30°00'	
direct	3255 Dec 09 09:51	0°04'04"		evening set	3256 Nov 07 17:10	28°01'38"	
morning max el	3255 Dec 17 00:14	5°02'38"	20°01'39"	min. Earth dist.	3256 Nov 12 01:23	23°03'45"	0.66897 AU
greatest brilliancy	3255 Dec 24 02:00	13°03'38"	-0.6m	inferior conj	3256 Nov 13 09:08	21°05'29"	0°-40'-1"
	3256 Jan 04 08:51	0°00'		minimum elong	3256 Nov 13 10:11	21°05'41"	0°39'35"
desc. node	3256 Jan 05 22:34	2°02'34"		asc. node	3256 Nov 15 07:45	19°03'42"	
morning set	3256 Jan 12 17:20	12°04'13"		morning rise	3256 Nov 19 04:06	16°02'31"	
max. Earth dist.	3256 Jan 23 17:25	0°00'51"	1.43957 AU	direct	3256 Nov 22 08:34	15°04'11"	
	3256 Jan 23 17:12	0°00'		morning max el	3256 Nov 29 07:03	18°05'50"	19°04'02"
					3256 Dec 07 22:17	0°00'	
superior conj	3256 Jan 29 03:26	8°04'37"	-2°00'-16"	morning set	3256 Dec 21 22:29	21°02'28"	27'
minimum elong	3256 Jan 28 22:29	8°02'26"	2°00'03"	desc. node	3256 Dec 22 19:39	22°05'10"	
	3256 Feb 10 19:04	0°00'			3256 Dec 27 09:34	0°00'	
evening rise	3256 Feb 11 06:25	0°04'48"		max. Earth dist.	3257 Jan 05 09:28	14°05'42"	1.44953 AU
asc. node	3256 Feb 25 10:02	23°05'10"					
evening max el	3256 Feb 29 03:45	28°02'12"	18°11'35"	superior conj	3257 Jan 07 15:46	17°03'53"	-1°-34'-45"
	3256 Mar 01 22:08	0°00'		minimum elong	3257 Jan 07 06:44	17°04'12"	1°33'55"
retrograde	3256 Mar 06 14:12	1°05'32"			3257 Jan 15 09:30	0°00'	
evening set	3256 Mar 09 10:09	1°09'10"		evening rise	3257 Jan 22 14:11	11°04'05"	
	3256 Mar 11 06:54	30°00'			3257 Feb 02 21:17	0°00'	
inferior conj	3256 Mar 15 14:50	25°05'02"	3°37'27"	asc. node	3257 Feb 11 07:04	11°02'53"	
minimum elong	3256 Mar 15 15:32	25°05'10"	3°37'26"	evening max el	3257 Feb 11 15:45	11°05'23"	18°33'36"
min. Earth dist.	3256 Mar 18 07:22	22°05'52"	0.62962 AU	retrograde	3257 Feb 18 05:18	15°02'24"	
morning rise	3256 Mar 21 18:48	19°04'53"		evening set	3257 Feb 21 07:00	14°03'47"	
direct	3256 Mar 28 16:36	17°09'24"		inferior conj	3257 Feb 27 03:06	8°05'30"	3°36'47"
desc. node	3256 Apr 02 21:44	18°02'36"		minimum elong	3257 Feb 27 02:11	9°01'13"	3°36'45"
morning max el	3256 Apr 11 15:16	25°06'46"	27°47'53"	min. Earth dist.	3257 Mar 01 04:06	6°03'25"	0.64754 AU
	3256 Apr 16 02:34	0°00'		morning rise	3257 Mar 04 20:03	2°04'28"	
	3256 May 06 08:22	0°00'			3257 Mar 10 20:18	30°00'	
morning set	3256 May 15 19:38	17°05'28"		direct	3257 Mar 11 13:49	29°05'09"	
max. Earth dist.	3256 May 21 05:31	29°04'16"	1.32715 AU		3257 Mar 12 07:34	0°00'	
	3256 May 21 15:57	0°00'		desc. node	3257 Mar 20 18:47	3°05'11"	
asc. node	3256 May 23 09:20	3°02'26"		morning max el	3257 Mar 25 00:48	7°04'02"	27°15'57"
					3257 Apr 11 05:01	0°00'	
superior conj	3256 May 23 12:11	3°05'49"	0°01'15"		3257 Apr 28 15:33	0°00'	
minimum elong	3256 May 23 12:07	3°05'29"	0°01'15"	morning set	3257 Apr 29 10:31	1°03'14"	
behind sun begin	3256 May 23 06:54	3°02'16"		max. Earth dist.	3257 May 04 03:32	10°05'56"	1.33678 AU
behind sun end	3256 May 23 17:21	4°02'54"					
evening rise	3256 May 30 12:49	19°08'34"		superior conj	3257 May 07 16:08	18°01'37"	0°-26'-51"
	3256 Jun 04 20:30	0°00'		minimum elong	3257 May 07 17:31	18°02'53"	0°26'35"
evening max el	3256 Jun 23 03:26	27°04'58"	23°36'46"	asc. node	3257 May 10 06:24	23°04'12"	
	3256 Jun 26 12:56	0°00'			3257 May 13 04:09	0°00'	
desc. node	3256 Jun 29 21:00	2°06'58"		evening rise	3257 May 14 23:49	3°05'04"	
retrograde	3256 Jul 06 18:51	3°05'14"			3257 May 29 11:29	0°00'	
evening set	3256 Jul 10 22:11	3°01'42"		evening max el	3257 Jun 04 19:32	7°03'15"	22°00'56"
min. Earth dist.	3256 Jul 17 13:34	0°01'01"	0.55962 AU	desc. node	3257 Jun 16 18:01	13°04'05"	
	3256 Jul 17 21:02	30°00'		retrograde	3257 Jun 17 12:36	13°05'28"	
inferior conj	3256 Jul 19 16:53	28°05'41"	-4°-43'-49"	evening set	3257 Jun 20 07:18	13°03'15"	

min. Earth dist.	3257 Jun 29 00:20	9°  49'16	0.54996 AU	inferior conj	3258 Jun 09 08:44	19°  47'38	-1°-40'-53
inferior conj	3257 Jun 29 14:59	9°  28'45	-3°-31'-49	minimum elong	3258 Jun 09 03:59	19°  54'29	1°39'11
minimum elong	3257 Jun 29 06:42	9°  40'22	3°29'30	min. Earth dist.	3258 Jun 10 12:34	19°  07'33	0.54956 AU
morning rise	3257 Jul 08 07:48	5°  37'32		morning rise	3258 Jun 18 03:27	15°  39'51	
direct	3257 Jul 11 11:41	5°  15'24		direct	3258 Jun 21 21:14	15°  09'42	
morning max el	3257 Jul 23 09:39	10°  49'38	21°34'33	morning max el	3258 Jul 05 04:14	21°  34'50	23°14'21
asc. node	3257 Aug 06 05:39	0°  15'50			3258 Jul 12 10:54	0° 	
	3257 Aug 06 02:11	0° 		asc. node	3258 Jul 24 02:43	19°  37'43	
morning set	3257 Aug 12 20:40	13°  20'39		morning set	3258 Jul 28 07:53	28°  14'11	
					3258 Jul 29 03:55	0° 	
superior conj	3257 Aug 20 04:37	28°  14'59	1°42'44	superior conj	3258 Aug 04 10:10	13°  26'50	1°34'30
minimum elong	3257 Aug 20 03:36	28°  13'38	1°42'41	minimum elong	3258 Aug 04 08:14	13°  16'27	1°34'20
	3257 Aug 20 19:02	0° 			3258 Aug 07 00:46	18°  59'33	1.33656 AU
max. Earth dist.	3257 Aug 24 03:49	6°  53'19	1.34998 AU	max. Earth dist.	3258 Aug 12 02:23	29°  22'31	
evening rise	3257 Aug 28 13:13	15°  30'21		evening rise	3258 Aug 12 09:56	0° 	
	3257 Sep 05 13:28	0° 			3258 Aug 29 15:50	0° 	
desc. node	3257 Sep 12 17:24	11°  38'45		desc. node	3258 Aug 30 14:23	1°  24'01	
	3257 Sep 26 00:08	0° 			3258 Sep 15 06:43	20°  48'05	27°19'28
evening max el	3257 Oct 02 18:47	7°  24'11	26°45'31	evening max el	3258 Sep 28 18:26	28°  06'39	
retrograde	3257 Oct 15 19:47	14°  39'24		retrograde	3258 Sep 28 18:26	28°  06'39	
evening set	3257 Oct 22 10:32	11°  35'41		evening set	3258 Oct 05 19:02	25°  25'35	
min. Earth dist.	3257 Oct 26 11:36	7°  54'22	0.65873 AU	min. Earth dist.	3258 Oct 09 13:44	21°  55'47	0.64493 AU
inferior conj	3257 Oct 28 07:06	5°  46'25	-1°-39'-28	inferior conj	3258 Oct 11 21:36	19°  25'45	-2°-39'-46
minimum elong	3257 Oct 28 09:50	5°  38'23	1°38'21	minimum elong	3258 Oct 12 01:59	19°  13'56	2°38'10
asc. node	3257 Nov 02 04:49	0°  49'25		morning rise	3258 Oct 18 11:04	13°  57'19	
morning rise	3257 Nov 03 10:37	0°  31'12		asc. node	3258 Oct 20 01:54	13°  28'42	
	3257 Nov 03 13:09	30°  19'30		direct	3258 Oct 20 23:44	13°  24'23	
direct	3257 Nov 06 05:58	29°  19'30		morning max el	3258 Oct 27 11:46	16°  50'54	17°57'45
	3257 Nov 08 23:56	0° 			3258 Nov 05 23:24	0° 	
morning max el	3257 Nov 12 19:47	2°  53'58	18°22'28	morning set	3258 Nov 13 18:43	13°  03'08	
	3257 Dec 01 07:00	0° 			3258 Nov 23 23:13	0° 	
morning set	3257 Dec 02 06:13	1°  33'39		desc. node	3258 Nov 26 13:43	4°  31'29	
desc. node	3257 Dec 09 16:42	13°  29'15					
superior conj	3257 Dec 17 17:41	26°  31'58	0°-52'-45	superior conj	3258 Nov 27 06:17	5°  32'01	0°-4'-43
minimum elong	3257 Dec 17 11:03	25°  45'54	0°51'55	minimum elong	3258 Nov 27 05:43	5°  17'59	0°04'40
max. Earth dist.	3257 Dec 19 04:31	28°  28'46	1.45217 AU	behind sun begin	3258 Nov 26 19:45	4°  37'49	
	3257 Dec 20 03:47	0° 		behind sun end	3258 Nov 27 15:41	5°  58'05	
evening rise	3258 Jan 02 22:48	21°  37'34		max. Earth dist.	3258 Dec 01 23:07	12°  35'01	1.44743 AU
	3258 Jan 08 06:40	0° 			3258 Dec 12 23:13	0° 	
greatest brilliancy	3258 Jan 16 10:13	12°  35'52	-0.7m	evening rise	3258 Dec 13 13:02	0°  53'13	
evening max el	3258 Jan 26 00:48	25°  19'36	19°13'08		3259 Jan 02 01:17	0° 	
asc. node	3258 Jan 29 04:05	28°  00'01		greatest brilliancy	3259 Jan 02 14:31	0°  45'21	-0.6m
retrograde	3258 Feb 02 01:18	29°  20'05		evening max el	3259 Jan 09 05:09	8°  50'22	20°08'21
evening set	3258 Feb 05 09:39	28°  14'39		asc. node	3259 Jan 16 01:08	13°  18'10	
inferior conj	3258 Feb 11 00:04	22°  22'17	3°21'28	retrograde	3259 Jan 16 23:14	13°  22'50	
minimum elong	3258 Feb 10 22:05	22°  28'38	3°21'09	evening set	3259 Jan 20 15:45	12°  03'36	
min. Earth dist.	3258 Feb 12 09:49	20°  34'01	0.66151 AU	inferior conj	3259 Jan 26 02:49	5°  57'34	2°54'52
morning rise	3258 Feb 16 09:39	16°  07'41		minimum elong	3259 Jan 26 00:20	6°  05'57	2°54'15
direct	3258 Feb 22 17:35	13°  20'52		min. Earth dist.	3259 Jan 26 22:42	4°  50'34	0.67139 AU
morning max el	3258 Mar 07 10:45	20°  53'20	26°15'38	morning rise	3259 Jan 31 08:19	29°  41'53	
desc. node	3258 Mar 07 15:52	21°  06'19			3259 Jan 31 00:29	30°  08'01	
	3258 Mar 15 08:01	0° 		direct	3259 Feb 06 03:01	27°  08'01	
	3258 Apr 04 08:51	0° 			3259 Feb 13 03:42	0° 	
morning set	3258 Apr 12 12:54	14°  32'50		morning max el	3259 Feb 17 19:28	4°  07'01	24°56'12
max. Earth dist.	3258 Apr 16 14:18	22°  31'54	1.35101 AU	desc. node	3259 Feb 22 12:55	9°  20'50	
	3258 Apr 20 11:10	0° 			3259 Mar 09 15:48	0° 	
superior conj	3258 Apr 21 13:15	2°  12'43	0°-55'-32	morning set	3259 Mar 25 21:42	26°  38'25	
minimum elong	3258 Apr 21 16:10	2°  27'36	0°55'01		3259 Mar 27 18:35	0° 	
asc. node	3258 Apr 27 03:26	13°  47'08		max. Earth dist.	3259 Mar 29 14:02	3°  18'46	1.36949 AU
evening rise	3258 Apr 29 08:02	18°  19'29		superior conj	3259 Apr 05 00:26	15°  34'09	-1°-23'-2
	3258 May 05 05:26	0° 		minimum elong	3259 Apr 05 04:37	15°  54'39	1°22'26
evening max el	3258 May 17 21:24	18°  28'22	20°35'58		3259 Apr 12 05:44	0° 	
retrograde	3258 May 29 01:44	23°  55'30		evening rise	3259 Apr 13 11:03	2°  27'19	
evening set	3258 May 31 03:13	23°  45'07		asc. node	3259 Apr 14 00:28	3°  34'24	
desc. node	3258 Jun 03 15:02	22°  44'37			3259 Apr 30 09:56	0° 	
				evening max el	3259 Apr 30 11:26	0°  03'40	19°28'46

retrograde	3259 May 09 22:03	4° Π 38'26		asc. node	3260 Mar 30 21:28	23° Υ 05'09	
evening set	3259 May 11 21:59	4° Π 27'03			3260 Apr 03 16:48	0° δ	
inferior conj	3259 May 20 12:36	0° Π 21'33	0°17'06	evening max el	3260 Apr 12 11:57	12° δ 17'46	18°41'34
minimum elong	3259 May 20 13:20	0° Π 20'22	0°16'50	retrograde	3260 Apr 20 11:37	16° δ 12'16	
	3259 May 21 01:57	30° \mathcal{R} δ		evening set	3260 Apr 22 16:47	15° δ 55'19	
desc. node	3259 May 21 12:04	29° δ 43'38		inferior conj	3260 Apr 30 12:00	11° δ 31'40	1°52'55
min. Earth dist.	3259 May 23 02:53	28° δ 41'42	0.55873 AU	minimum elong	3260 Apr 30 15:35	11° δ 24'55	1°51'49
morning rise	3259 May 29 00:51	25° δ 41'46		min. Earth dist.	3260 May 03 20:02	9° δ 02'41	0.57545 AU
direct	3259 Jun 02 16:27	24° δ 52'51		desc. node	3260 May 07 09:06	6° δ 48'27	
	3259 Jun 14 12:40	0° Π		morning rise	3260 May 08 09:59	6° δ 17'43	
morning max el	3259 Jun 16 18:25	1° Π 59'37	24°56'17	direct	3260 May 14 01:40	4° δ 58'40	
	3259 Jul 06 06:32	0° \mathcal{S}		morning max el	3260 May 28 10:14	12° δ 32'05	26°24'51
asc. node	3259 Jul 10 23:45	9° \mathcal{S} 19'19			3260 Jun 11 02:16	0° Π	
morning set	3259 Jul 12 19:40	13° \mathcal{S} 08'38		morning set	3260 Jun 26 06:26	27° Π 59'01	
				asc. node	3260 Jun 26 20:46	29° Π 14'48	
superior conj	3259 Jul 19 19:40	28° \mathcal{S} 19'05	1°21'02		3260 Jun 27 05:16	0° \mathcal{S}	
minimum elong	3259 Jul 19 17:19	28° \mathcal{S} 06'18	1°20'43	superior conj	3260 Jul 03 07:07	13° \mathcal{S} 15'07	1°03'07
	3259 Jul 20 14:10	0° \mathcal{Q}		minimum elong	3260 Jul 03 04:52	13° \mathcal{S} 02'41	1°02'44
max. Earth dist.	3259 Jul 21 05:48	1° \mathcal{Q} 24'57	1.32728 AU	max. Earth dist.	3260 Jul 03 16:12	14° \mathcal{S} 05'07	1.32212 AU
evening rise	3259 Jul 27 01:04	13° \mathcal{Q} 41'59		evening rise	3260 Jul 10 06:20	28° \mathcal{S} 19'32	
	3259 Aug 04 12:34	0° \mathcal{M}			3260 Jul 11 01:38	0° \mathcal{Q}	
desc. node	3259 Aug 17 11:24	20° \mathcal{M} 33'53			3260 Jul 27 20:23	0° \mathcal{M}	
	3259 Aug 25 00:36	0° \mathcal{A}		desc. node	3260 Aug 03 08:24	8° \mathcal{M} 53'24	
evening max el	3259 Aug 28 16:32	3° \mathcal{A} 46'17	27°24'44	evening max el	3260 Aug 09 21:33	16° \mathcal{M} 05'16	26°57'02
retrograde	3259 Sep 11 10:43	11° \mathcal{A} 02'29		retrograde	3260 Aug 23 19:17	23° \mathcal{M} 17'16	
evening set	3259 Sep 18 15:21	8° \mathcal{A} 31'19		evening set	3260 Aug 30 19:09	21° \mathcal{M} 08'45	
min. Earth dist.	3259 Sep 22 06:06	5° \mathcal{A} 32'10	0.62779 AU	min. Earth dist.	3260 Sep 03 11:47	18° \mathcal{M} 29'39	0.60813 AU
inferior conj	3259 Sep 25 01:50	2° \mathcal{A} 49'12	-3°-37'-36	inferior conj	3260 Sep 06 16:26	15° \mathcal{M} 47'35	-4°-27'-29
minimum elong	3259 Sep 25 07:24	2° \mathcal{A} 35'46	3°35'58	minimum elong	3260 Sep 06 21:52	15° \mathcal{M} 36'04	4°26'25
	3259 Sep 28 04:31	30° \mathcal{R} \mathcal{M}		morning rise	3260 Sep 14 03:42	10° \mathcal{M} 58'25	
morning rise	3259 Oct 02 02:08	27° \mathcal{M} 38'46		direct	3260 Sep 16 11:46	10° \mathcal{M} 36'51	
direct	3259 Oct 04 10:56	27° \mathcal{M} 13'00		asc. node	3260 Sep 22 20:00	13° \mathcal{M} 22'50	
asc. node	3259 Oct 06 22:58	27° \mathcal{M} 42'32		morning max el	3260 Sep 23 17:24	14° \mathcal{M} 11'55	18°02'43
	3259 Oct 10 11:11	0° \mathcal{A}			3260 Oct 04 12:22	0° \mathcal{A}	
morning max el	3259 Oct 11 04:02	0° \mathcal{A} 39'44	17°50'48	morning set	3260 Oct 09 11:32	9° \mathcal{A} 05'50	
morning set	3259 Oct 27 06:37	25° \mathcal{A} 40'22					
	3259 Oct 29 17:19	0° \mathcal{M}		superior conj	3260 Oct 19 11:19	27° \mathcal{A} 21'15	1°10'41
superior conj	3259 Nov 07 19:35	15° \mathcal{M} 42'13	0°38'16	minimum elong	3260 Oct 19 15:35	27° \mathcal{A} 40'08	1°10'11
minimum elong	3259 Nov 07 23:04	15° \mathcal{M} 56'55	0°37'47		3260 Oct 20 23:21	0° \mathcal{M}	
desc. node	3259 Nov 13 10:43	25° \mathcal{M} 00'51		max. Earth dist.	3260 Oct 27 02:28	10° \mathcal{M} 29'01	1.41918 AU
max. Earth dist.	3259 Nov 14 15:03	26° \mathcal{M} 55'36	1.43598 AU	desc. node	3260 Oct 30 07:44	15° \mathcal{M} 47'26	
	3259 Nov 16 12:58	0° \mathcal{A}		evening rise	3260 Nov 01 19:23	19° \mathcal{M} 48'03	
evening rise	3259 Nov 22 22:28	10° \mathcal{A} 03'33			3260 Nov 08 07:56	0° \mathcal{A}	
	3259 Dec 06 04:08	0° \mathcal{S}			3260 Nov 29 15:28	0° \mathcal{S}	
greatest brilliancy	3259 Dec 18 01:46	16° \mathcal{S} 29'16	-0.4m	greatest brilliancy	3260 Nov 30 01:49	0° \mathcal{S} 31'35	-0.3m
evening max el	3259 Dec 23 04:05	22° \mathcal{S} 22'48	21°16'19	evening max el	3260 Dec 04 21:48	5° \mathcal{S} 56'41	22°32'59
retrograde	3259 Dec 31 20:54	27° \mathcal{S} 32'30		retrograde	3260 Dec 14 16:38	11° \mathcal{S} 45'29	
asc. node	3260 Jan 02 22:11	27° \mathcal{S} 09'23		evening set	3260 Dec 19 06:55	9° \mathcal{S} 54'39	
evening set	3260 Jan 04 23:24	25° \mathcal{S} 58'06		asc. node	3260 Dec 19 19:13	9° \mathcal{S} 28'08	
inferior conj	3260 Jan 10 09:00	19° \mathcal{S} 41'31	2°19'16	inferior conj	3260 Dec 24 16:37	3° \mathcal{S} 31'00	1°36'17
minimum elong	3260 Jan 10 06:32	19° \mathcal{S} 50'03	2°18'28	minimum elong	3260 Dec 24 14:37	3° \mathcal{S} 37'54	1°35'31
min. Earth dist.	3260 Jan 10 16:27	19° \mathcal{S} 15'47	0.67731 AU	min. Earth dist.	3260 Dec 24 12:42	3° \mathcal{S} 44'32	0.67947 AU
morning rise	3260 Jan 15 13:18	13° \mathcal{S} 26'40			3260 Dec 27 08:08	30° \mathcal{R} \mathcal{A}	
direct	3260 Jan 20 17:14	11° \mathcal{S} 12'38		morning rise	3260 Dec 29 22:14	27° \mathcal{A} 18'56	
morning max el	3260 Jan 31 04:07	17° \mathcal{S} 25'52	23°28'00	direct	3261 Jan 03 11:15	25° \mathcal{A} 27'45	
greatest brilliancy	3260 Feb 06 04:12	24° \mathcal{S} 14'58	-0.2m		3261 Jan 11 18:57	0° \mathcal{S}	
desc. node	3260 Feb 09 09:56	28° \mathcal{S} 23'40		morning max el	3261 Jan 12 16:07	0° \mathcal{S} 51'46	22°00'41
	3260 Feb 10 14:55	0° \approx		greatest brilliancy	3261 Jan 17 07:57	6° \mathcal{S} 05'37	-0.4m
	3260 Mar 01 17:37	0° \mathcal{H}		desc. node	3261 Jan 26 06:58	18° \mathcal{S} 00'50	
morning set	3260 Mar 06 06:47	7° \mathcal{H} 32'12			3261 Feb 03 11:59	0° \approx	
max. Earth dist.	3260 Mar 10 08:53	14° \mathcal{H} 33'52	1.39079 AU	morning set	3261 Feb 14 11:12	17° \approx 02'52	
				max. Earth dist.	3261 Feb 20 06:58	26° \approx 36'01	1.41225 AU
superior conj	3260 Mar 17 21:53	28° \mathcal{H} 12'27	-1°-46'-40		3261 Feb 22 07:22	0° \mathcal{H}	
minimum elong	3260 Mar 18 02:24	28° \mathcal{H} 33'35	1°46'14	superior conj	3261 Feb 28 00:47	9° \mathcal{H} 55'31	-2°-2'-40
	3260 Mar 18 20:51	0° \mathcal{Y}		minimum elong	3261 Feb 28 03:42	10° \mathcal{H} 08'26	2°02'33
evening rise	3260 Mar 27 06:11	16° \mathcal{Y} 07'08					

































































































































evening rise	3261 Mar 10 14:01	29° Υ 10'33			3262 Feb 14 17:24	0° Υ	
	3261 Mar 11 00:40	0° Υ		evening rise	3262 Feb 21 06:30	11° Υ 28'45	
asc. node	3261 Mar 17 18:30	12° Υ 13'22			3262 Mar 04 02:08	0° Υ	
evening max el	3261 Mar 26 19:43	25° Υ 02'16	18°14'32	asc. node	3262 Mar 04 15:32	0° Υ 51'27	
retrograde	3261 Apr 02 20:15	28° Υ 33'19		evening max el	3262 Mar 10 07:24	8° Υ 07'52	18°07'08
evening set	3261 Apr 05 07:25	28° Υ 08'07		retrograde	3262 Mar 16 20:15	11° Υ 31'00	
inferior conj	3261 Apr 12 08:46	23° Υ 23'09	2°56'02	evening set	3262 Mar 19 12:57	10° Υ 55'58	
minimum elong	3261 Apr 12 12:10	23° Υ 15'40	2°55'19	inferior conj	3262 Mar 26 00:05	5° Υ 50'10	3°29'17
min. Earth dist.	3261 Apr 15 18:20	20° Υ 25'38	0.59625 AU	minimum elong	3262 Mar 26 01:51	5° Υ 45'43	3°29'06
morning rise	3261 Apr 19 13:10	17° Υ 42'14		min. Earth dist.	3262 Mar 29 00:30	2° Υ 48'45	0.61784 AU
desc. node	3261 Apr 24 06:07	15° Υ 56'04			3262 Apr 01 07:30	30° Υ	
direct	3261 Apr 25 23:34	15° Υ 47'52		morning rise	3262 Apr 01 12:01	29° Υ 51'56	
morning max el	3261 May 10 07:53	23° Υ 36'55	27°25'50	direct	3262 Apr 08 08:12	27° Υ 26'19	
	3261 May 16 01:38	0° Υ		desc. node	3262 Apr 11 03:10	27° Υ 48'38	
	3261 Jun 04 05:28	0° Υ			3262 Apr 15 22:47	0° Υ	
morning set	3261 Jun 10 14:32	12° Υ 40'08		morning max el	3262 Apr 22 11:54	5° Υ 23'36	27°50'41
asc. node	3261 Jun 13 17:47	19° Υ 19'15			3262 May 10 23:04	0° Υ	
max. Earth dist.	3261 Jun 17 04:15	26° Υ 49'10	1.32089 AU	morning set	3262 May 25 17:57	27° Υ 04'26	
					3262 May 27 04:03	0° Υ	
superior conj	3261 Jun 17 18:48	28° Υ 09'18	0°41'27	max. Earth dist.	3262 May 31 13:53	9° Υ 22'24	1.32365 AU
minimum elong	3261 Jun 17 17:05	27° Υ 59'51	0°41'06	asc. node	3262 May 31 14:49	9° Υ 27'23	
	3261 Jun 18 14:54	0° Υ					
evening rise	3261 Jun 24 15:46	13° Υ 07'35		superior conj	3262 Jun 02 04:57	12° Υ 54'48	0°16'40
	3261 Jul 03 04:18	0° Υ		minimum elong	3262 Jun 02 04:11	12° Υ 50'36	0°16'29
desc. node	3261 Jul 21 05:24	26° Υ 02'13		evening rise	3262 Jun 09 03:16	27° Υ 58'02	
evening max el	3261 Jul 22 19:23	27° Υ 36'37	25°56'50		3262 Jun 10 02:20	0° Υ	
	3261 Jul 25 12:46	0° Υ			3262 Jun 27 04:51	0° Υ	
retrograde	3261 Aug 05 18:53	4° Υ 45'10		evening max el	3262 Jul 04 10:24	8° Υ 23'42	24°31'39
evening set	3261 Aug 12 01:42	3° Υ 10'33		desc. node	3262 Jul 08 02:26	11° Υ 31'09	
min. Earth dist.	3261 Aug 16 07:46	0° Υ 34'54	0.58751 AU	retrograde	3262 Jul 18 07:51	15° Υ 25'05	
	3261 Aug 17 03:15	30° Υ		evening set	3262 Jul 23 08:08	14° Υ 28'41	
inferior conj	3261 Aug 19 13:55	28° Υ 11'32	-5°00'-17	min. Earth dist.	3262 Jul 28 21:25	11° Υ 37'29	0.56848 AU
minimum elong	3261 Aug 19 16:46	28° Υ 06'17	5°00'04	inferior conj	3262 Jul 31 15:29	9° Υ 51'47	-5°-2'-25
morning rise	3261 Aug 27 11:20	23° Υ 45'55		minimum elong	3262 Jul 31 13:02	9° Υ 55'44	5°02'17
direct	3261 Aug 29 21:50	23° Υ 26'20		morning rise	3262 Aug 08 21:36	5° Υ 47'51	
morning max el	3261 Sep 07 00:44	27° Υ 19'23	18°34'48	direct	3262 Aug 11 13:00	5° Υ 28'47	
	3261 Sep 09 11:55	0° Υ		morning max el	3262 Aug 20 22:54	9° Υ 52'04	19°28'15
asc. node	3261 Sep 09 17:02	0° Υ 15'40		asc. node	3262 Aug 27 14:04	18° Υ 05'25	
morning set	3261 Sep 23 04:27	23° Υ 05'40			3262 Sep 03 10:12	0° Υ	
	3261 Sep 26 17:59	0° Υ		morning set	3262 Sep 07 05:38	7° Υ 29'10	
superior conj	3261 Oct 02 01:07	10° Υ 05'17	1°31'40	superior conj	3262 Sep 15 07:23	23° Υ 37'58	1°42'27
minimum elong	3261 Oct 02 04:13	10° Υ 19'46	1°31'24	minimum elong	3262 Sep 15 08:44	23° Υ 44'36	1°42'23
max. Earth dist.	3261 Oct 09 08:50	23° Υ 19'36	1.39913 AU		3262 Sep 18 14:26	0° Υ	
	3261 Oct 13 06:18	0° Υ		max. Earth dist.	3262 Sep 21 12:48	5° Υ 29'35	1.37839 AU
evening rise	3261 Oct 13 14:00	0° Υ 32'21		evening rise	3262 Sep 25 08:04	12° Υ 21'30	
desc. node	3261 Oct 17 04:45	6° Υ 29'53		desc. node	3262 Oct 04 01:47	27° Υ 03'55	
	3261 Nov 01 17:45	0° Υ			3262 Oct 05 22:12	0° Υ	
evening max el	3261 Nov 17 11:44	19° Υ 33'22	23°52'55		3262 Oct 27 21:58	0° Υ	
retrograde	3261 Nov 28 09:13	25° Υ 58'23		evening max el	3262 Oct 31 00:00	3° Υ 13'26	25°09'38
evening set	3261 Dec 03 12:44	23° Υ 50'53		retrograde	3262 Nov 11 21:43	10° Υ 06'48	
asc. node	3261 Dec 06 16:15	20° Υ 28'52		evening set	3262 Nov 17 15:14	7° Υ 43'52	
inferior conj	3261 Dec 08 23:53	17° Υ 24'06	0°47'07	min. Earth dist.	3262 Nov 22 03:40	2° Υ 41'26	0.67318 AU
minimum elong	3261 Dec 08 22:48	17° Υ 27'49	0°46'41	inferior conj	3262 Nov 23 05:05	1° Υ 18'27	0°-7'-2
min. Earth dist.	3261 Dec 08 09:12	18° Υ 13'58	0.67806 AU	minimum elong	3262 Nov 23 05:16	1° Υ 17'53	0°06'58
morning rise	3261 Dec 14 09:06	11° Υ 16'47		transit middle	3262 Nov 23 05:16	1° Υ 17'53	0°06'58
direct	3261 Dec 18 08:04	9° Υ 48'18		transit begin	3262 Nov 23 02:45	1° Υ 26'05	
morning max el	3261 Dec 26 10:49	14° Υ 28'36	20°41'34	transit end	3262 Nov 23 07:46	1° Υ 09'42	
greatest brilliancy	3262 Jan 01 07:57	21° Υ 20'49	-0.5m	asc. node	3262 Nov 23 13:17	0° Υ 51'42	
	3262 Jan 07 15:32	0° Υ			3262 Nov 24 05:21	30° Υ	
desc. node	3262 Jan 13 04:00	8° Υ 02'58		morning rise	3262 Nov 28 19:56	25° Υ 18'11	
morning set	3262 Jan 24 14:22	25° Υ 25'54		direct	3262 Dec 02 06:29	24° Υ 09'56	
	3262 Jan 27 12:27	0° Υ		morning max el	3262 Dec 09 13:25	28° Υ 16'38	19°35'19
max. Earth dist.	3262 Feb 02 12:20	9° Υ 33'56	1.43096 AU		3262 Dec 11 04:10	0° Υ	
				greatest brilliancy	3262 Dec 17 20:04	8° Υ 37'43	-0.6m
superior conj	3262 Feb 09 04:03	20° Υ 31'52	-2°-6'-4	desc. node	3262 Dec 31 01:04	28° Υ 23'11	
minimum elong	3262 Feb 09 02:32	20° Υ 25'30	2°06'03		3263 Jan 01 02:14	0° Υ	

morning set	3263 Jan 03 11:18	3°☾40'07			3263 Dec 24 23:06	0°☾	
max. Earth dist.	3263 Jan 16 00:37	23°☾17'27	1.44456 AU	max. Earth dist.	3263 Dec 29 17:48	7°☾30'03	1.45150 AU
superior conj	3263 Jan 20 05:22	29°☾59'10	-1°-51'-51	superior conj	3263 Dec 30 10:54	8°☾37'12	-1°-18'-29
minimum elong	3263 Jan 19 22:07	29°☾30'05	1°51'22	minimum elong	3263 Dec 30 02:03	8°☾02'26	1°17'30
	3263 Jan 20 05:34	0°☾			3264 Jan 12 22:54	0°☾	
evening rise	3263 Feb 03 03:17	22°☾53'53		evening rise	3264 Jan 15 01:00	3°☾20'52	
	3263 Feb 07 08:27	0°☾			3264 Feb 01 05:00	0°☾	
asc. node	3263 Feb 19 12:35	18°☾50'24		evening max el	3264 Feb 05 07:09	4°☾54'24	18°48'26
evening max el	3263 Feb 21 20:06	21°☾27'30	18°18'44	asc. node	3264 Feb 06 09:39	5°☾57'57	
retrograde	3263 Feb 28 07:01	24°☾56'03		retrograde	3264 Feb 12 00:28	8°☾40'01	
evening set	3263 Mar 03 05:13	24°☾10'03		evening set	3264 Feb 15 04:50	7°☾41'57	
inferior conj	3263 Mar 09 05:53	18°☾44'50	3°39'13	inferior conj	3264 Feb 20 22:14	1°☾59'02	3°31'50
minimum elong	3263 Mar 09 05:50	18°☾44'57	3°39'14	minimum elong	3264 Feb 20 20:48	2°☾03'27	3°31'41
min. Earth dist.	3263 Mar 11 16:00	16°☾01'21	0.63763 AU	min. Earth dist.	3264 Feb 22 16:43	29°☾48'14	0.65401 AU
morning rise	3263 Mar 15 04:40	12°☾36'58			3264 Feb 22 12:51	30°☾	
direct	3263 Mar 22 01:36	9°☾51'52		morning rise	3264 Feb 26 11:37	25°☾46'15	
desc. node	3263 Mar 29 00:13	12°☾10'20		direct	3264 Mar 04 01:56	22°☾56'09	
morning max el	3263 Apr 04 20:12	17°☾48'44	27°38'13	desc. node	3264 Mar 14 21:17	28°☾25'57	
	3263 Apr 15 01:11	0°☾			3264 Mar 16 13:27	0°☾	
	3263 May 03 19:13	0°☾		morning max el	3264 Mar 17 05:57	0°☾40'55	26°53'10
morning set	3263 May 09 14:18	11°☾04'21			3264 Apr 08 01:39	0°☾	
max. Earth dist.	3263 May 14 17:02	21°☾31'46	1.33068 AU	morning set	3264 Apr 22 00:23	24°☾29'55	
					3264 Apr 24 20:15	0°☾	
superior conj	3263 May 17 11:48	27°☾26'04	0°-10'-30	max. Earth dist.	3264 Apr 26 10:10	3°☾09'05	1.34228 AU
minimum elong	3263 May 17 12:19	27°☾28'52	0°10'25				
behind sun begin	3263 May 17 08:14	27°☾07'01		superior conj	3264 Apr 30 13:11	11°☾36'25	0°-39'-2
behind sun end	3263 May 17 16:24	27°☾50'45		minimum elong	3264 Apr 30 15:13	11°☾47'00	0°38'38
asc. node	3263 May 18 11:52	29°☾35'16		asc. node	3264 May 04 08:56	19°☾38'40	
	3263 May 18 16:28	0°☾		evening rise	3264 May 08 01:02	27°☾22'01	
evening rise	3263 May 24 14:59	12°☾44'56			3264 May 09 07:33	0°☾	
	3263 Jun 02 09:40	0°☾		evening max el	3264 May 27 19:46	29°☾27'33	21°22'56
evening max el	3263 Jun 15 23:57	18°☾49'57	22°55'20		3264 May 28 09:24	0°☾	
desc. node	3263 Jun 24 23:27	24°☾45'23		retrograde	3264 Jun 08 22:25	5°☾24'07	
retrograde	3263 Jun 29 08:20	25°☾29'02		desc. node	3264 Jun 10 20:27	5°☾15'39	
evening set	3263 Jul 02 20:10	25°☾02'18		evening set	3264 Jun 11 07:35	5°☾11'08	
min. Earth dist.	3263 Jul 10 08:47	21°☾41'07	0.55450 AU	inferior conj	3264 Jun 20 16:24	1°☾12'03	-2°-47'-57
inferior conj	3263 Jul 11 21:53	20°☾47'33	-4°-19'-18	minimum elong	3264 Jun 20 09:00	1°☾22'26	2°45'33
minimum elong	3263 Jul 11 14:20	20°☾58'28	4°17'45	min. Earth dist.	3264 Jun 20 20:12	1°☾06'45	0.54863 AU
morning rise	3263 Jul 20 11:17	16°☾55'53			3264 Jun 22 20:29	30°☾	
direct	3263 Jul 23 09:36	16°☾35'41		morning rise	3264 Jun 29 10:48	27°☾16'02	
morning max el	3263 Aug 03 09:38	21°☾41'59	20°42'56	direct	3264 Jul 02 19:54	26°☾51'16	
	3263 Aug 10 07:36	0°☾			3264 Jul 11 22:11	0°☾	
asc. node	3263 Aug 14 11:07	6°☾39'09		morning max el	3264 Jul 15 09:04	2°☾47'49	22°15'47
morning set	3263 Aug 22 12:21	22°☾09'03		asc. node	3264 Jul 31 08:11	25°☾46'20	
	3263 Aug 26 07:14	0°☾			3264 Aug 02 12:22	0°☾	
				morning set	3264 Aug 05 22:29	6°☾59'43	
superior conj	3263 Aug 30 01:24	7°☾45'41	1°44'42				
minimum elong	3263 Aug 30 01:08	7°☾44'17	1°44'41	superior conj	3264 Aug 13 03:35	22°☾18'00	1°39'56
max. Earth dist.	3263 Sep 03 20:19	17°☾20'41	1.35945 AU	minimum elong	3264 Aug 13 02:07	22°☾10'13	1°39'51
evening rise	3263 Sep 07 22:23	25°☾08'02		max. Earth dist.	3264 Aug 16 12:17	29°☾18'53	1.34381 AU
	3263 Sep 10 14:17	0°☾			3264 Aug 16 20:18	0°☾	
desc. node	3263 Sep 20 22:48	17°☾24'28		evening rise	3264 Aug 21 04:29	8°☾40'16	
	3263 Sep 29 11:00	0°☾			3264 Sep 02 02:47	0°☾	
evening max el	3263 Oct 13 12:18	16°☾54'11	26°15'37	desc. node	3264 Sep 06 19:48	7°☾25'21	
retrograde	3263 Oct 26 05:14	24°☾04'35			3264 Sep 24 13:05	0°☾	
evening set	3263 Nov 01 12:33	21°☾29'39		evening max el	3264 Sep 25 00:56	0°☾28'40	27°03'13
min. Earth dist.	3263 Nov 05 17:40	17°☾03'02	0.66494 AU	retrograde	3264 Oct 08 07:07	7°☾45'36	
inferior conj	3263 Nov 07 06:17	15°☾10'27	-1°-5'-1	evening set	3264 Oct 15 02:28	5°☾04'31	
minimum elong	3263 Nov 07 08:02	15°☾05'05	1°04'17	min. Earth dist.	3264 Oct 19 00:49	1°☾14'22	0.65327 AU
asc. node	3263 Nov 10 10:22	11°☾32'21			3264 Oct 20 03:09	30°☾	
morning rise	3263 Nov 13 04:40	9°☾19'56		inferior conj	3264 Oct 21 01:24	28°☾56'30	-2°-5'-5
direct	3263 Nov 16 04:54	8°☾28'21		minimum elong	3264 Oct 21 04:52	28°☾46'40	2°03'44
morning max el	3263 Nov 22 22:58	12°☾11'54	18°44'18	morning rise	3264 Oct 27 08:58	23°☾18'51	
	3263 Dec 05 21:31	0°☾		asc. node	3264 Oct 27 07:24	23°☾20'44	
morning set	3263 Dec 14 02:29	12°☾54'25		direct	3264 Oct 30 01:13	22°☾40'04	
desc. node	3263 Dec 17 22:06	18°☾55'45		morning max el	3264 Nov 05 13:22	26°☾10'08	18°09'48

	3264 Nov 08 20:18	0°♄		morning set	3265 Nov 05 22:09	5°♄38'03	
morning set	3264 Nov 23 22:55	23°♄37'24					
	3264 Nov 27 20:23	0°♂		superior conj	3265 Nov 18 12:56	26°♄54'19	0°14'37
desc. node	3264 Dec 03 19:08	9°♂36'56		minimum elong	3265 Nov 18 14:31	27°♄00'49	0°14'24
				behind sun begin	3265 Nov 18 10:02	26°♄42'27	
superior conj	3264 Dec 08 14:50	17°♂17'36	0°-32'-22	behind sun end	3265 Nov 18 19:01	27°♄19'10	
minimum elong	3264 Dec 08 10:43	17°♂01'19	0°31'49		3265 Nov 20 10:31	0°♂	
max. Earth dist.	3264 Dec 11 13:18	21°♂55'34	1.45108 AU	desc. node	3265 Nov 20 16:08	0°♂22'44	
	3264 Dec 16 16:58	0°♂		max. Earth dist.	3265 Nov 24 07:32	6°♂13'50	1.44336 AU
evening rise	3264 Dec 25 00:41	12°♂57'05		evening rise	3265 Dec 04 10:51	22°♂05'20	
	3265 Jan 05 01:51	0°♂			3265 Dec 09 15:09	0°♂	
greatest brilliancy	3265 Jan 10 14:24	8°♂12'27	-0.7m	greatest brilliancy	3265 Dec 26 20:09	24°♂57'39	-0.5m
evening max el	3265 Jan 18 14:27	18°♂24'40	19°34'52		3265 Dec 30 21:52	0°♂	
asc. node	3265 Jan 23 06:41	22°♂00'23		evening max el	3266 Jan 01 16:28	1°♂55'43	20°35'54
retrograde	3265 Jan 25 21:28	22°♂37'22		retrograde	3266 Jan 09 19:34	6°♂43'30	
evening set	3265 Jan 29 09:13	21°♂26'04		asc. node	3266 Jan 10 03:42	6°♂42'52	
inferior conj	3265 Feb 03 21:56	15°♂27'38	3°11'23	evening set	3266 Jan 13 16:11	5°♂17'45	
minimum elong	3265 Feb 03 19:41	15°♂35'03	3°10'56		3266 Jan 18 10:42	30°♂	
min. Earth dist.	3265 Feb 05 01:35	13°♂56'53	0.66627 AU	inferior conj	3266 Jan 19 02:23	29°♂06'38	2°40'46
morning rise	3265 Feb 09 05:26	9°♂12'36		minimum elong	3266 Jan 18 23:51	29°♂15'18	2°40'02
direct	3265 Feb 15 08:08	6°♂30'15		min. Earth dist.	3266 Jan 19 16:43	28°♂17'40	0.67436 AU
morning max el	3265 Feb 27 15:15	13°♂49'22	25°43'35	morning rise	3266 Jan 24 07:03	22°♂51'13	
desc. node	3265 Mar 01 18:20	16°♂04'09		direct	3266 Jan 29 19:30	20°♂25'30	
	3265 Mar 12 18:57	0°♂		morning max el	3266 Feb 09 23:49	27°♂05'52	24°19'18
	3265 Mar 31 20:09	0°♂			3266 Feb 12 16:55	0°♂	
morning set	3265 Apr 04 19:57	7°♂08'53		desc. node	3266 Feb 16 15:22	4°♂41'05	
max. Earth dist.	3265 Apr 08 15:59	14°♂18'57	1.35845 AU		3266 Mar 06 10:27	0°♂	
				morning set	3266 Mar 17 19:29	18°♂46'11	
superior conj	3265 Apr 14 06:30	25°♂18'22	-1°-7'-29	max. Earth dist.	3266 Mar 21 13:10	25°♂23'33	1.37830 AU
minimum elong	3265 Apr 14 10:00	25°♂36'01	1°06'53		3266 Mar 24 01:43	0°♂	
	3265 Apr 16 14:08	0°♂					
asc. node	3265 Apr 21 05:58	9°♂33'17		superior conj	3266 Mar 28 12:23	8°♂22'56	-1°-33'-43
evening rise	3265 Apr 22 07:20	11°♂42'51		minimum elong	3266 Mar 28 16:53	8°♂44'33	1°33'09
	3265 May 02 00:44	0°♂		evening rise	3266 Apr 06 07:26	25°♂40'22	
evening max el	3265 May 10 02:49	10°♂39'08	20°04'57	asc. node	3266 Apr 08 03:00	29°♂14'37	
retrograde	3265 May 20 12:52	15°♂43'02			3266 Apr 08 12:19	0°♂	
evening set	3265 May 22 12:33	15°♂32'47		evening max el	3266 Apr 22 21:36	22°♂31'46	19°06'12
desc. node	3265 May 28 17:29	13°♂10'45		retrograde	3266 May 01 16:18	26°♂48'03	
inferior conj	3265 May 31 12:47	11°♂33'24	0°-49'-35	evening set	3266 May 03 17:58	26°♂34'47	
minimum elong	3265 May 31 10:28	11°♂36'52	0°48'44	inferior conj	3266 May 12 00:23	22°♂21'57	1°01'28
min. Earth dist.	3265 Jun 02 08:51	10°♂27'35	0.55240 AU	minimum elong	3266 May 12 02:46	22°♂17'52	1°00'38
morning rise	3265 Jun 09 05:56	7°♂13'43		min. Earth dist.	3266 May 15 00:10	20°♂19'29	0.56504 AU
direct	3265 Jun 13 08:25	6°♂37'04		desc. node	3266 May 15 14:31	19°♂56'08	
morning max el	3265 Jun 27 00:53	13°♂20'45	23°58'22	morning rise	3266 May 20 07:18	17°♂27'06	
	3265 Jul 09 20:49	0°♂		direct	3266 May 25 09:01	16°♂26'54	
asc. node	3265 Jul 18 05:13	15°♂17'34		morning max el	3266 Jun 08 15:20	23°♂46'34	25°36'34
morning set	3265 Jul 21 10:10	21°♂54'39			3266 Jun 14 06:42	0°♂	
	3265 Jul 25 04:41	0°♂			3266 Jul 02 14:33	0°♂	
				asc. node	3266 Jul 05 02:15	5°♂06'13	
superior conj	3265 Jul 28 11:04	7°♂05'10	1°29'22	morning set	3266 Jul 05 21:46	6°♂48'41	
minimum elong	3265 Jul 28 08:54	6°♂53'26	1°29'08				
max. Earth dist.	3265 Jul 30 13:15	11°♂35'01	1.33214 AU	superior conj	3266 Jul 12 21:40	22°♂00'15	1°13'56
evening rise	3265 Aug 04 22:07	22°♂45'24		minimum elong	3266 Jul 12 19:18	21°♂47'18	1°13'35
	3265 Aug 08 14:38	0°♂		max. Earth dist.	3266 Jul 13 21:03	24°♂08'21	1.32460 AU
desc. node	3265 Aug 24 16:48	26°♂57'14			3266 Jul 16 13:49	0°♂	
	3265 Aug 26 20:41	0°♂		evening rise	3266 Jul 19 23:56	7°♂13'43	
evening max el	3265 Sep 07 12:19	13°♂43'31	27°25'28		3266 Aug 01 02:22	0°♂	
retrograde	3265 Sep 21 02:48	21°♂00'40		desc. node	3266 Aug 11 13:48	15°♂48'00	
evening set	3265 Sep 28 06:10	18°♂22'20		evening max el	3266 Aug 20 20:12	26°♂25'45	27°16'53
min. Earth dist.	3265 Oct 01 22:50	15°♂06'35	0.63810 AU		3266 Aug 25 02:42	0°♂	
inferior conj	3265 Oct 04 11:53	12°♂29'55	-3°-4'-49	retrograde	3266 Sep 03 15:57	3°♂40'30	
minimum elong	3265 Oct 04 16:52	12°♂17'04	3°03'09	evening set	3266 Sep 10 20:03	1°♂16'58	
morning rise	3265 Oct 11 05:54	7°♂08'42			3266 Sep 12 14:36	30°♂	
direct	3265 Oct 13 16:42	6°♂39'05		min. Earth dist.	3266 Sep 14 10:26	28°♂28'21	0.61975 AU
asc. node	3265 Oct 14 04:26	6°♂40'17		inferior conj	3266 Sep 17 10:43	25°♂43'33	-4°00'-10
morning max el	3265 Oct 20 05:49	10°♂04'19	17°52'34	minimum elong	3266 Sep 17 16:27	25°♂30'25	3°58'42
	3265 Nov 02 15:38	0°♄		morning rise	3266 Sep 24 15:47	20°♂42'08	

direct	3266 Sep 26 23:54	20° \cap 18'30		minimum elong	3267 Aug 30 23:10	8° \cap 19'14	4°43'32
asc. node	3266 Oct 01 01:28	21° \cap 32'24		morning rise	3267 Sep 07 10:15	3° \cap 49'31	
morning max el	3266 Oct 03 21:17	23° \cap 47'25	17°53'29	direct	3267 Sep 09 18:48	3° \cap 29'11	
	3266 Oct 08 20:35	0° $\underline{\cap}$		morning max el	3267 Sep 17 08:34	7° \cap 10'51	18°13'48
morning set	3266 Oct 19 17:56	18° $\underline{\cap}$ 37'24		asc. node	3267 Sep 17 22:31	7° \cap 45'37	
	3266 Oct 26 02:02	0° \cap			3267 Oct 01 23:01	0° $\underline{\cap}$	
				morning set	3267 Oct 03 04:31	2° $\underline{\cap}$ 19'14	
superior conj	3266 Oct 30 13:49	7° \cap 50'12	0°53'26	superior conj	3267 Oct 12 15:41	19° $\underline{\cap}$ 59'22	1°20'55
minimum elong	3266 Oct 30 17:58	8° \cap 08'04	0°52'54	minimum elong	3267 Oct 12 19:36	20° $\underline{\cap}$ 17'06	1°20'30
max. Earth dist.	3266 Nov 06 21:33	20° \cap 06'31	1.42936 AU		3267 Oct 18 07:20	0° \cap	
desc. node	3266 Nov 07 13:07	21° \cap 10'02		max. Earth dist.	3267 Oct 20 06:14	3° \cap 20'55	1.41088 AU
	3266 Nov 13 01:35	0° \mathcal{A}		evening rise	3267 Oct 25 04:46	11° \cap 33'50	
evening rise	3266 Nov 13 23:15	1° \mathcal{A} 25'02		desc. node	3267 Oct 25 10:09	11° \cap 55'43	
	3266 Dec 03 04:39	0° \mathcal{B}			3267 Nov 06 01:07	0° \mathcal{A}	
greatest brilliancy	3266 Dec 10 17:53	10° \mathcal{B} 00'46	-0.4m	greatest brilliancy	3267 Nov 22 04:39	22° \mathcal{A} 15'51	-0.2m
evening max el	3266 Dec 15 12:54	15° \mathcal{B} 27'42	21°48'10	evening max el	3267 Nov 28 04:47	29° \mathcal{A} 03'03	23°06'59
retrograde	3266 Dec 24 16:42	20° \mathcal{B} 54'44			3267 Nov 29 04:05	0° \mathcal{B}	
asc. node	3266 Dec 28 00:44	19° \mathcal{B} 54'22		retrograde	3267 Dec 08 11:20	5° \mathcal{B} 08'23	
evening set	3266 Dec 28 23:57	19° \mathcal{B} 13'23		evening set	3267 Dec 13 06:57	3° \mathcal{B} 10'40	
inferior conj	3267 Jan 03 09:24	12° \mathcal{B} 53'04	2°01'51	asc. node	3267 Dec 14 21:45	1° \mathcal{B} 37'23	
minimum elong	3267 Jan 03 07:04	13° \mathcal{B} 01'07	2°01'03		3267 Dec 16 06:53	30° \mathcal{R} \mathcal{A}	
min. Earth dist.	3267 Jan 03 11:52	12° \mathcal{B} 44'30	0.67859 AU	inferior conj	3267 Dec 18 17:07	26° \mathcal{A} 45'04	1°16'08
morning rise	3267 Jan 08 13:57	6° \mathcal{B} 39'02		minimum elong	3267 Dec 18 15:27	26° \mathcal{A} 50'48	1°15'29
direct	3267 Jan 13 11:21	4° \mathcal{B} 34'44		min. Earth dist.	3267 Dec 18 08:39	27° \mathcal{A} 14'15	0.67926 AU
morning max el	3267 Jan 23 09:33	10° \mathcal{B} 27'32	22°50'18	morning rise	3267 Dec 23 23:59	20° \mathcal{A} 34'30	
greatest brilliancy	3267 Jan 28 01:42	15° \mathcal{B} 40'21	-0.3m	direct	3267 Dec 28 06:51	18° \mathcal{A} 53'02	
desc. node	3267 Feb 03 12:23	23° \mathcal{B} 59'43		morning max el	3268 Jan 06 00:01	23° \mathcal{A} 57'51	21°25'36
	3267 Feb 07 19:38	0° \approx		greatest brilliancy	3268 Jan 11 01:25	29° \mathcal{A} 43'23	-0.4m
morning set	3267 Feb 26 16:44	29° \approx 05'10			3268 Jan 11 06:45	0° \mathcal{B}	
	3267 Feb 27 05:59	0° \mathcal{H}		desc. node	3268 Jan 21 09:25	13° \mathcal{B} 48'48	
max. Earth dist.	3267 Mar 03 08:21	6° \mathcal{H} 54'49	1.39996 AU		3268 Feb 01 05:22	0° \approx	
				morning set	3268 Feb 06 09:06	8° \approx 02'34	
superior conj	3267 Mar 11 02:30	20° \mathcal{H} 38'38	-1°-54'-40	max. Earth dist.	3268 Feb 13 08:44	19° \approx 18'42	1.42069 AU
minimum elong	3267 Mar 11 06:40	20° \mathcal{H} 57'36	1°54'22		3268 Feb 19 17:19	0° \mathcal{H}	
	3267 Mar 16 03:22	0° \mathcal{Y}					
evening rise	3267 Mar 20 22:12	9° \mathcal{Y} 05'32		superior conj	3268 Feb 20 19:55	1° \mathcal{H} 54'33	-2°-5'-58
asc. node	3267 Mar 26 00:02	18° \mathcal{Y} 36'36		minimum elong	3268 Feb 20 21:18	2° \mathcal{H} 00'32	2°05'58
	3267 Apr 01 21:49	0° \mathcal{B}		evening rise	3268 Mar 03 00:00	21° \mathcal{H} 50'24	
evening max el	3267 Apr 06 01:35	4° \mathcal{B} 59'41	18°27'43		3268 Mar 07 12:11	0° \mathcal{Y}	
retrograde	3267 Apr 13 14:10	8° \mathcal{B} 42'26		asc. node	3268 Mar 11 21:04	7° \mathcal{Y} 32'52	
evening set	3267 Apr 15 21:46	8° \mathcal{B} 22'22		evening max el	3268 Mar 19 11:28	17° \mathcal{Y} 54'17	18°09'06
inferior conj	3267 Apr 23 09:02	3° \mathcal{B} 50'03	2°23'38	retrograde	3268 Mar 26 05:38	21° \mathcal{Y} 19'49	
minimum elong	3267 Apr 23 12:50	3° \mathcal{B} 42'24	2°22'37	evening set	3268 Mar 28 19:15	20° \mathcal{Y} 50'34	
min. Earth dist.	3267 Apr 26 19:31	1° \mathcal{B} 05'41	0.58391 AU	inferior conj	3268 Apr 04 14:06	15° \mathcal{Y} 56'56	3°13'22
	3267 Apr 28 07:38	30° \mathcal{R} \mathcal{Y}		minimum elong	3268 Apr 04 16:54	15° \mathcal{Y} 50'25	3°12'54
morning rise	3267 Apr 30 23:36	28° \mathcal{Y} 23'04		min. Earth dist.	3268 Apr 07 20:54	12° \mathcal{Y} 54'34	0.60555 AU
desc. node	3267 May 02 11:33	27° \mathcal{Y} 42'22		morning rise	3268 Apr 11 11:12	10° \mathcal{Y} 07'42	
direct	3267 May 07 00:05	26° \mathcal{Y} 48'58		direct	3268 Apr 18 03:12	7° \mathcal{Y} 58'38	
	3267 May 15 23:03	0° \mathcal{B}		desc. node	3268 Apr 18 08:36	7° \mathcal{Y} 58'46	
morning max el	3267 May 21 09:30	4° \mathcal{B} 31'08	26°54'47	morning max el	3268 May 02 09:44	15° \mathcal{Y} 52'14	27°40'57
	3267 Jun 09 00:58	0° \mathcal{H}			3268 May 13 22:47	0° \mathcal{B}	
morning set	3267 Jun 20 07:37	21° \mathcal{H} 35'54			3268 May 31 12:48	0° \mathcal{H}	
asc. node	3267 Jun 21 23:17	25° \mathcal{H} 06'08		morning set	3268 Jun 03 13:58	6° \mathcal{H} 10'14	
	3267 Jun 24 05:39	0° \mathcal{B}		asc. node	3268 Jun 07 20:20	15° \mathcal{H} 12'33	
superior conj	3267 Jun 27 09:27	6° \mathcal{B} 56'23	0°54'22	max. Earth dist.	3268 Jun 09 19:45	19° \mathcal{H} 30'39	1.32154 AU
minimum elong	3267 Jun 27 07:22	6° \mathcal{B} 44'55	0°53'59				
max. Earth dist.	3267 Jun 27 08:26	6° \mathcal{B} 50'46	1.32108 AU	superior conj	3268 Jun 10 20:43	21° \mathcal{H} 47'30	0°31'18
evening rise	3267 Jul 04 07:14	21° \mathcal{B} 56'30		minimum elong	3268 Jun 10 19:21	21° \mathcal{H} 40'02	0°31'00
	3267 Jul 08 05:39	0° \mathcal{Q}			3268 Jun 14 14:26	0° \mathcal{B}	
	3267 Jul 26 10:56	0° \cap		evening rise	3268 Jun 17 17:46	6° \mathcal{B} 46'14	
desc. node	3267 Jul 29 10:49	3° \cap 40'39			3268 Jun 29 21:29	0° \mathcal{Q}	
evening max el	3267 Aug 02 22:14	8° \cap 24'45	26°35'06	evening max el	3268 Jul 14 17:05	19° \mathcal{Q} 36'33	25°23'05
retrograde	3267 Aug 16 21:22	15° \cap 36'08		desc. node	3268 Jul 15 07:51	20° \mathcal{Q} 11'11	
evening set	3267 Aug 23 15:28	13° \cap 40'49		retrograde	3268 Jul 28 16:45	26° \mathcal{Q} 42'41	
min. Earth dist.	3267 Aug 27 11:54	11° \cap 05'22	0.59933 AU	evening set	3268 Aug 03 11:47	25° \mathcal{Q} 24'52	
inferior conj	3267 Aug 30 18:29	8° \cap 28'38	-4°-44'-14	min. Earth dist.	3268 Aug 08 05:01	22° \mathcal{Q} 44'28	0.57900 AU

inferior conj	3268 Aug 11 07:46	20° Ω 35'14	-5°-5'-55	retrograde	3269 Jul 10 00:03	7° Ω 05'43	
minimum elong	3268 Aug 11 08:37	20° Ω 33'45	5°05'55	evening set	3269 Jul 14 08:59	6° Ω 23'38	
morning rise	3268 Aug 19 09:00	16° Ω 19'01		min. Earth dist.	3269 Jul 20 17:06	3° Ω 21'30	0.56173 AU
direct	3268 Aug 21 21:16	15° Ω 59'49		inferior conj	3269 Jul 23 00:51	1° Ω 56'49	-4°-50'-20
morning max el	3268 Aug 30 12:19	20° Ω 04'36	18°54'49	minimum elong	3269 Jul 22 19:55	2° Ω 04'23	4°49'45
asc. node	3268 Sep 03 19:34	25° Ω 04'28			3269 Jul 26 09:13	30° \mathbb{R} \mathfrak{E}	
	3268 Sep 07 02:16	0° \mathfrak{M}		morning rise	3269 Jul 31 10:13	27° \mathfrak{E} 59'43	
morning set	3268 Sep 16 01:23	16° \mathfrak{M} 30'29		direct	3269 Aug 03 04:34	27° \mathfrak{E} 40'14	
	3268 Sep 22 22:26	0° \mathfrak{L}			3269 Aug 10 07:23	0° Ω	
				morning max el	3269 Aug 13 05:45	2° Ω 20'05	19°57'27
superior conj	3268 Sep 24 13:06	3° \mathfrak{L} 05'49	1°37'23	asc. node	3269 Aug 21 16:38	13° Ω 14'55	
minimum elong	3268 Sep 24 15:29	3° \mathfrak{L} 17'10	1°37'13		3269 Aug 30 16:52	0° \mathfrak{M}	
max. Earth dist.	3268 Oct 01 11:04	15° \mathfrak{L} 53'05	1.39028 AU	morning set	3269 Aug 31 05:17	1° \mathfrak{M} 02'45	
evening rise	3268 Oct 05 09:37	22° \mathfrak{L} 46'42					
	3268 Oct 09 16:59	0° \mathfrak{M}		superior conj	3269 Sep 08 00:56	16° \mathfrak{M} 55'30	1°44'20
desc. node	3268 Oct 11 07:10	2° \mathfrak{M} 35'22		minimum elong	3269 Sep 08 01:33	16° \mathfrak{M} 58'37	1°44'19
	3268 Oct 29 22:46	0° \mathfrak{X}		max. Earth dist.	3269 Sep 13 16:23	27° \mathfrak{M} 54'44	1.37008 AU
evening max el	3268 Nov 09 17:57	12° \mathfrak{X} 42'10	24°26'25		3269 Sep 14 19:04	0° \mathfrak{L}	
retrograde	3268 Nov 21 02:10	19° \mathfrak{X} 19'57		evening rise	3269 Sep 17 12:52	5° \mathfrak{L} 02'07	
evening set	3268 Nov 26 11:34	17° \mathfrak{X} 05'53		desc. node	3269 Sep 28 04:11	23° \mathfrak{L} 04'48	
asc. node	3268 Nov 30 18:48	12° \mathfrak{X} 15'56			3269 Oct 02 15:30	0° \mathfrak{M}	
min. Earth dist.	3268 Dec 01 04:37	11° \mathfrak{X} 43'23	0.67645 AU	evening max el	3269 Oct 23 06:14	26° \mathfrak{M} 23'47	25°39'20
inferior conj	3268 Dec 01 23:45	10° \mathfrak{X} 39'21	0°24'43		3269 Oct 27 09:28	0° \mathfrak{X}	
minimum elong	3268 Dec 01 23:09	10° \mathfrak{X} 41'20	0°24'28	retrograde	3269 Nov 04 12:28	3° \mathfrak{X} 24'54	
morning rise	3268 Dec 07 11:06	4° \mathfrak{X} 34'34		evening set	3269 Nov 10 12:05	0° \mathfrak{X} 56'16	
direct	3268 Dec 11 04:39	3° \mathfrak{X} 14'52			3269 Nov 11 12:47	30° \mathfrak{R} \mathfrak{M}	
morning max el	3268 Dec 18 21:56	7° \mathfrak{X} 39'15	20°11'33	min. Earth dist.	3269 Nov 14 21:22	26° \mathfrak{M} 09'07	0.67022 AU
greatest brilliancy	3268 Dec 25 15:15	15° \mathfrak{X} 42'41	-0.6m	inferior conj	3269 Nov 16 03:29	24° \mathfrak{M} 33'09	0°-31'-13
	3269 Jan 04 14:35	0° \mathfrak{E}		minimum elong	3269 Nov 16 04:17	24° \mathfrak{M} 30'34	0°30'53
desc. node	3269 Jan 07 06:28	3° \mathfrak{E} 59'27		asc. node	3269 Nov 17 15:51	22° \mathfrak{M} 39'24	
morning set	3269 Jan 15 06:23	16° \mathfrak{E} 12'06		morning rise	3269 Nov 21 21:20	18° \mathfrak{M} 36'51	
	3269 Jan 24 01:41	0° \approx		direct	3269 Nov 25 03:19	17° \mathfrak{M} 36'04	
max. Earth dist.	3269 Jan 25 17:21	2° \approx 38'19	1.43757 AU	morning max el	3269 Dec 02 03:43	21° \mathfrak{M} 31'07	19°11'37
					3269 Dec 09 00:21	0° \mathfrak{X}	
superior conj	3269 Jan 31 12:07	12° \approx 01'09	-2°-2'-25	greatest brilliancy	3269 Dec 12 15:02	5° \mathfrak{X} 13'32	-0.7m
minimum elong	3269 Jan 31 08:04	11° \approx 44'32	2°02'16	morning set	3269 Dec 25 08:38	24° \mathfrak{X} 45'36	
	3269 Feb 11 04:08	0° \mathfrak{H}		desc. node	3269 Dec 25 03:29	24° \mathfrak{X} 25'33	
evening rise	3269 Feb 13 08:34	3° \mathfrak{H} 46'31			3269 Dec 28 17:27	0° \mathfrak{E}	
asc. node	3269 Feb 26 18:06	25° \mathfrak{H} 55'29		max. Earth dist.	3270 Jan 08 08:39	16° \mathfrak{E} 38'41	1.44846 AU
	3269 Mar 01 22:45	0° \mathfrak{Y}					
evening max el	3269 Mar 02 23:57	1° \mathfrak{Y} 06'48	18°09'48	superior conj	3270 Jan 11 03:25	21° \mathfrak{E} 02'36	-1°-39'-50
retrograde	3269 Mar 09 10:40	4° \mathfrak{Y} 30'23		minimum elong	3270 Jan 10 18:39	20° \mathfrak{E} 27'50	1°39'05
evening set	3269 Mar 12 05:49	3° \mathfrak{Y} 50'37			3270 Jan 16 18:01	0° \approx	
	3269 Mar 17 03:53	30° \mathfrak{R} \mathfrak{H}		evening rise	3270 Jan 25 19:46	14° \approx 47'16	
inferior conj	3269 Mar 18 12:02	28° \mathfrak{H} 36'17	3°35'56		3270 Feb 04 02:16	0° \mathfrak{H}	
minimum elong	3269 Mar 18 13:00	28° \mathfrak{H} 33'42	3°35'53	asc. node	3270 Feb 13 15:09	13° \mathfrak{H} 34'07	
min. Earth dist.	3269 Mar 21 06:41	25° \mathfrak{H} 40'27	0.62665 AU	evening max el	3270 Feb 14 12:11	14° \mathfrak{H} 29'56	18°29'10
morning rise	3269 Mar 24 17:57	22° \mathfrak{H} 33'31		retrograde	3270 Feb 21 00:50	18° \mathfrak{H} 04'30	
direct	3269 Mar 31 15:35	19° \mathfrak{H} 58'04		evening set	3270 Feb 24 01:34	17° \mathfrak{H} 13'24	
desc. node	3269 Apr 05 05:40	20° \mathfrak{H} 58'31		inferior conj	3270 Mar 01 22:44	11° \mathfrak{H} 40'05	3°37'56
morning max el	3269 Apr 14 15:41	27° \mathfrak{H} 55'25	27°49'51	minimum elong	3270 Mar 01 22:03	11° \mathfrak{H} 42'08	3°37'54
	3269 Apr 16 15:30	0° \mathfrak{Y}		min. Earth dist.	3270 Mar 04 02:05	9° \mathfrak{H} 09'26	0.64507 AU
	3269 May 07 16:45	0° \mathfrak{B}		morning rise	3270 Mar 07 17:04	5° \mathfrak{H} 29'38	
morning set	3269 May 18 14:44	20° \mathfrak{B} 25'15		direct	3270 Mar 14 11:48	2° \mathfrak{H} 41'04	
	3269 May 23 05:30	0° \mathfrak{I}		desc. node	3270 Mar 23 02:43	6° \mathfrak{H} 13'01	
max. Earth dist.	3269 May 24 03:13	1° \mathfrak{I} 55'49	1.32608 AU	morning max el	3270 Mar 28 01:04	10° \mathfrak{H} 34'02	27°22'45
asc. node	3269 May 25 17:24	5° \mathfrak{I} 21'20			3270 Apr 12 08:53	0° \mathfrak{Y}	
					3270 Apr 30 02:56	0° \mathfrak{B}	
superior conj	3269 May 26 05:43	6° \mathfrak{I} 27'59	0°05'24	morning set	3270 May 02 07:06	4° \mathfrak{B} 11'40	
minimum elong	3269 May 26 05:27	6° \mathfrak{I} 26'35	0°05'21	max. Earth dist.	3270 May 07 02:43	13° \mathfrak{B} 53'14	1.33504 AU
behind sun begin	3269 May 26 00:31	5° \mathfrak{I} 59'51					
behind sun end	3269 May 26 10:23	6° \mathfrak{I} 53'20		superior conj	3270 May 10 10:27	20° \mathfrak{B} 50'48	0°-22'-30
evening rise	3269 Jun 02 05:38	21° \mathfrak{I} 36'31		minimum elong	3270 May 10 11:36	20° \mathfrak{B} 56'53	0°22'17
	3269 Jun 06 07:11	0° \mathfrak{E}		asc. node	3270 May 12 14:26	25° \mathfrak{B} 27'41	
	3269 Jun 26 01:49	0° Ω			3270 May 14 17:20	0° \mathfrak{I}	
evening max el	3269 Jun 26 06:47	0° Ω 12'04	23°51'13	evening rise	3270 May 17 16:51	6° \mathfrak{I} 19'58	
desc. node	3269 Jul 02 04:53	4° Ω 48'11			3270 May 30 10:31	0° \mathfrak{E}	

evening max el	3270 Jun 07 21:51	10°  38'14	22°14'45	evening max el	3271 May 20 21:58	21°  27'58	20°47'34
desc. node	3270 Jun 19 01:56	16°  55'08		retrograde	3271 Jun 01 08:26	27°  02'55	
retrograde	3270 Jun 20 19:29	17°  02'03		evening set	3271 Jun 03 11:14	26°  52'11	
evening set	3270 Jun 23 18:09	16°  42'50		desc. node	3271 Jun 05 22:56	26°  14'08	
min. Earth dist.	3270 Jul 02 03:54	13°  05'13	0.55084 AU	inferior conj	3271 Jun 12 18:07	22°  54'51	-1°-58'-59
inferior conj	3270 Jul 03 00:43	12°  35'53	-3°-45'-49	minimum elong	3271 Jun 12 12:33	23°  02'47	1°57'02
minimum elong	3270 Jul 02 16:25	12°  47'36	3°43'38	min. Earth dist.	3271 Jun 13 15:57	22°  23'42	0.54901 AU
morning rise	3270 Jul 11 16:46	8°  45'17		morning rise	3271 Jun 21 12:56	18°  50'34	
direct	3270 Jul 14 18:59	8°  23'51		direct	3271 Jun 25 04:12	18°  22'05	
morning max el	3270 Jul 26 11:29	13°  50'37	21°20'40	morning max el	3271 Jul 08 07:07	24°  40'18	22°59'02
	3270 Aug 07 09:51	0°  0			3271 Jul 13 04:38	0°  0	
asc. node	3270 Aug 08 13:41	2°  03'50		asc. node	3271 Jul 26 10:43	21°  02'14	
morning set	3270 Aug 15 13:41	15°  04'57			3271 Jul 30 16:54	0°  0	
	3270 Aug 22 08:23	0°  0		morning set	3271 Jul 31 00:37	0°  04'31	
superior conj	3270 Aug 22 22:49	1°  15'01	1°43'27	superior conj	3271 Aug 07 03:32	15°  05'42	1°36'06
minimum elong	3270 Aug 22 21:59	1°  10'40	1°43'26	minimum elong	3271 Aug 07 01:42	15°  04'38	1°35'57
max. Earth dist.	3270 Aug 27 03:07	9°  46'18	1.35230 AU	max. Earth dist.	3271 Aug 09 22:35	21°  04'13	1.33827 AU
evening rise	3270 Aug 31 10:23	18°  09'12			3271 Aug 13 22:23	0°  0	
	3270 Sep 06 22:54	0°  0		evening rise	3271 Aug 14 21:48	1°  05'62	
desc. node	3270 Sep 15 01:13	13°  01'18'06			3271 Aug 30 20:43	0°  0	
	3270 Sep 26 20:47	0°  0		desc. node	3271 Sep 01 22:14	3°  07'51	
evening max el	3270 Oct 05 18:31	10°  02'29	26°38'24	evening max el	3271 Sep 18 06:39	23°  02'33	27°16'11
retrograde	3270 Oct 18 17:39	17°  17'03			3271 Sep 27 15:24	0°  0	
evening set	3270 Oct 25 06:34	14°  38'14		retrograde	3271 Oct 01 17:15	0°  04'07	
min. Earth dist.	3270 Oct 29 08:37	10°  02'28	0.66046 AU		3271 Oct 05 13:25	30°  00'00	
inferior conj	3270 Oct 31 02:21	8°  23'13	-1°-30'-20	evening set	3271 Oct 08 16:33	28°  06'48	
minimum elong	3270 Oct 31 04:50	8°  15'52	1°29'20	min. Earth dist.	3271 Oct 12 12:08	24°  03'14	0.64716 AU
asc. node	3270 Nov 04 12:54	3°  38'04		inferior conj	3271 Oct 14 18:07	22°  04'36	-2°-30'-41
morning rise	3270 Nov 06 04:30	2°  38'04		minimum elong	3271 Oct 14 22:16	21°  03'15	2°29'09
direct	3270 Nov 09 00:59	1°  52'32		morning rise	3271 Oct 21 06:01	16°  03'39	
morning max el	3270 Nov 15 15:45	5°  29'06	18°27'33	asc. node	3271 Oct 22 09:56	16°  09'39	
	3270 Dec 02 14:45	0°  0		direct	3271 Oct 23 19:30	15°  05'21	
morning set	3270 Dec 05 11:55	4°  03'72		morning max el	3271 Oct 30 07:23	19°  02'40	18°00'18
desc. node	3270 Dec 12 00:30	15°  02'31			3271 Nov 07 04:39	0°  0	
superior conj	3270 Dec 21 05:35	29°  03'43	0°-59'-47	morning set	3271 Nov 16 20:27	15°  05'54	
minimum elong	3270 Dec 20 22:12	29°  05'34	0°58'54		3271 Nov 25 08:10	0°  0	
	3270 Dec 21 12:04	0°  0		desc. node	3271 Nov 28 21:30	5°  04'10	
max. Earth dist.	3270 Dec 22 03:09	0°  05'11	1.45222 AU	superior conj	3271 Nov 30 15:25	8°  03'43	0°-11'-54
evening rise	3271 Jan 06 07:41	24°  05'13		minimum elong	3271 Nov 30 13:58	8°  02'43	0°11'41
	3271 Jan 09 13:43	0°  0		behind sun begin	3271 Nov 30 06:37	7°  05'17	
greatest brilliancy	3271 Jan 18 09:52	13°  05'01	-0.7m	behind sun end	3271 Nov 30 21:19	8°  05'07	
evening max el	3271 Jan 28 21:46	27°  05'8'40	19°06'13	max. Earth dist.	3271 Dec 04 21:56	15°  02'20	1.44861 AU
	3271 Jan 31 03:32	0°  0			3271 Dec 14 06:47	0°  0	
asc. node	3271 Jan 31 12:12	0°  08'16'08		evening rise	3271 Dec 16 23:59	4°  03'14	
retrograde	3271 Feb 04 20:16	1°  05'10			3272 Jan 03 02:37	0°  0	
evening set	3271 Feb 08 03:31	0°  08'51'44		greatest brilliancy	3272 Jan 05 04:53	2°  05'48	-0.6m
	3271 Feb 09 07:26	30°  00'00		evening max el	3272 Jan 12 02:56	11°  02'32	19°59'14
inferior conj	3271 Feb 13 18:37	25°  01'44	3°24'34	asc. node	3272 Jan 18 09:13	15°  04'23	
minimum elong	3271 Feb 13 16:45	25°  07'38	3°24'18	retrograde	3272 Jan 19 17:59	15°  05'34	
min. Earth dist.	3271 Feb 15 06:37	23°  07'23	0.65969 AU	evening set	3272 Jan 23 09:12	14°  03'31	
morning rise	3271 Feb 19 05:04	18°  04'27		inferior conj	3272 Jan 28 20:38	8°  03'52	2°59'29
direct	3271 Feb 25 14:45	15°  05'20		minimum elong	3272 Jan 28 18:11	8°  04'38	2°58'55
desc. node	3271 Mar 09 23:43	23°  07'32		min. Earth dist.	3272 Jan 29 18:31	7°  02'10	0.67022 AU
morning max el	3271 Mar 10 11:01	23°  03'54	26°26'01	morning rise	3272 Feb 03 02:33	2°  01'52	
	3271 Mar 16 04:16	0°  0			3272 Feb 07 00:24	30°  00'00	
	3271 Apr 05 17:17	0°  0		direct	3272 Feb 08 23:27	29°  04'32	
morning set	3271 Apr 15 11:35	17°  09'30			3272 Feb 11 00:42	0°  0	
max. Earth dist.	3271 Apr 19 15:02	25°  09'17'46	1.34860 AU	morning max el	3272 Feb 20 19:48	6°  04'06	25°08'46
	3271 Apr 21 23:43	0°  0		desc. node	3272 Feb 24 20:44	11°  03'07	
superior conj	3271 Apr 24 08:43	4°  04'57	0°-51'-14		3272 Mar 09 20:49	0°  0	
minimum elong	3271 Apr 24 11:24	5°  03'45	0°50'44	morning set	3272 Mar 27 23:20	29°  03'41	
asc. node	3271 Apr 29 11:29	15°  08'27'58			3272 Mar 28 05:05	0°  0	
evening rise	3271 May 02 01:34	20°  08'50'54		max. Earth dist.	3272 Mar 31 16:02	6°  09'27	1.36653 AU
	3271 May 06 14:48	0°  0		superior conj	3272 Apr 06 21:35	18°  09'17'05	-1°-19'-4

minimum elong	3272 Apr 07 01:37	18° Υ 36'59	1°18'27	desc. node	3273 Feb 10 17:46	0° \approx 09'37	
	3272 Apr 12 17:42	0° \mathcal{B}			3273 Feb 10 14:48	0° \approx	
evening rise	3272 Apr 15 05:30	5° \mathcal{B} 02'18			3273 Mar 03 01:46	0° \mathcal{H}	
asc. node	3272 Apr 15 08:31	5° \mathcal{B} 17'31		morning set	3273 Mar 09 12:20	10° \mathcal{H} 39'36	
	3272 Apr 29 17:43	0° Π		max. Earth dist.	3273 Mar 13 11:15	17° \mathcal{H} 30'48	1.38755 AU
evening max el	3272 May 02 10:16	2° Π 57'27	19°37'32		3273 Mar 20 08:01	0° Υ	
retrograde	3272 May 12 02:42	7° Π 39'16					
evening set	3272 May 14 02:21	7° Π 28'19		superior conj	3273 Mar 20 21:22	1° Υ 02'38	-1°-43'-29
inferior conj	3272 May 22 19:40	3° Π 24'53	0°00'11	minimum elong	3273 Mar 21 01:56	1° Υ 24'09	1°43'01
minimum elong	3272 May 22 19:41	3° Π 24'53	0°00'11	evening rise	3273 Mar 30 02:01	18° Υ 46'59	
transit middle	3272 May 22 19:41	3° Π 24'53	0°00'11	asc. node	3273 Apr 02 05:33	24° Υ 51'20	
transit begin	3272 May 22 15:45	3° Π 31'04			3273 Apr 04 23:53	0° \mathcal{B}	
transit end	3272 May 22 23:36	3° Π 18'41		evening max el	3273 Apr 15 09:24	15° \mathcal{B} 06'19	18°47'20
desc. node	3272 May 22 19:56	3° Π 24'28		retrograde	3273 Apr 23 13:35	19° \mathcal{B} 05'56	
min. Earth dist.	3272 May 25 05:48	1° Π 53'35	0.55682 AU	evening set	3273 Apr 25 17:50	18° \mathcal{B} 50'00	
	3272 May 28 14:31	30° $\mathcal{R}\mathcal{B}$		inferior conj	3273 May 03 15:55	14° \mathcal{B} 29'11	1°40'26
morning rise	3272 May 31 09:27	28° \mathcal{B} 50'33		minimum elong	3273 May 03 19:18	14° \mathcal{B} 22'59	1°39'22
direct	3272 Jun 04 21:38	28° \mathcal{B} 05'07		min. Earth dist.	3273 May 06 22:18	12° \mathcal{B} 06'36	0.57256 AU
	3272 Jun 12 01:05	0° Π		desc. node	3273 May 09 16:58	10° \mathcal{B} 20'01	
morning max el	3272 Jun 18 21:26	5° Π 06'23	24°41'37	morning rise	3273 May 11 16:22	9° \mathcal{B} 20'07	
	3272 Jul 06 15:31	0° \mathcal{S}		direct	3273 May 17 04:34	8° \mathcal{B} 06'17	
asc. node	3272 Jul 12 07:45	11° \mathcal{S} 01'11		morning max el	3273 May 31 12:44	15° \mathcal{B} 36'15	26°13'14
morning set	3272 Jul 14 12:26	15° \mathcal{S} 35'33			3273 Jun 12 03:55	0° Π	
	3272 Jul 21 04:09	0° \mathcal{Q}		morning set	3273 Jun 28 23:29	0° \mathcal{S} 27'15	
					3273 Jun 28 18:18	0° \mathcal{S}	
superior conj	3272 Jul 21 12:35	0° \mathcal{Q} 45'54	1°23'23	asc. node	3273 Jun 29 04:47	0° \mathcal{S} 55'19	
minimum elong	3272 Jul 21 10:16	0° \mathcal{Q} 33'19	1°23'05				
max. Earth dist.	3272 Jul 23 02:43	4° \mathcal{Q} 12'58	1.32840 AU	superior conj	3273 Jul 05 23:52	15° \mathcal{S} 41'58	1°06'07
evening rise	3272 Jul 28 19:18	16° \mathcal{Q} 12'53		minimum elong	3273 Jul 05 21:34	15° \mathcal{S} 29'19	1°05'43
	3272 Aug 04 22:10	0° \mathcal{P}		max. Earth dist.	3273 Jul 06 12:38	16° \mathcal{S} 52'15	1.32262 AU
desc. node	3272 Aug 18 19:15	22° \mathcal{P} 24'15		evening rise	3273 Jul 12 23:45	0° \mathcal{Q} 48'28	
	3272 Aug 24 15:16	0° \mathcal{A}			3273 Jul 12 14:29	0° \mathcal{Q}	
evening max el	3272 Aug 30 17:04	6° \mathcal{A} 33'12	27°26'01		3273 Jul 28 23:12	0° \mathcal{P}	
retrograde	3272 Sep 13 10:23	13° \mathcal{A} 49'31		desc. node	3273 Aug 05 16:17	10° \mathcal{P} 52'48	
evening set	3272 Sep 20 14:54	11° \mathcal{A} 16'13		evening max el	3273 Aug 12 22:56	18° \mathcal{P} 58'44	27°03'16
min. Earth dist.	3272 Sep 24 06:05	8° \mathcal{A} 12'56	0.63055 AU	retrograde	3273 Aug 26 20:04	26° \mathcal{P} 11'12	
inferior conj	3272 Sep 27 00:04	5° \mathcal{A} 31'22	-3°-29'-12	evening set	3273 Sep 02 21:29	23° \mathcal{P} 58'24	
minimum elong	3272 Sep 27 05:32	5° \mathcal{A} 17'58	3°27'32	min. Earth dist.	3273 Sep 06 13:13	21° \mathcal{P} 17'23	0.61121 AU
morning rise	3272 Oct 03 22:44	0° \mathcal{A} 17'53		inferior conj	3273 Sep 09 16:57	18° \mathcal{P} 34'07	-4°-20'-49
	3272 Oct 04 23:17	30° $\mathcal{R}\mathcal{P}$		minimum elong	3273 Sep 09 22:31	18° \mathcal{P} 22'02	4°19'37
direct	3272 Oct 06 07:57	29° \mathcal{P} 51'12		morning rise	3273 Sep 17 02:37	13° \mathcal{P} 41'42	
	3272 Oct 07 16:26	0° \mathcal{A}		direct	3273 Sep 19 10:40	13° \mathcal{P} 19'37	
asc. node	3272 Oct 08 06:57	0° \mathcal{A} 09'38		asc. node	3273 Sep 25 04:00	15° \mathcal{P} 37'44	
morning max el	3272 Oct 12 23:47	3° \mathcal{A} 17'20	17°50'41	morning max el	3273 Sep 26 13:48	16° \mathcal{P} 52'41	17°59'43
morning set	3272 Oct 29 05:20	28° \mathcal{A} 24'35			3273 Oct 05 20:09	0° \mathcal{A}	
	3272 Oct 30 03:02	0° \mathcal{M}		morning set	3273 Oct 12 08:03	11° \mathcal{A} 43'56	
					3273 Oct 22 09:44	0° \mathcal{M}	
superior conj	3272 Nov 10 00:42	18° \mathcal{M} 44'47	0°32'22				
minimum elong	3272 Nov 10 03:48	18° \mathcal{M} 57'45	0°31'56	superior conj	3273 Oct 22 12:43	0° \mathcal{M} 13'07	1°06'31
desc. node	3272 Nov 14 18:32	26° \mathcal{M} 33'31		minimum elong	3273 Oct 22 17:01	0° \mathcal{M} 32'02	1°05'59
max. Earth dist.	3272 Nov 16 14:42	29° \mathcal{M} 32'00	1.43812 AU	max. Earth dist.	3273 Oct 30 02:58	13° \mathcal{M} 11'29	1.42196 AU
	3272 Nov 16 21:40	0° \mathcal{X}		desc. node	3273 Nov 01 15:35	17° \mathcal{M} 20'35	
evening rise	3272 Nov 25 09:08	13° \mathcal{X} 20'46		evening rise	3273 Nov 05 03:27	22° \mathcal{M} 57'59	
	3272 Dec 06 09:22	0° \mathcal{Z}			3273 Nov 09 15:13	0° \mathcal{X}	
greatest brilliancy	3272 Dec 19 20:33	18° \mathcal{Z} 54'43	-0.4m		3273 Nov 30 12:46	0° \mathcal{Z}	
evening max el	3272 Dec 25 02:43	25° \mathcal{Z} 01'58	21°05'29	greatest brilliancy	3273 Dec 03 03:09	3° \mathcal{Z} 15'25	-0.3m
	3273 Jan 01 14:46	0° \approx		evening max el	3273 Dec 07 21:08	8° \mathcal{Z} 35'41	22°21'10
retrograde	3273 Jan 02 15:46	0° \approx 05'39		retrograde	3273 Dec 17 11:57	14° \mathcal{Z} 18'51	
	3273 Jan 03 16:13	30° $\mathcal{R}\mathcal{Z}$		evening set	3273 Dec 22 00:24	12° \mathcal{Z} 30'25	
asc. node	3273 Jan 04 06:14	29° \mathcal{Z} 51'32		asc. node	3273 Dec 22 03:15	12° \mathcal{Z} 24'32	
evening set	3273 Jan 06 16:43	28° \mathcal{Z} 33'29		inferior conj	3273 Dec 27 10:00	6° \mathcal{Z} 07'28	1°43'13
inferior conj	3273 Jan 12 02:26	22° \mathcal{Z} 18'17	2°25'08	minimum elong	3273 Dec 27 07:54	6° \mathcal{Z} 14'43	1°42'27
minimum elong	3273 Jan 11 23:56	22° \mathcal{Z} 26'54	2°24'22	min. Earth dist.	3273 Dec 27 07:41	6° \mathcal{Z} 15'28	0.67937 AU
min. Earth dist.	3273 Jan 12 11:38	21° \mathcal{Z} 46'36	0.67674 AU	morning rise	3274 Jan 01 15:16	29° \mathcal{X} 54'55	
morning rise	3273 Jan 17 06:46	16° \mathcal{Z} 03'19			3274 Jan 01 12:52	30° $\mathcal{R}\mathcal{X}$	
direct	3273 Jan 22 12:58	13° \mathcal{Z} 46'07		direct	3274 Jan 06 06:26	28° \mathcal{X} 00'24	
morning max el	3273 Feb 02 04:18	20° \mathcal{Z} 06'15	23°41'16		3274 Jan 11 13:29	0° \mathcal{Z}	

morning max el	3274 Jan 15 15:42	3°☾31'39	22°13'21	morning rise	3274 Dec 17 01:59	13°☾52'12	
greatest brilliancy	3274 Jan 20 05:48	8°☾39'37	-0.3m	direct	3274 Dec 21 02:54	12°☾20'29	
desc. node	3274 Jan 28 14:49	19°☾42'40		morning max el	3274 Dec 29 09:17	17°☾07'02	20°52'37
	3274 Feb 04 17:42	0°☾		greatest brilliancy	3275 Jan 04 00:33	23°☾39'05	-0.5m
morning set	3274 Feb 17 21:15	20°☾23'34			3275 Jan 08 18:05	0°☾	
max. Earth dist.	3274 Feb 23 08:44	29°☾26'08	1.40914 AU	desc. node	3275 Jan 15 11:51	9°☾41'40	
	3274 Feb 23 16:46	0°☾		morning set	3275 Jan 28 03:24	28°☾54'20	
					3275 Jan 28 20:12	0°☾	
superior conj	3274 Mar 03 03:25	12°☾55'12	-2°00'-55	max. Earth dist.	3275 Feb 05 12:45	12°☾15'31	1.42843 AU
minimum elong	3274 Mar 03 06:45	13°☾10'05	2°00'47				
	3274 Mar 12 10:47	0°☾		superior conj	3275 Feb 12 10:30	23°☾42'16	-2°-6'-36
evening rise	3274 Mar 13 11:51	1°☾57'08		minimum elong	3275 Feb 12 09:50	23°☾39'25	2°06'36
asc. node	3274 Mar 20 02:36	14°☾03'49			3275 Feb 16 02:55	0°☾	
evening max el	3274 Mar 29 16:19	27°☾47'10	18°17'18	evening rise	3275 Feb 24 06:56	14°☾22'53	
	3274 Apr 01 10:45	0°☾			3275 Mar 05 05:49	0°☾	
retrograde	3274 Apr 05 19:40	1°☾20'54		asc. node	3275 Mar 06 23:38	2°☾47'13	
evening set	3274 Apr 08 05:53	0°☾57'07		evening max el	3275 Mar 13 03:39	10°☾50'23	18°07'00
	3274 Apr 10 09:13	30°☾		retrograde	3275 Mar 19 17:36	14°☾13'44	
inferior conj	3274 Apr 15 09:41	26°☾15'21	2°48'27	evening set	3275 Mar 22 09:28	13°☾40'18	
minimum elong	3274 Apr 15 13:15	26°☾07'41	2°47'40	inferior conj	3275 Mar 28 22:29	8°☾37'43	3°25'50
min. Earth dist.	3274 Apr 18 19:50	23°☾20'27	0.59299 AU	minimum elong	3275 Mar 29 00:32	8°☾32'39	3°25'35
morning rise	3274 Apr 22 16:43	20°☾37'38		min. Earth dist.	3275 Apr 01 00:48	5°☾35'10	0.61471 AU
desc. node	3274 Apr 26 14:00	19°☾04'49		morning rise	3275 Apr 04 12:42	2°☾41'25	
direct	3274 Apr 29 00:43	18°☾48'32		direct	3275 Apr 11 08:05	0°☾19'41	
morning max el	3274 May 13 09:35	26°☾36'07	27°18'56	desc. node	3275 Apr 13 11:03	0°☾32'35	
	3274 May 16 14:45	0°☾		morning max el	3275 Apr 25 12:44	8°☾16'35	27°49'19
	3274 Jun 05 15:09	0°☾			3275 May 12 03:59	0°☾	
morning set	3274 Jun 13 08:07	15°☾10'20		morning set	3275 May 28 12:23	29°☾37'35	
asc. node	3274 Jun 16 01:51	20°☾59'01			3275 May 28 16:45	0°☾	
				asc. node	3275 Jun 02 22:55	11°☾07'00	
superior conj	3274 Jun 20 11:39	0°☾36'52	0°44'58	max. Earth dist.	3275 Jun 03 10:49	12°☾11'29	1.32296 AU
minimum elong	3274 Jun 20 09:49	0°☾26'49	0°44'36				
max. Earth dist.	3274 Jun 20 00:41	29°☾36'30	1.32081 AU	superior conj	3275 Jun 04 22:09	15°☾24'09	0°20'36
	3274 Jun 20 04:57	0°☾		minimum elong	3275 Jun 04 21:13	15°☾19'02	0°20'24
evening rise	3274 Jun 27 08:42	15°☾35'21		evening rise	3275 Jun 11 20:01	0°☾25'47	
	3274 Jul 04 13:27	0°☾			3275 Jun 11 15:10	0°☾	
desc. node	3274 Jul 23 13:18	28°☾13'49			3275 Jun 28 02:18	0°☾	
	3274 Jul 25 06:36	0°☾		evening max el	3275 Jul 07 13:39	11°☾29'41	24°45'28
evening max el	3274 Jul 25 21:48	0°☾36'49	26°07'36	desc. node	3275 Jul 10 10:19	14°☾00'03	
retrograde	3274 Aug 08 21:15	7°☾46'17		retrograde	3275 Jul 21 12:06	18°☾32'54	
evening set	3274 Aug 15 07:30	6°☾05'56		evening set	3275 Jul 26 17:28	17°☾31'08	
min. Earth dist.	3274 Aug 19 10:26	3°☾31'02	0.59056 AU	min. Earth dist.	3275 Aug 01 00:58	14°☾43'11	0.57104 AU
inferior conj	3274 Aug 22 17:10	1°☾03'30	-4°-56'-59	inferior conj	3275 Aug 03 21:48	12°☾50'51	-5°-4'-47
minimum elong	3274 Aug 22 20:35	0°☾57'02	4°56'39	minimum elong	3275 Aug 03 20:15	12°☾53'23	5°04'44
	3274 Aug 24 03:23	30°☾		morning rise	3275 Aug 12 02:41	8°☾43'58	
morning rise	3274 Aug 30 13:11	26°☾34'31		direct	3275 Aug 14 17:07	8°☾24'57	
direct	3274 Sep 01 23:04	26°☾14'48		morning max el	3275 Aug 23 21:59	12°☾43'11	19°18'54
	3274 Sep 09 20:24	0°☾		asc. node	3275 Aug 29 22:07	20°☾02'50	
morning max el	3274 Sep 09 22:16	0°☾04'27	18°28'42		3275 Sep 04 19:45	0°☾	
asc. node	3274 Sep 12 01:03	2°☾20'29		morning set	3275 Sep 09 23:34	9°☾59'49	
morning set	3274 Sep 25 23:24	25°☾39'03					
	3274 Sep 28 05:34	0°☾		superior conj	3275 Sep 18 03:41	26°☾15'00	1°41'23
				minimum elong	3275 Sep 18 05:19	26°☾22'53	1°41'19
superior conj	3274 Oct 04 23:33	12°☾48'24	1°29'10		3275 Sep 20 02:16	0°☾	
minimum elong	3274 Oct 05 02:54	13°☾03'53	1°28'52	max. Earth dist.	3275 Sep 24 13:39	8°☾22'40	1.38140 AU
max. Earth dist.	3274 Oct 12 09:46	26°☾07'48	1.40219 AU	evening rise	3275 Sep 28 09:14	15°☾12'40	
	3274 Oct 14 15:57	0°☾		desc. node	3275 Oct 06 09:38	28°☾39'50	
evening rise	3274 Oct 16 18:30	3°☾32'22			3275 Oct 07 05:41	0°☾	
desc. node	3274 Oct 19 12:37	8°☾03'57			3275 Oct 28 14:35	0°☾	
	3274 Nov 02 21:36	0°☾		evening max el	3275 Nov 02 23:51	5°☾51'47	24°58'45
evening max el	3274 Nov 20 11:27	22°☾11'44	23°41'05	retrograde	3275 Nov 14 18:21	12°☾41'40	
retrograde	3274 Dec 01 05:11	28°☾32'11		evening set	3275 Nov 20 09:42	10°☾21'03	
evening set	3274 Dec 06 06:36	26°☾27'08		min. Earth dist.	3275 Nov 24 23:19	5°☾13'15	0.67411 AU
asc. node	3274 Dec 09 00:18	23°☾35'27		inferior conj	3275 Nov 25 23:04	3°☾55'06	0°01'29
min. Earth dist.	3274 Dec 11 04:21	20°☾45'09	0.67844 AU	minimum elong	3275 Nov 25 23:02	3°☾55'13	0°01'28
inferior conj	3274 Dec 11 17:27	20°☾00'25	0°54'58	transit middle	3275 Nov 25 23:02	3°☾55'13	0°01'28
minimum elong	3274 Dec 11 16:12	20°☾04'43	0°54'27	transit begin	3275 Nov 25 20:17	4°☾04'18	

transit end	3275 Nov 26 01:47	3°♂46'09		min. Earth dist.	3276 Nov 07 14:05	19°♂36'02	0.66642 AU
asc. node	3275 Nov 25 21:20	4°♂00'48		inferior conj	3276 Nov 09 00:58	17°♂47'44	0°-56'00
	3275 Nov 29 03:41	30°♂♂		minimum elong	3276 Nov 09 02:27	17°♂43'06	0°55'23
morning rise	3275 Dec 01 12:56	27°♂53'30		asc. node	3276 Nov 11 18:23	14°♂35'08	
direct	3275 Dec 05 01:14	26°♂42'22		morning rise	3276 Nov 14 22:06	11°♂55'31	
	3275 Dec 11 12:26	0°♂		direct	3276 Nov 17 23:47	11°♂01'37	
morning max el	3275 Dec 12 10:39	0°♂53'27	19°44'13	morning max el	3276 Nov 24 19:14	14°♂47'46	18°50'51
greatest brilliancy	3275 Dec 20 06:06	10°♂32'32	-0.6m		3276 Dec 06 02:45	0°♂	
desc. node	3276 Jan 02 08:53	29°♂59'36		morning set	3276 Dec 16 10:48	16°♂07'02	
	3276 Jan 02 09:00	0°♂		desc. node	3276 Dec 19 05:53	20°♂30'32	
morning set	3276 Jan 06 23:31	7°♂04'44			3276 Dec 25 07:05	0°♂	
max. Earth dist.	3276 Jan 18 23:54	25°♂52'28	1.44296 AU	max. Earth dist.	3276 Dec 31 16:42	10°♂02'36	1.45097 AU
	3276 Jan 21 13:58	0°♂					
superior conj	3276 Jan 23 15:36	3°♂19'34	-1°-55'-16	superior conj	3277 Jan 01 23:05	12°♂01'59	-1°-24'-35
minimum elong	3276 Jan 23 09:06	2°♂53'23	1°54'54	minimum elong	3277 Jan 01 14:00	11°♂26'17	1°23'39
evening rise	3276 Feb 06 06:53	25°♂56'11			3277 Jan 13 06:46	0°♂	
	3276 Feb 08 16:20	0°♂		evening rise	3277 Jan 17 08:02	6°♂31'33	
asc. node	3276 Feb 21 20:40	20°♂52'48			3277 Feb 01 04:08	0°♂	
evening max el	3276 Feb 24 16:23	24°♂08'31	18°15'48	evening max el	3277 Feb 07 03:49	7°♂34'45	18°42'55
retrograde	3276 Mar 02 02:57	27°♂35'17		asc. node	3277 Feb 07 17:41	8°♂08'59	
evening set	3276 Mar 05 00:21	26°♂50'57		retrograde	3277 Feb 13 19:36	11°♂17'01	
inferior conj	3276 Mar 11 02:21	21°♂28'34	3°38'55	evening set	3277 Feb 16 23:03	10°♂20'44	
minimum elong	3276 Mar 11 02:34	21°♂27'59	3°38'54	inferior conj	3277 Feb 22 17:20	4°♂40'15	3°33'52
min. Earth dist.	3276 Mar 13 14:47	18°♂41'17	0.63494 AU	minimum elong	3277 Feb 22 16:04	4°♂44'05	3°33'45
morning rise	3276 Mar 17 02:53	15°♂21'54		min. Earth dist.	3277 Feb 24 14:05	2°♂24'06	0.65183 AU
direct	3276 Mar 24 00:19	12°♂38'44			3277 Feb 26 17:18	30°♂♂	
desc. node	3276 Mar 30 08:06	14°♂33'50		morning rise	3277 Feb 28 07:54	28°♂28'04	
morning max el	3276 Apr 06 20:24	20°♂36'00	27°42'15	direct	3277 Mar 06 23:33	25°♂38'01	
	3276 Apr 14 22:57	0°♂			3277 Mar 16 12:38	0°♂	
	3276 May 04 05:01	0°♂		desc. node	3277 Mar 17 05:07	0°♂34'32	
morning set	3276 May 11 09:56	13°♂41'37		morning max el	3277 Mar 20 06:05	3°♂25'04	27°01'43
max. Earth dist.	3276 May 16 15:05	24°♂24'48	1.32935 AU		3277 Apr 09 07:40	0°♂	
				morning set	3277 Apr 24 21:47	27°♂13'22	
superior conj	3276 May 19 05:37	29°♂58'03	0°-6'-16		3277 Apr 26 08:07	0°♂	
minimum elong	3276 May 19 05:55	29°♂59'42	0°06'13	max. Earth dist.	3277 Apr 29 10:03	6°♂08'18	1.34026 AU
behind sun begin	3276 May 19 01:00	29°♂33'17					
behind sun end	3276 May 19 10:50	0°♂26'09		superior conj	3277 May 03 07:58	14°♂12'25	0°-34'-39
	3276 May 19 05:59	0°♂		minimum elong	3277 May 03 09:46	14°♂21'49	0°34'18
asc. node	3276 May 19 19:58	1°♂15'15		asc. node	3277 May 06 17:00	21°♂19'56	
evening rise	3276 May 26 07:49	15°♂13'44		evening rise	3277 May 10 18:16	29°♂53'16	
	3276 Jun 02 17:20	0°♂			3277 May 10 19:33	0°♂	
evening max el	3276 Jun 18 03:01	21°♂57'27	23°09'46		3277 May 28 12:16	0°♂	
desc. node	3276 Jun 26 07:20	27°♂37'08		evening max el	3277 May 30 21:27	2°♂31'51	21°35'56
retrograde	3276 Jul 01 14:15	28°♂40'47		retrograde	3277 Jun 12 05:21	8°♂35'48	
evening set	3276 Jul 05 07:18	28°♂10'41		desc. node	3277 Jun 13 04:22	8°♂33'41	
min. Earth dist.	3276 Jul 12 12:28	24°♂54'50	0.55610 AU	evening set	3277 Jun 14 17:31	8°♂21'34	
inferior conj	3276 Jul 14 06:46	23°♂53'05	-4°-29'-11	inferior conj	3277 Jun 24 02:18	4°♂20'56	-3°-4'-19
minimum elong	3276 Jul 13 23:45	24°♂03'21	4°27'53	minimum elong	3277 Jun 23 18:26	4°♂31'54	3°01'54
morning rise	3276 Jul 22 19:08	20°♂00'25		min. Earth dist.	3277 Jun 23 23:34	4°♂24'45	0.54893 AU
direct	3276 Jul 25 16:24	19°♂40'26		morning rise	3277 Jul 02 20:15	0°♂27'06	
morning max el	3276 Aug 05 10:27	24°♂39'46	20°30'32	direct	3277 Jul 06 03:28	0°♂03'20	
	3276 Aug 10 04:32	0°♂		morning max el	3277 Jul 18 11:24	5°♂51'56	22°01'04
asc. node	3276 Aug 15 19:11	8°♂30'57		asc. node	3277 Aug 02 16:13	27°♂33'49	
morning set	3276 Aug 24 05:37	24°♂38'00			3277 Aug 03 22:54	0°♂	
	3276 Aug 26 20:05	0°♂		morning set	3277 Aug 08 15:22	9°♂27'40	
superior conj	3276 Aug 31 20:12	10°♂18'22	1°44'49	superior conj	3277 Aug 15 21:23	24°♂47'45	1°41'03
minimum elong	3276 Aug 31 20:09	10°♂18'06	1°44'50	minimum elong	3277 Aug 15 20:03	24°♂40'48	1°40'59
max. Earth dist.	3276 Sep 05 20:26	20°♂15'49	1.36208 AU		3277 Aug 18 09:18	0°♂	
evening rise	3276 Sep 09 20:49	27°♂51'37		max. Earth dist.	3277 Aug 19 11:07	2°♂12'30	1.34591 AU
	3276 Sep 11 00:51	0°♂		evening rise	3277 Aug 24 00:51	11°♂17'48	
desc. node	3276 Sep 22 06:38	19°♂03'01			3277 Sep 03 10:28	0°♂	
	3276 Sep 29 13:42	0°♂		desc. node	3277 Sep 09 03:40	9°♂07'31	
evening max el	3276 Oct 15 12:11	19°♂33'16	26°06'47		3277 Sep 24 22:49	0°♂	
retrograde	3276 Oct 28 02:32	26°♂41'24		evening max el	3277 Sep 28 00:46	3°♂09'05	26°57'30
evening set	3276 Nov 03 07:52	24°♂08'04		retrograde	3277 Oct 11 05:09	10°♂25'20	
				evening set	3277 Oct 17 23:00	7°♂44'35	

min. Earth dist.	3277 Oct 21 22:18	3° \mathbb{M} 49'10	0.65529 AU	min. Earth dist.	3278 Oct 04 21:45	17° \mathbb{A} 44'54	0.64056 AU
inferior conj	3277 Oct 23 21:06	1° \mathbb{M} 34'42	-1°-55'-56	inferior conj	3278 Oct 07 09:02	15° \mathbb{A} 10'17	-2°-55'-59
minimum elong	3277 Oct 24 00:18	1° \mathbb{M} 25'30	1°54'40	minimum elong	3278 Oct 07 13:50	14° \mathbb{A} 57'46	2°54'20
	3277 Oct 25 06:37	30° \mathbb{R} \mathbb{A}		morning rise	3278 Oct 14 01:28	9° \mathbb{A} 46'35	
asc. node	3277 Oct 29 15:25	26° \mathbb{A} 10'46		direct	3278 Oct 16 12:51	9° \mathbb{A} 15'53	
morning rise	3277 Oct 30 03:13	25° \mathbb{A} 55'02		asc. node	3278 Oct 16 12:26	9° \mathbb{A} 15'53	
direct	3277 Nov 01 20:32	25° \mathbb{A} 14'34		morning max el	3278 Oct 23 01:26	12° \mathbb{A} 41'20	17°54'02
morning max el	3277 Nov 08 09:04	28° \mathbb{A} 45'51	18°13'50		3278 Nov 03 23:33	0° \mathbb{M}	
	3277 Nov 09 12:58	0° \mathbb{M}		morning set	3278 Nov 08 22:26	8° \mathbb{M} 27'03	
morning set	3277 Nov 27 02:45	26° \mathbb{M} 36'35					
	3277 Nov 29 04:41	0° \mathbb{A}		superior conj	3278 Nov 21 20:23	0° \mathbb{A} 04'16	0°07'54
desc. node	3277 Dec 06 02:54	11° \mathbb{A} 10'30		minimum elong	3278 Nov 21 21:16	0° \mathbb{A} 07'53	0°07'46
				behind sun begin	3278 Nov 21 12:24	29° \mathbb{M} 31'49	
superior conj	3277 Dec 12 01:44	20° \mathbb{A} 37'35	0°-39'-40	behind sun end	3278 Nov 22 06:08	0° \mathbb{A} 43'54	
minimum elong	3277 Dec 11 20:41	20° \mathbb{A} 17'39	0°39'00		3278 Nov 21 19:20	0° \mathbb{A}	
max. Earth dist.	3277 Dec 14 12:10	24° \mathbb{A} 27'41	1.45162 AU	desc. node	3278 Nov 22 23:57	1° \mathbb{A} 56'07	
	3277 Dec 18 00:57	0° \mathbb{B}		max. Earth dist.	3278 Nov 27 06:41	8° \mathbb{A} 47'52	1.44491 AU
evening rise	3277 Dec 28 10:35	16° \mathbb{B} 14'02		evening rise	3278 Dec 07 21:57	25° \mathbb{A} 24'29	
	3278 Jan 06 07:14	0° \mathbb{A}			3278 Dec 10 21:51	0° \mathbb{B}	
greatest brilliancy	3278 Jan 13 00:14	10° \mathbb{A} 07'33	-0.7m	greatest brilliancy	3278 Dec 29 12:13	27° \mathbb{B} 15'26	-0.5m
evening max el	3278 Jan 21 11:42	21° \mathbb{A} 04'17	19°27'00		3278 Dec 31 15:01	0° \mathbb{A}	
asc. node	3278 Jan 25 14:43	24° \mathbb{A} 22'02		evening max el	3279 Jan 04 14:32	4° \mathbb{A} 35'15	20°26'00
retrograde	3278 Jan 28 16:18	25° \mathbb{A} 12'34		asc. node	3279 Jan 12 11:44	9° \mathbb{A} 17'36	
evening set	3278 Feb 01 02:51	24° \mathbb{A} 03'16		retrograde	3279 Jan 12 14:24	9° \mathbb{A} 17'40	
inferior conj	3278 Feb 06 16:06	18° \mathbb{A} 06'50	3°15'10	evening set	3279 Jan 16 09:33	7° \mathbb{A} 54'13	
minimum elong	3278 Feb 06 13:56	18° \mathbb{A} 13'54	3°14'47	inferior conj	3279 Jan 21 20:00	1° \mathbb{A} 44'45	2°45'56
min. Earth dist.	3278 Feb 07 21:49	16° \mathbb{A} 30'00	0.66466 AU	minimum elong	3279 Jan 21 17:28	1° \mathbb{A} 53'21	2°45'16
morning rise	3278 Feb 12 00:15	11° \mathbb{A} 51'58		min. Earth dist.	3279 Jan 22 12:14	0° \mathbb{A} 49'30	0.67339 AU
direct	3278 Feb 18 04:50	9° \mathbb{A} 07'56			3279 Jan 23 02:56	30° \mathbb{R} \mathbb{B}	
morning max el	3278 Mar 02 15:36	16° \mathbb{A} 31'57	25°55'12	morning rise	3279 Jan 27 00:54	25° \mathbb{B} 29'08	
desc. node	3278 Mar 04 02:07	18° \mathbb{A} 01'47		direct	3279 Feb 01 15:31	23° \mathbb{B} 00'30	
	3278 Mar 13 20:03	0° \mathbb{H}		morning max el	3279 Feb 13 00:14	29° \mathbb{B} 47'43	24°32'21
	3278 Apr 02 05:26	0° \mathbb{Y}			3279 Feb 13 05:05	0° \mathbb{A}	
morning set	3278 Apr 07 19:48	10° \mathbb{Y} 00'07		desc. node	3279 Feb 18 23:08	6° \mathbb{A} 31'02	
max. Earth dist.	3278 Apr 11 17:36	17° \mathbb{Y} 21'52	1.35575 AU		3279 Mar 07 16:56	0° \mathbb{H}	
				morning set	3279 Mar 20 22:42	21° \mathbb{H} 47'29	
superior conj	3278 Apr 17 02:37	27° \mathbb{Y} 58'53	-1°-3'-15	max. Earth dist.	3279 Mar 24 15:33	28° \mathbb{H} 24'16	1.37516 AU
minimum elong	3278 Apr 17 05:56	28° \mathbb{Y} 15'36	1°02'41		3279 Mar 25 12:30	0° \mathbb{Y}	
	3278 Apr 18 02:30	0° \mathbb{B}					
asc. node	3278 Apr 23 14:02	11° \mathbb{B} 16'09		superior conj	3279 Mar 31 10:25	11° \mathbb{Y} 09'15	-1°-30'00
evening rise	3278 Apr 25 01:15	14° \mathbb{B} 16'58		minimum elong	3279 Mar 31 14:50	11° \mathbb{Y} 30'36	1°29'26
	3278 May 03 05:21	0° \mathbb{H}		evening rise	3279 Apr 09 02:25	28° \mathbb{Y} 18'01	
evening max el	3278 May 13 02:37	13° \mathbb{H} 37'17	20°15'24		3279 Apr 09 22:59	0° \mathbb{B}	
retrograde	3278 May 23 19:06	18° \mathbb{H} 49'24		asc. node	3279 Apr 10 11:04	0° \mathbb{B} 59'36	
evening set	3278 May 25 19:09	18° \mathbb{H} 39'13		evening max el	3279 Apr 25 19:46	25° \mathbb{B} 23'41	19°13'43
desc. node	3278 May 31 01:23	16° \mathbb{H} 48'58		retrograde	3279 May 04 19:56	29° \mathbb{B} 46'15	
inferior conj	3278 Jun 03 21:27	14° \mathbb{H} 40'42	-1°-7'-48	evening set	3279 May 06 20:51	29° \mathbb{B} 33'45	
minimum elong	3278 Jun 03 18:16	14° \mathbb{H} 45'24	1°06'40	inferior conj	3279 May 15 06:12	25° \mathbb{B} 23'39	0°46'11
min. Earth dist.	3278 Jun 05 12:00	13° \mathbb{H} 43'56	0.55124 AU	minimum elong	3279 May 15 08:03	25° \mathbb{B} 20'32	0°45'32
morning rise	3278 Jun 12 15:20	10° \mathbb{H} 25'30		desc. node	3279 May 17 22:23	23° \mathbb{B} 36'18	
direct	3278 Jun 16 14:35	9° \mathbb{H} 51'25		min. Earth dist.	3279 May 18 02:59	23° \mathbb{B} 28'50	0.56268 AU
morning max el	3278 Jun 30 04:03	16° \mathbb{H} 28'39	23°42'57	morning rise	3279 May 23 15:06	20° \mathbb{B} 33'58	
	3278 Jul 10 23:47	0° \mathbb{B}		direct	3279 May 28 13:13	19° \mathbb{B} 37'57	
asc. node	3278 Jul 20 13:16	17° \mathbb{B} 01'46		morning max el	3279 Jun 11 18:19	26° \mathbb{B} 53'33	25°22'49
morning set	3278 Jul 24 02:55	24° \mathbb{B} 22'10			3279 Jun 14 18:15	0° \mathbb{H}	
	3278 Jul 26 18:14	0° \mathbb{Q}			3279 Jul 04 01:43	0° \mathbb{B}	
				asc. node	3279 Jul 07 10:19	6° \mathbb{B} 48'01	
superior conj	3278 Jul 31 04:14	9° \mathbb{Q} 33'08	1°31'19	morning set	3279 Jul 08 14:37	9° \mathbb{B} 16'24	
minimum elong	3278 Jul 31 02:08	9° \mathbb{Q} 21'51	1°31'06				
max. Earth dist.	3278 Aug 02 10:42	14° \mathbb{Q} 24'56	1.33363 AU	superior conj	3279 Jul 15 14:30	24° \mathbb{B} 27'23	1°16'35
evening rise	3278 Aug 07 16:59	25° \mathbb{Q} 18'27		minimum elong	3279 Jul 15 12:08	24° \mathbb{B} 14'26	1°16'13
	3278 Aug 10 02:03	0° \mathbb{H}		max. Earth dist.	3279 Jul 16 17:35	26° \mathbb{B} 55'28	1.32546 AU
desc. node	3278 Aug 27 00:42	28° \mathbb{H} 44'28			3279 Jul 18 03:32	0° \mathbb{Q}	
	3278 Aug 27 21:39	0° \mathbb{A}		evening rise	3279 Jul 22 17:46	9° \mathbb{Q} 43'47	
evening max el	3278 Sep 10 12:21	16° \mathbb{A} 27'11	27°23'56		3279 Aug 02 09:52	0° \mathbb{H}	
retrograde	3278 Sep 24 01:54	23° \mathbb{A} 44'56		desc. node	3279 Aug 13 21:44	17° \mathbb{H} 42'23	
evening set	3278 Oct 01 04:27	21° \mathbb{A} 05'21		evening max el	3279 Aug 23 20:56	29° \mathbb{H} 15'04	27°20'17

	3279 Aug 24 16:19	0°♄			3280 Jul 08 17:20	0°♄		
retrograde	3279 Sep 06 16:16	6°♄30'31			3280 Jul 26 07:17	0°♄		
evening set	3279 Sep 13 20:42	4°♄04'00		desc. node	3280 Jul 30 18:44	5°♄45'23		
min. Earth dist.	3279 Sep 17 11:03	1°♄11'56	0.62260 AU	evening max el	3280 Aug 05 00:08	11°♄21'51	26°43'29	
	3279 Sep 18 18:23	30°♄		retrograde	3280 Aug 18 22:53	18°♄33'27		
inferior conj	3279 Sep 20 09:50	28°♄27'26	-3°-52'-23	evening set	3280 Aug 25 19:15	16°♄33'20		
minimum elong	3279 Sep 20 15:32	28°♄14'07	3°50'51	min. Earth dist.	3280 Aug 29 14:06	13°♄56'54	0.60244 AU	
morning rise	3279 Sep 27 13:15	23°♄22'51		inferior conj	3280 Sep 01 20:09	11°♄17'56	-4°-38'-43	
direct	3279 Sep 29 21:30	22°♄58'35		minimum elong	3280 Sep 02 01:10	11°♄07'41	4°37'53	
asc. node	3279 Oct 03 09:30	23°♄54'25		morning rise	3280 Sep 09 10:22	6°♄35'12		
morning max el	3279 Oct 06 17:17	26°♄26'39	17°52'11	direct	3280 Sep 11 18:39	6°♄14'29		
	3279 Oct 09 18:58	0°♄		morning max el	3280 Sep 19 05:25	9°♄53'43	18°09'26	
morning set	3279 Oct 22 15:37	21°♄18'59		asc. node	3280 Sep 19 06:34	9°♄56'31		
	3279 Oct 27 12:12	0°♄			3280 Oct 02 09:05	0°♄		
				morning set	3280 Oct 05 00:20	4°♄55'34		
superior conj	3279 Nov 02 17:16	10°♄48'28	0°48'16					
minimum elong	3279 Nov 02 21:15	11°♄05'27	0°47'43	superior conj	3280 Oct 14 15:43	22°♄47'26	1°17'29	
desc. node	3279 Nov 09 21:00	22°♄43'37		minimum elong	3280 Oct 14 19:47	23°♄05'44	1°17'02	
max. Earth dist.	3279 Nov 09 21:19	22°♄44'53	1.43176 AU		3280 Oct 18 17:29	0°♄		
	3279 Nov 14 09:44	0°♄		max. Earth dist.	3280 Oct 22 06:53	6°♄05'52	1.41387 AU	
evening rise	3279 Nov 17 09:00	4°♄40'05		desc. node	3280 Oct 26 18:04	13°♄29'52		
	3279 Dec 04 07:37	0°♄		evening rise	3280 Oct 27 11:24	14°♄40'11		
greatest brilliancy	3279 Dec 13 14:52	12°♄33'05	-0.4m		3280 Nov 06 07:16	0°♄		
evening max el	3279 Dec 18 11:50	18°♄07'19	21°36'51	greatest brilliancy	3280 Nov 24 21:14	25°♄45'40	-0.2m	
retrograde	3279 Dec 27 11:48	23°♄28'23			3280 Nov 28 13:18	0°♄		
asc. node	3279 Dec 30 08:46	22°♄43'22		evening max el	3280 Nov 30 04:23	1°♄42'16	22°55'03	
evening set	3279 Dec 31 17:20	21°♄49'32		retrograde	3280 Dec 10 06:50	7°♄41'49		
inferior conj	3280 Jan 06 02:47	15°♄30'26	2°08'12	evening set	3280 Dec 15 00:33	5°♄46'34		
minimum elong	3280 Jan 06 00:24	15°♄38'41	2°07'25	asc. node	3280 Dec 16 05:47	4°♄38'48		
min. Earth dist.	3280 Jan 06 07:00	15°♄15'51	0.67823 AU		3280 Dec 19 23:25	30°♄		
morning rise	3280 Jan 11 07:12	9°♄16'00		inferior conj	3280 Dec 20 10:33	29°♄21'38	1°23'29	
direct	3280 Jan 16 06:54	7°♄08'12		minimum elong	3280 Dec 20 08:45	29°♄27'48	1°22'47	
morning max el	3280 Jan 26 09:32	13°♄08'20	23°03'23	min. Earth dist.	3280 Dec 20 03:41	29°♄45'19	0.67944 AU	
greatest brilliancy	3280 Jan 31 06:16	18°♄34'33	-0.3m	morning rise	3280 Dec 25 16:55	23°♄10'27		
desc. node	3280 Feb 05 20:11	25°♄44'14		direct	3280 Dec 30 01:56	21°♄25'32		
	3280 Feb 08 22:42	0°♄		morning max el	3281 Jan 07 23:02	26°♄36'49	21°37'37	
	3280 Feb 28 14:42	0°♄			3281 Jan 11 01:30	0°♄		
morning set	3280 Mar 01 00:12	2°♄18'40		greatest brilliancy	3281 Jan 12 20:29	2°♄09'13	-0.4m	
max. Earth dist.	3280 Mar 05 10:17	9°♄48'18	1.39676 AU	desc. node	3281 Jan 22 17:15	15°♄29'17		
					3281 Feb 01 12:12	0°♄		
superior conj	3280 Mar 13 03:13	23°♄32'50	-1°-52'-1	morning set	3281 Feb 08 20:39	11°♄27'07		
minimum elong	3280 Mar 13 07:33	23°♄52'47	1°51'40	max. Earth dist.	3281 Feb 15 09:46	22°♄04'22	1.41783 AU	
	3280 Mar 16 14:20	0°♄			3281 Feb 20 02:53	0°♄		
evening rise	3280 Mar 22 18:47	11°♄48'08						
asc. node	3280 Mar 27 08:06	20°♄24'35		superior conj	3281 Feb 23 00:04	4°♄58'32	-2°-5'-6	
	3280 Apr 01 21:41	0°♄		minimum elong	3281 Feb 23 02:04	5°♄07'12	2°05'04	
evening max el	3280 Apr 07 22:37	7°♄46'45	18°32'12	evening rise	3281 Mar 05 22:48	24°♄39'34		
retrograde	3280 Apr 15 14:50	11°♄33'12			3281 Mar 08 20:53	0°♄		
evening set	3280 Apr 17 21:34	11°♄14'18		asc. node	3281 Mar 14 05:08	9°♄25'05		
inferior conj	3280 Apr 25 11:35	6°♄45'09	2°13'18	evening max el	3281 Mar 22 07:51	20°♄37'55	18°10'36	
minimum elong	3280 Apr 25 15:22	6°♄37'43	2°12'15	retrograde	3281 Mar 29 03:57	24°♄04'59		
min. Earth dist.	3280 Apr 28 21:34	4°♄05'39	0.58084 AU	evening set	3281 Mar 31 16:46	23°♄37'08		
morning rise	3280 May 03 04:46	1°♄22'33		inferior conj	3281 Apr 07 13:47	18°♄46'31	3°07'44	
desc. node	3280 May 03 19:24	1°♄05'23		minimum elong	3281 Apr 07 16:49	18°♄39'35	3°07'11	
	3280 May 07 12:47	30°♄		min. Earth dist.	3281 Apr 10 21:47	15°♄45'19	0.60229 AU	
direct	3280 May 09 02:22	29°♄53'42		morning rise	3281 Apr 14 13:25	13°♄00'04		
	3280 May 10 16:13	0°♄		desc. node	3281 Apr 20 16:26	10°♄56'37		
morning max el	3280 May 23 11:35	7°♄33'12	26°45'01	direct	3281 Apr 21 03:42	10°♄56'00		
	3280 Jun 09 07:04	0°♄		morning max el	3281 May 05 10:51	18°♄48'00	27°36'32	
morning set	3280 Jun 22 00:52	24°♄05'03			3281 May 14 21:28	0°♄		
asc. node	3280 Jun 23 07:24	26°♄46'45			3281 Jun 02 00:05	0°♄		
	3280 Jun 24 19:21	0°♄		morning set	3281 Jun 06 07:51	8°♄41'35		
				asc. node	3281 Jun 10 04:26	16°♄52'22		
superior conj	3280 Jun 29 02:14	9°♄23'54	0°57'36	max. Earth dist.	3281 Jun 12 16:21	22°♄18'52	1.32118 AU	
minimum elong	3280 Jun 29 00:05	9°♄12'03	0°57'12					
max. Earth dist.	3280 Jun 29 04:42	9°♄37'28	1.32132 AU	superior conj	3281 Jun 13 13:40	24°♄15'57	0°35'00	
evening rise	3280 Jul 06 00:26	24°♄25'12		minimum elong	3281 Jun 13 12:10	24°♄07'43	0°34'42	

	3281 Jun 16 04:13	0°☿		minimum elong	3282 May 28 22:39	8°♊55'39	0°09'23
evening rise	3281 Jun 20 10:36	9°☿14'17		behind sun begin	3282 May 28 18:26	8°♊32'46	
	3281 Jul 01 03:25	0°♊		behind sun end	3282 May 29 02:51	9°♊18'32	
desc. node	3281 Jul 17 15:45	22°♊30'07		evening rise	3282 Jun 04 22:22	24°♊04'35	
evening max el	3281 Jul 17 20:05	22°♊40'30	25°35'28		3282 Jun 07 18:32	0°☿	
retrograde	3281 Jul 31 19:45	29°♊47'25			3282 Jun 26 06:43	0°♊	
evening set	3281 Aug 06 19:14	28°♊23'42		evening max el	3282 Jun 29 10:01	3°♊18'51	24°05'30
min. Earth dist.	3281 Aug 11 08:09	25°♊45'24	0.58194 AU	desc. node	3282 Jul 04 12:44	7°♊25'52	
inferior conj	3281 Aug 14 12:23	23°♊30'51	-5°-4'-41	retrograde	3282 Jul 13 04:56	10°♊15'32	
minimum elong	3281 Aug 14 14:01	23°♊27'58	5°04'39	evening set	3282 Jul 17 19:23	9°♊28'36	
morning rise	3281 Aug 22 12:19	19°♊11'21		min. Earth dist.	3282 Jul 23 20:32	6°♊30'38	0.56397 AU
direct	3281 Aug 24 23:56	18°♊52'00		inferior conj	3282 Jul 26 08:19	4°♊58'19	-4°-55'-45
morning max el	3281 Sep 02 10:29	22°♊52'25	18°47'18	minimum elong	3282 Jul 26 04:13	5°♊04'40	4°55'21
asc. node	3281 Sep 06 03:39	27°♊06'23		morning rise	3282 Aug 03 16:34	0°♊59'07	
	3281 Sep 08 04:49	0°♎		direct	3282 Aug 06 09:52	0°♊39'48	
morning set	3281 Sep 18 19:53	19°♎03'07		morning max el	3282 Aug 16 05:32	5°♊13'28	19°46'49
	3281 Sep 24 10:19	0°♎		asc. node	3282 Aug 24 00:42	15°♊09'22	
					3282 Sep 01 04:30	0°♎	
superior conj	3281 Sep 27 10:34	5°♎46'19	1°35'31	morning set	3282 Sep 02 22:52	3°♎32'09	
minimum elong	3281 Sep 27 13:13	5°♎58'50	1°35'20				
max. Earth dist.	3281 Oct 04 12:21	18°♎44'59	1.39343 AU	superior conj	3282 Sep 10 20:31	19°♎30'05	1°43'48
evening rise	3281 Oct 08 12:40	25°♎43'03		minimum elong	3282 Sep 10 21:24	19°♎34'27	1°43'47
	3281 Oct 11 01:53	0°♏			3282 Sep 16 06:39	0°♎	
desc. node	3281 Oct 13 15:05	4°♏10'34		max. Earth dist.	3282 Sep 16 17:05	0°♎49'01	1.37294 AU
	3281 Oct 30 23:46	0°♏		evening rise	3282 Sep 20 12:45	7°♎49'08	
evening max el	3281 Nov 12 17:50	15°♏20'38	24°14'47	desc. node	3282 Sep 30 12:05	24°♎41'31	
retrograde	3281 Nov 23 22:17	21°♏53'55			3282 Oct 03 21:34	0°♏	
evening set	3281 Nov 29 05:38	19°♏42'07		evening max el	3282 Oct 26 05:59	29°♏01'26	25°29'11
asc. node	3281 Dec 03 02:50	15°♏24'17			3282 Oct 27 06:33	0°♏	
min. Earth dist.	3281 Dec 03 23:51	14°♏14'36	0.67711 AU	retrograde	3282 Nov 07 09:19	6°♏00'07	
inferior conj	3281 Dec 04 17:26	13°♏15'26	0°32'52	evening set	3282 Nov 13 06:51	3°♏33'19	
minimum elong	3281 Dec 04 16:39	13°♏18'04	0°32'32		3282 Nov 16 15:55	30°♏♏	
morning rise	3281 Dec 10 04:00	7°♏09'49		min. Earth dist.	3282 Nov 17 17:12	28°♏40'52	0.67135 AU
direct	3281 Dec 13 23:26	5°♏47'03		inferior conj	3282 Nov 18 21:41	27°♏09'17	0°-22'-29
morning max el	3281 Dec 21 19:49	10°♏16'39	20°21'44	minimum elong	3282 Nov 18 22:16	27°♏07'25	0°22'16
greatest brilliancy	3281 Dec 28 05:23	17°♏52'23	-0.5m	asc. node	3282 Nov 19 23:53	25°♏46'00	
	3282 Jan 05 19:34	0°♐		morning rise	3282 Nov 24 14:28	21°♏11'36	
desc. node	3282 Jan 09 14:19	5°♐37'09		direct	3282 Nov 27 21:59	20°♏08'20	
morning set	3282 Jan 18 19:33	19°♐40'14		morning max el	3282 Dec 05 00:32	24°♏07'10	19°19'33
	3282 Jan 25 09:53	0°♑			3282 Dec 09 23:54	0°♏	
max. Earth dist.	3282 Jan 28 17:31	5°♑17'46	1.43538 AU	greatest brilliancy	3282 Dec 14 10:23	6°♏11'54	-0.7m
				desc. node	3282 Dec 27 11:20	26°♏01'02	
superior conj	3282 Feb 03 20:13	15°♑15'56	-2°-4'-7	morning set	3282 Dec 28 19:23	28°♏05'12	
minimum elong	3282 Feb 03 17:06	15°♑02'59	2°04'03		3282 Dec 30 00:59	0°♐	
	3282 Feb 12 13:14	0°♒		max. Earth dist.	3283 Jan 11 07:46	19°♐12'11	1.44724 AU
evening rise	3282 Feb 16 10:16	6°♒44'03					
asc. node	3282 Mar 01 02:09	27°♒53'35		superior conj	3283 Jan 14 14:46	24°♐25'17	-1°-44'-30
	3282 Mar 02 14:24	0°♓		minimum elong	3283 Jan 14 06:24	23°♐52'02	1°43'51
evening max el	3282 Mar 05 20:09	3°♓48'32	18°08'26		3283 Jan 18 02:27	0°♑	
retrograde	3282 Mar 12 07:23	7°♓11'40		evening rise	3283 Jan 29 00:50	17°♑53'00	
evening set	3282 Mar 15 01:41	6°♓33'34			3283 Feb 05 08:13	0°♒	
inferior conj	3282 Mar 21 09:32	1°♓22'05	3°33'58	asc. node	3283 Feb 15 23:10	15°♒39'25	
minimum elong	3282 Mar 21 10:47	1°♓18'49	3°33'52	evening max el	3283 Feb 17 08:32	17°♒10'05	18°25'07
	3282 Mar 22 16:50	30°♒♒		retrograde	3283 Feb 23 20:26	20°♒42'25	
min. Earth dist.	3282 Mar 24 06:15	28°♒23'56	0.62362 AU	evening set	3283 Feb 26 20:15	19°♒53'09	
morning rise	3282 Mar 27 17:29	25°♒20'44		inferior conj	3283 Mar 04 18:34	14°♒22'36	3°38'41
direct	3282 Apr 03 14:46	22°♒48'34		minimum elong	3283 Mar 04 18:06	14°♒23'58	3°38'40
desc. node	3282 Apr 07 13:28	23°♒33'17		min. Earth dist.	3283 Mar 07 00:17	11°♒47'11	0.64254 AU
	3282 Apr 16 21:27	0°♓		morning rise	3283 Mar 10 14:23	8°♒12'53	
morning max el	3282 Apr 17 16:14	0°♓45'55	27°50'56	direct	3283 Mar 17 09:58	5°♒25'16	
	3282 May 09 00:10	0°♈		desc. node	3283 Mar 25 10:29	8°♒29'21	
morning set	3282 May 21 09:34	22°♈59'51		morning max el	3283 Mar 31 01:19	13°♒20'00	27°28'49
	3282 May 24 18:47	0°♉			3283 Apr 13 11:24	0°♓	
max. Earth dist.	3282 May 27 00:41	4°♉47'09	1.32516 AU		3283 May 01 13:51	0°♈	
asc. node	3282 May 28 01:28	7°♉00'50		morning set	3283 May 05 03:23	6°♈51'01	
				max. Earth dist.	3283 May 10 01:31	16°♈48'41	1.33343 AU
superior conj	3282 May 28 23:05	8°♉58'05	0°09'28				

superior conj	3283 May 13 04:35	23°♄23'43	0°-18'-12	superior conj	3284 Apr 26 03:59	7°♄26'47	0°-46'-52
minimum elong	3283 May 13 05:30	23°♄28'37	0°18'01	minimum elong	3284 Apr 26 06:26	7°♄39'28	0°46'25
asc. node	3283 May 14 22:29	27°♄07'33		asc. node	3284 Apr 30 19:31	17°♄08'47	
	3283 May 16 06:38	0°♄		evening rise	3284 May 03 19:00	23°♄22'06	
evening rise	3283 May 20 09:47	8°♄49'06			3284 May 07 01:10	0°♄	
	3283 May 31 12:49	0°♄		evening max el	3284 May 22 22:51	24°♄28'58	20°59'36
evening max el	3283 Jun 11 00:17	13°♄43'48	22°28'44		3284 Jun 01 11:05	0°♄	
desc. node	3283 Jun 21 09:44	19°♄57'01		retrograde	3284 Jun 03 15:12	0°♄11'35	
retrograde	3283 Jun 24 02:05	20°♄13'33		evening set	3284 Jun 05 19:49	0°♄00'17	
evening set	3283 Jun 27 05:04	19°♄52'02			3284 Jun 05 20:29	30°♄♄	
min. Earth dist.	3283 Jul 05 07:29	16°♄20'24	0.55190 AU	desc. node	3284 Jun 07 06:45	29°♄40'58	
inferior conj	3283 Jul 06 10:12	15°♄42'29	-3°-58'-47	inferior conj	3284 Jun 15 03:42	26°♄02'45	-2°-16'-49
minimum elong	3283 Jul 06 02:01	15°♄54'06	3°56'47	minimum elong	3284 Jun 14 21:24	26°♄11'40	2°14'39
morning rise	3283 Jul 15 01:21	11°♄51'56		min. Earth dist.	3284 Jun 15 19:21	25°♄40'36	0.54866 AU
direct	3283 Jul 18 02:05	11°♄31'03		morning rise	3284 Jun 23 22:29	22°♄01'41	
morning max el	3283 Jul 29 12:59	16°♄50'36	21°07'13	direct	3284 Jun 27 11:29	21°♄34'38	
	3283 Aug 08 15:36	0°♄		morning max el	3284 Jul 10 09:52	27°♄45'35	22°43'47
asc. node	3283 Aug 10 21:44	3°♄52'54			3284 Jul 12 15:20	0°♄	
morning set	3283 Aug 18 06:43	18°♄15'33		asc. node	3284 Jul 27 18:46	23°♄07'00	
	3283 Aug 23 21:38	0°♄			3284 Jul 31 05:23	0°♄	
				morning set	3284 Aug 01 17:24	3°♄07'16	
superior conj	3283 Aug 25 17:07	3°♄45'44	1°44'02	superior conj	3284 Aug 08 21:00	18°♄22'35	1°37'36
minimum elong	3283 Aug 25 16:29	3°♄42'23	1°44'01	minimum elong	3284 Aug 08 19:17	18°♄13'28	1°37'28
max. Earth dist.	3283 Aug 30 02:30	12°♄39'28	1.35467 AU	max. Earth dist.	3284 Aug 11 20:41	24°♄40'07	1.34009 AU
evening rise	3283 Sep 03 07:50	20°♄49'17			3284 Aug 14 11:02	0°♄	
	3283 Sep 08 08:41	0°♄		evening rise	3284 Aug 16 17:27	4°♄31'16	
desc. node	3283 Sep 17 09:05	14°♄57'33			3284 Aug 31 02:31	0°♄	
	3283 Sep 27 19:33	0°♄		desc. node	3284 Sep 03 06:06	4°♄51'17	
evening max el	3283 Oct 08 18:15	12°♄41'10	26°30'51	evening max el	3284 Sep 20 06:37	26°♄11'00	27°12'15
retrograde	3283 Oct 21 15:25	19°♄54'42			3284 Sep 24 19:20	0°♄	
evening set	3283 Oct 28 02:23	17°♄17'05		retrograde	3284 Oct 03 15:51	3°♄29'12	
min. Earth dist.	3283 Nov 01 05:28	13°♄00'47	0.66209 AU	evening set	3284 Oct 10 13:48	0°♄47'50	
inferior conj	3283 Nov 02 21:26	11°♄00'24	-1°-21'-15		3284 Oct 11 12:51	30°♄♄	
minimum elong	3283 Nov 02 23:38	10°♄53'45	1°20'20	min. Earth dist.	3284 Oct 14 10:21	27°♄07'30	0.64934 AU
asc. node	3283 Nov 06 20:55	6°♄41'31		inferior conj	3284 Oct 16 14:25	24°♄43'27	-2°-21'-36
morning rise	3283 Nov 08 22:13	5°♄13'20		minimum elong	3284 Oct 16 18:20	24°♄32'36	2°20'07
direct	3283 Nov 11 19:57	4°♄25'48		morning rise	3284 Oct 23 00:46	19°♄10'01	
morning max el	3283 Nov 18 11:46	8°♄04'41	18°33'04	asc. node	3284 Oct 23 17:58	18°♄53'05	
	3283 Dec 03 21:55	0°♄		direct	3284 Oct 25 15:09	18°♄34'14	
morning set	3283 Dec 08 18:20	7°♄43'54		morning max el	3284 Nov 01 03:02	22°♄02'26	18°03'16
desc. node	3283 Dec 14 08:21	16°♄36'36			3284 Nov 07 08:02	0°♄	
	3283 Dec 22 20:14	0°♄		morning set	3284 Nov 18 22:46	18°♄50'09	
					3284 Nov 25 17:01	0°♄	
superior conj	3283 Dec 24 17:43	2°♄58'29	-1°-6'-40	desc. node	3284 Nov 30 05:23	7°♄19'23	
minimum elong	3283 Dec 24 09:41	2°♄26'56	1°05'43				
max. Earth dist.	3283 Dec 25 01:45	3°♄29'58	1.45214 AU	superior conj	3284 Dec 03 01:08	11°♄50'38	0°-19'-9
evening rise	3284 Jan 09 16:07	28°♄05'03		minimum elong	3284 Dec 02 22:45	11°♄41'09	0°18'49
	3284 Jan 10 21:03	0°♄		max. Earth dist.	3284 Dec 06 20:50	17°♄54'03	1.44965 AU
	3284 Jan 31 04:11	0°♄			3284 Dec 14 14:31	0°♄	
evening max el	3284 Jan 31 18:40	0°♄38'07	18°59'39	evening rise	3284 Dec 19 10:47	7°♄30'14	
asc. node	3284 Feb 02 20:12	2°♄30'42			3285 Jan 03 05:31	0°♄	
retrograde	3284 Feb 07 15:14	4°♄30'38		greatest brilliancy	3285 Jan 06 18:22	5°♄05'12	-0.6m
evening set	3284 Feb 10 21:26	3°♄29'08		evening max el	3285 Jan 14 00:38	14°♄08'59	19°50'26
	3284 Feb 14 15:59	30°♄♄		asc. node	3285 Jan 19 17:14	18°♄12'50	
inferior conj	3284 Feb 16 13:17	27°♄41'38	3°27'22	retrograde	3285 Jan 21 12:44	18°♄30'43	
minimum elong	3284 Feb 16 11:34	27°♄47'01	3°27'09	evening set	3285 Jan 25 02:43	17°♄15'43	
min. Earth dist.	3284 Feb 18 03:34	25°♄41'17	0.65781 AU	inferior conj	3285 Jan 30 14:34	11°♄13'38	3°03'54
morning rise	3284 Feb 22 00:41	21°♄27'46		minimum elong	3285 Jan 30 12:11	11°♄21'34	3°03'23
direct	3284 Feb 28 12:05	18°♄38'38		min. Earth dist.	3285 Jan 31 14:27	9°♄54'10	0.66896 AU
desc. node	3284 Mar 11 07:32	25°♄10'25		morning rise	3285 Feb 04 20:59	4°♄58'13	
morning max el	3284 Mar 12 11:14	26°♄18'27	26°35'55	direct	3285 Feb 10 20:00	2°♄19'31	
	3284 Mar 15 21:24	0°♄		morning max el	3285 Feb 22 20:10	9°♄29'26	25°21'10
	3284 Apr 06 01:12	0°♄		desc. node	3285 Feb 26 04:34	13°♄06'37	
morning set	3284 Apr 17 09:55	20°♄05'11			3285 Mar 11 01:00	0°♄	
max. Earth dist.	3284 Apr 21 15:28	28°♄17'08	1.34629 AU		3285 Mar 29 15:20	0°♄	
	3284 Apr 22 12:08	0°♄		morning set	3285 Mar 31 00:32	2°♄28'50	

max. Earth dist.	3285 Apr 03 18:02	9°Υ20'57	1.36361 AU	max. Earth dist.	3286 Mar 16 13:54	20°✕29'34	1.38430 AU
					3286 Mar 21 19:12	0°Υ	
superior conj	3285 Apr 09 18:31	20°Υ59'34	-1°-14'-58	superior conj	3286 Mar 23 20:33	3°Υ51'52	-1°-40'-8
minimum elong	3285 Apr 09 22:23	21°Υ18'44	1°14'23	minimum elong	3286 Mar 24 01:07	4°Υ13'35	1°39'38
	3285 Apr 14 05:53	0°✕		evening rise	3286 Apr 01 21:41	21°Υ26'25	
evening rise	3285 Apr 17 23:50	7°✕37'09		asc. node	3286 Apr 04 13:36	26°Υ36'48	
asc. node	3285 Apr 17 16:33	7°✕00'20			3286 Apr 06 08:25	0°✕	
	3285 Apr 30 11:32	0°Π		evening max el	3286 Apr 18 07:05	17°✕55'37	18°53'30
evening max el	3285 May 05 09:26	5°Π52'43	19°46'46	retrograde	3286 Apr 26 16:06	22°✕00'50	
retrograde	3285 May 15 07:55	10°Π41'59		evening set	3286 Apr 28 19:25	21°✕45'54	
evening set	3285 May 17 07:24	10°Π31'22		inferior conj	3286 May 06 20:24	17°✕27'53	1°27'10
desc. node	3285 May 25 03:46	7°Π05'44		minimum elong	3286 May 06 23:30	17°✕22'20	1°26'10
inferior conj	3285 May 26 03:18	6°Π29'38	0°-17'-16	min. Earth dist.	3286 May 10 00:48	15°✕12'04	0.56981 AU
minimum elong	3285 May 26 02:31	6°Π30'50	0°17'00	desc. node	3286 May 12 00:49	13°✕54'31	
min. Earth dist.	3285 May 28 08:49	5°Π07'12	0.55510 AU	morning rise	3286 May 14 23:13	12°✕23'45	
morning rise	3285 Jun 03 18:26	2°Π00'41		direct	3286 May 20 07:45	11°✕14'57	
direct	3285 Jun 08 03:12	1°Π18'31		morning max el	3286 Jun 03 15:29	18°✕41'24	26°00'55
morning max el	3285 Jun 22 00:35	8°Π13'46	24°26'36		3286 Jun 13 03:10	0°Π	
	3285 Jul 07 23:16	0°☿			3286 Jun 30 07:00	0°☿	
asc. node	3285 Jul 14 15:49	12°☿43'48		morning set	3286 Jul 01 16:31	2°☿55'08	
morning set	3285 Jul 17 05:13	18°☿02'33		asc. node	3286 Jul 01 12:53	2°☿35'59	
	3285 Jul 22 18:09	0°♌					
superior conj	3285 Jul 24 05:34	3°♌12'49	1°25'38	superior conj	3286 Jul 08 16:40	18°☿08'32	1°09'00
minimum elong	3285 Jul 24 03:18	3°♌00'29	1°25'21	minimum elong	3286 Jul 08 14:20	17°☿55'43	1°08'37
max. Earth dist.	3285 Jul 25 23:50	7°♌01'38	1.32966 AU	max. Earth dist.	3286 Jul 09 09:09	19°☿39'11	1.32325 AU
evening rise	3285 Jul 31 13:42	18°♌44'13			3286 Jul 14 03:47	0°♌	
	3285 Aug 06 08:25	0°♍		evening rise	3286 Jul 15 17:18	3°♌17'17	
desc. node	3285 Aug 21 03:08	24°♍13'20			3286 Jul 30 03:45	0°♍	
	3285 Aug 25 10:05	0°♎		desc. node	3286 Aug 08 00:09	12°♍50'00	
evening max el	3285 Sep 02 17:30	9°♎18'51	27°26'28	evening max el	3286 Aug 16 00:08	21°♍50'19	27°08'40
retrograde	3285 Sep 16 09:50	16°♎35'16		retrograde	3286 Aug 29 20:42	29°♍03'25	
evening set	3285 Sep 23 14:06	14°♎00'02		evening set	3286 Sep 05 23:21	26°♍46'32	
min. Earth dist.	3285 Sep 27 05:46	10°♎52'30	0.63326 AU	min. Earth dist.	3286 Sep 09 14:25	24°♍03'13	0.61425 AU
inferior conj	3285 Sep 29 22:01	8°♎12'30	-3°-20'-40	inferior conj	3286 Sep 12 17:04	21°♍19'06	-4°-13'-45
minimum elong	3285 Sep 30 03:20	7°♎59'14	3°18'58	minimum elong	3286 Sep 12 22:44	21°♍06'33	4°12'28
morning rise	3285 Oct 06 19:03	2°♎56'09		morning rise	3286 Sep 20 01:09	16°♍23'30	
direct	3285 Oct 09 04:47	2°♎28'29		direct	3286 Sep 22 09:10	16°♍00'55	
asc. node	3285 Oct 10 15:01	2°♎38'25		asc. node	3286 Sep 27 12:05	17°♍53'53	
morning max el	3285 Oct 15 19:28	5°♎54'06	17°50'57	morning max el	3286 Sep 29 10:05	19°♍32'15	17°57'09
	3285 Oct 31 12:31	0°♏			3286 Oct 07 02:37	0°♎	
morning set	3285 Nov 01 04:24	1°♏09'20		morning set	3286 Oct 15 04:48	14°♎21'57	
					3286 Oct 23 20:15	0°♏	
superior conj	3285 Nov 13 06:23	21°♏48'32	0°26'15	superior conj	3286 Oct 25 14:35	3°♏05'44	1°02'05
minimum elong	3285 Nov 13 09:01	21°♏59'28	0°25'52	minimum elong	3286 Oct 25 18:53	3°♏24'30	1°01'32
desc. node	3285 Nov 17 02:26	28°♏06'06		max. Earth dist.	3286 Nov 02 03:16	15°♏52'09	1.42461 AU
	3285 Nov 18 06:35	0°♐		desc. node	3286 Nov 03 23:29	18°♏53'23	
max. Earth dist.	3285 Nov 19 14:14	2°♐07'17	1.44010 AU	evening rise	3286 Nov 08 11:57	26°♏08'26	
evening rise	3285 Nov 28 19:58	16°♐38'02			3286 Nov 10 22:59	0°♐	
	3285 Dec 07 15:14	0°♑			3286 Dec 01 12:25	0°♑	
greatest brilliancy	3285 Dec 22 14:39	21°♑17'53	-0.5m	greatest brilliancy	3286 Dec 06 02:59	5°♑54'31	-0.3m
evening max el	3285 Dec 28 01:14	27°♑40'58	20°54'55	evening max el	3286 Dec 10 20:20	11°♑14'09	22°09'30
	3285 Dec 30 13:17	0°♒		retrograde	3286 Dec 20 07:15	16°♑51'45	
retrograde	3286 Jan 05 10:40	2°♒38'54		asc. node	3286 Dec 24 11:19	15°♑18'34	
asc. node	3286 Jan 06 14:17	2°♒31'36		evening set	3286 Dec 24 17:52	15°♑05'45	
evening set	3286 Jan 09 10:06	1°♒08'56		inferior conj	3286 Dec 30 03:22	8°♑43'35	1°50'03
	3286 Jan 10 17:29	30°♒♑		minimum elong	3286 Dec 30 01:11	8°♑51'09	1°49'16
inferior conj	3286 Jan 14 19:57	24°♑55'06	2°30'52	min. Earth dist.	3286 Dec 30 02:41	8°♑45'57	0.67916 AU
minimum elong	3286 Jan 14 17:25	25°♑03'47	2°30'07	morning rise	3287 Jan 04 08:20	2°♑30'30	
min. Earth dist.	3286 Jan 15 06:54	24°♑17'28	0.67601 AU	direct	3287 Jan 09 01:39	0°♑32'37	
morning rise	3286 Jan 20 00:21	18°♑40'01		morning max el	3287 Jan 18 15:26	6°♑11'22	22°26'11
direct	3286 Jan 25 08:45	16°♑19'46		greatest brilliancy	3287 Jan 23 04:52	11°♑16'46	-0.3m
morning max el	3286 Feb 05 04:37	22°♑46'54	23°54'36		3287 Jan 30 22:41	21°♑24'41	
	3286 Feb 11 12:47	0°♒		desc. node	3287 Feb 05 23:00	0°♒	
desc. node	3286 Feb 13 01:38	1°♒56'23					
	3286 Mar 04 09:34	0°♓		morning set	3287 Feb 21 06:42	23°♒42'08	
morning set	3286 Mar 12 17:22	13°♓45'32			3287 Feb 25 02:08	0°♓	

max. Earth dist.	3287 Feb 26 10:36	2° Υ 16'48	1.40598 AU		3288 Jan 09 19:25	0° \eth	
				desc. node	3288 Jan 17 19:43	11° \eth 20'11	
superior conj	3287 Mar 06 05:33	15° Υ 52'56	-1°-58'-56		3288 Jan 30 03:56	0° \approx	
minimum elong	3287 Mar 06 09:14	16° Υ 09'31	1°58'43	morning set	3288 Jan 31 16:06	2° \approx 21'12	
	3287 Mar 13 21:22	0° Υ		max. Earth dist.	3288 Feb 08 13:07	14° \approx 56'36	1.42580 AU
evening rise	3287 Mar 16 09:23	4° Υ 42'15					
asc. node	3287 Mar 22 10:39	15° Υ 52'52		superior conj	3288 Feb 15 16:18	26° \approx 50'08	-2°-6'-43
	3287 Apr 01 00:20	0° \eth		minimum elong	3288 Feb 15 16:25	26° \approx 50'37	2°06'44
evening max el	3287 Apr 01 13:01	0° \eth 31'56	18°20'28		3288 Feb 17 12:38	0° \eth	
retrograde	3287 Apr 08 19:23	4° \eth 08'32		evening rise	3288 Feb 27 06:52	17° \eth 14'47	
evening set	3287 Apr 11 04:38	3° \eth 46'09			3288 Mar 05 11:38	0° Υ	
	3287 Apr 17 09:45	30° \eth Υ		asc. node	3288 Mar 08 07:40	4° Υ 41'06	
inferior conj	3287 Apr 18 11:00	29° Υ 07'40	2°40'14	evening max el	3288 Mar 14 23:53	13° Υ 32'23	18°07'19
minimum elong	3287 Apr 18 14:41	28° Υ 59'55	2°39'20	retrograde	3288 Mar 21 15:07	16° Υ 56'12	
min. Earth dist.	3287 Apr 21 21:31	26° Υ 15'54	0.58978 AU	evening set	3288 Mar 24 06:11	16° Υ 24'17	
morning rise	3287 Apr 25 20:39	23° Υ 33'23		inferior conj	3288 Mar 30 21:10	11° Υ 24'53	3°21'51
desc. node	3287 Apr 28 21:50	22° Υ 16'43		minimum elong	3288 Mar 30 23:30	11° Υ 19'15	3°21'32
direct	3287 May 02 02:10	21° Υ 49'33		min. Earth dist.	3288 Apr 03 01:15	8° Υ 21'48	0.61154 AU
morning max el	3287 May 16 11:26	29° Υ 35'34	27°11'14	morning rise	3288 Apr 06 13:45	5° Υ 30'50	
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	3287 Jun 07 00:11	0° \eth		desc. node	3288 Apr 14 18:52	3° Υ 19'11	
morning set	3287 Jun 16 01:36	17° \eth 39'36		morning max el	3288 Apr 27 13:34	11° Υ 09'19	27°47'11
asc. node	3287 Jun 18 09:56	22° \eth 38'16			3288 May 12 07:44	0° \eth	
	3287 Jun 21 19:06	0° \eth			3288 May 29 05:14	0° \eth	
				morning set	3288 May 30 06:39	2° \eth 09'39	
superior conj	3287 Jun 23 04:28	3° \eth 03'46	0°48'24	asc. node	3288 Jun 04 06:58	12° \eth 45'54	
minimum elong	3287 Jun 23 02:33	2° \eth 53'09	0°48'02	max. Earth dist.	3288 Jun 05 07:34	14° \eth 59'30	1.32233 AU
max. Earth dist.	3287 Jun 22 21:01	2° \eth 22'41	1.32080 AU				
evening rise	3287 Jun 30 01:42	18° \eth 02'32		superior conj	3288 Jun 06 15:17	17° \eth 52'44	0°24'29
	3287 Jul 05 23:37	0° \eth		minimum elong	3288 Jun 06 14:11	17° \eth 46'44	0°24'16
desc. node	3287 Jul 25 21:09	0° \eth 22'42			3288 Jun 12 04:26	0° \eth	
	3287 Jul 25 13:00	0° \eth		evening rise	3288 Jun 13 12:46	2° \eth 53'02	
evening max el	3287 Jul 29 00:02	3° \eth 35'25	26°17'49		3288 Jun 28 03:02	0° \eth	
retrograde	3287 Aug 11 23:28	10° \eth 45'46		evening max el	3288 Jul 09 16:54	14° \eth 35'04	24°59'03
evening set	3287 Aug 18 12:45	8° \eth 59'55		desc. node	3288 Jul 11 18:08	16° \eth 25'46	
min. Earth dist.	3287 Aug 22 13:02	6° \eth 25'16	0.59361 AU	retrograde	3288 Jul 23 16:04	21° \eth 39'39	
inferior conj	3287 Aug 25 19:59	3° \eth 54'03	-4°-53'-2	evening set	3288 Jul 29 02:24	20° \eth 32'23	
minimum elong	3287 Aug 25 23:55	3° \eth 46'27	4°52'35	min. Earth dist.	3288 Aug 03 04:29	17° \eth 47'25	0.57372 AU
	3287 Aug 31 20:08	30° \eth \eth		inferior conj	3288 Aug 06 03:43	15° \eth 48'48	-5°-6'-10
morning rise	3287 Sep 02 14:34	29° \eth 21'37		minimum elong	3288 Aug 06 03:03	15° \eth 49'53	5°06'10
direct	3287 Sep 04 23:53	29° \eth 01'45		morning rise	3288 Aug 14 07:21	11° \eth 38'45	
	3287 Sep 08 23:12	0° \eth		direct	3288 Aug 16 20:55	11° \eth 19'44	
morning max el	3287 Sep 12 19:37	2° \eth 48'22	18°23'02	morning max el	3288 Aug 25 20:51	15° \eth 33'07	19°09'58
asc. node	3287 Sep 14 09:08	4° \eth 26'29		asc. node	3288 Aug 31 06:12	22° \eth 01'09	
morning set	3287 Sep 28 18:32	28° \eth 12'26			3288 Sep 05 04:07	0° \eth	
	3287 Sep 29 17:00	0° \eth		morning set	3288 Sep 11 17:38	12° \eth 30'28	
superior conj	3287 Oct 07 22:21	15° \eth 32'03	1°26'26	superior conj	3288 Sep 20 00:16	28° \eth 52'18	1°40'07
minimum elong	3287 Oct 08 01:55	15° \eth 48'27	1°26'06	minimum elong	3288 Sep 20 02:10	29° \eth 01'27	1°40'01
max. Earth dist.	3287 Oct 15 10:33	28° \eth 54'12	1.40524 AU		3288 Sep 20 14:18	0° \eth	
	3287 Oct 16 01:53	0° \eth		max. Earth dist.	3288 Sep 26 14:36	11° \eth 14'55	1.38452 AU
evening rise	3287 Oct 19 23:30	6° \eth 33'18		evening rise	3288 Sep 30 10:53	18° \eth 04'40	
desc. node	3287 Oct 21 20:29	9° \eth 37'29		desc. node	3288 Oct 07 17:30	0° \eth 15'00	
	3287 Nov 04 02:25	0° \eth			3288 Oct 07 13:46	0° \eth	
evening max el	3287 Nov 23 11:04	24° \eth 49'28	23°29'12		3288 Oct 28 10:40	0° \eth	
	3287 Nov 30 01:09	0° \eth		evening max el	3288 Nov 04 23:43	8° \eth 29'23	24°47'36
retrograde	3287 Dec 04 01:00	1° \eth 05'02		retrograde	3288 Nov 16 14:46	15° \eth 15'13	
	3287 Dec 07 16:34	30° \eth \eth		evening set	3288 Nov 22 03:59	12° \eth 56'57	
evening set	3287 Dec 09 00:21	29° \eth 02'31		min. Earth dist.	3288 Nov 26 18:48	7° \eth 43'53	0.67502 AU
asc. node	3287 Dec 11 08:21	26° \eth 40'01		asc. node	3288 Nov 27 05:23	7° \eth 08'54	
inferior conj	3287 Dec 14 10:55	22° \eth 36'03	1°02'40	inferior conj	3288 Nov 27 16:55	6° \eth 30'38	0°09'53
minimum elong	3287 Dec 14 09:31	22° \eth 40'53	1°02'05	minimum elong	3288 Nov 27 16:41	6° \eth 31'27	0°09'47
min. Earth dist.	3287 Dec 13 23:26	23° \eth 15'25	0.67877 AU	transit middle	3288 Nov 27 16:41	6° \eth 31'27	0°09'47
morning rise	3287 Dec 19 18:49	16° \eth 26'55		transit begin	3288 Nov 27 14:29	6° \eth 38'45	
direct	3287 Dec 23 21:46	14° \eth 51'50		transit end	3288 Nov 27 18:53	6° \eth 24'10	
morning max el	3288 Jan 01 07:51	19° \eth 44'45	21°03'55	morning rise	3288 Dec 03 05:52	0° \eth 27'49	
greatest brilliancy	3288 Jan 06 17:47	25° \eth 58'42	-0.5m		3288 Dec 03 23:49	30° \eth \eth	

































































































































direct	3288 Dec 06 19:58	29° \mathbb{M} 13'43		min. Earth dist.	3289 Nov 10 10:20	22° \mathbb{M} 07'55	0.66786 AU
	3288 Dec 09 19:42	0° \mathcal{Z}		inferior conj	3289 Nov 11 19:31	20° \mathbb{M} 23'56	0°-47'-5
morning max el	3288 Dec 14 07:58	3° \mathcal{Z} 29'13	19°53'23	minimum elong	3289 Nov 11 20:45	20° \mathbb{M} 20'01	0°46'34
greatest brilliancy	3288 Dec 21 17:30	12° \mathcal{Z} 31'36	-0.6m	asc. node	3289 Nov 14 02:26	17° \mathbb{M} 38'22	
	3289 Jan 02 15:35	0° \mathcal{Z}		morning rise	3289 Nov 17 15:27	14° \mathbb{M} 30'11	
desc. node	3289 Jan 03 16:45	1° \mathcal{Z} 35'35		direct	3289 Nov 20 18:37	13° \mathbb{M} 33'54	
morning set	3289 Jan 09 11:56	10° \mathcal{Z} 29'05		morning max el	3289 Nov 27 15:36	17° \mathbb{M} 22'52	18°57'44
max. Earth dist.	3289 Jan 20 23:16	28° \mathcal{Z} 27'09	1.44120 AU		3289 Dec 07 07:12	0° \mathcal{Z}	
	3289 Jan 21 22:32	0° \approx		morning set	3289 Dec 19 19:45	19° \mathcal{Z} 20'38	
				desc. node	3289 Dec 21 13:47	22° \mathcal{Z} 05'05	
superior conj	3289 Jan 26 01:10	6° \approx 37'12	-1°-58'-14		3289 Dec 26 15:10	0° \mathcal{Z}	
minimum elong	3289 Jan 25 19:29	6° \approx 14'12	1°57'57	max. Earth dist.	3290 Jan 03 15:43	12° \mathcal{Z} 34'46	1.45025 AU
evening rise	3289 Feb 08 09:49	28° \approx 55'46					
	3289 Feb 09 00:51	0° \mathcal{H}		superior conj	3290 Jan 05 11:05	15° \mathcal{Z} 25'31	-1°-30'-22
asc. node	3289 Feb 23 04:41	22° \mathcal{H} 52'58		minimum elong	3290 Jan 05 01:58	14° \mathcal{Z} 49'32	1°29'28
evening max el	3289 Feb 26 12:36	26° \mathcal{H} 48'47	18°13'22		3290 Jan 14 15:01	0° \approx	
	3289 Mar 03 07:47	0° \mathcal{Y}		evening rise	3290 Jan 20 14:31	9° \approx 40'08	
retrograde	3289 Mar 04 22:59	0° \mathcal{Y} 14'04			3290 Feb 02 06:17	0° \mathcal{H}	
	3289 Mar 06 14:10	30° \mathcal{R} \mathcal{H}		evening max el	3290 Feb 10 00:22	10° \mathcal{H} 14'14	18°37'47
evening set	3289 Mar 07 19:37	29° \mathcal{H} 31'19		asc. node	3290 Feb 10 01:42	10° \mathcal{H} 17'37	
inferior conj	3289 Mar 13 23:02	24° \mathcal{H} 11'48	3°38'11	retrograde	3290 Feb 16 14:52	13° \mathcal{H} 53'33	
minimum elong	3289 Mar 13 23:30	24° \mathcal{H} 10'29	3°38'10	evening set	3290 Feb 19 17:23	12° \mathcal{H} 59'03	
min. Earth dist.	3289 Mar 16 13:43	21° \mathcal{H} 21'08	0.63210 AU	inferior conj	3290 Feb 25 12:35	7° \mathcal{H} 20'59	3°35'33
morning rise	3289 Mar 20 01:23	18° \mathcal{H} 06'26		minimum elong	3290 Feb 25 11:31	7° \mathcal{H} 24'12	3°35'29
direct	3289 Mar 26 23:05	15° \mathcal{H} 25'39		min. Earth dist.	3290 Feb 27 11:37	4° \mathcal{H} 59'40	0.64952 AU
desc. node	3289 Apr 01 15:54	16° \mathcal{H} 59'13		morning rise	3290 Mar 03 04:24	1° \mathcal{H} 09'25	
morning max el	3289 Apr 09 20:35	23° \mathcal{H} 23'04	27°45'38		3290 Mar 04 17:05	30° \mathcal{R} \approx	
	3289 Apr 15 18:17	0° \mathcal{Y}		direct	3290 Mar 09 21:15	28° \approx 19'41	
	3289 May 05 14:23	0° \mathcal{B}			3290 Mar 15 13:50	0° \mathcal{H}	
morning set	3289 May 14 05:21	16° \mathcal{B} 17'39		desc. node	3290 Mar 19 12:57	2° \mathcal{H} 44'23	
max. Earth dist.	3289 May 19 13:01	27° \mathcal{B} 17'11	1.32811 AU	morning max el	3290 Mar 23 06:13	6° \mathcal{H} 08'54	27°09'42
	3289 May 20 19:33	0° \mathbb{I}			3290 Apr 10 13:03	0° \mathcal{Y}	
superior conj	3289 May 21 23:18	2° \mathbb{I} 29'07	0°-2'-3	morning set	3290 Apr 27 18:51	29° \mathcal{Y} 54'57	
minimum elong	3289 May 21 23:24	2° \mathbb{I} 29'41	0°02'03		3290 Apr 27 19:54	0° \mathcal{B}	
behind sun begin	3289 May 21 18:10	2° \mathbb{I} 01'28		max. Earth dist.	3290 May 02 09:41	9° \mathcal{B} 06'08	1.33836 AU
behind sun end	3289 May 22 04:38	2° \mathbb{I} 57'55		superior conj	3290 May 06 02:33	16° \mathcal{B} 46'51	0°-30'-17
asc. node	3289 May 22 04:00	2° \mathbb{I} 54'31		minimum elong	3290 May 06 04:07	16° \mathcal{B} 55'04	0°29'59
evening rise	3289 May 29 00:37	17° \mathbb{I} 42'00		asc. node	3290 May 09 01:01	22° \mathcal{B} 59'55	
	3289 Jun 04 02:22	0° \mathcal{E}			3290 May 12 08:08	0° \mathbb{I}	
evening max el	3289 Jun 21 06:15	25° \mathcal{E} 04'58	23°24'19	evening rise	3290 May 13 11:24	2° \mathbb{I} 23'21	
	3289 Jun 27 19:04	0° \mathcal{Q}			3290 May 29 02:15	0° \mathcal{E}	
desc. node	3289 Jun 28 15:09	0° \mathcal{Q} 24'57		evening max el	3290 Jun 02 23:21	5° \mathcal{E} 35'52	21°49'13
retrograde	3289 Jul 04 19:54	1° \mathcal{Q} 52'09		retrograde	3290 Jun 15 12:15	11° \mathcal{E} 47'01	
evening set	3289 Jul 08 18:27	1° \mathcal{Q} 18'13		desc. node	3290 Jun 15 12:09	11° \mathcal{E} 47'01	
	3289 Jul 12 04:14	30° \mathcal{R} \mathcal{E}		evening set	3290 Jun 18 03:49	11° \mathcal{E} 31'17	
min. Earth dist.	3289 Jul 15 16:06	28° \mathcal{E} 07'28	0.55792 AU	min. Earth dist.	3290 Jun 27 02:58	7° \mathcal{E} 41'30	0.54944 AU
inferior conj	3289 Jul 17 15:23	26° \mathcal{E} 57'34	-4°-37'-52	inferior conj	3290 Jun 27 12:09	7° \mathcal{E} 28'40	-3°-19'-54
minimum elong	3289 Jul 17 09:02	27° \mathcal{E} 07'01	4°36'50	minimum elong	3290 Jun 27 04:00	7° \mathcal{E} 40'04	3°17'31
morning rise	3289 Jul 26 02:42	23° \mathcal{E} 03'36		morning rise	3290 Jul 06 05:31	3° \mathcal{E} 36'27	
direct	3289 Jul 28 22:57	22° \mathcal{E} 43'48		direct	3290 Jul 09 10:56	3° \mathcal{E} 13'35	
morning max el	3289 Aug 08 11:00	27° \mathcal{E} 36'09	20°18'32	morning max el	3290 Jul 21 13:32	8° \mathcal{E} 54'18	21°46'41
	3289 Aug 10 18:58	0° \mathcal{Q}		asc. node	3290 Aug 05 00:17	29° \mathcal{E} 21'03	
asc. node	3289 Aug 18 03:14	10° \mathcal{Q} 23'05			3290 Aug 05 08:39	0° \mathcal{Q}	
morning set	3289 Aug 26 22:59	27° \mathcal{Q} 06'47		morning set	3290 Aug 11 08:19	11° \mathcal{Q} 54'55	
	3289 Aug 28 08:48	0° \mathcal{M}					
superior conj	3289 Sep 03 15:14	12° \mathcal{M} 51'09	1°44'48	superior conj	3290 Aug 18 15:19	27° \mathcal{Q} 17'04	1°42'02
minimum elong	3289 Sep 03 15:25	12° \mathcal{M} 52'05	1°44'47	minimum elong	3290 Aug 18 14:10	27° \mathcal{Q} 11'01	1°41'59
max. Earth dist.	3289 Sep 08 20:52	23° \mathcal{M} 11'00	1.36485 AU		3290 Aug 19 22:35	0° \mathcal{M}	
	3289 Sep 12 11:52	0° \mathcal{A}		max. Earth dist.	3290 Aug 22 10:08	5° \mathcal{M} 05'21	1.34807 AU
evening rise	3289 Sep 12 19:40	0° \mathcal{A} 35'46		evening rise	3290 Aug 26 21:30	13° \mathcal{M} 55'16	
desc. node	3289 Sep 24 14:30	20° \mathcal{A} 40'34			3290 Sep 04 19:01	0° \mathcal{A}	
	3289 Sep 30 17:42	0° \mathbb{M}		desc. node	3290 Sep 11 11:31	10° \mathcal{A} 48'13	
evening max el	3289 Oct 18 12:05	22° \mathbb{M} 11'21	25°57'28		3290 Sep 25 14:07	0° \mathbb{M}	
retrograde	3289 Oct 30 23:39	29° \mathbb{M} 17'00		evening max el	3290 Oct 01 00:34	5° \mathbb{M} 48'19	26°51'15
evening set	3289 Nov 06 03:00	26° \mathbb{M} 45'16		retrograde	3290 Oct 14 03:09	13° \mathbb{M} 04'03	
				evening set	3290 Oct 20 19:22	10° \mathbb{M} 23'49	

min. Earth dist.	3290 Oct 24 19:37	6°♄23'07	0.65718 AU	min. Earth dist.	3291 Oct 07 20:33	20°♄22'30	0.64291 AU
inferior conj	3290 Oct 26 16:39	4°♄12'05	-1°-46'-48	inferior conj	3291 Oct 10 06:01	17°♄50'13	-2°-47'-1
minimum elong	3290 Oct 26 19:36	4°♄03'31	1°45'36	minimum elong	3291 Oct 10 10:36	17°♄38'04	2°45'24
	3290 Oct 30 16:55	30°♄♂		morning rise	3291 Oct 16 20:52	12°♄23'59	
asc. node	3290 Oct 31 23:29	29°♄02'19		asc. node	3291 Oct 18 20:33	11°♄53'30	
morning rise	3290 Nov 01 21:22	28°♄30'31		direct	3291 Oct 19 08:54	11°♄52'08	
direct	3290 Nov 04 15:46	27°♄48'21		morning max el	3291 Oct 25 21:08	15°♄18'07	17°55'53
	3290 Nov 09 17:21	0°♄			3291 Nov 05 06:43	0°♄	
morning max el	3290 Nov 11 04:53	1°♄21'11	18°18'18	morning set	3291 Nov 11 23:17	11°♄17'24	
morning set	3290 Nov 30 07:20	29°♄37'21			3291 Nov 23 04:15	0°♄♂	
	3290 Nov 30 12:55	0°♄♂					
desc. node	3290 Dec 08 10:49	12°♄♂44'10		superior conj	3291 Nov 25 04:33	3°♄♂16'06	0°00'57
				minimum elong	3291 Nov 25 04:39	3°♄♂16'31	0°00'56
superior conj	3290 Dec 15 13:09	23°♄♂58'42	0°-46'-56	behind sun begin	3291 Nov 24 18:29	2°♄♂35'21	
minimum elong	3290 Dec 15 07:12	23°♄♂35'17	0°46'10	behind sun end	3291 Nov 25 14:49	3°♄♂57'36	
max. Earth dist.	3290 Dec 17 11:03	26°♄♂59'11	1.45200 AU	desc. node	3291 Nov 25 07:52	3°♄♂29'32	
	3290 Dec 19 09:10	0°♄♂		max. Earth dist.	3291 Nov 30 05:47	11°♄♂21'12	1.44635 AU
evening rise	3290 Dec 31 20:16	19°♄♂30'04		evening rise	3291 Dec 11 09:09	28°♄♂43'45	
	3291 Jan 07 13:25	0°♄♂			3291 Dec 12 05:00	0°♄♂	
greatest brilliancy	3291 Jan 15 08:07	11°♄♂54'25	-0.7m	greatest brilliancy	3292 Jan 01 03:45	29°♄♂31'08	-0.6m
evening max el	3291 Jan 24 08:52	23°♄♂43'20	19°19'24		3292 Jan 01 12:21	0°♄♂	
asc. node	3291 Jan 27 22:45	26°♄♂41'16		evening max el	3292 Jan 07 12:33	7°♄♂14'34	20°16'19
retrograde	3291 Jan 31 11:12	27°♄♂47'23		asc. node	3292 Jan 14 19:47	11°♄♂49'49	
evening set	3291 Feb 03 20:34	26°♄♂40'09		retrograde	3292 Jan 15 09:16	11°♄♂51'33	
inferior conj	3291 Feb 09 10:25	20°♄♂45'50	3°18'44	evening set	3292 Jan 19 02:59	10°♄♂30'24	
minimum elong	3291 Feb 09 08:21	20°♄♂52'31	3°18'23	inferior conj	3292 Jan 24 13:44	4°♄♂22'44	2°50'58
min. Earth dist.	3291 Feb 10 18:17	19°♄♂02'50	0.66300 AU	minimum elong	3292 Jan 24 11:14	4°♄♂31'13	2°50'20
morning rise	3291 Feb 14 19:18	14°♄♂31'05		min. Earth dist.	3292 Jan 25 07:56	3°♄♂21'08	0.67240 AU
direct	3291 Feb 21 01:41	11°♄♂45'31			3292 Jan 27 23:10	30°♄♂♂	
morning max el	3291 Mar 05 15:59	19°♄♂14'14	26°06'23	morning rise	3292 Jan 29 18:56	28°♄♂06'59	
desc. node	3291 Mar 06 10:00	20°♄♂00'27		direct	3292 Feb 04 11:46	25°♄♂35'29	
	3291 Mar 14 19:49	0°♄♂♂			3292 Feb 13 09:24	0°♄♂	
	3291 Apr 03 14:32	0°♄♂♂		morning max el	3292 Feb 16 00:42	2°♄♂29'13	24°45'10
morning set	3291 Apr 10 19:14	12°♄♂49'12		desc. node	3292 Feb 21 07:04	8°♄♂21'53	
max. Earth dist.	3291 Apr 14 18:58	20°♄♂23'25	1.35315 AU		3292 Mar 07 23:02	0°♄♂♂	
				morning set	3292 Mar 23 01:21	24°♄♂46'23	
superior conj	3291 Apr 19 22:31	0°♄♂37'39	0°-58'-59		3292 Mar 25 23:18	0°♄♂♂	
minimum elong	3291 Apr 20 01:36	0°♄♂53'23	0°58'26	max. Earth dist.	3292 Mar 26 17:43	1°♄♂24'09	1.37208 AU
	3291 Apr 19 15:06	0°♄♂					
asc. node	3291 Apr 25 22:03	12°♄♂57'35		superior conj	3292 Apr 02 08:09	13°♄♂53'51	-1°-26'-12
evening rise	3291 Apr 27 19:01	16°♄♂49'35		minimum elong	3292 Apr 02 12:27	14°♄♂14'48	1°25'36
	3291 May 04 12:18	0°♄♂♂			3292 Apr 10 10:22	0°♄♂	
evening max el	3291 May 16 02:41	16°♄♂35'24	20°26'18	evening rise	3292 Apr 10 21:13	0°♄♂54'09	
retrograde	3291 May 27 01:34	21°♄♂55'43		asc. node	3292 Apr 11 19:05	2°♄♂43'05	
evening set	3291 May 29 02:16	21°♄♂45'29		evening max el	3292 Apr 27 18:10	28°♄♂15'45	19°21'39
desc. node	3291 Jun 02 09:11	20°♄♂24'08			3292 Apr 29 18:10	0°♄♂♂	
inferior conj	3291 Jun 07 06:25	17°♄♂47'36	-1°-26'-10	retrograde	3292 May 06 23:55	2°♄♂44'49	
minimum elong	3291 Jun 07 02:21	17°♄♂53'31	1°24'41	evening set	3292 May 09 00:13	2°♄♂32'59	
min. Earth dist.	3291 Jun 08 15:15	16°♄♂59'50	0.55025 AU		3292 May 15 00:51	30°♄♂♂	
morning rise	3291 Jun 16 00:47	13°♄♂36'32		inferior conj	3292 May 17 12:27	28°♄♂25'30	0°30'18
direct	3291 Jun 19 21:01	13°♄♂04'41		minimum elong	3292 May 17 13:43	28°♄♂23'25	0°29'51
morning max el	3291 Jul 03 07:11	19°♄♂35'27	23°27'36	desc. node	3292 May 19 06:14	27°♄♂16'46	
	3291 Jul 12 00:13	0°♄♂♂		min. Earth dist.	3292 May 20 05:53	26°♄♂38'37	0.56044 AU
asc. node	3291 Jul 22 21:20	18°♄♂45'44		morning rise	3292 May 25 23:11	23°♄♂41'09	
morning set	3291 Jul 26 19:42	26°♄♂49'03		direct	3292 May 30 17:48	22°♄♂49'02	
	3291 Jul 28 07:42	0°♄♂♂			3292 Jun 13 21:17	0°♄♂♂	
				morning max el	3292 Jun 13 21:21	0°♄♂00'10	25°08'46
superior conj	3291 Aug 02 21:30	12°♄♂00'48	1°33'08		3292 Jul 04 12:14	0°♄♂♂	
minimum elong	3291 Aug 02 19:29	11°♄♂50'00	1°32'57	asc. node	3292 Jul 08 18:22	8°♄♂29'39	
max. Earth dist.	3291 Aug 05 08:18	17°♄♂14'33	1.33514 AU	morning set	3292 Jul 10 07:28	11°♄♂43'41	
evening rise	3291 Aug 10 12:03	27°♄♂51'32					
	3291 Aug 11 14:00	0°♄♂♂		superior conj	3292 Jul 17 07:22	26°♄♂54'18	1°19'06
desc. node	3291 Aug 29 08:32	0°♄♂30'06		minimum elong	3292 Jul 17 05:00	26°♄♂41'25	1°18'47
	3291 Aug 29 00:21	0°♄♂		max. Earth dist.	3292 Jul 18 14:14	29°♄♂42'42	1.32637 AU
evening max el	3291 Sep 13 12:23	19°♄♂10'03	27°21'50		3292 Jul 18 17:25	0°♄♂	
retrograde	3291 Sep 27 01:00	26°♄♂28'23		evening rise	3292 Jul 24 11:44	12°♄♂14'03	
evening set	3291 Oct 04 02:32	23°♄♂47'52			3292 Aug 02 18:18	0°♄♂♂	

desc. node	3292 Aug 15 05:33	19° \cap 35'00			3293 Jul 10 05:32	0° Ω	
	3292 Aug 23 19:54	0° $\underline{\Delta}$			3293 Jul 27 06:40	0° \cap	
evening max el	3292 Aug 25 21:38	2° $\underline{\Delta}$ 03'42	27°23'01	desc. node	3293 Aug 02 02:33	7° \cap 47'41	
retrograde	3292 Sep 08 16:25	9° $\underline{\Delta}$ 19'40		evening max el	3293 Aug 08 01:52	14° \cap 17'35	26°51'06
evening set	3292 Sep 15 21:02	6° $\underline{\Delta}$ 50'31		retrograde	3293 Aug 22 00:06	21° \cap 29'17	
min. Earth dist.	3292 Sep 19 11:33	3° $\underline{\Delta}$ 54'42	0.62542 AU	evening set	3293 Aug 28 22:28	19° \cap 24'34	
inferior conj	3292 Sep 22 08:42	1° $\underline{\Delta}$ 10'54	-3°-44'-19	min. Earth dist.	3293 Sep 01 16:01	16° \cap 46'49	0.60555 AU
minimum elong	3292 Sep 22 14:21	0° $\underline{\Delta}$ 57'28	3°42'44	inferior conj	3293 Sep 04 21:22	14° \cap 06'01	-4°-32'-46
	3292 Sep 23 14:59	30° \cap		minimum elong	3293 Sep 05 02:39	13° \cap 55'01	4°31'48
morning rise	3292 Sep 29 10:28	26° \cap 03'08		morning rise	3293 Sep 12 10:02	9° \cap 19'44	
direct	3292 Oct 01 18:57	25° \cap 38'07		direct	3293 Sep 14 18:09	8° \cap 58'35	
asc. node	3292 Oct 04 17:37	26° \cap 18'23		asc. node	3293 Sep 21 14:39	12° \cap 08'40	
morning max el	3292 Oct 08 13:14	29° \cap 05'26	17°51'14	morning max el	3293 Sep 22 02:03	12° \cap 35'30	18°05'33
	3292 Oct 09 10:15	0° $\underline{\Delta}$			3293 Oct 03 18:29	0° $\underline{\Delta}$	
morning set	3292 Oct 24 13:39	24° $\underline{\Delta}$ 01'28		morning set	3293 Oct 07 20:20	7° $\underline{\Delta}$ 32'14	
	3292 Oct 27 22:17	0° \cap					
superior conj	3292 Nov 04 21:19	13° \cap 48'10	0°42'48	superior conj	3293 Oct 17 16:09	25° $\underline{\Delta}$ 36'25	1°13'47
minimum elong	3292 Nov 05 01:03	14° \cap 04'00	0°42'18	minimum elong	3293 Oct 17 20:20	25° $\underline{\Delta}$ 55'06	1°13'19
desc. node	3292 Nov 11 04:53	24° \cap 16'54			3293 Oct 20 03:48	0° \cap	
max. Earth dist.	3292 Nov 11 20:59	25° \cap 22'17	1.43410 AU	max. Earth dist.	3293 Oct 25 07:30	8° \cap 49'50	1.41680 AU
	3292 Nov 14 18:07	0° \mathcal{A}		desc. node	3293 Oct 29 01:53	15° \cap 03'18	
evening rise	3292 Nov 19 19:10	7° \mathcal{A} 56'03		evening rise	3293 Oct 30 18:29	17° \cap 47'28	
	3292 Dec 04 11:38	0° \mathcal{B}			3293 Nov 07 13:56	0° \mathcal{A}	
greatest brilliancy	3292 Dec 15 11:10	15° \mathcal{B} 03'17	-0.4m	greatest brilliancy	3293 Nov 28 04:22	28° \mathcal{A} 46'32	-0.3m
evening max el	3292 Dec 20 10:43	20° \mathcal{B} 46'53	21°25'41		3293 Nov 29 04:56	0° \mathcal{B}	
retrograde	3292 Dec 29 06:50	26° \mathcal{B} 01'51		evening max el	3293 Dec 03 03:54	4° \mathcal{B} 21'17	22°43'09
asc. node	3292 Dec 31 16:51	25° \mathcal{B} 29'53		retrograde	3293 Dec 13 02:13	10° \mathcal{B} 15'02	
evening set	3293 Jan 02 10:42	24° \mathcal{B} 25'25		evening set	3293 Dec 17 18:05	8° \mathcal{B} 22'10	
inferior conj	3293 Jan 07 20:14	18° \mathcal{B} 07'38	2°14'27	asc. node	3293 Dec 18 13:53	7° \mathcal{B} 38'04	
minimum elong	3293 Jan 07 17:48	18° \mathcal{B} 16'04	2°13'38	inferior conj	3293 Dec 23 03:55	1° \mathcal{B} 57'55	1°30'40
min. Earth dist.	3293 Jan 08 02:11	17° \mathcal{B} 47'02	0.67782 AU	minimum elong	3293 Dec 23 02:01	2° \mathcal{B} 04'31	1°29'56
morning rise	3293 Jan 13 00:33	11° \mathcal{B} 52'57		min. Earth dist.	3293 Dec 22 22:38	2° \mathcal{B} 16'10	0.67951 AU
direct	3293 Jan 18 02:33	9° \mathcal{B} 41'43			3293 Dec 24 14:28	30° \cap	
morning max el	3293 Jan 28 09:36	15° \mathcal{B} 48'56	23°16'33	morning rise	3293 Dec 28 09:51	25° \mathcal{A} 46'16	
greatest brilliancy	3293 Feb 02 15:03	21° \mathcal{B} 41'12	-0.2m	direct	3294 Jan 01 21:02	23° \mathcal{A} 57'57	
desc. node	3293 Feb 07 04:07	27° \mathcal{B} 29'37		morning max el	3294 Jan 10 22:14	29° \mathcal{A} 15'57	21°49'54
	3293 Feb 09 00:44	0° \approx			3294 Jan 11 15:23	0° \mathcal{B}	
	3293 Feb 28 23:13	0° \mathcal{H}		greatest brilliancy	3294 Jan 15 16:17	4° \mathcal{B} 37'13	-0.4m
morning set	3293 Mar 04 07:01	5° \mathcal{H} 30'09		desc. node	3294 Jan 25 01:09	17° \mathcal{B} 10'28	
max. Earth dist.	3293 Mar 08 12:22	12° \mathcal{H} 42'55	1.39355 AU		3294 Feb 02 18:37	0° \approx	
				morning set	3294 Feb 12 07:44	14° \approx 50'38	
superior conj	3293 Mar 16 03:32	26° \mathcal{H} 25'48	-1°-49'-9	max. Earth dist.	3294 Feb 18 11:12	24° \approx 52'14	1.41486 AU
minimum elong	3293 Mar 16 08:00	26° \mathcal{H} 46'31	1°48'46		3294 Feb 21 12:21	0° \mathcal{H}	
	3293 Mar 18 01:25	0° Υ					
evening rise	3293 Mar 25 15:08	14° Υ 29'53		superior conj	3294 Feb 26 03:42	8° \mathcal{H} 01'15	-2°-3'-54
asc. node	3293 Mar 29 16:08	22° Υ 11'36		minimum elong	3294 Feb 26 06:14	8° \mathcal{H} 12'23	2°03'50
	3293 Apr 03 01:12	0° \mathcal{X}		evening rise	3294 Mar 08 21:15	27° \mathcal{H} 28'06	
evening max el	3293 Apr 10 19:49	10° \mathcal{X} 34'26	18°37'04		3294 Mar 10 06:12	0° Υ	
retrograde	3293 Apr 18 15:56	14° \mathcal{X} 25'03		asc. node	3294 Mar 16 13:10	11° Υ 16'39	
evening set	3293 Apr 20 21:48	14° \mathcal{X} 07'15		evening max el	3294 Mar 25 04:17	23° Υ 22'10	18°12'29
inferior conj	3293 Apr 28 14:36	9° \mathcal{X} 41'07	2°02'16	retrograde	3294 Apr 01 02:38	26° Υ 51'12	
minimum elong	3293 Apr 28 18:18	9° \mathcal{X} 34'01	2°01'10	evening set	3294 Apr 03 14:34	26° Υ 24'47	
min. Earth dist.	3293 May 01 23:43	7° \mathcal{X} 07'04	0.57785 AU	inferior conj	3294 Apr 10 13:53	21° Υ 37'12	3°01'26
morning rise	3293 May 06 10:23	4° \mathcal{X} 23'10		minimum elong	3294 Apr 10 17:08	21° Υ 29'55	3°00'47
desc. node	3293 May 06 03:15	4° \mathcal{X} 31'49		min. Earth dist.	3294 Apr 13 22:50	18° Υ 37'44	0.59904 AU
direct	3293 May 12 04:52	2° \mathcal{X} 59'36		morning rise	3294 Apr 17 16:05	15° Υ 53'37	
morning max el	3293 May 26 13:47	10° \mathcal{X} 35'58	26°34'32	desc. node	3294 Apr 23 00:18	13° Υ 58'33	
	3293 Jun 10 11:42	0° Π		direct	3294 Apr 24 04:21	13° Υ 54'46	
morning set	3293 Jun 24 18:01	26° Π 33'41		morning max el	3294 May 08 12:09	21° Υ 45'11	27°31'10
asc. node	3293 Jun 25 15:24	28° Π 26'53			3294 May 15 17:20	0° \mathcal{X}	
	3293 Jun 26 08:50	0° \mathcal{E}			3294 Jun 03 10:47	0° Π	
superior conj	3293 Jul 01 18:59	11° \mathcal{E} 51'02	1°00'44	morning set	3294 Jun 09 01:35	11° Π 12'24	
minimum elong	3293 Jul 01 16:46	11° \mathcal{E} 38'50	1°00'20	asc. node	3294 Jun 12 12:26	18° Π 31'40	
max. Earth dist.	3293 Jul 02 00:59	12° \mathcal{E} 24'09	1.32168 AU	max. Earth dist.	3294 Jun 15 12:52	25° Π 06'44	1.32097 AU
evening rise	3293 Jul 08 17:40	26° \mathcal{E} 53'52					
				superior conj	3294 Jun 16 06:32	26° Π 43'56	0°38'39
				minimum elong	3294 Jun 16 04:55	26° Π 34'59	0°38'18

	3294 Jun 17 18:08	0°☿		superior conj	3295 May 31 16:22	11°II27'46	0°13'31
evening rise	3294 Jun 23 03:26	11°☿42'07		minimum elong	3295 May 31 15:44	11°II24'20	0°13'22
	3294 Jul 02 10:46	0°♊		behind sun begin	3295 May 31 12:55	11°II09'02	
desc. node	3294 Jul 19 23:33	24°♊45'47		behind sun end	3295 May 31 18:32	11°II39'38	
evening max el	3294 Jul 20 22:48	25°♊42'42	25°47'13	evening rise	3295 Jun 07 15:04	26°II32'24	
	3294 Jul 26 07:34	0°♋			3295 Jun 09 06:33	0°☿	
retrograde	3294 Aug 03 22:21	2°♋50'23			3295 Jun 26 20:10	0°♊	
evening set	3294 Aug 10 01:57	1°♋20'44		evening max el	3295 Jul 02 13:11	6°♊25'08	24°19'37
	3294 Aug 12 12:51	30°♋♊		desc. node	3295 Jul 06 20:34	10°♊00'05	
min. Earth dist.	3294 Aug 14 11:00	28°♊44'05	0.58493 AU	retrograde	3295 Jul 16 09:34	13°♊24'33	
inferior conj	3294 Aug 17 16:24	26°♊24'40	-5°-2'-43	evening set	3295 Jul 21 05:23	12°♊32'35	
minimum elong	3294 Aug 17 18:43	26°♊20'27	5°02'34	min. Earth dist.	3295 Jul 26 23:59	9°♊38'24	0.56632 AU
morning rise	3294 Aug 25 15:00	22°♊01'52		inferior conj	3295 Jul 29 15:18	7°♊58'48	-5°00'00
direct	3294 Aug 28 02:00	21°♊42'24		minimum elong	3295 Jul 29 12:06	8°♊03'51	4°59'46
morning max el	3294 Sep 05 08:19	25°♊38'43	18°40'22	morning rise	3295 Aug 06 22:25	3°♊57'13	
asc. node	3294 Sep 08 11:40	29°♊08'59		direct	3295 Aug 09 14:41	3°♊38'03	
	3294 Sep 09 03:18	0°♋		morning max el	3295 Aug 19 05:03	8°♊06'01	19°36'40
morning set	3294 Sep 21 14:30	21°♋35'46		asc. node	3295 Aug 26 08:42	17°♊04'39	
	3294 Sep 25 22:08	0°♌			3295 Sep 02 15:27	0°♋	
				morning set	3295 Sep 05 16:32	6°♋01'59	
superior conj	3294 Sep 30 08:19	8°♌27'30	1°33'27				
minimum elong	3294 Sep 30 11:13	8°♌41'08	1°33'13	superior conj	3295 Sep 13 16:19	22°♋05'33	1°43'07
max. Earth dist.	3294 Oct 07 13:30	21°♌35'40	1.39651 AU	minimum elong	3295 Sep 13 17:27	22°♋11'10	1°43'04
evening rise	3294 Oct 11 16:09	28°♌40'26			3295 Sep 17 18:18	0°♌	
	3294 Oct 12 11:05	0°♍		max. Earth dist.	3295 Sep 19 17:45	3°♌42'44	1.37583 AU
desc. node	3294 Oct 15 22:53	5°♍45'06		evening rise	3295 Sep 23 13:01	10°♌37'34	
	3294 Nov 01 01:59	0°♎		desc. node	3295 Oct 02 19:54	26°♌17'53	
evening max el	3294 Nov 15 17:34	17°♎59'01	24°03'05		3295 Oct 05 04:11	0°♍	
retrograde	3294 Nov 26 18:17	24°♎27'55			3295 Oct 27 14:32	0°♎	
evening set	3294 Dec 01 23:35	22°♎18'23		evening max el	3295 Oct 29 05:43	1°♎39'25	25°18'47
asc. node	3294 Dec 05 10:55	18°♎31'52		retrograde	3295 Nov 10 06:06	8°♎35'27	
inferior conj	3294 Dec 07 11:02	15°♎51'36	0°40'51	evening set	3295 Nov 16 01:30	6°♎10'42	
minimum elong	3294 Dec 07 10:04	15°♎54'51	0°40'28	min. Earth dist.	3295 Nov 20 12:56	1°♎12'53	0.67238 AU
min. Earth dist.	3294 Dec 06 18:59	16°♎45'51	0.67766 AU		3295 Nov 21 11:26	30°♎♍	
morning rise	3294 Dec 12 20:50	9°♎45'07		inferior conj	3295 Nov 21 15:48	29°♎45'49	0°-13'-52
direct	3294 Dec 16 18:10	8°♎19'17		minimum elong	3295 Nov 21 16:09	29°♎44'40	0°13'43
morning max el	3294 Dec 24 17:54	12°♎54'30	20°32'16	transit middle	3295 Nov 21 16:09	29°♎44'40	0°13'43
greatest brilliancy	3294 Dec 30 20:27	20°♎05'33	-0.5m	transit begin	3295 Nov 21 14:40	29°♎49'29	
	3295 Jan 06 23:46	0°♏		transit end	3295 Nov 21 17:38	29°♎39'52	
desc. node	3295 Jan 11 22:10	7°♏15'19		asc. node	3295 Nov 22 07:57	28°♎53'40	
morning set	3295 Jan 22 08:43	23°♏08'42		morning rise	3295 Nov 27 07:31	23°♎46'45	
	3295 Jan 26 17:54	0°♐		direct	3295 Nov 30 16:38	22°♎40'52	
max. Earth dist.	3295 Jan 31 17:45	7°♐57'57	1.43306 AU	morning max el	3295 Dec 07 21:29	26°♎43'46	19°27'51
					3295 Dec 10 19:50	0°♎	
superior conj	3295 Feb 07 03:41	18°♐29'02	-2°-5'-23	greatest brilliancy	3295 Dec 16 15:21	7°♎47'22	-0.7m
minimum elong	3295 Feb 07 01:27	18°♐19'44	2°05'22	desc. node	3295 Dec 29 19:10	27°♎37'05	
	3295 Feb 13 22:29	0°♑			3295 Dec 31 08:12	0°♏	
evening rise	3295 Feb 19 11:27	9°♑40'17		morning set	3296 Jan 01 06:41	1°♏26'57	
asc. node	3295 Mar 03 10:12	29°♑50'50		max. Earth dist.	3296 Jan 14 06:51	21°♏46'11	1.44588 AU
	3295 Mar 03 12:41	0°♒					
evening max el	3295 Mar 08 16:17	6°♒30'20	18°07'31	superior conj	3296 Jan 18 01:44	27°♏47'28	-1°-48'-46
retrograde	3295 Mar 15 04:19	9°♒53'21		minimum elong	3296 Jan 17 17:55	27°♏16'18	1°48'11
evening set	3295 Mar 17 21:44	9°♒16'55			3296 Jan 19 10:49	0°♐	
inferior conj	3295 Mar 24 07:18	4°♒08'25	3°31'27	evening rise	3296 Feb 01 05:20	20°♐57'37	
minimum elong	3295 Mar 24 08:50	4°♒04'29	3°31'19		3296 Feb 06 14:59	0°♑	
min. Earth dist.	3295 Mar 27 06:02	1°♒08'21	0.62056 AU	asc. node	3296 Feb 18 07:15	17°♑43'57	
	3295 Mar 28 10:57	30°♒♑		evening max el	3296 Feb 20 04:50	19°♑50'42	18°21'31
morning rise	3295 Mar 30 17:23	28°♑08'37		retrograde	3296 Feb 26 16:09	23°♑20'56	
direct	3295 Apr 06 14:08	25°♑39'56		evening set	3296 Feb 29 15:06	22°♑33'27	
desc. node	3295 Apr 09 21:20	26°♑11'12		inferior conj	3296 Mar 06 14:38	17°♑05'45	3°39'02
	3295 Apr 16 15:46	0°♒		minimum elong	3296 Mar 06 14:24	17°♑06'26	3°39'03
morning max el	3295 Apr 20 16:51	3°♒37'18	27°51'08	min. Earth dist.	3296 Mar 08 22:44	14°♑25'48	0.63994 AU
	3295 May 10 06:44	0°♓		morning rise	3296 Mar 12 12:01	10°♑56'55	
morning set	3295 May 24 04:14	25°♓33'50		direct	3296 Mar 19 08:20	8°♑10'31	
	3295 May 26 07:51	0°♔		desc. node	3296 Mar 26 18:22	10°♑48'24	
max. Earth dist.	3295 May 29 21:55	7°♔37'31	1.32431 AU	morning max el	3296 Apr 02 01:33	16°♑06'38	27°34'10
asc. node	3295 May 30 09:28	8°♔39'57			3296 Apr 13 12:20	0°♒	

	3296 May 02 00:18	0°♄			3297 Mar 16 10:00	0°♄		
morning set	3296 May 06 23:27	9°♄30'00			3297 Apr 07 08:23	0°♄		
max. Earth dist.	3296 May 12 00:03	19°♄43'38	1.33188 AU	morning set	3297 Apr 20 07:56	22°♄50'33		
					3297 Apr 24 00:17	0°♄		
superior conj	3296 May 14 22:37	25°♄56'41	0°-13'-54	max. Earth dist.	3297 Apr 24 15:42	1°♄16'46	1.34406 AU	
minimum elong	3296 May 14 23:19	26°♄00'25	0°13'46					
behind sun begin	3296 May 14 20:34	25°♄45'46		superior conj	3297 Apr 28 23:07	10°♄03'55	0°-42'-31	
behind sun end	3296 May 15 02:03	26°♄15'04		minimum elong	3297 Apr 29 01:20	10°♄15'26	0°42'05	
asc. node	3296 May 16 06:31	28°♄47'36		asc. node	3297 May 03 03:35	18°♄50'14		
	3296 May 16 20:00	0°♄		evening rise	3297 May 06 12:23	25°♄53'52		
evening rise	3296 May 22 02:41	11°♄18'29			3297 May 08 12:13	0°♄		
	3296 May 31 17:30	0°♄		evening max el	3297 May 26 00:07	27°♄32'02	21°12'03	
evening max el	3296 Jun 13 03:02	16°♄50'56	22°43'01		3297 May 28 20:53	0°♄		
desc. node	3296 Jun 22 17:35	22°♄55'54		retrograde	3297 Jun 06 22:08	3°♄22'13		
retrograde	3296 Jun 26 08:36	23°♄26'02		evening set	3297 Jun 09 05:00	3°♄10'07		
evening set	3296 Jun 29 16:14	23°♄01'52		desc. node	3297 Jun 09 14:38	3°♄05'36		
min. Earth dist.	3296 Jul 07 11:11	19°♄36'01	0.55318 AU		3297 Jun 17 03:06	30°♄		
inferior conj	3296 Jul 08 19:36	18°♄49'37	-4°-10'-41	inferior conj	3297 Jun 18 13:32	29°♄11'56	-2°-34'-20	
minimum elong	3296 Jul 08 11:43	19°♄00'56	4°08'56	minimum elong	3297 Jun 18 06:34	29°♄21'44	2°32'00	
morning rise	3296 Jul 17 09:48	14°♄58'40		min. Earth dist.	3297 Jun 18 22:50	28°♄58'53	0.54854 AU	
direct	3296 Jul 20 09:12	14°♄38'11		morning rise	3297 Jun 27 08:08	25°♄13'47		
morning max el	3296 Jul 31 14:20	19°♄50'39	20°54'01	direct	3297 Jun 30 19:01	24°♄47'59		
	3296 Aug 08 18:43	0°♄			3297 Jul 12 13:44	0°♄		
asc. node	3296 Aug 12 05:45	5°♄43'11		morning max el	3297 Jul 13 12:32	0°♄51'16	22°28'39	
morning set	3296 Aug 19 23:50	20°♄44'04		asc. node	3297 Jul 30 02:48	24°♄53'26		
	3296 Aug 24 10:43	0°♄			3297 Aug 01 17:08	0°♄		
				morning set	3297 Aug 04 10:15	5°♄35'08		
superior conj	3296 Aug 27 11:37	6°♄17'37	1°44'27					
minimum elong	3296 Aug 27 11:11	6°♄15'22	1°44'26	superior conj	3297 Aug 11 14:37	20°♄51'57	1°38'56	
max. Earth dist.	3296 Sep 01 02:08	15°♄33'48	1.35719 AU	minimum elong	3297 Aug 11 13:02	20°♄43'34	1°38'50	
evening rise	3296 Sep 05 05:39	23°♄31'08		max. Earth dist.	3297 Aug 14 19:07	27°♄32'48	1.34206 AU	
	3296 Sep 08 18:44	0°♄			3297 Aug 15 23:47	0°♄		
desc. node	3296 Sep 18 16:56	16°♄36'50		evening rise	3297 Aug 19 13:25	7°♄07'50		
	3296 Sep 27 20:00	0°♄			3297 Sep 01 09:04	0°♄		
evening max el	3296 Oct 10 18:03	15°♄20'16	26°22'47	desc. node	3297 Sep 05 13:57	6°♄34'29		
retrograde	3296 Oct 23 13:03	22°♄32'15		evening max el	3297 Sep 23 06:35	28°♄52'34	27°07'37	
evening set	3296 Oct 29 22:01	19°♄56'02			3297 Sep 24 11:40	0°♄		
min. Earth dist.	3296 Nov 03 02:12	15°♄34'09	0.66368 AU	retrograde	3297 Oct 06 14:14	6°♄10'06		
inferior conj	3296 Nov 04 16:22	13°♄37'53	-1°-12'-10	evening set	3297 Oct 13 10:49	3°♄28'53		
minimum elong	3296 Nov 04 18:18	13°♄31'57	1°11'22		3297 Oct 17 02:12	30°♄		
asc. node	3296 Nov 08 04:59	9°♄41'03		min. Earth dist.	3297 Oct 17 08:21	29°♄43'13	0.65150 AU	
morning rise	3296 Nov 10 15:50	7°♄48'54		inferior conj	3297 Oct 19 10:31	27°♄22'28	-2°-12'-25	
direct	3296 Nov 13 14:53	6°♄59'14		minimum elong	3297 Oct 19 14:11	27°♄12'10	2°11'01	
morning max el	3296 Nov 20 07:52	10°♄40'34	18°38'55	morning rise	3297 Oct 25 19:22	21°♄46'41		
	3296 Dec 04 04:26	0°♄		asc. node	3297 Oct 26 02:01	21°♄39'19		
morning set	3296 Dec 11 01:25	10°♄52'39		direct	3297 Oct 28 10:43	21°♄09'20		
desc. node	3296 Dec 15 16:13	18°♄11'13		morning max el	3297 Nov 03 22:40	24°♄38'26	18°06'36	
	3296 Dec 23 04:18	0°♄			3297 Nov 08 08:41	0°♄		
				morning set	3297 Nov 22 01:36	21°♄46'34		
superior conj	3296 Dec 27 05:56	6°♄23'05	-1°-13'-18		3297 Nov 27 01:38	0°♄		
minimum elong	3296 Dec 26 21:23	5°♄49'32	1°12'20	desc. node	3297 Dec 02 13:16	8°♄53'09		
max. Earth dist.	3296 Dec 27 00:25	6°♄01'26	1.45191 AU					
	3297 Jan 11 04:36	0°♄		superior conj	3297 Dec 06 11:19	15°♄08'34	0°-26'-26	
evening rise	3297 Jan 12 00:04	1°♄17'44		minimum elong	3297 Dec 06 07:59	14°♄55'19	0°26'00	
	3297 Jan 30 18:39	0°♄		max. Earth dist.	3297 Dec 09 19:43	20°♄26'22	1.45050 AU	
evening max el	3297 Feb 02 15:30	3°♄18'16	18°53'29		3297 Dec 15 22:16	0°♄		
asc. node	3297 Feb 04 04:18	4°♄44'26		evening rise	3297 Dec 22 21:22	10°♄48'49		
retrograde	3297 Feb 09 10:15	7°♄06'55			3298 Jan 04 09:28	0°♄		
evening set	3297 Feb 12 15:28	6°♄07'18		greatest brilliancy	3298 Jan 09 06:53	7°♄10'38	-0.6m	
inferior conj	3297 Feb 18 08:07	0°♄22'16	3°29'54	evening max el	3298 Jan 16 22:12	16°♄49'08	19°41'56	
minimum elong	3297 Feb 18 06:33	0°♄27'08	3°29'44	asc. node	3298 Jan 22 01:19	20°♄38'14		
	3297 Feb 18 15:15	30°♄		retrograde	3298 Jan 24 07:30	21°♄05'53		
min. Earth dist.	3297 Feb 20 00:40	28°♄16'10	0.65581 AU	evening set	3298 Jan 27 20:17	19°♄52'51		
morning rise	3297 Feb 23 20:34	24°♄08'55		inferior conj	3298 Feb 02 08:35	13°♄52'44	3°08'09	
direct	3297 Mar 02 09:35	21°♄19'08		minimum elong	3298 Feb 02 06:16	14°♄00'24	3°07'39	
desc. node	3297 Mar 13 15:25	27°♄15'38		min. Earth dist.	3298 Feb 03 10:29	12°♄27'10	0.66756 AU	
morning max el	3297 Mar 15 11:24	29°♄01'52	26°45'24	morning rise	3298 Feb 07 15:33	7°♄37'33		

direct	3298 Feb 13 16:35	4°  56'47		direct	3299 Jan 28 04:35	18°  54'28	
morning max el	3298 Feb 25 20:31	12°  11'43	25°33'22	morning max el	3299 Feb 08 05:01	25°  28'43	24°07'55
desc. node	3298 Feb 28 12:29	15°  02'17			3299 Feb 12 07:51	0° 	
	3298 Mar 12 04:01	0° 		desc. node	3299 Feb 15 09:31	3° 	45'01
	3298 Mar 31 01:10	0° 			3299 Mar 05 16:44	0° 	
morning set	3298 Apr 03 01:18	5°  22'46		morning set	3299 Mar 15 21:45	16° 	50'26
max. Earth dist.	3298 Apr 06 19:59	12°  23'48	1.36079 AU	max. Earth dist.	3299 Mar 19 16:34	23° 	30'05 1.38109 AU
					3299 Mar 23 06:09	0° 	
superior conj	3298 Apr 12 15:12	23°  41'53	-1°-10'-51	superior conj	3299 Mar 26 19:18	6° 	40'35 -1°-36'-39
minimum elong	3298 Apr 12 18:52	24°  00'15	1°10'14	minimum elong	3299 Mar 26 23:51	7° 	02'20 1°36'07
	3298 Apr 15 18:06	0° 			3299 Apr 04 17:07	24° 	05'46
asc. node	3298 Apr 20 00:38	8°  43'41		evening rise	3299 Apr 06 21:40	28° 	22'41
evening rise	3298 Apr 20 18:03	10°  12'16		asc. node	3299 Apr 07 17:50	0° 	
	3298 May 01 10:53	0° 			3299 Apr 21 04:52	20° 	46'06 19°00'07
evening max el	3298 May 08 08:48	8°  49'12	19°56'23	evening max el	3299 Apr 29 19:00	24° 	57'12
retrograde	3298 May 18 13:27	13°  46'18		retrograde	3299 May 01 21:24	24° 	43'12
evening set	3298 May 20 12:58	13°  35'55		evening set	3299 May 10 01:19	20° 	27'58 1°13'13
desc. node	3298 May 27 11:39	10°  46'25		inferior conj	3299 May 10 04:03	20° 	23'11 1°12'17
inferior conj	3298 May 29 11:17	9°  35'33	0°-35'-5	minimum elong	3299 May 13 03:22	18° 	19'12 0.56718 AU
minimum elong	3298 May 29 09:40	9°  38'00	0°34'29	min. Earth dist.	3299 May 14 08:42	17° 	31'31
min. Earth dist.	3298 May 31 11:50	8°  22'04	0.55357 AU	desc. node	3299 May 18 06:23	15° 	28'47
morning rise	3298 Jun 07 03:34	5°  21'43		morning rise	3299 May 23 11:15	14° 	24'44
direct	3298 Jun 11 08:57	4°  32'38		direct	3299 Jun 06 18:21	21° 	47'38 25°48'06
morning max el	3298 Jun 25 03:45	11°  21'38	24°11'27	morning max el	3299 Jun 13 23:02	0° 	
	3298 Jul 09 05:26	0° 			3299 Jun 01 19:07	0° 	
asc. node	3298 Jul 16 23:53	14°  27'13		asc. node	3299 Jul 03 20:55	4° 	17'20
morning set	3298 Jul 19 22:00	20°  30'04		morning set	3299 Jul 04 09:28	5° 	23'19
	3298 Jul 24 08:00	0° 					
superior conj	3298 Jul 26 22:37	5°  40'22	1°27'45	superior conj	3299 Jul 11 09:26	20° 	35'36 1°11'48
minimum elong	3298 Jul 26 20:24	5°  28'21	1°27'30	minimum elong	3299 Jul 11 07:05	20° 	22'41 1°11'26
max. Earth dist.	3298 Jul 28 21:06	9°  51'09	1.33097 AU	max. Earth dist.	3299 Jul 12 05:39	22° 	26'29 1.32391 AU
evening rise	3298 Aug 03 08:16	21°  16'24			3299 Jul 15 17:12	0° 	
	3298 Aug 07 19:07	0° 		evening rise	3299 Jul 18 10:55	5° 	46'47
desc. node	3298 Aug 23 10:57	26°  01'49			3299 Jul 31 09:26	0° 	
	3298 Aug 26 07:40	0° 		desc. node	3299 Aug 10 07:58	14° 	46'32
evening max el	3298 Sep 05 17:48	12°  04'10	27°26'14	evening max el	3299 Aug 19 01:08	24° 	41'38 27°13'29
retrograde	3298 Sep 19 09:08	19°  20'52			3299 Aug 26 01:48	0° 	
evening set	3298 Sep 26 12:59	16°  43'54		retrograde	3299 Sep 01 21:14	1° 	55'39
min. Earth dist.	3298 Sep 30 05:10	13°  32'01	0.63589 AU		3299 Sep 08 08:37	30° 	00'00
inferior conj	3298 Oct 02 19:42	10°  53'43	-3°-11'-58	evening set	3299 Sep 09 00:48	29° 	35'00
minimum elong	3298 Oct 03 00:51	10°  40'40	3°10'17	min. Earth dist.	3299 Sep 12 15:24	26° 	49'02 0.61721 AU
morning rise	3298 Oct 09 15:06	5°  34'44		inferior conj	3299 Sep 15 16:50	24° 	04'23 -4°-6'-27
direct	3298 Oct 12 01:24	5°  06'02		minimum elong	3299 Sep 15 22:35	23° 	51'28 4°05'03
asc. node	3298 Oct 12 23:05	5°  10'05		morning rise	3299 Sep 22 23:19	19° 	05'39
morning max el	3298 Oct 18 15:08	8°  31'21	17°51'39	direct	3299 Sep 25 07:20	18° 	42'33
	3298 Nov 01 21:25	0° 		asc. node	3299 Sep 29 20:08	20° 	00'12
morning set	3298 Nov 04 03:51	3°  55'55		morning max el	3299 Oct 02 06:17	22° 	12'28 17°54'59
					3299 Oct 08 06:44	0° 	
superior conj	3298 Nov 16 12:39	24°  54'51	0°19'53	morning set	3299 Oct 18 01:50	17° 	01'44
minimum elong	3298 Nov 16 14:44	25°  03'27	0°19'35		3299 Oct 25 06:32	0° 	
desc. node	3298 Nov 19 10:16	29°  39'16		superior conj	3299 Oct 28 16:58	6° 	00'54 0°57'22
	3298 Nov 19 15:23	0° 		minimum elong	3299 Oct 28 21:12	6° 	19'15 0°56'50
max. Earth dist.	3298 Nov 22 13:43	4°  42'56	1.44190 AU	max. Earth dist.	3299 Nov 05 03:22	18° 	32'32 1.42720 AU
evening rise	3298 Dec 02 06:56	19°  45'33		desc. node	3299 Nov 06 07:16	20° 	26'37
	3298 Dec 08 21:19	0° 		evening rise	3299 Nov 11 20:53	29° 	21'06
greatest brilliancy	3298 Dec 25 07:59	23°  39'36	-0.5m		3299 Nov 12 06:48	0° 	
	3298 Dec 30 15:37	0° 			3299 Dec 02 13:28	0° 	
evening max el	3298 Dec 30 23:35	0°  20'42	20°44'33	greatest brilliancy	3299 Dec 09 01:35	8° 	31'05 -0.3m
retrograde	3299 Jan 08 05:32	5°  13'05		evening max el	3299 Dec 13 19:24	13° 	53'17 21°57'54
asc. node	3299 Jan 08 22:21	5°  10'22		retrograde	3299 Dec 23 02:28	19° 	25'16
evening set	3299 Jan 12 03:28	3°  45'21		asc. node	3299 Dec 26 19:22	18° 	11'10
	3299 Jan 15 17:33	30° 		evening set	3299 Dec 27 11:16	17° 	41'45
inferior conj	3299 Jan 17 13:28	27°  32'56	2°36'27	inferior conj	3300 Jan 01 20:42	11° 	20'29 1°56'41
minimum elong	3299 Jan 17 10:56	27°  41'37	2°35'43	minimum elong	3300 Jan 01 18:26	11° 	28'21 1°55'53
min. Earth dist.	3299 Jan 18 02:14	26°  49'15	0.67517 AU	min. Earth dist.	3300 Jan 01 21:42	11° 	17'03 0.67893 AU
morning rise	3299 Jan 22 18:00	21° 					

morning rise	3300 Jan 07 01:26	5°☿06'52		minimum elong	3300 Dec 17 02:49	25°♄17'41	1°09'36
direct	3300 Jan 11 20:56	3°☿05'32		min. Earth dist.	3300 Dec 16 18:30	25°♄46'16	0.67909 AU
morning max el	3300 Jan 21 15:15	8°☿51'52	22°39'05	morning rise	3300 Dec 22 11:40	19°♄02'23	
greatest brilliancy	3300 Jan 26 05:19	13°☿58'45	-0.3m	direct	3300 Dec 26 16:43	17°♄23'53	
desc. node	3300 Feb 02 06:32	23°☿08'02		morning max el	3301 Jan 04 06:33	22°♄23'08	21°15'26
	3300 Feb 07 03:27	0°♁		greatest brilliancy	3301 Jan 09 11:40	28°♄20'59	-0.4m
morning set	3300 Feb 24 15:22	26°♁59'10			3301 Jan 10 18:44	0°☿	
	3300 Feb 26 11:08	0°♁		desc. node	3301 Jan 20 03:33	12°☿59'38	
max. Earth dist.	3300 Mar 01 12:21	5°♁08'21	1.40280 AU		3301 Jan 31 11:17	0°♁	
				morning set	3301 Feb 04 04:25	5°♁47'36	
superior conj	3300 Mar 09 07:06	18°♁49'33	-1°-56'-40	max. Earth dist.	3301 Feb 11 13:35	17°♁39'03	1.42308 AU
minimum elong	3300 Mar 09 11:05	19°♁07'34	1°56'26				
	3300 Mar 15 08:02	0°♂		superior conj	3301 Feb 18 21:29	29°♁56'53	-2°-6'-29
evening rise	3300 Mar 19 06:30	7°♂26'40		minimum elong	3301 Feb 18 22:20	0°♁00'30	2°06'30
asc. node	3300 Mar 24 18:41	17°♂41'57			3301 Feb 18 22:13	0°♁	
	3300 Apr 01 12:17	0°♂		evening rise	3301 Mar 02 06:21	20°♁05'56	
evening max el	3300 Apr 04 09:46	3°♂17'47	18°24'07		3301 Mar 07 18:44	0°♂	
retrograde	3300 Apr 11 19:23	6°♂57'32		asc. node	3301 Mar 11 15:43	6°♂34'54	
evening set	3300 Apr 14 03:42	6°♂36'27		evening max el	3301 Mar 18 20:10	16°♂15'30	18°08'06
inferior conj	3300 Apr 21 12:42	2°♂01'17	2°31'16	retrograde	3301 Mar 25 12:53	19°♂40'06	
minimum elong	3300 Apr 21 16:28	1°♂53'32	2°30'18	evening set	3301 Mar 28 03:10	19°♂09'39	
	3300 Apr 23 23:43	30°♂♂		inferior conj	3301 Apr 03 20:12	14°♂13'23	3°17'17
min. Earth dist.	3300 Apr 24 23:20	29°♂13'12	0.58661 AU	minimum elong	3301 Apr 03 22:47	14°♂07'14	3°16'54
morning rise	3300 Apr 29 00:59	26°♂30'46		min. Earth dist.	3301 Apr 07 01:51	11°♂10'24	0.60829 AU
desc. node	3300 May 01 05:44	25°♂32'53		morning rise	3301 Apr 10 15:12	8°♂21'51	
direct	3300 May 05 03:52	24°♂52'07		direct	3301 Apr 17 08:22	6°♂08'43	
	3300 May 16 16:12	0°♂		desc. node	3301 Apr 18 02:45	6°♂10'23	
morning max el	3300 May 19 13:18	2°♂36'15	27°02'47	morning max el	3301 May 01 14:26	14°♂03'37	27°44'15
	3300 Jun 08 08:08	0°♂			3301 May 14 09:41	0°♂	
morning set	3300 Jun 18 18:58	20°♂09'10			3301 May 31 17:12	0°♂	
asc. node	3300 Jun 20 17:57	24°♂18'10		morning set	3301 Jun 03 00:45	4°♂41'56	
	3300 Jun 23 09:00	0°♂		asc. node	3301 Jun 07 14:59	14°♂25'22	
				max. Earth dist.	3301 Jun 09 04:16	17°♂48'08	1.32184 AU
superior conj	3300 Jun 25 21:15	5°♂31'16	0°51'47				
minimum elong	3300 Jun 25 19:14	5°♂20'09	0°51'23	superior conj	3301 Jun 10 08:20	20°♂21'48	0°28'21
max. Earth dist.	3300 Jun 25 17:14	5°♂09'09	1.32086 AU	minimum elong	3301 Jun 10 07:05	20°♂14'57	0°28'04
evening rise	3300 Jul 02 18:43	20°♂30'35			3301 Jun 14 17:52	0°♂	
	3300 Jul 07 10:21	0°♂		evening rise	3301 Jun 17 05:33	5°♂21'06	
	3300 Jul 26 02:13	0°♂			3301 Jun 30 06:04	0°♂	
desc. node	3300 Jul 28 04:59	2°♂30'33		evening max el	3301 Jul 13 20:05	17°♂40'20	25°12'12
evening max el	3300 Aug 01 02:08	6°♂34'03	26°27'29	desc. node	3301 Jul 15 02:01	18°♂49'17	
retrograde	3300 Aug 15 01:28	13°♂45'06		retrograde	3301 Jul 27 19:38	24°♂45'47	
evening set	3300 Aug 21 17:30	11°♂54'02		evening set	3301 Aug 02 10:45	23°♂32'51	
min. Earth dist.	3300 Aug 25 15:31	9°♂19'10	0.59666 AU	min. Earth dist.	3301 Aug 07 07:52	20°♂50'30	0.57654 AU
inferior conj	3300 Aug 28 22:23	6°♂44'44	-4°-48'-33	inferior conj	3301 Aug 10 09:07	18°♂46'01	-5°-6'-31
minimum elong	3300 Aug 29 02:47	6°♂36'06	4°47'56	minimum elong	3301 Aug 10 09:19	18°♂45'40	5°06'32
morning rise	3300 Sep 05 15:29	2°♂08'45		morning rise	3301 Aug 18 11:29	14°♂32'38	
direct	3300 Sep 08 00:20	1°♂48'40		direct	3301 Aug 21 00:19	14°♂13'32	
morning max el	3300 Sep 15 16:47	5°♂32'34	18°17'50	morning max el	3301 Aug 29 19:25	18°♂22'15	19°01'34
asc. node	3300 Sep 16 17:10	6°♂34'41		asc. node	3301 Sep 03 14:13	24°♂00'36	
	3300 Oct 01 03:55	0°♂			3301 Sep 07 10:46	0°♂	
morning set	3300 Oct 01 13:54	0°♂47'27		morning set	3301 Sep 15 11:51	15°♂01'55	
					3301 Sep 23 02:19	0°♂	
superior conj	3300 Oct 10 21:35	18°♂17'52	1°23'27				
minimum elong	3300 Oct 11 01:21	18°♂35'02	1°23'04	superior conj	3301 Sep 23 21:10	1°♂30'48	1°38'39
	3300 Oct 17 11:49	0°♂		minimum elong	3301 Sep 23 23:19	1°♂41'11	1°38'31
max. Earth dist.	3300 Oct 18 11:14	1°♂40'29	1.40831 AU	max. Earth dist.	3301 Sep 30 15:42	14°♂07'14	1.38765 AU
evening rise	3300 Oct 23 05:07	9°♂36'50		evening rise	3301 Oct 04 13:02	20°♂58'19	
desc. node	3300 Oct 24 04:16	11°♂11'20			3301 Oct 09 22:11	0°♂	
	3300 Nov 05 07:43	0°♂		desc. node	3301 Oct 11 01:18	1°♂49'56	
evening max el	3300 Nov 26 10:41	27°♂28'09	23°17'14		3301 Oct 30 09:01	0°♂	
	3300 Nov 29 04:23	0°☿		evening max el	3301 Nov 08 23:38	11°♂07'28	24°36'16
retrograde	3300 Dec 06 20:42	3°☿38'20		retrograde	3301 Nov 20 11:02	17°♂48'58	
evening set	3300 Dec 11 18:01	1°☿38'25		evening set	3301 Nov 25 22:11	15°♂32'59	
	3300 Dec 13 10:38	30°♂♂		min. Earth dist.	3301 Nov 30 14:13	10°♂14'49	0.67585 AU
asc. node	3300 Dec 13 16:25	29°♂43'54		asc. node	3301 Nov 30 13:27	10°♂17'19	
inferior conj	3300 Dec 17 04:22	25°♂12'21	1°10'13	inferior conj	3301 Dec 01 10:43	9°♂06'30	0°18'11

minimum elong	3301 Dec 01 10:16	9° \mathcal{A} 07'59	0°18'00	retrograde	3302 Nov 03 20:41	1° \mathcal{A} 52'40	
morning rise	3301 Dec 06 22:47	3° \mathcal{A} 02'35			3302 Nov 09 03:00	30° $\mathcal{R}\mathcal{M}$	
direct	3301 Dec 10 14:44	1° \mathcal{A} 45'28		evening set	3302 Nov 09 22:03	29° \mathcal{M} 22'35	
morning max el	3301 Dec 18 05:29	6° \mathcal{A} 05'35	20°02'57	min. Earth dist.	3302 Nov 14 06:26	24° \mathcal{M} 39'59	0.66916 AU
greatest brilliancy	3301 Dec 25 06:00	14° \mathcal{A} 35'00	-0.6m	inferior conj	3302 Nov 15 13:58	23° \mathcal{M} 00'16	0°-38'-12
	3302 Jan 04 21:38	0° \mathcal{B}		minimum elong	3302 Nov 15 14:58	22° \mathcal{M} 57'06	0°37'47
desc. node	3302 Jan 07 00:33	3° \mathcal{B} 12'04		asc. node	3302 Nov 17 10:29	20° \mathcal{M} 43'11	
morning set	3302 Jan 14 00:43	13° \mathcal{B} 55'09		morning rise	3302 Nov 21 08:46	17° \mathcal{M} 05'08	
	3302 Jan 24 06:58	0° \mathcal{A}		direct	3302 Nov 24 13:27	16° \mathcal{M} 06'27	
max. Earth dist.	3302 Jan 24 22:58	1° \mathcal{A} 03'46	1.43929 AU	morning max el	3302 Dec 01 12:10	19° \mathcal{M} 58'30	19°05'02
					3302 Dec 09 10:14	0° \mathcal{A}	
superior conj	3302 Jan 30 10:15	9° \mathcal{A} 54'02	-2°00'-46	morning set	3302 Dec 24 05:26	22° \mathcal{A} 36'45	
minimum elong	3302 Jan 30 05:27	9° \mathcal{A} 34'28	2°00'33	desc. node	3302 Dec 24 21:36	23° \mathcal{A} 39'45	
	3302 Feb 11 09:38	0° \mathcal{H}			3302 Dec 28 23:05	0° \mathcal{B}	
evening rise	3302 Feb 12 12:20	1° \mathcal{H} 54'44		max. Earth dist.	3303 Jan 07 14:55	15° \mathcal{B} 07'56	1.44937 AU
asc. node	3302 Feb 26 12:46	24° \mathcal{H} 52'41					
evening max el	3302 Mar 02 08:49	29° \mathcal{H} 29'47	18°11'19	superior conj	3303 Jan 09 22:58	18° \mathcal{B} 49'06	-1°-35'-46
	3302 Mar 02 21:19	0° \mathcal{Y}		minimum elong	3303 Jan 09 13:58	18° \mathcal{B} 13'31	1°34'56
retrograde	3302 Mar 08 19:16	2° \mathcal{Y} 53'58			3303 Jan 16 23:22	0° \mathcal{A}	
evening set	3302 Mar 11 15:07	2° \mathcal{Y} 12'49		evening rise	3303 Jan 24 20:34	12° \mathcal{A} 47'53	
	3302 Mar 14 18:54	30° $\mathcal{R}\mathcal{H}$			3303 Feb 04 10:19	0° \mathcal{H}	
inferior conj	3302 Mar 17 20:00	26° \mathcal{H} 56'05	3°37'02	asc. node	3303 Feb 13 09:49	12° \mathcal{H} 25'04	
minimum elong	3302 Mar 17 20:45	26° \mathcal{H} 54'04	3°37'00	evening max el	3303 Feb 13 20:52	12° \mathcal{H} 53'49	18°32'59
min. Earth dist.	3302 Mar 20 12:50	24° \mathcal{H} 02'30	0.62917 AU	retrograde	3303 Feb 20 10:17	16° \mathcal{H} 30'28	
morning rise	3302 Mar 24 00:15	20° \mathcal{H} 52'05		evening set	3303 Feb 23 11:51	15° \mathcal{H} 37'47	
direct	3302 Mar 30 22:00	18° \mathcal{H} 14'05		inferior conj	3303 Mar 01 08:04	10° \mathcal{H} 02'12	3°36'57
desc. node	3302 Apr 04 23:48	19° \mathcal{H} 28'13		minimum elong	3303 Mar 01 07:12	10° \mathcal{H} 04'47	3°36'53
morning max el	3302 Apr 13 20:54	26° \mathcal{H} 11'32	27°48'16	min. Earth dist.	3303 Mar 03 09:25	7° \mathcal{H} 35'48	0.64716 AU
	3302 Apr 17 09:56	0° \mathcal{Y}		morning rise	3303 Mar 07 01:13	3° \mathcal{H} 51'13	
	3302 May 07 23:01	0° \mathcal{B}		direct	3303 Mar 13 19:06	1° \mathcal{H} 02'02	
morning set	3302 May 18 00:33	18° \mathcal{B} 53'24		desc. node	3303 Mar 22 20:49	4° \mathcal{H} 56'23	
	3302 May 23 09:01	0° \mathcal{H}		morning max el	3303 Mar 27 06:26	8° \mathcal{H} 53'19	27°17'00
max. Earth dist.	3302 May 23 10:49	0° \mathcal{H} 09'37	1.32700 AU		3303 Apr 12 17:34	0° \mathcal{Y}	
					3303 Apr 30 07:27	0° \mathcal{B}	
superior conj	3302 May 25 16:54	5° \mathcal{H} 00'10	0°02'09	morning set	3303 May 01 15:39	2° \mathcal{B} 35'24	
minimum elong	3302 May 25 16:47	4° \mathcal{H} 59'36	0°02'07	max. Earth dist.	3303 May 06 09:04	12° \mathcal{B} 03'00	1.33654 AU
behind sun begin	3302 May 25 11:35	4° \mathcal{H} 31'31					
behind sun end	3302 May 25 21:59	5° \mathcal{H} 27'44		superior conj	3303 May 09 20:58	19° \mathcal{B} 20'21	0°-25'-57
asc. node	3302 May 25 12:01	4° \mathcal{H} 33'49		minimum elong	3303 May 09 22:18	19° \mathcal{B} 27'23	0°25'41
evening rise	3302 Jun 01 17:25	20° \mathcal{H} 10'31		asc. node	3303 May 12 09:05	24° \mathcal{B} 39'44	
	3302 Jun 06 12:24	0° \mathcal{B}			3303 May 14 21:07	0° \mathcal{H}	
evening max el	3302 Jun 25 09:31	28° \mathcal{B} 12'28	23°38'46	evening rise	3303 May 17 04:27	4° \mathcal{H} 52'49	
	3302 Jun 27 09:04	0° \mathcal{B}			3303 May 30 22:32	0° \mathcal{B}	
desc. node	3302 Jul 01 23:04	3° \mathcal{B} 09'18		evening max el	3303 Jun 07 01:26	8° \mathcal{B} 40'14	22°02'50
retrograde	3302 Jul 09 01:11	5° \mathcal{B} 03'08		desc. node	3303 Jun 18 20:05	14° \mathcal{B} 56'16	
evening set	3302 Jul 13 05:22	4° \mathcal{B} 24'55		retrograde	3303 Jun 19 19:09	14° \mathcal{B} 58'24	
min. Earth dist.	3302 Jul 19 19:40	1° \mathcal{B} 18'55	0.55994 AU	evening set	3303 Jun 22 14:26	14° \mathcal{B} 40'53	
inferior conj	3302 Jul 21 23:37	0° \mathcal{B} 01'03	-4°-45'-19	inferior conj	3303 Jul 01 21:57	10° \mathcal{B} 36'01	-3°-34'-40
minimum elong	3302 Jul 21 18:00	0° \mathcal{B} 09'31	4°44'33	minimum elong	3303 Jul 01 13:39	10° \mathcal{B} 47'41	3°32'22
	3302 Jul 22 00:19	30° $\mathcal{R}\mathcal{B}$		min. Earth dist.	3303 Jul 01 06:26	10° \mathcal{B} 57'48	0.55012 AU
morning rise	3302 Jul 30 09:53	26° \mathcal{B} 05'28		morning rise	3303 Jul 10 14:37	6° \mathcal{B} 44'54	
direct	3302 Aug 02 05:08	25° \mathcal{B} 45'50		direct	3303 Jul 13 18:20	6° \mathcal{B} 22'50	
	3302 Aug 11 21:26	0° \mathcal{B}		morning max el	3303 Jul 25 15:30	11° \mathcal{B} 55'56	21°32'34
morning max el	3302 Aug 12 11:17	0° \mathcal{B} 31'19	20°07'01		3303 Aug 07 17:10	0° \mathcal{B}	
asc. node	3302 Aug 21 11:15	12° \mathcal{B} 15'44		asc. node	3303 Aug 08 08:18	1° \mathcal{B} 08'36	
morning set	3302 Aug 30 16:27	29° \mathcal{B} 35'44		morning set	3303 Aug 15 01:17	14° \mathcal{B} 22'11	
	3302 Aug 30 21:13	0° \mathcal{M}					
superior conj	3302 Sep 07 10:27	15° \mathcal{M} 24'24	1°44'35	superior conj	3303 Aug 22 09:23	29° \mathcal{B} 46'49	1°42'52
minimum elong	3302 Sep 07 10:53	15° \mathcal{M} 26'33	1°44'35	minimum elong	3303 Aug 22 08:24	29° \mathcal{B} 41'42	1°42'50
max. Earth dist.	3302 Sep 12 21:25	26° \mathcal{M} 05'49	1.36763 AU		3303 Aug 22 11:55	0° \mathcal{M}	
	3302 Sep 14 23:12	0° \mathcal{B}		max. Earth dist.	3303 Aug 26 09:17	7° \mathcal{M} 58'20	1.35030 AU
evening rise	3302 Sep 16 18:52	3° \mathcal{B} 20'45		evening rise	3303 Aug 30 18:24	16° \mathcal{M} 33'28	
desc. node	3302 Sep 27 22:21	22° \mathcal{B} 17'39			3303 Sep 07 04:07	0° \mathcal{B}	
	3302 Oct 02 22:36	0° \mathcal{M}		desc. node	3303 Sep 14 19:24	12° \mathcal{B} 28'28	
evening max el	3302 Oct 22 11:57	24° \mathcal{M} 49'24	25°47'53		3303 Sep 27 09:01	0° \mathcal{M}	
	3302 Oct 28 23:17	0° \mathcal{A}		evening max el	3303 Oct 05 00:21	8° \mathcal{M} 27'17	26°44'34
				retrograde	3303 Oct 18 01:07	15° \mathcal{M} 42'29	

evening set	3303 Oct 24 15:35	13° \mathbb{M} 02'56		evening set	3304 Oct 07 00:18	26° \mathbb{A} 29'37	
min. Earth dist.	3303 Oct 28 16:46	8° \mathbb{M} 56'53	0.65896 AU	min. Earth dist.	3304 Oct 10 19:09	22° \mathbb{A} 59'04	0.64525 AU
inferior conj	3303 Oct 30 12:04	6° \mathbb{M} 49'23	-1°-37'-37	inferior conj	3304 Oct 13 02:45	20° \mathbb{A} 29'26	-2°-37'-59
minimum elong	3303 Oct 30 14:45	6° \mathbb{M} 41'28	1°36'33	minimum elong	3304 Oct 13 07:06	20° \mathbb{A} 17'41	2°36'24
asc. node	3303 Nov 04 07:32	1° \mathbb{M} 56'02		morning rise	3304 Oct 19 16:00	15° \mathbb{A} 00'37	
morning rise	3303 Nov 05 15:23	1° \mathbb{M} 05'55		asc. node	3304 Oct 21 04:33	14° \mathbb{A} 32'49	
direct	3303 Nov 08 10:53	0° \mathbb{M} 21'58		direct	3304 Oct 22 04:46	14° \mathbb{A} 27'31	
morning max el	3303 Nov 15 00:49	3° \mathbb{M} 56'41	18°23'08	morning max el	3304 Oct 28 16:47	17° \mathbb{A} 54'09	17°58'04
	3303 Dec 02 20:51	0° \mathbb{A}			3304 Nov 06 12:51	0° \mathbb{M}	
morning set	3303 Dec 04 12:33	2° \mathbb{A} 40'05		morning set	3304 Nov 15 00:33	14° \mathbb{M} 08'29	
desc. node	3303 Dec 11 18:38	14° \mathbb{A} 17'38			3304 Nov 24 13:16	0° \mathbb{A}	
				desc. node	3304 Nov 27 15:41	5° \mathbb{A} 02'08	
superior conj	3303 Dec 20 00:55	27° \mathbb{A} 21'05	0°-54'-6	superior conj	3304 Nov 28 13:12	6° \mathbb{A} 28'48	0°-6'-8
minimum elong	3303 Dec 19 18:08	26° \mathbb{A} 54'26	0°53'15	minimum elong	3304 Nov 28 12:28	6° \mathbb{A} 25'50	0°06'02
max. Earth dist.	3303 Dec 21 09:55	29° \mathbb{A} 30'37	1.45221 AU	behind sun begin	3304 Nov 28 02:46	5° \mathbb{A} 46'48	
	3303 Dec 21 17:24	0° \mathbb{B}		behind sun end	3304 Nov 28 22:10	7° \mathbb{A} 04'49	
evening rise	3304 Jan 05 05:36	22° \mathbb{B} 45'23		max. Earth dist.	3304 Dec 03 04:36	13° \mathbb{A} 52'51	1.44766 AU
	3304 Jan 09 20:08	0° \mathbb{A}			3304 Dec 13 12:30	0° \mathbb{B}	
greatest brilliancy	3304 Jan 18 12:59	13° \mathbb{A} 29'16	-0.7m	evening rise	3304 Dec 14 20:12	2° \mathbb{B} 02'11	
evening max el	3304 Jan 28 05:57	26° \mathbb{A} 22'25	19°12'07		3305 Jan 02 12:29	0° \mathbb{A}	
asc. node	3304 Jan 31 06:51	28° \mathbb{A} 58'45		greatest brilliancy	3305 Jan 03 18:48	1° \mathbb{A} 44'43	-0.6m
	3304 Feb 02 05:59	0° \mathbb{H}		evening max el	3305 Jan 10 10:25	9° \mathbb{A} 53'25	20°06'58
retrograde	3304 Feb 04 06:09	0° \mathbb{H} 22'18		asc. node	3305 Jan 17 03:51	14° \mathbb{A} 19'26	
	3304 Feb 06 05:06	30° \mathbb{R} \mathbb{A}		retrograde	3305 Jan 18 04:04	14° \mathbb{A} 25'01	
evening set	3304 Feb 07 14:22	29° \mathbb{A} 17'06		evening set	3305 Jan 21 20:24	13° \mathbb{A} 06'05	
inferior conj	3304 Feb 13 04:52	23° \mathbb{A} 25'04	3°22'01	inferior conj	3305 Jan 27 07:30	7° \mathbb{A} 00'18	2°55'45
minimum elong	3304 Feb 13 02:54	23° \mathbb{A} 31'20	3°21'43	minimum elong	3305 Jan 27 05:02	7° \mathbb{A} 08'38	2°55'09
min. Earth dist.	3304 Feb 14 14:57	21° \mathbb{A} 35'54	0.66129 AU	min. Earth dist.	3305 Jan 28 03:41	5° \mathbb{A} 52'22	0.67131 AU
morning rise	3304 Feb 18 14:34	17° \mathbb{A} 10'29		morning rise	3305 Feb 01 13:04	0° \mathbb{A} 44'35	
direct	3304 Feb 24 22:44	14° \mathbb{A} 23'28			3305 Feb 02 10:27	30° \mathbb{R} \mathbb{B}	
morning max el	3304 Mar 08 16:21	21° \mathbb{A} 56'33	26°17'05	direct	3305 Feb 07 08:06	28° \mathbb{B} 10'20	
desc. node	3304 Mar 08 17:51	22° \mathbb{A} 00'20			3305 Feb 12 20:07	0° \mathbb{A}	
	3304 Mar 15 17:40	0° \mathbb{H}		morning max el	3305 Feb 19 01:05	5° \mathbb{A} 10'08	24°57'54
	3304 Apr 04 23:17	0° \mathbb{Y}		desc. node	3305 Feb 23 14:54	10° \mathbb{A} 13'07	
morning set	3304 Apr 13 18:17	15° \mathbb{Y} 36'42		morning set	3305 Mar 10 04:35	0° \mathbb{H}	
max. Earth dist.	3304 Apr 17 19:57	23° \mathbb{Y} 23'32	1.35064 AU		3305 Mar 27 03:29	27° \mathbb{H} 43'28	
	3304 Apr 21 03:44	0° \mathbb{B}		max. Earth dist.	3305 Mar 28 09:57	0° \mathbb{Y}	
superior conj	3304 Apr 22 18:11	3° \mathbb{B} 15'21	0°-54'-42		3305 Mar 30 19:46	4° \mathbb{Y} 24'01	1.36905 AU
minimum elong	3304 Apr 22 21:03	3° \mathbb{B} 30'01	0°54'10	superior conj	3305 Apr 06 05:36	16° \mathbb{Y} 37'25	-1°-22'-17
asc. node	3304 Apr 28 06:09	14° \mathbb{B} 38'42		minimum elong	3305 Apr 06 09:46	16° \mathbb{Y} 57'50	1°21'41
evening rise	3304 Apr 30 12:41	19° \mathbb{B} 21'17			3305 Apr 12 22:12	0° \mathbb{B}	
	3304 May 05 20:54	0° \mathbb{I}		evening rise	3305 Apr 14 15:50	3° \mathbb{B} 29'30	
evening max el	3304 May 19 03:01	19° \mathbb{I} 34'17	20°37'37	asc. node	3305 Apr 15 03:11	4° \mathbb{B} 26'20	
retrograde	3304 May 30 08:17	25° \mathbb{I} 02'39			3305 Apr 30 14:04	0° \mathbb{I}	
evening set	3304 Jun 01 09:54	24° \mathbb{I} 52'14		evening max el	3305 May 01 16:48	1° \mathbb{I} 08'35	19°30'01
desc. node	3304 Jun 04 17:05	23° \mathbb{I} 56'24		retrograde	3305 May 11 04:17	5° \mathbb{I} 44'26	
inferior conj	3304 Jun 10 15:39	20° \mathbb{I} 54'49	-1°-44'-27	evening set	3305 May 13 04:07	5° \mathbb{I} 33'08	
minimum elong	3304 Jun 10 10:44	21° \mathbb{I} 01'54	1°42'41	inferior conj	3305 May 21 19:08	1° \mathbb{I} 27'59	0°13'50
min. Earth dist.	3304 Jun 11 18:35	20° \mathbb{I} 16'03	0.54943 AU	minimum elong	3305 May 21 19:44	1° \mathbb{I} 27'02	0°13'36
morning rise	3304 Jun 19 10:18	16° \mathbb{I} 47'38		transit middle	3305 May 21 19:44	1° \mathbb{I} 27'02	0°13'36
direct	3304 Jun 23 03:47	16° \mathbb{I} 17'41		transit begin	3305 May 21 17:41	1° \mathbb{I} 30'19	
morning max el	3304 Jul 06 10:14	22° \mathbb{I} 41'53	23°12'14	transit end	3305 May 21 21:47	1° \mathbb{I} 23'45	
	3304 Jul 12 20:56	0° \mathbb{B}		desc. node	3305 May 22 14:06	0° \mathbb{I} 57'27	
asc. node	3304 Jul 25 05:22	20° \mathbb{B} 29'56			3305 May 24 02:03	30° \mathbb{R} \mathbb{B}	
morning set	3304 Jul 29 12:28	29° \mathbb{B} 15'55		min. Earth dist.	3305 May 24 08:50	29° \mathbb{B} 49'23	0.55837 AU
	3304 Jul 29 20:50	0° \mathbb{Q}		morning rise	3305 May 30 07:33	26° \mathbb{B} 49'05	
superior conj	3304 Aug 05 14:49	14° \mathbb{Q} 28'43	1°34'51	direct	3305 Jun 03 22:42	26° \mathbb{B} 00'39	
minimum elong	3304 Aug 05 12:55	14° \mathbb{Q} 18'28	1°34'41		3305 Jun 14 08:18	0° \mathbb{I}	
max. Earth dist.	3304 Aug 08 06:05	20° \mathbb{Q} 04'45	1.33677 AU	morning max el	3305 Jun 18 00:22	3° \mathbb{I} 06'42	24°54'21
evening rise	3304 Aug 13 07:20	0° \mathbb{P} 25'20			3305 Jul 06 21:54	0° \mathbb{B}	
	3304 Aug 13 02:14	0° \mathbb{P}		asc. node	3305 Jul 12 02:25	10° \mathbb{B} 11'17	
	3304 Aug 30 04:26	0° \mathbb{A}		morning set	3305 Jul 14 00:16	14° \mathbb{B} 10'35	
desc. node	3304 Aug 31 16:25	2° \mathbb{A} 15'01		superior conj	3305 Jul 21 00:15	29° \mathbb{B} 20'58	1°21'33
evening max el	3304 Sep 16 12:21	21° \mathbb{A} 52'07	27°19'02	minimum elong	3305 Jul 20 21:55	29° \mathbb{B} 08'14	1°21'14
retrograde	3304 Sep 29 23:56	29° \mathbb{A} 10'42					

	3305 Jul 21 07:24	0°♎		minimum elong	3306 Jul 05 09:26	14°♎04'38	1°03'23
max. Earth dist.	3305 Jul 22 11:00	2°♎30'05	1.32740 AU	max. Earth dist.	3306 Jul 05 21:19	15°♎10'07	1.32215 AU
evening rise	3305 Jul 28 05:50	14°♎44'27		evening rise	3306 Jul 12 10:59	29°♎21'46	
	3305 Aug 05 03:33	0°♏			3306 Jul 12 18:18	0°♎	
desc. node	3305 Aug 18 13:25	21°♏26'14			3306 Jul 29 08:32	0°♏	
	3305 Aug 25 07:17	0°♏		desc. node	3306 Aug 05 10:25	9°♏47'33	
evening max el	3305 Aug 29 22:13	4°♏51'04	27°24'56	evening max el	3306 Aug 12 03:23	17°♏11'09	26°57'58
retrograde	3305 Sep 12 16:16	12°♏07'13		retrograde	3306 Aug 26 01:01	24°♏23'06	
evening set	3305 Sep 19 20:54	9°♏35'46		evening set	3306 Sep 02 01:08	22°♏13'57	
min. Earth dist.	3305 Sep 23 11:44	6°♏35'58	0.62823 AU	min. Earth dist.	3306 Sep 05 17:37	19°♏34'36	0.60862 AU
inferior conj	3305 Sep 26 07:12	3°♏53'13	-3°-36'-4	inferior conj	3306 Sep 08 22:09	16°♏52'21	-4°-26'-25
minimum elong	3305 Sep 26 12:46	3°♏39'46	3°34'26	minimum elong	3306 Sep 09 03:37	16°♏40'42	4°25'19
	3305 Sep 30 19:57	30°♏		morning rise	3306 Sep 16 09:14	12°♏02'41	
morning rise	3305 Oct 03 07:19	28°♏42'19		direct	3306 Sep 18 17:15	11°♏41'04	
direct	3305 Oct 05 16:09	28°♏16'27		asc. node	3306 Sep 24 22:39	14°♏21'28	
asc. node	3305 Oct 08 01:36	28°♏43'34		morning max el	3306 Sep 25 22:30	15°♏15'50	18°02'11
	3305 Oct 10 08:59	0°♏			3306 Oct 06 03:05	0°♏	
morning max el	3305 Oct 12 09:02	1°♏43'03	17°50'41	morning set	3306 Oct 11 16:34	10°♏08'57	
morning set	3305 Oct 28 11:58	26°♏44'12					
	3305 Oct 30 08:15	0°♐		superior conj	3306 Oct 21 17:03	28°♏26'13	1°09'51
superior conj	3305 Nov 09 01:51	16°♐48'38	0°37'07	minimum elong	3306 Oct 21 21:19	28°♏45'06	1°09'20
minimum elong	3305 Nov 09 05:16	17°♐03'00	0°36'38		3306 Oct 22 14:18	0°♐	
desc. node	3305 Nov 14 12:42	25°♐49'19		max. Earth dist.	3306 Oct 29 08:06	11°♐32'42	1.41962 AU
max. Earth dist.	3305 Nov 15 20:31	27°♐58'08	1.43634 AU	desc. node	3306 Nov 01 09:43	16°♐36'02	
	3305 Nov 17 02:49	0°♑		evening rise	3306 Nov 04 02:03	20°♐55'31	
evening rise	3305 Nov 24 05:31	11°♑11'58			3306 Nov 09 21:06	0°♑	
	3305 Dec 06 16:33	0°♑			3306 Dec 01 00:38	0°♑	
greatest brilliancy	3305 Dec 19 06:41	17°♑30'37	-0.4m	greatest brilliancy	3306 Dec 02 07:42	1°♑35'45	-0.3m
evening max el	3305 Dec 24 09:28	23°♑25'50	21°14'46	evening max el	3306 Dec 07 03:17	6°♑59'47	22°31'20
retrograde	3306 Jan 02 01:45	28°♑34'42		retrograde	3306 Dec 16 21:33	12°♑47'49	
asc. node	3306 Jan 04 00:52	28°♑13'34		evening set	3306 Dec 21 11:35	10°♑57'18	
evening set	3306 Jan 06 04:03	27°♑00'35		asc. node	3306 Dec 21 21:53	10°♑35'17	
inferior conj	3306 Jan 11 13:39	20°♑44'13	2°20'28	inferior conj	3306 Dec 26 21:16	4°♑33'43	1°37'43
minimum elong	3306 Jan 11 11:10	20°♑52'46	2°19'41	minimum elong	3306 Dec 26 19:15	4°♑40'42	1°36'58
min. Earth dist.	3306 Jan 11 21:21	20°♑17'38	0.67726 AU	min. Earth dist.	3306 Dec 26 17:34	4°♑46'32	0.67948 AU
morning rise	3306 Jan 16 17:56	14°♑29'21			3306 Dec 30 10:18	30°♑	
direct	3306 Jan 21 22:13	12°♑14'51		morning rise	3307 Jan 01 02:50	28°♑21'38	
morning max el	3306 Feb 01 09:43	18°♑29'02	23°29'52	direct	3307 Jan 05 16:09	26°♑29'57	
desc. node	3306 Feb 10 11:56	29°♑14'54			3307 Jan 12 20:37	0°♑	
	3306 Feb 11 01:36	0°♒		morning max el	3307 Jan 14 21:37	1°♑54'58	22°02'25
	3306 Mar 03 07:34	0°♒		greatest brilliancy	3307 Jan 19 13:08	7°♑07'44	-0.4m
morning set	3306 Mar 08 13:12	8°♒39'25		desc. node	3307 Jan 28 08:57	18°♑51'15	
max. Earth dist.	3306 Mar 12 14:45	15°♒39'13	1.39031 AU		3307 Feb 05 00:44	0°♒	
				morning set	3307 Feb 16 18:14	18°♒12'01	
superior conj	3306 Mar 20 03:25	29°♒17'13	-1°-46'-5	max. Earth dist.	3307 Feb 22 12:51	27°♒40'58	1.41182 AU
minimum elong	3306 Mar 20 07:58	29°♒38'29	1°45'40		3307 Feb 23 21:53	0°♒	
	3306 Mar 20 12:34	0°♓		superior conj	3307 Mar 02 06:45	11°♒01'39	-2°-2'-24
evening rise	3306 Mar 29 11:13	17°♓10'29		minimum elong	3307 Mar 02 09:45	11°♒14'58	2°02'17
asc. node	3306 Apr 02 00:12	23°♓57'59		evening rise	3307 Mar 12 19:20	0°♓14'57	
	3306 Apr 05 07:14	0°♓			3307 Mar 12 16:07	0°♓	
evening max el	3306 Apr 14 17:10	13°♓22'16	18°42'22	asc. node	3307 Mar 19 21:14	13°♓07'03	
retrograde	3306 Apr 22 17:28	17°♓17'32		evening max el	3307 Mar 29 00:49	26°♓06'09	18°14'52
evening set	3306 Apr 24 22:27	17°♓00'46		retrograde	3307 Apr 05 01:43	29°♓37'32	
inferior conj	3306 May 02 18:06	12°♓37'31	1°50'23	evening set	3307 Apr 07 12:44	29°♓12'33	
minimum elong	3306 May 02 21:39	12°♓30'52	1°49'19	inferior conj	3307 Apr 14 14:25	24°♓28'02	2°54'25
min. Earth dist.	3306 May 06 01:55	10°♓09'27	0.57497 AU	minimum elong	3307 Apr 14 17:51	24°♓20'30	2°53'42
desc. node	3306 May 09 11:07	8°♓00'46		min. Earth dist.	3307 Apr 18 00:05	21°♓30'50	0.59580 AU
morning rise	3306 May 10 16:26	7°♓24'19		morning rise	3307 Apr 21 19:13	18°♓47'29	
direct	3306 May 16 07:37	6°♓06'02		desc. node	3307 Apr 26 08:09	17°♓03'36	
morning max el	3306 May 30 16:08	13°♓38'58	26°23'21	direct	3307 Apr 28 05:16	16°♓53'54	
	3306 Jun 12 14:47	0°♔		morning max el	3307 May 12 13:41	24°♓42'46	27°24'57
morning set	3306 Jun 28 11:05	29°♔01'14			3307 May 17 09:46	0°♔	
asc. node	3306 Jun 28 23:28	0°♔06'43			3307 Jun 05 21:01	0°♔	
	3306 Jun 28 22:12	0°♔		morning set	3307 Jun 12 19:14	13°♔42'03	
				asc. node	3307 Jun 15 20:31	20°♔10'43	
superior conj	3306 Jul 05 11:42	14°♔17'06	1°03'47				

superior conj	3307 Jun 19 23:23	29°II10'51	0°42'12			3308 May 27 20:49	0°II	
minimum elong	3307 Jun 19 21:39	29°II01'16	0°41'51	asc. node		3308 Jun 01 17:34	10°II18'57	
max. Earth dist.	3307 Jun 19 09:19	27°II53'22	1.32084 AU	max. Earth dist.		3308 Jun 01 19:00	10°II26'43	1.32352 AU
	3307 Jun 20 08:18	0°☿						
evening rise	3307 Jun 26 20:20	14°☿09'06		superior conj		3308 Jun 03 09:37	13°II56'41	0°17'29
	3307 Jul 04 19:27	0°♂		minimum elong		3308 Jun 03 08:48	13°II52'18	0°17'19
desc. node	3307 Jul 23 07:26	26°♂58'33		evening rise		3308 Jun 10 07:50	28°II59'38	
evening max el	3307 Jul 25 01:21	28°♂43'08	25°58'28			3308 Jun 10 19:13	0°☿	
	3307 Jul 26 10:59	0°♊				3308 Jun 27 15:12	0°♂	
retrograde	3307 Aug 08 00:50	5°♊51'49		evening max el		3308 Jul 05 16:27	9°♂30'56	24°33'39
evening set	3307 Aug 14 08:12	4°♊16'20		desc. node		3308 Jul 09 04:28	12°♂30'56	
min. Earth dist.	3307 Aug 18 13:46	1°♊40'52	0.58790 AU	retrograde		3308 Jul 19 14:04	16°♂32'39	
	3307 Aug 20 20:53	30°♊♂		evening set		3308 Jul 24 15:08	15°♂35'28	
inferior conj	3307 Aug 21 20:00	29°♂16'56	-4°-59'-58	min. Earth dist.		3308 Jul 30 03:32	12°♂44'48	0.56878 AU
minimum elong	3307 Aug 21 22:58	29°♂11'26	4°59'44	inferior conj		3308 Aug 01 21:59	10°♂58'11	-5°-3'-14
morning rise	3307 Aug 29 17:14	24°♂50'52		minimum elong		3308 Aug 01 19:42	11°♂01'52	5°03'07
direct	3307 Sep 01 03:37	24°♂31'18		morning rise		3308 Aug 10 03:55	6°♂53'54	
morning max el	3307 Sep 09 06:00	28°♂23'54	18°33'55	direct		3308 Aug 12 19:10	6°♂34'50	
	3307 Sep 10 19:03	0°♊		morning max el		3308 Aug 22 04:24	10°♂57'31	19°26'58
asc. node	3307 Sep 11 19:42	1°♊12'19		asc. node		3308 Aug 28 16:46	19°♂00'43	
morning set	3307 Sep 25 09:19	24°♊08'32				3308 Sep 04 01:44	0°♊	
	3307 Sep 28 09:55	0°♈		morning set		3308 Sep 08 10:24	8°♊31'55	
superior conj	3307 Oct 04 06:28	11°♈09'29	1°31'08	superior conj		3308 Sep 16 12:27	24°♊41'35	1°42'12
minimum elong	3307 Oct 04 09:37	11°♈24'11	1°30'52	minimum elong		3308 Sep 16 13:52	24°♊48'28	1°42'09
max. Earth dist.	3307 Oct 11 14:37	24°♈24'54	1.39957 AU			3308 Sep 19 06:14	0°♈	
	3307 Oct 14 20:41	0°♊		max. Earth dist.		3308 Sep 22 18:35	6°♈35'48	1.37880 AU
evening rise	3307 Oct 15 20:14	1°♊39'02		evening rise		3308 Sep 26 13:50	13°♈27'12	
desc. node	3307 Oct 19 06:45	7°♊19'01		desc. node		3308 Oct 05 03:47	27°♈53'38	
	3307 Nov 03 05:23	0°♊				3308 Oct 06 11:32	0°♊	
evening max el	3307 Nov 19 17:17	20°♊36'55	23°51'13			3308 Oct 28 04:47	0°♊	
retrograde	3307 Nov 30 14:15	27°♊01'22		evening max el		3308 Nov 01 05:34	4°♊17'11	25°08'03
evening set	3307 Dec 05 17:28	24°♊54'13		retrograde		3308 Nov 13 02:52	11°♊10'05	
asc. node	3307 Dec 08 18:55	21°♊38'40		evening set		3308 Nov 18 20:03	8°♊47'32	
min. Earth dist.	3307 Dec 10 14:07	19°♊16'36	0.67815 AU	min. Earth dist.		3308 Nov 23 08:39	3°♊44'21	0.67337 AU
inferior conj	3307 Dec 11 04:36	18°♊27'23	0°48'47	inferior conj		3308 Nov 24 09:51	2°♊21'58	0°-5'-14
minimum elong	3307 Dec 11 03:28	18°♊31'14	0°48'19	minimum elong		3308 Nov 24 09:59	2°♊21'32	0°05'12
morning rise	3307 Dec 16 13:42	12°♊19'58		transit middle		3308 Nov 24 09:59	2°♊21'32	0°05'12
direct	3307 Dec 20 12:57	10°♊51'01		transit begin		3308 Nov 24 07:21	2°♊30'09	
morning max el	3307 Dec 28 16:11	15°♊32'09	20°43'03	transit end		3308 Nov 24 12:37	2°♊12'57	
greatest brilliancy	3308 Jan 03 12:27	22°♊21'17	-0.5m	asc. node		3308 Nov 24 15:58	2°♊01'59	
	3308 Jan 09 03:12	0°♈				3308 Nov 26 06:28	30°♊♊	
desc. node	3308 Jan 15 05:59	8°♈53'01		morning rise		3308 Nov 30 00:34	26°♊21'31	
morning set	3308 Jan 26 21:48	26°♈36'24		direct		3308 Dec 03 11:22	25°♊12'51	
	3308 Jan 29 01:55	0°♊		morning max el		3308 Dec 10 18:37	29°♊20'03	19°36'27
max. Earth dist.	3308 Feb 04 17:59	10°♊37'46	1.43066 AU			3308 Dec 11 10:08	0°♊	
superior conj	3308 Feb 11 10:33	21°♊39'42	-2°-6'-15	greatest brilliancy		3308 Dec 18 23:42	9°♊35'08	-0.6m
minimum elong	3308 Feb 11 09:12	21°♊34'01	2°06'14	desc. node		3309 Jan 01 03:01	29°♊12'44	
	3308 Feb 16 08:04	0°♊				3309 Jan 01 15:20	0°♈	
evening rise	3308 Feb 23 12:11	12°♊34'25		morning set		3309 Jan 04 18:32	4°♈49'45	
	3308 Mar 04 14:57	0°♊		max. Earth dist.		3309 Jan 17 06:01	24°♈19'57	1.44439 AU
asc. node	3308 Mar 05 18:16	1°♊46'20				3309 Jan 20 19:21	0°♊	
evening max el	3308 Mar 11 12:28	9°♊11'35	18°07'03	superior conj		3309 Jan 21 12:20	1°♊08'11	-1°-52'-33
retrograde	3308 Mar 18 01:27	12°♊34'42		minimum elong		3309 Jan 21 05:13	0°♊39'35	1°52'06
evening set	3308 Mar 20 18:01	11°♊59'54		evening rise		3309 Feb 04 09:21	24°♊00'22	
inferior conj	3308 Mar 27 05:25	6°♊54'32	3°28'28			3309 Feb 07 22:37	0°♊	
minimum elong	3308 Mar 27 07:14	6°♊49'58	3°28'16	asc. node		3309 Feb 20 15:18	19°♊46'35	
min. Earth dist.	3308 Mar 30 06:07	3°♊52'54	0.61743 AU	evening max el		3309 Feb 23 01:09	22°♊30'58	18°18'18
morning rise	3308 Apr 02 17:41	0°♊56'29		retrograde		3309 Mar 01 12:00	25°♊59'14	
	3308 Apr 04 05:31	30°♊♊		evening set		3309 Mar 04 10:06	25°♊13'27	
direct	3308 Apr 09 13:44	28°♊31'27		inferior conj		3309 Mar 10 10:56	19°♊48'40	3°39'04
desc. node	3308 Apr 12 05:11	28°♊51'29		minimum elong		3309 Mar 10 10:56	19°♊48'38	3°39'04
	3308 Apr 15 06:16	0°♊		min. Earth dist.		3309 Mar 12 21:24	17°♊04'33	0.63725 AU
morning max el	3308 Apr 23 17:35	6°♊28'42	27°50'32	morning rise		3309 Mar 16 09:58	13°♊40'56	
	3308 May 11 12:30	0°♈		direct		3309 Mar 23 06:57	10°♊56'07	
morning set	3308 May 26 22:46	28°♈06'48		desc. node		3309 Mar 30 02:13	13°♊09'16	

morning max el	3309 Apr 06 01:48	18° Υ 53'11	27°38'53	desc. node	3310 Mar 16 23:15	29° \approx 22'05	
	3309 Apr 15 11:36	0° Υ			3310 Mar 17 16:01	0° Υ	
	3309 May 04 10:27	0° Υ		morning max el	3310 Mar 19 11:31	1° Υ 45'04	26°54'25
morning set	3309 May 10 19:19	12° Υ 07'50			3310 Apr 09 15:01	0° Υ	
max. Earth dist.	3309 May 15 22:22	22° Υ 37'23	1.33044 AU	morning set	3310 Apr 24 05:36	25° Υ 34'14	
					3310 Apr 26 12:22	0° Υ	
superior conj	3309 May 18 16:34	28° Υ 28'54	0°-9'-37	max. Earth dist.	3310 Apr 28 15:43	4° Υ 15'34	1.34196 AU
minimum elong	3309 May 18 17:02	28° Υ 31'28	0°09'32				
behind sun begin	3309 May 18 12:43	28° Υ 08'20		superior conj	3310 May 02 18:03	12° Υ 39'48	0°-38'-9
behind sun end	3309 May 18 21:21	28° Υ 54'36		minimum elong	3310 May 02 20:02	12° Υ 50'09	0°37'45
	3309 May 19 09:32	0° Π		asc. node	3310 May 06 11:38	20° Υ 30'59	
asc. node	3309 May 19 14:37	0° Π 27'20		evening rise	3310 May 10 05:40	28° Υ 24'42	
evening rise	3309 May 25 19:35	13° Π 47'16			3310 May 11 00:01	0° Π	
	3309 Jun 03 00:15	0° Θ			3310 May 29 11:31	0° Θ	
evening max el	3309 Jun 17 06:01	19° Θ 58'06	22°57'26	evening max el	3310 May 30 01:35	0° Θ 35'02	21°24'46
desc. node	3309 Jun 26 01:29	25° Θ 50'25		retrograde	3310 Jun 11 05:00	6° Θ 32'42	
retrograde	3309 Jun 30 14:52	26° Θ 37'50		desc. node	3310 Jun 12 22:31	6° Θ 25'48	
evening set	3309 Jul 04 03:28	26° Θ 10'38		evening set	3310 Jun 13 14:35	6° Θ 19'33	
min. Earth dist.	3309 Jul 11 14:56	22° Θ 50'17	0.55468 AU	inferior conj	3310 Jun 22 23:25	2° Θ 20'15	-2°-51'-12
inferior conj	3309 Jul 13 04:48	21° Θ 55'32	-4°-21'-31	minimum elong	3310 Jun 22 15:54	2° Θ 30'46	2°48'48
minimum elong	3309 Jul 12 21:20	22° Θ 06'21	4°20'00	min. Earth dist.	3310 Jun 23 02:15	2° Θ 16'17	0.54867 AU
morning rise	3309 Jul 21 18:00	18° Θ 03'46			3310 Jun 27 09:08	30° Υ Π	
direct	3309 Jul 24 16:13	17° Θ 43'34		morning rise	3310 Jul 01 17:40	28° Π 24'36	
morning max el	3309 Aug 04 15:25	22° Θ 48'57	20°41'11	direct	3310 Jul 05 02:35	27° Π 59'56	
	3309 Aug 10 18:36	0° Ω			3310 Jul 12 08:25	0° Θ	
asc. node	3309 Aug 15 13:50	7° Ω 33'47		morning max el	3310 Jul 17 14:59	3° Θ 55'16	22°13'41
morning set	3309 Aug 23 17:03	23° Ω 12'02		asc. node	3310 Aug 02 10:53	26° Θ 39'54	
	3309 Aug 26 23:51	0° η			3310 Aug 04 04:20	0° Ω	
				morning set	3310 Aug 08 03:05	8° Ω 02'06	
superior conj	3309 Aug 31 06:18	8° η 49'07	1°44'42				
minimum elong	3309 Aug 31 06:04	8° η 47'58	1°44'42	superior conj	3310 Aug 15 08:18	23° Ω 20'32	1°40'10
max. Earth dist.	3309 Sep 05 02:02	18° η 27'39	1.35981 AU	minimum elong	3310 Aug 15 06:51	23° Ω 12'56	1°40'04
evening rise	3309 Sep 09 03:48	26° η 13'06		max. Earth dist.	3310 Aug 18 17:42	0° η 24'49	1.34410 AU
	3309 Sep 11 05:19	0° $\underline{\Omega}$			3310 Aug 18 12:52	0° η	
desc. node	3309 Sep 22 00:49	18° $\underline{\Omega}$ 15'00		evening rise	3310 Aug 23 09:33	9° η 43'55	
	3309 Sep 29 22:13	0° \mathbb{M}			3310 Sep 03 16:34	0° $\underline{\Omega}$	
evening max el	3309 Oct 14 17:55	17° \mathbb{M} 58'25	26°14'20	desc. node	3310 Sep 08 21:51	8° $\underline{\Omega}$ 16'27	
retrograde	3309 Oct 27 10:29	25° \mathbb{M} 08'27			3310 Sep 25 17:02	0° \mathbb{M}	
evening set	3309 Nov 02 17:29	22° \mathbb{M} 33'48		evening max el	3310 Sep 27 06:30	1° \mathbb{M} 32'47	27°02'28
min. Earth dist.	3309 Nov 06 22:47	18° \mathbb{M} 06'24	0.66520 AU	retrograde	3310 Oct 10 12:26	8° \mathbb{M} 49'39	
inferior conj	3309 Nov 08 11:10	16° \mathbb{M} 14'24	-1°-3'-9	evening set	3310 Oct 17 07:34	6° \mathbb{M} 08'41	
minimum elong	3309 Nov 08 12:51	16° \mathbb{M} 09'10	1°02'27	min. Earth dist.	3310 Oct 21 06:03	2° \mathbb{M} 17'47	0.65354 AU
asc. node	3309 Nov 11 13:01	12° \mathbb{M} 41'35		inferior conj	3310 Oct 23 06:25	0° \mathbb{M} 00'22	-2°-3'-18
morning rise	3309 Nov 14 09:22	10° \mathbb{M} 23'37		minimum elong	3310 Oct 23 09:49	29° $\underline{\Omega}$ 50'40	2°01'57
direct	3309 Nov 17 09:48	9° \mathbb{M} 31'43			3310 Oct 23 06:33	30° \mathbb{R} $\underline{\Omega}$	
morning max el	3309 Nov 24 04:02	13° \mathbb{M} 15'32	18°45'08	asc. node	3310 Oct 29 10:04	24° $\underline{\Omega}$ 27'02	
	3309 Dec 06 10:25	0° \mathcal{A}		morning rise	3310 Oct 29 13:46	24° $\underline{\Omega}$ 22'28	
morning set	3309 Dec 15 09:10	14° \mathcal{A} 02'44		direct	3310 Nov 01 06:09	23° $\underline{\Omega}$ 43'28	
desc. node	3309 Dec 19 00:03	19° \mathcal{A} 45'13		morning max el	3310 Nov 07 18:20	27° $\underline{\Omega}$ 13'39	18°10'20
	3309 Dec 25 12:30	0° \mathcal{B}			3310 Nov 10 05:21	0° \mathbb{M}	
max. Earth dist.	3309 Dec 30 23:11	8° \mathcal{B} 32'41	1.45149 AU	morning set	3310 Nov 26 04:59	24° \mathbb{M} 44'04	
					3310 Nov 29 10:11	0° \mathcal{A}	
superior conj	3309 Dec 31 18:10	9° \mathcal{B} 47'14	-1°-19'-40	desc. node	3310 Dec 05 21:06	10° \mathcal{A} 26'24	
minimum elong	3309 Dec 31 09:15	9° \mathcal{B} 12'14	1°18'42				
	3310 Jan 13 12:30	0° \approx		superior conj	3310 Dec 10 21:56	18° \mathcal{A} 27'21	0°-33'-47
evening rise	3310 Jan 16 07:33	4° \approx 28'49		minimum elong	3310 Dec 10 17:39	18° \mathcal{A} 10'22	0°33'12
	3310 Feb 01 15:31	0° Υ		max. Earth dist.	3310 Dec 13 18:43	22° \mathcal{A} 58'36	1.45116 AU
evening max el	3310 Feb 06 12:14	5° Υ 58'01	18°47'38		3310 Dec 18 06:15	0° \mathcal{B}	
asc. node	3310 Feb 07 12:19	6° Υ 56'04		evening rise	3310 Dec 27 07:39	14° \mathcal{B} 06'24	
retrograde	3310 Feb 13 05:19	9° Υ 43'05			3311 Jan 06 14:28	0° \approx	
evening set	3310 Feb 16 09:35	8° Υ 45'15		greatest brilliancy	3311 Jan 12 18:05	9° \approx 10'41	-0.7m
inferior conj	3310 Feb 22 03:04	3° Υ 02'41	3°32'09	evening max el	3311 Jan 20 19:38	19° \approx 28'43	19°33'42
minimum elong	3310 Feb 22 01:41	3° Υ 06'59	3°32'01	asc. node	3311 Jan 25 09:20	23° \approx 01'13	
min. Earth dist.	3310 Feb 23 21:54	0° Υ 51'05	0.65372 AU	retrograde	3311 Jan 28 02:18	23° \approx 40'45	
	3310 Feb 24 15:05	30° \mathbb{R} \approx		evening set	3311 Jan 31 13:53	22° \approx 29'43	
morning rise	3310 Feb 27 16:38	26° \approx 49'57		inferior conj	3311 Feb 06 02:40	16° \approx 31'34	3°12'05
direct	3310 Mar 06 07:09	23° \approx 59'53		minimum elong	3311 Feb 06 00:26	16° \approx 38'55	3°11'40

min. Earth dist.	3311 Feb 07 06:37	14° \approx 59'55	0.66608 AU	minimum elong	3312 Jan 21 04:31	0° \approx 19'14	2°41'05
morning rise	3311 Feb 11 10:15	10° \approx 16'32			3312 Jan 21 10:09	30° \approx 16'32	
direct	3311 Feb 17 13:13	7° \approx 33'57		min. Earth dist.	3312 Jan 21 21:38	29° \approx 20'45	0.67428 AU
morning max el	3311 Mar 01 20:52	14° \approx 53'46	25°45'13	morning rise	3312 Jan 26 11:45	23° \approx 55'08	
desc. node	3311 Mar 03 20:16	16° \approx 58'29		direct	3312 Feb 01 00:30	21° \approx 28'59	
	3311 Mar 14 06:01	0° \approx		morning max el	3312 Feb 12 05:27	28° \approx 10'19	24°21'05
	3311 Apr 02 10:46	0° \approx			3312 Feb 13 23:15	0° \approx	
morning set	3311 Apr 07 01:30	8° \approx 14'28		desc. node	3312 Feb 18 17:18	5° \approx 33'56	
max. Earth dist.	3311 Apr 10 21:47	15° \approx 26'12	1.35808 AU		3312 Mar 06 23:32	0° \approx	
				morning set	3312 Mar 19 01:29	19° \approx 53'02	
superior conj	3311 Apr 16 11:31	26° \approx 22'28	-1°-6'-39	max. Earth dist.	3312 Mar 22 19:01	26° \approx 30'11	1.37791 AU
minimum elong	3311 Apr 16 15:00	26° \approx 39'57	1°06'04		3312 Mar 24 17:03	0° \approx	
	3311 Apr 18 06:32	0° \approx					
asc. node	3311 Apr 23 08:40	10° \approx 26'03		superior conj	3312 Mar 29 17:39	9° \approx 27'38	-1°-33'-2
evening rise	3311 Apr 24 12:03	12° \approx 46'03		minimum elong	3312 Mar 29 22:09	9° \approx 49'15	1°32'28
	3311 May 03 14:03	0° \approx		evening rise	3312 Apr 07 12:17	26° \approx 43'52	
evening max el	3311 May 12 08:19	11° \approx 45'35	20°06'23	asc. node	3312 Apr 09 05:42	0° \approx 07'41	
retrograde	3311 May 22 19:17	16° \approx 50'44			3312 Apr 09 04:07	0° \approx	
evening set	3311 May 24 18:59	16° \approx 40'31		evening max el	3312 Apr 24 02:49	23° \approx 36'58	19°07'11
desc. node	3311 May 30 19:30	14° \approx 24'50		retrograde	3312 May 02 22:18	27° \approx 54'09	
inferior conj	3311 Jun 02 19:33	12° \approx 41'14	0°-53'-6	evening set	3312 May 04 23:48	27° \approx 41'02	
minimum elong	3311 Jun 02 17:05	12° \approx 44'56	0°52'12	inferior conj	3312 May 13 06:40	23° \approx 28'36	0°58'30
min. Earth dist.	3311 Jun 04 14:50	11° \approx 36'44	0.55224 AU	minimum elong	3312 May 13 08:57	23° \approx 24'42	0°57'43
morning rise	3311 Jun 11 12:46	8° \approx 22'14		min. Earth dist.	3312 May 16 06:03	21° \approx 27'12	0.56467 AU
direct	3311 Jun 15 14:50	7° \approx 45'56		desc. node	3312 May 16 16:30	21° \approx 10'10	
morning max el	3311 Jun 29 06:52	14° \approx 28'38	23°56'13	morning rise	3312 May 21 13:50	18° \approx 34'31	
	3311 Jul 11 09:54	0° \approx		direct	3312 May 26 15:05	17° \approx 34'54	
asc. node	3311 Jul 20 07:56	16° \approx 10'34		morning max el	3312 Jun 09 21:16	24° \approx 54'05	25°34'49
morning set	3311 Jul 23 14:44	22° \approx 56'55			3312 Jun 14 14:28	0° \approx	
	3311 Jul 26 21:46	0° \approx			3312 Jul 03 06:39	0° \approx	
				asc. node	3312 Jul 06 04:59	5° \approx 58'58	
superior conj	3311 Jul 30 15:41	8° \approx 07'27	1°29'48	morning set	3312 Jul 07 02:21	7° \approx 51'16	
minimum elong	3311 Jul 30 13:31	7° \approx 55'48	1°29'33				
max. Earth dist.	3311 Aug 01 18:27	12° \approx 40'22	1.33234 AU	superior conj	3312 Jul 14 02:14	23° \approx 02'44	1°14'31
evening rise	3311 Aug 07 02:57	23° \approx 48'22		minimum elong	3312 Jul 13 23:52	22° \approx 49'47	1°14'09
	3311 Aug 10 06:23	0° \approx		max. Earth dist.	3312 Jul 15 02:09	25° \approx 13'43	1.32466 AU
desc. node	3311 Aug 26 18:52	27° \approx 49'21			3312 Jul 17 06:49	0° \approx	
	3311 Aug 28 07:37	0° \approx		evening rise	3312 Jul 21 04:38	8° \approx 16'36	
evening max el	3311 Sep 09 17:56	14° \approx 48'09	27°25'20		3312 Aug 01 16:18	0° \approx	
retrograde	3311 Sep 23 08:17	22° \approx 05'22		desc. node	3312 Aug 12 15:51	16° \approx 41'58	
evening set	3311 Sep 30 11:32	19° \approx 26'52		evening max el	3312 Aug 22 01:56	27° \approx 31'46	27°17'29
min. Earth dist.	3311 Oct 04 04:17	16° \approx 10'28	0.63841 AU		3312 Aug 24 21:40	0° \approx	
inferior conj	3311 Oct 06 17:05	13° \approx 34'04	-3°-3'-13	retrograde	3312 Sep 04 21:38	4° \approx 46'40	
minimum elong	3311 Oct 06 22:03	13° \approx 21'17	3°01'32	evening set	3312 Sep 12 01:48	2° \approx 22'41	
morning rise	3311 Oct 13 10:53	8° \approx 12'32			3312 Sep 15 04:04	30° \approx 16'36	
direct	3311 Oct 15 21:44	7° \approx 42'48		min. Earth dist.	3312 Sep 15 16:11	29° \approx 33'35	0.62014 AU
asc. node	3311 Oct 16 07:07	7° \approx 43'34		inferior conj	3312 Sep 18 16:15	26° \approx 48'49	-3°-58'-49
morning max el	3311 Oct 22 10:46	11° \approx 08'04	17°52'46	minimum elong	3312 Sep 18 21:59	26° \approx 35'38	3°57'20
	3311 Nov 04 05:52	0° \approx		morning rise	3312 Sep 25 21:07	21° \approx 46'57	
morning set	3311 Nov 08 03:43	6° \approx 43'23		direct	3312 Sep 28 05:11	21° \approx 23'17	
				asc. node	3312 Oct 02 04:10	22° \approx 33'28	
superior conj	3311 Nov 20 19:33	28° \approx 02'45	0°13'19	morning max el	3312 Oct 05 02:22	24° \approx 52'05	17°53'16
minimum elong	3311 Nov 20 21:00	28° \approx 08'42	0°13'07		3312 Oct 09 07:46	0° \approx	
behind sun begin	3311 Nov 20 15:11	27° \approx 44'55		morning set	3312 Oct 20 23:11	19° \approx 42'10	
behind sun end	3311 Nov 21 02:49	28° \approx 32'26			3312 Oct 26 16:49	0° \approx	
	3311 Nov 22 00:18	0° \approx					
desc. node	3311 Nov 22 18:07	1° \approx 12'18		superior conj	3312 Oct 31 19:54	8° \approx 57'22	0°52'25
max. Earth dist.	3311 Nov 26 13:04	7° \approx 17'31	1.44357 AU	minimum elong	3312 Nov 01 00:01	9° \approx 15'03	0°51'52
evening rise	3311 Dec 06 17:59	23° \approx 15'06		max. Earth dist.	3312 Nov 08 03:08	21° \approx 10'57	1.42973 AU
	3311 Dec 11 03:54	0° \approx		desc. node	3312 Nov 08 15:10	21° \approx 59'58	
greatest brilliancy	3311 Dec 29 00:40	25° \approx 58'59	-0.5m		3312 Nov 13 14:55	0° \approx	
	3312 Jan 01 05:11	0° \approx		evening rise	3312 Nov 15 06:14	2° \approx 34'32	
evening max el	3312 Jan 03 21:47	2° \approx 59'57	20°34'26		3312 Dec 03 15:53	0° \approx	
retrograde	3312 Jan 12 00:24	7° \approx 46'56		greatest brilliancy	3312 Dec 11 23:10	11° \approx 04'29	-0.4m
asc. node	3312 Jan 12 06:22	7° \approx 46'36		evening max el	3312 Dec 16 18:21	16° \approx 32'06	21°46'31
evening set	3312 Jan 15 20:50	6° \approx 21'30		retrograde	3312 Dec 25 21:36	21° \approx 58'19	
inferior conj	3312 Jan 21 07:03	0° \approx 10'35	2°41'46	asc. node	3312 Dec 29 03:24	21° \approx 01'16	

evening set	3312 Dec 30 04:38	20°☾17'18		retrograde	3313 Dec 09 16:19	6°☾11'43	
inferior conj	3313 Jan 04 14:04	13°☾57'09	2°03'10	evening set	3313 Dec 14 11:40	4°☾14'21	
minimum elong	3313 Jan 04 11:44	14°☾05'14	2°02'22	asc. node	3313 Dec 16 00:26	2°☾46'34	
min. Earth dist.	3313 Jan 04 16:47	13°☾47'44	0.67860 AU		3313 Dec 18 07:18	30°☾☿	
morning rise	3313 Jan 09 18:35	7°☾43'02		inferior conj	3313 Dec 19 21:49	27°☾48'49	1°17'41
direct	3313 Jan 14 16:19	5°☾38'12		minimum elong	3313 Dec 19 20:07	27°☾54'38	1°17'01
morning max el	3313 Jan 24 15:08	11°☾32'01	22°52'05	min. Earth dist.	3313 Dec 19 13:33	28°☾17'16	0.67929 AU
greatest brilliancy	3313 Jan 29 07:39	16°☾45'53	-0.3m	morning rise	3313 Dec 25 04:35	21°☾38'11	
desc. node	3313 Feb 04 14:21	24°☾51'39		direct	3313 Dec 29 11:46	19°☾56'12	
	3313 Feb 08 07:11	0°☾		morning max el	3314 Jan 07 05:27	25°☾01'54	21°27'15
morning set	3313 Feb 27 23:24	0°☾14'12			3314 Jan 11 15:31	0°☾	
	3313 Feb 27 19:58	0°☾		greatest brilliancy	3314 Jan 12 06:14	0°☾45'23	-0.4m
max. Earth dist.	3313 Mar 04 14:09	8°☾00'39	1.39954 AU	desc. node	3314 Jan 22 11:24	14°☾39'53	
					3314 Feb 01 18:18	0°☾	
superior conj	3313 Mar 12 08:12	21°☾44'50	-1°-54'-13	morning set	3314 Feb 07 16:23	9°☾13'27	
minimum elong	3313 Mar 12 12:24	22°☾04'03	1°53'54	max. Earth dist.	3314 Feb 14 14:28	20°☾23'53	1.42025 AU
	3313 Mar 16 18:54	0°☾			3314 Feb 20 07:43	0°☾	
evening rise	3313 Mar 22 03:20	10°☾10'09					
asc. node	3313 Mar 27 02:44	19°☾30'28		superior conj	3314 Feb 22 02:09	3°☾02'33	-2°-5'-54
	3313 Apr 02 08:54	0°☾		minimum elong	3314 Feb 22 03:39	3°☾09'05	2°05'53
evening max el	3313 Apr 07 06:42	6°☾04'35	18°28'16	evening rise	3314 Mar 05 05:29	22°☾56'25	
retrograde	3313 Apr 14 19:46	9°☾47'50			3314 Mar 09 02:50	0°☾	
evening set	3313 Apr 17 03:12	9°☾27'58		asc. node	3314 Mar 13 23:46	8°☾28'05	
inferior conj	3313 Apr 24 14:53	4°☾56'05	2°21'33	evening max el	3314 Mar 21 16:34	18°☾59'30	18°09'18
minimum elong	3313 Apr 24 18:41	4°☾48'29	2°20'31	retrograde	3314 Mar 28 11:00	22°☾25'15	
min. Earth dist.	3313 Apr 28 01:21	2°☾12'22	0.58346 AU	evening set	3314 Mar 31 00:30	21°☾56'13	
	3313 May 01 07:34	30°☾☿		inferior conj	3314 Apr 06 19:39	17°☾03'02	3°12'08
morning rise	3313 May 02 05:50	29°☾29'43		minimum elong	3314 Apr 06 22:29	16°☾56'25	3°11'39
desc. node	3313 May 03 13:32	28°☾53'28		min. Earth dist.	3314 Apr 10 02:39	14°☾00'48	0.60505 AU
direct	3313 May 08 05:54	27°☾56'21		morning rise	3314 Apr 13 17:08	11°☾14'10	
	3313 May 15 09:11	0°☾		direct	3314 Apr 20 08:51	9°☾05'51	
morning max el	3313 May 22 15:19	5°☾38'10	26°53'34	desc. node	3314 Apr 20 10:34	9°☾05'52	
	3313 Jun 09 14:55	0°☾		morning max el	3314 May 04 15:30	16°☾59'15	27°40'25
morning set	3313 Jun 21 12:16	22°☾38'49			3314 May 15 09:38	0°☾	
asc. node	3313 Jun 23 02:01	25°☾58'46			3314 Jun 02 04:42	0°☾	
	3313 Jun 24 22:44	0°☾		morning set	3314 Jun 05 18:44	7°☾13'53	
				asc. node	3314 Jun 09 23:04	16°☾05'21	
superior conj	3313 Jun 28 14:02	7°☾59'05	0°55'04	max. Earth dist.	3314 Jun 12 00:55	20°☾36'43	1.32148 AU
minimum elong	3313 Jun 28 11:56	7°☾47'32	0°54'40				
max. Earth dist.	3313 Jun 28 13:29	7°☾56'04	1.32105 AU	superior conj	3314 Jun 13 01:21	22°☾50'45	0°32'06
evening rise	3313 Jul 05 11:50	22°☾59'18		minimum elong	3314 Jun 12 23:57	22°☾43'06	0°31'48
	3313 Jul 08 21:41	0°☾			3314 Jun 16 07:30	0°☾	
	3313 Jul 26 20:13	0°☾		evening rise	3314 Jun 19 22:23	7°☾49'21	
desc. node	3313 Jul 30 12:52	4°☾36'46			3314 Jul 01 11:02	0°☾	
evening max el	3313 Aug 04 04:08	9°☾32'00	26°36'24	evening max el	3314 Jul 16 23:10	20°☾44'50	25°24'52
retrograde	3313 Aug 18 03:14	16°☾43'23		desc. node	3314 Jul 17 09:52	21°☾10'04	
evening set	3313 Aug 24 21:42	14°☾47'22		retrograde	3314 Jul 30 22:48	27°☾50'57	
min. Earth dist.	3313 Aug 28 17:52	12°☾11'50	0.59978 AU	evening set	3314 Aug 05 18:33	26°☾32'13	
inferior conj	3313 Sep 01 00:23	9°☾34'46	-4°-43'-24	min. Earth dist.	3314 Aug 10 11:07	23°☾52'10	0.57945 AU
minimum elong	3313 Sep 01 05:09	9°☾25'11	4°42'41	inferior conj	3314 Aug 13 14:04	21°☾42'12	-5°-5'-59
morning rise	3313 Sep 08 15:58	4°☾55'07		minimum elong	3314 Aug 13 15:04	21°☾40'27	5°05'59
direct	3313 Sep 11 00:26	4°☾34'45		morning rise	3314 Aug 21 15:08	17°☾25'29	
morning max el	3313 Sep 18 13:47	8°☾16'06	18°13'06	direct	3314 Aug 24 03:17	17°☾06'17	
asc. node	3313 Sep 19 01:14	8°☾44'29		morning max el	3314 Sep 01 17:43	21°☾10'27	18°53'41
	3313 Oct 02 14:22	0°☾		asc. node	3314 Sep 05 22:17	26°☾01'28	
morning set	3313 Oct 04 09:31	3°☾23'12			3314 Sep 08 15:07	0°☾	
				morning set	3314 Sep 18 06:12	17°☾34'00	
					3314 Sep 24 14:17	0°☾	
superior conj	3313 Oct 13 21:15	21°☾04'53	1°20'12				
minimum elong	3313 Oct 14 01:12	21°☾22'44	1°19'47				
	3313 Oct 18 21:55	0°☾		superior conj	3314 Sep 26 18:20	4°☾10'22	1°36'58
max. Earth dist.	3313 Oct 21 11:53	4°☾25'56	1.41135 AU	minimum elong	3314 Sep 26 20:46	4°☾21'57	1°36'48
evening rise	3313 Oct 26 11:16	12°☾41'52		max. Earth dist.	3314 Oct 03 16:53	16°☾59'26	1.39077 AU
desc. node	3313 Oct 26 12:12	12°☾45'37		evening rise	3314 Oct 07 15:39	23°☾53'31	
	3313 Nov 06 13:36	0°☾			3314 Oct 11 06:52	0°☾	
greatest brilliancy	3313 Nov 23 13:59	23°☾31'26	-0.2m	desc. node	3314 Oct 13 09:14	3°☾25'33	
	3313 Nov 29 07:28	0°☾			3314 Oct 31 09:04	0°☾	
evening max el	3313 Nov 29 10:19	0°☾07'10	23°05'20	evening max el	3314 Nov 11 23:32	13°☾46'13	24°24'47

retrograde	3314 Nov 23 07:13	20°♂23'21		evening rise	3315 Sep 19 18:26	6°♂07'32	
evening set	3314 Nov 28 16:20	18°♂09'36		desc. node	3315 Sep 30 06:15	23°♂55'18	
asc. node	3314 Dec 02 21:30	13°♂26'23			3315 Oct 04 04:04	0°♂	
min. Earth dist.	3314 Dec 03 09:33	12°♂46'25	0.67657 AU	evening max el	3315 Oct 25 11:47	27°♂27'59	25°37'56
inferior conj	3314 Dec 04 04:29	11°♂43'00	0°26'26		3315 Oct 28 06:43	0°♂	
minimum elong	3314 Dec 04 03:50	11°♂45'08	0°26'09	retrograde	3315 Nov 06 17:39	4°♂28'52	
morning rise	3314 Dec 09 15:42	5°♂38'08		evening set	3315 Nov 12 16:57	2°♂00'32	
direct	3314 Dec 13 09:32	4°♂17'59			3315 Nov 14 18:22	30°♂♂	
morning max el	3314 Dec 21 03:13	8°♂43'00	20°12'54	min. Earth dist.	3315 Nov 17 02:23	27°♂12'39	0.67039 AU
greatest brilliancy	3314 Dec 27 19:24	16°♂42'21	-0.6m	inferior conj	3315 Nov 18 08:17	25°♂37'13	0°-29'-24
	3315 Jan 06 02:58	0°♂		minimum elong	3315 Nov 18 09:03	25°♂34'47	0°29'05
desc. node	3315 Jan 09 08:27	4°♂49'51		asc. node	3315 Nov 19 18:32	23°♂49'49	
morning set	3315 Jan 17 13:47	17°♂22'55		morning rise	3315 Nov 24 01:58	19°♂40'45	
	3315 Jan 25 15:12	0°♂		direct	3315 Nov 27 08:11	18°♂39'37	
max. Earth dist.	3315 Jan 27 22:56	3°♂42'21	1.43725 AU	morning max el	3315 Dec 04 08:52	22°♂35'08	19°12'42
					3315 Dec 10 11:08	0°♂	
superior conj	3315 Feb 02 18:50	13°♂10'11	-2°-2'-49	greatest brilliancy	3315 Dec 14 15:14	5°♂58'32	-0.7m
minimum elong	3315 Feb 02 14:57	12°♂54'13	2°02'41	desc. node	3315 Dec 27 05:31	25°♂15'50	
	3315 Feb 12 18:33	0°♂		morning set	3315 Dec 27 15:45	25°♂55'34	
evening rise	3315 Feb 15 14:25	4°♂53'17			3315 Dec 30 06:36	0°♂	
asc. node	3315 Feb 28 20:49	26°♂51'39		max. Earth dist.	3316 Jan 10 14:07	17°♂42'05	1.44833 AU
	3315 Mar 03 05:44	0°♂					
evening max el	3315 Mar 05 05:02	2°♂11'24	18°09'37	superior conj	3316 Jan 13 10:38	22°♂12'59	-1°-40'-47
retrograde	3315 Mar 11 15:48	5°♂34'53		minimum elong	3316 Jan 13 01:55	21°♂38'25	1°40'02
evening set	3315 Mar 14 10:49	4°♂55'21			3316 Jan 18 07:39	0°♂	
	3315 Mar 20 10:13	30°♂♂		evening rise	3316 Jan 28 02:07	15°♂55'13	
inferior conj	3315 Mar 20 17:15	29°♂41'24	3°35'25		3316 Feb 05 15:33	0°♂	
minimum elong	3315 Mar 20 18:17	29°♂38'41	3°35'22	asc. node	3316 Feb 15 17:49	14°♂31'32	
min. Earth dist.	3315 Mar 23 12:12	26°♂45'14	0.62620 AU	evening max el	3316 Feb 16 17:16	15°♂34'02	18°28'32
morning rise	3315 Mar 26 23:29	23°♂38'47		retrograde	3316 Feb 23 05:47	19°♂08'14	
direct	3315 Apr 02 21:03	21°♂03'51		evening set	3316 Feb 26 06:24	18°♂17'23	
desc. node	3315 Apr 07 07:36	22°♂00'34		inferior conj	3316 Mar 03 03:43	12°♂44'27	3°37'58
morning max el	3315 Apr 16 21:20	29°♂01'15	27°50'04	minimum elong	3316 Mar 03 03:04	12°♂46'22	3°37'56
	3315 Apr 17 20:23	0°♂		min. Earth dist.	3316 Mar 05 07:25	10°♂13'02	0.64473 AU
	3315 May 09 06:53	0°♂		morning rise	3316 Mar 08 22:16	6°♂34'02	
morning set	3315 May 20 19:35	21°♂28'49		direct	3316 Mar 15 17:05	3°♂45'37	
	3315 May 24 22:19	0°♂		desc. node	3316 Mar 24 04:40	7°♂11'06	
max. Earth dist.	3315 May 26 08:27	3°♂01'43	1.32597 AU	morning max el	3316 Mar 29 06:41	11°♂38'54	27°23'39
asc. node	3315 May 27 20:07	6°♂13'43			3316 Apr 12 20:50	0°♂	
					3316 Apr 30 18:32	0°♂	
superior conj	3315 May 28 10:23	7°♂30'58	0°06'16	morning set	3316 May 03 12:10	5°♂15'42	
minimum elong	3315 May 28 10:05	7°♂29'21	0°06'12	max. Earth dist.	3316 May 08 08:08	14°♂59'30	1.33478 AU
behind sun begin	3315 May 28 05:16	7°♂03'13					
behind sun end	3315 May 28 14:54	7°♂55'31		superior conj	3316 May 11 15:14	21°♂53'59	0°-21'-37
evening rise	3315 Jun 04 10:11	22°♂39'08		minimum elong	3316 May 11 16:20	21°♂59'49	0°21'24
	3315 Jun 07 23:15	0°♂		asc. node	3316 May 13 17:08	26°♂19'57	
	3315 Jun 27 04:57	0°♂			3316 May 15 10:14	0°♂	
evening max el	3315 Jun 28 12:48	1°♂20'04	23°53'11	evening rise	3316 May 18 21:26	7°♂22'33	
desc. node	3315 Jul 04 06:52	5°♂25'01			3316 May 30 22:45	0°♂	
retrograde	3315 Jul 12 06:17	8°♂14'06		evening max el	3316 Jun 09 03:45	11°♂46'04	22°16'44
evening set	3315 Jul 16 16:05	7°♂31'17		desc. node	3316 Jun 20 03:53	18°♂02'17	
min. Earth dist.	3315 Jul 22 23:10	4°♂29'46	0.56205 AU	retrograde	3316 Jun 22 02:01	18°♂10'48	
inferior conj	3315 Jul 25 07:29	3°♂04'03	-4°-51'-42	evening set	3316 Jun 25 01:18	17°♂51'15	
minimum elong	3315 Jul 25 02:40	3°♂11'24	4°51'08	min. Earth dist.	3316 Jul 03 09:58	14°♂14'32	0.55096 AU
	3315 Jul 30 23:37	30°♂♂		inferior conj	3316 Jul 04 07:39	13°♂43'57	-3°-48'-30
morning rise	3315 Aug 02 16:40	29°♂06'40		minimum elong	3316 Jul 03 23:21	13°♂55'40	3°46'22
direct	3315 Aug 05 10:54	28°♂47'12		morning rise	3316 Jul 12 23:31	9°♂53'25	
	3315 Aug 10 14:23	0°♂		direct	3316 Jul 16 01:35	9°♂32'01	
morning max el	3315 Aug 15 11:19	3°♂26'11	19°55'58	morning max el	3316 Jul 27 17:17	14°♂57'46	21°18'46
asc. node	3315 Aug 23 19:20	14°♂10'08			3316 Aug 07 23:54	0°♂	
	3315 Sep 01 09:03	0°♂		asc. node	3316 Aug 09 16:23	2°♂58'06	
morning set	3315 Sep 02 09:58	2°♂05'37		morning set	3316 Aug 16 18:17	16°♂50'36	
					3316 Aug 23 01:02	0°♂	
superior conj	3315 Sep 10 05:53	17°♂59'03	1°44'13				
minimum elong	3315 Sep 10 06:33	18°♂02'26	1°44'12	superior conj	3316 Aug 24 03:35	2°♂18'03	1°43'34
max. Earth dist.	3315 Sep 15 22:05	29°♂01'12	1.37046 AU	minimum elong	3316 Aug 24 02:47	2°♂13'54	1°43'32
	3315 Sep 16 10:35	0°♂		max. Earth dist.	3316 Aug 28 08:38	10°♂52'42	1.35262 AU

evening rise	3316 Sep 01 15:36	19° \cap 13'36			3317 Aug 14 14:36	0° \cap	
	3316 Sep 07 13:29	0° Δ		evening rise	3317 Aug 16 02:47	3° \cap 00'23	
desc. node	3316 Sep 16 03:14	14° Δ 08'58			3317 Aug 31 09:30	0° Δ	
	3316 Sep 27 06:16	0° \cap		desc. node	3317 Sep 03 00:14	3° Δ 59'30	
evening max el	3316 Oct 07 00:04	11° \cap 06'41	26°37'20	evening max el	3317 Sep 19 12:15	24° Δ 34'12	27°15'35
retrograde	3316 Oct 19 22:57	18° \cap 21'08			3317 Sep 26 13:48	0° \cap	
evening set	3316 Oct 26 11:33	15° \cap 42'31		retrograde	3317 Oct 02 22:39	1° \cap 52'39	
min. Earth dist.	3316 Oct 30 13:45	11° \cap 30'59	0.66070 AU		3317 Oct 08 18:31	30° \cap Δ	
inferior conj	3316 Nov 01 07:16	9° \cap 27'13	-1°-28'-31	evening set	3317 Oct 09 21:45	29° Δ 11'22	
minimum elong	3316 Nov 01 09:41	9° \cap 20'00	1°27'31	min. Earth dist.	3317 Oct 13 17:31	25° Δ 35'32	0.64753 AU
asc. node	3316 Nov 05 15:34	4° \cap 52'18		inferior conj	3317 Oct 15 23:12	23° Δ 08'47	-2°-28'-56
morning rise	3316 Nov 07 09:13	3° \cap 41'48		minimum elong	3317 Oct 16 03:19	22° Δ 57'31	2°27'23
direct	3316 Nov 10 05:53	2° \cap 56'00		morning rise	3317 Oct 22 10:54	17° Δ 37'27	
morning max el	3316 Nov 16 20:46	6° \cap 32'52	18°28'17	asc. node	3317 Oct 23 12:37	17° Δ 14'45	
	3316 Dec 03 04:12	0° \mathcal{A}		direct	3317 Oct 25 00:30	17° Δ 02'58	
morning set	3316 Dec 06 18:22	5° \mathcal{A} 45'14		morning max el	3317 Oct 31 12:21	20° Δ 30'20	18°00'36
desc. node	3316 Dec 13 02:32	15° \mathcal{A} 52'20			3317 Nov 07 17:19	0° \cap	
	3316 Dec 22 01:26	0° \mathcal{B}		morning set	3317 Nov 18 02:16	17° \cap 01'27	
					3317 Nov 25 22:05	0° \mathcal{A}	
superior conj	3316 Dec 22 12:53	0° \mathcal{B} 44'54	-1°-1'-8	desc. node	3317 Nov 29 23:32	6° \mathcal{A} 35'36	
minimum elong	3316 Dec 22 05:21	0° \mathcal{B} 15'22	1°00'12				
max. Earth dist.	3316 Dec 23 08:33	2° \mathcal{B} 02'02	1.45227 AU	superior conj	3317 Dec 01 22:19	9° \mathcal{A} 43'23	0°-13'-16
evening rise	3317 Jan 07 14:26	26° \mathcal{B} 00'17		minimum elong	3317 Dec 01 20:41	9° \mathcal{A} 36'53	0°13'04
	3317 Jan 10 03:04	0° \approx		behind sun begin	3317 Dec 01 14:24	9° \mathcal{A} 11'42	
greatest brilliancy	3317 Jan 19 10:50	14° \approx 37'18	-0.7m	behind sun end	3317 Dec 02 02:59	10° \mathcal{A} 02'02	
evening max el	3317 Jan 30 02:54	29° \approx 02'21	19°05'14	max. Earth dist.	3317 Dec 06 03:16	16° \mathcal{A} 24'29	1.44881 AU
	3317 Jan 31 02:36	0° \mathcal{H}			3317 Dec 14 20:01	0° \mathcal{B}	
asc. node	3317 Feb 01 14:50	1° \mathcal{H} 15'10		evening rise	3317 Dec 18 07:02	5° \mathcal{B} 20'49	
retrograde	3317 Feb 06 01:06	2° \mathcal{H} 58'12			3318 Jan 03 14:18	0° \approx	
evening set	3317 Feb 09 08:13	1° \mathcal{H} 55'02		greatest brilliancy	3318 Jan 06 09:05	3° \approx 56'31	-0.6m
	3317 Feb 11 15:30	30° \cap \approx		evening max el	3318 Jan 13 08:10	12° \approx 33'09	19°57'59
inferior conj	3317 Feb 14 23:24	26° \approx 05'24	3°25'03	asc. node	3318 Jan 19 11:52	16° \approx 47'51	
minimum elong	3317 Feb 14 21:35	26° \approx 11'11	3°24'48	retrograde	3318 Jan 20 22:48	16° \approx 59'24	
min. Earth dist.	3317 Feb 16 11:45	24° \approx 10'07	0.65946 AU	evening set	3318 Jan 24 13:51	15° \approx 42'36	
morning rise	3317 Feb 20 10:00	19° \approx 51'07		inferior conj	3318 Jan 30 01:20	9° \approx 38'50	3°00'21
direct	3317 Feb 26 19:56	17° \approx 02'50		minimum elong	3318 Jan 29 22:54	9° \approx 46'57	2°59'47
desc. node	3317 Mar 11 01:42	24° \approx 02'43		min. Earth dist.	3318 Jan 30 23:30	8° \approx 24'37	0.67008 AU
morning max el	3317 Mar 11 16:38	24° \approx 39'52	26°27'27	morning rise	3318 Feb 04 07:19	3° \approx 23'15	
	3317 Mar 16 12:35	0° \mathcal{H}		direct	3318 Feb 10 04:31	0° \approx 46'29	
	3317 Apr 06 07:20	0° \mathcal{Y}		morning max el	3318 Feb 22 01:25	7° \approx 51'53	25°10'30
morning set	3317 Apr 16 16:58	18° \mathcal{Y} 24'17		desc. node	3318 Feb 25 22:45	12° \approx 06'26	
max. Earth dist.	3317 Apr 20 20:38	26° \mathcal{Y} 24'13	1.34821 AU		3318 Mar 11 09:06	0° \mathcal{H}	
	3317 Apr 22 16:03	0° \mathcal{B}			3318 Mar 29 20:09	0° \mathcal{Y}	
				morning set	3318 Mar 30 05:06	0° \mathcal{Y} 40'04	
superior conj	3317 Apr 25 13:39	5° \mathcal{B} 53'35	0°-50'-21	max. Earth dist.	3318 Apr 02 21:51	7° \mathcal{Y} 25'57	1.36609 AU
minimum elong	3317 Apr 25 16:18	6° \mathcal{B} 07'10	0°49'52				
asc. node	3317 Apr 30 14:10	16° \mathcal{B} 20'15		superior conj	3318 Apr 09 02:45	19° \mathcal{Y} 21'16	-1°-18'-16
evening rise	3317 May 03 06:13	21° \mathcal{B} 53'42		minimum elong	3318 Apr 09 06:46	19° \mathcal{Y} 41'03	1°17'40
	3317 May 07 06:30	0° \cap			3318 Apr 14 10:06	0° \mathcal{B}	
evening max el	3317 May 22 03:41	22° \cap 35'21	20°49'21	evening rise	3318 Apr 17 10:18	6° \mathcal{B} 05'25	
retrograde	3317 Jun 02 15:05	28° \cap 11'33		asc. node	3318 Apr 17 11:11	6° \mathcal{B} 09'51	
evening set	3317 Jun 04 18:06	28° \cap 00'46			3318 May 01 02:16	0° \cap	
desc. node	3317 Jun 07 00:54	27° \cap 26'47		evening max el	3318 May 04 15:43	4° \cap 03'29	19°38'50
inferior conj	3317 Jun 14 01:08	24° \cap 03'27	-2°-2'-33	retrograde	3318 May 14 09:02	8° \cap 46'26	
minimum elong	3317 Jun 13 19:25	24° \cap 11'36	2°00'33	evening set	3318 May 16 08:37	8° \cap 35'33	
min. Earth dist.	3317 Jun 14 22:02	23° \cap 33'41	0.54888 AU	desc. node	3318 May 24 21:56	4° \cap 39'18	
morning rise	3317 Jun 22 19:53	19° \cap 59'45		inferior conj	3318 May 25 02:20	4° \cap 32'23	0°-3'-13
direct	3317 Jun 26 10:52	19° \cap 31'26		minimum elong	3318 May 25 02:11	4° \cap 32'36	0°03'11
morning max el	3317 Jul 09 13:08	25° \cap 48'38	22°56'52	transit middle	3318 May 25 02:11	4° \cap 32'36	0°03'11
	3317 Jul 13 12:03	0° \mathcal{B}		transit begin	3318 May 24 22:21	4° \cap 38'39	
asc. node	3317 Jul 27 13:26	22° \mathcal{B} 15'32		transit end	3318 May 25 06:02	4° \cap 26'33	
	3317 Jul 31 09:27	0° \mathcal{Q}		min. Earth dist.	3318 May 27 11:49	3° \cap 02'22	0.55653 AU
morning set	3317 Aug 01 05:14	1° \mathcal{Q} 43'26		morning rise	3318 Jun 02 16:16	29° \mathcal{B} 58'53	
					3318 Jun 02 14:55	30° \cap \mathcal{B}	
superior conj	3317 Aug 08 08:13	16° \mathcal{Q} 57'27	1°36'25	direct	3318 Jun 07 03:59	29° \mathcal{B} 13'54	
minimum elong	3317 Aug 08 06:25	16° \mathcal{Q} 47'49	1°36'17		3318 Jun 11 16:01	0° \cap	
max. Earth dist.	3317 Aug 11 03:59	22° \mathcal{Q} 55'51	1.33853 AU	morning max el	3318 Jun 21 03:28	6° \cap 14'17	24°39'33

	3318 Jul 08 06:20	0°☿			3319 Jun 13 15:35	0°♊		
asc. node	3318 Jul 14 10:28	11°☿53'53			3319 Jun 30 11:06	0°☿		
morning set	3318 Jul 16 17:03	16°☿37'56		morning set	3319 Jul 01 04:08	1°☿29'21		
	3318 Jul 22 21:21	0°♌		asc. node	3319 Jul 01 07:31	1°☿47'12		
superior conj	3318 Jul 23 17:11	1°♌48'13	1°23'52	superior conj	3319 Jul 08 04:28	16°☿43'49	1°06'44	
minimum elong	3318 Jul 23 14:53	1°♌35'41	1°23'34	minimum elong	3319 Jul 08 02:10	16°☿31'08	1°06'20	
max. Earth dist.	3318 Jul 25 07:56	5°♌18'28	1.32857 AU	max. Earth dist.	3319 Jul 08 17:45	17°☿56'58	1.32268 AU	
evening rise	3318 Jul 31 00:06	17°♌15'47			3319 Jul 14 07:22	0°♌		
	3318 Aug 06 13:22	0°♍		evening rise	3319 Jul 15 04:26	1°♌50'36		
desc. node	3318 Aug 20 21:15	23°♍16'34			3319 Jul 30 12:03	0°♍		
	3318 Aug 25 23:35	0°♎		desc. node	3319 Aug 07 18:17	11°♍46'23		
evening max el	3318 Sep 01 22:45	7°♎38'04	27°26'06	evening max el	3319 Aug 15 04:45	20°♍04'15	27°04'06	
retrograde	3318 Sep 15 15:55	14°♎54'17		retrograde	3319 Aug 29 01:46	27°♍16'44		
evening set	3318 Sep 22 20:24	12°♎20'44		evening set	3319 Sep 05 03:23	25°♍03'19		
min. Earth dist.	3318 Sep 26 11:39	9°♎16'50	0.63096 AU	min. Earth dist.	3319 Sep 08 19:02	22°♍22'00	0.61163 AU	
inferior conj	3318 Sep 29 05:24	6°♎35'29	-3°-27'-38	inferior conj	3319 Sep 11 22:35	19°♍38'38	-4°-19'-38	
minimum elong	3318 Sep 29 10:51	6°♎22'06	3°25'58	minimum elong	3319 Sep 12 04:12	19°♍26'27	4°18'26	
morning rise	3318 Oct 06 03:51	1°♎21'34		morning rise	3319 Sep 19 08:05	14°♍45'45		
direct	3318 Oct 08 13:08	0°♎54'46		direct	3319 Sep 21 16:04	14°♍23'38		
asc. node	3318 Oct 10 09:41	1°♎11'22		asc. node	3319 Sep 27 06:44	16°♍36'50		
morning max el	3318 Oct 15 04:46	4°♎20'48	17°50'37	morning max el	3319 Sep 28 18:54	17°♍56'26	17°59'18	
morning set	3318 Oct 31 10:42	29°♎28'46			3319 Oct 07 10:21	0°♎		
	3318 Oct 31 17:49	0°♏		morning set	3319 Oct 14 13:09	12°♎47'15		
					3319 Oct 24 00:42	0°♏		
superior conj	3318 Nov 12 07:00	19°♏51'38	0°31'11	superior conj	3319 Oct 24 18:32	1°♏18'27	1°05'37	
minimum elong	3318 Nov 12 10:01	20°♏04'12	0°30'45	minimum elong	3319 Oct 24 22:50	1°♏37'20	1°05'05	
desc. node	3318 Nov 16 20:34	27°♏22'34		max. Earth dist.	3319 Nov 01 08:38	14°♏15'26	1.42236 AU	
	3318 Nov 18 11:30	0°♐		desc. node	3319 Nov 03 17:36	18°♏09'29		
max. Earth dist.	3318 Nov 18 20:09	0°♐34'51	1.43843 AU	evening rise	3319 Nov 07 10:12	24°♏05'48		
evening rise	3318 Nov 27 16:10	14°♐29'28			3319 Nov 11 04:30	0°♐		
	3318 Dec 07 21:53	0°♑			3319 Dec 01 22:49	0°♑		
greatest brilliancy	3318 Dec 22 01:24	19°♑56'21	-0.5m	greatest brilliancy	3319 Dec 05 08:47	4°♑19'00	-0.3m	
evening max el	3318 Dec 27 08:05	26°♑05'31	21°04'00	evening max el	3319 Dec 10 02:35	9°♑38'53	22°19'30	
	3319 Jan 01 02:23	0°♒		retrograde	3319 Dec 19 16:52	15°♑21'18		
retrograde	3319 Jan 04 20:37	1°♒08'24		evening set	3319 Dec 24 05:04	13°♑33'10		
asc. node	3319 Jan 06 08:55	0°♒55'49		asc. node	3319 Dec 24 05:58	13°♑31'18		
	3319 Jan 08 08:14	30°♒♑		inferior conj	3319 Dec 29 14:38	7°♑10'18	1°44'38	
evening set	3319 Jan 08 21:23	29°♑36'30		minimum elong	3319 Dec 29 12:32	7°♑17'37	1°43'52	
inferior conj	3319 Jan 14 07:06	23°♑21'30	2°26'20	min. Earth dist.	3319 Dec 29 12:33	7°♑17'34	0.67940 AU	
minimum elong	3319 Jan 14 04:35	23°♑30'08	2°25'33	morning rise	3320 Jan 03 19:52	0°♑57'41		
min. Earth dist.	3319 Jan 14 16:32	22°♑48'59	0.67664 AU		3320 Jan 05 04:08	30°♒♐		
morning rise	3319 Jan 19 11:25	17°♑06'32		direct	3320 Jan 08 11:20	29°♐02'41		
direct	3319 Jan 24 17:56	14°♑48'53			3320 Jan 12 01:07	0°♑		
morning max el	3319 Feb 04 09:55	21°♑10'01	23°43'09	morning max el	3320 Jan 17 21:13	4°♑34'56	22°15'04	
	3319 Feb 12 00:38	0°♒		greatest brilliancy	3320 Jan 22 11:08	9°♑42'15	-0.3m	
desc. node	3319 Feb 12 19:47	1°♒01'37		desc. node	3320 Jan 30 16:49	20°♑33'16		
	3319 Mar 04 15:25	0°♓			3320 Feb 06 06:16	0°♒		
morning set	3319 Mar 11 18:41	11°♓47'11		morning set	3320 Feb 20 04:08	21°♒32'09		
max. Earth dist.	3319 Mar 15 17:17	18°♓37'27	1.38710 AU		3320 Feb 25 07:14	0°♓		
	3319 Mar 21 23:36	0°♈		max. Earth dist.	3320 Feb 25 14:32	0°♓30'44	1.40873 AU	
superior conj	3319 Mar 23 02:53	2°♈07'49	-1°-42'-53	superior conj	3320 Mar 04 09:16	14°♈00'47	-2°00'-38	
minimum elong	3319 Mar 23 07:28	2°♈29'26	1°42'24	minimum elong	3320 Mar 04 12:41	14°♈16'02	2°00'27	
evening rise	3319 Apr 01 07:03	19°♈50'50			3320 Mar 13 02:23	0°♈		
asc. node	3319 Apr 04 08:14	25°♈44'11		evening rise	3320 Mar 14 17:05	3°♈01'05		
	3319 Apr 06 14:51	0°♉		asc. node	3320 Mar 21 05:16	14°♈56'58		
evening max el	3319 Apr 17 14:39	16°♉11'15	18°48'08	evening max el	3320 Mar 30 21:24	28°♈50'49	18°17'42	
retrograde	3319 Apr 25 19:29	20°♉11'40			3320 Apr 01 04:16	0°♉		
evening set	3319 Apr 27 23:35	19°♉55'54		retrograde	3320 Apr 07 01:10	2°♉24'55		
inferior conj	3319 May 05 22:06	15°♉35'27	1°37'48	evening set	3320 Apr 09 11:12	2°♉01'22		
minimum elong	3319 May 06 01:26	15°♉29'22	1°36'44		3320 Apr 13 07:11	30°♒♈		
min. Earth dist.	3319 May 09 04:13	13°♉13'49	0.57217 AU	inferior conj	3320 Apr 16 15:22	27°♈20'03	2°46'47	
desc. node	3319 May 11 18:57	11°♉33'06		minimum elong	3320 Apr 16 18:58	27°♈12'21	2°45'57	
morning rise	3319 May 13 22:53	10°♉27'04		min. Earth dist.	3320 Apr 20 01:36	24°♈25'32	0.59253 AU	
direct	3319 May 19 10:35	9°♉13'57		morning rise	3320 Apr 23 22:47	21°♈42'46		
morning max el	3319 Jun 02 18:41	16°♉43'23	26°11'35					

desc. node	3320 Apr 27 15:59	20° Υ 12'48		morning rise	3321 Apr 05 18:23	3° Υ 45'32	
direct	3320 Apr 30 06:26	19° Υ 54'25		direct	3321 Apr 12 13:35	1° Υ 24'24	
morning max el	3320 May 14 15:23	27° Υ 41'51	27°18'01	desc. node	3321 Apr 14 13:02	1° Υ 35'35	
	3320 May 16 20:49	0° X		morning max el	3321 Apr 26 18:23	9° Υ 21'18	27°49'09
	3320 Jun 06 06:24	0° Π			3321 May 12 16:59	0° X	
morning set	3320 Jun 14 12:50	16° Π 12'20			3321 May 29 09:23	0° Π	
asc. node	3320 Jun 17 04:34	21° Π 50'23		morning set	3321 May 29 17:10	0° Π 39'51	
	3320 Jun 20 22:22	0° S		asc. node	3321 Jun 04 01:36	11° Π 58'09	
max. Earth dist.	3320 Jun 21 05:45	0° S 40'43	1.32073 AU	max. Earth dist.	3321 Jun 04 15:57	13° Π 15'58	1.32281 AU
superior conj	3320 Jun 21 16:15	1° S 38'35	0°45'42	superior conj	3321 Jun 06 02:48	16° Π 25'59	0°21'26
minimum elong	3320 Jun 21 14:25	1° S 28'24	0°45'21	minimum elong	3321 Jun 06 01:49	16° Π 20'40	0°21'13
evening rise	3320 Jun 28 13:19	16° S 37'01			3321 Jun 12 08:12	0° S	
	3320 Jul 05 04:58	0° Ω		evening rise	3321 Jun 13 00:35	1° S 27'23	
desc. node	3320 Jul 24 15:17	29° Ω 09'49			3321 Jun 28 13:56	0° Ω	
	3320 Jul 25 10:13	0° P		evening max el	3321 Jul 08 19:46	12° Ω 37'11	24°47'30
evening max el	3320 Jul 27 03:47	1° P 43'32	26°09'13	desc. node	3321 Jul 11 12:18	14° Ω 59'19	
retrograde	3320 Aug 10 03:15	8° P 53'12		retrograde	3321 Jul 22 18:20	19° Ω 40'36	
evening set	3320 Aug 16 13:59	7° P 12'00		evening set	3321 Jul 28 00:29	18° Ω 38'00	
min. Earth dist.	3320 Aug 20 16:29	4° P 37'13	0.59094 AU	min. Earth dist.	3321 Aug 02 07:07	15° Ω 50'33	0.57140 AU
inferior conj	3320 Aug 23 23:15	2° P 09'09	-4°-56'-32	inferior conj	3321 Aug 05 04:18	13° Ω 57'18	-5°-5'-24
minimum elong	3320 Aug 24 02:47	2° P 02'26	4°56'11	minimum elong	3321 Aug 05 02:55	13° Ω 59'34	5°05'22
	3320 Aug 26 23:07	30° R Ω		morning rise	3321 Aug 13 09:01	9° Ω 49'58	
morning rise	3320 Aug 31 19:05	27° Ω 39'42		direct	3321 Aug 15 23:19	9° Ω 30'58	
direct	3320 Sep 03 04:52	27° Ω 19'59		morning max el	3321 Aug 25 03:30	13° Ω 48'34	19°17'36
	3320 Sep 09 20:07	0° P		asc. node	3321 Aug 31 00:50	20° Ω 58'18	
morning max el	3320 Sep 11 03:35	1° P 09'16	18°27'53		3321 Sep 05 10:53	0° P	
asc. node	3320 Sep 13 03:48	3° P 17'50		morning set	3321 Sep 11 04:21	11° P 02'23	
morning set	3320 Sep 27 04:21	26° P 42'19					
	3320 Sep 28 21:26	0° A		superior conj	3321 Sep 19 08:49	27° P 18'27	1°41'06
superior conj	3320 Oct 06 05:01	13° A 53'05	1°28'35	minimum elong	3321 Sep 19 10:30	27° P 26'36	1°41'01
minimum elong	3320 Oct 06 08:24	14° A 08'45	1°28'16		3321 Sep 20 18:13	0° A	
max. Earth dist.	3320 Oct 13 15:35	27° A 13'09	1.40265 AU	max. Earth dist.	3321 Sep 25 19:28	9° A 28'31	1.38187 AU
	3320 Oct 15 06:26	0° M		evening rise	3321 Sep 29 15:06	16° A 18'16	
evening rise	3320 Oct 18 00:52	4° M 39'32		desc. node	3321 Oct 07 11:39	29° A 29'08	
desc. node	3320 Oct 20 14:38	8° M 53'13			3321 Oct 07 19:21	0° M	
	3320 Nov 03 09:35	0° J			3321 Oct 28 22:59	0° J	
evening max el	3320 Nov 21 16:59	23° J 15'07	23°39'19	evening max el	3321 Nov 04 05:27	6° J 55'00	24°57'08
retrograde	3320 Dec 02 10:11	29° J 34'52		retrograde	3321 Nov 15 23:28	13° J 44'18	
evening set	3320 Dec 07 11:19	27° J 30'11		evening set	3321 Nov 21 14:29	11° J 24'02	
asc. node	3320 Dec 10 03:01	24° J 44'37		min. Earth dist.	3321 Nov 26 04:16	6° J 15'29	0.67430 AU
inferior conj	3320 Dec 12 22:08	21° J 03'27	0°56'35	inferior conj	3321 Nov 27 03:49	4° J 57'58	0°03'14
minimum elong	3320 Dec 12 20:51	21° J 07'51	0°56'03	minimum elong	3321 Nov 27 03:44	4° J 58'14	0°03'12
min. Earth dist.	3320 Dec 12 09:15	21° J 47'28	0.67857 AU	transit middle	3321 Nov 27 03:44	4° J 58'14	0°03'12
morning rise	3320 Dec 18 06:34	14° J 55'05		transit begin	3321 Nov 27 01:01	5° J 07'11	
direct	3320 Dec 22 07:47	13° J 22'53		transit end	3321 Nov 27 06:27	4° J 49'19	
morning max el	3320 Dec 30 14:39	18° J 10'12	20°54'04	asc. node	3321 Nov 27 00:02	5° J 10'26	
greatest brilliancy	3321 Jan 05 05:13	24° J 39'47	-0.5m		3321 Dec 01 09:36	30° R M	
	3321 Jan 09 05:22	0° Z		morning rise	3321 Dec 02 17:32	28° M 56'12	
desc. node	3321 Jan 16 13:53	10° Z 31'34		direct	3321 Dec 06 06:06	27° M 44'38	
morning set	3321 Jan 29 10:42	0° \approx 03'55			3321 Dec 11 12:19	0° J	
	3321 Jan 29 09:42	0° \approx		morning max el	3321 Dec 13 15:51	1° J 56'15	19°45'24
max. Earth dist.	3321 Feb 06 18:16	13° \approx 18'22	1.42811 AU	greatest brilliancy	3321 Dec 21 09:51	11° J 29'54	-0.6m
					3322 Jan 02 22:06	0° Z	
superior conj	3321 Feb 13 16:50	24° \approx 49'03	-2°-6'-42	desc. node	3322 Jan 03 10:56	0° Z 49'00	
minimum elong	3321 Feb 13 16:19	24° \approx 46'50	2°06'43	morning set	3322 Jan 08 06:47	8° Z 13'59	
	3321 Feb 16 17:40	0° X		max. Earth dist.	3322 Jan 20 05:19	26° Z 54'40	1.44274 AU
evening rise	3321 Feb 25 12:29	15° X 27'31			3322 Jan 22 03:49	0° \approx	
	3321 Mar 05 19:35	0° Υ		superior conj	3322 Jan 24 22:29	4° \approx 27'54	-1°-55'-54
asc. node	3321 Mar 08 02:18	3° Υ 41'13		minimum elong	3322 Jan 24 16:08	4° \approx 02'14	1°55'33
evening max el	3321 Mar 14 08:40	11° Υ 53'31	18°07'02	evening rise	3322 Feb 07 12:51	27° \approx 02'00	
retrograde	3321 Mar 20 22:47	15° Υ 16'55			3322 Feb 09 06:45	0° X	
evening set	3321 Mar 23 14:31	14° Υ 43'42		asc. node	3322 Feb 22 23:20	21° X 48'13	
inferior conj	3321 Mar 30 03:49	9° Υ 41'34	3°24'55	evening max el	3322 Feb 25 21:25	25° X 11'37	18°15'27
minimum elong	3321 Mar 30 05:55	9° Υ 36'23	3°24'40	retrograde	3322 Mar 04 07:56	28° X 38'06	
min. Earth dist.	3321 Apr 02 06:25	6° Υ 38'52	0.61424 AU	evening set	3322 Mar 07 05:14	27° X 53'59	

inferior conj	3322 Mar 13 07:25	22° ♄ 32'03	3°38'38	inferior conj	3323 Feb 24 22:11	5° ♄ 43'19	3°34'06
minimum elong	3322 Mar 13 07:41	22° ♄ 31'19	3°38'38	minimum elong	3323 Feb 24 20:58	5° ♄ 47'01	3°34'00
min. Earth dist.	3322 Mar 15 20:11	19° ♄ 44'13	0.63451 AU	min. Earth dist.	3323 Feb 26 19:17	3° ♄ 26'23	0.65154 AU
morning rise	3322 Mar 19 08:13	16° ♄ 25'32			3323 Mar 02 00:01	30° ♄	
direct	3322 Mar 26 05:41	13° ♄ 42'44		morning rise	3323 Mar 02 12:57	29° ♄ 31'11	
desc. node	3322 Apr 01 10:04	15° ♄ 32'53		direct	3323 Mar 09 04:46	26° ♄ 41'11	
morning max el	3322 Apr 09 01:59	21° ♄ 40'09	27°42'50		3323 Mar 17 09:30	0° ♄	
	3322 Apr 16 08:33	0° ♄		desc. node	3323 Mar 19 07:07	1° ♄ 30'28	
	3322 May 05 20:05	0° ♄		morning max el	3323 Mar 22 11:38	4° ♄ 28'32	27°02'51
morning set	3322 May 13 14:53	14° ♄ 44'32			3323 Apr 10 20:55	0° ♄	
max. Earth dist.	3322 May 18 20:23	25° ♄ 30'03	1.32914 AU	morning set	3323 Apr 27 02:55	28° ♄ 16'27	
	3322 May 20 23:05	0° ♄			3323 Apr 28 00:18	0° ♄	
				max. Earth dist.	3323 May 01 15:31	7° ♄ 13'34	1.34000 AU
superior conj	3322 May 21 10:19	1° ♄ 00'20	0°-5'-23	superior conj	3323 May 05 12:45	15° ♄ 14'34	0°-33'-46
minimum elong	3322 May 21 10:35	1° ♄ 01'47	0°05'20	minimum elong	3323 May 05 14:30	15° ♄ 23'44	0°33'26
behind sun begin	3322 May 21 05:34	0° ♄ 34'46		asc. node	3323 May 08 19:39	22° ♄ 10'58	
behind sun end	3322 May 21 15:37	1° ♄ 28'48		evening rise	3323 May 12 22:50	0° ♄ 54'46	
asc. node	3322 May 21 22:38	2° ♄ 06'35			3323 May 12 12:22	0° ♄	
evening rise	3322 May 28 12:23	16° ♄ 15'35			3323 May 29 19:36	0° ♄	
	3322 Jun 04 08:33	0° ♄		evening max el	3323 Jun 02 03:14	3° ♄ 38'04	21°37'46
evening max el	3322 Jun 20 09:06	23° ♄ 05'08	23°11'53	retrograde	3323 Jun 14 11:50	9° ♄ 43'07	
desc. node	3322 Jun 28 09:17	28° ♄ 40'48		desc. node	3323 Jun 15 06:18	9° ♄ 41'45	
retrograde	3322 Jul 03 20:40	29° ♄ 49'00		evening set	3323 Jun 17 00:30	9° ♄ 28'41	
evening set	3322 Jul 07 14:35	29° ♄ 18'18		inferior conj	3323 Jun 26 09:13	5° ♄ 27'48	-3°-7'-26
min. Earth dist.	3322 Jul 14 18:36	26° ♄ 03'14	0.55638 AU	minimum elong	3323 Jun 26 01:17	5° ♄ 38'53	3°05'00
inferior conj	3322 Jul 16 13:38	25° ♄ 00'18	-4°-31'-7	min. Earth dist.	3323 Jun 26 05:34	5° ♄ 32'53	0.54898 AU
minimum elong	3322 Jul 16 06:43	25° ♄ 10'27	4°29'52	morning rise	3323 Jul 05 03:01	1° ♄ 34'16	
morning rise	3322 Jul 25 01:48	21° ♄ 07'26		direct	3323 Jul 08 10:03	1° ♄ 10'36	
direct	3322 Jul 27 22:58	20° ♄ 47'28		morning max el	3323 Jul 20 17:14	6° ♄ 58'04	21°59'06
morning max el	3322 Aug 07 16:09	25° ♄ 45'45	20°28'47	asc. node	3323 Aug 04 18:55	28° ♄ 26'32	
	3322 Aug 11 13:33	0° ♄			3323 Aug 05 14:41	0° ♄	
asc. node	3322 Aug 17 21:52	9° ♄ 24'56		morning set	3323 Aug 10 19:58	10° ♄ 29'08	
morning set	3322 Aug 26 10:17	25° ♄ 40'01					
	3322 Aug 28 12:48	0° ♄		superior conj	3323 Aug 18 02:05	25° ♄ 49'26	1°41'15
superior conj	3322 Sep 03 01:06	11° ♄ 20'52	1°44'48	minimum elong	3323 Aug 18 00:48	25° ♄ 42'40	1°41'11
minimum elong	3322 Sep 03 01:06	11° ♄ 20'52	1°44'48		3323 Aug 20 02:06	0° ♄	
max. Earth dist.	3322 Sep 08 02:07	21° ♄ 21'37	1.36250 AU	max. Earth dist.	3323 Aug 21 16:33	3° ♄ 17'35	1.34618 AU
evening rise	3322 Sep 12 02:16	28° ♄ 55'49		evening rise	3323 Aug 26 05:56	12° ♄ 20'41	
	3322 Sep 12 16:15	0° ♄			3323 Sep 05 00:43	0° ♄	
desc. node	3322 Sep 24 08:39	19° ♄ 52'31		desc. node	3323 Sep 11 05:38	9° ♄ 57'28	
	3322 Oct 01 01:39	0° ♄			3323 Sep 26 05:22	0° ♄	
evening max el	3322 Oct 17 17:47	20° ♄ 36'28	26°05'28	evening max el	3323 Sep 30 06:22	4° ♄ 12'35	26°56'42
retrograde	3322 Oct 30 07:44	27° ♄ 44'15		retrograde	3323 Oct 13 10:31	11° ♄ 28'50	
evening set	3322 Nov 05 12:46	25° ♄ 11'12		evening set	3323 Oct 20 04:07	8° ♄ 48'11	
min. Earth dist.	3322 Nov 09 19:10	20° ♄ 38'25	0.66664 AU	min. Earth dist.	3323 Oct 24 03:33	4° ♄ 52'03	0.65552 AU
inferior conj	3322 Nov 11 05:49	18° ♄ 50'40	0°-54'-11	inferior conj	3323 Oct 26 02:07	2° ♄ 38'01	-1°-54'-7
minimum elong	3322 Nov 11 07:15	18° ♄ 46'11	0°53'35	minimum elong	3323 Oct 26 05:16	2° ♄ 28'56	1°52'52
asc. node	3322 Nov 13 21:05	15° ♄ 43'33			3323 Oct 28 11:21	30° ♄	
morning rise	3322 Nov 17 02:46	12° ♄ 58'15		asc. node	3323 Oct 31 18:08	27° ♄ 16'57	
direct	3322 Nov 20 04:40	12° ♄ 04'01		morning rise	3323 Nov 01 08:02	26° ♄ 58'07	
morning max el	3322 Nov 27 00:17	15° ♄ 50'29	18°51'46	direct	3323 Nov 04 01:29	26° ♄ 17'26	
	3322 Dec 07 15:31	0° ♄		morning max el	3323 Nov 10 14:05	29° ♄ 48'55	18°14'29
morning set	3322 Dec 18 17:36	17° ♄ 14'58			3323 Nov 10 18:28	0° ♄	
desc. node	3322 Dec 21 07:57	21° ♄ 19'42		morning set	3323 Nov 29 09:01	27° ♄ 43'15	
	3322 Dec 26 20:39	0° ♄			3323 Nov 30 18:35	0° ♄	
max. Earth dist.	3323 Jan 02 22:08	11° ♄ 04'41	1.45090 AU	desc. node	3323 Dec 08 04:58	11° ♄ 59'43	
superior conj	3323 Jan 04 06:22	13° ♄ 11'26	-1°-25'-44	superior conj	3323 Dec 14 09:01	21° ♄ 47'20	0°-41'-5
minimum elong	3323 Jan 03 21:15	12° ♄ 35'37	1°24'48	minimum elong	3323 Dec 14 03:47	21° ♄ 26'43	0°40'24
	3323 Jan 14 20:35	0° ♄		max. Earth dist.	3323 Dec 16 17:43	25° ♄ 30'30	1.45169 AU
evening rise	3323 Jan 19 14:33	7° ♄ 38'51			3323 Dec 19 14:26	0° ♄	
	3323 Feb 02 16:02	0° ♄		evening rise	3323 Dec 30 17:38	17° ♄ 23'02	
evening max el	3323 Feb 09 08:54	8° ♄ 37'45	18°42'07		3324 Jan 07 20:16	0° ♄	
asc. node	3323 Feb 09 20:21	9° ♄ 06'10		greatest brilliancy	3324 Jan 15 03:40	11° ♄ 04'05	-0.7m
retrograde	3323 Feb 16 00:28	12° ♄ 19'32		evening max el	3324 Jan 23 16:55	22° ♄ 07'45	19°25'49
evening set	3323 Feb 19 03:48	11° ♄ 23'28		asc. node	3324 Jan 27 17:24	25° ♄ 21'52	

retrograde	3324 Jan 30 21:10	26° \approx 15'20		retrograde	3325 Jan 13 19:17	10° \approx 20'17	
evening set	3324 Feb 03 07:33	25° \approx 06'19		asc. node	3325 Jan 13 14:27	10° \approx 20'03	
inferior conj	3324 Feb 08 20:52	19° \approx 10'10	3°15'52	evening set	3325 Jan 17 14:15	8° \approx 57'07	
minimum elong	3324 Feb 08 18:44	19° \approx 17'10	3°15'28	inferior conj	3325 Jan 23 00:43	2° \approx 47'55	2°46'58
min. Earth dist.	3324 Feb 10 02:55	17° \approx 32'25	0.66450 AU	minimum elong	3325 Jan 22 22:12	2° \approx 56'29	2°46'18
morning rise	3324 Feb 14 05:09	12° \approx 55'16		min. Earth dist.	3325 Jan 23 17:14	1° \approx 51'44	0.67329 AU
direct	3324 Feb 20 09:59	10° \approx 11'01			3325 Jan 25 02:55	30° \approx 3	
morning max el	3324 Mar 03 21:15	17° \approx 35'41	25°56'44	morning rise	3325 Jan 28 05:39	26° \approx 32'15	
desc. node	3324 Mar 05 04:11	18° \approx 55'54		direct	3325 Feb 02 20:35	24° \approx 03'11	
	3324 Mar 14 06:50	0° \approx			3325 Feb 13 09:08	0° \approx	
	3324 Apr 02 20:08	0° \approx		morning max el	3325 Feb 14 05:55	0° \approx 51'23	24°34'08
morning set	3324 Apr 09 01:17	11° \approx 04'23		desc. node	3325 Feb 20 01:13	7° \approx 23'36	
max. Earth dist.	3324 Apr 12 23:21	18° \approx 07'47	1.35542 AU		3325 Mar 08 06:01	0° \approx	
				morning set	3325 Mar 22 04:42	22° \approx 53'38	
superior conj	3324 Apr 18 07:37	29° \approx 01'43	-1°-2'-25	max. Earth dist.	3325 Mar 25 21:25	29° \approx 30'14	1.37472 AU
minimum elong	3324 Apr 18 10:53	29° \approx 18'16	1°01'51		3325 Mar 26 03:57	0° \approx	
	3324 Apr 18 19:07	0° \approx					
asc. node	3324 Apr 24 16:41	12° \approx 07'28		superior conj	3325 Apr 01 15:44	12° \approx 13'21	-1°-29'-18
evening rise	3324 Apr 26 05:56	15° \approx 18'53		minimum elong	3325 Apr 01 20:08	12° \approx 34'40	1°28'42
	3324 May 03 19:51	0° \approx		evening rise	3325 Apr 10 07:18	29° \approx 20'58	
evening max el	3324 May 14 08:07	14° \approx 42'33	20°16'52		3325 Apr 10 15:10	0° \approx	
retrograde	3324 May 25 01:32	19° \approx 55'53		asc. node	3325 Apr 11 13:44	1° \approx 51'42	
evening set	3324 May 27 01:36	19° \approx 45'44		evening max el	3325 Apr 27 01:06	26° \approx 28'42	19°14'48
desc. node	3324 Jun 01 03:21	18° \approx 01'18			3325 May 02 00:52	0° \approx	
inferior conj	3324 Jun 05 04:12	15° \approx 47'19	-1°-11'-22	retrograde	3325 May 06 02:05	0° \approx 52'15	
minimum elong	3324 Jun 05 00:51	15° \approx 52'16	1°10'08	evening set	3325 May 08 02:50	0° \approx 39'53	
min. Earth dist.	3324 Jun 06 17:57	14° \approx 51'50	0.55106 AU		3325 May 10 08:21	30° \approx 8	
morning rise	3324 Jun 13 22:06	11° \approx 32'47		inferior conj	3325 May 16 12:38	26° \approx 30'11	0°43'06
direct	3324 Jun 17 20:59	10° \approx 58'59		minimum elong	3325 May 16 14:23	26° \approx 27'15	0°42'28
morning max el	3324 Jul 01 10:01	17° \approx 35'22	23°40'55	desc. node	3325 May 19 00:24	24° \approx 50'24	
	3324 Jul 11 12:08	0° \approx		min. Earth dist.	3325 May 19 08:58	24° \approx 36'29	0.56231 AU
asc. node	3324 Jul 21 15:57	17° \approx 53'54		morning rise	3325 May 24 21:46	21° \approx 41'19	
morning set	3324 Jul 25 07:29	25° \approx 23'42		direct	3325 May 29 19:25	20° \approx 45'50	
	3324 Jul 27 11:23	0° \approx		morning max el	3325 Jun 13 00:19	28° \approx 00'51	25°20'58
					3325 Jun 14 23:31	0° \approx	
superior conj	3324 Aug 01 08:51	10° \approx 34'43	1°31'42		3325 Jul 04 17:39	0° \approx	
minimum elong	3324 Aug 01 06:46	10° \approx 23'31	1°31'29	asc. node	3325 Jul 08 13:00	7° \approx 40'01	
max. Earth dist.	3324 Aug 03 15:58	15° \approx 29'49	1.33378 AU	morning set	3325 Jul 09 19:15	10° \approx 18'33	
evening rise	3324 Aug 08 21:50	26° \approx 20'48					
	3324 Aug 10 18:08	0° \approx		superior conj	3325 Jul 16 19:06	25° \approx 29'26	1°17'07
desc. node	3324 Aug 28 02:39	29° \approx 35'27		minimum elong	3325 Jul 16 16:44	25° \approx 16'30	1°16'47
	3324 Aug 28 09:24	0° \approx		max. Earth dist.	3325 Jul 17 22:44	28° \approx 00'29	1.32554 AU
evening max el	3324 Sep 11 17:58	17° \approx 31'15	27°23'45		3325 Jul 18 20:42	0° \approx	
retrograde	3324 Sep 25 07:24	24° \approx 49'09		evening rise	3325 Jul 23 22:31	10° \approx 46'17	
evening set	3324 Oct 02 09:49	22° \approx 09'26			3325 Aug 03 00:20	0° \approx	
min. Earth dist.	3324 Oct 06 03:13	18° \approx 48'18	0.64088 AU	desc. node	3325 Aug 14 23:41	18° \approx 35'06	
inferior conj	3324 Oct 08 14:15	16° \approx 14'00	-2°-54'-17		3325 Aug 24 18:09	0° \approx	
minimum elong	3324 Oct 08 19:01	16° \approx 01'31	2°52'38	evening max el	3325 Aug 25 02:40	0° \approx 20'22	27°20'44
morning rise	3324 Oct 15 06:28	10° \approx 49'55		retrograde	3325 Sep 07 21:56	7° \approx 35'53	
direct	3324 Oct 17 17:55	10° \approx 19'06		evening set	3325 Sep 15 02:24	5° \approx 09'00	
asc. node	3324 Oct 17 15:12	10° \approx 19'10		min. Earth dist.	3325 Sep 18 16:47	2° \approx 16'23	0.62303 AU
morning max el	3324 Oct 24 06:27	13° \approx 44'37	17°54'15		3325 Sep 21 03:25	30° \approx 8	
	3324 Nov 04 13:41	0° \approx		inferior conj	3325 Sep 21 15:20	29° \approx 31'58	-3°-50'-56
morning set	3324 Nov 10 04:06	9° \approx 31'57		minimum elong	3325 Sep 21 21:03	29° \approx 18'36	3°49'23
	3324 Nov 22 09:21	0° \approx		morning rise	3325 Sep 28 18:34	24° \approx 26'55	
				direct	3325 Oct 01 02:48	24° \approx 02'34	
superior conj	3324 Nov 23 03:07	1° \approx 12'18	0°06'33	asc. node	3325 Oct 04 12:14	24° \approx 55'12	
minimum elong	3324 Nov 23 03:51	1° \approx 15'17	0°06'27	morning max el	3325 Oct 07 22:22	27° \approx 30'30	17°51'57
behind sun begin	3324 Nov 22 18:34	0° \approx 37'32			3325 Oct 10 04:01	0° \approx	
behind sun end	3324 Nov 23 13:08	1° \approx 52'59		morning set	3325 Oct 23 20:53	22° \approx 22'53	
desc. node	3324 Nov 24 01:58	2° \approx 44'57			3325 Oct 28 03:11	0° \approx	
max. Earth dist.	3324 Nov 28 12:11	9° \approx 50'35	1.44514 AU				
evening rise	3324 Dec 09 05:07	26° \approx 33'28		superior conj	3325 Nov 03 23:24	11° \approx 54'45	0°47'10
	3324 Dec 11 10:58	0° \approx		minimum elong	3325 Nov 04 03:20	12° \approx 11'30	0°46'39
greatest brilliancy	3324 Dec 30 16:44	28° \approx 15'50	-0.5m	desc. node	3325 Nov 10 23:00	23° \approx 32'21	
	3325 Jan 01 00:29	0° \approx		max. Earth dist.	3325 Nov 11 02:48	23° \approx 47'50	1.43215 AU
evening max el	3325 Jan 05 19:52	5° \approx 38'37	20°24'36		3325 Nov 14 23:24	0° \approx	

evening rise	3325 Nov 18 16:00	5°♄48'33			3326 Nov 07 20:08	0°♄	
	3325 Dec 04 19:32	0°♄		greatest brilliancy	3326 Nov 27 04:08	26°♄53'09	-0.2m
greatest brilliancy	3325 Dec 14 20:02	13°♄35'23	-0.4m		3326 Nov 29 19:53	0°♄	
evening max el	3325 Dec 19 17:16	19°♄10'40	21°35'17	evening max el	3326 Dec 02 09:54	2°♄45'43	22°53'24
retrograde	3325 Dec 28 16:43	24°♄30'53		retrograde	3326 Dec 12 11:47	8°♄44'29	
asc. node	3325 Dec 31 11:31	23°♄48'38		evening set	3326 Dec 17 05:14	6°♄49'33	
evening set	3326 Jan 01 22:01	22°♄52'21		asc. node	3326 Dec 18 08:32	5°♄46'46	
inferior conj	3326 Jan 07 07:29	16°♄33'26	2°09'30	inferior conj	3326 Dec 22 15:12	0°♄24'42	1°24'58
minimum elong	3326 Jan 07 05:05	16°♄41'44	2°08'42	minimum elong	3326 Dec 22 13:24	0°♄30'58	1°24'16
min. Earth dist.	3326 Jan 07 11:56	16°♄18'00	0.67820 AU	min. Earth dist.	3326 Dec 22 08:33	0°♄47'41	0.67946 AU
morning rise	3326 Jan 12 11:51	10°♄18'59			3326 Dec 22 22:22	30°♄	
direct	3326 Jan 17 11:53	8°♄10'39		morning rise	3326 Dec 27 21:30	24°♄13'30	
morning max el	3326 Jan 27 15:08	14°♄11'47	23°05'12	direct	3327 Jan 01 06:51	22°♄28'04	
greatest brilliancy	3326 Feb 01 12:39	19°♄40'21	-0.3m	morning max el	3327 Jan 10 04:31	27°♄40'17	21°39'19
desc. node	3326 Feb 06 22:15	26°♄35'41			3327 Jan 12 08:50	0°♄	
	3326 Feb 09 10:07	0°♄		greatest brilliancy	3327 Jan 15 01:26	3°♄10'58	-0.4m
	3326 Mar 01 04:45	0°♄		desc. node	3327 Jan 24 19:17	16°♄19'59	
morning set	3326 Mar 03 06:49	3°♄26'52			3327 Feb 03 01:09	0°♄	
max. Earth dist.	3326 Mar 07 16:10	10°♄53'52	1.39628 AU	morning set	3327 Feb 11 03:52	12°♄37'12	
				max. Earth dist.	3327 Feb 17 15:36	23°♄09'19	1.41740 AU
superior conj	3326 Mar 15 08:54	24°♄38'24	-1°-51'-31		3327 Feb 21 17:23	0°♄	
minimum elong	3326 Mar 15 13:17	24°♄58'34	1°51'10				
	3326 Mar 18 06:00	0°♄		superior conj	3327 Feb 25 06:13	6°♄05'39	-2°-4'-57
evening rise	3326 Mar 24 23:55	12°♄52'13		minimum elong	3327 Feb 25 08:20	6°♄14'51	2°04'55
asc. node	3326 Mar 29 10:48	21°♄17'44		evening rise	3327 Mar 08 04:14	25°♄44'48	
	3326 Apr 03 10:30	0°♄			3327 Mar 10 11:57	0°♄	
evening max el	3326 Apr 10 03:50	8°♄51'33	18°32'51	asc. node	3327 Mar 16 07:51	10°♄19'28	
retrograde	3326 Apr 17 20:35	12°♄38'37		evening max el	3327 Mar 24 12:58	21°♄42'28	18°10'51
evening set	3326 Apr 20 03:09	12°♄19'53		retrograde	3327 Mar 31 09:22	25°♄09'47	
inferior conj	3326 Apr 27 17:35	7°♄51'10	2°11'05	evening set	3327 Apr 02 22:02	24°♄42'10	
minimum elong	3326 Apr 27 21:21	7°♄43'48	2°10'00	inferior conj	3327 Apr 09 19:24	19°♄51'58	3°06'20
min. Earth dist.	3326 May 01 03:28	5°♄12'27	0.58040 AU	minimum elong	3327 Apr 09 22:28	19°♄44'58	3°05'46
morning rise	3326 May 05 11:09	2°♄29'14		min. Earth dist.	3327 Apr 13 03:31	16°♄51'02	0.60181 AU
desc. node	3326 May 05 21:26	2°♄17'03		morning rise	3327 Apr 16 19:25	14°♄05'53	
direct	3326 May 11 08:18	1°♄01'09		desc. node	3327 Apr 22 18:28	12°♄03'42	
morning max el	3326 May 25 17:29	8°♄40'11	26°43'36	direct	3327 Apr 23 09:23	12°♄02'38	
	3326 Jun 10 20:37	0°♄		morning max el	3327 May 07 16:38	19°♄54'24	27°35'49
morning set	3326 Jun 24 05:31	25°♄07'15			3327 May 16 07:35	0°♄	
asc. node	3326 Jun 25 10:03	27°♄38'17			3327 Jun 03 15:55	0°♄	
	3326 Jun 26 12:28	0°♄		morning set	3327 Jun 08 12:35	9°♄44'10	
				asc. node	3327 Jun 12 07:05	17°♄43'55	
superior conj	3326 Jul 01 06:49	10°♄25'52	0°58'17	max. Earth dist.	3327 Jun 14 21:27	23°♄23'47	1.32117 AU
minimum elong	3326 Jul 01 04:39	10°♄13'56	0°57'52				
max. Earth dist.	3326 Jul 01 09:47	10°♄42'10	1.32137 AU	superior conj	3327 Jun 15 18:16	25°♄18'10	0°35'48
evening rise	3326 Jul 08 05:04	25°♄27'19		minimum elong	3327 Jun 15 16:45	25°♄09'47	0°35'28
	3326 Jul 10 09:45	0°♄			3327 Jun 17 21:29	0°♄	
	3326 Jul 27 18:06	0°♄		evening rise	3327 Jun 22 15:11	10°♄16'23	
desc. node	3326 Aug 01 20:43	6°♄39'49			3327 Jul 02 17:46	0°♄	
evening max el	3326 Aug 07 06:00	12°♄27'48	26°44'34	desc. node	3327 Jul 19 17:43	23°♄27'16	
retrograde	3326 Aug 21 04:40	19°♄39'17		evening max el	3327 Jul 20 02:03	23°♄47'20	25°37'06
evening set	3326 Aug 28 01:19	17°♄38'31			3327 Jul 29 06:18	0°♄	
min. Earth dist.	3326 Aug 31 19:59	15°♄01'54	0.60288 AU	retrograde	3327 Aug 03 01:38	0°♄54'13	
inferior conj	3326 Sep 04 01:55	12°♄22'44	-4°-37'-50		3327 Aug 07 20:29	30°♄	
minimum elong	3326 Sep 04 07:00	12°♄12'19	4°36'58	evening set	3327 Aug 09 01:47	29°♄29'37	
morning rise	3326 Sep 11 15:57	7°♄39'28		min. Earth dist.	3327 Aug 13 14:08	26°♄51'33	0.58237 AU
direct	3326 Sep 14 00:10	7°♄18'44		inferior conj	3327 Aug 16 18:31	24°♄36'24	-5°-4'-38
asc. node	3326 Sep 21 09:16	10°♄54'36		minimum elong	3327 Aug 16 20:17	24°♄33'15	5°04'34
morning max el	3326 Sep 21 10:33	10°♄57'41	18°08'51	morning rise	3327 Aug 24 18:17	20°♄16'25	
	3326 Oct 04 00:22	0°♄		direct	3327 Aug 27 05:48	19°♄57'04	
morning set	3326 Oct 07 05:20	5°♄58'40		morning max el	3327 Sep 04 15:45	23°♄56'55	18°46'18
				asc. node	3327 Sep 08 06:18	28°♄02'30	
superior conj	3326 Oct 16 21:20	23°♄52'14	1°16'44		3327 Sep 09 16:27	0°♄	
minimum elong	3326 Oct 17 01:25	24°♄10'36	1°16'16	morning set	3327 Sep 21 00:41	20°♄05'42	
	3326 Oct 20 08:20	0°♄			3327 Sep 26 02:19	0°♄	
max. Earth dist.	3326 Oct 24 12:34	7°♄10'05	1.41430 AU				
desc. node	3326 Oct 28 20:02	14°♄18'39		superior conj	3327 Sep 29 15:47	6°♄50'03	1°35'05
evening rise	3326 Oct 29 17:57	15°♄47'34		minimum elong	3327 Sep 29 18:29	7°♄02'47	1°34'52

max. Earth dist.	3327 Oct 06 18:04	19°♄50'14	1.39385 AU	superior conj	3328 Sep 12 01:30	20°♍33'47	1°43'39
evening rise	3327 Oct 10 18:42	26°♄49'08		minimum elong	3328 Sep 12 02:26	20°♍38'25	1°43'37
	3327 Oct 12 16:04	0°♍			3328 Sep 16 22:15	0°♄	
desc. node	3327 Oct 15 17:02	4°♍59'39		max. Earth dist.	3328 Sep 17 22:49	1°♄55'35	1.37336 AU
	3327 Nov 01 10:44	0°♊		evening rise	3328 Sep 21 18:23	8°♄54'45	
evening max el	3327 Nov 14 23:20	16°♊24'05	24°13'09	desc. node	3328 Oct 01 14:03	25°♄31'30	
retrograde	3327 Nov 26 03:17	22°♊56'50			3328 Oct 04 10:26	0°♍	
evening set	3327 Dec 01 10:20	20°♊45'21			3328 Oct 27 09:20	0°♊	
asc. node	3327 Dec 05 05:33	16°♊33'55		evening max el	3328 Oct 27 11:33	0°♊05'25	25°27'40
min. Earth dist.	3327 Dec 06 04:43	15°♊17'10	0.67722 AU	retrograde	3328 Nov 08 14:28	7°♊03'45	
inferior conj	3327 Dec 06 22:07	14°♊18'37	0°34'30	evening set	3328 Nov 14 11:41	4°♊37'17	
minimum elong	3327 Dec 06 21:17	14°♊21'24	0°34'10		3328 Nov 18 17:11	30°♍	
morning rise	3327 Dec 12 08:33	8°♊12'54		min. Earth dist.	3328 Nov 18 22:10	29°♍44'05	0.67154 AU
direct	3327 Dec 16 04:16	6°♊49'42		inferior conj	3328 Nov 20 02:27	28°♍13'03	0°-20'-41
morning max el	3327 Dec 24 01:06	11°♊19'59	20°23'09	minimum elong	3328 Nov 20 02:59	28°♍11'21	0°20'29
greatest brilliancy	3327 Dec 30 09:41	18°♊52'13	-0.5m	asc. node	3328 Nov 21 02:34	26°♍56'11	
	3328 Jan 07 07:48	0°♊		morning rise	3328 Nov 25 19:04	22°♍15'12	
desc. node	3328 Jan 11 16:18	6°♊27'09		direct	3328 Nov 29 02:49	21°♍11'34	
morning set	3328 Jan 21 02:56	20°♊50'29		morning max el	3328 Dec 06 05:40	25°♍10'54	19°20'38
	3328 Jan 26 23:27	0°♋			3328 Dec 10 09:33	0°♊	
max. Earth dist.	3328 Jan 30 23:04	6°♋21'09	1.43510 AU	greatest brilliancy	3328 Dec 15 12:55	7°♊05'36	-0.7m
				desc. node	3328 Dec 28 13:20	26°♊51'00	
superior conj	3328 Feb 06 02:48	16°♋23'54	-2°-4'-27	morning set	3328 Dec 30 02:30	29°♊14'57	
minimum elong	3328 Feb 05 23:49	16°♋11'36	2°04'22		3328 Dec 30 14:08	0°♊	
	3328 Feb 14 03:50	0°♋		max. Earth dist.	3329 Jan 12 13:12	20°♊15'14	1.44711 AU
evening rise	3328 Feb 18 15:59	7°♋49'44					
asc. node	3328 Mar 02 04:52	28°♋48'48		superior conj	3329 Jan 15 21:52	25°♊35'04	-1°-45'-23
	3328 Mar 03 00:48	0°♌		minimum elong	3329 Jan 15 13:36	25°♊02'08	1°44'43
evening max el	3328 Mar 07 01:09	4°♌52'04	18°08'17		3329 Jan 18 16:08	0°♋	
retrograde	3328 Mar 13 12:30	8°♌15'11		evening rise	3329 Jan 30 07:02	19°♋00'15	
evening set	3328 Mar 16 06:39	7°♌37'19			3329 Feb 05 21:55	0°♋	
inferior conj	3328 Mar 22 14:44	2°♌26'15	3°33'19	asc. node	3329 Feb 17 01:53	16°♋36'20	
minimum elong	3328 Mar 22 16:02	2°♌22'51	3°33'14	evening max el	3329 Feb 18 13:34	18°♋13'45	18°24'34
	3328 Mar 24 22:57	30°♍		retrograde	3329 Feb 25 01:22	21°♋45'42	
min. Earth dist.	3328 Mar 25 11:45	29°♋27'45	0.62318 AU	evening set	3329 Feb 28 01:04	20°♋56'41	
morning rise	3328 Mar 28 23:01	26°♋25'04		inferior conj	3329 Mar 05 23:32	15°♋26'33	3°38'39
direct	3328 Apr 04 20:11	23°♋53'25		minimum elong	3329 Mar 05 23:07	15°♋27'47	3°38'38
desc. node	3328 Apr 08 15:30	24°♋35'02		min. Earth dist.	3329 Mar 08 05:37	12°♋50'22	0.64218 AU
	3328 Apr 16 23:12	0°♌		morning rise	3329 Mar 11 19:35	9°♋16'52	
morning max el	3328 Apr 18 21:51	1°♌50'53	27°51'05	direct	3329 Mar 18 15:15	6°♋29'27	
	3328 May 09 14:08	0°♍		desc. node	3329 Mar 26 12:32	9°♋27'39	
morning set	3328 May 22 14:25	24°♍02'49		morning max el	3329 Apr 01 06:55	14°♋24'32	27°29'39
	3328 May 25 11:37	0°♎			3329 Apr 13 22:53	0°♌	
max. Earth dist.	3328 May 28 05:53	5°♎52'23	1.32497 AU	morning set	3329 May 02 05:19	0°♍	
asc. node	3328 May 29 04:08	7°♎52'30		max. Earth dist.	3329 May 06 08:26	7°♍54'48	
					3329 May 11 06:52	17°♍54'37	1.33313 AU
superior conj	3328 May 30 03:44	10°♎00'31	0°10'20				
minimum elong	3328 May 30 03:15	9°♎57'52	0°10'14	superior conj	3329 May 14 09:21	24°♍26'46	0°-17'-18
behind sun begin	3328 May 29 23:16	9°♎36'10		minimum elong	3329 May 14 10:13	24°♍31'25	0°17'08
behind sun end	3328 May 30 07:15	10°♎19'35		asc. node	3329 May 16 01:10	27°♍59'35	
evening rise	3328 Jun 06 02:54	25°♎06'43			3329 May 16 23:37	0°♎	
	3328 Jun 08 10:57	0°♏		evening rise	3329 May 21 14:22	9°♎51'36	
	3328 Jun 26 13:33	0°♏			3329 Jun 01 02:05	0°♏	
evening max el	3328 Jun 30 16:06	4°♏26'54	24°07'37	evening max el	3329 Jun 12 06:18	14°♏52'11	22°30'53
desc. node	3328 Jul 05 14:43	8°♏27'24		desc. node	3329 Jun 22 11:45	21°♏03'52	
retrograde	3328 Jul 14 11:14	11°♏24'03		retrograde	3329 Jun 25 08:43	21°♏22'51	
evening set	3328 Jul 19 02:33	10°♏36'21		evening set	3329 Jun 28 12:22	21°♏00'56	
min. Earth dist.	3328 Jul 25 02:39	7°♏39'01	0.56427 AU	min. Earth dist.	3329 Jul 06 13:37	17°♏30'15	0.55204 AU
inferior conj	3328 Jul 27 14:57	6°♏05'37	-4°-56'-54	inferior conj	3329 Jul 07 17:13	16°♏51'03	-4°-1'-20
minimum elong	3328 Jul 27 11:02	6°♏11'45	4°56'32	minimum elong	3329 Jul 07 09:04	17°♏02'39	3°59'23
morning rise	3328 Aug 04 23:02	2°♏06'09		morning rise	3329 Jul 16 08:11	13°♏00'31	
direct	3328 Aug 07 16:12	1°♏46'50		direct	3329 Jul 19 08:44	12°♏39'40	
morning max el	3328 Aug 17 11:07	6°♏19'43	19°45'20	morning max el	3329 Jul 30 18:50	17°♏58'13	21°05'17
asc. node	3328 Aug 25 03:21	16°♏04'36			3329 Aug 09 04:42	0°♏	
	3328 Sep 01 20:27	0°♐		asc. node	3329 Aug 12 00:24	4°♏47'20	
morning set	3328 Sep 04 03:34	4°♐35'08		morning set	3329 Aug 19 11:22	19°♏18'36	
					3329 Aug 24 14:16	0°♐	

superior conj	3329 Aug 26 21:57	4° \mathbb{M} 49'10	1°44'06	superior conj	3330 Aug 11 01:43	19° Ω 25'47	1°37'52
minimum elong	3329 Aug 26 21:21	4° \mathbb{M} 46'04	1°44'05	minimum elong	3330 Aug 11 00:02	19° Ω 16'50	1°37'45
max. Earth dist.	3329 Aug 31 08:07	13° \mathbb{M} 46'27	1.35506 AU	max. Earth dist.	3330 Aug 14 02:07	25° Ω 46'45	1.34038 AU
evening rise	3329 Sep 04 13:08	21° \mathbb{M} 54'11			3330 Aug 16 03:22	0° \mathbb{M}	
	3329 Sep 08 23:26	0° $\underline{\Omega}$		evening rise	3330 Aug 18 22:30	5° \mathbb{M} 35'31	
desc. node	3329 Sep 18 11:04	15° $\underline{\Omega}$ 48'10			3330 Sep 01 15:42	0° $\underline{\Omega}$	
	3329 Sep 28 05:48	0° \mathbb{M}		desc. node	3330 Sep 05 08:05	5° $\underline{\Omega}$ 42'44	
evening max el	3329 Oct 09 23:48	13° \mathbb{M} 45'14	26°29'39	evening max el	3330 Sep 22 12:14	27° $\underline{\Omega}$ 15'41	27°11'35
retrograde	3329 Oct 22 20:40	20° \mathbb{M} 58'32			3330 Sep 25 14:56	0° \mathbb{M}	
evening set	3329 Oct 29 07:20	18° \mathbb{M} 21'10		retrograde	3330 Oct 05 21:14	4° \mathbb{M} 33'43	
min. Earth dist.	3329 Nov 02 10:36	14° \mathbb{M} 04'01	0.66237 AU	evening set	3330 Oct 12 18:59	1° \mathbb{M} 52'26	
inferior conj	3329 Nov 04 02:19	12° \mathbb{M} 04'12	-1°-19'-23		3330 Oct 14 21:46	30° \mathbb{R} $\underline{\Omega}$	
minimum elong	3329 Nov 04 04:28	11° \mathbb{M} 57'41	1°18'31	min. Earth dist.	3330 Oct 16 15:41	28° $\underline{\Omega}$ 11'18	0.64969 AU
asc. node	3329 Nov 07 23:36	7° \mathbb{M} 49'46		inferior conj	3330 Oct 18 19:30	25° $\underline{\Omega}$ 47'42	-2°-19'-47
morning rise	3329 Nov 10 02:55	6° \mathbb{M} 16'51		minimum elong	3330 Oct 18 23:22	25° $\underline{\Omega}$ 36'57	2°18'19
direct	3329 Nov 13 00:49	5° \mathbb{M} 29'02		morning rise	3330 Oct 25 05:39	20° $\underline{\Omega}$ 13'55	
morning max el	3329 Nov 19 16:47	9° \mathbb{M} 08'12	18°33'47	asc. node	3330 Oct 25 20:40	19° $\underline{\Omega}$ 58'47	
	3329 Dec 04 11:13	0° \mathbb{M}		direct	3330 Oct 27 20:09	19° $\underline{\Omega}$ 37'56	
morning set	3329 Dec 10 00:48	8° \mathbb{M} 51'35		morning max el	3330 Nov 03 08:00	23° $\underline{\Omega}$ 06'11	18°03'38
desc. node	3329 Dec 15 10:22	17° \mathbb{M} 26'16			3330 Nov 08 19:45	0° \mathbb{M}	
	3329 Dec 23 09:38	0° \mathbb{M}		morning set	3330 Nov 21 04:39	19° \mathbb{M} 56'16	
					3330 Nov 27 06:53	0° \mathbb{M}	
superior conj	3329 Dec 26 00:58	4° \mathbb{M} 08'35	-1°-7'-56	desc. node	3330 Dec 02 07:22	8° \mathbb{M} 08'51	
minimum elong	3329 Dec 25 16:49	3° \mathbb{M} 36'36	1°07'00				
max. Earth dist.	3329 Dec 26 07:03	4° \mathbb{M} 32'27	1.45213 AU	superior conj	3330 Dec 05 08:05	12° \mathbb{M} 59'50	0°-20'-32
evening rise	3330 Jan 10 22:47	29° \mathbb{M} 13'30		minimum elong	3330 Dec 05 05:31	12° \mathbb{M} 49'38	0°20'11
	3330 Jan 11 10:29	0° \mathbb{M}		max. Earth dist.	3330 Dec 09 02:10	18° \mathbb{M} 56'45	1.44979 AU
	3330 Jan 31 10:32	0° \mathbb{M}			3330 Dec 16 03:43	0° \mathbb{M}	
evening max el	3330 Feb 01 23:47	1° \mathbb{M} 42'04	18°58'45	evening rise	3330 Dec 21 17:47	8° \mathbb{M} 39'28	
asc. node	3330 Feb 03 22:54	3° \mathbb{M} 29'49			3331 Jan 04 17:35	0° \mathbb{M}	
retrograde	3330 Feb 08 20:05	5° \mathbb{M} 34'00		greatest brilliancy	3331 Jan 08 22:29	6° \mathbb{M} 05'00	-0.6m
evening set	3330 Feb 12 02:09	4° \mathbb{M} 32'46		evening max el	3331 Jan 16 05:52	15° \mathbb{M} 13'03	19°49'14
	3330 Feb 16 18:10	30° \mathbb{R} \mathbb{M}		asc. node	3331 Jan 21 19:58	19° \mathbb{M} 14'26	
inferior conj	3330 Feb 17 18:05	28° \mathbb{M} 45'37	3°27'50	retrograde	3331 Jan 23 17:33	19° \mathbb{M} 34'04	
minimum elong	3330 Feb 17 16:25	28° \mathbb{M} 50'54	3°27'36	evening set	3331 Jan 27 07:23	18° \mathbb{M} 19'18	
min. Earth dist.	3330 Feb 19 08:43	26° \mathbb{M} 44'24	0.65753 AU	inferior conj	3331 Feb 01 19:17	12° \mathbb{M} 17'31	3°04'44
morning rise	3330 Feb 23 05:39	22° \mathbb{M} 31'48		minimum elong	3331 Feb 01 16:54	12° \mathbb{M} 25'24	3°04'13
direct	3330 Mar 01 17:16	19° \mathbb{M} 42'33		min. Earth dist.	3331 Feb 02 19:27	10° \mathbb{M} 57'09	0.66877 AU
desc. node	3330 Mar 13 09:35	26° \mathbb{M} 06'25		morning rise	3331 Feb 07 01:46	6° \mathbb{M} 02'08	
morning max el	3330 Mar 14 16:49	27° \mathbb{M} 22'55	26°37'20	direct	3331 Feb 13 01:04	3° \mathbb{M} 23'08	
	3330 Mar 17 04:05	0° \mathbb{M}		morning max el	3331 Feb 25 01:46	10° \mathbb{M} 33'46	25°22'53
	3330 Apr 07 14:55	0° \mathbb{M}		desc. node	3331 Feb 28 06:37	14° \mathbb{M} 00'47	
morning set	3330 Apr 19 15:15	21° \mathbb{M} 10'14			3331 Mar 12 12:46	0° \mathbb{M}	
max. Earth dist.	3330 Apr 23 21:05	29° \mathbb{M} 24'00	1.34594 AU		3331 Mar 31 06:10	0° \mathbb{M}	
	3330 Apr 24 04:19	0° \mathbb{M}		morning set	3331 Apr 02 06:14	3° \mathbb{M} 34'54	
				max. Earth dist.	3331 Apr 05 23:53	10° \mathbb{M} 28'17	1.36323 AU
superior conj	3330 Apr 28 08:55	8° \mathbb{M} 30'46	0°-46'00				
minimum elong	3330 Apr 28 11:20	8° \mathbb{M} 43'13	0°45'32	superior conj	3331 Apr 11 23:39	22° \mathbb{M} 04'02	-1°-14'-11
asc. node	3330 May 02 22:13	18° \mathbb{M} 01'26		minimum elong	3331 Apr 12 03:28	22° \mathbb{M} 23'05	1°13'35
evening rise	3330 May 05 23:40	24° \mathbb{M} 25'18			3331 Apr 15 22:15	0° \mathbb{M}	
	3330 May 08 17:10	0° \mathbb{M}		asc. node	3331 Apr 19 19:16	7° \mathbb{M} 53'15	
evening max el	3330 May 25 04:38	25° \mathbb{M} 36'43	21°01'23	evening rise	3331 Apr 20 04:37	8° \mathbb{M} 40'36	
	3330 May 31 05:22	0° \mathbb{M}			3331 May 01 22:33	0° \mathbb{M}	
retrograde	3330 Jun 05 21:50	1° \mathbb{M} 20'31		evening max el	3331 May 07 14:52	6° \mathbb{M} 58'54	19°48'03
evening set	3330 Jun 08 02:44	1° \mathbb{M} 09'07		retrograde	3331 May 17 14:12	11° \mathbb{M} 49'18	
desc. node	3330 Jun 09 08:46	0° \mathbb{M} 53'00		evening set	3331 May 19 13:40	11° \mathbb{M} 38'44	
	3330 Jun 11 23:14	30° \mathbb{R} \mathbb{M}		desc. node	3331 May 27 05:49	8° \mathbb{M} 20'08	
inferior conj	3330 Jun 17 10:44	27° \mathbb{M} 11'33	-2°-20'-20	inferior conj	3331 May 28 09:56	7° \mathbb{M} 37'11	0°-20'-40
minimum elong	3330 Jun 17 04:17	27° \mathbb{M} 20'39	2°18'07	minimum elong	3331 May 28 09:00	7° \mathbb{M} 38'38	0°20'21
min. Earth dist.	3330 Jun 18 01:28	26° \mathbb{M} 50'43	0.54861 AU	min. Earth dist.	3331 May 30 14:46	6° \mathbb{M} 16'01	0.55487 AU
morning rise	3330 Jun 26 05:26	23° \mathbb{M} 10'59		morning rise	3331 Jun 06 01:12	3° \mathbb{M} 09'01	
direct	3330 Jun 29 18:11	22° \mathbb{M} 44'04		direct	3331 Jun 10 09:33	2° \mathbb{M} 27'16	
morning max el	3330 Jul 12 15:52	28° \mathbb{M} 53'54	22°41'39	morning max el	3331 Jun 24 06:35	9° \mathbb{M} 21'37	24°24'36
	3330 Jul 13 19:07	0° \mathbb{M}			3331 Jul 09 13:30	0° \mathbb{M}	
asc. node	3330 Jul 29 21:28	24° \mathbb{M} 00'46		asc. node	3331 Jul 16 18:32	13° \mathbb{M} 36'41	
	3330 Aug 01 21:43	0° \mathbb{M}		morning set	3331 Jul 19 09:51	19° \mathbb{M} 05'12	
morning set	3330 Aug 03 22:02	4° \mathbb{M} 10'21			3331 Jul 24 11:17	0° \mathbb{M}	

superior conj	3331 Jul 26 10:12	4°♌15'26	1°26'05	superior conj	3332 Jul 09 21:14	19°♎10'58	1°09'37
minimum elong	3331 Jul 26 07:57	4°♌03'11	1°25'49	minimum elong	3332 Jul 09 18:54	18°♎58'08	1°09'13
max. Earth dist.	3331 Jul 28 05:04	8°♌07'23	1.32978 AU	max. Earth dist.	3332 Jul 10 14:14	20°♎44'23	1.32328 AU
evening rise	3331 Aug 02 18:32	19°♌47'29			3332 Jul 14 20:38	0°♌	
	3331 Aug 07 23:47	0°♍		evening rise	3332 Jul 16 21:58	4°♌20'03	
desc. node	3331 Aug 23 05:07	25°♍05'56			3332 Jul 30 16:57	0°♍	
	3331 Aug 26 19:27	0°♎		desc. node	3332 Aug 09 02:09	13°♍44'18	
evening max el	3331 Sep 04 23:12	10°♎24'26	27°26'34	evening max el	3332 Aug 17 05:55	22°♍56'42	27°09'31
retrograde	3331 Sep 18 15:24	17°♎40'53			3332 Aug 29 03:31	0°♎	
evening set	3331 Sep 25 19:37	15°♎05'25		retrograde	3332 Aug 31 02:26	0°♎10'00	
min. Earth dist.	3331 Sep 29 11:21	11°♎57'18	0.63361 AU		3332 Sep 02 00:37	30°♍	
inferior conj	3331 Oct 02 03:22	9°♎17'32	-3°-19'-3	evening set	3332 Sep 07 05:14	27°♍52'34	
minimum elong	3331 Oct 02 08:40	9°♎04'17	3°17'21	min. Earth dist.	3332 Sep 10 20:13	25°♍08'56	0.61463 AU
morning rise	3331 Oct 09 00:11	4°♎00'49		inferior conj	3332 Sep 13 22:42	22°♍24'43	-4°-12'-34
direct	3331 Oct 11 09:58	3°♎33'02		minimum elong	3332 Sep 14 04:24	22°♍12'05	4°11'14
asc. node	3331 Oct 12 17:44	3°♎41'36		morning rise	3332 Sep 21 06:35	17°♍28'42	
morning max el	3331 Oct 18 00:31	6°♎58'36	17°51'00	direct	3332 Sep 23 14:34	17°♍06'05	
	3331 Nov 02 02:59	0°♏		asc. node	3332 Sep 28 14:46	18°♍54'28	
morning set	3331 Nov 03 09:54	2°♏14'53		morning max el	3332 Sep 30 15:12	20°♍37'13	17°56'49
					3332 Oct 07 15:48	0°♏	
superior conj	3331 Nov 15 12:52	22°♏56'54	0°24'59	morning set	3332 Oct 16 09:59	15°♏26'41	
minimum elong	3331 Nov 15 15:23	23°♏07'23	0°24'38		3332 Oct 24 11:01	0°♏	
desc. node	3331 Nov 19 04:24	28°♏55'45					
	3331 Nov 19 20:15	0°♐		superior conj	3332 Oct 26 20:31	4°♏12'39	1°01'08
max. Earth dist.	3331 Nov 21 19:50	3°♐11'35	1.44039 AU	minimum elong	3332 Oct 27 00:49	4°♏31'18	1°00'35
evening rise	3331 Dec 01 03:07	17°♐48'03		max. Earth dist.	3332 Nov 03 08:58	16°♏57'11	1.42503 AU
	3331 Dec 09 03:41	0°♑		desc. node	3332 Nov 05 01:26	19°♏43'01	
greatest brilliancy	3331 Dec 24 19:22	22°♑19'58	-0.5m	evening rise	3332 Nov 09 18:50	27°♏17'45	
evening max el	3331 Dec 30 06:36	28°♑45'23	20°53'24		3332 Nov 11 12:08	0°♑	
	3331 Dec 31 13:09	0°♒			3332 Dec 01 22:51	0°♑	
retrograde	3332 Jan 07 15:32	3°♒42'30		greatest brilliancy	3332 Dec 07 08:21	6°♑58'19	-0.3m
asc. node	3332 Jan 08 17:00	3°♒36'17		evening max el	3332 Dec 12 01:47	12°♑18'19	22°07'47
evening set	3332 Jan 11 14:46	2°♒12'48		retrograde	3332 Dec 21 12:09	17°♑55'07	
	3332 Jan 13 22:04	30°♒		evening set	3332 Dec 25 22:31	16°♑09'26	
inferior conj	3332 Jan 17 00:37	25°♑59'10	2°32'00	asc. node	3332 Dec 25 14:02	16°♑25'52	
minimum elong	3332 Jan 16 22:06	26°♑07'50	2°31'15	inferior conj	3332 Dec 31 08:01	9°♑47'21	1°51'24
min. Earth dist.	3332 Jan 17 11:49	25°♑20'41	0.67595 AU	minimum elong	3332 Dec 31 05:49	9°♑54'59	1°50'37
morning rise	3332 Jan 22 05:02	19°♑44'03		min. Earth dist.	3332 Dec 31 07:34	9°♑48'55	0.67922 AU
direct	3332 Jan 27 13:46	17°♑23'21		morning rise	3333 Jan 05 12:57	3°♑34'11	
morning max el	3332 Feb 07 10:16	23°♑51'29	23°56'25	direct	3333 Jan 10 06:34	1°♑35'48	
	3332 Feb 12 21:29	0°♒		morning max el	3333 Jan 19 20:58	7°♑15'32	22°27'52
desc. node	3332 Feb 15 03:39	2°♒49'14		greatest brilliancy	3333 Jan 24 10:27	12°♑21'01	-0.3m
	3332 Mar 04 22:54	0°♓		desc. node	3333 Feb 01 00:40	22°♑16'10	
morning set	3332 Mar 13 23:33	14°♓53'08			3333 Feb 06 11:06	0°♒	
max. Earth dist.	3332 Mar 17 19:50	21°♓36'30	1.38389 AU	morning set	3333 Feb 22 13:27	24°♒51'11	
	3332 Mar 22 10:37	0°♔			3333 Feb 25 16:17	0°♓	
				max. Earth dist.	3333 Feb 27 16:17	3°♓21'53	1.40554 AU
superior conj	3332 Mar 25 01:56	4°♔57'10	-1°-39'-30				
minimum elong	3332 Mar 25 06:32	5°♔18'57	1°39'00	superior conj	3333 Mar 07 11:18	16°♓59'05	-1°-58'-34
evening rise	3332 Apr 03 02:38	22°♔30'27		minimum elong	3333 Mar 07 15:03	17°♓15'59	1°58'22
asc. node	3332 Apr 05 16:19	27°♔30'17			3333 Mar 14 12:49	0°♔	
	3332 Apr 06 23:42	0°♕		evening rise	3333 Mar 17 14:32	5°♔46'50	
evening max el	3332 Apr 19 12:18	19°♕00'56	18°54'22	asc. node	3333 Mar 23 13:21	16°♔47'02	
retrograde	3332 Apr 27 22:01	23°♕06'59			3333 Apr 01 05:46	0°♕	
evening set	3332 Apr 30 01:10	22°♕52'12		evening max el	3333 Apr 02 18:06	1°♕36'43	18°21'00
inferior conj	3332 May 08 02:36	18°♕34'33	1°24'27	retrograde	3333 Apr 10 00:56	5°♕13'49	
minimum elong	3332 May 08 05:37	18°♕29'08	1°23'27	evening set	3333 Apr 12 10:01	4°♕51'38	
min. Earth dist.	3332 May 11 06:40	16°♕19'42	0.56943 AU	inferior conj	3333 Apr 19 16:45	0°♕13'38	2°38'22
desc. node	3332 May 13 02:51	15°♕08'07		minimum elong	3333 Apr 19 20:27	0°♕05'53	2°37'29
morning rise	3332 May 16 05:43	13°♕31'06			3333 Apr 19 23:15	30°♕	
direct	3332 May 21 13:46	12°♕22'57		min. Earth dist.	3333 Apr 23 03:19	27°♔22'20	0.58927 AU
morning max el	3332 Jun 04 21:24	19°♕48'53	25°59'16	morning rise	3333 Apr 27 02:47	24°♔39'52	
	3332 Jun 13 13:36	0°♖		desc. node	3333 Apr 29 23:52	23°♔26'36	
	3332 Jun 30 23:29	0°♗		direct	3333 May 03 07:54	22°♔56'47	
morning set	3332 Jul 02 21:08	3°♗57'45			3333 May 16 23:29	0°♕	
asc. node	3332 Jul 02 15:34	3°♗28'25		morning max el	3333 May 17 17:13	0°♕42'38	27°10'12
					3333 Jun 07 14:47	0°♖	

morning set	3333 Jun 17 06:17	18° Π 42'47			3334 May 30 21:29	0° Π	
asc. node	3333 Jun 19 12:36	23° Π 30'45		morning set	3334 Jun 01 11:23	3° Π 12'50	
	3333 Jun 22 12:14	0° \mathfrak{S}		asc. node	3334 Jun 06 09:38	13° Π 38'05	
				max. Earth dist.	3334 Jun 07 12:41	16° Π 05'01	1.32223 AU
superior conj	3333 Jun 24 09:03	4° \mathfrak{S} 06'41	0°49'09				
minimum elong	3333 Jun 24 07:06	3° \mathfrak{S} 55'57	0°48'46	superior conj	3334 Jun 08 19:52	18° Π 55'30	0°25'19
max. Earth dist.	3333 Jun 24 02:05	3° \mathfrak{S} 28'18	1.32075 AU	minimum elong	3334 Jun 08 18:45	18° Π 49'19	0°25'04
evening rise	3333 Jul 01 06:18	19° \mathfrak{S} 05'29			3334 Jun 13 21:23	0° \mathfrak{S}	
	3333 Jul 06 15:12	0° \mathcal{O}		evening rise	3334 Jun 15 17:18	3° \mathfrak{S} 55'35	
	3333 Jul 25 19:16	0° \mathfrak{M}			3334 Jun 29 15:26	0° \mathcal{O}	
desc. node	3333 Jul 26 23:10	1° \mathfrak{M} 19'31		evening max el	3334 Jul 11 22:56	15° \mathcal{O} 42'59	25°00'56
evening max el	3333 Jul 30 06:00	4° \mathfrak{M} 43'07	26°19'18	desc. node	3334 Jul 13 20:10	17° \mathcal{O} 25'13	
retrograde	3333 Aug 13 05:25	11° \mathfrak{M} 53'32		retrograde	3334 Jul 25 22:07	22° \mathcal{O} 47'35	
evening set	3333 Aug 19 19:09	10° \mathfrak{M} 06'53		evening set	3334 Jul 31 09:13	21° \mathcal{O} 39'27	
min. Earth dist.	3333 Aug 23 19:02	7° \mathfrak{M} 32'15	0.59404 AU	min. Earth dist.	3334 Aug 05 10:34	18° \mathcal{O} 54'52	0.57414 AU
inferior conj	3333 Aug 27 01:59	5° \mathfrak{M} 00'34	-4°-52'-27	inferior conj	3334 Aug 08 10:03	16° \mathcal{O} 55'27	-5°-6'-32
minimum elong	3333 Aug 27 06:02	4° \mathfrak{M} 52'45	4°51'58	minimum elong	3334 Aug 08 09:33	16° \mathcal{O} 56'17	5°06'33
morning rise	3333 Sep 03 20:23	0° \mathfrak{M} 27'36		morning rise	3334 Aug 16 13:31	12° \mathcal{O} 44'54	
direct	3333 Sep 06 05:36	0° \mathfrak{M} 07'44		direct	3334 Aug 19 02:59	12° \mathcal{O} 25'52	
morning max el	3333 Sep 14 00:53	3° \mathfrak{M} 54'01	18°22'16	morning max el	3334 Aug 28 02:14	16° \mathcal{O} 38'37	19°08'46
asc. node	3333 Sep 15 11:48	5° \mathfrak{M} 24'51		asc. node	3334 Sep 02 08:50	22° \mathcal{O} 57'06	
morning set	3333 Sep 29 23:30	29° \mathfrak{M} 16'37			3334 Sep 06 18:31	0° \mathfrak{M}	
	3333 Sep 30 08:35	0° \mathfrak{A}		morning set	3334 Sep 13 22:23	13° \mathfrak{M} 33'28	
superior conj	3333 Oct 09 03:53	16° \mathfrak{A} 37'45	1°25'48	superior conj	3334 Sep 22 05:24	29° \mathfrak{M} 56'15	1°39'48
minimum elong	3333 Oct 09 07:29	16° \mathfrak{A} 54'18	1°25'27	minimum elong	3334 Sep 22 07:20	0° \mathfrak{A} 05'39	1°39'41
max. Earth dist.	3333 Oct 16 16:19	0° \mathfrak{M} 00'05	1.40572 AU		3334 Sep 22 06:10	0° \mathfrak{A}	
	3333 Oct 16 16:18	0° \mathfrak{M}		max. Earth dist.	3334 Sep 28 20:20	12° \mathfrak{A} 20'53	1.38496 AU
evening rise	3333 Oct 21 05:58	7° \mathfrak{M} 41'33		evening rise	3334 Oct 02 16:46	19° \mathfrak{A} 10'51	
desc. node	3333 Oct 22 22:27	10° \mathfrak{M} 27'18			3334 Oct 09 03:27	0° \mathfrak{M}	
	3333 Nov 04 14:28	0° \mathfrak{A}		desc. node	3334 Oct 09 19:29	1° \mathfrak{M} 04'45	
evening max el	3333 Nov 24 16:37	25° \mathfrak{A} 53'43	23°27'26		3334 Oct 29 19:48	0° \mathfrak{A}	
	3333 Nov 29 11:50	0° \mathfrak{S}		evening max el	3334 Nov 07 05:18	9° \mathfrak{A} 33'26	24°46'02
retrograde	3333 Dec 05 05:59	2° \mathfrak{S} 08'29		retrograde	3334 Nov 18 19:51	16° \mathfrak{A} 18'45	
evening set	3333 Dec 10 05:03	0° \mathfrak{S} 06'21		evening set	3334 Nov 24 08:46	14° \mathfrak{A} 00'49	
	3333 Dec 10 08:03	30° \mathfrak{R} \mathfrak{A}		min. Earth dist.	3334 Nov 28 23:45	8° \mathfrak{A} 47'04	0.67514 AU
asc. node	3333 Dec 12 11:03	27° \mathfrak{A} 49'46		asc. node	3334 Nov 29 08:04	8° \mathfrak{A} 19'36	
min. Earth dist.	3333 Dec 15 04:19	24° \mathfrak{A} 18'33	0.67889 AU	inferior conj	3334 Nov 29 21:40	7° \mathfrak{A} 34'28	0°11'39
inferior conj	3333 Dec 15 15:36	23° \mathfrak{A} 39'53	1°04'14	minimum elong	3334 Nov 29 21:22	7° \mathfrak{A} 35'26	0°11'31
minimum elong	3333 Dec 15 14:10	23° \mathfrak{A} 44'49	1°03'40	transit middle	3334 Nov 29 21:22	7° \mathfrak{A} 35'26	0°11'31
morning rise	3333 Dec 20 23:24	17° \mathfrak{A} 30'38		transit begin	3334 Nov 29 19:26	7° \mathfrak{A} 41'52	
direct	3333 Dec 25 02:39	15° \mathfrak{A} 55'03		transit end	3334 Nov 29 23:19	7° \mathfrak{A} 29'00	
morning max el	3334 Jan 02 13:15	20° \mathfrak{A} 48'46	21°05'26	morning rise	3334 Dec 05 10:27	1° \mathfrak{A} 31'30	
greatest brilliancy	3334 Jan 07 22:31	27° \mathfrak{A} 00'30	-0.5m	direct	3334 Dec 09 00:50	0° \mathfrak{A} 16'58	
	3334 Jan 10 05:48	0° \mathfrak{S}		morning max el	3334 Dec 16 13:12	4° \mathfrak{A} 33'04	19°54'44
desc. node	3334 Jan 18 21:41	12° \mathfrak{S} 10'54		greatest brilliancy	3334 Dec 23 21:22	13° \mathfrak{A} 30'26	-0.6m
	3334 Jan 30 17:05	0° \mathfrak{A}			3335 Jan 04 04:16	0° \mathfrak{S}	
morning set	3334 Feb 01 23:23	3° \mathfrak{A} 31'42		desc. node	3335 Jan 05 18:43	2° \mathfrak{S} 25'49	
max. Earth dist.	3334 Feb 09 18:40	16° \mathfrak{A} 00'39	1.42545 AU	morning set	3335 Jan 11 19:23	11° \mathfrak{S} 40'04	
				max. Earth dist.	3335 Jan 23 04:49	29° \mathfrak{S} 31'02	1.44096 AU
superior conj	3334 Feb 16 22:35	27° \mathfrak{A} 57'46	-2°-6'-46		3335 Jan 23 12:06	0° \mathfrak{A}	
minimum elong	3334 Feb 16 22:50	27° \mathfrak{A} 58'52	2°06'47				
	3334 Feb 18 03:08	0° \mathfrak{H}		superior conj	3335 Jan 28 08:05	7° \mathfrak{A} 46'51	-1°-58'-48
evening rise	3334 Feb 28 12:22	18° \mathfrak{H} 20'19		minimum elong	3335 Jan 28 02:34	7° \mathfrak{A} 24'28	1°58'32
	3334 Mar 07 01:44	0° \mathfrak{Y}		evening rise	3335 Feb 10 15:49	0° \mathfrak{H} 02'52	
asc. node	3334 Mar 10 10:22	5° \mathfrak{Y} 36'10			3335 Feb 10 15:09	0° \mathfrak{H}	
evening max el	3334 Mar 17 04:55	14° \mathfrak{Y} 36'42	18°07'25	asc. node	3335 Feb 25 07:24	23° \mathfrak{H} 49'25	
retrograde	3334 Mar 23 20:20	18° \mathfrak{Y} 00'36		evening max el	3335 Feb 28 17:39	27° \mathfrak{H} 53'02	18°13'00
evening set	3334 Mar 26 11:16	17° \mathfrak{Y} 28'54			3335 Mar 03 06:36	0° \mathfrak{Y}	
inferior conj	3334 Apr 02 02:33	12° \mathfrak{Y} 29'58	3°20'50	retrograde	3335 Mar 07 04:01	1° \mathfrak{Y} 18'05	
minimum elong	3334 Apr 02 04:55	12° \mathfrak{Y} 24'14	3°20'30	evening set	3335 Mar 10 00:32	0° \mathfrak{Y} 35'34	
min. Earth dist.	3334 Apr 05 06:52	9° \mathfrak{Y} 26'51	0.61104 AU		3335 Mar 11 01:31	30° \mathfrak{R} \mathfrak{H}	
morning rise	3334 Apr 08 19:29	6° \mathfrak{Y} 36'14		inferior conj	3335 Mar 16 04:09	25° \mathfrak{H} 16'25	3°37'50
direct	3334 Apr 15 13:41	4° \mathfrak{Y} 19'17		minimum elong	3335 Mar 16 04:41	25° \mathfrak{H} 14'58	3°37'49
desc. node	3334 Apr 16 20:54	4° \mathfrak{Y} 24'07		min. Earth dist.	3335 Mar 18 19:09	22° \mathfrak{H} 25'17	0.63171 AU
morning max el	3334 Apr 29 19:13	12° \mathfrak{Y} 15'20	27°46'54	morning rise	3335 Mar 22 06:47	19° \mathfrak{H} 11'11	
	3334 May 13 19:52	0° \mathfrak{B}		direct	3335 Mar 29 04:30	16° \mathfrak{H} 30'50	

desc. node	3335 Apr 03 17:56	17° Υ 59'55		minimum elong	3336 Feb 27 16:29	8° Υ 28'00	3°35'40
morning max el	3335 Apr 12 02:12	24° Υ 28'14	27°46'03	min. Earth dist.	3336 Feb 29 16:53	6° Υ 02'49	0.64925 AU
	3335 Apr 17 02:25	0° Υ		morning rise	3336 Mar 04 09:32	2° Υ 13'21	
	3335 May 07 05:03	0° Υ			3336 Mar 07 22:56	30° Υ	
morning set	3335 May 16 10:14	17° Υ 21'00		direct	3336 Mar 11 02:30	29° Υ 23'43	
max. Earth dist.	3335 May 21 18:15	28° Υ 22'46	1.32794 AU		3336 Mar 14 10:41	0° Υ	
	3335 May 22 12:30	0° Υ		desc. node	3336 Mar 20 14:57	3° Υ 41'24	
				morning max el	3336 Mar 24 11:50	7° Υ 13'13	27°10'42
superior conj	3335 May 24 03:58	3° Υ 31'53	0°-1'-11		3336 Apr 11 01:48	0° Υ	
minimum elong	3335 May 24 04:02	3° Υ 32'11	0°01'11		3336 Apr 28 11:51	0° Υ	
behind sun begin	3335 May 23 22:47	3° Υ 03'53		morning set	3336 Apr 28 23:58	0° Υ 58'32	
behind sun end	3335 May 24 09:17	4° Υ 00'31		max. Earth dist.	3336 May 03 15:08	10° Υ 11'49	1.33809 AU
asc. node	3335 May 24 06:41	3° Υ 46'29					
evening rise	3335 May 31 05:09	18° Υ 44'18		superior conj	3336 May 07 07:21	17° Υ 49'32	0°-29'-25
	3335 Jun 05 17:55	0° Υ		minimum elong	3336 May 07 08:51	17° Υ 57'31	0°29'06
evening max el	3335 Jun 23 12:15	26° Υ 12'49	23°26'22	asc. node	3336 May 10 03:45	23° Υ 51'51	
	3335 Jun 28 03:25	0° Υ			3336 May 13 01:00	0° Υ	
desc. node	3335 Jun 30 17:12	1° Υ 28'16		evening rise	3336 May 14 15:59	3° Υ 25'25	
retrograde	3335 Jul 07 02:10	3° Υ 00'28			3336 May 29 12:03	0° Υ	
evening set	3335 Jul 11 01:36	2° Υ 25'54		evening max el	3336 Jun 04 05:11	6° Υ 43'00	21°51'10
	3335 Jul 16 15:13	30° Υ		retrograde	3336 Jun 16 18:50	12° Υ 55'18	
min. Earth dist.	3335 Jul 17 22:10	29° Υ 15'52	0.55821 AU	desc. node	3336 Jun 16 14:12	12° Υ 55'13	
inferior conj	3335 Jul 19 22:07	28° Υ 04'50	-4°-39'-35	evening set	3336 Jun 19 10:55	12° Υ 39'19	
minimum elong	3335 Jul 19 15:52	28° Υ 14'08	4°38'35	inferior conj	3336 Jun 28 19:07	8° Υ 36'27	-3°-22'-56
morning rise	3335 Jul 28 09:16	24° Υ 10'40		minimum elong	3336 Jun 28 10:54	8° Υ 47'56	3°20'33
direct	3335 Jul 31 05:26	23° Υ 50'51		min. Earth dist.	3336 Jun 28 09:00	8° Υ 50'36	0.54946 AU
morning max el	3335 Aug 10 16:37	28° Υ 42'13	20°16'53	morning rise	3336 Jul 07 12:19	4° Υ 44'31	
	3335 Aug 12 00:11	0° Υ		direct	3336 Jul 10 17:33	4° Υ 21'45	
asc. node	3335 Aug 20 05:53	11° Υ 17'32		morning max el	3336 Jul 22 19:24	10° Υ 01'25	21°44'44
morning set	3335 Aug 29 03:37	28° Υ 09'09			3336 Aug 05 23:46	0° Υ	
	3335 Aug 30 01:18	0° Υ		asc. node	3336 Aug 06 02:57	0° Υ 14'42	
				morning set	3336 Aug 12 12:56	12° Υ 57'28	
superior conj	3335 Sep 05 20:05	13° Υ 54'01	1°44'44				
minimum elong	3335 Sep 05 20:19	13° Υ 55'12	1°44'44	superior conj	3336 Aug 19 20:04	28° Υ 19'53	1°42'12
max. Earth dist.	3335 Sep 11 02:29	24° Υ 17'00	1.36523 AU	minimum elong	3336 Aug 19 18:57	28° Υ 14'02	1°42'09
	3335 Sep 14 03:17	0° Υ			3336 Aug 20 15:15	0° Υ	
evening rise	3335 Sep 15 01:05	1° Υ 40'21		max. Earth dist.	3336 Aug 23 15:41	6° Υ 11'54	1.34835 AU
desc. node	3335 Sep 26 16:30	21° Υ 30'35		evening rise	3336 Aug 28 02:39	14° Υ 59'19	
	3335 Oct 02 05:51	0° Υ			3336 Sep 05 09:18	0° Υ	
evening max el	3335 Oct 20 17:39	23° Υ 15'12	25°56'12	desc. node	3336 Sep 12 13:32	11° Υ 39'10	
	3335 Oct 30 18:32	0° Υ			3336 Sep 25 21:57	0° Υ	
retrograde	3335 Nov 02 04:51	0° Υ 20'35		evening max el	3336 Oct 02 06:10	6° Υ 52'35	26°50'20
	3335 Nov 04 12:20	30° Υ		retrograde	3336 Oct 15 08:30	14° Υ 08'15	
evening set	3335 Nov 08 07:54	27° Υ 49'08		evening set	3336 Oct 22 00:28	11° Υ 28'07	
min. Earth dist.	3335 Nov 12 15:22	23° Υ 11'04	0.66803 AU	min. Earth dist.	3336 Oct 26 00:51	7° Υ 26'39	0.65745 AU
inferior conj	3335 Nov 14 00:20	21° Υ 27'37	0°-45'-15	inferior conj	3336 Oct 27 21:39	5° Υ 16'04	-1°-44'-56
minimum elong	3335 Nov 14 01:32	21° Υ 23'51	0°44'45	minimum elong	3336 Oct 28 00:32	5° Υ 07'38	1°43'46
asc. node	3335 Nov 16 05:07	18° Υ 47'53		asc. node	3336 Nov 02 02:09	0° Υ 09'41	
morning rise	3335 Nov 19 20:07	15° Υ 33'42			3336 Nov 02 08:05	30° Υ	
direct	3335 Nov 22 23:30	14° Υ 37'05		morning rise	3336 Nov 03 02:10	29° Υ 34'15	
morning max el	3335 Nov 29 20:42	18° Υ 26'25	18°58'44	direct	3336 Nov 05 20:42	28° Υ 51'50	
	3335 Dec 08 19:17	0° Υ			3336 Nov 09 10:57	0° Υ	
morning set	3335 Dec 22 02:42	20° Υ 29'51		morning max el	3336 Nov 12 09:55	2° Υ 24'52	18°18'55
desc. node	3335 Dec 23 15:44	22° Υ 54'41			3336 Dec 01 02:37	0° Υ	
	3335 Dec 28 04:29	0° Υ		morning set	3336 Dec 01 13:37	0° Υ 44'32	
max. Earth dist.	3336 Jan 05 21:15	13° Υ 38'09	1.45016 AU	desc. node	3336 Dec 09 12:47	13° Υ 33'30	
superior conj	3336 Jan 07 18:23	16° Υ 35'52	-1°-31'-26	superior conj	3336 Dec 16 20:25	25° Υ 08'47	0°-48'-19
minimum elong	3336 Jan 07 09:15	15° Υ 59'53	1°30'33	minimum elong	3336 Dec 16 14:18	24° Υ 44'43	0°47'32
	3336 Jan 16 04:40	0° Υ		max. Earth dist.	3336 Dec 18 16:31	28° Υ 02'08	1.45207 AU
evening rise	3336 Jan 22 21:00	10° Υ 48'14			3336 Dec 19 22:34	0° Υ	
	3336 Feb 03 18:47	0° Υ		evening rise	3337 Jan 02 03:12	20° Υ 39'06	
evening max el	3336 Feb 12 05:28	11° Υ 18'04	18°37'01		3337 Jan 08 02:33	0° Υ	
asc. node	3336 Feb 12 04:26	11° Υ 15'26		greatest brilliancy	3337 Jan 16 11:21	12° Υ 50'27	-0.7m
retrograde	3336 Feb 18 19:46	14° Υ 56'55		evening max el	3337 Jan 25 14:04	24° Υ 47'09	19°18'19
evening set	3336 Feb 21 22:10	14° Υ 02'38		asc. node	3337 Jan 29 01:29	27° Υ 41'08	
inferior conj	3336 Feb 27 17:31	8° Υ 24'55	3°35'44	retrograde	3337 Feb 01 16:06	28° Υ 50'33	

evening set	3337 Feb 05 01:18	27° \approx 43'35		retrograde	3338 Jan 16 14:07	12° \approx 54'16	
inferior conj	3337 Feb 10 15:13	21° \approx 49'35	3°19'20	evening set	3338 Jan 20 07:40	11° \approx 33'23	
minimum elong	3337 Feb 10 13:11	21° \approx 56'10	3°19'00	inferior conj	3338 Jan 25 18:27	5° \approx 26'00	2°51'55
min. Earth dist.	3337 Feb 11 23:25	20° \approx 05'40	0.66281 AU	minimum elong	3338 Jan 25 15:57	5° \approx 34'27	2°51'18
morning rise	3337 Feb 16 00:14	15° \approx 34'48		min. Earth dist.	3338 Jan 26 12:56	4° \approx 23'28	0.67223 AU
direct	3337 Feb 22 06:52	12° \approx 49'00			3338 Jan 30 03:05	30° \approx 38'00	
morning max el	3337 Mar 06 21:39	20° \approx 18'25	26°07'52	morning rise	3338 Jan 30 23:41	29° \approx 10'16	
desc. node	3337 Mar 07 11:59	20° \approx 55'04		direct	3338 Feb 05 16:49	26° \approx 38'20	
	3337 Mar 15 05:45	0° \approx 00'00			3338 Feb 13 08:16	0° \approx 00'00	
	3337 Apr 04 04:56	0° \approx 00'00		morning max el	3338 Feb 17 06:22	3° \approx 33'03	24°47'02
morning set	3337 Apr 12 00:43	13° \approx 05'53		desc. node	3338 Feb 22 09:02	9° \approx 14'36	
max. Earth dist.	3337 Apr 16 00:40	21° \approx 05'29	1.35280 AU		3338 Mar 09 11:48	0° \approx 00'00	
	3337 Apr 20 07:35	0° \approx 00'00		morning set	3338 Mar 25 07:20	25° \approx 52'59	
					3338 Mar 27 14:32	0° \approx 00'00	
superior conj	3337 Apr 21 03:32	1° \approx 41'07	0°-58'-8	max. Earth dist.	3338 Mar 28 23:41	2° \approx 31'04	1.37162 AU
minimum elong	3337 Apr 21 06:35	1° \approx 56'39	0°57'35				
asc. node	3337 Apr 27 00:48	13° \approx 49'48		superior conj	3338 Apr 04 13:28	14° \approx 58'32	-1°-25'-27
evening rise	3337 Apr 28 23:45	17° \approx 52'11		minimum elong	3338 Apr 04 17:45	15° \approx 19'26	1°24'51
	3337 May 05 03:20	0° \approx 00'00			3338 Apr 12 02:36	0° \approx 00'00	
evening max el	3337 May 17 08:17	17° \approx 41'41	20°27'50	evening rise	3338 Apr 13 02:07	1° \approx 57'41	
retrograde	3337 May 28 08:07	23° \approx 03'13		asc. node	3338 Apr 13 21:51	3° \approx 36'00	
evening set	3337 May 30 08:52	22° \approx 52'59		evening max el	3338 Apr 29 23:35	29° \approx 21'37	19°22'48
desc. node	3337 Jun 03 11:14	21° \approx 36'50			3338 Apr 30 15:58	0° \approx 00'00	
inferior conj	3337 Jun 08 13:16	18° \approx 55'13	-1°-29'-41	retrograde	3338 May 09 06:09	3° \approx 51'41	
minimum elong	3337 Jun 08 09:03	19° \approx 01'22	1°28'10	evening set	3338 May 11 06:20	3° \approx 39'57	
min. Earth dist.	3337 Jun 09 21:17	18° \approx 08'43	0.55008 AU		3338 May 19 02:17	30° \approx 38'00	
morning rise	3337 Jun 17 07:37	14° \approx 44'46		inferior conj	3338 May 19 19:01	29° \approx 32'48	0°27'02
direct	3337 Jun 21 03:30	14° \approx 13'09		minimum elong	3338 May 19 20:09	29° \approx 30'56	0°26'37
morning max el	3337 Jul 04 13:11	20° \approx 43'02	23°25'31	desc. node	3338 May 21 08:15	28° \approx 31'43	
	3337 Jul 12 11:07	0° \approx 00'00		min. Earth dist.	3338 May 22 11:55	27° \approx 47'07	0.56014 AU
asc. node	3337 Jul 24 00:01	19° \approx 38'33		morning rise	3338 May 28 05:58	24° \approx 49'15	
morning set	3337 Jul 28 00:18	27° \approx 51'23		direct	3338 Jun 02 00:07	23° \approx 57'39	
	3337 Jul 29 00:36	0° \approx 00'00			3338 Jun 14 21:52	0° \approx 00'00	
				morning max el	3338 Jun 16 03:23	1° \approx 07'59	25°06'44
superior conj	3337 Aug 04 02:09	13° \approx 03'13	1°33'31		3338 Jul 06 03:48	0° \approx 00'00	
minimum elong	3337 Aug 04 00:10	12° \approx 52'32	1°33'19	asc. node	3338 Jul 10 21:05	9° \approx 21'58	
max. Earth dist.	3337 Aug 06 13:38	18° \approx 02'01	1.33533 AU	morning set	3338 Jul 12 12:05	12° \approx 45'52	
evening rise	3337 Aug 11 16:59	28° \approx 05'47					
	3337 Aug 12 06:07	0° \approx 00'00		superior conj	3338 Jul 19 11:59	27° \approx 56'23	1°19'39
	3337 Aug 29 12:32	0° \approx 00'00		minimum elong	3338 Jul 19 09:38	27° \approx 43'32	1°19'18
desc. node	3337 Aug 30 10:34	1° \approx 21'47			3338 Jul 20 10:38	0° \approx 00'00	
evening max el	3337 Sep 14 17:58	20° \approx 14'22	27°21'27	max. Earth dist.	3338 Jul 20 19:23	0° \approx 47'40	1.32652 AU
retrograde	3337 Sep 28 06:27	27° \approx 32'44		evening rise	3338 Jul 26 16:31	13° \approx 16'36	
evening set	3337 Oct 05 07:50	24° \approx 52'10			3338 Aug 04 09:07	0° \approx 00'00	
min. Earth dist.	3337 Oct 09 01:58	21° \approx 26'01	0.64328 AU	desc. node	3338 Aug 17 07:35	20° \approx 07'36	
inferior conj	3337 Oct 11 11:11	18° \approx 54'05	-2°-45'-18		3338 Aug 25 01:11	0° \approx 00'00	
minimum elong	3337 Oct 11 15:44	18° \approx 41'59	2°43'40	evening max el	3338 Aug 28 03:20	3° \approx 08'34	27°23'19
morning rise	3337 Oct 18 01:49	13° \approx 27'28		retrograde	3338 Sep 10 22:00	10° \approx 24'28	
asc. node	3337 Oct 19 23:12	12° \approx 57'25		evening set	3338 Sep 18 02:37	7° \approx 55'01	
direct	3337 Oct 20 13:56	12° \approx 55'28		min. Earth dist.	3338 Sep 21 17:11	4° \approx 58'37	0.62583 AU
morning max el	3337 Oct 27 02:07	16° \approx 21'29	17°56'06	inferior conj	3338 Sep 24 14:06	2° \approx 14'59	-3°-42'-52
	3337 Nov 05 20:26	0° \approx 00'00		minimum elong	3338 Sep 24 19:45	2° \approx 01'31	3°41'15
morning set	3337 Nov 13 04:57	12° \approx 22'22			3338 Sep 27 01:14	30° \approx 38'00	
	3337 Nov 23 18:16	0° \approx 00'00		morning rise	3338 Oct 01 15:39	27° \approx 06'44	
				direct	3338 Oct 04 00:09	26° \approx 41'38	
superior conj	3337 Nov 26 11:16	4° \approx 24'03	0°00'-24	asc. node	3338 Oct 06 20:15	27° \approx 19'09	
minimum elong	3337 Nov 26 11:14	4° \approx 23'54	0°00'24		3338 Oct 10 14:37	0° \approx 00'00	
behind sun begin	3337 Nov 26 01:02	3° \approx 42'41		morning max el	3338 Oct 10 18:14	0° \approx 08'51	17°51'06
behind sun end	3337 Nov 26 21:26	5° \approx 05'03		morning set	3338 Oct 26 18:56	25° \approx 05'15	
desc. node	3337 Nov 26 09:49	4° \approx 18'11			3338 Oct 29 13:14	0° \approx 00'00	
max. Earth dist.	3337 Dec 01 11:05	12° \approx 23'13	1.44656 AU				
evening rise	3337 Dec 12 16:13	29° \approx 52'27		superior conj	3338 Nov 07 03:28	14° \approx 54'25	0°41'42
	3337 Dec 12 18:11	0° \approx 00'00		minimum elong	3338 Nov 07 07:09	15° \approx 09'57	0°41'11
	3338 Jan 01 22:55	0° \approx 00'00		desc. node	3338 Nov 13 06:52	25° \approx 05'33	
greatest brilliancy	3338 Jan 02 08:12	0° \approx 31'26	-0.6m	max. Earth dist.	3338 Nov 14 02:28	26° \approx 25'05	1.43445 AU
evening max el	3338 Jan 08 17:50	8° \approx 17'59	20°15'02		3338 Nov 16 07:53	0° \approx 00'00	
asc. node	3338 Jan 15 22:30	12° \approx 51'56		evening rise	3338 Nov 22 02:08	9° \approx 04'21	

	3338 Dec 05 23:50	0°☿		greatest brilliancy	3339 Nov 30 10:32	29°☿51'52	-0.3m
greatest brilliancy	3338 Dec 17 16:09	16°☿05'01	-0.4m		3339 Nov 30 13:13	0°☿	
evening max el	3338 Dec 22 16:06	21°☿50'04	21°24'10	evening max el	3339 Dec 05 09:23	5°☿24'45	22°41'26
retrograde	3338 Dec 31 11:41	27°☿04'09		retrograde	3339 Dec 15 07:08	11°☿17'41	
asc. node	3339 Jan 02 19:30	26°☿34'33		evening set	3339 Dec 19 22:45	9°☿25'08	
evening set	3339 Jan 04 15:20	25°☿28'01		asc. node	3339 Dec 20 16:31	8°☿45'53	
inferior conj	3339 Jan 10 00:52	19°☿10'26	2°15'40	inferior conj	3339 Dec 25 08:34	3°☿00'58	1°32'09
minimum elong	3339 Jan 09 22:25	19°☿18'53	2°14'53	minimum elong	3339 Dec 25 06:38	3°☿07'38	1°31'25
min. Earth dist.	3339 Jan 10 07:04	18°☿49'00	0.67775 AU	min. Earth dist.	3339 Dec 25 03:30	3°☿18'29	0.67956 AU
morning rise	3339 Jan 15 05:10	12°☿55'44			3339 Dec 27 14:30	30°☿☿	
direct	3339 Jan 20 07:30	10°☿44'00		morning rise	3339 Dec 30 14:26	26°☿49'15	
morning max el	3339 Jan 30 15:11	16°☿52'13	23°18'24	direct	3340 Jan 04 01:56	25°☿00'26	
greatest brilliancy	3339 Feb 04 22:28	22°☿50'02	-0.2m		3340 Jan 12 19:57	0°☿	
desc. node	3339 Feb 09 06:03	28°☿20'44		morning max el	3340 Jan 13 03:43	0°☿19'19	21°51'36
	3339 Feb 10 11:43	0°☿☿		greatest brilliancy	3340 Jan 17 21:21	5°☿39'11	-0.4m
	3339 Mar 02 13:10	0°☿☿		desc. node	3340 Jan 27 03:06	18°☿00'46	
morning set	3339 Mar 06 13:29	6°☿37'47			3340 Feb 04 07:29	0°☿☿	
max. Earth dist.	3339 Mar 10 18:17	13°☿48'43	1.39308 AU	morning set	3340 Feb 14 14:47	15°☿☿59'46	
				max. Earth dist.	3340 Feb 20 16:57	25°☿☿56'32	1.41448 AU
superior conj	3339 Mar 18 09:06	27°☿30'54	-1°-48'-37		3340 Feb 23 02:54	0°☿☿	
minimum elong	3339 Mar 18 13:36	27°☿51'46	1°48'13				
	3339 Mar 19 17:04	0°☿☿		superior conj	3340 Feb 28 09:41	9°☿☿07'15	-2°-3'-42
evening rise	3339 Mar 27 20:11	15°☿☿33'32		minimum elong	3340 Feb 28 12:19	9°☿☿18'51	2°03'37
asc. node	3339 Mar 31 18:51	23°☿☿04'41		evening rise	3340 Mar 10 02:33	28°☿☿32'16	
	3339 Apr 04 15:07	0°☿☿			3340 Mar 10 21:34	0°☿☿	
evening max el	3339 Apr 13 01:02	11°☿☿39'01	18°37'48	asc. node	3340 Mar 17 15:51	12°☿☿10'07	
retrograde	3339 Apr 20 21:43	15°☿☿30'18		evening max el	3340 Mar 26 09:21	24°☿☿25'45	18°12'48
evening set	3339 Apr 23 03:26	15°☿☿12'39		retrograde	3340 Apr 02 08:03	27°☿☿55'06	
inferior conj	3339 Apr 30 20:40	10°☿☿46'55	1°59'50	evening set	3340 Apr 04 19:50	27°☿☿28'54	
minimum elong	3339 May 01 00:20	10°☿☿39'54	1°58'45	inferior conj	3340 Apr 11 19:29	22°☿☿41'43	2°59'57
min. Earth dist.	3339 May 04 05:35	8°☿☿13'45	0.57744 AU	minimum elong	3340 Apr 11 22:46	22°☿☿34'23	2°59'17
desc. node	3339 May 08 05:15	5°☿☿43'46		min. Earth dist.	3340 Apr 15 04:33	19°☿☿42'33	0.59857 AU
morning rise	3339 May 08 16:49	5°☿☿29'39		morning rise	3340 Apr 18 22:04	16°☿☿58'33	
direct	3339 May 14 10:51	4°☿☿06'51		desc. node	3340 Apr 24 02:17	15°☿☿05'18	
morning max el	3339 May 28 19:41	11°☿☿42'40	26°33'00	direct	3340 Apr 25 10:00	15°☿☿00'28	
	3339 Jun 12 00:43	0°☿☿☿		morning max el	3340 May 09 17:54	22°☿☿50'40	27°30'25
morning set	3339 Jun 26 22:38	27°☿☿☿35'24			3340 May 16 02:29	0°☿☿☿	
asc. node	3339 Jun 27 18:08	29°☿☿☿18'32			3340 Jun 04 02:30	0°☿☿☿	
	3339 Jun 28 01:55	0°☿☿☿		morning set	3340 Jun 10 06:17	12°☿☿☿14'17	
				asc. node	3340 Jun 13 15:10	19°☿☿☿23'06	
superior conj	3339 Jul 03 23:33	12°☿☿☿52'31	1°01'23	max. Earth dist.	3340 Jun 16 17:57	26°☿☿☿10'58	1.32091 AU
minimum elong	3339 Jul 03 21:19	12°☿☿☿40'16	1°00'59				
max. Earth dist.	3339 Jul 04 06:03	13°☿☿☿28'21	1.32174 AU	superior conj	3340 Jun 17 11:07	27°☿☿☿45'28	0°39'24
evening rise	3339 Jul 10 22:18	27°☿☿☿55'33		minimum elong	3340 Jun 17 09:28	27°☿☿☿36'23	0°39'04
	3339 Jul 11 22:12	0°☿☿☿			3340 Jun 18 11:33	0°☿☿☿	
	3339 Jul 28 18:29	0°☿☿☿		evening rise	3340 Jun 24 08:01	12°☿☿☿43'36	
desc. node	3339 Aug 04 04:35	8°☿☿☿41'41			3340 Jul 03 01:41	0°☿☿☿	
evening max el	3339 Aug 10 07:42	15°☿☿☿23'05	26°52'09	desc. node	3340 Jul 21 01:35	25°☿☿☿42'23	
retrograde	3339 Aug 24 05:50	22°☿☿☿34'46		evening max el	3340 Jul 22 04:48	26°☿☿☿49'18	25°48'54
evening set	3339 Aug 31 04:29	20°☿☿☿29'24			3340 Jul 25 22:47	0°☿☿☿	
min. Earth dist.	3339 Sep 03 21:53	17°☿☿☿51'26	0.60595 AU	retrograde	3340 Aug 05 04:19	3°☿☿☿57'06	
inferior conj	3339 Sep 07 03:06	15°☿☿☿10'30	-4°-31'-47	evening set	3340 Aug 11 08:32	2°☿☿☿26'34	
minimum elong	3339 Sep 07 08:25	14°☿☿☿59'21	4°30'47		3340 Aug 15 11:19	30°☿☿☿☿	
morning rise	3339 Sep 14 15:33	10°☿☿☿23'43		min. Earth dist.	3340 Aug 15 17:01	29°☿☿☿50'09	0.58534 AU
direct	3339 Sep 16 23:37	10°☿☿☿02'32		inferior conj	3340 Aug 18 22:33	27°☿☿☿30'05	-5°-2'-29
asc. node	3339 Sep 23 17:18	13°☿☿☿06'48		minimum elong	3340 Aug 19 01:01	27°☿☿☿25'36	5°02'20
morning max el	3339 Sep 24 07:09	13°☿☿☿39'11	18°05'04	morning rise	3340 Aug 26 20:59	23°☿☿☿06'50	
	3339 Oct 05 09:27	0°☿☿☿		direct	3340 Aug 29 07:52	22°☿☿☿47'22	
morning set	3339 Oct 10 01:23	8°☿☿☿35'24		morning max el	3340 Sep 06 13:38	26°☿☿☿43'10	18°39'24
				asc. node	3340 Sep 09 14:22	0°☿☿☿05'16	
superior conj	3339 Oct 19 21:51	26°☿☿☿41'28	1°12'59		3340 Sep 09 12:41	0°☿☿☿	
minimum elong	3339 Oct 20 02:03	27°☿☿☿00'11	1°12'30	morning set	3340 Sep 22 19:21	22°☿☿☿38'21	
	3339 Oct 21 18:43	0°☿☿☿			3340 Sep 26 14:09	0°☿☿☿	
max. Earth dist.	3339 Oct 27 13:13	9°☿☿☿54'11	1.41720 AU				
desc. node	3339 Oct 31 03:53	15°☿☿☿52'12		superior conj	3340 Oct 01 13:38	9°☿☿☿31'20	1°32'57
evening rise	3339 Nov 02 01:08	18°☿☿☿55'11		minimum elong	3340 Oct 01 16:35	9°☿☿☿45'10	1°32'43
	3339 Nov 09 02:57	0°☿☿☿		max. Earth dist.	3340 Oct 08 19:18	22°☿☿☿40'45	1.39696 AU

evening rise	3340 Oct 12 22:20	29° Ω 46'40		minimum elong	3341 Sep 14 22:35	23° η 14'45	1°42'51
	3340 Oct 13 01:30	0° \mathbb{M}			3341 Sep 18 10:10	0° Ω	
desc. node	3340 Oct 17 00:55	6° \mathbb{M} 34'03		max. Earth dist.	3341 Sep 20 23:34	4° Ω 48'44	1.37631 AU
	3340 Nov 01 13:30	0° \mathcal{A}		evening rise	3341 Sep 24 18:47	11° Ω 42'51	
evening max el	3340 Nov 16 23:07	19° \mathcal{A} 02'08	24°01'21	desc. node	3341 Oct 03 21:56	27° Ω 07'13	
retrograde	3340 Nov 27 23:18	25° \mathcal{A} 30'25			3341 Oct 05 17:32	0° \mathbb{M}	
evening set	3340 Dec 03 04:17	23° \mathcal{A} 21'14			3341 Oct 27 20:28	0° \mathcal{A}	
asc. node	3340 Dec 06 13:33	19° \mathcal{A} 41'17		evening max el	3341 Oct 30 11:18	2° \mathcal{A} 42'30	25°17'12
min. Earth dist.	3340 Dec 07 23:52	17° \mathcal{A} 48'01	0.67778 AU	retrograde	3341 Nov 11 11:15	9° \mathcal{A} 38'05	
inferior conj	3340 Dec 08 15:42	16° \mathcal{A} 54'23	0°42'32	evening set	3341 Nov 17 06:19	7° \mathcal{A} 13'39	
minimum elong	3340 Dec 08 14:43	16° \mathcal{A} 57'46	0°42'07	min. Earth dist.	3341 Nov 21 17:56	2° \mathcal{A} 15'05	0.67258 AU
morning rise	3340 Dec 14 01:24	10° \mathcal{A} 47'48		inferior conj	3341 Nov 22 20:34	0° \mathcal{A} 48'37	0°-12'-3
direct	3340 Dec 17 23:01	9° \mathcal{A} 21'30		minimum elong	3341 Nov 22 20:52	0° \mathcal{A} 47'38	0°11'56
morning max el	3340 Dec 25 23:12	13° \mathcal{A} 57'27	20°33'42	transit middle	3341 Nov 22 20:52	0° \mathcal{A} 47'38	0°11'56
greatest brilliancy	3341 Jan 01 00:51	21° \mathcal{A} 05'15	-0.5m	transit begin	3341 Nov 22 18:59	0° \mathcal{A} 53'45	
	3341 Jan 07 11:49	0° \mathcal{B}		transit end	3341 Nov 22 22:45	0° \mathcal{A} 41'31	
desc. node	3341 Jan 13 00:08	8° \mathcal{B} 04'50		asc. node	3341 Nov 23 10:37	0° \mathcal{A} 03'10	
morning set	3341 Jan 23 16:07	24° \mathcal{B} 18'29			3341 Nov 23 11:37	30° $\mathbb{R}\mathbb{M}$	
	3341 Jan 27 07:32	0° \approx		morning rise	3341 Nov 28 12:08	24° \mathbb{M} 49'22	
max. Earth dist.	3341 Feb 01 23:18	9° \approx 00'49	1.43276 AU	direct	3341 Dec 01 21:29	23° \mathbb{M} 43'05	
				morning max el	3341 Dec 09 02:39	27° \mathbb{M} 46'32	19°28'57
superior conj	3341 Feb 08 10:12	19° \approx 36'19	-2°-5'-38		3341 Dec 11 03:53	0° \mathcal{A}	
minimum elong	3341 Feb 08 08:08	19° \approx 27'41	2°05'37	greatest brilliancy	3341 Dec 17 18:32	8° \mathcal{A} 42'30	-0.7m
	3341 Feb 14 13:14	0° \mathcal{H}		desc. node	3341 Dec 30 21:10	28° \mathcal{A} 26'09	
evening rise	3341 Feb 20 17:08	10° \mathcal{H} 45'18			3341 Dec 31 21:31	0° \mathcal{B}	
	3341 Mar 04 00:55	0° \mathcal{Y}		morning set	3342 Jan 02 13:52	2° \mathcal{B} 35'56	
asc. node	3341 Mar 04 12:52	0° \mathcal{Y} 45'07		max. Earth dist.	3342 Jan 15 12:16	22° \mathcal{B} 48'15	1.44569 AU
evening max el	3341 Mar 09 21:18	7° \mathcal{Y} 33'23	18°07'25				
retrograde	3341 Mar 16 09:26	10° \mathcal{Y} 56'22		superior conj	3342 Jan 19 08:47	28° \mathcal{B} 56'16	-1°-49'-32
evening set	3341 Mar 19 02:43	10° \mathcal{Y} 20'10		minimum elong	3342 Jan 19 01:06	28° \mathcal{B} 25'30	1°49'00
inferior conj	3341 Mar 25 12:32	5° \mathcal{Y} 12'09	3°30'47		3342 Jan 20 00:42	0° \approx	
minimum elong	3341 Mar 25 14:08	5° \mathcal{Y} 08'05	3°30'37	evening rise	3342 Feb 02 11:29	22° \approx 03'57	
min. Earth dist.	3341 Mar 28 11:35	2° \mathcal{Y} 11'44	0.62008 AU		3342 Feb 07 05:07	0° \mathcal{H}	
	3341 Mar 30 22:06	30° $\mathbb{R}\mathcal{H}$		asc. node	3342 Feb 19 09:55	18° \mathcal{H} 39'47	
morning rise	3341 Mar 31 22:57	29° \mathcal{H} 12'32		evening max el	3342 Feb 21 09:53	20° \mathcal{H} 53'45	18°21'02
direct	3341 Apr 07 19:34	26° \mathcal{H} 44'23		retrograde	3342 Feb 27 21:07	24° \mathcal{H} 23'39	
desc. node	3341 Apr 10 23:19	27° \mathcal{H} 13'00		evening set	3342 Mar 02 19:56	23° \mathcal{H} 36'24	
	3341 Apr 16 10:42	0° \mathcal{Y}		inferior conj	3342 Mar 08 19:38	18° \mathcal{H} 09'08	3°38'58
morning max el	3341 Apr 21 22:31	4° \mathcal{Y} 41'55	27°51'14	minimum elong	3342 Mar 08 19:27	18° \mathcal{H} 09'40	3°38'57
	3341 May 10 20:26	0° \mathcal{B}		min. Earth dist.	3342 Mar 11 04:06	15° \mathcal{H} 28'31	0.63955 AU
morning set	3341 May 25 09:05	26° \mathcal{B} 36'27		morning rise	3342 Mar 14 17:16	12° \mathcal{H} 00'24	
	3341 May 27 00:40	0° \mathbb{I}		direct	3342 Mar 21 13:41	9° \mathcal{H} 14'14	
max. Earth dist.	3341 May 31 03:08	8° \mathbb{I} 42'29	1.32412 AU	desc. node	3342 Mar 28 20:22	11° \mathcal{H} 46'29	
asc. node	3341 May 31 12:12	9° \mathbb{I} 31'30		morning max el	3342 Apr 04 07:09	17° \mathcal{H} 10'36	27°34'56
					3342 Apr 14 23:22	0° \mathcal{Y}	
superior conj	3341 Jun 01 21:02	12° \mathbb{I} 29'53	0°14'21		3342 May 03 15:44	0° \mathcal{B}	
minimum elong	3341 Jun 01 20:22	12° \mathbb{I} 26'14	0°14'13	morning set	3342 May 09 04:28	10° \mathcal{B} 33'00	
behind sun begin	3341 Jun 01 18:03	12° \mathbb{I} 13'38		max. Earth dist.	3342 May 14 05:23	20° \mathcal{B} 48'44	1.33164 AU
behind sun end	3341 Jun 01 22:41	12° \mathbb{I} 38'51					
evening rise	3341 Jun 08 19:39	27° \mathbb{I} 34'14		superior conj	3342 May 17 03:22	26° \mathcal{B} 58'58	0°-13'00
	3341 Jun 09 23:16	0° \mathcal{B}		minimum elong	3342 May 17 04:01	27° \mathcal{B} 02'26	0°12'53
	3341 Jun 27 05:24	0° \mathcal{Q}		behind sun begin	3342 May 17 00:49	26° \mathcal{B} 45'22	
evening max el	3341 Jul 03 19:20	7° \mathcal{Q} 33'01	24°21'45	behind sun end	3342 May 17 07:13	27° \mathcal{B} 19'32	
desc. node	3341 Jul 07 22:36	11° \mathcal{Q} 00'45		asc. node	3342 May 18 09:14	29° \mathcal{B} 38'57	
retrograde	3341 Jul 17 15:55	14° \mathcal{Q} 32'48			3342 May 18 13:09	0° \mathbb{I}	
evening set	3341 Jul 22 12:35	13° \mathcal{Q} 40'01		evening rise	3342 May 24 07:16	12° \mathbb{I} 20'11	
min. Earth dist.	3341 Jul 28 06:09	10° \mathcal{Q} 46'26	0.56667 AU		3342 Jun 02 07:48	0° \mathcal{B}	
inferior conj	3341 Jul 30 21:58	9° \mathcal{Q} 05'46	-5°-1'00	evening max el	3342 Jun 15 09:02	17° \mathcal{B} 58'14	22°45'05
minimum elong	3341 Jul 30 18:56	9° \mathcal{Q} 10'34	5°00'46	desc. node	3342 Jun 24 19:38	24° \mathcal{B} 00'45	
morning rise	3341 Aug 08 04:55	5° \mathcal{Q} 03'49		retrograde	3342 Jun 28 15:06	24° \mathcal{B} 34'02	
direct	3341 Aug 10 21:01	4° \mathcal{Q} 44'40		evening set	3342 Jul 01 23:28	24° \mathcal{B} 09'25	
morning max el	3341 Aug 20 10:39	9° \mathcal{Q} 11'52	19°35'12	min. Earth dist.	3342 Jul 09 17:20	20° \mathcal{B} 44'24	0.55338 AU
asc. node	3341 Aug 27 11:26	17° \mathcal{Q} 59'51		inferior conj	3342 Jul 11 02:31	19° \mathcal{B} 56'49	-4°-13'-1
	3341 Sep 03 07:15	0° \mathcal{H}		minimum elong	3342 Jul 10 18:41	20° \mathcal{B} 08'04	4°11'18
morning set	3341 Sep 06 21:18	7° \mathcal{H} 04'31		morning rise	3342 Jul 19 16:33	16° \mathcal{B} 05'47	
				direct	3342 Jul 22 15:49	15° \mathcal{B} 45'19	
superior conj	3341 Sep 14 21:23	23° \mathcal{H} 08'52	1°42'53	morning max el	3342 Aug 02 20:07	20° \mathcal{B} 56'47	20°52'10

	3342 Aug 10 06:55	0°♌			3343 Jul 13 11:12	0°♏	
asc. node	3342 Aug 14 08:30	6°♌36'54		morning max el	3343 Jul 15 18:26	1°♏57'48	22°26'36
morning set	3342 Aug 22 04:30	21°♌45'54		asc. node	3343 Aug 01 05:32	25°♏46'10	
	3342 Aug 26 03:35	0°♍			3343 Aug 03 09:28	0°♌	
				morning set	3343 Aug 06 14:51	6°♌36'41	
superior conj	3342 Aug 29 16:28	7°♍19'50	1°44'29				
minimum elong	3342 Aug 29 16:04	7°♍17'49	1°44'28	superior conj	3343 Aug 13 19:19	21°♌53'40	1°39'12
max. Earth dist.	3342 Sep 03 07:44	16°♍39'13	1.35757 AU	minimum elong	3343 Aug 13 17:46	21°♌45'28	1°39'05
evening rise	3342 Sep 07 10:59	24°♍34'51		max. Earth dist.	3343 Aug 17 00:30	28°♌37'53	1.34232 AU
	3342 Sep 10 09:56	0°♎			3343 Aug 17 16:28	0°♍	
desc. node	3342 Sep 20 18:58	17°♎26'28		evening rise	3343 Aug 21 18:27	8°♍10'38	
	3342 Sep 29 07:13	0°♏			3343 Sep 02 22:52	0°♎	
evening max el	3342 Oct 12 23:38	16°♏23'17	26°21'37	desc. node	3343 Sep 07 16:00	7°♎24'56	
retrograde	3342 Oct 25 18:19	23°♏35'01		evening max el	3343 Sep 25 12:12	29°♎56'08	27°06'58
evening set	3342 Nov 01 02:59	20°♏59'06			3343 Sep 25 13:49	0°♏	
min. Earth dist.	3342 Nov 05 07:20	16°♏36'26	0.66391 AU	retrograde	3343 Oct 08 19:37	7°♏13'35	
inferior conj	3342 Nov 06 21:16	14°♏40'43	-1°-10'-21	evening set	3343 Oct 15 15:58	4°♏32'26	
minimum elong	3342 Nov 06 23:09	14°♏34'55	1°09'33	min. Earth dist.	3343 Oct 19 13:39	0°♏46'03	0.65179 AU
asc. node	3342 Nov 10 07:41	10°♏48'45			3343 Oct 20 06:12	30°♏♎	
morning rise	3342 Nov 12 20:33	8°♏51'30		inferior conj	3343 Oct 21 15:35	28°♎25'44	-2°-10'-40
direct	3342 Nov 15 19:48	8°♏01'32		minimum elong	3343 Oct 21 19:12	28°♎15'33	2°09'15
morning max el	3342 Nov 22 12:54	11°♏43'08	18°39'42	morning rise	3343 Oct 28 00:13	22°♎49'39	
	3342 Dec 05 17:45	0°♐		asc. node	3343 Oct 28 04:45	22°♎44'32	
morning set	3342 Dec 13 08:00	11°♐59'49		direct	3343 Oct 30 15:42	22°♎12'05	
desc. node	3342 Dec 17 18:13	18°♐59'57		morning max el	3343 Nov 06 03:40	25°♎41'18	18°07'03
	3342 Dec 24 17:55	0°♑			3343 Nov 09 19:14	0°♏	
max. Earth dist.	3342 Dec 29 05:46	7°♑03'12	1.45185 AU	morning set	3343 Nov 24 07:35	22°♏52'10	
					3343 Nov 28 15:40	0°♐	
superior conj	3342 Dec 29 13:12	7°♑32'25	-1°-14'-32	desc. node	3343 Dec 04 15:15	9°♐41'47	
minimum elong	3342 Dec 29 04:34	6°♑58'31	1°13'34				
	3343 Jan 12 18:18	0°♒		superior conj	3343 Dec 08 18:21	16°♐17'10	0°-27'-51
evening rise	3343 Jan 14 06:42	2°♒25'17		minimum elong	3343 Dec 08 14:50	16°♐03'14	0°27'22
	3343 Feb 01 04:12	0°♓		max. Earth dist.	3343 Dec 12 01:12	21°♐28'44	1.45063 AU
evening max el	3343 Feb 04 20:38	4°♓21'33	18°52'38		3343 Dec 17 11:44	0°♑	
asc. node	3343 Feb 06 06:58	5°♓42'25		evening rise	3343 Dec 25 04:21	11°♑57'12	
retrograde	3343 Feb 11 15:08	8°♓09'39			3344 Jan 05 22:09	0°♒	
evening set	3343 Feb 14 20:13	7°♓10'15		greatest brilliancy	3344 Jan 11 10:48	8°♒08'44	-0.6m
inferior conj	3343 Feb 20 12:58	1°♓25'36	3°30'16	evening max el	3344 Jan 19 03:26	17°♒52'13	19°40'44
minimum elong	3343 Feb 20 11:27	1°♓30'20	3°30'06	asc. node	3344 Jan 24 04:01	21°♒38'25	
	3343 Feb 21 16:27	30°♒♒		retrograde	3344 Jan 26 12:20	22°♒08'14	
min. Earth dist.	3343 Feb 22 05:52	29°♒18'40	0.65553 AU	evening set	3344 Jan 30 00:58	20°♒55'27	
morning rise	3343 Feb 26 01:34	25°♒12'19		inferior conj	3344 Feb 04 13:18	14°♒55'37	3°08'51
direct	3343 Mar 04 14:48	22°♒22'29		minimum elong	3344 Feb 04 11:01	15°♒03'12	3°08'24
desc. node	3343 Mar 15 17:24	28°♒11'04		min. Earth dist.	3344 Feb 05 15:30	13°♒29'11	0.66740 AU
morning max el	3343 Mar 17 16:59	0°♓05'36	26°46'42	morning rise	3344 Feb 09 20:22	8°♒40'25	
	3343 Mar 17 14:46	0°♓		direct	3344 Feb 15 21:40	5°♒59'25	
	3343 Apr 08 22:03	0°♔		morning max el	3344 Feb 28 02:07	13°♒15'02	25°34'58
morning set	3343 Apr 22 13:12	23°♔54'21		desc. node	3344 Mar 01 14:25	15°♒55'22	
	3343 Apr 25 16:35	0°♕			3344 Mar 12 15:39	0°♓	
max. Earth dist.	3343 Apr 26 21:17	2°♕22'40	1.34377 AU		3344 Mar 31 16:06	0°♔	
				morning set	3344 Apr 04 06:51	6°♔27'20	
superior conj	3343 May 01 04:00	11°♕06'40	0°-41'-37	max. Earth dist.	3344 Apr 08 01:45	13°♔29'42	1.36042 AU
minimum elong	3343 May 01 06:11	11°♕17'58	0°41'13				
asc. node	3343 May 05 06:17	19°♕41'46		superior conj	3344 Apr 13 20:14	24°♔45'00	-1°-10'-2
evening rise	3343 May 08 17:02	26°♕55'51		minimum elong	3344 Apr 13 23:53	25°♔03'13	1°09'26
	3343 May 10 04:42	0°♖			3344 Apr 16 10:41	0°♕	
evening max el	3343 May 28 05:51	28°♖38'22	21°13'46	asc. node	3344 Apr 21 03:19	9°♕35'27	
	3343 May 29 17:30	0°♗		evening rise	3344 Apr 21 22:46	11°♕14'25	
retrograde	3343 Jun 09 04:37	4°♗29'37			3344 May 01 23:45	0°♖	
evening set	3343 Jun 11 11:52	4°♗17'23		evening max el	3344 May 09 14:15	9°♖54'28	19°57'44
desc. node	3343 Jun 11 16:39	4°♗15'13		retrograde	3344 May 19 19:48	14°♖52'45	
inferior conj	3343 Jun 20 20:28	0°♗19'05	-2°-37'-36	evening set	3344 May 21 19:17	14°♖42'25	
minimum elong	3343 Jun 20 13:23	0°♗29'02	2°35'16	desc. node	3344 May 28 13:37	11°♖59'38	
min. Earth dist.	3343 Jun 21 04:52	0°♗07'18	0.54855 AU	inferior conj	3344 May 30 17:57	10°♖42'12	0°-38'-33
	3343 Jun 21 10:04	30°♖♖		minimum elong	3344 May 30 16:10	10°♖44'54	0°37'54
morning rise	3343 Jun 29 14:57	26°♖21'21		min. Earth dist.	3344 Jun 01 17:45	9°♖30'00	0.55334 AU
direct	3343 Jul 03 01:39	25°♖55'39		morning rise	3344 Jun 08 10:18	6°♖19'09	

direct	3344 Jun 12 15:16	5°II40'25		direct	3345 May 24 17:15	15°832'15	
morning max el	3344 Jun 26 09:42	12°II28'33	24°09'28	morning max el	3345 Jun 08 00:16	22°854'41	25°46'23
	3344 Jul 09 19:09	0°☿			3345 Jun 14 08:08	0°II	
asc. node	3344 Jul 18 02:35	15°☿19'32			3345 Jul 02 11:26	0°☿	
morning set	3344 Jul 21 02:36	21°☿31'58		asc. node	3345 Jul 04 23:36	5°☿09'26	
	3344 Jul 25 01:12	0°♂		morning set	3345 Jul 05 14:03	6°☿25'27	
superior conj	3344 Jul 28 03:14	6°♂42'15	1°28'12	superior conj	3345 Jul 12 14:00	21°☿37'36	1°12'23
minimum elong	3344 Jul 28 01:02	6°♂30'19	1°27'57	minimum elong	3345 Jul 12 11:39	21°☿24'40	1°12'01
max. Earth dist.	3344 Jul 30 02:21	10°♂56'21	1.33110 AU	max. Earth dist.	3345 Jul 13 10:44	23°☿31'22	1.32396 AU
evening rise	3344 Aug 04 13:06	22°♂19'01			3345 Jul 16 10:14	0°♂	
	3344 Aug 08 10:51	0°♍		evening rise	3345 Jul 19 15:35	6°♂49'08	
desc. node	3344 Aug 24 13:00	26°♍53'50			3345 Jul 31 23:15	0°♍	
	3344 Aug 26 18:11	0°♎		desc. node	3345 Aug 11 10:00	15°♍40'04	
evening max el	3344 Sep 06 23:27	13°♎08'52	27°26'12	evening max el	3345 Aug 20 06:51	25°♍47'06	27°14'07
retrograde	3344 Sep 20 14:40	20°♎25'41			3345 Aug 25 11:55	0°♎	
evening set	3344 Sep 27 18:25	17°♎48'31		retrograde	3345 Sep 03 02:54	3°♎01'13	
min. Earth dist.	3344 Oct 01 10:41	14°♎36'00	0.63624 AU	evening set	3345 Sep 10 06:34	0°♎40'05	
inferior conj	3344 Oct 04 00:59	11°♎57'57	-3°-10'-19		3345 Sep 11 06:00	30°♎♍	
minimum elong	3344 Oct 04 06:06	11°♎44'56	3°08'38	min. Earth dist.	3345 Sep 13 21:07	27°♎53'41	0.61763 AU
morning rise	3344 Oct 10 20:11	6°♎38'36		inferior conj	3345 Sep 16 22:22	25°♎09'00	-4°-5'-7
direct	3344 Oct 13 06:32	6°♎09'47		minimum elong	3345 Sep 17 04:07	24°♎56'01	4°03'42
asc. node	3344 Oct 14 01:46	6°♎12'59		morning rise	3345 Sep 24 04:39	20°♎09'50	
morning max el	3344 Oct 19 20:10	9°♎35'04	17°51'46	direct	3345 Sep 26 12:38	19°♎46'40	
	3344 Nov 02 11:54	0°♏		asc. node	3345 Sep 30 22:48	21°♎12'55	
morning set	3344 Nov 05 09:25	5°♏00'52		morning max el	3345 Oct 03 11:20	23°♎16'27	17°54'43
					3345 Oct 08 19:01	0°♎	
superior conj	3344 Nov 17 19:14	26°♏02'42	0°18'36	morning set	3345 Oct 19 07:02	18°♎05'37	
minimum elong	3344 Nov 17 21:12	26°♏10'46	0°18'18		3345 Oct 25 21:30	0°♏	
	3344 Nov 20 05:19	0°♐		superior conj	3345 Oct 29 22:58	7°♏07'04	0°56'23
desc. node	3344 Nov 20 12:19	0°♐28'23		minimum elong	3345 Oct 30 03:11	7°♏25'16	0°55'50
max. Earth dist.	3344 Nov 23 19:16	5°♐46'06	1.44222 AU	max. Earth dist.	3345 Nov 06 08:55	19°♏36'05	1.42760 AU
evening rise	3344 Dec 03 14:06	21°♐05'44		desc. node	3345 Nov 07 09:20	21°♏15'54	
	3344 Dec 09 10:11	0°♑			3345 Nov 12 20:16	0°♐	
greatest brilliancy	3344 Dec 26 12:33	24°♑40'08	-0.5m	evening rise	3345 Nov 13 03:47	0°♐29'33	
	3344 Dec 30 21:32	0°♒			3345 Dec 03 00:38	0°♑	
evening max el	3345 Jan 01 04:55	1°♒23'55	20°43'03	greatest brilliancy	3345 Dec 10 06:47	9°♑33'41	-0.3m
retrograde	3345 Jan 09 10:23	6°♒15'30		evening max el	3345 Dec 15 00:49	14°♑56'43	21°56'16
asc. node	3345 Jan 10 01:01	6°♒13'27		retrograde	3345 Dec 24 07:22	20°♑27'54	
evening set	3345 Jan 13 08:06	4°♒48'03		asc. node	3345 Dec 27 22:02	19°♑17'26	
	3345 Jan 17 17:22	30°♒♑		evening set	3345 Dec 28 15:55	18°♑44'43	
inferior conj	3345 Jan 18 18:09	28°♑35'50	2°37'29	inferior conj	3346 Jan 03 01:21	12°♑23'36	1°58'03
minimum elong	3345 Jan 18 15:37	28°♑44'30	2°36'47	minimum elong	3346 Jan 02 23:04	12°♑31'30	1°57'15
min. Earth dist.	3345 Jan 19 07:09	27°♑51'16	0.67513 AU	min. Earth dist.	3346 Jan 03 02:35	12°♑19'20	0.67892 AU
morning rise	3345 Jan 23 22:41	22°♑20'31		morning rise	3346 Jan 08 06:02	6°♑09'55	
direct	3345 Jan 29 09:35	19°♑56'53		direct	3346 Jan 13 01:52	4°♑08'04	
morning max el	3345 Feb 09 10:38	26°♑32'06	24°09'39	morning max el	3346 Jan 22 20:48	9°♑55'27	22°40'51
	3345 Feb 12 15:37	0°♒		greatest brilliancy	3346 Jan 27 11:12	15°♑03'15	-0.3m
desc. node	3345 Feb 16 11:28	4°♒36'44		desc. node	3346 Feb 03 08:32	23°♑59'07	
	3345 Mar 06 06:09	0°♓			3346 Feb 07 15:25	0°♒	
morning set	3345 Mar 17 03:49	17°♓56'36		morning set	3346 Feb 25 22:07	28°♒07'48	
max. Earth dist.	3345 Mar 20 22:22	24°♓35'34	1.38064 AU		3346 Feb 27 01:18	0°♓	
	3345 Mar 23 21:42	0°♔		max. Earth dist.	3346 Mar 02 18:09	6°♓13'34	1.40233 AU
superior conj	3345 Mar 28 00:37	7°♔44'37	-1°-36'00	superior conj	3346 Mar 10 12:51	19°♓55'19	-1°-56'-17
minimum elong	3345 Mar 28 05:10	8°♔06'23	1°35'27	minimum elong	3346 Mar 10 16:53	20°♓13'38	1°56'01
evening rise	3345 Apr 05 22:00	25°♔08'39			3346 Mar 15 23:38	0°♔	
asc. node	3345 Apr 08 00:20	29°♔15'04		evening rise	3346 Mar 20 11:39	8°♔30'53	
	3345 Apr 08 09:37	0°♕		asc. node	3346 Mar 25 21:21	18°♔35'29	
evening max el	3345 Apr 22 10:06	21°♕50'44	19°01'06		3346 Apr 01 22:00	0°♕	
retrograde	3345 May 01 01:00	26°♕02'46		evening max el	3346 Apr 05 14:55	4°♕22'27	18°24'43
evening set	3345 May 03 03:13	25°♕48'55		retrograde	3346 Apr 13 01:01	8°♕02'43	
inferior conj	3345 May 11 07:34	21°♕34'06	1°10'19	evening set	3346 Apr 15 09:11	7°♕41'50	
minimum elong	3345 May 11 10:13	21°♕29'29	1°09'25	inferior conj	3346 Apr 22 18:34	3°♕07'11	2°29'16
min. Earth dist.	3345 May 14 09:15	19°♕26'22	0.56676 AU	minimum elong	3346 Apr 22 22:20	2°♕59'28	2°28'17
desc. node	3345 May 15 10:38	18°♕45'02		min. Earth dist.	3346 Apr 26 05:12	0°♕19'42	0.58611 AU
morning rise	3345 May 19 12:54	16°♕35'40					

	3346 Apr 26 15:30	30° Υ		minimum elong	3347 Apr 05 04:17	15° Υ 12'03	3°15'44
morning rise	3346 Apr 30 07:15	27° Υ 37'15		min. Earth dist.	3347 Apr 08 07:31	12° Υ 15'24	0.60786 AU
desc. node	3346 May 02 07:40	26° Υ 43'31		morning rise	3347 Apr 11 21:02	9° Υ 27'06	
direct	3346 May 06 09:43	25° Υ 59'25		direct	3347 Apr 18 14:00	7° Υ 14'40	
	3346 May 16 11:58	0° Ξ		desc. node	3347 Apr 19 04:43	7° Υ 15'44	
morning max el	3346 May 20 19:10	3° Ξ 43'18	27°01'35	morning max el	3347 May 02 20:08	15° Υ 09'22	27°43'45
	3346 Jun 08 22:25	0° Π			3347 May 14 21:16	0° Ξ	
morning set	3346 Jun 19 23:38	21° Π 11'50			3347 Jun 01 09:23	0° Π	
asc. node	3346 Jun 21 20:39	25° Π 10'27		morning set	3347 Jun 04 05:29	5° Π 44'26	
	3346 Jun 24 02:10	0° Θ		asc. node	3347 Jun 08 17:42	15° Π 17'17	
				max. Earth dist.	3347 Jun 10 09:19	18° Π 52'46	1.32176 AU
superior conj	3346 Jun 27 01:49	6° Θ 33'39	0°52'29	superior conj	3347 Jun 11 12:56	21° Π 23'56	0°29'07
minimum elong	3346 Jun 26 23:47	6° Θ 22'26	0°52'06	minimum elong	3347 Jun 11 11:39	21° Π 16'55	0°28'52
max. Earth dist.	3346 Jun 26 22:19	6° Θ 14'19	1.32086 AU		3347 Jun 15 11:01	0° Θ	
evening rise	3346 Jul 03 23:19	21° Θ 33'02		evening rise	3347 Jun 18 10:05	6° Θ 23'03	
	3346 Jul 08 02:19	0° Ω			3347 Jun 30 19:25	0° Ω	
	3346 Jul 26 10:44	0° η		evening max el	3347 Jul 15 02:07	18° Ω 47'44	25°14'04
desc. node	3346 Jul 29 06:59	3° η 26'10		desc. node	3347 Jul 16 03:59	19° Ω 47'38	
evening max el	3346 Aug 02 08:02	7° η 40'44	26°28'47	retrograde	3347 Jul 29 01:40	25° Ω 53'15	
retrograde	3346 Aug 16 07:19	14° η 51'44		evening set	3347 Aug 03 17:31	24° Ω 39'27	
evening set	3346 Aug 22 23:44	12° η 59'54		min. Earth dist.	3347 Aug 08 13:56	21° Ω 57'30	0.57693 AU
min. Earth dist.	3346 Aug 26 21:29	10° η 24'56	0.59712 AU	inferior conj	3347 Aug 11 15:25	19° Ω 52'16	-5°-6'-48
inferior conj	3346 Aug 30 04:16	7° η 50'10	-4°-47'-48	minimum elong	3347 Aug 11 15:47	19° Ω 51'39	5°06'48
minimum elong	3346 Aug 30 08:45	7° η 41'20	4°47'11	morning rise	3347 Aug 19 17:37	15° Ω 38'26	
morning rise	3346 Sep 06 21:11	3° η 13'37		direct	3347 Aug 22 06:20	15° Ω 19'19	
direct	3346 Sep 09 05:57	2° η 53'32		morning max el	3347 Aug 31 00:46	19° Ω 27'27	19°00'26
morning max el	3346 Sep 16 21:58	6° η 37'05	18°17'07	asc. node	3347 Sep 04 16:56	24° Ω 56'54	
asc. node	3346 Sep 17 19:51	7° η 32'35			3347 Sep 08 00:22	0° η	
	3346 Oct 01 19:30	0° $\underline{\Delta}$		morning set	3347 Sep 16 16:37	16° η 04'53	
morning set	3346 Oct 02 18:50	1° $\underline{\Delta}$ 50'41			3347 Sep 23 18:14	0° $\underline{\Delta}$	
superior conj	3346 Oct 12 03:06	19° $\underline{\Delta}$ 22'41	1°22'46	superior conj	3347 Sep 25 02:19	2° $\underline{\Delta}$ 34'46	1°38'17
minimum elong	3346 Oct 12 06:53	19° $\underline{\Delta}$ 40'00	1°22'23	minimum elong	3347 Sep 25 04:32	2° $\underline{\Delta}$ 45'24	1°38'09
	3346 Oct 18 02:28	0° \mathbb{L}		max. Earth dist.	3347 Oct 01 21:27	15° $\underline{\Delta}$ 13'13	1.38807 AU
max. Earth dist.	3346 Oct 19 16:54	2° \mathbb{L} 45'10	1.40875 AU	evening rise	3347 Oct 05 18:58	22° $\underline{\Delta}$ 04'39	
evening rise	3346 Oct 24 11:33	10° \mathbb{L} 44'15			3347 Oct 10 12:02	0° \mathbb{L}	
desc. node	3346 Oct 25 06:21	12° \mathbb{L} 00'56		desc. node	3347 Oct 12 03:21	2° \mathbb{L} 39'59	
	3346 Nov 05 20:10	0° \mathcal{A}			3347 Oct 30 18:55	0° \mathcal{A}	
evening max el	3346 Nov 27 16:13	28° \mathcal{A} 31'56	23°15'34	evening max el	3347 Nov 10 05:14	12° \mathcal{A} 11'44	24°34'40
	3346 Nov 29 04:52	0° \mathcal{B}		retrograde	3347 Nov 21 16:08	18° \mathcal{A} 52'42	
retrograde	3346 Dec 08 01:41	4° \mathcal{B} 41'23		evening set	3347 Nov 27 02:58	16° \mathcal{A} 37'04	
evening set	3346 Dec 12 22:43	2° \mathcal{B} 41'50		asc. node	3347 Dec 01 16:08	11° \mathcal{A} 28'16	
asc. node	3346 Dec 14 19:04	0° \mathcal{B} 53'04		min. Earth dist.	3347 Dec 01 19:10	11° \mathcal{A} 18'13	0.67595 AU
	3346 Dec 15 13:15	30° \mathbb{R} \mathcal{A}		inferior conj	3347 Dec 02 15:28	10° \mathcal{A} 10'31	0°19'57
inferior conj	3346 Dec 18 09:02	26° \mathcal{A} 15'49	1°11'49	minimum elong	3347 Dec 02 14:58	10° \mathcal{A} 12'09	0°19'44
minimum elong	3346 Dec 18 07:27	26° \mathcal{A} 21'15	1°11'11	morning rise	3347 Dec 08 03:23	4° \mathcal{A} 06'30	
min. Earth dist.	3346 Dec 17 23:23	26° \mathcal{A} 49'00	0.67913 AU	direct	3347 Dec 11 19:37	2° \mathcal{A} 48'56	
morning rise	3346 Dec 23 16:15	20° \mathcal{A} 05'47		morning max el	3347 Dec 19 10:45	7° \mathcal{A} 09'41	20°04'21
direct	3346 Dec 27 21:37	18° \mathcal{A} 26'44		greatest brilliancy	3347 Dec 26 09:58	15° \mathcal{A} 34'23	-0.6m
morning max el	3347 Jan 05 11:59	23° \mathcal{A} 26'53	21°17'03		3348 Jan 05 10:05	0° \mathcal{B}	
greatest brilliancy	3347 Jan 10 16:27	29° \mathcal{A} 22'33	-0.4m	desc. node	3348 Jan 08 02:37	4° \mathcal{B} 02'53	
	3347 Jan 11 04:19	0° \mathcal{B}		morning set	3348 Jan 15 08:14	15° \mathcal{B} 06'30	
desc. node	3347 Jan 21 05:34	13° \mathcal{B} 50'25			3348 Jan 24 20:28	0° \approx	
	3347 Feb 01 00:23	0° \approx		max. Earth dist.	3348 Jan 26 04:36	2° \approx 08'06	1.43905 AU
morning set	3347 Feb 05 11:43	6° \approx 58'03		superior conj	3348 Jan 31 17:08	11° \approx 03'41	-2°-1'-13
max. Earth dist.	3347 Feb 12 19:18	18° \approx 43'37	1.42272 AU	minimum elong	3348 Jan 31 12:30	10° \approx 44'46	2°01'03
	3347 Feb 19 12:44	0° \mathcal{H}			3348 Feb 12 00:00	0° \mathcal{H}	
superior conj	3347 Feb 20 03:44	1° \mathcal{H} 04'20	-2°-6'-27	evening rise	3348 Feb 13 18:18	3° \mathcal{H} 01'52	
minimum elong	3347 Feb 20 04:43	1° \mathcal{H} 08'33	2°06'27	asc. node	3348 Feb 27 15:26	25° \mathcal{H} 48'42	
evening rise	3347 Mar 03 11:51	21° \mathcal{H} 11'19			3348 Mar 02 00:41	0° Υ	
	3347 Mar 08 09:20	0° Υ		evening max el	3348 Mar 02 13:53	0° Υ 34'04	18°10'57
asc. node	3347 Mar 12 18:23	7° Υ 29'23		retrograde	3348 Mar 09 00:21	3° Υ 58'04	
evening max el	3347 Mar 20 01:14	17° Υ 19'41	18°08'12	evening set	3348 Mar 11 20:05	3° Υ 17'08	
retrograde	3347 Mar 26 18:10	20° Υ 44'23			3348 Mar 16 03:20	30° \mathbb{R} \mathcal{H}	
evening set	3347 Mar 29 08:19	20° Υ 14'09		inferior conj	3348 Mar 18 01:10	28° \mathcal{H} 00'47	3°36'34
inferior conj	3347 Apr 05 01:39	15° Υ 18'18	3°16'09				

minimum elong	3348 Mar 18 01:58	27° K 58'37	3°36'32	evening max el	3349 Feb 14 01:58	13° K 58'06	18°32'20
min. Earth dist.	3348 Mar 20 18:20	25° K 06'45	0.62881 AU	retrograde	3349 Feb 20 15:14	17° K 34'22	
morning rise	3348 Mar 24 05:44	21° K 56'53		evening set	3349 Feb 23 16:40	16° K 41'55	
direct	3348 Mar 31 03:26	19° K 19'22		inferior conj	3349 Mar 01 13:01	11° K 06'44	3°37'02
desc. node	3348 Apr 05 01:47	20° K 29'24		minimum elong	3349 Mar 01 12:13	11° K 09'10	3°37'00
morning max el	3348 Apr 14 02:33	27° K 16'46	27°48'31	min. Earth dist.	3349 Mar 03 14:43	8° K 39'33	0.64681 AU
	3348 Apr 16 16:26	0° Y		morning rise	3349 Mar 07 06:23	4° K 55'46	
	3348 May 07 13:27	0° B		direct	3349 Mar 14 00:23	2° K 06'43	
morning set	3348 May 18 05:27	19° B 56'35		desc. node	3349 Mar 22 22:50	5° K 54'28	
	3348 May 23 01:58	0° II		morning max el	3349 Mar 27 12:05	9° K 58'25	27°18'01
max. Earth dist.	3348 May 23 16:02	1° II 14'56	1.32683 AU		3349 Apr 12 05:44	0° Y	
					3349 Apr 29 23:06	0° B	
superior conj	3348 May 25 21:35	6° II 02'45	0°03'01	morning set	3349 May 01 20:48	3° B 39'59	
minimum elong	3348 May 25 21:26	6° II 01'59	0°02'58	max. Earth dist.	3349 May 06 14:34	13° B 09'46	1.33626 AU
behind sun begin	3348 May 25 16:17	5° II 34'07					
behind sun end	3348 May 26 02:35	6° II 29'53		superior conj	3349 May 10 01:49	20° B 24'04	0°-25'-2
asc. node	3348 May 25 14:44	5° II 25'48		minimum elong	3349 May 10 03:06	20° B 30'51	0°24'47
evening rise	3348 Jun 01 21:58	21° II 12'44		asc. node	3349 May 12 11:47	25° B 32'10	
	3348 Jun 06 04:21	0° S			3349 May 14 13:57	0° II	
evening max el	3348 Jun 25 15:35	29° S 20'27	23°40'51	evening rise	3349 May 17 09:06	5° II 55'55	
	3348 Jun 26 08:19	0° Q			3349 May 30 09:52	0° S	
desc. node	3348 Jul 02 01:01	4° Q 11'56		evening max el	3349 Jun 07 07:23	9° S 48'34	22°04'48
retrograde	3348 Jul 09 07:32	6° Q 11'39		desc. node	3349 Jun 18 22:02	16° S 04'40	
evening set	3348 Jul 13 12:33	5° Q 32'47		retrograde	3349 Jun 20 01:48	16° S 07'46	
min. Earth dist.	3348 Jul 20 01:44	2° Q 27'31	0.56019 AU	evening set	3349 Jun 22 21:39	15° S 49'58	
inferior conj	3348 Jul 22 06:21	1° Q 08'31	-4°-46'-54	min. Earth dist.	3349 Jul 01 12:33	12° S 07'51	0.55021 AU
minimum elong	3348 Jul 22 00:51	1° Q 16'48	4°46'09	inferior conj	3349 Jul 02 04:59	11° S 44'48	-3°-37'-31
	3348 Jul 24 04:38	30° R S		minimum elong	3349 Jul 01 20:39	11° S 56'30	3°35'16
morning rise	3348 Jul 30 16:25	27° S 12'47		morning rise	3349 Jul 10 21:29	7° S 53'51	
direct	3348 Aug 02 11:34	26° S 53'09		direct	3349 Jul 14 00:59	7° S 31'52	
	3348 Aug 10 18:32	0° Q		morning max el	3349 Jul 25 21:24	13° S 03'54	21°30'36
morning max el	3348 Aug 12 16:54	1° Q 37'46	20°05'27		3349 Aug 07 07:34	0° Q	
asc. node	3348 Aug 21 14:00	13° Q 11'05		asc. node	3349 Aug 08 11:03	2° Q 03'20	
morning set	3348 Aug 30 21:08	0° P 38'46		morning set	3349 Aug 15 05:56	15° Q 25'31	
	3348 Aug 30 13:29	0° P			3349 Aug 22 04:30	0° P	
superior conj	3348 Sep 07 15:23	16° P 28'00	1°44'30	superior conj	3349 Aug 22 14:11	0° P 50'26	1°43'01
minimum elong	3348 Sep 07 15:52	16° P 30'25	1°44'29	minimum elong	3349 Aug 22 13:14	0° P 45'31	1°42'58
max. Earth dist.	3348 Sep 13 03:10	27° P 12'46	1.36802 AU	max. Earth dist.	3349 Aug 26 14:53	9° P 05'34	1.35063 AU
	3348 Sep 14 14:38	0° A		evening rise	3349 Aug 30 23:38	17° P 38'22	
evening rise	3348 Sep 17 00:23	4° A 26'08			3349 Sep 06 18:31	0° A	
desc. node	3348 Sep 28 00:22	23° A 08'06		desc. node	3349 Sep 14 21:23	13° A 19'37	
	3348 Oct 02 10:59	0° M			3349 Sep 26 17:51	0° M	
evening max el	3348 Oct 22 17:32	25° M 53'37	25°46'29	evening max el	3349 Oct 05 05:54	9° M 31'44	26°43'30
	3348 Oct 27 13:24	0° J		retrograde	3349 Oct 18 06:24	16° M 46'49	
retrograde	3348 Nov 04 01:52	2° J 56'33		evening set	3349 Oct 24 20:36	14° M 07'26	
evening set	3348 Nov 10 02:56	0° J 26'44		min. Earth dist.	3349 Oct 28 21:57	10° M 00'35	0.65926 AU
	3348 Nov 10 15:09	30° R M		inferior conj	3349 Oct 30 17:00	7° M 53'33	-1°-35'-49
min. Earth dist.	3348 Nov 14 11:28	25° M 43'24	0.66937 AU	minimum elong	3349 Oct 30 19:38	7° M 45'47	1°34'44
inferior conj	3348 Nov 15 18:47	24° M 04'14	0°-36'-24	asc. node	3349 Nov 04 10:15	3° M 03'53	
minimum elong	3348 Nov 15 19:44	24° M 01'13	0°36'00	morning rise	3349 Nov 05 20:08	2° M 09'49	
asc. node	3348 Nov 17 13:12	21° M 53'12		direct	3349 Nov 08 15:47	1° M 25'39	
morning rise	3348 Nov 21 13:25	18° M 08'55		morning max el	3349 Nov 15 05:49	5° M 00'33	18°23'45
direct	3348 Nov 24 18:19	17° M 09'53			3349 Dec 02 10:22	0° J	
morning max el	3348 Dec 01 17:17	21° M 02'22	19°06'03	morning set	3349 Dec 04 18:50	3° J 47'27	
	3348 Dec 08 21:35	0° J		desc. node	3349 Dec 11 20:40	15° J 07'34	
morning set	3348 Dec 24 12:26	23° J 46'19					
desc. node	3348 Dec 24 23:39	24° J 30'03		superior conj	3349 Dec 20 08:06	28° J 31'08	0°-55'-27
	3348 Dec 28 12:17	0° S		minimum elong	3349 Dec 20 01:10	28° J 03'55	0°54'34
max. Earth dist.	3349 Jan 07 20:24	16° S 11'21	1.44925 AU		3349 Dec 21 06:44	0° S	
				max. Earth dist.	3349 Dec 21 15:11	0° S 33'09	1.45224 AU
superior conj	3349 Jan 10 06:13	19° S 59'30	-1°-36'-46	evening rise	3350 Jan 05 12:21	23° S 54'10	
minimum elong	3349 Jan 09 21:14	19° S 24'01	1°35'57		3350 Jan 09 09:18	0° S	
	3349 Jan 16 12:58	0° S		greatest brilliancy	3350 Jan 18 15:45	14° S 23'54	-0.7m
evening rise	3349 Jan 25 02:57	13° S 56'00		evening max el	3350 Jan 28 11:05	27° S 26'32	19°11'11
	3349 Feb 03 23:18	0° K		asc. node	3350 Jan 31 09:30	29° S 58'34	
asc. node	3349 Feb 13 12:28	13° K 22'50			3350 Jan 31 10:21	0° K	

retrograde	3350 Feb 04 11:01	1° ✕ 25'53			3351 Jan 02 23:36	0° ≈	
evening set	3350 Feb 07 19:05	0° ✕ 20'56		greatest brilliancy	3351 Jan 04 23:04	2° ≈ 45'19	-0.6m
	3350 Feb 08 07:12	30° ℞		evening max el	3351 Jan 11 15:40	10° ≈ 57'38	20°05'42
inferior conj	3350 Feb 13 09:39	24° ≈ 29'17	3°22'34	asc. node	3351 Jan 18 06:32	15° ≈ 21'51	
minimum elong	3350 Feb 13 07:44	24° ≈ 35'26	3°22'17	retrograde	3351 Jan 19 08:53	15° ≈ 28'27	
min. Earth dist.	3350 Feb 14 20:04	22° ≈ 39'10	0.66100 AU	evening set	3351 Jan 23 01:03	14° ≈ 09'48	
morning rise	3350 Feb 18 19:28	18° ≈ 14'42		inferior conj	3351 Jan 28 12:11	8° ≈ 04'20	2°56'40
direct	3350 Feb 25 03:52	15° ≈ 27'29		minimum elong	3351 Jan 28 09:44	8° ≈ 12'37	2°56'05
desc. node	3350 Mar 09 19:52	22° ≈ 55'58		min. Earth dist.	3351 Jan 29 08:39	6° ≈ 55'28	0.67113 AU
morning max el	3350 Mar 09 21:58	23° ≈ 01'17	26°18'39	morning rise	3351 Feb 02 17:48	1° ≈ 48'37	
	3350 Mar 16 02:27	0° ✕			3351 Feb 05 08:01	30° ℞	
	3350 Apr 05 13:16	0° ℣		direct	3351 Feb 08 13:09	29° ≈ 13'59	
morning set	3350 Apr 14 23:43	16° ℣ 42'27			3351 Feb 12 00:25	0° ≈	
max. Earth dist.	3350 Apr 19 01:41	24° ℣ 31'13	1.35027 AU	morning max el	3351 Feb 20 06:43	6° ≈ 14'40	24°59'43
	3350 Apr 21 19:58	0° ♄		desc. node	3351 Feb 24 16:53	11° ≈ 06'57	
					3351 Mar 10 16:50	0° ✕	
superior conj	3350 Apr 23 23:10	4° ♄ 19'49	0°-53'-48	morning set	3351 Mar 28 09:19	28° ✕ 50'22	
minimum elong	3350 Apr 24 02:00	4° ♄ 34'17	0°53'18		3351 Mar 29 00:53	0° ℣	
asc. node	3350 Apr 29 08:48	15° ♄ 31'26		max. Earth dist.	3351 Apr 01 01:41	5° ℣ 31'45	1.36861 AU
evening rise	3350 May 01 17:23	20° ♄ 24'56					
	3350 May 06 12:14	0° ♄		superior conj	3351 Apr 07 10:48	17° ℣ 42'33	-1°-21'-31
evening max el	3350 May 20 08:42	20° ♄ 41'53	20°39'15	minimum elong	3351 Apr 07 14:56	18° ℣ 02'52	1°20'54
retrograde	3350 May 31 14:51	26° ♄ 11'25			3351 Apr 13 14:21	0° ♄	
evening set	3350 Jun 02 16:39	26° ♄ 00'58		evening rise	3351 Apr 15 20:39	4° ♄ 33'31	
desc. node	3350 Jun 05 19:04	25° ♄ 09'42		asc. node	3351 Apr 16 05:49	5° ♄ 19'29	
inferior conj	3350 Jun 11 22:36	22° ♄ 03'34	-1°-48'00		3351 Apr 30 19:50	0° ♄	
minimum elong	3350 Jun 11 17:32	22° ♄ 10'51	1°46'11	evening max el	3351 May 02 22:13	2° ♄ 15'17	19°31'16
min. Earth dist.	3350 Jun 13 00:41	21° ♄ 26'06	0.54937 AU	retrograde	3351 May 12 10:32	6° ♄ 52'10	
morning rise	3350 Jun 20 17:13	17° ♄ 56'53		evening set	3351 May 14 10:18	6° ♄ 40'56	
direct	3350 Jun 24 10:24	17° ♄ 27'09		inferior conj	3351 May 23 01:45	2° ♄ 36'04	0°10'27
morning max el	3350 Jul 07 16:15	23° ♄ 50'16	23°10'02	minimum elong	3351 May 23 02:12	2° ♄ 35'20	0°10'18
	3350 Jul 13 05:52	0° ♄		transit middle	3351 May 23 02:12	2° ♄ 35'20	0°10'18
asc. node	3350 Jul 26 08:04	21° ♄ 23'30		transit begin	3351 May 22 23:13	2° ♄ 40'07	
morning set	3350 Jul 30 17:04	0° ♄ 18'40		transit end	3351 May 23 05:11	2° ♄ 30'33	
	3350 Jul 30 13:30	0° ♄		desc. node	3351 May 23 16:04	2° ♄ 13'05	
				min. Earth dist.	3351 May 25 14:49	0° ♄ 58'45	0.55811 AU
superior conj	3350 Aug 06 19:29	15° ♄ 31'34	1°35'10		3351 May 27 05:57	30° ℞	
minimum elong	3350 Aug 06 17:36	15° ♄ 21'28	1°35'00	morning rise	3351 May 31 14:22	27° ♄ 57'58	
max. Earth dist.	3350 Aug 09 11:22	21° ♄ 10'39	1.33703 AU	direct	3351 Jun 05 05:04	27° ♄ 09'59	
	3350 Aug 13 18:24	0° ♄			3351 Jun 13 22:17	0° ♄	
evening rise	3350 Aug 14 12:16	1° ♄ 29'02		morning max el	3351 Jun 19 06:23	4° ♄ 15'09	24°52'15
	3350 Aug 30 17:00	0° ♄			3351 Jul 07 12:53	0° ♄	
desc. node	3350 Sep 01 18:24	3° ♄ 06'42		asc. node	3351 Jul 13 05:05	11° ♄ 04'11	
evening max el	3350 Sep 17 17:55	22° ♄ 56'47	27°18'35	morning set	3351 Jul 15 04:51	15° ♄ 13'16	
	3350 Sep 28 22:46	0° ♄					
retrograde	3350 Oct 01 05:22	0° ♄ 15'21		superior conj	3351 Jul 22 04:51	0° ♄ 23'36	1°22'02
	3350 Oct 03 10:10	30° ℞		minimum elong	3351 Jul 22 02:31	0° ♄ 10'54	1°21'44
evening set	3350 Oct 08 05:32	27° ♄ 34'18			3351 Jul 22 00:31	0° ♄	
min. Earth dist.	3350 Oct 12 00:31	24° ♄ 03'00	0.64557 AU	max. Earth dist.	3351 Jul 23 16:09	3° ♄ 35'40	1.32758 AU
inferior conj	3350 Oct 14 07:51	21° ♄ 33'44	-2°-36'-15	evening rise	3351 Jul 29 10:37	15° ♄ 47'38	
minimum elong	3350 Oct 14 12:10	21° ♄ 22'05	2°34'40		3351 Aug 05 18:31	0° ♄	
morning rise	3350 Oct 20 20:54	16° ♄ 04'35		desc. node	3351 Aug 19 15:24	22° ♄ 19'00	
asc. node	3350 Oct 22 07:17	15° ♄ 37'40			3351 Aug 25 14:30	0° ♄	
direct	3350 Oct 23 09:45	15° ♄ 31'19		evening max el	3351 Aug 31 03:54	5° ♄ 56'25	27°25'08
morning max el	3350 Oct 29 21:44	18° ♄ 58'03	17°58'22	retrograde	3351 Sep 13 21:49	13° ♄ 12'32	
	3350 Nov 07 01:52	0° ♄		evening set	3351 Sep 21 02:25	10° ♄ 40'49	
morning set	3350 Nov 16 06:17	15° ♄ 14'24		min. Earth dist.	3351 Sep 24 17:21	7° ♄ 40'24	0.62860 AU
	3350 Nov 25 03:07	0° ♄		inferior conj	3351 Sep 27 12:33	4° ♄ 57'54	-3°-34'-33
desc. node	3350 Nov 28 17:42	5° ♄ 51'54		minimum elong	3351 Sep 27 18:06	4° ♄ 44'27	3°32'54
					3351 Oct 03 22:59	30° ℞	
superior conj	3350 Nov 29 20:00	7° ♄ 37'48	0°-7'-29	morning rise	3351 Oct 04 12:27	29° ♄ 46'34	
minimum elong	3350 Nov 29 19:06	7° ♄ 34'10	0°07'23	direct	3351 Oct 06 21:18	29° ♄ 20'36	
behind sun begin	3350 Nov 29 09:46	6° ♄ 56'39		asc. node	3351 Oct 09 04:19	29° ♄ 45'31	
behind sun end	3350 Nov 30 04:26	8° ♄ 11'39			3351 Oct 09 18:31	0° ♄	
max. Earth dist.	3350 Dec 04 09:56	14° ♄ 55'48	1.44784 AU	morning max el	3351 Oct 13 14:01	2° ♄ 47'08	17°50'39
	3350 Dec 14 01:33	0° ♄		morning set	3351 Oct 29 17:20	27° ♄ 49'06	
evening rise	3350 Dec 16 03:14	3° ♄ 11'40			3351 Oct 30 22:58	0° ♄	

superior conj	3351 Nov 10 08:08	17° \mathbb{M} 56'11	0°35'57			3352 Oct 22 05:03	0° \mathbb{M}	
minimum elong	3351 Nov 10 11:28	18° \mathbb{M} 10'12	0°35'29	max. Earth dist.		3352 Oct 29 13:50	12° \mathbb{M} 37'55	1.42007 AU
desc. node	3351 Nov 15 14:43	26° \mathbb{M} 39'01		desc. node		3352 Nov 01 11:45	17° \mathbb{M} 25'57	
max. Earth dist.	3351 Nov 17 02:05	29° \mathbb{M} 02'12	1.43665 AU	evening rise		3352 Nov 04 08:51	22° \mathbb{M} 04'34	
	3351 Nov 17 16:26	0° \mathbb{A}				3352 Nov 09 10:04	0° \mathbb{A}	
evening rise	3351 Nov 25 12:35	12° \mathbb{A} 21'32				3352 Nov 30 09:50	0° \mathbb{B}	
	3351 Dec 07 04:44	0° \mathbb{B}		greatest brilliancy		3352 Dec 02 13:29	2° \mathbb{B} 40'42	-0.3m
greatest brilliancy	3351 Dec 20 11:32	18° \mathbb{B} 32'57	-0.4m	evening max el		3352 Dec 07 08:47	8° \mathbb{B} 04'02	22°29'33
evening max el	3351 Dec 25 14:49	24° \mathbb{B} 29'57	21°13'11	retrograde		3352 Dec 17 02:28	13° \mathbb{B} 51'14	
retrograde	3352 Jan 03 06:34	29° \mathbb{B} 37'55		evening set		3352 Dec 21 16:15	12° \mathbb{B} 01'03	
asc. node	3352 Jan 05 03:34	29° \mathbb{B} 18'38		asc. node		3352 Dec 22 00:36	11° \mathbb{B} 43'22	
evening set	3352 Jan 07 08:39	28° \mathbb{B} 04'05		inferior conj		3352 Dec 27 01:55	5° \mathbb{B} 37'32	1°39'10
inferior conj	3352 Jan 12 18:16	21° \mathbb{B} 47'53	2°21'40	minimum elong		3352 Dec 26 23:53	5° \mathbb{B} 44'35	1°38'24
minimum elong	3352 Jan 12 15:47	21° \mathbb{B} 56'27	2°20'53	min. Earth dist.		3352 Dec 26 22:26	5° \mathbb{B} 49'36	0.67955 AU
min. Earth dist.	3352 Jan 13 02:13	21° \mathbb{B} 20'29	0.67725 AU			3352 Dec 31 15:48	30° \mathbb{R} \mathbb{A}	
morning rise	3352 Jan 17 22:34	15° \mathbb{B} 33'01		morning rise		3353 Jan 01 07:25	29° \mathbb{A} 25'22	
direct	3352 Jan 23 03:10	13° \mathbb{B} 18'02		direct		3353 Jan 05 21:04	27° \mathbb{A} 33'13	
morning max el	3352 Feb 02 15:17	19° \mathbb{B} 33'08	23°31'38			3353 Jan 11 18:30	0° \mathbb{B}	
	3352 Feb 11 11:45	0° \mathbb{A}		morning max el		3353 Jan 15 03:08	2° \mathbb{B} 59'08	22°04'06
desc. node	3352 Feb 11 13:56	0° \mathbb{A} 07'09		greatest brilliancy		3353 Jan 19 18:22	8° \mathbb{B} 10'59	-0.4m
	3352 Mar 02 21:12	0° \mathbb{H}		desc. node		3353 Jan 28 11:00	19° \mathbb{B} 42'43	
morning set	3352 Mar 08 19:29	9° \mathbb{H} 47'04				3353 Feb 04 13:13	0° \mathbb{A}	
max. Earth dist.	3352 Mar 12 20:32	16° \mathbb{H} 45'08	1.38988 AU	morning set		3353 Feb 17 01:11	19° \mathbb{A} 21'34	
				max. Earth dist.		3353 Feb 22 18:34	28° \mathbb{A} 45'53	1.41143 AU
						3353 Feb 23 12:13	0° \mathbb{H}	
superior conj	3352 Mar 20 08:52	0° \mathbb{Y} 22'27	-1°-45'-33					
minimum elong	3352 Mar 20 13:26	0° \mathbb{Y} 43'50	1°45'05					
	3352 Mar 20 04:04	0° \mathbb{Y}		superior conj		3353 Mar 02 12:39	12° \mathbb{H} 08'07	-2°-2'-8
evening rise	3352 Mar 29 16:10	18° \mathbb{Y} 14'21		minimum elong		3353 Mar 02 15:45	12° \mathbb{H} 21'51	2°02'01
asc. node	3352 Apr 02 02:51	24° \mathbb{Y} 51'15				3353 Mar 12 07:28	0° \mathbb{Y}	
	3352 Apr 04 21:44	0° \mathbb{B}		evening rise		3353 Mar 13 00:36	1° \mathbb{Y} 19'38	
evening max el	3352 Apr 14 22:19	14° \mathbb{B} 27'21	18°43'11	asc. node		3353 Mar 19 23:54	14° \mathbb{Y} 01'00	
retrograde	3352 Apr 22 23:17	18° \mathbb{B} 23'24		evening max el		3353 Mar 29 05:51	27° \mathbb{Y} 10'26	18°15'14
evening set	3352 Apr 25 04:06	18° \mathbb{B} 06'48				3353 Apr 02 03:58	0° \mathbb{B}	
inferior conj	3352 May 03 00:10	13° \mathbb{B} 43'57	1°47'55	retrograde		3353 Apr 05 07:09	0° \mathbb{B} 42'14	
minimum elong	3352 May 03 03:40	13° \mathbb{B} 37'24	1°46'50	evening set		3353 Apr 07 18:00	0° \mathbb{B} 17'28	
min. Earth dist.	3352 May 06 07:45	11° \mathbb{B} 16'48	0.57450 AU			3353 Apr 08 12:30	30° \mathbb{R} \mathbb{Y}	
desc. node	3352 May 09 13:05	9° \mathbb{B} 13'45		inferior conj		3353 Apr 14 20:03	25° \mathbb{Y} 33'24	2°52'51
morning rise	3352 May 10 22:50	8° \mathbb{B} 31'29		minimum elong		3353 Apr 14 23:30	25° \mathbb{Y} 25'50	2°52'06
direct	3352 May 16 13:31	7° \mathbb{B} 13'57		min. Earth dist.		3353 Apr 18 05:50	22° \mathbb{Y} 36'30	0.59527 AU
morning max el	3352 May 30 22:01	14° \mathbb{B} 46'26	26°21'53	morning rise		3353 Apr 22 01:13	19° \mathbb{Y} 53'17	
	3352 Jun 12 02:47	0° \mathbb{I}		desc. node		3353 Apr 26 10:09	18° \mathbb{Y} 11'46	
morning set	3352 Jun 28 15:43	0° \mathbb{B} 04'14		direct		3353 Apr 28 10:54	18° \mathbb{Y} 00'28	
	3352 Jun 28 14:55	0° \mathbb{B}		morning max el		3353 May 12 19:27	25° \mathbb{Y} 49'16	27°24'12
asc. node	3352 Jun 29 02:08	0° \mathbb{B} 59'16				3353 May 16 16:56	0° \mathbb{B}	
						3353 Jun 05 12:12	0° \mathbb{I}	
superior conj	3352 Jul 05 16:17	15° \mathbb{B} 19'56	1°04'25	morning set		3353 Jun 12 23:57	14° \mathbb{I} 45'13	
minimum elong	3352 Jul 05 14:01	15° \mathbb{B} 07'24	1°04'02	asc. node		3353 Jun 15 23:10	21° \mathbb{I} 02'55	
max. Earth dist.	3352 Jul 06 02:27	16° \mathbb{B} 15'51	1.32216 AU	max. Earth dist.		3353 Jun 19 14:27	28° \mathbb{I} 59'04	1.32073 AU
	3352 Jul 12 10:54	0° \mathbb{Q}						
evening rise	3352 Jul 12 15:39	0° \mathbb{Q} 24'52		superior conj		3353 Jun 20 03:59	0° \mathbb{B} 13'39	0°42'58
	3352 Jul 28 20:44	0° \mathbb{P}		minimum elong		3353 Jun 20 02:13	0° \mathbb{B} 03'56	0°42'37
desc. node	3352 Aug 05 12:24	10° \mathbb{P} 42'28				3353 Jun 20 01:30	0° \mathbb{B}	
evening max el	3352 Aug 12 09:15	18° \mathbb{P} 18'05	26°58'57	evening rise		3353 Jun 27 00:55	15° \mathbb{B} 11'53	
retrograde	3352 Aug 26 06:47	25° \mathbb{P} 30'04				3353 Jul 04 10:30	0° \mathbb{Q}	
evening set	3352 Sep 02 07:09	23° \mathbb{P} 20'16		desc. node		3353 Jul 23 09:25	27° \mathbb{Q} 55'56	
min. Earth dist.	3352 Sep 05 23:30	20° \mathbb{P} 40'39	0.60905 AU			3353 Jul 25 11:08	0° \mathbb{P}	
inferior conj	3352 Sep 09 03:53	17° \mathbb{P} 58'15	-4°-25'-17	evening max el		3353 Jul 25 07:23	29° \mathbb{Q} 51'05	26°00'09
minimum elong	3352 Sep 09 09:24	17° \mathbb{P} 46'28	4°24'10	retrograde		3353 Aug 08 06:51	6° \mathbb{P} 59'52	
morning rise	3352 Sep 16 14:46	13° \mathbb{P} 08'06		evening set		3353 Aug 14 14:46	5° \mathbb{P} 23'28	
direct	3352 Sep 18 22:46	12° \mathbb{P} 46'26		min. Earth dist.		3353 Aug 18 19:49	2° \mathbb{P} 48'12	0.58835 AU
asc. node	3352 Sep 25 01:22	15° \mathbb{P} 21'25		inferior conj		3353 Aug 22 02:10	0° \mathbb{P} 23'37	-4°-59'-37
morning max el	3352 Sep 26 03:39	16° \mathbb{P} 20'56	18°01'43	minimum elong		3353 Aug 22 05:15	0° \mathbb{P} 17'52	4°59'21
	3352 Oct 05 17:23	0° \mathbb{A}				3353 Aug 22 14:56	30° \mathbb{R} \mathbb{Q}	
morning set	3352 Oct 11 21:42	11° \mathbb{A} 13'28		morning rise		3353 Aug 29 23:14	25° \mathbb{Q} 57'03	
				direct		3353 Sep 01 09:29	25° \mathbb{Q} 37'29	
superior conj	3352 Oct 21 22:52	29° \mathbb{A} 32'43	1°08'58	morning max el		3353 Sep 09 11:21	29° \mathbb{Q} 29'35	18°32'58
minimum elong	3352 Oct 22 03:09	29° \mathbb{A} 51'35	1°08'28			3353 Sep 09 23:44	0° \mathbb{P}	

asc. node	3353 Sep 11 22:26	2°♎10'07		asc. node	3354 Aug 29 19:29	19°♏56'39	
morning set	3353 Sep 25 14:13	25°♎12'11			3354 Sep 04 17:01	0°♎	
	3353 Sep 28 01:43	0°♏		morning set	3354 Sep 09 15:09	9°♎34'58	
superior conj	3353 Oct 04 11:52	12°♏14'27	1°30'36	superior conj	3354 Sep 17 17:32	25°♎45'26	1°41'57
minimum elong	3353 Oct 04 15:03	12°♏29'19	1°30'19	minimum elong	3354 Sep 17 18:59	25°♎52'35	1°41'53
max. Earth dist.	3353 Oct 11 20:24	25°♏30'38	1.40007 AU		3354 Sep 19 22:02	0°♏	
	3353 Oct 14 11:02	0°♎		max. Earth dist.	3354 Sep 24 00:19	7°♏42'00	1.37927 AU
evening rise	3353 Oct 16 02:30	2°♎46'20		evening rise	3354 Sep 27 19:38	14°♏33'06	
desc. node	3353 Oct 19 08:46	8°♎08'44		desc. node	3354 Oct 06 05:47	28°♏43'23	
	3353 Nov 02 17:03	0°♏			3354 Oct 07 00:57	0°♎	
evening max el	3353 Nov 19 22:50	21°♏40'44	23°49'32		3354 Oct 28 12:14	0°♏	
retrograde	3353 Nov 30 19:18	28°♏04'34		evening max el	3354 Nov 02 11:09	5°♏20'52	25°06'31
evening set	3353 Dec 05 22:13	25°♏57'45		retrograde	3354 Nov 14 08:00	12°♏13'17	
asc. node	3353 Dec 08 21:40	22°♏48'25		evening set	3354 Nov 20 00:53	9°♏51'05	
inferior conj	3353 Dec 11 09:18	19°♏30'54	0°50'25	min. Earth dist.	3354 Nov 24 13:38	4°♏47'08	0.67354 AU
minimum elong	3353 Dec 11 08:08	19°♏34'52	0°49'56	inferior conj	3354 Nov 25 14:38	3°♏25'23	0°-3'-29
min. Earth dist.	3353 Dec 10 19:02	20°♏19'26	0.67825 AU	minimum elong	3354 Nov 25 14:43	3°♏25'06	0°03'28
morning rise	3353 Dec 16 18:17	13°♏23'22		transit middle	3354 Nov 25 14:43	3°♏25'06	0°03'28
direct	3353 Dec 20 17:49	11°♏53'56		transit begin	3354 Nov 25 12:00	3°♏33'59	
morning max el	3353 Dec 28 21:33	16°♏35'55	20°44'31	transit end	3354 Nov 25 17:26	3°♏16'14	
greatest brilliancy	3354 Jan 03 16:56	23°♏22'01	-0.5m	asc. node	3354 Nov 25 18:43	3°♏12'00	
	3354 Jan 08 14:37	0°♏			3354 Nov 28 08:52	30°♎	
desc. node	3354 Jan 15 08:02	9°♏43'42		morning rise	3354 Dec 01 05:11	27°♎24'45	
morning set	3354 Jan 27 05:13	27°♏47'10		direct	3354 Dec 04 16:14	26°♎15'41	
	3354 Jan 28 15:15	0°♏			3354 Dec 11 14:17	0°♏	
max. Earth dist.	3354 Feb 04 23:36	11°♏41'50	1.43030 AU	morning max el	3354 Dec 11 23:48	0°♏23'24	19°37'36
				greatest brilliancy	3354 Dec 20 03:14	10°♏32'17	-0.6m
superior conj	3354 Feb 11 17:03	22°♏47'54	-2°-6'-25	desc. node	3355 Jan 02 05:04	0°♏02'42	
minimum elong	3354 Feb 11 15:51	22°♏42'52	2°06'25		3355 Jan 02 04:22	0°♏	
	3354 Feb 15 22:36	0°♏		morning set	3355 Jan 06 01:46	5°♏59'35	
evening rise	3354 Feb 23 17:51	13°♏40'26		max. Earth dist.	3355 Jan 18 11:26	25°♏22'50	1.44418 AU
	3354 Mar 05 04:00	0°♏			3355 Jan 21 09:03	0°♏	
asc. node	3354 Mar 06 20:57	2°♏41'34		superior conj	3355 Jan 22 19:20	2°♏17'30	-1°-53'-16
evening max el	3354 Mar 12 17:31	10°♏15'52	18°07'01	minimum elong	3355 Jan 22 12:20	1°♏49'22	1°52'49
retrograde	3354 Mar 19 06:38	13°♏38'58		evening rise	3355 Feb 05 15:27	25°♏07'16	
evening set	3354 Mar 21 23:04	13°♏04'25			3355 Feb 08 12:47	0°♏	
inferior conj	3354 Mar 28 10:43	7°♏59'32	3°27'37	asc. node	3355 Feb 21 18:01	20°♏43'01	
minimum elong	3354 Mar 28 12:36	7°♏54'50	3°27'26	evening max el	3355 Feb 24 06:12	23°♏34'46	18°17'50
min. Earth dist.	3354 Mar 31 11:43	4°♏57'40	0.61695 AU	retrograde	3355 Mar 02 16:58	27°♏02'43	
morning rise	3354 Apr 03 23:21	2°♏01'42		evening set	3355 Mar 05 14:58	26°♏17'10	
	3354 Apr 08 01:43	30°♎		inferior conj	3355 Mar 11 15:58	20°♏52'47	3°38'50
direct	3354 Apr 10 19:16	29°♏37'14		minimum elong	3355 Mar 11 16:02	20°♏52'36	3°38'51
desc. node	3354 Apr 13 07:12	29°♏55'08		min. Earth dist.	3355 Mar 14 02:47	18°♏08'04	0.63689 AU
	3354 Apr 13 15:02	0°♏		morning rise	3355 Mar 17 15:17	14°♏45'09	
morning max el	3354 Apr 24 23:17	7°♏34'34	27°50'28	direct	3355 Mar 24 12:18	12°♏00'38	
	3354 May 12 01:33	0°♏		desc. node	3355 Mar 31 04:15	14°♏08'34	
morning set	3354 May 28 03:36	29°♏10'11		morning max el	3355 Apr 07 07:22	19°♏57'45	27°39'28
	3354 May 28 13:20	0°♏			3355 Apr 15 21:39	0°♏	
asc. node	3354 Jun 02 20:14	11°♏10'59			3355 May 05 01:35	0°♏	
max. Earth dist.	3354 Jun 03 00:11	11°♏32'21	1.32337 AU	morning set	3355 May 12 00:15	13°♏10'55	
				max. Earth dist.	3355 May 17 03:36	23°♏42'28	1.33025 AU
superior conj	3354 Jun 04 14:16	14°♏59'35	0°18'21	superior conj	3355 May 19 21:15	29°♏31'18	0°-8'-44
minimum elong	3354 Jun 04 13:26	14°♏55'00	0°18'09	minimum elong	3355 May 19 21:42	29°♏33'38	0°08'40
	3354 Jun 11 11:59	0°♏		behind sun begin	3355 May 19 17:11	29°♏09'27	
evening rise	3354 Jun 11 12:23	0°♏02'12		behind sun end	3355 May 20 02:12	29°♏57'50	
	3354 Jun 28 01:49	0°♏			3355 May 20 02:37	0°♏	
evening max el	3354 Jul 06 22:34	10°♏39'19	24°35'43	asc. node	3355 May 20 17:17	1°♏18'49	
desc. node	3354 Jul 10 06:26	13°♏31'28		evening rise	3355 May 27 00:08	14°♏49'08	
retrograde	3354 Jul 20 20:19	17°♏41'17			3355 Jun 03 15:08	0°♏	
evening set	3354 Jul 25 22:12	16°♏43'15		evening max el	3355 Jun 18 11:59	21°♏05'28	22°59'27
min. Earth dist.	3354 Jul 31 09:41	13°♏53'06	0.56915 AU	desc. node	3355 Jun 27 03:27	26°♏54'32	
inferior conj	3354 Aug 03 04:33	12°♏05'32	-5°-4'00	retrograde	3355 Jul 01 21:14	27°♏45'49	
minimum elong	3354 Aug 03 02:26	12°♏08'57	5°03'54	evening set	3355 Jul 05 10:37	27°♏18'08	
morning rise	3354 Aug 11 10:19	8°♏00'48		min. Earth dist.	3355 Jul 12 21:01	23°♏58'35	0.55487 AU
direct	3354 Aug 14 01:25	7°♏41'45					
morning max el	3354 Aug 23 09:56	12°♏03'42	19°25'33				

inferior conj	3355 Jul 14 11:35	23° $\overline{50}$ 2'43	-4°-23'-36	minimum elong	3356 Jun 22 22:41	3° $\overline{53}$ 38'07	2°52'00
minimum elong	3355 Jul 14 04:12	23° $\overline{51}$ 13'26	4°22'08	min. Earth dist.	3356 Jun 23 08:13	3° $\overline{54}$ 24'46	0.54867 AU
morning rise	3355 Jul 23 00:36	19° $\overline{52}$ 10'52			3356 Jun 30 09:57	30° \overline{R} II	
direct	3355 Jul 25 22:44	18° $\overline{55}$ 50'40		morning rise	3356 Jul 02 00:25	29° \overline{II} 32'13	
morning max el	3355 Aug 05 21:06	23° $\overline{55}$ 55'08	20°39'30	direct	3356 Jul 05 09:09	29° \overline{II} 07'39	
	3355 Aug 11 04:58	0° \overline{Q}			3356 Jul 10 03:56	0° $\overline{5}$	
asc. node	3355 Aug 16 16:31	8° \overline{Q} 27'57		morning max el	3356 Jul 17 20:50	5° $\overline{5}$ 01'54	22°11'45
morning set	3355 Aug 24 21:42	24° \overline{Q} 14'29		asc. node	3356 Aug 02 13:33	27° $\overline{5}$ 32'54	
	3355 Aug 27 16:32	0° \overline{np}			3356 Aug 03 20:14	0° \overline{Q}	
				morning set	3356 Aug 08 07:41	9° \overline{Q} 04'13	
superior conj	3355 Sep 01 11:09	9° \overline{np} 52'02	1°44'43	superior conj	3356 Aug 15 12:59	24° \overline{Q} 22'50	1°40'23
minimum elong	3355 Sep 01 10:58	9° \overline{np} 51'09	1°44'43	minimum elong	3356 Aug 15 11:35	24° \overline{Q} 15'25	1°40'18
max. Earth dist.	3355 Sep 06 07:40	19° \overline{np} 33'57	1.36014 AU		3356 Aug 18 05:31	0° \overline{np}	
evening rise	3355 Sep 10 09:11	27° \overline{np} 17'39		max. Earth dist.	3356 Aug 18 23:10	1° \overline{np} 30'49	1.34433 AU
	3355 Sep 11 20:30	0° \overline{A}		evening rise	3356 Aug 23 14:36	10° \overline{np} 47'24	
desc. node	3355 Sep 23 02:47	19° \overline{A} 05'04			3356 Sep 03 06:29	0° \overline{A}	
	3355 Sep 30 09:42	0° \overline{M}		desc. node	3356 Sep 08 23:47	9° \overline{A} 07'01	
evening max el	3355 Oct 15 23:31	19° \overline{M} 02'30	26°13'07		3356 Sep 24 22:03	0° \overline{M}	
retrograde	3355 Oct 28 15:45	26° \overline{M} 12'14		evening max el	3356 Sep 27 12:05	2° \overline{M} 36'56	27°01'42
evening set	3355 Nov 03 22:26	23° \overline{M} 37'51		retrograde	3356 Oct 10 17:47	9° \overline{M} 53'44	
min. Earth dist.	3355 Nov 08 03:54	19° \overline{M} 09'42	0.66542 AU	evening set	3356 Oct 17 12:41	7° \overline{M} 12'51	
inferior conj	3355 Nov 09 16:03	17° \overline{M} 18'13	-1°-1'-18	min. Earth dist.	3356 Oct 21 11:19	3° \overline{M} 21'12	0.65383 AU
minimum elong	3355 Nov 09 17:42	17° \overline{M} 13'09	1°00'37	inferior conj	3356 Oct 23 11:26	1° \overline{M} 04'14	-2°-1'-27
asc. node	3355 Nov 12 15:45	13° \overline{M} 50'38		minimum elong	3356 Oct 23 14:47	0° \overline{M} 54'39	2°00'08
morning rise	3355 Nov 15 14:04	11° \overline{M} 27'13			3356 Oct 24 10:11	30° \overline{R} \overline{A}	
direct	3355 Nov 18 14:43	10° \overline{M} 34'59		morning rise	3356 Oct 29 18:35	25° \overline{A} 26'02	
morning max el	3355 Nov 25 09:07	14° \overline{M} 19'06	18°46'01	asc. node	3356 Oct 29 12:46	25° \overline{A} 33'21	
	3355 Dec 06 23:13	0° \overline{x}		direct	3356 Nov 01 11:07	24° \overline{A} 46'49	
morning set	3355 Dec 16 15:55	15° \overline{x} 11'13		morning max el	3356 Nov 07 23:20	28° \overline{A} 17'06	18°10'53
desc. node	3355 Dec 20 02:05	20° \overline{x} 34'53			3356 Nov 09 13:17	0° \overline{M}	
	3355 Dec 26 01:56	0° \overline{Z}		morning set	3356 Nov 26 11:06	25° \overline{M} 50'31	
max. Earth dist.	3356 Jan 01 04:39	9° \overline{Z} 35'35	1.45146 AU		3356 Nov 29 00:05	0° \overline{x}	
				desc. node	3356 Dec 05 23:06	11° \overline{x} 15'29	
superior conj	3356 Jan 02 01:30	10° \overline{Z} 57'27	-1°-20'-51	superior conj	3356 Dec 11 05:04	19° \overline{x} 36'41	0°-35'-10
minimum elong	3356 Jan 01 16:32	10° \overline{Z} 22'14	1°19'54	minimum elong	3356 Dec 11 00:36	19° \overline{x} 19'00	0°34'35
	3356 Jan 14 02:08	0° $\overline{\approx}$		max. Earth dist.	3356 Dec 14 00:10	24° \overline{x} 01'10	1.45132 AU
evening rise	3356 Jan 17 14:09	5° $\overline{\approx}$ 36'56			3356 Dec 17 19:42	0° \overline{Z}	
	3356 Feb 02 02:35	0° \overline{H}		evening rise	3356 Dec 27 14:37	15° \overline{Z} 15'03	
evening max el	3356 Feb 07 17:22	7° \overline{H} 01'39	18°46'47		3357 Jan 06 03:21	0° $\overline{\approx}$	
asc. node	3356 Feb 08 15:02	7° \overline{H} 54'10		greatest brilliancy	3357 Jan 12 21:43	10° $\overline{\approx}$ 07'55	-0.7m
retrograde	3356 Feb 14 10:12	10° \overline{H} 46'08		evening max el	3357 Jan 21 00:49	20° $\overline{\approx}$ 31'53	19°32'33
evening set	3356 Feb 17 14:21	9° \overline{H} 48'33		asc. node	3357 Jan 25 12:03	24° $\overline{\approx}$ 01'09	
inferior conj	3356 Feb 23 07:57	4° \overline{H} 06'19	3°32'27	retrograde	3357 Jan 28 07:08	24° $\overline{\approx}$ 43'15	
minimum elong	3356 Feb 23 06:35	4° \overline{H} 10'29	3°32'19	evening set	3357 Jan 31 18:34	23° $\overline{\approx}$ 32'27	
min. Earth dist.	3356 Feb 25 03:06	1° \overline{H} 53'54	0.65347 AU	inferior conj	3357 Feb 06 07:25	17° $\overline{\approx}$ 34'35	3°12'49
	3356 Feb 26 18:30	30° \overline{R} $\overline{\approx}$		minimum elong	3357 Feb 06 05:12	17° $\overline{\approx}$ 41'51	3°12'23
morning rise	3356 Feb 28 21:42	27° $\overline{\approx}$ 53'37		min. Earth dist.	3357 Feb 07 11:39	16° $\overline{\approx}$ 02'02	0.66590 AU
direct	3356 Mar 06 12:22	25° $\overline{\approx}$ 03'34		morning rise	3357 Feb 11 15:06	11° $\overline{\approx}$ 19'33	
	3356 Mar 16 16:53	0° \overline{H}		direct	3357 Feb 17 18:19	8° $\overline{\approx}$ 36'43	
desc. node	3356 Mar 17 01:17	0° \overline{H} 18'17		morning max el	3357 Mar 02 02:29	15° $\overline{\approx}$ 57'16	25°46'49
morning max el	3356 Mar 19 17:06	2° \overline{H} 49'04	26°55'34	desc. node	3357 Mar 03 22:20	17° $\overline{\approx}$ 52'16	
	3356 Apr 09 04:21	0° \overline{Y}			3357 Mar 13 17:08	0° \overline{H}	
morning set	3356 Apr 24 10:47	26° \overline{Y} 37'53		morning set	3357 Apr 02 01:30	0° \overline{Y}	
	3356 Apr 26 04:31	0° \overline{B}		max. Earth dist.	3357 Apr 07 07:03	9° \overline{Y} 19'14	
max. Earth dist.	3356 Apr 28 21:13	5° \overline{B} 21'14	1.34169 AU		3357 Apr 11 03:32	16° \overline{Y} 32'25	1.35767 AU
				superior conj	3357 Apr 16 16:34	27° \overline{Y} 25'49	-1°-5'-50
superior conj	3356 May 02 22:53	13° \overline{B} 42'29	0°-37'-16	minimum elong	3357 Apr 16 20:00	27° \overline{Y} 43'09	1°05'14
minimum elong	3356 May 03 00:49	13° \overline{B} 52'37	0°36'53		3357 Apr 17 23:04	0° \overline{B}	
asc. node	3356 May 06 14:18	21° \overline{B} 22'29		asc. node	3357 Apr 23 11:20	11° \overline{B} 17'56	
evening rise	3356 May 10 10:16	29° \overline{B} 26'40		evening rise	3357 Apr 24 16:46	13° \overline{B} 48'32	
	3356 May 10 16:40	0° \overline{II}			3357 May 03 03:55	0° \overline{II}	
	3356 May 28 16:07	0° $\overline{5}$		evening max el	3357 May 12 13:51	12° \overline{II} 51'34	20°07'53
evening max el	3356 May 30 07:20	1° $\overline{5}$ 41'33	21°26'32	retrograde	3357 May 23 01:47	17° \overline{II} 58'01	
retrograde	3356 Jun 11 11:29	7° $\overline{5}$ 40'17		evening set	3357 May 25 01:29	17° \overline{II} 47'49	
desc. node	3356 Jun 13 00:28	7° $\overline{5}$ 34'48					
evening set	3356 Jun 13 21:29	7° $\overline{5}$ 26'58					
inferior conj	3356 Jun 23 06:18	3° $\overline{5}$ 27'28	-2°-54'-26				

desc. node	3357 May 30 21:30	15° Π 38'28		retrograde	3358 May 04 04:24	29° 8 00'03	
inferior conj	3357 Jun 03 02:22	13° Π 48'41	0°-56'-41	evening set	3358 May 06 05:46	28° 8 47'04	
minimum elong	3357 Jun 02 23:43	13° Π 52'38	0°55'43	inferior conj	3358 May 14 13:05	24° 8 35'03	0°55'30
min. Earth dist.	3357 Jun 04 20:50	12° Π 45'31	0.55202 AU	minimum elong	3358 May 14 15:15	24° 8 31'20	0°54'44
morning rise	3357 Jun 11 19:37	9° Π 30'23		min. Earth dist.	3358 May 17 12:01	22° 8 34'46	0.56431 AU
direct	3357 Jun 15 21:15	8° Π 54'27		desc. node	3358 May 17 18:33	22° 8 24'06	
morning max el	3357 Jun 29 12:54	15° Π 36'13	23°54'07	morning rise	3358 May 22 20:30	19° 8 41'44	
	3357 Jul 10 22:43	0° 8		direct	3358 May 27 21:15	18° 8 42'42	
asc. node	3357 Jul 20 10:35	17° 8 03'00		morning max el	3358 Jun 11 03:16	26° 8 01'18	25°32'54
morning set	3357 Jul 23 19:20	23° 8 59'06			3358 Jun 14 21:35	0° Π	
	3357 Jul 26 14:52	0° 9			3358 Jul 03 22:48	0° 8	
				asc. node	3358 Jul 07 07:38	6° 8 50'31	
superior conj	3357 Jul 30 20:18	9° 9 09'37	1°30'11	morning set	3358 Jul 08 06:57	8° 8 52'57	
minimum elong	3357 Jul 30 18:10	8° 9 58'05	1°29'58				
max. Earth dist.	3357 Aug 01 23:43	13° 9 45'51	1.33252 AU	superior conj	3358 Jul 15 06:49	24° 8 04'16	1°15'04
evening rise	3357 Aug 07 07:49	24° 9 51'16		minimum elong	3358 Jul 15 04:27	23° 8 51'19	1°14'43
	3357 Aug 09 22:17	0° 9		max. Earth dist.	3358 Jul 16 07:15	26° 8 18'08	1.32478 AU
desc. node	3357 Aug 26 20:48	28° 9 40'48			3358 Jul 18 00:01	0° 9	
	3357 Aug 27 18:52	0° 9		evening rise	3358 Jul 22 09:20	9° 9 18'30	
evening max el	3357 Sep 09 23:33	15° 9 52'36	27°25'08		3358 Aug 02 06:40	0° 9	
retrograde	3357 Sep 23 13:46	23° 9 09'55		desc. node	3358 Aug 13 17:50	17° 9 34'20	
evening set	3357 Sep 30 16:53	20° 9 31'15		evening max el	3358 Aug 23 07:38	28° 9 36'22	27°17'59
min. Earth dist.	3357 Oct 04 09:44	17° 9 14'11	0.63878 AU		3358 Aug 24 20:27	0° 9	
inferior conj	3357 Oct 06 22:18	14° 9 38'03	-3°-1'-30	retrograde	3358 Sep 06 03:17	5° 9 51'18	
minimum elong	3357 Oct 07 03:14	14° 9 25'18	2°59'49	evening set	3358 Sep 13 07:29	3° 9 26'54	
morning rise	3357 Oct 13 15:54	9° 9 16'09		min. Earth dist.	3358 Sep 16 21:52	0° 9 37'17	0.62053 AU
direct	3357 Oct 16 02:49	8° 9 46'16			3358 Sep 17 14:30	30° 9	
asc. node	3357 Oct 16 09:48	8° 9 46'42		inferior conj	3358 Sep 19 21:42	27° 9 52'36	-3°-57'-28
morning max el	3357 Oct 22 15:46	12° 9 11'33	17°52'55	minimum elong	3358 Sep 20 03:28	27° 9 39'22	3°55'58
	3357 Nov 03 20:09	0° 9		morning rise	3358 Sep 27 02:22	22° 9 50'17	
morning set	3357 Nov 08 09:19	7° 9 48'12		direct	3358 Sep 29 10:25	22° 9 26'32	
				asc. node	3358 Oct 03 06:51	23° 9 33'12	
superior conj	3357 Nov 21 02:11	29° 9 10'34	0°12'00	morning max el	3358 Oct 06 07:23	25° 9 55'16	17°53'03
minimum elong	3357 Nov 21 03:30	29° 9 15'57	0°11'49		3358 Oct 09 18:32	0° 9	
behind sun begin	3357 Nov 20 20:42	28° 9 48'08		morning set	3358 Oct 22 04:24	20° 9 45'33	
behind sun end	3357 Nov 21 10:18	29° 9 43'43			3358 Oct 27 07:54	0° 9	
	3357 Nov 21 14:18	0° 9					
desc. node	3357 Nov 22 20:06	2° 9 01'03		superior conj	3358 Nov 02 01:57	10° 9 03'12	0°51'22
max. Earth dist.	3357 Nov 26 18:30	8° 9 20'05	1.44385 AU	minimum elong	3358 Nov 02 06:02	10° 9 20'42	0°50'50
evening rise	3357 Dec 07 01:07	24° 9 24'00		max. Earth dist.	3358 Nov 09 08:41	22° 9 14'02	1.43006 AU
	3357 Dec 10 16:55	0° 9		desc. node	3358 Nov 09 17:08	22° 9 48'28	
greatest brilliancy	3357 Dec 29 05:05	26° 9 59'00	-0.5m		3358 Nov 14 04:35	0° 9	
	3357 Dec 31 13:41	0° 9		evening rise	3358 Nov 16 13:10	3° 9 42'46	
evening max el	3358 Jan 04 03:05	4° 9 03'05	20°33'01		3358 Dec 04 03:33	0° 9	
retrograde	3358 Jan 12 05:14	8° 9 49'17		greatest brilliancy	3358 Dec 13 04:24	12° 9 07'02	-0.4m
asc. node	3358 Jan 12 09:05	8° 9 49'08		evening max el	3358 Dec 17 23:47	17° 9 35'30	21°44'55
evening set	3358 Jan 16 01:29	7° 9 24'08		retrograde	3358 Dec 27 02:31	23° 9 00'55	
inferior conj	3358 Jan 21 11:43	1° 9 13'28	2°42'50	asc. node	3358 Dec 30 06:07	22° 9 07'00	
minimum elong	3358 Jan 21 09:12	1° 9 22'05	2°42'09	evening set	3358 Dec 31 09:18	21° 9 20'14	
min. Earth dist.	3358 Jan 22 02:36	0° 9 22'41	0.67418 AU	inferior conj	3359 Jan 05 18:43	15° 9 00'14	2°04'30
	3358 Jan 22 09:17	30° 9		minimum elong	3359 Jan 05 16:23	15° 9 08'22	2°03'42
morning rise	3358 Jan 26 16:27	24° 9 57'56		min. Earth dist.	3359 Jan 05 21:41	14° 9 49'59	0.67856 AU
direct	3358 Feb 01 05:31	22° 9 31'22		morning rise	3359 Jan 10 23:12	8° 9 46'06	
morning max el	3358 Feb 12 11:05	29° 9 13'40	24°22'52	direct	3359 Jan 15 21:18	6° 9 40'42	
	3358 Feb 13 05:07	0° 9		morning max el	3359 Jan 25 20:44	12° 9 35'36	22°53'56
desc. node	3358 Feb 18 19:21	6° 9 26'07		greatest brilliancy	3359 Jan 30 13:45	17° 9 50'53	-0.3m
	3358 Mar 07 12:47	0° 9		desc. node	3359 Feb 05 16:23	25° 9 42'54	
morning set	3358 Mar 20 07:31	20° 9 59'09			3359 Feb 08 18:51	0° 9	
max. Earth dist.	3358 Mar 24 00:55	27° 9 36'10	1.37745 AU	morning set	3359 Feb 28 10:07	0° 9	
	3358 Mar 25 08:32	0° 9		max. Earth dist.	3359 Mar 05 20:03	9° 9 06'02	1.39912 AU
superior conj	3358 Mar 30 22:58	10° 9 31'41	-1°-32'-21				
minimum elong	3358 Mar 31 03:27	10° 9 53'17	1°31'46	superior conj	3359 Mar 13 13:55	22° 9 50'14	-1°-53'-44
evening rise	3358 Apr 08 17:10	27° 9 46'46		minimum elong	3359 Mar 13 18:10	23° 9 09'41	1°53'26
	3358 Apr 09 20:10	0° 9			3359 Mar 17 10:36	0° 9	
asc. node	3358 Apr 10 08:23	0° 9 59'55		evening rise	3359 Mar 23 08:30	11° 9 13'58	
evening max el	3358 Apr 25 08:09	24° 9 41'54	19°08'15	asc. node	3359 Mar 28 05:26	20° 9 23'27	

	3359 Apr 02 20:57	0°♄		minimum elong	3360 Feb 23 09:56	4°♄16'01	2°05'46
evening max el	3359 Apr 08 11:52	7°♄08'45	18°28'51	evening rise	3360 Mar 05 10:55	24°♄00'46	
retrograde	3359 Apr 16 01:26	10°♄52'28			3360 Mar 08 17:55	0°♄	
evening set	3359 Apr 18 08:43	10°♄32'48		asc. node	3360 Mar 14 02:29	9°♄21'42	
inferior conj	3359 Apr 25 20:49	6°♄01'21	2°19'25	evening max el	3360 Mar 21 21:37	20°♄02'43	18°09'26
minimum elong	3359 Apr 26 00:36	5°♄53'47	2°18'23	retrograde	3360 Mar 28 16:17	23°♄28'37	
min. Earth dist.	3359 Apr 29 07:12	3°♄18'19	0.58304 AU	evening set	3360 Mar 31 05:39	22°♄59'48	
morning rise	3359 May 03 12:08	0°♄35'36		inferior conj	3360 Apr 07 01:07	18°♄07'01	3°10'51
desc. node	3359 May 04 15:36	0°♄03'53		minimum elong	3360 Apr 07 04:00	18°♄00'19	3°10'22
	3359 May 04 19:23	30°♄		min. Earth dist.	3360 Apr 10 08:18	15°♄04'53	0.60460 AU
direct	3359 May 09 11:49	29°♄02'58		morning rise	3360 Apr 13 22:59	12°♄18'29	
	3359 May 14 06:48	0°♄		direct	3360 Apr 20 14:27	10°♄10'54	
morning max el	3359 May 23 21:11	6°♄44'22	26°52'14	desc. node	3360 Apr 20 12:38	10°♄10'55	
	3359 Jun 10 04:58	0°♄		morning max el	3360 May 04 21:11	18°♄04'05	27°39'55
morning set	3359 Jun 22 16:56	23°♄40'23			3360 May 14 20:41	0°♄	
asc. node	3359 Jun 24 04:41	26°♄49'50			3360 Jun 01 20:51	0°♄	
	3359 Jun 25 16:01	0°♄		morning set	3360 Jun 05 23:30	8°♄15'41	
				asc. node	3360 Jun 10 01:46	16°♄56'16	
superior conj	3359 Jun 29 18:37	9°♄00'25	0°55'46	max. Earth dist.	3360 Jun 12 06:00	21°♄40'42	1.32136 AU
minimum elong	3359 Jun 29 16:30	8°♄48'47	0°55'21				
max. Earth dist.	3359 Jun 29 18:32	8°♄59'57	1.32108 AU	superior conj	3360 Jun 13 05:58	23°♄52'12	0°32'54
evening rise	3359 Jul 06 16:27	24°♄00'43		minimum elong	3360 Jun 13 04:33	23°♄44'24	0°32'35
	3359 Jul 09 14:06	0°♄			3360 Jun 16 00:53	0°♄	
	3359 Jul 27 06:30	0°♄		evening rise	3360 Jun 20 02:56	8°♄50'40	
desc. node	3359 Jul 31 14:52	5°♄30'58			3360 Jul 01 01:10	0°♄	
evening max el	3359 Aug 05 09:59	10°♄37'25	26°37'36	evening max el	3360 Jul 17 05:14	21°♄51'46	25°26'44
retrograde	3359 Aug 19 09:01	17°♄48'45		desc. node	3360 Jul 17 11:53	22°♄07'32	
evening set	3359 Aug 26 03:50	15°♄52'02		retrograde	3360 Jul 31 04:52	28°♄58'01	
min. Earth dist.	3359 Aug 29 23:46	13°♄16'21	0.60020 AU	evening set	3360 Aug 06 01:19	27°♄38'24	
inferior conj	3359 Sep 02 06:11	10°♄39'01	-4°-42'-38	min. Earth dist.	3360 Aug 10 17:11	24°♄58'45	0.57983 AU
minimum elong	3359 Sep 02 11:02	10°♄29'16	4°41'52	inferior conj	3360 Aug 13 20:22	22°♄48'02	-5°-6'-4
morning rise	3359 Sep 09 21:35	5°♄58'51		minimum elong	3360 Aug 13 21:32	22°♄46'00	5°06'04
direct	3359 Sep 12 05:59	5°♄38'28		morning rise	3360 Aug 21 21:16	18°♄30'52	
morning max el	3359 Sep 19 18:55	9°♄19'31	18°12'27	direct	3360 Aug 24 09:18	18°♄11'39	
asc. node	3359 Sep 20 03:55	9°♄41'43		morning max el	3360 Sep 01 23:06	22°♄15'15	18°52'35
	3359 Oct 03 05:55	0°♄		asc. node	3360 Sep 06 00:58	26°♄57'22	
morning set	3359 Oct 05 14:28	4°♄25'38			3360 Sep 08 03:42	0°♄	
				morning set	3360 Sep 18 11:02	18°♄36'35	
					3360 Sep 24 06:20	0°♄	
superior conj	3359 Oct 15 02:47	22°♄08'58	1°19'30				
minimum elong	3359 Oct 15 06:45	22°♄26'54	1°19'04				
	3359 Oct 19 12:50	0°♄		superior conj	3360 Sep 26 23:34	5°♄13'58	1°36'34
max. Earth dist.	3359 Oct 22 17:32	5°♄29'42	1.41175 AU	minimum elong	3360 Sep 27 02:03	5°♄25'48	1°36'23
evening rise	3359 Oct 27 17:45	13°♄48'36		max. Earth dist.	3360 Oct 03 22:44	18°♄04'59	1.39123 AU
desc. node	3359 Oct 27 14:09	13°♄33'58		evening rise	3360 Oct 07 21:41	24°♄59'25	
	3359 Nov 07 02:26	0°♄			3360 Oct 10 21:03	0°♄	
greatest brilliancy	3359 Nov 24 22:42	24°♄44'07	-0.2m	desc. node	3360 Oct 13 11:11	4°♄14'21	
	3359 Nov 29 12:37	0°♄			3360 Oct 30 19:50	0°♄	
evening max el	3359 Nov 30 15:50	1°♄10'17	23°03'40	evening max el	3360 Nov 12 05:07	14°♄49'26	24°23'07
retrograde	3359 Dec 10 21:15	7°♄14'04		retrograde	3360 Nov 23 12:16	21°♄25'55	
evening set	3359 Dec 15 16:21	5°♄17'03		evening set	3360 Nov 28 21:05	19°♄12'30	
asc. node	3359 Dec 17 03:11	3°♄54'31		asc. node	3360 Dec 03 00:12	14°♄35'50	
	3359 Dec 20 06:35	30°♄		min. Earth dist.	3360 Dec 03 14:27	13°♄48'37	0.67671 AU
inferior conj	3359 Dec 21 02:28	28°♄51'37	1°19'11	inferior conj	3360 Dec 04 09:11	12°♄45'49	0°28'06
minimum elong	3359 Dec 21 00:45	28°♄57'31	1°18'32	minimum elong	3360 Dec 04 08:30	12°♄48'06	0°27'50
min. Earth dist.	3359 Dec 20 18:26	29°♄19'19	0.67934 AU	morning rise	3360 Dec 09 20:17	6°♄40'53	
morning rise	3359 Dec 26 09:09	22°♄40'54		direct	3360 Dec 13 14:24	5°♄20'16	
direct	3359 Dec 30 16:39	20°♄58'24		morning max el	3360 Dec 21 08:29	9°♄45'56	20°14'15
morning max el	3360 Jan 08 10:53	26°♄04'57	21°28'55	greatest brilliancy	3360 Dec 27 23:30	17°♄41'07	-0.6m
	3360 Jan 12 00:03	0°♄			3361 Jan 05 15:29	0°♄	
greatest brilliancy	3360 Jan 13 11:01	1°♄46'18	-0.4m	desc. node	3361 Jan 09 10:26	5°♄39'19	
desc. node	3360 Jan 23 13:25	15°♄30'00		morning set	3361 Jan 17 21:12	18°♄32'52	
	3360 Feb 02 07:27	0°♄			3361 Jan 25 04:54	0°♄	
morning set	3360 Feb 08 23:36	10°♄22'55		max. Earth dist.	3361 Jan 28 04:32	4°♄45'25	1.43697 AU
max. Earth dist.	3360 Feb 15 20:11	21°♄27'44	1.41990 AU				
	3360 Feb 20 22:22	0°♄		superior conj	3361 Feb 03 01:32	14°♄18'11	-2°-3'-13
				minimum elong	3361 Feb 02 21:49	14°♄02'52	2°03'05
superior conj	3360 Feb 23 08:18	4°♄08'56	-2°-5'-47		3361 Feb 12 09:12	0°♄	

evening rise	3361 Feb 15 20:14	5°♂58'55			3361 Dec 29 20:02	0°♂	
asc. node	3361 Feb 28 23:31	27°♂46'40		max. Earth dist.	3362 Jan 10 19:28	18°♂43'57	1.44816 AU
	3361 Mar 02 14:38	0°♀					
evening max el	3361 Mar 05 10:04	3°♀14'40	18°09'23	superior conj	3362 Jan 13 17:44	23°♂21'52	-1°-41'-42
retrograde	3361 Mar 11 20:53	6°♀38'03		minimum elong	3362 Jan 13 09:04	22°♂47'31	1°40'59
evening set	3361 Mar 14 15:47	5°♀58'45			3362 Jan 17 21:31	0°≈	
inferior conj	3361 Mar 20 22:26	0°♀45'13	3°34'53	evening rise	3362 Jan 28 08:21	17°≈01'51	
minimum elong	3361 Mar 20 23:31	0°♀42'21	3°34'49		3362 Feb 05 05:09	0°♂	
	3361 Mar 21 15:28	30°♂♂		asc. node	3362 Feb 15 20:32	15°♂28'16	
min. Earth dist.	3361 Mar 23 17:41	27°♂48'38	0.62576 AU	evening max el	3362 Feb 16 22:19	16°♂37'20	18°28'00
morning rise	3361 Mar 27 04:58	24°♂42'43		retrograde	3362 Feb 23 10:44	20°♂11'14	
direct	3361 Apr 03 02:27	22°♂08'18		evening set	3362 Feb 26 11:14	19°♂20'38	
desc. node	3361 Apr 07 09:39	23°♂01'32		inferior conj	3362 Mar 04 08:41	13°♂48'07	3°38'01
morning max el	3361 Apr 17 02:59	0°♀05'47	27°50'19	minimum elong	3362 Mar 04 08:05	13°♂49'53	3°37'59
	3361 Apr 17 00:40	0°♀		min. Earth dist.	3362 Mar 06 12:44	11°♂15'58	0.64432 AU
	3361 May 08 21:09	0°♂		morning rise	3362 Mar 10 03:27	7°♂37'47	
morning set	3361 May 21 00:28	22°♂31'23		direct	3362 Mar 16 22:22	4°♂49'31	
	3361 May 24 15:19	0°♂		desc. node	3362 Mar 25 06:40	8°♂08'48	
max. Earth dist.	3361 May 26 13:41	4°♂06'33	1.32579 AU	morning max el	3362 Mar 30 12:17	12°♂43'13	27°24'37
asc. node	3361 May 27 22:47	7°♂04'50			3362 Apr 13 08:42	0°♀	
					3362 May 01 10:09	0°♂	
superior conj	3361 May 28 15:04	8°♂33'00	0°07'08	morning set	3362 May 04 17:15	6°♂19'23	
minimum elong	3361 May 28 14:43	8°♂31'08	0°07'03	max. Earth dist.	3362 May 09 13:35	16°♂05'34	1.33453 AU
behind sun begin	3361 May 28 10:02	8°♂05'42					
behind sun end	3361 May 28 19:25	8°♂56'36		superior conj	3362 May 12 20:01	22°♂56'50	0°-20'-43
evening rise	3361 Jun 04 14:45	23°♂40'48		minimum elong	3362 May 12 21:04	23°♂02'26	0°20'30
	3361 Jun 07 15:37	0°♂		asc. node	3362 May 14 19:50	27°♂11'40	
	3361 Jun 26 09:56	0°♂			3362 May 16 03:15	0°♂	
evening max el	3361 Jun 28 18:54	2°♂27'37	23°55'18	evening rise	3362 May 20 02:03	8°♂24'50	
desc. node	3361 Jul 04 08:56	6°♂51'54			3362 May 31 11:34	0°♂	
retrograde	3361 Jul 12 12:38	9°♂22'07		evening max el	3362 Jun 10 09:42	12°♂53'34	22°18'43
evening set	3361 Jul 16 23:17	8°♂38'33		desc. node	3362 Jun 21 05:55	19°♂08'54	
min. Earth dist.	3361 Jul 23 05:17	5°♂37'43	0.56235 AU	retrograde	3362 Jun 23 08:33	19°♂19'10	
inferior conj	3361 Jul 25 14:12	4°♂10'54	-4°-52'-59	evening set	3362 Jun 26 08:31	18°♂59'16	
minimum elong	3361 Jul 25 09:32	4°♂18'02	4°52'29	min. Earth dist.	3362 Jul 04 16:05	15°♂23'25	0.55114 AU
morning rise	3361 Aug 02 23:12	0°♂13'16		inferior conj	3362 Jul 05 14:38	14°♂51'35	-3°-51'-12
	3361 Aug 04 04:21	30°♂♂		minimum elong	3362 Jul 05 06:20	15°♂03'19	3°49'04
direct	3361 Aug 05 17:17	29°♂53'49		morning rise	3362 Jul 14 06:19	11°♂01'04	
	3361 Aug 07 05:37	0°♂		direct	3362 Jul 17 08:14	10°♂39'44	
morning max el	3361 Aug 15 16:56	4°♂31'56	19°54'25	morning max el	3362 Jul 28 23:08	16°♂04'24	21°16'50
asc. node	3361 Aug 23 22:00	15°♂04'35			3362 Aug 08 13:48	0°♂	
	3361 Sep 01 01:18	0°♂		asc. node	3362 Aug 10 19:02	3°♂51'23	
morning set	3361 Sep 02 14:41	3°♂07'55		morning set	3362 Aug 17 22:56	17°♂52'36	
					3362 Aug 23 17:53	0°♂	
superior conj	3361 Sep 10 10:51	19°♂01'58	1°44'04				
minimum elong	3361 Sep 10 11:35	19°♂05'36	1°44'03	superior conj	3362 Aug 25 08:23	3°♂20'24	1°43'39
max. Earth dist.	3361 Sep 16 03:51	0°♂07'15	1.37090 AU	minimum elong	3362 Aug 25 07:38	3°♂16'30	1°43'38
	3361 Sep 16 02:19	0°♂		max. Earth dist.	3362 Aug 29 14:09	11°♂58'12	1.35297 AU
evening rise	3361 Sep 20 00:02	7°♂12'14		evening rise	3362 Sep 02 20:52	20°♂17'19	
desc. node	3361 Sep 30 08:13	24°♂44'30			3362 Sep 08 04:22	0°♂	
	3361 Oct 03 17:01	0°♂		desc. node	3362 Sep 17 05:14	14°♂58'49	
evening max el	3361 Oct 25 17:20	28°♂30'54	25°36'27		3362 Sep 27 16:21	0°♂	
	3361 Oct 27 07:16	0°♂		evening max el	3362 Oct 08 05:37	12°♂09'56	26°36'15
retrograde	3361 Nov 06 22:46	5°♂31'26		retrograde	3362 Oct 21 04:14	19°♂24'15	
evening set	3361 Nov 12 21:47	3°♂03'23		evening set	3362 Oct 27 16:33	16°♂45'52	
	3361 Nov 15 21:10	30°♂♂		min. Earth dist.	3362 Oct 31 18:54	12°♂33'32	0.66096 AU
min. Earth dist.	3361 Nov 17 07:22	28°♂14'45	0.67060 AU	inferior conj	3362 Nov 02 12:10	10°♂30'16	-1°-26'-39
inferior conj	3361 Nov 18 13:04	26°♂39'54	0°-27'-36	minimum elong	3362 Nov 02 14:32	10°♂23'11	1°25'42
minimum elong	3361 Nov 18 13:47	26°♂37'36	0°27'19	asc. node	3362 Nov 06 18:15	5°♂59'31	
asc. node	3361 Nov 19 21:13	24°♂58'43		morning rise	3362 Nov 08 13:56	4°♂44'36	
morning rise	3361 Nov 24 06:36	20°♂43'14		direct	3362 Nov 11 10:46	3°♂58'31	
direct	3361 Nov 27 13:01	19°♂41'46		morning max el	3362 Nov 18 01:47	7°♂35'39	18°28'59
morning max el	3361 Dec 04 13:58	23°♂37'43	19°13'42		3362 Dec 03 17:49	0°♂	
	3361 Dec 09 21:54	0°♂		morning set	3362 Dec 08 00:45	6°♂51'57	
greatest brilliancy	3361 Dec 14 16:09	6°♂45'02	-0.7m	desc. node	3362 Dec 14 04:29	16°♂41'01	
desc. node	3361 Dec 27 07:28	26°♂04'40			3362 Dec 22 15:01	0°♂	
morning set	3361 Dec 27 22:43	27°♂03'55					

superior conj	3362 Dec 23 20:06	1°☿54'07	-1°-2'-25	desc. node	3363 Dec 01 01:32	7°♄24'42	
minimum elong	3362 Dec 23 12:27	1°☿24'05	1°01'30				
max. Earth dist.	3362 Dec 24 13:51	3°☿03'44	1.45227 AU	superior conj	3363 Dec 03 05:21	10°♄52'38	0°-14'-42
evening rise	3363 Jan 08 21:08	27°☿08'00		minimum elong	3363 Dec 03 03:32	10°♄45'25	0°14'27
	3363 Jan 10 16:36	0°♊		behind sun begin	3363 Dec 02 22:44	10°♄26'12	
greatest brilliancy	3363 Jan 20 11:38	15°♊23'12	-0.8m	behind sun end	3363 Dec 03 08:20	11°♄04'38	
	3363 Jan 31 05:54	0°♋		max. Earth dist.	3363 Dec 07 08:47	17°♄27'34	1.44899 AU
evening max el	3363 Jan 31 08:01	0°♋05'28	19°04'19		3363 Dec 15 09:16	0°☿	
asc. node	3363 Feb 02 17:33	2°♋13'45		evening rise	3363 Dec 19 14:12	6°☿30'16	
retrograde	3363 Feb 07 05:56	4°♋00'44			3364 Jan 04 02:11	0°♊	
evening set	3363 Feb 10 12:55	2°♋57'49		greatest brilliancy	3364 Jan 07 13:13	4°♊55'56	-0.6m
	3363 Feb 13 19:46	30°♋		evening max el	3364 Jan 14 13:26	13°♊36'49	19°56'38
inferior conj	3363 Feb 16 04:11	27°♊08'34	3°25'33	asc. node	3364 Jan 20 14:34	17°♊49'15	
minimum elong	3363 Feb 16 02:24	27°♊14'15	3°25'18	retrograde	3364 Jan 22 03:37	18°♊02'15	
min. Earth dist.	3363 Feb 17 16:53	25°♊12'22	0.65919 AU	evening set	3364 Jan 25 18:31	16°♊45'42	
morning rise	3363 Feb 21 14:55	20°♊54'19		inferior conj	3364 Jan 31 06:03	10°♊42'12	3°01'12
direct	3363 Feb 28 01:04	18°♊05'54		minimum elong	3364 Jan 31 03:38	10°♊50'16	3°00'39
desc. node	3363 Mar 12 03:41	24°♊57'34		min. Earth dist.	3364 Feb 01 04:31	9°♊27'06	0.66997 AU
morning max el	3363 Mar 12 22:13	25°♊43'31	26°28'52	morning rise	3364 Feb 05 12:07	4°♊26'38	
	3363 Mar 16 20:29	0°♋		direct	3364 Feb 11 09:37	1°♊49'31	
	3363 Apr 06 21:21	0°♌		morning max el	3364 Feb 23 07:03	8°♊55'39	25°12'11
morning set	3363 Apr 17 22:17	19°♌28'30		desc. node	3364 Feb 27 00:45	12°♊59'39	
max. Earth dist.	3363 Apr 22 02:17	27°♌30'26	1.34788 AU		3364 Mar 10 21:16	0°♋	
	3363 Apr 23 08:25	0°♌			3364 Mar 29 11:13	0°♌	
				morning set	3364 Mar 30 10:49	1°♌45'25	
superior conj	3363 Apr 26 18:33	6°♌56'37	0°-49'-30	max. Earth dist.	3364 Apr 03 03:37	8°♌32'01	1.36570 AU
minimum elong	3363 Apr 26 21:09	7°♌09'59	0°49'00				
asc. node	3363 May 01 16:52	17°♌12'10		superior conj	3364 Apr 09 07:53	20°♌24'58	-1°-17'-30
evening rise	3363 May 04 10:52	22°♌55'55		minimum elong	3364 Apr 09 11:51	20°♌44'38	1°16'53
	3363 May 07 22:28	0°♍			3364 Apr 14 02:33	0°♌	
evening max el	3363 May 23 09:21	23°♍41'45	20°51'01	evening rise	3364 Apr 17 15:03	7°♌08'03	
retrograde	3363 Jun 03 21:36	29°♍19'04		asc. node	3364 Apr 17 13:54	7°♌02'12	
evening set	3363 Jun 06 00:50	29°♍08'12			3364 Apr 30 12:03	0°♍	
desc. node	3363 Jun 08 02:55	28°♍37'59		evening max el	3364 May 04 21:07	5°♍08'58	19°40'08
inferior conj	3363 Jun 15 08:02	25°♍10'53	-2°-6'-3	retrograde	3364 May 14 15:19	9°♍53'02	
minimum elong	3363 Jun 15 02:10	25°♍19'14	2°03'59	evening set	3364 May 16 14:49	9°♍42'13	
min. Earth dist.	3363 Jun 16 04:03	24°♍42'24	0.54883 AU	desc. node	3364 May 24 23:57	5°♍53'21	
morning rise	3363 Jun 24 02:43	21°♍07'41		inferior conj	3364 May 25 08:56	5°♍39'18	0°-6'-35
direct	3363 Jun 27 17:29	20°♍39'31		minimum elong	3364 May 25 08:39	5°♍39'45	0°06'30
morning max el	3363 Jul 10 19:05	26°♍55'39	22°54'46	transit middle	3364 May 25 08:39	5°♍39'45	0°06'30
	3363 Jul 13 18:44	0°☿		transit begin	3364 May 25 05:03	5°♍45'23	
asc. node	3363 Jul 28 16:05	23°☿08'03		transit end	3364 May 25 12:14	5°♍34'07	
	3363 Aug 01 02:06	0°♎		min. Earth dist.	3364 May 27 17:45	4°♍10'35	0.55624 AU
morning set	3363 Aug 02 09:49	2°♎45'15		morning rise	3364 Jun 02 23:01	1°♍06'39	
				direct	3364 Jun 07 10:18	0°♍22'07	
superior conj	3363 Aug 09 12:53	17°♎59'26	1°36'43	morning max el	3364 Jun 21 09:26	7°♍21'37	24°37'34
minimum elong	3363 Aug 09 11:06	17°♎49'57	1°36'35		3364 Jul 07 20:58	0°☿	
max. Earth dist.	3363 Aug 12 09:19	24°♎01'02	1.33877 AU	asc. node	3364 Jul 14 13:09	12°☿46'15	
	3363 Aug 15 07:05	0°♏		morning set	3364 Jul 16 21:38	17°☿40'03	
evening rise	3363 Aug 17 07:46	4°♏03'22			3364 Jul 22 14:33	0°♎	
	3363 Aug 31 22:41	0°♏					
desc. node	3363 Sep 04 02:14	4°♏50'21		superior conj	3364 Jul 23 21:47	2°♎50'18	1°24'21
evening max el	3363 Sep 20 17:53	25°♏38'20	27°15'06	minimum elong	3364 Jul 23 19:29	2°♎37'49	1°24'03
	3363 Sep 26 01:33	0°♐		max. Earth dist.	3364 Jul 25 13:07	6°♎23'45	1.32869 AU
retrograde	3363 Oct 04 04:06	2°♐56'47		evening rise	3364 Jul 31 04:53	18°♎18'31	
evening set	3363 Oct 11 02:59	0°♐15'32			3364 Aug 06 04:41	0°♏	
	3363 Oct 11 10:50	30°♐		desc. node	3364 Aug 20 23:16	24°♏08'56	
min. Earth dist.	3363 Oct 14 22:53	26°♐38'56	0.64780 AU		3364 Aug 25 08:23	0°♏	
inferior conj	3363 Oct 17 04:19	24°♐12'38	-2°-27'-8	evening max el	3364 Sep 02 04:26	8°♏43'09	27°26'15
minimum elong	3363 Oct 17 08:23	24°♐01'28	2°25'37	retrograde	3364 Sep 15 21:29	15°♏59'24	
morning rise	3363 Oct 23 15:48	18°♏40'57		evening set	3364 Sep 23 01:56	13°♏25'36	
asc. node	3363 Oct 24 15:17	18°♏19'40		min. Earth dist.	3364 Sep 26 17:16	10°♏21'05	0.63134 AU
direct	3363 Oct 26 05:30	18°♏06'17		inferior conj	3364 Sep 29 10:46	7°♏39'57	-3°-26'-5
morning max el	3363 Nov 01 17:22	21°♏33'48	18°01'02	minimum elong	3364 Sep 29 16:11	7°♏26'34	3°24'23
	3363 Nov 08 05:45	0°♑		morning rise	3364 Oct 06 09:00	2°♏25'38	
morning set	3363 Nov 19 08:12	18°♑07'31		direct	3364 Oct 08 18:19	1°♏58'43	
	3363 Nov 26 12:04	0°♑		asc. node	3364 Oct 10 12:21	2°♏13'31	

morning max el	3364 Oct 15 09:47	5°♂24'40	17°50'37	morning max el	3365 Sep 29 00:02	19°♂01'08	17°58'50
	3364 Oct 31 08:31	0°♂			3365 Oct 07 00:07	0°♂	
morning set	3364 Oct 31 16:10	0°♂33'32		morning set	3365 Oct 14 18:16	13°♂51'18	
					3365 Oct 23 15:35	0°♂	
superior conj	3364 Nov 12 13:25	20°♂59'08	0°29'58	superior conj	3365 Oct 25 00:23	2°♂24'33	1°04'43
minimum elong	3364 Nov 12 16:21	21°♂11'18	0°29'33	minimum elong	3365 Oct 25 04:41	2°♂43'23	1°04'10
desc. node	3364 Nov 16 22:33	28°♂11'36		max. Earth dist.	3365 Nov 01 14:18	15°♂19'49	1.42281 AU
	3364 Nov 18 01:18	0°♂		desc. node	3365 Nov 03 19:35	18°♂58'43	
max. Earth dist.	3364 Nov 19 01:43	1°♂38'21	1.43875 AU	evening rise	3365 Nov 07 17:00	25°♂14'20	
evening rise	3364 Nov 27 23:19	15°♂38'47			3365 Nov 10 17:43	0°♂	
	3364 Dec 07 10:25	0°♂			3365 Dec 01 09:00	0°♂	
greatest brilliancy	3364 Dec 22 06:11	20°♂57'56	-0.5m	greatest brilliancy	3365 Dec 05 14:27	5°♂23'09	-0.3m
evening max el	3364 Dec 27 13:28	27°♂09'14	21°02'27	evening max el	3365 Dec 10 08:04	10°♂42'40	22°17'50
	3364 Dec 30 17:34	0°♂		retrograde	3365 Dec 19 21:48	16°♂24'17	
retrograde	3365 Jan 05 01:29	2°♂11'16		evening set	3365 Dec 24 09:45	14°♂36'29	
asc. node	3365 Jan 06 11:37	2°♂00'08		asc. node	3365 Dec 24 08:41	14°♂38'39	
evening set	3365 Jan 09 02:03	0°♂39'39		inferior conj	3365 Dec 29 19:18	8°♂13'41	1°46'02
	3365 Jan 09 20:58	30°♂		minimum elong	3365 Dec 29 17:10	8°♂21'04	1°45'16
inferior conj	3365 Jan 14 11:46	24°♂24'51	2°27'28	min. Earth dist.	3365 Dec 29 17:26	8°♂20'12	0.67941 AU
minimum elong	3365 Jan 14 09:16	24°♂33'28	2°26'43	morning rise	3366 Jan 04 00:28	2°♂01'02	
min. Earth dist.	3365 Jan 14 21:27	23°♂51'29	0.67661 AU	direct	3366 Jan 08 16:15	0°♂05'31	
morning rise	3365 Jan 19 16:06	18°♂09'50		morning max el	3366 Jan 18 02:46	5°♂38'49	22°16'48
direct	3365 Jan 24 22:56	15°♂51'44		greatest brilliancy	3366 Jan 22 16:30	10°♂45'30	-0.3m
morning max el	3365 Feb 04 15:33	22°♂13'49	23°44'57	desc. node	3366 Jan 30 18:49	21°♂24'25	
	3365 Feb 11 10:10	0°♂			3366 Feb 05 18:35	0°♂	
desc. node	3365 Feb 12 21:47	1°♂53'35		morning set	3366 Feb 20 11:04	22°♂41'36	
	3365 Mar 04 05:02	0°♂			3366 Feb 24 21:29	0°♂	
morning set	3365 Mar 12 00:57	12°♂54'25		max. Earth dist.	3366 Feb 25 20:22	1°♂36'07	1.40829 AU
max. Earth dist.	3365 Mar 15 23:09	19°♂43'20	1.38665 AU				
	3365 Mar 21 15:10	0°♂		superior conj	3366 Mar 05 15:10	15°♂07'16	-2°00'-18
superior conj	3365 Mar 23 08:20	3°♂12'43	-1°-42'-16	minimum elong	3366 Mar 05 18:39	15°♂22'53	2°00'08
minimum elong	3365 Mar 23 12:56	3°♂34'25	1°41'48		3366 Mar 13 17:50	0°♂	
evening rise	3365 Apr 01 12:01	20°♂54'25		evening rise	3366 Mar 15 22:22	4°♂05'54	
asc. node	3365 Apr 04 10:57	26°♂37'18		asc. node	3366 Mar 22 08:00	15°♂51'05	
	3365 Apr 06 05:58	0°♂		evening max el	3366 Apr 01 02:30	29°♂55'26	18°18'06
evening max el	3365 Apr 17 19:53	17°♂16'15	18°49'00		3366 Apr 01 04:23	0°♂	
retrograde	3365 Apr 26 01:25	21°♂17'33		retrograde	3366 Apr 08 06:41	3°♂29'57	
evening set	3365 Apr 28 05:20	21°♂01'57		evening set	3366 Apr 10 16:33	3°♂06'37	
inferior conj	3365 May 06 04:17	16°♂41'56	1°35'09		3366 Apr 15 23:38	30°♂	
minimum elong	3365 May 06 07:33	16°♂35'59	1°34'06	inferior conj	3366 Apr 17 21:06	28°♂25'46	2°45'01
min. Earth dist.	3365 May 09 10:08	14°♂21'16	0.57170 AU	minimum elong	3366 Apr 18 00:42	28°♂18'04	2°44'11
desc. node	3365 May 11 21:00	12°♂46'27		min. Earth dist.	3366 Apr 21 07:22	25°♂31'41	0.59204 AU
morning rise	3365 May 14 05:23	11°♂34'18		morning rise	3366 Apr 25 04:53	22°♂48'57	
direct	3365 May 19 16:32	10°♂21'57		desc. node	3366 Apr 28 18:02	21°♂21'58	
morning max el	3365 Jun 03 00:38	17°♂50'57	26°10'01	direct	3366 May 01 12:10	21°♂01'22	
	3365 Jun 13 02:42	0°♂		morning max el	3366 May 15 21:12	28°♂48'40	27°17'02
	3365 Jun 30 03:41	0°♂			3366 May 17 01:28	0°♂	
morning set	3365 Jul 01 08:47	2°♂32'13			3366 Jun 06 21:17	0°♂	
asc. node	3365 Jul 01 10:13	2°♂39'47		morning set	3366 Jun 15 17:31	17°♂15'09	
				asc. node	3366 Jun 18 07:16	22°♂42'34	
superior conj	3365 Jul 08 09:04	17°♂46'29	1°07'22		3366 Jun 21 15:35	0°♂	
minimum elong	3365 Jul 08 06:45	17°♂33'46	1°06'58	superior conj	3366 Jun 22 20:50	2°♂41'03	0°46'27
max. Earth dist.	3365 Jul 08 22:55	19°♂02'43	1.32271 AU	minimum elong	3366 Jun 22 18:58	2°♂30'44	0°46'05
	3365 Jul 14 00:08	0°♂		max. Earth dist.	3366 Jun 22 10:50	1°♂45'55	1.32070 AU
evening rise	3365 Jul 15 09:07	2°♂53'34		evening rise	3366 Jun 29 17:54	17°♂39'28	
	3365 Jul 30 00:56	0°♂			3366 Jul 05 20:27	0°♂	
desc. node	3365 Aug 07 20:18	12°♂40'53		desc. node	3366 Jul 25 17:19	0°♂06'24	
evening max el	3365 Aug 15 10:35	21°♂10'47	27°04'57		3366 Jul 25 14:58	0°♂	
retrograde	3365 Aug 29 07:31	28°♂23'18		evening max el	3366 Jul 28 09:42	2°♂50'32	26°10'41
evening set	3365 Sep 05 09:21	26°♂09'15		retrograde	3366 Aug 11 09:09	10°♂00'17	
min. Earth dist.	3365 Sep 09 00:52	23°♂27'38	0.61211 AU	evening set	3366 Aug 17 20:22	8°♂18'15	
inferior conj	3365 Sep 12 04:17	20°♂44'08	-4°-18'-28	min. Earth dist.	3366 Aug 21 22:27	5°♂43'32	0.59138 AU
minimum elong	3365 Sep 12 09:56	20°♂31'49	4°17'13	inferior conj	3366 Aug 25 05:14	3°♂14'58	-4°-56'-2
morning rise	3365 Sep 19 13:35	15°♂50'46		minimum elong	3366 Aug 25 08:54	3°♂08'02	4°55'40
direct	3365 Sep 21 21:32	15°♂28'36			3366 Aug 30 00:19	30°♂	
asc. node	3365 Sep 27 09:25	17°♂36'45					

morning rise	3366 Sep 02 00:55	28°04'50"1		minimum elong	3367 Aug 06 09:28	15°05'56"	5°05'56"
direct	3366 Sep 04 10:34	28°02'51"9		morning rise	3367 Aug 14 15:13	10°05'56"11	
	3366 Sep 09 12:58	0°00'		direct	3367 Aug 17 05:24	10°02'37"10	
morning max el	3366 Sep 12 08:49	2°00'14"11	18°27'02"	morning max el	3367 Aug 26 08:55	14°05'54"10	19°16'21"
asc. node	3366 Sep 14 06:27	4°00'15"20		asc. node	3367 Sep 01 03:30	21°05'54"11	
morning set	3366 Sep 28 09:14	27°00'45"34			3367 Sep 06 01:38	0°00'	
	3366 Sep 29 13:11	0°00'		morning set	3367 Sep 12 09:05	12°00'05"22	
superior conj	3366 Oct 07 10:25	14°05'57"46	1°28'00"	superior conj	3367 Sep 20 13:53	28°00'22"18	1°40'48"
minimum elong	3366 Oct 07 13:50	15°05'13"36	1°27'41"	minimum elong	3367 Sep 20 15:37	28°00'30"43	1°40'44"
max. Earth dist.	3366 Oct 14 21:16	28°05'18"14	1.40311 AU		3367 Sep 21 10:03	0°00'	
	3366 Oct 15 20:55	0°00'		max. Earth dist.	3367 Sep 27 01:09	10°05'34"35	1.38229 AU
evening rise	3366 Oct 19 07:08	5°00'46"40		evening rise	3367 Sep 30 20:53	17°05'24"16	
desc. node	3366 Oct 21 16:37	9°00'42"40			3367 Oct 08 08:54	0°00'	
	3366 Nov 03 21:34	0°00'		desc. node	3367 Oct 08 13:38	0°00'19"05	
evening max el	3366 Nov 22 22:30	24°00'18"56	23°37'40"		3367 Oct 29 07:31	0°00'	
	3366 Nov 30 14:27	0°00'		evening max el	3367 Nov 05 10:59	7°00'59"00	24°55'35"
retrograde	3366 Dec 03 15:11	0°00'38"05		retrograde	3367 Nov 17 04:33	14°00'47"46	
	3366 Dec 06 11:00	30°00'11"33		evening set	3367 Nov 22 19:15	12°00'27"52	
evening set	3366 Dec 08 16:02	28°00'33"46		min. Earth dist.	3367 Nov 27 09:12	7°00'18"37	0.67445 AU
asc. node	3366 Dec 11 05:42	25°00'54"20		inferior conj	3367 Nov 28 08:32	6°00'01"43	0°05'00"
min. Earth dist.	3366 Dec 13 14:09	22°00'50"20	0.67863 AU	minimum elong	3367 Nov 28 08:25	6°00'02"08	0°04'56"
inferior conj	3366 Dec 14 02:49	22°00'07"02	0°58'11"	transit middle	3367 Nov 28 08:25	6°00'02"08	0°04'56"
minimum elong	3366 Dec 14 01:30	22°00'11"33	0°57'39"	transit begin	3367 Nov 28 05:47	6°00'10"49	
morning rise	3366 Dec 19 11:08	15°00'58"33		transit end	3367 Nov 28 11:03	5°00'53"27	
direct	3366 Dec 23 12:39	14°00'25"51		asc. node	3367 Nov 28 02:43	6°00'20"57	
morning max el	3366 Dec 31 20:02	19°00'14"03	20°55'38"	morning rise	3367 Dec 03 22:07	29°00'15"47	
greatest brilliancy	3367 Jan 06 09:47	25°00'40"53	-0.5m		3367 Dec 03 22:00	30°00'15"47	
	3367 Jan 09 16:12	0°00'		direct	3367 Dec 07 10:57	28°00'14"78	
desc. node	3367 Jan 17 15:50	11°00'22"09			3367 Dec 11 05:16	0°00'	
	3367 Jan 29 22:54	0°00'		morning max el	3367 Dec 14 21:02	2°00'59"57	19°46'37"
morning set	3367 Jan 30 18:07	1°00'14"55		greatest brilliancy	3367 Dec 22 13:40	12°00'28"28	-0.6m
max. Earth dist.	3367 Feb 07 23:54	14°00'22"47	1.42774 AU		3368 Jan 03 10:54	0°00'	
superior conj	3367 Feb 14 23:16	25°00'57"20	-2°-6'-48"	desc. node	3368 Jan 04 12:51	1°00'38"57	
minimum elong	3367 Feb 14 22:54	25°00'55"45	2°06'48"	morning set	3368 Jan 09 14:03	9°00'24"14	
	3367 Feb 17 08:10	0°00'		max. Earth dist.	3368 Jan 21 10:46	27°00'57"59	1.44254 AU
evening rise	3367 Feb 26 18:07	16°00'33"41			3368 Jan 22 17:24	0°00'	
	3367 Mar 06 09:19	0°00'		superior conj	3368 Jan 26 05:21	5°00'37"08	-1°-56'-32"
asc. node	3367 Mar 09 05:02	4°00'36"37		minimum elong	3368 Jan 25 23:08	5°00'12"02	1°56'10"
evening max el	3367 Mar 15 13:44	12°00'58"03	18°07'01"	evening rise	3368 Feb 08 18:49	28°00'08"44	
retrograde	3367 Mar 22 04:00	16°00'21"28			3368 Feb 09 21:00	0°00'	
evening set	3367 Mar 24 19:37	15°00'48"29		asc. node	3368 Feb 24 02:02	22°00'44"38	
inferior conj	3367 Mar 31 09:11	10°00'46"48	3°23'59"	evening max el	3368 Feb 27 02:27	26°00'15"33	18°15'05"
minimum elong	3367 Mar 31 11:20	10°00'41"30	3°23'43"	retrograde	3368 Mar 04 12:54	29°00'41"46	
min. Earth dist.	3367 Apr 03 12:02	7°00'43"59	0.61380 AU	evening set	3368 Mar 07 10:06	28°00'57"52	
morning rise	3367 Apr 07 00:06	4°00'51"01		inferior conj	3368 Mar 13 12:29	23°00'36"20	3°38'22"
direct	3367 Apr 13 19:09	2°00'30"30		minimum elong	3368 Mar 13 12:48	23°00'35"26	3°38'22"
desc. node	3367 Apr 15 15:03	2°00'40"04		min. Earth dist.	3368 Mar 16 01:35	20°00'47"57	0.63413 AU
morning max el	3367 Apr 28 00:04	10°00'27"17	27°48'53"	morning rise	3368 Mar 19 13:33	17°00'29"56	
	3367 May 13 05:31	0°00'		direct	3368 Mar 26 11:02	14°00'47"30	
	3367 May 30 01:46	0°00'		desc. node	3368 Apr 01 12:03	16°00'32"49	
morning set	3367 May 30 21:57	1°00'42"54		morning max el	3368 Apr 09 07:33	22°00'44"59	27°43'21"
asc. node	3367 Jun 05 04:18	12°00'50"18			3368 Apr 15 17:31	0°00'	
max. Earth dist.	3367 Jun 05 21:02	14°00'21"03	1.32271 AU		3368 May 05 10:55	0°00'	
superior conj	3367 Jun 07 07:25	17°00'28"34	0°22'15"	morning set	3368 May 13 19:48	15°00'48"00	
minimum elong	3367 Jun 07 06:24	17°00'23"04	0°22'02"	max. Earth dist.	3368 May 19 01:38	26°00'35"38	1.32892 AU
	3367 Jun 13 01:08	0°00'			3368 May 20 16:03	0°00'	
evening rise	3367 Jun 14 05:07	2°00'29"40		superior conj	3368 May 21 15:01	2°00'03"14	0°-4'-31"
	3367 Jun 29 01:49	0°00'		minimum elong	3368 May 21 15:14	2°00'04"25	0°04'28"
evening max el	3367 Jul 10 01:46	13°00'44"51	24°49'25"	behind sun begin	3368 May 21 10:08	1°00'36"57	
desc. node	3367 Jul 12 14:20	15°00'58"59		behind sun end	3368 May 21 20:21	2°00'31"55	
retrograde	3367 Jul 24 00:26	20°00'48"25		asc. node	3368 May 22 01:21	2°00'58"50	
evening set	3367 Jul 29 07:21	19°00'45"01		evening rise	3368 May 28 16:56	17°00'18"00	
min. Earth dist.	3367 Aug 03 13:10	16°00'58"01	0.57175 AU		3368 Jun 03 23:48	0°00'	
inferior conj	3367 Aug 06 10:40	15°00'03"57	-5°-5'-57"	evening max el	3368 Jun 20 15:08	24°00'13"26	23°13'59"

desc. node	3368 Jun 28 11:20	29°☿45'08		3369 May 29 03:38	0°☿	
	3368 Jun 29 02:02	0°♌	evening max el	3369 Jun 02 09:05	4°☿46'02	21°39'42
retrograde	3368 Jul 04 03:05	0°♌57'54	retrograde	3369 Jun 14 18:27	10°☿52'13	
evening set	3368 Jul 07 21:49	0°♌26'39	desc. node	3369 Jun 15 08:21	10°☿51'27	
	3368 Jul 09 07:42	30°♊☿	evening set	3369 Jun 17 07:36	10°☿37'33	
min. Earth dist.	3368 Jul 15 00:41	27°☿12'22	0.55658 AU	inferior conj	3369 Jun 26 16:14	6°☿36'25 -3°-10'-34
inferior conj	3368 Jul 16 20:26	26°☿08'17	-4°-33'-4	minimum elong	3369 Jun 26 08:13	6°☿47'36 3°08'08
minimum elong	3368 Jul 16 13:38	26°☿18'18	4°31'52	min. Earth dist.	3369 Jun 26 11:38	6°☿42'50 0.54901 AU
morning rise	3368 Jul 25 08:25	22°☿15'19		morning rise	3369 Jul 05 09:52	2°☿43'11
direct	3368 Jul 28 05:28	21°☿55'20		direct	3369 Jul 08 16:42	2°☿19'37
morning max el	3368 Aug 07 21:50	26°☿52'43	20°27'08	morning max el	3369 Jul 20 23:08	8°☿05'57 21°57'05
	3368 Aug 10 21:03	0°♌		asc. node	3369 Aug 04 21:36	29°☿20'42
asc. node	3368 Aug 18 00:32	10°♌20'01			3369 Aug 05 05:59	0°♌
morning set	3368 Aug 26 14:58	26°♌43'21		morning set	3369 Aug 11 00:35	11°♌32'14
	3368 Aug 28 05:14	0°♎				
			superior conj	3369 Aug 18 06:50	26°♌52'44	1°41'27
superior conj	3368 Sep 03 05:59	12°♎24'42	1°44'46	minimum elong	3369 Aug 18 05:35	26°♌46'11 1°41'23
minimum elong	3368 Sep 03 06:02	12°♎24'58	1°44'46		3369 Aug 19 18:40	0°♎
max. Earth dist.	3368 Sep 08 07:51	22°♎29'06	1.36286 AU	max. Earth dist.	3369 Aug 21 22:04	4°♎24'31 1.34648 AU
evening rise	3368 Sep 12 07:43	0°♊01'23		evening rise	3369 Aug 26 11:04	13°♎25'12
	3368 Sep 12 07:25	0°♊			3369 Sep 04 14:45	0°♊
desc. node	3368 Sep 24 10:40	20°♊43'29		desc. node	3369 Sep 11 07:42	10°♊49'04
	3368 Sep 30 13:22	0°♋			3369 Sep 25 12:10	0°♋
evening max el	3368 Oct 17 23:22	21°♋41'07	26°04'07	evening max el	3369 Sep 30 11:56	5°♋17'10 26°55'47
retrograde	3368 Oct 30 12:56	28°♋48'33		retrograde	3369 Oct 13 15:50	12°♋33'20
evening set	3368 Nov 05 17:40	26°♋15'46		evening set	3369 Oct 20 09:11	9°♋52'49
min. Earth dist.	3368 Nov 10 00:14	21°♋42'14	0.66690 AU	min. Earth dist.	3369 Oct 24 08:45	5°♋55'54 0.65582 AU
inferior conj	3368 Nov 11 10:39	19°♋55'03	0°-52'-18	inferior conj	3369 Oct 26 07:05	3°♋42'19 -1°-52'-17
minimum elong	3368 Nov 11 12:03	19°♋50'43	0°51'44	minimum elong	3369 Oct 26 10:12	3°♋33'22 1°51'03
asc. node	3368 Nov 13 23:43	16°♋53'40			3369 Oct 29 18:44	30°♊☿
morning rise	3368 Nov 17 07:27	14°♋02'24		asc. node	3369 Oct 31 20:46	28°♊24'17
direct	3368 Nov 20 09:33	13°♋07'50		morning rise	3369 Nov 01 12:49	28°♊02'10
morning max el	3368 Nov 27 05:22	16°♋54'36	18°52'39	direct	3369 Nov 04 06:25	27°♊21'15
	3368 Dec 07 03:46	0°♌			3369 Nov 09 20:43	0°♋
morning set	3368 Dec 19 00:23	18°♌24'02		morning max el	3369 Nov 10 19:04	0°♋52'53 18°15'02
desc. node	3368 Dec 21 09:54	22°♌09'37		morning set	3369 Nov 29 15:11	28°♋50'27
	3368 Dec 26 09:54	0°♌			3369 Nov 30 08:16	0°♌
max. Earth dist.	3369 Jan 03 03:33	12°♌07'54	1.45088 AU	desc. node	3369 Dec 08 06:58	12°♌49'31
superior conj	3369 Jan 04 13:35	14°♌21'47	-1°-26'-50	superior conj	3369 Dec 14 16:11	22°♌57'27 0°-42'-28
minimum elong	3369 Jan 04 04:27	13°♌45'51	1°25'55	minimum elong	3369 Dec 14 10:47	22°♌36'10 0°41'46
	3369 Jan 14 10:08	0°♍		max. Earth dist.	3369 Dec 16 23:05	26°♌33'29 1.45179 AU
evening rise	3369 Jan 19 21:00	8°♍46'57			3369 Dec 19 03:44	0°♌
	3369 Feb 02 04:01	0°♋		evening rise	3369 Dec 31 00:33	18°♌32'19
evening max el	3369 Feb 09 13:58	9°♋41'39	18°41'23		3370 Jan 07 09:10	0°♍
asc. node	3369 Feb 09 23:03	10°♋04'17		greatest brilliancy	3370 Jan 15 07:06	12°♍01'22 -0.7m
retrograde	3369 Feb 16 05:20	13°♋22'57		evening max el	3370 Jan 23 22:05	23°♍11'49 19°24'43
evening set	3369 Feb 19 08:34	12°♋27'06		asc. node	3370 Jan 27 20:04	26°♍22'17
inferior conj	3369 Feb 25 03:04	6°♋47'17	3°34'20	retrograde	3370 Jan 31 02:00	27°♍18'47
minimum elong	3369 Feb 25 01:53	6°♋50'51	3°34'14	evening set	3370 Feb 03 12:14	26°♍10'01
min. Earth dist.	3369 Feb 27 00:29	4°♋29'35	0.65124 AU	inferior conj	3370 Feb 09 01:37	20°♍14'12 3°16'29
morning rise	3369 Mar 02 18:01	0°♋35'11		minimum elong	3370 Feb 08 23:30	20°♍21'05 3°16'07
	3369 Mar 03 11:19	30°♊☿		min. Earth dist.	3370 Feb 10 07:59	18°♍35'30 0.66428 AU
direct	3369 Mar 09 09:59	27°♍45'15		morning rise	3370 Feb 14 10:00	13°♍59'16
	3369 Mar 16 01:16	0°♋		direct	3370 Feb 20 15:05	11°♍14'48
desc. node	3369 Mar 19 09:05	2°♋27'17		morning max el	3370 Mar 05 02:53	18°♍40'13 25°58'20
morning max el	3369 Mar 22 17:12	5°♋32'58	27°03'59	desc. node	3370 Mar 06 06:08	19°♍50'40
	3369 Apr 10 09:46	0°♎			3370 Mar 14 17:03	0°♋
morning set	3369 Apr 27 08:04	29°♎20'46			3370 Apr 03 10:28	0°♎
	3369 Apr 27 16:11	0°♏		morning set	3370 Apr 10 06:48	12°♎10'04
max. Earth dist.	3369 May 01 21:00	8°♏20'00	1.33968 AU	max. Earth dist.	3370 Apr 14 05:08	19°♎35'14 1.35503 AU
					3370 Apr 19 11:28	0°♏
superior conj	3369 May 05 17:35	16°♏18'01	0°-32'-54			
minimum elong	3369 May 05 19:17	16°♏26'57	0°32'33	superior conj	3370 Apr 19 12:39	0°♏06'02 -1°-1'-34
asc. node	3369 May 08 22:22	23°♏03'33		minimum elong	3370 Apr 19 15:53	0°♏22'24 1°01'00
	3369 May 12 05:01	0°♐		asc. node	3370 Apr 25 19:25	13°♏00'35
evening rise	3369 May 13 03:26	1°♐57'36		evening rise	3370 Apr 27 10:40	16°♏22'22

	3370 May 04 10:18	0°♊			3371 Apr 11 07:14	0°♋		
evening max el	3370 May 15 13:43	15°♊49'42	20°18'25	evening rise	3371 Apr 11 12:09	0°♋24'30		
retrograde	3370 May 26 08:04	21°♊04'19		asc. node	3371 Apr 12 16:27	2°♋44'48		
evening set	3370 May 28 08:13	20°♊54'10		evening max el	3371 Apr 28 06:24	27°♋34'14	19°15'50	
desc. node	3370 Jun 02 05:21	19°♊15'33			3371 May 01 05:58	0°♌		
inferior conj	3370 Jun 06 11:06	16°♊55'51	-1°-14'-57	retrograde	3371 May 07 08:10	1°♌58'40		
minimum elong	3370 Jun 06 07:34	17°♊01'03	1°13'40	evening set	3371 May 09 08:47	1°♌46'26		
min. Earth dist.	3370 Jun 08 00:00	16°♊01'42	0.55089 AU		3371 May 13 22:58	30°♌♋		
morning rise	3370 Jun 15 05:00	12°♊41'58		inferior conj	3371 May 17 19:02	27°♋37'05	0°39'58	
direct	3370 Jun 19 03:31	12°♊08'28		minimum elong	3371 May 17 20:39	27°♋34'22	0°39'24	
morning max el	3370 Jul 02 16:04	18°♊43'52	23°38'46	desc. node	3371 May 20 02:23	26°♋04'50		
	3370 Jul 11 23:42	0°♋		min. Earth dist.	3371 May 20 14:54	25°♋44'30	0.56199 AU	
asc. node	3370 Jul 22 18:41	18°♋47'28		morning rise	3371 May 26 04:23	22°♋49'00		
morning set	3370 Jul 26 12:06	26°♋26'34		direct	3371 May 31 01:36	21°♋54'01		
	3370 Jul 28 04:16	0°♌		morning max el	3371 Jun 14 06:17	29°♋08'25	25°19'06	
					3371 Jun 15 03:19	0°♌		
superior conj	3370 Aug 02 13:30	11°♌37'38	1°32'05		3371 Jul 05 09:22	0°♍		
minimum elong	3370 Aug 02 11:27	11°♌26'33	1°31'52	asc. node	3371 Jul 09 15:45	8°♍32'48		
max. Earth dist.	3370 Aug 04 21:15	16°♌35'55	1.33399 AU	morning set	3371 Jul 10 23:51	11°♍20'56		
evening rise	3370 Aug 10 02:45	27°♌24'28						
	3370 Aug 11 10:05	0°♎		superior conj	3371 Jul 17 23:41	26°♍31'43	1°17'40	
	3370 Aug 28 21:09	0°♏		minimum elong	3371 Jul 17 21:20	26°♍18'49	1°17'19	
desc. node	3370 Aug 29 04:43	0°♏27'44		max. Earth dist.	3371 Jul 19 03:50	29°♍05'35	1.32562 AU	
evening max el	3370 Sep 12 23:35	18°♏36'08	27°23'27		3371 Jul 19 13:50	0°♐		
retrograde	3370 Sep 26 12:53	25°♏54'05		evening rise	3371 Jul 25 03:14	11°♏49'00		
evening set	3370 Oct 03 15:08	23°♏14'15			3371 Aug 03 14:51	0°♑		
min. Earth dist.	3370 Oct 07 08:39	19°♏52'24	0.64122 AU	desc. node	3371 Aug 16 01:43	19°♑28'28		
inferior conj	3370 Oct 09 19:26	17°♏18'25	-2°-52'-36		3371 Aug 24 21:19	0°♒		
minimum elong	3370 Oct 10 00:09	17°♏06'00	2°50'56	evening max el	3371 Aug 26 08:23	1°♒26'01	27°21'15	
morning rise	3370 Oct 16 11:26	11°♒53'59		retrograde	3371 Sep 09 03:35	8°♒41'39		
direct	3370 Oct 18 22:57	11°♒23'02		evening set	3371 Sep 16 08:06	6°♒14'23		
asc. node	3370 Oct 18 17:51	11°♒23'16		min. Earth dist.	3371 Sep 19 22:30	3°♒21'15	0.62338 AU	
morning max el	3370 Oct 25 11:26	14°♒48'36	17°54'28	inferior conj	3371 Sep 22 20:48	0°♒36'56	-3°-49'-33	
	3370 Nov 05 03:30	0°♓		minimum elong	3371 Sep 23 02:32	0°♒23'32	3°47'58	
morning set	3370 Nov 11 09:45	10°♓37'36			3371 Sep 23 12:39	30°♓♑		
	3370 Nov 22 23:11	0°♊		morning rise	3371 Sep 29 23:49	25°♓31'27		
				direct	3371 Oct 02 08:03	25°♓07'01		
superior conj	3370 Nov 24 09:49	2°♊21'04	0°05'13	asc. node	3371 Oct 05 14:56	25°♓56'32		
minimum elong	3370 Nov 24 10:25	2°♊23'29	0°05'08	morning max el	3371 Oct 09 03:24	28°♓34'53	17°51'48	
behind sun begin	3370 Nov 24 00:48	1°♊44'24			3371 Oct 10 11:24	0°♌		
behind sun end	3370 Nov 24 20:02	3°♊02'29		morning set	3371 Oct 25 02:11	23°♌27'42		
desc. node	3370 Nov 25 03:59	3°♊34'42			3371 Oct 28 17:59	0°♍		
max. Earth dist.	3370 Nov 29 17:38	10°♊53'59	1.44535 AU					
evening rise	3370 Dec 10 12:15	27°♊43'16		superior conj	3371 Nov 05 05:34	13°♍02'05	0°46'05	
	3370 Dec 11 23:52	0°♎		minimum elong	3371 Nov 05 09:27	13°♍18'36	0°45'33	
greatest brilliancy	3370 Dec 31 21:09	29°♎16'55	-0.5m	desc. node	3371 Nov 12 01:01	24°♍22'15		
	3371 Jan 01 10:08	0°♏		max. Earth dist.	3371 Nov 12 08:23	24°♍52'10	1.43247 AU	
evening max el	3371 Jan 07 01:10	6°♏42'52	20°23'11		3371 Nov 15 12:52	0°♐		
asc. node	3371 Jan 14 17:06	11°♏23'16		evening rise	3371 Nov 19 23:02	6°♐58'13		
retrograde	3371 Jan 15 00:08	11°♏23'44			3371 Dec 05 07:14	0°♑		
evening set	3371 Jan 18 18:54	10°♏00'53		greatest brilliancy	3371 Dec 16 01:11	14°♑38'51	-0.4m	
inferior conj	3371 Jan 24 05:24	3°♏51'55	2°47'57	evening max el	3371 Dec 20 22:43	20°♑15'13	21°33'39	
minimum elong	3371 Jan 24 02:53	4°♏00'28	2°47'18	retrograde	3371 Dec 29 21:36	25°♑34'35		
min. Earth dist.	3371 Jan 24 22:12	2°♏54'51	0.67318 AU	asc. node	3372 Jan 01 14:09	24°♑55'07		
	3371 Jan 27 04:10	30°♓♑		evening set	3372 Jan 03 02:41	23°♑56'22		
morning rise	3371 Jan 29 10:22	27°♑36'14		inferior conj	3372 Jan 08 12:09	17°♑37'39	2°10'48	
direct	3371 Feb 04 01:38	25°♑06'44		minimum elong	3372 Jan 08 09:45	17°♑45'58	2°10'00	
	3371 Feb 13 11:14	0°♒		min. Earth dist.	3372 Jan 08 16:51	17°♑21'21	0.67819 AU	
morning max el	3371 Feb 15 11:34	1°♒55'55	24°35'55	morning rise	3372 Jan 13 16:30	11°♑23'08		
desc. node	3371 Feb 21 03:11	8°♒16'49		direct	3372 Jan 18 16:52	9°♑14'18		
	3371 Mar 08 18:47	0°♓		morning max el	3372 Jan 28 20:44	15°♑16'23	23°07'01	
morning set	3371 Mar 23 10:38	24°♓00'24		greatest brilliancy	3372 Feb 02 19:09	20°♑47'34	-0.3m	
	3371 Mar 26 19:08	0°♔		desc. node	3372 Feb 08 00:14	27°♑27'53		
max. Earth dist.	3371 Mar 27 03:17	0°♔37'08	1.37433 AU		3372 Feb 09 21:04	0°♕		
					3372 Feb 29 18:34	0°♕		
superior conj	3371 Apr 02 20:59	13°♔18'05	-1°-28'-34	morning set	3372 Mar 03 13:22	4°♕35'33		
minimum elong	3371 Apr 03 01:22	13°♔39'22	1°27'59	max. Earth dist.	3372 Mar 07 22:00	12°♕00'00	1.39590 AU	

superior conj	3372 Mar 15 14:31	25° K 44'20	-1°-51'00		3373 Feb 21 07:46	0° K	
minimum elong	3372 Mar 15 18:56	26° K 04'41	1°50'39				
	3372 Mar 17 21:31	0° Y		superior conj	3373 Feb 25 12:18	7° K 12'49	-2°-4'-48
evening rise	3372 Mar 25 05:00	13° Y 56'34		minimum elong	3373 Feb 25 14:31	7° K 22'31	2°04'44
asc. node	3372 Mar 29 13:29	22° Y 11'15		evening rise	3373 Mar 08 09:37	26° K 50'04	
	3372 Apr 02 23:43	0° X			3373 Mar 10 03:00	0° Y	
evening max el	3372 Apr 10 08:58	9° X 56'17	18°33'26	asc. node	3373 Mar 16 10:30	11° Y 13'50	
retrograde	3372 Apr 18 02:14	13° X 43'53		evening max el	3373 Mar 24 18:02	22° Y 46'59	18°11'05
evening set	3372 Apr 20 08:39	13° X 25'20		retrograde	3373 Mar 31 14:43	26° Y 14'35	
inferior conj	3372 Apr 27 23:30	8° X 57'01	2°08'49	evening set	3373 Apr 03 03:15	25° Y 47'10	
minimum elong	3372 Apr 28 03:15	8° X 49'42	2°07'45	inferior conj	3373 Apr 10 00:57	20° Y 57'25	3°04'59
min. Earth dist.	3372 May 01 09:17	6° X 19'01	0.57999 AU	minimum elong	3373 Apr 10 04:03	20° Y 50'20	3°04'23
morning rise	3372 May 05 17:27	3° X 35'43		min. Earth dist.	3373 Apr 13 09:13	17° Y 56'41	0.60132 AU
desc. node	3372 May 05 23:25	3° X 28'35		morning rise	3373 Apr 17 01:21	15° Y 11'42	
direct	3372 May 11 14:10	2° X 08'22		desc. node	3373 Apr 22 20:25	13° Y 10'54	
morning max el	3372 May 25 23:18	9° X 46'54	26°42'14	direct	3373 Apr 23 15:00	13° Y 09'14	
	3372 Jun 10 09:55	0° II		morning max el	3373 May 07 22:22	21° Y 00'49	27°35'10
morning set	3372 Jun 24 10:08	26° II 09'34			3373 May 15 17:13	0° X	
asc. node	3372 Jun 25 12:47	28° II 30'35			3373 Jun 03 07:34	0° II	
	3372 Jun 26 05:30	0° X		morning set	3373 Jun 08 17:19	10° II 47'09	
				asc. node	3373 Jun 12 09:48	18° II 36'09	
superior conj	3372 Jul 01 11:23	11° X 27'59	0°58'56	max. Earth dist.	3373 Jun 15 02:34	24° II 29'10	1.32111 AU
minimum elong	3372 Jul 01 09:12	11° X 15'59	0°58'33				
max. Earth dist.	3372 Jul 01 14:48	11° X 46'51	1.32135 AU	superior conj	3373 Jun 15 22:53	26° II 20'46	0°36'34
evening rise	3372 Jul 08 09:40	26° X 29'36		minimum elong	3373 Jun 15 21:19	26° II 12'13	0°36'15
	3372 Jul 10 02:10	0° Q			3373 Jun 17 14:42	0° X	
	3372 Jul 27 05:07	0° P		evening rise	3373 Jun 22 19:46	11° X 18'55	
desc. node	3372 Aug 01 22:44	7° P 35'01			3373 Jul 02 08:11	0° Q	
evening max el	3372 Aug 07 11:53	13° P 34'30	26°45'49	desc. node	3373 Jul 19 19:44	24° Q 25'10	
retrograde	3372 Aug 21 10:29	20° P 46'00		evening max el	3373 Jul 20 08:06	24° Q 55'06	25°38'51
evening set	3372 Aug 28 07:28	18° P 44'33			3373 Jul 27 01:14	0° P	
min. Earth dist.	3372 Sep 01 01:54	16° P 07'49	0.60329 AU	retrograde	3373 Aug 03 07:39	2° P 02'03	
inferior conj	3372 Sep 04 07:45	13° P 28'22	-4°-36'-55	evening set	3373 Aug 09 08:27	0° P 36'31	
minimum elong	3372 Sep 04 12:53	13° P 17'47	4°36'01		3373 Aug 10 13:45	30° R Q	
morning rise	3372 Sep 11 21:35	8° P 44'35		min. Earth dist.	3373 Aug 13 20:12	27° Q 58'46	0.58280 AU
direct	3372 Sep 14 05:45	8° P 23'48		inferior conj	3373 Aug 17 00:44	25° Q 42'55	-5°-4'-32
asc. node	3372 Sep 21 11:59	11° P 53'33		minimum elong	3373 Aug 17 02:39	25° Q 39'31	5°04'27
morning max el	3372 Sep 21 15:43	12° P 02'29	18°08'15	morning rise	3373 Aug 25 00:20	21° Q 22'28	
	3372 Oct 03 15:24	0° A		direct	3373 Aug 27 11:45	21° Q 03'07	
morning set	3372 Oct 07 10:21	7° A 02'31		morning max el	3373 Sep 04 21:06	25° Q 02'23	18°45'16
				asc. node	3373 Sep 08 09:01	28° Q 59'32	
superior conj	3372 Oct 17 02:58	24° A 57'47	1°15'57		3373 Sep 09 03:06	0° P	
minimum elong	3372 Oct 17 07:04	25° A 16'12	1°15'30	morning set	3373 Sep 21 05:32	21° P 09'05	
	3372 Oct 19 23:04	0° M			3373 Sep 25 18:13	0° A	
max. Earth dist.	3372 Oct 24 18:16	8° M 15'08	1.41474 AU				
desc. node	3372 Oct 28 22:03	15° M 08'18		superior conj	3373 Sep 29 21:05	7° A 54'34	1°34'36
evening rise	3372 Oct 30 00:32	16° M 55'41		minimum elong	3373 Sep 29 23:50	8° A 07'31	1°34'25
	3372 Nov 07 08:54	0° J		max. Earth dist.	3373 Oct 06 23:55	20° A 56'20	1.39434 AU
greatest brilliancy	3372 Nov 27 10:59	28° J 01'01	-0.3m	evening rise	3373 Oct 11 00:50	27° A 55'58	
	3372 Nov 29 03:02	0° Z			3373 Oct 12 06:15	0° M	
evening max el	3372 Dec 02 15:25	3° Z 49'44	22°51'41	desc. node	3373 Oct 15 19:04	5° M 49'22	
retrograde	3372 Dec 12 16:43	9° Z 47'39			3373 Oct 31 21:50	0° J	
evening set	3372 Dec 17 09:55	7° Z 53'03		evening max el	3373 Nov 15 04:53	17° J 27'44	24°11'27
asc. node	3372 Dec 18 11:12	6° Z 55'22		retrograde	3373 Nov 26 08:18	23° J 59'50	
inferior conj	3372 Dec 22 19:52	1° Z 28'16	1°26'29	evening set	3373 Dec 01 15:04	21° J 48'39	
minimum elong	3372 Dec 22 18:02	1° Z 34'37	1°25'46	asc. node	3373 Dec 05 08:14	17° J 43'48	
min. Earth dist.	3372 Dec 22 13:26	1° Z 50'31	0.67952 AU	min. Earth dist.	3373 Dec 06 09:37	16° J 19'46	0.67734 AU
	3372 Dec 23 21:37	30° R Q		inferior conj	3373 Dec 07 02:48	15° J 21'52	0°36'12
morning rise	3372 Dec 28 02:05	25° J 17'01		minimum elong	3373 Dec 07 01:57	15° J 24'46	0°35'50
direct	3373 Jan 01 11:45	23° J 31'04		morning rise	3373 Dec 12 13:08	9° J 16'03	
morning max el	3373 Jan 10 09:57	28° J 44'10	21°40'59	direct	3373 Dec 16 09:07	7° J 52'23	
	3373 Jan 11 15:05	0° Z		morning max el	3373 Dec 24 06:23	12° J 23'22	20°24'33
greatest brilliancy	3373 Jan 15 06:18	4° Z 12'58	-0.4m	greatest brilliancy	3373 Dec 30 13:56	19° J 51'55	-0.5m
desc. node	3373 Jan 24 21:15	17° Z 10'56			3374 Jan 06 19:55	0° Z	
	3373 Feb 02 13:55	0° X		desc. node	3374 Jan 11 18:17	7° Z 17'12	
morning set	3373 Feb 11 11:01	13° X 47'22		morning set	3374 Jan 21 10:20	22° Z 00'54	
max. Earth dist.	3373 Feb 17 21:21	24° X 14'20	1.41699 AU		3374 Jan 26 12:58	0° X	

max. Earth dist.	3374 Jan 31 04:37	7° \approx 24'40	1.43475 AU	greatest brilliancy	3374 Dec 16 15:45	7° \approx 59'45	-0.7m
				desc. node	3374 Dec 29 15:20	27° \approx 40'29	
superior conj	3374 Feb 06 09:24	17° \approx 32'11	-2°-4'-45	morning set	3374 Dec 31 09:40	0° \approx 24'19	
minimum elong	3374 Feb 06 06:36	17° \approx 20'34	2°04'42		3374 Dec 31 03:23	0° \approx	
	3374 Feb 13 18:22	0° \approx		max. Earth dist.	3375 Jan 13 18:37	21° \approx 17'47	1.44691 AU
evening rise	3374 Feb 18 21:44	8° \approx 55'49					
asc. node	3374 Mar 03 07:31	29° \approx 44'09		superior conj	3375 Jan 17 04:59	26° \approx 44'30	-1°-46'-13
	3374 Mar 03 11:52	0° \approx		minimum elong	3375 Jan 16 20:48	26° \approx 11'53	1°45'36
evening max el	3374 Mar 08 06:11	5° \approx 56'10	18°08'10		3375 Jan 19 05:54	0° \approx	
retrograde	3374 Mar 14 17:39	9° \approx 19'15		evening rise	3375 Jan 31 13:15	20° \approx 07'17	
evening set	3374 Mar 17 11:40	8° \approx 41'38			3375 Feb 06 11:44	0° \approx	
inferior conj	3374 Mar 23 19:58	3° \approx 31'01	3°32'43	asc. node	3375 Feb 18 04:33	17° \approx 32'59	
minimum elong	3374 Mar 23 21:20	3° \approx 27'28	3°32'36	evening max el	3375 Feb 19 18:38	19° \approx 17'26	18°24'04
min. Earth dist.	3374 Mar 26 17:17	0° \approx 32'13	0.62270 AU	retrograde	3375 Feb 26 06:20	22° \approx 49'05	
	3374 Mar 27 06:28	30° \approx		evening set	3375 Mar 01 05:56	22° \approx 00'17	
morning rise	3374 Mar 30 04:34	27° \approx 30'00		inferior conj	3375 Mar 07 04:33	16° \approx 30'35	3°38'36
direct	3374 Apr 06 01:38	24° \approx 58'54		minimum elong	3375 Mar 07 04:11	16° \approx 31'40	3°38'36
desc. node	3374 Apr 09 17:27	25° \approx 37'26		min. Earth dist.	3375 Mar 09 11:00	13° \approx 53'42	0.64179 AU
	3374 Apr 16 22:41	0° \approx		morning rise	3375 Mar 13 00:50	10° \approx 20'59	
morning max el	3374 Apr 20 03:31	2° \approx 56'27	27°51'12	direct	3375 Mar 19 20:35	7° \approx 33'45	
	3374 May 10 03:51	0° \approx		desc. node	3375 Mar 27 14:29	10° \approx 25'57	
morning set	3374 May 23 19:15	25° \approx 06'00		morning max el	3375 Apr 02 12:32	15° \approx 29'07	27°30'28
	3374 May 26 04:21	0° \approx			3375 Apr 14 10:09	0° \approx	
max. Earth dist.	3374 May 29 11:05	6° \approx 57'55	1.32486 AU		3375 May 02 20:44	0° \approx	
asc. node	3374 May 30 06:49	8° \approx 44'21		morning set	3375 May 07 13:28	8° \approx 58'21	
				max. Earth dist.	3375 May 12 12:17	19° \approx 00'31	1.33292 AU
superior conj	3374 May 31 08:23	11° \approx 03'07	0°11'12				
minimum elong	3374 May 31 07:52	11° \approx 00'16	0°11'05	superior conj	3375 May 15 14:06	25° \approx 29'30	0°-16'-24
behind sun begin	3374 May 31 04:08	10° \approx 39'57		minimum elong	3375 May 15 14:56	25° \approx 33'55	0°16'15
behind sun end	3374 May 31 11:36	11° \approx 20'35		asc. node	3375 May 17 03:51	28° \approx 51'18	
evening rise	3374 Jun 07 07:28	26° \approx 08'59			3375 May 17 16:39	0° \approx	
	3374 Jun 09 03:27	0° \approx		evening rise	3375 May 22 18:57	10° \approx 53'45	
	3374 Jun 26 21:27	0° \approx			3375 Jun 01 15:51	0° \approx	
evening max el	3374 Jul 01 22:06	5° \approx 34'23	24°09'32	evening max el	3375 Jun 13 12:14	15° \approx 59'33	22°32'50
desc. node	3374 Jul 06 16:44	9° \approx 28'19		desc. node	3375 Jun 23 13:44	22° \approx 09'23	
retrograde	3374 Jul 15 17:25	12° \approx 31'50		retrograde	3375 Jun 26 15:11	22° \approx 30'54	
evening set	3374 Jul 20 09:34	11° \approx 43'22		evening set	3375 Jun 29 19:32	22° \approx 08'37	
min. Earth dist.	3374 Jul 26 08:43	8° \approx 46'33	0.56465 AU	min. Earth dist.	3375 Jul 07 19:42	18° \approx 38'45	0.55226 AU
inferior conj	3374 Jul 28 21:30	7° \approx 12'10	-4°-57'-59	inferior conj	3375 Jul 09 00:06	17° \approx 58'20	-4°-3'-46
minimum elong	3374 Jul 28 17:43	7° \approx 18'04	4°57'39	minimum elong	3375 Jul 08 15:59	18° \approx 09'54	4°01'52
morning rise	3374 Aug 06 05:25	3° \approx 12'20		morning rise	3375 Jul 17 14:53	14° \approx 07'44	
direct	3374 Aug 08 22:27	2° \approx 53'03		direct	3375 Jul 20 15:20	13° \approx 46'54	
morning max el	3374 Aug 18 16:38	7° \approx 25'07	19°43'54	morning max el	3375 Aug 01 00:36	19° \approx 04'26	21°03'24
asc. node	3374 Aug 26 06:03	16° \approx 59'26			3375 Aug 09 17:38	0° \approx	
	3374 Sep 02 12:26	0° \approx		asc. node	3375 Aug 13 03:06	5° \approx 40'56	
morning set	3374 Sep 05 08:16	5° \approx 37'22		morning set	3375 Aug 20 15:58	20° \approx 12'01	
					3375 Aug 25 07:06	0° \approx	
superior conj	3374 Sep 13 06:29	21° \approx 36'45	1°43'28				
minimum elong	3374 Sep 13 07:28	21° \approx 41'38	1°43'26	superior conj	3375 Aug 28 02:43	5° \approx 51'17	1°44'11
	3374 Sep 17 14:04	0° \approx		minimum elong	3375 Aug 28 02:10	5° \approx 48'25	1°44'09
max. Earth dist.	3374 Sep 19 04:28	3° \approx 01'02	1.37377 AU	max. Earth dist.	3375 Sep 01 13:36	14° \approx 51'38	1.35541 AU
evening rise	3374 Sep 23 00:00	9° \approx 59'35		evening rise	3375 Sep 05 18:23	22° \approx 57'44	
desc. node	3374 Oct 02 16:05	26° \approx 21'07			3375 Sep 09 14:30	0° \approx	
	3374 Oct 04 23:36	0° \approx		desc. node	3375 Sep 19 13:06	16° \approx 38'04	
	3374 Oct 27 13:40	0° \approx			3375 Sep 28 16:36	0° \approx	
evening max el	3374 Oct 28 17:04	1° \approx 08'43	25°26'14	evening max el	3375 Oct 11 05:22	14° \approx 48'31	26°28'35
retrograde	3374 Nov 09 19:37	8° \approx 06'45		retrograde	3375 Oct 24 01:57	22° \approx 01'40	
evening set	3374 Nov 15 16:31	5° \approx 40'36		evening set	3375 Oct 30 12:19	19° \approx 24'32	
min. Earth dist.	3374 Nov 20 03:09	0° \approx 46'40	0.67168 AU	min. Earth dist.	3375 Nov 03 15:44	15° \approx 06'38	0.66256 AU
	3374 Nov 20 17:40	30° \approx		inferior conj	3375 Nov 05 07:12	13° \approx 07'21	-1°-17'-36
inferior conj	3374 Nov 21 07:14	29° \approx 16'11	0°-18'-54	minimum elong	3375 Nov 05 09:19	13° \approx 00'58	1°16'43
minimum elong	3374 Nov 21 07:43	29° \approx 14'38	0°18'43	asc. node	3375 Nov 09 02:19	8° \approx 57'25	
asc. node	3374 Nov 22 05:15	28° \approx 05'46		morning rise	3375 Nov 11 07:37	7° \approx 19'45	
morning rise	3374 Nov 26 23:41	23° \approx 18'10		direct	3375 Nov 14 05:42	6° \approx 31'38	
direct	3374 Nov 30 07:40	22° \approx 14'10		morning max el	3375 Nov 20 21:49	10° \approx 11'07	18°34'36
morning max el	3374 Dec 07 10:49	26° \approx 14'00	19°21'46		3375 Dec 05 00:37	0° \approx	
	3374 Dec 10 18:45	0° \approx		morning set	3375 Dec 11 07:21	9° \approx 58'58	

desc. node	3375 Dec 16 12:22	18°♌15'18		morning max el	3376 Nov 03 12:59	24°♊09'18	18°04'02
	3375 Dec 23 23:11	0°♌			3376 Nov 08 07:10	0°♌	
				morning set	3376 Nov 21 10:36	21°♌01'56	
superior conj	3375 Dec 27 08:16	5°♌18'13	-1°-9'-14		3376 Nov 26 20:56	0°♌	
minimum elong	3375 Dec 27 00:01	4°♌45'51	1°08'15	desc. node	3376 Dec 02 09:26	8°♌57'50	
max. Earth dist.	3375 Dec 27 12:29	5°♌34'47	1.45213 AU				
evening rise	3376 Jan 12 05:28	0°♌21'20		superior conj	3376 Dec 05 15:06	14°♌08'34	0°-21'-56
	3376 Jan 12 00:06	0°♌		minimum elong	3376 Dec 05 12:22	13°♌57'39	0°21'34
	3376 Jan 31 18:35	0°♌		max. Earth dist.	3376 Dec 09 07:36	19°♌58'59	1.44998 AU
evening max el	3376 Feb 03 04:55	2°♌45'14	18°57'51		3376 Dec 15 17:09	0°♌	
asc. node	3376 Feb 05 01:36	4°♌27'58		evening rise	3376 Dec 22 00:52	9°♌48'09	
retrograde	3376 Feb 10 00:56	6°♌36'32			3377 Jan 04 06:03	0°♌	
evening set	3376 Feb 13 06:53	5°♌35'32		greatest brilliancy	3377 Jan 09 02:33	7°♌03'37	-0.6m
inferior conj	3376 Feb 18 22:55	29°♌48'45	3°28'12	evening max el	3377 Jan 16 11:06	16°♌16'07	19°47'58
minimum elong	3376 Feb 18 21:17	29°♌53'54	3°28'01	asc. node	3377 Jan 21 22:39	20°♌14'53	
	3376 Feb 18 19:20	30°♌		retrograde	3377 Jan 23 22:22	20°♌36'22	
min. Earth dist.	3376 Feb 20 13:53	27°♌46'39	0.65729 AU	evening set	3377 Jan 27 12:04	19°♌21'50	
morning rise	3376 Feb 24 10:38	23°♌34'56		inferior conj	3377 Feb 02 00:00	13°♌20'20	3°05'30
direct	3376 Mar 01 22:30	20°♌45'36		minimum elong	3377 Feb 01 21:39	13°♌28'08	3°05'01
desc. node	3376 Mar 13 11:33	27°♌01'20		min. Earth dist.	3377 Feb 03 00:28	11°♌59'03	0.66864 AU
morning max el	3376 Mar 14 22:25	28°♌26'25	26°38'39	morning rise	3377 Feb 07 06:34	7°♌04'56	
	3376 Mar 16 10:23	0°♌		direct	3377 Feb 13 06:09	4°♌25'37	
	3376 Apr 07 04:46	0°♌		morning max el	3377 Feb 25 07:22	11°♌36'55	25°24'33
morning set	3376 Apr 19 20:32	22°♌14'01		desc. node	3377 Feb 28 08:36	14°♌53'40	
	3376 Apr 23 20:40	0°♌			3377 Mar 12 00:42	0°♌	
max. Earth dist.	3376 Apr 24 02:37	0°♌29'33	1.34558 AU		3377 Mar 30 21:13	0°♌	
				morning set	3377 Apr 02 11:54	4°♌39'40	
superior conj	3376 Apr 28 13:49	9°♌33'29	0°-45'-7	max. Earth dist.	3377 Apr 06 05:39	11°♌33'53	1.36281 AU
minimum elong	3376 Apr 28 16:11	9°♌45'43	0°44'41				
asc. node	3376 May 03 00:55	18°♌53'00		superior conj	3377 Apr 12 04:45	23°♌07'16	-1°-13'-23
evening rise	3376 May 06 04:18	25°♌27'14		minimum elong	3377 Apr 12 08:34	23°♌26'11	1°12'47
	3376 May 08 09:29	0°♌			3377 Apr 15 14:50	0°♌	
evening max el	3376 May 25 10:23	26°♌43'23	21°03'12	asc. node	3377 Apr 19 21:57	8°♌44'56	
	3376 May 29 11:22	0°♌		evening rise	3377 Apr 20 09:23	9°♌42'50	
retrograde	3376 Jun 06 04:26	2°♌28'22			3377 May 01 10:31	0°♌	
evening set	3376 Jun 08 09:38	2°♌16'51		evening max el	3377 May 07 20:20	8°♌04'17	19°49'25
desc. node	3376 Jun 09 10:45	2°♌03'48		retrograde	3377 May 17 20:35	12°♌55'55	
	3376 Jun 14 16:01	30°♌		evening set	3377 May 19 19:59	12°♌45'24	
inferior conj	3376 Jun 17 17:44	28°♌19'15	-2°-23'-46	desc. node	3377 May 27 07:47	9°♌34'00	
minimum elong	3376 Jun 17 11:09	28°♌28'32	2°21'32	inferior conj	3377 May 28 16:38	8°♌44'06	0°-24'-10
min. Earth dist.	3376 Jun 18 07:32	27°♌59'46	0.54854 AU	minimum elong	3377 May 28 15:32	8°♌45'47	0°23'46
morning rise	3376 Jun 26 12:19	24°♌19'11		min. Earth dist.	3377 May 30 20:45	7°♌24'13	0.55457 AU
direct	3376 Jun 30 00:50	23°♌52'26		morning rise	3377 Jun 06 07:59	4°♌16'46	
	3376 Jul 12 21:20	0°♌		direct	3377 Jun 10 15:53	3°♌35'26	
morning max el	3376 Jul 12 21:50	0°♌01'09	22°39'32	morning max el	3377 Jun 24 12:35	10°♌28'56	24°22'35
asc. node	3376 Jul 30 00:10	24°♌53'51			3377 Jul 09 03:35	0°♌	
	3376 Aug 01 14:06	0°♌		asc. node	3377 Jul 16 21:14	14°♌29'04	
morning set	3376 Aug 04 02:38	5°♌12'28		morning set	3377 Jul 19 14:27	20°♌07'15	
					3377 Jul 24 04:31	0°♌	
superior conj	3376 Aug 11 06:25	20°♌28'03	1°38'09				
minimum elong	3376 Aug 11 04:46	20°♌19'16	1°38'02	superior conj	3377 Jul 26 14:49	5°♌17'25	1°26'33
max. Earth dist.	3376 Aug 14 07:33	26°♌52'39	1.34065 AU	minimum elong	3377 Jul 26 12:34	5°♌05'14	1°26'16
	3376 Aug 15 19:55	0°♌		max. Earth dist.	3377 Jul 28 10:20	9°♌12'47	1.32994 AU
evening rise	3376 Aug 19 03:32	6°♌38'52		evening rise	3377 Aug 02 23:21	20°♌50'08	
	3376 Sep 01 05:13	0°♌			3377 Aug 07 15:24	0°♌	
desc. node	3376 Sep 05 10:07	6°♌33'39		desc. node	3377 Aug 23 07:08	25°♌57'45	
evening max el	3376 Sep 22 17:51	28°♌19'40	27°10'55		3377 Aug 26 05:29	0°♌	
	3376 Sep 24 13:52	0°♌		evening max el	3377 Sep 05 04:51	11°♌28'48	27°26'30
retrograde	3376 Oct 06 02:37	5°♌37'35		retrograde	3377 Sep 18 20:54	18°♌45'12	
evening set	3376 Oct 13 00:10	2°♌56'23		evening set	3377 Sep 26 01:02	16°♌09'30	
	3376 Oct 16 04:01	30°♌		min. Earth dist.	3377 Sep 29 16:52	13°♌00'44	0.63405 AU
min. Earth dist.	3376 Oct 16 21:02	29°♌14'28	0.65003 AU	inferior conj	3377 Oct 02 08:39	10°♌21'11	-3°-17'-24
inferior conj	3376 Oct 19 00:34	26°♌51'19	-2°-18'00	minimum elong	3377 Oct 02 13:55	10°♌07'59	3°15'43
minimum elong	3376 Oct 19 04:24	26°♌40'40	2°16'32	morning rise	3377 Oct 09 05:16	5°♌04'05	
morning rise	3376 Oct 25 10:31	21°♌17'11		direct	3377 Oct 11 15:06	4°♌36'10	
asc. node	3376 Oct 25 23:22	21°♌03'57		asc. node	3377 Oct 12 20:26	4°♌43'30	
direct	3376 Oct 28 01:09	20°♌41'00		morning max el	3377 Oct 18 05:29	8°♌01'38	17°51'00

	3377 Nov 01 17:42	0°♄		asc. node	3378 Sep 29 17:29	19°♄53'45	
morning set	3377 Nov 03 15:20	3°♄18'45		morning max el	3378 Oct 01 20:16	21°♄40'42	17°56'25
					3378 Oct 08 04:55	0°♄	
superior conj	3377 Nov 15 19:16	24°♄03'31	0°23'46	morning set	3378 Oct 17 15:05	16°♄29'41	
minimum elong	3377 Nov 15 21:41	24°♄13'33	0°23'24		3378 Oct 25 02:06	0°♄	
desc. node	3377 Nov 19 06:28	29°♄44'24					
	3377 Nov 19 10:18	0°♄		superior conj	3378 Oct 28 02:23	5°♄17'47	1°00'10
max. Earth dist.	3377 Nov 22 01:16	4°♄13'45	1.44069 AU	minimum elong	3378 Oct 28 06:39	5°♄36'21	0°59'38
evening rise	3377 Dec 01 10:10	18°♄56'14		max. Earth dist.	3378 Nov 04 14:29	18°♄00'10	1.42544 AU
	3377 Dec 08 16:35	0°♄		desc. node	3378 Nov 06 03:28	20°♄31'38	
greatest brilliancy	3377 Dec 25 00:04	23°♄20'33	-0.5m	evening rise	3378 Nov 11 01:36	28°♄25'14	
evening max el	3377 Dec 30 11:56	29°♄48'15	20°51'57		3378 Nov 12 01:41	0°♄	
	3377 Dec 30 16:33	0°♄			3378 Dec 02 09:53	0°♄	
retrograde	3378 Jan 07 20:22	4°♄44'36		greatest brilliancy	3378 Dec 08 13:45	8°♄00'55	-0.3m
asc. node	3378 Jan 08 19:40	4°♄39'24		evening max el	3378 Dec 13 07:11	13°♄21'03	22°06'10
evening set	3378 Jan 11 19:25	3°♄15'11		retrograde	3378 Dec 22 17:02	18°♄57'08	
	3378 Jan 14 23:37	30°♄		asc. node	3378 Dec 26 16:42	17°♄31'48	
inferior conj	3378 Jan 17 05:17	27°♄01'44	2°33'08	evening set	3378 Dec 27 03:09	17°♄11'47	
minimum elong	3378 Jan 17 02:45	27°♄10'24	2°32'23	inferior conj	3379 Jan 01 12:38	10°♄49'49	1°52'48
min. Earth dist.	3378 Jan 17 16:44	26°♄22'24	0.67584 AU	minimum elong	3379 Jan 01 10:25	10°♄57'30	1°52'00
morning rise	3378 Jan 22 09:42	20°♄46'37		min. Earth dist.	3379 Jan 01 12:25	10°♄50'36	0.67921 AU
direct	3378 Jan 27 18:44	18°♄25'30		morning rise	3379 Jan 06 17:31	4°♄36'35	
morning max el	3378 Feb 07 15:54	24°♄54'41	23°58'18	direct	3379 Jan 11 11:27	2°♄37'41	
	3378 Feb 12 06:10	0°♄		morning max el	3379 Jan 21 02:29	8°♄18'31	22°29'38
desc. node	3378 Feb 15 05:40	3°♄40'51		greatest brilliancy	3379 Jan 25 15:59	13°♄23'56	-0.3m
	3378 Mar 05 12:27	0°♄		desc. node	3379 Feb 02 02:41	23°♄06'45	
morning set	3378 Mar 15 05:48	15°♄59'55			3379 Feb 06 23:23	0°♄	
max. Earth dist.	3378 Mar 19 01:49	22°♄42'36	1.38341 AU	morning set	3379 Feb 23 20:14	25°♄59'24	
	3378 Mar 23 02:12	0°♄			3379 Feb 26 06:38	0°♄	
				max. Earth dist.	3379 Feb 28 22:06	4°♄26'33	1.40511 AU
superior conj	3378 Mar 26 07:23	6°♄01'42	-1°-38'-52				
minimum elong	3378 Mar 26 11:59	6°♄23'31	1°38'20	superior conj	3379 Mar 08 17:05	18°♄04'21	-1°-58'-13
evening rise	3378 Apr 04 07:37	23°♄33'43		minimum elong	3379 Mar 08 20:54	18°♄21'35	1°57'59
asc. node	3378 Apr 06 19:00	28°♄22'41			3379 Mar 15 04:30	0°♄	
	3378 Apr 07 15:18	0°♄		evening rise	3379 Mar 18 19:43	6°♄50'32	
evening max el	3378 Apr 20 17:34	20°♄05'40	18°55'17	asc. node	3379 Mar 24 16:01	17°♄39'53	
retrograde	3378 Apr 29 04:01	24°♄12'36			3379 Apr 01 13:36	0°♄	
evening set	3378 May 01 06:59	23°♄57'59		evening max el	3379 Apr 03 23:12	2°♄40'23	18°21'28
inferior conj	3378 May 09 08:52	19°♄40'44	1°21'38	retrograde	3379 Apr 11 06:29	6°♄17'54	
minimum elong	3378 May 09 11:48	19°♄35'29	1°20'40	evening set	3379 Apr 13 15:24	5°♄55'56	
min. Earth dist.	3378 May 12 12:35	17°♄26'55	0.56900 AU	inferior conj	3379 Apr 20 22:31	1°♄18'23	2°36'31
desc. node	3378 May 14 04:48	16°♄21'35		minimum elong	3379 Apr 21 02:14	1°♄10'37	2°35'36
morning rise	3378 May 17 12:16	14°♄38'01			3379 Apr 22 11:52	30°♄	
direct	3378 May 22 19:49	13°♄30'34		min. Earth dist.	3379 Apr 24 09:06	28°♄27'35	0.58883 AU
morning max el	3378 Jun 06 03:23	20°♄56'02	25°57'34	morning rise	3379 Apr 28 08:56	25°♄45'06	
	3378 Jun 13 23:43	0°♄		desc. node	3379 May 01 01:50	24°♄35'25	
	3378 Jul 01 16:01	0°♄		direct	3379 May 04 13:41	24°♄02'44	
asc. node	3378 Jul 03 18:16	4°♄20'19			3379 May 17 00:28	0°♄	
morning set	3378 Jul 04 01:46	4°♄59'47		morning max el	3379 May 18 23:01	1°♄48'20	27°09'06
					3379 Jun 08 05:34	0°♄	
superior conj	3378 Jul 11 01:50	20°♄12'47	1°10'12	morning set	3379 Jun 18 10:56	19°♄44'19	
minimum elong	3378 Jul 10 23:29	19°♄59'55	1°09'50	asc. node	3379 Jun 20 15:18	24°♄21'53	
max. Earth dist.	3378 Jul 11 19:23	21°♄49'13	1.32334 AU		3379 Jun 23 05:38	0°♄	
	3378 Jul 15 13:41	0°♄					
evening rise	3378 Jul 18 02:40	5°♄22'09		superior conj	3379 Jun 25 13:37	5°♄07'56	0°49'51
	3378 Jul 31 06:34	0°♄		minimum elong	3379 Jun 25 11:39	4°♄57'06	0°49'29
desc. node	3378 Aug 10 04:07	14°♄37'25		max. Earth dist.	3379 Jun 25 07:06	4°♄31'57	1.32071 AU
evening max el	3378 Aug 18 11:40	24°♄01'52	27°10'12	evening rise	3379 Jul 02 10:52	20°♄06'44	
	3378 Aug 26 21:00	0°♄			3379 Jul 07 07:13	0°♄	
retrograde	3378 Sep 01 08:04	1°♄15'13			3379 Jul 26 02:55	0°♄	
	3378 Sep 06 13:59	30°♄		desc. node	3379 Jul 28 01:07	2°♄14'32	
evening set	3378 Sep 08 11:03	28°♄57'13		evening max el	3379 Jul 31 11:54	5°♄49'05	26°20'47
min. Earth dist.	3378 Sep 12 01:58	26°♄13'12	0.61509 AU	retrograde	3379 Aug 14 11:19	12°♄59'40	
inferior conj	3378 Sep 15 04:16	23°♄28'55	-4°-11'-16	evening set	3379 Aug 21 01:28	11°♄12'14	
minimum elong	3378 Sep 15 10:00	23°♄16'11	4°09'56	min. Earth dist.	3379 Aug 25 01:00	8°♄37'38	0.59442 AU
morning rise	3378 Sep 22 11:58	18°♄32'26		inferior conj	3379 Aug 28 07:56	6°♄05'30	-4°-51'-52
direct	3378 Sep 24 19:54	18°♄09'47		minimum elong	3379 Aug 28 12:05	5°♄57'28	4°51'21

morning rise	3379 Sep 05 02:09	1° \cap 32'04		morning rise	3380 Aug 16 19:43	13° Ω 50'28	
direct	3379 Sep 07 11:16	1° \cap 12'12		direct	3380 Aug 19 09:03	13° Ω 31'26	
morning max el	3379 Sep 15 06:06	4° \cap 58'10	18°21'31	morning max el	3380 Aug 28 07:40	17° Ω 43'38	19°07'36
asc. node	3379 Sep 16 14:31	6° \cap 22'05		asc. node	3380 Sep 02 11:33	23° Ω 52'47	
morning set	3379 Oct 01 04:26	0° $\underline{\Delta}$ 19'28			3380 Sep 06 08:44	0° \cap	
	3379 Oct 01 00:21	0° $\underline{\Delta}$		morning set	3380 Sep 14 03:11	14° \cap 36'08	
					3380 Sep 21 22:11	0° $\underline{\Delta}$	
superior conj	3379 Oct 10 09:21	17° $\underline{\Delta}$ 42'08	1°25'10	superior conj	3380 Sep 22 10:34	0° $\underline{\Delta}$ 59'53	1°39'28
minimum elong	3379 Oct 10 12:59	17° $\underline{\Delta}$ 58'49	1°24'48	minimum elong	3380 Sep 22 12:34	1° $\underline{\Delta}$ 09'32	1°39'21
	3379 Oct 17 07:00	0° \cap		max. Earth dist.	3380 Sep 29 02:12	13° $\underline{\Delta}$ 26'56	1.38540 AU
max. Earth dist.	3379 Oct 17 22:02	1° \cap 04'44	1.40616 AU	evening rise	3380 Oct 02 22:42	20° $\underline{\Delta}$ 16'45	
evening rise	3379 Oct 22 12:21	8° \cap 48'30			3380 Oct 08 17:21	0° \cap	
desc. node	3379 Oct 24 00:28	11° \cap 16'21		desc. node	3380 Oct 09 21:29	1° \cap 54'06	
	3379 Nov 05 02:52	0° \nearrow			3380 Oct 29 05:28	0° \nearrow	
evening max el	3379 Nov 25 22:08	26° \nearrow 57'01	23°25'42	evening max el	3380 Nov 07 10:53	10° \nearrow 36'53	24°44'21
	3379 Nov 29 07:05	0° \searrow		retrograde	3380 Nov 19 00:55	17° \nearrow 21'32	
retrograde	3379 Dec 06 10:58	3° \searrow 11'02		evening set	3380 Nov 24 13:32	15° \nearrow 03'58	
evening set	3379 Dec 11 09:44	1° \searrow 09'18		min. Earth dist.	3380 Nov 29 04:42	9° \nearrow 49'29	0.67533 AU
	3379 Dec 12 15:22	30° \searrow		asc. node	3380 Nov 29 10:46	9° \nearrow 29'26	
asc. node	3379 Dec 13 13:43	28° \nearrow 58'36		inferior conj	3380 Nov 30 02:23	8° \nearrow 37'32	0°13'23
inferior conj	3379 Dec 16 20:16	24° \nearrow 42'50	1°05'51	minimum elong	3380 Nov 30 02:03	8° \nearrow 38'38	0°13'14
minimum elong	3379 Dec 16 18:48	24° \nearrow 47'53	1°05'15	transit middle	3380 Nov 30 02:03	8° \nearrow 38'38	0°13'14
min. Earth dist.	3379 Dec 16 09:12	25° \nearrow 20'47	0.67899 AU	transit begin	3380 Nov 30 00:28	8° \nearrow 43'55	
morning rise	3379 Dec 22 03:58	18° \nearrow 33'29		transit end	3380 Nov 30 03:39	8° \nearrow 33'21	
direct	3379 Dec 26 07:32	16° \nearrow 57'23		morning rise	3380 Dec 05 15:03	2° \nearrow 34'25	
morning max el	3380 Jan 03 18:37	21° \nearrow 51'54	21°06'57	direct	3380 Dec 09 05:42	1° \nearrow 19'26	
greatest brilliancy	3380 Jan 09 03:15	28° \nearrow 01'25	-0.5m	morning max el	3380 Dec 16 18:25	5° \nearrow 36'05	19°55'58
	3380 Jan 10 16:07	0° \searrow		greatest brilliancy	3380 Dec 24 01:20	14° \nearrow 28'43	-0.6m
desc. node	3380 Jan 19 23:43	13° \searrow 01'02			3381 Jan 03 17:08	0° \searrow	
	3380 Jan 31 06:25	0° \approx		desc. node	3381 Jan 05 20:46	3° \searrow 15'28	
morning set	3380 Feb 03 06:39	4° \approx 41'18		morning set	3381 Jan 12 02:41	12° \searrow 49'36	
max. Earth dist.	3380 Feb 11 00:15	17° \approx 03'58	1.42512 AU		3381 Jan 23 01:53	0° \approx	
				max. Earth dist.	3381 Jan 23 10:17	0° \approx 33'30	1.44075 AU
superior conj	3380 Feb 18 04:50	29° \approx 04'28	-2°-6'-47	superior conj	3381 Jan 28 14:53	8° \approx 54'59	-1°-59'-20
minimum elong	3380 Feb 18 05:14	29° \approx 06'10	2°06'48	minimum elong	3381 Jan 28 09:31	8° \approx 33'11	1°59'05
	3380 Feb 18 17:49	0° \times			3381 Feb 10 05:42	0° \times	
evening rise	3380 Feb 29 17:52	19° \times 24'55		evening rise	3381 Feb 10 21:43	1° \times 08'32	
	3380 Mar 06 16:14	0° Υ		asc. node	3381 Feb 25 10:03	24° \times 44'32	
asc. node	3380 Mar 10 13:01	6° Υ 29'57		evening max el	3381 Feb 28 22:40	28° \times 56'09	18°12'42
evening max el	3380 Mar 17 09:57	15° Υ 39'59	18°07'29		3381 Mar 02 02:11	0° Υ	
retrograde	3380 Mar 24 01:33	19° Υ 03'57		retrograde	3381 Mar 07 09:02	2° Υ 21'00	
evening set	3380 Mar 26 16:22	18° Υ 32'28		evening set	3381 Mar 10 05:27	1° Υ 38'42	
inferior conj	3380 Apr 02 07:56	13° Υ 33'57	3°19'47		3381 Mar 12 16:30	30° \searrow	
minimum elong	3380 Apr 02 10:22	13° Υ 28'07	3°19'26	inferior conj	3381 Mar 16 09:15	26° \times 19'58	3°37'27
min. Earth dist.	3380 Apr 05 12:30	10° Υ 30'48	0.61060 AU	minimum elong	3381 Mar 16 09:50	26° \times 18'22	3°37'27
morning rise	3380 Apr 09 01:14	7° Υ 40'31		min. Earth dist.	3381 Mar 19 00:34	23° \times 28'22	0.63128 AU
direct	3380 Apr 15 19:15	5° Υ 24'14		morning rise	3381 Mar 22 12:10	20° \times 14'54	
desc. node	3380 Apr 16 22:52	5° Υ 28'00		direct	3381 Mar 29 09:52	17° \times 34'59	
morning max el	3380 Apr 30 00:52	13° Υ 20'08	27°46'32	desc. node	3381 Apr 03 19:55	18° \times 59'42	
	3380 May 13 08:06	0° \searrow		morning max el	3381 Apr 12 07:48	25° \times 32'32	27°46'31
	3380 May 30 13:55	0° Π			3381 Apr 16 10:16	0° Υ	
morning set	3380 Jun 01 16:08	4° Π 14'44			3381 May 06 19:45	0° \searrow	
asc. node	3380 Jun 06 12:19	14° Π 29'06		morning set	3381 May 16 15:10	18° \searrow 23'57	
max. Earth dist.	3380 Jun 07 17:45	17° Π 09'01	1.32212 AU	max. Earth dist.	3381 May 21 23:32	29° \searrow 28'01	1.32773 AU
					3381 May 22 05:33	0° Π	
superior conj	3380 Jun 09 00:29	19° Π 57'01	0°26'07	superior conj	3381 May 24 08:41	4° Π 34'17	0°00'-17
minimum elong	3380 Jun 08 23:19	19° Π 50'39	0°25'53	minimum elong	3381 May 24 08:42	4° Π 34'21	0°00'18
	3380 Jun 13 14:38	0° \searrow		behind sun begin	3381 May 24 03:27	4° Π 06'03	
evening rise	3380 Jun 15 21:51	4° \searrow 56'54		behind sun end	3381 May 24 13:57	5° Π 02'42	
	3380 Jun 29 04:29	0° Ω		asc. node	3381 May 24 09:21	4° Π 37'53	
evening max el	3380 Jul 12 05:01	16° Ω 50'05	25°02'55	evening rise	3381 May 31 09:44	19° Π 46'19	
desc. node	3380 Jul 13 22:08	18° Ω 23'29			3381 Jun 05 09:43	0° \searrow	
retrograde	3380 Jul 26 04:17	23° Ω 54'49		evening max el	3381 Jun 23 18:23	27° \searrow 20'47	23°28'29
evening set	3380 Jul 31 16:06	22° Ω 45'50			3381 Jun 26 19:35	0° Ω	
min. Earth dist.	3380 Aug 05 16:39	20° Ω 01'42	0.57448 AU				
inferior conj	3380 Aug 08 16:26	18° Ω 01'29	-5°-6'-58				
minimum elong	3380 Aug 08 16:06	18° Ω 02'03	5°06'59				

desc. node	3381 Jun 30 19:09	2°♊31'20		evening max el	3382 Jun 05 11:03	7°♊50'10	21°53'05
retrograde	3381 Jul 07 08:34	4°♊08'57		desc. node	3382 Jun 17 16:11	14°♊03'12	
evening set	3381 Jul 11 08:53	3°♊33'43		retrograde	3382 Jun 18 01:24	14°♊03'32	
min. Earth dist.	3381 Jul 18 04:19	0°♊24'26	0.55848 AU	evening set	3382 Jun 20 18:02	13°♊47'18	
	3381 Jul 18 20:55	30°♋		min. Earth dist.	3382 Jun 29 15:04	9°♊59'32	0.54957 AU
inferior conj	3381 Jul 20 04:57	29°♊12'16	-4°-41'-18	inferior conj	3382 Jun 30 02:06	9°♊44'06	-3°-25'-53
minimum elong	3381 Jul 19 22:50	29°♊21'23	4°40'22	minimum elong	3382 Jun 29 17:51	9°♊55'39	3°23'30
morning rise	3381 Jul 28 15:54	25°♊17'53		morning rise	3382 Jul 08 19:09	5°♊52'22	
direct	3381 Jul 31 11:58	24°♊58'05		direct	3382 Jul 12 00:13	5°♊29'41	
morning max el	3381 Aug 10 22:18	29°♊48'28	20°15'14	morning max el	3382 Jul 24 01:17	11°♊08'13	21°42'44
	3381 Aug 11 03:14	0°♋			3382 Aug 06 14:47	0°♋	
asc. node	3381 Aug 20 08:37	12°♋12'11		asc. node	3382 Aug 07 05:40	1°♋08'05	
morning set	3381 Aug 29 08:21	29°♋11'47		morning set	3382 Aug 13 17:33	13°♋59'25	
	3381 Aug 29 17:48	0°♌					
superior conj	3381 Sep 06 01:03	14°♌57'10	1°44'40	superior conj	3382 Aug 21 00:49	29°♋22'05	1°42'21
minimum elong	3381 Sep 06 01:20	14°♌58'37	1°44'40	minimum elong	3382 Aug 20 23:44	29°♋16'26	1°42'19
max. Earth dist.	3381 Sep 11 08:15	25°♌23'29	1.36564 AU		3382 Aug 21 08:04	0°♌	
	3381 Sep 13 18:49	0°♍		max. Earth dist.	3382 Aug 24 21:08	7°♌17'21	1.34866 AU
evening rise	3381 Sep 15 06:38	2°♍45'16		evening rise	3382 Aug 29 07:48	16°♌02'44	
desc. node	3381 Sep 26 18:30	22°♍20'21			3382 Sep 05 23:50	0°♍	
	3381 Oct 01 18:14	0°♎		desc. node	3382 Sep 13 15:31	12°♍29'16	
evening max el	3381 Oct 20 23:15	24°♎18'48	25°54'47		3382 Sep 26 06:29	0°♎	
	3381 Oct 28 08:44	0°♏		evening max el	3382 Oct 03 11:45	7°♎56'11	26°49'28
retrograde	3381 Nov 02 10:02	1°♏23'50		retrograde	3382 Oct 16 13:51	15°♎11'50	
	3381 Nov 07 00:02	30°♏		evening set	3382 Oct 23 05:32	12°♎31'51	
evening set	3381 Nov 08 12:48	28°♏52'39		min. Earth dist.	3382 Oct 27 06:02	8°♎29'39	0.65768 AU
min. Earth dist.	3381 Nov 12 20:26	24°♏13'50	0.66826 AU	inferior conj	3382 Oct 29 02:37	6°♎19'31	-1°-43'-8
inferior conj	3381 Nov 14 05:10	22°♏30'56	0°-43'-26	minimum elong	3382 Oct 29 05:28	6°♎11'12	1°41'58
minimum elong	3381 Nov 14 06:19	22°♏27'20	0°42'57	asc. node	3382 Nov 03 04:54	1°♎16'28	
asc. node	3381 Nov 16 07:50	19°♏57'03		morning rise	3382 Nov 04 06:56	0°♎37'27	
morning rise	3381 Nov 20 00:47	16°♏36'51			3382 Nov 06 02:24	30°♏	
direct	3381 Nov 23 04:23	15°♏39'53		direct	3382 Nov 07 01:37	29°♏54'49	
morning max el	3381 Nov 30 01:48	19°♏29'33	18°59'42		3382 Nov 08 00:59	0°♎	
	3381 Dec 08 07:16	0°♐		morning max el	3382 Nov 13 14:56	3°♎28'06	18°19'35
morning set	3381 Dec 22 09:36	21°♐38'21			3382 Dec 01 16:22	0°♐	
desc. node	3381 Dec 23 17:48	23°♐44'12		morning set	3382 Dec 02 19:55	1°♐51'31	
	3381 Dec 27 17:57	0°♑		desc. node	3382 Dec 10 14:49	14°♐22'55	
max. Earth dist.	3382 Jan 06 02:40	14°♑40'29	1.45008 AU				
superior conj	3382 Jan 08 01:37	17°♑45'25	-1°-32'-30	superior conj	3382 Dec 18 03:41	26°♐18'44	0°-49'-42
minimum elong	3382 Jan 07 16:30	17°♑09'27	1°31'37	minimum elong	3382 Dec 17 21:24	25°♐54'03	0°48'54
	3382 Jan 15 18:27	0°♒		max. Earth dist.	3382 Dec 19 21:59	29°♐04'58	1.45209 AU
evening rise	3382 Jan 23 03:25	11°♒55'29			3382 Dec 20 12:01	0°♑	
	3382 Feb 03 07:39	0°♓		evening rise	3383 Jan 03 10:08	21°♑48'03	
asc. node	3382 Feb 12 07:06	12°♓12'28			3383 Jan 08 15:43	0°♒	
evening max el	3382 Feb 12 10:32	12°♓21'17	18°36'19	greatest brilliancy	3383 Jan 17 14:26	13°♒45'56	-0.7m
retrograde	3382 Feb 19 00:40	15°♓59'43		evening max el	3383 Jan 26 19:15	25°♒50'57	19°17'13
evening set	3382 Feb 22 02:56	15°♓05'41		asc. node	3383 Jan 30 04:09	28°♒40'54	
inferior conj	3382 Feb 27 22:24	9°♓28'20	3°35'54	retrograde	3383 Feb 02 20:57	29°♒53'43	
minimum elong	3382 Feb 27 21:26	9°♓31'16	3°35'50	evening set	3383 Feb 06 06:01	28°♒47'01	
min. Earth dist.	3382 Mar 01 22:08	7°♓05'26	0.64892 AU	inferior conj	3383 Feb 11 20:00	22°♒53'22	3°19'56
morning rise	3382 Mar 05 14:38	3°♓16'48		minimum elong	3383 Feb 11 17:59	22°♒59'51	3°19'37
direct	3382 Mar 12 07:44	0°♓27'16		min. Earth dist.	3383 Feb 13 04:31	21°♒08'31	0.66259 AU
desc. node	3382 Mar 21 16:59	4°♓38'13		morning rise	3383 Feb 17 05:08	16°♒38'33	
morning max el	3382 Mar 25 17:25	8°♓17'09	27°11'47	direct	3383 Feb 23 12:01	13°♒52'34	
	3382 Apr 11 14:27	0°♈		morning max el	3383 Mar 08 03:18	21°♒22'39	26°09'23
	3382 Apr 29 03:44	0°♉		desc. node	3383 Mar 08 14:02	21°♒50'02	
morning set	3382 Apr 30 05:06	2°♉02'10			3383 Mar 15 15:19	0°♈	
max. Earth dist.	3382 May 04 20:38	11°♉17'49	1.33781 AU	morning set	3383 Apr 04 19:13	0°♈	
				max. Earth dist.	3383 Apr 13 06:09	14°♈58'46	
superior conj	3382 May 08 12:09	18°♉52'16	0°-28'-30		3383 Apr 17 06:23	22°♈36'18	1.35247 AU
minimum elong	3382 May 08 13:37	19°♉00'01	0°28'14		3383 Apr 21 00:00	0°♉	
asc. node	3382 May 11 06:23	24°♉43'19		superior conj	3383 Apr 22 08:30	2°♉44'32	0°-57'-16
	3382 May 13 17:54	0°♊		minimum elong	3383 Apr 22 11:30	2°♉59'53	0°56'44
evening rise	3382 May 15 20:35	4°♊27'34		asc. node	3383 Apr 28 03:26	14°♉41'38	
	3382 May 29 22:37	0°♋		evening rise	3383 Apr 30 04:26	18°♉54'43	
					3383 May 05 18:34	0°♊	

evening max el	3383 May 18 13:51	18°II47'54	20°29'23	evening rise	3384 Apr 13 06:55	3°R00'41	
retrograde	3383 May 29 14:38	24°II10'36		asc. node	3384 Apr 14 00:29	4°R28'20	
evening set	3383 May 31 15:27	24°II00'23			3384 Apr 29 18:04	0°II	
desc. node	3383 Jun 04 13:13	22°II49'19		evening max el	3384 Apr 30 04:53	0°II26'53	19°23'55
inferior conj	3383 Jun 09 20:07	20°II02'40	-1°-33'-15	retrograde	3384 May 09 12:16	4°II57'57	
minimum elong	3383 Jun 09 15:43	20°II09'03	1°31'39	evening set	3384 May 11 12:20	4°II46'19	
min. Earth dist.	3383 Jun 11 03:17	19°II17'30	0.54997 AU	inferior conj	3384 May 20 01:26	0°II39'32	0°23'51
morning rise	3383 Jun 18 14:27	15°II52'50		minimum elong	3384 May 20 02:27	0°II37'53	0°23'29
direct	3383 Jun 22 10:01	15°II21'27		desc. node	3384 May 21 10:14	29°R45'53	
morning max el	3383 Jul 05 19:10	21°II50'22	23°23'23		3384 May 21 01:36	30°R8	
	3383 Jul 12 21:30	0°R		min. Earth dist.	3384 May 22 17:51	28°R55'00	0.55981 AU
asc. node	3383 Jul 25 02:43	20°R31'14		morning rise	3384 May 28 12:35	25°R56'49	
morning set	3383 Jul 29 04:52	28°R53'16		direct	3384 Jun 02 06:17	25°R05'42	
	3383 Jul 29 17:31	0°R			3384 Jun 13 20:00	0°II	
superior conj	3383 Aug 05 06:46	14°R05'10	1°33'51	morning max el	3384 Jun 16 09:19	2°II15'23	25°04'52
minimum elong	3383 Aug 05 04:48	13°R54'37	1°33'40		3384 Jul 05 19:08	0°R	
max. Earth dist.	3383 Aug 07 18:53	19°R25'27	1.33555 AU	asc. node	3384 Jul 10 23:44	10°R14'21	
evening rise	3383 Aug 12 21:52	29°R57'34		morning set	3384 Jul 12 16:40	13°R48'17	
	3383 Aug 12 22:21	0°R		superior conj	3384 Jul 19 16:33	28°R58'46	1°20'09
	3383 Aug 30 01:00	0°R		minimum elong	3384 Jul 19 14:13	28°R45'58	1°19'50
desc. node	3383 Aug 31 12:32	2°R12'51			3384 Jul 20 03:46	0°R	
evening max el	3383 Sep 15 23:33	21°R18'29	27°21'09	max. Earth dist.	3384 Jul 21 00:31	1°R53'01	1.32660 AU
retrograde	3383 Sep 29 11:55	28°R36'57		evening rise	3384 Jul 26 21:15	14°R19'31	
evening set	3383 Oct 06 13:07	25°R56'20			3384 Aug 03 23:56	0°R	
min. Earth dist.	3383 Oct 10 07:23	22°R29'28	0.64358 AU	desc. node	3384 Aug 17 09:32	21°R20'34	
inferior conj	3383 Oct 12 16:20	19°R57'53	-2°-43'-35		3384 Aug 24 07:06	0°R	
minimum elong	3383 Oct 12 20:51	19°R45'52	2°41'58	evening max el	3384 Aug 28 09:03	4°R14'16	27°23'41
morning rise	3383 Oct 19 06:45	14°R30'55		retrograde	3384 Sep 11 03:38	11°R30'12	
asc. node	3383 Oct 21 01:57	14°R01'22		evening set	3384 Sep 18 08:14	9°R00'26	
direct	3383 Oct 21 18:56	13°R58'47		min. Earth dist.	3384 Sep 21 22:52	6°R03'28	0.62623 AU
morning max el	3383 Oct 28 07:05	17°R24'53	17°56'23	inferior conj	3384 Sep 24 19:32	3°R19'58	-3°-41'-21
	3383 Nov 06 09:56	0°R		minimum elong	3384 Sep 25 01:11	3°R06'29	3°39'44
morning set	3383 Nov 14 10:40	13°R27'43			3384 Sep 28 15:01	30°R	
	3383 Nov 24 08:14	0°R		morning rise	3384 Oct 01 20:53	28°R11'16	
desc. node	3383 Nov 27 11:50	5°R07'29		direct	3384 Oct 04 05:24	27°R46'04	
				asc. node	3384 Oct 06 22:58	28°R20'57	
superior conj	3383 Nov 27 18:04	5°R32'39	0°-1'-47		3384 Oct 09 14:45	0°R	
minimum elong	3383 Nov 27 17:51	5°R31'47	0°01'45	morning max el	3384 Oct 10 23:17	1°R13'11	17°50'57
behind sun begin	3383 Nov 27 07:39	4°R50'35		morning set	3384 Oct 27 00:16	26°R09'59	
behind sun end	3383 Nov 28 04:03	6°R12'55			3384 Oct 29 04:02	0°R	
max. Earth dist.	3383 Dec 02 16:31	13°R26'08	1.44675 AU	superior conj	3384 Nov 07 09:42	16°R01'40	0°40'33
	3383 Dec 13 07:17	0°R		minimum elong	3384 Nov 07 13:19	16°R16'54	0°40'03
evening rise	3383 Dec 13 23:20	1°R01'47		desc. node	3384 Nov 13 08:51	25°R54'59	
	3384 Jan 02 09:42	0°R		max. Earth dist.	3384 Nov 14 07:59	27°R28'48	1.43482 AU
greatest brilliancy	3384 Jan 03 12:38	1°R32'09	-0.6m		3384 Nov 15 21:31	0°R	
evening max el	3384 Jan 09 23:07	9°R21'48	20°13'39	evening rise	3384 Nov 22 09:11	10°R13'41	
asc. node	3384 Jan 17 01:13	13°R54'18			3384 Dec 05 11:56	0°R	
retrograde	3384 Jan 17 18:58	13°R57'18		greatest brilliancy	3384 Dec 17 21:11	17°R07'38	-0.4m
evening set	3384 Jan 21 12:19	12°R36'43		evening max el	3384 Dec 22 21:31	22°R54'03	21°22'35
inferior conj	3384 Jan 26 23:08	6°R29'36	2°52'52	retrograde	3384 Dec 31 16:33	28°R07'15	
minimum elong	3384 Jan 26 20:39	6°R38'00	2°52'15	asc. node	3385 Jan 02 22:14	27°R39'52	
min. Earth dist.	3384 Jan 27 17:54	5°R26'09	0.67213 AU	evening set	3385 Jan 04 20:00	26°R31'26	
morning rise	3384 Feb 01 04:25	0°R13'51		inferior conj	3385 Jan 10 05:31	20°R14'02	2°16'54
	3384 Feb 01 10:42	30°R		minimum elong	3385 Jan 10 03:04	20°R22'30	2°16'07
direct	3384 Feb 06 21:52	27°R41'29		min. Earth dist.	3385 Jan 10 11:58	19°R51'45	0.67773 AU
	3384 Feb 13 03:02	0°R		morning rise	3385 Jan 15 09:48	13°R59'18	
morning max el	3384 Feb 18 11:59	4°R37'03	24°48'45	direct	3385 Jan 20 12:28	11°R47'05	
desc. node	3384 Feb 23 11:04	10°R07'50		morning max el	3385 Jan 30 20:45	17°R56'14	23°20'13
	3384 Mar 09 00:23	0°R		greatest brilliancy	3385 Feb 05 06:00	24°R00'00	-0.2m
morning set	3384 Mar 25 13:10	26°R59'01		desc. node	3385 Feb 09 08:05	29°R12'52	
	3384 Mar 27 05:42	0°R			3385 Feb 09 22:16	0°R	
max. Earth dist.	3384 Mar 29 05:26	3°R37'11	1.37123 AU		3385 Mar 02 02:55	0°R	
				morning set	3385 Mar 06 19:56	7°R45'57	
superior conj	3384 Apr 04 18:39	16°R02'41	-1°-24'-43	max. Earth dist.	3385 Mar 11 00:09	14°R54'48	1.39263 AU
minimum elong	3384 Apr 04 22:55	16°R23'29	1°24'06				
	3384 Apr 11 18:52	0°R					

superior conj	3385 Mar 18 14:40	28° Υ 36'33	-1°-48'-5		3386 Feb 22 17:11	0° Υ	
minimum elong	3385 Mar 18 19:12	28° Υ 57'35	1°47'40				
	3385 Mar 19 08:35	0° Υ		superior conj	3386 Feb 28 15:43	10° Υ 14'30	-2°-3'-28
evening rise	3385 Mar 28 01:13	16° Υ 37'43		minimum elong	3386 Feb 28 18:27	10° Υ 26'34	2°03'23
asc. node	3385 Mar 31 21:31	23° Υ 58'04		evening rise	3386 Mar 11 07:54	29° Υ 37'46	
	3385 Apr 04 05:13	0° Υ			3386 Mar 11 12:43	0° Υ	
evening max el	3385 Apr 13 06:11	12° Υ 44'05	18°38'31	asc. node	3386 Mar 18 18:33	13° Υ 04'53	
retrograde	3385 Apr 21 03:28	16° Υ 36'02		evening max el	3386 Mar 27 14:28	25° Υ 30'55	18°13'10
evening set	3385 Apr 23 09:01	16° Υ 18'34		retrograde	3386 Apr 03 13:32	29° Υ 00'38	
inferior conj	3385 May 01 02:40	11° Υ 53'15	1°57'29	evening set	3386 Apr 06 01:09	28° Υ 34'39	
minimum elong	3385 May 01 06:18	11° Υ 46'19	1°56'23	inferior conj	3386 Apr 13 01:09	23° Υ 47'55	2°58'24
min. Earth dist.	3385 May 04 11:25	9° Υ 20'55	0.57699 AU	minimum elong	3386 Apr 13 04:28	23° Υ 40'33	2°57'44
desc. node	3385 May 08 07:16	6° Υ 56'14		min. Earth dist.	3386 Apr 16 10:18	20° Υ 49'06	0.59805 AU
morning rise	3385 May 08 23:11	6° Υ 36'40		morning rise	3386 Apr 20 04:07	18° Υ 05'10	
direct	3385 May 14 16:45	5° Υ 14'38		desc. node	3386 Apr 25 04:17	16° Υ 13'55	
morning max el	3385 May 29 01:32	12° Υ 50'00	26°31'34	direct	3386 Apr 26 15:43	16° Υ 07'54	
	3385 Jun 11 13:14	0° Υ		morning max el	3386 May 10 23:43	23° Υ 57'56	27°29'37
morning set	3385 Jun 27 03:16	28° Υ 38'12			3386 May 16 10:34	0° Υ	
asc. node	3385 Jun 27 20:45	0° Υ 10'42			3386 Jun 04 17:47	0° Υ	
	3385 Jun 27 18:45	0° Υ		morning set	3386 Jun 11 11:01	13° Υ 17'41	
				asc. node	3386 Jun 14 17:48	20° Υ 15'27	
superior conj	3385 Jul 04 04:07	13° Υ 55'06	1°02'03	max. Earth dist.	3386 Jun 17 23:04	27° Υ 16'49	1.32089 AU
minimum elong	3385 Jul 04 01:53	13° Υ 42'47	1°01'39				
max. Earth dist.	3385 Jul 04 11:08	14° Υ 33'49	1.32176 AU	superior conj	3386 Jun 18 15:44	28° Υ 48'29	0°40'11
evening rise	3385 Jul 11 02:56	28° Υ 58'22		minimum elong	3386 Jun 18 14:03	28° Υ 39'15	0°39'50
	3385 Jul 11 14:44	0° Υ			3386 Jun 19 04:43	0° Υ	
	3385 Jul 28 06:17	0° Υ		evening rise	3386 Jun 25 12:36	13° Υ 46'33	
desc. node	3385 Aug 04 06:33	9° Υ 36'35			3386 Jul 03 16:29	0° Υ	
evening max el	3385 Aug 10 13:33	16° Υ 29'47	26°53'11	desc. node	3386 Jul 22 03:34	26° Υ 39'52	
retrograde	3385 Aug 24 11:34	23° Υ 41'25		evening max el	3386 Jul 23 10:46	27° Υ 56'55	25°50'29
evening set	3385 Aug 31 10:29	21° Υ 35'23			3386 Jul 25 18:09	0° Υ	
min. Earth dist.	3385 Sep 04 03:44	18° Υ 57'13	0.60642 AU	retrograde	3386 Aug 06 10:14	5° Υ 04'46	
inferior conj	3385 Sep 07 08:49	16° Υ 16'06	-4°-30'-45	evening set	3386 Aug 12 15:04	3° Υ 33'20	
minimum elong	3385 Sep 07 14:12	16° Υ 04'48	4°29'44	min. Earth dist.	3386 Aug 16 23:02	0° Υ 57'06	0.58579 AU
morning rise	3385 Sep 14 21:06	11° Υ 28'49			3386 Aug 18 07:02	30° Υ 00'00	
direct	3385 Sep 17 05:07	11° Υ 07'36		inferior conj	3386 Aug 20 04:39	28° Υ 36'25	-5°-2'-14
asc. node	3385 Sep 23 19:59	14° Υ 06'05		minimum elong	3386 Aug 20 07:15	28° Υ 31'42	5°02'04
morning max el	3385 Sep 24 12:17	14° Υ 43'57	18°04'32	morning rise	3386 Aug 28 02:55	24° Υ 12'42	
	3385 Oct 05 00:06	0° Υ		direct	3386 Aug 30 13:43	23° Υ 53'14	
morning set	3385 Oct 10 06:25	9° Υ 39'21		morning max el	3386 Sep 07 18:54	27° Υ 48'31	18°38'26
					3386 Sep 09 20:25	0° Υ	
superior conj	3385 Oct 20 03:33	27° Υ 47'12	1°12'10	asc. node	3386 Sep 10 17:01	1° Υ 02'30	
minimum elong	3385 Oct 20 07:46	28° Υ 05'56	1°11'40	morning set	3386 Sep 24 00:11	23° Υ 41'47	
	3385 Oct 21 09:31	0° Υ			3386 Sep 27 05:59	0° Υ	
max. Earth dist.	3385 Oct 27 18:53	10° Υ 58'55	1.41766 AU				
desc. node	3385 Oct 31 05:53	16° Υ 41'38		superior conj	3386 Oct 02 18:56	10° Υ 36'01	1°32'28
evening rise	3385 Nov 02 07:47	20° Υ 03'24		minimum elong	3386 Oct 02 21:56	10° Υ 50'04	1°32'12
	3385 Nov 08 15:54	0° Υ		max. Earth dist.	3386 Oct 10 01:01	23° Υ 46'27	1.39742 AU
	3385 Nov 29 21:52	0° Υ			3386 Oct 13 15:45	0° Υ	
greatest brilliancy	3385 Nov 30 16:39	0° Υ 57'30	-0.3m	evening rise	3386 Oct 14 04:29	0° Υ 53'44	
evening max el	3385 Dec 05 14:52	6° Υ 28'36	22°39'47	desc. node	3386 Oct 18 02:53	7° Υ 23'46	
retrograde	3385 Dec 15 12:03	12° Υ 20'45			3386 Nov 02 00:53	0° Υ	
evening set	3385 Dec 20 03:25	10° Υ 28'30		evening max el	3386 Nov 18 04:38	20° Υ 06'06	23°59'42
asc. node	3385 Dec 20 19:15	9° Υ 53'49		retrograde	3386 Nov 29 04:19	26° Υ 33'49	
inferior conj	3385 Dec 25 13:13	4° Υ 04'25	1°33'37	evening set	3386 Dec 04 09:01	24° Υ 24'58	
minimum elong	3385 Dec 25 11:16	4° Υ 11'10	1°32'52	asc. node	3386 Dec 07 16:17	20° Υ 51'20	
min. Earth dist.	3385 Dec 25 08:22	4° Υ 21'12	0.67958 AU	min. Earth dist.	3386 Dec 09 04:46	18° Υ 51'03	0.67788 AU
	3385 Dec 28 16:03	30° Υ 00'00		inferior conj	3386 Dec 09 20:24	17° Υ 58'05	0°44'10
morning rise	3385 Dec 30 19:01	27° Υ 52'40		minimum elong	3386 Dec 09 19:22	18° Υ 01'35	0°43'45
direct	3386 Jan 04 06:50	26° Υ 03'21		morning rise	3386 Dec 15 05:59	11° Υ 51'23	
	3386 Jan 11 22:27	0° Υ		direct	3386 Dec 19 03:53	10° Υ 24'39	
morning max el	3386 Jan 13 09:12	1° Υ 23'13	21°53'20	morning max el	3386 Dec 27 04:32	15° Υ 01'21	20°35'09
greatest brilliancy	3386 Jan 18 02:26	6° Υ 41'45	-0.4m	greatest brilliancy	3387 Jan 02 05:19	22° Υ 06'08	-0.5m
desc. node	3386 Jan 27 05:08	18° Υ 52'03			3387 Jan 07 23:28	0° Υ	
	3386 Feb 03 20:04	0° Υ		desc. node	3387 Jan 14 02:09	8° Υ 55'31	
morning set	3386 Feb 14 21:53	17° Υ 09'58		morning set	3387 Jan 24 23:30	25° Υ 29'19	
max. Earth dist.	3386 Feb 20 22:45	27° Υ 01'59	1.41401 AU		3387 Jan 27 20:52	0° Υ	

max. Earth dist.	3387 Feb 03 04:52	10° \approx 04'53	1.43243 AU	direct	3387 Dec 03 02:22	24° \mathbb{M} 46'50	
				morning max el	3387 Dec 10 07:51	28° \mathbb{M} 50'50	19°30'08
superior conj	3387 Feb 09 16:43	20° \approx 44'41	-2°-5'-52		3387 Dec 11 10:15	0° \mathcal{A}	
minimum elong	3387 Feb 09 14:48	20° \approx 36'42	2°05'51	greatest brilliancy	3387 Dec 18 21:49	9° \mathcal{A} 39'26	-0.7m
	3387 Feb 15 03:42	0° \mathcal{H}		desc. node	3387 Dec 31 23:13	29° \mathcal{A} 16'46	
evening rise	3387 Feb 21 22:49	11° \mathcal{H} 51'30			3388 Jan 01 10:26	0° \mathcal{B}	
	3387 Mar 04 13:19	0° \mathcal{Y}		morning set	3388 Jan 03 21:09	3° \mathcal{B} 46'38	
asc. node	3387 Mar 05 15:36	1° \mathcal{Y} 40'49		max. Earth dist.	3388 Jan 16 17:46	23° \mathcal{B} 52'03	1.44554 AU
evening max el	3387 Mar 11 02:20	8° \mathcal{Y} 37'44	18°07'22				
retrograde	3387 Mar 17 14:37	12° \mathcal{Y} 00'45		superior conj	3388 Jan 20 15:54	0° \approx 06'34	-1°-50'-19
evening set	3387 Mar 20 07:46	11° \mathcal{Y} 24'47		minimum elong	3388 Jan 20 08:19	29° \mathcal{B} 36'13	1°49'47
inferior conj	3387 Mar 26 17:50	6° \mathcal{Y} 17'13	3°30'00		3388 Jan 20 14:15	0° \approx	
minimum elong	3387 Mar 26 19:29	6° \mathcal{Y} 13'01	3°29'51	evening rise	3388 Feb 03 17:40	23° \approx 11'39	
min. Earth dist.	3387 Mar 29 17:11	3° \mathcal{Y} 16'32	0.61962 AU		3388 Feb 07 19:02	0° \mathcal{H}	
morning rise	3387 Apr 02 04:34	0° \mathcal{Y} 17'47		asc. node	3388 Feb 20 12:38	19° \mathcal{H} 36'53	
	3387 Apr 02 14:49	30° \mathcal{R} \mathcal{H}		evening max el	3388 Feb 22 14:57	21° \mathcal{H} 57'57	18°20'30
direct	3387 Apr 09 01:03	27° \mathcal{H} 50'11		retrograde	3388 Feb 29 02:05	25° \mathcal{H} 27'28	
desc. node	3387 Apr 12 01:20	28° \mathcal{H} 16'16		evening set	3388 Mar 03 00:47	24° \mathcal{H} 40'27	
	3387 Apr 15 23:30	0° \mathcal{Y}		inferior conj	3388 Mar 09 00:40	19° \mathcal{H} 13'37	3°38'49
morning max el	3387 Apr 23 04:11	5° \mathcal{Y} 47'46	27°51'12	minimum elong	3388 Mar 09 00:32	19° \mathcal{H} 13'59	3°38'48
	3387 May 11 09:43	0° \mathcal{B}		min. Earth dist.	3388 Mar 11 09:29	16° \mathcal{H} 32'18	0.63922 AU
morning set	3387 May 26 13:54	27° \mathcal{B} 39'48		morning rise	3388 Mar 14 22:33	13° \mathcal{H} 04'56	
	3387 May 27 17:14	0° \mathbb{I}		direct	3388 Mar 21 19:03	10° \mathcal{H} 19'01	
max. Earth dist.	3387 Jun 01 08:18	9° \mathbb{I} 48'04	1.32398 AU	desc. node	3388 Mar 28 22:24	12° \mathcal{H} 45'45	
asc. node	3387 Jun 01 14:52	10° \mathbb{I} 23'38		morning max el	3388 Apr 04 12:45	18° \mathcal{H} 15'35	27°35'37
					3388 Apr 14 09:49	0° \mathcal{Y}	
superior conj	3387 Jun 03 01:40	13° \mathbb{I} 32'42	0°15'13		3388 May 03 06:53	0° \mathcal{B}	
minimum elong	3387 Jun 03 00:58	13° \mathbb{I} 28'51	0°15'03	morning set	3388 May 09 09:28	11° \mathcal{B} 36'48	
behind sun begin	3387 Jun 02 23:18	13° \mathbb{I} 19'48		max. Earth dist.	3388 May 14 10:40	21° \mathcal{B} 54'31	1.33139 AU
behind sun end	3387 Jun 03 02:37	13° \mathbb{I} 37'53					
evening rise	3387 Jun 10 00:11	28° \mathbb{I} 36'44		superior conj	3388 May 17 08:06	28° \mathcal{B} 02'04	0°-12'-7
	3387 Jun 10 15:55	0° \mathcal{B}		minimum elong	3388 May 17 08:43	28° \mathcal{B} 05'19	0°12'01
	3387 Jun 27 15:05	0° \mathcal{Q}		behind sun begin	3388 May 17 05:09	27° \mathcal{B} 46'15	
evening max el	3387 Jul 05 01:24	8° \mathcal{Q} 41'10	24°23'46	behind sun end	3388 May 17 12:17	28° \mathcal{B} 24'23	
desc. node	3387 Jul 09 00:34	12° \mathcal{Q} 01'39		asc. node	3388 May 18 11:56	0° \mathbb{I} 31'11	
retrograde	3387 Jul 18 22:09	15° \mathcal{Q} 41'16			3388 May 18 06:07	0° \mathbb{I}	
evening set	3387 Jul 23 19:38	14° \mathcal{Q} 47'42		evening rise	3388 May 24 11:50	13° \mathbb{I} 22'44	
min. Earth dist.	3387 Jul 29 12:15	11° \mathcal{Q} 54'40	0.56700 AU		3388 Jun 01 22:10	0° \mathcal{B}	
inferior conj	3387 Aug 01 04:30	10° \mathcal{Q} 13'01	-5°-1'-53	evening max el	3388 Jun 15 15:03	19° \mathcal{B} 06'35	22°47'11
minimum elong	3387 Aug 01 01:38	10° \mathcal{Q} 17'34	5°01'42	desc. node	3388 Jun 24 21:37	25° \mathcal{B} 06'27	
morning rise	3387 Aug 09 11:16	6° \mathcal{Q} 10'42		retrograde	3388 Jun 28 21:38	25° \mathcal{B} 43'06	
direct	3387 Aug 12 03:15	5° \mathcal{Q} 51'33		evening set	3388 Jul 02 06:43	25° \mathcal{B} 18'03	
morning max el	3387 Aug 21 16:10	10° \mathcal{Q} 18'04	19°33'49	min. Earth dist.	3388 Jul 09 23:27	21° \mathcal{B} 53'54	0.55354 AU
asc. node	3387 Aug 28 14:05	18° \mathcal{Q} 55'33		inferior conj	3388 Jul 11 09:26	21° \mathcal{B} 05'07	-4°-15'-20
	3387 Sep 03 22:44	0° \mathcal{M}		minimum elong	3388 Jul 11 01:40	21° \mathcal{B} 16'18	4°13'40
morning set	3387 Sep 08 02:01	8° \mathcal{M} 07'44		morning rise	3388 Jul 19 23:15	17° \mathcal{B} 14'01	
				direct	3388 Jul 22 22:23	16° \mathcal{B} 53'34	
superior conj	3387 Sep 16 02:25	24° \mathcal{M} 12'56	1°42'41	morning max el	3388 Aug 03 01:52	22° \mathcal{B} 04'04	20°50'23
minimum elong	3387 Sep 16 03:40	24° \mathcal{M} 19'04	1°42'38		3388 Aug 09 18:10	0° \mathcal{Q}	
	3387 Sep 19 01:52	0° \mathcal{A}		asc. node	3388 Aug 14 11:09	7° \mathcal{Q} 31'39	
max. Earth dist.	3387 Sep 22 05:17	5° \mathcal{A} 55'22	1.37671 AU	morning set	3388 Aug 22 09:09	22° \mathcal{Q} 49'05	
evening rise	3387 Sep 26 00:30	12° \mathcal{A} 48'57			3388 Aug 25 20:09	0° \mathcal{M}	
desc. node	3387 Oct 04 23:54	27° \mathcal{A} 57'29					
	3387 Oct 06 06:42	0° \mathbb{M}		superior conj	3388 Aug 29 21:18	8° \mathcal{M} 23'27	1°44'31
	3387 Oct 28 02:41	0° \mathcal{A}		minimum elong	3388 Aug 29 20:57	8° \mathcal{M} 21'41	1°44'31
evening max el	3387 Oct 31 16:53	3° \mathcal{A} 47'00	25°15'41	max. Earth dist.	3388 Sep 03 13:23	17° \mathcal{M} 46'25	1.35793 AU
retrograde	3387 Nov 12 16:26	10° \mathcal{A} 42'13		evening rise	3388 Sep 07 16:20	25° \mathcal{M} 40'03	
evening set	3387 Nov 18 11:09	8° \mathcal{A} 18'08			3388 Sep 10 00:53	0° \mathcal{A}	
min. Earth dist.	3387 Nov 22 22:55	3° \mathcal{A} 18'50	0.67273 AU	desc. node	3388 Sep 20 20:55	18° \mathcal{A} 17'11	
inferior conj	3387 Nov 24 01:21	1° \mathcal{A} 52'57	0°-10'-15		3388 Sep 28 18:14	0° \mathbb{M}	
minimum elong	3387 Nov 24 01:36	1° \mathcal{A} 52'06	0°10'09	evening max el	3388 Oct 13 05:12	17° \mathbb{M} 27'48	26°20'24
transit middle	3387 Nov 24 01:36	1° \mathcal{A} 52'06	0°10'09	retrograde	3388 Oct 25 23:33	24° \mathbb{M} 39'16	
transit begin	3387 Nov 23 23:26	1° \mathcal{A} 59'10		evening set	3388 Nov 01 07:56	22° \mathbb{M} 03'37	
transit end	3387 Nov 24 03:46	1° \mathcal{A} 45'04		min. Earth dist.	3388 Nov 05 12:27	17° \mathbb{M} 40'09	0.66417 AU
asc. node	3387 Nov 24 13:19	1° \mathcal{A} 14'10		inferior conj	3388 Nov 07 02:08	15° \mathbb{M} 45'00	-1°-8'-30
	3387 Nov 25 12:44	30° \mathcal{R} \mathbb{M}		minimum elong	3388 Nov 07 03:59	15° \mathbb{M} 39'20	1°07'43
morning rise	3387 Nov 29 16:45	25° \mathbb{M} 53'31		asc. node	3388 Nov 10 10:23	11° \mathbb{M} 57'57	

morning rise	3388 Nov 13 01:15	9°♄55'31		inferior conj	3389 Oct 21 20:37	29°♄30'05	-2°-8'-49
direct	3388 Nov 16 00:41	9°♄05'14		minimum elong	3389 Oct 22 00:11	29°♄20'00	2°07'26
morning max el	3388 Nov 22 17:57	12°♄47'06	18°40'30	morning rise	3389 Oct 28 05:03	23°♄53'41	
	3388 Dec 05 06:38	0°♄		asc. node	3389 Oct 28 07:26	23°♄50'56	
morning set	3388 Dec 13 14:38	13°♄08'24		direct	3389 Oct 30 20:40	23°♄15'54	
desc. node	3388 Dec 17 20:13	19°♄50'00		morning max el	3389 Nov 06 08:37	26°♄45'10	18°07'28
	3388 Dec 24 07:13	0°♄			3389 Nov 09 04:39	0°♄	
superior conj	3388 Dec 29 20:30	8°♄43'01	-1°-15'-45	morning set	3389 Nov 24 13:33	23°♄58'38	
minimum elong	3388 Dec 29 11:48	8°♄08'49	1°14'48		3389 Nov 28 05:29	0°♄	
max. Earth dist.	3388 Dec 29 11:08	8°♄06'12	1.45186 AU	desc. node	3389 Dec 04 17:13	10°♄31'18	
	3389 Jan 12 07:46	0°♄		superior conj	3389 Dec 09 01:21	17°♄26'38	0°-29'-14
evening rise	3389 Jan 14 13:19	3°♄33'56		minimum elong	3389 Dec 08 21:39	17°♄11'59	0°28'45
	3389 Jan 31 14:14	0°♄		max. Earth dist.	3389 Dec 12 06:32	22°♄31'31	1.45078 AU
evening max el	3389 Feb 05 01:45	5°♄25'37	18°51'45		3389 Dec 17 01:00	0°♄	
asc. node	3389 Feb 06 09:40	6°♄41'14		evening rise	3389 Dec 25 11:18	13°♄06'21	
retrograde	3389 Feb 11 19:59	9°♄13'09			3390 Jan 05 10:41	0°♄	
evening set	3389 Feb 15 00:57	8°♄13'59		greatest brilliancy	3390 Jan 11 14:40	9°♄07'34	-0.6m
inferior conj	3389 Feb 20 17:48	2°♄29'40	3°30'39	evening max el	3390 Jan 19 08:37	18°♄56'09	19°39'34
minimum elong	3389 Feb 20 16:19	2°♄34'18	3°30'29	asc. node	3390 Jan 24 06:42	22°♄39'26	
min. Earth dist.	3389 Feb 22 11:02	0°♄21'54	0.65526 AU	retrograde	3390 Jan 26 17:08	23°♄11'29	
	3389 Feb 22 18:16	30°♄		evening set	3390 Jan 30 05:37	21°♄58'56	
morning rise	3389 Feb 26 06:35	26°♄16'27		inferior conj	3390 Feb 04 18:01	15°♄59'24	3°09'38
direct	3389 Mar 04 20:01	23°♄26'34		minimum elong	3390 Feb 04 15:44	16°♄06'55	3°09'10
desc. node	3389 Mar 15 19:28	29°♄07'34		min. Earth dist.	3390 Feb 05 20:30	14°♄32'03	0.66721 AU
	3389 Mar 16 18:00	0°♄		morning rise	3390 Feb 10 01:10	9°♄44'12	
morning max el	3389 Mar 17 22:34	1°♄10'06	26°48'00	direct	3390 Feb 16 02:43	7°♄02'56	
	3389 Apr 08 11:24	0°♄		morning max el	3390 Feb 28 07:43	14°♄19'19	25°36'40
morning set	3389 Apr 22 18:28	24°♄59'10		desc. node	3390 Mar 02 16:28	16°♄49'48	
	3389 Apr 25 08:38	0°♄			3390 Mar 13 02:49	0°♄	
max. Earth dist.	3389 Apr 27 02:50	3°♄29'17	1.34342 AU		3390 Apr 01 06:43	0°♄	
superior conj	3389 May 01 08:54	12°♄10'29	0°-40'-45	morning set	3390 Apr 05 12:28	7°♄33'08	
minimum elong	3389 May 01 11:02	12°♄21'33	0°40'20	max. Earth dist.	3390 Apr 09 07:36	14°♄37'04	1.36003 AU
asc. node	3389 May 05 08:59	20°♄34'19		superior conj	3390 Apr 15 01:19	25°♄49'18	-1°-9'-13
evening rise	3389 May 08 21:40	27°♄58'55		minimum elong	3390 Apr 15 04:55	26°♄07'23	1°08'37
	3389 May 09 21:04	0°♄			3390 Apr 17 03:03	0°♄	
evening max el	3389 May 28 11:40	29°♄46'16	21°15'37	asc. node	3390 Apr 22 06:00	10°♄28'10	
	3389 May 28 17:21	0°♄		evening rise	3390 Apr 23 03:31	12°♄17'47	
retrograde	3389 Jun 09 11:14	5°♄38'44			3390 May 02 12:49	0°♄	
evening set	3389 Jun 11 18:52	5°♄26'20		evening max el	3390 May 10 19:44	11°♄00'55	19°59'07
desc. node	3389 Jun 11 18:39	5°♄26'26		retrograde	3390 May 21 02:12	16°♄00'24	
inferior conj	3389 Jun 21 03:31	1°♄27'57	-2°-41'-2	evening set	3390 May 23 01:40	15°♄50'07	
minimum elong	3389 Jun 20 20:18	1°♄38'03	2°38'40	desc. node	3390 May 29 15:42	13°♄13'55	
min. Earth dist.	3389 Jun 21 10:57	1°♄17'30	0.54850 AU	inferior conj	3390 Jun 01 00:41	11°♄50'03	0°-42'-1
	3389 Jun 23 19:18	30°♄		minimum elong	3390 May 31 22:44	11°♄53'00	0°41'19
morning rise	3389 Jun 29 21:52	27°♄30'41		min. Earth dist.	3390 Jun 02 23:43	10°♄39'10	0.55313 AU
direct	3389 Jul 03 08:20	27°♄05'08		morning rise	3390 Jun 09 17:07	7°♄27'45	
	3389 Jul 12 02:58	0°♄		direct	3390 Jun 13 21:40	6°♄49'23	
morning max el	3389 Jul 16 00:24	3°♄06'08	22°24'30	morning max el	3390 Jun 27 15:43	13°♄36'35	24°07'22
asc. node	3389 Aug 01 08:13	26°♄40'17			3390 Jul 10 08:23	0°♄	
	3389 Aug 03 01:21	0°♄		asc. node	3390 Jul 19 05:15	16°♄12'23	
morning set	3389 Aug 06 19:29	7°♄39'58		morning set	3390 Jul 22 07:11	22°♄34'29	
					3390 Jul 25 18:16	0°♄	
superior conj	3389 Aug 14 00:02	22°♄57'04	1°39'26	superior conj	3390 Jul 29 07:50	7°♄44'43	1°28'37
minimum elong	3389 Aug 13 22:31	22°♄49'02	1°39'21	minimum elong	3390 Jul 29 05:39	7°♄32'52	1°28'22
max. Earth dist.	3389 Aug 17 05:59	29°♄44'56	1.34260 AU	max. Earth dist.	3390 Jul 31 07:35	12°♄02'02	1.33127 AU
	3389 Aug 17 08:54	0°♄		evening rise	3390 Aug 05 17:55	23°♄22'08	
evening rise	3389 Aug 21 23:31	9°♄15'08			3390 Aug 09 02:33	0°♄	
	3389 Sep 02 12:26	0°♄		desc. node	3390 Aug 25 14:58	27°♄45'54	
desc. node	3389 Sep 07 17:56	8°♄16'20			3390 Aug 27 04:54	0°♄	
	3389 Sep 24 16:53	0°♄		evening max el	3390 Sep 08 05:04	14°♄13'44	27°26'07
evening max el	3389 Sep 25 17:48	1°♄00'56	27°06'11	retrograde	3390 Sep 21 20:07	21°♄30'36	
retrograde	3389 Oct 09 00:57	8°♄18'11		evening set	3390 Sep 28 23:48	18°♄53'13	
evening set	3389 Oct 15 21:05	5°♄37'07		min. Earth dist.	3390 Oct 02 16:10	15°♄40'04	0.63660 AU
min. Earth dist.	3389 Oct 19 18:55	1°♄49'58	0.65214 AU	inferior conj	3390 Oct 05 06:13	13°♄02'17	-3°-8'-41
	3389 Oct 21 10:02	30°♄					

minimum elong	3390 Oct 05 11:19	12°♄49'18	3°06'59	min. Earth dist.	3391 Sep 15 02:49	28°♄58'18	0.61800 AU
morning rise	3390 Oct 12 01:12	7°♄42'35		inferior conj	3391 Sep 18 03:52	26°♄13'38	-4°-3'-51
direct	3390 Oct 14 11:36	7°♄13'39		minimum elong	3391 Sep 18 09:39	26°♄00'34	4°02'24
asc. node	3390 Oct 15 04:27	7°♄16'06		morning rise	3391 Sep 25 09:58	21°♄14'02	
morning max el	3390 Oct 21 01:08	10°♄38'53	17°51'52	direct	3391 Sep 27 17:55	20°♄50'50	
	3390 Nov 03 02:13	0°♄		asc. node	3391 Oct 02 01:29	22°♄13'07	
morning set	3390 Nov 06 14:54	6°♄05'52		morning max el	3391 Oct 04 16:23	24°♄20'29	17°54'28
					3391 Oct 09 06:41	0°♄	
superior conj	3390 Nov 19 01:44	27°♄10'38	0°17'18	morning set	3391 Oct 20 12:13	19°♄09'38	
minimum elong	3390 Nov 19 03:34	27°♄18'11	0°17'04		3391 Oct 26 12:26	0°♄	
	3390 Nov 20 19:09	0°♄					
desc. node	3390 Nov 21 14:14	1°♄17'33		superior conj	3391 Oct 31 04:56	8°♄13'22	0°55'23
max. Earth dist.	3390 Nov 25 00:44	6°♄49'29	1.44246 AU	minimum elong	3391 Oct 31 09:07	8°♄31'25	0°54'50
evening rise	3390 Dec 04 21:09	22°♄15'04		max. Earth dist.	3391 Nov 07 14:28	20°♄39'58	1.42797 AU
	3390 Dec 09 22:55	0°♄		desc. node	3391 Nov 08 11:15	22°♄04'53	
greatest brilliancy	3390 Dec 27 17:09	25°♄41'36	-0.5m		3391 Nov 13 09:43	0°♄	
	3390 Dec 31 04:22	0°♄		evening rise	3391 Nov 14 10:39	1°♄38'11	
evening max el	3391 Jan 02 10:13	2°♄27'56	20°41'37		3391 Dec 03 11:54	0°♄	
retrograde	3391 Jan 10 15:13	7°♄18'46		greatest brilliancy	3391 Dec 11 12:00	10°♄36'33	-0.4m
asc. node	3391 Jan 11 03:44	7°♄17'16		evening max el	3391 Dec 16 06:13	16°♄00'19	21°54'38
evening set	3391 Jan 14 12:45	5°♄51'37		retrograde	3391 Dec 25 12:14	21°♄30'42	
inferior conj	3391 Jan 19 22:48	29°♄39'36	2°38'34	asc. node	3391 Dec 29 00:45	20°♄23'39	
minimum elong	3391 Jan 19 20:16	29°♄48'16	2°37'52	evening set	3391 Dec 29 20:32	19°♄47'52	
	3391 Jan 19 16:50	30°♄		inferior conj	3392 Jan 04 05:59	13°♄26'52	1°59'21
min. Earth dist.	3391 Jan 20 12:04	28°♄54'10	0.67502 AU	minimum elong	3392 Jan 04 03:41	13°♄34'49	1°58'34
morning rise	3391 Jan 25 03:21	23°♄24'16		min. Earth dist.	3392 Jan 04 07:27	13°♄21'46	0.67893 AU
direct	3391 Jan 30 14:34	21°♄00'11		morning rise	3392 Jan 09 10:37	7°♄13'06	
morning max el	3391 Feb 10 16:16	27°♄36'28	24°11'30	direct	3392 Jan 14 06:46	5°♄10'44	
	3391 Feb 12 22:24	0°♄		morning max el	3392 Jan 24 02:19	10°♄59'05	22°42'34
desc. node	3391 Feb 17 13:28	5°♄29'38		greatest brilliancy	3392 Jan 28 17:01	16°♄07'42	-0.3m
	3391 Mar 06 19:14	0°♄		desc. node	3392 Feb 04 10:30	24°♄50'18	
morning set	3391 Mar 18 09:54	19°♄03'56			3392 Feb 08 03:14	0°♄	
max. Earth dist.	3391 Mar 22 04:19	25°♄42'39	1.38022 AU	morning set	3392 Feb 27 04:44	29°♄15'59	
	3391 Mar 24 13:00	0°♄			3392 Feb 27 15:25	0°♄	
				max. Earth dist.	3392 Mar 02 23:51	7°♄18'22	1.40191 AU
superior conj	3391 Mar 29 05:58	8°♄49'44	-1°-35'-19				
minimum elong	3391 Mar 29 10:31	9°♄11'31	1°34'46	superior conj	3392 Mar 10 18:30	21°♄00'42	-1°-55'-51
evening rise	3391 Apr 07 02:55	26°♄12'33		minimum elong	3392 Mar 10 22:35	21°♄19'17	1°55'35
asc. node	3391 Apr 09 03:02	0°♄08'16			3392 Mar 15 15:14	0°♄	
	3391 Apr 09 01:20	0°♄		evening rise	3392 Mar 20 16:45	9°♄34'44	
evening max el	3391 Apr 23 15:22	22°♄56'09	19°02'01	asc. node	3392 Mar 26 00:04	19°♄28'57	
retrograde	3391 May 02 07:01	27°♄09'01			3392 Apr 01 08:47	0°♄	
evening set	3391 May 04 09:03	26°♄55'20		evening max el	3392 Apr 05 19:59	5°♄26'37	18°25'16
inferior conj	3391 May 12 13:52	22°♄40'52	1°07'27	retrograde	3392 Apr 13 06:34	9°♄07'23	
minimum elong	3391 May 12 16:25	22°♄36'25	1°06'33	evening set	3392 Apr 15 14:35	8°♄46'42	
min. Earth dist.	3391 May 15 15:10	20°♄34'11	0.56644 AU	inferior conj	3392 Apr 23 00:22	4°♄12'30	2°27'15
desc. node	3391 May 16 12:42	19°♄59'02		minimum elong	3392 Apr 23 04:08	4°♄04'48	2°26'17
morning rise	3391 May 20 19:28	17°♄43'08		min. Earth dist.	3392 Apr 26 10:59	1°♄25'36	0.58564 AU
direct	3391 May 25 23:22	16°♄40'18			3392 Apr 28 10:13	30°♄	
morning max el	3391 Jun 09 06:13	24°♄02'08	25°44'35	morning rise	3392 Apr 30 13:24	28°♄43'08	
	3391 Jun 14 16:31	0°♄		desc. node	3392 May 02 09:42	27°♄53'27	
	3391 Jul 03 03:39	0°♄		direct	3392 May 06 15:28	27°♄06'01	
asc. node	3391 Jul 06 02:16	6°♄01'29			3392 May 15 03:38	0°♄	
morning set	3391 Jul 06 18:39	7°♄27'37		morning max el	3392 May 21 00:57	4°♄49'39	27°00'26
					3392 Jun 08 12:36	0°♄	
superior conj	3391 Jul 13 18:34	22°♄39'37	1°12'58	morning set	3392 Jun 20 04:18	22°♄14'10	
minimum elong	3391 Jul 13 16:13	22°♄26'41	1°12'35	asc. node	3392 Jun 21 23:20	26°♄02'12	
max. Earth dist.	3391 Jul 14 15:48	24°♄36'03	1.32404 AU		3392 Jun 23 19:22	0°♄	
	3391 Jul 17 03:19	0°♄					
evening rise	3391 Jul 20 20:16	7°♄51'29		superior conj	3392 Jun 27 06:24	7°♄35'47	0°53'12
	3391 Aug 01 13:15	0°♄		minimum elong	3392 Jun 27 04:21	7°♄24'28	0°52'48
desc. node	3391 Aug 12 12:00	16°♄33'25		max. Earth dist.	3392 Jun 27 03:22	7°♄18'59	1.32083 AU
evening max el	3391 Aug 21 12:33	26°♄52'28	27°14'45	evening rise	3392 Jul 04 03:56	22°♄35'15	
	3391 Aug 25 04:34	0°♄			3392 Jul 07 18:27	0°♄	
retrograde	3391 Sep 04 08:33	4°♄06'45			3392 Jul 25 19:52	0°♄	
evening set	3391 Sep 11 12:18	1°♄45'08		desc. node	3392 Jul 29 09:01	4°♄21'52	
	3391 Sep 13 21:32	30°♄		evening max el	3392 Aug 02 13:58	8°♄47'34	26°30'10

retrograde	3392 Aug 16 13:14	15° \cap 58'37		retrograde	3393 Jul 29 07:44	27° Ω 00'54	
evening set	3392 Aug 23 06:01	14° \cap 06'03		evening set	3393 Aug 04 00:20	25° Ω 46'12	
min. Earth dist.	3392 Aug 27 03:27	11° \cap 31'02	0.59752 AU	min. Earth dist.	3393 Aug 08 20:03	23° Ω 04'37	0.57734 AU
inferior conj	3392 Aug 30 10:12	8° \cap 55'55	-4°-47'-5	inferior conj	3393 Aug 11 21:46	20° Ω 58'39	-5°-6'-57
minimum elong	3392 Aug 30 14:46	8° \cap 46'52	4°46'26	minimum elong	3393 Aug 11 22:17	20° Ω 57'46	5°06'58
morning rise	3392 Sep 07 02:55	4° \cap 18'50		morning rise	3393 Aug 19 23:47	16° Ω 44'18	
direct	3392 Sep 09 11:35	3° \cap 58'44		direct	3393 Aug 22 12:24	16° Ω 25'11	
morning max el	3392 Sep 17 03:12	7° \cap 42'01	18°16'27	morning max el	3393 Aug 31 06:11	20° Ω 32'40	18°59'17
asc. node	3392 Sep 17 22:31	8° \cap 30'44		asc. node	3393 Sep 04 19:35	25° Ω 52'51	
	3392 Oct 01 10:59	0° Ω			3393 Sep 07 13:36	0° \cap	
morning set	3392 Oct 02 23:51	2° Ω 54'29		morning set	3393 Sep 16 21:27	17° \cap 07'44	
					3393 Sep 23 10:16	0° Ω	
superior conj	3392 Oct 12 08:41	20° Ω 28'05	1°22'06	superior conj	3393 Sep 25 07:31	3° Ω 38'35	1°37'55
minimum elong	3392 Oct 12 12:31	20° Ω 45'30	1°21'41	minimum elong	3393 Sep 25 09:47	3° Ω 49'28	1°37'46
	3392 Oct 17 17:09	0° \cap			3393 Sep 25 09:47	3° Ω 49'28	1°37'46
max. Earth dist.	3392 Oct 19 22:42	3° \cap 50'31	1.40921 AU	max. Earth dist.	3393 Oct 02 03:16	16° Ω 18'56	1.38854 AU
evening rise	3392 Oct 24 18:05	11° \cap 52'13		evening rise	3393 Oct 06 00:58	23° Ω 10'43	
desc. node	3392 Oct 25 08:19	12° \cap 50'15			3393 Oct 10 02:05	0° \cap	
	3392 Nov 05 08:41	0° \nearrow		desc. node	3393 Oct 12 05:21	3° \cap 29'17	
evening max el	3392 Nov 27 21:46	29° \nearrow 35'45	23°13'48		3393 Oct 30 05:17	0° \nearrow	
	3392 Nov 28 07:32	0° \searrow		evening max el	3393 Nov 10 10:48	13° \nearrow 15'12	24°33'02
retrograde	3392 Dec 08 06:39	5° \searrow 44'20		retrograde	3393 Nov 21 21:11	19° \nearrow 55'33	
evening set	3392 Dec 13 03:24	3° \searrow 45'08		evening set	3393 Nov 27 07:45	17° \nearrow 40'15	
asc. node	3392 Dec 14 21:47	2° \searrow 01'56		asc. node	3393 Dec 01 18:49	12° \nearrow 38'13	
	3392 Dec 16 14:05	30° \cap \nearrow		min. Earth dist.	3393 Dec 02 00:06	12° \nearrow 20'42	0.67609 AU
min. Earth dist.	3392 Dec 18 04:16	27° \nearrow 51'37	0.67925 AU	inferior conj	3393 Dec 02 20:12	11° \nearrow 13'39	0°21'40
inferior conj	3392 Dec 18 13:43	27° \nearrow 19'09	1°13'21	minimum elong	3393 Dec 02 19:40	11° \nearrow 15'25	0°21'26
minimum elong	3392 Dec 18 12:06	27° \nearrow 24'42	1°12'43	morning rise	3393 Dec 08 07:59	5° \nearrow 09'31	
morning rise	3392 Dec 23 20:50	21° \nearrow 09'01		direct	3393 Dec 12 00:30	3° \nearrow 51'30	
direct	3392 Dec 28 02:32	19° \nearrow 29'27		morning max el	3393 Dec 19 16:00	8° \nearrow 12'51	20°05'41
morning max el	3393 Jan 05 17:24	24° \nearrow 30'23	21°18'36	greatest brilliancy	3393 Dec 26 14:01	16° \nearrow 33'08	-0.6m
	3393 Jan 10 13:33	0° \searrow			3394 Jan 04 22:42	0° \searrow	
greatest brilliancy	3393 Jan 10 21:18	0° \searrow 24'07	-0.4m	desc. node	3394 Jan 08 04:36	4° \searrow 52'30	
desc. node	3393 Jan 21 07:32	14° \searrow 40'42		morning set	3394 Jan 15 15:38	16° \searrow 16'37	
	3393 Jan 31 13:32	0° \approx			3394 Jan 24 10:09	0° \approx	
morning set	3393 Feb 05 18:55	8° \approx 07'43		max. Earth dist.	3394 Jan 26 10:08	3° \approx 11'07	1.43878 AU
max. Earth dist.	3393 Feb 13 00:54	19° \approx 47'18	1.42236 AU				
	3393 Feb 19 03:19	0° \bowtie		superior conj	3394 Jan 31 23:54	12° \approx 12'06	-2°-1'-42
superior conj	3393 Feb 20 09:54	2° \bowtie 11'02	-2°-6'-25	minimum elong	3394 Jan 31 19:26	11° \approx 53'49	2°01'31
minimum elong	3393 Feb 20 11:00	2° \bowtie 15'48	2°06'25		3394 Feb 11 14:32	0° \bowtie	
evening rise	3393 Mar 03 17:16	22° \bowtie 15'58		evening rise	3394 Feb 14 00:10	4° \bowtie 07'51	
	3393 Mar 08 00:07	0° Υ		asc. node	3394 Feb 27 18:09	26° \bowtie 44'12	
asc. node	3393 Mar 12 21:07	8° Υ 23'37			3394 Mar 02 06:58	0° Υ	
evening max el	3393 Mar 20 06:16	18° Υ 23'22	18°08'23	evening max el	3394 Mar 03 18:55	1° Υ 37'36	18°10'42
retrograde	3393 Mar 26 23:25	21° Υ 48'13		retrograde	3394 Mar 10 05:24	5° Υ 01'28	
evening set	3393 Mar 29 13:27	21° Υ 18'11		evening set	3394 Mar 13 01:01	4° Υ 20'46	
inferior conj	3393 Apr 05 07:05	16° Υ 22'47	3°14'59		3394 Mar 18 09:30	30° \cap \bowtie	
minimum elong	3393 Apr 05 09:46	16° Υ 16'27	3°14'34	inferior conj	3394 Mar 19 06:19	29° \bowtie 04'48	3°36'07
min. Earth dist.	3393 Apr 08 13:09	13° Υ 19'56	0.60735 AU	minimum elong	3394 Mar 19 07:11	29° \bowtie 02'30	3°36'04
morning rise	3393 Apr 12 02:49	10° Υ 31'55		min. Earth dist.	3394 Mar 21 23:48	26° \bowtie 10'21	0.62836 AU
direct	3393 Apr 18 19:34	8° Υ 20'13		morning rise	3394 Mar 25 11:10	23° \bowtie 01'04	
desc. node	3393 Apr 19 06:45	8° Υ 20'50		direct	3394 Apr 01 08:49	20° \bowtie 24'01	
morning max el	3393 May 03 01:49	16° Υ 14'48	27°43'23	desc. node	3394 Apr 06 03:47	21° \bowtie 30'10	
	3393 May 14 08:37	0° \searrow		morning max el	3394 Apr 15 08:09	28° \bowtie 21'28	27°48'53
	3393 Jun 01 01:29	0° Π			3394 Apr 16 22:16	0° Υ	
morning set	3393 Jun 04 10:14	6° Π 47'03		morning set	3394 May 08 03:49	0° \searrow	
asc. node	3393 Jun 08 20:22	16° Π 08'56			3394 May 19 10:20	20° \searrow 59'32	
max. Earth dist.	3393 Jun 10 14:27	19° Π 57'46	1.32166 AU		3394 May 23 18:54	0° Π	
				max. Earth dist.	3394 May 24 21:17	2° Π 20'17	1.32665 AU
superior conj	3393 Jun 11 17:32	22° Π 26'13	0°29'57	asc. node	3394 May 26 17:26	6° Π 17'29	
minimum elong	3393 Jun 11 16:14	22° Π 19'01	0°29'39				
	3393 Jun 15 04:13	0° \searrow		superior conj	3394 May 27 02:15	7° Π 05'08	0°03'52
evening rise	3393 Jun 18 14:39	7° \searrow 25'09		minimum elong	3394 May 27 02:04	7° Π 04'07	0°03'50
	3393 Jun 30 09:01	0° Ω		behind sun begin	3394 May 26 20:58	6° Π 36'34	
evening max el	3393 Jul 15 08:12	19° Ω 55'22	25°15'57	behind sun end	3394 May 27 07:09	7° Π 31'42	
desc. node	3393 Jul 16 06:03	20° Ω 46'12		evening rise	3394 Jun 03 02:31	22° Π 14'43	
					3394 Jun 06 20:28	0° \searrow	

	3394 Jun 26 10:11	0°♎		evening rise	3395 May 18 13:38	6°♊57'18	
evening max el	3394 Jun 26 21:39	0°♎28'08	23°42'55		3395 May 30 22:06	0°♊	
desc. node	3394 Jul 03 03:03	5°♎14'12		evening max el	3395 Jun 08 13:13	10°♊55'02	22°06'44
retrograde	3394 Jul 10 13:50	7°♎19'47		desc. node	3395 Jun 20 00:03	17°♊11'04	
evening set	3394 Jul 14 19:45	6°♎40'12		retrograde	3395 Jun 21 08:18	17°♊15'14	
min. Earth dist.	3394 Jul 21 07:50	3°♎35'36	0.56051 AU	evening set	3395 Jun 24 04:43	16°♊57'10	
inferior conj	3394 Jul 23 13:04	2°♎15'28	-4°-48'-22	inferior conj	3395 Jul 03 11:52	12°♊51'41	-3°-40'-21
minimum elong	3394 Jul 23 07:44	2°♎23'33	4°47'40	minimum elong	3395 Jul 03 03:31	13°♊03'25	3°38'05
	3394 Jul 27 12:36	30°♊		min. Earth dist.	3395 Jul 02 18:33	13°♊16'00	0.55029 AU
morning rise	3394 Jul 31 22:59	28°♊19'28		morning rise	3395 Jul 12 04:11	9°♊00'53	
direct	3394 Aug 03 18:01	27°♊59'50		direct	3395 Jul 15 07:31	8°♊38'58	
	3394 Aug 10 09:36	0°♎		morning max el	3395 Jul 27 03:12	14°♊10'01	21°28'43
morning max el	3394 Aug 13 22:31	2°♎43'30	20°03'50		3395 Aug 07 21:59	0°♎	
asc. node	3394 Aug 22 16:39	14°♎05'20		asc. node	3395 Aug 09 13:42	2°♎56'24	
	3394 Aug 31 05:52	0°♊		morning set	3395 Aug 16 10:32	16°♎27'12	
morning set	3394 Sep 01 01:48	1°♊40'49			3395 Aug 22 21:22	0°♊	
superior conj	3394 Sep 08 20:18	17°♊30'38	1°44'23	superior conj	3395 Aug 23 18:55	1°♊52'27	1°43'08
minimum elong	3394 Sep 08 20:50	17°♊33'18	1°44'23	minimum elong	3395 Aug 23 18:01	1°♊47'45	1°43'06
max. Earth dist.	3394 Sep 14 08:49	28°♊18'21	1.36844 AU	max. Earth dist.	3395 Aug 27 20:23	10°♊11'04	1.35092 AU
	3394 Sep 15 06:21	0°♎		evening rise	3395 Sep 01 04:48	18°♊41'42	
evening rise	3394 Sep 18 05:55	5°♎30'31			3395 Sep 07 09:17	0°♎	
desc. node	3394 Sep 29 02:23	23°♎57'33		desc. node	3395 Sep 15 23:23	14°♎09'39	
	3394 Oct 02 23:46	0°♎			3395 Sep 27 03:25	0°♎	
evening max el	3394 Oct 23 23:06	26°♎56'47	25°45'06	evening max el	3395 Oct 06 11:28	10°♎35'12	26°42'33
	3394 Oct 27 09:26	0°♊		retrograde	3395 Oct 19 11:44	17°♎50'17	
retrograde	3394 Nov 05 07:03	3°♊59'26		evening set	3395 Oct 26 01:39	15°♎11'04	
evening set	3394 Nov 11 07:48	1°♊29'54		min. Earth dist.	3395 Oct 30 03:08	11°♎03'27	0.65949 AU
	3394 Nov 12 21:54	30°♊		inferior conj	3395 Oct 31 21:57	8°♎56'54	-1°-33'-57
min. Earth dist.	3394 Nov 15 16:28	26°♎45'51	0.66954 AU	minimum elong	3395 Nov 01 00:32	8°♎49'16	1°32'54
inferior conj	3394 Nov 16 23:35	25°♎07'12	0°-34'-34	asc. node	3395 Nov 05 12:54	4°♎11'08	
minimum elong	3394 Nov 17 00:29	25°♎04'20	0°34'12	morning rise	3395 Nov 07 00:53	3°♎12'54	
asc. node	3394 Nov 18 15:52	23°♎02'21		direct	3395 Nov 09 20:41	2°♎28'28	
morning rise	3394 Nov 22 18:03	19°♎11'45		morning max el	3395 Nov 16 10:51	6°♎03'41	18°24'28
direct	3394 Nov 25 23:10	18°♎12'22			3395 Dec 03 00:03	0°♊	
morning max el	3394 Dec 02 22:23	22°♎05'15	19°07'05	morning set	3395 Dec 06 01:15	4°♊54'35	
	3394 Dec 09 08:53	0°♊		desc. node	3395 Dec 12 22:39	15°♊56'33	
morning set	3394 Dec 25 19:26	24°♊55'05					
desc. node	3394 Dec 26 01:37	25°♊19'10		superior conj	3395 Dec 21 15:26	29°♊41'06	0°-56'-48
	3394 Dec 29 01:41	0°♎		minimum elong	3395 Dec 21 08:22	29°♊13'18	0°55'56
max. Earth dist.	3395 Jan 09 01:54	17°♎14'01	1.44911 AU		3395 Dec 21 20:15	0°♎	
				max. Earth dist.	3395 Dec 22 20:39	1°♎35'44	1.45227 AU
superior conj	3395 Jan 11 13:26	21°♎09'04	-1°-37'-46	evening rise	3396 Jan 06 19:15	25°♎02'49	
minimum elong	3395 Jan 11 04:30	20°♎33'43	1°36'58		3396 Jan 09 22:43	0°♎	
	3395 Jan 17 02:47	0°♎		greatest brilliancy	3396 Jan 19 18:14	15°♎16'39	-0.7m
evening rise	3395 Jan 26 09:21	15°♎03'17		evening max el	3396 Jan 29 16:16	28°♎29'58	19°10'06
	3395 Feb 04 12:39	0°♊			3396 Jan 31 06:30	0°♊	
asc. node	3395 Feb 14 15:12	14°♊19'43		asc. node	3396 Feb 01 12:12	0°♊57'35	
evening max el	3395 Feb 15 07:02	15°♊01'19	18°31'37	retrograde	3396 Feb 05 15:53	2°♊28'39	
retrograde	3395 Feb 21 20:08	18°♊37'10		evening set	3396 Feb 08 23:48	1°♊23'59	
evening set	3395 Feb 24 21:27	17°♊44'58			3396 Feb 10 17:54	30°♊	
inferior conj	3395 Mar 02 17:57	12°♊10'09	3°37'08	inferior conj	3396 Feb 14 14:27	25°♎32'40	3°23'07
minimum elong	3395 Mar 02 17:10	12°♊12'26	3°37'06	minimum elong	3396 Feb 14 12:33	25°♎38'42	3°22'49
min. Earth dist.	3395 Mar 04 19:59	9°♊42'11	0.64651 AU	min. Earth dist.	3396 Feb 16 01:12	23°♎41'38	0.66081 AU
morning rise	3395 Mar 08 11:31	5°♊59'11		morning rise	3396 Feb 20 00:24	19°♎18'04	
direct	3395 Mar 15 05:38	3°♊10'16		direct	3396 Feb 26 09:04	16°♎30'40	
desc. node	3395 Mar 24 00:49	6°♊51'27		desc. node	3396 Mar 09 21:51	23°♎50'35	
morning max el	3395 Mar 28 17:40	11°♊02'16	27°18'56	morning max el	3396 Mar 10 03:36	24°♎05'01	26°20'03
	3395 Apr 12 18:01	0°♊			3396 Mar 15 11:09	0°♊	
	3395 Apr 30 14:55	0°♊			3396 Apr 05 03:30	0°♊	
morning set	3395 May 03 01:51	4°♊42'51		morning set	3396 Apr 15 05:05	17°♊46'22	
max. Earth dist.	3395 May 07 19:56	14°♊14'48	1.33602 AU	max. Earth dist.	3396 Apr 19 07:17	25°♊36'39	1.34995 AU
					3396 Apr 21 12:27	0°♊	
superior conj	3395 May 11 06:33	21°♊26'04	0°-24'-10				
minimum elong	3395 May 11 07:47	21°♊32'36	0°23'55	superior conj	3396 Apr 24 04:06	5°♊22'27	0°-52'-57
asc. node	3395 May 13 14:29	26°♊23'30		minimum elong	3396 Apr 24 06:54	5°♊36'43	0°52'27
	3395 May 15 07:01	0°♊		asc. node	3396 Apr 29 11:31	16°♊22'58	

evening rise	3396 May 01 22:02	21°♄26'41		minimum elong	3397 Apr 07 20:08	19°♃06'43	1°20'08
	3396 May 06 04:04	0°♄			3397 Apr 13 06:48	0°♄	
evening max el	3396 May 20 14:17	21°♄47'27	20°40'49	evening rise	3397 Apr 16 01:29	5°♄36'20	
retrograde	3396 May 31 21:19	27°♄18'08		asc. node	3397 Apr 16 08:33	6°♄11'43	
evening set	3396 Jun 02 23:15	27°♄07'39			3397 Apr 30 03:42	0°♄	
desc. node	3396 Jun 05 21:05	26°♄20'41		evening max el	3397 May 03 03:39	3°♄20'43	19°32'29
inferior conj	3396 Jun 12 05:25	23°♄10'18	-1°-51'-28	retrograde	3397 May 12 16:47	7°♄58'41	
minimum elong	3396 Jun 12 00:11	23°♄17'49	1°49'37	evening set	3397 May 14 16:29	7°♄47'32	
min. Earth dist.	3396 Jun 13 06:40	22°♄34'04	0.54924 AU	inferior conj	3397 May 23 08:21	3°♄42'58	0°07'07
morning rise	3396 Jun 20 23:58	19°♄04'11		minimum elong	3397 May 23 08:40	3°♄42'28	0°07'00
direct	3396 Jun 24 16:52	18°♄34'38		transit middle	3397 May 23 08:40	3°♄42'28	0°07'00
morning max el	3396 Jul 07 22:10	24°♄56'50	23°08'01	transit begin	3397 May 23 05:09	3°♄48'04	
	3396 Jul 12 14:24	0°♄		transit end	3397 May 23 12:11	3°♄36'52	
asc. node	3396 Jul 26 10:45	22°♄15'51		desc. node	3397 May 23 18:06	3°♄27'23	
	3396 Jul 30 06:18	0°♄		min. Earth dist.	3397 May 25 20:49	2°♄06'54	0.55781 AU
morning set	3396 Jul 30 21:38	1°♄20'17			3397 May 29 15:51	30°♄	
				morning rise	3397 May 31 21:08	29°♄05'42	
superior conj	3396 Aug 07 00:07	16°♄33'17	1°35'30	direct	3397 Jun 05 11:24	28°♄18'12	
minimum elong	3396 Aug 06 22:15	16°♄23'19	1°35'20		3397 Jun 12 04:24	0°♄	
max. Earth dist.	3396 Aug 09 16:39	22°♄15'44	1.33721 AU	morning max el	3397 Jun 19 12:24	5°♄22'32	24°50'14
	3396 Aug 13 10:49	0°♄			3397 Jul 07 03:53	0°♄	
evening rise	3396 Aug 14 17:11	2°♄31'41		asc. node	3397 Jul 13 07:47	11°♄56'19	
	3396 Aug 30 05:58	0°♄		morning set	3397 Jul 15 09:27	16°♄15'12	
desc. node	3396 Sep 01 20:24	3°♄57'36			3397 Jul 21 17:48	0°♄	
evening max el	3396 Sep 17 23:30	24°♄00'37	27°18'09				
	3396 Sep 26 03:27	0°♄		superior conj	3397 Jul 22 09:27	1°♄25'29	1°22'33
retrograde	3396 Oct 01 10:48	1°♄19'13		minimum elong	3397 Jul 22 07:08	1°♄12'50	1°22'14
	3396 Oct 06 09:03	30°♄		max. Earth dist.	3397 Jul 23 21:21	4°♄40'40	1.32771 AU
evening set	3396 Oct 08 10:46	28°♄38'10		evening rise	3397 Jul 29 15:24	16°♄50'05	
min. Earth dist.	3396 Oct 12 05:53	25°♄06'07	0.64591 AU		3397 Aug 05 09:46	0°♄	
inferior conj	3396 Oct 14 12:58	22°♄37'13	-2°-34'-30	desc. node	3397 Aug 19 17:25	23°♄11'12	
minimum elong	3396 Oct 14 17:15	22°♄25'39	2°32'55		3397 Aug 24 22:34	0°♄	
morning rise	3396 Oct 21 01:49	17°♄07'42		evening max el	3397 Aug 31 09:36	7°♄01'12	27°25'20
asc. node	3396 Oct 22 09:56	16°♄41'48		retrograde	3397 Sep 14 03:23	14°♄17'15	
direct	3396 Oct 23 14:46	16°♄34'15		evening set	3397 Sep 21 07:58	11°♄45'14	
morning max el	3396 Oct 30 02:42	20°♄01'03	17°58'40	min. Earth dist.	3397 Sep 24 22:58	8°♄44'14	0.62902 AU
	3396 Nov 06 14:54	0°♄		inferior conj	3397 Sep 27 17:55	6°♄01'56	-3°-33'-1
morning set	3396 Nov 16 12:04	16°♄19'24		minimum elong	3397 Sep 27 23:28	5°♄48'28	3°31'21
	3396 Nov 24 17:14	0°♄		morning rise	3397 Oct 04 17:37	0°♄50'08	
desc. node	3396 Nov 28 19:40	6°♄40'22		direct	3397 Oct 07 02:30	0°♄24'04	
				asc. node	3397 Oct 09 06:58	0°♄46'48	
superior conj	3396 Nov 30 02:51	8°♄45'54	0°-8'-53	morning max el	3397 Oct 13 19:02	3°♄50'30	17°50'34
minimum elong	3396 Nov 30 01:47	8°♄41'35	0°08'44	morning set	3397 Oct 29 22:42	28°♄52'58	
behind sun begin	3396 Nov 29 16:56	8°♄06'01			3397 Oct 30 13:52	0°♄	
behind sun end	3396 Nov 30 10:38	9°♄17'07					
max. Earth dist.	3396 Dec 04 15:16	15°♄57'39	1.44804 AU	superior conj	3397 Nov 10 14:24	19°♄02'37	0°34'47
	3396 Dec 13 14:54	0°♄		minimum elong	3397 Nov 10 17:40	19°♄16'16	0°34'19
evening rise	3396 Dec 16 10:18	4°♄20'10		desc. node	3397 Nov 15 16:41	27°♄27'26	
	3397 Jan 02 11:17	0°♄			3397 Nov 17 06:22	0°♄	
greatest brilliancy	3397 Jan 05 03:23	3°♄44'50	-0.6m	max. Earth dist.	3397 Nov 17 07:34	0°♄04'50	1.43701 AU
evening max el	3397 Jan 11 20:56	12°♄00'45	20°04'26	evening rise	3397 Nov 25 19:37	13°♄29'48	
asc. node	3397 Jan 18 09:13	16°♄23'05			3397 Dec 06 17:19	0°♄	
retrograde	3397 Jan 19 13:43	16°♄30'48		greatest brilliancy	3397 Dec 20 16:25	19°♄34'08	-0.4m
evening set	3397 Jan 23 05:44	15°♄12'24		evening max el	3397 Dec 25 20:12	25°♄32'55	21°11'42
inferior conj	3397 Jan 28 16:54	9°♄07'15	2°57'33		3397 Dec 31 14:59	0°♄	
minimum elong	3397 Jan 28 14:27	9°♄15'29	2°56'59	retrograde	3398 Jan 03 11:25	0°♄40'03	
min. Earth dist.	3397 Jan 29 13:40	7°♄57'27	0.67098 AU	asc. node	3398 Jan 05 06:14	0°♄22'35	
morning rise	3397 Feb 02 22:34	2°♄51'33			3398 Jan 06 03:51	30°♄	
direct	3397 Feb 08 18:13	0°♄16'32		evening set	3398 Jan 07 13:19	29°♄06'29	
morning max el	3397 Feb 20 12:21	7°♄18'03	25°01'29	inferior conj	3398 Jan 12 22:56	22°♄50'29	2°22'50
desc. node	3397 Feb 24 18:52	11°♄59'36		minimum elong	3398 Jan 12 20:27	22°♄59'03	2°22'04
	3397 Mar 10 05:17	0°♄		min. Earth dist.	3398 Jan 13 07:07	22°♄22'15	0.67717 AU
morning set	3397 Mar 28 15:10	29°♄56'04		morning rise	3398 Jan 18 03:13	16°♄35'37	
	3397 Mar 28 16:03	0°♄		direct	3398 Jan 23 08:09	14°♄20'09	
max. Earth dist.	3397 Apr 01 07:33	6°♄38'01	1.36817 AU	morning max el	3398 Feb 02 20:53	20°♄36'17	23°33'30
					3398 Feb 10 21:56	0°♄	
superior conj	3397 Apr 07 16:01	18°♄46'28	-1°-20'-44	desc. node	3398 Feb 11 15:54	0°♄58'18	

	3398 Mar 03 11:00	0°♂		desc. node	3399 Jan 29 12:57	20°♂33'05	
morning set	3398 Mar 10 01:53	10°♂54'20			3399 Feb 05 01:50	0°♂	
max. Earth dist.	3398 Mar 14 02:31	17°♂51'06	1.38939 AU	morning set	3399 Feb 18 08:13	20°♂30'41	
	3398 Mar 20 19:41	0°♀		max. Earth dist.	3399 Feb 24 00:24	29°♂50'37	1.41099 AU
					3399 Feb 24 02:38	0°♂	
superior conj	3398 Mar 21 14:24	1°♀27'21	-1°-44'-57				
minimum elong	3398 Mar 21 19:00	1°♀48'51	1°44'30	superior conj	3399 Mar 03 18:37	13°♂14'10	-2°-1'-52
evening rise	3398 Mar 30 21:12	19°♀17'55		minimum elong	3399 Mar 03 21:48	13°♂28'20	2°01'44
asc. node	3398 Apr 03 05:35	25°♀44'07			3399 Mar 12 22:58	0°♀	
	3398 Apr 05 12:37	0°♂		evening rise	3399 Mar 14 05:54	2°♀24'01	
evening max el	3398 Apr 16 03:35	15°♂32'10	18°44'01	asc. node	3399 Mar 21 02:37	14°♀54'36	
retrograde	3398 Apr 24 05:11	19°♂28'59		evening max el	3399 Mar 30 10:59	28°♀14'28	18°15'37
evening set	3398 Apr 26 09:51	19°♂12'33			3399 Apr 01 12:55	0°♂	
inferior conj	3398 May 04 06:21	14°♂50'06	1°45'19	retrograde	3399 Apr 06 12:41	1°♂46'40	
minimum elong	3398 May 04 09:49	14°♂43'40	1°44'15	evening set	3399 Apr 08 23:22	1°♂22'08	
min. Earth dist.	3398 May 07 13:40	12°♂23'56	0.57409 AU		3399 Apr 11 18:28	30°♂♀	
desc. node	3398 May 10 15:07	10°♂26'32		inferior conj	3399 Apr 16 01:46	26°♀38'31	2°51'11
morning rise	3398 May 12 05:22	9°♂38'20		minimum elong	3399 Apr 16 05:15	26°♀30'55	2°50'26
direct	3398 May 17 19:34	8°♂21'33		min. Earth dist.	3399 Apr 19 11:37	23°♀42'00	0.59480 AU
morning max el	3398 Jun 01 03:58	15°♂53'28	26°20'14	morning rise	3399 Apr 23 07:19	20°♀58'50	
	3398 Jun 12 14:42	0°♂		desc. node	3399 Apr 27 12:09	19°♀19'53	
	3398 Jun 29 07:47	0°♂		direct	3399 Apr 29 16:38	19°♀06'47	
morning set	3398 Jun 29 20:21	1°♂06'01		morning max el	3399 May 14 01:16	26°♀55'23	27°23'16
asc. node	3398 Jun 30 04:51	1°♂50'53			3399 May 16 23:31	0°♂	
					3399 Jun 06 03:28	0°♂	
superior conj	3398 Jul 06 20:52	16°♂21'28	1°05'04	morning set	3399 Jun 14 04:39	15°♂47'16	
minimum elong	3398 Jul 06 18:35	16°♂08'54	1°04'40	asc. node	3399 Jun 17 01:55	21°♂54'29	
max. Earth dist.	3398 Jul 07 07:32	17°♂20'14	1.32226 AU		3399 Jun 20 18:55	0°♂	
	3398 Jul 13 03:49	0°♂					
evening rise	3398 Jul 13 20:19	1°♂26'40		superior conj	3399 Jun 21 08:35	1°♂15'21	0°43'43
	3398 Jul 29 09:35	0°♂		minimum elong	3399 Jun 21 06:48	1°♂05'30	0°43'22
desc. node	3398 Aug 06 14:27	11°♂35'59		max. Earth dist.	3399 Jun 20 19:32	0°♂03'26	1.32072 AU
evening max el	3398 Aug 13 15:02	19°♂23'10	26°59'48	evening rise	3399 Jun 28 05:31	16°♂13'33	
retrograde	3398 Aug 27 12:26	26°♂35'08			3399 Jul 05 01:59	0°♂	
evening set	3398 Sep 03 13:03	24°♂24'43		desc. node	3399 Jul 24 11:28	28°♂51'52	
min. Earth dist.	3398 Sep 07 05:18	21°♂44'49	0.60948 AU		3399 Jul 25 13:53	0°♂	
inferior conj	3398 Sep 10 09:31	19°♂02'20	-4°-24'-12	evening max el	3399 Jul 26 13:19	0°♂57'15	26°01'39
minimum elong	3398 Sep 10 15:05	18°♂50'25	4°23'03	retrograde	3399 Aug 09 12:45	8°♂06'06	
morning rise	3398 Sep 17 20:13	14°♂11'44		evening set	3399 Aug 15 21:12	6°♂28'50	
direct	3398 Sep 20 04:11	13°♂50'01		min. Earth dist.	3399 Aug 20 01:47	3°♂53'40	0.58878 AU
asc. node	3398 Sep 26 04:01	16°♂19'42		inferior conj	3399 Aug 23 08:11	1°♂28'33	-4°-59'-12
morning max el	3398 Sep 27 08:44	17°♂24'15	18°01'18	minimum elong	3399 Aug 23 11:24	1°♂22'34	4°58'56
	3398 Oct 06 07:47	0°♂			3399 Aug 25 09:03	30°♂♂	
morning set	3398 Oct 13 02:46	12°♂16'25		morning rise	3399 Aug 31 05:05	27°♂01'30	
	3398 Oct 22 20:07	0°♂		direct	3399 Sep 02 15:14	26°♂41'56	
					3399 Sep 10 01:58	0°♂	
superior conj	3398 Oct 23 04:38	0°♂37'38	1°08'07	morning max el	3399 Sep 10 16:35	0°♂33'38	18°32'06
minimum elong	3398 Oct 23 08:54	0°♂56'29	1°07'36	asc. node	3399 Sep 13 01:06	3°♂06'30	
max. Earth dist.	3398 Oct 30 19:29	13°♂41'37	1.42045 AU	morning set	3399 Sep 26 19:04	26°♂14'34	
desc. node	3398 Nov 02 13:45	18°♂14'31			3399 Sep 28 17:42	0°♂	
evening rise	3398 Nov 05 15:33	23°♂12'03					
	3398 Nov 09 23:23	0°♂		superior conj	3399 Oct 05 17:12	13°♂18'12	1°30'02
	3398 Nov 30 19:43	0°♂		minimum elong	3399 Oct 05 20:26	13°♂33'16	1°29'46
greatest brilliancy	3398 Dec 03 19:15	3°♂44'36	-0.3m	max. Earth dist.	3399 Oct 13 02:06	26°♂35'08	1.40049 AU
evening max el	3398 Dec 08 14:15	9°♂07'13	22°27'54		3399 Oct 15 01:38	0°♂	
retrograde	3398 Dec 18 07:23	14°♂53'40		evening rise	3399 Oct 17 08:42	3°♂52'32	
evening set	3398 Dec 22 20:55	13°♂03'47		desc. node	3399 Oct 20 10:46	8°♂57'35	
asc. node	3398 Dec 23 03:16	12°♂50'29			3399 Nov 03 05:02	0°♂	
inferior conj	3398 Dec 28 06:34	6°♂40'22	1°40'37	evening max el	3399 Nov 21 04:21	22°♂43'53	23°47'51
minimum elong	3398 Dec 28 04:31	6°♂47'29	1°39'51	retrograde	3399 Dec 02 00:18	29°♂07'06	
min. Earth dist.	3398 Dec 28 03:18	6°♂51'40	0.67955 AU	evening set	3399 Dec 07 02:55	27°♂00'39	
morning rise	3399 Jan 02 12:01	0°♂28'09		asc. node	3399 Dec 10 00:19	23°♂57'39	
	3399 Jan 03 02:31	30°♂♂		min. Earth dist.	3399 Dec 11 23:54	21°♂21'40	0.67834 AU
direct	3399 Jan 07 01:58	28°♂35'29		inferior conj	3399 Dec 12 13:58	20°♂33'46	0°52'03
	3399 Jan 11 10:55	0°♂		minimum elong	3399 Dec 12 12:46	20°♂37'51	0°51'33
morning max el	3399 Jan 16 08:39	4°♂02'24	22°05'52	morning rise	3399 Dec 17 22:51	14°♂26'08	
greatest brilliancy	3399 Jan 20 23:38	9°♂13'21	-0.4m	direct	3399 Dec 21 22:40	12°♂56'14	

morning max el	3399 Dec 30 02:53	17°♏39'00	20°46'01			3400 Nov 30 13:26	30°♍	
greatest brilliancy	3400 Jan 04 21:29	24°♏22'20	-0.5m	morning rise		3400 Dec 02 09:46	28°♍27'45	
	3400 Jan 09 02:02	0°♏		direct		3400 Dec 05 21:04	27°♍18'15	
desc. node	3400 Jan 16 10:00	10°♏33'22				3400 Dec 11 15:46	0°♏	
morning set	3400 Jan 28 12:35	28°♏57'02		morning max el		3400 Dec 13 04:57	1°♏26'32	19°38'46
	3400 Jan 29 04:44	0°♏		greatest brilliancy		3400 Dec 21 06:46	11°♏29'13	-0.6m
max. Earth dist.	3400 Feb 06 05:11	12°♏45'02	1.42999 AU			3401 Jan 02 17:25	0°♏	
				desc. node		3401 Jan 03 07:02	0°♏52'08	
superior conj	3400 Feb 12 23:28	23°♏55'02	-2°-6'-35	morning set		3401 Jan 07 09:00	7°♏09'07	
minimum elong	3400 Feb 12 22:25	23°♏50'39	2°06'34	max. Earth dist.		3401 Jan 19 16:51	26°♏25'20	1.44400 AU
	3400 Feb 16 13:19	0°♏				3401 Jan 21 22:48	0°♏	
evening rise	3400 Feb 24 23:28	14°♏45'21						
	3400 Mar 05 17:34	0°♏		superior conj		3401 Jan 24 02:17	3°♏26'22	-1°-53'-56
asc. node	3400 Mar 07 23:39	3°♏35'50		minimum elong		3401 Jan 23 19:25	2°♏58'44	1°53'31
evening max el	3400 Mar 13 22:31	11°♏19'00	18°06'58	evening rise		3401 Feb 06 21:29	26°♏13'35	
retrograde	3400 Mar 20 11:47	14°♏42'07				3401 Feb 09 03:04	0°♏	
evening set	3400 Mar 23 04:06	14°♏07'47		asc. node		3401 Feb 22 20:40	21°♏38'49	
inferior conj	3400 Mar 29 16:01	9°♏03'23	3°26'49	evening max el		3401 Feb 25 11:13	24°♏37'59	18°17'24
minimum elong	3400 Mar 29 17:56	8°♏58'34	3°26'35	retrograde		3401 Mar 03 21:55	28°♏05'37	
min. Earth dist.	3400 Apr 01 17:18	6°♏01'16	0.61649 AU	evening set		3401 Mar 06 19:48	27°♏20'18	
morning rise	3400 Apr 05 04:58	3°♏05'46		inferior conj		3401 Mar 12 20:59	21°♏56'19	3°38'39
direct	3400 Apr 12 00:45	0°♏41'54		minimum elong		3401 Mar 12 21:06	21°♏56'00	3°38'39
desc. node	3400 Apr 14 09:11	0°♏57'46		min. Earth dist.		3401 Mar 15 08:09	19°♏11'00	0.63651 AU
morning max el	3400 Apr 26 04:57	8°♏39'20	27°50'25	morning rise		3401 Mar 18 20:33	15°♏48'49	
	3400 May 12 14:38	0°♏		direct		3401 Mar 25 17:38	13°♏04'35	
morning set	3400 May 29 08:26	0°♏12'43		desc. node		3401 Apr 01 06:12	15°♏07'22	
	3400 May 29 05:57	0°♏		morning max el		3401 Apr 08 12:55	21°♏01'52	27°40'07
asc. node	3400 Jun 03 22:58	12°♏02'37				3401 Apr 16 07:27	0°♏	
max. Earth dist.	3400 Jun 04 05:20	12°♏37'04	1.32319 AU			3401 May 05 16:39	0°♏	
				morning set		3401 May 13 05:13	14°♏14'03	
superior conj	3400 Jun 05 18:55	16°♏01'39	0°19'10	max. Earth dist.		3401 May 18 08:52	24°♏47'39	1.32999 AU
minimum elong	3400 Jun 05 18:02	15°♏56'51	0°18'59			3401 May 20 19:40	0°♏	
	3400 Jun 12 04:57	0°♏		superior conj		3401 May 21 01:59	0°♏33'49	0°-7'-52
evening rise	3400 Jun 12 16:57	1°♏03'59		minimum elong		3401 May 21 02:22	0°♏35'54	0°07'47
	3400 Jun 28 13:06	0°♏		behind sun begin		3401 May 20 21:41	0°♏10'46	
evening max el	3400 Jul 08 04:41	11°♏47'08	24°37'48	behind sun end		3401 May 21 07:03	1°♏01'02	
desc. node	3400 Jul 11 08:28	14°♏31'27		asc. node		3401 May 21 19:59	2°♏10'34	
retrograde	3400 Jul 22 02:37	18°♏49'23		evening rise		3401 May 28 04:41	15°♏51'09	
evening set	3400 Jul 27 05:17	17°♏50'31				3401 Jun 04 06:12	0°♏	
min. Earth dist.	3400 Aug 01 15:50	15°♏00'56	0.56949 AU	evening max el		3401 Jun 19 18:03	22°♏13'30	23°01'36
inferior conj	3400 Aug 04 11:07	13°♏12'24	-5°-4'-44	desc. node		3401 Jun 28 05:29	27°♏59'11	
minimum elong	3400 Aug 04 09:10	13°♏15'33	5°04'39	retrograde		3401 Jul 03 03:43	28°♏54'33	
morning rise	3400 Aug 12 16:42	9°♏07'15		evening set		3401 Jul 06 17:55	28°♏26'20	
direct	3400 Aug 15 07:39	8°♏48'13		min. Earth dist.		3401 Jul 14 03:10	25°♏07'38	0.55508 AU
morning max el	3400 Aug 24 15:28	13°♏09'29	19°24'10	inferior conj		3401 Jul 15 18:31	24°♏10'35	-4°-25'-44
asc. node	3400 Aug 30 22:11	20°♏52'15		minimum elong		3401 Jul 15 11:13	24°♏21'12	4°24'19
	3400 Sep 05 08:11	0°♏		morning rise		3401 Jul 24 07:20	20°♏18'37	
morning set	3400 Sep 10 19:54	10°♏37'42		direct		3401 Jul 27 05:20	19°♏58'27	
				morning max el		3401 Aug 07 02:51	25°♏01'54	20°37'41
superior conj	3400 Sep 18 22:36	26°♏49'01	1°41'41			3401 Aug 11 14:23	0°♏	
minimum elong	3400 Sep 19 00:07	26°♏56'26	1°41'37	asc. node		3401 Aug 17 19:13	9°♏22'29	
	3400 Sep 20 13:56	0°♏		morning set		3401 Aug 26 02:22	25°♏17'03	
max. Earth dist.	3400 Sep 25 06:07	8°♏48'09	1.37973 AU			3401 Aug 28 09:10	0°♏	
evening rise	3400 Sep 29 01:25	15°♏38'47		superior conj		3401 Sep 02 16:00	10°♏55'02	1°44'42
desc. node	3400 Oct 07 07:48	29°♏33'01		minimum elong		3401 Sep 02 15:52	10°♏54'23	1°44'42
	3400 Oct 07 14:32	0°♏		max. Earth dist.		3401 Sep 07 13:19	20°♏40'22	1.36057 AU
	3400 Oct 28 20:16	0°♏		evening rise		3401 Sep 11 14:34	28°♏22'16	
evening max el	3400 Nov 03 16:42	6°♏24'19	25°04'55			3401 Sep 12 11:47	0°♏	
retrograde	3400 Nov 15 13:06	13°♏16'15		desc. node		3401 Sep 24 04:49	19°♏55'18	
evening set	3400 Nov 21 05:40	10°♏54'23				3401 Sep 30 21:26	0°♏	
min. Earth dist.	3400 Nov 25 18:36	5°♏49'41	0.67373 AU	evening max el		3401 Oct 17 05:05	20°♏05'59	26°11'49
inferior conj	3400 Nov 26 19:22	4°♏28'34	0°-1'-42	retrograde		3401 Oct 29 20:56	27°♏15'21	
minimum elong	3400 Nov 26 19:24	4°♏28'26	0°01'42	evening set		3401 Nov 05 03:20	24°♏41'16	
transit middle	3400 Nov 26 19:24	4°♏28'26	0°01'42	min. Earth dist.		3401 Nov 09 08:58	20°♏12'20	0.66568 AU
transit begin	3400 Nov 26 16:39	4°♏37'29		inferior conj		3401 Nov 10 20:53	18°♏21'25	0°-59'-28
transit end	3400 Nov 26 22:10	4°♏19'24						
asc. node	3400 Nov 26 21:22	4°♏22'01						

minimum elong	3401 Nov 10 22:29	18° M 16'30	0°58'48	minimum elong	3402 Oct 25 19:45	1° M 58'26	1°58'21
asc. node	3401 Nov 13 18:24	14° M 59'11			3402 Oct 27 14:35	30° R A	
morning rise	3401 Nov 16 18:44	12° M 30'11		morning rise	3402 Oct 31 23:24	26° A 29'26	
direct	3401 Nov 19 19:35	11° M 37'38		asc. node	3402 Oct 31 15:26	26° A 39'36	
morning max el	3401 Nov 26 14:07	15° M 22'01	18°46'49	direct	3402 Nov 03 16:04	25° A 49'59	
	3401 Dec 07 12:00	0° A		morning max el	3402 Nov 10 04:18	29° A 20'24	18°11'22
morning set	3401 Dec 17 22:33	16° A 18'57			3402 Nov 10 19:36	0° M	
desc. node	3401 Dec 21 04:04	21° A 24'07		morning set	3402 Nov 28 17:08	26° M 56'44	
	3401 Dec 26 15:24	0° C			3402 Nov 30 13:57	0° A	
max. Earth dist.	3402 Jan 02 09:57	10° C 37'39	1.45139 AU	desc. node	3402 Dec 08 01:06	12° A 04'47	
superior conj	3402 Jan 03 08:41	12° C 06'58	-1°-22'-1	superior conj	3402 Dec 13 12:07	20° A 45'52	0°-36'-34
minimum elong	3402 Jan 02 23:40	11° C 31'32	1°21'04	minimum elong	3402 Dec 13 07:29	20° A 27'31	0°35'57
	3402 Jan 14 15:47	0° A		max. Earth dist.	3402 Dec 16 05:34	25° A 03'46	1.45141 AU
evening rise	3402 Jan 18 20:38	6° A 44'32			3402 Dec 19 09:06	0° C	
	3402 Feb 02 14:05	0° H		evening rise	3402 Dec 29 21:31	16° C 23'44	
evening max el	3402 Feb 08 22:27	8° H 05'13	18°46'01		3403 Jan 07 16:13	0° A	
asc. node	3402 Feb 09 17:41	8° H 52'06		greatest brilliancy	3403 Jan 15 01:25	11° A 05'45	-0.7m
retrograde	3402 Feb 15 15:03	11° H 49'14		evening max el	3403 Jan 23 05:59	21° A 35'29	19°31'26
evening set	3402 Feb 18 19:05	10° H 51'50		asc. node	3403 Jan 27 14:43	25° A 01'25	
inferior conj	3402 Feb 24 12:47	5° H 10'00	3°32'44	retrograde	3403 Jan 30 11:57	25° A 46'12	
minimum elong	3402 Feb 24 11:28	5° H 14'02	3°32'37	evening set	3403 Feb 02 23:14	24° A 35'40	
min. Earth dist.	3402 Feb 26 08:17	2° H 56'46	0.65314 AU	inferior conj	3403 Feb 08 12:07	18° A 38'04	3°13'28
	3402 Feb 28 23:47	30° R A		minimum elong	3403 Feb 08 09:56	18° A 45'15	3°13'04
morning rise	3402 Mar 02 02:42	28° A 57'20		min. Earth dist.	3403 Feb 09 16:40	17° A 04'38	0.66570 AU
direct	3402 Mar 08 17:33	26° A 07'19		morning rise	3403 Feb 13 19:55	12° A 23'01	
	3402 Mar 17 15:13	0° H		direct	3403 Feb 19 23:23	9° A 39'59	
desc. node	3402 Mar 19 03:13	1° H 14'30		morning max el	3403 Mar 04 08:05	17° A 01'17	25°48'26
morning max el	3402 Mar 21 22:39	3° H 53'12	26°56'50	desc. node	3403 Mar 06 00:15	18° A 46'20	
	3402 Apr 10 17:26	0° V			3403 Mar 15 03:51	0° H	
morning set	3402 Apr 26 15:59	27° V 42'09			3403 Apr 03 16:02	0° V	
	3402 Apr 27 20:31	0° B		morning set	3403 Apr 09 12:33	10° V 24'16	
max. Earth dist.	3402 May 01 02:47	6° B 27'44	1.34140 AU	max. Earth dist.	3403 Apr 13 09:18	17° V 39'07	1.35732 AU
superior conj	3402 May 05 03:44	14° B 45'49	0°-36'-22	superior conj	3403 Apr 18 21:34	28° V 29'27	-1°-4'-59
minimum elong	3402 May 05 05:38	14° B 55'42	0°36'00	minimum elong	3403 Apr 19 00:58	28° V 46'37	1°04'25
asc. node	3402 May 08 17:01	22° B 14'42			3403 Apr 19 15:30	0° B	
	3402 May 12 09:17	0° II		asc. node	3403 Apr 25 14:02	12° B 10'16	
evening rise	3402 May 12 14:53	0° II 29'17		evening rise	3403 Apr 26 21:28	14° B 51'16	
	3402 May 29 22:09	0° C			3403 May 04 18:04	0° II	
evening max el	3402 Jun 01 13:09	2° C 48'56	21°28'23	evening max el	3403 May 14 19:19	13° II 57'28	20°09'16
retrograde	3402 Jun 13 18:03	8° C 48'48		retrograde	3403 May 25 08:10	19° II 05'05	
desc. node	3402 Jun 15 02:28	8° C 44'35		evening set	3403 May 27 07:52	18° II 54'55	
evening set	3402 Jun 16 04:29	8° C 35'17		desc. node	3403 Jun 01 23:28	16° II 51'42	
inferior conj	3402 Jun 25 13:17	4° C 35'35	-2°-57'-38	inferior conj	3403 Jun 05 09:04	14° II 55'54	-1°00'-10
minimum elong	3402 Jun 25 05:35	4° C 46'22	2°55'13	minimum elong	3403 Jun 05 06:15	15° II 00'05	0°59'08
min. Earth dist.	3402 Jun 25 14:16	4° C 34'13	0.54870 AU	min. Earth dist.	3403 Jun 07 02:46	13° II 53'59	0.55184 AU
morning rise	3402 Jul 04 07:17	0° C 40'43		morning rise	3403 Jun 14 02:20	10° II 38'17	
direct	3402 Jul 07 15:49	0° C 16'15		direct	3403 Jun 18 03:36	10° II 02'38	
morning max el	3402 Jul 20 02:45	6° C 09'21	22°09'42	morning max el	3403 Jul 01 18:50	16° II 43'32	23°52'07
asc. node	3402 Aug 04 16:16	28° C 26'35			3403 Jul 12 11:09	0° C	
	3402 Aug 05 11:54	0° Q		asc. node	3403 Jul 22 13:18	17° C 55'56	
morning set	3402 Aug 10 12:18	10° Q 06'41		morning set	3403 Jul 25 23:55	25° C 01'24	
					3403 Jul 28 07:54	0° Q	
superior conj	3402 Aug 17 17:43	25° Q 25'30	1°40'36	superior conj	3403 Aug 02 00:56	10° Q 11'57	1°30'36
minimum elong	3402 Aug 17 16:21	25° Q 18'16	1°40'31	minimum elong	3403 Aug 01 22:49	10° Q 00'32	1°30'22
	3402 Aug 19 22:11	0° Q		max. Earth dist.	3403 Aug 04 04:58	14° Q 51'20	1.33265 AU
max. Earth dist.	3402 Aug 21 04:38	2° Q 37'01	1.34463 AU	evening rise	3403 Aug 09 12:40	25° Q 54'22	
evening rise	3402 Aug 25 19:42	11° Q 51'12			3403 Aug 11 14:13	0° Q	
	3402 Sep 04 20:32	0° A		desc. node	3403 Aug 28 22:50	29° Q 33'01	
desc. node	3402 Sep 11 01:50	9° A 58'03			3403 Aug 29 06:18	0° A	
	3402 Sep 26 04:00	0° M		evening max el	3403 Sep 12 05:11	16° A 57'36	27°25'01
evening max el	3402 Sep 29 17:40	3° M 40'58	27°00'52	retrograde	3403 Sep 25 19:18	24° A 15'07	
retrograde	3402 Oct 12 23:06	10° M 57'37		evening set	3403 Oct 02 22:17	21° A 36'20	
evening set	3402 Oct 19 17:46	8° M 16'48		min. Earth dist.	3403 Oct 06 15:14	18° A 18'36	0.63910 AU
min. Earth dist.	3402 Oct 23 16:33	4° M 24'26	0.65414 AU	inferior conj	3403 Oct 09 03:33	15° A 42'44	-2°-59'-49
inferior conj	3402 Oct 25 16:26	2° M 07'54	-1°-59'-39				

minimum elong	3403 Oct 09 08:27	15°♄30'02	2°58'08		3404 Aug 24 20:53	0°♄	
morning rise	3403 Oct 15 20:56	10°♄20'30		retrograde	3404 Sep 07 09:00	6°♄57'28	
direct	3403 Oct 18 07:55	9°♄50'31		evening set	3404 Sep 14 13:14	4°♄32'39	
asc. node	3403 Oct 18 12:30	9°♄50'42		min. Earth dist.	3404 Sep 18 03:36	1°♄42'35	0.62091 AU
morning max el	3403 Oct 24 20:48	13°♄15'48	17°53'07		3404 Sep 20 00:31	30°♄	
	3403 Nov 05 10:10	0°♄		inferior conj	3404 Sep 21 03:14	28°♄57'57	-3°-56'-5
morning set	3403 Nov 10 14:58	8°♄54'00		minimum elong	3404 Sep 21 09:00	28°♄44'39	3°54'33
				morning rise	3404 Sep 28 07:41	23°♄55'10	
superior conj	3403 Nov 23 08:53	0°♄19'24	0°10'40	direct	3404 Sep 30 15:43	23°♄31'21	
minimum elong	3403 Nov 23 10:04	0°♄24'13	0°10'30	asc. node	3404 Oct 04 09:34	24°♄34'32	
behind sun begin	3403 Nov 23 02:27	29°♄53'08		morning max el	3404 Oct 07 12:28	27°♄00'01	17°52'51
behind sun end	3403 Nov 23 17:40	0°♄55'14			3404 Oct 10 03:55	0°♄	
	3403 Nov 23 04:08	0°♄		morning set	3404 Oct 23 09:42	21°♄50'28	
desc. node	3403 Nov 24 22:09	2°♄50'53			3404 Oct 27 22:44	0°♄	
max. Earth dist.	3403 Nov 29 00:02	9°♄23'49	1.44411 AU				
evening rise	3403 Dec 09 08:18	25°♄33'56		superior conj	3404 Nov 03 08:04	11°♄10'30	0°50'18
	3403 Dec 12 05:46	0°♄		minimum elong	3404 Nov 03 12:07	11°♄27'48	0°49'46
greatest brilliancy	3403 Dec 31 09:34	28°♄00'04	-0.5m	max. Earth dist.	3404 Nov 10 14:18	23°♄18'31	1.43045 AU
	3404 Jan 01 22:34	0°♄		desc. node	3404 Nov 10 19:11	23°♄38'24	
evening max el	3404 Jan 06 08:24	5°♄07'08	20°31'32		3404 Nov 14 18:01	0°♄	
retrograde	3404 Jan 14 10:06	9°♄52'33		evening rise	3404 Nov 17 20:11	4°♄52'18	
asc. node	3404 Jan 14 11:44	9°♄52'31			3404 Dec 04 15:05	0°♄	
evening set	3404 Jan 18 06:08	8°♄27'41		greatest brilliancy	3404 Dec 14 09:31	13°♄10'02	-0.4m
inferior conj	3404 Jan 23 16:25	2°♄17'15	2°43'51	evening max el	3404 Dec 19 05:14	18°♄39'39	21°43'16
minimum elong	3404 Jan 23 13:53	2°♄25'51	2°43'10	retrograde	3404 Dec 28 07:25	24°♄04'10	
min. Earth dist.	3404 Jan 24 07:34	1°♄25'34	0.67412 AU	asc. node	3404 Dec 31 08:47	23°♄13'22	
	3404 Jan 25 09:04	30°♄		evening set	3405 Jan 01 13:58	22°♄23'50	
morning rise	3404 Jan 28 21:10	26°♄01'40		inferior conj	3405 Jan 06 23:24	16°♄03'59	2°05'49
direct	3404 Feb 03 10:32	23°♄34'40		minimum elong	3405 Jan 06 21:02	16°♄12'10	2°05'00
	3404 Feb 14 09:35	0°♄		min. Earth dist.	3405 Jan 07 02:35	15°♄52'54	0.67858 AU
morning max el	3404 Feb 14 16:43	0°♄17'55	24°24'36	morning rise	3405 Jan 12 03:51	9°♄49'47	
desc. node	3404 Feb 20 21:19	7°♄18'55		direct	3405 Jan 17 02:17	7°♄43'53	
	3404 Mar 08 01:43	0°♄		morning max el	3405 Jan 27 02:19	13°♄39'45	22°55'40
morning set	3404 Mar 21 13:29	22°♄05'47		greatest brilliancy	3405 Jan 31 20:01	18°♄57'02	-0.3m
max. Earth dist.	3404 Mar 25 06:45	28°♄42'30	1.37703 AU	desc. node	3405 Feb 06 18:23	26°♄34'42	
	3404 Mar 25 23:48	0°♄			3405 Feb 09 06:11	0°♄	
					3405 Mar 01 00:01	0°♄	
superior conj	3404 Apr 01 04:14	11°♄36'13	-1°-31'-39	morning set	3405 Mar 02 12:41	2°♄31'01	
minimum elong	3404 Apr 01 08:42	11°♄57'48	1°31'04	max. Earth dist.	3405 Mar 07 01:48	10°♄11'35	1.39866 AU
evening rise	3404 Apr 09 22:02	28°♄50'09					
	3404 Apr 10 12:09	0°♄		superior conj	3405 Mar 14 19:34	23°♄56'05	-1°-53'-17
asc. node	3404 Apr 11 11:04	1°♄52'47		minimum elong	3405 Mar 14 23:51	24°♄15'46	1°52'57
evening max el	3404 Apr 26 13:24	25°♄47'09	19°09'17		3405 Mar 18 02:06	0°♄	
	3404 May 04 00:55	0°♄		evening rise	3405 Mar 24 13:34	12°♄18'19	
retrograde	3404 May 05 10:27	0°♄06'14		asc. node	3405 Mar 29 08:06	21°♄17'09	
	3404 May 06 20:33	30°♄			3405 Apr 03 09:20	0°♄	
evening set	3404 May 07 11:39	29°♄53'23		evening max el	3405 Apr 09 17:01	8°♄13'50	18°29'31
inferior conj	3404 May 15 19:24	25°♄41'44	0°52'28	retrograde	3405 Apr 17 07:06	11°♄58'08	
minimum elong	3404 May 15 21:29	25°♄38'12	0°51'45	evening set	3405 Apr 19 14:14	11°♄38'39	
min. Earth dist.	3404 May 18 17:56	23°♄42'30	0.56394 AU	inferior conj	3405 Apr 27 02:44	7°♄07'41	2°17'16
desc. node	3404 May 18 20:30	23°♄38'19		minimum elong	3405 Apr 27 06:31	7°♄00'10	2°16'13
morning rise	3404 May 24 03:04	20°♄49'09		min. Earth dist.	3405 Apr 30 13:03	4°♄25'22	0.58254 AU
direct	3404 May 29 03:20	19°♄50'40		morning rise	3405 May 04 18:26	1°♄42'34	
morning max el	3404 Jun 12 09:11	27°♄08'42	25°31'07	desc. node	3405 May 05 17:32	1°♄15'37	
	3404 Jun 15 03:36	0°♄		direct	3405 May 10 17:41	0°♄10'43	
	3404 Jul 04 14:41	0°♄		morning max el	3405 May 25 03:02	7°♄51'49	26°50'58
asc. node	3404 Jul 08 10:21	7°♄43'10			3405 Jun 10 18:27	0°♄	
morning set	3404 Jul 09 11:33	9°♄55'24		morning set	3405 Jun 23 21:35	24°♄43'30	
				asc. node	3405 Jun 25 07:24	27°♄42'39	
					3405 Jun 26 08:59	0°♄	
superior conj	3404 Jul 16 11:23	25°♄06'39	1°15'38				
minimum elong	3404 Jul 16 09:02	24°♄53'42	1°15'17	superior conj	3405 Jun 30 23:11	10°♄03'18	0°56'27
max. Earth dist.	3404 Jul 17 12:20	27°♄23'16	1.32482 AU	minimum elong	3405 Jun 30 21:04	9°♄51'35	0°56'03
	3404 Jul 18 17:06	0°♄		max. Earth dist.	3405 Jun 30 23:37	10°♄05'40	1.32108 AU
evening rise	3404 Jul 23 14:02	10°♄21'17		evening rise	3405 Jul 07 21:05	25°♄03'45	
	3404 Aug 02 20:58	0°♄					
desc. node	3404 Aug 14 19:51	18°♄28'05			3405 Jul 10 06:18	0°♄	
evening max el	3404 Aug 24 13:23	29°♄42'23	27°18'35		3405 Jul 27 16:45	0°♄	

desc. node	3405 Aug 01 16:51	6° \cap 26'48			3406 Jul 02 15:16	0° Ω	
evening max el	3405 Aug 06 15:55	11° \cap 44'44	26°38'51	evening max el	3406 Jul 19 11:12	22° Ω 59'16	25°28'28
retrograde	3405 Aug 20 14:51	18° \cap 56'00		desc. node	3406 Jul 19 13:52	23° Ω 05'35	
evening set	3405 Aug 27 10:01	16° \cap 58'34			3406 Jul 31 22:14	0° \cap	
min. Earth dist.	3405 Aug 31 05:45	14° \cap 22'44	0.60065 AU	retrograde	3406 Aug 02 10:47	0° \cap 05'30	
inferior conj	3405 Sep 03 12:03	11° \cap 45'08	-4°-41'-46		3406 Aug 03 23:17	30° \mathbb{R} Ω	
minimum elong	3405 Sep 03 16:58	11° \cap 35'12	4°40'59	evening set	3406 Aug 08 07:56	28° Ω 45'00	
morning rise	3405 Sep 11 03:15	7° \cap 04'25		min. Earth dist.	3406 Aug 12 23:11	26° Ω 05'39	0.58025 AU
direct	3405 Sep 13 11:35	6° \cap 44'00		inferior conj	3406 Aug 16 02:32	23° Ω 54'15	-5°-6'-7
morning max el	3405 Sep 21 00:06	10° \cap 24'44	18°11'49	minimum elong	3406 Aug 16 03:51	23° Ω 51'57	5°06'05
asc. node	3405 Sep 21 06:37	10° \cap 40'44		morning rise	3406 Aug 24 03:17	19° Ω 36'37	
	3405 Oct 03 21:04	0° $\underline{\Omega}$		direct	3406 Aug 26 15:14	19° Ω 17'22	
morning set	3405 Oct 06 19:28	5° $\underline{\Omega}$ 29'49		morning max el	3406 Sep 04 04:23	23° Ω 20'24	18°51'32
				asc. node	3406 Sep 08 03:40	27° Ω 54'03	
superior conj	3405 Oct 16 08:25	23° $\underline{\Omega}$ 14'50	1°18'45		3406 Sep 09 15:30	0° \cap	
minimum elong	3405 Oct 16 12:24	23° $\underline{\Omega}$ 32'51	1°18'20	morning set	3406 Sep 20 15:48	19° \cap 39'39	
	3405 Oct 20 03:30	0° \mathbb{M}			3406 Sep 25 22:15	0° $\underline{\Omega}$	
max. Earth dist.	3405 Oct 23 23:16	6° \mathbb{M} 35'10	1.41222 AU	superior conj	3406 Sep 29 04:44	6° $\underline{\Omega}$ 18'07	1°36'09
desc. node	3405 Oct 28 16:12	14° \mathbb{M} 24'05		minimum elong	3406 Sep 29 07:16	6° $\underline{\Omega}$ 30'09	1°35'58
evening rise	3405 Oct 29 00:20	14° \mathbb{M} 57'06		max. Earth dist.	3406 Oct 06 04:26	19° $\underline{\Omega}$ 10'43	1.39165 AU
	3405 Nov 07 15:02	0° \mathbb{M}		evening rise	3406 Oct 10 03:40	26° $\underline{\Omega}$ 05'54	
greatest brilliancy	3405 Nov 26 06:47	25° \mathbb{M} 56'06	-0.2m		3406 Oct 12 11:07	0° \mathbb{M}	
	3405 Nov 29 18:23	0° \mathbb{M}		desc. node	3406 Oct 15 13:13	5° \mathbb{M} 04'22	
evening max el	3405 Dec 01 21:23	2° \mathbb{M} 14'39	23°01'56		3406 Nov 01 06:31	0° \mathbb{M}	
retrograde	3405 Dec 12 02:13	8° \mathbb{M} 17'37		evening max el	3406 Nov 14 10:40	15° \mathbb{M} 53'38	24°21'32
evening set	3405 Dec 16 21:03	6° \mathbb{M} 20'55		retrograde	3406 Nov 25 17:19	22° \mathbb{M} 29'36	
asc. node	3405 Dec 18 05:51	5° \mathbb{M} 03'46		evening set	3406 Dec 01 01:49	20° \mathbb{M} 16'32	
inferior conj	3405 Dec 22 07:09	29° \mathbb{M} 55'33	1°20'45	asc. node	3406 Dec 05 02:53	15° \mathbb{M} 46'33	
minimum elong	3405 Dec 22 05:24	0° \mathbb{M} 01'34	1°20'04	min. Earth dist.	3406 Dec 05 19:21	14° \mathbb{M} 51'59	0.67679 AU
min. Earth dist.	3405 Dec 21 23:20	0° \mathbb{M} 22'32	0.67942 AU	inferior conj	3406 Dec 06 13:53	13° \mathbb{M} 49'49	0°29'49
	3405 Dec 22 05:52	30° \mathbb{R} \mathbb{M}		minimum elong	3406 Dec 06 13:10	13° \mathbb{M} 52'13	0°29'31
morning rise	3405 Dec 27 13:45	23° \mathbb{M} 44'47		morning rise	3406 Dec 12 00:51	7° \mathbb{M} 44'47	
direct	3405 Dec 31 21:34	22° \mathbb{M} 01'46		direct	3406 Dec 15 19:15	6° \mathbb{M} 23'43	
morning max el	3406 Jan 09 16:20	27° \mathbb{M} 09'10	21°30'32	morning max el	3406 Dec 23 13:45	10° \mathbb{M} 50'06	20°15'43
	3406 Jan 12 07:33	0° \mathbb{M}		greatest brilliancy	3406 Dec 30 03:38	18° \mathbb{M} 41'08	-0.5m
greatest brilliancy	3406 Jan 14 15:52	2° \mathbb{M} 48'31	-0.4m		3407 Jan 07 03:34	0° \mathbb{M}	
desc. node	3406 Jan 24 15:26	16° \mathbb{M} 21'19		desc. node	3407 Jan 11 12:28	6° \mathbb{M} 30'18	
	3406 Feb 02 20:16	0° \approx		morning set	3407 Jan 20 04:43	19° \mathbb{M} 44'28	
morning set	3406 Feb 10 06:49	11° \approx 33'26			3407 Jan 26 18:16	0° \approx	
max. Earth dist.	3406 Feb 17 01:53	22° \approx 32'39	1.41951 AU	max. Earth dist.	3407 Jan 30 10:12	5° \approx 50'05	1.43668 AU
	3406 Feb 21 12:44	0° \mathbb{H}					
superior conj	3406 Feb 24 14:27	5° \mathbb{H} 16'29	-2°-5'-41	superior conj	3407 Feb 05 08:18	15° \approx 27'43	-2°-3'-35
minimum elong	3406 Feb 24 16:13	5° \mathbb{H} 24'06	2°05'39	minimum elong	3407 Feb 05 04:45	15° \approx 13'05	2°03'29
evening rise	3406 Mar 07 16:21	25° \mathbb{H} 06'20			3407 Feb 13 23:32	0° \mathbb{H}	
	3406 Mar 10 08:48	0° \mathbb{Y}		evening rise	3407 Feb 18 02:07	7° \mathbb{H} 06'04	
asc. node	3406 Mar 16 05:09	10° \mathbb{Y} 16'20		asc. node	3407 Mar 03 02:10	28° \mathbb{H} 42'40	
evening max el	3406 Mar 24 02:40	21° \mathbb{Y} 07'21	18°09'37		3407 Mar 04 00:16	0° \mathbb{Y}	
retrograde	3406 Mar 30 21:36	24° \mathbb{Y} 33'27		evening max el	3407 Mar 07 15:06	4° \mathbb{Y} 19'11	18°09'06
evening set	3406 Apr 02 10:49	24° \mathbb{Y} 04'51		retrograde	3407 Mar 14 01:58	7° \mathbb{Y} 42'27	
inferior conj	3406 Apr 09 06:37	19° \mathbb{Y} 12'29	3°09'36	evening set	3407 Mar 16 20:45	7° \mathbb{Y} 03'24	
minimum elong	3406 Apr 09 09:32	19° \mathbb{Y} 05'42	3°09'05	inferior conj	3407 Mar 23 03:37	1° \mathbb{Y} 50'15	3°34'19
min. Earth dist.	3406 Apr 12 13:58	16° \mathbb{Y} 10'31	0.60413 AU	minimum elong	3407 Mar 23 04:46	1° \mathbb{Y} 47'15	3°34'14
morning rise	3406 Apr 16 04:51	13° \mathbb{Y} 24'20			3407 Mar 24 21:19	30° \mathbb{R} \mathbb{H}	
direct	3406 Apr 22 20:03	11° \mathbb{Y} 17'30		min. Earth dist.	3407 Mar 25 23:12	28° \mathbb{H} 53'17	0.62538 AU
desc. node	3406 Apr 22 14:35	11° \mathbb{Y} 17'39		morning rise	3407 Mar 29 10:29	25° \mathbb{H} 47'53	
morning max el	3406 May 07 02:52	19° \mathbb{Y} 10'27	27°39'20	direct	3407 Apr 05 07:52	23° \mathbb{H} 13'58	
	3406 May 16 06:55	0° \mathbb{Y}		desc. node	3407 Apr 09 11:38	24° \mathbb{H} 03'45	
	3406 Jun 03 12:36	0° \mathbb{I}			3407 Apr 18 03:07	0° \mathbb{Y}	
morning set	3406 Jun 08 04:11	9° \mathbb{I} 18'41		morning max el	3407 Apr 19 08:37	1° \mathbb{Y} 11'27	27°50'27
asc. node	3406 Jun 12 04:26	17° \mathbb{I} 48'35			3407 May 10 11:02	0° \mathbb{Y}	
max. Earth dist.	3406 Jun 14 11:04	22° \mathbb{I} 46'02	1.32132 AU	morning set	3407 May 23 05:18	23° \mathbb{H} 34'39	
					3407 May 26 08:04	0° \mathbb{I}	
superior conj	3406 Jun 15 10:32	24° \mathbb{I} 54'49	0°33'40	max. Earth dist.	3407 May 28 18:51	5° \mathbb{I} 12'04	1.32565 AU
minimum elong	3406 Jun 15 09:05	24° \mathbb{I} 46'51	0°33'22	asc. node	3407 May 30 01:28	7° \mathbb{I} 56'55	
	3406 Jun 17 18:01	0° \mathbb{G}					
evening rise	3406 Jun 22 07:28	9° \mathbb{G} 53'10		superior conj	3407 May 30 19:41	9° \mathbb{I} 35'39	0°07'59

minimum elong	3407 May 30 19:19	9°II33'36	0°07'54	superior conj	3408 May 14 00:47	24°800'01	0°-19'-49
behind sun begin	3407 May 30 14:46	9°II08'57		minimum elong	3408 May 14 01:48	24°805'22	0°19'38
behind sun end	3407 May 30 23:51	9°II58'15		asc. node	3408 May 15 22:30	28°803'47	
evening rise	3407 Jun 06 19:16	24°II43'06			3408 May 16 20:12	0°II	
	3407 Jun 09 07:56	0°☾		evening rise	3408 May 21 06:37	9°II27'25	
	3407 Jun 27 15:59	0°♂			3408 Jun 01 00:38	0°☾	
evening max el	3407 Jul 01 00:53	3°♂35'24	23°57'17	evening max el	3408 Jun 11 15:37	14°☾01'32	22°20'44
desc. node	3407 Jul 06 10:52	7°♂53'34		desc. node	3408 Jun 22 07:53	20°☾15'51	
retrograde	3407 Jul 14 18:51	10°♂30'18		retrograde	3408 Jun 24 15:07	20°☾28'04	
evening set	3407 Jul 19 06:20	9°♂46'01		evening set	3408 Jun 27 15:42	20°☾07'51	
min. Earth dist.	3407 Jul 25 11:16	6°♂45'49	0.56265 AU	min. Earth dist.	3408 Jul 05 22:11	16°☾32'55	0.55124 AU
inferior conj	3407 Jul 27 20:45	5°♂17'55	-4°-54'-17	inferior conj	3408 Jul 06 21:34	15°☾59'52	-3°-53'-48
minimum elong	3407 Jul 27 16:15	5°♂24'51	4°53'48	minimum elong	3408 Jul 06 13:17	16°☾11'36	3°51'44
morning rise	3407 Aug 05 05:36	1°♂20'01		morning rise	3408 Jul 15 13:04	12°☾09'25	
direct	3407 Aug 07 23:33	1°♂00'35		direct	3408 Jul 18 14:47	11°☾48'08	
morning max el	3407 Aug 17 22:27	5°♂37'52	19°52'55	morning max el	3408 Jul 30 04:56	17°☾11'51	21°14'57
asc. node	3407 Aug 26 00:43	15°♂59'53			3408 Aug 09 03:06	0°♂	
	3407 Sep 02 17:19	0°♂		asc. node	3408 Aug 11 21:44	4°♂45'58	
morning set	3407 Sep 04 19:19	4°♂10'32		morning set	3408 Aug 19 03:33	18°♂55'39	
					3408 Aug 24 10:31	0°♂	
superior conj	3407 Sep 12 15:45	20°♂05'14	1°43'56	superior conj	3408 Aug 26 13:10	4°♂23'48	1°43'46
minimum elong	3407 Sep 12 16:31	20°♂09'08	1°43'54	minimum elong	3408 Aug 26 12:27	4°♂20'07	1°43'44
	3407 Sep 17 17:57	0°♂		max. Earth dist.	3408 Aug 30 19:43	13°♂05'09	1.35330 AU
max. Earth dist.	3407 Sep 18 09:29	1°♂13'27	1.37127 AU	evening rise	3408 Sep 04 02:06	21°♂22'07	
evening rise	3407 Sep 22 05:32	8°♂17'18			3408 Sep 08 19:05	0°♂	
desc. node	3407 Oct 02 10:12	25°♂34'40		desc. node	3408 Sep 18 07:14	15°♂49'50	
	3407 Oct 05 05:52	0°♂			3408 Sep 28 02:24	0°♂	
evening max el	3407 Oct 27 22:50	29°♂34'51	25°35'05	evening max el	3408 Oct 09 11:09	13°♂14'16	26°35'09
	3407 Oct 28 09:15	0°♂		retrograde	3408 Oct 22 09:30	20°♂28'27	
retrograde	3407 Nov 09 03:55	6°♂35'07		evening set	3408 Oct 28 21:32	17°♂50'17	
evening set	3407 Nov 15 02:37	4°♂07'20		min. Earth dist.	3408 Nov 02 00:02	13°♂37'08	0.66123 AU
	3407 Nov 18 22:58	30°♂		inferior conj	3408 Nov 03 17:05	11°♂34'21	-1°-24'-51
min. Earth dist.	3407 Nov 19 12:20	29°♂18'00	0.67074 AU	minimum elong	3408 Nov 03 19:24	11°♂27'25	1°23'53
inferior conj	3407 Nov 20 17:49	27°♂43'40	0°-25'-50	asc. node	3408 Nov 07 20:57	7°♂07'46	
minimum elong	3407 Nov 20 18:29	27°♂41'32	0°25'33	morning rise	3408 Nov 09 18:39	5°♂48'25	
asc. node	3407 Nov 21 23:55	26°♂08'43		direct	3408 Nov 12 15:39	5°♂02'04	
morning rise	3407 Nov 26 11:11	21°♂46'52		morning max el	3408 Nov 19 06:47	8°♂39'26	18°29'40
direct	3407 Nov 29 17:50	20°♂45'02			3408 Dec 04 07:09	0°♂	
morning max el	3407 Dec 06 19:05	24°♂41'30	19°14'49	morning set	3408 Dec 09 07:09	7°♂59'39	
	3407 Dec 11 07:49	0°♂		desc. node	3408 Dec 15 06:30	17°♂30'54	
greatest brilliancy	3407 Dec 16 17:18	7°♂33'39	-0.7m		3408 Dec 23 04:22	0°♂	
desc. node	3407 Dec 29 09:28	26°♂54'58		superior conj	3408 Dec 25 03:19	3°♂04'17	-1°-3'-44
morning set	3407 Dec 30 05:48	28°♂13'51		minimum elong	3408 Dec 24 19:33	2°♂33'47	1°02'48
	3407 Dec 31 09:08	0°♂		max. Earth dist.	3408 Dec 25 19:07	4°♂06'17	1.45229 AU
max. Earth dist.	3408 Jan 13 00:58	19°♂47'36	1.44800 AU	evening rise	3409 Jan 10 03:50	28°♂16'36	
superior conj	3408 Jan 16 00:54	24°♂32'14	-1°-42'-38		3409 Jan 11 05:57	0°♂	
minimum elong	3408 Jan 15 16:18	23°♂58'07	1°41'54	greatest brilliancy	3409 Jan 21 11:33	16°♂06'31	-0.8m
	3408 Jan 19 11:05	0°♂			3409 Jan 31 11:18	0°♂	
evening rise	3408 Jan 30 14:39	18°♂09'50		evening max el	3409 Feb 01 13:10	1°♂09'30	19°03'25
	3408 Feb 06 18:37	0°♂		asc. node	3409 Feb 03 20:14	3°♂13'04	
asc. node	3408 Feb 17 23:12	16°♂25'43		retrograde	3409 Feb 08 10:48	5°♂04'11	
evening max el	3408 Feb 19 03:23	17°♂41'33	18°27'23	evening set	3409 Feb 11 17:39	4°♂01'30	
retrograde	3408 Feb 25 15:40	21°♂15'04			3409 Feb 15 22:27	30°♂	
evening set	3408 Feb 28 16:03	20°♂24'43		inferior conj	3409 Feb 17 09:01	28°♂12'38	3°26'00
inferior conj	3408 Mar 05 13:39	14°♂52'36	3°38'00	minimum elong	3409 Feb 17 07:15	28°♂18'11	3°25'46
minimum elong	3408 Mar 05 13:06	14°♂54'13	3°38'00	min. Earth dist.	3409 Feb 18 22:02	26°♂15'31	0.65892 AU
min. Earth dist.	3408 Mar 07 18:03	12°♂19'43	0.64400 AU	morning rise	3409 Feb 22 19:53	21°♂58'24	
morning rise	3408 Mar 11 08:38	8°♂42'17		direct	3409 Mar 01 06:16	19°♂09'50	
direct	3408 Mar 18 03:40	5°♂54'11		desc. node	3409 Mar 13 05:41	25°♂53'18	
desc. node	3408 Mar 26 08:39	9°♂07'15		morning max el	3409 Mar 14 03:49	26°♂47'59	26°30'17
morning max el	3408 Mar 31 17:55	13°♂48'13	27°25'28		3409 Mar 17 03:33	0°♂	
	3408 Apr 13 20:13	0°♂		morning set	3409 Apr 07 11:06	0°♂	
	3408 May 02 01:35	0°♂		max. Earth dist.	3409 Apr 19 03:38	20°♂33'35	
morning set	3408 May 05 22:19	7°♂23'24			3409 Apr 23 07:55	28°♂37'21	1.34753 AU
max. Earth dist.	3408 May 10 18:57	17°♂11'34	1.33428 AU		3409 Apr 24 00:36	0°♂	

superior conj	3409 Apr 27 23:31	8°♄00'34	0°-48'-36			3410 Mar 31 02:03	0°♄	
minimum elong	3409 Apr 28 02:04	8°♄13'43	0°48'08	morning set		3410 Apr 01 16:37	2°♄51'56	
asc. node	3409 May 02 19:32	18°♄04'33		max. Earth dist.		3410 Apr 05 09:33	9°♄39'40	1.36524 AU
evening rise	3409 May 05 15:33	23°♄59'04						
	3409 May 08 14:25	0°♄		superior conj		3410 Apr 11 13:05	21°♄29'51	-1°-16'-42
evening max el	3409 May 24 15:05	24°♄49'10	20°52'43	minimum elong		3410 Apr 11 17:02	21°♄49'25	1°16'05
	3409 Jun 01 20:19	0°♄				3410 Apr 15 18:51	0°♄	
retrograde	3409 Jun 05 04:09	0°♄27'38		evening rise		3410 Apr 19 19:54	8°♄11'54	
evening set	3409 Jun 07 07:40	0°♄16'42		asc. node		3410 Apr 19 16:35	7°♄55'10	
	3409 Jun 08 14:49	30°♄♄				3410 May 01 22:30	0°♄	
desc. node	3409 Jun 09 04:54	29°♄50'09		evening max el		3410 May 07 02:38	6°♄15'46	19°41'26
inferior conj	3409 Jun 16 15:01	26°♄19'23	-2°-9'-32	retrograde		3410 May 16 21:42	11°♄00'57	
minimum elong	3409 Jun 16 09:00	26°♄27'55	2°07'27	evening set		3410 May 18 21:09	10°♄50'11	
min. Earth dist.	3409 Jun 17 10:09	25°♄52'11	0.54877 AU	desc. node		3410 May 27 01:55	7°♄08'54	
morning rise	3409 Jun 25 09:37	22°♄16'40		inferior conj		3410 May 27 15:40	6°♄47'29	0°-10'-5
direct	3409 Jun 29 00:07	21°♄48'40		minimum elong		3410 May 27 15:13	6°♄48'11	0°09'56
morning max el	3409 Jul 12 01:04	28°♄03'44	22°52'37	transit middle		3410 May 27 15:13	6°♄48'11	0°09'56
	3409 Jul 13 23:45	0°♄		transit begin		3410 May 27 12:08	6°♄53'00	
asc. node	3409 Jul 29 18:47	24°♄01'35		transit end		3410 May 27 18:18	6°♄43'22	
	3409 Aug 01 18:31	0°♄		min. Earth dist.		3410 May 29 23:46	5°♄20'07	0.55600 AU
morning set	3409 Aug 03 14:25	3°♄48'00		morning rise		3410 Jun 05 05:54	2°♄15'40	
				direct		3410 Jun 09 16:46	1°♄31'33	
superior conj	3409 Aug 10 17:34	19°♄02'18	1°37'02	morning max el		3410 Jun 23 15:30	8°♄30'05	24°35'25
minimum elong	3409 Aug 10 15:49	18°♄52'59	1°36'53			3410 Jul 09 11:17	0°♄	
max. Earth dist.	3409 Aug 13 14:41	25°♄07'15	1.33903 AU	asc. node		3410 Jul 16 15:51	13°♄39'08	
	3409 Aug 15 23:27	0°♄		morning set		3410 Jul 19 02:15	18°♄42'43	
evening rise	3409 Aug 18 12:46	5°♄07'13				3410 Jul 24 07:43	0°♄	
	3409 Sep 01 11:51	0°♄						
desc. node	3409 Sep 05 04:15	5°♄41'53		superior conj		3410 Jul 26 02:25	3°♄52'52	1°24'49
evening max el	3409 Sep 21 23:28	26°♄42'49	27°14'30	minimum elong		3410 Jul 26 00:09	3°♄40'27	1°24'32
	3409 Sep 25 19:07	0°♄		max. Earth dist.		3410 Jul 27 18:22	7°♄29'28	1.32890 AU
retrograde	3409 Oct 05 09:30	4°♄01'07		evening rise		3410 Aug 02 09:43	19°♄21'42	
evening set	3409 Oct 12 08:09	1°♄19'56				3410 Aug 07 20:05	0°♄	
	3409 Oct 13 21:38	30°♄♄		desc. node		3410 Aug 23 01:16	25°♄01'13	
min. Earth dist.	3409 Oct 16 04:13	27°♄42'33	0.64816 AU			3410 Aug 26 17:40	0°♄	
inferior conj	3409 Oct 18 09:23	25°♄16'40	-2°-25'-21	evening max el		3410 Sep 04 10:07	9°♄48'04	27°26'16
minimum elong	3409 Oct 18 13:25	25°♄05'36	2°23'51	retrograde		3410 Sep 18 02:58	17°♄04'14	
morning rise	3409 Oct 24 20:40	19°♄44'37		evening set		3410 Sep 25 07:23	14°♄30'12	
asc. node	3409 Oct 25 17:59	19°♄24'48		min. Earth dist.		3410 Sep 28 22:49	11°♄25'02	0.63173 AU
direct	3409 Oct 27 10:29	19°♄09'45		inferior conj		3410 Oct 01 16:04	8°♄44'11	-3°-24'-28
morning max el	3409 Nov 02 22:19	22°♄37'20	18°01'22	minimum elong		3410 Oct 01 21:28	8°♄30'49	3°22'47
	3409 Nov 08 17:44	0°♄		morning rise		3410 Oct 08 14:06	3°♄29'27	
morning set	3409 Nov 20 14:01	19°♄13'13		direct		3410 Oct 10 23:28	3°♄02'25	
	3409 Nov 27 02:02	0°♄		asc. node		3410 Oct 12 15:03	3°♄15'35	
desc. node	3409 Dec 02 03:34	8°♄14'10		morning max el		3410 Oct 17 14:46	6°♄28'16	17°50'38
						3410 Nov 01 23:12	0°♄	
superior conj	3409 Dec 04 12:12	12°♄01'21	0°-16'-4	morning set		3410 Nov 02 21:34	1°♄38'04	
minimum elong	3409 Dec 04 10:13	11°♄53'27	0°15'48					
behind sun begin	3409 Dec 04 07:56	11°♄44'18		superior conj		3410 Nov 14 19:47	22°♄06'22	0°28'45
behind sun end	3409 Dec 04 12:31	12°♄02'36		minimum elong		3410 Nov 14 22:36	22°♄18'07	0°28'21
max. Earth dist.	3409 Dec 08 14:06	18°♄29'59	1.44915 AU	desc. node		3410 Nov 19 00:36	29°♄00'55	
	3409 Dec 15 22:31	0°♄				3410 Nov 19 15:10	0°♄	
evening rise	3409 Dec 20 21:10	7°♄39'08		max. Earth dist.		3410 Nov 21 07:13	2°♄41'33	1.43905 AU
	3410 Jan 04 14:11	0°♄		evening rise		3410 Nov 30 06:22	16°♄47'46	
greatest brilliancy	3410 Jan 08 17:24	5°♄55'43	-0.6m			3410 Dec 08 23:00	0°♄	
evening max el	3410 Jan 15 18:41	14°♄40'36	19°55'28	greatest brilliancy		3410 Dec 24 10:55	21°♄59'23	-0.5m
asc. node	3410 Jan 21 17:16	18°♄50'45		evening max el		3410 Dec 29 18:48	28°♄12'48	21°00'57
retrograde	3410 Jan 23 08:27	19°♄05'17				3410 Dec 31 15:47	0°♄	
evening set	3410 Jan 26 23:11	17°♄48'59		retrograde		3411 Jan 07 06:18	3°♄14'02	
inferior conj	3410 Feb 01 10:45	11°♄45'48	3°02'03	asc. node		3411 Jan 08 14:18	3°♄04'15	
minimum elong	3410 Feb 01 08:21	11°♄53'49	3°01'31	evening set		3411 Jan 11 06:40	1°♄42'41	
min. Earth dist.	3410 Feb 02 09:31	10°♄29'47	0.66976 AU			3411 Jan 13 02:55	30°♄♄	
morning rise	3410 Feb 06 16:53	5°♄30'15		inferior conj		3411 Jan 16 16:25	25°♄28'03	2°28'38
direct	3410 Feb 12 14:41	2°♄52'48		minimum elong		3411 Jan 16 13:54	25°♄36'41	2°27'52
morning max el	3410 Feb 24 12:40	9°♄59'48	25°14'00	min. Earth dist.		3411 Jan 17 02:20	24°♄53'51	0.67654 AU
desc. node	3410 Feb 28 02:45	13°♄53'20		morning rise		3411 Jan 21 20:45	19°♄13'02	
	3410 Mar 12 09:08	0°♄		direct		3411 Jan 27 03:54	16°♄54'29	

morning max el	3411 Feb 06 21:09	23°☿17'32	23°46'48	greatest brilliancy	3412 Jan 24 21:58	11°☿48'59	-0.3m
	3411 Feb 12 19:19	0°♊		desc. node	3412 Feb 01 20:52	22°☿15'37	
desc. node	3411 Feb 14 23:48	2°♊45'39			3412 Feb 07 06:52	0°♊	
	3411 Mar 05 18:32	0°♋		morning set	3412 Feb 22 17:55	23°♊50'25	
morning set	3411 Mar 14 07:12	14°♋01'37			3412 Feb 26 11:46	0°♋	
max. Earth dist.	3411 Mar 18 05:02	20°♋49'30	1.38619 AU	max. Earth dist.	3412 Feb 28 02:07	2°♋40'52	1.40789 AU
	3411 Mar 23 06:39	0°♌					
superior conj	3411 Mar 25 13:45	4°♌17'35	-1°-41'-40	superior conj	3412 Mar 06 20:58	16°♋12'59	-1°-59'-58
minimum elong	3411 Mar 25 18:22	4°♌39'21	1°41'10	minimum elong	3412 Mar 07 00:32	16°♋28'58	1°59'47
evening rise	3411 Apr 03 16:58	21°♌57'59			3412 Mar 14 09:22	0°♌	
asc. node	3411 Apr 06 13:37	27°♌30'10		evening rise	3412 Mar 17 03:33	5°♌09'55	
	3411 Apr 07 21:14	0°♍		asc. node	3412 Mar 23 10:39	16°♌44'19	
evening max el	3411 Apr 20 01:06	18°♍21'10	18°49'53		3412 Apr 01 08:38	0°♍	
retrograde	3411 Apr 28 07:21	22°♍23'19		evening max el	3412 Apr 02 07:33	0°♍59'14	18°18'32
evening set	3411 Apr 30 11:05	22°♍07'53		retrograde	3412 Apr 09 12:09	4°♍34'11	
inferior conj	3411 May 08 10:28	17°♍48'14	1°32'29	evening set	3412 Apr 11 21:52	4°♍11'04	
minimum elong	3411 May 08 13:40	17°♍42'24	1°31'27		3412 Apr 18 12:55	30°♌♌	
min. Earth dist.	3411 May 11 16:01	15°♍28'33	0.57129 AU	inferior conj	3412 Apr 19 02:47	29°♌30'41	2°43'17
desc. node	3411 May 13 22:57	13°♍59'44		minimum elong	3412 Apr 19 06:24	29°♌22'58	2°42'26
morning rise	3411 May 16 11:53	12°♍41'19		min. Earth dist.	3412 Apr 22 13:08	26°♌36'58	0.59155 AU
direct	3411 May 21 22:31	11°♍29'39		morning rise	3412 Apr 26 10:56	23°♌54'18	
morning max el	3411 Jun 05 06:34	18°♍58'09	26°08'23	desc. node	3412 Apr 29 20:00	22°♌30'25	
	3411 Jun 14 13:32	0°♎		direct	3412 May 02 17:51	22°♌07'29	
	3411 Jul 01 20:17	0°♏		morning max el	3412 May 17 02:59	29°♌54'39	27°16'07
morning set	3411 Jul 03 13:24	3°♏34'28			3412 May 17 05:09	0°♏	
asc. node	3411 Jul 03 12:55	3°♏31'52			3412 Jun 07 12:10	0°♎	
				morning set	3412 Jun 16 22:11	18°♎17'24	
superior conj	3411 Jul 10 13:39	18°♏48'33	1°07'58	asc. node	3412 Jun 19 09:56	23°♎34'11	
minimum elong	3411 Jul 10 11:20	18°♏35'48	1°07'36		3412 Jun 22 08:53	0°♏	
max. Earth dist.	3411 Jul 11 04:01	20°♏07'37	1.32276 AU	max. Earth dist.	3412 Jun 23 15:54	2°♏50'35	1.32062 AU
	3411 Jul 15 17:05	0°♐					
evening rise	3411 Jul 17 13:48	3°♐55'54		superior conj	3412 Jun 24 01:24	3°♏42'59	0°47'11
	3411 Jul 31 14:11	0°♑		minimum elong	3412 Jun 23 23:31	3°♏32'34	0°46'49
desc. node	3411 Aug 09 22:15	13°♑34'35		evening rise	3412 Jun 30 22:28	18°♏41'25	
evening max el	3411 Aug 17 16:23	22°♑16'35	27°05'47		3412 Jul 06 12:09	0°♐	
retrograde	3411 Aug 31 13:14	29°♑29'12			3412 Jul 25 20:54	0°♑	
evening set	3411 Sep 07 15:15	27°♑14'34		desc. node	3412 Jul 26 19:16	1°♑02'28	
min. Earth dist.	3411 Sep 11 06:40	24°♑32'38	0.61251 AU	evening max el	3412 Jul 29 15:41	3°♑57'33	26°12'17
inferior conj	3411 Sep 14 09:55	21°♑49'01	-4°-17'-15	retrograde	3412 Aug 12 15:08	11°♑07'25	
minimum elong	3411 Sep 14 15:37	21°♑36'37	4°15'59	evening set	3412 Aug 19 02:50	9°♑24'30	
morning rise	3411 Sep 21 19:01	16°♑55'13		min. Earth dist.	3412 Aug 23 04:29	6°♑49'54	0.59181 AU
direct	3411 Sep 24 02:57	16°♑33'01		inferior conj	3412 Aug 26 11:18	4°♑20'48	-4°-55'-33
asc. node	3411 Sep 29 12:07	18°♑36'22		minimum elong	3412 Aug 26 15:04	4°♑13'38	4°55'08
morning max el	3411 Oct 01 05:08	20°♑05'21	17°58'27		3412 Sep 02 17:46	30°♌♌	
	3411 Oct 08 13:39	0°♒		morning rise	3412 Sep 03 06:48	29°♒50'20	
morning set	3411 Oct 16 23:24	14°♒55'11		direct	3412 Sep 05 16:20	29°♒30'39	
	3411 Oct 25 06:32	0°♓			3412 Sep 08 12:40	0°♑	
				morning max el	3412 Sep 13 14:05	3°♑19'07	18°26'09
superior conj	3411 Oct 27 06:15	3°♓30'33	1°03'47	asc. node	3412 Sep 15 09:11	5°♑12'55	
minimum elong	3411 Oct 27 10:32	3°♓49'19	1°03'15	morning set	3412 Sep 29 14:08	28°♑48'43	
max. Earth dist.	3411 Nov 03 19:58	16°♓24'11	1.42319 AU		3412 Sep 30 04:58	0°♒	
desc. node	3411 Nov 05 21:37	19°♓48'05					
evening rise	3411 Nov 09 23:49	26°♓22'51		superior conj	3412 Oct 08 15:50	16°♒02'22	1°27'24
	3411 Nov 12 07:00	0°♈		minimum elong	3412 Oct 08 19:18	16°♒18'21	1°27'05
	3411 Dec 02 19:25	0°☿		max. Earth dist.	3412 Oct 16 03:02	29°♒23'24	1.40359 AU
greatest brilliancy	3411 Dec 07 19:57	6°☿26'53	-0.3m		3412 Oct 16 11:31	0°♓	
evening max el	3411 Dec 12 13:31	11°☿46'27	22°16'06	evening rise	3412 Oct 20 13:29	6°♓53'44	
retrograde	3411 Dec 22 02:42	17°☿27'16		desc. node	3412 Oct 22 18:36	10°♓31'48	
asc. node	3411 Dec 26 11:21	15°☿45'53			3412 Nov 04 09:47	0°♈	
evening set	3411 Dec 26 14:24	15°☿39'48		evening max el	3412 Nov 24 04:01	25°♈22'15	23°35'55
inferior conj	3411 Dec 31 23:56	9°☿17'05	1°47'28		3412 Nov 29 18:31	0°☿	
minimum elong	3411 Dec 31 21:48	9°☿24'31	1°46'41	retrograde	3412 Dec 04 20:10	1°☿40'41	
min. Earth dist.	3411 Dec 31 22:17	9°☿22'49	0.67945 AU		3412 Dec 09 09:02	30°♌♌	
morning rise	3412 Jan 06 05:04	3°☿04'19		evening set	3412 Dec 09 20:43	29°♈36'43	
direct	3412 Jan 10 21:10	1°☿08'19		asc. node	3412 Dec 12 08:24	27°♈03'16	
morning max el	3412 Jan 20 08:17	6°☿42'35	22°18'31	inferior conj	3412 Dec 15 07:29	23°♈09'59	0°59'47
				minimum elong	3412 Dec 15 06:07	23°♈14'37	0°59'14

min. Earth dist.	3412 Dec 14 19:01	23°♂52'35	0.67875 AU	transit middle	3413 Nov 29 13:06	7°♂05'05	0°06'39
morning rise	3412 Dec 20 15:42	17°♂01'23		transit begin	3413 Nov 29 10:35	7°♂13'24	
direct	3412 Dec 24 17:30	15°♂28'11		transit end	3413 Nov 29 15:37	6°♂56'47	
morning max el	3413 Jan 02 01:23	20°♂17'13	20°57'07	morning rise	3413 Dec 05 02:43	1°♂02'26	
greatest brilliancy	3413 Jan 07 14:20	26°♂41'21	-0.5m		3413 Dec 07 07:57	30°♂♂	
	3413 Jan 10 02:58	0°♂		direct	3413 Dec 08 15:48	29°♂50'01	
desc. node	3413 Jan 18 17:53	12°♂12'23			3413 Dec 10 00:25	0°♂	
	3413 Jan 30 12:15	0°♂		morning max el	3413 Dec 16 02:12	4°♂02'40	19°47'49
morning set	3413 Feb 01 01:26	2°♂24'47		greatest brilliancy	3413 Dec 23 17:26	13°♂25'55	-0.6m
max. Earth dist.	3413 Feb 09 05:26	15°♂26'01	1.42740 AU		3414 Jan 03 23:53	0°♂	
				desc. node	3414 Jan 05 14:54	2°♂28'28	
superior conj	3413 Feb 16 05:36	27°♂04'25	-2°-6'-52	morning set	3414 Jan 10 21:19	10°♂33'34	
minimum elong	3413 Feb 16 05:23	27°♂03'28	2°06'54	max. Earth dist.	3414 Jan 22 16:10	29°♂00'10	1.44230 AU
	3413 Feb 17 22:48	0°♂			3414 Jan 23 07:12	0°♂	
evening rise	3413 Feb 27 23:39	17°♂38'38					
	3413 Mar 06 23:26	0°♂		superior conj	3414 Jan 27 12:14	6°♂45'32	-1°-57'-8
asc. node	3413 Mar 10 07:40	5°♂30'47		minimum elong	3414 Jan 27 06:09	6°♂20'58	1°56'48
evening max el	3413 Mar 16 18:44	14°♂01'31	18°07'03	evening rise	3414 Feb 10 00:48	29°♂14'42	
retrograde	3413 Mar 23 09:11	17°♂24'58			3414 Feb 10 11:27	0°♂	
evening set	3413 Mar 26 00:39	16°♂52'13		asc. node	3414 Feb 25 04:42	23°♂40'06	
inferior conj	3413 Apr 01 14:30	11°♂51'00	3°23'02	evening max el	3414 Feb 28 07:28	27°♂18'47	18°14'42
minimum elong	3413 Apr 01 16:42	11°♂45'36	3°22'45		3414 Mar 03 19:47	0°♂	
min. Earth dist.	3413 Apr 04 17:38	8°♂48'03	0.61331 AU	retrograde	3414 Mar 06 17:53	0°♂44'45	
morning rise	3413 Apr 08 05:46	5°♂55'30		evening set	3414 Mar 09 14:59	0°♂01'03	
direct	3413 Apr 15 00:40	3°♂35'35			3414 Mar 09 15:49	30°♂♂	
desc. node	3413 Apr 16 17:03	3°♂43'41		inferior conj	3414 Mar 15 17:32	24°♂39'56	3°38'04
morning max el	3413 Apr 29 05:43	11°♂32'24	27°48'45	minimum elong	3414 Mar 15 17:54	24°♂38'53	3°38'03
	3413 May 13 17:59	0°♂		min. Earth dist.	3414 Mar 18 06:59	21°♂51'01	0.63372 AU
	3413 May 30 18:10	0°♂		morning rise	3414 Mar 21 18:53	18°♂33'40	
morning set	3413 Jun 01 02:44	2°♂45'36		direct	3414 Mar 28 16:22	15°♂51'36	
asc. node	3413 Jun 06 06:57	13°♂41'47		desc. node	3414 Apr 03 14:05	17°♂32'17	
max. Earth dist.	3413 Jun 07 02:09	15°♂25'58	1.32255 AU	morning max el	3414 Apr 11 13:06	23°♂49'08	27°43'53
					3414 Apr 17 02:14	0°♂	
superior conj	3413 Jun 08 12:02	18°♂30'51	0°23'06		3414 May 07 01:47	0°♂	
minimum elong	3413 Jun 08 11:00	18°♂25'09	0°22'52	morning set	3414 May 16 00:43	16°♂50'44	
	3413 Jun 13 18:11	0°♂		max. Earth dist.	3414 May 21 06:53	27°♂40'35	1.32874 AU
evening rise	3413 Jun 15 09:40	3°♂31'42			3414 May 22 09:08	0°♂	
	3413 Jun 29 14:07	0°♂					
evening max el	3413 Jul 11 07:53	14°♂52'49	24°51'28	superior conj	3414 May 23 19:42	3°♂05'19	0°-3'-37
desc. node	3413 Jul 13 16:16	16°♂58'23		minimum elong	3414 May 23 19:53	3°♂06'17	0°03'37
retrograde	3413 Jul 25 06:39	21°♂56'34		behind sun begin	3414 May 23 14:42	2°♂38'27	
evening set	3413 Jul 30 14:22	20°♂52'17		behind sun end	3414 May 24 01:03	3°♂34'09	
min. Earth dist.	3413 Aug 04 19:20	18°♂05'47	0.57214 AU	asc. node	3414 May 24 03:58	3°♂49'52	
inferior conj	3413 Aug 07 17:11	16°♂10'48	-5°-6'-31	evening rise	3414 May 30 21:28	18°♂19'37	
minimum elong	3413 Aug 07 16:08	16°♂12'31	5°06'30		3414 Jun 05 15:26	0°♂	
morning rise	3413 Aug 15 21:34	12°♂02'33		evening max el	3414 Jun 22 21:08	25°♂20'37	23°16'01
direct	3413 Aug 18 11:36	11°♂43'33			3414 Jun 28 22:46	0°♂	
morning max el	3413 Aug 27 14:25	15°♂59'52	19°15'01	desc. node	3414 Jun 30 13:18	0°♂48'07	
asc. node	3413 Sep 02 06:13	22°♂50'04		retrograde	3414 Jul 06 09:24	2°♂05'35	
	3413 Sep 06 16:14	0°♂		evening set	3414 Jul 10 04:59	1°♂33'46	
morning set	3413 Sep 13 13:51	13°♂08'08			3414 Jul 14 05:12	30°♂♂	
				min. Earth dist.	3414 Jul 17 06:45	28°♂20'14	0.55683 AU
superior conj	3413 Sep 21 19:01	29°♂25'56	1°40'30	inferior conj	3414 Jul 19 03:12	27°♂15'02	-4°-34'-53
minimum elong	3413 Sep 21 20:48	29°♂34'36	1°40'25	minimum elong	3414 Jul 18 20:30	27°♂24'54	4°33'45
	3413 Sep 22 02:02	0°♂		morning rise	3414 Jul 27 15:00	23°♂21'54	
max. Earth dist.	3413 Sep 28 06:56	11°♂40'24	1.38280 AU	direct	3414 Jul 30 11:59	23°♂01'55	
evening rise	3413 Oct 02 02:46	18°♂30'04		morning max el	3414 Aug 10 03:29	27°♂58'21	20°25'29
	3413 Oct 08 22:43	0°♂			3414 Aug 12 03:33	0°♂	
desc. node	3413 Oct 09 15:36	1°♂08'14		asc. node	3414 Aug 20 03:14	11°♂13'53	
	3413 Oct 29 16:43	0°♂		morning set	3414 Aug 28 19:38	27°♂45'16	
evening max el	3413 Nov 06 16:33	9°♂02'09	24°53'56		3414 Aug 29 21:54	0°♂	
retrograde	3413 Nov 18 09:37	15°♂50'19					
evening set	3413 Nov 24 00:01	13°♂30'47		superior conj	3414 Sep 05 10:52	13°♂27'06	1°44'44
min. Earth dist.	3413 Nov 28 14:09	8°♂20'46	0.67464 AU	minimum elong	3414 Sep 05 10:58	13°♂27'37	1°44'44
asc. node	3413 Nov 29 05:26	7°♂30'24		max. Earth dist.	3414 Sep 10 13:31	23°♂34'44	1.36324 AU
inferior conj	3413 Nov 29 13:16	7°♂04'32	0°06'43		3414 Sep 13 22:58	0°♂	
minimum elong	3413 Nov 29 13:06	7°♂05'05	0°06'39	evening rise	3414 Sep 14 13:09	1°♂05'26	

desc. node	3414 Sep 26 12:37	21°♄32'43		desc. node	3415 Sep 13 09:39	11°♄38'54	
	3414 Oct 02 01:39	0°♄			3415 Sep 26 20:01	0°♄	
evening max el	3414 Oct 20 04:58	22°♄44'20	26°02'50	evening max el	3415 Oct 02 17:30	6°♄20'34	26°54'59
retrograde	3414 Nov 01 18:08	29°♄51'25		retrograde	3415 Oct 15 21:10	13°♄36'44	
evening set	3414 Nov 07 22:35	27°♄18'53		evening set	3415 Oct 22 14:17	10°♄56'19	
min. Earth dist.	3414 Nov 12 05:18	22°♄44'39	0.66710 AU	min. Earth dist.	3415 Oct 26 13:59	6°♄58'42	0.65608 AU
inferior conj	3414 Nov 13 15:30	20°♄58'00	0°-50'-30	inferior conj	3415 Oct 28 12:05	4°♄45'32	-1°-50'-27
minimum elong	3414 Nov 13 16:51	20°♄53'49	0°49'56	minimum elong	3415 Oct 28 15:09	4°♄36'42	1°49'14
asc. node	3414 Nov 16 02:28	18°♄02'08			3415 Nov 02 06:10	30°♄	
morning rise	3414 Nov 19 12:07	15°♄05'10		asc. node	3415 Nov 02 23:31	29°♄30'29	
direct	3414 Nov 22 14:27	14°♄10'16		morning rise	3415 Nov 03 17:37	29°♄05'08	
morning max el	3414 Nov 29 10:27	17°♄57'22	18°53'34	direct	3415 Nov 06 11:22	28°♄23'59	
	3414 Dec 08 16:13	0°♄			3415 Nov 10 18:29	0°♄	
morning set	3414 Dec 21 07:13	19°♄32'03		morning max el	3415 Nov 13 00:06	1°♄55'47	18°15'38
desc. node	3414 Dec 23 11:55	22°♄58'40		morning set	3415 Dec 01 21:22	29°♄56'37	
	3414 Dec 27 23:27	0°♄			3415 Dec 01 22:12	0°♄	
max. Earth dist.	3415 Jan 05 09:01	13°♄10'17	1.45079 AU	desc. node	3415 Dec 10 08:56	13°♄38'08	
superior conj	3415 Jan 06 20:51	15°♄31'12	-1°-27'-58	superior conj	3415 Dec 16 23:21	24°♄06'27	0°-43'-51
minimum elong	3415 Jan 06 11:42	14°♄55'12	1°27'02	minimum elong	3415 Dec 16 17:47	23°♄44'30	0°43'08
	3415 Jan 15 23:55	0°♄		max. Earth dist.	3415 Dec 19 04:32	27°♄35'40	1.45189 AU
evening rise	3415 Jan 22 03:29	9°♄54'17			3415 Dec 20 17:19	0°♄	
	3415 Feb 03 16:30	0°♄		evening rise	3416 Jan 02 07:27	19°♄40'23	
evening max el	3415 Feb 11 19:05	10°♄44'53	18°40'37		3416 Jan 08 22:25	0°♄	
asc. node	3415 Feb 12 01:45	11°♄01'36		greatest brilliancy	3416 Jan 17 10:31	12°♄57'19	-0.7m
retrograde	3415 Feb 18 10:15	14°♄25'42		evening max el	3416 Jan 26 03:15	24°♄14'36	19°23'37
evening set	3415 Feb 21 13:21	13°♄30'06		asc. node	3416 Jan 29 22:49	27°♄21'27	
inferior conj	3415 Feb 27 07:58	7°♄50'38	3°34'33	retrograde	3416 Feb 02 06:51	28°♄20'56	
minimum elong	3415 Feb 27 06:50	7°♄54'04	3°34'28	evening set	3416 Feb 05 16:56	27°♄12'26	
min. Earth dist.	3415 Mar 01 05:43	5°♄32'09	0.65094 AU	inferior conj	3416 Feb 11 06:24	21°♄16'53	3°17'07
morning rise	3415 Mar 04 23:06	1°♄38'34		minimum elong	3416 Feb 11 04:18	21°♄23'42	3°16'45
	3415 Mar 07 06:39	30°♄		min. Earth dist.	3416 Feb 12 13:04	19°♄37'17	0.66411 AU
direct	3415 Mar 11 15:13	28°♄48'43		morning rise	3416 Feb 16 14:53	15°♄01'56	
	3415 Mar 16 08:45	0°♄		direct	3416 Feb 22 20:12	12°♄17'15	
desc. node	3415 Mar 21 11:08	3°♄23'42		morning max el	3416 Mar 06 08:30	19°♄43'21	25°59'49
morning max el	3415 Mar 24 22:48	6°♄36'46	27°05'05	desc. node	3416 Mar 07 08:10	20°♄44'22	
	3415 Apr 11 22:41	0°♄			3416 Mar 15 03:24	0°♄	
	3415 Apr 29 08:13	0°♄			3416 Apr 04 01:02	0°♄	
morning set	3415 Apr 29 13:13	0°♄24'02		morning set	3416 Apr 11 12:15	13°♄14'02	
max. Earth dist.	3415 May 04 02:30	9°♄25'30	1.33943 AU	max. Earth dist.	3416 Apr 15 10:48	20°♄40'41	1.35465 AU
					3416 Apr 20 04:03	0°♄	
superior conj	3415 May 07 22:24	17°♄20'22	0°-32'00	superior conj	3416 Apr 20 17:38	1°♄08'40	-1°00'-44
minimum elong	3415 May 08 00:03	17°♄29'04	0°31'40	minimum elong	3416 Apr 20 20:49	1°♄24'51	1°00'10
asc. node	3415 May 11 01:01	23°♄54'35		asc. node	3416 Apr 26 22:05	13°♄51'51	
	3415 May 13 21:56	0°♄		evening rise	3416 Apr 28 15:21	17°♄24'10	
evening rise	3415 May 15 08:03	2°♄59'16			3416 May 05 01:20	0°♄	
	3415 May 30 13:05	0°♄		evening max el	3416 May 16 19:16	16°♄55'12	20°19'58
evening max el	3415 Jun 04 14:53	5°♄52'21	21°41'31	retrograde	3416 May 27 14:34	22°♄11'05	
retrograde	3415 Jun 17 00:57	11°♄59'33		evening set	3416 May 29 14:45	22°♄00'56	
desc. node	3415 Jun 17 10:20	11°♄59'12		desc. node	3416 Jun 03 07:22	20°♄27'55	
evening set	3415 Jun 19 14:35	11°♄44'40		inferior conj	3416 Jun 07 17:55	18°♄02'45	-1°-18'-31
inferior conj	3415 Jun 28 23:08	7°♄43'14	-3°-13'-36	minimum elong	3416 Jun 07 14:13	18°♄08'10	1°17'09
minimum elong	3415 Jun 28 15:03	7°♄54'31	3°11'11	min. Earth dist.	3416 Jun 09 06:00	17°♄09'52	0.55070 AU
min. Earth dist.	3415 Jun 28 17:38	7°♄50'55	0.54907 AU	morning rise	3416 Jun 16 11:48	13°♄49'30	
morning rise	3415 Jul 07 16:38	3°♄50'18		direct	3416 Jun 20 09:55	13°♄16'17	
direct	3415 Jul 10 23:17	3°♄26'48		morning max el	3416 Jul 03 22:03	19°♄50'48	23°36'43
morning max el	3415 Jul 23 04:58	9°♄12'00	21°55'09		3416 Jul 12 11:06	0°♄	
	3415 Aug 06 21:24	0°♄		asc. node	3416 Jul 23 21:19	19°♄39'33	
asc. node	3415 Aug 07 00:16	0°♄13'19		morning set	3416 Jul 27 16:42	27°♄28'24	
morning set	3415 Aug 13 05:11	12°♄33'45			3416 Jul 28 21:18	0°♄	
superior conj	3415 Aug 20 11:33	27°♄54'28	1°41'37	superior conj	3416 Aug 03 18:09	12°♄39'32	1°32'27
minimum elong	3415 Aug 20 10:20	27°♄48'06	1°41'34	minimum elong	3416 Aug 03 16:07	12°♄28'34	1°32'16
	3415 Aug 21 11:32	0°♄		max. Earth dist.	3416 Aug 06 02:32	17°♄41'04	1.33415 AU
max. Earth dist.	3415 Aug 24 03:32	5°♄29'46	1.34673 AU	evening rise	3416 Aug 11 07:39	28°♄27'10	
evening rise	3415 Aug 28 16:10	14°♄28'09			3416 Aug 12 02:18	0°♄	
	3415 Sep 06 05:14	0°♄					

	3416 Aug 29 09:20	0°♄		minimum elong	3417 Jul 19 01:54	27°♄20'32	1°17'52
desc. node	3416 Aug 30 06:41	1°♄18'54			3417 Jul 20 07:05	0°♄	
evening max el	3416 Sep 14 05:13	19°♄40'26	27°23'11	max. Earth dist.	3417 Jul 20 08:58	0°♄10'17	1.32572 AU
retrograde	3416 Sep 27 18:24	26°♄58'29		evening rise	3417 Jul 26 07:57	12°♄51'09	
evening set	3416 Oct 04 20:29	24°♄18'34			3417 Aug 04 05:41	0°♄	
min. Earth dist.	3416 Oct 08 14:06	20°♄56'00	0.64156 AU	desc. node	3417 Aug 17 03:42	20°♄20'50	
inferior conj	3416 Oct 11 00:38	18°♄22'19	-2°-50'-50		3417 Aug 25 02:03	0°♄	
minimum elong	3416 Oct 11 05:20	18°♄09'58	2°49'12	evening max el	3417 Aug 27 14:05	2°♄30'46	27°21'38
morning rise	3416 Oct 17 16:26	12°♄57'32		retrograde	3417 Sep 10 09:11	9°♄46'23	
asc. node	3416 Oct 19 20:33	12°♄26'55		evening set	3417 Sep 17 13:42	7°♄18'46	
direct	3416 Oct 20 04:02	12°♄26'26		min. Earth dist.	3417 Sep 21 04:10	4°♄25'02	0.62379 AU
morning max el	3416 Oct 26 16:27	15°♄52'03	17°54'42	inferior conj	3417 Sep 24 02:13	1°♄40'53	-3°-48'-5
	3416 Nov 05 17:22	0°♄		minimum elong	3417 Sep 24 07:56	1°♄27'26	3°46'30
morning set	3416 Nov 12 15:28	11°♄42'40			3417 Sep 25 22:18	30°♄	
	3416 Nov 23 13:16	0°♄		morning rise	3417 Oct 01 05:01	26°♄34'54	
				direct	3417 Oct 03 13:15	26°♄10'24	
superior conj	3416 Nov 25 16:37	3°♄29'14	0°03'51	asc. node	3417 Oct 06 17:35	26°♄56'54	
minimum elong	3416 Nov 25 17:03	3°♄31'00	0°03'47	morning max el	3417 Oct 10 08:25	29°♄38'11	17°51'38
behind sun begin	3416 Nov 25 07:11	2°♄50'58			3417 Oct 10 17:05	0°♄	
behind sun end	3416 Nov 26 02:55	4°♄10'58		morning set	3417 Oct 26 07:27	24°♄31'20	
desc. node	3416 Nov 26 05:59	4°♄23'25			3417 Oct 29 09:02	0°♄	
max. Earth dist.	3416 Nov 30 23:05	11°♄56'29	1.44562 AU				
evening rise	3416 Dec 11 19:25	28°♄52'10		superior conj	3417 Nov 06 11:42	14°♄08'13	0°44'59
	3416 Dec 12 13:05	0°♄		minimum elong	3417 Nov 06 15:32	14°♄24'29	0°44'28
	3417 Jan 01 20:35	0°♄		desc. node	3417 Nov 13 03:01	25°♄10'49	
greatest brilliancy	3417 Jan 02 01:32	0°♄16'36	-0.5m	max. Earth dist.	3417 Nov 13 13:54	25°♄55'05	1.43283 AU
evening max el	3417 Jan 08 06:27	7°♄45'49	20°21'46		3417 Nov 16 02:40	0°♄	
asc. node	3417 Jan 15 19:51	12°♄25'04		evening rise	3417 Nov 21 06:01	8°♄06'33	
retrograde	3417 Jan 16 04:58	12°♄25'52			3417 Dec 05 19:22	0°♄	
evening set	3417 Jan 19 23:33	11°♄03'19		greatest brilliancy	3417 Dec 17 06:15	15°♄40'48	-0.4m
inferior conj	3417 Jan 25 10:06	4°♄54'36	2°48'56	evening max el	3417 Dec 22 04:07	21°♄18'24	21°32'04
minimum elong	3417 Jan 25 07:35	5°♄03'07	2°48'16	retrograde	3417 Dec 31 02:28	26°♄36'54	
min. Earth dist.	3417 Jan 26 03:10	3°♄56'36	0.67311 AU	asc. node	3418 Jan 02 16:52	26°♄00'02	
	3417 Jan 29 06:40	30°♄		evening set	3418 Jan 04 07:19	24°♄59'01	
morning rise	3417 Jan 30 15:06	28°♄38'52		inferior conj	3418 Jan 09 16:47	18°♄40'28	2°12'04
direct	3417 Feb 05 06:40	26°♄08'57		minimum elong	3418 Jan 09 14:22	18°♄48'50	2°11'16
	3417 Feb 13 11:48	0°♄		min. Earth dist.	3418 Jan 09 21:44	18°♄23'21	0.67815 AU
morning max el	3417 Feb 16 17:12	2°♄59'00	24°37'37	morning rise	3418 Jan 14 21:07	12°♄25'57	
desc. node	3417 Feb 22 05:13	9°♄08'57		direct	3418 Jan 19 21:50	10°♄16'35	
	3417 Mar 09 07:46	0°♄		morning max el	3418 Jan 30 02:19	16°♄19'41	23°08'51
morning set	3417 Mar 24 16:33	25°♄05'49		greatest brilliancy	3418 Feb 04 01:48	21°♄54'03	-0.3m
	3417 Mar 27 10:31	0°♄		desc. node	3418 Feb 09 02:15	28°♄19'09	
max. Earth dist.	3417 Mar 28 09:05	1°♄42'29	1.37388 AU		3418 Feb 10 08:11	0°♄	
					3418 Mar 02 08:33	0°♄	
superior conj	3417 Apr 04 02:13	14°♄21'36	-1°-27'-52	morning set	3418 Mar 05 19:55	5°♄43'17	
minimum elong	3417 Apr 04 06:35	14°♄42'49	1°27'16	max. Earth dist.	3418 Mar 10 03:51	13°♄05'14	1.39544 AU
	3417 Apr 11 23:34	0°♄					
evening rise	3417 Apr 12 17:00	1°♄26'54		superior conj	3418 Mar 17 20:09	26°♄49'26	-1°-50'-30
asc. node	3417 Apr 13 19:09	3°♄36'41		minimum elong	3418 Mar 18 00:36	27°♄09'58	1°50'07
evening max el	3417 Apr 29 11:43	28°♄38'58	19°16'58		3418 Mar 19 13:11	0°♄	
	3417 May 01 00:01	0°♄		evening rise	3418 Mar 27 10:05	15°♄00'10	
retrograde	3417 May 08 14:17	3°♄04'25		asc. node	3418 Mar 31 16:11	23°♄04'12	
evening set	3417 May 10 14:47	2°♄52'17			3418 Apr 04 13:28	0°♄	
	3417 May 17 02:14	30°♄		evening max el	3418 Apr 12 14:08	11°♄00'39	18°34'07
inferior conj	3417 May 19 01:28	28°♄43'22	0°36'52	retrograde	3418 Apr 20 07:58	14°♄48'51	
minimum elong	3417 May 19 02:58	28°♄40'51	0°36'19	evening set	3418 Apr 22 14:13	14°♄30'29	
desc. node	3417 May 21 04:24	27°♄18'39		inferior conj	3418 Apr 30 05:29	10°♄02'35	2°06'31
min. Earth dist.	3417 May 21 20:51	26°♄51'56	0.56162 AU	minimum elong	3418 Apr 30 09:13	9°♄55'21	2°05'27
morning rise	3417 May 27 11:02	23°♄56'06		min. Earth dist.	3418 May 03 15:08	7°♄25'24	0.57954 AU
direct	3417 Jun 01 07:47	23°♄01'40		morning rise	3418 May 07 23:48	4°♄42'00	
	3417 Jun 15 05:44	0°♄		desc. node	3418 May 08 01:26	4°♄40'02	
morning max el	3417 Jun 15 12:15	0°♄15'27	25°17'12	direct	3418 May 13 20:05	3°♄15'24	
	3417 Jul 06 01:03	0°♄		morning max el	3418 May 28 05:09	10°♄53'30	26°40'50
asc. node	3417 Jul 10 18:23	9°♄24'24			3418 Jun 11 23:03	0°♄	
morning set	3417 Jul 12 04:26	12°♄22'43		morning set	3418 Jun 26 14:46	27°♄11'30	
				asc. node	3418 Jun 27 15:26	29°♄22'04	
superior conj	3417 Jul 19 04:15	27°♄33'25	1°18'12		3418 Jun 27 22:33	0°♄	

superior conj	3418 Jul 03 15:56	12°☿29'42	0°59'37	max. Earth dist.	3419 Jun 17 07:36	25°♄33'13	1.32102 AU
minimum elong	3418 Jul 03 13:44	12°☿17'37	0°59'13				
max. Earth dist.	3418 Jul 03 19:51	12°☿51'19	1.32139 AU	superior conj	3419 Jun 18 03:26	27°♄22'12	0°37'21
evening rise	3418 Jul 10 14:16	27°☿31'27		minimum elong	3419 Jun 18 01:51	27°♄13'31	0°37'00
	3418 Jul 11 18:47	0°♄			3419 Jun 19 08:05	0°☿	
	3418 Jul 28 16:42	0°♄		evening rise	3419 Jun 25 00:17	12°☿20'17	
desc. node	3418 Aug 04 00:42	8°♄29'09			3419 Jul 03 23:00	0°♄	
evening max el	3418 Aug 09 17:42	14°♄40'09	26°46'54	desc. node	3419 Jul 21 21:43	25°♄22'01	
retrograde	3418 Aug 23 16:12	21°♄51'34		evening max el	3419 Jul 22 14:05	26°♄01'48	25°40'37
evening set	3418 Aug 30 13:29	19°♄49'27			3419 Jul 27 11:09	0°♄	
min. Earth dist.	3418 Sep 03 07:46	17°♄12'30	0.60374 AU	retrograde	3419 Aug 05 13:37	3°♄08'53	
inferior conj	3418 Sep 06 13:28	14°♄32'52	-4°-36'00	evening set	3419 Aug 11 15:04	1°♄42'28	
minimum elong	3418 Sep 06 18:41	14°♄22'07	4°35'04		3419 Aug 14 16:58	30°♄	
morning rise	3418 Sep 14 03:07	9°♄48'33		min. Earth dist.	3419 Aug 16 02:11	29°♄05'03	0.58318 AU
direct	3418 Sep 16 11:14	9°♄27'44		inferior conj	3419 Aug 19 06:54	26°♄48'31	-5°-4'-27
asc. node	3418 Sep 23 14:38	12°♄51'24		minimum elong	3419 Aug 19 08:57	26°♄44'51	5°04'21
morning max el	3418 Sep 23 20:48	13°♄06'05	18°07'40	morning rise	3419 Aug 27 06:20	22°♄27'37	
	3418 Oct 05 06:29	0°♄		direct	3419 Aug 29 17:38	22°♄08'16	
morning set	3418 Oct 09 15:18	8°♄05'18		morning max el	3419 Sep 07 02:24	26°♄07'02	18°44'17
				asc. node	3419 Sep 10 11:41	29°♄55'48	
superior conj	3418 Oct 19 08:33	26°♄02'18	1°15'12		3419 Sep 10 12:58	0°♄	
minimum elong	3418 Oct 19 12:40	26°♄20'46	1°14'43	morning set	3419 Sep 23 10:21	22°♄11'49	
	3418 Oct 21 14:03	0°♄			3419 Sep 27 10:13	0°♄	
max. Earth dist.	3418 Oct 26 23:52	9°♄18'53	1.41515 AU				
desc. node	3418 Oct 31 00:00	15°♄56'54		superior conj	3419 Oct 02 02:19	8°♄58'28	1°34'10
evening rise	3418 Nov 01 07:03	18°♄02'49		minimum elong	3419 Oct 02 05:07	9°♄11'39	1°33'56
	3418 Nov 08 21:56	0°♄		max. Earth dist.	3419 Oct 09 05:42	22°♄01'52	1.39476 AU
greatest brilliancy	3418 Nov 29 17:39	29°♄07'42	-0.3m	evening rise	3419 Oct 13 06:54	29°♄02'15	
	3418 Nov 30 11:02	0°♄			3419 Oct 13 20:34	0°♄	
evening max el	3418 Dec 04 20:54	4°♄53'03	22°50'02	desc. node	3419 Oct 17 21:00	6°♄38'29	
retrograde	3418 Dec 14 21:37	10°♄50'12			3419 Nov 02 09:07	0°♄	
evening set	3418 Dec 19 14:35	8°♄55'56		evening max el	3419 Nov 17 10:27	18°♄31'26	24°09'48
asc. node	3418 Dec 20 13:53	8°♄03'09		retrograde	3419 Nov 28 13:21	25°♄02'58	
inferior conj	3418 Dec 25 00:30	2°♄31'15	1°27'58	evening set	3419 Dec 03 19:48	22°♄52'07	
minimum elong	3418 Dec 24 22:38	2°♄37'41	1°27'16	asc. node	3419 Dec 07 10:55	18°♄53'49	
min. Earth dist.	3418 Dec 24 18:16	2°♄52'45	0.67954 AU	min. Earth dist.	3419 Dec 08 14:31	17°♄22'34	0.67744 AU
	3418 Dec 26 21:14	30°♄		inferior conj	3419 Dec 09 07:30	16°♄25'16	0°37'52
morning rise	3418 Dec 30 06:39	26°♄19'56		minimum elong	3419 Dec 09 06:36	16°♄28'18	0°37'30
direct	3419 Jan 03 16:37	24°♄33'29		morning rise	3419 Dec 14 17:42	10°♄19'22	
morning max el	3419 Jan 12 15:24	29°♄47'29	21°42'42	direct	3419 Dec 18 13:59	8°♄55'15	
	3419 Jan 12 20:21	0°♄		morning max el	3419 Dec 26 11:42	13°♄27'00	20°26'00
greatest brilliancy	3419 Jan 17 11:13	5°♄14'33	-0.4m	greatest brilliancy	3420 Jan 01 18:10	20°♄51'45	-0.5m
desc. node	3419 Jan 26 23:15	18°♄01'29			3420 Jan 08 07:53	0°♄	
	3419 Feb 04 02:47	0°♄		desc. node	3420 Jan 13 20:17	8°♄07'26	
morning set	3419 Feb 13 18:09	14°♄56'56		morning set	3420 Jan 23 17:48	23°♄11'41	
max. Earth dist.	3419 Feb 20 03:08	25°♄18'54	1.41661 AU		3420 Jan 28 02:25	0°♄	
	3419 Feb 22 22:15	0°♄		max. Earth dist.	3420 Feb 02 10:18	8°♄28'43	1.43447 AU
superior conj	3419 Feb 27 18:22	8°♄19'17	-2°-4'-37	superior conj	3420 Feb 08 16:02	18°♄40'37	-2°-5'-3
minimum elong	3419 Feb 27 20:42	8°♄29'28	2°04'34	minimum elong	3420 Feb 08 13:24	18°♄29'39	2°05'00
evening rise	3419 Mar 10 14:59	27°♄54'36			3420 Feb 15 08:54	0°♄	
	3419 Mar 11 18:16	0°♄		evening rise	3420 Feb 21 03:31	10°♄01'55	
asc. node	3419 Mar 18 13:13	12°♄07'37			3420 Mar 03 23:38	0°♄	
evening max el	3419 Mar 26 23:04	23°♄50'34	18°11'17	asc. node	3420 Mar 04 10:14	0°♄39'24	
retrograde	3419 Apr 02 20:03	27°♄18'25		evening max el	3420 Mar 09 11:13	6°♄59'55	18°07'59
evening set	3419 Apr 05 08:27	26°♄51'13		retrograde	3420 Mar 15 22:45	10°♄22'55	
inferior conj	3419 Apr 12 06:28	22°♄01'52	3°03'32	evening set	3420 Mar 18 16:39	9°♄45'32	
minimum elong	3419 Apr 12 09:37	21°♄54'43	3°02'57	inferior conj	3420 Mar 25 01:12	4°♄35'20	3°32'02
min. Earth dist.	3419 Apr 15 14:53	19°♄01'21	0.60090 AU	minimum elong	3420 Mar 25 02:38	4°♄31'39	3°31'55
morning rise	3419 Apr 19 07:15	16°♄16'30		min. Earth dist.	3420 Mar 27 22:49	1°♄36'12	0.62230 AU
desc. node	3419 Apr 24 22:28	14°♄17'10			3420 Mar 29 15:45	30°♄	
direct	3419 Apr 25 20:36	14°♄14'47		morning rise	3420 Mar 31 10:08	28°♄34'27	
morning max el	3419 May 10 04:05	22°♄06'08	27°34'28	direct	3420 Apr 07 07:06	26°♄03'52	
	3419 May 17 02:41	0°♄		desc. node	3420 Apr 10 19:30	26°♄39'29	
	3419 Jun 04 23:19	0°♄			3420 Apr 16 19:43	0°♄	
morning set	3419 Jun 10 21:59	11°♄48'57		morning max el	3420 Apr 21 09:10	4°♄01'28	27°51'14
asc. node	3419 Jun 14 12:28	19°♄27'19			3420 May 10 17:34	0°♄	

morning set	3420 May 25 00:05	26°♄08'33		morning max el	3421 Apr 03 18:08	16°♄33'57	27°31'18
	3420 May 26 21:09	0°♄			3421 Apr 14 21:04	0°♄	
max. Earth dist.	3420 May 30 16:14	8°♄02'32	1.32471 AU		3421 May 03 12:00	0°♄	
asc. node	3420 May 31 09:30	9°♄35'46		morning set	3421 May 08 18:32	10°♄02'24	
				max. Earth dist.	3421 May 13 17:41	20°♄06'44	1.33268 AU
superior conj	3420 Jun 01 13:02	12°♄05'09	0°12'03				
minimum elong	3420 Jun 01 12:28	12°♄02'05	0°11'55	superior conj	3421 May 16 18:54	26°♄32'47	0°-15'-30
behind sun begin	3420 Jun 01 09:02	11°♄43'20		minimum elong	3421 May 16 19:41	26°♄36'57	0°15'21
behind sun end	3420 Jun 01 15:55	12°♄20'50		behind sun begin	3421 May 16 18:12	26°♄29'01	
evening rise	3420 Jun 08 12:01	27°♄10'41		behind sun end	3421 May 16 21:10	26°♄44'54	
	3420 Jun 09 20:08	0°♄		asc. node	3421 May 18 06:34	29°♄43'28	
	3420 Jun 27 06:12	0°♄			3421 May 18 09:38	0°♄	
evening max el	3420 Jul 03 04:10	6°♄41'56	24°11'36	evening rise	3421 May 23 23:34	11°♄56'29	
desc. node	3420 Jul 07 18:45	10°♄29'09			3421 Jun 02 05:49	0°♄	
retrograde	3420 Jul 16 23:43	13°♄39'51		evening max el	3421 Jun 14 18:15	17°♄07'43	22°34'51
evening set	3420 Jul 21 16:41	12°♄50'37		desc. node	3421 Jun 24 15:46	23°♄15'37	
min. Earth dist.	3420 Jul 27 14:49	9°♄54'26	0.56492 AU	retrograde	3421 Jun 27 21:44	23°♄39'51	
inferior conj	3420 Jul 30 04:06	8°♄19'02	-4°-59'-4	evening set	3421 Jul 01 02:48	23°♄17'10	
minimum elong	3420 Jul 30 00:29	8°♄24'42	4°58'46	min. Earth dist.	3421 Jul 09 01:52	19°♄48'08	0.55244 AU
morning rise	3420 Aug 07 11:50	4°♄18'55		inferior conj	3421 Jul 10 07:04	19°♄06'32	-4°-6'-15
direct	3420 Aug 10 04:43	3°♄59'40		minimum elong	3421 Jul 09 23:00	19°♄18'03	4°04'23
morning max el	3420 Aug 19 22:11	8°♄31'00	19°42'28	morning rise	3421 Jul 18 21:40	15°♄15'54	
asc. node	3420 Aug 27 08:43	17°♄54'34		direct	3421 Jul 21 21:59	14°♄55'06	
	3420 Sep 03 04:13	0°♄		morning max el	3421 Aug 02 06:26	20°♄11'38	21°01'32
morning set	3420 Sep 06 12:59	6°♄40'10			3421 Aug 10 05:53	0°♄	
				asc. node	3421 Aug 14 05:47	6°♄35'13	
superior conj	3420 Sep 14 11:30	22°♄40'18	1°43'17	morning set	3421 Aug 21 20:39	21°♄23'11	
minimum elong	3420 Sep 14 12:32	22°♄45'27	1°43'15		3421 Aug 25 23:49	0°♄	
	3420 Sep 18 05:50	0°♄					
max. Earth dist.	3420 Sep 20 10:16	4°♄07'36	1.37418 AU	superior conj	3421 Aug 29 07:35	6°♄54'33	1°44'13
evening rise	3420 Sep 24 05:40	11°♄05'04		minimum elong	3421 Aug 29 07:04	6°♄51'55	1°44'13
desc. node	3420 Oct 03 18:02	27°♄10'47		max. Earth dist.	3421 Sep 02 19:12	15°♄58'10	1.35578 AU
	3420 Oct 05 12:47	0°♄		evening rise	3421 Sep 06 23:44	24°♄02'29	
	3420 Oct 27 18:55	0°♄			3421 Sep 10 05:30	0°♄	
evening max el	3420 Oct 29 22:37	2°♄12'21	25°24'43	desc. node	3421 Sep 20 15:04	17°♄28'26	
retrograde	3420 Nov 11 00:45	9°♄10'02			3421 Sep 29 03:25	0°♄	
evening set	3420 Nov 16 21:20	6°♄44'11		evening max el	3421 Oct 12 10:56	15°♄52'32	26°27'24
min. Earth dist.	3420 Nov 21 08:09	1°♄49'29	0.67188 AU	retrograde	3421 Oct 25 07:14	23°♄05'25	
inferior conj	3420 Nov 22 12:00	0°♄19'37	0°-17'-7	evening set	3421 Oct 31 17:16	20°♄28'33	
minimum elong	3420 Nov 22 12:26	0°♄18'12	0°16'56	min. Earth dist.	3421 Nov 04 20:51	16°♄09'51	0.66284 AU
	3420 Nov 22 18:05	30°♄		inferior conj	3421 Nov 06 12:06	14°♄11'05	-1°-15'-44
asc. node	3420 Nov 23 07:57	29°♄15'41		minimum elong	3421 Nov 06 14:09	14°♄04'51	1°14'53
morning rise	3420 Nov 28 04:18	24°♄21'23		asc. node	3421 Nov 10 05:00	10°♄05'49	
direct	3420 Dec 01 12:31	23°♄17'01		morning rise	3421 Nov 12 12:20	8°♄23'13	
morning max el	3420 Dec 08 15:57	27°♄17'21	19°22'51	direct	3421 Nov 15 10:37	7°♄34'49	
	3420 Dec 11 03:04	0°♄		morning max el	3421 Nov 22 02:50	11°♄14'33	18°35'19
greatest brilliancy	3420 Dec 17 18:36	8°♄54'15	-0.7m		3421 Dec 05 13:50	0°♄	
desc. node	3420 Dec 30 17:18	28°♄30'07		morning set	3421 Dec 12 13:51	11°♄06'33	
	3420 Dec 31 16:33	0°♄		desc. node	3421 Dec 17 14:20	19°♄04'38	
morning set	3421 Jan 01 16:46	1°♄33'43			3421 Dec 24 12:37	0°♄	
max. Earth dist.	3421 Jan 14 23:58	22°♄20'19	1.44673 AU				
				superior conj	3421 Dec 28 15:29	6°♄28'00	-1°-10'-28
superior conj	3421 Jan 18 12:03	27°♄53'59	-1°-47'-4	minimum elong	3421 Dec 28 07:08	5°♄55'14	1°09'31
minimum elong	3421 Jan 18 03:58	27°♄21'43	1°46'27	max. Earth dist.	3421 Dec 28 17:46	6°♄36'56	1.45212 AU
	3421 Jan 19 19:36	0°♄			3422 Jan 12 13:37	0°♄	
evening rise	3421 Feb 01 19:26	21°♄14'23		evening rise	3422 Jan 13 12:05	1°♄29'22	
	3421 Feb 07 01:36	0°♄			3422 Feb 01 03:29	0°♄	
asc. node	3421 Feb 19 07:16	18°♄29'54		evening max el	3422 Feb 04 10:02	3°♄49'00	18°57'01
evening max el	3421 Feb 20 23:42	20°♄21'17	18°23'34	asc. node	3422 Feb 06 04:18	5°♄26'45	
retrograde	3421 Feb 27 11:19	23°♄52'38		retrograde	3422 Feb 11 05:47	7°♄39'44	
evening set	3421 Mar 02 10:47	23°♄04'05		evening set	3422 Feb 14 11:37	6°♄38'58	
inferior conj	3421 Mar 08 09:34	17°♄34'49	3°38'34	inferior conj	3422 Feb 20 03:45	0°♄52'35	3°28'40
minimum elong	3421 Mar 08 09:14	17°♄35'44	3°38'33	minimum elong	3422 Feb 20 02:08	0°♄57'37	3°28'28
min. Earth dist.	3421 Mar 10 16:22	14°♄57'13	0.64140 AU		3422 Feb 20 20:29	30°♄	
morning rise	3421 Mar 14 06:04	11°♄25'18		min. Earth dist.	3422 Feb 21 19:03	28°♄49'36	0.65697 AU
direct	3421 Mar 21 01:54	8°♄38'16		morning rise	3422 Feb 25 15:36	24°♄38'50	
desc. node	3421 Mar 28 16:32	11°♄24'43		direct	3422 Mar 04 03:41	21°♄49'25	

desc. node	3422 Mar 15 13:34	27° \approx 57'20		min. Earth dist.	3423 Feb 05 05:28	13° \approx 02'08	0.66847 AU
morning max el	3422 Mar 17 04:01	29° \approx 30'46	26°40'03	morning rise	3423 Feb 09 11:22	8° \approx 08'54	
	3422 Mar 17 15:29	0° \approx		direct	3423 Feb 15 11:14	5° \approx 29'18	
	3422 Apr 08 18:17	0° \approx		morning max el	3423 Feb 27 13:00	12° \approx 41'21	25°26'15
morning set	3422 Apr 22 01:50	23° \approx 18'57		desc. node	3423 Mar 02 10:36	15° \approx 47'49	
	3422 Apr 25 12:46	0° \approx			3423 Mar 13 12:07	0° \approx	
max. Earth dist.	3422 Apr 26 08:17	1° \approx 36'41	1.34526 AU		3423 Apr 01 11:53	0° \approx	
				morning set	3423 Apr 04 17:33	5° \approx 45'38	
superior conj	3422 Apr 30 18:44	10° \approx 37'21	0°-44'-14	max. Earth dist.	3423 Apr 08 11:28	12° \approx 41'07	1.36242 AU
minimum elong	3422 Apr 30 21:03	10° \approx 49'21	0°43'47				
asc. node	3422 May 05 03:36	19° \approx 45'31		superior conj	3423 Apr 14 09:51	24° \approx 11'40	-1°-12'-35
evening rise	3422 May 08 08:58	26° \approx 30'18		minimum elong	3423 Apr 14 13:37	24° \approx 30'27	1°11'59
	3422 May 10 01:43	0° \approx			3423 Apr 17 07:09	0° \approx	
evening max el	3422 May 27 16:08	27° \approx 50'50	21°04'55	asc. node	3423 Apr 22 00:39	9° \approx 37'52	
	3422 May 30 03:07	0° \approx		evening rise	3423 Apr 22 14:07	10° \approx 46'14	
retrograde	3422 Jun 08 10:59	3° \approx 36'52			3423 May 02 22:48	0° \approx	
evening set	3422 Jun 10 16:31	3° \approx 25'15		evening max el	3423 May 10 01:47	9° \approx 10'42	19°50'46
desc. node	3422 Jun 11 12:49	3° \approx 15'02		retrograde	3423 May 20 02:56	14° \approx 03'30	
	3422 Jun 19 01:36	30° \approx		evening set	3423 May 22 02:18	13° \approx 53'02	
inferior conj	3422 Jun 20 00:43	29° \approx 27'31	-2°-27'-11	desc. node	3423 May 29 09:50	10° \approx 48'34	
minimum elong	3422 Jun 19 18:00	29° \approx 36'59	2°24'55	inferior conj	3423 May 30 23:19	9° \approx 51'53	0°-27'-36
min. Earth dist.	3422 Jun 20 13:35	29° \approx 09'23	0.54856 AU	minimum elong	3423 May 30 22:03	9° \approx 53'49	0°27'10
morning rise	3422 Jun 28 19:13	25° \approx 27'54		min. Earth dist.	3423 Jun 02 02:42	8° \approx 33'21	0.55436 AU
direct	3422 Jul 02 07:32	25° \approx 01'15		morning rise	3423 Jun 08 14:47	5° \approx 25'20	
	3422 Jul 13 20:51	0° \approx		direct	3423 Jun 12 22:15	4° \approx 44'24	
morning max el	3422 Jul 15 03:47	1° \approx 08'48	22°37'24	morning max el	3423 Jun 26 18:33	11° \approx 36'53	24°20'28
asc. node	3422 Aug 01 02:51	25° \approx 47'04			3423 Jul 10 17:16	0° \approx	
	3422 Aug 03 06:19	0° \approx		asc. node	3423 Jul 18 23:53	15° \approx 21'52	
morning set	3422 Aug 06 07:14	6° \approx 14'47		morning set	3423 Jul 21 19:00	21° \approx 09'38	
					3423 Jul 25 21:38	0° \approx	
superior conj	3422 Aug 13 11:06	21° \approx 03'30	1°38'24	superior conj	3423 Jul 28 19:24	6° \approx 19'46	1°26'59
minimum elong	3422 Aug 13 09:29	21° \approx 21'53	1°38'18	minimum elong	3423 Jul 28 17:10	6° \approx 07'39	1°26'43
max. Earth dist.	3422 Aug 16 12:54	27° \approx 05'20	1.34093 AU	max. Earth dist.	3423 Jul 30 15:31	10° \approx 18'14	1.33012 AU
	3422 Aug 17 12:28	0° \approx		evening rise	3423 Aug 05 04:09	21° \approx 05'08	
evening rise	3422 Aug 21 08:33	7° \approx 42'22			3423 Aug 09 07:00	0° \approx	
	3422 Sep 02 18:48	0° \approx		desc. node	3423 Aug 25 09:09	26° \approx 50'04	
desc. node	3422 Sep 07 12:07	7° \approx 24'41			3423 Aug 27 15:44	0° \approx	
evening max el	3422 Sep 24 23:27	29° \approx 23'57	27°10'19	evening max el	3423 Sep 07 10:29	12° \approx 33'43	27°26'30
	3422 Sep 25 14:47	0° \approx		retrograde	3423 Sep 21 02:23	19° \approx 50'10	
retrograde	3422 Oct 08 08:00	6° \approx 41'48		evening set	3423 Sep 28 06:28	17° \approx 14'16	
evening set	3422 Oct 15 05:19	4° \approx 00'41		min. Earth dist.	3423 Oct 01 22:22	14° \approx 04'53	0.63439 AU
min. Earth dist.	3422 Oct 19 02:21	0° \approx 18'01	0.65030 AU	inferior conj	3423 Oct 04 13:55	11° \approx 25'36	-3°-15'-50
	3422 Oct 19 08:57	30° \approx		minimum elong	3423 Oct 04 19:10	11° \approx 12'24	3°14'07
inferior conj	3422 Oct 21 05:38	27° \approx 55'20	-2°-16'-12	morning rise	3423 Oct 11 10:19	6° \approx 08'08	
minimum elong	3422 Oct 21 09:24	27° \approx 44'47	2°14'46	direct	3423 Oct 13 20:12	5° \approx 40'06	
morning rise	3422 Oct 27 15:22	22° \approx 20'54		asc. node	3423 Oct 14 23:06	5° \approx 46'16	
asc. node	3422 Oct 28 02:03	22° \approx 09'39		morning max el	3423 Oct 20 10:27	9° \approx 05'32	17°51'05
direct	3422 Oct 30 06:07	21° \approx 44'31			3423 Nov 03 08:09	0° \approx	
morning max el	3422 Nov 05 17:58	25° \approx 12'57	18°04'30	morning set	3423 Nov 05 20:47	4° \approx 23'50	
	3422 Nov 09 17:50	0° \approx					
morning set	3422 Nov 23 16:33	22° \approx 08'21		superior conj	3423 Nov 18 01:43	25° \approx 11'28	0°22'30
	3422 Nov 28 10:48	0° \approx		minimum elong	3423 Nov 18 04:02	25° \approx 21'01	0°22'11
desc. node	3422 Dec 04 11:23	9° \approx 47'14		desc. node	3423 Nov 21 08:24	0° \approx 33'44	
					3423 Nov 21 00:06	0° \approx	
superior conj	3422 Dec 07 22:07	15° \approx 18'07	0°-23'-21	max. Earth dist.	3423 Nov 24 06:48	5° \approx 17'29	1.44097 AU
minimum elong	3422 Dec 07 19:12	15° \approx 06'29	0°22'57	evening rise	3423 Dec 03 17:16	20° \approx 05'50	
max. Earth dist.	3422 Dec 11 13:04	21° \approx 02'17	1.45010 AU		3423 Dec 10 05:12	0° \approx	
	3422 Dec 17 06:22	0° \approx		greatest brilliancy	3423 Dec 27 04:41	24° \approx 22'03	-0.5m
evening rise	3422 Dec 24 07:54	10° \approx 57'41			3423 Dec 31 21:24	0° \approx	
	3423 Jan 05 18:20	0° \approx		evening max el	3424 Jan 01 17:15	0° \approx 52'14	20°50'25
greatest brilliancy	3423 Jan 11 06:32	8° \approx 03'02	-0.6m	retrograde	3424 Jan 10 01:11	5° \approx 47'46	
evening max el	3423 Jan 18 16:20	17° \approx 20'17	19°46'44	asc. node	3424 Jan 10 22:22	5° \approx 43'29	
asc. node	3423 Jan 24 01:20	21° \approx 16'22		evening set	3424 Jan 14 00:02	4° \approx 18'39	
retrograde	3423 Jan 26 03:12	21° \approx 39'47			3424 Jan 18 00:03	30° \approx	
evening set	3423 Jan 29 16:44	20° \approx 25'30		inferior conj	3424 Jan 19 09:55	28° \approx 05'23	2°34'12
inferior conj	3423 Feb 04 04:43	14° \approx 24'16	3°06'19	minimum elong	3424 Jan 19 07:23	28° \approx 14'03	2°33'28
minimum elong	3423 Feb 04 02:23	14° \approx 32'01	3°05'49				

min. Earth dist.	3424 Jan 19 21:37	27°☿25'12	0.67580 AU	minimum elong	3425 Jan 02 15:02	12°☿01'16	1°53'21
morning rise	3424 Jan 24 14:20	21°☿50'13		min. Earth dist.	3425 Jan 02 17:16	11°☿53'31	0.67923 AU
direct	3424 Jan 29 23:41	19°☿28'40		morning rise	3425 Jan 07 22:06	5°☿40'13	
morning max el	3424 Feb 09 21:28	25°☿58'47	24°00'03	direct	3425 Jan 12 16:22	3°☿40'48	
	3424 Feb 13 13:58	0°≈		morning max el	3425 Jan 22 08:01	9°☿22'40	22°31'22
desc. node	3424 Feb 17 07:37	4°≈33'18		greatest brilliancy	3425 Jan 26 21:33	14°☿28'09	-0.3m
	3424 Mar 06 01:41	0°✕		desc. node	3425 Feb 03 04:39	23°☿58'17	
morning set	3424 Mar 16 11:53	17°✕06'54			3425 Feb 07 11:15	0°≈	
max. Earth dist.	3424 Mar 20 07:36	23°✕48'41	1.38297 AU	morning set	3425 Feb 25 03:00	27°≈08'33	
	3424 Mar 23 17:34	0°☿			3425 Feb 26 20:41	0°✕	
				max. Earth dist.	3425 Mar 02 03:51	5°✕31'55	1.40468 AU
superior conj	3424 Mar 27 12:42	7°☿06'26	-1°-38'-13	superior conj	3425 Mar 09 22:50	19°✕10'35	-1°-57'-49
minimum elong	3424 Mar 27 17:18	7°☿28'19	1°37'42	minimum elong	3425 Mar 10 02:43	19°✕28'07	1°57'36
evening rise	3424 Apr 05 12:29	24°☿37'14			3425 Mar 15 19:57	0°☿	
asc. node	3424 Apr 07 21:41	29°☿15'55		evening rise	3425 Mar 20 00:53	7°☿55'08	
	3424 Apr 08 06:51	0°♄		asc. node	3425 Mar 25 18:43	18°☿33'58	
evening max el	3424 Apr 21 22:45	21°♄10'46	18°56'13		3425 Apr 01 22:33	0°♄	
retrograde	3424 Apr 30 09:57	25°♄18'38		evening max el	3425 Apr 05 04:16	3°♄45'04	18°21'57
evening set	3424 May 02 12:44	25°♄04'11		retrograde	3425 Apr 12 12:00	7°♄23'02	
inferior conj	3424 May 10 15:02	20°♄47'22	1°18'52	evening set	3425 Apr 14 20:45	7°♄01'16	
minimum elong	3424 May 10 17:55	20°♄42'15	1°17'55	inferior conj	3425 Apr 22 04:15	2°♄24'14	2°34'37
min. Earth dist.	3424 May 13 18:27	18°♄34'32	0.56856 AU	minimum elong	3425 Apr 22 07:58	2°♄16'29	2°33'42
desc. node	3424 May 15 06:49	17°♄35'17			3425 Apr 25 01:46	30°♄☿	
morning rise	3424 May 18 18:44	15°♄45'23		min. Earth dist.	3425 Apr 25 14:52	29°☿33'55	0.58832 AU
direct	3424 May 24 01:45	14°♄38'36		morning rise	3425 Apr 29 15:02	26°☿51'29	
morning max el	3424 Jun 07 09:17	22°♄03'41	25°55'57	desc. node	3425 May 02 03:51	25°☿45'27	
	3424 Jun 14 09:02	0°♄		direct	3425 May 05 19:24	25°☿09'52	
	3424 Jun 02 08:14	0°♄			3425 May 16 22:30	0°♄	
asc. node	3424 Jul 04 20:56	5°♄13'04		morning max el	3425 May 20 04:48	2°♄55'20	27°08'06
morning set	3424 Jul 05 06:22	6°♄02'44			3425 Jun 08 19:50	0°♄	
				morning set	3425 Jun 19 15:36	20°♄47'29	
superior conj	3424 Jul 12 06:23	21°♄15'34	1°10'49	asc. node	3425 Jun 21 17:58	25°♄14'26	
minimum elong	3424 Jul 12 04:03	21°♄02'41	1°10'26		3425 Jun 23 22:42	0°♄	
max. Earth dist.	3424 Jul 13 00:30	22°♄55'01	1.32336 AU				
	3424 Jul 16 06:34	0°♄		superior conj	3425 Jun 26 18:11	6°♄10'49	0°50'36
evening rise	3424 Jul 19 07:20	6°♄25'17		minimum elong	3425 Jun 26 16:12	5°♄59'53	0°50'12
	3424 Jul 31 20:06	0°♄		max. Earth dist.	3425 Jun 26 12:09	5°♄37'35	1.32066 AU
desc. node	3424 Aug 11 06:09	15°♄31'55		evening rise	3425 Jul 03 15:27	21°♄09'38	
evening max el	3424 Aug 19 17:26	25°♄08'25	27°10'57		3425 Jul 07 23:01	0°♄	
	3424 Aug 25 23:26	0°♄			3425 Jul 26 10:47	0°♄	
retrograde	3424 Sep 02 13:47	2°♄21'51		desc. node	3425 Jul 29 03:10	3°♄11'16	
evening set	3424 Sep 09 16:54	0°♄03'17		evening max el	3425 Aug 01 17:48	6°♄56'34	26°22'12
	3424 Sep 09 18:57	30°♄☿		retrograde	3425 Aug 15 17:11	14°♄07'11	
min. Earth dist.	3424 Sep 13 07:43	27°♄18'54	0.61552 AU	evening set	3425 Aug 22 07:47	12°♄18'57	
inferior conj	3424 Sep 16 09:52	24°♄34'32	-4°-10'-1	min. Earth dist.	3425 Aug 26 06:59	9°♄44'19	0.59488 AU
minimum elong	3424 Sep 16 15:38	24°♄21'43	4°08'38		3425 Aug 29 13:53	7°♄11'46	-4°-51'-12
morning rise	3424 Sep 23 17:22	19°♄37'35		minimum elong	3425 Aug 29 18:07	7°♄03'31	4°50'40
direct	3424 Sep 26 01:16	19°♄14'53		morning rise	3425 Sep 06 07:56	2°♄37'47	
asc. node	3424 Sep 30 20:08	20°♄54'24		direct	3425 Sep 08 16:56	2°♄17'55	
morning max el	3424 Oct 03 01:21	22°♄45'36	17°56'04	morning max el	3425 Sep 16 11:19	6°♄03'30	18°20'43
	3424 Oct 08 17:16	0°♄		asc. node	3425 Sep 17 17:10	7°♄20'22	
morning set	3424 Oct 18 20:15	17°♄34'14			3425 Oct 01 15:53	0°♄	
	3424 Oct 25 16:56	0°♄		morning set	3425 Oct 02 09:21	1°♄23'11	
superior conj	3424 Oct 29 08:19	6°♄24'32	0°59'13	superior conj	3425 Oct 11 14:48	18°♄47'20	1°24'31
minimum elong	3424 Oct 29 12:34	6°♄42'59	0°58'39	minimum elong	3425 Oct 11 18:29	19°♄04'09	1°24'09
max. Earth dist.	3424 Nov 05 20:07	19°♄04'47	1.42586 AU		3425 Oct 17 21:34	0°♄	
desc. node	3424 Nov 07 05:26	21°♄21'14		max. Earth dist.	3425 Oct 19 03:40	2°♄09'49	1.40665 AU
evening rise	3424 Nov 12 08:28	29°♄34'21		evening rise	3425 Oct 23 18:43	9°♄56'09	
	3424 Nov 12 14:59	0°♄		desc. node	3425 Oct 25 02:28	12°♄06'02	
	3424 Dec 02 20:45	0°☿			3425 Nov 05 15:11	0°♄	
greatest brilliancy	3424 Dec 09 19:10	9°☿04'46	-0.3m	evening max el	3425 Nov 27 03:38	28°♄00'55	23°24'03
evening max el	3424 Dec 14 12:37	14°☿25'08	22°04'29		3425 Nov 29 06:06	0°☿	
retrograde	3424 Dec 23 21:56	20°☿00'24		retrograde	3425 Dec 07 15:56	4°☿14'15	
asc. node	3424 Dec 27 19:23	18°☿38'54		evening set	3425 Dec 12 14:26	2°☿12'52	
evening set	3424 Dec 28 07:48	18°☿15'23		asc. node	3425 Dec 14 16:24	0°☿08'00	
inferior conj	3425 Jan 02 17:16	11°☿53'31	1°54'07				

	3425 Dec 14 19:11	30° RA		asc. node	3426 Dec 01 13:26	10° A 39'56	
min. Earth dist.	3425 Dec 17 14:06	26° A 23'39	0.67905 AU	inferior conj	3426 Dec 02 07:07	9° A 41'11	0°15'07
inferior conj	3425 Dec 18 00:56	25° A 46'27	1°07'25	minimum elong	3426 Dec 02 06:45	9° A 42'26	0°14'57
minimum elong	3425 Dec 17 23:26	25° A 51'36	1°06'48	transit middle	3426 Dec 02 06:45	9° A 42'26	0°14'57
morning rise	3425 Dec 23 08:32	19° A 36'59		transit begin	3426 Dec 02 05:41	9° A 45'59	
direct	3425 Dec 27 12:24	18° A 00'23		transit end	3426 Dec 02 07:49	9° A 38'53	
morning max el	3426 Jan 05 00:00	22° A 55'46	21°08'31	morning rise	3426 Dec 07 19:39	3° A 37'58	
greatest brilliancy	3426 Jan 10 07:55	29° A 02'53	-0.4m	direct	3426 Dec 11 10:35	2° A 22'32	
	3426 Jan 11 01:52	0° C		morning max el	3426 Dec 18 23:38	6° A 39'44	19°57'14
desc. node	3426 Jan 21 01:41	13° C 51'47		greatest brilliancy	3426 Dec 26 05:18	15° A 27'45	-0.6m
	3426 Jan 31 19:28	0° A			3427 Jan 05 05:42	0° C	
morning set	3426 Feb 04 13:58	5° A 52'06		desc. node	3427 Jan 07 22:43	4° C 05'33	
max. Earth dist.	3426 Feb 12 05:52	18° A 08'26	1.42472 AU	morning set	3427 Jan 14 10:01	14° C 00'03	
					3427 Jan 24 15:24	0° A	
superior conj	3426 Feb 19 11:08	0° H 12'28	-2°-6'-48	max. Earth dist.	3427 Jan 25 15:49	1° A 37'11	1.44050 AU
minimum elong	3426 Feb 19 11:41	0° H 14'46	2°06'49				
	3426 Feb 19 08:13	0° H		superior conj	3427 Jan 30 21:41	10° A 04'05	-1°-59'-51
evening rise	3426 Mar 02 23:24	20° H 30'52		minimum elong	3427 Jan 30 16:28	9° A 42'54	1°59'37
	3426 Mar 08 06:36	0° Y			3427 Feb 11 20:02	0° H	
asc. node	3426 Mar 12 15:45	7° Y 25'18		evening rise	3427 Feb 13 03:38	2° H 15'15	
evening max el	3426 Mar 19 15:00	16° Y 44'43	18°07'35	asc. node	3427 Feb 27 12:47	25° H 40'50	
retrograde	3426 Mar 26 06:48	20° Y 08'46		evening max el	3427 Mar 03 03:44	0° Y 00'18	18°12'23
evening set	3426 Mar 28 21:30	19° Y 37'30			3427 Mar 03 03:37	0° Y	
inferior conj	3426 Apr 04 13:21	14° Y 39'27	3°18'42	retrograde	3427 Mar 09 14:04	3° Y 24'56	
minimum elong	3426 Apr 04 15:49	14° Y 33'30	3°18'21	evening set	3427 Mar 12 10:23	2° Y 42'51	
min. Earth dist.	3426 Apr 07 18:09	11° Y 36'16	0.61013 AU		3427 Mar 16 02:16	30° RA	
morning rise	3426 Apr 11 07:01	8° Y 46'20		inferior conj	3427 Mar 18 14:22	27° H 24'31	3°37'04
direct	3426 Apr 18 00:50	6° Y 30'42		minimum elong	3427 Mar 18 15:01	27° H 22'45	3°37'02
desc. node	3426 Apr 19 00:52	6° Y 33'34		min. Earth dist.	3427 Mar 21 06:01	24° H 32'27	0.63089 AU
morning max el	3426 May 02 06:33	14° Y 26'26	27°46'11	morning rise	3427 Mar 24 17:35	21° H 19'32	
	3426 May 14 19:41	0° B		direct	3427 Mar 31 15:15	18° H 40'05	
	3426 Jun 01 05:59	0° II		desc. node	3427 Apr 05 21:54	20° H 00'29	
morning set	3426 Jun 03 20:54	5° II 18'05		morning max el	3427 Apr 14 13:23	26° H 37'37	27°46'52
asc. node	3426 Jun 08 15:01	15° II 21'36			3427 Apr 17 17:13	0° Y	
max. Earth dist.	3426 Jun 09 22:51	18° II 14'34	1.32203 AU		3427 May 08 10:12	0° B	
				morning set	3427 May 18 20:03	19° B 27'09	
superior conj	3426 Jun 11 05:06	20° II 59'58	0°26'56		3427 May 23 22:28	0° II	
minimum elong	3426 Jun 11 03:54	20° II 53'25	0°26'41	max. Earth dist.	3427 May 24 04:45	0° II 33'22	1.32757 AU
	3426 Jun 15 07:39	0° C					
evening rise	3426 Jun 18 02:24	5° C 59'37		superior conj	3427 May 26 13:22	5° II 36'56	0°00'34
	3426 Jun 30 17:30	0° Q		minimum elong	3427 May 26 13:20	5° II 36'45	0°00'34
evening max el	3426 Jul 14 11:04	17° Q 58'12	25°04'48	behind sun begin	3427 May 26 08:05	5° II 08'27	
desc. node	3426 Jul 16 00:11	19° Q 22'56		behind sun end	3427 May 26 18:35	6° II 05'05	
retrograde	3426 Jul 28 10:22	25° Q 02'59		asc. node	3427 May 26 12:05	5° II 30'01	
evening set	3426 Aug 02 22:56	23° Q 53'08		evening rise	3427 Jun 02 14:17	20° II 48'31	
min. Earth dist.	3426 Aug 07 22:44	21° Q 09'26	0.57488 AU		3427 Jun 07 01:35	0° C	
inferior conj	3426 Aug 10 22:47	19° Q 08'25	-5°-7'-16	evening max el	3427 Jun 26 00:24	28° C 28'40	23°30'32
minimum elong	3426 Aug 10 22:37	19° Q 08'41	5°07'18		3427 Jun 27 16:20	0° Q	
morning rise	3426 Aug 19 01:55	14° Q 56'54		desc. node	3427 Jul 02 21:11	3° Q 34'23	
direct	3426 Aug 21 15:08	14° Q 37'52		retrograde	3427 Jul 09 14:54	5° Q 17'21	
morning max el	3426 Aug 30 13:04	18° Q 49'27	19°06'23	evening set	3427 Jul 13 16:03	4° Q 41'29	
asc. node	3426 Sep 04 14:13	24° Q 49'09		min. Earth dist.	3427 Jul 20 10:22	1° Q 32'56	0.55871 AU
	3426 Sep 07 22:26	0° M		inferior conj	3427 Jul 22 11:40	0° Q 19'40	-4°-42'-59
morning set	3426 Sep 16 07:57	15° M 39'21		minimum elong	3427 Jul 22 05:40	0° Q 28'37	4°42'04
	3426 Sep 23 14:05	0° A			3427 Jul 23 00:53	30° RA	
				morning rise	3427 Jul 30 22:26	26° C 25'08	
superior conj	3426 Sep 24 15:41	2° A 04'00	1°39'07	direct	3427 Aug 02 18:22	26° C 05'20	
minimum elong	3426 Sep 24 17:44	2° A 13'54	1°39'00		3427 Aug 12 03:07	0° Q	
max. Earth dist.	3426 Oct 01 07:55	14° A 33'02	1.38586 AU	morning max el	3427 Aug 13 03:55	0° Q 54'49	20°13'42
evening rise	3426 Oct 05 04:35	21° A 23'04		asc. node	3427 Aug 22 11:17	13° Q 07'06	
	3426 Oct 10 07:10	0° M			3427 Aug 31 10:07	0° M	
desc. node	3426 Oct 11 23:30	2° M 44'06		morning set	3427 Aug 31 13:02	0° M 14'49	
	3426 Oct 30 15:14	0° A					
evening max el	3426 Nov 09 16:27	11° A 40'52	24°42'47	superior conj	3427 Sep 08 05:58	16° M 00'47	1°44'35
retrograde	3426 Nov 21 06:00	18° A 24'56		minimum elong	3427 Sep 08 06:18	16° M 02'29	1°44'35
evening set	3426 Nov 26 18:18	16° A 07'42		max. Earth dist.	3427 Sep 13 14:00	26° M 30'35	1.36599 AU
min. Earth dist.	3426 Dec 01 09:38	10° A 52'32	0.67546 AU		3427 Sep 15 10:15	0° A	

evening rise	3427 Sep 17 12:08	3°♌50'40			3428 Sep 06 14:17	0°♌	
desc. node	3427 Sep 28 20:32	23°♌11'03		desc. node	3428 Sep 14 17:33	13°♌20'25	
	3427 Oct 03 06:32	0°♌			3428 Sep 26 15:11	0°♌	
evening max el	3427 Oct 23 04:51	25°♌23'16	25°53'25	evening max el	3428 Oct 04 17:18	9°♌00'32	26°48'29
	3427 Oct 28 18:36	0°♌		retrograde	3428 Oct 17 19:09	16°♌16'09	
retrograde	3427 Nov 04 15:14	2°♌28'00		evening set	3428 Oct 24 10:34	13°♌36'18	
evening set	3427 Nov 10 17:42	29°♌57'04		min. Earth dist.	3428 Oct 28 11:13	9°♌33'21	0.65796 AU
	3427 Nov 10 16:18	30°♌		inferior conj	3428 Oct 30 07:34	7°♌23'38	-1°-41'-16
min. Earth dist.	3427 Nov 15 01:29	25°♌17'32	0.66847 AU	minimum elong	3428 Oct 30 10:22	7°♌15'28	1°40'08
inferior conj	3427 Nov 16 10:01	23°♌35'11	0°-41'-33	asc. node	3428 Nov 04 07:31	2°♌24'10	
minimum elong	3427 Nov 16 11:07	23°♌31'44	0°41'07	morning rise	3428 Nov 05 11:41	1°♌41'19	
asc. node	3427 Nov 18 10:28	21°♌07'25		direct	3428 Nov 08 06:32	0°♌58'26	
morning rise	3427 Nov 22 05:28	17°♌40'54		morning max el	3428 Nov 14 19:57	4°♌31'55	18°20'13
direct	3427 Nov 25 09:17	16°♌43'35			3428 Dec 02 05:59	0°♌	
morning max el	3427 Dec 02 06:55	20°♌33'37	19°00'41	morning set	3428 Dec 04 02:11	2°♌58'48	
	3427 Dec 09 18:47	0°♌		desc. node	3428 Dec 11 16:49	15°♌12'30	
morning set	3427 Dec 24 16:33	22°♌47'50					
desc. node	3427 Dec 25 19:47	24°♌34'12		superior conj	3428 Dec 19 10:54	27°♌28'45	0°-51'-4
	3427 Dec 29 07:10	0°♌		minimum elong	3428 Dec 19 04:28	27°♌03'27	0°50'15
max. Earth dist.	3428 Jan 08 08:11	15°♌43'56	1.45001 AU	max. Earth dist.	3428 Dec 21 03:20	0°♌07'35	1.45218 AU
					3428 Dec 21 01:24	0°♌	
superior conj	3428 Jan 10 08:53	18°♌55'49	-1°-33'-32	evening rise	3429 Jan 04 16:58	22°♌56'49	
minimum elong	3428 Jan 09 23:46	18°♌19'53	1°32'41		3429 Jan 09 04:55	0°♌	
	3428 Jan 17 08:03	0°♌		greatest brilliancy	3429 Jan 18 17:26	14°♌41'09	-0.7m
evening rise	3428 Jan 25 09:52	13°♌03'34		evening max el	3429 Jan 28 00:24	26°♌54'32	19°16'11
	3428 Feb 04 20:33	0°♌		asc. node	3429 Jan 31 06:49	29°♌40'24	
asc. node	3428 Feb 14 09:49	13°♌10'12			3429 Jan 31 19:53	0°♌	
evening max el	3428 Feb 14 15:38	13°♌25'11	18°35'35	retrograde	3429 Feb 04 01:47	0°♌56'41	
retrograde	3428 Feb 21 05:35	17°♌03'10		evening set	3429 Feb 07 10:42	29°♌50'14	
evening set	3428 Feb 24 07:44	16°♌09'22			3429 Feb 07 04:30	30°♌	
inferior conj	3428 Mar 01 03:20	10°♌32'21	3°36'02	inferior conj	3429 Feb 13 00:46	23°♌56'56	3°20'31
minimum elong	3428 Mar 01 02:24	10°♌35'09	3°35'59	minimum elong	3429 Feb 12 22:47	24°♌03'19	3°20'12
min. Earth dist.	3428 Mar 03 03:23	8°♌08'41	0.64863 AU	min. Earth dist.	3429 Feb 14 09:37	22°♌11'07	0.66237 AU
morning rise	3428 Mar 06 19:46	4°♌20'50		morning rise	3429 Feb 18 10:01	17°♌42'06	
direct	3428 Mar 13 12:59	1°♌31'24		direct	3429 Feb 24 17:08	14°♌55'54	
desc. node	3428 Mar 22 18:57	5°♌35'28		morning max el	3429 Mar 09 08:55	22°♌26'41	26°10'54
morning max el	3428 Mar 26 23:00	9°♌21'37	27°12'47	desc. node	3429 Mar 09 16:00	22°♌44'42	
	3428 Apr 12 02:49	0°♌			3429 Mar 16 00:33	0°♌	
	3428 Apr 29 19:29	0°♌			3429 Apr 05 09:23	0°♌	
morning set	3428 May 01 10:12	3°♌05'59		morning set	3429 Apr 14 11:36	16°♌03'45	
max. Earth dist.	3428 May 06 02:04	12°♌23'43	1.33754 AU	max. Earth dist.	3429 Apr 18 12:05	23°♌43'00	1.35206 AU
					3429 Apr 21 16:21	0°♌	
superior conj	3428 May 09 16:57	19°♌55'13	0°-27'-38				
minimum elong	3428 May 09 18:22	20°♌02'43	0°27'21	superior conj	3429 Apr 23 13:29	3°♌48'14	0°-56'-25
asc. node	3428 May 12 09:08	25°♌35'32		minimum elong	3429 Apr 23 16:27	4°♌03'23	0°55'53
	3428 May 14 10:47	0°♌		asc. node	3429 Apr 29 06:10	15°♌34'11	
evening rise	3428 May 17 01:11	5°♌29'55		evening rise	3429 May 01 09:07	19°♌57'35	
	3428 May 30 09:45	0°♌			3429 May 06 09:55	0°♌	
evening max el	3428 Jun 06 16:54	8°♌57'30	21°54'59	evening max el	3429 May 19 19:29	19°♌54'48	20°31'01
desc. node	3428 Jun 18 18:12	15°♌11'10		retrograde	3429 May 30 21:11	25°♌18'46	
retrograde	3428 Jun 19 07:56	15°♌11'56		evening set	3429 Jun 01 22:08	25°♌08'31	
evening set	3428 Jun 22 01:06	14°♌55'26		desc. node	3429 Jun 05 15:13	24°♌02'31	
inferior conj	3428 Jul 01 09:02	10°♌51'57	-3°-28'-50	inferior conj	3429 Jun 11 03:03	21°♌10'54	-1°-36'-50
minimum elong	3428 Jul 01 00:44	11°♌03'34	3°26'28	minimum elong	3429 Jun 10 22:29	21°♌17'31	1°35'11
min. Earth dist.	3428 Jun 30 21:06	11°♌08'38	0.54962 AU	min. Earth dist.	3429 Jun 12 09:20	20°♌27'03	0.54982 AU
morning rise	3428 Jul 10 01:54	7°♌00'26		morning rise	3429 Jun 19 21:21	17°♌01'41	
direct	3428 Jul 13 06:46	6°♌37'50		direct	3429 Jun 23 16:36	16°♌30'31	
morning max el	3428 Jul 25 07:07	12°♌15'20	21°40'50	morning max el	3429 Jul 07 01:12	22°♌58'30	23°21'14
	3428 Aug 07 05:24	0°♌			3429 Jul 13 07:01	0°♌	
asc. node	3428 Aug 08 08:21	2°♌01'59		asc. node	3429 Jul 26 05:25	21°♌24'35	
morning set	3428 Aug 14 22:10	15°♌02'08		morning set	3429 Jul 30 09:27	29°♌55'51	
					3429 Jul 30 10:15	0°♌	
superior conj	3428 Aug 22 05:33	0°♌25'05	1°42'31				
minimum elong	3428 Aug 22 04:31	0°♌19'39	1°42'28	superior conj	3429 Aug 06 11:25	15°♌07'50	1°34'12
	3428 Aug 22 00:46	0°♌		minimum elong	3429 Aug 06 09:29	14°♌57'25	1°34'01
max. Earth dist.	3428 Aug 26 02:39	8°♌23'56	1.34893 AU	max. Earth dist.	3429 Aug 09 00:11	20°♌31'26	1.33577 AU
evening rise	3428 Aug 30 12:57	17°♌07'01			3429 Aug 13 14:34	0°♌	

evening rise	3429 Aug 14 02:47	1° \mathbb{M} 01'04		superior conj	3430 Jul 21 21:07	0° Ω 00'32	1°20'40
	3429 Aug 30 13:32	0° $\underline{\mathbf{A}}$		minimum elong	3430 Jul 21 18:47	29° \mathfrak{S} 47'45	1°20'20
desc. node	3429 Sep 01 14:33	3° $\underline{\mathbf{A}}$ 04'35			3430 Jul 21 21:01	0° Ω	
evening max el	3429 Sep 17 05:09	22° $\underline{\mathbf{A}}$ 23'02	27°20'44	max. Earth dist.	3430 Jul 23 05:37	2° Ω 57'43	1.32674 AU
retrograde	3429 Sep 30 17:22	29° $\underline{\mathbf{A}}$ 41'30		evening rise	3430 Jul 29 01:57	15° Ω 21'46	
evening set	3429 Oct 07 18:22	27° $\underline{\mathbf{A}}$ 00'50			3430 Aug 05 15:02	0° \mathbb{M}	
min. Earth dist.	3429 Oct 11 12:46	23° $\underline{\mathbf{A}}$ 33'12	0.64393 AU	desc. node	3430 Aug 19 11:34	22° \mathbb{M} 12'56	
inferior conj	3429 Oct 13 21:27	21° $\underline{\mathbf{A}}$ 01'59	-2°-41'-51		3430 Aug 25 14:08	0° $\underline{\mathbf{A}}$	
minimum elong	3429 Oct 14 01:56	20° $\underline{\mathbf{A}}$ 50'02	2°40'14	evening max el	3430 Aug 30 14:42	5° $\underline{\mathbf{A}}$ 18'53	27°23'59
morning rise	3429 Oct 20 11:40	15° $\underline{\mathbf{A}}$ 34'38		retrograde	3430 Sep 13 09:10	12° $\underline{\mathbf{A}}$ 34'50	
asc. node	3429 Oct 22 04:35	15° $\underline{\mathbf{A}}$ 05'43		evening set	3430 Sep 20 13:47	10° $\underline{\mathbf{A}}$ 04'47	
direct	3429 Oct 22 23:56	15° $\underline{\mathbf{A}}$ 02'21		min. Earth dist.	3430 Sep 24 04:29	7° $\underline{\mathbf{A}}$ 07'13	0.62660 AU
morning max el	3429 Oct 29 12:03	18° $\underline{\mathbf{A}}$ 28'32	17°56'38	inferior conj	3430 Sep 27 00:53	4° $\underline{\mathbf{A}}$ 23'55	-3°-39'-54
	3429 Nov 06 23:11	0° \mathbb{M}		minimum elong	3430 Sep 27 06:32	4° $\underline{\mathbf{A}}$ 10'25	3°38'15
morning set	3429 Nov 15 16:22	14° \mathbb{M} 33'11			3430 Oct 02 10:55	30° \mathbb{R} \mathbb{M}	
	3429 Nov 24 22:12	0° \mathfrak{X}		morning rise	3430 Oct 04 02:02	29° \mathbb{M} 14'46	
desc. node	3429 Nov 28 13:49	5° \mathfrak{X} 56'45		direct	3430 Oct 06 10:33	28° \mathbb{M} 49'29	
				asc. node	3430 Oct 09 01:38	29° \mathbb{M} 21'50	
superior conj	3429 Nov 29 00:51	6° \mathfrak{X} 41'15	0°-3'-9		3430 Oct 10 07:53	0° $\underline{\mathbf{A}}$	
minimum elong	3429 Nov 29 00:28	6° \mathfrak{X} 39'44	0°03'07	morning max el	3430 Oct 13 04:15	2° $\underline{\mathbf{A}}$ 16'30	17°50'51
behind sun begin	3429 Nov 28 14:21	5° \mathfrak{X} 58'53		morning set	3430 Oct 29 05:33	27° $\underline{\mathbf{A}}$ 13'58	
behind sun end	3429 Nov 29 10:35	7° \mathfrak{X} 20'31			3430 Oct 30 18:56	0° \mathbb{M}	
max. Earth dist.	3429 Dec 03 21:54	14° \mathfrak{X} 28'49	1.44696 AU				
	3429 Dec 13 20:25	0° \mathfrak{Z}		superior conj	3430 Nov 09 15:53	17° \mathbb{M} 08'15	0°39'26
evening rise	3429 Dec 15 06:25	2° \mathfrak{Z} 10'59		minimum elong	3430 Nov 09 19:25	17° \mathbb{M} 23'11	0°38'56
	3430 Jan 02 20:47	0° \approx		desc. node	3430 Nov 15 10:51	26° \mathbb{M} 44'00	
greatest brilliancy	3430 Jan 04 16:56	2° \approx 32'15	-0.6m	max. Earth dist.	3430 Nov 16 13:28	28° \mathbb{M} 31'58	1.43511 AU
evening max el	3430 Jan 11 04:22	10° \approx 25'25	20°12'19		3430 Nov 17 11:17	0° \mathfrak{X}	
asc. node	3430 Jan 18 03:50	14° \approx 56'19		evening rise	3430 Nov 24 16:11	11° \mathfrak{X} 22'29	
retrograde	3430 Jan 18 23:46	15° \approx 00'06			3430 Dec 07 00:12	0° \mathfrak{Z}	
evening set	3430 Jan 22 16:57	13° \approx 39'48		greatest brilliancy	3430 Dec 20 02:12	18° \mathfrak{Z} 10'02	-0.4m
inferior conj	3430 Jan 28 03:48	7° \approx 32'58	2°53'47	evening max el	3430 Dec 25 02:54	23° \mathfrak{Z} 57'52	21°21'02
minimum elong	3430 Jan 28 01:19	7° \approx 41'20	2°53'11	retrograde	3431 Jan 02 21:23	29° \mathfrak{Z} 10'13	
min. Earth dist.	3430 Jan 28 22:51	6° \approx 28'35	0.67200 AU	asc. node	3431 Jan 05 00:52	28° \mathfrak{Z} 45'03	
morning rise	3430 Feb 02 09:08	1° \approx 17'12		evening set	3431 Jan 07 00:38	27° \mathfrak{Z} 34'41	
	3430 Feb 04 01:13	30° \mathbb{R} \mathfrak{Z}		inferior conj	3431 Jan 12 10:10	21° \mathfrak{Z} 17'30	2°18'08
direct	3430 Feb 08 02:55	28° \mathfrak{Z} 44'26		minimum elong	3431 Jan 12 07:42	21° \mathfrak{Z} 26'00	2°17'21
	3430 Feb 12 14:35	0° \approx		min. Earth dist.	3431 Jan 12 16:51	20° \mathfrak{Z} 54'23	0.67767 AU
morning max el	3430 Feb 19 17:36	5° \approx 40'54	24°50'32	morning rise	3431 Jan 17 14:26	15° \mathfrak{Z} 02'46	
desc. node	3430 Feb 24 13:02	11° \approx 00'45		direct	3431 Jan 22 17:26	12° \mathfrak{Z} 50'02	
	3430 Mar 10 12:53	0° \mathfrak{H}		morning max el	3431 Feb 02 02:20	19° \mathfrak{Z} 00'09	23°22'05
morning set	3430 Mar 27 19:01	28° \mathfrak{H} 05'05		greatest brilliancy	3431 Feb 07 13:51	25° \mathfrak{Z} 10'45	-0.2m
	3430 Mar 28 20:48	0° \mathbb{Y}		desc. node	3431 Feb 11 10:03	0° \approx 04'39	
max. Earth dist.	3430 Mar 31 11:16	4° \mathbb{Y} 43'39	1.37080 AU		3431 Feb 11 08:38	0° \approx	
					3431 Mar 03 16:38	0° \mathfrak{H}	
superior conj	3430 Apr 06 23:51	17° \mathbb{Y} 06'53	-1°-23'-57	morning set	3431 Mar 09 02:23	8° \mathfrak{H} 53'52	
minimum elong	3430 Apr 07 04:06	17° \mathbb{Y} 27'38	1°23'21	max. Earth dist.	3431 Mar 13 06:04	16° \mathfrak{H} 00'53	1.39222 AU
	3430 Apr 13 11:10	0° \mathfrak{B}					
evening rise	3430 Apr 15 11:44	4° \mathfrak{B} 03'46		superior conj	3431 Mar 20 20:14	29° \mathfrak{H} 41'50	-1°-47'-31
asc. node	3430 Apr 16 03:11	5° \mathfrak{B} 20'53		minimum elong	3431 Mar 21 00:47	0° \mathbb{Y} 03'01	1°47'06
	3430 Apr 30 22:52	0° \mathbb{I}			3431 Mar 21 00:08	0° \mathbb{Y}	
evening max el	3430 May 02 10:15	1° \mathbb{I} 32'25	19°25'06	evening rise	3431 Mar 30 06:16	17° \mathbb{Y} 41'30	
retrograde	3430 May 11 18:27	6° \mathbb{I} 04'28		asc. node	3431 Apr 03 00:11	24° \mathbb{Y} 50'59	
evening set	3430 May 13 18:25	5° \mathbb{I} 52'56			3431 Apr 05 19:42	0° \mathfrak{B}	
inferior conj	3430 May 22 07:57	1° \mathbb{I} 46'27	0°20'36	evening max el	3431 Apr 15 11:21	13° \mathfrak{B} 48'33	18°39'11
minimum elong	3430 May 22 08:49	1° \mathbb{I} 45'02	0°20'17	retrograde	3431 Apr 23 09:12	17° \mathfrak{B} 41'10	
desc. node	3430 May 23 12:14	1° \mathbb{I} 00'20		evening set	3431 Apr 25 14:36	17° \mathfrak{B} 23'51	
min. Earth dist.	3430 May 24 23:47	0° \mathbb{I} 03'10	0.55951 AU	inferior conj	3431 May 03 08:41	12° \mathfrak{B} 58'54	1°55'02
	3430 May 25 01:49	30° \mathbb{R} \mathfrak{B}		minimum elong	3431 May 03 12:17	12° \mathfrak{B} 52'03	1°53'57
morning rise	3430 May 30 19:18	27° \mathfrak{B} 04'35		min. Earth dist.	3431 May 06 17:16	10° \mathfrak{B} 27'24	0.57660 AU
direct	3430 Jun 04 12:34	26° \mathfrak{B} 13'56		desc. node	3431 May 10 09:15	8° \mathfrak{B} 08'08	
	3430 Jun 14 14:38	0° \mathbb{I}		morning rise	3431 May 11 05:33	7° \mathfrak{B} 42'58	
morning max el	3430 Jun 18 15:17	3° \mathbb{I} 22'49	25°02'51	direct	3431 May 16 22:40	6° \mathfrak{B} 21'40	
	3430 Jul 07 10:22	0° \mathfrak{S}		morning max el	3431 May 31 07:23	13° \mathfrak{B} 56'28	26°30'04
asc. node	3430 Jul 13 02:27	11° \mathfrak{S} 06'42			3431 Jun 13 01:42	0° \mathbb{I}	
morning set	3430 Jul 14 21:13	14° \mathfrak{S} 50'08		morning set	3431 Jun 29 07:53	29° \mathbb{I} 39'52	
					3431 Jun 29 11:42	0° \mathfrak{S}	

asc. node	3431 Jun 29 23:29	1°♄02'25			3432 May 16 18:30	0°♄		
					3432 Jun 05 09:14	0°♄		
superior conj	3431 Jul 06 08:40	14°♄56'34	1°02'41	morning set	3432 Jun 12 15:44	14°♄19'49		
minimum elong	3431 Jul 06 06:25	14°♄44'12	1°02'17	asc. node	3432 Jun 15 20:32	21°♄06'56		
max. Earth dist.	3431 Jul 06 16:10	15°♄37'57	1.32179 AU	max. Earth dist.	3432 Jun 19 04:10	28°♄21'16	1.32081 AU	
evening rise	3431 Jul 13 07:33	0°♄00'03						
	3431 Jul 13 07:33	0°♄		superior conj	3432 Jun 19 20:20	29°♄50'15	0°40'57	
	3431 Jul 29 18:41	0°♄		minimum elong	3432 Jun 19 18:38	29°♄40'53	0°40'36	
desc. node	3431 Aug 06 08:35	10°♄30'30			3432 Jun 19 22:07	0°♄		
evening max el	3431 Aug 12 19:22	17°♄35'17	26°54'13	evening rise	3432 Jun 26 17:12	14°♄48'17		
retrograde	3431 Aug 26 17:17	24°♄46'54			3432 Jul 04 07:43	0°♄		
evening set	3431 Sep 02 16:29	22°♄40'13		desc. node	3432 Jul 23 05:36	27°♄36'36		
min. Earth dist.	3431 Sep 06 09:33	20°♄01'51	0.60682 AU	evening max el	3432 Jul 24 16:48	29°♄03'53	25°52'12	
inferior conj	3431 Sep 09 14:31	17°♄20'33	-4°-29'-44		3432 Jul 25 17:04	0°♄		
minimum elong	3431 Sep 09 19:57	17°♄09'07	4°28'41	retrograde	3432 Aug 07 16:14	6°♄11'52		
morning rise	3431 Sep 17 02:36	12°♄32'47		evening set	3432 Aug 13 21:40	4°♄39'31		
direct	3431 Sep 19 10:35	12°♄11'31		min. Earth dist.	3432 Aug 18 05:04	2°♄03'32	0.58619 AU	
asc. node	3431 Sep 25 22:42	15°♄04'28		inferior conj	3432 Aug 21 10:49	29°♄42'14	-5°-1'-57	
morning max el	3431 Sep 26 17:23	15°♄47'36	18°04'01	minimum elong	3432 Aug 21 13:33	29°♄37'15	5°01'47	
	3431 Oct 06 14:46	0°♄			3432 Aug 21 01:09	30°♄		
morning set	3431 Oct 12 11:26	10°♄42'23		morning rise	3432 Aug 29 08:56	25°♄18'02		
				direct	3432 Aug 31 19:35	24°♄58'35		
superior conj	3431 Oct 22 09:13	28°♄52'04	1°11'20	morning max el	3432 Sep 09 00:15	28°♄53'23	18°37'30	
minimum elong	3431 Oct 22 13:26	29°♄10'48	1°10'51		3432 Sep 10 02:35	0°♄		
	3431 Oct 23 00:32	0°♄		asc. node	3432 Sep 11 19:45	1°♄59'19		
max. Earth dist.	3431 Oct 30 00:34	12°♄02'59	1.41806 AU	morning set	3432 Sep 25 05:05	24°♄44'46		
desc. node	3431 Nov 02 07:52	17°♄30'26			3432 Sep 27 21:59	0°♄		
evening rise	3431 Nov 04 14:24	21°♄10'50						
	3431 Nov 10 05:05	0°♄		superior conj	3432 Oct 04 00:18	11°♄40'15	1°31'56	
	3431 Dec 01 07:07	0°♄		minimum elong	3432 Oct 04 03:20	11°♄54'30	1°31'41	
greatest brilliancy	3431 Dec 02 22:49	2°♄02'41	-0.3m	max. Earth dist.	3432 Oct 11 06:52	24°♄51'55	1.39790 AU	
evening max el	3431 Dec 07 20:21	7°♄31'58	22°38'06		3432 Oct 14 06:15	0°♄		
retrograde	3431 Dec 17 16:58	13°♄23'18		evening rise	3432 Oct 15 10:42	2°♄00'19		
evening set	3431 Dec 22 08:05	11°♄31'23		desc. node	3432 Oct 19 04:55	8°♄12'55		
asc. node	3431 Dec 22 21:55	11°♄01'20			3432 Nov 02 12:40	0°♄		
inferior conj	3431 Dec 27 17:51	5°♄07'21	1°35'04	evening max el	3432 Nov 19 10:10	21°♄09'14	23°57'58	
minimum elong	3431 Dec 27 15:53	5°♄14'11	1°34'20	retrograde	3432 Nov 30 09:20	27°♄36'20		
min. Earth dist.	3431 Dec 27 13:12	5°♄23'26	0.67961 AU	evening set	3432 Dec 05 13:44	25°♄27'48		
	3431 Dec 31 19:42	30°♄		asc. node	3432 Dec 08 18:58	22°♄00'36		
morning rise	3432 Jan 01 23:35	28°♄55'35		min. Earth dist.	3432 Dec 10 09:40	19°♄53'11	0.67801 AU	
direct	3432 Jan 06 11:43	27°♄05'45		inferior conj	3432 Dec 11 01:05	19°♄00'53	0°45'50	
	3432 Jan 12 22:28	0°♄		minimum elong	3432 Dec 11 00:01	19°♄04'30	0°45'23	
morning max el	3432 Jan 15 14:40	2°♄26'34	21°55'02	morning rise	3432 Dec 16 10:34	12°♄54'02		
greatest brilliancy	3432 Jan 20 07:29	7°♄43'41	-0.4m	direct	3432 Dec 20 08:44	11°♄26'51		
desc. node	3432 Jan 29 07:05	19°♄42'28		morning max el	3432 Dec 28 09:52	16°♄04'19	20°36'34	
	3432 Feb 05 08:45	0°♄		greatest brilliancy	3433 Jan 03 09:44	23°♄05'54	-0.5m	
morning set	3432 Feb 17 04:56	18°♄19'12			3433 Jan 08 11:13	0°♄		
max. Earth dist.	3432 Feb 23 04:34	28°♄06'38	1.41362 AU	desc. node	3433 Jan 15 04:08	9°♄45'04		
	3432 Feb 24 07:37	0°♄		morning set	3433 Jan 26 06:53	26°♄39'10		
					3433 Jan 28 10:24	0°♄		
superior conj	3432 Mar 01 21:41	11°♄20'40	-2°-3'-15	max. Earth dist.	3433 Feb 04 10:25	11°♄07'51	1.43210 AU	
minimum elong	3432 Mar 02 00:32	11°♄33'10	2°03'09					
	3432 Mar 12 04:08	0°♄		superior conj	3433 Feb 10 23:13	21°♄52'04	-2°-6'-6	
evening rise	3432 Mar 12 13:13	0°♄42'06		minimum elong	3433 Feb 10 21:28	21°♄44'46	2°06'04	
asc. node	3432 Mar 19 21:14	13°♄58'20			3433 Feb 15 18:23	0°♄		
evening max el	3432 Mar 28 19:31	26°♄34'35	18°13'27	evening rise	3433 Feb 23 04:29	12°♄56'43		
	3432 Apr 03 18:11	0°♄			3433 Mar 05 02:21	0°♄		
retrograde	3432 Apr 04 18:55	0°♄04'37		asc. node	3433 Mar 06 18:16	2°♄35'19		
	3432 Apr 05 19:53	30°♄		evening max el	3433 Mar 12 07:23	9°♄41'10	18°07'19	
evening set	3432 Apr 07 06:24	29°♄38'52		retrograde	3433 Mar 18 19:47	13°♄04'10		
inferior conj	3432 Apr 14 06:44	24°♄52'33	2°56'54	evening set	3433 Mar 21 12:49	12°♄28'28		
minimum elong	3432 Apr 14 10:05	24°♄45'08	2°56'12	inferior conj	3433 Mar 27 23:07	7°♄21'21	3°29'16	
min. Earth dist.	3432 Apr 17 16:00	21°♄54'00	0.59758 AU	minimum elong	3433 Mar 28 00:49	7°♄17'01	3°29'05	
morning rise	3432 Apr 21 10:05	19°♄10'10		min. Earth dist.	3433 Mar 30 22:45	4°♄20'24	0.61914 AU	
desc. node	3432 Apr 26 06:16	17°♄21'00		morning rise	3433 Apr 03 10:11	1°♄22'07		
direct	3432 Apr 27 21:21	17°♄13'40			3433 Apr 05 17:06	30°♄		
morning max el	3432 May 12 05:29	25°♄03'35	27°28'53	direct	3433 Apr 10 06:33	28°♄55'04		

desc. node	3433 Apr 13 03:19	29° Υ 18'41		minimum elong	3434 Mar 11 05:37	20° Υ 17'29	3°38'40
	3433 Apr 15 02:18	0° Υ		min. Earth dist.	3434 Mar 13 14:53	17° Υ 35'18	0.63879 AU
morning max el	3433 Apr 24 09:51	6° Υ 52'44	27°51'13	morning rise	3434 Mar 17 03:50	14° Υ 08'44	
	3433 May 11 23:02	0° Υ		direct	3434 Mar 24 00:23	11° Υ 23'04	
morning set	3433 May 27 18:45	28° Υ 42'27		desc. node	3434 Mar 31 00:20	13° Υ 44'14	
	3433 May 28 09:54	0° Π		morning max el	3434 Apr 06 18:21	19° Υ 19'52	27°36'22
max. Earth dist.	3433 Jun 02 13:29	10° Π 52'59	1.32384 AU		3434 Apr 15 20:09	0° Υ	
asc. node	3433 Jun 02 17:34	11° Π 15'02			3434 May 04 22:04	0° Υ	
				morning set	3434 May 11 14:28	12° Υ 40'07	
superior conj	3433 Jun 04 06:20	14° Π 34'50	0°16'04	max. Earth dist.	3434 May 16 16:03	23° Υ 00'14	1.33118 AU
minimum elong	3433 Jun 04 05:36	14° Π 30'47	0°15'54				
evening rise	3433 Jun 11 04:46	29° Π 38'34		superior conj	3434 May 19 12:51	29° Υ 04'39	0°-11'-13
	3433 Jun 11 08:48	0° Υ		minimum elong	3434 May 19 13:25	29° Υ 07'39	0°11'07
	3433 Jun 28 01:37	0° Ω		behind sun begin	3434 May 19 09:32	28° Υ 46'54	
evening max el	3433 Jul 06 07:28	9° Ω 48'34	24°25'47	behind sun end	3434 May 19 17:18	29° Υ 28'25	
desc. node	3433 Jul 10 02:37	13° Ω 01'46			3434 May 19 23:11	0° Π	
retrograde	3433 Jul 20 04:23	16° Ω 48'59		asc. node	3434 May 20 14:37	1° Π 22'46	
evening set	3433 Jul 25 02:42	15° Ω 54'36		evening rise	3434 May 26 16:25	14° Π 24'47	
min. Earth dist.	3433 Jul 30 18:23	13° Ω 02'06	0.56736 AU		3434 Jun 03 12:56	0° Υ	
inferior conj	3433 Aug 02 11:04	11° Ω 19'28	-5°-2'-46	evening max el	3434 Jun 17 21:05	20° Υ 14'07	22°49'13
minimum elong	3433 Aug 02 08:22	11° Ω 23'46	5°02'36	desc. node	3434 Jun 26 23:36	26° Υ 11'06	
morning rise	3433 Aug 10 17:41	7° Ω 16'46		retrograde	3434 Jul 01 04:06	26° Υ 51'14	
direct	3433 Aug 13 09:31	6° Ω 57'38		evening set	3434 Jul 04 13:58	26° Υ 25'43	
morning max el	3433 Aug 22 21:43	11° Ω 23'25	19°32'25	min. Earth dist.	3434 Jul 12 05:34	23° Υ 02'21	0.55380 AU
asc. node	3433 Aug 29 16:48	19° Ω 50'31		inferior conj	3434 Jul 13 16:20	22° Υ 12'21	-4°-17'-34
	3433 Sep 04 14:17	0° Υ		minimum elong	3434 Jul 13 08:38	22° Υ 23'28	4°15'56
morning set	3433 Sep 09 06:46	9° Υ 09'57		morning rise	3434 Jul 22 05:59	18° Υ 21'07	
				direct	3434 Jul 25 05:01	18° Υ 00'40	
superior conj	3433 Sep 17 07:29	25° Υ 15'55	1°42'27	morning max el	3434 Aug 05 07:37	23° Υ 10'08	20°48'31
minimum elong	3433 Sep 17 08:47	25° Υ 22'19	1°42'24		3434 Aug 11 05:06	0° Ω	
	3433 Sep 19 17:52	0° Ω		asc. node	3434 Aug 16 13:51	8° Ω 25'17	
max. Earth dist.	3433 Sep 23 11:00	7° Ω 00'42	1.37716 AU	morning set	3434 Aug 24 13:47	23° Ω 50'45	
evening rise	3433 Sep 27 06:14	13° Ω 53'53			3434 Aug 27 12:59	0° Υ	
desc. node	3433 Oct 06 01:58	28° Ω 46'47					
	3433 Oct 06 20:18	0° Υ		superior conj	3434 Sep 01 02:07	9° Υ 25'34	1°44'33
	3433 Oct 28 10:04	0° Υ		minimum elong	3434 Sep 01 01:50	9° Υ 24'02	1°44'32
evening max el	3433 Nov 01 22:26	4° Υ 49'53	25°14'10	max. Earth dist.	3434 Sep 05 18:56	18° Υ 51'40	1.35832 AU
retrograde	3433 Nov 13 21:34	11° Υ 44'40		evening rise	3434 Sep 09 21:40	26° Υ 43'42	
evening set	3433 Nov 19 15:58	9° Υ 20'56			3434 Sep 11 16:15	0° Ω	
min. Earth dist.	3433 Nov 24 03:54	4° Υ 20'53	0.67291 AU	desc. node	3434 Sep 22 22:59	19° Ω 06'50	
inferior conj	3433 Nov 25 06:07	2° Υ 55'35	0°-8'-28		3434 Sep 30 05:54	0° Υ	
minimum elong	3433 Nov 25 06:20	2° Υ 54'54	0°08'24	evening max el	3434 Oct 15 10:47	18° Υ 30'49	26°19'13
transit middle	3433 Nov 25 06:20	2° Υ 54'54	0°08'24	retrograde	3434 Oct 28 04:48	25° Υ 42'00	
transit begin	3433 Nov 25 03:57	3° Υ 02'39		evening set	3434 Nov 03 12:52	23° Υ 06'37	
transit end	3433 Nov 25 08:42	2° Υ 47'09		min. Earth dist.	3434 Nov 07 17:33	18° Υ 42'23	0.66438 AU
asc. node	3433 Nov 25 16:00	2° Υ 23'29		inferior conj	3434 Nov 09 07:00	16° Υ 47'46	-1°-6'-40
	3433 Nov 27 14:18	30° Υ		minimum elong	3434 Nov 09 08:48	16° Υ 42'16	1°05'55
morning rise	3433 Nov 30 21:23	26° Υ 55'59		asc. node	3434 Nov 12 13:03	13° Υ 05'47	
direct	3433 Dec 04 07:14	25° Υ 48'54		morning rise	3434 Nov 15 05:55	10° Υ 58'03	
morning max el	3433 Dec 11 13:00	29° Υ 53'25	19°31'14	direct	3434 Nov 18 05:33	10° Υ 07'28	
	3433 Dec 11 15:37	0° Υ		morning max el	3434 Nov 24 22:58	13° Υ 49'39	18°41'20
greatest brilliancy	3433 Dec 20 01:14	10° Υ 35'22	-0.6m		3434 Dec 06 19:45	0° Υ	
	3434 Jan 01 23:42	0° Υ		morning set	3434 Dec 15 21:15	14° Υ 15'40	
desc. node	3434 Jan 02 01:12	0° Υ 05'46		desc. node	3434 Dec 19 22:15	20° Υ 38'51	
morning set	3434 Jan 05 04:18	4° Υ 55'27			3434 Dec 25 20:50	0° Υ	
max. Earth dist.	3434 Jan 17 23:07	24° Υ 53'52	1.44532 AU	max. Earth dist.	3434 Dec 31 16:32	9° Υ 08'12	1.45182 AU
	3434 Jan 21 04:06	0° Υ					
				superior conj	3435 Jan 01 03:46	9° Υ 52'15	-1°-16'-59
superior conj	3434 Jan 21 22:53	1° Υ 15'07	-1°-51'-4	minimum elong	3434 Dec 31 18:59	9° Υ 17'46	1°16'00
minimum elong	3434 Jan 21 15:25	0° Υ 45'11	1°50'33		3435 Jan 13 21:31	0° Υ	
evening rise	3434 Feb 04 23:46	24° Υ 17'48		evening rise	3435 Jan 16 19:55	4° Υ 41'15	
	3434 Feb 08 09:15	0° Υ			3435 Feb 02 01:10	0° Υ	
asc. node	3434 Feb 21 15:18	20° Υ 32'48		evening max el	3435 Feb 07 06:51	6° Υ 28'29	18°50'53
evening max el	3434 Feb 23 20:01	23° Υ 01'12	18°20'05	asc. node	3435 Feb 08 12:20	7° Υ 38'44	
retrograde	3434 Mar 02 07:04	26° Υ 30'27		retrograde	3435 Feb 14 00:49	10° Υ 15'26	
evening set	3434 Mar 05 05:40	25° Υ 43'39		evening set	3435 Feb 17 05:40	9° Υ 16'30	
inferior conj	3434 Mar 11 05:42	20° Υ 17'16	3°38'40	inferior conj	3435 Feb 22 22:37	3° Υ 32'33	3°30'57

minimum elong	3435 Feb 22 21:10	3° H 37'02	3°30'48	asc. node	3436 Jan 26 09:21	23° \approx 39'29	
min. Earth dist.	3435 Feb 24 16:11	1° H 23'57	0.65500 AU	retrograde	3436 Jan 28 21:57	24° \approx 13'55	
	3435 Feb 25 20:31	30° R \approx		evening set	3436 Feb 01 10:17	23° \approx 01'37	
morning rise	3435 Feb 28 11:34	27° \approx 19'21		inferior conj	3436 Feb 06 22:44	17° \approx 02'20	3°10'21
direct	3435 Mar 07 01:12	24° \approx 29'28		minimum elong	3436 Feb 06 20:29	17° \approx 09'47	3°09'54
desc. node	3435 Mar 17 21:23	0° H 02'41		min. Earth dist.	3436 Feb 08 01:31	15° \approx 34'06	0.66708 AU
	3435 Mar 17 20:12	0° H		morning rise	3436 Feb 12 05:59	10° \approx 47'07	
morning max el	3435 Mar 20 04:07	2° H 13'22	26°49'15	direct	3436 Feb 18 07:49	8° \approx 05'35	
	3435 Apr 10 00:53	0° Y		morning max el	3436 Mar 01 13:19	15° \approx 22'36	25°38'15
morning set	3435 Apr 24 23:39	26° Y 02'27		desc. node	3436 Mar 03 18:27	17° \approx 43'03	
	3435 Apr 27 00:51	0° B			3436 Mar 13 14:06	0° H	
max. Earth dist.	3435 Apr 29 08:19	4° B 34'32	1.34312 AU		3436 Apr 01 21:31	0° Y	
				morning set	3436 Apr 06 18:01	8° Y 37'30	
superior conj	3435 May 03 13:44	13° B 12'48	0°-39'-52	max. Earth dist.	3436 Apr 10 13:18	15° Y 42'39	1.35965 AU
minimum elong	3435 May 03 15:49	13° B 23'39	0°39'28				
asc. node	3435 May 07 11:39	21° B 25'38		superior conj	3436 Apr 16 06:20	26° Y 52'11	-1°-8'-24
evening rise	3435 May 11 02:15	29° B 00'30		minimum elong	3436 Apr 16 09:55	27° Y 10'06	1°07'49
	3435 May 11 13:43	0° II			3436 Apr 17 19:38	0° B	
	3435 May 29 20:33	0° B		asc. node	3436 Apr 23 08:40	11° B 19'41	
evening max el	3435 May 30 17:24	0° B 52'32	21°17'26	evening rise	3436 Apr 24 08:13	13° B 19'43	
retrograde	3435 Jun 11 17:46	6° B 46'08			3436 May 03 02:35	0° II	
desc. node	3435 Jun 13 20:35	6° B 35'47		evening max el	3436 May 12 01:09	12° II 06'02	20°00'31
evening set	3435 Jun 14 01:46	6° B 33'36		retrograde	3436 May 22 08:33	17° II 06'49	
inferior conj	3435 Jun 23 10:26	2° B 35'03	-2°-44'-19	evening set	3436 May 24 08:00	16° II 56'33	
minimum elong	3435 Jun 23 03:07	2° B 45'19	2°41'56	desc. node	3436 May 30 17:37	14° II 27'00	
min. Earth dist.	3435 Jun 23 16:57	2° B 25'56	0.54849 AU	inferior conj	3436 Jun 02 07:21	12° II 56'41	0°-45'-33
	3435 Jun 28 08:31	30° R II		minimum elong	3436 Jun 02 05:15	12° II 59'53	0°44'46
morning rise	3435 Jul 02 04:41	28° II 38'13		min. Earth dist.	3436 Jun 04 05:39	11° II 47'05	0.55287 AU
direct	3435 Jul 05 14:56	28° II 12'47		morning rise	3436 Jun 10 23:51	8° II 35'09	
	3435 Jul 12 11:36	0° B		direct	3436 Jun 15 03:58	7° II 57'10	
morning max el	3435 Jul 18 06:17	4° B 12'39	22°22'27	morning max el	3436 Jun 28 21:40	14° II 43'31	24°05'22
asc. node	3435 Aug 03 10:54	27° B 33'06			3436 Jul 10 21:29	0° B	
	3435 Aug 04 17:22	0° Q		asc. node	3436 Jul 20 07:56	17° B 04'47	
morning set	3435 Aug 09 00:03	8° Q 41'37		morning set	3436 Jul 23 11:45	23° B 36'19	
					3436 Jul 26 11:26	0° Q	
superior conj	3435 Aug 16 04:42	23° Q 58'54	1°39'41	superior conj	3436 Jul 30 12:26	8° Q 46'32	1°29'02
minimum elong	3435 Aug 16 03:13	23° Q 51'03	1°39'35	minimum elong	3436 Jul 30 10:15	8° Q 34'47	1°28'48
	3435 Aug 19 01:39	0° H		max. Earth dist.	3436 Aug 01 12:49	13° Q 07'15	1.33141 AU
max. Earth dist.	3435 Aug 19 11:23	0° H 50'18	1.34286 AU	evening rise	3436 Aug 06 22:44	24° Q 24'41	
evening rise	3435 Aug 24 04:33	10° H 18'07			3436 Aug 09 18:28	0° H	
	3435 Sep 04 02:28	0° Q		desc. node	3436 Aug 26 16:57	28° H 37'30	
desc. node	3435 Sep 09 19:58	9° Q 06'50			3436 Aug 27 16:05	0° Q	
	3435 Sep 25 21:34	0° M		evening max el	3436 Sep 09 10:41	15° Q 18'07	27°26'00
evening max el	3435 Sep 27 23:23	2° M 04'38	27°05'29	retrograde	3436 Sep 23 01:37	22° Q 35'02	
retrograde	3435 Oct 11 06:19	9° M 21'50		evening set	3436 Sep 30 05:11	19° Q 57'28	
evening set	3435 Oct 18 02:14	6° M 40'51		min. Earth dist.	3436 Oct 03 21:38	16° Q 43'40	0.63699 AU
min. Earth dist.	3435 Oct 22 00:12	2° M 52'57	0.65241 AU	inferior conj	3436 Oct 06 11:28	14° Q 06'08	-3°-7'-1
inferior conj	3435 Oct 24 01:38	0° M 33'31	-2°-7'-1	minimum elong	3436 Oct 06 16:32	13° Q 53'11	3°05'19
minimum elong	3435 Oct 24 05:10	0° M 23'33	2°05'38	morning rise	3436 Oct 13 06:15	8° Q 46'03	
	3435 Oct 24 13:33	30° R Q		direct	3436 Oct 15 16:42	8° Q 16'59	
morning rise	3435 Oct 30 09:52	24° Q 56'50		asc. node	3436 Oct 16 07:09	8° Q 18'48	
asc. node	3435 Oct 30 10:06	24° Q 56'34		morning max el	3436 Oct 22 06:07	11° Q 42'12	17°51'57
direct	3435 Nov 02 01:38	24° Q 18'49			3436 Nov 03 16:38	0° M	
morning max el	3435 Nov 08 13:36	27° Q 48'12	18°08'00	morning set	3436 Nov 07 20:26	7° M 10'20	
	3435 Nov 10 13:18	0° M					
morning set	3435 Nov 26 19:37	25° M 04'45		superior conj	3436 Nov 20 08:16	28° M 17'59	0°16'02
	3435 Nov 29 19:29	0° J		minimum elong	3436 Nov 20 09:59	28° M 25'01	0°15'47
desc. node	3435 Dec 06 19:17	11° J 20'27		behind sun begin	3436 Nov 20 07:57	28° M 16'41	
				behind sun end	3436 Nov 20 12:01	28° M 33'22	
superior conj	3435 Dec 11 08:29	18° J 35'52	0°-30'-39		3436 Nov 21 09:12	0° J	
minimum elong	3435 Dec 11 04:37	18° J 20'30	0°30'09	desc. node	3436 Nov 22 16:17	2° J 06'28	
max. Earth dist.	3435 Dec 14 12:01	23° J 34'06	1.45091 AU	max. Earth dist.	3436 Nov 26 06:12	7° J 52'01	1.44275 AU
	3435 Dec 18 14:28	0° B		evening rise	3436 Dec 06 04:16	23° J 23'42	
evening rise	3435 Dec 27 18:22	14° B 15'15			3436 Dec 10 11:56	0° B	
	3436 Jan 06 23:30	0° \approx		greatest brilliancy	3436 Dec 28 21:42	26° B 41'59	-0.5m
greatest brilliancy	3436 Jan 13 18:28	10° \approx 05'23	-0.6m		3436 Dec 31 12:27	0° \approx	
evening max el	3436 Jan 21 13:50	19° \approx 59'19	19°38'18				

evening max el	3437 Jan 03 15:32	3° \approx 31'01	20°40'11		3437 Dec 03 23:27	0° \approx	
retrograde	3437 Jan 11 20:04	8° \approx 21'04		greatest brilliancy	3437 Dec 12 17:17	11° \approx 39'13	-0.4m
asc. node	3437 Jan 12 06:23	8° \approx 20'03		evening max el	3437 Dec 17 11:38	17° \approx 03'30	21°53'03
evening set	3437 Jan 15 17:24	6° \approx 54'13		retrograde	3437 Dec 26 17:08	22° \approx 33'08	
inferior conj	3437 Jan 21 03:28	0° \approx 42'25	2°39'39	asc. node	3437 Dec 30 03:26	21° \approx 29'31	
minimum elong	3437 Jan 21 00:56	0° \approx 51'03	2°38'56	evening set	3437 Dec 31 01:12	20° \approx 50'37	
min. Earth dist.	3437 Jan 21 17:00	29° \approx 56'06	0.67492 AU	inferior conj	3438 Jan 05 10:38	14° \approx 29'46	2°00'42
	3437 Jan 21 15:51	30° \approx 30'00		minimum elong	3438 Jan 05 08:20	14° \approx 37'46	1°59'54
morning rise	3437 Jan 26 08:02	24° \approx 27'02		min. Earth dist.	3438 Jan 05 12:21	14° \approx 23'50	0.67891 AU
direct	3437 Jan 31 19:33	22° \approx 02'32		morning rise	3438 Jan 10 15:14	8° \approx 15'56	
morning max el	3437 Feb 11 21:54	28° \approx 39'51	24°13'19	direct	3438 Jan 15 11:42	6° \approx 13'02	
	3437 Feb 13 04:45	0° \approx		morning max el	3438 Jan 25 07:53	12° \approx 02'28	22°44'22
desc. node	3437 Feb 18 15:30	6° \approx 21'38		greatest brilliancy	3438 Jan 29 22:48	17° \approx 11'43	-0.3m
	3437 Mar 07 08:29	0° \approx		desc. node	3438 Feb 05 12:32	25° \approx 41'29	
morning set	3437 Mar 19 16:01	20° \approx 10'20			3438 Feb 08 14:59	0° \approx	
max. Earth dist.	3437 Mar 23 10:13	26° \approx 48'36	1.37975 AU	morning set	3438 Feb 28 11:28	0° \approx 24'27	
	3437 Mar 25 04:27	0° \approx			3438 Feb 28 05:31	0° \approx	
				max. Earth dist.	3438 Mar 05 05:41	8° \approx 23'34	1.40145 AU
superior conj	3437 Mar 30 11:19	9° \approx 53'59	-1°-34'-38				
minimum elong	3437 Mar 30 15:52	10° \approx 15'47	1°34'05	superior conj	3438 Mar 13 00:15	22° \approx 06'21	-1°-55'-26
evening rise	3437 Apr 08 07:50	27° \approx 15'37		minimum elong	3438 Mar 13 04:23	22° \approx 12'51	1°55'09
	3437 Apr 09 17:17	0° \approx			3438 Mar 17 06:50	0° \approx	
asc. node	3437 Apr 10 05:41	1° \approx 00'33		evening rise	3438 Mar 22 21:56	10° \approx 38'52	
evening max el	3437 Apr 24 20:38	24° \approx 01'02	19°03'02	asc. node	3438 Mar 28 02:44	20° \approx 22'05	
retrograde	3437 May 03 13:04	28° \approx 14'51			3438 Apr 02 20:21	0° \approx	
evening set	3437 May 05 14:56	28° \approx 01'19		evening max el	3438 Apr 08 01:09	6° \approx 31'03	18°25'49
inferior conj	3437 May 13 20:11	23° \approx 47'17	1°04'29	retrograde	3438 Apr 15 12:13	10° \approx 12'19	
minimum elong	3437 May 13 22:39	23° \approx 43'01	1°03'38	evening set	3438 Apr 17 20:04	9° \approx 51'49	
min. Earth dist.	3437 May 16 21:06	21° \approx 41'41	0.56601 AU	inferior conj	3438 Apr 25 06:14	5° \approx 18'04	2°25'14
desc. node	3437 May 17 14:39	21° \approx 13'00		minimum elong	3438 Apr 25 10:00	5° \approx 10'24	2°24'14
morning rise	3437 May 22 02:04	18° \approx 50'21		min. Earth dist.	3438 Apr 28 16:50	2° \approx 31'48	0.58520 AU
direct	3437 May 27 05:27	17° \approx 48'08			3438 May 02 11:37	30° \approx 00'00	
morning max el	3437 Jun 10 12:12	25° \approx 09'32	25°42'49	morning rise	3438 May 02 19:40	29° \approx 49'17	
	3437 Jun 15 00:11	0° \approx		desc. node	3438 May 04 11:42	29° \approx 03'53	
	3437 Jul 03 19:46	0° \approx		direct	3438 May 08 21:20	28° \approx 12'55	
asc. node	3437 Jul 07 04:59	6° \approx 53'47			3438 May 15 11:52	0° \approx	
morning set	3437 Jul 07 23:16	8° \approx 29'56		morning max el	3438 May 23 06:47	5° \approx 56'10	26°59'11
					3438 Jun 10 02:39	0° \approx	
superior conj	3437 Jul 14 23:09	23° \approx 41'46	1°13'32	morning set	3438 Jun 22 08:57	23° \approx 16'13	
minimum elong	3437 Jul 14 20:48	23° \approx 28'50	1°13'11	asc. node	3438 Jun 24 02:01	26° \approx 15'53	
max. Earth dist.	3437 Jul 15 20:57	25° \approx 41'17	1.32411 AU		3438 Jun 25 12:34	0° \approx	
	3437 Jul 17 20:25	0° \approx					
evening rise	3437 Jul 22 00:58	8° \approx 53'59		superior conj	3438 Jun 29 10:59	8° \approx 37'34	0°53'53
	3437 Aug 02 03:24	0° \approx		minimum elong	3438 Jun 29 08:55	8° \approx 26'10	0°53'30
desc. node	3437 Aug 13 13:57	17° \approx 26'36		max. Earth dist.	3438 Jun 29 08:23	8° \approx 23'17	1.32084 AU
evening max el	3437 Aug 22 18:17	27° \approx 57'58	27°15'21	evening rise	3438 Jul 06 08:32	23° \approx 37'05	
	3437 Aug 25 01:12	0° \approx			3438 Jul 09 10:45	0° \approx	
retrograde	3437 Sep 05 14:14	5° \approx 12'20			3438 Jul 27 05:42	0° \approx	
evening set	3437 Sep 12 18:05	2° \approx 50'14		desc. node	3438 Jul 31 10:59	5° \approx 16'46	
	3437 Sep 16 09:55	30° \approx 00'00		evening max el	3438 Aug 04 19:50	9° \approx 53'36	26°31'27
min. Earth dist.	3437 Sep 16 08:35	0° \approx 02'56	0.61845 AU	retrograde	3438 Aug 18 19:03	17° \approx 04'40	
inferior conj	3437 Sep 19 09:25	27° \approx 18'15	-4°-2'-28	evening set	3438 Aug 25 12:13	15° \approx 11'24	
minimum elong	3437 Sep 19 15:12	27° \approx 05'07	4°01'01	min. Earth dist.	3438 Aug 29 09:23	12° \approx 36'18	0.59795 AU
morning rise	3437 Sep 26 15:19	22° \approx 18'11		inferior conj	3438 Sep 01 16:03	10° \approx 00'52	-4°-46'-20
direct	3437 Sep 28 23:14	21° \approx 54'56		minimum elong	3438 Sep 01 20:42	9° \approx 51'38	4°45'40
asc. node	3437 Oct 03 04:12	23° \approx 13'22		morning rise	3438 Sep 09 08:36	5° \approx 23'17	
morning max el	3437 Oct 05 21:27	25° \approx 24'25	17°54'07	direct	3438 Sep 11 17:10	5° \approx 03'09	
	3437 Oct 09 17:42	0° \approx		morning max el	3438 Sep 19 08:22	8° \approx 46'09	18°15'46
morning set	3437 Oct 21 17:23	20° \approx 13'15		asc. node	3438 Sep 20 01:15	9° \approx 28'31	
	3437 Oct 27 03:28	0° \approx			3438 Oct 03 02:29	0° \approx	
				morning set	3438 Oct 05 04:48	3° \approx 57'28	
superior conj	3437 Nov 01 10:54	9° \approx 19'15	0°54'22				
minimum elong	3437 Nov 01 15:04	9° \approx 37'09	0°53'49	superior conj	3438 Oct 14 14:12	21° \approx 32'39	1°21'24
max. Earth dist.	3437 Nov 08 19:59	21° \approx 43'09	1.42838 AU	minimum elong	3438 Oct 14 18:03	21° \approx 50'10	1°21'00
desc. node	3437 Nov 09 13:18	22° \approx 15'53			3438 Oct 19 07:58	0° \approx	
	3437 Nov 13 23:21	0° \approx		max. Earth dist.	3438 Oct 22 04:20	4° \approx 54'52	1.40965 AU
evening rise	3437 Nov 15 17:31	2° \approx 46'20		evening rise	3438 Oct 27 00:31	12° \approx 59'23	

desc. node	3438 Oct 27 10:20	13° \mathbb{M} 39'24		3439 Oct 11 16:09	0° \mathbb{M}	
	3438 Nov 06 21:22	0° \mathbb{X}		desc. node	3439 Oct 14 07:21	4° \mathbb{M} 18'49
	3438 Nov 29 11:52	0° \mathbb{Z}			3439 Oct 31 15:46	0° \mathbb{X}
evening max el	3438 Nov 30 03:17	0° \mathbb{Z} 39'17	23°12'08	evening max el	3439 Nov 12 16:21	14° \mathbb{X} 18'54 24°31'24
retrograde	3438 Dec 10 11:37	6° \mathbb{Z} 47'06		retrograde	3439 Nov 24 02:13	20° \mathbb{X} 58'39
evening set	3438 Dec 15 08:06	4° \mathbb{Z} 48'17		evening set	3439 Nov 29 12:29	18° \mathbb{X} 43'40
asc. node	3438 Dec 17 00:28	3° \mathbb{Z} 10'36		asc. node	3439 Dec 03 21:31	13° \mathbb{X} 48'13
	3438 Dec 19 13:51	30° \mathbb{R} \mathbb{X}		min. Earth dist.	3439 Dec 04 05:00	13° \mathbb{X} 23'28 0.67624 AU
inferior conj	3438 Dec 20 18:23	28° \mathbb{X} 22'21	1°14'55	inferior conj	3439 Dec 05 00:53	12° \mathbb{X} 17'02 0°23'21
minimum elong	3438 Dec 20 16:44	28° \mathbb{X} 28'00	1°14'16	minimum elong	3439 Dec 05 00:19	12° \mathbb{X} 18'56 0°23'08
min. Earth dist.	3438 Dec 20 09:09	28° \mathbb{X} 54'06	0.67930 AU	morning rise	3439 Dec 10 12:33	6° \mathbb{X} 12'47
morning rise	3438 Dec 26 01:25	22° \mathbb{X} 12'09		direct	3439 Dec 14 05:21	4° \mathbb{X} 54'19
direct	3438 Dec 30 07:25	20° \mathbb{X} 32'04		morning max el	3439 Dec 21 21:15	9° \mathbb{X} 16'17 20°07'00
morning max el	3439 Jan 07 22:48	25° \mathbb{X} 33'51	21°20'13	greatest brilliancy	3439 Dec 28 18:06	17° \mathbb{X} 32'19 -0.6m
	3439 Jan 11 22:16	0° \mathbb{Z}			3440 Jan 06 11:09	0° \mathbb{Z}
greatest brilliancy	3439 Jan 13 02:05	1° \mathbb{Z} 25'31	-0.4m	desc. node	3440 Jan 10 06:37	5° \mathbb{Z} 42'38
desc. node	3439 Jan 23 09:35	15° \mathbb{Z} 31'23		morning set	3440 Jan 17 22:59	17° \mathbb{Z} 26'47
	3439 Feb 02 02:35	0° \approx			3440 Jan 25 23:44	0° \approx
morning set	3439 Feb 08 02:11	9° \approx 17'51		max. Earth dist.	3440 Jan 28 15:40	4° \approx 14'25 1.43854 AU
max. Earth dist.	3439 Feb 15 06:37	20° \approx 51'42	1.42198 AU			
	3439 Feb 20 17:48	0° \mathbb{X}		superior conj	3440 Feb 03 06:35	13° \approx 20'27 -2°-2'-7
				minimum elong	3440 Feb 03 02:17	13° \approx 02'48 2°01'58
superior conj	3439 Feb 22 16:08	3° \mathbb{X} 18'16	-2°-6'-21		3440 Feb 13 05:01	0° \mathbb{X}
minimum elong	3439 Feb 22 17:22	3° \mathbb{X} 23'37	2°06'21	evening rise	3440 Feb 16 05:59	5° \mathbb{X} 13'49
evening rise	3439 Mar 05 22:46	23° \mathbb{X} 21'11		asc. node	3440 Feb 29 20:49	27° \mathbb{X} 39'33
	3439 Mar 09 14:57	0° \mathbb{Y}			3440 Mar 02 15:01	0° \mathbb{Y}
asc. node	3439 Mar 14 23:47	9° \mathbb{Y} 17'52		evening max el	3440 Mar 04 23:56	2° \mathbb{Y} 41'09 18°10'28
evening max el	3439 Mar 22 11:21	19° \mathbb{Y} 27'29	18°08'30	retrograde	3440 Mar 11 10:27	6° \mathbb{Y} 04'54
retrograde	3439 Mar 29 04:43	22° \mathbb{Y} 52'27		evening set	3440 Mar 14 05:57	5° \mathbb{Y} 24'26
evening set	3439 Mar 31 18:37	22° \mathbb{Y} 22'37		inferior conj	3440 Mar 20 11:27	0° \mathbb{Y} 08'52 3°35'37
inferior conj	3439 Apr 07 12:34	17° \mathbb{Y} 27'39	3°13'48	minimum elong	3440 Mar 20 12:22	0° \mathbb{Y} 06'24 3°35'35
minimum elong	3439 Apr 07 15:17	17° \mathbb{Y} 21'13	3°13'21		3440 Mar 20 14:46	30° \mathbb{R} \mathbb{X}
min. Earth dist.	3439 Apr 10 18:49	14° \mathbb{Y} 24'53	0.60691 AU	min. Earth dist.	3440 Mar 23 05:14	27° \mathbb{X} 14'00 0.62793 AU
morning rise	3439 Apr 14 08:40	11° \mathbb{Y} 37'07		morning rise	3440 Mar 26 16:36	24° \mathbb{X} 05'16
direct	3439 Apr 21 01:11	9° \mathbb{Y} 26'07		direct	3440 Apr 02 14:12	21° \mathbb{X} 28'41
desc. node	3439 Apr 21 08:45	9° \mathbb{Y} 26'24		desc. node	3440 Apr 07 05:47	22° \mathbb{X} 31'04
morning max el	3439 May 05 07:30	17° \mathbb{Y} 20'28	27°42'52	morning max el	3440 Apr 16 13:46	29° \mathbb{X} 26'16 27°49'14
	3439 May 15 19:39	0° \mathbb{Z}			3440 Apr 17 03:06	0° \mathbb{Y}
	3439 Jun 02 17:32	0° \mathbb{II}			3440 May 08 18:00	0° \mathbb{Z}
morning set	3439 Jun 06 14:58	7° \mathbb{II} 49'24		morning set	3440 May 20 15:14	22° \mathbb{Z} 02'42
asc. node	3439 Jun 10 23:04	17° \mathbb{II} 00'25			3440 May 24 11:46	0° \mathbb{II}
max. Earth dist.	3439 Jun 12 19:32	21° \mathbb{II} 02'16	1.32159 AU	max. Earth dist.	3440 May 26 02:31	3° \mathbb{II} 25'40 1.32645 AU
				asc. node	3440 May 27 20:07	7° \mathbb{II} 09'15
superior conj	3439 Jun 13 22:09	23° \mathbb{II} 28'10	0°30'44			
minimum elong	3439 Jun 13 20:49	23° \mathbb{II} 20'48	0°30'27	superior conj	3440 May 28 06:56	8° \mathbb{II} 07'46 0°04'45
	3439 Jun 16 21:30	0° \mathbb{Z}		minimum elong	3440 May 28 06:42	8° \mathbb{II} 06'31 0°04'42
evening rise	3439 Jun 20 19:13	8° \mathbb{Z} 26'57		behind sun begin	3440 May 28 01:41	7° \mathbb{II} 39'23
	3439 Jul 01 22:57	0° \mathbb{Q}		behind sun end	3440 May 28 11:43	8° \mathbb{II} 33'42
evening max el	3439 Jul 17 14:13	21° \mathbb{Q} 02'23	25°17'44	evening rise	3440 Jun 04 07:05	23° \mathbb{II} 17'00
desc. node	3439 Jul 18 08:00	21° \mathbb{Q} 43'59			3440 Jun 07 12:40	0° \mathbb{Z}
retrograde	3439 Jul 31 13:44	28° \mathbb{Q} 07'57			3440 Jun 26 13:45	0° \mathbb{Q}
evening set	3439 Aug 06 07:02	26° \mathbb{Q} 52'24		evening max el	3440 Jun 28 03:44	1° \mathbb{Q} 36'20 23°45'02
min. Earth dist.	3439 Aug 11 02:04	24° \mathbb{Q} 11'11	0.57772 AU	desc. node	3440 Jul 04 05:01	6° \mathbb{Q} 16'44
inferior conj	3439 Aug 14 04:00	22° \mathbb{Q} 04'30	-5°-7'-10	retrograde	3440 Jul 11 20:09	8° \mathbb{Q} 28'31
minimum elong	3439 Aug 14 04:40	22° \mathbb{Q} 03'21	5°07'10	evening set	3440 Jul 16 02:58	7° \mathbb{Q} 48'12
morning rise	3439 Aug 22 05:51	17° \mathbb{Q} 49'42		min. Earth dist.	3440 Jul 22 13:56	4° \mathbb{Q} 44'20 0.56078 AU
direct	3439 Aug 24 18:21	17° \mathbb{Q} 30'35		inferior conj	3440 Jul 24 19:48	3° \mathbb{Q} 23'05 -4°-49'-50
morning max el	3439 Sep 02 11:31	21° \mathbb{Q} 37'32	18°58'13	minimum elong	3440 Jul 24 14:36	3° \mathbb{Q} 30'59 4°49'11
asc. node	3439 Sep 06 22:18	26° \mathbb{Q} 48'57			3440 Jul 31 08:57	30° \mathbb{R} \mathbb{Z}
	3439 Sep 09 02:23	0° \mathbb{P}		morning rise	3440 Aug 02 05:32	29° \mathbb{Z} 26'52
morning set	3439 Sep 19 02:14	18° \mathbb{P} 10'30		direct	3440 Aug 05 00:26	29° \mathbb{Z} 07'16
	3439 Sep 25 02:16	0° \mathbb{Q}			3440 Aug 09 10:26	0° \mathbb{Q}
				morning max el	3440 Aug 15 04:09	3° \mathbb{Q} 50'01 20°02'16
superior conj	3439 Sep 27 12:41	4° \mathbb{Q} 42'24	1°37'32	asc. node	3440 Aug 23 19:21	15° \mathbb{Q} 00'39
minimum elong	3439 Sep 27 15:00	4° \mathbb{Q} 53'30	1°37'22		3440 Aug 31 22:00	0° \mathbb{P}
max. Earth dist.	3439 Oct 04 09:04	17° \mathbb{Q} 24'53	1.38896 AU	morning set	3440 Sep 02 06:30	2° \mathbb{P} 43'59
evening rise	3439 Oct 08 06:55	24° \mathbb{Q} 16'49				

superior conj	3440 Sep 10 01:15	18° \mathring{M} 34'24	1°44'17	superior conj	3441 Aug 24 23:40	2° \mathring{M} 55'30	1°43'15
minimum elong	3440 Sep 10 01:50	18° \mathring{M} 37'19	1°44'15	minimum elong	3441 Aug 24 22:49	2° \mathring{M} 51'02	1°43'13
max. Earth dist.	3440 Sep 15 14:36	29° \mathring{M} 25'23	1.36884 AU	max. Earth dist.	3441 Aug 29 01:53	11° \mathring{M} 17'28	1.35126 AU
	3440 Sep 15 21:54	0° \mathring{A}		evening rise	3441 Sep 02 09:59	19° \mathring{M} 46'03	
evening rise	3440 Sep 19 11:29	6° \mathring{A} 36'07			3441 Sep 07 23:58	0° \mathring{A}	
desc. node	3440 Sep 30 04:22	24° \mathring{A} 47'52		desc. node	3441 Sep 17 01:22	15° \mathring{A} 00'23	
	3440 Oct 03 12:25	0° \mathring{M}			3441 Sep 27 13:06	0° \mathring{M}	
evening max el	3440 Oct 25 04:39	28° \mathring{M} 00'54	25°43'38	evening max el	3441 Oct 07 17:00	11° \mathring{M} 39'15	26°41'31
	3440 Oct 27 08:14	0° \mathring{J}		retrograde	3441 Oct 20 17:01	18° \mathring{M} 54'14	
retrograde	3440 Nov 06 12:12	5° \mathring{J} 03'14		evening set	3441 Oct 27 06:38	16° \mathring{M} 15'12	
evening set	3440 Nov 12 12:39	2° \mathring{J} 33'58		min. Earth dist.	3441 Oct 31 08:16	12° \mathring{M} 06'48	0.65975 AU
	3440 Nov 15 02:10	30° \mathring{R} \mathring{M}		inferior conj	3441 Nov 02 02:51	10° \mathring{M} 00'44	-1°-32'-7
min. Earth dist.	3440 Nov 16 21:28	27° \mathring{M} 49'11	0.66977 AU	minimum elong	3441 Nov 02 05:23	9° \mathring{M} 53'15	1°31'06
inferior conj	3440 Nov 18 04:22	26° \mathring{M} 11'04	0°-32'-46	asc. node	3441 Nov 06 15:35	5° \mathring{M} 18'49	
minimum elong	3440 Nov 18 05:13	26° \mathring{M} 08'21	0°32'24	morning rise	3441 Nov 08 05:35	4° \mathring{M} 16'29	
asc. node	3440 Nov 19 18:33	24° \mathring{M} 12'20		direct	3441 Nov 11 01:33	3° \mathring{M} 31'48	
morning rise	3440 Nov 23 22:41	20° \mathring{M} 15'27		morning max el	3441 Nov 17 15:50	7° \mathring{M} 07'17	18°25'08
direct	3440 Nov 27 04:01	19° \mathring{M} 15'44			3441 Dec 03 13:31	0° \mathring{J}	
morning max el	3440 Dec 04 03:29	23° \mathring{M} 09'00	19°08'04	morning set	3441 Dec 07 07:34	6° \mathring{J} 02'02	
	3440 Dec 09 19:34	0° \mathring{J}		desc. node	3441 Dec 14 00:40	16° \mathring{J} 46'27	
morning set	3440 Dec 27 02:23	26° \mathring{J} 04'19			3441 Dec 22 09:36	0° \mathring{Z}	
desc. node	3440 Dec 27 03:39	26° \mathring{J} 09'13					
	3440 Dec 29 14:55	0° \mathring{Z}		superior conj	3441 Dec 22 22:40	0° \mathring{Z} 51'17	0°-58'-8
max. Earth dist.	3441 Jan 10 07:15	18° \mathring{Z} 16'45	1.44903 AU	minimum elong	3441 Dec 22 15:26	0° \mathring{Z} 22'57	0°57'15
				max. Earth dist.	3441 Dec 24 01:59	2° \mathring{Z} 38'33	1.45229 AU
superior conj	3441 Jan 12 20:35	22° \mathring{Z} 18'52	-1°-38'-44	evening rise	3442 Jan 08 02:01	26° \mathring{Z} 11'40	
minimum elong	3441 Jan 12 11:41	21° \mathring{Z} 43'39	1°37'56		3442 Jan 10 11:57	0° $\mathring{\approx}$	
	3441 Jan 17 16:26	0° $\mathring{\approx}$		greatest brilliancy	3442 Jan 20 20:32	16° $\mathring{\approx}$ 09'27	-0.7m
evening rise	3441 Jan 27 15:37	16° $\mathring{\approx}$ 10'40		evening max el	3442 Jan 30 21:23	29° $\mathring{\approx}$ 33'59	19°09'06
	3441 Feb 05 02:01	0° \mathring{H}			3442 Jan 31 07:46	0° \mathring{H}	
asc. node	3441 Feb 15 17:50	15° \mathring{H} 16'48		asc. node	3442 Feb 02 14:52	1° \mathring{H} 57'10	
evening max el	3441 Feb 16 12:03	16° \mathring{H} 04'50	18°31'00	retrograde	3442 Feb 06 20:42	3° \mathring{H} 32'03	
retrograde	3441 Feb 23 01:01	19° \mathring{H} 40'19		evening set	3442 Feb 10 04:29	2° \mathring{H} 27'39	
evening set	3441 Feb 26 02:13	18° \mathring{H} 48'21			3442 Feb 12 23:45	30° \mathring{R} $\mathring{\approx}$	
inferior conj	3441 Mar 03 22:50	13° \mathring{H} 13'56	3°37'11	inferior conj	3442 Feb 15 19:12	26° $\mathring{\approx}$ 36'42	3°23'38
minimum elong	3441 Mar 03 22:07	13° \mathring{H} 16'04	3°37'10	minimum elong	3442 Feb 15 17:21	26° $\mathring{\approx}$ 42'38	3°23'22
min. Earth dist.	3441 Mar 06 01:14	10° \mathring{H} 45'10	0.64617 AU	min. Earth dist.	3442 Feb 17 06:18	24° $\mathring{\approx}$ 44'44	0.66056 AU
morning rise	3441 Mar 09 16:37	7° \mathring{H} 02'59		morning rise	3442 Feb 21 05:18	20° $\mathring{\approx}$ 22'07	
direct	3441 Mar 16 10:51	4° \mathring{H} 14'12		direct	3442 Feb 27 14:12	17° $\mathring{\approx}$ 34'33	
desc. node	3441 Mar 25 02:49	7° \mathring{H} 49'04		desc. node	3442 Mar 11 23:51	24° $\mathring{\approx}$ 46'11	
morning max el	3441 Mar 29 23:14	12° \mathring{H} 06'36	27°19'56	morning max el	3442 Mar 12 09:12	25° $\mathring{\approx}$ 09'33	26°21'31
	3441 Apr 13 05:55	0° \mathring{Y}			3442 Mar 16 19:04	0° \mathring{H}	
	3441 May 01 06:28	0° \mathring{B}			3442 Apr 06 17:20	0° \mathring{Y}	
morning set	3441 May 04 06:55	5° \mathring{B} 46'47		morning set	3442 Apr 17 10:27	18° \mathring{Y} 51'34	
max. Earth dist.	3441 May 09 01:22	15° \mathring{B} 21'02	1.33571 AU	max. Earth dist.	3442 Apr 21 12:56	26° \mathring{Y} 43'42	1.34960 AU
					3442 Apr 23 04:38	0° \mathring{B}	
superior conj	3441 May 12 11:18	22° \mathring{B} 29'10	0°-23'-16				
minimum elong	3441 May 12 12:30	22° \mathring{B} 35'29	0°23'02	superior conj	3442 Apr 26 09:02	6° \mathring{B} 26'25	0°-52'-5
asc. node	3441 May 14 17:08	27° \mathring{B} 15'28		minimum elong	3442 Apr 26 11:47	6° \mathring{B} 40'29	0°51'35
	3441 May 15 23:55	0° \mathring{II}		asc. node	3442 May 01 14:10	17° \mathring{B} 15'28	
evening rise	3441 May 19 18:12	7° \mathring{II} 59'53		evening rise	3442 May 04 02:42	22° \mathring{B} 29'49	
	3441 May 31 10:30	0° \mathring{S}			3442 May 07 19:46	0° \mathring{II}	
evening max el	3441 Jun 09 19:07	12° \mathring{S} 03'03	22°08'46	evening max el	3442 May 22 19:57	22° \mathring{II} 54'47	20°42'30
desc. node	3441 Jun 21 02:02	18° \mathring{S} 18'51		retrograde	3442 Jun 03 03:53	28° \mathring{II} 26'38	
retrograde	3441 Jun 22 14:53	18° \mathring{S} 24'17		evening set	3442 Jun 05 06:00	28° \mathring{II} 16'06	
evening set	3441 Jun 25 11:55	18° \mathring{S} 05'54		desc. node	3442 Jun 07 23:02	27° \mathring{II} 33'28	
min. Earth dist.	3441 Jul 04 00:38	14° \mathring{S} 25'42	0.55040 AU	inferior conj	3442 Jun 14 12:21	24° \mathring{II} 18'47	-1°-55'-2
inferior conj	3441 Jul 04 18:52	14° \mathring{S} 00'05	-3°-43'-7	minimum elong	3442 Jun 14 06:58	24° \mathring{II} 26'30	1°53'07
minimum elong	3441 Jul 04 10:30	14° \mathring{S} 11'50	3°40'54	min. Earth dist.	3442 Jun 15 12:43	23° \mathring{II} 43'53	0.54916 AU
morning rise	3441 Jul 13 11:01	10° \mathring{S} 09'25		morning rise	3442 Jun 23 06:51	20° \mathring{II} 13'13	
direct	3441 Jul 16 14:10	9° \mathring{S} 47'33		direct	3442 Jun 26 23:28	19° \mathring{II} 43'50	
morning max el	3441 Jul 28 09:04	15° \mathring{S} 17'32	21°26'44	morning max el	3442 Jul 10 04:09	26° \mathring{II} 04'59	23°05'51
	3441 Aug 08 11:51	0° \mathring{O}			3442 Jul 13 21:32	0° \mathring{S}	
asc. node	3441 Aug 10 16:23	3° \mathring{O} 50'35		asc. node	3442 Jul 28 13:25	23° \mathring{S} 09'18	
morning set	3441 Aug 17 15:08	17° \mathring{O} 29'56			3442 Jul 31 22:50	0° \mathring{O}	
	3441 Aug 23 14:03	0° \mathring{M}		morning set	3442 Aug 02 02:12	2° \mathring{O} 22'57	

superior conj	3442 Aug 09 04:46	17°♎36'03	1°35'49	direct	3443 Jun 07 17:37	29°♄26'34	
minimum elong	3442 Aug 09 02:55	17°♎26'14	1°35'40		3443 Jun 11 13:21	0°♄	
max. Earth dist.	3442 Aug 11 21:58	23°♎21'46	1.33747 AU	morning max el	3443 Jun 21 18:20	6°♄30'06	24°48'20
	3442 Aug 15 03:08	0°♎			3443 Jul 08 18:33	0°♄	
evening rise	3442 Aug 16 22:08	3°♎35'22		asc. node	3443 Jul 15 10:29	12°♄49'04	
	3442 Aug 31 18:55	0°♎		morning set	3443 Jul 17 14:02	17°♄17'46	
desc. node	3442 Sep 03 22:22	4°♎49'05			3443 Jul 23 10:56	0°♎	
evening max el	3442 Sep 20 05:04	25°♎05'09	27°17'41				
	3442 Sep 26 09:37	0°♎		superior conj	3443 Jul 24 14:03	2°♎28'00	1°23'01
retrograde	3442 Oct 03 16:13	2°♎23'43		minimum elong	3443 Jul 24 11:44	2°♎15'25	1°22'44
	3442 Oct 10 06:44	30°♎		max. Earth dist.	3443 Jul 26 02:30	5°♎46'11	1.32780 AU
evening set	3442 Oct 10 15:59	29°♎42'41		evening rise	3443 Jul 31 20:09	17°♎53'12	
min. Earth dist.	3442 Oct 14 11:15	26°♎09'50	0.64621 AU		3443 Aug 07 00:58	0°♎	
inferior conj	3442 Oct 16 18:04	23°♎41'22	-2°-32'-44	desc. node	3443 Aug 21 19:22	24°♎04'03	
minimum elong	3442 Oct 16 22:17	23°♎29'53	2°31'11		3443 Aug 26 06:53	0°♎	
morning rise	3442 Oct 23 06:41	18°♎11'29		evening max el	3443 Sep 02 15:19	8°♎06'57	27°25'36
asc. node	3442 Oct 24 12:39	17°♎46'40		retrograde	3443 Sep 16 08:59	15°♎23'01	
direct	3442 Oct 25 19:44	17°♎37'52		evening set	3443 Sep 23 13:32	12°♎50'44	
morning max el	3442 Nov 01 07:39	21°♎04'45	17°59'00	min. Earth dist.	3443 Sep 27 04:35	9°♎49'10	0.62938 AU
	3442 Nov 08 03:24	0°♎		inferior conj	3443 Sep 29 23:19	7°♎07'03	-3°-31'-27
morning set	3442 Nov 18 17:50	17°♎25'21		minimum elong	3443 Sep 30 04:50	6°♎53'35	3°29'47
	3442 Nov 26 07:07	0°♎		morning rise	3443 Oct 06 22:47	1°♎54'49	
desc. node	3442 Nov 30 21:41	7°♎30'08		direct	3443 Oct 09 07:43	1°♎28'38	
				asc. node	3443 Oct 11 09:42	1°♎49'19	
superior conj	3442 Dec 02 09:42	9°♎55'02	0°-10'-15	morning max el	3443 Oct 16 00:04	4°♎55'00	17°50'32
minimum elong	3442 Dec 02 08:28	9°♎50'04	0°10'06	morning set	3443 Nov 01 04:06	29°♎58'17	
behind sun begin	3442 Dec 02 00:13	9°♎16'58			3443 Nov 01 04:30	0°♎	
behind sun end	3442 Dec 02 16:42	10°♎23'07					
max. Earth dist.	3442 Dec 06 20:39	17°♎00'46	1.44820 AU	superior conj	3443 Nov 12 20:45	20°♎10'36	0°33'35
	3442 Dec 15 03:59	0°♎		minimum elong	3443 Nov 12 23:55	20°♎23'52	0°33'09
evening rise	3442 Dec 18 17:23	5°♎29'51		desc. node	3443 Nov 17 18:42	28°♎17'21	
	3443 Jan 03 22:50	0°♎			3443 Nov 18 20:01	0°♎	
greatest brilliancy	3443 Jan 07 07:41	4°♎45'32	-0.6m	max. Earth dist.	3443 Nov 19 13:08	1°♎09'07	1.43732 AU
evening max el	3443 Jan 14 02:11	13°♎05'01	20°03'06	evening rise	3443 Nov 28 02:43	14°♎39'47	
asc. node	3443 Jan 20 11:55	17°♎25'24			3443 Dec 08 05:35	0°♎	
retrograde	3443 Jan 21 18:31	17°♎34'17		greatest brilliancy	3443 Dec 22 21:20	20°♎36'55	-0.4m
evening set	3443 Jan 25 10:22	16°♎16'09		evening max el	3443 Dec 28 01:37	26°♎37'31	21°10'08
inferior conj	3443 Jan 30 21:35	10°♎11'18	2°58'27		3443 Dec 31 23:09	0°♎	
minimum elong	3443 Jan 30 19:09	10°♎19'28	2°57'53	retrograde	3444 Jan 05 16:17	1°♎43'46	
min. Earth dist.	3443 Jan 31 18:38	9°♎00'35	0.67086 AU	asc. node	3444 Jan 07 08:57	1°♎28'01	
morning rise	3443 Feb 05 03:19	3°♎55'36		evening set	3444 Jan 09 17:59	0°♎10'30	
direct	3443 Feb 10 23:16	1°♎20'13			3444 Jan 09 23:17	30°♎	
morning max el	3443 Feb 22 17:56	8°♎22'30	25°03'13	inferior conj	3444 Jan 15 03:37	23°♎54'41	2°24'03
desc. node	3443 Feb 26 20:54	12°♎53'33		minimum elong	3444 Jan 15 01:07	24°♎03'16	2°23'16
	3443 Mar 11 17:18	0°♎		min. Earth dist.	3444 Jan 15 12:02	23°♎25'36	0.67713 AU
	3443 Mar 30 06:55	0°♎		morning rise	3444 Jan 20 07:53	17°♎39'47	
morning set	3443 Mar 30 20:55	1°♎02'16		direct	3444 Jan 25 13:09	15°♎23'52	
max. Earth dist.	3443 Apr 03 13:20	7°♎44'47	1.36781 AU	morning max el	3444 Feb 05 02:30	21°♎40'56	23°35'19
					3444 Feb 12 07:24	0°♎	
superior conj	3443 Apr 09 21:10	19°♎50'55	-1°-19'-59	desc. node	3444 Feb 13 17:57	1°♎51'09	
minimum elong	3443 Apr 10 01:15	20°♎11'03	1°19'22		3444 Mar 04 00:25	0°♎	
	3443 Apr 14 23:05	0°♎		morning set	3444 Mar 11 08:13	12°♎02'33	
evening rise	3443 Apr 18 06:16	6°♎39'39		max. Earth dist.	3444 Mar 15 08:27	18°♎57'58	1.38898 AU
asc. node	3443 Apr 18 11:12	7°♎04'26			3444 Mar 21 11:04	0°♎	
	3443 May 01 12:42	0°♎					
evening max el	3443 May 05 08:59	4°♎26'27	19°33'39	superior conj	3444 Mar 22 19:55	2°♎33'06	-1°-44'-22
retrograde	3443 May 14 22:57	9°♎05'25		minimum elong	3444 Mar 23 00:31	2°♎54'42	1°43'54
evening set	3443 May 16 22:33	8°♎54'21		evening rise	3444 Apr 01 02:13	20°♎22'13	
inferior conj	3443 May 25 14:50	4°♎50'04	0°03'49	asc. node	3444 Apr 04 08:15	26°♎37'36	
minimum elong	3443 May 25 15:00	4°♎49'48	0°03'46		3444 Apr 06 03:31	0°♎	
transit middle	3443 May 25 15:00	4°♎49'48	0°03'46	evening max el	3444 Apr 17 08:46	16°♎37'23	18°44'45
transit begin	3443 May 25 11:12	4°♎55'50		retrograde	3444 Apr 25 10:59	20°♎34'56	
transit end	3443 May 25 18:48	4°♎43'45		evening set	3444 Apr 27 15:29	20°♎18'40	
desc. node	3443 May 25 20:04	4°♎41'44		inferior conj	3444 May 05 12:25	15°♎56'35	1°42'49
min. Earth dist.	3443 May 28 02:44	3°♎15'11	0.55754 AU	minimum elong	3444 May 05 15:50	15°♎50'16	1°41'44
morning rise	3443 Jun 03 03:47	0°♎13'37		min. Earth dist.	3444 May 08 19:30	13°♎31'18	0.57368 AU
	3443 Jun 03 21:20	30°♎		desc. node	3444 May 11 17:07	11°♎39'36	

morning rise	3444 May 13 11:46	10°♄45'30		minimum elong	3445 Apr 17 11:00	27°♃37'11	2°48'44
direct	3444 May 19 01:29	9°♄29'27		min. Earth dist.	3445 Apr 20 17:24	24°♃48'42	0.59429 AU
morning max el	3444 Jun 02 09:51	17°♄00'53	26°18'43	morning rise	3445 Apr 24 13:25	22°♃05'35	
	3444 Jun 13 02:03	0°♂		desc. node	3445 Apr 28 14:10	20°♃29'20	
	3444 Jun 30 00:23	0°♄		direct	3445 Apr 30 22:22	20°♃14'19	
morning set	3444 Jul 01 00:59	2°♄08'48		morning max el	3445 May 15 07:06	28°♃02'46	27°22'22
asc. node	3444 Jul 01 07:31	2°♄43'18			3445 May 17 04:43	0°♄	
					3445 Jun 06 18:17	0°♂	
superior conj	3444 Jul 08 01:26	17°♄24'03	1°05'41	morning set	3445 Jun 15 09:22	16°♂50'44	
minimum elong	3444 Jul 07 23:09	17°♄11'26	1°05'18	asc. node	3445 Jun 18 04:33	22°♂46'57	
max. Earth dist.	3444 Jul 08 12:38	18°♄25'40	1.32226 AU		3445 Jun 21 12:03	0°♄	
	3444 Jul 13 20:34	0°♂		max. Earth dist.	3445 Jun 22 00:39	1°♄09'20	1.32069 AU
evening rise	3444 Jul 15 00:58	2°♂29'31					
	3444 Jul 29 22:19	0°♄		superior conj	3445 Jun 22 13:12	2°♄18'28	0°44'29
desc. node	3444 Aug 07 16:25	12°♄30'41		minimum elong	3445 Jun 22 11:23	2°♄08'29	0°44'07
evening max el	3444 Aug 14 20:53	20°♄30'00	27°00'48	evening rise	3445 Jun 29 10:08	17°♄16'37	
retrograde	3444 Aug 28 18:12	27°♄42'03			3445 Jul 05 17:19	0°♂	
evening set	3444 Sep 04 19:03	25°♄31'00		desc. node	3445 Jul 25 13:26	29°♂49'02	
min. Earth dist.	3444 Sep 08 11:09	22°♄50'52	0.60989 AU		3445 Jul 25 17:33	0°♄	
inferior conj	3444 Sep 11 15:15	20°♄08'13	-4°-23'-4	evening max el	3445 Jul 27 19:17	2°♄05'01	26°03'11
minimum elong	3444 Sep 11 20:51	19°♄56'11	4°21'53	retrograde	3445 Aug 10 18:41	9°♄13'58	
morning rise	3444 Sep 19 01:45	15°♄17'09		evening set	3445 Aug 17 03:41	7°♄35'50	
direct	3444 Sep 21 09:40	14°♄55'24		min. Earth dist.	3445 Aug 21 07:49	5°♄00'46	0.58923 AU
asc. node	3444 Sep 27 06:45	17°♄19'52		inferior conj	3445 Aug 24 14:16	2°♄35'06	-4°-58'-49
morning max el	3444 Sep 28 13:53	18°♄29'21	18°00'50	minimum elong	3445 Aug 24 17:36	2°♄28'53	4°58'30
	3444 Oct 06 21:37	0°♄			3445 Aug 28 07:30	30°♄♂	
morning set	3444 Oct 14 07:53	13°♄20'54		morning rise	3445 Sep 01 11:00	28°♂07'34	
	3444 Oct 23 10:56	0°♄		direct	3445 Sep 03 21:02	27°♂48'00	
					3445 Sep 09 22:44	0°♄	
superior conj	3444 Oct 24 10:27	1°♄44'03	1°07'14	morning max el	3445 Sep 11 21:53	1°♄39'14	18°31'12
minimum elong	3444 Oct 24 14:43	2°♄02'52	1°06'43	asc. node	3445 Sep 14 03:47	4°♄04'24	
max. Earth dist.	3444 Nov 01 01:12	14°♄46'49	1.42090 AU	morning set	3445 Sep 27 23:58	27°♄18'23	
desc. node	3444 Nov 03 15:44	19°♄04'14			3445 Sep 29 09:26	0°♄	
evening rise	3444 Nov 06 22:18	24°♄20'53					
	3444 Nov 10 12:28	0°♄		superior conj	3445 Oct 06 22:36	14°♄23'23	1°29'29
	3444 Dec 01 05:35	0°♄		minimum elong	3445 Oct 07 01:53	14°♄38'37	1°29'11
greatest brilliancy	3444 Dec 05 01:04	4°♄49'34	-0.3m	max. Earth dist.	3445 Oct 14 07:50	27°♄40'55	1.40097 AU
evening max el	3444 Dec 09 19:44	10°♄11'21	22°26'14		3445 Oct 15 16:03	0°♄	
retrograde	3444 Dec 19 12:19	15°♄57'01		evening rise	3445 Oct 18 14:59	5°♄00'07	
evening set	3444 Dec 24 01:36	14°♄07'27		desc. node	3445 Oct 21 12:45	9°♄47'20	
asc. node	3444 Dec 24 06:00	13°♄58'18			3445 Nov 03 16:54	0°♄	
inferior conj	3444 Dec 29 11:14	7°♄44'06	1°42'02	evening max el	3445 Nov 22 09:53	23°♄47'52	23°46'08
minimum elong	3444 Dec 29 09:10	7°♄51'17	1°41'16		3445 Dec 01 15:49	0°♄	
min. Earth dist.	3444 Dec 29 08:11	7°♄54'40	0.67958 AU	retrograde	3445 Dec 03 05:18	0°♄10'25	
morning rise	3445 Jan 03 16:37	1°♄31'49			3445 Dec 04 17:25	30°♄♄	
	3445 Jan 06 06:15	30°♄♄		evening set	3445 Dec 08 07:37	28°♄04'19	
direct	3445 Jan 08 06:53	29°♄38'40		asc. node	3445 Dec 11 03:02	25°♄07'25	
	3445 Jan 10 09:58	0°♄		min. Earth dist.	3445 Dec 13 04:48	22°♄24'36	0.67844 AU
morning max el	3445 Jan 17 14:10	5°♄06'37	22°07'34	inferior conj	3445 Dec 13 18:39	21°♄37'23	0°53'39
greatest brilliancy	3445 Jan 22 04:51	10°♄16'34	-0.3m	minimum elong	3445 Dec 13 17:25	21°♄41'35	0°53'09
desc. node	3445 Jan 30 15:00	21°♄24'42		morning rise	3445 Dec 19 03:25	15°♄29'37	
	3445 Feb 05 14:06	0°♄		direct	3445 Dec 23 03:32	13°♄59'15	
morning set	3445 Feb 19 15:11	21°♄40'39		morning max el	3445 Dec 31 08:14	18°♄42'48	20°47'28
	3445 Feb 24 16:46	0°♄		greatest brilliancy	3446 Jan 06 02:03	25°♄23'27	-0.5m
max. Earth dist.	3445 Feb 25 06:11	0°♄56'12	1.41053 AU		3446 Jan 09 13:02	0°♄	
				desc. node	3446 Jan 17 12:01	11°♄24'05	
superior conj	3445 Mar 05 00:32	14°♄21'11	-2°-1'-34	morning set	3446 Jan 29 19:56	0°♄07'41	
minimum elong	3445 Mar 05 03:49	14°♄35'45	2°01'26		3446 Jan 29 17:58	0°♄	
	3445 Mar 13 14:15	0°♄		max. Earth dist.	3446 Feb 07 10:41	13°♄48'50	1.42962 AU
evening rise	3445 Mar 15 11:11	3°♄29'21					
asc. node	3445 Mar 22 05:18	15°♄49'08		superior conj	3446 Feb 14 05:52	25°♄03'06	-2°-6'-43
evening max el	3445 Mar 31 16:05	29°♄19'39	18°16'02	minimum elong	3446 Feb 14 04:59	24°♄59'22	2°06'44
	3445 Apr 01 09:23	0°♄			3446 Feb 17 03:46	0°♄	
retrograde	3445 Apr 07 18:13	2°♄52'16		evening rise	3446 Feb 26 05:05	15°♄51'21	
evening set	3445 Apr 10 04:43	2°♄27'58			3446 Mar 06 07:08	0°♄	
	3445 Apr 14 13:49	30°♄♄		asc. node	3446 Mar 09 02:20	4°♄31'15	
inferior conj	3445 Apr 17 07:29	27°♄44'49	2°49'31	evening max el	3446 Mar 15 03:34	12°♄23'29	18°06'59

retrograde	3446 Mar 21 16:59	15°Υ46'39			3447 Feb 09 17:13	0°✠	
evening set	3446 Mar 24 09:10	15°Υ12'33		asc. node	3447 Feb 23 23:22	22°✠35'25	
inferior conj	3446 Mar 30 21:20	10°Υ08'38	3°25'55	evening max el	3447 Feb 26 16:16	25°✠42'05	18°16'58
minimum elong	3446 Mar 30 23:19	10°Υ03'41	3°25'42	retrograde	3447 Mar 05 02:53	29°✠09'23	
min. Earth dist.	3446 Apr 02 22:55	7°Υ06'20	0.61600 AU	evening set	3447 Mar 08 00:40	28°✠24'17	
morning rise	3446 Apr 06 10:38	4°Υ11'16		inferior conj	3447 Mar 14 02:01	23°✠00'44	3°38'24
direct	3446 Apr 13 06:15	1°Υ47'59		minimum elong	3447 Mar 14 02:12	23°✠00'15	3°38'24
desc. node	3446 Apr 15 11:12	2°Υ01'58		min. Earth dist.	3447 Mar 16 13:32	20°✠14'49	0.63613 AU
morning max el	3446 Apr 27 10:36	9°Υ45'25	27°50'16	morning rise	3447 Mar 20 01:52	16°✠53'19	
	3446 May 13 03:12	0°♄		direct	3447 Mar 26 23:01	14°✠09'25	
	3446 May 29 22:16	0°♅		desc. node	3447 Apr 02 08:15	16°✠07'11	
morning set	3446 May 30 13:13	1°♅16'06		morning max el	3447 Apr 09 18:31	22°✠06'48	27°40'42
asc. node	3446 Jun 05 01:36	12°♅54'39			3447 Apr 16 16:39	0°Υ	
max. Earth dist.	3446 Jun 05 10:29	13°♅42'47	1.32310 AU		3447 May 06 07:29	0°♄	
				morning set	3447 May 14 10:09	15°♄17'32	
superior conj	3446 Jun 06 23:32	17°♅04'32	0°20'01	max. Earth dist.	3447 May 19 14:08	25°♄53'18	1.32979 AU
minimum elong	3446 Jun 06 22:37	16°♅59'33	0°19'49		3447 May 21 12:37	0°♅	
	3446 Jun 12 21:48	0°♄					
evening rise	3446 Jun 13 21:29	2°♄06'35		superior conj	3447 May 22 06:40	1°♅36'38	0°-6'-58
	3446 Jun 29 00:42	0°♅		minimum elong	3447 May 22 07:01	1°♅38'29	0°06'55
evening max el	3446 Jul 09 10:43	12°♅55'01	24°39'42	behind sun begin	3447 May 22 02:11	1°♅12'34	
desc. node	3446 Jul 12 10:26	15°♅31'26		behind sun end	3447 May 22 11:50	2°♅04'25	
retrograde	3446 Jul 23 08:45	19°♅57'22		asc. node	3447 May 22 22:38	3°♅02'27	
evening set	3446 Jul 28 12:11	18°♅57'43		evening rise	3447 May 29 09:13	16°♅53'27	
min. Earth dist.	3446 Aug 02 21:54	16°♅08'34	0.56989 AU		3447 Jun 04 21:23	0°♄	
inferior conj	3446 Aug 05 17:32	14°♅19'08	-5°-5'-23	evening max el	3447 Jun 21 00:02	23°♄21'24	23°03'39
minimum elong	3446 Aug 05 15:45	14°♅22'02	5°05'19	desc. node	3447 Jun 29 07:27	29°♄03'27	
morning rise	3446 Aug 13 22:57	10°♅13'32			3447 Jul 03 06:34	0°♅	
direct	3446 Aug 16 13:47	9°♅54'31		retrograde	3447 Jul 04 10:05	0°♅02'59	
morning max el	3446 Aug 25 20:54	14°♅15'07	19°22'51		3447 Jul 05 13:45	30°♄♄	
asc. node	3446 Sep 01 00:49	21°♅47'52		evening set	3447 Jul 08 01:06	29°♄34'13	
	3446 Sep 05 23:05	0°♄		min. Earth dist.	3447 Jul 15 09:14	26°♄16'19	0.55532 AU
morning set	3446 Sep 12 00:36	11°♄40'29		inferior conj	3447 Jul 17 01:18	25°♄18'06	-4°-27'-44
				minimum elong	3447 Jul 16 18:06	25°♄28'37	4°26'22
superior conj	3446 Sep 20 03:39	27°♄52'41	1°41'26	morning rise	3447 Jul 25 13:57	21°♄26'00	
minimum elong	3446 Sep 20 05:13	28°♄00'21	1°41'21	direct	3447 Jul 28 11:50	21°♄05'50	
	3446 Sep 21 05:50	0°♅		morning max el	3447 Aug 08 08:30	26°♄08'16	20°35'56
max. Earth dist.	3446 Sep 26 11:46	9°♅53'58	1.38016 AU		3447 Aug 11 22:47	0°♅	
evening rise	3446 Sep 30 07:10	16°♅44'32		asc. node	3447 Aug 18 21:52	10°♅16'48	
desc. node	3446 Oct 08 09:45	0°♄22'43		morning set	3447 Aug 27 06:58	26°♅19'28	
	3446 Oct 08 04:07	0°♄			3447 Aug 29 01:45	0°♄	
	3446 Oct 29 04:36	0°♄					
evening max el	3446 Nov 04 22:15	7°♄28'18	25°03'24	superior conj	3447 Sep 03 20:48	11°♄57'53	1°44'41
retrograde	3446 Nov 16 18:13	14°♄19'46		minimum elong	3447 Sep 03 20:44	11°♄57'29	1°44'42
evening set	3446 Nov 22 10:27	11°♄58'16		max. Earth dist.	3447 Sep 08 18:55	21°♄46'34	1.36094 AU
min. Earth dist.	3446 Nov 26 23:33	6°♄52'51	0.67385 AU	evening rise	3447 Sep 12 19:55	29°♄26'46	
inferior conj	3446 Nov 28 00:06	5°♄32'22	0°00'02		3447 Sep 13 03:06	0°♅	
minimum elong	3446 Nov 28 00:06	5°♄32'22	0°00'03	desc. node	3447 Sep 25 06:45	20°♅45'14	
transit middle	3446 Nov 28 00:06	5°♄32'22	0°00'03		3447 Oct 01 09:17	0°♄	
transit begin	3446 Nov 27 21:20	5°♄41'28		evening max el	3447 Oct 18 10:37	21°♄09'48	26°10'35
transit end	3446 Nov 28 02:52	5°♄23'16		retrograde	3447 Oct 31 02:07	28°♄18'53	
asc. node	3446 Nov 28 00:03	5°♄32'29		evening set	3447 Nov 06 08:14	25°♄45'04	
	3446 Dec 02 22:41	30°♄♄		min. Earth dist.	3447 Nov 10 14:01	21°♄15'23	0.66589 AU
morning rise	3446 Dec 03 14:21	29°♄31'22		inferior conj	3447 Nov 12 01:43	19°♄25'02	0°-57'-39
direct	3446 Dec 07 01:55	28°♄21'27		minimum elong	3447 Nov 12 03:15	19°♄20'15	0°57'00
	3446 Dec 11 12:09	0°♄		asc. node	3447 Nov 14 21:06	16°♄08'04	
morning max el	3446 Dec 14 10:09	2°♄30'18	19°40'01	morning rise	3447 Nov 17 23:22	13°♄33'35	
greatest brilliancy	3446 Dec 22 10:22	12°♄27'02	-0.6m	direct	3447 Nov 21 00:26	12°♄40'42	
	3447 Jan 03 06:16	0°♄		morning max el	3447 Nov 27 19:09	16°♄25'24	18°47'44
desc. node	3447 Jan 04 09:03	1°♄42'25			3447 Dec 08 00:32	0°♄	
morning set	3447 Jan 08 16:20	8°♄19'39		morning set	3447 Dec 19 05:17	17°♄27'25	
max. Earth dist.	3447 Jan 20 22:22	27°♄28'52	1.44379 AU	desc. node	3447 Dec 22 06:02	22°♄13'38	
	3447 Jan 22 12:22	0°♄			3447 Dec 27 04:48	0°♄	
				max. Earth dist.	3448 Jan 03 15:23	11°♄40'30	1.45136 AU
superior conj	3447 Jan 25 09:18	4°♄36'08	-1°-54'-38				
minimum elong	3447 Jan 25 02:33	4°♄09'01	1°54'13	superior conj	3448 Jan 04 15:57	13°♄17'03	-1°-23'-11
evening rise	3447 Feb 08 03:34	27°♄20'47		minimum elong	3448 Jan 04 06:54	12°♄41'27	1°22'14

	3448 Jan 15 05:23	0°♊		max. Earth dist.	3448 Dec 16 10:57	26°♊06'13	1.45154 AU
evening rise	3448 Jan 20 03:10	7°♊52'29			3448 Dec 18 22:32	0°♊	
	3448 Feb 03 01:57	0°♋		evening rise	3448 Dec 30 04:27	17°♊32'24	
evening max el	3448 Feb 10 03:32	9°♋08'43	18°45'11		3449 Jan 07 05:12	0°♋	
asc. node	3448 Feb 10 20:24	9°♋50'03		greatest brilliancy	3449 Jan 15 05:02	12°♋03'06	-0.7m
retrograde	3448 Feb 16 19:53	12°♋52'12		evening max el	3449 Jan 23 11:10	22°♋38'51	19°30'18
evening set	3448 Feb 19 23:49	11°♋55'02		asc. node	3449 Jan 27 17:26	26°♋01'25	
inferior conj	3448 Feb 25 17:38	6°♋13'30	3°33'01	retrograde	3449 Jan 30 16:46	26°♋48'53	
minimum elong	3448 Feb 25 16:21	6°♋17'24	3°32'54	evening set	3449 Feb 03 03:55	25°♋38'36	
min. Earth dist.	3448 Feb 27 13:28	3°♋59'28	0.65288 AU	inferior conj	3449 Feb 08 16:52	19°♋41'17	3°14'11
morning rise	3448 Mar 02 07:44	0°♋00'53		minimum elong	3449 Feb 08 14:42	19°♋48'23	3°13'46
	3448 Mar 02 08:08	30°♌		min. Earth dist.	3449 Feb 09 21:43	18°♋06'57	0.66551 AU
direct	3448 Mar 08 22:45	27°♌10'53		morning rise	3449 Feb 14 00:45	13°♌26'13	
	3448 Mar 16 10:08	0°♌		direct	3449 Feb 20 04:29	10°♌42'56	
desc. node	3448 Mar 19 05:16	2°♌10'49		morning max el	3449 Mar 04 13:42	18°♌04'57	25°50'01
morning max el	3448 Mar 22 04:12	4°♌57'05	26°58'01	desc. node	3449 Mar 06 02:18	19°♌40'24	
	3448 Apr 10 06:28	0°♍			3449 Mar 14 14:27	0°♌	
morning set	3448 Apr 26 21:10	28°♍46'00			3449 Apr 03 06:34	0°♍	
	3448 Apr 27 12:31	0°♎		morning set	3449 Apr 09 18:05	11°♍29'07	
max. Earth dist.	3448 May 01 08:15	7°♎33'31	1.34106 AU	max. Earth dist.	3449 Apr 13 15:04	18°♍45'28	1.35692 AU
superior conj	3448 May 05 08:33	15°♎48'44	0°-35'-29	superior conj	3449 Apr 19 02:36	29°♍32'54	-1°-4'-10
minimum elong	3448 May 05 10:24	15°♎58'23	0°35'07	minimum elong	3449 Apr 19 05:59	29°♍49'54	1°03'35
asc. node	3448 May 08 19:41	23°♎06'32			3449 Apr 19 07:59	0°♎	
	3448 May 12 01:59	0°♏		asc. node	3449 Apr 25 16:44	13°♎02'19	
evening rise	3448 May 12 19:29	1°♏31'32		evening rise	3449 Apr 27 02:12	15°♎53'50	
	3448 May 29 05:33	0°♐			3449 May 04 08:33	0°♏	
evening max el	3448 Jun 01 18:57	3°♐56'15	21°30'18	evening max el	3449 May 15 00:52	15°♏03'35	20°10'46
retrograde	3448 Jun 14 00:39	9°♐57'20		retrograde	3449 May 25 14:40	20°♏12'30	
desc. node	3448 Jun 15 04:29	9°♐54'13		evening set	3449 May 27 14:23	20°♏02'21	
evening set	3448 Jun 16 11:32	9°♐43'38		desc. node	3449 Jun 02 01:32	18°♏05'11	
inferior conj	3448 Jun 25 20:18	5°♐43'46	-3°00'-54	inferior conj	3449 Jun 05 15:53	16°♏03'28	-1°-3'-43
minimum elong	3448 Jun 25 12:30	5°♐54'40	2°58'27	minimum elong	3449 Jun 05 12:53	16°♏07'54	1°02'38
min. Earth dist.	3448 Jun 25 20:19	5°♐43'45	0.54867 AU	min. Earth dist.	3449 Jun 07 08:46	15°♏02'54	0.55161 AU
morning rise	3448 Jul 04 14:09	1°♐49'18		morning rise	3449 Jun 14 09:11	11°♏46'35	
direct	3448 Jul 07 22:28	1°♐24'57		direct	3449 Jun 18 10:03	11°♏11'15	
morning max el	3448 Jul 20 08:40	7°♐16'56	22°07'40	morning max el	3449 Jul 02 00:52	17°♏51'16	23°50'03
asc. node	3448 Aug 04 18:54	29°♐20'13			3449 Jul 11 23:09	0°♐	
	3448 Aug 05 03:20	0°♑		asc. node	3449 Jul 22 15:57	18°♐48'30	
morning set	3448 Aug 10 16:55	11°♑09'26		morning set	3449 Jul 26 04:32	26°♐03'46	
					3449 Jul 28 00:55	0°♑	
superior conj	3448 Aug 17 22:26	26°♑28'25	1°40'48	superior conj	3449 Aug 02 05:35	11°♑14'18	1°31'00
minimum elong	3448 Aug 17 21:06	26°♑21'23	1°40'44	minimum elong	3449 Aug 02 03:29	11°♑02'58	1°30'46
	3448 Aug 19 14:49	0°♒		max. Earth dist.	3449 Aug 04 10:17	15°♑57'07	1.33284 AU
max. Earth dist.	3448 Aug 21 10:09	3°♒43'44	1.34492 AU	evening rise	3449 Aug 09 17:33	26°♑57'27	
evening rise	3448 Aug 26 00:48	12°♒55'19			3449 Aug 11 06:16	0°♒	
	3448 Sep 04 10:37	0°♓			3449 Aug 28 18:04	0°♓	
desc. node	3448 Sep 11 03:46	10°♓48'55		desc. node	3449 Aug 29 00:49	0°♓24'37	
	3448 Sep 25 10:35	0°♔		evening max el	3449 Sep 12 10:47	18°♓01'57	27°24'45
evening max el	3448 Sep 29 23:16	4°♔45'17	27°00'00	retrograde	3449 Sep 26 00:45	25°♓19'30	
retrograde	3448 Oct 13 04:26	12°♔01'48		evening set	3449 Oct 03 03:37	22°♓40'33	
evening set	3448 Oct 19 22:52	9°♔21'04		min. Earth dist.	3449 Oct 06 20:41	19°♓22'06	0.63949 AU
min. Earth dist.	3448 Oct 23 21:48	5°♔27'56	0.65448 AU	inferior conj	3449 Oct 09 08:45	16°♓46'32	-2°-58'-6
inferior conj	3448 Oct 25 21:26	3°♔11'49	-1°-57'-48	minimum elong	3449 Oct 09 13:37	16°♓33'54	2°56'26
minimum elong	3448 Oct 26 00:42	3°♔02'29	1°56'31	morning rise	3449 Oct 16 01:56	11°♓23'56	
	3448 Oct 28 20:49	30°♕		direct	3449 Oct 18 12:58	10°♓53'50	
asc. node	3448 Oct 31 18:08	27°♕46'11		asc. node	3449 Oct 18 15:10	10°♓53'52	
morning rise	3448 Nov 01 04:12	27°♕33'05		morning max el	3449 Oct 25 01:46	14°♕19'07	17°53'14
direct	3448 Nov 03 21:01	26°♕53'24			3449 Nov 05 00:16	0°♔	
	3448 Nov 09 23:30	0°♕		morning set	3449 Nov 10 20:32	9°♔58'31	
morning max el	3448 Nov 10 09:17	0°♕23'55	18°11'51		3449 Nov 22 18:12	0°♕	
morning set	3448 Nov 28 23:13	28°♕03'08					
	3448 Nov 30 03:49	0°♖		superior conj	3449 Nov 23 15:29	1°♖26'55	0°09'21
desc. node	3448 Dec 08 03:03	12°♖53'52		minimum elong	3449 Nov 23 16:31	1°♖31'09	0°09'13
				behind sun begin	3449 Nov 23 08:16	0°♖57'32	
superior conj	3448 Dec 13 19:13	21°♖55'11	0°-37'-57	behind sun end	3449 Nov 24 00:45	2°♖04'43	
minimum elong	3448 Dec 13 14:24	21°♖36'09	0°37'19				

desc. node	3449 Nov 25 00:06	3°♄39'31			3450 Oct 28 13:48	0°♍	
max. Earth dist.	3449 Nov 29 05:25	10°♄26'06	1.44437 AU				
evening rise	3449 Dec 09 15:22	26°♄42'29		superior conj	3450 Nov 04 14:07	12°♍16'23	0°49'15
	3449 Dec 11 18:52	0°♄		minimum elong	3450 Nov 04 18:07	12°♍33'27	0°48'43
greatest brilliancy	3449 Dec 31 14:06	29°♄00'32	-0.5m	desc. node	3450 Nov 11 21:08	24°♍26'53	
	3450 Jan 01 08:14	0°♄		max. Earth dist.	3450 Nov 11 19:47	24°♍21'23	1.43082 AU
evening max el	3450 Jan 06 13:41	6°♄10'19	20°30'10		3450 Nov 15 07:46	0°♄	
retrograde	3450 Jan 14 14:56	10°♄55'01		evening rise	3450 Nov 19 03:05	6°♄00'24	
asc. node	3450 Jan 14 14:28	10°♄55'01			3450 Dec 05 03:02	0°♄	
evening set	3450 Jan 18 10:47	9°♄30'27		greatest brilliancy	3450 Dec 15 14:37	14°♄12'03	-0.4m
inferior conj	3450 Jan 23 21:05	3°♄20'15	2°44'52	evening max el	3450 Dec 20 10:37	19°♄42'43	21°41'40
minimum elong	3450 Jan 23 18:34	3°♄28'50	2°44'12	retrograde	3450 Dec 29 12:16	25°♄06'23	
min. Earth dist.	3450 Jan 24 12:30	2°♄27'40	0.67398 AU	asc. node	3451 Jan 01 11:30	24°♄18'30	
	3450 Jan 26 09:22	30°♄		evening set	3451 Jan 02 18:35	23°♄26'23	
morning rise	3450 Jan 29 01:52	27°♄04'39		inferior conj	3451 Jan 08 04:02	17°♄06'42	2°07'04
direct	3450 Feb 03 15:33	24°♄37'12		minimum elong	3451 Jan 08 01:40	17°♄14'55	2°06'17
	3450 Feb 13 12:55	0°♄		min. Earth dist.	3451 Jan 08 07:28	16°♄54'47	0.67857 AU
morning max el	3450 Feb 14 22:22	1°♄21'31	24°26'27	morning rise	3451 Jan 13 08:28	10°♄52'27	
desc. node	3450 Feb 20 23:20	8°♄11'20		direct	3451 Jan 18 07:13	8°♄46'03	
	3450 Mar 08 14:41	0°♄		morning max el	3451 Jan 28 07:51	14°♄42'52	22°57'25
morning set	3450 Mar 22 19:32	23°♄12'18		greatest brilliancy	3451 Feb 02 02:12	20°♄02'03	-0.3m
max. Earth dist.	3450 Mar 26 12:40	29°♄48'55	1.37658 AU	desc. node	3451 Feb 07 20:22	27°♄25'36	
	3450 Mar 26 15:07	0°♄			3451 Feb 09 17:36	0°♄	
					3451 Mar 01 14:05	0°♄	
superior conj	3450 Apr 02 09:34	12°♄40'41	-1°-30'-56	morning set	3451 Mar 03 19:14	3°♄38'33	
minimum elong	3450 Apr 02 14:02	13°♄02'14	1°30'21	max. Earth dist.	3451 Mar 08 07:36	11°♄16'22	1.39825 AU
evening rise	3450 Apr 11 02:57	29°♄53'28					
	3450 Apr 11 04:16	0°♄		superior conj	3451 Mar 16 01:11	25°♄00'55	-1°-52'-49
asc. node	3450 Apr 12 13:48	2°♄45'27		minimum elong	3451 Mar 16 05:31	25°♄20'49	1°52'29
evening max el	3450 Apr 27 18:44	26°♄52'22	19°10'18		3451 Mar 18 17:48	0°♄	
	3450 May 01 23:18	0°♄		evening rise	3451 Mar 25 18:39	13°♄21'37	
retrograde	3450 May 06 16:34	1°♄12'21		asc. node	3451 Mar 30 10:50	22°♄09'59	
evening set	3450 May 08 17:36	0°♄59'38			3451 Apr 03 22:32	0°♄	
	3450 May 11 16:52	30°♄		evening max el	3451 Apr 10 22:08	9°♄17'36	18°30'06
inferior conj	3450 May 17 01:49	26°♄48'21	0°49'26	retrograde	3451 Apr 18 12:43	13°♄02'26	
minimum elong	3450 May 17 03:47	26°♄45'01	0°48'44	evening set	3451 Apr 20 19:42	12°♄43'07	
desc. node	3450 May 19 22:33	24°♄52'26		inferior conj	3451 Apr 28 08:37	8°♄12'34	2°15'05
min. Earth dist.	3450 May 19 23:54	24°♄50'13	0.56360 AU	minimum elong	3451 Apr 28 12:23	8°♄05'06	2°14'03
morning rise	3450 May 25 09:43	21°♄56'32		min. Earth dist.	3451 May 01 18:51	5°♄30'55	0.58212 AU
direct	3450 May 30 09:31	20°♄58'35		morning rise	3451 May 06 00:40	2°♄48'04	
morning max el	3450 Jun 13 15:11	28°♄16'00	25°29'16	desc. node	3451 May 06 19:35	2°♄25'48	
	3450 Jun 15 08:35	0°♄		direct	3451 May 11 23:32	1°♄16'56	
	3450 Jul 05 06:34	0°♄		morning max el	3451 May 26 08:50	8°♄57'37	26°49'41
asc. node	3450 Jul 09 13:01	8°♄34'58			3451 Jun 11 08:06	0°♄	
morning set	3450 Jul 10 16:10	10°♄57'24		morning set	3451 Jun 25 02:13	25°♄45'00	
				asc. node	3451 Jun 26 10:05	28°♄33'46	
					3451 Jun 27 02:11	0°♄	
superior conj	3450 Jul 17 16:00	26°♄08'31	1°16'11				
minimum elong	3450 Jul 17 13:38	25°♄55'35	1°15'50	superior conj	3451 Jul 02 03:45	11°♄04'36	0°57'08
max. Earth dist.	3450 Jul 18 17:27	28°♄27'53	1.32492 AU	minimum elong	3451 Jul 02 01:37	10°♄52'48	0°56'44
	3450 Jul 19 10:21	0°♄		max. Earth dist.	3451 Jul 02 04:38	11°♄09'28	1.32105 AU
evening rise	3450 Jul 24 18:46	11°♄23'31		evening rise	3451 Jul 09 01:41	26°♄05'10	
	3450 Aug 03 11:36	0°♄			3451 Jul 10 22:53	0°♄	
desc. node	3450 Aug 15 21:51	19°♄20'46			3451 Jul 28 03:48	0°♄	
	3450 Aug 24 23:30	0°♄		desc. node	3451 Aug 02 18:52	7°♄21'18	
evening max el	3450 Aug 25 19:04	0°♄47'16	27°19'05	evening max el	3451 Aug 07 21:49	12°♄50'40	26°40'10
retrograde	3450 Sep 08 14:38	8°♄02'25		retrograde	3451 Aug 21 20:42	20°♄01'58	
evening set	3450 Sep 15 18:55	5°♄37'13		evening set	3451 Aug 28 16:12	18°♄03'49	
min. Earth dist.	3450 Sep 19 09:17	2°♄46'37	0.62131 AU	min. Earth dist.	3451 Sep 01 11:40	15°♄27'55	0.60102 AU
inferior conj	3450 Sep 22 08:42	0°♄02'02	-3°-54'-42	inferior conj	3451 Sep 04 17:53	12°♄50'03	-4°-40'-56
minimum elong	3450 Sep 22 14:28	29°♄48'41	3°53'09	minimum elong	3451 Sep 04 22:53	12°♄39'55	4°40'07
	3450 Sep 22 09:35	30°♄		morning rise	3451 Sep 12 08:54	8°♄08'48	
morning rise	3450 Sep 29 12:57	24°♄58'48		direct	3451 Sep 14 17:09	7°♄48'21	
direct	3450 Oct 01 20:59	24°♄34'56		morning max el	3451 Sep 22 05:16	11°♄28'51	18°11'14
asc. node	3450 Oct 05 12:13	25°♄34'40		asc. node	3451 Sep 22 09:16	11°♄38'36	
morning max el	3450 Oct 08 17:30	28°♄03'29	17°52'38		3451 Oct 04 12:19	0°♄	
	3450 Oct 10 12:20	0°♄		morning set	3451 Oct 08 00:30	6°♄33'05	
morning set	3450 Oct 24 14:55	22°♄54'00					

superior conj	3451 Oct 17 14:02	24°♄19'48	1°18'02		3452 Sep 09 02:47	0°♍	
minimum elong	3451 Oct 17 18:03	24°♄37'54	1°17'34	morning set	3452 Sep 20 20:38	20°♍42'19	
	3451 Oct 20 18:24	0°♌			3452 Sep 25 14:20	0°♄	
max. Earth dist.	3451 Oct 25 05:03	7°♌40'01	1.41264 AU				
desc. node	3451 Oct 29 18:10	15°♌12'57		superior conj	3452 Sep 29 09:59	7°♄21'53	1°35'43
evening rise	3451 Oct 30 06:54	16°♌04'43		minimum elong	3452 Sep 29 12:34	7°♄34'09	1°35'32
	3451 Nov 08 03:55	0°♊		max. Earth dist.	3452 Oct 06 10:17	20°♄16'24	1.39210 AU
greatest brilliancy	3451 Nov 27 14:18	27°♊05'29	-0.2m	evening rise	3452 Oct 10 09:44	27°♄12'02	
	3451 Nov 30 01:19	0°♐			3452 Oct 12 01:26	0°♌	
evening max el	3451 Dec 03 02:54	3°♐18'07	23°00'10	desc. node	3452 Oct 15 15:11	5°♌53'21	
retrograde	3451 Dec 13 07:09	9°♐20'12			3452 Oct 31 17:40	0°♊	
evening set	3451 Dec 18 01:43	7°♐23'51		evening max el	3452 Nov 14 16:13	16°♊56'52	24°19'48
asc. node	3451 Dec 19 08:31	6°♐11'56		retrograde	3452 Nov 25 22:20	23°♊32'12	
inferior conj	3451 Dec 23 11:47	0°♐58'33	1°22'15	evening set	3452 Dec 01 06:33	21°♊19'27	
minimum elong	3451 Dec 23 10:02	1°♐04'38	1°21'34	asc. node	3452 Dec 05 05:32	16°♊56'09	
min. Earth dist.	3451 Dec 23 04:11	1°♐24'48	0.67952 AU	min. Earth dist.	3452 Dec 06 00:15	15°♊54'13	0.67695 AU
	3451 Dec 24 04:50	30°♏♊		inferior conj	3452 Dec 06 18:34	14°♊52'40	0°31'32
morning rise	3451 Dec 28 18:20	24°♊47'42		minimum elong	3452 Dec 06 17:49	14°♊55'12	0°31'12
direct	3452 Jan 02 02:29	23°♊04'09		morning rise	3452 Dec 12 05:25	8°♊47'31	
morning max el	3452 Jan 10 21:45	28°♊12'22	21°32'07	direct	3452 Dec 16 00:06	7°♊26'01	
	3452 Jan 12 14:33	0°♐		morning max el	3452 Dec 23 19:01	11°♊53'02	20°17'03
greatest brilliancy	3452 Jan 15 20:48	3°♐50'00	-0.4m	greatest brilliancy	3452 Dec 30 07:49	19°♊40'08	-0.5m
desc. node	3452 Jan 25 17:24	17°♐11'24			3453 Jan 06 15:55	0°♐	
	3452 Feb 03 09:18	0°♏		desc. node	3453 Jan 11 14:26	7°♐19'43	
morning set	3452 Feb 11 13:56	12°♏42'31		morning set	3453 Jan 20 12:06	20°♐54'10	
max. Earth dist.	3452 Feb 18 07:33	23°♏36'22	1.41918 AU		3453 Jan 26 07:55	0°♏	
	3452 Feb 22 03:18	0°♏		max. Earth dist.	3453 Jan 30 15:42	6°♏52'45	1.43642 AU
superior conj	3452 Feb 25 20:31	6°♏22'30	-2°-5'-33	superior conj	3453 Feb 05 14:55	16°♏35'19	-2°-3'-57
minimum elong	3452 Feb 25 22:23	6°♏30'37	2°05'32	minimum elong	3453 Feb 05 11:32	16°♏21'21	2°03'51
evening rise	3452 Mar 07 21:42	26°♏10'22			3453 Feb 13 14:11	0°♏	
	3452 Mar 10 00:01	0°♏		evening rise	3453 Feb 18 07:52	8°♏11'19	
asc. node	3452 Mar 16 07:51	11°♏09'51		asc. node	3453 Mar 03 04:51	29°♏37'21	
evening max el	3452 Mar 24 07:41	22°♏10'30	18°09'49		3453 Mar 03 11:11	0°♏	
retrograde	3452 Mar 31 02:52	25°♏36'48		evening max el	3453 Mar 07 20:05	5°♏22'09	18°08'55
evening set	3452 Apr 02 15:59	25°♏08'24		retrograde	3453 Mar 14 07:02	8°♏45'22	
inferior conj	3452 Apr 09 12:04	20°♏16'27	3°08'17	evening set	3453 Mar 17 01:40	8°♏06'33	
minimum elong	3452 Apr 09 15:02	20°♏09'36	3°07'46	inferior conj	3453 Mar 23 08:47	2°♏53'49	3°33'45
min. Earth dist.	3452 Apr 12 19:35	17°♏14'39	0.60367 AU	minimum elong	3453 Mar 23 09:58	2°♏50'40	3°33'40
morning rise	3452 Apr 16 10:41	14°♏28'38		min. Earth dist.	3453 Mar 26 04:40	29°♏56'28	0.62492 AU
desc. node	3452 Apr 22 16:36	12°♏22'58			3453 Mar 26 03:16	30°♏♏	
direct	3452 Apr 23 01:37	12°♏22'34		morning rise	3453 Mar 29 15:57	26°♏51'37	
morning max el	3452 May 07 08:32	20°♏15'20	27°38'46	direct	3453 Apr 05 13:15	24°♏18'13	
	3452 May 15 17:12	0°♏		desc. node	3453 Apr 09 13:37	25°♏04'43	
	3452 Jun 03 04:31	0°♏			3453 Apr 17 04:25	0°♏	
morning set	3452 Jun 08 08:53	10°♏20'22		morning max el	3453 Apr 19 14:13	2°♏15'48	27°50'41
asc. node	3452 Jun 12 07:07	18°♏39'35			3453 May 10 01:00	0°♏	
max. Earth dist.	3452 Jun 14 16:07	23°♏50'00	1.32122 AU	morning set	3453 May 23 10:08	24°♏37'08	
					3453 May 26 00:55	0°♏	
superior conj	3452 Jun 15 15:06	25°♏56'11	0°34'28	max. Earth dist.	3453 May 29 00:04	6°♏16'56	1.32547 AU
minimum elong	3452 Jun 15 13:37	25°♏48'03	0°34'09	asc. node	3453 May 30 04:09	8°♏48'15	
	3452 Jun 17 11:25	0°♏		superior conj	3453 May 31 00:20	10°♏37'35	0°08'50
evening rise	3452 Jun 22 12:00	10°♏54'26		minimum elong	3453 May 30 23:55	10°♏35'19	0°08'45
	3452 Jul 02 05:50	0°♏		behind sun begin	3453 May 30 19:33	10°♏11'37	
evening max el	3452 Jul 19 17:14	24°♏06'05	25°30'19	behind sun end	3453 May 31 04:17	10°♏59'02	
desc. node	3452 Jul 19 15:54	24°♏02'52		evening rise	3453 Jun 06 23:48	25°♏44'44	
	3452 Jul 28 02:55	0°♏			3453 Jun 09 00:29	0°♏	
retrograde	3452 Aug 02 16:48	1°♏12'26			3453 Jun 26 23:18	0°♏	
	3452 Aug 08 06:24	30°♏♏		evening max el	3453 Jul 01 06:58	4°♏42'51	23°59'23
evening set	3452 Aug 08 14:39	29°♏51'02		desc. node	3453 Jul 06 12:53	8°♏54'48	
min. Earth dist.	3452 Aug 13 05:15	27°♏12'02	0.58062 AU	retrograde	3453 Jul 15 01:08	11°♏38'12	
inferior conj	3452 Aug 16 08:47	24°♏59'56	-5°-6'-8	evening set	3453 Jul 19 13:30	10°♏53'09	
minimum elong	3452 Aug 16 10:15	24°♏57'22	5°06'06	min. Earth dist.	3453 Jul 25 17:23	7°♏53'34	0.56298 AU
morning rise	3452 Aug 24 09:21	20°♏41'51		inferior conj	3453 Jul 28 03:25	6°♏24'35	-4°-55'-32
direct	3452 Aug 26 21:12	20°♏22'36		minimum elong	3453 Jul 27 23:05	6°♏31'17	4°55'04
morning max el	3452 Sep 04 09:44	24°♏25'03	18°50'30	morning rise	3453 Aug 05 12:06	2°♏26'23	
asc. node	3452 Sep 08 06:19	28°♏49'55					

direct	3453 Aug 08 05:56	2°♂06'57		direct	3454 Jul 19 21:20	12°♂54'57	
morning max el	3453 Aug 18 04:02	6°♂43'23	19°51'24	morning max el	3454 Jul 31 10:42	18°♂17'39	21°13'04
asc. node	3453 Aug 26 03:22	16°♂54'17			3454 Aug 09 16:22	0°♂	
	3453 Sep 02 09:24	0°♂		asc. node	3454 Aug 13 00:25	5°♂39'00	
morning set	3453 Sep 05 00:01	5°♂12'38		morning set	3454 Aug 20 08:09	19°♂57'01	
					3454 Aug 25 03:27	0°♂	
superior conj	3453 Sep 12 20:43	21°♂08'02	1°43'46	superior conj	3454 Aug 27 17:55	5°♂25'33	1°43'50
minimum elong	3453 Sep 12 21:33	21°♂12'11	1°43'46	minimum elong	3454 Aug 27 17:15	5°♂22'05	1°43'49
	3453 Sep 17 09:50	0°♂		max. Earth dist.	3454 Sep 01 01:11	14°♂10'04	1.35363 AU
max. Earth dist.	3453 Sep 18 15:12	2°♂19'02	1.37170 AU	evening rise	3454 Sep 05 07:18	22°♂25'14	
evening rise	3453 Sep 22 11:09	9°♂21'56			3454 Sep 09 10:13	0°♂	
desc. node	3453 Oct 02 12:12	26°♂23'51		desc. node	3454 Sep 19 09:13	16°♂39'19	
	3453 Oct 04 19:05	0°♂			3454 Sep 28 13:09	0°♂	
	3453 Oct 27 13:06	0°♂		evening max el	3454 Oct 10 16:42	14°♂17'20	26°34'11
evening max el	3453 Oct 28 04:24	0°♂37'54	25°33'37	retrograde	3454 Oct 23 14:49	21°♂31'27	
retrograde	3453 Nov 09 09:04	7°♂37'49		evening set	3454 Oct 30 02:32	18°♂53'30	
evening set	3453 Nov 15 07:27	5°♂10'20		min. Earth dist.	3454 Nov 03 05:12	14°♂39'34	0.66141 AU
min. Earth dist.	3453 Nov 19 17:19	0°♂20'16	0.67092 AU	inferior conj	3454 Nov 04 21:59	12°♂37'20	-1°-23'00
	3453 Nov 19 23:41	30°♂		minimum elong	3454 Nov 05 00:15	12°♂30'32	1°22'04
inferior conj	3453 Nov 20 22:36	28°♂46'29	0°-24'00	asc. node	3454 Nov 08 23:38	8°♂15'05	
minimum elong	3453 Nov 20 23:13	28°♂44'30	0°23'45	morning rise	3454 Nov 10 23:22	6°♂51'08	
asc. node	3453 Nov 22 02:34	27°♂17'58		direct	3454 Nov 13 20:31	6°♂04'31	
morning rise	3453 Nov 26 15:48	22°♂49'30		morning max el	3454 Nov 20 11:49	9°♂42'13	18°30'28
direct	3453 Nov 29 22:40	21°♂47'19			3454 Dec 04 20:39	0°♂	
morning max el	3453 Dec 07 00:12	25°♂44'15	19°15'53	morning set	3454 Dec 10 13:40	9°♂06'57	
	3453 Dec 10 17:29	0°♂		desc. node	3454 Dec 16 08:28	18°♂19'46	
greatest brilliancy	3453 Dec 16 18:55	8°♂22'54	-0.7m		3454 Dec 23 17:55	0°♂	
desc. node	3453 Dec 29 11:27	27°♂43'59					
morning set	3453 Dec 30 12:53	29°♂22'38		superior conj	3454 Dec 26 10:41	4°♂14'14	-1°-5'-3
	3453 Dec 30 22:31	0°♂		minimum elong	3454 Dec 26 02:47	3°♂43'15	1°04'07
max. Earth dist.	3454 Jan 13 06:24	20°♂49'48	1.44784 AU	max. Earth dist.	3454 Dec 27 00:34	5°♂08'44	1.45225 AU
				evening rise	3455 Jan 11 10:39	29°♂25'03	
superior conj	3454 Jan 16 08:03	25°♂41'21	-1°-43'-31		3455 Jan 11 19:28	0°♂	
minimum elong	3454 Jan 15 23:32	25°♂07'31	1°42'50	greatest brilliancy	3455 Jan 22 08:56	16°♂39'26	-0.8m
	3454 Jan 19 00:55	0°♂			3455 Jan 31 18:33	0°♂	
evening rise	3454 Jan 30 20:55	19°♂16'33		evening max el	3455 Feb 02 18:20	2°♂13'07	19°02'26
	3454 Feb 06 08:28	0°♂		asc. node	3455 Feb 04 22:55	4°♂11'50	
asc. node	3454 Feb 18 01:53	17°♂22'01		retrograde	3455 Feb 09 15:41	6°♂07'11	
evening max el	3454 Feb 19 08:25	18°♂44'34	18°26'47	evening set	3455 Feb 12 22:24	5°♂04'46	
retrograde	3454 Feb 25 20:35	22°♂17'42			3455 Feb 17 23:56	30°♂	
evening set	3454 Feb 28 20:50	21°♂27'36		inferior conj	3455 Feb 18 13:50	29°♂16'15	3°26'29
inferior conj	3454 Mar 06 18:35	15°♂55'54	3°38'02	minimum elong	3455 Feb 18 12:07	29°♂21'42	3°26'15
minimum elong	3454 Mar 06 18:05	15°♂57'23	3°38'01	min. Earth dist.	3455 Feb 20 03:12	27°♂18'16	0.65869 AU
min. Earth dist.	3454 Mar 08 23:20	13°♂22'16	0.64365 AU	morning rise	3455 Feb 24 00:51	23°♂02'03	
morning rise	3454 Mar 12 13:48	9°♂45'38		direct	3455 Mar 02 11:29	20°♂13'20	
direct	3454 Mar 19 08:56	6°♂57'42		desc. node	3455 Mar 14 07:42	26°♂48'35	
desc. node	3454 Mar 27 10:40	10°♂04'43		morning max el	3455 Mar 15 09:26	27°♂51'58	26°31'39
morning max el	3454 Apr 01 23:29	14°♂52'04	27°26'19		3455 Mar 17 10:08	0°♂	
	3454 Apr 14 07:46	0°♂			3455 Apr 08 00:56	0°♂	
	3454 May 02 17:08	0°♂		morning set	3455 Apr 20 08:58	21°♂37'35	
morning set	3454 May 07 03:19	8°♂26'14		max. Earth dist.	3455 Apr 24 13:30	29°♂43'06	1.34725 AU
max. Earth dist.	3454 May 12 00:18	18°♂16'40	1.33405 AU		3455 Apr 24 16:56	0°♂	
				superior conj	3455 Apr 29 04:25	9°♂03'21	0°-47'-44
superior conj	3454 May 15 05:30	25°♂02'03	0°-18'-57	minimum elong	3455 Apr 29 06:56	9°♂16'18	0°47'15
minimum elong	3454 May 15 06:28	25°♂07'09	0°18'45	asc. node	3455 May 03 22:14	18°♂56'09	
asc. node	3454 May 17 01:11	28°♂55'02		evening rise	3455 May 06 20:12	25°♂01'00	
	3454 May 17 13:19	0°♂			3455 May 09 06:41	0°♂	
evening rise	3454 May 22 11:10	10°♂28'51		evening max el	3455 May 25 20:43	25°♂55'04	20°54'20
	3454 Jun 01 14:20	0°♂			3455 May 31 07:33	0°♂	
evening max el	3454 Jun 12 21:30	15°♂08'10	22°22'40	retrograde	3455 Jun 06 10:37	1°♂34'37	
desc. node	3454 Jun 23 09:54	21°♂21'16		evening set	3455 Jun 08 14:22	1°♂23'36	
retrograde	3454 Jun 25 21:36	21°♂35'31		desc. node	3455 Jun 10 06:57	1°♂00'26	
evening set	3454 Jun 28 22:49	21°♂14'58			3455 Jun 13 00:30	30°♂	
min. Earth dist.	3454 Jul 07 04:13	17°♂40'54	0.55141 AU	inferior conj	3455 Jun 17 21:53	27°♂26'16	-2°-12'-56
inferior conj	3454 Jul 08 04:26	17°♂06'38	-3°-56'-25	minimum elong	3455 Jun 17 15:43	27°♂35'00	2°10'48
minimum elong	3454 Jul 07 20:10	17°♂18'21	3°54'21				
morning rise	3454 Jul 16 19:45	13°♂16'11					

min. Earth dist.	3455 Jun 18 16:09	27°II00'19	0.54874 AU	minimum elong	3456 May 27 21:40	7°II55'14	0°13'15
morning rise	3455 Jun 26 16:24	23°II24'03		transit middle	3456 May 27 21:40	7°II55'14	0°13'15
direct	3455 Jun 30 06:40	22°II56'12		transit begin	3456 May 27 19:28	7°II58'40	
morning max el	3455 Jul 13 06:58	29°II10'13	22°50'33	transit end	3456 May 27 23:52	7°II51'49	
	3455 Jul 14 03:41	0°☿		min. Earth dist.	3456 May 30 05:43	6°II28'12	0.55573 AU
asc. node	3455 Jul 30 21:28	24°☿54'00		morning rise	3456 Jun 05 12:38	3°II23'18	
	3455 Aug 02 11:03	0°♈		direct	3456 Jun 09 23:04	2°II39'37	
morning set	3455 Aug 04 18:59	4°♈49'23		morning max el	3456 Jun 23 21:28	9°II37'19	24°33'26
					3456 Jul 09 01:30	0°☿	
superior conj	3455 Aug 11 22:12	20°♈03'49	1°37'19	asc. node	3456 Jul 16 18:32	14°☿31'25	
minimum elong	3455 Aug 11 20:29	19°♈54'38	1°37'10	morning set	3456 Jul 19 06:51	19°☿44'46	
max. Earth dist.	3455 Aug 14 19:58	26°♈11'59	1.33926 AU		3456 Jul 24 00:57	0°♈	
	3455 Aug 16 16:06	0°♐					
evening rise	3455 Aug 19 17:43	6°♐09'43		superior conj	3456 Jul 26 07:02	4°♈54'52	1°25'18
	3455 Sep 02 01:25	0°♑		minimum elong	3456 Jul 26 04:46	4°♈42'32	1°25'00
desc. node	3455 Sep 06 06:15	6°♑32'22		max. Earth dist.	3456 Jul 27 23:35	8°♈34'44	1.32902 AU
evening max el	3455 Sep 23 05:03	27°♑46'24	27°14'01	evening rise	3456 Aug 02 14:31	20°♈24'22	
	3455 Sep 25 16:46	0°♒			3456 Aug 07 11:39	0°♐	
retrograde	3455 Oct 06 14:54	5°♒04'42		desc. node	3456 Aug 23 03:18	25°♐53'30	
evening set	3455 Oct 13 13:22	2°♒23'34			3456 Aug 26 03:25	0°♑	
	3455 Oct 16 05:02	30°♒♑		evening max el	3456 Sep 04 15:48	10°♑53'01	27°26'22
min. Earth dist.	3455 Oct 17 09:34	28°♑45'27	0.64844 AU	retrograde	3456 Sep 18 08:31	18°♑09'10	
inferior conj	3455 Oct 19 14:29	26°♑19'59	-2°-23'-37	evening set	3456 Sep 25 12:53	15°♑34'53	
minimum elong	3455 Oct 19 18:28	26°♑08'59	2°22'06	min. Earth dist.	3456 Sep 29 04:24	12°♑29'07	0.63214 AU
morning rise	3455 Oct 26 01:33	20°♑47'36		inferior conj	3456 Oct 01 21:24	9°♑48'29	-3°-22'-53
asc. node	3455 Oct 26 20:42	20°♑29'22		minimum elong	3456 Oct 02 02:47	9°♑35'08	3°21'11
direct	3455 Oct 28 15:29	20°♑12'32		morning rise	3456 Oct 08 19:14	4°♑33'20	
morning max el	3455 Nov 04 03:18	23°♑40'12	18°01'45	direct	3456 Oct 11 04:38	4°♑06'12	
	3455 Nov 09 05:29	0°♒		asc. node	3456 Oct 12 17:43	4°♑17'46	
morning set	3455 Nov 21 19:53	20°♒18'32		morning max el	3456 Oct 17 19:47	7°♑31'57	17°50'37
	3455 Nov 27 16:08	0°♓			3456 Nov 01 13:54	0°♒	
desc. node	3455 Dec 03 05:30	9°♓02'40		morning set	3456 Nov 03 03:00	2°♒42'30	
superior conj	3455 Dec 05 19:08	13°♓09'47	0°-17'-28	superior conj	3456 Nov 15 02:10	23°♒13'29	0°27'32
minimum elong	3455 Dec 05 16:58	13°♓01'11	0°17'10	minimum elong	3456 Nov 15 04:54	23°♒24'48	0°27'08
max. Earth dist.	3455 Dec 09 19:31	19°♓32'16	1.44930 AU	desc. node	3456 Nov 19 02:34	29°♒49'39	
	3455 Dec 16 11:54	0°♊			3456 Nov 19 05:07	0°♓	
evening rise	3455 Dec 22 04:13	8°♊47'48		max. Earth dist.	3456 Nov 21 12:45	3°♓44'38	1.43939 AU
	3456 Jan 05 02:27	0°♋		evening rise	3456 Nov 30 13:27	17°♓56'33	
greatest brilliancy	3456 Jan 09 21:37	6°♋55'05	-0.6m		3456 Dec 08 11:43	0°♊	
evening max el	3456 Jan 16 23:57	15°♋43'59	19°54'13	greatest brilliancy	3456 Dec 24 15:43	23°♊00'41	-0.5m
asc. node	3456 Jan 22 19:59	19°♋51'46		evening max el	3456 Dec 30 00:10	29°♊16'06	20°59'27
retrograde	3456 Jan 24 13:17	20°♋07'53			3456 Dec 30 17:46	0°♋	
evening set	3456 Jan 28 03:53	18°♋51'50		retrograde	3457 Jan 07 11:10	4°♋16'31	
inferior conj	3456 Feb 02 15:29	12°♋48'57	3°02'52	asc. node	3457 Jan 08 17:01	4°♋08'01	
minimum elong	3456 Feb 02 13:06	12°♋56'54	3°02'21	evening set	3457 Jan 11 11:20	2°♋45'26	
min. Earth dist.	3456 Feb 03 14:32	11°♋32'02	0.66961 AU		3457 Jan 14 05:32	30°♒♊	
morning rise	3456 Feb 07 21:41	6°♋33'24		inferior conj	3457 Jan 16 21:04	26°♊30'59	2°29'44
direct	3456 Feb 13 19:46	3°♋55'38		minimum elong	3457 Jan 16 18:34	26°♊39'37	2°29'00
morning max el	3456 Feb 25 18:17	11°♋03'20	25°15'42	min. Earth dist.	3457 Jan 17 07:15	25°♊55'57	0.67646 AU
desc. node	3456 Feb 29 04:43	14°♋46'25		morning rise	3457 Jan 22 01:24	20°♊15'58	
	3456 Mar 11 21:03	0°♌		direct	3457 Jan 27 08:53	17°♊56'57	
	3456 Mar 30 17:00	0°♍		morning max el	3457 Feb 07 02:46	24°♊21'03	23°48'38
morning set	3456 Apr 01 22:20	3°♍57'14			3457 Feb 12 04:09	0°♋	
max. Earth dist.	3456 Apr 05 15:23	10°♍45'53	1.36485 AU	desc. node	3457 Feb 15 01:45	3°♋37'17	
					3457 Mar 05 08:00	0°♌	
superior conj	3456 Apr 11 18:14	22°♍33'32	-1°-15'-54	morning set	3457 Mar 14 13:28	15°♌08'48	
minimum elong	3456 Apr 11 22:09	22°♍52'58	1°15'18	max. Earth dist.	3457 Mar 18 10:58	21°♌55'37	1.38570 AU
	3456 Apr 15 11:20	0°♎			3457 Mar 22 22:07	0°♍	
asc. node	3456 Apr 19 19:18	8°♎47'20					
evening rise	3456 Apr 20 00:41	9°♎14'30		superior conj	3457 Mar 25 19:13	5°♍22'31	-1°-41'-2
	3456 May 01 10:02	0°♏		minimum elong	3457 Mar 25 23:50	5°♍44'22	1°40'32
evening max el	3456 May 07 08:03	7°♏21'08	19°42'42	evening rise	3457 Apr 03 21:57	23°♍01'39	
retrograde	3456 May 17 03:58	12°♏07'27		asc. node	3457 Apr 06 16:20	28°♍23'15	
evening set	3456 May 19 03:22	11°♏56'45			3457 Apr 07 12:39	0°♎	
desc. node	3456 May 27 03:57	8°♏22'42		evening max el	3457 Apr 20 06:20	19°♎26'17	18°50'46
inferior conj	3456 May 27 22:17	7°♏54'18	0°-13'-27	retrograde	3457 Apr 28 13:18	23°♎29'17	

evening set	3457 Apr 30 16:51	23°♄14'02		evening max el	3458 Apr 03 12:40	2°♄04'01	18°19'02
inferior conj	3457 May 08 16:40	18°♄54'47	1°29'45	retrograde	3458 Apr 10 17:44	5°♄39'26	
minimum elong	3457 May 08 19:49	18°♄49'05	1°28'44	evening set	3458 Apr 13 03:16	5°♄16'33	
min. Earth dist.	3457 May 11 21:53	16°♄36'07	0.57085 AU	inferior conj	3458 Apr 20 08:34	0°♄36'39	2°41'27
desc. node	3457 May 14 00:58	15°♄13'18		minimum elong	3458 Apr 20 12:12	0°♄28'55	2°40'36
morning rise	3457 May 16 18:24	13°♄48'36			3458 Apr 21 01:46	30°♄	
direct	3457 May 22 04:32	12°♄37'39		min. Earth dist.	3458 Apr 23 18:58	27°♄43'25	0.59104 AU
morning max el	3457 Jun 05 12:30	20°♄05'39	26°06'43	morning rise	3458 Apr 27 17:06	25°♄00'47	
	3457 Jun 13 23:50	0°♄		desc. node	3458 Apr 30 21:58	23°♄40'12	
	3457 Jul 01 12:44	0°♄		direct	3458 May 03 23:37	23°♄14'44	
morning set	3457 Jul 03 18:01	4°♄36'53			3458 May 17 06:57	0°♄	
asc. node	3457 Jul 03 15:35	4°♄24'00		morning max el	3458 May 18 08:49	1°♄01'42	27°15'03
					3458 Jun 08 02:44	0°♄	
superior conj	3457 Jul 10 18:13	19°♄50'44	1°08'36	morning set	3458 Jun 18 02:52	19°♄20'13	
minimum elong	3457 Jul 10 15:53	19°♄37'57	1°08'12	asc. node	3458 Jun 20 12:38	24°♄26'28	
max. Earth dist.	3457 Jul 11 09:08	21°♄12'46	1.32284 AU		3458 Jun 23 02:04	0°♄	
	3457 Jul 15 10:02	0°♄					
evening rise	3457 Jul 17 18:28	4°♄58'23		superior conj	3458 Jun 25 05:59	4°♄45'28	0°47'55
	3457 Jul 31 03:37	0°♄		minimum elong	3458 Jun 25 04:04	4°♄34'55	0°47'33
desc. node	3457 Aug 10 00:19	14°♄28'31		max. Earth dist.	3458 Jun 24 20:58	3°♄55'48	1.32062 AU
evening max el	3457 Aug 17 22:07	23°♄22'08	27°06'30	evening rise	3458 Jul 02 03:03	19°♄43'51	
	3457 Aug 28 02:18	0°♄			3458 Jul 07 03:55	0°♄	
retrograde	3457 Aug 31 18:51	0°♄34'48			3458 Jul 26 03:45	0°♄	
	3457 Sep 04 09:03	30°♄		desc. node	3458 Jul 27 21:18	1°♄58'40	
evening set	3457 Sep 07 21:04	28°♄19'36		evening max el	3458 Jul 30 21:33	5°♄04'13	26°13'40
min. Earth dist.	3457 Sep 11 12:24	25°♄37'18	0.61297 AU	retrograde	3458 Aug 13 20:59	12°♄14'05	
inferior conj	3457 Sep 14 15:30	22°♄53'38	-4°-16'-3	evening set	3458 Aug 20 09:08	10°♄30'22	
minimum elong	3457 Sep 14 21:13	22°♄41'07	4°14'45	min. Earth dist.	3458 Aug 24 10:24	7°♄55'46	0.59227 AU
morning rise	3457 Sep 22 00:24	17°♄59'23		inferior conj	3458 Aug 27 17:14	5°♄26'12	-4°-54'-57
direct	3457 Sep 24 08:18	17°♄37'08		minimum elong	3458 Aug 27 21:06	5°♄18'49	4°54'32
asc. node	3457 Sep 29 14:45	19°♄35'41		morning rise	3458 Sep 04 12:33	0°♄55'13	
morning max el	3457 Oct 01 10:11	21°♄09'14	17°58'04	direct	3458 Sep 06 21:59	0°♄35'31	
	3457 Oct 08 02:52	0°♄		morning max el	3458 Sep 14 19:16	4°♄23'37	18°25'20
morning set	3457 Oct 17 04:29	15°♄58'40		asc. node	3458 Sep 16 11:48	6°♄10'08	
	3457 Oct 24 21:33	0°♄		morning set	3458 Sep 30 18:59	29°♄51'38	
					3458 Sep 30 20:43	0°♄	
superior conj	3457 Oct 27 12:05	4°♄36'08	1°02'53				
minimum elong	3457 Oct 27 16:21	4°♄54'49	1°02'19	superior conj	3458 Oct 09 21:12	17°♄06'43	1°26'48
max. Earth dist.	3457 Nov 04 01:31	17°♄27'50	1.42361 AU	minimum elong	3458 Oct 10 00:42	17°♄22'51	1°26'28
desc. node	3457 Nov 05 23:37	20°♄37'07			3458 Oct 17 02:09	0°♄	
evening rise	3457 Nov 10 06:34	27°♄30'49		max. Earth dist.	3458 Oct 17 08:38	0°♄27'58	1.40403 AU
	3457 Nov 11 20:25	0°♄		evening rise	3458 Oct 21 19:44	8°♄00'33	
	3457 Dec 02 06:09	0°♄		desc. node	3458 Oct 23 20:37	11°♄21'12	
greatest brilliancy	3457 Dec 08 01:24	7°♄30'08	-0.3m		3458 Nov 04 22:03	0°♄	
evening max el	3457 Dec 12 18:56	12°♄49'45	22°14'28	evening max el	3458 Nov 25 09:30	26°♄25'48	23°34'16
retrograde	3457 Dec 22 07:35	18°♄29'51			3458 Nov 29 10:39	0°♄	
evening set	3457 Dec 26 19:02	16°♄42'43		retrograde	3458 Dec 06 01:08	2°♄43'35	
asc. node	3457 Dec 26 14:00	16°♄52'39		evening set	3458 Dec 11 01:23	0°♄40'00	
inferior conj	3458 Jan 01 04:34	10°♄20'05	1°48'51		3458 Dec 11 19:12	30°♄	
minimum elong	3458 Jan 01 02:24	10°♄27'36	1°48'04	asc. node	3458 Dec 13 11:01	28°♄12'38	
min. Earth dist.	3458 Jan 01 03:08	10°♄25'02	0.67944 AU	min. Earth dist.	3458 Dec 15 23:51	24°♄55'11	0.67881 AU
morning rise	3458 Jan 06 09:38	4°♄07'16		inferior conj	3458 Dec 16 12:07	24°♄13'17	1°01'24
direct	3458 Jan 11 02:02	2°♄10'46		minimum elong	3458 Dec 16 10:44	24°♄18'01	1°00'50
morning max el	3458 Jan 20 13:48	7°♄46'07	22°20'18	morning rise	3458 Dec 21 20:14	18°♄04'34	
greatest brilliancy	3458 Jan 25 03:24	12°♄52'12	-0.3m	direct	3458 Dec 25 22:21	16°♄30'52	
desc. node	3458 Feb 01 22:48	23°♄06'25		morning max el	3459 Jan 03 06:43	21°♄20'45	20°58'39
	3458 Feb 06 19:04	0°♄		greatest brilliancy	3459 Jan 08 19:00	27°♄42'33	-0.5m
morning set	3458 Feb 23 00:49	24°♄59'39			3459 Jan 10 13:20	0°♄	
	3458 Feb 26 01:57	0°♄		desc. node	3459 Jan 19 19:50	13°♄02'41	
max. Earth dist.	3458 Feb 28 07:54	3°♄45'58	1.40740 AU		3459 Jan 31 01:27	0°♄	
				morning set	3459 Feb 02 08:44	3°♄35'04	
superior conj	3458 Mar 08 02:50	17°♄19'17	-1°-59'-38	max. Earth dist.	3459 Feb 10 11:02	16°♄29'57	1.42706 AU
minimum elong	3458 Mar 08 06:28	17°♄35'37	1°59'26				
	3458 Mar 15 00:49	0°♄		superior conj	3459 Feb 17 11:54	28°♄11'53	-2°-6'-57
evening rise	3458 Mar 18 08:47	6°♄14'37		minimum elong	3459 Feb 17 11:50	28°♄11'33	2°06'58
asc. node	3458 Mar 24 13:22	17°♄38'24			3459 Feb 18 13:18	0°♄	
	3458 Apr 01 15:04	0°♄		evening rise	3459 Mar 01 05:11	18°♄43'58	

	3459 Mar 07 13:39	0°Υ		evening rise	3460 Feb 11 06:47	0°Ϡ21'38	
asc. node	3459 Mar 11 10:22	6°Υ25'34			3460 Feb 11 01:42	0°Ϡ	
evening max el	3459 Mar 17 23:45	15°Υ05'25	18°07'06	asc. node	3460 Feb 26 07:23	24°Ϡ36'18	
retrograde	3459 Mar 24 14:21	18°Υ28'54		evening max el	3460 Feb 29 12:30	28°Ϡ22'42	18°14'19
evening set	3459 Mar 27 05:43	17°Υ56'22			3460 Mar 02 08:31	0°Υ	
inferior conj	3459 Apr 02 19:51	12°Υ55'37	3°22'05	retrograde	3460 Mar 06 22:52	1°Υ48'23	
minimum elong	3459 Apr 02 22:06	12°Υ50'06	3°21'46	evening set	3460 Mar 09 19:51	1°Υ04'55	
min. Earth dist.	3459 Apr 05 23:14	9°Υ52'33	0.61285 AU		3460 Mar 11 13:10	30°ϠϠ	
morning rise	3459 Apr 09 11:28	7°Υ00'24		inferior conj	3460 Mar 15 22:36	25°Ϡ44'10	3°37'45
direct	3459 Apr 16 06:12	4°Υ41'06		minimum elong	3460 Mar 15 23:02	25°Ϡ42'59	3°37'44
desc. node	3459 Apr 17 19:00	4°Υ47'50		min. Earth dist.	3460 Mar 18 12:22	22°Ϡ54'44	0.63336 AU
morning max el	3459 Apr 30 11:22	12°Υ37'53	27°48'30	morning rise	3460 Mar 22 00:14	19°Ϡ38'02	
	3459 May 14 06:09	0°Ϡ		direct	3460 Mar 28 21:45	16°Ϡ56'20	
	3459 May 31 10:26	0°Π		desc. node	3460 Apr 03 16:02	18°Ϡ32'20	
morning set	3459 Jun 02 07:30	3°Π48'24		morning max el	3460 Apr 11 18:40	24°Ϡ53'54	27°44'22
asc. node	3459 Jun 07 09:41	14°Π33'56			3460 Apr 16 10:14	0°Υ	
max. Earth dist.	3459 Jun 08 07:14	16°Π30'56	1.32241 AU		3460 May 06 16:24	0°Ϡ	
				morning set	3460 May 16 05:39	17°Ϡ54'06	
superior conj	3459 Jun 09 16:38	19°Π33'14	0°23'54	max. Earth dist.	3460 May 21 12:06	28°Ϡ45'59	1.32851 AU
minimum elong	3459 Jun 09 15:34	19°Π27'21	0°23'41		3460 May 22 02:03	0°Π	
	3459 Jun 14 11:13	0°Ϡ					
evening rise	3459 Jun 16 14:11	4°Ϡ33'50		superior conj	3460 May 24 00:24	4°Π08'08	0°-2'-46
	3459 Jun 30 02:44	0°Ω		minimum elong	3460 May 24 00:32	4°Π08'51	0°02'44
evening max el	3459 Jul 12 13:58	16°Ω00'49	24°53'29	behind sun begin	3460 May 23 19:19	3°Π40'44	
desc. node	3459 Jul 14 18:17	17°Ω57'59		behind sun end	3460 May 24 05:45	4°Π36'59	
retrograde	3459 Jul 26 12:49	23°Ω04'43		asc. node	3460 May 24 06:44	4°Π42'16	
evening set	3459 Jul 31 21:18	21°Ω59'34		evening rise	3460 May 31 02:01	19°Π21'59	
min. Earth dist.	3459 Aug 06 01:26	19°Ω13'34	0.57250 AU		3460 Jun 05 07:03	0°Ϡ	
inferior conj	3459 Aug 08 23:37	17°Ω17'43	-5°-7'-1	evening max el	3460 Jun 23 03:13	26°Ϡ29'02	23°18'11
minimum elong	3459 Aug 08 22:44	17°Ω19'10	5°07'00		3460 Jun 27 08:51	0°Ω	
morning rise	3459 Aug 17 03:49	13°Ω09'01		desc. node	3460 Jun 30 15:18	1°Ω52'15	
direct	3459 Aug 19 17:42	12°Ω50'02		retrograde	3460 Jul 06 15:49	3°Ω14'39	
morning max el	3459 Aug 28 19:50	17°Ω05'42	19°13'45	evening set	3460 Jul 10 12:16	2°Ω42'14	
asc. node	3459 Sep 03 08:52	23°Ω46'14			3460 Jul 16 15:35	30°ϠϠ	
	3459 Sep 07 06:25	0°൬		min. Earth dist.	3460 Jul 17 12:53	29°Ϡ29'32	0.55704 AU
morning set	3459 Sep 14 18:36	14°൬11'18		inferior conj	3460 Jul 19 10:03	28°Ϡ23'10	-4°-36'-48
	3459 Sep 22 17:55	0°Ω		minimum elong	3460 Jul 19 03:27	28°Ϡ32'53	4°35'41
				morning rise	3460 Jul 27 21:40	24°Ϡ29'54	
superior conj	3459 Sep 23 00:06	0°Ω30'02	1°40'12	direct	3460 Jul 30 18:32	24°Ϡ09'56	
minimum elong	3459 Sep 23 01:56	0°Ω38'56	1°40'06	morning max el	3460 Aug 10 09:11	29°Ϡ05'24	20°23'47
max. Earth dist.	3459 Sep 29 12:42	12°Ω46'54	1.38324 AU		3460 Aug 11 07:44	0°Ω	
evening rise	3459 Oct 03 08:37	19°Ω36'23		asc. node	3460 Aug 20 05:56	12°Ω09'12	
	3459 Oct 09 12:25	0°൬		morning set	3460 Aug 29 00:19	28°Ω48'33	
desc. node	3459 Oct 10 17:38	1°൬58'28			3460 Aug 29 14:16	0°൬	
	3459 Oct 30 01:57	0°Ϡ					
evening max el	3459 Nov 07 22:07	10°Ϡ06'20	24°52'20	superior conj	3460 Sep 05 15:46	14°൬30'52	1°44'41
retrograde	3459 Nov 19 14:42	16°Ϡ53'58		minimum elong	3460 Sep 05 15:55	14°൬31'38	1°44'41
evening set	3459 Nov 25 04:47	14°Ϡ34'47		max. Earth dist.	3460 Sep 10 19:15	24°൬42'01	1.36364 AU
min. Earth dist.	3459 Nov 29 19:06	9°Ϡ24'03	0.67479 AU		3460 Sep 13 14:19	0°Ω	
asc. node	3459 Nov 30 08:03	8°Ϡ41'19		evening rise	3460 Sep 14 18:37	2°Ω10'56	
inferior conj	3459 Nov 30 17:59	8°Ϡ08'27	0°08'31	desc. node	3460 Sep 26 14:40	22°Ω23'33	
minimum elong	3459 Nov 30 17:47	8°Ϡ09'10	0°08'24		3460 Oct 01 13:45	0°൬	
transit middle	3459 Nov 30 17:47	8°Ϡ09'10	0°08'24	evening max el	3460 Oct 20 10:32	23°൬48'36	26°01'27
transit begin	3459 Nov 30 15:25	8°Ϡ16'58			3460 Oct 28 21:28	0°Ϡ	
transit end	3459 Nov 30 20:08	8°Ϡ01'22		retrograde	3460 Nov 01 23:19	0°Ϡ55'18	
morning rise	3459 Dec 06 07:17	2°Ϡ06'12			3460 Nov 05 17:40	30°൬൬	
direct	3459 Dec 09 20:39	0°Ϡ53'21		evening set	3460 Nov 08 03:28	28°൬23'03	
morning max el	3459 Dec 17 07:24	5°Ϡ06'34	19°49'04	min. Earth dist.	3460 Nov 12 10:21	23°൬48'03	0.66736 AU
greatest brilliancy	3459 Dec 24 21:11	14°Ϡ24'24	-0.6m	inferior conj	3460 Nov 13 20:20	22°൬01'57	0°-48'-39
	3460 Jan 04 12:33	0°Ϡ		minimum elong	3460 Nov 13 21:37	21°൬57'55	0°48'07
desc. node	3460 Jan 06 16:52	3°Ϡ18'46		asc. node	3460 Nov 16 05:07	19°൬11'52	
morning set	3460 Jan 12 04:39	11°Ϡ44'14		morning rise	3460 Nov 19 16:47	16°൬08'55	
	3460 Jan 23 20:43	0°≈		direct	3460 Nov 22 19:19	15°൬13'40	
max. Earth dist.	3460 Jan 23 21:40	0°≈03'46	1.44212 AU	morning max el	3460 Nov 29 15:30	19°൬01'04	18°54'27
					3460 Dec 08 04:10	0°Ϡ	
superior conj	3460 Jan 28 19:08	7°≈55'02	-1°-57'-43	morning set	3460 Dec 21 14:00	20°Ϡ40'51	
minimum elong	3460 Jan 28 13:12	7°≈31'03	1°57'24	desc. node	3460 Dec 23 13:55	23°Ϡ48'38	

	3460 Dec 27 12:44	0°☿		morning set	3461 Dec 02 03:31	1°☿03'35	
max. Earth dist.	3461 Jan 05 14:24	14°☿13'10	1.45072 AU	desc. node	3461 Dec 10 10:57	14°☿27'57	
superior conj	3461 Jan 07 04:04	16°☿41'22	-1°-29'-3	superior conj	3461 Dec 17 06:28	25°☿16'16	0°-45'-14
minimum elong	3461 Jan 06 18:54	16°☿05'17	1°28'08	minimum elong	3461 Dec 17 00:44	24°☿53'41	0°44'29
	3461 Jan 15 13:29	0°☿		max. Earth dist.	3461 Dec 19 09:53	28°☿38'29	1.45197 AU
evening rise	3461 Jan 22 09:56	11°☿02'20			3461 Dec 20 06:39	0°☿	
	3461 Feb 03 05:00	0°☿		evening rise	3462 Jan 02 14:17	20°☿49'20	
evening max el	3461 Feb 12 00:10	11°☿48'55	18°39'53		3462 Jan 08 11:25	0°☿	
asc. node	3461 Feb 12 04:24	11°☿59'36		greatest brilliancy	3462 Jan 17 13:57	13°☿54'34	-0.7m
retrograde	3461 Feb 18 15:07	15°☿29'18		evening max el	3462 Jan 26 08:25	25°☿18'37	19°22'34
evening set	3461 Feb 21 18:07	14°☿33'55		asc. node	3462 Jan 30 01:27	28°☿21'39	
inferior conj	3461 Feb 27 12:50	8°☿54'50	3°34'46	retrograde	3462 Feb 02 11:41	29°☿24'21	
minimum elong	3461 Feb 27 11:45	8°☿58'07	3°34'41	evening set	3462 Feb 05 21:38	28°☿16'07	
min. Earth dist.	3461 Mar 01 10:57	6°☿35'31	0.65061 AU	inferior conj	3462 Feb 11 11:08	22°☿20'54	3°17'44
morning rise	3461 Mar 05 04:10	2°☿42'47		minimum elong	3462 Feb 11 09:04	22°☿27'36	3°17'24
	3461 Mar 10 10:57	30°☿		min. Earth dist.	3462 Feb 12 18:07	20°☿40'23	0.66386 AU
direct	3461 Mar 11 20:25	29°☿53'01		morning rise	3462 Feb 16 19:44	16°☿05'56	
	3461 Mar 13 06:46	0°☿		direct	3462 Feb 23 01:18	13°☿21'03	
desc. node	3461 Mar 21 13:06	4°☿20'54		morning max el	3462 Mar 07 14:07	20°☿47'56	26°01'25
morning max el	3461 Mar 25 04:23	7°☿41'29	27°06'15	desc. node	3462 Mar 08 10:08	21°☿39'23	
	3461 Apr 11 11:11	0°☿			3462 Mar 15 13:00	0°☿	
	3461 Apr 28 23:57	0°☿			3462 Apr 04 15:11	0°☿	
morning set	3461 Apr 29 18:25	1°☿28'42		morning set	3462 Apr 12 17:44	14°☿19'37	
max. Earth dist.	3461 May 04 08:03	10°☿32'24	1.33913 AU	max. Earth dist.	3462 Apr 16 16:34	21°☿48'03	1.35429 AU
					3462 Apr 20 20:19	0°☿	
superior conj	3461 May 08 03:16	18°☿24'08	0°-31'-6				
minimum elong	3461 May 08 04:52	18°☿32'36	0°30'47	superior conj	3462 Apr 21 22:38	2°☿12'53	0°-59'-52
asc. node	3461 May 11 03:45	24°☿47'20		minimum elong	3462 Apr 22 01:48	2°☿28'53	0°59'20
	3461 May 13 14:40	0°☿		asc. node	3462 Apr 28 00:47	14°☿44'37	
evening rise	3461 May 15 12:41	4°☿02'24		evening rise	3462 Apr 29 20:04	18°☿27'31	
	3461 May 29 22:54	0°☿			3462 May 05 16:18	0°☿	
evening max el	3461 Jun 04 20:46	7°☿00'32	21°43'26	evening max el	3462 May 18 00:50	18°☿02'02	20°21'26
retrograde	3461 Jun 17 07:35	13°☿08'54		retrograde	3462 May 28 21:03	23°☿19'05	
desc. node	3461 Jun 17 12:19	13°☿08'48		evening set	3462 May 30 21:17	23°☿08'57	
evening set	3461 Jun 19 21:43	12°☿53'48		desc. node	3462 Jun 04 09:22	21°☿41'23	
inferior conj	3461 Jun 29 06:10	8°☿52'07	-3°-16'-43	inferior conj	3462 Jun 09 00:44	19°☿10'49	-1°-22'-1
minimum elong	3461 Jun 28 22:02	9°☿03'29	3°14'18	minimum elong	3462 Jun 08 20:52	19°☿16'29	1°20'37
min. Earth dist.	3461 Jun 28 23:43	9°☿01'08	0.54910 AU	min. Earth dist.	3462 Jun 10 12:00	18°☿19'14	0.55057 AU
morning rise	3461 Jul 07 23:31	4°☿59'29		morning rise	3462 Jun 17 18:37	14°☿58'11	
direct	3461 Jul 11 05:59	4°☿36'05		direct	3462 Jun 21 16:24	14°☿25'13	
morning max el	3461 Jul 23 10:55	10°☿20'11	21°53'08	morning max el	3462 Jul 05 04:03	20°☿58'47	23°34'37
	3461 Aug 06 12:16	0°☿			3462 Jul 12 21:42	0°☿	
asc. node	3461 Aug 07 03:01	1°☿07'58		asc. node	3462 Jul 25 00:04	20°☿33'00	
morning set	3461 Aug 13 09:51	13°☿37'07		morning set	3462 Jul 28 21:18	28°☿31'02	
					3462 Jul 29 14:07	0°☿	
superior conj	3461 Aug 20 16:20	28°☿58'02	1°41'48				
minimum elong	3461 Aug 20 15:09	28°☿51'53	1°41'45	superior conj	3462 Aug 04 22:48	13°☿42'12	1°32'50
	3461 Aug 21 04:09	0°☿		minimum elong	3462 Aug 04 20:47	13°☿31'22	1°32'38
max. Earth dist.	3461 Aug 24 09:06	6°☿37'00	1.34704 AU	max. Earth dist.	3462 Aug 07 07:47	18°☿46'49	1.33434 AU
evening rise	3461 Aug 28 21:21	15°☿32'54		evening rise	3462 Aug 12 12:32	29°☿30'36	
	3461 Sep 05 19:30	0°☿			3462 Aug 12 18:25	0°☿	
desc. node	3461 Sep 13 11:41	12°☿30'23			3462 Aug 29 21:31	0°☿	
	3461 Sep 26 03:57	0°☿		desc. node	3462 Aug 31 08:42	2°☿11'00	
evening max el	3461 Oct 02 23:05	7°☿25'11	26°54'02	evening max el	3462 Sep 15 10:48	20°☿45'18	27°22'56
retrograde	3461 Oct 16 02:29	14°☿41'13		retrograde	3462 Sep 28 23:53	28°☿03'31	
evening set	3461 Oct 22 19:21	12°☿00'54		evening set	3462 Oct 06 01:48	25°☿23'31	
min. Earth dist.	3461 Oct 26 19:12	8°☿02'30	0.65640 AU	min. Earth dist.	3462 Oct 09 19:32	22°☿00'15	0.64187 AU
inferior conj	3461 Oct 28 17:05	5°☿49'47	-1°-48'-38	inferior conj	3462 Oct 12 05:49	19°☿26'52	-2°-49'-9
minimum elong	3461 Oct 28 20:05	5°☿41'05	1°47'25	minimum elong	3462 Oct 12 10:29	19°☿14'35	2°47'30
asc. node	3461 Nov 03 02:11	0°☿37'53		morning rise	3462 Oct 18 21:24	14°☿01'45	
morning rise	3461 Nov 03 22:25	0°☿09'07		asc. node	3462 Oct 20 23:15	13°☿31'23	
	3461 Nov 04 06:11	30°☿		direct	3462 Oct 21 09:04	13°☿30'31	
direct	3461 Nov 06 16:18	29°☿27'45		morning max el	3462 Oct 27 21:26	16°☿56'12	17°54'55
	3461 Nov 09 03:10	0°☿			3462 Nov 06 06:50	0°☿	
morning max el	3461 Nov 13 05:06	2°☿59'41	18°16'09	morning set	3462 Nov 13 21:07	12°☿48'29	
	3461 Dec 01 11:53	0°☿			3462 Nov 24 03:07	0°☿	

superior conj	3462 Nov 26 23:19	4°♂38'07	0°02'30	asc. node	3463 Oct 07 20:18	27°♂58'29	
minimum elong	3462 Nov 26 23:36	4°♂39'17	0°02'27		3463 Oct 10 19:16	0°♂	
behind sun begin	3462 Nov 26 13:34	3°♂58'37		morning max el	3463 Oct 11 13:26	0°♂42'36	17°51'31
behind sun end	3462 Nov 27 09:38	5°♂19'54		morning set	3463 Oct 27 12:45	25°♂36'12	
desc. node	3462 Nov 27 08:02	5°♂13'25			3463 Oct 29 23:50	0°♂	
max. Earth dist.	3462 Dec 02 04:29	12°♂59'51	1.44583 AU				
evening rise	3462 Dec 13 02:31	0°♂01'57		superior conj	3463 Nov 07 17:52	15°♂15'34	0°43'53
	3462 Dec 13 02:00	0°♂		minimum elong	3463 Nov 07 21:38	15°♂31'34	0°43'22
	3463 Jan 02 06:59	0°♂		desc. node	3463 Nov 14 05:01	26°♂00'38	
greatest brilliancy	3463 Jan 03 05:56	1°♂17'44	-0.5m	max. Earth dist.	3463 Nov 14 19:28	26°♂59'23	1.43318 AU
evening max el	3463 Jan 09 11:44	8°♂50'06	20°20'24		3463 Nov 16 16:14	0°♂	
asc. node	3463 Jan 16 22:29	13°♂28'09		evening rise	3463 Nov 22 13:02	9°♂16'04	
retrograde	3463 Jan 17 09:48	13°♂29'23			3463 Dec 06 07:18	0°♂	
evening set	3463 Jan 21 04:12	12°♂07'07		greatest brilliancy	3463 Dec 18 11:15	16°♂43'35	-0.4m
inferior conj	3463 Jan 26 14:46	5°♂58'40	2°49'53	evening max el	3463 Dec 23 09:31	22°♂22'32	21°30'27
minimum elong	3463 Jan 26 12:16	6°♂07'09	2°49'15	retrograde	3464 Jan 01 07:18	27°♂40'05	
min. Earth dist.	3463 Jan 27 08:08	4°♂59'44	0.67300 AU	asc. node	3464 Jan 03 19:31	27°♂05'45	
morning rise	3463 Jan 31 19:49	29°♂42'54		evening set	3464 Jan 05 11:56	26°♂02'32	
	3463 Jan 31 12:25	30°♂		inferior conj	3464 Jan 10 21:25	19°♂44'08	2°13'18
direct	3463 Feb 06 11:42	27°♂12'33		minimum elong	3464 Jan 10 18:59	19°♂52'31	2°12'31
	3463 Feb 13 08:30	0°♂		min. Earth dist.	3464 Jan 11 02:35	19°♂26'12	0.67817 AU
morning max el	3463 Feb 17 22:49	4°♂03'32	24°39'23	morning rise	3464 Jan 16 01:44	13°♂29'35	
desc. node	3463 Feb 23 07:11	10°♂02'23		direct	3464 Jan 21 02:47	11°♂19'42	
	3463 Mar 09 20:14	0°♂		morning max el	3464 Jan 31 07:51	17°♂23'43	23°10'35
morning set	3463 Mar 25 22:26	26°♂12'41		greatest brilliancy	3464 Feb 05 08:37	23°♂01'56	-0.3m
	3463 Mar 28 01:32	0°♂		desc. node	3464 Feb 10 04:12	29°♂11'01	
max. Earth dist.	3463 Mar 29 14:56	2°♂49'33	1.37347 AU		3464 Feb 10 18:51	0°♂	
					3464 Mar 01 22:16	0°♂	
superior conj	3463 Apr 05 07:27	15°♂26'29	-1°-27'-7	morning set	3464 Mar 06 02:19	6°♂51'13	
minimum elong	3463 Apr 05 11:48	15°♂47'39	1°26'32	max. Earth dist.	3464 Mar 10 09:36	14°♂10'49	1.39501 AU
	3463 Apr 12 15:39	0°♂					
evening rise	3463 Apr 13 21:50	2°♂30'37		superior conj	3464 Mar 18 01:40	27°♂54'49	-1°-50'00
asc. node	3463 Apr 14 21:48	4°♂29'44		minimum elong	3464 Mar 18 06:08	28°♂15'31	1°49'36
evening max el	3463 Apr 30 17:01	29°♂44'46	19°18'03		3464 Mar 19 04:39	0°♂	
	3463 Apr 30 23:23	0°♂		evening rise	3464 Mar 27 15:05	16°♂04'05	
retrograde	3463 May 09 20:23	4°♂11'09		asc. node	3464 Mar 31 18:50	23°♂57'34	
evening set	3463 May 11 20:45	3°♂59'08			3464 Apr 04 03:22	0°♂	
inferior conj	3463 May 20 07:52	29°♂50'32	0°33'42	evening max el	3464 Apr 12 19:15	12°♂05'30	18°34'50
minimum elong	3463 May 20 09:16	29°♂48'14	0°33'12	retrograde	3464 Apr 20 13:38	15°♂54'20	
	3463 May 20 02:09	30°♂		evening set	3464 Apr 22 19:44	15°♂36'09	
desc. node	3463 May 22 06:22	28°♂33'22		inferior conj	3464 Apr 30 11:25	11°♂08'41	2°04'14
min. Earth dist.	3463 May 23 02:47	28°♂00'14	0.56133 AU	minimum elong	3464 Apr 30 15:07	11°♂01'31	2°03'10
morning rise	3463 May 28 17:40	25°♂04'01		min. Earth dist.	3464 May 03 20:55	8°♂32'18	0.57907 AU
direct	3463 Jun 02 13:58	24°♂10'05		morning rise	3464 May 08 06:05	5°♂48'46	
	3463 Jun 15 05:50	0°♂		desc. node	3464 May 08 03:22	5°♂52'04	
morning max el	3463 Jun 16 18:11	1°♂23'09	25°15'17	direct	3464 May 14 01:56	4°♂22'57	
	3463 Jul 06 16:26	0°♂		morning max el	3464 May 28 10:58	12°♂00'38	26°39'29
asc. node	3463 Jul 11 21:05	10°♂17'08			3464 Jun 11 11:43	0°♂	
morning set	3463 Jul 13 09:00	13°♂25'05		morning set	3464 Jun 26 19:23	28°♂14'19	
				asc. node	3464 Jun 27 18:07	0°♂14'36	
superior conj	3463 Jul 20 08:49	28°♂35'44	1°18'44		3464 Jun 27 15:22	0°♂	
minimum elong	3463 Jul 20 06:28	28°♂22'53	1°18'23				
	3463 Jul 21 00:14	0°♂		superior conj	3464 Jul 03 20:29	13°♂32'20	1°00'17
max. Earth dist.	3463 Jul 21 14:02	1°♂15'18	1.32582 AU	minimum elong	3464 Jul 03 18:17	13°♂20'11	0°59'53
evening rise	3463 Jul 27 12:39	13°♂53'56		max. Earth dist.	3464 Jul 04 00:55	13°♂56'46	1.32140 AU
	3463 Aug 04 20:29	0°♂		evening rise	3464 Jul 10 18:53	28°♂34'19	
desc. node	3463 Aug 18 05:43	21°♂14'07			3464 Jul 11 11:17	0°♂	
	3463 Aug 25 07:28	0°♂			3464 Jul 28 04:19	0°♂	
evening max el	3463 Aug 28 19:47	3°♂36'25	27°22'06	desc. node	3464 Aug 04 02:42	9°♂24'32	
retrograde	3463 Sep 11 14:50	10°♂52'07		evening max el	3464 Aug 09 23:35	15°♂47'12	26°48'03
evening set	3463 Sep 18 19:21	8°♂24'10		retrograde	3464 Aug 23 21:58	22°♂58'36	
min. Earth dist.	3463 Sep 22 09:49	5°♂29'56	0.62414 AU	evening set	3464 Aug 30 19:35	20°♂55'47	
inferior conj	3463 Sep 25 07:39	2°♂45'53	-3°-46'-39	min. Earth dist.	3464 Sep 03 13:41	18°♂18'39	0.60417 AU
minimum elong	3463 Sep 25 13:22	2°♂32'25	3°45'03	inferior conj	3464 Sep 06 19:16	15°♂38'49	-4°-35'00
	3463 Sep 28 10:36	30°♂		minimum elong	3464 Sep 07 00:32	15°♂27'55	4°34'03
morning rise	3463 Oct 02 10:14	27°♂39'27		morning rise	3464 Sep 14 08:43	10°♂53'59	
direct	3463 Oct 04 18:28	27°♂14'53		direct	3464 Sep 16 16:46	10°♂33'08	

asc. node	3464 Sep 23 17:20	13° \cap 50'45		minimum elong	3465 Aug 19 15:14	27° Ω 50'50	5°04'10
morning max el	3464 Sep 24 01:57	14° \cap 11'11	18°07'08	morning rise	3465 Aug 27 12:19	23° Ω 33'24	
	3464 Oct 04 21:10	0° $\underline{\cap}$		direct	3465 Aug 29 23:32	23° Ω 14'02	
morning set	3464 Oct 09 20:22	9° $\underline{\cap}$ 09'40		morning max el	3465 Sep 07 07:42	27° Ω 12'15	18°43'16
					3465 Sep 09 21:31	0° \cap	
superior conj	3464 Oct 19 14:15	27° $\underline{\cap}$ 08'27	1°14'23	asc. node	3465 Sep 10 14:22	0° \cap 52'46	
minimum elong	3464 Oct 19 18:24	27° $\underline{\cap}$ 26'58	1°13'55	morning set	3465 Sep 23 15:10	23° \cap 14'59	
	3464 Oct 21 04:49	0° \cap			3465 Sep 27 02:08	0° $\underline{\cap}$	
max. Earth dist.	3464 Oct 27 05:38	10° \cap 24'23	1.41561 AU				
desc. node	3464 Oct 31 02:03	16° \cap 46'56		superior conj	3465 Oct 02 07:35	10° $\underline{\cap}$ 02'49	1°33'41
evening rise	3464 Nov 01 13:44	19° \cap 11'36		minimum elong	3465 Oct 02 10:25	10° $\underline{\cap}$ 16'12	1°33'28
	3464 Nov 08 10:46	0° \mathcal{A}		max. Earth dist.	3465 Oct 09 11:25	23° $\underline{\cap}$ 07'22	1.39522 AU
	3464 Nov 29 19:18	0° \mathcal{B}			3465 Oct 13 10:54	0° \cap	
greatest brilliancy	3464 Nov 30 00:06	0° \mathcal{B} 14'38	-0.3m	evening rise	3465 Oct 13 13:00	0° \cap 08'55	
evening max el	3464 Dec 05 02:24	5° \mathcal{B} 57'15	22°48'16	desc. node	3465 Oct 17 23:04	7° \cap 28'19	
retrograde	3464 Dec 15 02:32	11° \mathcal{B} 53'32			3465 Nov 01 20:30	0° \mathcal{A}	
evening set	3464 Dec 19 19:14	9° \mathcal{B} 59'34		evening max el	3465 Nov 17 15:59	19° \mathcal{A} 35'16	24°08'09
asc. node	3464 Dec 20 16:33	9° \mathcal{B} 11'43		retrograde	3465 Nov 28 18:22	26° \mathcal{A} 06'15	
inferior conj	3464 Dec 25 05:09	3° \mathcal{B} 34'57	1°29'29	evening set	3465 Dec 04 00:33	23° \mathcal{A} 55'44	
minimum elong	3464 Dec 25 03:15	3° \mathcal{B} 41'28	1°28'45	asc. node	3465 Dec 07 13:35	20° \mathcal{A} 03'58	
min. Earth dist.	3464 Dec 24 23:08	3° \mathcal{B} 55'44	0.67963 AU	min. Earth dist.	3465 Dec 08 19:24	18° \mathcal{A} 25'30	0.67753 AU
	3464 Dec 27 22:10	30° \mathcal{R} \mathcal{A}		inferior conj	3465 Dec 09 12:11	17° \mathcal{A} 28'50	0°39'34
morning rise	3464 Dec 30 11:13	27° \mathcal{A} 23'35		minimum elong	3465 Dec 09 11:16	17° \mathcal{A} 31'59	0°39'10
direct	3465 Jan 03 21:31	25° \mathcal{A} 36'38		morning rise	3465 Dec 14 22:16	11° \mathcal{A} 22'50	
	3465 Jan 11 23:46	0° \mathcal{B}		direct	3465 Dec 18 18:50	9° \mathcal{A} 58'16	
morning max el	3465 Jan 12 20:51	0° \mathcal{B} 51'27	21°44'19	morning max el	3465 Dec 26 17:01	14° \mathcal{A} 30'46	20°27'27
greatest brilliancy	3465 Jan 17 16:12	6° \mathcal{B} 16'58	-0.4m	greatest brilliancy	3466 Jan 01 22:30	21° \mathcal{A} 52'02	-0.5m
desc. node	3465 Jan 27 01:15	18° \mathcal{B} 52'35			3466 Jan 07 19:40	0° \mathcal{B}	
	3465 Feb 03 15:25	0° \approx		desc. node	3466 Jan 13 22:18	8° \mathcal{B} 57'59	
morning set	3465 Feb 14 01:13	16° \approx 06'42		morning set	3466 Jan 24 01:16	24° \mathcal{B} 22'41	
max. Earth dist.	3465 Feb 20 08:47	26° \approx 23'26	1.41622 AU		3466 Jan 27 15:47	0° \approx	
	3465 Feb 22 12:34	0° \mathcal{H}		max. Earth dist.	3466 Feb 02 15:55	9° \approx 32'48	1.43414 AU
superior conj	3465 Feb 28 00:22	9° \mathcal{H} 26'01	-2°-4'-27	superior conj	3466 Feb 08 22:40	19° \approx 49'17	-2°-5'-20
minimum elong	3465 Feb 28 02:48	9° \mathcal{H} 36'41	2°04'22	minimum elong	3466 Feb 08 20:12	19° \approx 39'00	2°05'18
evening rise	3465 Mar 10 20:17	28° \mathcal{H} 59'27			3466 Feb 14 23:21	0° \mathcal{H}	
	3465 Mar 11 09:27	0° \mathcal{Y}		evening rise	3466 Feb 21 09:17	11° \mathcal{H} 08'17	
asc. node	3465 Mar 18 15:51	13° \mathcal{Y} 01'42			3466 Mar 04 11:48	0° \mathcal{Y}	
evening max el	3465 Mar 27 04:05	24° \mathcal{Y} 54'48	18°11'34	asc. node	3466 Mar 05 12:53	1° \mathcal{Y} 34'49	
retrograde	3465 Apr 03 01:25	28° \mathcal{Y} 22'57		evening max el	3466 Mar 10 16:15	8° \mathcal{Y} 04'06	18°07'49
evening set	3465 Apr 05 13:39	27° \mathcal{Y} 55'59		retrograde	3466 Mar 17 03:53	11° \mathcal{Y} 27'03	
inferior conj	3465 Apr 12 11:59	23° \mathcal{Y} 07'03	3°02'10	evening set	3466 Mar 19 21:39	10° \mathcal{Y} 49'55	
minimum elong	3465 Apr 12 15:10	22° \mathcal{Y} 59'51	3°01'33	inferior conj	3466 Mar 26 06:27	5° \mathcal{Y} 40'09	3°31'21
min. Earth dist.	3465 Apr 15 20:32	20° \mathcal{Y} 06'46	0.60038 AU	minimum elong	3466 Mar 26 07:55	5° \mathcal{Y} 36'20	3°31'13
morning rise	3465 Apr 19 13:09	17° \mathcal{Y} 22'06		min. Earth dist.	3466 Mar 29 04:22	2° \mathcal{Y} 40'40	0.62185 AU
desc. node	3465 Apr 25 00:24	15° \mathcal{Y} 24'22			3466 Apr 01 04:40	30° \mathcal{R} \mathcal{H}	
direct	3465 Apr 26 02:11	15° \mathcal{Y} 21'09		morning rise	3466 Apr 01 15:42	29° \mathcal{H} 39'24	
morning max el	3465 May 10 09:46	23° \mathcal{Y} 12'21	27°33'51	direct	3466 Apr 08 12:32	27° \mathcal{H} 09'23	
	3465 May 16 11:21	0° \mathcal{B}		desc. node	3466 Apr 11 21:27	27° \mathcal{H} 42'08	
	3465 Jun 04 14:43	0° Π			3466 Apr 16 12:28	0° \mathcal{Y}	
morning set	3465 Jun 11 02:41	12° Π 51'55		morning max el	3466 Apr 22 14:50	5° \mathcal{Y} 07'03	27°51'18
asc. node	3465 Jun 14 15:08	20° Π 19'31			3466 May 11 06:58	0° \mathcal{B}	
max. Earth dist.	3465 Jun 17 12:42	26° Π 38'41	1.32095 AU	morning set	3466 May 26 04:55	27° \mathcal{B} 11'44	
					3466 May 27 13:45	0° Π	
superior conj	3465 Jun 18 08:00	28° Π 24'48	0°38'07	max. Earth dist.	3466 May 31 21:26	9° Π 08'05	1.32457 AU
minimum elong	3465 Jun 18 06:23	28° Π 15'58	0°37'47	asc. node	3466 Jun 01 12:11	10° Π 27'44	
	3465 Jun 19 01:17	0° \mathcal{E}					
evening rise	3465 Jun 25 04:50	13° \mathcal{E} 22'49		superior conj	3466 Jun 02 17:40	13° Π 07'46	0°12'53
	3465 Jul 03 13:46	0° Ω		minimum elong	3466 Jun 02 17:04	13° Π 04'28	0°12'45
desc. node	3465 Jul 21 23:42	26° Ω 19'41		behind sun begin	3466 Jun 02 13:58	12° Π 47'35	
evening max el	3465 Jul 22 20:03	27° Ω 09'22	25°42'18	behind sun end	3466 Jun 02 20:10	13° Π 21'22	
	3465 Jul 26 03:22	0° \cap		evening rise	3466 Jun 09 16:33	28° Π 12'57	
retrograde	3465 Aug 05 19:33	4° \cap 16'29			3466 Jun 10 12:47	0° \mathcal{E}	
evening set	3465 Aug 11 21:39	2° \cap 49'09			3466 Jun 27 15:33	0° Ω	
min. Earth dist.	3465 Aug 16 08:11	0° \cap 11'59	0.58363 AU	evening max el	3466 Jul 04 10:13	7° Ω 49'49	24°13'38
	3465 Aug 16 15:07	30° \mathcal{R} Ω		desc. node	3466 Jul 08 20:43	11° Ω 30'06	
inferior conj	3465 Aug 19 13:03	27° Ω 54'47	-5°-4'-16	retrograde	3466 Jul 18 05:57	14° Ω 48'03	

evening set	3466 Jul 22 23:45	13°♄58'02		evening rise	3467 May 25 04:07	12°♄58'14	
min. Earth dist.	3466 Jul 28 20:53	11°♄02'25	0.56528 AU		3467 Jun 02 20:12	0°♄	
inferior conj	3466 Jul 31 10:40	9°♄25'58	-5°00'-7	evening max el	3467 Jun 16 00:11	18°♄14'57	22°36'53
minimum elong	3466 Jul 31 07:13	9°♄31'23	4°59'50	desc. node	3467 Jun 25 17:43	24°♄20'45	
morning rise	3466 Aug 08 18:15	5°♄25'29		retrograde	3467 Jun 29 04:13	24°♄47'53	
direct	3466 Aug 11 10:59	5°♄06'15		evening set	3467 Jul 02 09:57	24°♄24'48	
morning max el	3466 Aug 21 03:43	9°♄36'47	19°41'00	min. Earth dist.	3467 Jul 10 07:57	20°♄56'37	0.55257 AU
asc. node	3466 Aug 28 11:26	18°♄49'50		inferior conj	3467 Jul 11 13:56	20°♄13'52	-4°-8'-38
	3466 Sep 03 19:53	0°♄		minimum elong	3467 Jul 11 05:54	20°♄25'21	4°06'49
morning set	3466 Sep 07 17:40	7°♄42'35		morning rise	3467 Jul 20 04:20	16°♄23'13	
				direct	3467 Jul 23 04:30	16°♄02'27	
superior conj	3466 Sep 15 16:27	23°♄43'27	1°43'06	morning max el	3467 Aug 03 12:11	21°♄18'04	20°59'45
minimum elong	3466 Sep 15 17:33	23°♄48'51	1°43'03		3467 Aug 10 17:42	0°♄	
	3466 Sep 18 21:41	0°♄		asc. node	3467 Aug 15 08:30	7°♄29'18	
max. Earth dist.	3466 Sep 21 15:55	5°♄13'20	1.37461 AU	morning set	3467 Aug 23 01:16	22°♄25'32	
evening rise	3466 Sep 25 11:17	12°♄10'05			3467 Aug 26 16:33	0°♄	
desc. node	3466 Oct 04 20:05	28°♄00'34					
	3466 Oct 06 02:07	0°♄		superior conj	3467 Aug 30 12:23	7°♄57'19	1°44'17
	3466 Oct 28 01:03	0°♄		minimum elong	3467 Aug 30 11:55	7°♄54'56	1°44'16
evening max el	3466 Oct 31 04:10	3°♄15'52	25°23'18	max. Earth dist.	3467 Sep 04 00:47	17°♄04'25	1.35610 AU
retrograde	3466 Nov 12 05:55	10°♄13'15		evening rise	3467 Sep 08 05:01	25°♄06'46	
evening set	3466 Nov 18 02:10	7°♄47'43			3467 Sep 10 20:37	0°♄	
min. Earth dist.	3466 Nov 22 13:08	2°♄52'18	0.67201 AU	desc. node	3467 Sep 21 17:06	18°♄18'50	
inferior conj	3466 Nov 23 16:47	1°♄22'59	0°-15'-20		3467 Sep 29 14:31	0°♄	
minimum elong	3466 Nov 23 17:10	1°♄21'44	0°15'11	evening max el	3467 Oct 13 16:31	16°♄56'28	26°26'16
transit middle	3466 Nov 23 17:10	1°♄21'44	0°15'11	retrograde	3467 Oct 26 12:31	24°♄09'10	
transit begin	3466 Nov 23 16:12	1°♄24'52		evening set	3467 Nov 01 22:16	21°♄32'34	
transit end	3466 Nov 23 18:08	1°♄18'36		min. Earth dist.	3467 Nov 06 02:00	17°♄13'05	0.66307 AU
asc. node	3466 Nov 24 10:40	0°♄25'33		inferior conj	3467 Nov 07 17:01	15°♄14'50	-1°-13'-54
	3466 Nov 24 18:45	30°♄		minimum elong	3467 Nov 07 19:01	15°♄08'45	1°13'03
morning rise	3466 Nov 29 08:55	25°♄24'36		asc. node	3467 Nov 11 07:42	11°♄14'17	
direct	3466 Dec 02 17:21	24°♄19'50		morning rise	3467 Nov 13 17:03	9°♄26'43	
morning max el	3466 Dec 09 21:07	28°♄20'45	19°23'59	direct	3467 Nov 16 15:31	8°♄38'00	
	3466 Dec 11 10:20	0°♄		morning max el	3467 Nov 23 07:53	12°♄18'01	18°36'06
greatest brilliancy	3466 Dec 18 21:22	9°♄48'32	-0.7m		3467 Dec 06 02:58	0°♄	
desc. node	3466 Dec 31 19:20	29°♄20'02		morning set	3467 Dec 13 20:26	12°♄14'31	
	3467 Jan 01 05:41	0°♄		desc. node	3467 Dec 18 16:23	19°♄54'17	
morning set	3467 Jan 02 23:57	2°♄43'30			3467 Dec 25 02:04	0°♄	
max. Earth dist.	3467 Jan 16 05:29	23°♄23'35	1.44654 AU				
				superior conj	3467 Dec 29 22:49	7°♄38'15	-1°-11'-45
superior conj	3467 Jan 19 19:11	29°♄03'49	-1°-47'-53	minimum elong	3467 Dec 29 14:22	7°♄05'06	1°10'46
minimum elong	3467 Jan 19 11:11	28°♄31'54	1°47'17	max. Earth dist.	3467 Dec 29 23:09	7°♄39'33	1.45212 AU
	3467 Jan 20 09:16	0°♄			3468 Jan 13 03:09	0°♄	
evening rise	3467 Feb 03 01:41	22°♄21'47		evening rise	3468 Jan 14 18:48	2°♄37'49	
	3467 Feb 07 15:31	0°♄			3468 Feb 01 13:15	0°♄	
asc. node	3467 Feb 20 09:57	19°♄26'39		evening max el	3468 Feb 05 15:12	4°♄52'45	18°56'05
evening max el	3467 Feb 22 04:47	21°♄25'06	18°23'00	asc. node	3468 Feb 07 06:59	6°♄25'19	
retrograde	3467 Feb 28 16:17	24°♄56'04		retrograde	3468 Feb 12 10:40	8°♄42'53	
evening set	3467 Mar 03 15:37	24°♄07'46		evening set	3468 Feb 15 16:23	7°♄42'20	
inferior conj	3467 Mar 09 14:34	18°♄38'54	3°38'25	inferior conj	3468 Feb 21 08:36	1°♄56'18	3°29'01
minimum elong	3467 Mar 09 14:18	18°♄39'40	3°38'26	minimum elong	3468 Feb 21 07:02	2°♄01'13	3°28'50
min. Earth dist.	3467 Mar 11 21:43	16°♄00'37	0.64108 AU		3468 Feb 22 21:48	30°♄	
morning rise	3467 Mar 15 11:20	12°♄29'26		min. Earth dist.	3468 Feb 23 00:14	29°♄52'28	0.65674 AU
direct	3467 Mar 22 07:16	9°♄42'36		morning rise	3468 Feb 26 20:37	25°♄42'35	
desc. node	3467 Mar 29 18:30	12°♄23'12		direct	3468 Mar 04 08:54	22°♄53'05	
morning max el	3467 Apr 04 23:44	17°♄38'28	27°32'00	desc. node	3468 Mar 15 15:34	28°♄52'59	
	3467 Apr 15 07:50	0°♄			3468 Mar 16 19:38	0°♄	
	3467 May 04 03:18	0°♄		morning max el	3468 Mar 17 09:36	0°♄34'47	26°41'20
morning set	3467 May 09 23:31	11°♄05'31			3468 Apr 08 07:48	0°♄	
max. Earth dist.	3467 May 14 22:57	21°♄11'44	1.33246 AU	morning set	3468 Apr 22 07:07	24°♄23'00	
					3468 Apr 25 04:57	0°♄	
superior conj	3467 May 17 23:37	27°♄35'08	0°-14'-37	max. Earth dist.	3468 Apr 26 13:50	2°♄42'31	1.34496 AU
minimum elong	3467 May 18 00:21	27°♄39'04	0°14'29				
behind sun begin	3467 May 17 22:04	27°♄26'53		superior conj	3468 Apr 30 23:38	11°♄40'20	0°-43'-21
behind sun end	3467 May 18 02:39	27°♄51'16		minimum elong	3468 May 01 01:55	11°♄52'07	0°42'55
asc. node	3467 May 19 09:15	0°♄35'00		asc. node	3468 May 05 06:17	20°♄37'09	
	3467 May 19 02:43	0°♄		evening rise	3468 May 08 13:37	27°♄32'28	

	3468 May 09 18:12	0°♂				3469 Apr 16 23:35	0°♂		
evening max el	3468 May 27 21:50	28°♂57'17	21°06'37	asc. node		3469 Apr 22 03:19	10°♂30'03		
	3468 May 29 00:48	0°♂		evening rise		3469 Apr 22 18:55	11°♂49'16		
retrograde	3468 Jun 08 17:27	4°♂44'26				3469 May 02 11:43	0°♂		
evening set	3468 Jun 10 23:19	4°♂32'42		evening max el		3469 May 10 07:18	10°♂16'51	19°52'09	
desc. node	3468 Jun 11 14:45	4°♂25'11		retrograde		3469 May 20 09:21	15°♂10'52		
inferior conj	3468 Jun 20 07:37	0°♂34'55	-2°-30'-32	evening set		3469 May 22 08:42	15°♂00'27		
minimum elong	3468 Jun 20 00:46	0°♂44'33	2°28'15	desc. node		3469 May 29 11:46	12°♂03'05		
min. Earth dist.	3468 Jun 20 19:36	0°♂18'02	0.54850 AU	inferior conj		3469 May 31 06:05	10°♂59'28	0°-31'-11	
	3468 Jun 21 08:26	30°♂♂		minimum elong		3469 May 31 04:39	11°♂01'39	0°30'39	
morning rise	3468 Jun 29 02:00	26°♂35'47		min. Earth dist.		3469 Jun 02 08:41	9°♂42'17	0.55412 AU	
direct	3468 Jul 02 14:07	26°♂09'15		morning rise		3469 Jun 08 21:39	6°♂33'43		
	3468 Jul 12 17:10	0°♂		direct		3469 Jun 13 04:42	5°♂53'11		
morning max el	3468 Jul 15 09:41	2°♂15'46	22°35'23	morning max el		3469 Jun 27 00:36	12°♂44'41	24°18'20	
asc. node	3468 Aug 01 05:32	26°♂40'08				3469 Jul 10 06:46	0°♂		
	3468 Aug 02 22:28	0°♂		asc. node		3469 Jul 19 02:35	16°♂14'22		
morning set	3468 Aug 06 11:50	7°♂16'54		morning set		3469 Jul 21 23:36	22°♂11'48		
						3469 Jul 25 14:48	0°♂		
superior conj	3468 Aug 13 15:46	22°♂32'47	1°38'41	superior conj		3469 Jul 29 00:01	7°♂21'50	1°27'25	
minimum elong	3468 Aug 13 14:11	22°♂24'20	1°38'34	minimum elong		3469 Jul 28 21:48	7°♂09'48	1°27'10	
max. Earth dist.	3468 Aug 16 18:18	29°♂04'10	1.34115 AU	max. Earth dist.		3469 Jul 30 20:45	11°♂23'37	1.33031 AU	
	3468 Aug 17 05:06	0°♂		evening rise		3469 Aug 05 08:59	22°♂55'52		
evening rise	3468 Aug 21 13:34	8°♂45'43				3469 Aug 08 22:48	0°♂		
	3468 Sep 02 08:33	0°♂		desc. node		3469 Aug 25 11:06	27°♂41'40		
desc. node	3468 Sep 07 14:06	8°♂15'35				3469 Aug 27 02:28	0°♂		
	3468 Sep 24 17:25	0°♂		evening max el		3469 Sep 07 16:06	13°♂38'07	27°26'26	
evening max el	3468 Sep 25 05:02	0°♂28'03	27°09'39	retrograde		3469 Sep 21 07:50	20°♂54'34		
retrograde	3468 Oct 08 13:22	7°♂45'46		evening set		3469 Sep 28 11:51	18°♂18'27		
evening set	3468 Oct 15 10:28	5°♂04'41		min. Earth dist.		3469 Oct 02 03:52	15°♂08'24	0.63478 AU	
min. Earth dist.	3468 Oct 19 07:38	1°♂21'17	0.65064 AU	inferior conj		3469 Oct 04 19:09	12°♂29'23	-3°-14'-10	
	3468 Oct 20 12:56	30°♂♂		minimum elong		3469 Oct 05 00:23	12°♂16'13	3°12'28	
inferior conj	3468 Oct 21 10:40	28°♂59'01	-2°-14'-24	morning rise		3469 Oct 11 15:21	7°♂11'32		
minimum elong	3468 Oct 21 14:24	28°♂48'35	2°12'58	direct		3469 Oct 14 01:18	6°♂43'23		
morning rise	3468 Oct 27 20:13	23°♂24'13		asc. node		3469 Oct 15 01:47	6°♂48'31		
asc. node	3468 Oct 28 04:45	23°♂15'02		morning max el		3469 Oct 20 15:25	10°♂08'44	17°51'09	
direct	3468 Oct 30 11:05	22°♂47'37				3469 Nov 02 22:42	0°♂		
morning max el	3468 Nov 05 22:55	26°♂16'08	18°04'54	morning set		3469 Nov 06 02:15	5°♂28'05		
	3468 Nov 09 03:54	0°♂							
morning set	3468 Nov 23 22:28	23°♂13'58		superior conj		3469 Nov 18 08:09	26°♂18'31	0°21'15	
	3468 Nov 28 00:51	0°♂		minimum elong		3469 Nov 18 10:21	26°♂27'36	0°20'56	
desc. node	3468 Dec 04 13:25	10°♂36'16				3469 Nov 20 14:08	0°♂		
				desc. node		3469 Nov 21 10:26	1°♂22'33		
superior conj	3468 Dec 08 05:05	16°♂26'42	0°-24'-44	max. Earth dist.		3469 Nov 24 12:15	6°♂20'02	1.44126 AU	
minimum elong	3468 Dec 08 01:59	16°♂14'22	0°24'19	evening rise		3469 Dec 04 00:19	21°♂14'19		
max. Earth dist.	3468 Dec 11 18:25	22°♂04'22	1.45027 AU			3469 Dec 09 18:07	0°♂		
	3468 Dec 16 19:49	0°♂		greatest brilliancy		3469 Dec 27 09:15	25°♂22'31	-0.5m	
evening rise	3468 Dec 24 14:52	12°♂06'05				3469 Dec 31 03:59	0°♂		
	3469 Jan 05 06:58	0°♂		evening max el		3470 Jan 01 22:32	1°♂55'13	20°48'59	
greatest brilliancy	3469 Jan 11 10:32	9°♂01'34	-0.6m	retrograde		3470 Jan 10 06:00	6°♂50'00		
evening max el	3469 Jan 18 21:33	18°♂23'30	19°45'34	asc. node		3470 Jan 11 01:01	6°♂46'32		
asc. node	3469 Jan 24 04:00	22°♂16'49		evening set		3470 Jan 14 04:39	5°♂21'09		
retrograde	3469 Jan 26 08:01	22°♂42'16				3470 Jan 18 23:22	30°♂♂		
evening set	3469 Jan 29 21:24	21°♂28'14		inferior conj		3470 Jan 19 14:33	29°♂08'05	2°35'20	
inferior conj	3469 Feb 04 09:26	15°♂27'18	3°07'06	minimum elong		3470 Jan 19 12:01	29°♂16'44	2°34'36	
minimum elong	3469 Feb 04 07:07	15°♂34'58	3°06'37	min. Earth dist.		3470 Jan 20 02:31	28°♂27'01	0.67570 AU	
min. Earth dist.	3469 Feb 05 10:29	14°♂04'15	0.66827 AU	morning rise		3470 Jan 24 18:59	22°♂52'53		
morning rise	3469 Feb 09 16:10	9°♂11'57		direct		3470 Jan 30 04:38	20°♂30'53		
direct	3469 Feb 15 16:18	6°♂32'04		morning max el		3470 Feb 10 03:05	27°♂02'03	24°01'55	
morning max el	3469 Feb 27 18:37	13°♂44'56	25°28'00			3470 Feb 12 21:29	0°♂		
desc. node	3469 Mar 02 12:37	16°♂41'15		desc. node		3470 Feb 17 09:39	5°♂25'11		
	3469 Mar 12 23:35	0°♂				3470 Mar 06 15:01	0°♂		
	3469 Apr 01 02:39	0°♂		morning set		3470 Mar 17 18:03	18°♂13'35		
morning set	3469 Apr 04 23:15	6°♂51'11		max. Earth dist.		3470 Mar 21 13:32	24°♂54'47	1.38250 AU	
max. Earth dist.	3469 Apr 08 17:21	13°♂47'59	1.36198 AU			3470 Mar 24 09:01	0°♂		
				superior conj		3470 Mar 28 18:05	8°♂10'53	-1°-37'-34	
superior conj	3469 Apr 14 14:59	25°♂15'41	-1°-11'-45						
minimum elong	3469 Apr 14 18:43	25°♂34'20	1°11'09						

minimum elong	3470 Mar 28 22:41	8° Υ 32'48	1°37'02	superior conj	3471 Mar 11 04:35	20° Υ 15'55	-1°57'-26
evening rise	3470 Apr 06 17:25	25° Υ 40'30		minimum elong	3471 Mar 11 08:32	20° Υ 33'46	1°57'11
	3470 Apr 08 22:37	0° Υ			3471 Mar 16 11:35	0° Υ	
asc. node	3470 Apr 09 00:20	0° Υ 08'17		evening rise	3471 Mar 21 06:03	8° Υ 58'51	
evening max el	3470 Apr 23 04:01	22° Υ 15'41	18°57'11	asc. node	3471 Mar 26 21:21	19° Υ 26'48	
retrograde	3470 May 01 15:59	26° Υ 24'27			3471 Apr 02 08:55	0° Υ	
evening set	3470 May 03 18:35	26° Υ 10'10		evening max el	3471 Apr 06 09:22	4° Υ 48'53	18°22'28
inferior conj	3470 May 11 21:21	21° Υ 53'43	1°16'01	retrograde	3471 Apr 13 17:33	8° Υ 27'18	
minimum elong	3470 May 12 00:08	21° Υ 48'46	1°15'05	evening set	3471 Apr 16 02:09	8° Υ 05'44	
min. Earth dist.	3470 May 15 00:23	19° Υ 41'58	0.56818 AU	inferior conj	3471 Apr 23 10:03	3° Υ 29'11	2°32'43
desc. node	3470 May 16 08:48	18° Υ 49'02		minimum elong	3471 Apr 23 13:47	3° Υ 21'26	2°31'46
morning rise	3470 May 20 01:20	16° Υ 52'29		min. Earth dist.	3471 Apr 26 20:41	0° Υ 39'23	0.58787 AU
direct	3470 May 25 07:50	15° Υ 46'21			3471 Apr 27 17:17	30° Υ	
morning max el	3470 Jun 08 15:16	23° Υ 10'51	25°54'06	morning rise	3471 Apr 30 21:13	27° Υ 56'57	
	3470 Jun 14 18:01	0° Υ		desc. node	3471 May 03 05:51	26° Υ 54'44	
	3470 Jul 03 00:34	0° Υ		direct	3471 May 07 01:12	26° Υ 16'06	
asc. node	3470 Jul 05 23:36	6° Υ 04'40			3471 May 16 17:51	0° Υ	
morning set	3470 Jul 06 10:57	7° Υ 04'23		morning max el	3471 May 21 10:38	4° Υ 01'19	27°06'56
					3471 Jun 09 10:15	0° Υ	
superior conj	3470 Jul 13 10:57	22° Υ 17'01	1°11'23	morning set	3471 Jun 20 20:15	21° Υ 49'10	
minimum elong	3470 Jul 13 08:36	22° Υ 04'08	1°11'02	asc. node	3471 Jun 22 20:39	26° Υ 05'36	
max. Earth dist.	3470 Jul 14 05:34	23° Υ 59'16	1.32348 AU		3471 Jun 24 16:01	0° Υ	
	3470 Jul 16 23:45	0° Υ					
evening rise	3470 Jul 20 11:59	7° Υ 27'01		superior conj	3471 Jun 27 22:45	7° Υ 12'14	0°51'18
	3470 Aug 01 10:11	0° Υ		minimum elong	3471 Jun 27 20:45	7° Υ 01'11	0°50'55
desc. node	3470 Aug 12 08:06	16° Υ 24'31		max. Earth dist.	3471 Jun 27 17:12	6° Υ 41'37	1.32065 AU
evening max el	3470 Aug 20 23:08	26° Υ 13'04	27°11'36	evening rise	3471 Jul 04 20:02	22° Υ 11'05	
	3470 Aug 25 13:01	0° Υ			3471 Jul 08 15:15	0° Υ	
retrograde	3470 Sep 03 19:26	3° Υ 26'36			3471 Jul 26 19:49	0° Υ	
evening set	3470 Sep 10 22:38	1° Υ 07'31		desc. node	3471 Jul 30 05:06	4° Υ 06'02	
	3470 Sep 12 13:20	30° Υ		evening max el	3471 Aug 02 23:42	8° Υ 02'28	26°23'36
min. Earth dist.	3470 Sep 14 13:25	28° Υ 22'43	0.61593 AU	retrograde	3471 Aug 16 23:04	15° Υ 13'05	
inferior conj	3470 Sep 17 15:22	25° Υ 38'21	-4°-8'-44	evening set	3471 Aug 23 14:04	13° Υ 24'05	
minimum elong	3470 Sep 17 21:09	25° Υ 25'26	4°07'21	min. Earth dist.	3471 Aug 27 12:57	10° Υ 49'26	0.59530 AU
morning rise	3470 Sep 24 22:41	20° Υ 40'57		inferior conj	3471 Aug 30 19:48	8° Υ 16'29	-4°-50'-35
direct	3470 Sep 27 06:33	20° Υ 18'12		minimum elong	3471 Aug 31 00:08	8° Υ 08'01	4°50'00
asc. node	3470 Oct 01 22:49	21° Υ 53'34		morning rise	3471 Sep 07 13:40	3° Υ 41'58	
morning max el	3470 Oct 04 06:22	23° Υ 48'47	17°55'46	direct	3471 Sep 09 22:34	3° Υ 22'06	
	3470 Oct 09 05:27	0° Υ		morning max el	3471 Sep 17 16:31	7° Υ 07'21	18°19'58
morning set	3470 Oct 20 01:22	18° Υ 37'19		asc. node	3471 Sep 18 19:53	8° Υ 17'30	
	3470 Oct 26 08:04	0° Υ			3471 Oct 02 07:37	0° Υ	
				morning set	3471 Oct 03 14:15	2° Υ 25'40	
superior conj	3470 Oct 30 14:13	7° Υ 29'54	0°58'14				
minimum elong	3470 Oct 30 18:26	7° Υ 48'14	0°57'42	superior conj	3471 Oct 12 20:15	19° Υ 51'21	1°23'52
max. Earth dist.	3470 Nov 07 01:39	20° Υ 07'58	1.42620 AU	minimum elong	3471 Oct 12 23:58	20° Υ 08'17	1°23'30
desc. node	3470 Nov 08 07:26	22° Υ 09'55			3471 Oct 18 12:27	0° Υ	
	3470 Nov 13 04:35	0° Υ		max. Earth dist.	3471 Oct 20 09:22	3° Υ 14'00	1.40708 AU
evening rise	3470 Nov 13 15:16	0° Υ 42'10		evening rise	3471 Oct 25 01:05	11° Υ 02'43	
	3470 Dec 03 08:02	0° Υ		desc. node	3471 Oct 26 04:26	12° Υ 54'36	
greatest brilliancy	3470 Dec 11 00:28	10° Υ 07'28	-0.3m		3471 Nov 06 03:52	0° Υ	
evening max el	3470 Dec 15 18:01	15° Υ 28'19	22°02'50	evening max el	3471 Nov 28 09:08	29° Υ 03'54	23°22'21
retrograde	3470 Dec 25 02:49	21° Υ 02'49			3471 Nov 29 08:07	0° Υ	
asc. node	3470 Dec 28 22:03	19° Υ 45'05		retrograde	3471 Dec 08 20:54	5° Υ 16'30	
evening set	3470 Dec 29 12:26	19° Υ 18'09		evening set	3471 Dec 13 19:06	3° Υ 15'28	
inferior conj	3471 Jan 03 21:53	12° Υ 56'24	1°55'31	asc. node	3471 Dec 15 19:07	1° Υ 16'15	
minimum elong	3471 Jan 03 19:38	13° Υ 04'12	1°54'43		3471 Dec 16 20:29	30° Υ	
min. Earth dist.	3471 Jan 03 22:07	12° Υ 55'35	0.67922 AU	inferior conj	3471 Dec 19 05:35	26° Υ 49'05	1°08'58
morning rise	3471 Jan 09 02:41	6° Υ 43'01		minimum elong	3471 Dec 19 04:03	26° Υ 54'21	1°08'22
direct	3471 Jan 13 21:16	4° Υ 43'05		min. Earth dist.	3471 Dec 18 18:57	27° Υ 25'34	0.67913 AU
morning max el	3471 Jan 23 13:33	10° Υ 25'59	22°33'09	morning rise	3471 Dec 24 13:05	20° Υ 39'32	
greatest brilliancy	3471 Jan 28 03:14	15° Υ 31'50	-0.3m	direct	3471 Dec 28 17:16	19° Υ 02'24	
desc. node	3471 Feb 04 06:41	24° Υ 49'16		morning max el	3472 Jan 06 05:22	23° Υ 58'39	21°10'05
	3471 Feb 07 23:15	0° Υ			3472 Jan 11 11:30	0° Υ	
morning set	3471 Feb 26 09:46	28° Υ 16'53		greatest brilliancy	3472 Jan 11 12:34	0° Υ 03'20	-0.4m
	3471 Feb 27 10:52	0° Υ		desc. node	3472 Jan 22 03:43	14° Υ 41'50	
max. Earth dist.	3471 Mar 03 09:40	6° Υ 36'44	1.40426 AU		3472 Feb 01 08:45	0° Υ	
				morning set	3472 Feb 05 21:14	7° Υ 01'32	

max. Earth dist.	3472 Feb 13 11:28	19° \approx 11'38	1.42438 AU	superior conj	3473 Jan 31 04:28	11° \approx 12'06	-2°00'-22
	3472 Feb 19 22:52	0° \mathbb{H}		minimum elong	3473 Jan 30 23:25	10° \approx 51'31	2°00'08
					3473 Feb 11 10:36	0° \mathbb{H}	
superior conj	3472 Feb 20 17:23	1° \mathbb{H} 18'58	-2°-6'-48	evening rise	3473 Feb 13 09:32	3° \mathbb{H} 20'50	
minimum elong	3472 Feb 20 18:03	1° \mathbb{H} 21'52	2°06'49	asc. node	3473 Feb 27 15:27	26° \mathbb{H} 35'50	
evening rise	3472 Mar 03 04:53	21° \mathbb{H} 35'16			3473 Mar 02 08:50	0° \mathbb{Y}	
	3472 Mar 07 21:23	0° \mathbb{Y}		evening max el	3473 Mar 03 08:45	1° \mathbb{Y} 03'18	18°12'05
asc. node	3472 Mar 12 18:24	8° \mathbb{Y} 18'55		retrograde	3473 Mar 09 19:04	4° \mathbb{Y} 27'46	
evening max el	3472 Mar 19 20:01	17° \mathbb{Y} 47'51	18°07'40	evening set	3473 Mar 12 15:17	3° \mathbb{Y} 45'54	
retrograde	3472 Mar 26 12:01	21° \mathbb{Y} 11'59			3473 Mar 17 08:48	30° \mathbb{R} \mathbb{H}	
evening set	3472 Mar 29 02:35	20° \mathbb{Y} 40'56		inferior conj	3473 Mar 18 19:28	28° \mathbb{H} 27'57	3°36'39
inferior conj	3472 Apr 04 18:44	15° \mathbb{Y} 43'19	3°17'38	minimum elong	3473 Mar 18 20:10	28° \mathbb{H} 26'03	3°36'38
minimum elong	3472 Apr 04 21:15	15° \mathbb{Y} 37'16	3°17'15	min. Earth dist.	3473 Mar 21 11:26	25° \mathbb{H} 35'25	0.63046 AU
min. Earth dist.	3472 Apr 07 23:46	12° \mathbb{Y} 40'07	0.60964 AU	morning rise	3473 Mar 24 22:58	22° \mathbb{H} 23'08	
morning rise	3472 Apr 11 12:45	9° \mathbb{Y} 50'32		direct	3473 Mar 31 20:36	19° \mathbb{H} 44'06	
direct	3472 Apr 18 06:23	7° \mathbb{Y} 35'34		desc. node	3473 Apr 05 23:57	21° \mathbb{H} 00'26	
desc. node	3472 Apr 19 02:53	7° \mathbb{Y} 37'39		morning max el	3473 Apr 14 18:58	27° \mathbb{H} 41'43	27°47'20
morning max el	3472 May 02 12:13	15° \mathbb{Y} 31'14	27°45'55		3473 Apr 16 23:45	0° \mathbb{Y}	
	3472 May 14 07:21	0° \mathbb{B}			3473 May 08 00:41	0° \mathbb{B}	
	3472 May 31 22:12	0° \mathbb{II}		morning set	3473 May 19 00:58	20° \mathbb{B} 29'52	
morning set	3472 Jun 04 01:42	6° \mathbb{II} 20'23			3473 May 23 15:28	0° \mathbb{II}	
asc. node	3472 Jun 08 17:42	16° \mathbb{II} 12'45		max. Earth dist.	3473 May 24 10:01	1° \mathbb{II} 38'25	1.32736 AU
max. Earth dist.	3472 Jun 10 03:59	19° \mathbb{II} 19'03	1.32188 AU				
				superior conj	3473 May 26 18:03	6° \mathbb{II} 39'03	0°01'28
superior conj	3472 Jun 11 09:45	22° \mathbb{II} 01'54	0°27'46	minimum elong	3473 May 26 17:59	6° \mathbb{II} 38'40	0°01'26
minimum elong	3472 Jun 11 08:31	21° \mathbb{II} 55'10	0°27'30	behind sun begin	3473 May 26 12:45	6° \mathbb{II} 10'26	
	3472 Jun 15 00:55	0° \mathbb{S}		behind sun end	3473 May 26 23:13	7° \mathbb{II} 06'57	
evening rise	3472 Jun 18 06:59	7° \mathbb{S} 01'21		asc. node	3473 May 26 14:44	6° \mathbb{II} 21'04	
	3472 Jun 30 07:03	0° \mathbb{Q}		evening rise	3473 Jun 02 18:50	21° \mathbb{II} 50'16	
evening max el	3472 Jul 14 17:11	19° \mathbb{Q} 05'49	25°06'47		3473 Jun 06 17:42	0° \mathbb{S}	
desc. node	3472 Jul 16 02:08	20° \mathbb{Q} 21'26		evening max el	3473 Jun 26 06:29	29° \mathbb{S} 36'19	23°32'39
retrograde	3472 Jul 28 16:32	26° \mathbb{Q} 10'43			3473 Jun 26 16:25	0° \mathbb{Q}	
evening set	3472 Aug 03 05:52	25° \mathbb{Q} 00'00		desc. node	3473 Jul 02 23:11	4° \mathbb{Q} 36'58	
min. Earth dist.	3472 Aug 08 04:54	22° \mathbb{Q} 16'45	0.57527 AU	retrograde	3473 Jul 09 21:17	6° \mathbb{Q} 25'32	
inferior conj	3472 Aug 11 05:14	20° \mathbb{Q} 14'54	-5°-7'-38	evening set	3473 Jul 13 23:18	5° \mathbb{Q} 49'01	
minimum elong	3472 Aug 11 05:14	20° \mathbb{Q} 14'55	5°07'38	min. Earth dist.	3473 Jul 20 16:28	2° \mathbb{Q} 41'13	0.55899 AU
morning rise	3472 Aug 19 08:12	16° \mathbb{Q} 02'56		inferior conj	3473 Jul 22 18:28	1° \mathbb{Q} 26'47	-4°-44'-34
direct	3472 Aug 21 21:18	15° \mathbb{Q} 43'53		minimum elong	3473 Jul 22 12:36	1° \mathbb{Q} 35'34	4°43'44
morning max el	3472 Aug 30 18:33	19° \mathbb{Q} 54'49	19°05'08		3473 Jul 25 06:09	30° \mathbb{R} \mathbb{S}	
asc. node	3472 Sep 04 16:57	25° \mathbb{Q} 45'09		morning rise	3473 Jul 31 05:04	27° \mathbb{S} 32'04	
	3472 Sep 07 11:54	0° \mathbb{P}		direct	3473 Aug 03 00:54	27° \mathbb{S} 12'17	
morning set	3472 Sep 16 12:46	16° \mathbb{P} 42'05			3473 Aug 10 22:45	0° \mathbb{Q}	
	3472 Sep 23 06:10	0° \mathbb{A}		morning max el	3473 Aug 13 09:37	2° \mathbb{Q} 00'50	20°12'01
				asc. node	3473 Aug 22 13:59	14° \mathbb{Q} 01'29	
superior conj	3472 Sep 24 20:52	3° \mathbb{A} 07'40	1°38'46		3473 Aug 31 02:34	0° \mathbb{P}	
minimum elong	3472 Sep 24 22:59	3° \mathbb{A} 17'49	1°38'38	morning set	3473 Aug 31 17:44	1° \mathbb{P} 17'02	
max. Earth dist.	3472 Oct 01 13:45	15° \mathbb{A} 38'48	1.38636 AU				
evening rise	3472 Oct 05 10:33	22° \mathbb{A} 28'58		superior conj	3473 Sep 08 10:54	17° \mathbb{P} 03'30	1°44'30
	3472 Oct 09 21:16	0° \mathbb{M}		minimum elong	3473 Sep 08 11:17	17° \mathbb{P} 05'28	1°44'30
desc. node	3472 Oct 12 01:28	3° \mathbb{M} 33'05		max. Earth dist.	3473 Sep 13 19:44	27° \mathbb{P} 36'31	1.36642 AU
	3472 Oct 30 01:32	0° \mathbb{J}			3473 Sep 15 01:59	0° \mathbb{A}	
evening max el	3472 Nov 09 22:02	12° \mathbb{J} 44'01	24°41'06	evening rise	3473 Sep 17 17:39	4° \mathbb{A} 55'05	
retrograde	3472 Nov 21 11:03	19° \mathbb{J} 27'24		desc. node	3473 Sep 28 22:30	24° \mathbb{A} 00'19	
evening set	3472 Nov 26 23:03	17° \mathbb{J} 10'31			3473 Oct 02 19:18	0° \mathbb{M}	
min. Earth dist.	3472 Dec 01 14:34	11° \mathbb{J} 54'38	0.67565 AU	evening max el	3473 Oct 23 10:25	26° \mathbb{M} 26'19	25°52'02
asc. node	3472 Dec 01 16:10	11° \mathbb{J} 49'18			3473 Oct 27 12:34	0° \mathbb{J}	
inferior conj	3472 Dec 02 11:50	10° \mathbb{J} 43'57	0°16'49	retrograde	3473 Nov 04 20:24	3° \mathbb{J} 30'41	
minimum elong	3472 Dec 02 11:25	10° \mathbb{J} 45'19	0°16'39	evening set	3473 Nov 10 22:35	1° \mathbb{J} 00'00	
morning rise	3472 Dec 08 00:14	4° \mathbb{J} 40'34			3473 Nov 12 00:57	30° \mathbb{R} \mathbb{M}	
direct	3472 Dec 11 15:26	3° \mathbb{J} 24'41		min. Earth dist.	3473 Nov 15 06:31	26° \mathbb{M} 19'45	0.66870 AU
morning max el	3472 Dec 19 04:51	7° \mathbb{J} 42'25	19°58'29	inferior conj	3473 Nov 16 14:50	24° \mathbb{M} 37'56	0°-39'-46
greatest brilliancy	3472 Dec 26 09:14	16° \mathbb{J} 25'46	-0.6m	minimum elong	3473 Nov 16 15:53	24° \mathbb{M} 34'38	0°39'20
	3473 Jan 04 18:29	0° \mathbb{C}		asc. node	3473 Nov 18 13:13	22° \mathbb{M} 16'00	
desc. node	3473 Jan 08 00:45	4° \mathbb{C} 55'01		morning rise	3473 Nov 22 10:07	18° \mathbb{M} 43'29	
morning set	3473 Jan 14 17:20	15° \mathbb{C} 09'28		direct	3473 Nov 25 14:09	17° \mathbb{M} 45'50	
	3473 Jan 24 05:10	0° \mathbb{A}		morning max el	3473 Dec 02 12:00	21° \mathbb{M} 36'14	19°01'36
max. Earth dist.	3473 Jan 25 21:16	2° \mathbb{A} 39'30	1.44026 AU		3473 Dec 09 06:22	0° \mathbb{J}	

morning set	3473 Dec 24 23:23	23° ♄ 55'47		superior conj	3474 Dec 20 18:04	28° ♄ 37'54	0°-52'-25
desc. node	3473 Dec 25 21:47	25° ♄ 23'12		minimum elong	3474 Dec 20 11:29	28° ♄ 12'00	0°51'35
	3473 Dec 28 20:40	0° ♄			3474 Dec 21 14:58	0° ♄	
max. Earth dist.	3474 Jan 08 13:35	16° ♄ 46'00	1.44988 AU	max. Earth dist.	3474 Dec 22 08:42	1° ♄ 09'37	1.45223 AU
				evening rise	3475 Jan 05 23:46	24° ♄ 04'51	
superior conj	3474 Jan 10 16:02	20° ♄ 04'49	-1°-34'-34		3475 Jan 09 18:17	0° ♄	
minimum elong	3474 Jan 10 06:56	19° ♄ 28'57	1°33'43	greatest brilliancy	3475 Jan 19 20:30	15° ♄ 36'03	-0.7m
	3474 Jan 16 21:51	0° ♄		evening max el	3475 Jan 29 05:31	27° ♄ 57'33	19°15'08
evening rise	3474 Jan 25 16:13	14° ♄ 10'28			3475 Jan 31 11:31	0° ♄	
	3474 Feb 04 09:48	0° ♄		asc. node	3475 Feb 01 09:32	0° ♄ 39'23	
asc. node	3474 Feb 14 12:30	14° ♄ 07'11		retrograde	3475 Feb 05 06:36	1° ♄ 59'06	
evening max el	3474 Feb 14 20:42	14° ♄ 28'22	18°34'56	evening set	3475 Feb 08 15:22	0° ♄ 52'55	
retrograde	3474 Feb 21 10:30	18° ♄ 05'59			3475 Feb 09 19:19	30° ♄	
evening set	3474 Feb 24 12:31	17° ♄ 12'26		inferior conj	3475 Feb 14 05:30	24° ♄ 59'56	3°21'04
inferior conj	3474 Mar 02 08:14	11° ♄ 35'47	3°36'10	minimum elong	3475 Feb 14 03:33	25° ♄ 06'14	3°20'45
minimum elong	3474 Mar 02 07:21	11° ♄ 38'26	3°36'07	min. Earth dist.	3475 Feb 15 14:41	23° ♄ 13'13	0.66216 AU
min. Earth dist.	3474 Mar 04 08:38	9° ♄ 11'21	0.64826 AU	morning rise	3475 Feb 19 14:53	18° ♄ 45'06	
morning rise	3474 Mar 08 00:51	5° ♄ 24'18		direct	3475 Feb 25 22:14	15° ♄ 58'42	
direct	3474 Mar 14 18:12	2° ♄ 35'00		morning max el	3475 Mar 10 14:28	23° ♄ 30'07	26°12'21
desc. node	3474 Mar 23 20:58	6° ♄ 32'27		desc. node	3475 Mar 10 18:00	23° ♄ 39'04	
morning max el	3474 Mar 28 04:36	10° ♄ 25'38	27°13'52		3475 Mar 16 09:31	0° ♄	
	3474 Apr 12 15:06	0° ♄			3475 Apr 05 23:34	0° ♄	
	3474 Apr 30 11:14	0° ♄		morning set	3475 Apr 15 16:56	17° ♄ 07'48	
morning set	3474 May 02 15:19	4° ♄ 09'34		max. Earth dist.	3475 Apr 19 17:41	24° ♄ 48'41	1.35172 AU
max. Earth dist.	3474 May 07 07:33	13° ♄ 29'38	1.33727 AU		3475 Apr 22 08:46	0° ♄	
				superior conj	3475 Apr 24 18:23	4° ♄ 51'00	0°-55'-35
superior conj	3474 May 10 21:45	20° ♄ 57'55	0°-26'-44	minimum elong	3475 Apr 24 21:19	5° ♄ 05'57	0°55'02
minimum elong	3474 May 10 23:07	21° ♄ 05'10	0°26'28	asc. node	3475 Apr 30 08:49	16° ♄ 25'41	
asc. node	3474 May 13 11:46	26° ♄ 26'54		evening rise	3475 May 02 13:45	20° ♄ 59'32	
	3474 May 15 03:45	0° ♄			3475 May 07 01:36	0° ♄	
evening rise	3474 May 18 05:46	6° ♄ 31'59		evening max el	3475 May 21 01:01	21° ♄ 00'32	20°32'35
	3474 May 30 21:34	0° ♄		retrograde	3475 Jun 01 03:38	26° ♄ 25'42	
evening max el	3474 Jun 07 22:46	10° ♄ 04'34	21°56'54	evening set	3475 Jun 03 04:42	26° ♄ 15'25	
desc. node	3474 Jun 19 20:12	16° ♄ 18'40		desc. node	3475 Jun 06 17:11	25° ♄ 14'11	
retrograde	3474 Jun 20 14:30	16° ♄ 20'00		inferior conj	3475 Jun 12 09:50	22° ♄ 17'53	-1°-40'-22
evening set	3474 Jun 23 08:13	16° ♄ 03'15		minimum elong	3475 Jun 12 05:06	22° ♄ 24'43	1°38'39
min. Earth dist.	3474 Jul 02 03:09	12° ♄ 17'24	0.54973 AU	min. Earth dist.	3475 Jun 13 15:19	21° ♄ 35'16	0.54968 AU
inferior conj	3474 Jul 02 15:59	11° ♄ 59'26	-3°-31'-43	morning rise	3475 Jun 21 04:05	18° ♄ 09'14	
minimum elong	3474 Jul 02 07:39	12° ♄ 11'06	3°29'23	direct	3475 Jun 24 23:00	17° ♄ 38'18	
morning rise	3474 Jul 11 08:42	8° ♄ 08'06		morning max el	3475 Jul 08 07:07	24° ♄ 05'22	23°19'13
direct	3474 Jul 14 13:22	7° ♄ 45'34			3475 Jul 13 16:03	0° ♄	
morning max el	3474 Jul 26 12:58	13° ♄ 21'58	21°38'52	asc. node	3475 Jul 27 08:03	22° ♄ 16'57	
	3474 Aug 07 19:55	0° ♄			3475 Jul 31 03:02	0° ♄	
asc. node	3474 Aug 09 11:01	2° ♄ 55'08		morning set	3475 Jul 31 14:02	0° ♄ 57'47	
morning set	3474 Aug 16 02:47	16° ♄ 04'04					
	3474 Aug 22 17:37	0° ♄		superior conj	3475 Aug 07 16:03	16° ♄ 09'54	1°34'32
superior conj	3474 Aug 23 10:19	1° ♄ 27'18	1°42'39	minimum elong	3475 Aug 07 14:08	15° ♄ 59'36	1°34'22
minimum elong	3474 Aug 23 09:19	1° ♄ 22'05	1°42'37	max. Earth dist.	3475 Aug 10 05:27	21° ♄ 36'39	1.33594 AU
max. Earth dist.	3474 Aug 27 08:09	9° ♄ 29'34	1.34925 AU		3475 Aug 14 06:56	0° ♄	
evening rise	3474 Aug 31 18:07	18° ♄ 10'30		evening rise	3475 Aug 15 07:42	2° ♄ 04'01	
	3474 Sep 07 05:03	0° ♄			3475 Aug 31 02:20	0° ♄	
desc. node	3474 Sep 15 19:31	14° ♄ 10'24		desc. node	3475 Sep 02 16:31	3° ♄ 55'49	
	3474 Sep 27 00:34	0° ♄		evening max el	3475 Sep 18 10:45	23° ♄ 27'32	27°20'24
evening max el	3474 Oct 05 22:50	10° ♄ 03'53	26°47'32		3475 Sep 27 22:30	0° ♄	
retrograde	3474 Oct 19 00:27	17° ♄ 19'29		retrograde	3475 Oct 01 22:52	0° ♄ 46'06	
evening set	3474 Oct 25 15:36	14° ♄ 39'48			3475 Oct 05 17:59	30° ♄	
min. Earth dist.	3474 Oct 29 16:24	10° ♄ 36'05	0.65823 AU	evening set	3475 Oct 08 23:39	28° ♄ 05'25	
inferior conj	3474 Oct 31 12:31	8° ♄ 26'50	-1°-39'-26	min. Earth dist.	3475 Oct 12 18:11	24° ♄ 37'04	0.64424 AU
minimum elong	3474 Oct 31 15:16	8° ♄ 18'47	1°38'19	inferior conj	3475 Oct 15 02:37	22° ♄ 06'12	-2°-40'-3
asc. node	3474 Nov 05 10:15	3° ♄ 30'52		minimum elong	3475 Oct 15 07:03	21° ♄ 54'20	2°38'27
morning rise	3474 Nov 06 16:27	2° ♄ 44'15		morning rise	3475 Oct 21 16:37	16° ♄ 38'30	
direct	3474 Nov 09 11:26	2° ♄ 01'09		asc. node	3475 Oct 23 07:16	16° ♄ 10'17	
morning max el	3474 Nov 16 00:57	5° ♄ 34'50	18°20'49	direct	3475 Oct 24 04:58	16° ♄ 06'02	
	3474 Dec 02 19:46	0° ♄		morning max el	3475 Oct 30 17:03	19° ♄ 32'20	17°56'57
morning set	3474 Dec 05 08:25	4° ♄ 05'12			3475 Nov 07 12:13	0° ♄	
desc. node	3474 Dec 12 18:48	16° ♄ 01'22		morning set	3475 Nov 16 22:10	15° ♄ 39'00	

	3475 Nov 25 12:12	0°♊			3476 Oct 05 11:44	30°♏	
desc. node	3475 Nov 29 15:50	6°♊46'03		direct	3476 Oct 06 15:46	29°♏53'41	
					3476 Oct 07 19:37	0°♏	
superior conj	3475 Nov 30 07:43	7°♊50'11	0°-4'-33	asc. node	3476 Oct 09 04:18	0°♏23'33	
minimum elong	3475 Nov 30 07:11	7°♊48'01	0°04'29	morning max el	3476 Oct 13 09:16	3°♏20'37	17°50'47
behind sun begin	3475 Nov 29 21:14	7°♊07'52		morning set	3476 Oct 29 10:55	28°♏18'42	
behind sun end	3475 Nov 30 17:08	8°♊28'06			3476 Oct 30 09:45	0°♏	
max. Earth dist.	3475 Dec 05 03:21	15°♊31'50	1.44721 AU				
	3475 Dec 14 09:36	0°♏		superior conj	3476 Nov 09 22:10	18°♏15'35	0°38'15
evening rise	3475 Dec 16 13:36	3°♏20'28		minimum elong	3476 Nov 10 01:38	18°♏30'10	0°37'47
	3476 Jan 03 08:08	0°♏		desc. node	3476 Nov 15 12:50	27°♏33'16	
greatest brilliancy	3476 Jan 05 21:11	3°♏32'07	-0.6m	max. Earth dist.	3476 Nov 16 19:02	29°♏35'44	1.43548 AU
evening max el	3476 Jan 12 09:38	11°♏28'55	20°10'55		3476 Nov 17 01:02	0°♊	
asc. node	3476 Jan 19 06:33	15°♏58'08		evening rise	3476 Nov 24 23:16	12°♊31'50	
retrograde	3476 Jan 20 04:35	16°♏02'45			3476 Dec 06 12:30	0°♏	
evening set	3476 Jan 23 21:35	14°♏42'44		greatest brilliancy	3476 Dec 20 07:06	19°♏12'06	-0.4m
inferior conj	3476 Jan 29 08:29	8°♏36'10	2°54'43	evening max el	3476 Dec 25 08:18	25°♏01'38	21°19'26
minimum elong	3476 Jan 29 06:01	8°♏44'30	2°54'06		3477 Jan 01 11:37	0°♏	
min. Earth dist.	3476 Jan 30 03:49	7°♏30'52	0.67193 AU	retrograde	3477 Jan 03 02:14	0°♏13'06	
morning rise	3476 Feb 03 13:52	2°♏20'23			3477 Jan 04 15:31	30°♏♏	
	3476 Feb 07 14:56	30°♏♏		asc. node	3477 Jan 05 03:34	29°♏49'59	
direct	3476 Feb 09 07:58	29°♏47'13		evening set	3477 Jan 07 05:17	28°♏37'51	
	3476 Feb 11 02:43	0°♏		inferior conj	3477 Jan 12 14:49	22°♏20'52	2°19'22
morning max el	3476 Feb 20 23:12	6°♏44'28	24°52'12	minimum elong	3477 Jan 12 12:21	22°♏29'23	2°18'34
desc. node	3476 Feb 25 15:03	11°♏53'39		min. Earth dist.	3477 Jan 12 21:45	21°♏56'55	0.67766 AU
	3476 Mar 10 01:20	0°♏		morning rise	3477 Jan 17 19:05	16°♏06'07	
morning set	3476 Mar 28 00:48	29°♏10'34		direct	3477 Jan 22 22:25	13°♏52'55	
	3476 Mar 28 11:55	0°♏		morning max el	3477 Feb 02 07:56	20°♏03'58	23°23'53
max. Earth dist.	3476 Mar 31 17:01	5°♏49'23	1.37039 AU	greatest brilliancy	3477 Feb 07 22:25	26°♏23'35	-0.2m
					3477 Feb 10 18:47	0°♏	
superior conj	3476 Apr 07 05:00	18°♏10'34	-1°-23'-13	desc. node	3477 Feb 11 12:06	0°♏56'38	
minimum elong	3476 Apr 07 09:13	18°♏31'14	1°22'36		3477 Mar 03 06:18	0°♏	
	3476 Apr 13 03:32	0°♏		morning set	3477 Mar 09 08:47	10°♏01'35	
evening rise	3476 Apr 15 16:30	5°♏06'20		max. Earth dist.	3477 Mar 13 11:53	17°♏06'35	1.39176 AU
asc. node	3476 Apr 16 05:51	6°♏13'02			3477 Mar 20 15:37	0°♏	
	3476 Apr 30 05:46	0°♏					
evening max el	3476 May 02 15:33	2°♏37'31	19°26'17	superior conj	3477 Mar 21 01:45	0°♏47'06	-1°-46'-57
retrograde	3476 May 12 00:35	7°♏10'35		minimum elong	3477 Mar 21 06:20	1°♏08'24	1°46'32
evening set	3476 May 14 00:27	6°♏59'08		evening rise	3477 Mar 30 11:16	18°♏45'20	
inferior conj	3476 May 22 14:24	2°♏53'01	0°17'23	asc. node	3477 Apr 03 02:53	25°♏44'14	
minimum elong	3476 May 22 15:08	2°♏51'49	0°17'06		3477 Apr 05 10:20	0°♏	
desc. node	3476 May 23 14:13	2°♏14'17		evening max el	3477 Apr 15 16:32	14°♏53'32	18°39'59
min. Earth dist.	3476 May 25 05:42	1°♏10'55	0.55917 AU	retrograde	3477 Apr 23 15:02	18°♏46'53	
	3476 May 27 04:58	30°♏♏		evening set	3477 Apr 25 20:15	18°♏29'45	
morning rise	3476 May 31 01:55	28°♏11'58		inferior conj	3477 May 03 14:45	14°♏05'13	1°52'36
direct	3476 Jun 04 18:46	27°♏21'49		minimum elong	3477 May 03 18:19	13°♏58'28	1°51'30
	3476 Jun 13 04:06	0°♏		min. Earth dist.	3477 May 06 23:07	11°♏34'37	0.57613 AU
morning max el	3476 Jun 18 21:13	4°♏30'00	25°00'59	desc. node	3477 May 10 11:16	9°♏20'52	
	3476 Jul 07 01:23	0°♏		morning rise	3477 May 11 11:58	8°♏50'03	
asc. node	3476 Jul 13 05:05	11°♏58'48		direct	3477 May 17 04:35	7°♏29'30	
morning set	3476 Jul 15 01:48	15°♏52'18		morning max el	3477 May 31 13:17	15°♏03'50	26°28'35
	3476 Jul 21 14:13	0°♏			3477 Jun 12 13:37	0°♏	
					3477 Jun 29 04:24	0°♏	
superior conj	3476 Jul 22 01:40	1°♏02'39	1°21'10	morning set	3477 Jun 29 12:30	0°♏42'36	
minimum elong	3476 Jul 21 23:21	0°♏49'55	1°20'51	asc. node	3477 Jun 30 02:08	1°♏54'42	
max. Earth dist.	3476 Jul 23 10:45	4°♏02'56	1.32682 AU				
evening rise	3476 Jul 29 06:41	16°♏24'27		superior conj	3477 Jul 06 13:14	15°♏59'06	1°03'20
	3476 Aug 05 06:09	0°♏		minimum elong	3477 Jul 06 10:58	15°♏46'40	1°02'57
desc. node	3476 Aug 19 13:31	23°♏05'37		max. Earth dist.	3477 Jul 06 21:16	16°♏43'25	1.32183 AU
	3476 Aug 24 21:39	0°♏			3477 Jul 13 00:14	0°♏	
evening max el	3476 Aug 30 20:24	6°♏24'20	27°24'19	evening rise	3477 Jul 13 12:11	1°♏02'47	
retrograde	3476 Sep 13 14:46	13°♏40'17			3477 Jul 29 07:07	0°♏	
evening set	3476 Sep 20 19:22	11°♏09'56		desc. node	3477 Aug 06 10:32	11°♏25'06	
min. Earth dist.	3476 Sep 24 10:08	8°♏11'47	0.62699 AU	evening max el	3477 Aug 13 01:12	18°♏41'47	26°55'13
inferior conj	3476 Sep 27 06:17	5°♏28'40	-3°-38'-22	retrograde	3477 Aug 26 23:01	25°♏53'23	
minimum elong	3476 Sep 27 11:55	5°♏15'09	3°36'43	evening set	3477 Sep 02 22:29	23°♏46'03	
morning rise	3476 Oct 04 07:13	0°♏19'04		min. Earth dist.	3477 Sep 06 15:24	21°♏07'26	0.60728 AU

inferior conj	3477 Sep 09 20:15	18° $\overline{\text{m}}$ 25'58	-4°-28'-41	evening max el	3478 Jul 25 22:44	0° $\overline{\text{m}}$ 10'55	25°53'48
minimum elong	3477 Sep 10 01:43	18° $\overline{\text{m}}$ 14'23	4°27'35	retrograde	3478 Aug 08 22:10	7° $\overline{\text{m}}$ 19'00	
morning rise	3477 Sep 17 08:08	13° $\overline{\text{m}}$ 37'42		evening set	3478 Aug 15 04:09	5° $\overline{\text{m}}$ 45'45	
direct	3477 Sep 19 16:04	13° $\overline{\text{m}}$ 16'23		min. Earth dist.	3478 Aug 19 11:02	3° $\overline{\text{m}}$ 09'59	0.58660 AU
asc. node	3477 Sep 26 01:21	16° $\overline{\text{m}}$ 03'41		inferior conj	3478 Aug 22 16:53	0° $\overline{\text{m}}$ 48'04	-5°-1'-42
morning max el	3477 Sep 26 22:29	16° $\overline{\text{m}}$ 52'10	18°03'31	minimum elong	3478 Aug 22 19:44	0° $\overline{\text{m}}$ 42'50	5°01'29
	3477 Oct 06 05:04	0° $\underline{\text{a}}$			3478 Aug 23 19:23	30° $\overline{\text{R}}$ Ω	
morning set	3477 Oct 12 16:29	11° $\underline{\text{a}}$ 46'15		morning rise	3478 Aug 30 14:49	26° Ω 23'25	
				direct	3478 Sep 02 01:22	26° Ω 03'58	
superior conj	3477 Oct 22 14:57	29° $\underline{\text{a}}$ 57'50	1°10'31	morning max el	3478 Sep 10 05:30	29° Ω 58'18	18°36'35
minimum elong	3477 Oct 22 19:10	0° $\overline{\text{m}}$ 16'34	1°10'01		3478 Sep 10 06:13	0° $\overline{\text{m}}$	
	3477 Oct 22 15:26	0° $\overline{\text{m}}$		asc. node	3478 Sep 12 22:25	2° $\overline{\text{m}}$ 56'20	
max. Earth dist.	3477 Oct 30 06:13	13° $\overline{\text{m}}$ 07'37	1.41849 AU	morning set	3478 Sep 26 09:55	25° $\overline{\text{m}}$ 47'55	
desc. node	3477 Nov 02 09:51	18° $\overline{\text{m}}$ 19'48			3478 Sep 28 13:51	0° $\underline{\text{a}}$	
evening rise	3477 Nov 04 21:05	22° $\overline{\text{m}}$ 19'10					
	3477 Nov 09 18:10	0° $\overline{\text{x}}$		superior conj	3478 Oct 05 05:35	12° $\underline{\text{a}}$ 44'43	1°31'25
	3477 Nov 30 16:32	0° $\overline{\text{z}}$		minimum elong	3478 Oct 05 08:40	12° $\underline{\text{a}}$ 59'09	1°31'10
greatest brilliancy	3477 Dec 03 04:50	3° $\overline{\text{z}}$ 08'05	-0.3m	max. Earth dist.	3478 Oct 12 12:36	25° $\underline{\text{a}}$ 57'29	1.39831 AU
evening max el	3477 Dec 08 01:51	8° $\overline{\text{z}}$ 35'59	22°36'25		3478 Oct 14 20:41	0° $\overline{\text{m}}$	
retrograde	3477 Dec 17 21:54	14° $\overline{\text{z}}$ 26'34		evening rise	3478 Oct 16 16:51	3° $\overline{\text{m}}$ 07'10	
evening set	3477 Dec 22 12:46	12° $\overline{\text{z}}$ 34'58		desc. node	3478 Oct 20 06:52	9° $\overline{\text{m}}$ 02'25	
asc. node	3477 Dec 23 00:37	12° $\overline{\text{z}}$ 09'26			3478 Nov 03 00:20	0° $\overline{\text{x}}$	
inferior conj	3477 Dec 27 22:31	6° $\overline{\text{z}}$ 11'01	1°36'32	evening max el	3478 Nov 20 15:43	22° $\overline{\text{x}}$ 13'28	23°56'21
minimum elong	3477 Dec 27 20:31	6° $\overline{\text{z}}$ 17'55	1°35'47	retrograde	3478 Dec 01 14:23	28° $\overline{\text{x}}$ 40'01	
min. Earth dist.	3477 Dec 27 18:05	6° $\overline{\text{z}}$ 26'21	0.67963 AU	evening set	3478 Dec 06 18:29	26° $\overline{\text{x}}$ 31'50	
morning rise	3478 Jan 02 04:11	29° $\overline{\text{x}}$ 59'11		asc. node	3478 Dec 09 21:40	23° $\overline{\text{x}}$ 10'59	
	3478 Jan 02 03:48	30° $\overline{\text{R}}$ $\overline{\text{x}}$		min. Earth dist.	3478 Dec 11 14:34	20° $\overline{\text{x}}$ 56'32	0.67806 AU
direct	3478 Jan 06 16:38	28° $\overline{\text{x}}$ 08'52		inferior conj	3478 Dec 12 05:48	20° $\overline{\text{x}}$ 04'52	0°47'28
	3478 Jan 11 17:40	0° $\overline{\text{z}}$		minimum elong	3478 Dec 12 04:41	20° $\overline{\text{x}}$ 08'37	0°47'01
morning max el	3478 Jan 15 20:10	3° $\overline{\text{z}}$ 30'38	21°56'45	morning rise	3478 Dec 17 15:09	13° $\overline{\text{x}}$ 57'57	
greatest brilliancy	3478 Jan 20 12:37	8° $\overline{\text{z}}$ 46'31	-0.4m	direct	3478 Dec 21 13:36	12° $\overline{\text{x}}$ 30'17	
desc. node	3478 Jan 29 09:07	20° $\overline{\text{z}}$ 33'51		morning max el	3478 Dec 29 15:14	17° $\overline{\text{x}}$ 08'37	20°38'06
	3478 Feb 04 21:12	0° \approx		greatest brilliancy	3479 Jan 04 14:07	24° $\overline{\text{x}}$ 06'47	-0.5m
morning set	3478 Feb 17 12:00	19° \approx 29'12			3479 Jan 08 22:27	0° $\overline{\text{z}}$	
max. Earth dist.	3478 Feb 23 10:23	29° \approx 12'03	1.41321 AU	desc. node	3479 Jan 16 06:09	10° $\overline{\text{z}}$ 36'05	
	3478 Feb 23 21:51	0° H		morning set	3479 Jan 27 14:25	27° $\overline{\text{z}}$ 50'50	
					3479 Jan 28 23:35	0° \approx	
superior conj	3478 Mar 03 03:42	12° H 27'36	-2°-2'-59	max. Earth dist.	3479 Feb 05 16:09	12° \approx 12'50	1.43178 AU
minimum elong	3478 Mar 03 06:38	12° H 40'33	2°02'54				
	3478 Mar 12 19:25	0° $\overline{\text{Y}}$		superior conj	3479 Feb 12 05:49	23° \approx 01'10	-2°-6'-18
evening rise	3478 Mar 13 18:34	1° $\overline{\text{Y}}$ 47'15		minimum elong	3479 Feb 12 04:14	22° \approx 54'32	2°06'17
asc. node	3478 Mar 20 23:56	14° $\overline{\text{Y}}$ 52'39			3479 Feb 16 08:46	0° H	
evening max el	3478 Mar 30 00:36	27° $\overline{\text{Y}}$ 39'05	18°13'44	evening rise	3479 Feb 24 10:16	14° H 03'32	
	3478 Apr 02 00:33	0° $\overline{\text{z}}$			3479 Mar 05 15:25	0° $\overline{\text{Y}}$	
retrograde	3478 Apr 06 00:22	1° $\overline{\text{z}}$ 09'29		asc. node	3479 Mar 07 21:00	3° $\overline{\text{Y}}$ 31'05	
evening set	3478 Apr 08 11:40	0° $\overline{\text{z}}$ 43'57		evening max el	3479 Mar 13 12:26	10° $\overline{\text{Y}}$ 45'45	18°07'09
	3478 Apr 10 03:41	30° $\overline{\text{R}}$ $\overline{\text{Y}}$		retrograde	3479 Mar 20 00:57	14° $\overline{\text{Y}}$ 08'41	
inferior conj	3478 Apr 15 12:22	25° $\overline{\text{Y}}$ 58'04	2°55'19	evening set	3479 Mar 22 17:51	13° $\overline{\text{Y}}$ 33'13	
minimum elong	3478 Apr 15 15:45	25° $\overline{\text{Y}}$ 50'36	2°54'37	inferior conj	3479 Mar 29 04:25	8° $\overline{\text{Y}}$ 26'33	3°28'27
min. Earth dist.	3478 Apr 18 21:45	22° $\overline{\text{Y}}$ 59'49	0.59712 AU	minimum elong	3479 Mar 29 06:11	8° $\overline{\text{Y}}$ 22'06	3°28'16
morning rise	3478 Apr 22 16:06	20° $\overline{\text{Y}}$ 16'04		min. Earth dist.	3479 Apr 01 04:20	5° $\overline{\text{Y}}$ 25'21	0.61875 AU
desc. node	3478 Apr 27 08:19	18° $\overline{\text{Y}}$ 29'05		morning rise	3479 Apr 04 15:50	2° $\overline{\text{Y}}$ 27'29	
direct	3478 Apr 29 03:00	18° $\overline{\text{Y}}$ 20'21		direct	3479 Apr 11 12:05	0° $\overline{\text{Y}}$ 01'00	
morning max el	3478 May 13 11:15	26° $\overline{\text{Y}}$ 10'03	27°28'02	desc. node	3479 Apr 14 05:22	0° $\overline{\text{Y}}$ 22'18	
	3478 May 17 01:28	0° $\overline{\text{z}}$		morning max el	3479 Apr 25 15:33	7° $\overline{\text{Y}}$ 58'40	27°51'05
	3478 Jun 06 00:23	0° $\overline{\text{II}}$			3479 May 12 12:00	0° $\overline{\text{z}}$	
morning set	3478 Jun 13 20:25	15° $\overline{\text{II}}$ 22'25		morning set	3479 May 28 23:33	29° $\overline{\text{z}}$ 45'30	
asc. node	3478 Jun 16 23:12	21° $\overline{\text{II}}$ 58'50			3479 May 29 02:24	0° $\overline{\text{II}}$	
max. Earth dist.	3478 Jun 20 09:14	29° $\overline{\text{II}}$ 26'13	1.32077 AU	asc. node	3479 Jun 03 20:15	12° $\overline{\text{II}}$ 06'58	
	3478 Jun 20 15:22	0° $\overline{\text{z}}$		max. Earth dist.	3479 Jun 03 18:36	11° $\overline{\text{II}}$ 58'00	1.32373 AU
superior conj	3478 Jun 21 00:54	0° $\overline{\text{z}}$ 52'28	0°41'42	superior conj	3479 Jun 05 10:58	15° $\overline{\text{II}}$ 37'21	0°16'54
minimum elong	3478 Jun 20 23:10	0° $\overline{\text{z}}$ 42'58	0°41'21	minimum elong	3479 Jun 05 10:11	15° $\overline{\text{II}}$ 33'06	0°16'43
evening rise	3478 Jun 27 21:44	15° $\overline{\text{z}}$ 50'28		evening rise	3479 Jun 12 09:18	0° $\overline{\text{z}}$ 40'44	
	3478 Jul 04 22:58	0° Ω			3479 Jun 12 01:39	0° $\overline{\text{z}}$	
desc. node	3478 Jul 24 07:34	28° Ω 33'25			3479 Jun 28 12:31	0° Ω	
	3478 Jul 25 18:11	0° $\overline{\text{m}}$		evening max el	3479 Jul 07 13:29	10° Ω 56'16	24°27'45

desc. node	3479 Jul 11 04:37	14°♌02'03			3480 May 19 16:06	0°♈	
retrograde	3479 Jul 21 10:35	17°♌56'59		asc. node	3480 May 20 17:18	2°♈15'06	
evening set	3479 Jul 26 09:39	17°♌01'50		evening rise	3480 May 26 21:00	15°♈27'36	
min. Earth dist.	3479 Aug 01 00:27	14°♌09'51	0.56767 AU		3480 Jun 03 03:45	0°♉	
inferior conj	3479 Aug 03 17:32	12°♌26'18	-5°-3'-35	evening max el	3480 Jun 18 03:05	21°♉22'33	22°51'16
minimum elong	3479 Aug 03 15:00	12°♌30'22	5°03'28	desc. node	3480 Jun 27 01:38	27°♉16'39	
morning rise	3479 Aug 11 23:59	8°♌23'15		retrograde	3480 Jul 01 10:34	28°♉00'22	
direct	3479 Aug 14 15:39	8°♌04'08		evening set	3480 Jul 04 21:12	27°♉34'24	
morning max el	3479 Aug 24 03:11	12°♌29'16	19°31'05	min. Earth dist.	3480 Jul 12 11:42	24°♉11'53	0.55398 AU
asc. node	3479 Aug 30 19:28	20°♌46'09		inferior conj	3480 Jul 13 23:14	23°♉20'44	-4°-19'-47
	3479 Sep 05 05:28	0°♏		minimum elong	3480 Jul 13 15:36	23°♉31'45	4°18'13
morning set	3479 Sep 10 11:28	10°♏12'55		morning rise	3480 Jul 22 12:41	19°♉29'26	
				direct	3480 Jul 25 11:36	19°♉09'00	
superior conj	3479 Sep 18 12:29	26°♏19'41	1°42'13	morning max el	3480 Aug 05 13:23	24°♉17'32	20°46'44
minimum elong	3479 Sep 18 13:50	26°♏26'21	1°42'10		3480 Aug 10 14:51	0°♊	
	3479 Sep 20 09:41	0°♊		asc. node	3480 Aug 16 16:30	9°♊20'08	
max. Earth dist.	3479 Sep 24 16:42	8°♊07'06	1.37756 AU	morning set	3480 Aug 24 18:26	24°♊54'05	
evening rise	3479 Sep 28 11:54	14°♊59'40			3480 Aug 27 05:30	0°♋	
desc. node	3479 Oct 07 03:53	29°♊36'38					
	3479 Oct 07 09:43	0°♌		superior conj	3480 Sep 01 06:58	10°♋29'19	1°44'33
	3479 Oct 28 17:36	0°♌		minimum elong	3480 Sep 01 06:43	10°♋28'02	1°44'33
evening max el	3479 Nov 03 03:57	5°♌53'56	25°12'41	max. Earth dist.	3480 Sep 06 00:35	19°♋58'54	1.35868 AU
retrograde	3479 Nov 15 02:40	12°♌48'21		evening rise	3480 Sep 10 03:01	27°♋49'03	
evening set	3479 Nov 20 20:46	10°♌24'57			3480 Sep 11 07:21	0°♌	
min. Earth dist.	3479 Nov 25 08:52	5°♌24'09	0.67306 AU	desc. node	3480 Sep 23 00:56	19°♌57'37	
inferior conj	3479 Nov 26 10:51	3°♌59'29	0°-6'-43		3480 Sep 29 17:18	0°♌	
minimum elong	3479 Nov 26 11:01	3°♌58'56	0°06'39	evening max el	3480 Oct 15 16:21	19°♌35'21	26°17'58
transit middle	3479 Nov 26 11:01	3°♌58'56	0°06'39	retrograde	3480 Oct 28 10:01	26°♌46'12	
transit begin	3479 Nov 26 08:29	4°♌07'12		evening set	3480 Nov 03 17:47	24°♌11'04	
transit end	3479 Nov 26 13:33	3°♌50'40		min. Earth dist.	3480 Nov 07 22:38	19°♌46'03	0.66465 AU
asc. node	3479 Nov 26 18:43	3°♌33'55		inferior conj	3480 Nov 09 11:51	17°♌52'00	-1°-4'-48
	3479 Nov 29 18:04	30°♌		minimum elong	3480 Nov 09 13:36	17°♌46'38	1°04'05
morning rise	3479 Dec 02 01:58	27°♌59'40		asc. node	3480 Nov 12 15:43	14°♌15'06	
direct	3479 Dec 05 12:03	26°♌52'12		morning rise	3480 Nov 15 10:36	12°♌02'01	
	3479 Dec 11 18:12	0°♌		direct	3480 Nov 18 10:26	11°♌11'06	
morning max el	3479 Dec 12 18:09	0°♌57'15	19°32'25	morning max el	3480 Nov 25 03:59	14°♌53'32	18°42'07
greatest brilliancy	3479 Dec 21 04:35	11°♌32'22	-0.6m		3480 Dec 06 08:26	0°♌	
	3480 Jan 02 12:36	0°♍		morning set	3480 Dec 16 03:50	15°♌24'01	
desc. node	3480 Jan 03 03:09	0°♍55'55		desc. node	3480 Dec 20 00:10	21°♌28'33	
morning set	3480 Jan 06 11:31	6°♍05'45			3480 Dec 25 10:09	0°♍	
max. Earth dist.	3480 Jan 19 04:31	25°♍57'11	1.44513 AU				
	3480 Jan 21 17:38	0°♎		superior conj	3481 Jan 01 10:58	11°♍02'26	-1°-18'-10
				minimum elong	3481 Jan 01 02:06	10°♍27'40	1°17'12
superior conj	3480 Jan 23 05:54	2°♎25'03	-1°-51'-49	max. Earth dist.	3480 Dec 31 21:50	10°♍10'55	1.45180 AU
minimum elong	3480 Jan 22 22:33	1°♎55'35	1°51'19		3481 Jan 13 10:58	0°♎	
evening rise	3480 Feb 06 05:53	25°♎25'16		evening rise	3481 Jan 17 02:25	5°♎49'28	
	3480 Feb 08 23:15	0°♏			3481 Feb 01 12:15	0°♏	
asc. node	3480 Feb 22 18:01	21°♏29'53		evening max el	3481 Feb 07 11:56	7°♏32'34	18°50'07
evening max el	3480 Feb 25 01:04	24°♏05'29	18°19'37	asc. node	3481 Feb 08 15:02	8°♏37'29	
retrograde	3480 Mar 02 12:02	27°♏34'25		retrograde	3481 Feb 14 05:39	11°♏18'58	
evening set	3480 Mar 05 10:31	26°♏47'51		evening set	3481 Feb 17 10:24	10°♏20'15	
inferior conj	3480 Mar 11 10:44	21°♏21'53	3°38'31	inferior conj	3481 Feb 23 03:27	4°♏36'41	3°31'19
minimum elong	3480 Mar 11 10:42	21°♏21'57	3°38'30	minimum elong	3481 Feb 23 02:02	4°♏41'02	3°31'10
min. Earth dist.	3480 Mar 13 20:16	18°♏39'17	0.63842 AU	min. Earth dist.	3481 Feb 24 21:21	2°♏27'14	0.65468 AU
morning rise	3480 Mar 17 09:07	15°♏13'27			3481 Feb 27 00:42	30°♏	
direct	3480 Mar 24 05:43	12°♏28'03		morning rise	3481 Feb 28 16:33	28°♏23'32	
desc. node	3480 Mar 31 02:23	14°♏43'56		direct	3481 Mar 07 06:22	25°♏33'39	
morning max el	3480 Apr 06 23:57	20°♏25'01	27°37'03		3481 Mar 16 19:48	0°♏	
	3480 Apr 15 05:52	0°♐		desc. node	3481 Mar 17 23:24	0°♏59'20	
	3480 May 04 12:59	0°♑		morning max el	3481 Mar 20 09:41	3°♏18'00	26°50'34
morning set	3480 May 11 19:29	13°♑44'10			3481 Apr 09 13:53	0°♐	
max. Earth dist.	3480 May 16 21:22	24°♑06'19	1.33095 AU	morning set	3481 Apr 25 04:54	27°♐07'29	
					3481 Apr 26 16:42	0°♑	
superior conj	3480 May 19 17:36	0°♑08'01	0°-10'-20	max. Earth dist.	3481 Apr 29 13:55	5°♑41'49	1.34279 AU
minimum elong	3480 May 19 18:07	0°♑10'46	0°10'14				
behind sun begin	3480 May 19 13:58	29°♑48'36		superior conj	3481 May 03 18:36	14°♑16'52	0°-38'-59
behind sun end	3480 May 19 22:16	0°♑32'57		minimum elong	3481 May 03 20:39	14°♑27'28	0°38'34

asc. node	3481 May 07 14:19	22°♄18'23		superior conj	3482 Apr 17 11:24	27°♃56'49	-1°-7'-34
evening rise	3481 May 11 06:53	0°♂03'50		minimum elong	3482 Apr 17 14:56	28°♃14'35	1°06'58
	3481 May 11 06:09	0°♂			3482 Apr 18 11:53	0°♄	
	3481 May 29 01:10	0°♄		asc. node	3482 Apr 24 11:22	12°♄12'55	
evening max el	3481 May 30 23:12	2°♄00'38	21°19'15	evening rise	3482 Apr 25 12:57	14°♄23'27	
retrograde	3481 Jun 12 00:21	7°♄55'20			3482 May 03 16:20	0°♂	
desc. node	3481 Jun 13 22:39	7°♄46'44		evening max el	3482 May 13 06:41	13°♂13'09	20°01'59
evening set	3481 Jun 14 08:46	7°♄42'38		retrograde	3482 May 23 15:02	18°♂15'10	
inferior conj	3481 Jun 23 17:28	3°♄43'54	-2°-47'-38	evening set	3482 May 25 14:29	18°♂04'57	
minimum elong	3481 Jun 23 10:02	3°♄54'18	2°45'14	desc. node	3482 May 31 19:39	15°♂41'54	
min. Earth dist.	3481 Jun 23 23:00	3°♄36'09	0.54853 AU	inferior conj	3482 Jun 03 14:10	14°♂05'11	0°-49'-6
	3481 Jul 01 16:48	30°♂♂		minimum elong	3482 Jun 03 11:53	14°♂08'38	0°48'16
morning rise	3481 Jul 02 11:35	29°♂47'28		min. Earth dist.	3482 Jun 05 11:39	12°♂56'57	0.55269 AU
direct	3481 Jul 05 21:39	29°♂22'09		morning rise	3482 Jun 12 06:44	9°♂44'22	
	3481 Jul 09 23:31	0°♄		direct	3482 Jun 16 10:26	9°♂06'45	
morning max el	3481 Jul 18 12:13	5°♄20'48	22°20'19	morning max el	3482 Jun 30 03:42	15°♂52'04	24°03'11
asc. node	3481 Aug 03 13:32	28°♄26'51			3482 Jul 11 09:56	0°♄	
	3481 Aug 04 09:00	0°♂		asc. node	3482 Jul 21 10:36	17°♄57'55	
morning set	3481 Aug 09 04:38	9°♂44'31		morning set	3482 Jul 24 16:20	24°♄39'07	
					3482 Jul 27 04:24	0°♂	
superior conj	3481 Aug 16 09:24	25°♂01'56	1°39'54	superior conj	3482 Jul 31 17:03	9°♂49'18	1°29'28
minimum elong	3481 Aug 16 07:57	24°♂54'16	1°39'49	minimum elong	3482 Jul 31 14:54	9°♂37'38	1°29'13
	3481 Aug 18 18:13	0°♂		max. Earth dist.	3482 Aug 02 18:03	14°♂13'08	1.33164 AU
max. Earth dist.	3481 Aug 19 16:49	1°♂56'51	1.34318 AU	evening rise	3482 Aug 08 03:36	25°♂28'08	
evening rise	3481 Aug 24 09:36	11°♂22'16			3482 Aug 10 10:20	0°♂	
	3481 Sep 03 16:22	0°♄		desc. node	3482 Aug 27 18:59	29°♂29'47	
desc. node	3481 Sep 09 21:58	9°♄58'12			3482 Aug 28 03:22	0°♄	
	3481 Sep 25 02:53	0°♂		evening max el	3482 Sep 10 16:17	16°♄22'55	27°25'49
evening max el	3481 Sep 28 04:57	3°♂09'05	27°04'43	retrograde	3482 Sep 24 07:04	23°♄39'54	
retrograde	3481 Oct 11 11:37	10°♂26'09		evening set	3482 Oct 01 10:32	21°♄02'10	
evening set	3481 Oct 18 07:18	7°♂45'16		min. Earth dist.	3482 Oct 05 03:05	17°♄47'41	0.63734 AU
min. Earth dist.	3481 Oct 22 05:27	3°♂56'36	0.65272 AU	inferior conj	3482 Oct 07 16:40	15°♄10'25	-3°-5'-22
inferior conj	3481 Oct 24 06:38	1°♂37'38	-2°-5'-11	minimum elong	3482 Oct 07 21:42	14°♄57'31	3°03'40
minimum elong	3481 Oct 24 10:06	1°♂27'48	2°03'50	morning rise	3482 Oct 14 11:14	9°♄50'00	
	3481 Oct 25 17:49	30°♂♂		direct	3482 Oct 16 21:45	9°♄20'49	
morning rise	3481 Oct 30 14:40	26°♄00'40		asc. node	3482 Oct 17 09:47	9°♄22'05	
asc. node	3481 Oct 30 12:44	26°♄02'59		morning max el	3482 Oct 23 11:04	12°♄46'02	17°52'06
direct	3481 Nov 02 06:33	25°♄22'27			3482 Nov 04 06:47	0°♂	
morning max el	3481 Nov 08 18:33	28°♄51'56	18°08'29	morning set	3482 Nov 09 01:57	8°♂15'32	
	3481 Nov 09 20:16	0°♂					
morning set	3481 Nov 27 01:36	26°♂11'20		superior conj	3482 Nov 21 14:49	29°♂26'13	0°14'44
	3481 Nov 29 09:17	0°♂		minimum elong	3482 Nov 21 16:24	29°♂32'43	0°14'31
desc. node	3481 Dec 06 21:13	12°♂09'56		behind sun begin	3482 Nov 21 12:06	29°♂15'02	
				behind sun end	3482 Nov 21 20:43	29°♂50'23	
superior conj	3481 Dec 11 15:30	19°♂45'26	0°-32'-3		3482 Nov 21 23:04	0°♂	
minimum elong	3481 Dec 11 11:27	19°♂29'22	0°31'31	desc. node	3482 Nov 23 18:15	2°♂55'53	
max. Earth dist.	3481 Dec 14 17:23	24°♂37'04	1.45103 AU	max. Earth dist.	3482 Nov 27 11:40	8°♂55'27	1.44299 AU
	3481 Dec 18 03:44	0°♄		evening rise	3482 Dec 07 11:22	24°♂33'17	
evening rise	3481 Dec 28 01:17	15°♄24'27			3482 Dec 11 00:44	0°♄	
	3482 Jan 06 12:09	0°♂		greatest brilliancy	3482 Dec 30 02:12	27°♄43'08	-0.5m
greatest brilliancy	3482 Jan 13 22:16	11°♂04'07	-0.7m		3482 Dec 31 20:57	0°♂	
evening max el	3482 Jan 21 19:00	21°♂03'23	19°37'11	evening max el	3483 Jan 04 20:49	4°♂35'01	20°38'43
asc. node	3482 Jan 26 12:02	24°♂40'29		retrograde	3483 Jan 13 00:52	9°♂24'17	
retrograde	3482 Jan 29 02:45	25°♂17'19		asc. node	3483 Jan 13 09:04	9°♂23'39	
evening set	3482 Feb 01 14:56	24°♂05'16		evening set	3483 Jan 16 22:01	7°♂57'44	
inferior conj	3482 Feb 07 03:26	18°♂06'16	3°11'05	inferior conj	3483 Jan 22 08:06	1°♂46'08	2°40'40
minimum elong	3482 Feb 07 01:12	18°♂13'37	3°10'39	minimum elong	3483 Jan 22 05:35	1°♂54'46	2°39'59
min. Earth dist.	3482 Feb 08 06:31	16°♂37'08	0.66685 AU	min. Earth dist.	3483 Jan 22 21:54	0°♂58'56	0.67484 AU
morning rise	3482 Feb 12 10:46	11°♂51'04			3483 Jan 23 15:18	30°♂♂	
direct	3482 Feb 18 12:52	9°♂09'16		morning rise	3483 Jan 27 12:42	25°♄30'41	
morning max el	3482 Mar 02 18:55	16°♂27'05	25°39'58	direct	3483 Feb 02 00:31	23°♄05'46	
desc. node	3482 Mar 04 20:25	18°♂37'32		morning max el	3483 Feb 13 03:30	29°♄44'02	24°15'06
	3482 Mar 14 00:47	0°♂			3483 Feb 13 09:47	0°♂	
	3482 Apr 02 11:54	0°♃		desc. node	3483 Feb 19 17:27	7°♂14'22	
morning set	3482 Apr 07 23:36	9°♃43'36			3483 Mar 07 21:26	0°♂	
max. Earth dist.	3482 Apr 11 19:08	16°♃50'22	1.35923 AU	morning set	3483 Mar 20 22:02	21°♂17'09	

max. Earth dist.	3483 Mar 24 16:03	27° X 55'02	1.37933 AU		3484 Feb 28 19:26	0° X	
	3483 Mar 25 19:41	0° Y		morning set	3484 Feb 29 18:07	1° X 33'06	
				max. Earth dist.	3484 Mar 05 11:27	9° X 28'53	1.40105 AU
superior conj	3483 Mar 31 16:36	10° Y 58'38	-1°-33'-58				
minimum elong	3483 Mar 31 21:08	11° Y 20'26	1°33'24	superior conj	3484 Mar 13 05:56	23° X 12'07	-1°-54'-59
evening rise	3483 Apr 09 12:41	28° Y 19'04		minimum elong	3484 Mar 13 10:07	23° X 31'13	1°54'42
	3483 Apr 10 09:10	0° Z			3484 Mar 16 22:21	0° Y	
asc. node	3483 Apr 11 08:24	1° Z 53'44		evening rise	3484 Mar 23 03:02	11° Y 43'01	
evening max el	3483 Apr 26 01:51	25° Z 06'13	19°04'01	asc. node	3484 Mar 28 05:27	21° Y 15'45	
retrograde	3483 May 04 19:04	29° Z 20'59			3484 Apr 02 08:31	0° Z	
evening set	3483 May 06 20:45	29° Z 07'35		evening max el	3484 Apr 08 06:14	7° Z 35'28	18°26'22
inferior conj	3483 May 15 02:28	24° Z 53'58	1°01'33	retrograde	3484 Apr 15 17:46	11° Z 17'11	
minimum elong	3483 May 15 04:50	24° Z 49'53	1°00'45	evening set	3484 Apr 18 01:28	10° Z 56'53	
min. Earth dist.	3483 May 18 03:00	22° Z 49'24	0.56562 AU	inferior conj	3484 Apr 25 12:02	6° Z 23'36	2°23'10
desc. node	3483 May 18 16:40	22° Z 27'01		minimum elong	3484 Apr 25 15:48	6° Z 15'58	2°22'11
morning rise	3483 May 23 08:35	19° Z 57'46		min. Earth dist.	3484 Apr 28 22:37	3° Z 37'54	0.58472 AU
direct	3483 May 28 11:29	18° Z 56'10		morning rise	3484 May 03 01:50	0° Z 55'24	
morning max el	3483 Jun 11 18:08	26° Z 17'06	25°41'05	desc. node	3484 May 04 13:43	0° Z 14'18	
	3483 Jun 15 06:54	0° II			3484 May 05 05:10	30° R Y	
	3483 Jul 04 11:40	0° S		direct	3484 May 09 03:08	29° Y 19'44	
asc. node	3483 Jul 08 07:40	7° S 46'24			3484 May 13 03:05	0° Z	
morning set	3483 Jul 09 03:53	9° S 32'36		morning max el	3484 May 23 12:35	7° Z 02'44	26°58'04
					3484 Jun 09 16:23	0° II	
superior conj	3483 Jul 16 03:44	24° S 44'18	1°14'07	morning set	3484 Jun 22 13:36	24° II 18'52	
minimum elong	3483 Jul 16 01:23	24° S 31'22	1°13'45	asc. node	3484 Jun 24 04:43	27° II 46'07	
max. Earth dist.	3483 Jul 17 02:04	26° S 46'42	1.32415 AU		3484 Jun 25 05:38	0° S	
	3483 Jul 18 13:29	0° Q					
evening rise	3483 Jul 23 05:40	9° Q 56'53		superior conj	3484 Jun 29 15:33	9° S 40'00	0°54'36
	3483 Aug 02 17:38	0° R		minimum elong	3484 Jun 29 13:28	9° S 28'31	0°54'12
desc. node	3483 Aug 14 15:59	18° R 20'31		max. Earth dist.	3484 Jun 29 13:26	9° S 28'22	1.32078 AU
evening max el	3483 Aug 24 00:03	29° R 04'04	27°16'00	evening rise	3484 Jul 06 13:07	24° S 39'36	
	3483 Aug 25 00:19	0° A			3484 Jul 09 02:59	0° Q	
retrograde	3483 Sep 06 19:57	6° A 18'33			3484 Jul 26 15:44	0° R	
evening set	3483 Sep 13 23:52	3° A 55'59		desc. node	3484 Jul 31 13:02	6° R 12'46	
min. Earth dist.	3483 Sep 17 14:20	1° A 08'14	0.61885 AU	evening max el	3484 Aug 05 01:46	11° R 00'51	26°32'52
	3483 Sep 18 20:51	30° R R		retrograde	3484 Aug 19 00:57	18° R 11'57	
inferior conj	3483 Sep 20 14:58	28° R 23'34	-4°-1'-9	evening set	3484 Aug 25 18:30	16° R 17'56	
minimum elong	3483 Sep 20 20:47	28° R 10'22	3°59'39	min. Earth dist.	3484 Aug 29 15:23	13° R 42'47	0.59838 AU
morning rise	3483 Sep 27 20:40	23° R 23'01		inferior conj	3484 Sep 01 22:00	11° R 06'58	-4°-45'-33
direct	3483 Sep 30 04:33	22° R 59'43		minimum elong	3484 Sep 02 02:44	10° R 57'33	4°44'51
asc. node	3483 Oct 04 06:51	24° R 14'18		morning rise	3484 Sep 09 14:21	6° R 28'51	
morning max el	3483 Oct 07 02:32	26° R 29'06	17°53'52	direct	3484 Sep 11 22:51	6° R 08'43	
	3483 Oct 10 03:36	0° A		morning max el	3484 Sep 19 13:36	9° R 51'21	18°15'02
morning set	3483 Oct 22 22:37	21° A 17'54		asc. node	3484 Sep 20 03:56	10° R 27'07	
	3483 Oct 27 18:22	0° M			3484 Oct 02 17:46	0° A	
				morning set	3484 Oct 05 09:46	5° A 01'19	
superior conj	3483 Nov 02 16:57	10° M 26'16	0°53'21				
minimum elong	3483 Nov 02 21:04	10° M 43'59	0°52'47	superior conj	3484 Oct 14 19:45	22° A 38'02	1°20'42
max. Earth dist.	3483 Nov 10 01:36	22° M 47'39	1.42876 AU	minimum elong	3484 Oct 14 23:38	22° A 55'40	1°20'17
desc. node	3483 Nov 10 15:17	23° M 43'30			3484 Oct 18 22:43	0° M	
	3483 Nov 14 12:48	0° J		max. Earth dist.	3484 Oct 22 10:03	6° M 00'01	1.41014 AU
evening rise	3483 Nov 17 00:29	3° J 55'42		evening rise	3484 Oct 27 07:01	14° M 07'18	
	3483 Dec 04 10:53	0° Z		desc. node	3484 Oct 27 12:19	14° M 28'54	
greatest brilliancy	3483 Dec 13 22:34	12° Z 42'44	-0.4m		3484 Nov 06 10:01	0° J	
evening max el	3483 Dec 18 17:04	18° Z 07'42	21°51'21		3484 Nov 28 17:17	0° Z	
retrograde	3483 Dec 27 22:02	23° Z 36'28		evening max el	3484 Nov 30 08:48	1° Z 43'06	23°10'25
asc. node	3483 Dec 31 06:07	22° Z 36'13		retrograde	3484 Dec 10 16:34	7° Z 50'07	
evening set	3484 Jan 01 05:51	21° Z 54'18		evening set	3484 Dec 15 12:48	5° Z 51'39	
inferior conj	3484 Jan 06 15:17	15° Z 33'35	2°02'01	asc. node	3484 Dec 17 03:09	4° Z 19'29	
minimum elong	3484 Jan 06 12:58	15° Z 41'38	2°01'13	inferior conj	3484 Dec 20 23:03	29° J 25'47	1°16'27
min. Earth dist.	3484 Jan 06 17:13	15° Z 26'50	0.67893 AU	minimum elong	3484 Dec 20 21:23	29° J 31'31	1°15'47
morning rise	3484 Jan 11 19:51	9° Z 19'41		min. Earth dist.	3484 Dec 20 14:03	29° J 56'46	0.67939 AU
direct	3484 Jan 16 16:40	7° Z 16'15			3484 Dec 20 13:07	30° R J	
morning max el	3484 Jan 26 13:27	13° Z 06'42	22°46'06	morning rise	3484 Dec 26 06:00	23° J 15'29	
greatest brilliancy	3484 Jan 31 04:42	18° Z 16'53	-0.3m	direct	3484 Dec 30 12:19	21° J 34'54	
desc. node	3484 Feb 06 14:30	26° Z 33'10		morning max el	3485 Jan 08 04:13	26° J 37'30	21°21'47
	3484 Feb 09 02:24	0° W			3485 Jan 11 06:18	0° Z	

greatest brilliancy	3485 Jan 13 06:48	2°☿26'54	-0.4m	desc. node	3486 Jan 10 08:34	6°☿32'23	
desc. node	3485 Jan 23 11:33	16°☿22'01		morning set	3486 Jan 18 06:19	18°☿36'49	
	3485 Feb 01 15:32	0°☿			3486 Jan 25 13:18	0°☿	
morning set	3485 Feb 08 09:25	10°☿28'01		max. Earth dist.	3486 Jan 28 21:12	5°☿17'41	1.43826 AU
max. Earth dist.	3485 Feb 15 12:14	21°☿55'53	1.42159 AU				
	3485 Feb 20 08:12	0°☿		superior conj	3486 Feb 03 13:18	14°☿28'49	-2°-2'-33
				minimum elong	3486 Feb 03 09:09	14°☿11'50	2°02'24
superior conj	3485 Feb 22 22:19	4°☿25'32	-2°-6'-17		3486 Feb 12 19:30	0°☿	
minimum elong	3485 Feb 22 23:41	4°☿31'26	2°06'17	evening rise	3486 Feb 16 11:50	6°☿19'54	
evening rise	3485 Mar 06 04:13	24°☿26'26		asc. node	3486 Mar 01 23:31	28°☿35'03	
	3485 Mar 09 05:49	0°☿			3486 Mar 03 00:19	0°☿	
asc. node	3485 Mar 15 02:29	10°☿12'28		evening max el	3486 Mar 06 04:57	3°☿44'50	18°10'12
evening max el	3485 Mar 22 16:23	20°☿31'43	18°08'39	retrograde	3486 Mar 12 15:30	7°☿08'27	
retrograde	3485 Mar 29 09:59	23°☿56'51		evening set	3486 Mar 15 10:52	6°☿28'13	
evening set	3485 Mar 31 23:46	23°☿27'14		inferior conj	3486 Mar 21 16:35	1°☿13'03	3°35'09
inferior conj	3485 Apr 07 18:00	18°☿32'41	3°12'36	minimum elong	3486 Mar 21 17:34	1°☿10'27	3°35'05
minimum elong	3485 Apr 07 20:47	18°☿26'10	3°12'08		3486 Mar 22 19:50	30°☿	
min. Earth dist.	3485 Apr 11 00:28	15°☿29'59	0.60643 AU	min. Earth dist.	3486 Mar 24 10:40	28°☿17'47	0.62751 AU
morning rise	3485 Apr 14 14:29	12°☿42'30		morning rise	3486 Mar 27 22:02	25°☿09'34	
direct	3485 Apr 21 06:46	10°☿32'14		direct	3486 Apr 03 19:34	22°☿33'30	
desc. node	3485 Apr 21 10:44	10°☿32'18		desc. node	3486 Apr 08 07:46	23°☿32'11	
morning max el	3485 May 05 13:11	18°☿26'22	27°42'26		3486 Apr 17 06:44	0°☿	
	3485 May 15 06:14	0°☿		morning max el	3486 Apr 17 19:21	0°☿31'06	27°49'29
	3485 Jun 02 09:22	0°☿			3486 May 09 08:04	0°☿	
morning set	3485 Jun 06 19:43	8°☿52'21		morning set	3486 May 21 20:04	23°☿05'25	
asc. node	3485 Jun 11 01:46	17°☿52'35			3486 May 25 04:37	0°☿	
max. Earth dist.	3485 Jun 13 00:38	22°☿07'33	1.32149 AU	max. Earth dist.	3486 May 27 07:42	4°☿30'39	1.32631 AU
				asc. node	3486 May 28 22:48	8°☿00'50	
superior conj	3485 Jun 14 02:45	24°☿30'45	0°31'32				
minimum elong	3485 Jun 14 01:23	24°☿23'13	0°31'15	superior conj	3486 May 29 11:34	9°☿09'53	0°05'36
	3485 Jun 16 14:40	0°☿		minimum elong	3486 May 29 11:18	9°☿08'26	0°05'33
evening rise	3485 Jun 20 23:46	9°☿29'22		behind sun begin	3486 May 29 06:22	8°☿41'48	
	3485 Jul 01 12:58	0°☿		behind sun end	3486 May 29 16:13	9°☿35'05	
evening max el	3485 Jul 17 20:17	22°☿10'19	25°19'37	evening rise	3486 Jun 05 11:36	24°☿18'44	
desc. node	3485 Jul 18 10:02	22°☿42'37			3486 Jun 08 05:02	0°☿	
retrograde	3485 Jul 31 19:48	29°☿15'56			3486 Jun 26 19:06	0°☿	
evening set	3485 Aug 06 13:50	27°☿59'29		evening max el	3486 Jun 29 09:43	2°☿43'31	23°47'01
min. Earth dist.	3485 Aug 11 08:09	25°☿18'40	0.57813 AU	desc. node	3486 Jul 05 07:02	7°☿18'17	
inferior conj	3485 Aug 14 10:20	23°☿11'12	-5°-7'-17	retrograde	3486 Jul 13 02:23	9°☿36'07	
minimum elong	3485 Aug 14 11:09	23°☿09'46	5°07'17	evening set	3486 Jul 17 10:02	8°☿55'06	
morning rise	3485 Aug 22 12:01	18°☿55'55		min. Earth dist.	3486 Jul 23 19:57	5°☿51'51	0.56106 AU
direct	3485 Aug 25 00:25	18°☿36'46		inferior conj	3486 Jul 26 02:23	4°☿29'34	-4°-51'-14
morning max el	3485 Sep 02 16:55	22°☿43'06	18°57'03	minimum elong	3486 Jul 25 21:20	4°☿37'15	4°50'37
asc. node	3485 Sep 07 00:58	27°☿45'26		morning rise	3486 Aug 03 11:57	0°☿33'06	
	3485 Sep 08 14:30	0°☿		direct	3486 Aug 06 06:44	0°☿13'31	
morning set	3485 Sep 19 07:02	19°☿13'38		morning max el	3486 Aug 16 09:41	4°☿55'24	20°00'48
	3485 Sep 24 18:16	0°☿		asc. node	3486 Aug 24 22:00	15°☿55'02	
					3486 Sep 01 14:12	0°☿	
superior conj	3485 Sep 27 17:53	5°☿46'30	1°37'07	morning set	3486 Sep 03 11:10	3°☿46'09	
minimum elong	3485 Sep 27 20:16	5°☿57'50	1°36'58				
max. Earth dist.	3485 Oct 04 14:52	18°☿30'51	1.38946 AU	superior conj	3486 Sep 11 06:10	19°☿37'12	1°44'09
evening rise	3485 Oct 08 12:55	25°☿23'10		minimum elong	3486 Sep 11 06:48	19°☿40'23	1°44'08
	3485 Oct 11 06:18	0°☿			3486 Sep 16 13:41	0°☿	
desc. node	3485 Oct 14 09:21	5°☿08'22		max. Earth dist.	3486 Sep 16 20:17	0°☿31'19	1.36921 AU
	3485 Oct 31 02:31	0°☿		evening rise	3486 Sep 20 16:59	7°☿40'43	
evening max el	3485 Nov 12 21:55	15°☿22'28	24°29'44	desc. node	3486 Oct 01 06:22	25°☿37'34	
retrograde	3485 Nov 24 07:15	22°☿01'33			3486 Oct 04 01:22	0°☿	
evening set	3485 Nov 29 17:14	19°☿46'53		evening max el	3486 Oct 26 10:12	29°☿04'23	25°42'16
asc. node	3485 Dec 04 00:11	14°☿58'09			3486 Oct 27 09:33	0°☿	
min. Earth dist.	3485 Dec 04 09:54	14°☿25'59	0.67640 AU	retrograde	3486 Nov 07 17:21	6°☿06'28	
inferior conj	3485 Dec 05 05:36	13°☿20'10	0°25'05	evening set	3486 Nov 13 17:30	3°☿37'28	
minimum elong	3485 Dec 05 04:59	13°☿22'12	0°24'49		3486 Nov 17 04:30	30°☿	
morning rise	3485 Dec 10 17:08	7°☿15'50		min. Earth dist.	3486 Nov 18 02:28	28°☿51'58	0.66993 AU
direct	3485 Dec 14 10:12	5°☿56'55		inferior conj	3486 Nov 19 09:10	27°☿14'24	0°-30'-55
morning max el	3485 Dec 22 02:28	10°☿19'28	20°08'17	minimum elong	3486 Nov 19 09:58	27°☿11'50	0°30'36
greatest brilliancy	3485 Dec 28 22:09	18°☿31'13	-0.6m	asc. node	3486 Nov 20 21:13	25°☿21'58	
	3486 Jan 05 23:33	0°☿		morning rise	3486 Nov 25 03:18	21°☿18'36	

direct	3486 Nov 28 08:52	20° \mathbb{M} 18'32			3487 Dec 04 03:06	0° \mathcal{Z}	
morning max el	3486 Dec 05 08:36	24° \mathbb{M} 12'15	19°09'08	morning set	3487 Dec 08 13:57	7° \mathcal{Z} 09'02	
	3486 Dec 10 05:58	0° \mathcal{Z}		desc. node	3487 Dec 15 02:38	17° \mathcal{Z} 35'20	
morning set	3486 Dec 28 09:25	27° \mathcal{Z} 13'27			3487 Dec 22 23:09	0° \mathcal{Z}	
desc. node	3486 Dec 28 05:36	26° \mathcal{Z} 58'37					
	3486 Dec 30 04:13	0° \mathcal{Z}		superior conj	3487 Dec 24 05:54	2° \mathcal{Z} 00'49	0°-59'-29
max. Earth dist.	3487 Jan 11 12:44	19° \mathcal{Z} 19'36	1.44889 AU	minimum elong	3487 Dec 23 22:33	1° \mathcal{Z} 31'56	0°58'34
				max. Earth dist.	3487 Dec 25 07:22	3° \mathcal{Z} 40'41	1.45235 AU
superior conj	3487 Jan 14 03:47	23° \mathcal{Z} 28'37	-1°-39'-41	evening rise	3488 Jan 09 08:47	27° \mathcal{Z} 19'40	
minimum elong	3487 Jan 13 18:56	22° \mathcal{Z} 53'35	1°38'56		3488 Jan 11 01:26	0° \approx	
	3487 Jan 18 06:08	0° \approx		greatest brilliancy	3488 Jan 21 22:34	17° \approx 00'17	-0.7m
evening rise	3487 Jan 28 21:58	17° \approx 18'05			3488 Jan 31 12:28	0° \mathbb{H}	
	3487 Feb 05 15:32	0° \mathbb{H}		evening max el	3488 Feb 01 02:31	0° \mathbb{H} 36'58	19°08'07
asc. node	3487 Feb 16 20:31	16° \mathbb{H} 13'45		asc. node	3488 Feb 03 17:32	2° \mathbb{H} 55'39	
evening max el	3487 Feb 17 17:07	17° \mathbb{H} 08'21	18°30'20	retrograde	3488 Feb 08 01:31	4° \mathbb{H} 34'23	
retrograde	3487 Feb 24 05:57	20° \mathbb{H} 43'26		evening set	3488 Feb 11 09:11	3° \mathbb{H} 30'15	
evening set	3487 Feb 27 07:01	19° \mathbb{H} 51'44			3488 Feb 15 02:40	30° \mathbb{R} \approx	
inferior conj	3487 Mar 05 03:47	14° \mathbb{H} 17'41	3°37'16	inferior conj	3488 Feb 16 23:59	27° \approx 39'39	3°24'07
minimum elong	3487 Mar 05 03:07	14° \mathbb{H} 19'41	3°37'14	minimum elong	3488 Feb 16 22:10	27° \approx 45'29	3°23'52
min. Earth dist.	3487 Mar 07 06:31	11° \mathbb{H} 48'12	0.64585 AU	min. Earth dist.	3488 Feb 18 11:26	25° \approx 46'45	0.66035 AU
morning rise	3487 Mar 10 21:47	8° \mathbb{H} 06'46		morning rise	3488 Feb 22 10:13	21° \approx 25'03	
direct	3487 Mar 17 16:07	5° \mathbb{H} 18'08		direct	3488 Feb 28 19:21	18° \approx 37'20	
desc. node	3487 Mar 26 04:47	8° \mathbb{H} 46'34		desc. node	3488 Mar 12 01:49	25° \approx 40'34	
morning max el	3487 Mar 31 04:49	13° \mathbb{H} 10'51	27°20'49	morning max el	3488 Mar 12 14:47	26° \approx 12'54	26°22'55
	3487 Apr 13 17:43	0° \mathbb{Y}			3488 Mar 16 02:50	0° \mathbb{H}	
	3487 May 01 22:03	0° \mathcal{B}			3488 Apr 06 07:21	0° \mathbb{Y}	
morning set	3487 May 05 11:57	6° \mathcal{B} 50'01		morning set	3488 Apr 17 15:47	19° \mathbb{Y} 55'29	
max. Earth dist.	3487 May 10 06:44	16° \mathcal{B} 26'23	1.33549 AU	max. Earth dist.	3488 Apr 21 18:32	27° \mathbb{Y} 49'20	1.34923 AU
					3488 Apr 22 21:00	0° \mathcal{B}	
superior conj	3487 May 13 16:03	23° \mathcal{B} 31'31	0°-22'-23				
minimum elong	3487 May 13 17:12	23° \mathcal{B} 37'35	0°22'09	superior conj	3488 Apr 26 13:57	7° \mathcal{B} 29'09	0°-51'-13
asc. node	3487 May 15 19:49	28° \mathcal{B} 07'00		minimum elong	3488 Apr 26 16:39	7° \mathcal{B} 43'00	0°50'43
	3487 May 16 16:58	0° \mathbb{I}		asc. node	3488 May 01 16:52	18° \mathcal{B} 07'08	
evening rise	3487 May 20 22:46	9° \mathbb{I} 01'37		evening rise	3488 May 04 07:20	23° \mathcal{B} 31'45	
	3487 May 31 23:35	0° \mathcal{E}			3488 May 07 11:50	0° \mathbb{I}	
evening max el	3487 Jun 11 00:57	13° \mathcal{E} 09'41	22°10'40	evening max el	3488 May 23 01:35	24° \mathbb{I} 01'00	20°44'12
desc. node	3487 Jun 22 04:03	19° \mathcal{E} 25'00		retrograde	3488 Jun 03 10:25	29° \mathbb{I} 34'03	
retrograde	3487 Jun 23 21:20	19° \mathcal{E} 31'49		evening set	3488 Jun 05 12:44	29° \mathbb{I} 23'28	
evening set	3487 Jun 26 18:58	19° \mathcal{E} 13'08		desc. node	3488 Jun 08 01:03	28° \mathbb{I} 44'56	
min. Earth dist.	3487 Jul 05 06:39	15° \mathcal{E} 33'47	0.55052 AU	inferior conj	3488 Jun 14 19:16	25° \mathbb{I} 26'12	-1°-58'-32
inferior conj	3487 Jul 06 01:42	15° \mathcal{E} 06'59	-3°-45'-50	minimum elong	3488 Jun 14 13:44	25° \mathbb{I} 34'09	1°56'35
minimum elong	3487 Jul 05 17:20	15° \mathcal{E} 18'46	3°43'38	min. Earth dist.	3488 Jun 15 18:45	24° \mathbb{I} 52'38	0.54904 AU
morning rise	3487 Jul 14 17:40	11° \mathcal{E} 16'23		morning rise	3488 Jun 23 13:42	21° \mathbb{I} 21'13	
direct	3487 Jul 17 20:40	10° \mathcal{E} 54'35		direct	3488 Jun 27 06:04	20° \mathbb{I} 52'00	
morning max el	3487 Jul 29 14:49	16° \mathcal{E} 23'34	21°24'54	morning max el	3488 Jul 10 10:07	27° \mathbb{I} 12'11	23°03'44
	3487 Aug 09 01:38	0° \mathcal{O}			3488 Jul 13 03:51	0° \mathcal{E}	
asc. node	3487 Aug 11 19:03	4° \mathcal{O} 43'46		asc. node	3488 Jul 28 16:06	24° \mathcal{E} 02'02	
morning set	3487 Aug 18 19:43	18° \mathcal{O} 31'40			3488 Jul 31 15:25	0° \mathcal{O}	
	3487 Aug 24 06:55	0° \mathbb{P}		morning set	3488 Aug 02 06:47	3° \mathcal{O} 24'53	
superior conj	3487 Aug 26 04:24	3° \mathbb{P} 57'34	1°43'22	superior conj	3488 Aug 09 09:25	18° \mathcal{O} 38'07	1°36'08
minimum elong	3487 Aug 26 03:35	3° \mathbb{P} 53'19	1°43'20	minimum elong	3488 Aug 09 07:36	18° \mathcal{O} 28'26	1°35'59
max. Earth dist.	3487 Aug 30 07:19	12° \mathbb{P} 22'48	1.35154 AU	max. Earth dist.	3488 Aug 12 03:18	24° \mathcal{O} 27'14	1.33769 AU
evening rise	3487 Sep 03 15:08	20° \mathbb{P} 49'27			3488 Aug 14 19:39	0° \mathbb{P}	
	3487 Sep 08 14:55	0° \mathcal{A}		evening rise	3488 Aug 17 03:05	4° \mathbb{P} 38'24	
desc. node	3487 Sep 18 03:23	15° \mathcal{A} 50'32			3488 Aug 31 08:11	0° \mathcal{A}	
	3487 Sep 27 23:16	0° \mathbb{M}		desc. node	3488 Sep 04 00:24	5° \mathcal{A} 40'11	
evening max el	3487 Oct 08 22:31	12° \mathbb{M} 42'44	26°40'33	evening max el	3488 Sep 20 10:41	26° \mathcal{A} 09'15	27°17'12
retrograde	3487 Oct 21 22:18	19° \mathbb{M} 57'42			3488 Sep 25 00:38	0° \mathbb{M}	
evening set	3487 Oct 28 11:38	17° \mathbb{M} 18'51		retrograde	3488 Oct 03 21:39	3° \mathbb{M} 27'46	
min. Earth dist.	3487 Nov 01 13:24	13° \mathbb{M} 09'42	0.65997 AU	evening set	3488 Oct 10 21:12	0° \mathbb{M} 46'45	
inferior conj	3487 Nov 03 07:46	11° \mathbb{M} 04'05	-1°-30'-17		3488 Oct 11 20:05	30° \mathbb{R} \mathcal{A}	
minimum elong	3487 Nov 03 10:14	10° \mathbb{M} 56'44	1°29'16	min. Earth dist.	3488 Oct 14 16:38	27° \mathcal{A} 13'08	0.64655 AU
asc. node	3487 Nov 07 18:14	6° \mathbb{M} 26'12		inferior conj	3488 Oct 16 23:10	24° \mathcal{A} 45'04	-2°-30'-59
morning rise	3487 Nov 09 10:18	5° \mathbb{M} 19'35		minimum elong	3488 Oct 17 03:21	24° \mathcal{A} 33'40	2°29'25
direct	3487 Nov 12 06:26	4° \mathbb{M} 34'38		morning rise	3488 Oct 23 11:35	19° \mathcal{A} 14'48	
morning max el	3487 Nov 18 20:51	8° \mathbb{M} 10'23	18°25'51	asc. node	3488 Oct 24 15:17	18° \mathcal{A} 51'12	

direct	3488 Oct 26 00:44	18°♄41'00		inferior conj	3489 Sep 30 04:38	8°♄10'35	-3°-29'-55
morning max el	3488 Nov 01 12:38	22°♄07'59	17°59'20	minimum elong	3489 Sep 30 10:08	7°♄57'07	3°28'14
	3488 Nov 07 15:43	0°♄		morning rise	3489 Oct 07 03:53	2°♄57'55	
morning set	3488 Nov 18 23:40	18°♄30'43		direct	3489 Oct 09 12:52	2°♄31'37	
	3488 Nov 25 21:14	0°♄		asc. node	3489 Oct 11 12:21	2°♄50'20	
desc. node	3488 Nov 30 23:40	8°♄18'54		morning max el	3489 Oct 16 05:01	5°♄57'53	17°50'30
					3489 Oct 31 19:24	0°♄	
superior conj	3488 Dec 02 16:36	11°♄03'32	0°-11'-39	morning set	3489 Nov 01 09:28	1°♄01'59	
minimum elong	3488 Dec 02 15:12	10°♄57'51	0°11'28				
behind sun begin	3488 Dec 02 07:44	10°♄27'55		superior conj	3489 Nov 13 03:02	21°♄16'59	0°32'25
behind sun end	3488 Dec 02 22:39	11°♄27'46		minimum elong	3489 Nov 13 06:08	21°♄29'53	0°31'58
max. Earth dist.	3488 Dec 07 02:05	18°♄03'08	1.44841 AU	desc. node	3489 Nov 17 20:43	29°♄05'54	
	3488 Dec 14 17:21	0°♄			3489 Nov 18 10:02	0°♄	
evening rise	3488 Dec 19 00:29	6°♄38'36		max. Earth dist.	3489 Nov 19 18:36	2°♄11'37	1.43761 AU
	3489 Jan 03 10:51	0°♄		evening rise	3489 Nov 28 09:46	15°♄48'09	
greatest brilliancy	3489 Jan 07 11:52	5°♄44'43	-0.6m		3489 Dec 07 18:16	0°♄	
evening max el	3489 Jan 14 07:27	14°♄08'07	20°01'48	greatest brilliancy	3489 Dec 23 02:12	21°♄38'19	-0.4m
asc. node	3489 Jan 20 14:34	18°♄26'23		evening max el	3489 Dec 28 07:00	27°♄40'45	21°08'37
retrograde	3489 Jan 21 23:20	18°♄36'33			3489 Dec 30 19:00	0°♄	
evening set	3489 Jan 25 15:02	17°♄18'41		retrograde	3490 Jan 05 21:08	2°♄46'11	
inferior conj	3489 Jan 31 02:17	11°♄14'06	2°59'18	asc. node	3490 Jan 07 11:36	2°♄32'06	
minimum elong	3489 Jan 30 23:52	11°♄22'13	2°58'45	evening set	3490 Jan 09 22:38	1°♄13'11	
min. Earth dist.	3489 Jan 31 23:37	10°♄02'29	0.67073 AU		3490 Jan 11 07:25	30°♄	
morning rise	3489 Feb 05 08:05	4°♄58'24		inferior conj	3490 Jan 15 08:16	24°♄57'35	2°25'13
direct	3489 Feb 11 04:21	2°♄22'39		minimum elong	3490 Jan 15 05:46	25°♄06'11	2°24'27
morning max el	3489 Feb 22 23:33	9°♄25'43	25°04'56	min. Earth dist.	3490 Jan 15 16:56	24°♄27'40	0.67705 AU
desc. node	3489 Feb 26 22:52	13°♄46'05		morning rise	3490 Jan 20 12:32	18°♄42'41	
	3489 Mar 11 05:31	0°♄		direct	3490 Jan 25 18:07	16°♄26'18	
	3489 Mar 29 22:00	0°♄		morning max el	3490 Feb 05 08:07	22°♄44'21	23°37'13
morning set	3489 Mar 31 02:41	2°♄07'27			3490 Feb 11 16:52	0°♄	
max. Earth dist.	3489 Apr 03 19:07	8°♄50'30	1.36738 AU	desc. node	3490 Feb 13 19:55	2°♄42'35	
					3490 Mar 04 14:02	0°♄	
superior conj	3489 Apr 10 02:20	20°♄54'26	-1°-19'-11	morning set	3490 Mar 12 14:37	13°♄09'53	
minimum elong	3489 Apr 10 06:24	21°♄14'28	1°18'35	max. Earth dist.	3490 Mar 16 14:25	20°♄03'57	1.38853 AU
	3489 Apr 14 15:34	0°♄			3490 Mar 22 02:37	0°♄	
evening rise	3489 Apr 18 11:04	7°♄42'07					
asc. node	3489 Apr 18 13:55	7°♄56'26		superior conj	3490 Mar 24 01:27	3°♄37'58	-1°-43'-45
	3489 Apr 30 22:57	0°♄		minimum elong	3490 Mar 24 06:04	3°♄59'41	1°43'17
evening max el	3489 May 05 14:25	5°♄31'47	19°34'56	evening rise	3490 Apr 02 07:15	21°♄25'43	
retrograde	3489 May 15 05:15	10°♄11'52		asc. node	3490 Apr 05 10:58	27°♄30'18	
evening set	3489 May 17 04:46	10°♄00'52			3490 Apr 06 18:47	0°♄	
inferior conj	3489 May 25 21:27	5°♄56'51	0°00'27	evening max el	3490 Apr 18 13:59	17°♄41'52	18°45'31
minimum elong	3489 May 25 21:28	5°♄56'50	0°00'27	retrograde	3490 Apr 26 16:52	21°♄40'13	
transit middle	3489 May 25 21:28	5°♄56'50	0°00'27	evening set	3490 Apr 28 21:11	21°♄24'07	
transit begin	3489 May 25 17:34	6°♄03'02		inferior conj	3490 May 06 18:34	17°♄02'25	1°40'10
transit end	3489 May 26 01:23	5°♄50'37		minimum elong	3490 May 06 21:55	16°♄56'13	1°39'07
desc. node	3489 May 25 22:05	5°♄55'52		min. Earth dist.	3490 May 10 01:24	14°♄38'04	0.57328 AU
min. Earth dist.	3489 May 28 08:42	4°♄23'18	0.55723 AU	desc. node	3490 May 12 19:06	12°♄52'13	
morning rise	3489 Jun 03 10:34	1°♄21'18		morning rise	3490 May 14 18:15	11°♄52'01	
direct	3489 Jun 07 23:57	0°♄34'42		direct	3490 May 20 07:27	10°♄36'43	
morning max el	3489 Jun 22 00:19	7°♄37'22	24°46'17	morning max el	3490 Jun 03 15:47	18°♄07'37	26°17'06
	3489 Jul 08 09:09	0°♄			3490 Jun 13 13:17	0°♄	
asc. node	3489 Jul 15 13:10	13°♄41'10			3490 Jun 30 17:06	0°♄	
morning set	3489 Jul 17 18:37	18°♄19'31		morning set	3490 Jul 02 05:36	3°♄10'31	
	3489 Jul 23 04:14	0°♄		asc. node	3490 Jul 02 10:15	3°♄35'00	
superior conj	3489 Jul 24 18:38	3°♄29'40	1°23'31	superior conj	3490 Jul 09 06:01	18°♄25'31	1°06'19
minimum elong	3489 Jul 24 16:20	3°♄17'09	1°23'13	minimum elong	3490 Jul 09 03:43	18°♄12'52	1°05'55
max. Earth dist.	3489 Jul 26 07:41	6°♄51'03	1.32798 AU	max. Earth dist.	3490 Jul 09 17:43	19°♄30'00	1.32233 AU
evening rise	3489 Aug 01 00:56	18°♄55'27			3490 Jul 14 13:37	0°♄	
	3489 Aug 06 16:29	0°♄		evening rise	3490 Jul 16 05:37	3°♄31'14	
desc. node	3489 Aug 21 21:26	24°♄55'59			3490 Jul 30 11:37	0°♄	
	3489 Aug 25 16:08	0°♄		desc. node	3490 Aug 08 18:26	13°♄24'01	
evening max el	3489 Sep 02 20:58	9°♄11'12	27°25'44	evening max el	3490 Aug 16 02:39	21°♄35'01	27°01'38
retrograde	3489 Sep 16 14:30	16°♄27'12		retrograde	3490 Aug 29 23:51	28°♄47'03	
evening set	3489 Sep 23 19:01	13°♄54'40		evening set	3490 Sep 06 00:56	26°♄35'22	
min. Earth dist.	3489 Sep 27 10:10	10°♄52'27	0.62978 AU	min. Earth dist.	3490 Sep 09 16:55	23°♄54'57	0.61034 AU

inferior conj	3490 Sep 12 20:52	21° $\mathring{\text{M}}$ 12'10	-4°-21'-56	evening set	3491 Aug 18 10:10	8° $\mathring{\text{M}}$ 41'31	
minimum elong	3490 Sep 13 02:30	21° $\mathring{\text{M}}$ 00'02	4°20'44	min. Earth dist.	3491 Aug 22 13:49	6° $\mathring{\text{M}}$ 06'37	0.58962 AU
morning rise	3490 Sep 20 07:10	16° $\mathring{\text{M}}$ 20'38		inferior conj	3491 Aug 25 20:19	3° $\mathring{\text{M}}$ 40'24	-4°-58'-22
direct	3490 Sep 22 15:03	15° $\mathring{\text{M}}$ 58'51		minimum elong	3491 Aug 25 23:47	3° $\mathring{\text{M}}$ 33'56	4°58'03
asc. node	3490 Sep 28 09:26	18° $\mathring{\text{M}}$ 18'15			3491 Aug 31 13:19	30° $\mathring{\text{R}}$ 0	
morning max el	3490 Sep 29 18:56	19° $\mathring{\text{M}}$ 32'33	18°00'23	morning rise	3491 Sep 02 16:54	29° $\mathring{\text{U}}$ 12'24	
	3490 Oct 07 11:32	0° $\mathring{\text{A}}$		direct	3491 Sep 05 02:47	28° $\mathring{\text{U}}$ 52'52	
morning set	3490 Oct 15 12:54	14° $\mathring{\text{A}}$ 23'32			3491 Sep 09 10:44	0° $\mathring{\text{M}}$	
	3490 Oct 24 02:06	0° $\mathring{\text{M}}$		morning max el	3491 Sep 13 03:09	2° $\mathring{\text{M}}$ 43'42	18°30'19
				asc. node	3491 Sep 15 06:29	5° $\mathring{\text{M}}$ 01'18	
superior conj	3490 Oct 25 16:10	2° $\mathring{\text{M}}$ 48'40	1°06'22	morning set	3491 Sep 29 04:51	28° $\mathring{\text{M}}$ 21'07	
minimum elong	3490 Oct 25 20:26	3° $\mathring{\text{M}}$ 07'27	1°05'50		3491 Sep 30 01:21	0° $\mathring{\text{A}}$	
max. Earth dist.	3490 Nov 02 06:47	15° $\mathring{\text{M}}$ 50'04	1.42127 AU				
desc. node	3490 Nov 04 17:44	19° $\mathring{\text{M}}$ 52'44		superior conj	3491 Oct 08 03:58	15° $\mathring{\text{A}}$ 27'30	1°28'55
evening rise	3490 Nov 08 04:57	25° $\mathring{\text{M}}$ 28'00		minimum elong	3491 Oct 08 07:17	15° $\mathring{\text{A}}$ 42'55	1°28'37
	3490 Nov 11 01:57	0° $\mathring{\text{A}}$		max. Earth dist.	3491 Oct 15 13:36	28° $\mathring{\text{A}}$ 45'55	1.40142 AU
	3490 Dec 01 16:04	0° $\mathring{\text{B}}$			3491 Oct 16 06:43	0° $\mathring{\text{M}}$	
greatest brilliancy	3490 Dec 06 06:52	5° $\mathring{\text{B}}$ 53'26	-0.3m	evening rise	3491 Oct 19 21:14	6° $\mathring{\text{M}}$ 06'40	
evening max el	3490 Dec 11 01:11	11° $\mathring{\text{B}}$ 14'23	22°24'36	desc. node	3491 Oct 22 14:46	10° $\mathring{\text{M}}$ 36'26	
retrograde	3490 Dec 20 17:14	16° $\mathring{\text{B}}$ 59'19			3491 Nov 04 05:05	0° $\mathring{\text{A}}$	
evening set	3490 Dec 25 06:15	15° $\mathring{\text{B}}$ 10'04		evening max el	3491 Nov 23 15:23	24° $\mathring{\text{A}}$ 51'03	23°44'26
asc. node	3490 Dec 25 08:40	15° $\mathring{\text{B}}$ 05'07			3491 Nov 30 03:20	0° $\mathring{\text{B}}$	
inferior conj	3490 Dec 30 15:52	8° $\mathring{\text{B}}$ 46'47	1°43'27	retrograde	3491 Dec 04 10:17	1° $\mathring{\text{B}}$ 12'59	
minimum elong	3490 Dec 30 13:46	8° $\mathring{\text{B}}$ 54'03	1°42'41		3491 Dec 08 07:50	30° $\mathring{\text{R}}$ 0	
min. Earth dist.	3490 Dec 30 13:02	8° $\mathring{\text{B}}$ 56'38	0.67957 AU	evening set	3491 Dec 09 12:19	29° $\mathring{\text{A}}$ 07'15	
morning rise	3491 Jan 04 21:11	2° $\mathring{\text{B}}$ 34'29		asc. node	3491 Dec 12 05:41	26° $\mathring{\text{A}}$ 16'37	
direct	3491 Jan 09 11:46	0° $\mathring{\text{B}}$ 40'49		inferior conj	3491 Dec 14 23:19	22° $\mathring{\text{A}}$ 40'18	0°55'18
morning max el	3491 Jan 18 19:41	6° $\mathring{\text{B}}$ 09'48	22°09'21	minimum elong	3491 Dec 14 22:03	22° $\mathring{\text{A}}$ 44'37	0°54'47
greatest brilliancy	3491 Jan 23 10:04	11° $\mathring{\text{B}}$ 18'49	-0.3m	min. Earth dist.	3491 Dec 14 09:40	23° $\mathring{\text{A}}$ 26'48	0.67854 AU
desc. node	3491 Jan 31 16:56	22° $\mathring{\text{B}}$ 15'04		morning rise	3491 Dec 20 07:59	16° $\mathring{\text{A}}$ 32'24	
	3491 Feb 06 02:33	0° $\mathring{\text{A}}$		direct	3491 Dec 24 08:22	15° $\mathring{\text{A}}$ 01'32	
morning set	3491 Feb 20 22:10	22° $\mathring{\text{A}}$ 49'35		morning max el	3492 Jan 01 13:34	19° $\mathring{\text{A}}$ 45'55	20°48'58
	3491 Feb 25 07:07	0° $\mathring{\text{H}}$		greatest brilliancy	3492 Jan 07 06:33	26° $\mathring{\text{A}}$ 23'41	-0.5m
max. Earth dist.	3491 Feb 26 12:04	2° $\mathring{\text{H}}$ 01'06	1.41012 AU		3492 Jan 09 23:59	0° $\mathring{\text{B}}$	
				desc. node	3492 Jan 18 13:59	12° $\mathring{\text{B}}$ 13'53	
superior conj	3491 Mar 06 06:27	15° $\mathring{\text{H}}$ 27'01	-2°-1'-17		3492 Jan 30 07:20	0° $\mathring{\text{A}}$	
minimum elong	3491 Mar 06 09:48	15° $\mathring{\text{H}}$ 41'58	2°01'07	morning set	3492 Jan 31 03:18	1° $\mathring{\text{A}}$ 17'42	
	3491 Mar 14 05:48	0° $\mathring{\text{Y}}$		max. Earth dist.	3492 Feb 08 16:15	14° $\mathring{\text{A}}$ 52'07	1.42928 AU
evening rise	3491 Mar 16 16:28	4° $\mathring{\text{Y}}$ 33'26					
asc. node	3491 Mar 23 07:59	16° $\mathring{\text{Y}}$ 42'21		superior conj	3492 Feb 15 12:17	26° $\mathring{\text{A}}$ 10'24	-2°-6'-51
	3491 Apr 01 11:53	0° $\mathring{\text{B}}$		minimum elong	3492 Feb 15 11:33	26° $\mathring{\text{A}}$ 07'19	2°06'51
evening max el	3491 Apr 01 21:09	0° $\mathring{\text{B}}$ 23'11	18°16'22		3492 Feb 17 18:22	0° $\mathring{\text{H}}$	
retrograde	3491 Apr 08 23:39	3° $\mathring{\text{B}}$ 56'09		evening rise	3492 Feb 27 10:41	16° $\mathring{\text{H}}$ 56'29	
evening set	3491 Apr 11 10:00	3° $\mathring{\text{B}}$ 32'04			3492 Mar 05 21:07	0° $\mathring{\text{Y}}$	
	3491 Apr 17 03:50	30° $\mathring{\text{R}}$ 0		asc. node	3492 Mar 09 05:00	5° $\mathring{\text{Y}}$ 25'34	
inferior conj	3491 Apr 18 13:08	28° $\mathring{\text{Y}}$ 49'21	2°47'50	evening max el	3492 Mar 15 08:35	13° $\mathring{\text{Y}}$ 26'56	18°06'59
minimum elong	3491 Apr 18 16:40	28° $\mathring{\text{Y}}$ 41'42	2°47'02	retrograde	3492 Mar 21 22:09	16° $\mathring{\text{Y}}$ 50'07	
min. Earth dist.	3491 Apr 21 23:08	25° $\mathring{\text{Y}}$ 53'35	0.59385 AU	evening set	3492 Mar 24 14:13	16° $\mathring{\text{Y}}$ 16'15	
morning rise	3491 Apr 25 19:27	23° $\mathring{\text{Y}}$ 10'31		inferior conj	3492 Mar 31 02:39	11° $\mathring{\text{Y}}$ 12'47	3°25'03
desc. node	3491 Apr 29 16:08	21° $\mathring{\text{Y}}$ 37'03		minimum elong	3492 Mar 31 04:41	11° $\mathring{\text{Y}}$ 07'43	3°24'48
direct	3491 May 02 04:04	21° $\mathring{\text{Y}}$ 20'00		min. Earth dist.	3492 Apr 03 04:30	8° $\mathring{\text{Y}}$ 10'19	0.61555 AU
morning max el	3491 May 16 12:53	29° $\mathring{\text{Y}}$ 08'18	27°21'27	morning rise	3492 Apr 06 16:18	5° $\mathring{\text{Y}}$ 15'39	
	3491 May 17 09:30	0° $\mathring{\text{B}}$		direct	3492 Apr 13 11:47	2° $\mathring{\text{Y}}$ 52'56	
	3491 Jun 07 09:21	0° $\mathring{\text{H}}$		desc. node	3492 Apr 15 13:09	3° $\mathring{\text{Y}}$ 05'06	
morning set	3491 Jun 16 14:03	17° $\mathring{\text{H}}$ 52'25		morning max el	3492 Apr 27 16:15	10° $\mathring{\text{Y}}$ 50'21	27°50'07
asc. node	3491 Jun 19 07:18	23° $\mathring{\text{H}}$ 38'16			3492 May 12 15:51	0° $\mathring{\text{B}}$	
	3491 Jun 22 05:28	0° $\mathring{\text{B}}$			3492 May 29 14:45	0° $\mathring{\text{H}}$	
max. Earth dist.	3491 Jun 23 05:41	2° $\mathring{\text{B}}$ 13'12	1.32062 AU	morning set	3492 May 30 18:00	2° $\mathring{\text{H}}$ 18'25	
				asc. node	3492 Jun 05 04:18	13° $\mathring{\text{H}}$ 46'02	
superior conj	3491 Jun 23 17:46	3° $\mathring{\text{B}}$ 19'48	0°45'12	max. Earth dist.	3492 Jun 05 15:35	14° $\mathring{\text{H}}$ 47'09	1.32296 AU
minimum elong	3491 Jun 23 15:56	3° $\mathring{\text{B}}$ 09'42	0°44'51				
evening rise	3491 Jun 30 14:41	18° $\mathring{\text{B}}$ 17'55		superior conj	3492 Jun 07 04:09	18° $\mathring{\text{H}}$ 06'24	0°20'51
	3491 Jul 06 09:06	0° $\mathring{\text{U}}$		minimum elong	3492 Jun 07 03:12	18° $\mathring{\text{H}}$ 01'13	0°20'38
	3491 Jul 25 22:59	0° $\mathring{\text{M}}$			3492 Jun 12 14:54	0° $\mathring{\text{B}}$	
desc. node	3491 Jul 26 15:26	0° $\mathring{\text{M}}$ 44'53		evening rise	3492 Jun 14 02:02	3° $\mathring{\text{B}}$ 08'10	
evening max el	3491 Jul 29 01:14	3° $\mathring{\text{M}}$ 11'23	26°04'49		3492 Jun 28 12:54	0° $\mathring{\text{U}}$	
retrograde	3491 Aug 12 00:39	10° $\mathring{\text{M}}$ 20'31		evening max el	3492 Jul 09 16:47	14° $\mathring{\text{U}}$ 02'24	24°41'44

desc. node	3492 Jul 12 12:27	16°♂30'48		minimum elong	3493 May 22 11:42	2°♂41'07	0°06'02
retrograde	3492 Jul 23 14:57	21°♂05'01		behind sun begin	3493 May 22 06:45	2°♂14'31	
evening set	3492 Jul 28 19:12	20°♂04'32		behind sun end	3493 May 22 16:39	3°♂07'45	
min. Earth dist.	3492 Aug 03 04:01	17°♂15'55	0.57023 AU	asc. node	3493 May 23 01:19	3°♂54'20	
inferior conj	3492 Aug 06 00:01	15°♂25'35	-5°-6'-3	evening rise	3493 May 29 13:48	17°♂55'51	
minimum elong	3492 Aug 05 22:25	15°♂28'12	5°06'00		3493 Jun 04 12:48	0°♂	
morning rise	3492 Aug 14 05:17	11°♂19'34		evening max el	3493 Jun 21 06:07	24°♂29'33	23°05'44
direct	3492 Aug 16 19:57	11°♂00'33		desc. node	3493 Jun 29 09:26	0°♂07'45	
morning max el	3492 Aug 26 02:23	15°♂20'33	19°21'32		3493 Jun 29 01:55	0°♂	
asc. node	3492 Sep 01 03:31	22°♂43'19		retrograde	3493 Jul 04 16:32	1°♂11'40	
	3492 Sep 05 13:51	0°♂		evening set	3493 Jul 08 08:23	0°♂42'22	
morning set	3492 Sep 12 05:22	12°♂43'04			3493 Jul 10 11:59	30°♂♂	
				min. Earth dist.	3493 Jul 15 15:22	27°♂25'14	0.55559 AU
superior conj	3492 Sep 20 08:44	28°♂56'07	1°41'09	inferior conj	3493 Jul 17 08:12	26°♂25'50	-4°-29'-46
minimum elong	3492 Sep 20 10:21	29°♂04'02	1°41'04	minimum elong	3493 Jul 17 01:05	26°♂36'13	4°28'27
	3492 Sep 20 21:51	0°♂		morning rise	3493 Jul 25 20:40	22°♂33'33	
max. Earth dist.	3492 Sep 26 17:32	10°♂59'50	1.38062 AU	direct	3493 Jul 28 18:28	22°♂13'23	
evening rise	3492 Sep 30 12:59	17°♂50'05		morning max el	3493 Aug 08 14:15	27°♂14'48	20°34'09
	3492 Oct 07 17:54	0°♂			3493 Aug 11 05:58	0°♂	
desc. node	3492 Oct 08 11:48	1°♂12'16		asc. node	3493 Aug 19 00:34	11°♂11'12	
	3492 Oct 28 13:34	0°♂		morning set	3493 Aug 27 11:39	27°♂21'53	
evening max el	3492 Nov 05 03:48	8°♂31'29	25°01'47		3493 Aug 28 18:22	0°♂	
retrograde	3492 Nov 16 23:18	15°♂22'22					
evening set	3492 Nov 22 15:13	13°♂01'15		superior conj	3493 Sep 04 01:42	13°♂00'48	1°44'41
min. Earth dist.	3492 Nov 27 04:29	7°♂55'04	0.67405 AU	minimum elong	3493 Sep 04 01:40	13°♂00'39	1°44'40
inferior conj	3492 Nov 28 04:49	6°♂35'11	0°01'49	max. Earth dist.	3493 Sep 09 00:35	22°♂52'46	1.36136 AU
minimum elong	3492 Nov 28 04:46	6°♂35'21	0°01'47		3493 Sep 12 18:35	0°♂	
transit middle	3492 Nov 28 04:46	6°♂35'21	0°01'47	evening rise	3493 Sep 13 01:21	0°♂31'19	
transit begin	3492 Nov 28 02:01	6°♂44'24		desc. node	3493 Sep 25 08:48	21°♂35'17	
transit end	3492 Nov 28 07:32	6°♂26'18			3493 Sep 30 21:25	0°♂	
asc. node	3492 Nov 28 02:42	6°♂42'09		evening max el	3493 Oct 18 16:12	22°♂13'18	26°09'16
morning rise	3492 Dec 03 18:56	0°♂34'02		retrograde	3493 Oct 31 07:18	29°♂22'01	
	3492 Dec 04 18:26	30°♂♂		evening set	3493 Nov 06 13:07	26°♂48'28	
direct	3492 Dec 07 06:46	29°♂23'41		min. Earth dist.	3493 Nov 10 19:05	22°♂18'02	0.66614 AU
	3492 Dec 09 21:46	0°♂		inferior conj	3493 Nov 12 06:33	20°♂28'15	0°-55'-48
morning max el	3492 Dec 14 15:17	3°♂33'03	19°41'10	minimum elong	3493 Nov 12 08:02	20°♂23'37	0°55'11
greatest brilliancy	3492 Dec 22 14:05	13°♂24'17	-0.6m	asc. node	3493 Nov 14 23:45	17°♂16'48	
	3493 Jan 02 19:18	0°♂		morning rise	3493 Nov 18 04:02	14°♂36'34	
desc. node	3493 Jan 04 11:02	2°♂31'44		direct	3493 Nov 21 05:18	13°♂43'22	
morning set	3493 Jan 08 23:31	9°♂28'46		morning max el	3493 Nov 28 00:12	17°♂28'22	18°48'35
max. Earth dist.	3493 Jan 21 03:41	28°♂30'52	1.44356 AU		3493 Dec 07 13:01	0°♂	
	3493 Jan 22 02:07	0°♂		morning set	3493 Dec 19 11:59	18°♂35'17	
				desc. node	3493 Dec 22 08:05	23°♂02'58	
superior conj	3493 Jan 25 16:10	5°♂44'34	-1°-55'-16		3493 Dec 26 18:18	0°♂	
minimum elong	3493 Jan 25 09:34	5°♂17'58	1°54'53	max. Earth dist.	3494 Jan 03 20:46	12°♂42'41	1.45130 AU
evening rise	3493 Feb 08 09:33	28°♂26'48					
	3493 Feb 09 07:34	0°♂		superior conj	3494 Jan 04 23:11	14°♂26'30	-1°-24'-19
asc. node	3493 Feb 24 02:00	23°♂31'09		minimum elong	3494 Jan 04 14:05	13°♂50'44	1°23'22
evening max el	3493 Feb 26 21:18	26°♂45'30	18°16'38		3494 Jan 14 19:05	0°♂	
	3493 Mar 03 19:06	0°♂		evening rise	3494 Jan 20 09:39	8°♂59'53	
retrograde	3493 Mar 05 07:52	0°♂12'33			3494 Feb 02 14:11	0°♂	
	3493 Mar 06 20:32	30°♂♂		evening max el	3494 Feb 10 08:37	10°♂12'01	18°44'26
evening set	3493 Mar 08 05:32	29°♂27'40		asc. node	3494 Feb 10 23:01	10°♂47'32	
inferior conj	3493 Mar 14 07:04	24°♂04'34	3°38'10	retrograde	3494 Feb 17 00:45	13°♂55'01	
minimum elong	3493 Mar 14 07:18	24°♂03'56	3°38'10	evening set	3494 Feb 20 04:33	12°♂58'04	
min. Earth dist.	3493 Mar 16 18:56	21°♂18'04	0.63568 AU	inferior conj	3494 Feb 25 22:28	7°♂16'55	3°33'16
morning rise	3493 Mar 20 07:10	17°♂57'18		minimum elong	3494 Feb 25 21:14	7°♂20'41	3°33'10
direct	3493 Mar 27 04:21	15°♂13'45		min. Earth dist.	3494 Feb 27 18:38	5°♂02'05	0.65255 AU
desc. node	3493 Apr 02 10:10	17°♂06'28		morning rise	3494 Mar 03 12:45	1°♂04'21	
morning max el	3493 Apr 10 00:05	23°♂11'19	27°41'22		3494 Mar 04 21:58	30°♂♂	
	3493 Apr 16 01:31	0°♂		direct	3494 Mar 10 03:56	28°♂14'24	
	3493 May 05 22:17	0°♂			3494 Mar 15 23:09	0°♂	
morning set	3493 May 14 15:08	16°♂21'03		desc. node	3494 Mar 20 07:14	3°♂07'01	
max. Earth dist.	3493 May 19 19:29	26°♂59'14	1.32958 AU	morning max el	3494 Mar 23 09:46	6°♂01'01	26°59'15
	3493 May 21 05:35	0°♂			3494 Apr 10 19:20	0°♂	
				morning set	3494 Apr 28 02:20	29°♂49'58	
superior conj	3493 May 22 11:24	2°♂39'30	0°-6'-5		3494 Apr 28 04:26	0°♂	

max. Earth dist.	3494 May 02 13:47	8°♄39'46	1.34076 AU	max. Earth dist.	3495 Apr 14 20:48	19°♃52'01	1.35656 AU
superior conj	3494 May 06 13:23	16°♄51'46	0°-34'-35	superior conj	3495 Apr 20 07:37	0°♄36'26	-1°-3'-19
minimum elong	3494 May 06 15:11	17°♄01'11	0°34'14	minimum elong	3495 Apr 20 10:57	0°♄53'15	1°02'45
asc. node	3494 May 09 22:21	23°♄58'23			3495 Apr 20 00:23	0°♄	
	3494 May 12 18:44	0°♄		asc. node	3495 Apr 26 19:23	13°♄54'23	
evening rise	3494 May 14 00:05	2°♄33'53		evening rise	3495 Apr 28 06:54	16°♄56'28	
	3494 May 29 14:08	0°♄			3495 May 04 23:17	0°♄	
evening max el	3494 Jun 03 00:45	5°♄03'24	21°32'09	evening max el	3495 May 16 06:22	16°♄09'37	20°12'15
retrograde	3494 Jun 15 07:12	11°♄05'33		retrograde	3495 May 26 21:06	21°♄19'47	
desc. node	3494 Jun 16 06:26	11°♄03'23		evening set	3495 May 28 20:51	21°♄09'40	
evening set	3494 Jun 17 18:33	10°♄51'39		desc. node	3495 Jun 03 03:29	19°♄18'32	
inferior conj	3494 Jun 27 03:16	6°♄51'32	-3°-4'-3	inferior conj	3495 Jun 06 22:39	17°♄10'55	-1°-7'-17
minimum elong	3494 Jun 26 19:23	7°♄02'32	3°01'36	minimum elong	3495 Jun 06 19:30	17°♄15'36	1°06'07
min. Earth dist.	3494 Jun 27 02:21	6°♄52'49	0.54874 AU	min. Earth dist.	3495 Jun 08 14:45	16°♄11'38	0.55142 AU
morning rise	3494 Jul 05 21:00	2°♄57'22		morning rise	3495 Jun 15 15:59	12°♄54'42	
direct	3494 Jul 09 05:07	2°♄33'07		direct	3495 Jun 19 16:28	12°♄19'42	
morning max el	3494 Jul 21 14:33	8°♄23'53	22°05'37	morning max el	3495 Jul 03 06:52	18°♄58'49	23°47'57
asc. node	3494 Aug 05 21:38	0°♄13'36			3495 Jul 12 10:43	0°♄	
	3494 Aug 05 18:43	0°♄		asc. node	3495 Jul 23 18:41	19°♄41'28	
morning set	3494 Aug 11 21:31	12°♄11'29		morning set	3495 Jul 27 09:06	27°♄05'56	
					3495 Jul 28 17:52	0°♄	
superior conj	3494 Aug 19 03:09	27°♄30'38	1°41'01	superior conj	3495 Aug 03 10:11	12°♄16'30	1°31'23
minimum elong	3494 Aug 19 01:51	27°♄23'48	1°40'56	minimum elong	3495 Aug 03 08:07	12°♄05'17	1°31'10
	3494 Aug 20 07:37	0°♄		max. Earth dist.	3495 Aug 05 15:31	17°♄02'32	1.33301 AU
max. Earth dist.	3494 Aug 22 15:35	4°♄49'20	1.34522 AU	evening rise	3495 Aug 10 22:24	28°♄00'23	
evening rise	3494 Aug 27 05:54	13°♄58'43			3495 Aug 11 22:23	0°♄	
	3494 Sep 05 00:59	0°♄			3495 Aug 29 06:03	0°♄	
desc. node	3494 Sep 12 05:48	11°♄39'31		desc. node	3495 Aug 30 02:49	1°♄16'23	
	3494 Sep 25 17:59	0°♄		evening max el	3495 Sep 13 16:24	19°♄06'36	27°24'35
evening max el	3494 Oct 01 04:50	5°♄49'06	26°59'13	retrograde	3495 Sep 27 06:16	26°♄24'16	
retrograde	3494 Oct 14 09:47	13°♄05'36		evening set	3495 Oct 04 08:59	23°♄45'11	
evening set	3494 Oct 21 03:58	10°♄24'59		min. Earth dist.	3495 Oct 08 02:08	20°♄26'05	0.63983 AU
min. Earth dist.	3494 Oct 25 03:02	6°♄31'07	0.65473 AU	inferior conj	3495 Oct 10 13:58	17°♄50'47	-2°-56'-26
inferior conj	3494 Oct 27 02:26	4°♄15'28	-1°-56'00	minimum elong	3495 Oct 10 18:49	17°♄38'11	2°54'45
minimum elong	3494 Oct 27 05:39	4°♄06'14	1°54'43	morning rise	3495 Oct 17 06:57	12°♄27'49	
	3494 Oct 31 06:13	30°♄		direct	3495 Oct 19 18:02	11°♄57'35	
asc. node	3494 Nov 01 20:49	28°♄52'37		asc. node	3495 Oct 19 17:54	11°♄57'35	
morning rise	3494 Nov 02 09:00	28°♄36'29		morning max el	3495 Oct 26 06:46	15°♄22'55	17°53'25
direct	3494 Nov 05 01:58	27°♄56'35			3495 Nov 05 14:08	0°♄	
	3494 Nov 09 23:38	0°♄		morning set	3495 Nov 12 02:09	11°♄03'47	
morning max el	3494 Nov 11 14:17	1°♄27'16	18°12'27		3495 Nov 23 08:10	0°♄	
morning set	3494 Nov 30 05:24	29°♄09'54		superior conj	3495 Nov 24 22:08	2°♄35'13	0°08'02
	3494 Nov 30 17:39	0°♄		minimum elong	3495 Nov 24 23:02	2°♄38'53	0°07'54
desc. node	3494 Dec 09 05:07	13°♄43'26		behind sun begin	3495 Nov 24 14:16	2°♄03'08	
superior conj	3494 Dec 15 02:25	23°♄05'02	0°-39'-22	behind sun end	3495 Nov 25 07:48	3°♄14'33	
minimum elong	3494 Dec 14 21:26	22°♄45'18	0°38'42	desc. node	3495 Nov 26 02:08	4°♄28'57	
max. Earth dist.	3494 Dec 17 16:26	27°♄09'14	1.45162 AU	max. Earth dist.	3495 Nov 30 10:54	11°♄29'21	1.44461 AU
	3494 Dec 19 11:57	0°♄		evening rise	3495 Dec 10 22:30	27°♄51'54	
evening rise	3494 Dec 31 11:27	18°♄41'38			3495 Dec 12 07:52	0°♄	
	3495 Jan 07 18:09	0°♄			3496 Jan 01 18:11	0°♄	
greatest brilliancy	3495 Jan 16 08:36	13°♄00'32	-0.7m	greatest brilliancy	3496 Jan 01 18:36	0°♄01'23	-0.5m
evening max el	3495 Jan 24 16:22	23°♄42'38	19°29'07	evening max el	3496 Jan 07 18:59	7°♄14'04	20°28'44
asc. node	3495 Jan 28 20:04	27°♄01'38		retrograde	3496 Jan 15 19:47	11°♄57'57	
retrograde	3495 Jan 31 21:37	27°♄52'01		asc. node	3496 Jan 15 17:09	11°♄57'53	
evening set	3495 Feb 04 08:36	26°♄41'58		evening set	3496 Jan 19 15:26	10°♄33'42	
inferior conj	3495 Feb 09 21:37	20°♄44'58	3°14'50	inferior conj	3496 Jan 25 01:45	4°♄23'44	2°45'52
minimum elong	3495 Feb 09 19:28	20°♄51'58	3°14'27	minimum elong	3496 Jan 24 23:15	4°♄32'17	2°45'12
min. Earth dist.	3495 Feb 11 02:47	19°♄09'42	0.66533 AU	min. Earth dist.	3496 Jan 25 17:27	3°♄30'15	0.67391 AU
morning rise	3495 Feb 15 05:36	14°♄29'51			3496 Jan 28 11:10	30°♄	
direct	3495 Feb 21 09:35	11°♄46'21		morning rise	3496 Jan 30 06:35	28°♄08'05	
morning max el	3495 Mar 05 19:19	19°♄09'03	25°51'35	direct	3496 Feb 04 20:34	25°♄40'13	
desc. node	3495 Mar 07 04:18	20°♄34'44			3496 Feb 13 14:16	0°♄	
	3495 Mar 15 00:41	0°♄		morning max el	3496 Feb 16 04:00	2°♄25'30	24°28'11
	3495 Apr 03 20:58	0°♄		desc. node	3496 Feb 22 01:20	9°♄04'06	
morning set	3495 Apr 10 23:35	12°♄34'05					

	3496 Mar 08 03:29	0° Υ		morning max el	3497 Jan 28 13:24	15° Υ 46'47	22°59'11
morning set	3496 Mar 23 01:30	24° Υ 18'43		greatest brilliancy	3497 Feb 02 08:18	21° Υ 07'34	-0.3m
	3496 Mar 26 06:18	0° Υ		desc. node	3497 Feb 07 22:23	28° Υ 17'27	
max. Earth dist.	3496 Mar 26 18:28	0° Υ 55'03	1.37615 AU		3497 Feb 09 04:37	0° \approx	
					3497 Mar 01 03:54	0° Υ	
superior conj	3496 Apr 02 14:50	13° Υ 45'04	-1°-30'-14	morning set	3497 Mar 04 01:48	4° Υ 47'01	
minimum elong	3496 Apr 02 19:17	14° Υ 06'36	1°29'39	max. Earth dist.	3497 Mar 08 13:21	12° Υ 21'51	1.39779 AU
	3496 Apr 10 20:23	0° Υ					
evening rise	3496 Apr 11 07:48	0° Υ 56'41		superior conj	3497 Mar 16 06:50	26° Υ 06'45	-1°-52'-20
asc. node	3496 Apr 12 16:26	3° Υ 38'00		minimum elong	3497 Mar 16 11:12	26° Υ 26'51	1°51'59
evening max el	3496 Apr 28 00:01	27° Υ 57'42	19°11'23		3497 Mar 18 09:16	0° Υ	
	3496 Apr 30 10:00	0° Π		evening rise	3497 Mar 25 23:45	14° Υ 25'56	
retrograde	3496 May 06 22:39	2° Π 18'40		asc. node	3497 Mar 30 13:29	23° Υ 03'26	
evening set	3496 May 08 23:32	2° Π 06'05			3497 Apr 03 11:53	0° Υ	
	3496 May 14 02:09	30° Υ		evening max el	3497 Apr 11 03:16	10° Υ 22'31	18°30'43
inferior conj	3496 May 17 08:11	27° Υ 55'14	0°46'21	retrograde	3497 Apr 18 18:23	14° Υ 07'55	
minimum elong	3496 May 17 10:02	27° Υ 52'06	0°45'42	evening set	3497 Apr 21 01:11	13° Υ 48'48	
min. Earth dist.	3496 May 20 05:50	25° Υ 58'13	0.56320 AU	inferior conj	3497 Apr 28 14:30	9° Υ 18'41	2°12'56
desc. node	3496 May 20 00:30	26° Υ 06'56		minimum elong	3497 Apr 28 18:15	9° Υ 11'16	2°11'52
morning rise	3496 May 25 16:18	23° Υ 04'15		min. Earth dist.	3497 May 02 00:40	6° Υ 37'45	0.58165 AU
direct	3496 May 30 15:39	22° Υ 06'51		morning rise	3497 May 06 06:55	3° Υ 54'51	
morning max el	3496 Jun 13 21:08	29° Υ 23'47	25°27'29	desc. node	3497 May 06 21:32	3° Υ 37'29	
	3496 Jun 14 12:00	0° Π		direct	3497 May 12 05:21	2° Υ 24'28	
	3496 Jul 04 22:07	0° Υ		morning max el	3497 May 26 14:38	10° Υ 04'46	26°48'24
asc. node	3496 Jul 09 15:43	9° Υ 27'50			3497 Jun 10 21:10	0° Π	
morning set	3496 Jul 10 20:47	12° Υ 00'14		morning set	3497 Jun 25 06:51	26° Π 47'53	
				asc. node	3497 Jun 26 12:45	29° Π 26'09	
					3497 Jun 26 19:05	0° Υ	
superior conj	3496 Jul 17 20:35	27° Υ 11'15	1°16'44				
minimum elong	3496 Jul 17 18:14	26° Υ 58'20	1°16'24				
max. Earth dist.	3496 Jul 18 22:36	29° Υ 33'41	1.32498 AU	superior conj	3497 Jul 02 08:19	12° Υ 07'16	0°57'49
	3496 Jul 19 03:26	0° Ω		minimum elong	3497 Jul 02 06:10	11° Υ 55'23	0°57'25
evening rise	3496 Jul 24 23:29	12° Ω 26'41		max. Earth dist.	3497 Jul 02 09:41	12° Υ 14'50	1.32106 AU
	3496 Aug 03 02:08	0° Υ		evening rise	3497 Jul 09 06:17	27° Υ 07'58	
desc. node	3496 Aug 15 23:50	20° Υ 14'25			3497 Jul 10 15:17	0° Ω	
	3496 Aug 24 03:03	0° Ω			3497 Jul 27 14:54	0° Υ	
evening max el	3496 Aug 26 00:49	1° Ω 53'24	27°19'36	desc. node	3497 Aug 02 20:51	8° Υ 16'43	
retrograde	3496 Sep 08 20:18	9° Ω 08'39		evening max el	3497 Aug 08 03:40	13° Υ 57'32	26°41'20
evening set	3496 Sep 16 00:38	6° Ω 43'01		retrograde	3497 Aug 22 02:28	21° Υ 08'46	
min. Earth dist.	3496 Sep 19 15:02	3° Ω 51'54	0.62174 AU	evening set	3497 Aug 28 22:18	19° Υ 09'56	
inferior conj	3496 Sep 22 14:13	1° Ω 07'22	-3°-53'-14	min. Earth dist.	3497 Sep 01 17:33	16° Υ 33'53	0.60148 AU
minimum elong	3496 Sep 22 19:59	0° Ω 53'59	3°51'41	inferior conj	3497 Sep 04 23:41	13° Υ 55'45	-4°-40'-1
	3496 Sep 23 19:41	30° Υ		minimum elong	3497 Sep 05 04:45	13° Υ 45'27	4°39'11
morning rise	3496 Sep 29 18:15	26° Υ 03'40		morning rise	3497 Sep 12 14:30	9° Υ 13'58	
direct	3496 Oct 02 02:17	25° Υ 39'44		direct	3497 Sep 14 22:42	8° Υ 53'29	
asc. node	3496 Oct 05 14:57	26° Υ 36'09		asc. node	3497 Sep 22 11:58	12° Υ 37'27	
morning max el	3496 Oct 08 22:34	29° Υ 08'07	17°52'22	morning max el	3497 Sep 22 10:25	12° Υ 33'40	18°10'35
	3496 Oct 09 18:39	0° Ω			3497 Oct 04 03:18	0° Ω	
morning set	3496 Oct 24 20:10	23° Ω 58'35		morning set	3497 Oct 08 05:27	7° Ω 36'50	
	3496 Oct 28 04:41	0° Υ					
				superior conj	3497 Oct 17 19:36	25° Ω 25'11	1°17'16
superior conj	3496 Nov 04 20:13	13° Υ 23'22	0°48'10	minimum elong	3497 Oct 17 23:38	25° Ω 43'21	1°16'50
minimum elong	3496 Nov 05 00:10	13° Υ 40'13	0°47'39		3497 Oct 20 09:12	0° Υ	
desc. node	3496 Nov 11 23:10	25° Υ 16'32		max. Earth dist.	3497 Oct 25 10:41	8° Υ 44'46	1.41310 AU
max. Earth dist.	3496 Nov 12 01:18	25° Υ 25'16	1.43123 AU	desc. node	3497 Oct 29 20:11	16° Υ 02'39	
	3496 Nov 14 21:21	0° Υ		evening rise	3497 Oct 30 13:24	17° Υ 12'38	
evening rise	3496 Nov 19 10:04	7° Υ 09'34			3497 Nov 07 16:43	0° Υ	
	3496 Dec 04 14:52	0° Υ		greatest brilliancy	3497 Nov 27 21:39	28° Υ 14'54	-0.2m
greatest brilliancy	3496 Dec 15 19:49	15° Υ 15'06	-0.4m		3497 Nov 29 08:46	0° Υ	
evening max el	3496 Dec 20 16:02	20° Υ 46'34	21°40'03	evening max el	3497 Dec 03 08:23	4° Υ 22'03	22°58'30
retrograde	3496 Dec 29 17:09	26° Υ 09'23		retrograde	3497 Dec 13 12:04	10° Υ 23'19	
asc. node	3497 Jan 01 14:12	25° Υ 24'23		evening set	3497 Dec 18 06:22	8° Υ 27'19	
evening set	3497 Jan 02 23:14	24° Υ 29'42		asc. node	3497 Dec 19 11:12	7° Υ 20'32	
inferior conj	3497 Jan 08 08:40	18° Υ 10'12	2°08'22	inferior conj	3497 Dec 23 16:26	2° Υ 02'05	1°23'47
minimum elong	3497 Jan 08 06:18	18° Υ 18'27	2°07'34	minimum elong	3497 Dec 23 14:39	2° Υ 08'17	1°23'05
min. Earth dist.	3497 Jan 08 12:21	17° Υ 57'25	0.67857 AU	min. Earth dist.	3497 Dec 23 09:02	2° Υ 27'37	0.67956 AU
morning rise	3497 Jan 13 13:04	11° Υ 55'54			3497 Dec 25 04:20	30° Υ	
direct	3497 Jan 18 12:09	9° Υ 48'58		morning rise	3497 Dec 28 22:53	25° Υ 51'12	

direct	3498 Jan 02 07:21	24°♄07'09		morning rise	3498 Dec 13 09:59	9°♄51'08	
morning max el	3498 Jan 11 03:10	29°♄16'14	21°33'47	direct	3498 Dec 17 04:56	8°♄29'11	
	3498 Jan 11 20:14	0°♄		morning max el	3498 Dec 25 00:17	12°♄56'53	20°18'27
greatest brilliancy	3498 Jan 16 01:40	4°♄52'03	-0.4m	greatest brilliancy	3498 Dec 31 12:02	20°♄40'15	-0.5m
desc. node	3498 Jan 25 19:25	18°♄02'36			3499 Jan 07 03:52	0°♄	
	3498 Feb 02 22:00	0°♄		desc. node	3499 Jan 12 16:26	8°♄10'20	
morning set	3498 Feb 11 21:07	13°♄52'58		morning set	3499 Jan 21 19:27	22°♄04'54	
max. Earth dist.	3498 Feb 18 13:17	24°♄41'28	1.41876 AU		3499 Jan 26 21:17	0°♄	
	3498 Feb 21 17:34	0°♄		max. Earth dist.	3499 Jan 31 21:17	7°♄56'48	1.43614 AU
superior conj	3498 Feb 26 02:39	7°♄30'01	-2°-5'-26	superior conj	3499 Feb 06 21:31	17°♄43'56	-2°-4'-17
minimum elong	3498 Feb 26 04:38	7°♄38'41	2°05'23	minimum elong	3499 Feb 06 18:18	17°♄30'37	2°04'12
evening rise	3498 Mar 09 03:07	27°♄15'59			3499 Feb 14 04:34	0°♄	
	3498 Mar 10 15:00	0°♄		evening rise	3499 Feb 19 13:37	9°♄17'38	
asc. node	3498 Mar 17 10:30	12°♄04'32			3499 Mar 03 22:29	0°♄	
evening max el	3498 Mar 25 12:45	23°♄15'18	18°10'01	asc. node	3499 Mar 04 07:32	0°♄33'01	
retrograde	3498 Apr 01 08:13	26°♄41'50		evening max el	3499 Mar 09 01:06	6°♄26'14	18°08'44
evening set	3498 Apr 03 21:11	26°♄13'39		retrograde	3499 Mar 15 12:07	9°♄49'22	
inferior conj	3498 Apr 10 17:36	21°♄22'07	3°06'57	evening set	3499 Mar 18 06:38	9°♄10'48	
minimum elong	3498 Apr 10 20:36	21°♄15'12	3°06'25	inferior conj	3499 Mar 24 13:58	3°♄58'28	3°33'07
min. Earth dist.	3498 Apr 14 01:16	18°♄20'31	0.60319 AU	minimum elong	3499 Mar 24 15:13	3°♄55'11	3°33'02
morning rise	3498 Apr 17 16:35	15°♄34'40		min. Earth dist.	3499 Mar 27 10:08	1°♄00'47	0.62451 AU
desc. node	3498 Apr 23 18:34	13°♄30'10			3499 Mar 28 11:04	30°♄	
direct	3498 Apr 24 07:14	13°♄29'23		morning rise	3499 Mar 30 21:26	27°♄56'23	
morning max el	3498 May 08 14:16	21°♄21'56	27°38'09	direct	3499 Apr 06 18:39	25°♄23'30	
	3498 May 16 02:36	0°♄		desc. node	3499 Apr 10 15:36	26°♄06'47	
	3498 Jun 03 20:03	0°♄			3499 Apr 17 03:05	0°♄	
morning set	3498 Jun 09 13:35	11°♄23'27		morning max el	3499 Apr 20 19:50	3°♄21'09	27°50'50
asc. node	3498 Jun 13 09:46	19°♄31'46			3499 May 10 14:38	0°♄	
max. Earth dist.	3498 Jun 15 21:12	24°♄55'26	1.32117 AU	morning set	3499 May 24 14:58	25°♄40'19	
					3499 May 26 17:35	0°♄	
superior conj	3498 Jun 16 19:41	26°♄58'52	0°35'14	max. Earth dist.	3499 May 30 05:13	7°♄22'16	1.32531 AU
minimum elong	3498 Jun 16 18:10	26°♄50'35	0°34'55	asc. node	3499 May 31 06:49	9°♄40'13	
	3498 Jun 18 04:36	0°♄					
evening rise	3498 Jun 23 16:33	11°♄57'00		superior conj	3499 Jun 01 04:58	11°♄40'14	0°09'41
	3498 Jul 02 20:20	0°♄		minimum elong	3499 Jun 01 04:30	11°♄37'44	0°09'35
desc. node	3498 Jul 20 17:50	25°♄00'47		behind sun begin	3499 Jun 01 00:20	11°♄15'06	
evening max el	3498 Jul 20 23:13	25°♄13'43	25°32'02	behind sun end	3499 Jun 01 08:40	12°♄00'23	
	3498 Jul 27 03:14	0°♄		evening rise	3499 Jun 08 04:20	26°♄47'02	
retrograde	3498 Aug 03 22:44	2°♄20'04			3499 Jun 09 17:00	0°♄	
evening set	3498 Aug 09 21:15	0°♄57'45			3499 Jun 27 07:18	0°♄	
	3498 Aug 11 18:41	30°♄		evening max el	3499 Jul 02 12:59	5°♄50'57	24°01'27
min. Earth dist.	3498 Aug 14 11:14	28°♄19'04	0.58104 AU	desc. node	3499 Jul 07 14:50	9°♄56'30	
inferior conj	3498 Aug 17 14:57	26°♄06'18	-5°-6'-7	retrograde	3499 Jul 16 07:24	12°♄46'48	
minimum elong	3498 Aug 17 16:33	26°♄03'28	5°06'04	evening set	3499 Jul 20 20:37	12°♄01'00	
morning rise	3498 Aug 25 15:21	21°♄47'44		min. Earth dist.	3499 Jul 26 23:27	9°♄02'03	0.56325 AU
direct	3498 Aug 28 03:05	21°♄28'29		inferior conj	3499 Jul 29 10:02	7°♄32'02	-4°-56'-45
morning max el	3498 Sep 05 15:01	25°♄30'22	18°49'27	minimum elong	3499 Jul 29 05:50	7°♄38'31	4°56'20
asc. node	3498 Sep 09 09:00	29°♄46'47		morning rise	3499 Aug 06 18:32	3°♄33'35	
	3498 Sep 09 12:58	0°♄		direct	3499 Aug 09 12:13	3°♄14'11	
morning set	3498 Sep 22 01:25	21°♄45'34		morning max el	3499 Aug 19 09:35	7°♄49'50	19°49'58
	3498 Sep 26 06:14	0°♄		asc. node	3499 Aug 27 06:02	17°♄49'55	
					3499 Sep 03 01:07	0°♄	
superior conj	3498 Sep 30 15:11	8°♄26'15	1°35'17	morning set	3499 Sep 06 04:43	6°♄16'02	
minimum elong	3498 Sep 30 17:48	8°♄38'44	1°35'05				
max. Earth dist.	3498 Oct 07 16:02	21°♄22'27	1.39254 AU	superior conj	3499 Sep 14 01:42	22°♄12'09	1°43'38
evening rise	3498 Oct 11 15:44	28°♄18'41		minimum elong	3499 Sep 14 02:35	22°♄16'34	1°43'35
	3498 Oct 12 15:38	0°♄			3499 Sep 18 01:28	0°♄	
desc. node	3498 Oct 16 17:11	6°♄43'20		max. Earth dist.	3499 Sep 19 20:57	3°♄26'13	1.37208 AU
	3498 Nov 01 04:43	0°♄		evening rise	3499 Sep 23 16:46	10°♄27'59	
evening max el	3498 Nov 15 21:43	18°♄00'53	24°18'11	desc. node	3499 Oct 03 14:12	27°♄14'34	
retrograde	3498 Nov 27 03:20	24°♄35'39			3499 Oct 05 08:02	0°♄	
evening set	3498 Dec 02 11:16	22°♄23'12			3499 Oct 27 17:29	0°♄	
asc. node	3498 Dec 06 08:14	18°♄06'24		evening max el	3499 Oct 29 09:58	1°♄42'29	25°32'08
min. Earth dist.	3498 Dec 07 05:07	16°♄57'18	0.67706 AU	retrograde	3499 Nov 10 14:14	8°♄42'07	
inferior conj	3498 Dec 07 23:15	15°♄56'23	0°33'12	evening set	3499 Nov 16 12:17	6°♄14'57	
minimum elong	3498 Dec 07 22:27	15°♄59'03	0°32'52	min. Earth dist.	3499 Nov 20 22:19	1°♄24'08	0.67112 AU

inferior conj	3499 Nov 22 03:23	29° \mathbb{M} 50'54	0°-22'-11	inferior conj	3500 Nov 06 02:53	13° \mathbb{M} 41'37	-1°-21'-9
minimum elong	3499 Nov 22 03:57	29° \mathbb{M} 49'04	0°21'57	minimum elong	3500 Nov 06 05:06	13° \mathbb{M} 34'58	1°20'14
	3499 Nov 22 00:33	30° \mathbb{R} \mathbb{M}		asc. node	3500 Nov 10 02:19	9° \mathbb{M} 23'46	
asc. node	3499 Nov 23 05:15	28° \mathbb{M} 28'49		morning rise	3500 Nov 12 04:04	7° \mathbb{M} 55'09	
morning rise	3499 Nov 27 20:26	23° \mathbb{M} 53'44		direct	3500 Nov 15 01:25	7° \mathbb{M} 08'14	
direct	3499 Dec 01 03:32	22° \mathbb{M} 51'10		morning max el	3500 Nov 21 16:50	10° \mathbb{M} 46'13	18°31'12
morning max el	3499 Dec 08 05:20	26° \mathbb{M} 48'34	19°16'57		3500 Dec 05 09:49	0° \mathbb{Z}	
	3499 Dec 11 01:56	0° \mathbb{Z}		morning set	3500 Dec 11 20:08	10° \mathbb{Z} 15'03	
greatest brilliancy	3499 Dec 17 21:05	9° \mathbb{Z} 15'35	-0.7m	desc. node	3500 Dec 17 10:32	19° \mathbb{Z} 09'59	
desc. node	3499 Dec 30 13:29	28° \mathbb{Z} 34'36			3500 Dec 24 07:15	0° \mathbb{Z}	
	3499 Dec 31 11:32	0° \mathbb{Z}		superior conj	3500 Dec 27 17:58	5° \mathbb{Z} 24'46	-1°-6'-21
morning set	3499 Dec 31 19:59	0° \mathbb{Z} 32'48		minimum elong	3500 Dec 27 09:57	4° \mathbb{Z} 53'19	1°05'24
max. Earth dist.	3500 Jan 14 11:49	21° \mathbb{Z} 53'13	1.44774 AU	max. Earth dist.	3500 Dec 28 05:55	6° \mathbb{Z} 11'40	1.45228 AU
					3501 Jan 12 08:49	0° \approx	
superior conj	3500 Jan 17 15:11	26° \mathbb{Z} 51'38	-1°-44'-25	evening rise	3501 Jan 12 17:22	0° \approx 33'53	
minimum elong	3500 Jan 17 06:44	26° \mathbb{Z} 18'04	1°43'44		3501 Feb 01 02:49	0° \mathbb{H}	
	3500 Jan 19 14:27	0° \approx		evening max el	3501 Feb 03 23:27	3° \mathbb{H} 17'11	19°01'29
evening rise	3500 Feb 01 03:09	20° \approx 24'19		asc. node	3501 Feb 06 01:35	5° \mathbb{H} 11'02	
	3500 Feb 06 22:07	0° \mathbb{H}		retrograde	3501 Feb 10 20:31	7° \mathbb{H} 10'37	
asc. node	3500 Feb 19 04:33	18° \mathbb{H} 19'13		evening set	3501 Feb 14 03:06	6° \mathbb{H} 08'27	
evening max el	3500 Feb 20 13:27	19° \mathbb{H} 48'33	18°26'12	inferior conj	3501 Feb 19 18:38	0° \mathbb{H} 20'18	3°26'56
retrograde	3500 Feb 27 01:30	23° \mathbb{H} 21'19		minimum elong	3501 Feb 19 16:57	0° \mathbb{H} 25'38	3°26'42
evening set	3500 Mar 02 01:38	22° \mathbb{H} 31'27			3501 Feb 20 01:04	30° \mathbb{R} \approx	
inferior conj	3500 Mar 07 23:32	17° \mathbb{H} 00'10	3°37'58	min. Earth dist.	3501 Feb 21 08:20	28° \approx 21'25	0.65843 AU
minimum elong	3500 Mar 07 23:05	17° \mathbb{H} 01'29	3°37'58	morning rise	3501 Feb 25 05:48	24° \approx 06'08	
min. Earth dist.	3500 Mar 10 04:40	14° \mathbb{H} 25'46	0.64333 AU	direct	3501 Mar 03 16:41	21° \approx 17'18	
morning rise	3500 Mar 13 19:00	10° \mathbb{H} 49'55		desc. node	3501 Mar 15 09:44	27° \approx 44'33	
direct	3500 Mar 20 14:13	8° \mathbb{H} 02'09		morning max el	3501 Mar 16 15:02	28° \approx 56'29	26°33'04
desc. node	3500 Mar 28 12:39	11° \mathbb{H} 03'09			3501 Mar 17 15:40	0° \mathbb{H}	
morning max el	3500 Apr 03 05:04	15° \mathbb{H} 56'47	27°27'08		3501 Apr 08 14:27	0° \mathbb{Y}	
	3500 Apr 14 18:49	0° \mathbb{Y}		morning set	3501 Apr 21 14:18	22° \mathbb{Y} 42'41	
	3500 May 03 08:24	0° \mathbb{B}			3501 Apr 25 08:59	0° \mathbb{B}	
morning set	3500 May 08 08:21	9° \mathbb{B} 30'06		max. Earth dist.	3501 Apr 25 19:07	0° \mathbb{B} 49'59	1.34688 AU
max. Earth dist.	3500 May 13 05:39	19° \mathbb{B} 22'37	1.33378 AU				
				superior conj	3501 Apr 30 09:22	10° \mathbb{B} 07'21	0°-46'-51
superior conj	3500 May 16 10:15	26° \mathbb{B} 05'08	0°-18'-3	minimum elong	3501 Apr 30 11:50	10° \mathbb{B} 20'04	0°46'23
minimum elong	3500 May 16 11:10	26° \mathbb{B} 10'01	0°17'52	asc. node	3501 May 05 00:55	19° \mathbb{B} 48'43	
asc. node	3500 May 18 03:51	29° \mathbb{B} 47'09		evening rise	3501 May 08 00:52	26° \mathbb{B} 04'11	
	3500 May 18 06:15	0° \mathbb{I}			3501 May 09 22:50	0° \mathbb{I}	
evening rise	3500 May 23 15:44	11° \mathbb{I} 31'24		evening max el	3501 May 27 02:28	27° \mathbb{I} 02'48	20°56'06
	3500 Jun 02 04:06	0° \mathbb{S}			3501 May 30 16:00	0° \mathbb{S}	
evening max el	3500 Jun 14 03:27	16° \mathbb{S} 16'17	22°24'44	retrograde	3501 Jun 07 17:14	2° \mathbb{S} 43'30	
desc. node	3500 Jun 24 11:52	22° \mathbb{S} 28'01		evening set	3501 Jun 09 21:14	2° \mathbb{S} 32'24	
retrograde	3500 Jun 27 04:10	22° \mathbb{S} 44'33		desc. node	3501 Jun 11 08:53	2° \mathbb{S} 12'39	
evening set	3500 Jun 30 06:01	22° \mathbb{S} 23'38			3501 Jun 16 15:31	30° \mathbb{R} \mathbb{I}	
min. Earth dist.	3500 Jul 08 10:18	18° \mathbb{S} 50'28	0.55152 AU	inferior conj	3501 Jun 19 04:53	28° \mathbb{I} 35'02	-2°-16'-28
inferior conj	3500 Jul 09 11:22	18° \mathbb{S} 14'58	-3°-58'-58	minimum elong	3501 Jun 18 22:35	28° \mathbb{I} 43'58	2°14'17
minimum elong	3500 Jul 09 03:07	18° \mathbb{S} 26'40	3°56'57	min. Earth dist.	3501 Jun 19 22:14	28° \mathbb{I} 10'26	0.54867 AU
morning rise	3500 Jul 18 02:30	14° \mathbb{S} 24'35		morning rise	3501 Jun 27 23:19	24° \mathbb{I} 33'20	
direct	3500 Jul 21 03:56	14° \mathbb{S} 03'23		direct	3501 Jul 01 13:20	24° \mathbb{I} 05'39	
morning max el	3500 Aug 01 16:31	19° \mathbb{S} 25'08	21°11'12		3501 Jul 14 04:56	0° \mathbb{S}	
	3500 Aug 10 04:48	0° \mathbb{Q}		morning max el	3501 Jul 14 12:58	0° \mathbb{S} 18'32	22°48'24
asc. node	3500 Aug 14 03:06	6° \mathbb{Q} 33'35		asc. node	3501 Aug 01 00:11	25° \mathbb{S} 47'52	
morning set	3500 Aug 21 12:47	21° \mathbb{Q} 00'07			3501 Aug 03 03:13	0° \mathbb{Q}	
	3500 Aug 25 20:05	0° \mathbb{M}		morning set	3501 Aug 05 23:36	5° \mathbb{Q} 52'21	
				superior conj	3501 Aug 13 02:53	21° \mathbb{Q} 06'53	1°37'35
superior conj	3500 Aug 28 22:43	6° \mathbb{M} 29'03	1°43'55	minimum elong	3501 Aug 13 01:12	20° \mathbb{Q} 57'53	1°37'28
minimum elong	3500 Aug 28 22:05	6° \mathbb{M} 25'50	1°43'54	max. Earth dist.	3501 Aug 16 01:21	27° \mathbb{Q} 18'31	1.33953 AU
max. Earth dist.	3500 Sep 02 06:45	15° \mathbb{M} 17'03	1.35396 AU		3501 Aug 17 08:33	0° \mathbb{M}	
evening rise	3500 Sep 06 12:34	23° \mathbb{M} 30'11		evening rise	3501 Aug 20 22:43	7° \mathbb{M} 13'48	
	3500 Sep 10 01:07	0° \mathbb{A}			3501 Sep 02 14:51	0° \mathbb{A}	
desc. node	3500 Sep 20 11:13	17° \mathbb{A} 30'20		desc. node	3501 Sep 07 08:13	7° \mathbb{A} 23'48	
	3500 Sep 28 23:43	0° \mathbb{M}		evening max el	3501 Sep 24 10:38	28° \mathbb{A} 51'05	27°13'24
evening max el	3500 Oct 11 22:16	15° \mathbb{M} 21'52	26°33'02		3501 Sep 25 16:26	0° \mathbb{M}	
retrograde	3500 Oct 24 20:06	22° \mathbb{M} 35'48		retrograde	3501 Oct 07 20:17	6° \mathbb{M} 09'16	
evening set	3500 Oct 31 07:30	19° \mathbb{M} 58'04					
min. Earth dist.	3500 Nov 04 10:20	15° \mathbb{M} 43'21	0.66168 AU				

evening set	3501 Oct 14 18:32	3°♄28'12		evening set	3502 Sep 27 18:21	16°♄39'38	
	3501 Oct 18 10:55	30°♄		min. Earth dist.	3502 Oct 01 09:56	13°♄33'17	0.63249 AU
min. Earth dist.	3501 Oct 18 14:54	29°♄49'17	0.64876 AU	inferior conj	3502 Oct 04 02:42	10°♄52'52	-3°-21'-17
inferior conj	3501 Oct 20 19:33	27°♄24'15	-2°-21'-49	minimum elong	3502 Oct 04 08:04	10°♄39'32	3°19'35
minimum elong	3501 Oct 20 23:29	27°♄13'23	2°20'19	morning rise	3502 Oct 11 00:19	5°♄37'20	
morning rise	3501 Oct 27 06:24	21°♄51'32		direct	3502 Oct 13 09:46	5°♄10'05	
asc. node	3501 Oct 27 23:23	21°♄34'58		asc. node	3502 Oct 14 20:27	5°♄20'14	
direct	3501 Oct 29 20:27	21°♄16'17		morning max el	3502 Oct 20 00:45	8°♄35'47	17°50'38
morning max el	3501 Nov 05 08:15	24°♄44'01	18°02'08		3502 Nov 03 04:25	0°♄	
	3501 Nov 09 16:24	0°♄		morning set	3502 Nov 05 08:24	3°♄47'21	
morning set	3501 Nov 23 01:45	21°♄24'48					
	3501 Nov 28 06:02	0°♄		superior conj	3502 Nov 17 08:32	24°♄21'08	0°26'18
desc. node	3501 Dec 04 07:33	9°♄52'30		minimum elong	3502 Nov 17 11:10	24°♄32'02	0°25'56
					3502 Nov 20 18:56	0°♄	
superior conj	3501 Dec 07 02:04	14°♄19'13	0°-18'-51	desc. node	3502 Nov 21 04:33	0°♄39'08	
minimum elong	3501 Dec 06 23:44	14°♄09'54	0°18'33	max. Earth dist.	3502 Nov 23 18:16	4°♄48'22	1.43964 AU
max. Earth dist.	3501 Dec 11 00:53	20°♄35'16	1.44945 AU	evening rise	3502 Dec 02 20:31	19°♄06'03	
	3501 Dec 17 01:05	0°♄			3502 Dec 10 00:17	0°♄	
evening rise	3501 Dec 23 11:17	9°♄57'25		greatest brilliancy	3502 Dec 26 20:29	24°♄02'50	-0.5m
	3502 Jan 05 14:37	0°♄			3502 Dec 31 21:38	0°♄	
greatest brilliancy	3502 Jan 11 01:45	7°♄55'10	-0.6m	evening max el	3503 Jan 01 05:32	0°♄20'26	20°57'57
evening max el	3502 Jan 18 05:11	16°♄48'14	19°52'57	retrograde	3503 Jan 09 16:00	5°♄20'01	
asc. node	3502 Jan 23 22:39	20°♄53'33		asc. node	3503 Jan 10 19:42	5°♄12'43	
retrograde	3502 Jan 25 18:06	21°♄11'22		evening set	3503 Jan 13 15:59	3°♄49'14	
evening set	3502 Jan 29 08:32	19°♄55'34			3503 Jan 17 06:39	30°♄	
inferior conj	3502 Feb 03 20:11	13°♄52'58	3°03'43	inferior conj	3503 Jan 19 01:43	27°♄34'58	2°30'55
minimum elong	3502 Feb 03 17:49	14°♄00'52	3°03'12	minimum elong	3503 Jan 18 23:13	27°♄43'37	2°30'10
min. Earth dist.	3502 Feb 04 19:31	12°♄35'09	0.66945 AU	min. Earth dist.	3503 Jan 19 12:09	26°♄59'06	0.67638 AU
morning rise	3502 Feb 09 02:27	7°♄37'27		morning rise	3503 Jan 24 06:04	21°♄19'55	
direct	3502 Feb 15 00:50	4°♄59'21		direct	3503 Jan 29 13:51	19°♄00'29	
morning max el	3502 Feb 26 23:54	12°♄07'47	25°17'27	morning max el	3503 Feb 09 08:23	25°♄25'34	23°50'29
desc. node	3502 Mar 02 06:46	15°♄40'40			3503 Feb 13 12:10	0°♄	
	3502 Mar 13 08:32	0°♄		desc. node	3503 Feb 17 03:48	4°♄30'11	
	3502 Apr 01 07:40	0°♄			3503 Mar 06 21:11	0°♄	
morning set	3502 Apr 04 04:02	5°♄03'24		morning set	3503 Mar 16 19:42	16°♄16'35	
max. Earth dist.	3502 Apr 07 21:13	11°♄53'06	1.36447 AU	max. Earth dist.	3503 Mar 20 16:57	23°♄02'42	1.38530 AU
					3503 Mar 24 13:25	0°♄	
superior conj	3502 Apr 13 23:21	23°♄38'02	-1°-15'-6	superior conj	3503 Mar 28 00:39	6°♄27'53	-1°-40'-24
minimum elong	3502 Apr 14 03:15	23°♄57'20	1°14'29	minimum elong	3503 Mar 28 05:17	6°♄49'48	1°39'53
	3502 Apr 17 03:38	0°♄		evening rise	3503 Apr 06 02:55	24°♄05'40	
asc. node	3502 Apr 21 21:57	9°♄39'58		asc. node	3503 Apr 08 18:58	29°♄16'18	
evening rise	3502 Apr 22 05:27	10°♄17'55			3503 Apr 09 04:06	0°♄	
	3502 May 02 22:01	0°♄		evening max el	3503 Apr 22 11:32	20°♄31'20	18°51'34
evening max el	3502 May 09 13:27	8°♄27'13	19°43'57	retrograde	3503 Apr 30 19:10	24°♄35'07	
retrograde	3502 May 19 10:14	13°♄14'39		evening set	3503 May 02 22:32	24°♄20'01	
evening set	3502 May 21 09:35	13°♄04'00		inferior conj	3503 May 10 22:49	20°♄01'07	1°27'05
desc. node	3502 May 29 05:57	9°♄37'09		minimum elong	3503 May 11 01:53	19°♄55'34	1°26'04
inferior conj	3502 May 30 04:53	9°♄01'45	0°-16'-53	min. Earth dist.	3503 May 14 03:44	17°♄43'24	0.57049 AU
minimum elong	3502 May 30 04:08	9°♄02'56	0°16'37	desc. node	3503 May 16 02:59	16°♄26'34	
min. Earth dist.	3502 Jun 01 11:40	7°♄36'54	0.55550 AU	morning rise	3503 May 19 00:51	14°♄55'36	
morning rise	3502 Jun 07 19:23	4°♄31'32		direct	3503 May 24 10:31	13°♄45'19	
direct	3502 Jun 12 05:23	3°♄48'17		morning max el	3503 Jun 07 18:25	21°♄12'47	26°05'03
morning max el	3502 Jun 26 03:26	10°♄45'02	24°31'23		3503 Jun 15 09:43	0°♄	
	3502 Jul 10 15:23	0°♄			3503 Jul 03 05:07	0°♄	
asc. node	3502 Jul 18 21:14	15°♄24'09		morning set	3503 Jul 05 22:36	5°♄38'59	
morning set	3502 Jul 21 11:25	20°♄47'02		asc. node	3503 Jul 05 18:14	5°♄15'59	
	3502 Jul 25 18:06	0°♄					
superior conj	3502 Jul 28 11:36	5°♄57'04	1°25'43	superior conj	3503 Jul 12 22:45	20°♄52'37	1°09'12
minimum elong	3502 Jul 28 09:21	5°♄44'48	1°25'28	minimum elong	3503 Jul 12 20:26	20°♄39'49	1°08'49
max. Earth dist.	3502 Jul 30 04:44	9°♄39'59	1.32916 AU	max. Earth dist.	3503 Jul 13 14:10	22°♄17'26	1.32288 AU
evening rise	3502 Aug 04 19:17	21°♄27'10			3503 Jul 17 03:04	0°♄	
	3502 Aug 09 03:15	0°♄		evening rise	3503 Jul 19 23:05	6°♄00'34	
desc. node	3502 Aug 25 05:14	26°♄45'35			3503 Aug 01 17:16	0°♄	
	3502 Aug 27 13:30	0°♄		desc. node	3503 Aug 12 02:15	15°♄22'06	
evening max el	3502 Sep 06 21:27	11°♄57'59	27°26'29	evening max el	3503 Aug 20 03:52	24°♄27'54	27°07'22
retrograde	3502 Sep 20 14:02	19°♄14'10			3503 Aug 27 15:38	0°♄	

retrograde	3503 Sep 03 00:32	1°♄40'42			3504 Jul 26 11:20	0°♄	
	3503 Sep 09 02:59	30°♄		desc. node	3504 Jul 28 23:16	2°♄54'52	
evening set	3503 Sep 10 02:55	29°♄24'55		evening max el	3504 Aug 01 03:30	6°♄11'22	26°15'10
min. Earth dist.	3503 Sep 13 18:10	26°♄42'19	0.61335 AU	retrograde	3504 Aug 15 02:55	13°♄21'20	
inferior conj	3503 Sep 16 21:06	23°♄58'32	-4°-14'-51	evening set	3504 Aug 21 15:32	11°♄36'49	
minimum elong	3503 Sep 17 02:51	23°♄45'56	4°13'32	min. Earth dist.	3504 Aug 25 16:25	9°♄02'15	0.59270 AU
morning rise	3503 Sep 24 05:49	19°♄03'51		inferior conj	3504 Aug 28 23:14	6°♄32'12	-4°-54'-25
direct	3503 Sep 26 13:40	18°♄41'34		minimum elong	3504 Aug 29 03:13	6°♄24'35	4°53'57
asc. node	3503 Oct 01 17:29	20°♄35'34		morning rise	3504 Sep 05 18:24	2°♄00'42	
morning max el	3503 Oct 03 15:15	22°♄13'28	17°57'42	direct	3504 Sep 08 03:43	1°♄41'01	
	3503 Oct 09 15:36	0°♄		morning max el	3504 Sep 16 00:32	5°♄28'44	18°24'32
morning set	3503 Oct 19 09:35	17°♄02'31		asc. node	3504 Sep 17 14:29	7°♄08'00	
	3503 Oct 26 12:32	0°♄		morning set	3504 Oct 01 23:55	0°♄55'12	
					3504 Oct 01 12:23	0°♄	
superior conj	3503 Oct 29 17:54	5°♄42'04	1°01'56	superior conj	3504 Oct 11 02:41	18°♄11'44	1°26'11
minimum elong	3503 Oct 29 22:10	6°♄00'40	1°01'24	minimum elong	3504 Oct 11 06:13	18°♄28'02	1°25'50
max. Earth dist.	3503 Nov 06 07:09	18°♄32'09	1.42400 AU		3504 Oct 17 16:49	0°♄	
desc. node	3503 Nov 08 01:33	21°♄26'12		max. Earth dist.	3504 Oct 18 14:22	1°♄33'14	1.40452 AU
evening rise	3503 Nov 12 13:19	28°♄39'10		evening rise	3504 Oct 23 02:07	9°♄08'02	
	3503 Nov 13 09:48	0°♄		desc. node	3504 Oct 24 22:35	12°♄10'26	
	3503 Dec 03 16:59	0°♄			3504 Nov 05 10:24	0°♄	
greatest brilliancy	3503 Dec 10 06:57	8°♄34'01	-0.3m	evening max el	3504 Nov 26 15:00	27°♄29'20	23°32'31
evening max el	3503 Dec 15 00:21	13°♄53'24	22°12'49		3504 Nov 29 08:11	0°♄	
retrograde	3503 Dec 24 12:29	19°♄32'45		retrograde	3504 Dec 07 06:07	3°♄46'21	
evening set	3503 Dec 28 23:40	17°♄45'55		evening set	3504 Dec 12 06:04	1°♄43'08	
asc. node	3503 Dec 28 16:44	17°♄59'31			3504 Dec 14 00:18	30°♄	
inferior conj	3504 Jan 03 09:11	11°♄23'24	1°50'13	asc. node	3504 Dec 14 13:45	29°♄21'35	
minimum elong	3504 Jan 03 07:01	11°♄30'58	1°49'26	min. Earth dist.	3504 Dec 17 04:44	25°♄57'35	0.67893 AU
min. Earth dist.	3504 Jan 03 07:59	11°♄27'34	0.67945 AU	inferior conj	3504 Dec 17 16:46	25°♄16'23	1°02'57
morning rise	3504 Jan 08 14:12	5°♄10'30		minimum elong	3504 Dec 17 15:21	25°♄21'14	1°02'24
direct	3504 Jan 13 06:55	3°♄13'29		morning rise	3504 Dec 23 00:48	19°♄07'34	
morning max el	3504 Jan 22 19:19	8°♄49'53	22°22'02	direct	3504 Dec 27 03:13	17°♄33'22	
greatest brilliancy	3504 Jan 27 08:46	13°♄55'28	-0.3m	morning max el	3505 Jan 04 12:04	22°♄24'02	21°00'08
desc. node	3504 Feb 04 00:48	23°♄57'43		greatest brilliancy	3505 Jan 09 23:41	28°♄43'30	-0.5m
	3504 Feb 08 07:05	0°♄			3505 Jan 10 23:29	0°♄	
morning set	3504 Feb 25 07:39	26°♄08'45		desc. node	3505 Jan 20 21:50	13°♄52'57	
	3504 Feb 27 16:02	0°♄			3505 Jan 31 14:40	0°♄	
max. Earth dist.	3504 Mar 01 13:39	4°♄51'05	1.40696 AU	morning set	3505 Feb 03 16:01	4°♄44'59	
				max. Earth dist.	3505 Feb 11 16:31	17°♄33'13	1.42668 AU
superior conj	3504 Mar 09 08:38	18°♄25'25	-1°-59'-17	superior conj	3505 Feb 18 18:12	29°♄19'03	-2°-7'00
minimum elong	3504 Mar 09 12:21	18°♄42'07	1°59'05	minimum elong	3505 Feb 18 18:16	29°♄19'21	2°07'01
	3504 Mar 15 16:16	0°♄			3505 Feb 19 03:50	0°♄	
evening rise	3504 Mar 19 13:59	7°♄19'09		evening rise	3505 Mar 02 10:42	19°♄49'04	
asc. node	3504 Mar 25 16:00	18°♄32'08			3505 Mar 08 04:02	0°♄	
	3504 Apr 01 23:19	0°♄		asc. node	3505 Mar 12 13:02	7°♄20'07	
evening max el	3504 Apr 04 17:45	3°♄08'32	18°19'30	evening max el	3505 Mar 19 04:47	16°♄09'21	18°07'12
retrograde	3504 Apr 11 23:15	6°♄44'23		retrograde	3505 Mar 25 19:34	19°♄32'56	
evening set	3504 Apr 14 08:37	6°♄21'43		evening set	3505 Mar 28 10:49	19°♄00'37	
inferior conj	3504 Apr 21 14:17	1°♄42'18	2°39'39	inferior conj	3505 Apr 04 01:13	14°♄00'21	3°21'04
minimum elong	3504 Apr 21 17:57	1°♄34'33	2°38'46	minimum elong	3505 Apr 04 03:31	13°♄54'43	3°20'45
	3504 Apr 23 14:28	30°♄		min. Earth dist.	3505 Apr 07 04:52	10°♄57'12	0.61234 AU
min. Earth dist.	3504 Apr 25 00:44	28°♄49'31	0.59055 AU	morning rise	3505 Apr 10 17:11	8°♄05'27	
morning rise	3504 Apr 28 23:12	26°♄06'55		direct	3505 Apr 17 11:44	5°♄46'48	
desc. node	3504 May 02 00:00	24°♄49'40		desc. node	3505 Apr 18 21:02	5°♄52'19	
direct	3504 May 05 05:21	24°♄21'37		morning max el	3505 May 01 17:01	13°♄43'31	27°48'17
	3504 May 17 06:55	0°♄			3505 May 14 18:01	0°♄	
morning max el	3504 May 19 14:36	2°♄08'24	27°14'03	morning set	3505 Jun 01 02:36	0°♄	
	3504 Jun 08 17:11	0°♄		asc. node	3505 Jun 03 12:16	4°♄51'23	
morning set	3504 Jun 19 07:32	20°♄22'57		max. Earth dist.	3505 Jun 08 12:17	15°♄25'28	
asc. node	3504 Jun 21 15:15	25°♄18'16			3505 Jun 09 12:23	17°♄36'17	1.32232 AU
	3504 Jun 23 19:15	0°♄		superior conj	3505 Jun 10 21:16	20°♄35'46	0°24'45
superior conj	3504 Jun 26 10:34	5°♄47'55	0°48'40	minimum elong	3505 Jun 10 20:09	20°♄29'42	0°24'30
minimum elong	3504 Jun 26 08:38	5°♄37'15	0°48'17		3505 Jun 15 04:19	0°♄	
max. Earth dist.	3504 Jun 26 02:02	5°♄00'51	1.32058 AU	evening rise	3505 Jun 17 18:45	5°♄36'08	
evening rise	3504 Jul 03 07:39	20°♄46'18					
	3504 Jul 07 19:49	0°♄					

	3505 Jun 30 15:43	0°♎		minimum elong	3506 May 26 05:11	5°♐11'13	0°01'52
evening max el	3505 Jul 13 20:01	17°♎08'28	24°55'22	behind sun begin	3506 May 25 23:56	4°♐42'56	
desc. node	3505 Jul 15 20:17	18°♎57'07		behind sun end	3506 May 26 10:27	5°♐39'31	
retrograde	3505 Jul 27 18:55	24°♎12'23		asc. node	3506 May 26 09:21	5°♐33'39	
evening set	3505 Aug 02 04:10	23°♎06'23		evening rise	3506 Jun 02 06:35	20°♐24'07	
min. Earth dist.	3505 Aug 07 07:32	20°♎20'47	0.57293 AU		3506 Jun 06 22:53	0°♐	
inferior conj	3505 Aug 10 06:00	18°♎24'06	-5°-7'-25	evening max el	3506 Jun 25 09:17	27°♐36'51	23°20'15
minimum elong	3505 Aug 10 05:17	18°♎25'17	5°07'26		3506 Jun 28 02:16	0°♎	
morning rise	3505 Aug 18 10:02	14°♎14'53		desc. node	3506 Jul 02 17:19	2°♎55'30	
direct	3505 Aug 20 23:49	13°♎55'53		retrograde	3506 Jul 08 22:10	4°♎22'55	
morning max el	3505 Aug 30 01:16	18°♎10'55	19°12'29	evening set	3506 Jul 12 19:30	3°♎49'51	
asc. node	3505 Sep 04 11:31	24°♎41'42		min. Earth dist.	3506 Jul 19 19:00	0°♎37'54	0.55734 AU
	3505 Sep 07 20:28	0°♐			3506 Jul 20 20:49	30°♐♐	
morning set	3505 Sep 15 23:21	15°♐13'45		inferior conj	3506 Jul 21 16:52	29°♐30'22	-4°-38'-33
	3505 Sep 23 10:01	0°♑		minimum elong	3506 Jul 21 10:23	29°♐39'56	4°37'29
				morning rise	3506 Jul 30 04:18	25°♐36'53	
superior conj	3505 Sep 24 05:13	1°♑33'24	1°39'53	direct	3506 Aug 02 01:04	25°♐16'55	
minimum elong	3505 Sep 24 07:06	1°♑42'34	1°39'46		3506 Aug 12 09:55	0°♎	
max. Earth dist.	3505 Sep 30 18:25	13°♑52'15	1.38370 AU	morning max el	3506 Aug 12 14:51	0°♎11'19	20°22'03
evening rise	3505 Oct 04 14:28	20°♑41'53		asc. node	3506 Aug 22 08:35	13°♎03'11	
	3505 Oct 10 02:25	0°♌		morning set	3506 Aug 31 04:57	29°♎50'31	
desc. node	3505 Oct 11 19:36	2°♌47'34			3506 Aug 31 06:49	0°♐	
	3505 Oct 30 11:47	0°♑					
evening max el	3505 Nov 09 03:41	11°♑09'39	24°50'47	superior conj	3506 Sep 07 20:37	15°♐33'18	1°44'38
retrograde	3505 Nov 20 19:47	17°♑56'42		minimum elong	3506 Sep 07 20:50	15°♐34'19	1°44'38
evening set	3505 Nov 26 09:34	15°♑37'52		max. Earth dist.	3506 Sep 13 00:52	25°♐47'36	1.36406 AU
min. Earth dist.	3505 Dec 01 00:02	10°♑26'26	0.67493 AU		3506 Sep 15 06:00	0°♑	
asc. node	3505 Dec 01 10:46	9°♑51'02		evening rise	3506 Sep 17 00:02	3°♑15'03	
inferior conj	3505 Dec 01 22:43	9°♑11'29	0°10'14	desc. node	3506 Sep 28 16:38	23°♑12'53	
minimum elong	3505 Dec 01 22:28	9°♑12'19	0°10'07		3506 Oct 03 02:20	0°♌	
transit middle	3505 Dec 01 22:28	9°♑12'19	0°10'07	evening max el	3506 Oct 22 16:06	24°♌51'45	26°00'10
transit begin	3505 Dec 01 20:19	9°♑19'27			3506 Oct 29 02:04	0°♑	
transit end	3505 Dec 02 00:37	9°♑05'12		retrograde	3506 Nov 04 04:30	1°♑58'10	
morning rise	3505 Dec 07 11:53	3°♑09'05			3506 Nov 09 15:12	30°♐♌	
direct	3505 Dec 11 01:31	1°♑55'46		evening set	3506 Nov 10 08:22	29°♌26'11	
morning max el	3505 Dec 18 12:36	6°♑09'34	19°50'20	min. Earth dist.	3506 Nov 14 15:24	24°♌50'27	0.66754 AU
greatest brilliancy	3505 Dec 26 01:02	15°♑22'23	-0.6m	inferior conj	3506 Nov 16 01:10	23°♌04'55	0°-46'-51
	3506 Jan 05 01:23	0°♐		minimum elong	3506 Nov 16 02:24	23°♌01'01	0°46'19
desc. node	3506 Jan 07 18:53	4°♐08'23		asc. node	3506 Nov 18 07:50	20°♌20'30	
morning set	3506 Jan 13 11:59	12°♐54'03		morning rise	3506 Nov 21 21:26	17°♌11'42	
	3506 Jan 24 10:24	0°♑		direct	3506 Nov 25 00:11	16°♌16'07	
max. Earth dist.	3506 Jan 25 03:09	1°♑06'35	1.44186 AU	morning max el	3506 Dec 01 20:34	20°♌03'51	18°55'25
					3506 Dec 09 16:09	0°♑	
superior conj	3506 Jan 30 02:01	9°♑03'43	-1°-58'-18	morning set	3506 Dec 23 20:51	21°♑49'04	
minimum elong	3506 Jan 29 20:14	8°♑40'19	1°58'00	desc. node	3506 Dec 25 15:54	24°♑37'41	
	3506 Feb 11 16:07	0°♐			3506 Dec 29 02:14	0°♐	
evening rise	3506 Feb 12 12:45	1°♐27'52		max. Earth dist.	3507 Jan 07 19:53	15°♐15'40	1.45063 AU
asc. node	3506 Feb 27 10:05	25°♐32'07					
evening max el	3506 Mar 02 17:33	29°♐26'19	18°14'00	superior conj	3507 Jan 09 11:19	17°♐50'51	-1°-30'-8
	3506 Mar 03 07:30	0°♑		minimum elong	3507 Jan 09 02:09	17°♐14'45	1°29'14
retrograde	3506 Mar 09 03:53	2°♑51'47			3507 Jan 17 03:15	0°♑	
evening set	3506 Mar 12 00:46	2°♑08'32		evening rise	3507 Jan 24 16:24	12°♑09'39	
	3506 Mar 15 00:50	30°♐♐			3507 Feb 04 17:57	0°♐	
inferior conj	3506 Mar 18 03:42	26°♐48'12	3°37'24	evening max el	3507 Feb 14 05:15	12°♐51'58	18°39'07
minimum elong	3506 Mar 18 04:11	26°♐46'52	3°37'24	asc. node	3507 Feb 14 07:09	12°♐56'46	
min. Earth dist.	3506 Mar 20 17:48	23°♐58'16	0.63292 AU	retrograde	3507 Feb 20 20:01	16°♐31'53	
morning rise	3506 Mar 24 05:37	20°♐42'12		evening set	3507 Feb 23 22:52	15°♐36'44	
direct	3506 Mar 31 03:08	18°♐00'56		inferior conj	3507 Mar 01 17:43	9°♐57'58	3°34'56
desc. node	3506 Apr 05 18:04	19°♐32'25		minimum elong	3507 Mar 01 16:41	10°♐01'07	3°34'52
morning max el	3506 Apr 14 00:17	25°♐58'36	27°44'54	min. Earth dist.	3507 Mar 03 16:10	7°♐37'53	0.65033 AU
	3506 Apr 17 17:43	0°♑		morning rise	3507 Mar 07 09:15	3°♐45'56	
	3506 May 08 06:56	0°♐		direct	3507 Mar 14 01:38	0°♐56'15	
morning set	3506 May 18 10:35	18°♐57'19		desc. node	3507 Mar 23 15:07	5°♐17'13	
max. Earth dist.	3506 May 23 17:24	29°♐51'35	1.32832 AU	morning max el	3507 Mar 27 09:57	8°♐45'00	27°07'19
	3506 May 23 19:00	0°♐			3507 Apr 12 23:50	0°♑	
					3507 Apr 30 15:51	0°♐	
superior conj	3506 May 26 05:06	5°♐10'44	0°-1'-51	morning set	3507 May 01 23:31	2°♐31'47	

max. Earth dist.	3507 May 06 13:29	11°♄37'33	1.33883 AU	max. Earth dist.	3508 Apr 17 22:14 3508 Apr 21 12:50	22°♃53'32 0°♄	1.35391 AU
superior conj	3507 May 10 08:03	19°♄26'18	0°-30'-13	superior conj	3508 Apr 23 03:37	3°♄15'36	0°-59'-2
minimum elong	3507 May 10 09:37	19°♄34'32	0°29'54	minimum elong	3508 Apr 23 06:44	3°♄31'24	0°58'29
asc. node	3507 May 13 06:26	25°♄38'33		asc. node	3508 Apr 29 03:29	15°♄36'05	
evening rise	3507 May 15 07:38	0°♂		evening rise	3508 May 01 00:45	19°♄29'21	
	3507 May 31 09:49	0°♄			3508 May 06 07:45	0°♂	
evening max el	3507 Jun 07 02:35	8°♄07'11	21°45'22	evening max el	3508 May 19 06:22	19°♂07'35	20°22'59
retrograde	3507 Jun 19 14:09	14°♄16'43		retrograde	3508 May 30 03:33	24°♂25'54	
desc. node	3507 Jun 19 14:19	14°♄16'43		evening set	3508 Jun 01 03:49	24°♂15'47	
evening set	3507 Jun 22 04:47	14°♄01'23		desc. node	3508 Jun 05 11:22	22°♂53'35	
min. Earth dist.	3507 Jul 01 05:45	10°♄09'47	0.54912 AU	inferior conj	3508 Jun 10 07:32	20°♂17'48	-1°-25'-35
inferior conj	3507 Jul 01 13:08	9°♄59'28	-3°-19'-48	minimum elong	3508 Jun 10 03:30	20°♂23'42	1°24'07
minimum elong	3507 Jul 01 04:56	10°♄10'56	3°17'22	min. Earth dist.	3508 Jun 11 17:59	19°♂27'30	0.55036 AU
morning rise	3507 Jul 10 06:20	6°♄07'09		morning rise	3508 Jun 19 01:24	16°♂05'51	
direct	3507 Jul 13 12:35	5°♄43'51		direct	3508 Jun 22 22:49	15°♂33'08	
morning max el	3507 Jul 25 16:47	11°♄26'53	21°51'10	morning max el	3508 Jul 06 10:01	22°♂05'54	23°32'35
	3507 Aug 08 03:09	0°♂			3508 Jul 13 07:55	0°♄	
asc. node	3507 Aug 09 05:39	2°♂01'00		asc. node	3508 Jul 26 02:42	21°♄25'18	
morning set	3507 Aug 15 14:27	14°♂39'09		morning set	3508 Jul 30 01:53	29°♄33'01	
					3508 Jul 30 07:00	0°♂	
superior conj	3507 Aug 22 21:03	0°♂00'20	1°41'58	superior conj	3508 Aug 06 03:25	14°♂44'15	1°33'11
minimum elong	3507 Aug 22 19:55	29°♂54'23	1°41'56	minimum elong	3508 Aug 06 01:26	14°♂33'32	1°33'00
	3507 Aug 22 21:00	0°♂		max. Earth dist.	3508 Aug 08 13:06	19°♂52'22	1.33451 AU
max. Earth dist.	3507 Aug 26 14:37	7°♂42'56	1.34733 AU		3508 Aug 13 10:44	0°♂	
evening rise	3507 Aug 31 02:28	16°♂36'26		evening rise	3508 Aug 13 17:25	0°♂33'29	
	3507 Sep 07 10:06	0°♄			3508 Aug 30 10:06	0°♄	
desc. node	3507 Sep 15 13:39	13°♄20'38		desc. node	3508 Sep 01 10:40	3°♄02'10	
	3507 Sep 27 12:41	0°♂		evening max el	3508 Sep 16 16:23	21°♄49'26	27°22'36
evening max el	3507 Oct 05 04:41	8°♂28'56	26°53'07	retrograde	3508 Sep 30 05:20	29°♄07'42	
retrograde	3507 Oct 18 07:50	15°♂44'54		evening set	3508 Oct 07 07:06	26°♄27'37	
evening set	3507 Oct 25 00:25	13°♂04'41		min. Earth dist.	3508 Oct 11 00:57	23°♄03'36	0.64226 AU
min. Earth dist.	3507 Oct 29 00:25	9°♂05'33	0.65669 AU	inferior conj	3508 Oct 13 10:59	20°♄30'32	-2°-47'-23
inferior conj	3507 Oct 30 22:04	6°♂53'16	-1°-46'-45	minimum elong	3508 Oct 13 15:37	20°♄18'19	2°45'45
minimum elong	3507 Oct 31 01:01	6°♂44'41	1°45'34	morning rise	3508 Oct 20 02:22	15°♄05'02	
asc. node	3507 Nov 05 04:53	1°♂44'37		asc. node	3508 Oct 22 01:55	14°♄34'59	
morning rise	3507 Nov 06 03:12	1°♂12'19		direct	3508 Oct 22 14:06	14°♄33'39	
direct	3507 Nov 08 21:14	0°♂30'43		morning max el	3508 Oct 29 02:24	17°♄59'22	17°55'06
morning max el	3507 Nov 15 10:06	4°♂02'51	18°16'45		3508 Nov 06 20:23	0°♂	
	3507 Dec 03 01:44	0°♄		morning set	3508 Nov 15 02:45	13°♂53'05	
morning set	3507 Dec 04 09:45	2°♄10'06			3508 Nov 24 17:16	0°♄	
desc. node	3507 Dec 12 12:56	15°♄16'50					
superior conj	3507 Dec 19 13:42	26°♄25'41	0°-46'-37	superior conj	3508 Nov 28 06:01	5°♄45'47	0°01'08
minimum elong	3507 Dec 19 07:48	26°♄02'27	0°45'51	minimum elong	3508 Nov 28 06:09	5°♄46'18	0°01'08
max. Earth dist.	3507 Dec 21 15:20	29°♄40'52	1.45206 AU	behind sun begin	3508 Nov 27 20:02	5°♄05'18	
	3507 Dec 21 20:13	0°♄		behind sun end	3508 Nov 28 16:16	6°♄27'13	
evening rise	3508 Jan 04 21:14	21°♄57'49		desc. node	3508 Nov 28 09:57	6°♄01'44	
	3508 Jan 10 00:42	0°♂		max. Earth dist.	3508 Dec 03 09:49	14°♄01'41	1.44609 AU
greatest brilliancy	3508 Jan 19 17:18	14°♂50'27	-0.7m		3508 Dec 13 15:19	0°♄	
evening max el	3508 Jan 28 13:36	26°♂21'40	19°21'25	evening rise	3508 Dec 14 09:35	1°♄10'18	
asc. node	3508 Feb 01 04:11	29°♂20'54			3509 Jan 02 18:05	0°♂	
	3508 Feb 02 11:35	0°♄		greatest brilliancy	3509 Jan 04 10:23	2°♂17'35	-0.5m
retrograde	3508 Feb 04 16:31	0°♄26'44		evening max el	3509 Jan 10 16:59	9°♂52'56	20°19'04
	3508 Feb 06 19:52	30°♂		asc. node	3509 Jan 18 01:12	14°♂29'45	
evening set	3508 Feb 08 02:19	29°♂18'45		retrograde	3509 Jan 18 14:37	14°♂31'28	
inferior conj	3508 Feb 13 15:54	23°♂23'51	3°18'22	evening set	3509 Jan 22 08:50	13°♂09'29	
minimum elong	3508 Feb 13 13:51	23°♂30'28	3°18'00	inferior conj	3509 Jan 27 19:26	7°♂01'19	2°50'51
min. Earth dist.	3508 Feb 14 23:12	21°♂42'24	0.66369 AU	minimum elong	3509 Jan 27 16:57	7°♂09'46	2°50'13
morning rise	3508 Feb 19 00:36	17°♂08'50		min. Earth dist.	3509 Jan 28 13:05	6°♂01'27	0.67287 AU
direct	3508 Feb 25 06:25	14°♂23'43		morning rise	3509 Feb 02 00:32	0°♂45'33	
morning max el	3508 Mar 08 19:44	21°♂51'17	26°02'54		3509 Feb 02 22:31	30°♂	
desc. node	3508 Mar 09 12:10	22°♂33'22		direct	3509 Feb 07 16:43	28°♄14'46	
	3508 Mar 15 22:39	0°♄			3509 Feb 13 00:41	0°♂	
	3508 Apr 05 05:34	0°♃		morning max el	3509 Feb 19 04:26	5°♂06'44	24°41'12
morning set	3508 Apr 13 23:11	15°♃23'40		desc. node	3509 Feb 24 09:12	10°♂54'42	

	3509 Mar 10 08:57	0° H		morning max el	3510 Feb 01 13:24	18° Z 26'42	23°12'24
morning set	3509 Mar 27 04:23	27° H 18'33		greatest brilliancy	3510 Feb 06 15:29	24° Z 08'53	-0.2m
	3509 Mar 28 16:44	0° Y		desc. node	3510 Feb 11 06:12	0° \approx 02'06	
max. Earth dist.	3509 Mar 30 20:46	3° Y 55'23	1.37301 AU		3510 Feb 11 05:34	0° \approx	
					3510 Mar 03 12:08	0° H	
superior conj	3509 Apr 06 12:43	16° Y 30'25	-1°-26'-23	morning set	3510 Mar 08 08:47	7° H 58'36	
minimum elong	3509 Apr 06 17:03	16° Y 51'32	1°25'47	max. Earth dist.	3510 Mar 12 15:28	15° H 16'06	1.39456 AU
	3509 Apr 13 08:00	0° B					
evening rise	3509 Apr 15 02:41	3° B 33'26		superior conj	3510 Mar 20 07:14	28° H 59'39	-1°-49'-27
asc. node	3509 Apr 16 00:31	5° B 21'57		minimum elong	3510 Mar 20 11:45	29° H 20'32	1°49'04
	3509 May 01 02:41	0° II			3510 Mar 20 20:15	0° Y	
evening max el	3509 May 01 22:22	0° II 49'53	19°19'11	evening rise	3510 Mar 29 20:08	17° Y 07'28	
retrograde	3509 May 11 02:33	5° II 17'16		asc. node	3510 Apr 02 21:32	24° Y 50'18	
evening set	3509 May 13 02:48	5° II 05'22			3510 Apr 05 17:46	0° B	
inferior conj	3509 May 21 14:21	0° II 57'09	0°30'31	evening max el	3510 Apr 15 00:25	13° B 09'40	18°35'31
minimum elong	3509 May 21 15:37	0° II 55'03	0°30'03	retrograde	3510 Apr 22 19:21	16° B 59'09	
desc. node	3509 May 23 08:23	29° B 47'33		evening set	3510 Apr 25 01:18	16° B 41'07	
	3509 May 23 00:50	30° R B		inferior conj	3510 May 02 17:25	12° B 14'03	2°01'53
min. Earth dist.	3509 May 24 08:45	29° B 08'01	0.56097 AU	minimum elong	3510 May 02 21:05	12° B 06'58	2°00'49
morning rise	3509 May 30 00:21	26° B 11'28		min. Earth dist.	3510 May 06 02:45	9° B 38'29	0.57866 AU
direct	3509 Jun 03 20:11	25° B 18'03		desc. node	3510 May 10 05:25	7° B 03'22	
	3509 Jun 15 03:29	0° II		morning rise	3510 May 10 12:26	6° B 54'47	
morning max el	3509 Jun 18 00:10	2° II 30'26	25°13'22	direct	3510 May 16 07:50	5° B 29'43	
	3509 Jul 07 07:46	0° S		morning max el	3510 May 30 16:49	13° B 06'53	26°38'02
asc. node	3509 Jul 12 23:45	11° S 09'02			3510 Jun 13 00:24	0° II	
morning set	3509 Jul 14 13:36	14° S 27'06		morning set	3510 Jun 29 00:00	29° II 15'49	
					3510 Jun 29 08:22	0° S	
superior conj	3509 Jul 21 13:24	29° S 37'39	1°19'15	asc. node	3510 Jun 29 20:47	1° S 05'47	
minimum elong	3509 Jul 21 11:04	29° S 24'50	1°18'55				
	3509 Jul 21 17:30	0° Q		superior conj	3510 Jul 06 01:02	14° S 33'37	1°00'57
max. Earth dist.	3509 Jul 22 19:10	2° Q 20'11	1.32593 AU	minimum elong	3510 Jul 05 22:49	14° S 21'24	1°00'32
evening rise	3509 Jul 28 17:23	14° Q 56'19		max. Earth dist.	3510 Jul 06 05:57	15° S 00'42	1.32142 AU
	3509 Aug 05 11:32	0° M		evening rise	3510 Jul 12 23:29	29° S 35'47	
desc. node	3509 Aug 19 07:40	22° M 06'30			3510 Jul 13 04:07	0° Q	
	3509 Aug 25 14:00	0° A			3510 Jul 29 16:36	0° M	
evening max el	3509 Aug 30 01:28	4° A 41'19	27°22'27	desc. node	3510 Aug 06 04:42	10° M 18'25	
retrograde	3509 Sep 12 20:26	11° A 57'00		evening max el	3510 Aug 12 05:25	16° M 52'44	26°49'10
evening set	3509 Sep 20 00:57	9° A 28'44		retrograde	3510 Aug 26 03:43	24° M 04'07	
min. Earth dist.	3509 Sep 23 15:29	6° A 33'56	0.62458 AU	evening set	3510 Sep 02 01:37	22° M 00'38	
inferior conj	3509 Sep 26 13:04	3° A 50'00	-3°-45'-10	min. Earth dist.	3510 Sep 05 19:31	19° M 23'21	0.60457 AU
minimum elong	3509 Sep 26 18:47	3° A 36'30	3°43'33	inferior conj	3510 Sep 09 01:00	16° M 43'20	-4°-34'-4
	3509 Oct 01 02:57	30° R M		minimum elong	3510 Sep 09 06:19	16° M 32'16	4°33'04
morning rise	3509 Oct 03 15:27	28° M 43'06		morning rise	3510 Sep 16 14:15	11° M 58'00	
direct	3509 Oct 05 23:42	28° M 18'26		direct	3510 Sep 18 22:15	11° M 37'07	
asc. node	3509 Oct 08 22:56	28° M 59'09		asc. node	3510 Sep 25 19:58	14° M 48'48	
	3509 Oct 10 16:35	0° A		morning max el	3510 Sep 26 07:03	15° M 14'55	18°06'37
morning max el	3509 Oct 12 18:27	1° A 46'02	17°51'19		3510 Oct 06 11:57	0° A	
morning set	3509 Oct 28 18:00	26° A 39'48		morning set	3510 Oct 12 01:23	10° A 12'45	
	3509 Oct 30 14:51	0° M					
				superior conj	3510 Oct 21 19:55	28° A 13'22	1°13'36
superior conj	3509 Nov 08 23:59	16° M 21'36	0°42'46	minimum elong	3510 Oct 22 00:04	28° A 31'55	1°13'07
minimum elong	3509 Nov 09 03:41	16° M 37'18	0°42'16		3510 Oct 22 19:51	0° M	
desc. node	3509 Nov 15 06:57	26° M 48'59		max. Earth dist.	3510 Oct 29 11:22	11° M 28'48	1.41603 AU
max. Earth dist.	3509 Nov 16 00:54	28° M 01'56	1.43357 AU	desc. node	3510 Nov 02 03:59	17° M 35'34	
	3509 Nov 17 06:07	0° J		evening rise	3510 Nov 03 20:21	20° M 19'09	
evening rise	3509 Nov 23 19:58	10° J 24'10			3510 Nov 09 23:55	0° J	
	3509 Dec 06 19:40	0° Z			3510 Dec 01 04:16	0° Z	
greatest brilliancy	3509 Dec 19 16:15	17° Z 45'08	-0.4m	greatest brilliancy	3510 Dec 02 06:30	1° Z 20'36	-0.3m
evening max el	3509 Dec 24 14:53	23° Z 25'26	21°28'54	evening max el	3510 Dec 07 07:54	7° Z 00'41	22°46'33
retrograde	3510 Jan 02 12:08	28° Z 42'08		retrograde	3510 Dec 17 07:27	12° Z 56'09	
asc. node	3510 Jan 04 22:12	28° Z 10'11		evening set	3510 Dec 21 23:54	11° Z 02'30	
evening set	3510 Jan 06 16:34	27° Z 04'53		asc. node	3510 Dec 22 19:13	10° Z 19'28	
inferior conj	3510 Jan 12 02:02	20° Z 46'42	2°14'32	inferior conj	3510 Dec 27 09:47	4° Z 37'57	1°30'57
minimum elong	3510 Jan 11 23:36	20° Z 55'06	2°13'45	minimum elong	3510 Dec 27 07:53	4° Z 44'33	1°30'14
min. Earth dist.	3510 Jan 12 07:28	20° Z 27'54	0.67813 AU	min. Earth dist.	3510 Dec 27 03:59	4° Z 58'01	0.67968 AU
morning rise	3510 Jan 17 06:20	14° Z 32'06			3510 Dec 31 00:41	30° R J	
direct	3510 Jan 22 07:43	12° Z 21'44		morning rise	3511 Jan 01 15:48	28° J 26'33	

direct	3511 Jan 06 02:25	26°♄39'05		morning rise	3511 Dec 17 02:51	12°♄25'51	
	3511 Jan 13 01:12	0°♄		direct	3511 Dec 20 23:41	11°♄00'50	
morning max el	3511 Jan 15 02:19	1°♄54'49	21°46'00	morning max el	3511 Dec 28 22:19	15°♄34'03	20°28'51
greatest brilliancy	3511 Jan 19 21:15	7°♄18'53	-0.4m	greatest brilliancy	3512 Jan 04 02:54	22°♄52'00	-0.5m
desc. node	3511 Jan 29 03:14	19°♄43'01			3512 Jan 09 07:28	0°♄	
	3511 Feb 05 04:09	0°♄		desc. node	3512 Jan 16 00:16	9°♄47'43	
morning set	3511 Feb 16 08:17	17°♄15'58		morning set	3512 Jan 26 08:39	25°♄32'39	
max. Earth dist.	3511 Feb 22 14:34	27°♄27'55	1.41585 AU		3512 Jan 29 05:17	0°♄	
	3511 Feb 24 02:59	0°♄		max. Earth dist.	3512 Feb 04 21:26	10°♄35'46	1.43387 AU
superior conj	3511 Mar 02 06:22	10°♄32'12	-2°-4'-14	superior conj	3512 Feb 11 05:12	20°♄56'47	-2°-5'-36
minimum elong	3511 Mar 02 08:55	10°♄43'21	2°04'10	minimum elong	3512 Feb 11 02:53	20°♄47'11	2°05'33
evening rise	3511 Mar 13 01:37	0°♄03'48			3512 Feb 16 13:58	0°♄	
	3511 Mar 13 00:48	0°♄		evening rise	3512 Feb 23 14:58	12°♄13'31	
asc. node	3511 Mar 20 18:33	13°♄55'20			3512 Mar 05 00:36	0°♄	
evening max el	3511 Mar 29 09:09	25°♄58'27	18°11'50	asc. node	3512 Mar 06 15:35	2°♄29'28	
retrograde	3511 Apr 05 06:48	29°♄26'53		evening max el	3512 Mar 11 21:15	9°♄07'14	18°07'42
evening set	3511 Apr 07 18:53	29°♄00'07		retrograde	3512 Mar 18 09:00	12°♄30'11	
inferior conj	3511 Apr 14 17:34	24°♄11'35	3°00'41	evening set	3512 Mar 21 02:37	11°♄53'18	
minimum elong	3511 Apr 14 20:47	24°♄04'19	3°00'03	inferior conj	3512 Mar 27 11:40	6°♄43'58	3°30'40
min. Earth dist.	3511 Apr 18 02:13	21°♄11'35	0.59993 AU	minimum elong	3512 Mar 27 13:12	6°♄40'01	3°30'31
morning rise	3511 Apr 21 19:06	18°♄26'59		min. Earth dist.	3512 Mar 30 09:54	3°♄44'09	0.62139 AU
desc. node	3511 Apr 27 02:27	16°♄30'59		morning rise	3512 Apr 02 21:14	0°♄43'25	
direct	3511 Apr 28 07:50	16°♄26'49			3512 Apr 03 23:09	30°♄	
morning max el	3511 May 12 15:30	24°♄17'48	27°33'07	direct	3512 Apr 09 17:58	28°♄13'55	
	3511 May 17 19:45	0°♄		desc. node	3512 Apr 12 23:29	28°♄44'00	
	3511 Jun 06 06:14	0°♄			3512 Apr 15 23:06	0°♄	
morning set	3511 Jun 13 07:22	13°♄53'41		morning max el	3512 Apr 23 20:28	6°♄11'44	27°51'25
asc. node	3511 Jun 16 17:50	21°♄10'38			3512 May 11 20:23	0°♄	
max. Earth dist.	3511 Jun 19 17:45	27°♄42'40	1.32090 AU	morning set	3512 May 27 09:46	28°♄14'26	
					3512 May 28 06:25	0°♄	
superior conj	3511 Jun 20 12:35	29°♄26'14	0°38'53	max. Earth dist.	3512 Jun 02 02:37	10°♄13'03	1.32438 AU
minimum elong	3511 Jun 20 10:57	29°♄17'15	0°38'32	asc. node	3512 Jun 02 14:53	11°♄19'17	
	3511 Jun 20 18:43	0°♄					
evening rise	3511 Jun 27 09:24	14°♄24'11		superior conj	3512 Jun 03 22:20	14°♄09'56	0°13'44
	3511 Jul 05 04:59	0°♄		minimum elong	3512 Jun 03 21:41	14°♄06'27	0°13'36
desc. node	3511 Jul 24 01:44	27°♄16'14		behind sun begin	3512 Jun 03 19:00	13°♄51'48	
evening max el	3511 Jul 25 02:02	28°♄15'50	25°44'01	behind sun end	3512 Jun 04 00:23	14°♄21'05	
	3511 Jul 27 00:20	0°♄		evening rise	3512 Jun 10 21:06	29°♄14'51	
retrograde	3511 Aug 08 01:30	5°♄23'05			3512 Jun 11 05:37	0°♄	
evening set	3511 Aug 14 04:13	3°♄54'51			3512 Jun 28 01:37	0°♄	
min. Earth dist.	3511 Aug 18 14:11	1°♄17'57	0.58399 AU	evening max el	3512 Jul 05 16:19	8°♄57'39	24°15'44
	3511 Aug 20 10:07	30°♄		desc. node	3512 Jul 09 22:45	12°♄30'57	
inferior conj	3511 Aug 21 19:11	29°♄00'07	-5°-4'-7	retrograde	3512 Jul 19 12:16	15°♄56'17	
minimum elong	3511 Aug 21 21:30	28°♄55'56	5°03'59	evening set	3512 Jul 24 06:54	15°♄05'30	
morning rise	3511 Aug 29 18:16	24°♄38'19		min. Earth dist.	3512 Jul 30 03:01	12°♄10'28	0.56559 AU
direct	3511 Sep 01 05:22	24°♄18'57		inferior conj	3512 Aug 01 17:18	10°♄32'59	-5°-1'-7
morning max el	3511 Sep 09 12:59	28°♄16'41	18°42'21	minimum elong	3512 Aug 01 14:01	10°♄38'09	5°00'52
	3511 Sep 11 04:46	0°♄		morning rise	3512 Aug 10 00:43	6°♄32'11	
asc. node	3511 Sep 12 17:01	1°♄48'56		direct	3512 Aug 12 17:18	6°♄12'57	
morning set	3511 Sep 25 20:01	24°♄17'45		morning max el	3512 Aug 22 09:18	10°♄42'46	19°39'34
	3511 Sep 28 18:10	0°♄		asc. node	3512 Aug 29 14:06	19°♄44'59	
					3512 Sep 04 11:25	0°♄	
superior conj	3511 Oct 04 12:53	11°♄06'49	1°33'12	morning set	3512 Sep 08 22:25	8°♄45'24	
minimum elong	3511 Oct 04 15:46	11°♄20'25	1°32'58				
max. Earth dist.	3511 Oct 11 17:15	24°♄12'56	1.39565 AU	superior conj	3512 Sep 16 21:30	24°♄47'03	1°42'53
	3511 Oct 15 01:23	0°♄		minimum elong	3512 Sep 16 22:39	24°♄52'43	1°42'51
evening rise	3511 Oct 15 19:09	1°♄15'21			3512 Sep 19 13:35	0°♄	
desc. node	3511 Oct 20 01:01	8°♄17'18		max. Earth dist.	3512 Sep 22 21:42	6°♄19'40	1.37503 AU
	3511 Nov 03 08:08	0°♄		evening rise	3512 Sep 26 17:00	13°♄15'39	
evening max el	3511 Nov 19 21:31	20°♄38'43	24°06'26	desc. node	3512 Oct 05 22:03	28°♄50'13	
retrograde	3511 Nov 30 23:23	27°♄09'06			3512 Oct 06 15:32	0°♄	
evening set	3511 Dec 06 05:16	24°♄58'56			3512 Oct 28 07:51	0°♄	
asc. node	3511 Dec 09 16:15	21°♄13'40		evening max el	3512 Nov 01 09:44	4°♄19'35	25°21'45
min. Earth dist.	3511 Dec 11 00:18	19°♄28'00	0.67767 AU	retrograde	3512 Nov 13 11:04	11°♄16'34	
inferior conj	3511 Dec 11 16:53	18°♄31'58	0°41'13	evening set	3512 Nov 19 07:00	8°♄51'22	
minimum elong	3511 Dec 11 15:54	18°♄35'15	0°40'49	min. Earth dist.	3512 Nov 23 18:07	3°♄55'12	0.67221 AU

inferior conj	3512 Nov 24 21:33	2°♊26'28	0°-13'-31		3513 Sep 30 01:55	0°♍	
minimum elong	3512 Nov 24 21:53	2°♊25'21	0°13'23	evening max el	3513 Oct 14 22:04	18°♍00'03	26°25'10
transit middle	3512 Nov 24 21:53	2°♊25'21	0°13'23	retrograde	3513 Oct 27 17:47	25°♍12'35	
transit begin	3512 Nov 24 20:19	2°♊30'26		evening set	3513 Nov 03 03:13	22°♍36'14	
transit end	3512 Nov 24 23:27	2°♊20'16		min. Earth dist.	3513 Nov 07 07:08	18°♍15'57	0.66328 AU
asc. node	3512 Nov 25 13:19	1°♊35'43		inferior conj	3513 Nov 08 21:53	16°♍18'16	-1°-12'-2
	3512 Nov 26 20:10	30°♋♍		minimum elong	3513 Nov 08 23:50	16°♍12'19	1°11'14
morning rise	3512 Nov 30 13:32	26°♍27'53		asc. node	3513 Nov 12 10:22	12°♍22'33	
direct	3512 Dec 03 22:12	25°♍22'44		morning rise	3513 Nov 14 21:44	10°♍29'53	
morning max el	3512 Dec 11 02:16	29°♍24'09	19°25'06	direct	3513 Nov 17 20:23	9°♍40'53	
	3512 Dec 11 16:14	0°♊		morning max el	3513 Nov 24 12:54	13°♍21'12	18°36'54
greatest brilliancy	3512 Dec 20 00:21	10°♊43'35	-0.7m		3513 Dec 06 16:00	0°♊	
desc. node	3513 Jan 01 21:18	0°♋09'32		morning set	3513 Dec 15 03:00	13°♊22'24	
	3513 Jan 01 18:49	0°♋		desc. node	3513 Dec 19 18:20	20°♊43'35	
morning set	3513 Jan 04 07:07	3°♋53'01			3513 Dec 25 15:30	0°♋	
max. Earth dist.	3513 Jan 17 10:54	24°♋26'12	1.44640 AU				
	3513 Jan 20 22:58	0°♌		superior conj	3513 Dec 31 06:07	8°♋48'28	-1°-13'00
				minimum elong	3513 Dec 30 21:35	8°♋14'56	1°12'02
superior conj	3513 Jan 21 02:16	0°♌13'11	-1°-48'-42	max. Earth dist.	3513 Dec 31 04:32	8°♋42'13	1.45207 AU
minimum elong	3513 Jan 20 18:22	29°♋41'39	1°48'07		3514 Jan 13 16:38	0°♌	
evening rise	3513 Feb 04 07:51	23°♌28'36		evening rise	3514 Jan 16 01:29	3°♌46'20	
	3513 Feb 08 05:34	0°♋			3514 Feb 01 23:33	0°♋	
asc. node	3513 Feb 21 12:38	20°♋22'59		evening max el	3514 Feb 06 20:19	5°♋56'43	18°55'11
evening max el	3513 Feb 23 09:48	22°♋28'26	18°22'28	asc. node	3514 Feb 08 09:40	7°♋24'07	
retrograde	3513 Mar 01 21:12	25°♋59'01		retrograde	3514 Feb 13 15:31	9°♋46'16	
evening set	3513 Mar 04 20:26	25°♋10'58		evening set	3514 Feb 16 21:06	8°♋45'58	
inferior conj	3513 Mar 10 19:32	19°♋42'32	3°38'22	inferior conj	3514 Feb 22 13:25	3°♋00'18	3°29'25
minimum elong	3513 Mar 10 19:19	19°♋43'10	3°38'21	minimum elong	3514 Feb 22 11:53	3°♋05'06	3°29'14
min. Earth dist.	3513 Mar 13 03:03	17°♋03'33	0.64071 AU	min. Earth dist.	3514 Feb 24 05:23	0°♋55'37	0.65648 AU
morning rise	3513 Mar 16 16:32	13°♋33'10			3514 Feb 24 23:47	30°♋♌	
direct	3513 Mar 23 12:33	10°♋46'32		morning rise	3514 Feb 28 01:36	26°♌46'38	
desc. node	3513 Mar 30 20:31	13°♋21'33		direct	3514 Mar 06 14:06	23°♌57'05	
morning max el	3513 Apr 06 05:19	18°♋42'42	27°32'47	desc. node	3514 Mar 17 17:32	29°♌49'04	
	3513 Apr 15 18:19	0°♎			3514 Mar 17 22:16	0°♋	
	3513 May 04 18:28	0°♏		morning max el	3514 Mar 19 15:11	1°♋39'11	26°42'40
morning set	3513 May 11 04:31	12°♏08'55			3514 Apr 09 21:05	0°♎	
max. Earth dist.	3513 May 16 04:17	22°♏17'19	1.33220 AU	morning set	3514 Apr 24 12:23	25°♎27'30	
					3514 Apr 26 20:58	0°♏	
superior conj	3513 May 19 04:21	28°♏37'48	0°-13'-44	max. Earth dist.	3514 Apr 28 19:23	3°♏48'58	1.34467 AU
minimum elong	3513 May 19 05:02	28°♏41'29	0°13'36				
behind sun begin	3513 May 19 02:12	28°♏26'18		superior conj	3514 May 03 04:30	12°♏43'45	0°-42'-28
behind sun end	3513 May 19 07:53	28°♏56'41		minimum elong	3514 May 03 06:44	12°♏55'18	0°42'02
	3513 May 19 19:44	0°♐		asc. node	3514 May 07 08:59	21°♏29'26	
asc. node	3513 May 20 11:56	1°♐26'47		evening rise	3514 May 10 18:14	28°♏35'05	
evening rise	3513 May 26 08:40	14°♐00'20			3514 May 11 10:38	0°♐	
	3513 Jun 03 10:47	0°♑		evening max el	3514 May 30 03:33	0°♑04'17	21°08'20
evening max el	3513 Jun 17 06:10	19°♑22'45	22°38'58		3514 May 30 01:48	0°♑	
desc. node	3513 Jun 26 19:47	25°♑26'18		retrograde	3514 Jun 10 23:58	5°♑52'32	
retrograde	3513 Jun 30 10:44	25°♑56'26		evening set	3514 Jun 13 06:10	5°♑40'41	
evening set	3513 Jul 03 17:12	25°♑32'56		desc. node	3514 Jun 13 16:47	5°♑35'41	
min. Earth dist.	3513 Jul 11 14:04	22°♑05'38	0.55276 AU	inferior conj	3514 Jun 22 14:33	1°♑42'48	-2°-33'-54
inferior conj	3513 Jul 12 20:52	21°♑21'39	-4°-11'-3	minimum elong	3514 Jun 22 07:35	1°♑52'36	2°31'34
minimum elong	3513 Jul 12 12:53	21°♑33'04	4°09'15	min. Earth dist.	3514 Jun 23 01:37	1°♑27'12	0.54851 AU
morning rise	3513 Jul 21 11:06	17°♑30'56			3514 Jun 25 17:21	30°♋♐	
direct	3513 Jul 24 11:06	17°♑10'12		morning rise	3514 Jul 01 08:51	27°♐44'06	
morning max el	3513 Aug 04 17:58	22°♑24'47	20°57'51	direct	3514 Jul 04 20:44	27°♐17'43	
	3513 Aug 11 04:53	0°♑			3514 Jul 13 08:05	0°♑	
asc. node	3513 Aug 16 11:10	8°♑23'14		morning max el	3514 Jul 17 15:36	3°♑23'04	22°33'16
morning set	3513 Aug 24 05:54	23°♑27'46		asc. node	3514 Aug 03 08:12	27°♑33'21	
	3513 Aug 27 09:18	0°♒			3514 Aug 04 14:26	0°♑	
				morning set	3514 Aug 08 16:23	8°♑19'02	
superior conj	3513 Aug 31 17:10	8°♒59'55	1°44'19				
minimum elong	3513 Aug 31 16:45	8°♒57'46	1°44'19	superior conj	3514 Aug 15 20:25	23°♑35'03	1°38'56
max. Earth dist.	3513 Sep 05 06:20	18°♒10'18	1.35647 AU	minimum elong	3514 Aug 15 18:52	23°♑26'46	1°38'49
evening rise	3513 Sep 09 10:17	26°♒10'50			3514 Aug 18 21:45	0°♒	
	3513 Sep 11 11:51	0°♓		max. Earth dist.	3514 Aug 18 23:38	0°♒09'46	1.34143 AU
desc. node	3513 Sep 22 19:06	19°♓08'53		evening rise	3514 Aug 23 18:33	9°♒49'02	

	3514 Sep 03 22:26	0°♄			3515 Aug 10 14:35	0°♍	
desc. node	3514 Sep 09 16:07	9°♄06'32		desc. node	3515 Aug 27 13:08	28°♍34'15	
	3514 Sep 25 21:21	0°♍			3515 Aug 28 13:18	0°♄	
evening max el	3514 Sep 27 10:36	1°♍32'05	27°09'02	evening max el	3515 Sep 09 21:45	14°♄43'25	27°26'28
retrograde	3514 Oct 10 18:43	8°♍49'42		retrograde	3515 Sep 23 13:21	21°♄59'57	
evening set	3514 Oct 17 15:36	6°♍08'42		evening set	3515 Sep 30 17:18	19°♄23'37	
min. Earth dist.	3514 Oct 21 12:55	2°♍24'33	0.65091 AU	min. Earth dist.	3515 Oct 04 09:23	16°♄12'57	0.63513 AU
inferior conj	3514 Oct 23 15:42	0°♍02'43	-2°-12'-37	inferior conj	3515 Oct 07 00:26	13°♄34'10	-3°-12'-32
minimum elong	3514 Oct 23 19:24	29°♄52'23	2°11'12	minimum elong	3515 Oct 07 05:38	13°♄21'02	3°10'50
	3514 Oct 23 16:41	30°♌♄		morning rise	3515 Oct 13 20:26	8°♄15'57	
morning rise	3514 Oct 30 01:02	24°♄27'38		direct	3515 Oct 16 06:26	7°♄47'41	
asc. node	3514 Oct 30 07:25	24°♄20'37		asc. node	3515 Oct 17 04:26	7°♄51'50	
direct	3514 Nov 01 16:02	23°♄50'49		morning max el	3515 Oct 22 20:25	11°♄12'59	17°51'14
morning max el	3514 Nov 08 03:52	27°♄19'25	18°05'21		3515 Nov 04 12:59	0°♍	
	3514 Nov 10 12:57	0°♍		morning set	3515 Nov 08 07:45	6°♍33'28	
morning set	3514 Nov 26 04:24	24°♍20'05					
	3514 Nov 29 14:46	0°♌		superior conj	3515 Nov 20 14:40	27°♍26'46	0°19'58
desc. node	3514 Dec 06 15:21	11°♌25'26		minimum elong	3515 Nov 20 16:45	27°♍35'21	0°19'40
					3515 Nov 22 03:59	0°♌	
superior conj	3514 Dec 10 12:04	17°♌35'57	0°-26'-9	desc. node	3515 Nov 23 12:24	2°♌12'04	
minimum elong	3514 Dec 10 08:47	17°♌22'55	0°25'41	max. Earth dist.	3515 Nov 26 17:47	7°♌23'54	1.44155 AU
max. Earth dist.	3514 Dec 13 23:50	23°♌07'19	1.45037 AU	evening rise	3515 Dec 06 07:26	22°♌24'03	
	3514 Dec 18 09:06	0°♎			3515 Dec 11 06:49	0°♎	
evening rise	3514 Dec 26 21:53	13°♎15'22		greatest brilliancy	3515 Dec 29 13:56	26°♎24'16	-0.5m
	3515 Jan 06 19:29	0°♏			3516 Jan 01 11:14	0°♏	
greatest brilliancy	3515 Jan 13 14:33	10°♏00'57	-0.6m	evening max el	3516 Jan 04 03:53	2°♏59'21	20°47'29
evening max el	3515 Jan 21 02:46	19°♏27'32	19°44'20	retrograde	3516 Jan 12 10:51	7°♏53'20	
asc. node	3515 Jan 26 06:42	23°♏18'03		asc. node	3516 Jan 13 03:42	7°♏50'37	
retrograde	3515 Jan 28 12:49	23°♏45'34		evening set	3516 Jan 16 09:18	6°♏24'47	
evening set	3515 Feb 01 02:03	22°♏31'46		inferior conj	3516 Jan 21 19:12	0°♏11'54	2°36'23
inferior conj	3515 Feb 06 14:08	16°♏31'08	3°07'50	minimum elong	3516 Jan 21 16:41	0°♏20'32	2°35'40
minimum elong	3515 Feb 06 11:50	16°♏38'44	3°07'23		3516 Jan 21 22:41	30°♌♎	
min. Earth dist.	3515 Feb 07 15:29	15°♏07'12	0.66811 AU	min. Earth dist.	3516 Jan 22 07:26	29°♎29'59	0.67562 AU
morning rise	3515 Feb 11 20:57	10°♏15'46		morning rise	3516 Jan 26 23:40	23°♎56'40	
direct	3515 Feb 17 21:21	7°♏35'37		direct	3516 Feb 01 09:38	21°♎34'14	
morning max el	3515 Mar 02 00:12	14°♏49'11	25°29'39	morning max el	3516 Feb 12 08:43	28°♎06'26	24°03'44
desc. node	3515 Mar 04 14:33	17°♏35'15			3516 Feb 14 03:56	0°♏	
	3515 Mar 14 10:40	0°♐		desc. node	3516 Feb 19 11:35	6°♏17'46	
	3515 Apr 02 17:14	0°♑		morning set	3516 Mar 07 04:02	0°♐	
morning set	3515 Apr 07 04:50	7°♑56'40		max. Earth dist.	3516 Mar 19 00:11	19°♐21'01	
max. Earth dist.	3515 Apr 10 23:08	14°♑54'48	1.36164 AU		3516 Mar 22 19:26	26°♐01'35	1.38205 AU
					3516 Mar 25 00:14	0°♑	
superior conj	3515 Apr 16 20:02	26°♑19'37	-1°-10'-57	superior conj	3516 Mar 29 23:27	9°♑16'05	-1°-36'-54
minimum elong	3515 Apr 16 23:45	26°♑38'07	1°10'21	minimum elong	3516 Mar 30 04:03	9°♑38'01	1°36'22
	3515 Apr 18 15:57	0°♒		evening rise	3516 Apr 07 22:20	26°♑44'28	
asc. node	3515 Apr 24 06:01	11°♒22'40			3516 Apr 09 14:19	0°♒	
evening rise	3515 Apr 24 23:38	12°♒52'10		asc. node	3516 Apr 10 03:02	1°♒01'43	
	3515 May 04 01:04	0°♓		evening max el	3516 Apr 24 09:14	23°♒21'08	18°58'06
evening max el	3515 May 12 12:41	11°♓22'33	19°53'25	retrograde	3516 May 02 21:58	27°♒30'47	
retrograde	3515 May 22 15:37	16°♓17'43		evening set	3516 May 05 00:22	27°♒16'39	
evening set	3515 May 24 14:55	16°♓07'21		inferior conj	3516 May 13 03:34	23°♒00'36	1°13'09
desc. node	3515 May 31 13:46	13°♓16'43		minimum elong	3516 May 13 06:17	22°♒55'49	1°12'15
inferior conj	3515 Jun 02 12:40	12°♓06'34	0°-34'-35	min. Earth dist.	3516 May 16 06:15	20°♒49'52	0.56779 AU
minimum elong	3515 Jun 02 11:04	12°♓08'59	0°34'00	desc. node	3516 May 17 10:48	20°♒03'10	
min. Earth dist.	3515 Jun 04 14:35	10°♓50'37	0.55390 AU	morning rise	3516 May 21 07:51	18°♒00'06	
morning rise	3515 Jun 11 04:20	7°♓41'35		direct	3516 May 26 13:51	16°♒54'36	
direct	3515 Jun 15 10:58	7°♓01'26		morning max el	3516 Jun 09 21:11	24°♒18'36	25°52'24
morning max el	3515 Jun 29 06:32	13°♓52'06	24°16'22		3516 Jun 15 02:04	0°♓	
	3515 Jul 11 19:54	0°♔			3516 Jul 03 16:36	0°♔	
asc. node	3515 Jul 21 05:15	17°♔07'08		asc. node	3516 Jul 07 02:17	6°♔57'20	
morning set	3515 Jul 24 04:10	23°♔14'10		morning set	3516 Jul 07 15:33	8°♔07'10	
	3515 Jul 27 07:53	0°♕					
superior conj	3515 Jul 31 04:36	8°♕24'11	1°27'52	superior conj	3516 Jul 14 15:30	23°♔19'38	1°12'00
minimum elong	3515 Jul 31 02:24	8°♕12'14	1°27'36	minimum elong	3516 Jul 14 13:09	23°♔06'45	1°11'37
max. Earth dist.	3515 Aug 02 01:57	12°♕29'12	1.33042 AU	max. Earth dist.	3516 Jul 15 10:39	25°♔04'45	1.32353 AU
evening rise	3515 Aug 07 13:46	23°♕58'55			3516 Jul 17 16:45	0°♕	

evening rise	3516 Jul 21 16:39	8°Ω29'59		superior conj	3517 Jun 29 03:20	8°☿15'23	0°52'01
	3516 Aug 02 00:08	0°♊		minimum elong	3517 Jun 29 01:19	8°☿04'15	0°51'38
desc. node	3516 Aug 13 10:09	17°♊18'49		max. Earth dist.	3517 Jun 28 22:18	7°☿47'34	1.32066 AU
evening max el	3516 Aug 22 04:52	27°♊19'15	27°12'18	evening rise	3517 Jul 06 00:39	23°☿14'17	
	3516 Aug 25 07:00	0°♊			3517 Jul 09 07:17	0°♊	
retrograde	3516 Sep 05 01:06	4°♊32'57			3517 Jul 27 04:58	0°♊	
evening set	3516 Sep 12 04:26	2°♊13'22		desc. node	3517 Jul 31 07:09	5°♊02'30	
	3516 Sep 15 04:07	30°♊		evening max el	3517 Aug 04 05:37	9°♊09'50	26°24'54
min. Earth dist.	3516 Sep 15 19:10	29°♊28'10	0.61634 AU	retrograde	3517 Aug 18 04:56	16°♊20'24	
inferior conj	3516 Sep 18 20:56	26°♊43'45	-4°-7'-26	evening set	3517 Aug 24 20:20	14°♊30'39	
minimum elong	3516 Sep 19 02:44	26°♊30'46	4°06'01	min. Earth dist.	3517 Aug 28 18:55	11°♊55'55	0.59578 AU
morning rise	3516 Sep 26 04:03	21°♊45'55		inferior conj	3517 Sep 01 01:43	9°♊22'36	-4°-49'-50
direct	3516 Sep 28 11:53	21°♊23'08		minimum elong	3517 Sep 01 06:08	9°♊13'56	4°49'15
asc. node	3516 Oct 03 01:28	22°♊54'14		morning rise	3517 Sep 08 19:24	4°♊47'31	
morning max el	3516 Oct 05 11:27	24°♊53'33	17°55'27	direct	3517 Sep 11 04:12	4°♊27'38	
	3516 Oct 09 16:36	0°♊		morning max el	3517 Sep 18 21:43	8°♊12'33	18°19'12
morning set	3516 Oct 21 06:33	19°♊41'52		asc. node	3517 Sep 19 22:32	9°♊15'50	
	3516 Oct 26 22:59	0°♊			3517 Oct 02 23:01	0°♊	
				morning set	3517 Oct 04 19:10	3°♊29'26	
superior conj	3516 Oct 31 20:10	8°♊36'38	0°57'16	superior conj	3517 Oct 14 01:44	20°♊56'38	1°23'13
minimum elong	3516 Nov 01 00:22	8°♊54'50	0°56'42	minimum elong	3517 Oct 14 05:29	21°♊13'43	1°22'50
max. Earth dist.	3516 Nov 08 07:13	21°♊12'16	1.42662 AU		3517 Oct 19 03:07	0°♊	
desc. node	3516 Nov 09 09:26	22°♊59'37		max. Earth dist.	3517 Oct 21 15:00	4°♊19'10	1.40755 AU
	3516 Nov 13 18:00	0°♊		evening rise	3517 Oct 26 07:29	12°♊10'32	
evening rise	3516 Nov 14 22:08	1°♊51'11		desc. node	3517 Oct 27 06:29	13°♊44'33	
	3516 Dec 03 19:14	0°♊			3517 Nov 06 16:21	0°♊	
greatest brilliancy	3516 Dec 12 05:45	11°♊10'54	-0.3m		3517 Nov 29 11:27	0°♊	
evening max el	3516 Dec 16 23:27	16°♊32'20	22°01'13	evening max el	3517 Nov 29 14:39	0°♊08'02	23°20'40
retrograde	3516 Dec 26 07:43	22°♊06'03		retrograde	3517 Dec 10 01:53	6°♊19'52	
asc. node	3516 Dec 30 00:43	20°♊52'03		evening set	3517 Dec 14 23:48	4°♊19'12	
evening set	3516 Dec 30 17:05	20°♊21'43		asc. node	3517 Dec 16 21:45	2°♊25'49	
inferior conj	3517 Jan 05 02:32	14°♊00'06	1°56'52		3517 Dec 18 20:51	30°♊	
minimum elong	3517 Jan 05 00:17	14°♊07'57	1°56'04	inferior conj	3517 Dec 20 10:15	27°♊52'52	1°10'33
min. Earth dist.	3517 Jan 05 03:01	13°♊58'27	0.67921 AU	minimum elong	3517 Dec 20 08:41	27°♊58'13	1°09'56
morning rise	3517 Jan 10 07:17	7°♊46'38		min. Earth dist.	3517 Dec 19 23:50	28°♊28'37	0.67920 AU
direct	3517 Jan 15 02:11	5°♊46'12		morning rise	3517 Dec 25 17:40	21°♊43'13	
morning max el	3517 Jan 24 19:06	11°♊30'09	22°34'56	direct	3517 Dec 29 22:10	20°♊05'33	
greatest brilliancy	3517 Jan 29 08:56	16°♊36'24	-0.3m	morning max el	3518 Jan 07 10:46	25°♊02'39	21°11'39
desc. node	3517 Feb 05 08:38	25°♊40'49			3518 Jan 11 20:21	0°♊	
	3517 Feb 08 10:52	0°♊		greatest brilliancy	3518 Jan 12 17:20	1°♊05'11	-0.4m
morning set	3517 Feb 27 16:33	29°♊26'22		desc. node	3518 Jan 23 05:41	15°♊32'44	
	3517 Feb 28 00:46	0°♊			3518 Feb 01 21:40	0°♊	
max. Earth dist.	3517 Mar 04 15:26	7°♊42'27	1.40376 AU	morning set	3518 Feb 07 04:31	8°♊12'13	
				max. Earth dist.	3518 Feb 14 17:07	20°♊16'17	1.42399 AU
superior conj	3517 Mar 12 10:22	21°♊22'33	-1°-57'-2		3518 Feb 20 13:12	0°♊	
minimum elong	3517 Mar 12 14:23	21°♊40'42	1°56'47	superior conj	3518 Feb 21 23:38	2°♊26'48	-2°-6'-48
	3517 Mar 17 02:57	0°♊		minimum elong	3518 Feb 22 00:27	2°♊30'18	2°06'48
evening rise	3517 Mar 22 11:13	10°♊03'55		evening rise	3518 Mar 05 10:23	22°♊41'03	
asc. node	3517 Mar 28 00:04	20°♊21'15			3518 Mar 09 11:59	0°♊	
	3517 Apr 02 19:46	0°♊		asc. node	3518 Mar 14 21:06	9°♊14'02	
evening max el	3517 Apr 07 14:30	5°♊54'23	18°23'03	evening max el	3518 Mar 22 01:05	18°♊52'33	18°07'48
retrograde	3517 Apr 14 23:11	9°♊33'20		retrograde	3518 Mar 28 17:17	22°♊16'47	
evening set	3517 Apr 17 07:38	9°♊11'59		evening set	3518 Mar 31 07:44	21°♊45'57	
inferior conj	3517 Apr 24 15:55	4°♊35'54	2°30'42	inferior conj	3518 Apr 07 00:10	16°♊48'48	3°16'32
minimum elong	3517 Apr 24 19:39	4°♊28'11	2°29'46	minimum elong	3518 Apr 07 02:44	16°♊42'39	3°16'08
min. Earth dist.	3517 Apr 28 02:33	1°♊46'43	0.58736 AU	min. Earth dist.	3518 Apr 10 05:25	13°♊45'38	0.60916 AU
	3517 Apr 30 13:50	30°♊		morning rise	3518 Apr 13 18:33	10°♊56'20	
morning rise	3517 May 02 03:28	29°♊04'16		direct	3518 Apr 20 11:59	8°♊42'05	
desc. node	3517 May 04 07:49	28°♊06'05		desc. node	3518 Apr 21 04:52	8°♊43'29	
direct	3517 May 08 07:02	27°♊24'11		morning max el	3518 May 04 17:54	16°♊37'36	27°45'31
	3517 May 16 07:14	0°♊			3518 May 15 18:21	0°♊	
morning max el	3517 May 22 16:29	5°♊09'08	27°05'45		3518 Jun 02 14:05	0°♊	
	3517 Jun 10 00:05	0°♊		morning set	3518 Jun 06 06:26	7°♊23'37	
morning set	3517 Jun 22 00:56	22°♊52'37		asc. node	3518 Jun 10 20:24	17°♊05'18	
asc. node	3517 Jun 23 23:21	26°♊58'33		max. Earth dist.	3518 Jun 12 09:04	20°♊24'35	1.32181 AU
	3517 Jun 25 09:00	0°♊					

superior conj	3518 Jun 13 14:20	23°II04'44	0°28'34	superior conj	3519 May 28 22:44	7°II42'00	0°02'19
minimum elong	3518 Jun 13 13:05	22°II57'49	0°28'18	minimum elong	3519 May 28 22:37	7°II41'24	0°02'18
	3518 Jun 16 18:00	0°☿		behind sun begin	3519 May 28 17:25	7°II13'19	
evening rise	3518 Jun 20 11:31	8°☿03'59		behind sun end	3519 May 29 03:49	8°II09'32	
	3518 Jul 01 20:39	0°♊		asc. node	3519 May 28 17:27	7°II13'28	
evening max el	3518 Jul 16 23:13	20°♊13'45	25°08'38	evening rise	3519 Jun 04 23:23	22°II52'48	
desc. node	3518 Jul 18 04:09	21°♊20'29			3519 Jun 08 09:47	0°☿	
retrograde	3518 Jul 30 22:33	27°♊18'41			3519 Jun 27 18:32	0°♊	
evening set	3518 Aug 05 12:39	26°♊07'05		evening max el	3519 Jun 28 12:31	0°♊44'33	23°34'43
min. Earth dist.	3518 Aug 10 10:58	23°♊24'13	0.57568 AU	desc. node	3519 Jul 05 01:10	5°♊40'03	
inferior conj	3518 Aug 13 11:33	21°♊21'37	-5°-7'-53	retrograde	3519 Jul 12 03:34	7°♊34'18	
minimum elong	3518 Aug 13 11:42	21°♊21'21	5°07'54	evening set	3519 Jul 16 06:28	6°♊57'06	
morning rise	3518 Aug 21 14:20	17°♊09'09		min. Earth dist.	3519 Jul 22 22:32	3°♊50'03	0.55925 AU
direct	3518 Aug 24 03:19	16°♊50'07		inferior conj	3519 Jul 25 01:10	2°♊34'29	-4°-46'-13
morning max el	3518 Sep 01 23:54	21°♊00'24	19°03'57	minimum elong	3519 Jul 24 19:27	2°♊43'05	4°45'23
asc. node	3518 Sep 06 19:37	26°♊41'35			3519 Jul 29 17:17	30°☿☿	
	3518 Sep 09 00:46	0°♎		morning rise	3519 Aug 02 11:36	28°☿39'35	
morning set	3518 Sep 18 17:31	17°♎45'15		direct	3519 Aug 05 07:19	28°☿19'48	
	3518 Sep 24 22:07	0°♏			3519 Aug 11 10:08	0°♊	
				morning max el	3519 Aug 15 15:13	3°♊07'26	20°10'25
superior conj	3518 Sep 27 02:00	4°♏11'49	1°38'24	asc. node	3519 Aug 24 16:41	14°♊56'49	
minimum elong	3518 Sep 27 04:09	4°♏22'12	1°38'17		3519 Sep 01 18:42	0°♎	
max. Earth dist.	3518 Oct 03 19:29	16°♏44'58	1.38680 AU	morning set	3519 Sep 02 22:23	2°♎20'05	
evening rise	3518 Oct 07 16:27	23°♏35'23					
	3518 Oct 11 11:13	0°♐		superior conj	3519 Sep 10 15:46	18°♎07'06	1°44'24
desc. node	3518 Oct 14 03:30	4°♐23'17		minimum elong	3519 Sep 10 16:13	18°♎09'19	1°44'24
	3518 Oct 31 11:45	0°♑		max. Earth dist.	3519 Sep 16 01:25	28°♎43'25	1.36681 AU
evening max el	3518 Nov 12 03:36	13°♑48'20	24°39'32		3519 Sep 16 17:32	0°♏	
retrograde	3518 Nov 23 16:07	20°♑31'11		evening rise	3519 Sep 19 23:07	6°♏00'26	
evening set	3518 Nov 29 03:49	18°♑14'39		desc. node	3519 Oct 01 00:30	24°♏50'53	
asc. node	3518 Dec 03 18:48	13°♑00'21			3519 Oct 04 07:53	0°♐	
min. Earth dist.	3518 Dec 03 19:30	12°♑58'05	0.67575 AU	evening max el	3519 Oct 25 15:57	27°♐30'30	25°50'38
inferior conj	3518 Dec 04 16:33	11°♑48'02	0°18'35		3519 Oct 28 09:53	0°♑	
minimum elong	3518 Dec 04 16:06	11°♑49'33	0°18'23	retrograde	3519 Nov 07 01:33	4°♑34'33	
morning rise	3518 Dec 10 04:49	5°♑44'32		evening set	3519 Nov 13 03:25	2°♑04'08	
direct	3518 Dec 13 20:17	4°♑28'13			3519 Nov 15 06:29	30°☿♐	
morning max el	3518 Dec 21 10:05	8°♑46'34	19°59'51	min. Earth dist.	3519 Nov 17 11:30	27°♐23'10	0.66891 AU
greatest brilliancy	3518 Dec 28 13:08	17°♑25'01	-0.6m	inferior conj	3519 Nov 18 19:37	25°♐41'51	0°-37'-57
	3519 Jan 06 06:49	0°☿		minimum elong	3519 Nov 18 20:37	25°♐38'43	0°37'32
desc. node	3519 Jan 10 02:44	5°☿45'45		asc. node	3519 Nov 20 15:52	23°♐25'59	
morning set	3519 Jan 17 00:48	16°☿20'50		morning rise	3519 Nov 24 14:44	19°♐47'15	
	3519 Jan 25 18:33	0°♊		direct	3519 Nov 27 18:59	18°♐49'16	
max. Earth dist.	3519 Jan 28 02:52	3°♊43'49	1.44001 AU	morning max el	3519 Dec 04 17:04	22°♐40'01	19°02'35
					3519 Dec 10 17:14	0°♑	
superior conj	3519 Feb 02 11:21	12°♊21'55	-2°00'-51	morning set	3519 Dec 27 06:17	25°♑05'06	
minimum elong	3519 Feb 02 06:27	12°♊01'58	2°00'39	desc. node	3519 Dec 27 23:45	26°♑13'14	
	3519 Feb 13 00:51	0°♋			3519 Dec 30 09:52	0°☿	
evening rise	3519 Feb 15 15:30	4°♋28'08		max. Earth dist.	3520 Jan 10 19:00	17°☿49'11	1.44979 AU
asc. node	3519 Mar 01 18:08	27°♋32'11					
	3519 Mar 03 15:44	0°♌		superior conj	3520 Jan 12 23:13	21°☿15'03	-1°-35'-35
evening max el	3519 Mar 05 13:48	2°♌07'45	18°11'44	minimum elong	3520 Jan 12 14:09	20°☿39'14	1°34'45
retrograde	3519 Mar 12 00:07	5°♌32'01			3520 Jan 18 11:24	0°♊	
evening set	3519 Mar 14 20:12	4°♌50'22		evening rise	3520 Jan 27 22:35	15°♊18'25	
	3519 Mar 20 14:30	30°☿♋			3520 Feb 05 22:57	0°♋	
inferior conj	3519 Mar 21 00:35	29°♋32'48	3°36'15	asc. node	3520 Feb 16 15:09	15°♋04'47	
minimum elong	3519 Mar 21 01:21	29°♋30'45	3°36'12	evening max el	3520 Feb 17 01:45	15°♋32'19	18°34'14
min. Earth dist.	3519 Mar 23 16:53	26°♋39'48	0.63007 AU	retrograde	3520 Feb 23 15:23	19°♋09'30	
morning rise	3519 Mar 27 04:24	23°♋28'05		evening set	3520 Feb 26 17:17	18°♋16'11	
direct	3519 Apr 03 02:00	20°♋49'30		inferior conj	3520 Mar 03 13:08	12°♋39'55	3°36'17
desc. node	3519 Apr 08 01:55	22°♋01'42		minimum elong	3520 Mar 03 12:17	12°♋42'26	3°36'15
morning max el	3519 Apr 17 00:34	28°♋47'06	27°47'42	min. Earth dist.	3520 Mar 05 13:52	10°♋14'40	0.64794 AU
	3519 Apr 18 04:59	0°♌		morning rise	3520 Mar 09 05:57	6°♋28'26	
	3519 May 09 14:49	0°♍		direct	3520 Mar 15 23:25	3°♋39'15	
morning set	3519 May 21 05:52	21°♍33'26		desc. node	3520 Mar 24 22:56	7°♋30'03	
	3519 May 25 08:14	0°♎		morning max el	3520 Mar 29 10:11	11°♋30'17	27°14'55
max. Earth dist.	3519 May 26 15:14	2°♎44'07	1.32717 AU		3520 Apr 13 03:02	0°♌	
					3520 May 01 02:45	0°♍	

morning set	3520 May 03 20:27	5°♄13'49		morning set	3521 Apr 16 22:21	18°♄13'00	
max. Earth dist.	3520 May 08 13:00	14°♄36'03	1.33696 AU	max. Earth dist.	3521 Apr 20 23:21	25°♄55'34	1.35134 AU
					3521 Apr 23 00:58	0°♄	
superior conj	3520 May 12 02:33	22°♄01'18	0°-25'-50	superior conj	3521 Apr 25 23:21	5°♄54'56	0°-54'-42
minimum elong	3520 May 12 03:53	22°♄08'19	0°25'35	minimum elong	3521 Apr 26 02:15	6°♄09'41	0°54'11
asc. node	3520 May 14 14:29	27°♄19'22		asc. node	3521 May 01 11:30	17°♄18'12	
	3520 May 15 20:36	0°♄		evening rise	3521 May 03 18:26	22°♄02'38	
evening rise	3520 May 19 10:22	7°♄34'46			3521 May 07 17:14	0°♄	
	3520 May 31 09:39	0°♄		evening max el	3521 May 22 06:39	22°♄07'39	20°34'13
evening max el	3520 Jun 09 04:39	11°♄12'41	21°58'54	retrograde	3521 Jun 02 10:11	27°♄34'00	
desc. node	3520 Jun 20 22:11	17°♄27'07		evening set	3521 Jun 04 11:23	27°♄23'43	
retrograde	3520 Jun 21 21:07	17°♄29'14		desc. node	3521 Jun 07 19:12	26°♄27'10	
evening set	3520 Jun 24 15:23	17°♄12'13		inferior conj	3521 Jun 13 16:44	23°♄26'14	-1°-43'-53
inferior conj	3520 Jul 03 23:00	13°♄08'07	-3°-34'-39	minimum elong	3521 Jun 13 11:51	23°♄33'17	1°42'08
minimum elong	3520 Jul 03 14:38	13°♄19'51	3°32'20	min. Earth dist.	3521 Jun 14 21:22	22°♄44'56	0.54956 AU
min. Earth dist.	3520 Jul 03 09:13	13°♄27'25	0.54977 AU	morning rise	3521 Jun 22 10:57	19°♄18'09	
morning rise	3520 Jul 12 15:33	9°♄17'01		direct	3521 Jun 26 05:33	18°♄47'26	
direct	3520 Jul 15 20:01	8°♄54'34		morning max el	3521 Jul 09 13:07	25°♄13'31	23°17'04
morning max el	3520 Jul 27 18:52	14°♄29'57	21°36'53		3521 Jul 13 23:56	0°♄	
	3520 Aug 08 09:52	0°♄		asc. node	3521 Jul 28 10:45	23°♄10'24	
asc. node	3520 Aug 10 13:43	3°♄49'48			3521 Jul 31 19:36	0°♄	
morning set	3520 Aug 17 07:24	17°♄07'21		morning set	3521 Aug 01 18:37	2°♄00'29	
	3520 Aug 23 10:15	0°♄					
superior conj	3520 Aug 24 15:04	2°♄30'51	1°42'48	superior conj	3521 Aug 08 20:42	17°♄12'39	1°34'53
minimum elong	3520 Aug 24 14:06	2°♄25'50	1°42'45	minimum elong	3521 Aug 08 18:49	17°♄02'31	1°34'42
max. Earth dist.	3520 Aug 28 13:43	10°♄36'50	1.34957 AU	max. Earth dist.	3521 Aug 11 10:44	22°♄42'40	1.33617 AU
evening rise	3520 Sep 01 23:18	19°♄15'18			3521 Aug 14 23:15	0°♄	
	3520 Sep 07 19:37	0°♄		evening rise	3521 Aug 16 12:37	3°♄07'38	
desc. node	3520 Sep 16 21:31	15°♄01'42			3521 Aug 31 15:13	0°♄	
	3520 Sep 27 09:58	0°♄		desc. node	3521 Sep 03 18:33	4°♄47'38	
evening max el	3520 Oct 07 04:23	11°♄08'23	26°46'30	evening max el	3521 Sep 19 16:19	24°♄32'02	27°19'58
retrograde	3520 Oct 20 05:44	18°♄23'51			3521 Sep 26 19:55	0°♄	
evening set	3520 Oct 26 20:37	15°♄44'17		retrograde	3521 Oct 03 04:17	1°♄50'36	
min. Earth dist.	3520 Oct 30 21:34	11°♄39'47	0.65855 AU		3521 Oct 09 00:20	30°♄	
inferior conj	3520 Nov 01 17:27	9°♄31'00	-1°-37'-36	evening set	3521 Oct 10 04:53	29°♄09'55	
minimum elong	3520 Nov 01 20:09	9°♄23'05	1°36'30	min. Earth dist.	3521 Oct 13 23:33	25°♄40'48	0.64458 AU
asc. node	3520 Nov 06 12:54	4°♄38'42		inferior conj	3521 Oct 16 07:44	23°♄10'17	-2°-38'-20
morning rise	3520 Nov 07 21:12	3°♄48'08		minimum elong	3521 Oct 16 12:07	22°♄58'30	2°36'43
direct	3520 Nov 10 16:19	3°♄04'47		morning rise	3521 Oct 22 21:31	17°♄42'14	
morning max el	3520 Nov 17 05:56	6°♄38'41	18°21'24	asc. node	3521 Oct 24 09:56	17°♄14'49	
	3520 Dec 03 09:18	0°♄		direct	3521 Oct 25 09:58	17°♄09'37	
morning set	3520 Dec 06 14:38	5°♄12'19		morning max el	3521 Oct 31 22:00	20°♄35'57	17°57'12
desc. node	3520 Dec 13 20:46	16°♄51'01			3521 Nov 08 00:56	0°♄	
				morning set	3521 Nov 18 03:51	16°♄44'25	
superior conj	3520 Dec 22 01:12	29°♄47'43	0°-53'-46		3521 Nov 26 02:11	0°♄	
minimum elong	3520 Dec 21 18:28	29°♄21'15	0°52'54	desc. node	3521 Nov 30 17:49	7°♄35'25	
	3520 Dec 22 04:20	0°♄					
max. Earth dist.	3520 Dec 23 13:59	2°♄12'09	1.45231 AU	superior conj	3521 Dec 01 14:28	8°♄58'42	0°-5'-54
evening rise	3521 Jan 07 06:31	25°♄13'27		minimum elong	3521 Dec 01 13:46	8°♄55'51	0°05'49
	3521 Jan 10 07:30	0°♄		behind sun begin	3521 Dec 01 04:04	8°♄16'45	
greatest brilliancy	3521 Jan 20 23:27	16°♄31'12	-0.7m	behind sun end	3521 Dec 01 23:28	9°♄34'54	
evening max el	3521 Jan 30 10:38	29°♄01'17	19°14'09	max. Earth dist.	3521 Dec 06 08:39	16°♄34'18	1.44741 AU
	3521 Jan 31 10:43	0°♄			3521 Dec 14 22:45	0°♄	
asc. node	3521 Feb 02 12:10	1°♄38'52		evening rise	3521 Dec 17 20:37	4°♄29'32	
retrograde	3521 Feb 06 11:25	3°♄02'14			3522 Jan 03 19:38	0°♄	
evening set	3521 Feb 09 20:03	1°♄56'19		greatest brilliancy	3522 Jan 07 01:31	4°♄32'31	-0.6m
	3521 Feb 12 02:53	30°♄		evening max el	3522 Jan 13 14:52	12°♄32'42	20°09'38
inferior conj	3521 Feb 15 10:15	26°♄03'41	3°21'36	asc. node	3522 Jan 20 09:12	17°♄00'12	
minimum elong	3521 Feb 15 08:20	26°♄09'52	3°21'19	retrograde	3522 Jan 21 09:23	17°♄05'45	
min. Earth dist.	3521 Feb 16 19:46	24°♄16'02	0.66191 AU	evening set	3522 Jan 25 02:13	15°♄46'01	
morning rise	3521 Feb 20 19:45	19°♄48'50		inferior conj	3522 Jan 30 13:09	9°♄39'46	2°55'36
direct	3521 Feb 27 03:21	17°♄02'14		minimum elong	3522 Jan 30 10:42	9°♄48'02	2°55'01
desc. node	3521 Mar 11 19:57	24°♄34'07		min. Earth dist.	3522 Jan 31 08:47	8°♄33'30	0.67178 AU
morning max el	3521 Mar 11 20:04	24°♄34'23	26°13'53	morning rise	3522 Feb 04 18:35	3°♄23'58	
	3521 Mar 16 17:47	0°♄		direct	3522 Feb 10 12:59	0°♄50'25	
	3521 Apr 06 13:28	0°♄		morning max el	3522 Feb 22 04:47	7°♄48'32	24°54'00

desc. node	3522 Feb 26 16:59	12° \approx 46'52		minimum elong	3523 Jan 14 16:59	23° \approx 32'35	2°19'46
	3522 Mar 11 13:28	0° \approx		min. Earth dist.	3523 Jan 15 02:37	22° \approx 59'17	0.67764 AU
morning set	3522 Mar 30 06:38	0° \approx 17'03		morning rise	3523 Jan 19 23:42	17° \approx 09'17	
	3522 Mar 30 02:48	0° \approx		direct	3523 Jan 25 03:23	14° \approx 55'36	
max. Earth dist.	3522 Apr 02 22:53	6° \approx 56'27	1.36996 AU	morning max el	3523 Feb 04 13:30	21° \approx 07'36	23°25'40
				greatest brilliancy	3523 Feb 10 07:37	27° \approx 38'19	-0.2m
superior conj	3522 Apr 09 10:13	19° \approx 15'14	-1°-22'-26		3523 Feb 12 04:41	0° \approx	
minimum elong	3522 Apr 09 14:25	19° \approx 35'49	1°21'50	desc. node	3523 Feb 13 14:02	1° \approx 48'12	
	3522 Apr 14 19:46	0° \approx			3523 Mar 04 19:55	0° \approx	
evening rise	3522 Apr 17 21:20	6° \approx 09'53		morning set	3523 Mar 11 15:07	11° \approx 08'52	
asc. node	3522 Apr 18 08:31	7° \approx 05'52		max. Earth dist.	3523 Mar 15 17:44	18° \approx 12'15	1.39135 AU
	3522 May 01 13:57	0° \approx			3523 Mar 22 07:07	0° \approx	
evening max el	3522 May 04 20:57	3° \approx 43'31	19°27'27				
retrograde	3522 May 14 06:46	8° \approx 17'36		superior conj	3523 Mar 23 07:14	1° \approx 51'55	-1°-46'-24
evening set	3522 May 16 06:34	8° \approx 06'13		minimum elong	3523 Mar 23 11:49	2° \approx 13'21	1°45'57
inferior conj	3522 May 24 20:56	4° \approx 00'23	0°14'04	evening rise	3523 Apr 01 16:15	19° \approx 48'46	
minimum elong	3522 May 24 21:32	3° \approx 59'25	0°13'51	asc. node	3523 Apr 05 05:33	26° \approx 37'04	
transit middle	3522 May 24 21:32	3° \approx 59'25	0°13'51		3523 Apr 07 01:16	0° \approx	
transit begin	3522 May 24 19:36	4° \approx 02'33		evening max el	3523 Apr 17 21:42	15° \approx 57'57	18°40'43
transit end	3522 May 24 23:29	3° \approx 56'16		retrograde	3523 Apr 25 20:47	19° \approx 52'00	
desc. node	3522 May 25 16:12	3° \approx 29'11		evening set	3523 Apr 28 01:50	19° \approx 35'02	
min. Earth dist.	3522 May 27 11:40	2° \approx 19'30	0.55890 AU	inferior conj	3523 May 05 20:46	15° \approx 10'53	1°50'08
	3522 May 31 16:46	30° \approx 8		minimum elong	3523 May 06 00:18	15° \approx 04'15	1°49'03
morning rise	3522 Jun 02 08:39	29° \approx 20'07		min. Earth dist.	3523 May 09 04:55	12° \approx 41'10	0.57570 AU
direct	3522 Jun 07 01:04	28° \approx 30'26		desc. node	3523 May 12 13:13	10° \approx 32'59	
	3522 Jun 13 07:40	0° \approx		morning rise	3523 May 13 18:19	9° \approx 56'23	
morning max el	3522 Jun 21 03:12	5° \approx 37'46	24°58'58	direct	3523 May 19 10:29	8° \approx 36'36	
	3522 Jul 08 16:12	0° \approx		morning max el	3523 Jun 02 19:08	16° \approx 10'28	26°27'09
asc. node	3522 Jul 15 07:47	12° \approx 51'21			3523 Jun 14 01:23	0° \approx	
morning set	3522 Jul 17 06:23	16° \approx 54'34			3523 Jun 30 21:09	0° \approx	
	3522 Jul 23 07:27	0° \approx		morning set	3523 Jul 01 17:08	1° \approx 44'44	
				asc. node	3523 Jul 02 04:51	2° \approx 46'39	
superior conj	3522 Jul 24 06:17	2° \approx 04'51	1°21'41				
minimum elong	3522 Jul 24 03:57	1° \approx 52'10	1°21'21	superior conj	3523 Jul 08 17:49	17° \approx 01'02	1°03'59
max. Earth dist.	3522 Jul 25 15:54	5° \approx 08'01	1.32697 AU	minimum elong	3523 Jul 08 15:33	16° \approx 48'33	1°03'36
evening rise	3522 Jul 31 11:27	17° \approx 02'11		max. Earth dist.	3523 Jul 09 02:21	17° \approx 48'07	1.32183 AU
	3522 Aug 06 21:25	0° \approx			3523 Jul 14 17:07	0° \approx	
desc. node	3522 Aug 21 15:34	23° \approx 58'18		evening rise	3523 Jul 15 16:50	2° \approx 05'00	
	3522 Aug 26 05:53	0° \approx			3523 Jul 30 19:54	0° \approx	
evening max el	3522 Sep 02 02:05	7° \approx 29'25	27°24'35	desc. node	3523 Aug 08 12:34	12° \approx 19'29	
retrograde	3522 Sep 15 20:20	14° \approx 45'19		evening max el	3523 Aug 15 07:04	19° \approx 48'02	26°56'17
evening set	3522 Sep 23 00:55	12° \approx 14'40		retrograde	3523 Aug 29 04:46	26° \approx 59'41	
min. Earth dist.	3522 Sep 26 15:44	9° \approx 15'57	0.62736 AU	evening set	3523 Sep 05 04:31	24° \approx 51'42	
inferior conj	3522 Sep 29 11:39	6° \approx 33'01	-3°-36'-51	min. Earth dist.	3523 Sep 08 21:17	22° \approx 12'52	0.60766 AU
minimum elong	3522 Sep 29 17:16	6° \approx 19'30	3°35'11	inferior conj	3523 Sep 12 01:59	19° \approx 31'15	-4°-27'-35
morning rise	3522 Oct 06 12:21	1° \approx 22'58		minimum elong	3523 Sep 12 07:31	19° \approx 19'32	4°26'29
direct	3522 Oct 08 20:56	0° \approx 57'29		morning rise	3523 Sep 19 13:40	14° \approx 42'31	
asc. node	3522 Oct 11 06:59	1° \approx 25'01		direct	3523 Sep 21 21:35	14° \approx 21'09	
morning max el	3522 Oct 15 14:15	4° \approx 24'21	17°50'43	asc. node	3523 Sep 28 04:03	17° \approx 02'56	
morning set	3522 Oct 31 16:15	29° \approx 23'04		morning max el	3523 Sep 29 03:38	17° \approx 56'40	18°03'04
	3522 Nov 01 00:35	0° \approx			3523 Oct 07 19:11	0° \approx	
				morning set	3523 Oct 14 21:36	12° \approx 50'19	
superior conj	3522 Nov 12 04:24	19° \approx 22'30	0°37'07		3523 Oct 24 06:24	0° \approx	
minimum elong	3522 Nov 12 07:47	19° \approx 36'46	0°36'38	superior conj	3523 Oct 24 20:45	1° \approx 03'50	1°09'39
desc. node	3522 Nov 17 14:52	28° \approx 22'32		minimum elong	3523 Oct 25 00:59	1° \approx 22'34	1°09'09
	3522 Nov 18 14:52	0° \approx		max. Earth dist.	3523 Nov 01 12:01	14° \approx 12'42	1.41891 AU
max. Earth dist.	3522 Nov 19 00:34	0° \approx 39'15	1.43581 AU	desc. node	3523 Nov 04 11:54	19° \approx 09'25	
evening rise	3522 Nov 27 06:17	13° \approx 40'47		evening rise	3523 Nov 07 03:51	23° \approx 27'45	
	3522 Dec 08 00:53	0° \approx			3523 Nov 11 07:20	0° \approx	
greatest brilliancy	3522 Dec 22 12:00	20° \approx 14'01	-0.4m		3523 Dec 02 02:20	0° \approx	
evening max el	3522 Dec 27 13:40	26° \approx 05'16	21°17'52	greatest brilliancy	3523 Dec 05 10:44	4° \approx 12'59	-0.3m
	3523 Jan 01 06:59	0° \approx		evening max el	3523 Dec 10 07:21	9° \approx 39'50	22°34'39
retrograde	3523 Jan 05 07:04	1° \approx 15'49		retrograde	3523 Dec 20 02:49	15° \approx 29'33	
asc. node	3523 Jan 07 06:14	0° \approx 54'41		evening set	3523 Dec 24 17:26	13° \approx 38'16	
	3523 Jan 08 23:30	30° \approx 8		asc. node	3523 Dec 25 03:16	13° \approx 17'16	
evening set	3523 Jan 09 09:54	29° \approx 40'52		inferior conj	3523 Dec 30 03:10	7° \approx 14'23	1°38'00
inferior conj	3523 Jan 14 19:27	23° \approx 24'03	2°20'33				

minimum elong	3523 Dec 30 01:09	7°☿21'21	1°37'15	retrograde	3524 Dec 02 19:25	29°♂42'50	
min. Earth dist.	3523 Dec 29 22:57	7°☿28'58	0.67972 AU	evening set	3524 Dec 07 23:13	27°♂35'00	
morning rise	3524 Jan 04 08:47	1°☿02'28		asc. node	3524 Dec 11 00:19	24°♂20'35	
	3524 Jan 05 21:11	30°♂♂		inferior conj	3524 Dec 13 10:29	21°♂07'58	0°49'09
direct	3524 Jan 08 21:33	29°♂11'40		minimum elong	3524 Dec 13 09:20	21°♂11'50	0°48'40
	3524 Jan 12 03:19	0°☿		min. Earth dist.	3524 Dec 12 19:27	21°♂58'59	0.67817 AU
morning max el	3524 Jan 18 01:40	4°☿34'19	21°58'25	morning rise	3524 Dec 18 19:43	15°♂00'56	
greatest brilliancy	3524 Jan 22 17:49	9°☿49'09	-0.4m	direct	3524 Dec 22 18:28	13°♂32'48	
desc. node	3524 Jan 31 11:06	21°☿24'36		morning max el	3524 Dec 30 20:34	18°♂11'54	20°39'33
	3524 Feb 06 09:42	0°♂		greatest brilliancy	3525 Jan 05 18:35	25°♂07'02	-0.5m
morning set	3524 Feb 19 18:58	20°♂38'14			3525 Jan 09 09:45	0°☿	
max. Earth dist.	3524 Feb 25 16:06	0°♂16'23	1.41283 AU	desc. node	3525 Jan 17 08:10	11°☿26'09	
	3524 Feb 25 12:11	0°♂		morning set	3525 Jan 28 21:49	29°☿01'01	
					3525 Jan 29 12:59	0°♂	
superior conj	3524 Mar 04 09:36	13°♂33'32	-2°-2'-45	max. Earth dist.	3525 Feb 06 21:42	13°♂16'07	1.43144 AU
minimum elong	3524 Mar 04 12:38	13°♂46'54	2°02'37				
	3524 Mar 13 10:51	0°♂		superior conj	3525 Feb 13 12:18	24°♂08'45	-2°-6'-29
evening rise	3524 Mar 14 23:49	2°♂51'23		minimum elong	3525 Feb 13 10:53	24°♂02'48	2°06'29
asc. node	3524 Mar 22 02:35	15°♂46'01			3525 Feb 16 23:20	0°♂	
evening max el	3524 Mar 31 05:38	28°♂42'44	18°14'05	evening rise	3525 Feb 25 15:55	15°♂08'54	
	3524 Apr 01 16:30	0°♂			3525 Mar 06 05:00	0°♂	
retrograde	3524 Apr 07 05:47	2°♂13'29		asc. node	3525 Mar 08 23:37	4°♂25'33	
evening set	3524 Apr 09 16:55	1°♂48'11		evening max el	3525 Mar 14 17:27	11°♂49'15	18°07'05
	3524 Apr 13 02:32	30°♂♂		retrograde	3525 Mar 21 06:05	15°♂12'11	
inferior conj	3524 Apr 16 17:58	27°♂02'44	2°53'47	evening set	3525 Mar 23 22:51	14°♂36'58	
minimum elong	3524 Apr 16 21:22	26°♂55'13	2°53'03	inferior conj	3525 Mar 30 09:41	9°♂30'46	3°27'39
min. Earth dist.	3524 Apr 20 03:27	24°♂04'46	0.59663 AU	minimum elong	3525 Mar 30 11:30	9°♂26'11	3°27'27
morning rise	3524 Apr 23 22:04	21°♂21'09		min. Earth dist.	3525 Apr 02 09:55	6°♂29'18	0.61827 AU
desc. node	3524 Apr 28 10:16	19°♂36'29		morning rise	3525 Apr 05 21:26	3°♂31'55	
direct	3524 Apr 30 08:38	19°♂26'11		direct	3525 Apr 12 17:33	1°♂06'00	
morning max el	3524 May 14 16:59	27°♂15'46	27°27'16	desc. node	3525 Apr 15 07:18	1°♂25'05	
	3524 May 17 07:50	0°♂		morning max el	3525 Apr 26 21:12	9°♂03'46	27°51'05
	3524 Jun 06 15:31	0°♂			3525 May 13 00:53	0°♂	
morning set	3524 Jun 15 01:06	16°♂24'41			3525 May 29 18:52	0°♂	
asc. node	3524 Jun 18 01:53	22°♂50'30		morning set	3525 May 30 04:21	0°♂48'14	
	3524 Jun 21 08:41	0°♂		asc. node	3525 Jun 04 22:56	12°♂58'37	
max. Earth dist.	3524 Jun 21 14:18	0°♂30'54	1.32068 AU	max. Earth dist.	3525 Jun 04 23:46	13°♂03'07	1.32358 AU
superior conj	3524 Jun 22 05:28	1°♂54'24	0°42'27	superior conj	3525 Jun 06 15:35	16°♂39'35	0°17'44
minimum elong	3524 Jun 22 03:43	1°♂44'46	0°42'06	minimum elong	3525 Jun 06 14:46	16°♂35'08	0°17'34
evening rise	3524 Jun 29 02:18	16°♂52'22			3525 Jun 12 18:36	0°♂	
	3524 Jul 05 14:26	0°♂		evening rise	3525 Jun 13 13:50	1°♂42'40	
desc. node	3524 Jul 25 09:35	29°♂30'08			3525 Jun 28 23:58	0°♂	
	3524 Jul 25 21:08	0°♂		evening max el	3525 Jul 08 19:35	12°♂04'03	24°29'49
evening max el	3524 Jul 27 04:44	1°♂17'59	25°55'30	desc. node	3525 Jul 12 06:33	15°♂02'04	
retrograde	3524 Aug 10 04:09	8°♂26'13		retrograde	3525 Jul 22 16:50	19°♂04'59	
evening set	3524 Aug 16 10:43	6°♂52'04		evening set	3525 Jul 27 16:44	18°♂09'00	
min. Earth dist.	3524 Aug 20 17:04	4°♂16'30	0.58702 AU	min. Earth dist.	3525 Aug 02 06:34	15°♂17'34	0.56806 AU
inferior conj	3524 Aug 23 23:02	1°♂53'58	-5°-1'-21	inferior conj	3525 Aug 05 00:06	13°♂33'01	-5°-4'-26
minimum elong	3524 Aug 24 02:01	1°♂48'28	5°01'08	minimum elong	3525 Aug 04 21:44	13°♂36'49	5°04'18
	3524 Aug 26 15:37	30°♂♂		morning rise	3525 Aug 13 06:23	9°♂29'31	
morning rise	3524 Aug 31 20:48	27°♂28'50		direct	3525 Aug 15 21:54	9°♂10'26	
direct	3524 Sep 03 07:13	27°♂09'23		morning max el	3525 Aug 25 08:42	13°♂34'48	19°29'38
	3524 Sep 10 06:16	0°♂		asc. node	3525 Aug 31 22:11	21°♂41'27	
morning max el	3524 Sep 11 10:49	1°♂03'14	18°35'39		3525 Sep 05 20:35	0°♂	
asc. node	3524 Sep 14 01:08	3°♂53'22		morning set	3525 Sep 11 16:11	11°♂15'12	
morning set	3524 Sep 27 14:48	26°♂50'59					
	3524 Sep 29 05:46	0°♂		superior conj	3525 Sep 19 17:30	27°♂22'47	1°41'59
				minimum elong	3525 Sep 19 18:55	27°♂29'42	1°41'55
superior conj	3524 Oct 06 10:57	13°♂49'05	1°30'53		3525 Sep 21 01:43	0°♂	
minimum elong	3524 Oct 06 14:05	14°♂03'42	1°30'37	max. Earth dist.	3525 Sep 25 22:24	9°♂12'36	1.37802 AU
max. Earth dist.	3524 Oct 13 18:23	27°♂02'50	1.39878 AU	evening rise	3525 Sep 29 17:38	16°♂04'47	
	3524 Oct 15 11:16	0°♂			3525 Oct 07 23:28	0°♂	
evening rise	3524 Oct 17 23:05	4°♂13'56		desc. node	3525 Oct 08 05:55	0°♂26'00	
desc. node	3524 Oct 21 08:56	9°♂51'52			3525 Oct 29 01:58	0°♂	
	3524 Nov 03 12:19	0°♂		evening max el	3525 Nov 04 09:31	6°♂57'05	25°11'10
evening max el	3524 Nov 21 21:16	23°♂16'54	23°54'38	retrograde	3525 Nov 16 07:48	13°♂51'05	

evening set	3525 Nov 22 01:34	11°♂28'01			3526 Sep 12 22:50	0°♂	
min. Earth dist.	3525 Nov 26 13:50	6°♂26'27	0.67321 AU	desc. node	3526 Sep 25 02:55	20°♂47'08	
inferior conj	3525 Nov 27 15:36	5°♂02'24	0°-4'-56		3526 Oct 01 05:16	0°♂	
minimum elong	3525 Nov 27 15:44	5°♂02'00	0°04'54	evening max el	3526 Oct 17 21:54	20°♂38'35	26°16'49
transit middle	3525 Nov 27 15:44	5°♂02'00	0°04'54	retrograde	3526 Oct 30 15:15	27°♂49'12	
transit begin	3525 Nov 27 13:05	5°♂10'39		evening set	3526 Nov 05 22:43	25°♂14'22	
transit end	3525 Nov 27 18:23	4°♂53'22		min. Earth dist.	3526 Nov 10 03:44	20°♂48'35	0.66484 AU
asc. node	3525 Nov 27 21:23	4°♂43'34		inferior conj	3526 Nov 11 16:43	18°♂55'04	-1°-3'00
	3525 Dec 02 00:45	30°♂		minimum elong	3526 Nov 11 18:24	18°♂49'51	1°02'16
morning rise	3525 Dec 03 06:33	29°♂02'25		asc. node	3526 Nov 14 18:25	15°♂23'18	
direct	3525 Dec 06 16:53	27°♂54'31		morning rise	3526 Nov 17 15:16	13°♂04'52	
	3525 Dec 11 17:29	0°♂		direct	3526 Nov 20 15:18	12°♂13'38	
morning max el	3525 Dec 13 23:18	2°♂00'09	19°33'35	morning max el	3526 Nov 27 09:02	15°♂56'22	18°43'01
greatest brilliancy	3525 Dec 22 07:52	12°♂28'11	-0.6m		3526 Dec 07 21:14	0°♂	
	3526 Jan 03 01:42	0°♂		morning set	3526 Dec 18 10:33	16°♂31'59	
desc. node	3526 Jan 04 05:11	1°♂45'30		desc. node	3526 Dec 22 02:13	22°♂17'52	
morning set	3526 Jan 07 18:46	7°♂15'17			3526 Dec 26 23:40	0°♂	
max. Earth dist.	3526 Jan 20 09:59	26°♂59'47	1.44492 AU	max. Earth dist.	3527 Jan 03 03:17	11°♂13'26	1.45173 AU
	3526 Jan 22 07:22	0°♂					
				superior conj	3527 Jan 03 18:19	12°♂12'26	-1°-19'-24
superior conj	3526 Jan 24 12:58	3°♂34'14	-1°-52'-32	minimum elong	3527 Jan 03 09:24	11°♂37'25	1°18'25
minimum elong	3526 Jan 24 05:44	3°♂05'13	1°52'04		3527 Jan 15 00:36	0°♂	
evening rise	3526 Feb 07 12:02	26°♂31'58		evening rise	3527 Jan 19 09:05	6°♂57'33	
	3526 Feb 09 13:29	0°♂			3527 Feb 02 23:55	0°♂	
asc. node	3526 Feb 23 20:39	22°♂25'48		evening max el	3527 Feb 09 17:04	8°♂36'09	18°49'14
evening max el	3526 Feb 26 06:06	25°♂08'52	18°19'07	asc. node	3527 Feb 10 17:41	9°♂35'26	
retrograde	3526 Mar 04 16:59	28°♂37'27		retrograde	3527 Feb 16 10:31	12°♂21'59	
evening set	3526 Mar 07 15:21	27°♂51'08		evening set	3527 Feb 19 15:10	11°♂23'29	
inferior conj	3526 Mar 13 15:44	22°♂25'34	3°38'18	inferior conj	3527 Feb 25 08:19	5°♂40'16	3°31'36
minimum elong	3526 Mar 13 15:46	22°♂25'30	3°38'19	minimum elong	3527 Feb 25 06:56	5°♂44'30	3°31'28
min. Earth dist.	3526 Mar 16 01:37	19°♂42'21	0.63806 AU	min. Earth dist.	3527 Feb 27 02:33	3°♂30'00	0.65442 AU
morning rise	3526 Mar 19 14:23	16°♂17'14			3527 Mar 02 07:06	30°♂	
direct	3526 Mar 26 11:04	13°♂32'06		morning rise	3527 Mar 02 21:36	29°♂27'09	
desc. node	3526 Apr 02 04:20	15°♂42'39		direct	3527 Mar 09 11:36	26°♂37'16	
morning max el	3526 Apr 09 05:30	21°♂29'11	27°37'40		3527 Mar 17 16:53	0°♂	
	3526 Apr 16 15:30	0°♂		desc. node	3527 Mar 20 01:23	1°♂55'18	
	3526 May 06 04:00	0°♂		morning max el	3527 Mar 22 15:16	4°♂21'54	26°51'47
morning set	3526 May 14 00:24	14°♂46'52			3527 Apr 11 03:01	0°♂	
max. Earth dist.	3526 May 19 02:36	25°♂11'03	1.33076 AU	morning set	3527 Apr 27 10:06	28°♂11'03	
	3526 May 21 09:11	0°♂			3527 Apr 28 08:46	0°♂	
				max. Earth dist.	3527 May 01 19:27	6°♂47'26	1.34253 AU
superior conj	3526 May 21 22:17	1°♂09'59	0°-9'-27				
minimum elong	3526 May 21 22:45	1°♂12'31	0°09'22	superior conj	3527 May 05 23:27	15°♂19'24	0°-38'-4
behind sun begin	3526 May 21 18:23	0°♂49'08		minimum elong	3527 May 06 01:27	15°♂29'47	0°37'42
behind sun end	3526 May 22 03:07	1°♂35'55		asc. node	3527 May 09 16:58	23°♂09'35	
asc. node	3526 May 22 19:57	3°♂06'14			3527 May 12 22:56	0°♂	
evening rise	3526 May 29 01:31	16°♂29'01		evening rise	3527 May 13 11:30	1°♂05'35	
	3526 Jun 04 19:02	0°♂			3527 May 30 07:59	0°♂	
evening max el	3526 Jun 20 09:01	22°♂29'24	22°53'16	evening max el	3527 Jun 02 04:55	3°♂06'43	21°20'58
desc. node	3526 Jun 29 03:33	28°♂20'22		retrograde	3527 Jun 14 06:48	9°♂02'28	
retrograde	3526 Jul 03 16:56	29°♂07'50		desc. node	3527 Jun 16 00:35	8°♂55'28	
evening set	3526 Jul 07 04:20	28°♂41'24		evening set	3527 Jun 16 15:36	8°♂49'37	
min. Earth dist.	3526 Jul 14 17:45	25°♂19'41	0.55419 AU	inferior conj	3527 Jun 26 00:20	4°♂50'44	-2°-50'-51
inferior conj	3526 Jul 16 06:01	24°♂27'24	-4°-21'-57	minimum elong	3527 Jun 25 16:48	5°♂01'16	2°48'26
minimum elong	3526 Jul 15 22:27	24°♂38'21	4°20'24	min. Earth dist.	3527 Jun 26 04:58	4°♂44'13	0.54854 AU
morning rise	3526 Jul 24 19:17	20°♂36'02		morning rise	3527 Jul 04 18:20	0°♂54'42	
direct	3526 Jul 27 18:06	20°♂15'37		direct	3527 Jul 08 04:12	0°♂29'29	
morning max el	3526 Aug 07 19:03	25°♂23'10	20°44'59	morning max el	3527 Jul 20 18:04	6°♂27'02	22°18'20
	3526 Aug 12 00:08	0°♂		asc. node	3527 Aug 05 16:14	29°♂19'37	
asc. node	3526 Aug 18 19:13	10°♂13'52			3527 Aug 06 00:44	0°♂	
morning set	3526 Aug 26 23:03	25°♂55'44		morning set	3527 Aug 11 09:13	10°♂46'03	
	3526 Aug 28 22:17	0°♂					
				superior conj	3527 Aug 18 14:03	26°♂03'39	1°40'08
superior conj	3526 Sep 03 11:46	11°♂31'24	1°44'34	minimum elong	3527 Aug 18 12:38	25°♂56'10	1°40'03
minimum elong	3526 Sep 03 11:33	11°♂30'21	1°44'34		3527 Aug 20 11:03	0°♂	
max. Earth dist.	3526 Sep 08 06:07	21°♂04'14	1.35904 AU	max. Earth dist.	3527 Aug 21 22:13	3°♂02'08	1.34341 AU
evening rise	3526 Sep 12 08:19	28°♂52'44		evening rise	3527 Aug 26 14:37	12°♂25'07	

	3527 Sep 05 06:38	0°♌			3528 Aug 11 02:25	0°♍		
desc. node	3527 Sep 11 23:55	10°♌48'25			3528 Aug 28 20:57	0°♌21'16		
	3527 Sep 26 09:20	0°♍			3528 Aug 28 15:05	0°♌		
evening max el	3527 Sep 30 10:31	4°♍12'42	27°04'00		3528 Sep 11 21:55	17°♌27'20	27°25'40	
retrograde	3527 Oct 13 16:57	11°♍29'42			3528 Sep 25 12:34	24°♌44'24		
evening set	3527 Oct 20 12:25	8°♍48'52			3528 Oct 02 15:55	22°♌06'31		
min. Earth dist.	3527 Oct 24 10:42	4°♍59'29	0.65302 AU		3528 Oct 06 08:34	18°♌51'21	0.63773 AU	
inferior conj	3527 Oct 26 11:39	2°♍40'57	-2°-3'-24		3528 Oct 08 21:54	16°♌14'21	-3°-3'-39	
minimum elong	3527 Oct 26 15:05	2°♍31'13	2°02'02		3528 Oct 09 02:55	16°♌01'30	3°01'57	
	3527 Oct 28 23:05	30°♍			3528 Oct 15 16:17	10°♌53'35		
morning rise	3527 Nov 01 19:29	27°♌03'41			3528 Oct 18 02:51	10°♌24'17		
asc. node	3527 Nov 01 15:27	27°♌08'37			3528 Oct 18 12:29	10°♌25'05		
direct	3527 Nov 04 11:31	26°♌25'14			3528 Oct 24 16:04	13°♌49'26	17°52'13	
morning max el	3527 Nov 10 23:32	29°♌54'50	18°08'59		3528 Nov 04 20:59	0°♍		
	3527 Nov 11 01:35	0°♍			3528 Nov 10 07:31	9°♍20'07		
morning set	3527 Nov 29 07:39	27°♍17'07						
	3527 Nov 30 23:19	0°♎			superior conj	3528 Nov 22 21:24	0°♎33'42	0°13'26
desc. node	3527 Dec 08 23:14	12°♎58'43			minimum elong	3528 Nov 22 22:52	0°♎39'40	0°13'13
					behind sun begin	3528 Nov 22 17:11	0°♎16'25	
superior conj	3527 Dec 13 22:34	20°♎54'09	0°-33'-27		behind sun end	3528 Nov 23 04:32	1°♎02'53	
minimum elong	3527 Dec 13 18:20	20°♎37'24	0°32'53			3528 Nov 22 13:11	0°♎	
max. Earth dist.	3527 Dec 16 22:50	25°♎39'17	1.45115 AU		desc. node	3528 Nov 24 20:16	3°♎44'42	
	3527 Dec 19 17:16	0°♏			max. Earth dist.	3528 Nov 28 17:06	9°♎57'53	1.44329 AU
evening rise	3527 Dec 30 08:14	16°♏32'43			evening rise	3528 Dec 08 18:28	25°♎41'55	
	3528 Jan 08 01:09	0°♐				3528 Dec 11 13:50	0°♏	
greatest brilliancy	3528 Jan 16 02:03	12°♐01'43	-0.7m		greatest brilliancy	3528 Dec 31 06:43	28°♏43'18	-0.5m
evening max el	3528 Jan 24 00:12	22°♐06'27	19°36'03			3529 Jan 01 06:22	0°♐	
asc. node	3528 Jan 28 14:43	25°♐40'21			evening max el	3529 Jan 06 02:07	5°♐37'56	20°37'18
retrograde	3528 Jan 31 07:36	26°♐19'43			retrograde	3529 Jan 14 05:43	10°♐26'28	
evening set	3528 Feb 03 19:38	25°♐07'54			asc. node	3529 Jan 14 11:46	10°♐26'07	
inferior conj	3528 Feb 09 08:11	19°♐09'11	3°11'48		evening set	3529 Jan 18 02:40	9°♐00'11	
minimum elong	3528 Feb 09 05:58	19°♐16'28	3°11'22		inferior conj	3529 Jan 23 12:46	2°♐48'49	2°41'44
min. Earth dist.	3528 Feb 10 11:34	17°♐39'09	0.66665 AU		minimum elong	3529 Jan 23 10:15	2°♐57'25	2°41'02
morning rise	3528 Feb 14 15:36	12°♐53'59			min. Earth dist.	3529 Jan 24 02:51	2°♐00'42	0.67474 AU
direct	3528 Feb 20 17:58	10°♐11'57				3529 Jan 25 15:02	30°♍♏	
morning max el	3528 Mar 04 00:34	17°♐30'33	25°41'38		morning rise	3529 Jan 28 17:24	26°♏33'19	
desc. node	3528 Mar 05 22:26	19°♐31'06			direct	3529 Feb 03 05:31	24°♏07'58	
	3528 Mar 14 11:35	0°♐				3529 Feb 13 14:02	0°♐	
	3528 Apr 03 02:29	0°♑			morning max el	3529 Feb 14 09:08	0°♐47'16	24°16'55
morning set	3528 Apr 09 05:12	10°♑48'31			desc. node	3529 Feb 20 19:29	8°♐06'21	
max. Earth dist.	3528 Apr 13 00:58	17°♑56'45	1.35882 AU			3529 Mar 08 10:31	0°♐	
					morning set	3529 Mar 22 04:07	22°♐23'32	
superior conj	3528 Apr 18 16:29	29°♑00'17	-1°-6'-44		max. Earth dist.	3529 Mar 25 21:56	29°♐00'57	1.37883 AU
minimum elong	3528 Apr 18 19:59	29°♑17'53	1°06'09			3529 Mar 26 11:01	0°♑	
	3528 Apr 19 04:21	0°♒						
asc. node	3528 Apr 25 14:01	13°♒04'36			superior conj	3529 Apr 01 21:57	12°♑02'56	-1°-33'-17
evening rise	3528 Apr 26 17:42	15°♒25'59			minimum elong	3529 Apr 02 02:29	12°♑24'43	1°32'42
	3528 May 04 06:42	0°♒			evening rise	3529 Apr 10 17:36	29°♑22'14	
evening max el	3528 May 14 12:13	14°♒19'03	20°03'26			3529 Apr 11 01:15	0°♒	
retrograde	3528 May 24 21:30	19°♒22'19			asc. node	3529 Apr 12 11:04	2°♒46'00	
evening set	3528 May 26 20:57	19°♒12'08			evening max el	3529 Apr 27 07:11	26°♒11'28	19°05'06
desc. node	3528 Jun 01 21:37	16°♒55'37				3529 May 03 04:08	0°♒	
inferior conj	3528 Jun 04 20:58	15°♒12'31	0°-52'-42		retrograde	3529 May 06 01:12	0°♒27'12	
minimum elong	3528 Jun 04 18:31	15°♒16'12	0°51'47		evening set	3529 May 08 02:44	0°♒13'58	
min. Earth dist.	3528 Jun 06 17:39	14°♒05'38	0.55247 AU			3529 May 09 00:43	30°♍♒	
morning rise	3528 Jun 13 13:35	10°♒52'27			inferior conj	3529 May 16 08:53	26°♒00'45	0°58'32
direct	3528 Jun 17 16:52	10°♒15'11			minimum elong	3529 May 16 11:09	25°♒56'50	0°57'45
morning max el	3528 Jul 01 09:44	16°♒59'34	24°01'05		min. Earth dist.	3529 May 19 08:59	23°♒57'18	0.56522 AU
	3528 Jul 11 22:15	0°♓			desc. node	3529 May 19 18:39	23°♒41'27	
asc. node	3528 Jul 22 13:16	18°♓50'19			morning rise	3529 May 24 15:16	21°♒05'20	
morning set	3528 Jul 25 20:56	25°♓41'11			direct	3529 May 29 17:39	20°♒04'20	
	3528 Jul 27 21:29	0°♑			morning max el	3529 Jun 13 00:09	27°♒24'40	25°39'12
						3529 Jun 15 12:41	0°♒	
superior conj	3528 Aug 01 21:41	10°♑51'20	1°29'52			3529 Jun 05 03:33	0°♓	
minimum elong	3528 Aug 01 19:33	10°♑39'47	1°29'38		asc. node	3529 Jun 09 10:19	8°♓38'14	
max. Earth dist.	3528 Aug 03 23:20	15°♑18'32	1.33181 AU		morning set	3529 Jun 10 08:30	10°♓34'40	
evening rise	3528 Aug 09 08:27	26°♑30'55						

superior conj	3529 Jul 17 08:20	25° $\overline{54}$ 6'14	1°14'41		3530 Jun 26 22:44	0° $\overline{59}$	
minimum elong	3529 Jul 17 05:58	25° $\overline{53}$ 3'18	1°14'20				
max. Earth dist.	3529 Jul 18 07:11	27° $\overline{55}$ 1'32	1.32428 AU	superior conj	3530 Jul 01 20:08	10° $\overline{54}$ 1'57	0°55'17
	3529 Jul 19 06:43	0° $\overline{9}$		minimum elong	3530 Jul 01 18:02	10° $\overline{53}$ 0'22	0°54'54
evening rise	3529 Jul 24 10:23	10° $\overline{9}$ 59'10		max. Earth dist.	3530 Jul 01 18:31	10° $\overline{53}$ 3'03	1.32080 AU
	3529 Aug 03 08:12	0° $\overline{7}$		evening rise	3530 Jul 08 17:44	25° $\overline{54}$ 1'37	
desc. node	3529 Aug 15 17:58	19° $\overline{7}$ 13'13			3530 Jul 10 19:27	0° $\overline{9}$	
evening max el	3529 Aug 25 05:45	0° $\overline{5}$ 08'54	27°16'29		3530 Jul 28 02:29	0° $\overline{7}$	
	3529 Aug 25 02:00	0° $\overline{5}$		desc. node	3530 Aug 02 14:58	7° $\overline{7}$ 07'28	
retrograde	3529 Sep 08 01:35	7° $\overline{5}$ 23'25		evening max el	3530 Aug 07 07:38	12° $\overline{7}$ 06'53	26°34'05
evening set	3529 Sep 15 05:33	5° $\overline{5}$ 00'25		retrograde	3530 Aug 21 06:44	19° $\overline{7}$ 17'54	
min. Earth dist.	3529 Sep 18 20:02	2° $\overline{5}$ 12'10	0.61928 AU	evening set	3530 Aug 28 00:39	17° $\overline{7}$ 23'09	
	3529 Sep 21 06:18	30° \overline{R} $\overline{7}$		min. Earth dist.	3530 Aug 31 21:18	14° $\overline{7}$ 47'51	0.59884 AU
inferior conj	3529 Sep 21 20:27	29° $\overline{7}$ 27'33	-3°-59'-44	inferior conj	3530 Sep 04 03:49	12° $\overline{7}$ 11'46	-4°-44'-45
minimum elong	3529 Sep 22 02:16	29° $\overline{7}$ 14'18	3°58'15	minimum elong	3530 Sep 04 08:38	12° $\overline{7}$ 02'09	4°44'01
morning rise	3529 Sep 29 01:56	24° $\overline{7}$ 26'33		morning rise	3530 Sep 11 20:00	7° $\overline{7}$ 33'05	
direct	3529 Oct 01 09:49	24° $\overline{7}$ 03'11		direct	3530 Sep 14 04:24	7° $\overline{7}$ 12'55	
asc. node	3529 Oct 05 09:32	25° $\overline{7}$ 14'07		morning max el	3530 Sep 21 18:44	10° $\overline{7}$ 55'14	18°14'20
morning max el	3529 Oct 08 07:34	27° $\overline{7}$ 32'28	17°53'36	asc. node	3530 Sep 22 06:37	11° $\overline{7}$ 24'43	
	3529 Oct 10 12:42	0° $\overline{5}$			3530 Oct 04 09:09	0° $\overline{5}$	
morning set	3529 Oct 24 03:48	22° $\overline{5}$ 21'17		morning set	3530 Oct 07 14:41	6° $\overline{5}$ 03'59	
	3529 Oct 28 09:30	0° $\overline{7}$					
superior conj	3529 Nov 03 22:58	11° $\overline{7}$ 32'00	0°52'18	superior conj	3530 Oct 17 01:15	23° $\overline{5}$ 42'20	1°19'59
minimum elong	3529 Nov 04 03:02	11° $\overline{7}$ 49'33	0°51'46	minimum elong	3530 Oct 17 05:09	24° $\overline{5}$ 00'04	1°19'35
max. Earth dist.	3529 Nov 11 07:07	23° $\overline{7}$ 50'39	1.42913 AU		3530 Oct 20 13:40	0° $\overline{7}$	
desc. node	3529 Nov 11 17:19	24° $\overline{7}$ 32'18		max. Earth dist.	3530 Oct 24 15:40	7° $\overline{7}$ 04'04	1.41057 AU
	3529 Nov 15 02:33	0° $\overline{5}$		evening rise	3530 Oct 29 13:26	15° $\overline{7}$ 14'12	
evening rise	3529 Nov 18 07:23	5° $\overline{5}$ 03'47		desc. node	3530 Oct 29 14:18	15° $\overline{7}$ 17'45	
	3529 Dec 04 22:43	0° $\overline{5}$			3530 Nov 07 22:55	0° $\overline{5}$	
greatest brilliancy	3529 Dec 15 03:45	13° $\overline{5}$ 45'05	-0.4m	greatest brilliancy	3530 Nov 26 08:26	25° $\overline{5}$ 41'44	-0.2m
evening max el	3529 Dec 19 22:29	19° $\overline{5}$ 10'56	21°49'45		3530 Nov 29 23:48	0° $\overline{5}$	
retrograde	3529 Dec 29 02:55	24° $\overline{5}$ 38'52		evening max el	3530 Dec 02 14:17	2° $\overline{5}$ 46'21	23°08'44
asc. node	3530 Jan 01 08:48	23° $\overline{5}$ 41'51		retrograde	3530 Dec 12 21:30	8° $\overline{5}$ 52'38	
evening set	3530 Jan 02 10:30	22° $\overline{5}$ 57'02		evening set	3530 Dec 17 17:26	6° $\overline{5}$ 54'30	
inferior conj	3530 Jan 07 19:55	16° $\overline{5}$ 36'29	2°03'21	asc. node	3530 Dec 19 05:51	5° $\overline{5}$ 27'39	
minimum elong	3530 Jan 07 17:35	16° $\overline{5}$ 44'34	2°02'33	inferior conj	3530 Dec 23 03:40	0° $\overline{5}$ 28'43	1°17'58
min. Earth dist.	3530 Jan 07 22:06	16° $\overline{5}$ 28'54	0.67891 AU	minimum elong	3530 Dec 23 01:59	0° $\overline{5}$ 34'33	1°17'19
morning rise	3530 Jan 13 00:27	10° $\overline{5}$ 22'32		min. Earth dist.	3530 Dec 22 18:53	0° $\overline{5}$ 58'59	0.67945 AU
direct	3530 Jan 17 21:36	8° $\overline{5}$ 18'35			3530 Dec 23 12:01	30° \overline{R} $\overline{5}$	
morning max el	3530 Jan 27 19:01	14° $\overline{5}$ 10'04	22°47'56	morning rise	3530 Dec 28 10:32	24° $\overline{5}$ 18'22	
greatest brilliancy	3530 Feb 01 10:43	19° $\overline{5}$ 21'32	-0.3m	direct	3531 Jan 01 17:10	22° $\overline{5}$ 37'15	
desc. node	3530 Feb 07 16:33	27° $\overline{5}$ 24'21		morning max el	3531 Jan 10 09:36	27° $\overline{5}$ 40'43	21°23'25
	3530 Feb 09 13:52	0° $\overline{5}$			3531 Jan 12 13:42	0° $\overline{5}$	
	3530 Mar 01 09:27	0° $\overline{5}$		greatest brilliancy	3531 Jan 15 11:33	3° $\overline{5}$ 27'58	-0.4m
morning set	3530 Mar 03 00:49	2° $\overline{5}$ 41'26		desc. node	3531 Jan 25 13:34	17° $\overline{5}$ 12'29	
max. Earth dist.	3530 Mar 07 17:17	10° $\overline{5}$ 34'03	1.40058 AU		3531 Feb 03 04:31	0° $\overline{5}$	
				morning set	3531 Feb 10 16:37	11° $\overline{5}$ 37'40	
superior conj	3530 Mar 15 11:39	24° $\overline{5}$ 17'39	-1°-54'-33	max. Earth dist.	3531 Feb 17 17:54	22° $\overline{5}$ 59'51	1.42125 AU
minimum elong	3530 Mar 15 15:54	24° $\overline{5}$ 37'01	1°54'14		3531 Feb 21 22:41	0° $\overline{5}$	
	3530 Mar 18 13:56	0° $\overline{5}$		superior conj	3531 Feb 25 04:28	5° $\overline{5}$ 32'10	-2°-6'-12
evening rise	3530 Mar 25 08:11	12° $\overline{5}$ 46'59		minimum elong	3531 Feb 25 05:58	5° $\overline{5}$ 38'37	2°06'12
asc. node	3530 Mar 30 08:07	22° $\overline{5}$ 08'49		evening rise	3531 Mar 08 09:38	25° $\overline{5}$ 31'02	
	3530 Apr 03 21:19	0° $\overline{5}$			3531 Mar 10 20:53	0° $\overline{5}$	
evening max el	3530 Apr 10 11:24	8° $\overline{5}$ 39'55	18°26'58	asc. node	3531 Mar 17 05:09	11° $\overline{5}$ 06'14	
retrograde	3530 Apr 17 23:25	12° $\overline{5}$ 22'10		evening max el	3531 Mar 24 21:24	21° $\overline{5}$ 35'11	18°08'47
evening set	3530 Apr 20 06:58	12° $\overline{5}$ 02'04		retrograde	3531 Mar 31 15:14	25° $\overline{5}$ 00'27	
inferior conj	3530 Apr 27 17:57	7° $\overline{5}$ 29'15	2°21'06	evening set	3531 Apr 03 04:53	24° $\overline{5}$ 31'03	
minimum elong	3530 Apr 27 21:43	7° $\overline{5}$ 21'40	2°20'04	inferior conj	3531 Apr 09 23:26	19° $\overline{5}$ 36'55	3°11'22
min. Earth dist.	3530 May 01 04:28	4° $\overline{5}$ 44'14	0.58425 AU	minimum elong	3531 Apr 10 02:15	19° $\overline{5}$ 30'19	3°10'54
morning rise	3530 May 05 08:07	2° $\overline{5}$ 01'40		min. Earth dist.	3531 Apr 13 06:05	16° $\overline{5}$ 34'18	0.60597 AU
desc. node	3530 May 06 15:42	1° $\overline{5}$ 25'08		morning rise	3531 Apr 16 20:17	13° $\overline{5}$ 47'04	
direct	3530 May 11 09:01	0° $\overline{5}$ 26'47		direct	3531 Apr 23 12:20	11° $\overline{5}$ 37'31	
morning max el	3530 May 25 18:27	8° $\overline{5}$ 09'28	26°56'48	desc. node	3531 Apr 23 12:44	11° $\overline{5}$ 37'31	
	3530 Jun 11 05:59	0° $\overline{5}$		morning max el	3531 May 07 18:51	19° $\overline{5}$ 31'30	27°42'00
morning set	3530 Jun 24 18:16	25° $\overline{5}$ 21'05			3531 May 16 16:39	0° $\overline{5}$	
asc. node	3530 Jun 26 07:23	28° $\overline{5}$ 37'44			3531 Jun 04 01:15	0° $\overline{5}$	

morning set	3531 Jun 09 00:27	9° Π 54'37		morning max el	3532 Apr 19 00:56	1° Υ 35'43	27°49'46
asc. node	3531 Jun 13 04:26	18° Π 43'58			3532 May 09 22:02	0° 8	
max. Earth dist.	3531 Jun 15 05:42	23° Π 12'01	1.32135 AU	morning set	3532 May 23 00:55	24° 8 08'15	
					3532 May 25 21:25	0° Π	
superior conj	3531 Jun 16 07:21	25° Π 32'40	0°32'20	max. Earth dist.	3532 May 28 12:54	5° Π 35'43	1.32610 AU
minimum elong	3531 Jun 16 05:57	25° Π 24'58	0°32'02	asc. node	3532 May 30 01:27	8° Π 52'17	
	3531 Jun 18 07:58	0° 5					
evening rise	3531 Jun 23 04:18	10° 5 31'09		superior conj	3532 May 30 16:13	10° Π 12'11	0°06'28
	3531 Jul 03 03:18	0° 8		minimum elong	3532 May 30 15:54	10° Π 10'30	0°06'23
evening max el	3531 Jul 20 02:21	23° 8 17'51	25°21'33	behind sun begin	3532 May 30 11:06	9° Π 44'28	
desc. node	3531 Jul 20 11:58	23° 8 40'35		behind sun end	3532 May 30 20:42	10° Π 36'33	
	3531 Jul 30 21:44	0° 7		evening rise	3532 Jun 06 16:08	25° Π 20'42	
retrograde	3531 Aug 03 01:53	0° 7 23'37			3532 Jun 08 21:29	0° 5	
	3531 Aug 06 05:54	30° R 8			3532 Jun 27 01:29	0° 8	
evening set	3531 Aug 08 20:38	29° 8 06'16		evening max el	3532 Jun 30 15:48	3° 8 51'35	23°49'11
min. Earth dist.	3531 Aug 13 14:14	26° 8 25'53	0.57850 AU	desc. node	3532 Jul 06 09:00	8° 8 20'27	
inferior conj	3531 Aug 16 16:39	24° 8 17'38	-5°-7'-26	retrograde	3532 Jul 14 08:45	10° 8 44'45	
minimum elong	3531 Aug 16 17:38	24° 8 15'55	5°07'25	evening set	3532 Jul 18 17:16	10° 8 03'01	
morning rise	3531 Aug 24 18:11	20° 8 01'54		min. Earth dist.	3532 Jul 25 02:02	7° 8 00'31	0.56132 AU
direct	3531 Aug 27 06:28	19° 8 42'45		inferior conj	3532 Jul 27 09:08	5° 8 37'05	-4°-52'-37
morning max el	3531 Sep 04 22:18	23° 8 48'29	18°55'54	minimum elong	3532 Jul 27 04:13	5° 8 44'34	4°52'03
asc. node	3531 Sep 09 03:40	28° 8 41'55		morning rise	3532 Aug 04 18:31	1° 8 40'25	
	3531 Sep 10 01:59	0° 7		direct	3532 Aug 07 13:08	1° 8 20'51	
morning set	3531 Sep 21 11:49	20° 7 16'42		morning max el	3532 Aug 17 15:19	6° 8 01'53	19°59'13
	3531 Sep 26 10:16	0° 5		asc. node	3532 Aug 26 00:41	16° 8 50'15	
					3532 Sep 02 06:10	0° 7	
superior conj	3531 Sep 29 23:04	6° 5 50'36	1°36'44	morning set	3532 Sep 04 15:52	4° 7 49'08	
minimum elong	3531 Sep 30 01:30	7° 5 02'10	1°36'33				
max. Earth dist.	3531 Oct 06 20:41	19° 5 36'59	1.38992 AU	superior conj	3532 Sep 12 11:07	20° 7 40'47	1°44'01
evening rise	3531 Oct 10 18:55	26° 5 29'36		minimum elong	3532 Sep 12 11:49	20° 7 44'14	1°44'00
	3531 Oct 12 20:29	0° 7			3532 Sep 17 05:24	0° 5	
desc. node	3531 Oct 16 11:18	5° 7 57'52		max. Earth dist.	3532 Sep 18 02:04	1° 5 38'12	1.36964 AU
	3531 Nov 01 13:24	0° 7		evening rise	3532 Sep 21 22:33	8° 5 46'06	
evening max el	3531 Nov 15 03:28	16° 7 26'13	24°28'03	desc. node	3532 Oct 02 08:19	26° 5 27'29	
retrograde	3531 Nov 26 12:17	23° 7 04'40			3532 Oct 04 14:20	0° 7	
evening set	3531 Dec 01 21:57	20° 7 50'21		evening max el	3532 Oct 27 15:44	0° 7 08'05	25°40'46
asc. node	3531 Dec 06 02:53	16° 7 08'12			3532 Oct 27 12:26	0° 7	
min. Earth dist.	3531 Dec 06 14:48	15° 7 28'45	0.67656 AU	retrograde	3532 Nov 08 22:29	7° 7 09'46	
inferior conj	3531 Dec 07 10:17	14° 7 23'34	0°26'46	evening set	3532 Nov 14 22:20	4° 7 41'03	
minimum elong	3531 Dec 07 09:38	14° 7 25'44	0°26'30		3532 Nov 19 05:48	30° R 7	
morning rise	3531 Dec 12 21:42	8° 7 19'07		min. Earth dist.	3532 Nov 19 07:27	29° 7 54'48	0.67017 AU
direct	3531 Dec 16 15:03	6° 7 59'45		inferior conj	3532 Nov 20 13:56	28° 7 17'46	0°-29'-8
morning max el	3531 Dec 24 07:42	11° 7 22'55	20°09'37	minimum elong	3532 Nov 20 14:42	28° 7 15'21	0°28'49
greatest brilliancy	3531 Dec 31 02:12	19° 7 30'23	-0.6m	asc. node	3532 Nov 21 23:54	26° 7 31'29	
	3532 Jan 07 11:49	0° 5		morning rise	3532 Nov 26 07:55	22° 7 21'48	
desc. node	3532 Jan 12 10:35	7° 5 22'34		direct	3532 Nov 29 13:41	21° 7 21'23	
morning set	3532 Jan 20 13:42	19° 5 47'08		morning max el	3532 Dec 06 13:41	25° 7 15'31	19°10'06
	3532 Jan 27 02:48	0° \approx			3532 Dec 10 15:47	0° 7	
max. Earth dist.	3532 Jan 31 02:44	6° \approx 21'02	1.43802 AU	greatest brilliancy	3532 Dec 17 08:03	9° 7 24'31	-0.7m
				desc. node	3532 Dec 29 07:37	27° 7 48'20	
superior conj	3532 Feb 05 20:00	15° \approx 37'15	-2°-2'-57	morning set	3532 Dec 29 16:20	28° 7 22'15	
minimum elong	3532 Feb 05 16:01	15° \approx 20'55	2°02'49		3532 Dec 30 17:28	0° 5	
	3532 Feb 14 09:58	0° 7		max. Earth dist.	3533 Jan 12 18:05	20° 5 22'06	1.44876 AU
evening rise	3532 Feb 18 17:39	7° 7 25'56					
asc. node	3532 Mar 03 02:10	29° 7 30'16		superior conj	3533 Jan 15 10:52	24° 5 38'03	-1°-40'-38
	3532 Mar 03 10:38	0° Υ		minimum elong	3533 Jan 15 02:04	24° 5 03'12	1°39'53
evening max el	3532 Mar 07 09:56	4° Υ 48'17	18°09'56		3533 Jan 18 19:48	0° \approx	
retrograde	3532 Mar 13 20:31	8° Υ 11'47		evening rise	3533 Jan 30 04:13	18° \approx 25'17	
evening set	3532 Mar 16 15:47	7° Υ 31'46			3533 Feb 06 05:07	0° 7	
inferior conj	3532 Mar 22 21:42	2° Υ 16'59	3°34'36	asc. node	3533 Feb 17 23:11	17° 7 10'51	
minimum elong	3532 Mar 22 22:44	2° Υ 14'15	3°34'32	evening max el	3533 Feb 18 22:09	18° 7 11'59	18°29'45
	3532 Mar 25 01:08	30° R 7		retrograde	3533 Feb 25 10:51	21° 7 46'44	
min. Earth dist.	3532 Mar 25 16:07	29° 7 21'17	0.62710 AU	evening set	3533 Feb 28 11:47	20° 7 55'17	
morning rise	3532 Mar 29 03:28	26° 7 13'38		inferior conj	3533 Mar 06 08:42	15° 7 21'39	3°37'18
direct	3532 Apr 05 00:55	23° 7 38'02		minimum elong	3533 Mar 06 08:04	15° 7 23'30	3°37'17
desc. node	3532 Apr 09 09:46	24° 7 33'12		min. Earth dist.	3533 Mar 08 11:47	12° 7 51'23	0.64547 AU
	3532 Apr 17 09:02	0° Υ		morning rise	3533 Mar 12 02:55	9° 7 10'46	

direct	3533 Mar 18 21:21	6° κ 22'17		direct	3534 Mar 02 00:29	19° ≈ 41'04	
desc. node	3533 Mar 27 06:48	9° κ 44'34		desc. node	3534 Mar 14 03:51	26° ≈ 36'13	
morning max el	3533 Apr 01 10:24	14° κ 15'26	27°21'49	morning max el	3534 Mar 14 20:21	27° ≈ 17'14	26°24'22
	3533 Apr 14 05:09	0° γ			3534 Mar 17 09:37	0° κ	
	3533 May 02 13:24	0° δ			3534 Apr 07 21:01	0° γ	
morning set	3533 May 06 17:02	7° δ 54'05		morning set	3534 Apr 19 21:08	21° γ 00'24	
max. Earth dist.	3533 May 11 12:10	17° δ 32'41	1.33522 AU	max. Earth dist.	3534 Apr 24 00:10	28° γ 56'10	1.34891 AU
					3534 Apr 24 13:08	0° δ	
superior conj	3533 May 14 20:50	24° δ 34'47	0°-21'-29	superior conj	3534 Apr 28 18:52	8° δ 32'52	0°-50'-21
minimum elong	3533 May 14 21:56	24° δ 40'36	0°21'16	minimum elong	3534 Apr 28 21:32	8° δ 46'30	0°49'51
asc. node	3533 May 16 22:29	28° δ 59'01		asc. node	3534 May 03 19:31	18° δ 59'22	
	3533 May 17 09:53	0° π			3534 May 06 11:59	24° δ 34'37	
evening rise	3533 May 22 03:22	10° π 04'17		evening rise	3534 May 09 03:51	0° π	
	3533 Jun 01 12:49	0° ε			3534 May 25 07:13	25° π 07'48	20°45'47
evening max el	3533 Jun 12 06:53	14° ε 17'43	22°12'40	evening max el	3534 Jun 01 15:15	0° ε	
desc. node	3533 Jun 23 06:00	20° ε 32'21			3534 Jun 05 16:53	0° ε 41'57	
retrograde	3533 Jun 25 03:55	20° ε 40'49		retrograde	3534 Jun 07 19:24	0° ε 31'18	
evening set	3533 Jun 28 02:10	20° ε 21'48		evening set	3534 Jun 09 22:55	30° π	
min. Earth dist.	3533 Jul 06 12:46	16° ε 43'22	0.55064 AU		3534 Jun 10 03:03	29° π 56'41	
inferior conj	3533 Jul 07 08:41	16° ε 15'19	-3°-48'-34	desc. node	3534 Jun 17 02:08	26° π 34'03	-2°-2'-2
minimum elong	3533 Jul 07 00:18	16° ε 27'07	3°46'23	inferior conj	3534 Jun 16 20:26	26° π 42'11	2°00'01
morning rise	3533 Jul 16 00:28	12° ε 24'48		minimum elong	3534 Jun 18 00:46	26° π 01'42	0.54899 AU
direct	3533 Jul 19 03:17	12° ε 03'04		morning rise	3534 Jun 25 20:30	22° π 29'33	
morning max el	3533 Jul 30 20:40	17° ε 31'01	21°22'58	direct	3534 Jun 29 12:36	22° π 00'31	
	3533 Aug 09 14:48	0° δ		morning max el	3534 Jul 12 16:03	28° π 19'41	23°01'41
asc. node	3533 Aug 12 21:44	5° δ 37'58			3534 Jul 14 08:39	0° ε	
morning set	3533 Aug 20 00:22	19° δ 34'33		asc. node	3534 Jul 30 18:47	24° ε 55'07	
	3533 Aug 24 23:39	0° η			3534 Aug 02 07:51	0° δ	
superior conj	3533 Aug 27 09:12	5° η 00'48	1°43'28	morning set	3534 Aug 04 11:23	4° δ 27'17	
minimum elong	3533 Aug 27 08:26	4° η 56'47	1°43'27				
max. Earth dist.	3533 Aug 31 12:53	13° η 29'26	1.35188 AU	superior conj	3534 Aug 11 14:05	19° δ 40'40	1°36'26
evening rise	3533 Sep 04 20:24	21° η 54'02		minimum elong	3534 Aug 11 12:18	19° δ 31'08	1°36'18
	3533 Sep 09 05:48	0° α		max. Earth dist.	3534 Aug 14 08:35	25° δ 32'51	1.33790 AU
desc. node	3533 Sep 19 05:20	16° α 41'04			3534 Aug 16 12:08	0° η	
	3533 Sep 28 09:34	0° π		evening rise	3534 Aug 19 08:03	5° η 41'54	
evening max el	3533 Oct 10 04:04	13° π 46'48	26°39'28		3534 Sep 01 21:29	0° α	
retrograde	3533 Oct 23 03:35	21° π 01'38		desc. node	3534 Sep 06 02:21	6° α 31'31	
evening set	3533 Oct 29 16:38	18° π 23'00		evening max el	3534 Sep 22 16:18	27° α 14'01	27°16'46
min. Earth dist.	3533 Nov 02 18:34	14° π 13'02	0.66025 AU		3534 Sep 25 19:58	0° π	
inferior conj	3533 Nov 04 12:41	12° π 07'55	-1°-28'-26	retrograde	3534 Oct 06 03:07	4° π 32'34	
minimum elong	3533 Nov 04 15:06	12° π 00'42	1°27'27	evening set	3534 Oct 13 02:27	1° π 51'36	
asc. node	3533 Nov 08 20:57	7° π 34'03			3534 Oct 15 05:38	30° π	
morning rise	3533 Nov 10 15:02	6° π 23'08		min. Earth dist.	3534 Oct 16 22:01	28° α 17'14	0.64682 AU
direct	3533 Nov 13 11:19	5° π 37'56		inferior conj	3534 Oct 19 04:18	25° α 49'34	-2°-29'-10
morning max el	3533 Nov 20 01:51	9° π 13'55	18°26'30	minimum elong	3534 Oct 19 08:26	25° α 38'16	2°27'38
	3533 Dec 04 16:32	0° α		morning rise	3534 Oct 25 16:30	20° α 18'58	
morning set	3533 Dec 09 20:17	8° α 16'18		asc. node	3534 Oct 26 18:00	19° α 56'39	
desc. node	3533 Dec 16 04:38	18° α 24'56		direct	3534 Oct 28 05:45	19° α 44'59	
	3533 Dec 23 12:33	0° ε		morning max el	3534 Nov 03 17:38	23° α 12'05	17°59'43
superior conj	3533 Dec 25 13:06	3° ε 10'41	-1°00'-47		3534 Nov 09 03:25	0° π	
minimum elong	3533 Dec 25 05:37	2° ε 41'18	0°59'53	morning set	3534 Nov 21 05:32	19° π 37'11	
max. Earth dist.	3533 Dec 26 12:38	4° ε 42'59	1.45236 AU	desc. node	3534 Nov 27 11:08	0° α	
evening rise	3534 Jan 10 15:30	28° ε 28'08			3534 Dec 03 01:40	9° α 08'41	
	3534 Jan 11 14:47	0° ≈		superior conj	3534 Dec 04 23:33	12° α 13'07	0°-13'-3
greatest brilliancy	3534 Jan 23 00:44	17° ≈ 52'16	-0.7m	minimum elong	3534 Dec 04 21:58	12° α 06'45	0°12'51
	3534 Jan 31 18:48	0° κ		behind sun begin	3534 Dec 04 15:31	11° α 40'55	
evening max el	3534 Feb 02 07:38	1° κ 40'47	19°07'11	behind sun end	3534 Dec 05 04:24	12° α 32'34	
asc. node	3534 Feb 04 20:14	3° κ 54'58		max. Earth dist.	3534 Dec 09 07:33	19° α 06'40	1.44859 AU
retrograde	3534 Feb 09 06:21	5° κ 37'39			3534 Dec 16 06:28	0° ε	
evening set	3534 Feb 12 13:52	4° κ 33'45		evening rise	3534 Dec 21 07:36	7° ε 48'31	
	3534 Feb 17 04:30	30° π			3535 Jan 04 22:44	0° ≈	
inferior conj	3534 Feb 18 04:46	28° ≈ 43'31	3°24'38	greatest brilliancy	3535 Jan 09 16:03	6° ≈ 44'58	-0.6m
minimum elong	3534 Feb 18 02:59	28° ≈ 49'14	3°24'22	evening max el	3535 Jan 16 12:43	15° ≈ 12'25	20°00'29
min. Earth dist.	3534 Feb 19 16:32	26° ≈ 49'43	0.66009 AU	asc. node	3535 Jan 22 17:16	19° ≈ 28'29	
morning rise	3534 Feb 23 15:08	22° ≈ 28'57		retrograde	3535 Jan 24 04:10	19° ≈ 40'00	

evening set	3535 Jan 27 19:42	18° \approx 22'25		retrograde	3536 Jan 08 01:58	3° \approx 49'34	
inferior conj	3535 Feb 02 07:00	12° \approx 18'07	3°00'11	asc. node	3536 Jan 09 14:20	3° \approx 36'59	
minimum elong	3535 Feb 02 04:35	12° \approx 26'11	2°59'38	evening set	3536 Jan 12 03:16	2° \approx 16'50	
min. Earth dist.	3535 Feb 03 04:37	11° \approx 05'35	0.67062 AU		3536 Jan 14 11:32	30° \approx 00'	
morning rise	3535 Feb 07 12:51	6° \approx 02'25		inferior conj	3536 Jan 17 12:55	26° \approx 01'25	2°26'23
direct	3535 Feb 13 09:27	3° \approx 26'19		minimum elong	3536 Jan 17 10:25	26° \approx 10'00	2°25'37
morning max el	3535 Feb 25 05:10	10° \approx 30'07	25°06'37	min. Earth dist.	3536 Jan 17 21:50	25° \approx 30'39	0.67704 AU
desc. node	3535 Mar 01 00:54	14° \approx 40'05		morning rise	3536 Jan 22 17:12	19° \approx 46'29	
	3535 Mar 12 17:15	0° \approx		direct	3536 Jan 27 23:06	17° \approx 29'38	
	3535 Mar 31 12:45	0° \approx		morning max el	3536 Feb 07 13:43	23° \approx 48'36	23°38'59
morning set	3535 Apr 02 08:24	3° \approx 13'32			3536 Feb 13 01:41	0° \approx	
max. Earth dist.	3535 Apr 06 00:56	9° \approx 57'26	1.36699 AU	desc. node	3536 Feb 15 21:56	3° \approx 35'08	
					3536 Mar 05 03:21	0° \approx	
superior conj	3535 Apr 12 07:27	21° \approx 58'49	-1°-18'-25	morning set	3536 Mar 13 20:52	14° \approx 17'30	
minimum elong	3535 Apr 12 11:30	22° \approx 18'45	1°17'48	max. Earth dist.	3536 Mar 17 20:13	21° \approx 10'03	1.38808 AU
	3535 Apr 16 07:51	0° \approx			3536 Mar 22 17:56	0° \approx	
evening rise	3535 Apr 20 15:49	8° \approx 45'24					
asc. node	3535 Apr 20 16:34	8° \approx 49'08		superior conj	3536 Mar 25 06:52	4° \approx 43'15	-1°-43'-10
	3535 May 02 09:51	0° \approx		minimum elong	3536 Mar 25 11:30	5° \approx 05'03	1°42'41
evening max el	3535 May 07 19:47	6° \approx 37'41	19°36'09	evening rise	3536 Apr 03 12:11	22° \approx 29'40	
retrograde	3535 May 17 11:27	11° \approx 18'48		asc. node	3536 Apr 06 13:37	28° \approx 23'41	
evening set	3535 May 19 10:54	11° \approx 07'53			3536 Apr 07 09:59	0° \approx	
inferior conj	3535 May 28 04:00	7° \approx 04'07	0°-2'-51	evening max el	3536 Apr 19 19:10	18° \approx 47'12	18°46'23
minimum elong	3535 May 28 03:52	7° \approx 04'19	0°02'49	retrograde	3536 Apr 27 22:44	22° \approx 46'23	
transit middle	3535 May 28 03:52	7° \approx 04'19	0°02'49	evening set	3536 Apr 30 02:52	22° \approx 30'27	
transit begin	3535 May 28 00:01	7° \approx 10'25		inferior conj	3536 May 08 00:41	18° \approx 09'09	1°37'36
transit end	3535 May 28 07:43	6° \approx 58'13		minimum elong	3536 May 08 03:59	18° \approx 03'04	1°36'33
desc. node	3535 May 28 00:05	7° \approx 10'17		min. Earth dist.	3536 May 11 07:15	15° \approx 45'46	0.57281 AU
min. Earth dist.	3535 May 30 14:36	5° \approx 31'48	0.55697 AU	desc. node	3536 May 13 21:07	14° \approx 05'45	
morning rise	3535 Jun 05 17:15	2° \approx 29'22		morning rise	3536 May 16 00:40	12° \approx 59'31	
direct	3535 Jun 10 06:14	1° \approx 43'12		direct	3536 May 21 13:23	11° \approx 44'56	
morning max el	3535 Jun 24 06:16	8° \approx 45'00	24°44'18	morning max el	3536 Jun 04 21:40	19° \approx 15'23	26°15'34
	3535 Jul 09 23:23	0° \approx			3536 Jun 13 23:44	0° \approx	
asc. node	3535 Jul 17 15:49	14° \approx 33'45			3536 Jul 01 09:26	0° \approx	
morning set	3535 Jul 19 23:11	19° \approx 21'55		morning set	3536 Jul 03 10:13	4° \approx 13'38	
	3535 Jul 24 21:23	0° \approx		asc. node	3536 Jul 03 12:52	4° \approx 27'38	
superior conj	3535 Jul 26 23:12	4° \approx 32'01	1°23'59	superior conj	3536 Jul 10 10:34	19° \approx 28'26	1°06'57
minimum elong	3535 Jul 26 20:55	4° \approx 19'33	1°23'42	minimum elong	3536 Jul 10 08:16	19° \approx 15'45	1°06'33
max. Earth dist.	3535 Jul 28 12:50	7° \approx 56'27	1.32809 AU	max. Earth dist.	3536 Jul 10 22:50	20° \approx 35'56	1.32236 AU
evening rise	3535 Aug 03 05:41	19° \approx 58'26			3536 Jul 15 06:25	0° \approx	
	3535 Aug 08 07:55	0° \approx		evening rise	3536 Jul 17 10:16	4° \approx 34'27	
desc. node	3535 Aug 23 23:23	25° \approx 48'38			3536 Jul 31 00:45	0° \approx	
	3535 Aug 27 01:30	0° \approx		desc. node	3536 Aug 09 20:24	14° \approx 18'48	
evening max el	3535 Sep 05 02:40	10° \approx 16'48	27°25'59	evening max el	3536 Aug 17 08:28	22° \approx 41'53	27°02'32
retrograde	3535 Sep 18 20:04	17° \approx 32'52		retrograde	3536 Aug 31 05:35	29° \approx 53'59	
evening set	3535 Sep 26 00:34	15° \approx 00'04		evening set	3536 Sep 07 06:53	27° \approx 41'41	
min. Earth dist.	3535 Sep 29 15:47	11° \approx 57'17	0.63013 AU	min. Earth dist.	3536 Sep 10 22:44	25° \approx 00'58	0.61078 AU
inferior conj	3535 Oct 02 10:00	9° \approx 15'37	-3°-28'-20	inferior conj	3536 Sep 14 02:32	22° \approx 18'03	-4°-20'-46
minimum elong	3535 Oct 02 15:29	9° \approx 02'10	3°26'39	minimum elong	3536 Sep 14 08:13	22° \approx 05'47	4°19'31
morning rise	3535 Oct 09 09:02	4° \approx 02'33		morning rise	3536 Sep 21 12:39	17° \approx 26'04	
direct	3535 Oct 11 18:03	3° \approx 36'09		direct	3536 Sep 23 20:30	17° \approx 04'13	
asc. node	3535 Oct 13 15:03	3° \approx 53'01		asc. node	3536 Sep 29 12:06	19° \approx 18'30	
morning max el	3535 Oct 18 10:03	7° \approx 02'21	17°50'30	morning max el	3536 Oct 01 00:02	20° \approx 37'40	17°59'57
	3535 Nov 02 09:58	0° \approx			3536 Oct 08 00:42	0° \approx	
morning set	3535 Nov 03 14:54	2° \approx 07'22		morning set	3536 Oct 16 18:01	15° \approx 28'09	
					3536 Oct 24 16:57	0° \approx	
superior conj	3535 Nov 15 09:25	22° \approx 25'03	0°31'11	superior conj	3536 Oct 26 22:01	3° \approx 55'20	1°05'27
minimum elong	3535 Nov 15 12:25	22° \approx 37'34	0°30'47	minimum elong	3536 Oct 27 02:16	4° \approx 14'05	1°04'56
desc. node	3535 Nov 19 22:41	29° \approx 55'34		max. Earth dist.	3536 Nov 03 12:28	16° \approx 55'10	1.42171 AU
	3535 Nov 19 23:47	0° \approx		desc. node	3536 Nov 05 19:42	20° \approx 42'31	
max. Earth dist.	3535 Nov 22 00:13	3° \approx 16'02	1.43795 AU	evening rise	3536 Nov 09 11:45	26° \approx 37'11	
evening rise	3535 Nov 30 16:53	16° \approx 58'06			3536 Nov 11 15:07	0° \approx	
	3535 Dec 09 06:41	0° \approx			3536 Dec 02 02:23	0° \approx	
greatest brilliancy	3535 Dec 25 07:00	22° \approx 40'33	-0.4m				
evening max el	3535 Dec 30 12:22	28° \approx 45'00	21°07'02	greatest brilliancy	3536 Dec 07 12:30	6° \approx 58'08	-0.3m
	3535 Dec 31 19:05	0° \approx		evening max el	3536 Dec 12 06:39	12° \approx 18'45	22°22'52

retrograde	3536 Dec 21 22:08	18°☿02'53			3537 Nov 04 17:10	0°☿	
evening set	3536 Dec 26 10:55	16°☿13'58		evening max el	3537 Nov 24 20:54	25°☿55'11	23°42'48
asc. node	3536 Dec 26 11:22	16°☿13'02			3537 Nov 29 15:04	0°☿	
inferior conj	3536 Dec 31 20:31	9°☿50'45	1°44'52	retrograde	3537 Dec 05 15:18	2°☿16'33	
minimum elong	3536 Dec 31 18:24	9°☿58'04	1°44'06	evening set	3537 Dec 10 17:02	0°☿11'09	
min. Earth dist.	3536 Dec 31 17:54	9°☿59'49	0.67961 AU		3537 Dec 10 22:14	30°☿	
morning rise	3537 Jan 06 01:46	3°☿38'21		asc. node	3537 Dec 13 08:23	27°☿26'37	
direct	3537 Jan 10 16:40	1°☿44'13		min. Earth dist.	3537 Dec 15 14:33	24°☿30'02	0.67859 AU
morning max el	3537 Jan 20 01:11	7°☿14'10	22°11'03	inferior conj	3537 Dec 16 03:59	23°☿44'13	0°56'53
greatest brilliancy	3537 Jan 24 15:23	12°☿22'28	-0.3m	minimum elong	3537 Dec 16 02:41	23°☿48'38	0°56'23
desc. node	3537 Feb 01 18:57	23°☿06'46		morning rise	3537 Dec 21 12:32	17°☿36'13	
	3537 Feb 06 14:36	0°☿		direct	3537 Dec 25 13:13	16°☿04'51	
morning set	3537 Feb 22 05:05	23°☿59'22		morning max el	3538 Jan 02 18:56	20°☿50'09	20°50'32
	3537 Feb 25 21:09	0°☿		greatest brilliancy	3538 Jan 08 11:03	27°☿24'58	-0.5m
max. Earth dist.	3537 Feb 27 17:49	3°☿06'29	1.40970 AU		3538 Jan 10 10:22	0°☿	
				desc. node	3538 Jan 19 15:58	13°☿04'56	
superior conj	3537 Mar 07 12:20	16°☿33'46	-2°00'-57		3538 Jan 30 20:22	0°☿	
minimum elong	3537 Mar 07 15:46	16°☿49'06	2°00'48	morning set	3538 Feb 01 10:46	2°☿29'14	
	3537 Mar 14 21:06	0°☿		max. Earth dist.	3538 Feb 09 21:55	15°☿57'01	1.42892 AU
evening rise	3537 Mar 17 21:42	5°☿38'29					
asc. node	3537 Mar 24 10:40	17°☿36'40		superior conj	3538 Feb 16 18:46	27°☿19'13	-2°-6'-58
	3537 Apr 01 17:00	0°☿		minimum elong	3538 Feb 16 18:11	27°☿16'47	2°06'59
evening max el	3537 Apr 03 02:12	1°☿27'56	18°16'46		3538 Feb 18 08:41	0°☿	
retrograde	3537 Apr 10 05:07	5°☿01'19		evening rise	3538 Feb 28 16:20	18°☿03'05	
evening set	3537 Apr 12 15:17	4°☿37'27			3538 Mar 07 11:00	0°☿	
inferior conj	3537 Apr 19 18:47	29°☿55'13	2°46'08	asc. node	3538 Mar 11 07:42	6°☿21'16	
minimum elong	3537 Apr 19 22:20	29°☿47'33	2°45'19	evening max el	3538 Mar 17 13:37	14°☿31'44	18°06'56
	3537 Apr 19 16:34	30°☿		retrograde	3538 Mar 24 03:20	17°☿54'53	
min. Earth dist.	3537 Apr 23 04:53	26°☿59'49	0.59334 AU	evening set	3538 Mar 26 19:16	17°☿21'16	
morning rise	3537 Apr 27 01:28	24°☿16'50		inferior conj	3538 Apr 02 07:59	12°☿18'14	3°24'06
desc. node	3537 Apr 30 18:10	22°☿46'14		minimum elong	3538 Apr 02 10:04	12°☿13'03	3°23'51
direct	3537 May 03 09:42	22°☿27'06		min. Earth dist.	3538 Apr 05 10:06	9°☿15'37	0.61511 AU
	3537 May 17 12:23	0°☿		morning rise	3538 Apr 08 21:59	6°☿21'22	
morning max el	3537 May 17 18:38	0°☿15'16	27°20'33	direct	3538 Apr 15 17:20	3°☿59'14	
	3537 Jun 07 23:54	0°☿		desc. node	3538 Apr 17 15:11	4°☿09'44	
morning set	3537 Jun 17 18:42	18°☿55'33		morning max el	3538 Apr 29 21:55	11°☿56'35	27°49'54
asc. node	3537 Jun 20 09:54	24°☿30'32			3538 May 14 03:59	0°☿	
	3537 Jun 22 22:34	0°☿			3538 May 31 06:55	0°☿	
				morning set	3538 Jun 01 22:46	3°☿21'43	
superior conj	3537 Jun 24 22:19	4°☿22'35	0°45'58	asc. node	3538 Jun 07 06:57	14°☿38'12	
minimum elong	3537 Jun 24 20:27	4°☿12'21	0°45'35	max. Earth dist.	3538 Jun 07 20:40	15°☿52'32	1.32286 AU
max. Earth dist.	3537 Jun 24 10:45	3°☿18'51	1.32058 AU				
evening rise	3537 Jul 01 19:14	19°☿20'40		superior conj	3538 Jun 09 08:45	19°☿09'13	0°21'41
	3537 Jul 07 00:43	0°☿		minimum elong	3538 Jun 09 07:46	19°☿03'50	0°21'27
	3537 Jul 26 05:03	0°☿			3538 Jun 14 07:52	0°☿	
desc. node	3537 Jul 27 17:25	1°☿41'44		evening rise	3538 Jun 16 06:33	4°☿10'39	
evening max el	3537 Jul 30 07:08	4°☿18'44	26°06'19		3538 Jun 30 01:15	0°☿	
retrograde	3537 Aug 13 06:32	11°☿27'54		evening max el	3538 Jul 11 22:47	15°☿10'22	24°43'41
evening set	3537 Aug 19 16:32	9°☿48'02		desc. node	3538 Jul 14 14:26	17°☿30'43	
min. Earth dist.	3537 Aug 23 19:45	7°☿13'14	0.59008 AU	retrograde	3538 Jul 25 21:04	22°☿13'08	
inferior conj	3537 Aug 27 02:19	4°☿46'29	-4°-57'-55	evening set	3538 Jul 31 02:05	21°☿11'49	
minimum elong	3537 Aug 27 05:52	4°☿39'47	4°57'33	min. Earth dist.	3538 Aug 05 10:05	18°☿23'40	0.57061 AU
morning rise	3537 Sep 03 22:43	0°☿17'57		inferior conj	3538 Aug 08 06:25	16°☿32'28	-5°-6'-37
	3537 Sep 05 16:14	30°☿		minimum elong	3538 Aug 08 04:59	16°☿34'50	5°06'36
direct	3537 Sep 06 08:29	29°☿58'25		morning rise	3538 Aug 16 11:31	12°☿26'00	
	3537 Sep 07 00:38	0°☿		direct	3538 Aug 19 02:04	12°☿07'00	
morning max el	3537 Sep 14 08:22	3°☿48'49	18°29'27	morning max el	3538 Aug 28 07:48	16°☿26'19	19°20'13
asc. node	3537 Sep 16 09:07	5°☿58'54		asc. node	3538 Sep 03 06:09	23°☿39'12	
morning set	3537 Sep 30 09:40	29°☿24'29			3538 Sep 07 04:12	0°☿	
	3537 Sep 30 17:03	0°☿		morning set	3538 Sep 14 10:03	13°☿45'57	
superior conj	3537 Oct 09 09:18	16°☿32'16	1°28'21	superior conj	3538 Sep 22 13:44	29°☿59'49	1°40'52
minimum elong	3537 Oct 09 12:39	16°☿47'51	1°28'02	minimum elong	3538 Sep 22 15:25	0°☿08'00	1°40'47
	3537 Oct 16 21:16	0°☿			3538 Sep 22 13:47	0°☿	
max. Earth dist.	3537 Oct 16 19:15	29°☿51'12	1.40187 AU	max. Earth dist.	3538 Sep 28 23:10	12°☿05'45	1.38105 AU
evening rise	3537 Oct 21 03:26	7°☿13'52		evening rise	3538 Oct 02 18:42	18°☿55'52	
desc. node	3537 Oct 23 16:43	11°☿26'00			3538 Oct 09 07:38	0°☿	

desc. node	3538 Oct 10 13:43	2°♄01'58			3539 Aug 30 10:48	0°♄	
	3538 Oct 29 22:40	0°♄					
evening max el	3538 Nov 07 09:19	9°♄35'24	25°00'18	superior conj	3539 Sep 06 06:33	14°♄04'22	1°44'39
retrograde	3538 Nov 19 04:23	16°♄25'51		minimum elong	3539 Sep 06 06:35	14°♄04'29	1°44'39
evening set	3538 Nov 24 19:59	14°♄05'05		max. Earth dist.	3539 Sep 11 06:17	23°♄59'54	1.36171 AU
min. Earth dist.	3538 Nov 29 09:25	8°♄58'10	0.67417 AU		3539 Sep 14 09:57	0°♄	
inferior conj	3538 Nov 30 09:32	7°♄38'56	0°03'32	evening rise	3539 Sep 15 06:45	1°♄36'35	
minimum elong	3538 Nov 30 09:27	7°♄39'14	0°03'31	desc. node	3539 Sep 27 10:46	22°♄25'52	
transit middle	3538 Nov 30 09:27	7°♄39'14	0°03'31		3539 Oct 02 09:28	0°♄	
transit begin	3538 Nov 30 06:45	7°♄48'07		evening max el	3539 Oct 20 21:47	23°♄17'47	26°07'58
transit end	3538 Nov 30 12:09	7°♄30'21			3539 Oct 30 17:57	0°♄	
asc. node	3538 Nov 30 05:25	7°♄52'31		retrograde	3539 Nov 02 12:31	0°♄26'08	
morning rise	3538 Dec 05 23:30	1°♄37'37			3539 Nov 05 03:31	30°♄	
direct	3538 Dec 09 11:36	0°♄26'51		evening set	3539 Nov 08 18:02	27°♄52'50	
morning max el	3538 Dec 16 20:27	4°♄36'46	19°42'25	min. Earth dist.	3539 Nov 13 00:09	23°♄21'40	0.66638 AU
greatest brilliancy	3538 Dec 24 17:42	14°♄22'17	-0.6m	inferior conj	3539 Nov 14 11:24	21°♄32'25	0°-53'-56
	3539 Jan 04 08:01	0°♄		minimum elong	3539 Nov 14 12:50	21°♄27'56	0°53'20
desc. node	3539 Jan 06 12:58	3°♄21'53		asc. node	3539 Nov 17 02:25	18°♄26'32	
morning set	3539 Jan 11 06:49	10°♄39'21		morning rise	3539 Nov 20 08:43	15°♄40'31	
max. Earth dist.	3539 Jan 23 09:10	29°♄34'30	1.44334 AU	direct	3539 Nov 23 10:12	14°♄46'57	
	3539 Jan 23 15:35	0°♄		morning max el	3539 Nov 30 05:16	18°♄32'14	18°49'28
					3539 Dec 09 01:07	0°♄	
superior conj	3539 Jan 27 23:08	6°♄54'23	-1°-55'-56	morning set	3539 Dec 21 18:44	19°♄44'05	
minimum elong	3539 Jan 27 16:40	6°♄28'19	1°55'33	desc. node	3539 Dec 24 10:01	23°♄52'42	
evening rise	3539 Feb 10 15:36	29°♄34'08			3539 Dec 28 07:36	0°♄	
	3539 Feb 10 21:42	0°♄		max. Earth dist.	3540 Jan 06 02:11	13°♄45'47	1.45126 AU
asc. node	3539 Feb 26 04:44	24°♄28'00					
evening max el	3539 Mar 01 02:21	27°♄49'49	18°16'13	superior conj	3540 Jan 07 06:26	15°♄36'47	-1°-25'-27
	3539 Mar 03 16:51	0°♄		minimum elong	3540 Jan 06 21:18	15°♄00'53	1°24'31
retrograde	3539 Mar 07 12:51	1°♄16'35			3540 Jan 16 08:36	0°♄	
evening set	3539 Mar 10 10:26	0°♄31'55		evening rise	3540 Jan 22 16:09	10°♄08'05	
	3539 Mar 11 08:28	30°♄			3540 Feb 04 02:30	0°♄	
inferior conj	3539 Mar 16 12:08	25°♄09'12	3°37'53	evening max el	3540 Feb 12 13:44	11°♄16'04	18°43'40
minimum elong	3539 Mar 16 12:25	25°♄08'25	3°37'53	asc. node	3540 Feb 13 01:46	11°♄45'53	
min. Earth dist.	3539 Mar 19 00:20	22°♄22'09	0.63533 AU	retrograde	3540 Feb 19 05:38	14°♄58'33	
morning rise	3539 Mar 22 12:31	19°♄02'03		evening set	3540 Feb 22 09:20	14°♄01'50	
direct	3539 Mar 29 09:44	16°♄18'50		inferior conj	3540 Feb 28 03:22	8°♄21'01	3°33'32
desc. node	3539 Apr 04 12:12	18°♄06'41		minimum elong	3540 Feb 28 02:10	8°♄24'39	3°33'25
morning max el	3539 Apr 12 05:40	24°♄16'24	27°41'52	min. Earth dist.	3540 Feb 29 23:52	6°♄05'23	0.65225 AU
	3539 Apr 17 09:45	0°♄		morning rise	3540 Mar 04 17:50	2°♄08'28	
	3539 May 07 12:53	0°♄			3540 Mar 08 01:22	30°♄	
morning set	3539 May 16 20:04	17°♄24'34		direct	3540 Mar 11 09:10	29°♄18'36	
max. Earth dist.	3539 May 22 00:43	28°♄04'45	1.32938 AU		3540 Mar 14 22:16	0°♄	
	3539 May 22 22:29	0°♄		desc. node	3540 Mar 21 09:14	4°♄03'57	
				morning max el	3540 Mar 24 15:22	7°♄05'35	27°00'25
superior conj	3539 May 24 16:06	3°♄42'23	0°-5'-12		3540 Apr 11 07:57	0°♄	
minimum elong	3539 May 24 16:21	3°♄43'45	0°05'10		3540 Apr 28 20:12	0°♄	
behind sun begin	3539 May 24 11:18	3°♄16'36		morning set	3540 Apr 29 07:32	0°♄54'22	
behind sun end	3539 May 24 21:25	4°♄10'56		max. Earth dist.	3540 May 03 19:19	9°♄46'21	1.34046 AU
asc. node	3539 May 25 04:00	4°♄46'23					
evening rise	3539 May 31 18:21	18°♄58'13		superior conj	3540 May 07 18:15	17°♄55'16	0°-33'-42
	3539 Jun 06 04:21	0°♄		minimum elong	3540 May 07 20:00	18°♄04'27	0°33'21
evening max el	3539 Jun 23 12:08	25°♄37'36	23°07'48	asc. node	3540 May 11 01:03	24°♄50'45	
	3539 Jun 29 02:11	0°♄			3540 May 13 11:28	0°♄	
desc. node	3539 Jul 01 11:27	1°♄12'00		evening rise	3540 May 15 04:43	3°♄36'43	
retrograde	3539 Jul 06 22:56	2°♄20'19			3540 May 29 23:32	0°♄	
evening set	3539 Jul 10 15:35	1°♄50'30		evening max el	3540 Jun 04 06:36	6°♄11'06	21°34'01
	3539 Jul 15 06:47	30°♄		retrograde	3540 Jun 16 13:47	12°♄14'22	
min. Earth dist.	3539 Jul 17 21:27	28°♄34'10	0.55578 AU	desc. node	3540 Jun 17 08:29	12°♄12'57	
inferior conj	3539 Jul 19 15:00	27°♄33'38	-4°-31'-44	evening set	3540 Jun 19 01:37	12°♄00'16	
minimum elong	3539 Jul 19 07:59	27°♄43'54	4°30'28	inferior conj	3540 Jun 28 10:16	7°♄59'53	-3°-7'-15
morning rise	3539 Jul 28 03:16	23°♄41'16		minimum elong	3540 Jun 28 02:18	8°♄11'01	3°04'47
direct	3539 Jul 31 00:59	23°♄21'05		min. Earth dist.	3540 Jun 28 08:24	8°♄02'30	0.54877 AU
morning max el	3539 Aug 10 19:56	28°♄21'36	20°32'28	morning rise	3540 Jul 07 03:51	4°♄06'05	
	3539 Aug 12 11:26	0°♄		direct	3540 Jul 10 11:46	3°♄41'55	
asc. node	3539 Aug 21 03:12	12°♄05'56		morning max el	3540 Jul 22 20:28	9°♄31'33	22°03'36
morning set	3539 Aug 29 16:18	28°♄24'59			3540 Aug 06 09:46	0°♄	

asc. node	3540 Aug 07 00:15	1°♏07'15		asc. node	3541 Jul 24 21:21	20°♏34'31	
morning set	3540 Aug 13 02:08	13°♏14'20		morning set	3541 Jul 28 13:43	28°♏08'38	
					3541 Jul 29 10:44	0°♏	
superior conj	3540 Aug 20 07:53	28°♏33'41	1°41'12	superior conj	3541 Aug 04 14:51	13°♏19'12	1°31'46
minimum elong	3540 Aug 20 06:37	28°♏27'03	1°41'08	minimum elong	3541 Aug 04 12:47	13°♏08'06	1°31'34
	3540 Aug 21 00:19	0°♏		max. Earth dist.	3541 Aug 06 20:48	18°♏08'26	1.33324 AU
max. Earth dist.	3540 Aug 23 21:06	5°♏56'05	1.34550 AU	evening rise	3541 Aug 12 03:19	29°♏03'49	
evening rise	3540 Aug 28 11:01	15°♏02'58			3541 Aug 12 14:32	0°♏	
	3540 Sep 05 15:18	0°♏			3541 Aug 29 18:15	0°♏	
desc. node	3540 Sep 13 07:49	12°♏30'42		desc. node	3541 Aug 31 04:49	2°♏08'11	
	3540 Sep 26 01:45	0°♏		evening max el	3541 Sep 14 22:00	20°♏11'07	27°24'16
evening max el	3540 Oct 02 10:25	6°♏53'29	26°58'20	retrograde	3541 Sep 28 11:44	27°♏28'49	
retrograde	3540 Oct 15 15:05	14°♏09'53		evening set	3541 Oct 05 14:17	24°♏49'36	
evening set	3540 Oct 22 09:02	11°♏29'22		min. Earth dist.	3541 Oct 09 07:33	21°♏29'47	0.64019 AU
min. Earth dist.	3540 Oct 26 08:16	7°♏34'44	0.65505 AU	inferior conj	3541 Oct 11 19:09	18°♏54'47	-2°-54'-42
inferior conj	3540 Oct 28 07:25	5°♏19'32	-1°-54'-7	minimum elong	3541 Oct 11 23:57	18°♏42'15	2°53'02
minimum elong	3540 Oct 28 10:35	5°♏10'26	1°52'52	morning rise	3541 Oct 18 11:54	13°♏31'28	
asc. node	3540 Nov 02 23:27	29°♏59'35		direct	3541 Oct 20 23:04	13°♏01'05	
	3540 Nov 02 23:10	30°♏		asc. node	3541 Oct 20 20:31	13°♏01'09	
morning rise	3540 Nov 03 13:48	29°♏40'16		morning max el	3541 Oct 27 11:43	16°♏26'27	17°53'36
direct	3540 Nov 06 06:54	29°♏00'08			3541 Nov 06 03:53	0°♏	
	3540 Nov 09 15:45	0°♏		morning set	3541 Nov 13 07:44	12°♏08'49	
morning max el	3540 Nov 12 19:17	2°♏30'56	18°12'59		3541 Nov 23 22:12	0°♏	
morning set	3540 Dec 01 11:30	0°♏16'33					
	3540 Dec 01 07:27	0°♏		superior conj	3541 Nov 26 04:47	3°♏43'20	0°06'42
desc. node	3540 Dec 10 07:05	14°♏32'44		minimum elong	3541 Nov 26 05:32	3°♏46'23	0°06'36
				behind sun begin	3541 Nov 25 20:20	3°♏08'56	
superior conj	3540 Dec 16 09:32	24°♏14'33	0°-40'-45	behind sun end	3541 Nov 26 14:43	4°♏23'45	
minimum elong	3540 Dec 16 04:22	23°♏54'09	0°40'04	desc. node	3541 Nov 27 04:06	5°♏18'01	
max. Earth dist.	3540 Dec 18 21:47	28°♏11'47	1.45173 AU	max. Earth dist.	3541 Dec 01 16:17	12°♏32'00	1.44484 AU
	3540 Dec 20 01:21	0°♏		evening rise	3541 Dec 12 05:35	29°♏00'59	
evening rise	3541 Jan 01 18:21	19°♏50'23			3541 Dec 12 20:57	0°♏	
	3541 Jan 08 07:11	0°♏			3542 Jan 02 04:33	0°♏	
greatest brilliancy	3541 Jan 17 12:10	13°♏57'57	-0.7m	greatest brilliancy	3542 Jan 02 23:00	1°♏01'46	-0.5m
evening max el	3541 Jan 25 21:32	24°♏46'15	19°28'02	evening max el	3542 Jan 09 00:15	8°♏17'34	20°27'20
asc. node	3541 Jan 29 22:46	28°♏01'44		asc. node	3542 Jan 16 19:48	13°♏00'28	
retrograde	3541 Feb 02 02:27	28°♏55'01		retrograde	3542 Jan 17 00:36	13°♏00'41	
evening set	3541 Feb 05 13:17	27°♏45'14		evening set	3542 Jan 20 20:04	11°♏36'43	
inferior conj	3541 Feb 11 02:21	21°♏48'31	3°15'31	inferior conj	3542 Jan 26 06:24	5°♏27'00	2°46'52
minimum elong	3541 Feb 11 00:14	21°♏55'27	3°15'08	minimum elong	3542 Jan 26 03:54	5°♏35'32	2°46'12
min. Earth dist.	3541 Feb 12 07:50	20°♏12'20	0.66509 AU	min. Earth dist.	3542 Jan 26 22:23	4°♏32'35	0.67379 AU
morning rise	3541 Feb 16 10:27	15°♏33'25			3542 Jan 30 15:02	30°♏	
direct	3541 Feb 22 14:41	12°♏49'40		morning rise	3542 Jan 31 11:15	29°♏11'18	
morning max el	3541 Mar 07 00:57	20°♏13'12	25°53'16	direct	3542 Feb 06 01:34	26°♏43'00	
desc. node	3541 Mar 08 06:17	21°♏29'12			3542 Feb 13 13:07	0°♏	
	3541 Mar 15 10:35	0°♏		morning max el	3542 Feb 17 09:37	3°♏29'16	24°30'00
	3541 Apr 04 11:11	0°♏		desc. node	3542 Feb 23 03:20	9°♏56'44	
morning set	3541 Apr 12 05:10	13°♏39'45			3542 Mar 09 16:12	0°♏	
max. Earth dist.	3541 Apr 16 02:38	20°♏59'21	1.35612 AU	morning set	3542 Mar 25 07:28	25°♏25'08	
	3541 Apr 20 16:40	0°♏			3542 Mar 27 21:27	0°♏	
				max. Earth dist.	3542 Mar 29 00:21	2°♏01'29	1.37570 AU
superior conj	3541 Apr 21 12:41	1°♏40'42	-1°-2'-29				
minimum elong	3541 Apr 21 15:59	1°♏57'21	1°01'54	superior conj	3542 Apr 04 20:05	14°♏49'26	-1°-29'-31
asc. node	3541 Apr 27 22:07	14°♏47'15		minimum elong	3542 Apr 05 00:32	15°♏10'55	1°28'55
evening rise	3541 Apr 29 11:39	17°♏59'53			3542 Apr 12 12:32	0°♏	
	3541 May 05 14:09	0°♏		evening rise	3542 Apr 13 12:39	1°♏59'52	
evening max el	3541 May 17 11:59	17°♏16'42	20°13'48	asc. node	3542 Apr 14 19:09	4°♏30'44	
retrograde	3541 May 28 03:41	22°♏28'10		evening max el	3542 Apr 30 05:19	29°♏02'58	19°12'28
evening set	3541 May 30 03:28	22°♏18'03			3542 May 01 06:10	0°♏	
desc. node	3541 Jun 04 05:30	20°♏32'52		retrograde	3542 May 09 04:44	3°♏24'53	
inferior conj	3541 Jun 08 05:34	18°♏19'24	-1°-10'-54	evening set	3542 May 11 05:30	3°♏12'25	
minimum elong	3541 Jun 08 02:14	18°♏24'20	1°09'41		3542 May 18 03:35	30°♏	
min. Earth dist.	3541 Jun 09 20:49	17°♏21'29	0.55125 AU	inferior conj	3542 May 19 14:35	29°♏01'59	0°43'16
morning rise	3541 Jun 16 22:55	14°♏03'51		minimum elong	3542 May 19 16:20	28°♏59'03	0°42'38
direct	3541 Jun 20 22:59	13°♏29'10		desc. node	3542 May 22 02:32	27°♏21'13	
morning max el	3541 Jul 04 12:56	20°♏07'17	23°45'45	min. Earth dist.	3542 May 22 11:47	27°♏06'06	0.56286 AU
	3541 Jul 12 21:38	0°♏					

morning rise	3542 May 27 22:57	24°♄11'46		min. Earth dist.	3543 May 04 06:28	7°♄43'43	0.58122 AU
direct	3542 Jun 01 21:50	23°♄14'56		morning rise	3543 May 08 13:11	5°♄00'44	
	3542 Jun 15 13:53	0°♄		desc. node	3543 May 08 23:33	4°♄48'18	
morning max el	3542 Jun 16 03:08	0°♄31'14	25°25'34	direct	3543 May 14 11:13	3°♄31'05	
	3542 Jul 06 13:40	0°♄		morning max el	3543 May 28 20:26	11°♄10'57	26°47'05
asc. node	3542 Jul 11 18:25	10°♄19'58			3543 Jun 12 10:13	0°♄	
morning set	3542 Jul 13 01:22	13°♄02'14		morning set	3543 Jun 27 11:28	27°♄49'42	
				asc. node	3543 Jun 28 15:26	0°♄17'45	
superior conj	3542 Jul 20 01:09	28°♄13'08	1°17'17		3543 Jun 28 12:06	0°♄	
minimum elong	3542 Jul 19 22:48	28°♄00'15	1°16'56				
	3542 Jul 20 20:40	0°♄		superior conj	3543 Jul 04 12:51	13°♄08'52	0°58'29
max. Earth dist.	3542 Jul 21 03:42	0°♄38'27	1.32508 AU	minimum elong	3543 Jul 04 10:41	12°♄56'55	0°58'05
evening rise	3542 Jul 27 04:11	13°♄28'59		max. Earth dist.	3543 Jul 04 14:42	13°♄19'04	1.32104 AU
	3542 Aug 04 17:01	0°♄		evening rise	3543 Jul 11 10:52	28°♄09'43	
desc. node	3542 Aug 18 01:50	21°♄07'12			3543 Jul 12 07:57	0°♄	
	3542 Aug 25 08:07	0°♄			3543 Jul 29 02:36	0°♄	
evening max el	3542 Aug 28 06:31	2°♄58'30	27°20'06	desc. node	3543 Aug 04 22:51	9°♄11'22	
retrograde	3542 Sep 11 01:56	10°♄13'47		evening max el	3543 Aug 10 09:32	15°♄03'41	26°42'36
evening set	3542 Sep 18 06:18	7°♄47'47		retrograde	3543 Aug 24 08:17	22°♄14'56	
min. Earth dist.	3542 Sep 21 20:43	4°♄56'08	0.62213 AU	evening set	3543 Aug 31 04:27	20°♄15'24	
inferior conj	3542 Sep 24 19:40	2°♄11'42	-3°-51'-51	min. Earth dist.	3543 Sep 03 23:29	17°♄39'13	0.60190 AU
minimum elong	3542 Sep 25 01:27	1°♄58'16	3°50'16	inferior conj	3543 Sep 07 05:31	15°♄00'49	-4°-39'-9
	3542 Sep 27 06:45	30°♄		minimum elong	3543 Sep 07 10:38	14°♄50'21	4°38'16
morning rise	3542 Oct 01 23:30	27°♄07'31		morning rise	3543 Sep 14 20:09	10°♄18'31	
direct	3542 Oct 04 07:30	26°♄43'31		direct	3543 Sep 17 04:16	9°♄58'00	
asc. node	3542 Oct 07 17:35	27°♄36'42		morning max el	3543 Sep 24 15:34	13°♄37'52	18°09'57
	3542 Oct 10 22:43	0°♄		asc. node	3543 Sep 24 14:38	13°♄35'38	
morning max el	3542 Oct 11 03:35	0°♄11'50	17°52'10		3543 Oct 05 18:17	0°♄	
morning set	3542 Oct 27 01:23	25°♄02'32		morning set	3543 Oct 10 10:26	8°♄40'01	
	3542 Oct 29 19:41	0°♄					
superior conj	3542 Nov 07 02:18	14°♄29'47	0°47'06	superior conj	3543 Oct 20 01:12	26°♄30'03	1°16'31
minimum elong	3542 Nov 07 06:11	14°♄46'25	0°46'34	minimum elong	3543 Oct 20 05:15	26°♄48'17	1°16'04
desc. node	3542 Nov 14 01:07	26°♄05'30			3543 Oct 22 00:11	0°♄	
max. Earth dist.	3542 Nov 14 06:51	26°♄28'50	1.43157 AU	max. Earth dist.	3543 Oct 27 16:22	9°♄49'13	1.41356 AU
	3542 Nov 16 11:05	0°♄		desc. node	3543 Oct 31 22:08	16°♄51'26	
evening rise	3542 Nov 21 17:02	8°♄18'20		evening rise	3543 Nov 01 19:57	18°♄20'07	
	3542 Dec 06 02:52	0°♄			3543 Nov 09 05:46	0°♄	
greatest brilliancy	3542 Dec 18 00:58	16°♄17'53	-0.4m	greatest brilliancy	3543 Nov 30 04:56	29°♄23'29	-0.2m
evening max el	3542 Dec 22 21:26	21°♄50'19	21°38'25		3543 Nov 30 17:00	0°♄	
retrograde	3542 Dec 31 22:00	27°♄12'16		evening max el	3543 Dec 05 13:53	5°♄25'22	22°56'46
asc. node	3543 Jan 03 16:50	26°♄30'06		retrograde	3543 Dec 15 16:58	11°♄25'48	
evening set	3543 Jan 05 03:52	25°♄32'55		evening set	3543 Dec 20 11:01	9°♄30'07	
inferior conj	3543 Jan 10 13:18	19°♄13'35	2°09'38	asc. node	3543 Dec 21 13:52	8°♄28'24	
minimum elong	3543 Jan 10 10:55	19°♄21'52	2°08'51	inferior conj	3543 Dec 25 21:04	3°♄04'57	1°25'15
min. Earth dist.	3543 Jan 10 17:13	18°♄59'58	0.67856 AU	minimum elong	3543 Dec 25 19:15	3°♄11'14	1°24'34
morning rise	3543 Jan 15 17:40	12°♄59'14		min. Earth dist.	3543 Dec 25 13:53	3°♄29'44	0.67965 AU
direct	3543 Jan 20 17:06	10°♄51'46			3543 Dec 28 04:27	30°♄	
morning max el	3543 Jan 30 18:58	16°♄50'34	23°01'00	morning rise	3543 Dec 31 03:26	26°♄53'59	
greatest brilliancy	3543 Feb 04 14:34	22°♄13'27	-0.3m	direct	3544 Jan 04 12:13	25°♄09'26	
desc. node	3543 Feb 10 00:21	29°♄08'56			3544 Jan 13 00:47	0°♄	
	3543 Feb 10 15:30	0°♄		morning max el	3544 Jan 13 08:34	0°♄19'20	21°35'24
	3543 Mar 02 17:43	0°♄		greatest brilliancy	3544 Jan 18 06:28	5°♄53'13	-0.4m
morning set	3543 Mar 06 08:21	5°♄55'02		desc. node	3544 Jan 27 21:21	18°♄52'46	
max. Earth dist.	3543 Mar 10 19:10	13°♄27'11	1.39739 AU		3544 Feb 04 10:51	0°♄	
				morning set	3544 Feb 14 04:13	15°♄02'13	
superior conj	3543 Mar 18 12:26	27°♄11'58	-1°-51'-49	max. Earth dist.	3544 Feb 20 18:56	25°♄45'17	1.41838 AU
minimum elong	3543 Mar 18 16:51	27°♄32'17	1°51'29		3544 Feb 23 08:01	0°♄	
	3543 Mar 20 00:49	0°♄		superior conj	3544 Feb 28 08:42	8°♄36'17	-2°-5'-17
evening rise	3543 Mar 28 04:48	15°♄29'35		minimum elong	3544 Feb 28 10:49	8°♄45'27	2°05'14
asc. node	3543 Apr 01 16:10	23°♄56'26		evening rise	3544 Mar 10 08:28	28°♄20'18	
	3543 Apr 05 01:45	0°♄			3544 Mar 11 06:15	0°♄	
evening max el	3543 Apr 13 08:22	11°♄26'39	18°31'20	asc. node	3544 Mar 18 13:11	12°♄58'12	
retrograde	3543 Apr 21 00:00	15°♄12'34		evening max el	3544 Mar 26 17:46	24°♄18'46	18°10'14
evening set	3543 Apr 23 06:40	14°♄53'38		retrograde	3544 Apr 02 13:30	27°♄45'34	
inferior conj	3543 Apr 30 20:23	10°♄23'56	2°10'42	evening set	3544 Apr 05 02:20	27°♄17'35	
minimum elong	3543 May 01 00:07	10°♄16'35	2°09'39	inferior conj	3544 Apr 11 23:04	22°♄26'28	3°05'37

minimum elong	3544 Apr 12 02:07	22°♿19'29	3°05'03	inferior conj	3545 Mar 25 19:09	5°♿02'16	3°32'33
min. Earth dist.	3544 Apr 15 06:54	19°♿25'01	0.60270 AU	minimum elong	3545 Mar 25 20:27	4°♿58'50	3°32'26
morning rise	3544 Apr 18 22:26	16°♿39'23		min. Earth dist.	3545 Mar 28 15:37	2°♿04'12	0.62404 AU
desc. node	3544 Apr 24 20:34	14°♿36'07			3545 Mar 30 20:54	30°♿	
direct	3544 Apr 25 12:47	14°♿34'51		morning rise	3545 Apr 01 02:55	29°♿00'20	
morning max el	3544 May 09 19:56	22°♿27'15	27°37'38	direct	3545 Apr 08 00:03	26°♿27'58	
	3544 May 16 11:52	0°♿		desc. node	3545 Apr 11 17:36	27°♿08'11	
	3544 Jun 04 11:39	0°♿			3545 Apr 16 23:05	0°♿	
morning set	3544 Jun 10 18:19	12°♿25'47		morning max el	3545 Apr 22 01:27	4°♿25'46	27°51'02
asc. node	3544 Jun 14 12:28	20°♿23'18			3545 May 11 04:17	0°♿	
max. Earth dist.	3544 Jun 17 02:18	26°♿00'09	1.32106 AU	morning set	3545 May 25 19:49	26°♿42'52	
					3545 May 27 10:20	0°♿	
superior conj	3544 Jun 18 00:17	28°♿00'51	0°36'02	max. Earth dist.	3545 May 31 10:25	8°♿27'09	1.32515 AU
minimum elong	3544 Jun 17 22:44	27°♿52'24	0°35'42	asc. node	3545 Jun 01 09:30	10°♿31'30	
	3544 Jun 18 21:56	0°♿					
evening rise	3544 Jun 24 21:07	12°♿58'55		superior conj	3545 Jun 02 09:36	12°♿42'13	0°10'33
	3544 Jul 03 11:10	0°♿		minimum elong	3545 Jun 02 09:07	12°♿39'31	0°10'26
desc. node	3544 Jul 21 19:52	25°♿58'26		behind sun begin	3545 Jun 02 05:10	12°♿18'07	
evening max el	3544 Jul 22 05:17	26°♿21'10	25°33'53	behind sun end	3545 Jun 02 13:03	13°♿00'56	
	3544 Jul 26 15:01	0°♿		evening rise	3545 Jun 09 08:52	27°♿48'42	
retrograde	3544 Aug 05 04:48	3°♿27'38			3545 Jun 10 09:44	0°♿	
evening set	3544 Aug 11 04:00	2°♿04'24			3545 Jun 27 16:22	0°♿	
	3544 Aug 14 20:52	30°♿		evening max el	3545 Jul 03 19:02	6°♿58'15	24°03'30
min. Earth dist.	3544 Aug 15 17:18	29°♿26'05	0.58145 AU	desc. node	3545 Jul 08 16:54	10°♿57'23	
inferior conj	3544 Aug 18 21:14	27°♿12'33	-5°-6'-2	retrograde	3545 Jul 17 13:40	13°♿54'29	
minimum elong	3544 Aug 18 22:59	27°♿09'26	5°05'59	evening set	3545 Jul 22 03:43	13°♿07'56	
morning rise	3544 Aug 26 21:28	22°♿53'31		min. Earth dist.	3545 Jul 28 05:32	10°♿09'35	0.56358 AU
direct	3544 Aug 29 09:05	22°♿34'16		inferior conj	3545 Jul 30 16:39	8°♿38'31	-4°-57'-54
morning max el	3544 Sep 06 20:24	26°♿35'34	18°48'23	minimum elong	3545 Jul 30 12:37	8°♿44'46	4°57'31
	3544 Sep 09 22:14	0°♿		morning rise	3545 Aug 08 00:59	4°♿39'45	
asc. node	3544 Sep 10 11:40	0°♿43'16		direct	3545 Aug 10 18:31	4°♿20'22	
morning set	3544 Sep 23 06:16	22°♿48'34		morning max el	3545 Aug 20 15:09	8°♿55'12	19°48'29
	3544 Sep 26 22:17	0°♿		asc. node	3545 Aug 28 08:43	18°♿44'23	
					3545 Sep 03 17:00	0°♿	
superior conj	3544 Oct 01 20:28	9°♿30'20	1°34'49	morning set	3545 Sep 07 09:26	7°♿18'06	
minimum elong	3544 Oct 01 23:08	9°♿43'03	1°34'38				
max. Earth dist.	3544 Oct 08 21:53	22°♿28'13	1.39304 AU	superior conj	3545 Sep 15 06:41	23°♿14'55	1°43'26
evening rise	3544 Oct 12 21:51	29°♿25'04		minimum elong	3545 Sep 15 07:38	23°♿19'36	1°43'25
	3544 Oct 13 06:04	0°♿			3545 Sep 18 17:28	0°♿	
desc. node	3544 Oct 17 19:09	7°♿32'21		max. Earth dist.	3545 Sep 21 02:40	4°♿31'45	1.37251 AU
	3544 Nov 01 16:11	0°♿		evening rise	3545 Sep 24 22:23	11°♿32'35	
evening max el	3544 Nov 17 03:17	19°♿04'05	24°16'27	desc. node	3545 Oct 04 16:13	28°♿03'44	
retrograde	3544 Nov 28 08:21	25°♿38'09			3545 Oct 05 21:29	0°♿	
evening set	3544 Dec 03 15:59	23°♿26'02			3545 Oct 27 23:25	0°♿	
asc. node	3544 Dec 07 10:54	19°♿15'49		evening max el	3545 Oct 30 15:30	2°♿45'25	25°30'41
min. Earth dist.	3544 Dec 08 10:00	17°♿59'26	0.67722 AU	retrograde	3545 Nov 11 19:23	9°♿44'46	
inferior conj	3544 Dec 09 03:56	16°♿59'08	0°34'53	evening set	3545 Nov 17 17:08	7°♿17'53	
minimum elong	3544 Dec 09 03:07	17°♿01'56	0°34'32	min. Earth dist.	3545 Nov 22 03:19	2°♿26'21	0.67129 AU
morning rise	3544 Dec 14 14:33	10°♿53'47		inferior conj	3545 Nov 23 08:11	0°♿53'40	0°-20'-22
direct	3544 Dec 18 09:47	9°♿31'23		minimum elong	3545 Nov 23 08:42	0°♿51'59	0°20'10
morning max el	3544 Dec 26 05:33	13°♿59'44	20°19'47	asc. node	3545 Nov 24 07:56	29°♿38'06	
greatest brilliancy	3545 Jan 01 16:15	21°♿39'20	-0.5m		3545 Nov 24 00:59	30°♿	
	3545 Jan 07 15:59	0°♿		morning rise	3545 Nov 29 01:04	24°♿56'20	
desc. node	3545 Jan 13 18:23	8°♿59'41		direct	3545 Dec 02 08:23	23°♿53'25	
morning set	3545 Jan 23 02:49	23°♿14'34		morning max el	3545 Dec 09 10:29	27°♿51'19	19°18'02
	3545 Jan 27 10:53	0°♿			3545 Dec 11 09:59	0°♿	
max. Earth dist.	3545 Feb 02 02:49	8°♿59'36	1.43584 AU	greatest brilliancy	3545 Dec 18 23:24	10°♿07'27	-0.7m
				desc. node	3545 Dec 31 15:26	29°♿23'27	
superior conj	3545 Feb 08 04:08	18°♿51'32	-2°-4'-38		3546 Jan 01 00:52	0°♿	
minimum elong	3545 Feb 08 01:04	18°♿38'53	2°04'33	morning set	3546 Jan 02 03:04	1°♿41'33	
	3545 Feb 14 19:11	0°♿		max. Earth dist.	3546 Jan 15 17:13	22°♿55'22	1.44756 AU
evening rise	3545 Feb 20 19:22	10°♿22'59					
	3545 Mar 04 10:37	0°♿		superior conj	3546 Jan 18 22:18	28°♿00'39	-1°-45'-16
asc. node	3545 Mar 05 10:13	1°♿27'44		minimum elong	3546 Jan 18 13:56	27°♿27'24	1°44'37
evening max el	3545 Mar 10 06:06	7°♿29'25	18°08'34		3546 Jan 20 04:15	0°♿	
retrograde	3545 Mar 16 17:12	10°♿52'29		evening rise	3546 Feb 02 09:24	21°♿31'00	
evening set	3545 Mar 19 11:35	10°♿14'10			3546 Feb 07 12:05	0°♿	

asc. node	3546 Feb 20 07:15	19° K 15'35		retrograde	3547 Feb 12 01:21	8° K 12'54	
evening max el	3546 Feb 21 18:31	20° K 51'46	18°25'39	evening set	3547 Feb 15 07:49	7° K 10'58	
retrograde	3546 Feb 28 06:28	24° K 24'13		inferior conj	3547 Feb 20 23:27	1° K 23'12	3°27'19
evening set	3546 Mar 03 06:28	23° K 34'36		minimum elong	3547 Feb 20 21:48	1° K 28'24	3°27'07
inferior conj	3546 Mar 09 04:32	18° K 03'43	3°37'57		3547 Feb 22 01:47	30° R \approx	
minimum elong	3546 Mar 09 04:07	18° K 04'54	3°37'57	min. Earth dist.	3547 Feb 22 13:29	29° \approx 23'25	0.65822 AU
min. Earth dist.	3546 Mar 11 10:00	15° K 28'37	0.64295 AU	morning rise	3547 Feb 26 10:46	25° \approx 09'01	
morning rise	3546 Mar 15 00:13	11° K 53'33		direct	3547 Mar 04 21:51	22° \approx 20'06	
direct	3546 Mar 21 19:31	9° K 05'57		desc. node	3547 Mar 16 11:40	28° \approx 39'10	
desc. node	3546 Mar 29 14:37	12° K 00'59			3547 Mar 17 20:43	0° K	
morning max el	3546 Apr 04 10:40	17° K 00'53	27°27'59	morning max el	3547 Mar 17 20:36	29° \approx 59'42	26°34'21
	3546 Apr 15 05:49	0° Y			3547 Apr 09 04:09	0° Y	
	3546 May 03 23:44	0° B		morning set	3547 Apr 22 19:33	23° Y 46'04	
morning set	3546 May 09 13:23	10° B 33'13			3547 Apr 26 01:15	0° B	
max. Earth dist.	3546 May 14 11:02	20° B 27'56	1.33356 AU	max. Earth dist.	3547 Apr 27 00:38	1° B 55'09	1.34656 AU
superior conj	3546 May 17 15:00	27° B 07'26	0°-17'-10	superior conj	3547 May 01 14:13	11° B 09'39	0°-45'-59
minimum elong	3546 May 17 15:53	27° B 12'04	0°16'59	minimum elong	3547 May 01 16:38	11° B 22'09	0°45'31
	3546 May 18 23:21	0° II		asc. node	3547 May 06 03:37	20° B 40'07	
asc. node	3546 May 19 06:33	0° II 38'32		evening rise	3547 May 09 05:28	27° B 05'42	
evening rise	3546 May 24 20:18	12° II 33'06			3547 May 10 15:20	0° II	
	3546 Jun 02 18:24	0° E		evening max el	3547 May 28 08:07	28° II 08'41	20°57'48
evening max el	3546 Jun 15 09:22	17° E 23'09	22°26'41		3547 May 30 10:08	0° E	
desc. node	3546 Jun 25 13:55	23° E 33'20		retrograde	3547 Jun 08 23:43	3° E 50'32	
retrograde	3546 Jun 28 10:37	23° E 52'12		evening set	3547 Jun 11 04:00	3° E 39'21	
evening set	3546 Jul 01 13:10	23° E 30'55		desc. node	3547 Jun 12 10:54	3° E 22'45	
min. Earth dist.	3546 Jul 09 16:24	19° E 58'35	0.55170 AU		3547 Jun 19 23:00	30° R II	
inferior conj	3546 Jul 10 18:15	19° E 21'54	-4°-1'-29	inferior conj	3547 Jun 20 11:45	29° II 41'58	-2°-19'-51
minimum elong	3546 Jul 10 10:02	19° E 33'35	3°59'30	minimum elong	3547 Jun 20 05:19	29° II 51'04	2°17'39
morning rise	3546 Jul 19 09:12	15° E 31'29		min. Earth dist.	3547 Jun 21 04:13	29° II 18'39	0.54859 AU
direct	3546 Jul 22 10:30	15° E 10'19		morning rise	3547 Jun 29 06:06	25° II 40'47	
morning max el	3546 Aug 02 22:17	20° E 31'04	21°09'21	direct	3547 Jul 02 19:54	25° II 13'13	
	3546 Aug 10 17:06	0° Q			3547 Jul 14 04:11	0° E	
asc. node	3546 Aug 15 05:46	7° Q 26'44		morning max el	3547 Jul 15 18:52	1° E 25'07	22°46'22
morning set	3546 Aug 22 17:23	22° Q 01'43		asc. node	3547 Aug 02 02:51	26° E 40'22	
	3546 Aug 26 13:00	0° P			3547 Aug 03 19:30	0° Q	
superior conj	3546 Aug 30 03:30	7° P 31'02	1°44'00	morning set	3547 Aug 07 04:10	6° Q 54'02	
minimum elong	3546 Aug 30 02:55	7° P 28'02	1°43'59	superior conj	3547 Aug 14 07:33	22° Q 08'45	1°37'53
max. Earth dist.	3546 Sep 03 12:15	16° P 22'11	1.35429 AU	minimum elong	3547 Aug 14 05:53	21° Q 59'54	1°37'45
evening rise	3546 Sep 07 17:48	24° P 33'35		max. Earth dist.	3547 Aug 17 06:43	28° Q 23'51	1.33974 AU
	3546 Sep 10 16:24	0° A			3547 Aug 18 01:15	0° P	
desc. node	3546 Sep 21 13:15	18° A 20'06		evening rise	3547 Aug 22 03:42	8° P 16'43	
	3546 Sep 29 10:55	0° M			3547 Sep 03 04:39	0° A	
evening max el	3546 Oct 13 03:50	16° M 25'04	26°32'00	desc. node	3547 Sep 08 10:16	8° A 14'45	
retrograde	3546 Oct 26 01:25	23° M 38'53		evening max el	3547 Sep 25 16:16	29° A 55'10	27°12'52
evening set	3546 Nov 01 12:30	21° M 01'24			3547 Sep 25 18:17	0° M	
min. Earth dist.	3546 Nov 05 15:29	16° M 45'56	0.66190 AU	retrograde	3547 Oct 09 01:42	7° M 13'19	
inferior conj	3546 Nov 07 07:48	14° M 44'41	-1°-19'-18	evening set	3547 Oct 15 23:44	4° M 32'18	
minimum elong	3546 Nov 07 09:58	14° M 38'10	1°18'24	min. Earth dist.	3547 Oct 19 20:15	0° M 52'38	0.64906 AU
asc. node	3546 Nov 11 04:59	10° M 31'23			3547 Oct 20 15:31	30° R A	
morning rise	3546 Nov 13 08:48	8° M 57'58		inferior conj	3547 Oct 22 00:38	28° A 28'03	-2°-20'00
direct	3546 Nov 16 06:19	8° M 10'46		minimum elong	3547 Oct 22 04:32	28° A 17'16	2°18'31
morning max el	3546 Nov 22 21:52	11° M 49'03	18°31'57	morning rise	3547 Oct 28 11:17	22° A 54'58	
	3546 Dec 05 23:12	0° X		asc. node	3547 Oct 29 02:01	22° A 40'14	
morning set	3546 Dec 13 02:38	11° X 22'05		direct	3547 Oct 31 01:26	22° A 19'31	
desc. node	3546 Dec 18 12:29	19° X 58'36		morning max el	3547 Nov 06 13:14	25° A 47'21	18°02'34
	3546 Dec 24 20:51	0° Z			3547 Nov 10 02:51	0° M	
superior conj	3546 Dec 29 01:13	6° Z 34'09	-1°-7'-38	morning set	3547 Nov 24 07:42	22° M 30'42	
minimum elong	3546 Dec 28 17:06	6° Z 02'16	1°06'41		3547 Nov 28 20:06	0° X	
max. Earth dist.	3546 Dec 29 11:18	7° Z 13'39	1.45229 AU	desc. node	3547 Dec 05 09:33	10° X 41'27	
	3547 Jan 12 22:27	0° \approx		superior conj	3547 Dec 08 09:07	15° X 28'13	0°-20'-17
evening rise	3547 Jan 14 00:04	1° \approx 41'35		minimum elong	3547 Dec 08 06:36	15° X 18'12	0°19'56
	3547 Feb 01 12:21	0° K		max. Earth dist.	3547 Dec 12 06:23	21° X 38'01	1.44966 AU
evening max el	3547 Feb 05 04:35	4° K 20'06	19°00'32		3547 Dec 17 14:30	0° Z	
asc. node	3547 Feb 07 04:18	6° K 09'04		evening rise	3547 Dec 24 18:24	11° Z 06'26	

	3548 Jan 06 03:08	0°♊				3548 Dec 31 03:27	0°♊	
greatest brilliancy	3548 Jan 12 05:48	8°♊53'54	-0.6m	evening max el		3549 Jan 01 10:52	1°♊23'48	20°56'26
evening max el	3548 Jan 19 10:26	17°♊51'24	19°51'38	retrograde		3549 Jan 09 20:50	6°♊22'36	
asc. node	3548 Jan 25 01:19	21°♊54'08		asc. node		3549 Jan 10 22:19	6°♊16'25	
retrograde	3548 Jan 26 22:54	22°♊13'43		evening set		3549 Jan 13 20:37	4°♊52'06	
evening set	3548 Jan 30 13:11	20°♊58'10				3549 Jan 18 06:22	30°♋♊	
inferior conj	3548 Feb 05 00:53	14°♋55'51	3°04'29	inferior conj		3549 Jan 19 06:22	28°♋38'02	2°32'02
minimum elong	3548 Feb 04 22:32	15°♋03'39	3°03'59	minimum elong		3549 Jan 19 03:52	28°♋46'40	2°31'17
min. Earth dist.	3548 Feb 06 00:31	13°♋37'07	0.66935 AU	min. Earth dist.		3549 Jan 19 17:03	28°♋01'18	0.67631 AU
morning rise	3548 Feb 10 07:14	8°♋40'18		morning rise		3549 Jan 24 10:43	22°♋22'58	
direct	3548 Feb 16 05:55	6°♋01'54		direct		3549 Jan 29 18:49	20°♋03'05	
morning max el	3548 Feb 28 05:30	13°♋11'02	25°19'05	morning max el		3549 Feb 09 14:00	26°♋29'11	23°52'21
desc. node	3548 Mar 02 08:43	16°♋33'27				3549 Feb 12 19:56	0°♋	
	3548 Mar 12 20:11	0°♋		desc. node		3549 Feb 17 05:45	5°♋22'00	
	3548 Mar 31 22:33	0°♋				3549 Mar 06 10:30	0°♋	
morning set	3548 Apr 04 09:41	6°♋08'05		morning set		3549 Mar 17 01:58	17°♋23'41	
max. Earth dist.	3548 Apr 08 02:56	12°♋58'33	1.36407 AU	max. Earth dist.		3549 Mar 20 22:52	24°♋08'49	1.38484 AU
						3549 Mar 24 04:49	0°♋	
superior conj	3548 Apr 14 04:26	24°♋41'10	-1°-14'-18					
minimum elong	3548 Apr 14 08:18	25°♋00'21	1°13'42	superior conj		3549 Mar 28 06:05	7°♋32'39	-1°-39'-45
	3548 Apr 16 20:09	0°♋		minimum elong		3549 Mar 28 10:43	7°♋54'37	1°39'15
evening rise	3548 Apr 22 10:11	11°♌20'02		evening rise		3549 Apr 06 07:52	25°♋09'09	
asc. node	3548 Apr 22 00:39	10°♌31'49		asc. node		3549 Apr 08 21:40	0°♌09'06	
	3548 May 02 10:49	0°♌				3549 Apr 08 19:46	0°♌	
evening max el	3548 May 09 18:51	9°♌32'19	19°45'16	evening max el		3549 Apr 22 16:45	21°♌36'09	18°52'26
retrograde	3548 May 19 16:32	14°♌20'55		retrograde		3549 May 01 01:07	25°♌40'50	
evening set	3548 May 21 15:49	14°♌10'21		evening set		3549 May 03 04:18	25°♌25'55	
desc. node	3548 May 29 07:55	10°♌50'39		inferior conj		3549 May 11 05:02	21°♌07'26	1°24'17
inferior conj	3548 May 30 11:29	10°♌08'19	0°-20'-17	minimum elong		3549 May 11 08:02	21°♌02'02	1°23'18
minimum elong	3548 May 30 10:34	10°♌09'44	0°19'58	min. Earth dist.		3549 May 14 09:38	18°♌50'43	0.57007 AU
min. Earth dist.	3548 Jun 01 17:35	8°♌44'46	0.55521 AU	desc. node		3549 May 16 04:55	17°♌40'07	
morning rise	3548 Jun 08 02:06	5°♌38'58		morning rise		3549 May 19 07:22	16°♌02'40	
direct	3548 Jun 12 11:39	4°♌56'07		direct		3549 May 24 16:30	14°♌53'06	
morning max el	3548 Jun 26 09:22	11°♌52'00	24°29'24	morning max el		3549 Jun 08 00:21	22°♌20'05	26°03'21
	3548 Jul 10 05:06	0°♌				3549 Jun 14 19:02	0°♌	
asc. node	3548 Jul 18 23:54	16°♌16'22				3549 Jul 02 21:25	0°♌	
morning set	3548 Jul 21 15:58	21°♌48'52		asc. node		3549 Jul 05 20:57	6°♌08'14	
	3548 Jul 25 11:19	0°♌		morning set		3549 Jul 06 03:12	6°♌41'10	
superior conj	3548 Jul 28 16:10	6°♌58'51	1°26'12	superior conj		3549 Jul 13 03:18	21°♌54'35	1°09'48
minimum elong	3548 Jul 28 13:56	6°♌46'39	1°25'55	minimum elong		3549 Jul 13 00:58	21°♌41'45	1°09'25
max. Earth dist.	3548 Jul 30 09:56	10°♌45'04	1.32930 AU	max. Earth dist.		3549 Jul 13 19:16	23°♌22'24	1.32295 AU
evening rise	3548 Aug 05 00:03	22°♌29'36				3549 Jul 16 20:09	0°♌	
	3548 Aug 08 19:03	0°♌		evening rise		3549 Jul 20 03:44	7°♌02'49	
desc. node	3548 Aug 25 07:16	27°♌37'37				3549 Aug 01 07:08	0°♌	
	3548 Aug 27 00:03	0°♌		desc. node		3549 Aug 12 04:15	16°♌15'37	
evening max el	3548 Sep 07 03:04	13°♌02'30	27°26'32	evening max el		3549 Aug 20 09:36	25°♌33'17	27°08'06
retrograde	3548 Sep 20 19:31	20°♌18'43				3549 Aug 25 23:32	0°♌	
evening set	3548 Sep 27 23:47	17°♌43'56		retrograde		3549 Sep 03 06:11	2°♌46'07	
min. Earth dist.	3548 Oct 01 15:27	14°♌36'58	0.63287 AU	evening set		3549 Sep 10 08:43	0°♌29'45	
inferior conj	3548 Oct 04 07:58	11°♌56'46	-3°-19'-41			3549 Sep 11 02:52	30°♋♌	
minimum elong	3548 Oct 04 13:19	11°♌43'28	3°17'58	min. Earth dist.		3549 Sep 13 23:53	27°♌46'48	0.61380 AU
morning rise	3548 Oct 11 05:23	6°♌40'51		inferior conj		3549 Sep 17 02:39	25°♌02'56	-4°-13'-36
direct	3548 Oct 13 14:53	6°♌13'28		minimum elong		3549 Sep 17 08:26	24°♌50'13	4°12'16
asc. node	3548 Oct 14 23:04	6°♌22'14		morning rise		3549 Sep 24 11:11	20°♌07'47	
morning max el	3548 Oct 20 05:43	9°♌39'06	17°50'41	direct		3549 Sep 26 18:59	19°♌45'27	
	3548 Nov 02 19:02	0°♌		asc. node		3549 Oct 01 20:08	21°♌34'53	
morning set	3548 Nov 05 13:51	4°♌51'42		morning max el		3549 Oct 03 20:17	23°♌17'07	17°57'18
						3549 Oct 09 03:58	0°♌	
superior conj	3548 Nov 17 14:57	25°♌28'18	0°25'04	morning set		3549 Oct 19 14:39	18°♌05'45	
minimum elong	3548 Nov 17 17:28	25°♌38'45	0°24'42			3549 Oct 26 03:38	0°♌	
	3548 Nov 20 08:58	0°♌						
desc. node	3548 Nov 21 06:34	1°♌28'04		superior conj		3549 Oct 29 23:43	6°♌47'26	1°01'00
max. Earth dist.	3548 Nov 23 23:45	5°♌51'14	1.43995 AU	minimum elong		3549 Oct 30 03:58	7°♌05'57	1°00'28
evening rise	3548 Dec 03 03:37	20°♌14'56		max. Earth dist.		3549 Nov 06 12:41	19°♌35'36	1.42438 AU
	3548 Dec 09 13:06	0°♌		desc. node		3549 Nov 08 03:34	22°♌15'11	
greatest brilliancy	3548 Dec 27 01:10	25°♌03'51	-0.5m	evening rise		3549 Nov 12 20:03	29°♌46'57	

	3549 Nov 12 23:21	0°♊		evening rise	3550 Oct 24 08:23	10°♌14'56	
	3549 Dec 03 04:05	0°♋		desc. node	3550 Oct 26 00:35	12°♌59'48	
greatest brilliancy	3549 Dec 10 12:27	9°♋37'30	-0.3m		3550 Nov 05 22:52	0°♊	
evening max el	3549 Dec 15 05:47	14°♋56'49	22°11'13	evening max el	3550 Nov 27 20:31	28°♊33'04	23°30'53
retrograde	3549 Dec 24 17:23	20°♋35'26			3550 Nov 29 08:44	0°♋	
asc. node	3549 Dec 28 19:21	19°♋06'19		retrograde	3550 Dec 08 11:06	4°♋49'29	
evening set	3549 Dec 29 04:19	18°♋48'57		evening set	3550 Dec 13 10:46	2°♋46'37	
inferior conj	3550 Jan 03 13:49	12°♋26'32	1°51'37	asc. node	3550 Dec 15 16:23	0°♋31'08	
minimum elong	3550 Jan 03 11:37	12°♋34'09	1°50'50		3550 Dec 16 02:49	30°♌♊	
min. Earth dist.	3550 Jan 03 12:50	12°♋29'56	0.67942 AU	inferior conj	3550 Dec 18 21:26	26°♊19'55	1°04'35
morning rise	3550 Jan 08 18:46	6°♋13'35		minimum elong	3550 Dec 18 20:00	26°♊24'52	1°04'00
direct	3550 Jan 13 11:49	4°♋16'03		min. Earth dist.	3550 Dec 18 09:38	27°♊00'22	0.67897 AU
morning max el	3550 Jan 23 00:51	9°♋53'34	22°23'51	morning rise	3550 Dec 24 05:21	20°♊10'59	
greatest brilliancy	3550 Jan 27 14:12	14°♋58'49	-0.3m	direct	3550 Dec 28 08:04	18°♊36'16	
desc. node	3550 Feb 04 02:46	24°♋48'45		morning max el	3551 Jan 05 17:27	23°♊27'50	21°01'45
	3550 Feb 07 19:02	0°♌		greatest brilliancy	3551 Jan 11 04:14	29°♊44'33	-0.5m
morning set	3550 Feb 25 14:32	27°♌17'57			3551 Jan 11 09:06	0°♋	
	3550 Feb 27 06:06	0°♌		desc. node	3551 Jan 21 23:49	14°♋43'36	
max. Earth dist.	3550 Mar 02 19:32	5°♌56'38	1.40653 AU		3551 Feb 01 03:43	0°♌	
				morning set	3551 Feb 04 23:25	5°♌55'56	
superior conj	3550 Mar 10 14:28	19°♌31'36	-1°-58'-55	max. Earth dist.	3551 Feb 12 22:12	18°♌37'45	1.42632 AU
minimum elong	3550 Mar 10 18:16	19°♌48'37	1°58'42		3551 Feb 19 18:12	0°♌	
	3550 Mar 16 07:45	0°♍					
evening rise	3550 Mar 20 19:13	8°♍23'40		superior conj	3551 Feb 20 00:35	0°♌27'09	-2°-7'-3
asc. node	3550 Mar 26 18:41	19°♍25'42		minimum elong	3551 Feb 20 00:49	0°♌28'04	2°07'04
	3550 Apr 02 08:58	0°♎		evening rise	3551 Mar 03 16:18	20°♌55'02	
evening max el	3550 Apr 05 22:51	4°♎12'48	18°19'55		3551 Mar 08 18:28	0°♍	
retrograde	3550 Apr 13 04:46	7°♎49'02		asc. node	3551 Mar 13 15:42	8°♍14'59	
evening set	3550 Apr 15 13:59	7°♎26'35		evening max el	3551 Mar 20 09:51	17°♍13'45	18°07'14
inferior conj	3550 Apr 22 20:02	2°♎47'38	2°37'48	retrograde	3551 Mar 27 00:49	20°♍37'23	
minimum elong	3550 Apr 22 23:42	2°♎39'54	2°36'54	evening set	3551 Mar 29 15:56	20°♍05'17	
	3550 Apr 26 04:11	30°♌♍		inferior conj	3551 Apr 05 06:38	15°♍05'26	3°20'03
min. Earth dist.	3550 Apr 26 06:31	29°♍55'20	0.59013 AU	minimum elong	3551 Apr 05 08:59	14°♍59'42	3°19'42
morning rise	3550 Apr 30 05:20	27°♍12'43		min. Earth dist.	3551 Apr 08 10:31	12°♍02'15	0.61192 AU
desc. node	3550 May 03 01:57	25°♍59'01		morning rise	3551 Apr 11 22:58	9°♍10'49	
direct	3550 May 06 11:08	25°♍28'10		direct	3551 Apr 18 17:20	6°♍52'49	
	3550 May 17 04:31	0°♏		desc. node	3551 Apr 19 22:59	6°♍57'11	
morning max el	3550 May 20 20:25	3°♏14'43	27°12'56	morning max el	3551 May 02 22:43	14°♍49'20	27°47'54
	3550 Jun 09 07:35	0°♐			3551 May 15 05:38	0°♏	
morning set	3550 Jun 20 12:11	21°♐24'55		morning set	3551 Jun 01 18:44	0°♐	
asc. node	3550 Jun 22 17:59	26°♐10'03		asc. node	3551 Jun 04 17:03	5°♐54'04	
	3550 Jun 24 12:30	0°♑		max. Earth dist.	3551 Jun 09 15:01	16°♐17'22	
					3551 Jun 10 17:28	18°♐40'56	1.32224 AU
superior conj	3550 Jun 27 15:07	6°♑49'34	0°49'22				
minimum elong	3550 Jun 27 13:09	6°♑38'48	0°49'00	superior conj	3551 Jun 12 01:53	21°♐38'02	0°25'33
max. Earth dist.	3550 Jun 27 07:02	6°♑05'01	1.32057 AU	minimum elong	3551 Jun 12 00:45	21°♐31'47	0°25'19
evening rise	3550 Jul 04 12:11	21°♑47'56			3551 Jun 15 21:30	0°♑	
	3550 Jul 08 11:56	0°♒		evening rise	3551 Jun 18 23:19	6°♑38'09	
	3550 Jul 26 19:50	0°♓			3551 Jul 01 05:04	0°♒	
desc. node	3550 Jul 30 01:16	3°♓50'24		evening max el	3551 Jul 15 02:04	18°♒15'56	24°57'16
evening max el	3550 Aug 02 09:22	7°♓17'37	26°16'39	desc. node	3551 Jul 16 22:17	19°♒55'59	
retrograde	3550 Aug 16 08:47	14°♓27'42		retrograde	3551 Jul 29 01:03	25°♒19'59	
evening set	3550 Aug 22 21:51	12°♓42'24		evening set	3551 Aug 03 11:02	24°♒13'11	
min. Earth dist.	3550 Aug 26 22:22	10°♓07'51	0.59310 AU	min. Earth dist.	3551 Aug 08 13:37	21°♒28'02	0.57328 AU
inferior conj	3550 Aug 30 05:10	7°♓37'22	-4°-53'-50	inferior conj	3551 Aug 11 12:22	19°♒30'34	-5°-7'-53
minimum elong	3550 Aug 30 09:15	7°♓29'32	4°53'21	minimum elong	3551 Aug 11 11:50	19°♒31'28	5°07'53
morning rise	3550 Sep 07 00:09	3°♓05'24		morning rise	3551 Aug 19 16:15	15°♒20'55	
direct	3550 Sep 09 09:21	2°♓45'43		direct	3551 Aug 22 05:54	15°♒01'55	
morning max el	3550 Sep 17 05:44	6°♓33'06	18°23'45	morning max el	3551 Aug 31 06:42	19°♒16'23	19°11'17
asc. node	3550 Sep 18 17:11	8°♓05'24		asc. node	3551 Sep 05 14:14	25°♒37'49	
	3550 Oct 02 04:04	0°♔			3551 Sep 08 10:03	0°♓	
morning set	3550 Oct 03 04:47	1°♔58'06		morning set	3551 Sep 17 04:07	16°♓16'47	
					3551 Sep 24 02:01	0°♔	
superior conj	3550 Oct 12 08:04	19°♔16'07	1°25'33				
minimum elong	3550 Oct 12 11:38	19°♔32'33	1°25'13	superior conj	3551 Sep 25 10:20	2°♔37'19	1°39'33
	3550 Oct 18 07:35	0°♕		minimum elong	3551 Sep 25 12:17	2°♔46'44	1°39'27
max. Earth dist.	3550 Oct 19 20:01	2°♕37'57	1.40493 AU	max. Earth dist.	3551 Oct 02 00:12	14°♔58'31	1.38413 AU

evening rise	3551 Oct 05 20:20	21°♄48'02		asc. node	3552 Aug 22 11:18	13°♄58'30	
	3551 Oct 10 16:21	0°♄			3552 Aug 30 23:06	0°♄	
desc. node	3551 Oct 12 21:37	3°♄37'29		morning set	3552 Aug 31 09:40	0°♄53'46	
	3551 Oct 30 21:42	0°♄					
evening max el	3551 Nov 10 09:14	12°♄13'32	24°49'10	superior conj	3552 Sep 08 01:33	16°♄37'04	1°44'34
retrograde	3551 Nov 22 00:51	18°♄59'58		minimum elong	3552 Sep 08 01:49	16°♄38'21	1°44'33
evening set	3551 Nov 27 14:19	16°♄41'30		max. Earth dist.	3552 Sep 13 06:38	26°♄54'47	1.36447 AU
min. Earth dist.	3551 Dec 02 04:58	11°♄29'21	0.67510 AU		3552 Sep 14 21:32	0°♄	
asc. node	3551 Dec 02 13:26	11°♄01'24		evening rise	3552 Sep 17 05:33	4°♄20'32	
inferior conj	3551 Dec 03 03:26	10°♄15'01	0°11'59	desc. node	3552 Sep 28 18:39	24°♄03'30	
minimum elong	3551 Dec 03 03:09	10°♄16'00	0°11'51		3552 Oct 02 14:46	0°♄	
transit middle	3551 Dec 03 03:09	10°♄16'00	0°11'51	evening max el	3552 Oct 22 21:40	25°♄55'58	25°58'46
transit begin	3551 Dec 03 01:16	10°♄22'14			3552 Oct 27 16:30	0°♄	
transit end	3551 Dec 03 05:01	10°♄09'46		retrograde	3552 Nov 04 09:40	3°♄02'00	
morning rise	3551 Dec 08 16:28	4°♄12'28		evening set	3552 Nov 10 13:14	0°♄30'16	
direct	3551 Dec 12 06:22	2°♄58'43			3552 Nov 11 03:05	30°♄	
morning max el	3551 Dec 19 17:48	7°♄13'02	19°51'34	min. Earth dist.	3552 Nov 14 20:26	25°♄53'48	0.66780 AU
greatest brilliancy	3551 Dec 27 04:55	16°♄20'58	-0.6m	inferior conj	3552 Nov 16 05:59	24°♄08'48	0°45'00
	3552 Jan 05 14:00	0°♄		minimum elong	3552 Nov 16 07:10	24°♄05'04	0°44'30
desc. node	3552 Jan 08 20:52	4°♄58'25		asc. node	3552 Nov 18 10:29	21°♄30'17	
morning set	3552 Jan 14 19:18	14°♄04'13		morning rise	3552 Nov 22 02:05	18°♄15'24	
	3552 Jan 24 23:56	0°♄		direct	3552 Nov 25 05:03	17°♄19'29	
max. Earth dist.	3552 Jan 26 08:36	2°♄09'41	1.44162 AU	morning max el	3552 Dec 02 01:38	21°♄07'32	18°56'20
					3552 Dec 09 03:38	0°♄	
superior conj	3552 Jan 31 08:51	10°♄12'44	-1°-58'-51	morning set	3552 Dec 24 03:39	22°♄57'50	
minimum elong	3552 Jan 31 03:13	9°♄49'55	1°58'35	desc. node	3552 Dec 25 17:55	25°♄27'36	
	3552 Feb 12 06:26	0°♄			3552 Dec 28 15:31	0°♄	
evening rise	3552 Feb 13 18:42	2°♄34'28		max. Earth dist.	3553 Jan 08 01:14	16°♄18'23	1.45056 AU
asc. node	3552 Feb 28 12:44	26°♄28'10					
	3552 Mar 02 10:48	0°♄		superior conj	3553 Jan 09 18:30	19°♄00'45	-1°-31'-12
evening max el	3552 Mar 02 22:36	0°♄30'24	18°13'42	minimum elong	3553 Jan 09 09:19	18°♄24'37	1°30'18
retrograde	3552 Mar 09 08:55	3°♄55'40			3553 Jan 16 16:49	0°♄	
evening set	3552 Mar 12 05:42	3°♄12'38		evening rise	3553 Jan 24 22:47	13°♄17'22	
	3552 Mar 16 08:47	30°♄			3553 Feb 04 06:51	0°♄	
inferior conj	3552 Mar 18 08:49	27°♄52'44	3°37'04	asc. node	3553 Feb 14 09:46	13°♄54'27	
minimum elong	3552 Mar 18 09:21	27°♄51'15	3°37'03	evening max el	3553 Feb 14 10:18	13°♄55'48	18°38'27
min. Earth dist.	3552 Mar 20 23:15	25°♄02'18	0.63248 AU	retrograde	3553 Feb 21 00:54	17°♄35'19	
morning rise	3552 Mar 24 11:00	21°♄46'53		evening set	3553 Feb 24 03:38	16°♄40'24	
direct	3552 Mar 31 08:30	19°♄06'03		inferior conj	3553 Mar 01 22:36	11°♄02'00	3°35'07
desc. node	3552 Apr 05 20:02	20°♄33'02		minimum elong	3553 Mar 01 21:36	11°♄05'01	3°35'03
morning max el	3552 Apr 14 05:54	27°♄03'50	27°45'25	min. Earth dist.	3553 Mar 03 21:23	8°♄41'07	0.64996 AU
	3552 Apr 17 00:21	0°♄		morning rise	3553 Mar 07 14:19	4°♄50'01	
	3552 May 07 21:14	0°♄		direct	3553 Mar 14 06:50	2°♄00'25	
morning set	3552 May 18 15:33	20°♄01'15		desc. node	3553 Mar 23 17:05	6°♄14'31	
	3552 May 23 11:48	0°♄		morning max el	3553 Mar 27 15:32	9°♄49'40	27°08'32
max. Earth dist.	3552 May 23 22:44	0°♄57'52	1.32812 AU		3553 Apr 12 11:58	0°♄	
					3553 Apr 30 07:24	0°♄	
superior conj	3552 May 26 09:51	6°♄14'04	0°00'-58	morning set	3553 May 02 04:41	3°♄36'32	
minimum elong	3552 May 26 09:54	6°♄14'19	0°00'58	max. Earth dist.	3553 May 06 19:02	12°♄44'44	1.33851 AU
behind sun begin	3552 May 26 04:38	5°♄45'58					
behind sun end	3552 May 26 15:10	6°♄42'43		superior conj	3553 May 10 12:52	20°♄30'09	0°-29'-18
asc. node	3552 May 26 12:04	6°♄26'01		minimum elong	3553 May 10 14:24	20°♄38'08	0°29'01
evening rise	3552 Jun 02 11:11	21°♄27'02		asc. node	3553 May 13 09:05	26°♄31'05	
	3552 Jun 06 14:46	0°♄			3553 May 15 00:22	0°♄	
evening max el	3552 Jun 25 15:24	28°♄45'32	23°22'20	evening rise	3553 May 17 21:52	6°♄07'12	
	3552 Jun 26 23:34	0°♄			3553 May 30 20:58	0°♄	
desc. node	3552 Jul 02 19:18	3°♄59'29		evening max el	3553 Jun 07 08:29	9°♄15'33	21°47'20
retrograde	3552 Jul 09 04:36	5°♄32'07		retrograde	3553 Jun 19 20:47	15°♄26'10	
evening set	3552 Jul 13 02:47	4°♄58'26		desc. node	3553 Jun 19 16:19	15°♄26'05	
min. Earth dist.	3552 Jul 20 01:08	1°♄47'15	0.55762 AU	evening set	3553 Jun 22 11:57	15°♄10'35	
inferior conj	3552 Jul 21 23:42	0°♄38'33	-4°-40'-20	inferior conj	3553 Jul 01 20:12	11°♄08'20	-3°-22'-48
minimum elong	3552 Jul 21 17:21	0°♄47'58	4°39'19	minimum elong	3553 Jul 01 11:57	11°♄19'53	3°20'24
	3552 Jul 23 01:57	30°♄		min. Earth dist.	3553 Jul 01 11:51	11°♄20'01	0.54923 AU
morning rise	3552 Jul 30 10:59	26°♄44'54		morning rise	3553 Jul 10 13:15	7°♄16'14	
direct	3552 Aug 02 07:37	26°♄24'56		direct	3553 Jul 13 19:18	6°♄53'03	
	3552 Aug 11 08:15	0°♄		morning max el	3553 Jul 25 22:43	12°♄34'52	21°49'03
morning max el	3552 Aug 12 20:33	1°♄18'22	20°20'21		3553 Aug 07 17:34	0°♄	

asc. node	3553 Aug 09 08:21	2°♌55'16		asc. node	3554 Jul 27 05:24	22°♎18'52	
morning set	3553 Aug 15 19:03	15°♌42'00			3554 Jul 30 23:39	0°♌	
	3553 Aug 22 13:43	0°♍		morning set	3554 Jul 31 06:27	0°♌35'45	
superior conj	3553 Aug 23 01:47	1°♍03'22	1°42'09	superior conj	3554 Aug 07 08:03	15°♌47'03	1°33'33
minimum elong	3553 Aug 23 00:42	0°♍57'37	1°42'05	minimum elong	3554 Aug 07 06:05	15°♌36'28	1°33'22
max. Earth dist.	3553 Aug 26 20:04	8°♍49'18	1.34768 AU	max. Earth dist.	3554 Aug 09 18:21	20°♌58'22	1.33475 AU
evening rise	3553 Aug 31 07:37	17°♍40'41			3554 Aug 14 02:59	0°♍	
	3553 Sep 07 00:40	0°♎		evening rise	3554 Aug 14 22:19	1°♍37'05	
desc. node	3553 Sep 15 15:41	14°♎11'43			3554 Aug 30 22:43	0°♎	
	3553 Sep 26 21:39	0°♎		desc. node	3554 Sep 02 12:40	3°♎54'08	
evening max el	3553 Oct 05 10:13	9°♎33'02	26°52'11	evening max el	3554 Sep 17 21:58	22°♎54'09	27°22'15
retrograde	3553 Oct 18 13:07	16°♎48'58			3554 Sep 29 09:21	0°♎	
evening set	3553 Oct 25 05:27	14°♎08'55		retrograde	3554 Oct 01 10:47	0°♎12'27	
min. Earth dist.	3553 Oct 29 05:36	10°♎09'01	0.65695 AU		3554 Oct 03 10:50	30°♏♎	
inferior conj	3553 Oct 31 03:00	7°♎57'11	-1°-44'-57	evening set	3554 Oct 08 12:21	27°♎32'18	
minimum elong	3553 Oct 31 05:55	7°♎48'44	1°43'46	min. Earth dist.	3554 Oct 12 06:21	24°♎07'33	0.64259 AU
asc. node	3553 Nov 05 07:33	2°♎51'51		inferior conj	3554 Oct 14 16:07	21°♎34'50	-2°-45'-41
morning rise	3553 Nov 06 07:57	2°♎16'01		minimum elong	3554 Oct 14 20:42	21°♎22'42	2°44'02
direct	3553 Nov 09 02:08	1°♎34'11		morning rise	3554 Oct 21 07:17	16°♎08'58	
morning max el	3553 Nov 15 15:04	5°♎06'31	18°17'21	asc. node	3554 Oct 23 04:36	15°♎39'19	
	3553 Dec 02 15:21	0°♏		direct	3554 Oct 23 19:05	15°♎37'27	
morning set	3553 Dec 04 15:56	3°♏17'15		morning max el	3554 Oct 30 07:21	19°♎03'15	17°55'20
desc. node	3553 Dec 12 14:57	16°♏06'43			3554 Nov 07 09:29	0°♎	
				morning set	3554 Nov 16 08:24	14°♎58'43	
superior conj	3553 Dec 19 20:51	27°♏35'47	0°-48'00		3554 Nov 25 07:11	0°♏	
minimum elong	3553 Dec 19 14:48	27°♏11'55	0°47'13	desc. node	3554 Nov 29 11:58	6°♏51'29	
	3553 Dec 21 09:32	0°♏					
max. Earth dist.	3553 Dec 21 20:41	0°♏43'48	1.45210 AU	superior conj	3554 Nov 29 12:44	6°♏54'35	0°00'-12
evening rise	3554 Jan 05 04:05	23°♏07'00		minimum elong	3554 Nov 29 12:42	6°♏54'27	0°00'13
	3554 Jan 09 13:45	0°♏		behind sun begin	3554 Nov 29 02:35	6°♏13'28	
greatest brilliancy	3554 Jan 19 20:34	15°♏47'15	-0.7m	behind sun end	3554 Nov 29 22:49	7°♏35'22	
evening max el	3554 Jan 28 18:44	27°♏25'48	19°20'22	max. Earth dist.	3554 Dec 04 15:14	15°♏04'59	1.44630 AU
	3554 Jan 31 17:51	0°♏			3554 Dec 14 04:20	0°♏	
asc. node	3554 Feb 01 06:48	0°♏21'03		evening rise	3554 Dec 15 16:40	2°♏19'57	
retrograde	3554 Feb 04 21:20	1°♏30'15			3555 Jan 03 05:04	0°♏	
evening set	3554 Feb 08 06:59	0°♏22'32		greatest brilliancy	3555 Jan 05 14:46	3°♏18'32	-0.5m
	3554 Feb 08 19:41	30°♏♏		evening max el	3555 Jan 11 22:14	10°♏57'02	20°17'40
inferior conj	3554 Feb 13 20:38	24°♏27'58	3°18'57	asc. node	3555 Jan 19 03:51	15°♏32'27	
minimum elong	3554 Feb 13 18:37	24°♏34'29	3°18'37	retrograde	3555 Jan 19 19:25	15°♏34'45	
min. Earth dist.	3554 Feb 15 04:16	22°♏45'34	0.66345 AU	evening set	3555 Jan 23 13:27	14°♏13'04	
morning rise	3554 Feb 19 05:27	18°♏12'55		inferior conj	3555 Jan 29 00:04	8°♏05'11	2°51'47
direct	3554 Feb 25 11:30	15°♏27'36		minimum elong	3555 Jan 28 21:36	8°♏13'34	2°51'10
morning max el	3554 Mar 10 01:20	22°♏55'54	26°04'29	min. Earth dist.	3555 Jan 29 18:00	7°♏04'23	0.67277 AU
desc. node	3554 Mar 10 14:07	23°♏28'32		morning rise	3555 Feb 03 05:13	1°♏49'21	
	3554 Mar 16 07:30	0°♏			3555 Feb 05 20:47	30°♏♏	
	3554 Apr 05 19:29	0°♏		direct	3555 Feb 08 21:44	29°♏18'09	
morning set	3554 Apr 15 04:38	16°♏29'18			3555 Feb 12 04:14	0°♏	
max. Earth dist.	3554 Apr 19 03:58	24°♏01'01	1.35352 AU	morning max el	3555 Feb 20 10:01	6°♏11'01	24°42'56
	3554 Apr 22 04:59	0°♏		desc. node	3555 Feb 25 11:09	11°♏48'03	
					3555 Mar 10 21:14	0°♏	
superior conj	3554 Apr 24 08:35	4°♏19'52	0°-58'-10	morning set	3555 Mar 28 10:13	28°♏24'56	
minimum elong	3554 Apr 24 11:40	4°♏35'29	0°57'38		3555 Mar 29 07:40	0°♏	
asc. node	3554 Apr 30 06:07	16°♏28'51		max. Earth dist.	3555 Apr 01 02:30	5°♏01'45	1.37260 AU
evening rise	3554 May 02 05:25	20°♏32'46					
	3554 May 06 23:04	0°♏		superior conj	3555 Apr 07 17:53	17°♏34'54	-1°-25'-39
evening max el	3554 May 20 11:57	20°♏14'49	20°24'35	minimum elong	3555 Apr 07 22:12	17°♏55'57	1°25'03
retrograde	3554 May 31 10:04	25°♏34'23			3555 Apr 14 00:10	0°♏	
evening set	3554 Jun 02 10:27	25°♏24'15		evening rise	3555 Apr 16 07:27	4°♏36'45	
desc. node	3554 Jun 06 13:19	24°♏07'24		asc. node	3555 Apr 17 03:09	6°♏14'45	
inferior conj	3554 Jun 11 14:25	21°♏26'21	-1°-29'-11		3555 May 01 08:10	0°♏	
minimum elong	3554 Jun 11 10:13	21°♏32'29	1°27'39	evening max el	3555 May 03 03:39	1°♏55'33	19°20'19
min. Earth dist.	3554 Jun 13 00:01	20°♏37'24	0.55023 AU	retrograde	3555 May 12 08:38	6°♏23'55	
morning rise	3554 Jun 20 08:17	17°♏15'00		evening set	3555 May 14 08:45	6°♏12'07	
direct	3554 Jun 24 05:21	16°♏42'34		inferior conj	3555 May 22 20:44	2°♏04'17	0°27'19
morning max el	3554 Jul 07 16:02	23°♏14'20	23°30'23	minimum elong	3555 May 22 21:53	2°♏02'24	0°26'55
	3554 Jul 13 17:08	0°♏		desc. node	3555 May 24 10:19	1°♏02'15	

min. Earth dist.	3555 May 25 14:39	0° Π 16'19	0.56061 AU	inferior conj	3556 May 02 23:21	13° \mathcal{B} 20'16	1°59'34
	3555 May 26 00:59	30° \mathcal{R} 8		minimum elong	3556 May 03 02:59	13° \mathcal{B} 13'16	1°58'29
morning rise	3555 May 31 06:56	27° \mathcal{B} 19'27		min. Earth dist.	3556 May 06 08:34	10° \mathcal{B} 45'28	0.57818 AU
direct	3555 Jun 05 02:20	26° \mathcal{B} 26'31		desc. node	3556 May 10 07:21	8° \mathcal{B} 15'43	
	3555 Jun 14 21:02	0° Π		morning rise	3556 May 10 18:42	8° \mathcal{B} 01'42	
morning max el	3555 Jun 19 06:05	3° Π 38'18	25°11'33	direct	3556 May 16 13:40	6° \mathcal{B} 37'22	
	3555 Jul 07 22:44	0° \mathcal{E}		morning max el	3556 May 30 22:37	14° \mathcal{B} 14'06	26°36'43
asc. node	3555 Jul 14 02:26	12° \mathcal{E} 02'07			3556 Jun 12 12:28	0° Π	
morning set	3555 Jul 15 18:11	15° \mathcal{E} 30'04		morning set	3556 Jun 29 04:38	0° \mathcal{E} 18'55	
	3555 Jul 22 10:34	0° \mathcal{Q}			3556 Jun 29 01:02	0° \mathcal{E}	
				asc. node	3556 Jun 29 23:27	1° \mathcal{E} 58'27	
superior conj	3555 Jul 22 17:59	0° \mathcal{Q} 40'34	1°19'47				
minimum elong	3555 Jul 22 15:39	0° \mathcal{Q} 27'46	1°19'27	superior conj	3556 Jul 06 05:36	15° \mathcal{E} 36'30	1°01'36
max. Earth dist.	3555 Jul 24 00:19	3° \mathcal{Q} 26'10	1.32600 AU	minimum elong	3556 Jul 06 03:22	15° \mathcal{E} 24'14	1°01'12
evening rise	3555 Jul 29 22:07	15° \mathcal{Q} 59'45		max. Earth dist.	3556 Jul 06 11:02	16° \mathcal{E} 06'26	1.32139 AU
	3555 Aug 06 02:28	0° \mathcal{M}			3556 Jul 12 20:43	0° \mathcal{Q}	
desc. node	3555 Aug 20 09:39	23° \mathcal{M} 00'08		evening rise	3556 Jul 13 04:06	0° \mathcal{Q} 38'53	
	3555 Aug 25 20:52	0° \mathcal{A}			3556 Jul 29 04:45	0° \mathcal{M}	
evening max el	3555 Aug 31 07:11	5° \mathcal{A} 47'36	27°22'52	desc. node	3556 Aug 06 06:40	11° \mathcal{M} 13'52	
retrograde	3555 Sep 14 02:04	13° \mathcal{A} 03'20		evening max el	3556 Aug 12 11:18	18° \mathcal{M} 00'02	26°50'19
evening set	3555 Sep 21 06:37	10° \mathcal{A} 34'44		retrograde	3556 Aug 26 09:31	25° \mathcal{M} 11'25	
min. Earth dist.	3555 Sep 24 21:11	7° \mathcal{A} 39'22	0.62498 AU	evening set	3556 Sep 02 07:43	23° \mathcal{M} 07'15	
inferior conj	3555 Sep 27 18:32	4° \mathcal{A} 55'33	-3°-43'-39	min. Earth dist.	3556 Sep 06 01:25	20° \mathcal{M} 29'48	0.60502 AU
minimum elong	3555 Sep 28 00:15	4° \mathcal{A} 42'02	3°42'01	inferior conj	3556 Sep 09 06:47	17° \mathcal{M} 49'32	-4°-33'00
	3555 Oct 04 08:20	30° \mathcal{R} 11		minimum elong	3556 Sep 09 12:10	17° \mathcal{M} 38'19	4°32'00
morning rise	3555 Oct 04 20:42	29° \mathcal{M} 48'11		morning rise	3556 Sep 16 19:52	13° \mathcal{M} 03'41	
direct	3555 Oct 07 04:58	29° \mathcal{M} 23'26		direct	3556 Sep 19 03:48	12° \mathcal{M} 42'45	
asc. node	3555 Oct 10 01:38	0° \mathcal{A} 01'23		asc. node	3556 Sep 25 22:41	15° \mathcal{M} 48'33	
	3555 Oct 10 00:22	0° \mathcal{A}		morning max el	3556 Sep 26 12:13	16° \mathcal{M} 20'14	18°06'02
morning max el	3555 Oct 13 23:29	2° \mathcal{A} 50'55	17°51'09		3556 Oct 06 02:16	0° \mathcal{A}	
morning set	3555 Oct 29 23:19	27° \mathcal{A} 45'00		morning set	3556 Oct 12 06:25	11° \mathcal{A} 17'08	
	3555 Oct 31 05:35	0° \mathcal{M}					
superior conj	3555 Nov 10 06:12	17° \mathcal{M} 29'18	0°41'38	superior conj	3556 Oct 22 01:37	29° \mathcal{A} 19'29	1°12'46
minimum elong	3555 Nov 10 09:50	17° \mathcal{M} 44'43	0°41'08	minimum elong	3556 Oct 22 05:46	29° \mathcal{A} 38'03	1°12'18
desc. node	3555 Nov 16 09:00	27° \mathcal{M} 39'05			3556 Oct 22 10:42	0° \mathcal{M}	
max. Earth dist.	3555 Nov 17 06:26	29° \mathcal{M} 06'13	1.43396 AU	max. Earth dist.	3556 Oct 29 17:04	12° \mathcal{M} 34'01	1.41651 AU
	3555 Nov 17 19:44	0° \mathcal{A}		desc. node	3556 Nov 02 06:01	18° \mathcal{M} 25'33	
evening rise	3555 Nov 25 03:02	11° \mathcal{A} 34'00		evening rise	3556 Nov 04 03:00	21° \mathcal{M} 27'44	
	3555 Dec 07 07:44	0° \mathcal{B}			3556 Nov 09 12:55	0° \mathcal{A}	
greatest brilliancy	3555 Dec 20 21:18	18° \mathcal{B} 48'11	-0.4m	greatest brilliancy	3556 Nov 30 13:25	0° \mathcal{B}	
evening max el	3555 Dec 25 20:17	24° \mathcal{B} 29'45	21°27'16	evening max el	3556 Dec 02 12:47	2° \mathcal{B} 26'58	-0.3m
retrograde	3556 Jan 03 16:58	29° \mathcal{B} 45'32		retrograde	3556 Dec 07 13:24	8° \mathcal{B} 04'48	22°44'51
asc. node	3556 Jan 06 00:52	29° \mathcal{B} 15'56		evening set	3556 Dec 17 12:23	13° \mathcal{B} 59'26	
evening set	3556 Jan 07 21:11	28° \mathcal{B} 08'35		asc. node	3556 Dec 22 04:34	12° \mathcal{B} 06'07	
inferior conj	3556 Jan 13 06:40	21° \mathcal{B} 50'35	2°15'47	inferior conj	3556 Dec 22 21:55	11° \mathcal{B} 27'49	
minimum elong	3556 Jan 13 04:14	21° \mathcal{B} 59'01	2°14'59	minimum elong	3556 Dec 27 14:27	5° \mathcal{B} 41'38	1°32'26
min. Earth dist.	3556 Jan 13 12:21	21° \mathcal{B} 30'56	0.67814 AU	min. Earth dist.	3556 Dec 27 12:31	5° \mathcal{B} 48'18	1°31'42
morning rise	3556 Jan 18 10:57	15° \mathcal{B} 35'58			3556 Dec 27 08:51	6° \mathcal{B} 00'58	0.67974 AU
direct	3556 Jan 23 12:40	13° \mathcal{B} 25'05			3557 Jan 01 06:39	30° \mathcal{R} 1	
morning max el	3556 Feb 02 18:57	19° \mathcal{B} 30'59	23°14'10	morning rise	3557 Jan 01 20:23	29° \mathcal{A} 30'10	
greatest brilliancy	3556 Feb 07 22:23	25° \mathcal{B} 17'10	-0.2m	direct	3557 Jan 06 07:19	27° \mathcal{A} 42'13	
	3556 Feb 11 15:42	0° \mathcal{A}			3557 Jan 11 22:46	0° \mathcal{B}	
desc. node	3556 Feb 12 08:12	0° \mathcal{A} 54'23		morning max el	3557 Jan 15 07:47	2° \mathcal{B} 58'52	21°47'39
	3556 Mar 03 01:41	0° \mathcal{H}		greatest brilliancy	3557 Jan 20 02:17	8° \mathcal{B} 21'31	-0.4m
morning set	3556 Mar 08 15:13	9° \mathcal{H} 06'53		desc. node	3557 Jan 29 05:15	20° \mathcal{B} 34'24	
max. Earth dist.	3556 Mar 12 21:15	16° \mathcal{H} 21'59	1.39413 AU		3557 Feb 04 16:36	0° \mathcal{A}	
	3556 Mar 20 11:37	0° \mathcal{Y}		morning set	3557 Feb 16 15:22	18° \mathcal{A} 26'09	
				max. Earth dist.	3557 Feb 22 20:20	28° \mathcal{A} 33'12	1.41542 AU
superior conj	3556 Mar 20 12:47	0° \mathcal{Y} 05'21	-1°-48'-56		3557 Feb 23 17:09	0° \mathcal{H}	
minimum elong	3556 Mar 20 17:19	0° \mathcal{Y} 26'24	1°48'31	superior conj	3557 Mar 02 12:24	11° \mathcal{H} 39'26	-2°-4'-2
evening rise	3556 Mar 30 01:09	18° \mathcal{Y} 11'40		minimum elong	3557 Mar 02 15:03	11° \mathcal{H} 51'03	2°03'57
asc. node	3556 Apr 03 00:10	25° \mathcal{Y} 43'45			3557 Mar 12 15:57	0° \mathcal{Y}	
	3556 Apr 05 08:12	0° \mathcal{B}		evening rise	3557 Mar 13 06:58	1° \mathcal{Y} 09'13	
evening max el	3556 Apr 15 05:32	14° \mathcal{B} 14'40	18°36'12	asc. node	3557 Mar 20 21:13	14° \mathcal{Y} 49'52	
retrograde	3556 Apr 23 01:02	18° \mathcal{B} 04'47		evening max el	3557 Mar 29 14:13	27° \mathcal{Y} 03'20	18°12'08
evening set	3556 Apr 25 06:50	17° \mathcal{B} 46'56			3557 Apr 02 19:35	0° \mathcal{B}	

retrograde	3557 Apr 05 12:12	0°♄32'06		asc. node	3558 Mar 07 18:16	3°♃24'55	
evening set	3557 Apr 08 00:08	0°♄05'34		evening max el	3558 Mar 13 02:17	10°♃11'29	18°07'35
	3557 Apr 08 06:16	30°♄		retrograde	3558 Mar 19 14:08	13°♃34'24	
inferior conj	3557 Apr 14 23:09	25°♃17'28	2°59'13	evening set	3558 Mar 22 07:38	12°♃57'45	
minimum elong	3557 Apr 15 02:25	25°♃10'09	2°58'34	inferior conj	3558 Mar 28 16:55	7°♃48'52	3°29'55
min. Earth dist.	3557 Apr 18 07:57	22°♃17'43	0.59942 AU	minimum elong	3558 Mar 28 18:30	7°♃44'47	3°29'46
morning rise	3557 Apr 22 01:04	19°♃33'16		min. Earth dist.	3558 Mar 31 15:26	4°♃48'47	0.62096 AU
desc. node	3557 Apr 27 04:24	17°♃39'10		morning rise	3558 Apr 04 02:48	1°♃48'29	
direct	3557 Apr 28 13:28	17°♃33'53			3558 Apr 07 09:09	30°♄	
morning max el	3557 May 12 21:16	25°♃24'43	27°32'25	direct	3558 Apr 10 23:26	29°♄19'31	
	3557 May 17 03:04	0°♄		desc. node	3558 Apr 14 01:27	29°♄46'59	
	3557 Jun 05 21:19	0°♄			3558 Apr 14 17:47	0°♃	
morning set	3557 Jun 13 12:06	14°♄57'05		morning max el	3558 Apr 25 02:07	7°♃17'22	27°51'25
asc. node	3557 Jun 16 20:30	22°♄03'07			3558 May 12 09:25	0°♄	
max. Earth dist.	3557 Jun 19 22:52	28°♄48'32	1.32083 AU	morning set	3558 May 28 14:33	29°♄17'30	
	3557 Jun 20 11:52	0°♄			3558 May 28 22:54	0°♄	
superior conj	3557 Jun 20 17:11	0°♄29'14	0°39'39	max. Earth dist.	3558 Jun 03 07:45	11°♄18'14	1.32426 AU
minimum elong	3557 Jun 20 15:31	0°♄20'06	0°39'19	asc. node	3558 Jun 03 17:33	12°♄11'09	
evening rise	3557 Jun 27 13:58	15°♄27'07		superior conj	3558 Jun 05 02:57	15°♄12'28	0°14'35
	3557 Jul 04 20:02	0°♄		minimum elong	3558 Jun 05 02:16	15°♄08'46	0°14'26
desc. node	3557 Jul 24 03:41	28°♄14'01		behind sun begin	3558 Jun 05 00:06	14°♄56'56	
evening max el	3557 Jul 25 08:04	29°♄23'53	25°45'43	behind sun end	3558 Jun 05 04:26	15°♄20'36	
	3557 Jul 25 23:30	0°♄			3558 Jun 11 22:25	0°♄	
retrograde	3557 Aug 08 07:28	6°♄31'12		evening rise	3558 Jun 12 01:38	0°♄17'02	
evening set	3557 Aug 14 10:50	5°♄02'02			3558 Jun 28 12:11	0°♄	
min. Earth dist.	3557 Aug 18 20:14	2°♄25'23	0.58443 AU	evening max el	3558 Jul 06 22:19	10°♄05'22	24°17'44
inferior conj	3557 Aug 22 01:21	0°♄06'54	-5°-3'-55	desc. node	3558 Jul 11 00:41	13°♄31'31	
minimum elong	3557 Aug 22 03:49	0°♄02'27	5°03'45	retrograde	3558 Jul 20 18:28	17°♄04'22	
	3557 Aug 22 05:11	30°♄		evening set	3558 Jul 25 13:55	16°♄12'48	
morning rise	3557 Aug 30 00:17	25°♄44'36		min. Earth dist.	3558 Jul 31 09:05	13°♄18'19	0.56590 AU
direct	3557 Sep 01 11:16	25°♄25'15		inferior conj	3558 Aug 02 23:49	11°♄39'52	-5°-2'-6
morning max el	3557 Sep 09 18:19	29°♄22'25	18°41'21	minimum elong	3558 Aug 02 20:41	11°♄44'48	5°01'53
	3557 Sep 10 09:35	0°♄		morning rise	3558 Aug 11 07:03	7°♄38'43	
asc. node	3557 Sep 12 19:44	2°♄46'29		direct	3558 Aug 13 23:30	7°♄19'31	
morning set	3557 Sep 26 00:52	25°♄21'25		morning max el	3558 Aug 23 14:48	11°♄48'38	19°38'13
	3557 Sep 28 10:01	0°♄		asc. node	3558 Aug 30 16:47	20°♄40'31	
superior conj	3557 Oct 04 18:11	12°♄11'43	1°32'42		3558 Sep 05 02:42	0°♄	
minimum elong	3557 Oct 04 21:07	12°♄25'30	1°32'28	morning set	3558 Sep 10 03:07	9°♄48'24	
max. Earth dist.	3557 Oct 11 23:03	25°♄19'08	1.39613 AU	superior conj	3558 Sep 18 02:31	25°♄50'50	1°42'42
	3557 Oct 14 15:46	0°♄		minimum elong	3558 Sep 18 03:43	25°♄56'46	1°42'38
evening rise	3557 Oct 16 01:18	2°♄22'34			3558 Sep 20 05:27	0°♄	
desc. node	3557 Oct 20 03:03	9°♄07'21		max. Earth dist.	3558 Sep 24 03:24	7°♄26'05	1.37541 AU
	3557 Nov 02 19:44	0°♄		evening rise	3558 Sep 27 22:41	14°♄21'26	
evening max el	3557 Nov 20 03:04	21°♄42'46	24°04'45	desc. node	3558 Oct 07 00:04	29°♄40'26	
retrograde	3557 Dec 01 04:25	28°♄12'32			3558 Oct 07 04:57	0°♄	
evening set	3557 Dec 06 10:00	26°♄02'41			3558 Oct 28 15:04	0°♄	
asc. node	3557 Dec 09 18:58	22°♄23'51		evening max el	3558 Nov 02 15:18	5°♄23'51	25°20'16
min. Earth dist.	3557 Dec 11 05:12	20°♄31'03	0.67779 AU	retrograde	3558 Nov 14 16:14	12°♄20'30	
inferior conj	3557 Dec 11 21:35	19°♄35'40	0°42'53	evening set	3558 Nov 20 11:50	9°♄55'38	
minimum elong	3557 Dec 11 20:35	19°♄39'05	0°42'28	min. Earth dist.	3558 Nov 24 23:06	4°♄58'43	0.67236 AU
morning rise	3557 Dec 17 07:26	13°♄29'26		inferior conj	3558 Nov 26 02:20	3°♄30'34	0°-11'-43
direct	3557 Dec 21 04:33	12°♄03'59		minimum elong	3558 Nov 26 02:37	3°♄29'36	0°11'36
morning max el	3557 Dec 29 03:38	16°♄37'56	20°30'16	transit middle	3558 Nov 26 02:37	3°♄29'36	0°11'36
greatest brilliancy	3558 Jan 04 07:16	23°♄52'33	-0.5m	transit begin	3558 Nov 26 00:41	3°♄35'55	
	3558 Jan 08 18:55	0°♄		transit end	3558 Nov 26 04:34	3°♄23'18	
desc. node	3558 Jan 16 02:18	10°♄38'25		asc. node	3558 Nov 26 16:00	2°♄46'27	
morning set	3558 Jan 26 16:02	26°♄43'25			3558 Nov 28 23:14	30°♄	
	3558 Jan 28 18:33	0°♄		morning rise	3558 Dec 01 18:09	27°♄31'49	
max. Earth dist.	3558 Feb 05 03:01	11°♄39'48	1.43356 AU	direct	3558 Dec 05 03:05	26°♄26'16	
					3558 Dec 11 19:56	0°♄	
superior conj	3558 Feb 11 11:44	22°♄05'14	-2°-5'-51	morning max el	3558 Dec 12 07:27	0°♄28'12	19°26'15
minimum elong	3558 Feb 11 09:35	21°♄56'18	2°05'49	greatest brilliancy	3558 Dec 21 03:30	11°♄39'46	-0.7m
	3558 Feb 16 04:22	0°♄			3559 Jan 02 07:47	0°♄	
evening rise	3558 Feb 23 20:42	13°♄19'48		desc. node	3559 Jan 02 23:21	1°♄00'01	
	3558 Mar 05 13:32	0°♄		morning set	3559 Jan 05 14:21	5°♄03'23	

max. Earth dist.	3559 Jan 18 16:22	25°☿29'37	1.44625 AU	superior conj	3560 Jan 01 13:25	9°☿58'45	-1°-14'-15
	3559 Jan 21 12:30	0°♊		minimum elong	3560 Jan 01 04:48	9°☿24'54	1°13'16
				max. Earth dist.	3560 Jan 01 09:56	9°☿45'04	1.45209 AU
superior conj	3559 Jan 22 09:24	1°♊23'18	-1°-49'-29		3560 Jan 14 06:08	0°♊	
minimum elong	3559 Jan 22 01:36	0°♊52'10	1°48'56	evening rise	3560 Jan 17 08:07	4°♊54'37	
evening rise	3559 Feb 05 14:04	24°♊36'10			3560 Feb 02 10:28	0°♋	
	3559 Feb 08 19:32	0°♋		evening max el	3560 Feb 08 01:25	7°♋00'18	18°54'17
asc. node	3559 Feb 22 15:18	21°♋19'45		asc. node	3560 Feb 09 12:19	8°♋22'25	
evening max el	3559 Feb 24 14:51	23°♋32'24	18°21'54	retrograde	3560 Feb 14 20:20	10°♋49'13	
retrograde	3559 Mar 03 02:09	27°♋02'37		evening set	3560 Feb 18 01:48	9°♋49'09	
evening set	3559 Mar 06 01:16	26°♋14'48		inferior conj	3560 Feb 23 18:13	4°♋03'50	3°29'46
inferior conj	3559 Mar 12 00:32	20°♋46'47	3°38'12	minimum elong	3560 Feb 23 16:43	4°♋08'31	3°29'36
minimum elong	3559 Mar 12 00:22	20°♋47'16	3°38'12	min. Earth dist.	3560 Feb 25 10:32	1°♋58'17	0.65623 AU
min. Earth dist.	3559 Mar 14 08:25	18°♋07'06	0.64039 AU		3560 Feb 27 02:45	30°♌	
morning rise	3559 Mar 17 21:48	14°♋37'28		morning rise	3560 Feb 29 06:35	27°♌50'12	
direct	3559 Mar 24 17:53	11°♋51'05		direct	3560 Mar 06 19:18	25°♌00'36	
desc. node	3559 Mar 31 22:31	14°♋20'29			3560 Mar 16 23:21	0°♌	
morning max el	3559 Apr 07 10:54	19°♋47'24	27°33'27	desc. node	3560 Mar 17 19:34	0°♌44'55	
	3559 Apr 16 04:22	0°♍		morning max el	3560 Mar 19 20:45	2°♌43'08	26°43'58
	3559 May 05 09:29	0°♎			3560 Apr 09 10:20	0°♍	
morning set	3559 May 12 09:30	13°♎12'19		morning set	3560 Apr 24 17:38	26°♍31'43	
max. Earth dist.	3559 May 17 09:35	23°♎22'48	1.33198 AU		3560 Apr 26 12:59	0°♎	
				max. Earth dist.	3560 Apr 29 00:54	4°♎54'59	1.34432 AU
superior conj	3559 May 20 09:04	29°♎40'27	0°-12'-51				
minimum elong	3559 May 20 09:42	29°♎43'55	0°12'44	superior conj	3560 May 03 09:22	13°♎46'57	0°-41'-35
behind sun begin	3559 May 20 06:26	29°♎26'25		minimum elong	3560 May 03 11:33	13°♎58'17	0°41'10
behind sun end	3559 May 20 12:59	0°♏01'25		asc. node	3560 May 07 11:37	22°♏21'16	
	3559 May 20 12:43	0°♏		evening rise	3560 May 10 22:51	29°♏37'32	
asc. node	3559 May 21 14:35	2°♏18'29			3560 May 11 03:10	0°♏	
evening rise	3559 May 27 13:12	15°♏02'26			3560 May 29 05:16	0°♐	
	3559 Jun 04 01:36	0°♐		evening max el	3560 May 30 09:19	1°♐11'33	21°10'10
evening max el	3559 Jun 18 12:06	20°♐30'15	22°40'58	retrograde	3560 Jun 11 06:34	7°♐00'59	
desc. node	3559 Jun 27 21:43	26°♐31'19		evening set	3560 Jun 13 13:07	6°♐48'59	
retrograde	3559 Jul 01 17:10	27°♐04'38		desc. node	3560 Jun 13 18:44	6°♐46'26	
evening set	3559 Jul 05 00:21	26°♐40'44		inferior conj	3560 Jun 22 21:33	2°♐51'01	-2°-37'-19
min. Earth dist.	3559 Jul 12 20:07	23°♐14'15	0.55292 AU	minimum elong	3560 Jun 22 14:27	3°♐00'59	2°34'57
inferior conj	3559 Jul 14 03:41	22°♐29'07	-4°-13'-21	min. Earth dist.	3560 Jun 23 07:40	2°♐36'47	0.54846 AU
minimum elong	3559 Jul 13 19:45	22°♐40'28	4°11'36		3560 Jun 28 09:24	30°♑	
morning rise	3559 Jul 22 17:43	18°♐38'21		morning rise	3560 Jul 01 15:44	28°♑52'48	
direct	3559 Jul 25 17:38	18°♐17'37		direct	3560 Jul 05 03:23	28°♑26'34	
morning max el	3559 Aug 05 23:40	23°♐31'17	20°56'06		3560 Jul 11 13:26	0°♑	
	3559 Aug 11 15:19	0°♒		morning max el	3560 Jul 17 21:32	4°♑30'45	22°31'09
asc. node	3559 Aug 17 13:50	9°♒17'26		asc. node	3560 Aug 03 10:52	28°♑26'52	
morning set	3559 Aug 25 10:30	24°♒30'16			3560 Aug 04 06:12	0°♒	
	3559 Aug 28 01:59	0°♓		morning set	3560 Aug 08 20:58	9°♒21'36	
superior conj	3559 Sep 01 21:57	10°♓02'52	1°44'22	superior conj	3560 Aug 16 01:05	24°♒37'44	1°39'10
minimum elong	3559 Sep 01 21:35	10°♓00'57	1°44'21	minimum elong	3560 Aug 15 23:34	24°♒29'38	1°39'05
max. Earth dist.	3559 Sep 06 11:54	19°♓16'41	1.35678 AU		3560 Aug 18 14:23	0°♓	
evening rise	3559 Sep 10 15:34	27°♓15'21		max. Earth dist.	3560 Aug 19 05:03	1°♓16'07	1.34170 AU
	3559 Sep 12 03:05	0°♔		evening rise	3560 Aug 23 23:34	10°♓52'49	
desc. node	3559 Sep 23 21:03	19°♔59'16			3560 Sep 03 12:22	0°♔	
	3559 Sep 30 13:22	0°♕		desc. node	3560 Sep 09 18:03	9°♔57'27	
evening max el	3559 Oct 16 03:38	19°♕04'16	26°24'01		3560 Sep 25 02:14	0°♕	
retrograde	3559 Oct 28 23:01	26°♕16'34		evening max el	3560 Sep 27 16:11	2°♕36'26	27°08'20
evening set	3559 Nov 04 08:10	23°♕40'28		retrograde	3560 Oct 11 00:03	9°♕53'55	
min. Earth dist.	3559 Nov 08 12:14	19°♕19'25	0.66351 AU	evening set	3560 Oct 17 20:44	7°♕13'00	
inferior conj	3559 Nov 10 02:45	17°♕22'16	-1°-10'-12	min. Earth dist.	3560 Oct 21 18:12	3°♕28'04	0.65124 AU
minimum elong	3559 Nov 10 04:39	17°♕16'28	1°09'24	inferior conj	3560 Oct 23 20:44	1°♕06'40	-2°-10'-48
asc. node	3559 Nov 13 13:02	13°♕31'23		minimum elong	3560 Oct 24 00:22	0°♕56'28	2°09'23
morning rise	3559 Nov 16 02:25	11°♕33'37			3560 Oct 24 20:46	30°♖	
direct	3559 Nov 19 01:15	10°♕44'17		morning rise	3560 Oct 30 05:51	25°♖31'17	
morning max el	3559 Nov 25 17:56	14°♕24'55	18°37'44	asc. node	3560 Oct 30 10:05	25°♖26'31	
	3559 Dec 07 04:51	0°♗		direct	3560 Nov 01 21:00	24°♖54'14	
morning set	3559 Dec 16 09:36	14°♗30'38		morning max el	3560 Nov 08 08:49	28°♖22'55	18°05'48
desc. node	3559 Dec 20 20:22	21°♗33'26			3560 Nov 09 20:44	0°♗	
	3559 Dec 26 04:53	0°♘		morning set	3560 Nov 26 10:22	25°♗26'18	

	3560 Nov 29 04:43	0°♊		superior conj	3561 Nov 20 21:07	28°♌34'01	0°18'42
desc. node	3560 Dec 06 17:21	12°♊14'48		minimum elong	3561 Nov 20 23:05	28°♌42'06	0°18'26
					3561 Nov 21 18:02	0°♊	
superior conj	3560 Dec 10 19:06	18°♊45'15	0°-27'-33	desc. node	3561 Nov 23 14:22	3°♊00'54	
minimum elong	3560 Dec 10 15:38	18°♊31'30	0°27'05	max. Earth dist.	3561 Nov 26 23:14	8°♊26'40	1.44178 AU
max. Earth dist.	3560 Dec 14 05:13	24°♊09'56	1.45053 AU	evening rise	3561 Dec 06 14:30	23°♊32'53	
	3560 Dec 17 22:28	0°♊			3561 Dec 10 19:45	0°♊	
evening rise	3560 Dec 27 04:54	14°♊24'28		greatest brilliancy	3561 Dec 29 18:35	27°♊25'26	-0.5m
	3561 Jan 06 08:11	0°♊			3561 Dec 31 19:28	0°♊	
greatest brilliancy	3561 Jan 13 18:26	10°♊59'33	-0.6m	evening max el	3562 Jan 04 09:13	4°♊03'00	20°46'03
evening max el	3561 Jan 21 07:58	20°♊31'06	19°43'07	retrograde	3562 Jan 12 15:42	8°♊56'13	
asc. node	3561 Jan 26 09:21	24°♊18'42		asc. node	3562 Jan 13 06:24	8°♊54'10	
retrograde	3561 Jan 28 17:37	24°♊48'25		evening set	3562 Jan 16 13:57	7°♊27'58	
evening set	3561 Feb 01 06:42	23°♊34'51		inferior conj	3562 Jan 21 23:52	1°♊15'18	2°37'30
inferior conj	3561 Feb 06 18:50	17°♊34'29	3°08'38	minimum elong	3562 Jan 21 21:21	1°♊23'55	2°36'47
minimum elong	3561 Feb 06 16:33	17°♊42'01	3°08'10	min. Earth dist.	3562 Jan 22 12:20	0°♊32'30	0.67550 AU
min. Earth dist.	3561 Feb 07 20:28	16°♊09'39	0.66794 AU		3562 Jan 22 21:52	30°♌♊	
morning rise	3561 Feb 12 01:44	11°♊19'07		morning rise	3562 Jan 27 04:19	25°♊00'01	
direct	3561 Feb 18 02:25	8°♊38'41		direct	3562 Feb 01 14:37	22°♊37'09	
morning max el	3561 Mar 02 05:48	15°♊52'57	25°31'21	morning max el	3562 Feb 12 14:21	29°♊10'25	24°05'38
desc. node	3561 Mar 04 16:36	18°♊29'07			3562 Feb 13 09:38	0°♊	
	3561 Mar 13 21:41	0°♋		desc. node	3562 Feb 19 13:37	7°♊10'18	
	3561 Apr 02 07:49	0°♋			3562 Mar 07 17:05	0°♋	
morning set	3561 Apr 07 10:27	9°♋01'58		morning set	3562 Mar 20 06:22	20°♋28'10	
max. Earth dist.	3561 Apr 11 04:56	16°♋01'25	1.36123 AU	max. Earth dist.	3562 Mar 24 01:27	27°♋08'26	1.38163 AU
					3562 Mar 25 15:31	0°♋	
superior conj	3561 Apr 17 01:07	27°♋23'24	-1°-10'-8				
minimum elong	3561 Apr 17 04:47	27°♋41'45	1°09'32	superior conj	3562 Mar 31 04:52	10°♋20'57	-1°-36'-14
	3561 Apr 18 08:21	0°♌		minimum elong	3562 Mar 31 09:28	10°♋42'54	1°35'40
asc. node	3561 Apr 24 08:38	12°♌14'40		evening rise	3562 Apr 09 03:18	27°♋48'03	
evening rise	3561 Apr 25 04:22	13°♌54'59			3562 Apr 10 06:13	0°♌	
	3561 May 03 14:50	0°♌		asc. node	3562 Apr 11 05:41	1°♌54'18	
evening max el	3561 May 12 18:09	12°♌28'30	19°54'48	evening max el	3562 Apr 25 14:29	24°♌26'05	18°58'59
retrograde	3561 May 22 22:00	17°♌24'55		retrograde	3562 May 04 03:57	28°♌36'34	
evening set	3561 May 24 21:17	17°♌14'35		evening set	3562 May 06 06:11	28°♌22'36	
desc. node	3561 May 31 15:46	14°♌30'46		inferior conj	3562 May 14 09:51	24°♌06'55	1°10'18
inferior conj	3561 Jun 02 19:24	13°♌13'59	0°-38'-6	minimum elong	3562 May 14 12:28	24°♌02'18	1°09'24
minimum elong	3561 Jun 02 17:38	13°♌16'39	0°37'28	min. Earth dist.	3562 May 17 12:10	21°♌57'13	0.56744 AU
min. Earth dist.	3561 Jun 04 20:33	11°♌59'22	0.55367 AU	desc. node	3562 May 18 12:48	21°♌16'50	
morning rise	3561 Jun 11 11:09	8°♌49'46		morning rise	3562 May 22 14:25	19°♌07'07	
direct	3561 Jun 15 17:20	8°♌10'02		direct	3562 May 27 19:57	18°♌02'15	
morning max el	3561 Jun 29 12:32	14°♌59'45	24°14'14	morning max el	3562 Jun 11 03:10	25°♌25'41	25°50'37
	3561 Jul 11 08:46	0°♍			3562 Jun 15 09:37	0°♌	
asc. node	3561 Jul 21 07:54	17°♍59'33			3562 Jul 04 08:43	0°♍	
morning set	3561 Jul 24 08:44	24°♍16'11		asc. node	3562 Jul 08 04:57	7°♍48'57	
	3561 Jul 27 00:59	0°♎		morning set	3562 Jul 08 20:09	9°♍08'56	
superior conj	3561 Jul 31 09:11	9°♎26'08	1°28'17	superior conj	3562 Jul 15 20:05	24°♍21'14	1°12'34
minimum elong	3561 Jul 31 07:00	9°♎14'16	1°28'02	minimum elong	3562 Jul 15 17:44	24°♍08'19	1°12'12
max. Earth dist.	3561 Aug 02 07:10	13°♎34'24	1.33062 AU	max. Earth dist.	3562 Jul 16 15:44	26°♍09'08	1.32361 AU
evening rise	3561 Aug 07 18:34	25°♎01'31			3562 Jul 18 09:59	0°♎	
	3561 Aug 10 06:34	0°♎		evening rise	3562 Jul 22 21:20	9°♎31'52	
desc. node	3561 Aug 27 15:04	29°♎25'41			3562 Aug 02 14:32	0°♎	
	3561 Aug 28 00:39	0°♏		desc. node	3562 Aug 14 12:05	18°♎11'30	
evening max el	3561 Sep 10 03:21	15°♏47'39	27°26'23	evening max el	3562 Aug 23 10:34	28°♎24'08	27°12'57
retrograde	3561 Sep 23 18:49	23°♏04'12			3562 Aug 25 05:05	0°♏	
evening set	3561 Sep 30 22:40	20°♏27'39		retrograde	3562 Sep 06 06:44	5°♏37'56	
min. Earth dist.	3561 Oct 04 14:51	17°♏16'21	0.63551 AU	evening set	3562 Sep 13 10:11	3°♏17'50	
inferior conj	3561 Oct 07 05:40	14°♏37'48	-3°-10'-53	min. Earth dist.	3562 Sep 17 00:53	0°♏32'12	0.61674 AU
minimum elong	3561 Oct 07 10:50	14°♏24'43	3°09'11		3562 Sep 17 15:40	30°♏♎	
morning rise	3561 Oct 14 01:26	9°♏19'14		inferior conj	3562 Sep 20 02:27	27°♎47'46	-4°-6'-9
direct	3561 Oct 16 11:30	8°♏50'50		minimum elong	3562 Sep 20 08:17	27°♎34'42	4°04'42
asc. node	3561 Oct 17 07:08	8°♏54'09		morning rise	3562 Sep 27 09:23	22°♎49'29	
morning max el	3561 Oct 23 01:22	12°♏16'06	17°51'19	direct	3562 Sep 29 17:10	22°♎26'39	
	3561 Nov 04 03:23	0°♐		asc. node	3562 Oct 04 04:11	23°♎53'47	
morning set	3561 Nov 08 13:12	7°♐37'45		morning max el	3562 Oct 06 16:29	25°♎56'55	17°55'08
					3562 Oct 10 03:18	0°♏	

morning set	3562 Oct 22 11:40	20°♄45'00		asc. node	3563 Sep 21 01:14	10°♊13'33	
	3562 Oct 27 14:08	0°♌			3563 Oct 03 14:32	0°♌	
				morning set	3563 Oct 06 00:09	4°♌32'39	
superior conj	3562 Nov 02 02:04	9°♌42'01	0°56'16				
minimum elong	3562 Nov 02 06:14	10°♌00'05	0°55'44	superior conj	3563 Oct 15 07:17	22°♌01'23	1°22'32
max. Earth dist.	3562 Nov 09 12:45	22°♌15'26	1.42698 AU	minimum elong	3563 Oct 15 11:03	22°♌18'35	1°22'08
desc. node	3562 Nov 10 11:23	23°♌48'06			3563 Oct 19 18:01	0°♌	
	3562 Nov 14 07:42	0°♌		max. Earth dist.	3563 Oct 22 20:45	5°♌23'58	1.40801 AU
evening rise	3562 Nov 16 04:55	2°♌58'56		evening rise	3563 Oct 27 13:57	13°♌17'51	
	3562 Dec 04 06:50	0°♌		desc. node	3563 Oct 28 08:26	14°♌33'24	
greatest brilliancy	3562 Dec 13 11:10	12°♌13'52	-0.3m		3563 Nov 07 05:07	0°♌	
evening max el	3562 Dec 18 04:51	17°♌35'29	21°59'37		3563 Nov 29 16:29	0°♌	
retrograde	3562 Dec 27 12:36	23°♌08'28		evening max el	3563 Nov 30 20:11	1°♌11'21	23°18'55
asc. node	3562 Dec 31 03:27	21°♌57'57		retrograde	3563 Dec 11 06:51	7°♌22'21	
evening set	3562 Dec 31 21:44	21°♌24'28		evening set	3563 Dec 16 04:29	5°♌22'04	
inferior conj	3563 Jan 06 07:10	15°♌02'58	1°58'12	asc. node	3563 Dec 18 00:29	3°♌34'14	
minimum elong	3563 Jan 06 04:54	15°♌10'52	1°57'25		3563 Dec 20 20:11	30°♌	
min. Earth dist.	3563 Jan 06 07:53	15°♌00'31	0.67918 AU	min. Earth dist.	3563 Dec 21 04:43	29°♌30'46	0.67930 AU
morning rise	3563 Jan 11 11:52	8°♌49'27		inferior conj	3563 Dec 21 14:55	28°♌55'45	1°12'06
direct	3563 Jan 16 07:05	6°♌48'28		minimum elong	3563 Dec 21 13:19	29°♌01'13	1°11'28
morning max el	3563 Jan 26 00:39	12°♌33'31	22°36'43	morning rise	3563 Dec 26 22:14	22°♌46'00	
greatest brilliancy	3563 Jan 30 14:31	17°♌39'52	-0.3m	direct	3563 Dec 31 03:03	21°♌07'50	
desc. node	3563 Feb 06 10:39	26°♌31'49		morning max el	3564 Jan 08 16:09	26°♌05'42	21°13'12
	3563 Feb 08 22:35	0°♌			3564 Jan 12 04:55	0°♌	
morning set	3563 Feb 28 23:19	0°♌34'46		greatest brilliancy	3564 Jan 13 22:05	2°♌06'08	-0.4m
	3563 Feb 28 14:49	0°♌		desc. node	3564 Jan 24 07:41	16°♌22'48	
max. Earth dist.	3563 Mar 05 21:14	8°♌47'22	1.40333 AU		3564 Feb 02 10:49	0°♌	
				morning set	3564 Feb 08 11:46	9°♌21'45	
superior conj	3563 Mar 13 16:07	22°♌28'02	-1°-56'-37	max. Earth dist.	3564 Feb 15 22:42	21°♌19'38	1.42362 AU
minimum elong	3563 Mar 13 20:12	22°♌46'28	1°56'21		3564 Feb 21 03:43	0°♌	
	3563 Mar 17 18:33	0°♌					
evening rise	3563 Mar 23 16:24	11°♌07'48		superior conj	3564 Feb 23 05:51	3°♌33'27	-2°-6'-45
asc. node	3563 Mar 29 02:44	21°♌14'17		minimum elong	3564 Feb 23 06:48	3°♌37'32	2°06'46
	3563 Apr 03 07:44	0°♌		evening rise	3564 Mar 05 15:50	23°♌45'39	
evening max el	3563 Apr 08 19:37	6°♌58'18	18°23'33		3564 Mar 09 02:54	0°♌	
retrograde	3563 Apr 16 04:45	10°♌37'42		asc. node	3564 Mar 14 23:47	10°♌07'58	
evening set	3563 Apr 18 13:01	10°♌16'33		evening max el	3564 Mar 22 06:07	19°♌56'05	18°07'57
inferior conj	3563 Apr 25 21:43	5°♌40'55	2°28'45	retrograde	3564 Mar 28 22:32	23°♌20'27	
minimum elong	3563 Apr 26 01:27	5°♌33'14	2°27'47	evening set	3564 Mar 31 12:52	22°♌49'49	
min. Earth dist.	3563 Apr 29 08:21	2°♌52'17	0.58691 AU	inferior conj	3564 Apr 07 05:36	17°♌53'06	3°15'22
morning rise	3563 May 03 09:38	0°♌09'49		minimum elong	3564 Apr 07 08:12	17°♌46'52	3°14'58
	3563 May 03 17:12	30°♌		min. Earth dist.	3564 Apr 10 11:04	14°♌49'58	0.60867 AU
desc. node	3563 May 05 09:50	29°♌15'40		morning rise	3564 Apr 14 00:20	12°♌00'59	
direct	3563 May 09 12:50	28°♌30'28		direct	3564 Apr 20 17:33	9°♌47'25	
	3563 May 15 12:56	0°♌		desc. node	3564 Apr 21 06:53	9°♌48'18	
morning max el	3563 May 23 22:18	6°♌15'07	27°04'38	morning max el	3564 May 04 23:34	17°♌42'47	27°45'09
	3563 Jun 10 14:06	0°♌			3564 May 15 05:20	0°♌	
morning set	3563 Jun 23 05:37	23°♌54'30			3564 Jun 02 06:05	0°♌	
asc. node	3563 Jun 25 02:00	27°♌49'43		morning set	3564 Jun 06 11:12	8°♌25'57	
	3563 Jun 26 02:13	0°♌		asc. node	3564 Jun 10 23:02	17°♌56'23	
				max. Earth dist.	3564 Jun 12 14:12	21°♌29'15	1.32170 AU
superior conj	3563 Jun 30 07:56	9°♌17'02	0°52'44				
minimum elong	3563 Jun 30 05:54	9°♌05'47	0°52'20	superior conj	3564 Jun 13 18:57	24°♌06'41	0°29'24
max. Earth dist.	3563 Jun 30 03:20	8°♌51'37	1.32062 AU	minimum elong	3564 Jun 13 17:40	23°♌59'36	0°29'06
evening rise	3563 Jul 07 05:15	24°♌15'57			3564 Jun 16 11:18	0°♌	
	3563 Jul 09 23:41	0°♌		evening rise	3564 Jun 20 16:05	9°♌05'46	
	3563 Jul 27 14:59	0°♌			3564 Jul 01 10:42	0°♌	
desc. node	3563 Aug 01 09:07	5°♌57'35		evening max el	3564 Jul 17 05:19	21°♌21'06	25°10'32
evening max el	3563 Aug 05 11:33	10°♌16'11	26°26'20	desc. node	3564 Jul 18 06:09	22°♌18'42	
retrograde	3563 Aug 19 10:52	17°♌26'51		retrograde	3564 Jul 31 04:40	28°♌26'03	
evening set	3563 Aug 26 02:39	15°♌36'22		evening set	3564 Aug 05 19:30	27°♌13'35	
min. Earth dist.	3563 Aug 30 00:54	13°♌01'37	0.59617 AU	min. Earth dist.	3564 Aug 10 17:04	24°♌31'08	0.57609 AU
inferior conj	3563 Sep 02 07:40	10°♌27'54	-4°-49'-9	inferior conj	3564 Aug 13 17:55	22°♌27'44	-5°-8'-7
minimum elong	3563 Sep 02 12:11	10°♌19'02	4°48'32	minimum elong	3564 Aug 13 18:14	22°♌27'12	5°08'08
morning rise	3563 Sep 10 01:10	5°♌52'20		morning rise	3564 Aug 21 20:33	18°♌14'47	
direct	3563 Sep 12 09:53	5°♌32'26		direct	3564 Aug 24 09:24	17°♌55'44	
morning max el	3563 Sep 20 02:57	9°♌17'03	18°18'29	morning max el	3564 Sep 02 05:19	22°♌05'25	19°02'45

asc. node	3564 Sep 06 22:16	27°♄37'14			3565 Aug 01 21:27	30°♄☿	
	3564 Sep 08 13:20	0°♄		morning rise	3565 Aug 02 18:13	29°♄46'27	
morning set	3564 Sep 18 22:19	18°♄47'45		direct	3565 Aug 05 13:48	29°♄26'41	
	3564 Sep 24 14:16	0°♄			3565 Aug 09 02:49	0°♄	
				morning max el	3565 Aug 15 20:51	4°♄13'17	20°08'45
superior conj	3564 Sep 27 07:10	5°♄15'17	1°38'03	asc. node	3565 Aug 24 19:19	15°♄51'00	
minimum elong	3564 Sep 27 09:23	5°♄25'55	1°37'54		3565 Sep 01 10:59	0°♄	
max. Earth dist.	3564 Oct 04 01:17	17°♄50'33	1.38728 AU	morning set	3565 Sep 03 03:02	3°♄22'08	
evening rise	3564 Oct 07 22:24	24°♄41'05					
	3564 Oct 11 01:29	0°♄		superior conj	3565 Sep 10 20:41	19°♄09'42	1°44'18
desc. node	3564 Oct 14 05:28	5°♄12'13		minimum elong	3565 Sep 10 21:11	19°♄12'11	1°44'18
	3564 Oct 30 22:32	0°♄			3565 Sep 16 09:23	0°♄	
evening max el	3564 Nov 12 09:09	14°♄51'23	24°37'52	max. Earth dist.	3565 Sep 16 07:05	29°♄49'04	1.36725 AU
retrograde	3564 Nov 23 21:09	21°♄33'35		evening rise	3565 Sep 20 04:38	7°♄04'47	
evening set	3564 Nov 29 08:34	19°♄17'22		desc. node	3565 Oct 01 02:28	25°♄40'05	
asc. node	3564 Dec 03 21:30	14°♄09'42			3565 Oct 03 20:55	0°♄	
min. Earth dist.	3564 Dec 04 00:24	14°♄00'07	0.67593 AU	evening max el	3565 Oct 25 21:30	28°♄33'27	25°49'14
inferior conj	3564 Dec 04 21:16	12°♄50'42	0°20'17		3565 Oct 27 10:25	0°♄	
minimum elong	3564 Dec 04 20:46	12°♄52'21	0°20'04	retrograde	3565 Nov 07 06:42	5°♄37'12	
morning rise	3564 Dec 10 09:23	6°♄47'05		evening set	3565 Nov 13 08:16	3°♄07'04	
direct	3564 Dec 14 01:08	5°♄30'19			3565 Nov 16 09:25	30°♄♄	
morning max el	3564 Dec 21 15:17	9°♄49'15	20°01'06	min. Earth dist.	3565 Nov 17 16:30	28°♄25'22	0.66911 AU
greatest brilliancy	3564 Dec 28 17:06	18°♄23'08	-0.6m	inferior conj	3565 Nov 19 00:24	26°♄44'36	0°-36'-8
	3565 Jan 05 19:26	0°♄		minimum elong	3565 Nov 19 01:21	26°♄41'36	0°35'44
desc. node	3565 Jan 10 04:44	6°♄35'06		asc. node	3565 Nov 20 18:32	24°♄34'45	
morning set	3565 Jan 17 08:06	17°♄30'11		morning rise	3565 Nov 24 19:21	20°♄49'50	
	3565 Jan 25 08:15	0°♄		direct	3565 Nov 27 23:49	19°♄51'30	
max. Earth dist.	3565 Jan 28 08:20	4°♄46'13	1.43975 AU	morning max el	3565 Dec 04 22:08	23°♄42'39	19°03'35
					3565 Dec 10 04:03	0°♄	
superior conj	3565 Feb 02 18:04	13°♄29'46	-2°-1'-20	morning set	3565 Dec 27 13:13	26°♄13'24	
minimum elong	3565 Feb 02 13:20	13°♄10'26	2°01'08	desc. node	3565 Dec 28 01:45	27°♄02'18	
	3565 Feb 12 15:24	0°♄			3565 Dec 29 23:19	0°♄	
evening rise	3565 Feb 15 21:20	5°♄33'38		max. Earth dist.	3566 Jan 11 00:25	18°♄51'20	1.44967 AU
asc. node	3565 Mar 01 20:49	28°♄27'18					
	3565 Mar 03 00:32	0°♄		superior conj	3566 Jan 13 06:25	22°♄24'16	-1°-36'-35
evening max el	3565 Mar 05 18:48	3°♄10'57	18°11'30	minimum elong	3566 Jan 12 21:22	21°♄48'34	1°35'46
retrograde	3565 Mar 12 05:09	6°♄35'05			3566 Jan 18 01:12	0°♄	
evening set	3565 Mar 15 01:07	5°♄53'40		evening rise	3566 Jan 28 04:57	16°♄25'24	
inferior conj	3565 Mar 21 05:42	0°♄36'31	3°35'47		3566 Feb 05 12:27	0°♄	
minimum elong	3565 Mar 21 06:31	0°♄34'19	3°35'45	asc. node	3566 Feb 16 17:50	16°♄01'30	
	3565 Mar 21 19:11	30°♄♄		evening max el	3566 Feb 17 06:47	16°♄35'18	18°33'32
min. Earth dist.	3565 Mar 23 22:18	27°♄43'05	0.62959 AU	retrograde	3566 Feb 23 20:16	20°♄12'07	
morning rise	3565 Mar 27 09:48	24°♄31'58		evening set	3566 Feb 26 22:02	19°♄19'02	
direct	3565 Apr 03 07:21	21°♄53'51		inferior conj	3566 Mar 04 18:00	13°♄43'08	3°36'24
desc. node	3565 Apr 08 03:55	23°♄02'08		minimum elong	3566 Mar 04 17:13	13°♄45'31	3°36'21
	3565 Apr 17 09:31	0°♄		min. Earth dist.	3566 Mar 06 19:06	11°♄17'07	0.64761 AU
morning max el	3565 Apr 17 06:10	29°♄51'36	27°48'09	morning rise	3566 Mar 10 11:02	7°♄31'41	
	3565 May 09 04:58	0°♄		direct	3566 Mar 17 04:37	4°♄42'37	
morning set	3565 May 21 10:46	22°♄36'26		desc. node	3566 Mar 26 00:57	8°♄26'59	
	3565 May 25 01:05	0°♄		morning max el	3566 Mar 30 15:44	12°♄34'01	27°15'56
max. Earth dist.	3565 May 26 20:31	3°♄49'36	1.32698 AU		3566 Apr 13 15:00	0°♄	
asc. node	3565 May 28 20:05	8°♄04'52			3566 May 01 18:22	0°♄	
				morning set	3566 May 05 01:30	6°♄16'58	
superior conj	3565 May 29 03:25	8°♄44'28	0°03'13	max. Earth dist.	3566 May 09 18:25	15°♄41'28	1.33669 AU
minimum elong	3565 May 29 03:15	8°♄43'37	0°03'11				
behind sun begin	3565 May 28 22:06	8°♄15'46		superior conj	3566 May 13 07:17	23°♄03'33	0°-24'-57
behind sun end	3565 May 29 08:24	9°♄11'29		minimum elong	3566 May 13 08:34	23°♄10'20	0°24'42
evening rise	3565 Jun 05 03:56	23°♄54'52		asc. node	3566 May 15 17:07	28°♄10'34	
	3565 Jun 08 02:05	0°♄			3566 May 16 13:38	0°♄	
	3565 Jun 26 22:40	0°♄		evening rise	3566 May 20 14:54	8°♄36'25	
evening max el	3565 Jun 28 18:36	1°♄52'25	23°36'50		3566 May 31 22:28	0°♄	
desc. node	3565 Jul 05 03:09	6°♄42'29		evening max el	3566 Jun 10 10:29	12°♄19'25	22°00'51
retrograde	3565 Jul 12 09:53	8°♄42'37		desc. node	3566 Jun 22 00:09	18°♄33'58	
evening set	3565 Jul 16 13:43	8°♄04'42		retrograde	3566 Jun 23 03:38	18°♄37'00	
min. Earth dist.	3565 Jul 23 04:39	4°♄58'20	0.55958 AU	evening set	3566 Jun 25 22:28	18°♄19'42	
inferior conj	3565 Jul 25 07:57	3°♄41'37	-4°-47'-43	min. Earth dist.	3566 Jul 04 15:15	14°♄35'51	0.54986 AU
minimum elong	3565 Jul 25 02:22	3°♄50'02	4°46'57	inferior conj	3566 Jul 05 05:55	14°♄15'17	-3°-37'-32

minimum elong	3566 Jul 04 21:31	14° \mathfrak{G} 27'04	3°35'13	min. Earth dist.	3567 Jun 16 03:20	23° \mathbb{I} 53'11	0.54942 AU
morning rise	3566 Jul 13 22:18	10° \mathfrak{G} 24'21		morning rise	3567 Jun 23 17:43	20° \mathbb{I} 25'44	
direct	3566 Jul 17 02:36	10° \mathfrak{G} 01'59		direct	3567 Jun 27 12:02	19° \mathbb{I} 55'12	
morning max el	3566 Jul 29 00:41	15° \mathfrak{G} 36'18	21°34'57	morning max el	3567 Jul 10 19:02	26° \mathbb{I} 20'23	23°15'02
	3566 Aug 08 23:48	0° \mathcal{Q}			3567 Jul 14 07:08	0° \mathfrak{G}	
asc. node	3566 Aug 11 16:21	4° \mathcal{Q} 42'49		asc. node	3567 Jul 29 13:24	24° \mathfrak{G} 02'50	
morning set	3566 Aug 18 11:59	18° \mathcal{Q} 09'05			3567 Aug 01 12:14	0° \mathcal{Q}	
	3566 Aug 24 03:09	0° \mathfrak{M}		morning set	3567 Aug 02 23:11	3° \mathcal{Q} 02'17	
superior conj	3566 Aug 25 19:47	3° \mathfrak{M} 32'55	1°42'55	superior conj	3567 Aug 10 01:19	18° \mathcal{Q} 14'35	1°35'12
minimum elong	3566 Aug 25 18:52	3° \mathfrak{M} 28'07	1°42'54	minimum elong	3567 Aug 09 23:27	18° \mathcal{Q} 04'34	1°35'03
max. Earth dist.	3566 Aug 29 19:11	11° \mathfrak{M} 42'14	1.34988 AU	max. Earth dist.	3567 Aug 12 16:01	23° \mathcal{Q} 47'58	1.33635 AU
evening rise	3566 Sep 03 04:27	20° \mathfrak{M} 18'39			3567 Aug 15 15:46	0° \mathfrak{M}	
	3566 Sep 08 10:35	0° \mathfrak{A}		evening rise	3567 Aug 17 17:31	4° \mathfrak{M} 10'28	
desc. node	3566 Sep 17 23:27	15° \mathfrak{A} 51'31			3567 Sep 01 04:25	0° \mathfrak{A}	
	3566 Sep 27 20:03	0° \mathfrak{M}		desc. node	3567 Sep 04 20:28	5° \mathfrak{A} 38'31	
evening max el	3566 Oct 08 09:56	12° \mathfrak{M} 11'48	26°45'33	evening max el	3567 Sep 20 21:54	25° \mathfrak{A} 36'11	27°19'35
retrograde	3566 Oct 21 11:03	19° \mathfrak{M} 27'15			3567 Sep 26 07:10	0° \mathfrak{M}	
evening set	3566 Oct 28 01:38	16° \mathfrak{M} 47'51		retrograde	3567 Oct 04 09:44	2° \mathfrak{M} 54'49	
min. Earth dist.	3566 Nov 01 02:44	12° \mathfrak{M} 42'36	0.65878 AU	evening set	3567 Oct 11 10:09	0° \mathfrak{M} 14'07	
inferior conj	3566 Nov 02 22:23	10° \mathfrak{M} 34'16	-1°-35'-44		3567 Oct 11 17:24	30° \mathfrak{R} \mathfrak{A}	
minimum elong	3566 Nov 03 01:02	10° \mathfrak{M} 26'29	1°34'40	min. Earth dist.	3567 Oct 15 04:57	26° \mathfrak{A} 44'14	0.64491 AU
asc. node	3566 Nov 07 15:35	5° \mathfrak{M} 45'43		inferior conj	3567 Oct 17 12:52	24° \mathfrak{A} 14'06	-2°-36'-33
morning rise	3566 Nov 09 01:56	4° \mathfrak{M} 51'09		minimum elong	3567 Oct 17 17:13	24° \mathfrak{A} 02'24	2°34'57
direct	3566 Nov 11 21:13	4° \mathfrak{M} 07'34		morning rise	3567 Oct 24 02:27	18° \mathfrak{A} 45'40	
morning max el	3566 Nov 18 10:56	7° \mathfrak{M} 41'43	18°22'06	asc. node	3567 Oct 25 12:37	18° \mathfrak{A} 19'10	
	3566 Dec 03 22:58	0° \mathfrak{X}		direct	3567 Oct 26 14:59	18° \mathfrak{A} 12'54	
morning set	3566 Dec 07 21:00	6° \mathfrak{X} 19'16		morning max el	3567 Nov 02 02:59	21° \mathfrak{A} 39'18	17°57'29
desc. node	3566 Dec 14 22:46	17° \mathfrak{X} 40'03			3567 Nov 08 13:27	0° \mathfrak{M}	
	3566 Dec 22 17:52	0° \mathfrak{Z}		morning set	3567 Nov 19 09:36	17° \mathfrak{M} 49'40	
superior conj	3566 Dec 23 08:30	0° \mathfrak{Z} 57'31	0°-55'-7	desc. node	3567 Nov 26 16:18	0° \mathfrak{X}	
minimum elong	3566 Dec 23 01:36	0° \mathfrak{Z} 30'27	0°54'16		3567 Dec 01 19:46	8° \mathfrak{X} 24'07	
max. Earth dist.	3566 Dec 24 19:26	3° \mathfrak{Z} 14'41	1.45234 AU	superior conj	3567 Dec 02 21:17	10° \mathfrak{X} 07'00	0°-7'-17
evening rise	3567 Jan 08 13:25	26° \mathfrak{Z} 22'02		minimum elong	3567 Dec 02 20:25	10° \mathfrak{X} 03'31	0°07'10
	3567 Jan 10 20:53	0° \approx		behind sun begin	3567 Dec 02 11:04	9° \mathfrak{X} 25'51	
greatest brilliancy	3567 Jan 22 02:14	17° \approx 25'11	-0.7m	behind sun end	3567 Dec 03 05:46	10° \mathfrak{X} 41'08	
evening max el	3567 Jan 31 15:48	0° \mathfrak{H} 04'39	19°13'04	max. Earth dist.	3567 Dec 07 14:02	17° \mathfrak{X} 36'41	1.44763 AU
	3567 Jan 31 13:59	0° \mathfrak{H}			3567 Dec 15 12:04	0° \mathfrak{Z}	
asc. node	3567 Feb 03 14:52	2° \mathfrak{H} 37'56		evening rise	3567 Dec 19 03:42	5° \mathfrak{Z} 38'20	
retrograde	3567 Feb 07 16:15	4° \mathfrak{H} 04'55			3568 Jan 04 07:28	0° \approx	
evening set	3567 Feb 11 00:44	2° \mathfrak{H} 59'17		greatest brilliancy	3568 Jan 08 05:52	5° \approx 32'25	-0.6m
	3567 Feb 14 06:51	30° \mathfrak{R} \approx		evening max el	3568 Jan 14 20:08	13° \approx 35'57	20°08'19
inferior conj	3567 Feb 16 15:01	27° \approx 07'00	3°22'10	asc. node	3568 Jan 21 11:55	18° \approx 01'40	
minimum elong	3567 Feb 16 13:08	27° \approx 13'05	3°21'52	retrograde	3568 Jan 22 14:13	18° \approx 08'14	
min. Earth dist.	3567 Feb 18 00:52	25° \approx 18'25	0.66172 AU	evening set	3568 Jan 26 06:53	16° \approx 48'46	
morning rise	3567 Feb 22 00:39	20° \approx 52'07		inferior conj	3568 Jan 31 17:51	10° \approx 42'48	2°56'31
direct	3567 Feb 28 08:30	18° \approx 05'20		minimum elong	3568 Jan 31 15:24	10° \approx 51'01	2°55'56
desc. node	3567 Mar 12 22:00	25° \approx 28'50		min. Earth dist.	3568 Feb 01 13:46	9° \approx 35'38	0.67166 AU
morning max el	3567 Mar 13 01:40	25° \approx 38'05	26°15'18	morning rise	3568 Feb 05 23:20	4° \approx 27'00	
	3567 Mar 17 01:46	0° \mathfrak{H}		direct	3568 Feb 11 18:03	1° \approx 53'04	
	3567 Apr 07 03:29	0° \mathfrak{Y}		morning max el	3568 Feb 23 10:24	8° \approx 52'02	24°55'44
morning set	3567 Apr 18 03:43	19° \mathfrak{Y} 17'01		desc. node	3568 Feb 27 19:01	13° \approx 39'47	
max. Earth dist.	3567 Apr 22 04:58	27° \mathfrak{Y} 01'11	1.35101 AU		3568 Mar 11 01:40	0° \mathfrak{H}	
	3567 Apr 23 17:19	0° \mathfrak{B}			3568 Mar 29 17:47	0° \mathfrak{Y}	
superior conj	3567 Apr 27 04:16	6° \mathfrak{B} 57'41	0°-53'-51	morning set	3568 Mar 30 12:28	1° \mathfrak{Y} 22'45	
minimum elong	3567 Apr 27 07:07	7° \mathfrak{B} 12'14	0°53'20	max. Earth dist.	3568 Apr 03 04:40	8° \mathfrak{Y} 02'22	1.36953 AU
asc. node	3567 May 02 14:09	18° \mathfrak{B} 09'39		superior conj	3568 Apr 09 15:25	20° \mathfrak{Y} 19'10	-1°-21'-41
evening rise	3567 May 04 23:04	23° \mathfrak{B} 04'29		minimum elong	3568 Apr 09 19:35	20° \mathfrak{Y} 39'40	1°21'04
	3567 May 08 09:14	0° \mathbb{I}			3568 Apr 14 12:09	0° \mathfrak{B}	
evening max el	3567 May 23 12:13	23° \mathbb{I} 13'24	20°35'48	evening rise	3568 Apr 18 02:08	7° \mathfrak{B} 12'43	
retrograde	3567 Jun 03 16:40	28° \mathbb{I} 40'55		asc. node	3568 Apr 18 11:12	7° \mathfrak{B} 58'08	
evening set	3567 Jun 05 17:58	28° \mathbb{I} 30'37			3568 Apr 30 23:31	0° \mathbb{I}	
desc. node	3567 Jun 08 21:11	27° \mathbb{I} 38'35		evening max el	3568 May 05 02:19	4° \mathbb{I} 48'59	19°28'40
inferior conj	3567 Jun 14 23:33	24° \mathbb{I} 33'13	-1°-47'-25	retrograde	3568 May 14 13:00	9° \mathbb{I} 24'08	
minimum elong	3567 Jun 14 18:30	24° \mathbb{I} 40'30	1°45'36	evening set	3568 May 16 12:41	9° \mathbb{I} 12'51	

inferior conj	3568 May 25 03:29	5°II07'21	0°10'48	evening rise	3569 Apr 01 21:17	20°Y52'36	
minimum elong	3568 May 25 03:56	5°II06'36	0°10'36	asc. node	3569 Apr 05 08:16	27°Y30'14	
transit middle	3568 May 25 03:56	5°II06'36	0°10'36		3569 Apr 06 16:19	0°8	
transit begin	3568 May 25 01:02	5°II11'17		evening max el	3569 Apr 18 02:54	17°802'52	18°41'29
transit end	3568 May 25 06:51	5°II01'54		retrograde	3569 Apr 26 02:36	20°857'40	
desc. node	3568 May 25 18:14	4°II43'31		evening set	3569 Apr 28 07:30	20°840'53	
min. Earth dist.	3568 May 27 17:39	3°II27'42	0.55856 AU	inferior conj	3569 May 06 02:52	16°817'07	1°47'38
morning rise	3568 Jun 02 15:22	0°II27'58		minimum elong	3569 May 06 06:20	16°810'35	1°46'33
	3568 Jun 04 06:13	30°R8		min. Earth dist.	3569 May 09 10:47	13°848'19	0.57527 AU
direct	3568 Jun 07 07:19	29°838'46		desc. node	3569 May 12 15:16	11°845'41	
	3568 Jun 10 08:11	0°II		morning rise	3569 May 14 00:45	11°803'19	
morning max el	3568 Jun 21 09:10	6°II45'21	24°57'02	direct	3569 May 19 16:26	9°844'18	
	3568 Jul 08 06:48	0°8		morning max el	3569 Jun 03 01:02	17°817'40	26°25'37
asc. node	3568 Jul 15 10:27	13°843'43			3569 Jun 13 12:42	0°II	
morning set	3568 Jul 17 11:00	17°857'01			3569 Jun 30 13:46	0°8	
	3568 Jul 23 00:38	0°8		morning set	3569 Jul 01 21:46	2°847'05	
				asc. node	3569 Jul 02 07:30	3°838'32	
superior conj	3568 Jul 24 10:53	3°807'15	1°22'11	superior conj	3569 Jul 08 22:22	18°803'09	1°04'38
minimum elong	3568 Jul 24 08:34	2°854'37	1°21'52	minimum elong	3569 Jul 08 20:06	17°850'37	1°04'14
max. Earth dist.	3568 Jul 25 21:05	6°813'34	1.32707 AU	max. Earth dist.	3569 Jul 09 07:27	18°853'09	1.32189 AU
evening rise	3568 Jul 31 16:14	18°830'10			3569 Jul 14 10:01	0°8	
	3568 Aug 06 12:46	0°8		evening rise	3569 Jul 15 21:29	3°807'22	
desc. node	3568 Aug 21 17:31	24°850'54			3569 Jul 30 08:56	0°8	
	3568 Aug 25 14:33	0°8		desc. node	3569 Aug 08 14:34	13°813'40	
evening max el	3568 Sep 02 07:49	8°834'53	27°24'51	evening max el	3569 Aug 15 12:52	20°853'59	26°57'12
retrograde	3568 Sep 16 01:57	15°850'46		retrograde	3569 Aug 29 10:28	28°805'37	
evening set	3568 Sep 23 06:30	13°819'49		evening set	3569 Sep 05 10:27	25°857'00	
min. Earth dist.	3568 Sep 26 21:23	10°820'31	0.62779 AU	min. Earth dist.	3569 Sep 09 03:06	23°817'55	0.60811 AU
inferior conj	3568 Sep 29 17:04	7°837'45	-3°-35'-18	inferior conj	3569 Sep 12 07:39	20°836'10	-4°-26'-30
minimum elong	3568 Sep 29 22:41	7°824'13	3°33'37	minimum elong	3569 Sep 12 13:14	20°824'19	4°25'22
morning rise	3568 Oct 06 17:34	2°827'13		morning rise	3569 Sep 19 19:09	15°846'57	
direct	3568 Oct 09 02:11	2°801'38		direct	3569 Sep 22 03:01	15°825'33	
asc. node	3568 Oct 11 09:40	2°826'52		asc. node	3569 Sep 28 06:42	18°801'52	
morning max el	3568 Oct 15 19:17	5°828'23	17°50'35	morning max el	3569 Sep 29 08:43	19°800'48	18°02'36
morning set	3568 Oct 31 21:36	0°827'31			3569 Oct 07 09:03	0°8	
	3568 Oct 31 15:24	0°8		morning set	3569 Oct 15 02:39	13°853'51	
					3569 Oct 23 21:26	0°8	
superior conj	3568 Nov 12 10:40	20°829'29	0°35'56	superior conj	3569 Oct 25 02:29	2°809'17	1°08'48
minimum elong	3568 Nov 12 13:58	20°843'24	0°35'29	minimum elong	3569 Oct 25 06:42	2°828'00	1°08'17
desc. node	3568 Nov 17 16:48	29°811'21		max. Earth dist.	3569 Nov 01 17:41	15°817'04	1.41933 AU
	3568 Nov 18 04:45	0°8		desc. node	3569 Nov 04 13:51	19°858'22	
max. Earth dist.	3568 Nov 19 06:04	1°842'29	1.43619 AU	evening rise	3569 Nov 07 10:31	24°835'44	
evening rise	3568 Nov 27 13:20	14°849'41			3569 Nov 10 20:37	0°8	
	3568 Dec 07 13:24	0°8		greatest brilliancy	3569 Dec 05 16:39	5°817'52	-0.3m
greatest brilliancy	3568 Dec 22 16:55	21°815'49	-0.4m	evening max el	3569 Dec 10 12:49	10°843'31	22°32'59
evening max el	3568 Dec 27 19:04	27°808'44	21°16'20	retrograde	3569 Dec 20 07:44	16°832'29	
	3568 Dec 30 23:07	0°8		evening set	3569 Dec 24 22:06	14°841'30	
retrograde	3569 Jan 05 11:55	2°818'24		asc. node	3569 Dec 25 05:58	14°824'50	
asc. node	3569 Jan 07 08:57	1°859'08		inferior conj	3569 Dec 30 07:49	8°817'41	1°39'25
evening set	3569 Jan 09 14:33	0°843'45		minimum elong	3569 Dec 30 05:46	8°824'44	1°38'40
	3569 Jan 10 11:03	30°R8		min. Earth dist.	3569 Dec 30 03:48	8°831'33	0.67973 AU
inferior conj	3569 Jan 15 00:06	24°827'08	2°21'43	morning rise	3570 Jan 04 13:22	2°805'45	
minimum elong	3569 Jan 14 21:38	24°835'40	2°20'57	direct	3570 Jan 09 02:26	0°814'26	
min. Earth dist.	3569 Jan 15 07:31	24°801'30	0.67760 AU	morning max el	3570 Jan 18 07:10	5°838'06	22°00'09
morning rise	3569 Jan 20 04:22	18°812'20		greatest brilliancy	3570 Jan 22 22:59	10°851'49	-0.4m
direct	3569 Jan 25 08:21	15°858'11		desc. node	3570 Jan 31 13:05	22°815'35	
morning max el	3569 Feb 04 19:05	22°811'07	23°27'28		3570 Feb 05 22:01	0°8	
greatest brilliancy	3569 Feb 10 17:49	28°856'05	-0.2m	morning set	3570 Feb 20 02:00	21°847'58	
	3569 Feb 11 14:18	0°8			3570 Feb 25 02:21	0°8	
desc. node	3569 Feb 13 16:03	2°839'55		max. Earth dist.	3570 Feb 25 21:56	1°821'41	1.41240 AU
	3569 Mar 04 09:29	0°8					
morning set	3569 Mar 11 21:30	12°816'27		superior conj	3570 Mar 05 15:35	14°840'16	-2°-2'-28
max. Earth dist.	3569 Mar 15 23:38	19°818'11	1.39088 AU	minimum elong	3570 Mar 05 18:42	14°854'03	2°02'21
	3569 Mar 21 22:33	0°Y			3570 Mar 14 02:10	0°Y	
superior conj	3569 Mar 23 12:46	2°Y57'08	-1°-45'-49				
minimum elong	3569 Mar 23 17:23	3°Y18'42	1°45'23				

evening rise	3570 Mar 16 05:09	3°Υ56'24		superior conj	3571 Feb 14 18:43	25°≈16'35	-2°-6'-40
asc. node	3570 Mar 23 05:19	16°Υ40'17		minimum elong	3571 Feb 14 17:27	25°≈11'17	2°06'39
evening max el	3570 Apr 01 10:43	29°Υ47'17	18°14'25		3571 Feb 17 13:46	0°✠	
	3570 Apr 01 16:00	0°♂		evening rise	3571 Feb 26 21:31	16°✠14'32	
retrograde	3570 Apr 08 11:15	3°♂18'24			3571 Mar 06 18:42	0°Υ	
evening set	3570 Apr 10 22:14	2°♂53'20		asc. node	3571 Mar 10 02:20	5°Υ20'39	
	3570 Apr 15 18:51	30°♂Υ		evening max el	3571 Mar 15 22:26	12°Υ53'01	18°07'02
inferior conj	3570 Apr 17 23:37	28°Υ08'19	2°52'08	retrograde	3571 Mar 22 11:12	16°Υ15'57	
minimum elong	3570 Apr 18 03:03	28°Υ00'46	2°51'24	evening set	3571 Mar 25 03:51	15°Υ40'58	
min. Earth dist.	3570 Apr 21 09:11	25°Υ10'43	0.59616 AU	inferior conj	3571 Mar 31 14:56	10°Υ35'13	3°26'49
morning rise	3570 Apr 25 04:06	22°Υ27'09		minimum elong	3571 Mar 31 16:48	10°Υ30'31	3°26'37
desc. node	3570 Apr 29 12:18	20°Υ44'55		min. Earth dist.	3571 Apr 03 15:28	7°Υ33'29	0.61783 AU
direct	3570 May 01 14:19	20°Υ32'57		morning rise	3571 Apr 07 03:01	4°Υ36'34	
morning max el	3570 May 15 22:46	28°Υ22'20	27°26'24	direct	3571 Apr 13 23:00	2°Υ11'13	
	3570 May 17 13:00	0°♂		desc. node	3571 Apr 16 09:19	2°Υ28'14	
	3570 Jun 07 06:24	0°♂		morning max el	3571 Apr 28 02:49	10°Υ09'01	27°51'01
morning set	3570 Jun 16 05:47	17°♂27'17			3571 May 13 13:31	0°♂	
asc. node	3570 Jun 19 04:33	23°♂42'20			3571 May 30 11:14	0°♂	
	3570 Jun 22 01:57	0°♂		morning set	3571 May 31 09:08	1°♂51'10	
superior conj	3570 Jun 23 10:03	2°♂56'37	0°43'13	max. Earth dist.	3571 Jun 06 04:52	14°♂08'11	1.32341 AU
minimum elong	3570 Jun 23 08:17	2°♂46'51	0°42'51	asc. node	3571 Jun 06 01:37	13°♂50'33	
max. Earth dist.	3570 Jun 22 19:22	1°♂35'45	1.32066 AU	superior conj	3571 Jun 07 20:12	17°♂42'02	0°18'34
evening rise	3570 Jun 30 06:52	17°♂54'31		minimum elong	3571 Jun 07 19:21	17°♂37'23	0°18'23
	3570 Jul 06 06:01	0°♂			3571 Jun 13 11:33	0°♂	
desc. node	3570 Jul 26 11:35	0°♂26'44		evening rise	3571 Jun 14 18:21	2°♂44'50	
	3570 Jul 26 01:33	0°♂			3571 Jun 29 11:44	0°♂	
evening max el	3570 Jul 28 10:38	2°♂24'47	25°57'03	evening max el	3571 Jul 10 01:38	13°♂12'07	24°31'53
retrograde	3570 Aug 11 10:01	9°♂33'06		desc. node	3571 Jul 13 08:35	16°♂02'31	
evening set	3570 Aug 17 17:09	7°♂58'07		retrograde	3571 Jul 23 23:04	20°♂13'22	
min. Earth dist.	3570 Aug 21 23:01	5°♂22'40	0.58743 AU	evening set	3571 Jul 28 23:46	19°♂16'36	
inferior conj	3570 Aug 25 05:03	2°♂59'35	-5°-1'00	min. Earth dist.	3571 Aug 03 12:40	16°♂25'43	0.56837 AU
minimum elong	3570 Aug 25 08:09	2°♂53'52	5°00'45	inferior conj	3571 Aug 06 06:37	14°♂40'13	-5°-5'-11
	3570 Aug 29 16:21	30°♂♂		minimum elong	3571 Aug 06 04:25	14°♂43'44	5°05'05
morning rise	3570 Sep 02 02:39	28°♂34'00		morning rise	3571 Aug 14 12:43	10°♂36'19	
direct	3570 Sep 04 12:57	28°♂14'34		direct	3571 Aug 17 04:05	10°♂17'15	
	3570 Sep 10 00:11	0°♂		morning max el	3571 Aug 26 14:12	14°♂41'00	19°28'18
morning max el	3570 Sep 12 16:03	2°♂07'59	18°34'47	asc. node	3571 Sep 02 00:47	22°♂37'15	
asc. node	3570 Sep 15 03:45	4°♂50'16			3571 Sep 06 11:17	0°♂	
morning set	3570 Sep 28 19:37	27°♂54'04		morning set	3571 Sep 12 20:54	12°♂18'32	
	3570 Sep 29 21:37	0°♂		superior conj	3571 Sep 20 22:33	28°♂26'58	1°41'44
superior conj	3570 Oct 07 16:15	14°♂53'31	1°30'21	minimum elong	3571 Sep 21 00:01	28°♂34'09	1°41'40
minimum elong	3570 Oct 07 19:26	15°♂08'19	1°30'04		3571 Sep 21 17:35	0°♂	
max. Earth dist.	3570 Oct 15 00:05	28°♂08'12	1.39920 AU	max. Earth dist.	3571 Sep 27 04:10	10°♂19'27	1.37844 AU
	3570 Oct 16 01:50	0°♂		evening rise	3571 Sep 30 23:23	17°♂11'04	
evening rise	3570 Oct 19 05:14	5°♂20'47			3571 Oct 08 13:00	0°♂	
desc. node	3570 Oct 22 10:52	10°♂41'15		desc. node	3571 Oct 09 07:54	1°♂16'18	
	3570 Nov 04 00:17	0°♂			3571 Oct 29 10:22	0°♂	
evening max el	3570 Nov 23 02:45	24°♂20'41	23°52'57	evening max el	3571 Nov 05 15:05	8°♂01'29	25°09'35
	3570 Nov 30 15:15	0°♂		retrograde	3571 Nov 17 12:55	14°♂55'00	
retrograde	3570 Dec 04 00:23	0°♂46'02		evening set	3571 Nov 23 06:21	12°♂32'18	
	3570 Dec 07 03:31	30°♂♂		min. Earth dist.	3571 Nov 27 18:47	7°♂29'59	0.67340 AU
evening set	3570 Dec 09 03:54	28°♂38'34		inferior conj	3571 Nov 28 20:20	6°♂06'33	0°-3'-7
asc. node	3570 Dec 12 02:59	25°♂30'24		minimum elong	3571 Nov 28 20:25	6°♂06'18	0°03'07
min. Earth dist.	3570 Dec 14 00:19	23°♂01'51	0.67827 AU	transit middle	3571 Nov 28 20:25	6°♂06'18	0°03'07
inferior conj	3570 Dec 14 15:08	22°♂11'30	0°50'46	transit begin	3571 Nov 28 17:41	6°♂15'12	
minimum elong	3570 Dec 14 13:57	22°♂15'29	0°50'17	transit end	3571 Nov 28 23:08	5°♂57'24	
morning rise	3570 Dec 20 00:16	16°♂04'20		asc. node	3571 Nov 29 00:00	5°♂54'35	
direct	3570 Dec 23 23:17	14°♂35'45		morning rise	3571 Dec 04 11:08	0°♂06'23	
morning max el	3571 Jan 01 01:53	19°♂15'38	20°41'02		3571 Dec 04 15:05	30°♂♂	
greatest brilliancy	3571 Jan 06 23:06	26°♂07'57	-0.5m	direct	3571 Dec 07 21:44	28°♂58'03	
	3571 Jan 09 20:41	0°♂			3571 Dec 11 08:43	0°♂	
desc. node	3571 Jan 18 10:06	12°♂16'26		morning max el	3571 Dec 15 04:28	3°♂04'13	19°34'45
morning set	3571 Jan 30 05:10	0°≈11'31		greatest brilliancy	3571 Dec 23 11:20	13°♂25'47	-0.6m
	3571 Jan 30 02:12	0°≈			3572 Jan 03 14:30	0°♂	
max. Earth dist.	3571 Feb 08 03:14	14°≈19'50	1.43114 AU	desc. node	3572 Jan 05 07:08	2°♂35'40	

morning set	3572 Jan 09 02:00	8°☿25'39		morning set	3572 Dec 18 17:12	17°♄40'40	
max. Earth dist.	3572 Jan 21 15:24	28°☿03'06	1.44477 AU	desc. node	3572 Dec 22 04:10	23°♄07'49	
	3572 Jan 22 20:51	0°♊			3572 Dec 26 12:57	0°☿	
				max. Earth dist.	3573 Jan 03 08:39	12°☿16'30	1.45169 AU
superior conj	3572 Jan 25 19:57	4°♊43'57	-1°-53'-15				
minimum elong	3572 Jan 25 12:50	4°♊15'26	1°52'47	superior conj	3573 Jan 04 01:35	13°☿23'02	-1°-20'-34
evening rise	3572 Feb 08 18:05	27°♊39'04		minimum elong	3573 Jan 03 16:37	12°☿47'46	1°19'37
	3572 Feb 10 03:34	0°♋			3573 Jan 14 14:02	0°♊	
asc. node	3572 Feb 24 23:20	23°♋22'23		evening rise	3573 Jan 19 15:39	8°♊06'12	
evening max el	3572 Feb 27 11:06	26°♋12'42	18°18'40		3573 Feb 02 11:41	0°♋	
retrograde	3572 Mar 04 21:54	29°♋40'56		evening max el	3573 Feb 09 22:10	9°♋40'24	18°48'24
evening set	3572 Mar 07 20:10	28°♋54'50		asc. node	3573 Feb 10 20:21	10°♋34'09	
inferior conj	3572 Mar 13 20:43	23°♋29'41	3°38'07	retrograde	3573 Feb 16 15:22	13°♋25'42	
minimum elong	3572 Mar 13 20:48	23°♋29'28	3°38'07	evening set	3573 Feb 19 19:53	12°♋27'26	
min. Earth dist.	3572 Mar 16 06:57	20°♋45'50	0.63770 AU	inferior conj	3573 Feb 25 13:08	6°♋44'34	3°31'56
morning rise	3572 Mar 19 19:38	17°♋21'27		minimum elong	3573 Feb 25 11:48	6°♋48'40	3°31'47
direct	3572 Mar 26 16:24	14°♋36'36		min. Earth dist.	3573 Feb 27 07:43	4°♋33'28	0.65413 AU
desc. node	3572 Apr 02 06:20	16°♋41'59		morning rise	3573 Mar 03 02:36	0°♋31'30	
morning max el	3572 Apr 09 11:03	22°♋33'52	27°38'19		3573 Mar 03 17:49	30°♌	
	3572 Apr 16 00:33	0°♍		direct	3573 Mar 09 16:47	27°♌41'37	
	3572 May 05 18:45	0°♎			3573 Mar 16 09:03	0°♋	
morning set	3572 May 14 05:21	15°♎50'29		desc. node	3573 Mar 20 03:21	2°♋52'08	
max. Earth dist.	3572 May 19 07:51	26°♎16'45	1.33050 AU	morning max el	3573 Mar 22 20:49	5°♋26'37	26°53'04
	3572 May 21 02:04	0°♏			3573 Apr 10 15:44	0°♍	
				morning set	3573 Apr 27 15:19	29°♍15'56	
superior conj	3572 May 22 02:58	2°♏12'59	0°-8'-34		3573 Apr 28 00:31	0°♎	
minimum elong	3572 May 22 03:24	2°♏15'15	0°08'29	max. Earth dist.	3573 May 02 00:59	7°♎54'24	1.34222 AU
behind sun begin	3572 May 21 22:50	1°♏50'49					
behind sun end	3572 May 22 07:58	2°♏39'42		superior conj	3573 May 06 04:19	16°♎23'18	0°-37'-12
asc. node	3572 May 22 22:38	3°♏58'30		minimum elong	3573 May 06 06:15	16°♎33'27	0°36'48
evening rise	3572 May 29 06:03	17°♏31'30		asc. node	3573 May 09 19:41	24°♎02'28	
	3572 Jun 04 10:16	0°♐			3573 May 12 15:30	0°♏	
evening max el	3572 Jun 20 15:03	23°♐37'55	22°55'26	evening rise	3573 May 13 16:07	2°♏08'47	
desc. node	3572 Jun 29 05:36	29°♐25'39			3573 May 29 15:33	0°♐	
	3572 Jul 01 05:48	0°♑		evening max el	3573 Jun 02 10:43	4°♐14'43	21°22'49
retrograde	3572 Jul 03 23:25	0°♑17'03		retrograde	3573 Jun 14 13:23	10°♐11'38	
	3572 Jul 06 18:07	30°♒		desc. node	3573 Jun 16 02:36	10°♐06'04	
evening set	3572 Jul 07 11:37	29°♐50'06		evening set	3573 Jun 16 22:37	9°♐58'36	
min. Earth dist.	3572 Jul 14 23:52	26°♐29'15	0.55438 AU	inferior conj	3573 Jun 26 07:21	5°♐59'32	-2°-54'-10
inferior conj	3572 Jul 16 12:56	25°♐35'46	-4°-24'-8	minimum elong	3573 Jun 25 23:43	6°♐10'13	2°51'43
minimum elong	3572 Jul 16 05:26	25°♐46'36	4°22'37	min. Earth dist.	3573 Jun 26 11:02	5°♐54'22	0.54855 AU
morning rise	3572 Jul 25 02:00	21°♐44'17		morning rise	3573 Jul 05 01:14	2°♐03'54	
direct	3572 Jul 28 00:41	21°♐23'53		direct	3573 Jul 08 10:53	1°♐38'49	
morning max el	3572 Aug 08 00:47	26°♐30'26	20°43'10	morning max el	3573 Jul 21 00:00	7°♐35'11	22°16'14
	3572 Aug 11 07:52	0°♓		asc. node	3573 Aug 05 18:55	0°♑13'44	
asc. node	3572 Aug 18 21:51	11°♓08'39			3573 Aug 05 16:00	0°♑	
morning set	3572 Aug 27 03:40	26°♓58'50		morning set	3573 Aug 11 13:49	11°♓49'06	
	3572 Aug 28 14:46	0°♔					
				superior conj	3573 Aug 18 18:46	27°♓06'50	1°40'21
superior conj	3572 Sep 03 16:35	12°♔34'56	1°44'34	minimum elong	3573 Aug 18 17:23	26°♓59'32	1°40'16
minimum elong	3572 Sep 03 16:26	12°♔34'08	1°44'34		3573 Aug 20 03:42	0°♔	
max. Earth dist.	3572 Sep 08 11:46	22°♔11'18	1.35943 AU	max. Earth dist.	3573 Aug 22 03:40	4°♔08'50	1.34372 AU
evening rise	3572 Sep 12 13:41	29°♔57'53		evening rise	3573 Aug 26 19:41	13°♔29'25	
	3572 Sep 12 14:08	0°♕			3573 Sep 04 20:46	0°♕	
desc. node	3572 Sep 25 04:55	21°♕37'55		desc. node	3573 Sep 12 01:56	11°♕39'50	
	3572 Sep 30 17:06	0°♖			3573 Sep 25 16:10	0°♌	
evening max el	3572 Oct 18 03:28	21°♖42'54	26°15'33	evening max el	3573 Sep 30 16:06	5°♌17'16	27°03'13
retrograde	3572 Oct 30 20:26	28°♖53'13		retrograde	3573 Oct 13 22:17	12°♌34'07	
evening set	3572 Nov 06 03:37	26°♖18'38		evening set	3573 Oct 20 17:31	9°♌53'22	
min. Earth dist.	3572 Nov 10 08:48	21°♖52'05	0.66509 AU	min. Earth dist.	3573 Oct 24 15:56	6°♌03'14	0.65332 AU
inferior conj	3572 Nov 11 21:33	19°♖59'09	-1°-1'-6	inferior conj	3573 Oct 26 16:39	3°♌45'08	-2°-1'-34
minimum elong	3572 Nov 11 23:11	19°♖54'05	1°00'26	minimum elong	3573 Oct 26 20:02	3°♌35'31	2°00'14
asc. node	3572 Nov 14 21:02	16°♖32'43			3573 Oct 30 07:09	30°♎	
morning rise	3572 Nov 17 19:55	14°♖08'42		asc. node	3573 Nov 01 18:06	28°♎15'19	
direct	3572 Nov 20 20:09	13°♖17'09		morning rise	3573 Nov 02 00:17	28°♎07'36	
morning max el	3572 Nov 27 14:02	17°♖00'11	18°43'51	direct	3573 Nov 04 16:27	27°♎28'56	
	3572 Dec 07 09:36	0°♏			3573 Nov 10 03:28	0°♌	

morning max el	3573 Nov 11 04:29	0° \mathbb{M} 58'39	18°09'28	morning set	3574 Nov 11 13:06	10° \mathbb{M} 25'51	
morning set	3573 Nov 29 13:40	28° \mathbb{M} 23'55			3574 Nov 23 03:02	0° \mathbb{M}	
	3573 Nov 30 13:05	0° \mathbb{M}					
desc. node	3573 Dec 09 01:11	13° \mathbb{M} 48'26		superior conj	3574 Nov 24 04:01	1° \mathbb{M} 42'28	0°12'07
				minimum elong	3574 Nov 24 05:20	1° \mathbb{M} 47'52	0°11'56
superior conj	3573 Dec 14 05:38	22° \mathbb{M} 04'05	0°-34'-51	behind sun begin	3574 Nov 23 22:39	1° \mathbb{M} 20'30	
minimum elong	3573 Dec 14 01:13	21° \mathbb{M} 46'37	0°34'15	behind sun end	3574 Nov 24 12:01	2° \mathbb{M} 15'12	
max. Earth dist.	3573 Dec 17 04:14	26° \mathbb{M} 42'31	1.45123 AU	desc. node	3574 Nov 25 22:14	4° \mathbb{M} 34'27	
	3573 Dec 19 06:32	0° \mathbb{M}		max. Earth dist.	3574 Nov 29 22:37	11° \mathbb{M} 01'51	1.44352 AU
evening rise	3573 Dec 30 15:13	17° \mathbb{M} 42'20		evening rise	3574 Dec 10 01:36	26° \mathbb{M} 51'59	
	3574 Jan 07 13:52	0° \mathbb{M}			3574 Dec 12 02:38	0° \mathbb{M}	
greatest brilliancy	3574 Jan 16 05:50	13° \mathbb{M} 00'38	-0.7m	greatest brilliancy	3575 Jan 01 11:19	29° \mathbb{M} 45'15	-0.5m
evening max el	3574 Jan 24 05:25	23° \mathbb{M} 10'54	19°34'52		3575 Jan 01 15:49	0° \mathbb{M}	
asc. node	3574 Jan 28 17:24	26° \mathbb{M} 41'31		evening max el	3575 Jan 07 07:27	6° \mathbb{M} 42'32	20°35'51
retrograde	3574 Jan 31 12:25	27° \mathbb{M} 23'30		retrograde	3575 Jan 15 10:36	11° \mathbb{M} 30'19	
evening set	3574 Feb 04 00:18	26° \mathbb{M} 11'56		asc. node	3575 Jan 15 14:26	11° \mathbb{M} 30'10	
inferior conj	3574 Feb 09 12:54	20° \mathbb{M} 13'31	3°12'30	evening set	3575 Jan 19 07:21	10° \mathbb{M} 04'20	
minimum elong	3574 Feb 09 10:43	20° \mathbb{M} 20'43	3°12'05	inferior conj	3575 Jan 24 17:28	3° \mathbb{M} 53'11	2°42'45
min. Earth dist.	3574 Feb 10 16:36	18° \mathbb{M} 42'35	0.66645 AU	minimum elong	3575 Jan 24 14:57	4° \mathbb{M} 01'46	2°42'05
morning rise	3574 Feb 14 20:25	13° \mathbb{M} 58'17		min. Earth dist.	3575 Jan 25 07:48	3° \mathbb{M} 04'11	0.67464 AU
direct	3574 Feb 20 23:03	11° \mathbb{M} 16'02			3575 Jan 27 16:22	30° \mathbb{R} \mathbb{M}	
morning max el	3574 Mar 05 06:11	18° \mathbb{M} 35'22	25°43'17	morning rise	3575 Jan 29 22:06	27° \mathbb{M} 37'39	
desc. node	3574 Mar 07 00:24	20° \mathbb{M} 25'58		direct	3575 Feb 04 10:33	25° \mathbb{M} 11'51	
	3574 Mar 14 21:44	0° \mathbb{M}			3575 Feb 13 16:01	0° \mathbb{M}	
	3574 Apr 03 16:42	0° \mathbb{M}		morning max el	3575 Feb 15 14:49	1° \mathbb{M} 52'12	24°18'45
morning set	3574 Apr 10 10:46	11° \mathbb{M} 54'24		desc. node	3575 Feb 21 21:26	8° \mathbb{M} 59'42	
max. Earth dist.	3574 Apr 14 06:47	19° \mathbb{M} 04'19	1.35848 AU		3575 Mar 08 23:07	0° \mathbb{M}	
				morning set	3575 Mar 23 10:11	23° \mathbb{M} 31'06	
superior conj	3574 Apr 19 21:31	0° \mathbb{M} 04'40	-1°-5'-54	max. Earth dist.	3575 Mar 27 03:52	0° \mathbb{M} 08'18	1.37842 AU
minimum elong	3574 Apr 20 01:00	0° \mathbb{M} 22'06	1°05'19		3575 Mar 27 02:01	0° \mathbb{M}	
	3574 Apr 19 20:36	0° \mathbb{M}					
asc. node	3574 Apr 26 16:43	13° \mathbb{M} 57'36		superior conj	3575 Apr 03 03:17	13° \mathbb{M} 08'19	-1°-32'-33
evening rise	3574 Apr 27 22:25	16° \mathbb{M} 29'24		minimum elong	3575 Apr 03 07:49	13° \mathbb{M} 30'05	1°32'00
	3574 May 04 21:10	0° \mathbb{M}		evening rise	3575 Apr 11 22:30	0° \mathbb{M} 26'23	
evening max el	3574 May 15 17:41	15° \mathbb{M} 25'25	20°04'47		3575 Apr 11 17:10	0° \mathbb{M}	
retrograde	3574 May 26 03:52	20° \mathbb{M} 29'51		asc. node	3575 Apr 13 13:46	3° \mathbb{M} 39'31	
evening set	3574 May 28 03:18	20° \mathbb{M} 19'42		evening max el	3575 Apr 28 12:27	27° \mathbb{M} 17'11	19°06'03
desc. node	3574 Jun 02 23:38	18° \mathbb{M} 09'22			3575 May 01 23:29	0° \mathbb{M}	
inferior conj	3574 Jun 06 03:40	16° \mathbb{M} 20'13	0°-56'-9	retrograde	3575 May 07 07:14	1° \mathbb{M} 33'47	
minimum elong	3574 Jun 06 01:02	16° \mathbb{M} 24'08	0°55'12	evening set	3575 May 09 08:35	1° \mathbb{M} 20'40	
min. Earth dist.	3574 Jun 07 23:35	15° \mathbb{M} 14'34	0.55229 AU		3575 May 13 00:09	30° \mathbb{R} \mathbb{M}	
morning rise	3574 Jun 14 20:20	12° \mathbb{M} 00'50		inferior conj	3575 May 17 15:11	27° \mathbb{M} 07'50	0°55'33
direct	3574 Jun 18 23:15	11° \mathbb{M} 23'53		minimum elong	3575 May 17 17:21	27° \mathbb{M} 04'06	0°54'47
morning max el	3574 Jul 02 15:42	18° \mathbb{M} 07'24	23°59'03	min. Earth dist.	3575 May 20 14:54	25° \mathbb{M} 05'26	0.56490 AU
	3574 Jul 12 10:00	0° \mathbb{M}		desc. node	3575 May 20 20:40	24° \mathbb{M} 55'59	
asc. node	3574 Jul 23 15:59	19° \mathbb{M} 43'32		morning rise	3575 May 25 21:50	22° \mathbb{M} 13'08	
morning set	3574 Jul 27 01:31	26° \mathbb{M} 43'47		direct	3575 May 30 23:46	21° \mathbb{M} 12'41	
	3574 Jul 28 14:24	0° \mathbb{M}		morning max el	3575 Jun 14 06:05	28° \mathbb{M} 32'26	25°37'23
					3575 Jun 15 17:09	0° \mathbb{M}	
superior conj	3574 Aug 03 02:18	11° \mathbb{M} 53'55	1°30'16		3575 Jul 05 19:11	0° \mathbb{M}	
minimum elong	3574 Aug 03 00:11	11° \mathbb{M} 42'28	1°30'03	asc. node	3575 Jul 10 13:01	9° \mathbb{M} 30'57	
max. Earth dist.	3574 Aug 05 04:33	16° \mathbb{M} 24'18	1.33195 AU	morning set	3575 Jul 11 13:05	11° \mathbb{M} 37'14	
evening rise	3574 Aug 10 13:17	27° \mathbb{M} 34'13					
	3574 Aug 11 18:27	0° \mathbb{M}		superior conj	3575 Jul 18 12:53	26° \mathbb{M} 48'41	1°15'15
	3574 Aug 29 02:50	0° \mathbb{M}		minimum elong	3575 Jul 18 10:32	26° \mathbb{M} 35'46	1°14'53
desc. node	3574 Aug 29 22:58	1° \mathbb{M} 13'40		max. Earth dist.	3575 Jul 19 12:14	28° \mathbb{M} 56'39	1.32434 AU
evening max el	3574 Sep 13 03:33	18° \mathbb{M} 32'34	27°25'36		3575 Jul 19 23:50	0° \mathbb{M}	
retrograde	3574 Sep 26 18:04	25° \mathbb{M} 49'46		evening rise	3575 Jul 25 15:04	12° \mathbb{M} 01'59	
evening set	3574 Oct 03 21:19	23° \mathbb{M} 11'41			3575 Aug 03 22:44	0° \mathbb{M}	
min. Earth dist.	3574 Oct 07 14:03	19° \mathbb{M} 55'54	0.63804 AU	desc. node	3575 Aug 16 20:00	20° \mathbb{M} 07'05	
inferior conj	3574 Oct 10 03:09	17° \mathbb{M} 19'09	-3°-2'00		3575 Aug 25 04:46	0° \mathbb{M}	
minimum elong	3574 Oct 10 08:08	17° \mathbb{M} 06'21	3°00'17	evening max el	3575 Aug 26 11:28	1° \mathbb{M} 14'58	27°17'08
morning rise	3574 Oct 16 21:19	11° \mathbb{M} 58'02		retrograde	3575 Sep 09 07:17	8° \mathbb{M} 29'41	
direct	3574 Oct 19 07:56	11° \mathbb{M} 28'37		evening set	3575 Sep 16 11:19	6° \mathbb{M} 06'15	
asc. node	3574 Oct 19 15:10	11° \mathbb{M} 29'04		min. Earth dist.	3575 Sep 20 01:45	3° \mathbb{M} 17'33	0.61965 AU
morning max el	3574 Oct 25 21:04	14° \mathbb{M} 53'47	17°52'22	inferior conj	3575 Sep 23 01:59	0° \mathbb{M} 32'56	-3°-58'-24
	3574 Nov 05 10:50	0° \mathbb{M}		minimum elong	3575 Sep 23 07:48	0° \mathbb{M} 19'37	3°56'52

	3575 Sep 23 16:27	30° \mathbb{R} \mathbb{M}		minimum elong	3576 Sep 04 14:35	13° \mathbb{M} 08'07	4°43'08
morning rise	3575 Sep 30 07:16	25° \mathbb{M} 31'30		morning rise	3576 Sep 12 01:41	8° \mathbb{M} 38'40	
direct	3575 Oct 02 15:07	25° \mathbb{M} 08'05		direct	3576 Sep 14 10:00	8° \mathbb{M} 18'29	
asc. node	3575 Oct 06 12:13	26° \mathbb{M} 15'22		morning max el	3576 Sep 21 23:55	12° \mathbb{M} 00'30	18°13'40
morning max el	3575 Oct 09 12:38	28° \mathbb{M} 37'15	17°53'22	asc. node	3576 Sep 22 09:15	12° \mathbb{M} 23'33	
	3575 Oct 10 19:53	0° \mathbb{A}			3576 Oct 04 00:10	0° \mathbb{A}	
morning set	3575 Oct 25 09:02	23° \mathbb{A} 26'04		morning set	3576 Oct 07 19:40	7° \mathbb{A} 08'06	
	3575 Oct 29 00:23	0° \mathbb{M}					
superior conj	3575 Nov 05 05:00	12° \mathbb{M} 39'07	0°51'16	superior conj	3576 Oct 17 06:50	24° \mathbb{A} 48'04	1°19'16
minimum elong	3575 Nov 05 09:03	12° \mathbb{M} 56'28	0°50'43	minimum elong	3576 Oct 17 10:46	25° \mathbb{A} 05'54	1°18'51
max. Earth dist.	3575 Nov 12 12:41	24° \mathbb{M} 55'03	1.42952 AU		3576 Oct 20 04:28	0° \mathbb{M}	
desc. node	3575 Nov 12 19:16	25° \mathbb{M} 21'58		max. Earth dist.	3576 Oct 24 21:24	8° \mathbb{M} 09'32	1.41104 AU
	3575 Nov 15 16:04	0° \mathbb{A}		evening rise	3576 Oct 29 19:58	16° \mathbb{M} 22'31	
evening rise	3575 Nov 19 14:18	6° \mathbb{A} 13'08		desc. node	3576 Oct 29 16:19	16° \mathbb{M} 07'37	
	3575 Dec 05 10:23	0° \mathbb{B}			3576 Nov 07 11:40	0° \mathbb{A}	
greatest brilliancy	3575 Dec 16 08:58	14° \mathbb{B} 48'26	-0.4m	greatest brilliancy	3576 Nov 26 18:56	27° \mathbb{A} 01'03	-0.2m
evening max el	3575 Dec 21 03:54	20° \mathbb{B} 15'04	21°48'07		3576 Nov 29 06:49	0° \mathbb{B}	
retrograde	3575 Dec 30 07:47	25° \mathbb{B} 42'09		evening max el	3576 Dec 02 19:48	3° \mathbb{B} 50'29	23°07'00
asc. node	3576 Jan 02 11:28	24° \mathbb{B} 48'19		retrograde	3576 Dec 13 02:26	9° \mathbb{B} 55'52	
evening set	3576 Jan 03 15:09	24° \mathbb{B} 00'39		evening set	3576 Dec 17 22:06	7° \mathbb{B} 58'06	
inferior conj	3576 Jan 09 00:34	17° \mathbb{B} 40'16	2°04'38	asc. node	3576 Dec 19 08:29	6° \mathbb{B} 36'40	
minimum elong	3576 Jan 08 22:13	17° \mathbb{B} 48'23	2°03'51	inferior conj	3576 Dec 23 08:19	1° \mathbb{B} 32'21	1°19'31
min. Earth dist.	3576 Jan 09 03:00	17° \mathbb{B} 31'49	0.67892 AU	minimum elong	3576 Dec 23 06:36	1° \mathbb{B} 38'17	1°18'50
morning rise	3576 Jan 14 05:04	11° \mathbb{B} 26'14		min. Earth dist.	3576 Dec 22 23:45	2° \mathbb{B} 01'53	0.67954 AU
direct	3576 Jan 19 02:32	9° \mathbb{B} 21'46			3576 Dec 24 11:22	30° \mathbb{R} \mathbb{A}	
morning max el	3576 Jan 29 00:34	15° \mathbb{B} 14'15	22°49'41	morning rise	3576 Dec 28 15:06	25° \mathbb{A} 21'55	
greatest brilliancy	3576 Feb 02 16:39	20° \mathbb{B} 26'52	-0.3m	direct	3577 Jan 01 22:04	23° \mathbb{A} 40'16	
desc. node	3576 Feb 08 18:28	28° \mathbb{B} 16'05		morning max el	3577 Jan 10 15:00	28° \mathbb{A} 44'33	21°25'00
	3576 Feb 10 00:55	0° \mathbb{A}			3577 Jan 11 19:58	0° \mathbb{B}	
	3576 Feb 29 23:10	0° \mathbb{H}		greatest brilliancy	3577 Jan 15 16:23	4° \mathbb{B} 29'53	-0.4m
morning set	3576 Mar 03 07:27	3° \mathbb{H} 50'23		desc. node	3577 Jan 25 15:31	18° \mathbb{B} 03'16	
max. Earth dist.	3576 Mar 07 23:01	11° \mathbb{H} 39'44	1.40011 AU		3577 Feb 02 17:18	0° \mathbb{A}	
				morning set	3577 Feb 10 23:48	12° \mathbb{A} 47'51	
superior conj	3576 Mar 15 17:19	25° \mathbb{H} 23'53	-1°-54'-5	max. Earth dist.	3577 Feb 17 23:31	24° \mathbb{A} 04'14	1.42085 AU
minimum elong	3576 Mar 15 21:37	25° \mathbb{H} 43'28	1°53'46		3577 Feb 21 12:58	0° \mathbb{H}	
	3576 Mar 18 05:18	0° \mathbb{Y}		superior conj	3577 Feb 25 10:36	6° \mathbb{H} 39'26	-2°-6'-7
evening rise	3576 Mar 25 13:17	13° \mathbb{Y} 51'40		minimum elong	3577 Feb 25 12:14	6° \mathbb{H} 46'26	2°06'06
asc. node	3576 Mar 30 10:48	23° \mathbb{Y} 02'53		evening rise	3577 Mar 08 15:02	26° \mathbb{H} 36'19	
	3576 Apr 03 10:19	0° \mathbb{B}			3577 Mar 10 11:50	0° \mathbb{Y}	
evening max el	3576 Apr 10 16:32	9° \mathbb{B} 45'14	18°27'37	asc. node	3577 Mar 17 07:49	12° \mathbb{Y} 00'51	
retrograde	3576 Apr 18 05:04	13° \mathbb{B} 28'04		evening max el	3577 Mar 25 02:26	22° \mathbb{Y} 39'42	18°09'00
evening set	3576 Apr 20 12:27	13° \mathbb{B} 08'08		retrograde	3577 Mar 31 20:31	26° \mathbb{Y} 05'10	
inferior conj	3576 Apr 27 23:51	8° \mathbb{B} 35'48	2°18'56	evening set	3577 Apr 03 10:03	25° \mathbb{Y} 35'59	
minimum elong	3576 Apr 28 03:36	8° \mathbb{B} 28'15	2°17'55	inferior conj	3577 Apr 10 04:53	20° \mathbb{Y} 42'18	3°10'09
min. Earth dist.	3576 May 01 10:19	5° \mathbb{B} 51'27	0.58376 AU	minimum elong	3577 Apr 10 07:45	20° \mathbb{Y} 35'37	3°09'38
morning rise	3576 May 05 14:23	3° \mathbb{B} 08'51		min. Earth dist.	3577 Apr 13 11:43	17° \mathbb{Y} 39'50	0.60545 AU
desc. node	3576 May 06 17:41	2° \mathbb{B} 36'58		morning rise	3577 Apr 17 02:07	14° \mathbb{Y} 52'50	
direct	3576 May 11 14:51	1° \mathbb{B} 34'45		direct	3577 Apr 23 17:54	12° \mathbb{Y} 44'03	
morning max el	3576 May 26 00:17	9° \mathbb{B} 17'04	26°55'32	desc. node	3577 Apr 23 14:42	12° \mathbb{Y} 44'06	
	3576 Jun 10 19:06	0° \mathbb{I}		morning max el	3577 May 08 00:32	20° \mathbb{Y} 37'54	27°41'31
morning set	3576 Jun 24 22:55	26° \mathbb{I} 24'19			3577 May 16 02:20	0° \mathbb{B}	
asc. node	3576 Jun 26 10:04	29° \mathbb{I} 30'28			3577 Jun 03 16:47	0° \mathbb{I}	
	3576 Jun 26 15:35	0° \mathbb{B}		morning set	3577 Jun 09 05:10	10° \mathbb{I} 57'50	
superior conj	3576 Jul 02 00:42	11° \mathbb{B} 44'57	0°56'00	asc. node	3577 Jun 13 07:06	19° \mathbb{I} 36'17	
minimum elong	3576 Jul 01 22:35	11° \mathbb{B} 33'17	0°55'36	max. Earth dist.	3577 Jun 15 10:48	24° \mathbb{I} 17'42	1.32130 AU
max. Earth dist.	3576 Jul 01 23:35	11° \mathbb{B} 38'48	1.32081 AU	superior conj	3577 Jun 16 11:55	26° \mathbb{I} 35'28	0°33'08
evening rise	3576 Jul 08 22:21	26° \mathbb{B} 44'45		minimum elong	3577 Jun 16 10:29	26° \mathbb{I} 27'37	0°32'50
	3576 Jul 10 11:48	0° \mathbb{B}			3577 Jun 18 01:07	0° \mathbb{B}	
	3576 Jul 27 13:18	0° \mathbb{M}		evening rise	3577 Jun 23 08:51	11° \mathbb{B} 33'49	
desc. node	3576 Aug 02 17:00	8° \mathbb{M} 03'32			3577 Jul 02 17:42	0° \mathbb{B}	
evening max el	3576 Aug 07 13:34	13° \mathbb{M} 14'16	26°35'21	evening max el	3577 Jul 20 08:21	24° \mathbb{B} 25'34	25°23'18
retrograde	3576 Aug 21 12:36	20° \mathbb{M} 25'12		desc. node	3577 Jul 20 14:00	24° \mathbb{B} 39'00	
evening set	3576 Aug 28 06:52	18° \mathbb{M} 29'43			3577 Jul 28 00:58	0° \mathbb{M}	
min. Earth dist.	3576 Sep 01 03:16	15° \mathbb{M} 54'19	0.59929 AU	retrograde	3577 Aug 03 07:48	1° \mathbb{M} 31'17	
inferior conj	3576 Sep 04 09:42	13° \mathbb{M} 17'55	-4°-43'-54	evening set	3577 Aug 09 03:18	0° \mathbb{M} 13'01	

	3577 Aug 09 14:49	30°♄♄		evening max el	3578 Jul 01 21:48	4°♄59'25	23°51'13
min. Earth dist.	3577 Aug 13 20:16	27°♄32'56	0.57897 AU	desc. node	3578 Jul 07 11:00	9°♄22'22	
inferior conj	3577 Aug 16 22:52	25°♄23'59	-5°-7'-27	retrograde	3578 Jul 15 14:59	11°♄53'01	
minimum elong	3577 Aug 17 00:00	25°♄22'00	5°07'26	evening set	3578 Jul 20 00:22	11°♄10'34	
morning rise	3577 Aug 25 00:14	21°♄07'44		min. Earth dist.	3578 Jul 26 08:05	8°♄08'42	0.56165 AU
direct	3577 Aug 27 12:25	20°♄48'35		inferior conj	3578 Jul 28 15:46	6°♄44'10	-4°-53'-58
morning max el	3577 Sep 05 03:36	24°♄53'39	18°54'47	minimum elong	3578 Jul 28 11:00	6°♄51'26	4°53'25
asc. node	3577 Sep 09 06:18	29°♄38'16		morning rise	3578 Aug 06 01:00	2°♄47'14	
	3577 Sep 09 12:41	0°♄		direct	3578 Aug 08 19:30	2°♄27'40	
morning set	3577 Sep 21 16:35	21°♄19'35		morning max el	3578 Aug 18 20:52	7°♄07'48	19°57'39
	3577 Sep 26 02:17	0°♄		asc. node	3578 Aug 27 03:21	17°♄45'08	
					3578 Sep 02 22:06	0°♄	
superior conj	3577 Sep 30 04:14	7°♄54'31	1°36'19	morning set	3578 Sep 05 20:29	5°♄51'30	
minimum elong	3577 Sep 30 06:42	8°♄06'18	1°36'09				
max. Earth dist.	3577 Oct 07 02:22	20°♄42'28	1.39038 AU	superior conj	3578 Sep 13 16:01	21°♄43'46	1°43'53
evening rise	3577 Oct 11 00:52	27°♄35'47		minimum elong	3578 Sep 13 16:45	21°♄47'29	1°43'52
	3577 Oct 12 10:46	0°♄			3578 Sep 17 21:14	0°♄	
desc. node	3577 Oct 16 13:20	6°♄47'34		max. Earth dist.	3578 Sep 19 07:41	2°♄44'01	1.37005 AU
	3577 Nov 01 00:28	0°♄		evening rise	3578 Sep 23 04:03	9°♄50'51	
evening max el	3577 Nov 15 09:00	17°♄29'58	24°26'27	desc. node	3578 Oct 03 10:20	27°♄17'22	
retrograde	3577 Nov 26 17:17	24°♄07'53			3578 Oct 05 03:29	0°♄	
evening set	3577 Dec 02 02:41	21°♄53'52			3578 Oct 27 16:40	0°♄	
asc. node	3577 Dec 06 05:31	17°♄18'30		evening max el	3578 Oct 28 21:15	1°♄11'34	25°39'24
min. Earth dist.	3577 Dec 06 19:41	16°♄31'37	0.67664 AU	retrograde	3578 Nov 10 03:37	8°♄12'58	
inferior conj	3577 Dec 07 14:58	15°♄27'04	0°28'30	evening set	3578 Nov 16 03:09	5°♄44'32	
minimum elong	3577 Dec 07 14:17	15°♄29'22	0°28'12	min. Earth dist.	3578 Nov 20 12:25	0°♄57'35	0.67033 AU
morning rise	3577 Dec 13 02:15	9°♄22'31			3578 Nov 21 06:31	30°♄	
direct	3577 Dec 16 19:52	8°♄02'42		inferior conj	3578 Nov 21 18:42	29°♄21'04	0°-27'-20
morning max el	3577 Dec 24 12:57	12°♄26'32	20°11'02	minimum elong	3578 Nov 21 19:25	29°♄18'49	0°27'02
greatest brilliancy	3577 Dec 31 06:16	20°♄29'45	-0.6m	asc. node	3578 Nov 23 02:34	27°♄41'05	
	3578 Jan 06 23:55	0°♄		morning rise	3578 Nov 27 12:31	23°♄24'57	
desc. node	3578 Jan 12 12:33	8°♄12'49		direct	3578 Nov 30 18:31	22°♄24'11	
morning set	3578 Jan 20 21:09	20°♄58'04		morning max el	3578 Dec 07 18:46	26°♄18'47	19°11'10
	3578 Jan 26 16:12	0°♄			3578 Dec 11 00:56	0°♄	
max. Earth dist.	3578 Jan 31 08:20	7°♄24'58	1.43773 AU	greatest brilliancy	3578 Dec 18 06:18	10°♄01'38	-0.7m
				desc. node	3578 Dec 30 09:34	28°♄37'51	
superior conj	3578 Feb 06 02:45	16°♄46'17	-2°-3'-22	morning set	3578 Dec 30 23:22	29°♄31'29	
minimum elong	3578 Feb 05 22:56	16°♄30'37	2°03'14		3578 Dec 31 06:42	0°♄	
	3578 Feb 14 00:20	0°♄		max. Earth dist.	3579 Jan 13 23:34	21°♄25'07	1.44862 AU
evening rise	3578 Feb 18 23:31	8°♄32'33					
	3578 Mar 03 21:35	0°♄		superior conj	3579 Jan 16 18:02	25°♄47'48	-1°-41'-34
asc. node	3578 Mar 04 04:50	0°♄26'01		minimum elong	3579 Jan 16 09:17	25°♄13'10	1°40'50
evening max el	3578 Mar 08 14:58	5°♄52'24	18°09'41		3579 Jan 19 09:27	0°♄	
retrograde	3578 Mar 15 01:36	9°♄15'47		evening rise	3579 Jan 31 10:32	19°♄32'41	
evening set	3578 Mar 17 20:43	8°♄36'01			3579 Feb 06 18:47	0°♄	
inferior conj	3578 Mar 24 02:52	3°♄21'38	3°34'05	asc. node	3579 Feb 19 01:52	18°♄07'44	
minimum elong	3578 Mar 24 03:57	3°♄18'45	3°34'00	evening max el	3579 Feb 20 03:12	19°♄15'30	18°29'06
min. Earth dist.	3578 Mar 26 21:35	0°♄25'32	0.62667 AU	retrograde	3579 Feb 26 15:46	22°♄49'51	
	3578 Mar 27 07:44	30°♄		evening set	3579 Mar 01 16:35	21°♄58'38	
morning rise	3578 Mar 30 08:56	27°♄18'25		inferior conj	3579 Mar 07 13:38	16°♄25'23	3°37'19
direct	3578 Apr 06 06:19	24°♄43'19		minimum elong	3579 Mar 07 13:03	16°♄27'05	3°37'18
desc. node	3578 Apr 10 11:43	25°♄34'58		min. Earth dist.	3579 Mar 09 17:05	13°♄54'21	0.64516 AU
	3578 Apr 17 09:12	0°♄		morning rise	3579 Mar 13 08:04	10°♄14'30	
morning max el	3578 Apr 20 06:33	2°♄41'02	27°50'02	direct	3579 Mar 20 02:37	7°♄26'09	
	3578 May 10 11:43	0°♄		desc. node	3579 Mar 28 08:45	10°♄42'08	
morning set	3578 May 24 05:46	25°♄11'32		morning max el	3579 Apr 02 15:59	15°♄19'37	27°22'41
	3578 May 26 14:05	0°♄			3579 Apr 14 16:30	0°♄	
max. Earth dist.	3578 May 29 18:07	6°♄41'20	1.32595 AU		3579 May 03 04:49	0°♄	
asc. node	3578 May 31 04:08	9°♄44'20		morning set	3579 May 07 22:04	8°♄57'23	
				max. Earth dist.	3579 May 12 17:31	18°♄38'01	1.33494 AU
superior conj	3578 May 31 20:51	11°♄14'49	0°07'19				
minimum elong	3578 May 31 20:30	11°♄12'56	0°07'15	superior conj	3579 May 16 01:35	25°♄37'15	0°-20'-36
behind sun begin	3578 May 31 15:50	10°♄47'38		minimum elong	3579 May 16 02:38	25°♄42'50	0°20'23
behind sun end	3578 Jun 01 01:10	11°♄38'15		asc. node	3579 May 18 01:11	29°♄50'44	
evening rise	3578 Jun 07 20:39	26°♄23'00			3579 May 18 02:55	0°♄	
	3578 Jun 09 13:57	0°♄		evening rise	3579 May 23 07:54	11°♄06'10	
	3578 Jun 27 08:55	0°♄			3579 Jun 02 02:32	0°♄	

evening max el	3579 Jun 13 12:47	15°☿25'04	22°14'42	evening max el	3580 May 25 12:53	26°♂14'15	20°47'29
desc. node	3579 Jun 24 08:00	21°☿38'55			3580 May 30 10:08	0°☿	
retrograde	3579 Jun 26 10:30	21°☿49'09		retrograde	3580 Jun 05 23:26	1°☿49'35	
evening set	3579 Jun 29 09:20	21°☿29'50		evening set	3580 Jun 08 02:09	1°☿38'54	
min. Earth dist.	3579 Jul 07 18:49	17°☿52'22	0.55072 AU	desc. node	3580 Jun 10 05:02	1°☿08'05	
inferior conj	3579 Jul 08 15:37	17°☿23'03	-3°-51'-17		3580 Jun 13 01:38	30°♂♂	
minimum elong	3579 Jul 08 07:15	17°☿34'52	3°49'08	inferior conj	3580 Jun 17 09:03	27°♂41'41	-2°-5'-30
morning rise	3579 Jul 17 07:14	13°☿32'40		minimum elong	3580 Jun 17 03:12	27°♂50'02	2°03'28
direct	3579 Jul 20 09:51	13°☿11'00		min. Earth dist.	3580 Jun 18 06:49	27°♂10'37	0.54887 AU
morning max el	3579 Aug 01 02:30	18°☿37'59	21°21'04	morning rise	3580 Jun 26 03:20	23°♂37'45	
	3579 Aug 10 03:37	0°♂		direct	3580 Jun 29 19:09	23°♂08'53	
asc. node	3579 Aug 14 00:25	6°♂31'58		morning max el	3580 Jul 12 22:01	29°♂27'04	22°59'36
morning set	3579 Aug 21 04:59	20°♂37'05			3580 Jul 13 11:50	0°☿	
	3579 Aug 25 16:25	0°♂		asc. node	3580 Jul 30 21:29	25°☿48'11	
					3580 Aug 02 00:12	0°♂	
superior conj	3579 Aug 28 13:58	6°♂03'41	1°43'34	morning set	3580 Aug 04 15:59	5°♂29'34	
minimum elong	3579 Aug 28 13:14	5°♂59'53	1°43'33				
max. Earth dist.	3579 Sep 01 18:27	14°♂35'58	1.35220 AU	superior conj	3580 Aug 11 18:45	20°♂43'03	1°36'45
evening rise	3579 Sep 06 01:37	22°♂58'18		minimum elong	3580 Aug 11 17:00	20°♂33'41	1°36'36
	3579 Sep 09 20:48	0°♂		max. Earth dist.	3580 Aug 14 13:57	26°♂38'42	1.33813 AU
desc. node	3579 Sep 20 07:22	17°♂31'45			3580 Aug 16 04:43	0°♂	
	3579 Sep 28 20:11	0°♂		evening rise	3580 Aug 19 13:01	6°♂45'16	
evening max el	3579 Oct 11 09:38	14°♂50'45	26°38'24		3580 Sep 01 11:01	0°♂	
retrograde	3579 Oct 24 08:53	22°♂05'28		desc. node	3580 Sep 06 04:24	7°♂22'46	
evening set	3579 Oct 30 21:38	19°♂27'00		evening max el	3580 Sep 22 21:52	28°♂18'07	27°16'12
min. Earth dist.	3579 Nov 03 23:44	15°♂16'15	0.66054 AU		3580 Sep 24 18:41	0°♂	
inferior conj	3579 Nov 05 17:37	13°♂11'37	-1°-26'-35	retrograde	3580 Oct 06 08:31	5°♂36'34	
minimum elong	3579 Nov 05 19:59	13°♂04'32	1°25'36	evening set	3580 Oct 13 07:39	2°♂55'39	
asc. node	3579 Nov 09 23:36	8°♂41'57			3580 Oct 16 12:20	30°♂♂	
morning rise	3579 Nov 11 19:46	7°♂26'33		min. Earth dist.	3580 Oct 17 03:22	29°♂20'30	0.64719 AU
direct	3579 Nov 14 16:13	6°♂41'05		inferior conj	3580 Oct 19 09:23	26°♂53'14	-2°-27'-24
morning max el	3579 Nov 21 06:52	10°♂17'19	18°27'10	minimum elong	3580 Oct 19 13:29	26°♂42'01	2°25'51
	3579 Dec 05 05:57	0°♂		morning rise	3580 Oct 25 21:23	21°♂22'16	
morning set	3579 Dec 11 02:40	9°♂23'26		asc. node	3580 Oct 26 20:40	21°♂01'21	
desc. node	3579 Dec 17 06:37	19°♂14'09		direct	3580 Oct 28 10:45	20°♂48'06	
	3579 Dec 24 02:04	0°♂		morning max el	3580 Nov 03 22:35	24°♂15'13	18°00'00
					3580 Nov 08 14:51	0°♂	
superior conj	3579 Dec 26 20:20	4°♂20'21	-1°-2'-7	morning set	3580 Nov 21 11:19	20°♂42'20	
minimum elong	3579 Dec 26 12:43	3°♂50'27	1°01'11		3580 Nov 27 01:16	0°♂	
max. Earth dist.	3579 Dec 27 17:58	5°♂45'11	1.45242 AU	desc. node	3580 Dec 03 03:41	9°♂57'32	
evening rise	3580 Jan 11 22:15	29°♂36'19					
	3580 Jan 12 04:15	0°♂		superior conj	3580 Dec 05 06:24	13°♂21'19	0°-14'-26
greatest brilliancy	3580 Jan 24 02:32	18°♂42'21	-0.7m	minimum elong	3580 Dec 05 04:38	13°♂14'15	0°14'12
	3580 Feb 01 02:43	0°♂		behind sun begin	3580 Dec 04 23:32	12°♂53'51	
evening max el	3580 Feb 03 12:46	2°♂44'05	19°06'12	behind sun end	3580 Dec 05 09:44	13°♂34'39	
asc. node	3580 Feb 05 22:54	4°♂53'36		max. Earth dist.	3580 Dec 09 12:51	20°♂08'31	1.44879 AU
retrograde	3580 Feb 10 11:13	6°♂40'20			3580 Dec 15 19:52	0°♂	
evening set	3580 Feb 13 18:35	5°♂36'41		evening rise	3580 Dec 21 14:37	8°♂56'58	
inferior conj	3580 Feb 19 09:34	29°♂46'48	3°25'04		3581 Jan 04 11:02	0°♂	
minimum elong	3580 Feb 19 07:48	29°♂52'24	3°24'50	greatest brilliancy	3581 Jan 09 20:18	7°♂44'22	-0.6m
	3580 Feb 19 05:25	30°♂		evening max el	3581 Jan 16 17:57	16°♂15'34	19°59'15
min. Earth dist.	3580 Feb 20 21:40	27°♂52'06	0.65986 AU	asc. node	3581 Jan 22 19:56	20°♂29'26	
morning rise	3580 Feb 24 20:04	23°♂32'14		retrograde	3581 Jan 24 08:58	20°♂42'24	
direct	3580 Mar 02 05:40	20°♂44'10		evening set	3581 Jan 28 00:21	19°♂25'04	
desc. node	3580 Mar 14 05:48	27°♂30'59		inferior conj	3581 Feb 02 11:41	13°♂21'05	3°01'00
morning max el	3580 Mar 15 01:57	28°♂20'54	26°25'45	minimum elong	3581 Feb 02 09:18	13°♂29'05	3°00'29
	3580 Mar 16 15:57	0°♂		min. Earth dist.	3581 Feb 03 09:36	12°♂07'37	0.67044 AU
	3580 Apr 07 10:47	0°♂		morning rise	3581 Feb 07 17:36	7°♂05'23	
morning set	3580 Apr 20 02:29	22°♂04'34		direct	3581 Feb 13 14:29	4°♂28'56	
max. Earth dist.	3580 Apr 24 05:44	0°♂01'50	1.34855 AU	morning max el	3581 Feb 25 10:46	11°♂33'34	25°08'24
	3580 Apr 24 05:22	0°♂		desc. node	3581 Mar 01 02:51	15°♂32'58	
					3581 Mar 12 05:04	0°♂	
superior conj	3580 Apr 28 23:49	9°♂35'52	0°-49'-28		3581 Mar 31 03:35	0°♂	
minimum elong	3580 Apr 29 02:26	9°♂49'18	0°49'00	morning set	3581 Apr 02 14:12	4°♂19'19	
asc. node	3580 May 03 22:14	19°♂51'11		max. Earth dist.	3581 Apr 06 06:49	11°♂04'04	1.36655 AU
evening rise	3580 May 06 16:39	25°♂36'49					
	3580 May 08 20:08	0°♂		superior conj	3581 Apr 12 12:40	23°♂02'56	-1°-17'-37

minimum elong	3581 Apr 12 16:41	23° Υ 22'45	1°17'01	max. Earth dist.	3582 Mar 19 02:07	22° Υ 15'45	1.38764 AU
	3581 Apr 16 00:15	0° Υ			3582 Mar 23 09:25	0° Υ	
evening rise	3581 Apr 20 20:39	9° Υ 48'26					
asc. node	3581 Apr 20 19:16	9° Υ 41'29		superior conj	3582 Mar 26 12:18	5° Υ 47'38	-1°-42'-33
	3581 May 01 21:36	0° Π		minimum elong	3582 Mar 26 16:57	6° Υ 09'31	1°42'04
evening max el	3581 May 08 01:13	7° Π 43'27	19°37'24	evening rise	3582 Apr 04 17:09	23° Υ 32'44	
retrograde	3581 May 17 17:44	12° Π 25'40		asc. node	3582 Apr 07 16:17	29° Υ 16'03	
evening set	3581 May 19 17:08	12° Π 14'49			3582 Apr 08 01:32	0° Υ	
inferior conj	3581 May 28 10:38	8° Π 11'18	0°-6'-17	evening max el	3582 Apr 21 00:21	19° Υ 51'27	18°47'12
minimum elong	3581 May 28 10:21	8° Π 11'44	0°06'12	retrograde	3582 Apr 29 04:35	23° Υ 51'24	
transit middle	3581 May 28 10:21	8° Π 11'44	0°06'12	evening set	3582 May 01 08:33	23° Υ 35'38	
transit begin	3581 May 28 06:44	8° Π 17'26		inferior conj	3582 May 09 06:48	19° Υ 14'41	1°34'57
transit end	3581 May 28 13:58	8° Π 06'02		minimum elong	3582 May 09 10:02	19° Υ 08'44	1°33'55
desc. node	3581 May 28 02:03	8° Π 24'48		min. Earth dist.	3582 May 12 13:04	16° Υ 52'16	0.57243 AU
min. Earth dist.	3581 May 30 20:36	6° Π 40'15	0.55670 AU	desc. node	3582 May 14 23:04	15° Υ 18'11	
morning rise	3581 Jun 06 00:02	3° Π 37'21		morning rise	3582 May 17 07:06	14° Υ 05'44	
direct	3581 Jun 10 12:36	2° Π 51'38		direct	3582 May 22 19:20	12° Υ 51'51	
morning max el	3581 Jun 24 12:16	9° Π 52'32	24°42'16	morning max el	3582 Jun 06 03:33	20° Υ 21'46	26°13'57
	3581 Jul 09 13:29	0° Υ			3582 Jun 14 10:10	0° Π	
asc. node	3581 Jul 17 18:33	15° Υ 26'09			3582 Jul 02 02:00	0° Υ	
morning set	3581 Jul 20 03:48	20° Υ 23'58		morning set	3582 Jul 04 14:48	5° Υ 15'03	
	3581 Jul 24 14:38	0° Ω		asc. node	3582 Jul 04 15:35	5° Υ 19'09	
superior conj	3581 Jul 27 03:49	5° Ω 34'00	1°24'28	superior conj	3582 Jul 11 15:07	20° Υ 29'38	1°07'33
minimum elong	3581 Jul 27 01:32	5° Ω 21'35	1°24'10	minimum elong	3582 Jul 11 12:48	20° Υ 16'55	1°07'10
max. Earth dist.	3581 Jul 28 18:02	9° Ω 01'33	1.32824 AU	max. Earth dist.	3582 Jul 12 03:52	21° Υ 39'53	1.32239 AU
evening rise	3581 Aug 03 10:29	21° Ω 00'59			3582 Jul 15 23:34	0° Ω	
	3581 Aug 07 23:37	0° Π		evening rise	3582 Jul 18 14:53	5° Ω 35'55	
desc. node	3581 Aug 24 01:24	26° Π 40'40			3582 Jul 31 14:29	0° Π	
	3581 Aug 26 11:31	0° Ω		desc. node	3582 Aug 10 22:24	15° Π 12'01	
evening max el	3581 Sep 05 08:20	11° Ω 21'23	27°26'05	evening max el	3582 Aug 18 14:14	23° Π 47'01	27°03'27
retrograde	3581 Sep 19 01:34	18° Ω 37'22			3582 Aug 27 14:38	0° Ω	
evening set	3581 Sep 26 06:02	16° Ω 04'18		retrograde	3582 Sep 01 11:15	0° Ω 59'15	
min. Earth dist.	3581 Sep 29 21:20	13° Ω 00'55	0.63054 AU		3582 Sep 06 04:05	30° Π	
inferior conj	3581 Oct 02 15:18	10° Ω 19'28	-3°-26'-45	evening set	3582 Sep 08 12:46	28° Π 46'21	
minimum elong	3581 Oct 02 20:47	10° Ω 06'02	3°25'03	min. Earth dist.	3582 Sep 12 04:30	26° Π 05'22	0.61115 AU
morning rise	3581 Oct 09 14:09	5° Ω 05'58		inferior conj	3582 Sep 15 08:10	23° Π 22'20	-4°-19'-35
direct	3581 Oct 11 23:11	4° Ω 39'28		minimum elong	3582 Sep 15 13:52	23° Π 09'58	4°18'20
asc. node	3581 Oct 13 17:43	4° Ω 54'33		morning rise	3582 Sep 22 18:04	18° Π 29'55	
morning max el	3581 Oct 18 15:01	8° Ω 05'33	17°50'27	direct	3582 Sep 25 01:53	18° Π 08'02	
	3581 Nov 02 00:45	0° Π		asc. node	3582 Sep 30 14:46	20° Π 17'25	
morning set	3581 Nov 03 20:15	3° Π 11'16		morning max el	3582 Oct 02 05:06	21° Π 41'16	17°59'34
					3582 Oct 08 13:48	0° Ω	
superior conj	3581 Nov 15 15:42	23° Π 31'36	0°30'00	morning set	3582 Oct 17 23:06	16° Ω 31'29	
minimum elong	3581 Nov 15 18:36	23° Π 43'42	0°29'35		3582 Oct 25 08:05	0° Π	
	3581 Nov 19 13:50	0° Υ		superior conj	3582 Oct 28 03:49	5° Π 00'46	1°04'33
desc. node	3581 Nov 20 00:43	0° Υ 44'19		minimum elong	3582 Oct 28 08:04	5° Π 19'27	1°04'01
max. Earth dist.	3581 Nov 22 05:43	4° Υ 18'44	1.43827 AU	max. Earth dist.	3582 Nov 04 18:08	17° Π 59'14	1.42209 AU
evening rise	3581 Nov 30 23:54	18° Υ 06'25		desc. node	3582 Nov 06 21:44	21° Π 31'31	
	3581 Dec 08 19:28	0° Υ		evening rise	3582 Nov 10 18:31	27° Π 45'09	
greatest brilliancy	3581 Dec 25 11:46	23° Υ 41'32	-0.4m		3582 Nov 12 04:36	0° Υ	
evening max el	3581 Dec 30 17:41	29° Υ 47'59	21°05'32		3582 Dec 02 13:11	0° Υ	
	3581 Dec 30 22:25	0° \approx		greatest brilliancy	3582 Dec 08 18:03	8° Υ 01'39	-0.3m
retrograde	3582 Jan 08 06:47	4° \approx 51'42		evening max el	3582 Dec 13 12:05	13° Υ 22'04	22°21'09
asc. node	3582 Jan 09 16:57	4° \approx 40'36		retrograde	3582 Dec 23 03:01	19° Υ 05'26	
evening set	3582 Jan 12 07:53	3° \approx 19'15		evening set	3582 Dec 27 15:33	17° Υ 16'50	
	3582 Jan 15 12:51	30° Π		asc. node	3582 Dec 27 13:58	17° Υ 20'01	
inferior conj	3582 Jan 17 17:32	27° Υ 04'00	2°27'32	inferior conj	3583 Jan 02 01:08	10° Υ 53'43	1°46'18
minimum elong	3582 Jan 17 15:02	27° Υ 12'37	2°26'46	minimum elong	3583 Jan 01 23:00	11° Υ 01'06	1°45'31
min. Earth dist.	3582 Jan 18 02:41	26° Υ 32'26	0.67697 AU	min. Earth dist.	3583 Jan 01 22:44	11° Υ 02'01	0.67965 AU
morning rise	3582 Jan 22 21:49	20° Υ 49'04		morning rise	3583 Jan 07 06:21	4° Υ 41'14	
direct	3582 Jan 28 04:02	18° Υ 31'47		direct	3583 Jan 11 21:33	2° Υ 46'36	
morning max el	3582 Feb 07 19:17	24° Υ 51'45	23°40'49	morning max el	3583 Jan 21 06:42	8° Υ 17'32	22°12'46
	3582 Feb 12 10:24	0° \approx		greatest brilliancy	3583 Jan 25 20:45	13° Υ 25'17	-0.3m
desc. node	3582 Feb 15 23:54	4° \approx 26'29		desc. node	3583 Feb 02 20:56	23° Υ 57'25	
	3582 Mar 05 16:50	0° Υ			3583 Feb 07 02:50	0° \approx	
morning set	3582 Mar 15 03:07	15° Υ 24'14					

morning set	3583 Feb 23 11:57	25° \approx 07'56			3584 Jan 10 20:46	0° \approx	
	3583 Feb 26 11:23	0° \approx		desc. node	3584 Jan 20 17:59	13° \approx 54'53	
max. Earth dist.	3583 Feb 28 23:33	4° \approx 10'51	1.40931 AU		3584 Jan 31 09:41	0° \approx	
				morning set	3584 Feb 02 18:05	3° \approx 38'56	
superior conj	3583 Mar 08 18:09	17° \approx 39'15	-2°00'-39	max. Earth dist.	3584 Feb 11 03:27	17° \approx 00'02	1.42860 AU
minimum elong	3583 Mar 08 21:40	17° \approx 54'57	2°00'28				
	3583 Mar 15 12:39	0° \approx		superior conj	3584 Feb 18 01:06	28° \approx 26'08	-2°-7'-4
evening rise	3583 Mar 19 02:54	6° \approx 42'16		minimum elong	3584 Feb 18 00:41	28° \approx 24'21	2°07'05
asc. node	3583 Mar 25 13:17	18° \approx 29'34			3584 Feb 18 23:16	0° \approx	
	3583 Apr 02 00:39	0° \approx		evening rise	3584 Feb 29 21:53	19° \approx 07'49	
evening max el	3583 Apr 04 07:14	2° \approx 31'25	18°17'10		3584 Mar 07 01:23	0° \approx	
retrograde	3583 Apr 11 10:35	6° \approx 05'12		asc. node	3584 Mar 11 10:18	7° \approx 15'07	
evening set	3583 Apr 13 20:35	5° \approx 41'35		evening max el	3584 Mar 17 18:37	15° \approx 34'52	18°06'56
inferior conj	3583 Apr 21 00:27	0° \approx 59'47	2°44'25	retrograde	3584 Mar 24 08:29	18° \approx 58'03	
minimum elong	3583 Apr 21 04:02	0° \approx 52'05	2°43'35	evening set	3584 Mar 27 00:17	18° \approx 24'39	
	3583 Apr 22 04:07	30° \approx 00'00		inferior conj	3584 Apr 02 13:16	13° \approx 22'07	3°23'12
min. Earth dist.	3583 Apr 24 10:38	28° \approx 04'46	0.59288 AU	minimum elong	3584 Apr 02 15:25	13° \approx 16'49	3°22'55
morning rise	3583 Apr 28 07:31	25° \approx 21'51		min. Earth dist.	3584 Apr 05 15:41	10° \approx 19'19	0.61463 AU
desc. node	3583 May 01 20:06	23° \approx 54'16		morning rise	3584 Apr 09 03:37	7° \approx 25'30	
direct	3583 May 04 15:24	23° \approx 32'51		direct	3584 Apr 15 22:49	5° \approx 04'00	
	3583 May 17 14:15	0° \approx		desc. node	3584 Apr 17 17:07	5° \approx 12'56	
morning max el	3583 May 19 00:23	1° \approx 20'49	27°19'35	morning max el	3584 Apr 30 03:34	13° \approx 01'23	27°49'46
	3583 Jun 08 14:37	0° \approx			3584 May 13 16:10	0° \approx	
morning set	3583 Jun 18 23:21	19° \approx 57'11			3584 May 30 23:13	0° \approx	
asc. node	3583 Jun 21 12:36	25° \approx 21'47		morning set	3584 Jun 02 03:33	4° \approx 24'09	
	3583 Jun 23 15:54	0° \approx		asc. node	3584 Jun 07 09:37	15° \approx 29'35	
max. Earth dist.	3583 Jun 25 15:46	4° \approx 22'44	1.32052 AU	max. Earth dist.	3584 Jun 08 01:48	16° \approx 57'14	1.32270 AU
superior conj	3583 Jun 26 02:51	5° \approx 23'54	0°46'41	superior conj	3584 Jun 09 13:22	20° \approx 11'12	0°22'30
minimum elong	3583 Jun 26 00:59	5° \approx 13'33	0°46'19	minimum elong	3584 Jun 09 12:21	20° \approx 05'38	0°22'17
evening rise	3583 Jul 02 23:46	20° \approx 21'58			3584 Jun 14 01:01	0° \approx	
	3583 Jul 07 16:45	0° \approx		evening rise	3584 Jun 16 11:05	5° \approx 12'24	
	3583 Jul 26 12:25	0° \approx			3584 Jun 29 14:08	0° \approx	
desc. node	3583 Jul 28 19:24	2° \approx 37'16		evening max el	3584 Jul 12 04:54	16° \approx 18'02	24°45'44
evening max el	3583 Jul 31 13:03	5° \approx 24'58	26°07'55	desc. node	3584 Jul 14 16:23	18° \approx 29'58	
retrograde	3583 Aug 14 12:28	12° \approx 34'17		retrograde	3584 Jul 26 03:16	23° \approx 02'05	
evening set	3583 Aug 20 22:58	10° \approx 53'35		evening set	3584 Jul 31 09:06	22° \approx 18'47	
min. Earth dist.	3583 Aug 25 01:43	8° \approx 18'53	0.59046 AU	min. Earth dist.	3584 Aug 05 16:14	19° \approx 31'08	0.57099 AU
inferior conj	3583 Aug 28 08:19	5° \approx 51'36	-4°-57'-26	inferior conj	3584 Aug 08 12:56	17° \approx 03'01	-5°-7'-15
minimum elong	3583 Aug 28 12:00	5° \approx 44'40	4°57'03	minimum elong	3584 Aug 08 11:39	17° \approx 04'10	5°07'13
morning rise	3583 Sep 05 04:33	1° \approx 22'36		morning rise	3584 Aug 16 17:51	13° \approx 02'04	
direct	3583 Sep 07 14:12	1° \approx 03'04		direct	3584 Aug 19 08:15	13° \approx 01'30	
morning max el	3583 Sep 15 13:36	4° \approx 53'07	18°28'38	morning max el	3584 Aug 28 13:18	17° \approx 03'42	19°18'53
asc. node	3583 Sep 17 11:49	6° \approx 55'50		asc. node	3584 Sep 03 08:52	24° \approx 03'48	
	3583 Oct 01 08:53	0° \approx			3584 Sep 06 18:24	0° \approx	
morning set	3583 Oct 01 14:34	0° \approx 27'16		morning set	3584 Sep 14 14:48	14° \approx 48'27	
					3584 Sep 22 05:54	0° \approx	
superior conj	3583 Oct 10 14:42	17° \approx 36'30	1°27'45	superior conj	3584 Sep 22 18:51	1° \approx 03'13	1°40'34
minimum elong	3583 Oct 10 18:06	17° \approx 52'14	1°27'27	minimum elong	3584 Sep 22 20:35	1° \approx 11'38	1°40'29
	3583 Oct 17 12:04	0° \approx		max. Earth dist.	3584 Sep 29 04:57	13° \approx 11'30	1.38152 AU
max. Earth dist.	3583 Oct 18 01:00	0° \approx 56'09	1.40230 AU	evening rise	3584 Oct 03 00:32	20° \approx 01'24	
evening rise	3583 Oct 22 09:44	8° \approx 20'37			3584 Oct 08 21:38	0° \approx	
desc. node	3583 Oct 24 18:44	12° \approx 15'07		desc. node	3584 Oct 10 15:45	2° \approx 51'18	
	3583 Nov 05 05:35	0° \approx			3584 Oct 29 08:20	0° \approx	
evening max el	3583 Nov 26 02:25	26° \approx 58'26	23°41'02	evening max el	3584 Nov 07 14:54	10° \approx 58'41	24°58'42
	3583 Nov 29 10:40	0° \approx		retrograde	3584 Nov 19 09:29	17° \approx 28'35	
retrograde	3583 Dec 06 20:17	3° \approx 19'06		evening set	3584 Nov 25 00:46	15° \approx 08'10	
evening set	3583 Dec 11 21:42	1° \approx 14'05		min. Earth dist.	3584 Nov 29 14:23	10° \approx 00'31	0.67434 AU
	3583 Dec 13 05:07	30° \approx 00'00		asc. node	3584 Nov 30 08:05	9° \approx 02'21	
asc. node	3583 Dec 14 11:01	28° \approx 35'45		inferior conj	3584 Nov 30 14:16	8° \approx 41'56	0°05'19
inferior conj	3583 Dec 17 08:38	24° \approx 54'07	0°58'33	minimum elong	3584 Nov 30 14:08	8° \approx 42'23	0°05'16
minimum elong	3583 Dec 17 07:18	24° \approx 51'40	0°57'59	transit middle	3584 Nov 30 14:08	8° \approx 42'23	0°05'16
min. Earth dist.	3583 Dec 16 19:24	25° \approx 32'15	0.67871 AU	transit begin	3584 Nov 30 11:31	8° \approx 51'00	
morning rise	3583 Dec 22 17:05	18° \approx 39'00		transit end	3584 Nov 30 16:45	8° \approx 33'46	
direct	3583 Dec 26 18:04	17° \approx 07'08		morning rise	3584 Dec 06 04:05	2° \approx 40'27	
morning max el	3584 Jan 04 00:16	21° \approx 53'14	20°52'01	direct	3584 Dec 09 16:26	1° \approx 29'14	
greatest brilliancy	3584 Jan 09 15:39	28° \approx 25'28	-0.5m				

morning max el	3584 Dec 17 01:38	5°♂39'43	19°43'38	min. Earth dist.	3585 Nov 13 05:14	24°♂24'05	0.66656 AU
greatest brilliancy	3584 Dec 24 21:19	15°♂19'22	-0.6m	inferior conj	3585 Nov 14 16:15	22°♂35'23	0°-52'-8
	3585 Jan 03 20:55	0°♂		minimum elong	3585 Nov 14 17:38	22°♂31'03	0°51'33
desc. node	3585 Jan 06 15:01	4°♂11'31		asc. node	3585 Nov 17 05:09	19°♂35'00	
morning set	3585 Jan 11 14:08	11°♂49'02		morning rise	3585 Nov 20 13:23	16°♂43'19	
	3585 Jan 23 05:17	0°♂		direct	3585 Nov 23 15:04	15°♂49'25	
max. Earth dist.	3585 Jan 23 14:36	0°♂37'00	1.44312 AU	morning max el	3585 Nov 30 10:19	19°♂35'02	18°50'24
					3585 Dec 08 13:15	0°♂	
superior conj	3585 Jan 28 06:06	8°♂03'11	-1°-56'-33	morning set	3585 Dec 22 01:33	20°♂52'19	
minimum elong	3585 Jan 27 23:46	7°♂37'40	1°56'12	desc. node	3585 Dec 24 12:02	24°♂42'03	
evening rise	3585 Feb 10 21:38	0°♂40'25			3585 Dec 27 21:05	0°♂	
	3585 Feb 10 12:06	0°♂		max. Earth dist.	3586 Jan 06 07:38	14°♂48'25	1.45114 AU
asc. node	3585 Feb 26 07:21	25°♂23'27					
evening max el	3585 Mar 01 07:23	28°♂53'05	18°15'48	superior conj	3586 Jan 07 13:45	16°♂46'44	-1°-26'-37
	3585 Mar 02 12:13	0°♂		minimum elong	3586 Jan 07 04:35	16°♂10'42	1°25'40
retrograde	3585 Mar 07 17:49	2°♂19'34			3586 Jan 15 22:15	0°♂	
evening set	3585 Mar 10 15:17	1°♂35'09		evening rise	3586 Jan 22 22:43	11°♂16'03	
	3585 Mar 12 23:11	30°♂			3586 Feb 03 15:09	0°♂	
inferior conj	3585 Mar 16 17:11	26°♂12'50	3°37'36	evening max el	3586 Feb 12 18:51	12°♂19'51	18°42'53
minimum elong	3585 Mar 16 17:31	26°♂11'54	3°37'36	asc. node	3586 Feb 13 04:25	12°♂43'40	
min. Earth dist.	3585 Mar 19 05:43	23°♂25'15	0.63493 AU	retrograde	3586 Feb 19 10:33	16°♂01'52	
morning rise	3585 Mar 22 17:50	20°♂05'50		evening set	3586 Feb 22 14:07	15°♂05'23	
direct	3585 Mar 29 15:05	17°♂22'58		inferior conj	3586 Feb 28 08:15	9°♂24'55	3°33'44
desc. node	3585 Apr 04 14:11	19°♂06'02		minimum elong	3586 Feb 28 07:07	9°♂28'25	3°33'39
morning max el	3585 Apr 12 11:14	25°♂20'37	27°42'28	min. Earth dist.	3586 Mar 02 05:06	7°♂08'29	0.65194 AU
	3585 Apr 16 17:42	0°♂		morning rise	3586 Mar 05 22:55	3°♂12'25	
	3585 May 07 03:32	0°♂		direct	3586 Mar 12 14:24	0°♂22'36	
morning set	3585 May 17 01:00	18°♂27'28		desc. node	3586 Mar 22 11:13	5°♂00'42	
max. Earth dist.	3585 May 22 05:59	29°♂09'51	1.32918 AU	morning max el	3586 Mar 25 20:59	8°♂09'55	27°01'36
	3585 May 22 15:28	0°♂			3586 Apr 11 20:29	0°♂	
					3586 Apr 29 11:59	0°♂	
superior conj	3585 May 24 20:47	4°♂44'38	0°-4'-18	morning set	3586 Apr 30 12:43	1°♂58'16	
minimum elong	3585 May 24 21:00	4°♂45'47	0°04'17	max. Earth dist.	3586 May 05 00:53	10°♂52'34	1.34022 AU
behind sun begin	3585 May 24 15:52	4°♂18'11					
behind sun end	3585 May 25 02:08	5°♂13'25		superior conj	3586 May 08 23:05	18°♂58'11	0°-32'-47
asc. node	3585 May 25 06:39	5°♂37'41		minimum elong	3586 May 09 00:48	19°♂07'08	0°32'28
evening rise	3585 May 31 22:53	19°♂59'59		asc. node	3586 May 12 03:42	25°♂42'16	
	3585 Jun 05 20:11	0°♂			3586 May 14 04:20	0°♂	
evening max el	3585 Jun 23 18:09	26°♂45'04	23°09'52	evening rise	3586 May 16 09:20	4°♂38'55	
	3585 Jun 27 14:44	0°♂			3586 May 30 09:56	0°♂	
desc. node	3585 Jul 01 13:25	2°♂15'23		evening max el	3586 Jun 05 12:23	7°♂17'50	21°35'48
retrograde	3585 Jul 07 05:17	3°♂28'20		retrograde	3586 Jun 17 20:18	13°♂22'09	
evening set	3585 Jul 10 22:48	2°♂57'57		desc. node	3586 Jun 18 10:27	13°♂21'21	
	3585 Jul 17 15:16	30°♂		evening set	3586 Jun 20 08:35	13°♂07'51	
min. Earth dist.	3585 Jul 18 03:33	29°♂42'25	0.55605 AU	inferior conj	3586 Jun 29 17:12	9°♂07'13	-3°-10'-18
inferior conj	3585 Jul 19 21:50	28°♂40'43	-4°-33'-39	minimum elong	3586 Jun 29 09:10	9°♂18'27	3°07'52
minimum elong	3585 Jul 19 14:55	28°♂50'51	4°32'26	min. Earth dist.	3586 Jun 29 14:25	9°♂11'08	0.54884 AU
morning rise	3585 Jul 28 09:56	24°♂48'12		morning rise	3586 Jul 08 10:39	5°♂13'44	
direct	3585 Jul 31 07:32	24°♂28'01		direct	3586 Jul 11 18:23	4°♂49'41	
morning max el	3585 Aug 11 01:37	29°♂27'31	20°30'43	morning max el	3586 Jul 24 02:20	10°♂38'11	22°01'34
	3585 Aug 11 15:16	0°♂			3586 Aug 07 00:47	0°♂	
asc. node	3585 Aug 21 05:56	13°♂00'04		asc. node	3586 Aug 08 02:58	2°♂00'26	
morning set	3585 Aug 29 20:57	29°♂26'53		morning set	3586 Aug 14 06:43	14°♂16'07	
	3585 Aug 30 03:25	0°♂					
				superior conj	3586 Aug 21 12:34	29°♂35'39	1°41'24
superior conj	3585 Sep 06 11:24	15°♂06'41	1°44'37	minimum elong	3586 Aug 21 11:21	29°♂29'12	1°41'20
minimum elong	3585 Sep 06 11:29	15°♂07'03	1°44'36		3586 Aug 21 17:12	0°♂	
max. Earth dist.	3585 Sep 11 11:52	25°♂05'20	1.36211 AU	max. Earth dist.	3586 Aug 25 02:31	7°♂01'31	1.34579 AU
	3585 Sep 14 01:39	0°♂		evening rise	3586 Aug 29 16:05	16°♂06'05	
evening rise	3585 Sep 15 12:08	2°♂40'32			3586 Sep 06 05:56	0°♂	
desc. node	3585 Sep 27 12:46	23°♂15'20		desc. node	3586 Sep 14 09:48	13°♂20'55	
	3585 Oct 01 22:00	0°♂			3586 Sep 26 10:18	0°♂	
evening max el	3585 Oct 21 03:21	24°♂20'57	26°06'44	evening max el	3586 Oct 03 15:58	7°♂57'01	26°57'33
	3585 Oct 28 11:19	0°♂		retrograde	3586 Oct 16 20:25	15°♂13'23	
retrograde	3585 Nov 02 17:44	1°♂29'01		evening set	3586 Oct 23 14:08	12°♂32'57	
	3585 Nov 07 12:12	30°♂		min. Earth dist.	3586 Oct 27 13:29	8°♂37'35	0.65531 AU
evening set	3585 Nov 08 22:57	28°♂56'00		inferior conj	3586 Oct 29 12:25	6°♂22'49	-1°-52'-20

minimum elong	3586 Oct 29 15:32	6°♄13'50	1°51'05	asc. node	3587 Oct 21 23:13	14°♄05'11	
asc. node	3586 Nov 04 02:12	1°♄05'44		direct	3587 Oct 22 04:08	14°♄04'58	
morning rise	3586 Nov 04 18:35	0°♄43'17		morning max el	3587 Oct 28 16:43	17°♄30'21	17°53'47
direct	3586 Nov 07 11:50	0°♄02'57			3587 Nov 06 17:25	0°♄	
morning max el	3586 Nov 14 00:16	3°♄33'55	18°13'32	morning set	3587 Nov 14 13:23	13°♄14'10	
	3586 Dec 01 21:21	0°♄			3587 Nov 24 12:13	0°♄	
morning set	3586 Dec 02 17:37	1°♄22'42					
desc. node	3586 Dec 11 09:04	15°♄21'45		superior conj	3587 Nov 27 11:29	4°♄51'41	0°05'22
				minimum elong	3587 Nov 27 12:05	4°♄54'09	0°05'16
superior conj	3586 Dec 17 16:38	25°♄23'40	0°-42'-8	behind sun begin	3587 Nov 27 02:33	4°♄15'21	
minimum elong	3586 Dec 17 11:18	25°♄02'36	0°41'26	behind sun end	3587 Nov 27 21:37	5°♄32'52	
max. Earth dist.	3586 Dec 20 03:14	29°♄14'17	1.45180 AU	desc. node	3587 Nov 28 06:07	6°♄07'21	
	3586 Dec 20 14:52	0°♄		max. Earth dist.	3587 Dec 02 21:42	13°♄34'52	1.44512 AU
evening rise	3587 Jan 03 01:15	20°♄58'53			3587 Dec 13 10:03	0°♄	
	3587 Jan 08 20:19	0°♄		evening rise	3587 Dec 13 12:43	0°♄10'14	
greatest brilliancy	3587 Jan 18 15:48	14°♄55'16	-0.7m		3588 Jan 02 15:16	0°♄	
evening max el	3587 Jan 27 02:43	25°♄49'43	19°26'56	greatest brilliancy	3588 Jan 04 03:27	2°♄02'18	-0.5m
asc. node	3587 Jan 31 01:28	29°♄01'35		evening max el	3588 Jan 10 05:31	9°♄21'01	20°25'55
retrograde	3587 Feb 03 07:18	29°♄57'50		asc. node	3588 Jan 17 22:29	14°♄02'55	
evening set	3587 Feb 06 17:59	28°♄48'19		retrograde	3588 Jan 18 05:25	14°♄03'22	
inferior conj	3587 Feb 12 07:07	22°♄51'54	3°16'08	evening set	3588 Jan 22 00:42	12°♄39'42	
minimum elong	3587 Feb 12 05:01	22°♄58'44	3°15'46	inferior conj	3588 Jan 27 11:04	6°♄30'14	2°47'51
min. Earth dist.	3587 Feb 13 12:54	21°♄14'49	0.66489 AU	minimum elong	3588 Jan 27 08:35	6°♄38'44	2°47'12
morning rise	3587 Feb 17 15:18	16°♄36'47		min. Earth dist.	3588 Jan 28 03:20	5°♄34'52	0.67370 AU
direct	3587 Feb 23 19:47	13°♄52'49		morning rise	3588 Feb 01 15:57	0°♄14'29	
morning max el	3587 Mar 08 06:35	21°♄17'06	25°54'50		3588 Feb 01 22:33	30°♄	
desc. node	3587 Mar 09 08:16	22°♄23'26		direct	3588 Feb 07 06:34	27°♄45'45	
	3587 Mar 15 20:15	0°♄			3588 Feb 13 07:57	0°♄	
	3587 Apr 05 01:25	0°♄		morning max el	3588 Feb 18 15:13	4°♄32'59	24°31'47
morning set	3587 Apr 13 10:39	14°♄44'35		desc. node	3588 Feb 24 05:19	10°♄49'24	
max. Earth dist.	3587 Apr 17 08:21	22°♄05'46	1.35576 AU		3588 Mar 09 04:48	0°♄	
	3587 Apr 21 09:02	0°♄		morning set	3588 Mar 25 13:25	26°♄31'34	
					3588 Mar 27 12:31	0°♄	
superior conj	3587 Apr 22 17:41	2°♄44'08	-1°-1'-37	max. Earth dist.	3588 Mar 29 06:09	3°♄07'40	1.37523 AU
minimum elong	3587 Apr 22 20:56	3°♄00'36	1°01'03				
asc. node	3587 Apr 29 00:45	15°♄39'05		superior conj	3588 Apr 05 01:21	15°♄53'53	-1°-28'-48
evening rise	3587 Apr 30 16:21	19°♄02'26		minimum elong	3588 Apr 05 05:47	16°♄15'20	1°28'12
	3587 May 06 05:21	0°♄			3588 Apr 12 04:42	0°♄	
evening max el	3587 May 18 17:30	18°♄22'42	20°15'16	evening rise	3588 Apr 13 17:29	3°♄03'11	
retrograde	3587 May 29 10:09	23°♄35'22		asc. node	3588 Apr 14 21:47	5°♄23'18	
evening set	3587 May 31 09:56	23°♄25'17			3588 Apr 30 07:08	0°♄	
desc. node	3587 Jun 05 07:27	21°♄45'53		evening max el	3588 Apr 30 10:37	0°♄08'33	19°13'35
inferior conj	3587 Jun 09 12:20	19°♄26'46	-1°-14'-28	retrograde	3588 May 09 10:52	4°♄31'29	
minimum elong	3587 Jun 09 08:50	19°♄31'56	1°13'11	evening set	3588 May 11 11:28	4°♄19'08	
min. Earth dist.	3587 Jun 11 02:47	18°♄30'08	0.55107 AU	inferior conj	3588 May 19 21:00	0°♄09'06	0°40'07
morning rise	3587 Jun 18 05:42	15°♄11'53		minimum elong	3588 May 19 22:38	0°♄06'22	0°39'32
direct	3587 Jun 22 05:23	14°♄37'29			3588 May 20 02:25	30°♄	
morning max el	3587 Jul 05 18:54	21°♄14'43	23°43'41	desc. node	3588 May 22 04:29	28°♄36'03	
	3587 Jul 13 08:09	0°♄		min. Earth dist.	3588 May 22 17:45	28°♄14'22	0.56247 AU
asc. node	3587 Jul 26 00:00	21°♄27'12		morning rise	3588 May 28 05:36	25°♄19'42	
morning set	3587 Jul 29 18:17	29°♄10'53		direct	3588 Jun 02 03:59	24°♄23'25	
	3587 Jul 30 03:35	0°♄			3588 Jun 14 13:25	0°♄	
				morning max el	3588 Jun 16 09:05	1°♄39'07	25°23'40
superior conj	3587 Aug 05 19:28	14°♄21'30	1°32'09		3588 Jul 06 04:55	0°♄	
minimum elong	3587 Aug 05 17:26	14°♄10'31	1°31'57	asc. node	3588 Jul 11 21:02	11°♄12'24	
max. Earth dist.	3587 Aug 08 02:03	19°♄14'00	1.33340 AU	morning set	3588 Jul 13 05:57	14°♄04'51	
evening rise	3587 Aug 13 08:11	0°♄06'55					
	3587 Aug 13 06:48	0°♄		superior conj	3588 Jul 20 05:43	29°♄15'40	1°17'49
	3587 Aug 30 06:39	0°♄		minimum elong	3588 Jul 20 03:22	29°♄02'48	1°17'29
desc. node	3587 Sep 01 06:49	2°♄59'56			3588 Jul 20 13:48	0°♄	
evening max el	3587 Sep 16 03:36	21°♄15'50	27°24'03	max. Earth dist.	3588 Jul 21 08:49	1°♄43'56	1.32519 AU
retrograde	3587 Sep 29 17:13	28°♄33'42		evening rise	3588 Jul 27 08:54	14°♄31'57	
evening set	3587 Oct 06 19:38	25°♄54'23			3588 Aug 04 07:54	0°♄	
min. Earth dist.	3587 Oct 10 13:00	22°♄33'51	0.64054 AU	desc. node	3588 Aug 18 03:48	22°♄00'22	
inferior conj	3587 Oct 13 00:21	19°♄59'09	-2°-52'-57		3588 Aug 24 13:58	0°♄	
minimum elong	3587 Oct 13 05:07	19°♄46'41	2°51'17	evening max el	3588 Aug 28 12:12	4°♄04'03	27°20'30
morning rise	3587 Oct 19 16:55	14°♄35'29		retrograde	3588 Sep 11 07:34	11°♄19'20	

evening set	3588 Sep 18 11:56	8°♄52'59		retrograde	3589 Aug 24 14:01	23°♄21'37	
min. Earth dist.	3588 Sep 22 02:23	6°♄00'46	0.62256 AU	evening set	3589 Aug 31 10:32	21°♄21'23	
inferior conj	3588 Sep 25 01:05	3°♄16'27	-3°-50'-21	min. Earth dist.	3589 Sep 04 05:23	18°♄44'59	0.60239 AU
minimum elong	3588 Sep 25 06:52	3°♄02'58	3°48'46	inferior conj	3589 Sep 07 11:17	16°♄06'23	-4°-38'-10
	3588 Sep 28 21:08	30°♄		minimum elong	3589 Sep 07 16:29	15°♄55'45	4°37'16
morning rise	3588 Oct 02 04:43	28°♄11'47		morning rise	3589 Sep 15 01:44	11°♄23'32	
direct	3588 Oct 04 12:44	27°♄47'43		direct	3589 Sep 17 09:48	11°♄02'59	
asc. node	3588 Oct 07 20:15	28°♄37'46		asc. node	3589 Sep 24 17:17	14°♄34'24	
	3588 Oct 09 22:36	0°♄		morning max el	3589 Sep 24 20:40	14°♄42'29	18°09'18
morning max el	3588 Oct 11 08:35	1°♄15'56	17°51'58		3589 Oct 05 08:59	0°♄	
morning set	3588 Oct 27 06:38	26°♄06'49		morning set	3589 Oct 10 15:22	9°♄43'35	
	3588 Oct 29 10:37	0°♄					
superior conj	3588 Nov 07 08:24	15°♄36'29	0°46'01	superior conj	3589 Oct 20 06:46	27°♄35'19	1°15'45
minimum elong	3588 Nov 07 12:14	15°♄52'52	0°45'30	minimum elong	3589 Oct 20 10:50	27°♄53'36	1°15'18
desc. node	3588 Nov 14 03:09	26°♄54'57			3589 Oct 21 15:06	0°♄	
max. Earth dist.	3588 Nov 14 12:20	27°♄32'19	1.43195 AU	max. Earth dist.	3589 Oct 27 21:59	10°♄53'49	1.41401 AU
	3588 Nov 16 00:48	0°♄		desc. node	3589 Nov 01 00:08	17°♄41'01	
evening rise	3588 Nov 21 23:59	9°♄27'13		evening rise	3589 Nov 02 02:28	19°♄27'57	
	3588 Dec 05 14:57	0°♄			3589 Nov 08 18:45	0°♄	
greatest brilliancy	3588 Dec 18 06:00	17°♄20'18	-0.4m	greatest brilliancy	3589 Nov 30 01:31	0°♄	
evening max el	3588 Dec 23 02:49	22°♄53'58	21°36'50	evening max el	3589 Nov 30 11:58	0°♄31'57	-0.2m
retrograde	3589 Jan 01 02:51	28°♄15'01		retrograde	3589 Dec 05 19:21	6°♄29'15	22°55'06
asc. node	3589 Jan 03 19:29	27°♄35'34		retrograde	3589 Dec 15 21:52	12°♄28'54	
evening set	3589 Jan 05 08:29	26°♄36'00		evening set	3589 Dec 20 15:40	10°♄33'32	
inferior conj	3589 Jan 10 17:55	20°♄16'51	2°10'56	asc. node	3589 Dec 21 16:32	9°♄36'49	
minimum elong	3589 Jan 10 15:31	20°♄25'10	2°10'08	inferior conj	3589 Dec 26 01:41	4°♄08'29	1°26'47
min. Earth dist.	3589 Jan 10 22:05	20°♄02'23	0.67853 AU	minimum elong	3589 Dec 25 23:51	4°♄14'50	1°26'04
morning rise	3589 Jan 15 22:16	14°♄02'28		min. Earth dist.	3589 Dec 25 18:43	4°♄32'31	0.67968 AU
direct	3589 Jan 20 22:02	11°♄54'29			3589 Dec 29 06:13	30°♄	
morning max el	3589 Jan 31 00:31	17°♄54'18	23°02'49	morning rise	3589 Dec 31 07:59	27°♄57'28	
greatest brilliancy	3589 Feb 04 21:01	23°♄19'51	-0.3m	direct	3590 Jan 04 17:05	26°♄12'24	
desc. node	3589 Feb 10 02:22	0°♄00'43			3590 Jan 12 03:10	0°♄	
	3589 Feb 10 02:10	0°♄		morning max el	3590 Jan 13 14:00	1°♄23'12	21°37'05
	3589 Mar 02 07:25	0°♄		greatest brilliancy	3590 Jan 18 11:22	6°♄55'17	-0.4m
morning set	3589 Mar 06 14:55	7°♄03'28		desc. node	3590 Jan 27 23:24	19°♄44'04	
max. Earth dist.	3589 Mar 11 00:59	14°♄32'54	1.39689 AU		3590 Feb 03 23:27	0°♄	
				morning set	3590 Feb 14 11:22	16°♄12'23	
superior conj	3589 Mar 18 18:04	28°♄17'47	-1°-51'-20	max. Earth dist.	3590 Feb 21 00:39	26°♄50'12	1.41799 AU
minimum elong	3589 Mar 18 22:31	28°♄38'18	1°50'58		3590 Feb 22 22:14	0°♄	
	3589 Mar 19 16:13	0°♄		superior conj	3590 Feb 28 14:47	9°♄43'25	-2°-5'-7
evening rise	3589 Mar 28 09:52	16°♄33'54		minimum elong	3590 Feb 28 17:00	9°♄53'05	2°05'05
asc. node	3589 Apr 01 18:48	24°♄49'59		evening rise	3590 Mar 11 13:50	29°♄25'30	
	3589 Apr 04 15:44	0°♄			3590 Mar 11 21:22	0°♄	
evening max el	3589 Apr 13 13:33	12°♄31'55	18°32'03	asc. node	3590 Mar 19 15:50	13°♄52'31	
retrograde	3589 Apr 21 05:44	16°♄18'29		evening max el	3590 Mar 27 22:48	25°♄23'10	18°10'28
evening set	3589 Apr 23 12:14	15°♄59'43		retrograde	3590 Apr 03 18:51	28°♄50'12	
inferior conj	3589 May 01 02:22	11°♄30'30	2°08'26	evening set	3590 Apr 06 07:32	28°♄22'27	
minimum elong	3589 May 01 06:05	11°♄23'13	2°07'22	inferior conj	3590 Apr 13 04:35	23°♄31'44	3°04'15
min. Earth dist.	3589 May 04 12:19	8°♄51'05	0.58071 AU	minimum elong	3590 Apr 13 07:40	23°♄24'41	3°03'40
morning rise	3589 May 08 19:32	6°♄08'00		min. Earth dist.	3590 Apr 16 12:34	20°♄30'30	0.60223 AU
desc. node	3589 May 09 01:30	6°♄00'47		morning rise	3590 Apr 20 04:19	17°♄45'02	
direct	3589 May 14 17:07	4°♄39'09		desc. node	3590 Apr 25 22:33	15°♄43'10	
morning max el	3589 May 29 02:19	12°♄18'38	26°45'43	direct	3590 Apr 26 18:23	15°♄41'15	
	3589 Jun 11 22:43	0°♄		morning max el	3590 May 11 01:38	23°♄33'26	27°37'01
morning set	3589 Jun 27 16:06	28°♄52'46			3590 May 16 20:22	0°♄	
	3589 Jun 28 04:51	0°♄			3590 Jun 05 03:00	0°♄	
asc. node	3589 Jun 28 18:05	1°♄10'15		morning set	3590 Jun 11 23:01	13°♄28'36	
				asc. node	3590 Jun 15 15:07	21°♄15'20	
superior conj	3589 Jul 04 17:25	14°♄11'42	0°59'10	max. Earth dist.	3590 Jun 18 07:22	27°♄05'16	1.32097 AU
minimum elong	3589 Jul 04 15:14	13°♄59'40	0°58'46				
max. Earth dist.	3589 Jul 04 19:48	14°♄24'51	1.32108 AU	superior conj	3590 Jun 19 04:50	29°♄03'18	0°36'48
evening rise	3589 Jul 11 15:29	29°♄12'42		minimum elong	3590 Jun 19 03:17	28°♄54'42	0°36'29
	3589 Jul 12 00:30	0°♄			3590 Jun 19 15:09	0°♄	
	3589 Jul 28 14:23	0°♄		evening rise	3590 Jun 26 01:39	14°♄01'16	
desc. node	3589 Aug 05 00:47	10°♄06'30			3590 Jul 04 02:04	0°♄	
evening max el	3589 Aug 10 15:23	16°♄10'30	26°43'42	desc. node	3590 Jul 22 21:47	26°♄56'08	

evening max el	3590 Jul 23 11:17	27°02'51"	25°35'40"	behind sun end	3591 Jun 03 17:24	14°02'01"	
	3590 Jul 26 08:33	0°00'		evening rise	3591 Jun 10 13:25	28°05'10"	
retrograde	3590 Aug 06 10:47	4°00'35"	26°00'00"		3591 Jun 11 02:25	0°00'	
evening set	3590 Aug 12 10:39	3°00'11"			3591 Jun 28 01:51	0°00'	
min. Earth dist.	3590 Aug 16 23:19	0°00'33"	0.58185 AU	evening max el	3591 Jul 05 01:06	8°00'06"	24°05'36"
	3590 Aug 17 18:38	30°00'00"		desc. node	3591 Jul 09 18:50	11°00'58"	
inferior conj	3590 Aug 20 03:26	28°00'19"	-5°-6'00"	retrograde	3591 Jul 18 19:59	15°00'03"	
minimum elong	3590 Aug 20 05:20	28°00'15"	5°05'54"	evening set	3591 Jul 23 10:52	14°00'15"	
morning rise	3590 Aug 28 03:30	23°00'59"	36°00'00"	min. Earth dist.	3591 Jul 29 11:37	11°00'18"	0.56384 AU
direct	3590 Aug 30 15:01	23°00'40"	20°00'00"	inferior conj	3591 Jul 31 23:17	9°00'46"	-4°-59'-4"
morning max el	3590 Sep 08 01:43	27°00'41"	06°00'00"	minimum elong	3591 Jul 31 19:25	9°00'52"	10°00'43"
	3590 Sep 10 05:59	0°00'		morning rise	3591 Aug 09 07:27	5°00'47"	
asc. node	3590 Sep 11 14:21	1°00'40"	23°00'00"	direct	3591 Aug 12 00:49	5°00'27"	
morning set	3590 Sep 24 11:03	23°00'52"	01°00'00"	morning max el	3591 Aug 21 20:44	10°00'01"	51°00'19"
	3590 Sep 27 14:11	0°00'		asc. node	3591 Aug 29 11:25	19°00'40"	
					3591 Sep 04 08:26	0°00'	
superior conj	3590 Oct 03 01:41	10°00'34"	56°00'00"	morning set	3591 Sep 08 14:08	8°00'21"	
minimum elong	3590 Oct 03 04:25	10°00'47"	52°00'00"				
max. Earth dist.	3590 Oct 10 03:39	23°00'34"	26°00'00"	superior conj	3591 Sep 16 11:40	24°00'19"	05°00'16"
	3590 Oct 13 20:23	0°00'		minimum elong	3591 Sep 16 12:40	24°00'24"	02°00'14"
evening rise	3590 Oct 14 03:54	0°00'32"	03°00'00"		3591 Sep 19 09:14	0°00'	
desc. node	3590 Oct 18 21:08	8°00'22"	18°00'00"	max. Earth dist.	3591 Sep 22 08:28	5°00'39"	04°00'13
	3590 Nov 02 03:31	0°00'		evening rise	3591 Sep 26 04:02	12°00'38"	40°00'00"
evening max el	3590 Nov 18 08:50	20°00'08"	24°00'14"	desc. node	3591 Oct 05 18:09	28°00'54"	04°00'00"
retrograde	3590 Nov 29 13:23	26°00'41"	55°00'00"		3591 Oct 06 10:41	0°00'	
evening set	3590 Dec 04 20:44	24°00'30"	08°00'00"		3591 Oct 28 05:37	0°00'	
asc. node	3590 Dec 08 13:35	20°00'26"	28°00'00"	evening max el	3591 Oct 31 21:03	3°00'49"	47°00'25
min. Earth dist.	3590 Dec 09 14:54	19°00'02"	51°00'00"	retrograde	3591 Nov 13 00:31	10°00'48"	45°00'00"
inferior conj	3590 Dec 10 08:38	18°00'03"	10°00'36"	evening set	3591 Nov 18 21:58	8°00'22"	11°00'00"
minimum elong	3590 Dec 10 07:46	18°00'06"	06°00'36"	min. Earth dist.	3591 Nov 23 08:18	3°00'29"	53°00'67
morning rise	3590 Dec 15 19:07	11°00'57"	44°00'00"	inferior conj	3591 Nov 24 12:57	1°00'57"	47°00'-18-36"
direct	3590 Dec 19 14:38	10°00'34"	53°00'00"	minimum elong	3591 Nov 24 13:25	1°00'56"	14°00'18
morning max el	3590 Dec 27 10:50	15°00'03"	57°00'12"	asc. node	3591 Nov 25 10:38	0°00'48"	35°00'00"
greatest brilliancy	3591 Jan 02 20:28	22°00'39"	43°00'-0.5m		3591 Nov 26 02:19	30°00'00"	
	3591 Jan 08 03:37	0°00'		morning rise	3591 Nov 30 05:41	26°00'00"	14°00'00"
desc. node	3591 Jan 14 20:26	9°00'50"	45°00'00"	direct	3591 Dec 03 13:13	24°00'56"	57°00'00"
morning set	3591 Jan 24 10:16	24°00'25"	55°00'00"	morning max el	3591 Dec 10 15:37	28°00'55"	20°00'19
	3591 Jan 28 00:07	0°00'			3591 Dec 11 16:21	0°00'	
max. Earth dist.	3591 Feb 03 08:27	10°00'04"	04°00'14	greatest brilliancy	3591 Dec 20 01:49	11°00'00"	57°00'-0.7m
				desc. node	3592 Jan 01 17:27	0°00'13"	50°00'00"
superior conj	3591 Feb 09 10:48	20°00'00"	37°00'-2°-4'-56"		3592 Jan 01 13:53	0°00'	
minimum elong	3591 Feb 09 07:54	19°00'48"	39°00'2°04'52"	morning set	3592 Jan 03 10:08	2°00'51"	23°00'
	3591 Feb 15 09:30	0°00'		max. Earth dist.	3592 Jan 16 22:37	23°00'58"	32°00'14
evening rise	3591 Feb 22 01:11	11°00'29"	44°00'00"				
	3591 Mar 04 22:54	0°00'		superior conj	3592 Jan 20 05:23	29°00'10"	39°00'-1°-46'-8"
asc. node	3591 Mar 06 12:53	2°00'23"	25°00'00"	minimum elong	3592 Jan 19 21:06	28°00'37"	43°00'1°45'29"
evening max el	3591 Mar 11 11:08	8°00'33"	41°00'18°08'20"		3592 Jan 20 17:47	0°00'	
retrograde	3591 Mar 17 22:18	11°00'56"	40°00'00"	evening rise	3592 Feb 03 15:37	22°00'38"	36°00'00"
evening set	3591 Mar 20 16:33	11°00'18"	34°00'00"		3592 Feb 08 01:52	0°00'	
inferior conj	3591 Mar 27 00:21	6°00'07"	05°00'3°31'52"	asc. node	3592 Feb 21 09:56	20°00'12"	47°00'00"
minimum elong	3591 Mar 27 01:43	6°00'03"	31°00'3°31'45"	evening max el	3592 Feb 22 23:34	21°00'55"	52°00'18°25'06"
min. Earth dist.	3591 Mar 29 21:08	3°00'08"	38°00'062364 AU	retrograde	3592 Feb 29 11:24	25°00'27"	57°00'00"
morning rise	3591 Apr 02 08:27	0°00'05"	15°00'00"	evening set	3592 Mar 03 11:17	24°00'38"	35°00'00"
	3591 Apr 02 11:20	30°00'00"		inferior conj	3592 Mar 09 09:29	19°00'08"	08°00'3°37'54"
direct	3591 Apr 09 05:28	27°00'33"	24°00'00"	minimum elong	3592 Mar 09 09:08	19°00'09"	09°00'3°37'53"
desc. node	3591 Apr 12 19:37	28°00'10"	38°00'00"	min. Earth dist.	3592 Mar 11 15:19	16°00'32"	18°00'64259 AU
	3591 Apr 16 13:54	0°00'		morning rise	3592 Mar 15 05:24	12°00'58"	01°00'00"
morning max el	3591 Apr 23 07:05	5°00'31"	15°00'27°51'09"	direct	3592 Mar 22 00:49	10°00'10"	36°00'00"
	3591 May 11 17:35	0°00'		desc. node	3592 Mar 29 16:40	12°00'59"	53°00'00"
morning set	3591 May 27 00:39	27°00'46"	08°00'00"	morning max el	3592 Apr 04 16:16	18°00'05"	54°00'27°28'51"
	3591 May 28 02:53	0°00'			3592 Apr 14 16:16	0°00'	
max. Earth dist.	3591 Jun 01 15:36	9°00'32"	33°00'132497 AU		3592 May 03 14:46	0°00'	
asc. node	3591 Jun 02 12:10	11°00'23"	28°00'00"	morning set	3592 May 09 18:27	11°00'37"	32°00'00"
				max. Earth dist.	3592 May 14 16:24	21°00'34"	15°00'133328 AU
superior conj	3591 Jun 03 14:16	13°00'44"	56°00'11°12'24"				
minimum elong	3591 Jun 03 13:43	13°00'42"	00°00'11°11'17"	superior conj	3592 May 17 19:48	28°00'10"	59°00'-16'-15"
behind sun begin	3591 Jun 03 10:03	13°00'22"	01°00'16°06'00"	minimum elong	3592 May 17 20:37	28°00'15"	22°00'00'

	3592 May 18 16:14	0°♊		asc. node	3593 May 06 06:15	21°♊32'34	
asc. node	3592 May 19 09:13	1°♊30'51		evening rise	3593 May 09 10:07	28°♊08'55	
evening rise	3592 May 25 00:54	13°♊36'04			3593 May 10 07:38	0°♊	
	3592 Jun 02 08:41	0°♊		evening max el	3593 May 28 13:50	29°♊16'16	20°59'31
evening max el	3592 Jun 15 15:21	18°♊31'48	22°28'46		3593 May 29 08:22	0°♊	
desc. node	3592 Jun 25 15:52	24°♊40'13		retrograde	3593 Jun 09 06:13	4°♊59'13	
retrograde	3592 Jun 28 17:13	25°♊01'43		evening set	3593 Jun 11 10:49	4°♊47'55	
evening set	3592 Jul 01 20:26	24°♊40'03		desc. node	3593 Jun 12 12:55	4°♊34'20	
min. Earth dist.	3592 Jul 09 22:33	21°♊08'38	0.55181 AU	inferior conj	3593 Jun 20 18:42	0°♊50'29	-2°-23'-18
inferior conj	3592 Jul 11 01:15	20°♊30'45	-4°-4'-1	minimum elong	3593 Jun 20 12:07	0°♊59'47	2°21'03
minimum elong	3592 Jul 10 17:03	20°♊42'24	4°02'05	min. Earth dist.	3593 Jun 21 10:16	0°♊28'28	0.54857 AU
morning rise	3592 Jul 19 16:00	16°♊40'20			3593 Jun 22 06:31	30°♊	
direct	3592 Jul 22 17:07	16°♊19'14		morning rise	3593 Jun 29 12:57	26°♊49'47	
morning max el	3592 Aug 03 04:08	21°♊39'00	21°07'29	direct	3593 Jul 03 02:33	26°♊22'21	
	3592 Aug 10 04:22	0°♊			3593 Jul 12 23:04	0°♊	
asc. node	3592 Aug 15 08:28	8°♊21'44		morning max el	3593 Jul 16 00:49	2°♊33'08	22°44'16
morning set	3592 Aug 22 22:04	23°♊05'16		asc. node	3593 Aug 02 05:30	27°♊33'57	
	3592 Aug 26 05:35	0°♊			3593 Aug 03 11:26	0°♊	
				morning set	3593 Aug 07 08:45	7°♊56'49	
superior conj	3592 Aug 30 08:20	8°♊34'58	1°44'03				
minimum elong	3592 Aug 30 07:48	8°♊32'12	1°44'02	superior conj	3593 Aug 14 12:13	23°♊11'39	1°38'08
max. Earth dist.	3592 Sep 03 17:53	17°♊29'38	1.35464 AU	minimum elong	3593 Aug 14 10:35	23°♊02'59	1°38'01
evening rise	3592 Sep 07 23:07	25°♊38'58		max. Earth dist.	3593 Aug 17 12:03	29°♊30'04	1.33999 AU
	3592 Sep 10 07:24	0°♊			3593 Aug 17 17:49	0°♊	
desc. node	3592 Sep 21 15:10	19°♊11'01		evening rise	3593 Aug 22 08:41	9°♊20'39	
	3592 Sep 28 21:55	0°♊			3593 Sep 02 18:21	0°♊	
evening max el	3592 Oct 13 09:23	17°♊29'43	26°30'49	desc. node	3593 Sep 08 12:12	9°♊06'06	
retrograde	3592 Oct 26 06:40	24°♊43'18			3593 Sep 24 21:18	0°♊	
evening set	3592 Nov 01 17:28	22°♊06'04		evening max el	3593 Sep 25 21:51	0°♊59'56	27°12'17
min. Earth dist.	3592 Nov 05 20:37	17°♊49'47	0.66219 AU	retrograde	3593 Oct 09 07:05	8°♊17'59	
inferior conj	3592 Nov 07 12:42	15°♊49'03	-1°-17'-27	evening set	3593 Oct 16 04:54	5°♊37'01	
minimum elong	3592 Nov 07 14:49	15°♊42'41	1°16'34	min. Earth dist.	3593 Oct 20 01:33	1°♊56'37	0.64937 AU
asc. node	3592 Nov 11 07:42	11°♊40'14			3593 Oct 21 19:47	30°♊	
morning rise	3592 Nov 13 13:31	10°♊02'03		inferior conj	3593 Oct 22 05:41	29°♊32'27	-2°-18'-11
direct	3592 Nov 16 11:13	9°♊14'34		minimum elong	3593 Oct 22 09:33	29°♊21'46	2°16'43
morning max el	3592 Nov 23 02:53	12°♊53'04	18°32'38	morning rise	3593 Oct 28 16:07	23°♊59'02	
	3592 Dec 05 12:11	0°♊		asc. node	3593 Oct 29 04:43	23°♊46'10	
morning set	3592 Dec 13 09:04	12°♊30'04		direct	3593 Oct 31 06:25	23°♊23'23	
desc. node	3592 Dec 18 14:28	20°♊48'34		morning max el	3593 Nov 06 18:11	26°♊51'19	18°02'57
	3592 Dec 24 10:10	0°♊			3593 Nov 09 12:12	0°♊	
				morning set	3593 Nov 24 13:35	23°♊37'10	
superior conj	3592 Dec 29 08:26	7°♊44'25	-1°-8'-54		3593 Nov 28 09:57	0°♊	
minimum elong	3592 Dec 29 00:12	7°♊12'07	1°07'56	desc. node	3593 Dec 05 11:30	11°♊31'08	
max. Earth dist.	3592 Dec 29 16:33	8°♊16'14	1.45232 AU				
	3593 Jan 12 11:48	0°♊		superior conj	3593 Dec 08 16:03	16°♊37'47	0°-21'-40
evening rise	3593 Jan 14 06:42	2°♊50'09		minimum elong	3593 Dec 08 13:21	16°♊27'02	0°21'19
	3593 Jan 31 22:14	0°♊		max. Earth dist.	3593 Dec 12 11:47	22°♊41'18	1.44980 AU
evening max el	3593 Feb 05 09:41	5°♊24'08	18°59'39		3593 Dec 17 03:40	0°♊	
asc. node	3593 Feb 07 06:58	7°♊08'11		evening rise	3593 Dec 25 01:24	12°♊16'03	
retrograde	3593 Feb 12 06:10	9°♊16'22			3594 Jan 05 15:27	0°♊	
evening set	3593 Feb 15 12:30	8°♊14'40		greatest brilliancy	3594 Jan 12 09:50	9°♊53'41	-0.6m
inferior conj	3593 Feb 21 04:14	2°♊27'16	3°27'45	evening max el	3594 Jan 19 15:38	18°♊55'41	19°50'24
minimum elong	3593 Feb 21 02:37	2°♊32'22	3°27'33	asc. node	3594 Jan 25 04:00	22°♊55'49	
min. Earth dist.	3593 Feb 22 18:37	0°♊26'36	0.65794 AU	retrograde	3594 Jan 27 03:41	23°♊17'13	
	3593 Feb 23 03:15	30°♊		evening set	3594 Jan 30 17:50	22°♊01'56	
morning rise	3593 Feb 26 15:42	26°♊13'09		inferior conj	3594 Feb 05 05:34	15°♊59'53	3°05'18
direct	3593 Mar 05 03:00	23°♊24'07		minimum elong	3594 Feb 05 03:14	16°♊07'38	3°04'48
desc. node	3593 Mar 16 13:42	29°♊35'26		min. Earth dist.	3594 Feb 06 05:29	14°♊40'17	0.66918 AU
	3593 Mar 17 00:04	0°♊		morning rise	3594 Feb 10 12:00	9°♊44'21	
morning max el	3593 Mar 18 02:09	1°♊04'14	26°35'45	direct	3594 Feb 16 10:58	7°♊05'40	
	3593 Apr 08 17:22	0°♊		morning max el	3594 Feb 28 11:05	14°♊15'33	25°20'47
morning set	3593 Apr 23 00:51	24°♊51'12		desc. node	3594 Mar 03 10:43	17°♊27'49	
	3593 Apr 25 17:10	0°♊			3594 Mar 13 07:16	0°♊	
max. Earth dist.	3593 Apr 27 06:15	3°♊02'16	1.34623 AU		3594 Apr 01 13:01	0°♊	
				morning set	3594 Apr 05 15:20	7°♊14'13	
superior conj	3593 May 01 19:07	12°♊13'41	0°-45'-5	max. Earth dist.	3594 Apr 09 08:46	14°♊06'01	1.36369 AU
minimum elong	3593 May 01 21:30	12°♊25'58	0°44'39				

superior conj	3594 Apr 15 09:31	25° Υ 45'43	-1°-13'-30	superior conj	3595 Mar 29 11:24	8° Υ 37'23	-1°-39'-8
minimum elong	3594 Apr 15 13:21	26° Υ 04'46	1°12'53	minimum elong	3595 Mar 29 16:03	8° Υ 59'24	1°38'36
	3594 Apr 17 12:22	0° B		evening rise	3595 Apr 07 12:44	26° Υ 12'38	
asc. node	3594 Apr 23 03:16	11° B 24'37			3595 Apr 09 11:26	0° B	
evening rise	3594 Apr 23 14:55	12° B 23'34		asc. node	3595 Apr 10 00:19	1° B 02'06	
	3594 May 02 23:48	0° II		evening max el	3595 Apr 23 21:54	22° B 41'04	18°53'20
evening max el	3594 May 11 00:16	10° II 38'41	19°46'33	retrograde	3595 May 02 07:00	26° B 46'38	
retrograde	3594 May 20 22:48	15° II 28'23		evening set	3595 May 04 10:00	26° B 31'52	
evening set	3594 May 22 22:03	15° II 17'52		inferior conj	3595 May 12 11:09	22° B 13'47	1°21'35
desc. node	3594 May 30 09:56	12° II 05'11		minimum elong	3595 May 12 14:05	22° B 08'32	1°20'36
inferior conj	3594 May 31 18:06	11° II 16'00	0°-23'-43	min. Earth dist.	3595 May 15 15:28	19° B 58'03	0.56965 AU
minimum elong	3594 May 31 17:02	11° II 17'40	0°23'20	desc. node	3595 May 17 06:56	18° B 53'31	
min. Earth dist.	3594 Jun 02 23:29	9° II 53'45	0.55500 AU	morning rise	3595 May 20 13:47	17° B 09'45	
morning rise	3594 Jun 09 08:50	6° II 47'25		direct	3595 May 25 22:25	16° B 00'50	
direct	3594 Jun 13 18:00	6° II 04'58		morning max el	3595 Jun 09 06:13	23° B 27'23	26°01'44
morning max el	3594 Jun 27 15:19	12° II 59'53	24°27'20		3595 Jun 15 03:40	0° II	
	3594 Jul 10 18:21	0° B			3595 Jul 03 13:30	0° B	
asc. node	3594 Jul 20 02:31	17° B 08'59		asc. node	3595 Jul 06 23:34	7° B 00'26	
morning set	3594 Jul 22 20:31	22° B 51'16		morning set	3595 Jul 07 07:47	7° B 43'44	
	3594 Jul 26 04:24	0° Ω					
superior conj	3594 Jul 29 20:44	8° Ω 01'10	1°26'38	superior conj	3595 Jul 14 07:51	22° B 57'00	1°10'24
minimum elong	3594 Jul 29 18:31	7° Ω 49'03	1°26'22	minimum elong	3595 Jul 14 05:31	22° B 44'09	1°10'01
max. Earth dist.	3594 Jul 31 15:05	11° Ω 50'28	1.32946 AU	max. Earth dist.	3595 Jul 15 00:20	24° B 27'38	1.32298 AU
evening rise	3594 Aug 06 04:49	23° Ω 32'36			3595 Jul 17 13:10	0° Ω	
	3594 Aug 09 10:49	0° B		evening rise	3595 Jul 21 08:23	8° Ω 05'33	
desc. node	3594 Aug 26 09:14	28° B 29'53			3595 Aug 01 21:02	0° B	
	3594 Aug 27 10:47	0° Ω		desc. node	3595 Aug 13 06:14	17° B 09'44	
evening max el	3594 Sep 08 08:42	14° Ω 07'36	27°26'37	evening max el	3595 Aug 21 15:22	26° B 39'34	27°08'55
retrograde	3594 Sep 22 01:00	21° Ω 23'52			3595 Aug 25 14:29	0° Ω	
evening set	3594 Sep 29 05:12	18° Ω 48'52		retrograde	3595 Sep 04 11:54	3° Ω 52'34	
min. Earth dist.	3594 Oct 02 20:58	15° Ω 41'17	0.63320 AU	evening set	3595 Sep 11 14:35	1° Ω 35'38	
inferior conj	3594 Oct 05 13:14	13° Ω 01'20	-3°-18'-4		3595 Sep 13 20:29	30° B	
minimum elong	3594 Oct 05 18:34	12° Ω 48'03	3°16'21	min. Earth dist.	3595 Sep 15 05:39	28° B 52'20	0.61419 AU
morning rise	3594 Oct 12 10:25	7° Ω 45'03		inferior conj	3595 Sep 18 08:16	26° B 08'23	-4°-12'-21
direct	3594 Oct 14 19:59	7° Ω 17'33		minimum elong	3595 Sep 18 14:04	25° B 55'35	4°10'59
asc. node	3594 Oct 16 01:45	7° Ω 25'03		morning rise	3595 Sep 25 16:35	21° B 12'47	
morning max el	3594 Oct 21 10:40	10° Ω 43'07	17°50'46	direct	3595 Sep 28 00:21	20° B 50'25	
	3594 Nov 03 09:24	0° B		asc. node	3595 Oct 02 22:47	22° B 35'19	
morning set	3594 Nov 06 19:17	5° B 56'53		morning max el	3595 Oct 05 01:22	24° B 21'55	17°57'00
					3595 Oct 09 15:28	0° Ω	
superior conj	3594 Nov 18 21:22	26° B 36'19	0°23'49	morning set	3595 Oct 20 19:49	19° Ω 10'24	
minimum elong	3594 Nov 18 23:47	26° B 46'18	0°23'29		3595 Oct 26 18:34	0° B	
	3594 Nov 20 22:49	0° B					
desc. node	3594 Nov 22 08:30	2° B 17'31		superior conj	3595 Oct 31 05:40	7° B 54'18	1°00'02
max. Earth dist.	3594 Nov 25 05:18	6° B 55'13	1.44023 AU	minimum elong	3595 Oct 31 09:54	8° B 12'43	0°59'30
evening rise	3594 Dec 04 10:42	21° B 24'36		max. Earth dist.	3595 Nov 07 18:22	20° B 40'31	1.42478 AU
	3594 Dec 10 01:45	0° B		desc. node	3595 Nov 09 05:32	23° B 04'50	
greatest brilliancy	3594 Dec 28 05:48	26° B 05'31	-0.5m		3595 Nov 13 12:44	0° B	
	3594 Dec 31 10:10	0° \approx		evening rise	3595 Nov 14 02:57	0° B 56'17	
evening max el	3595 Jan 02 16:11	2° \approx 27'50	20°54'54		3595 Dec 03 15:08	0° B	
retrograde	3595 Jan 11 01:38	7° \approx 25'48		greatest brilliancy	3595 Dec 11 17:50	10° B 41'22	-0.3m
asc. node	3595 Jan 12 01:01	7° \approx 20'36		evening max el	3595 Dec 16 11:14	16° B 01'04	22°09'28
evening set	3595 Jan 15 01:13	5° \approx 55'35		retrograde	3595 Dec 25 22:17	21° B 38'51	
inferior conj	3595 Jan 20 10:59	29° B 41'42	2°33'07	asc. node	3595 Dec 29 22:03	20° B 13'37	
minimum elong	3595 Jan 20 08:29	29° B 50'19	2°32'24	evening set	3595 Dec 30 08:58	19° B 52'42	
	3595 Jan 20 05:40	30° B		inferior conj	3596 Jan 04 18:27	13° B 30'22	1°52'59
min. Earth dist.	3595 Jan 20 21:55	29° B 04'07	0.67627 AU	minimum elong	3596 Jan 04 16:15	13° B 38'03	1°52'12
morning rise	3595 Jan 25 15:21	23° B 26'35		min. Earth dist.	3596 Jan 04 17:42	13° B 32'58	0.67946 AU
direct	3595 Jan 30 23:46	21° B 06'15		morning rise	3596 Jan 09 23:22	7° B 17'19	
morning max el	3595 Feb 10 19:34	27° B 33'17	23°54'07	direct	3596 Jan 14 16:44	5° B 19'17	
	3595 Feb 13 02:49	0° \approx		morning max el	3596 Jan 24 06:23	10° B 57'46	22°25'34
desc. node	3595 Feb 18 07:45	6° \approx 14'33		greatest brilliancy	3596 Jan 28 19:48	16° B 03'07	-0.3m
	3595 Mar 06 23:34	0° B		desc. node	3596 Feb 05 04:47	25° B 40'22	
morning set	3595 Mar 18 08:03	18° B 30'41			3596 Feb 08 06:45	0° \approx	
max. Earth dist.	3595 Mar 22 04:39	25° B 14'53	1.38442 AU	morning set	3596 Feb 26 21:19	28° \approx 27'01	
	3595 Mar 24 20:03	0° Υ			3596 Feb 27 20:04	0° B	
				max. Earth dist.	3596 Mar 03 01:16	7° B 01'45	1.40612 AU

superior conj	3596 Mar 10 20:14	20° ✕ 37'39	-1°-58'-32	max. Earth dist.	3597 Feb 13 03:50	19° ≈ 42'01	1.42594 AU
minimum elong	3596 Mar 11 00:06	20° ✕ 54'59	1°58'19		3597 Feb 19 08:34	0° ✕	
	3596 Mar 15 23:10	0° Υ					
evening rise	3596 Mar 21 00:22	9° Υ 28'02		superior conj	3597 Feb 20 06:57	1° ✕ 34'59	-2°-7'-5
asc. node	3596 Mar 26 21:21	20° Υ 19'26		minimum elong	3597 Feb 20 07:18	1° ✕ 36'32	2°07'06
	3596 Apr 01 19:35	0° ♄		evening rise	3597 Mar 03 21:52	22° ✕ 00'44	
evening max el	3596 Apr 06 03:53	5° ♄ 17'06	18°20'23		3597 Mar 08 09:02	0° Υ	
retrograde	3596 Apr 13 10:15	8° ♄ 53'47		asc. node	3597 Mar 13 18:25	9° Υ 09'55	
evening set	3596 Apr 15 19:18	8° ♄ 31'32		evening max el	3597 Mar 20 14:54	18° Υ 18'02	18°07'17
inferior conj	3596 Apr 23 01:45	3° ♄ 53'05	2°35'56	retrograde	3597 Mar 27 06:02	21° Υ 41'42	
minimum elong	3596 Apr 23 05:25	3° ♄ 45'21	2°35'02	evening set	3597 Mar 29 21:02	21° Υ 09'50	
min. Earth dist.	3596 Apr 26 12:17	1° ♄ 01'13	0.58963 AU	inferior conj	3597 Apr 05 12:00	16° Υ 10'27	3°18'58
	3596 Apr 27 20:22	30° ♄		minimum elong	3597 Apr 05 14:25	16° Υ 04'36	3°18'37
morning rise	3596 Apr 30 11:25	28° Υ 18'40		min. Earth dist.	3597 Apr 08 16:08	13° Υ 07'12	0.61145 AU
desc. node	3596 May 03 03:59	27° Υ 08'30		morning rise	3597 Apr 12 04:43	10° Υ 16'08	
direct	3596 May 06 16:50	26° Υ 34'52		direct	3597 Apr 18 22:55	7° Υ 58'46	
	3596 May 15 22:25	0° ♄		desc. node	3597 Apr 20 01:01	8° Υ 02'10	
morning max el	3596 May 21 02:11	4° ♄ 21'17	27°11'56	morning max el	3597 May 03 04:23	15° Υ 55'11	27°47'37
	3596 Jun 08 21:40	0° ♄			3597 May 14 16:56	0° ♄	
morning set	3596 Jun 20 16:50	22° ♄ 27'38			3597 Jun 01 10:42	0° ♄	
asc. node	3596 Jun 22 20:36	27° ♄ 02'00		morning set	3597 Jun 04 21:48	6° ♄ 57'01	
	3596 Jun 24 05:35	0° ♄		asc. node	3597 Jun 09 17:41	17° ♄ 09'16	
				max. Earth dist.	3597 Jun 10 22:34	19° ♄ 46'08	1.32214 AU
superior conj	3596 Jun 27 19:39	7° ♄ 51'59	0°50'07	superior conj	3597 Jun 12 06:30	22° ♄ 40'35	0°26'23
minimum elong	3596 Jun 27 17:41	7° ♄ 41'07	0°49'43	minimum elong	3597 Jun 12 05:19	22° ♄ 34'08	0°26'07
max. Earth dist.	3596 Jun 27 12:05	7° ♄ 10'14	1.32051 AU		3597 Jun 15 14:38	0° ♄	
evening rise	3596 Jul 04 16:45	22° ♄ 50'23		evening rise	3597 Jun 19 03:51	7° ♄ 40'26	
	3596 Jul 08 04:01	0° ♄			3597 Jun 30 18:36	0° ♄	
	3596 Jul 26 04:44	0° ♄					
desc. node	3596 Jul 30 03:15	4° ♄ 46'38		evening max el	3597 Jul 15 08:07	19° ♄ 23'45	24°59'13
evening max el	3596 Aug 02 15:17	8° ♄ 24'44	26°18'07	desc. node	3597 Jul 17 00:16	20° ♄ 55'05	
retrograde	3596 Aug 16 14:41	15° ♄ 34'51		retrograde	3597 Jul 29 07:08	26° ♄ 27'52	
evening set	3596 Aug 23 04:11	13° ♄ 48'44		evening set	3597 Aug 03 17:54	25° ♄ 20'12	
min. Earth dist.	3596 Aug 27 04:20	11° ♄ 14'12	0.59354 AU	min. Earth dist.	3597 Aug 08 19:44	22° ♄ 35'29	0.57370 AU
inferior conj	3596 Aug 30 11:09	8° ♄ 43'16	-4°-53'-13	inferior conj	3597 Aug 11 18:46	20° ♄ 37'11	-5°-8'-14
minimum elong	3596 Aug 30 15:19	8° ♄ 35'13	4°52'42	minimum elong	3597 Aug 11 18:24	20° ♄ 37'49	5°08'16
morning rise	3596 Sep 07 05:57	4° ♄ 10'44		morning rise	3597 Aug 19 22:29	16° ♄ 27'02	
direct	3596 Sep 09 15:02	3° ♄ 51'03		direct	3597 Aug 22 12:01	16° ♄ 08'02	
morning max el	3596 Sep 17 10:57	7° ♄ 38'04	18°22'56	morning max el	3597 Aug 31 12:07	20° ♄ 21'49	19°09'59
asc. node	3596 Sep 18 19:50	9° ♄ 03'13		asc. node	3597 Sep 05 16:53	26° ♄ 33'40	
	3596 Oct 01 19:37	0° ♄			3597 Sep 07 23:16	0° ♄	
morning set	3596 Oct 03 09:41	3° ♄ 01'28		morning set	3597 Sep 17 08:51	17° ♄ 19'24	
					3597 Sep 23 18:06	0° ♄	
superior conj	3596 Oct 12 13:30	20° ♄ 20'58	1°24'56	superior conj	3597 Sep 25 15:25	3° ♄ 40'49	1°39'13
minimum elong	3596 Oct 12 17:07	20° ♄ 37'33	1°24'34	minimum elong	3597 Sep 25 17:25	3° ♄ 50'28	1°39'06
	3596 Oct 17 22:21	0° ♄		max. Earth dist.	3597 Oct 02 05:53	16° ♄ 03'57	1.38461 AU
max. Earth dist.	3596 Oct 20 01:42	3° ♄ 42'56	1.40540 AU	evening rise	3597 Oct 06 02:10	22° ♄ 53'41	
evening rise	3596 Oct 24 14:44	11° ♄ 22'16			3597 Oct 10 06:28	0° ♄	
desc. node	3596 Oct 26 02:33	13° ♄ 49'07		desc. node	3597 Oct 12 23:35	4° ♄ 26'44	
	3596 Nov 05 11:24	0° ♄			3597 Oct 30 08:01	0° ♄	
evening max el	3596 Nov 28 02:03	29° ♄ 36'53	23°29'13	evening max el	3597 Nov 10 14:48	13° ♄ 17'00	24°47'38
	3596 Nov 28 11:23	0° ♄		retrograde	3597 Nov 22 05:55	20° ♄ 02'54	
retrograde	3596 Dec 08 16:06	5° ♄ 52'35		evening set	3597 Nov 27 19:06	17° ♄ 44'46	
evening set	3596 Dec 13 15:29	3° ♄ 50'06		min. Earth dist.	3597 Dec 02 09:55	12° ♄ 31'55	0.67521 AU
asc. node	3596 Dec 15 19:05	1° ♄ 40'27		asc. node	3597 Dec 02 16:09	12° ♄ 11'19	
	3596 Dec 17 03:40	30° ♄		inferior conj	3597 Dec 03 08:10	11° ♄ 18'13	0°13'42
min. Earth dist.	3596 Dec 18 14:31	28° ♄ 03'09	0.67903 AU	minimum elong	3597 Dec 03 07:50	11° ♄ 19'20	0°13'34
inferior conj	3596 Dec 19 02:07	27° ♄ 23'25	1°06'09	transit middle	3597 Dec 03 07:50	11° ♄ 19'20	0°13'34
minimum elong	3596 Dec 19 00:38	27° ♄ 28'29	1°05'34	transit begin	3597 Dec 03 06:19	11° ♄ 24'21	
morning rise	3596 Dec 24 09:55	21° ♄ 14'23		transit end	3597 Dec 03 09:21	11° ♄ 14'20	
direct	3596 Dec 28 12:57	19° ♄ 39'08		morning rise	3597 Dec 08 21:03	5° ♄ 15'33	
morning max el	3597 Jan 05 22:51	24° ♄ 31'35	21°03'19	direct	3597 Dec 12 11:13	4° ♄ 01'21	
	3597 Jan 10 18:18	0° ♄		morning max el	3597 Dec 19 22:59	8° ♄ 16'15	19°52'52
greatest brilliancy	3597 Jan 11 08:51	0° ♄ 45'42	-0.5m	greatest brilliancy	3597 Dec 27 08:41	17° ♄ 18'56	-0.6m
desc. node	3597 Jan 22 01:49	15° ♄ 34'18			3598 Jan 05 02:37	0° ♄	
	3597 Jan 31 16:44	0° ♄		desc. node	3598 Jan 08 22:50	5° ♄ 48'16	
morning set	3597 Feb 05 06:48	7° ♄ 06'37					

morning set	3598 Jan 15 02:40	15°☿14'34		morning rise	3598 Nov 23 06:44	19°♍18'40	
	3598 Jan 24 13:29	0°♊		direct	3598 Nov 26 09:55	18°♍22'24	
max. Earth dist.	3598 Jan 26 14:09	3°♊13'07	1.44135 AU	morning max el	3598 Dec 03 06:43	22°♍10'49	18°57'18
					3598 Dec 09 14:55	0°♊	
superior conj	3598 Jan 31 15:46	11°♊21'58	-1°-59'-25	morning set	3598 Dec 25 10:33	24°♊06'37	
minimum elong	3598 Jan 31 10:17	10°♊59'45	1°59'08	desc. node	3598 Dec 26 19:52	26°♊16'59	
	3598 Feb 11 20:46	0°♋			3598 Dec 29 04:53	0°♊	
evening rise	3598 Feb 14 00:42	3°♋41'16		max. Earth dist.	3599 Jan 09 06:45	17°♊21'21	1.45046 AU
asc. node	3598 Feb 28 15:28	27°♋24'20					
	3598 Mar 02 16:51	0°♌		superior conj	3599 Jan 11 01:46	20°♊10'45	-1°-32'-16
evening max el	3598 Mar 04 03:40	1°♌34'24	18°13'19	minimum elong	3599 Jan 10 16:36	19°♊34'37	1°31'24
retrograde	3598 Mar 10 13:56	4°♌59'26			3599 Jan 17 06:28	0°♊	
evening set	3598 Mar 13 10:37	4°♌16'36		evening rise	3599 Jan 26 05:16	14°♊25'12	
	3598 Mar 18 14:40	30°♌			3599 Feb 04 20:00	0°♋	
inferior conj	3598 Mar 19 13:55	28°♋57'06	3°36'40	evening max el	3599 Feb 15 15:25	14°♋59'30	18°37'42
minimum elong	3598 Mar 19 14:31	28°♋55'27	3°36'39	asc. node	3599 Feb 15 12:30	14°♋52'03	
min. Earth dist.	3598 Mar 22 04:40	26°♋06'10	0.63210 AU	retrograde	3599 Feb 22 05:49	18°♋38'34	
morning rise	3598 Mar 25 16:24	22°♋51'21		evening set	3599 Feb 25 08:26	17°♋43'53	
direct	3598 Apr 01 13:53	20°♋10'55		inferior conj	3599 Mar 03 03:31	12°♋05'50	3°35'18
desc. node	3598 Apr 06 22:03	21°♋33'35		minimum elong	3599 Mar 03 02:34	12°♋08'42	3°35'13
morning max el	3598 Apr 15 11:29	28°♋08'39	27°45'49	min. Earth dist.	3599 Mar 05 02:38	9°♋44'10	0.64965 AU
	3598 Apr 17 06:19	0°♌		morning rise	3599 Mar 08 19:25	5°♋53'51	
	3598 May 08 11:33	0°♍		direct	3599 Mar 15 12:05	3°♋04'21	
morning set	3598 May 19 20:26	21°♍04'07		desc. node	3599 Mar 24 19:05	7°♋11'36	
	3598 May 24 04:42	0°♎		morning max el	3599 Mar 28 21:09	10°♋53'57	27°09'35
max. Earth dist.	3598 May 25 03:57	2°♎02'53	1.32797 AU		3599 Apr 13 00:07	0°♌	
					3599 Apr 30 23:04	0°♍	
superior conj	3598 May 27 14:31	7°♎16'20	0°00'-5	morning set	3599 May 03 09:49	4°♍40'06	
minimum elong	3598 May 27 14:31	7°♎16'20	0°00'06	max. Earth dist.	3599 May 08 00:30	13°♍50'28	1.33826 AU
behind sun begin	3598 May 27 09:18	6°♎48'13					
behind sun end	3598 May 27 19:44	7°♎44'28		superior conj	3599 May 11 17:41	21°♍32'49	0°-28'-25
asc. node	3598 May 27 14:44	7°♎17'32		minimum elong	3599 May 11 19:09	21°♍40'33	0°28'07
evening rise	3598 Jun 03 15:43	22°♎28'49		asc. node	3599 May 14 11:46	27°♍22'40	
	3598 Jun 07 06:55	0°♏			3599 May 15 17:20	0°♎	
evening max el	3598 Jun 26 21:22	29°♏52'47	23°24'20	evening rise	3599 May 19 02:28	7°♎09'11	
	3598 Jun 27 00:22	0°♐			3599 May 31 09:02	0°♏	
desc. node	3598 Jul 03 21:18	5°♐02'02		evening max el	3599 Jun 08 14:17	10°♏22'15	21°49'10
retrograde	3598 Jul 10 10:53	6°♐39'53		desc. node	3599 Jun 20 18:19	16°♏33'32	
evening set	3598 Jul 14 09:54	6°♐05'36		retrograde	3599 Jun 21 03:16	16°♏33'52	
min. Earth dist.	3598 Jul 21 07:10	2°♐55'08	0.55786 AU	evening set	3599 Jun 23 18:58	16°♏18'03	
inferior conj	3598 Jul 23 06:24	1°♐45'21	-4°-42'-2	min. Earth dist.	3599 Jul 02 17:50	12°♏28'26	0.54930 AU
minimum elong	3598 Jul 23 00:10	1°♐54'36	4°41'04	inferior conj	3599 Jul 03 03:05	12°♏15'31	-3°-25'-48
	3598 Jul 26 08:17	30°♐		minimum elong	3599 Jul 02 18:46	12°♏27'07	3°23'23
morning rise	3598 Jul 31 17:30	27°♏51'33		morning rise	3599 Jul 11 19:58	8°♏23'38	
direct	3598 Aug 03 14:03	27°♏31'35		direct	3599 Jul 15 01:50	8°♏00'32	
	3598 Aug 11 01:54	0°♑		morning max el	3599 Jul 27 04:31	13°♏41'17	21°47'09
morning max el	3598 Aug 14 02:10	2°♑24'08	20°18'45		3599 Aug 08 07:56	0°♒	
asc. node	3598 Aug 23 13:57	14°♑52'41		asc. node	3599 Aug 10 10:59	3°♒48'17	
	3598 Aug 31 15:28	0°♓		morning set	3599 Aug 16 23:38	16°♒43'56	
morning set	3598 Sep 01 14:18	1°♓56'01			3599 Aug 23 06:35	0°♓	
superior conj	3598 Sep 09 06:25	17°♓39'50	1°44'29	superior conj	3599 Aug 24 06:30	2°♓05'35	1°42'17
minimum elong	3598 Sep 09 06:43	17°♓41'23	1°44'29	minimum elong	3599 Aug 24 05:26	2°♓00'03	1°42'15
max. Earth dist.	3598 Sep 14 12:18	28°♓00'57	1.36483 AU	max. Earth dist.	3599 Aug 28 01:32	9°♓55'06	1.34794 AU
	3598 Sep 15 13:15	0°♈		evening rise	3599 Sep 01 12:43	18°♓44'09	
evening rise	3598 Sep 18 10:58	5°♈25'02			3599 Sep 07 15:27	0°♈	
desc. node	3598 Sep 29 20:36	24°♈53'11		desc. node	3599 Sep 16 17:38	15°♈01'58	
	3598 Oct 03 03:30	0°♉			3599 Sep 27 07:08	0°♉	
evening max el	3598 Oct 24 03:15	26°♉59'39	25°57'27	evening max el	3599 Oct 06 15:44	10°♉36'42	26°51'17
	3598 Oct 27 12:23	0°♊		retrograde	3599 Oct 19 18:24	17°♉52'37	
retrograde	3598 Nov 05 14:51	4°♊05'22		evening set	3599 Oct 26 10:29	15°♉12'42	
evening set	3598 Nov 11 18:08	1°♊33'53		min. Earth dist.	3599 Oct 30 10:46	11°♉12'03	0.65724 AU
	3598 Nov 13 10:01	30°♌		inferior conj	3599 Nov 01 07:57	9°♉00'38	-1°-43'-4
min. Earth dist.	3598 Nov 16 01:28	26°♌56'42	0.66799 AU	minimum elong	3599 Nov 01 10:48	8°♉52'20	1°41'56
inferior conj	3598 Nov 17 10:48	25°♌12'15	0°-43'-9	asc. node	3599 Nov 06 10:11	3°♌58'44	
minimum elong	3598 Nov 17 11:57	25°♌08'39	0°42'41	morning rise	3599 Nov 07 12:42	3°♌19'12	
asc. node	3598 Nov 19 13:10	22°♌39'38		direct	3599 Nov 10 07:01	2°♌37'09	

morning max el	3599 Nov 16 20:03	6°♄09'39	18°17'57	asc. node	3600 Oct 23 07:13	16°♄43'08	
	3599 Dec 03 05:07	0°♄		direct	3600 Oct 24 00:05	16°♄40'36	
morning set	3599 Dec 05 22:08	4°♄23'41		morning max el	3600 Oct 30 12:18	20°♄06'28	17°55'34
desc. node	3599 Dec 13 16:53	16°♄55'29			3600 Nov 06 22:31	0°♄	
				morning set	3600 Nov 16 14:04	16°♄03'37	
					3600 Nov 24 21:21	0°♄	
superior conj	3599 Dec 21 04:01	28°♄44'57	0°-49'-21				
minimum elong	3599 Dec 20 21:47	28°♄20'28	0°48'34				
	3599 Dec 21 23:06	0°♄		superior conj	3600 Nov 29 19:28	8°♄02'31	0°-1'-35
max. Earth dist.	3599 Dec 23 02:01	1°♄45'44	1.45220 AU	minimum elong	3600 Nov 29 19:17	8°♄01'47	0°01'34
evening rise	3600 Jan 06 10:54	24°♄15'03		behind sun begin	3600 Nov 29 09:08	7°♄20'43	
	3600 Jan 10 03:05	0°♄		behind sun end	3600 Nov 30 05:26	8°♄42'47	
greatest brilliancy	3600 Jan 20 23:48	16°♄42'50	-0.7m	desc. node	3600 Nov 29 13:54	7°♄40'04	
evening max el	3600 Jan 29 23:52	28°♄28'47	19°19'20	max. Earth dist.	3600 Dec 04 20:35	16°♄07'06	1.44654 AU
	3600 Jan 31 14:29	0°♄			3600 Dec 13 17:38	0°♄	
asc. node	3600 Feb 02 09:30	1°♄20'07		evening rise	3600 Dec 15 23:44	3°♄28'34	
retrograde	3600 Feb 06 02:10	2°♄32'39			3601 Jan 02 16:36	0°♄	
evening set	3600 Feb 09 11:40	1°♄25'12					
	3600 Feb 11 05:31	30°♄					
inferior conj	3600 Feb 15 01:23	25°♄30'58	3°19'33				
minimum elong	3600 Feb 14 23:24	25°♄37'23	3°19'14				
min. Earth dist.	3600 Feb 16 09:20	23°♄47'37	0.66320 AU				
morning rise	3600 Feb 20 10:18	19°♄15'54					
direct	3600 Feb 26 16:36	16°♄30'22					
morning max el	3600 Mar 10 06:57	23°♄59'26	26°06'05				
desc. node	3600 Mar 10 16:07	24°♄22'47					
	3600 Mar 15 16:17	0°♄					
	3600 Apr 05 09:34	0°♄					
morning set	3600 Apr 15 10:07	17°♄34'04					
max. Earth dist.	3600 Apr 19 09:41	25°♄07'26	1.35310 AU				
	3600 Apr 21 21:17	0°♄					
superior conj	3600 Apr 24 13:35	5°♄23'17	0°-57'-19				
minimum elong	3600 Apr 24 16:37	5°♄38'43	0°56'46				
asc. node	3600 Apr 30 08:48	17°♄20'52					
evening rise	3600 May 02 10:06	21°♄35'21					
	3600 May 06 14:44	0°♄					
evening max el	3600 May 20 17:34	21°♄21'24	20°26'14				
retrograde	3600 May 31 16:39	26°♄42'15					
evening set	3600 Jun 02 17:07	26°♄32'06					
desc. node	3600 Jun 06 15:20	25°♄20'25					
inferior conj	3600 Jun 11 21:21	22°♄34'18	-1°-32'-48				
minimum elong	3600 Jun 11 16:59	22°♄40'40	1°31'13				
min. Earth dist.	3600 Jun 13 06:05	21°♄46'41	0.55007 AU				
morning rise	3600 Jun 20 15:11	18°♄23'34					
direct	3600 Jun 24 11:54	17°♄51'23					
morning max el	3600 Jul 07 22:04	24°♄22'10	23°28'12				
	3600 Jul 13 01:45	0°♄					
asc. node	3600 Jul 27 08:01	23°♄11'29					
	3600 Jul 30 16:20	0°♄					
morning set	3600 Jul 31 11:01	1°♄37'57					
superior conj	3600 Aug 07 12:41	16°♄49'19	1°33'54				
minimum elong	3600 Aug 07 10:44	16°♄38'51	1°33'43				
max. Earth dist.	3600 Aug 09 23:38	22°♄03'53	1.33498 AU				
	3600 Aug 13 19:24	0°♄					
evening rise	3600 Aug 15 03:13	2°♄40'11					
	3600 Aug 30 11:40	0°♄					
desc. node	3600 Sep 02 14:39	4°♄45'19					
evening max el	3600 Sep 18 03:33	23°♄58'16	27°21'51				
	3600 Sep 26 10:16	0°♄					
retrograde	3600 Oct 01 16:14	1°♄16'35					
	3600 Oct 06 13:44	30°♄					
evening set	3600 Oct 08 17:37	28°♄36'23					
min. Earth dist.	3600 Oct 12 11:44	25°♄10'53	0.64296 AU				
inferior conj	3600 Oct 14 21:15	22°♄38'30	-2°-43'-54				
minimum elong	3600 Oct 15 01:48	22°♄26'27	2°42'16				
morning rise	3600 Oct 21 12:12	17°♄12'16					

superior conj	3600 Apr 24 13:35	5°♄23'17	0°-57'-19	morning set	3601 Mar 28 16:06	29°♄30'43	
minimum elong	3600 Apr 24 16:37	5°♄38'43	0°56'46		3601 Mar 28 22:43	0°♄	
asc. node	3600 Apr 30 08:48	17°♄20'52		max. Earth dist.	3601 Apr 01 08:21	6°♄07'48	1.37213 AU
evening rise	3600 May 02 10:06	21°♄35'21					
	3600 May 06 14:44	0°♄		superior conj	3601 Apr 07 23:06	18°♄38'48	-1°-24'-54
evening max el	3600 May 20 17:34	21°♄21'24	20°26'14	minimum elong	3601 Apr 08 03:24	18°♄59'47	1°24'18
retrograde	3600 May 31 16:39	26°♄42'15			3601 Apr 13 16:30	0°♄	
evening set	3600 Jun 02 17:07	26°♄32'06		evening rise	3601 Apr 16 12:17	5°♄39'32	
desc. node	3600 Jun 06 15:20	25°♄20'25		asc. node	3601 Apr 17 05:50	7°♄06'59	
inferior conj	3600 Jun 11 21:21	22°♄34'18	-1°-32'-48		3601 Apr 30 15:39	0°♄	
minimum elong	3600 Jun 11 16:59	22°♄40'40	1°31'13	evening max el	3601 May 03 09:02	3°♄00'57	19°21'32
min. Earth dist.	3600 Jun 13 06:05	21°♄46'41	0.55007 AU	retrograde	3601 May 12 14:50	7°♄30'21	
morning rise	3600 Jun 20 15:11	18°♄23'34		evening set	3601 May 14 14:52	7°♄18'39	
direct	3600 Jun 24 11:54	17°♄51'23		inferior conj	3601 May 23 03:17	3°♄11'11	0°24'06
morning max el	3600 Jul 07 22:04	24°♄22'10	23°28'12	minimum elong	3601 May 23 04:17	3°♄09'31	0°23'43
	3600 Jul 13 01:45	0°♄		desc. node	3601 May 24 12:22	2°♄16'43	
asc. node	3600 Jul 27 08:01	23°♄11'29		min. Earth dist.	3601 May 25 20:38	1°♄24'28	0.56027 AU
	3600 Jul 30 16:20	0°♄			3601 May 28 05:07	30°♄	
morning set	3600 Jul 31 11:01	1°♄37'57		morning rise	3601 May 31 13:41	28°♄27'11	
				direct	3601 Jun 05 08:38	27°♄34'47	
superior conj	3600 Aug 07 12:41	16°♄49'19	1°33'54		3601 Jun 13 09:02	0°♄	
minimum elong	3600 Aug 07 10:44	16°♄38'51	1°33'43	morning max el	3601 Jun 19 12:06	4°♄45'48	25°09'30
max. Earth dist.	3600 Aug 09 23:38	22°♄03'53	1.33498 AU		3601 Jul 07 13:42	0°♄	
	3600 Aug 13 19:24	0°♄		asc. node	3601 Jul 14 05:04	12°♄53'58	
evening rise	3600 Aug 15 03:13	2°♄40'11		morning set	3601 Jul 15 22:45	16°♄31'52	
	3600 Aug 30 11:40	0°♄			3601 Jul 22 03:52	0°♄	
desc. node	3600 Sep 02 14:39	4°♄45'19					
evening max el	3600 Sep 18 03:33	23°♄58'16	27°21'51	superior conj	3601 Jul 22 22:33	1°♄42'16	1°20'18
	3600 Sep 26 10:16	0°♄		minimum elong	3601 Jul 22 20:13	1°♄29'30	1°19'58
retrograde	3600 Oct 01 16:14	1°♄16'35		max. Earth dist.	3601 Jul 24 05:27	4°♄30'54	1.32616 AU
	3600 Oct 06 13:44	30°♄		evening rise	3601 Jul 30 02:51	17°♄01'56	
evening set	3600 Oct 08 17:37	28°♄36'23			3601 Aug 05 17:49	0°♄	
min. Earth dist.	3600 Oct 12 11:44	25°♄10'53	0.64296 AU	desc. node	3601 Aug 20 11:40	23°♄52'15	
inferior conj	3600 Oct 14 21:15	22°♄38'30	-2°-43'-54		3601 Aug 25 04:58	0°♄	
minimum elong	3600 Oct 15 01:48	22°♄26'27	2°42'16	evening max el	3601 Aug 31 12:52	6°♄52'02	27°23'10
morning rise	3600 Oct 21 12:12	17°♄12'16		retrograde	3601 Sep 14 07:37	14°♄07'42	
asc. node	3600 Oct 23 07:13	16°♄43'08		evening set	3601 Sep 21 12:10	11°♄38'46	
direct	3600 Oct 24 00:05	16°♄40'36		min. Earth dist.	3601 Sep 25 02:48	8°♄42'48	0.62540 AU
morning max el	3600 Oct 30 12:18	20°♄06'28	17°55'34	inferior conj	3601 Sep 27 23:54	5°♄59'11	-3°-42'-11
	3600 Nov 06 22:31	0°♄		minimum elong	3601 Sep 28 05:36	5°♄45'38	3°40'31
morning set	3600 Nov 16 14:04	16°♄03'37		morning rise	3601 Oct 05 01:51	0°♄51'20	
	3600 Nov 24 21:21	0°♄		direct	3601 Oct 07 10:07	0°♄26'31	
				asc. node	3601 Oct 10 04:16	1°♄01'48	
superior conj	3600 Nov 29 19:28	8°♄02'31	0°-1'-35	morning max el	3601 Oct 14 04:27	3°♄53'53	17°51'01
minimum elong	3600 Nov 29 19:17	8°♄01'47	0°01'34	morning set	3601 Oct 30 04:34	28°♄48'27	
behind sun begin	3600 Nov 29 09:08	7°♄20'43			3601 Oct 30 20:38	0°♄	
behind sun end	3600 Nov 30 05:26	8°♄42'47					
desc. node	3600 Nov 29 13:54	7°♄40'04		superior conj	3601 Nov 10 12:20	18°♄35'18	0°40'32
max. Earth dist.	3600 Dec 04 20:35	16°♄07'06	1.44654 AU	minimum elong	3601 Nov 10 15:55	18°♄50'26	0°40'02
	3600 Dec 13 17:38	0°♄		desc. node	3601 Nov 16 10:57	28°♄27'27	
evening rise	3600 Dec 15 23:44	3°♄28'34			3601 Nov 17 09:43	0°♄	
	3601 Jan 02 16:36	0°♄		max. Earth dist.	3601 Nov 17 11:55	0°♄08'56	1.43428 AU
greatest brilliancy	3601 Jan 05 19:03	4°♄18'01	-0.6m	evening rise	3601 Nov 25 10:00	12°♄42'13	
evening max el	3601 Jan 12 03:28	11°♄59'59	20°16'20		3601 Dec 06 20:13	0°♄	
asc. node	3601 Jan 19 06:30	16°♄33'55		greatest brilliancy	3601 Dec 21 02:19	19°♄50'06	-0.4m
retrograde	3601 Jan 20 00:12	16°♄36'54		evening max el	3601 Dec 26 01:39	25°♄32'58	21°25'42
evening set	3601 Jan 23 18:04	15°♄15'30			3601 Dec 31 18:04	0°♄	
inferior conj	3601 Jan 29 04:44	9°♄07'53	2°52'43	retrograde	3602 Jan 03 21:49	0°♄47'55	
minimum elong	3601 Jan 29 02:16	9°♄16'14	2°52'07	asc. node	3602 Jan 06 03:32	0°♄20'35	
min. Earth dist.	3601 Jan 29 22:57	8°♄06'08	0.67264 AU		3602 Jan 06 20:36	30°♄	
morning rise	3601 Feb 03 09:55	2°♄52'02		evening set	3602 Jan 08 01:49	29°♄11'16	
direct	3601 Feb 09 02:45	0°♄20'26		inferior conj	3602 Jan 13 11:17	22°♄53'28	2°17'00
morning max el	3601 Feb 20 15:37	7°♄14'12	24°44'43	minimum elong	3602 Jan 13 08:51	23°♄01'55	2°16'13
desc. node	3601 Feb 25 13:09	12°♄40'25		min. Earth dist.	3602 Jan 13 17:13	22°♄32'59	0.67809 AU
	3601 Mar 10 09:40	0°♄		morning rise	3602 Jan 18 15:34	16°♄38'50	

direct	3602 Jan 23 17:37	14°☿27'27			3603 Jan 03 18:22	30°☿☿	
morning max el	3602 Feb 03 00:32	20°☿34'21	23°16'02	direct	3603 Jan 07 12:11	28°☿☿44'20	
greatest brilliancy	3602 Feb 08 05:28	26°☿25'04	-0.2m		3603 Jan 11 14:17	0°☿	
	3602 Feb 11 01:52	0°≈		morning max el	3603 Jan 16 13:13	4°☿01'53	21°49'21
desc. node	3602 Feb 12 10:10	1°≈45'40		greatest brilliancy	3603 Jan 21 07:15	9°☿22'59	-0.4m
	3602 Mar 03 15:23	0°☿		desc. node	3603 Jan 30 07:12	21°☿24'32	
morning set	3602 Mar 09 21:42	10°☿14'26			3603 Feb 05 05:15	0°≈	
max. Earth dist.	3602 Mar 14 03:07	17°☿27'26	1.39370 AU	morning set	3603 Feb 17 22:25	19°≈35'06	
	3602 Mar 21 03:09	0°☿		max. Earth dist.	3603 Feb 24 02:05	29°≈37'21	1.41504 AU
					3603 Feb 24 07:31	0°☿	
superior conj	3602 Mar 21 18:22	1°☿10'20	-1°-48'-22				
minimum elong	3602 Mar 21 22:56	1°☿31'32	1°47'58	superior conj	3603 Mar 03 18:24	12°☿45'18	-2°-3'-49
evening rise	3602 Mar 31 06:12	19°☿15'10		minimum elong	3603 Mar 03 21:09	12°☿57'22	2°03'43
asc. node	3602 Apr 04 02:52	26°☿36'32			3603 Mar 13 07:24	0°☿	
	3602 Apr 05 23:03	0°☿		evening rise	3603 Mar 14 12:17	2°☿13'14	
evening max el	3602 Apr 16 10:43	15°☿18'59	18°36'54	asc. node	3603 Mar 21 23:55	15°☿43'13	
retrograde	3602 Apr 24 06:48	19°☿09'44		evening max el	3603 Mar 30 19:15	28°☿06'35	18°12'23
evening set	3602 Apr 26 12:26	18°☿52'04			3603 Apr 02 01:45	0°☿	
inferior conj	3602 May 04 05:22	14°☿25'48	1°57'09	retrograde	3603 Apr 06 17:34	1°☿35'39	
minimum elong	3602 May 04 08:58	14°☿18'53	1°56'05	evening set	3603 Apr 09 05:20	1°☿09'21	
min. Earth dist.	3602 May 07 14:24	11°☿51'51	0.57776 AU		3603 Apr 11 14:09	30°☿☿	
desc. node	3602 May 11 09:24	9°☿27'26		inferior conj	3603 Apr 16 04:42	26°☿21'40	2°57'43
morning rise	3602 May 12 01:05	9°☿07'55		minimum elong	3603 Apr 16 07:59	26°☿14'18	2°57'03
direct	3602 May 17 19:36	7°☿44'20		min. Earth dist.	3603 Apr 19 13:38	23°☿22'08	0.59895 AU
morning max el	3602 Jun 01 04:29	15°☿20'34	26°35'16	morning rise	3603 Apr 23 06:58	20°☿37'50	
	3602 Jun 13 00:31	0°☿		desc. node	3603 Apr 28 06:25	18°☿45'41	
	3602 Jun 29 17:53	0°☿		direct	3603 Apr 29 19:02	18°☿39'12	
morning set	3602 Jun 30 09:16	1°☿20'39		morning max el	3603 May 14 02:59	26°☿29'56	27°31'46
asc. node	3602 Jul 01 02:08	2°☿49'54			3603 May 17 10:10	0°☿	
					3603 Jun 06 12:36	0°☿	
superior conj	3602 Jul 07 10:10	16°☿38'02	1°02'16	morning set	3603 Jun 14 16:50	15°☿59'06	
minimum elong	3602 Jul 07 07:56	16°☿25'42	1°01'51	asc. node	3603 Jun 17 23:13	22°☿54'28	
max. Earth dist.	3602 Jul 07 16:06	17°☿10'42	1.32144 AU	max. Earth dist.	3603 Jun 21 03:58	29°☿52'51	1.32071 AU
	3602 Jul 13 13:40	0°☿			3603 Jun 21 05:16	0°☿	
evening rise	3602 Jul 14 08:44	1°☿40'36					
	3602 Jul 29 17:34	0°☿		superior conj	3603 Jun 21 21:47	1°☿30'53	0°40'25
desc. node	3602 Aug 07 08:42	12°☿07'45		minimum elong	3603 Jun 21 20:06	1°☿21'36	0°40'05
evening max el	3602 Aug 13 17:07	19°☿05'31	26°51'21	evening rise	3603 Jun 28 18:32	16°☿28'44	
retrograde	3602 Aug 27 15:14	26°☿16'51			3603 Jul 05 11:31	0°☿	
evening set	3602 Sep 03 13:43	24°☿12'02		desc. node	3603 Jul 25 05:43	29°☿10'52	
min. Earth dist.	3602 Sep 07 07:16	21°☿34'22	0.60545 AU		3603 Jul 26 01:18	0°☿	
inferior conj	3602 Sep 10 12:31	18°☿53'54	-4°-32'00	evening max el	3603 Jul 26 14:06	0°☿30'56	25°47'30
minimum elong	3602 Sep 10 17:57	18°☿42'33	4°30'57	retrograde	3603 Aug 09 13:31	7°☿38'26	
morning rise	3602 Sep 18 01:24	14°☿07'34		evening set	3603 Aug 15 17:29	6°☿08'21	
direct	3602 Sep 20 09:18	13°☿46'35		min. Earth dist.	3603 Aug 20 02:16	3°☿32'00	0.58482 AU
asc. node	3602 Sep 27 01:20	16°☿46'36		inferior conj	3603 Aug 23 07:34	1°☿12'50	-5°-3'-40
morning max el	3602 Sep 27 17:19	17°☿23'45	18°05'29	minimum elong	3603 Aug 23 10:10	1°☿08'07	5°03'30
	3602 Oct 06 16:41	0°☿			3603 Aug 25 00:35	30°☿☿	
morning set	3602 Oct 13 11:25	12°☿19'53		morning rise	3603 Aug 31 06:20	26°☿50'04	
				direct	3603 Sep 02 17:10	26°☿30'44	
superior conj	3602 Oct 23 07:15	0°☿24'02	1°11'59		3603 Sep 10 11:48	0°☿	
minimum elong	3602 Oct 23 11:25	0°☿42'37	1°11'29	morning max el	3603 Sep 10 23:40	0°☿27'24	18°40'22
	3602 Oct 23 01:52	0°☿		asc. node	3603 Sep 13 22:24	3°☿43'10	
max. Earth dist.	3602 Oct 30 22:42	13°☿37'45	1.41692 AU	morning set	3603 Sep 27 05:44	26°☿24'25	
desc. node	3602 Nov 03 07:58	19°☿13'57			3603 Sep 29 02:00	0°☿	
evening rise	3602 Nov 05 09:35	22°☿34'52					
	3602 Nov 10 02:16	0°☿		superior conj	3603 Oct 05 23:31	13°☿15'55	1°32'11
	3602 Nov 30 23:14	0°☿		minimum elong	3603 Oct 06 02:30	13°☿29'55	1°31'57
greatest brilliancy	3602 Dec 03 19:06	3°☿32'22	-0.3m	max. Earth dist.	3603 Oct 13 04:54	26°☿24'48	1.39660 AU
evening max el	3602 Dec 08 18:52	9°☿07'50	22°43'10		3603 Oct 15 06:24	0°☿	
retrograde	3602 Dec 18 17:16	15°☿01'42		evening rise	3603 Oct 17 07:29	3°☿29'08	
evening set	3602 Dec 23 09:13	13°☿08'42		desc. node	3603 Oct 21 05:01	9°☿56'22	
asc. node	3602 Dec 24 00:35	12°☿35'02			3603 Nov 03 07:40	0°☿	
inferior conj	3602 Dec 28 19:04	6°☿44'17	1°33'52	evening max el	3603 Nov 21 08:36	22°☿46'02	24°03'01
minimum elong	3602 Dec 28 17:07	6°☿51'03	1°33'08	retrograde	3603 Dec 02 09:26	29°☿15'09	
min. Earth dist.	3602 Dec 28 13:41	7°☿02'54	0.67978 AU	evening set	3603 Dec 07 14:43	27°☿05'38	
morning rise	3603 Jan 03 00:56	0°☿32'47		asc. node	3603 Dec 10 21:37	23°☿33'15	

min. Earth dist.	3603 Dec 12 10:04	21°♄33'18	0.67793 AU	min. Earth dist.	3604 Nov 25 04:04	6°♄01'02	0.67257 AU
inferior conj	3603 Dec 13 02:15	20°♄38'33	0°44'33	inferior conj	3604 Nov 26 07:05	4°♄33'29	0°-9'-54
minimum elong	3603 Dec 13 01:13	20°♄42'04	0°44'07	minimum elong	3604 Nov 26 07:20	4°♄32'40	0°09'50
morning rise	3603 Dec 18 12:00	14°♄32'12		transit middle	3604 Nov 26 07:20	4°♄32'40	0°09'50
direct	3603 Dec 22 09:23	13°♄06'17		transit begin	3604 Nov 26 05:07	4°♄39'51	
morning max el	3603 Dec 30 08:56	17°♄40'58	20°31'39	transit end	3604 Nov 26 09:33	4°♄25'29	
greatest brilliancy	3604 Jan 05 11:38	24°♄52'15	-0.5m	asc. node	3604 Nov 26 18:39	3°♄56'04	
	3604 Jan 09 06:25	0°♄			3604 Nov 30 04:23	30°♄	
desc. node	3604 Jan 17 04:14	11°♄27'55		morning rise	3604 Dec 01 22:45	28°♄34'31	
morning set	3604 Jan 27 23:23	27°♄53'12		direct	3604 Dec 05 07:54	27°♄28'36	
	3604 Jan 29 08:01	0°♄			3604 Dec 10 21:05	0°♄	
max. Earth dist.	3604 Feb 06 08:33	12°♄42'47	1.43326 AU	morning max el	3604 Dec 12 12:34	1°♄31'02	19°27'19
				greatest brilliancy	3604 Dec 21 06:40	12°♄35'05	-0.7m
superior conj	3604 Feb 12 18:14	23°♄12'37	-2°-6'-6		3605 Jan 01 20:56	0°♄	
minimum elong	3604 Feb 12 16:15	23°♄04'21	2°06'03	desc. node	3605 Jan 03 01:17	1°♄49'06	
	3604 Feb 16 18:57	0°♄		morning set	3605 Jan 05 21:27	6°♄12'17	
evening rise	3604 Feb 25 02:22	14°♄24'57		max. Earth dist.	3605 Jan 18 21:40	26°♄31'33	1.44606 AU
	3604 Mar 05 03:00	0°♄			3605 Jan 21 02:14	0°♄	
asc. node	3604 Mar 07 20:57	4°♄19'26					
evening max el	3604 Mar 13 07:16	11°♄14'36	18°07'28	superior conj	3605 Jan 22 16:22	2°♄32'05	-1°-50'-15
retrograde	3604 Mar 19 19:14	14°♄37'28		minimum elong	3605 Jan 22 08:41	2°♄01'22	1°49'43
evening set	3604 Mar 22 12:36	14°♄01'05		evening rise	3605 Feb 05 20:10	25°♄42'35	
inferior conj	3604 Mar 28 22:08	8°♄52'38	3°29'12		3605 Feb 08 09:41	0°♄	
minimum elong	3604 Mar 28 23:46	8°♄48'25	3°29'02	asc. node	3605 Feb 22 17:58	22°♄15'56	
min. Earth dist.	3604 Mar 31 20:57	5°♄52'14	0.62051 AU	evening max el	3605 Feb 24 19:52	24°♄35'43	18°21'27
morning rise	3604 Apr 04 08:20	2°♄52'25		retrograde	3605 Mar 03 07:05	28°♄05'39	
direct	3604 Apr 11 04:52	0°♄23'59		evening set	3605 Mar 06 06:05	27°♄18'04	
desc. node	3604 Apr 14 03:26	0°♄48'58		inferior conj	3605 Mar 12 05:31	21°♄50'29	3°38'06
morning max el	3604 Apr 25 07:44	8°♄21'59	27°51'30	minimum elong	3605 Mar 12 05:24	21°♄50'49	3°38'05
	3604 May 11 22:30	0°♄		min. Earth dist.	3605 Mar 14 13:45	19°♄10'08	0.63999 AU
morning set	3604 May 28 19:23	0°♄19'59		morning rise	3605 Mar 18 03:01	15°♄41'17	
	3604 May 28 15:27	0°♄		direct	3605 Mar 24 23:10	12°♄55'07	
max. Earth dist.	3604 Jun 03 12:54	12°♄22'54	1.32407 AU	desc. node	3605 Apr 01 00:27	15°♄19'01	
asc. node	3604 Jun 03 20:15	13°♄02'34		morning max el	3605 Apr 07 16:27	20°♄51'41	27°34'15
					3605 Apr 15 14:09	0°♄	
superior conj	3604 Jun 05 07:35	16°♄14'27	0°15'26		3605 May 05 00:26	0°♄	
minimum elong	3604 Jun 05 06:52	16°♄10'33	0°15'17	morning set	3605 May 12 14:29	14°♄15'44	
behind sun begin	3604 Jun 05 05:26	16°♄02'45		max. Earth dist.	3605 May 17 14:54	24°♄28'26	1.33175 AU
behind sun end	3604 Jun 05 08:18	16°♄18'21			3605 May 20 05:42	0°♄	
	3604 Jun 11 15:24	0°♄					
evening rise	3604 Jun 12 06:10	1°♄18'43		superior conj	3605 May 20 13:47	0°♄43'09	0°-11'-58
	3604 Jun 27 23:22	0°♄		minimum elong	3605 May 20 14:23	0°♄46'21	0°11'50
evening max el	3604 Jul 07 04:25	11°♄13'03	24°19'51	behind sun begin	3605 May 20 10:45	0°♄26'55	
desc. node	3604 Jul 11 02:45	14°♄32'00		behind sun end	3605 May 20 18:02	1°♄05'49	
retrograde	3604 Jul 21 00:46	18°♄12'27		asc. node	3605 May 21 17:17	3°♄10'21	
evening set	3604 Jul 25 21:02	17°♄20'05		evening rise	3605 May 27 17:46	16°♄04'35	
min. Earth dist.	3604 Jul 31 15:13	14°♄26'13	0.56622 AU		3605 Jun 03 16:39	0°♄	
inferior conj	3604 Aug 03 06:26	12°♄46'45	-5°-3'-2	evening max el	3605 Jun 18 18:05	21°♄37'56	22°43'01
minimum elong	3604 Aug 03 03:29	12°♄51'25	5°02'50	desc. node	3605 Jun 27 23:44	27°♄36'25	
morning rise	3604 Aug 11 13:30	8°♄45'15		retrograde	3605 Jul 01 23:38	28°♄13'01	
direct	3604 Aug 14 05:47	8°♄26'04		evening set	3605 Jul 05 07:34	27°♄48'41	
morning max el	3604 Aug 23 20:22	12°♄54'27	19°36'45	min. Earth dist.	3605 Jul 13 02:14	24°♄23'02	0.55313 AU
asc. node	3604 Aug 30 19:27	21°♄35'39		inferior conj	3605 Jul 14 10:35	23°♄36'43	-4°-15'-41
	3604 Sep 04 17:55	0°♄		minimum elong	3605 Jul 14 02:43	23°♄48'00	4°13'58
morning set	3604 Sep 10 07:51	10°♄50'58		morning rise	3605 Jul 23 00:26	19°♄45'52	
				direct	3605 Jul 26 00:14	19°♄25'10	
superior conj	3604 Sep 18 07:32	26°♄54'10	1°42'27	morning max el	3605 Aug 06 05:26	24°♄37'50	20°54'16
minimum elong	3604 Sep 18 08:48	27°♄00'21	1°42'25		3605 Aug 11 00:58	0°♄	
	3604 Sep 19 21:28	0°♄		asc. node	3605 Aug 17 16:29	10°♄11'23	
max. Earth dist.	3604 Sep 24 09:09	8°♄32'08	1.37587 AU	morning set	3605 Aug 25 15:08	25°♄32'32	
evening rise	3604 Sep 28 04:23	15°♄26'43			3605 Aug 27 18:42	0°♄	
	3604 Oct 06 18:38	0°♄					
desc. node	3604 Oct 07 02:03	0°♄29'53		superior conj	3605 Sep 02 02:47	11°♄05'34	1°44'23
	3604 Oct 27 23:09	0°♄		minimum elong	3605 Sep 02 02:27	11°♄03'53	1°44'23
evening max el	3604 Nov 02 20:50	6°♄26'59	25°18'43	max. Earth dist.	3605 Sep 06 17:27	20°♄22'36	1.35716 AU
retrograde	3604 Nov 14 21:21	13°♄23'14		evening rise	3605 Sep 10 20:53	28°♄19'35	
evening set	3604 Nov 20 16:38	10°♄58'42			3605 Sep 11 18:30	0°♄	

desc. node	3605 Sep 23 23:05	20°♄49'24		evening rise	3606 Aug 25 04:34	11°♍56'07	
	3605 Sep 30 01:11	0°♌			3606 Sep 04 02:30	0°♌	
evening max el	3605 Oct 16 09:11	20°♌07'49	26°22'50	desc. node	3606 Sep 10 20:05	10°♌48'31	
retrograde	3605 Oct 29 04:16	27°♌19'50			3606 Sep 25 08:04	0°♌	
evening set	3605 Nov 04 13:05	24°♌44'00		evening max el	3606 Sep 28 21:47	3°♌40'46	27°07'43
min. Earth dist.	3605 Nov 08 17:20	20°♌22'11	0.66376 AU	retrograde	3606 Oct 12 05:26	10°♌58'15	
inferior conj	3605 Nov 10 07:37	18°♌25'33	-1°-8'-19	evening set	3606 Oct 19 01:53	8°♌17'23	
minimum elong	3605 Nov 10 09:28	18°♌19'55	1°07'34	min. Earth dist.	3606 Oct 22 23:30	4°♌31'44	0.65150 AU
asc. node	3605 Nov 13 15:40	14°♌39'44		inferior conj	3606 Oct 25 01:46	2°♌10'48	-2°-8'-58
morning rise	3605 Nov 16 07:06	12°♌36'40		minimum elong	3606 Oct 25 05:22	2°♌00'42	2°07'34
direct	3605 Nov 19 06:08	11°♌47'02			3606 Oct 27 01:52	30°♌	
morning max el	3605 Nov 25 22:56	15°♌27'56	18°38'30	morning rise	3606 Oct 31 10:41	26°♌35'06	
	3605 Dec 06 17:44	0°♏		asc. node	3606 Oct 31 12:43	26°♌32'46	
morning set	3605 Dec 16 16:09	15°♏38'09		direct	3606 Nov 03 01:58	25°♌57'51	
desc. node	3605 Dec 20 22:19	22°♏22'30		morning max el	3606 Nov 09 13:48	29°♌26'39	18°06'19
	3605 Dec 25 18:24	0°♏			3606 Nov 10 02:45	0°♌	
superior conj	3606 Jan 01 20:39	11°♏08'20	-1°-15'-28	morning set	3606 Nov 27 16:25	26°♌33'02	
minimum elong	3606 Jan 01 11:56	10°♏34'10	1°14'30		3606 Nov 29 18:36	0°♏	
max. Earth dist.	3606 Jan 01 15:17	10°♏47'16	1.45206 AU	desc. node	3606 Dec 07 19:22	13°♏04'22	
	3606 Jan 13 19:43	0°♎		superior conj	3606 Dec 12 02:13	19°♏55'05	0°-28'-59
evening rise	3606 Jan 17 14:43	6°♎02'24		minimum elong	3606 Dec 11 22:34	19°♏40'37	0°28'29
	3606 Feb 01 21:53	0°♎		max. Earth dist.	3606 Dec 15 10:44	25°♏13'20	1.45067 AU
evening max el	3606 Feb 08 06:30	8°♎03'39	18°53'25		3606 Dec 18 11:47	0°♏	
asc. node	3606 Feb 09 14:59	9°♎20'29		evening rise	3606 Dec 28 11:59	15°♏34'03	
retrograde	3606 Feb 15 01:09	11°♎51'58			3607 Jan 06 20:53	0°♎	
evening set	3606 Feb 18 06:30	10°♎52'08		greatest brilliancy	3607 Jan 14 22:16	11°♎58'11	-0.6m
inferior conj	3606 Feb 23 23:01	5°♎07'12	3°30'06	evening max el	3607 Jan 22 13:11	21°♎34'57	19°41'51
minimum elong	3606 Feb 23 21:33	5°♎11'45	3°29'57	asc. node	3607 Jan 27 11:59	25°♎19'29	
min. Earth dist.	3606 Feb 25 15:40	3°♎00'48	0.65596 AU	retrograde	3607 Jan 29 22:26	25°♎51'30	
	3606 Feb 28 07:27	30°♎		evening set	3607 Feb 02 11:22	24°♎38'11	
morning rise	3606 Mar 01 11:32	28°♎53'35		inferior conj	3607 Feb 07 23:32	18°♎38'05	3°09'21
direct	3606 Mar 08 00:27	26°♎03'58		minimum elong	3607 Feb 07 21:17	18°♎45'32	3°08'54
	3606 Mar 16 22:09	0°♎		min. Earth dist.	3607 Feb 09 01:29	17°♎12'22	0.66781 AU
desc. node	3606 Mar 18 21:29	1°♎40'30		morning rise	3607 Feb 13 06:32	12°♎22'43	
morning max el	3606 Mar 21 02:16	3°♎46'53	26°45'14	direct	3607 Feb 19 07:31	9°♎42'00	
	3606 Apr 09 23:27	0°♐		morning max el	3607 Mar 03 11:25	16°♎56'56	25°32'57
morning set	3606 Apr 25 22:49	27°♐35'32		desc. node	3607 Mar 05 18:32	19°♎22'56	
	3606 Apr 27 04:57	0°♐			3607 Mar 14 08:25	0°♎	
max. Earth dist.	3606 Apr 30 06:25	6°♐00'54	1.34404 AU		3607 Apr 02 22:18	0°♐	
superior conj	3606 May 04 14:11	14°♐49'46	0°-40'-42	morning set	3607 Apr 08 16:01	10°♐07'02	
minimum elong	3606 May 04 16:20	15°♐00'52	0°40'17	max. Earth dist.	3607 Apr 12 10:39	17°♐07'40	1.36086 AU
asc. node	3606 May 08 14:18	23°♐13'09		superior conj	3607 Apr 18 06:08	28°♐26'58	-1°-9'-18
	3606 May 11 19:49	0°♑		minimum elong	3607 Apr 18 09:47	28°♐45'10	1°08'43
evening rise	3606 May 12 03:25	0°♑39'34			3607 Apr 19 00:43	0°♐	
	3606 May 29 10:52	0°♑		asc. node	3607 Apr 25 11:19	13°♐06'58	
evening max el	3606 May 31 14:59	2°♑17'59	21°11'53	evening rise	3607 Apr 26 09:04	14°♐57'35	
retrograde	3606 Jun 12 13:00	8°♑08'29			3607 May 04 04:58	0°♑	
evening set	3606 Jun 14 19:54	7°♑56'21		evening max el	3607 May 13 23:34	13°♑34'10	19°56'10
desc. node	3606 Jun 14 20:43	7°♑56'00		retrograde	3607 May 24 04:20	18°♑31'46	
inferior conj	3606 Jun 24 04:24	3°♑58'15	-2°-40'-36	evening set	3607 May 26 03:35	18°♑21'30	
minimum elong	3606 Jun 23 21:11	4°♑08'23	2°38'13	desc. node	3607 Jun 01 17:45	15°♑44'18	
min. Earth dist.	3606 Jun 24 13:37	3°♑45'18	0.54846 AU	inferior conj	3607 Jun 04 02:02	14°♑21'03	0°-41'-34
morning rise	3606 Jul 02 22:28	0°♑00'29		minimum elong	3607 Jun 04 00:07	14°♑23'58	0°40'52
	3606 Jul 02 23:16	30°♑		min. Earth dist.	3607 Jun 06 02:28	13°♑07'43	0.55343 AU
direct	3606 Jul 06 09:56	29°♑34'21		morning rise	3607 Jun 12 17:52	9°♑57'36	
	3606 Jul 09 18:42	0°♑		direct	3607 Jun 16 23:38	9°♑18'13	
morning max el	3606 Jul 19 03:23	5°♑37'28	22°29'10	morning max el	3607 Jun 30 18:27	16°♑07'03	24°12'14
asc. node	3606 Aug 04 13:32	29°♑19'52			3607 Jul 11 21:15	0°♑	
	3606 Aug 04 21:56	0°♒		asc. node	3607 Jul 22 10:35	18°♑52'18	
morning set	3606 Aug 10 01:32	10°♒23'34		morning set	3607 Jul 25 13:16	25°♑18'21	
					3607 Jul 27 18:01	0°♒	
superior conj	3606 Aug 17 05:45	25°♒39'54	1°39'25	superior conj	3607 Aug 01 13:45	10°♒28'16	1°28'43
minimum elong	3606 Aug 17 04:16	25°♒31'58	1°39'19	minimum elong	3607 Aug 01 11:35	10°♒16'30	1°28'28
	3606 Aug 19 07:09	0°♒		max. Earth dist.	3607 Aug 03 12:21	14°♒39'45	1.33074 AU
max. Earth dist.	3606 Aug 20 10:26	2°♒21'44	1.34193 AU				

evening rise	3607 Aug 08 23:21	26°♌04'22			3608 Jul 18 03:03	0°♌	
	3607 Aug 10 22:33	0°♍		evening rise	3608 Jul 23 02:01	10°♌34'57	
desc. node	3607 Aug 28 17:05	0°♌17'59			3608 Aug 02 04:49	0°♍	
	3607 Aug 28 12:07	0°♌		desc. node	3608 Aug 14 14:06	19°♍05'34	
evening max el	3607 Sep 11 08:59	16°♌52'38	27°26'23	evening max el	3608 Aug 23 16:19	29°♍30'20	27°13'37
retrograde	3607 Sep 25 00:20	24°♌09'22			3608 Aug 24 05:02	0°♌	
evening set	3607 Oct 02 04:05	21°♌32'37		retrograde	3608 Sep 06 12:26	6°♌44'13	
min. Earth dist.	3607 Oct 05 20:20	18°♌20'42	0.63584 AU	evening set	3608 Sep 13 15:59	4°♌23'36	
inferior conj	3607 Oct 08 10:55	15°♌42'23	-3°-9'-15	min. Earth dist.	3608 Sep 17 06:39	1°♌37'33	0.61718 AU
minimum elong	3607 Oct 08 16:04	15°♌29'20	3°07'31		3608 Sep 19 02:30	30°♍	
morning rise	3607 Oct 15 06:29	10°♌23'28		inferior conj	3608 Sep 20 08:01	28°♍53'05	-4°-4'-49
direct	3607 Oct 17 16:36	9°♌54'57		minimum elong	3608 Sep 20 13:51	28°♍39'57	4°03'20
asc. node	3607 Oct 18 09:47	9°♌57'29		morning rise	3608 Sep 27 14:44	23°♍54'20	
morning max el	3607 Oct 24 06:21	13°♌20'12	17°51'27	direct	3608 Sep 29 22:30	23°♍31'27	
	3607 Nov 04 17:32	0°♍		asc. node	3608 Oct 04 06:51	24°♍54'33	
morning set	3607 Nov 09 18:45	8°♍43'11		morning max el	3608 Oct 06 21:33	27°♍01'33	17°54'49
					3608 Oct 09 12:39	0°♌	
superior conj	3607 Nov 22 03:41	29°♍42'24	0°17'25	morning set	3608 Oct 22 16:50	21°♌49'25	
minimum elong	3607 Nov 22 05:31	29°♍49'57	0°17'09		3608 Oct 27 05:06	0°♍	
	3607 Nov 22 07:58	0°♎					
desc. node	3607 Nov 24 16:23	3°♎50'30		superior conj	3608 Nov 02 08:02	10°♍48'44	0°55'16
max. Earth dist.	3607 Nov 28 04:47	9°♎30'23	1.44207 AU	minimum elong	3608 Nov 02 12:11	11°♍06'39	0°54'44
evening rise	3607 Dec 07 21:40	24°♎42'41		max. Earth dist.	3608 Nov 09 18:20	23°♍19'45	1.42738 AU
	3607 Dec 11 08:34	0°♏		desc. node	3608 Nov 10 13:25	24°♍37'50	
greatest brilliancy	3607 Dec 30 23:08	28°♏26'39	-0.5m		3608 Nov 13 21:13	0°♎	
	3608 Jan 01 04:16	0°♏		evening rise	3608 Nov 16 11:49	4°♎08'01	
evening max el	3608 Jan 05 14:33	5°♏06'59	20°44'32		3608 Dec 03 18:19	0°♏	
retrograde	3608 Jan 13 20:33	9°♏59'24		greatest brilliancy	3608 Dec 13 16:33	13°♏17'42	-0.3m
asc. node	3608 Jan 14 09:02	9°♏57'55		evening max el	3608 Dec 18 10:19	18°♏39'42	21°57'58
evening set	3608 Jan 17 18:36	8°♏31'26		retrograde	3608 Dec 27 17:32	24°♏11'53	
inferior conj	3608 Jan 23 04:32	2°♏18'58	2°38'33	asc. node	3608 Dec 31 06:06	23°♏04'58	
minimum elong	3608 Jan 23 02:01	2°♏27'35	2°37'51	evening set	3609 Jan 01 02:24	22°♏28'13	
min. Earth dist.	3608 Jan 23 17:17	1°♏35'17	0.67544 AU	inferior conj	3609 Jan 06 11:50	16°♏06'52	1°59'33
	3608 Jan 24 21:33	30°♎♏		minimum elong	3609 Jan 06 09:33	16°♏14'48	1°58'45
morning rise	3608 Jan 28 09:01	26°♏03'38		min. Earth dist.	3609 Jan 06 12:47	16°♏03'35	0.67918 AU
direct	3608 Feb 02 19:37	23°♏40'21		morning rise	3609 Jan 11 16:29	9°♏53'16	
	3608 Feb 13 14:10	0°♏		direct	3609 Jan 16 12:02	7°♏51'46	
morning max el	3608 Feb 13 20:00	0°♏14'37	24°07'25	morning max el	3609 Jan 26 06:13	13°♏37'53	22°38'30
desc. node	3608 Feb 20 15:35	8°♏02'52		greatest brilliancy	3609 Jan 30 20:15	18°♏44'37	-0.3m
	3608 Mar 07 05:59	0°♐		desc. node	3609 Feb 06 12:37	27°♏23'38	
morning set	3608 Mar 20 12:29	21°♐35'15			3609 Feb 08 09:53	0°♏	
max. Earth dist.	3608 Mar 24 07:18	28°♐14'50	1.38117 AU		3609 Feb 28 04:36	0°♐	
	3608 Mar 25 06:41	0°♑		morning set	3609 Mar 01 06:05	1°♐44'11	
				max. Earth dist.	3609 Mar 06 03:04	9°♐53'17	1.40289 AU
superior conj	3608 Mar 31 10:12	11°♑25'50	-1°-35'-32				
minimum elong	3608 Mar 31 14:48	11°♑47'48	1°35'00	superior conj	3609 Mar 13 21:54	23°♐34'33	-1°-56'-11
evening rise	3608 Apr 09 08:11	28°♑51'42		minimum elong	3609 Mar 14 02:02	23°♐53'16	1°55'55
	3608 Apr 09 22:06	0°♒			3609 Mar 17 09:55	0°♑	
asc. node	3608 Apr 11 08:22	2°♒47'22		evening rise	3609 Mar 23 21:35	12°♑12'43	
evening max el	3608 Apr 25 19:44	25°♒31'28	18°59'59	asc. node	3609 Mar 29 05:25	22°♑08'16	
retrograde	3608 May 04 09:58	29°♒42'56			3609 Apr 02 20:02	0°♒	
evening set	3608 May 06 12:02	29°♒29'07		evening max el	3609 Apr 09 00:44	8°♒03'20	18°24'03
inferior conj	3608 May 14 16:08	25°♒13'52	1°07'22	retrograde	3609 Apr 16 10:20	11°♒43'10	
minimum elong	3608 May 14 18:40	25°♒09'25	1°06'30	evening set	3609 Apr 18 18:27	11°♒22'14	
min. Earth dist.	3608 May 17 18:06	23°♒05'13	0.56701 AU	inferior conj	3609 Apr 26 03:32	6°♒47'05	2°26'44
desc. node	3608 May 18 14:46	22°♒31'15		minimum elong	3609 Apr 26 07:16	6°♒39'25	2°25'45
morning rise	3608 May 22 20:58	20°♒14'50		min. Earth dist.	3609 Apr 29 14:10	3°♒59'01	0.58646 AU
direct	3608 May 28 01:58	19°♒10'37		morning rise	3609 May 03 15:50	1°♒16'33	
morning max el	3608 Jun 11 09:07	26°♒33'38	25°48'52	desc. node	3609 May 05 11:49	0°♒26'36	
	3608 Jun 14 16:00	0°♓			3609 May 06 21:24	30°♎♑	
	3608 Jul 04 00:29	0°♓		direct	3609 May 09 18:40	29°♑37'56	
asc. node	3608 Jul 08 07:39	8°♓41'53			3609 May 12 17:08	0°♒	
morning set	3608 Jul 09 00:45	10°♓11'49		morning max el	3609 May 24 04:07	7°♒22'18	27°03'26
					3609 Jun 10 03:38	0°♓	
superior conj	3608 Jul 16 00:38	25°♓23'57	1°13'09	morning set	3609 Jun 23 10:15	24°♓57'18	
minimum elong	3608 Jul 15 22:17	25°♓11'03	1°12'47	asc. node	3609 Jun 25 04:42	28°♓42'13	
max. Earth dist.	3608 Jul 16 20:51	27°♓14'55	1.32367 AU		3609 Jun 25 19:12	0°♓	

superior conj	3609 Jun 30 12:29	10°☿19'33	0°53'26	superior conj	3610 Jun 14 23:33	25°♄09'21	0°30'11
minimum elong	3609 Jun 30 10:26	10°☿08'13	0°53'02	minimum elong	3610 Jun 14 22:14	25°♄02'06	0°29'54
max. Earth dist.	3609 Jun 30 08:21	9°☿56'47	1.32063 AU		3610 Jun 17 04:28	0°☿	
evening rise	3609 Jul 07 09:49	25°☿18'30		evening rise	3610 Jun 21 20:37	10°☿08'13	
	3609 Jul 09 15:59	0°♊			3610 Jul 02 00:50	0°♊	
	3609 Jul 27 01:15	0°♋		evening max el	3610 Jul 18 11:18	22°♊28'41	25°12'20
desc. node	3609 Aug 01 11:07	6°♋53'25		desc. node	3610 Jul 19 08:08	23°♊17'15	
evening max el	3609 Aug 05 17:24	11°♋22'57	26°27'40	retrograde	3610 Aug 01 10:39	29°♊33'41	
retrograde	3609 Aug 19 16:40	18°♋33'37		evening set	3610 Aug 07 02:12	28°♊20'22	
evening set	3609 Aug 26 08:51	16°♋42'23		min. Earth dist.	3610 Aug 11 23:04	25°♊38'18	0.57647 AU
min. Earth dist.	3609 Aug 30 06:50	14°♋07'33	0.59662 AU	inferior conj	3610 Aug 15 00:09	23°♊34'10	-5°-8'-20
inferior conj	3609 Sep 02 13:31	11°♋33'30	-4°-48'-24	minimum elong	3610 Aug 15 00:38	23°♊33'21	5°08'21
minimum elong	3609 Sep 02 18:08	11°♋24'25	4°47'45	morning rise	3610 Aug 23 02:37	19°♊20'46	
morning rise	3609 Sep 10 06:51	6°♋57'23		direct	3610 Aug 25 15:23	19°♊01'42	
direct	3609 Sep 12 15:28	6°♋37'29		morning max el	3610 Sep 03 10:39	23°♊10'49	19°01'37
morning max el	3609 Sep 20 08:06	10°♋21'46	18°17'44	asc. node	3610 Sep 08 00:57	28°♊33'46	
asc. node	3609 Sep 21 03:55	11°♋11'46			3610 Sep 09 01:06	0°♋	
	3609 Oct 03 05:49	0°♌		morning set	3610 Sep 20 03:02	19°♋50'52	
morning set	3609 Oct 06 05:02	5°♌36'02			3610 Sep 25 06:15	0°♌	
superior conj	3609 Oct 15 12:43	23°♌06'18	1°21'51	superior conj	3610 Sep 28 12:16	6°♌19'20	1°37'40
minimum elong	3609 Oct 15 16:31	23°♌23'37	1°21'28	minimum elong	3610 Sep 28 14:31	6°♌30'12	1°37'31
	3609 Oct 19 08:50	0°♍		max. Earth dist.	3610 Oct 05 07:00	18°♌56'37	1.38770 AU
max. Earth dist.	3609 Oct 23 02:20	6°♍28'43	1.40844 AU	evening rise	3610 Oct 09 04:15	25°♌47'22	
evening rise	3609 Oct 27 20:18	14°♍25'18			3610 Oct 11 15:36	0°♍	
desc. node	3609 Oct 28 10:26	15°♍23'07		desc. node	3610 Oct 15 07:27	6°♍02'16	
	3609 Nov 06 17:46	0°♎			3610 Oct 31 09:12	0°♎	
	3609 Nov 28 22:13	0°♏		evening max el	3610 Nov 13 14:40	15°♏55'28	24°36'18
evening max el	3609 Dec 01 01:41	2°♏15'31	23°17'18	retrograde	3610 Nov 25 02:10	22°♏37'05	
retrograde	3609 Dec 11 11:49	8°♏25'51		evening set	3610 Nov 30 13:17	20°♏21'12	
evening set	3609 Dec 16 09:10	6°♏25'55		min. Earth dist.	3610 Dec 05 05:17	15°♏03'17	0.67605 AU
asc. node	3609 Dec 18 03:08	4°♏43'46		asc. node	3610 Dec 05 00:10	15°♏20'12	
inferior conj	3609 Dec 21 19:34	29°♏59'41	1°13'40	inferior conj	3610 Dec 06 01:56	13°♏54'28	0°21'59
minimum elong	3609 Dec 21 17:57	0°♏05'14	1°13'02	minimum elong	3610 Dec 06 01:24	13°♏56'16	0°21'46
min. Earth dist.	3609 Dec 21 09:36	0°♏33'57	0.67932 AU	morning rise	3610 Dec 11 13:56	7°♏50'45	
	3609 Dec 21 19:29	30°♏♎		direct	3610 Dec 15 05:58	6°♏33'32	
morning rise	3609 Dec 27 02:47	23°♏49'51		morning max el	3610 Dec 22 20:29	10°♏53'04	20°02'26
direct	3609 Dec 31 07:55	22°♏11'10		greatest brilliancy	3610 Dec 29 21:05	19°♏22'29	-0.6m
morning max el	3610 Jan 08 21:33	27°♏09'56	21°14'52		3611 Jan 06 07:38	0°♏	
	3610 Jan 11 12:25	0°♏		desc. node	3611 Jan 11 06:41	7°♏25'31	
greatest brilliancy	3610 Jan 14 02:43	3°♏07'50	-0.4m	morning set	3611 Jan 18 15:27	18°♏41'03	
desc. node	3610 Jan 24 09:39	17°♏14'02			3611 Jan 25 21:35	0°♐	
	3610 Feb 01 23:33	0°♐		max. Earth dist.	3611 Jan 29 13:53	5°♐50'18	1.43948 AU
morning set	3610 Feb 08 19:09	10°♐33'11		superior conj	3611 Feb 04 00:50	14°♐39'04	-2°-1'-48
max. Earth dist.	3610 Feb 16 04:26	22°♐24'58	1.42323 AU	minimum elong	3611 Feb 03 20:15	14°♐20'23	2°01'37
	3610 Feb 20 17:54	0°♑			3611 Feb 13 05:38	0°♑	
superior conj	3610 Feb 23 12:11	4°♑41'58	-2°-6'-44	evening rise	3611 Feb 17 03:13	6°♑40'33	
minimum elong	3610 Feb 23 13:17	4°♑46'38	2°06'43	asc. node	3611 Mar 02 23:28	29°♑23'29	
evening rise	3610 Mar 06 21:24	24°♑52'04			3611 Mar 03 10:06	0°♒	
	3610 Mar 09 17:36	0°♒		evening max el	3611 Mar 06 23:50	4°♒15'22	18°11'14
asc. node	3610 Mar 16 02:27	11°♒03'13		retrograde	3611 Mar 13 10:11	7°♒39'21	
evening max el	3610 Mar 23 11:12	21°♒01'08	18°08'00	evening set	3611 Mar 16 06:03	6°♒58'09	
retrograde	3610 Mar 30 03:49	24°♒25'35		inferior conj	3611 Mar 22 10:50	1°♒41'24	3°35'19
evening set	3610 Apr 01 18:01	23°♒55'11		minimum elong	3611 Mar 22 11:42	1°♒39'03	3°35'17
inferior conj	3610 Apr 08 11:03	18°♒58'52	3°14'13		3611 Mar 24 00:20	30°♒♋	
minimum elong	3610 Apr 08 13:42	18°♒52'32	3°13'46	min. Earth dist.	3611 Mar 25 03:45	28°♒47'32	0.62918 AU
min. Earth dist.	3610 Apr 11 16:43	15°♒55'47	0.60825 AU	morning rise	3611 Mar 28 15:13	25°♒36'58	
morning rise	3610 Apr 15 06:10	13°♒07'05		direct	3611 Apr 04 12:44	22°♒59'20	
direct	3610 Apr 21 23:10	10°♒54'13		desc. node	3611 Apr 09 05:51	24°♒03'42	
desc. node	3610 Apr 22 08:50	10°♒54'41			3611 Apr 17 12:23	0°♒	
morning max el	3610 May 06 05:16	18°♒49'17	27°44'39	morning max el	3611 Apr 18 11:46	0°♒57'09	27°48'29
	3610 May 15 15:38	0°♓			3611 May 09 18:47	0°♓	
	3610 Jun 02 21:48	0°♔		morning set	3611 May 22 15:39	23°♓40'07	
morning set	3610 Jun 07 15:56	9°♔29'03			3611 May 25 17:45	0°♔	
asc. node	3610 Jun 12 01:44	18°♔48'45		max. Earth dist.	3611 May 28 01:44	4°♔55'32	1.32681 AU
max. Earth dist.	3610 Jun 13 19:16	22°♔34'27	1.32165 AU	asc. node	3611 May 29 22:46	8°♔57'16	

superior conj	3611 May 30 08:05	9°II47'32	0°04'05	superior conj	3612 May 13 12:04	24°807'12	0°-24'-3
minimum elong	3611 May 30 07:53	9°II46'29	0°04'03	minimum elong	3612 May 13 13:19	24°813'44	0°23'48
behind sun begin	3611 May 30 02:48	9°II18'59		asc. node	3612 May 15 19:47	29°803'07	
behind sun end	3611 May 30 12:58	10°II14'01			3612 May 16 06:27	0°II	
evening rise	3611 Jun 06 08:28	24°II57'34		evening rise	3612 May 20 19:29	9°II39'31	
	3611 Jun 08 18:21	0°☾			3612 May 31 11:22	0°☾	
	3611 Jun 27 04:01	0°♂		evening max el	3612 Jun 10 16:24	13°☾27'52	22°02'52
evening max el	3611 Jun 30 00:39	3°♂00'50	23°38'53	desc. node	3612 Jun 22 02:08	19°☾42'21	
desc. node	3611 Jul 06 05:08	7°♂45'26		retrograde	3612 Jun 23 10:14	19°☾46'29	
retrograde	3611 Jul 13 16:12	9°♂51'31		evening set	3612 Jun 26 05:41	19°☾28'53	
evening set	3611 Jul 17 20:53	9°♂12'56		min. Earth dist.	3612 Jul 04 21:21	15°☾46'00	0.54998 AU
min. Earth dist.	3611 Jul 24 10:43	6°♂07'16	0.55984 AU	inferior conj	3612 Jul 05 12:56	15°☾24'08	-3°-40'-21
inferior conj	3611 Jul 26 14:39	4°♂49'28	-4°-49'-15	minimum elong	3612 Jul 05 04:31	15°☾35'57	3°38'04
minimum elong	3611 Jul 26 09:12	4°♂57'41	4°48'31	morning rise	3612 Jul 14 05:08	11°☾33'19	
morning rise	3611 Aug 04 00:45	0°♂54'06		direct	3612 Jul 17 09:15	11°☾11'02	
direct	3611 Aug 06 20:12	0°♂34'21		morning max el	3612 Jul 29 06:33	16°☾44'15	21°32'56
morning max el	3611 Aug 17 02:27	5°♂20'03	20°07'11		3612 Aug 08 13:04	0°♂	
asc. node	3611 Aug 25 21:59	16°♂46'31		asc. node	3612 Aug 11 19:02	5°♂37'19	
	3611 Sep 02 02:56	0°♐		morning set	3612 Aug 18 16:35	19°♂12'10	
morning set	3611 Sep 04 07:42	4°♐25'30			3612 Aug 23 19:50	0°♐	
superior conj	3611 Sep 12 01:36	20°♐13'38	1°44'12	superior conj	3612 Aug 26 00:32	4°♐36'16	1°43'04
minimum elong	3611 Sep 12 02:08	20°♐16'23	1°44'11	minimum elong	3612 Aug 25 23:40	4°♐31'42	1°43'01
	3611 Sep 17 01:01	0°♑		max. Earth dist.	3612 Aug 30 00:40	12°♐48'57	1.35023 AU
max. Earth dist.	3611 Sep 17 12:50	0°♑56'25	1.36764 AU	evening rise	3612 Sep 03 09:38	21°♐23'18	
evening rise	3611 Sep 21 10:08	8°♑10'31			3612 Sep 08 01:24	0°♑	
desc. node	3611 Oct 02 04:29	26°♑30'57		desc. node	3612 Sep 18 01:31	16°♑42'47	
	3611 Oct 04 09:41	0°♒			3612 Sep 27 06:08	0°♒	
evening max el	3611 Oct 27 03:01	29°♒37'52	25°47'49	evening max el	3612 Oct 08 15:27	13°♒16'02	26°44'30
	3611 Oct 27 12:12	0°♓		retrograde	3612 Oct 21 16:19	20°♒31'22	
retrograde	3611 Nov 08 11:49	6°♓41'17		evening set	3612 Oct 28 06:37	17°♒52'09	
evening set	3611 Nov 14 13:06	4°♓11'25		min. Earth dist.	3612 Nov 01 07:52	13°♒46'07	0.65905 AU
	3611 Nov 18 11:30	30°♒♒		inferior conj	3612 Nov 03 03:17	11°♒38'15	-1°-33'-54
min. Earth dist.	3611 Nov 18 21:29	29°♒28'58	0.66934 AU	minimum elong	3612 Nov 03 05:52	11°♒30'37	1°32'51
inferior conj	3611 Nov 20 05:11	27°♒48'45	0°-34'-18	asc. node	3612 Nov 07 18:12	6°♒53'33	
minimum elong	3611 Nov 20 06:05	27°♒45'54	0°33'56	morning rise	3612 Nov 09 06:38	5°♒54'53	
asc. node	3611 Nov 21 21:10	25°♒45'05		direct	3612 Nov 12 02:04	5°♒11'03	
morning rise	3611 Nov 25 23:58	21°♒53'47		morning max el	3612 Nov 18 15:54	8°♒45'26	18°22'45
direct	3611 Nov 29 04:39	20°♒55'07			3612 Dec 03 12:23	0°♓	
morning max el	3611 Dec 06 03:12	24°♒46'38	19°04'33	morning set	3612 Dec 08 03:16	7°♓26'39	
	3611 Dec 10 13:58	0°♓		desc. node	3612 Dec 15 00:47	18°♓30'02	
morning set	3611 Dec 28 20:05	27°♓22'43			3612 Dec 22 07:12	0°♔	
desc. node	3611 Dec 29 03:44	27°♓52'29		superior conj	3612 Dec 23 15:40	2°♔07'37	0°-56'-28
	3611 Dec 30 12:27	0°♕		minimum elong	3612 Dec 23 08:38	1°♔40'00	0°55'35
max. Earth dist.	3612 Jan 12 05:46	19°♕54'22	1.44958 AU	max. Earth dist.	3612 Dec 25 00:43	4°♔17'18	1.45238 AU
superior conj	3612 Jan 14 13:31	23°♕34'17	-1°-37'-34	evening rise	3613 Jan 08 20:10	27°♕30'52	
minimum elong	3612 Jan 14 04:31	22°♕58'42	1°36'45		3613 Jan 10 10:06	0°♖	
	3612 Jan 18 14:42	0°♗		greatest brilliancy	3613 Jan 22 05:00	18°♖19'55	-0.7m
evening rise	3612 Jan 29 11:13	17°♖33'07			3613 Jan 30 19:20	0°♘	
	3612 Feb 06 01:48	0°♙		evening max el	3613 Jan 31 20:54	1°♘08'39	19°12'05
asc. node	3612 Feb 17 20:28	16°♙59'01		asc. node	3613 Feb 03 17:29	3°♙37'32	
evening max el	3612 Feb 18 11:49	17°♙39'16	18°32'56	retrograde	3613 Feb 07 21:04	5°♙08'20	
retrograde	3612 Feb 25 01:10	21°♙15'42		evening set	3613 Feb 11 05:24	4°♙02'56	
evening set	3612 Feb 28 02:48	20°♙22'53			3613 Feb 15 09:09	30°♚	
inferior conj	3612 Mar 04 22:54	14°♙47'22	3°36'28	inferior conj	3613 Feb 16 19:46	28°♚11'01	3°22'41
minimum elong	3612 Mar 04 22:09	14°♙49'35	3°36'27	minimum elong	3613 Feb 16 17:54	28°♚17'00	3°22'25
min. Earth dist.	3612 Mar 07 00:21	12°♙20'34	0.64725 AU	min. Earth dist.	3613 Feb 18 05:57	26°♚21'29	0.66145 AU
morning rise	3612 Mar 10 16:09	8°♙35'57		morning rise	3613 Feb 22 05:31	21°♚56'09	
direct	3612 Mar 17 09:51	5°♙46'59		direct	3613 Feb 28 13:36	19°♚09'11	
desc. node	3612 Mar 26 02:53	9°♙24'51		desc. node	3613 Mar 12 23:56	26°♚24'16	
morning max el	3612 Mar 30 21:19	13°♙38'49	27°16'59	morning max el	3613 Mar 13 07:16	26°♚42'38	26°16'52
	3612 Apr 13 02:28	0°♜			3613 Mar 16 08:51	0°♜	
	3612 May 01 09:39	0°♞			3613 Apr 06 17:05	0°♞	
morning set	3612 May 05 06:36	7°♞21'28		morning set	3613 Apr 18 09:09	20°♞22'40	
max. Earth dist.	3612 May 09 23:52	16°♞48'13	1.33639 AU	max. Earth dist.	3613 Apr 22 10:41	28°♞08'45	1.35061 AU
					3613 Apr 23 09:20	0°♞	

superior conj	3613 Apr 27 09:15	8°♄02'04	0°-52'-58	max. Earth dist.	3614 Apr 04 10:28	9°♄09'03	1.36913 AU
minimum elong	3613 Apr 27 12:03	8°♄16'25	0°52'27				
asc. node	3613 May 02 16:50	19°♄02'34		superior conj	3614 Apr 10 20:34	21°♄23'34	-1°-20'-55
evening rise	3613 May 05 03:45	24°♄08'03		minimum elong	3614 Apr 11 00:44	21°♄43'57	1°20'18
	3613 May 08 01:04	0°♄			3614 Apr 15 04:25	0°♄	
evening max el	3613 May 23 17:54	24°♄21'11	20°37'30	evening rise	3614 Apr 19 06:55	8°♄15'59	
retrograde	3613 Jun 03 23:16	29°♄49'56		asc. node	3614 Apr 19 13:52	8°♄50'47	
evening set	3613 Jun 06 00:45	29°♄39'34			3614 May 01 09:56	0°♄	
desc. node	3613 Jun 08 23:08	28°♄52'07		evening max el	3614 May 06 07:40	5°♄54'45	19°29'51
inferior conj	3613 Jun 15 06:33	25°♄42'14	-1°-51'-1	retrograde	3614 May 15 19:11	10°♄30'55	
minimum elong	3613 Jun 15 01:20	25°♄49'44	1°49'09	evening set	3614 May 17 18:46	10°♄19'43	
min. Earth dist.	3613 Jun 16 09:25	25°♄03'34	0.54932 AU	inferior conj	3614 May 26 09:59	6°♄14'30	0°07'28
morning rise	3613 Jun 24 00:40	21°♄35'19		minimum elong	3614 May 26 10:18	6°♄13'59	0°07'21
direct	3613 Jun 27 18:42	21°♄05'00		transit middle	3614 May 26 10:18	6°♄13'59	0°07'21
morning max el	3613 Jul 11 01:05	27°♄29'07	23°12'48	transit begin	3614 May 26 06:50	6°♄19'32	
	3613 Jul 13 12:39	0°♄		transit end	3614 May 26 13:46	6°♄08'26	
asc. node	3613 Jul 29 16:06	24°♄56'39		desc. node	3614 May 26 20:10	5°♄58'07	
	3613 Aug 01 04:35	0°♄		min. Earth dist.	3614 May 28 23:34	4°♄36'05	0.55826 AU
morning set	3613 Aug 03 03:46	4°♄05'16		morning rise	3614 Jun 03 22:03	1°♄35'58	
				direct	3614 Jun 08 13:34	0°♄47'13	
superior conj	3613 Aug 10 05:59	19°♄17'39	1°35'32	morning max el	3614 Jun 22 15:07	7°♄53'01	24°55'06
minimum elong	3613 Aug 10 04:09	19°♄07'47	1°35'22		3614 Jul 08 21:10	0°♄	
max. Earth dist.	3613 Aug 12 21:21	24°♄54'17	1.33664 AU	asc. node	3614 Jul 16 13:10	14°♄36'36	
	3613 Aug 15 08:11	0°♄		morning set	3614 Jul 18 15:36	18°♄59'30	
evening rise	3613 Aug 17 22:29	5°♄14'25			3614 Jul 23 17:49	0°♄	
	3613 Aug 31 17:38	0°♄					
desc. node	3613 Sep 04 22:30	6°♄30'21		superior conj	3614 Jul 25 15:28	4°♄09'40	1°22'40
evening max el	3613 Sep 21 03:29	26°♄40'48	27°19'05	minimum elong	3614 Jul 25 13:10	3°♄57'05	1°22'22
	3613 Sep 25 00:24	0°♄		max. Earth dist.	3614 Jul 27 02:15	7°♄19'01	1.32718 AU
retrograde	3613 Oct 04 15:08	3°♄59'19		evening rise	3614 Aug 01 20:59	19°♄33'08	
evening set	3613 Oct 11 15:21	1°♄18'38			3614 Aug 07 04:12	0°♄	
	3613 Oct 13 04:49	30°♄		desc. node	3614 Aug 22 19:30	25°♄43'40	
min. Earth dist.	3613 Oct 15 10:19	27°♄47'57	0.64526 AU		3614 Aug 25 23:42	0°♄	
inferior conj	3613 Oct 17 17:57	25°♄18'13	-2°-34'-48	evening max el	3614 Sep 03 13:30	9°♄40'24	27°25'08
minimum elong	3613 Oct 17 22:16	25°♄06'36	2°33'13	retrograde	3614 Sep 17 07:31	16°♄56'17	
morning rise	3613 Oct 24 07:19	19°♄49'24		evening set	3614 Sep 24 12:05	14°♄25'04	
asc. node	3613 Oct 25 15:17	19°♄23'53		min. Earth dist.	3614 Sep 28 03:02	11°♄25'11	0.62817 AU
direct	3613 Oct 26 19:57	19°♄16'28		inferior conj	3614 Sep 30 22:28	8°♄42'35	-3°-33'-44
morning max el	3613 Nov 02 07:55	22°♄42'57	17°57'46	minimum elong	3614 Oct 01 04:04	8°♄29'03	3°32'03
	3613 Nov 08 01:28	0°♄		morning rise	3614 Oct 07 22:45	3°♄31'38	
morning set	3613 Nov 19 15:19	18°♄55'20		direct	3614 Oct 10 07:23	3°♄05'57	
	3613 Nov 26 06:18	0°♄		asc. node	3614 Oct 12 12:23	3°♄29'01	
desc. node	3613 Dec 01 21:49	9°♄13'54		morning max el	3614 Oct 17 00:18	6°♄32'35	17°50'30
					3614 Nov 01 06:05	0°♄	
superior conj	3613 Dec 03 04:05	11°♄15'49	0°-8'-38	morning set	3614 Nov 02 02:58	1°♄32'22	
minimum elong	3613 Dec 03 03:02	11°♄11'38	0°08'31				
behind sun begin	3613 Dec 02 18:09	10°♄35'51		superior conj	3614 Nov 13 16:56	21°♄36'57	0°34'46
behind sun end	3613 Dec 03 11:56	11°♄47'23		minimum elong	3614 Nov 13 20:10	21°♄50'30	0°34'19
max. Earth dist.	3613 Dec 07 19:24	18°♄39'33	1.44781 AU	desc. node	3614 Nov 18 18:50	0°♄01'07	
	3613 Dec 15 01:13	0°♄			3614 Nov 18 18:34	0°♄	
evening rise	3613 Dec 19 10:44	6°♄47'42		max. Earth dist.	3614 Nov 20 11:36	2°♄46'20	1.43651 AU
	3614 Jan 03 19:15	0°♄		evening rise	3614 Nov 28 20:24	15°♄59'11	
greatest brilliancy	3614 Jan 08 10:10	6°♄32'53	-0.6m		3614 Dec 08 01:49	0°♄	
evening max el	3614 Jan 15 01:22	14°♄39'57	20°07'00	greatest brilliancy	3614 Dec 23 21:51	22°♄18'19	-0.4m
asc. node	3614 Jan 21 14:32	19°♄03'44		evening max el	3614 Dec 29 00:27	28°♄12'53	21°14'44
retrograde	3614 Jan 22 19:00	19°♄11'25			3614 Dec 30 21:21	0°♄	
evening set	3614 Jan 26 11:30	17°♄52'14		retrograde	3615 Jan 06 16:45	3°♄21'40	
inferior conj	3614 Jan 31 22:30	11°♄46'32	2°57'24	asc. node	3615 Jan 08 11:36	3°♄04'14	
minimum elong	3614 Jan 31 20:05	11°♄54'43	2°56'49	evening set	3615 Jan 10 19:11	1°♄47'17	
min. Earth dist.	3614 Feb 01 18:43	10°♄38'28	0.67152 AU		3615 Jan 12 16:45	30°♄	
morning rise	3614 Feb 06 04:03	5°♄30'44		inferior conj	3615 Jan 16 04:45	25°♄30'52	2°22'56
direct	3614 Feb 11 23:05	2°♄56'25		minimum elong	3615 Jan 16 02:16	25°♄39'25	2°22'10
morning max el	3614 Feb 23 16:00	9°♄56'12	24°57'30	min. Earth dist.	3615 Jan 16 12:24	25°♄04'24	0.67757 AU
desc. node	3614 Feb 27 21:00	14°♄33'20		morning rise	3615 Jan 21 08:59	19°♄16'03	
	3614 Mar 11 13:31	0°♄		direct	3615 Jan 26 13:18	17°♄01'26	
	3614 Mar 30 08:33	0°♄		morning max el	3615 Feb 06 00:40	23°♄15'16	23°29'17
morning set	3614 Mar 31 18:15	2°♄28'56			3615 Feb 11 23:21	0°♄	

greatest brilliancy	3615 Feb 12 07:22	0° \approx 24'53	-0.2m	desc. node	3616 Feb 01 15:05	23° \approx 06'36	
desc. node	3615 Feb 14 18:03	3° \approx 32'15			3616 Feb 06 10:17	0° \approx	
	3615 Mar 04 22:51	0° \approx		morning set	3616 Feb 21 08:56	22° \approx 57'14	
morning set	3615 Mar 13 03:51	13° \approx 24'15			3616 Feb 25 16:30	0° \approx	
max. Earth dist.	3615 Mar 17 05:29	20° \approx 24'18	1.39047 AU	max. Earth dist.	3616 Feb 27 03:40	2° \approx 26'28	1.41197 AU
	3615 Mar 22 13:53	0° \approx					
superior conj	3615 Mar 24 18:15	4° \approx 02'25	-1°-45'-15	superior conj	3616 Mar 05 21:29	15° \approx 46'32	-2°-2'-12
minimum elong	3615 Mar 24 22:54	4° \approx 24'06	1°44'47	minimum elong	3616 Mar 06 00:41	16° \approx 00'45	2°02'04
evening rise	3615 Apr 03 02:17	21° \approx 56'26		evening rise	3616 Mar 16 10:23	5° \approx 00'57	
asc. node	3615 Apr 06 10:54	28° \approx 23'12		asc. node	3616 Mar 23 07:56	17° \approx 33'56	
	3615 Apr 07 07:30	0° \approx			3616 Mar 31 19:45	0° \approx	
evening max el	3615 Apr 19 08:03	18° \approx 07'35	18°42'13	evening max el	3616 Apr 01 15:46	0° \approx 51'29	18°14'47
retrograde	3615 Apr 27 08:22	22° \approx 03'07		retrograde	3616 Apr 08 16:40	4° \approx 22'59	
evening set	3615 Apr 29 13:06	21° \approx 46'29		evening set	3616 Apr 11 03:29	3° \approx 58'08	
inferior conj	3615 May 07 08:53	17° \approx 23'06	1°45'08		3616 Apr 17 07:49	30° \approx 00'00	
minimum elong	3615 May 07 12:19	17° \approx 16'40	1°44'04	inferior conj	3616 Apr 18 05:14	29° \approx 13'35	2°50'33
min. Earth dist.	3615 May 10 16:36	14° \approx 55'09	0.57484 AU	minimum elong	3616 Apr 18 08:41	29° \approx 06'00	2°49'46
desc. node	3615 May 13 17:13	12° \approx 58'15		min. Earth dist.	3616 Apr 21 14:54	26° \approx 16'18	0.59564 AU
morning rise	3615 May 15 07:06	12° \approx 09'59		morning rise	3616 Apr 25 10:05	23° \approx 32'50	
direct	3615 May 20 22:18	10° \approx 51'40		desc. node	3616 Apr 29 14:14	21° \approx 53'11	
morning max el	3615 Jun 04 06:52	18° \approx 24'34	26°24'10	direct	3616 May 01 19:57	21° \approx 39'24	
	3615 Jun 13 23:38	0° \approx		morning max el	3616 May 16 04:31	29° \approx 28'42	27°25'37
	3615 Jul 01 06:17	0° \approx			3616 May 16 17:06	0° \approx	
morning set	3615 Jul 03 02:23	3° \approx 49'31			3616 Jun 06 21:08	0° \approx	
asc. node	3615 Jul 03 10:12	4° \approx 30'48		morning set	3616 Jun 16 10:29	18° \approx 30'05	
				asc. node	3616 Jun 19 07:13	24° \approx 34'20	
superior conj	3615 Jul 10 02:56	19° \approx 05'21	1°05'15		3616 Jun 21 19:08	0° \approx	
minimum elong	3615 Jul 10 00:39	18° \approx 52'47	1°04'52	max. Earth dist.	3616 Jun 23 00:27	2° \approx 41'01	1.32057 AU
max. Earth dist.	3615 Jul 10 12:31	19° \approx 58'12	1.32187 AU				
	3615 Jul 15 02:56	0° \approx		superior conj	3616 Jun 23 14:38	3° \approx 59'05	0°43'58
evening rise	3615 Jul 17 02:06	4° \approx 09'50		minimum elong	3616 Jun 23 12:50	3° \approx 49'11	0°43'36
	3615 Jul 30 22:07	0° \approx		evening rise	3616 Jun 30 11:26	18° \approx 56'57	
desc. node	3615 Aug 09 16:31	14° \approx 08'05			3616 Jul 05 21:40	0° \approx	
evening max el	3615 Aug 16 18:43	22° \approx 00'33	26°58'15		3616 Jul 25 06:58	0° \approx	
retrograde	3615 Aug 30 16:14	29° \approx 12'15		desc. node	3616 Jul 26 13:31	1° \approx 23'34	
evening set	3615 Sep 06 16:29	27° \approx 02'58		evening max el	3616 Jul 28 16:38	3° \approx 32'18	25°58'43
min. Earth dist.	3615 Sep 10 08:57	24° \approx 12'34	0.60853 AU	retrograde	3616 Aug 11 16:00	10° \approx 40'45	
inferior conj	3615 Sep 13 13:24	21° \approx 41'43	-4°-25'-21	evening set	3616 Aug 17 23:41	9° \approx 04'51	
minimum elong	3615 Sep 13 19:01	21° \approx 29'45	4°24'12	min. Earth dist.	3616 Aug 22 05:03	6° \approx 29'35	0.58786 AU
morning rise	3615 Sep 21 00:42	16° \approx 52'03		inferior conj	3616 Aug 25 11:10	4° \approx 05'54	-5°00'-38
direct	3615 Sep 23 08:31	16° \approx 30'36		minimum elong	3616 Aug 25 14:24	3° \approx 59'55	5°00'21
asc. node	3615 Sep 29 09:26	19° \approx 01'38			3616 Sep 01 06:56	30° \approx 00'00	
morning max el	3615 Sep 30 13:51	20° \approx 05'35	18°02'05	morning rise	3616 Sep 02 08:36	29° \approx 03'48	
	3615 Oct 07 22:32	0° \approx		direct	3616 Sep 04 18:47	29° \approx 02'23	
morning set	3615 Oct 16 07:43	14° \approx 57'54			3616 Sep 08 03:24	0° \approx	
	3615 Oct 24 12:26	0° \approx		morning max el	3616 Sep 12 21:21	3° \approx 13'19	18°33'50
				asc. node	3616 Sep 15 06:28	5° \approx 47'52	
superior conj	3615 Oct 26 08:14	3° \approx 15'12	1°07'55	morning set	3616 Sep 29 00:30	28° \approx 57'28	
minimum elong	3615 Oct 26 12:28	3° \approx 33'55	1°07'25		3616 Sep 29 13:26	0° \approx	
max. Earth dist.	3615 Nov 02 23:23	16° \approx 21'56	1.41978 AU				
desc. node	3615 Nov 05 15:51	20° \approx 14'51		superior conj	3616 Oct 07 21:38	15° \approx 58'15	1°29'47
evening rise	3615 Nov 08 17:13	25° \approx 14'07		minimum elong	3616 Oct 08 00:51	16° \approx 13'14	1°29'31
	3615 Nov 11 09:54	0° \approx		max. Earth dist.	3616 Oct 15 05:52	29° \approx 13'49	1.39971 AU
	3615 Dec 01 22:47	0° \approx			3616 Oct 15 16:29	0° \approx	
greatest brilliancy	3615 Dec 06 22:31	6° \approx 22'38	-0.3m	evening rise	3616 Oct 19 11:29	6° \approx 27'54	
evening max el	3615 Dec 11 18:17	11° \approx 47'11	22°31'15	desc. node	3616 Oct 22 12:52	11° \approx 30'41	
retrograde	3615 Dec 21 12:38	17° \approx 35'20			3616 Nov 03 12:26	0° \approx	
evening set	3615 Dec 26 02:45	15° \approx 44'40		evening max el	3616 Nov 23 08:16	25° \approx 24'07	23°51'12
asc. node	3615 Dec 26 08:39	15° \approx 32'16			3616 Nov 28 21:13	0° \approx	
inferior conj	3615 Dec 31 12:26	9° \approx 20'54	1°40'52	retrograde	3616 Dec 04 05:22	1° \approx 48'49	
minimum elong	3615 Dec 31 10:23	9° \approx 28'01	1°40'06		3616 Dec 08 23:33	30° \approx 00'00	
min. Earth dist.	3615 Dec 31 08:39	9° \approx 34'02	0.67979 AU	evening set	3616 Dec 09 08:35	29° \approx 41'40	
morning rise	3616 Jan 05 17:56	3° \approx 08'54		asc. node	3616 Dec 12 05:41	26° \approx 23'41	
direct	3616 Jan 10 07:19	1° \approx 17'06		min. Earth dist.	3616 Dec 14 05:11	24° \approx 04'14	0.67840 AU
morning max el	3616 Jan 19 12:38	6° \approx 41'43	22°01'48	inferior conj	3616 Dec 14 19:48	23° \approx 14'34	0°52'23
greatest brilliancy	3616 Jan 24 04:08	11° \approx 54'21	-0.4m	minimum elong	3616 Dec 14 18:35	23° \approx 18'40	0°51'54

morning rise	3616 Dec 20 04:49	17°♂07'16		transit end	3617 Nov 29 03:52	7°♂00'32	
direct	3616 Dec 24 04:07	15°♂38'12		asc. node	3617 Nov 29 02:42	7°♂04'22	
morning max el	3617 Jan 01 07:11	20°♂18'52	20°42'26	morning rise	3617 Dec 04 15:43	1°♂09'21	
greatest brilliancy	3617 Jan 07 03:34	27°♂08'15	-0.5m	direct	3617 Dec 08 02:35	0°♂00'37	
	3617 Jan 09 07:31	0°♂		morning max el	3617 Dec 15 09:38	4°♂07'18	19°35'57
desc. node	3617 Jan 18 12:07	13°♂06'36		greatest brilliancy	3617 Dec 23 14:55	14°♂22'49	-0.6m
	3617 Jan 29 15:29	0°♂			3618 Jan 03 03:28	0°♂	
morning set	3617 Jan 30 12:29	1°♂21'28		desc. node	3618 Jan 05 09:09	3°♂25'22	
max. Earth dist.	3617 Feb 08 08:43	15°♂22'55	1.43080 AU	morning set	3618 Jan 09 09:15	9°♂35'19	
				max. Earth dist.	3618 Jan 21 20:49	29°♂05'44	1.44456 AU
					3618 Jan 22 10:30	0°♂	
superior conj	3617 Feb 15 01:08	26°♂24'01	-2°-6'-49				
minimum elong	3617 Feb 15 00:02	26°♂19'23	2°06'50				
	3617 Feb 17 04:16	0°♂		superior conj	3618 Jan 26 02:57	5°♂53'03	-1°-53'-57
evening rise	3617 Feb 27 03:07	17°♂19'51		minimum elong	3618 Jan 25 19:58	5°♂25'01	1°53'30
	3617 Mar 06 08:41	0°♂		evening rise	3618 Feb 09 00:10	28°♂45'40	
asc. node	3617 Mar 10 04:57	6°♂15'11			3618 Feb 09 17:49	0°♂	
evening max el	3617 Mar 16 03:26	13°♂56'40	18°07'00	asc. node	3618 Feb 25 01:59	24°♂18'20	
retrograde	3617 Mar 22 16:21	17°♂19'38		evening max el	3618 Feb 27 16:09	27°♂16'12	18°18'13
evening set	3617 Mar 25 08:51	16°♂44'53			3618 Mar 03 05:38	0°♂	
inferior conj	3617 Mar 31 20:12	11°♂39'36	3°25'59	retrograde	3618 Mar 06 02:51	0°♂44'07	
minimum elong	3617 Mar 31 22:07	11°♂34'46	3°25'46		3618 Mar 08 23:38	30°♂	
min. Earth dist.	3617 Apr 03 21:00	8°♂37'40	0.61734 AU	evening set	3618 Mar 09 01:01	29°♂58'15	
morning rise	3617 Apr 07 08:37	5°♂41'12		inferior conj	3618 Mar 15 01:45	24°♂33'31	3°37'52
direct	3617 Apr 14 04:27	3°♂16'23		minimum elong	3618 Mar 15 01:53	24°♂33'09	3°37'53
desc. node	3617 Apr 16 11:17	3°♂31'27		min. Earth dist.	3618 Mar 17 12:20	21°♂49'03	0.63732 AU
morning max el	3617 Apr 28 08:26	11°♂14'14	27°50'57	morning rise	3618 Mar 21 00:56	18°♂25'24	
	3617 May 13 01:56	0°♂		direct	3618 Mar 27 21:44	15°♂40'51	
	3617 May 30 03:32	0°♂		desc. node	3618 Apr 03 08:20	17°♂41'07	
morning set	3617 May 31 13:54	2°♂53'52		morning max el	3618 Apr 10 16:37	23°♂38'12	27°38'56
asc. node	3617 Jun 06 04:14	14°♂41'56			3618 Apr 16 09:17	0°♂	
max. Earth dist.	3617 Jun 06 09:59	15°♂13'04	1.32329 AU		3618 May 06 09:31	0°♂	
				morning set	3618 May 15 10:17	16°♂53'24	
superior conj	3617 Jun 08 00:48	18°♂44'14	0°19'25	max. Earth dist.	3618 May 20 13:08	27°♂21'53	1.33031 AU
minimum elong	3617 Jun 07 23:54	18°♂39'22	0°19'13		3618 May 21 19:04	0°♂	
	3617 Jun 13 04:36	0°♂					
evening rise	3617 Jun 14 22:52	3°♂46'42		superior conj	3618 May 23 07:40	3°♂15'12	0°-7'-40
	3617 Jun 29 00:02	0°♂		minimum elong	3618 May 23 08:02	3°♂17'15	0°07'37
evening max el	3617 Jul 10 07:38	14°♂19'26	24°33'51	behind sun begin	3618 May 23 03:19	2°♂51'55	
desc. node	3617 Jul 13 10:32	17°♂02'01		behind sun end	3618 May 23 12:46	3°♂42'36	
retrograde	3617 Jul 24 05:11	21°♂20'54		asc. node	3618 May 24 01:15	4°♂49'40	
evening set	3617 Jul 29 06:41	20°♂23'19		evening rise	3618 May 30 10:35	18°♂33'11	
min. Earth dist.	3617 Aug 03 18:43	17°♂32'55	0.56873 AU		3618 Jun 05 01:52	0°♂	
inferior conj	3617 Aug 06 13:03	15°♂46'31	-5°-5'-55	evening max el	3618 Jun 21 21:01	24°♂45'01	22°57'26
minimum elong	3617 Aug 06 11:01	15°♂49'47	5°05'50		3618 Jun 29 03:34	0°♂	
morning rise	3617 Aug 14 18:59	11°♂42'11		desc. node	3618 Jun 30 07:33	0°♂29'17	
direct	3617 Aug 17 10:14	11°♂23'08		retrograde	3618 Jul 05 05:47	1°♂24'41	
morning max el	3617 Aug 26 19:39	15°♂46'13	19°26'58	evening set	3618 Jul 08 18:45	0°♂57'15	
asc. node	3617 Sep 02 03:28	23°♂32'29			3618 Jul 11 14:10	30°♂	
	3617 Sep 06 01:56	0°♂		min. Earth dist.	3618 Jul 16 05:54	27°♂37'09	0.55460 AU
morning set	3617 Sep 13 01:37	13°♂20'52		inferior conj	3618 Jul 17 19:42	26°♂42'32	-4°-26'-10
				minimum elong	3618 Jul 17 12:17	26°♂53'16	4°24'43
superior conj	3617 Sep 21 03:35	29°♂30'09	1°41'29	morning rise	3618 Jul 26 08:35	22°♂50'55	
minimum elong	3617 Sep 21 05:06	29°♂37'35	1°41'24	direct	3618 Jul 29 07:11	22°♂30'30	
	3617 Sep 21 09:41	0°♂		morning max el	3618 Aug 09 06:26	27°♂36'06	20°41'26
max. Earth dist.	3617 Sep 27 09:49	11°♂24'51	1.37887 AU		3618 Aug 11 14:43	0°♂	
evening rise	3617 Oct 01 05:06	18°♂16'18		asc. node	3618 Aug 20 00:30	12°♂02'20	
	3617 Oct 08 02:54	0°♂		morning set	3618 Aug 28 08:17	28°♂00'34	
desc. node	3617 Oct 09 09:53	2°♂05'37			3618 Aug 29 07:27	0°♂	
	3617 Oct 28 19:28	0°♂					
evening max el	3617 Nov 05 20:37	9°♂04'50	25°08'04	superior conj	3618 Sep 04 21:23	13°♂37'08	1°44'34
retrograde	3617 Nov 17 18:02	15°♂57'53		minimum elong	3618 Sep 04 21:16	13°♂36'35	1°44'34
evening set	3617 Nov 23 11:08	13°♂35'33		max. Earth dist.	3618 Sep 09 17:20	23°♂16'47	1.35977 AU
min. Earth dist.	3617 Nov 27 23:44	8°♂32'31	0.67354 AU		3618 Sep 13 05:45	0°♂	
inferior conj	3617 Nov 29 01:04	7°♂09'41	0°-1'-22	evening rise	3618 Sep 13 19:00	1°♂01'42	
minimum elong	3617 Nov 29 01:06	7°♂09'35	0°01'22	desc. node	3618 Sep 26 06:53	22°♂27'29	
transit middle	3617 Nov 29 01:06	7°♂09'35	0°01'22		3618 Oct 01 05:23	0°♂	
transit begin	3617 Nov 28 22:20	7°♂18'38		evening max el	3618 Oct 19 09:01	22°♂46'17	26°14'22

retrograde	3618 Nov 01 01:39	29° \mathbb{M} 56'21		retrograde	3619 Oct 15 03:38	13° \mathbb{M} 37'59	
evening set	3618 Nov 07 08:32	27° \mathbb{M} 22'02		evening set	3619 Oct 21 22:38	10° \mathbb{M} 57'20	
min. Earth dist.	3618 Nov 11 13:53	22° \mathbb{M} 54'44	0.66529 AU	min. Earth dist.	3619 Oct 25 21:12	7° \mathbb{M} 06'27	0.65362 AU
inferior conj	3618 Nov 13 02:24	21° \mathbb{M} 02'21	0°-59'-18	inferior conj	3619 Oct 27 21:40	4° \mathbb{M} 48'47	-1°-59'-42
minimum elong	3618 Nov 13 03:59	20° \mathbb{M} 57'26	0°58'37	minimum elong	3619 Oct 28 01:00	4° \mathbb{M} 39'17	1°58'24
asc. node	3618 Nov 15 23:44	17° \mathbb{M} 41'10			3619 Nov 01 20:00	30° \mathbb{R} \mathbb{L}	
morning rise	3618 Nov 19 00:35	15° \mathbb{M} 11'41		asc. node	3619 Nov 02 20:47	29° \mathbb{L} 21'31	
direct	3618 Nov 22 01:01	14° \mathbb{M} 19'47		morning rise	3619 Nov 03 05:06	29° \mathbb{L} 10'58	
morning max el	3618 Nov 28 19:05	18° \mathbb{M} 03'08	18°44'45	direct	3619 Nov 05 21:25	28° \mathbb{L} 32'04	
	3618 Dec 07 22:04	0° \mathbb{Z}			3619 Nov 10 00:08	0° \mathbb{M}	
morning set	3618 Dec 19 23:55	18° \mathbb{Z} 48'33		morning max el	3619 Nov 12 09:29	2° \mathbb{M} 01'53	18°10'00
desc. node	3618 Dec 23 06:11	23° \mathbb{Z} 57'00		morning set	3619 Nov 30 19:47	29° \mathbb{M} 30'13	
	3618 Dec 27 02:29	0° \mathbb{Z}			3619 Dec 01 03:03	0° \mathbb{Z}	
max. Earth dist.	3619 Jan 04 14:07	13° \mathbb{Z} 18'59	1.45168 AU	desc. node	3619 Dec 10 03:13	14° \mathbb{Z} 37'33	
superior conj	3619 Jan 05 08:52	14° \mathbb{Z} 32'36	-1°-21'-46	superior conj	3619 Dec 15 12:48	23° \mathbb{Z} 13'24	0°-36'-15
minimum elong	3619 Jan 04 23:50	13° \mathbb{Z} 57'09	1°20'47	minimum elong	3619 Dec 15 08:12	22° \mathbb{Z} 55'14	0°35'39
	3619 Jan 15 03:43	0° \mathbb{Z}		max. Earth dist.	3619 Dec 18 09:41	27° \mathbb{Z} 45'02	1.45138 AU
evening rise	3619 Jan 20 22:13	9° \mathbb{Z} 13'42			3619 Dec 19 20:04	0° \mathbb{Z}	
	3619 Feb 03 00:03	0° \mathbb{H}		evening rise	3619 Dec 31 22:14	18° \mathbb{Z} 51'05	
evening max el	3619 Feb 11 03:15	10° \mathbb{H} 43'23	18°47'33		3620 Jan 08 02:57	0° \mathbb{Z}	
asc. node	3619 Feb 11 23:02	11° \mathbb{H} 31'32		greatest brilliancy	3620 Jan 17 09:31	13° \mathbb{Z} 57'56	-0.7m
retrograde	3619 Feb 17 20:13	14° \mathbb{H} 28'07		evening max el	3620 Jan 25 10:37	24° \mathbb{Z} 13'59	19°33'39
evening set	3619 Feb 21 00:36	13° \mathbb{H} 30'04		asc. node	3620 Jan 29 20:05	27° \mathbb{Z} 41'15	
inferior conj	3619 Feb 26 17:58	7° \mathbb{H} 47'32	3°32'10	retrograde	3620 Feb 01 17:15	28° \mathbb{Z} 25'53	
minimum elong	3619 Feb 26 16:41	7° \mathbb{H} 51'30	3°32'04	evening set	3620 Feb 05 04:59	27° \mathbb{Z} 14'34	
min. Earth dist.	3619 Feb 28 12:53	5° \mathbb{H} 35'38	0.65388 AU	inferior conj	3620 Feb 10 17:39	21° \mathbb{Z} 16'25	3°13'11
morning rise	3619 Mar 04 07:37	1° \mathbb{H} 34'29		minimum elong	3620 Feb 10 15:29	21° \mathbb{Z} 23'32	3°12'47
	3619 Mar 06 11:40	30° \mathbb{R} \mathbb{Z}		min. Earth dist.	3620 Feb 11 21:38	19° \mathbb{Z} 44'34	0.66630 AU
direct	3619 Mar 10 21:59	28° \mathbb{Z} 44'38		morning rise	3620 Feb 16 01:15	15° \mathbb{Z} 01'10	
	3619 Mar 15 17:54	0° \mathbb{H}		direct	3620 Feb 22 04:08	12° \mathbb{Z} 18'39	
desc. node	3619 Mar 21 05:22	3° \mathbb{H} 47'47		morning max el	3620 Mar 05 11:48	19° \mathbb{Z} 38'39	25°44'51
morning max el	3619 Mar 24 02:23	6° \mathbb{H} 29'59	26°54'14	desc. node	3620 Mar 07 02:26	21° \mathbb{Z} 19'35	
	3619 Apr 11 04:41	0° \mathbb{Y}			3620 Mar 14 08:03	0° \mathbb{H}	
morning set	3619 Apr 28 20:29	0° \mathbb{B} 19'07			3620 Apr 03 07:11	0° \mathbb{Y}	
	3619 Apr 28 16:29	0° \mathbb{B}		morning set	3620 Apr 10 16:18	12° \mathbb{Y} 58'47	
max. Earth dist.	3619 May 03 06:26	8° \mathbb{B} 59'31	1.34190 AU	max. Earth dist.	3620 Apr 14 12:31	20° \mathbb{Y} 10'01	1.35808 AU
					3620 Apr 19 13:04	0° \mathbb{B}	
superior conj	3619 May 07 09:07	17° \mathbb{B} 25'35	0°-36'-18	superior conj	3620 Apr 20 02:33	1° \mathbb{B} 07'37	-1°-5'-4
minimum elong	3619 May 07 11:01	17° \mathbb{B} 35'30	0°35'56	minimum elong	3620 Apr 20 05:59	1° \mathbb{B} 24'54	1°04'29
asc. node	3619 May 10 22:19	24° \mathbb{B} 53'32		asc. node	3620 Apr 26 19:23	14° \mathbb{B} 49'02	
	3619 May 13 08:22	0° \mathbb{I}		evening rise	3620 Apr 28 03:08	17° \mathbb{B} 31'28	
evening rise	3619 May 14 20:42	3° \mathbb{I} 10'22			3620 May 04 12:08	0° \mathbb{I}	
	3619 May 30 00:39	0° \mathbb{S}		evening max el	3620 May 15 23:11	16° \mathbb{I} 30'55	20°06'15
evening max el	3619 Jun 03 16:29	5° \mathbb{S} 21'14	21°24'42	retrograde	3620 May 26 10:19	21° \mathbb{I} 36'40	
retrograde	3619 Jun 15 19:56	11° \mathbb{S} 19'19		evening set	3620 May 28 09:45	21° \mathbb{I} 26'33	
desc. node	3619 Jun 17 04:34	11° \mathbb{S} 15'02		desc. node	3620 Jun 03 01:36	19° \mathbb{I} 22'29	
evening set	3619 Jun 18 05:36	11° \mathbb{S} 06'07		inferior conj	3620 Jun 06 10:26	17° \mathbb{I} 27'15	0°-59'-44
inferior conj	3619 Jun 27 14:18	7° \mathbb{S} 06'53	-2°-57'-24	minimum elong	3620 Jun 06 07:38	17° \mathbb{I} 31'25	0°58'42
minimum elong	3619 Jun 27 06:35	7° \mathbb{S} 17'41	2°54'57	min. Earth dist.	3620 Jun 08 05:34	16° \mathbb{I} 22'55	0.55205 AU
min. Earth dist.	3619 Jun 27 17:04	7° \mathbb{S} 03'02	0.54853 AU	morning rise	3620 Jun 15 03:08	13° \mathbb{I} 08'36	
morning rise	3619 Jul 06 08:03	3° \mathbb{S} 11'39		direct	3620 Jun 19 05:37	12° \mathbb{I} 32'02	
direct	3619 Jul 09 17:29	2° \mathbb{S} 46'41		morning max el	3620 Jul 02 21:42	19° \mathbb{I} 14'40	23°56'58
morning max el	3619 Jul 22 05:53	8° \mathbb{S} 41'55	22°14'13		3620 Jul 11 21:29	0° \mathbb{S}	
	3619 Aug 06 07:18	0° \mathbb{Q}		asc. node	3620 Jul 23 18:38	20° \mathbb{S} 35'45	
asc. node	3619 Aug 06 21:34	1° \mathbb{Q} 06'40		morning set	3620 Jul 27 06:06	27° \mathbb{S} 45'41	
morning set	3619 Aug 12 18:24	12° \mathbb{Q} 51'05			3620 Jul 28 07:24	0° \mathbb{Q}	
superior conj	3619 Aug 19 23:27	28° \mathbb{Q} 08'59	1°40'34	superior conj	3620 Aug 03 06:54	12° \mathbb{Q} 55'48	1°30'40
minimum elong	3619 Aug 19 22:07	28° \mathbb{Q} 01'52	1°40'29	minimum elong	3620 Aug 03 04:48	12° \mathbb{Q} 44'27	1°30'27
	3619 Aug 20 20:33	0° \mathbb{P}		max. Earth dist.	3620 Aug 05 09:49	17° \mathbb{Q} 29'33	1.33213 AU
max. Earth dist.	3619 Aug 23 09:07	5° \mathbb{P} 14'41	1.34397 AU	evening rise	3620 Aug 10 18:08	28° \mathbb{Q} 36'47	
evening rise	3619 Aug 28 00:45	14° \mathbb{P} 32'46			3620 Aug 11 10:43	0° \mathbb{P}	
	3619 Sep 05 11:13	0° \mathbb{L}			3620 Aug 28 15:05	0° \mathbb{L}	
desc. node	3619 Sep 13 03:54	12° \mathbb{L} 30'17		desc. node	3620 Aug 30 00:55	2° \mathbb{L} 04'52	
	3619 Sep 25 23:51	0° \mathbb{M}		evening max el	3620 Sep 13 09:09	19° \mathbb{L} 36'36	27°25'23
evening max el	3619 Oct 01 21:42	6° \mathbb{M} 21'11	27°02'26				

retrograde	3620 Sep 26 23:32	26°♄53'51		evening rise	3621 Jul 25 19:45	13°♄04'03	
evening set	3620 Oct 04 02:39	24°♄15'35			3621 Aug 03 13:37	0°♄	
min. Earth dist.	3620 Oct 07 19:29	20°♄59'06	0.63843 AU	desc. node	3621 Aug 16 21:55	20°♄59'30	
inferior conj	3620 Oct 10 08:21	18°♄22'38	-3°00'-16		3621 Aug 24 09:18	0°♄	
minimum elong	3620 Oct 10 13:18	18°♄09'53	2°58'35	evening max el	3621 Aug 26 17:08	2°♄19'43	27°17'40
morning rise	3620 Oct 17 02:18	13°♄01'08		retrograde	3621 Sep 09 12:53	9°♄34'29	
direct	3620 Oct 19 12:59	12°♄31'35		evening set	3621 Sep 16 16:59	7°♄10'37	
asc. node	3620 Oct 19 17:51	12°♄31'48		min. Earth dist.	3621 Sep 20 07:27	4°♄21'24	0.62008 AU
morning max el	3620 Oct 26 02:01	15°♄56'46	17°52'30	inferior conj	3621 Sep 23 07:26	1°♄36'49	-3°-57'00
	3620 Nov 05 00:51	0°♄		minimum elong	3621 Sep 23 13:16	1°♄23'27	3°55'27
morning set	3620 Nov 11 18:38	11°♄30'09			3621 Sep 25 02:45	30°♄	
	3620 Nov 22 17:13	0°♄		morning rise	3621 Sep 30 12:31	26°♄34'56	
				direct	3621 Oct 02 20:21	26°♄11'27	
superior conj	3620 Nov 24 10:35	2°♄49'48	0°10'49	asc. node	3621 Oct 06 14:54	27°♄15'16	
minimum elong	3620 Nov 24 11:46	2°♄54'39	0°10'39	morning max el	3621 Oct 09 17:38	29°♄40'27	17°53'05
behind sun begin	3620 Nov 24 04:17	2°♄24'02			3621 Oct 10 01:26	0°♄	
behind sun end	3620 Nov 24 19:15	3°♄25'13		morning set	3621 Oct 25 14:10	24°♄29'10	
desc. node	3620 Nov 26 00:15	5°♄23'10			3621 Oct 28 15:33	0°♄	
max. Earth dist.	3620 Nov 30 04:02	12°♄04'08	1.44376 AU	superior conj	3621 Nov 05 10:57	13°♄44'32	0°50'14
evening rise	3620 Dec 10 08:42	28°♄00'34		minimum elong	3621 Nov 05 14:57	14°♄01'42	0°49'42
	3620 Dec 11 15:49	0°♄		desc. node	3621 Nov 12 21:14	26°♄10'26	
	3621 Jan 01 02:05	0°♄		max. Earth dist.	3621 Nov 12 18:06	25°♄57'37	1.42987 AU
greatest brilliancy	3621 Jan 01 15:52	0°♄45'40	-0.5m		3621 Nov 15 05:56	0°♄	
evening max el	3621 Jan 07 12:45	7°♄45'43	20°34'26	evening rise	3621 Nov 19 21:08	7°♄20'49	
retrograde	3621 Jan 15 15:26	12°♄32'44			3621 Dec 04 22:27	0°♄	
asc. node	3621 Jan 15 17:07	12°♄32'42		greatest brilliancy	3621 Dec 16 14:14	15°♄50'57	-0.4m
evening set	3621 Jan 19 11:59	11°♄07'04		evening max el	3621 Dec 21 09:17	21°♄18'08	21°46'34
inferior conj	3621 Jan 24 22:07	4°♄56'09	2°43'49	retrograde	3621 Dec 30 12:39	26°♄44'27	
minimum elong	3621 Jan 24 19:37	5°♄04'43	2°43'08	asc. node	3622 Jan 02 14:10	25°♄53'38	
min. Earth dist.	3621 Jan 25 12:44	4°♄06'14	0.67452 AU	evening set	3622 Jan 03 19:46	25°♄03'17	
	3621 Jan 28 18:56	30°♄		inferior conj	3622 Jan 09 05:11	18°♄43'04	2°05'57
morning rise	3621 Jan 30 02:47	28°♄40'35		minimum elong	3622 Jan 09 02:50	18°♄51'14	2°05'09
direct	3621 Feb 04 15:33	26°♄14'20		min. Earth dist.	3622 Jan 09 07:51	18°♄33'47	0.67886 AU
	3621 Feb 12 16:25	0°♄		morning rise	3622 Jan 14 09:38	12°♄29'00	
morning max el	3621 Feb 15 20:28	2°♄55'46	24°20'37	direct	3622 Jan 19 07:27	10°♄23'59	
desc. node	3621 Feb 21 23:29	9°♄52'04		morning max el	3622 Jan 29 06:06	16°♄17'33	22°51'32
	3621 Mar 08 11:57	0°♄		greatest brilliancy	3622 Feb 02 22:30	21°♄31'04	-0.3m
morning set	3621 Mar 23 16:17	24°♄37'38		desc. node	3622 Feb 08 20:29	29°♄07'18	
	3621 Mar 26 17:14	0°♄			3622 Feb 09 12:01	0°♄	
max. Earth dist.	3621 Mar 27 09:49	1°♄14'36	1.37798 AU		3622 Mar 01 13:03	0°♄	
				morning set	3622 Mar 04 14:07	4°♄58'36	
superior conj	3621 Apr 03 08:38	14°♄12'42	-1°-31'-51	max. Earth dist.	3622 Mar 09 04:52	12°♄45'01	1.39968 AU
minimum elong	3621 Apr 03 13:10	14°♄34'28	1°31'16				
	3621 Apr 11 09:21	0°♄		superior conj	3622 Mar 16 23:01	26°♄29'17	-1°-53'-37
evening rise	3621 Apr 12 03:26	1°♄29'32		minimum elong	3622 Mar 17 03:21	26°♄49'07	1°53'17
asc. node	3621 Apr 13 16:26	4°♄31'47			3622 Mar 18 20:50	0°♄	
evening max el	3621 Apr 28 17:45	28°♄22'07	19°07'02	evening rise	3622 Mar 26 18:25	14°♄55'30	
	3621 Apr 30 14:38	0°♄		asc. node	3622 Mar 31 13:27	23°♄55'47	
retrograde	3621 May 07 13:18	2°♄39'37			3622 Apr 04 00:00	0°♄	
evening set	3621 May 09 14:29	2°♄26'39		evening max el	3622 Apr 11 21:39	10°♄49'19	18°28'09
	3621 May 15 05:11	30°♄		retrograde	3622 Apr 19 10:41	14°♄32'37	
inferior conj	3621 May 17 21:33	28°♄14'14	0°52'31	evening set	3622 Apr 21 17:54	14°♄12'53	
minimum elong	3621 May 17 23:37	28°♄10'42	0°51'47	inferior conj	3622 Apr 29 05:42	9°♄40'57	2°16'49
desc. node	3621 May 20 22:38	26°♄10'00		minimum elong	3622 Apr 29 09:27	9°♄33'27	2°15'47
min. Earth dist.	3621 May 20 20:51	26°♄12'56	0.56453 AU	min. Earth dist.	3622 May 02 16:08	6°♄57'17	0.58336 AU
morning rise	3621 May 26 04:27	23°♄20'20		morning rise	3622 May 06 20:38	4°♄14'37	
direct	3621 May 31 05:55	22°♄20'27		desc. node	3622 May 07 19:41	3°♄47'25	
morning max el	3621 Jun 14 12:05	29°♄39'39	25°35'32	direct	3622 May 12 20:42	2°♄41'14	
	3621 Jun 14 20:29	0°♄		morning max el	3622 May 27 06:05	10°♄23'05	26°54'13
	3621 Jul 05 10:50	0°♄			3622 Jun 11 08:21	0°♄	
asc. node	3621 Jul 10 15:41	10°♄22'44		morning set	3622 Jun 26 03:32	27°♄25'52	
morning set	3621 Jul 11 17:41	12°♄39'07			3622 Jun 27 08:40	0°♄	
				asc. node	3622 Jun 27 12:43	0°♄21'36	
superior conj	3621 Jul 18 17:28	27°♄50'24	1°15'48				
minimum elong	3621 Jul 18 15:06	27°♄37'30	1°15'27	superior conj	3622 Jul 03 05:15	12°♄46'16	0°56'40
max. Earth dist.	3621 Jul 19 17:21	0°♄01'18	1.32443 AU	minimum elong	3622 Jul 03 03:07	12°♄34'31	0°56'17
	3621 Jul 19 17:07	0°♄					

max. Earth dist.	3622 Jul 03 04:34	12° $\overline{54}$ 2'32	1.32081 AU	superior conj	3623 Jun 17 16:30	27° \overline{II} 37'14	0°33'56
evening rise	3622 Jul 10 02:55	27° $\overline{54}$ 6'09		minimum elong	3623 Jun 17 15:03	27° \overline{II} 29'13	0°33'37
	3622 Jul 11 04:31	0° \overline{Q}			3623 Jun 18 18:28	0° $\overline{5}$	
	3622 Jul 28 00:53	0° \overline{m}		evening rise	3623 Jun 24 13:23	12° $\overline{5}$ 35'28	
desc. node	3622 Aug 03 18:56	8° \overline{m} 57'50			3623 Jul 03 08:31	0° \overline{Q}	
evening max el	3622 Aug 08 19:25	14° \overline{m} 20'06	26°36'40	evening max el	3623 Jul 21 14:23	25° \overline{Q} 32'39	25°25'07
retrograde	3622 Aug 22 18:25	21° \overline{m} 31'05		desc. node	3623 Jul 21 15:58	25° \overline{Q} 36'24	
evening set	3622 Aug 29 13:02	19° \overline{m} 34'56			3623 Jul 27 05:47	0° \overline{m}	
min. Earth dist.	3622 Sep 02 09:10	16° \overline{m} 59'27	0.59968 AU	retrograde	3623 Aug 04 13:50	2° \overline{m} 38'26	
inferior conj	3622 Sep 05 15:31	14° \overline{m} 22'46	-4°-43'-6	evening set	3623 Aug 10 10:01	1° \overline{m} 19'17	
minimum elong	3622 Sep 05 20:30	14° \overline{m} 12'46	4°42'18		3623 Aug 12 23:21	30° \overline{RQ}	
morning rise	3622 Sep 13 07:20	9° \overline{m} 43'00		min. Earth dist.	3623 Aug 15 02:18	28° \overline{Q} 39'34	0.57934 AU
direct	3622 Sep 15 15:34	9° \overline{m} 22'48		inferior conj	3623 Aug 18 05:07	26° \overline{Q} 29'54	-5°-7'-31
morning max el	3622 Sep 23 05:04	13° \overline{m} 04'32	18°13'01	minimum elong	3623 Aug 18 06:24	26° \overline{Q} 27'40	5°07'30
asc. node	3622 Sep 23 11:56	13° \overline{m} 21'25		morning rise	3623 Aug 26 06:19	22° \overline{Q} 13'13	
	3622 Oct 04 15:16	0° \overline{A}		direct	3623 Aug 28 18:23	21° \overline{Q} 54'03	
morning set	3622 Oct 09 00:37	8° \overline{A} 11'07		morning max el	3623 Sep 06 08:57	25° \overline{Q} 58'36	18°53'43
					3623 Sep 09 22:33	0° \overline{m}	
superior conj	3622 Oct 18 12:22	25° \overline{A} 52'44	1°18'32	asc. node	3623 Sep 10 08:58	0° \overline{m} 34'25	
minimum elong	3622 Oct 18 16:19	26° \overline{A} 10'38	1°18'06	morning set	3623 Sep 22 21:23	22° \overline{m} 22'27	
	3622 Oct 20 19:29	0° \overline{M}			3623 Sep 26 18:22	0° \overline{A}	
max. Earth dist.	3622 Oct 26 03:05	9° \overline{M} 14'02	1.41147 AU				
desc. node	3622 Oct 30 18:15	16° \overline{M} 56'25		superior conj	3623 Oct 01 09:27	8° \overline{A} 58'28	1°35'54
evening rise	3622 Oct 31 02:26	17° \overline{M} 29'47		minimum elong	3623 Oct 01 11:58	9° \overline{A} 10'30	1°35'43
	3622 Nov 08 00:40	0° \overline{x}		max. Earth dist.	3623 Oct 08 08:14	21° \overline{A} 48'33	1.39083 AU
greatest brilliancy	3622 Nov 28 04:17	28° \overline{x} 16'07	-0.2m	evening rise	3623 Oct 12 06:54	28° \overline{A} 42'05	
	3622 Nov 29 14:41	0° \overline{Z}			3623 Oct 13 01:10	0° \overline{M}	
evening max el	3622 Dec 04 01:18	4° \overline{Z} 53'56	23°05'18	desc. node	3623 Oct 17 15:16	7° \overline{M} 36'45	
retrograde	3622 Dec 14 07:21	10° \overline{Z} 58'30			3623 Nov 01 11:46	0° \overline{x}	
evening set	3622 Dec 19 02:46	9° \overline{Z} 01'04		evening max el	3623 Nov 16 14:32	18° \overline{x} 33'26	24°24'44
asc. node	3622 Dec 20 11:10	7° \overline{Z} 44'53		retrograde	3623 Nov 27 22:18	25° \overline{x} 10'41	
min. Earth dist.	3622 Dec 24 04:36	3° \overline{Z} 04'12	0.67960 AU	evening set	3623 Dec 03 07:23	22° \overline{x} 57'00	
inferior conj	3622 Dec 24 12:57	2° \overline{Z} 35'24	1°21'02	asc. node	3623 Dec 07 08:12	18° \overline{x} 28'10	
minimum elong	3622 Dec 24 11:12	2° \overline{Z} 41'25	1°20'21	min. Earth dist.	3623 Dec 08 00:34	17° \overline{x} 34'02	0.67682 AU
	3622 Dec 26 11:08	30° \overline{RQ}		inferior conj	3623 Dec 08 19:39	16° \overline{x} 30'07	0°30'10
morning rise	3622 Dec 29 19:39	26° \overline{x} 24'53		minimum elong	3623 Dec 08 18:55	16° \overline{x} 32'34	0°29'52
direct	3623 Jan 03 02:56	24° \overline{x} 42'44		morning rise	3623 Dec 14 06:49	10° \overline{x} 25'27	
morning max el	3623 Jan 11 20:24	29° \overline{x} 47'51	21°26'38	direct	3623 Dec 18 00:42	9° \overline{x} 05'12	
	3623 Jan 12 01:12	0° \overline{Z}		morning max el	3623 Dec 25 18:11	13° \overline{x} 29'39	20°12'21
greatest brilliancy	3623 Jan 16 21:11	5° \overline{Z} 31'12	-0.4m	greatest brilliancy	3624 Jan 01 10:25	21° \overline{x} 28'52	-0.6m
desc. node	3623 Jan 26 17:31	18° \overline{Z} 53'46			3624 Jan 07 12:03	0° \overline{Z}	
	3623 Feb 03 06:08	0° $\overline{\approx}$		desc. node	3624 Jan 13 14:33	9° \overline{Z} 02'37	
morning set	3623 Feb 12 07:00	13° $\overline{\approx}$ 57'37		morning set	3624 Jan 22 04:29	22° \overline{Z} 07'53	
max. Earth dist.	3623 Feb 19 05:13	25° $\overline{\approx}$ 08'27	1.42047 AU		3624 Jan 27 05:44	0° $\overline{\approx}$	
	3623 Feb 22 03:20	0° \overline{H}		max. Earth dist.	3624 Feb 01 13:48	8° $\overline{\approx}$ 27'46	1.43745 AU
superior conj	3623 Feb 26 16:45	7° \overline{H} 46'14	-2°-6'00	superior conj	3624 Feb 07 09:22	17° $\overline{\approx}$ 54'10	-2°-3'-44
minimum elong	3623 Feb 26 18:29	7° \overline{H} 53'46	2°05'59	minimum elong	3624 Feb 07 05:43	17° $\overline{\approx}$ 39'09	2°03'38
evening rise	3623 Mar 09 20:26	27° \overline{H} 41'07			3624 Feb 14 14:49	0° \overline{H}	
	3623 Mar 11 02:57	0° \overline{Y}		evening rise	3624 Feb 20 05:16	9° \overline{H} 38'09	
asc. node	3623 Mar 18 10:28	12° \overline{Y} 54'48			3624 Mar 03 09:18	0° \overline{Y}	
evening max el	3623 Mar 26 07:29	23° \overline{Y} 43'32	18°09'11	asc. node	3624 Mar 04 07:29	1° \overline{Y} 21'06	
retrograde	3623 Apr 02 01:49	27° \overline{Y} 09'11		evening max el	3624 Mar 08 19:58	6° \overline{Y} 55'52	18°09'31
evening set	3623 Apr 04 15:13	26° \overline{Y} 40'13		retrograde	3624 Mar 15 06:40	10° \overline{Y} 19'12	
inferior conj	3623 Apr 11 10:22	21° \overline{Y} 46'56	3°08'50	evening set	3624 Mar 18 01:40	9° \overline{Y} 39'40	
minimum elong	3623 Apr 11 13:16	21° \overline{Y} 40'10	3°08'19	inferior conj	3624 Mar 24 08:01	4° \overline{Y} 25'43	3°33'31
min. Earth dist.	3623 Apr 14 17:23	18° \overline{Y} 44'36	0.60500 AU	minimum elong	3624 Mar 24 09:10	4° \overline{Y} 22'41	3°33'27
morning rise	3623 Apr 18 07:58	15° \overline{Y} 57'48		min. Earth dist.	3624 Mar 27 03:03	1° \overline{Y} 29'14	0.62618 AU
direct	3623 Apr 24 23:30	13° \overline{Y} 49'46			3624 Mar 28 15:50	30° \overline{RH}	
desc. node	3623 Apr 24 16:42	13° \overline{Y} 50'00		morning rise	3624 Mar 30 14:23	28° \overline{H} 22'40	
morning max el	3623 May 09 06:13	21° \overline{Y} 43'23	27°40'57	direct	3624 Apr 06 11:41	25° \overline{H} 48'04	
	3623 May 16 11:52	0° \overline{B}		desc. node	3624 Apr 10 13:45	26° \overline{H} 36'24	
	3623 Jun 04 08:26	0° \overline{II}			3624 Apr 16 07:05	0° \overline{Y}	
morning set	3623 Jun 10 09:52	11° \overline{II} 59'57		morning max el	3624 Apr 20 12:10	3° \overline{Y} 45'58	27°50'22
asc. node	3623 Jun 14 09:44	20° \overline{II} 27'26			3624 May 10 01:18	0° \overline{B}	
max. Earth dist.	3623 Jun 16 15:52	25° \overline{II} 22'05	1.32123 AU	morning set	3624 May 24 10:39	26° \overline{B} 14'50	
					3624 May 26 06:43	0° \overline{II}	

max. Earth dist.	3624 May 29 23:22	7°II47'04	1.32576 AU		3625 May 02 20:02	0°8	
asc. node	3624 May 31 06:46	10°II36'01		morning set	3625 May 08 03:08	10°801'15	
				max. Earth dist.	3625 May 12 22:57	19°844'16	1.33466 AU
superior conj	3624 Jun 01 01:32	12°II17'36	0°08'13				
minimum elong	3624 Jun 01 01:08	12°II15'28	0°08'07	superior conj	3625 May 16 06:21	26°840'16	0°-19'-42
behind sun begin	3624 May 31 20:38	11°II51'01		minimum elong	3625 May 16 07:21	26°845'36	0°19'30
behind sun end	3624 Jun 01 05:39	12°II39'56			3625 May 17 19:51	0°II	
evening rise	3624 Jun 08 01:13	27°II25'26		asc. node	3625 May 18 03:49	0°II42'31	
	3624 Jun 09 06:32	0°☾		evening rise	3625 May 23 12:29	12°II08'36	
	3624 Jun 26 17:13	0°♂			3625 Jun 01 16:29	0°☾	
evening max el	3624 Jul 02 03:55	6°♂07'44	23°53'20	evening max el	3625 Jun 13 18:43	16°☾32'54	22°16'43
desc. node	3624 Jul 07 12:59	10°♂24'25		desc. node	3625 Jun 24 10:01	22°☾45'44	
retrograde	3624 Jul 15 21:19	13°♂01'47		retrograde	3625 Jun 26 17:03	22°☾57'53	
evening set	3624 Jul 20 07:36	12°♂18'33		evening set	3625 Jun 29 16:33	22°☾38'13	
min. Earth dist.	3624 Jul 26 14:13	9°♂17'21	0.56198 AU	min. Earth dist.	3625 Jul 08 00:55	19°☾01'40	0.55088 AU
inferior conj	3624 Jul 28 22:30	7°♂51'42	-4°-55'-15	inferior conj	3625 Jul 08 22:36	18°☾31'05	-3°-53'-57
minimum elong	3624 Jul 28 17:54	7°♂58'45	4°54'45	minimum elong	3625 Jul 08 14:14	18°☾42'54	3°51'49
morning rise	3624 Aug 06 07:34	3°♂54'28		morning rise	3625 Jul 17 14:02	14°☾40'44	
direct	3624 Aug 09 01:56	3°♂34'56		direct	3625 Jul 20 16:30	14°☾19'07	
morning max el	3624 Aug 19 02:30	8°♂14'10	19°56'04	morning max el	3625 Aug 01 08:20	19°☾45'04	21°19'06
asc. node	3624 Aug 27 06:01	18°♂40'10			3625 Aug 09 16:00	0°♂	
	3624 Sep 02 13:54	0°♐		asc. node	3625 Aug 14 03:04	7°♂25'46	
morning set	3624 Sep 06 01:12	6°♐54'19		morning set	3625 Aug 21 09:36	21°♂39'24	
					3625 Aug 25 09:13	0°♐	
superior conj	3624 Sep 13 21:00	22°♐47'15	1°43'44				
minimum elong	3624 Sep 13 21:48	22°♐51'14	1°43'43	superior conj	3625 Aug 28 18:45	7°♐06'22	1°43'39
	3624 Sep 17 13:08	0°♑		minimum elong	3625 Aug 28 18:03	7°♐02'47	1°43'38
max. Earth dist.	3624 Sep 19 13:25	3°♑50'24	1.37050 AU	max. Earth dist.	3625 Sep 01 23:57	15°♐41'49	1.35256 AU
evening rise	3624 Sep 23 09:41	10°♑56'11		evening rise	3625 Sep 06 06:50	24°♐02'19	
desc. node	3624 Oct 03 12:17	28°♑06'59			3625 Sep 09 11:58	0°♑	
	3624 Oct 04 16:46	0°♒		desc. node	3625 Sep 20 09:19	18°♑21'49	
	3624 Oct 26 21:55	0°♓			3625 Sep 28 07:08	0°♒	
evening max el	3624 Oct 29 02:48	2°♓15'08	25°37'54	evening max el	3625 Oct 11 15:11	15°♒54'29	26°37'22
retrograde	3624 Nov 10 08:46	9°♓16'13		retrograde	3625 Oct 24 14:12	23°♒09'05	
evening set	3624 Nov 16 07:59	6°♓48'05		evening set	3625 Oct 31 02:38	20°♒30'51	
min. Earth dist.	3624 Nov 20 17:24	2°♓00'22	0.67054 AU	min. Earth dist.	3625 Nov 04 04:53	16°♒19'20	0.66076 AU
inferior conj	3624 Nov 21 23:28	0°♓24'26	0°-25'-31	inferior conj	3625 Nov 05 22:31	14°♒15'12	-1°-24'-44
minimum elong	3624 Nov 22 00:08	0°♓22'19	0°25'15	minimum elong	3625 Nov 06 00:51	14°♒08'16	1°23'47
	3624 Nov 22 07:09	30°♒♒		asc. node	3625 Nov 10 02:18	9°♒49'44	
asc. node	3624 Nov 23 05:14	28°♒50'45		morning rise	3625 Nov 12 00:29	8°♒29'53	
morning rise	3624 Nov 27 17:08	24°♒28'07		direct	3625 Nov 14 21:06	7°♒44'09	
direct	3624 Nov 30 23:21	23°♒27'00		morning max el	3625 Nov 21 11:52	11°♒20'41	18°27'54
morning max el	3624 Dec 07 23:53	27°♒22'03	19°12'12		3625 Dec 04 19:15	0°♓	
	3624 Dec 10 09:17	0°♓		morning set	3625 Dec 11 09:06	10°♓31'00	
greatest brilliancy	3624 Dec 18 06:32	10°♓46'09	-0.7m	desc. node	3625 Dec 17 08:36	20°♓03'37	
desc. node	3624 Dec 30 11:35	29°♓27'29			3625 Dec 23 15:29	0°☾	
	3624 Dec 30 19:57	0°☾					
morning set	3624 Dec 31 06:23	0°☾40'30		superior conj	3625 Dec 27 03:38	5°☾30'35	-1°-3'-25
max. Earth dist.	3625 Jan 14 04:55	22°☾27'28	1.44848 AU	minimum elong	3625 Dec 26 19:53	5°☾00'12	1°02'30
				max. Earth dist.	3625 Dec 27 23:22	6°☾48'01	1.45241 AU
superior conj	3625 Jan 17 01:09	26°☾57'14	-1°-42'-29		3626 Jan 11 17:37	0°☿	
minimum elong	3625 Jan 16 16:29	26°☾22'50	1°41'46	evening rise	3626 Jan 12 05:02	0°☿45'07	
	3625 Jan 18 23:08	0°☿		greatest brilliancy	3626 Jan 24 03:52	19°☿31'10	-0.7m
evening rise	3625 Jan 31 16:47	20°☿39'44			3626 Jan 31 11:27	0°♈	
	3625 Feb 06 08:34	0°♈		evening max el	3626 Feb 03 17:55	3°♈48'03	19°05'13
asc. node	3625 Feb 19 04:32	19°♈04'29		asc. node	3626 Feb 06 01:36	5°♈52'51	
evening max el	3625 Feb 20 08:13	20°♈18'54	18°28'31	retrograde	3626 Feb 10 16:03	7°♈43'39	
retrograde	3625 Feb 26 20:40	23°♈52'54		evening set	3626 Feb 13 23:17	6°♈40'16	
evening set	3625 Mar 01 21:22	23°♈01'56		inferior conj	3626 Feb 19 14:21	0°♈50'45	3°25'34
inferior conj	3625 Mar 07 18:33	17°♈29'06	3°37'21	minimum elong	3626 Feb 19 12:38	0°♈56'15	3°25'19
minimum elong	3625 Mar 07 18:01	17°♈30'40	3°37'20		3626 Feb 20 06:18	30°♈☿	
min. Earth dist.	3625 Mar 09 22:22	14°♈57'18	0.64478 AU	min. Earth dist.	3626 Feb 21 02:47	28°☿55'09	0.65963 AU
morning rise	3625 Mar 13 13:12	11°♈18'17		morning rise	3626 Feb 25 01:00	24°☿36'12	
direct	3625 Mar 20 07:50	8°♈30'05		direct	3626 Mar 03 10:51	21°☿47'59	
desc. node	3625 Mar 28 10:48	11°♈40'07		desc. node	3626 Mar 15 07:50	28°☿26'45	
morning max el	3625 Apr 02 21:34	16°♈23'57	27°23'40	morning max el	3626 Mar 16 07:33	29°☿25'16	26°27'10
	3625 Apr 14 03:31	0°♐			3626 Mar 16 21:08	0°♈	

	3626 Apr 08 00:16	0°♿		morning rise	3627 Feb 08 22:21	8°≈08'57	
morning set	3626 Apr 21 07:48	23°♿09'15		direct	3627 Feb 14 19:32	5°≈32'10	
	3626 Apr 24 21:25	0°♿		morning max el	3627 Feb 26 16:20	12°≈37'30	25°10'04
max. Earth dist.	3626 Apr 25 11:20	1°♿08'17	1.34823 AU	desc. node	3627 Mar 02 04:51	16°≈26'36	
					3627 Mar 12 16:34	0°♿	
superior conj	3626 Apr 30 04:43	10°♿39'21	0°-48'-36		3627 Mar 31 18:16	0°♿	
minimum elong	3626 Apr 30 07:17	10°♿52'34	0°48'07	morning set	3627 Apr 03 19:52	5°♿24'55	
asc. node	3626 May 05 00:53	20°♿43'16		max. Earth dist.	3627 Apr 07 12:32	12°♿10'16	1.36616 AU
evening rise	3626 May 07 21:17	26°♿39'26					
	3626 May 09 12:23	0°♿		superior conj	3627 Apr 13 17:45	24°♿06'54	-1°-16'-51
evening max el	3626 May 26 18:32	27°♿21'03	20°49'09	minimum elong	3627 Apr 13 21:44	24°♿26'36	1°16'13
	3626 May 29 21:47	0°♿			3627 Apr 16 16:34	0°♿	
retrograde	3626 Jun 07 05:57	2°♿57'30		asc. node	3627 Apr 21 21:57	10°♿34'00	
evening set	3626 Jun 09 08:53	2°♿46'44		evening rise	3627 Apr 22 01:23	10°♿51'19	
desc. node	3626 Jun 11 07:03	2°♿19'33			3627 May 02 09:54	0°♿	
	3626 Jun 16 13:37	30°♿♿		evening max el	3627 May 09 06:34	8°♿49'06	19°38'39
inferior conj	3626 Jun 18 15:56	28°♿49'32	-2°-8'-59	retrograde	3627 May 18 23:56	13°♿32'27	
minimum elong	3626 Jun 18 09:56	28°♿58'04	2°06'54	evening set	3627 May 20 23:16	13°♿21'39	
min. Earth dist.	3626 Jun 19 12:49	28°♿19'46	0.54880 AU	desc. node	3627 May 29 04:04	9°♿38'54	
morning rise	3626 Jun 27 10:09	24°♿46'07		inferior conj	3627 May 29 17:09	9°♿18'25	0°-9'-37
direct	3626 Jul 01 01:44	24°♿17'25		minimum elong	3627 May 29 16:43	9°♿19'05	0°09'29
	3626 Jul 13 12:50	0°♿		transit middle	3627 May 29 16:43	9°♿19'05	0°09'29
morning max el	3626 Jul 14 03:57	0°♿34'33	22°57'29	transit begin	3627 May 29 13:33	9°♿24'03	
asc. node	3626 Aug 01 00:07	26°♿41'12		transit end	3627 May 29 19:52	9°♿14'07	
	3626 Aug 02 16:24	0°♿		min. Earth dist.	3627 Jun 01 02:30	7°♿48'36	0.55639 AU
morning set	3626 Aug 05 20:32	6°♿31'48		morning rise	3627 Jun 07 06:41	4°♿45'19	
				direct	3627 Jun 11 18:48	4°♿00'03	
superior conj	3626 Aug 12 23:23	21°♿45'24	1°37'01	morning max el	3627 Jun 25 18:11	11°♿00'10	24°40'21
minimum elong	3626 Aug 12 21:39	21°♿36'11	1°36'54		3627 Jul 10 03:10	0°♿	
max. Earth dist.	3626 Aug 15 19:15	27°♿44'23	1.33837 AU	asc. node	3627 Jul 18 21:10	16°♿18'52	
	3626 Aug 16 21:19	0°♿		morning set	3627 Jul 21 08:22	21°♿26'41	
evening rise	3626 Aug 20 17:57	7°♿48'36			3627 Jul 25 07:43	0°♿	
	3626 Sep 02 00:39	0°♿					
desc. node	3626 Sep 07 06:21	8°♿13'51		superior conj	3627 Jul 28 08:23	6°♿36'40	1°24'56
evening max el	3626 Sep 24 03:27	29°♿22'28	27°15'44	minimum elong	3627 Jul 28 06:08	6°♿24'19	1°24'39
	3626 Sep 24 19:27	0°♿		max. Earth dist.	3627 Jul 29 23:13	10°♿07'27	1.32834 AU
retrograde	3626 Oct 07 13:55	6°♿40'54		evening rise	3627 Aug 04 15:14	22°♿04'18	
evening set	3626 Oct 14 12:51	4°♿00'02			3627 Aug 08 15:12	0°♿	
min. Earth dist.	3626 Oct 18 08:43	0°♿24'07	0.64750 AU	desc. node	3627 Aug 25 03:22	27°♿33'33	
	3626 Oct 18 17:42	30°♿♿			3627 Aug 26 21:36	0°♿	
inferior conj	3626 Oct 20 14:29	27°♿57'16	-2°-25'-37	evening max el	3627 Sep 06 14:01	12°♿27'10	27°26'15
minimum elong	3626 Oct 20 18:33	27°♿46'09	2°24'05	retrograde	3627 Sep 20 07:08	19°♿43'11	
morning rise	3626 Oct 27 02:16	22°♿25'57		evening set	3627 Sep 27 11:33	17°♿09'51	
asc. node	3626 Oct 27 23:22	22°♿06'31		min. Earth dist.	3627 Oct 01 02:55	14°♿05'53	0.63093 AU
direct	3626 Oct 29 15:45	21°♿51'36		inferior conj	3627 Oct 03 20:40	11°♿24'37	-3°-25'-8
morning max el	3626 Nov 05 03:33	25°♿18'48	18°00'20	minimum elong	3627 Oct 04 02:07	11°♿11'12	3°23'26
	3626 Nov 09 01:32	0°♿		morning rise	3627 Oct 10 19:17	6°♿10'42	
morning set	3626 Nov 22 17:07	21°♿48'11		direct	3627 Oct 13 04:23	5°♿44'05	
	3626 Nov 27 15:16	0°♿		asc. node	3627 Oct 14 20:23	5°♿57'27	
desc. node	3626 Dec 04 05:36	10°♿46'42		morning max el	3627 Oct 19 20:01	9°♿10'04	17°50'25
					3627 Nov 02 15:13	0°♿	
superior conj	3626 Dec 06 13:16	14°♿30'15	0°-15'-49	morning set	3627 Nov 05 01:40	4°♿16'31	
minimum elong	3626 Dec 06 11:19	14°♿22'30	0°15'33				
behind sun begin	3626 Dec 06 08:23	14°♿10'44		superior conj	3627 Nov 16 22:04	24°♿39'31	0°28'46
behind sun end	3626 Dec 06 14:16	14°♿34'15		minimum elong	3627 Nov 17 00:53	24°♿51'13	0°28'23
max. Earth dist.	3626 Dec 10 18:14	21°♿11'24	1.44897 AU		3627 Nov 20 03:40	0°♿	
	3626 Dec 16 09:07	0°♿		desc. node	3627 Nov 21 02:39	1°♿33'46	
evening rise	3626 Dec 22 21:39	10°♿06'14		max. Earth dist.	3627 Nov 23 11:15	5°♿22'43	1.43863 AU
	3627 Jan 04 23:16	0°≈		evening rise	3627 Dec 02 06:59	19°♿16'06	
greatest brilliancy	3627 Jan 11 00:32	8°≈44'29	-0.6m		3627 Dec 09 08:02	0°♿	
evening max el	3627 Jan 17 23:11	17°≈19'23	19°57'57	greatest brilliancy	3627 Dec 26 16:32	24°♿43'32	-0.4m
asc. node	3627 Jan 23 22:39	21°≈31'00			3627 Dec 31 03:14	0°≈	
retrograde	3627 Jan 25 13:46	21°≈45'26		evening max el	3627 Dec 31 23:03	0°≈52'01	21°03'58
evening set	3627 Jan 29 04:59	20°≈28'21		retrograde	3628 Jan 09 11:36	5°≈54'52	
inferior conj	3627 Feb 03 16:22	14°≈24'38	3°01'50	asc. node	3628 Jan 10 19:41	5°≈45'05	
minimum elong	3627 Feb 03 13:59	14°≈32'35	3°01'18	evening set	3628 Jan 13 12:31	4°≈22'42	
min. Earth dist.	3627 Feb 04 14:34	13°≈10'18	0.67033 AU		3628 Jan 17 13:07	30°♿♿	

inferior conj	3628 Jan 18 22:10	28°☿07'38	2°28'38	asc. node	3628 Dec 27 16:40	18°☿27'19	
minimum elong	3628 Jan 18 19:40	28°☿16'14	2°27'54	inferior conj	3629 Jan 02 05:45	11°☿57'16	1°47'40
min. Earth dist.	3628 Jan 19 07:34	27°☿35'13	0.67695 AU	minimum elong	3629 Jan 02 03:36	12°☿04'43	1°46'54
morning rise	3628 Jan 24 02:27	21°☿52'39		min. Earth dist.	3629 Jan 02 03:35	12°☿04'48	0.67966 AU
direct	3628 Jan 29 08:59	19°☿34'56		morning rise	3629 Jan 07 10:54	5°☿44'44	
morning max el	3628 Feb 09 00:52	25°☿55'51	23°42'35	direct	3629 Jan 12 02:25	3°☿49'35	
	3628 Feb 12 18:16	0°♊		morning max el	3629 Jan 21 12:12	9°☿21'35	22°14'30
desc. node	3628 Feb 17 01:52	5°♊18'51		greatest brilliancy	3629 Jan 26 02:06	14°☿28'48	-0.3m
	3628 Mar 05 06:00	0°♋		desc. node	3629 Feb 02 22:54	24°☿48'50	
morning set	3628 Mar 15 09:21	16°♋31'48			3629 Feb 06 14:43	0°♊	
max. Earth dist.	3628 Mar 19 07:59	23°♋22'07	1.38720 AU	morning set	3629 Feb 23 18:50	26°♊17'35	
	3628 Mar 23 00:39	0°♌			3629 Feb 26 01:19	0°♋	
				max. Earth dist.	3629 Mar 01 05:18	5°♋16'20	1.40885 AU
superior conj	3628 Mar 26 17:43	6°♌52'54	-1°-41'-56	superior conj	3629 Mar 09 00:00	18°♋45'58	-2°00'-18
minimum elong	3628 Mar 26 22:23	7°♌14'52	1°41'26	minimum elong	3629 Mar 09 03:36	19°♋02'02	2°00'08
evening rise	3628 Apr 04 22:05	24°♌36'40			3629 Mar 15 03:56	0°♌	
asc. node	3628 Apr 07 18:58	0°♍09'27		evening rise	3629 Mar 19 08:08	7°♌47'22	
	3628 Apr 07 17:00	0°♎		asc. node	3629 Mar 25 16:00	19°♌24'06	
evening max el	3628 Apr 21 05:30	20°♍56'35	18°48'00		3629 Apr 01 09:23	0°♎	
retrograde	3628 Apr 29 10:25	24°♍57'21		evening max el	3629 Apr 04 12:19	3°♎36'26	18°17'37
evening set	3628 May 01 14:12	24°♎41'46		retrograde	3629 Apr 11 16:05	7°♎10'38	
inferior conj	3628 May 09 12:52	20°♎21'14	1°32'20	evening set	3629 Apr 14 01:55	6°♎47'14	
minimum elong	3628 May 09 16:03	20°♎15'24	1°31'18	inferior conj	3629 Apr 21 06:10	2°♎05'55	2°42'37
min. Earth dist.	3628 May 12 18:53	17°♎59'44	0.57198 AU	minimum elong	3629 Apr 21 09:45	1°♎58'13	2°41'47
desc. node	3628 May 15 01:05	16°♎31'31			3629 Apr 23 16:51	30°♎♌	
morning rise	3628 May 17 13:30	15°♎12'59		min. Earth dist.	3629 Apr 24 16:23	29°♌11'21	0.59239 AU
direct	3628 May 23 01:14	13°♎59'49		morning rise	3629 Apr 28 13:36	26°♌28'27	
morning max el	3628 Jun 06 09:25	21°♎29'19	26°12'25	desc. node	3629 May 01 22:06	25°♌04'03	
	3628 Jun 13 19:43	0°♏		direct	3629 May 04 21:07	24°♌40'13	
	3628 Jul 01 18:11	0°♐			3629 May 16 13:22	0°♎	
morning set	3628 Jul 04 19:24	6°♐17'57		morning max el	3629 May 19 06:11	2°♎28'01	27°18'37
asc. node	3628 Jul 04 18:12	6°♐11'34			3629 Jun 08 04:51	0°♏	
superior conj	3628 Jul 11 19:39	21°♐32'18	1°08'11	morning set	3629 Jun 19 04:00	21°♏00'19	
minimum elong	3628 Jul 11 17:20	21°♐19'33	1°07'47	asc. node	3629 Jun 21 15:15	26°♏14'13	
max. Earth dist.	3628 Jul 12 08:57	22°♐45'33	1.32242 AU		3629 Jun 23 08:58	0°♐	
	3628 Jul 15 16:30	0°♑		superior conj	3629 Jun 26 07:25	6°♐26'42	0°47'26
evening rise	3628 Jul 18 19:31	6°♑38'53		minimum elong	3629 Jun 26 05:31	6°♐16'14	0°47'03
	3628 Jul 31 04:04	0°♒		max. Earth dist.	3629 Jun 25 20:48	5°♐28'12	1.32050 AU
desc. node	3628 Aug 11 00:23	16°♒06'35		evening rise	3629 Jul 03 04:20	21°♐24'43	
evening max el	3628 Aug 18 19:59	24°♒53'30	27°04'18		3629 Jul 07 08:37	0°♑	
	3628 Aug 25 12:47	0°♓			3629 Jul 25 20:10	0°♒	
retrograde	3628 Sep 01 16:54	2°♓05'47		desc. node	3629 Jul 28 21:24	3°♒34'01	
evening set	3628 Sep 08 18:37	29°♓52'16		evening max el	3629 Jul 31 18:56	6°♒32'14	26°09'24
	3628 Sep 08 13:33	30°♓♒		retrograde	3629 Aug 14 18:20	13°♒41'38	
min. Earth dist.	3628 Sep 12 10:16	27°♓10'59	0.61160 AU	evening set	3629 Aug 21 05:18	12°♓00'07	
inferior conj	3628 Sep 15 13:46	24°♓27'50	-4°-18'-23	min. Earth dist.	3629 Aug 25 07:40	9°♓25'27	0.59089 AU
minimum elong	3628 Sep 15 19:31	24°♓15'21	4°17'06	inferior conj	3629 Aug 28 14:17	6°♓57'41	-4°-56'-55
morning rise	3628 Sep 22 23:29	19°♓34'56		minimum elong	3629 Aug 28 18:04	6°♓50'31	4°56'31
direct	3628 Sep 25 07:15	19°♓13'01		morning rise	3629 Sep 05 10:20	2°♓28'11	
asc. node	3628 Sep 30 17:23	21°♓17'27		direct	3629 Sep 07 19:53	2°♓08'39	
morning max el	3628 Oct 02 10:10	22°♓46'00	17°59'09	morning max el	3629 Sep 15 18:48	5°♓58'19	18°27'48
	3628 Oct 08 02:11	0°♔		asc. node	3629 Sep 17 14:25	7°♓53'34	
morning set	3628 Oct 18 04:10	17°♔35'41			3629 Oct 01 00:29	0°♔	
	3628 Oct 24 23:03	0°♕		morning set	3629 Oct 01 19:25	1°♔30'50	
superior conj	3628 Oct 28 09:37	6°♕06'59	1°03'39	superior conj	3629 Oct 10 20:03	18°♔41'28	1°27'11
minimum elong	3628 Oct 28 13:52	6°♕25'36	1°03'06	minimum elong	3629 Oct 10 23:30	18°♔57'22	1°26'50
max. Earth dist.	3628 Nov 04 23:44	19°♕03'47	1.42252 AU		3629 Oct 17 02:43	0°♕	
desc. node	3628 Nov 06 23:41	22°♕20'59		max. Earth dist.	3629 Oct 18 06:38	2°♕01'26	1.40275 AU
evening rise	3628 Nov 11 01:14	28°♕53'44		evening rise	3629 Oct 22 15:58	9°♕28'00	
	3628 Nov 11 17:57	0°♖		desc. node	3629 Oct 24 20:42	13°♕04'51	
	3628 Dec 01 23:59	0°☿			3629 Nov 04 17:52	0°♖	
greatest brilliancy	3628 Dec 08 23:35	9°☿05'46	-0.3m	evening max el	3629 Nov 26 07:53	28°♖02'29	23°39'23
evening max el	3628 Dec 13 17:30	14°☿25'58	22°19'30		3629 Nov 28 09:43	0°☿	
retrograde	3628 Dec 23 07:54	20°☿08'35		retrograde	3629 Dec 07 01:15	4°☿22'31	
evening set	3628 Dec 27 20:11	18°☿20'18					

evening set	3629 Dec 12 02:23	2°☾17'51		evening set	3630 Nov 26 05:33	16°♊12'40	
	3629 Dec 14 08:48	30°♊17'		min. Earth dist.	3630 Nov 30 19:20	11°♊04'18	0.67449 AU
asc. node	3629 Dec 14 13:41	29°♊45'34		asc. node	3630 Dec 01 10:42	10°♊13'44	
min. Earth dist.	3629 Dec 17 00:16	26°♊35'19	0.67878 AU	inferior conj	3630 Dec 01 19:01	9°♊46'20	0°07'07
inferior conj	3629 Dec 17 13:17	25°♊50'54	1°00'08	minimum elong	3630 Dec 01 18:50	9°♊46'56	0°07'02
minimum elong	3629 Dec 17 11:55	25°♊55'33	0°59'35	transit middle	3630 Dec 01 18:50	9°♊46'56	0°07'02
morning rise	3629 Dec 22 21:38	19°♊42'39		transit begin	3630 Dec 01 16:21	9°♊55'08	
direct	3629 Dec 26 22:55	18°♊10'18		transit end	3630 Dec 01 21:20	9°♊38'43	
morning max el	3630 Jan 04 05:37	22°♊57'13	20°53'32	morning rise	3630 Dec 07 08:41	3°♊44'41	
greatest brilliancy	3630 Jan 09 20:16	29°♊27'00	-0.5m	direct	3630 Dec 10 21:19	2°♊33'01	
	3630 Jan 10 06:33	0°☾		morning max el	3630 Dec 18 06:50	6°♊44'04	19°44'54
desc. node	3630 Jan 20 19:56	14°☾45'39		greatest brilliancy	3630 Dec 26 01:02	16°♊18'06	-0.6m
	3630 Jan 30 22:40	0°♊			3631 Jan 04 09:26	0°☾	
morning set	3630 Feb 03 01:24	4°♊49'43		desc. node	3631 Jan 07 16:59	5°☾02'08	
max. Earth dist.	3630 Feb 11 09:01	18°♊04'19	1.42826 AU	morning set	3631 Jan 12 21:29	13°☾00'05	
					3631 Jan 23 18:40	0°♊	
superior conj	3630 Feb 18 07:27	29°♊34'10	-2°-7'-9	max. Earth dist.	3631 Jan 24 20:09	1°♊41'05	1.44295 AU
minimum elong	3630 Feb 18 07:10	29°♊33'01	2°07'10				
	3630 Feb 18 13:33	0°♊		superior conj	3631 Jan 29 13:03	9°♊13'10	-1°-57'-10
evening rise	3630 Mar 02 03:26	20°♊13'44		minimum elong	3631 Jan 29 06:52	8°♊48'13	1°56'50
	3630 Mar 07 15:39	0°♊			3631 Feb 11 02:14	0°♊	
asc. node	3630 Mar 12 13:02	8°♊10'31		evening rise	3631 Feb 12 03:40	1°♊47'47	
evening max el	3630 Mar 18 23:38	16°♊39'16	18°06'57	asc. node	3631 Feb 27 10:03	26°♊20'05	
retrograde	3630 Mar 25 13:40	20°♊02'29		evening max el	3631 Mar 02 12:25	29°♊57'19	18°15'22
evening set	3630 Mar 28 05:20	19°♊29'19			3631 Mar 02 13:29	0°♊	
inferior conj	3630 Apr 03 18:37	14°♊27'13	3°22'13	retrograde	3631 Mar 08 22:48	3°♊23'29	
minimum elong	3630 Apr 03 20:48	14°♊21'49	3°21'56	evening set	3631 Mar 11 20:09	2°♊39'17	
min. Earth dist.	3630 Apr 06 21:17	11°♊24'18	0.61419 AU		3631 Mar 15 08:32	30°♊	
morning rise	3630 Apr 10 09:19	8°♊30'52		inferior conj	3631 Mar 17 22:15	27°♊17'21	3°37'18
direct	3630 Apr 17 04:20	6°♊09'59		minimum elong	3631 Mar 17 22:38	27°♊16'16	3°37'17
desc. node	3630 Apr 18 19:08	6°♊17'30		min. Earth dist.	3631 Mar 20 11:06	24°♊29'13	0.63458 AU
morning max el	3630 May 01 09:12	14°♊07'16	27°49'31	morning rise	3631 Mar 23 23:11	21°♊10'27	
	3630 May 14 03:51	0°♊		direct	3631 Mar 30 20:28	18°♊27'58	
	3630 May 31 15:15	0°♊		desc. node	3631 Apr 05 16:11	20°♊06'20	
morning set	3630 Jun 03 08:17	5°♊27'10		morning max el	3631 Apr 13 16:48	26°♊25'39	27°42'56
asc. node	3630 Jun 08 12:18	16°♊21'46			3631 Apr 17 00:46	0°♊	
max. Earth dist.	3630 Jun 09 06:51	18°♊02'22	1.32260 AU		3631 May 07 17:54	0°♊	
				morning set	3631 May 18 05:54	19°♊30'54	
superior conj	3630 Jun 10 17:57	21°♊13'47	0°23'19		3631 May 23 08:18	0°♊	
minimum elong	3630 Jun 10 16:54	21°♊08'01	0°23'06	max. Earth dist.	3631 May 23 11:12	0°♊15'20	1.32898 AU
	3630 Jun 14 18:05	0°♊					
evening rise	3630 Jun 17 15:36	6°♊14'42		superior conj	3631 May 26 01:29	5°♊47'31	0°-3'-27
	3630 Jun 30 03:11	0°♊		minimum elong	3631 May 26 01:39	5°♊48'24	0°03'25
evening max el	3630 Jul 13 10:55	17°♊25'56	24°47'42	behind sun begin	3631 May 25 20:27	5°♊20'28	
desc. node	3630 Jul 15 18:25	19°♊29'40		behind sun end	3631 May 26 06:51	6°♊16'23	
retrograde	3630 Jul 27 09:24	24°♊29'01		asc. node	3631 May 26 09:22	6°♊29'59	
evening set	3630 Aug 01 15:59	23°♊26'03		evening rise	3631 Jun 02 03:25	21°♊02'22	
min. Earth dist.	3630 Aug 06 22:18	20°♊38'52	0.57132 AU		3631 Jun 06 12:01	0°♊	
inferior conj	3630 Aug 09 19:19	18°♊45'55	-5°-7'-46	evening max el	3631 Jun 25 00:10	27°♊53'14	23°11'57
minimum elong	3630 Aug 09 18:12	18°♊47'44	5°07'45		3631 Jun 27 09:01	0°♊	
morning rise	3630 Aug 18 00:03	14°♊38'32		desc. node	3631 Jul 02 15:26	3°♊19'24	
direct	3630 Aug 20 14:19	14°♊19'32		retrograde	3631 Jul 08 11:39	4°♊37'04	
morning max el	3630 Aug 29 18:42	18°♊37'35	19°17'39	evening set	3631 Jul 12 06:00	4°♊06'06	
asc. node	3630 Sep 04 11:29	25°♊30'50		min. Earth dist.	3631 Jul 19 09:38	0°♊51'22	0.55626 AU
	3630 Sep 07 08:05	0°♊			3631 Jul 20 20:48	30°♊	
morning set	3630 Sep 15 19:32	15°♊51'48		inferior conj	3631 Jul 21 04:37	29°♊48'32	-4°-35'-34
	3630 Sep 22 21:50	0°♊		minimum elong	3631 Jul 20 21:48	29°♊58'32	4°34'23
				morning rise	3631 Jul 29 16:32	25°♊55'53	
superior conj	3630 Sep 23 23:55	2°♊07'30	1°40'17	direct	3631 Aug 01 14:01	25°♊35'43	
minimum elong	3630 Sep 24 01:42	2°♊16'11	1°40'11		3631 Aug 11 16:04	0°♊	
max. Earth dist.	3630 Sep 30 10:43	14°♊18'14	1.38192 AU	morning max el	3631 Aug 12 07:16	0°♊34'15	20°29'03
evening rise	3630 Oct 04 06:21	21°♊07'54		asc. node	3631 Aug 22 08:34	13°♊54'57	
	3630 Oct 09 11:27	0°♊			3631 Aug 30 19:44	0°♊	
desc. node	3630 Oct 11 17:44	3°♊41'39		morning set	3631 Aug 31 01:35	0°♊29'56	
	3630 Oct 29 17:54	0°♊					
evening max el	3630 Nov 08 20:29	11°♊43'21	24°57'08	superior conj	3631 Sep 07 16:15	16°♊10'14	1°44'34
retrograde	3630 Nov 20 14:35	18°♊32'44		minimum elong	3631 Sep 07 16:22	16°♊10'50	1°44'34

max. Earth dist.	3631 Sep 12 17:33	26° \cap 12'26	1.36246 AU	max. Earth dist.	3632 Aug 25 08:00	8° \cap 08'22	1.34610 AU
	3631 Sep 14 17:10	0° $\underline{\Delta}$		evening rise	3632 Aug 29 21:11	17° \cap 10'30	
evening rise	3631 Sep 16 17:32	3° $\underline{\Delta}$ 45'47			3632 Sep 05 20:25	0° $\underline{\Delta}$	
desc. node	3631 Sep 28 14:45	24° $\underline{\Delta}$ 06'02		desc. node	3632 Sep 14 11:46	14° $\underline{\Delta}$ 12'05	
	3631 Oct 02 10:21	0° \cap			3632 Sep 25 18:59	0° \cap	
evening max el	3631 Oct 22 08:55	25° \cap 25'25	26°05'26	evening max el	3632 Oct 03 21:32	9° \cap 01'28	26°56'39
	3631 Oct 27 21:38	0° \propto		retrograde	3632 Oct 17 01:43	16° \cap 17'43	
retrograde	3631 Nov 03 22:54	2° \propto 33'12		evening set	3632 Oct 23 19:11	13° \cap 37'23	
evening set	3631 Nov 10 03:51	0° \propto 00'26		min. Earth dist.	3632 Oct 27 18:40	9° \cap 41'16	0.65562 AU
	3631 Nov 10 04:03	30° \cap		inferior conj	3632 Oct 29 17:23	7° \cap 26'55	-1°-50'-29
min. Earth dist.	3631 Nov 14 10:17	25° \cap 27'47	0.66679 AU	minimum elong	3632 Oct 29 20:27	7° \cap 18'04	1°49'15
inferior conj	3631 Nov 15 21:04	23° \cap 39'37	0°-50'-15	asc. node	3632 Nov 04 04:50	2° \cap 12'56	
minimum elong	3631 Nov 15 22:25	23° \cap 35'27	0°49'42	morning rise	3632 Nov 04 23:21	1° \cap 47'08	
asc. node	3631 Nov 18 07:46	20° \cap 45'00		direct	3632 Nov 07 16:44	1° \cap 06'33	
morning rise	3631 Nov 21 18:01	17° \cap 47'20		morning max el	3632 Nov 14 05:13	4° \cap 37'40	18°14'04
direct	3631 Nov 24 19:56	16° \cap 53'06			3632 Dec 01 11:01	0° \propto	
morning max el	3631 Dec 01 15:22	20° \cap 39'01	18°51'19	morning set	3632 Dec 02 23:44	2° \propto 29'40	
	3631 Dec 09 00:49	0° \propto		desc. node	3632 Dec 11 11:01	16° \propto 11'20	
morning set	3631 Dec 23 08:21	22° \propto 01'30					
desc. node	3631 Dec 25 14:01	25° \propto 32'07		superior conj	3632 Dec 17 23:46	26° \propto 33'37	0°-43'-32
	3631 Dec 28 10:19	0° $\overline{\propto}$		minimum elong	3632 Dec 17 18:15	26° \propto 11'53	0°42'48
max. Earth dist.	3632 Jan 07 13:03	15° $\overline{\propto}$ 51'39	1.45110 AU		3632 Dec 20 04:12	0° $\overline{\propto}$	
				max. Earth dist.	3632 Dec 20 08:36	0° $\overline{\propto}$ 17'14	1.45187 AU
superior conj	3632 Jan 08 21:01	17° $\overline{\propto}$ 57'21	-1°-27'-43	evening rise	3633 Jan 03 08:09	22° $\overline{\propto}$ 08'07	
minimum elong	3632 Jan 08 11:50	17° $\overline{\propto}$ 21'13	1°26'48		3633 Jan 08 09:19	0° \approx	
	3632 Jan 16 11:43	0° \approx		greatest brilliancy	3633 Jan 18 19:17	15° \approx 52'48	-0.7m
evening rise	3632 Jan 24 05:14	12° \approx 24'29		evening max el	3633 Jan 27 07:53	26° \approx 53'48	19°25'50
	3632 Feb 04 03:51	0° \propto		asc. node	3633 Jan 31 04:07	0° \propto 01'56	
evening max el	3632 Feb 13 23:56	13° \propto 23'55	18°42'05		3633 Jan 31 02:46	0° \propto	
asc. node	3632 Feb 14 07:05	13° \propto 41'50		retrograde	3633 Feb 03 12:07	1° \propto 01'17	
retrograde	3632 Feb 20 15:24	17° \propto 05'27		evening set	3633 Feb 06 22:39	29° \approx 52'02	
evening set	3632 Feb 23 18:51	16° \propto 09'11			3633 Feb 06 17:45	30° \cap	
inferior conj	3632 Feb 29 13:07	10° \propto 29'05	3°33'59	inferior conj	3633 Feb 12 11:50	23° \approx 55'56	3°16'47
minimum elong	3632 Feb 29 12:00	10° \propto 32'26	3°33'53	minimum elong	3633 Feb 12 09:46	24° \approx 02'40	3°16'26
min. Earth dist.	3632 Mar 02 10:17	8° \propto 11'50	0.65164 AU	min. Earth dist.	3633 Feb 13 17:56	22° \approx 17'54	0.66466 AU
morning rise	3632 Mar 06 03:57	4° \propto 16'36		morning rise	3633 Feb 17 20:08	17° \approx 40'46	
direct	3632 Mar 12 19:36	1° \propto 26'50		direct	3633 Feb 24 00:52	14° \approx 56'35	
desc. node	3632 Mar 22 13:14	5° \propto 57'54		morning max el	3633 Mar 08 12:12	22° \approx 21'37	25°56'28
morning max el	3632 Mar 26 02:34	9° \propto 14'32	27°02'47	desc. node	3633 Mar 09 10:15	23° \approx 18'24	
	3632 Apr 11 08:44	0° Υ			3633 Mar 15 05:22	0° \propto	
	3632 Apr 29 03:35	0° \propto			3633 Apr 04 15:25	0° Υ	
morning set	3632 Apr 30 17:55	3° \propto 02'50		morning set	3633 Apr 13 16:09	15° Υ 50'09	
max. Earth dist.	3632 May 05 06:23	11° \propto 59'14	1.33990 AU	max. Earth dist.	3633 Apr 17 14:09	23° Υ 13'07	1.35539 AU
					3633 Apr 21 01:13	0° \propto	
superior conj	3632 May 09 03:56	20° \propto 01'49	0°-31'-54				
minimum elong	3632 May 09 05:35	20° \propto 10'31	0°31'34	superior conj	3633 Apr 22 22:42	3° \propto 48'16	-1°00'-46
asc. node	3632 May 12 06:25	26° \propto 34'55		minimum elong	3633 Apr 23 01:55	4° \propto 04'33	1°00'12
	3632 May 13 21:05	0° \cap		asc. node	3633 Apr 29 03:26	16° \propto 31'47	
evening rise	3632 May 16 13:57	5° \cap 41'53		evening rise	3633 Apr 30 21:03	20° \propto 05'39	
	3632 May 29 20:45	0° $\overline{\propto}$			3633 May 05 20:38	0° \cap	
evening max el	3632 Jun 05 18:14	8° $\overline{\propto}$ 25'50	21°37'43	evening max el	3633 May 18 23:01	19° \cap 29'19	20°16'45
retrograde	3632 Jun 18 02:55	14° $\overline{\propto}$ 31'21		retrograde	3633 May 29 16:36	24° \cap 43'11	
desc. node	3632 Jun 18 12:28	14° $\overline{\propto}$ 30'59		evening set	3633 May 31 16:26	24° \cap 33'07	
evening set	3632 Jun 20 15:41	14° $\overline{\propto}$ 16'50		desc. node	3633 Jun 05 09:30	22° \cap 59'18	
inferior conj	3632 Jun 30 00:14	10° $\overline{\propto}$ 16'00	-3°-13'-30	inferior conj	3633 Jun 09 19:09	20° \cap 34'42	-1°-17'-59
minimum elong	3632 Jun 29 16:07	10° $\overline{\propto}$ 27'20	3°11'03	minimum elong	3633 Jun 09 15:29	20° \cap 40'06	1°16'39
min. Earth dist.	3632 Jun 29 20:29	10° $\overline{\propto}$ 21'14	0.54886 AU	min. Earth dist.	3633 Jun 11 08:46	19° \cap 39'23	0.55092 AU
morning rise	3632 Jul 08 17:33	6° $\overline{\propto}$ 22'51		morning rise	3633 Jun 18 12:32	16° \cap 20'29	
direct	3632 Jul 12 01:04	5° $\overline{\propto}$ 58'55		direct	3633 Jun 22 11:51	15° \cap 46'21	
morning max el	3632 Jul 24 08:16	11° $\overline{\propto}$ 46'17	21°59'30	morning max el	3633 Jul 06 00:54	22° \cap 22'39	23°41'32
	3632 Aug 06 15:18	0° Ω			3633 Jul 12 17:58	0° $\overline{\propto}$	
asc. node	3632 Aug 08 05:39	2° Ω 54'42		asc. node	3633 Jul 26 02:41	22° $\overline{\propto}$ 20'15	
morning set	3632 Aug 14 11:19	15° Ω 19'12		morning set	3633 Jul 29 22:51	0° Ω 13'12	
	3632 Aug 21 09:54	0° \cap			3633 Jul 29 20:20	0° Ω	
superior conj	3632 Aug 21 17:18	0° \cap 38'55	1°41'34	superior conj	3633 Aug 06 00:04	15° Ω 23'49	1°32'31
minimum elong	3632 Aug 21 16:06	0° \cap 32'40	1°41'31	minimum elong	3633 Aug 05 22:03	15° Ω 12'57	1°32'19

max. Earth dist.	3633 Aug 08 07:17	20°♎19'32	1.33361 AU	morning set	3634 Jul 14 10:30	15°♊06'51	
	3633 Aug 12 23:07	0°♎					
evening rise	3633 Aug 13 13:01	1°♎09'58		superior conj	3634 Jul 21 10:16	0°♎17'34	1°18'22
	3633 Aug 29 19:16	0°♎		minimum elong	3634 Jul 21 07:55	0°♎04'44	1°18'01
desc. node	3633 Sep 01 08:48	3°♎51'37			3634 Jul 21 07:03	0°♎	
evening max el	3633 Sep 16 09:09	22°♎20'12	27°23'48	max. Earth dist.	3634 Jul 22 13:52	2°♎48'30	1.32530 AU
retrograde	3633 Sep 29 22:39	29°♎38'09		evening rise	3634 Jul 28 13:35	15°♎34'17	
evening set	3633 Oct 07 00:55	26°♎58'44			3634 Aug 04 23:01	0°♎	
min. Earth dist.	3633 Oct 10 18:25	23°♎37'29	0.64088 AU	desc. node	3634 Aug 19 05:50	22°♎53'13	
inferior conj	3633 Oct 13 05:30	21°♎03'05	-2°-51'-17		3634 Aug 24 20:47	0°♎	
minimum elong	3633 Oct 13 10:14	20°♎50'41	2°49'36	evening max el	3634 Aug 29 17:52	5°♎09'06	27°20'58
morning rise	3633 Oct 19 21:51	15°♎39'04		retrograde	3634 Sep 12 13:10	12°♎24'28	
direct	3633 Oct 22 09:08	15°♎08'26		evening set	3634 Sep 19 17:33	9°♎57'46	
asc. node	3633 Oct 22 01:52	15°♎08'54		min. Earth dist.	3634 Sep 23 08:01	7°♎05'03	0.62293 AU
morning max el	3633 Oct 28 21:39	18°♎33'51	17°53'58	inferior conj	3634 Sep 26 06:31	4°♎20'49	-3°-48'-58
	3633 Nov 06 06:45	0°♎		minimum elong	3634 Sep 26 12:18	4°♎07'18	3°47'21
morning set	3633 Nov 14 18:56	14°♎19'12			3634 Oct 01 18:22	30°♎	
	3633 Nov 24 02:14	0°♎		morning rise	3634 Oct 03 09:56	29°♎15'43	
				direct	3634 Oct 05 17:56	28°♎51'34	
superior conj	3633 Nov 27 18:05	5°♎59'51	0°04'02	asc. node	3634 Oct 08 22:54	29°♎38'35	
minimum elong	3633 Nov 27 18:32	6°♎01'42	0°03'58		3634 Oct 09 14:53	0°♎	
behind sun begin	3633 Nov 27 08:45	5°♎21'55		morning max el	3634 Oct 12 13:35	2°♎19'41	17°51'47
behind sun end	3633 Nov 28 04:19	6°♎41'24		morning set	3634 Oct 28 11:51	27°♎10'49	
desc. node	3633 Nov 28 08:03	6°♎56'30			3634 Oct 30 01:36	0°♎	
max. Earth dist.	3633 Dec 03 03:04	14°♎37'43	1.44531 AU				
	3633 Dec 12 23:06	0°♎		superior conj	3634 Nov 08 14:27	16°♎42'53	0°44'56
evening rise	3633 Dec 13 19:45	1°♎19'27		minimum elong	3634 Nov 08 18:14	16°♎59'01	0°44'25
	3634 Jan 02 02:07	0°♎		desc. node	3634 Nov 15 05:05	27°♎43'51	
greatest brilliancy	3634 Jan 04 07:59	3°♎03'34	-0.5m	max. Earth dist.	3634 Nov 15 17:48	28°♎35'38	1.43230 AU
evening max el	3634 Jan 10 10:48	10°♎25'05	20°24'35		3634 Nov 16 14:36	0°♎	
retrograde	3634 Jan 18 10:15	15°♎06'42		evening rise	3634 Nov 23 06:53	10°♎35'47	
asc. node	3634 Jan 18 01:09	15°♎05'55			3634 Dec 06 03:09	0°♎	
evening set	3634 Jan 22 05:20	13°♎43'19		greatest brilliancy	3634 Dec 19 11:05	18°♎22'46	-0.4m
inferior conj	3634 Jan 27 15:44	7°♎34'08	2°48'49	evening max el	3634 Dec 24 08:11	23°♎57'30	21°35'15
minimum elong	3634 Jan 27 13:15	7°♎42'35	2°48'11	retrograde	3635 Jan 02 07:40	29°♎17'41	
min. Earth dist.	3634 Jan 28 08:16	6°♎37'51	0.67355 AU	asc. node	3635 Jan 04 22:10	28°♎40'49	
morning rise	3634 Feb 01 20:38	1°♎18'22		evening set	3635 Jan 06 13:05	27°♎38'58	
	3634 Feb 03 13:48	30°♎		inferior conj	3635 Jan 11 22:31	21°♎20'01	2°12'08
direct	3634 Feb 07 11:35	28°♎49'10		minimum elong	3635 Jan 11 20:07	21°♎28'21	2°11'22
	3634 Feb 11 18:41	0°♎		min. Earth dist.	3635 Jan 12 02:56	21°♎04'42	0.67851 AU
morning max el	3634 Feb 18 20:51	5°♎37'25	24°33'38	morning rise	3635 Jan 17 02:51	15°♎05'35	
desc. node	3634 Feb 24 07:15	11°♎42'36		direct	3635 Jan 22 02:57	12°♎57'05	
	3634 Mar 09 17:07	0°♎		morning max el	3635 Feb 01 06:02	18°♎57'52	23°04'36
morning set	3634 Mar 26 19:24	27°♎38'37		greatest brilliancy	3635 Feb 06 03:22	24°♎25'53	-0.3m
	3634 Mar 28 03:24	0°♎			3635 Feb 10 12:37	0°♎	
max. Earth dist.	3634 Mar 30 12:03	4°♎14'49	1.37481 AU	desc. node	3635 Feb 11 04:16	0°♎52'01	
					3635 Mar 02 21:05	0°♎	
superior conj	3634 Apr 06 06:38	16°♎58'52	-1°-28'-2	morning set	3635 Mar 07 21:24	8°♎11'26	
minimum elong	3634 Apr 06 11:03	17°♎20'16	1°27'27	max. Earth dist.	3635 Mar 12 06:45	15°♎38'18	1.39645 AU
	3634 Apr 12 20:49	0°♎					
evening rise	3634 Apr 14 22:21	4°♎06'58		superior conj	3635 Mar 19 23:38	29°♎23'08	-1°-50'-49
asc. node	3634 Apr 16 00:28	6°♎16'20		minimum elong	3635 Mar 20 04:08	29°♎43'50	1°50'27
	3634 Apr 30 11:12	0°♎			3635 Mar 20 07:38	0°♎	
evening max el	3634 May 01 15:55	1°♎14'12	19°14'37	evening rise	3635 Mar 29 14:55	17°♎37'44	
retrograde	3634 May 10 16:57	5°♎38'00		asc. node	3635 Apr 02 21:29	25°♎43'16	
evening set	3634 May 12 17:25	5°♎25'47			3635 Apr 05 06:06	0°♎	
inferior conj	3634 May 21 03:24	1°♎16'04	0°37'00	evening max el	3635 Apr 14 18:40	13°♎36'30	18°32'44
minimum elong	3634 May 21 04:54	1°♎13'32	0°36'27	retrograde	3635 Apr 22 11:23	17°♎23'41	
desc. node	3634 May 23 06:30	29°♎50'32		evening set	3635 Apr 24 17:45	17°♎05'05	
	3634 May 23 00:47	30°♎		inferior conj	3635 May 02 08:18	12°♎36'17	2°06'08
min. Earth dist.	3634 May 23 23:40	29°♎22'28	0.56219 AU	minimum elong	3635 May 02 11:59	12°♎29'04	2°05'05
morning rise	3634 May 29 12:14	26°♎27'26		min. Earth dist.	3635 May 05 18:08	9°♎57'38	0.58025 AU
direct	3634 Jun 03 10:11	25°♎31'38		morning rise	3635 May 10 01:48	7°♎14'27	
	3634 Jun 14 10:17	0°♎		desc. node	3635 May 10 03:29	7°♎12'24	
morning max el	3634 Jun 17 15:01	2°♎46'36	25°21'44	direct	3635 May 15 22:58	5°♎46'21	
	3634 Jul 06 20:07	0°♎		morning max el	3635 May 30 08:08	13°♎25'23	26°44'23
asc. node	3634 Jul 12 23:43	12°♎04'38			3635 Jun 12 11:06	0°♎	

morning set	3635 Jun 28 20:44	29°II55'08		3636 May 16 04:25	0°8	
	3635 Jun 28 21:40	0°8		3636 Jun 04 18:17	0°II	
asc. node	3635 Jun 29 20:45	2°802'12		morning set	3636 Jun 12 03:44	14°II31'16
				asc. node	3636 Jun 15 17:48	22°II07'08
superior conj	3635 Jul 05 21:59	15°813'52	0°59'51	max. Earth dist.	3636 Jun 18 12:29	28°II10'27 1.32089 AU
minimum elong	3635 Jul 05 19:48	15°801'46	0°59'27			
max. Earth dist.	3635 Jul 06 00:52	15°829'44	1.32109 AU	superior conj	3636 Jun 19 09:26	0°805'36 0°37'36
evening rise	3635 Jul 12 20:07	0°815'03		minimum elong	3636 Jun 19 07:51	29°II56'51 0°37'16
	3635 Jul 12 17:15	0°8			3636 Jun 19 08:25	0°8
	3635 Jul 29 02:37	0°8		evening rise	3636 Jun 26 06:13	15°803'29
desc. node	3635 Aug 06 02:50	11°801'30			3636 Jul 03 17:12	0°8
evening max el	3635 Aug 11 21:17	17°817'02	26°44'53	desc. node	3636 Jul 22 23:51	27°8153'43
retrograde	3635 Aug 25 19:49	24°828'07		evening max el	3636 Jul 23 17:19	28°8136'13 25°37'25
evening set	3635 Sep 01 16:39	22°827'12			3636 Jul 25 06:05	0°8
min. Earth dist.	3635 Sep 05 11:17	19°850'39	0.60281 AU	retrograde	3636 Aug 06 16:44	5°842'50
inferior conj	3635 Sep 08 17:05	17°811'49	-4°-37'-12	evening set	3636 Aug 12 17:18	4°817'45
minimum elong	3635 Sep 08 22:21	17°801'01	4°36'17	min. Earth dist.	3636 Aug 17 05:22	1°840'02 0.58231 AU
morning rise	3635 Sep 16 07:21	12°828'26			3636 Aug 19 14:08	30°84
direct	3635 Sep 18 15:21	12°807'51		inferior conj	3636 Aug 20 09:39	29°8125'06 -5°-5'-48
asc. node	3635 Sep 25 19:57	15°833'02		minimum elong	3636 Aug 20 11:41	29°8121'28 5°05'44
morning max el	3635 Sep 26 01:50	15°847'05	18°08'44	morning rise	3636 Aug 28 09:34	25°8105'08
	3635 Oct 05 23:34	0°8		direct	3636 Aug 30 20:58	24°8145'52
morning set	3635 Oct 11 20:25	10°847'21		morning max el	3636 Sep 08 07:03	28°8146'01 18°46'16
					3636 Sep 09 12:15	0°8
superior conj	3635 Oct 21 12:27	28°840'50	1°14'58	asc. node	3636 Sep 11 17:00	2°836'44
minimum elong	3635 Oct 21 16:32	28°859'10	1°14'30	morning set	3636 Sep 24 15:53	24°854'45
	3635 Oct 22 06:07	0°8			3636 Sep 27 06:15	0°8
max. Earth dist.	3635 Oct 29 03:46	11°8158'53	1.41448 AU			
desc. node	3635 Nov 02 02:08	18°8130'18		superior conj	3636 Oct 03 06:57	11°8138'47 1°33'54
evening rise	3635 Nov 03 09:06	20°8136'03		minimum elong	3636 Oct 03 09:43	11°8151'56 1°33'41
	3635 Nov 09 07:51	0°8		max. Earth dist.	3636 Oct 10 09:25	24°8139'37 1.39397 AU
	3635 Nov 30 10:36	0°8			3636 Oct 13 10:59	0°8
greatest brilliancy	3635 Dec 01 18:43	1°839'11	-0.2m	evening rise	3636 Oct 14 10:00	1°8138'11
evening max el	3635 Dec 07 00:51	7°832'49	22°53'19	desc. node	3636 Oct 18 23:11	9°8111'32
retrograde	3635 Dec 17 02:46	13°831'34			3636 Nov 01 15:18	0°8
evening set	3635 Dec 21 20:19	11°836'32		evening max el	3636 Nov 18 14:22	21°8111'34 24°13'07
asc. node	3635 Dec 22 19:11	10°844'47		retrograde	3636 Nov 29 18:24	27°8144'30
inferior conj	3635 Dec 27 06:19	5°811'31	1°28'15	evening set	3636 Dec 05 01:27	25°8133'03
minimum elong	3635 Dec 27 04:27	5°817'57	1°27'32	asc. node	3636 Dec 08 16:13	21°8136'03
min. Earth dist.	3635 Dec 26 23:34	5°834'51	0.67979 AU	min. Earth dist.	3636 Dec 09 19:47	20°8105'05 0.67745 AU
	3635 Dec 31 10:17	30°81		inferior conj	3636 Dec 10 13:19	19°8106'02 0°38'16
morning rise	3636 Jan 01 12:33	29°8100'27		minimum elong	3636 Dec 10 12:25	19°8109'05 0°37'52
direct	3636 Jan 05 21:59	27°814'52		morning rise	3636 Dec 15 23:42	13°8100'29
	3636 Jan 12 02:55	0°8		direct	3636 Dec 19 19:28	11°8137'12
morning max el	3636 Jan 14 19:25	2°826'30	21°38'41	morning max el	3636 Dec 27 16:07	16°8106'58 20°22'36
greatest brilliancy	3636 Jan 19 16:20	7°857'03	-0.4m	greatest brilliancy	3637 Jan 03 00:45	23°8139'09 -0.5m
desc. node	3636 Jan 29 01:20	20°834'18			3637 Jan 07 15:25	0°8
	3636 Feb 04 12:09	0°8		desc. node	3637 Jan 14 22:24	10°840'22
morning set	3636 Feb 15 18:26	17°8121'36		morning set	3637 Jan 24 17:40	25°8135'56
max. Earth dist.	3636 Feb 22 06:19	27°8154'10	1.41759 AU		3637 Jan 27 13:35	0°8
	3636 Feb 23 12:34	0°8		max. Earth dist.	3637 Feb 03 13:58	11°8107'03 1.43526 AU
superior conj	3636 Feb 29 20:48	10°8149'40	-2°-4'-58	superior conj	3637 Feb 09 17:24	21°8108'26 -2°-5'-14
minimum elong	3636 Feb 29 23:07	10°8159'49	2°04'54	minimum elong	3637 Feb 09 14:40	20°8157'10 2°05'11
evening rise	3636 Mar 11 19:09	0°8129'53			3637 Feb 15 00:02	0°8
	3636 Mar 11 12:38	0°8		evening rise	3637 Feb 22 06:55	12°8135'18
asc. node	3636 Mar 19 18:31	14°8146'18			3637 Mar 04 11:48	0°8
evening max el	3636 Mar 28 03:50	26°8126'59	18°10'46	asc. node	3637 Mar 06 15:33	3°8118'16
retrograde	3636 Apr 04 00:12	29°8154'18		evening max el	3637 Mar 11 16:08	9°8137'08 18°08'12
evening set	3636 Apr 06 12:44	29°8126'47		retrograde	3637 Mar 18 03:25	13°8100'06
inferior conj	3636 Apr 13 10:06	24°8136'30	3°02'52	evening set	3637 Mar 20 21:32	12°8122'16
minimum elong	3636 Apr 13 13:14	24°8129'22	3°02'16	inferior conj	3637 Mar 27 05:33	7°8111'13 3°31'14
min. Earth dist.	3636 Apr 16 18:14	21°8135'28	0.60169 AU	minimum elong	3637 Mar 27 06:59	7°8107'31 3°31'07
morning rise	3636 Apr 20 10:13	18°8150'11		min. Earth dist.	3637 Mar 30 02:40	4°8112'25 0.62315 AU
desc. node	3636 Apr 26 00:31	16°8149'51		morning rise	3637 Apr 02 13:58	1°8109'35
direct	3636 Apr 26 23:59	16°8147'10			3637 Apr 04 09:28	30°81
morning max el	3636 May 11 07:21	24°8139'15	27°36'28	direct	3637 Apr 09 10:54	28°8138'14

desc. node	3637 Apr 12 21:33	29° Υ 12'33		min. Earth dist.	3638 Mar 12 20:38	17° Υ 34'56	0.64227 AU
	3637 Apr 14 20:33	0° Υ		morning rise	3638 Mar 16 10:36	14° Υ 01'24	
morning max el	3637 Apr 23 12:44	6° Υ 36'13	27°51'21	direct	3638 Mar 23 06:06	11° Υ 14'11	
	3637 May 11 06:50	0° Υ		desc. node	3638 Mar 30 18:36	13° Υ 57'36	
morning set	3637 May 27 05:30	28° Υ 49'05		morning max el	3638 Apr 05 21:49	19° Υ 09'44	27°29'37
	3637 May 27 19:26	0° Π			3638 Apr 15 02:44	0° Υ	
max. Earth dist.	3637 Jun 01 20:49	10° Π 37'56	1.32480 AU		3638 May 04 05:58	0° Υ	
asc. node	3637 Jun 02 14:52	12° Π 15'14		morning set	3638 May 10 23:25	12° Υ 40'14	
				max. Earth dist.	3638 May 15 21:41	22° Υ 38'58	1.33305 AU
superior conj	3637 Jun 03 18:54	14° Π 47'18	0°12'15				
minimum elong	3637 Jun 03 18:20	14° Π 44'10	0°12'08	superior conj	3638 May 19 00:30	29° Υ 12'53	0°-15'-23
behind sun begin	3637 Jun 03 14:58	14° Π 25'51		minimum elong	3638 May 19 01:16	29° Υ 17'02	0°15'13
behind sun end	3637 Jun 03 21:42	15° Π 02'29		behind sun begin	3638 May 18 23:38	29° Υ 08'17	
evening rise	3637 Jun 10 17:57	29° Π 53'07		behind sun end	3638 May 19 02:55	29° Υ 25'48	
	3637 Jun 10 19:15	0° Θ			3638 May 19 09:20	0° Π	
	3637 Jun 27 12:07	0° Ω		asc. node	3638 May 20 11:55	2° Π 22'07	
evening max el	3637 Jul 05 07:11	9° Ω 14'21	24°07'41	evening rise	3638 May 26 05:25	14° Π 37'23	
desc. node	3637 Jul 09 20:51	12° Ω 59'58			3638 Jun 02 23:31	0° Θ	
retrograde	3637 Jul 19 02:16	16° Ω 11'26		evening max el	3638 Jun 16 21:15	19° Θ 38'36	22°30'48
evening set	3637 Jul 23 18:01	15° Ω 23'20		desc. node	3638 Jun 26 17:50	25° Θ 45'07	
min. Earth dist.	3637 Jul 29 17:43	12° Ω 26'15	0.56421 AU	retrograde	3638 Jun 29 23:42	26° Θ 09'20	
inferior conj	3637 Aug 01 05:56	10° Ω 53'00	-5°00'-10	evening set	3638 Jul 03 03:35	25° Θ 47'19	
minimum elong	3637 Aug 01 02:14	10° Ω 58'47	4°59'50	min. Earth dist.	3638 Jul 11 04:36	22° Θ 16'47	0.55194 AU
morning rise	3637 Aug 09 13:57	6° Ω 53'37		inferior conj	3638 Jul 12 08:06	21° Θ 37'42	-4°-6'-31
direct	3637 Aug 12 07:11	6° Ω 34'17		minimum elong	3638 Jul 11 23:56	21° Θ 49'19	4°04'36
morning max el	3637 Aug 22 02:18	11° Ω 07'31	19°45'29	morning rise	3638 Jul 20 22:41	17° Θ 47'18	
asc. node	3637 Aug 29 14:05	20° Ω 35'03		direct	3638 Jul 23 23:38	17° Θ 26'13	
	3637 Sep 03 23:57	0° η		morning max el	3638 Aug 04 09:52	22° Θ 45'04	21°05'39
morning set	3637 Sep 08 18:49	9° η 23'40			3638 Aug 10 15:23	0° Ω	
				asc. node	3638 Aug 16 11:09	9° Ω 15'18	
superior conj	3637 Sep 16 16:38	25° η 21'54	1°43'04	morning set	3638 Aug 24 02:40	24° Ω 07'08	
minimum elong	3637 Sep 16 17:41	25° η 27'06	1°43'03		3638 Aug 26 22:24	0° η	
	3637 Sep 19 01:17	0° $\underline{\Omega}$					
max. Earth dist.	3637 Sep 22 14:07	6° $\underline{\Omega}$ 44'24	1.37337 AU	superior conj	3638 Aug 31 13:06	9° η 37'13	1°44'07
evening rise	3637 Sep 26 09:38	13° $\underline{\Omega}$ 43'19		minimum elong	3638 Aug 31 12:37	9° η 34'42	1°44'06
desc. node	3637 Oct 05 20:12	29° $\underline{\Omega}$ 43'28		max. Earth dist.	3638 Sep 04 23:26	18° η 35'23	1.35496 AU
	3637 Oct 06 00:20	0° \mathbb{L}		evening rise	3638 Sep 09 04:22	26° η 42'44	
	3637 Oct 27 12:58	0° \mathcal{A}			3638 Sep 10 22:47	0° $\underline{\Omega}$	
evening max el	3637 Nov 01 02:36	4° \mathcal{A} 52'44	25°27'43	desc. node	3638 Sep 22 17:12	20° $\underline{\Omega}$ 01'01	
retrograde	3637 Nov 13 05:40	11° \mathcal{A} 51'22			3638 Sep 29 09:29	0° \mathbb{L}	
evening set	3637 Nov 19 02:47	9° \mathcal{A} 25'06		evening max el	3638 Oct 14 14:57	18° \mathbb{L} 33'11	26°29'44
min. Earth dist.	3637 Nov 23 13:16	4° \mathcal{A} 32'04	0.67167 AU	retrograde	3638 Oct 27 11:57	25° \mathbb{L} 46'37	
inferior conj	3637 Nov 24 17:43	3° \mathcal{A} 00'31	0°-16'-47	evening set	3638 Nov 02 22:27	23° \mathbb{L} 09'37	
minimum elong	3637 Nov 24 18:09	2° \mathcal{A} 59'08	0°16'37	min. Earth dist.	3638 Nov 07 01:45	18° \mathbb{L} 52'31	0.66243 AU
asc. node	3637 Nov 25 13:17	1° \mathcal{A} 57'57		inferior conj	3638 Nov 08 17:36	16° \mathbb{L} 52'20	-1°-15'-35
	3637 Nov 27 04:18	30° \mathbb{R} \mathbb{L}		minimum elong	3638 Nov 08 19:40	16° \mathbb{L} 46'07	1°14'43
morning rise	3637 Nov 30 10:17	27° \mathbb{L} 02'49		asc. node	3638 Nov 12 10:20	12° \mathbb{L} 48'15	
direct	3637 Dec 03 18:03	25° \mathbb{L} 59'10		morning rise	3638 Nov 14 18:13	11° \mathbb{L} 05'04	
	3637 Dec 10 21:31	0° \mathcal{A}		direct	3638 Nov 17 16:06	10° \mathbb{L} 17'17	
morning max el	3637 Dec 10 20:44	29° \mathbb{L} 58'04	19°20'10	morning max el	3638 Nov 24 07:54	13° \mathbb{L} 56'04	18°33'24
greatest brilliancy	3637 Dec 20 04:14	11° \mathcal{A} 53'20	-0.7m		3638 Dec 06 01:20	0° \mathcal{A}	
	3638 Jan 01 03:08	0° \mathcal{B}		morning set	3638 Dec 14 15:35	13° \mathcal{A} 37'26	
desc. node	3638 Jan 01 19:26	1° \mathcal{B} 02'59		desc. node	3638 Dec 19 16:28	21° \mathcal{A} 37'39	
morning set	3638 Jan 03 17:15	4° \mathcal{B} 00'19			3638 Dec 24 23:44	0° \mathcal{B}	
max. Earth dist.	3638 Jan 17 04:04	25° \mathcal{B} 01'00	1.44725 AU				
	3638 Jan 20 07:31	0° \approx		superior conj	3638 Dec 30 15:45	8° \mathcal{B} 54'08	-1°-10'-11
				minimum elong	3638 Dec 30 07:24	8° \mathcal{B} 21'26	1°09'13
superior conj	3638 Jan 20 12:30	0° \approx 19'47	-1°-46'-58	max. Earth dist.	3638 Dec 30 21:57	9° \mathcal{B} 18'28	1.45233 AU
minimum elong	3638 Jan 20 04:18	29° \mathcal{B} 47'10	1°46'21		3639 Jan 13 01:24	0° \approx	
evening rise	3638 Feb 03 21:51	23° \approx 45'20		evening rise	3639 Jan 15 13:26	3° \approx 58'11	
	3638 Feb 07 15:57	0° Υ			3639 Feb 01 08:59	0° Υ	
asc. node	3638 Feb 21 12:36	21° Υ 08'54		evening max el	3639 Feb 06 14:49	6° Υ 27'18	18°58'41
evening max el	3638 Feb 23 04:36	22° Υ 58'57	18°24'30	asc. node	3639 Feb 08 09:37	8° Υ 06'14	
retrograde	3638 Mar 01 16:18	26° Υ 30'38		retrograde	3639 Feb 13 11:00	10° Υ 18'54	
evening set	3638 Mar 04 16:04	25° Υ 41'31		evening set	3639 Feb 16 17:13	9° Υ 17'26	
inferior conj	3638 Mar 10 14:26	20° Υ 11'30	3°37'49	inferior conj	3639 Feb 22 09:02	3° Υ 30'23	3°28'07
minimum elong	3638 Mar 10 14:08	20° Υ 12'22	3°37'48	minimum elong	3639 Feb 22 07:27	3° Υ 35'21	3°27'56

min. Earth dist.	3639 Feb 23 23:45	1° ✕ 28'51	0.65773 AU	retrograde	3640 Jan 28 08:29	24° ≈ 19'24	
	3639 Feb 25 05:16	30° ℞		evening set	3640 Jan 31 22:29	23° ≈ 04'21	
morning rise	3639 Feb 27 20:40	27° ≈ 16'17		inferior conj	3640 Feb 06 10:16	17° ≈ 02'36	3°06'04
direct	3639 Mar 06 08:12	24° ≈ 27'09		minimum elong	3640 Feb 06 07:57	17° ≈ 10'17	3°05'35
	3639 Mar 17 02:22	0° ✕		min. Earth dist.	3640 Feb 07 10:28	15° ≈ 42'05	0.66902 AU
desc. node	3639 Mar 17 15:38	0° ✕ 30'25		morning rise	3640 Feb 11 16:46	10° ≈ 47'04	
morning max el	3639 Mar 19 07:42	2° ✕ 07'39	26°37'02	direct	3640 Feb 17 16:01	8° ≈ 08'06	
	3639 Apr 09 06:48	0° Υ		morning max el	3640 Feb 29 16:40	15° ≈ 18'45	25°22'30
morning set	3639 Apr 24 06:06	25° Υ 54'41		desc. node	3640 Mar 03 12:41	18° ≈ 20'46	
	3639 Apr 26 09:19	0° ♄			3640 Mar 12 18:31	0° ✕	
max. Earth dist.	3639 Apr 28 11:44	4° ♄ 07'19	1.34592 AU		3640 Apr 01 03:42	0° Υ	
				morning set	3640 Apr 05 21:00	8° Υ 19'17	
superior conj	3639 May 02 23:59	13° ♄ 16'04	0°-44'-13	max. Earth dist.	3640 Apr 09 14:35	15° Υ 12'12	1.36326 AU
minimum elong	3639 May 03 02:19	13° ♄ 28'08	0°43'47				
asc. node	3639 May 07 08:56	22° ♄ 23'55		superior conj	3640 Apr 15 14:38	26° Υ 49'15	-1°-12'-41
evening rise	3639 May 10 14:43	29° ♄ 10'30		minimum elong	3640 Apr 15 18:26	27° Υ 08'10	1°12'05
	3639 May 11 00:17	0° ♄			3640 Apr 17 04:49	0° ♄	
	3639 May 29 10:32	0° ♄		asc. node	3640 Apr 23 05:57	12° ♄ 16'32	
evening max el	3639 May 29 19:29	0° ♄ 22'08	21°01'13	evening rise	3640 Apr 23 19:41	13° ♄ 26'04	
retrograde	3639 Jun 10 12:41	6° ♄ 06'13			3640 May 02 13:26	0° ♄	
evening set	3639 Jun 12 17:34	5° ♄ 54'50		evening max el	3640 May 11 05:42	11° ♄ 44'12	19°47'53
desc. node	3639 Jun 13 14:51	5° ♄ 44'06		retrograde	3640 May 21 05:09	16° ♄ 35'07	
inferior conj	3639 Jun 22 01:33	1° ♄ 57'23	-2°-26'-39	evening set	3640 May 23 04:21	16° ♄ 24'39	
minimum elong	3639 Jun 21 18:50	2° ♄ 06'51	2°24'23	desc. node	3640 May 30 11:52	13° ♄ 19'08	
min. Earth dist.	3639 Jun 22 16:15	1° ♄ 36'37	0.54848 AU	inferior conj	3640 Jun 01 00:46	12° ♄ 23'01	0°-27'-13
	3639 Jun 25 15:15	30° ℞		minimum elong	3640 May 31 23:32	12° ♄ 24'56	0°26'46
morning rise	3639 Jun 30 19:42	27° ♄ 57'11		min. Earth dist.	3640 Jun 03 05:27	11° ♄ 02'05	0.55473 AU
direct	3639 Jul 04 09:03	27° ♄ 29'55		morning rise	3640 Jun 09 15:37	7° ♄ 55'15	
	3639 Jul 12 12:59	0° ♄		direct	3640 Jun 14 00:21	7° ♄ 13'14	
morning max el	3639 Jul 17 06:41	3° ♄ 39'40	22°42'16	morning max el	3640 Jun 27 21:19	14° ♄ 07'17	24°25'18
asc. node	3639 Aug 03 08:11	28° ♄ 26'46			3640 Jul 10 07:26	0° ♄	
	3639 Aug 04 03:26	0° ♄		asc. node	3640 Jul 20 05:13	18° ♄ 01'30	
morning set	3639 Aug 08 13:19	8° ♄ 58'36		morning set	3640 Jul 23 01:06	23° ♄ 53'20	
					3640 Jul 25 21:32	0° ♄	
superior conj	3639 Aug 15 16:51	24° ♄ 13'35	1°38'25	superior conj	3640 Jul 30 01:20	9° ♄ 03'11	1°27'05
minimum elong	3639 Aug 15 15:15	24° ♄ 05'04	1°38'18	minimum elong	3640 Jul 29 23:07	8° ♄ 51'08	1°26'49
	3639 Aug 18 10:35	0° ♄		max. Earth dist.	3640 Jul 31 20:19	12° ♄ 55'51	1.32960 AU
max. Earth dist.	3639 Aug 18 17:25	0° ♄ 35'32	1.34021 AU	evening rise	3640 Aug 06 09:37	24° ♄ 35'16	
evening rise	3639 Aug 23 13:39	10° ♄ 23'38			3640 Aug 09 02:47	0° ♄	
	3639 Sep 03 08:24	0° ♄		desc. node	3640 Aug 26 11:12	29° ♄ 21'45	
desc. node	3639 Sep 09 14:12	9° ♄ 56'51			3640 Aug 26 21:57	0° ♄	
	3639 Sep 25 01:50	0° ♄		evening max el	3640 Sep 08 14:21	15° ♄ 12'15	27°26'37
evening max el	3639 Sep 27 03:25	2° ♄ 03'50	27°11'41	retrograde	3640 Sep 22 06:30	22° ♄ 28'31	
retrograde	3639 Oct 10 12:27	9° ♄ 21'47		evening set	3640 Sep 29 10:38	19° ♄ 53'16	
evening set	3639 Oct 17 10:03	6° ♄ 40'54		min. Earth dist.	3640 Oct 03 02:29	16° ♄ 45'04	0.63361 AU
min. Earth dist.	3639 Oct 21 06:51	2° ♄ 59'45	0.64970 AU	inferior conj	3640 Oct 05 18:31	14° ♄ 05'21	-3°-16'-26
inferior conj	3639 Oct 23 10:44	0° ♄ 35'58	-2°-16'-24	minimum elong	3640 Oct 05 23:49	13° ♄ 52'05	3°14'42
minimum elong	3639 Oct 23 14:33	0° ♄ 25'24	2°14'55	morning rise	3640 Oct 12 15:30	8° ♄ 48'40	
	3639 Oct 23 23:45	30° ℞		direct	3640 Oct 15 01:07	8° ♄ 21'03	
morning rise	3639 Oct 29 20:58	25° ♄ 02'14		asc. node	3640 Oct 16 04:24	8° ♄ 27'22	
asc. node	3639 Oct 30 07:22	24° ♄ 51'21		morning max el	3640 Oct 21 15:39	11° ♄ 46'31	17°50'46
direct	3639 Nov 01 11:23	24° ♄ 26'21			3640 Nov 02 23:53	0° ♄	
morning max el	3639 Nov 07 23:08	27° ♄ 54'20	18°03'20	morning set	3640 Nov 07 00:43	7° ♄ 01'09	
	3639 Nov 09 20:45	0° ♄					
morning set	3639 Nov 25 19:28	24° ♄ 42'36		superior conj	3640 Nov 19 03:47	27° ♄ 43'19	0°22'34
	3639 Nov 29 00:05	0° ♄		minimum elong	3640 Nov 19 06:05	27° ♄ 52'50	0°22'14
desc. node	3639 Dec 06 13:29	12° ♄ 19'52			3640 Nov 20 12:56	0° ♄	
				desc. node	3640 Nov 22 10:31	3° ♄ 06'18	
superior conj	3639 Dec 09 22:59	17° ♄ 46'11	0°-23'-4	max. Earth dist.	3640 Nov 25 10:47	7° ♄ 57'56	1.44055 AU
minimum elong	3639 Dec 09 20:07	17° ♄ 34'45	0°22'41	evening rise	3640 Dec 04 17:45	22° ♄ 33'07	
max. Earth dist.	3639 Dec 13 17:08	23° ♄ 43'14	1.44999 AU		3640 Dec 09 14:42	0° ♄	
	3639 Dec 17 17:11	0° ♄		greatest brilliancy	3640 Dec 28 10:26	27° ♄ 06'08	-0.5m
evening rise	3639 Dec 26 08:23	13° ♄ 24'22			3640 Dec 30 18:09	0° ♄	
	3640 Jan 06 04:13	0° ≈		evening max el	3641 Jan 02 21:29	3° ≈ 30'49	20°53'26
greatest brilliancy	3640 Jan 13 13:52	10° ≈ 52'11	-0.6m	retrograde	3641 Jan 11 06:28	8° ≈ 28'00	
evening max el	3640 Jan 20 20:51	19° ≈ 58'36	19°49'11	asc. node	3641 Jan 12 03:39	8° ≈ 23'43	
asc. node	3640 Jan 26 06:38	23° ≈ 56'02					

evening set	3641 Jan 15 05:51	6° \approx 58'03		retrograde	3641 Dec 26 03:10	22° \approx 41'26	
inferior conj	3641 Jan 20 15:38	0° \approx 44'20	2°34'14	asc. node	3641 Dec 30 00:41	21° \approx 20'07	
minimum elong	3641 Jan 20 13:07	0° \approx 52'57	2°33'30	evening set	3641 Dec 30 13:37	20° \approx 55'37	
min. Earth dist.	3641 Jan 21 02:48	0° \approx 05'55	0.67619 AU	inferior conj	3642 Jan 04 23:05	14° \approx 33'24	1°54'23
	3641 Jan 21 04:32	30° \approx 3		minimum elong	3642 Jan 04 20:51	14° \approx 41'08	1°53'35
morning rise	3641 Jan 25 20:00	24° \approx 29'12		min. Earth dist.	3642 Jan 04 22:34	14° \approx 35'12	0.67945 AU
direct	3641 Jan 31 04:44	22° \approx 08'26		morning rise	3642 Jan 10 03:57	8° \approx 20'16	
morning max el	3641 Feb 11 01:10	28° \approx 36'32	23°55'56	direct	3642 Jan 14 21:37	6° \approx 21'44	
	3641 Feb 12 09:15	0° \approx		morning max el	3642 Jan 24 11:55	12° \approx 01'16	22°27'21
desc. node	3641 Feb 18 09:43	7° \approx 06'09		greatest brilliancy	3642 Jan 29 01:22	17° \approx 06'39	-0.3m
	3641 Mar 06 12:46	0° \approx		desc. node	3642 Feb 05 06:46	26° \approx 31'19	
morning set	3641 Mar 18 14:14	19° \approx 37'19			3642 Feb 07 18:31	0° \approx	
max. Earth dist.	3641 Mar 22 10:35	26° \approx 20'51	1.38396 AU	morning set	3642 Feb 27 04:08	29° \approx 35'44	
	3641 Mar 24 11:23	0° \approx			3642 Feb 27 10:04	0° \approx	
				max. Earth dist.	3642 Mar 04 07:04	8° \approx 06'42	1.40569 AU
superior conj	3641 Mar 29 16:48	9° \approx 41'48	-1°-38'-28				
minimum elong	3641 Mar 29 21:26	10° \approx 03'51	1°37'56	superior conj	3642 Mar 12 02:02	21° \approx 43'23	-1°-58'-10
evening rise	3641 Apr 07 17:41	27° \approx 15'50		minimum elong	3642 Mar 12 05:57	22° \approx 01'03	1°57'55
	3641 Apr 09 03:19	0° \approx			3642 Mar 16 14:41	0° \approx	
asc. node	3641 Apr 10 02:58	1° \approx 54'30		evening rise	3642 Mar 22 05:34	10° \approx 32'10	
evening max el	3641 Apr 24 03:09	23° \approx 45'47	18°54'15	asc. node	3642 Mar 28 00:00	21° \approx 12'38	
retrograde	3641 May 02 12:59	27° \approx 52'13			3642 Apr 02 07:06	0° \approx	
evening set	3641 May 04 15:48	27° \approx 37'37		evening max el	3642 Apr 07 09:00	6° \approx 21'14	18°20'52
inferior conj	3641 May 12 17:24	23° \approx 19'55	1°18'45	retrograde	3642 Apr 14 15:49	9° \approx 58'22	
minimum elong	3641 May 12 20:15	23° \approx 14'48	1°17'48	evening set	3642 Apr 17 00:41	9° \approx 36'20	
min. Earth dist.	3641 May 15 21:21	21° \approx 05'14	0.56927 AU	inferior conj	3642 Apr 24 07:32	4° \approx 58'20	2°34'03
desc. node	3641 May 17 08:54	20° \approx 06'56		minimum elong	3642 Apr 24 11:13	4° \approx 50'36	2°33'07
morning rise	3641 May 20 20:19	18° \approx 16'36		min. Earth dist.	3642 Apr 27 18:05	2° \approx 06'59	0.58919 AU
direct	3641 May 26 04:27	17° \approx 08'21			3642 Apr 30 17:12	30° \approx 8'19	
morning max el	3641 Jun 09 12:09	24° \approx 34'20	25°59'59	morning rise	3642 May 01 17:35	29° \approx 12'26	
	3641 Jun 14 11:48	0° \approx		desc. node	3642 May 04 05:56	28° \approx 18'03	
	3641 Jul 03 05:39	0° \approx		direct	3642 May 07 22:37	27° \approx 41'22	
asc. node	3641 Jul 07 02:15	7° \approx 52'11			3642 May 15 10:57	0° \approx	
morning set	3641 Jul 07 12:22	8° \approx 45'26		morning max el	3642 May 22 07:59	5° \approx 27'29	27°10'48
					3642 Jun 09 11:44	0° \approx	
superior conj	3641 Jul 14 12:24	23° \approx 58'29	1°10'59	morning set	3642 Jun 21 21:28	23° \approx 12'32	
minimum elong	3641 Jul 14 10:03	23° \approx 45'38	1°10'37	asc. node	3642 Jun 23 23:18	27° \approx 15'31	
max. Earth dist.	3641 Jul 15 05:23	25° \approx 31'56	1.32307 AU		3642 Jun 24 22:48	0° \approx	
	3641 Jul 17 06:24	0° \approx		max. Earth dist.	3642 Jun 28 17:06	8° \approx 14'21	1.32052 AU
evening rise	3641 Jul 21 13:02	9° \approx 07'20					
	3641 Aug 01 11:23	0° \approx		superior conj	3642 Jun 29 00:13	8° \approx 53'35	0°50'49
desc. node	3641 Aug 13 08:14	18° \approx 02'44		minimum elong	3642 Jun 28 22:14	8° \approx 42'37	0°50'26
evening max el	3641 Aug 21 21:04	27° \approx 44'28	27°09'38	evening rise	3642 Jul 05 21:20	23° \approx 51'59	
	3641 Aug 24 10:37	0° \approx			3642 Jul 08 20:24	0° \approx	
retrograde	3641 Sep 04 17:31	4° \approx 57'36			3642 Jul 26 14:30	0° \approx	
evening set	3641 Sep 11 20:22	2° \approx 40'08		desc. node	3642 Jul 31 05:15	5° \approx 41'44	
	3641 Sep 15 09:42	30° \approx 8'19		evening max el	3642 Aug 03 21:10	9° \approx 30'43	26°19'30
min. Earth dist.	3641 Sep 15 11:22	29° \approx 56'28	0.61459 AU	retrograde	3642 Aug 17 20:33	16° \approx 40'52	
inferior conj	3641 Sep 18 13:47	27° \approx 12'28	-4°-11'-5	evening set	3642 Aug 24 10:27	14° \approx 54'00	
minimum elong	3641 Sep 18 19:37	26° \approx 59'35	4°09'42	min. Earth dist.	3642 Aug 28 10:16	12° \approx 19'28	0.59394 AU
morning rise	3641 Sep 25 21:55	22° \approx 16'27		inferior conj	3642 Aug 31 17:02	9° \approx 48'07	-4°-52'-35
direct	3641 Sep 28 05:39	21° \approx 54'02		minimum elong	3642 Aug 31 21:19	9° \approx 39'51	4°52'03
asc. node	3641 Oct 03 01:27	23° \approx 34'38		morning rise	3642 Sep 08 11:39	5° \approx 15'06	
morning max el	3641 Oct 05 06:24	25° \approx 25'23	17°56'40	direct	3642 Sep 10 20:38	4° \approx 55'24	
	3641 Oct 09 02:33	0° \approx		morning max el	3642 Sep 18 16:08	8° \approx 42'08	18°22'13
morning set	3641 Oct 21 00:56	20° \approx 13'41		asc. node	3642 Sep 19 22:32	10° \approx 00'28	
	3641 Oct 26 09:44	0° \approx			3642 Oct 02 11:12	0° \approx	
				morning set	3642 Oct 04 14:35	4° \approx 04'18	
superior conj	3641 Oct 31 11:32	8° \approx 59'49	0°59'05				
minimum elong	3641 Oct 31 15:45	9° \approx 18'07	0°58'32	superior conj	3642 Oct 13 18:56	21° \approx 25'19	1°24'17
max. Earth dist.	3641 Nov 07 23:55	21° \approx 43'59	1.42515 AU	minimum elong	3642 Oct 13 22:35	21° \approx 42'02	1°23'56
desc. node	3641 Nov 09 07:33	23° \approx 53'45			3642 Oct 18 13:16	0° \approx	
	3641 Nov 13 02:24	0° \approx		max. Earth dist.	3642 Oct 21 07:23	4° \approx 47'38	1.40581 AU
evening rise	3641 Nov 14 09:44	2° \approx 04'13		evening rise	3642 Oct 25 21:05	12° \approx 29'12	
	3641 Dec 03 02:35	0° \approx		desc. node	3642 Oct 27 04:35	14° \approx 38'21	
greatest brilliancy	3641 Dec 11 23:13	11° \approx 44'22	-0.3m		3642 Nov 06 00:06	0° \approx	
evening max el	3641 Dec 16 16:39	17° \approx 04'23	22°07'50		3642 Nov 28 15:39	0° \approx	

evening max el	3642 Nov 29 07:33	0°☾40'25	23°27'30	evening max el	3643 Nov 11 20:21	14°☾20'48	24°45'59
retrograde	3642 Dec 09 21:05	6°☾55'24		retrograde	3643 Nov 23 10:58	21°☾06'07	
evening set	3642 Dec 14 20:09	4°☾53'17		evening set	3643 Nov 28 23:51	18°☾48'20	
asc. node	3642 Dec 16 21:44	2°☾49'29		min. Earth dist.	3643 Dec 03 14:50	13°☾34'46	0.67538 AU
	3642 Dec 19 03:24	30°☾☿		asc. node	3643 Dec 03 18:48	13°☾21'41	
inferior conj	3642 Dec 20 06:46	28°☾26'37	1°07'45	inferior conj	3643 Dec 04 12:52	12°☾21'44	0°15'27
minimum elong	3642 Dec 20 05:15	28°☾31'48	1°07'09	minimum elong	3643 Dec 04 12:30	12°☾22'59	0°15'17
min. Earth dist.	3642 Dec 19 19:23	29°☾05'39	0.67912 AU	transit middle	3643 Dec 04 12:30	12°☾22'59	0°15'17
morning rise	3642 Dec 25 14:28	22°☾17'29		transit begin	3643 Dec 04 11:35	12°☾26'02	
direct	3642 Dec 29 17:49	20°☾41'43		transit end	3643 Dec 04 13:24	12°☾19'57	
morning max el	3643 Jan 07 04:13	25°☾35'00	21°04'52	morning rise	3643 Dec 10 01:37	6°☾18'54	
	3643 Jan 11 03:05	0°☾		direct	3643 Dec 13 16:03	5°☾04'16	
greatest brilliancy	3643 Jan 12 13:33	1°☾46'49	-0.5m	morning max el	3643 Dec 21 04:11	9°☾19'43	19°54'08
desc. node	3643 Jan 23 03:49	16°☾24'39		greatest brilliancy	3643 Dec 28 12:30	18°☾17'19	-0.6m
	3643 Feb 01 05:49	0°☾			3644 Jan 05 15:06	0°☾	
morning set	3643 Feb 06 14:05	8°☾16'34		desc. node	3644 Jan 10 00:51	6°☾38'24	
max. Earth dist.	3643 Feb 14 09:26	20°☾45'41	1.42562 AU	morning set	3644 Jan 16 10:00	16°☾24'47	
	3643 Feb 19 23:00	0°☾			3644 Jan 25 03:00	0°☾	
				max. Earth dist.	3644 Jan 27 19:37	4°☾16'12	1.44115 AU
superior conj	3643 Feb 21 13:12	2°☾42'00	-2°-7'-6	superior conj	3644 Feb 01 22:35	12°☾30'48	-1°-59'-56
minimum elong	3643 Feb 21 13:43	2°☾44'09	2°07'06	minimum elong	3644 Feb 01 17:16	12°☾09'12	1°59'41
evening rise	3643 Mar 05 03:21	23°☾05'34			3644 Feb 12 11:07	0°☾	
	3643 Mar 08 23:49	0°☾		evening rise	3644 Feb 15 06:37	4°☾47'35	
asc. node	3643 Mar 14 21:03	10°☾03'54		asc. node	3644 Feb 29 18:05	28°☾19'47	
evening max el	3643 Mar 21 19:54	19°☾21'29	18°07'20		3644 Mar 02 00:48	0°☾	
retrograde	3643 Mar 28 11:13	22°☾45'12		evening max el	3644 Mar 04 08:39	2°☾37'52	18°12'58
evening set	3643 Mar 31 02:05	22°☾13'33		retrograde	3644 Mar 10 18:54	6°☾02'41	
inferior conj	3643 Apr 06 17:21	17°☾14'37	3°17'56	evening set	3644 Mar 13 15:28	5°☾20'05	
minimum elong	3643 Apr 06 19:49	17°☾08'40	3°17'34	inferior conj	3644 Mar 19 18:58	0°☾00'57	3°36'17
min. Earth dist.	3643 Apr 09 21:44	14°☾11'19	0.61099 AU	minimum elong	3644 Mar 19 19:37	29°☾59'10	3°36'16
morning rise	3643 Apr 13 10:25	11°☾20'37			3644 Mar 19 19:19	30°☾☿	
direct	3643 Apr 20 04:27	9°☾03'55		min. Earth dist.	3644 Mar 22 10:03	27°☾09'33	0.63170 AU
desc. node	3643 Apr 21 02:58	9°☾06'26		morning rise	3644 Mar 25 21:44	23°☾55'21	
morning max el	3643 May 04 10:02	17°☾00'16	27°47'20	direct	3644 Apr 01 19:13	21°☾15'20	
	3643 May 15 04:05	0°☾		desc. node	3644 Apr 07 00:01	22°☾33'48	
	3643 Jun 02 02:42	0°☾		morning max el	3644 Apr 15 17:01	29°☾13'08	27°46'18
morning set	3643 Jun 06 02:34	7°☾59'30			3644 Apr 16 11:27	0°☾	
asc. node	3643 Jun 10 20:22	18°☾00'51			3644 May 08 01:42	0°☾	
max. Earth dist.	3643 Jun 12 03:40	20°☾50'47	1.32200 AU	morning set	3644 May 20 01:20	22°☾07'15	
					3644 May 23 21:30	0°☾	
superior conj	3643 Jun 13 11:06	23°☾42'39	0°27'11	max. Earth dist.	3644 May 25 09:10	3°☾08'14	1.32775 AU
minimum elong	3643 Jun 13 09:54	23°☾36'02	0°26'56				
	3643 Jun 16 07:53	0°☾		superior conj	3644 May 27 19:10	8°☾18'52	0°00'47
evening rise	3643 Jun 20 08:23	8°☾42'18		minimum elong	3644 May 27 19:08	8°☾18'39	0°00'46
	3643 Jul 01 08:28	0°☾		behind sun begin	3644 May 27 13:53	7°☾50'19	
evening max el	3643 Jul 16 14:12	20°☾31'25	25°01'12	behind sun end	3644 May 28 00:23	8°☾47'02	
desc. node	3643 Jul 18 02:15	21°☾53'51		asc. node	3644 May 27 17:23	8°☾09'13	
retrograde	3643 Jul 30 13:16	27°☾35'40		evening rise	3644 Jun 03 20:14	23°☾30'58	
evening set	3643 Aug 05 00:48	26°☾27'08			3644 Jun 06 23:07	0°☾	
min. Earth dist.	3643 Aug 10 01:50	23°☾42'52	0.57406 AU		3644 Jun 26 03:03	0°☾	
inferior conj	3643 Aug 13 01:10	21°☾43'45	-5°-8'-38	evening max el	3644 Jun 27 03:25	1°☾00'56	23°26'29
minimum elong	3643 Aug 13 00:58	21°☾44'06	5°08'38	desc. node	3644 Jul 03 23:16	6°☾05'15	
morning rise	3643 Aug 21 04:43	17°☾33'09		retrograde	3644 Jul 10 17:14	7°☾48'35	
direct	3643 Aug 23 18:07	17°☾14'09		evening set	3644 Jul 14 17:09	7°☾13'40	
morning max el	3643 Sep 01 17:32	21°☾27'18	19°08'45	min. Earth dist.	3644 Jul 21 13:15	4°☾04'00	0.55813 AU
asc. node	3643 Sep 06 19:36	27°☾29'50		inferior conj	3644 Jul 23 13:12	2°☾53'02	-4°-43'-44
	3643 Sep 08 11:58	0°☾		minimum elong	3644 Jul 23 07:06	3°☾02'06	4°42'48
morning set	3643 Sep 18 13:37	18°☾22'21			3644 Jul 28 22:52	30°☾☿	
	3643 Sep 24 10:11	0°☾		morning rise	3644 Aug 01 00:08	28°☾59'04	
superior conj	3643 Sep 26 20:33	4°☾44'43	1°38'53	direct	3644 Aug 03 20:34	28°☾39'07	
minimum elong	3643 Sep 26 22:36	4°☾54'37	1°38'45		3644 Aug 09 09:28	0°☾	
max. Earth dist.	3643 Oct 03 11:41	17°☾10'12	1.38506 AU	morning max el	3644 Aug 14 07:49	3°☾30'39	20°17'02
evening rise	3643 Oct 07 08:03	23°☾59'50		asc. node	3644 Aug 23 16:39	15°☾47'39	
	3643 Oct 10 20:35	0°☾			3644 Aug 31 07:41	0°☾	
desc. node	3643 Oct 14 01:36	5°☾16'34		morning set	3644 Sep 01 18:57	2°☾58'38	
	3643 Oct 30 18:28	0°☾					

superior conj	3644 Sep 09 11:17	18° $\mathring{\text{M}}$ 42'56	1°44'25	superior conj	3645 Aug 24 11:13	3° $\mathring{\text{M}}$ 08'26	1°42'27
minimum elong	3644 Sep 09 11:38	18° $\mathring{\text{M}}$ 44'44	1°44'24	minimum elong	3645 Aug 24 10:12	3° $\mathring{\text{M}}$ 03'06	1°42'24
max. Earth dist.	3644 Sep 14 17:57	29° $\mathring{\text{M}}$ 07'16	1.36526 AU	max. Earth dist.	3645 Aug 28 07:00	11° $\mathring{\text{M}}$ 01'24	1.34827 AU
	3644 Sep 15 04:59	0° $\mathring{\text{A}}$		evening rise	3645 Sep 01 17:50	19° $\mathring{\text{M}}$ 48'12	
evening rise	3644 Sep 18 16:24	6° $\mathring{\text{A}}$ 29'48			3645 Sep 07 06:15	0° $\mathring{\text{A}}$	
desc. node	3644 Sep 29 22:37	25° $\mathring{\text{A}}$ 43'18		desc. node	3645 Sep 16 19:37	15° $\mathring{\text{A}}$ 52'43	
	3644 Oct 02 16:19	0° $\mathring{\text{M}}$			3645 Sep 26 16:53	0° $\mathring{\text{M}}$	
evening max el	3644 Oct 24 08:47	28° $\mathring{\text{M}}$ 03'14	25°56'07	evening max el	3645 Oct 06 21:15	11° $\mathring{\text{M}}$ 40'37	26°50'21
	3644 Oct 26 11:26	0° $\mathring{\text{A}}$		retrograde	3645 Oct 19 23:40	18° $\mathring{\text{M}}$ 56'27	
retrograde	3644 Nov 05 20:00	5° $\mathring{\text{A}}$ 08'39		evening set	3645 Oct 26 15:29	16° $\mathring{\text{M}}$ 16'38	
evening set	3644 Nov 11 22:59	2° $\mathring{\text{A}}$ 37'26		min. Earth dist.	3645 Oct 30 15:55	12° $\mathring{\text{M}}$ 15'14	0.65751 AU
	3644 Nov 14 14:10	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		inferior conj	3645 Nov 01 12:52	10° $\mathring{\text{M}}$ 04'17	-1°-41'-17
min. Earth dist.	3644 Nov 16 06:28	27° $\mathring{\text{M}}$ 59'31	0.66820 AU	minimum elong	3645 Nov 01 15:40	9° $\mathring{\text{M}}$ 56'06	1°40'08
inferior conj	3644 Nov 17 15:35	26° $\mathring{\text{M}}$ 15'36	0°-41'-22	asc. node	3645 Nov 06 12:53	5° $\mathring{\text{M}}$ 05'46	
minimum elong	3644 Nov 17 16:41	26° $\mathring{\text{M}}$ 12'10	0°40'54	morning rise	3645 Nov 07 17:25	4° $\mathring{\text{M}}$ 22'35	
asc. node	3644 Nov 19 15:50	23° $\mathring{\text{M}}$ 48'51		direct	3645 Nov 10 11:53	3° $\mathring{\text{M}}$ 40'18	
morning rise	3644 Nov 23 11:21	20° $\mathring{\text{M}}$ 21'52		morning max el	3645 Nov 17 01:01	7° $\mathring{\text{M}}$ 13'01	18°18'33
direct	3644 Nov 26 14:45	19° $\mathring{\text{M}}$ 25'15			3645 Dec 02 18:44	0° $\mathring{\text{A}}$	
morning max el	3644 Dec 03 11:45	23° $\mathring{\text{M}}$ 14'02	18°58'15	morning set	3645 Dec 06 04:18	5° $\mathring{\text{A}}$ 30'30	
	3644 Dec 09 01:46	0° $\mathring{\text{A}}$		desc. node	3645 Dec 13 18:54	17° $\mathring{\text{A}}$ 45'10	
morning set	3644 Dec 25 17:22	25° $\mathring{\text{A}}$ 15'24					
desc. node	3644 Dec 26 21:53	27° $\mathring{\text{A}}$ 06'52		superior conj	3645 Dec 21 11:08	29° $\mathring{\text{A}}$ 54'41	0°-50'-43
	3644 Dec 28 18:10	0° $\mathring{\text{A}}$		minimum elong	3645 Dec 21 04:45	29° $\mathring{\text{A}}$ 29'36	0°49'54
max. Earth dist.	3645 Jan 09 12:08	18° $\mathring{\text{A}}$ 24'14	1.45032 AU		3645 Dec 21 12:29	0° $\mathring{\text{A}}$	
				max. Earth dist.	3645 Dec 23 07:22	2° $\mathring{\text{A}}$ 48'28	1.45222 AU
superior conj	3645 Jan 11 08:58	21° $\mathring{\text{A}}$ 20'48	-1°-33'-20	evening rise	3646 Jan 06 17:43	25° $\mathring{\text{A}}$ 23'56	
minimum elong	3645 Jan 10 23:49	20° $\mathring{\text{A}}$ 44'41	1°32'27		3646 Jan 09 16:14	0° $\mathring{\text{A}}$	
	3645 Jan 16 20:01	0° $\mathring{\text{A}}$		greatest brilliancy	3646 Jan 21 03:06	17° $\mathring{\text{A}}$ 39'32	-0.7m
evening rise	3645 Jan 26 11:41	15° $\mathring{\text{A}}$ 33'11		evening max el	3646 Jan 30 05:00	29° $\mathring{\text{A}}$ 32'50	19°18'17
	3645 Feb 04 09:09	0° $\mathring{\text{H}}$			3646 Jan 30 15:49	0° $\mathring{\text{H}}$	
asc. node	3645 Feb 15 15:07	15° $\mathring{\text{H}}$ 49'47		asc. node	3646 Feb 02 12:09	2° $\mathring{\text{H}}$ 20'04	
evening max el	3645 Feb 15 20:28	16° $\mathring{\text{H}}$ 03'33	18°36'59	retrograde	3646 Feb 06 07:00	3° $\mathring{\text{H}}$ 36'05	
retrograde	3645 Feb 22 10:42	19° $\mathring{\text{H}}$ 42'12		evening set	3646 Feb 09 16:20	2° $\mathring{\text{H}}$ 28'54	
evening set	3645 Feb 25 13:11	18° $\mathring{\text{H}}$ 47'46			3646 Feb 12 10:59	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
inferior conj	3645 Mar 03 08:23	13° $\mathring{\text{H}}$ 10'06	3°35'25	inferior conj	3646 Feb 15 06:07	26° $\mathring{\text{A}}$ 35'00	3°20'06
minimum elong	3645 Mar 03 07:29	13° $\mathring{\text{H}}$ 12'50	3°35'22	minimum elong	3646 Feb 15 04:10	26° $\mathring{\text{A}}$ 41'20	3°19'48
min. Earth dist.	3645 Mar 05 07:51	10° $\mathring{\text{H}}$ 47'38	0.64931 AU	min. Earth dist.	3646 Feb 16 14:24	24° $\mathring{\text{A}}$ 50'46	0.66297 AU
morning rise	3645 Mar 09 00:29	6° $\mathring{\text{H}}$ 58'09		morning rise	3646 Feb 20 15:09	20° $\mathring{\text{A}}$ 19'57	
direct	3645 Mar 15 17:17	4° $\mathring{\text{H}}$ 08'46		direct	3646 Feb 26 21:42	17° $\mathring{\text{A}}$ 34'12	
desc. node	3645 Mar 24 21:02	8° $\mathring{\text{H}}$ 09'14		morning max el	3646 Mar 11 12:32	25° $\mathring{\text{A}}$ 04'00	26°07'36
morning max el	3645 Mar 29 02:43	11° $\mathring{\text{H}}$ 58'45	27°10'42	desc. node	3646 Mar 11 18:04	25° $\mathring{\text{A}}$ 18'03	
	3645 Apr 12 11:54	0° $\mathring{\text{Y}}$			3646 Mar 16 00:14	0° $\mathring{\text{H}}$	
	3645 Apr 30 14:28	0° $\mathring{\text{B}}$			3646 Apr 05 23:20	0° $\mathring{\text{Y}}$	
morning set	3645 May 03 14:56	5° $\mathring{\text{B}}$ 44'30		morning set	3646 Apr 16 15:31	18° $\mathring{\text{Y}}$ 39'17	
max. Earth dist.	3645 May 08 06:00	14° $\mathring{\text{B}}$ 57'16	1.33800 AU	max. Earth dist.	3646 Apr 20 15:22	26° $\mathring{\text{Y}}$ 14'23	1.35278 AU
					3646 Apr 22 13:24	0° $\mathring{\text{B}}$	
superior conj	3645 May 11 22:28	22° $\mathring{\text{B}}$ 36'17	0°-27'-30				
minimum elong	3645 May 11 23:54	22° $\mathring{\text{B}}$ 43'47	0°27'14	superior conj	3646 Apr 25 18:32	6° $\mathring{\text{B}}$ 27'09	0°-56'-27
asc. node	3645 May 14 14:25	28° $\mathring{\text{B}}$ 14'55		minimum elong	3646 Apr 25 21:31	6° $\mathring{\text{B}}$ 42'23	0°55'55
	3645 May 15 10:09	0° $\mathring{\text{II}}$		asc. node	3646 May 01 11:26	18° $\mathring{\text{B}}$ 13'13	
evening rise	3645 May 19 07:03	8° $\mathring{\text{II}}$ 12'02		evening rise	3646 May 03 14:46	22° $\mathring{\text{B}}$ 38'19	
	3645 May 30 21:20	0° $\mathring{\text{B}}$			3646 May 07 06:27	0° $\mathring{\text{II}}$	
evening max el	3645 Jun 08 20:08	11° $\mathring{\text{B}}$ 30'02	21°51'04	evening max el	3646 May 21 23:05	22° $\mathring{\text{II}}$ 27'52	20°27'42
desc. node	3645 Jun 20 20:15	17° $\mathring{\text{B}}$ 41'58		retrograde	3646 Jun 01 23:04	27° $\mathring{\text{II}}$ 49'50	
retrograde	3645 Jun 21 09:50	17° $\mathring{\text{B}}$ 42'42		evening set	3646 Jun 03 23:37	27° $\mathring{\text{II}}$ 39'41	
evening set	3645 Jun 24 02:03	17° $\mathring{\text{B}}$ 26'39		desc. node	3646 Jun 07 17:15	26° $\mathring{\text{II}}$ 32'58	
inferior conj	3645 Jul 03 10:03	13° $\mathring{\text{B}}$ 23'47	-3°-28'-44	inferior conj	3646 Jun 13 04:06	23° $\mathring{\text{II}}$ 41'58	-1°-36'-19
minimum elong	3645 Jul 03 01:42	13° $\mathring{\text{B}}$ 35'28	3°26'21	minimum elong	3646 Jun 12 23:34	23° $\mathring{\text{II}}$ 48'33	1°34'40
min. Earth dist.	3645 Jul 02 23:52	13° $\mathring{\text{B}}$ 38'02	0.54939 AU	min. Earth dist.	3646 Jun 14 12:03	22° $\mathring{\text{II}}$ 55'35	0.54996 AU
morning rise	3645 Jul 12 02:47	9° $\mathring{\text{B}}$ 32'09		morning rise	3646 Jun 21 21:55	19° $\mathring{\text{II}}$ 31'48	
direct	3645 Jul 15 08:28	9° $\mathring{\text{B}}$ 09'07		direct	3646 Jun 25 18:18	18° $\mathring{\text{II}}$ 59'50	
morning max el	3645 Jul 27 10:23	14° $\mathring{\text{B}}$ 48'47	21°45'07	morning max el	3646 Jul 09 03:59	25° $\mathring{\text{II}}$ 29'42	23°26'09
	3645 Aug 07 21:49	0° $\mathring{\text{O}}$			3646 Jul 13 09:27	0° $\mathring{\text{B}}$	
asc. node	3645 Aug 10 13:40	4° $\mathring{\text{O}}$ 42'22		asc. node	3646 Jul 28 10:42	24° $\mathring{\text{B}}$ 04'41	
morning set	3645 Aug 17 04:13	17° $\mathring{\text{O}}$ 46'33			3646 Jul 31 08:54	0° $\mathring{\text{O}}$	
	3645 Aug 22 23:21	0° $\mathring{\text{M}}$		morning set	3646 Aug 01 15:35	2° $\mathring{\text{O}}$ 40'25	

superior conj	3646 Aug 08 17:18	17°♄51'53	1°34'14		3647 Jul 08 04:18	0°♄	
minimum elong	3646 Aug 08 15:23	17°♄41'33	1°34'04	asc. node	3647 Jul 15 07:44	13°♄46'51	
max. Earth dist.	3646 Aug 11 04:52	23°♄09'32	1.33515 AU	morning set	3647 Jul 17 03:20	17°♄34'39	
	3646 Aug 14 11:48	0°♄			3647 Jul 22 20:59	0°♄	
evening rise	3646 Aug 16 08:06	3°♄43'36					
	3646 Aug 31 00:38	0°♄		superior conj	3647 Jul 24 03:07	2°♄45'00	1°20'48
desc. node	3646 Sep 03 16:37	5°♄37'09		minimum elong	3647 Jul 24 00:48	2°♄32'17	1°20'30
evening max el	3646 Sep 19 09:07	25°♄03'12	27°21'34	max. Earth dist.	3647 Jul 25 10:34	5°♄36'34	1.32626 AU
	3646 Sep 25 15:21	0°♄		evening rise	3647 Jul 31 07:35	18°♄05'12	
retrograde	3646 Oct 02 21:42	2°♄21'40			3647 Aug 06 09:03	0°♄	
evening set	3646 Oct 09 22:54	29°♄41'27		desc. node	3647 Aug 21 13:38	24°♄45'31	
	3646 Oct 09 12:49	30°♄			3647 Aug 25 13:11	0°♄	
min. Earth dist.	3646 Oct 13 17:08	26°♄15'13	0.64325 AU	evening max el	3647 Sep 01 18:34	7°♄58'03	27°23'32
inferior conj	3646 Oct 16 02:24	23°♄43'10	-2°-42'-9	retrograde	3647 Sep 15 13:14	15°♄13'44	
minimum elong	3646 Oct 16 06:55	23°♄31'10	2°40'32	evening set	3647 Sep 22 17:46	12°♄44'30	
morning rise	3646 Oct 22 17:09	18°♄16'34		min. Earth dist.	3647 Sep 26 08:28	9°♄47'58	0.62578 AU
asc. node	3646 Oct 24 09:55	17°♄48'03		inferior conj	3647 Sep 29 05:19	7°♄04'31	-3°-40'-38
direct	3646 Oct 25 05:07	17°♄44'45		minimum elong	3647 Sep 29 11:01	6°♄50'57	3°38'59
morning max el	3646 Oct 31 17:17	21°♄10'41	17°55'51	morning rise	3647 Oct 06 07:04	1°♄56'12	
	3646 Nov 07 11:01	0°♄		direct	3647 Oct 08 15:21	1°♄31'17	
morning set	3646 Nov 17 19:48	17°♄09'43		asc. node	3647 Oct 11 06:58	2°♄04'01	
	3646 Nov 25 11:17	0°♄		morning max el	3647 Oct 15 09:29	4°♄58'36	17°50'55
desc. node	3646 Nov 30 15:56	8°♄30'00		morning set	3647 Oct 31 09:55	29°♄53'40	
					3647 Oct 31 11:21	0°♄	
superior conj	3646 Dec 01 02:15	9°♄11'45	0°-2'-58				
minimum elong	3646 Dec 01 01:54	9°♄10'18	0°02'56	superior conj	3647 Nov 11 18:34	19°♄43'02	0°39'22
behind sun begin	3646 Nov 30 15:49	8°♄29'33		minimum elong	3647 Nov 11 22:05	19°♄57'50	0°38'53
behind sun end	3646 Dec 01 11:59	9°♄51'00		desc. node	3647 Nov 17 12:58	29°♄17'26	
max. Earth dist.	3646 Dec 06 01:58	17°♄10'26	1.44676 AU		3647 Nov 17 23:26	0°♄	
	3646 Dec 14 06:41	0°♄		max. Earth dist.	3647 Nov 18 17:30	1°♄13'19	1.43465 AU
evening rise	3646 Dec 17 06:51	4°♄38'26		evening rise	3647 Nov 26 17:02	13°♄51'57	
	3647 Jan 03 04:00	0°♄			3647 Dec 07 08:28	0°♄	
greatest brilliancy	3647 Jan 06 23:25	5°♄19'01	-0.6m	greatest brilliancy	3647 Dec 22 07:16	20°♄52'45	-0.4m
evening max el	3647 Jan 13 08:45	13°♄04'15	20°14'58	evening max el	3647 Dec 27 07:03	26°♄37'12	21°24'07
asc. node	3647 Jan 20 09:10	17°♄36'36			3647 Dec 31 04:13	0°♄	
retrograde	3647 Jan 21 05:02	17°♄40'21		retrograde	3648 Jan 05 02:40	1°♄51'12	
evening set	3647 Jan 24 22:43	16°♄19'15		asc. node	3648 Jan 07 06:13	1°♄26'03	
inferior conj	3647 Jan 30 09:25	10°♄11'55	2°53'39	evening set	3648 Jan 09 06:27	0°♄14'52	
minimum elong	3647 Jan 30 06:57	10°♄20'13	2°53'03		3648 Jan 09 13:48	30°♄	
min. Earth dist.	3647 Jan 31 03:56	9°♄09'13	0.67253 AU	inferior conj	3648 Jan 14 15:56	23°♄57'14	2°18'14
morning rise	3647 Feb 04 14:38	3°♄56'03		minimum elong	3648 Jan 14 13:30	24°♄05'43	2°17'27
direct	3647 Feb 10 07:47	1°♄24'02		min. Earth dist.	3648 Jan 14 22:06	23°♄35'55	0.67808 AU
morning max el	3647 Feb 21 21:13	8°♄18'40	24°46'29	morning rise	3648 Jan 19 20:12	17°♄42'35	
desc. node	3647 Feb 26 15:08	13°♄34'06		direct	3648 Jan 24 22:36	15°♄30'43	
	3647 Mar 10 21:40	0°♄		morning max el	3648 Feb 04 06:06	21°♄38'35	23°17'49
morning set	3647 Mar 29 21:58	0°♄37'29		greatest brilliancy	3648 Feb 09 12:57	27°♄35'03	-0.2m
	3647 Mar 29 13:28	0°♄			3648 Feb 11 11:27	0°♄	
max. Earth dist.	3647 Apr 02 14:10	7°♄14'49	1.37170 AU	desc. node	3648 Feb 13 12:12	2°♄38'04	
					3648 Mar 03 04:47	0°♄	
superior conj	3647 Apr 09 04:18	19°♄43'42	-1°-24'-9	morning set	3648 Mar 10 04:08	11°♄22'50	
minimum elong	3647 Apr 09 08:36	20°♄04'36	1°23'32	max. Earth dist.	3648 Mar 14 08:57	18°♄33'42	1.39321 AU
	3647 Apr 14 08:40	0°♄			3648 Mar 20 18:23	0°♄	
evening rise	3647 Apr 17 17:05	6°♄43'16					
asc. node	3647 Apr 18 08:28	7°♄59'57		superior conj	3648 Mar 21 23:54	2°♄16'16	-1°-47'-50
	3647 May 01 00:16	0°♄		minimum elong	3648 Mar 22 04:30	2°♄37'37	1°47'24
evening max el	3647 May 04 14:21	4°♄07'01	19°22'41	evening rise	3648 Mar 31 11:13	20°♄19'40	
retrograde	3647 May 13 20:58	8°♄37'25		asc. node	3648 Apr 04 05:31	27°♄30'14	
evening set	3647 May 15 20:54	8°♄25'48			3648 Apr 05 13:49	0°♄	
inferior conj	3647 May 24 09:44	4°♄18'40	0°20'50	evening max el	3648 Apr 16 15:54	16°♄24'41	18°37'42
minimum elong	3647 May 24 10:37	4°♄17'14	0°20'31	retrograde	3648 Apr 24 12:37	20°♄16'12	
desc. node	3647 May 25 14:18	3°♄31'48		evening set	3648 Apr 26 18:04	19°♄58'42	
min. Earth dist.	3647 May 27 02:35	2°♄33'08	0.55996 AU	inferior conj	3648 May 04 11:26	15°♄32'52	1°54'45
	3647 May 31 19:11	30°♄		minimum elong	3648 May 04 15:00	15°♄26'03	1°53'39
morning rise	3647 Jun 01 20:21	29°♄35'29		min. Earth dist.	3648 May 07 20:16	12°♄59'50	0.57726 AU
direct	3647 Jun 06 14:51	28°♄43'34		desc. node	3648 May 11 11:21	10°♄40'59	
	3647 Jun 12 09:32	0°♄		morning rise	3648 May 12 07:30	10°♄15'44	
morning max el	3647 Jun 20 18:03	5°♄53'51	25°07'34	direct	3648 May 18 01:33	8°♄52'57	

morning max el	3648 Jun 01 10:24	16°♄28'45	26°33'48	morning rise	3649 Apr 23 12:56	21°♃44'07	
	3648 Jun 12 11:46	0°♂		desc. node	3649 Apr 28 08:24	19°♃54'05	
	3648 Jun 29 10:19	0°♄		direct	3649 Apr 30 00:40	19°♃46'16	
morning set	3648 Jun 30 13:54	2°♄24'09		morning max el	3649 May 14 08:44	27°♃36'50	27°31'02
asc. node	3648 Jul 01 04:47	3°♄42'51			3649 May 16 15:51	0°♄	
					3649 Jun 06 03:23	0°♂	
superior conj	3648 Jul 07 14:45	17°♄41'17	1°02'55	morning set	3649 Jun 14 21:31	17°♂02'23	
minimum elong	3648 Jul 07 12:30	17°♄28'54	1°02'31	asc. node	3649 Jun 18 01:50	23°♂46'48	
max. Earth dist.	3648 Jul 07 21:14	18°♄17'02	1.32148 AU		3649 Jun 20 22:23	0°♄	
	3648 Jul 13 06:21	0°♂		max. Earth dist.	3649 Jun 21 09:03	0°♄58'37	1.32067 AU
evening rise	3648 Jul 14 13:23	2°♂44'07					
	3648 Jul 29 06:14	0°♂		superior conj	3649 Jun 22 02:20	2°♄33'47	0°41'11
desc. node	3648 Aug 07 10:38	13°♂02'58		minimum elong	3649 Jun 22 00:38	2°♄24'22	0°40'50
evening max el	3648 Aug 13 22:59	20°♂12'45	26°52'22	evening rise	3649 Jun 28 23:05	17°♄31'34	
retrograde	3648 Aug 27 20:58	27°♂24'00			3649 Jul 05 02:53	0°♂	
evening set	3648 Sep 03 19:46	25°♂18'30		desc. node	3649 Jul 25 07:39	0°♂08'13	
min. Earth dist.	3648 Sep 07 13:10	22°♂40'35	0.60594 AU		3649 Jul 25 04:29	0°♂	
inferior conj	3648 Sep 10 18:16	19°♂59'57	-4°-30'-55	evening max el	3649 Jul 26 20:02	1°♂38'34	25°49'07
minimum elong	3648 Sep 10 23:46	19°♂48'27	4°29'51	retrograde	3649 Aug 09 19:25	8°♂46'07	
morning rise	3648 Sep 18 06:58	15°♂13'05		evening set	3649 Aug 16 00:00	7°♂15'09	
direct	3648 Sep 20 14:50	14°♂52'04		min. Earth dist.	3649 Aug 20 08:14	4°♂39'00	0.58528 AU
asc. node	3648 Sep 27 04:01	17°♂46'21		inferior conj	3649 Aug 23 13:39	2°♂19'11	-5°-3'-24
morning max el	3648 Sep 27 22:26	18°♂28'54	18°04'55	minimum elong	3649 Aug 23 16:23	2°♂14'13	5°03'12
	3648 Oct 06 06:31	0°♂			3649 Aug 26 22:59	30°♂	
morning set	3648 Oct 13 16:27	13°♂24'11		morning rise	3649 Aug 31 12:16	27°♂55'57	
	3648 Oct 22 16:47	0°♂		direct	3649 Sep 02 23:00	27°♂36'37	
					3649 Sep 09 09:17	0°♂	
superior conj	3648 Oct 23 12:57	1°♂30'10	1°11'08	morning max el	3649 Sep 11 04:56	1°♂32'45	18°39'22
minimum elong	3648 Oct 23 17:08	1°♂48'46	1°10'39	asc. node	3649 Sep 14 01:05	4°♂40'34	
max. Earth dist.	3648 Oct 31 04:22	14°♂42'52	1.41738 AU	morning set	3649 Sep 27 10:31	27°♂27'45	
desc. node	3648 Nov 03 10:00	20°♂03'55			3649 Sep 28 17:49	0°♂	
evening rise	3648 Nov 05 16:14	23°♂43'33					
	3648 Nov 09 15:22	0°♂		superior conj	3649 Oct 06 04:46	14°♂20'31	1°31'41
	3648 Nov 30 08:59	0°♂		minimum elong	3649 Oct 06 07:47	14°♂34'42	1°31'26
greatest brilliancy	3648 Dec 04 01:18	4°♂38'38	-0.3m	max. Earth dist.	3649 Oct 13 10:34	27°♂30'21	1.39706 AU
evening max el	3648 Dec 09 00:21	10°♂12'06	22°41'27		3649 Oct 14 20:55	0°♂	
retrograde	3648 Dec 18 22:11	16°♂05'09		evening rise	3649 Oct 17 13:34	4°♂36'04	
evening set	3648 Dec 23 13:53	14°♂12'27		desc. node	3649 Oct 21 07:00	10°♂46'10	
asc. node	3648 Dec 24 03:16	13°♂43'22			3649 Nov 02 19:31	0°♂	
inferior conj	3648 Dec 28 23:42	7°♂48'08	1°35'21	evening max el	3649 Nov 21 14:07	23°♂50'09	24°01'22
minimum elong	3648 Dec 28 21:44	7°♂54'57	1°34'36		3649 Nov 30 11:17	0°♂	
min. Earth dist.	3648 Dec 28 18:33	8°♂06'00	0.67983 AU	retrograde	3649 Dec 02 14:26	0°♂18'44	
morning rise	3649 Jan 03 05:31	1°♂36'33			3649 Dec 04 15:06	30°♂	
	3649 Jan 06 04:06	30°♂		evening set	3649 Dec 07 19:25	28°♂09'33	
direct	3649 Jan 07 17:04	29°♂47'37		asc. node	3649 Dec 11 00:19	24°♂43'29	
	3649 Jan 09 07:26	0°♂		min. Earth dist.	3649 Dec 12 14:56	22°♂36'32	0.67800 AU
morning max el	3649 Jan 16 18:41	5°♂06'05	21°51'01	inferior conj	3649 Dec 13 06:55	21°♂42'25	0°46'11
greatest brilliancy	3649 Jan 21 12:17	10°♂25'44	-0.4m	minimum elong	3649 Dec 13 05:51	21°♂46'04	0°45'45
desc. node	3649 Jan 30 09:15	22°♂16'11		morning rise	3649 Dec 18 16:33	15°♂35'59	
	3649 Feb 04 17:31	0°♂		direct	3649 Dec 22 14:13	14°♂09'36	
morning set	3649 Feb 18 05:28	20°♂45'14		morning max el	3649 Dec 30 14:15	18°♂45'06	20°33'09
	3649 Feb 23 21:35	0°♂		greatest brilliancy	3650 Jan 05 15:59	25°♂53'02	-0.5m
max. Earth dist.	3649 Feb 24 07:48	0°♂42'33	1.41462 AU		3650 Jan 08 17:24	0°♂	
				desc. node	3650 Jan 17 06:17	12°♂19'03	
superior conj	3649 Mar 04 00:24	13°♂52'27	-2°-3'-34	morning set	3650 Jan 28 06:52	29°♂04'40	
minimum elong	3649 Mar 04 03:14	14°♂04'58	2°03'29		3650 Jan 28 21:07	0°♂	
	3649 Mar 12 22:35	0°♂		max. Earth dist.	3650 Feb 06 14:12	13°♂47'26	1.43293 AU
evening rise	3649 Mar 14 17:36	3°♂18'35					
asc. node	3649 Mar 22 02:34	16°♂37'37		superior conj	3650 Feb 13 00:50	24°♂21'36	-2°-6'-18
evening max el	3649 Mar 31 00:18	29°♂11'25	18°12'42	minimum elong	3650 Feb 12 23:01	24°♂14'01	2°06'18
	3649 Mar 31 21:20	0°♂			3650 Feb 16 09:14	0°♂	
retrograde	3649 Apr 06 22:59	2°♂40'51		evening rise	3650 Feb 25 08:07	15°♂31'40	
evening set	3649 Apr 09 10:35	2°♂14'47			3650 Mar 05 16:24	0°♂	
	3649 Apr 13 09:34	30°♂		asc. node	3650 Mar 08 23:36	5°♂15'02	
inferior conj	3649 Apr 16 10:17	27°♂27'32	2°56'13	evening max el	3650 Mar 14 12:18	12°♂19'06	18°07'18
minimum elong	3649 Apr 16 13:36	27°♂20'07	2°55'31	retrograde	3650 Mar 21 00:21	15°♂41'55	
min. Earth dist.	3649 Apr 19 19:20	24°♂28'17	0.59844 AU	evening set	3650 Mar 23 17:35	15°♂05'46	

inferior conj	3650 Mar 30 03:22	9°Υ57'46	3°28'25	evening max el	3651 Feb 26 00:53	25°✠39'34	18°20'57
minimum elong	3650 Mar 30 05:04	9°Υ53'26	3°28'15	retrograde	3651 Mar 04 12:00	29°✠09'08	
min. Earth dist.	3650 Apr 02 02:30	6°Υ57'03	0.62008 AU	evening set	3651 Mar 07 10:53	28°✠21'48	
morning rise	3650 Apr 05 13:55	3°Υ57'43		inferior conj	3651 Mar 13 10:29	22°✠54'37	3°37'55
direct	3650 Apr 12 10:19	1°Υ29'49		minimum elong	3651 Mar 13 10:25	22°✠54'47	3°37'55
desc. node	3650 Apr 15 05:27	1°Υ52'26		min. Earth dist.	3651 Mar 15 19:04	20°✠13'36	0.63964 AU
morning max el	3650 Apr 26 13:23	9°Υ27'51	27°51'29	morning rise	3651 Mar 19 08:14	16°✠45'29	
	3650 May 12 11:06	0°♄		direct	3651 Mar 26 04:29	13°✠59'33	
	3650 May 29 07:44	0°♅		desc. node	3651 Apr 02 02:28	16°✠18'07	
morning set	3650 May 30 00:11	1°♁23'19		morning max el	3651 Apr 08 22:00	21°✠56'20	27°34'58
asc. node	3650 Jun 04 22:52	13°♁54'33			3651 Apr 15 23:26	0°Υ	
max. Earth dist.	3650 Jun 04 18:02	13°♁28'24	1.32393 AU		3651 May 05 15:13	0°♄	
				morning set	3651 May 13 19:28	15°♄19'22	
superior conj	3650 Jun 06 12:12	17°♁17'13	0°16'17	max. Earth dist.	3651 May 18 20:09	25°♄33'55	1.33149 AU
minimum elong	3650 Jun 06 11:27	17°♁13'07	0°16'06		3651 May 20 22:36	0°♅	
	3650 Jun 12 08:17	0°♄					
evening rise	3650 Jun 13 10:40	2°♄21'08		superior conj	3651 May 21 18:30	1°♁46'05	0°-11'-4
	3650 Jun 28 10:50	0°♄		minimum elong	3651 May 21 19:03	1°♁49'03	0°10'58
evening max el	3650 Jul 08 10:25	12°♄21'06	24°21'52	behind sun begin	3651 May 21 15:07	1°♁28'00	
desc. node	3650 Jul 12 04:40	15°♄32'37		behind sun end	3651 May 21 23:00	2°♁10'06	
retrograde	3650 Jul 22 06:58	19°♄20'47		asc. node	3651 May 22 19:55	4°♁02'12	
evening set	3650 Jul 27 04:02	18°♄27'38		evening rise	3651 May 28 22:18	17°♁06'57	
min. Earth dist.	3650 Aug 01 21:15	15°♄34'20	0.56655 AU		3651 Jun 04 07:49	0°♄	
inferior conj	3650 Aug 04 12:55	13°♄53'53	-5°-3'-56	evening max el	3651 Jun 20 00:03	22°♄46'09	22°45'08
minimum elong	3650 Aug 04 10:08	13°♄58'18	5°03'46	desc. node	3651 Jun 29 01:41	28°♄41'52	
morning rise	3650 Aug 12 19:50	9°♄52'00		retrograde	3651 Jul 03 06:07	29°♄22'00	
direct	3650 Aug 15 11:57	9°♄32'51		evening set	3651 Jul 06 14:48	28°♄57'13	
morning max el	3650 Aug 25 01:50	14°♄00'31	19°35'21	min. Earth dist.	3651 Jul 14 08:21	25°♄32'28	0.55326 AU
asc. node	3650 Aug 31 22:07	22°♄31'27		inferior conj	3651 Jul 15 17:29	24°♄44'58	-4°-17'-58
	3650 Sep 05 08:45	0°♅		minimum elong	3651 Jul 15 09:40	24°♄56'11	4°16'18
morning set	3650 Sep 11 12:30	11°♅53'53		morning rise	3651 Jul 24 07:08	20°♄54'06	
				direct	3651 Jul 27 06:47	20°♄33'25	
superior conj	3650 Sep 19 12:30	27°♅57'53	1°42'14	morning max el	3651 Aug 07 11:11	25°♄45'09	20°52'27
minimum elong	3650 Sep 19 13:48	28°♅04'20	1°42'11		3651 Aug 11 09:24	0°♄	
	3650 Sep 20 13:23	0°♄		asc. node	3651 Aug 18 19:09	11°♄06'11	
max. Earth dist.	3650 Sep 25 14:49	9°♄38'30	1.37629 AU	morning set	3651 Aug 26 19:46	26°♄35'44	
evening rise	3650 Sep 29 10:00	16°♄32'23			3651 Aug 28 11:13	0°♅	
	3650 Oct 07 08:13	0°♅					
desc. node	3650 Oct 08 03:59	1°♅19'47		superior conj	3651 Sep 03 07:35	12°♅09'11	1°44'25
	3650 Oct 28 07:24	0°♄		minimum elong	3651 Sep 03 07:19	12°♅07'45	1°44'24
evening max el	3650 Nov 04 02:20	7°♄30'56	25°17'14	max. Earth dist.	3651 Sep 07 23:05	21°♅29'49	1.35752 AU
retrograde	3650 Nov 16 02:26	14°♄26'47		evening rise	3651 Sep 12 02:13	29°♅24'46	
evening set	3650 Nov 21 21:24	12°♄02'35			3651 Sep 12 09:46	0°♄	
min. Earth dist.	3650 Nov 26 09:00	7°♄04'09	0.67273 AU	desc. node	3651 Sep 25 01:00	21°♄40'01	
inferior conj	3650 Nov 27 11:47	5°♄37'13	0°-8'-11		3651 Sep 30 12:55	0°♅	
minimum elong	3650 Nov 27 12:00	5°♄36'32	0°08'05	evening max el	3651 Oct 17 14:44	21°♅12'13	26°21'35
transit middle	3650 Nov 27 12:00	5°♄36'32	0°08'05	retrograde	3651 Oct 30 09:29	28°♅23'55	
transit begin	3650 Nov 27 09:35	5°♄44'23		evening set	3651 Nov 05 18:01	25°♅48'22	
transit end	3650 Nov 27 14:25	5°♄28'42		min. Earth dist.	3651 Nov 09 22:25	21°♅25'45	0.66405 AU
asc. node	3650 Nov 27 21:21	5°♄06'14		inferior conj	3651 Nov 11 12:28	19°♅29'40	-1°-6'-29
	3650 Dec 02 14:47	30°♅		minimum elong	3651 Nov 11 14:16	19°♅24'10	1°05'44
morning rise	3650 Dec 03 03:19	29°♅38'03		asc. node	3651 Nov 14 18:22	15°♅48'46	
direct	3650 Dec 06 12:42	28°♅31'44		morning rise	3651 Nov 17 11:46	13°♅40'30	
	3650 Dec 10 16:29	0°♄		direct	3651 Nov 20 11:00	12°♅50'33	
morning max el	3650 Dec 13 17:41	2°♄34'42	19°28'27	morning max el	3651 Nov 27 03:56	16°♅31'40	18°39'15
greatest brilliancy	3650 Dec 22 09:50	13°♄31'17	-0.7m		3651 Dec 07 06:17	0°♄	
	3651 Jan 02 09:50	0°♄		morning set	3651 Dec 17 22:41	16°♄46'10	
desc. node	3651 Jan 04 03:16	2°♄39'17		desc. node	3651 Dec 22 00:17	23°♄12'12	
morning set	3651 Jan 07 04:35	7°♄22'12			3651 Dec 26 07:46	0°♄	
max. Earth dist.	3651 Jan 20 03:04	27°♄34'44	1.44589 AU				
	3651 Jan 21 15:43	0°♅		superior conj	3652 Jan 03 03:50	12°♄18'18	-1°-16'-41
				minimum elong	3652 Jan 02 19:03	11°♄43'50	1°15'42
superior conj	3651 Jan 23 23:22	3°♅41'45	-1°-51'-2	max. Earth dist.	3652 Jan 02 20:33	11°♄49'41	1.45208 AU
minimum elong	3651 Jan 23 15:47	3°♅11'28	1°50'30		3652 Jan 14 09:11	0°♅	
evening rise	3651 Feb 07 02:16	26°♅49'47		evening rise	3652 Jan 18 21:15	7°♅10'26	
	3651 Feb 08 23:42	0°✠			3652 Feb 02 09:34	0°✠	
asc. node	3651 Feb 23 20:38	23°✠12'39		evening max el	3652 Feb 09 11:35	9°✠07'16	18°52'35

asc. node	3652 Feb 10 17:40	10° X 18'51		greatest brilliancy	3653 Jan 15 02:08	12° \approx 56'40	-0.6m
retrograde	3652 Feb 16 05:58	12° X 55'02		evening max el	3653 Jan 22 18:22	22° \approx 38'30	19°40'42
evening set	3652 Feb 19 11:12	11° X 55'25		asc. node	3653 Jan 27 14:41	26° \approx 20'03	
inferior conj	3652 Feb 25 03:49	6° X 10'50	3°30'26	retrograde	3653 Jan 30 03:13	26° \approx 54'21	
minimum elong	3652 Feb 25 02:24	6° X 15'15	3°30'17	evening set	3653 Feb 02 16:01	25° \approx 41'18	
min. Earth dist.	3652 Feb 26 20:48	4° X 03'35	0.65569 AU	inferior conj	3653 Feb 08 04:14	19° \approx 41'28	3°10'06
morning rise	3652 Mar 01 16:30	29° \approx 57'15		minimum elong	3653 Feb 08 02:00	19° \approx 48'51	3°09'39
	3652 Mar 01 15:15	30° R \approx		min. Earth dist.	3653 Feb 09 06:28	18° \approx 14'51	0.66761 AU
direct	3652 Mar 08 05:36	27° \approx 07'36		morning rise	3653 Feb 13 11:19	13° \approx 26'06	
	3652 Mar 15 17:25	0° X		direct	3653 Feb 19 12:33	10° \approx 45'09	
desc. node	3652 Mar 18 23:30	2° X 36'39		morning max el	3653 Mar 03 17:01	18° \approx 00'53	25°34'39
morning max el	3652 Mar 21 07:47	4° X 50'54	26°46'32	desc. node	3653 Mar 05 20:33	20° \approx 16'59	
	3652 Apr 09 12:22	0° Y			3653 Mar 13 18:55	0° X	
morning set	3652 Apr 26 04:02	28° Y 39'53			3653 Apr 02 12:39	0° Y	
	3652 Apr 26 20:48	0° X		morning set	3653 Apr 08 21:37	11° Y 12'37	
max. Earth dist.	3652 Apr 30 11:57	7° X 07'13	1.34370 AU	max. Earth dist.	3653 Apr 12 16:30	18° Y 14'46	1.36046 AU
superior conj	3652 May 04 19:03	15° X 53'09	0°-39'-49	superior conj	3653 Apr 18 11:13	29° Y 31'04	-1°-8'-29
minimum elong	3652 May 04 21:09	16° X 04'01	0°39'25	minimum elong	3653 Apr 18 14:50	29° Y 49'07	1°07'53
asc. node	3652 May 08 16:56	24° X 05'10			3653 Apr 18 17:00	0° X	
	3652 May 11 12:26	0° II		asc. node	3653 Apr 25 14:00	13° X 59'26	
evening rise	3652 May 12 08:02	1° II 42'14		evening rise	3653 Apr 26 13:49	16° X 00'45	
	3652 May 28 17:44	0° X			3653 May 03 19:20	0° II	
evening max el	3652 May 31 20:45	3° X 25'22	21°13'43	evening max el	3653 May 14 05:04	14° II 40'32	19°57'34
retrograde	3652 Jun 12 19:33	9° X 17'02		retrograde	3653 May 24 10:44	19° II 39'19	
desc. node	3652 Jun 14 22:43	9° X 06'30		evening set	3653 May 26 09:59	19° II 29'05	
evening set	3652 Jun 15 02:51	9° X 04'46		desc. node	3653 Jun 01 19:44	16° II 58'31	
inferior conj	3652 Jun 24 11:22	5° X 06'33	-2°-43'-57	inferior conj	3653 Jun 04 08:47	15° II 28'45	0°-45'-6
minimum elong	3652 Jun 24 04:03	5° X 16'50	2°41'32	minimum elong	3653 Jun 04 06:41	15° II 31'55	0°44'20
min. Earth dist.	3652 Jun 24 19:39	4° X 54'55	0.54842 AU	min. Earth dist.	3653 Jun 06 08:25	14° II 16'46	0.55322 AU
morning rise	3652 Jul 03 05:20	1° X 09'14		morning rise	3653 Jun 13 00:41	11° II 06'03	
direct	3652 Jul 06 16:35	0° X 43'13		direct	3653 Jun 17 06:03	10° II 27'02	
morning max el	3652 Jul 19 09:18	6° X 45'13	22°27'06	morning max el	3653 Jul 01 00:28	17° II 14'53	24°10'09
asc. node	3652 Aug 04 16:10	0° Q 13'23			3653 Jul 11 09:19	0° X	
	3652 Aug 04 13:21	0° Q		asc. node	3653 Jul 22 13:14	19° X 44'50	
morning set	3652 Aug 10 06:08	11° Q 26'20		morning set	3653 Jul 25 17:52	26° X 20'43	
					3653 Jul 27 11:02	0° Q	
superior conj	3652 Aug 17 10:27	26° Q 42'47	1°39'39	superior conj	3653 Aug 01 18:23	11° Q 30'34	1°29'07
minimum elong	3652 Aug 17 08:59	26° Q 35'03	1°39'34	minimum elong	3653 Aug 01 16:13	11° Q 18'54	1°28'53
	3652 Aug 18 23:51	0° X		max. Earth dist.	3653 Aug 03 17:36	15° Q 45'16	1.33092 AU
max. Earth dist.	3652 Aug 20 15:52	3° X 28'16	1.34220 AU	evening rise	3653 Aug 09 04:12	27° Q 07'22	
evening rise	3652 Aug 25 09:37	13° X 00'07			3653 Aug 10 14:41	0° X	
	3652 Sep 03 16:40	0° X			3653 Aug 27 23:55	0° X	
desc. node	3652 Sep 10 22:02	11° X 39'34		desc. node	3653 Aug 28 19:03	1° X 09'43	
	3652 Sep 24 14:36	0° X		evening max el	3653 Sep 11 14:35	17° X 57'14	27°26'17
evening max el	3652 Sep 29 03:22	4° X 45'08	27°06'57	retrograde	3653 Sep 25 05:47	25° X 14'01	
retrograde	3652 Oct 12 10:45	12° X 02'27		evening set	3653 Oct 02 09:28	22° X 37'04	
evening set	3652 Oct 19 06:59	9° X 21'39		min. Earth dist.	3653 Oct 06 01:49	19° X 24'30	0.63620 AU
min. Earth dist.	3652 Oct 23 04:45	5° X 35'15	0.65185 AU	inferior conj	3653 Oct 08 16:09	16° X 46'26	-3°-7'-32
inferior conj	3652 Oct 25 06:47	3° X 14'44	-2°-7'-7	minimum elong	3653 Oct 08 21:16	16° X 33'26	3°05'50
minimum elong	3652 Oct 25 10:20	3° X 04'46	2°05'44	morning rise	3653 Oct 15 11:30	11° X 27'10	
	3652 Oct 28 08:45	30° R X		direct	3653 Oct 17 21:41	10° X 58'32	
morning rise	3652 Oct 31 15:30	27° X 38'44		asc. node	3653 Oct 18 12:27	11° X 00'25	
asc. node	3652 Oct 31 15:23	27° X 38'51		morning max el	3653 Oct 24 11:19	14° X 23'44	17°51'33
direct	3652 Nov 03 06:54	27° X 01'16			3653 Nov 04 07:39	0° X	
	3652 Nov 09 06:18	0° X		morning set	3653 Nov 10 00:15	9° X 47'54	
morning max el	3652 Nov 09 18:45	0° X 30'09	18°06'44		3653 Nov 21 22:02	0° X	
morning set	3652 Nov 27 22:21	27° X 39'07					
	3652 Nov 29 08:32	0° X		superior conj	3653 Nov 22 10:12	0° X 50'02	0°16'07
desc. node	3652 Dec 07 21:20	13° X 53'36		minimum elong	3653 Nov 22 11:54	0° X 57'05	0°15'53
				behind sun begin	3653 Nov 22 10:13	0° X 50'09	
superior conj	3652 Dec 12 09:12	21° X 04'08	0°-30'-21	behind sun end	3653 Nov 22 13:35	1° X 04'00	
minimum elong	3652 Dec 12 05:22	20° X 48'58	0°29'51	desc. node	3653 Nov 24 18:22	4° X 39'32	
max. Earth dist.	3652 Dec 15 16:06	26° X 15'54	1.45082 AU	max. Earth dist.	3653 Nov 28 10:14	10° X 33'21	1.44234 AU
	3652 Dec 18 01:11	0° X		evening rise	3653 Dec 08 04:45	25° X 51'41	
evening rise	3652 Dec 28 18:55	16° X 42'48			3653 Dec 10 21:33	0° X	
	3653 Jan 06 09:41	0° \approx					

greatest brilliancy	3653 Dec 31 03:39	29°☿27'22	-0.5m	max. Earth dist.	3654 Nov 10 23:59	24°♄23'58	1.42774 AU
	3653 Dec 31 13:43	0°♊		desc. node	3654 Nov 11 15:23	25°♄26'59	
evening max el	3654 Jan 05 19:49	6°♊10'23	20°43'04		3654 Nov 14 10:53	0°♊	
retrograde	3654 Jan 14 01:21	11°♊02'03		evening rise	3654 Nov 17 18:46	5°♊16'57	
asc. node	3654 Jan 14 11:44	11°♊01'01			3654 Dec 04 06:00	0°☿	
evening set	3654 Jan 17 23:13	9°♊34'22		greatest brilliancy	3654 Dec 14 21:47	14°☿20'42	-0.3m
inferior conj	3654 Jan 23 09:10	3°♊22'06	2°39'37	evening max el	3654 Dec 19 15:45	19°☿43'29	21°56'15
minimum elong	3654 Jan 23 06:39	3°♊30'42	2°38'55	retrograde	3654 Dec 28 22:25	25°☿14'48	
min. Earth dist.	3654 Jan 23 22:10	2°♊37'32	0.67537 AU	asc. node	3655 Jan 01 08:46	24°☿11'19	
	3654 Jan 25 21:50	30°♋☿		evening set	3655 Jan 02 07:03	23°☿31'29	
morning rise	3654 Jan 28 13:40	27°☿06'43		inferior conj	3655 Jan 07 16:28	17°☿10'15	2°00'53
direct	3654 Feb 03 00:34	24°☿43'00		minimum elong	3655 Jan 07 14:10	17°☿18'14	2°00'06
	3654 Feb 12 17:30	0°♊		min. Earth dist.	3655 Jan 07 17:39	17°☿06'09	0.67922 AU
morning max el	3654 Feb 14 01:36	1°♊18'15	24°09'12	morning rise	3655 Jan 12 21:05	10°☿56'34	
desc. node	3654 Feb 20 17:36	8°♊55'11		direct	3655 Jan 17 16:59	8°☿54'32	
	3654 Mar 07 18:54	0°♋		morning max el	3655 Jan 27 11:46	14°☿41'38	22°40'14
morning set	3654 Mar 21 18:31	22°♋41'37		greatest brilliancy	3655 Feb 01 02:08	19°☿49'18	-0.3m
max. Earth dist.	3654 Mar 25 13:09	29°♋20'43	1.38075 AU	desc. node	3655 Feb 07 14:38	28°☿14'59	
	3654 Mar 25 21:53	0°♌			3655 Feb 08 21:13	0°♊	
					3655 Feb 28 18:31	0°♋	
superior conj	3654 Apr 01 15:30	12°♌30'01	-1°-34'-53	morning set	3655 Mar 02 12:45	2°♋52'20	
minimum elong	3654 Apr 01 20:06	12°♌51'59	1°34'19	max. Earth dist.	3655 Mar 07 08:49	10°♋58'04	1.40251 AU
evening rise	3654 Apr 10 13:04	29°♌54'41					
	3654 Apr 10 14:08	0°♌		superior conj	3655 Mar 15 03:35	24°♋39'46	-1°-55'-45
asc. node	3654 Apr 12 11:02	3°♌39'50		minimum elong	3655 Mar 15 07:46	24°♋58'45	1°55'28
evening max el	3654 Apr 27 00:56	26°♌36'03	19°00'55		3655 Mar 18 01:26	0°♌	
	3654 May 01 20:49	0°♍		evening rise	3655 Mar 25 02:41	13°♌16'17	
retrograde	3654 May 05 15:56	0°♍48'24		asc. node	3655 Mar 30 08:05	23°♌01'12	
evening set	3654 May 07 17:49	0°♍34'43			3655 Apr 03 09:06	0°♌	
	3654 May 09 15:24	30°♋♌		evening max el	3655 Apr 10 05:47	9°♌07'04	18°24'34
inferior conj	3654 May 15 22:22	26°♌19'52	1°04'30	retrograde	3655 Apr 17 15:51	12°♌47'21	
minimum elong	3654 May 16 00:49	26°♌15'35	1°03'40	evening set	3655 Apr 19 23:48	12°♌26'37	
min. Earth dist.	3654 May 18 23:59	24°♌12'13	0.56665 AU	inferior conj	3655 Apr 27 09:18	7°♌51'55	2°24'44
desc. node	3654 May 19 16:47	23°♌44'34		minimum elong	3655 Apr 27 13:02	7°♌44'17	2°23'44
morning rise	3654 May 24 03:28	21°♌21'33		min. Earth dist.	3655 Apr 30 19:56	5°♌04'24	0.58601 AU
direct	3654 May 29 07:59	20°♌17'55		morning rise	3655 May 04 21:58	2°♌21'56	
morning max el	3654 Jun 12 15:02	27°♌40'24	25°47'09	desc. node	3655 May 06 13:50	1°♌36'12	
	3654 Jun 14 21:43	0°♍		direct	3655 May 11 00:25	0°♌44'04	
	3654 Jul 04 16:20	0°♎		morning max el	3655 May 25 09:53	8°♌28'09	27°02'18
asc. node	3654 Jul 09 10:18	9°♎33'32			3655 Jun 10 17:13	0°♍	
morning set	3654 Jul 10 05:21	11°♎13'37		morning set	3655 Jun 24 14:52	25°♍59'06	
				asc. node	3655 Jun 26 07:20	29°♍33'29	
					3655 Jun 26 12:18	0°♎	
superior conj	3654 Jul 17 05:12	26°♎25'37	1°13'43				
minimum elong	3654 Jul 17 02:51	26°♎12'42	1°13'21	superior conj	3655 Jul 01 17:01	11°♎21'05	0°54'08
max. Earth dist.	3654 Jul 18 01:54	28°♎19'14	1.32371 AU	minimum elong	3655 Jul 01 14:57	11°♎09'40	0°53'44
	3654 Jul 18 20:19	0°♏		max. Earth dist.	3655 Jul 01 13:22	11°♎00'56	1.32058 AU
evening rise	3654 Jul 24 06:41	11°♏36'55		evening rise	3655 Jul 08 14:23	26°♎20'07	
	3654 Aug 02 19:29	0°♐			3655 Jul 10 08:32	0°♏	
desc. node	3654 Aug 15 16:04	19°♐58'34			3655 Jul 27 12:09	0°♐	
	3654 Aug 24 07:12	0°♑		desc. node	3655 Aug 02 13:06	7°♐48'28	
evening max el	3654 Aug 24 22:03	0°♑35'42	27°14'21	evening max el	3655 Aug 06 23:18	12°♐29'21	26°29'06
retrograde	3654 Sep 07 18:09	7°♑49'46		retrograde	3655 Aug 20 22:32	19°♐40'03	
evening set	3654 Sep 14 21:47	5°♑28'40		evening set	3655 Aug 27 15:08	17°♐48'03	
min. Earth dist.	3654 Sep 18 12:22	2°♑42'13	0.61753 AU	min. Earth dist.	3655 Aug 31 12:48	15°♐13'11	0.59702 AU
inferior conj	3654 Sep 21 13:34	29°♐57'43	-4°-3'-29	inferior conj	3655 Sep 03 19:26	12°♐38'45	-4°-47'-41
minimum elong	3654 Sep 21 19:25	29°♐44'31	4°01'59	minimum elong	3655 Sep 04 00:08	12°♐29'29	4°47'00
	3654 Sep 21 12:33	30°♋♐		morning rise	3655 Sep 11 12:35	8°♐02'06	
morning rise	3654 Sep 28 20:04	24°♐58'32		direct	3655 Sep 13 21:05	7°♐42'11	
direct	3654 Oct 01 03:48	24°♐35'36		morning max el	3655 Sep 21 13:18	11°♐26'09	18°17'02
asc. node	3654 Oct 05 09:31	25°♐54'47		asc. node	3655 Sep 22 06:34	12°♐09'31	
morning max el	3654 Oct 08 02:37	28°♐05'37	17°54'34		3655 Oct 03 21:06	0°♑	
	3654 Oct 09 20:50	0°♑		morning set	3655 Oct 07 09:59	6°♑39'11	
morning set	3654 Oct 23 22:03	22°♑53'33					
	3654 Oct 27 20:10	0°♒		superior conj	3655 Oct 16 18:14	24°♑11'04	1°21'10
superior conj	3654 Nov 03 14:03	11°♒55'13	0°54'15	minimum elong	3655 Oct 16 22:03	24°♑28'29	1°20'46
minimum elong	3654 Nov 03 18:10	12°♒12'59	0°53'42		3655 Oct 19 23:49	0°♒	

max. Earth dist.	3655 Oct 24 08:06	7° \mathbb{M} 33'38	1.40889 AU	superior conj	3656 Sep 28 17:25	7° \mathbb{A} 22'48	1°37'17
evening rise	3655 Oct 29 02:45	15° \mathbb{M} 32'41		minimum elong	3656 Sep 28 19:44	7° \mathbb{A} 33'53	1°37'08
desc. node	3655 Oct 29 12:23	16° \mathbb{M} 12'03		max. Earth dist.	3656 Oct 05 12:44	20° \mathbb{A} 01'55	1.38818 AU
	3655 Nov 07 06:40	0° \mathbb{A}		evening rise	3656 Oct 09 10:12	26° \mathbb{A} 53'04	
	3655 Nov 29 05:03	0° \mathbb{B}			3656 Oct 11 06:01	0° \mathbb{M}	
evening max el	3655 Dec 02 07:12	3° \mathbb{B} 19'01	23°15'33	desc. node	3656 Oct 15 09:23	6° \mathbb{M} 51'06	
retrograde	3655 Dec 12 16:46	9° \mathbb{B} 28'32			3656 Oct 30 20:21	0° \mathbb{A}	
evening set	3655 Dec 17 13:51	7° \mathbb{B} 28'57		evening max el	3656 Nov 13 20:13	16° \mathbb{A} 58'38	24°34'40
asc. node	3655 Dec 19 05:49	5° \mathbb{B} 52'19		retrograde	3656 Nov 25 07:11	23° \mathbb{A} 39'39	
min. Earth dist.	3655 Dec 22 14:28	1° \mathbb{B} 36'17	0.67942 AU	evening set	3656 Nov 30 18:02	21° \mathbb{A} 24'05	
inferior conj	3655 Dec 23 00:13	1° \mathbb{B} 02'46	1°15'13	asc. node	3656 Dec 05 02:51	16° \mathbb{A} 29'43	
minimum elong	3655 Dec 22 22:34	1° \mathbb{B} 08'25	1°14'34	min. Earth dist.	3656 Dec 05 10:11	16° \mathbb{A} 05'28	0.67618 AU
	3655 Dec 23 18:33	30° \mathbb{R} \mathbb{A}		inferior conj	3656 Dec 06 06:38	14° \mathbb{A} 57'17	0°23'41
morning rise	3655 Dec 28 07:21	24° \mathbb{A} 52'50		minimum elong	3656 Dec 06 06:03	14° \mathbb{A} 59'13	0°23'27
direct	3656 Jan 01 12:48	23° \mathbb{A} 13'37		morning rise	3656 Dec 11 18:30	8° \mathbb{A} 53'27	
morning max el	3656 Jan 10 02:57	28° \mathbb{A} 13'14	21°16'26	direct	3656 Dec 15 10:48	7° \mathbb{A} 35'47	
	3656 Jan 11 19:23	0° \mathbb{B}		morning max el	3656 Dec 23 01:42	11° \mathbb{A} 55'56	20°03'46
greatest brilliancy	3656 Jan 15 07:24	4° \mathbb{B} 08'46	-0.4m	greatest brilliancy	3656 Dec 30 00:59	20° \mathbb{A} 20'38	-0.6m
desc. node	3656 Jan 25 11:39	18° \mathbb{B} 04'24			3657 Jan 05 20:01	0° \mathbb{B}	
	3656 Feb 02 12:31	0° \mathbb{A}		desc. node	3657 Jan 11 08:39	8° \mathbb{B} 15'06	
morning set	3656 Feb 10 02:23	11° \mathbb{A} 42'54		morning set	3657 Jan 18 22:51	19° \mathbb{B} 51'04	
max. Earth dist.	3656 Feb 17 10:02	23° \mathbb{A} 28'35	1.42288 AU		3657 Jan 25 11:10	0° \mathbb{A}	
	3656 Feb 21 08:19	0° \mathbb{H}		max. Earth dist.	3657 Jan 29 19:25	6° \mathbb{A} 53'16	1.43920 AU
superior conj	3656 Feb 24 18:23	5° \mathbb{H} 48'43	-2°-6'-39	superior conj	3657 Feb 04 07:37	15° \mathbb{A} 47'29	-2°-2'-15
minimum elong	3656 Feb 24 19:36	5° \mathbb{H} 53'58	2°06'40	minimum elong	3657 Feb 04 03:13	15° \mathbb{A} 29'27	2°02'05
evening rise	3656 Mar 07 02:50	25° \mathbb{H} 56'44			3657 Feb 12 20:06	0° \mathbb{H}	
	3656 Mar 09 08:38	0° \mathbb{Y}		evening rise	3657 Feb 17 09:07	7° \mathbb{H} 46'36	
asc. node	3656 Mar 16 05:07	11° \mathbb{Y} 57'05			3657 Mar 02 20:49	0° \mathbb{Y}	
evening max el	3656 Mar 23 16:12	22° \mathbb{Y} 04'37	18°08'07	asc. node	3657 Mar 03 02:08	0° \mathbb{Y} 18'44	
retrograde	3656 Mar 30 09:01	25° \mathbb{Y} 29'11		evening max el	3657 Mar 07 04:50	5° \mathbb{Y} 18'47	18°10'55
evening set	3656 Apr 01 23:05	24° \mathbb{Y} 59'00		retrograde	3657 Mar 13 15:12	8° \mathbb{Y} 42'37	
inferior conj	3656 Apr 08 16:26	20° \mathbb{Y} 03'07	3°13'01	evening set	3657 Mar 16 10:57	8° \mathbb{Y} 01'39	
minimum elong	3656 Apr 08 19:08	19° \mathbb{Y} 56'42	3°12'34	inferior conj	3657 Mar 22 15:57	2° \mathbb{Y} 45'18	3°34'51
min. Earth dist.	3656 Apr 11 22:19	17° \mathbb{Y} 00'05	0.60777 AU	minimum elong	3657 Mar 22 16:52	2° \mathbb{Y} 42'48	3°34'47
morning rise	3656 Apr 15 11:55	14° \mathbb{Y} 11'40			3657 Mar 25 05:42	30° \mathbb{R} \mathbb{H}	
direct	3656 Apr 22 04:43	11° \mathbb{Y} 59'31		min. Earth dist.	3657 Mar 25 09:10	29° \mathbb{H} 50'59	0.62877 AU
desc. node	3656 Apr 22 10:51	11° \mathbb{Y} 59'42		morning rise	3657 Mar 28 20:38	26° \mathbb{H} 40'59	
morning max el	3656 May 06 10:54	19° \mathbb{Y} 54'27	27°44'16	direct	3657 Apr 04 18:05	24° \mathbb{H} 03'50	
	3656 May 15 01:52	0° \mathbb{B}		desc. node	3657 Apr 09 07:53	25° \mathbb{H} 04'31	
	3656 Jun 02 13:34	0° \mathbb{I}			3657 Apr 16 14:04	0° \mathbb{Y}	
morning set	3656 Jun 07 20:39	10° \mathbb{I} 31'21		morning max el	3657 Apr 18 17:21	2° \mathbb{Y} 01'40	27°48'48
asc. node	3656 Jun 12 04:22	19° \mathbb{I} 40'04			3657 May 09 08:41	0° \mathbb{B}	
max. Earth dist.	3656 Jun 14 00:20	23° \mathbb{I} 39'03	1.32154 AU	morning set	3657 May 22 20:29	24° \mathbb{B} 42'36	
					3657 May 25 10:33	0° \mathbb{I}	
superior conj	3656 Jun 15 04:07	26° \mathbb{I} 11'18	0°31'00	max. Earth dist.	3657 May 28 06:57	6° \mathbb{I} 00'21	1.32667 AU
minimum elong	3656 Jun 15 02:46	26° \mathbb{I} 03'52	0°30'42	asc. node	3657 May 30 01:24	9° \mathbb{I} 48'16	
	3656 Jun 16 21:45	0° \mathbb{B}					
evening rise	3656 Jun 22 01:09	11° \mathbb{B} 10'00		superior conj	3657 May 30 12:43	10° \mathbb{I} 49'25	0°04'58
	3656 Jul 01 15:18	0° \mathbb{Q}		minimum elong	3657 May 30 12:28	10° \mathbb{I} 48'07	0°04'54
evening max el	3656 Jul 18 17:21	23° \mathbb{Q} 36'06	25°14'15	behind sun begin	3657 May 30 07:28	10° \mathbb{I} 21'03	
desc. node	3656 Jul 19 10:06	24° \mathbb{Q} 15'20		behind sun end	3657 May 30 17:28	11° \mathbb{I} 15'13	
	3656 Jul 28 11:49	0° \mathbb{M}		evening rise	3657 Jun 06 12:59	25° \mathbb{I} 59'02	
retrograde	3656 Aug 01 16:42	0° \mathbb{M} 41'09			3657 Jun 08 10:56	0° \mathbb{B}	
	3656 Aug 05 21:37	30° \mathbb{R} \mathbb{Q}			3657 Jun 26 11:01	0° \mathbb{Q}	
evening set	3656 Aug 07 09:00	29° \mathbb{Q} 26'56		evening max el	3657 Jun 30 06:37	4° \mathbb{Q} 07'44	23°40'52
min. Earth dist.	3656 Aug 12 05:09	26° \mathbb{Q} 45'17	0.57689 AU	desc. node	3657 Jul 06 07:07	8° \mathbb{Q} 46'49	
inferior conj	3656 Aug 15 06:29	24° \mathbb{Q} 40'21	-5°-8'-31	retrograde	3657 Jul 13 22:26	10° \mathbb{Q} 58'52	
minimum elong	3656 Aug 15 07:08	24° \mathbb{Q} 39'15	5°08'31	evening set	3657 Jul 18 03:58	10° \mathbb{Q} 19'36	
morning rise	3656 Aug 23 08:48	20° \mathbb{Q} 26'27		min. Earth dist.	3657 Jul 24 16:43	7° \mathbb{Q} 14'36	0.56014 AU
direct	3656 Aug 25 21:27	20° \mathbb{Q} 07'23		inferior conj	3657 Jul 26 21:16	5° \mathbb{Q} 55'43	-4°-50'-40
morning max el	3656 Sep 03 16:02	24° \mathbb{Q} 15'50	19°00'25	minimum elong	3657 Jul 26 15:58	6° \mathbb{Q} 03'44	4°49'59
asc. node	3656 Sep 08 03:36	29° \mathbb{Q} 29'37		morning rise	3657 Aug 04 07:13	2° \mathbb{Q} 00'08	
	3656 Sep 08 12:20	0° \mathbb{M}		direct	3657 Aug 07 02:33	1° \mathbb{Q} 40'24	
morning set	3656 Sep 20 07:48	20° \mathbb{M} 53'22		morning max el	3657 Aug 17 08:01	6° \mathbb{Q} 25'12	20°05'37
	3656 Sep 24 22:24	0° \mathbb{A}		asc. node	3657 Aug 26 00:38	17° \mathbb{Q} 40'27	
					3657 Sep 01 19:04	0° \mathbb{M}	

morning set	3657 Sep 04 12:21	5° \mathring{M} 27'11			3658 Aug 24 12:48	0° \mathring{M}	
superior conj	3657 Sep 12 06:28	21° \mathring{M} 15'55	1°44'05	superior conj	3658 Aug 27 05:15	5° \mathring{M} 37'58	1°43'09
minimum elong	3657 Sep 12 07:04	21° \mathring{M} 18'55	1°44'04	minimum elong	3658 Aug 27 04:25	5° \mathring{M} 33'36	1°43'08
	3657 Sep 16 17:01	0° \mathring{A}		max. Earth dist.	3658 Aug 31 06:06	13° \mathring{M} 53'56	1.35052 AU
max. Earth dist.	3657 Sep 17 18:28	2° \mathring{A} 01'43	1.36802 AU	evening rise	3658 Sep 04 14:45	22° \mathring{M} 26'16	
evening rise	3657 Sep 21 15:35	9° \mathring{A} 14'31			3658 Sep 08 16:36	0° \mathring{A}	
desc. node	3657 Oct 02 06:25	27° \mathring{A} 19'53		desc. node	3658 Sep 19 03:27	17° \mathring{A} 32'21	
	3657 Oct 03 22:58	0° \mathring{M}			3658 Sep 27 16:52	0° \mathring{M}	
	3657 Oct 26 16:02	0° \mathring{J}		evening max el	3658 Oct 09 20:56	14° \mathring{M} 19'07	26°43'35
evening max el	3657 Oct 27 08:33	0° \mathring{J} 40'50	25°46'30	retrograde	3658 Oct 22 21:35	21° \mathring{M} 34'28	
retrograde	3657 Nov 08 16:59	7° \mathring{J} 43'59		evening set	3658 Oct 29 11:37	18° \mathring{M} 55'25	
evening set	3657 Nov 14 17:57	5° \mathring{J} 14'22		min. Earth dist.	3658 Nov 02 13:01	14° \mathring{M} 48'38	0.65928 AU
min. Earth dist.	3657 Nov 19 02:29	0° \mathring{J} 31'13	0.66949 AU	inferior conj	3658 Nov 04 08:12	12° \mathring{M} 41'13	-1°-32'-4
	3657 Nov 19 12:23	30° \mathring{R} \mathring{M}		minimum elong	3658 Nov 04 10:44	12° \mathring{M} 33'43	1°31'02
inferior conj	3657 Nov 20 09:58	28° \mathring{M} 51'32	0°-32'-30	asc. node	3658 Nov 08 20:54	8° \mathring{M} 00'23	
minimum elong	3657 Nov 20 10:49	28° \mathring{M} 48'50	0°32'08	morning rise	3658 Nov 10 11:21	6° \mathring{M} 57'36	
asc. node	3657 Nov 21 23:52	26° \mathring{M} 53'58		direct	3658 Nov 13 06:57	6° \mathring{M} 13'31	
morning rise	3657 Nov 26 04:35	22° \mathring{M} 56'25		morning max el	3658 Nov 19 20:54	9° \mathring{M} 48'09	18°23'25
direct	3657 Nov 29 09:29	21° \mathring{M} 57'24			3658 Dec 04 02:02	0° \mathring{J}	
morning max el	3657 Dec 06 08:17	25° \mathring{M} 49'22	19°05'36	morning set	3658 Dec 09 09:34	8° \mathring{J} 33'04	
	3657 Dec 09 23:40	0° \mathring{J}		desc. node	3658 Dec 16 02:42	19° \mathring{J} 18'28	
morning set	3657 Dec 29 03:05	28° \mathring{J} 31'26			3658 Dec 22 20:50	0° \mathring{Z}	
desc. node	3657 Dec 29 05:40	28° \mathring{J} 41'28					
	3657 Dec 30 01:49	0° \mathring{Z}		superior conj	3658 Dec 24 22:51	3° \mathring{Z} 16'40	0°-57'-48
max. Earth dist.	3658 Jan 12 11:16	20° \mathring{Z} 57'07	1.44941 AU	minimum elong	3658 Dec 24 15:41	2° \mathring{Z} 48'29	0°56'54
				max. Earth dist.	3658 Dec 26 06:02	5° \mathring{Z} 19'03	1.45241 AU
superior conj	3658 Jan 14 20:46	24° \mathring{Z} 43'55	-1°-38'-34	evening rise	3659 Jan 10 02:55	28° \mathring{Z} 38'36	
minimum elong	3658 Jan 14 11:48	24° \mathring{Z} 08'28	1°37'46		3659 Jan 10 23:36	0° $\mathring{\approx}$	
	3658 Jan 18 04:25	0° $\mathring{\approx}$		greatest brilliancy	3659 Jan 23 07:44	19° $\mathring{\approx}$ 13'19	-0.7m
evening rise	3658 Jan 29 17:38	18° $\mathring{\approx}$ 40'33			3659 Jan 31 02:42	0° \mathring{K}	
	3658 Feb 05 15:26	0° \mathring{K}		evening max el	3659 Feb 02 02:02	2° \mathring{K} 11'35	19°11'07
asc. node	3658 Feb 17 23:11	17° \mathring{K} 56'07		asc. node	3659 Feb 04 20:13	4° \mathring{K} 36'09	
evening max el	3658 Feb 18 16:54	18° \mathring{K} 42'51	18°32'16	retrograde	3659 Feb 09 01:54	6° \mathring{K} 10'41	
retrograde	3658 Feb 25 06:06	22° \mathring{K} 18'53		evening set	3659 Feb 12 10:07	5° \mathring{K} 05'32	
evening set	3658 Feb 28 07:37	21° \mathring{K} 26'19			3659 Feb 17 10:07	30° \mathring{R} $\mathring{\approx}$	
inferior conj	3658 Mar 06 03:51	15° \mathring{K} 51'11	3°36'34	inferior conj	3659 Feb 18 00:33	29° $\mathring{\approx}$ 13'59	3°23'12
minimum elong	3658 Mar 06 03:09	15° \mathring{K} 53'16	3°36'31	minimum elong	3659 Feb 17 22:44	29° $\mathring{\approx}$ 19'51	3°22'56
min. Earth dist.	3658 Mar 08 05:38	13° \mathring{K} 23'38	0.64691 AU	min. Earth dist.	3659 Feb 19 11:04	27° $\mathring{\approx}$ 23'31	0.66121 AU
morning rise	3658 Mar 11 21:18	9° \mathring{K} 39'47		morning rise	3659 Feb 23 10:26	22° $\mathring{\approx}$ 59'06	
direct	3658 Mar 18 15:07	6° \mathring{K} 50'58		direct	3659 Mar 01 18:45	20° $\mathring{\approx}$ 11'56	
desc. node	3658 Mar 27 04:54	10° \mathring{K} 22'26		desc. node	3659 Mar 14 01:56	27° $\mathring{\approx}$ 18'43	
morning max el	3658 Apr 01 02:56	14° \mathring{K} 43'09	27°17'56	morning max el	3659 Mar 14 12:51	27° $\mathring{\approx}$ 46'02	26°18'19
	3658 Apr 13 13:55	0° \mathring{Y}			3659 Mar 16 15:41	0° \mathring{K}	
	3658 May 02 01:05	0° \mathring{Y}			3659 Apr 07 06:54	0° \mathring{Y}	
morning set	3658 May 06 11:40	8° \mathring{Y} 24'44		morning set	3659 Apr 19 14:31	21° \mathring{Y} 26'48	
max. Earth dist.	3658 May 11 05:18	17° \mathring{Y} 53'44	1.33618 AU	max. Earth dist.	3659 Apr 23 16:19	29° \mathring{Y} 14'35	1.35024 AU
					3659 Apr 24 01:35	0° \mathring{Y}	
superior conj	3658 May 14 16:50	25° \mathring{Y} 09'34	0°-23'-9				
minimum elong	3658 May 14 18:02	25° \mathring{Y} 15'51	0°22'55	superior conj	3659 Apr 28 14:11	9° \mathring{Y} 04'59	0°-52'-6
asc. node	3658 May 16 22:26	29° \mathring{Y} 54'20		minimum elong	3659 Apr 28 16:57	9° \mathring{Y} 19'07	0°51'35
	3658 May 16 23:30	0° \mathring{II}		asc. node	3659 May 03 19:31	19° \mathring{Y} 54'13	
evening rise	3658 May 22 00:04	10° \mathring{II} 41'13		evening rise	3659 May 06 08:24	25° \mathring{Y} 10'08	
	3658 Jun 01 01:01	0° \mathring{S}			3659 May 08 17:17	0° \mathring{II}	
evening max el	3658 Jun 11 22:13	14° \mathring{S} 34'17	22°04'41	evening max el	3659 May 24 23:32	25° \mathring{II} 27'23	20°39'09
desc. node	3658 Jun 23 04:10	20° \mathring{S} 48'25			3659 May 31 12:30	0° \mathring{S}	
retrograde	3658 Jun 24 16:41	20° \mathring{S} 53'47		retrograde	3659 Jun 05 05:47	0° \mathring{S} 57'19	
evening set	3658 Jun 27 12:42	20° \mathring{S} 35'54		evening set	3659 Jun 07 07:27	0° \mathring{S} 46'55	
min. Earth dist.	3658 Jul 06 03:21	16° \mathring{S} 53'53	0.55011 AU	desc. node	3659 Jun 10 01:10	0° \mathring{S} 03'41	
inferior conj	3658 Jul 06 19:46	16° \mathring{S} 30'50	-3°-43'-7		3659 Jun 10 05:17	30° \mathring{R} \mathring{II}	
minimum elong	3658 Jul 06 11:21	16° \mathring{S} 42'40	3°40'50	inferior conj	3659 Jun 16 13:27	26° \mathring{II} 49'38	-1°-54'-33
morning rise	3658 Jul 15 11:49	12° \mathring{S} 40'06		minimum elong	3659 Jun 16 08:05	26° \mathring{II} 57'21	1°52'38
direct	3658 Jul 18 15:45	12° \mathring{S} 17'53		min. Earth dist.	3659 Jun 17 15:28	26° \mathring{II} 12'16	0.54921 AU
morning max el	3658 Jul 30 12:19	17° \mathring{S} 50'04	21°31'02	morning rise	3659 Jun 25 07:30	22° \mathring{II} 43'18	
	3658 Aug 09 02:22	0° \mathring{Q}		direct	3659 Jun 29 01:15	22° \mathring{II} 13'10	
asc. node	3658 Aug 12 21:40	6° \mathring{Q} 30'02		morning max el	3659 Jul 12 07:04	28° \mathring{II} 36'19	23°10'40
morning set	3658 Aug 19 21:09	20° \mathring{Q} 13'31			3659 Jul 13 17:12	0° \mathring{S}	

asc. node	3659 Jul 30 18:43	25° $\overline{54}$ 9'02		desc. node	3660 May 26 22:12	7° $\overline{\text{II}}$ 12'34	
	3659 Aug 01 21:02	0° $\overline{\Omega}$		min. Earth dist.	3660 May 29 05:32	5° $\overline{\text{II}}$ 44'29	0.55793 AU
morning set	3659 Aug 04 08:21	5° $\overline{\Omega}$ 07'09		morning rise	3660 Jun 04 04:48	2° $\overline{\text{II}}$ 43'56	
				direct	3660 Jun 08 19:53	1° $\overline{\text{II}}$ 55'40	
superior conj	3659 Aug 11 10:38	20° $\overline{\Omega}$ 19'40	1°35'51	morning max el	3660 Jun 22 21:07	9° $\overline{\text{II}}$ 00'39	24°53'03
minimum elong	3659 Aug 11 08:49	20° $\overline{\Omega}$ 09'56	1°35'42		3660 Jul 08 11:20	0° $\overline{\mathfrak{S}}$	
max. Earth dist.	3659 Aug 14 02:38	25° $\overline{\Omega}$ 59'33	1.33686 AU	asc. node	3660 Jul 16 15:47	15° $\overline{\mathfrak{S}}$ 28'41	
	3659 Aug 16 00:50	0° $\overline{\mathfrak{M}}$		morning set	3660 Jul 18 20:10	20° $\overline{\mathfrak{S}}$ 01'37	
evening rise	3659 Aug 19 03:25	6° $\overline{\mathfrak{M}}$ 17'23			3660 Jul 23 11:02	0° $\overline{\Omega}$	
	3659 Sep 01 07:11	0° $\overline{\mathfrak{A}}$					
desc. node	3659 Sep 06 00:30	7° $\overline{\mathfrak{A}}$ 21'18		superior conj	3660 Jul 25 20:03	5° $\overline{\Omega}$ 11'42	1°23'10
evening max el	3659 Sep 22 09:05	27° $\overline{\mathfrak{A}}$ 44'52	27°18'38	minimum elong	3660 Jul 25 17:45	4° $\overline{\Omega}$ 59'10	1°22'51
	3659 Sep 24 21:39	0° $\overline{\mathfrak{M}}$		max. Earth dist.	3660 Jul 27 07:26	8° $\overline{\Omega}$ 24'18	1.32736 AU
retrograde	3659 Oct 05 20:36	5° $\overline{\mathfrak{M}}$ 03'23		evening rise	3660 Aug 02 01:45	20° $\overline{\Omega}$ 35'45	
evening set	3659 Oct 12 20:35	2° $\overline{\mathfrak{M}}$ 22'44			3660 Aug 06 19:51	0° $\overline{\mathfrak{M}}$	
	3659 Oct 15 12:53	30° $\overline{\mathfrak{R}}$ $\overline{\mathfrak{A}}$		desc. node	3660 Aug 22 21:32	26° $\overline{\mathfrak{M}}$ 35'53	
min. Earth dist.	3659 Oct 16 15:41	28° $\overline{\mathfrak{A}}$ 51'17	0.64559 AU		3660 Aug 25 09:30	0° $\overline{\mathfrak{A}}$	
inferior conj	3659 Oct 18 23:04	26° $\overline{\mathfrak{A}}$ 21'56	-2°-33'00	evening max el	3660 Sep 03 19:09	10° $\overline{\mathfrak{A}}$ 44'59	27°25'15
minimum elong	3659 Oct 19 03:20	26° $\overline{\mathfrak{A}}$ 10'25	2°31'25	retrograde	3660 Sep 17 13:01	18° $\overline{\mathfrak{A}}$ 00'47	
morning rise	3659 Oct 25 12:14	20° $\overline{\mathfrak{A}}$ 52'46		evening set	3660 Sep 24 17:33	15° $\overline{\mathfrak{A}}$ 29'17	
asc. node	3659 Oct 26 17:55	20° $\overline{\mathfrak{A}}$ 28'22		min. Earth dist.	3660 Sep 28 08:37	12° $\overline{\mathfrak{A}}$ 28'45	0.62861 AU
direct	3659 Oct 28 00:57	20° $\overline{\mathfrak{A}}$ 19'38		inferior conj	3660 Oct 01 03:47	9° $\overline{\mathfrak{A}}$ 46'25	-3°-32'-10
morning max el	3659 Nov 03 12:53	23° $\overline{\mathfrak{A}}$ 46'13	17°58'05	minimum elong	3660 Oct 01 09:22	9° $\overline{\mathfrak{A}}$ 32'52	3°30'29
	3659 Nov 08 13:09	0° $\overline{\mathfrak{M}}$		morning rise	3660 Oct 08 03:51	4° $\overline{\mathfrak{A}}$ 35'00	
morning set	3659 Nov 20 21:07	20° $\overline{\mathfrak{M}}$ 00'38		direct	3660 Oct 10 12:32	4° $\overline{\mathfrak{A}}$ 09'13	
	3659 Nov 26 20:28	0° $\overline{\mathfrak{A}}$		asc. node	3660 Oct 12 14:58	4° $\overline{\mathfrak{A}}$ 30'10	
desc. node	3659 Dec 02 23:46	10° $\overline{\mathfrak{A}}$ 02'31		morning max el	3660 Oct 17 05:15	7° $\overline{\mathfrak{A}}$ 35'44	17°50'25
					3660 Oct 31 20:56	0° $\overline{\mathfrak{M}}$	
superior conj	3659 Dec 04 10:56	12° $\overline{\mathfrak{A}}$ 24'11	0°-10'-2	morning set	3660 Nov 02 08:16	2° $\overline{\mathfrak{M}}$ 36'09	
minimum elong	3659 Dec 04 09:44	12° $\overline{\mathfrak{A}}$ 19'21	0°09'52				
behind sun begin	3659 Dec 04 01:25	11° $\overline{\mathfrak{A}}$ 45'56		superior conj	3660 Nov 13 23:10	22° $\overline{\mathfrak{M}}$ 43'22	0°33'36
behind sun end	3659 Dec 04 18:02	12° $\overline{\mathfrak{A}}$ 52'43		minimum elong	3660 Nov 14 02:19	22° $\overline{\mathfrak{M}}$ 56'33	0°33'09
max. Earth dist.	3659 Dec 09 00:48	19° $\overline{\mathfrak{A}}$ 41'51	1.44804 AU		3660 Nov 18 08:38	0° $\overline{\mathfrak{A}}$	
	3659 Dec 15 14:36	0° $\overline{\mathfrak{S}}$		desc. node	3660 Nov 18 20:49	0° $\overline{\mathfrak{A}}$ 49'42	
evening rise	3659 Dec 20 17:50	7° $\overline{\mathfrak{S}}$ 56'26		max. Earth dist.	3660 Nov 20 17:04	3° $\overline{\mathfrak{A}}$ 49'03	1.43684 AU
	3660 Jan 04 07:26	0° $\overline{\approx}$		evening rise	3660 Nov 29 03:23	17° $\overline{\mathfrak{A}}$ 07'34	
greatest brilliancy	3660 Jan 09 14:25	7° $\overline{\approx}$ 32'15	-0.6m		3660 Dec 07 14:32	0° $\overline{\mathfrak{S}}$	
evening max el	3660 Jan 16 06:37	15° $\overline{\approx}$ 43'01	20°05'41	greatest brilliancy	3660 Dec 24 02:42	23° $\overline{\mathfrak{S}}$ 19'47	-0.4m
asc. node	3660 Jan 22 17:15	20° $\overline{\approx}$ 04'48		evening max el	3660 Dec 29 05:47	29° $\overline{\mathfrak{S}}$ 16'04	21°13'13
retrograde	3660 Jan 23 23:49	20° $\overline{\approx}$ 13'38			3660 Dec 29 23:25	0° $\overline{\approx}$	
evening set	3660 Jan 27 16:09	18° $\overline{\approx}$ 54'43		retrograde	3661 Jan 06 21:34	4° $\overline{\approx}$ 24'02	
inferior conj	3660 Feb 02 03:11	12° $\overline{\approx}$ 49'19	2°58'15	asc. node	3661 Jan 08 14:15	4° $\overline{\approx}$ 08'18	
minimum elong	3660 Feb 02 00:46	12° $\overline{\approx}$ 57'26	2°57'42	evening set	3661 Jan 10 23:48	2° $\overline{\approx}$ 49'55	
min. Earth dist.	3660 Feb 02 23:41	11° $\overline{\approx}$ 40'18	0.67140 AU		3661 Jan 13 19:01	30° $\overline{\mathfrak{R}}$ $\overline{\mathfrak{S}}$	
morning rise	3660 Feb 07 08:48	6° $\overline{\approx}$ 33'30		inferior conj	3661 Jan 16 09:21	26° $\overline{\mathfrak{S}}$ 33'42	2°24'06
direct	3660 Feb 13 04:09	3° $\overline{\approx}$ 58'48		minimum elong	3661 Jan 16 06:53	26° $\overline{\mathfrak{S}}$ 42'16	2°23'20
morning max el	3660 Feb 24 21:36	10° $\overline{\approx}$ 59'25	24°59'14	min. Earth dist.	3661 Jan 16 17:16	26° $\overline{\mathfrak{S}}$ 06'24	0.67751 AU
desc. node	3660 Feb 28 22:59	15° $\overline{\approx}$ 25'56		morning rise	3661 Jan 21 13:36	20° $\overline{\mathfrak{S}}$ 18'52	
	3660 Mar 11 01:28	0° $\overline{\mathfrak{H}}$		direct	3661 Jan 26 18:14	18° $\overline{\mathfrak{S}}$ 03'47	
	3660 Mar 29 23:26	0° $\overline{\mathfrak{Y}}$		morning max el	3661 Feb 06 06:14	24° $\overline{\mathfrak{S}}$ 18'38	23°31'09
morning set	3660 Apr 01 00:03	3° $\overline{\mathfrak{Y}}$ 34'24			3661 Feb 11 08:15	0° $\overline{\approx}$	
max. Earth dist.	3660 Apr 04 16:16	10° $\overline{\mathfrak{Y}}$ 15'00	1.36866 AU	desc. node	3661 Feb 14 20:02	4° $\overline{\approx}$ 23'46	
					3661 Mar 04 12:17	0° $\overline{\mathfrak{H}}$	
superior conj	3660 Apr 11 01:45	22° $\overline{\mathfrak{Y}}$ 27'21	-1°-20'-8	morning set	3661 Mar 13 10:13	14° $\overline{\mathfrak{H}}$ 31'39	
minimum elong	3660 Apr 11 05:53	22° $\overline{\mathfrak{Y}}$ 47'38	1°19'31	max. Earth dist.	3661 Mar 17 11:21	21° $\overline{\mathfrak{H}}$ 29'58	1.38999 AU
	3660 Apr 14 20:49	0° $\overline{\mathfrak{S}}$			3661 Mar 22 05:17	0° $\overline{\mathfrak{Y}}$	
evening rise	3660 Apr 19 11:42	9° $\overline{\mathfrak{S}}$ 18'40					
asc. node	3660 Apr 19 16:34	9° $\overline{\mathfrak{S}}$ 43'03		superior conj	3661 Mar 24 23:46	5° $\overline{\mathfrak{Y}}$ 07'24	-1°-44'-39
	3660 Apr 30 21:17	0° $\overline{\text{II}}$		minimum elong	3661 Mar 25 04:25	5° $\overline{\mathfrak{Y}}$ 29'12	1°44'11
evening max el	3660 May 06 13:05	7° $\overline{\text{II}}$ 00'19	19°31'08	evening rise	3661 Apr 03 07:17	23° $\overline{\mathfrak{Y}}$ 00'03	
retrograde	3660 May 16 01:26	11° $\overline{\text{II}}$ 37'36		asc. node	3661 Apr 06 13:37	29° $\overline{\mathfrak{Y}}$ 16'15	
evening set	3660 May 18 00:57	11° $\overline{\text{II}}$ 26'29			3661 Apr 06 22:53	0° $\overline{\mathfrak{S}}$	
inferior conj	3660 May 26 16:34	7° $\overline{\text{II}}$ 21'36	0°04'08	evening max el	3661 Apr 19 13:14	19° $\overline{\mathfrak{S}}$ 12'22	18°43'01
minimum elong	3660 May 26 16:45	7° $\overline{\text{II}}$ 21'19	0°04'03	retrograde	3661 Apr 27 14:13	23° $\overline{\mathfrak{S}}$ 08'41	
transit middle	3660 May 26 16:45	7° $\overline{\text{II}}$ 21'19	0°04'03	evening set	3661 Apr 29 18:46	22° $\overline{\mathfrak{S}}$ 52'14	
transit begin	3660 May 26 12:58	7° $\overline{\text{II}}$ 27'21		inferior conj	3661 May 07 14:59	18° $\overline{\mathfrak{S}}$ 29'15	1°42'33
transit end	3660 May 26 20:31	7° $\overline{\text{II}}$ 15'16		minimum elong	3661 May 07 18:22	18° $\overline{\mathfrak{S}}$ 22'56	1°41'30

min. Earth dist.	3661 May 10 22:28	16°♄02'15	0.57438 AU	inferior conj	3662 Apr 19 10:50	0°♄18'26	2°48'52
desc. node	3661 May 13 19:13	14°♄11'08		minimum elong	3662 Apr 19 14:19	0°♄10'50	2°48'06
morning rise	3661 May 15 13:32	13°♄16'53			3662 Apr 19 19:16	30°♄1'00	
direct	3661 May 21 04:15	11°♄59'19		min. Earth dist.	3662 Apr 22 20:37	27°♄21'28	0.59518 AU
morning max el	3661 Jun 04 12:46	19°♄31'43	26°22'37	morning rise	3662 Apr 26 16:03	24°♄38'05	
	3661 Jun 13 10:09	0°♄		desc. node	3662 Apr 30 16:14	23°♄01'06	
	3661 Jun 30 22:43	0°♄		direct	3662 May 03 01:35	22°♄45'24	
morning set	3661 Jul 03 06:59	4°♄51'49			3662 May 16 20:00	0°♄	
asc. node	3661 Jul 03 12:52	5°♄22'50		morning max el	3662 May 17 10:16	0°♄34'33	27°24'47
					3662 Jun 07 11:50	0°♄	
superior conj	3661 Jul 10 07:29	20°♄07'25	1°05'54	morning set	3662 Jun 17 15:09	19°♄32'18	
minimum elong	3661 Jul 10 05:11	19°♄54'48	1°05'30	asc. node	3662 Jun 20 09:55	25°♄26'06	
max. Earth dist.	3661 Jul 10 17:36	21°♄03'14	1.32193 AU		3662 Jun 22 12:24	0°♄	
	3661 Jul 14 19:57	0°♄		max. Earth dist.	3662 Jun 24 05:29	3°♄45'31	1.32049 AU
evening rise	3661 Jul 17 06:44	5°♄12'08					
	3661 Jul 30 11:36	0°♄		superior conj	3662 Jun 24 19:10	5°♄00'55	0°44'42
desc. node	3661 Aug 09 18:32	15°♄02'03		minimum elong	3662 Jun 24 17:21	4°♄50'53	0°44'21
evening max el	3661 Aug 17 00:28	23°♄06'10	26°59'08	evening rise	3662 Jul 01 15:58	19°♄58'46	
	3661 Aug 28 06:22	0°♄			3662 Jul 06 13:32	0°♄	
retrograde	3661 Aug 30 21:53	0°♄17'51			3662 Jul 25 13:33	0°♄	
	3661 Sep 02 12:14	30°♄1'00		desc. node	3662 Jul 27 15:32	2°♄20'04	
evening set	3661 Sep 06 22:22	28°♄07'57		evening max el	3662 Jul 29 22:34	4°♄39'16	26°00'23
min. Earth dist.	3661 Sep 10 14:42	25°♄28'24	0.60900 AU	retrograde	3662 Aug 12 21:58	11°♄47'54	
inferior conj	3661 Sep 13 19:01	22°♄46'16	-4°-24'-14	evening set	3662 Aug 19 06:10	10°♄11'07	
minimum elong	3661 Sep 14 00:41	22°♄34'10	4°23'02	min. Earth dist.	3662 Aug 23 11:01	7°♄36'04	0.58825 AU
morning rise	3661 Sep 21 06:09	17°♄56'07		inferior conj	3662 Aug 26 17:14	5°♄11'46	-5°00'-14
direct	3661 Sep 23 13:55	17°♄34'38		minimum elong	3662 Aug 26 20:35	5°♄05'33	4°59'56
asc. node	3661 Sep 29 12:02	20°♄00'21		morning rise	3662 Sep 03 14:30	0°♄45'13	
morning max el	3661 Sep 30 18:54	21°♄09'18	18°01'34	direct	3662 Sep 06 00:32	0°♄25'48	
	3661 Oct 07 11:48	0°♄		morning max el	3662 Sep 14 02:36	4°♄18'19	18°32'56
morning set	3661 Oct 16 12:42	16°♄00'53		asc. node	3662 Sep 16 09:05	6°♄45'05	
	3661 Oct 24 03:35	0°♄		morning set	3662 Sep 30 05:20	0°♄00'41	
					3662 Sep 30 05:12	0°♄	
superior conj	3661 Oct 26 13:54	4°♄20'08	1°07'05	superior conj	3662 Oct 09 02:57	17°♄02'49	1°29'14
minimum elong	3661 Oct 26 18:08	4°♄38'48	1°06'33	minimum elong	3662 Oct 09 06:12	17°♄18'00	1°28'57
max. Earth dist.	3661 Nov 03 04:55	17°♄25'26	1.42019 AU		3662 Oct 16 07:09	0°♄	
desc. node	3661 Nov 05 17:49	21°♄36'36		max. Earth dist.	3662 Oct 16 11:37	0°♄19'26	1.40015 AU
evening rise	3661 Nov 08 23:49	26°♄51'30		evening rise	3662 Oct 20 17:41	7°♄34'55	
	3661 Nov 10 23:23	0°♄		desc. node	3662 Oct 23 14:50	12°♄20'09	
	3661 Dec 01 09:27	0°♄			3662 Nov 04 00:38	0°♄	
greatest brilliancy	3661 Dec 07 04:19	7°♄26'48	-0.3m	evening max el	3662 Nov 24 13:46	26°♄27'54	23°49'29
evening max el	3661 Dec 11 23:41	12°♄50'24	22°29'37		3662 Nov 28 13:48	0°♄	
retrograde	3661 Dec 21 17:30	18°♄37'50		retrograde	3662 Dec 05 10:22	2°♄51'58	
evening set	3661 Dec 26 07:21	16°♄47'29		evening set	3662 Dec 10 13:16	0°♄45'11	
asc. node	3661 Dec 26 11:17	16°♄39'20			3662 Dec 11 09:12	30°♄1'00	
inferior conj	3661 Dec 31 17:02	10°♄23'48	1°42'16	asc. node	3662 Dec 13 08:18	27°♄49'31	
minimum elong	3661 Dec 31 14:57	10°♄31'00	1°41'31	min. Earth dist.	3662 Dec 15 10:02	25°♄07'03	0.67852 AU
min. Earth dist.	3661 Dec 31 13:27	10°♄36'12	0.67979 AU	inferior conj	3662 Dec 16 00:26	24°♄18'04	0°54'01
morning rise	3662 Jan 05 22:28	4°♄11'45		minimum elong	3662 Dec 15 23:12	24°♄22'16	0°53'31
direct	3662 Jan 10 12:09	2°♄19'29		morning rise	3662 Dec 21 09:21	18°♄10'38	
morning max el	3662 Jan 19 18:05	7°♄45'06	22°03'33	direct	3662 Dec 25 08:57	16°♄41'05	
greatest brilliancy	3662 Jan 24 09:16	12°♄56'41	-0.4m	morning max el	3663 Jan 02 12:30	21°♄22'35	20°43'54
desc. node	3662 Feb 01 17:02	23°♄57'18		greatest brilliancy	3663 Jan 08 08:01	28°♄08'57	-0.5m
	3662 Feb 05 22:30	0°♄			3663 Jan 09 17:55	0°♄	
morning set	3662 Feb 21 15:53	24°♄06'24		desc. node	3663 Jan 19 14:03	13°♄56'56	
	3662 Feb 25 06:37	0°♄			3663 Jan 30 04:38	0°♄	
max. Earth dist.	3662 Feb 27 09:27	3°♄31'19	1.41156 AU	morning set	3663 Jan 31 19:50	2°♄32'00	
				max. Earth dist.	3663 Feb 09 14:18	16°♄26'52	1.43050 AU
superior conj	3662 Mar 07 03:22	16°♄52'39	-2°-1'-55	superior conj	3663 Feb 16 07:33	27°♄31'54	-2°-6'-58
minimum elong	3662 Mar 07 06:40	17°♄07'15	2°01'46	minimum elong	3663 Feb 16 06:36	27°♄27'55	2°06'58
	3662 Mar 14 08:56	0°♄			3663 Feb 17 18:39	0°♄	
evening rise	3662 Mar 17 15:38	6°♄05'19		evening rise	3663 Feb 28 08:44	18°♄25'32	
asc. node	3662 Mar 24 10:38	18°♄27'39			3663 Mar 06 22:46	0°♄	
	3662 Apr 01 02:12	0°♄		asc. node	3663 Mar 11 07:38	7°♄10'06	
evening max el	3662 Apr 02 20:47	1°♄55'19	18°15'06	evening max el	3663 Mar 17 08:25	15°♄00'26	18°06'56
retrograde	3662 Apr 09 22:04	5°♄27'11					
evening set	3662 Apr 12 08:44	5°♄02'34					

retrograde	3663 Mar 23 21:28	18°♄23'22		evening max el	3664 Feb 28 21:09	28°♄20'01	18°17'48
evening set	3663 Mar 26 13:51	17°♄48'51			3664 Mar 01 18:19	0°♄	
inferior conj	3663 Apr 02 01:28	12°♄44'01	3°25'07	retrograde	3664 Mar 06 07:48	1°♄47'40	
minimum elong	3663 Apr 02 03:26	12°♄39'04	3°24'53	evening set	3664 Mar 09 05:51	1°♄02'02	
min. Earth dist.	3663 Apr 05 02:33	9°♄41'52	0.61692 AU		3664 Mar 10 20:35	30°♄	
morning rise	3663 Apr 08 14:13	6°♄45'49		inferior conj	3664 Mar 15 06:45	25°♄37'43	3°37'41
direct	3663 Apr 15 09:56	4°♄21'34		minimum elong	3664 Mar 15 06:57	25°♄37'12	3°37'40
desc. node	3663 Apr 17 13:15	4°♄34'46		min. Earth dist.	3664 Mar 17 17:41	22°♄52'40	0.63692 AU
morning max el	3663 Apr 29 14:03	12°♄19'25	27°50'50	morning rise	3664 Mar 21 06:12	19°♄29'45	
	3663 May 13 14:10	0°♄		direct	3664 Mar 28 03:03	16°♄45'30	
	3663 May 30 19:46	0°♄		desc. node	3664 Apr 03 10:17	18°♄40'46	
morning set	3663 Jun 01 18:41	3°♄56'32		morning max el	3664 Apr 10 22:10	24°♄43'01	27°39'37
asc. node	3663 Jun 07 06:56	15°♄33'48			3664 Apr 15 17:19	0°♄	
max. Earth dist.	3663 Jun 07 15:03	16°♄17'43	1.32313 AU		3664 May 06 00:01	0°♄	
				morning set	3664 May 15 15:16	17°♄57'17	
superior conj	3663 Jun 09 05:24	19°♄46'27	0°20'14	max. Earth dist.	3664 May 20 18:26	28°♄27'55	1.33008 AU
minimum elong	3663 Jun 09 04:29	19°♄41'24	0°20'02		3664 May 21 11:53	0°♄	
	3663 Jun 13 21:42	0°♄					
evening rise	3663 Jun 16 03:23	4°♄48'38		superior conj	3664 May 23 12:24	4°♄18'27	0°-6'-48
	3663 Jun 29 12:37	0°♄		minimum elong	3664 May 23 12:44	4°♄20'15	0°06'44
evening max el	3663 Jul 11 13:42	15°♄27'22	24°35'56	behind sun begin	3664 May 23 07:51	3°♄54'08	
desc. node	3663 Jul 14 12:33	18°♄02'05		behind sun end	3664 May 23 17:36	4°♄46'23	
retrograde	3663 Jul 25 11:25	22°♄29'10		asc. node	3664 May 24 03:58	5°♄42'05	
evening set	3663 Jul 30 13:43	21°♄30'46		evening rise	3664 May 30 15:09	19°♄35'56	
min. Earth dist.	3663 Aug 05 00:51	18°♄40'55	0.56903 AU		3664 Jun 04 17:27	0°♄	
inferior conj	3663 Aug 07 19:33	16°♄53'35	-5°-6'-38	evening max el	3664 Jun 22 03:04	25°♄53'35	22°59'32
minimum elong	3663 Aug 07 17:42	16°♄56'35	5°06'34		3664 Jun 27 06:46	0°♄	
morning rise	3663 Aug 16 01:19	12°♄48'53		desc. node	3664 Jun 30 09:33	1°♄34'16	
direct	3663 Aug 18 16:24	12°♄29'51		retrograde	3664 Jul 05 12:14	2°♄33'53	
morning max el	3663 Aug 28 01:08	16°♄52'17	19°25'39	evening set	3664 Jul 09 02:02	2°♄05'56	
asc. node	3663 Sep 03 06:08	24°♄28'26			3664 Jul 14 06:54	30°♄	
	3663 Sep 06 16:09	0°♄		min. Earth dist.	3664 Jul 16 12:03	28°♄46'40	0.55481 AU
morning set	3663 Sep 14 06:21	14°♄24'05		inferior conj	3664 Jul 18 02:35	27°♄50'52	-4°-28'-18
				minimum elong	3664 Jul 17 19:16	28°♄01'30	4°26'53
superior conj	3663 Sep 22 08:38	0°♄34'12	1°41'11	morning rise	3664 Jul 26 15:18	23°♄59'09	
minimum elong	3663 Sep 22 10:13	0°♄41'54	1°41'08	direct	3664 Jul 29 13:48	23°♄38'45	
	3663 Sep 22 01:39	0°♄		morning max el	3664 Aug 09 12:12	28°♄43'23	20°39'41
max. Earth dist.	3663 Sep 28 15:36	12°♄31'35	1.37931 AU		3664 Aug 10 19:26	0°♄	
evening rise	3663 Oct 02 10:53	19°♄22'27		asc. node	3664 Aug 20 03:12	12°♄57'23	
	3663 Oct 08 16:41	0°♄		morning set	3664 Aug 28 12:58	29°♄03'51	
desc. node	3663 Oct 10 11:52	2°♄55'39			3664 Aug 28 23:53	0°♄	
	3663 Oct 29 04:43	0°♄					
evening max el	3663 Nov 07 02:09	10°♄08'45	25°06'27	superior conj	3664 Sep 05 02:16	14°♄40'52	1°44'32
retrograde	3663 Nov 18 23:07	17°♄01'17		minimum elong	3664 Sep 05 02:13	14°♄40'34	1°44'33
evening set	3663 Nov 24 15:54	14°♄39'18		max. Earth dist.	3664 Sep 09 23:01	24°♄23'55	1.36016 AU
min. Earth dist.	3663 Nov 29 04:40	9°♄35'30	0.67375 AU		3664 Sep 12 21:13	0°♄	
inferior conj	3663 Nov 30 05:48	8°♄13'18	0°00'24	evening rise	3664 Sep 14 00:25	2°♄07'03	
minimum elong	3663 Nov 30 05:47	8°♄13'20	0°00'23	desc. node	3664 Sep 26 08:53	23°♄18'11	
transit middle	3663 Nov 30 05:47	8°♄13'20	0°00'23		3664 Sep 30 17:34	0°♄	
transit begin	3663 Nov 30 03:01	8°♄22'25		evening max el	3664 Oct 19 14:36	23°♄50'38	26°13'04
transit end	3663 Nov 30 08:34	8°♄04'15			3664 Oct 27 23:31	0°♄	
asc. node	3663 Nov 30 05:20	8°♄14'49		retrograde	3664 Nov 01 06:52	1°♄00'18	
morning rise	3663 Dec 05 20:18	2°♄12'46			3664 Nov 05 06:05	30°♄	
direct	3663 Dec 09 07:24	1°♄03'37		evening set	3664 Nov 07 13:27	28°♄26'16	
morning max el	3663 Dec 16 14:46	5°♄10'48	19°37'04	min. Earth dist.	3664 Nov 11 18:57	23°♄58'13	0.66556 AU
greatest brilliancy	3663 Dec 24 18:29	15°♄20'21	-0.6m	inferior conj	3664 Nov 13 07:15	22°♄06'21	0°-57'-25
	3664 Jan 03 16:17	0°♄		minimum elong	3664 Nov 13 08:47	22°♄01'36	0°56'47
desc. node	3664 Jan 06 11:06	4°♄15'12		asc. node	3664 Nov 16 02:23	18°♄50'40	
morning set	3664 Jan 10 16:25	10°♄45'04		morning rise	3664 Nov 19 05:15	16°♄15'28	
max. Earth dist.	3664 Jan 23 02:08	0°♄08'20	1.44438 AU	direct	3664 Nov 22 05:55	15°♄23'14	
	3664 Jan 23 00:02	0°♄		morning max el	3664 Nov 29 00:07	19°♄06'51	18°45'34
					3664 Dec 07 10:08	0°♄	
superior conj	3664 Jan 27 09:51	7°♄02'13	-1°-54'-37	morning set	3664 Dec 20 06:34	19°♄56'57	
minimum elong	3664 Jan 27 03:00	6°♄34'41	1°54'12	desc. node	3664 Dec 23 08:08	24°♄46'43	
evening rise	3664 Feb 10 06:11	29°♄52'24			3664 Dec 26 15:49	0°♄	
	3664 Feb 10 07:59	0°♄		max. Earth dist.	3665 Jan 04 19:27	14°♄21'44	1.45164 AU
asc. node	3664 Feb 26 04:39	25°♄14'42					

superior conj	3665 Jan 05 16:04	15°☿42'42	-1°-22'-55	superior conj	3665 Dec 15 19:55	24°♄23'33	0°-37'-40
minimum elong	3665 Jan 05 06:59	15°☿07'02	1°21'57	minimum elong	3665 Dec 15 15:09	24°♄04'42	0°37'02
	3665 Jan 14 17:12	0°≈		max. Earth dist.	3665 Dec 18 15:09	28°♄48'34	1.45147 AU
evening rise	3665 Jan 21 04:43	10°≈21'48			3665 Dec 19 09:20	0°☿	
	3665 Feb 02 12:26	0°☿		evening rise	3666 Jan 01 05:13	20°☿00'44	
evening max el	3665 Feb 11 08:20	11°☿47'19	18°46'46		3666 Jan 07 15:46	0°≈	
asc. node	3665 Feb 12 01:41	12°☿29'48		greatest brilliancy	3666 Jan 17 13:10	14°≈56'18	-0.7m
retrograde	3665 Feb 18 01:03	15°☿31'33		evening max el	3666 Jan 25 15:48	25°≈18'18	19°32'30
evening set	3665 Feb 21 05:20	14°☿33'44		asc. node	3666 Jan 29 22:43	28°≈42'05	
inferior conj	3665 Feb 26 22:48	8°☿51'34	3°32'28	retrograde	3666 Feb 01 22:04	29°≈29'31	
minimum elong	3665 Feb 26 21:33	8°☿55'24	3°32'21	evening set	3666 Feb 05 09:39	28°≈18'28	
min. Earth dist.	3665 Feb 28 18:03	6°☿38'51	0.65357 AU	inferior conj	3666 Feb 10 22:22	22°≈20'36	3°13'51
morning rise	3665 Mar 04 12:38	2°☿38'34		minimum elong	3666 Feb 10 20:14	22°≈27'38	3°13'28
	3665 Mar 09 09:15	30°☿≈		min. Earth dist.	3666 Feb 12 02:40	20°≈47'51	0.66612 AU
direct	3665 Mar 11 03:09	29°≈48'45		morning rise	3666 Feb 16 06:05	16°≈05'19	
	3665 Mar 12 22:31	0°☿		direct	3666 Feb 22 09:13	13°≈22'35	
desc. node	3665 Mar 21 07:20	4°☿44'35		morning max el	3666 Mar 06 17:24	20°≈43'18	25°46'27
morning max el	3665 Mar 24 07:56	7°☿34'32	26°55'29	desc. node	3666 Mar 08 04:22	22°≈14'22	
	3665 Apr 10 17:08	0°☿			3666 Mar 14 17:38	0°☿	
	3665 Apr 28 08:07	0°☿			3666 Apr 03 21:14	0°☿	
morning set	3665 Apr 29 01:40	1°☿23'43		morning set	3666 Apr 11 21:49	14°☿04'25	
max. Earth dist.	3665 May 03 12:00	10°☿06'27	1.34162 AU	max. Earth dist.	3666 Apr 15 18:16	21°☿17'14	1.35773 AU
					3666 Apr 20 05:15	0°☿	
superior conj	3665 May 07 13:58	18°☿29'14	0°-35'-24	superior conj	3666 Apr 21 07:33	2°☿11'47	-1°-4'-13
minimum elong	3665 May 07 15:49	18°☿38'55	0°35'03	minimum elong	3666 Apr 21 10:57	2°☿28'53	1°03'39
asc. node	3665 May 11 01:00	25°☿46'05		asc. node	3666 Apr 27 22:03	15°☿41'51	
	3665 May 13 01:03	0°☿		evening rise	3666 Apr 29 07:49	18°☿34'44	
evening rise	3665 May 15 01:18	4°☿13'18			3666 May 05 03:05	0°☿	
	3665 May 29 10:19	0°☿		evening max el	3666 May 17 04:39	17°☿37'24	20°07'40
evening max el	3665 Jun 03 22:16	6°☿28'45	21°26'28	retrograde	3666 May 27 16:43	22°☿44'21	
retrograde	3665 Jun 16 02:27	12°☿27'54		evening set	3666 May 29 16:09	22°☿34'15	
desc. node	3665 Jun 17 06:35	12°☿24'43		desc. node	3666 Jun 04 03:37	20°☿36'13	
evening set	3665 Jun 18 12:33	12°☿14'31		inferior conj	3666 Jun 07 17:09	18°☿35'04	-1°-3'-13
inferior conj	3665 Jun 27 21:14	8°☿15'03	-3°00'-34	minimum elong	3666 Jun 07 14:12	18°☿39'28	1°02'08
minimum elong	3665 Jun 27 13:25	8°☿25'58	2°58'07	min. Earth dist.	3666 Jun 09 11:31	17°☿32'01	0.55189 AU
min. Earth dist.	3665 Jun 27 23:03	8°☿12'30	0.54859 AU	morning rise	3666 Jun 16 09:54	14°☿17'04	
morning rise	3665 Jul 06 14:51	4°☿20'10		direct	3666 Jun 20 11:59	13°☿40'49	
direct	3665 Jul 10 00:07	3°☿55'18		morning max el	3666 Jul 04 03:39	20°☿22'30	23°54'52
morning max el	3665 Jul 22 11:46	9°☿49'22	22°12'12		3666 Jul 12 08:15	0°☿	
	3665 Aug 05 22:16	0°☿		asc. node	3666 Jul 24 21:19	21°☿28'53	
asc. node	3665 Aug 07 00:16	2°☿00'26		morning set	3666 Jul 28 10:38	28°☿48'04	
morning set	3665 Aug 12 23:00	13°☿53'40			3666 Jul 29 00:13	0°☿	
superior conj	3665 Aug 20 04:09	29°☿11'44	1°40'46	superior conj	3666 Aug 04 11:28	13°☿58'11	1°31'04
minimum elong	3665 Aug 20 02:51	29°☿04'49	1°40'42	minimum elong	3666 Aug 04 09:24	13°☿46'57	1°30'50
	3665 Aug 20 13:19	0°☿		max. Earth dist.	3666 Aug 06 14:59	18°☿34'59	1.33230 AU
max. Earth dist.	3665 Aug 23 14:32	6°☿20'51	1.34424 AU	evening rise	3666 Aug 11 22:56	29°☿39'55	
evening rise	3665 Aug 28 05:49	15°☿36'39			3666 Aug 12 02:56	0°☿	
	3665 Sep 05 01:39	0°☿			3666 Aug 29 03:20	0°☿	
desc. node	3665 Sep 13 05:56	13°☿21'33		desc. node	3666 Aug 31 02:57	2°☿57'08	
	3665 Sep 25 07:52	0°☿		evening max el	3666 Sep 14 14:44	20°☿41'32	27°25'17
evening max el	3665 Oct 02 03:16	7°☿25'40	27°01'43	retrograde	3666 Sep 28 05:01	27°☿58'58	
retrograde	3665 Oct 15 08:58	14°☿42'28		evening set	3666 Oct 05 08:00	25°☿20'34	
evening set	3665 Oct 22 03:45	12°☿01'54		min. Earth dist.	3666 Oct 09 00:55	22°☿03'27	0.63873 AU
min. Earth dist.	3665 Oct 26 02:27	8°☿10'18	0.65387 AU	inferior conj	3666 Oct 11 13:33	19°☿27'14	-2°-58'-37
inferior conj	3665 Oct 28 02:41	5°☿53'04	-1°-57'-53	minimum elong	3666 Oct 11 18:28	19°☿14'31	2°56'54
minimum elong	3665 Oct 28 05:58	5°☿43'41	1°56'35	morning rise	3666 Oct 18 07:17	14°☿05'25	
asc. node	3665 Nov 02 23:27	0°☿28'31		direct	3666 Oct 20 18:02	13°☿35'44	
morning rise	3665 Nov 03 09:54	0°☿14'59		asc. node	3666 Oct 20 20:31	13°☿35'47	
	3665 Nov 03 23:49	30°☿☿		morning max el	3666 Oct 27 06:59	17°☿00'57	17°52'42
direct	3665 Nov 06 02:21	29°☿35'52			3666 Nov 05 14:24	0°☿	
	3665 Nov 08 05:20	0°☿		morning set	3666 Nov 13 00:13	12°☿35'53	
morning max el	3665 Nov 12 14:28	3°☿05'50	18°10'33		3666 Nov 23 07:08	0°☿	
	3665 Nov 30 16:46	0°☿		superior conj	3666 Nov 25 17:13	3°☿58'36	0°09'29
morning set	3665 Dec 01 01:53	0°☿37'21		minimum elong	3666 Nov 25 18:15	4°☿02'52	0°09'20
desc. node	3665 Dec 10 05:11	15°☿27'21					

behind sun begin	3666 Nov 25 10:07	3°♂29'36		morning max el	3667 Oct 10 22:40	0°♂45'16	17°52'51
behind sun end	3666 Nov 26 02:23	4°♂36'04		morning set	3667 Oct 26 19:24	25°♂34'04	
desc. node	3666 Nov 27 02:13	6°♂12'57			3667 Oct 29 06:24	0°♂	
max. Earth dist.	3666 Dec 01 09:31	13°♂07'58	1.44400 AU				
evening rise	3666 Dec 11 15:50	29°♂10'33		superior conj	3667 Nov 06 17:01	14°♂51'52	0°49'10
	3666 Dec 12 04:42	0°♂		minimum elong	3667 Nov 06 20:59	15°♂08'49	0°48'38
	3667 Jan 01 12:22	0°♂		desc. node	3667 Nov 13 23:15	27°♂00'26	
greatest brilliancy	3667 Jan 02 20:19	1°♂46'55	-0.5m	max. Earth dist.	3667 Nov 13 23:40	27°♂02'09	1.43026 AU
evening max el	3667 Jan 08 18:02	8°♂49'56	20°32'57		3667 Nov 15 19:31	0°♂	
retrograde	3667 Jan 16 20:15	13°♂36'08		evening rise	3667 Nov 21 04:06	8°♂30'28	
asc. node	3667 Jan 16 19:46	13°♂36'08			3667 Dec 05 10:17	0°♂	
evening set	3667 Jan 20 16:36	12°♂10'45		greatest brilliancy	3667 Dec 17 19:27	16°♂54'35	-0.4m
inferior conj	3667 Jan 26 02:46	6°♂00'05	2°44'47	evening max el	3667 Dec 22 14:42	22°♂22'31	21°44'54
minimum elong	3667 Jan 26 00:16	6°♂08'37	2°44'08	retrograde	3667 Dec 31 17:31	27°♂47'57	
min. Earth dist.	3667 Jan 26 17:39	5°♂09'14	0.67446 AU	asc. node	3668 Jan 03 16:47	27°♂00'10	
morning rise	3667 Jan 31 07:28	29°♂44'26		evening set	3668 Jan 05 00:24	26°♂07'07	
	3667 Jan 31 00:41	30°♂		inferior conj	3668 Jan 10 09:48	19°♂47'03	2°07'14
direct	3667 Feb 05 20:32	27°♂17'46		minimum elong	3668 Jan 10 07:27	19°♂55'15	2°06'26
	3667 Feb 12 13:06	0°♂		min. Earth dist.	3668 Jan 10 12:43	19°♂36'56	0.67888 AU
morning max el	3667 Feb 17 02:03	4°♂00'06	24°22'20	morning rise	3668 Jan 15 14:14	13°♂32'56	
desc. node	3667 Feb 23 01:24	10°♂45'03		direct	3668 Jan 20 12:23	11°♂27'22	
	3667 Mar 09 00:27	0°♂		morning max el	3668 Jan 30 11:39	17°♂21'56	22°53'18
morning set	3667 Mar 24 22:13	25°♂44'22		greatest brilliancy	3668 Feb 04 04:31	22°♂36'47	-0.3m
	3667 Mar 27 08:11	0°♂		desc. node	3668 Feb 09 22:26	29°♂59'19	
max. Earth dist.	3667 Mar 28 15:34	2°♂20'58	1.37755 AU		3668 Feb 09 22:38	0°♂	
					3668 Mar 01 02:38	0°♂	
superior conj	3667 Apr 04 13:52	15°♂17'22	-1°-31'-9	morning set	3668 Mar 04 20:42	6°♂07'26	
minimum elong	3667 Apr 04 18:23	15°♂39'06	1°30'34	max. Earth dist.	3668 Mar 09 10:37	13°♂50'44	1.39925 AU
	3667 Apr 12 01:23	0°♂					
evening rise	3667 Apr 13 08:14	2°♂33'02		superior conj	3668 Mar 17 04:39	27°♂35'21	-1°-53'-8
asc. node	3667 Apr 14 19:05	5°♂24'51		minimum elong	3668 Mar 17 09:02	27°♂55'24	1°52'48
evening max el	3667 Apr 29 22:58	29°♂27'35	19°08'05		3668 Mar 18 12:09	0°♂	
	3667 Apr 30 12:43	0°♂		evening rise	3668 Mar 26 23:29	15°♂59'58	
retrograde	3667 May 08 19:18	3°♂46'03		asc. node	3668 Mar 31 16:07	24°♂49'32	
evening set	3667 May 10 20:20	3°♂33'13			3668 Apr 03 13:48	0°♂	
	3667 May 18 04:55	30°♂		evening max el	3668 Apr 12 02:43	11°♂54'14	18°28'44
inferior conj	3667 May 19 03:50	29°♂21'14	0°49'29	retrograde	3668 Apr 19 16:16	15°♂38'04	
minimum elong	3667 May 19 05:48	29°♂17'53	0°48'49	evening set	3668 Apr 21 23:19	15°♂18'32	
min. Earth dist.	3667 May 22 02:44	27°♂21'00	0.56414 AU	inferior conj	3668 Apr 29 11:32	10°♂47'03	2°14'40
desc. node	3667 May 22 00:36	27°♂24'31		minimum elong	3668 Apr 29 15:15	10°♂39'36	2°13'38
morning rise	3667 May 27 10:59	24°♂28'07		min. Earth dist.	3668 May 02 21:54	8°♂04'03	0.58288 AU
direct	3667 Jun 01 11:58	23°♂28'49		morning rise	3668 May 07 02:49	5°♂21'22	
	3667 Jun 14 21:42	0°♂		desc. node	3668 May 07 21:37	4°♂58'58	
morning max el	3667 Jun 15 17:59	0°♂47'32	25°33'45	direct	3668 May 13 02:30	3°♂48'43	
	3667 Jul 06 02:06	0°♂		morning max el	3668 May 27 11:51	11°♂30'15	26°53'00
asc. node	3667 Jul 11 18:21	11°♂15'43			3668 Jun 10 21:01	0°♂	
morning set	3667 Jul 12 22:14	13°♂42'00		morning set	3668 Jun 26 08:08	28°♂28'52	
					3668 Jun 27 01:25	0°♂	
superior conj	3667 Jul 19 22:00	28°♂53'11	1°16'22	asc. node	3668 Jun 27 15:23	1°♂14'16	
minimum elong	3667 Jul 19 19:39	28°♂40'18	1°16'00				
	3667 Jul 20 10:11	0°♂		superior conj	3668 Jul 03 09:46	13°♂49'01	0°57'22
max. Earth dist.	3667 Jul 20 22:26	1°♂07'04	1.32450 AU	minimum elong	3668 Jul 03 07:38	13°♂37'12	0°56'58
evening rise	3667 Jul 27 00:25	14°♂07'15		max. Earth dist.	3668 Jul 03 09:36	13°♂48'03	1.32080 AU
	3667 Aug 04 04:22	0°♂		evening rise	3668 Jul 10 07:29	28°♂49'01	
desc. node	3667 Aug 17 23:57	21°♂53'32			3668 Jul 10 21:01	0°♂	
	3667 Aug 24 14:23	0°♂			3668 Jul 27 12:26	0°♂	
evening max el	3667 Aug 27 22:52	3°♂25'59	27°18'14	desc. node	3668 Aug 03 20:57	9°♂53'39	
retrograde	3667 Sep 10 18:33	10°♂40'49		evening max el	3668 Aug 09 01:14	15°♂27'08	26°37'54
evening set	3667 Sep 17 22:41	8°♂16'32		retrograde	3668 Aug 23 00:10	22°♂38'04	
min. Earth dist.	3667 Sep 21 13:09	5°♂26'49	0.62048 AU	evening set	3668 Aug 29 19:09	20°♂41'12	
inferior conj	3667 Sep 24 12:56	2°♂42'17	-3°-55'-35	min. Earth dist.	3668 Sep 02 15:04	18°♂05'34	0.60015 AU
minimum elong	3667 Sep 24 18:46	2°♂28'52	3°54'01	inferior conj	3668 Sep 05 21:19	15°♂28'35	-4°-42'-11
	3667 Sep 27 16:01	30°♂		minimum elong	3668 Sep 06 02:22	15°♂18'25	4°41'22
morning rise	3667 Oct 01 17:48	27°♂39'54		morning rise	3668 Sep 13 12:57	10°♂48'17	
direct	3667 Oct 04 01:37	27°♂16'22		direct	3668 Sep 15 21:08	10°♂28'03	
asc. node	3667 Oct 07 17:33	28°♂16'44		morning max el	3668 Sep 23 10:11	14°♂09'25	18°12'20
	3667 Oct 10 03:13	0°♂		asc. node	3668 Sep 23 14:35	14°♂20'10	

	3668 Oct 04 06:02	0°♄		direct	3669 Aug 29 00:19	23°♄00'05	
morning set	3668 Oct 09 05:32	9°♄14'48		morning max el	3669 Sep 06 14:16	27°♄04'01	18°52'36
					3669 Sep 09 07:04	0°♄	
superior conj	3668 Oct 18 17:53	26°♄58'00	1°17'48	asc. node	3669 Sep 10 11:38	1°♄31'13	
minimum elong	3668 Oct 18 21:51	27°♄15'58	1°17'22	morning set	3669 Sep 23 02:08	23°♄25'33	
	3668 Oct 20 10:23	0°♄			3669 Sep 26 10:20	0°♄	
max. Earth dist.	3668 Oct 26 08:39	10°♄18'42	1.41192 AU				
desc. node	3668 Oct 30 20:16	17°♄46'14		superior conj	3669 Oct 01 14:36	10°♄02'35	1°35'28
evening rise	3668 Oct 31 08:53	18°♄37'34		minimum elong	3669 Oct 01 17:10	10°♄14'50	1°35'17
	3668 Nov 07 13:35	0°♄		max. Earth dist.	3669 Oct 08 13:56	22°♄54'18	1.39130 AU
greatest brilliancy	3668 Nov 28 13:04	29°♄30'08	-0.2m	evening rise	3669 Oct 12 12:50	29°♄48'24	
	3668 Nov 28 22:52	0°♄			3669 Oct 12 15:33	0°♄	
evening max el	3668 Dec 04 06:47	5°♄58'01	23°03'40	desc. node	3669 Oct 17 17:17	8°♄26'38	
retrograde	3668 Dec 14 12:16	12°♄01'49			3669 Oct 31 23:08	0°♄	
evening set	3668 Dec 19 07:26	10°♄04'44		evening max el	3669 Nov 16 20:03	19°♄37'15	24°23'10
asc. node	3668 Dec 20 13:49	8°♄53'51		retrograde	3669 Nov 28 03:19	26°♄13'55	
inferior conj	3668 Dec 24 17:35	3°♄39'08	1°22'34	evening set	3669 Dec 03 12:07	24°♄00'33	
minimum elong	3668 Dec 24 15:49	3°♄45'15	1°21'52	asc. node	3669 Dec 07 10:51	19°♄38'20	
min. Earth dist.	3668 Dec 24 09:27	4°♄07'12	0.67962 AU	min. Earth dist.	3669 Dec 08 05:26	18°♄36'56	0.67691 AU
	3668 Dec 27 12:15	30°♄		inferior conj	3669 Dec 09 00:20	17°♄33'37	0°31'52
morning rise	3668 Dec 30 00:12	27°♄28'35		minimum elong	3669 Dec 08 23:34	17°♄36'11	0°31'32
direct	3669 Jan 03 07:48	25°♄45'55		morning rise	3669 Dec 14 11:22	11°♄28'52	
	3669 Jan 11 04:29	0°♄		direct	3669 Dec 18 05:32	10°♄08'10	
morning max el	3669 Jan 12 01:48	0°♄51'55	21°28'19	morning max el	3669 Dec 25 23:26	14°♄33'18	20°13'44
greatest brilliancy	3669 Jan 17 01:55	6°♄33'07	-0.4m	greatest brilliancy	3670 Jan 01 14:32	22°♄28'31	-0.6m
desc. node	3669 Jan 26 19:28	19°♄44'59			3670 Jan 06 23:53	0°♄	
	3669 Feb 02 18:41	0°♄		desc. node	3670 Jan 13 16:30	9°♄52'59	
morning set	3669 Feb 12 14:15	15°♄08'33		morning set	3670 Jan 22 11:52	23°♄18'45	
max. Earth dist.	3669 Feb 19 10:57	26°♄13'44	1.42005 AU		3670 Jan 26 19:01	0°♄	
	3669 Feb 21 17:26	0°♄		max. Earth dist.	3670 Feb 01 19:25	9°♄32'00	1.43714 AU
superior conj	3669 Feb 26 22:56	8°♄54'12	-2°-5'-53	superior conj	3670 Feb 07 16:03	19°♄03'09	-2°-4'-7
minimum elong	3669 Feb 27 00:48	9°♄02'17	2°05'51	minimum elong	3670 Feb 07 12:34	18°♄48'48	2°04'00
evening rise	3669 Mar 10 01:54	28°♄47'04			3670 Feb 14 05:06	0°♄	
	3669 Mar 10 17:53	0°♄		evening rise	3670 Feb 20 11:06	10°♄44'52	
asc. node	3669 Mar 18 13:08	13°♄49'47			3670 Mar 03 21:19	0°♄	
evening max el	3669 Mar 26 12:32	24°♄48'30	18°09'20	asc. node	3670 Mar 05 10:10	2°♄17'01	
retrograde	3669 Apr 02 07:08	28°♄14'21		evening max el	3670 Mar 10 01:01	8°♄00'16	18°09'18
evening set	3669 Apr 04 20:23	27°♄45'36		retrograde	3670 Mar 16 11:46	11°♄23'30	
inferior conj	3669 Apr 11 15:52	22°♄52'44	3°07'32	evening set	3670 Mar 19 06:39	10°♄44'12	
minimum elong	3669 Apr 11 18:49	22°♄45'54	3°07'00	inferior conj	3670 Mar 25 13:13	5°♄30'39	3°32'56
min. Earth dist.	3669 Apr 14 23:03	19°♄50'33	0.60452 AU	minimum elong	3670 Mar 25 14:25	5°♄27'28	3°32'51
morning rise	3669 Apr 18 13:51	17°♄03'58		min. Earth dist.	3670 Mar 28 08:32	2°♄33'48	0.62577 AU
desc. node	3669 Apr 24 18:38	14°♄57'13			3670 Mar 31 03:17	30°♄	
direct	3669 Apr 25 05:06	14°♄56'40		morning rise	3670 Mar 31 19:54	29°♄27'42	
morning max el	3669 May 09 11:55	22°♄50'01	27°40'23	direct	3670 Apr 07 17:07	26°♄53'37	
	3669 May 15 20:34	0°♄		desc. node	3670 Apr 11 15:40	27°♄38'36	
	3669 Jun 03 23:44	0°♄			3670 Apr 16 01:05	0°♄	
morning set	3669 Jun 10 14:35	13°♄03'10		morning max el	3670 Apr 21 17:48	4°♄51'33	27°50'32
asc. node	3669 Jun 14 12:25	21°♄19'56			3670 May 10 14:39	0°♄	
max. Earth dist.	3669 Jun 16 20:57	26°♄27'37	1.32118 AU	morning set	3670 May 25 15:30	27°♄18'01	
					3670 May 26 23:16	0°♄	
superior conj	3669 Jun 17 21:05	28°♄40'03	0°34'42	max. Earth dist.	3670 May 31 04:33	8°♄52'27	1.32562 AU
minimum elong	3669 Jun 17 19:35	28°♄31'51	0°34'24	asc. node	3670 Jun 01 09:28	11°♄28'06	
	3669 Jun 18 11:37	0°♄					
evening rise	3669 Jun 24 17:56	13°♄38'08		superior conj	3670 Jun 02 06:10	13°♄20'12	0°09'03
	3669 Jul 02 23:18	0°♄		minimum elong	3670 Jun 02 05:44	13°♄17'51	0°08'58
desc. node	3669 Jul 21 17:57	26°♄34'36		behind sun begin	3670 Jun 02 01:25	12°♄54'23	
evening max el	3669 Jul 21 20:22	26°♄40'25	25°26'53	behind sun end	3670 Jun 02 10:04	13°♄41'21	
	3669 Jul 25 19:16	0°♄		evening rise	3670 Jun 09 05:45	28°♄27'39	
retrograde	3669 Aug 04 19:48	3°♄46'13			3670 Jun 09 23:13	0°♄	
evening set	3669 Aug 10 16:40	2°♄26'10			3670 Jun 27 02:20	0°♄	
	3669 Aug 15 00:22	30°♄		evening max el	3670 Jul 03 09:56	7°♄15'33	23°55'21
min. Earth dist.	3669 Aug 15 08:17	29°♄46'48	0.57977 AU	desc. node	3670 Jul 08 14:57	11°♄25'58	
inferior conj	3669 Aug 18 11:19	27°♄36'25	-5°-7'-30	retrograde	3670 Jul 17 03:35	14°♄10'01	
minimum elong	3669 Aug 18 12:46	27°♄33'53	5°07'28	evening set	3670 Jul 21 14:42	13°♄26'05	
morning rise	3669 Aug 26 12:22	23°♄19'15		min. Earth dist.	3670 Jul 27 20:16	10°♄25'30	0.56226 AU

inferior conj	3670 Jul 30 05:06	8°♌58'49	-4°-56'-32	inferior conj	3671 Jul 10 05:31	19°♍39'03	-3°-56'-34
minimum elong	3670 Jul 30 00:39	9°♌05'39	4°56'04	minimum elong	3671 Jul 09 21:10	19°♍50'52	3°54'29
morning rise	3670 Aug 07 14:00	5°♌01'20		morning rise	3671 Jul 18 20:47	15°♍48'44	
direct	3670 Aug 10 08:12	4°♌41'50		direct	3671 Jul 21 23:05	15°♍27'11	
morning max el	3670 Aug 20 08:03	9°♌20'16	19°54'37	morning max el	3671 Aug 02 14:09	20°♍52'08	21°17'13
asc. node	3670 Aug 28 08:42	19°♌35'28			3671 Aug 10 03:47	0°♌	
	3670 Sep 03 05:30	0°♍		asc. node	3671 Aug 15 05:45	8°♌19'56	
morning set	3670 Sep 07 05:53	7°♍57'17		morning set	3671 Aug 22 14:12	22°♌42'03	
					3671 Aug 26 01:57	0°♍	
superior conj	3670 Sep 15 01:57	23°♍50'55	1°43'35	superior conj	3671 Aug 29 23:31	8°♍09'23	1°43'45
minimum elong	3670 Sep 15 02:48	23°♍55'09	1°43'33	minimum elong	3671 Aug 29 22:52	8°♍06'03	1°43'43
	3670 Sep 18 04:59	0°♎					
max. Earth dist.	3670 Sep 20 19:10	4°♎57'13	1.37087 AU	max. Earth dist.	3671 Sep 03 05:28	16°♍48'13	1.35288 AU
evening rise	3670 Sep 24 15:15	12°♎01'42		evening rise	3671 Sep 07 12:04	25°♍06'45	
desc. node	3670 Oct 04 14:19	28°♎57'28			3671 Sep 10 03:07	0°♎	
	3670 Oct 05 06:01	0°♏		desc. node	3671 Sep 21 11:21	19°♎12'37	
	3670 Oct 27 03:47	0°♐			3671 Sep 28 18:12	0°♏	
evening max el	3670 Oct 30 08:21	3°♐19'17	25°36'27	evening max el	3671 Oct 12 20:43	16°♏58'34	26°36'16
retrograde	3670 Nov 11 13:55	10°♐20'06		retrograde	3671 Oct 25 19:28	24°♏13'02	
evening set	3670 Nov 17 12:50	7°♐52'15		evening set	3671 Nov 01 07:36	21°♏35'01	
min. Earth dist.	3670 Nov 21 22:24	3°♐03'47	0.67074 AU	min. Earth dist.	3671 Nov 05 10:00	17°♏22'42	0.66103 AU
inferior conj	3670 Nov 23 04:16	1°♐28'24	0°-23'-41	inferior conj	3671 Nov 07 03:25	15°♏19'04	-1°-22'-53
minimum elong	3670 Nov 23 04:53	1°♐26'26	0°23'26	minimum elong	3671 Nov 07 05:41	15°♏12'16	1°21'56
asc. node	3670 Nov 24 07:53	0°♐01'12		asc. node	3671 Nov 11 04:56	10°♏57'59	
	3670 Nov 24 08:17	30°♑		morning rise	3671 Nov 13 05:11	9°♏33'28	
morning rise	3670 Nov 28 21:46	25°♑31'54		direct	3671 Nov 16 01:59	8°♏47'27	
direct	3670 Dec 02 04:12	24°♑30'25		morning max el	3671 Nov 22 16:52	12°♏24'15	18°28'36
morning max el	3670 Dec 09 05:00	28°♑25'55	19°13'15		3671 Dec 05 08:28	0°♐	
	3670 Dec 10 16:22	0°♑		morning set	3671 Dec 12 15:30	11°♐38'28	
greatest brilliancy	3670 Dec 19 07:33	11°♑34'08	-0.7m	desc. node	3671 Dec 18 10:38	20°♐53'16	
	3670 Dec 31 09:03	0°♒			3671 Dec 24 04:57	0°♑	
desc. node	3670 Dec 31 13:35	0°♒17'34					
morning set	3671 Jan 01 13:26	1°♒50'08		superior conj	3671 Dec 28 10:52	6°♒40'28	-1°-4'-44
max. Earth dist.	3671 Jan 15 10:20	23°♒30'34	1.44836 AU	minimum elong	3671 Dec 28 03:00	6°♒09'36	1°03'47
				max. Earth dist.	3671 Dec 29 04:39	7°♒50'15	1.45246 AU
superior conj	3671 Jan 18 08:18	28°♒07'14	-1°-43'-23		3672 Jan 12 07:04	0°♓	
minimum elong	3671 Jan 17 23:41	27°♒33'05	1°42'41	evening rise	3672 Jan 13 11:44	1°♓53'20	
	3671 Jan 19 12:41	0°♓		greatest brilliancy	3672 Jan 25 04:47	20°♓18'00	-0.8m
evening rise	3671 Feb 01 23:04	21°♓47'21			3672 Jan 31 21:08	0°♋	
	3671 Feb 06 22:19	0°♋		evening max el	3672 Feb 04 23:01	4°♋51'30	19°04'17
asc. node	3671 Feb 20 07:12	20°♋01'34		asc. node	3672 Feb 07 04:13	6°♋51'27	
evening max el	3671 Feb 21 13:17	21°♋22'48	18°27'56	retrograde	3672 Feb 11 20:52	8°♋46'28	
retrograde	3671 Feb 28 01:37	24°♋56'26		evening set	3672 Feb 15 03:59	7°♋43'20	
evening set	3671 Mar 03 02:11	24°♋05'44		inferior conj	3672 Feb 20 19:08	1°♋54'12	3°26'00
inferior conj	3671 Mar 08 23:31	18°♋33'17	3°37'19	minimum elong	3672 Feb 20 17:26	1°♋59'35	3°25'47
minimum elong	3671 Mar 08 23:03	18°♋34'42	3°37'18		3672 Feb 22 07:10	30°♌	
min. Earth dist.	3671 Mar 11 03:41	16°♋00'44	0.64444 AU	min. Earth dist.	3672 Feb 22 07:55	29°♌57'39	0.65936 AU
morning rise	3671 Mar 14 18:24	12°♋22'30		morning rise	3672 Feb 26 05:55	25°♌39'40	
direct	3671 Mar 21 13:08	9°♋34'26		direct	3672 Mar 03 16:00	22°♌51'20	
desc. node	3671 Mar 29 12:44	12°♋38'18		desc. node	3672 Mar 15 09:48	29°♌21'59	
morning max el	3671 Apr 04 03:10	17°♋28'38	27°24'33		3672 Mar 16 01:26	0°♋	
	3671 Apr 14 14:12	0°♌		morning max el	3672 Mar 16 13:08	0°♋29'12	26°28'38
	3671 May 03 11:09	0°♍			3672 Apr 07 13:41	0°♌	
morning set	3671 May 09 08:12	11°♍05'06		morning set	3672 Apr 21 13:10	24°♌14'05	
max. Earth dist.	3671 May 14 04:20	20°♍50'11	1.33440 AU		3672 Apr 24 13:26	0°♍	
				max. Earth dist.	3672 Apr 25 16:59	2°♍14'58	1.34783 AU
superior conj	3671 May 17 11:07	27°♍43'18	0°-18'-48				
minimum elong	3671 May 17 12:04	27°♍48'23	0°18'37	superior conj	3672 Apr 30 09:39	11°♍43'03	0°-47'-42
	3671 May 18 12:48	0°♎		minimum elong	3672 Apr 30 12:11	11°♍56'03	0°47'15
asc. node	3671 May 19 06:31	1°♎34'36		asc. node	3672 May 05 03:33	21°♍35'32	
evening rise	3671 May 24 17:04	13°♎11'03		evening rise	3672 May 08 01:57	27°♍42'18	
	3671 Jun 02 06:44	0°♏			3672 May 09 04:42	0°♎	
evening max el	3671 Jun 15 00:38	17°♏40'38	22°18'42	evening max el	3672 May 27 00:16	28°♎28'29	20°50'55
desc. node	3671 Jun 25 11:58	23°♏52'16			3672 May 28 16:40	0°♏	
retrograde	3671 Jun 27 23:35	24°♏06'31		retrograde	3672 Jun 07 12:33	4°♏06'08	
evening set	3671 Jun 30 23:43	23°♏46'31		evening set	3672 Jun 09 15:45	3°♏55'18	
min. Earth dist.	3671 Jul 09 07:01	20°♏10'51	0.55100 AU	desc. node	3672 Jun 11 08:59	3°♏31'44	

inferior conj	3672 Jun 18 22:58	29°II58'05	-2°-12'-32	evening set	3673 May 21 05:29	14°II28'32	
minimum elong	3672 Jun 18 16:49	0°☿06'50	2°10'24	desc. node	3673 May 29 06:01	10°II53'11	
	3672 Jun 18 21:37	30°RII		inferior conj	3673 May 29 23:46	10°II25'31	0°-13'-3
min. Earth dist.	3672 Jun 19 18:54	29°II29'43	0.54871 AU	minimum elong	3673 May 29 23:10	10°II26'26	0°12'51
morning rise	3672 Jun 27 17:06	25°II55'14		transit middle	3673 May 29 23:10	10°II26'26	0°12'51
direct	3672 Jul 01 08:26	25°II26'42		transit begin	3673 May 29 20:50	10°II30'06	
	3672 Jul 12 10:44	0°☿		transit end	3673 May 30 01:31	10°II22'46	
morning max el	3672 Jul 14 09:58	1°☿42'44	22°55'17	min. Earth dist.	3673 Jun 01 08:26	8°II57'01	0.55613 AU
asc. node	3672 Aug 01 02:49	27°☿34'48		morning rise	3673 Jun 07 13:27	5°II53'17	
	3672 Aug 02 08:26	0°♂		direct	3673 Jun 12 01:08	5°II08'26	
morning set	3672 Aug 06 01:08	7°♂34'26		morning max el	3673 Jun 26 00:09	12°II07'37	24°38'17
					3673 Jul 09 16:43	0°☿	
superior conj	3672 Aug 13 04:03	22°♂48'09	1°37'19	asc. node	3673 Jul 18 23:52	17°☿11'17	
minimum elong	3672 Aug 13 02:21	22°♂39'05	1°37'11	morning set	3673 Jul 21 12:55	22°☿28'33	
max. Earth dist.	3672 Aug 16 00:37	28°♂50'37	1.33865 AU		3673 Jul 25 00:55	0°♂	
	3672 Aug 16 13:56	0°♍					
evening rise	3672 Aug 20 22:57	8°♍52'19		superior conj	3673 Jul 28 12:57	7°♂38'27	1°25'23
	3672 Sep 01 14:25	0°♌		minimum elong	3673 Jul 28 10:42	7°♂26'10	1°25'07
desc. node	3672 Sep 07 08:20	9°♌05'06		max. Earth dist.	3673 Jul 30 04:22	11°♂12'22	1.32850 AU
	3672 Sep 23 21:56	0°♍		evening rise	3673 Aug 04 19:59	23°♂06'41	
evening max el	3672 Sep 24 09:02	0°♍26'45	27°15'07		3673 Aug 08 07:05	0°♍	
retrograde	3672 Oct 07 19:17	7°♍45'02		desc. node	3673 Aug 25 05:20	28°♍25'19	
evening set	3672 Oct 14 18:01	5°♍04'12			3673 Aug 26 08:22	0°♌	
min. Earth dist.	3672 Oct 18 14:02	1°♍27'29	0.64785 AU	evening max el	3673 Sep 06 19:38	13°♌31'34	27°26'21
	3672 Oct 19 22:09	30°R♌		retrograde	3673 Sep 20 12:36	20°♌47'34	
inferior conj	3672 Oct 20 19:32	29°♌01'04	-2°-23'-49	evening set	3673 Sep 27 17:00	18°♌14'00	
minimum elong	3672 Oct 20 23:33	28°♌50'03	2°22'18	min. Earth dist.	3673 Oct 01 08:26	15°♌09'24	0.63131 AU
morning rise	3672 Oct 27 07:06	23°♌29'23		inferior conj	3673 Oct 04 01:56	12°♌28'22	-3°-23'-33
asc. node	3672 Oct 28 02:00	23°♌11'32		minimum elong	3673 Oct 04 07:23	12°♌14'57	3°21'50
direct	3672 Oct 29 20:42	22°♌54'51		morning rise	3673 Oct 11 00:21	7°♌14'03	
morning max el	3672 Nov 05 08:28	26°♌22'06	18°00'41	direct	3673 Oct 13 09:30	6°♌47'19	
	3672 Nov 08 11:30	0°♍		asc. node	3673 Oct 14 23:04	6°♌59'08	
morning set	3672 Nov 22 22:56	22°♍53'45		morning max el	3673 Oct 20 00:57	10°♌13'12	17°50'24
	3672 Nov 27 05:20	0°♎			3673 Nov 02 05:51	0°♍	
desc. node	3672 Dec 04 07:39	11°♎36'01		morning set	3673 Nov 05 07:00	5°♍20'32	
superior conj	3672 Dec 06 20:08	15°♎38'55	0°-17'-12	superior conj	3673 Nov 17 04:22	25°♍46'16	0°27'34
minimum elong	3672 Dec 06 18:02	15°♎30'28	0°16'55	minimum elong	3673 Nov 17 07:04	25°♍57'32	0°27'11
max. Earth dist.	3672 Dec 10 23:36	22°♎13'50	1.44916 AU		3673 Nov 19 17:44	0°♎	
	3672 Dec 15 22:28	0°♏		desc. node	3673 Nov 21 04:39	2°♎22'42	
evening rise	3672 Dec 23 04:41	11°♏15'07		max. Earth dist.	3673 Nov 23 16:42	6°♎25'30	1.43890 AU
	3673 Jan 04 11:41	0°♏		evening rise	3673 Dec 02 14:00	20°♎24'44	
greatest brilliancy	3673 Jan 11 04:39	9°♏43'47	-0.6m		3673 Dec 08 20:50	0°♏	
evening max el	3673 Jan 18 04:23	18°♏22'46	19°56'41	greatest brilliancy	3673 Dec 26 21:19	25°♏44'59	-0.5m
asc. node	3673 Jan 24 01:15	22°♏31'57			3673 Dec 30 09:35	0°♏	
retrograde	3673 Jan 25 18:32	22°♏48'02		evening max el	3674 Jan 01 04:22	1°♏55'28	21°02'27
evening set	3673 Jan 29 09:36	21°♏31'12		retrograde	3674 Jan 09 16:25	6°♏57'31	
inferior conj	3673 Feb 03 21:01	15°♏27'46	3°02'40	asc. node	3674 Jan 10 22:17	6°♏49'02	
minimum elong	3673 Feb 03 18:39	15°♏35'39	3°02'09	evening set	3674 Jan 13 17:07	5°♏25'38	
min. Earth dist.	3673 Feb 04 19:31	14°♏12'32	0.67018 AU		3674 Jan 18 12:27	30°R♏	
morning rise	3673 Feb 09 03:05	9°♏12'05		inferior conj	3674 Jan 19 02:47	29°♏10'45	2°29'48
direct	3673 Feb 15 00:34	6°♏34'59		minimum elong	3674 Jan 19 00:17	29°♏19'22	2°29'03
morning max el	3673 Feb 26 21:55	13°♏41'06	25°11'49	min. Earth dist.	3674 Jan 19 12:26	28°♏37'30	0.67687 AU
desc. node	3673 Mar 02 06:51	17°♏19'54		morning rise	3674 Jan 24 07:04	22°♏55'46	
	3673 Mar 12 03:59	0°♐		direct	3674 Jan 29 13:55	20°♏37'35	
	3673 Mar 31 08:55	0°♑		morning max el	3674 Feb 09 06:26	26°♏59'29	23°44'27
morning set	3673 Apr 04 01:35	6°♑30'26			3674 Feb 12 01:42	0°♏	
max. Earth dist.	3673 Apr 07 18:19	13°♑16'39	1.36574 AU	desc. node	3674 Feb 17 03:52	6°♏10'52	
					3674 Mar 05 19:13	0°♐	
superior conj	3673 Apr 13 22:52	25°♑10'47	-1°-16'-2	morning set	3674 Mar 16 15:35	17°♐38'54	
minimum elong	3673 Apr 14 02:50	25°♑30'22	1°15'26	max. Earth dist.	3674 Mar 20 13:54	24°♐28'13	1.38678 AU
	3673 Apr 16 08:55	0°♒			3674 Mar 23 15:57	0°♑	
evening rise	3673 Apr 22 06:08	11°♒54'09					
asc. node	3673 Apr 22 00:34	11°♒26'03		superior conj	3674 Mar 27 23:09	7°♑57'34	-1°-41'-18
	3673 May 01 22:46	0°♒		minimum elong	3674 Mar 28 03:49	8°♑19'36	1°40'48
evening max el	3673 May 09 11:58	9°♒54'47	19°39'56	evening rise	3674 Apr 06 03:02	25°♑39'59	
retrograde	3673 May 19 06:13	14°♒39'15			3674 Apr 08 08:41	0°♒	

asc. node	3674 Apr 08 21:35	1°♄01'48		evening rise	3675 Mar 20 13:19	8°♃51'07	
evening max el	3674 Apr 22 10:40	22°♄00'58	18°48'48	asc. node	3675 Mar 26 18:37	20°♃16'58	
retrograde	3674 Apr 30 16:16	26°♄02'33			3675 Apr 01 19:41	0°♄	
evening set	3674 May 02 19:52	25°♄47'07		evening max el	3675 Apr 05 17:21	4°♄39'57	18°18'01
inferior conj	3674 May 10 18:59	21°♄26'57	1°29'40	retrograde	3675 Apr 12 21:31	8°♄14'32	
minimum elong	3674 May 10 22:06	21°♄21'16	1°28'39	evening set	3675 Apr 15 07:11	7°♄51'21	
min. Earth dist.	3674 May 14 00:44	19°♄06'23	0.57160 AU	inferior conj	3675 Apr 22 11:48	3°♄10'31	2°40'53
desc. node	3674 May 16 03:02	17°♄44'14		minimum elong	3675 Apr 22 15:25	3°♄02'48	2°40'01
morning rise	3674 May 18 19:55	16°♄19'23		min. Earth dist.	3675 Apr 25 22:06	0°♄16'20	0.59191 AU
direct	3674 May 24 07:09	15°♄06'55			3675 Apr 26 06:16	30°♃	
morning max el	3674 Jun 07 15:18	22°♄35'54	26°10'47	morning rise	3675 Apr 29 19:37	27°♃33'30	
	3674 Jun 14 05:02	0°♄		desc. node	3675 May 03 00:03	26°♃12'21	
	3674 Jul 02 10:30	0°♄		direct	3675 May 06 02:48	25°♃46'00	
morning set	3674 Jul 05 23:59	7°♄19'35			3675 May 16 10:26	0°♄	
asc. node	3674 Jul 05 20:53	7°♄03'13		morning max el	3675 May 20 11:56	3°♄33'42	27°17'42
					3675 Jun 08 19:13	0°♄	
superior conj	3674 Jul 13 00:11	22°♄33'44	1°08'46	morning set	3675 Jun 20 08:41	22°♄02'19	
minimum elong	3674 Jul 12 21:52	22°♄20'58	1°08'24	asc. node	3675 Jun 22 17:55	27°♄05'32	
max. Earth dist.	3674 Jul 13 14:00	23°♄49'47	1.32246 AU		3675 Jun 24 02:13	0°♄	
	3674 Jul 16 09:42	0°♄					
evening rise	3674 Jul 20 00:08	7°♄40'36		superior conj	3675 Jun 27 11:59	7°♄28'24	0°48'09
	3674 Jul 31 18:09	0°♄		minimum elong	3675 Jun 27 10:04	7°♄17'49	0°47'47
desc. node	3674 Aug 12 02:20	16°♄59'43		max. Earth dist.	3675 Jun 27 01:51	6°♄32'31	1.32043 AU
evening max el	3674 Aug 20 01:44	25°♄58'43	27°05'10	evening rise	3675 Jul 04 08:54	22°♄26'26	
	3674 Aug 25 00:13	0°♄			3675 Jul 08 00:50	0°♄	
retrograde	3674 Sep 02 22:35	3°♄11'06			3675 Jul 26 04:52	0°♄	
evening set	3674 Sep 10 00:29	0°♄56'59		desc. node	3675 Jul 29 23:21	4°♄29'44	
	3674 Sep 11 10:29	30°♃		evening max el	3675 Aug 02 00:53	7°♄38'55	26°10'58
min. Earth dist.	3674 Sep 13 16:00	28°♄15'25	0.61200 AU	retrograde	3675 Aug 16 00:17	14°♄48'27	
inferior conj	3674 Sep 16 19:22	25°♄32'08	-4°-17'-10	evening set	3675 Aug 22 11:45	13°♄06'07	
minimum elong	3674 Sep 17 01:09	25°♄19'33	4°15'52	min. Earth dist.	3675 Aug 26 13:41	10°♄31'32	0.59130 AU
morning rise	3674 Sep 24 04:54	20°♄38'48		inferior conj	3675 Aug 29 20:20	8°♄03'15	-4°-56'-23
direct	3674 Sep 26 12:37	20°♄16'51		minimum elong	3675 Aug 30 00:14	7°♄55'51	4°55'57
asc. node	3674 Oct 01 20:07	22°♄16'38		morning rise	3675 Sep 06 16:13	3°♄33'15	
morning max el	3674 Oct 03 15:14	23°♄49'36	17°58'45	direct	3675 Sep 09 01:38	3°♄13'43	
	3674 Oct 08 14:17	0°♄		morning max el	3675 Sep 17 00:05	7°♄03'00	18°26'58
morning set	3674 Oct 19 09:14	18°♄38'51		asc. node	3675 Sep 18 17:09	8°♄50'59	
	3674 Oct 25 14:14	0°♄			3675 Oct 01 16:12	0°♄	
				morning set	3675 Oct 03 00:20	2°♄33'52	
superior conj	3674 Oct 29 15:24	7°♄12'13	1°02'42				
minimum elong	3674 Oct 29 19:38	7°♄30'45	1°02'11	superior conj	3675 Oct 12 01:30	19°♄45'56	1°26'33
max. Earth dist.	3674 Nov 06 05:22	20°♄07'33	1.42292 AU	minimum elong	3675 Oct 12 04:58	20°♄01'59	1°26'13
desc. node	3674 Nov 08 01:39	23°♄09'42			3675 Oct 17 17:37	0°♄	
evening rise	3674 Nov 12 07:57	0°♄01'24		max. Earth dist.	3675 Oct 19 12:24	3°♄06'25	1.40324 AU
	3674 Nov 12 07:35	0°♄		evening rise	3675 Oct 23 22:19	10°♄34'55	
	3674 Dec 02 11:13	0°♄		desc. node	3675 Oct 25 22:42	13°♄53'49	
greatest brilliancy	3674 Dec 10 05:11	10°♄09'13	-0.3m		3675 Nov 05 06:30	0°♄	
evening max el	3674 Dec 14 22:55	15°♄29'03	22°17'49	evening max el	3675 Nov 27 13:24	29°♄05'31	23°37'38
retrograde	3674 Dec 24 12:47	21°♄10'53			3675 Nov 28 11:45	0°♄	
asc. node	3674 Dec 28 19:20	19°♄33'44		retrograde	3675 Dec 08 06:13	5°♄24'50	
evening set	3674 Dec 29 00:48	19°♄22'56		evening set	3675 Dec 13 07:04	3°♄20'32	
inferior conj	3675 Jan 03 10:21	12°♄59'58	1°49'04	asc. node	3675 Dec 15 16:22	0°♄54'09	
minimum elong	3675 Jan 03 08:11	13°♄07'28	1°48'17		3675 Dec 16 10:03	30°♃	
min. Earth dist.	3675 Jan 03 08:24	13°♄06'45	0.67969 AU	min. Earth dist.	3675 Dec 18 05:09	27°♄37'15	0.67891 AU
morning rise	3675 Jan 08 15:27	6°♄47'21		inferior conj	3675 Dec 18 17:56	26°♄53'33	1°01'43
direct	3675 Jan 13 07:17	4°♄51'43		minimum elong	3675 Dec 18 16:32	26°♄58'19	1°01'09
morning max el	3675 Jan 22 17:40	10°♄24'44	22°16'12	morning rise	3675 Dec 24 02:11	20°♄45'10	
greatest brilliancy	3675 Jan 27 07:25	15°♄31'24	-0.3m	direct	3675 Dec 28 03:46	19°♄12'19	
desc. node	3675 Feb 04 00:53	25°♄39'28		morning max el	3676 Jan 05 10:56	24°♄00'02	20°54'59
	3675 Feb 07 02:45	0°♄			3676 Jan 10 16:17	0°♄	
morning set	3675 Feb 25 01:40	27°♄26'00		greatest brilliancy	3676 Jan 11 00:51	0°♄27'14	-0.5m
	3675 Feb 26 15:26	0°♄		desc. node	3676 Jan 21 21:56	15°♄35'27	
max. Earth dist.	3675 Mar 02 11:03	6°♄20'45	1.40844 AU		3676 Jan 31 11:57	0°♄	
				morning set	3676 Feb 04 08:40	5°♄59'03	
superior conj	3675 Mar 10 05:48	19°♄51'23	-1°-59'-59	max. Earth dist.	3676 Feb 12 14:30	19°♄06'58	1.42791 AU
minimum elong	3675 Mar 10 09:28	20°♄07'49	1°59'46		3676 Feb 19 04:06	0°♄	
	3675 Mar 15 19:28	0°♄					

superior conj	3676 Feb 19 13:45	0° Υ 40'48	-2°-7'-13	superior conj	3677 Jan 29 19:55	10° \approx 21'27	-1°-57'-46
minimum elong	3676 Feb 19 13:38	0° Υ 40'17	2°07'14	minimum elong	3677 Jan 29 13:52	9° \approx 57'03	1°57'27
evening rise	3676 Mar 02 08:58	21° Υ 18'16			3677 Feb 10 16:40	0° Υ	
	3676 Mar 07 06:19	0° Υ		evening rise	3677 Feb 12 09:38	2° Υ 53'39	
asc. node	3676 Mar 12 15:40	9° Υ 04'20		asc. node	3677 Feb 27 12:43	27° Υ 15'29	
evening max el	3676 Mar 19 04:38	17° Υ 42'23	18°07'00		3677 Mar 01 18:33	0° Υ	
retrograde	3676 Mar 25 18:49	21° Υ 05'40		evening max el	3677 Mar 02 17:27	1° Υ 00'35	18°15'02
evening set	3676 Mar 28 10:23	20° Υ 32'44		retrograde	3677 Mar 09 03:47	4° Υ 26'30	
inferior conj	3676 Apr 03 23:55	15° Υ 31'06	3°21'16	evening set	3677 Mar 12 01:02	3° Υ 42'31	
minimum elong	3676 Apr 04 02:10	15° Υ 25'34	3°20'58		3677 Mar 16 14:44	30° \Re Υ	
min. Earth dist.	3676 Apr 07 02:51	12° Υ 28'03	0.61371 AU	inferior conj	3677 Mar 18 03:18	28° Υ 21'01	3°36'57
morning rise	3676 Apr 10 14:58	9° Υ 35'02		minimum elong	3677 Mar 18 03:45	28° Υ 19'47	3°36'57
direct	3676 Apr 17 09:49	7° Υ 14'44		min. Earth dist.	3677 Mar 20 16:30	25° Υ 32'21	0.63414 AU
desc. node	3676 Apr 18 21:06	7° Υ 20'57		morning rise	3677 Mar 24 04:31	22° Υ 14'15	
morning max el	3676 May 01 14:49	15° Υ 11'59	27°49'21	direct	3677 Mar 31 01:48	19° Υ 32'09	
	3676 May 13 15:32	0° \Re		desc. node	3677 Apr 05 18:09	21° Υ 05'55	
	3676 May 31 07:24	0° Π		morning max el	3677 Apr 13 22:23	27° Υ 29'56	27°43'31
morning set	3676 Jun 03 13:03	6° Π 29'28			3677 Apr 16 07:23	0° Υ	
asc. node	3676 Jun 08 14:56	17° Π 12'50			3677 May 07 08:17	0° \Re	
max. Earth dist.	3676 Jun 09 11:58	19° Π 06'51	1.32246 AU	morning set	3677 May 18 10:50	20° \Re 33'51	
					3677 May 23 01:11	0° Π	
superior conj	3676 Jun 10 22:34	22° Π 15'39	0°24'09	max. Earth dist.	3677 May 23 16:30	1° Π 20'42	1.32879 AU
minimum elong	3676 Jun 10 21:29	22° Π 09'42	0°23'55				
	3676 Jun 14 11:20	0° \Im		superior conj	3677 May 26 06:10	6° Π 49'49	0°-2'-33
evening rise	3676 Jun 17 20:08	7° \Im 16'20		minimum elong	3677 May 26 06:17	6° Π 50'29	0°02'32
	3676 Jun 29 16:43	0° Ω		behind sun begin	3677 May 26 01:03	6° Π 22'17	
evening max el	3676 Jul 13 16:59	18° Ω 33'13	24°49'40	behind sun end	3677 May 26 11:32	7° Π 18'43	
desc. node	3676 Jul 15 20:23	20° Ω 28'28		asc. node	3677 May 26 11:59	7° Π 21'10	
retrograde	3676 Jul 27 15:33	25° Ω 36'27		evening rise	3677 Jun 02 07:58	22° Π 04'13	
evening set	3676 Aug 01 22:54	24° Ω 32'38			3677 Jun 06 04:08	0° \Im	
min. Earth dist.	3676 Aug 07 04:24	21° Ω 45'56	0.57170 AU	evening max el	3677 Jun 25 06:12	29° \Im 00'41	23°14'00
inferior conj	3676 Aug 10 01:45	19° Ω 52'07	-5°-8'-17		3677 Jun 26 07:35	0° Ω	
minimum elong	3676 Aug 10 00:49	19° Ω 53'39	5°08'16	desc. node	3677 Jul 02 17:23	4° Ω 22'26	
morning rise	3676 Aug 18 06:20	15° Ω 44'16		retrograde	3677 Jul 08 18:00	5° Ω 45'01	
direct	3676 Aug 20 20:29	15° Ω 25'17		evening set	3677 Jul 12 13:12	5° Ω 13'27	
morning max el	3676 Aug 30 00:10	19° Ω 42'42	19°16'22	min. Earth dist.	3677 Jul 19 15:42	1° Ω 59'27	0.55654 AU
asc. node	3676 Sep 04 14:12	26° Ω 26'15		inferior conj	3677 Jul 21 11:24	0° Ω 55'29	-4°-37'-23
	3676 Sep 06 21:37	0° \P		minimum elong	3677 Jul 21 04:42	1° Ω 05'20	4°36'15
morning set	3676 Sep 16 00:18	16° \P 54'05			3677 Jul 23 01:39	30° \Re \Im	
	3676 Sep 22 14:04	0° $\underline{\Delta}$		morning rise	3677 Jul 29 23:09	27° \Im 02'39	
				direct	3677 Aug 01 20:32	26° \Im 42'29	
superior conj	3676 Sep 24 05:01	3° $\underline{\Delta}$ 10'38	1°39'58		3677 Aug 10 13:33	0° Ω	
minimum elong	3676 Sep 24 06:52	3° $\underline{\Delta}$ 19'34	1°39'52	morning max el	3677 Aug 12 12:55	1° Ω 40'00	20°27'20
max. Earth dist.	3676 Sep 30 16:26	15° $\underline{\Delta}$ 23'28	1.38239 AU	asc. node	3677 Aug 22 11:14	14° Ω 48'52	
evening rise	3676 Oct 04 12:11	22° $\underline{\Delta}$ 13'09			3677 Aug 30 12:13	0° \P	
	3676 Oct 09 01:40	0° \mathbb{L}		morning set	3677 Aug 31 06:14	1° \P 31'48	
desc. node	3676 Oct 11 19:44	4° \mathbb{L} 30'41					
	3676 Oct 29 04:13	0° \mathcal{A}		superior conj	3677 Sep 07 21:07	17° \P 12'35	1°44'32
evening max el	3676 Nov 09 02:02	12° \mathcal{A} 46'18	24°55'34	minimum elong	3677 Sep 07 21:17	17° \P 13'27	1°44'31
retrograde	3676 Nov 20 19:40	19° \mathcal{A} 35'06		max. Earth dist.	3677 Sep 12 23:12	27° \P 18'04	1.36286 AU
evening set	3676 Nov 26 10:19	17° \mathcal{A} 15'24			3677 Sep 14 09:00	0° $\underline{\Delta}$	
min. Earth dist.	3676 Dec 01 00:16	12° \mathcal{A} 06'19	0.67465 AU	evening rise	3677 Sep 16 22:57	4° $\underline{\Delta}$ 49'48	
inferior conj	3676 Dec 01 23:45	10° \mathcal{A} 48'59	0°08'50	desc. node	3677 Sep 28 16:45	24° $\underline{\Delta}$ 55'29	
minimum elong	3676 Dec 01 23:31	10° \mathcal{A} 49'42	0°08'45		3677 Oct 01 23:10	0° \mathbb{L}	
transit middle	3676 Dec 01 23:31	10° \mathcal{A} 49'42	0°08'45	evening max el	3677 Oct 22 14:29	26° \mathbb{L} 28'34	26°04'09
transit begin	3676 Dec 01 21:12	10° \mathcal{A} 57'23			3677 Oct 26 15:41	0° \mathcal{A}	
transit end	3676 Dec 02 01:51	10° \mathcal{A} 42'02		retrograde	3677 Nov 04 04:05	3° \mathcal{A} 36'01	
asc. node	3676 Dec 01 13:25	11° \mathcal{A} 23'05		evening set	3677 Nov 10 08:44	1° \mathcal{A} 03'30	
morning rise	3676 Dec 07 13:16	4° \mathcal{A} 47'11			3677 Nov 11 12:43	30° \Re \mathbb{L}	
direct	3676 Dec 11 02:10	3° \mathcal{A} 35'05		min. Earth dist.	3677 Nov 14 15:19	26° \mathbb{L} 30'08	0.66700 AU
morning max el	3676 Dec 18 12:01	7° \mathcal{A} 46'39	19°46'06	inferior conj	3677 Nov 16 01:54	24° \mathbb{L} 42'32	0°-48'-27
greatest brilliancy	3676 Dec 26 04:49	17° \mathcal{A} 15'30	-0.6m	minimum elong	3677 Nov 16 03:11	24° \mathbb{L} 38'30	0°47'54
	3677 Jan 03 22:17	0° \Im		asc. node	3677 Nov 18 10:28	21° \mathbb{L} 53'34	
desc. node	3677 Jan 07 19:00	5° \Im 51'28		morning rise	3677 Nov 21 22:40	18° \mathbb{L} 50'03	
morning set	3677 Jan 13 04:44	14° \Im 09'17		direct	3677 Nov 25 00:47	17° \mathbb{L} 55'29	
	3677 Jan 23 08:22	0° \approx		morning max el	3677 Dec 01 20:25	21° \mathbb{L} 41'44	18°52'14
max. Earth dist.	3677 Jan 25 01:34	2° \approx 43'17	1.44270 AU		3677 Dec 08 12:26	0° \mathcal{A}	

morning set	3677 Dec 23 15:07	23° ♄ 09'23		superior conj	3678 Dec 19 07:00	27° ♄ 43'24	0°-44'-55
desc. node	3677 Dec 25 16:02	26° ♄ 21'16		minimum elong	3678 Dec 19 01:19	27° ♄ 21'00	0°44'11
	3677 Dec 27 23:50	0° ♄			3678 Dec 20 17:42	0° ♄	
max. Earth dist.	3678 Jan 07 18:30	16° ♄ 53'58	1.45103 AU	max. Earth dist.	3678 Dec 21 14:03	1° ♄ 19'57	1.45198 AU
				evening rise	3679 Jan 04 15:08	23° ♄ 17'02	
superior conj	3678 Jan 09 04:14	19° ♄ 06'38	-1°-28'-50		3679 Jan 08 22:31	0° ♄	
minimum elong	3678 Jan 08 19:02	18° ♄ 30'26	1°27'54	greatest brilliancy	3679 Jan 19 22:41	16° ♄ 49'14	-0.7m
	3678 Jan 16 01:27	0° ♄		evening max el	3679 Jan 28 13:03	27° ♄ 57'03	19°24'38
evening rise	3678 Jan 24 11:41	13° ♄ 31'40			3679 Jan 30 19:01	0° ♄	
	3678 Feb 03 17:00	0° ♄		asc. node	3679 Feb 01 06:46	1° ♄ 01'22	
evening max el	3678 Feb 14 04:59	14° ♄ 26'50	18°41'18	retrograde	3679 Feb 04 16:55	2° ♄ 03'51	
asc. node	3678 Feb 14 09:45	14° ♄ 38'50		evening set	3679 Feb 08 03:18	0° ♄ 54'52	
retrograde	3678 Feb 20 20:15	18° ♄ 07'53			3679 Feb 09 07:37	30° ♄	
evening set	3678 Feb 23 23:35	17° ♄ 11'52		inferior conj	3679 Feb 13 16:34	24° ♄ 59'04	3°17'24
inferior conj	3678 Mar 01 17:57	11° ♄ 32'04	3°34'08	minimum elong	3679 Feb 13 14:31	25° ♄ 05'43	3°17'03
minimum elong	3678 Mar 01 16:53	11° ♄ 35'18	3°34'04	min. Earth dist.	3679 Feb 14 22:59	23° ♄ 20'05	0.66450 AU
min. Earth dist.	3678 Mar 03 15:27	9° ♄ 14'03	0.65136 AU	morning rise	3679 Feb 19 00:58	18° ♄ 43'51	
morning rise	3678 Mar 07 08:59	5° ♄ 19'37		direct	3679 Feb 25 05:57	15° ♄ 59'27	
direct	3678 Mar 14 00:47	2° ♄ 29'56		morning max el	3679 Mar 09 17:47	23° ♄ 25'08	25°57'57
desc. node	3678 Mar 23 15:12	6° ♄ 54'01		desc. node	3679 Mar 10 12:16	24° ♄ 12'33	
morning max el	3678 Mar 27 08:06	10° ♄ 17'57	27°03'53		3679 Mar 15 14:23	0° ♄	
	3678 Apr 11 21:05	0° ♄			3679 Apr 05 05:33	0° ♄	
	3678 Apr 29 19:19	0° ♄		morning set	3679 Apr 14 21:35	16° ♄ 54'20	
morning set	3678 May 01 22:59	4° ♄ 05'49		max. Earth dist.	3679 Apr 18 19:47	24° ♄ 18'45	1.35502 AU
max. Earth dist.	3678 May 06 11:48	13° ♄ 04'19	1.33962 AU		3679 Apr 21 17:34	0° ♄	
superior conj	3678 May 10 08:41	21° ♄ 03'54	0°-31'-1	superior conj	3679 Apr 24 03:38	4° ♄ 51'04	0°-59'-56
minimum elong	3678 May 10 10:18	21° ♄ 12'22	0°30'42	minimum elong	3679 Apr 24 06:49	5° ♄ 07'10	0°59'22
asc. node	3678 May 13 09:02	27° ♄ 25'56		asc. node	3679 Apr 30 06:04	17° ♄ 23'12	
	3678 May 14 14:04	0° ♄		evening rise	3679 May 02 01:41	21° ♄ 07'34	
evening rise	3678 May 17 18:29	6° ♄ 43'20			3679 May 06 12:17	0° ♄	
	3678 May 30 08:33	0° ♄		evening max el	3679 May 20 04:30	20° ♄ 34'50	20°18'16
evening max el	3678 Jun 06 23:59	9° ♄ 32'09	21°39'35	retrograde	3679 May 30 23:01	25° ♄ 49'59	
retrograde	3678 Jun 19 09:24	15° ♄ 38'45		evening set	3679 Jun 01 22:54	25° ♄ 39'56	
desc. node	3678 Jun 19 14:23	15° ♄ 38'39		desc. node	3679 Jun 06 11:25	24° ♄ 11'39	
evening set	3678 Jun 21 22:39	15° ♄ 24'02		inferior conj	3679 Jun 11 01:53	21° ♄ 41'40	-1°-21'-33
inferior conj	3678 Jul 01 07:07	11° ♄ 22'56	-3°-16'-33	minimum elong	3679 Jun 10 22:03	21° ♄ 47'18	1°20'08
minimum elong	3678 Jun 30 22:56	11° ♄ 34'21	3°14'05	min. Earth dist.	3679 Jun 12 14:43	20° ♄ 47'37	0.55071 AU
min. Earth dist.	3678 Jul 01 02:27	11° ♄ 29'27	0.54889 AU	morning rise	3679 Jun 19 19:16	17° ♄ 28'06	
morning rise	3678 Jul 10 00:16	7° ♄ 30'05		direct	3679 Jun 23 18:13	16° ♄ 54'16	
direct	3678 Jul 13 07:35	7° ♄ 06'15		morning max el	3679 Jul 07 06:51	23° ♄ 29'44	23°39'30
morning max el	3678 Jul 25 14:04	12° ♄ 52'32	21°57'34		3679 Jul 13 03:15	0° ♄	
	3678 Aug 07 05:50	0° ♄		asc. node	3679 Jul 27 05:19	23° ♄ 12'43	
asc. node	3678 Aug 09 08:17	3° ♄ 47'35			3679 Jul 30 13:05	0° ♄	
morning set	3678 Aug 15 15:53	16° ♄ 20'56		morning set	3679 Jul 31 03:23	1° ♄ 15'08	
	3678 Aug 22 02:49	0° ♄					
superior conj	3678 Aug 22 21:59	1° ♄ 40'53	1°41'45	superior conj	3679 Aug 07 04:38	16° ♄ 25'48	1°32'52
minimum elong	3678 Aug 22 20:50	1° ♄ 34'50	1°41'42	minimum elong	3679 Aug 07 02:39	16° ♄ 15'04	1°32'41
max. Earth dist.	3678 Aug 26 13:26	9° ♄ 13'52	1.34635 AU	max. Earth dist.	3679 Aug 09 12:31	21° ♄ 24'52	1.33377 AU
evening rise	3678 Aug 31 02:15	18° ♄ 13'43			3679 Aug 13 15:32	0° ♄	
	3678 Sep 06 11:14	0° ♄		evening rise	3679 Aug 14 17:51	2° ♄ 12'45	
desc. node	3678 Sep 15 13:44	15° ♄ 02'22			3679 Aug 30 08:07	0° ♄	
	3678 Sep 26 04:19	0° ♄		desc. node	3679 Sep 02 10:44	4° ♄ 42'53	
evening max el	3678 Oct 05 03:05	10° ♄ 05'13	26°55'49	evening max el	3679 Sep 17 14:43	23° ♄ 24'33	27°23'33
retrograde	3678 Oct 18 07:03	17° ♄ 21'31			3679 Sep 27 06:55	0° ♄	
evening set	3678 Oct 25 00:15	14° ♄ 41'18		retrograde	3679 Oct 01 04:07	0° ♄ 42'36	
min. Earth dist.	3678 Oct 28 23:53	10° ♄ 44'28	0.65587 AU		3679 Oct 04 20:38	30° ♄	
inferior conj	3678 Oct 30 22:21	8° ♄ 30'32	-1°-48'-37	evening set	3679 Oct 08 06:13	28° ♄ 03'04	
minimum elong	3678 Oct 31 01:22	8° ♄ 21'49	1°47'25	min. Earth dist.	3679 Oct 11 23:49	24° ♄ 41'07	0.64122 AU
asc. node	3678 Nov 05 07:30	3° ♄ 19'42		inferior conj	3679 Oct 14 10:39	22° ♄ 07'01	-2°-49'-31
morning rise	3678 Nov 06 04:07	2° ♄ 50'31		minimum elong	3679 Oct 14 15:21	21° ♄ 54'42	2°47'51
direct	3678 Nov 08 21:39	2° ♄ 09'42		morning rise	3679 Oct 21 02:47	16° ♄ 42'38	
morning max el	3678 Nov 15 10:13	5° ♄ 41'00	18°14'42	asc. node	3679 Oct 23 04:33	16° ♄ 12'40	
	3678 Dec 02 00:49	0° ♄		direct	3679 Oct 23 14:08	16° ♄ 11'51	
morning set	3678 Dec 04 05:57	3° ♄ 36'28		morning max el	3679 Oct 30 02:37	19° ♄ 37'21	17°54'11
desc. node	3678 Dec 12 13:04	17° ♄ 00'45			3679 Nov 06 19:54	0° ♄	
				morning set	3679 Nov 16 00:35	15° ♄ 24'19	

	3679 Nov 24 16:21	0°♊			3680 Oct 04 23:21	30°♍		
				direct	3680 Oct 05 23:10	29°♍55'33		
superior conj	3679 Nov 29 00:48	7°♊08'06	0°02'41		3680 Oct 06 22:50	0°♌		
minimum elong	3679 Nov 29 01:05	7°♊09'19	0°02'38	asc. node	3680 Oct 09 01:35	0°♌39'38		
behind sun begin	3679 Nov 28 15:08	6°♊28'51		morning max el	3680 Oct 12 18:35	3°♌23'32	17°51'34	
behind sun end	3679 Nov 29 11:03	7°♊49'42		morning set	3680 Oct 28 17:04	28°♌14'47		
desc. node	3679 Nov 29 10:05	7°♊45'46			3680 Oct 29 16:33	0°♍		
max. Earth dist.	3679 Dec 04 08:29	15°♊40'27	1.44556 AU					
	3679 Dec 13 12:18	0°♋		superior conj	3680 Nov 08 20:31	17°♍49'16	0°43'50	
evening rise	3679 Dec 15 02:52	2°♋28'35		minimum elong	3680 Nov 09 00:15	18°♍05'08	0°43'20	
	3680 Jan 02 13:22	0°♋		desc. node	3680 Nov 15 07:03	28°♍32'53		
greatest brilliancy	3680 Jan 05 12:23	4°♋03'54	-0.5m	max. Earth dist.	3680 Nov 15 23:13	29°♍38'44	1.43267 AU	
evening max el	3680 Jan 11 16:04	11°♋28'34	20°23'10		3680 Nov 16 04:28	0°♎		
asc. node	3680 Jan 19 03:48	16°♋08'10		evening rise	3680 Nov 23 13:48	11°♎44'22		
retrograde	3680 Jan 19 15:04	16°♋09'23			3680 Dec 05 15:26	0°♏		
evening set	3680 Jan 23 09:58	14°♋46'18		greatest brilliancy	3680 Dec 19 16:13	19°♏25'23	-0.4m	
inferior conj	3680 Jan 28 20:23	8°♋37'23	2°49'49	evening max el	3680 Dec 24 13:35	25°♏01'08	21°33'42	
minimum elong	3680 Jan 28 17:55	8°♋45'48	2°49'10		3680 Dec 31 11:32	0°♐		
min. Earth dist.	3680 Jan 29 13:13	7°♋40'10	0.67344 AU	retrograde	3681 Jan 02 12:32	0°♐20'30		
morning rise	3680 Feb 03 01:20	2°♐21'35			3681 Jan 04 11:20	30°♑		
	3680 Feb 07 08:14	30°♑		asc. node	3681 Jan 05 00:51	29°♑46'09		
direct	3680 Feb 08 16:36	29°♑51'58		evening set	3681 Jan 06 17:44	28°♑42'06		
	3680 Feb 10 02:02	0°♒		inferior conj	3681 Jan 12 03:10	22°♑23'21	2°13'26	
morning max el	3680 Feb 20 02:29	6°♒41'12	24°35'26	minimum elong	3681 Jan 12 00:45	22°♑31'42	2°12'38	
desc. node	3680 Feb 25 09:18	12°♒35'32		min. Earth dist.	3681 Jan 12 07:50	22°♑07'11	0.67846 AU	
	3680 Mar 09 05:30	0°♓		morning rise	3681 Jan 17 07:28	16°♑08'54		
morning set	3680 Mar 27 01:21	28°♓44'56		direct	3681 Jan 22 07:54	13°♑59'54		
	3680 Mar 27 18:23	0°♑		morning max el	3681 Feb 01 11:36	20°♑01'41	23°06'28	
max. Earth dist.	3680 Mar 30 17:53	5°♑21'01	1.37437 AU	greatest brilliancy	3681 Feb 06 09:43	25°♑32'04	-0.3m	
					3681 Feb 09 22:46	0°♒		
superior conj	3680 Apr 06 11:53	18°♑03'11	-1°-27'-19	desc. node	3681 Feb 11 06:19	1°♒44'01		
minimum elong	3680 Apr 06 16:17	18°♑24'31	1°26'42		3681 Mar 02 10:38	0°♓		
	3680 Apr 12 13:04	0°♒		morning set	3681 Mar 08 03:59	9°♓19'54		
evening rise	3680 Apr 15 03:12	5°♒10'05		max. Earth dist.	3681 Mar 12 12:38	16°♓44'20	1.39600 AU	
asc. node	3680 Apr 16 03:06	7°♒08'39			3681 Mar 19 22:59	0°♑		
	3680 Apr 29 17:35	0°♓						
evening max el	3680 May 01 21:14	2°♓19'34	19°15'44	superior conj	3681 Mar 20 05:17	0°♑28'58	-1°-50'-18	
retrograde	3680 May 10 23:04	6°♓44'20		minimum elong	3681 Mar 20 09:49	0°♑49'52	1°49'54	
evening set	3680 May 12 23:23	6°♓32'14		evening rise	3681 Mar 29 20:01	18°♑42'04		
inferior conj	3680 May 21 09:49	2°♓22'57	0°33'50	asc. node	3681 Apr 03 00:08	26°♑36'32		
minimum elong	3680 May 21 11:13	2°♓20'37	0°33'20		3681 Apr 04 20:40	0°♒		
desc. node	3680 May 23 08:27	1°♓05'04		evening max el	3681 Apr 14 23:50	14°♒41'26	18°33'21	
min. Earth dist.	3680 May 24 05:37	0°♓30'30	0.56182 AU	retrograde	3681 Apr 22 17:06	18°♒29'12		
	3680 May 25 00:54	30°♒		evening set	3681 Apr 24 23:17	18°♒10'47		
morning rise	3680 May 29 18:53	27°♒35'09		inferior conj	3681 May 02 14:16	13°♒42'23	2°03'51	
direct	3680 Jun 03 16:23	26°♒39'54		minimum elong	3681 May 02 17:56	13°♒35'14	2°02'47	
	3680 Jun 13 03:02	0°♓		min. Earth dist.	3681 May 05 23:59	11°♓04'31	0.57985 AU	
morning max el	3680 Jun 17 21:00	3°♓54'15	25°19'50	morning rise	3681 May 10 08:09	8°♓21'12		
	3680 Jul 06 11:05	0°♔		desc. node	3681 May 10 05:30	8°♓24'27		
asc. node	3680 Jul 13 02:22	12°♔57'02		direct	3681 May 16 04:53	6°♓53'51		
morning set	3680 Jul 14 15:05	16°♔09'16		morning max el	3681 May 30 13:59	14°♓32'21	26°42'57	
	3680 Jul 21 00:15	0°♕			3681 Jun 11 23:12	0°♓		
					3681 Jun 28 14:25	0°♔		
superior conj	3680 Jul 21 14:49	1°♕19'52	1°18'53	morning set	3681 Jun 29 01:21	0°♔57'20		
minimum elong	3680 Jul 21 12:29	1°♕07'03	1°18'33	asc. node	3681 Jun 29 23:24	2°♔53'59		
max. Earth dist.	3680 Jul 22 19:00	3°♕53'54	1.32540 AU					
evening rise	3680 Jul 28 18:17	16°♕37'03		superior conj	3681 Jul 06 02:32	16°♔15'50	1°00'30	
	3680 Aug 04 14:11	0°♕		minimum elong	3681 Jul 06 00:20	16°♔03'41	1°00'06	
desc. node	3680 Aug 19 07:44	23°♕45'56		max. Earth dist.	3681 Jul 06 05:53	16°♔34'20	1.32113 AU	
	3680 Aug 24 04:13	0°♖			3681 Jul 12 10:04	0°♕		
evening max el	3680 Aug 29 23:33	6°♖14'28	27°21'23	evening rise	3681 Jul 13 00:42	1°♕17'11		
retrograde	3680 Sep 12 18:45	13°♖29'50			3681 Jul 28 15:10	0°♕		
evening set	3680 Sep 19 23:11	11°♖02'47		desc. node	3681 Aug 06 04:46	11°♕55'51		
min. Earth dist.	3680 Sep 23 13:42	8°♖09'29	0.62337 AU	evening max el	3681 Aug 12 03:06	18°♕23'08	26°46'01	
inferior conj	3680 Sep 26 11:56	5°♖25'22	-3°-47'-28	retrograde	3681 Aug 26 01:34	25°♕34'11		
minimum elong	3680 Sep 26 17:43	5°♖11'49	3°45'50	evening set	3681 Sep 01 22:41	23°♕32'37		
morning rise	3680 Oct 03 15:09	0°♖19'47		min. Earth dist.	3681 Sep 05 17:08	20°♕55'55	0.60324 AU	

inferior conj	3681 Sep 08 22:50	18° \cap 16'51	-4°-36'-16		3682 Jul 25 06:21	0° \cap	
minimum elong	3681 Sep 09 04:09	18° \cap 05'54	4°35'18	retrograde	3682 Aug 07 22:39	6° \cap 49'59	
morning rise	3681 Sep 16 12:54	13° \cap 32'58		evening set	3682 Aug 13 23:51	5° \cap 24'01	
direct	3681 Sep 18 20:51	13° \cap 12'21		min. Earth dist.	3682 Aug 18 11:21	2° \cap 46'34	0.58269 AU
asc. node	3681 Sep 25 22:38	16° \cap 31'38		inferior conj	3682 Aug 21 15:46	0° \cap 31'02	-5°-5'-43
morning max el	3681 Sep 26 06:56	16° \cap 51'18	18°08'10	minimum elong	3682 Aug 21 17:57	0° \cap 27'08	5°05'36
	3681 Oct 05 13:58	0° $\underline{\cap}$			3682 Aug 22 09:14	30° \mathbb{R} Ω	
morning set	3681 Oct 12 01:23	11° $\underline{\cap}$ 50'43		morning rise	3682 Aug 29 15:31	26° Ω 10'37	
				direct	3682 Sep 01 02:48	25° Ω 51'21	
superior conj	3681 Oct 21 18:01	29° $\underline{\cap}$ 45'54	1°14'11	morning max el	3682 Sep 09 12:20	29° Ω 51'00	18°45'19
minimum elong	3681 Oct 21 22:07	0° \mathbb{M} 04'17	1°13'43		3682 Sep 09 16:06	0° \cap	
	3681 Oct 21 21:10	0° \mathbb{M}		asc. node	3682 Sep 12 19:41	3° \cap 33'30	
max. Earth dist.	3681 Oct 29 09:24	13° \mathbb{M} 03'21	1.41489 AU	morning set	3682 Sep 25 20:41	25° \cap 57'55	
desc. node	3681 Nov 02 04:04	19° \mathbb{M} 19'23			3682 Sep 27 22:12	0° $\underline{\cap}$	
evening rise	3681 Nov 03 15:37	21° \mathbb{M} 43'41					
	3681 Nov 08 21:01	0° \mathbb{M}		superior conj	3682 Oct 04 12:11	12° $\underline{\cap}$ 43'09	1°33'26
	3681 Nov 29 19:57	0° \mathbb{M}		minimum elong	3682 Oct 04 15:00	12° $\underline{\cap}$ 56'29	1°33'12
greatest brilliancy	3681 Dec 02 01:33	2° \mathbb{M} 46'55	-0.2m	max. Earth dist.	3682 Oct 11 15:13	25° $\underline{\cap}$ 45'42	1.39439 AU
evening max el	3681 Dec 07 06:21	8° \mathbb{M} 36'43	22°51'41		3682 Oct 14 01:29	0° \mathbb{M}	
retrograde	3681 Dec 17 07:42	14° \mathbb{M} 34'43		evening rise	3682 Oct 15 16:03	2° \mathbb{M} 44'53	
evening set	3681 Dec 22 00:59	12° \mathbb{M} 40'00		desc. node	3682 Oct 20 01:06	10° \mathbb{M} 01'00	
asc. node	3681 Dec 22 21:53	11° \mathbb{M} 53'04			3682 Nov 02 02:59	0° \mathbb{M}	
inferior conj	3681 Dec 27 10:58	6° \mathbb{M} 15'04	1°29'44	evening max el	3682 Nov 19 19:52	22° \mathbb{M} 15'27	24°11'26
minimum elong	3681 Dec 27 09:05	6° \mathbb{M} 21'35	1°29'01	retrograde	3682 Nov 30 23:24	28° \mathbb{M} 47'48	
min. Earth dist.	3681 Dec 27 04:25	6° \mathbb{M} 37'40	0.67980 AU	evening set	3682 Dec 06 06:09	26° \mathbb{M} 36'40	
morning rise	3682 Jan 01 17:07	0° \mathbb{M} 03'57		asc. node	3682 Dec 09 18:56	22° \mathbb{M} 45'58	
	3682 Jan 01 19:05	30° \mathbb{R} \mathbb{M}		min. Earth dist.	3682 Dec 11 00:39	21° \mathbb{M} 08'01	0.67758 AU
direct	3682 Jan 06 02:51	28° \mathbb{M} 17'53		inferior conj	3682 Dec 11 17:59	20° \mathbb{M} 09'35	0°39'53
	3682 Jan 10 21:32	0° \mathbb{M}		minimum elong	3682 Dec 11 17:03	20° \mathbb{M} 12'46	0°39'31
morning max el	3682 Jan 15 00:53	3° \mathbb{M} 30'28	21°40'24	morning rise	3682 Dec 17 04:15	14° \mathbb{M} 03'56	
greatest brilliancy	3682 Jan 19 21:14	8° \mathbb{M} 59'12	-0.4m	direct	3682 Dec 21 00:18	12° \mathbb{M} 40'12	
desc. node	3682 Jan 29 03:21	21° \mathbb{M} 25'35		morning max el	3682 Dec 28 21:23	17° \mathbb{M} 10'41	20°24'00
	3682 Feb 04 00:34	0° \approx		greatest brilliancy	3683 Jan 04 05:03	24° \mathbb{M} 39'21	-0.5m
morning set	3682 Feb 16 01:38	18° \approx 32'09			3683 Jan 08 02:51	0° \mathbb{M}	
max. Earth dist.	3682 Feb 22 12:10	28° \approx 59'47	1.41718 AU	desc. node	3683 Jan 16 00:23	11° \mathbb{M} 30'47	
	3682 Feb 23 02:40	0° \mathbb{M}		morning set	3683 Jan 26 01:01	26° \mathbb{M} 46'29	
					3683 Jan 28 02:51	0° \approx	
superior conj	3682 Mar 02 02:55	11° \mathbb{M} 57'11	-2°-4'-46	max. Earth dist.	3683 Feb 04 19:29	12° \approx 10'42	1.43497 AU
minimum elong	3682 Mar 02 05:22	12° \mathbb{M} 07'51	2°04'42				
	3682 Mar 12 03:46	0° \mathbb{M}		superior conj	3683 Feb 10 23:57	22° \approx 16'43	-2°-5'-32
evening rise	3682 Mar 13 00:35	1° \mathbb{M} 35'31		minimum elong	3683 Feb 10 21:23	22° \approx 06'06	2°05'28
asc. node	3682 Mar 20 21:12	15° \mathbb{M} 40'52			3683 Feb 15 14:23	0° \mathbb{M}	
evening max el	3682 Mar 29 08:56	27° \mathbb{M} 31'45	18°10'58	evening rise	3683 Feb 23 12:38	13° \mathbb{M} 41'21	
	3682 Apr 01 14:15	0° \mathbb{M}			3683 Mar 05 00:51	0° \mathbb{M}	
retrograde	3682 Apr 05 05:35	0° \mathbb{M} 59'21		asc. node	3683 Mar 07 18:14	4° \mathbb{M} 13'45	
evening set	3682 Apr 07 17:59	0° \mathbb{M} 32'02		evening max el	3683 Mar 12 21:08	10° \mathbb{M} 41'10	18°08'05
	3682 Apr 08 23:33	30° \mathbb{R} \mathbb{M}		retrograde	3683 Mar 19 08:32	14° \mathbb{M} 04'06	
inferior conj	3682 Apr 14 15:41	25° \mathbb{M} 42'10	3°01'24	evening set	3683 Mar 22 02:31	13° \mathbb{M} 26'31	
minimum elong	3682 Apr 14 18:51	25° \mathbb{M} 34'59	3°00'47	inferior conj	3683 Mar 28 10:46	8° \mathbb{M} 15'54	3°30'32
min. Earth dist.	3682 Apr 17 23:57	22° \mathbb{M} 41'23	0.60126 AU	minimum elong	3683 Mar 28 12:14	8° \mathbb{M} 12'04	3°30'25
morning rise	3682 Apr 21 16:11	19° \mathbb{M} 56'11		min. Earth dist.	3683 Mar 31 08:10	5° \mathbb{M} 16'47	0.62269 AU
desc. node	3682 Apr 27 02:33	17° \mathbb{M} 57'32		morning rise	3683 Apr 03 19:30	2° \mathbb{M} 14'27	
direct	3682 Apr 28 05:38	17° \mathbb{M} 53'58			3683 Apr 08 09:22	30° \mathbb{R} \mathbb{M}	
morning max el	3682 May 12 13:07	25° \mathbb{M} 45'47	27°35'43	direct	3683 Apr 10 16:19	29° \mathbb{M} 43'37	
	3682 May 16 11:37	0° \mathbb{M}			3683 Apr 13 00:58	0° \mathbb{M}	
	3682 Jun 05 09:25	0° \mathbb{M}		desc. node	3683 Apr 13 23:35	0° \mathbb{M} 15'13	
morning set	3682 Jun 13 08:27	15° \mathbb{M} 33'57		morning max el	3683 Apr 24 18:22	7° \mathbb{M} 41'47	27°51'31
asc. node	3682 Jun 16 20:27	22° \mathbb{M} 58'51			3683 May 11 19:45	0° \mathbb{M}	
max. Earth dist.	3682 Jun 19 17:34	29° \mathbb{M} 15'23	1.32087 AU	morning set	3683 May 28 10:22	29° \mathbb{M} 52'40	
	3682 Jun 20 01:41	0° \mathbb{M}			3683 May 28 11:48	0° \mathbb{M}	
				max. Earth dist.	3683 Jun 03 02:01	11° \mathbb{M} 43'45	1.32462 AU
superior conj	3682 Jun 20 14:02	1° \mathbb{M} 07'53	0°38'22	asc. node	3683 Jun 03 17:31	13° \mathbb{M} 07'18	
minimum elong	3682 Jun 20 12:25	0° \mathbb{M} 58'59	0°38'02				
evening rise	3682 Jun 27 10:47	16° \mathbb{M} 05'41		superior conj	3683 Jun 04 23:34	15° \mathbb{M} 50'20	0°13'08
	3682 Jul 04 08:32	0° \mathbb{M}		minimum elong	3683 Jun 04 22:57	15° \mathbb{M} 47'00	0°12'59
desc. node	3682 Jul 24 01:48	28° \mathbb{M} 50'47		behind sun begin	3683 Jun 04 19:57	15° \mathbb{M} 30'38	
evening max el	3682 Jul 24 23:17	29° \mathbb{M} 43'18	25°39'04	behind sun end	3683 Jun 05 01:58	16° \mathbb{M} 03'22	

evening rise	3683 Jun 11 22:31	0° \mathfrak{S} 55'50		superior conj	3684 May 19 05:13	0° \mathbb{I} 16'23	0°-14'-28
	3683 Jun 11 12:02	0° \mathfrak{S}		minimum elong	3684 May 19 05:57	0° \mathbb{I} 20'17	0°14'20
	3683 Jun 27 22:44	0° \mathcal{Q}		behind sun begin	3684 May 19 03:33	0° \mathbb{I} 07'29	
evening max el	3683 Jul 06 13:16	10° \mathcal{Q} 22'53	24°09'46	behind sun end	3684 May 19 08:21	0° \mathbb{I} 33'05	
desc. node	3683 Jul 10 22:50	14° \mathcal{Q} 01'33			3684 May 19 02:09	0° \mathbb{I}	
retrograde	3683 Jul 20 08:34	17° \mathcal{Q} 20'23		asc. node	3684 May 20 14:32	3° \mathbb{I} 14'25	
evening set	3683 Jul 25 01:10	16° \mathcal{Q} 31'32		evening rise	3684 May 26 09:58	15° \mathbb{I} 40'20	
min. Earth dist.	3683 Jul 30 23:51	13° \mathcal{Q} 35'02	0.56452 AU		3684 Jun 02 14:15	0° \mathfrak{S}	
inferior conj	3683 Aug 02 12:34	12° \mathcal{Q} 00'46	-5°-1'-12	evening max el	3684 Jun 17 03:15	20° \mathfrak{S} 47'21	22°32'55
minimum elong	3683 Aug 02 09:02	12° \mathcal{Q} 06'17	5°00'55	desc. node	3684 Jun 26 19:51	26° \mathfrak{S} 51'47	
morning rise	3683 Aug 10 20:25	8° \mathcal{Q} 01'03		retrograde	3684 Jun 30 06:16	27° \mathfrak{S} 18'54	
direct	3683 Aug 13 13:30	7° \mathcal{Q} 41'45		evening set	3684 Jul 03 10:52	26° \mathfrak{S} 56'28	
morning max el	3683 Aug 23 07:53	12° \mathcal{Q} 14'12	19°44'00	min. Earth dist.	3684 Jul 11 10:43	23° \mathfrak{S} 26'51	0.55213 AU
asc. node	3683 Aug 30 16:43	21° \mathcal{Q} 30'48		inferior conj	3684 Jul 12 15:05	22° \mathfrak{S} 46'30	-4°-8'-57
	3683 Sep 04 15:04	0° \mathfrak{M}		minimum elong	3684 Jul 12 06:58	22° \mathfrak{S} 58'04	4°07'05
morning set	3683 Sep 09 23:32	10° \mathfrak{M} 27'04		morning rise	3684 Jul 21 05:29	18° \mathfrak{S} 56'04	
				direct	3684 Jul 24 06:18	18° \mathfrak{S} 35'02	
superior conj	3683 Sep 17 21:38	26° \mathfrak{M} 26'03	1°42'53	morning max el	3684 Aug 04 15:42	23° \mathfrak{S} 52'50	21°03'41
minimum elong	3683 Sep 17 22:45	26° \mathfrak{M} 31'32	1°42'50		3684 Aug 10 01:15	0° \mathcal{Q}	
	3683 Sep 19 17:09	0° \mathfrak{A}		asc. node	3684 Aug 16 13:46	10° \mathcal{Q} 09'54	
max. Earth dist.	3683 Sep 23 19:51	7° \mathfrak{A} 51'20	1.37380 AU	morning set	3684 Aug 24 07:16	25° \mathcal{Q} 10'10	
evening rise	3683 Sep 27 15:18	14° \mathfrak{A} 49'24			3684 Aug 26 14:59	0° \mathfrak{M}	
desc. node	3683 Oct 06 22:08	0° \mathfrak{M} 33'40					
	3683 Oct 06 13:46	0° \mathfrak{M}		superior conj	3684 Aug 31 17:53	10° \mathfrak{M} 40'39	1°44'09
	3683 Oct 27 20:24	0° \mathfrak{A}		minimum elong	3684 Aug 31 17:26	10° \mathfrak{M} 38'22	1°44'09
evening max el	3683 Nov 02 08:07	5° \mathfrak{A} 56'58	25°26'10	max. Earth dist.	3684 Sep 05 04:58	19° \mathfrak{M} 42'06	1.35537 AU
retrograde	3683 Nov 14 10:47	12° \mathfrak{A} 55'13		evening rise	3684 Sep 09 09:38	27° \mathfrak{M} 47'36	
evening set	3683 Nov 20 07:35	10° \mathfrak{A} 29'17			3684 Sep 10 14:02	0° \mathfrak{A}	
min. Earth dist.	3683 Nov 24 18:13	5° \mathfrak{A} 35'30	0.67188 AU	desc. node	3684 Sep 22 19:09	20° \mathfrak{A} 51'39	
inferior conj	3683 Nov 25 22:27	4° \mathfrak{A} 04'31	0°-15'00		3684 Sep 28 21:01	0° \mathfrak{M}	
minimum elong	3683 Nov 25 22:50	4° \mathfrak{A} 03'17	0°14'50	evening max el	3684 Oct 14 20:29	19° \mathfrak{M} 37'19	26°28'34
transit middle	3683 Nov 25 22:50	4° \mathfrak{A} 03'17	0°14'50	retrograde	3684 Oct 27 17:10	26° \mathfrak{M} 50'30	
transit begin	3683 Nov 25 21:43	4° \mathfrak{A} 06'52		evening set	3684 Nov 03 03:22	24° \mathfrak{M} 13'45	
transit end	3683 Nov 25 23:57	3° \mathfrak{A} 59'42		min. Earth dist.	3684 Nov 07 06:51	19° \mathfrak{M} 55'52	0.66268 AU
asc. node	3683 Nov 26 15:57	3° \mathfrak{A} 08'25		inferior conj	3684 Nov 08 22:27	17° \mathfrak{M} 56'13	-1°-13'-43
	3683 Nov 29 08:40	30° \mathfrak{R} \mathfrak{M}		minimum elong	3684 Nov 09 00:27	17° \mathfrak{M} 50'09	1°12'54
morning rise	3683 Dec 01 14:52	28° \mathfrak{M} 06'37		asc. node	3684 Nov 12 12:59	13° \mathfrak{M} 56'50	
direct	3683 Dec 04 22:52	27° \mathfrak{M} 02'35		morning rise	3684 Nov 14 22:52	12° \mathfrak{M} 08'41	
	3683 Dec 10 23:44	0° \mathfrak{A}		direct	3684 Nov 17 20:55	11° \mathfrak{M} 20'37	
morning max el	3683 Dec 12 01:51	1° \mathfrak{A} 01'57	19°21'13	morning max el	3684 Nov 24 12:52	14° \mathfrak{M} 59'41	18°34'09
greatest brilliancy	3683 Dec 21 07:04	12° \mathfrak{A} 48'20	-0.7m		3684 Dec 05 14:07	0° \mathfrak{A}	
	3684 Jan 01 16:06	0° \mathfrak{S}		morning set	3684 Dec 14 22:03	14° \mathfrak{A} 45'25	
desc. node	3684 Jan 02 21:25	1° \mathfrak{S} 53'09		desc. node	3684 Dec 19 18:26	22° \mathfrak{A} 27'30	
morning set	3684 Jan 05 00:18	5° \mathfrak{S} 10'03			3684 Dec 24 13:03	0° \mathfrak{S}	
max. Earth dist.	3684 Jan 18 09:22	26° \mathfrak{S} 03'45	1.44712 AU				
	3684 Jan 20 21:01	0° \approx		superior conj	3684 Dec 30 22:57	10° \mathfrak{S} 04'28	-1°-11'-26
				minimum elong	3684 Dec 30 14:31	9° \mathfrak{S} 31'22	1°10'28
superior conj	3684 Jan 21 19:31	1° \approx 29'28	-1°-47'-48	max. Earth dist.	3684 Dec 31 03:16	10° \mathfrak{S} 21'21	1.45231 AU
minimum elong	3684 Jan 21 11:25	0° \approx 57'12	1°47'11		3685 Jan 12 14:45	0° \approx	
evening rise	3684 Feb 05 03:58	24° \approx 52'31		evening rise	3685 Jan 15 20:04	5° \approx 06'50	
	3684 Feb 08 05:51	0° \mathfrak{H}			3685 Jan 31 19:53	0° \mathfrak{H}	
asc. node	3684 Feb 22 15:16	22° \mathfrak{H} 05'47		evening max el	3685 Feb 06 19:53	7° \mathfrak{H} 31'27	18°57'48
evening max el	3684 Feb 24 09:36	24° \mathfrak{H} 02'44	18°24'00	asc. node	3685 Feb 08 12:17	9° \mathfrak{H} 05'20	
retrograde	3684 Mar 01 21:12	27° \mathfrak{H} 34'06		retrograde	3685 Feb 13 15:48	11° \mathfrak{H} 22'26	
evening set	3684 Mar 04 20:51	26° \mathfrak{H} 45'13		evening set	3685 Feb 16 21:53	10° \mathfrak{H} 21'13	
inferior conj	3684 Mar 10 19:22	21° \mathfrak{H} 15'37	3°37'44	inferior conj	3685 Feb 22 13:48	4° \mathfrak{H} 34'32	3°28'32
minimum elong	3684 Mar 10 19:07	21° \mathfrak{H} 16'20	3°37'44	minimum elong	3685 Feb 22 12:15	4° \mathfrak{H} 39'23	3°28'21
min. Earth dist.	3684 Mar 13 01:56	18° \mathfrak{H} 38'18	0.64187 AU	min. Earth dist.	3685 Feb 24 04:51	2° \mathfrak{H} 32'07	0.65745 AU
morning rise	3684 Mar 16 15:46	15° \mathfrak{H} 05'37			3685 Feb 26 09:01	30° \mathfrak{R} \approx	
direct	3684 Mar 23 11:20	12° \mathfrak{H} 18'35		morning rise	3685 Feb 28 01:34	28° \approx 20'28	
desc. node	3684 Mar 30 20:37	14° \mathfrak{H} 56'27		direct	3685 Mar 06 13:20	25° \approx 31'16	
morning max el	3684 Apr 06 03:22	20° \mathfrak{H} 14'28	27°30'29		3685 Mar 16 02:11	0° \mathfrak{H}	
	3684 Apr 14 12:33	0° \mathfrak{Y}		desc. node	3685 Mar 17 17:38	1° \mathfrak{H} 26'48	
	3684 May 03 20:47	0° \mathfrak{S}		morning max el	3685 Mar 19 13:15	3° \mathfrak{H} 12'16	26°38'26
morning set	3684 May 11 04:26	13° \mathfrak{S} 44'28			3685 Apr 08 19:45	0° \mathfrak{Y}	
max. Earth dist.	3684 May 16 03:03	23° \mathfrak{S} 45'31	1.33275 AU	morning set	3685 Apr 24 11:22	26° \mathfrak{Y} 59'46	
					3685 Apr 26 01:05	0° \mathfrak{S}	

max. Earth dist.	3685 Apr 28 17:17	5°♄14'22	1.34558 AU		3686 Apr 01 18:03	0°♄	
				morning set	3686 Apr 07 02:35	9°♄24'59	
superior conj	3685 May 03 04:51	14°♄20'06	0°-43'-20	max. Earth dist.	3686 Apr 10 20:19	16°♄18'59	1.36289 AU
minimum elong	3685 May 03 07:08	14°♄31'55	0°42'53				
asc. node	3685 May 07 11:34	23°♄16'35		superior conj	3686 Apr 16 19:41	27°♄53'22	-1°-11'-53
evening rise	3685 May 10 19:19	0°♄13'43		minimum elong	3686 Apr 16 23:27	28°♄12'09	1°11'16
	3685 May 10 16:40	0°♄			3686 Apr 17 21:03	0°♄	
	3685 May 28 14:21	0°♄		asc. node	3686 Apr 24 08:37	13°♄09'16	
evening max el	3685 May 30 01:12	1°♄29'59	21°03'00	evening rise	3686 Apr 25 00:23	14°♄29'11	
retrograde	3685 Jun 10 19:15	7°♄15'13			3686 May 03 03:16	0°♄	
evening set	3685 Jun 13 00:27	7°♄03'42		evening max el	3686 May 12 11:04	12°♄50'09	19°49'11
desc. node	3685 Jun 13 16:51	6°♄55'42		retrograde	3686 May 22 11:23	17°♄42'14	
inferior conj	3685 Jun 22 08:31	3°♄06'10	-2°-30'-8	evening set	3686 May 24 10:33	17°♄31'49	
minimum elong	3685 Jun 22 01:41	3°♄15'49	2°27'48	desc. node	3686 May 31 13:52	14°♄33'06	
min. Earth dist.	3685 Jun 22 22:17	2°♄46'45	0.54846 AU	inferior conj	3686 Jun 02 07:20	13°♄30'23	0°-30'-37
	3685 Jun 28 09:56	30°♄		minimum elong	3686 Jun 02 05:56	13°♄32'32	0°30'07
morning rise	3685 Jul 01 02:35	29°♄06'28		min. Earth dist.	3686 Jun 04 11:20	12°♄10'41	0.55447 AU
direct	3685 Jul 04 15:42	28°♄39'20		morning rise	3686 Jun 10 22:16	9°♄03'25	
	3685 Jul 10 15:05	0°♄		direct	3686 Jun 15 06:34	8°♄21'48	
morning max el	3685 Jul 17 12:37	4°♄47'55	22°40'06	morning max el	3686 Jun 29 03:14	15°♄15'01	24°23'21
asc. node	3685 Aug 03 10:49	29°♄20'30			3686 Jul 10 20:01	0°♄	
	3685 Aug 03 19:01	0°♄		asc. node	3686 Jul 21 07:52	18°♄54'26	
morning set	3685 Aug 08 17:53	10°♄01'32		morning set	3686 Jul 24 05:41	24°♄56'06	
					3686 Jul 26 14:31	0°♄	
superior conj	3685 Aug 15 21:31	25°♄16'37	1°38'39				
minimum elong	3685 Aug 15 19:57	25°♄08'17	1°38'33	superior conj	3686 Jul 31 05:55	10°♄05'55	1°27'31
	3685 Aug 18 03:12	0°♄		minimum elong	3686 Jul 31 03:43	9°♄53'57	1°27'16
max. Earth dist.	3685 Aug 18 22:47	1°♄42'04	1.34051 AU	max. Earth dist.	3686 Aug 02 01:31	14°♄01'47	1.32971 AU
evening rise	3685 Aug 23 18:39	11°♄27'45		evening rise	3686 Aug 07 14:25	25°♄38'41	
	3685 Sep 02 22:22	0°♄			3686 Aug 09 18:40	0°♄	
desc. node	3685 Sep 09 16:10	10°♄48'15			3686 Aug 27 09:09	0°♄	
	3685 Sep 24 07:04	0°♄		desc. node	3686 Aug 27 13:10	0°♄14'27	
evening max el	3685 Sep 27 08:59	3°♄08'24	27°11'01	evening max el	3686 Sep 09 20:01	16°♄17'57	27°26'41
retrograde	3685 Oct 10 17:46	10°♄26'13		retrograde	3686 Sep 23 12:02	23°♄34'18	
evening set	3685 Oct 17 15:10	7°♄45'24		evening set	3686 Sep 30 16:06	20°♄58'49	
min. Earth dist.	3685 Oct 21 12:08	4°♄03'28	0.65002 AU	min. Earth dist.	3686 Oct 04 08:00	17°♄50'01	0.63397 AU
inferior conj	3685 Oct 23 15:46	1°♄40'09	-2°-14'-34	inferior conj	3686 Oct 06 23:50	15°♄10'30	-3°-14'-45
minimum elong	3685 Oct 23 19:32	1°♄29'41	2°13'07	minimum elong	3686 Oct 07 05:06	14°♄57'17	3°13'02
	3685 Oct 25 04:33	30°♄		morning rise	3686 Oct 13 20:36	9°♄53'27	
morning rise	3685 Oct 30 01:47	26°♄06'05		direct	3686 Oct 16 06:16	9°♄25'43	
asc. node	3685 Oct 30 10:02	25°♄57'16		asc. node	3686 Oct 17 07:04	9°♄30'57	
direct	3685 Nov 01 16:20	25°♄30'00		morning max el	3686 Oct 22 20:39	12°♄51'09	17°50'50
morning max el	3685 Nov 08 04:04	28°♄58'02	18°03'44		3686 Nov 03 14:01	0°♄	
	3685 Nov 09 03:35	0°♄		morning set	3686 Nov 08 06:13	8°♄06'48	
morning set	3685 Nov 26 01:20	25°♄48'51					
	3685 Nov 28 13:58	0°♄		superior conj	3686 Nov 20 10:16	28°♄51'49	0°21'18
desc. node	3685 Dec 06 15:26	13°♄09'27		minimum elong	3686 Nov 20 12:27	29°♄00'51	0°20'59
					3686 Nov 21 02:47	0°♄	
superior conj	3685 Dec 10 05:54	18°♄55'33	0°-24'-28	desc. node	3686 Nov 23 12:28	3°♄56'03	
minimum elong	3685 Dec 10 02:51	18°♄43'24	0°24'03	max. Earth dist.	3686 Nov 26 16:20	9°♄02'09	1.44086 AU
max. Earth dist.	3685 Dec 13 22:29	24°♄46'16	1.45013 AU	evening rise	3686 Dec 06 00:53	23°♄43'11	
	3685 Dec 17 06:25	0°♄			3686 Dec 10 03:24	0°♄	
evening rise	3685 Dec 26 15:22	14°♄33'50		greatest brilliancy	3686 Dec 29 15:06	28°♄08'03	-0.5m
	3686 Jan 05 16:44	0°♄			3686 Dec 31 02:27	0°♄	
greatest brilliancy	3686 Jan 13 17:55	11°♄51'57	-0.6m	evening max el	3687 Jan 04 02:49	4°♄35'09	20°51'53
evening max el	3686 Jan 21 02:02	21°♄02'43	19°47'56	retrograde	3687 Jan 12 11:18	9°♄31'30	
asc. node	3686 Jan 26 09:19	24°♄57'28		asc. node	3687 Jan 13 06:21	9°♄28'02	
retrograde	3686 Jan 28 13:15	25°♄22'47		evening set	3687 Jan 16 10:28	8°♄01'50	
evening set	3686 Feb 01 03:06	24°♄07'58		inferior conj	3687 Jan 21 20:16	1°♄48'18	2°35'18
inferior conj	3686 Feb 06 14:55	18°♄06'30	3°06'50	minimum elong	3687 Jan 21 17:46	1°♄56'55	2°34'35
minimum elong	3686 Feb 06 12:38	18°♄14'07	3°06'22	min. Earth dist.	3687 Jan 22 07:42	1°♄09'01	0.67614 AU
min. Earth dist.	3686 Feb 07 15:25	16°♄45'06	0.66887 AU		3687 Jan 23 04:00	30°♄	
morning rise	3686 Feb 11 21:30	11°♄50'58		morning rise	3687 Jan 27 00:39	25°♄33'07	
direct	3686 Feb 17 21:02	9°♄11'42		direct	3687 Feb 01 09:42	23°♄11'56	
morning max el	3686 Mar 01 22:13	16°♄23'01	25°24'10	morning max el	3687 Feb 12 06:47	29°♄41'00	23°57'43
desc. node	3686 Mar 04 14:40	19°♄15'03			3687 Feb 12 14:15	0°♄	
	3686 Mar 13 05:13	0°♄		desc. node	3687 Feb 19 11:42	7°♄59'02	

	3687 Mar 07 01:36	0°♄		desc. node	3688 Feb 06 08:45	27°♄22'54	
morning set	3687 Mar 19 20:22	20°♄44'42			3688 Feb 08 05:57	0°♄	
max. Earth dist.	3687 Mar 23 16:27	27°♄27'32	1.38354 AU		3688 Feb 27 23:52	0°♄	
	3687 Mar 25 02:28	0°♄		morning set	3688 Feb 28 10:53	0°♄44'54	
				max. Earth dist.	3688 Mar 04 12:46	9°♄11'58	1.40524 AU
superior conj	3687 Mar 30 22:09	10°♄46'54	-1°-37'-49				
minimum elong	3687 Mar 31 02:48	11°♄09'00	1°37'17	superior conj	3688 Mar 12 07:48	22°♄49'41	-1°-57'-45
evening rise	3687 Apr 08 22:35	28°♄19'39		minimum elong	3688 Mar 12 11:47	23°♄07'39	1°57'31
	3687 Apr 09 19:06	0°♄			3688 Mar 16 06:01	0°♄	
asc. node	3687 Apr 11 05:40	2°♄47'49		evening rise	3688 Mar 22 10:44	11°♄36'53	
evening max el	3687 Apr 25 08:19	24°♄50'56	18°55'07	asc. node	3688 Mar 28 02:42	22°♄06'47	
retrograde	3687 May 03 18:51	28°♄58'12			3688 Apr 01 19:05	0°♄	
evening set	3687 May 05 21:30	28°♄43'46		evening max el	3688 Apr 07 14:05	7°♄26'09	18°21'23
inferior conj	3687 May 13 23:32	24°♄26'27	1°16'00	retrograde	3688 Apr 14 21:22	11°♄03'44	
minimum elong	3687 May 14 02:19	24°♄21'30	1°15'04	evening set	3688 Apr 17 06:05	10°♄41'55	
min. Earth dist.	3687 May 17 03:11	22°♄12'43	0.56886 AU	inferior conj	3688 Apr 24 13:18	6°♄04'23	2°32'06
desc. node	3687 May 18 10:55	21°♄20'34		minimum elong	3688 Apr 24 16:59	5°♄56'40	2°31'11
morning rise	3687 May 22 02:45	19°♄23'50		min. Earth dist.	3688 Apr 27 23:53	3°♄13'34	0.58869 AU
direct	3687 May 27 10:24	18°♄16'13		morning rise	3688 May 01 23:43	0°♄31'02	
morning max el	3687 Jun 10 18:02	25°♄41'47	25°58'24		3688 May 03 00:32	30°♄	
	3687 Jun 14 18:56	0°♄		desc. node	3688 May 04 07:57	29°♄28'28	
	3687 Jul 03 21:30	0°♄		direct	3688 May 08 04:23	28°♄48'43	
asc. node	3687 Jul 08 04:54	8°♄44'42			3688 May 13 12:08	0°♄	
morning set	3687 Jul 08 16:58	9°♄48'14		morning max el	3688 May 22 13:47	6°♄34'36	27°09'45
					3688 Jun 09 01:21	0°♄	
superior conj	3687 Jul 15 16:57	25°♄01'07	1°11'35	morning set	3688 Jun 22 02:08	24°♄32'38	
minimum elong	3687 Jul 15 14:36	24°♄48'14	1°11'12	asc. node	3688 Jun 24 01:58	28°♄45'58	
max. Earth dist.	3687 Jul 16 10:29	26°♄37'28	1.32306 AU		3688 Jun 24 15:45	0°♄	
	3687 Jul 17 23:28	0°♄					
evening rise	3687 Jul 22 17:41	10°♄10'18		superior conj	3688 Jun 29 04:48	9°♄56'25	0°51'33
	3687 Aug 02 01:35	0°♄		minimum elong	3688 Jun 29 02:47	9°♄45'20	0°51'09
desc. node	3687 Aug 14 10:13	18°♄57'03		max. Earth dist.	3688 Jun 28 22:09	9°♄19'48	1.32048 AU
evening max el	3687 Aug 23 02:50	28°♄51'03	27°10'27	evening rise	3688 Jul 06 01:55	24°♄54'50	
	3687 Aug 24 08:58	0°♄			3688 Jul 08 12:38	0°♄	
retrograde	3687 Sep 05 23:14	6°♄04'22			3688 Jul 26 00:22	0°♄	
evening set	3687 Sep 13 02:13	3°♄46'21		desc. node	3688 Jul 31 07:14	6°♄38'09	
min. Earth dist.	3687 Sep 16 17:09	1°♄02'19	0.61499 AU	evening max el	3688 Aug 04 03:05	10°♄38'11	26°20'58
	3687 Sep 17 21:48	30°♄		retrograde	3688 Aug 18 02:26	17°♄48'23	
inferior conj	3687 Sep 19 19:25	28°♄18'14	-4°-9'-48	evening set	3688 Aug 24 16:47	16°♄00'44	
minimum elong	3687 Sep 20 01:15	28°♄05'15	4°08'22	min. Earth dist.	3688 Aug 28 16:15	13°♄26'11	0.59438 AU
morning rise	3687 Sep 27 03:20	23°♄21'46		inferior conj	3688 Aug 31 23:00	10°♄54'24	-4°-51'-56
direct	3687 Sep 29 11:01	22°♄59'19		minimum elong	3688 Sep 01 03:22	10°♄45'55	4°51'21
asc. node	3687 Oct 04 04:07	24°♄35'31		morning rise	3688 Sep 08 17:27	6°♄20'51	
morning max el	3687 Oct 06 11:31	26°♄30'28	17°56'19	direct	3688 Sep 11 02:19	6°♄01'08	
	3687 Oct 09 12:19	0°♄		morning max el	3688 Sep 18 21:21	9°♄47'31	18°21'26
morning set	3687 Oct 22 06:06	21°♄18'24		asc. node	3688 Sep 20 01:10	10°♄58'48	
	3687 Oct 27 00:41	0°♄			3688 Oct 02 02:31	0°♄	
				morning set	3688 Oct 04 19:31	5°♄08'11	
superior conj	3687 Nov 01 17:29	10°♄06'42	0°58'06				
minimum elong	3687 Nov 01 21:40	10°♄24'53	0°57'33	superior conj	3688 Oct 14 00:25	22°♄30'42	1°23'38
max. Earth dist.	3687 Nov 09 05:34	22°♄48'49	1.42558 AU	minimum elong	3688 Oct 14 04:06	22°♄47'33	1°23'16
desc. node	3687 Nov 10 09:30	24°♄43'22			3688 Oct 18 04:04	0°♄	
	3687 Nov 13 15:53	0°♄		max. Earth dist.	3688 Oct 21 13:04	5°♄53'00	1.40629 AU
evening rise	3687 Nov 15 16:35	3°♄13'25		evening rise	3688 Oct 26 03:29	13°♄37'05	
	3687 Dec 03 13:56	0°♄		desc. node	3688 Oct 27 06:32	15°♄27'58	
greatest brilliancy	3687 Dec 13 04:36	12°♄48'11	-0.3m		3688 Nov 05 12:43	0°♄	
evening max el	3687 Dec 17 22:05	18°♄08'26	22°06'09		3688 Nov 27 20:56	0°♄	
retrograde	3687 Dec 27 08:04	23°♄44'41		evening max el	3688 Nov 29 13:04	1°♄44'26	23°25'47
asc. node	3687 Dec 31 03:23	22°♄27'05		retrograde	3688 Dec 10 02:03	7°♄58'37	
evening set	3687 Dec 31 18:16	21°♄59'12		evening set	3688 Dec 15 00:50	5°♄56'53	
inferior conj	3688 Jan 06 03:44	15°♄37'06	1°55'42	asc. node	3688 Dec 17 00:25	3°♄58'51	
minimum elong	3688 Jan 06 01:29	15°♄44'53	1°54'55	inferior conj	3688 Dec 20 11:25	29°♄30'15	1°09'18
min. Earth dist.	3688 Jan 06 03:27	15°♄38'05	0.67949 AU	minimum elong	3688 Dec 20 09:53	29°♄35'31	1°08'42
morning rise	3688 Jan 11 08:33	9°♄23'53		min. Earth dist.	3688 Dec 20 00:16	0°♄08'32	0.67922 AU
direct	3688 Jan 16 02:33	7°♄24'50			3688 Dec 20 02:45	30°♄	
morning max el	3688 Jan 25 17:27	13°♄05'24	22°29'02	morning rise	3688 Dec 25 19:03	23°♄20'59	
greatest brilliancy	3688 Jan 30 06:57	18°♄10'51	-0.3m	direct	3688 Dec 29 22:42	21°♄44'43	

morning max el	3689 Jan 07 09:35	26° ♄ 38'47	21°06'23	greatest brilliancy	3689 Dec 28 16:22	19° ♄ 16'08	-0.6m
	3689 Jan 10 11:06	0° ♄			3690 Jan 05 03:26	0° ♄	
greatest brilliancy	3689 Jan 12 18:15	2° ♄ 48'22	-0.5m	desc. node	3690 Jan 10 02:49	7° ♄ 28'38	
desc. node	3689 Jan 23 05:47	17° ♄ 15'20		morning set	3690 Jan 16 17:25	17° ♄ 35'38	
	3689 Jan 31 18:43	0° ♄			3690 Jan 24 16:24	0° ♄	
morning set	3689 Feb 06 21:20	9° ♄ 26'55		max. Earth dist.	3690 Jan 28 01:12	5° ♄ 20'09	1.44092 AU
max. Earth dist.	3689 Feb 14 15:00	21° ♄ 49'43	1.42526 AU				
	3689 Feb 19 13:17	0° ♄		superior conj	3690 Feb 02 05:28	13° ♄ 40'13	-2°00'-28
				minimum elong	3690 Feb 02 00:19	13° ♄ 19'15	2°00'13
superior conj	3689 Feb 21 19:28	3° ♄ 49'34	-2°-7'-6		3690 Feb 12 01:23	0° ♄	
minimum elong	3689 Feb 21 20:07	3° ♄ 52'19	2°07'06	evening rise	3690 Feb 15 12:35	5° ♄ 54'28	
evening rise	3689 Mar 05 08:51	24° ♄ 11'05		asc. node	3690 Mar 01 20:46	29° ♄ 15'49	
	3689 Mar 08 14:33	0° ♄			3690 Mar 02 09:55	0° ♄	
asc. node	3689 Mar 14 23:45	10° ♄ 58'48		evening max el	3690 Mar 05 13:40	3° ♄ 41'50	18°12'35
evening max el	3689 Mar 22 00:55	20° ♄ 25'46	18°07'25	retrograde	3690 Mar 11 23:54	7° ♄ 06'24	
retrograde	3689 Mar 28 16:25	23° ♄ 49'34		evening set	3690 Mar 14 20:21	6° ♄ 24'02	
evening set	3689 Mar 31 07:11	23° ♄ 18'08		inferior conj	3690 Mar 21 00:03	1° ♄ 05'17	3°35'53
inferior conj	3689 Apr 06 22:44	18° ♄ 19'38	3°16'49	minimum elong	3690 Mar 21 00:46	1° ♄ 03'21	3°35'50
minimum elong	3689 Apr 07 01:14	18° ♄ 13'36	3°16'27		3690 Mar 21 23:53	30° ♄	
min. Earth dist.	3689 Apr 10 03:21	15° ♄ 16'20	0.61052 AU	min. Earth dist.	3690 Mar 23 15:27	28° ♄ 13'25	0.63133 AU
morning rise	3689 Apr 13 16:09	12° ♄ 25'57		morning rise	3690 Mar 27 03:07	24° ♄ 59'47	
direct	3689 Apr 20 09:59	10° ♄ 09'55		direct	3690 Apr 03 00:36	22° ♄ 20'13	
desc. node	3689 Apr 21 04:59	10° ♄ 11'43		desc. node	3690 Apr 08 02:01	23° ♄ 34'34	
morning max el	3689 May 04 15:40	18° ♄ 06'06	27°46'59		3690 Apr 16 15:21	0° ♄	
	3689 May 14 14:43	0° ♄		morning max el	3690 Apr 16 22:36	0° ♄ 18'00	27°46'39
	3689 Jun 01 18:28	0° ♄			3690 May 08 15:42	0° ♄	
morning set	3689 Jun 06 07:16	9° ♄ 02'16		morning set	3690 May 21 06:10	23° ♄ 10'07	
asc. node	3689 Jun 10 23:00	18° ♄ 52'43			3690 May 24 14:16	0° ♄	
max. Earth dist.	3689 Jun 12 08:43	21° ♄ 55'49	1.32193 AU	max. Earth dist.	3690 May 26 14:21	4° ♄ 13'16	1.32759 AU
superior conj	3689 Jun 13 15:40	24° ♄ 45'00	0°28'00	superior conj	3690 May 28 23:48	9° ♄ 21'07	0°01'39
minimum elong	3689 Jun 13 14:26	24° ♄ 38'13	0°27'44	minimum elong	3690 May 28 23:43	9° ♄ 20'42	0°01'38
	3689 Jun 16 01:03	0° ♄		behind sun begin	3690 May 28 18:29	8° ♄ 52'27	
evening rise	3689 Jun 20 12:53	9° ♄ 44'26		behind sun end	3690 May 29 04:57	9° ♄ 48'59	
	3689 Jun 30 22:32	0° ♄		asc. node	3690 May 28 20:02	9° ♄ 00'47	
evening max el	3689 Jul 16 20:12	21° ♄ 38'49	25°03'02	evening rise	3690 Jun 05 00:44	24° ♄ 32'47	
desc. node	3689 Jul 18 04:15	22° ♄ 52'31			3690 Jun 07 15:28	0° ♄	
retrograde	3689 Jul 30 19:17	28° ♄ 43'04			3690 Jun 26 07:41	0° ♄	
evening set	3689 Aug 05 07:33	27° ♄ 33'42		evening max el	3690 Jun 28 09:22	2° ♄ 08'12	23°28'29
min. Earth dist.	3689 Aug 10 07:51	24° ♄ 49'50	0.57444 AU	desc. node	3690 Jul 05 01:16	7° ♄ 07'34	
inferior conj	3689 Aug 13 07:27	22° ♄ 49'57	-5°-8'-55	retrograde	3690 Jul 11 23:26	8° ♄ 56'19	
minimum elong	3689 Aug 13 07:24	22° ♄ 50'02	5°08'57	evening set	3690 Jul 16 00:13	8° ♄ 20'44	
morning rise	3689 Aug 21 10:49	18° ♄ 38'52		min. Earth dist.	3690 Jul 22 19:15	5° ♄ 11'45	0.55839 AU
direct	3689 Aug 24 00:06	18° ♄ 19'51		inferior conj	3690 Jul 24 19:50	3° ♄ 59'43	-4°-45'-20
morning max el	3689 Sep 01 22:52	22° ♄ 32'26	19°07'37	minimum elong	3690 Jul 24 13:51	4° ♄ 08'37	4°44'28
asc. node	3689 Sep 06 22:12	28° ♄ 25'38		morning rise	3690 Aug 02 06:36	0° ♄ 05'32	
	3689 Sep 08 00:07	0° ♄			3690 Aug 02 17:03	30° ♄	
morning set	3689 Sep 18 18:21	19° ♄ 25'10		direct	3690 Aug 05 02:54	29° ♄ 45'36	
	3689 Sep 24 02:16	0° ♄			3690 Aug 07 11:21	0° ♄	
				morning max el	3690 Aug 15 13:21	4° ♄ 36'11	20°15'28
superior conj	3689 Sep 27 01:38	5° ♄ 48'30	1°38'32	asc. node	3690 Aug 24 19:15	16° ♄ 41'51	
minimum elong	3689 Sep 27 03:44	5° ♄ 58'38	1°38'24		3690 Aug 31 23:51	0° ♄	
max. Earth dist.	3689 Oct 03 17:24	18° ♄ 16'08	1.38547 AU	morning set	3690 Sep 02 23:32	4° ♄ 00'45	
evening rise	3689 Oct 07 13:55	25° ♄ 05'52					
	3689 Oct 10 10:47	0° ♄		superior conj	3690 Sep 10 16:06	19° ♄ 45'35	1°44'19
desc. node	3689 Oct 14 03:34	6° ♄ 06'12		minimum elong	3690 Sep 10 16:30	19° ♄ 47'37	1°44'20
	3689 Oct 30 05:05	0° ♄			3690 Sep 15 20:49	0° ♄	
evening max el	3689 Nov 12 01:55	15° ♄ 24'52	24°44'25	max. Earth dist.	3690 Sep 15 23:34	0° ♄ 13'11	1.36560 AU
retrograde	3689 Nov 23 16:02	22° ♄ 09'37		evening rise	3690 Sep 19 21:47	7° ♄ 34'12	
evening set	3689 Nov 29 04:36	19° ♄ 52'10		desc. node	3690 Oct 01 00:34	26° ♄ 33'06	
asc. node	3689 Dec 03 21:26	14° ♄ 32'21			3690 Oct 03 05:17	0° ♄	
min. Earth dist.	3689 Dec 03 19:45	14° ♄ 37'56	0.67550 AU	evening max el	3690 Oct 25 14:17	29° ♄ 06'52	25°54'49
inferior conj	3689 Dec 04 17:35	13° ♄ 25'30	0°17'12		3690 Oct 26 12:38	0° ♄	
minimum elong	3689 Dec 04 17:10	13° ♄ 26'55	0°17'01	retrograde	3690 Nov 07 01:08	6° ♄ 12'04	
morning rise	3689 Dec 10 06:11	7° ♄ 22'34		evening set	3690 Nov 13 03:49	3° ♄ 41'06	
direct	3689 Dec 13 20:54	6° ♄ 07'28			3690 Nov 16 16:40	30° ♄	
morning max el	3689 Dec 21 09:24	10° ♄ 23'32	19°55'28	min. Earth dist.	3690 Nov 17 11:26	29° ♄ 02'29	0.66838 AU

inferior conj	3690 Nov 18 20:22	27° \mathbb{M} 19'05	0°-39'-31	asc. node	3691 Nov 07 15:30	6° \mathbb{M} 12'57	
minimum elong	3690 Nov 18 21:24	27° \mathbb{M} 15'48	0°39'05	morning rise	3691 Nov 08 22:09	5° \mathbb{M} 25'53	
asc. node	3690 Nov 20 18:28	24° \mathbb{M} 58'21		direct	3691 Nov 11 16:46	4° \mathbb{M} 43'21	
morning rise	3690 Nov 24 15:57	21° \mathbb{M} 25'11		morning max el	3691 Nov 18 05:59	8° \mathbb{M} 16'17	18°19'10
direct	3690 Nov 27 19:34	20° \mathbb{M} 28'14			3691 Dec 03 08:22	0° \mathbb{A}	
morning max el	3690 Dec 04 16:48	24° \mathbb{M} 17'23	18°59'16	morning set	3691 Dec 07 10:32	6° \mathbb{A} 37'18	
	3690 Dec 09 12:09	0° \mathbb{A}		desc. node	3691 Dec 14 20:50	18° \mathbb{A} 34'13	
morning set	3690 Dec 27 00:16	26° \mathbb{A} 24'20			3691 Dec 22 01:58	0° \mathbb{B}	
desc. node	3690 Dec 27 23:49	27° \mathbb{A} 56'19					
	3690 Dec 29 07:28	0° \mathbb{B}		superior conj	3691 Dec 22 18:20	1° \mathbb{B} 04'21	0°-52'-5
max. Earth dist.	3691 Jan 10 17:35	19° \mathbb{B} 27'09	1.45025 AU	minimum elong	3691 Dec 22 11:47	0° \mathbb{B} 38'39	0°51'15
				max. Earth dist.	3691 Dec 24 12:44	3° \mathbb{B} 50'55	1.45228 AU
superior conj	3691 Jan 12 16:12	22° \mathbb{B} 30'43	-1°-34'-22	evening rise	3692 Jan 08 00:34	26° \mathbb{B} 32'30	
minimum elong	3691 Jan 12 07:03	21° \mathbb{B} 54'39	1°33'31		3692 Jan 10 05:32	0° \mathbb{C}	
	3691 Jan 17 09:37	0° \mathbb{C}		greatest brilliancy	3692 Jan 22 06:11	18° \mathbb{C} 34'52	-0.7m
evening rise	3691 Jan 27 18:05	16° \mathbb{C} 40'47			3692 Jan 30 20:22	0° \mathbb{D}	
	3691 Feb 04 22:32	0° \mathbb{D}		evening max el	3692 Jan 31 10:08	0° \mathbb{D} 36'15	19°17'14
asc. node	3691 Feb 16 17:47	16° \mathbb{D} 46'56		asc. node	3692 Feb 03 14:49	3° \mathbb{D} 19'20	
evening max el	3691 Feb 17 01:30	17° \mathbb{D} 06'51	18°36'14	retrograde	3692 Feb 07 11:49	4° \mathbb{D} 38'51	
retrograde	3691 Feb 23 15:33	20° \mathbb{D} 45'04		evening set	3692 Feb 10 21:00	3° \mathbb{D} 31'56	
evening set	3691 Feb 26 17:55	19° \mathbb{D} 50'53			3692 Feb 14 13:43	30° \mathbb{R} \mathbb{C}	
inferior conj	3691 Mar 04 13:15	14° \mathbb{D} 13'33	3°35'34	inferior conj	3692 Feb 16 10:52	27° \mathbb{C} 38'23	3°20'41
minimum elong	3691 Mar 04 12:23	14° \mathbb{D} 16'09	3°35'30	minimum elong	3692 Feb 16 08:56	27° \mathbb{C} 44'36	3°20'23
min. Earth dist.	3691 Mar 06 13:03	11° \mathbb{D} 50'18	0.64902 AU	min. Earth dist.	3692 Feb 17 19:28	25° \mathbb{C} 53'11	0.66275 AU
morning rise	3691 Mar 10 05:34	8° \mathbb{D} 01'37		morning rise	3692 Feb 21 20:02	21° \mathbb{C} 23'17	
direct	3691 Mar 16 22:28	5° \mathbb{D} 12'19		direct	3692 Feb 28 02:49	18° \mathbb{C} 37'20	
desc. node	3691 Mar 25 23:02	9° \mathbb{D} 06'10		desc. node	3692 Mar 11 20:03	26° \mathbb{C} 12'38	
morning max el	3691 Mar 30 08:16	13° \mathbb{D} 02'38	27°11'44	morning max el	3692 Mar 11 18:09	26° \mathbb{C} 07'49	26°09'07
	3691 Apr 12 23:42	0° \mathbb{Y}			3692 Mar 15 07:56	0° \mathbb{H}	
	3691 May 01 05:58	0° \mathbb{B}			3692 Apr 05 13:12	0° \mathbb{Y}	
morning set	3691 May 04 20:01	6° \mathbb{B} 47'53		morning set	3692 Apr 16 20:56	19° \mathbb{Y} 43'50	
max. Earth dist.	3691 May 09 11:24	16° \mathbb{B} 02'43	1.33769 AU	max. Earth dist.	3692 Apr 20 21:02	27° \mathbb{Y} 20'36	1.35241 AU
					3692 Apr 22 05:37	0° \mathbb{B}	
superior conj	3691 May 13 03:14	23° \mathbb{B} 38'47	0°-26'-38				
minimum elong	3691 May 13 04:36	23° \mathbb{B} 46'02	0°26'21	superior conj	3692 Apr 25 23:30	7° \mathbb{B} 30'25	0°-55'-35
asc. node	3691 May 15 17:05	29° \mathbb{B} 06'34		minimum elong	3692 Apr 26 02:27	7° \mathbb{B} 45'26	0°55'03
	3691 May 16 03:08	0° \mathbb{I}		asc. node	3692 May 01 14:08	19° \mathbb{B} 05'10	
evening rise	3691 May 20 11:35	9° \mathbb{I} 13'55		evening rise	3692 May 03 19:26	23° \mathbb{B} 40'43	
	3691 May 31 10:15	0° \mathbb{E}			3692 May 06 22:25	0° \mathbb{I}	
evening max el	3691 Jun 10 01:56	12° \mathbb{E} 37'07	21°53'02	evening max el	3692 May 22 04:41	23° \mathbb{I} 34'09	20°29'18
desc. node	3691 Jun 21 22:17	18° \mathbb{E} 49'37		retrograde	3692 Jun 02 05:36	28° \mathbb{I} 57'20	
retrograde	3691 Jun 22 16:23	18° \mathbb{E} 50'56		evening set	3692 Jun 04 06:15	28° \mathbb{I} 47'11	
evening set	3691 Jun 25 09:09	18° \mathbb{E} 34'37		desc. node	3692 Jun 07 19:19	27° \mathbb{I} 45'17	
min. Earth dist.	3691 Jul 04 05:54	14° \mathbb{E} 47'02	0.54943 AU	inferior conj	3692 Jun 13 10:59	24° \mathbb{I} 49'33	-1°-39'-50
inferior conj	3691 Jul 04 17:00	14° \mathbb{E} 31'30	-3°-31'-43	minimum elong	3692 Jun 13 06:17	24° \mathbb{I} 56'22	1°38'09
minimum elong	3691 Jul 04 08:36	14° \mathbb{E} 43'14	3°29'19	min. Earth dist.	3692 Jun 14 18:03	24° \mathbb{I} 04'29	0.54981 AU
morning rise	3691 Jul 13 09:34	10° \mathbb{E} 40'06		morning rise	3692 Jun 22 04:46	20° \mathbb{I} 40'01	
direct	3691 Jul 16 15:03	10° \mathbb{E} 17'10		direct	3692 Jun 26 00:51	20° \mathbb{I} 08'17	
morning max el	3691 Jul 28 16:14	15° \mathbb{E} 55'47	21°43'08	morning max el	3692 Jul 09 09:59	26° \mathbb{I} 37'13	23°24'00
	3691 Aug 08 11:27	0° \mathbb{Q}			3692 Jul 12 16:13	0° \mathbb{E}	
asc. node	3691 Aug 11 16:18	5° \mathbb{Q} 35'53		asc. node	3692 Jul 28 13:21	24° \mathbb{E} 57'18	
morning set	3691 Aug 18 08:48	18° \mathbb{Q} 48'48			3692 Jul 31 01:27	0° \mathbb{Q}	
	3691 Aug 23 16:10	0° \mathbb{M}		morning set	3692 Aug 01 20:09	3° \mathbb{Q} 42'24	
superior conj	3691 Aug 25 15:54	4° \mathbb{M} 10'57	1°42'35	superior conj	3692 Aug 08 21:55	18° \mathbb{Q} 53'54	1°34'35
minimum elong	3691 Aug 25 14:56	4° \mathbb{M} 05'50	1°42'33	minimum elong	3692 Aug 08 20:01	18° \mathbb{Q} 43'42	1°34'24
max. Earth dist.	3691 Aug 29 12:28	12° \mathbb{M} 07'28	1.34857 AU	max. Earth dist.	3692 Aug 11 10:08	24° \mathbb{Q} 14'54	1.33539 AU
evening rise	3691 Sep 02 22:57	20° \mathbb{M} 51'57			3692 Aug 14 04:22	0° \mathbb{M}	
	3691 Sep 07 21:11	0° \mathbb{A}		evening rise	3692 Aug 16 13:00	4° \mathbb{M} 46'27	
desc. node	3691 Sep 17 21:36	16° \mathbb{A} 43'14			3692 Aug 30 13:59	0° \mathbb{A}	
	3691 Sep 27 02:59	0° \mathbb{M}		desc. node	3692 Sep 03 18:38	6° \mathbb{A} 28'15	
evening max el	3691 Oct 08 02:47	12° \mathbb{M} 44'26	26°49'24	evening max el	3692 Sep 19 14:39	26° \mathbb{A} 06'56	27°21'10
retrograde	3691 Oct 21 04:58	20° \mathbb{M} 00'13			3692 Sep 24 06:11	0° \mathbb{M}	
retrograde set	3691 Oct 27 20:30	17° \mathbb{M} 20'31		retrograde	3692 Oct 03 03:06	3° \mathbb{M} 25'22	
min. Earth dist.	3691 Oct 31 21:04	13° \mathbb{M} 18'21	0.65778 AU	evening set	3692 Oct 10 04:07	0° \mathbb{M} 45'07	
inferior conj	3691 Nov 02 17:47	11° \mathbb{M} 07'50	-1°-39'-25		3692 Oct 11 02:35	30° \mathbb{R} \mathbb{A}	
minimum elong	3691 Nov 02 20:33	10° \mathbb{M} 59'47	1°38'18	min. Earth dist.	3692 Oct 13 22:30	27° \mathbb{A} 18'06	0.64361 AU

inferior conj	3692 Oct 16 07:30	24°♄46'26	-2°-40'-25	retrograde	3693 Sep 15 18:47	16°♄18'06	
minimum elong	3692 Oct 16 11:58	24°♄34'31	2°38'48	evening set	3693 Sep 22 23:18	13°♄48'34	
morning rise	3692 Oct 22 22:02	19°♄19'28		min. Earth dist.	3693 Sep 26 14:04	10°♄51'28	0.62618 AU
asc. node	3692 Oct 24 12:33	18°♄51'39		inferior conj	3693 Sep 29 10:41	8°♄08'10	-3°-39'-9
direct	3692 Oct 25 10:05	18°♄47'30		minimum elong	3693 Sep 29 16:22	7°♄54'35	3°37'28
morning max el	3692 Oct 31 22:12	22°♄13'28	17°56'04	morning rise	3693 Oct 06 12:13	2°♄59'24	
	3692 Nov 06 23:28	0°♄		direct	3693 Oct 08 20:32	2°♄34'23	
morning set	3692 Nov 18 01:26	18°♄14'16		asc. node	3693 Oct 11 09:37	3°♄04'39	
	3692 Nov 25 01:30	0°♄		morning max el	3693 Oct 15 14:27	6°♄01'35	17°50'46
desc. node	3692 Nov 30 17:53	9°♄18'34			3693 Oct 31 02:21	0°♄	
				morning set	3693 Oct 31 15:10	0°♄57'02	
superior conj	3692 Dec 01 08:56	10°♄19'22	0°-4'-19	superior conj	3693 Nov 12 00:41	20°♄48'51	0°38'15
minimum elong	3692 Dec 01 08:26	10°♄17'20	0°04'15	minimum elong	3693 Nov 12 04:07	21°♄03'21	0°37'46
behind sun begin	3692 Nov 30 22:29	9°♄37'12		desc. node	3693 Nov 17 14:55	0°♄05'45	
behind sun end	3692 Dec 01 18:22	10°♄57'25			3693 Nov 17 13:31	0°♄	
max. Earth dist.	3692 Dec 06 07:16	18°♄12'19	1.44693 AU	max. Earth dist.	3693 Nov 18 22:55	2°♄15'42	1.43497 AU
	3692 Dec 13 20:01	0°♄		evening rise	3693 Nov 26 23:57	14°♄59'50	
evening rise	3692 Dec 17 13:52	5°♄46'52			3693 Dec 06 21:06	0°♄	
	3693 Jan 02 15:51	0°♄		greatest brilliancy	3693 Dec 22 12:16	21°♄54'26	-0.4m
greatest brilliancy	3693 Jan 07 03:53	6°♄19'21	-0.6m	evening max el	3693 Dec 27 12:25	27°♄40'14	21°22'37
evening max el	3693 Jan 13 14:00	14°♄07'36	20°13'41		3693 Dec 30 00:33	0°♄	
asc. node	3693 Jan 20 11:50	18°♄38'23		retrograde	3694 Jan 05 07:29	2°♄53'24	
retrograde	3693 Jan 21 09:51	18°♄42'59		asc. node	3694 Jan 07 08:53	2°♄30'18	
evening set	3693 Jan 25 03:22	17°♄22'09		evening set	3694 Jan 09 11:04	1°♄17'20	
inferior conj	3693 Jan 30 14:05	11°♄15'06	2°54'34		3694 Jan 10 21:11	30°♄	
minimum elong	3693 Jan 30 11:38	11°♄23'22	2°53'59	inferior conj	3694 Jan 14 20:34	24°♄59'56	2°19'24
min. Earth dist.	3693 Jan 31 08:53	10°♄11'30	0.67236 AU	minimum elong	3694 Jan 14 18:06	25°♄08'25	2°18'39
morning rise	3693 Feb 04 19:21	4°♄59'15		min. Earth dist.	3694 Jan 15 02:58	24°♄37'46	0.67800 AU
direct	3693 Feb 10 12:49	2°♄26'48		morning rise	3694 Jan 20 00:48	18°♄45'15	
morning max el	3693 Feb 22 02:51	9°♄22'24	24°48'20	direct	3694 Jan 25 03:31	16°♄32'54	
desc. node	3693 Feb 26 17:05	14°♄26'53		morning max el	3694 Feb 04 11:39	22°♄41'44	23°19'41
	3693 Mar 10 09:43	0°♄		greatest brilliancy	3694 Feb 09 20:21	28°♄43'52	-0.2m
	3693 Mar 29 04:19	0°♄			3694 Feb 10 20:59	0°♄	
morning set	3693 Mar 30 03:53	1°♄43'47		desc. node	3694 Feb 13 14:07	3°♄29'10	
max. Earth dist.	3693 Apr 02 20:04	8°♄21'29	1.37128 AU		3694 Mar 03 18:20	0°♄	
				morning set	3694 Mar 11 10:34	12°♄30'18	
superior conj	3693 Apr 09 09:34	20°♄48'06	-1°-23'-22	max. Earth dist.	3694 Mar 15 14:52	19°♄39'24	1.39277 AU
minimum elong	3693 Apr 09 13:50	21°♄08'55	1°22'46		3694 Mar 21 09:49	0°♄	
	3693 Apr 14 00:59	0°♄		superior conj	3694 Mar 23 05:27	3°♄21'12	-1°-47'-16
evening rise	3693 Apr 17 21:58	7°♄46'31		minimum elong	3694 Mar 23 10:05	3°♄42'42	1°46'50
asc. node	3693 Apr 18 11:11	8°♄52'31		evening rise	3694 Apr 01 16:15	21°♄23'08	
	3693 Apr 30 10:15	0°♄		asc. node	3694 Apr 05 08:13	28°♄23'05	
evening max el	3693 May 04 19:44	5°♄12'29	19°23'47		3694 Apr 06 05:00	0°♄	
retrograde	3693 May 14 03:09	9°♄43'50		evening max el	3694 Apr 17 21:04	17°♄28'58	18°38'24
evening set	3693 May 16 02:58	9°♄32'19		retrograde	3694 Apr 25 18:21	21°♄21'09	
inferior conj	3693 May 24 16:15	5°♄25'29	0°17'34	evening set	3694 Apr 27 23:39	21°♄03'49	
minimum elong	3693 May 24 17:00	5°♄24'16	0°17'18	inferior conj	3694 May 05 17:27	16°♄38'22	1°52'16
desc. node	3693 May 25 16:19	4°♄46'07		minimum elong	3694 May 05 20:59	16°♄31'38	1°51'12
min. Earth dist.	3693 May 27 08:33	3°♄41'09	0.55969 AU	min. Earth dist.	3694 May 09 02:06	14°♄06'10	0.57686 AU
morning rise	3693 Jun 02 03:04	0°♄43'06		desc. node	3694 May 12 13:20	11°♄52'50	
	3693 Jun 04 23:36	30°♄		morning rise	3694 May 13 13:52	11°♄21'53	
direct	3693 Jun 06 21:07	29°♄51'40		direct	3694 May 19 07:28	9°♄59'50	
	3693 Jun 08 18:36	0°♄		morning max el	3694 Jun 02 16:16	17°♄35'07	26°32'20
morning max el	3693 Jun 21 00:01	7°♄01'06	25°05'34		3694 Jun 12 23:09	0°♄	
	3693 Jul 07 18:54	0°♄		morning set	3694 Jun 30 03:01	0°♄	
asc. node	3693 Jul 15 10:26	14°♄38'49		asc. node	3694 Jul 01 18:32	3°♄25'49	
morning set	3693 Jul 17 07:56	18°♄36'24			3694 Jul 02 07:30	4°♄34'22	
	3693 Jul 22 14:19	0°♄		superior conj	3694 Jul 08 19:19	18°♄42'43	1°03'34
superior conj	3693 Jul 24 07:43	3°♄46'40	1°21'19	minimum elong	3694 Jul 08 17:03	18°♄30'17	1°03'10
minimum elong	3693 Jul 24 05:24	3°♄33'59	1°21'00	max. Earth dist.	3694 Jul 09 02:17	19°♄21'11	1.32151 AU
max. Earth dist.	3693 Jul 25 15:41	6°♄41'02	1.32641 AU		3694 Jul 13 23:26	0°♄	
evening rise	3693 Jul 31 12:19	19°♄07'21		evening rise	3694 Jul 15 18:01	3°♄45'46	
	3693 Aug 06 00:38	0°♄			3694 Jul 29 19:32	0°♄	
desc. node	3693 Aug 21 15:39	25°♄37'37		desc. node	3694 Aug 08 12:40	13°♄56'52	
	3693 Aug 24 22:22	0°♄					
evening max el	3693 Sep 02 00:13	9°♄02'27	27°23'49				

evening max el	3694 Aug 15 04:50	21° \cap 18'25	26°53'26		3695 Jul 25 09:24	0° \cap	
retrograde	3694 Aug 29 02:43	28° \cap 29'41		desc. node	3695 Jul 26 09:41	1° \cap 04'47	
evening set	3694 Sep 05 01:47	26° \cap 23'33		evening max el	3695 Jul 28 02:01	2° \cap 45'20	25°50'49
min. Earth dist.	3694 Sep 08 19:00	23° \cap 45'27	0.60633 AU	retrograde	3695 Aug 11 01:23	9° \cap 53'02	
inferior conj	3694 Sep 12 00:00	21° \cap 04'38	-4°-29'-51	evening set	3695 Aug 17 06:34	8° \cap 21'10	
minimum elong	3694 Sep 12 05:33	20° \cap 53'00	4°28'45	min. Earth dist.	3695 Aug 21 14:16	5° \cap 45'13	0.58569 AU
morning rise	3694 Sep 19 12:30	16° \cap 17'18		inferior conj	3695 Aug 24 19:48	3° \cap 24'47	-5°-3'-4
direct	3694 Sep 21 20:18	15° \cap 56'15		minimum elong	3695 Aug 24 22:39	3° \cap 19'34	5°02'52
asc. node	3694 Sep 28 06:40	18° \cap 44'52			3695 Aug 30 03:58	30° \cap 00'	
morning max el	3694 Sep 29 03:34	19° \cap 32'50	18°04'26	morning rise	3695 Sep 01 18:15	29° \cap 01'05	
	3694 Oct 06 20:20	0° \cap		direct	3695 Sep 04 04:51	28° \cap 41'45	
morning set	3694 Oct 14 21:30	14° \cap 27'31			3695 Sep 08 22:51	0° \cap	
	3694 Oct 23 07:57	0° \cap		morning max el	3695 Sep 12 10:13	2° \cap 37'24	18°38'24
				asc. node	3695 Sep 15 03:43	5° \cap 37'06	
superior conj	3694 Oct 24 18:40	2° \cap 35'22	1°10'18	morning set	3695 Sep 28 15:22	28° \cap 30'27	
minimum elong	3694 Oct 24 22:51	2° \cap 53'58	1°09'48		3695 Sep 29 09:48	0° \cap	
max. Earth dist.	3694 Nov 01 10:08	15° \cap 47'25	1.41780 AU				
desc. node	3694 Nov 04 11:58	20° \cap 52'46		superior conj	3695 Oct 07 10:05	15° \cap 24'30	1°31'10
evening rise	3694 Nov 06 22:54	24° \cap 51'18		minimum elong	3695 Oct 07 13:09	15° \cap 38'53	1°30'54
	3694 Nov 10 04:47	0° \cap		max. Earth dist.	3695 Oct 14 16:20	28° \cap 35'30	1.39753 AU
	3694 Nov 30 19:17	0° \cap			3695 Oct 15 11:41	0° \cap	
greatest brilliancy	3694 Dec 05 07:22	5° \cap 43'34	-0.3m	evening rise	3695 Oct 18 19:45	5° \cap 42'26	
evening max el	3694 Dec 10 05:49	11° \cap 15'22	22°39'43	desc. node	3695 Oct 22 09:00	11° \cap 35'14	
retrograde	3694 Dec 20 03:04	17° \cap 07'35			3695 Nov 03 07:44	0° \cap	
evening set	3694 Dec 24 18:31	15° \cap 15'12		evening max el	3695 Nov 22 19:36	24° \cap 53'10	23°59'38
asc. node	3694 Dec 25 05:54	14° \cap 50'42			3695 Nov 29 05:22	0° \cap	
inferior conj	3694 Dec 30 04:20	8° \cap 50'55	1°36'48	retrograde	3695 Dec 03 19:25	1° \cap 21'08	
minimum elong	3694 Dec 30 02:20	8° \cap 57'49	1°36'03		3695 Dec 07 22:53	30° \cap 00'	
min. Earth dist.	3694 Dec 29 23:23	9° \cap 08'04	0.67990 AU	evening set	3695 Dec 09 00:06	29° \cap 12'18	
morning rise	3695 Jan 04 10:05	2° \cap 39'17		asc. node	3695 Dec 12 02:55	25° \cap 52'43	
direct	3695 Jan 08 21:57	0° \cap 49'51		inferior conj	3695 Dec 14 11:34	22° \cap 45'08	0°47'51
morning max el	3695 Jan 18 00:09	6° \cap 09'14	21°52'41	minimum elong	3695 Dec 14 10:27	22° \cap 48'54	0°47'23
greatest brilliancy	3695 Jan 22 17:23	11° \cap 27'39	-0.4m	min. Earth dist.	3695 Dec 13 19:48	23° \cap 38'34	0.67814 AU
desc. node	3695 Jan 31 11:10	23° \cap 06'21		morning rise	3695 Dec 19 21:05	16° \cap 38'32	
	3695 Feb 05 05:58	0° \cap		direct	3695 Dec 23 19:02	15° \cap 11'43	
morning set	3695 Feb 19 12:28	21° \cap 54'06		morning max el	3695 Dec 31 19:31	19° \cap 47'57	20°34'33
	3695 Feb 24 11:50	0° \cap		greatest brilliancy	3696 Jan 06 20:23	26° \cap 52'46	-0.5m
max. Earth dist.	3695 Feb 25 13:32	1° \cap 46'42	1.41421 AU		3696 Jan 09 04:29	0° \cap	
				desc. node	3696 Jan 18 08:14	13° \cap 08'34	
superior conj	3695 Mar 05 06:20	14° \cap 58'16	-2°-3'-21		3696 Jan 29 10:30	0° \cap	
minimum elong	3695 Mar 05 09:16	15° \cap 11'14	2°03'14	morning set	3696 Jan 29 14:11	0° \cap 14'15	
	3695 Mar 13 14:00	0° \cap		max. Earth dist.	3696 Feb 07 19:38	14° \cap 49'57	1.43261 AU
evening rise	3695 Mar 15 22:52	4° \cap 22'38					
asc. node	3695 Mar 23 05:14	17° \cap 31'01		superior conj	3696 Feb 14 07:16	25° \cap 28'43	-2°-6'-31
	3695 Mar 31 23:18	0° \cap		minimum elong	3696 Feb 14 05:37	25° \cap 21'48	2°06'30
evening max el	3695 Apr 01 05:20	0° \cap 15'00	18°13'03		3696 Feb 16 23:46	0° \cap	
retrograde	3695 Apr 08 04:23	3° \cap 44'47		evening rise	3696 Feb 26 13:43	16° \cap 36'36	
evening set	3695 Apr 10 15:50	3° \cap 18'56			3696 Mar 05 06:19	0° \cap	
	3695 Apr 15 23:20	30° \cap 00'		asc. node	3696 Mar 09 02:14	6° \cap 09'21	
inferior conj	3695 Apr 17 15:52	28° \cap 32'07	2°54'40	evening max el	3696 Mar 14 17:16	13° \cap 22'17	18°07'16
minimum elong	3695 Apr 17 19:13	28° \cap 24'40	2°53'58	retrograde	3696 Mar 21 05:28	16° \cap 45'08	
min. Earth dist.	3695 Apr 21 01:01	25° \cap 33'11	0.59794 AU	evening set	3696 Mar 23 22:34	16° \cap 09'13	
morning rise	3695 Apr 24 18:54	22° \cap 49'06		inferior conj	3696 Mar 30 08:35	11° \cap 01'42	3°27'41
desc. node	3695 Apr 29 10:22	21° \cap 01'19		minimum elong	3696 Mar 30 10:20	10° \cap 57'14	3°27'29
direct	3695 May 01 06:18	20° \cap 52'01		min. Earth dist.	3696 Apr 02 08:02	8° \cap 00'41	0.61957 AU
morning max el	3695 May 15 14:28	28° \cap 42'26	27°30'17	morning rise	3696 Apr 05 19:27	5° \cap 01'52	
	3695 May 16 21:01	0° \cap		direct	3696 Apr 12 15:43	2° \cap 34'31	
	3695 Jun 06 18:19	0° \cap		desc. node	3696 Apr 15 07:23	2° \cap 54'52	
morning set	3695 Jun 16 02:12	18° \cap 04'27		morning max el	3696 Apr 26 19:00	10° \cap 32'41	27°51'35
asc. node	3695 Jun 19 04:32	24° \cap 38'16			3696 May 11 23:41	0° \cap	
	3695 Jun 21 15:42	0° \cap			3696 May 29 00:04	0° \cap	
max. Earth dist.	3695 Jun 22 14:07	2° \cap 03'04	1.32060 AU	morning set	3696 May 30 05:00	2° \cap 26'11	
				max. Earth dist.	3696 Jun 04 23:13	14° \cap 33'41	1.32375 AU
superior conj	3695 Jun 23 06:54	3° \cap 35'30	0°41'57	asc. node	3696 Jun 05 01:33	14° \cap 46'18	
minimum elong	3695 Jun 23 05:10	3° \cap 25'56	0°41'36				
evening rise	3695 Jun 30 03:38	18° \cap 33'14		superior conj	3696 Jun 06 16:49	18° \cap 19'34	0°17'07
	3695 Jul 05 18:38	0° \cap		minimum elong	3696 Jun 06 16:02	18° \cap 15'15	0°16'58

	3696 Jun 12 01:17	0°☿		max. Earth dist.	3697 May 19 01:26	26°☿39'06	1.33126 AU
evening rise	3696 Jun 13 15:12	3°☿23'11			3697 May 20 15:34	0°☿	
	3696 Jun 27 22:50	0°☿					
evening max el	3696 Jul 08 16:31	13°☿29'04	24°23'58	superior conj	3697 May 21 23:11	2°☿48'21	0°-10'-11
desc. node	3696 Jul 12 06:40	16°☿33'01		minimum elong	3697 May 21 23:42	2°☿51'05	0°10'05
retrograde	3696 Jul 22 13:15	20°☿29'03		behind sun begin	3697 May 21 19:30	2°☿28'39	
evening set	3696 Jul 27 11:10	19°☿35'05		behind sun end	3697 May 22 03:53	3°☿13'32	
min. Earth dist.	3696 Aug 02 03:23	16°☿42'20	0.56693 AU	asc. node	3697 May 22 22:34	4°☿53'41	
inferior conj	3696 Aug 04 19:32	15°☿00'50	-5°-4'-47	evening rise	3697 May 29 02:49	18°☿08'40	
minimum elong	3696 Aug 04 16:55	15°☿04'59	5°04'38		3697 Jun 03 23:19	0°☿	
morning rise	3696 Aug 13 02:17	10°☿58'32		evening max el	3697 Jun 20 06:01	23°☿53'28	22°47'10
direct	3696 Aug 15 18:15	10°☿39'24		desc. node	3697 Jun 29 03:40	29°☿46'13	
morning max el	3696 Aug 25 07:23	15°☿06'19	19°33'52		3697 Jun 29 21:43	0°☿	
asc. node	3696 Sep 01 00:47	23°☿26'40		retrograde	3697 Jul 03 12:33	0°☿29'58	
	3696 Sep 04 23:30	0°☿		evening set	3697 Jul 06 21:59	0°☿04'43	
morning set	3696 Sep 11 17:13	12°☿56'18			3697 Jul 07 05:26	30°☿	
				min. Earth dist.	3697 Jul 14 14:24	26°☿40'48	0.55347 AU
superior conj	3696 Sep 19 17:31	29°☿01'05	1°41'59	inferior conj	3697 Jul 16 00:19	25°☿52'07	-4°-20'-13
minimum elong	3696 Sep 19 18:53	29°☿07'47	1°41'57	minimum elong	3697 Jul 15 16:35	26°☿03'15	4°18'35
	3696 Sep 20 05:31	0°☿		morning rise	3697 Jul 24 13:48	22°☿01'09	
max. Earth dist.	3696 Sep 25 20:31	10°☿44'06	1.37678 AU	direct	3697 Jul 27 13:19	21°☿40'29	
evening rise	3696 Sep 29 15:43	17°☿37'34		morning max el	3697 Aug 07 16:53	26°☿51'13	20°50'39
	3696 Oct 06 22:08	0°☿			3697 Aug 10 17:02	0°☿	
desc. node	3696 Oct 08 06:00	2°☿09'11		asc. node	3697 Aug 18 21:50	12°☿00'02	
	3696 Oct 27 16:24	0°☿		morning set	3697 Aug 27 00:22	27°☿37'36	
evening max el	3696 Nov 04 07:52	8°☿34'00	25°15'40		3697 Aug 28 03:55	0°☿	
retrograde	3696 Nov 16 07:33	15°☿29'23					
evening set	3696 Nov 22 02:11	13°☿05'31		superior conj	3697 Sep 03 12:23	13°☿11'29	1°44'25
min. Earth dist.	3696 Nov 26 13:57	8°☿06'21	0.67292 AU	minimum elong	3697 Sep 03 12:09	13°☿10'17	1°44'25
inferior conj	3696 Nov 27 16:31	6°☿40'00	0°-6'-22	max. Earth dist.	3697 Sep 08 04:39	22°☿35'25	1.35789 AU
minimum elong	3696 Nov 27 16:41	6°☿39'29	0°06'19	evening rise	3697 Sep 12 07:30	0°☿28'38	
transit middle	3696 Nov 27 16:41	6°☿39'29	0°06'19		3697 Sep 12 01:23	0°☿	
transit begin	3696 Nov 27 14:07	6°☿47'49		desc. node	3697 Sep 25 03:01	22°☿29'49	
transit end	3696 Nov 27 19:14	6°☿31'09			3697 Sep 30 01:08	0°☿	
asc. node	3696 Nov 27 23:57	6°☿15'51		evening max el	3697 Oct 17 20:17	22°☿15'31	26°20'26
morning rise	3696 Dec 03 07:53	0°☿40'41		retrograde	3697 Oct 30 14:42	29°☿27'00	
	3696 Dec 04 14:23	30°☿		evening set	3697 Nov 05 22:56	26°☿51'43	
direct	3696 Dec 06 17:31	29°☿33'56		min. Earth dist.	3697 Nov 10 03:31	22°☿28'19	0.66426 AU
	3696 Dec 08 22:27	0°☿		inferior conj	3697 Nov 11 17:20	20°☿32'48	-1°-4'-38
morning max el	3696 Dec 13 22:48	3°☿37'27	19°29'35	minimum elong	3697 Nov 11 19:05	20°☿27'27	1°03'54
greatest brilliancy	3696 Dec 22 13:01	14°☿26'41	-0.7m	asc. node	3697 Nov 14 21:01	16°☿57'04	
	3697 Jan 01 22:56	0°☿		morning rise	3697 Nov 17 16:26	14°☿43'25	
desc. node	3697 Jan 04 05:15	3°☿28'34		direct	3697 Nov 20 15:52	13°☿53'09	
morning set	3697 Jan 07 11:44	8°☿31'18		morning max el	3697 Nov 27 08:57	17°☿34'34	18°40'06
max. Earth dist.	3697 Jan 20 08:27	28°☿36'55	1.44570 AU		3697 Dec 06 18:52	0°☿	
	3697 Jan 21 05:25	0°☿		morning set	3697 Dec 18 05:19	17°☿53'57	
				desc. node	3697 Dec 22 02:16	24°☿01'25	
					3697 Dec 25 21:17	0°☿	
superior conj	3697 Jan 24 06:23	4°☿50'38	-1°-51'-45				
minimum elong	3697 Jan 23 22:55	4°☿20'46	1°51'16				
evening rise	3697 Feb 07 08:23	27°☿56'12		superior conj	3698 Jan 03 11:09	13°☿28'11	-1°-17'-54
	3697 Feb 08 13:55	0°☿		minimum elong	3698 Jan 03 02:17	12°☿53'25	1°16'56
asc. node	3697 Feb 23 23:15	24°☿08'26		max. Earth dist.	3698 Jan 03 01:58	12°☿52'09	1.45204 AU
evening max el	3697 Feb 26 05:53	26°☿42'43	18°20'28		3698 Jan 13 22:46	0°☿	
	3697 Mar 03 05:16	0°☿		evening rise	3698 Jan 19 03:54	8°☿18'31	
retrograde	3697 Mar 04 16:54	0°☿11'56			3698 Feb 01 21:37	0°☿	
	3697 Mar 06 04:23	30°☿		evening max el	3698 Feb 09 16:42	10°☿10'49	18°51'41
evening set	3697 Mar 07 15:40	29°☿24'50		asc. node	3698 Feb 10 20:18	11°☿16'52	
inferior conj	3697 Mar 13 15:27	23°☿58'05	3°37'47	retrograde	3698 Feb 16 10:49	13°☿58'01	
minimum elong	3697 Mar 13 15:26	23°☿58'07	3°37'46	evening set	3698 Feb 19 15:55	12°☿58'37	
min. Earth dist.	3697 Mar 16 00:23	21°☿16'25	0.63925 AU	inferior conj	3698 Feb 25 08:39	7°☿14'23	3°30'45
morning rise	3697 Mar 19 13:26	17°☿49'04		minimum elong	3698 Feb 25 07:16	7°☿18'41	3°30'37
direct	3697 Mar 26 09:46	15°☿03'22		min. Earth dist.	3698 Feb 27 01:57	5°☿06'19	0.65544 AU
desc. node	3697 Apr 02 04:25	17°☿16'38		morning rise	3698 Mar 02 21:30	1°☿00'51	
morning max el	3697 Apr 09 03:33	23°☿00'23	27°35'42		3698 Mar 04 04:21	30°☿	
	3697 Apr 15 08:29	0°☿		direct	3698 Mar 09 10:48	28°☿11'11	
	3697 May 05 06:01	0°☿			3698 Mar 15 07:04	0°☿	
morning set	3697 May 14 00:25	16°☿22'22		desc. node	3698 Mar 20 01:28	3°☿32'32	

morning max el	3698 Mar 22 13:21	5° X 54'49	26°47'47	desc. node	3699 Mar 06 22:29	21° \approx 10'36	
	3698 Apr 10 01:14	0° Y			3699 Mar 14 05:15	0° X	
morning set	3698 Apr 27 09:15	29° Y 43'40			3699 Apr 03 03:01	0° Y	
	3698 Apr 27 12:40	0° X		morning set	3699 Apr 10 03:11	12° Y 17'33	
max. Earth dist.	3698 May 01 17:27	8° X 12'55	1.34342 AU	max. Earth dist.	3699 Apr 13 22:15	19° Y 21'03	1.36006 AU
					3699 Apr 19 09:21	0° X	
superior conj	3698 May 05 23:53	16° X 55'53	0°-38'-55	superior conj	3699 Apr 19 16:16	0° X 34'34	-1°-7'-39
minimum elong	3698 May 06 01:56	17° X 06'32	0°38'32	minimum elong	3699 Apr 19 19:50	0° X 52'27	1°07'04
asc. node	3698 May 09 19:37	24° X 56'46		asc. node	3699 Apr 26 16:40	14° X 51'30	
	3698 May 12 05:13	0° II		evening rise	3699 Apr 27 18:32	17° X 03'19	
evening rise	3698 May 13 12:38	2° II 44'11			3699 May 04 10:04	0° II	
	3698 May 29 02:05	0° X		evening max el	3699 May 15 10:31	15° II 46'17	19°58'58
evening max el	3698 Jun 02 02:27	4° X 31'46	21°15'27	retrograde	3699 May 25 17:07	20° II 46'21	
retrograde	3698 Jun 14 02:00	10° X 24'32		evening set	3699 May 27 16:20	20° II 36'09	
evening set	3698 Jun 16 09:41	10° X 12'07		desc. node	3699 Jun 02 21:42	18° II 12'08	
desc. node	3698 Jun 16 00:41	10° X 15'46		inferior conj	3699 Jun 05 15:28	16° II 36'01	0°-48'-37
inferior conj	3698 Jun 25 18:15	6° X 13'47	-2°-47'-11	minimum elong	3699 Jun 05 13:13	16° II 39'26	0°47'47
minimum elong	3698 Jun 25 10:49	6° X 24'12	2°44'47	min. Earth dist.	3699 Jun 07 14:22	15° II 25'19	0.55296 AU
min. Earth dist.	3698 Jun 26 01:39	6° X 03'24	0.54840 AU	morning rise	3699 Jun 14 07:26	12° II 14'05	
morning rise	3698 Jul 04 12:05	2° X 16'54		direct	3699 Jun 18 12:23	11° II 35'26	
direct	3698 Jul 07 23:08	1° X 51'00		morning max el	3699 Jul 02 06:27	18° II 22'30	24°08'09
morning max el	3698 Jul 20 15:10	7° X 51'53	22°25'05		3699 Jul 11 20:58	0° X	
	3698 Aug 05 04:45	0° II		asc. node	3699 Jul 23 15:56	20° X 37'44	
asc. node	3698 Aug 05 18:52	1° II 06'31		morning set	3699 Jul 26 22:28	27° X 23'12	
morning set	3698 Aug 11 10:42	12° II 28'12			3699 Jul 28 03:58	0° II	
superior conj	3698 Aug 18 15:06	27° II 44'49	1°39'53	superior conj	3699 Aug 02 22:59	12° II 33'02	1°29'33
minimum elong	3698 Aug 18 13:40	27° II 37'15	1°39'48	minimum elong	3699 Aug 02 20:51	12° II 21'27	1°29'18
	3698 Aug 19 16:43	0° III		max. Earth dist.	3699 Aug 04 22:52	16° II 51'10	1.33105 AU
max. Earth dist.	3698 Aug 21 21:15	4° III 33'46	1.34244 AU	evening rise	3699 Aug 10 09:02	28° II 10'34	
evening rise	3698 Aug 26 14:37	14° III 03'15			3699 Aug 11 06:49	0° III	
	3698 Sep 04 07:05	0° X		desc. node	3699 Aug 28 11:52	0° X	
desc. node	3698 Sep 12 00:02	12° X 30'17		evening max el	3699 Aug 29 21:04	2° X 02'01	
	3698 Sep 24 21:58	0° III		retrograde	3699 Sep 12 20:14	19° X 02'22	27°26'12
evening max el	3698 Sep 30 08:56	5° III 49'05	27°06'17	evening set	3699 Sep 26 11:18	26° X 19'13	
retrograde	3698 Oct 13 16:07	13° III 06'20		min. Earth dist.	3699 Oct 03 14:53	23° X 42'05	
evening set	3698 Oct 20 12:07	10° III 25'37		inferior conj	3699 Oct 07 07:19	20° X 28'51	0.63659 AU
min. Earth dist.	3698 Oct 24 10:01	6° III 38'31	0.65214 AU	minimum elong	3699 Oct 09 21:26	17° X 51'02	-3°-5'-51
inferior conj	3698 Oct 26 11:49	4° III 18'24	-2°-5'-20	morning rise	3699 Oct 10 02:31	17° X 38'04	3°04'08
minimum elong	3698 Oct 26 15:19	4° III 08'32	2°03'57	direct	3699 Oct 16 16:34	12° X 31'23	
	3698 Oct 30 19:08	30° R X		asc. node	3699 Oct 19 02:48	12° X 02'38	
morning rise	3698 Nov 01 20:20	28° X 42'07		morning max el	3699 Oct 19 15:08	12° X 03'57	
asc. node	3698 Nov 01 18:05	28° X 44'47			3699 Oct 25 16:19	15° X 27'47	17°51'38
direct	3698 Nov 04 11:53	28° X 04'26		morning set	3699 Nov 04 21:35	0° III	
	3698 Nov 09 05:50	0° III			3699 Nov 11 05:47	10° III 53'01	
morning max el	3698 Nov 10 23:44	1° III 33'24	18°07'12		3699 Nov 22 12:05	0° X	
morning set	3698 Nov 29 04:21	28° III 45'08		superior conj	3699 Nov 23 16:45	1° X 58'02	0°14'50
	3698 Nov 29 22:31	0° X		minimum elong	3699 Nov 23 18:20	2° X 04'32	0°14'36
desc. node	3698 Dec 08 23:18	14° X 42'36		behind sun begin	3699 Nov 23 14:09	1° X 47'24	
superior conj	3698 Dec 13 16:13	22° X 13'07	0°-31'-46	behind sun end	3699 Nov 23 22:30	2° X 21'39	
minimum elong	3698 Dec 13 12:13	21° X 57'16	0°31'13	desc. node	3699 Nov 25 20:22	5° X 28'51	
max. Earth dist.	3698 Dec 16 21:32	27° X 18'29	1.45097 AU	max. Earth dist.	3699 Nov 29 15:44	11° X 36'37	1.44266 AU
	3698 Dec 18 14:39	0° X		evening rise	3699 Dec 09 11:52	27° X 00'55	
evening rise	3698 Dec 30 01:52	17° X 51'29			3699 Dec 11 10:33	0° X	
	3699 Jan 06 22:38	0° \approx		greatest brilliancy	3699 Dec 31 23:37	0° \approx	
greatest brilliancy	3699 Jan 16 06:00	13° \approx 54'54	-0.6m	evening max el	3700 Jan 01 08:14	0° \approx 28'17	-0.5m
evening max el	3699 Jan 23 23:34	23° \approx 41'50	19°39'30	retrograde	3700 Jan 07 01:08	7° \approx 13'52	20°41'36
asc. node	3699 Jan 28 17:21	27° \approx 20'15		asc. node	3700 Jan 15 06:12	12° \approx 04'44	
retrograde	3699 Jan 31 08:02	27° \approx 56'59		evening set	3700 Jan 15 14:24	12° \approx 04'05	
evening set	3699 Feb 03 20:41	26° \approx 44'10		inferior conj	3700 Jan 19 03:51	10° \approx 37'21	
inferior conj	3699 Feb 09 08:58	20° \approx 44'38	3°10'46	minimum elong	3700 Jan 24 13:49	4° \approx 25'17	2°40'38
minimum elong	3699 Feb 09 06:45	20° \approx 51'55	3°10'21	min. Earth dist.	3700 Jan 24 11:19	4° \approx 33'52	2°39'57
min. Earth dist.	3699 Feb 10 11:29	19° \approx 17'07	0.66745 AU		3700 Jan 25 03:06	3° \approx 39'50	0.67530 AU
morning rise	3699 Feb 14 16:08	14° \approx 29'14		morning rise	3700 Jan 27 23:30	30° R X	
direct	3699 Feb 20 17:37	11° \approx 48'02			3700 Jan 29 18:21	28° X 09'51	
morning max el	3699 Mar 04 22:36	19° \approx 04'30	25°36'15				

direct	3700 Feb 04 05:33	25°☿45'42		minimum elong	3701 Jan 08 18:46	18°☿21'39	2°01'25
	3700 Feb 12 18:57	0°☿		min. Earth dist.	3701 Jan 08 22:31	18°☿08'41	0.67920 AU
morning max el	3700 Feb 15 07:13	2°☿21'59	24°10'57	morning rise	3701 Jan 14 01:40	11°☿59'53	
desc. node	3700 Feb 21 19:32	9°☿47'25		direct	3701 Jan 18 21:53	9°☿57'20	
	3700 Mar 08 07:41	0°☿		morning max el	3701 Jan 28 17:18	15°☿45'28	22°42'01
morning set	3700 Mar 23 00:35	23°☿48'18		greatest brilliancy	3701 Feb 02 07:56	20°☿53'55	-0.3m
	3700 Mar 26 13:00	0°☿		desc. node	3701 Feb 08 16:36	29°☿06'28	
max. Earth dist.	3700 Mar 26 18:58	0°☿26'48	1.38029 AU		3701 Feb 09 08:17	0°☿	
					3701 Mar 01 08:14	0°☿	
superior conj	3700 Apr 02 20:50	13°☿34'37	-1°-34'-11	morning set	3701 Mar 03 19:27	4°☿01'15	
minimum elong	3700 Apr 03 01:26	13°☿56'35	1°33'37	max. Earth dist.	3701 Mar 08 14:35	12°☿03'34	1.40204 AU
	3700 Apr 11 06:10	0°☿					
evening rise	3700 Apr 11 17:58	0°☿58'08		superior conj	3701 Mar 16 09:18	25°☿45'54	-1°-55'-19
asc. node	3700 Apr 13 13:42	4°☿32'36		minimum elong	3701 Mar 16 13:32	26°☿05'08	1°55'01
evening max el	3700 Apr 28 06:12	27°☿41'18	19°01'55		3701 Mar 18 16:47	0°☿	
	3700 May 01 02:02	0°☿		evening rise	3701 Mar 26 07:50	14°☿20'51	
retrograde	3700 May 06 21:58	1°☿54'33		asc. node	3701 Mar 31 10:44	23°☿54'57	
evening set	3700 May 08 23:39	1°☿41'03			3701 Apr 03 22:21	0°☿	
	3700 May 13 05:11	30°☿		evening max el	3701 Apr 11 10:54	10°☿12'01	18°25'08
inferior conj	3700 May 17 04:39	27°☿26'36	1°01'33	retrograde	3701 Apr 18 21:27	13°☿52'50	
minimum elong	3700 May 17 07:00	27°☿22'30	1°00'44	evening set	3701 Apr 21 05:15	13°☿32'17	
min. Earth dist.	3700 May 20 05:52	25°☿20'01	0.56624 AU	inferior conj	3701 Apr 28 15:09	8°☿58'03	2°22'40
desc. node	3700 May 20 18:44	24°☿58'49		minimum elong	3701 Apr 28 18:52	8°☿50'27	2°21'40
morning rise	3700 May 25 10:00	22°☿29'04		min. Earth dist.	3701 May 02 01:45	6°☿11'10	0.58554 AU
direct	3700 May 30 14:03	21°☿26'01		morning rise	3701 May 06 04:11	3°☿28'41	
morning max el	3700 Jun 13 20:57	28°☿48'00	25°45'23	desc. node	3701 May 07 15:45	2°☿47'27	
	3700 Jun 15 01:57	0°☿		direct	3701 May 12 06:14	1°☿51'34	
	3700 Jun 05 07:54	0°☿		morning max el	3701 May 26 15:41	9°☿35'18	27°01'03
asc. node	3700 Jul 10 12:58	10°☿26'01			3701 Jun 11 06:20	0°☿	
morning set	3700 Jul 11 09:56	12°☿16'08		morning set	3701 Jun 25 19:29	27°☿01'48	
				asc. node	3701 Jun 27 10:01	0°☿25'50	
					3701 Jun 27 05:11	0°☿	
superior conj	3700 Jul 18 09:45	27°☿27'59	1°14'18				
minimum elong	3700 Jul 18 07:24	27°☿15'05	1°13'56	superior conj	3701 Jul 02 21:33	12°☿23'32	0°54'49
max. Earth dist.	3700 Jul 19 06:59	29°☿24'30	1.32379 AU	minimum elong	3701 Jul 02 19:28	12°☿12'01	0°54'26
	3700 Jul 19 13:28	0°☿		max. Earth dist.	3701 Jul 02 18:23	12°☿06'00	1.32060 AU
evening rise	3700 Jul 25 11:21	12°☿39'38		evening rise	3701 Jul 09 18:57	27°☿22'37	
	3700 Aug 03 10:09	0°☿			3701 Jul 11 01:02	0°☿	
desc. node	3700 Aug 16 18:05	20°☿52'11			3701 Jul 27 23:17	0°☿	
	3700 Aug 24 10:41	0°☿		desc. node	3701 Aug 03 15:05	8°☿43'57	
evening max el	3700 Aug 26 03:44	1°☿41'18	27°14'56	evening max el	3701 Aug 08 05:09	13°☿35'58	26°30'23
retrograde	3700 Sep 08 23:46	8°☿55'29		retrograde	3701 Aug 22 04:20	20°☿46'37	
evening set	3700 Sep 16 03:29	6°☿33'56		evening set	3701 Aug 28 21:16	18°☿53'54	
min. Earth dist.	3700 Sep 19 18:04	3°☿47'00	0.61796 AU	min. Earth dist.	3701 Sep 01 18:41	16°☿18'55	0.59745 AU
inferior conj	3700 Sep 22 19:03	1°☿02'30	-4°-2'-5	inferior conj	3701 Sep 05 01:15	13°☿44'11	-4°-46'-52
minimum elong	3700 Sep 23 00:55	0°☿49'15	4°00'36	minimum elong	3701 Sep 05 06:02	13°☿34'43	4°46'10
	3700 Sep 23 23:03	30°☿		morning rise	3701 Sep 12 18:12	9°☿07'00	
morning rise	3700 Sep 30 01:21	26°☿02'53		direct	3701 Sep 15 02:38	8°☿47'04	
direct	3700 Oct 02 09:04	25°☿39'53		morning max el	3701 Sep 22 18:25	12°☿30'44	18°16'21
asc. node	3700 Oct 06 12:10	26°☿55'15		asc. node	3701 Sep 23 09:13	13°☿07'41	
morning max el	3700 Oct 09 07:38	29°☿09'45	17°54'17		3701 Oct 04 12:10	0°☿	
	3700 Oct 10 03:10	0°☿		morning set	3701 Oct 08 14:52	7°☿42'36	
morning set	3700 Oct 25 03:12	23°☿57'34					
	3700 Oct 28 11:12	0°☿		superior conj	3701 Oct 17 23:42	25°☿16'04	1°20'28
superior conj	3700 Nov 04 20:00	13°☿01'31	0°53'14	minimum elong	3701 Oct 18 03:32	25°☿33'35	1°20'04
minimum elong	3700 Nov 05 00:05	13°☿19'06	0°52'41		3701 Oct 20 14:43	0°☿	
max. Earth dist.	3700 Nov 12 05:27	25°☿27'31	1.42813 AU	max. Earth dist.	3701 Oct 25 13:43	8°☿38'31	1.40931 AU
desc. node	3700 Nov 12 17:25	26°☿16'29		evening rise	3701 Oct 30 09:08	16°☿40'15	
	3700 Nov 15 00:34	0°☿		desc. node	3701 Oct 30 14:25	17°☿01'50	
evening rise	3700 Nov 19 01:36	6°☿25'31			3701 Nov 07 19:30	0°☿	
	3700 Dec 04 17:48	0°☿			3701 Nov 29 12:21	0°☿	
greatest brilliancy	3700 Dec 16 02:59	15°☿23'39	-0.4m	evening max el	3701 Dec 03 12:41	4°☿23'00	23°13'53
evening max el	3700 Dec 20 21:08	20°☿47'10	21°54'39	retrograde	3701 Dec 13 21:41	10°☿31'43	
retrograde	3700 Dec 30 03:16	26°☿17'41		evening set	3701 Dec 18 18:29	8°☿32'30	
asc. node	3701 Jan 02 11:24	25°☿17'33		asc. node	3701 Dec 20 08:26	7°☿01'24	
evening set	3701 Jan 03 11:40	24°☿34'42		inferior conj	3701 Dec 24 04:50	2°☿06'22	1°16'47
inferior conj	3701 Jan 08 21:05	18°☿13'37	2°02'13	minimum elong	3701 Dec 24 03:09	2°☿12'08	1°16'07

min. Earth dist.	3701 Dec 23 19:17	2°☿39'12	0.67948 AU	min. Earth dist.	3702 Dec 07 15:05	17°♂09'04	0.67632 AU
	3701 Dec 25 18:10	30°♂♂		inferior conj	3702 Dec 08 11:19	16°♂01'32	0°25'27
morning rise	3701 Dec 29 11:52	25°♂♂56'23		minimum elong	3702 Dec 08 10:42	16°♂03'36	0°25'11
direct	3702 Jan 02 17:39	24°♂♂16'38		morning rise	3702 Dec 13 23:03	9°♂♂57'35	
morning max el	3702 Jan 11 08:19	29°♂♂17'05	21°18'03	direct	3702 Dec 17 15:38	8°♂♂39'28	
	3702 Jan 12 01:02	0°☿		morning max el	3702 Dec 25 06:55	13°♂♂00'12	20°05'07
greatest brilliancy	3702 Jan 16 12:10	5°☿10'38	-0.4m	greatest brilliancy	3703 Jan 01 04:58	21°♂♂20'22	-0.6m
desc. node	3702 Jan 26 13:38	18°☿55'22			3703 Jan 07 07:56	0°☿	
	3702 Feb 03 01:14	0°♂♂		desc. node	3703 Jan 13 10:40	9°☿06'03	
morning set	3702 Feb 11 09:35	12°♂♂53'14		morning set	3703 Jan 21 06:15	21°☿02'15	
max. Earth dist.	3702 Feb 18 15:41	24°♂♂33'12	1.42254 AU		3703 Jan 27 00:25	0°♂♂	
	3702 Feb 21 22:30	0°♂♂		max. Earth dist.	3703 Feb 01 00:57	7°♂♂57'23	1.43899 AU
superior conj	3702 Feb 26 00:32	6°♂♂56'04	-2°-6'-36	superior conj	3703 Feb 06 14:22	16°♂♂56'48	-2°-2'-40
minimum elong	3702 Feb 26 01:53	7°♂♂01'52	2°06'35	minimum elong	3703 Feb 06 10:07	16°♂♂39'26	2°02'32
evening rise	3702 Mar 09 08:15	27°♂♂02'00			3703 Feb 14 10:19	0°♂♂	
	3702 Mar 10 23:33	0°♂♂		evening rise	3703 Feb 19 14:58	8°♂♂53'25	
asc. node	3702 Mar 18 07:45	12°♂♂51'33			3703 Mar 04 08:00	0°♂♂	
evening max el	3702 Mar 25 21:12	23°♂♂08'45	18°08'15	asc. node	3703 Mar 05 04:45	1°♂♂14'31	
retrograde	3702 Apr 01 14:15	26°♂♂33'27		evening max el	3703 Mar 09 09:50	6°♂♂22'50	18°10'37
evening set	3702 Apr 04 04:11	26°♂♂03'29		retrograde	3703 Mar 15 20:13	9°♂♂46'31	
inferior conj	3702 Apr 10 21:50	21°♂♂08'01	3°11'50	evening set	3703 Mar 18 15:50	9°♂♂05'47	
minimum elong	3702 Apr 11 00:35	21°♂♂01'30	3°11'22	inferior conj	3703 Mar 24 21:03	3°♂♂49'48	3°34'20
min. Earth dist.	3702 Apr 14 03:55	18°♂♂05'03	0.60733 AU	minimum elong	3703 Mar 24 22:02	3°♂♂47'10	3°34'16
morning rise	3702 Apr 17 17:41	15°♂♂16'53		min. Earth dist.	3703 Mar 27 14:35	0°♂♂55'04	0.62838 AU
direct	3702 Apr 24 10:16	13°♂♂05'27			3703 Mar 28 12:32	30°♂♂♂	
desc. node	3702 Apr 24 12:47	13°♂♂05'29		morning rise	3703 Mar 31 02:02	27°♂♂45'37	
morning max el	3702 May 08 16:33	21°♂♂00'12	27°43'49	direct	3703 Apr 06 23:26	25°♂♂08'54	
	3702 May 16 11:32	0°♂♂		desc. node	3703 Apr 11 09:49	26°♂♂05'56	
	3702 Jun 04 05:06	0°♂♂			3703 Apr 17 13:27	0°♂♂	
morning set	3702 Jun 10 01:20	11°♂♂34'03		morning max el	3703 Apr 20 22:55	3°♂♂06'46	27°49'06
asc. node	3702 Jun 14 07:03	20°♂♂32'09			3703 May 10 22:16	0°♂♂	
max. Earth dist.	3702 Jun 16 05:22	24°♂♂43'57	1.32144 AU	morning set	3703 May 25 01:20	25°♂♂45'54	
					3703 May 27 03:08	0°♂♂	
superior conj	3702 Jun 17 08:40	27°♂♂13'38	0°31'46	max. Earth dist.	3703 May 30 12:07	7°♂♂05'49	1.32647 AU
minimum elong	3702 Jun 17 07:17	27°♂♂06'02	0°31'29	asc. node	3703 Jun 01 04:04	10°♂♂40'25	
	3702 Jun 18 14:57	0°☿		superior conj	3703 Jun 01 17:20	11°♂♂52'09	0°05'49
evening rise	3702 Jun 24 05:38	12°☿12'10		minimum elong	3703 Jun 01 17:04	11°♂♂50'38	0°05'45
	3702 Jul 03 05:51	0°♂♂		behind sun begin	3703 Jun 01 12:09	11°♂♂24'06	
evening max el	3702 Jul 20 23:22	24°♂♂43'53	25°16'10	behind sun end	3703 Jun 01 21:58	12°♂♂17'12	
desc. node	3702 Jul 21 12:03	25°♂♂13'45		evening rise	3703 Jun 08 17:30	27°♂♂01'26	
	3702 Jul 28 01:21	0°♂♂			3703 Jun 10 03:25	0°☿	
retrograde	3702 Aug 03 22:43	1°♂♂49'02			3703 Jun 27 18:36	0°♂♂	
evening set	3702 Aug 09 15:45	0°♂♂33'56		evening max el	3703 Jul 02 12:40	5°♂♂16'08	23°43'01
	3702 Aug 10 20:56	30°♂♂♂		desc. node	3703 Jul 08 09:04	9°♂♂49'28	
min. Earth dist.	3702 Aug 14 11:11	27°♂♂52'40	0.57725 AU	retrograde	3703 Jul 16 04:46	12°♂♂07'51	
inferior conj	3702 Aug 17 12:45	25°♂♂47'01	-5°-8'-41	evening set	3703 Jul 20 11:10	11°♂♂27'53	
minimum elong	3702 Aug 17 13:33	25°♂♂45'38	5°08'41	min. Earth dist.	3703 Jul 26 22:48	8°♂♂23'38	0.56040 AU
morning rise	3702 Aug 25 14:53	21°♂♂32'40		inferior conj	3703 Jul 29 03:59	7°♂♂03'36	-4°-52'-9
direct	3702 Aug 28 03:26	21°♂♂13'35		minimum elong	3703 Jul 28 22:49	7°♂♂11'25	4°51'30
morning max el	3702 Sep 05 21:21	25°♂♂21'28	18°59'19	morning rise	3703 Aug 06 13:46	3°♂♂07'49	
	3702 Sep 09 22:29	0°♂♂		direct	3703 Aug 09 08:57	2°♂♂48'07	
asc. node	3702 Sep 10 06:16	0°♂♂26'23		morning max el	3703 Aug 19 13:37	7°♂♂32'02	20°04'02
morning set	3702 Sep 22 12:34	21°♂♂56'49		asc. node	3703 Aug 28 03:19	18°♂♂36'07	
	3702 Sep 26 14:21	0°♂♂			3703 Sep 03 10:47	0°♂♂	
superior conj	3702 Sep 30 22:34	8°♂♂27'19	1°36'53	morning set	3703 Sep 06 17:00	6°♂♂30'30	
minimum elong	3702 Oct 01 00:55	8°♂♂38'38	1°36'44	superior conj	3703 Sep 14 11:23	22°♂♂19'49	1°43'58
max. Earth dist.	3702 Oct 07 18:32	21°♂♂08'38	1.38860 AU	minimum elong	3703 Sep 14 12:02	22°♂♂23'04	1°43'57
evening rise	3702 Oct 11 16:08	27°♂♂59'56			3703 Sep 18 08:46	0°♂♂	
	3702 Oct 12 20:13	0°♂♂		max. Earth dist.	3703 Sep 20 00:11	3°♂♂08'50	1.36843 AU
desc. node	3702 Oct 17 11:25	7°♂♂41'34		evening rise	3703 Sep 23 21:06	10°♂♂20'12	
	3702 Nov 01 07:18	0°♂♂		desc. node	3703 Oct 04 08:26	28°♂♂10'36	
evening max el	3702 Nov 16 01:46	18°♂♂03'10	24°33'01		3703 Oct 05 12:01	0°♂♂	
retrograde	3702 Nov 27 12:13	24°♂♂43'37			3703 Oct 27 20:29	0°♂♂	
evening set	3702 Dec 02 22:46	22°♂♂28'23		evening max el	3703 Oct 29 14:06	1°♂♂45'11	25°45'03
asc. node	3702 Dec 07 05:27	17°♂♂40'53					

retrograde	3703 Nov 10 22:07	8°♂48'00		evening set	3704 Oct 30 16:37	19°♂59'55	
evening set	3703 Nov 16 22:48	6°♂18'40		min. Earth dist.	3704 Nov 03 18:10	15°♂52'18	0.65957 AU
min. Earth dist.	3703 Nov 21 07:27	1°♂34'47	0.66970 AU	inferior conj	3704 Nov 05 13:07	13°♂45'24	-1°-30'-15
inferior conj	3703 Nov 22 14:44	29°♂55'37	0°-30'-41	minimum elong	3704 Nov 05 15:36	13°♂38'02	1°29'13
minimum elong	3703 Nov 22 15:32	29°♂53'04	0°30'20	asc. node	3704 Nov 09 23:35	9°♂08'29	
	3703 Nov 22 13:22	30°♂		morning rise	3704 Nov 11 16:05	8°♂01'30	
asc. node	3703 Nov 24 02:31	28°♂04'18		direct	3704 Nov 14 11:49	7°♂17'09	
morning rise	3703 Nov 28 09:11	24°♂00'20		morning max el	3704 Nov 21 01:53	10°♂52'02	18°24'03
direct	3703 Dec 01 14:19	23°♂00'58			3704 Dec 04 15:18	0°♂	
morning max el	3703 Dec 08 13:22	26°♂53'22	19°06'36	morning set	3704 Dec 10 15:52	9°♂40'40	
	3703 Dec 11 08:13	0°♂		desc. node	3704 Dec 17 04:44	20°♂08'38	
morning set	3703 Dec 31 10:03	29°♂41'10			3704 Dec 23 10:09	0°♂	
desc. node	3703 Dec 31 07:43	29°♂32'03					
	3703 Dec 31 14:54	0°♂		superior conj	3704 Dec 26 06:03	4°♂27'02	0°-59'-8
max. Earth dist.	3704 Jan 14 16:41	22°♂00'30	1.44928 AU	minimum elong	3704 Dec 25 22:45	3°♂58'19	0°58'13
				max. Earth dist.	3704 Dec 27 11:21	6°♂21'58	1.45242 AU
superior conj	3704 Jan 17 03:57	25°♂54'25	-1°-39'-32	evening rise	3705 Jan 11 09:42	29°♂47'45	
minimum elong	3704 Jan 16 19:01	25°♂19'07	1°38'45		3705 Jan 11 12:48	0°♂	
	3704 Jan 19 17:51	0°♂		greatest brilliancy	3705 Jan 24 10:25	20°♂07'56	-0.7m
evening rise	3704 Jan 31 23:58	19°♂48'46			3705 Jan 31 10:46	0°♂	
	3704 Feb 07 04:54	0°♂		evening max el	3705 Feb 03 07:11	3°♂16'01	19°10'09
asc. node	3704 Feb 20 01:47	18°♂53'45		asc. node	3705 Feb 05 22:51	5°♂36'01	
evening max el	3704 Feb 20 21:57	19°♂47'10	18°31'36	retrograde	3705 Feb 10 06:45	7°♂14'31	
retrograde	3704 Feb 27 11:00	23°♂22'48		evening set	3705 Feb 13 14:49	6°♂09'39	
evening set	3704 Mar 01 12:23	22°♂30'29		inferior conj	3705 Feb 19 05:20	0°♂18'26	3°23'42
inferior conj	3704 Mar 07 08:45	16°♂55'45	3°36'36	minimum elong	3705 Feb 19 03:32	0°♂24'12	3°23'27
minimum elong	3704 Mar 07 08:06	16°♂57'42	3°36'35		3705 Feb 19 11:05	30°♂	
min. Earth dist.	3704 Mar 09 10:54	14°♂27'24	0.64656 AU	min. Earth dist.	3705 Feb 20 16:11	28°♂27'04	0.66094 AU
morning rise	3704 Mar 13 02:25	10°♂44'22		morning rise	3705 Feb 24 15:20	24°♂03'35	
direct	3704 Mar 19 20:21	7°♂55'41		direct	3705 Mar 02 23:54	21°♂16'14	
desc. node	3704 Mar 28 06:53	11°♂20'50		desc. node	3705 Mar 15 03:56	28°♂14'47	
morning max el	3704 Apr 02 08:31	15°♂48'16	27°18'57	morning max el	3705 Mar 15 18:28	28°♂50'59	26°19'50
	3704 Apr 14 00:51	0°♂			3705 Mar 16 21:10	0°♂	
	3704 May 02 16:11	0°♂			3705 Apr 07 20:16	0°♂	
morning set	3704 May 07 16:47	9°♂29'21		morning set	3705 Apr 20 19:55	22°♂32'21	
max. Earth dist.	3704 May 12 10:45	19°♂00'35	1.33590 AU		3705 Apr 24 17:30	0°♂	
				max. Earth dist.	3705 Apr 24 21:59	0°♂21'56	1.34992 AU
superior conj	3704 May 15 21:38	26°♂13'19	0°-22'-14				
minimum elong	3704 May 15 22:47	26°♂19'22	0°22'01	superior conj	3705 Apr 29 19:08	10°♂09'15	0°-51'-12
	3704 May 17 16:19	0°♂		minimum elong	3705 Apr 29 21:51	10°♂23'10	0°50'43
asc. node	3704 May 18 01:07	0°♂46'55		asc. node	3705 May 04 22:09	20°♂46'48	
evening rise	3704 May 23 04:40	11°♂44'22		evening rise	3705 May 07 13:05	26°♂13'31	
	3704 Jun 01 14:39	0°♂			3705 May 09 09:22	0°♂	
evening max el	3704 Jun 13 04:08	15°♂42'46	22°06'41	evening max el	3705 May 26 05:09	26°♂34'32	20°40'43
desc. node	3704 Jun 24 06:05	21°♂56'26			3705 May 30 12:58	0°♂	
retrograde	3704 Jun 25 23:19	22°♂03'16		retrograde	3705 Jun 06 12:16	2°♂05'33	
evening set	3704 Jun 28 19:54	21°♂45'05		evening set	3705 Jun 08 14:05	1°♂55'06	
min. Earth dist.	3704 Jul 07 09:27	18°♂04'04	0.55021 AU	desc. node	3705 Jun 11 03:08	1°♂15'58	
inferior conj	3704 Jul 08 02:47	17°♂39'43	-3°-45'-54		3705 Jun 14 02:46	30°♂	
minimum elong	3704 Jul 07 18:20	17°♂51'34	3°43'40	inferior conj	3705 Jun 17 20:18	27°♂57'50	-1°-58'-2
morning rise	3704 Jul 16 18:40	13°♂49'08		minimum elong	3705 Jun 17 14:47	28°♂05'45	1°56'05
direct	3704 Jul 19 22:24	13°♂26'58		min. Earth dist.	3705 Jun 18 21:29	27°♂21'42	0.54916 AU
morning max el	3704 Jul 31 18:12	18°♂58'08	21°29'03	morning rise	3705 Jun 26 14:19	23°♂52'00	
	3704 Aug 09 14:46	0°♂		direct	3705 Jun 30 07:47	23°♂22'03	
asc. node	3704 Aug 14 00:23	7°♂24'56		morning max el	3705 Jul 13 13:00	29°♂44'10	23°08'33
morning set	3704 Aug 21 01:47	21°♂16'50			3705 Jul 13 19:43	0°♂	
	3704 Aug 25 05:28	0°♂		asc. node	3705 Jul 31 21:26	26°♂42'34	
					3705 Aug 02 13:15	0°♂	
superior conj	3704 Aug 28 10:02	6°♂41'35	1°43'16	morning set	3705 Aug 05 12:55	6°♂09'43	
minimum elong	3704 Aug 28 09:14	6°♂37'27	1°43'14				
max. Earth dist.	3704 Sep 01 11:39	15°♂01'04	1.35087 AU	superior conj	3705 Aug 12 15:16	21°♂22'19	1°36'09
evening rise	3704 Sep 05 19:58	23°♂31'11		minimum elong	3705 Aug 12 13:29	21°♂12'45	1°36'00
	3704 Sep 09 07:34	0°♂		max. Earth dist.	3705 Aug 15 07:54	27°♂05'18	1.33708 AU
desc. node	3704 Sep 20 05:26	18°♂23'26			3705 Aug 16 17:23	0°♂	
	3704 Sep 28 03:28	0°♂		evening rise	3705 Aug 20 08:21	7°♂20'56	
evening max el	3704 Oct 11 02:29	15°♂23'34	26°42'32		3705 Sep 01 20:43	0°♂	
retrograde	3704 Oct 24 02:52	22°♂38'47		desc. node	3705 Sep 07 02:27	8°♂12'49	




































































































































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	3705 Sep 24 21:10	0°♄		max. Earth dist.	3706 Jul 29 12:32	9°♁29'30	1.32749 AU
retrograde	3705 Oct 07 02:01	6°♄08'07		evening rise	3706 Aug 04 06:29	21°♁38'38	
evening set	3705 Oct 14 01:48	3°♄27'29			3706 Aug 08 11:29	0°♄	
	3705 Oct 17 19:16	30°♄		desc. node	3706 Aug 24 23:29	27°♄28'27	
min. Earth dist.	3705 Oct 17 21:03	29°♄55'19	0.64589 AU		3706 Aug 26 19:31	0°♄	
inferior conj	3705 Oct 20 04:11	27°♄26'20	-2°-31'-15	evening max el	3706 Sep 06 00:49	11°♄50'23	27°25'31
minimum elong	3705 Oct 20 08:24	27°♄14'54	2°29'40	retrograde	3706 Sep 19 18:34	19°♄06'12	
morning rise	3705 Oct 26 17:08	21°♄56'49		evening set	3706 Sep 26 23:04	16°♄34'26	
asc. node	3705 Oct 27 20:39	21°♄33'35		min. Earth dist.	3706 Sep 30 14:11	13°♄33'21	0.62895 AU
direct	3705 Oct 29 05:57	21°♄23'31		inferior conj	3706 Oct 03 09:07	10°♄51'12	-3°-30'-36
morning max el	3705 Nov 04 17:51	24°♄50'10	17°58'23	minimum elong	3706 Oct 03 14:41	10°♄37'40	3°28'54
	3705 Nov 09 00:03	0°♄		morning rise	3706 Oct 10 08:59	5°♄39'23	
morning set	3705 Nov 22 02:52	21°♄06'41		direct	3706 Oct 12 17:41	5°♄13'29	
	3705 Nov 27 10:25	0°♄		asc. node	3706 Oct 14 17:42	5°♄32'31	
desc. node	3705 Dec 04 01:46	10°♄52'21		morning max el	3706 Oct 19 10:14	8°♄39'56	17°50'24
					3706 Nov 02 11:31	0°♄	
superior conj	3705 Dec 05 17:45	13°♄33'21	0°-11'-24	morning set	3706 Nov 04 13:38	3°♄41'08	
minimum elong	3705 Dec 05 16:22	13°♄27'49	0°11'14				
behind sun begin	3705 Dec 05 08:48	12°♄57'25		superior conj	3706 Nov 16 05:26	23°♄50'57	0°32'24
behind sun end	3705 Dec 05 23:56	13°♄58'11		minimum elong	3706 Nov 16 08:30	24°♄03'46	0°31'59
max. Earth dist.	3705 Dec 10 06:08	20°♄44'57	1.44820 AU		3706 Nov 19 22:29	0°♄	
	3705 Dec 16 03:44	0°♄		desc. node	3706 Nov 20 22:47	1°♄39'19	
evening rise	3705 Dec 22 00:52	9°♄06'07		max. Earth dist.	3706 Nov 22 22:38	4°♄53'13	1.43717 AU
	3706 Jan 04 19:25	0°♄		evening rise	3706 Dec 01 10:25	18°♄17'05	
greatest brilliancy	3706 Jan 10 18:43	8°♄33'09	-0.6m		3706 Dec 09 03:02	0°♄	
evening max el	3706 Jan 17 11:53	16°♄47'27	20°04'25	greatest brilliancy	3706 Dec 26 07:32	24°♄22'00	-0.4m
asc. node	3706 Jan 23 19:54	21°♄07'11			3706 Dec 31 03:21	0°♄	
retrograde	3706 Jan 25 04:37	21°♄17'18		evening max el	3706 Dec 31 11:08	0°♄20'05	21°11'39
evening set	3706 Jan 28 20:48	19°♄58'38		retrograde	3707 Jan 09 02:22	5°♄27'09	
inferior conj	3706 Feb 03 07:53	13°♄53'33	2°59'08	asc. node	3707 Jan 10 16:56	5°♄13'02	
minimum elong	3706 Feb 03 05:29	14°♄01'37	2°58'35	evening set	3707 Jan 13 04:24	3°♄53'20	
min. Earth dist.	3706 Feb 04 04:40	12°♄43'37	0.67124 AU		3707 Jan 16 19:47	30°♄	
morning rise	3706 Feb 08 13:32	7°♄37'44		inferior conj	3707 Jan 18 13:58	27°♄37'16	2°25'16
direct	3706 Feb 14 09:11	5°♄02'40		minimum elong	3707 Jan 18 11:29	27°♄45'50	2°24'30
morning max el	3706 Feb 26 03:12	12°♄04'06	25°01'01	min. Earth dist.	3707 Jan 18 22:07	27°♄09'09	0.67749 AU
desc. node	3706 Mar 02 00:58	16°♄20'05		morning rise	3707 Jan 23 18:13	21°♄22'25	
	3706 Mar 12 12:52	0°♄		direct	3707 Jan 28 23:11	19°♄06'52	
	3706 Mar 31 13:56	0°♄		morning max el	3707 Feb 08 11:47	25°♄22'41	23°32'56
morning set	3706 Apr 03 05:50	4°♄41'10			3707 Feb 12 16:25	0°♄	
max. Earth dist.	3706 Apr 06 22:09	11°♄22'36	1.36826 AU	desc. node	3707 Feb 16 22:01	5°♄16'04	
					3707 Mar 06 01:28	0°♄	
superior conj	3706 Apr 13 06:55	23°♄32'20	-1°-19'-21	morning set	3707 Mar 15 16:30	15°♄39'21	
minimum elong	3706 Apr 13 11:02	23°♄52'31	1°18'44	max. Earth dist.	3707 Mar 19 17:10	22°♄36'10	1.38953 AU
	3706 Apr 16 12:58	0°♄			3707 Mar 23 20:28	0°♄	
evening rise	3706 Apr 21 16:30	10°♄22'31					
asc. node	3706 Apr 21 19:11	10°♄35'57		superior conj	3707 Mar 27 05:12	6°♄12'45	-1°-44'-4
	3706 May 02 09:05	0°♄		minimum elong	3707 Mar 27 09:52	6°♄34'38	1°43'35
evening max el	3706 May 08 18:26	8°♄06'35	19°32'18	evening rise	3707 Apr 05 12:13	24°♄04'02	
retrograde	3706 May 18 07:36	12°♄44'52		asc. node	3707 Apr 08 16:13	0°♄09'29	
evening set	3706 May 20 07:04	12°♄33'49			3707 Apr 08 14:13	0°♄	
inferior conj	3706 May 28 23:06	8°♄29'10	0°00'47	evening max el	3707 Apr 21 18:24	20°♄17'40	18°43'52
minimum elong	3706 May 28 23:08	8°♄29'07	0°00'46	retrograde	3707 Apr 29 20:03	24°♄14'47	
transit middle	3706 May 28 23:08	8°♄29'07	0°00'46	evening set	3707 May 02 00:25	23°♄58'31	
transit begin	3706 May 28 19:14	8°♄35'20		inferior conj	3707 May 09 21:04	19°♄35'56	1°40'00
transit end	3706 May 29 03:02	8°♄22'53		minimum elong	3707 May 10 00:23	19°♄29'44	1°38'57
desc. node	3706 May 29 00:09	8°♄27'29		min. Earth dist.	3707 May 13 04:17	17°♄09'53	0.57392 AU
min. Earth dist.	3706 May 31 11:27	6°♄53'17	0.55769 AU	desc. node	3707 May 15 21:10	15°♄24'38	
morning rise	3706 Jun 06 11:30	3°♄52'17		morning rise	3707 May 17 19:56	14°♄24'18	
direct	3706 Jun 11 02:10	3°♄04'28		direct	3707 May 23 10:10	13°♄07'28	
morning max el	3706 Jun 25 03:04	10°♄08'32	24°51'02	morning max el	3707 Jun 06 18:39	20°♄39'25	26°21'05
	3706 Jul 10 01:10	0°♄			3707 Jun 14 20:00	0°♄	
asc. node	3706 Jul 18 18:27	16°♄21'24			3707 Jul 02 14:55	0°♄	
morning set	3706 Jul 21 00:43	21°♄03'59		morning set	3707 Jul 05 11:35	5°♄54'46	
	3706 Jul 25 04:10	0°♄		asc. node	3707 Jul 05 15:29	6°♄15'18	
superior conj	3706 Jul 28 00:36	6°♄14'00	1°23'38	superior conj	3707 Jul 12 12:01	21°♄10'09	1°06'31

minimum elong	3707 Jul 12 09:44	20°55'30	1°06'08	asc. node	3708 Jun 21 12:30	26°11'06	
max. Earth dist.	3707 Jul 12 22:42	22°50'58	1.32198 AU		3708 Jun 23 05:29	0°5	
	3707 Jul 16 12:52	0°9					
evening rise	3707 Jul 19 11:22	6°9'15"09		superior conj	3708 Jun 25 23:43	6°50'33	0°45'28
	3707 Aug 01 01:07	0°7		minimum elong	3708 Jun 25 21:52	5°55'324	0°45'05
desc. node	3707 Aug 11 20:29	15°7'56"36		max. Earth dist.	3708 Jun 25 10:33	4°55'102	1.32043 AU
evening max el	3707 Aug 19 06:16	24°7'12"48	27°00'02	evening rise	3708 Jul 02 20:30	21°50'122	
	3707 Aug 27 07:10	0°5			3708 Jul 07 05:23	0°9	
retrograde	3707 Sep 02 03:33	1°524'30			3708 Jul 25 20:50	0°7	
	3707 Sep 07 18:56	30°8'7		desc. node	3708 Jul 28 17:28	3°7'16"45	
evening set	3707 Sep 09 04:18	29°7'13"57		evening max el	3708 Jul 31 04:29	5°7'46"33	26°01'56
min. Earth dist.	3707 Sep 12 20:31	26°7'34"06	0.60944 AU	retrograde	3708 Aug 14 03:51	12°7'55"13	
inferior conj	3707 Sep 16 00:41	23°7'51"51	-4°-23'-2	evening set	3708 Aug 20 12:36	11°7'17"34	
minimum elong	3707 Sep 16 06:23	23°7'39"38	4°21'49	min. Earth dist.	3708 Aug 24 16:58	8°7'42"36	0.58873 AU
morning rise	3707 Sep 23 11:37	19°7'01"13		inferior conj	3708 Aug 27 23:15	6°7'17"43	-4°-59'-46
direct	3707 Sep 25 19:21	18°7'39"41		minimum elong	3708 Aug 28 02:44	6°7'11"15	4°59'26
asc. node	3707 Oct 01 14:43	21°7'00"14		morning rise	3708 Sep 04 20:22	1°7'50"38	
morning max el	3707 Oct 02 23:59	22°7'14"04	18°01'08	direct	3708 Sep 07 06:18	1°7'31"13	
	3707 Oct 09 00:25	0°5		morning max el	3708 Sep 15 07:50	5°7'23"17	18°32'00
morning set	3707 Oct 18 17:46	17°505'07		asc. node	3708 Sep 17 11:45	7°7'42"26	
	3707 Oct 25 18:36	0°7			3708 Sep 30 20:57	0°5	
				morning set	3708 Oct 01 10:09	1°503'41	
superior conj	3707 Oct 28 19:42	5°7'26"21	1°06'10	superior conj	3708 Oct 10 08:16	18°507'09	1°28'41
minimum elong	3707 Oct 28 23:55	5°7'44"59	1°05'39	minimum elong	3708 Oct 10 11:34	18°522'29	1°28'22
max. Earth dist.	3707 Nov 05 10:35	18°7'30"19	1.42064 AU		3708 Oct 16 21:57	0°7	
desc. node	3707 Nov 07 19:49	22°7'26"16		max. Earth dist.	3708 Oct 17 17:13	1°7'24"10	1.40063 AU
evening rise	3707 Nov 11 06:34	28°7'00"12		evening rise	3708 Oct 21 23:52	8°7'41"36	
	3707 Nov 12 12:45	0°7		desc. node	3708 Oct 24 16:49	13°7'09"29	
	3707 Dec 02 20:09	0°5			3708 Nov 04 13:02	0°7	
greatest brilliancy	3707 Dec 09 10:00	8°7'31"16	-0.3m	evening max el	3708 Nov 25 19:15	27°7'31"21	23°47'51
evening max el	3707 Dec 14 05:07	13°7'54"15	22°27'52		3708 Nov 28 11:32	0°5	
retrograde	3707 Dec 23 22:21	19°7'40"52		retrograde	3708 Dec 06 15:21	3°7'54"50	
evening set	3707 Dec 28 11:58	17°7'50"50		evening set	3708 Dec 11 17:57	1°7'48"24	
asc. node	3707 Dec 28 13:57	17°7'46"46			3708 Dec 13 14:03	30°8'7	
inferior conj	3708 Jan 02 21:38	11°7'27"13	1°43'42	asc. node	3708 Dec 14 10:59	28°7'58"50	
minimum elong	3708 Jan 02 19:33	11°7'34"29	1°42'55	min. Earth dist.	3708 Dec 16 14:54	26°7'09"34	0.67858 AU
min. Earth dist.	3708 Jan 02 18:17	11°7'38"51	0.67986 AU	inferior conj	3708 Dec 17 05:05	25°7'21"15	0°55'38
morning rise	3708 Jan 08 03:01	5°7'15"05		minimum elong	3708 Dec 17 03:49	25°7'25"35	0°55'07
direct	3708 Jan 12 17:01	3°7'22"19		morning rise	3708 Dec 22 13:53	19°7'13"43	
morning max el	3708 Jan 21 23:33	8°7'48"52	22°05'13	direct	3708 Dec 26 13:46	17°7'43"41	
greatest brilliancy	3708 Jan 26 14:30	13°7'59"38	-0.4m	morning max el	3709 Jan 03 17:49	22°7'26"03	20°45'26
desc. node	3708 Feb 03 19:03	24°7'48"34		greatest brilliancy	3709 Jan 09 12:31	29°7'09"35	-0.5m
	3708 Feb 07 10:32	0°7			3709 Jan 10 04:04	0°5	
morning set	3708 Feb 23 22:46	25°7'15"35		desc. node	3709 Jan 20 16:05	14°7'47"30	
	3708 Feb 26 20:39	0°7			3709 Jan 30 17:45	0°7	
max. Earth dist.	3708 Feb 29 15:05	4°7'35"49	1.41114 AU	morning set	3709 Feb 02 03:14	3°742'38	
				max. Earth dist.	3709 Feb 10 19:53	17°730'46	1.43013 AU
superior conj	3708 Mar 08 09:13	17°7'58"49	-2°-1'-37				
minimum elong	3708 Mar 08 12:36	18°7'13"50	2°01'28	superior conj	3709 Feb 17 14:00	28°739'55	-2°-7'-6
	3708 Mar 15 00:16	0°7		minimum elong	3709 Feb 17 13:13	28°736'36	2°07'07
evening rise	3708 Mar 18 20:51	7°7'09"48			3709 Feb 18 09:00	0°7	
asc. node	3708 Mar 25 13:14	19°7'21"21		evening rise	3709 Mar 01 14:22	19°7'31"21	
	3708 Apr 01 10:19	0°8			3709 Mar 07 12:59	0°7	
evening max el	3708 Apr 04 01:48	2°7'59"35	18°15'31	asc. node	3709 Mar 12 10:17	8°7'05"00	
retrograde	3708 Apr 11 03:31	6°7'31"53		evening max el	3709 Mar 18 13:26	16°7'04"32	18°06'54
evening set	3708 Apr 13 13:59	6°7'07"30		retrograde	3709 Mar 25 02:37	19°7'27"27	
inferior conj	3708 Apr 20 16:27	1°7'23"51	2°47'15	evening set	3709 Mar 27 18:52	18°7'53"11	
minimum elong	3708 Apr 20 19:57	1°7'16"13	2°46'27	inferior conj	3709 Apr 03 06:45	13°7'48"49	3°24'13
	3708 Apr 22 06:45	30°8'7		minimum elong	3709 Apr 03 08:47	13°7'43"45	3°23'59
min. Earth dist.	3708 Apr 24 02:19	28°7'27"13	0.59464 AU	min. Earth dist.	3709 Apr 06 08:08	10°7'46"27	0.61644 AU
morning rise	3708 Apr 27 22:02	25°7'43"58		morning rise	3709 Apr 09 19:51	7°7'50"51	
desc. node	3708 May 01 18:13	24°7'09"46		direct	3709 Apr 16 15:26	5°7'27"12	
direct	3708 May 04 07:12	23°7'52"03		desc. node	3709 Apr 18 15:15	5°7'38"40	
	3708 May 16 20:54	0°8		morning max el	3709 Apr 30 19:43	13°7'25"04	27°50'45
morning max el	3708 May 18 15:59	1°7'41"07	27°23'58		3709 May 14 02:02	0°8	
	3708 Jun 08 02:10	0°7			3709 May 31 11:52	0°7	
morning set	3708 Jun 18 19:48	20°7'35"18					

morning set	3709 Jun 02 23:28	4°II59'39		morning max el	3710 Apr 13 03:43	25°X47'14	27°40'10
asc. node	3709 Jun 08 09:33	16°II25'33			3710 Apr 17 01:01	0°Y	
max. Earth dist.	3709 Jun 08 20:11	17°II23'06	1.32300 AU		3710 May 07 14:35	0°B	
				morning set	3710 May 17 20:11	19°B00'03	
superior conj	3709 Jun 10 10:00	20°II49'02	0°21'05	max. Earth dist.	3710 May 22 23:38	29°B32'36	1.32987 AU
minimum elong	3709 Jun 10 09:03	20°II43'48	0°20'52		3710 May 23 04:50	0°II	
	3709 Jun 14 14:45	0°B					
evening rise	3709 Jun 17 07:54	5°B50'54		superior conj	3710 May 25 17:04	5°II20'35	0°-5'-54
	3709 Jun 30 01:31	0°B		minimum elong	3710 May 25 17:22	5°II22'09	0°05'52
evening max el	3709 Jul 12 19:45	16°B35'17	24°37'57	behind sun begin	3710 May 25 12:23	4°II55'24	
desc. node	3709 Jul 15 14:29	19°B01'51		behind sun end	3710 May 25 22:21	5°II48'56	
retrograde	3709 Jul 26 17:35	23°B37'14		asc. node	3710 May 26 06:37	6°II33'20	
evening set	3709 Jul 31 20:41	22°B38'00		evening rise	3710 Jun 01 19:40	20°II37'33	
min. Earth dist.	3709 Aug 06 06:56	19°B48'39	0.56943 AU		3710 Jun 06 09:22	0°B	
inferior conj	3709 Aug 09 02:02	18°B00'23	-5°-7'-17	evening max el	3710 Jun 24 09:03	27°B00'58	23°01'37
minimum elong	3709 Aug 09 00:21	18°B03'07	5°07'14		3710 Jun 27 20:53	0°B	
morning rise	3709 Aug 17 07:38	13°B55'12		desc. node	3710 Jul 02 11:30	2°B37'57	
direct	3709 Aug 19 22:34	13°B36'11		retrograde	3710 Jul 07 18:37	3°B41'56	
morning max el	3709 Aug 29 06:36	17°B57'54	19°24'15	evening set	3710 Jul 11 09:14	3°B13'28	
asc. node	3709 Sep 04 08:48	25°B24'01			3710 Jul 18 14:40	30°R	
	3709 Sep 07 06:07	0°B		min. Earth dist.	3710 Jul 18 18:08	29°B55'02	0.55499 AU
morning set	3709 Sep 15 11:01	15°B26'33		inferior conj	3710 Jul 20 09:24	28°B58'07	-4°-30'-19
	3709 Sep 22 17:46	0°B		minimum elong	3710 Jul 20 02:11	29°B08'37	4°28'57
				morning rise	3710 Jul 28 21:56	25°B06'19	
superior conj	3709 Sep 23 13:39	1°B37'30	1°40'56	direct	3710 Jul 31 20:18	24°B45'56	
minimum elong	3709 Sep 23 15:16	1°B45'27	1°40'51	morning max el	3710 Aug 11 17:53	29°B49'37	20°37'59
max. Earth dist.	3709 Sep 29 21:16	13°B37'10	1.37978 AU		3710 Aug 11 22:19	0°B	
evening rise	3709 Oct 03 16:35	20°B27'47		asc. node	3710 Aug 22 05:51	13°B51'37	
	3709 Oct 09 06:43	0°B		morning set	3710 Aug 30 17:36	0°B06'19	
desc. node	3709 Oct 11 13:49	3°B44'59			3710 Aug 30 16:23	0°B	
	3709 Oct 29 14:28	0°B					
evening max el	3709 Nov 08 07:40	11°B12'04	25°04'58	superior conj	3710 Sep 07 07:06	15°B43'47	1°44'32
retrograde	3709 Nov 20 04:12	18°B04'09		minimum elong	3710 Sep 07 07:06	15°B43'44	1°44'31
evening set	3709 Nov 25 20:41	15°B42'30		max. Earth dist.	3710 Sep 12 04:40	25°B30'22	1.36051 AU
min. Earth dist.	3709 Nov 30 09:37	10°B37'57	0.67389 AU		3710 Sep 14 12:52	0°B	
inferior conj	3709 Dec 01 10:31	9°B16'24	0°02'08	evening rise	3710 Sep 16 05:47	3°B11'38	
minimum elong	3709 Dec 01 10:28	9°B16'34	0°02'07	desc. node	3710 Sep 28 10:50	24°B08'08	
transit middle	3709 Dec 01 10:28	9°B16'34	0°02'07		3710 Oct 02 06:02	0°B	
transit begin	3709 Dec 01 07:43	9°B25'35		evening max el	3710 Oct 21 20:11	24°B54'31	26°11'48
transit end	3709 Dec 01 13:13	9°B07'34			3710 Oct 28 04:33	0°B	
asc. node	3709 Dec 01 08:03	9°B24'31		retrograde	3710 Nov 03 12:05	2°B03'51	
morning rise	3709 Dec 07 00:52	3°B15'42			3710 Nov 09 03:14	30°R	
direct	3709 Dec 10 12:14	2°B06'07		evening set	3710 Nov 09 18:22	29°B30'05	
morning max el	3709 Dec 17 19:55	6°B13'52	19°38'16	min. Earth dist.	3710 Nov 14 00:02	25°B01'16	0.66580 AU
greatest brilliancy	3709 Dec 25 21:59	16°B17'12	-0.6m	inferior conj	3710 Nov 15 12:06	23°B09'57	0°-55'-34
	3710 Jan 04 05:07	0°B		minimum elong	3710 Nov 15 13:36	23°B05'20	0°54'57
desc. node	3710 Jan 07 13:06	5°B04'59		asc. node	3710 Nov 18 05:05	19°B59'41	
morning set	3710 Jan 11 23:39	11°B54'46		morning rise	3710 Nov 21 09:56	17°B18'50	
	3710 Jan 23 13:37	0°B		direct	3710 Nov 24 10:48	16°B26'16	
max. Earth dist.	3710 Jan 24 07:37	1°B11'17	1.44417 AU	morning max el	3710 Dec 01 05:10	20°B10'08	18°46'24
					3710 Dec 08 22:05	0°B	
superior conj	3710 Jan 28 16:48	8°B11'17	-1°-55'-18	morning set	3710 Dec 22 13:16	21°B05'05	
minimum elong	3710 Jan 28 10:05	7°B44'16	1°54'53	desc. node	3710 Dec 25 10:09	25°B36'09	
	3710 Feb 10 22:15	0°B			3710 Dec 28 05:17	0°B	
evening rise	3710 Feb 11 12:15	0°B59'01		max. Earth dist.	3711 Jan 07 00:52	15°B24'11	1.45162 AU
asc. node	3710 Feb 27 07:21	26°B10'44					
evening max el	3710 Mar 02 02:11	29°B23'31	18°17'21	superior conj	3711 Jan 07 23:20	16°B52'27	-1°-24'-4
	3710 Mar 02 17:17	0°Y		minimum elong	3711 Jan 07 14:13	16°B16'38	1°23'07
retrograde	3710 Mar 08 12:45	2°Y50'51			3711 Jan 16 06:50	0°B	
evening set	3710 Mar 11 10:42	2°Y05'26		evening rise	3711 Jan 23 11:16	11°B29'31	
	3710 Mar 14 07:43	30°R			3711 Feb 04 01:11	0°B	
inferior conj	3710 Mar 17 11:47	26°B41'31	3°37'22	evening max el	3711 Feb 13 13:26	12°B50'36	18°45'57
minimum elong	3710 Mar 17 12:01	26°B40'50	3°37'23	asc. node	3711 Feb 14 04:23	13°B27'25	
min. Earth dist.	3710 Mar 19 23:03	23°B55'53	0.63657 AU	retrograde	3711 Feb 20 05:55	16°B34'18	
morning rise	3710 Mar 23 11:29	20°B33'37		evening set	3711 Feb 23 10:05	15°B36'42	
direct	3710 Mar 30 08:24	17°B49'42		inferior conj	3711 Mar 01 03:39	9°B54'52	3°32'42
desc. node	3710 Apr 05 12:18	19°B40'04		minimum elong	3711 Mar 01 02:27	9°B58'34	3°32'35

min. Earth dist.	3711 Mar 02 23:14	7° 41 '20	0.65330 AU	min. Earth dist.	3712 Feb 14 07:41	21° 49 '47	0.66590 AU
morning rise	3711 Mar 06 17:40	3° 41 '52		morning rise	3712 Feb 18 10:54	17° 08 '10	
direct	3711 Mar 13 08:21	0° 52 '06		direct	3712 Feb 24 14:17	14° 25 '12	
desc. node	3711 Mar 23 09:21	5° 40 '42		morning max el	3712 Mar 07 23:01	21° 46 '45	25°48'06
morning max el	3711 Mar 26 13:30	8° 38 '11	26°56'39	desc. node	3712 Mar 09 06:24	23° 08 '14	
	3711 Apr 12 05:41	0° 0 '			3712 Mar 15 03:16	0° 0 '	
	3711 Apr 29 23:55	0° 0 '			3712 Apr 04 11:27	0° 0 '	
morning set	3711 May 01 06:51	2° 27 '12		morning set	3712 Apr 13 03:22	15° 09 '16	
max. Earth dist.	3711 May 05 17:29	11° 11 '54	1.34132 AU	max. Earth dist.	3712 Apr 17 00:03	22° 23 '39	1.35731 AU
					3712 Apr 20 21:35	0° 0 '	
superior conj	3711 May 09 18:48	19° 31 '47	0°-34'-31	superior conj	3712 Apr 22 12:36	3° 15 '15	-1°-3'-23
minimum elong	3711 May 09 20:36	19° 41 '13	0°34'10	minimum elong	3712 Apr 22 15:58	3° 32 '10	1°02'48
asc. node	3711 May 13 03:40	26° 37 '26		asc. node	3712 Apr 29 00:43	16° 33 '42	
	3711 May 14 17:58	0° 0 '		evening rise	3712 Apr 30 12:33	19° 37 '17	
evening rise	3711 May 17 05:55	5° 15 '09			3712 May 05 18:24	0° 0 '	
	3711 May 30 21:02	0° 0 '		evening max el	3712 May 18 10:11	18° 43 '27	20°09'09
evening max el	3711 Jun 06 04:01	7° 35 '21	21°28'18	retrograde	3712 May 28 23:12	23° 51 '39	
retrograde	3711 Jun 18 08:59	13° 35 '39		evening set	3712 May 30 22:39	23° 41 '35	
desc. node	3711 Jun 19 08:33	13° 33 '25		desc. node	3712 Jun 05 05:35	21° 49 '37	
evening set	3711 Jun 20 19:30	13° 22 '06		inferior conj	3712 Jun 08 23:57	19° 42 '31	-1°-6'-50
inferior conj	3711 Jun 30 04:09	9° 22 '27	-3°-3'-47	minimum elong	3712 Jun 08 20:50	19° 47 '11	1°05'40
minimum elong	3711 Jun 29 20:15	9° 33 '30	3°01'19	min. Earth dist.	3712 Jun 10 17:31	18° 40 '49	0.55169 AU
min. Earth dist.	3711 Jun 30 05:03	9° 21 '12	0.54856 AU	morning rise	3712 Jun 17 16:44	15° 25 '15	
morning rise	3711 Jul 08 21:39	5° 28 '00		direct	3712 Jun 21 18:25	14° 49 '18	
direct	3711 Jul 12 06:42	5° 03 '14		morning max el	3712 Jul 05 09:40	21° 30 '04	23°52'45
morning max el	3711 Jul 24 17:39	10° 56 '16	22°10'14		3712 Jul 12 18:36	0° 0 '	
	3711 Aug 07 13:06	0° 0 '		asc. node	3712 Jul 25 23:57	22° 21 '18	
asc. node	3711 Aug 09 02:54	2° 53 '35		morning set	3712 Jul 29 15:13	29° 50 '12	
morning set	3711 Aug 15 03:36	14° 55 '56			3712 Jul 29 17:05	0° 0 '	
superior conj	3711 Aug 22 08:52	0° 14 '12	1°40'58	superior conj	3712 Aug 05 16:06	15° 00 '18	1°31'26
minimum elong	3711 Aug 22 07:35	0° 07 '28	1°40'54	minimum elong	3712 Aug 05 14:02	14° 49 '11	1°31'14
	3711 Aug 22 06:10	0° 0 '		max. Earth dist.	3712 Aug 07 20:15	19° 40 '25	1.33248 AU
max. Earth dist.	3711 Aug 25 20:02	7° 27 '05	1.34449 AU		3712 Aug 12 19:19	0° 0 '	
evening rise	3711 Aug 30 10:53	16° 40 '18		evening rise	3712 Aug 13 03:48	0° 42 '46	
	3711 Sep 06 16:17	0° 0 '			3712 Aug 29 15:57	0° 0 '	
desc. node	3711 Sep 15 07:52	14° 12 '02		desc. node	3712 Sep 01 04:52	3° 48 '19	
	3711 Sep 26 16:31	0° 0 '		evening max el	3712 Sep 15 20:18	21° 45 '44	27°25'03
evening max el	3711 Oct 04 08:50	8° 29 '39	27°00'52	retrograde	3712 Sep 29 10:28	29° 03 '16	
retrograde	3711 Oct 17 14:17	15° 46 '20		evening set	3712 Oct 06 13:19	26° 24 '44	
evening set	3711 Oct 24 08:49	13° 05 '50		min. Earth dist.	3712 Oct 10 06:21	23° 06 '54	0.63910 AU
min. Earth dist.	3711 Oct 28 07:40	9° 13 '29	0.65421 AU	inferior conj	3712 Oct 12 18:44	20° 30 '58	-2°-56'-51
inferior conj	3711 Oct 30 07:40	6° 56 '40	-1°-56'-1	minimum elong	3712 Oct 12 23:37	20° 18 '19	2°55'10
minimum elong	3711 Oct 30 10:54	6° 47 '26	1°54'44	morning rise	3712 Oct 19 12:16	15° 08 '47	
asc. node	3711 Nov 05 02:07	1° 34 '52		direct	3712 Oct 21 23:04	14° 38 '59	
morning rise	3711 Nov 05 14:42	1° 18 '19		asc. node	3712 Oct 21 23:10	14° 38 '59	
direct	3711 Nov 08 07:18	0° 38 '58		morning max el	3712 Oct 28 11:56	18° 04 '11	17°52'50
morning max el	3711 Nov 14 19:26	4° 09 '02	18°11'02		3712 Nov 06 03:59	0° 0 '	
	3711 Dec 02 06:42	0° 0 '		morning set	3712 Nov 14 05:45	13° 40 '24	
morning set	3711 Dec 03 07:56	1° 43 '20			3712 Nov 23 21:20	0° 0 '	
desc. node	3711 Dec 12 07:10	16° 16 '15		superior conj	3712 Nov 26 23:47	5° 06 '05	0°08'10
superior conj	3711 Dec 18 02:59	25° 32 '24	0°-39'-3	minimum elong	3712 Nov 27 00:42	5° 09 '46	0°08'03
minimum elong	3711 Dec 17 22:02	25° 12 '53	0°38'24	behind sun begin	3712 Nov 26 16:02	4° 34 '22	
	3711 Dec 20 22:54	0° 0 '		behind sun end	3712 Nov 27 09:22	5° 45 '06	
max. Earth dist.	3711 Dec 20 20:32	29° 50 '39	1.45161 AU	desc. node	3712 Nov 28 04:11	7° 01 '34	
evening rise	3712 Jan 03 12:06	21° 08 '56		max. Earth dist.	3712 Dec 02 14:52	14° 10 '08	1.44427 AU
	3712 Jan 09 04:57	0° 0 '		evening rise	3712 Dec 12 22:53	0° 0 '	
greatest brilliancy	3712 Jan 19 16:49	15° 53 '24	-0.7m		3712 Dec 12 17:56	0° 0 '	
evening max el	3712 Jan 27 20:57	26° 21 '16	19°31'23		3713 Jan 01 23:17	0° 0 '	
asc. node	3712 Feb 01 01:24	29° 41 '37		greatest brilliancy	3713 Jan 04 00:44	2° 46 '52	-0.5m
	3712 Feb 01 16:50	0° 0 '		evening max el	3713 Jan 09 23:16	9° 52 '48	20°31'33
retrograde	3712 Feb 04 02:53	0° 31 '49		asc. node	3713 Jan 17 22:26	14° 38 '11	
	3712 Feb 06 10:54	30° 0 '		retrograde	3713 Jan 18 01:02	14° 38 '15	
evening set	3712 Feb 07 14:19	29° 21 '02		evening set	3713 Jan 21 21:12	13° 13 '10	
inferior conj	3712 Feb 13 03:05	23° 23 '28	3°14'32	inferior conj	3713 Jan 27 07:24	7° 02 '44	2°45'49
minimum elong	3712 Feb 13 00:58	23° 30 '24	3°14'09				

minimum elong	3713 Jan 27 04:54	7° \approx 11'15	2°45'09	retrograde	3714 Jan 01 22:22	28° Z 50'27	
min. Earth dist.	3713 Jan 27 22:34	6° \approx 10'58	0.67435 AU	asc. node	3714 Jan 04 19:27	28° Z 05'33	
morning rise	3713 Feb 01 12:07	0° \approx 47'03		evening set	3714 Jan 06 05:00	27° Z 09'57	
	3713 Feb 02 11:02	30° R Z		inferior conj	3714 Jan 11 14:25	20° Z 50'04	2°08'31
direct	3713 Feb 07 01:29	28° Z 19'56		minimum elong	3714 Jan 11 12:03	20° Z 58'17	2°07'44
	3713 Feb 12 04:57	0° \approx		min. Earth dist.	3714 Jan 11 17:34	20° Z 39'06	0.67887 AU
morning max el	3713 Feb 18 07:38	5° \approx 03'17	24°24'09	morning rise	3714 Jan 16 18:49	14° Z 35'53	
desc. node	3713 Feb 24 03:26	11° \approx 37'17		direct	3714 Jan 21 17:19	12° Z 29'48	
	3713 Mar 09 13:06	0° X		morning max el	3714 Jan 31 17:11	18° Z 25'21	22°55'05
morning set	3713 Mar 26 04:11	26° X 50'20		greatest brilliancy	3714 Feb 05 10:42	23° Z 42'04	-0.3m
	3713 Mar 27 23:17	0° Y			3714 Feb 10 09:19	0° \approx	
max. Earth dist.	3713 Mar 29 21:24	3° Y 26'46	1.37710 AU	desc. node	3714 Feb 11 00:27	0° \approx 50'37	
					3714 Mar 02 16:24	0° X	
superior conj	3713 Apr 05 19:07	16° Y 21'16	-1°-30'-26	morning set	3714 Mar 07 03:16	7° X 15'13	
minimum elong	3713 Apr 05 23:37	16° Y 42'59	1°29'51	max. Earth dist.	3714 Mar 11 16:25	14° X 55'47	1.39884 AU
	3713 Apr 12 17:37	0° Z					
evening rise	3713 Apr 14 13:04	3° Z 35'47		superior conj	3714 Mar 19 10:16	28° X 40'21	-1°-52'-38
asc. node	3713 Apr 15 21:44	6° Z 16'54		minimum elong	3714 Mar 19 14:42	29° X 00'37	1°52'18
	3713 Apr 30 15:18	0° II			3714 Mar 20 03:38	0° Y	
evening max el	3713 May 01 04:14	0° II 32'20	19°09'08	evening rise	3714 Mar 29 04:33	17° Y 03'24	
retrograde	3713 May 10 01:21	4° II 51'44		asc. node	3714 Apr 02 18:45	25° Y 42'11	
evening set	3713 May 12 02:15	4° II 39'02			3714 Apr 05 04:08	0° Z	
inferior conj	3713 May 20 10:12	0° II 27'25	0°46'28	evening max el	3714 Apr 14 07:50	12° Z 58'08	18°29'20
minimum elong	3713 May 20 12:03	0° II 24'16	0°45'48	retrograde	3714 Apr 21 21:52	16° Z 42'29	
	3713 May 21 02:16	30° R Z		evening set	3714 Apr 24 04:47	16° Z 23'07	
desc. node	3713 May 23 02:37	28° Z 38'14		inferior conj	3714 May 01 17:24	11° Z 52'05	2°12'29
min. Earth dist.	3713 May 23 08:39	28° Z 28'18	0.56380 AU	minimum elong	3714 May 01 21:07	11° Z 44'41	2°11'27
morning rise	3713 May 28 17:35	25° Z 35'04		min. Earth dist.	3714 May 05 03:41	9° Z 09'47	0.58245 AU
direct	3713 Jun 02 18:06	24° Z 36'19		morning rise	3714 May 09 09:03	6° Z 27'00	
	3713 Jun 14 21:10	0° II		desc. node	3714 May 09 23:39	6° Z 09'28	
morning max el	3713 Jun 16 23:55	1° II 54'22	25°31'51	direct	3714 May 15 08:20	4° Z 55'06	
	3713 Jul 06 17:29	0° Z		morning max el	3714 May 29 17:39	12° Z 36'13	26°51'41
asc. node	3713 Jul 12 20:59	12° Z 07'06			3714 Jun 12 09:46	0° II	
morning set	3713 Jul 14 02:48	14° Z 43'25		morning set	3714 Jun 28 12:44	29° II 30'18	
					3714 Jun 28 18:23	0° Z	
superior conj	3713 Jul 21 02:32	29° Z 54'29	1°16'53	asc. node	3714 Jun 29 18:01	2° Z 05'17	
minimum elong	3713 Jul 21 00:11	29° Z 41'36	1°16'33				
	3713 Jul 21 03:32	0° II		superior conj	3714 Jul 05 14:18	14° Z 50'14	0°58'02
max. Earth dist.	3713 Jul 22 03:28	2° II 11'04	1.32460 AU	minimum elong	3714 Jul 05 12:08	14° Z 38'21	0°57'38
evening rise	3713 Jul 28 05:05	15° II 08'56		max. Earth dist.	3714 Jul 05 14:36	14° Z 51'54	1.32081 AU
	3713 Aug 04 19:34	0° III		evening rise	3714 Jul 12 12:03	29° Z 50'23	
desc. node	3713 Aug 19 01:53	22° III 45'41			3714 Jul 12 13:53	0° II	
	3713 Aug 24 20:56	0° Z			3714 Jul 29 00:43	0° III	
evening max el	3713 Aug 29 04:32	4° Z 30'34	27°18'46	desc. node	3714 Aug 05 22:55	10° III 47'44	
retrograde	3713 Sep 12 00:11	11° Z 45'29		evening max el	3714 Aug 11 07:05	16° III 32'46	26°39'09
evening set	3713 Sep 19 04:21	9° Z 20'49		retrograde	3714 Aug 25 05:56	23° III 43'40	
min. Earth dist.	3713 Sep 22 18:48	6° Z 30'37	0.62085 AU	evening set	3714 Sep 01 01:16	21° III 46'06	
inferior conj	3713 Sep 25 18:22	3° Z 46'10	-3°-54'-11	min. Earth dist.	3714 Sep 04 20:57	19° III 10'20	0.60054 AU
minimum elong	3713 Sep 26 00:12	3° Z 32'41	3°52'36	inferior conj	3714 Sep 08 03:07	16° III 33'07	-4°-41'-21
	3713 Sep 30 09:03	30° R III		minimum elong	3714 Sep 08 08:14	16° III 22'47	4°40'29
morning rise	3713 Oct 02 23:01	28° III 43'20		morning rise	3714 Sep 15 18:33	11° III 52'18	
direct	3713 Oct 05 06:49	28° III 19'44		direct	3714 Sep 18 02:39	11° III 32'03	
asc. node	3713 Oct 08 20:11	29° III 16'47		morning max el	3714 Sep 25 15:18	15° III 13'08	18°11'44
	3713 Oct 10 00:13	0° Z		asc. node	3714 Sep 25 17:14	15° III 17'50	
morning max el	3713 Oct 12 03:39	1° Z 48'35	17°52'40		3714 Oct 05 20:52	0° Z	
morning set	3713 Oct 28 00:36	26° Z 37'39		morning set	3714 Oct 11 10:30	10° Z 17'40	
	3713 Oct 29 21:31	0° III					
superior conj	3713 Nov 07 23:04	15° III 57'53	0°48'06	superior conj	3714 Oct 20 23:26	28° Z 02'35	1°17'04
minimum elong	3713 Nov 08 02:58	16° III 14'37	0°47'35	minimum elong	3714 Oct 21 03:26	28° Z 20'38	1°16'37
max. Earth dist.	3713 Nov 15 05:12	28° III 05'24	1.43060 AU		3714 Oct 22 01:32	0° III	
desc. node	3713 Nov 15 01:11	27° III 49'02		max. Earth dist.	3714 Oct 28 14:23	11° III 23'11	1.41234 AU
	3713 Nov 16 09:24	0° X		desc. node	3714 Nov 01 22:12	18° III 34'50	
evening rise	3713 Nov 22 11:01	9° X 38'51		evening rise	3714 Nov 02 15:23	19° III 44'51	
	3713 Dec 05 22:28	0° Z			3714 Nov 09 02:47	0° X	
greatest brilliancy	3713 Dec 19 00:33	17° Z 56'53	-0.4m		3714 Nov 30 07:46	0° Z	
evening max el	3713 Dec 23 20:06	23° Z 25'54	21°43'16	greatest brilliancy	3714 Nov 30 21:13	0° Z 41'25	-0.2m
				evening max el	3714 Dec 06 12:17	7° Z 01'21	23°01'55

retrograde	3714 Dec 16 17:11	13°  04'21			3715 Nov 02 10:48	0° 	
evening set	3714 Dec 21 12:04	11°  07'35		evening max el	3715 Nov 19 01:37	20°  40'39	24°21'27
asc. node	3714 Dec 22 16:29	10°  01'47		retrograde	3715 Nov 30 08:20	27°  16'43	
inferior conj	3714 Dec 26 22:13	4°  42'05	1°24'03	evening set	3715 Dec 05 16:51	25°  03'40	
minimum elong	3714 Dec 26 20:25	4°  48'17	1°23'22	asc. node	3715 Dec 09 13:32	20°  48'00	
min. Earth dist.	3714 Dec 26 14:17	5°  09'24	0.67971 AU	min. Earth dist.	3715 Dec 10 10:20	19°  39'21	0.67706 AU
	3714 Dec 30 15:03	30°  R 		inferior conj	3715 Dec 11 05:01	18°  36'40	0°33'32
morning rise	3715 Jan 01 04:45	28°  31'27		minimum elong	3715 Dec 11 04:13	18°  39'22	0°33'13
direct	3715 Jan 05 12:39	26°  48'16		morning rise	3715 Dec 16 15:56	12°  31'49	
	3715 Jan 12 05:46	0° 		direct	3715 Dec 20 10:23	11°  10'40	
morning max el	3715 Jan 14 07:12	1°  55'07	21°29'56	morning max el	3715 Dec 28 04:41	15°  36'28	20°15'06
greatest brilliancy	3715 Jan 19 06:44	7°  34'18	-0.4m	greatest brilliancy	3716 Jan 03 18:40	23°  27'37	-0.5m
desc. node	3715 Jan 28 21:28	20°  35'18			3716 Jan 08 11:46	0° 	
	3715 Feb 04 07:27	0° 		desc. node	3716 Jan 15 18:29	10°  34'26	
morning set	3715 Feb 14 21:24	16°  17'49		morning set	3716 Jan 24 19:17	24°  28'55	
max. Earth dist.	3715 Feb 21 16:35	27°  17'25	1.41971 AU		3716 Jan 28 08:29	0° 	
	3715 Feb 23 07:47	0° 		max. Earth dist.	3716 Feb 04 00:58	10°  35'07	1.43687 AU
superior conj	3715 Mar 01 05:01	10°  00'25	-2°-5'-45	superior conj	3716 Feb 09 22:44	20°  11'16	-2°-4'-28
minimum elong	3715 Mar 01 07:00	10°  09'01	2°05'43	minimum elong	3716 Feb 09 19:25	19°  57'36	2°04'22
evening rise	3715 Mar 12 07:15	29°  11'17			3716 Feb 15 19:35	0° 	
	3715 Mar 12 09:10	0° 		evening rise	3716 Feb 22 16:54	11°  11'57	
asc. node	3715 Mar 20 15:48	14°  43'14			3716 Mar 04 10:00	0° 	
evening max el	3715 Mar 28 17:32	25°  51'43	18°09'31	asc. node	3716 Mar 06 12:51	3°  11'57	
retrograde	3715 Apr 04 12:23	29°  17'47		evening max el	3716 Mar 11 06:00	9°  03'35	18°09'04
evening set	3715 Apr 07 01:30	28°  49'15		retrograde	3716 Mar 17 16:49	12°  26'43	
inferior conj	3715 Apr 13 21:18	23°  56'47	3°06'12	evening set	3716 Mar 20 11:34	11°  47'40	
minimum elong	3715 Apr 14 00:17	23°  49'53	3°05'40	inferior conj	3716 Mar 26 18:22	6°  34'32	3°32'20
min. Earth dist.	3715 Apr 17 04:39	20°  54'45	0.60404 AU	minimum elong	3716 Mar 26 19:37	6°  31'13	3°32'14
morning rise	3715 Apr 20 19:39	18°  08'23		min. Earth dist.	3716 Mar 29 14:01	3°  37'16	0.62533 AU
desc. node	3715 Apr 26 20:40	16°  02'47		morning rise	3716 Apr 02 01:21	0°  31'44	
direct	3715 Apr 27 10:38	16°  01'50			3716 Apr 02 19:22	30°  R 	
morning max el	3715 May 11 17:34	23°  55'02	27°39'54	direct	3716 Apr 08 22:29	27°  11'57	
	3715 May 17 05:12	0° 		desc. node	3716 Apr 12 17:43	28°  11'57	
	3715 Jun 05 15:11	0° 			3716 Apr 15 13:54	0° 	
morning set	3715 Jun 12 19:18	14°  05'17		morning max el	3716 Apr 22 23:25	5°  56'12	27°50'46
asc. node	3715 Jun 16 15:04	22°  11'04			3716 May 11 04:01	0° 	
max. Earth dist.	3715 Jun 19 02:02	27°  11'04	1.32105 AU	morning set	3716 May 26 20:21	28°  11'04	
					3716 May 27 15:52	0° 	
superior conj	3715 Jun 20 01:40	29°  11'04	0°35'30	max. Earth dist.	3716 Jun 01 09:46	9°  56'12	1.32544 AU
minimum elong	3715 Jun 20 00:09	29°  33'29	0°35'11	asc. node	3716 Jun 02 12:07	12°  19'21	
	3715 Jun 20 04:58	0° 					
evening rise	3715 Jun 26 22:28	14°  39'49		superior conj	3716 Jun 03 10:49	14°  19'21	0°09'56
	3715 Jul 04 14:27	0° 		minimum elong	3716 Jun 03 10:21	14°  19'21	0°09'49
desc. node	3715 Jul 23 19:56	27°  32'05		behind sun begin	3716 Jun 03 06:13	13°  57'25	
evening max el	3715 Jul 24 02:25	27°  47'41	25°28'45	behind sun end	3716 Jun 03 14:28	14°  57'25	
	3715 Jul 26 14:16	0° 		evening rise	3716 Jun 10 10:16	29°  11'04	
retrograde	3715 Aug 07 01:50	4°  53'36			3716 Jun 10 16:02	0° 	
evening set	3715 Aug 12 23:25	3°  32'39			3716 Jun 27 12:15	0° 	
min. Earth dist.	3715 Aug 17 14:22	0°  53'39	0.58017 AU	evening max el	3716 Jul 04 15:59	8°  23'11	23°57'27
	3715 Aug 18 21:36	30°  R 		desc. node	3716 Jul 09 16:59	12°  27'16	
inferior conj	3715 Aug 20 17:36	28°  42'31	-5°-7'-30	retrograde	3716 Jul 18 09:54	15°  27'16	
minimum elong	3715 Aug 20 19:12	28°  39'43	5°07'27	evening set	3716 Jul 22 21:51	14°  27'16	
morning rise	3715 Aug 28 18:30	24°  24'53		min. Earth dist.	3716 Jul 29 02:21	11°  33'31	0.56257 AU
direct	3715 Aug 31 06:20	24°  05'43		inferior conj	3716 Jul 31 11:46	10°  33'31	-4°-57'-43
morning max el	3715 Sep 08 19:38	28°  09'03	18°51'31	minimum elong	3716 Jul 31 07:28	10°  12'19	4°57'18
	3715 Sep 10 14:18	0° 		morning rise	3716 Aug 08 20:31	6°  07'58	
asc. node	3715 Sep 12 14:18	2°  27'28		direct	3716 Aug 11 14:34	5°  48'29	
morning set	3715 Sep 25 06:57	24°  28'23		morning max el	3716 Aug 21 13:39	10°  26'04	19°53'04
	3715 Sep 28 02:26	0° 		asc. node	3716 Aug 29 11:21	20°  30'07	
superior conj	3715 Oct 03 19:50	11°  06'29	1°35'02		3716 Sep 03 21:06	0° 	
minimum elong	3715 Oct 03 22:27	11°  18'57	1°34'50	morning set	3716 Sep 08 10:34	8°  59'32	
max. Earth dist.	3715 Oct 10 19:45	23°  59'57	1.39177 AU	superior conj	3716 Sep 16 06:54	24°  59'32	1°43'24
	3715 Oct 14 06:08	0° 		minimum elong	3716 Sep 16 07:48	24°  58'18	1°43'23
evening rise	3715 Oct 14 18:54	0°  54'38			3716 Sep 18 21:03	0° 	
desc. node	3715 Oct 19 19:13	9°  15'35		max. Earth dist.	3716 Sep 22 00:51	6°  02'58	1.37131 AU

evening rise	3716 Sep 25 20:49	13° Ω 06'22		evening rise	3717 Sep 08 17:16	26° η 10'32	
desc. node	3716 Oct 05 16:16	29° Ω 46'39			3717 Sep 10 18:28	0° Ω	
	3716 Oct 05 19:36	0° \mathbb{M}		desc. node	3717 Sep 22 13:18	20° Ω 02'34	
	3716 Oct 27 10:44	0° \mathcal{A}			3717 Sep 29 05:38	0° \mathbb{M}	
evening max el	3716 Oct 31 13:53	4° \mathcal{A} 22'24	25°35'02	evening max el	3717 Oct 14 02:14	18° \mathbb{M} 02'01	26°35'14
retrograde	3716 Nov 12 19:04	11° \mathcal{A} 22'55		retrograde	3717 Oct 27 00:44	25° \mathbb{M} 16'23	
evening set	3716 Nov 18 17:40	8° \mathcal{A} 55'21		evening set	3717 Nov 02 12:34	22° \mathbb{M} 38'35	
min. Earth dist.	3716 Nov 23 03:23	4° \mathcal{A} 06'10	0.67091 AU	min. Earth dist.	3717 Nov 06 15:08	18° \mathbb{M} 25'29	0.66127 AU
inferior conj	3716 Nov 24 09:03	2° \mathcal{A} 31'20	0°-21'-54	inferior conj	3717 Nov 08 08:18	16° \mathbb{M} 22'20	-1°-21'-1
minimum elong	3716 Nov 24 09:36	2° \mathcal{A} 29'31	0°21'40	minimum elong	3717 Nov 08 10:32	16° \mathbb{M} 15'41	1°20'07
asc. node	3716 Nov 25 10:35	1° \mathcal{A} 10'29		asc. node	3717 Nov 12 07:37	12° \mathbb{M} 05'38	
	3716 Nov 26 09:53	30° \mathbb{R} \mathbb{M}		morning rise	3717 Nov 14 09:54	10° \mathbb{M} 36'29	
morning rise	3716 Nov 30 02:23	26° \mathbb{M} 34'40		direct	3717 Nov 17 06:51	9° \mathbb{M} 50'13	
direct	3716 Dec 03 09:01	25° \mathbb{M} 32'50		morning max el	3717 Nov 23 21:52	13° \mathbb{M} 27'15	18°29'18
morning max el	3716 Dec 10 10:07	29° \mathbb{M} 28'50	19°14'18		3717 Dec 05 21:40	0° \mathcal{A}	
	3716 Dec 10 22:18	0° \mathcal{A}		morning set	3717 Dec 13 21:53	12° \mathcal{A} 45'31	
greatest brilliancy	3716 Dec 20 08:41	12° \mathcal{A} 21'50	-0.7m	desc. node	3717 Dec 19 12:32	21° \mathcal{A} 42'11	
	3716 Dec 31 22:17	0° \mathcal{B}			3717 Dec 24 18:27	0° \mathcal{B}	
desc. node	3717 Jan 01 15:31	1° \mathcal{B} 06'47		superior conj	3717 Dec 29 18:03	7° \mathcal{B} 50'01	-1°-6'-1
morning set	3717 Jan 02 20:28	2° \mathcal{B} 59'08		minimum elong	3717 Dec 29 10:04	7° \mathcal{B} 18'42	1°05'04
max. Earth dist.	3717 Jan 16 15:46	24° \mathcal{B} 33'13	1.44817 AU	max. Earth dist.	3717 Dec 30 09:57	8° \mathcal{B} 52'22	1.45245 AU
					3718 Jan 12 20:32	0° \approx	
superior conj	3717 Jan 19 15:27	29° \mathcal{B} 16'47	-1°-44'-18	evening rise	3718 Jan 14 18:26	3° \approx 01'28	
minimum elong	3717 Jan 19 06:55	28° \mathcal{B} 42'55	1°43'36	greatest brilliancy	3718 Jan 26 05:19	21° \approx 03'20	-0.8m
	3717 Jan 20 02:20	0° \approx			3718 Feb 01 07:25	0° \mathcal{H}	
evening rise	3717 Feb 03 05:21	22° \approx 54'40		evening max el	3718 Feb 06 04:08	5° \mathcal{H} 55'02	19°03'21
	3717 Feb 07 12:10	0° \mathcal{H}		asc. node	3718 Feb 08 06:56	7° \mathcal{H} 50'17	
asc. node	3717 Feb 21 09:54	20° \mathcal{H} 58'36		retrograde	3718 Feb 13 01:41	9° \mathcal{H} 49'25	
evening max el	3717 Feb 22 18:21	22° \mathcal{H} 26'37	18°27'21	evening set	3718 Feb 16 08:40	8° \mathcal{H} 46'31	
retrograde	3717 Mar 01 06:34	25° \mathcal{H} 59'53		inferior conj	3718 Feb 21 23:54	2° \mathcal{H} 57'46	3°26'26
evening set	3717 Mar 04 07:00	25° \mathcal{H} 09'26		minimum elong	3718 Feb 21 22:15	3° \mathcal{H} 03'02	3°26'13
inferior conj	3717 Mar 10 04:29	19° \mathcal{H} 37'25	3°37'18	min. Earth dist.	3718 Feb 23 13:02	1° \mathcal{H} 00'19	0.65912 AU
minimum elong	3717 Mar 10 04:03	19° \mathcal{H} 38'41	3°37'18		3718 Feb 24 08:41	30° \mathbb{R} \approx	
min. Earth dist.	3717 Mar 12 09:00	17° \mathcal{H} 04'08	0.64406 AU	morning rise	3718 Feb 27 10:50	26° \approx 43'16	
morning rise	3717 Mar 15 23:35	13° \mathcal{H} 26'41		direct	3718 Mar 05 21:08	23° \approx 54'48	
direct	3717 Mar 22 18:26	10° \mathcal{H} 38'48		desc. node	3718 Mar 17 11:45	0° \mathcal{H} 17'23	
desc. node	3717 Mar 30 14:44	13° \mathcal{H} 36'42			3718 Mar 17 04:22	0° \mathcal{H}	
morning max el	3717 Apr 05 08:46	18° \mathcal{H} 33'22	27°25'27	morning max el	3718 Mar 18 18:40	1° \mathcal{H} 33'09	26°30'00
	3717 Apr 15 00:37	0° \mathcal{Y}			3718 Apr 09 02:58	0° \mathcal{Y}	
	3717 May 04 02:12	0° \mathcal{B}		morning set	3718 Apr 23 18:27	25° \mathcal{Y} 18'26	
morning set	3717 May 10 13:15	12° \mathcal{B} 08'50			3718 Apr 26 05:24	0° \mathcal{B}	
max. Earth dist.	3717 May 15 09:44	21° \mathcal{B} 56'10	1.33419 AU	max. Earth dist.	3718 Apr 27 22:32	3° \mathcal{B} 21'08	1.34752 AU
				superior conj	3718 May 02 14:32	12° \mathcal{B} 46'15	0°-46'-51
superior conj	3717 May 18 15:52	28° \mathcal{B} 46'11	0°-17'-54	minimum elong	3718 May 02 17:01	12° \mathcal{B} 59'01	0°46'22
minimum elong	3717 May 18 16:47	28° \mathcal{B} 51'02	0°17'43	asc. node	3718 May 07 06:13	22° \mathcal{B} 27'35	
	3717 May 19 05:45	0° \mathbb{I}		evening rise	3718 May 10 06:33	28° \mathcal{B} 44'40	
asc. node	3717 May 20 09:10	2° \mathbb{I} 26'21			3718 May 10 21:09	0° \mathbb{I}	
evening rise	3717 May 25 21:38	14° \mathbb{I} 13'19		evening max el	3718 May 29 05:53	29° \mathbb{I} 34'58	20°52'34
	3717 Jun 02 21:18	0° \mathcal{E}			3718 May 29 16:20	0° \mathcal{E}	
evening max el	3717 Jun 16 06:32	18° \mathcal{E} 48'01	22°20'39	retrograde	3718 Jun 09 18:59	5° \mathcal{E} 13'44	
desc. node	3717 Jun 26 14:00	24° \mathcal{E} 58'15		evening set	3718 Jun 11 22:27	5° \mathcal{E} 02'49	
retrograde	3717 Jun 29 06:04	25° \mathcal{E} 14'42		desc. node	3718 Jun 13 10:59	4° \mathcal{E} 42'32	
evening set	3717 Jul 02 06:52	24° \mathcal{E} 54'21		inferior conj	3718 Jun 21 05:48	1° \mathcal{E} 05'37	-2°-15'-59
min. Earth dist.	3717 Jul 10 13:06	21° \mathcal{E} 19'32	0.55117 AU	minimum elong	3718 Jun 20 23:31	1° \mathcal{E} 14'33	2°13'48
inferior conj	3717 Jul 11 12:25	20° \mathcal{E} 46'34	-3°-59'-8	min. Earth dist.	3718 Jun 22 00:54	0° \mathcal{E} 38'29	0.54866 AU
minimum elong	3717 Jul 11 04:05	20° \mathcal{E} 58'21	3°57'05		3718 Jun 23 04:17	30° \mathbb{R} \mathbb{I}	
morning rise	3717 Jul 20 03:30	16° \mathcal{E} 56'15		morning rise	3718 Jun 29 23:52	27° \mathbb{I} 03'15	
direct	3717 Jul 23 05:38	16° \mathcal{E} 34'44		direct	3718 Jul 03 14:58	26° \mathbb{I} 34'52	
morning max el	3717 Aug 03 19:55	21° \mathcal{E} 58'40	21°15'19		3718 Jul 13 04:58	0° \mathcal{E}	
	3717 Aug 10 15:06	0° \mathcal{Q}		morning max el	3718 Jul 16 15:51	2° \mathcal{E} 49'53	22°53'14
asc. node	3717 Aug 16 08:23	9° \mathcal{Q} 13'25		asc. node	3718 Aug 03 05:26	28° \mathcal{E} 27'36	
morning set	3717 Aug 23 18:48	23° \mathcal{Q} 44'06			3718 Aug 04 00:24	0° \mathcal{Q}	
	3717 Aug 26 18:46	0° η		morning set	3718 Aug 08 05:41	8° \mathcal{Q} 36'35	
superior conj	3717 Aug 31 04:17	9° η 11'47	1°43'48	superior conj	3718 Aug 15 08:41	23° \mathcal{Q} 50'28	1°37'36
minimum elong	3717 Aug 31 03:40	9° η 08'40	1°43'48				
max. Earth dist.	3717 Sep 04 10:57	17° η 53'51	1.35322 AU				

minimum elong	3718 Aug 15 07:01	23° Ω 41'34	1°37'29	superior conj	3719 Jul 30 17:30	8° Ω 40'58	1°25'51
max. Earth dist.	3718 Aug 18 05:55	29° Ω 56'13	1.33886 AU	minimum elong	3719 Jul 30 15:16	8° Ω 28'45	1°25'34
	3718 Aug 18 06:39	0° \cap		max. Earth dist.	3719 Aug 01 09:33	12° Ω 18'13	1.32864 AU
evening rise	3718 Aug 23 03:53	9° \cap 55'40		evening rise	3719 Aug 07 00:45	24° Ω 09'52	
	3718 Sep 03 04:20	0° $\underline{\Omega}$			3719 Aug 09 22:54	0° \cap	
desc. node	3718 Sep 09 10:19	9° $\underline{\Omega}$ 56'21		desc. node	3719 Aug 27 07:20	29° \cap 17'59	
	3718 Sep 25 01:37	0° \cap			3719 Aug 27 19:12	0° $\underline{\Omega}$	
evening max el	3718 Sep 26 14:38	1° \cap 31'21	27°14'37	evening max el	3719 Sep 09 01:16	14° $\underline{\Omega}$ 36'54	27°26'27
retrograde	3718 Oct 10 00:42	8° \cap 49'36		retrograde	3719 Sep 22 18:06	21° $\underline{\Omega}$ 52'55	
evening set	3718 Oct 16 23:12	6° \cap 08'49		evening set	3719 Sep 29 22:26	19° $\underline{\Omega}$ 19'06	
min. Earth dist.	3718 Oct 20 19:22	2° \cap 31'23	0.64814 AU	min. Earth dist.	3719 Oct 03 13:58	16° $\underline{\Omega}$ 13'53	0.63170 AU
inferior conj	3718 Oct 23 00:36	0° \cap 05'22	-2°-21'-59	inferior conj	3719 Oct 06 07:13	13° $\underline{\Omega}$ 33'05	-3°-21'-55
minimum elong	3718 Oct 23 04:35	29° $\underline{\Omega}$ 54'27	2°20'29	minimum elong	3719 Oct 06 12:39	13° $\underline{\Omega}$ 19'41	3°20'12
	3718 Oct 23 02:34	30° \cap $\underline{\Omega}$		morning rise	3719 Oct 13 05:26	8° $\underline{\Omega}$ 18'22	
morning rise	3718 Oct 29 11:58	24° $\underline{\Omega}$ 33'21		direct	3719 Oct 15 14:37	7° $\underline{\Omega}$ 51'30	
asc. node	3718 Oct 30 04:37	24° $\underline{\Omega}$ 17'13		asc. node	3719 Oct 17 01:39	8° $\underline{\Omega}$ 01'49	
direct	3718 Nov 01 01:41	23° $\underline{\Omega}$ 58'36		morning max el	3719 Oct 22 05:55	11° $\underline{\Omega}$ 17'18	17°50'26
morning max el	3718 Nov 07 13:27	27° $\underline{\Omega}$ 25'58	18°01'06		3719 Nov 03 20:15	0° \cap	
	3718 Nov 09 20:22	0° \cap		morning set	3719 Nov 07 12:26	6° \cap 25'34	
morning set	3718 Nov 25 04:50	24° \cap 00'04					
	3718 Nov 28 19:19	0° \nearrow		superior conj	3719 Nov 19 10:45	26° \cap 54'04	0°26'21
desc. node	3718 Dec 06 09:36	12° \nearrow 25'22		minimum elong	3719 Nov 19 13:21	27° \cap 04'54	0°25'58
					3719 Nov 21 07:41	0° \nearrow	
superior conj	3718 Dec 09 03:07	16° \nearrow 48'20	0°-18'-37	desc. node	3719 Nov 23 06:37	3° \nearrow 12'07	
minimum elong	3718 Dec 09 00:49	16° \nearrow 39'11	0°18'18	max. Earth dist.	3719 Nov 25 22:12	7° \nearrow 29'12	1.43923 AU
max. Earth dist.	3718 Dec 13 05:03	23° \nearrow 17'02	1.44936 AU	evening rise	3719 Dec 04 21:05	21° \nearrow 34'14	
	3718 Dec 17 11:45	0° $\overline{\Omega}$			3719 Dec 10 09:32	0° $\overline{\Omega}$	
evening rise	3718 Dec 25 11:46	12° $\overline{\Omega}$ 24'37		greatest brilliancy	3719 Dec 29 02:00	26° $\overline{\Omega}$ 46'37	-0.5m
	3719 Jan 06 00:07	0° \approx			3719 Dec 31 16:47	0° \approx	
greatest brilliancy	3719 Jan 13 08:44	10° \approx 43'17	-0.6m	evening max el	3720 Jan 03 09:42	2° \approx 59'21	21°00'55
evening max el	3719 Jan 20 09:37	19° \approx 26'33	19°55'22	retrograde	3720 Jan 11 21:14	8° \approx 00'35	
asc. node	3719 Jan 26 03:56	23° \approx 33'14		asc. node	3720 Jan 13 00:56	7° \approx 53'17	
retrograde	3719 Jan 27 23:19	23° \approx 50'58		evening set	3720 Jan 15 21:44	6° \approx 28'58	
evening set	3719 Jan 31 14:14	22° \approx 34'24		inferior conj	3720 Jan 21 07:24	0° \approx 14'16	2°30'55
inferior conj	3719 Feb 06 01:41	16° \approx 31'15	3°03'28	minimum elong	3720 Jan 21 04:54	0° \approx 22'53	2°30'11
minimum elong	3719 Feb 05 23:21	16° \approx 39'04	3°02'57		3720 Jan 21 11:33	30° \cap $\overline{\Omega}$	
min. Earth dist.	3719 Feb 07 00:29	15° \approx 15'05	0.67006 AU	min. Earth dist.	3720 Jan 21 17:19	29° $\overline{\Omega}$ 40'10	0.67682 AU
morning rise	3719 Feb 11 07:50	10° \approx 15'33		morning rise	3720 Jan 26 11:42	23° $\overline{\Omega}$ 59'16	
direct	3719 Feb 17 05:36	7° \approx 38'08		direct	3720 Jan 31 18:52	21° $\overline{\Omega}$ 40'38	
morning max el	3719 Mar 01 03:30	14° \approx 44'59	25°13'30	morning max el	3720 Feb 11 12:02	28° $\overline{\Omega}$ 03'33	23°46'17
desc. node	3719 Mar 04 08:48	18° \approx 13'25			3720 Feb 13 08:17	0° \approx	
	3719 Mar 13 15:08	0° \nmid		desc. node	3720 Feb 19 05:51	7° \approx 03'14	
	3719 Apr 01 23:27	0° Υ			3720 Mar 06 08:14	0° \nmid	
morning set	3719 Apr 06 07:15	7° Υ 36'05		morning set	3720 Mar 17 21:50	18° \nmid 46'29	
max. Earth dist.	3719 Apr 10 00:05	14° Υ 23'10	1.36532 AU	max. Earth dist.	3720 Mar 21 19:45	25° \nmid 34'31	1.38630 AU
					3720 Mar 24 07:06	0° Υ	
superior conj	3719 Apr 16 03:58	26° Υ 14'50	-1°-15'-15				
minimum elong	3719 Apr 16 07:54	26° Υ 34'17	1°14'38	superior conj	3720 Mar 29 04:34	9° Υ 02'51	-1°-40'-40
	3719 Apr 18 01:11	0° Ξ		minimum elong	3720 Mar 29 09:15	9° Υ 24'57	1°40'10
evening rise	3719 Apr 24 10:52	12° Ξ 57'09		evening rise	3720 Apr 07 07:58	26° Υ 44'00	
asc. node	3719 Apr 24 03:15	12° Ξ 18'44			3720 Apr 09 00:19	0° Ξ	
	3719 May 03 12:01	0° Π		asc. node	3720 Apr 10 00:16	1° Ξ 55'18	
evening max el	3719 May 11 17:21	11° Π 00'43	19°41'15	evening max el	3720 Apr 23 15:53	23° Ξ 06'29	18°49'43
retrograde	3719 May 21 12:29	15° Π 46'21		retrograde	3720 May 01 22:13	27° Ξ 08'59	
evening set	3719 May 23 11:41	15° Π 35'41		evening set	3720 May 04 01:37	26° Ξ 53'44	
desc. node	3719 May 31 08:00	12° Π 07'35		inferior conj	3720 May 12 01:10	22° Ξ 34'00	1°26'56
inferior conj	3719 Jun 01 06:21	11° Π 32'55	0°-16'-27	minimum elong	3720 May 12 04:13	22° Ξ 28'27	1°25'56
minimum elong	3719 Jun 01 05:36	11° Π 34'05	0°16'12	min. Earth dist.	3720 May 15 06:37	20° Ξ 14'26	0.57113 AU
min. Earth dist.	3719 Jun 03 14:20	10° Π 05'44	0.55584 AU	desc. node	3720 May 17 05:02	18° Ξ 58'26	
morning rise	3719 Jun 09 20:10	7° Π 01'32		morning rise	3720 May 20 02:25	17° Ξ 27'12	
direct	3719 Jun 14 07:25	6° Π 17'07		direct	3720 May 25 13:07	16° Ξ 15'27	
morning max el	3719 Jun 28 06:06	13° Π 15'27	24°36'16	morning max el	3720 Jun 08 21:14	23° Ξ 43'59	26°09'09
	3719 Jul 11 05:49	0° $\overline{\Xi}$			3720 Jun 14 13:18	0° Π	
asc. node	3719 Jul 21 02:28	18° $\overline{\Xi}$ 03'58			3720 Jul 03 02:26	0° $\overline{\Xi}$	
morning set	3719 Jul 23 17:28	23° $\overline{\Xi}$ 31'08		asc. node	3720 Jul 06 23:32	7° $\overline{\Xi}$ 56'05	
	3719 Jul 26 17:57	0° Ω		morning set	3720 Jul 07 04:35	8° $\overline{\Xi}$ 22'43	

superior conj	3720 Jul 14 04:44	23°☿36'39	1°09'23	morning set	3721 Jun 21 13:20	23°♊05'11	
minimum elong	3720 Jul 14 02:25	23°☿23'51	1°09'00	asc. node	3721 Jun 23 20:35	27°♊57'56	
max. Earth dist.	3720 Jul 14 19:07	24°☿55'46	1.32252 AU		3721 Jun 24 19:14	0°☿	
	3720 Jul 17 02:41	0°♊					
evening rise	3720 Jul 21 04:47	8°♊43'48		superior conj	3721 Jun 28 16:32	8°☿30'55	0°48'53
	3720 Aug 01 08:05	0°♊		minimum elong	3721 Jun 28 14:36	8°☿20'14	0°48'30
desc. node	3720 Aug 13 04:20	17°♊54'11		max. Earth dist.	3721 Jun 28 06:53	7°☿37'44	1.32040 AU
evening max el	3720 Aug 21 07:29	27°♊05'08	27°05'56	evening rise	3721 Jul 05 13:27	23°☿28'56	
	3720 Aug 24 17:02	0°♊			3721 Jul 08 16:58	0°♊	
retrograde	3720 Sep 04 04:15	4°♊17'34			3721 Jul 26 13:58	0°♊	
evening set	3720 Sep 11 06:20	2°♊02'51		desc. node	3721 Jul 31 01:22	5°♊26'11	
	3720 Sep 14 02:43	30°♊♊		evening max el	3721 Aug 03 06:47	8°♊46'04	26°12'28
min. Earth dist.	3720 Sep 14 21:46	29°♊20'56	0.61248 AU	retrograde	3721 Aug 17 06:12	15°♊55'40	
inferior conj	3720 Sep 18 00:58	26°♊37'32	-4°-15'-57	evening set	3721 Aug 23 18:06	14°♊12'31	
minimum elong	3720 Sep 18 06:47	26°♊24'51	4°14'35	min. Earth dist.	3721 Aug 27 19:38	11°♊38'00	0.59173 AU
morning rise	3720 Sep 25 10:19	21°♊43'44		inferior conj	3721 Aug 31 02:17	9°♊09'14	-4°-55'-49
direct	3720 Sep 27 18:00	21°♊21'44		minimum elong	3721 Aug 31 06:18	9°♊01'36	4°55'22
asc. node	3720 Oct 02 22:43	23°♊16'43		morning rise	3721 Sep 07 22:00	4°♊38'43	
morning max el	3720 Oct 04 20:17	24°♊54'14	17°58'18	direct	3721 Sep 10 07:18	4°♊19'12	
	3720 Oct 09 01:26	0°♊		morning max el	3721 Sep 18 05:17	8°♊08'07	18°26'08
morning set	3720 Oct 20 14:17	19°♊42'53		asc. node	3721 Sep 19 19:47	9°♊48'52	
	3720 Oct 26 05:16	0°♊			3721 Oct 02 07:41	0°♊	
				morning set	3721 Oct 04 05:11	3°♊37'22	
superior conj	3720 Oct 30 21:12	8°♊18'20	1°01'48				
minimum elong	3720 Oct 31 01:25	8°♊36'48	1°01'15	superior conj	3721 Oct 13 06:52	20°♊50'54	1°25'56
max. Earth dist.	3720 Nov 07 10:53	21°♊11'43	1.42334 AU	minimum elong	3721 Oct 13 10:23	21°♊07'06	1°25'36
desc. node	3720 Nov 09 03:38	23°♊59'12			3721 Oct 18 08:23	0°♊	
	3720 Nov 12 21:04	0°♊		max. Earth dist.	3721 Oct 20 18:04	4°♊11'51	1.40368 AU
evening rise	3720 Nov 13 14:40	1°♊09'56		evening rise	3721 Oct 25 04:34	11°♊42'22	
	3720 Dec 02 22:21	0°♊		desc. node	3721 Oct 27 00:39	14°♊43'34	
greatest brilliancy	3720 Dec 11 10:42	11°♊13'18	-0.3m		3721 Nov 05 18:58	0°♊	
evening max el	3720 Dec 16 04:21	16°♊33'02	22°16'11		3721 Nov 28 15:00	0°♊	
retrograde	3720 Dec 25 17:40	22°♊14'07		evening max el	3721 Nov 28 18:55	0°♊09'48	23°35'59
asc. node	3720 Dec 29 21:58	20°♊41'08		retrograde	3721 Dec 09 11:13	6°♊28'29	
evening set	3720 Dec 30 05:27	20°♊26'30		evening set	3721 Dec 14 11:46	4°♊24'33	
inferior conj	3721 Jan 04 14:59	14°♊03'38	1°50'27	asc. node	3721 Dec 16 19:01	2°♊04'14	
minimum elong	3721 Jan 04 12:48	14°♊11'12	1°49'40		3721 Dec 18 10:29	30°♊♊	
min. Earth dist.	3721 Jan 04 13:15	14°♊09'38	0.67968 AU	inferior conj	3721 Dec 19 22:36	27°♊57'36	1°03'19
morning rise	3721 Jan 09 20:01	7°♊50'57		minimum elong	3721 Dec 19 21:10	28°♊02'28	1°02'45
direct	3721 Jan 14 12:10	5°♊54'49		min. Earth dist.	3721 Dec 19 10:01	28°♊40'35	0.67896 AU
morning max el	3721 Jan 23 23:11	11°♊28'53	22°17'59	morning rise	3721 Dec 25 06:44	21°♊49'06	
greatest brilliancy	3721 Jan 28 12:49	16°♊35'09	-0.3m	direct	3721 Dec 29 08:37	20°♊15'44	
desc. node	3721 Feb 05 02:52	26°♊31'02		morning max el	3722 Jan 06 16:19	25°♊04'21	20°56'34
	3721 Feb 07 14:23	0°♊			3722 Jan 11 01:04	0°♊	
morning set	3721 Feb 26 08:33	28°♊35'41		greatest brilliancy	3722 Jan 12 05:23	1°♊28'44	-0.5m
	3721 Feb 27 05:16	0°♊		desc. node	3722 Jan 22 23:54	16°♊26'33	
max. Earth dist.	3721 Mar 03 16:52	7°♊26'27	1.40800 AU		3722 Feb 01 00:47	0°♊	
				morning set	3722 Feb 05 16:05	7°♊10'29	
superior conj	3721 Mar 11 11:39	20°♊58'04	-1°-59'-36	max. Earth dist.	3722 Feb 13 20:11	20°♊11'59	1.42757 AU
minimum elong	3721 Mar 11 15:24	21°♊14'50	1°59'25		3722 Feb 19 18:16	0°♊	
	3721 Mar 16 10:45	0°♊					
evening rise	3721 Mar 21 18:33	9°♊56'08		superior conj	3722 Feb 20 20:10	1°♊49'25	-2°-7'-17
asc. node	3721 Mar 27 21:19	21°♊11'13		minimum elong	3722 Feb 20 20:12	1°♊49'32	2°07'18
	3721 Apr 02 06:33	0°♊		evening rise	3722 Mar 04 14:35	22°♊24'43	
evening max el	3721 Apr 06 22:25	5°♊44'46	18°18'26		3722 Mar 08 20:45	0°♊	
retrograde	3721 Apr 14 03:02	9°♊19'47		asc. node	3722 Mar 14 18:22	9°♊59'45	
evening set	3721 Apr 16 12:32	8°♊56'49		evening max el	3722 Mar 21 09:40	18°♊47'05	18°06'58
inferior conj	3721 Apr 23 17:32	4°♊16'27	2°39'03	retrograde	3722 Mar 28 00:01	22°♊10'20	
minimum elong	3721 Apr 23 21:09	4°♊08'44	2°38'11	evening set	3722 Mar 30 15:26	21°♊37'37	
min. Earth dist.	3721 Apr 27 03:53	1°♊22'42	0.59144 AU	inferior conj	3722 Apr 06 05:16	16°♊36'25	3°20'15
	3721 Apr 28 23:24	30°♊♊		minimum elong	3722 Apr 06 07:34	16°♊30'47	3°19'56
morning rise	3721 May 01 01:43	28°♊39'55		min. Earth dist.	3722 Apr 09 08:27	13°♊33'17	0.61330 AU
desc. node	3721 May 04 02:04	27°♊22'09		morning rise	3722 Apr 12 20:40	10°♊40'36	
direct	3721 May 07 08:31	26°♊53'10		direct	3722 Apr 19 15:24	8°♊20'55	
	3721 May 16 02:54	0°♊		desc. node	3722 Apr 20 23:07	8°♊25'57	
morning max el	3721 May 21 17:44	4°♊40'40	27°16'41	morning max el	3722 May 03 20:28	16°♊18'02	27°49'04
	3721 Jun 09 09:09	0°♊			3722 May 15 02:39	0°♊	

	3722 Jun 01 23:17	0°♂		desc. node	3723 Apr 07 20:08	22°♂06'25	
morning set	3722 Jun 05 17:49	7°♂32'32		morning max el	3723 Apr 16 03:55	28°♂34'57	27°44'03
asc. node	3722 Jun 10 17:39	18°♂05'07			3723 Apr 17 12:53	0°♀	
max. Earth dist.	3722 Jun 11 17:01	20°♂11'52	1.32236 AU		3723 May 08 22:22	0°♂	
				morning set	3723 May 20 15:46	21°♂37'38	
superior conj	3722 Jun 13 03:10	23°♂18'17	0°24'58		3723 May 24 17:54	0°♂	
minimum elong	3722 Jun 13 02:03	23°♂12'09	0°24'44	max. Earth dist.	3723 May 25 21:45	2°♂26'35	1.32856 AU
	3722 Jun 16 04:28	0°♂					
evening rise	3722 Jun 20 00:40	8°♂18'40		superior conj	3723 May 28 10:52	7°♂52'58	0°-1'-40
	3722 Jul 01 06:21	0°♂		minimum elong	3723 May 28 10:57	7°♂53'25	0°01'40
evening max el	3722 Jul 15 23:00	19°♂41'05	24°51'36	behind sun begin	3723 May 28 05:41	7°♂25'04	
desc. node	3722 Jul 17 22:24	21°♂27'56		behind sun end	3723 May 28 16:13	8°♂21'48	
retrograde	3722 Jul 29 21:39	26°♂44'29		asc. node	3723 May 28 14:43	8°♂13'42	
evening set	3722 Aug 04 05:46	25°♂39'51		evening rise	3723 Jun 04 12:31	23°♂06'56	
min. Earth dist.	3722 Aug 09 10:28	22°♂53'37	0.57204 AU		3723 Jun 07 20:11	0°♂	
inferior conj	3722 Aug 12 08:07	20°♂58'59	-5°-8'-45		3723 Jun 27 08:26	0°♂	
minimum elong	3722 Aug 12 07:21	21°♂00'15	5°08'45	evening max el	3723 Jun 27 12:15	0°♂09'17	23°16'07
morning rise	3722 Aug 20 12:32	16°♂50'43		desc. node	3723 Jul 04 19:25	5°♂26'37	
direct	3722 Aug 23 02:33	16°♂31'44		retrograde	3723 Jul 11 00:24	6°♂54'13	
morning max el	3722 Sep 01 05:34	20°♂48'32	19°15'07	evening set	3723 Jul 14 20:27	6°♂22'04	
asc. node	3722 Sep 06 16:51	27°♂22'35		min. Earth dist.	3723 Jul 21 21:48	3°♂08'53	0.55675 AU
	3722 Sep 08 10:27	0°♂		inferior conj	3723 Jul 23 18:13	2°♂03'45	-4°-39'-15
morning set	3722 Sep 18 05:01	17°♂57'22		minimum elong	3723 Jul 23 11:38	2°♂13'27	4°38'09
	3722 Sep 24 06:04	0°♂			3723 Jul 27 10:53	30°♂	
				morning rise	3723 Aug 01 05:47	28°♂10'49	
superior conj	3722 Sep 26 10:05	4°♂14'47	1°39'38	direct	3723 Aug 04 03:03	27°♂50'39	
minimum elong	3722 Sep 26 11:58	4°♂23'58	1°39'33		3723 Aug 11 04:08	0°♂	
max. Earth dist.	3722 Oct 02 22:09	16°♂30'01	1.38282 AU	morning max el	3723 Aug 14 18:37	2°♂47'15	20°25'39
evening rise	3722 Oct 06 17:58	23°♂19'29		asc. node	3723 Aug 24 13:54	15°♂44'17	
	3722 Oct 10 15:40	0°♂			3723 Sep 01 04:21	0°♂	
desc. node	3722 Oct 13 21:41	5°♂20'47		morning set	3723 Sep 02 10:54	2°♂35'18	
	3722 Oct 30 14:24	0°♂					
evening max el	3722 Nov 11 07:33	13°♂50'29	24°53'59	superior conj	3723 Sep 10 01:59	18°♂16'34	1°44'27
retrograde	3722 Nov 23 00:43	20°♂38'45		minimum elong	3723 Sep 10 02:12	18°♂17'41	1°44'28
evening set	3722 Nov 28 15:04	18°♂19'24		max. Earth dist.	3723 Sep 15 04:55	28°♂25'35	1.36325 AU
min. Earth dist.	3722 Dec 03 05:11	13°♂09'35	0.67482 AU		3723 Sep 16 00:35	0°♂	
asc. node	3722 Dec 03 16:04	12°♂33'47		evening rise	3723 Sep 19 04:23	5°♂55'28	
inferior conj	3722 Dec 04 04:27	11°♂52'53	0°10'35	desc. node	3723 Sep 30 18:44	25°♂46'20	
minimum elong	3722 Dec 04 04:11	11°♂53'46	0°10'28		3723 Oct 03 11:44	0°♂	
transit middle	3722 Dec 04 04:11	11°♂53'46	0°10'28	evening max el	3723 Oct 24 20:02	27°♂33'05	26°02'46
transit begin	3722 Dec 04 02:05	12°♂00'43			3723 Oct 27 12:55	0°♂	
transit end	3722 Dec 04 06:17	11°♂46'48		retrograde	3723 Nov 06 09:14	4°♂40'09	
morning rise	3722 Dec 09 17:50	5°♂50'56		evening set	3723 Nov 12 13:36	2°♂07'53	
direct	3722 Dec 13 07:00	4°♂38'25			3723 Nov 14 18:24	30°♂	
morning max el	3722 Dec 20 17:10	8°♂50'29	19°47'18	min. Earth dist.	3723 Nov 16 20:20	27°♂33'47	0.66727 AU
greatest brilliancy	3722 Dec 28 08:35	18°♂14'06	-0.6m	inferior conj	3723 Nov 18 06:42	25°♂46'42	0°-46'-35
	3723 Jan 05 10:44	0°♂		minimum elong	3723 Nov 18 07:56	25°♂42'50	0°46'04
desc. node	3723 Jan 09 20:55	6°♂41'41		asc. node	3723 Nov 20 13:05	23°♂03'35	
morning set	3723 Jan 15 11:59	15°♂19'41		morning rise	3723 Nov 24 03:19	19°♂54'02	
	3723 Jan 24 21:45	0°♂		direct	3723 Nov 27 05:38	18°♂59'07	
max. Earth dist.	3723 Jan 27 06:58	3°♂46'37	1.44250 AU	morning max el	3723 Dec 04 01:27	22°♂45'40	18°53'06
					3723 Dec 09 23:21	0°♂	
superior conj	3723 Feb 01 02:45	11°♂30'47	-1°-58'-21	morning set	3723 Dec 25 21:50	24°♂18'13	
minimum elong	3723 Jan 31 20:52	11°♂06'59	1°58'02	desc. node	3723 Dec 27 17:57	27°♂11'07	
	3723 Feb 12 06:51	0°♂			3723 Dec 29 13:03	0°♂	
evening rise	3723 Feb 14 15:35	4°♂00'32		max. Earth dist.	3724 Jan 09 23:51	17°♂56'58	1.45098 AU
asc. node	3723 Mar 01 15:23	28°♂11'53					
	3723 Mar 03 01:27	0°♀		superior conj	3724 Jan 11 11:23	20°♂16'42	-1°-29'-54
evening max el	3723 Mar 04 22:27	2°♀04'39	18°14'40	minimum elong	3724 Jan 11 02:10	19°♂40'27	1°29'00
retrograde	3723 Mar 11 08:45	5°♀30'21			3724 Jan 17 14:54	0°♂	
evening set	3723 Mar 14 05:54	4°♀46'34		evening rise	3724 Jan 26 18:04	14°♂39'37	
	3723 Mar 19 19:47	30°♂			3724 Feb 05 06:00	0°♂	
inferior conj	3723 Mar 20 08:21	29°♂25'28	3°36'39	evening max el	3724 Feb 16 10:01	15°♂30'47	18°40'36
minimum elong	3723 Mar 20 08:51	29°♂24'05	3°36'37	asc. node	3724 Feb 16 12:24	15°♂36'48	
min. Earth dist.	3723 Mar 22 21:53	26°♂36'16	0.63375 AU	retrograde	3724 Feb 23 01:06	19°♂11'22	
morning rise	3723 Mar 26 09:50	23°♂18'50		evening set	3724 Feb 26 04:19	18°♂15'35	
direct	3723 Apr 02 07:07	20°♂37'06		inferior conj	3724 Mar 02 22:47	12°♂36'09	3°34'21

minimum elong	3724 Mar 02 21:46	12° ✕ 39'14	3°34'16	minimum elong	3725 Feb 14 19:15	26° ≈ 09'34	3°17'40
min. Earth dist.	3724 Mar 04 20:38	10° ✕ 17'20	0.65102 AU	min. Earth dist.	3725 Feb 16 04:01	24° ≈ 23'07	0.66427 AU
morning rise	3724 Mar 08 14:01	6° ✕ 23'43		morning rise	3725 Feb 20 05:47	19° ≈ 47'47	
direct	3724 Mar 15 05:57	3° ✕ 34'07		direct	3725 Feb 26 11:01	17° ≈ 03'10	
desc. node	3724 Mar 24 17:09	7° ✕ 51'18		morning max el	3725 Mar 10 23:22	24° ≈ 29'37	25°59'33
morning max el	3724 Mar 28 13:38	11° ✕ 22'35	27°05'04	desc. node	3725 Mar 11 14:10	25° ≈ 07'29	
	3724 Apr 12 08:56	0° Υ			3725 Mar 15 22:37	0° ✕	
	3724 Apr 30 10:41	0° ♄			3725 Apr 05 19:18	0° Υ	
morning set	3724 May 03 04:08	5° ♄ 10'24		morning set	3725 Apr 16 03:01	17° Υ 59'53	
max. Earth dist.	3724 May 07 17:18	14° ♄ 11'13	1.33931 AU	max. Earth dist.	3725 Apr 20 01:30	25° Υ 26'03	1.35464 AU
					3725 Apr 22 09:37	0° ♄	
superior conj	3724 May 11 13:29	22° ♄ 07'36	0°-30'-7	superior conj	3725 Apr 25 08:36	5° ♄ 55'15	0°-59'-4
minimum elong	3724 May 11 15:03	22° ♄ 15'49	0°29'48	minimum elong	3725 Apr 25 11:44	6° ♄ 11'09	0°58'31
asc. node	3724 May 14 11:43	28° ♄ 18'34		asc. node	3725 May 01 08:44	18° ♄ 16'05	
	3724 May 15 06:49	0° ♄		evening rise	3725 May 03 06:21	22° ♄ 10'54	
evening rise	3724 May 18 23:04	7° ♄ 46'24			3725 May 07 03:51	0° ♄	
	3724 May 30 20:30	0° ♄		evening max el	3725 May 21 10:02	21° ♄ 41'47	20°19'48
evening max el	3724 Jun 08 05:49	10° ♄ 40'12	21°41'30	retrograde	3725 Jun 01 05:29	26° ♄ 58'08	
retrograde	3724 Jun 20 15:58	16° ♄ 47'54		evening set	3725 Jun 03 05:27	26° ♄ 48'05	
desc. node	3724 Jun 20 16:25	16° ♄ 47'54		desc. node	3725 Jun 07 13:24	25° ♄ 25'10	
evening set	3724 Jun 23 05:44	16° ♄ 32'57		inferior conj	3725 Jun 12 08:43	22° ♄ 49'53	-1°-25'-5
inferior conj	3724 Jul 02 14:05	12° ♄ 31'33	-3°-19'-36	minimum elong	3725 Jun 12 04:42	22° ♄ 55'46	1°23'38
minimum elong	3724 Jul 02 05:51	12° ♄ 43'04	3°17'09	min. Earth dist.	3725 Jun 13 20:43	21° ♄ 57'08	0.55059 AU
min. Earth dist.	3724 Jul 02 08:28	12° ♄ 39'24	0.54896 AU	morning rise	3725 Jun 21 02:05	18° ♄ 36'54	
morning rise	3724 Jul 11 07:06	8° ♄ 38'59		direct	3725 Jun 25 00:40	18° ♄ 03'20	
direct	3724 Jul 14 14:13	8° ♄ 15'14		morning max el	3725 Jul 08 12:49	24° ♄ 37'48	23°37'20
morning max el	3724 Jul 26 19:57	14° ♄ 00'22	21°55'31		3725 Jul 13 11:30	0° ♄	
	3724 Aug 07 19:48	0° ♄		asc. node	3725 Jul 28 07:59	24° ♄ 05'54	
asc. node	3724 Aug 10 10:56	4° ♄ 41'43			3725 Jul 31 05:39	0° ♄	
morning set	3724 Aug 16 20:28	17° ♄ 23'52		morning set	3725 Aug 01 07:56	2° ♄ 17'37	
	3724 Aug 22 19:33	0° ♄					
superior conj	3724 Aug 24 02:41	2° ♄ 44'01	1°41'55	superior conj	3725 Aug 08 09:15	17° ♄ 28'21	1°33'15
minimum elong	3724 Aug 24 01:34	2° ♄ 38'10	1°41'51	minimum elong	3725 Aug 08 07:16	17° ♄ 17'43	1°33'03
max. Earth dist.	3724 Aug 27 18:54	10° ♄ 20'31	1.34666 AU	max. Earth dist.	3725 Aug 10 17:42	22° ♄ 30'24	1.33399 AU
evening rise	3724 Sep 01 07:21	19° ♄ 18'02			3725 Aug 14 07:57	0° ♄	
	3724 Sep 07 01:57	0° ♄		evening rise	3725 Aug 15 22:43	3° ♄ 16'03	
desc. node	3724 Sep 16 15:46	15° ♄ 53'41			3725 Aug 30 21:04	0° ♄	
	3724 Sep 26 13:48	0° ♄		desc. node	3725 Sep 03 12:46	5° ♄ 34'52	
evening max el	3724 Oct 06 08:36	11° ♄ 09'31	26°54'56	evening max el	3725 Sep 18 20:17	24° ♄ 29'07	27°23'17
retrograde	3724 Oct 19 12:19	18° ♄ 25'46			3725 Sep 26 02:39	0° ♄	
evening set	3724 Oct 26 05:16	15° ♄ 45'40		retrograde	3725 Oct 02 09:33	1° ♄ 47'15	
min. Earth dist.	3724 Oct 30 05:03	11° ♄ 48'04	0.65616 AU		3725 Oct 08 04:59	30° ♄	
inferior conj	3724 Nov 01 03:17	9° ♄ 34'35	-1°-46'-47	evening set	3725 Oct 09 11:28	29° ♄ 07'39	
minimum elong	3724 Nov 01 06:15	9° ♄ 26'00	1°45'36	min. Earth dist.	3725 Oct 13 05:11	25° ♄ 44'59	0.64153 AU
asc. node	3724 Nov 06 10:07	4° ♄ 27'01		inferior conj	3725 Oct 15 15:47	23° ♄ 11'12	-2°-47'-49
morning rise	3724 Nov 07 08:51	3° ♄ 54'18		minimum elong	3725 Oct 15 20:27	22° ♄ 58'57	2°46'09
direct	3724 Nov 10 02:32	3° ♄ 13'17		morning rise	3725 Oct 22 07:42	17° ♄ 46'28	
morning max el	3724 Nov 16 15:09	6° ♄ 44'44	18°15'15	asc. node	3725 Oct 24 07:10	17° ♄ 16'49	
	3724 Dec 02 14:25	0° ♄		direct	3725 Oct 24 19:07	17° ♄ 15'33	
morning set	3724 Dec 05 12:03	4° ♄ 43'25		morning max el	3725 Oct 31 07:33	20° ♄ 41'07	17°54'25
desc. node	3724 Dec 13 15:00	17° ♄ 50'22			3725 Nov 07 08:39	0° ♄	
				morning set	3725 Nov 17 06:12	16° ♄ 29'50	
superior conj	3724 Dec 20 14:05	28° ♄ 53'15	0°-46'-18		3725 Nov 25 06:22	0° ♄	
minimum elong	3724 Dec 20 08:15	28° ♄ 30'13	0°45'32	superior conj	3725 Nov 30 07:28	8° ♄ 16'42	0°01'20
	3724 Dec 21 07:02	0° ♄		minimum elong	3725 Nov 30 07:37	8° ♄ 17'19	0°01'18
max. Earth dist.	3724 Dec 22 19:22	2° ♄ 22'47	1.45205 AU	behind sun begin	3725 Nov 29 21:34	7° ♄ 36'30	
evening rise	3725 Jan 05 21:58	24° ♄ 26'03		behind sun end	3725 Nov 30 17:40	8° ♄ 58'04	
	3725 Jan 09 11:34	0° ♄		desc. node	3725 Nov 30 12:02	8° ♄ 35'15	
greatest brilliancy	3725 Jan 21 02:05	17° ≈ 46'31	-0.7m	max. Earth dist.	3725 Dec 05 13:53	16° ♄ 43'38	1.44576 AU
evening max el	3725 Jan 29 18:09	29° ≈ 01'01	19°23'34		3725 Dec 14 01:22	0° ♄	
	3725 Jan 30 18:18	0° ♄		evening rise	3725 Dec 16 09:57	3° ♄ 38'08	
asc. node	3725 Feb 02 09:24	2° ♄ 01'30			3726 Jan 03 00:39	0° ♄	
retrograde	3725 Feb 05 21:43	3° ♄ 07'13		greatest brilliancy	3726 Jan 06 16:44	5° ≈ 04'35	-0.5m
evening set	3725 Feb 09 07:57	1° ♄ 58'30		evening max el	3726 Jan 12 21:18	12° ≈ 32'29	20°21'46
	3725 Feb 11 14:44	30° ♄		asc. node	3726 Jan 20 06:26	17° ≈ 10'46	
inferior conj	3725 Feb 14 21:16	26° ≈ 03'01	3°17'59				

retrograde	3726 Jan 20 19:51	17° \approx 12'29		retrograde	3727 Jan 04 17:23	1° \approx 23'52	
evening set	3726 Jan 24 14:34	15° \approx 49'42		asc. node	3727 Jan 07 03:28	0° \approx 52'01	
inferior conj	3726 Jan 30 01:01	9° \approx 41'03	2°50'43	evening set	3727 Jan 08 22:22	29° \approx 45'47	
minimum elong	3726 Jan 29 22:33	9° \approx 49'26	2°50'07		3727 Jan 08 14:51	30° \approx 3	
min. Earth dist.	3726 Jan 30 18:08	8° \approx 42'54	0.67335 AU	inferior conj	3727 Jan 14 07:48	23° \approx 27'12	2°14'40
morning rise	3726 Feb 04 06:01	3° \approx 25'12		minimum elong	3727 Jan 14 05:23	23° \approx 35'35	2°13'53
direct	3726 Feb 09 21:35	0° \approx 55'10		min. Earth dist.	3727 Jan 14 12:42	23° \approx 10'11	0.67848 AU
morning max el	3726 Feb 21 08:03	7° \approx 45'17	24°37'10	morning rise	3727 Jan 19 12:05	17° \approx 12'43	
desc. node	3726 Feb 26 11:12	13° \approx 28'31		direct	3727 Jan 24 12:52	15° \approx 03'11	
	3726 Mar 10 17:38	0° \approx		morning max el	3727 Feb 03 17:10	21° \approx 05'54	23°08'14
morning set	3726 Mar 29 07:12	29° \approx 51'11		greatest brilliancy	3727 Feb 08 16:22	26° \approx 39'27	-0.3m
	3726 Mar 29 09:12	0° \approx			3727 Feb 11 08:34	0° \approx	
max. Earth dist.	3726 Apr 01 23:39	6° \approx 27'20	1.37397 AU	desc. node	3727 Feb 13 08:16	2° \approx 35'57	
					3727 Mar 04 00:07	0° \approx	
superior conj	3726 Apr 08 17:04	19° \approx 07'28	-1°-26'-34	morning set	3727 Mar 10 10:27	10° \approx 28'00	
minimum elong	3726 Apr 08 21:27	19° \approx 28'45	1°25'58	max. Earth dist.	3727 Mar 14 18:25	17° \approx 49'56	1.39560 AU
	3726 Apr 14 05:15	0° \approx			3727 Mar 21 14:18	0° \approx	
evening rise	3726 Apr 17 07:58	6° \approx 13'12					
asc. node	3726 Apr 18 05:46	8° \approx 01'26		superior conj	3727 Mar 22 10:51	1° \approx 34'24	-1°-49'-46
	3726 May 01 01:35	0° \approx		minimum elong	3727 Mar 22 15:24	1° \approx 55'27	1°49'22
evening max el	3726 May 04 02:29	3° \approx 24'51	19°16'49	evening rise	3727 Apr 01 01:02	19° \approx 45'56	
retrograde	3726 May 13 05:06	7° \approx 50'35		asc. node	3727 Apr 05 02:48	27° \approx 29'43	
evening set	3726 May 15 05:19	7° \approx 38'35			3727 Apr 06 11:28	0° \approx	
inferior conj	3726 May 23 16:11	3° \approx 29'41	0°30'41	evening max el	3727 Apr 17 04:56	15° \approx 45'55	18°34'00
minimum elong	3726 May 23 17:27	3° \approx 27'34	0°30'14	retrograde	3727 Apr 24 22:45	19° \approx 34'16	
desc. node	3726 May 25 10:24	2° \approx 19'19		evening set	3727 Apr 27 04:46	19° \approx 16'02	
min. Earth dist.	3726 May 26 11:30	1° \approx 38'22	0.56148 AU	inferior conj	3727 May 04 20:10	14° \approx 48'02	2°01'32
	3726 May 29 05:35	30° \approx 8		minimum elong	3727 May 04 23:48	14° \approx 40'58	2°00'28
morning rise	3726 Jun 01 01:26	28° \approx 42'41		min. Earth dist.	3727 May 08 05:45	12° \approx 10'56	0.57940 AU
direct	3726 Jun 05 22:30	27° \approx 47'57		desc. node	3727 May 12 07:27	9° \approx 36'09	
	3726 Jun 13 13:28	0° \approx		morning rise	3727 May 12 14:24	9° \approx 27'32	
morning max el	3726 Jun 20 02:54	5° \approx 01'40	25°18'00	direct	3727 May 18 10:43	8° \approx 00'56	
	3726 Jul 08 01:51	0° \approx		morning max el	3727 Jun 01 19:47	15° \approx 39'00	26°41'38
asc. node	3726 Jul 15 05:03	13° \approx 49'38			3727 Jun 13 10:58	0° \approx	
morning set	3726 Jul 16 19:39	17° \approx 11'38			3727 Jun 30 07:03	0° \approx	
	3726 Jul 22 17:27	0° \approx		morning set	3727 Jul 01 05:58	1° \approx 59'45	
				asc. node	3727 Jul 02 02:06	3° \approx 46'14	
superior conj	3726 Jul 23 19:23	2° \approx 22'10	1°19'25				
minimum elong	3726 Jul 23 17:03	2° \approx 09'23	1°19'05	superior conj	3727 Jul 08 07:04	17° \approx 18'03	1°01'10
max. Earth dist.	3726 Jul 25 00:05	4° \approx 59'05	1.32548 AU	minimum elong	3727 Jul 08 04:51	17° \approx 05'49	1°00'46
evening rise	3726 Jul 30 22:59	17° \approx 39'49		max. Earth dist.	3727 Jul 08 10:56	17° \approx 39'20	1.32111 AU
	3726 Aug 06 05:28	0° \approx			3727 Jul 14 02:54	0° \approx	
desc. node	3726 Aug 21 09:46	24° \approx 39'14		evening rise	3727 Jul 15 05:17	2° \approx 19'35	
	3726 Aug 25 12:13	0° \approx			3727 Jul 30 03:53	0° \approx	
evening max el	3726 Sep 01 05:16	7° \approx 20'13	27°21'52	desc. node	3727 Aug 08 06:47	12° \approx 50'54	
retrograde	3726 Sep 15 00:23	14° \approx 35'39		evening max el	3727 Aug 14 08:58	19° \approx 29'49	26°47'13
evening set	3726 Sep 22 04:50	12° \approx 08'14		retrograde	3727 Aug 28 07:20	26° \approx 40'51	
min. Earth dist.	3726 Sep 25 19:23	9° \approx 14'23	0.62373 AU	evening set	3727 Sep 04 04:48	24° \approx 38'36	
inferior conj	3726 Sep 28 17:23	6° \approx 30'24	-3°-46'00	min. Earth dist.	3727 Sep 07 23:02	22° \approx 01'44	0.60367 AU
minimum elong	3726 Sep 28 23:10	6° \approx 16'49	3°44'21	inferior conj	3727 Sep 11 04:38	19° \approx 22'25	-4°-35'-15
morning rise	3726 Oct 05 20:23	1° \approx 24'20		minimum elong	3727 Sep 11 10:01	19° \approx 11'18	4°34'16
direct	3726 Oct 08 04:24	1° \approx 00'02		morning rise	3727 Sep 18 18:31	14° \approx 38'01	
asc. node	3726 Oct 11 04:14	1° \approx 41'13		direct	3727 Sep 21 02:25	14° \approx 17'21	
morning max el	3726 Oct 14 23:37	4° \approx 27'57	17°51'27	asc. node	3727 Sep 28 01:19	17° \approx 30'36	
morning set	3726 Oct 30 22:23	29° \approx 19'42		morning max el	3727 Sep 28 12:05	17° \approx 55'58	18°07'34
	3726 Oct 31 07:23	0° \approx			3727 Oct 07 04:05	0° \approx	
				morning set	3727 Oct 14 06:24	12° \approx 54'27	
superior conj	3726 Nov 11 02:43	18° \approx 56'44	0°42'43				
minimum elong	3726 Nov 11 06:24	19° \approx 12'19	0°42'12	superior conj	3727 Oct 23 23:40	0° \approx 51'21	1°13'23
desc. node	3726 Nov 17 09:05	29° \approx 22'44		minimum elong	3727 Oct 24 03:46	1° \approx 09'46	1°12'55
	3726 Nov 17 18:13	0° \approx			3727 Oct 23 12:14	0° \approx	
max. Earth dist.	3726 Nov 18 04:51	0° \approx 43'12	1.43302 AU	max. Earth dist.	3727 Oct 31 15:04	14° \approx 08'05	1.41534 AU
evening rise	3726 Nov 25 20:52	12° \approx 54'05		desc. node	3727 Nov 04 06:06	20° \approx 08'55	
	3726 Dec 07 03:38	0° \approx		evening rise	3727 Nov 05 22:12	22° \approx 51'41	
greatest brilliancy	3726 Dec 21 21:18	20° \approx 28'28	-0.4m		3727 Nov 10 10:14	0° \approx	
evening max el	3726 Dec 26 19:00	26° \approx 05'26	21°32'02		3727 Dec 01 05:40	0° \approx	
	3726 Dec 31 11:09	0° \approx		greatest brilliancy	3727 Dec 04 08:17	3° \approx 54'19	-0.3m

evening max el	3727 Dec 09 11:51	9° $\overline{3}$ 40'34	22°49'59			3728 Oct 14 16:09	0° \overline{M}	
retrograde	3727 Dec 19 12:38	15° $\overline{3}$ 37'45		evening rise		3728 Oct 16 22:08	3° \overline{M} 51'14	
evening set	3727 Dec 24 05:40	13° $\overline{3}$ 43'21		desc. node		3728 Oct 21 03:08	10° \overline{M} 50'25	
asc. node	3727 Dec 25 00:31	13° $\overline{3}$ 01'22				3728 Nov 02 14:58	0° \overline{A}	
inferior conj	3727 Dec 29 15:37	7° $\overline{3}$ 18'30	1°31'15	evening max el		3728 Nov 21 01:24	23° \overline{A} 18'51	24°09'48
minimum elong	3727 Dec 29 13:42	7° $\overline{3}$ 25'06	1°30'31	retrograde		3728 Dec 02 04:25	29° \overline{A} 50'36	
min. Earth dist.	3727 Dec 29 09:18	7° $\overline{3}$ 40'22	0.67984 AU	evening set		3728 Dec 07 10:53	27° \overline{A} 39'46	
morning rise	3728 Jan 03 21:42	1° $\overline{3}$ 07'20		asc. node		3728 Dec 10 21:35	23° \overline{A} 55'37	
	3728 Jan 05 14:51	30° \overline{R} \overline{A}		min. Earth dist.		3728 Dec 12 05:32	22° \overline{A} 10'25	0.67768 AU
direct	3728 Jan 08 07:45	29° \overline{A} 20'45		inferior conj		3728 Dec 12 22:40	21° \overline{A} 12'38	0°41'35
	3728 Jan 11 04:56	0° $\overline{3}$		minimum elong		3728 Dec 12 21:41	21° \overline{A} 15'56	0°41'10
morning max el	3728 Jan 17 06:20	4° $\overline{3}$ 34'14	21°42'05	morning rise		3728 Dec 18 08:48	15° \overline{A} 06'53	
greatest brilliancy	3728 Jan 22 02:07	10° $\overline{3}$ 01'07	-0.4m	direct		3728 Dec 22 05:08	13° \overline{A} 42'41	
desc. node	3728 Jan 31 05:19	22° $\overline{3}$ 16'30		morning max el		3728 Dec 30 02:40	18° \overline{A} 13'56	20°25'25
	3728 Feb 05 12:59	0° \approx		greatest brilliancy		3729 Jan 05 09:16	25° \overline{A} 38'53	-0.5m
morning set	3728 Feb 18 08:47	19° \approx 42'13				3729 Jan 08 14:13	0° $\overline{3}$	
max. Earth dist.	3728 Feb 24 17:55	0° \overline{H} 04'38	1.41676 AU	desc. node		3729 Jan 17 02:21	12° $\overline{3}$ 20'47	
	3728 Feb 24 16:48	0° \overline{H}		morning set		3729 Jan 27 08:27	27° $\overline{3}$ 56'59	
						3729 Jan 28 16:09	0° \approx	
superior conj	3728 Mar 03 09:00	13° \overline{H} 04'13	-2°-4'-34	max. Earth dist.		3729 Feb 06 01:06	13° \approx 14'29	1.43461 AU
minimum elong	3728 Mar 03 11:33	13° \overline{H} 15'22	2°04'30					
	3728 Mar 12 18:59	0° \overline{Y}		superior conj		3729 Feb 12 06:34	23° \approx 25'05	-2°-5'-48
evening rise	3728 Mar 14 05:57	2° \overline{Y} 40'38		minimum elong		3729 Feb 12 04:11	23° \approx 15'09	2°05'46
asc. node	3728 Mar 21 23:51	16° \overline{Y} 34'59				3729 Feb 16 04:47	0° \overline{H}	
evening max el	3728 Mar 30 13:59	28° \overline{Y} 36'05	18°11'13	evening rise		3729 Feb 24 18:24	14° \overline{H} 47'30	
	3728 Apr 01 04:12	0° \overline{B}				3729 Mar 05 14:14	0° \overline{Y}	
retrograde	3728 Apr 06 10:57	2° \overline{B} 03'59		asc. node		3729 Mar 08 20:53	5° \overline{Y} 08'54	
evening set	3728 Apr 08 23:11	1° \overline{B} 36'54		evening max el		3729 Mar 14 02:11	11° \overline{Y} 45'10	18°07'55
	3728 Apr 11 23:49	30° \overline{R} \overline{Y}		retrograde		3729 Mar 20 13:39	15° \overline{Y} 08'03	
inferior conj	3728 Apr 15 21:14	26° \overline{Y} 47'28	2°59'58	evening set		3729 Mar 23 07:30	14° \overline{Y} 30'43	
minimum elong	3728 Apr 16 00:26	26° \overline{Y} 40'13	2°59'20	inferior conj		3729 Mar 29 16:00	9° \overline{Y} 20'33	3°29'51
min. Earth dist.	3728 Apr 19 05:38	23° \overline{Y} 46'53	0.60076 AU	minimum elong		3729 Mar 29 17:31	9° \overline{Y} 16'34	3°29'42
morning rise	3728 Apr 22 22:06	21° \overline{Y} 01'52		min. Earth dist.		3729 Apr 01 13:41	6° \overline{Y} 21'07	0.62225 AU
desc. node	3728 Apr 28 04:29	19° \overline{Y} 05'00		morning rise		3729 Apr 05 01:03	3° \overline{Y} 19'14	
direct	3728 Apr 29 11:14	19° \overline{Y} 00'25		direct		3729 Apr 11 21:46	0° \overline{Y} 48'57	
morning max el	3728 May 13 18:51	26° \overline{Y} 52'04	27°35'04	desc. node		3729 Apr 15 01:31	1° \overline{Y} 17'49	
	3728 May 16 18:07	0° \overline{B}		morning max el		3729 Apr 26 00:01	8° \overline{Y} 47'09	27°51'33
	3728 Jun 06 00:24	0° \overline{II}				3729 May 12 08:34	0° \overline{B}	
morning set	3728 Jun 14 13:10	16° \overline{II} 36'47				3729 May 29 04:13	0° \overline{II}	
asc. node	3728 Jun 17 23:09	23° \overline{II} 51'00		morning set		3729 May 29 15:10	0° \overline{II} 55'24	
	3728 Jun 20 18:54	0° \overline{S}		max. Earth dist.		3729 Jun 04 07:10	12° \overline{II} 48'41	1.32452 AU
max. Earth dist.	3728 Jun 20 22:40	0° \overline{S} 20'40	1.32079 AU	asc. node		3729 Jun 04 20:11	13° \overline{II} 58'52	
superior conj	3728 Jun 21 18:36	2° \overline{S} 10'19	0°39'08	superior conj		3729 Jun 06 04:11	16° \overline{II} 52'30	0°13'58
minimum elong	3728 Jun 21 16:58	2° \overline{S} 01'16	0°38'48	minimum elong		3729 Jun 06 03:32	16° \overline{II} 48'56	0°13'50
evening rise	3728 Jun 28 15:20	17° \overline{S} 08'03		behind sun begin		3729 Jun 06 00:58	16° \overline{II} 34'57	
	3728 Jul 04 23:56	0° \overline{Q}		behind sun end		3729 Jun 06 06:06	17° \overline{II} 02'55	
desc. node	3728 Jul 25 03:47	29° \overline{Q} 48'13				3729 Jun 12 05:00	0° \overline{S}	
	3728 Jul 25 08:29	0° \overline{M}		evening rise		3729 Jun 13 03:02	1° \overline{S} 57'36	
evening max el	3728 Jul 26 05:18	0° \overline{M} 50'52	25°40'49			3729 Jun 28 10:09	0° \overline{Q}	
retrograde	3728 Aug 09 04:39	7° \overline{M} 57'36		evening max el		3729 Jul 07 19:15	11° \overline{Q} 29'59	24°11'43
evening set	3728 Aug 15 06:30	6° \overline{M} 30'43		desc. node		3729 Jul 12 00:47	15° \overline{Q} 01'40	
min. Earth dist.	3728 Aug 19 17:22	3° \overline{M} 53'34	0.58314 AU	retrograde		3729 Jul 21 14:45	18° \overline{Q} 27'48	
inferior conj	3728 Aug 22 21:58	1° \overline{M} 37'18	-5°-5'-30	evening set		3729 Jul 26 08:09	17° \overline{Q} 38'11	
minimum elong	3728 Aug 23 00:17	1° \overline{M} 33'08	5°05'22	min. Earth dist.		3729 Aug 01 05:53	14° \overline{Q} 42'15	0.56486 AU
	3728 Aug 25 06:06	30° \overline{R} \overline{Q}		inferior conj		3729 Aug 03 19:04	13° \overline{Q} 07'01	-5°-2'-14
morning rise	3728 Aug 30 21:35	27° \overline{Q} 16'24		minimum elong		3729 Aug 03 15:41	13° \overline{Q} 12'18	5°01'57
direct	3728 Sep 02 08:44	26° \overline{Q} 57'09		morning rise		3729 Aug 12 02:45	9° \overline{Q} 06'58	
	3728 Sep 09 16:28	0° \overline{M}		direct		3729 Aug 14 19:41	8° \overline{Q} 47'41	
morning max el	3728 Sep 10 17:40	0° \overline{M} 56'12	18°44'15	morning max el		3729 Aug 24 13:22	13° \overline{Q} 19'24	19°42'35
asc. node	3728 Sep 13 22:22	4° \overline{M} 30'24		asc. node		3729 Aug 31 19:24	22° \overline{Q} 25'39	
morning set	3728 Sep 27 01:30	27° \overline{M} 00'51				3729 Sep 05 06:13	0° \overline{M}	
	3728 Sep 28 14:10	0° \overline{A}		morning set		3729 Sep 11 04:12	11° \overline{M} 29'12	
superior conj	3728 Oct 05 17:26	13° \overline{A} 47'14	1°32'56	superior conj		3729 Sep 19 02:36	27° \overline{M} 28'57	1°42'41
minimum elong	3728 Oct 05 20:18	14° \overline{A} 00'47	1°32'43	minimum elong		3729 Sep 19 03:45	27° \overline{M} 34'40	1°42'38
max. Earth dist.	3728 Oct 12 20:57	26° \overline{A} 51'06	1.39488 AU			3729 Sep 20 09:16	0° \overline{A}	

max. Earth dist.	3729 Sep 25 01:30	8°♄56'56	1.37420 AU	morning set	3730 Aug 26 11:50	26°♄11'54	
evening rise	3729 Sep 28 20:54	15°♄54'12			3730 Aug 28 07:46	0°♄	
	3729 Oct 07 03:32	0°♄					
desc. node	3729 Oct 08 00:08	1°♄23'09		superior conj	3730 Sep 02 22:38	11°♄42'47	1°44'12
	3729 Oct 28 04:40	0°♄		minimum elong	3730 Sep 02 22:14	11°♄40'44	1°44'11
evening max el	3729 Nov 03 13:37	7°♄00'14	25°24'44	max. Earth dist.	3730 Sep 07 10:26	20°♄47'26	1.35569 AU
retrograde	3729 Nov 15 15:55	13°♄58'12		evening rise	3730 Sep 11 14:52	28°♄51'15	
evening set	3729 Nov 21 12:24	11°♄32'34			3730 Sep 12 05:34	0°♄	
min. Earth dist.	3729 Nov 25 23:11	6°♄38'02	0.67202 AU	desc. node	3730 Sep 24 21:09	21°♄41'30	
inferior conj	3729 Nov 27 03:12	5°♄07'39	0°-13'-12		3730 Sep 30 08:58	0°♄	
minimum elong	3729 Nov 27 03:32	5°♄06'34	0°13'04	evening max el	3730 Oct 17 02:00	20°♄40'42	26°27'27
transit middle	3729 Nov 27 03:32	5°♄06'34	0°13'04	retrograde	3730 Oct 29 22:24	27°♄53'41	
transit begin	3729 Nov 27 01:53	5°♄11'53		evening set	3730 Nov 05 08:17	25°♄17'13	
transit end	3729 Nov 27 05:11	5°♄01'14		min. Earth dist.	3730 Nov 09 11:55	20°♄58'33	0.66291 AU
asc. node	3729 Nov 27 18:36	4°♄18'09		inferior conj	3730 Nov 11 03:17	18°♄59'25	-1°-11'-54
	3729 Dec 01 16:21	30°♄		minimum elong	3730 Nov 11 05:15	18°♄53'29	1°11'04
morning rise	3729 Dec 02 19:28	29°♄09'33		asc. node	3730 Nov 14 15:38	15°♄04'49	
direct	3729 Dec 06 03:41	28°♄05'09		morning rise	3730 Nov 17 03:32	13°♄11'38	
	3729 Dec 10 22:15	0°♄		direct	3730 Nov 20 01:47	12°♄23'15	
morning max el	3729 Dec 13 06:58	2°♄05'01	19°22'22	morning max el	3730 Nov 26 17:52	16°♄02'36	18°34'56
greatest brilliancy	3729 Dec 22 09:53	13°♄42'33	-0.7m		3730 Dec 07 03:01	0°♄	
	3730 Jan 02 05:13	0°♄		morning set	3730 Dec 17 04:34	15°♄52'41	
desc. node	3730 Jan 03 23:23	2°♄42'39		desc. node	3730 Dec 21 20:25	23°♄16'30	
morning set	3730 Jan 06 07:28	6°♄19'29			3730 Dec 26 02:38	0°♄	
max. Earth dist.	3730 Jan 19 14:47	27°♄06'21	1.44692 AU				
	3730 Jan 21 10:39	0°♄		superior conj	3731 Jan 02 06:11	11°♄13'50	-1°-12'-42
				minimum elong	3731 Jan 01 21:39	10°♄40'23	1°11'43
superior conj	3730 Jan 23 02:37	2°♄38'57	-1°-48'-37	max. Earth dist.	3731 Jan 02 08:35	11°♄23'16	1.45233 AU
minimum elong	3730 Jan 22 18:37	2°♄07'04	1°48'02		3731 Jan 14 04:22	0°♄	
evening rise	3730 Feb 06 10:12	25°♄59'37		evening rise	3731 Jan 18 02:40	6°♄14'19	
	3730 Feb 08 19:53	0°♄			3731 Feb 02 07:31	0°♄	
asc. node	3730 Feb 23 17:54	23°♄02'13		evening max el	3731 Feb 09 00:59	8°♄34'23	18°56'55
evening max el	3730 Feb 25 14:39	25°♄06'23	18°23'28	asc. node	3731 Feb 10 14:54	10°♄03'03	
retrograde	3730 Mar 04 02:09	28°♄37'25		retrograde	3731 Feb 15 20:37	12°♄24'45	
evening set	3730 Mar 07 01:41	27°♄48'47		evening set	3731 Feb 19 02:35	11°♄23'46	
inferior conj	3730 Mar 13 00:22	22°♄19'35	3°37'37	inferior conj	3731 Feb 24 18:35	5°♄37'27	3°28'53
minimum elong	3730 Mar 13 00:10	22°♄20'10	3°37'37	minimum elong	3731 Feb 24 17:05	5°♄42'11	3°28'43
min. Earth dist.	3730 Mar 15 07:17	19°♄41'36	0.64151 AU	min. Earth dist.	3731 Feb 26 09:59	3°♄34'09	0.65718 AU
morning rise	3730 Mar 18 21:00	16°♄09'40			3731 Mar 01 14:37	30°♄	
direct	3730 Mar 25 16:40	13°♄22'49		morning rise	3731 Mar 02 06:32	29°♄23'25	
desc. node	3730 Apr 01 22:33	15°♄54'58		direct	3731 Mar 08 18:30	26°♄34'09	
morning max el	3730 Apr 08 08:57	21°♄18'55	27°31'15		3731 Mar 16 23:52	0°♄	
	3730 Apr 15 22:09	0°♄		desc. node	3731 Mar 19 19:35	2°♄21'52	
	3730 May 05 11:40	0°♄		morning max el	3731 Mar 21 18:48	4°♄15'38	26°39'48
morning set	3730 May 13 09:26	14°♄47'43			3731 Apr 10 08:53	0°♄	
max. Earth dist.	3730 May 18 08:22	24°♄50'53	1.33255 AU	morning set	3731 Apr 26 16:38	28°♄03'42	
	3730 May 20 19:08	0°♄			3731 Apr 27 17:02	0°♄	
				max. Earth dist.	3731 Apr 30 22:52	6°♄20'16	1.34520 AU
superior conj	3730 May 21 09:57	1°♄18'50	0°-13'-35				
minimum elong	3730 May 21 10:38	1°♄22'29	0°13'27	superior conj	3731 May 05 09:44	15°♄23'00	0°-42'-26
behind sun begin	3730 May 21 07:42	1°♄06'50		minimum elong	3731 May 05 11:58	15°♄34'36	0°42'01
behind sun end	3730 May 21 13:34	1°♄38'10		asc. node	3731 May 09 14:13	24°♄08'10	
asc. node	3730 May 22 17:12	4°♄05'53			3731 May 12 09:21	0°♄	
evening rise	3730 May 28 14:31	16°♄42'11		evening rise	3731 May 12 23:56	1°♄15'50	
	3730 Jun 04 05:28	0°♄			3731 May 29 20:22	0°♄	
evening max el	3730 Jun 19 09:09	21°♄54'20	22°34'51	evening max el	3731 Jun 01 06:57	2°♄36'54	21°04'50
desc. node	3730 Jun 28 21:48	27°♄56'28		retrograde	3731 Jun 13 01:50	8°♄23'19	
retrograde	3730 Jul 02 12:39	28°♄26'34		evening set	3731 Jun 15 07:23	8°♄11'42	
evening set	3730 Jul 05 17:58	28°♄03'45		desc. node	3731 Jun 15 18:48	8°♄06'19	
min. Earth dist.	3730 Jul 13 16:46	24°♄34'56	0.55232 AU	inferior conj	3731 Jun 24 15:32	4°♄14'05	-2°-33'-32
inferior conj	3730 Jul 14 21:54	23°♄53'26	-4°-11'-19	minimum elong	3731 Jun 24 08:34	4°♄23'54	2°31'12
minimum elong	3730 Jul 14 13:50	24°♄04'57	4°09'29	min. Earth dist.	3731 Jun 25 04:19	3°♄56'03	0.54840 AU
morning rise	3730 Jul 23 12:07	20°♄02'57		morning rise	3731 Jul 03 09:30	0°♄14'54	
direct	3730 Jul 26 12:49	19°♄41'55			3731 Jul 04 13:55	30°♄	
morning max el	3730 Aug 06 21:24	24°♄58'46	21°01'53	direct	3731 Jul 06 22:23	29°♄47'54	
	3730 Aug 11 10:41	0°♄			3731 Jul 09 06:01	0°♄	
asc. node	3730 Aug 18 16:26	11°♄03'28		morning max el	3731 Jul 19 18:35	5°♄55'21	22°37'57

	3731 Aug 05 10:37	0°♌			3732 Jul 11 08:23	0°♏	
asc. node	3731 Aug 05 13:29	0°♌13'39		asc. node	3732 Jul 22 10:32	19°♏46'51	
morning set	3731 Aug 10 22:28	11°♌03'41		morning set	3732 Jul 25 10:15	25°♏58'07	
					3732 Jul 27 07:35	0°♌	
superior conj	3731 Aug 18 02:11	26°♌18'55	1°38'55	superior conj	3732 Aug 01 10:31	11°♌07'51	1°27'57
minimum elong	3731 Aug 18 00:38	26°♌10'45	1°38'49	minimum elong	3732 Aug 01 08:20	10°♌55'59	1°27'42
	3731 Aug 19 20:01	0°♍		max. Earth dist.	3732 Aug 03 06:45	15°♌07'07	1.32991 AU
max. Earth dist.	3731 Aug 21 04:12	2°♍48'01	1.34079 AU	evening rise	3732 Aug 08 19:13	26°♌41'17	
evening rise	3731 Aug 25 23:40	12°♍31'08			3732 Aug 10 10:50	0°♍	
	3731 Sep 04 12:38	0°♎			3732 Aug 27 20:58	0°♎	
desc. node	3731 Sep 11 18:10	11°♎39'01		desc. node	3732 Aug 28 15:11	1°♎06'02	
	3731 Sep 25 13:24	0°♏		evening max el	3732 Sep 11 01:37	17°♎22'03	27°26'35
evening max el	3731 Sep 29 14:34	4°♏12'20	27°10'19	retrograde	3732 Sep 24 17:29	24°♎38'24	
retrograde	3731 Oct 12 23:07	11°♏30'00		evening set	3732 Oct 01 21:29	22°♎02'43	
evening set	3731 Oct 19 20:18	8°♏49'15		min. Earth dist.	3732 Oct 05 13:29	18°♎53'15	0.63439 AU
min. Earth dist.	3731 Oct 23 17:26	5°♏06'32	0.65037 AU	inferior conj	3732 Oct 08 05:04	16°♎13'58	-3°-13'-5
inferior conj	3731 Oct 25 20:47	2°♏43'41	-2°-12'-45	minimum elong	3732 Oct 08 10:19	16°♎00'47	3°11'22
minimum elong	3731 Oct 26 00:30	2°♏33'19	2°11'18	morning rise	3732 Oct 15 01:38	10°♎56'34	
	3731 Oct 28 10:27	30°♐♎		direct	3732 Oct 17 11:21	10°♎28'42	
morning rise	3731 Nov 01 06:36	27°♎09'16		asc. node	3732 Oct 18 09:44	10°♎32'58	
asc. node	3731 Nov 01 12:40	27°♎02'39		morning max el	3732 Oct 24 01:36	13°♎54'02	17°50'51
direct	3731 Nov 03 21:16	26°♎32'59			3732 Nov 04 04:23	0°♏	
	3731 Nov 10 08:34	0°♏		morning set	3732 Nov 09 11:37	9°♏10'40	
morning max el	3731 Nov 10 09:00	0°♏01'06	18°04'09				
morning set	3731 Nov 28 07:15	26°♏54'28		superior conj	3732 Nov 21 16:40	29°♏58'33	0°20'03
	3731 Nov 30 04:04	0°♐		minimum elong	3732 Nov 21 18:44	0°♐07'06	0°19'45
desc. node	3731 Dec 08 17:27	13°♐58'23			3732 Nov 21 17:01	0°♐	
				desc. node	3732 Nov 24 14:30	4°♐44'46	
superior conj	3731 Dec 12 12:53	20°♐04'11	0°-25'-52	max. Earth dist.	3732 Nov 27 21:44	10°♐04'21	1.44113 AU
minimum elong	3731 Dec 12 09:40	19°♐51'20	0°25'26	evening rise	3732 Dec 07 07:56	24°♐51'31	
max. Earth dist.	3731 Dec 16 03:53	25°♐48'31	1.45031 AU		3732 Dec 10 16:28	0°♑	
	3731 Dec 18 19:56	0°♑		greatest brilliancy	3732 Dec 30 19:44	29°♑08'42	-0.5m
evening rise	3731 Dec 28 22:23	15°♑42'19			3732 Dec 31 11:44	0°♑	
	3732 Jan 07 05:37	0°♒		evening max el	3733 Jan 05 08:08	5°♑38'12	20°50'26
greatest brilliancy	3732 Jan 15 21:50	12°♑50'08	-0.6m	retrograde	3733 Jan 13 16:07	10°♑33'48	
evening max el	3732 Jan 23 07:13	22°♑05'39	19°46'43	asc. node	3733 Jan 14 08:59	10°♑31'05	
asc. node	3732 Jan 28 11:56	25°♑57'31		evening set	3733 Jan 17 15:06	9°♑04'25	
retrograde	3732 Jan 30 18:02	26°♑24'58		inferior conj	3733 Jan 23 00:54	2°♑51'07	2°36'24
evening set	3732 Feb 03 07:44	25°♑10'23		minimum elong	3733 Jan 22 22:24	2°♑59'43	2°35'41
inferior conj	3732 Feb 08 19:36	19°♑09'10	3°07'35	min. Earth dist.	3733 Jan 23 12:36	2°♑10'57	0.67604 AU
minimum elong	3732 Feb 08 17:20	19°♑16'43	3°07'08		3733 Jan 25 03:42	30°♒♑	
min. Earth dist.	3732 Feb 09 20:24	17°♑46'53	0.66871 AU	morning rise	3733 Jan 28 05:18	26°♑35'53	
morning rise	3732 Feb 14 02:16	12°♑53'39		direct	3733 Feb 02 14:38	24°♑14'16	
direct	3732 Feb 20 02:05	10°♑14'05			3733 Feb 12 18:28	0°♒	
morning max el	3732 Mar 03 03:48	17°♑26'09	25°25'52	morning max el	3733 Feb 13 12:23	0°♑44'23	23°59'36
desc. node	3732 Mar 05 16:39	20°♑08'06		desc. node	3733 Feb 20 13:42	8°♑50'57	
	3732 Mar 13 16:04	0°♒			3733 Mar 07 14:36	0°♒	
	3732 Apr 02 08:35	0°♓		morning set	3733 Mar 21 02:33	21°♒51'28	
morning set	3732 Apr 08 08:14	10°♓29'52		max. Earth dist.	3733 Mar 24 22:23	28°♒33'35	1.38308 AU
max. Earth dist.	3732 Apr 12 02:04	17°♓24'53	1.36245 AU		3733 Mar 25 17:42	0°♓	
				superior conj	3733 Apr 01 03:34	11°♓51'25	-1°-37'-9
superior conj	3732 Apr 18 00:46	28°♓56'46	-1°-11'-4	minimum elong	3733 Apr 01 08:13	12°♓13'31	1°36'36
minimum elong	3732 Apr 18 04:30	29°♓15'23	1°10'28	evening rise	3733 Apr 10 03:32	29°♓22'54	
	3732 Apr 18 13:27	0°♔			3733 Apr 10 11:06	0°♔	
asc. node	3732 Apr 25 11:15	14°♔01'00		asc. node	3733 Apr 12 08:19	3°♔40'09	
evening rise	3732 Apr 26 05:07	15°♔31'37		evening max el	3733 Apr 26 13:34	25°♔55'39	18°56'02
	3732 May 03 17:36	0°♕			3733 May 03 23:14	0°♕	
evening max el	3732 May 13 16:33	13°♕55'56	19°50'37	retrograde	3733 May 05 00:51	0°♕03'50	
retrograde	3732 May 23 17:49	18°♕49'16			3733 May 06 02:47	30°♒♔	
evening set	3732 May 25 16:56	18°♕38'54		evening set	3733 May 07 03:18	29°♔49'33	
desc. node	3732 Jun 01 15:50	15°♕47'13		inferior conj	3733 May 15 05:48	25°♔32'38	1°13'08
inferior conj	3732 Jun 03 14:05	14°♕37'40	0°-34'-10	minimum elong	3733 May 15 08:29	23°♔27'51	1°12'13
minimum elong	3732 Jun 03 12:31	14°♕40'04	0°33'35	min. Earth dist.	3733 May 18 09:06	23°♔19'54	0.56846 AU
min. Earth dist.	3732 Jun 05 17:19	13°♕19'21	0.55419 AU	desc. node	3733 May 19 12:52	22°♔34'11	
morning rise	3732 Jun 12 05:06	10°♕11'32		morning rise	3733 May 23 09:17	20°♔30'45	
direct	3732 Jun 16 12:57	9°♕30'19					
morning max el	3732 Jun 30 09:15	16°♕22'37	24°21'14				

direct	3733 May 28 16:26	19°♄23'47		morning rise	3734 May 04 05:48	1°♄36'14	
morning max el	3733 Jun 12 00:00	26°♄48'52	25°56'40	desc. node	3734 May 06 09:54	0°♄37'38	
	3733 Jun 15 01:24	0°♄			3734 May 09 00:00	30°♄	
	3733 Jul 04 13:24	0°♄		direct	3734 May 10 10:08	29°♄54'37	
asc. node	3733 Jul 09 07:36	9°♄36'34			3734 May 11 20:34	0°♄	
morning set	3733 Jul 09 21:35	10°♄50'11		morning max el	3734 May 24 19:33	7°♄40'19	27°08'43
					3734 Jun 10 15:05	0°♄	
superior conj	3733 Jul 16 21:31	26°♄02'51	1°12'10	morning set	3734 Jun 24 06:48	25°♄34'29	
minimum elong	3733 Jul 16 19:11	25°♄49'58	1°11'48	asc. node	3734 Jun 26 04:39	29°♄37'20	
max. Earth dist.	3733 Jul 17 15:35	27°♄42'08	1.32313 AU		3734 Jun 26 08:53	0°♄	
	3733 Jul 18 16:45	0°♄					
evening rise	3733 Jul 23 22:21	11°♄12'19		superior conj	3734 Jul 01 09:21	10°♄57'59	0°52'14
	3733 Aug 02 16:13	0°♄		minimum elong	3734 Jul 01 07:20	10°♄46'49	0°51'51
desc. node	3733 Aug 15 12:11	19°♄49'58		max. Earth dist.	3734 Jul 01 03:10	10°♄23'51	1.32040 AU
	3733 Aug 24 10:12	0°♄		evening rise	3734 Jul 08 06:29	25°♄56'25	
evening max el	3733 Aug 24 08:33	29°♄56'06	27°11'08		3734 Jul 10 05:11	0°♄	
retrograde	3733 Sep 07 04:54	7°♄09'28			3734 Jul 27 11:01	0°♄	
evening set	3733 Sep 14 08:00	4°♄50'55		desc. node	3734 Aug 02 09:11	7°♄33'23	
min. Earth dist.	3733 Sep 17 22:52	2°♄06'30	0.61543 AU	evening max el	3734 Aug 06 09:00	11°♄44'42	26°22'29
	3733 Sep 20 08:08	30°♄		retrograde	3734 Aug 20 08:22	18°♄55'03	
inferior conj	3733 Sep 21 00:57	29°♄22'21	-4°-8'-28	evening set	3734 Aug 26 23:08	17°♄06'38	
minimum elong	3733 Sep 21 06:49	29°♄09'18	4°07'02	min. Earth dist.	3734 Aug 30 22:15	14°♄32'05	0.59476 AU
morning rise	3733 Sep 28 08:41	24°♄25'25		inferior conj	3734 Sep 03 04:58	11°♄59'52	-4°-51'-14
direct	3733 Sep 30 16:20	24°♄02'56		minimum elong	3734 Sep 03 09:27	11°♄51'11	4°50'38
asc. node	3733 Oct 05 06:49	25°♄35'00		morning rise	3734 Sep 10 23:14	7°♄25'50	
morning max el	3733 Oct 07 16:33	27°♄33'53	17°55'57	direct	3734 Sep 13 08:00	7°♄06'07	
	3733 Oct 09 21:22	0°♄		morning max el	3734 Sep 21 02:35	10°♄52'10	18°20'40
morning set	3733 Oct 23 11:11	22°♄21'26		asc. node	3734 Sep 22 03:52	11°♄56'40	
	3733 Oct 27 15:55	0°♄			3734 Oct 03 17:52	0°♄	
				morning set	3734 Oct 07 00:26	6°♄11'26	
superior conj	3733 Nov 02 23:20	11°♄11'56	0°57'07				
minimum elong	3733 Nov 03 03:29	11°♄29'59	0°56'35	superior conj	3734 Oct 16 05:54	23°♄35'28	1°22'58
max. Earth dist.	3733 Nov 10 11:05	23°♄51'55	1.42597 AU	minimum elong	3734 Oct 16 09:36	23°♄52'27	1°22'35
desc. node	3733 Nov 11 11:31	25°♄32'04			3734 Oct 19 19:03	0°♄	
	3733 Nov 14 05:42	0°♄		max. Earth dist.	3734 Oct 23 18:49	6°♄58'06	1.40675 AU
evening rise	3733 Nov 16 23:21	4°♄21'00		evening rise	3734 Oct 28 09:52	14°♄44'25	
	3733 Dec 04 01:43	0°♄		desc. node	3734 Oct 29 08:32	16°♄17'15	
greatest brilliancy	3733 Dec 14 10:01	13°♄51'04	-0.3m		3734 Nov 07 01:34	0°♄	
evening max el	3733 Dec 19 03:29	19°♄11'25	22°04'32		3734 Nov 29 03:19	0°♄	
retrograde	3733 Dec 28 12:56	24°♄46'54		evening max el	3734 Dec 01 18:34	2°♄47'54	23°24'01
asc. node	3734 Jan 01 06:03	23°♄32'57		retrograde	3734 Dec 12 06:59	9°♄01'19	
evening set	3734 Jan 01 22:53	23°♄01'45		evening set	3734 Dec 17 05:30	6°♄59'56	
inferior conj	3734 Jan 07 08:20	16°♄39'46	1°57'04	asc. node	3734 Dec 19 03:05	5°♄07'36	
minimum elong	3734 Jan 07 06:05	16°♄47'37	1°56'16	min. Earth dist.	3734 Dec 22 05:07	1°♄10'53	0.67934 AU
min. Earth dist.	3734 Jan 07 08:17	16°♄39'58	0.67948 AU	inferior conj	3734 Dec 22 16:04	0°♄33'19	1°10'53
morning rise	3734 Jan 12 13:06	10°♄26'30		minimum elong	3734 Dec 22 14:30	0°♄38'42	1°10'16
direct	3734 Jan 17 07:25	8°♄26'55			3734 Dec 23 01:48	30°♄	
morning max el	3734 Jan 26 22:57	14°♄08'35	22°30'48	morning rise	3734 Dec 27 23:36	24°♄23'58	
greatest brilliancy	3734 Jan 31 12:30	19°♄14'04	-0.3m	direct	3735 Jan 01 03:33	22°♄47'11	
desc. node	3734 Feb 07 10:44	28°♄13'44		morning max el	3735 Jan 09 14:56	27°♄42'02	21°07'53
	3734 Feb 08 17:29	0°♄			3735 Jan 11 18:31	0°♄	
	3734 Feb 28 13:50	0°♄		greatest brilliancy	3735 Jan 14 22:55	3°♄49'15	-0.4m
morning set	3734 Mar 01 17:38	1°♄53'09		desc. node	3735 Jan 25 07:46	18°♄05'38	
max. Earth dist.	3734 Mar 06 18:34	10°♄16'43	1.40483 AU		3735 Feb 02 07:42	0°♄	
				morning set	3735 Feb 09 04:33	10°♄36'34	
superior conj	3734 Mar 14 13:33	23°♄55'00	-1°-57'-22	max. Earth dist.	3735 Feb 16 20:32	22°♄53'02	1.42493 AU
minimum elong	3734 Mar 14 17:36	24°♄13'16	1°57'06		3735 Feb 21 03:40	0°♄	
	3734 Mar 17 21:32	0°♄					
evening rise	3734 Mar 24 15:54	12°♄40'34		superior conj	3735 Feb 24 01:41	4°♄56'20	-2°-7'-5
asc. node	3734 Mar 30 05:21	22°♄59'34		minimum elong	3735 Feb 24 02:28	4°♄59'41	2°07'05
	3734 Apr 03 07:54	0°♄		evening rise	3735 Mar 07 14:18	25°♄15'46	
evening max el	3734 Apr 09 19:08	8°♄29'45	18°21'50		3735 Mar 10 05:30	0°♄	
retrograde	3734 Apr 17 02:51	12°♄07'45		asc. node	3735 Mar 17 02:22	11°♄52'37	
evening set	3734 Apr 19 11:24	11°♄46'08		evening max el	3735 Mar 24 05:54	21°♄29'07	18°07'30
inferior conj	3734 Apr 26 19:01	7°♄09'04	2°30'12	retrograde	3735 Mar 30 21:36	24°♄53'01	
minimum elong	3734 Apr 26 22:43	7°♄01'22	2°29'15	evening set	3735 Apr 02 12:14	24°♄21'48	
min. Earth dist.	3734 Apr 30 05:38	4°♄18'44	0.58824 AU	inferior conj	3735 Apr 09 04:04	19°♄23'43	3°15'43

minimum elong	3735 Apr 09 06:37	19° Υ 17'34	3°15'20			3736 Mar 24 04:35	30° \mathbb{R} \mathbb{H}	
min. Earth dist.	3735 Apr 12 08:55	16° Υ 20'23	0.61007 AU	min. Earth dist.	3736 Mar 24 20:50	29° \mathbb{H} 16'53	0.63088 AU	
morning rise	3735 Apr 15 21:51	13° Υ 30'21		morning rise	3736 Mar 28 08:29	26° \mathbb{H} 03'52		
direct	3735 Apr 22 15:30	11° Υ 14'58		direct	3736 Apr 04 05:54	23° \mathbb{H} 24'46		
desc. node	3735 Apr 23 06:56	11° Υ 16'09		desc. node	3736 Apr 09 03:58	24° \mathbb{H} 35'06		
morning max el	3735 May 06 21:16	19° Υ 10'58	27°46'39		3736 Apr 16 17:58	0° Υ		
	3735 May 16 01:14	0° \mathbb{B}		morning max el	3736 Apr 18 04:09	1° Υ 22'42	27°47'07	
	3735 Jun 03 10:18	0° \mathbb{H}			3736 May 09 05:32	0° \mathbb{B}		
morning set	3735 Jun 08 12:00	10° \mathbb{H} 04'29		morning set	3736 May 22 11:03	24° \mathbb{B} 13'21		
asc. node	3735 Jun 13 01:40	19° \mathbb{H} 44'01			3736 May 25 06:56	0° \mathbb{H}		
max. Earth dist.	3735 Jun 14 13:46	23° \mathbb{H} 00'08	1.32179 AU	max. Earth dist.	3736 May 27 19:37	5° \mathbb{H} 18'57	1.32740 AU	
				asc. node	3736 May 29 22:40	9° \mathbb{H} 52'33		
superior conj	3735 Jun 15 20:15	25° \mathbb{H} 46'51	0°28'48					
minimum elong	3735 Jun 15 18:59	25° \mathbb{H} 39'53	0°28'32	superior conj	3736 May 30 04:28	10° \mathbb{H} 23'49	0°02'33	
	3735 Jun 17 18:21	0° \mathbb{B}		minimum elong	3736 May 30 04:20	10° \mathbb{H} 23'08	0°02'31	
evening rise	3735 Jun 22 17:25	10° \mathbb{B} 46'06		behind sun begin	3736 May 29 23:08	9° \mathbb{H} 55'04		
	3735 Jul 02 12:55	0° \mathbb{B}		behind sun end	3736 May 30 09:33	10° \mathbb{H} 51'15		
evening max el	3735 Jul 19 02:16	22° \mathbb{B} 46'24	25°05'03	evening rise	3736 Jun 06 05:16	25° \mathbb{H} 35'04		
desc. node	3735 Jul 20 06:12	23° \mathbb{B} 50'57			3736 Jun 08 07:52	0° \mathbb{B}		
retrograde	3735 Aug 02 01:26	29° \mathbb{B} 50'48			3736 Jun 26 13:31	0° \mathbb{B}		
evening set	3735 Aug 07 14:26	28° \mathbb{B} 40'34		evening max el	3736 Jun 29 15:26	3° \mathbb{B} 16'20	23°30'35	
min. Earth dist.	3735 Aug 12 13:56	25° \mathbb{B} 57'11	0.57479 AU	desc. node	3736 Jul 06 03:11	8° \mathbb{B} 10'23		
inferior conj	3735 Aug 15 13:50	23° \mathbb{B} 56'29	-5°-9'-15	retrograde	3736 Jul 13 05:47	10° \mathbb{B} 04'57		
minimum elong	3735 Aug 15 13:57	23° \mathbb{B} 56'17	5°09'16	evening set	3736 Jul 17 07:27	9° \mathbb{B} 28'42		
morning rise	3735 Aug 23 17:02	19° \mathbb{B} 44'56		min. Earth dist.	3736 Jul 24 01:20	6° \mathbb{B} 20'27	0.55867 AU	
direct	3735 Aug 26 06:12	19° \mathbb{B} 25'56		inferior conj	3736 Jul 26 02:35	5° \mathbb{B} 07'15	-4°-46'-57	
morning max el	3735 Sep 04 04:18	23° \mathbb{B} 37'56	19°06'24	minimum elong	3736 Jul 25 20:45	5° \mathbb{B} 15'59	4°46'07	
asc. node	3735 Sep 09 00:54	29° \mathbb{B} 21'50		morning rise	3736 Aug 03 13:11	1° \mathbb{B} 12'53		
	3735 Sep 09 11:38	0° \mathbb{B}		direct	3736 Aug 06 09:22	0° \mathbb{B} 52'57		
morning set	3735 Sep 20 23:08	20° \mathbb{B} 28'08		morning max el	3736 Aug 16 19:00	5° \mathbb{B} 42'35	20°13'50	
	3735 Sep 25 18:22	0° \mathbb{B}		asc. node	3736 Aug 25 21:56	17° \mathbb{B} 36'45		
					3736 Sep 01 15:53	0° \mathbb{B}		
superior conj	3735 Sep 29 06:47	6° \mathbb{B} 52'25	1°38'10	morning set	3736 Sep 04 04:13	5° \mathbb{B} 03'30		
minimum elong	3735 Sep 29 08:56	7° \mathbb{B} 02'48	1°38'02					
max. Earth dist.	3735 Oct 05 23:13	19° \mathbb{B} 22'20	1.38594 AU	superior conj	3736 Sep 11 21:01	20° \mathbb{B} 48'54	1°44'14	
evening rise	3735 Oct 09 19:50	26° \mathbb{B} 12'01		minimum elong	3736 Sep 11 21:29	20° \mathbb{B} 51'12	1°44'13	
	3735 Oct 12 01:05	0° \mathbb{B}			3736 Sep 16 12:40	0° \mathbb{B}		
desc. node	3735 Oct 16 05:33	6° \mathbb{B} 55'46		max. Earth dist.	3736 Sep 17 05:17	1° \mathbb{B} 19'48	1.36601 AU	
	3735 Oct 31 16:01	0° \mathbb{B}		evening rise	3736 Sep 21 03:18	8° \mathbb{B} 39'16		
evening max el	3735 Nov 14 07:28	16° \mathbb{B} 28'23	24°42'45	desc. node	3736 Oct 02 02:33	27° \mathbb{B} 23'05		
retrograde	3735 Nov 25 21:03	23° \mathbb{B} 12'28			3736 Oct 03 18:21	0° \mathbb{B}		
evening set	3735 Dec 01 09:20	20° \mathbb{B} 55'22			3736 Oct 26 15:29	0° \mathbb{B}		
min. Earth dist.	3735 Dec 06 00:39	15° \mathbb{B} 40'25	0.67570 AU	evening max el	3736 Oct 26 19:50	0° \mathbb{B} 10'38	25°53'25	
asc. node	3735 Dec 06 00:06	15° \mathbb{B} 42'13		retrograde	3736 Nov 08 06:17	7° \mathbb{B} 15'29		
inferior conj	3735 Dec 06 22:17	14° \mathbb{B} 28'37	0°18'56	evening set	3736 Nov 14 08:40	4° \mathbb{B} 44'46		
minimum elong	3735 Dec 06 21:49	14° \mathbb{B} 30'10	0°18'44	min. Earth dist.	3736 Nov 18 16:27	0° \mathbb{B} 05'25	0.66860 AU	
morning rise	3735 Dec 12 10:45	8° \mathbb{B} 25'33			3736 Nov 18 18:12	30° \mathbb{B} \mathbb{B}		
direct	3735 Dec 16 01:44	7° \mathbb{B} 10'00		inferior conj	3736 Nov 20 01:09	28° \mathbb{B} 22'35	0°-37'-42	
morning max el	3735 Dec 23 14:35	11° \mathbb{B} 26'36	19°56'41	minimum elong	3736 Nov 20 02:09	28° \mathbb{B} 19'27	0°37'17	
greatest brilliancy	3735 Dec 30 20:17	20° \mathbb{B} 14'32	-0.6m	asc. node	3736 Nov 21 21:08	26° \mathbb{B} 07'51		
	3736 Jan 06 15:51	0° \mathbb{B}		morning rise	3736 Nov 25 20:34	22° \mathbb{B} 28'29		
desc. node	3736 Jan 12 04:49	8° \mathbb{B} 18'30		direct	3736 Nov 29 00:24	21° \mathbb{B} 31'11		
morning set	3736 Jan 19 00:40	18° \mathbb{B} 45'17		morning max el	3736 Dec 05 21:52	25° \mathbb{B} 20'43	19°00'13	
	3736 Jan 26 05:56	0° \mathbb{B}			3736 Dec 09 22:01	0° \mathbb{B}		
max. Earth dist.	3736 Jan 30 06:37	6° \mathbb{B} 22'49	1.44068 AU	morning set	3736 Dec 28 07:08	27° \mathbb{B} 33'03		
				desc. node	3736 Dec 29 01:51	28° \mathbb{B} 46'07		
superior conj	3736 Feb 04 12:12	14° \mathbb{B} 48'30	-2°00'-57		3736 Dec 29 20:46	0° \mathbb{B}		
minimum elong	3736 Feb 04 07:12	14° \mathbb{B} 28'08	2°00'44	max. Earth dist.	3737 Jan 11 22:59	20° \mathbb{B} 29'49	1.45015 AU	
	3736 Feb 13 15:45	0° \mathbb{B}						
evening rise	3736 Feb 17 18:26	7° \mathbb{B} 00'23		superior conj	3737 Jan 13 23:22	23° \mathbb{B} 40'27	-1°-35'-24	
asc. node	3736 Mar 02 23:23	0° Υ 11'07		minimum elong	3737 Jan 13 14:15	23° \mathbb{B} 04'27	1°34'33	
	3736 Mar 02 20:09	0° Υ			3737 Jan 17 23:13	0° \mathbb{B}		
evening max el	3736 Mar 06 18:39	4° Υ 45'18	18°12'19	evening rise	3737 Jan 29 00:27	17° \mathbb{B} 48'18		
retrograde	3736 Mar 13 04:53	8° Υ 09'42			3737 Feb 05 11:59	0° \mathbb{B}		
evening set	3736 Mar 16 01:13	7° Υ 27'34		asc. node	3737 Feb 17 20:24	17° \mathbb{B} 44'07		
inferior conj	3736 Mar 22 05:07	2° Υ 09'14	3°35'26	evening max el	3737 Feb 18 06:32	18° \mathbb{B} 10'23	18°35'33	
minimum elong	3736 Mar 22 05:53	2° Υ 07'09	3°35'24	retrograde	3737 Feb 24 20:25	21° \mathbb{B} 48'12		

evening set	3737 Feb 27 22:39	20° ✕ 54'15			3738 Feb 16 15:18	30° R ≈	
inferior conj	3737 Mar 05 18:07	15° ✕ 17'18	3°35'39	inferior conj	3738 Feb 17 15:37	28°≈42'21	3°21'14
minimum elong	3737 Mar 05 17:18	15° ✕ 19'45	3°35'37	minimum elong	3738 Feb 17 13:44	28°≈48'28	3°20'56
min. Earth dist.	3737 Mar 07 18:16	12° ✕ 53'16	0.64869 AU	min. Earth dist.	3738 Feb 19 00:34	26°≈56'13	0.66256 AU
morning rise	3737 Mar 11 10:38	9° ✕ 05'23		morning rise	3738 Feb 23 00:55	22°≈27'14	
direct	3737 Mar 18 03:40	6° ✕ 16'12		direct	3738 Mar 01 07:57	19°≈41'05	
desc. node	3737 Mar 27 01:01	10° ✕ 03'34		desc. node	3738 Mar 13 22:05	27°≈07'58	
morning max el	3737 Mar 31 13:49	14° ✕ 06'55	27°12'46	morning max el	3738 Mar 13 23:45	27°≈12'10	26°10'34
	3737 Apr 13 11:10	0° Y			3738 Mar 16 14:48	0° ✕	
	3737 May 01 21:18	0° 8			3738 Apr 07 02:51	0° Y	
morning set	3737 May 06 01:04	7° 8 51'36		morning set	3738 Apr 19 02:19	20° Y 48'37	
max. Earth dist.	3737 May 10 16:49	17° 8 08'44	1.33745 AU	max. Earth dist.	3738 Apr 23 02:40	28° Y 27'05	1.35208 AU
					3738 Apr 23 21:42	0° 8	
superior conj	3737 May 14 07:58	24° 8 41'36	0°-25'-43	superior conj	3738 Apr 28 04:25	8° 8 33'52	0°-54'-43
minimum elong	3737 May 14 09:18	24° 8 48'37	0°25'28	minimum elong	3738 Apr 28 07:19	8° 8 48'41	0°54'12
asc. node	3737 May 16 19:42	29° 8 58'12		asc. node	3738 May 03 16:44	19° 8 57'07	
	3737 May 16 20:02	0° II			3738 May 06 00:04	24° 8 43'16	
evening rise	3737 May 21 16:08	10° II 16'08		evening rise	3738 May 08 14:27	0° II	
	3737 May 31 23:32	0° ☿			3738 May 24 10:13	24° II 40'28	20°30'51
evening max el	3737 Jun 11 07:44	13° ☿ 44'11	21°54'54	evening max el	3738 Jun 03 03:08	0° ☿	
desc. node	3737 Jun 23 00:12	19° ☿ 56'55			3738 Jun 04 12:02	0° ☿ 04'48	
retrograde	3737 Jun 23 22:51	19° ☿ 58'59		retrograde	3738 Jun 05 21:24	30° R II	
evening set	3737 Jun 26 16:10	19° ☿ 42'24		evening set	3738 Jun 06 12:48	29° II 54'38	
inferior conj	3737 Jul 05 23:52	15° ☿ 38'58	-3°-34'-33	desc. node	3738 Jun 09 21:15	28° II 57'26	
minimum elong	3737 Jul 05 15:27	15° ☿ 50'46	3°32'11	inferior conj	3738 Jun 15 17:46	25° II 57'05	-1°-43'-23
min. Earth dist.	3737 Jul 05 11:54	15° ☿ 55'44	0.54955 AU	minimum elong	3738 Jun 15 12:55	26° II 04'08	1°41'37
morning rise	3737 Jul 14 16:17	11° ☿ 47'44		min. Earth dist.	3738 Jun 17 00:01	25° II 13'18	0.54970 AU
direct	3737 Jul 17 21:35	11° ☿ 24'53		morning rise	3738 Jun 24 11:32	21° II 48'09	
morning max el	3737 Jul 29 22:01	17° ☿ 02'25	21°41'13	direct	3738 Jun 28 07:18	21° II 16'37	
	3737 Aug 09 00:47	0° ♈		morning max el	3738 Jul 11 15:55	27° II 44'37	23°21'54
asc. node	3737 Aug 12 18:58	6° ♈ 29'24			3738 Jul 13 21:44	0° ☿	
morning set	3737 Aug 19 13:22	19° ♈ 50'55		asc. node	3738 Jul 30 16:01	25° ☿ 50'14	
	3737 Aug 24 09:02	0° ♏			3738 Aug 01 17:51	0° ♈	
superior conj	3737 Aug 26 20:37	5° ♏ 13'22	1°42'43	morning set	3738 Aug 04 00:40	4° ♈ 44'30	
minimum elong	3737 Aug 26 19:41	5° ♏ 08'28	1°42'41	superior conj	3738 Aug 11 02:30	19° ♈ 56'07	1°34'54
max. Earth dist.	3737 Aug 30 17:53	13° ♏ 13'07	1.34885 AU	minimum elong	3738 Aug 11 00:38	19° ♈ 46'04	1°34'45
evening rise	3737 Sep 04 04:04	21° ♏ 55'38		max. Earth dist.	3738 Aug 13 15:21	25° ♈ 20'17	1.33558 AU
	3737 Sep 08 12:14	0° ♏			3738 Aug 15 20:56	0° ♏	
desc. node	3737 Sep 18 23:33	17° ♏ 33'38		evening rise	3738 Aug 18 17:51	5° ♏ 49'32	
	3737 Sep 27 13:22	0° ♏			3738 Sep 01 03:22	0° ♏	
evening max el	3737 Oct 09 08:19	13° ♏ 48'25	26°48'32	desc. node	3738 Sep 05 20:34	7° ♏ 19'36	
retrograde	3737 Oct 22 10:17	21° ♏ 04'16		evening max el	3738 Sep 21 20:14	27° ♏ 11'34	27°20'52
evening set	3737 Oct 29 01:33	18° ♏ 24'44			3738 Sep 25 01:19	0° ♏	
min. Earth dist.	3737 Nov 02 02:14	14° ♏ 21'50	0.65799 AU	retrograde	3738 Oct 05 08:34	4° ♏ 30'06	
inferior conj	3737 Nov 03 22:44	12° ♏ 11'45	-1°-37'-34	evening set	3738 Oct 12 09:23	1° ♏ 49'50	
minimum elong	3737 Nov 04 01:26	12° ♏ 03'50	1°36'28		3738 Oct 14 12:37	30° R ♏	
asc. node	3737 Nov 08 18:11	7° ♏ 20'30		min. Earth dist.	3738 Oct 16 03:54	28° ♏ 22'05	0.64389 AU
morning rise	3737 Nov 10 02:53	6° ♏ 29'34		inferior conj	3738 Oct 18 12:38	25° ♏ 50'46	-2°-38'-39
direct	3737 Nov 12 21:39	5° ♏ 46'48		minimum elong	3738 Oct 18 17:04	25° ♏ 38'56	2°37'03
morning max el	3737 Nov 19 10:59	9° ♏ 19'59	18°19'52	morning rise	3738 Oct 25 02:57	20° ♏ 23'27	
	3737 Dec 03 21:51	0° ♏		asc. node	3738 Oct 26 15:16	19° ♏ 56'25	
morning set	3737 Dec 08 16:51	7° ♏ 44'53		direct	3738 Oct 27 15:05	19° ♏ 51'19	
desc. node	3737 Dec 15 22:52	19° ♏ 24'09		morning max el	3738 Nov 03 03:11	23° ♏ 17'25	17°56'23
	3737 Dec 22 15:21	0° ♏			3738 Nov 08 11:13	0° ♏	
superior conj	3737 Dec 24 01:36	2° ♏ 14'49	0°-53'-27	morning set	3738 Nov 20 07:10	19° ♏ 20'16	
minimum elong	3737 Dec 23 18:55	1° ♏ 48'30	0°52'37		3738 Nov 26 15:30	0° ♏	
max. Earth dist.	3737 Dec 25 18:09	4° ♏ 54'04	1.45232 AU	desc. node	3738 Dec 02 19:53	10° ♏ 08'18	
evening rise	3738 Jan 09 07:29	27° ♏ 41'49		superior conj	3738 Dec 03 15:46	11° ♏ 28'35	0°-5'-42
	3738 Jan 10 18:43	0°≈		minimum elong	3738 Dec 03 15:05	11° ♏ 25'51	0°05'37
greatest brilliancy	3738 Jan 23 09:11	19°≈30'28	-0.7m	behind sun begin	3738 Dec 03 05:23	10° ♏ 46'42	
	3738 Jan 31 02:36	0° ✕		behind sun end	3738 Dec 04 00:47	12° ♏ 04'56	
evening max el	3738 Feb 01 15:17	1° ✕ 40'16	19°16'08	max. Earth dist.	3738 Dec 08 12:44	19° ♏ 15'50	1.44714 AU
asc. node	3738 Feb 04 17:27	4° ✕ 19'04			3738 Dec 15 09:09	0° ♏	
retrograde	3738 Feb 08 16:38	5° ✕ 42'13		evening rise	3738 Dec 19 21:00	6° ♏ 56'44	
evening set	3738 Feb 12 01:41	4° ✕ 35'34					

	3739 Jan 04 03:37	0°♊		evening rise	3739 Nov 29 06:58	16°♏09'22	
greatest brilliancy	3739 Jan 09 08:14	7°♊20'09	-0.6m		3739 Dec 08 09:30	0°♏	
evening max el	3739 Jan 15 19:17	15°♊11'48	20°12'18	greatest brilliancy	3739 Dec 24 17:18	22°♏57'22	-0.4m
asc. node	3739 Jan 22 14:31	19°♊40'48		evening max el	3739 Dec 29 17:49	28°♏44'31	21°21'03
retrograde	3739 Jan 23 14:41	19°♊46'20			3739 Dec 31 00:44	0°♊	
evening set	3739 Jan 27 08:01	18°♊25'47		retrograde	3740 Jan 07 12:20	3°♊56'48	
inferior conj	3739 Feb 01 18:46	12°♊19'00	2°55'29	asc. node	3740 Jan 09 11:35	3°♊35'40	
minimum elong	3739 Feb 01 16:20	12°♊27'14	2°54'54	evening set	3740 Jan 11 15:43	2°♊21'02	
min. Earth dist.	3739 Feb 02 13:52	11°♊14'29	0.67227 AU		3740 Jan 14 01:01	30°♏	
morning rise	3739 Feb 07 00:05	6°♊03'08		inferior conj	3740 Jan 17 01:12	26°♏03'49	2°20'38
direct	3739 Feb 12 17:53	3°♊30'17		minimum elong	3740 Jan 16 22:45	26°♏12'19	2°19'51
evening max el	3739 Feb 24 08:28	10°♊26'44	24°50'04	min. Earth dist.	3740 Jan 17 07:51	25°♏40'48	0.67797 AU
desc. node	3739 Feb 28 19:07	15°♊20'36		morning rise	3740 Jan 22 05:26	19°♏49'07	
	3739 Mar 11 21:28	0°♏		direct	3740 Jan 27 08:28	17°♏36'17	
	3739 Mar 30 19:00	0°♏		morning max el	3740 Feb 06 17:13	23°♏46'04	23°21'31
morning set	3739 Apr 01 09:43	2°♏50'08		greatest brilliancy	3740 Feb 12 04:00	29°♏54'28	-0.2m
max. Earth dist.	3739 Apr 05 01:50	9°♏28'01	1.37086 AU		3740 Feb 12 05:48	0°♊	
				desc. node	3740 Feb 15 16:09	4°♊21'46	
superior conj	3739 Apr 11 14:45	21°♏52'37	-1°-22'-37		3740 Mar 04 07:34	0°♏	
minimum elong	3739 Apr 11 19:00	22°♏13'21	1°22'00	morning set	3740 Mar 12 17:01	13°♏38'45	
	3739 Apr 15 17:11	0°♏		max. Earth dist.	3740 Mar 16 20:43	20°♏45'46	1.39231 AU
evening rise	3739 Apr 20 02:45	8°♏49'53			3740 Mar 22 01:00	0°♏	
asc. node	3739 Apr 20 13:48	9°♏45'08					
	3739 May 01 20:59	0°♏		superior conj	3740 Mar 24 11:01	4°♏27'09	-1°-46'-42
evening max el	3739 May 07 01:03	6°♏18'21	19°24'58	minimum elong	3740 Mar 24 15:40	4°♏48'47	1°46'15
retrograde	3739 May 16 09:19	10°♏50'45		evening rise	3740 Apr 02 21:17	22°♏27'38	
evening set	3739 May 18 09:01	10°♏39'20		asc. node	3740 Apr 06 10:52	29°♏16'37	
inferior conj	3739 May 26 22:43	6°♏32'51	0°14'19		3740 Apr 06 20:07	0°♏	
minimum elong	3739 May 26 23:20	6°♏31'52	0°14'05	evening max el	3740 Apr 19 02:13	18°♏34'19	18°39'06
transit middle	3739 May 26 23:20	6°♏31'52	0°14'05	retrograde	3740 Apr 27 00:06	22°♏27'12	
transit begin	3739 May 26 21:30	6°♏34'51		evening set	3740 Apr 29 05:14	22°♏10'02	
transit end	3739 May 27 01:10	6°♏28'52		inferior conj	3740 May 06 23:27	17°♏44'59	1°49'51
desc. node	3739 May 27 18:18	6°♏00'57		minimum elong	3740 May 07 02:56	17°♏38'21	1°48'46
min. Earth dist.	3739 May 29 14:29	4°♏49'45	0.55934 AU	min. Earth dist.	3740 May 10 07:55	15°♏13'39	0.57642 AU
morning rise	3739 Jun 04 09:43	1°♏51'21		desc. node	3740 May 13 15:20	13°♏05'54	
direct	3739 Jun 09 03:20	1°♏00'25		morning rise	3740 May 14 20:13	12°♏29'13	
morning max el	3739 Jun 23 05:58	8°♏09'09	25°03'39	direct	3740 May 20 13:20	11°♏07'55	
	3739 Jul 09 09:03	0°♏		morning max el	3740 Jun 03 22:06	18°♏42'42	26°30'52
asc. node	3739 Jul 17 13:04	15°♏31'42			3740 Jun 13 09:45	0°♏	
morning set	3739 Jul 19 12:30	19°♏39'17			3740 Jun 30 19:20	0°♏	
	3739 Jul 24 07:24	0°♏		morning set	3740 Jul 02 23:07	4°♏28'45	
				asc. node	3740 Jul 03 10:06	5°♏26'45	
superior conj	3739 Jul 26 12:16	4°♏49'28	1°21'48				
minimum elong	3739 Jul 26 09:58	4°♏36'50	1°21'30	superior conj	3740 Jul 09 23:51	19°♏45'25	1°04'12
max. Earth dist.	3739 Jul 27 20:50	7°♏47'01	1.32652 AU	minimum elong	3740 Jul 09 21:35	19°♏32'56	1°03'48
evening rise	3739 Aug 02 17:03	20°♏10'43		max. Earth dist.	3740 Jul 10 07:21	20°♏26'46	1.32154 AU
	3739 Aug 07 16:04	0°♏			3740 Jul 14 16:17	0°♏	
desc. node	3739 Aug 23 17:35	26°♏30'41		evening rise	3740 Jul 16 22:37	4°♏48'41	
	3739 Aug 26 07:36	0°♏			3740 Jul 30 08:45	0°♏	
evening max el	3739 Sep 04 05:55	10°♏08'21	27°24'07	desc. node	3740 Aug 09 14:37	14°♏51'35	
retrograde	3739 Sep 18 00:21	17°♏23'59		evening max el	3740 Aug 16 10:37	22°♏24'58	26°54'24
evening set	3739 Sep 25 04:53	14°♏54'10		retrograde	3740 Aug 30 08:23	29°♏36'12	
min. Earth dist.	3739 Sep 28 19:43	11°♏56'27	0.62660 AU	evening set	3740 Sep 06 07:43	27°♏29'24	
inferior conj	3739 Oct 01 16:05	9°♏13'20	-3°-37'-35	min. Earth dist.	3740 Sep 10 00:47	24°♏51'05	0.60680 AU
minimum elong	3739 Oct 01 21:46	8°♏59'44	3°35'54	inferior conj	3740 Sep 13 05:40	22°♏10'05	-4°-28'-46
morning rise	3739 Oct 08 17:24	4°♏04'06		minimum elong	3740 Sep 13 11:16	21°♏58'19	4°27'38
direct	3739 Oct 11 01:45	3°♏38'59		morning rise	3740 Sep 20 17:59	17°♏22'16	
asc. node	3739 Oct 13 12:18	4°♏06'53		direct	3740 Sep 23 01:45	17°♏01'10	
morning max el	3739 Oct 17 19:27	7°♏06'03	17°50'38	asc. node	3740 Sep 29 09:20	19°♏44'19	
	3739 Nov 01 17:01	0°♏		morning max el	3740 Sep 30 08:38	20°♏37'26	18°03'53
morning set	3739 Nov 02 20:28	2°♏01'56			3740 Oct 07 09:37	0°♏	
				morning set	3740 Oct 16 02:28	15°♏31'17	
superior conj	3739 Nov 14 06:54	21°♏56'18	0°37'05		3740 Oct 23 22:59	0°♏	
minimum elong	3739 Nov 14 10:15	22°♏10'28	0°36'38				
	3739 Nov 19 03:20	0°♏		superior conj	3740 Oct 26 00:18	3°♏40'57	1°09'28
desc. node	3739 Nov 19 16:54	0°♏55'26		minimum elong	3740 Oct 26 04:29	3°♏59'32	1°08'58
max. Earth dist.	3739 Nov 21 04:25	3°♏19'36	1.43533 AU	max. Earth dist.	3740 Nov 02 15:41	16°♏51'53	1.41823 AU

desc. node	3740 Nov 05 13:55	21° \mathbb{M} 42'13		superior conj	3741 Oct 08 15:19	16° \mathbb{A} 29'08	1°30'39
evening rise	3740 Nov 08 05:27	25° \mathbb{M} 59'20		minimum elong	3741 Oct 08 18:26	16° \mathbb{A} 43'42	1°30'22
	3740 Nov 10 18:04	0° \mathbb{A}		max. Earth dist.	3741 Oct 15 22:00	29° \mathbb{A} 41'11	1.39798 AU
	3740 Dec 01 05:36	0° \mathbb{B}			3741 Oct 16 02:18	0° \mathbb{M}	
greatest brilliancy	3740 Dec 06 13:30	6° \mathbb{B} 49'28	-0.3m	evening rise	3741 Oct 20 01:49	6° \mathbb{M} 49'23	
evening max el	3740 Dec 11 11:16	12° \mathbb{B} 19'26	22°38'06	desc. node	3741 Oct 23 10:55	12° \mathbb{M} 24'54	
retrograde	3740 Dec 21 07:58	18° \mathbb{B} 10'55			3741 Nov 03 19:48	0° \mathbb{A}	
evening set	3740 Dec 25 23:10	16° \mathbb{B} 18'50		evening max el	3741 Nov 24 01:04	25° \mathbb{A} 57'06	23°58'00
asc. node	3740 Dec 26 08:36	15° \mathbb{B} 58'42			3741 Nov 28 18:04	0° \mathbb{B}	
inferior conj	3740 Dec 31 08:57	9° \mathbb{B} 54'38	1°38'14	retrograde	3741 Dec 05 00:22	2° \mathbb{B} 24'31	
minimum elong	3740 Dec 31 06:56	10° \mathbb{B} 01'37	1°37'29	evening set	3741 Dec 10 04:46	0° \mathbb{B} 16'01	
min. Earth dist.	3740 Dec 31 04:12	10° \mathbb{B} 11'03	0.67988 AU		3741 Dec 10 12:10	30° \mathbb{R} \mathbb{A}	
morning rise	3741 Jan 05 14:37	3° \mathbb{B} 42'59		asc. node	3741 Dec 13 05:37	27° \mathbb{A} 02'33	
direct	3741 Jan 10 02:48	1° \mathbb{B} 53'02		min. Earth dist.	3741 Dec 15 00:38	24° \mathbb{A} 41'35	0.67823 AU
morning max el	3741 Jan 19 05:36	7° \mathbb{B} 13'28	21°54'28	inferior conj	3741 Dec 15 16:12	23° \mathbb{A} 48'48	0°49'27
greatest brilliancy	3741 Jan 23 22:24	12° \mathbb{B} 30'27	-0.4m	minimum elong	3741 Dec 15 15:03	23° \mathbb{A} 52'41	0°48'59
desc. node	3741 Feb 01 13:10	23° \mathbb{B} 58'02		morning rise	3741 Dec 21 01:36	17° \mathbb{A} 42'06	
	3741 Feb 05 17:59	0° \mathbb{A}		direct	3741 Dec 24 23:50	16° \mathbb{A} 14'49	
morning set	3741 Feb 20 19:35	23° \mathbb{A} 04'49		morning max el	3742 Jan 02 00:48	20° \mathbb{A} 51'52	20°36'01
	3741 Feb 25 01:43	0° \mathbb{H}		greatest brilliancy	3742 Jan 08 00:47	27° \mathbb{A} 53'38	-0.5m
max. Earth dist.	3741 Feb 26 19:23	2° \mathbb{H} 52'48	1.41375 AU		3742 Jan 09 15:00	0° \mathbb{B}	
				desc. node	3742 Jan 19 10:11	13° \mathbb{B} 59'17	
superior conj	3741 Mar 06 12:22	16° \mathbb{H} 05'59	-2°-3'-5		3742 Jan 29 23:33	0° \mathbb{A}	
minimum elong	3741 Mar 06 15:24	16° \mathbb{H} 19'24	2°02'58	morning set	3742 Jan 30 21:31	1° \mathbb{A} 25'09	
	3741 Mar 14 05:06	0° \mathbb{Y}		max. Earth dist.	3742 Feb 09 01:11	15° \mathbb{A} 54'10	1.43227 AU
evening rise	3741 Mar 17 04:14	5° \mathbb{Y} 28'33					
asc. node	3741 Mar 24 07:54	18° \mathbb{Y} 25'54		superior conj	3742 Feb 15 13:44	26° \mathbb{A} 37'10	-2°-6'-43
	3741 Apr 01 03:59	0° \mathbb{B}		minimum elong	3742 Feb 15 12:14	26° \mathbb{A} 30'55	2°06'42
evening max el	3741 Apr 02 10:25	1° \mathbb{B} 20'21	18°13'21		3742 Feb 17 13:59	0° \mathbb{H}	
retrograde	3741 Apr 09 09:49	4° \mathbb{B} 50'28		evening rise	3742 Feb 27 19:22	17° \mathbb{H} 42'54	
evening set	3741 Apr 11 21:07	4° \mathbb{B} 24'51			3742 Mar 06 20:08	0° \mathbb{Y}	
	3741 Apr 18 11:45	30° \mathbb{R} \mathbb{Y}		asc. node	3742 Mar 11 04:56	7° \mathbb{Y} 05'02	
inferior conj	3741 Apr 18 21:30	29° \mathbb{Y} 38'28	2°53'03	evening max el	3742 Mar 16 22:16	14° \mathbb{Y} 26'45	18°07'13
minimum elong	3741 Apr 19 00:52	29° \mathbb{Y} 30'59	2°52'20	retrograde	3742 Mar 23 10:36	17° \mathbb{Y} 49'36	
min. Earth dist.	3741 Apr 22 06:45	26° \mathbb{Y} 39'51	0.59746 AU	evening set	3742 Mar 26 03:35	17° \mathbb{Y} 13'56	
morning rise	3741 Apr 26 00:55	23° \mathbb{Y} 55'50		inferior conj	3742 Apr 01 13:51	12° \mathbb{Y} 06'51	3°26'49
desc. node	3741 Apr 30 12:21	22° \mathbb{Y} 10'27		minimum elong	3742 Apr 01 15:39	12° \mathbb{Y} 02'15	3°26'39
direct	3741 May 02 11:59	21° \mathbb{Y} 59'32		min. Earth dist.	3742 Apr 04 13:34	9° \mathbb{Y} 05'36	0.61912 AU
morning max el	3741 May 16 20:15	29° \mathbb{Y} 49'46	27°29'27	morning rise	3742 Apr 08 01:03	6° \mathbb{Y} 07'13	
	3741 May 17 00:23	0° \mathbb{B}		direct	3742 Apr 14 21:12	3° \mathbb{Y} 40'24	
	3741 Jun 07 08:49	0° \mathbb{H}		desc. node	3742 Apr 17 09:23	3° \mathbb{Y} 58'37	
morning set	3741 Jun 17 06:53	19° \mathbb{H} 07'45		morning max el	3742 Apr 29 00:38	11° \mathbb{Y} 38'37	27°51'33
asc. node	3741 Jun 20 07:08	25° \mathbb{H} 30'33			3742 May 13 11:50	0° \mathbb{B}	
	3741 Jun 22 08:47	0° \mathbb{B}			3742 May 30 16:10	0° \mathbb{H}	
				morning set	3742 Jun 01 09:47	3° \mathbb{H} 29'37	
superior conj	3741 Jun 24 11:28	4° \mathbb{B} 38'22	0°42'43	max. Earth dist.	3742 Jun 07 04:20	15° \mathbb{H} 39'12	1.32361 AU
minimum elong	3741 Jun 24 09:43	4° \mathbb{B} 28'41	0°42'21	asc. node	3742 Jun 07 04:11	15° \mathbb{H} 38'26	
max. Earth dist.	3741 Jun 23 19:11	3° \mathbb{B} 08'42	1.32058 AU				
evening rise	3741 Jul 01 08:11	19° \mathbb{B} 36'02		superior conj	3742 Jun 08 21:26	19° \mathbb{H} 22'29	0°17'58
	3741 Jul 06 10:18	0° \mathbb{Q}		minimum elong	3742 Jun 08 20:36	19° \mathbb{H} 17'58	0°17'47
	3741 Jul 25 15:07	0° \mathbb{M}			3742 Jun 13 18:14	0° \mathbb{B}	
desc. node	3741 Jul 27 11:37	2° \mathbb{M} 01'52		evening rise	3742 Jun 15 19:43	4° \mathbb{B} 25'47	
evening max el	3741 Jul 29 07:56	3° \mathbb{M} 52'46	25°52'23		3742 Jun 29 11:05	0° \mathbb{Q}	
retrograde	3741 Aug 12 07:15	11° \mathbb{M} 00'30		evening max el	3742 Jul 10 22:33	14° \mathbb{Q} 37'21	24°26'00
evening set	3741 Aug 18 13:00	9° \mathbb{M} 27'46		desc. node	3742 Jul 14 08:38	17° \mathbb{Q} 33'42	
min. Earth dist.	3741 Aug 22 20:12	6° \mathbb{M} 52'00	0.58612 AU	retrograde	3742 Jul 24 19:27	21° \mathbb{Q} 37'39	
inferior conj	3741 Aug 26 01:49	4° \mathbb{M} 30'59	-5°-2'-46	evening set	3742 Jul 29 18:10	20° \mathbb{Q} 42'54	
minimum elong	3741 Aug 26 04:49	4° \mathbb{M} 25'30	5°02'32	min. Earth dist.	3742 Aug 04 09:28	17° \mathbb{Q} 50'41	0.56725 AU
morning rise	3741 Sep 03 00:07	0° \mathbb{M} 06'48		inferior conj	3742 Aug 07 02:02	16° \mathbb{Q} 08'15	-5°-5'-36
	3741 Sep 03 11:43	30° \mathbb{R} \mathbb{Q}		minimum elong	3742 Aug 06 23:35	16° \mathbb{Q} 12'08	5°05'28
direct	3741 Sep 05 10:35	29° \mathbb{Q} 47'29		morning rise	3742 Aug 15 08:37	12° \mathbb{Q} 05'34	
	3741 Sep 07 08:28	0° \mathbb{M}		direct	3742 Aug 18 00:26	11° \mathbb{Q} 46'27	
morning max el	3741 Sep 13 15:27	3° \mathbb{M} 42'38	18°37'28	morning max el	3742 Aug 27 12:52	16° \mathbb{Q} 12'42	19°32'30
asc. node	3741 Sep 16 06:21	6° \mathbb{M} 34'30		asc. node	3742 Sep 03 03:23	24° \mathbb{Q} 22'38	
morning set	3741 Sep 29 20:09	29° \mathbb{M} 33'49			3742 Sep 06 13:46	0° \mathbb{M}	
	3741 Sep 30 01:33	0° \mathbb{A}		morning set	3742 Sep 13 21:55	13° \mathbb{M} 59'46	

superior conj	3742 Sep 21 22:32	0°♄05'22	1°41'46	morning rise	3743 Jul 26 20:33	23°♄09'42	
minimum elong	3742 Sep 21 23:57	0°♄12'21	1°41'41	direct	3743 Jul 29 19:57	22°♄49'03	
	3742 Sep 21 21:26	0°♄		morning max el	3743 Aug 09 22:39	27°♄58'48	20°48'48
max. Earth dist.	3742 Sep 28 02:14	11°♄51'00	1.37719 AU		3743 Aug 11 22:46	0°♄	
evening rise	3742 Oct 01 21:25	18°♄43'55		asc. node	3743 Aug 21 00:26	12°♄54'54	
	3742 Oct 08 11:49	0°♄		morning set	3743 Aug 29 05:00	28°♄40'54	
desc. node	3742 Oct 10 07:57	2°♄59'34			3743 Aug 29 20:20	0°♄	
	3742 Oct 29 01:17	0°♄					
evening max el	3742 Nov 06 13:24	9°♄38'30	25°14'07	superior conj	3743 Sep 05 17:13	14°♄15'13	1°44'25
retrograde	3742 Nov 18 12:39	16°♄33'27		minimum elong	3743 Sep 05 17:02	14°♄14'16	1°44'26
evening set	3742 Nov 24 06:58	14°♄09'57		max. Earth dist.	3743 Sep 10 10:17	23°♄42'40	1.35828 AU
min. Earth dist.	3742 Nov 28 18:53	9°♄10'02	0.67311 AU		3743 Sep 13 16:49	0°♄	
inferior conj	3742 Nov 29 21:15	7°♄44'17	0°-4'-35	evening rise	3743 Sep 14 12:52	1°♄33'57	
minimum elong	3742 Nov 29 21:22	7°♄43'54	0°04'33	desc. node	3743 Sep 27 04:58	23°♄20'33	
transit middle	3742 Nov 29 21:22	7°♄43'54	0°04'33		3743 Oct 01 13:13	0°♄	
transit begin	3742 Nov 29 18:41	7°♄52'36		evening max el	3743 Oct 20 01:51	23°♄19'59	26°19'10
transit end	3742 Nov 30 00:02	7°♄35'13			3743 Oct 29 18:24	0°♄	
asc. node	3742 Nov 30 02:37	7°♄26'49		retrograde	3743 Nov 01 19:54	0°♄31'07	
morning rise	3742 Dec 05 12:28	1°♄44'46			3743 Nov 04 17:13	30°♄	
direct	3742 Dec 08 22:21	0°♄37'37		evening set	3743 Nov 08 03:51	27°♄56'05	
morning max el	3742 Dec 16 03:56	4°♄41'37	19°30'42	min. Earth dist.	3743 Nov 12 08:36	23°♄31'54	0.66453 AU
greatest brilliancy	3742 Dec 24 16:26	15°♄24'11	-0.6m	inferior conj	3743 Nov 13 22:10	21°♄36'56	-1°-2'-46
	3743 Jan 03 11:39	0°♄		minimum elong	3743 Nov 13 23:52	21°♄31'44	1°02'04
desc. node	3743 Jan 06 07:13	4°♄19'01		asc. node	3743 Nov 16 23:39	18°♄06'24	
morning set	3743 Jan 09 18:54	9°♄41'37		morning rise	3743 Nov 19 21:05	15°♄47'18	
max. Earth dist.	3743 Jan 22 13:48	29°♄40'08	1.44555 AU	direct	3743 Nov 22 20:43	14°♄56'43	
	3743 Jan 22 18:49	0°♄		morning max el	3743 Nov 29 13:58	18°♄38'24	18°40'54
					3743 Dec 08 07:02	0°♄	
superior conj	3743 Jan 26 13:21	6°♄00'26	-1°-52'-30	morning set	3743 Dec 20 11:55	19°♄02'25	
minimum elong	3743 Jan 26 06:01	5°♄31'02	1°52'00	desc. node	3743 Dec 24 04:16	24°♄51'26	
evening rise	3743 Feb 09 14:27	29°♄03'26			3743 Dec 27 10:36	0°♄	
	3743 Feb 10 03:56	0°♄					
asc. node	3743 Feb 26 01:56	25°♄05'15		superior conj	3744 Jan 05 18:24	14°♄38'35	-1°-19'-6
evening max el	3743 Feb 28 10:54	27°♄46'45	18°20'01	minimum elong	3744 Jan 05 09:28	14°♄03'33	1°18'08
	3743 Mar 03 02:48	0°♄		max. Earth dist.	3744 Jan 05 07:19	13°♄55'07	1.45203 AU
retrograde	3743 Mar 06 21:50	1°♄15'40			3744 Jan 15 12:11	0°♄	
evening set	3743 Mar 09 20:30	0°♄28'46		evening rise	3744 Jan 21 10:28	9°♄26'58	
	3743 Mar 10 16:01	30°♄			3744 Feb 03 09:47	0°♄	
inferior conj	3743 Mar 15 20:26	25°♄02'27	3°37'34	evening max el	3744 Feb 11 21:46	11°♄14'49	18°50'51
minimum elong	3743 Mar 15 20:29	25°♄02'20	3°37'35	asc. node	3744 Feb 12 22:58	12°♄15'24	
min. Earth dist.	3743 Mar 18 05:44	22°♄20'07	0.63887 AU	retrograde	3744 Feb 18 15:38	15°♄01'26	
morning rise	3743 Mar 21 18:41	18°♄53'31		evening set	3744 Feb 21 20:38	14°♄02'17	
direct	3743 Mar 28 15:05	16°♄08'06		inferior conj	3744 Feb 27 13:27	8°♄18'24	3°31'05
desc. node	3743 Apr 04 06:26	18°♄16'10		minimum elong	3744 Feb 27 12:06	8°♄22'34	3°30'57
morning max el	3743 Apr 11 09:05	24°♄05'17	27°36'24	min. Earth dist.	3744 Feb 29 07:06	6°♄09'29	0.65514 AU
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	3743 May 06 20:31	0°♄			3744 Mar 07 05:56	30°♄	
morning set	3743 May 16 05:23	17°♄26'22		direct	3744 Mar 10 15:59	29°♄15'13	
max. Earth dist.	3743 May 21 06:44	27°♄45'15	1.33100 AU		3744 Mar 14 07:49	0°♄	
	3743 May 22 08:20	0°♄		desc. node	3744 Mar 21 03:29	4°♄29'13	
				morning max el	3744 Mar 23 18:55	6°♄59'20	26°49'07
superior conj	3743 May 24 03:54	3°♄51'42	0°-9'-17		3744 Apr 10 13:45	0°♄	
minimum elong	3743 May 24 04:22	3°♄54'11	0°09'12		3744 Apr 28 04:18	0°♄	
behind sun begin	3743 May 23 23:57	3°♄30'33		morning set	3744 Apr 28 14:30	0°♄48'36	
behind sun end	3743 May 24 08:47	4°♄17'50		max. Earth dist.	3744 May 02 23:01	9°♄19'52	1.34306 AU
asc. node	3743 May 25 01:13	5°♄45'58					
evening rise	3743 May 31 07:22	19°♄11'29		superior conj	3744 May 07 04:47	17°♄59'52	0°-38'-2
	3743 Jun 05 14:47	0°♄		minimum elong	3744 May 07 06:47	18°♄10'16	0°37'38
evening max el	3743 Jun 22 12:03	25°♄02'13	22°49'19	asc. node	3744 May 10 22:17	25°♄49'24	
	3743 Jun 29 04:51	0°♄			3744 May 12 21:49	0°♄	
desc. node	3743 Jul 01 05:39	0°♄51'51		evening rise	3744 May 14 17:16	3°♄47'26	
retrograde	3743 Jul 05 19:05	1°♄39'25			3744 May 29 11:03	0°♄	
evening set	3743 Jul 09 05:17	1°♄13'43		evening max el	3744 Jun 03 08:16	5°♄39'57	21°17'20
	3743 Jul 12 17:10	30°♄		retrograde	3744 Jun 15 08:39	11°♄33'55	
min. Earth dist.	3743 Jul 16 20:31	27°♄50'40	0.55365 AU	desc. node	3744 Jun 17 02:41	11°♄26'47	
inferior conj	3743 Jul 18 07:15	27°♄00'45	-4°-22'-25	evening set	3744 Jun 17 16:44	11°♄21'20	
minimum elong	3743 Jul 17 23:35	27°♄11'48	4°20'51	inferior conj	3744 Jun 27 01:19	7°♄22'50	-2°-50'-36



































































































































minimum elong	3744 Jun 26 17:46	7° $\overline{33}$ '24	2°48'09	minimum elong	3745 Jun 06 19:45	17° \overline{II} 47'17	0°51'13
min. Earth dist.	3744 Jun 27 07:44	7° $\overline{33}$ '50	0.54839 AU	min. Earth dist.	3745 Jun 08 20:20	16° \overline{II} 34'12	0.55276 AU
morning rise	3744 Jul 05 19:02	3° $\overline{32}$ '26		morning rise	3745 Jun 15 14:12	13° \overline{II} 22'24	
direct	3744 Jul 09 05:51	3° $\overline{30}$ '38		direct	3745 Jun 19 18:44	12° \overline{II} 44'07	
morning max el	3744 Jul 21 21:08	9° $\overline{30}$ '18	22°22'57	morning max el	3745 Jul 03 12:26	19° \overline{II} 30'16	24°06'04
	3744 Aug 05 19:42	0° \overline{Q}			3745 Jul 12 08:07	0° $\overline{3}$	
asc. node	3744 Aug 06 21:32	2° \overline{Q} 00'33		asc. node	3745 Jul 24 18:35	21° $\overline{3}$ 30'31	
morning set	3744 Aug 12 15:19	13° \overline{Q} 31'24		morning set	3745 Jul 28 03:03	28° $\overline{3}$ 25'36	
					3745 Jul 28 20:51	0° \overline{Q}	
superior conj	3744 Aug 19 19:49	28° \overline{Q} 48'07	1°40'05	superior conj	3745 Aug 04 03:35	13° \overline{Q} 35'23	1°29'56
minimum elong	3744 Aug 19 18:25	28° \overline{Q} 40'44	1°40'01	minimum elong	3745 Aug 04 01:28	13° \overline{Q} 23'55	1°29'43
	3744 Aug 20 09:25	0° \overline{P}			3745 Aug 06 04:04	17° \overline{Q} 56'40	1.33121 AU
max. Earth dist.	3744 Aug 23 02:43	5° \overline{P} 40'43	1.34276 AU	max. Earth dist.	3745 Aug 11 13:51	29° \overline{Q} 13'35	
evening rise	3744 Aug 27 19:42	15° \overline{P} 07'41		evening rise	3745 Aug 11 23:04	0° \overline{P}	
	3744 Sep 04 21:26	0° \overline{A}			3745 Aug 29 00:04	0° \overline{A}	
desc. node	3744 Sep 13 01:59	13° \overline{A} 21'29		desc. node	3745 Aug 30 23:01	2° \overline{A} 53'52	
	3744 Sep 25 05:41	0° \overline{M}			3745 Sep 14 01:51	20° \overline{A} 07'14	27°26'08
evening max el	3744 Oct 01 14:30	6° \overline{M} 53'37	27°05'29	evening max el	3745 Sep 27 16:48	27° \overline{A} 24'12	
retrograde	3744 Oct 14 21:25	14° \overline{M} 10'43		retrograde	3745 Oct 04 20:16	24° \overline{A} 46'51	
evening set	3744 Oct 21 17:13	11° \overline{M} 30'05		evening set	3745 Oct 08 12:47	21° \overline{A} 33'01	0.63694 AU
min. Earth dist.	3744 Oct 25 15:17	7° \overline{M} 42'11	0.65247 AU	min. Earth dist.	3745 Oct 11 02:40	18° \overline{A} 55'25	-3°-4'-10
inferior conj	3744 Oct 27 16:49	5° \overline{M} 22'31	-2°-3'-27	inferior conj	3745 Oct 11 07:44	18° \overline{A} 42'30	3°02'27
minimum elong	3744 Oct 27 20:17	5° \overline{M} 12'46	2°02'07	minimum elong	3745 Oct 17 21:36	13° \overline{A} 35'25	
asc. node	3744 Nov 02 20:44	29° \overline{A} 51'17		morning rise	3745 Oct 20 07:53	13° \overline{A} 06'32	
	3744 Nov 02 14:05	30° \overline{R} \overline{A}		direct	3745 Oct 20 17:48	13° \overline{A} 07'24	
morning rise	3744 Nov 03 01:08	29° \overline{A} 45'56		asc. node	3745 Oct 26 21:18	16° \overline{A} 31'41	17°51'45
direct	3744 Nov 05 16:49	29° \overline{A} 08'01		morning max el	3745 Nov 05 11:20	0° \overline{M}	
	3744 Nov 08 20:16	0° \overline{M}			3745 Nov 12 11:18	11° \overline{M} 58'08	
morning max el	3744 Nov 12 04:40	2° \overline{M} 37'03	18°07'39	morning set	3745 Nov 23 02:07	0° \overline{A}	
morning set	3744 Nov 30 10:19	29° \overline{M} 51'33					
	3744 Nov 30 12:22	0° \overline{A}					
desc. node	3744 Dec 10 01:17	15° \overline{A} 32'08		superior conj	3745 Nov 24 23:16	3° \overline{A} 06'07	0°13'31
				minimum elong	3745 Nov 25 00:43	3° \overline{A} 12'05	0°13'20
superior conj	3744 Dec 14 23:14	23° \overline{A} 22'36	0°-33'-9	behind sun begin	3745 Nov 24 19:10	2° \overline{A} 49'19	
minimum elong	3744 Dec 14 19:03	23° \overline{A} 06'02	0°32'35	behind sun end	3745 Nov 25 06:16	3° \overline{A} 34'50	
max. Earth dist.	3744 Dec 18 02:53	28° \overline{A} 21'15	1.45108 AU	desc. node	3745 Nov 26 22:17	6° \overline{A} 18'04	
	3744 Dec 19 04:01	0° $\overline{3}$		max. Earth dist.	3745 Nov 30 21:12	12° \overline{A} 40'03	1.44290 AU
evening rise	3744 Dec 31 08:50	19° $\overline{3}$ 00'42		evening rise	3745 Dec 10 18:57	28° \overline{A} 10'23	
	3745 Jan 07 11:28	0° \overline{A}			3745 Dec 11 23:30	0° $\overline{3}$	
greatest brilliancy	3745 Jan 17 09:50	14° \overline{A} 53'41	-0.6m		3746 Jan 01 09:45	0° \overline{A}	
evening max el	3745 Jan 25 04:44	24° \overline{A} 45'45	19°38'19	greatest brilliancy	3746 Jan 02 12:48	1° \overline{A} 29'38	-0.5m
asc. node	3745 Jan 29 20:01	28° \overline{A} 21'00		evening max el	3746 Jan 08 06:26	8° \overline{A} 17'52	20°40'08
retrograde	3745 Feb 01 12:50	29° \overline{A} 00'14		retrograde	3746 Jan 16 11:01	13° \overline{A} 07'56	
evening set	3745 Feb 05 01:19	27° \overline{A} 47'39		asc. node	3746 Jan 16 17:04	13° \overline{A} 07'35	
inferior conj	3745 Feb 10 13:39	21° \overline{A} 48'25	3°11'31	evening set	3746 Jan 20 08:29	11° \overline{A} 40'51	
minimum elong	3745 Feb 10 11:28	21° \overline{A} 55'37	3°11'05	inferior conj	3746 Jan 25 18:28	5° \overline{A} 29'00	2°41'41
min. Earth dist.	3745 Feb 11 16:29	20° \overline{A} 19'59	0.66726 AU	minimum elong	3746 Jan 25 15:58	5° \overline{A} 37'34	2°41'00
morning rise	3745 Feb 15 20:54	15° \overline{A} 33'00		min. Earth dist.	3746 Jan 26 08:00	4° \overline{A} 42'40	0.67521 AU
direct	3745 Feb 21 22:40	12° \overline{A} 51'33			3746 Jan 30 03:36	30° \overline{R} $\overline{3}$	
morning max el	3745 Mar 06 04:11	20° \overline{A} 08'44	25°37'56	morning rise	3746 Jan 30 23:01	29° $\overline{3}$ 13'31	
desc. node	3745 Mar 08 00:32	22° \overline{A} 05'09		direct	3746 Feb 05 10:32	26° $\overline{3}$ 48'56	
	3745 Mar 14 15:07	0° \overline{H}			3746 Feb 12 17:31	0° \overline{A}	
	3745 Apr 03 17:09	0° \overline{Y}		morning max el	3746 Feb 16 12:49	3° \overline{A} 26'14	24°12'46
morning set	3745 Apr 11 08:46	13° \overline{Y} 23'08		desc. node	3746 Feb 22 21:33	10° \overline{A} 40'22	
max. Earth dist.	3745 Apr 15 04:03	20° \overline{Y} 28'07	1.35968 AU		3746 Mar 08 20:15	0° \overline{H}	
	3745 Apr 20 01:33	0° $\overline{3}$		morning set	3746 Mar 24 06:38	24° \overline{H} 55'16	
					3746 Mar 27 03:59	0° \overline{Y}	
superior conj	3745 Apr 20 21:19	1° $\overline{3}$ 38'37	-1°-6'-50	max. Earth dist.	3746 Mar 28 00:52	1° \overline{Y} 33'28	1.37989 AU
minimum elong	3745 Apr 21 00:51	1° $\overline{3}$ 56'21	1°06'14				
asc. node	3745 Apr 27 19:19	15° $\overline{3}$ 44'00		superior conj	3746 Apr 04 02:08	14° \overline{Y} 39'21	-1°-33'-29
evening rise	3745 Apr 28 23:15	18° $\overline{3}$ 06'25		minimum elong	3746 Apr 04 06:44	15° \overline{Y} 01'19	1°32'55
	3745 May 05 00:56	0° \overline{II}			3746 Apr 11 22:13	0° $\overline{3}$	
evening max el	3745 May 16 15:58	16° \overline{II} 52'28	20°00'21	evening rise	3746 Apr 12 22:50	2° $\overline{3}$ 01'36	
retrograde	3745 May 26 23:29	21° \overline{II} 53'46		asc. node	3746 Apr 14 16:22	5° $\overline{3}$ 25'24	
evening set	3745 May 28 22:42	21° \overline{II} 43'36		evening max el	3746 Apr 29 11:24	28° $\overline{3}$ 46'17	19°02'50
desc. node	3745 Jun 03 23:44	19° \overline{II} 25'55			3746 Apr 30 20:12	0° \overline{II}	
inferior conj	3745 Jun 06 22:10	17° \overline{II} 43'38	0°-52'-6	retrograde	3746 May 08 03:54	3° \overline{II} 00'23	

evening set	3746 May 10 05:27	2°II47'01			3747 Apr 04 12:06	0°8	
	3746 May 16 07:13	30°R8		evening max el	3747 Apr 12 15:58	11°816'12	18°25'42
inferior conj	3746 May 18 10:53	28°832'57	0°58'39	retrograde	3747 Apr 20 03:00	14°857'31	
minimum elong	3746 May 18 13:09	28°829'02	0°57'51	evening set	3747 Apr 22 10:38	14°837'10	
min. Earth dist.	3746 May 21 11:44	26°827'24	0.56590 AU	inferior conj	3747 Apr 29 20:55	10°803'23	2°20'35
desc. node	3746 May 21 20:46	26°812'31		minimum elong	3747 Apr 30 00:39	9°855'49	2°19'35
morning rise	3746 May 26 16:30	23°836'08		min. Earth dist.	3747 May 03 07:31	7°817'07	0.58506 AU
direct	3746 May 31 20:06	22°833'40		morning rise	3747 May 07 10:20	4°834'37	
morning max el	3746 Jun 15 02:52	29°855'08	25°43'38	desc. node	3747 May 08 17:46	3°857'49	
	3746 Jun 15 04:53	0°II		direct	3747 May 13 11:59	2°858'14	
	3746 Jul 05 23:24	0°8		morning max el	3747 May 27 21:27	10°841'39	26°59'55
asc. node	3746 Jul 11 15:37	11°817'59			3747 Jun 11 19:19	0°II	
morning set	3746 Jul 12 14:30	13°818'12		morning set	3747 Jun 27 00:07	28°II04'10	
					3747 Jun 27 22:04	0°8	
superior conj	3746 Jul 19 14:18	28°829'54	1°14'51	asc. node	3747 Jun 28 12:38	1°817'33	
minimum elong	3746 Jul 19 11:57	28°817'00	1°14'29				
	3746 Jul 20 06:43	0°8		superior conj	3747 Jul 04 02:06	13°825'41	0°55'32
max. Earth dist.	3746 Jul 20 12:02	0°829'12	1.32383 AU	minimum elong	3747 Jul 04 00:00	13°814'05	0°55'08
evening rise	3746 Jul 26 16:00	13°841'55		max. Earth dist.	3747 Jul 03 23:24	13°810'45	1.32056 AU
	3746 Aug 04 01:02	0°8		evening rise	3747 Jul 10 23:32	28°824'52	
desc. node	3746 Aug 17 20:03	21°845'23			3747 Jul 11 17:39	0°8	
	3746 Aug 24 15:25	0°8			3747 Jul 28 10:48	0°8	
evening max el	3746 Aug 27 09:27	2°846'52	27°15'38	desc. node	3747 Aug 04 17:04	9°839'25	
retrograde	3746 Sep 10 05:27	10°801'13		evening max el	3747 Aug 09 11:03	14°842'50	26°31'45
evening set	3746 Sep 17 09:15	7°839'12		retrograde	3747 Aug 23 10:11	21°853'30	
min. Earth dist.	3746 Sep 20 23:48	4°851'51	0.61833 AU	evening set	3747 Aug 30 03:31	20°800'03	
inferior conj	3746 Sep 24 00:35	2°807'21	-4°00'-45	min. Earth dist.	3747 Sep 03 00:38	17°825'01	0.59788 AU
minimum elong	3746 Sep 24 06:28	1°854'00	3°59'13	inferior conj	3747 Sep 06 07:09	14°849'55	-4°-46'-5
	3746 Sep 26 11:04	30°R8		minimum elong	3747 Sep 06 12:01	14°840'16	4°45'20
morning rise	3746 Oct 01 06:41	27°807'16		morning rise	3747 Sep 13 23:55	10°812'12	
direct	3746 Oct 03 14:21	26°844'14		direct	3747 Sep 16 08:16	9°852'14	
asc. node	3746 Oct 07 14:50	27°855'52		morning max el	3747 Sep 23 23:37	13°835'35	18°15'39
	3746 Oct 10 06:55	0°8		asc. node	3747 Sep 24 11:51	14°805'58	
morning max el	3746 Oct 10 12:41	0°813'57	17°54'00		3747 Oct 05 03:07	0°8	
morning set	3746 Oct 26 08:22	25°801'39		morning set	3747 Oct 09 19:51	8°846'13	
	3746 Oct 29 02:15	0°8					
superior conj	3746 Nov 06 01:59	14°807'54	0°52'12	superior conj	3747 Oct 19 05:15	26°821'16	1°19'46
minimum elong	3746 Nov 06 06:01	14°825'19	0°51'40	minimum elong	3747 Oct 19 09:08	26°838'52	1°19'20
max. Earth dist.	3746 Nov 13 11:01	26°831'29	1.42852 AU		3747 Oct 21 05:45	0°8	
desc. node	3746 Nov 13 19:18	27°805'24		max. Earth dist.	3747 Oct 26 19:26	9°843'30	1.40980 AU
	3746 Nov 15 14:18	0°8		evening rise	3747 Oct 31 15:38	17°848'00	
evening rise	3746 Nov 20 08:28	7°834'12		desc. node	3747 Oct 31 16:21	17°850'53	
	3746 Dec 05 05:44	0°8			3747 Nov 08 08:31	0°8	
greatest brilliancy	3746 Dec 17 08:15	16°826'39	-0.4m		3747 Nov 29 20:26	0°8	
evening max el	3746 Dec 22 02:31	21°850'40	21°52'59	evening max el	3747 Dec 04 18:11	5°826'29	23°12'07
retrograde	3746 Dec 31 08:07	27°820'21		retrograde	3747 Dec 15 02:36	11°834'20	
asc. node	3747 Jan 03 14:06	26°823'23		evening set	3747 Dec 19 23:08	9°835'28	
evening set	3747 Jan 04 16:17	25°837'42		asc. node	3747 Dec 21 11:06	8°809'43	
inferior conj	3747 Jan 10 01:41	19°816'46	2°03'29	inferior conj	3747 Dec 25 09:28	3°809'23	1°18'16
minimum elong	3747 Jan 09 23:22	19°824'50	2°02'42	minimum elong	3747 Dec 25 07:46	3°815'13	1°17'37
min. Earth dist.	3747 Jan 10 03:21	19°810'59	0.67923 AU	min. Earth dist.	3747 Dec 25 00:08	3°841'28	0.67960 AU
morning rise	3747 Jan 15 06:14	13°802'56			3747 Dec 27 18:30	30°R8	
direct	3747 Jan 20 02:46	10°859'51		morning rise	3747 Dec 30 16:26	26°859'17	
morning max el	3747 Jan 29 22:48	16°848'59	22°43'44	direct	3748 Jan 03 22:31	25°819'02	
greatest brilliancy	3747 Feb 03 13:41	21°858'07	-0.3m		3748 Jan 12 05:31	0°8	
desc. node	3747 Feb 09 18:33	29°857'40		morning max el	3748 Jan 12 13:40	0°820'15	21°19'35
	3747 Feb 09 19:14	0°8		greatest brilliancy	3748 Jan 17 16:58	6°811'50	-0.4m
	3747 Mar 01 22:00	0°8		desc. node	3748 Jan 27 15:34	19°845'30	
morning set	3747 Mar 05 02:03	5°809'21			3748 Feb 03 14:05	0°8	
max. Earth dist.	3747 Mar 09 20:15	13°808'13	1.40161 AU	morning set	3748 Feb 12 16:44	14°802'38	
				max. Earth dist.	3748 Feb 19 21:15	25°836'40	1.42216 AU
superior conj	3747 Mar 17 14:56	26°851'14	-1°-54'-52		3748 Feb 22 12:50	0°8	
minimum elong	3747 Mar 17 19:13	27°810'44	1°54'34	superior conj	3748 Feb 27 06:40	8°802'35	-2°-6'-31
	3747 Mar 19 08:12	0°8		minimum elong	3748 Feb 27 08:08	8°808'57	2°06'30
evening rise	3747 Mar 27 12:54	15°824'38		evening rise	3748 Mar 09 13:38	28°806'32	
asc. node	3747 Apr 01 13:24	24°848'11			3748 Mar 10 14:40	0°8	

asc. node	3748 Mar 18 10:25	13°Υ45'32			3749 Mar 03 19:57	0°Υ	
evening max el	3748 Mar 26 02:12	24°Υ12'22	18°08'25	asc. node	3749 Mar 05 07:27	2°Υ09'48	
retrograde	3748 Apr 01 19:28	27°Υ37'15		evening max el	3749 Mar 09 14:51	7°Υ26'18	18°10'22
evening set	3748 Apr 04 09:18	27°Υ07'29		retrograde	3749 Mar 16 01:16	10°Υ49'51	
inferior conj	3748 Apr 11 03:14	22°Υ12'28	3°10'36	evening set	3749 Mar 18 20:46	10°Υ09'22	
minimum elong	3748 Apr 11 06:01	22°Υ05'52	3°10'08	inferior conj	3749 Mar 25 02:11	4°Υ53'46	3°33'49
min. Earth dist.	3748 Apr 14 09:31	19°Υ09'35	0.60682 AU	minimum elong	3749 Mar 25 03:14	4°Υ51'00	3°33'45
morning rise	3748 Apr 17 23:27	16°Υ21'41		min. Earth dist.	3749 Mar 27 20:02	1°Υ58'39	0.62794 AU
direct	3748 Apr 24 15:47	14°Υ10'59			3749 Mar 29 21:20	30°℞	
desc. node	3748 Apr 24 14:47	14°Υ10'59		morning rise	3749 Mar 31 07:29	28°℞49'44	
morning max el	3748 May 08 22:10	22°Υ05'34	27°43'24	direct	3749 Apr 07 04:50	26°℞13'31	
	3748 May 15 20:51	0°♄		desc. node	3749 Apr 11 11:49	27°℞07'00	
	3748 Jun 03 20:37	0°♅			3749 Apr 16 10:17	0°Υ	
morning set	3748 Jun 10 06:02	12°♅36'28		morning max el	3749 Apr 21 04:31	4°Υ11'27	27°49'24
asc. node	3748 Jun 14 09:40	21°♅23'31			3749 May 10 11:50	0°♄	
max. Earth dist.	3748 Jun 16 10:27	25°♅48'47	1.32136 AU	morning set	3749 May 25 06:10	26°♄48'35	
					3749 May 26 19:47	0°♅	
superior conj	3748 Jun 17 13:14	28°♅15'39	0°32'35	max. Earth dist.	3749 May 30 17:20	8°♅10'51	1.32631 AU
minimum elong	3748 Jun 17 11:49	28°♅07'54	0°32'17	asc. node	3749 Jun 01 06:43	11°♅31'46	
	3748 Jun 18 08:14	0°♄					
evening rise	3748 Jun 24 10:10	13°♄14'03		superior conj	3749 Jun 01 21:58	12°♅54'13	0°06'41
	3748 Jul 02 20:43	0°♅		minimum elong	3749 Jun 01 21:39	12°♅52'30	0°06'37
evening max el	3748 Jul 21 05:22	25°♅51'04	25°17'58	behind sun begin	3749 Jun 01 16:52	12°♅26'36	
desc. node	3748 Jul 21 14:05	26°♅11'39		behind sun end	3749 Jun 02 02:26	13°♅18'25	
	3748 Jul 26 09:08	0°♄		evening rise	3749 Jun 08 22:01	28°♅03'08	
retrograde	3748 Aug 04 04:42	2°♄56'12			3749 Jun 09 20:09	0°♄	
evening set	3748 Aug 09 22:27	1°♄40'12			3749 Jun 27 03:23	0°♅	
	3748 Aug 13 03:00	30°♄		evening max el	3749 Jul 02 18:41	6°♅23'22	23°45'03
min. Earth dist.	3748 Aug 14 17:12	28°♅59'18	0.57767 AU	desc. node	3749 Jul 08 11:06	10°♅50'55	
inferior conj	3748 Aug 17 19:00	26°♅52'54	-5°-8'-45	retrograde	3749 Jul 16 11:00	13°♅15'30	
minimum elong	3748 Aug 17 19:57	26°♅51'16	5°08'45	evening set	3749 Jul 20 18:17	12°♅34'48	
morning rise	3748 Aug 25 20:59	22°♅38'04		min. Earth dist.	3749 Jul 27 04:50	9°♅31'11	0.56071 AU
direct	3748 Aug 28 09:24	22°♅18'59		inferior conj	3749 Jul 29 10:38	8°♅10'04	-4°-53'-30
morning max el	3748 Sep 06 02:41	26°♅26'15	18°58'12	minimum elong	3749 Jul 29 05:37	8°♅17'40	4°52'54
	3748 Sep 09 07:52	0°♄		morning rise	3749 Aug 06 20:14	4°♅14'01	
asc. node	3748 Sep 10 08:52	1°♄22'05		direct	3749 Aug 09 15:18	3°♅54'19	
morning set	3748 Sep 22 17:20	22°♄59'19		morning max el	3749 Aug 19 19:10	8°♅37'19	20°02'28
	3748 Sep 26 06:31	0°♅		asc. node	3749 Aug 28 05:56	19°♅30'08	
					3749 Sep 03 02:40	0°♄	
superior conj	3748 Oct 01 03:44	9°♅30'50	1°36'29	morning set	3749 Sep 06 21:38	7°♄32'19	
minimum elong	3748 Oct 01 06:09	9°♅42'23	1°36'19				
max. Earth dist.	3748 Oct 08 00:18	22°♅14'02	1.38906 AU	superior conj	3749 Sep 14 16:16	23°♄22'15	1°43'50
evening rise	3748 Oct 11 22:06	29°♅05'42		minimum elong	3749 Sep 14 16:58	23°♄25'46	1°43'49
	3748 Oct 12 10:46	0°♄			3749 Sep 18 00:51	0°♅	
desc. node	3748 Oct 17 13:23	8°♄30'33		max. Earth dist.	3749 Sep 20 05:48	4°♅14'12	1.36882 AU
	3748 Oct 31 18:46	0°♄		evening rise	3749 Sep 24 02:36	11°♅24'26	
evening max el	3748 Nov 16 07:19	19°♄06'26	24°31'24	desc. node	3749 Oct 04 10:25	28°♅59'53	
retrograde	3748 Nov 27 17:14	25°♄46'17			3749 Oct 05 01:31	0°♄	
evening set	3748 Dec 03 03:30	23°♄31'22			3749 Oct 27 02:19	0°♄	
asc. node	3748 Dec 07 08:07	18°♄50'33		evening max el	3749 Oct 29 19:37	2°♄48'17	25°43'42
min. Earth dist.	3748 Dec 07 19:58	18°♄11'23	0.67645 AU	retrograde	3749 Nov 11 03:17	9°♄50'54	
inferior conj	3748 Dec 08 16:01	17°♄04'28	0°27'09	evening set	3749 Nov 17 03:39	7°♄21'50	
minimum elong	3748 Dec 08 15:21	17°♄06'40	0°26'52	min. Earth dist.	3749 Nov 21 12:27	2°♄37'15	0.66986 AU
morning rise	3748 Dec 14 03:37	11°♄00'25		inferior conj	3749 Nov 22 19:32	0°♄58'36	0°-28'-50
direct	3748 Dec 17 20:28	9°♄41'51		minimum elong	3749 Nov 22 20:17	0°♄56'13	0°28'32
morning max el	3748 Dec 25 12:10	14°♄03'14	20°06'29		3749 Nov 23 14:06	30°♄	
greatest brilliancy	3749 Jan 01 09:02	22°♄19'06	-0.6m	asc. node	3749 Nov 24 05:10	29°♄13'37	
	3749 Jan 06 20:04	0°♄		morning rise	3749 Nov 28 13:48	25°♄03'10	
desc. node	3749 Jan 13 12:37	9°♄55'34		direct	3749 Dec 01 19:09	24°♄03'28	
morning set	3749 Jan 21 13:39	22°♄12'19		morning max el	3749 Dec 08 18:28	27°♄56'17	19°07'40
	3749 Jan 26 13:55	0°♄			3749 Dec 10 16:10	0°♄	
max. Earth dist.	3749 Feb 01 06:31	9°♄00'33	1.43870 AU	desc. node	3749 Dec 31 09:39	0°♄21'04	
					3749 Dec 31 04:14	0°♄	
superior conj	3749 Feb 06 21:06	18°♄05'06	-2°-3'-6	morning set	3749 Dec 31 17:04	0°♄49'56	
minimum elong	3749 Feb 06 17:02	17°♄48'24	2°02'57	max. Earth dist.	3750 Jan 14 22:09	23°♄03'01	1.44917 AU
	3749 Feb 14 00:45	0°♄					
evening rise	3749 Feb 19 20:49	9°♄59'21		superior conj	3750 Jan 17 11:08	27°♄03'49	-1°-40'-29

minimum elong	3750 Jan 17 02:16	26°☿28'43	1°39'44	evening rise	3751 Jan 12 16:34	0°≈56'16	
	3750 Jan 19 07:34	0°≈		greatest brilliancy	3751 Jan 25 12:45	21°≈00'02	-0.7m
evening rise	3750 Feb 01 06:19	20°≈55'49			3751 Jan 31 20:06	0°☿	
	3750 Feb 06 18:44	0°☿		evening max el	3751 Feb 04 12:20	4°☿19'15	19°09'04
asc. node	3750 Feb 20 04:30	19°☿50'17		asc. node	3751 Feb 07 01:32	6°☿34'38	
evening max el	3750 Feb 21 03:00	20°☿50'08	18°30'55	retrograde	3751 Feb 11 11:35	8°☿17'03	
retrograde	3750 Feb 27 15:53	24°☿25'23		evening set	3751 Feb 14 19:30	7°☿12'27	
evening set	3750 Mar 02 17:09	23°☿33'18		inferior conj	3751 Feb 20 10:07	1°☿21'36	3°24'11
inferior conj	3750 Mar 08 13:40	17°☿58'57	3°36'38	minimum elong	3751 Feb 20 08:21	1°☿27'15	3°23'56
minimum elong	3750 Mar 08 13:04	18°☿00'44	3°36'37		3751 Feb 21 11:37	30°☿≈	
min. Earth dist.	3750 Mar 10 16:10	15°☿29'49	0.64627 AU	min. Earth dist.	3751 Feb 21 21:18	29°≈29'18	0.66076 AU
morning rise	3750 Mar 14 07:34	11°☿47'34		morning rise	3751 Feb 25 20:15	25°≈06'43	
direct	3750 Mar 21 01:35	8°☿59'00		direct	3751 Mar 04 05:04	22°≈19'12	
desc. node	3750 Mar 29 08:51	12°☿17'53		desc. node	3751 Mar 16 05:54	29°≈09'25	
morning max el	3750 Apr 03 14:05	16°☿51'53	27°19'50	morning max el	3751 Mar 17 00:04	29°≈54'29	26°21'12
	3750 Apr 14 11:58	0°☿			3751 Mar 17 02:14	0°☿	
	3750 May 03 07:31	0°☿			3751 Apr 08 09:53	0°☿	
morning set	3750 May 08 21:48	10°☿32'03		morning set	3751 Apr 22 01:15	23°☿36'09	
max. Earth dist.	3750 May 13 16:05	20°☿05'23	1.33563 AU		3751 Apr 25 09:40	0°☿	
				max. Earth dist.	3751 Apr 26 03:32	1°☿27'12	1.34957 AU
superior conj	3750 May 17 02:21	27°☿15'10	0°-21'-22	superior conj	3751 May 01 00:03	11°☿11'50	0°-50'-21
minimum elong	3750 May 17 03:27	27°☿20'59	0°21'08	minimum elong	3751 May 01 02:44	11°☿25'32	0°49'51
	3750 May 18 09:24	0°☿		asc. node	3751 May 06 00:51	21°☿38'18	
asc. node	3750 May 19 03:48	1°☿38'06		evening rise	3751 May 08 17:42	27°☿15'14	
evening rise	3750 May 24 09:11	12°☿45'39			3751 May 10 01:50	0°☿	
	3750 Jun 02 04:57	0°☿		evening max el	3751 May 27 10:45	27°☿40'23	20°42'21
evening max el	3750 Jun 14 09:58	16°☿49'21	22°08'41		3751 May 30 03:33	0°☿	
desc. node	3750 Jun 25 08:06	23°☿02'29		retrograde	3751 Jun 07 18:47	3°☿12'35	
retrograde	3750 Jun 27 05:49	23°☿10'53		evening set	3751 Jun 09 20:45	3°☿02'07	
evening set	3750 Jun 30 03:01	22°☿52'24		desc. node	3751 Jun 12 05:08	2°☿26'55	
min. Earth dist.	3750 Jul 08 15:29	19°☿12'20	0.55029 AU		3751 Jun 17 12:16	30°☿☿	
inferior conj	3750 Jul 09 09:41	18°☿46'44	-3°-48'-41	inferior conj	3751 Jun 19 03:09	29°☿04'55	-2°-1'-31
minimum elong	3750 Jul 09 01:14	18°☿58'37	3°46'27	minimum elong	3751 Jun 18 21:28	29°☿13'03	1°59'31
morning rise	3750 Jul 18 01:23	14°☿56'17		min. Earth dist.	3751 Jun 20 03:29	28°☿30'05	0.54902 AU
direct	3750 Jul 21 04:57	14°☿34'12		morning rise	3751 Jun 27 21:06	24°☿59'41	
morning max el	3750 Aug 02 00:00	20°☿04'24	21°27'10	direct	3751 Jul 01 14:18	24°☿29'56	
	3750 Aug 10 03:04	0°☿			3751 Jul 13 20:21	0°☿	
asc. node	3750 Aug 15 03:01	8°☿18'02		morning max el	3751 Jul 14 18:56	0°☿51'06	23°06'30
morning set	3750 Aug 22 06:22	22°☿18'39		asc. node	3751 Aug 02 00:05	27°☿35'06	
	3750 Aug 25 22:21	0°☿			3751 Aug 03 05:28	0°☿	
superior conj	3750 Aug 29 14:46	7°☿43'45	1°43'22	morning set	3751 Aug 06 17:29	7°☿11'34	
minimum elong	3750 Aug 29 14:00	7°☿39'50	1°43'21	superior conj	3751 Aug 13 19:53	22°☿24'16	1°36'27
max. Earth dist.	3750 Sep 02 17:09	16°☿06'42	1.35115 AU	minimum elong	3751 Aug 13 18:08	22°☿14'50	1°36'19
evening rise	3750 Sep 07 01:08	24°☿34'43		max. Earth dist.	3751 Aug 16 13:13	28°☿10'47	1.33729 AU
	3750 Sep 09 22:52	0°☿			3751 Aug 17 10:07	0°☿	
desc. node	3750 Sep 21 07:26	19°☿13'35		evening rise	3751 Aug 21 13:15	8°☿23'50	
	3750 Sep 28 14:36	0°☿			3751 Sep 02 10:33	0°☿	
evening max el	3750 Oct 12 08:03	16°☿27'13	26°41'33	desc. node	3751 Sep 08 04:27	9°☿03'46	
retrograde	3750 Oct 25 08:12	23°☿42'24			3751 Sep 24 22:57	0°☿	
evening set	3750 Oct 31 21:39	21°☿03'42		evening max el	3751 Sep 24 20:12	29°☿53'29	27°17'45
min. Earth dist.	3750 Nov 04 23:20	16°☿55'20	0.65981 AU	retrograde	3751 Oct 08 07:25	7°☿11'59	
inferior conj	3750 Nov 06 18:03	14°☿48'53	-1°-28'-20	evening set	3751 Oct 15 07:01	4°☿31'22	
minimum elong	3750 Nov 06 20:29	14°☿41'40	1°27'21	min. Earth dist.	3751 Oct 19 02:24	0°☿58'24	0.64624 AU
asc. node	3750 Nov 11 02:12	10°☿16'11			3751 Oct 20 00:11	30°☿☿	
morning rise	3750 Nov 12 20:49	9°☿04'43		inferior conj	3751 Oct 21 09:16	28°☿29'49	-2°-29'-27
direct	3750 Nov 15 16:43	8°☿20'07		minimum elong	3751 Oct 21 13:27	28°☿18'28	2°27'53
morning max el	3750 Nov 22 06:54	11°☿55'17	18°24'46	morning rise	3751 Oct 27 22:00	22°☿59'56	
	3750 Dec 05 04:42	0°☿		asc. node	3751 Oct 28 23:16	22°☿38'01	
morning set	3750 Dec 11 22:17	10°☿47'54		direct	3751 Oct 30 10:56	22°☿26'27	
desc. node	3750 Dec 18 06:42	20°☿57'40		morning max el	3751 Nov 05 22:47	25°☿53'09	17°58'41
	3750 Dec 23 23:42	0°☿			3751 Nov 09 10:32	0°☿	
superior conj	3750 Dec 27 13:23	5°☿36'58	-1°00'-28	morning set	3751 Nov 23 08:37	22°☿11'46	
minimum elong	3750 Dec 27 05:56	5°☿07'43	0°59'34		3751 Nov 28 00:37	0°☿	
max. Earth dist.	3750 Dec 28 16:48	7°☿24'31	1.45248 AU	desc. node	3751 Dec 05 03:44	11°☿41'00	
	3751 Jan 12 02:17	0°≈					

superior conj	3751 Dec 07 00:35	14° \mathcal{A} 41'34	0°-12'-48	morning set	3752 Nov 04 18:55	4° \mathcal{M} 44'50	
minimum elong	3751 Dec 06 23:02	14° \mathcal{A} 35'22	0°12'35				
behind sun begin	3751 Dec 06 16:25	14° \mathcal{A} 08'47		superior conj	3752 Nov 16 11:38	24° \mathcal{M} 57'14	0°31'14
behind sun end	3751 Dec 07 05:39	15° \mathcal{A} 01'55		minimum elong	3752 Nov 16 14:37	25° \mathcal{M} 09'40	0°30'49
max. Earth dist.	3751 Dec 11 11:28	21° \mathcal{A} 47'00	1.44839 AU		3752 Nov 19 12:38	0° \mathcal{A}	
	3751 Dec 16 17:10	0° \mathcal{B}		desc. node	3752 Nov 21 00:44	2° \mathcal{A} 27'48	
evening rise	3751 Dec 23 07:56	10° \mathcal{B} 14'48		max. Earth dist.	3752 Nov 23 04:02	5° \mathcal{A} 55'39	1.43749 AU
	3752 Jan 05 07:48	0° \mathcal{A}		evening rise	3752 Dec 01 17:22	19° \mathcal{A} 25'14	
greatest brilliancy	3752 Jan 11 23:01	9° \mathcal{A} 32'53	-0.6m		3752 Dec 08 15:52	0° \mathcal{B}	
evening max el	3752 Jan 18 17:08	17° \mathcal{A} 50'45	20°03'07	greatest brilliancy	3752 Dec 26 12:24	25° \mathcal{B} 23'25	-0.4m
asc. node	3752 Jan 24 22:33	22° \mathcal{A} 08'20			3752 Dec 30 09:09	0° \mathcal{A}	
retrograde	3752 Jan 26 09:26	22° \mathcal{A} 19'50		evening max el	3752 Dec 31 16:28	1° \mathcal{A} 23'15	21°10'11
evening set	3752 Jan 30 01:27	21° \mathcal{A} 01'26		retrograde	3753 Jan 09 07:11	6° \mathcal{A} 29'31	
inferior conj	3752 Feb 04 12:33	14° \mathcal{A} 56'39	2°59'59	asc. node	3753 Jan 10 19:34	6° \mathcal{A} 16'57	
minimum elong	3752 Feb 04 10:10	15° \mathcal{A} 04'39	2°59'27	evening set	3753 Jan 13 09:01	4° \mathcal{A} 55'59	
min. Earth dist.	3752 Feb 05 09:39	13° \mathcal{A} 45'47	0.67109 AU		3753 Jan 17 19:17	30° \mathcal{R} \mathcal{B}	
morning rise	3752 Feb 09 18:17	8° \mathcal{A} 40'51		inferior conj	3753 Jan 18 18:35	28° \mathcal{B} 40'07	2°26'24
direct	3752 Feb 15 14:14	6° \mathcal{A} 05'25		minimum elong	3753 Jan 18 16:06	28° \mathcal{B} 48'42	2°25'40
morning max el	3752 Feb 27 08:49	13° \mathcal{A} 07'41	25°02'49	min. Earth dist.	3753 Jan 19 02:58	28° \mathcal{B} 11'10	0.67738 AU
desc. node	3752 Mar 02 02:56	17° \mathcal{A} 13'04		morning rise	3753 Jan 23 22:49	22° \mathcal{B} 25'16	
	3752 Mar 12 00:24	0° \mathcal{H}		direct	3753 Jan 29 04:06	20° \mathcal{B} 09'16	
	3752 Mar 31 04:38	0° \mathcal{Y}		morning max el	3753 Feb 08 17:21	26° \mathcal{B} 26'08	23°34'50
morning set	3752 Apr 03 11:40	5° \mathcal{Y} 46'58			3753 Feb 12 00:15	0° \mathcal{A}	
max. Earth dist.	3752 Apr 07 03:59	12° \mathcal{Y} 28'57	1.36784 AU	desc. node	3753 Feb 16 23:57	6° \mathcal{A} 07'40	
					3753 Mar 05 14:42	0° \mathcal{H}	
superior conj	3752 Apr 13 12:08	24° \mathcal{Y} 36'23	-1°-18'-33	morning set	3753 Mar 15 22:51	16° \mathcal{H} 46'53	
minimum elong	3752 Apr 13 16:12	24° \mathcal{Y} 56'27	1°17'56	max. Earth dist.	3753 Mar 19 23:10	23° \mathcal{H} 42'37	1.38907 AU
	3752 Apr 16 05:19	0° \mathcal{B}			3753 Mar 23 11:43	0° \mathcal{Y}	
evening rise	3752 Apr 21 21:19	11° \mathcal{B} 25'26					
asc. node	3752 Apr 21 21:53	11° \mathcal{B} 28'17		superior conj	3753 Mar 27 10:42	7° \mathcal{Y} 17'51	-1°-43'-26
	3752 May 01 21:43	0° \mathcal{H}		minimum elong	3753 Mar 27 15:23	7° \mathcal{Y} 39'50	1°42'57
evening max el	3752 May 08 23:50	9° \mathcal{H} 12'02	19°33'30	evening rise	3753 Apr 05 17:13	25° \mathcal{Y} 07'46	
retrograde	3752 May 18 13:51	13° \mathcal{H} 51'24			3753 Apr 08 05:48	0° \mathcal{B}	
evening set	3752 May 20 13:12	13° \mathcal{H} 40'26		asc. node	3753 Apr 08 18:54	1° \mathcal{B} 02'24	
inferior conj	3752 May 29 05:40	9° \mathcal{H} 36'04	0°-2'-34	evening max el	3753 Apr 21 23:35	21° \mathcal{B} 22'22	18°44'37
minimum elong	3752 May 29 05:33	9° \mathcal{H} 36'15	0°02'33	retrograde	3753 Apr 30 01:52	25° \mathcal{B} 20'15	
transit middle	3752 May 29 05:33	9° \mathcal{H} 36'15	0°02'33	evening set	3753 May 02 06:05	25° \mathcal{B} 04'08	
transit begin	3752 May 29 01:41	9° \mathcal{H} 42'23		inferior conj	3753 May 10 03:10	20° \mathcal{B} 41'56	1°37'22
transit end	3752 May 29 09:24	9° \mathcal{H} 30'06		minimum elong	3753 May 10 06:26	20° \mathcal{B} 35'52	1°36'19
desc. node	3752 May 29 02:09	9° \mathcal{H} 41'39		min. Earth dist.	3753 May 13 10:07	18° \mathcal{B} 16'49	0.57355 AU
min. Earth dist.	3752 May 31 17:25	8° \mathcal{H} 01'26	0.55741 AU	desc. node	3753 May 15 23:10	16° \mathcal{B} 37'26	
morning rise	3752 Jun 06 18:14	5° \mathcal{H} 00'02		morning rise	3753 May 18 02:23	15° \mathcal{B} 30'57	
direct	3752 Jun 11 08:27	4° \mathcal{H} 12'41		direct	3753 May 23 16:08	14° \mathcal{B} 14'52	
morning max el	3752 Jun 25 09:02	11° \mathcal{H} 15'52	24°49'01	morning max el	3753 Jun 07 00:33	21° \mathcal{B} 46'15	26°19'26
	3752 Jul 09 14:53	0° \mathcal{B}			3753 Jun 14 05:40	0° \mathcal{H}	
asc. node	3752 Jul 18 21:08	17° \mathcal{B} 13'40			3753 Jul 02 07:16	0° \mathcal{B}	
morning set	3752 Jul 21 05:17	22° \mathcal{B} 05'56		morning set	3753 Jul 05 16:10	6° \mathcal{B} 56'24	
	3752 Jul 24 21:23	0° \mathcal{Q}		asc. node	3753 Jul 05 18:10	7° \mathcal{B} 06'58	
superior conj	3752 Jul 28 05:10	7° \mathcal{Q} 15'52	1°24'07	superior conj	3753 Jul 12 16:33	22° \mathcal{B} 11'32	1°07'08
minimum elong	3752 Jul 28 02:53	7° \mathcal{Q} 03'27	1°23'49	minimum elong	3753 Jul 12 14:15	21° \mathcal{B} 58'51	1°06'45
max. Earth dist.	3752 Jul 29 17:41	10° \mathcal{Q} 34'29	1.32763 AU	max. Earth dist.	3753 Jul 13 03:43	23° \mathcal{B} 13'05	1.32204 AU
evening rise	3752 Aug 04 11:13	22° \mathcal{Q} 41'03			3753 Jul 16 06:04	0° \mathcal{Q}	
	3752 Aug 08 03:20	0° \mathcal{H}		evening rise	3753 Jul 19 15:58	7° \mathcal{Q} 16'48	
desc. node	3752 Aug 25 01:28	28° \mathcal{H} 20'29			3753 Jul 31 15:08	0° \mathcal{H}	
	3752 Aug 26 06:04	0° \mathcal{A}		desc. node	3753 Aug 11 22:29	16° \mathcal{H} 50'00	
evening max el	3752 Sep 06 06:27	12° \mathcal{A} 54'59	27°25'41	evening max el	3753 Aug 19 12:01	25° \mathcal{H} 18'01	27°00'58
retrograde	3752 Sep 20 00:04	20° \mathcal{A} 10'44			3753 Aug 25 12:10	0° \mathcal{A}	
evening set	3752 Sep 27 04:33	17° \mathcal{A} 38'42		retrograde	3753 Sep 02 09:13	2° \mathcal{A} 29'48	
min. Earth dist.	3752 Sep 30 19:44	14° \mathcal{A} 37'01	0.62937 AU	evening set	3753 Sep 09 10:10	0° \mathcal{A} 18'40	
inferior conj	3752 Oct 03 14:26	11° \mathcal{A} 55'02	-3°-29'-3		3753 Sep 09 22:05	30° \mathcal{R} \mathcal{H}	
minimum elong	3752 Oct 03 19:59	11° \mathcal{A} 41'31	3°27'19	min. Earth dist.	3753 Sep 13 02:16	27° \mathcal{H} 38'33	0.60983 AU
morning rise	3752 Oct 10 14:05	6° \mathcal{A} 42'47		inferior conj	3753 Sep 16 06:18	24° \mathcal{H} 56'11	-4°-21'-55
direct	3752 Oct 12 22:50	6° \mathcal{A} 16'46		minimum elong	3753 Sep 16 12:02	24° \mathcal{H} 43'51	4°20'40
asc. node	3752 Oct 14 20:19	6° \mathcal{A} 33'53		morning rise	3753 Sep 23 17:02	20° \mathcal{H} 05'07	
morning max el	3752 Oct 19 15:11	9° \mathcal{A} 43'06	17°50'18	direct	3753 Sep 26 00:43	19° \mathcal{H} 43'33	
	3752 Nov 02 02:15	0° \mathcal{M}		asc. node	3753 Oct 01 17:21	21° \mathcal{H} 59'04	

morning max el	3753 Oct 03 05:02	23°  17'42	18°00'43	direct	3754 Sep 08 12:00	2°  36'01	
	3753 Oct 08 12:46	0° 		morning max el	3754 Sep 16 13:04	6°  27'42	18°31'11
morning set	3753 Oct 18 22:48	18°  08'22		asc. node	3754 Sep 18 14:24	8°  39'21	
	3753 Oct 25 09:47	0° 			3754 Oct 01 12:42	0° 	
				morning set	3754 Oct 02 15:00	2°  06'34	
superior conj	3753 Oct 29 01:25	6°  31'37	1°05'17				
minimum elong	3753 Oct 29 05:38	6°  50'12	1°04'46	superior conj	3754 Oct 11 13:37	19°  11'27	1°28'06
max. Earth dist.	3753 Nov 05 16:14	19°  34'28	1.42101 AU	minimum elong	3754 Oct 11 16:57	19°  26'57	1°27'48
desc. node	3753 Nov 07 21:46	23°  15'05			3754 Oct 17 12:49	0° 	
evening rise	3753 Nov 11 13:13	29°  07'59		max. Earth dist.	3754 Oct 18 22:56	2°  29'14	1.40105 AU
	3753 Nov 12 02:18	0° 		evening rise	3754 Oct 23 06:05	9°  48'21	
	3753 Dec 02 07:09	0° 		desc. node	3754 Oct 25 18:48	13°  58'43	
greatest brilliancy	3753 Dec 09 15:45	9°  35'33	-0.3m		3754 Nov 05 01:31	0° 	
evening max el	3753 Dec 14 10:33	14°  57'46	22°26'13	evening max el	3754 Nov 27 00:44	28°  34'48	23°46'08
retrograde	3753 Dec 24 03:15	20°  43'38			3754 Nov 28 12:15	0° 	
evening set	3753 Dec 28 16:37	18°  53'54		retrograde	3754 Dec 07 20:18	4°  57'39	
asc. node	3753 Dec 28 16:34	18°  53'59		evening set	3754 Dec 12 22:37	2°  51'35	
inferior conj	3754 Jan 03 02:15	12°  30'23	1°45'06	asc. node	3754 Dec 15 13:36	0°  08'14	
minimum elong	3754 Jan 03 00:08	12°  37'42	1°44'20		3754 Dec 15 16:19	30°  R 	
min. Earth dist.	3754 Jan 02 23:07	12°  41'15	0.67986 AU	inferior conj	3754 Dec 18 09:43	26°  32'25	0°57'16
morning rise	3754 Jan 08 07:34	6°  18'11		minimum elong	3754 Dec 18 08:25	26°  32'51	0°56'43
direct	3754 Jan 12 21:53	4°  24'54		min. Earth dist.	3754 Dec 17 19:45	27°  32'02	0.67869 AU
morning max el	3754 Jan 22 05:03	9°  52'31	22°06'59	morning rise	3754 Dec 23 18:25	20°  32'44	
greatest brilliancy	3754 Jan 26 19:43	15°  02'23	-0.3m	direct	3754 Dec 27 18:35	18°  32'13	
desc. node	3754 Feb 03 20:58	25°  39'21		morning max el	3755 Jan 04 23:08	23°  32'21	20°46'53
	3754 Feb 06 22:30	0° 		greatest brilliancy	3755 Jan 10 17:04	0°  10'15	-0.5m
morning set	3754 Feb 24 05:44	26°  35'00			3755 Jan 10 13:52	0° 	
	3754 Feb 26 10:38	0° 		desc. node	3755 Jan 21 18:01	15°  37'29	
max. Earth dist.	3754 Mar 01 20:54	5°  41'02	1.41071 AU		3755 Jan 31 06:54	0° 	
				morning set	3755 Feb 03 10:31	4°  52'36	
superior conj	3754 Mar 09 15:07	19°  45'12	-2°-1'-18	max. Earth dist.	3755 Feb 12 01:20	18°  33'50	1.42980 AU
minimum elong	3754 Mar 09 18:35	19°  42'35	2°01'08				
	3754 Mar 15 15:37	0° 		superior conj	3755 Feb 18 20:21	29°  47'11	-2°-7'-13
evening rise	3754 Mar 20 02:06	8°  14'28		minimum elong	3755 Feb 18 19:43	29°  44'31	2°07'14
asc. node	3754 Mar 26 15:55	20°  15'09			3755 Feb 18 23:24	0° 	
	3754 Apr 01 19:49	0° 		evening rise	3755 Mar 02 19:55	20°  43'29	
evening max el	3754 Apr 05 06:53	4°  03'55	18°15'55		3755 Mar 08 03:25	0° 	
retrograde	3754 Apr 12 09:00	7°  36'35		asc. node	3755 Mar 13 12:56	8°  59'32	
evening set	3754 Apr 14 19:18	7°  12'26		evening max el	3755 Mar 19 18:25	17°  08'09	18°06'56
inferior conj	3754 Apr 21 22:08	2°  29'14	2°45'30	retrograde	3755 Mar 26 07:46	20°  53'10	
minimum elong	3754 Apr 22 01:40	2°  21'35	2°44'42	evening set	3755 Mar 28 23:53	19°  57'05	
	3754 Apr 24 19:04	30°  R 		inferior conj	3755 Apr 04 12:02	14°  53'13	3°23'21
min. Earth dist.	3754 Apr 25 08:04	29°  33'02	0.59420 AU	minimum elong	3755 Apr 04 14:07	14°  48'01	3°23'05
morning rise	3754 Apr 29 04:07	26°  49'47		min. Earth dist.	3755 Apr 07 13:43	11°  50'38	0.61594 AU
desc. node	3754 May 02 20:11	25°  18'35		morning rise	3755 Apr 11 01:28	8°  55'31	
direct	3754 May 05 12:56	24°  45'37		direct	3755 Apr 17 20:54	6°  32'28	
	3754 May 16 19:45	0° 		desc. node	3755 Apr 19 17:12	6°  42'18	
morning max el	3754 May 19 21:47	2°  47'27	27°22'59	morning max el	3755 May 02 01:20	14°  30'24	27°50'41
	3754 Jun 08 16:31	0° 			3755 May 14 13:43	0° 	
morning set	3754 Jun 20 00:28	21°  37'26			3755 Jun 01 03:53	0° 	
asc. node	3754 Jun 22 15:12	27°  09'46		morning set	3755 Jun 04 04:17	6°  02'47	
	3754 Jun 23 22:42	0° 		asc. node	3755 Jun 09 12:15	17°  17'37	
max. Earth dist.	3754 Jun 26 15:35	5°  55'23	1.32043 AU	max. Earth dist.	3755 Jun 10 01:21	18°  28'34	1.32284 AU
superior conj	3754 Jun 27 04:16	7°  50'21	0°46'12	superior conj	3755 Jun 11 14:39	21°  51'44	0°21'55
minimum elong	3754 Jun 27 02:25	6°  55'05	0°45'50	minimum elong	3755 Jun 11 13:39	21°  46'17	0°21'42
evening rise	3754 Jul 04 01:04	22°  50'37			3755 Jun 15 07:52	0° 	
	3754 Jul 07 21:33	0° 		evening rise	3755 Jun 18 12:28	6°  53'20	
	3754 Jul 26 05:10	0° 			3755 Jun 30 14:43	0° 	
desc. node	3754 Jul 29 19:30	4°  12'40		evening max el	3755 Jul 14 01:52	17°  43'34	24°39'59
evening max el	3754 Aug 01 10:23	6°  52'54	26°03'27	desc. node	3755 Jul 16 16:30	20°  01'56	
retrograde	3754 Aug 15 09:45	14°  01'41		retrograde	3755 Jul 27 23:50	24°  04'54	
evening set	3754 Aug 21 18:59	12°  23'13		evening set	3755 Aug 02 03:44	23°  04'53	
min. Earth dist.	3754 Aug 25 22:56	9°  48'21	0.58912 AU	min. Earth dist.	3755 Aug 07 13:04	20°  56'49	0.56981 AU
inferior conj	3754 Aug 29 05:15	7°  22'58	-4°-59'-18	inferior conj	3755 Aug 10 08:34	19°  07'36	-5°-7'-54
minimum elong	3754 Aug 29 08:50	7°  16'16	4°58'58	minimum elong	3755 Aug 10 07:03	19°  01'03	5°07'52
morning rise	3754 Sep 06 02:11	2°  55'26		morning rise	3755 Aug 18 14:00	15°  01'58	

direct	3755 Aug 21 04:48	14°♌42'57		retrograde	3756 Jul 08 01:04	4°♌51'05	
morning max el	3755 Aug 30 12:07	19°♌04'00	19°22'52	evening set	3756 Jul 11 16:31	4°♌22'03	
asc. node	3755 Sep 05 11:28	26°♌20'00		min. Earth dist.	3756 Jul 19 00:16	1°♌04'28	0.55525 AU
	3755 Sep 07 19:40	0°♎		inferior conj	3756 Jul 20 16:18	0°♌06'20	-4°-32'-20
morning set	3755 Sep 16 15:47	16°♎29'36		minimum elong	3756 Jul 20 09:11	0°♌16'43	4°31'01
	3755 Sep 23 09:52	0°♎			3756 Jul 20 20:39	30°♋☾	
				morning rise	3756 Jul 29 04:40	26°☾14'23	
superior conj	3755 Sep 24 18:44	2°♎41'24	1°40'37	direct	3756 Aug 01 02:54	25°☾54'01	
minimum elong	3755 Sep 24 20:25	2°♎49'36	1°40'33		3756 Aug 10 21:58	0°♌	
max. Earth dist.	3755 Oct 01 03:01	14°♎43'23	1.38025 AU	morning max el	3756 Aug 11 23:37	0°♌56'39	20°36'08
evening rise	3755 Oct 04 22:24	21°♎33'47		asc. node	3756 Aug 22 08:32	14°♌46'27	
	3755 Oct 09 20:46	0°♎			3756 Aug 30 08:45	0°♎	
desc. node	3755 Oct 12 15:50	4°♎34'52		morning set	3756 Aug 30 22:14	1°♎09'02	
	3755 Oct 30 00:24	0°♎					
evening max el	3755 Nov 09 13:14	12°♎15'49	25°03'21	superior conj	3756 Sep 07 11:57	16°♎46'55	1°44'29
retrograde	3755 Nov 21 09:17	19°♎07'20		minimum elong	3756 Sep 07 11:59	16°♎47'07	1°44'29
evening set	3755 Nov 27 01:27	16°♎46'03		max. Earth dist.	3756 Sep 12 10:18	26°♎36'48	1.36095 AU
min. Earth dist.	3755 Dec 01 14:33	11°♎40'46	0.67407 AU		3756 Sep 14 04:33	0°♎	
asc. node	3755 Dec 02 10:40	10°♎34'52		evening rise	3756 Sep 16 11:10	4°♎16'22	
inferior conj	3755 Dec 02 15:14	10°♎19'50	0°03'55	desc. node	3756 Sep 28 12:52	24°♎58'29	
minimum elong	3755 Dec 02 15:08	10°♎20'10	0°03'52		3756 Oct 01 18:38	0°♎	
transit middle	3755 Dec 02 15:08	10°♎20'10	0°03'52	evening max el	3756 Oct 22 01:44	25°♎58'14	26°10'32
transit begin	3755 Dec 02 12:27	10°♎29'00			3756 Oct 26 19:31	0°♎	
transit end	3755 Dec 02 17:50	10°♎11'20		retrograde	3756 Nov 03 17:15	3°♎07'16	
morning rise	3755 Dec 08 05:26	4°♎18'58		evening set	3756 Nov 09 23:16	0°♎33'45	
direct	3755 Dec 11 17:04	3°♎08'57			3756 Nov 10 14:44	30°♋♎	
morning max el	3755 Dec 19 01:04	7°♎17'15	19°39'27	min. Earth dist.	3756 Nov 14 05:05	26°♎04'12	0.66603 AU
greatest brilliancy	3755 Dec 27 01:33	17°♎14'34	-0.6m	inferior conj	3756 Nov 15 16:56	24°♎13'26	0°-53'-44
	3756 Jan 04 17:51	0°♎		minimum elong	3756 Nov 15 18:22	24°♎08'58	0°53'08
desc. node	3756 Jan 08 15:04	5°♎54'49		asc. node	3756 Nov 18 07:44	21°♎08'44	
morning set	3756 Jan 13 06:53	13°♎04'38		morning rise	3756 Nov 21 14:35	18°♎22'07	
	3756 Jan 24 03:08	0°♎		direct	3756 Nov 24 15:39	17°♎29'14	
max. Earth dist.	3756 Jan 25 13:01	2°♎14'06	1.44397 AU	morning max el	3756 Dec 01 10:11	21°♎13'24	18°47'16
					3756 Dec 08 09:42	0°♎	
superior conj	3756 Jan 29 23:44	9°♎20'25	-1°-55'-56	morning set	3756 Dec 22 19:57	22°♎13'26	
minimum elong	3756 Jan 29 17:09	8°♎53'57	1°55'33	desc. node	3756 Dec 25 12:07	26°♎25'49	
	3756 Feb 11 12:28	0°♎			3756 Dec 27 18:37	0°♎	
evening rise	3756 Feb 12 18:16	2°♎05'38		max. Earth dist.	3757 Jan 07 06:13	16°♎26'59	1.45153 AU
asc. node	3756 Feb 28 09:58	27°♎06'44					
	3756 Mar 01 20:38	0°♎		superior conj	3757 Jan 08 06:34	18°♎02'35	-1°-25'-13
evening max el	3756 Mar 02 07:12	0°♎27'12	18°16'58	minimum elong	3757 Jan 07 21:24	17°♎26'36	1°24'16
retrograde	3756 Mar 08 17:42	3°♎54'13			3757 Jan 15 20:18	0°♎	
evening set	3756 Mar 11 15:32	3°♎09'02		evening rise	3757 Jan 23 17:47	12°♎37'45	
	3756 Mar 15 14:59	30°♋♎			3757 Feb 03 13:55	0°♎	
inferior conj	3756 Mar 17 16:47	27°♎45'32	3°37'09	evening max el	3757 Feb 13 18:31	13°♎54'40	18°45'09
minimum elong	3756 Mar 17 17:05	27°♎44'43	3°37'08	asc. node	3757 Feb 14 07:01	14°♎25'37	
min. Earth dist.	3756 Mar 20 04:24	24°♎59'19	0.63614 AU	retrograde	3757 Feb 20 10:46	17°♎37'53	
morning rise	3756 Mar 23 16:46	21°♎37'47		evening set	3757 Feb 23 14:48	16°♎40'30	
direct	3756 Mar 30 13:43	18°♎54'11		inferior conj	3757 Mar 01 08:29	10°♎59'01	3°32'56
desc. node	3756 Apr 05 14:15	20°♎39'45		minimum elong	3757 Mar 01 07:19	11°♎02'36	3°32'50
morning max el	3756 Apr 13 09:16	26°♎51'56	27°40'52	min. Earth dist.	3757 Mar 03 04:24	8°♎44'42	0.65299 AU
	3756 Apr 16 07:54	0°♎		morning rise	3757 Mar 06 22:40	4°♎46'04	
	3756 May 07 04:52	0°♎		direct	3757 Mar 13 13:32	1°♎56'20	
morning set	3756 May 18 01:09	20°♎03'50		desc. node	3757 Mar 23 11:17	6°♎37'39	
	3756 May 22 21:35	0°♎		morning max el	3757 Mar 26 19:03	9°♎42'47	26°57'54
max. Earth dist.	3756 May 23 04:56	0°♎38'41	1.32962 AU		3757 Apr 11 17:48	0°♎	
					3757 Apr 29 15:24	0°♎	
superior conj	3756 May 25 21:47	6°♎23'42	0°-5'-1	morning set	3757 May 01 12:02	3°♎31'45	
minimum elong	3756 May 25 22:02	6°♎25'03	0°04'59	max. Earth dist.	3757 May 05 23:00	12°♎18'39	1.34102 AU
behind sun begin	3756 May 25 16:56	5°♎57'45					
behind sun end	3756 May 26 03:07	6°♎52'23		superior conj	3757 May 09 23:37	20°♎35'21	0°-33'-37
asc. node	3756 May 26 09:17	7°♎25'34		minimum elong	3757 May 10 01:23	20°♎44'33	0°33'16
evening rise	3756 Jun 02 00:13	21°♎40'12		asc. node	3757 May 13 06:20	27°♎29'51	
	3756 Jun 06 01:15	0°♎			3757 May 14 10:42	0°♎	
evening max el	3756 Jun 24 15:07	28°♎09'32	23°03'45	evening rise	3757 May 17 10:30	6°♎18'01	
	3756 Jun 26 16:02	0°♎			3757 May 30 08:08	0°♎	
desc. node	3756 Jul 02 13:32	3°♎42'36		evening max el	3757 Jun 06 09:48	8°♎42'58	21°30'09

retrograde	3757 Jun 18 15:31	14° 5 44'24		retrograde	3758 May 30 05:34	24° II 59'07	
desc. node	3757 Jun 19 10:32	14° 5 42'56		evening set	3758 Jun 01 05:02	24° II 49'05	
evening set	3757 Jun 21 02:30	14° 5 30'39		desc. node	3758 Jun 06 07:31	23° II 02'59	
inferior conj	3757 Jun 30 11:07	10° 5 30'47	-3°-6'-56	inferior conj	3758 Jun 10 06:39	20° II 50'11	-1°-10'-20
minimum elong	3757 Jun 30 03:08	10° 5 41'57	3°04'28	minimum elong	3758 Jun 10 03:21	20° II 55'05	1°09'07
min. Earth dist.	3757 Jun 30 11:04	10° 5 30'51	0.54860 AU	min. Earth dist.	3758 Jun 11 23:25	19° II 49'44	0.55147 AU
morning rise	3757 Jul 09 04:29	6° 5 36'40		morning rise	3758 Jun 18 23:26	16° II 33'36	
direct	3757 Jul 12 13:19	6° 5 12'02		direct	3758 Jun 23 00:45	15° II 57'58	
morning max el	3757 Jul 24 23:32	12° 5 03'54	22°08'10	morning max el	3758 Jul 06 15:36	22° II 37'56	23°50'46
	3757 Aug 07 03:33	0° Q			3758 Jul 13 04:09	0° 5	
asc. node	3757 Aug 09 05:35	3° Q 47'32		asc. node	3758 Jul 27 02:37	23° 5 14'41	
morning set	3757 Aug 15 08:11	15° Q 58'33			3758 Jul 30 09:42	0° Q	
	3757 Aug 21 22:58	0° Q		morning set	3758 Jul 30 19:47	0° Q 53'03	
superior conj	3757 Aug 22 13:33	1° Q 16'59	1°41'10	superior conj	3758 Aug 06 20:42	16° Q 03'12	1°31'50
minimum elong	3757 Aug 22 12:18	1° Q 10'27	1°41'05	minimum elong	3758 Aug 06 18:39	15° Q 52'11	1°31'37
max. Earth dist.	3757 Aug 26 01:27	8° Q 33'20	1.34480 AU	max. Earth dist.	3758 Aug 09 01:29	20° Q 46'40	1.33262 AU
evening rise	3757 Aug 30 15:57	17° Q 44'13			3758 Aug 13 11:35	0° Q	
	3757 Sep 06 06:56	0° 5		evening rise	3758 Aug 14 08:38	1° Q 46'26	
desc. node	3757 Sep 15 09:53	15° 5 03'12			3758 Aug 30 04:30	0° 5	
	3757 Sep 26 01:30	0° Q		desc. node	3758 Sep 02 06:53	4° 5 40'57	
evening max el	3757 Oct 04 14:23	9° Q 33'50	27°00'04	evening max el	3758 Sep 17 01:54	22° 5 51'12	27°24'53
retrograde	3757 Oct 17 19:36	16° Q 50'27			3758 Sep 28 21:56	0° Q	
evening set	3757 Oct 24 13:54	14° Q 10'02		retrograde	3758 Sep 30 15:57	0° Q 08'53	
min. Earth dist.	3757 Oct 28 12:52	10° Q 16'58	0.65450 AU		3758 Oct 02 09:01	30° R 5	
inferior conj	3757 Oct 30 12:39	8° Q 00'34	-1°-54'-13	evening set	3758 Oct 07 18:41	27° 5 30'12	
minimum elong	3757 Oct 30 15:50	7° Q 51'27	1°52'56	min. Earth dist.	3758 Oct 11 11:49	24° 5 11'42	0.63946 AU
asc. node	3757 Nov 05 04:47	2° Q 41'38		inferior conj	3758 Oct 13 23:57	21° 5 36'02	-2°-55'-8
morning rise	3757 Nov 05 19:28	2° Q 21'58		minimum elong	3758 Oct 14 04:48	21° 5 23'27	2°53'26
direct	3757 Nov 08 12:13	1° Q 42'24		morning rise	3758 Oct 20 17:16	16° 5 13'29	
morning max el	3757 Nov 15 00:23	5° Q 12'35	18°11'32	direct	3758 Oct 23 04:07	15° 5 43'33	
	3757 Dec 01 20:27	0° 5		asc. node	3758 Oct 23 01:49	15° 5 43'36	
morning set	3757 Dec 03 13:58	2° 5 49'54		morning max el	3758 Oct 29 16:56	19° 5 08'47	17°53'00
desc. node	3757 Dec 12 09:08	17° 5 05'48			3758 Nov 06 17:03	0° Q	
superior conj	3757 Dec 18 10:01	26° 5 41'57	0°-40'-26	morning set	3758 Nov 15 11:22	14° Q 46'21	
minimum elong	3757 Dec 18 04:54	26° 5 21'46	0°39'45		3758 Nov 24 11:16	0° 5	
	3757 Dec 20 12:16	0° 5		superior conj	3758 Nov 28 06:27	6° 5 15'04	0°06'50
max. Earth dist.	3757 Dec 21 01:54	0° 5 53'34	1.45170 AU	minimum elong	3758 Nov 28 07:12	6° 5 18'10	0°06'43
evening rise	3758 Jan 03 19:00	22° 5 17'59		behind sun begin	3758 Nov 27 22:06	5° 5 41'00	
	3758 Jan 08 17:56	0° 5		behind sun end	3758 Nov 28 16:19	6° 5 55'15	
greatest brilliancy	3758 Jan 19 20:29	16° 5 51'34	-0.7m	desc. node	3758 Nov 29 06:11	7° 5 51'34	
evening max el	3758 Jan 28 02:06	27° 5 25'08	19°30'14	max. Earth dist.	3758 Dec 03 20:20	15° 5 13'56	1.44456 AU
	3758 Jan 31 01:03	0° 5			3758 Dec 13 06:53	0° 5	
asc. node	3758 Feb 01 04:03	0° 5 41'56		evening rise	3758 Dec 14 06:01	1° 5 29'02	
retrograde	3758 Feb 04 07:41	1° 5 35'02			3759 Jan 02 10:09	0° 5	
evening set	3758 Feb 07 18:57	0° 5 24'31		greatest brilliancy	3759 Jan 05 05:13	3° 5 48'10	-0.5m
	3758 Feb 08 08:25	30° R 5		evening max el	3759 Jan 11 04:33	10° 5 56'55	20°30'06
inferior conj	3758 Feb 13 07:47	24° 5 27'14	3°15'08	retrograde	3759 Jan 19 05:51	15° 5 41'34	
minimum elong	3758 Feb 13 05:41	24° 5 34'05	3°14'47	asc. node	3759 Jan 19 01:04	15° 5 41'20	
min. Earth dist.	3758 Feb 14 12:41	22° 5 52'39	0.66571 AU	evening set	3759 Jan 23 01:49	14° 5 16'47	
morning rise	3758 Feb 18 15:41	18° 5 11'54		inferior conj	3759 Jan 28 12:02	8° 5 06'35	2°46'46
direct	3758 Feb 24 19:19	15° 5 28'42		minimum elong	3759 Jan 28 09:33	8° 5 15'03	2°46'07
morning max el	3758 Mar 09 04:35	22° 5 50'59	25°49'41	min. Earth dist.	3759 Jan 29 03:29	7° 5 13'53	0.67429 AU
desc. node	3758 Mar 10 08:18	24° 5 02'45		morning rise	3759 Feb 02 16:48	1° 5 50'50	
	3758 Mar 15 12:15	0° 5			3759 Feb 05 10:40	30° R 5	
	3758 Apr 05 01:23	0° 5		direct	3759 Feb 08 06:29	29° 5 23'17	
morning set	3758 Apr 14 08:49	16° 5 14'28			3759 Feb 11 07:09	0° 5	
max. Earth dist.	3758 Apr 18 05:44	23° 5 30'23	1.35694 AU	morning max el	3759 Feb 19 13:14	6° 5 07'37	24°25'53
	3758 Apr 21 13:43	0° 5		desc. node	3759 Feb 25 05:21	12° 5 30'20	
superior conj	3758 Apr 23 17:34	4° 5 19'02	-1°-2'-32		3759 Mar 10 01:21	0° 5	
minimum elong	3758 Apr 23 20:53	4° 5 35'47	1°01'58	morning set	3759 Mar 27 10:08	27° 5 57'10	
asc. node	3758 Apr 30 03:22	17° 5 26'13			3759 Mar 28 14:06	0° 5	
evening rise	3758 May 01 17:12	20° 5 40'10		max. Earth dist.	3759 Mar 31 03:10	4° 5 33'12	1.37666 AU
	3758 May 06 09:46	0° II		superior conj	3759 Apr 07 00:22	17° 5 26'04	-1°-29'-43
evening max el	3758 May 19 15:37	19° II 49'41	20°10'36	minimum elong	3759 Apr 07 04:51	17° 5 47'44	1°29'08

	3759 Apr 13 09:42	0°♄		superior conj	3760 Mar 19 15:54	29°♄46'32	-1°-52'-9
evening rise	3759 Apr 15 17:54	4°♄39'25		minimum elong	3760 Mar 19 20:22	0°♄07'01	1°51'47
asc. node	3759 Apr 17 00:23	7°♄09'59			3760 Mar 19 18:50	0°♄	
	3759 Apr 30 20:14	0°♄		evening rise	3760 Mar 29 09:37	18°♄08'05	
evening max el	3759 May 02 09:28	1°♄37'58	19°10'11	asc. node	3760 Apr 02 21:24	26°♄36'08	
retrograde	3759 May 11 07:23	5°♄58'17			3760 Apr 04 18:24	0°♄	
evening set	3759 May 13 08:07	5°♄45'43		evening max el	3760 Apr 14 12:58	14°♄03'36	18°30'01
inferior conj	3759 May 21 16:30	1°♄34'29	0°43'22	retrograde	3760 Apr 22 03:32	17°♄48'33	
minimum elong	3759 May 21 18:14	1°♄31'32	0°42'46	evening set	3760 Apr 24 10:18	17°♄29'23	
desc. node	3759 May 24 04:32	29°♄52'55		inferior conj	3760 May 01 23:19	12°♄58'47	2°10'15
	3759 May 24 00:16	30°♄♄		minimum elong	3760 May 02 03:01	12°♄51'27	2°09'12
min. Earth dist.	3759 May 24 14:32	29°♄36'27	0.56342 AU	min. Earth dist.	3760 May 05 09:31	10°♄17'14	0.58196 AU
morning rise	3759 May 30 00:06	26°♄42'56		morning rise	3760 May 09 15:21	7°♄34'22	
direct	3759 Jun 04 00:10	25°♄44'42		desc. node	3760 May 10 01:33	7°♄22'00	
	3759 Jun 14 17:08	0°♄		direct	3760 May 15 14:12	6°♄03'15	
morning max el	3759 Jun 18 05:49	3°♄02'13	25°30'05	morning max el	3760 May 29 23:29	13°♄43'58	26°50'22
	3759 Jul 07 08:24	0°♄			3760 Jun 11 21:47	0°♄	
asc. node	3759 Jul 13 23:39	13°♄00'08			3760 Jun 28 10:57	0°♄	
morning set	3759 Jul 15 07:22	15°♄46'24		morning set	3760 Jun 28 17:22	0°♄33'37	
	3759 Jul 21 20:38	0°♄		asc. node	3760 Jun 29 20:42	2°♄58'15	
superior conj	3759 Jul 22 07:05	0°♄57'22	1°17'27	superior conj	3760 Jul 05 18:51	15°♄53'19	0°58'42
minimum elong	3759 Jul 22 04:44	0°♄44'31	1°17'06	minimum elong	3760 Jul 05 16:41	15°♄41'20	0°58'19
max. Earth dist.	3759 Jul 23 08:33	3°♄16'51	1.32465 AU	max. Earth dist.	3760 Jul 05 19:40	15°♄57'47	1.32082 AU
evening rise	3759 Jul 29 09:46	16°♄12'15			3760 Jul 12 06:30	0°♄	
	3759 Aug 05 10:34	0°♄		evening rise	3760 Jul 12 16:39	0°♄53'36	
desc. node	3759 Aug 20 03:53	23°♄39'40			3760 Jul 28 12:52	0°♄	
	3759 Aug 25 03:40	0°♄		desc. node	3760 Aug 06 00:53	11°♄43'28	
evening max el	3759 Aug 30 10:13	5°♄36'53	27°19'18	evening max el	3760 Aug 11 12:59	17°♄40'08	26°40'22
retrograde	3759 Sep 13 05:49	12°♄51'54		retrograde	3760 Aug 25 11:44	24°♄50'56	
evening set	3759 Sep 20 10:01	10°♄26'51		evening set	3760 Sep 01 07:23	22°♄52'40	
min. Earth dist.	3759 Sep 24 00:29	7°♄36'08	0.62126 AU	min. Earth dist.	3760 Sep 05 02:52	20°♄16'46	0.60100 AU
inferior conj	3759 Sep 26 23:50	4°♄51'44	-3°-52'-42	inferior conj	3760 Sep 08 08:56	17°♄39'16	-4°-40'-23
minimum elong	3759 Sep 27 05:41	4°♄38'13	3°51'07	minimum elong	3760 Sep 08 14:07	17°♄28'46	4°39'31
	3759 Oct 03 15:44	30°♄♄		morning rise	3760 Sep 16 00:10	12°♄57'54	
morning rise	3759 Oct 04 04:17	29°♄48'26		direct	3760 Sep 18 08:12	12°♄37'36	
direct	3759 Oct 06 12:05	29°♄24'46		asc. node	3760 Sep 25 19:54	16°♄17'03	
	3759 Oct 09 07:04	0°♄		morning max el	3760 Sep 25 20:26	16°♄18'23	18°11'06
asc. node	3759 Oct 09 22:50	0°♄18'32			3760 Oct 05 11:12	0°♄	
morning max el	3759 Oct 13 08:42	2°♄53'29	17°52'26	morning set	3760 Oct 11 15:28	11°♄21'52	
morning set	3759 Oct 29 05:50	27°♄42'36					
	3759 Oct 30 12:21	0°♄		superior conj	3760 Oct 21 05:01	29°♄08'28	1°16'18
superior conj	3759 Nov 09 05:08	17°♄05'12	0°47'02	minimum elong	3760 Oct 21 09:02	29°♄26'34	1°15'51
minimum elong	3759 Nov 09 09:00	17°♄21'41	0°46'30		3760 Oct 21 16:28	0°♄	
desc. node	3759 Nov 16 03:13	28°♄39'05		max. Earth dist.	3760 Oct 28 20:04	12°♄28'36	1.41280 AU
max. Earth dist.	3759 Nov 16 10:41	29°♄09'33	1.43101 AU	desc. node	3760 Nov 02 00:14	19°♄25'01	
	3759 Nov 16 23:05	0°♄♄		evening rise	3760 Nov 02 21:55	20°♄53'17	
evening rise	3759 Nov 23 17:58	10°♄♄48'19			3760 Nov 08 15:46	0°♄♄	
	3759 Dec 06 10:30	0°♄			3760 Nov 29 16:44	0°♄	
greatest brilliancy	3759 Dec 20 05:36	18°♄59'52	-0.4m	greatest brilliancy	3760 Dec 01 04:48	1°♄51'55	-0.2m
evening max el	3759 Dec 25 01:29	24°♄30'03	21°41'39	evening max el	3760 Dec 06 17:47	8°♄05'43	23°00'13
retrograde	3760 Jan 03 03:12	29°♄53'43		retrograde	3760 Dec 16 22:06	14°♄07'53	
asc. node	3760 Jan 05 22:04	29°♄11'39		evening set	3760 Dec 21 16:44	12°♄11'26	
evening set	3760 Jan 07 09:38	28°♄13'33		asc. node	3760 Dec 22 19:07	11°♄10'49	
inferior conj	3760 Jan 12 19:03	21°♄53'50	2°09'48	inferior conj	3760 Dec 27 02:51	5°♄46'00	1°25'36
minimum elong	3760 Jan 12 16:40	22°♄02'06	2°09'01	minimum elong	3760 Dec 27 01:02	5°♄52'17	1°24'53
min. Earth dist.	3760 Jan 12 22:27	21°♄42'01	0.67887 AU	min. Earth dist.	3760 Dec 26 19:09	6°♄12'36	0.67978 AU
morning rise	3760 Jan 17 23:25	15°♄39'37			3760 Dec 31 21:41	30°♄♄	
direct	3760 Jan 22 22:14	13°♄33'02		morning rise	3761 Jan 01 09:19	29°♄♄35'19	
morning max el	3760 Feb 01 22:43	19°♄29'33	22°56'51	direct	3761 Jan 05 17:33	27°♄♄51'37	
greatest brilliancy	3760 Feb 06 16:55	24°♄48'16	-0.3m		3761 Jan 11 02:47	0°♄	
	3760 Feb 10 19:30	0°♄		morning max el	3761 Jan 14 12:38	2°♄59'20	21°31'34
desc. node	3760 Feb 12 02:25	1°♄42'39		greatest brilliancy	3761 Jan 19 11:38	8°♄36'47	-0.4m
	3760 Mar 02 05:51	0°♄		desc. node	3761 Jan 28 23:28	21°♄26'43	
morning set	3760 Mar 07 09:50	8°♄♄24'03			3761 Feb 03 19:51	0°♄	
max. Earth dist.	3760 Mar 11 22:11	16°♄♄01'39	1.39837 AU	morning set	3761 Feb 15 04:33	17°♄♄28'20	
				max. Earth dist.	3761 Feb 21 22:20	28°♄♄22'41	1.41932 AU

	3761 Feb 22 21:49	0°♄		morning set	3762 Jan 25 02:47	25°♄40'33	
					3762 Jan 27 21:36	0°♄	
superior conj	3761 Mar 01 11:07	11°♄07'56	-2°-5'-36	max. Earth dist.	3762 Feb 04 06:36	11°♄39'45	1.43661 AU
minimum elong	3761 Mar 01 13:14	11°♄17'04	2°05'34				
	3761 Mar 12 00:11	0°♄		superior conj	3762 Feb 10 05:28	21°♄20'42	-2°-4'-47
evening rise	3761 Mar 12 12:39	0°♄56'53		minimum elong	3762 Feb 10 02:19	21°♄07'44	2°04'43
asc. node	3761 Mar 20 18:26	15°♄37'52			3762 Feb 15 09:46	0°♄	
evening max el	3761 Mar 28 22:35	26°♄56'28	18°09'43	evening rise	3762 Feb 22 22:45	12°♄57'40	
	3761 Apr 02 12:02	0°♄			3762 Mar 04 22:45	0°♄	
retrograde	3761 Apr 04 17:43	0°♄22'45		asc. node	3762 Mar 07 15:29	4°♄07'42	
evening set	3761 Apr 07 06:41	29°♄54'26		evening max el	3762 Mar 12 11:01	10°♄07'57	18°08'48
	3761 Apr 07 00:16	30°♄♄		retrograde	3762 Mar 18 21:54	13°♄30'59	
inferior conj	3761 Apr 14 02:48	25°♄02'24	3°04'53	evening set	3762 Mar 21 16:31	12°♄52'11	
minimum elong	3761 Apr 14 05:50	24°♄55'25	3°04'18	inferior conj	3762 Mar 27 23:33	7°♄39'27	3°31'42
min. Earth dist.	3761 Apr 17 10:19	22°♄00'33	0.60358 AU	minimum elong	3762 Mar 28 00:52	7°♄36'00	3°31'36
morning rise	3761 Apr 21 01:32	19°♄14'21		min. Earth dist.	3762 Mar 30 19:30	4°♄41'48	0.62494 AU
desc. node	3761 Apr 26 22:36	17°♄10'05		morning rise	3762 Apr 03 06:51	1°♄36'46	
direct	3761 Apr 27 16:15	17°♄08'34			3762 Apr 05 23:21	30°♄♄	
morning max el	3761 May 11 23:16	25°♄01'33	27°39'17	direct	3762 Apr 10 03:55	29°♄03'40	
	3761 May 16 12:48	0°♄		desc. node	3762 Apr 13 19:40	29°♄42'29	
	3761 Jun 05 06:15	0°♄			3762 Apr 14 14:19	0°♄	
morning set	3761 Jun 12 23:59	15°♄08'16		morning max el	3762 Apr 24 05:02	7°♄01'44	27°50'54
asc. node	3761 Jun 16 17:44	23°♄03'25			3762 May 11 17:01	0°♄	
max. Earth dist.	3761 Jun 19 07:05	28°♄37'21	1.32101 AU	morning set	3762 May 28 01:10	29°♄23'59	
	3761 Jun 19 22:08	0°♄			3762 May 28 08:16	0°♄	
				max. Earth dist.	3762 Jun 02 14:55	11°♄02'54	1.32528 AU
superior conj	3761 Jun 20 06:13	0°♄44'25	0°36'16	asc. node	3762 Jun 03 14:47	13°♄11'25	
minimum elong	3761 Jun 20 04:40	0°♄35'55	0°35'57				
evening rise	3761 Jun 27 02:59	15°♄42'18		superior conj	3762 Jun 04 15:26	15°♄24'59	0°10'46
	3761 Jul 04 05:36	0°♄		minimum elong	3762 Jun 04 14:56	15°♄22'13	0°10'39
desc. node	3761 Jul 23 21:54	28°♄29'55		behind sun begin	3762 Jun 04 11:03	15°♄01'08	
evening max el	3761 Jul 24 08:24	28°♄55'18	25°30'30	behind sun end	3762 Jun 04 18:49	15°♄43'19	
	3761 Jul 25 12:28	0°♄			3762 Jun 11 08:49	0°♄	
retrograde	3761 Aug 07 07:45	6°♄01'16		evening rise	3762 Jun 11 14:47	0°♄31'46	
evening set	3761 Aug 13 06:02	4°♄39'25			3762 Jun 27 22:36	0°♄	
min. Earth dist.	3761 Aug 17 20:22	2°♄00'43	0.58056 AU	evening max el	3762 Jul 05 21:59	9°♄31'07	23°59'29
inferior conj	3761 Aug 20 23:46	29°♄48'55	-5°-7'-28	desc. node	3762 Jul 10 18:55	13°♄28'40	
minimum elong	3761 Aug 21 01:31	29°♄45'51	5°07'24	retrograde	3762 Jul 19 16:08	16°♄26'30	
	3761 Aug 20 17:29	30°♄♄		evening set	3762 Jul 24 04:56	15°♄41'05	
morning rise	3761 Aug 29 00:30	25°♄30'49		min. Earth dist.	3762 Jul 30 08:23	12°♄41'48	0.56285 AU
direct	3761 Aug 31 12:14	25°♄11'39		inferior conj	3762 Aug 01 18:21	11°♄12'56	-4°-58'-57
morning max el	3761 Sep 09 00:55	29°♄14'26	18°50'30	minimum elong	3762 Aug 01 14:13	11°♄19'19	4°58'32
	3761 Sep 09 19:21	0°♄		morning rise	3762 Aug 10 02:56	7°♄14'55	
asc. node	3761 Sep 12 16:58	3°♄24'28		direct	3762 Aug 12 20:51	6°♄55'27	
morning set	3761 Sep 25 11:44	25°♄31'49		morning max el	3762 Aug 22 19:10	11°♄32'15	19°51'36
	3761 Sep 27 18:21	0°♄		asc. node	3762 Aug 30 14:02	21°♄25'39	
					3762 Sep 04 12:21	0°♄	
superior conj	3761 Oct 04 01:02	12°♄11'05	1°34'35	morning set	3762 Sep 09 15:13	10°♄02'30	
minimum elong	3761 Oct 04 03:42	12°♄23'46	1°34'23				
max. Earth dist.	3761 Oct 11 01:31	25°♄06'20	1.39217 AU	superior conj	3762 Sep 17 11:49	25°♄57'28	1°43'15
	3761 Oct 13 20:34	0°♄		minimum elong	3762 Sep 17 12:46	26°♄02'13	1°43'13
evening rise	3761 Oct 15 00:55	2°♄01'36			3762 Sep 19 12:57	0°♄	
desc. node	3761 Oct 19 21:16	10°♄05'55		max. Earth dist.	3762 Sep 23 06:31	7°♄09'32	1.37168 AU
	3761 Nov 01 22:19	0°♄		evening rise	3762 Sep 27 02:21	14°♄11'53	
evening max el	3761 Nov 19 07:10	21°♄45'13	24°19'49		3762 Oct 06 09:02	0°♄	
retrograde	3761 Nov 30 13:23	28°♄20'45		desc. node	3762 Oct 06 18:16	0°♄37'03	
evening set	3761 Dec 05 21:36	26°♄08'01			3762 Oct 27 17:55	0°♄	
asc. node	3761 Dec 09 16:10	21°♄59'07		evening max el	3762 Nov 01 19:24	5°♄26'40	25°33'36
min. Earth dist.	3761 Dec 10 15:14	20°♄43'02	0.67716 AU	retrograde	3762 Nov 14 00:12	12°♄26'53	
inferior conj	3761 Dec 11 09:43	19°♄40'59	0°35'17	evening set	3762 Nov 19 22:30	9°♄59'36	
minimum elong	3761 Dec 11 08:52	19°♄43'48	0°34'55	min. Earth dist.	3762 Nov 24 08:21	5°♄09'42	0.67108 AU
morning rise	3761 Dec 16 20:30	13°♄36'01		inferior conj	3762 Nov 25 13:48	3°♄35'24	0°-20'-6
direct	3761 Dec 20 15:14	12°♄14'25		minimum elong	3762 Nov 25 14:19	3°♄33'44	0°19'52
morning max el	3761 Dec 28 09:59	16°♄40'55	20°16'33	asc. node	3762 Nov 26 13:14	2°♄21'00	
greatest brilliancy	3762 Jan 03 22:50	24°♄28'02	-0.5m		3762 Nov 28 13:23	30°♄♄	
	3762 Jan 07 23:09	0°♄		morning rise	3762 Dec 01 06:58	27°♄38'33	
desc. node	3762 Jan 15 20:31	11°♄33'57		direct	3762 Dec 04 13:51	26°♄36'21	

	3762 Dec 11 01:44	0°♊			3763 Dec 06 10:36	0°♊	
morning max el	3762 Dec 11 15:13	0°♊32'50	19°15'24	morning set	3763 Dec 15 04:17	13°♊53'14	
greatest brilliancy	3762 Dec 21 10:15	13°♊12'13	-0.7m	desc. node	3763 Dec 20 14:33	22°♊32'03	
	3763 Jan 01 11:15	0°♋			3763 Dec 25 07:49	0°♋	
desc. node	3763 Jan 02 17:32	1°♋57'16					
morning set	3763 Jan 04 03:34	4°♋09'12		superior conj	3763 Dec 31 01:17	9°♋00'14	-1°-7'-19
max. Earth dist.	3763 Jan 17 21:12	25°♋36'39	1.44804 AU	minimum elong	3763 Dec 30 17:11	8°♋28'28	1°06'21
				max. Earth dist.	3763 Dec 31 15:15	9°♋55'01	1.45246 AU
superior conj	3763 Jan 20 22:36	0°♌27'07	-1°-45'-10		3764 Jan 13 09:53	0°♌	
minimum elong	3763 Jan 20 14:09	29°♌53'32	1°44'30	evening rise	3764 Jan 16 01:07	4°♌10'07	
	3763 Jan 20 15:46	0°♌		greatest brilliancy	3764 Jan 27 04:19	21°♌43'10	-0.8m
evening rise	3763 Feb 04 11:38	24°♌02'32			3764 Feb 01 18:05	0°♍	
	3763 Feb 08 01:57	0°♍		evening max el	3764 Feb 07 09:14	6°♍59'01	19°02'25
asc. node	3763 Feb 22 12:31	21°♍55'38		asc. node	3764 Feb 09 09:33	8°♍49'16	
evening max el	3763 Feb 23 23:23	23°♍30'37	18°26'43	retrograde	3764 Feb 14 06:30	10°♍52'48	
retrograde	3763 Mar 02 11:27	27°♍03'30		evening set	3764 Feb 17 13:21	9°♍50'09	
evening set	3763 Mar 05 11:46	26°♍13'18		inferior conj	3764 Feb 23 04:41	4°♍01'45	3°26'51
inferior conj	3763 Mar 11 09:25	20°♍41'42	3°37'15	minimum elong	3764 Feb 23 03:03	4°♍06'54	3°26'39
minimum elong	3763 Mar 11 09:02	20°♍42'49	3°37'15	min. Earth dist.	3764 Feb 24 18:08	2°♍03'25	0.65885 AU
min. Earth dist.	3763 Mar 13 14:18	18°♍07'39	0.64373 AU		3764 Feb 26 11:25	30°♎	
morning rise	3763 Mar 17 04:45	14°♍31'00		morning rise	3764 Feb 28 15:45	27°♎47'17	
direct	3763 Mar 23 23:42	11°♍43'17		direct	3764 Mar 06 02:18	24°♎58'41	
desc. node	3763 Mar 31 16:43	14°♍35'17			3764 Mar 16 05:27	0°♏	
morning max el	3763 Apr 06 14:22	19°♍38'11	27°26'19	desc. node	3764 Mar 17 13:44	1°♏13'20	
	3763 Apr 15 10:39	0°♐		morning max el	3764 Mar 19 00:14	2°♏37'34	26°31'26
	3763 May 04 17:05	0°♑			3764 Apr 08 16:02	0°♐	
morning set	3763 May 11 18:18	13°♑12'52		morning set	3764 Apr 23 23:46	26°♐23'23	
max. Earth dist.	3763 May 16 15:05	23°♑02'14	1.33390 AU		3764 Apr 25 21:13	0°♒	
				max. Earth dist.	3764 Apr 28 04:08	4°♒27'54	1.34718 AU
superior conj	3763 May 19 20:37	29°♒49'24	0°-16'-59				
minimum elong	3763 May 19 21:29	29°♒54'00	0°16'50	superior conj	3764 May 02 19:26	13°♒50'03	0°-45'-56
	3763 May 19 22:37	0°♓		minimum elong	3764 May 02 21:53	14°♒02'36	0°45'29
asc. node	3763 May 21 11:49	3°♓18'27		asc. node	3764 May 07 08:50	23°♒19'44	
evening rise	3763 May 27 02:11	15°♓15'55		evening rise	3764 May 10 11:12	29°♒47'38	
	3763 Jun 03 12:00	0°♔			3764 May 10 13:35	0°♓	
evening max el	3763 Jun 17 12:29	19°♔56'15	22°22'43		3764 May 28 18:45	0°♔	
desc. node	3763 Jun 27 15:56	26°♔04'56		evening max el	3764 May 29 11:34	0°♔42'13	20°54'15
retrograde	3763 Jun 30 12:40	26°♔23'51		retrograde	3764 Jun 10 01:31	6°♔22'07	
evening set	3763 Jul 03 14:05	26°♔03'10		evening set	3764 Jun 12 05:14	6°♔11'06	
min. Earth dist.	3763 Jul 11 19:11	22°♔29'19	0.55128 AU	desc. node	3764 Jun 13 12:57	5°♔54'01	
inferior conj	3763 Jul 12 19:23	21°♔55'04	-4°-1'-43	inferior conj	3764 Jun 21 12:44	2°♔13'53	-2°-19'-25
minimum elong	3763 Jul 12 11:05	22°♔06'51	3°59'42	minimum elong	3764 Jun 21 06:19	2°♔23'00	2°17'13
morning rise	3763 Jul 21 10:18	18°♔04'49		min. Earth dist.	3764 Jun 22 06:57	1°♔48'03	0.54862 AU
direct	3763 Jul 24 12:15	17°♔43'22			3764 Jun 25 14:59	30°♕	
morning max el	3763 Aug 05 01:45	23°♔06'19	21°13'23	morning rise	3764 Jun 30 06:44	28°♕12'02	
	3763 Aug 11 01:28	0°♖		direct	3764 Jul 03 21:34	27°♕43'49	
asc. node	3763 Aug 17 11:05	10°♖08'11			3764 Jul 11 16:30	0°♗	
morning set	3763 Aug 24 23:24	24°♖47'08		morning max el	3764 Jul 16 21:48	3°♗57'42	22°51'04
	3763 Aug 27 11:23	0°♘		asc. node	3764 Aug 03 08:06	29°♗21'02	
					3764 Aug 03 16:09	0°♖	
superior conj	3763 Sep 01 09:02	10°♘15'11	1°43'53	morning set	3764 Aug 08 10:15	9°♖39'02	
minimum elong	3763 Sep 01 08:29	10°♘12'18	1°43'52				
max. Earth dist.	3763 Sep 05 16:30	19°♘00'48	1.35357 AU	superior conj	3764 Aug 15 13:19	24°♖53'00	1°37'52
evening rise	3763 Sep 09 22:30	27°♘15'20		minimum elong	3764 Aug 15 11:41	24°♖44'16	1°37'45
	3763 Sep 11 09:42	0°♙			3764 Aug 17 23:21	0°♘	
desc. node	3763 Sep 23 15:16	20°♙53'21		max. Earth dist.	3764 Aug 18 11:14	1°♘02'07	1.33914 AU
	3763 Sep 29 17:04	0°♚		evening rise	3764 Aug 23 08:50	10°♘59'12	
evening max el	3763 Oct 15 07:46	19°♚06'16	26°34'07		3764 Sep 02 18:22	0°♙	
retrograde	3763 Oct 28 05:58	26°♚20'26		desc. node	3764 Sep 09 12:17	10°♙47'26	
evening set	3763 Nov 03 17:32	23°♚42'52			3764 Sep 24 06:30	0°♚	
min. Earth dist.	3763 Nov 07 20:16	19°♚28'56	0.66154 AU	evening max el	3764 Sep 26 20:10	2°♚35'30	27°14'02
inferior conj	3763 Nov 09 13:11	17°♚26'20	-1°-19'-12	retrograde	3764 Oct 10 06:03	9°♚53'38	
minimum elong	3763 Nov 09 15:21	17°♚19'49	1°18'17	evening set	3764 Oct 17 04:20	7°♚12'55	
asc. node	3763 Nov 13 10:17	13°♚14'01		min. Earth dist.	3764 Oct 21 00:40	3°♚34'42	0.64848 AU
morning rise	3763 Nov 15 14:34	11°♚40'11		inferior conj	3764 Oct 23 05:39	1°♚09'06	-2°-20'-12
direct	3763 Nov 18 11:42	10°♚53'37		minimum elong	3764 Oct 23 09:34	0°♚58'18	2°18'42
morning max el	3763 Nov 25 02:50	14°♚30'55	18°30'00		3764 Oct 24 07:03	30°♛	

morning rise	3764 Oct 29 16:48	25°♄36'44		direct	3765 Oct 15 19:44	8°♄55'00	
asc. node	3764 Oct 30 07:19	25°♄22'21		asc. node	3765 Oct 17 04:21	9°♄03'58	
direct	3764 Nov 01 06:38	25°♄01'48		morning max el	3765 Oct 22 10:52	12°♄20'44	17°50'27
morning max el	3764 Nov 07 18:21	28°♄29'12	18°01'26		3765 Nov 03 10:41	0°♄	
	3764 Nov 09 04:05	0°♄		morning set	3765 Nov 07 17:49	7°♄29'56	
morning set	3764 Nov 25 10:36	25°♄05'37					
	3764 Nov 28 09:22	0°♄		superior conj	3765 Nov 19 17:05	28°♄01'08	0°25'07
desc. node	3764 Dec 06 11:34	13°♄14'37		minimum elong	3765 Nov 19 19:35	28°♄11'32	0°24'45
					3765 Nov 20 21:47	0°♄	
superior conj	3764 Dec 09 09:56	17°♄56'57	0°-19'-59	desc. node	3765 Nov 23 08:36	4°♄01'07	
minimum elong	3764 Dec 09 07:28	17°♄47'06	0°19'40	max. Earth dist.	3765 Nov 26 03:43	8°♄32'24	1.43952 AU
max. Earth dist.	3764 Dec 13 10:20	24°♄19'21	1.44949 AU	evening rise	3765 Dec 05 04:06	22°♄43'01	
	3764 Dec 17 01:05	0°♄			3765 Dec 09 22:24	0°♄	
evening rise	3764 Dec 25 18:43	13°♄33'30		greatest brilliancy	3765 Dec 29 06:43	27°♄47'54	-0.5m
	3765 Jan 05 12:39	0°♄			3765 Dec 31 00:57	0°♄	
greatest brilliancy	3765 Jan 13 12:54	11°♄43'11	-0.6m	evening max el	3766 Jan 03 15:00	4°♄02'44	20°59'26
evening max el	3765 Jan 20 14:50	20°♄30'26	19°54'11	retrograde	3766 Jan 12 02:02	9°♄03'09	
asc. node	3765 Jan 26 06:34	24°♄34'37		asc. node	3766 Jan 13 03:36	8°♄56'56	
retrograde	3765 Jan 28 04:06	24°♄54'07		evening set	3766 Jan 16 02:20	7°♄31'49	
evening set	3765 Jan 31 18:53	23°♄37'47		inferior conj	3766 Jan 21 12:01	1°♄17'18	2°32'02
inferior conj	3765 Feb 06 06:22	17°♄34'56	3°04'17	minimum elong	3766 Jan 21 09:31	1°♄25'54	2°31'18
minimum elong	3765 Feb 06 04:03	17°♄42'42	3°03'47	min. Earth dist.	3766 Jan 21 22:10	0°♄42'21	0.67674 AU
min. Earth dist.	3765 Feb 07 05:27	16°♄17'52	0.66984 AU		3766 Jan 22 10:32	30°♄	
morning rise	3765 Feb 11 12:34	11°♄19'16		morning rise	3766 Jan 26 16:19	25°♄02'16	
direct	3765 Feb 17 10:38	8°♄41'31		direct	3766 Jan 31 23:48	22°♄43'11	
morning max el	3765 Mar 01 09:05	15°♄49'11	25°15'19	morning max el	3766 Feb 11 17:36	29°♄07'07	23°48'07
desc. node	3765 Mar 04 10:46	19°♄07'19			3766 Feb 12 14:08	0°♄	
	3765 Mar 13 01:59	0°♄		desc. node	3766 Feb 19 07:49	7°♄55'11	
	3765 Apr 01 13:48	0°♄			3766 Mar 06 21:16	0°♄	
morning set	3765 Apr 06 12:59	8°♄42'22		morning set	3766 Mar 19 04:01	19°♄53'28	
max. Earth dist.	3765 Apr 10 06:00	15°♄30'44	1.36492 AU	max. Earth dist.	3766 Mar 23 01:37	26°♄40'36	1.38585 AU
					3766 Mar 24 22:17	0°♄	
superior conj	3765 Apr 16 09:07	27°♄19'28	-1°-14'-26	superior conj	3766 Mar 30 09:57	10°♄07'32	-1°-40'-3
minimum elong	3765 Apr 16 13:01	27°♄38'47	1°13'49	minimum elong	3766 Mar 30 14:38	10°♄29'41	1°39'31
	3765 Apr 17 17:23	0°♄		evening rise	3766 Apr 08 12:53	27°♄47'23	
asc. node	3765 Apr 24 05:52	13°♄11'17			3766 Apr 09 16:07	0°♄	
evening rise	3765 Apr 24 15:39	14°♄00'42		asc. node	3766 Apr 11 02:54	2°♄47'56	
	3765 May 03 01:38	0°♄		evening max el	3766 Apr 24 21:04	24°♄11'16	18°50'36
evening max el	3765 May 11 22:47	12°♄06'59	19°42'30	retrograde	3766 May 03 04:07	28°♄14'36	
retrograde	3765 May 21 18:46	16°♄53'42		evening set	3766 May 05 07:21	27°♄59'31	
evening set	3765 May 23 17:56	16°♄43'06		inferior conj	3766 May 13 07:20	23°♄40'10	1°24'12
desc. node	3765 May 31 09:57	13°♄22'16		minimum elong	3766 May 13 10:19	23°♄34'45	1°23'13
inferior conj	3765 Jun 01 12:59	12°♄40'31	0°-19'-56	min. Earth dist.	3766 May 16 12:27	21°♄21'36	0.57072 AU
minimum elong	3765 Jun 01 12:05	12°♄41'55	0°19'36	desc. node	3766 May 18 06:58	20°♄11'47	
min. Earth dist.	3765 Jun 03 20:17	11°♄14'38	0.55563 AU	morning rise	3766 May 21 08:53	18°♄34'05	
morning rise	3765 Jun 10 02:57	8°♄09'54		direct	3766 May 26 19:06	17°♄23'01	
direct	3765 Jun 14 13:47	7°♄25'55		morning max el	3766 Jun 10 03:08	24°♄51'04	26°07'31
morning max el	3765 Jun 28 12:06	14°♄23'15	24°34'09		3766 Jun 14 21:10	0°♄	
	3765 Jul 10 18:41	0°♄			3766 Jul 03 18:26	0°♄	
asc. node	3765 Jul 21 05:08	18°♄56'25		morning set	3766 Jul 08 09:12	9°♄24'55	
morning set	3765 Jul 23 22:02	24°♄33'15		asc. node	3766 Jul 08 02:11	8°♄47'58	
	3765 Jul 26 11:03	0°♄					
superior conj	3765 Jul 30 22:05	9°♄43'00	1°26'18	superior conj	3766 Jul 15 09:18	24°♄38'39	1°09'59
minimum elong	3765 Jul 30 19:52	9°♄30'52	1°26'02	minimum elong	3766 Jul 15 06:59	24°♄25'51	1°09'37
max. Earth dist.	3765 Aug 01 14:43	13°♄23'19	1.32883 AU	max. Earth dist.	3766 Jul 16 00:12	26°♄00'37	1.32257 AU
evening rise	3765 Aug 07 05:32	25°♄12'32			3766 Jul 17 19:53	0°♄	
	3765 Aug 09 14:56	0°♄		evening rise	3766 Jul 22 09:27	9°♄46'07	
desc. node	3765 Aug 27 09:18	0°♄09'50			3766 Aug 01 22:25	0°♄	
	3765 Aug 27 06:32	0°♄		desc. node	3766 Aug 14 06:18	18°♄47'44	
evening max el	3765 Sep 09 06:54	15°♄41'33	27°26'31	evening max el	3766 Aug 22 13:16	28°♄10'56	27°06'46
retrograde	3765 Sep 22 23:35	22°♄57'32			3766 Aug 24 14:02	0°♄	
evening set	3765 Sep 30 03:52	20°♄23'28		retrograde	3766 Sep 05 09:58	5°♄23'30	
min. Earth dist.	3765 Oct 03 19:29	17°♄17'39	0.63207 AU	evening set	3766 Sep 12 12:13	3°♄08'14	
inferior conj	3765 Oct 06 12:30	14°♄37'05	-3°-20'-17	min. Earth dist.	3766 Sep 16 03:34	0°♄25'58	0.61287 AU
minimum elong	3765 Oct 06 17:54	14°♄23'43	3°18'34		3766 Sep 16 15:49	30°♄	
morning rise	3765 Oct 13 10:29	9°♄21'59		inferior conj	3766 Sep 19 06:36	27°♄42'29	-4°-14'-39

minimum elong	3766 Sep 19 12:26	27° \mathbb{M} 29'42	4°13'18	min. Earth dist.	3767 Aug 29 01:39	12° \mathbb{M} 44'14	0.59218 AU
morning rise	3766 Sep 26 15:45	22° \mathbb{M} 48'15		inferior conj	3767 Sep 01 08:20	10° \mathbb{M} 14'56	-4°-55'-13
direct	3766 Sep 28 23:23	22° \mathbb{M} 26'12		minimum elong	3767 Sep 01 12:26	10° \mathbb{M} 07'05	4°54'43
asc. node	3766 Oct 04 01:24	24° \mathbb{M} 16'35		morning rise	3767 Sep 09 03:52	5° \mathbb{M} 43'54	
morning max el	3766 Oct 06 01:23	25° \mathbb{M} 58'30	17°57'58	direct	3767 Sep 11 13:03	5° \mathbb{M} 24'23	
	3766 Oct 09 11:54	0° \mathbb{A}		morning max el	3767 Sep 19 10:33	9° \mathbb{M} 12'54	18°25'16
morning set	3766 Oct 21 19:27	20° \mathbb{A} 46'54		asc. node	3767 Sep 20 22:28	10° \mathbb{M} 46'25	
	3766 Oct 26 20:24	0° \mathbb{M}			3767 Oct 02 23:14	0° \mathbb{A}	
				morning set	3767 Oct 05 10:05	4° \mathbb{A} 40'23	
superior conj	3766 Nov 01 03:07	9° \mathbb{M} 24'32	1°00'50	superior conj	3767 Oct 14 12:18	21° \mathbb{A} 55'21	1°25'19
minimum elong	3766 Nov 01 07:19	9° \mathbb{M} 42'54	1°00'18	minimum elong	3767 Oct 14 15:51	22° \mathbb{A} 11'42	1°24'58
max. Earth dist.	3766 Nov 08 16:35	22° \mathbb{M} 16'09	1.42375 AU		3767 Oct 18 23:22	0° \mathbb{M}	
desc. node	3766 Nov 10 05:39	24° \mathbb{M} 48'30			3767 Oct 21 23:45	5° \mathbb{M} 16'34	1.40417 AU
	3766 Nov 13 10:42	0° \mathbb{A}		max. Earth dist.	3767 Oct 26 10:55	12° \mathbb{M} 49'17	
evening rise	3766 Nov 14 21:32	2° \mathbb{A} 18'35		evening rise	3767 Oct 28 02:40	15° \mathbb{M} 32'38	
	3766 Dec 03 09:45	0° \mathbb{B}		desc. node	3767 Nov 06 07:46	0° \mathbb{A}	
greatest brilliancy	3766 Dec 12 16:08	12° \mathbb{B} 16'41	-0.3m		3767 Nov 28 20:00	0° \mathbb{B}	
evening max el	3766 Dec 17 09:47	17° \mathbb{B} 36'35	22°14'26	evening max el	3767 Nov 30 00:26	1° \mathbb{B} 13'02	23°34'15
retrograde	3766 Dec 26 22:33	23° \mathbb{B} 16'51		retrograde	3767 Dec 10 16:13	7° \mathbb{B} 30'59	
evening set	3766 Dec 31 10:04	21° \mathbb{B} 29'34		evening set	3767 Dec 15 16:27	5° \mathbb{B} 27'26	
asc. node	3766 Dec 31 00:38	21° \mathbb{B} 47'51		asc. node	3767 Dec 17 21:42	3° \mathbb{B} 13'01	
inferior conj	3767 Jan 05 19:36	15° \mathbb{B} 06'47	1°51'51		3767 Dec 20 09:50	30° \mathbb{R} \mathbb{A}	
minimum elong	3767 Jan 05 17:24	15° \mathbb{B} 14'24	1°51'03	min. Earth dist.	3767 Dec 20 14:53	29° \mathbb{A} 42'45	0.67907 AU
min. Earth dist.	3767 Jan 05 18:06	15° \mathbb{B} 11'59	0.67974 AU	inferior conj	3767 Dec 21 03:15	29° \mathbb{A} 00'29	1°04'55
morning rise	3767 Jan 11 00:36	8° \mathbb{B} 53'59		minimum elong	3767 Dec 21 01:48	29° \mathbb{A} 05'27	1°04'20
direct	3767 Jan 15 17:04	6° \mathbb{B} 57'21		morning rise	3767 Dec 26 11:17	22° \mathbb{A} 51'52	
morning max el	3767 Jan 25 04:42	12° \mathbb{B} 32'23	22°19'40	direct	3767 Dec 30 13:29	21° \mathbb{A} 18'00	
greatest brilliancy	3767 Jan 29 18:20	17° \mathbb{B} 38'31	-0.3m	morning max el	3768 Jan 07 21:40	26° \mathbb{A} 07'26	20°58'04
desc. node	3767 Feb 06 04:53	27° \mathbb{B} 22'00			3768 Jan 11 09:40	0° \mathbb{B}	
	3767 Feb 08 02:06	0° \mathbb{A}		greatest brilliancy	3768 Jan 13 10:00	2° \mathbb{B} 29'19	-0.5m
morning set	3767 Feb 27 15:21	29° \mathbb{A} 44'09		desc. node	3768 Jan 24 01:56	17° \mathbb{B} 16'47	
	3767 Feb 27 19:15	0° \mathbb{H}			3768 Feb 01 13:53	0° \mathbb{A}	
max. Earth dist.	3767 Mar 04 22:31	8° \mathbb{H} 30'39	1.40758 AU	morning set	3768 Feb 06 23:23	8° \mathbb{A} 20'19	
				max. Earth dist.	3768 Feb 15 01:43	21° \mathbb{A} 15'11	1.42721 AU
superior conj	3767 Mar 12 17:25	22° \mathbb{H} 03'31	-1°-59'-15		3768 Feb 20 08:41	0° \mathbb{H}	
minimum elong	3767 Mar 12 21:14	22° \mathbb{H} 20'38	1°59'03				
	3767 Mar 17 02:13	0° \mathbb{Y}		superior conj	3768 Feb 22 02:29	2° \mathbb{H} 56'28	-2°-7'-19
evening rise	3767 Mar 22 23:42	10° \mathbb{Y} 59'56		minimum elong	3768 Feb 22 02:40	2° \mathbb{H} 57'13	2°07'21
asc. node	3767 Mar 28 23:56	22° \mathbb{Y} 04'16		evening rise	3768 Mar 04 20:07	23° \mathbb{H} 29'37	
	3767 Apr 02 18:25	0° \mathbb{B}			3768 Mar 08 11:32	0° \mathbb{Y}	
evening max el	3767 Apr 08 03:28	6° \mathbb{B} 48'34	18°18'56	asc. node	3768 Mar 14 20:59	10° \mathbb{Y} 53'48	
retrograde	3767 Apr 15 08:31	10° \mathbb{B} 24'03		evening max el	3768 Mar 21 14:41	19° \mathbb{Y} 50'36	18°07'02
evening set	3767 Apr 17 17:51	10° \mathbb{B} 01'18		retrograde	3768 Mar 28 05:11	23° \mathbb{Y} 13'55	
inferior conj	3767 Apr 24 23:13	5° \mathbb{B} 21'24	2°37'15	evening set	3768 Mar 30 20:29	22° \mathbb{Y} 41'26	
minimum elong	3767 Apr 25 02:51	5° \mathbb{B} 13'41	2°36'22	inferior conj	3768 Apr 06 10:36	17° \mathbb{Y} 40'42	3°19'14
min. Earth dist.	3767 Apr 28 09:39	2° \mathbb{B} 28'04	0.59092 AU	minimum elong	3768 Apr 06 12:57	17° \mathbb{Y} 34'58	3°18'54
	3767 May 01 21:33	30° \mathbb{R} \mathbb{Y}		min. Earth dist.	3768 Apr 09 14:03	14° \mathbb{Y} 37'27	0.61279 AU
morning rise	3767 May 02 07:47	29° \mathbb{Y} 45'22		morning rise	3768 Apr 13 02:21	11° \mathbb{Y} 45'12	
desc. node	3767 May 05 04:02	28° \mathbb{Y} 31'07		direct	3768 Apr 19 20:55	9° \mathbb{Y} 26'09	
direct	3767 May 08 14:12	27° \mathbb{Y} 59'22		desc. node	3768 Apr 21 01:05	9° \mathbb{Y} 30'07	
	3767 May 15 13:28	0° \mathbb{B}		morning max el	3768 May 04 02:07	17° \mathbb{Y} 23'15	27°48'54
morning max el	3767 May 22 23:29	5° \mathbb{B} 46'44	27°15'45		3768 May 14 13:38	0° \mathbb{B}	
	3767 Jun 09 23:04	0° \mathbb{H}			3768 Jun 01 15:09	0° \mathbb{H}	
morning set	3767 Jun 22 18:00	24° \mathbb{H} 07'34		morning set	3768 Jun 05 22:35	8° \mathbb{H} 35'16	
asc. node	3767 Jun 24 23:13	28° \mathbb{H} 49'29		asc. node	3768 Jun 10 20:16	18° \mathbb{H} 56'35	
	3767 Jun 25 12:20	0° \mathbb{B}		max. Earth dist.	3768 Jun 11 22:09	21° \mathbb{H} 16'58	1.32222 AU
superior conj	3767 Jun 29 21:06	9° \mathbb{B} 33'01	0°49'37	superior conj	3768 Jun 13 07:47	24° \mathbb{H} 20'34	0°25'48
minimum elong	3767 Jun 29 19:08	9° \mathbb{B} 22'12	0°49'14	minimum elong	3768 Jun 13 06:38	24° \mathbb{H} 14'15	0°25'33
max. Earth dist.	3767 Jun 29 11:57	8° \mathbb{B} 42'36	1.32033 AU		3768 Jun 15 21:40	0° \mathbb{B}	
evening rise	3767 Jul 06 18:01	24° \mathbb{B} 31'02		evening rise	3768 Jun 20 05:11	9° \mathbb{B} 20'43	
	3767 Jul 09 09:19	0° \mathbb{B}			3768 Jun 30 20:19	0° \mathbb{B}	
desc. node	3767 Jul 26 23:44	0° \mathbb{M}		evening max el	3768 Jul 16 05:06	20° \mathbb{B} 48'59	24°53'38
evening max el	3767 Aug 01 03:19	6° \mathbb{M} 22'02		desc. node	3768 Jul 18 00:19	22° \mathbb{B} 26'54	
retrograde	3767 Aug 18 12:09	17° \mathbb{M} 02'40		retrograde	3768 Jul 30 03:49	27° \mathbb{B} 52'26	
evening set	3767 Aug 25 00:31	15° \mathbb{M} 18'42		evening set	3768 Aug 04 12:44	26° \mathbb{B} 46'55	

min. Earth dist.	3768 Aug 09 16:36	24°01'10	0.57246 AU		3769 Jun 07 12:35	0°☿	
inferior conj	3768 Aug 12 14:35	22°05'38	-5°-9'-12		3769 Jun 26 11:58	0°♊	
minimum elong	3768 Aug 12 14:00	22°06'38	5°09'12	evening max el	3769 Jun 27 18:12	1°♊16'13	23°18'09
morning rise	3768 Aug 20 18:51	17°05'51		desc. node	3769 Jul 04 21:20	6°♊28'57	
direct	3768 Aug 23 08:43	17°03'53		retrograde	3769 Jul 11 06:39	8°♊01'43	
morning max el	3768 Sep 01 11:02	21°05'58	19°13'46	evening set	3769 Jul 15 03:34	7°♊28'58	
asc. node	3768 Sep 06 19:31	28°01'18		min. Earth dist.	3769 Jul 22 03:50	4°♊16'33	0.55699 AU
	3768 Sep 07 22:57	0°♎		inferior conj	3769 Jul 24 00:55	3°♊10'18	-4°-41'00
morning set	3768 Sep 18 09:45	18°05'49		minimum elong	3769 Jul 23 18:27	3°♊19'51	4°39'57
	3768 Sep 23 22:16	0°♎			3769 Jul 30 04:45	30°♎☿	
				morning rise	3769 Aug 01 12:19	29°☿17'13	
superior conj	3768 Sep 26 15:10	5°♎18'08	1°39'19	direct	3769 Aug 04 09:29	28°☿57'05	
minimum elong	3768 Sep 26 17:07	5°♎27'33	1°39'12		3769 Aug 09 07:37	0°♊	
max. Earth dist.	3768 Oct 03 03:54	17°♎35'31	1.38332 AU	morning max el	3769 Aug 15 00:13	3°♊52'44	20°24'00
evening rise	3768 Oct 06 23:49	24°♎24'58		asc. node	3769 Aug 24 16:33	16°♊38'13	
	3768 Oct 10 06:01	0°♎			3769 Aug 31 20:39	0°♎	
desc. node	3768 Oct 13 23:40	6°♎09'50		morning set	3769 Sep 02 15:31	3°♎37'09	
	3768 Oct 30 01:09	0°♎					
evening max el	3768 Nov 11 13:06	14°♎53'34	24°52'23	superior conj	3769 Sep 10 06:49	19°♎18'54	1°44'24
retrograde	3768 Nov 23 05:46	21°♎41'16		minimum elong	3769 Sep 10 07:05	19°♎20'16	1°44'24
evening set	3768 Nov 28 19:50	19°♎22'15		max. Earth dist.	3769 Sep 15 10:32	29°♎31'15	1.36362 AU
min. Earth dist.	3768 Dec 03 10:08	14°♎11'43	0.67498 AU		3769 Sep 15 16:31	0°♎	
asc. node	3768 Dec 03 18:45	13°♎43'18		evening rise	3769 Sep 19 09:46	6°♎59'31	
inferior conj	3768 Dec 04 09:10	12°♎55'40	0°12'19	desc. node	3769 Sep 30 20:39	26°♎35'36	
minimum elong	3768 Dec 04 08:51	12°♎56'41	0°12'12		3769 Oct 03 00:47	0°♎	
transit middle	3768 Dec 04 08:51	12°♎56'41	0°12'12	evening max el	3769 Oct 25 01:35	28°♎36'21	26°01'29
transit begin	3768 Dec 04 07:02	13°♎02'42			3769 Oct 26 13:19	0°♎	
transit end	3768 Dec 04 10:40	12°♎50'40		retrograde	3769 Nov 06 14:25	5°♎43'08	
morning rise	3768 Dec 09 22:24	6°♎53'34		evening set	3769 Nov 12 18:29	3°♎11'07	
direct	3768 Dec 13 11:49	5°♎40'36			3769 Nov 15 21:35	30°♎♎	
morning max el	3768 Dec 20 22:20	9°♎53'14	19°48'32	min. Earth dist.	3769 Nov 17 01:22	28°♎36'18	0.66747 AU
greatest brilliancy	3768 Dec 28 12:15	19°♎11'18	-0.6m	inferior conj	3769 Nov 18 11:31	26°♎49'45	0°-44'-46
	3769 Jan 04 23:23	0°♎		minimum elong	3769 Nov 18 12:42	26°♎46'02	0°44'15
desc. node	3769 Jan 09 22:57	7°♎31'20		asc. node	3769 Nov 20 15:47	24°♎12'22	
morning set	3769 Jan 15 19:18	16°♎29'19		morning rise	3769 Nov 24 07:57	20°♎56'54	
	3769 Jan 24 11:21	0°♎		direct	3769 Nov 27 10:30	20°♎01'39	
max. Earth dist.	3769 Jan 27 12:27	4°♎49'19	1.44226 AU	morning max el	3769 Dec 04 06:30	23°♎48'32	18°54'02
					3769 Dec 09 10:10	0°♎	
superior conj	3769 Feb 01 09:39	12°♎39'26	-1°-58'-55	morning set	3769 Dec 26 04:40	25°♎26'29	
minimum elong	3769 Feb 01 03:54	12°♎16'12	1°58'38	desc. node	3769 Dec 27 19:58	28°♎00'25	
	3769 Feb 11 21:14	0°♎			3769 Dec 29 02:29	0°♎	
evening rise	3769 Feb 14 21:35	5°♎06'45		max. Earth dist.	3770 Jan 10 05:18	18°♎59'28	1.45090 AU
asc. node	3769 Mar 01 18:02	29°♎07'14					
	3769 Mar 02 10:08	0°♎		superior conj	3770 Jan 11 18:39	21°♎26'19	-1°-31'00
evening max el	3769 Mar 05 03:28	3°♎07'55	18°14'15	minimum elong	3770 Jan 11 09:26	20°♎50'03	1°30'05
retrograde	3769 Mar 11 13:43	6°♎33'20			3770 Jan 17 04:35	0°♎	
evening set	3769 Mar 14 10:44	5°♎49'47		evening rise	3770 Jan 27 00:34	15°♎47'09	
inferior conj	3769 Mar 20 13:23	0°♎29'04	3°36'16		3770 Feb 04 19:21	0°♎	
minimum elong	3769 Mar 20 13:56	0°♎27'32	3°36'15	evening max el	3770 Feb 16 15:06	16°♎34'00	18°39'48
	3769 Mar 20 23:53	30°♎♎		asc. node	3770 Feb 16 15:04	16°♎33'55	
min. Earth dist.	3769 Mar 23 03:14	27°♎39'22	0.63337 AU	retrograde	3770 Feb 23 05:58	20°♎14'08	
morning rise	3769 Mar 26 15:09	24°♎22'33		evening set	3770 Feb 26 09:03	19°♎18'34	
direct	3769 Apr 02 12:27	21°♎41'13		inferior conj	3770 Mar 04 03:39	13°♎39'30	3°34'30
desc. node	3769 Apr 07 22:08	23°♎06'13		minimum elong	3770 Mar 04 02:41	13°♎42'27	3°34'26
morning max el	3769 Apr 16 09:27	29°♎39'04	27°44'32	min. Earth dist.	3770 Mar 06 01:50	11°♎19'52	0.65074 AU
	3769 Apr 16 17:45	0°♎		morning rise	3770 Mar 09 19:04	7°♎27'03	
	3769 May 08 12:33	0°♎		direct	3770 Mar 16 11:08	4°♎37'33	
morning set	3769 May 20 20:38	22°♎40'05		desc. node	3770 Mar 25 19:10	8°♎47'57	
	3769 May 24 10:45	0°♎		morning max el	3770 Mar 29 19:12	12°♎26'20	27°06'07
max. Earth dist.	3769 May 26 02:56	3°♎31'10	1.32839 AU		3770 Apr 12 20:53	0°♎	
					3770 May 01 02:16	0°♎	
superior conj	3769 May 28 15:30	8°♎54'50	0°00'-47	morning set	3770 May 04 09:13	6°♎13'30	
minimum elong	3769 May 28 15:32	8°♎55'01	0°00'48	max. Earth dist.	3770 May 08 22:44	15°♎16'27	1.33906 AU
behind sun begin	3769 May 28 10:16	8°♎26'36					
behind sun end	3769 May 28 20:49	9°♎23'27		superior conj	3770 May 12 18:15	23°♎09'45	0°-29'-13
asc. node	3769 May 28 17:18	9°♎04'33		minimum elong	3770 May 12 19:47	23°♎17'44	0°28'55
evening rise	3769 Jun 04 17:01	24°♎08'18		asc. node	3770 May 15 14:20	29°♎09'31	

	3770 May 15 23:50	0°♂		asc. node	3771 May 02 11:22	19°♂07'36	
evening rise	3770 May 20 03:38	8°♂47'53		evening rise	3771 May 04 11:02	23°♂13'08	
	3770 May 31 09:19	0°♂			3771 May 07 19:47	0°♂	
evening max el	3770 Jun 09 11:33	11°♂46'22	21°43'19	evening max el	3771 May 22 15:36	22°♂47'49	20°21'22
retrograde	3770 Jun 21 22:26	17°♂55'08		retrograde	3771 Jun 02 12:00	28°♂05'24	
desc. node	3770 Jun 21 18:22	17°♂55'04		evening set	3771 Jun 04 12:01	27°♂55'21	
evening set	3770 Jun 24 12:40	17°♂39'58		desc. node	3771 Jun 08 15:23	26°♂37'44	
inferior conj	3770 Jul 03 20:56	13°♂38'19	-3°-22'-36	inferior conj	3771 Jun 13 15:32	23°♂57'17	-1°-28'-41
minimum elong	3770 Jul 03 12:38	13°♂49'55	3°20'09	minimum elong	3771 Jun 13 11:22	24°♂03'24	1°27'10
min. Earth dist.	3770 Jul 03 14:25	13°♂47'25	0.54899 AU	min. Earth dist.	3771 Jun 15 02:43	23°♂05'50	0.55040 AU
morning rise	3770 Jul 12 13:48	9°♂46'03		morning rise	3771 Jun 22 08:54	19°♂44'58	
direct	3770 Jul 15 20:44	9°♂22'23		direct	3771 Jun 26 07:07	19°♂11'40	
morning max el	3770 Jul 28 01:45	15°♂06'30	21°53'38	morning max el	3771 Jul 09 18:48	25°♂45'14	23°35'15
	3770 Aug 08 09:46	0°♂			3771 Jul 13 19:03	0°♂	
asc. node	3770 Aug 11 13:34	5°♂34'35		asc. node	3771 Jul 29 10:36	24°♂58'24	
morning set	3770 Aug 18 01:02	18°♂25'33			3771 Jul 31 22:14	0°♂	
	3770 Aug 23 12:30	0°♂		morning set	3771 Aug 02 12:30	3°♂19'47	
superior conj	3770 Aug 25 07:21	3°♂45'57	1°42'04	superior conj	3771 Aug 09 13:52	18°♂30'34	1°33'35
minimum elong	3770 Aug 25 06:17	3°♂40'18	1°42'02	minimum elong	3771 Aug 09 11:55	18°♂20'04	1°33'25
max. Earth dist.	3770 Aug 29 00:20	11°♂26'03	1.34691 AU	max. Earth dist.	3771 Aug 11 22:59	23°♂35'58	1.33417 AU
evening rise	3770 Sep 02 12:25	20°♂21'10			3771 Aug 15 00:30	0°♂	
	3770 Sep 07 16:58	0°♂		evening rise	3771 Aug 17 03:36	4°♂19'06	
desc. node	3770 Sep 17 17:39	16°♂43'36			3771 Aug 31 10:17	0°♂	
	3770 Sep 26 23:51	0°♂		desc. node	3771 Sep 04 14:41	6°♂26'02	
evening max el	3770 Oct 07 14:07	12°♂13'05	26°54'05	evening max el	3771 Sep 20 01:51	25°♂33'29	27°22'58
retrograde	3770 Oct 20 17:36	19°♂29'19			3771 Sep 25 13:08	0°♂	
evening set	3770 Oct 27 10:19	16°♂49'19		retrograde	3771 Oct 03 15:01	2°♂51'43	
min. Earth dist.	3770 Oct 31 10:13	12°♂50'59	0.65643 AU	evening set	3771 Oct 10 16:46	0°♂12'03	
inferior conj	3770 Nov 02 08:14	10°♂37'55	-1°-44'-56		3771 Oct 10 23:04	30°♂	
minimum elong	3770 Nov 02 11:09	10°♂29'27	1°43'46	min. Earth dist.	3771 Oct 14 10:36	26°♂48'38	0.64190 AU
asc. node	3770 Nov 07 12:49	5°♂33'36		inferior conj	3771 Oct 16 20:57	24°♂15'10	-2°-46'-1
morning rise	3770 Nov 08 13:37	4°♂57'23		minimum elong	3771 Oct 17 01:34	24°♂02'59	2°44'22
direct	3770 Nov 11 07:26	4°♂16'07		morning rise	3771 Oct 23 12:39	18°♂50'04	
morning max el	3770 Nov 17 20:08	7°♂47'45	18°15'50	asc. node	3771 Oct 25 09:50	18°♂20'49	
	3770 Dec 03 04:13	0°♂		direct	3771 Oct 26 00:09	18°♂19'00	
morning set	3770 Dec 06 18:13	5°♂49'41		morning max el	3771 Nov 01 12:31	21°♂44'35	17°54'37
desc. node	3770 Dec 14 16:57	18°♂39'09			3771 Nov 07 21:12	0°♂	
superior conj	3770 Dec 21 21:13	0°♂02'19	0°-47'-40	morning set	3771 Nov 18 11:51	17°♂34'50	
minimum elong	3770 Dec 21 15:12	29°♂38'38	0°46'53		3771 Nov 25 20:34	0°♂	
	3770 Dec 21 20:38	0°♂		superior conj	3771 Dec 01 14:11	9°♂24'47	0°00'-3
max. Earth dist.	3770 Dec 24 00:45	3°♂24'56	1.45215 AU	minimum elong	3771 Dec 01 14:10	9°♂24'43	0°00'03
evening rise	3771 Jan 07 04:48	25°♂34'09		behind sun begin	3771 Dec 01 04:30	8°♂45'29	
	3771 Jan 10 00:54	0°♂		behind sun end	3771 Dec 01 23:51	10°♂03'54	
greatest brilliancy	3771 Jan 22 05:26	18°♂42'32	-0.7m	desc. node	3771 Dec 01 14:00	9°♂24'01	
	3771 Jan 30 21:45	0°♂		max. Earth dist.	3771 Dec 06 19:13	17°♂45'52	1.44603 AU
evening max el	3771 Jan 30 23:18	0°♂03'58	19°22'30		3771 Dec 14 14:40	0°♂	
asc. node	3771 Feb 03 12:06	3°♂00'34		evening rise	3771 Dec 17 17:01	4°♂46'52	
retrograde	3771 Feb 07 02:33	4°♂09'31			3772 Jan 03 12:23	0°♂	
evening set	3771 Feb 10 12:37	3°♂01'05		greatest brilliancy	3772 Jan 07 21:05	6°♂04'28	-0.5m
	3771 Feb 13 18:11	30°♂		evening max el	3772 Jan 14 02:33	13°♂35'33	20°20'25
inferior conj	3771 Feb 16 02:00	27°♂05'55	3°18'36	asc. node	3772 Jan 21 09:08	18°♂12'28	
minimum elong	3771 Feb 16 00:01	27°♂12'22	3°18'16	retrograde	3772 Jan 22 00:39	18°♂14'45	
min. Earth dist.	3771 Feb 17 09:04	25°♂25'06	0.66406 AU	evening set	3772 Jan 25 19:12	16°♂52'15	
morning rise	3771 Feb 21 10:38	20°♂50'40		inferior conj	3772 Jan 31 05:41	10°♂43'52	2°51'41
direct	3771 Feb 27 16:06	18°♂05'49		minimum elong	3772 Jan 31 03:14	10°♂52'13	2°51'04
morning max el	3771 Mar 12 04:58	25°♂33'04	26°01'06	min. Earth dist.	3772 Jan 31 23:05	9°♂44'46	0.67325 AU
desc. node	3771 Mar 12 16:12	26°♂01'41		morning rise	3772 Feb 05 10:43	4°♂27'59	
	3771 Mar 16 06:44	0°♂		direct	3772 Feb 11 02:36	1°♂57'32	
	3771 Apr 06 09:14	0°♂		morning max el	3772 Feb 22 13:38	8°♂48'33	24°38'55
morning set	3771 Apr 17 08:29	19°♂04'19		desc. node	3772 Feb 27 13:14	14°♂21'04	
max. Earth dist.	3771 Apr 21 07:11	26°♂32'02	1.35425 AU		3772 Mar 10 05:50	0°♂	
	3771 Apr 23 01:51	0°♂			3772 Mar 29 00:06	0°♂	
superior conj	3771 Apr 26 13:35	6°♂58'22	0°-58'-13	morning set	3772 Mar 29 13:05	0°♂57'03	
minimum elong	3771 Apr 26 16:41	7°♂14'04	0°57'39	max. Earth dist.	3772 Apr 02 05:28	7°♂33'15	1.37351 AU

superior conj	3772 Apr 08 22:18	20° Υ 11'28	-1°-25'-50	morning set	3773 Mar 10 16:58	11° Υ 36'01	
minimum elong	3772 Apr 09 02:40	20° Υ 32'42	1°25'13	max. Earth dist.	3773 Mar 15 00:19	18° Υ 55'45	1.39515 AU
	3772 Apr 13 21:33	0° Υ			3773 Mar 21 05:38	0° Υ	
evening rise	3772 Apr 17 12:48	7° Υ 16'06					
asc. node	3772 Apr 18 08:25	8° Υ 53'36		superior conj	3773 Mar 22 16:27	2° Υ 39'50	-1°-49'-13
	3772 Apr 30 10:56	0° Π		minimum elong	3773 Mar 22 21:02	3° Υ 01'04	1°48'49
evening max el	3772 May 04 07:49	4° Π 30'09	19°17'58	evening rise	3773 Apr 01 06:06	20° Υ 49'53	
retrograde	3772 May 13 11:15	8° Π 56'55		asc. node	3773 Apr 05 05:29	28° Υ 22'52	
evening set	3772 May 15 11:21	8° Π 45'01			3773 Apr 06 02:28	0° Υ	
inferior conj	3772 May 23 22:39	4° Π 36'28	0°27'31	evening max el	3773 Apr 17 10:07	16° Υ 50'40	18°34'41
minimum elong	3772 May 23 23:47	4° Π 34'34	0°27'05	retrograde	3773 Apr 25 04:29	20° Υ 39'40	
desc. node	3772 May 25 12:26	3° Π 33'40		evening set	3773 Apr 27 10:21	20° Υ 21'36	
min. Earth dist.	3772 May 26 17:28	2° Π 46'20	0.56115 AU	inferior conj	3773 May 05 02:10	15° Υ 54'01	1°59'11
	3772 May 31 21:52	30° Υ		minimum elong	3773 May 05 05:46	15° Υ 47'02	1°58'06
morning rise	3772 Jun 01 08:07	29° Υ 50'18		min. Earth dist.	3773 May 08 11:35	13° Υ 17'46	0.57896 AU
direct	3772 Jun 06 04:43	28° Υ 56'05		desc. node	3773 May 12 09:28	10° Υ 48'17	
	3772 Jun 11 11:08	0° Π		morning rise	3773 May 12 20:46	10° Υ 34'12	
morning max el	3772 Jun 20 08:52	6° Π 09'05	25°16'01	direct	3773 May 18 16:39	9° Υ 08'22	
	3772 Jul 07 16:30	0° Υ		morning max el	3773 Jun 02 01:39	16° Υ 45'57	26°40'11
asc. node	3772 Jul 15 07:39	14° Υ 41'26			3773 Jun 12 22:25	0° Π	
morning set	3772 Jul 17 00:13	18° Υ 13'34			3773 Jun 29 23:40	0° Υ	
	3772 Jul 22 10:43	0° Ω		morning set	3773 Jul 01 10:35	3° Υ 01'55	
				asc. node	3773 Jul 02 04:44	4° Υ 37'52	
superior conj	3772 Jul 23 23:56	3° Ω 24'01	1°19'56				
minimum elong	3772 Jul 23 21:37	3° Ω 11'17	1°19'36	superior conj	3773 Jul 08 11:37	18° Υ 19'58	1°01'49
max. Earth dist.	3772 Jul 25 05:11	6° Ω 03'51	1.32561 AU	minimum elong	3773 Jul 08 09:24	18° Υ 07'41	1°01'25
evening rise	3772 Jul 31 03:42	18° Ω 42'09		max. Earth dist.	3773 Jul 08 15:59	18° Υ 44'02	1.32116 AU
	3772 Aug 05 20:59	0° Π			3773 Jul 13 19:53	0° Ω	
desc. node	3772 Aug 21 11:43	25° Π 31'31		evening rise	3773 Jul 15 09:54	3° Ω 21'42	
	3772 Aug 24 21:01	0° Ω			3773 Jul 29 16:59	0° Π	
evening max el	3772 Sep 01 10:56	8° Ω 25'01	27°22'13	desc. node	3773 Aug 08 08:45	13° Π 45'02	
retrograde	3772 Sep 15 05:58	15° Ω 40'26		evening max el	3773 Aug 14 14:47	20° Π 35'39	26°48'16
evening set	3772 Sep 22 10:24	13° Ω 12'42		retrograde	3773 Aug 28 13:02	27° Π 46'38	
min. Earth dist.	3772 Sep 26 01:01	10° Ω 18'17	0.62413 AU	evening set	3773 Sep 04 10:47	25° Π 43'42	
inferior conj	3772 Sep 28 22:46	7° Ω 34'27	-3°-44'-29	min. Earth dist.	3773 Sep 08 04:53	23° Π 06'38	0.60410 AU
minimum elong	3772 Sep 29 04:33	7° Ω 20'51	3°42'50	inferior conj	3773 Sep 11 10:20	20° Π 27'09	-4°-34'-16
morning rise	3772 Oct 06 01:33	2° Ω 27'56		minimum elong	3773 Sep 11 15:47	20° Π 15'53	4°33'14
direct	3772 Oct 08 09:34	2° Ω 03'32		morning rise	3773 Sep 19 00:02	15° Π 42'15	
asc. node	3772 Oct 11 06:52	2° Ω 41'58		direct	3773 Sep 21 07:52	15° Π 21'33	
morning max el	3772 Oct 15 04:36	5° Ω 31'22	17°51'18	asc. node	3773 Sep 28 03:56	18° Π 28'55	
	3772 Oct 30 22:22	0° Π		morning max el	3773 Sep 28 17:09	18° Π 59'51	18°07'02
morning set	3772 Oct 31 03:38	0° Π 23'32			3773 Oct 06 18:01	0° Ω	
				morning set	3773 Oct 14 11:22	13° Ω 57'38	
					3773 Oct 23 03:23	0° Π	
superior conj	3772 Nov 11 08:51	20° Π 03'05	0°41'36				
minimum elong	3772 Nov 11 12:27	20° Π 18'23	0°41'06	superior conj	3773 Oct 24 05:16	1° Π 56'22	1°12'36
desc. node	3772 Nov 17 11:02	0° Υ 11'28		minimum elong	3773 Oct 24 09:24	2° Π 14'48	1°12'07
	3772 Nov 17 08:13	0° Υ		max. Earth dist.	3773 Oct 31 20:43	15° Π 12'30	1.41574 AU
max. Earth dist.	3772 Nov 18 10:20	1° Υ 46'19	1.43336 AU	desc. node	3773 Nov 04 08:03	20° Π 57'52	
evening rise	3772 Nov 26 03:49	14° Υ 02'36		evening rise	3773 Nov 06 04:45	23° Π 59'19	
	3772 Dec 06 16:07	0° Υ			3773 Nov 09 23:33	0° Υ	
greatest brilliancy	3772 Dec 22 02:19	21° Υ 30'36	-0.4m		3773 Nov 30 15:40	0° Υ	
evening max el	3772 Dec 27 00:23	27° Υ 08'56	21°30'29				
	3772 Dec 30 04:04	0° \approx		greatest brilliancy	3773 Dec 04 14:48	5° Υ 01'00	-0.3m
retrograde	3773 Jan 04 22:14	2° \approx 26'28		evening max el	3773 Dec 09 17:19	10° Υ 44'14	22°48'18
asc. node	3773 Jan 07 06:09	1° \approx 56'56		retrograde	3773 Dec 19 17:31	16° Υ 40'40	
evening set	3773 Jan 09 02:59	0° \approx 48'42		evening set	3773 Dec 24 10:18	14° Υ 46'34	
	3773 Jan 10 01:23	30° Υ		asc. node	3773 Dec 25 03:12	14° Υ 09'15	
inferior conj	3773 Jan 14 12:25	24° Υ 30'19	2°15'54	inferior conj	3773 Dec 29 20:14	8° Υ 21'48	1°32'42
minimum elong	3773 Jan 14 10:00	24° Υ 38'43	2°15'08	minimum elong	3773 Dec 29 18:18	8° Υ 28'29	1°31'58
min. Earth dist.	3773 Jan 14 17:34	24° Υ 12'28	0.67843 AU	min. Earth dist.	3773 Dec 29 14:07	8° Υ 42'56	0.67989 AU
morning rise	3773 Jan 19 16:41	18° Υ 15'48		morning rise	3774 Jan 04 02:14	2° Υ 10'35	
direct	3773 Jan 24 17:48	16° Υ 05'46		direct	3774 Jan 08 12:36	0° Υ 23'30	
morning max el	3773 Feb 03 22:44	22° Υ 09'30	23°10'05	morning max el	3774 Jan 17 11:46	5° Υ 37'53	21°43'47
greatest brilliancy	3773 Feb 08 23:09	27° Υ 46'39	-0.3m	greatest brilliancy	3774 Jan 22 07:04	11° Υ 03'08	-0.4m
	3773 Feb 10 18:11	0° \approx		desc. node	3774 Jan 31 07:18	23° Υ 07'23	
desc. node	3773 Feb 13 10:17	3° \approx 27'36			3774 Feb 05 01:21	0° \approx	
	3773 Mar 03 13:36	0° Υ		morning set	3774 Feb 18 15:51	20° \approx 51'50	

	3774 Feb 24 06:55	0°☿		greatest brilliancy	3775 Jan 06 13:33	26°☿39'15	-0.5m
max. Earth dist.	3774 Feb 24 23:38	1°☿09'16	1.41640 AU		3775 Jan 09 01:10	0°☿	
superior conj	3774 Mar 04 15:00	14°☿10'44	-2°-4'-21	desc. node	3775 Jan 18 04:19	13°☿11'21	
minimum elong	3774 Mar 04 17:40	14°☿22'21	2°04'17	morning set	3775 Jan 28 15:52	29°☿07'52	
	3774 Mar 13 10:15	0°☿			3775 Jan 29 05:19	0°☿	
evening rise	3774 Mar 15 11:16	3°☿45'15		max. Earth dist.	3775 Feb 07 06:39	14°☿18'23	1.43434 AU
asc. node	3774 Mar 23 02:31	17°☿28'50		superior conj	3775 Feb 13 13:08	24°☿33'32	-2°-6'-4
evening max el	3774 Mar 31 18:59	29°☿39'51	18°11'27	minimum elong	3775 Feb 13 10:54	24°☿24'17	2°06'01
	3774 Apr 01 03:24	0°☿			3775 Feb 16 19:04	0°☿	
retrograde	3774 Apr 07 16:16	3°☿08'01		evening rise	3775 Feb 26 00:07	15°☿53'37	
evening set	3774 Apr 10 04:21	2°☿41'10			3775 Mar 06 03:49	0°☿	
	3774 Apr 14 15:30	30°☿		asc. node	3775 Mar 09 23:33	6°☿04'08	
inferior conj	3774 Apr 17 02:44	27°☿52'08	2°58'29	evening max el	3775 Mar 15 07:08	12°☿48'58	18°07'45
minimum elong	3774 Apr 17 05:58	27°☿44'50	2°57'51	retrograde	3775 Mar 21 18:42	16°☿11'47	
min. Earth dist.	3774 Apr 20 11:17	24°☿51'47	0.60030 AU	evening set	3775 Mar 24 12:25	15°☿34'41	
morning rise	3774 Apr 24 03:59	22°☿06'55		inferior conj	3775 Mar 30 21:10	10°☿24'57	3°29'07
desc. node	3774 Apr 29 06:30	20°☿11'55		minimum elong	3775 Mar 30 22:45	10°☿20'51	3°28'58
direct	3774 Apr 30 16:48	20°☿06'12		min. Earth dist.	3775 Apr 02 19:11	7°☿25'09	0.62182 AU
morning max el	3774 May 15 00:32	27°☿57'42	27°34'25	morning rise	3775 Apr 06 06:32	4°☿23'47	
	3774 May 16 23:55	0°☿		direct	3775 Apr 13 03:10	1°☿54'01	
	3774 Jun 06 15:19	0°☿		desc. node	3775 Apr 16 03:32	2°☿20'23	
morning set	3774 Jun 15 17:51	17°☿39'10		morning max el	3775 Apr 27 05:37	9°☿52'18	27°51'39
asc. node	3774 Jun 19 01:47	24°☿42'34			3775 May 12 21:11	0°☿	
	3774 Jun 21 12:09	0°☿			3775 May 29 20:30	0°☿	
max. Earth dist.	3774 Jun 22 03:43	1°☿25'21	1.32069 AU	morning set	3775 May 30 19:58	1°☿58'26	
				max. Earth dist.	3775 Jun 05 12:18	13°☿53'55	1.32432 AU
superior conj	3774 Jun 22 23:10	3°☿12'20	0°39'55	asc. node	3775 Jun 05 22:49	14°☿50'39	
minimum elong	3774 Jun 22 21:30	3°☿03'09	0°39'34				
evening rise	3774 Jun 29 19:51	18°☿10'00		superior conj	3775 Jun 07 08:47	17°☿54'59	0°14'49
	3774 Jul 05 15:33	0°☿		minimum elong	3775 Jun 07 08:06	17°☿51'13	0°14'40
	3774 Jul 25 12:16	0°☿		behind sun begin	3775 Jun 07 06:05	17°☿40'17	
desc. node	3774 Jul 26 05:46	0°☿45'24		behind sun end	3775 Jun 07 10:06	18°☿02'10	
evening max el	3774 Jul 27 11:17	1°☿58'11	25°42'36		3775 Jun 12 21:56	0°☿	
retrograde	3774 Aug 10 10:38	9°☿05'07		evening rise	3775 Jun 14 07:31	2°☿59'48	
evening set	3774 Aug 16 13:07	7°☿37'20			3775 Jun 28 21:47	0°☿	
min. Earth dist.	3774 Aug 20 23:22	5°☿00'29	0.58352 AU	evening max el	3775 Jul 09 01:19	12°☿38'19	24°13'52
inferior conj	3774 Aug 24 04:08	2°☿43'31	-5°-5'-19	desc. node	3775 Jul 13 02:47	16°☿02'51	
minimum elong	3774 Aug 24 06:36	2°☿39'06	5°05'10	retrograde	3775 Jul 22 21:04	19°☿36'34	
	3774 Aug 28 07:04	30°☿		evening set	3775 Jul 27 15:18	18°☿46'10	
morning rise	3774 Sep 01 03:35	28°☿22'12		min. Earth dist.	3775 Aug 02 11:59	15°☿50'53	0.56516 AU
direct	3774 Sep 03 14:37	28°☿02'57		inferior conj	3775 Aug 05 01:41	14°☿14'35	-5°-3'-12
	3774 Sep 09 11:07	0°☿		minimum elong	3775 Aug 04 22:29	14°☿19'37	5°02'58
morning max el	3774 Sep 11 22:58	2°☿01'30	18°43'15	morning rise	3775 Aug 13 09:13	10°☿14'12	
asc. node	3774 Sep 15 01:00	5°☿27'20		direct	3775 Aug 16 01:58	9°☿54'57	
morning set	3774 Sep 28 06:18	28°☿04'11		morning max el	3775 Aug 25 18:55	14°☿25'55	19°41'06
	3774 Sep 29 06:03	0°☿		asc. node	3775 Sep 01 22:02	23°☿21'19	
					3775 Sep 05 20:55	0°☿	
superior conj	3774 Oct 06 22:41	14°☿51'46	1°32'27	morning set	3775 Sep 12 08:52	12°☿32'20	
minimum elong	3774 Oct 07 01:36	15°☿05'31	1°32'12				
max. Earth dist.	3774 Oct 14 02:44	27°☿57'08	1.39532 AU	superior conj	3775 Sep 20 07:34	28°☿32'50	1°42'28
	3774 Oct 15 06:46	0°☿		minimum elong	3775 Sep 20 08:47	28°☿38'49	1°42'25
evening rise	3774 Oct 18 04:13	4°☿58'10			3775 Sep 21 01:15	0°☿	
desc. node	3774 Oct 22 05:04	11°☿40'00		max. Earth dist.	3775 Sep 26 07:14	10°☿03'40	1.37465 AU
	3774 Nov 03 02:54	0°☿		evening rise	3775 Sep 30 02:32	17°☿00'00	
evening max el	3774 Nov 22 06:56	24°☿22'55	24°08'05		3775 Oct 07 17:14	0°☿	
	3774 Nov 29 16:11	0°☿		desc. node	3775 Oct 09 02:05	2°☿13'07	
retrograde	3774 Dec 03 09:25	0°☿54'05			3775 Oct 28 13:10	0°☿	
	3774 Dec 06 19:31	30°☿		evening max el	3775 Nov 04 19:09	8°☿04'07	25°23'13
evening set	3774 Dec 08 15:35	28°☿43'35		retrograde	3775 Nov 16 21:01	15°☿01'42	
asc. node	3774 Dec 12 00:13	25°☿05'55		evening set	3775 Nov 22 17:11	12°☿36'23	
min. Earth dist.	3774 Dec 13 10:24	23°☿13'33	0.67780 AU	min. Earth dist.	3775 Nov 27 04:08	7°☿41'05	0.67222 AU
inferior conj	3774 Dec 14 03:20	22°☿16'23	0°43'14	inferior conj	3775 Nov 28 07:56	6°☿11'18	0°-11'-24
minimum elong	3774 Dec 14 02:19	22°☿19'49	0°42'49	minimum elong	3775 Nov 28 08:13	6°☿10'22	0°11'18
morning rise	3774 Dec 19 13:21	16°☿10'32		transit middle	3775 Nov 28 08:13	6°☿10'22	0°11'18
direct	3774 Dec 23 09:57	14°☿45'53		transit begin	3775 Nov 28 06:13	6°☿16'50	
morning max el	3774 Dec 31 07:57	19°☿17'52	20°26'51	transit end	3775 Nov 28 10:13	6°☿03'54	

asc. node	3775 Nov 28 21:15	5°♂28'24		inferior conj	3776 Nov 11 08:09	20°♂03'19	-1°-10'-1
morning rise	3775 Dec 04 00:02	0°♂13'01		minimum elong	3776 Nov 11 10:03	19°♂57'32	1°09'14
	3775 Dec 04 08:33	30°♂♂		asc. node	3776 Nov 14 18:17	16°♂13'36	
direct	3775 Dec 07 08:29	29°♂08'13		morning rise	3776 Nov 17 08:12	14°♂15'17	
	3775 Dec 10 11:49	0°♂		direct	3776 Nov 20 06:39	13°♂26'36	
morning max el	3775 Dec 14 12:04	3°♂08'38	19°23'27	morning max el	3776 Nov 26 22:51	17°♂06'11	18°35'40
greatest brilliancy	3775 Dec 23 12:38	14°♂37'08	-0.7m		3776 Dec 06 15:32	0°♂	
	3776 Jan 02 18:07	0°♂		morning set	3776 Dec 17 11:02	17°♂00'38	
desc. node	3776 Jan 05 01:20	3°♂32'40		desc. node	3776 Dec 21 22:21	24°♂06'10	
morning set	3776 Jan 07 14:34	7°♂29'19			3776 Dec 25 15:59	0°♂	
max. Earth dist.	3776 Jan 20 20:09	28°♂09'26	1.44673 AU				
	3776 Jan 22 00:05	0°♂		superior conj	3777 Jan 02 13:24	12°♂24'03	-1°-13'-55
				minimum elong	3777 Jan 02 04:46	11°♂50'15	1°12'57
superior conj	3776 Jan 24 09:41	3°♂48'54	-1°-49'-25	max. Earth dist.	3777 Jan 02 13:51	12°♂25'51	1.45229 AU
minimum elong	3776 Jan 24 01:47	3°♂17'24	1°48'51		3777 Jan 13 17:44	0°♂	
evening rise	3776 Feb 07 16:22	27°♂07'12		evening rise	3777 Jan 18 09:17	7°♂22'55	
	3776 Feb 09 09:48	0°♂			3777 Feb 01 19:09	0°♂	
asc. node	3776 Feb 24 20:34	23°♂59'23		evening max el	3777 Feb 09 06:05	9°♂38'41	18°56'04
evening max el	3776 Feb 26 19:41	26°♂10'39	18°22'57	asc. node	3777 Feb 10 17:36	11°♂02'10	
retrograde	3776 Mar 04 07:05	29°♂41'20		retrograde	3777 Feb 16 01:27	13°♂28'30	
evening set	3776 Mar 07 06:29	28°♂52'57		evening set	3777 Feb 19 07:18	12°♂27'44	
inferior conj	3776 Mar 13 05:19	23°♂24'12	3°37'31	inferior conj	3777 Feb 24 23:23	6°♂41'49	3°29'16
minimum elong	3776 Mar 13 05:11	23°♂24'37	3°37'31	minimum elong	3777 Feb 24 21:55	6°♂46'25	3°29'06
min. Earth dist.	3776 Mar 15 12:36	20°♂45'31	0.64112 AU	min. Earth dist.	3777 Feb 26 15:07	4°♂37'39	0.65688 AU
morning rise	3776 Mar 19 02:12	17°♂14'22		morning rise	3777 Mar 02 11:29	0°♂27'50	
direct	3776 Mar 25 21:57	14°♂27'44			3777 Mar 03 00:42	30°♂♂	
desc. node	3776 Apr 02 00:33	16°♂54'24		direct	3777 Mar 08 23:39	27°♂38'30	
morning max el	3776 Apr 08 14:31	22°♂24'08	27°32'05		3777 Mar 15 16:31	0°♂	
	3776 Apr 15 07:06	0°♂		desc. node	3777 Mar 19 21:34	3°♂18'31	
	3776 May 05 02:15	0°♂		morning max el	3777 Mar 22 00:21	5°♂20'25	26°41'10
morning set	3776 May 13 14:27	15°♂52'00			3777 Apr 09 21:32	0°♂	
max. Earth dist.	3776 May 18 13:42	25°♂57'17	1.33231 AU	morning set	3777 Apr 26 21:53	29°♂08'45	
	3776 May 20 11:54	0°♂			3777 Apr 27 08:40	0°♂	
				max. Earth dist.	3777 May 01 04:27	7°♂27'28	1.34492 AU
superior conj	3776 May 21 14:41	2°♂22'22	0°-12'-41				
minimum elong	3776 May 21 15:19	2°♂25'46	0°12'33	superior conj	3777 May 05 14:36	16°♂26'58	0°-41'-33
behind sun begin	3776 May 21 11:57	2°♂07'50		minimum elong	3777 May 05 16:48	16°♂38'20	0°41'07
behind sun end	3776 May 21 18:41	2°♂43'44		asc. node	3777 May 09 16:53	25°♂00'50	
asc. node	3776 May 22 19:51	4°♂58'20			3777 May 12 01:53	0°♂	
evening rise	3776 May 28 19:05	17°♂45'08		evening rise	3777 May 13 04:33	2°♂19'00	
	3776 Jun 03 20:39	0°♂			3777 May 29 03:36	0°♂	
evening max el	3776 Jun 19 15:08	23°♂02'51	22°36'54	evening max el	3777 Jun 01 12:38	3°♂44'15	21°06'30
desc. node	3776 Jun 28 23:47	29°♂02'31		retrograde	3777 Jun 13 08:16	9°♂31'43	
retrograde	3776 Jul 02 19:10	29°♂35'49		evening set	3777 Jun 15 14:10	9°♂19'57	
evening set	3776 Jul 06 01:13	29°♂12'34		desc. node	3777 Jun 15 20:49	9°♂16'56	
min. Earth dist.	3776 Jul 13 22:54	25°♂44'37	0.55251 AU	inferior conj	3777 Jun 24 22:24	5°♂22'14	-2°-36'-54
inferior conj	3776 Jul 15 04:50	25°♂01'55	-4°-13'-43	minimum elong	3777 Jun 24 15:19	5°♂32'13	2°34'31
minimum elong	3776 Jul 14 20:48	25°♂13'23	4°11'55	min. Earth dist.	3777 Jun 25 10:19	5°♂05'28	0.54842 AU
morning rise	3776 Jul 23 18:52	21°♂11'24		morning rise	3777 Jul 03 16:16	1°♂23'28	
direct	3776 Jul 26 19:25	20°♂50'24		direct	3777 Jul 07 04:58	0°♂56'36	
morning max el	3776 Aug 07 03:10	26°♂06'14	21°00'00	morning max el	3777 Jul 20 00:28	7°♂02'56	22°35'54
	3776 Aug 10 18:41	0°♂			3777 Aug 05 01:57	0°♂	
asc. node	3776 Aug 18 19:04	11°♂58'06		asc. node	3777 Aug 05 16:07	1°♂07'07	
morning set	3776 Aug 26 16:28	27°♂14'59		morning set	3777 Aug 11 03:02	12°♂06'18	
	3776 Aug 28 00:18	0°♂					
				superior conj	3777 Aug 18 06:50	27°♂21'42	1°39'09
superior conj	3776 Sep 03 03:26	12°♂46'16	1°44'13	minimum elong	3777 Aug 18 05:20	27°♂13'42	1°39'04
minimum elong	3776 Sep 03 03:05	12°♂44'27	1°44'13		3777 Aug 19 12:46	0°♂	
max. Earth dist.	3776 Sep 07 16:01	21°♂54'16	1.35607 AU	max. Earth dist.	3777 Aug 21 09:32	3°♂54'03	1.34103 AU
evening rise	3776 Sep 11 20:10	29°♂56'14		evening rise	3777 Aug 26 04:39	13°♂34'59	
	3776 Sep 11 20:58	0°♂			3777 Sep 04 02:52	0°♂	
desc. node	3776 Sep 24 23:06	22°♂32'06		desc. node	3777 Sep 11 20:08	12°♂30'23	
	3776 Sep 29 20:52	0°♂			3777 Sep 24 20:08	0°♂	
evening max el	3776 Oct 17 07:32	21°♂44'52	26°26'16	evening max el	3777 Sep 29 20:09	5°♂17'12	27°09'44
retrograde	3776 Oct 30 03:37	28°♂57'36		retrograde	3777 Oct 13 04:30	12°♂34'50	
evening set	3776 Nov 05 13:13	26°♂21'23		evening set	3777 Oct 20 01:27	9°♂54'08	
min. Earth dist.	3776 Nov 09 17:01	22°♂01'55	0.66317 AU	min. Earth dist.	3777 Oct 23 22:43	6°♂10'43	0.65064 AU

inferior conj	3777 Oct 26 01:51	3°♄48'17	-2°-10'-54	inferior conj	3778 Oct 09 10:20	17°♄18'59	-3°-11'-26
minimum elong	3777 Oct 26 05:31	3°♄38'02	2°09'29	minimum elong	3778 Oct 09 15:34	17°♄05'50	3°09'42
	3777 Oct 29 19:33	30°♄		morning rise	3778 Oct 16 06:41	12°♄01'12	
morning rise	3777 Nov 01 11:27	28°♄13'34		direct	3778 Oct 18 16:28	11°♄33'14	
asc. node	3777 Nov 01 15:19	28°♄09'15		asc. node	3778 Oct 19 12:23	11°♄36'37	
direct	3777 Nov 04 02:15	27°♄37'04		morning max el	3778 Oct 25 06:35	14°♄58'32	17°50'58
	3777 Nov 09 09:50	0°♄			3778 Nov 04 18:17	0°♄	
morning max el	3777 Nov 10 13:59	1°♄05'18	18°04'38	morning set	3778 Nov 10 17:08	10°♄16'23	
morning set	3777 Nov 28 13:14	28°♄01'27			3778 Nov 22 06:56	0°♄	
	3777 Nov 29 17:53	0°♄					
desc. node	3777 Dec 08 19:24	14°♄48'11		superior conj	3778 Nov 22 23:11	1°♄07'10	0°18'46
				minimum elong	3778 Nov 23 01:08	1°♄15'13	0°18'29
superior conj	3777 Dec 12 19:56	21°♄14'14	0°-27'-17	desc. node	3778 Nov 25 16:26	5°♄34'29	
minimum elong	3777 Dec 12 16:31	21°♄00'41	0°26'49	max. Earth dist.	3778 Nov 29 03:18	11°♄08'39	1.44143 AU
max. Earth dist.	3777 Dec 16 09:22	26°♄52'16	1.45045 AU	evening rise	3778 Dec 08 15:03	26°♄01'37	
	3777 Dec 18 09:09	0°♄			3778 Dec 11 05:14	0°♄	
evening rise	3777 Dec 29 05:25	16°♄52'16			3778 Dec 31 21:07	0°♄	
	3778 Jan 06 18:12	0°♄		greatest brilliancy	3779 Jan 01 00:19	0°♄10'24	-0.5m
greatest brilliancy	3778 Jan 16 01:46	13°♄49'42	-0.6m	evening max el	3779 Jan 06 13:27	6°♄42'28	20°48'54
evening max el	3778 Jan 23 12:27	23°♄10'08	19°45'28	retrograde	3779 Jan 14 20:56	11°♄37'15	
asc. node	3778 Jan 28 14:37	26°♄59'04		asc. node	3779 Jan 15 11:39	11°♄35'11	
retrograde	3778 Jan 30 22:51	27°♄28'41		evening set	3779 Jan 18 19:43	10°♄08'09	
evening set	3778 Feb 03 12:23	26°♄14'21		inferior conj	3779 Jan 24 05:33	3°♄55'01	2°37'27
inferior conj	3778 Feb 09 00:19	20°♄13'26	3°08'21	minimum elong	3779 Jan 24 03:03	4°♄03'37	2°36'45
minimum elong	3778 Feb 08 22:04	20°♄20'54	3°07'54	min. Earth dist.	3779 Jan 24 17:30	3°♄13'59	0.67600 AU
min. Earth dist.	3778 Feb 10 01:24	18°♄50'14	0.66854 AU		3779 Jan 27 04:51	30°♄	
morning rise	3778 Feb 14 07:04	13°♄57'54		morning rise	3779 Jan 29 09:57	27°♄39'44	
direct	3778 Feb 20 07:09	11°♄18'05		direct	3779 Feb 03 19:37	25°♄17'41	
morning max el	3778 Mar 04 09:26	18°♄30'54	25°27'33		3779 Feb 12 20:38	0°♄	
desc. node	3778 Mar 06 18:37	21°♄02'42		morning max el	3779 Feb 14 18:00	1°♄48'47	24°01'22
	3778 Mar 14 02:13	0°♄		desc. node	3779 Feb 21 15:40	9°♄43'48	
	3778 Apr 02 22:43	0°♄			3779 Mar 08 03:15	0°♄	
morning set	3778 Apr 09 13:51	11°♄36'02		morning set	3779 Mar 22 08:40	22°♄58'53	
max. Earth dist.	3778 Apr 13 07:54	18°♄32'26	1.36206 AU	max. Earth dist.	3779 Mar 26 04:11	29°♄40'02	1.38261 AU
					3779 Mar 26 08:39	0°♄	
superior conj	3778 Apr 19 05:50	0°♄01'23	-1°-10'-14	superior conj	3779 Apr 02 08:54	12°♄56'37	-1°-36'-29
minimum elong	3778 Apr 19 09:32	0°♄19'52	1°09'38	minimum elong	3779 Apr 02 13:33	13°♄18'46	1°35'56
	3778 Apr 19 05:33	0°♄		evening rise	3779 Apr 11 08:25	0°♄26'55	
asc. node	3778 Apr 26 13:56	14°♄54'06			3779 Apr 11 02:56	0°♄	
evening rise	3778 Apr 27 09:50	16°♄35'13		asc. node	3779 Apr 13 10:59	4°♄33'41	
	3778 May 04 07:58	0°♄		evening max el	3779 Apr 27 18:47	27°♄01'27	18°57'02
evening max el	3778 May 14 21:59	15°♄02'31	19°51'57		3779 May 01 17:55	0°♄	
retrograde	3778 May 25 00:09	19°♄57'01		retrograde	3779 May 06 06:51	1°♄10'35	
evening set	3778 May 26 23:14	19°♄46'42		evening set	3779 May 08 09:07	0°♄56'28	
desc. node	3778 Jun 02 17:51	17°♄01'45			3779 May 11 02:12	30°♄	
inferior conj	3778 Jun 04 20:45	15°♄45'37	0°-37'-37	inferior conj	3779 May 16 12:03	26°♄40'00	1°10'16
minimum elong	3778 Jun 04 19:01	15°♄48'16	0°37'00	minimum elong	3779 May 16 14:40	26°♄35'22	1°09'23
min. Earth dist.	3778 Jun 06 23:14	14°♄28'37	0.55397 AU	min. Earth dist.	3779 May 19 15:01	24°♄28'19	0.56800 AU
morning rise	3778 Jun 13 11:52	11°♄20'15		desc. node	3779 May 20 14:52	23°♄48'57	
direct	3778 Jun 17 19:19	10°♄39'25		morning rise	3779 May 24 15:49	21°♄38'54	
morning max el	3778 Jul 01 15:13	17°♄30'46	24°19'10	direct	3779 May 29 22:26	20°♄32'36	
	3778 Jul 11 20:09	0°♄		morning max el	3779 Jun 13 05:57	27°♄57'14	25°54'58
asc. node	3778 Jul 23 13:10	20°♄39'54			3779 Jun 15 06:18	0°♄	
morning set	3778 Jul 26 14:48	27°♄00'51			3779 Jul 05 04:50	0°♄	
	3778 Jul 28 00:28	0°♄		asc. node	3779 Jul 10 10:14	10°♄29'39	
superior conj	3778 Aug 02 15:05	12°♄10'31	1°28'23	morning set	3779 Jul 11 02:11	11°♄53'34	
minimum elong	3778 Aug 02 12:55	11°♄58'44	1°28'08				
max. Earth dist.	3778 Aug 04 11:56	16°♄12'59	1.33006 AU	superior conj	3779 Jul 18 02:05	27°♄06'04	1°12'46
evening rise	3778 Aug 10 00:00	27°♄44'39		minimum elong	3779 Jul 17 23:44	26°♄53'11	1°12'23
	3778 Aug 11 02:54	0°♄		max. Earth dist.	3779 Jul 18 20:42	28°♄48'23	1.32319 AU
	3778 Aug 28 08:43	0°♄			3779 Jul 19 09:46	0°♄	
desc. node	3778 Aug 29 17:10	1°♄58'38		evening rise	3779 Jul 25 03:01	12°♄15'52	
evening max el	3778 Sep 12 07:15	18°♄27'32	27°26'37		3779 Aug 03 06:40	0°♄	
retrograde	3778 Sep 25 23:00	25°♄43'59		desc. node	3779 Aug 16 14:11	20°♄44'32	
evening set	3778 Oct 03 02:55	23°♄08'05			3779 Aug 24 12:28	0°♄	
min. Earth dist.	3778 Oct 06 19:00	19°♄58'01	0.63472 AU	evening max el	3779 Aug 25 14:19	1°♄02'48	27°11'49

retrograde	3779 Sep 08 10:36	8°♄16'16		evening max el	3780 Aug 06 14:53	12°♄52'00	26°23'51
evening set	3779 Sep 15 13:49	5°♄57'10		retrograde	3780 Aug 20 14:11	20°♄02'17	
min. Earth dist.	3779 Sep 19 04:38	3°♄12'20	0.61588 AU	evening set	3780 Aug 27 05:22	18°♄13'05	
inferior conj	3779 Sep 22 06:32	0°♄28'07	-4°-7'-8	min. Earth dist.	3780 Aug 31 04:11	15°♄38'29	0.59524 AU
minimum elong	3779 Sep 22 12:25	0°♄14'59	4°05'40	inferior conj	3780 Sep 03 10:52	13°♄05'53	-4°-50'-30
	3779 Sep 22 19:11	30°♄		minimum elong	3780 Sep 03 15:25	12°♄57'00	4°49'52
morning rise	3779 Sep 29 14:04	25°♄30'42		morning rise	3780 Sep 11 04:57	8°♄31'16	
direct	3779 Oct 01 21:41	25°♄08'10		direct	3780 Sep 13 13:36	8°♄11'34	
asc. node	3779 Oct 06 09:26	26°♄36'01		morning max el	3780 Sep 21 07:45	11°♄57'14	18°19'52
morning max el	3779 Oct 08 21:37	28°♄38'56	17°55'36	asc. node	3780 Sep 22 06:28	12°♄54'54	
	3779 Oct 10 04:21	0°♄			3780 Oct 03 08:58	0°♄	
morning set	3779 Oct 24 16:20	23°♄26'08		morning set	3780 Oct 07 05:18	7°♄14'56	
	3779 Oct 28 06:52	0°♄					
superior conj	3779 Nov 04 05:16	12°♄18'52	0°56'08	superior conj	3780 Oct 16 11:18	24°♄40'30	1°22'18
minimum elong	3779 Nov 04 09:24	12°♄36'47	0°55'35	minimum elong	3780 Oct 16 15:02	24°♄57'35	1°21'55
max. Earth dist.	3779 Nov 11 16:38	24°♄56'27	1.42639 AU		3780 Oct 19 09:57	0°♄	
desc. node	3779 Nov 12 13:28	26°♄21'50		max. Earth dist.	3780 Oct 24 00:24	8°♄03'03	1.40722 AU
	3779 Nov 14 19:16	0°♄		evening rise	3780 Oct 28 16:12	15°♄51'56	
evening rise	3779 Nov 18 06:13	5°♄30'18		desc. node	3780 Oct 29 10:30	17°♄06'52	
	3779 Dec 04 13:17	0°♄			3780 Nov 06 14:22	0°♄	
greatest brilliancy	3779 Dec 15 15:22	14°♄54'58	-0.3m	evening max el	3780 Dec 02 00:03	3°♄51'56	23°22'23
evening max el	3779 Dec 20 08:54	20°♄15'42	22°02'51	retrograde	3780 Dec 12 11:56	10°♄04'39	
retrograde	3779 Dec 29 17:49	25°♄50'21		evening set	3780 Dec 17 10:10	8°♄03'37	
asc. node	3780 Jan 02 08:42	24°♄40'01		asc. node	3780 Dec 19 05:43	6°♄16'58	
evening set	3780 Jan 03 03:31	24°♄05'33		inferior conj	3780 Dec 22 20:42	1°♄37'04	1°12'26
inferior conj	3780 Jan 08 12:58	17°♄43'41	1°58'23	minimum elong	3780 Dec 22 19:06	1°♄42'32	1°11'48
minimum elong	3780 Jan 08 10:41	17°♄51'34	1°57'36	min. Earth dist.	3780 Dec 22 09:58	2°♄13'53	0.67938 AU
min. Earth dist.	3780 Jan 08 13:08	17°♄43'03	0.67951 AU		3780 Dec 24 01:15	30°♄	
morning rise	3780 Jan 13 17:41	11°♄30'19		morning rise	3780 Dec 28 04:07	25°♄27'37	
direct	3780 Jan 18 12:20	9°♄30'13		direct	3781 Jan 01 08:24	23°♄50'18	
morning max el	3780 Jan 28 04:29	15°♄12'53	22°32'32	morning max el	3781 Jan 09 20:17	28°♄46'04	21°09'31
greatest brilliancy	3780 Feb 01 18:07	20°♄18'38	-0.3m		3781 Jan 11 00:41	0°♄	
desc. node	3780 Feb 08 12:42	29°♄05'33		greatest brilliancy	3781 Jan 15 03:31	4°♄50'45	-0.4m
	3780 Feb 09 04:33	0°♄		desc. node	3781 Jan 25 09:43	18°♄56'39	
	3780 Feb 29 03:29	0°♄			3781 Feb 01 20:23	0°♄	
morning set	3780 Mar 02 00:23	3°♄02'28		morning set	3781 Feb 09 11:54	11°♄47'40	
max. Earth dist.	3780 Mar 07 00:18	11°♄22'14	1.40439 AU	max. Earth dist.	3781 Feb 17 02:13	23°♄58'01	1.42454 AU
					3781 Feb 20 17:45	0°♄	
superior conj	3780 Mar 14 19:18	25°♄01'25	-1°-56'-56	superior conj	3781 Feb 24 07:59	6°♄04'34	-2°-7'-4
minimum elong	3780 Mar 14 23:24	25°♄19'59	1°56'41	minimum elong	3781 Feb 24 08:55	6°♄08'31	2°07'04
	3780 Mar 17 12:47	0°♄		evening rise	3781 Mar 07 19:50	26°♄21'53	
evening rise	3780 Mar 24 21:03	13°♄45'22			3781 Mar 09 20:15	0°♄	
asc. node	3780 Mar 30 08:01	23°♄53'42		asc. node	3781 Mar 17 05:03	12°♄47'49	
	3780 Apr 02 20:51	0°♄		evening max el	3781 Mar 24 10:56	22°♄33'51	18°07'33
evening max el	3780 Apr 10 00:13	9°♄34'44	18°22'21	retrograde	3781 Mar 31 02:49	25°♄57'49	
retrograde	3780 Apr 17 08:23	13°♄13'12		evening set	3781 Apr 02 17:19	25°♄26'49	
evening set	3780 Apr 19 16:46	12°♄51'48		inferior conj	3781 Apr 09 09:27	20°♄29'10	3°14'35
inferior conj	3780 Apr 27 00:46	8°♄15'14	2°28'14	minimum elong	3781 Apr 09 12:03	20°♄22'55	3°14'10
minimum elong	3780 Apr 27 04:28	8°♄07'34	2°27'16	min. Earth dist.	3781 Apr 12 14:31	17°♄25'51	0.60962 AU
min. Earth dist.	3780 Apr 30 11:25	5°♄25'25	0.58773 AU	morning rise	3781 Apr 16 03:36	14°♄36'06	
morning rise	3780 May 04 11:56	2°♄42'58		direct	3781 Apr 22 21:04	12°♄21'24	
desc. node	3780 May 06 11:54	1°♄48'25		desc. node	3781 Apr 23 08:55	12°♄22'06	
direct	3780 May 10 15:52	1°♄02'07		morning max el	3781 May 07 02:55	20°♄17'13	27°46'17
morning max el	3780 May 25 01:20	8°♄47'36	27°07'37		3781 May 15 11:01	0°♄	
	3780 Jun 10 04:13	0°♄			3781 Jun 03 01:48	0°♄	
morning set	3780 Jun 24 11:26	26°♄37'42		morning set	3781 Jun 08 16:44	11°♄07'38	
asc. node	3780 Jun 26 07:17	0°♄		asc. node	3781 Jun 13 04:19	20°♄36'18	
	3780 Jun 26 01:41	0°♄		max. Earth dist.	3781 Jun 14 18:49	24°♄05'26	1.32170 AU
superior conj	3780 Jul 01 13:53	12°♄00'54	0°52'58	superior conj	3781 Jun 16 00:49	26°♄49'35	0°29'37
minimum elong	3780 Jul 01 11:51	11°♄49'38	0°52'34	minimum elong	3781 Jun 15 23:31	26°♄42'27	0°29'20
max. Earth dist.	3780 Jul 01 08:13	11°♄29'35	1.32039 AU		3781 Jun 17 11:30	0°♄	
evening rise	3780 Jul 08 11:02	26°♄59'22		evening rise	3781 Jun 22 21:55	11°♄48'36	
	3780 Jul 09 21:33	0°♄			3781 Jul 02 03:20	0°♄	
	3780 Jul 26 21:46	0°♄		evening max el	3781 Jul 19 08:15	23°♄54'15	25°06'55
desc. node	3780 Aug 02 11:12	8°♄29'44					

desc. node	3781 Jul 20 08:13	24°♎49'52		asc. node	3782 May 31 01:22	10°♊44'33	
	3781 Jul 28 06:32	0°♎		evening rise	3782 Jun 07 09:46	26°♊37'12	
retrograde	3781 Aug 02 07:25	0°♎58'42			3782 Jun 09 00:23	0°♊	
	3781 Aug 07 08:40	30°♎			3782 Jun 26 20:30	0°♎	
evening set	3781 Aug 07 21:11	29°♎47'36		evening max el	3782 Jun 30 21:27	4°♎24'19	23°32'42
min. Earth dist.	3781 Aug 12 19:58	27°♎04'37	0.57519 AU	desc. node	3782 Jul 07 05:12	9°♎13'09	
inferior conj	3781 Aug 15 20:07	25°♎03'08	-5°-9'-28	retrograde	3782 Jul 14 12:07	11°♎13'31	
minimum elong	3781 Aug 15 20:24	25°♎02'40	5°09'30	evening set	3782 Jul 18 14:38	10°♎36'38	
morning rise	3781 Aug 23 23:10	20°♎51'08		min. Earth dist.	3782 Jul 25 07:22	7°♎29'08	0.55889 AU
direct	3781 Aug 26 12:14	20°♎32'07		inferior conj	3782 Jul 27 09:18	6°♎14'49	-4°-48'-33
morning max el	3781 Sep 04 09:38	24°♎43'28	19°05'12	minimum elong	3782 Jul 27 03:36	6°♎23'21	4°47'45
	3781 Sep 08 22:16	0°♎		morning rise	3782 Aug 04 19:44	2°♎20'18	
asc. node	3781 Sep 09 03:31	0°♎18'09		direct	3782 Aug 07 15:47	2°♎00'23	
morning set	3781 Sep 21 03:50	21°♎31'09		morning max el	3782 Aug 18 00:37	6°♎49'09	20°12'15
	3781 Sep 25 10:25	0°♎		asc. node	3782 Aug 27 00:34	18°♎31'49	
					3782 Sep 02 07:43	0°♎	
superior conj	3781 Sep 29 11:51	7°♎56'20	1°37'48	morning set	3782 Sep 05 08:52	6°♎06'38	
minimum elong	3781 Sep 29 14:03	8°♎06'58	1°37'40				
max. Earth dist.	3781 Oct 06 04:54	20°♎28'15	1.38639 AU	superior conj	3782 Sep 13 01:54	21°♎52'35	1°44'08
evening rise	3781 Oct 10 01:39	27°♎18'08		minimum elong	3782 Sep 13 02:25	21°♎55'09	1°44'07
	3781 Oct 11 15:22	0°♎			3782 Sep 17 04:28	0°♎	
desc. node	3781 Oct 16 07:30	7°♎45'33		max. Earth dist.	3782 Sep 18 11:01	2°♎26'58	1.36639 AU
	3781 Oct 31 03:01	0°♎		evening rise	3782 Sep 22 08:47	9°♎44'43	
evening max el	3781 Nov 14 12:58	17°♎32'15	24°41'11	desc. node	3782 Oct 03 04:32	28°♎13'37	
retrograde	3781 Nov 26 02:03	24°♎15'46			3782 Oct 04 07:24	0°♎	
evening set	3781 Dec 01 14:03	21°♎59'00			3782 Oct 26 19:24	0°♎	
min. Earth dist.	3781 Dec 06 05:31	16°♎43'22	0.67582 AU	evening max el	3782 Oct 28 01:23	1°♎14'55	25°52'00
asc. node	3781 Dec 06 02:44	16°♎52'33		retrograde	3782 Nov 09 11:26	8°♎19'26	
inferior conj	3781 Dec 07 02:57	15°♎32'11	0°20'39	evening set	3782 Nov 15 13:32	5°♎48'58	
minimum elong	3781 Dec 07 02:27	15°♎33'52	0°20'26	min. Earth dist.	3782 Nov 19 21:27	1°♎08'53	0.66884 AU
morning rise	3781 Dec 12 15:17	9°♎29'00			3782 Nov 20 19:22	30°♎	
direct	3781 Dec 16 06:33	8°♎13'01		inferior conj	3782 Nov 21 05:57	29°♎26'33	0°-35'-49
morning max el	3781 Dec 23 19:45	12°♎30'10	19°58'00	minimum elong	3782 Nov 21 06:54	29°♎23'35	0°35'27
greatest brilliancy	3781 Dec 31 00:11	21°♎13'27	-0.6m	asc. node	3782 Nov 22 23:45	27°♎18'04	
	3782 Jan 06 03:59	0°♎		morning rise	3782 Nov 27 01:12	23°♎32'17	
desc. node	3782 Jan 12 06:43	9°♎08'33		direct	3782 Nov 30 05:15	22°♎34'38	
morning set	3782 Jan 19 07:59	19°♎55'47		morning max el	3782 Dec 07 02:56	26°♎24'31	19°01'10
	3782 Jan 25 19:16	0°♎			3782 Dec 10 07:03	0°♎	
max. Earth dist.	3782 Jan 30 12:07	7°♎26'26	1.44044 AU	morning set	3782 Dec 29 14:00	28°♎42'06	
				desc. node	3782 Dec 30 03:46	29°♎35'49	
superior conj	3782 Feb 04 18:58	15°♎57'32	-2°-1'-26		3782 Dec 30 09:58	0°♎	
minimum elong	3782 Feb 04 14:07	15°♎37'49	2°01'14	max. Earth dist.	3783 Jan 13 04:24	21°♎32'50	1.45009 AU
	3782 Feb 13 05:59	0°♎					
evening rise	3782 Feb 18 00:19	8°♎07'01		superior conj	3783 Jan 15 06:32	24°♎50'21	-1°-36'-24
	3782 Mar 03 07:01	0°♎		minimum elong	3783 Jan 14 21:25	24°♎14'26	1°35'34
asc. node	3782 Mar 04 02:04	1°♎07'07			3783 Jan 18 12:45	0°♎	
evening max el	3782 Mar 07 23:39	5°♎49'13	18°11'59	evening rise	3783 Jan 30 06:48	18°♎55'57	
retrograde	3782 Mar 14 09:53	9°♎13'27			3783 Feb 06 01:29	0°♎	
evening set	3782 Mar 17 06:06	8°♎31'31		asc. node	3783 Feb 18 23:05	18°♎41'28	
inferior conj	3782 Mar 23 10:12	3°♎13'34	3°35'00	evening max el	3783 Feb 19 11:35	19°♎14'02	18°34'52
minimum elong	3782 Mar 23 11:01	3°♎11'20	3°34'57	retrograde	3783 Feb 26 01:18	22°♎51'24	
min. Earth dist.	3782 Mar 26 02:14	0°♎20'46	0.63050 AU	evening set	3783 Mar 01 03:25	21°♎57'43	
	3782 Mar 26 10:16	30°♎		inferior conj	3783 Mar 06 23:00	16°♎21'07	3°35'45
morning rise	3782 Mar 29 13:51	27°♎08'18		minimum elong	3783 Mar 06 22:14	16°♎23'25	3°35'43
direct	3782 Apr 05 11:14	24°♎29'38		min. Earth dist.	3783 Mar 08 23:30	13°♎56'18	0.64837 AU
desc. node	3782 Apr 10 05:55	25°♎36'04		morning rise	3783 Mar 12 15:43	10°♎09'12	
	3782 Apr 16 18:48	0°♎		direct	3783 Mar 19 08:53	7°♎20'08	
morning max el	3782 Apr 19 09:43	2°♎27'34	27°47'29	desc. node	3783 Mar 28 02:57	11°♎00'55	
	3782 May 09 19:14	0°♎		morning max el	3783 Apr 01 19:24	15°♎11'14	27°13'47
morning set	3782 May 23 15:55	25°♎16'28			3783 Apr 13 22:26	0°♎	
	3782 May 25 23:34	0°♎			3783 May 02 12:33	0°♎	
max. Earth dist.	3782 May 29 00:48	6°♎24'11	1.32721 AU	morning set	3783 May 07 06:10	8°♎55'24	
				max. Earth dist.	3783 May 11 22:15	18°♎14'39	1.33716 AU
superior conj	3782 May 31 09:06	11°♎26'19	0°03'24				
minimum elong	3782 May 31 08:56	11°♎25'26	0°03'22	superior conj	3783 May 15 12:45	25°♎44'33	0°-24'-50
behind sun begin	3782 May 31 03:47	10°♎57'37		minimum elong	3783 May 15 14:02	25°♎51'19	0°24'35
behind sun end	3782 May 31 14:06	11°♎53'17		asc. node	3783 May 17 22:24	0°♎50'16	

	3783 May 17 12:58	0°♂		asc. node	3784 May 03 19:27	20°♂49'34	
evening rise	3783 May 22 20:43	11°♂18'29		evening rise	3784 May 06 04:46	25°♂46'10	
	3783 Jun 01 13:09	0°♂			3784 May 08 06:35	0°♂	
evening max el	3783 Jun 12 13:36	14°♂51'45	21°56'52	evening max el	3784 May 24 15:51	25°♂47'19	20°32'28
desc. node	3783 Jun 24 02:14	21°♂04'37			3784 May 30 11:48	0°♂	
retrograde	3783 Jun 25 05:26	21°♂07'36		retrograde	3784 Jun 04 18:34	1°♂12'51	
evening set	3783 Jun 27 23:17	20°♂50'46		evening set	3784 Jun 06 19:29	1°♂02'39	
min. Earth dist.	3783 Jul 06 17:57	17°♂05'05	0.54960 AU	desc. node	3784 Jun 09 23:14	0°♂10'04	
inferior conj	3783 Jul 07 06:49	16°♂47'03	-3°-37'-27		3784 Jun 10 09:28	30°♂♂	
minimum elong	3783 Jul 06 22:22	16°♂58'53	3°35'07	inferior conj	3784 Jun 16 00:41	27°♂05'10	-1°-46'-56
morning rise	3783 Jul 15 23:04	12°♂56'00		minimum elong	3784 Jun 15 19:40	27°♂12'26	1°45'08
direct	3783 Jul 19 04:09	12°♂33'14		min. Earth dist.	3784 Jun 17 06:05	26°♂22'40	0.54958 AU
morning max el	3783 Jul 31 03:52	18°♂09'45	21°39'17	morning rise	3784 Jun 24 18:24	22°♂56'47	
	3783 Aug 09 13:35	0°♂		direct	3784 Jun 28 13:52	22°♂25'29	
asc. node	3783 Aug 13 21:37	7°♂23'19		morning max el	3784 Jul 11 21:55	28°♂52'28	23°19'45
morning set	3783 Aug 20 17:59	20°♂53'41			3784 Jul 13 01:41	0°♂	
	3783 Aug 25 01:49	0°♂		asc. node	3784 Jul 30 18:42	26°♂43'20	
					3784 Aug 01 10:10	0°♂	
superior conj	3783 Aug 28 01:22	6°♂16'26	1°42'51	morning set	3784 Aug 04 05:16	5°♂46'52	
minimum elong	3783 Aug 28 00:28	6°♂11'44	1°42'49				
max. Earth dist.	3783 Aug 31 23:25	14°♂19'49	1.34916 AU	superior conj	3784 Aug 11 07:09	20°♂58'34	1°35'14
evening rise	3783 Sep 05 09:14	22°♂59'59		minimum elong	3784 Aug 11 05:18	20°♂48'39	1°35'04
	3783 Sep 09 03:17	0°♂		max. Earth dist.	3784 Aug 13 20:38	26°♂25'52	1.33582 AU
desc. node	3783 Sep 20 01:35	18°♂24'37			3784 Aug 15 13:34	0°♂	
	3783 Sep 27 23:58	0°♂		evening rise	3784 Aug 18 22:47	6°♂52'49	
evening max el	3783 Oct 10 13:51	14°♂52'32	26°47'31		3784 Aug 31 16:57	0°♂	
retrograde	3783 Oct 23 15:34	22°♂08'19		desc. node	3784 Sep 05 22:36	8°♂11'01	
evening set	3783 Oct 30 06:33	19°♂28'56		evening max el	3784 Sep 22 01:49	28°♂15'50	27°20'27
min. Earth dist.	3783 Nov 03 07:25	15°♂25'14	0.65830 AU		3784 Sep 23 23:46	0°♂	
inferior conj	3783 Nov 05 03:40	13°♂15'37	-1°-35'-41	retrograde	3784 Oct 05 14:01	5°♂34'20	
minimum elong	3783 Nov 05 06:19	13°♂07'51	1°34'37	evening set	3784 Oct 12 14:37	2°♂54'03	
asc. node	3783 Nov 09 20:48	8°♂28'12			3784 Oct 15 19:53	30°♂♂	
morning rise	3783 Nov 11 07:37	7°♂33'09		min. Earth dist.	3784 Oct 16 09:16	29°♂25'34	0.64423 AU
direct	3783 Nov 14 02:33	6°♂50'09		inferior conj	3784 Oct 18 17:45	26°♂54'36	-2°-36'-54
morning max el	3783 Nov 20 15:58	10°♂23'32	18°20'28	minimum elong	3784 Oct 18 22:08	26°♂42'51	2°35'17
	3783 Dec 04 11:20	0°♂		morning rise	3784 Oct 25 07:51	21°♂26'55	
morning set	3783 Dec 09 23:06	8°♂51'49		asc. node	3784 Oct 26 17:52	21°♂00'47	
desc. node	3783 Dec 17 00:50	20°♂13'27		direct	3784 Oct 27 20:04	20°♂54'36	
	3783 Dec 23 04:50	0°♂		morning max el	3784 Nov 03 08:07	24°♂20'46	17°56'39
					3784 Nov 07 22:36	0°♂	
superior conj	3783 Dec 25 08:47	3°♂24'29	0°-54'-48	morning set	3784 Nov 20 12:53	20°♂25'31	
minimum elong	3783 Dec 25 01:56	2°♂57'35	0°53'57		3784 Nov 26 05:40	0°♂	
max. Earth dist.	3783 Dec 26 23:27	5°♂56'18	1.45240 AU	desc. node	3784 Dec 02 21:52	10°♂57'22	
evening rise	3784 Jan 10 14:16	28°♂50'16					
	3784 Jan 11 08:03	0°♂		superior conj	3784 Dec 03 22:32	12°♂36'54	0°-7'-4
greatest brilliancy	3784 Jan 24 12:13	20°♂25'43	-0.7m	minimum elong	3784 Dec 03 21:41	12°♂33'32	0°06'57
	3784 Jan 31 10:22	0°♂		behind sun begin	3784 Dec 03 12:19	11°♂55'46	
evening max el	3784 Feb 02 20:25	2°♂43'43	19°15'08	behind sun end	3784 Dec 04 07:03	13°♂11'16	
asc. node	3784 Feb 05 20:06	5°♂18'14		max. Earth dist.	3784 Dec 08 18:05	20°♂18'13	1.44734 AU
retrograde	3784 Feb 09 21:27	6°♂45'05			3784 Dec 14 22:28	0°♂	
evening set	3784 Feb 13 06:22	5°♂38'42		evening rise	3784 Dec 20 04:03	8°♂05'40	
inferior conj	3784 Feb 18 20:22	29°♂45'49	3°21'45		3785 Jan 03 15:42	0°♂	
minimum elong	3784 Feb 18 18:30	29°♂51'50	3°21'29	greatest brilliancy	3785 Jan 09 12:30	8°♂20'00	-0.6m
	3784 Feb 18 15:58	30°♂♂		evening max el	3785 Jan 16 00:31	16°♂15'12	20°10'58
min. Earth dist.	3784 Feb 20 05:39	27°♂58'44	0.66231 AU	asc. node	3785 Jan 22 17:08	20°♂42'20	
morning rise	3784 Feb 24 05:47	23°♂30'42		retrograde	3785 Jan 23 19:28	20°♂48'54	
direct	3784 Mar 01 13:03	20°♂44'20		evening set	3785 Jan 27 12:37	19°♂28'39	
morning max el	3784 Mar 14 05:20	28°♂16'08	26°12'07	inferior conj	3785 Feb 01 23:25	13°♂22'10	2°56'21
desc. node	3784 Mar 14 00:01	28°♂02'45		minimum elong	3785 Feb 01 21:00	13°♂30'20	2°55'48
	3784 Mar 15 21:05	0°♂		min. Earth dist.	3785 Feb 02 18:48	12°♂16'42	0.67213 AU
	3784 Apr 06 16:25	0°♂		morning rise	3785 Feb 07 04:48	7°♂06'16	
morning set	3784 Apr 19 07:45	21°♂53'36		direct	3785 Feb 12 22:54	4°♂33'03	
max. Earth dist.	3784 Apr 23 08:22	29°♂33'47	1.35169 AU	morning max el	3785 Feb 24 14:03	11°♂30'19	24°51'50
	3784 Apr 23 13:45	0°♂		desc. node	3785 Feb 28 21:04	16°♂13'25	
					3785 Mar 11 09:14	0°♂	
superior conj	3784 Apr 28 09:24	9°♂37'35	0°-53'-51		3785 Mar 30 09:44	0°♂	
minimum elong	3784 Apr 28 12:15	9°♂52'12	0°53'19	morning set	3785 Apr 01 15:30	3°♂55'52	

max. Earth dist.	3785 Apr 05 07:40	10°♈34'16	1.37045 AU	greatest brilliancy	3786 Feb 12 12:19	1°≈06'35	-0.2m
				desc. node	3786 Feb 15 18:06	5°≈13'30	
superior conj	3785 Apr 11 19:55	22°♈56'32	-1°-21'-50		3786 Mar 04 20:53	0°♈	
minimum elong	3785 Apr 12 00:09	23°♈17'10	1°21'14	morning set	3786 Mar 13 23:23	14°♈46'12	
	3785 Apr 15 09:30	0°♈		max. Earth dist.	3786 Mar 18 02:34	21°♈51'26	1.39192 AU
evening rise	3785 Apr 20 07:31	9°♈52'38			3786 Mar 22 16:18	0°♈	
asc. node	3785 Apr 20 16:29	10°♈37'24					
	3785 May 01 08:40	0°♈		superior conj	3786 Mar 25 16:31	5°♈32'02	-1°-46'-6
evening max el	3785 May 07 06:23	7°♈23'32	19°26'07	minimum elong	3786 Mar 25 21:11	5°♈53'46	1°45'39
retrograde	3785 May 16 15:26	11°♈56'55		evening rise	3786 Apr 04 02:16	23°♈31'00	
evening set	3785 May 18 15:04	11°♈45'34			3786 Apr 07 11:33	0°♈	
inferior conj	3785 May 27 05:12	7°♈39'24	0°11'02	asc. node	3786 Apr 07 13:30	0°♈09'11	
minimum elong	3785 May 27 05:40	7°♈38'38	0°10'52	evening max el	3786 Apr 20 07:20	19°♈38'27	18°39'48
transit middle	3785 May 27 05:40	7°♈38'38	0°10'52	retrograde	3786 Apr 28 05:49	23°♈32'01	
transit begin	3785 May 27 02:49	7°♈43'15		evening set	3786 Apr 30 10:47	23°♈15'02	
transit end	3785 May 27 08:31	7°♈34'01		inferior conj	3786 May 08 05:26	18°♈50'20	1°47'22
desc. node	3785 May 27 20:16	7°♈14'54		minimum elong	3786 May 08 08:53	18°♈43'49	1°46'18
min. Earth dist.	3785 May 29 20:23	5°♈57'30	0.55906 AU	min. Earth dist.	3786 May 11 13:42	16°♈19'52	0.57601 AU
morning rise	3785 Jun 04 16:23	2°♈58'42		desc. node	3786 May 14 17:18	14°♈17'46	
direct	3785 Jun 09 09:35	2°♈08'14		morning rise	3786 May 16 02:32	13°♈35'15	
morning max el	3785 Jun 23 11:55	9°♈16'09	25°01'40	direct	3786 May 21 19:12	12°♈14'40	
	3785 Jul 08 23:13	0°♈		morning max el	3786 Jun 05 03:54	19°♈48'55	26°29'23
asc. node	3785 Jul 17 15:46	16°♈23'47			3786 Jun 13 20:18	0°♈	
morning set	3785 Jul 19 17:03	20°♈40'52			3786 Jul 01 11:49	0°♈	
	3785 Jul 24 00:41	0°♈		morning set	3786 Jul 04 03:42	5°♈30'17	
				asc. node	3786 Jul 04 12:48	6°♈18'20	
superior conj	3785 Jul 26 16:49	5°♈50'58	1°22'18				
minimum elong	3785 Jul 26 14:31	5°♈38'23	1°22'00	superior conj	3786 Jul 11 04:21	20°♈46'44	1°04'50
max. Earth dist.	3785 Jul 28 01:55	8°♈51'27	1.32663 AU	minimum elong	3786 Jul 11 02:05	20°♈34'13	1°04'26
evening rise	3785 Aug 02 21:46	21°♈12'44		max. Earth dist.	3786 Jul 11 12:21	21°♈30'50	1.32156 AU
	3785 Aug 07 07:51	0°♈			3786 Jul 15 09:26	0°♈	
desc. node	3785 Aug 23 19:36	27°♈22'49		evening rise	3786 Jul 18 03:12	5°♈50'14	
	3785 Aug 25 17:38	0°♈			3786 Jul 30 22:28	0°♈	
evening max el	3785 Sep 04 11:35	11°♈13'02	27°24'29	desc. node	3786 Aug 10 16:37	15°♈45'19	
retrograde	3785 Sep 18 05:55	18°♈28'42		evening max el	3786 Aug 17 16:24	23°♈30'28	26°55'28
evening set	3785 Sep 25 10:27	15°♈58'35			3786 Aug 27 12:01	0°♈	
min. Earth dist.	3785 Sep 29 01:20	13°♈00'19	0.62694 AU	retrograde	3786 Aug 31 14:05	0°♈41'46	
inferior conj	3785 Oct 01 21:27	10°♈17'22	-3°-36'-5		3786 Sep 04 13:41	30°♈	
minimum elong	3785 Oct 02 03:07	10°♈03'46	3°34'22	evening set	3786 Sep 07 13:41	28°♈34'20	
morning rise	3785 Oct 08 22:33	5°♈07'43		min. Earth dist.	3786 Sep 11 06:36	25°♈55'48	0.60719 AU
direct	3785 Oct 11 06:54	4°♈42'31		inferior conj	3786 Sep 14 11:21	23°♈14'36	-4°-27'-40
asc. node	3785 Oct 13 14:57	5°♈08'07		minimum elong	3786 Sep 14 17:00	23°♈02'42	4°26'31
morning max el	3785 Oct 18 00:26	8°♈09'30	17°50'35	morning rise	3786 Sep 21 23:29	18°♈26'20	
	3785 Nov 01 07:49	0°♈		direct	3786 Sep 24 07:12	18°♈05'11	
morning set	3785 Nov 03 01:48	3°♈06'11		asc. node	3786 Sep 30 12:00	20°♈42'56	
				morning max el	3786 Oct 01 13:42	21°♈41'11	18°03'24
superior conj	3785 Nov 14 13:08	23°♈03'12	0°35'56		3786 Oct 07 22:42	0°♈	
minimum elong	3785 Nov 14 16:25	23°♈17'02	0°35'28	morning set	3786 Oct 17 07:29	16°♈34'27	
	3785 Nov 18 17:21	0°♈			3786 Oct 24 14:12	0°♈	
desc. node	3785 Nov 19 18:54	1°♈44'32					
max. Earth dist.	3785 Nov 21 09:59	4°♈23'16	1.43563 AU	superior conj	3786 Oct 27 05:59	4°♈46'00	1°08'37
evening rise	3785 Nov 29 14:01	17°♈18'27		minimum elong	3786 Oct 27 10:10	5°♈04'35	1°08'07
	3785 Dec 07 22:05	0°♈		max. Earth dist.	3786 Nov 03 21:22	17°♈56'04	1.41863 AU
greatest brilliancy	3785 Dec 24 22:14	23°♈59'34	-0.4m	desc. node	3786 Nov 06 15:55	22°♈31'07	
evening max el	3785 Dec 29 23:12	29°♈48'19	21°19'26	evening rise	3786 Nov 09 12:05	27°♈06'58	
	3785 Dec 30 03:48	0°≈			3786 Nov 11 07:35	0°♈	
retrograde	3786 Jan 07 17:09	4°≈59'43			3786 Dec 01 16:20	0°♈	
asc. node	3786 Jan 09 14:10	4°≈40'32		greatest brilliancy	3786 Dec 07 19:32	7°♈54'23	-0.3m
evening set	3786 Jan 11 20:20	3°≈24'14		evening max el	3786 Dec 12 16:43	13°♈22'46	22°36'23
	3786 Jan 15 02:22	30°♈		retrograde	3786 Dec 22 12:51	19°♈13'28	
inferior conj	3786 Jan 17 05:49	27°♈07'12	2°21'50	evening set	3786 Dec 27 03:48	17°♈21'42	
minimum elong	3786 Jan 17 03:22	27°♈15'43	2°21'04	asc. node	3786 Dec 27 11:13	17°♈06'01	
min. Earth dist.	3786 Jan 17 12:43	26°♈43'22	0.67795 AU	inferior conj	3787 Jan 01 13:33	10°♈57'34	1°39'41
morning rise	3786 Jan 22 10:03	20°♈52'29		minimum elong	3787 Jan 01 11:31	11°♈04'37	1°38'56
direct	3786 Jan 27 13:25	18°♈39'09		min. Earth dist.	3787 Jan 01 09:02	11°♈13'14	0.67994 AU
morning max el	3786 Feb 06 22:48	24°♈49'53	23°23'20	morning rise	3787 Jan 06 19:10	4°♈45'50	
	3786 Feb 11 14:22	0°≈		direct	3787 Jan 11 07:40	2°♈55'25	

morning max el	3787 Jan 20 11:03	8°☿16'46	21°56'09	morning rise	3787 Dec 22 06:08	18°♄44'42	
greatest brilliancy	3787 Jan 25 03:27	13°☿32'24	-0.4m	direct	3787 Dec 26 04:39	17°♄16'56	
desc. node	3787 Feb 02 15:07	24°☿48'32		morning max el	3788 Jan 03 06:06	21°♄54'49	20°37'28
	3787 Feb 06 06:12	0°♊		greatest brilliancy	3788 Jan 09 05:08	28°♄53'17	-0.5m
morning set	3787 Feb 22 02:34	24°♊13'52			3788 Jan 10 01:30	0°☿	
	3787 Feb 25 15:51	0°♋		desc. node	3788 Jan 20 12:09	14°☿49'02	
max. Earth dist.	3787 Feb 28 01:06	3°♋57'05	1.41335 AU		3788 Jan 30 12:49	0°♊	
				morning set	3788 Feb 01 04:55	2°♊35'14	
superior conj	3787 Mar 07 18:18	17°♋11'57	-2°-2'-49	max. Earth dist.	3788 Feb 10 06:44	16°♊57'24	1.43192 AU
minimum elong	3787 Mar 07 21:26	17°♋25'47	2°02'41				
	3787 Mar 14 20:30	0°♌		superior conj	3788 Feb 16 20:14	27°♊44'48	-2°-6'-54
evening rise	3787 Mar 18 09:29	6°♌32'43		minimum elong	3788 Feb 16 18:54	27°♊39'14	2°06'54
asc. node	3787 Mar 25 10:31	19°♌19'06			3788 Feb 18 04:26	0°♋	
	3787 Apr 01 11:25	0°♌		evening rise	3788 Feb 29 01:02	18°♋48'21	
evening max el	3787 Apr 03 15:25	2°♌23'53	18°13'39		3788 Mar 06 10:19	0°♌	
retrograde	3787 Apr 10 15:11	5°♌54'22		asc. node	3788 Mar 11 07:33	7°♌59'29	
evening set	3787 Apr 13 02:18	5°♌28'58		evening max el	3788 Mar 17 03:17	15°♌30'20	18°07'08
inferior conj	3787 Apr 20 03:03	0°♌43'03	2°51'30	retrograde	3788 Mar 23 15:44	18°♌53'10	
minimum elong	3787 Apr 20 06:27	0°♌35'31	2°50'45	evening set	3788 Mar 26 08:34	18°♌17'44	
	3787 Apr 20 22:25	30°♍		inferior conj	3788 Apr 01 19:06	13°♌11'09	3°26'02
min. Earth dist.	3787 Apr 23 12:26	27°♌44'41	0.59697 AU	minimum elong	3788 Apr 01 20:58	13°♌06'26	3°25'49
morning rise	3787 Apr 27 06:50	25°♌00'49		min. Earth dist.	3788 Apr 04 19:07	10°♌09'39	0.61864 AU
desc. node	3787 May 01 14:18	23°♌17'54		morning rise	3788 Apr 08 06:38	7°♌11'43	
direct	3787 May 03 17:33	23°♌05'17		direct	3788 Apr 15 02:40	4°♌45'29	
	3787 May 17 02:55	0°♍		desc. node	3788 Apr 17 11:20	5°♌01'38	
morning max el	3787 May 18 01:58	0°♍55'23	27°28'42	morning max el	3788 Apr 29 06:16	12°♌43'46	27°51'31
	3787 Jun 07 23:26	0°♎			3788 May 12 23:58	0°♍	
morning set	3787 Jun 18 11:33	20°♎09'54			3788 May 30 08:22	0°♎	
asc. node	3787 Jun 21 09:49	26°♎22'06		morning set	3788 Jun 01 14:35	4°♎32'14	
	3787 Jun 23 02:02	0°♏		asc. node	3788 Jun 07 06:50	16°♎29'48	
max. Earth dist.	3787 Jun 25 00:15	4°♏13'18	1.32049 AU	max. Earth dist.	3788 Jun 07 09:28	16°♎44'03	1.32349 AU
superior conj	3787 Jun 25 16:01	5°♏40'09	0°43'28	superior conj	3788 Jun 09 02:03	20°♎24'35	0°18'49
minimum elong	3787 Jun 25 14:14	5°♏30'20	0°43'06	minimum elong	3788 Jun 09 01:11	20°♎19'51	0°18'38
evening rise	3787 Jul 02 12:43	20°♏37'48			3788 Jun 13 11:23	0°♏	
	3787 Jul 07 02:16	0°♐		evening rise	3788 Jun 16 00:15	5°♏27'31	
	3787 Jul 25 22:04	0°♑			3788 Jun 28 23:57	0°♐	
desc. node	3787 Jul 28 13:36	2°♑58'20		evening max el	3788 Jul 11 04:34	15°♐44'36	24°27'58
evening max el	3787 Jul 30 13:54	4°♑59'43	25°54'05	desc. node	3788 Jul 14 10:37	18°♐33'15	
retrograde	3787 Aug 13 13:14	12°♑07'35		retrograde	3788 Jul 25 01:36	22°♐45'07	
evening set	3787 Aug 19 19:33	10°♑33'55		evening set	3788 Jul 30 01:09	21°♐49'33	
min. Earth dist.	3787 Aug 24 02:12	7°♑58'22	0.58655 AU	min. Earth dist.	3788 Aug 04 15:33	18°♐57'50	0.56763 AU
inferior conj	3787 Aug 27 07:57	5°♑36'42	-5°-2'-23	inferior conj	3788 Aug 07 08:31	17°♐14'29	-5°-6'-22
minimum elong	3787 Aug 27 11:04	5°♑30'59	5°02'08	minimum elong	3788 Aug 07 06:15	17°♐18'07	5°06'16
morning rise	3787 Sep 04 06:05	1°♑12'02		morning rise	3788 Aug 15 14:57	13°♐11'23	
direct	3787 Sep 06 16:25	0°♑52'43		direct	3788 Aug 18 06:37	12°♐52'17	
morning max el	3787 Sep 14 20:44	4°♑47'23	18°36'30	morning max el	3788 Aug 27 18:21	17°♐17'49	19°31'07
asc. node	3787 Sep 17 09:03	7°♑31'22		asc. node	3788 Sep 03 06:04	25°♐17'37	
	3787 Sep 30 17:26	0°♒			3788 Sep 06 04:03	0°♑	
morning set	3787 Oct 01 00:59	0°♒36'32		morning set	3788 Sep 14 02:37	15°♑01'47	
					3788 Sep 21 13:42	0°♒	
superior conj	3787 Oct 09 20:38	17°♒33'08	1°30'05	superior conj	3788 Sep 22 03:32	1°♒08'11	1°41'30
minimum elong	3787 Oct 09 23:47	17°♒47'53	1°29'49	minimum elong	3788 Sep 22 05:00	1°♒15'24	1°41'26
	3787 Oct 16 17:12	0°♓		max. Earth dist.	3788 Sep 28 07:53	12°♒56'08	1.37764 AU
max. Earth dist.	3787 Oct 17 03:45	0°♓46'10	1.39846 AU	evening rise	3788 Oct 02 03:07	19°♒48'42	
evening rise	3787 Oct 21 08:00	7°♓55'44			3788 Oct 08 01:57	0°♓	
desc. node	3787 Oct 24 12:55	13°♓13'53		desc. node	3788 Oct 10 09:58	3°♓48'40	
	3787 Nov 04 08:15	0°♈			3788 Oct 28 11:01	0°♈	
evening max el	3787 Nov 25 06:34	27°♈00'09	23°56'18	evening max el	3788 Nov 06 18:55	10°♈41'22	25°12'39
	3787 Nov 28 14:03	0°☿		retrograde	3788 Nov 18 17:45	17°♈35'55	
retrograde	3787 Dec 06 05:22	3°☿26'57		evening set	3788 Nov 24 11:45	15°♈12'45	
evening set	3787 Dec 11 09:28	1°☿18'47		min. Earth dist.	3788 Nov 28 23:51	10°♈12'04	0.67324 AU
	3787 Dec 12 18:39	30°♉		inferior conj	3788 Nov 30 01:59	8°♈46'57	0°-2'-49
asc. node	3787 Dec 14 08:15	28°♈11'41		minimum elong	3788 Nov 30 02:03	8°♈46'44	0°02'48
min. Earth dist.	3787 Dec 16 05:30	25°♈43'38	0.67833 AU	transit middle	3788 Nov 30 02:03	8°♈46'44	0°02'48
inferior conj	3787 Dec 16 20:51	24°♈51'31	0°51'06	transit begin	3788 Nov 29 23:19	8°♈55'40	
minimum elong	3787 Dec 16 19:41	24°♈55'32	0°50'37				

transit end	3788 Nov 30 04:47	8°♂37'48			3789 Oct 27 13:48	0°♂	
asc. node	3788 Nov 30 05:17	8°♂36'12		retrograde	3789 Nov 02 01:08	1°♂34'03	
morning rise	3788 Dec 05 17:02	2°♂47'16			3789 Nov 06 23:56	30°♂♂	
direct	3788 Dec 09 03:11	1°♂39'43		evening set	3789 Nov 08 08:46	28°♂59'18	
morning max el	3788 Dec 16 09:05	5°♂44'16	19°31'53	min. Earth dist.	3789 Nov 12 13:40	24°♂34'23	0.66474 AU
greatest brilliancy	3788 Dec 24 19:49	16°♂20'09	-0.6m	inferior conj	3789 Nov 14 03:01	22°♂39'56	-1°00'-56
	3789 Jan 03 00:39	0°♂		minimum elong	3789 Nov 14 04:40	22°♂34'53	1°00'15
desc. node	3789 Jan 06 09:11	5°♂08'13		asc. node	3789 Nov 17 02:20	19°♂14'38	
morning set	3789 Jan 10 02:07	10°♂50'55		morning rise	3789 Nov 20 01:46	16°♂50'05	
	3789 Jan 22 08:27	0°♂		direct	3789 Nov 23 01:36	15°♂59'10	
max. Earth dist.	3789 Jan 22 19:11	0°♂42'28	1.44530 AU	morning max el	3789 Nov 29 18:59	19°♂41'08	18°41'45
					3789 Dec 07 19:16	0°♂	
superior conj	3789 Jan 26 20:23	7°♂09'29	-1°-53'-13	morning set	3789 Dec 20 18:32	20°♂09'53	
minimum elong	3789 Jan 26 13:10	6°♂40'34	1°52'45	desc. node	3789 Dec 24 06:15	25°♂40'21	
evening rise	3789 Feb 09 20:34	0°♂10'08			3789 Dec 27 00:10	0°♂	
	3789 Feb 09 18:10	0°♂		max. Earth dist.	3790 Jan 05 12:42	14°♂57'13	1.45199 AU
asc. node	3789 Feb 26 04:35	26°♂01'23					
evening max el	3789 Feb 28 15:58	28°♂50'27	18°19'35	superior conj	3790 Jan 06 01:37	15°♂47'53	-1°-20'-18
	3789 Mar 01 21:54	0°♂		minimum elong	3790 Jan 05 16:38	15°♂12'37	1°19'19
retrograde	3789 Mar 07 02:49	2°♂19'05			3790 Jan 15 01:50	0°♂	
evening set	3789 Mar 10 01:22	1°♂32'26		evening rise	3790 Jan 21 17:01	10°♂34'22	
	3789 Mar 12 06:39	30°♂♂			3790 Feb 02 22:25	0°♂	
inferior conj	3789 Mar 16 01:29	26°♂06'32	3°37'22	evening max el	3790 Feb 12 02:53	12°♂17'57	18°50'02
minimum elong	3789 Mar 16 01:34	26°♂06'15	3°37'22	asc. node	3790 Feb 13 01:38	13°♂12'59	
min. Earth dist.	3789 Mar 18 11:07	23°♂23'35	0.63847 AU	retrograde	3790 Feb 18 20:29	16°♂04'01	
morning rise	3789 Mar 21 23:59	19°♂57'45		evening set	3790 Feb 22 01:22	15°♂05'05	
direct	3789 Mar 28 20:26	17°♂12'35		inferior conj	3790 Feb 27 18:17	9°♂21'33	3°31'20
desc. node	3789 Apr 04 08:21	19°♂15'23		minimum elong	3790 Feb 27 16:59	9°♂25'35	3°31'13
morning max el	3789 Apr 11 14:41	25°♂09'54	27°37'06	min. Earth dist.	3790 Mar 01 12:16	7°♂11'49	0.65485 AU
	3789 Apr 16 00:43	0°♂		morning rise	3790 Mar 05 07:29	3°♂08'05	
	3789 May 06 11:02	0°♂		direct	3790 Mar 11 21:09	0°♂18'25	
morning set	3789 May 16 10:22	18°♂29'42		desc. node	3790 Mar 22 05:24	5°♂24'50	
max. Earth dist.	3789 May 21 12:04	28°♂50'51	1.33082 AU	morning max el	3790 Mar 25 00:29	8°♂02'56	26°50'22
	3789 May 22 01:14	0°♂			3790 Apr 11 02:21	0°♂	
superior conj	3789 May 24 08:38	4°♂54'16	0°-8'-23	morning set	3790 Apr 28 20:03	0°♂	
minimum elong	3789 May 24 09:03	4°♂56'31	0°08'19	max. Earth dist.	3790 Apr 29 19:42	1°♂52'18	
behind sun begin	3789 May 24 04:26	4°♂31'51			3790 May 04 04:33	10°♂25'42	1.34274 AU
behind sun end	3789 May 24 13:39	5°♂21'13		superior conj	3790 May 08 09:37	19°♂02'37	0°-37'-8
asc. node	3789 May 25 03:53	6°♂37'29		minimum elong	3790 May 08 11:34	19°♂12'47	0°36'45
evening rise	3789 May 31 11:56	20°♂13'30		asc. node	3790 May 12 00:56	26°♂41'00	
	3789 Jun 05 06:36	0°♂			3790 May 13 14:39	0°♂	
evening max el	3789 Jun 22 18:01	26°♂09'30	22°51'17	evening rise	3790 May 15 21:51	4°♂49'27	
	3789 Jun 27 11:49	0°♂			3790 May 29 21:13	0°♂	
desc. node	3789 Jul 01 07:38	1°♂55'49		evening max el	3790 Jun 04 14:02	6°♂46'48	21°19'10
retrograde	3789 Jul 06 01:26	2°♂47'14		retrograde	3790 Jun 16 15:13	12°♂41'54	
evening set	3789 Jul 09 12:26	2°♂21'03		desc. node	3790 Jun 18 04:37	12°♂36'15	
	3789 Jul 15 06:28	30°♂♂		evening set	3790 Jun 18 23:42	12°♂29'10	
min. Earth dist.	3789 Jul 17 02:36	28°♂58'46	0.55391 AU	inferior conj	3790 Jun 28 08:17	8°♂30'30	-2°-53'-51
inferior conj	3789 Jul 18 14:04	28°♂07'43	-4°-24'-33	minimum elong	3790 Jun 28 00:38	8°♂41'12	2°51'24
minimum elong	3789 Jul 18 06:29	28°♂18'41	4°23'01	min. Earth dist.	3790 Jun 28 13:44	8°♂22'51	0.54839 AU
morning rise	3789 Jul 27 03:12	24°♂16'33		morning rise	3790 Jul 07 01:53	4°♂34'30	
direct	3789 Jul 30 02:31	23°♂55'54		direct	3790 Jul 10 12:29	4°♂08'51	
morning max el	3789 Aug 10 04:21	29°♂04'39	20°47'00	morning max el	3790 Jul 23 03:03	10°♂07'24	22°20'53
	3789 Aug 11 03:16	0°♂			3790 Aug 06 10:38	0°♂	
asc. node	3789 Aug 21 03:07	13°♂48'35		asc. node	3790 Aug 08 00:11	2°♂53'44	
morning set	3789 Aug 29 09:36	29°♂42'35		morning set	3790 Aug 13 19:54	14°♂33'32	
	3789 Aug 29 13:00	0°♂					
superior conj	3789 Sep 05 22:00	15°♂17'19	1°44'26	superior conj	3790 Aug 21 00:30	29°♂50'26	1°40'20
minimum elong	3789 Sep 05 21:52	15°♂16'37	1°44'25	minimum elong	3790 Aug 20 23:08	29°♂43'15	1°40'14
max. Earth dist.	3789 Sep 10 15:48	24°♂47'54	1.35865 AU		3790 Aug 21 02:19	0°♂	
	3789 Sep 13 08:36	0°♂		max. Earth dist.	3790 Aug 24 08:10	6°♂46'42	1.34303 AU
evening rise	3789 Sep 14 18:10	2°♂37'38		evening rise	3790 Aug 29 00:45	16°♂11'10	
desc. node	3789 Sep 27 07:00	24°♂10'13			3790 Sep 05 12:04	0°♂	
	3789 Oct 01 01:48	0°♂		desc. node	3790 Sep 14 04:01	14°♂12'21	
evening max el	3789 Oct 20 07:24	24°♂23'11	26°18'01		3790 Sep 25 14:06	0°♂	
				evening max el	3790 Oct 02 20:06	7°♂57'43	27°04'44

retrograde	3790 Oct 16 02:46	15° \mathbb{M} 14'45		retrograde	3791 Sep 28 22:15	28° \mathbb{A} 28'49	
evening set	3790 Oct 22 22:20	12° \mathbb{M} 34'11		evening set	3791 Oct 06 01:36	25° \mathbb{A} 51'19	
min. Earth dist.	3790 Oct 26 20:33	8° \mathbb{M} 45'33	0.65278 AU	min. Earth dist.	3791 Oct 09 18:13	22° \mathbb{A} 36'46	0.63735 AU
inferior conj	3790 Oct 28 21:51	6° \mathbb{M} 26'20	-2°-1'-37	inferior conj	3791 Oct 12 07:52	19° \mathbb{A} 59'26	-3°-2'-26
minimum elong	3790 Oct 29 01:15	6° \mathbb{M} 16'42	2°00'16	minimum elong	3791 Oct 12 12:53	19° \mathbb{A} 46'34	3°00'43
asc. node	3790 Nov 03 23:22	0° \mathbb{M} 57'36		morning rise	3791 Oct 19 02:35	14° \mathbb{A} 39'04	
morning rise	3790 Nov 04 05:56	0° \mathbb{M} 49'27		direct	3791 Oct 21 12:56	14° \mathbb{A} 10'04	
direct	3790 Nov 06 21:46	0° \mathbb{M} 11'20		asc. node	3791 Oct 21 20:26	14° \mathbb{A} 10'33	
morning max el	3790 Nov 13 09:39	3° \mathbb{M} 40'28	18°08'10	morning max el	3791 Oct 28 02:14	17° \mathbb{A} 35'11	17°51'50
	3790 Dec 01 02:18	0° \mathbb{A}			3791 Nov 06 01:00	0° \mathbb{M}	
morning set	3790 Dec 01 16:23	0° \mathbb{A} 57'56		morning set	3791 Nov 13 16:47	13° \mathbb{M} 02'47	
desc. node	3790 Dec 11 03:19	16° \mathbb{A} 21'29			3791 Nov 23 16:17	0° \mathbb{A}	
superior conj	3790 Dec 16 06:21	24° \mathbb{A} 31'58	0°-34'-34	superior conj	3791 Nov 26 05:48	4° \mathbb{A} 13'45	0°12'15
minimum elong	3790 Dec 16 02:00	24° \mathbb{A} 14'43	0°33'59	minimum elong	3791 Nov 26 07:07	4° \mathbb{A} 19'10	0°12'02
max. Earth dist.	3790 Dec 19 08:22	29° \mathbb{A} 24'02	1.45124 AU	behind sun begin	3791 Nov 26 00:33	3° \mathbb{A} 52'13	
	3790 Dec 19 17:31	0° \mathbb{B}		behind sun end	3791 Nov 26 13:41	4° \mathbb{A} 46'05	
evening rise	3791 Jan 01 15:51	20° \mathbb{B} 09'37		desc. node	3791 Nov 28 00:20	7° \mathbb{A} 07'21	
	3791 Jan 08 00:31	0° \mathbb{A}		max. Earth dist.	3791 Dec 02 02:34	13° \mathbb{A} 42'35	1.44318 AU
greatest brilliancy	3791 Jan 18 13:36	15° \mathbb{A} 51'30	-0.7m	evening rise	3791 Dec 12 02:02	29° \mathbb{A} 19'18	
evening max el	3791 Jan 26 09:56	25° \mathbb{A} 49'00	19°37'05		3791 Dec 12 12:37	0° \mathbb{B}	
asc. node	3791 Jan 30 22:39	29° \mathbb{A} 20'55			3792 Jan 01 20:22	0° \mathbb{A}	
	3791 Feb 02 00:51	0° \mathbb{H}		greatest brilliancy	3792 Jan 03 17:18	2° \mathbb{A} 30'14	-0.5m
retrograde	3791 Feb 02 17:38	0° \mathbb{H} 02'45		evening max el	3792 Jan 09 11:42	9° \mathbb{A} 21'14	20°38'41
	3791 Feb 03 10:15	30° \mathbb{R} \mathbb{A}		retrograde	3792 Jan 17 15:49	14° \mathbb{A} 10'32	
evening set	3791 Feb 06 05:58	28° \mathbb{A} 50'26		asc. node	3792 Jan 17 19:40	14° \mathbb{A} 10'23	
inferior conj	3791 Feb 11 18:21	22° \mathbb{A} 51'26	3°12'10	evening set	3792 Jan 21 13:05	12° \mathbb{A} 43'45	
minimum elong	3791 Feb 11 16:11	22° \mathbb{A} 58'34	3°11'46	inferior conj	3792 Jan 26 23:05	6° \mathbb{A} 32'08	2°42'44
min. Earth dist.	3791 Feb 12 21:29	21° \mathbb{A} 22'06	0.66710 AU	minimum elong	3792 Jan 26 20:36	6° \mathbb{A} 40'41	2°42'03
morning rise	3791 Feb 17 01:42	16° \mathbb{A} 36'00		min. Earth dist.	3792 Jan 27 12:54	5° \mathbb{A} 44'52	0.67510 AU
direct	3791 Feb 23 03:44	13° \mathbb{A} 54'17		morning rise	3792 Feb 01 03:39	0° \mathbb{A} 16'35	
morning max el	3791 Mar 07 09:47	21° \mathbb{A} 12'13	25°39'33		3792 Feb 01 11:17	30° \mathbb{R} \mathbb{B}	
desc. node	3791 Mar 09 02:28	22° \mathbb{A} 58'43		direct	3792 Feb 06 15:29	27° \mathbb{B} 51'35	
	3791 Mar 15 00:54	0° \mathbb{H}			3792 Feb 12 12:09	0° \mathbb{A}	
	3791 Apr 04 07:22	0° \mathbb{Y}		morning max el	3792 Feb 17 18:26	4° \mathbb{A} 29'55	24°14'38
morning set	3791 Apr 12 14:19	14° \mathbb{Y} 27'58		desc. node	3792 Feb 23 23:32	11° \mathbb{A} 32'50	
max. Earth dist.	3791 Apr 16 09:46	21° \mathbb{Y} 34'08	1.35925 AU		3792 Mar 08 08:49	0° \mathbb{H}	
	3791 Apr 20 17:51	0° \mathbb{B}		morning set	3792 Mar 24 12:43	26° \mathbb{H} 02'06	
superior conj	3791 Apr 22 02:20	2° \mathbb{B} 42'01	-1°-5'-59	max. Earth dist.	3792 Mar 26 18:58	0° \mathbb{Y}	
minimum elong	3791 Apr 22 05:50	2° \mathbb{B} 59'34	1°05'24		3792 Mar 28 06:44	2° \mathbb{Y} 39'46	1.37940 AU
asc. node	3791 Apr 28 21:59	16° \mathbb{B} 35'55		superior conj	3792 Apr 04 07:29	15° \mathbb{Y} 44'03	-1°-32'-47
evening rise	3791 Apr 30 03:56	19° \mathbb{B} 08'54		minimum elong	3792 Apr 04 12:03	16° \mathbb{Y} 06'00	1°32'13
	3791 May 05 16:07	0° \mathbb{H}			3792 Apr 11 14:18	0° \mathbb{B}	
evening max el	3791 May 17 21:27	17° \mathbb{H} 58'27	20°01'50	evening rise	3792 Apr 13 03:43	3° \mathbb{B} 05'05	
retrograde	3791 May 28 05:56	23° \mathbb{H} 01'03		asc. node	3792 Apr 14 19:00	6° \mathbb{B} 18'03	
evening set	3791 May 30 05:07	22° \mathbb{H} 50'56		evening max el	3792 Apr 29 16:40	29° \mathbb{B} 51'42	19°03'52
desc. node	3791 Jun 05 01:39	20° \mathbb{H} 39'44			3792 Apr 29 20:06	0° \mathbb{H}	
inferior conj	3791 Jun 08 04:56	18° \mathbb{H} 51'09	0°-55'-42	retrograde	3792 May 08 09:58	4° \mathbb{H} 06'47	
minimum elong	3791 Jun 08 02:20	18° \mathbb{H} 55'03	0°54'44	evening set	3792 May 10 11:20	3° \mathbb{H} 53'34	
min. Earth dist.	3791 Jun 10 02:18	17° \mathbb{H} 43'04	0.55250 AU		3792 May 18 05:36	30° \mathbb{R} \mathbb{B}	
morning rise	3791 Jun 16 21:00	14° \mathbb{H} 30'43		inferior conj	3792 May 18 17:14	29° \mathbb{B} 39'57	0°55'36
direct	3791 Jun 21 01:05	13° \mathbb{H} 52'49		minimum elong	3792 May 18 19:23	29° \mathbb{B} 36'13	0°54'51
morning max el	3791 Jul 04 18:25	20° \mathbb{H} 38'05	24°03'59	min. Earth dist.	3792 May 21 17:41	27° \mathbb{B} 35'29	0.56547 AU
	3791 Jul 12 18:45	0° \mathbb{B}		desc. node	3792 May 21 22:40	27° \mathbb{B} 27'15	
asc. node	3791 Jul 25 21:14	22° \mathbb{B} 23'23		morning rise	3792 May 26 23:06	24° \mathbb{B} 43'57	
morning set	3791 Jul 29 07:36	29° \mathbb{B} 28'02		direct	3792 Jun 01 02:12	23° \mathbb{B} 42'06	
	3791 Jul 29 13:39	0° \mathbb{Q}			3792 Jun 14 05:44	0° \mathbb{H}	
superior conj	3791 Aug 05 08:10	14° \mathbb{Q} 37'48	1°30'21	morning max el	3792 Jun 15 08:51	1° \mathbb{H} 03'05	25°41'49
minimum elong	3791 Aug 05 06:04	14° \mathbb{Q} 26'25	1°30'08		3792 Jul 05 14:37	0° \mathbb{B}	
max. Earth dist.	3791 Aug 07 09:19	19° \mathbb{Q} 02'31	1.33139 AU	asc. node	3792 Jul 11 18:17	12° \mathbb{B} 10'41	
evening rise	3791 Aug 12 18:40	0° \mathbb{H} 16'44		morning set	3792 Jul 12 19:06	14° \mathbb{B} 20'55	
	3791 Aug 12 15:22	0° \mathbb{H}		superior conj	3792 Jul 19 18:51	29° \mathbb{B} 32'26	1°15'24
	3791 Aug 29 12:31	0° \mathbb{A}		minimum elong	3792 Jul 19 16:30	29° \mathbb{B} 19'33	1°15'04
desc. node	3791 Sep 01 01:00	3° \mathbb{A} 45'48			3792 Jul 19 23:52	0° \mathbb{Q}	
evening max el	3791 Sep 15 07:26	21° \mathbb{A} 11'48	27°25'56	max. Earth dist.	3792 Jul 20 17:10	1° \mathbb{Q} 34'50	1.32392 AU

evening rise	3792 Jul 26 20:41	14°♌44'49		max. Earth dist.	3793 Jul 04 04:24	14°♌15'24	1.32055 AU
	3792 Aug 03 15:58	0°♍		evening rise	3793 Jul 11 04:05	29°♌27'02	
desc. node	3792 Aug 17 21:59	22°♍38'44			3793 Jul 11 10:21	0°♌	
	3792 Aug 23 21:05	0°♎			3793 Jul 27 22:40	0°♍	
evening max el	3792 Aug 27 15:09	3°♎52'34	27°16'10	desc. node	3793 Aug 04 18:59	10°♍34'34	
retrograde	3792 Sep 10 11:05	11°♎06'56		evening max el	3793 Aug 09 16:54	15°♍49'29	26°33'07
evening set	3792 Sep 17 14:57	8°♎44'27		retrograde	3793 Aug 23 16:00	23°♍00'12	
min. Earth dist.	3792 Sep 21 05:29	5°♎56'36	0.61880 AU	evening set	3793 Aug 30 09:43	21°♍06'03	
inferior conj	3792 Sep 24 06:04	3°♎12'06	-3°-59'-19	min. Earth dist.	3793 Sep 03 06:34	18°♍30'56	0.59829 AU
minimum elong	3792 Sep 24 11:57	2°♎58'43	3°57'46	inferior conj	3793 Sep 06 13:00	15°♍55'31	-4°-45'-15
	3792 Sep 28 02:13	30°♏		minimum elong	3793 Sep 06 17:57	15°♍45'40	4°44'29
morning rise	3792 Oct 01 11:58	28°♏11'32		morning rise	3793 Sep 14 05:35	11°♏17'17	
direct	3792 Oct 03 19:37	27°♏48'27		direct	3793 Sep 16 13:51	10°♏57'19	
asc. node	3792 Oct 07 17:29	28°♏56'28		morning max el	3793 Sep 24 04:45	14°♏40'20	18°14'57
	3792 Oct 09 06:33	0°♐		asc. node	3793 Sep 24 14:32	15°♏04'30	
morning max el	3792 Oct 10 17:42	1°♐18'01	17°53'40		3793 Oct 04 17:51	0°♐	
morning set	3792 Oct 26 13:29	26°♐05'24		morning set	3793 Oct 10 00:46	9°♐49'49	
	3792 Oct 28 17:18	0°♑					
superior conj	3792 Nov 06 07:54	15°♑13'57	0°51'10	superior conj	3793 Oct 19 10:45	27°♐26'28	1°19'02
minimum elong	3792 Nov 06 11:54	15°♑31'10	0°50'38	minimum elong	3793 Oct 19 14:39	27°♐44'10	1°18'37
max. Earth dist.	3792 Nov 13 16:27	27°♑34'46	1.42892 AU		3793 Oct 20 20:44	0°♑	
desc. node	3792 Nov 13 21:20	27°♑54'43		max. Earth dist.	3793 Oct 27 01:05	10°♑48'36	1.41025 AU
	3792 Nov 15 04:07	0°♒		evening rise	3793 Oct 31 22:04	18°♑55'50	
evening rise	3792 Nov 20 15:17	8°♒42'31		desc. node	3793 Oct 31 18:20	18°♑40'34	
	3792 Dec 04 17:46	0°♓			3793 Nov 07 21:29	0°♒	
greatest brilliancy	3792 Dec 17 13:30	17°♓29'38	-0.4m		3793 Nov 29 04:49	0°♓	
evening max el	3792 Dec 22 07:54	22°♓54'11	21°51'24	evening max el	3793 Dec 04 23:40	6°♓30'34	23°10'24
retrograde	3792 Dec 31 12:58	28°♓23'04		retrograde	3793 Dec 15 07:31	12°♓37'37	
asc. node	3793 Jan 03 16:42	27°♓29'17		evening set	3793 Dec 20 03:47	10°♓39'06	
evening set	3793 Jan 04 20:53	26°♓40'44		asc. node	3793 Dec 21 13:44	9°♓18'45	
inferior conj	3793 Jan 10 06:17	20°♓19'58	2°04'50	min. Earth dist.	3793 Dec 25 04:59	4°♓44'26	0.67967 AU
minimum elong	3793 Jan 10 03:57	20°♓28'05	2°04'01	inferior conj	3793 Dec 25 14:05	4°♓13'06	1°19'50
min. Earth dist.	3793 Jan 10 08:11	20°♓13'21	0.67920 AU	minimum elong	3793 Dec 25 12:22	4°♓19'02	1°19'10
morning rise	3793 Jan 15 10:47	14°♓06'06			3793 Dec 28 20:37	30°♏♒	
direct	3793 Jan 20 07:40	12°♓02'29		morning rise	3793 Dec 30 20:58	28°♒02'56	
morning max el	3793 Jan 30 04:19	17°♓52'42	22°45'34	direct	3794 Jan 04 03:23	26°♒22'10	
greatest brilliancy	3793 Feb 03 19:28	23°♓02'35	-0.3m		3794 Jan 11 07:41	0°♓	
	3793 Feb 09 05:55	0°♈		morning max el	3794 Jan 12 19:03	1°♓24'12	21°21'12
desc. node	3793 Feb 09 20:33	0°♈49'20		greatest brilliancy	3794 Jan 17 21:41	7°♓13'35	-0.4m
	3793 Mar 01 11:37	0°♉		desc. node	3794 Jan 27 17:35	20°♓36'44	
morning set	3793 Mar 05 08:43	6°♉18'04			3794 Feb 03 02:39	0°♈	
max. Earth dist.	3793 Mar 10 02:04	14°♉13'51	1.40117 AU	morning set	3794 Feb 12 23:58	15°♈13'07	
				max. Earth dist.	3794 Feb 20 02:55	26°♈41'24	1.42180 AU
superior conj	3793 Mar 17 20:38	27°♉57'07	-1°-54'-25		3794 Feb 22 02:56	0°♉	
minimum elong	3793 Mar 18 00:58	28°♉16'52	1°54'05	superior conj	3794 Feb 27 12:50	9°♉10'07	-2°-6'-25
	3793 Mar 18 23:31	0°♊		minimum elong	3794 Feb 27 14:27	9°♉17'02	2°06'24
evening rise	3793 Mar 27 18:01	16°♊28'57		evening rise	3794 Mar 10 19:05	29°♉12'01	
asc. node	3793 Apr 01 16:01	25°♊41'29			3794 Mar 11 05:39	0°♊	
	3793 Apr 04 02:06	0°♋		asc. node	3794 Mar 19 13:02	14°♊39'55	
evening max el	3793 Apr 12 21:04	12°♋20'47	18°26'15	evening max el	3794 Mar 27 07:13	25°♊16'42	18°08'32
retrograde	3793 Apr 20 08:34	16°♋02'35		retrograde	3794 Apr 03 00:44	28°♊41'43	
evening set	3793 Apr 22 16:03	15°♋42'25		evening set	3794 Apr 05 14:25	28°♊12'10	
inferior conj	3793 Apr 30 02:45	11°♋09'06	2°18'31	inferior conj	3794 Apr 12 08:40	23°♊17'32	3°09'21
minimum elong	3793 Apr 30 06:28	11°♋01'34	2°17'29	minimum elong	3794 Apr 12 11:30	23°♊10'51	3°08'51
min. Earth dist.	3793 May 03 13:18	8°♋23'28	0.58462 AU	min. Earth dist.	3794 Apr 15 15:08	20°♊14'45	0.60638 AU
morning rise	3793 May 07 16:32	5°♋40'55		morning rise	3794 Apr 19 05:16	17°♊27'05	
desc. node	3793 May 08 19:42	5°♋08'47		direct	3794 Apr 25 21:21	15°♊17'05	
direct	3793 May 13 17:49	4°♋05'16		desc. node	3794 Apr 25 16:45	15°♊17'11	
morning max el	3793 May 28 03:14	11°♋48'20	26°58'41	morning max el	3794 May 10 03:49	23°♊11'24	27°42'54
	3793 Jun 11 08:02	0°♌			3794 May 16 05:35	0°♋	
morning set	3793 Jun 27 04:44	29°♌06'31			3794 Jun 04 11:57	0°♌	
	3793 Jun 27 14:54	0°♍		morning set	3794 Jun 11 10:45	13°♌39'09	
asc. node	3793 Jun 28 15:19	2°♍09'34		asc. node	3794 Jun 15 12:20	22°♌15'23	
				max. Earth dist.	3794 Jun 17 15:29	26°♌53'36	1.32126 AU
superior conj	3793 Jul 04 06:38	14°♍27'46	0°56'12	superior conj	3794 Jun 18 17:49	29°♌17'59	0°33'22
minimum elong	3793 Jul 04 04:31	14°♍16'05	0°55'49				

minimum elong	3794 Jun 18 16:23	29° Π 10'03	0°33'04	asc. node	3795 Jun 02 09:23	12° Π 23'57	
	3794 Jun 19 01:28	0° \mathfrak{S}					
evening rise	3794 Jun 25 14:42	14° \mathfrak{S} 16'14		superior conj	3795 Jun 03 02:40	13° Π 57'25	0°07'34
	3794 Jul 03 11:41	0° Ω		minimum elong	3795 Jun 03 02:18	13° Π 55'27	0°07'28
evening max el	3794 Jul 22 11:24	26° Ω 58'49	25°19'51	behind sun begin	3795 Jun 02 21:39	13° Π 30'19	
desc. node	3794 Jul 22 16:00	27° Ω 09'45		behind sun end	3795 Jun 03 06:56	14° Π 20'36	
	3794 Jul 26 00:17	0° \mathfrak{M}		evening rise	3795 Jun 10 02:34	29° Π 05'57	
retrograde	3794 Aug 05 10:45	4° \mathfrak{M} 04'05			3795 Jun 10 12:47	0° \mathfrak{S}	
evening set	3794 Aug 11 05:12	2° \mathfrak{M} 47'13			3795 Jun 27 12:33	0° Ω	
min. Earth dist.	3794 Aug 15 23:14	0° \mathfrak{M} 06'44	0.57802 AU	evening max el	3795 Jul 04 00:47	7° Ω 32'10	23°47'11
	3794 Aug 16 03:17	30° \mathfrak{R} Ω		desc. node	3795 Jul 09 13:02	11° Ω 53'32	
inferior conj	3794 Aug 19 01:17	27° Ω 59'35	-5°-8'-53	retrograde	3795 Jul 17 17:22	14° Ω 24'48	
minimum elong	3794 Aug 19 02:23	27° Ω 57'40	5°08'52	evening set	3795 Jul 22 01:31	13° Ω 43'23	
morning rise	3794 Aug 27 03:05	23° Ω 44'19		min. Earth dist.	3795 Jul 28 10:57	10° Ω 40'28	0.56098 AU
direct	3794 Aug 29 15:24	23° Ω 25'13		inferior conj	3795 Jul 30 17:22	9° Ω 18'14	-4°-54'-53
morning max el	3794 Sep 07 08:03	27° Ω 31'57	18°57'06	minimum elong	3795 Jul 30 12:30	9° Ω 25'38	4°54'19
	3794 Sep 09 15:41	0° \mathfrak{M}		morning rise	3795 Aug 08 02:48	5° Ω 21'57	
asc. node	3794 Sep 11 11:35	2° \mathfrak{M} 19'04		direct	3795 Aug 10 21:43	5° Ω 02'17	
morning set	3794 Sep 23 22:08	24° \mathfrak{M} 02'53		morning max el	3795 Aug 21 00:49	9° Ω 44'25	20°00'55
	3794 Sep 26 22:30	0° \mathfrak{A}		asc. node	3795 Aug 29 08:38	20° Ω 26'03	
					3795 Sep 03 18:06	0° \mathfrak{M}	
superior conj	3794 Oct 02 08:55	10° \mathfrak{A} 35'26	1°36'04	morning set	3795 Sep 08 02:22	8° \mathfrak{M} 35'59	
minimum elong	3794 Oct 02 11:23	10° \mathfrak{A} 47'13	1°35'54				
max. Earth dist.	3794 Oct 09 06:08	23° \mathfrak{A} 20'48	1.38951 AU	superior conj	3795 Sep 15 21:15	24° \mathfrak{M} 26'33	1°43'41
evening rise	3794 Oct 13 04:05	0° \mathfrak{M} 12'37		minimum elong	3795 Sep 15 22:01	24° \mathfrak{M} 30'20	1°43'40
	3794 Oct 13 01:09	0° \mathfrak{M}			3795 Sep 18 16:41	0° \mathfrak{A}	
desc. node	3794 Oct 18 15:21	9° \mathfrak{M} 20'35		max. Earth dist.	3795 Sep 21 11:37	5° \mathfrak{A} 21'47	1.36924 AU
	3794 Nov 01 06:07	0° \mathfrak{A}		evening rise	3795 Sep 25 08:12	12° \mathfrak{A} 30'34	
evening max el	3794 Nov 17 12:52	20° \mathfrak{A} 10'40	24°29'41	desc. node	3795 Oct 05 12:22	29° \mathfrak{A} 50'26	
retrograde	3794 Nov 28 22:15	26° \mathfrak{A} 49'51			3795 Oct 05 14:46	0° \mathfrak{M}	
evening set	3794 Dec 04 08:13	24° \mathfrak{A} 35'16			3795 Oct 27 08:28	0° \mathfrak{A}	
asc. node	3794 Dec 08 10:47	20° \mathfrak{A} 01'02		evening max el	3795 Oct 31 01:11	3° \mathfrak{A} 52'44	25°42'12
min. Earth dist.	3794 Dec 09 00:51	19° \mathfrak{A} 14'36	0.67663 AU	retrograde	3795 Nov 12 08:25	10° \mathfrak{A} 55'00	
inferior conj	3794 Dec 09 20:42	18° \mathfrak{A} 08'17	0°28'51	evening set	3795 Nov 18 08:29	8° \mathfrak{A} 26'14	
minimum elong	3794 Dec 09 20:00	18° \mathfrak{A} 10'37	0°28'34	min. Earth dist.	3795 Nov 22 17:27	3° \mathfrak{A} 40'52	0.67011 AU
morning rise	3794 Dec 15 08:11	12° \mathfrak{A} 04'08		inferior conj	3795 Nov 24 00:18	2° \mathfrak{A} 02'48	0°-27'-2
direct	3794 Dec 19 01:19	10° \mathfrak{A} 45'07		minimum elong	3795 Nov 24 01:01	2° \mathfrak{A} 00'33	0°26'44
morning max el	3794 Dec 26 17:23	15° \mathfrak{A} 07'06	20°07'46	asc. node	3795 Nov 25 07:51	0° \mathfrak{A} 24'03	
greatest brilliancy	3795 Jan 02 13:09	23° \mathfrak{A} 18'51	-0.6m		3795 Nov 25 15:49	30° \mathfrak{R} \mathfrak{M}	
	3795 Jan 07 07:51	0° \mathfrak{Z}		morning rise	3795 Nov 29 18:26	26° \mathfrak{M} 07'10	
desc. node	3795 Jan 14 14:38	10° \mathfrak{Z} 46'10		direct	3795 Dec 02 23:59	25° \mathfrak{M} 07'06	
morning set	3795 Jan 22 20:58	23° \mathfrak{Z} 22'48		morning max el	3795 Dec 09 23:34	29° \mathfrak{M} 00'20	19°08'38
	3795 Jan 27 03:12	0° \approx			3795 Dec 10 22:27	0° \mathfrak{A}	
max. Earth dist.	3795 Feb 02 12:00	10° \approx 04'06	1.43846 AU		3795 Dec 31 17:17	0° \mathfrak{Z}	
				desc. node	3796 Jan 01 11:40	1° \mathfrak{Z} 11'26	
superior conj	3795 Feb 08 03:46	19° \approx 13'47	-2°-3'-29	morning set	3796 Jan 02 00:01	1° \mathfrak{Z} 59'28	
minimum elong	3795 Feb 07 23:51	18° \approx 57'44	2°03'22	max. Earth dist.	3796 Jan 16 03:29	24° \mathfrak{Z} 06'02	1.44907 AU
	3795 Feb 14 15:01	0° \mathfrak{H}					
evening rise	3795 Feb 21 02:37	11° \mathfrak{H} 05'42		superior conj	3796 Jan 18 18:16	28° \mathfrak{Z} 13'53	-1°-41'-26
	3795 Mar 04 08:12	0° \mathfrak{Y}		minimum elong	3796 Jan 18 09:26	27° \mathfrak{Z} 38'59	1°40'40
asc. node	3795 Mar 06 10:05	3° \mathfrak{Y} 05'22			3796 Jan 19 21:02	0° \approx	
evening max el	3795 Mar 10 19:50	8° \mathfrak{Y} 30'18	18°10'08	evening rise	3796 Feb 02 12:35	22° \approx 03'32	
retrograde	3795 Mar 17 06:18	11° \mathfrak{Y} 53'45			3796 Feb 07 08:23	0° \mathfrak{H}	
evening set	3795 Mar 20 01:40	11° \mathfrak{Y} 13'30		asc. node	3796 Feb 21 07:07	20° \mathfrak{H} 47'34	
inferior conj	3795 Mar 26 07:19	5° \mathfrak{Y} 58'19	3°33'15	evening max el	3796 Feb 22 08:01	21° \mathfrak{H} 54'06	18°30'19
minimum elong	3795 Mar 26 08:24	5° \mathfrak{Y} 55'25	3°33'12	retrograde	3796 Feb 28 20:47	25° \mathfrak{H} 28'59	
min. Earth dist.	3795 Mar 29 01:28	3° \mathfrak{Y} 02'46	0.62749 AU	evening set	3796 Mar 02 21:55	24° \mathfrak{H} 37'10	
	3795 Apr 01 09:57	30° \mathfrak{R} \mathfrak{H}		inferior conj	3796 Mar 08 18:34	19° \mathfrak{H} 03'12	3°36'39
morning rise	3795 Apr 01 12:54	29° \mathfrak{H} 54'25		minimum elong	3796 Mar 08 18:01	19° \mathfrak{H} 04'51	3°36'38
direct	3795 Apr 08 10:10	27° \mathfrak{H} 18'42		min. Earth dist.	3796 Mar 10 21:26	16° \mathfrak{H} 33'18	0.64590 AU
desc. node	3795 Apr 12 13:48	28° \mathfrak{H} 08'47		morning rise	3796 Mar 14 12:40	12° \mathfrak{H} 51'52	
	3795 Apr 16 02:36	0° \mathfrak{Y}		direct	3796 Mar 21 06:49	10° \mathfrak{H} 03'27	
morning max el	3795 Apr 22 10:07	5° \mathfrak{Y} 16'48	27°49'45	desc. node	3796 Mar 29 10:51	13° \mathfrak{H} 16'17	
	3795 May 11 01:03	0° \mathfrak{B}		morning max el	3796 Apr 03 19:39	17° \mathfrak{H} 56'45	27°20'50
morning set	3795 May 26 11:04	27° \mathfrak{B} 52'18			3796 Apr 13 22:25	0° \mathfrak{Y}	
	3795 May 27 12:13	0° Π			3796 May 02 22:26	0° \mathfrak{B}	
max. Earth dist.	3795 May 31 22:34	9° Π 16'53	1.32611 AU	morning set	3796 May 09 02:52	11° \mathfrak{B} 36'28	

max. Earth dist.	3796 May 13 21:30	21°♄12'05	1.33535 AU		3797 Apr 25 01:28	0°♄	
				max. Earth dist.	3797 Apr 26 09:09	2°♄34'23	1.34924 AU
superior conj	3796 May 17 07:07	28°♄18'45	0°-20'-27	superior conj	3797 May 01 04:56	12°♄15'54	0°-49'-28
minimum elong	3796 May 17 08:10	28°♄24'18	0°20'15	minimum elong	3797 May 01 07:34	12°♄29'22	0°48'59
	3796 May 18 02:12	0°♄		asc. node	3797 May 06 03:27	22°♄30'48	
asc. node	3796 May 19 06:24	2°♄30'20		evening rise	3797 May 08 22:19	28°♄18'25	
evening rise	3796 May 24 13:45	13°♄48'38			3797 May 09 18:04	0°♄	
	3796 Jun 01 19:11	0°♄		evening max el	3797 May 27 16:22	28°♄47'42	20°44'00
evening max el	3796 Jun 14 15:53	17°♄57'38	22°10'41		3797 May 28 23:46	0°♄	
desc. node	3796 Jun 25 10:04	24°♄09'56		retrograde	3797 Jun 08 01:15	4°♄21'01	
retrograde	3796 Jun 27 12:21	24°♄20'05		evening set	3797 Jun 10 03:27	4°♄10'29	
evening set	3796 Jun 30 10:11	24°♄01'17		desc. node	3797 Jun 12 07:05	3°♄39'07	
min. Earth dist.	3796 Jul 08 21:34	20°♄22'07	0.55043 AU	inferior conj	3797 Jun 19 10:02	0°♄13'18	-2°-5'-2
inferior conj	3796 Jul 09 16:38	19°♄55'17	-3°-51'-20	minimum elong	3797 Jun 19 04:12	0°♄21'38	2°02'59
minimum elong	3796 Jul 09 08:12	20°♄07'10	3°49'10		3797 Jun 19 19:20	30°♄	
morning rise	3796 Jul 18 08:10	16°♄04'54		min. Earth dist.	3797 Jun 20 09:29	29°♄39'46	0.54896 AU
direct	3796 Jul 21 11:34	15°♄42'52		morning rise	3797 Jun 28 03:56	26°♄08'36	
morning max el	3796 Aug 02 05:50	21°♄12'01	21°25'12	direct	3797 Jul 01 20:53	25°♄39'00	
	3796 Aug 09 14:30	0°♄			3797 Jul 12 17:30	0°♄	
asc. node	3796 Aug 15 05:41	9°♄12'27		morning max el	3797 Jul 15 00:52	1°♄59'07	23°04'20
morning set	3796 Aug 22 10:58	23°♄21'34		asc. node	3797 Aug 02 02:43	28°♄28'32	
	3796 Aug 25 15:03	0°♄			3797 Aug 02 21:23	0°♄	
superior conj	3796 Aug 29 19:31	8°♄47'00	1°43'28	morning set	3797 Aug 06 22:00	8°♄14'08	
minimum elong	3796 Aug 29 18:48	8°♄43'19	1°43'27	superior conj	3797 Aug 14 00:29	23°♄26'57	1°36'45
max. Earth dist.	3796 Sep 02 22:36	17°♄13'08	1.35148 AU	minimum elong	3797 Aug 13 22:45	23°♄17'40	1°36'37
evening rise	3796 Sep 07 06:20	25°♄39'17		max. Earth dist.	3797 Aug 16 18:28	29°♄16'40	1.33753 AU
	3796 Sep 09 14:03	0°♄			3797 Aug 17 02:45	0°♄	
desc. node	3796 Sep 21 09:24	20°♄04'26		evening rise	3797 Aug 21 18:10	9°♄27'28	
	3796 Sep 28 01:42	0°♄			3797 Sep 02 00:21	0°♄	
evening max el	3796 Oct 12 13:35	17°♄31'36	26°40'33	desc. node	3797 Sep 08 06:25	9°♄55'17	
retrograde	3796 Oct 25 13:30	24°♄46'44			3797 Sep 24 01:53	0°♄	
evening set	3796 Nov 01 02:39	22°♄08'14		evening max el	3797 Sep 25 01:47	0°♄58'15	27°17'20
min. Earth dist.	3796 Nov 05 04:29	17°♄59'06	0.66004 AU	retrograde	3797 Oct 08 12:49	8°♄16'44	
inferior conj	3796 Nov 06 22:57	15°♄53'08	-1°-26'-30	evening set	3797 Oct 15 12:12	5°♄36'08	
minimum elong	3796 Nov 07 01:21	15°♄46'03	1°25'31	min. Earth dist.	3797 Oct 19 07:45	2°♄02'25	0.64652 AU
asc. node	3796 Nov 11 04:54	11°♄24'32			3797 Oct 21 04:55	30°♄	
morning rise	3796 Nov 13 01:31	10°♄08'43		inferior conj	3797 Oct 21 14:20	29°♄34'15	-2°-27'-39
direct	3796 Nov 15 21:35	9°♄23'51		minimum elong	3797 Oct 21 18:29	29°♄23'00	2°26'06
morning max el	3796 Nov 22 11:53	12°♄59'17	18°25'28	morning rise	3797 Oct 28 02:51	24°♄04'01	
	3796 Dec 04 17:47	0°♄		asc. node	3797 Oct 29 01:57	23°♄43'27	
morning set	3796 Dec 12 04:38	11°♄55'52		direct	3797 Oct 30 15:53	23°♄30'21	
desc. node	3796 Dec 18 08:42	21°♄47'50		morning max el	3797 Nov 06 03:43	26°♄57'10	17°59'03
	3796 Dec 23 12:59	0°♄			3797 Nov 08 19:49	0°♄	
superior conj	3796 Dec 27 20:37	6°♄47'37	-1°-1'-48	morning set	3797 Nov 23 14:25	23°♄18'08	
minimum elong	3796 Dec 27 13:02	6°♄17'51	1°00'53		3797 Nov 27 14:33	0°♄	
max. Earth dist.	3796 Dec 28 22:08	8°♄27'40	1.45250 AU	desc. node	3797 Dec 05 05:42	12°♄30'58	
	3797 Jan 11 15:29	0°♄		superior conj	3797 Dec 07 07:27	15°♄51'08	0°-14'-11
evening rise	3797 Jan 12 23:20	2°♄05'31		minimum elong	3797 Dec 07 05:44	15°♄44'14	0°13'58
greatest brilliancy	3797 Jan 25 14:57	21°♄52'50	-0.7m	behind sun begin	3797 Dec 07 00:24	15°♄22'49	
	3797 Jan 31 05:47	0°♄		behind sun end	3797 Dec 07 11:04	16°♄05'37	
evening max el	3797 Feb 04 17:27	5°♄23'36	19°08'04	max. Earth dist.	3797 Dec 11 16:55	22°♄50'41	1.44856 AU
asc. node	3797 Feb 07 04:10	7°♄34'19			3797 Dec 16 06:18	0°♄	
retrograde	3797 Feb 11 16:23	9°♄20'46		evening rise	3797 Dec 23 15:01	11°♄24'49	
evening set	3797 Feb 15 00:10	8°♄16'25			3798 Jan 04 19:58	0°♄	
inferior conj	3797 Feb 20 14:52	2°♄25'57	3°24'39	greatest brilliancy	3798 Jan 12 03:13	10°♄33'27	-0.6m
minimum elong	3797 Feb 20 13:08	2°♄31'29	3°24'25	evening max el	3798 Jan 18 22:21	18°♄55'07	20°01'46
min. Earth dist.	3797 Feb 22 02:24	0°♄32'42	0.66052 AU	asc. node	3798 Jan 25 01:13	23°♄10'27	
	3797 Feb 22 12:52	30°♄		retrograde	3798 Jan 26 14:12	23°♄23'21	
morning rise	3797 Feb 26 01:09	26°♄11'05		evening set	3798 Jan 30 06:03	22°♄05'13	
direct	3797 Mar 04 10:12	23°♄23'25		inferior conj	3798 Feb 04 17:12	16°♄00'42	3°00'50
desc. node	3797 Mar 16 07:53	0°♄05'29		minimum elong	3798 Feb 04 14:50	16°♄08'39	3°00'18
	3797 Mar 16 05:37	0°♄		min. Earth dist.	3798 Feb 05 14:34	14°♄48'57	0.67099 AU
morning max el	3797 Mar 17 05:38	0°♄59'15	26°22'39	morning rise	3798 Feb 09 23:00	9°♄44'54	
	3797 Apr 07 23:01	0°♄		direct	3798 Feb 15 19:16	7°♄09'07	
morning set	3797 Apr 22 06:34	24°♄41'26					

morning max el	3798 Feb 27 14:22	14° \approx 12'07	25°04'30	min. Earth dist.	3799 Jan 20 07:51	29° Z 14'28	0.67736 AU
desc. node	3798 Mar 03 04:55	18° \approx 07'09		morning rise	3799 Jan 25 03:27	23° Z 29'23	
	3798 Mar 12 11:29	0° X		direct	3799 Jan 30 09:03	21° Z 12'55	
	3798 Mar 31 19:03	0° Y		morning max el	3799 Feb 09 22:56	27° Z 30'43	23°36'38
morning set	3798 Apr 04 17:20	6° Y 52'58			3799 Feb 12 07:03	0° \approx	
max. Earth dist.	3798 Apr 08 09:41	13° Y 35'28	1.36747 AU	desc. node	3799 Feb 18 01:57	7° \approx 00'34	
					3799 Mar 06 03:38	0° X	
superior conj	3798 Apr 14 17:12	25° Y 40'41	-1°-17'-46	morning set	3799 Mar 17 05:08	17° X 54'53	
minimum elong	3798 Apr 14 21:15	26° Y 00'39	1°17'09	max. Earth dist.	3799 Mar 21 05:00	24° X 49'07	1.38866 AU
	3798 Apr 16 21:29	0° Z			3799 Mar 24 02:47	0° Y	
evening rise	3798 Apr 23 02:02	12° Z 28'38					
asc. node	3798 Apr 23 00:29	12° Z 20'53		superior conj	3799 Mar 28 16:09	8° Y 23'24	-1°-42'-50
	3798 May 02 10:40	0° II		minimum elong	3799 Mar 28 20:51	8° Y 45'28	1°42'20
evening max el	3798 May 10 05:08	10° II 17'53	19°34'43	evening rise	3799 Apr 06 22:10	26° Y 11'53	
retrograde	3798 May 19 20:00	14° II 58'19			3799 Apr 08 21:20	0° Z	
evening set	3798 May 21 19:17	14° II 47'26		asc. node	3799 Apr 09 21:31	1° Z 55'41	
desc. node	3798 May 30 04:05	10° II 56'04		evening max el	3799 Apr 23 04:42	22° Z 27'28	18°45'22
inferior conj	3798 May 30 12:08	10° II 43'21	0°-5'-54	retrograde	3799 May 01 07:39	26° Z 26'08	
minimum elong	3798 May 30 11:52	10° II 43'46	0°05'49	evening set	3799 May 03 11:40	26° Z 10'12	
transit middle	3798 May 30 11:52	10° II 43'46	0°05'49	inferior conj	3799 May 11 09:12	21° Z 48'23	1°34'48
transit begin	3798 May 30 08:13	10° II 49'32		minimum elong	3799 May 11 12:25	21° Z 42'27	1°33'46
transit end	3798 May 30 15:31	10° II 37'59		min. Earth dist.	3799 May 14 15:56	19° Z 24'09	0.57311 AU
min. Earth dist.	3798 Jun 01 23:17	9° II 09'57	0.55711 AU	desc. node	3799 May 17 01:08	17° Z 50'42	
morning rise	3798 Jun 08 00:51	6° II 08'11		morning rise	3799 May 19 08:43	16° Z 38'07	
direct	3798 Jun 12 14:38	5° II 21'16		direct	3799 May 24 21:58	15° Z 22'45	
morning max el	3798 Jun 26 14:55	12° II 23'41	24°47'05	morning max el	3799 Jun 08 06:23	22° Z 53'41	26°17'56
	3798 Jul 10 04:06	0° Z			3799 Jun 14 14:29	0° II	
asc. node	3798 Jul 19 23:45	18° Z 06'34			3799 Jul 02 23:16	0° Z	
morning set	3798 Jul 22 09:49	23° Z 08'44		morning set	3799 Jul 06 20:45	7° Z 59'19	
	3798 Jul 25 14:23	0° Z		asc. node	3799 Jul 06 20:46	7° Z 59'25	
superior conj	3798 Jul 29 09:43	8° Z 18'36	1°24'34	superior conj	3799 Jul 13 21:04	23° Z 14'13	1°07'45
minimum elong	3798 Jul 29 07:27	8° Z 06'15	1°24'18	minimum elong	3799 Jul 13 18:46	23° Z 01'31	1°07'22
max. Earth dist.	3798 Jul 30 22:50	11° Z 40'25	1.32773 AU	max. Earth dist.	3799 Jul 14 08:47	24° Z 18'45	1.32205 AU
evening rise	3798 Aug 05 15:56	23° Z 44'26			3799 Jul 16 23:04	0° Z	
	3798 Aug 08 19:05	0° Z		evening rise	3799 Jul 20 20:34	8° Z 19'46	
desc. node	3798 Aug 26 03:24	29° Z 13'27			3799 Aug 01 05:00	0° Z	
	3798 Aug 26 16:39	0° Z		desc. node	3799 Aug 13 00:25	17° Z 44'34	
evening max el	3798 Sep 07 12:08	14° Z 00'53	27°25'55	evening max el	3799 Aug 20 17:47	26° Z 24'42	27°01'53
retrograde	3798 Sep 21 05:36	21° Z 16'41			3799 Aug 25 01:20	0° Z	
evening set	3798 Sep 28 10:04	18° Z 44'23		retrograde	3799 Sep 03 14:54	3° Z 36'33	
min. Earth dist.	3798 Oct 02 01:19	15° Z 42'06	0.62974 AU	evening set	3799 Sep 10 16:04	1° Z 24'46	
inferior conj	3798 Oct 04 19:47	13° Z 00'19	-3°-27'-24		3799 Sep 12 17:43	30° R Z	
minimum elong	3798 Oct 05 01:19	12° Z 46'48	3°25'42	min. Earth dist.	3799 Sep 14 08:03	28° Z 44'24	0.61028 AU
morning rise	3798 Oct 11 19:13	7° Z 47'39		inferior conj	3799 Sep 17 11:56	26° Z 01'51	-4°-20'-42
direct	3798 Oct 14 04:01	7° Z 21'31		minimum elong	3799 Sep 17 17:43	25° Z 49'24	4°19'25
asc. node	3798 Oct 15 22:59	7° Z 36'50		morning rise	3799 Sep 24 22:29	21° Z 10'18	
morning max el	3798 Oct 20 20:10	10° Z 47'45	17°50'17	direct	3799 Sep 27 06:08	20° Z 48'42	
	3798 Nov 02 16:37	0° Z		asc. node	3799 Oct 02 20:01	22° Z 59'13	
morning set	3798 Nov 06 00:19	5° Z 50'21		morning max el	3799 Oct 04 10:07	24° Z 22'35	18°00'15
					3799 Oct 09 00:15	0° Z	
superior conj	3798 Nov 17 18:00	26° Z 05'29	0°30'01	morning set	3799 Oct 20 03:51	19° Z 12'33	
minimum elong	3798 Nov 17 20:52	26° Z 17'31	0°29'37		3799 Oct 26 00:50	0° Z	
	3798 Nov 20 02:28	0° Z					
desc. node	3798 Nov 22 02:43	3° Z 17'50		superior conj	3799 Oct 30 07:11	7° Z 37'45	1°04'23
max. Earth dist.	3798 Nov 24 09:35	7° Z 00'05	1.43781 AU	minimum elong	3799 Oct 30 11:23	7° Z 56'17	1°03'52
evening rise	3798 Dec 03 00:29	20° Z 35'26		max. Earth dist.	3799 Nov 06 21:50	20° Z 39'03	1.42144 AU
	3798 Dec 09 04:23	0° Z		desc. node	3799 Nov 08 23:44	24° Z 04'41	
greatest brilliancy	3798 Dec 27 17:14	26° Z 26'06	-0.4m	evening rise	3799 Nov 12 19:54	0° Z 16'30	
	3798 Dec 30 15:37	0° \approx			3799 Nov 12 15:46	0° Z	
evening max el	3799 Jan 01 21:50	2° \approx 27'50	21°08'34		3799 Dec 02 18:09	0° Z	
retrograde	3799 Jan 10 12:00	7° \approx 33'13		greatest brilliancy	3799 Dec 10 21:30	10° Z 40'25	-0.3m
asc. node	3799 Jan 11 22:14	7° \approx 22'06		evening max el	3799 Dec 15 16:00	16° Z 01'52	22°24'35
evening set	3799 Jan 14 13:39	5° \approx 59'57		retrograde	3799 Dec 25 08:10	21° Z 46'59	
inferior conj	3799 Jan 19 23:13	29° Z 44'17	2°27'35	evening set	3799 Dec 29 21:16	19° Z 57'35	
minimum elong	3799 Jan 19 20:44	29° Z 52'52	2°26'49	asc. node	3799 Dec 29 19:16	20° Z 01'38	
	3799 Jan 19 18:40	30° R Z		inferior conj	3800 Jan 04 06:53	13° Z 34'07	1°46'31

minimum elong	3800 Jan 04 04:45	13°☿41'31	1°45'45			3800 Dec 17 17:09	30°♄♄	
min. Earth dist.	3800 Jan 04 03:58	13°☿44'16	0.67985 AU	min. Earth dist.		3800 Dec 19 00:38	28°♄14'52	0.67876 AU
morning rise	3800 Jan 09 12:08	7°☿21'53		inferior conj		3800 Dec 19 14:23	27°♄27'57	0°58'51
direct	3800 Jan 14 02:46	5°☿28'06		minimum elong		3800 Dec 19 13:03	27°♄32'30	0°58'19
morning max el	3800 Jan 23 10:33	10°☿56'48	22°08'46	morning rise		3800 Dec 24 22:59	21°♄20'09	
greatest brilliancy	3800 Jan 28 00:58	16°☿05'47	-0.3m	direct		3800 Dec 28 23:26	19°♄49'09	
desc. node	3800 Feb 04 23:00	26°☿31'07		morning max el		3801 Jan 06 04:28	24°♄33'08	20°48'24
	3800 Feb 07 10:10	0°♌				3801 Jan 10 23:07	0°☿	
morning set	3800 Feb 25 12:44	27°♌35'14		greatest brilliancy		3801 Jan 11 21:35	1°☿11'13	-0.5m
	3800 Feb 27 00:24	0°♋		desc. node		3801 Jan 22 20:01	16°☿28'14	
max. Earth dist.	3800 Mar 03 02:44	6°♋47'00	1.41024 AU			3801 Jan 31 19:52	0°♌	
				morning set		3801 Feb 04 17:54	6°♌03'31	
superior conj	3800 Mar 10 21:03	20°♋12'24	-2°00'-58	max. Earth dist.		3801 Feb 13 06:56	19°♌38'07	1.42942 AU
minimum elong	3800 Mar 11 00:36	20°♋28'12	2°00'49			3801 Feb 19 13:36	0°♋	
	3800 Mar 16 06:48	0°♍						
evening rise	3800 Mar 21 07:24	9°♍19'58		superior conj		3801 Feb 20 02:47	0°♋55'30	-2°-7'-19
asc. node	3800 Mar 27 18:34	21°♍09'37		minimum elong		3801 Feb 20 02:19	0°♋53'29	2°07'20
	3800 Apr 02 06:07	0°♎		evening rise		3801 Mar 04 01:33	21°♋42'42	
evening max el	3800 Apr 06 11:58	5°♎09'06	18°16'18			3801 Mar 08 17:47	0°♍	
retrograde	3800 Apr 13 14:29	8°♎42'10		asc. node		3801 Mar 14 15:37	9°♍54'56	
evening set	3800 Apr 16 00:37	8°♎18'15		evening max el		3801 Mar 20 23:29	18°♍12'46	18°06'56
inferior conj	3800 Apr 23 03:50	3°♎35'31	2°43'45	retrograde		3801 Mar 27 12:58	21°♍35'47	
minimum elong	3800 Apr 23 07:23	3°♎27'51	2°42'55	evening set		3801 Mar 30 04:58	21°♍01'58	
min. Earth dist.	3800 Apr 26 13:50	0°♎39'42	0.59370 AU	inferior conj		3801 Apr 05 17:23	15°♍58'32	3°22'21
	3800 Apr 27 09:44	30°♌♍		minimum elong		3801 Apr 05 19:31	15°♍53'14	3°22'06
morning rise	3800 Apr 30 10:12	27°♍56'30		min. Earth dist.		3801 Apr 08 19:19	12°♍55'51	0.61550 AU
desc. node	3800 May 03 22:10	26°♍28'25		morning rise		3801 Apr 12 07:10	10°♍01'06	
direct	3800 May 06 18:39	26°♍06'07		direct		3801 Apr 19 02:27	7°♍38'37	
	3800 May 16 15:05	0°♎		desc. node		3801 Apr 20 19:13	7°♍46'58	
morning max el	3800 May 21 03:36	3°♎54'47	27°22'02	morning max el		3801 May 03 07:00	15°♍36'27	27°50'27
	3800 Jun 09 06:28	0°♎				3801 May 15 00:59	0°♎	
morning set	3800 Jun 21 05:08	22°♎40'41				3801 Jun 01 19:46	0°♎	
asc. node	3800 Jun 23 17:49	28°♎02'05		morning set		3801 Jun 05 09:02	7°♎05'49	
	3800 Jun 24 15:41	0°♏		asc. node		3801 Jun 10 14:53	18°♎09'25	
				max. Earth dist.		3801 Jun 11 06:26	19°♎33'40	1.32277 AU
superior conj	3800 Jun 28 08:51	8°♏08'13	0°46'57					
minimum elong	3800 Jun 28 06:57	7°♏57'50	0°46'34	superior conj		3801 Jun 12 19:15	22°♎54'16	0°22'45
max. Earth dist.	3800 Jun 27 20:39	7°♏01'01	1.32040 AU	minimum elong		3801 Jun 12 18:13	22°♎48'38	0°22'31
evening rise	3800 Jul 05 05:38	23°♏05'56				3801 Jun 16 01:00	0°♏	
	3800 Jul 08 13:37	0°♐		evening rise		3801 Jun 19 16:59	7°♏55'34	
	3800 Jul 26 13:50	0°♑				3801 Jul 01 04:16	0°♐	
desc. node	3800 Jul 30 21:26	5°♑09'21		evening max el		3801 Jul 15 07:52	18°♐51'06	24°41'53
evening max el	3800 Aug 02 16:18	8°♑00'23	26°04'59	desc. node		3801 Jul 17 18:27	21°♐01'14	
retrograde	3800 Aug 16 15:39	15°♑09'14		retrograde		3801 Jul 29 05:56	25°♐53'22	
evening set	3800 Aug 23 01:24	13°♑29'55		evening set		3801 Aug 03 10:36	24°♐52'31	
min. Earth dist.	3800 Aug 27 04:55	10°♑55'08	0.58957 AU	min. Earth dist.		3801 Aug 08 19:08	22°♐04'08	0.57017 AU
inferior conj	3800 Aug 30 11:16	8°♑29'13	-4°-58'-50	inferior conj		3801 Aug 11 14:57	20°♐14'05	-5°-8'-29
minimum elong	3800 Aug 30 14:59	8°♑22'17	4°58'26	minimum elong		3801 Aug 11 13:36	20°♐16'17	5°08'27
morning rise	3800 Sep 07 08:04	4°♑01'11		morning rise		3801 Aug 19 20:14	16°♐08'02	
direct	3800 Sep 09 17:44	3°♑41'47		direct		3801 Aug 22 10:53	15°♐49'01	
morning max el	3800 Sep 17 18:18	7°♑33'01	18°30'17	morning max el		3801 Aug 31 17:32	20°♐09'28	19°21'36
asc. node	3800 Sep 19 17:03	9°♑37'11		asc. node		3801 Sep 06 14:06	27°♐15'38	
	3800 Oct 02 04:16	0°♒				3801 Sep 08 08:50	0°♑	
morning set	3800 Oct 03 19:51	3°♒10'01		morning set		3801 Sep 17 20:29	17°♑32'25	
						3801 Sep 24 02:00	0°♒	
superior conj	3800 Oct 12 18:57	20°♒16'16	1°27'31					
minimum elong	3800 Oct 12 22:20	20°♒31'56	1°27'12	superior conj		3801 Sep 25 23:46	3°♒45'06	1°40'21
	3800 Oct 18 03:38	0°♓		minimum elong		3801 Sep 26 01:30	3°♒53'33	1°40'15
max. Earth dist.	3800 Oct 20 04:36	3°♓34'35	1.40153 AU	max. Earth dist.		3801 Oct 02 08:42	15°♒49'22	1.38066 AU
evening rise	3800 Oct 24 12:18	10°♓55'32		evening rise		3801 Oct 06 04:09	22°♒39'38	
desc. node	3800 Oct 26 20:45	14°♓48'13				3801 Oct 10 10:51	0°♓	
	3800 Nov 05 14:01	0°♈		desc. node		3801 Oct 13 17:47	5°♓24'33	
evening max el	3800 Nov 28 06:14	29°♈38'38	23°44'29			3801 Oct 30 10:32	0°♈	
	3800 Nov 28 14:52	0°☿		evening max el		3801 Nov 10 18:47	13°♈19'51	25°01'49
retrograde	3800 Dec 09 01:18	6°☿00'52		retrograde		3801 Nov 22 14:23	20°♈10'52	
evening set	3800 Dec 14 03:20	3°☿55'08		evening set		3801 Nov 28 06:14	17°♈49'57	
asc. node	3800 Dec 16 16:19	1°☿17'47		min. Earth dist.		3801 Dec 02 19:30	12°♈43'56	0.67422 AU

inferior conj	3801 Dec 03 19:58	11°♂23'37	0°05'40	evening rise	3802 Sep 18 16:31	5°♂20'56	
minimum elong	3801 Dec 03 19:50	11°♂24'06	0°05'37	desc. node	3802 Sep 30 14:47	25°♂48'22	
transit middle	3801 Dec 03 19:50	11°♂24'06	0°05'37		3802 Oct 03 07:22	0°♂	
transit begin	3801 Dec 03 17:14	11°♂32'38		evening max el	3802 Oct 24 07:16	27°♂02'05	26°09'16
transit end	3801 Dec 03 22:25	11°♂15'34			3802 Oct 27 15:23	0°♂	
asc. node	3801 Dec 03 13:20	11°♂45'25		retrograde	3802 Nov 05 22:25	4°♂10'48	
morning rise	3801 Dec 09 10:01	5°♂22'35		evening set	3802 Nov 12 04:08	1°♂37'32	
direct	3801 Dec 12 21:55	4°♂12'08			3802 Nov 13 21:43	30°♂♂	
morning max el	3801 Dec 20 06:14	8°♂20'57	19°40'41	min. Earth dist.	3802 Nov 16 10:07	27°♂07'15	0.66626 AU
greatest brilliancy	3801 Dec 28 05:13	18°♂12'36	-0.6m	inferior conj	3802 Nov 17 21:44	25°♂17'02	0°-51'-53
	3802 Jan 05 06:26	0°♂		minimum elong	3802 Nov 17 23:07	25°♂12'44	0°51'18
desc. node	3802 Jan 09 17:04	6°♂45'01		asc. node	3802 Nov 20 10:23	22°♂17'54	
morning set	3802 Jan 14 14:11	14°♂15'00		morning rise	3802 Nov 23 19:12	19°♂25'30	
	3802 Jan 24 16:34	0°♂		direct	3802 Nov 26 20:29	18°♂32'17	
max. Earth dist.	3802 Jan 26 18:29	3°♂17'25	1.44377 AU	morning max el	3802 Dec 03 15:12	22°♂16'45	18°48'10
					3802 Dec 09 21:00	0°♂	
superior conj	3802 Jan 31 06:42	10°♂29'56	-1°-56'-35	morning set	3802 Dec 25 02:41	23°♂21'48	
minimum elong	3802 Jan 31 00:15	10°♂04'00	1°56'12	desc. node	3802 Dec 27 14:05	27°♂15'19	
	3802 Feb 12 02:39	0°♂			3802 Dec 29 08:01	0°♂	
evening rise	3802 Feb 14 00:19	3°♂12'37		max. Earth dist.	3803 Jan 09 11:38	17°♂29'39	1.45150 AU
asc. node	3802 Mar 01 12:39	28°♂03'04					
	3802 Mar 03 02:35	0°♂		superior conj	3803 Jan 10 13:48	19°♂12'26	-1°-26'-21
evening max el	3802 Mar 04 12:14	1°♂31'10	18°16'32	minimum elong	3803 Jan 10 04:37	18°♂36'20	1°25'24
retrograde	3802 Mar 10 22:40	4°♂57'53			3803 Jan 17 09:52	0°♂	
evening set	3802 Mar 13 20:24	4°♂12'54		evening rise	3803 Jan 26 00:16	13°♂45'28	
	3802 Mar 18 20:24	30°♂♂			3803 Feb 05 02:57	0°♂	
inferior conj	3802 Mar 19 21:51	28°♂49'49	3°36'50	evening max el	3803 Feb 15 23:34	14°♂58'01	18°44'22
minimum elong	3802 Mar 19 22:12	28°♂48'51	3°36'50	asc. node	3803 Feb 16 09:41	15°♂23'10	
min. Earth dist.	3802 Mar 22 09:48	26°♂03'01	0.63576 AU	retrograde	3803 Feb 22 15:36	18°♂40'43	
morning rise	3802 Mar 25 22:05	22°♂42'10		evening set	3803 Feb 25 19:31	17°♂43'35	
direct	3802 Apr 01 19:04	19°♂58'55		inferior conj	3803 Mar 03 13:18	12°♂02'26	3°33'11
desc. node	3802 Apr 07 16:16	21°♂39'45		minimum elong	3803 Mar 03 12:11	12°♂05'52	3°33'05
morning max el	3802 Apr 15 14:50	27°♂56'43	27°41'26	min. Earth dist.	3803 Mar 05 09:33	9°♂47'17	0.65268 AU
	3802 Apr 17 14:01	0°♂		morning rise	3803 Mar 09 03:41	5°♂49'31	
	3802 May 08 19:04	0°♂		direct	3803 Mar 15 18:42	2°♂59'49	
morning set	3802 May 20 06:04	21°♂07'11		desc. node	3803 Mar 25 13:19	7°♂34'12	
	3802 May 24 14:21	0°♂		morning max el	3803 Mar 29 00:36	10°♂46'43	26°59'09
max. Earth dist.	3802 May 25 10:12	1°♂44'14	1.32942 AU		3803 Apr 13 05:56	0°♂	
					3803 May 01 06:56	0°♂	
superior conj	3802 May 28 02:29	7°♂26'26	0°-4'-8	morning set	3803 May 03 17:13	4°♂35'52	
minimum elong	3802 May 28 02:41	7°♂27'31	0°04'06	max. Earth dist.	3803 May 08 04:31	13°♂24'50	1.34067 AU
behind sun begin	3802 May 27 21:31	6°♂59'47					
behind sun end	3802 May 28 07:50	7°♂55'16		superior conj	3803 May 12 04:27	21°♂38'33	0°-32'-43
asc. node	3802 May 28 11:56	8°♂17'15		minimum elong	3803 May 12 06:10	21°♂47'30	0°32'23
evening rise	3802 Jun 04 04:45	22°♂42'23		asc. node	3803 May 15 08:58	28°♂21'43	
	3802 Jun 07 17:21	0°♂			3803 May 16 03:31	0°♂	
evening max el	3802 Jun 26 21:06	29°♂17'18	23°05'47	evening rise	3803 May 19 15:05	7°♂20'32	
	3802 Jun 27 15:10	0°♂			3803 May 31 19:53	0°♂	
desc. node	3802 Jul 04 15:29	4°♂46'17		evening max el	3803 Jun 08 15:39	9°♂50'40	21°32'06
retrograde	3802 Jul 10 07:25	5°♂59'22		retrograde	3803 Jun 20 22:09	15°♂53'17	
evening set	3802 Jul 13 23:42	5°♂29'48		desc. node	3803 Jun 21 12:31	15°♂52'27	
min. Earth dist.	3802 Jul 21 06:18	2°♂12'59	0.55548 AU	evening set	3803 Jun 23 09:37	15°♂39'20	
inferior conj	3802 Jul 22 23:05	1°♂13'42	-4°-34'-15	inferior conj	3803 Jul 02 18:10	11°♂39'15	-3°-10'-11
minimum elong	3802 Jul 22 16:03	1°♂23'57	4°32'59	minimum elong	3803 Jul 02 10:06	11°♂50'31	3°07'42
	3802 Jul 25 02:39	30°♂♂		min. Earth dist.	3803 Jul 02 17:09	11°♂40'41	0.54861 AU
morning rise	3802 Jul 31 11:16	27°♂21'38		morning rise	3803 Jul 11 11:24	7°♂45'30	
direct	3802 Aug 03 09:24	27°♂01'16		direct	3803 Jul 14 20:00	7°♂20'59	
	3802 Aug 11 17:33	0°♂		morning max el	3803 Jul 27 05:28	13°♂11'40	22°06'03
morning max el	3802 Aug 14 05:15	2°♂02'55	20°34'25		3803 Aug 08 17:44	0°♂	
asc. node	3802 Aug 24 11:09	15°♂40'42		asc. node	3803 Aug 11 08:12	4°♂41'09	
	3802 Sep 01 01:05	0°♂		morning set	3803 Aug 17 12:45	17°♂01'12	
morning set	3802 Sep 02 02:51	2°♂11'27			3803 Aug 23 15:47	0°♂	
superior conj	3802 Sep 09 16:46	17°♂49'49	1°44'27	superior conj	3803 Aug 24 18:14	2°♂19'48	1°41'20
minimum elong	3802 Sep 09 16:51	17°♂50'16	1°44'27	minimum elong	3803 Aug 24 17:02	2°♂13'28	1°41'17
max. Earth dist.	3802 Sep 14 15:55	27°♂43'10	1.36131 AU	max. Earth dist.	3803 Aug 28 06:56	9°♂39'53	1.34512 AU
	3802 Sep 15 20:19	0°♂		evening rise	3803 Sep 01 21:02	18°♂48'13	

	3803 Sep 07 21:43	0°♄	evening rise	3804 Aug 15 13:28	2°♄49'10	
desc. node	3803 Sep 17 11:48	15°♄53'44		3804 Aug 30 17:32	0°♄	
	3803 Sep 27 10:55	0°♄	desc. node	3804 Sep 03 08:50	5°♄32'05	
evening max el	3803 Oct 06 19:54	10°♄37'46 26°59'09	evening max el	3804 Sep 18 07:28	23°♄55'11 27°24'38	
retrograde	3803 Oct 20 00:52	17°♄54'16		3804 Sep 26 17:45	0°♄	
evening set	3803 Oct 26 18:56	15°♄13'58	retrograde	3804 Oct 01 21:23	1°♄12'54	
min. Earth dist.	3803 Oct 30 18:04	11°♄20'07 0.65483 AU		3804 Oct 06 17:17	30°♄	
inferior conj	3803 Nov 01 17:36	9°♄04'08 -1°-52'-20	evening set	3804 Oct 08 23:58	28°♄34'05	
minimum elong	3803 Nov 01 20:44	8°♄55'09 1°51'05	min. Earth dist.	3804 Oct 12 17:12	25°♄14'53 0.63983 AU	
asc. node	3803 Nov 07 07:25	3°♄48'10	inferior conj	3804 Oct 15 05:06	22°♄39'29 -2°-53'-23	
morning rise	3803 Nov 08 00:13	3°♄25'17	minimum elong	3804 Oct 15 09:55	22°♄26'59 2°51'42	
direct	3803 Nov 10 17:07	2°♄45'29	morning rise	3804 Oct 21 22:12	17°♄16'35	
morning max el	3803 Nov 17 05:19	6°♄15'47 18°12'03	direct	3804 Oct 24 09:07	16°♄46'31	
	3803 Dec 03 10:16	0°♄	asc. node	3804 Oct 24 04:27	16°♄46'43	
morning set	3803 Dec 05 20:01	3°♄56'06	morning max el	3804 Oct 30 21:51	20°♄11'47 17°53'08	
desc. node	3803 Dec 14 11:05	17°♄54'48		3804 Nov 07 06:11	0°♄	
			morning set	3804 Nov 16 16:53	15°♄50'42	
superior conj	3803 Dec 20 17:06	27°♄51'07 0°-41'-49		3804 Nov 25 01:30	0°♄	
minimum elong	3803 Dec 20 11:49	27°♄30'15 0°41'07				
	3803 Dec 22 01:47	0°♄	superior conj	3804 Nov 29 13:00	7°♄22'28 0°05'30	
max. Earth dist.	3803 Dec 23 07:13	1°♄55'43 1.45181 AU	minimum elong	3804 Nov 29 13:37	7°♄24'59 0°05'26	
evening rise	3804 Jan 06 01:53	23°♄26'29	behind sun begin	3804 Nov 29 04:10	6°♄46'28	
	3804 Jan 10 07:06	0°♄	behind sun end	3804 Nov 29 23:04	8°♄03'24	
greatest brilliancy	3804 Jan 22 00:02	17°♄48'39 -0.7m	desc. node	3804 Nov 30 08:05	8°♄40'03	
evening max el	3804 Jan 30 07:13	28°♄28'19 19°29'06	max. Earth dist.	3804 Dec 05 01:41	16°♄16'06 1.44478 AU	
	3804 Jan 31 21:56	0°♄		3804 Dec 13 20:09	0°♄	
asc. node	3804 Feb 03 06:42	1°♄41'31	evening rise	3804 Dec 15 13:02	2°♄37'32	
retrograde	3804 Feb 06 12:27	2°♄37'34		3805 Jan 02 21:29	0°♄	
evening set	3804 Feb 09 23:34	1°♄27'18	greatest brilliancy	3805 Jan 06 09:42	4°♄48'37 -0.5m	
	3804 Feb 11 17:37	30°♄	evening max el	3805 Jan 12 09:48	12°♄00'10 20°28'43	
inferior conj	3804 Feb 15 12:28	25°♄30'19 3°15'49	retrograde	3805 Jan 20 10:39	16°♄44'03	
minimum elong	3804 Feb 15 10:24	25°♄37'05 3°15'27	asc. node	3805 Jan 20 03:44	16°♄43'35	
min. Earth dist.	3804 Feb 16 17:41	23°♄54'47 0.66551 AU	evening set	3805 Jan 24 06:26	15°♄19'34	
morning rise	3804 Feb 20 20:28	19°♄14'57	inferior conj	3805 Jan 29 16:40	9°♄09'37 2°47'46	
direct	3804 Feb 27 00:22	16°♄31'31	minimum elong	3805 Jan 29 14:11	9°♄18'04 2°47'07	
morning max el	3804 Mar 10 10:09	23°♄54'33 25°51'18	min. Earth dist.	3805 Jan 30 08:23	8°♄16'01 0.67415 AU	
desc. node	3804 Mar 11 10:20	24°♄56'57	morning rise	3805 Feb 03 21:27	2°♄53'51	
	3804 Mar 15 21:02	0°♄	direct	3805 Feb 09 11:27	0°♄25'52	
	3804 Apr 05 15:22	0°♄	morning max el	3805 Feb 20 18:50	7°♄11'14 24°27'44	
morning set	3804 Apr 15 14:19	17°♄19'18	desc. node	3805 Feb 26 07:20	13°♄22'56	
max. Earth dist.	3804 Apr 19 11:29	24°♄36'48 1.35653 AU		3805 Mar 10 13:40	0°♄	
	3804 Apr 22 05:56	0°♄	morning set	3805 Mar 28 16:07	29°♄03'31	
				3805 Mar 29 05:00	0°♄	
superior conj	3804 Apr 24 22:34	5°♄22'27 -1°-1'-41	max. Earth dist.	3805 Apr 01 09:03	5°♄39'35 1.37623 AU	
minimum elong	3804 Apr 25 01:51	5°♄39'01 1°01'07				
asc. node	3804 May 01 06:00	18°♄18'04	superior conj	3805 Apr 08 05:38	18°♄30'22 -1°-28'-59	
evening rise	3804 May 02 21:53	21°♄42'42	minimum elong	3805 Apr 08 10:07	18°♄51'59 1°28'23	
	3804 May 07 01:24	0°♄		3805 Apr 14 01:55	0°♄	
evening max el	3804 May 20 21:08	20°♄55'50 20°12'08	evening rise	3805 Apr 16 22:45	5°♄42'29	
retrograde	3804 May 31 12:03	26°♄06'34	asc. node	3805 Apr 18 03:02	8°♄02'18	
evening set	3804 Jun 02 11:33	25°♄56'32		3805 May 01 03:24	0°♄	
desc. node	3804 Jun 07 09:33	24°♄16'12	evening max el	3805 May 03 14:45	2°♄42'59 19°11'13	
inferior conj	3804 Jun 11 13:28	21°♄57'47 -1°-13'-54	retrograde	3805 May 12 13:26	7°♄04'12	
minimum elong	3804 Jun 11 10:00	22°♄02'55 1°12'38	evening set	3805 May 14 14:02	6°♄51'46	
min. Earth dist.	3804 Jun 13 05:26	20°♄58'40 0.55127 AU	inferior conj	3805 May 22 22:52	2°♄40'55 0°40'19	
morning rise	3804 Jun 20 06:17	17°♄41'53	minimum elong	3805 May 23 00:30	2°♄38'10 0°39'43	
direct	3804 Jun 24 07:11	17°♄06'34	desc. node	3805 May 25 06:34	1°♄06'51	
morning max el	3804 Jul 07 21:37	23°♄45'37 23°48'36	min. Earth dist.	3805 May 25 20:28	0°♄44'00 0.56309 AU	
	3804 Jul 13 13:07	0°♄		3805 May 27 00:14	30°♄	
asc. node	3804 Jul 28 05:14	24°♄07'06	morning rise	3805 May 31 06:43	27°♄50'08	
	3804 Jul 31 02:24	0°♄	direct	3805 Jun 05 06:21	26°♄52'26	
morning set	3804 Aug 01 00:20	1°♄55'04		3805 Jun 14 09:13	0°♄	
			morning max el	3805 Jun 19 11:46	4°♄09'18 25°28'12	
superior conj	3804 Aug 08 01:17	17°♄05'13 1°32'12		3805 Jul 07 23:24	0°♄	
minimum elong	3804 Aug 07 23:16	16°♄54'19 1°32'00	asc. node	3805 Jul 15 02:17	13°♄51'45	
max. Earth dist.	3804 Aug 10 06:43	21°♄51'56 1.33283 AU	morning set	3805 Jul 16 11:57	16°♄48'09	
	3804 Aug 14 04:06	0°♄		3805 Jul 22 13:58	0°♄	

superior conj	3805 Jul 23 11:39	1°♄59'01	1°17'59	superior conj	3806 Jul 07 23:25	16°♄54'54	0°59'24
minimum elong	3805 Jul 23 09:18	1°♄46'11	1°17'38	minimum elong	3806 Jul 07 21:14	16°♄42'52	0°58'59
max. Earth dist.	3805 Jul 24 13:38	4°♄21'19	1.32475 AU	max. Earth dist.	3806 Jul 08 00:42	17°♄01'58	1.32079 AU
evening rise	3805 Jul 30 14:28	17°♄14'18			3806 Jul 13 23:28	0°♄	
	3805 Aug 06 01:59	0°♄		evening rise	3806 Jul 14 21:16	1°♄55'21	
desc. node	3805 Aug 21 05:52	24°♄32'03			3806 Jul 30 01:37	0°♄	
	3805 Aug 25 11:37	0°♄		desc. node	3806 Aug 08 02:53	12°♄38'02	
evening max el	3805 Aug 31 15:54	6°♄41'39	27°19'48	evening max el	3806 Aug 13 18:53	18°♄46'25	26°41'39
retrograde	3805 Sep 14 11:25	13°♄56'44		retrograde	3806 Aug 27 17:35	25°♄57'15	
evening set	3805 Sep 21 15:40	11°♄31'18		evening set	3806 Sep 03 13:34	23°♄58'18	
min. Earth dist.	3805 Sep 25 06:10	8°♄40'03	0.62165 AU	min. Earth dist.	3806 Sep 07 08:47	21°♄22'18	0.60139 AU
inferior conj	3805 Sep 28 05:17	5°♄55'43	-3°-51'-17	inferior conj	3806 Sep 10 14:47	18°♄44'31	-4°-39'-28
minimum elong	3805 Sep 28 11:08	5°♄42'10	3°49'40	minimum elong	3806 Sep 10 20:02	18°♄33'50	4°38'33
morning rise	3805 Oct 05 09:31	0°♄51'58		morning rise	3806 Sep 18 05:50	14°♄02'38	
direct	3805 Oct 07 17:19	0°♄28'14		direct	3806 Sep 20 13:48	13°♄42'18	
asc. node	3805 Oct 11 01:30	1°♄18'51		asc. node	3806 Sep 27 22:32	17°♄15'23	
morning max el	3805 Oct 14 13:42	3°♄56'50	17°52'13	morning max el	3806 Sep 28 01:38	17°♄22'48	18°10'30
morning set	3805 Oct 30 11:01	28°♄46'04			3806 Oct 07 01:32	0°♄	
	3805 Oct 31 03:28	0°♄		morning set	3806 Oct 13 20:30	12°♄25'21	
superior conj	3805 Nov 10 11:10	18°♄11'03	0°45'57	superior conj	3806 Oct 23 10:40	0°♄13'38	1°15'32
minimum elong	3805 Nov 10 14:58	18°♄27'18	0°45'26	minimum elong	3806 Oct 23 14:42	0°♄31'48	1°15'04
desc. node	3805 Nov 17 05:07	29°♄27'26			3806 Oct 23 07:39	0°♄	
max. Earth dist.	3805 Nov 17 16:10	0°♄12'32	1.43137 AU	max. Earth dist.	3806 Oct 31 01:50	13°♄33'26	1.41326 AU
	3805 Nov 17 13:06	0°♄		desc. node	3806 Nov 04 02:10	20°♄13'49	
evening rise	3805 Nov 25 00:51	11°♄56'24		evening rise	3806 Nov 05 04:31	22°♄01'02	
	3805 Dec 06 22:55	0°♄			3806 Nov 10 05:03	0°♄	
greatest brilliancy	3805 Dec 21 10:45	20°♄02'04	-0.4m		3806 Dec 01 02:23	0°♄	
evening max el	3805 Dec 26 06:51	25°♄33'06	21°40'03	greatest brilliancy	3806 Dec 03 12:04	3°♄00'30	-0.2m
	3805 Dec 31 21:12	0°♄		evening max el	3806 Dec 08 23:17	9°♄09'06	22°58'26
retrograde	3806 Jan 04 08:02	0°♄55'55		retrograde	3806 Dec 19 03:01	15°♄10'22	
asc. node	3806 Jan 07 00:46	0°♄16'29		evening set	3806 Dec 23 21:24	13°♄14'15	
	3806 Jan 07 12:52	30°♄		asc. node	3806 Dec 24 21:48	12°♄18'37	
evening set	3806 Jan 08 14:14	29°♄16'04		inferior conj	3806 Dec 29 07:30	6°♄48'52	1°27'04
inferior conj	3806 Jan 13 23:38	22°♄56'33	2°11'01	minimum elong	3806 Dec 29 05:39	6°♄55'14	1°26'22
minimum elong	3806 Jan 13 21:15	23°♄04'49	2°10'15	min. Earth dist.	3806 Dec 29 00:00	7°♄14'44	0.67989 AU
min. Earth dist.	3806 Jan 14 03:18	22°♄43'52	0.67886 AU	morning rise	3807 Jan 03 13:53	0°♄38'06	
morning rise	3806 Jan 19 03:59	16°♄42'16			3807 Jan 04 10:53	30°♄	
direct	3806 Jan 24 03:09	14°♄35'09		direct	3807 Jan 07 22:26	28°♄53'54	
morning max el	3806 Feb 03 04:14	20°♄32'39	22°58'38		3807 Jan 11 17:01	0°♄	
greatest brilliancy	3806 Feb 07 23:00	25°♄53'04	-0.3m	morning max el	3807 Jan 16 18:03	4°♄02'25	21°33'09
	3806 Feb 11 05:44	0°♄		greatest brilliancy	3807 Jan 21 16:33	9°♄38'10	-0.4m
desc. node	3806 Feb 13 04:21	2°♄33'37		desc. node	3807 Jan 31 01:24	22°♄16'46	
	3806 Mar 03 19:31	0°♄			3807 Feb 05 08:30	0°♄	
morning set	3806 Mar 09 16:21	9°♄31'30		morning set	3807 Feb 17 11:38	18°♄37'21	
max. Earth dist.	3806 Mar 14 03:55	17°♄06'19	1.39795 AU	max. Earth dist.	3807 Feb 24 03:58	29°♄26'20	1.41896 AU
	3806 Mar 21 10:17	0°♄			3807 Feb 24 12:07	0°♄	
superior conj	3806 Mar 21 21:29	0°♄51'20	-1°-51'-39	superior conj	3807 Mar 03 17:10	12°♄13'58	-2°-5'-27
minimum elong	3806 Mar 22 02:00	1°♄12'01	1°51'17	minimum elong	3807 Mar 03 19:23	12°♄23'36	2°05'24
evening rise	3806 Mar 31 14:40	19°♄11'20			3807 Mar 13 15:31	0°♄	
asc. node	3806 Apr 05 00:05	27°♄28'48		evening rise	3807 Mar 14 17:59	2°♄00'59	
	3806 Apr 06 09:14	0°♄		asc. node	3807 Mar 22 21:08	16°♄31'24	
evening max el	3806 Apr 16 18:03	15°♄07'22	18°30'37	evening max el	3807 Mar 31 03:35	27°♄59'46	18°09'57
retrograde	3806 Apr 24 09:08	18°♄52'52			3807 Apr 02 14:10	0°♄	
evening set	3806 Apr 26 15:44	18°♄33'52		retrograde	3807 Apr 06 23:00	1°♄26'18	
inferior conj	3806 May 04 05:10	14°♄03'41	2°08'01	evening set	3807 Apr 09 11:50	0°♄58'12	
minimum elong	3806 May 04 08:51	13°♄56'25	2°06'59		3807 Apr 11 11:34	30°♄	
min. Earth dist.	3806 May 07 15:18	11°♄22'50	0.58152 AU	inferior conj	3807 Apr 16 08:16	26°♄06'35	3°03'29
morning rise	3806 May 11 21:33	8°♄39'55		minimum elong	3807 Apr 16 11:20	25°♄59'32	3°02'55
desc. node	3806 May 12 03:35	8°♄32'33		min. Earth dist.	3807 Apr 19 15:56	23°♄04'54	0.60308 AU
direct	3806 May 17 20:00	7°♄09'31		morning rise	3807 Apr 23 07:21	20°♄18'53	
morning max el	3806 Jun 01 05:16	14°♄49'49	26°49'08	desc. node	3807 Apr 29 00:37	18°♄16'04	
	3806 Jun 13 09:57	0°♄		direct	3807 Apr 29 21:47	18°♄13'52	
	3806 Jun 30 03:46	0°♄		morning max el	3807 May 14 04:56	26°♄06'43	27°38'46
morning set	3806 Jun 30 22:00	1°♄35'24			3807 May 17 20:08	0°♄	
asc. node	3806 Jul 01 23:21	3°♄49'27			3807 Jun 06 21:27	0°♄	

morning set	3807 Jun 15 04:42	16°II10'23		morning set	3808 May 29 06:00	0°II26'47	
asc. node	3807 Jun 18 20:23	23°II54'36			3808 May 29 00:42	0°II	
max. Earth dist.	3807 Jun 21 12:10	29°II41'53	1.32090 AU	max. Earth dist.	3808 Jun 03 20:07	12°II08'06	1.32512 AU
	3807 Jun 21 15:28	0°☿		asc. node	3808 Jun 04 17:26	14°II02'58	
superior conj	3807 Jun 22 10:48	1°☿46'10	0°37'04	superior conj	3808 Jun 05 20:04	16°II27'13	0°11'38
minimum elong	3807 Jun 22 09:13	1°☿37'31	0°36'44	minimum elong	3808 Jun 05 19:31	16°II24'14	0°11'31
evening rise	3807 Jun 29 07:32	16°☿43'59		behind sun begin	3808 Jun 05 15:55	16°II04'39	
	3807 Jul 05 21:05	0°♊		behind sun end	3808 Jun 05 23:07	16°II43'50	
desc. node	3807 Jul 25 23:55	29°♊27'15			3808 Jun 12 01:45	0°☿	
evening max el	3807 Jul 26 14:27	0°♊02'30	25°32'21	evening rise	3808 Jun 12 19:19	1°☿33'40	
	3807 Jul 26 13:24	0°♊			3808 Jun 28 09:38	0°♊	
retrograde	3807 Aug 09 13:47	7°♊08'34		evening max el	3808 Jul 07 04:02	10°♊38'45	24°01'34
evening set	3807 Aug 15 12:44	5°♊45'48		desc. node	3808 Jul 11 20:55	14°♊29'39	
min. Earth dist.	3807 Aug 20 02:25	3°♊07'27	0.58096 AU	retrograde	3808 Jul 20 22:24	17°♊34'32	
inferior conj	3807 Aug 23 06:02	0°♊54'55	-5°-7'-21	evening set	3808 Jul 25 12:04	16°♊48'21	
minimum elong	3807 Aug 23 07:55	0°♊51'35	5°07'17	min. Earth dist.	3808 Jul 31 14:29	13°♊49'39	0.56320 AU
	3807 Aug 24 13:35	30°♊♊		inferior conj	3808 Aug 03 00:59	12°♊19'45	-5°00'-4
morning rise	3807 Aug 31 06:35	26°♊36'22		minimum elong	3808 Aug 02 21:01	12°♊25'53	4°59'42
direct	3807 Sep 02 18:12	26°♊17'12		morning rise	3808 Aug 11 09:25	8°♊21'24	
	3807 Sep 10 21:56	0°♊		direct	3808 Aug 14 03:10	8°♊01'57	
morning max el	3807 Sep 11 06:16	0°♊19'24	18°49'27	morning max el	3808 Aug 24 00:44	12°♊37'55	19°50'04
asc. node	3807 Sep 14 19:36	4°♊20'41		asc. node	3808 Aug 31 16:39	22°♊20'14	
morning set	3807 Sep 27 16:34	26°♊34'39			3808 Sep 05 03:35	0°♊	
	3807 Sep 29 10:26	0°♊		morning set	3808 Sep 10 19:54	11°♊04'44	
superior conj	3807 Oct 06 06:18	13°♊15'01	1°34'07	superior conj	3808 Sep 18 16:46	27°♊00'25	1°43'03
minimum elong	3807 Oct 06 09:01	13°♊27'55	1°33'54	minimum elong	3808 Sep 18 17:46	27°♊05'26	1°43'02
max. Earth dist.	3807 Oct 13 07:22	26°♊12'02	1.39266 AU		3808 Sep 20 05:06	0°♊	
	3807 Oct 15 11:19	0°♋		max. Earth dist.	3808 Sep 24 12:11	8°♊15'13	1.37211 AU
evening rise	3807 Oct 17 06:59	3°♋07'49		evening rise	3808 Sep 28 07:57	15°♊16'42	
desc. node	3807 Oct 21 23:13	10°♋54'53			3808 Oct 06 22:50	0°♋	
	3807 Nov 03 10:17	0°♋		desc. node	3808 Oct 07 20:14	1°♋26'24	
evening max el	3807 Nov 21 12:42	22°♋48'25	24°18'07		3808 Oct 28 01:58	0°♋	
retrograde	3807 Dec 02 18:24	29°♋23'20		evening max el	3808 Nov 03 00:56	6°♋29'52	25°32'09
evening set	3807 Dec 08 02:19	27°♋10'55		retrograde	3808 Nov 15 05:21	13°♋29'47	
asc. node	3807 Dec 11 18:49	23°♋08'36		evening set	3808 Nov 21 03:19	11°♋02'49	
min. Earth dist.	3807 Dec 12 20:07	21°♋45'14	0.67731 AU	min. Earth dist.	3808 Nov 25 13:19	6°♋12'10	0.67125 AU
inferior conj	3807 Dec 13 14:24	20°♋43'49	0°36'57	inferior conj	3808 Nov 26 18:33	4°♋38'25	0°-18'-15
minimum elong	3807 Dec 13 13:31	20°♋46'46	0°36'35	minimum elong	3808 Nov 26 19:01	4°♋36'54	0°18'05
morning rise	3807 Dec 19 01:04	14°♋38'45		asc. node	3808 Nov 27 15:51	3°♋30'37	
direct	3807 Dec 22 20:04	13°♋16'42			3808 Nov 30 19:18	30°♋♋	
morning max el	3807 Dec 30 15:14	17°♋43'52	20°17'53	morning rise	3808 Dec 02 11:33	28°♋41'24	
greatest brilliancy	3808 Jan 06 03:02	25°♋27'09	-0.5m	direct	3808 Dec 05 18:40	27°♋38'50	
	3808 Jan 09 10:45	0°☿			3808 Dec 11 02:22	0°♋	
desc. node	3808 Jan 17 22:27	12°☿23'24		morning max el	3808 Dec 12 20:19	1°♋35'48	19°16'28
morning set	3808 Jan 27 10:08	26°☿50'20		greatest brilliancy	3808 Dec 22 12:15	14°♋03'11	-0.7m
	3808 Jan 29 11:02	0°♌			3809 Jan 02 00:27	0°☿	
max. Earth dist.	3808 Feb 06 12:06	12°♌42'35	1.43631 AU	desc. node	3809 Jan 03 19:29	2°☿46'30	
superior conj	3808 Feb 12 12:03	22°♌28'24	-2°-5'-7	morning set	3809 Jan 05 10:38	5°☿18'13	
minimum elong	3808 Feb 12 09:05	22°♌16'06	2°05'03	max. Earth dist.	3809 Jan 19 02:35	26°☿38'59	1.44788 AU
	3808 Feb 17 00:14	0°♍			3809 Jan 21 05:26	0°♌	
evening rise	3808 Feb 25 04:29	14°♍03'06		superior conj	3809 Jan 22 05:43	1°♌36'25	-1°-46'-2
	3808 Mar 05 12:05	0°♎		minimum elong	3809 Jan 21 21:21	1°♌03'10	1°45'23
asc. node	3808 Mar 08 18:09	5°♎02'34		evening rise	3809 Feb 05 17:52	25°♌09'26	
evening max el	3808 Mar 13 16:01	11°♎11'15	18°08'39		3809 Feb 08 15:58	0°♍	
retrograde	3808 Mar 20 02:59	14°♎34'14		asc. node	3809 Feb 23 15:11	22°♍51'59	
evening set	3808 Mar 22 21:27	13°♎55'42		evening max el	3809 Feb 25 04:23	24°♍33'47	18°26'07
inferior conj	3808 Mar 29 04:43	8°♎43'23	3°31'04	retrograde	3809 Mar 03 16:20	28°♍06'17	
minimum elong	3808 Mar 29 06:05	8°♎39'48	3°30'57	evening set	3809 Mar 06 16:32	27°♍16'20	
min. Earth dist.	3808 Apr 01 00:59	5°♎45'23	0.62446 AU	inferior conj	3809 Mar 12 14:20	21°♍45'10	3°37'12
morning rise	3808 Apr 04 12:20	2°♎40'53		minimum elong	3809 Mar 12 14:00	21°♍46'08	3°37'11
direct	3808 Apr 11 09:18	0°♎08'18		min. Earth dist.	3809 Mar 14 19:34	19°♍10'21	0.64340 AU
desc. node	3808 Apr 14 21:38	0°♎44'11		morning rise	3809 Mar 18 09:54	15°♍34'30	
morning max el	3808 Apr 25 10:38	8°♎06'31	27°51'08	direct	3809 Mar 25 04:56	12°♍46'58	
	3808 May 12 06:00	0°♏		desc. node	3809 Apr 01 18:40	15°♍33'10	

morning max el	3809 Apr 07 19:53	20° Υ 42'07	27°27'08		3810 Mar 17 04:26	0° Υ	
	3809 Apr 15 20:33	0° Υ		desc. node	3810 Mar 19 15:43	2° Υ 08'50	
	3809 May 05 08:02	0° Υ		morning max el	3810 Mar 21 05:48	3° Υ 41'31	26°32'45
morning set	3809 May 12 23:15	14° Υ 15'47			3810 Apr 10 05:08	0° Υ	
max. Earth dist.	3809 May 17 20:23	24° Υ 07'20	1.33368 AU	morning set	3810 Apr 26 05:01	27° Υ 27'18	
	3809 May 20 15:36	0° Π			3810 Apr 27 13:08	0° Υ	
				max. Earth dist.	3810 Apr 30 09:38	5° Υ 33'29	1.34688 AU
superior conj	3809 May 21 01:18	0° Π 51'31	0°-16'-7				
minimum elong	3809 May 21 02:07	0° Π 55'52	0°15'57	superior conj	3810 May 05 00:17	14° Υ 52'50	0°-45'-4
behind sun begin	3809 May 21 01:54	0° Π 54'40		minimum elong	3810 May 05 02:41	15° Υ 05'09	0°44'37
behind sun end	3809 May 21 02:21	0° Π 57'05		asc. node	3810 May 09 11:30	24° Υ 11'28	
asc. node	3809 May 22 14:29	4° Π 09'51			3810 May 12 06:13	0° Π	
evening rise	3809 May 28 06:41	16° Π 17'27		evening rise	3810 May 12 15:46	0° Π 49'34	
	3809 Jun 04 03:07	0° Υ			3810 May 29 23:41	0° Υ	
evening max el	3809 Jun 18 18:19	21° Υ 03'04	22°24'41	evening max el	3810 May 31 17:11	1° Υ 48'23	20°55'56
desc. node	3809 Jun 28 17:55	27° Υ 10'02		retrograde	3810 Jun 12 07:58	7° Υ 29'23	
retrograde	3809 Jul 01 19:05	27° Υ 31'28		evening set	3810 Jun 14 11:57	7° Υ 18'18	
evening set	3809 Jul 04 21:11	27° Υ 10'26		desc. node	3810 Jun 15 14:56	7° Υ 04'13	
min. Earth dist.	3809 Jul 13 01:12	23° Υ 37'27	0.55143 AU	inferior conj	3810 Jun 23 19:34	3° Υ 21'04	-2°-22'-49
inferior conj	3809 Jul 14 02:13	23° Υ 02'01	-4°-4'-15	minimum elong	3810 Jun 23 13:00	3° Υ 30'22	2°20'34
minimum elong	3809 Jul 13 17:56	23° Υ 13'46	4°02'15	min. Earth dist.	3810 Jun 24 12:53	2° Υ 56'31	0.54854 AU
morning rise	3809 Jul 22 16:57	19° Υ 11'47			3810 Jun 30 10:55	30° Υ	
direct	3809 Jul 25 18:46	18° Υ 50'22		morning rise	3810 Jul 02 13:28	29° Π 19'45	
morning max el	3809 Aug 06 07:28	24° Υ 12'22	21°11'32	direct	3810 Jul 06 04:05	28° Π 51'41	
	3809 Aug 11 11:25	0° Ω			3810 Jul 11 16:14	0° Υ	
asc. node	3809 Aug 18 13:42	11° Ω 01'30		morning max el	3810 Jul 19 03:39	5° Υ 04'32	22°49'01
morning set	3809 Aug 26 03:58	25° Ω 48'54		asc. node	3810 Aug 05 10:44	0° Ω 13'53	
	3809 Aug 28 04:11	0° η			3810 Aug 05 07:51	0° Ω	
				morning set	3810 Aug 10 14:46	10° Ω 40'55	
superior conj	3809 Sep 02 13:46	11° η 17'22	1°43'56				
minimum elong	3809 Sep 02 13:15	11° η 14'42	1°43'56	superior conj	3810 Aug 17 17:55	25° Ω 55'01	1°38'08
max. Earth dist.	3809 Sep 06 21:58	20° η 06'14	1.35388 AU	minimum elong	3810 Aug 17 16:18	25° Ω 46'27	1°38'01
evening rise	3809 Sep 11 03:41	28° η 18'58			3810 Aug 19 16:10	0° η	
	3809 Sep 12 01:14	0° Ω		max. Earth dist.	3810 Aug 20 16:32	2° η 07'38	1.33935 AU
desc. node	3809 Sep 24 17:14	21° Ω 43'19		evening rise	3810 Aug 25 13:45	12° η 02'16	
	3809 Sep 30 04:54	0° \mathbb{M}			3810 Sep 04 08:34	0° Ω	
evening max el	3809 Oct 16 13:19	20° \mathbb{M} 09'58	26°33'06	desc. node	3810 Sep 11 14:15	11° Ω 38'22	
retrograde	3809 Oct 29 11:16	27° \mathbb{M} 24'03			3810 Sep 25 12:18	0° \mathbb{M}	
evening set	3809 Nov 04 22:30	24° \mathbb{M} 46'42		evening max el	3810 Sep 29 01:43	3° \mathbb{M} 39'40	27°13'31
min. Earth dist.	3809 Nov 09 01:23	20° \mathbb{M} 32'01	0.66174 AU	retrograde	3810 Oct 12 11:24	10° \mathbb{M} 57'47	
inferior conj	3809 Nov 10 18:04	18° \mathbb{M} 29'55	-1°-17'-18	evening set	3810 Oct 19 09:30	8° \mathbb{M} 17'08	
minimum elong	3809 Nov 10 20:11	18° \mathbb{M} 23'33	1°16'26	min. Earth dist.	3810 Oct 23 05:58	4° \mathbb{M} 38'10	0.64877 AU
asc. node	3809 Nov 14 12:53	14° \mathbb{M} 22'19		inferior conj	3810 Oct 25 10:42	2° \mathbb{M} 13'00	-2°-18'-23
morning rise	3809 Nov 16 19:15	12° \mathbb{M} 43'31		minimum elong	3810 Oct 25 14:34	2° \mathbb{M} 02'17	2°16'54
direct	3809 Nov 19 16:34	11° \mathbb{M} 56'39			3810 Oct 27 12:35	30° \mathbb{R}	
morning max el	3809 Nov 26 07:51	15° \mathbb{M} 34'17	18°30'49	morning rise	3810 Oct 31 21:38	26° Ω 40'18	
	3809 Dec 06 23:30	0° \mathbb{A}		asc. node	3810 Nov 01 09:56	26° Ω 27'49	
morning set	3809 Dec 16 10:49	15° \mathbb{A} 01'09		direct	3810 Nov 03 11:35	26° Ω 05'09	
desc. node	3809 Dec 21 16:30	23° \mathbb{A} 21'26		morning max el	3810 Nov 09 23:17	29° Ω 32'38	18°01'51
	3809 Dec 25 21:17	0° \mathbb{B}			3810 Nov 10 09:59	0° \mathbb{M}	
				morning set	3810 Nov 27 16:29	26° \mathbb{M} 11'37	
superior conj	3810 Jan 01 08:39	10° \mathbb{B} 10'40	-1°-8'-37		3810 Nov 29 23:24	0° \mathbb{A}	
minimum elong	3810 Jan 01 00:26	9° \mathbb{B} 38'27	1°07'39	desc. node	3810 Dec 08 13:31	14° \mathbb{A} 03'44	
max. Earth dist.	3810 Jan 01 20:42	10° \mathbb{B} 57'57	1.45247 AU				
	3810 Jan 13 23:19	0° \approx		superior conj	3810 Dec 11 16:54	19° \mathbb{A} 06'05	0°-21'-25
evening rise	3810 Jan 17 07:55	5° \approx 18'54		minimum elong	3810 Dec 11 14:15	18° \mathbb{A} 55'32	0°21'02
	3810 Feb 02 05:18	0° Υ		max. Earth dist.	3810 Dec 15 15:45	25° \mathbb{A} 22'13	1.44966 AU
evening max el	3810 Feb 08 14:22	8° Υ 02'43	19°01'24		3810 Dec 18 14:27	0° \mathbb{B}	
asc. node	3810 Feb 10 12:11	9° Υ 47'54		evening rise	3810 Dec 28 01:47	14° \mathbb{B} 42'49	
retrograde	3810 Feb 15 11:19	11° Υ 55'48			3811 Jan 07 01:16	0° \approx	
evening set	3810 Feb 18 18:02	10° Υ 53'25		greatest brilliancy	3811 Jan 15 17:01	12° \approx 42'44	-0.6m
inferior conj	3810 Feb 24 09:28	5° Υ 05'23	3°27'16	evening max el	3811 Jan 22 20:04	21° \approx 34'13	19°52'54
minimum elong	3810 Feb 24 07:52	5° Υ 10'24	3°27'04	asc. node	3811 Jan 28 09:13	25° \approx 35'45	
min. Earth dist.	3810 Feb 25 23:15	3° Υ 06'09	0.65865 AU	retrograde	3811 Jan 30 08:55	25° \approx 57'08	
	3810 Feb 28 15:51	30° \mathbb{R}		evening set	3811 Feb 02 23:32	24° \approx 41'02	
morning rise	3810 Mar 01 20:42	28° \approx 50'55		inferior conj	3811 Feb 08 11:04	18° \approx 38'30	3°05'04
direct	3810 Mar 08 07:29	26° \approx 02'12		minimum elong	3811 Feb 08 08:45	18° \approx 46'11	3°04'35

min. Earth dist.	3811 Feb 09 10:26	17° \approx 20'31	0.66970 AU		3812 Jan 25 10:07	30° \mathbb{R} \mathbb{Z}	
morning rise	3811 Feb 13 17:20	12° \approx 22'49		morning rise	3812 Jan 28 20:58	26° \mathbb{Z} 05'46	
direct	3811 Feb 19 15:42	9° \approx 44'46		direct	3812 Feb 03 04:46	23° \mathbb{Z} 46'16	
morning max el	3811 Mar 03 14:41	16° \approx 53'09	25°17'02		3812 Feb 13 18:44	0° \approx	
desc. node	3811 Mar 06 12:44	20° \approx 01'00		morning max el	3812 Feb 13 23:13	0° \approx 11'16	23°49'59
	3811 Mar 14 12:43	0° \mathbb{H}		desc. node	3812 Feb 21 09:45	8° \approx 47'34	
	3811 Apr 03 04:12	0° \mathbb{Y}			3812 Mar 07 10:05	0° \mathbb{H}	
morning set	3811 Apr 08 18:41	9° \mathbb{Y} 48'06		morning set	3812 Mar 20 10:18	21° \mathbb{H} 01'17	
max. Earth dist.	3811 Apr 12 11:47	16° \mathbb{Y} 37'17	1.36451 AU	max. Earth dist.	3812 Mar 24 07:37	27° \mathbb{H} 47'37	1.38538 AU
					3812 Mar 25 13:18	0° \mathbb{Y}	
superior conj	3811 Apr 18 14:14	28° \mathbb{Y} 23'34	-1°-13'-36				
minimum elong	3811 Apr 18 18:06	28° \mathbb{Y} 42'45	1°13'00	superior conj	3812 Mar 31 15:25	11° \mathbb{Y} 13'04	-1°-39'-22
	3811 Apr 19 09:38	0° \mathbb{B}		minimum elong	3812 Mar 31 20:07	11° \mathbb{Y} 35'16	1°38'51
asc. node	3811 Apr 26 08:33	14° \mathbb{B} 03'47		evening rise	3812 Apr 09 17:53	28° \mathbb{Y} 51'38	
evening rise	3811 Apr 26 20:24	15° \mathbb{B} 03'44			3812 Apr 10 07:54	0° \mathbb{B}	
	3811 May 04 15:41	0° \mathbb{I}		asc. node	3812 Apr 12 05:36	3° \mathbb{B} 41'20	
evening max el	3811 May 14 04:12	13° \mathbb{I} 12'53	19°43'48	evening max el	3812 Apr 26 02:18	25° \mathbb{B} 16'49	18°51'27
retrograde	3811 May 24 01:04	18° \mathbb{I} 00'48		retrograde	3812 May 04 10:03	29° \mathbb{B} 21'00	
evening set	3811 May 26 00:10	17° \mathbb{I} 50'16		evening set	3812 May 06 13:06	29° \mathbb{B} 06'05	
desc. node	3811 Jun 02 11:58	14° \mathbb{I} 36'33		inferior conj	3812 May 14 13:33	24° \mathbb{B} 47'07	1°21'25
inferior conj	3811 Jun 03 19:37	13° \mathbb{I} 47'55	0°-23'-21	minimum elong	3812 May 14 16:27	24° \mathbb{B} 41'52	1°20'27
minimum elong	3811 Jun 03 18:33	13° \mathbb{I} 49'34	0°22'59	min. Earth dist.	3812 May 17 18:21	22° \mathbb{B} 29'34	0.57032 AU
min. Earth dist.	3811 Jun 06 02:15	12° \mathbb{I} 23'19	0.55534 AU	desc. node	3812 May 19 09:00	21° \mathbb{B} 25'55	
morning rise	3811 Jun 12 09:41	9° \mathbb{I} 18'09		morning rise	3812 May 22 15:24	19° \mathbb{B} 41'45	
direct	3811 Jun 16 20:04	8° \mathbb{I} 34'37		direct	3812 May 28 01:07	18° \mathbb{B} 31'22	
morning max el	3811 Jun 30 18:04	15° \mathbb{I} 31'06	24°32'08	morning max el	3812 Jun 11 09:05	25° \mathbb{B} 58'54	26°05'48
	3811 Jul 12 07:09	0° \mathbb{G}			3812 Jun 15 04:02	0° \mathbb{I}	
asc. node	3811 Jul 23 07:47	19° \mathbb{G} 49'18			3812 Jul 04 10:13	0° \mathbb{G}	
morning set	3811 Jul 26 02:36	25° \mathbb{G} 35'51		asc. node	3812 Jul 09 04:51	9° \mathbb{G} 40'23	
	3811 Jul 28 04:02	0° \mathbb{Q}		morning set	3812 Jul 09 13:48	10° \mathbb{G} 27'30	
superior conj	3811 Aug 02 02:40	10° \mathbb{Q} 45'32	1°26'45	superior conj	3812 Jul 16 13:51	25° \mathbb{G} 41'00	1°10'36
minimum elong	3811 Aug 02 00:27	10° \mathbb{Q} 33'29	1°26'29	minimum elong	3812 Jul 16 11:32	25° \mathbb{G} 28'10	1°10'12
max. Earth dist.	3811 Aug 03 19:56	14° \mathbb{Q} 29'12	1.32896 AU	max. Earth dist.	3812 Jul 17 05:17	27° \mathbb{G} 05'52	1.32265 AU
evening rise	3811 Aug 09 10:18	26° \mathbb{Q} 15'43			3812 Jul 18 13:02	0° \mathbb{Q}	
	3811 Aug 11 06:57	0° \mathbb{N}		evening rise	3812 Jul 23 14:06	10° \mathbb{Q} 48'45	
	3811 Aug 28 17:59	0° \mathbb{A}			3812 Aug 02 12:51	0° \mathbb{N}	
desc. node	3811 Aug 29 11:17	1° \mathbb{A} 02'21		desc. node	3812 Aug 15 08:19	19° \mathbb{N} 41'40	
evening max el	3811 Sep 11 12:33	16° \mathbb{A} 46'49	27°26'33	evening max el	3812 Aug 23 18:59	29° \mathbb{N} 16'42	27°07'31
retrograde	3811 Sep 25 05:05	24° \mathbb{A} 02'48			3812 Aug 24 13:40	0° \mathbb{A}	
evening set	3811 Oct 02 09:19	21° \mathbb{A} 28'29		retrograde	3812 Sep 06 15:36	6° \mathbb{A} 29'21	
min. Earth dist.	3811 Oct 06 01:01	18° \mathbb{A} 22'03	0.63249 AU	evening set	3812 Sep 13 18:01	4° \mathbb{A} 13'32	
inferior conj	3811 Oct 08 17:48	15° \mathbb{A} 41'41	-3°-18'-40	min. Earth dist.	3812 Sep 17 09:17	1° \mathbb{A} 30'55	0.61330 AU
minimum elong	3811 Oct 08 23:11	15° \mathbb{A} 28'20	3°16'55		3812 Sep 19 03:17	30° \mathbb{R} \mathbb{N}	
morning rise	3811 Oct 15 15:35	10° \mathbb{A} 26'11		inferior conj	3812 Sep 20 12:09	28° \mathbb{N} 47'21	-4°-13'-24
direct	3811 Oct 18 00:52	9° \mathbb{A} 59'05		minimum elong	3812 Sep 20 18:01	28° \mathbb{N} 34'29	4°12'01
asc. node	3811 Oct 19 06:59	10° \mathbb{A} 06'44		morning rise	3812 Sep 27 21:07	23° \mathbb{N} 52'40	
morning max el	3811 Oct 24 15:51	13° \mathbb{A} 24'43	17°50'25	direct	3812 Sep 30 04:42	23° \mathbb{N} 30'36	
	3811 Nov 05 00:56	0° \mathbb{M}		asc. node	3812 Oct 05 04:02	25° \mathbb{N} 16'28	
morning set	3811 Nov 09 23:12	8° \mathbb{M} 34'39		morning max el	3812 Oct 07 06:25	27° \mathbb{N} 02'42	17°57'35
					3812 Oct 09 21:18	0° \mathbb{A}	
superior conj	3811 Nov 21 23:27	29° \mathbb{M} 08'36	0°23'52	morning set	3812 Oct 23 00:31	21° \mathbb{A} 50'41	
minimum elong	3811 Nov 22 01:50	29° \mathbb{M} 18'33	0°23'32		3812 Oct 27 11:31	0° \mathbb{M}	
	3811 Nov 22 11:51	0° \mathbb{J}					
desc. node	3811 Nov 25 10:33	4° \mathbb{J} 50'14		superior conj	3812 Nov 02 08:55	10° \mathbb{M} 30'26	0°59'54
max. Earth dist.	3811 Nov 28 09:10	9° \mathbb{J} 35'38	1.43984 AU	minimum elong	3812 Nov 02 13:06	10° \mathbb{M} 48'42	0°59'21
evening rise	3811 Dec 07 11:09	23° \mathbb{J} 52'09		max. Earth dist.	3812 Nov 09 22:07	23° \mathbb{M} 20'11	1.42414 AU
	3811 Dec 11 11:15	0° \mathbb{Z}		desc. node	3812 Nov 11 07:36	25° \mathbb{M} 37'46	
greatest brilliancy	3811 Dec 31 11:28	28° \mathbb{Z} 49'36	-0.5m		3812 Nov 14 00:20	0° \mathbb{J}	
	3812 Jan 01 09:40	0° \approx		evening rise	3812 Nov 16 04:15	3° \mathbb{J} 26'52	
evening max el	3812 Jan 05 20:21	5° \approx 06'36	20°57'58		3812 Dec 03 21:13	0° \mathbb{Z}	
retrograde	3812 Jan 14 06:53	10° \approx 06'13		greatest brilliancy	3812 Dec 13 21:41	13° \mathbb{Z} 20'47	-0.3m
asc. node	3812 Jan 15 06:16	10° \approx 01'01		evening max el	3812 Dec 18 15:12	18° \mathbb{Z} 40'27	22°12'50
evening set	3812 Jan 18 06:59	8° \approx 35'10		retrograde	3812 Dec 28 03:27	24° \mathbb{Z} 20'01	
inferior conj	3812 Jan 23 16:40	2° \approx 20'50	2°33'07	asc. node	3813 Jan 01 03:18	22° \mathbb{Z} 54'57	
minimum elong	3812 Jan 23 14:10	2° \approx 29'26	2°32'25	evening set	3813 Jan 01 14:43	22° \mathbb{Z} 33'03	
min. Earth dist.	3812 Jan 24 03:04	1° \approx 45'02	0.67665 AU	inferior conj	3813 Jan 07 00:14	16° \mathbb{Z} 10'24	1°53'11

minimum elong	3813 Jan 06 22:01	16°☿18'04	1°52'25	inferior conj	3813 Dec 22 07:52	0°☿04'10	1°06'30
min. Earth dist.	3813 Jan 06 22:58	16°☿14'48	0.67971 AU	minimum elong	3813 Dec 22 06:23	0°☿09'15	1°05'54
morning rise	3813 Jan 12 05:10	9°☿57'32		min. Earth dist.	3813 Dec 21 19:44	0°☿45'44	0.67915 AU
direct	3813 Jan 16 21:57	8°☿00'23			3813 Dec 22 09:06	30°☿☿	
morning max el	3813 Jan 26 10:14	13°☿36'33	22°21'29	morning rise	3813 Dec 27 15:49	23°☿55'27	
greatest brilliancy	3813 Jan 30 23:44	18°☿42'15	-0.3m	direct	3813 Dec 31 18:19	22°☿21'05	
desc. node	3813 Feb 07 06:48	28°☿13'27		morning max el	3814 Jan 09 02:59	27°☿11'19	20°59'36
	3813 Feb 08 13:27	0°☿			3814 Jan 11 17:17	0°☿	
	3813 Feb 28 08:56	0°☿		greatest brilliancy	3814 Jan 14 14:39	3°☿30'53	-0.5m
morning set	3813 Feb 28 22:16	0°☿54'07		desc. node	3814 Jan 25 03:50	18°☿07'23	
max. Earth dist.	3813 Mar 06 04:23	9°☿36'43	1.40711 AU		3814 Feb 02 02:42	0°☿	
				morning set	3814 Feb 08 06:39	9°☿☿30'52	
superior conj	3813 Mar 13 23:18	23°☿10'32	-1°-58'-53	max. Earth dist.	3814 Feb 16 07:15	22°☿☿19'16	1.42687 AU
minimum elong	3813 Mar 14 03:11	23°☿27'59	1°58'39		3814 Feb 20 22:50	0°☿	
	3813 Mar 17 17:26	0°☿					
evening rise	3813 Mar 24 04:58	12°☿05'19		superior conj	3814 Feb 23 08:46	4°☿04'12	-2°-7'-22
asc. node	3813 Mar 30 02:38	22°☿58'44		minimum elong	3814 Feb 23 09:05	4°☿05'35	2°07'22
	3813 Apr 03 06:35	0°☿		evening rise	3814 Mar 07 01:36	24°☿35'14	
evening max el	3813 Apr 09 08:36	7°☿53'53	18°19'23		3814 Mar 10 02:12	0°☿	
retrograde	3813 Apr 16 14:06	11°☿29'47		asc. node	3814 Mar 16 23:39	11°☿48'48	
evening set	3813 Apr 18 23:15	11°☿07'16		evening max el	3814 Mar 23 19:40	20°☿54'53	18°07'06
inferior conj	3813 Apr 26 05:01	6°☿27'50	2°35'20	retrograde	3814 Mar 30 10:22	24°☿18'17	
minimum elong	3813 Apr 26 08:39	6°☿20'07	2°34'26	evening set	3814 Apr 02 01:33	23°☿46'00	
min. Earth dist.	3813 Apr 29 15:28	3°☿35'01	0.59046 AU	inferior conj	3814 Apr 08 15:56	18°☿45'44	3°18'12
morning rise	3813 May 03 13:57	0°☿52'18		minimum elong	3814 Apr 08 18:20	18°☿39'53	3°17'51
	3813 May 05 09:50	30°☿☿		min. Earth dist.	3814 Apr 11 19:39	15°☿42'24	0.61232 AU
desc. node	3813 May 06 06:01	29°☿41'46		morning rise	3814 Apr 15 08:03	12°☿50'32	
direct	3813 May 09 20:01	29°☿07'03		direct	3814 Apr 22 02:25	10°☿32'08	
	3813 May 14 09:21	0°☿		desc. node	3814 Apr 23 03:02	10°☿35'09	
morning max el	3813 May 24 05:19	6°☿54'07	27°14'38	morning max el	3814 May 06 07:45	18°☿29'09	27°48'40
	3813 Jun 10 12:35	0°☿			3814 May 16 00:05	0°☿	
morning set	3813 Jun 23 22:40	25°☿10'30			3814 Jun 03 06:47	0°☿	
asc. node	3813 Jun 26 01:54	29°☿41'53		morning set	3814 Jun 08 03:21	9°☿☿38'36	
	3813 Jun 26 05:17	0°☿		asc. node	3814 Jun 12 22:58	19°☿49'03	
max. Earth dist.	3813 Jun 30 16:59	9°☿☿47'43	1.32035 AU	max. Earth dist.	3814 Jun 14 03:15	22°☿☿22'31	1.32208 AU
superior conj	3813 Jul 01 01:40	10°☿☿35'37	0°50'21	superior conj	3814 Jun 15 12:23	25°☿☿23'28	0°26'37
minimum elong	3813 Jun 30 23:41	10°☿☿24'43	0°49'57	minimum elong	3814 Jun 15 11:11	25°☿☿16'59	0°26'22
evening rise	3813 Jul 07 22:36	25°☿☿33'36			3814 Jun 17 14:47	0°☿	
	3813 Jul 10 01:41	0°☿		evening rise	3814 Jun 22 09:43	10°☿☿23'24	
	3813 Jul 27 09:57	0°☿			3814 Jul 02 10:22	0°☿	
desc. node	3813 Aug 02 05:21	7°☿☿18'09		evening max el	3814 Jul 18 11:11	21°☿☿57'26	24°55'38
evening max el	3813 Aug 05 18:36	10°☿☿59'46	26°15'23	desc. node	3814 Jul 20 02:20	23°☿☿26'38	
retrograde	3813 Aug 19 17:58	18°☿☿09'29		retrograde	3814 Aug 01 09:58	29°☿☿01'00	
evening set	3813 Aug 26 06:47	16°☿☿24'44		evening set	3814 Aug 06 19:39	27°☿☿54'38	
min. Earth dist.	3813 Aug 30 07:34	13°☿☿50'15	0.59260 AU	min. Earth dist.	3814 Aug 11 22:42	25°☿☿09'21	0.57283 AU
inferior conj	3813 Sep 02 14:13	11°☿☿20'33	-4°-54'-34	inferior conj	3814 Aug 14 21:00	23°☿☿12'59	-5°-9'-35
minimum elong	3813 Sep 02 18:26	11°☿☿12'29	4°54'04	minimum elong	3814 Aug 14 20:35	23°☿☿13'41	5°09'36
morning rise	3813 Sep 10 09:36	6°☿☿49'01		morning rise	3814 Aug 23 01:06	19°☿☿03'43	
direct	3813 Sep 12 18:40	6°☿☿29'30		direct	3814 Aug 25 14:49	18°☿☿44'45	
morning max el	3813 Sep 20 15:43	10°☿☿17'41	18°24'30	morning max el	3814 Sep 03 16:27	23°☿☿00'14	19°12'30
asc. node	3813 Sep 22 01:06	11°☿☿44'10		asc. node	3814 Sep 08 22:09	29°☿☿14'54	
	3813 Oct 03 14:34	0°☿			3814 Sep 09 10:35	0°☿	
morning set	3813 Oct 06 14:56	5°☿☿43'46		morning set	3814 Sep 20 14:29	20°☿☿03'24	
					3814 Sep 25 14:15	0°☿	
superior conj	3813 Oct 15 17:41	23°☿☿00'12	1°24'41	superior conj	3814 Sep 28 20:15	6°☿☿22'38	1°38'59
minimum elong	3813 Oct 15 21:15	23°☿☿16'42	1°24'20	minimum elong	3814 Sep 28 22:15	6°☿☿32'19	1°38'52
	3813 Oct 19 14:16	0°☿		max. Earth dist.	3814 Oct 05 09:40	18°☿☿42'25	1.38377 AU
max. Earth dist.	3813 Oct 23 05:23	6°☿☿21'43	1.40459 AU	evening rise	3814 Oct 09 05:39	25°☿☿31'42	
evening rise	3813 Oct 27 17:10	13°☿☿56'39			3814 Oct 11 20:07	0°☿	
desc. node	3813 Oct 29 04:38	16°☿☿22'20		desc. node	3814 Oct 16 01:40	7°☿☿00'20	
	3813 Nov 06 20:27	0°☿			3814 Oct 31 11:43	0°☿	
	3813 Nov 29 01:41	0°☿		evening max el	3814 Nov 13 18:39	15°☿☿58'04	24°50'45
evening max el	3813 Dec 01 05:53	2°☿☿17'02	23°32'34	retrograde	3814 Nov 25 10:49	22°☿☿45'09	
retrograde	3813 Dec 11 21:09	8°☿☿34'18		evening set	3814 Dec 01 00:33	20°☿☿26'29	
evening set	3813 Dec 16 21:06	6°☿☿31'06		min. Earth dist.	3814 Dec 05 15:01	15°☿☿15'14	0.67516 AU
asc. node	3813 Dec 19 00:19	4°☿☿22'36					

asc. node	3814 Dec 05 21:20	14°♄54'25			3815 Oct 04 13:39	0°♍	
inferior conj	3814 Dec 06 13:51	13°♄59'49	0°14'06	evening max el	3815 Oct 27 07:06	29°♍40'36	26°00'06
minimum elong	3814 Dec 06 13:30	14°♄00'59	0°13'56		3815 Oct 27 15:10	0°♄	
transit middle	3814 Dec 06 13:30	14°♄00'59	0°13'56	retrograde	3815 Nov 08 19:32	6°♄47'03	
transit begin	3814 Dec 06 12:05	14°♄05'38		evening set	3815 Nov 14 23:19	4°♄15'18	
transit end	3814 Dec 06 14:54	13°♄56'19			3815 Nov 18 23:46	30°♍	
morning rise	3814 Dec 12 02:57	7°♄57'34		min. Earth dist.	3815 Nov 19 06:22	29°♍39'43	0.66771 AU
direct	3814 Dec 15 16:39	6°♄44'09		inferior conj	3815 Nov 20 16:17	27°♍53'43	0°-42'-54
morning max el	3814 Dec 23 03:30	10°♄57'20	19°49'47	minimum elong	3815 Nov 20 17:26	27°♍50'09	0°42'26
greatest brilliancy	3814 Dec 30 16:01	20°♄10'11	-0.6m	asc. node	3815 Nov 22 18:23	25°♍22'20	
	3815 Jan 06 11:36	0°♄		morning rise	3815 Nov 26 12:33	22°♍00'41	
desc. node	3815 Jan 12 00:53	8°♄21'48		direct	3815 Nov 29 15:18	21°♍05'06	
morning set	3815 Jan 18 02:34	17°♄40'00		morning max el	3815 Dec 06 11:30	24°♍52'18	18°54'57
	3815 Jan 26 00:39	0°♄			3815 Dec 10 20:09	0°♄	
max. Earth dist.	3815 Jan 29 17:54	5°♄52'58	1.44208 AU	morning set	3815 Dec 28 11:27	26°♄35'35	
				desc. node	3815 Dec 29 21:56	28°♄50'36	
superior conj	3815 Feb 03 16:28	13°♄48'50	-1°-59'-28		3815 Dec 30 15:39	0°♄	
minimum elong	3815 Feb 03 10:53	13°♄26'13	1°59'12	max. Earth dist.	3816 Jan 12 10:40	20°♄02'39	1.45080 AU
	3815 Feb 13 11:22	0°♄					
evening rise	3815 Feb 17 03:29	6°♄13'37		superior conj	3816 Jan 14 01:50	22°♄36'45	-1°-32'-3
asc. node	3815 Mar 03 20:39	0°♄03'23		minimum elong	3816 Jan 13 16:37	22°♄00'27	1°31'10
	3815 Mar 03 19:39	0°♄			3816 Jan 18 17:58	0°♄	
evening max el	3815 Mar 07 08:26	4°♄11'57	18°13'54	evening rise	3816 Jan 29 06:59	16°♄55'29	
retrograde	3815 Mar 13 18:39	7°♄37'07			3816 Feb 06 08:30	0°♄	
evening set	3815 Mar 16 15:34	6°♄53'48		asc. node	3816 Feb 18 17:40	17°♄31'57	
inferior conj	3815 Mar 22 18:24	1°♄33'28	3°35'55	evening max el	3816 Feb 18 20:08	17°♄38'14	18°39'03
minimum elong	3815 Mar 22 19:01	1°♄31'48	3°35'53	retrograde	3816 Feb 25 10:49	21°♄17'57	
	3815 Mar 24 04:14	30°♄		evening set	3816 Feb 28 13:46	20°♄22'38	
min. Earth dist.	3815 Mar 25 08:35	28°♄43'15	0.63296 AU	inferior conj	3816 Mar 05 08:29	14°♄43'55	3°34'40
morning rise	3815 Mar 28 20:28	25°♄27'04		minimum elong	3816 Mar 05 07:33	14°♄46'44	3°34'36
direct	3815 Apr 04 17:46	22°♄46'09		min. Earth dist.	3816 Mar 07 07:01	12°♄23'29	0.65041 AU
desc. node	3815 Apr 10 00:03	24°♄06'51		morning rise	3816 Mar 11 00:06	8°♄31'30	
	3815 Apr 17 21:04	0°♄		direct	3816 Mar 17 16:18	5°♄42'04	
morning max el	3815 Apr 18 15:00	0°♄44'08	27°45'04	desc. node	3816 Mar 26 21:05	9°♄45'39	
	3815 May 10 02:19	0°♄		morning max el	3816 Mar 31 00:44	13°♄31'15	27°07'17
morning set	3815 May 23 01:32	23°♄43'56			3816 Apr 13 08:16	0°♄	
	3815 May 26 03:18	0°♄			3816 May 01 17:26	0°♄	
max. Earth dist.	3815 May 28 08:10	4°♄37'16	1.32814 AU	morning set	3816 May 05 14:21	7°♄18'18	
				max. Earth dist.	3816 May 10 04:14	16°♄23'32	1.33876 AU
superior conj	3815 May 30 20:10	9°♄58'06	0°00'05				
minimum elong	3815 May 30 20:09	9°♄58'04	0°00'05	superior conj	3816 May 13 23:03	24°♄13'38	0°-28'-19
behind sun begin	3815 May 30 14:57	9°♄29'58		minimum elong	3816 May 14 00:32	24°♄21'23	0°28'02
behind sun end	3815 May 31 01:22	10°♄26'11		asc. node	3816 May 16 17:00	0°♄02'22	
asc. node	3815 May 30 19:59	9°♄57'05			3816 May 16 16:34	0°♄	
evening rise	3815 Jun 06 21:31	25°♄11'10		evening rise	3816 May 21 08:12	9°♄51'09	
	3815 Jun 09 04:48	0°♄			3816 May 31 22:07	0°♄	
	3815 Jun 27 16:30	0°♄		evening max el	3816 Jun 10 17:24	12°♄54'44	21°45'15
evening max el	3815 Jun 30 00:17	2°♄25'15	23°20'21	desc. node	3816 Jun 22 20:19	19°♄04'19	
desc. node	3815 Jul 06 23:20	7°♄33'12		retrograde	3816 Jun 23 05:01	19°♄04'37	
retrograde	3815 Jul 13 13:04	9°♄11'20		evening set	3816 Jun 25 19:47	18°♄49'13	
evening set	3815 Jul 17 10:52	8°♄37'57		inferior conj	3816 Jul 05 03:56	14°♄47'18	-3°-25'-38
min. Earth dist.	3815 Jul 24 09:56	5°♄26'21	0.55724 AU	minimum elong	3816 Jul 04 19:35	14°♄58'58	3°23'12
inferior conj	3815 Jul 26 07:46	4°♄18'54	-4°-42'-48	min. Earth dist.	3816 Jul 04 20:29	14°♄57'43	0.54906 AU
minimum elong	3815 Jul 26 01:26	4°♄28'16	4°41'47	morning rise	3816 Jul 13 20:39	10°♄55'17	
morning rise	3815 Aug 03 19:00	0°♄25'39		direct	3816 Jul 17 03:23	10°♄31'44	
direct	3815 Aug 06 16:02	0°♄05'32		morning max el	3816 Jul 29 07:39	16°♄14'43	21°51'34
morning max el	3815 Aug 17 05:54	5°♄00'09	20°22'15		3816 Aug 08 23:01	0°♄	
asc. node	3815 Aug 26 19:12	17°♄33'45		asc. node	3816 Aug 12 16:16	6°♄29'10	
	3815 Sep 02 12:35	0°♄		morning set	3816 Aug 19 05:38	19°♄28'46	
morning set	3815 Sep 04 20:09	4°♄40'34			3816 Aug 24 05:12	0°♄	
superior conj	3815 Sep 12 11:41	20°♄22'48	1°44'19	superior conj	3816 Aug 26 12:05	4°♄49'23	1°42'13
minimum elong	3815 Sep 12 12:00	20°♄24'25	1°44'19	minimum elong	3816 Aug 26 11:03	4°♄43'57	1°42'11
	3815 Sep 17 08:13	0°♄		max. Earth dist.	3816 Aug 30 05:49	12°♄32'57	1.34725 AU
max. Earth dist.	3815 Sep 17 16:14	0°♄38'34	1.36405 AU	evening rise	3816 Sep 03 17:33	21°♄25'48	
evening rise	3815 Sep 21 15:13	8°♄05'07			3816 Sep 08 07:50	0°♄	
desc. node	3815 Oct 02 22:41	27°♄26'32		desc. node	3816 Sep 18 19:41	17°♄35'01	

	3816 Sep 27 09:56	0°♄		desc. node	3817 Sep 05 16:42	7°♄18'10	
evening max el	3816 Oct 08 19:39	13°♄17'30	26°53'08	evening max el	3817 Sep 21 07:26	26°♄38'35	27°22'43
retrograde	3816 Oct 21 22:53	20°♄33'37			3817 Sep 25 05:44	0°♄	
evening set	3816 Oct 28 15:20	17°♄53'44		retrograde	3817 Oct 04 20:30	3°♄56'56	
min. Earth dist.	3816 Nov 01 15:22	13°♄54'38	0.65673 AU	evening set	3817 Oct 11 22:04	1°♄17'12	
inferior conj	3816 Nov 03 13:10	11°♄42'00	-1°-43'-6		3817 Oct 13 11:31	30°♄	
minimum elong	3816 Nov 03 16:02	11°♄33'40	1°41'56	min. Earth dist.	3817 Oct 15 16:02	27°♄53'05	0.64220 AU
asc. node	3816 Nov 08 15:26	6°♄41'07		inferior conj	3817 Oct 18 02:07	25°♄19'55	-2°-44'-17
morning rise	3816 Nov 09 18:21	6°♄01'12		minimum elong	3817 Oct 18 06:42	25°♄07'48	2°42'38
direct	3816 Nov 12 12:19	5°♄19'43		morning rise	3817 Oct 24 17:37	19°♄54'27	
morning max el	3816 Nov 19 01:05	8°♄51'31	18°16'24	asc. node	3817 Oct 26 12:30	19°♄25'44	
	3816 Dec 03 17:44	0°♄		direct	3817 Oct 27 05:11	19°♄23'15	
morning set	3816 Dec 08 00:20	6°♄56'41		morning max el	3817 Nov 02 17:30	22°♄48'54	17°54'52
desc. node	3816 Dec 15 18:57	19°♄29'04			3817 Nov 08 09:07	0°♄	
	3816 Dec 22 09:59	0°♄		morning set	3817 Nov 19 17:32	18°♄40'54	
					3817 Nov 26 10:33	0°♄	
superior conj	3816 Dec 23 04:19	1°♄12'14	0°-49'-2				
minimum elong	3816 Dec 22 22:09	0°♄47'57	0°48'14	superior conj	3817 Dec 02 20:54	10°♄33'52	0°-1'-25
max. Earth dist.	3816 Dec 25 06:04	4°♄27'49	1.45220 AU	minimum elong	3817 Dec 02 20:45	10°♄33'14	0°01'24
evening rise	3817 Jan 08 11:38	26°♄43'16		behind sun begin	3817 Dec 02 10:39	9°♄52'17	
	3817 Jan 10 13:59	0°♄		behind sun end	3817 Dec 03 06:51	11°♄14'06	
greatest brilliancy	3817 Jan 23 08:50	19°♄39'51	-0.7m	desc. node	3817 Dec 02 15:59	10°♄13'56	
	3817 Jan 31 03:02	0°♄		max. Earth dist.	3817 Dec 08 00:39	18°♄49'28	1.44625 AU
evening max el	3817 Feb 01 04:25	1°♄08'07	19°21'26		3817 Dec 15 03:43	0°♄	
asc. node	3817 Feb 04 14:42	4°♄00'41		evening rise	3817 Dec 19 00:08	5°♄56'51	
retrograde	3817 Feb 08 07:21	5°♄13'04			3818 Jan 03 23:56	0°♄	
evening set	3817 Feb 11 17:16	4°♄04'53		greatest brilliancy	3818 Jan 09 01:32	7°♄05'50	-0.5m
	3817 Feb 15 20:13	30°♄		evening max el	3818 Jan 15 07:50	14°♄39'56	20°19'02
inferior conj	3817 Feb 17 06:43	28°♄10'03	3°19'09	asc. node	3818 Jan 22 11:45	19°♄15'22	
minimum elong	3817 Feb 17 04:46	28°♄16'24	3°18'51	retrograde	3818 Jan 23 05:29	19°♄18'21	
min. Earth dist.	3817 Feb 18 14:06	26°♄28'18	0.66383 AU	evening set	3818 Jan 26 23:50	17°♄56'08	
morning rise	3817 Feb 22 15:27	21°♄54'46		inferior conj	3818 Feb 01 10:21	11°♄48'01	2°52'36
direct	3817 Feb 28 21:10	19°♄09'43		minimum elong	3818 Feb 01 07:54	11°♄56'19	2°52'00
morning max el	3817 Mar 13 10:33	26°♄37'41	26°02'39	min. Earth dist.	3818 Feb 02 04:02	10°♄48'00	0.67314 AU
desc. node	3817 Mar 13 18:08	26°♄56'57		morning rise	3818 Feb 06 15:26	5°♄32'07	
	3817 Mar 16 13:51	0°♄		direct	3818 Feb 12 07:38	3°♄01'14	
	3817 Apr 06 22:47	0°♄		morning max el	3818 Feb 23 19:15	9°♄53'10	24°40'41
morning set	3817 Apr 18 13:54	20°♄09'43		desc. node	3818 Feb 28 15:11	15°♄14'41	
max. Earth dist.	3817 Apr 22 12:53	27°♄39'10	1.35391 AU		3818 Mar 11 17:35	0°♄	
	3817 Apr 23 17:50	0°♄			3818 Mar 30 14:42	0°♄	
				morning set	3818 Mar 31 18:58	2°♄03'51	
superior conj	3817 Apr 27 18:32	8°♄02'24	0°-57'-20	max. Earth dist.	3818 Apr 04 11:16	8°♄40'08	1.37311 AU
minimum elong	3817 Apr 27 21:35	8°♄17'54	0°56'48				
asc. node	3817 May 03 14:02	20°♄00'16		superior conj	3818 Apr 11 03:30	21°♄16'20	-1°-25'-4
evening rise	3817 May 05 15:41	24°♄16'16		minimum elong	3818 Apr 11 07:51	21°♄37'28	1°24'28
	3817 May 08 11:38	0°♄			3818 Apr 15 13:41	0°♄	
evening max el	3817 May 23 21:06	23°♄54'25	20°22'50	evening rise	3818 Apr 19 17:37	8°♄19'46	
retrograde	3817 Jun 03 18:25	29°♄13'09		asc. node	3818 Apr 20 11:04	9°♄46'34	
evening set	3817 Jun 05 18:29	29°♄03'06			3818 May 01 21:08	0°♄	
desc. node	3817 Jun 09 17:20	27°♄50'36		evening max el	3818 May 06 13:06	5°♄35'54	19°19'02
inferior conj	3817 Jun 14 22:17	25°♄05'08	-1°-32'-10	retrograde	3818 May 15 17:19	10°♄03'35	
minimum elong	3817 Jun 14 17:57	25°♄11'29	1°30'36	evening set	3818 May 17 17:18	9°♄51'47	
min. Earth dist.	3817 Jun 16 08:39	24°♄14'57	0.55027 AU	inferior conj	3818 May 26 05:02	5°♄43'34	0°24'18
morning rise	3817 Jun 23 15:38	20°♄53'26		minimum elong	3818 May 26 06:03	5°♄41'53	0°23'56
direct	3817 Jun 27 13:33	20°♄20'22		desc. node	3818 May 27 14:22	4°♄48'19	
morning max el	3817 Jul 11 00:45	26°♄53'04	23°33'12	min. Earth dist.	3818 May 28 23:22	3°♄54'34	0.56084 AU
	3817 Jul 14 01:21	0°♄		morning rise	3818 Jun 03 14:42	0°♄58'11	
asc. node	3817 Jul 30 13:19	25°♄51'52		direct	3818 Jun 08 10:53	0°♄04'27	
	3817 Aug 01 14:37	0°♄		morning max el	3818 Jun 22 14:46	7°♄16'43	25°14'09
morning set	3817 Aug 03 17:05	4°♄22'27			3818 Jul 09 06:50	0°♄	
				asc. node	3818 Jul 17 10:21	15°♄34'16	
superior conj	3817 Aug 10 18:29	19°♄33'18	1°33'57	morning set	3818 Jul 19 04:47	19°♄16'07	
minimum elong	3817 Aug 10 16:34	19°♄22'57	1°33'46		3818 Jul 24 03:52	0°♄	
max. Earth dist.	3817 Aug 13 04:14	24°♄41'52	1.33434 AU				
	3817 Aug 15 17:00	0°♄		superior conj	3818 Jul 26 04:30	4°♄26'31	1°20'26
evening rise	3817 Aug 18 08:28	5°♄22'40		minimum elong	3818 Jul 26 02:10	4°♄13'48	1°20'07
	3817 Aug 31 23:31	0°♄		max. Earth dist.	3818 Jul 27 10:16	7°♄09'08	1.32569 AU

evening rise	3818 Aug 02 08:24	19° Ω 45'08		max. Earth dist.	3819 Jul 10 21:04	19° Ω 49'40	1.32117 AU
	3818 Aug 07 12:26	0° \cap			3819 Jul 15 12:45	0° Ω	
desc. node	3818 Aug 23 13:44	26° \cap 24'51		evening rise	3819 Jul 17 14:31	4° Ω 24'38	
	3818 Aug 26 06:02	0° $\underline{\Delta}$			3819 Jul 31 06:06	0° \cap	
evening max el	3818 Sep 03 16:38	9° $\underline{\Delta}$ 30'57	27°22'41	desc. node	3819 Aug 10 10:44	14° \cap 40'09	
retrograde	3818 Sep 17 11:36	16° $\underline{\Delta}$ 46'26		evening max el	3819 Aug 16 20:39	21° \cap 42'41	26°49'23
evening set	3818 Sep 24 16:03	14° $\underline{\Delta}$ 18'23		retrograde	3819 Aug 30 18:47	28° \cap 53'37	
min. Earth dist.	3818 Sep 28 06:41	11° $\underline{\Delta}$ 23'27	0.62450 AU	evening set	3819 Sep 06 16:51	26° \cap 50'00	
inferior conj	3818 Oct 01 04:13	8° $\underline{\Delta}$ 39'43	-3°-42'-59	min. Earth dist.	3819 Sep 10 10:45	24° \cap 12'44	0.60455 AU
minimum elong	3818 Oct 01 09:59	8° $\underline{\Delta}$ 26'05	3°41'19	inferior conj	3819 Sep 13 16:06	21° \cap 33'02	-4°-33'-11
morning rise	3818 Oct 08 06:47	3° $\underline{\Delta}$ 32'45		minimum elong	3819 Sep 13 21:36	21° \cap 21'37	4°32'08
direct	3818 Oct 10 14:49	3° $\underline{\Delta}$ 08'16		morning rise	3819 Sep 21 05:36	16° \cap 47'36	
asc. node	3818 Oct 13 09:34	3° $\underline{\Delta}$ 44'01		direct	3819 Sep 23 13:23	16° \cap 26'53	
morning max el	3818 Oct 17 09:38	6° $\underline{\Delta}$ 36'00	17°51'09	asc. node	3819 Sep 30 06:37	19° \cap 28'25	
	3818 Nov 01 13:07	0° \cap		morning max el	3819 Sep 30 22:17	20° \cap 04'52	18°06'28
morning set	3818 Nov 02 08:56	1° \cap 28'31			3819 Oct 08 07:26	0° $\underline{\Delta}$	
				morning set	3819 Oct 16 16:23	15° $\underline{\Delta}$ 01'48	
					3819 Oct 24 18:27	0° \cap	
superior conj	3818 Nov 13 15:01	21° \cap 10'29	0°40'28	superior conj	3819 Oct 26 10:57	3° \cap 02'19	1°11'46
minimum elong	3818 Nov 13 18:33	21° \cap 25'30	0°39'58	minimum elong	3819 Oct 26 15:05	3° \cap 20'46	1°11'17
	3818 Nov 18 22:03	0° \nearrow		max. Earth dist.	3819 Nov 03 02:27	16° \cap 17'45	1.41621 AU
desc. node	3818 Nov 19 13:02	1° \nearrow 01'16		desc. node	3819 Nov 06 10:04	21° \cap 47'40	
max. Earth dist.	3818 Nov 20 15:53	2° \nearrow 50'31	1.43374 AU	evening rise	3819 Nov 08 11:24	25° \cap 07'48	
evening rise	3818 Nov 28 10:49	15° \nearrow 12'06			3819 Nov 11 12:50	0° \nearrow	
	3818 Dec 08 04:28	0° $\overline{\Sigma}$			3819 Dec 02 01:52	0° $\overline{\Sigma}$	
greatest brilliancy	3818 Dec 24 07:18	22° $\overline{\Sigma}$ 33'17	-0.4m	greatest brilliancy	3819 Dec 06 21:10	6° $\overline{\Sigma}$ 07'27	-0.3m
evening max el	3818 Dec 29 05:46	28° $\overline{\Sigma}$ 12'59	21°28'52	evening max el	3819 Dec 11 22:48	11° $\overline{\Sigma}$ 48'11	22°46'33
	3818 Dec 31 02:36	0° \approx		retrograde	3819 Dec 21 22:25	17° $\overline{\Sigma}$ 43'44	
retrograde	3819 Jan 07 03:03	3° \approx 29'35		evening set	3819 Dec 26 14:57	15° $\overline{\Sigma}$ 49'57	
asc. node	3819 Jan 09 08:48	3° \approx 02'19		asc. node	3819 Dec 27 05:50	15° $\overline{\Sigma}$ 17'20	
evening set	3819 Jan 11 07:37	1° \approx 52'07		inferior conj	3820 Jan 01 00:51	9° $\overline{\Sigma}$ 25'15	1°34'10
	3819 Jan 13 06:34	30° \cap $\overline{\Sigma}$		minimum elong	3819 Dec 31 22:54	9° $\overline{\Sigma}$ 32'00	1°33'26
inferior conj	3819 Jan 16 17:03	25° $\overline{\Sigma}$ 33'54	2°17'07	min. Earth dist.	3819 Dec 31 18:57	9° $\overline{\Sigma}$ 45'39	0.67997 AU
minimum elong	3819 Jan 16 14:37	25° $\overline{\Sigma}$ 42'20	2°16'20	morning rise	3820 Jan 06 06:48	3° $\overline{\Sigma}$ 13'57	
min. Earth dist.	3819 Jan 16 22:27	25° $\overline{\Sigma}$ 15'12	0.67844 AU	direct	3820 Jan 10 17:29	1° $\overline{\Sigma}$ 26'22	
morning rise	3819 Jan 21 21:18	19° $\overline{\Sigma}$ 19'21		morning max el	3820 Jan 19 17:12	6° $\overline{\Sigma}$ 41'39	21°45'25
direct	3819 Jan 26 22:45	17° $\overline{\Sigma}$ 08'50		greatest brilliancy	3820 Jan 24 12:04	12° $\overline{\Sigma}$ 05'27	-0.4m
morning max el	3819 Feb 06 04:16	23° $\overline{\Sigma}$ 13'27	23°11'50	desc. node	3820 Feb 02 09:16	23° $\overline{\Sigma}$ 58'22	
greatest brilliancy	3819 Feb 11 06:00	28° $\overline{\Sigma}$ 54'33	-0.2m		3820 Feb 06 13:35	0° \approx	
	3819 Feb 12 03:19	0° \approx		morning set	3820 Feb 20 22:54	22° \approx 01'30	
desc. node	3819 Feb 15 12:14	4° \approx 19'33			3820 Feb 25 20:57	0° \cap	
	3819 Mar 05 02:54	0° \cap		max. Earth dist.	3820 Feb 27 05:19	2° \cap 13'54	1.41598 AU
morning set	3819 Mar 12 23:23	12° \cap 44'05					
max. Earth dist.	3819 Mar 17 06:04	20° \cap 01'29	1.39469 AU	superior conj	3820 Mar 05 20:59	15° \cap 17'26	-2°-4'-9
	3819 Mar 22 20:49	0° \cap		minimum elong	3820 Mar 05 23:45	15° \cap 29'31	2°04'03
					3820 Mar 14 01:27	0° \cap	
superior conj	3819 Mar 24 21:59	3° \cap 45'24	-1°-48'-41	evening rise	3820 Mar 16 16:34	4° \cap 50'08	
minimum elong	3819 Mar 25 02:36	4° \cap 06'47	1°48'16	asc. node	3820 Mar 24 05:08	18° \cap 22'50	
evening rise	3819 Apr 03 11:06	21° \cap 53'59			3820 Apr 01 06:44	0° \cap	
asc. node	3819 Apr 07 08:07	29° \cap 16'15		evening max el	3820 Apr 02 00:00	0° \cap 44'13	18°11'45
	3819 Apr 07 17:30	0° \cap		retrograde	3820 Apr 08 21:38	4° \cap 12'43	
evening max el	3819 Apr 19 15:14	17° \cap 55'45	18°35'25	evening set	3820 Apr 11 09:33	3° \cap 46'05	
retrograde	3819 Apr 27 10:11	21° \cap 45'26			3820 Apr 17 04:05	30° \cap \cap	
evening set	3819 Apr 29 15:54	21° \cap 27'33		inferior conj	3820 Apr 18 08:16	28° \cap 57'29	2°57'02
inferior conj	3819 May 07 08:08	17° \cap 00'23	1°56'48	minimum elong	3820 Apr 18 11:32	28° \cap 50'09	2°56'21
minimum elong	3819 May 07 11:42	16° \cap 53'29	1°55'44	min. Earth dist.	3820 Apr 21 16:56	25° \cap 57'25	0.59978 AU
min. Earth dist.	3819 May 10 17:24	14° \cap 24'57	0.57848 AU	morning rise	3820 Apr 25 09:53	23° \cap 12'40	
desc. node	3819 May 14 11:24	12° \cap 00'58		desc. node	3820 Apr 30 08:26	21° \cap 19'44	
morning rise	3819 May 15 03:04	11° \cap 41'16		direct	3820 May 01 22:24	21° \cap 12'44	
direct	3819 May 20 22:30	10° \cap 16'11		morning max el	3820 May 16 06:14	29° \cap 04'06	27°33'45
morning max el	3819 Jun 04 07:28	17° \cap 53'20	26°38'49		3820 May 17 04:25	0° \cap	
	3819 Jun 14 09:18	0° \cap		morning set	3820 Jun 07 05:57	18° \cap 42'00	
	3819 Jul 01 16:02	0° $\overline{\Sigma}$		asc. node	3820 Jun 20 04:25	25° \cap 34'35	
morning set	3819 Jul 03 15:12	4° $\overline{\Sigma}$ 04'52			3820 Jun 22 05:18	0° $\overline{\Sigma}$	
asc. node	3819 Jul 04 07:24	5° $\overline{\Sigma}$ 30'30		max. Earth dist.	3820 Jun 23 08:46	2° $\overline{\Sigma}$ 30'38	1.32064 AU
superior conj	3819 Jul 10 16:10	19° $\overline{\Sigma}$ 22'41	1°02'28				
minimum elong	3819 Jul 10 13:56	19° $\overline{\Sigma}$ 10'20	1°02'05				

superior conj	3820 Jun 24 03:42	4°☿14'46	0°40'40	asc. node	3821 Jun 07 01:27	15°♄42'18	
minimum elong	3820 Jun 24 02:00	4°☿05'26	0°40'20				
evening rise	3820 Jul 01 00:22	19°☿12'21		superior conj	3821 Jun 08 13:22	18°♄57'16	0°15'40
	3820 Jul 06 07:14	0°♄		minimum elong	3821 Jun 08 12:39	18°♄53'18	0°15'30
	3820 Jul 25 17:22	0°♅		behind sun begin	3821 Jun 08 11:30	18°♄47'02	
desc. node	3820 Jul 27 07:44	1°♅42'27		behind sun end	3821 Jun 08 13:48	18°♄59'33	
evening max el	3820 Jul 28 17:12	3°♅05'20	25°44'14		3821 Jun 13 14:57	0°☿	
retrograde	3820 Aug 11 16:30	10°♅12'18		evening rise	3821 Jun 15 12:01	4°☿01'44	
evening set	3820 Aug 17 19:37	8°♅43'37			3821 Jun 29 09:58	0°♄	
min. Earth dist.	3820 Aug 22 05:20	6°♅06'58	0.58397 AU	evening max el	3821 Jul 10 07:17	13°♄45'43	24°15'52
inferior conj	3820 Aug 25 10:13	3°♅49'23	-5°-5'-3	desc. node	3821 Jul 14 04:44	17°♄03'01	
minimum elong	3820 Aug 25 12:49	3°♅44'42	5°04'53	retrograde	3821 Jul 24 03:13	20°♄44'16	
	3820 Aug 31 18:26	30°♄		evening set	3821 Jul 28 22:16	19°♄53'06	
morning rise	3820 Sep 02 09:30	29°♄27'34		min. Earth dist.	3821 Aug 03 18:00	16°♄58'20	0.56551 AU
direct	3820 Sep 04 20:26	29°♄08'20		inferior conj	3821 Aug 06 08:10	15°♄21'02	-5°-4'-9
	3820 Sep 08 17:56	0°♅		minimum elong	3821 Aug 06 05:08	15°♄25'49	5°03'56
morning max el	3820 Sep 13 04:12	3°♅06'21	18°42'16	morning rise	3821 Aug 14 15:33	11°♄20'17	
asc. node	3820 Sep 16 03:38	6°♅24'09		direct	3821 Aug 17 08:09	11°♄01'03	
morning set	3820 Sep 29 11:05	29°♅07'05		morning max el	3821 Aug 27 00:23	15°♄31'17	19°39'40
	3820 Sep 29 21:57	0°♄		asc. node	3821 Sep 03 00:41	24°♄16'22	
					3821 Sep 06 11:33	0°♅	
superior conj	3820 Oct 08 03:55	15°♄55'55	1°31'57	morning set	3821 Sep 13 13:30	13°♅34'29	
minimum elong	3820 Oct 08 06:53	16°♄09'52	1°31'42				
max. Earth dist.	3820 Oct 15 08:25	29°♄02'25	1.39577 AU	superior conj	3821 Sep 21 12:29	29°♅35'45	1°42'15
	3820 Oct 15 21:31	0°♄		minimum elong	3821 Sep 21 13:45	29°♅41'59	1°42'12
evening rise	3820 Oct 19 10:18	6°♄04'40			3821 Sep 21 17:24	0°♄	
desc. node	3820 Oct 23 07:05	12°♄29'36		max. Earth dist.	3821 Sep 27 12:50	11°♄09'05	1.37505 AU
	3820 Nov 03 15:02	0°♅		evening rise	3821 Oct 01 08:06	18°♄04'51	
evening max el	3820 Nov 23 12:25	25°♅26'35	24°06'26		3821 Oct 08 07:09	0°♄	
	3820 Nov 28 23:36	0°☿		desc. node	3821 Oct 10 04:04	3°♄02'42	
retrograde	3820 Dec 04 14:25	1°☿57'14			3821 Oct 28 22:11	0°♅	
evening set	3820 Dec 09 20:17	29°♅47'05		evening max el	3821 Nov 06 00:39	9°♅07'34	25°21'47
	3820 Dec 09 14:00	30°♄		retrograde	3821 Nov 18 02:08	16°♅04'49	
asc. node	3820 Dec 13 02:51	26°♅15'53		evening set	3821 Nov 23 21:58	13°♅39'50	
min. Earth dist.	3820 Dec 14 15:15	24°♅16'21	0.67788 AU	min. Earth dist.	3821 Nov 28 09:04	8°♅43'49	0.67235 AU
inferior conj	3820 Dec 15 07:59	23°♅19'50	0°44'55	inferior conj	3821 Nov 29 12:39	7°♅14'36	0°-9'-38
minimum elong	3820 Dec 15 06:56	23°♅23'23	0°44'29	minimum elong	3821 Nov 29 12:54	7°♅13'49	0°09'32
morning rise	3820 Dec 20 17:53	17°♅13'52		transit middle	3821 Nov 29 12:54	7°♅13'49	0°09'32
direct	3820 Dec 24 14:46	15°♅48'46		transit begin	3821 Nov 29 10:38	7°♅21'07	
morning max el	3821 Jan 01 13:14	20°♅21'32	20°28'20	transit end	3821 Nov 29 15:09	7°♅06'31	
greatest brilliancy	3821 Jan 07 17:53	27°♅39'30	-0.5m	asc. node	3821 Nov 29 23:54	6°♅38'19	
	3821 Jan 09 11:57	0°☿		morning rise	3821 Dec 05 04:35	1°♅16'09	
desc. node	3821 Jan 19 06:19	14°☿01'49		direct	3821 Dec 08 13:18	0°♅10'57	
morning set	3821 Jan 29 23:19	0°♄18'45		morning max el	3821 Dec 15 17:11	4°♅11'55	19°24'37
	3821 Jan 29 18:28	0°♄		greatest brilliancy	3821 Dec 24 15:32	15°♅31'57	-0.7m
max. Earth dist.	3821 Feb 08 12:14	15°♄22'16	1.43402 AU		3822 Jan 03 07:06	0°☿	
				desc. node	3822 Jan 06 03:20	4°☿22'28	
superior conj	3821 Feb 14 19:43	25°♄42'00	-2°-6'-18	morning set	3822 Jan 08 21:44	8°☿39'00	
minimum elong	3821 Feb 14 17:40	25°♄33'27	2°06'17	max. Earth dist.	3822 Jan 22 01:36	29°☿12'24	1.44657 AU
	3821 Feb 17 09:21	0°♄			3822 Jan 22 13:38	0°♄	
evening rise	3821 Feb 27 05:51	16°♄59'48					
	3821 Mar 06 17:35	0°♅		superior conj	3822 Jan 25 16:45	4°♄58'26	-1°-50'-12
asc. node	3821 Mar 11 02:09	6°♅59'12		minimum elong	3822 Jan 25 08:57	4°♄27'20	1°49'39
evening max el	3821 Mar 16 12:08	13°♅52'55	18°07'36	evening rise	3822 Feb 08 22:32	28°♄14'12	
retrograde	3821 Mar 22 23:48	17°♅15'42			3822 Feb 09 23:54	0°♄	
evening set	3821 Mar 25 17:23	16°♅38'51		asc. node	3822 Feb 25 23:11	24°♄55'33	
inferior conj	3821 Apr 01 02:23	11°♅29'34	3°28'22	evening max el	3822 Feb 28 00:41	27°♄14'03	18°22'24
minimum elong	3821 Apr 01 04:01	11°♅25'20	3°28'13		3822 Mar 03 14:55	0°♅	
min. Earth dist.	3821 Apr 04 00:42	8°♅29'26	0.62138 AU	retrograde	3822 Mar 06 11:59	0°♅44'20	
morning rise	3821 Apr 07 12:05	5°♅28'34		evening set	3822 Mar 09 11:16	29°♄56'11	
direct	3821 Apr 14 08:35	2°♅59'19			3822 Mar 09 08:21	30°♄	
desc. node	3821 Apr 17 05:28	3°♅23'14		inferior conj	3822 Mar 15 10:17	24°♄27'51	3°37'21
morning max el	3821 Apr 28 11:14	10°♅57'38	27°51'41	minimum elong	3822 Mar 15 10:11	24°♄28'07	3°37'21
	3821 May 13 09:34	0°☿		min. Earth dist.	3822 Mar 17 17:55	21°♄48'28	0.64079 AU
	3821 May 30 12:43	0°♄		morning rise	3822 Mar 21 07:25	18°♄18'04	
morning set	3821 Jun 01 00:44	3°♄01'18		direct	3822 Mar 28 03:16	15°♄31'40	
max. Earth dist.	3821 Jun 06 17:26	14°♄59'02	1.32419 AU	desc. node	3822 Apr 04 02:30	17°♄52'50	

morning max el	3822 Apr 10 20:05	23° ✕ 28'14	27°32'48	min. Earth dist.	3823 Feb 28 20:16	5° ✕ 40'15	0.65664 AU
	3822 Apr 16 15:57	0° Υ		morning rise	3823 Mar 04 16:28	1° ✕ 31'18	
	3822 May 06 16:59	0° ♄			3823 Mar 06 17:51	30° ♄	
morning set	3822 May 15 19:24	16° ♄ 54'59		direct	3823 Mar 11 04:51	28° ♄ 41'55	
max. Earth dist.	3822 May 20 18:57	27° ♄ 02'13	1.33205 AU		3823 Mar 16 01:55	0° ✕	
	3822 May 22 04:50	0° ♄		desc. node	3823 Mar 21 23:33	4° ✕ 14'12	
				morning max el	3823 Mar 24 05:55	6° ✕ 24'12	26°42'28
superior conj	3822 May 23 19:22	3° ♄ 24'36	0°-11'-47		3823 Apr 11 10:19	0° Υ	
minimum elong	3822 May 23 19:58	3° ♄ 27'47	0°11'41	morning set	3823 Apr 29 03:09	0° ♄ 12'40	
behind sun begin	3822 May 23 16:15	3° ♄ 07'59			3823 Apr 29 00:29	0° ♄	
behind sun end	3822 May 23 23:41	3° ♄ 47'35		max. Earth dist.	3823 May 03 09:58	8° ♄ 33'07	1.34459 AU
asc. node	3822 May 24 22:29	5° ♄ 49'40					
evening rise	3822 May 30 23:35	18° ♄ 46'47		superior conj	3823 May 07 19:29	17° ♄ 29'52	0°-40'-38
	3822 Jun 05 12:14	0° ♄		minimum elong	3823 May 07 21:38	17° ♄ 41'00	0°40'14
evening max el	3822 Jun 21 21:05	24° ♄ 10'20	22°39'01	asc. node	3823 May 11 19:32	25° ♄ 52'19	
	3822 Jun 30 16:32	0° ♄			3823 May 13 18:39	0° ♄	
desc. node	3822 Jul 01 01:44	0° ♄ 07'24		evening rise	3823 May 15 09:10	3° ♄ 21'07	
retrograde	3822 Jul 05 01:40	0° ♄ 44'06			3823 May 30 12:16	0° ♄	
evening set	3822 Jul 08 08:26	0° ♄ 20'26		evening max el	3823 Jun 03 18:22	4° ♄ 50'57	21°08'17
	3822 Jul 09 14:03	30° ♄		retrograde	3823 Jun 15 14:49	10° ♄ 39'36	
min. Earth dist.	3822 Jul 16 04:58	26° ♄ 53'23	0.55264 AU	evening set	3823 Jun 17 21:04	10° ♄ 27'43	
inferior conj	3822 Jul 17 11:43	26° ♄ 09'29	-4°-16'-3	desc. node	3823 Jun 17 22:46	10° ♄ 26'58	
minimum elong	3822 Jul 17 03:45	26° ♄ 20'53	4°14'18	inferior conj	3823 Jun 27 05:22	6° ♄ 29'56	-2°-40'-15
morning rise	3822 Jul 26 01:34	22° ♄ 18'56		minimum elong	3823 Jun 26 22:09	6° ♄ 40'04	2°37'52
direct	3822 Jul 29 01:58	21° ♄ 57'58		min. Earth dist.	3823 Jun 27 16:22	6° ♄ 14'28	0.54836 AU
morning max el	3822 Aug 09 08:55	27° ♄ 12'50	20°58'10	morning rise	3823 Jul 05 23:08	2° ♄ 31'39	
	3822 Aug 12 01:40	0° ♄		direct	3823 Jul 09 11:35	2° ♄ 04'56	
asc. node	3822 Aug 20 21:44	12° ♄ 52'16		morning max el	3823 Jul 22 06:23	8° ♄ 10'09	22°33'49
morning set	3822 Aug 28 21:04	28° ♄ 17'21			3823 Aug 06 17:11	0° ♄	
	3822 Aug 29 16:55	0° ♄		asc. node	3823 Aug 07 18:47	2° ♄ 00'19	
				morning set	3823 Aug 13 07:38	13° ♄ 08'31	
superior conj	3822 Sep 05 08:13	13° ♄ 49'02	1°44'16				
minimum elong	3822 Sep 05 07:54	13° ♄ 47'28	1°44'15	superior conj	3823 Aug 20 11:31	28° ♄ 24'01	1°39'24
max. Earth dist.	3822 Sep 09 21:36	23° ♄ 00'38	1.35642 AU	minimum elong	3823 Aug 20 10:02	28° ♄ 16'12	1°39'18
	3822 Sep 13 12:33	0° ♄			3823 Aug 21 05:38	0° ♄	
evening rise	3822 Sep 14 01:26	1° ♄ 00'33		max. Earth dist.	3823 Aug 23 14:57	5° ♄ 00'02	1.34129 AU
desc. node	3822 Sep 27 01:05	23° ♄ 22'20		evening rise	3823 Aug 28 09:40	14° ♄ 38'24	
	3822 Oct 01 09:04	0° ♄			3823 Sep 05 17:22	0° ♄	
evening max el	3822 Oct 19 13:05	22° ♄ 48'42	26°25'07	desc. node	3823 Sep 13 22:06	13° ♄ 21'04	
	3822 Oct 31 18:46	0° ♄			3823 Sep 26 03:48	0° ♄	
retrograde	3822 Nov 01 08:52	0° ♄ 01'12		evening max el	3823 Oct 02 01:43	6° ♄ 21'02	27°09'00
	3822 Nov 01 22:48	30° ♄		retrograde	3823 Oct 15 09:49	13° ♄ 38'30	
evening set	3822 Nov 07 18:09	27° ♄ 25'14		evening set	3823 Oct 22 06:34	10° ♄ 57'52	
min. Earth dist.	3822 Nov 11 22:08	23° ♄ 04'58	0.66342 AU	min. Earth dist.	3823 Oct 26 03:59	7° ♄ 13'41	0.65099 AU
inferior conj	3822 Nov 13 13:01	21° ♄ 06'56	-1°-8'-11	inferior conj	3823 Oct 28 06:52	4° ♄ 51'39	-2°-9'-5
minimum elong	3822 Nov 13 14:52	21° ♄ 01'17	1°07'24	minimum elong	3823 Oct 28 10:29	4° ♄ 41'32	2°07'40
asc. node	3822 Nov 16 20:56	17° ♄ 22'09			3823 Nov 02 09:36	30° ♄	
morning rise	3822 Nov 19 12:52	15° ♄ 18'37		morning rise	3823 Nov 03 16:16	29° ♄ 16'38	
direct	3822 Nov 22 11:31	14° ♄ 29'37		asc. node	3823 Nov 03 18:00	29° ♄ 14'40	
morning max el	3822 Nov 29 03:51	18° ♄ 09'28	18°36'28	direct	3823 Nov 06 07:12	28° ♄ 39'55	
	3822 Dec 08 04:00	0° ♄			3823 Nov 10 05:34	0° ♄	
morning set	3822 Dec 19 17:36	18° ♄ 08'27		morning max el	3823 Nov 12 18:55	2° ♄ 08'11	18°05'02
desc. node	3822 Dec 24 00:22	24° ♄ 55'41		morning set	3823 Nov 30 19:08	29° ♄ 06'52	
	3822 Dec 27 05:28	0° ♄			3823 Dec 01 07:58	0° ♄	
				desc. node	3823 Dec 10 21:25	15° ♄ 37'08	
superior conj	3823 Jan 04 20:41	13° ♄ 34'04	-1°-15'-11				
minimum elong	3823 Jan 04 11:59	12° ♄ 59'56	1°14'11	superior conj	3823 Dec 15 02:52	22° ♄ 22'43	0°-28'-39
max. Earth dist.	3823 Jan 04 19:14	13° ♄ 28'20	1.45230 AU	minimum elong	3823 Dec 14 23:17	22° ♄ 08'27	0°28'11
	3823 Jan 15 07:15	0° ♄		max. Earth dist.	3823 Dec 18 14:42	27° ♄ 54'11	1.45058 AU
evening rise	3823 Jan 20 15:57	8° ♄ 31'07			3823 Dec 19 22:42	0° ♄	
	3823 Feb 03 07:17	0° ✕		evening rise	3823 Dec 31 12:23	18° ♄ 00'40	
evening max el	3823 Feb 11 11:12	10° ✕ 42'09	18°55'09		3824 Jan 08 07:10	0° ♄	
asc. node	3823 Feb 12 20:14	12° ✕ 00'15		greatest brilliancy	3824 Jan 18 05:47	14° ♄ 48'24	-0.6m
retrograde	3823 Feb 18 06:17	14° ✕ 31'22		evening max el	3824 Jan 25 17:39	24° ♄ 13'28	19°44'18
evening set	3823 Feb 21 12:01	13° ✕ 30'51		asc. node	3824 Jan 30 17:16	27° ♄ 59'25	
inferior conj	3823 Feb 27 04:12	7° ✕ 45'15	3°29'35	retrograde	3824 Feb 02 03:40	28° ♄ 31'19	
minimum elong	3823 Feb 27 02:46	7° ✕ 49'44	3°29'26	evening set	3824 Feb 05 17:04	27° ♄ 17'14	

inferior conj	3824 Feb 11 05:01	21° \approx 16'37	3°09'06	minimum elong	3825 Jan 25 07:40	5° \approx 06'21	2°37'50
minimum elong	3824 Feb 11 02:47	21° \approx 24'01	3°08'39	min. Earth dist.	3825 Jan 25 22:23	4° \approx 15'51	0.67588 AU
min. Earth dist.	3824 Feb 12 06:24	19° \approx 52'31	0.66832 AU		3825 Jan 29 07:21	30° \approx 00'	
morning rise	3824 Feb 16 11:51	15° \approx 01'05		morning rise	3825 Jan 30 14:35	28° \approx 42'27	
direct	3824 Feb 22 12:12	12° \approx 21'00		direct	3825 Feb 05 00:33	26° \approx 19'58	
morning max el	3824 Mar 05 15:03	19° \approx 34'39	25°29'19		3825 Feb 12 21:03	0° \approx	
desc. node	3824 Mar 07 20:37	21° \approx 56'25		morning max el	3825 Feb 15 23:36	2° \approx 52'11	24°03'15
	3824 Mar 14 12:24	0° \approx		desc. node	3825 Feb 22 17:39	10° \approx 35'48	
	3824 Apr 03 12:58	0° \approx			3825 Mar 08 16:02	0° \approx	
morning set	3824 Apr 10 19:33	12° \approx 41'41		morning set	3825 Mar 23 14:48	24° \approx 05'36	
max. Earth dist.	3824 Apr 14 13:49	19° \approx 39'34	1.36165 AU		3825 Mar 26 23:44	0° \approx	
	3824 Apr 19 21:49	0° \approx		max. Earth dist.	3825 Mar 27 10:07	0° \approx 46'19	1.38215 AU
superior conj	3824 Apr 20 10:59	1° \approx 05'29	-1°-9'-24	superior conj	3825 Apr 03 14:16	14° \approx 01'07	-1°-35'-48
minimum elong	3824 Apr 20 14:39	1° \approx 23'48	1°08'47	minimum elong	3825 Apr 03 18:55	14° \approx 23'16	1°35'14
asc. node	3824 Apr 27 16:35	15° \approx 46'14			3825 Apr 11 19:00	0° \approx	
evening rise	3824 Apr 28 14:38	17° \approx 38'19		evening rise	3825 Apr 12 13:20	1° \approx 30'10	
	3824 May 04 22:47	0° \approx		asc. node	3825 Apr 14 13:37	5° \approx 26'01	
evening max el	3824 May 16 03:29	16° \approx 08'34	19°53'17	evening max el	3825 Apr 29 00:01	28° \approx 06'15	18°57'58
retrograde	3824 May 26 06:32	21° \approx 04'17			3825 May 01 05:33	0° \approx	
evening set	3824 May 28 05:36	20° \approx 54'00		retrograde	3825 May 07 12:51	2° \approx 16'15	
desc. node	3824 Jun 03 19:47	18° \approx 15'56		evening set	3825 May 09 14:56	2° \approx 02'17	
inferior conj	3824 Jun 06 03:29	16° \approx 53'06	0°-41'-12		3825 May 14 09:41	30° \approx 00'	
minimum elong	3824 Jun 06 01:35	16° \approx 56'00	0°40'30	inferior conj	3825 May 17 18:19	27° \approx 46'11	1°07'21
min. Earth dist.	3824 Jun 08 05:13	15° \approx 37'24	0.55376 AU	minimum elong	3825 May 17 20:50	27° \approx 41'44	1°06'30
morning rise	3824 Jun 14 18:42	12° \approx 28'29		min. Earth dist.	3825 May 20 20:55	25° \approx 35'34	0.56765 AU
direct	3824 Jun 19 01:44	11° \approx 48'03		desc. node	3825 May 21 16:49	25° \approx 02'39	
morning max el	3824 Jul 02 21:15	18° \approx 38'27	24°17'03	morning rise	3825 May 25 22:22	22° \approx 45'49	
	3824 Jul 12 07:42	0° \approx		direct	3825 May 31 04:31	21° \approx 40'08	
asc. node	3824 Jul 24 15:51	21° \approx 32'20		morning max el	3825 Jun 14 11:54	29° \approx 04'12	25°53'10
morning set	3824 Jul 27 19:24	28° \approx 02'55			3825 Jun 15 10:30	0° \approx	
	3824 Jul 28 17:27	0° \approx			3825 Jul 05 20:29	0° \approx	
superior conj	3824 Aug 03 19:42	13° \approx 12'30	1°28'48	asc. node	3825 Jul 11 12:54	11° \approx 21'14	
minimum elong	3824 Aug 03 17:33	13° \approx 00'49	1°28'34	morning set	3825 Jul 12 06:46	12° \approx 55'12	
max. Earth dist.	3824 Aug 05 17:11	17° \approx 18'13	1.33024 AU	superior conj	3825 Jul 19 06:38	28° \approx 07'31	1°13'19
evening rise	3824 Aug 11 04:50	28° \approx 47'18		minimum elong	3825 Jul 19 04:17	27° \approx 54'38	1°12'58
	3824 Aug 11 19:15	0° \approx		max. Earth dist.	3825 Jul 20 01:45	29° \approx 52'33	1.32327 AU
	3824 Aug 28 20:59	0° \approx			3825 Jul 20 03:06	0° \approx	
desc. node	3824 Aug 30 19:07	2° \approx 50'02		evening rise	3825 Jul 26 07:41	13° \approx 17'38	
evening max el	3824 Sep 13 12:52	19° \approx 31'49	27°26'32		3825 Aug 03 21:38	0° \approx	
retrograde	3824 Sep 27 04:27	26° \approx 48'17		desc. node	3825 Aug 17 16:07	21° \approx 37'07	
evening set	3824 Oct 04 08:17	24° \approx 12'10			3825 Aug 24 16:46	0° \approx	
min. Earth dist.	3824 Oct 08 00:28	21° \approx 01'27	0.63511 AU	evening max el	3825 Aug 26 20:01	2° \approx 07'45	27°12'32
inferior conj	3824 Oct 10 15:34	18° \approx 22'39	-3°-9'-44	retrograde	3825 Sep 09 16:16	9° \approx 21'23	
minimum elong	3824 Oct 10 20:46	18° \approx 09'32	3°08'01	evening set	3825 Sep 16 19:35	7° \approx 01'49	
morning rise	3824 Oct 17 11:43	13° \approx 04'30		min. Earth dist.	3825 Sep 20 10:21	4° \approx 16'33	0.61625 AU
direct	3824 Oct 19 21:33	12° \approx 36'24		inferior conj	3825 Sep 23 12:03	1° \approx 32'19	-4°-5'-47
asc. node	3824 Oct 20 15:03	12° \approx 39'02		minimum elong	3825 Sep 23 17:58	1° \approx 19'07	4°04'18
morning max el	3824 Oct 26 11:32	16° \approx 01'38	17°51'01		3825 Sep 25 06:21	30° \approx 00'	
	3824 Nov 05 08:21	0° \approx		morning rise	3825 Sep 30 19:23	26° \approx 34'30	
morning set	3824 Nov 11 22:34	11° \approx 20'27		direct	3825 Oct 03 02:58	26° \approx 11'55	
	3824 Nov 22 21:11	0° \approx		asc. node	3825 Oct 07 12:06	27° \approx 35'48	
superior conj	3824 Nov 24 05:35	2° \approx 14'02	0°17'30	morning max el	3825 Oct 10 02:39	29° \approx 42'34	17°55'19
minimum elong	3824 Nov 24 07:25	2° \approx 21'35	0°17'14		3825 Oct 10 09:39	0° \approx	
desc. node	3824 Nov 26 18:26	6° \approx 23'11		morning set	3825 Oct 25 21:29	24° \approx 29'42	
max. Earth dist.	3824 Nov 30 08:43	12° \approx 11'01	1.44171 AU		3825 Oct 28 22:04	0° \approx	
evening rise	3824 Dec 09 22:04	27° \approx 09'53		superior conj	3825 Nov 05 11:12	13° \approx 24'44	0°55'07
	3824 Dec 11 18:23	0° \approx		minimum elong	3825 Nov 05 15:18	13° \approx 42'30	0°54'35
	3825 Jan 01 07:17	0° \approx		max. Earth dist.	3825 Nov 12 22:13	26° \approx 00'07	1.42675 AU
greatest brilliancy	3825 Jan 02 04:57	1° \approx 11'02	-0.5m	desc. node	3825 Nov 13 15:27	27° \approx 10'46	
evening max el	3825 Jan 07 18:43	7° \approx 45'28	20°47'29		3825 Nov 15 09:06	0° \approx	
retrograde	3825 Jan 16 01:45	12° \approx 39'30		evening rise	3825 Nov 19 13:04	6° \approx 38'36	
asc. node	3825 Jan 16 14:18	12° \approx 38'00			3825 Dec 05 01:12	0° \approx	
evening set	3825 Jan 20 00:20	11° \approx 10'42		greatest brilliancy	3825 Dec 16 20:38	15° \approx 57'44	-0.3m
inferior conj	3825 Jan 25 10:10	4° \approx 57'46	2°38'32	evening max el	3825 Dec 21 14:18	21° \approx 19'02	22°01'10

retrograde	3825 Dec 30 22:40	26°☿52'53		evening set	3826 Dec 19 14:48	9°☿06'28	
asc. node	3826 Jan 03 11:20	25°☿46'03		asc. node	3826 Dec 21 08:22	7°☿25'22	
evening set	3826 Jan 04 08:08	25°☿08'24		min. Earth dist.	3826 Dec 24 14:48	3°☿16'02	0.67949 AU
inferior conj	3826 Jan 09 17:34	18°☿46'40	1°59'45	inferior conj	3826 Dec 25 01:18	2°☿39'57	1°14'00
minimum elong	3826 Jan 09 15:17	18°☿54'36	1°58'57	minimum elong	3826 Dec 24 23:41	2°☿45'31	1°13'21
min. Earth dist.	3826 Jan 09 17:59	18°☿45'12	0.67952 AU		3826 Dec 27 01:06	30°☿☿	
morning rise	3826 Jan 14 22:15	12°☿33'13		morning rise	3826 Dec 30 08:39	26°☿☿30'24	
direct	3826 Jan 19 17:13	10°☿32'35		direct	3827 Jan 03 13:15	24°☿☿52'34	
morning max el	3826 Jan 29 09:59	16°☿16'16	22°34'18	morning max el	3827 Jan 12 01:38	29°☿☿49'07	21°11'03
greatest brilliancy	3826 Feb 02 23:49	21°☿22'28	-0.3m		3827 Jan 12 05:57	0°☿	
desc. node	3826 Feb 09 14:42	29°☿56'38		greatest brilliancy	3827 Jan 17 08:12	5°☿51'35	-0.4m
	3826 Feb 09 15:41	0°☿☿		desc. node	3827 Jan 27 11:44	19°☿☿46'57	
	3826 Mar 01 17:17	0°☿☿			3827 Feb 03 09:18	0°☿☿	
morning set	3826 Mar 04 07:05	4°☿☿10'41		morning set	3827 Feb 11 19:06	12°☿☿57'08	
max. Earth dist.	3826 Mar 09 06:00	12°☿☿26'47	1.40396 AU	max. Earth dist.	3827 Feb 19 07:45	25°☿☿01'15	1.42419 AU
					3827 Feb 22 08:05	0°☿☿	
superior conj	3826 Mar 17 01:00	26°☿☿06'43	-1°-56'-32	superior conj	3827 Feb 26 14:10	7°☿☿11'08	-2°-7'-1
minimum elong	3826 Mar 17 05:10	26°☿☿25'34	1°56'15	minimum elong	3827 Feb 26 15:14	7°☿☿15'41	2°07'02
	3826 Mar 19 04:13	0°☿☿		evening rise	3827 Mar 10 01:15	27°☿☿26'22	
evening rise	3826 Mar 27 02:09	14°☿☿49'02			3827 Mar 11 11:18	0°☿☿	
asc. node	3826 Apr 01 10:37	24°☿☿46'30		asc. node	3827 Mar 19 07:39	13°☿☿41'27	
	3826 Apr 04 10:27	0°☿☿		evening max el	3827 Mar 26 15:55	23°☿☿37'15	18°07'41
evening max el	3826 Apr 12 05:17	10°☿☿38'38	18°22'53	retrograde	3827 Apr 02 08:01	27°☿☿01'19	
retrograde	3826 Apr 19 13:55	14°☿☿17'36		evening set	3827 Apr 04 22:23	26°☿☿30'33	
evening set	3826 Apr 21 22:09	13°☿☿56'23		inferior conj	3827 Apr 11 14:48	21°☿☿33'21	3°13'27
inferior conj	3826 Apr 29 06:33	9°☿☿20'17	2°26'15	minimum elong	3827 Apr 11 17:27	21°☿☿27'01	3°13'01
minimum elong	3826 Apr 29 10:15	9°☿☿12'38	2°25'17	min. Earth dist.	3827 Apr 14 20:06	18°☿☿30'02	0.60910 AU
min. Earth dist.	3826 May 02 17:12	6°☿☿31'02	0.58727 AU	morning rise	3827 Apr 18 09:19	15°☿☿40'38	
morning rise	3826 May 06 18:05	3°☿☿48'35		direct	3827 Apr 25 02:35	13°☿☿26'39	
desc. node	3826 May 08 13:51	2°☿☿58'16		desc. node	3827 Apr 25 10:53	13°☿☿26'59	
direct	3826 May 12 21:38	2°☿☿08'29		morning max el	3827 May 09 08:33	21°☿☿22'24	27°46'00
morning max el	3826 May 27 07:06	9°☿☿53'40	27°06'28		3827 May 16 20:40	0°☿☿	
	3826 Jun 11 17:26	0°☿☿			3827 Jun 04 17:20	0°☿☿	
morning set	3826 Jun 26 16:03	27°☿☿39'35		morning set	3827 Jun 10 21:28	12°☿☿10'18	
	3826 Jun 27 18:40	0°☿☿		asc. node	3827 Jun 15 06:56	21°☿☿27'45	
asc. node	3826 Jun 28 09:55	1°☿☿21'15		max. Earth dist.	3827 Jun 16 23:56	25°☿☿10'31	1.32156 AU
superior conj	3826 Jul 03 18:25	13°☿☿02'32	0°53'39	superior conj	3827 Jun 18 05:25	27°☿☿51'53	0°30'26
minimum elong	3826 Jul 03 16:22	12°☿☿51'10	0°53'16	minimum elong	3827 Jun 18 04:04	27°☿☿44'34	0°30'09
max. Earth dist.	3826 Jul 03 13:13	12°☿☿33'51	1.32036 AU		3827 Jun 19 04:44	0°☿☿	
evening rise	3826 Jul 10 15:35	28°☿☿01'04		evening rise	3827 Jun 25 02:27	12°☿☿50'43	
	3826 Jul 11 14:15	0°☿☿			3827 Jul 03 18:02	0°☿☿	
	3826 Jul 28 09:14	0°☿☿		evening max el	3827 Jul 21 14:22	25°☿☿02'13	25°08'54
desc. node	3826 Aug 04 13:07	9°☿☿24'38		desc. node	3827 Jul 22 10:08	25°☿☿48'20	
evening max el	3826 Aug 08 20:47	13°☿☿58'19	26°25'16		3827 Jul 28 02:44	0°☿☿	
retrograde	3826 Aug 22 20:04	21°☿☿08'37		retrograde	3827 Aug 04 13:32	2°☿☿06'44	
evening set	3826 Aug 29 11:39	19°☿☿18'41		evening set	3827 Aug 10 04:04	0°☿☿54'43	
min. Earth dist.	3826 Sep 02 10:08	16°☿☿44'03	0.59566 AU		3827 Aug 12 02:04	30°☿☿☿	
inferior conj	3826 Sep 05 16:47	14°☿☿11'03	-4°-49'-47	min. Earth dist.	3827 Aug 15 02:05	28°☿☿12'10	0.57562 AU
minimum elong	3826 Sep 05 21:26	14°☿☿01'57	4°49'07	inferior conj	3827 Aug 18 02:32	26°☿☿09'52	-5°-9'-43
morning rise	3826 Sep 13 10:41	9°☿☿35'54		minimum elong	3827 Aug 18 02:58	26°☿☿09'07	5°09'43
direct	3826 Sep 15 19:14	9°☿☿16'11		morning rise	3827 Aug 26 05:25	21°☿☿57'21	
morning max el	3826 Sep 23 12:56	13°☿☿01'32	18°19'08	direct	3827 Aug 28 18:20	21°☿☿38'21	
asc. node	3826 Sep 24 09:09	13°☿☿52'35		morning max el	3827 Sep 06 15:03	25°☿☿49'00	19°03'56
	3826 Oct 05 00:06	0°☿☿			3827 Sep 10 08:04	0°☿☿	
morning set	3826 Oct 09 10:12	8°☿☿17'54		asc. node	3827 Sep 11 06:11	1°☿☿14'26	
				morning set	3827 Sep 23 08:36	22°☿☿34'01	
superior conj	3826 Oct 18 16:47	25°☿☿45'02	1°21'37		3827 Sep 27 02:34	0°☿☿	
minimum elong	3826 Oct 18 20:32	26°☿☿02'14	1°21'14	superior conj	3827 Oct 01 17:01	9°☿☿00'10	1°37'25
	3826 Oct 21 01:04	0°☿☿		minimum elong	3827 Oct 01 19:16	9°☿☿11'01	1°37'16
max. Earth dist.	3826 Oct 26 06:07	9°☿☿07'44	1.40767 AU	max. Earth dist.	3827 Oct 08 10:41	21°☿☿34'08	1.38690 AU
evening rise	3826 Oct 30 22:36	16°☿☿59'03		evening rise	3827 Oct 12 07:36	28°☿☿24'12	
desc. node	3826 Oct 31 12:28	17°☿☿55'49			3827 Oct 13 05:53	0°☿☿	
	3826 Nov 08 03:25	0°☿☿		desc. node	3827 Oct 18 09:27	8°☿☿34'44	
	3826 Nov 29 18:04	0°☿☿			3827 Nov 01 14:22	0°☿☿	
evening max el	3826 Dec 04 05:33	4°☿☿55'15	23°20'37				
retrograde	3826 Dec 14 16:52	11°☿☿07'08					

evening max el	3827 Nov 16 18:31	18° \mathring{A} 35'35	24°39'30	desc. node	3828 Oct 04 06:28	29° \mathring{A} 03'02	
retrograde	3827 Nov 28 07:04	25° \mathring{A} 18'27			3828 Oct 04 20:47	0° \mathring{M}	
evening set	3827 Dec 03 18:47	23° \mathring{A} 02'00			3828 Oct 27 00:43	0° \mathring{A}	
asc. node	3827 Dec 08 05:25	18° \mathring{A} 02'11		evening max el	3828 Oct 29 06:56	2° \mathring{A} 18'15	25°50'38
min. Earth dist.	3827 Dec 08 10:25	17° \mathring{A} 45'40	0.67600 AU	retrograde	3828 Nov 10 16:36	9° \mathring{A} 22'29	
inferior conj	3827 Dec 09 07:38	16° \mathring{A} 35'08	0°22'21	evening set	3828 Nov 16 18:23	6° \mathring{A} 52'17	
minimum elong	3827 Dec 09 07:05	16° \mathring{A} 36'58	0°22'08	min. Earth dist.	3828 Nov 21 02:27	2° \mathring{A} 11'30	0.66903 AU
morning rise	3827 Dec 14 19:50	10° \mathring{A} 31'49		inferior conj	3828 Nov 22 10:45	0° \mathring{A} 29'41	0°-34'-2
direct	3827 Dec 18 11:22	9° \mathring{A} 15'24		minimum elong	3828 Nov 22 11:38	0° \mathring{A} 26'51	0°33'39
morning max el	3827 Dec 26 00:56	13° \mathring{A} 33'08	19°59'17		3828 Nov 22 20:11	30° \mathring{R} \mathring{M}	
greatest brilliancy	3828 Jan 02 04:03	22° \mathring{A} 11'35	-0.6m	asc. node	3828 Nov 24 02:28	28° \mathring{M} 27'11	
	3828 Jan 07 16:12	0° \mathring{B}		morning rise	3828 Nov 28 05:50	24° \mathring{M} 35'16	
desc. node	3828 Jan 14 08:45	9° \mathring{B} 58'26		direct	3828 Dec 01 10:06	23° \mathring{M} 37'17	
morning set	3828 Jan 21 15:20	21° \mathring{B} 05'40		morning max el	3828 Dec 08 08:01	27° \mathring{M} 27'33	19°02'09
	3828 Jan 27 08:46	0° \mathring{A}			3828 Dec 10 15:26	0° \mathring{A}	
max. Earth dist.	3828 Feb 01 17:35	8° \mathring{A} 29'11	1.44018 AU	morning set	3828 Dec 30 20:55	29° \mathring{A} 50'50	
					3828 Dec 30 23:16	0° \mathring{B}	
superior conj	3828 Feb 07 01:44	17° \mathring{A} 05'55	-2°-1'-54	desc. node	3828 Dec 31 05:46	0° \mathring{B} 25'21	
minimum elong	3828 Feb 06 21:03	16° \mathring{A} 46'50	2°01'43	max. Earth dist.	3829 Jan 14 09:50	22° \mathring{B} 35'32	1.44994 AU
	3828 Feb 14 20:22	0° \mathring{H}					
evening rise	3828 Feb 20 06:12	9° \mathring{H} 13'00		superior conj	3829 Jan 16 13:44	26° \mathring{B} 00'06	-1°-37'-25
	3828 Mar 03 18:39	0° \mathring{Y}		minimum elong	3829 Jan 16 04:40	25° \mathring{B} 24'18	1°36'35
asc. node	3828 Mar 05 04:41	2° \mathring{Y} 02'14			3829 Jan 19 02:21	0° \mathring{A}	
evening max el	3828 Mar 09 04:38	6° \mathring{Y} 52'34	18°11'41	evening rise	3829 Jan 31 13:12	20° \mathring{A} 03'34	
retrograde	3828 Mar 15 14:52	10° \mathring{Y} 16'38			3829 Feb 06 15:06	0° \mathring{H}	
evening set	3828 Mar 18 10:58	9° \mathring{Y} 34'57		asc. node	3829 Feb 20 01:45	19° \mathring{H} 38'41	
inferior conj	3828 Mar 24 15:16	4° \mathring{Y} 17'22	3°34'31	evening max el	3829 Feb 20 16:39	20° \mathring{H} 17'43	18°34'10
minimum elong	3828 Mar 24 16:09	4° \mathring{Y} 15'00	3°34'29	retrograde	3829 Feb 27 06:12	23° \mathring{H} 54'42	
min. Earth dist.	3828 Mar 27 07:37	1° \mathring{Y} 24'07	0.63006 AU	evening set	3829 Mar 02 08:11	23° \mathring{H} 01'15	
	3828 Mar 28 17:17	30° \mathring{R} \mathring{H}		inferior conj	3829 Mar 08 03:54	17° \mathring{H} 25'02	3°35'50
morning rise	3828 Mar 30 19:12	28° \mathring{H} 12'16		minimum elong	3829 Mar 08 03:11	17° \mathring{H} 27'12	3°35'47
direct	3828 Apr 06 16:34	25° \mathring{H} 34'02		min. Earth dist.	3829 Mar 10 04:45	14° \mathring{H} 59'26	0.64804 AU
desc. node	3828 Apr 11 07:57	26° \mathring{H} 36'45		morning rise	3829 Mar 13 20:50	11° \mathring{H} 13'08	
	3828 Apr 16 17:31	0° \mathring{Y}		direct	3829 Mar 20 14:06	8° \mathring{H} 24'11	
morning max el	3828 Apr 20 15:16	3° \mathring{Y} 32'03	27°47'56	desc. node	3829 Mar 29 04:59	11° \mathring{H} 58'38	
	3828 May 10 08:50	0° \mathring{B}		morning max el	3829 Apr 03 00:59	16° \mathring{H} 15'40	27°14'49
morning set	3828 May 24 20:47	26° \mathring{B} 19'27			3829 Apr 14 09:27	0° \mathring{Y}	
	3828 May 26 16:11	0° \mathring{H}			3829 May 03 03:44	0° \mathring{B}	
max. Earth dist.	3828 May 30 06:01	7° \mathring{H} 29'30	1.32701 AU	morning set	3829 May 08 11:15	9° \mathring{B} 59'07	
asc. node	3828 Jun 01 03:57	11° \mathring{H} 35'47		max. Earth dist.	3829 May 13 03:42	19° \mathring{B} 20'39	1.33691 AU
superior conj	3828 Jun 01 13:45	12° \mathring{H} 28'44	0°04'18	superior conj	3829 May 16 17:31	26° \mathring{B} 47'21	0°-23'-55
minimum elong	3828 Jun 01 13:33	12° \mathring{H} 27'35	0°04'14	minimum elong	3829 May 16 18:45	26° \mathring{B} 53'53	0°23'42
behind sun begin	3828 Jun 01 08:28	12° \mathring{H} 00'08			3829 May 18 05:54	0° \mathring{H}	
behind sun end	3828 Jun 01 18:38	12° \mathring{H} 55'05		asc. node	3829 May 19 01:01	1° \mathring{H} 41'44	
evening rise	3828 Jun 08 14:17	27° \mathring{H} 39'11		evening rise	3829 May 24 01:17	12° \mathring{H} 20'38	
	3828 Jun 09 17:00	0° \mathring{B}			3829 Jun 02 03:08	0° \mathring{B}	
	3828 Jun 27 04:34	0° \mathring{Q}		evening max el	3829 Jun 13 19:25	15° \mathring{B} 58'52	21°58'46
evening max el	3828 Jul 02 03:29	5° \mathring{Q} 32'05	23°34'47	desc. node	3829 Jun 25 04:12	22° \mathring{B} 11'39	
desc. node	3828 Jul 08 07:10	10° \mathring{Q} 15'25		retrograde	3829 Jun 26 11:57	22° \mathring{B} 15'42	
retrograde	3828 Jul 15 18:25	12° \mathring{Q} 21'48		evening set	3829 Jun 29 06:22	21° \mathring{B} 58'36	
evening set	3828 Jul 19 21:49	11° \mathring{Q} 44'14		min. Earth dist.	3829 Jul 07 23:58	18° \mathring{B} 13'52	0.54969 AU
min. Earth dist.	3828 Jul 26 13:27	8° \mathring{Q} 37'27	0.55919 AU	inferior conj	3829 Jul 08 13:43	17° \mathring{B} 54'35	-3°-40'-16
inferior conj	3828 Jul 28 16:02	7° \mathring{Q} 21'59	-4°-50'-3	minimum elong	3829 Jul 08 05:15	18° \mathring{B} 06'27	3°37'57
minimum elong	3828 Jul 28 10:28	7° \mathring{Q} 30'20	4°49'18	morning rise	3829 Jul 17 05:49	14° \mathring{B} 03'42	
morning rise	3828 Aug 06 02:18	3° \mathring{Q} 27'16		direct	3829 Jul 20 10:44	13° \mathring{B} 41'01	
direct	3828 Aug 08 22:14	3° \mathring{Q} 07'23		morning max el	3829 Aug 01 09:42	19° \mathring{B} 16'31	21°37'20
morning max el	3828 Aug 19 06:14	7° \mathring{Q} 55'12	20°10'36		3829 Aug 10 02:03	0° \mathring{Q}	
asc. node	3828 Aug 28 03:14	19° \mathring{Q} 26'25		asc. node	3829 Aug 15 00:16	8° \mathring{Q} 16'48	
	3828 Sep 02 23:35	0° \mathring{M}		morning set	3829 Aug 21 22:34	21° \mathring{Q} 55'49	
morning set	3828 Sep 06 13:32	7° \mathring{M} 08'57			3829 Aug 25 18:40	0° \mathring{M}	
superior conj	3828 Sep 14 06:48	22° \mathring{M} 55'26	1°44'01	superior conj	3829 Aug 29 06:05	7° \mathring{M} 18'52	1°42'58
minimum elong	3828 Sep 14 07:22	22° \mathring{M} 58'16	1°44'00	minimum elong	3829 Aug 29 05:14	7° \mathring{M} 14'24	1°42'56
	3828 Sep 17 20:30	0° \mathring{A}		max. Earth dist.	3829 Sep 02 04:53	15° \mathring{M} 25'40	1.34946 AU
max. Earth dist.	3828 Sep 19 16:40	3° \mathring{A} 32'53	1.36681 AU	evening rise	3829 Sep 06 14:22	24° \mathring{M} 03'41	
evening rise	3828 Sep 23 14:15	10° \mathring{A} 49'17			3829 Sep 09 18:32	0° \mathring{A}	

desc. node	3829 Sep 21 03:30	19°♄14'46			3830 Aug 17 06:11	0°♎	
	3829 Sep 28 10:55	0°♍		evening rise	3830 Aug 21 03:42	7°♎56'26	
evening max el	3829 Oct 11 19:23	15°♍56'19	26°46'36		3830 Sep 02 06:34	0°♄	
retrograde	3829 Oct 24 20:52	23°♍12'05		desc. node	3830 Sep 08 00:32	9°♄02'38	
evening set	3829 Oct 31 11:35	20°♍32'52		evening max el	3830 Sep 24 07:25	29°♄20'50	27°20'04
min. Earth dist.	3829 Nov 04 12:35	16°♍28'25	0.65855 AU		3830 Sep 25 00:09	0°♍	
inferior conj	3829 Nov 06 08:37	14°♍19'15	-1°-33'-51	retrograde	3830 Oct 07 19:29	6°♍39'25	
minimum elong	3829 Nov 06 11:12	14°♍11'37	1°32'47	evening set	3830 Oct 14 19:53	3°♍59'08	
asc. node	3829 Nov 10 23:31	9°♍35'35		min. Earth dist.	3830 Oct 18 14:40	0°♍29'53	0.64457 AU
morning rise	3829 Nov 12 12:22	8°♍36'31			3830 Oct 19 02:01	30°♎♄	
direct	3829 Nov 15 07:26	7°♍53'17		inferior conj	3830 Oct 20 22:54	27°♄59'16	-2°-35'-3
morning max el	3829 Nov 21 20:58	11°♍26'54	18°21'06	minimum elong	3830 Oct 21 03:14	27°♄47'37	2°33'28
	3829 Dec 05 00:46	0°♊		morning rise	3830 Oct 27 12:47	22°♄31'13	
morning set	3829 Dec 11 05:21	9°♊58'42		asc. node	3830 Oct 28 20:33	22°♄06'06	
desc. node	3829 Dec 18 02:47	21°♊02'40		direct	3830 Oct 30 01:06	21°♄58'45	
	3829 Dec 23 18:19	0°♉		morning max el	3830 Nov 05 13:06	25°♄24'58	17°56'56
					3830 Nov 09 09:09	0°♍	
superior conj	3829 Dec 26 15:57	4°♉34'05	0°-56'-9	morning set	3830 Nov 22 18:38	21°♍31'36	
minimum elong	3829 Dec 26 08:57	4°♉06'38	0°55'16		3830 Nov 27 19:42	0°♊	
max. Earth dist.	3829 Dec 28 04:49	6°♉58'52	1.45246 AU	desc. node	3830 Dec 04 23:50	11°♊46'52	
evening rise	3830 Jan 11 21:04	29°♉58'44					
	3830 Jan 11 21:23	0°♈		superior conj	3830 Dec 06 05:22	13°♊46'04	0°-8'-27
greatest brilliancy	3830 Jan 25 15:14	21°♈20'50	-0.7m	minimum elong	3830 Dec 06 04:22	13°♊42'01	0°08'19
	3830 Jan 31 19:09	0°♏		behind sun begin	3830 Dec 05 19:26	13°♊06'03	
evening max el	3830 Feb 04 01:33	3°♏47'11	19°14'05	behind sun end	3830 Dec 06 13:17	14°♊17'55	
asc. node	3830 Feb 06 22:49	6°♏17'26		max. Earth dist.	3830 Dec 10 23:29	21°♊21'18	1.44761 AU
retrograde	3830 Feb 11 02:17	7°♏47'55			3830 Dec 16 11:40	0°♉	
evening set	3830 Feb 14 11:02	6°♏41'48		evening rise	3830 Dec 22 11:11	9°♉15'18	
inferior conj	3830 Feb 20 01:08	0°♏49'16	3°22'16		3831 Jan 05 03:48	0°♈	
minimum elong	3830 Feb 19 23:18	0°♏55'10	3°22'00	greatest brilliancy	3831 Jan 11 16:47	9°♈20'18	-0.6m
	3830 Feb 20 16:25	30°♎♈		evening max el	3831 Jan 18 05:46	17°♈18'57	20°09'36
min. Earth dist.	3830 Feb 21 10:44	29°♈01'17	0.66211 AU	asc. node	3831 Jan 24 19:51	21°♈44'11	
morning rise	3830 Feb 25 10:40	24°♈34'07		retrograde	3831 Jan 26 00:15	21°♈51'49	
direct	3830 Mar 03 18:11	21°♈47'35		evening set	3831 Jan 29 17:15	20°♈31'50	
desc. node	3830 Mar 16 02:01	28°♈57'44		inferior conj	3831 Feb 04 04:05	14°♈25'38	2°57'14
morning max el	3830 Mar 16 10:54	29°♈20'01	26°13'32	minimum elong	3831 Feb 04 01:41	14°♈33'45	2°56'40
	3830 Mar 17 02:32	0°♏		min. Earth dist.	3831 Feb 04 23:46	13°♈19'14	0.67206 AU
	3830 Apr 08 05:55	0°♐		morning rise	3831 Feb 09 09:31	8°♈09'43	
morning set	3830 Apr 21 13:06	22°♐58'03		direct	3831 Feb 15 03:55	5°♈36'07	
	3830 Apr 25 05:46	0°♉		morning max el	3831 Feb 26 19:37	12°♈34'10	24°53'31
max. Earth dist.	3830 Apr 25 13:56	0°♉39'43	1.35134 AU	desc. node	3831 Mar 02 23:03	17°♈06'46	
					3831 Mar 12 20:45	0°♏	
superior conj	3830 Apr 30 14:18	10°♉40'47	0°-52'-59		3831 Apr 01 00:19	0°♐	
minimum elong	3830 Apr 30 17:08	10°♉55'11	0°52'28	morning set	3831 Apr 03 21:17	5°♐01'48	
asc. node	3830 May 05 22:05	21°♉41'21		max. Earth dist.	3831 Apr 07 13:24	11°♐40'27	1.37002 AU
evening rise	3830 May 08 09:23	26°♉48'31					
	3830 May 09 22:51	0°♐		superior conj	3831 Apr 14 01:05	24°♐00'44	-1°-21'-5
evening max el	3830 May 26 21:25	26°♐53'38	20°34'04	minimum elong	3831 Apr 14 05:16	24°♐21'16	1°20'27
	3830 May 30 17:20	0°♑			3831 Apr 17 01:44	0°♏	
retrograde	3830 Jun 07 01:03	2°♑20'22		evening rise	3831 Apr 22 12:18	10°♏55'43	
evening set	3830 Jun 09 02:05	2°♑10'08		asc. node	3831 Apr 22 19:08	11°♏29'56	
desc. node	3830 Jun 12 01:13	1°♑21'56			3831 May 02 20:51	0°♐	
	3830 Jun 15 02:14	30°♎♐		evening max el	3831 May 09 11:42	8°♐29'11	19°27'19
inferior conj	3830 Jun 18 07:30	28°♐12'45	-1°-50'-28	retrograde	3831 May 18 21:34	13°♐03'38	
minimum elong	3830 Jun 18 02:18	28°♐20'14	1°48'36	evening set	3831 May 20 21:06	12°♐52'22	
min. Earth dist.	3830 Jun 19 12:04	27°♐31'30	0.54943 AU	inferior conj	3831 May 29 11:39	8°♐46'32	0°07'46
morning rise	3830 Jun 27 01:09	24°♐04'58		minimum elong	3831 May 29 11:59	8°♐46'00	0°07'38
direct	3830 Jun 30 20:18	23°♐33'52		transit middle	3831 May 29 11:59	8°♐46'00	0°07'38
morning max el	3830 Jul 14 03:51	29°♐59'57	23°17'43	transit begin	3831 May 29 08:34	8°♐51'30	
	3830 Jul 14 03:52	0°♑		transit end	3831 May 29 15:24	8°♐40'28	
asc. node	3830 Aug 01 21:19	27°♑36'15		desc. node	3831 May 29 22:15	8°♐29'23	
	3830 Aug 03 02:20	0°♏		min. Earth dist.	3831 Jun 01 02:17	7°♐05'50	0.55873 AU
morning set	3830 Aug 06 09:50	6°♏49'25		morning rise	3831 Jun 06 23:00	4°♐06'41	
				direct	3831 Jun 11 15:46	3°♐16'42	
superior conj	3830 Aug 13 11:47	22°♏01'14	1°35'33	morning max el	3831 Jun 25 17:49	10°♐23'52	24°59'46
minimum elong	3830 Aug 13 09:58	21°♏51'27	1°35'24		3831 Jul 10 12:54	0°♑	
max. Earth dist.	3830 Aug 16 01:56	27°♏31'54	1.33599 AU	asc. node	3831 Jul 19 18:21	17°♑16'15	

morning set	3831 Jul 21 21:36	21° $\overline{54}$ 3'29			3832 Jul 02 03:57	0° $\overline{5}$	
	3831 Jul 25 17:46	0° Ω		morning set	3832 Jul 05 08:17	6° $\overline{53}$ 3'10	
				asc. node	3832 Jul 05 15:24	7° $\overline{5}$ 10'46	
superior conj	3831 Jul 28 21:22	6° Ω 53'32	1°22'48	superior conj	3832 Jul 12 08:52	21° $\overline{54}$ 9'22	1°05'28
minimum elong	3831 Jul 28 19:04	6° Ω 41'00	1°22'30	minimum elong	3832 Jul 12 06:36	21° $\overline{53}$ 6'48	1°05'04
max. Earth dist.	3831 Jul 30 07:03	9° Ω 57'07	1.32674 AU	max. Earth dist.	3832 Jul 12 17:24	22° $\overline{53}$ 6'25	1.32162 AU
evening rise	3831 Aug 05 02:29	22° Ω 15'52			3832 Jul 16 02:24	0° Ω	
	3831 Aug 08 23:32	0° $\overline{\eta}$		evening rise	3832 Jul 19 07:47	6° Ω 53'07	
desc. node	3831 Aug 25 21:33	28° $\overline{\eta}$ 15'42			3832 Jul 31 12:06	0° $\overline{\eta}$	
	3831 Aug 27 03:45	0° $\underline{\Delta}$		desc. node	3832 Aug 11 18:33	16° $\overline{\eta}$ 39'49	
evening max el	3831 Sep 06 17:15	12° $\underline{\Delta}$ 18'41	27°24'45	evening max el	3832 Aug 18 22:10	24° $\overline{\eta}$ 36'54	26°56'26
retrograde	3831 Sep 20 11:27	19° $\underline{\Delta}$ 34'18			3832 Aug 26 03:46	0° $\underline{\Delta}$	
evening set	3831 Sep 27 15:58	17° $\underline{\Delta}$ 03'53		retrograde	3832 Sep 01 19:44	1° $\underline{\Delta}$ 48'12	
min. Earth dist.	3831 Oct 01 06:54	14° $\underline{\Delta}$ 05'02	0.62735 AU		3832 Sep 08 05:47	30° $\overline{\kappa}$ $\overline{\eta}$	
inferior conj	3831 Oct 04 02:47	11° $\underline{\Delta}$ 22'17	-3°-34'-28	evening set	3832 Sep 08 19:36	29° $\overline{\eta}$ 40'07	
minimum elong	3831 Oct 04 08:27	11° $\underline{\Delta}$ 08'40	3°32'46	min. Earth dist.	3832 Sep 12 12:23	27° $\overline{\eta}$ 01'19	0.60763 AU
morning rise	3831 Oct 11 03:41	6° $\underline{\Delta}$ 12'09		inferior conj	3832 Sep 15 16:59	24° $\overline{\eta}$ 19'59	-4°-26'-33
direct	3831 Oct 13 12:04	5° $\underline{\Delta}$ 46'51		minimum elong	3832 Sep 15 22:40	24° $\overline{\eta}$ 07'57	4°25'22
asc. node	3831 Oct 15 17:34	6° $\underline{\Delta}$ 10'14		morning rise	3832 Sep 23 04:55	19° $\overline{\eta}$ 31'13	
morning max el	3831 Oct 20 05:24	9° $\underline{\Delta}$ 13'44	17°50'30	direct	3832 Sep 25 12:36	19° $\overline{\eta}$ 10'02	
	3831 Nov 02 22:26	0° $\overline{\mu}$		asc. node	3832 Oct 01 14:36	21° $\overline{\eta}$ 42'23	
morning set	3831 Nov 05 07:07	4° $\overline{\mu}$ 10'59		morning max el	3832 Oct 02 18:44	22° $\overline{\eta}$ 45'44	18°02'55
					3832 Oct 08 11:05	0° $\underline{\Delta}$	
superior conj	3831 Nov 16 19:21	24° $\overline{\mu}$ 10'35	0°34'45	morning set	3832 Oct 18 12:28	17° $\underline{\Delta}$ 38'25	
minimum elong	3831 Nov 16 22:33	24° $\overline{\mu}$ 24'03	0°34'18		3832 Oct 25 05:16	0° $\overline{\mu}$	
	3831 Nov 20 07:17	0° $\overline{\chi}$		superior conj	3832 Oct 28 11:39	5° $\overline{\mu}$ 51'54	1°07'46
desc. node	3831 Nov 21 20:51	2° $\overline{\chi}$ 34'00		minimum elong	3832 Oct 28 15:50	6° $\overline{\mu}$ 10'28	1°07'15
max. Earth dist.	3831 Nov 23 15:29	5° $\overline{\chi}$ 27'02	1.43599 AU	max. Earth dist.	3832 Nov 05 02:58	19° $\overline{\mu}$ 00'51	1.41904 AU
evening rise	3831 Dec 01 21:02	18° $\overline{\chi}$ 27'47		desc. node	3832 Nov 07 17:51	23° $\overline{\mu}$ 20'42	
	3831 Dec 09 10:38	0° $\overline{\zeta}$		evening rise	3832 Nov 10 18:42	28° $\overline{\mu}$ 15'24	
greatest brilliancy	3831 Dec 27 03:04	25° $\overline{\zeta}$ 01'44	-0.4m		3832 Nov 11 20:57	0° $\overline{\chi}$	
	3831 Dec 31 08:35	0° \approx			3832 Dec 02 03:00	0° $\overline{\zeta}$	
evening max el	3832 Jan 01 04:32	0° \approx 52'15	21°17'52	greatest brilliancy	3832 Dec 09 01:25	8° $\overline{\zeta}$ 59'46	-0.3m
retrograde	3832 Jan 09 21:58	6° \approx 02'46		evening max el	3832 Dec 13 22:09	14° $\overline{\zeta}$ 26'57	22°34'42
asc. node	3832 Jan 11 16:50	5° \approx 45'22		retrograde	3832 Dec 23 17:43	20° $\overline{\zeta}$ 16'55	
evening set	3832 Jan 14 00:56	4° \approx 27'35		evening set	3832 Dec 28 08:25	18° $\overline{\zeta}$ 25'27	
	3832 Jan 18 02:27	30° $\overline{\kappa}$ $\overline{\zeta}$		asc. node	3832 Dec 28 13:52	18° $\overline{\zeta}$ 14'03	
inferior conj	3832 Jan 19 10:26	28° $\overline{\zeta}$ 10'44	2°23'01	inferior conj	3833 Jan 02 18:10	12° $\overline{\zeta}$ 01'24	1°41'07
minimum elong	3832 Jan 19 07:58	28° $\overline{\zeta}$ 19'15	2°22'15	minimum elong	3833 Jan 02 16:06	12° $\overline{\zeta}$ 08'32	1°40'22
min. Earth dist.	3832 Jan 19 17:34	27° $\overline{\zeta}$ 46'04	0.67791 AU	min. Earth dist.	3833 Jan 02 13:51	12° $\overline{\zeta}$ 16'20	0.67995 AU
morning rise	3832 Jan 24 14:39	21° $\overline{\zeta}$ 56'00		morning rise	3833 Jan 07 23:42	5° $\overline{\zeta}$ 49'38	
direct	3832 Jan 29 18:21	19° $\overline{\zeta}$ 42'13		direct	3833 Jan 12 12:31	3° $\overline{\zeta}$ 58'42	
morning max el	3832 Feb 09 04:21	25° $\overline{\zeta}$ 53'57	23°25'10	morning max el	3833 Jan 21 16:31	9° $\overline{\zeta}$ 21'03	21°57'54
	3832 Feb 12 22:18	0° \approx		greatest brilliancy	3833 Jan 26 08:35	14° $\overline{\zeta}$ 35'35	-0.4m
greatest brilliancy	3832 Feb 14 21:21	2° \approx 21'14	-0.2m	desc. node	3833 Feb 03 17:07	25° $\overline{\zeta}$ 40'11	
desc. node	3832 Feb 17 20:06	6° \approx 05'48			3833 Feb 06 18:03	0° \approx	
	3832 Mar 05 10:00	0° $\overline{\chi}$		morning set	3833 Feb 23 09:34	25° \approx 23'57	
morning set	3832 Mar 15 05:45	15° $\overline{\chi}$ 54'17			3833 Feb 26 05:40	0° $\overline{\chi}$	
max. Earth dist.	3832 Mar 19 08:26	22° $\overline{\chi}$ 57'48	1.39145 AU	max. Earth dist.	3833 Mar 01 06:52	5° $\overline{\chi}$ 02'40	1.41296 AU
	3832 Mar 23 07:24	0° $\overline{\gamma}$		superior conj	3833 Mar 09 00:13	18° $\overline{\chi}$ 18'56	-2°-2'-32
superior conj	3832 Mar 26 22:01	6° $\overline{\gamma}$ 37'41	-1°-45'-31	minimum elong	3833 Mar 09 03:27	18° $\overline{\chi}$ 33'11	2°02'24
minimum elong	3832 Mar 27 02:42	6° $\overline{\gamma}$ 59'33	1°45'04		3833 Mar 15 11:40	0° $\overline{\gamma}$	
evening rise	3832 Apr 05 07:15	24° $\overline{\gamma}$ 35'16		evening rise	3833 Mar 19 14:45	7° $\overline{\gamma}$ 37'55	
	3832 Apr 08 02:54	0° $\overline{\delta}$		asc. node	3833 Mar 26 13:11	20° $\overline{\gamma}$ 13'30	
asc. node	3832 Apr 08 16:10	1° $\overline{\delta}$ 02'47			3833 Apr 01 20:05	0° $\overline{\delta}$	
evening max el	3832 Apr 21 12:30	20° $\overline{\delta}$ 43'50	18°40'34	evening max el	3833 Apr 04 20:27	3° $\overline{\delta}$ 28'29	18°13'57
retrograde	3832 Apr 29 11:37	24° $\overline{\delta}$ 38'09		retrograde	3833 Apr 11 20:36	6° $\overline{\delta}$ 59'19	
evening set	3832 May 01 16:24	24° $\overline{\delta}$ 21'21		evening set	3833 Apr 14 07:33	6° $\overline{\delta}$ 34'10	
inferior conj	3832 May 09 11:29	19° $\overline{\delta}$ 57'05	1°44'50	inferior conj	3833 Apr 21 08:39	1° $\overline{\delta}$ 48'40	2°49'50
minimum elong	3832 May 09 14:53	19° $\overline{\delta}$ 50'40	1°43'47	minimum elong	3833 Apr 21 12:04	1° $\overline{\delta}$ 41'06	2°49'06
min. Earth dist.	3832 May 12 19:32	17° $\overline{\delta}$ 27'32	0.57556 AU		3833 Apr 23 09:45	30° $\overline{\kappa}$ $\overline{\gamma}$	
desc. node	3832 May 15 19:16	15° $\overline{\delta}$ 31'11		min. Earth dist.	3833 Apr 24 18:07	28° $\overline{\gamma}$ 50'38	0.59653 AU
morning rise	3832 May 17 08:56	14° $\overline{\delta}$ 42'42		morning rise	3833 Apr 28 12:49	26° $\overline{\gamma}$ 06'51	
direct	3832 May 23 01:07	13° $\overline{\delta}$ 22'54		desc. node	3833 May 02 16:18	24° $\overline{\gamma}$ 26'31	
morning max el	3832 Jun 06 09:47	20° $\overline{\delta}$ 56'40	26°27'51				
	3832 Jun 14 05:59	0° $\overline{\Pi}$					

direct	3833 May 04 23:12	24° Υ 12'03		direct	3834 Apr 17 08:09	5° Υ 51'17	
	3833 May 17 03:14	0° \mathcal{B}		desc. node	3834 Apr 19 13:21	6° Υ 05'31	
morning max el	3833 May 19 07:41	2° \mathcal{B} 01'58	27°27'49	morning max el	3834 May 01 11:54	13° Υ 49'32	27°51'24
	3833 Jun 08 13:42	0° Π			3834 May 14 11:41	0° \mathcal{B}	
morning set	3833 Jun 19 16:11	21° Π 12'35			3834 Jun 01 00:21	0° Π	
asc. node	3833 Jun 22 12:26	27° Π 14'08		morning set	3834 Jun 03 19:21	5° Π 35'21	
	3833 Jun 23 19:07	0° \mathcal{E}		asc. node	3834 Jun 09 09:29	17° Π 21'52	
max. Earth dist.	3833 Jun 26 05:14	5° \mathcal{E} 18'13	1.32044 AU	max. Earth dist.	3834 Jun 09 14:33	17° Π 49'13	1.32335 AU
superior conj	3833 Jun 26 20:32	6° \mathcal{E} 42'28	0°44'12	superior conj	3834 Jun 11 06:38	21° Π 27'12	0°19'39
minimum elong	3833 Jun 26 18:44	6° \mathcal{E} 32'31	0°43'50	minimum elong	3834 Jun 11 05:44	21° Π 22'17	0°19'27
evening rise	3833 Jul 03 17:13	21° \mathcal{E} 40'03			3834 Jun 15 04:27	0° \mathcal{E}	
	3833 Jul 07 18:14	0° \mathcal{Q}		evening rise	3834 Jun 18 04:45	6° \mathcal{E} 29'50	
	3833 Jul 26 05:40	0° \mathcal{M}			3834 Jun 30 12:56	0° \mathcal{Q}	
desc. node	3833 Jul 29 15:34	3° \mathcal{M} 55'05		evening max el	3834 Jul 13 10:36	16° \mathcal{Q} 52'45	24°30'01
evening max el	3833 Jul 31 19:48	6° \mathcal{M} 06'53	25°55'43	desc. node	3834 Jul 16 12:36	19° \mathcal{Q} 33'36	
retrograde	3833 Aug 14 19:07	13° \mathcal{M} 14'54		retrograde	3834 Jul 27 07:50	23° \mathcal{Q} 53'33	
evening set	3833 Aug 21 01:59	11° \mathcal{M} 40'23		evening set	3834 Aug 01 08:08	22° \mathcal{Q} 57'12	
min. Earth dist.	3833 Aug 25 08:08	9° \mathcal{M} 05'01	0.58694 AU	min. Earth dist.	3834 Aug 06 21:38	20° \mathcal{Q} 06'04	0.56793 AU
inferior conj	3833 Aug 28 13:58	6° \mathcal{M} 42'45	-5°-2'-3	inferior conj	3834 Aug 09 15:00	18° \mathcal{Q} 21'45	-5°-7'-7
minimum elong	3833 Aug 28 17:13	6° \mathcal{M} 36'47	5°01'46	minimum elong	3834 Aug 09 12:54	18° \mathcal{Q} 25'07	5°07'02
morning rise	3833 Sep 05 11:56	2° \mathcal{M} 17'38		morning rise	3834 Aug 17 21:16	14° \mathcal{Q} 18'16	
direct	3833 Sep 07 22:09	1° \mathcal{M} 58'20		direct	3834 Aug 20 12:47	13° \mathcal{Q} 59'12	
morning max el	3833 Sep 16 01:57	5° \mathcal{M} 52'35	18°35'37	morning max el	3834 Aug 29 23:49	18° \mathcal{Q} 24'05	19°29'45
asc. node	3833 Sep 18 11:39	8° \mathcal{M} 28'46		asc. node	3834 Sep 05 08:43	26° \mathcal{Q} 13'41	
	3833 Oct 01 09:05	0° \mathcal{A}			3834 Sep 07 17:41	0° \mathcal{M}	
morning set	3833 Oct 02 05:47	1° \mathcal{A} 40'04		morning set	3834 Sep 16 07:18	16° \mathcal{M} 05'04	
					3834 Sep 23 05:42	0° \mathcal{A}	
superior conj	3833 Oct 11 01:55	18° \mathcal{A} 38'01	1°29'33	superior conj	3834 Sep 24 08:32	2° \mathcal{A} 12'18	1°41'14
minimum elong	3833 Oct 11 05:06	18° \mathcal{A} 52'57	1°29'16	minimum elong	3834 Sep 24 10:03	2° \mathcal{A} 19'47	1°41'10
	3833 Oct 17 07:54	0° \mathcal{M}		max. Earth dist.	3834 Sep 30 13:36	14° \mathcal{A} 02'55	1.37806 AU
max. Earth dist.	3833 Oct 18 09:26	1° \mathcal{M} 52'05	1.39886 AU	evening rise	3834 Oct 04 08:48	20° \mathcal{A} 54'52	
evening rise	3833 Oct 22 14:08	9° \mathcal{M} 03'04			3834 Oct 09 15:51	0° \mathcal{M}	
desc. node	3833 Oct 25 14:52	14° \mathcal{M} 03'48		desc. node	3834 Oct 12 11:53	4° \mathcal{M} 38'49	
	3833 Nov 04 20:28	0° \mathcal{X}			3834 Oct 29 20:36	0° \mathcal{X}	
evening max el	3833 Nov 26 12:05	28° \mathcal{X} 04'44	23°54'38	evening max el	3834 Nov 09 00:27	11° \mathcal{X} 45'44	25°11'08
	3833 Nov 28 13:00	0° \mathcal{Z}		retrograde	3834 Nov 20 22:51	18° \mathcal{X} 39'52	
retrograde	3833 Dec 07 10:22	4° \mathcal{Z} 30'57		evening set	3834 Nov 26 16:32	16° \mathcal{X} 17'01	
evening set	3833 Dec 12 14:10	2° \mathcal{Z} 23'08		min. Earth dist.	3834 Dec 01 04:48	11° \mathcal{X} 15'36	0.67341 AU
	3833 Dec 14 22:24	30° \mathcal{R} \mathcal{X}		inferior conj	3834 Dec 02 06:43	9° \mathcal{X} 51'06	0°-1'-2
asc. node	3833 Dec 15 10:53	29° \mathcal{X} 22'22		minimum elong	3834 Dec 02 06:44	9° \mathcal{X} 51'01	0°01'02
min. Earth dist.	3833 Dec 17 10:21	26° \mathcal{X} 47'18	0.67841 AU	transit middle	3834 Dec 02 06:44	9° \mathcal{X} 51'01	0°01'02
inferior conj	3833 Dec 18 01:31	25° \mathcal{X} 55'51	0°52'44	transit begin	3834 Dec 02 03:57	10° \mathcal{X} 00'05	
minimum elong	3833 Dec 18 00:18	25° \mathcal{X} 59'58	0°52'15	transit end	3834 Dec 02 09:30	9° \mathcal{X} 41'58	
morning rise	3833 Dec 23 10:41	19° \mathcal{X} 48'55		asc. node	3834 Dec 02 07:57	9° \mathcal{X} 47'04	
direct	3833 Dec 27 09:29	18° \mathcal{X} 20'40		morning rise	3834 Dec 07 21:36	3° \mathcal{X} 51'13	
morning max el	3834 Jan 04 11:25	22° \mathcal{X} 59'21	20°38'59	direct	3834 Dec 11 08:00	2° \mathcal{X} 43'14	
	3834 Jan 10 11:12	0° \mathcal{Z}		morning max el	3834 Dec 18 14:13	6° \mathcal{X} 48'21	19°33'04
greatest brilliancy	3834 Jan 10 09:34	29° \mathcal{X} 54'41	-0.5m	greatest brilliancy	3834 Dec 26 23:06	17° \mathcal{X} 17'12	-0.6m
desc. node	3834 Jan 21 14:08	15° \mathcal{Z} 40'20			3835 Jan 04 13:16	0° \mathcal{Z}	
	3834 Jan 31 01:42	0° \approx		desc. node	3835 Jan 08 11:09	5° \mathcal{Z} 58'44	
morning set	3834 Feb 02 12:22	3° \approx 46'51		morning set	3835 Jan 12 09:21	12° \mathcal{Z} 01'33	
max. Earth dist.	3834 Feb 11 12:22	18° \approx 02'15	1.43163 AU		3835 Jan 23 21:47	0° \approx	
superior conj	3834 Feb 18 02:44	28° \approx 53'43	-2°-7'-3	max. Earth dist.	3835 Jan 25 00:37	1° \approx 46'07	1.44511 AU
minimum elong	3834 Feb 18 01:34	28° \approx 48'49	2°07'04	superior conj	3835 Jan 29 03:25	8° \approx 19'42	-1°-53'-56
	3834 Feb 18 18:32	0° \mathcal{H}		minimum elong	3835 Jan 28 20:19	7° \approx 51'16	1°53'29
evening rise	3834 Mar 02 06:43	19° \mathcal{H} 54'58			3835 Feb 11 08:08	0° \mathcal{H}	
	3834 Mar 08 00:25	0° Υ		evening rise	3835 Feb 12 02:41	1° \mathcal{H} 17'51	
asc. node	3834 Mar 13 10:13	8° Υ 55'04		asc. node	3835 Feb 28 07:15	26° \mathcal{H} 58'28	
evening max el	3834 Mar 19 08:17	16° Υ 34'47	18°07'01		3835 Mar 02 23:01	0° Υ	
retrograde	3834 Mar 25 20:50	19° Υ 57'32		evening max el	3835 Mar 02 21:00	29° \mathcal{H} 54'58	18°19'06
evening set	3834 Mar 28 13:33	14° Υ 22'21		retrograde	3835 Mar 09 07:46	3° Υ 23'16	
inferior conj	3834 Apr 04 00:21	14° Υ 16'13	3°25'09	evening set	3835 Mar 12 06:12	2° Υ 36'51	
minimum elong	3834 Apr 04 02:16	14° Υ 11'22	3°24'56		3835 Mar 15 15:41	30° \mathcal{R} \mathcal{H}	
min. Earth dist.	3834 Apr 07 00:40	11° Υ 14'27	0.61825 AU	inferior conj	3835 Mar 18 06:29	27° \mathcal{H} 11'22	3°37'10
morning rise	3834 Apr 10 12:14	8° Υ 16'58					

minimum elong	3835 Mar 18 06:38	27° Υ 10'56	3°37'09	asc. node	3836 Feb 15 04:18	14° Υ 11'49	
min. Earth dist.	3835 Mar 20 16:28	24° Υ 27'48	0.63808 AU	retrograde	3836 Feb 21 01:19	17° Υ 07'55	
morning rise	3835 Mar 24 05:16	21° Υ 02'41		evening set	3836 Feb 24 06:06	16° Υ 09'12	
direct	3835 Mar 31 01:47	18° Υ 17'49		inferior conj	3836 Feb 29 23:06	10° Υ 26'03	3°31'39
desc. node	3835 Apr 06 10:24	20° Υ 15'38		minimum elong	3836 Feb 29 21:51	10° Υ 29'57	3°31'32
morning max el	3835 Apr 13 20:16	26° Υ 15'18	27°37'48	min. Earth dist.	3836 Mar 02 17:26	8° Υ 15'28	0.65452 AU
	3835 Apr 17 07:46	0° Υ		morning rise	3836 Mar 06 12:28	4° Υ 12'38	
	3835 May 08 01:15	0° Υ		direct	3836 Mar 13 02:20	1° Υ 22'58	
morning set	3835 May 18 15:22	19° Υ 34'02		desc. node	3836 Mar 23 07:25	6° Υ 22'07	
max. Earth dist.	3835 May 23 17:22	29° Υ 57'12	1.33059 AU	morning max el	3836 Mar 26 06:02	9° Υ 07'53	26°51'42
	3835 May 23 17:54	0° Υ			3836 Apr 11 14:26	0° Υ	
					3836 Apr 29 11:27	0° Υ	
superior conj	3835 May 26 13:22	5° Υ 57'57	0°-7'-29	morning set	3836 May 01 00:56	2° Υ 57'29	
minimum elong	3835 May 26 13:45	5° Υ 59'56	0°07'25	max. Earth dist.	3836 May 05 10:09	11° Υ 33'12	1.34244 AU
behind sun begin	3835 May 26 08:58	5° Υ 34'23					
behind sun end	3835 May 26 18:31	6° Υ 25'31		superior conj	3836 May 09 14:29	20° Υ 06'47	0°-36'-13
asc. node	3835 May 27 06:33	7° Υ 30'02		minimum elong	3836 May 09 16:23	20° Υ 16'43	0°35'51
evening rise	3835 Jun 02 16:30	21° Υ 16'37		asc. node	3836 May 13 03:35	27° Υ 33'43	
	3835 Jun 06 22:21	0° Υ			3836 May 14 07:17	0° Υ	
evening max el	3835 Jun 25 00:03	27° Υ 18'21	22°53'22	evening rise	3836 May 17 02:29	5° Υ 52'52	
	3835 Jun 28 02:39	0° Υ			3836 May 30 07:50	0° Υ	
desc. node	3835 Jul 03 09:38	3° Υ 01'15		evening max el	3836 Jun 05 19:48	7° Υ 54'41	21°20'56
retrograde	3835 Jul 08 07:54	3° Υ 56'46		retrograde	3836 Jun 17 21:44	13° Υ 50'51	
evening set	3835 Jul 11 19:43	3° Υ 30'05		desc. node	3836 Jun 19 06:41	13° Υ 46'29	
min. Earth dist.	3835 Jul 19 08:46	0° Υ 08'40	0.55411 AU	evening set	3836 Jun 20 06:38	13° Υ 37'57	
	3835 Jul 19 14:49	30° Υ		inferior conj	3836 Jun 29 15:14	9° Υ 39'05	-2°-57'-6
inferior conj	3835 Jul 20 20:59	29° Υ 16'27	-4°-26'-42	minimum elong	3836 Jun 29 07:30	9° Υ 49'55	2°54'38
minimum elong	3835 Jul 20 13:29	29° Υ 27'18	4°25'13	min. Earth dist.	3836 Jun 29 19:46	9° Υ 32'45	0.54844 AU
morning rise	3835 Jul 29 09:56	25° Υ 25'13		morning rise	3836 Jul 08 08:44	5° Υ 43'27	
direct	3835 Aug 01 09:07	25° Υ 04'35		direct	3836 Jul 11 19:09	5° Υ 17'56	
	3835 Aug 12 04:44	0° Υ		morning max el	3836 Jul 24 08:57	11° Υ 15'17	22°18'46
morning max el	3835 Aug 12 10:07	0° Υ 12'20	20°45'11		3836 Aug 07 01:11	0° Υ	
asc. node	3835 Aug 23 05:47	14° Υ 43'49		asc. node	3836 Aug 09 02:49	3° Υ 47'29	
	3835 Aug 31 05:17	0° Υ		morning set	3836 Aug 15 00:28	15° Υ 36'16	
morning set	3835 Aug 31 14:16	0° Υ 46'05			3836 Aug 21 19:06	0° Υ	
superior conj	3835 Sep 08 02:51	16° Υ 21'13	1°44'24	superior conj	3836 Aug 22 05:10	0° Υ 53'18	1°40'31
minimum elong	3835 Sep 08 02:46	16° Υ 20'46	1°44'25	minimum elong	3836 Aug 22 03:51	0° Υ 46'18	1°40'27
max. Earth dist.	3835 Sep 12 21:27	25° Υ 55'16	1.35904 AU	max. Earth dist.	3836 Aug 25 13:33	7° Υ 52'57	1.34332 AU
	3835 Sep 15 00:09	0° Υ		evening rise	3836 Aug 30 05:46	17° Υ 15'08	
evening rise	3835 Sep 16 23:32	3° Υ 43'07			3836 Sep 06 02:41	0° Υ	
desc. node	3835 Sep 29 08:55	25° Υ 00'54		desc. node	3836 Sep 15 05:58	15° Υ 03'27	
	3835 Oct 02 14:10	0° Υ			3836 Sep 25 22:49	0° Υ	
evening max el	3835 Oct 22 12:57	25° Υ 27'39	26°16'44	evening max el	3836 Oct 04 01:38	9° Υ 02'08	27°04'00
	3835 Oct 28 00:35	0° Υ		retrograde	3836 Oct 17 08:04	16° Υ 19'05	
retrograde	3835 Nov 04 06:19	2° Υ 38'10		evening set	3836 Oct 24 03:24	13° Υ 38'36	
evening set	3835 Nov 10 13:40	0° Υ 03'40		min. Earth dist.	3836 Oct 28 01:46	9° Υ 49'14	0.65307 AU
	3835 Nov 10 15:26	30° Υ		inferior conj	3836 Oct 30 02:50	7° Υ 30'26	-1°-59'-46
min. Earth dist.	3835 Nov 14 18:44	25° Υ 37'58	0.66500 AU	minimum elong	3836 Oct 30 06:11	7° Υ 20'56	1°58'27
inferior conj	3835 Nov 16 07:52	23° Υ 44'04	0°-59'-4	morning rise	3836 Nov 05 10:43	1° Υ 53'18	
minimum elong	3835 Nov 16 09:27	23° Υ 39'11	0°58'25	asc. node	3836 Nov 05 02:02	2° Υ 04'17	
asc. node	3835 Nov 19 05:00	20° Υ 24'05		direct	3836 Nov 08 02:41	1° Υ 14'57	
morning rise	3835 Nov 22 06:25	17° Υ 53'59		morning max el	3836 Nov 14 14:35	4° Υ 44'12	18°08'39
direct	3835 Nov 25 06:28	17° Υ 02'44			3836 Dec 01 16:04	0° Υ	
morning max el	3835 Dec 01 23:59	20° Υ 44'57	18°42'33	morning set	3836 Dec 02 22:21	2° Υ 04'31	
	3835 Dec 09 06:56	0° Υ		desc. node	3836 Dec 12 05:12	17° Υ 10'55	
morning set	3835 Dec 23 01:08	21° Υ 18'23					
desc. node	3835 Dec 26 08:10	26° Υ 30'13		superior conj	3836 Dec 17 13:21	25° Υ 41'34	0°-35'-57
	3835 Dec 28 13:26	0° Υ		minimum elong	3836 Dec 17 08:49	25° Υ 23'37	0°35'21
					3836 Dec 20 06:50	0° Υ	
superior conj	3836 Jan 08 08:49	16° Υ 58'17	-1°-21'-28	max. Earth dist.	3836 Dec 20 13:44	0° Υ 27'07	1.45133 AU
minimum elong	3836 Jan 07 23:47	16° Υ 22'48	1°20'30	evening rise	3837 Jan 02 22:45	21° Υ 18'52	
max. Earth dist.	3836 Jan 07 18:00	16° Υ 00'07	1.45193 AU		3837 Jan 08 13:22	0° Υ	
	3836 Jan 16 15:12	0° Υ		greatest brilliancy	3837 Jan 19 17:23	16° Υ 50'21	-0.7m
evening rise	3836 Jan 23 23:33	11° Υ 42'55		evening max el	3837 Jan 27 15:06	26° Υ 53'15	19°35'59
	3836 Feb 04 10:55	0° Υ			3837 Jan 31 09:20	0° Υ	
evening max el	3836 Feb 14 07:58	13° Υ 22'21	18°49'14	asc. node	3837 Feb 01 01:20	0° Υ 21'52	

retrograde	3837 Feb 03 22:27	1° ✕ 06'21		evening max el	3838 Jan 10 16:57	10° ≈ 25'01	20°37'13
evening set	3837 Feb 07 10:37	29° ≈ 54'17		retrograde	3838 Jan 18 20:36	15° ≈ 13'33	
	3837 Feb 07 07:13	30° ℞		asc. node	3838 Jan 18 22:21	15° ≈ 13'31	
inferior conj	3837 Feb 12 23:03	23° ≈ 55'35	3°12'52	evening set	3838 Jan 22 17:40	13° ≈ 47'03	
minimum elong	3837 Feb 12 20:55	24° ≈ 02'37	3°12'29	inferior conj	3838 Jan 28 03:42	7° ≈ 35'39	2°43'42
min. Earth dist.	3837 Feb 14 02:29	22° ≈ 25'20	0.66687 AU	minimum elong	3838 Jan 28 01:12	7° ≈ 44'10	2°43'03
morning rise	3837 Feb 18 06:30	17° ≈ 40'08		min. Earth dist.	3838 Jan 28 17:47	6° ≈ 47'28	0.67503 AU
direct	3837 Feb 24 08:47	14° ≈ 58'11		morning rise	3838 Feb 02 08:17	1° ≈ 20'03	
morning max el	3837 Mar 08 15:24	22° ≈ 16'57	25°41'16		3838 Feb 04 02:59	30° ℞ ☾	
desc. node	3837 Mar 10 04:25	23° ≈ 53'35		direct	3838 Feb 07 20:25	28° ☾ 54'35	
	3837 Mar 15 09:57	0° ✕			3838 Feb 11 22:23	0° ≈	
	3837 Apr 04 21:12	0° ℣		morning max el	3838 Feb 18 23:59	5° ≈ 33'55	24°16'24
morning set	3837 Apr 13 19:53	15° ℣ 34'07		desc. node	3838 Feb 25 01:27	12° ≈ 25'30	
max. Earth dist.	3837 Apr 17 15:36	22° ℣ 42'03	1.35886 AU		3838 Mar 09 21:11	0° ✕	
	3837 Apr 21 09:51	0° ♄		morning set	3838 Mar 26 18:41	27° ✕ 08'47	
					3838 Mar 28 09:48	0° ℣	
superior conj	3837 Apr 23 07:23	3° ♄ 46'41	-1°-5'-8	max. Earth dist.	3838 Mar 30 12:28	3° ℣ 45'51	1.37894 AU
minimum elong	3837 Apr 23 10:50	4° ♄ 04'04	1°04'33				
asc. node	3837 Apr 30 00:37	17° ♄ 28'58		superior conj	3838 Apr 06 12:43	16° ℣ 48'37	-1°-32'-5
evening rise	3837 May 01 08:39	20° ♄ 12'37		minimum elong	3838 Apr 06 17:17	17° ℣ 10'33	1°31'30
	3837 May 06 07:16	0° ♄			3838 Apr 13 06:20	0° ♄	
evening max el	3837 May 19 02:56	19° ♄ 05'22	20°03'15	evening rise	3838 Apr 15 08:31	4° ♄ 08'29	
retrograde	3837 May 29 12:21	24° ♄ 09'09		asc. node	3838 Apr 16 21:40	7° ♄ 11'06	
evening set	3837 May 31 11:33	23° ♄ 59'04			3838 Apr 30 23:32	0° ♄	
desc. node	3837 Jun 06 03:41	21° ♄ 54'02		evening max el	3838 May 01 21:52	0° ♄ 57'05	19°04'56
inferior conj	3837 Jun 09 11:41	19° ♄ 59'23	0°-59'-13	retrograde	3838 May 10 15:58	5° ♄ 13'08	
minimum elong	3837 Jun 09 08:55	20° ♄ 03'32	0°58'13	evening set	3838 May 12 17:10	5° ♄ 00'03	
min. Earth dist.	3837 Jun 11 08:15	18° ♄ 52'38	0.55234 AU	inferior conj	3838 May 20 23:31	0° ♄ 46'52	0°52'36
morning rise	3837 Jun 18 03:49	15° ♄ 39'37		minimum elong	3838 May 21 01:34	0° ♄ 43'19	0°51'53
direct	3837 Jun 22 07:31	15° ♄ 02'03			3838 May 22 02:35	30° ℞ ♄	
morning max el	3837 Jul 06 00:25	21° ♄ 46'18	24°01'48	min. Earth dist.	3838 May 23 23:35	28° ♄ 43'28	0.56506 AU
	3837 Jul 13 04:41	0° ☾		desc. node	3838 May 24 00:40	28° ♄ 41'41	
asc. node	3837 Jul 26 23:51	23° ☾ 16'16		morning rise	3838 May 29 05:38	25° ♄ 51'38	
	3837 Jul 30 06:21	0° ♄		direct	3838 Jun 03 08:14	24° ♄ 50'22	
morning set	3837 Jul 30 12:08	0° ♄ 30'30			3838 Jun 15 04:14	0° ♄	
				morning max el	3838 Jun 17 14:45	2° ♄ 10'50	25°40'02
superior conj	3837 Aug 06 12:45	15° ♄ 40'15	1°30'45		3838 Jul 07 05:40	0° ☾	
minimum elong	3837 Aug 06 10:40	15° ♄ 28'59	1°30'31	asc. node	3838 Jul 13 20:54	13° ☾ 03'13	
max. Earth dist.	3837 Aug 08 14:29	20° ♄ 08'03	1.33160 AU	morning set	3838 Jul 14 23:40	15° ☾ 23'39	
	3837 Aug 13 07:43	0° ♄					
evening rise	3837 Aug 13 23:29	1° ♄ 19'53		superior conj	3838 Jul 21 23:24	0° ♄ 35'04	1°15'59
	3837 Aug 30 01:08	0° ♄		minimum elong	3838 Jul 21 21:03	0° ♄ 22'12	1°15'37
desc. node	3837 Sep 02 03:00	4° ♄ 37'48			3838 Jul 21 17:01	0° ♄	
evening max el	3837 Sep 16 13:00	22° ♄ 16'31	27°25'48	max. Earth dist.	3838 Jul 22 22:14	2° ♄ 40'22	1.32399 AU
retrograde	3837 Sep 30 03:41	29° ♄ 33'41		evening rise	3838 Jul 29 01:21	15° ♄ 47'50	
evening set	3837 Oct 07 06:56	26° ♄ 56'01			3838 Aug 05 07:00	0° ♄	
min. Earth dist.	3837 Oct 10 23:39	23° ♄ 40'49	0.63767 AU	desc. node	3838 Aug 20 00:00	23° ♄ 32'31	
inferior conj	3837 Oct 13 13:03	21° ♄ 03'45	-3°00'-45		3838 Aug 25 03:32	0° ♄	
minimum elong	3837 Oct 13 18:02	20° ♄ 50'56	2°59'02	evening max el	3838 Aug 29 20:52	4° ♄ 58'37	27°16'46
morning rise	3837 Oct 20 07:34	15° ♄ 43'03		retrograde	3838 Sep 12 16:45	12° ♄ 13'03	
direct	3837 Oct 22 17:57	15° ♄ 13'56		evening set	3838 Sep 19 20:40	9° ♄ 50'08	
asc. node	3837 Oct 22 23:03	15° ♄ 14'10		min. Earth dist.	3838 Sep 23 11:12	7° ♄ 01'48	0.61921 AU
morning max el	3837 Oct 29 07:10	18° ♄ 39'03	17°52'00	inferior conj	3838 Sep 26 11:34	4° ♄ 17'20	-3°-57'-55
	3837 Nov 06 14:21	0° ♄		minimum elong	3838 Sep 26 17:28	4° ♄ 03'53	3°56'20
morning set	3837 Nov 14 22:18	14° ♄ 08'03			3838 Oct 02 01:00	30° ℞ ♄	
	3837 Nov 24 06:19	0° ♄		morning rise	3838 Oct 03 17:16	29° ♄ 16'17	
				direct	3838 Oct 06 00:54	28° ♄ 53'08	
superior conj	3837 Nov 27 12:20	5° ♄ 22'01	0°10'55	asc. node	3838 Oct 09 20:05	29° ♄ 57'30	
minimum elong	3837 Nov 27 13:31	5° ♄ 26'53	0°10'46		3838 Oct 09 21:51	0° ♄	
behind sun begin	3837 Nov 27 06:09	4° ♄ 56'40		morning max el	3838 Oct 12 22:44	2° ♄ 22'35	17°53'25
behind sun end	3837 Nov 27 20:54	5° ♄ 57'03		morning set	3838 Oct 28 18:41	27° ♄ 09'59	
desc. node	3837 Nov 29 02:14	7° ♄ 56'37			3838 Oct 30 08:17	0° ♄	
max. Earth dist.	3837 Dec 03 08:01	14° ♄ 46'04	1.44343 AU				
evening rise	3837 Dec 13 09:06	0° ☾ 28'48		superior conj	3838 Nov 08 13:57	16° ♄ 20'54	0°50'08
	3837 Dec 13 01:37	0° ☾		minimum elong	3838 Nov 08 17:54	16° ♄ 37'55	0°49'35
	3838 Jan 02 07:05	0° ≈		desc. node	3838 Nov 15 23:17	28° ♄ 44'10	
greatest brilliancy	3838 Jan 04 21:47	3° ≈ 31'18	-0.5m	max. Earth dist.	3838 Nov 15 22:01	28° ♄ 39'00	1.42932 AU

	3838 Nov 16 17:53	0°♊		evening rise	3839 Nov 03 04:32	20°♌03'21	
evening rise	3838 Nov 22 22:14	9°♊51'47			3839 Nov 09 10:38	0°♊	
	3838 Dec 06 05:48	0°♋			3839 Nov 30 13:48	0°♋	
greatest brilliancy	3838 Dec 19 18:40	18°♋32'42	-0.4m	greatest brilliancy	3839 Nov 30 21:53	0°♋25'09	-0.2m
evening max el	3838 Dec 24 13:18	23°♋58'08	21°49'42	evening max el	3839 Dec 07 05:10	7°♋34'07	23°08'43
retrograde	3839 Jan 02 17:48	29°♋26'05		retrograde	3839 Dec 17 12:26	13°♋40'24	
asc. node	3839 Jan 05 19:21	28°♋35'23		evening set	3839 Dec 22 08:27	11°♋42'13	
evening set	3839 Jan 07 01:29	27°♋44'07		asc. node	3839 Dec 23 16:23	10°♋27'11	
inferior conj	3839 Jan 12 10:53	21°♋23'29	2°06'05	inferior conj	3839 Dec 27 18:43	5°♋16'17	1°21'21
minimum elong	3839 Jan 12 08:32	21°♋31'38	2°05'18	minimum elong	3839 Dec 27 16:58	5°♋22'19	1°20'40
min. Earth dist.	3839 Jan 12 13:02	21°♋16'01	0.67923 AU	min. Earth dist.	3839 Dec 27 09:51	5°♋46'52	0.67973 AU
morning rise	3839 Jan 17 15:22	15°♋09'32			3840 Jan 01 01:12	30°♌♊	
direct	3839 Jan 22 12:35	13°♋05'24		morning rise	3840 Jan 02 01:31	29°♊06'03	
morning max el	3839 Feb 01 09:50	18°♋56'34	22°47'17	direct	3840 Jan 06 08:14	27°♊24'46	
greatest brilliancy	3839 Feb 06 01:26	24°♋07'44	-0.3m		3840 Jan 12 07:01	0°♋	
	3839 Feb 10 16:21	0°♌		morning max el	3840 Jan 15 00:27	2°♋27'41	21°22'50
desc. node	3839 Feb 11 22:29	1°♌40'49		greatest brilliancy	3840 Jan 20 02:24	8°♋14'50	-0.4m
	3839 Mar 03 01:12	0°♌		desc. node	3840 Jan 29 19:32	21°♋27'17	
morning set	3839 Mar 07 15:18	7°♌26'21			3840 Feb 04 15:16	0°♌	
max. Earth dist.	3839 Mar 12 07:45	15°♌18'46	1.40074 AU	morning set	3840 Feb 15 07:12	16°♌23'16	
				max. Earth dist.	3840 Feb 22 08:35	27°♌45'44	1.42141 AU
					3840 Feb 23 17:05	0°♌	
superior conj	3839 Mar 20 02:15	29°♌02'38	-1°-53'-56				
minimum elong	3839 Mar 20 06:38	29°♌22'36	1°53'37	superior conj	3840 Feb 29 19:01	10°♌17'19	-2°-6'-19
	3839 Mar 20 14:50	0°♍		minimum elong	3840 Feb 29 20:45	10°♌24'47	2°06'18
evening rise	3839 Mar 29 23:04	17°♍32'51			3840 Mar 11 20:44	0°♍	
asc. node	3839 Apr 03 18:41	26°♍34'54		evening rise	3840 Mar 12 00:31	0°♍17'12	
	3839 Apr 05 16:23	0°♎		asc. node	3840 Mar 20 15:43	15°♍34'18	
evening max el	3839 Apr 15 02:07	13°♎25'11	18°26'51	evening max el	3840 Mar 28 12:15	26°♍20'52	18°08'42
retrograde	3839 Apr 22 14:07	17°♎07'31		retrograde	3840 Apr 04 06:00	29°♍46'04	
evening set	3839 Apr 24 21:27	16°♎47'32		evening set	3840 Apr 06 19:33	29°♍16'44	
inferior conj	3839 May 02 08:33	12°♎14'42	2°16'23	inferior conj	3840 Apr 13 14:07	24°♍22'32	3°08'04
minimum elong	3839 May 02 12:15	12°♎07'13	2°15'22	minimum elong	3840 Apr 13 16:59	24°♍15'46	3°07'34
min. Earth dist.	3839 May 05 19:04	9°♎29'41	0.58411 AU	min. Earth dist.	3840 Apr 16 20:46	21°♍19'51	0.60588 AU
morning rise	3839 May 09 22:41	6°♎47'09		morning rise	3840 Apr 20 11:05	18°♍32'27	
desc. node	3839 May 10 21:42	6°♎19'41		desc. node	3840 Apr 26 18:44	16°♍23'31	
direct	3839 May 15 23:35	5°♎12'15		direct	3840 Apr 27 02:55	16°♍23'11	
morning max el	3839 May 30 09:01	12°♎55'04	26°57'34	morning max el	3840 May 11 09:30	24°♍17'20	27°42'28
	3839 Jun 12 20:24	0°♏			3840 May 16 13:45	0°♎	
morning set	3839 Jun 29 09:21	0°♏09'19		morning set	3840 Jun 05 03:10	0°♏	
	3839 Jun 29 07:35	0°♏		asc. node	3840 Jun 12 15:29	14°♏42'01	
asc. node	3839 Jun 30 17:56	3°♏01'46		max. Earth dist.	3840 Jun 16 15:00	23°♏07'23	
					3840 Jun 18 20:35	27°♏58'50	1.32116 AU
superior conj	3839 Jul 06 11:10	15°♏30'18	0°56'55				
minimum elong	3839 Jul 06 09:03	15°♏18'33	0°56'30	superior conj	3840 Jun 19 22:24	0°♏20'27	0°34'10
max. Earth dist.	3839 Jul 06 09:27	15°♏20'50	1.32051 AU	minimum elong	3840 Jun 19 20:56	0°♏12'22	0°33'51
evening rise	3839 Jul 13 08:39	0°♐29'42			3840 Jun 19 18:41	0°♏	
	3839 Jul 13 03:02	0°♐		evening rise	3840 Jun 26 19:14	15°♏18'33	
	3839 Jul 29 10:45	0°♑			3840 Jul 04 02:48	0°♐	
desc. node	3839 Aug 06 21:01	11°♑30'17		evening max el	3840 Jul 23 17:27	28°♐06'32	25°21'43
evening max el	3839 Aug 11 22:48	16°♑56'35	26°34'26	desc. node	3840 Jul 23 18:01	28°♐07'55	
retrograde	3839 Aug 25 21:49	24°♑07'13			3840 Jul 25 20:07	0°♑	
evening set	3839 Sep 01 15:55	22°♑12'18		retrograde	3840 Aug 06 16:45	5°♑11'50	
min. Earth dist.	3839 Sep 05 12:31	19°♑37'05	0.59877 AU	evening set	3840 Aug 12 11:57	3°♑54'04	
inferior conj	3839 Sep 08 18:53	17°♑01'20	-4°-44'-22	min. Earth dist.	3840 Aug 17 05:18	1°♑13'57	0.57846 AU
minimum elong	3839 Sep 08 23:54	16°♑51'18	4°43'34		3840 Aug 19 00:35	30°♒♐	
morning rise	3839 Sep 16 11:17	12°♑22'31		inferior conj	3840 Aug 20 07:34	29°♒06'01	-5°-8'-53
direct	3839 Sep 18 19:27	12°♑02'31		minimum elong	3840 Aug 20 08:50	29°♒03'50	5°08'52
morning max el	3839 Sep 26 09:55	15°♑45'10	18°14'13	morning rise	3840 Aug 28 09:14	24°♒50'16	
asc. node	3839 Sep 26 17:08	16°♑02'54		direct	3840 Aug 30 21:26	24°♒31'10	
	3839 Oct 06 08:26	0°♓		morning max el	3840 Sep 08 13:25	28°♒37'14	18°55'56
morning set	3839 Oct 12 05:42	10°♓53'15			3840 Sep 09 21:59	0°♑	
				asc. node	3840 Sep 12 14:12	3°♑15'23	
superior conj	3839 Oct 21 16:16	28°♓31'30	1°18'19	morning set	3840 Sep 25 02:53	25°♑05'40	
minimum elong	3839 Oct 21 20:12	28°♓49'16	1°17'53		3840 Sep 27 14:35	0°♓	
	3839 Oct 22 11:50	0°♓					
max. Earth dist.	3839 Oct 29 06:44	11°♓53'13	1.41074 AU	superior conj	3840 Oct 03 14:05	11°♓39'13	1°35'38
desc. node	3839 Nov 02 20:19	19°♓29'49					

minimum elong	3840 Oct 03 16:35	11°♄51'13	1°35'28	superior conj	3841 Sep 17 02:10	25°♄29'33	1°43'32
max. Earth dist.	3840 Oct 10 11:52	24°♄26'17	1.39000 AU	minimum elong	3841 Sep 17 02:59	25°♄33'36	1°43'31
	3840 Oct 13 15:47	0°♄			3841 Sep 19 08:47	0°♄	
evening rise	3840 Oct 14 10:02	1°♄18'37		max. Earth dist.	3841 Sep 22 17:20	6°♄27'59	1.36961 AU
desc. node	3840 Oct 19 17:20	10°♄09'53		evening rise	3841 Sep 26 13:43	13°♄35'22	
	3840 Nov 01 17:51	0°♄			3841 Oct 06 04:22	0°♄	
evening max el	3840 Nov 18 18:24	21°♄14'00	24°28'04	desc. node	3841 Oct 06 14:22	0°♄40'10	
retrograde	3840 Nov 30 03:17	27°♄52'36			3841 Oct 27 15:34	0°♄	
evening set	3840 Dec 05 12:57	25°♄38'19		evening max el	3841 Nov 01 06:44	4°♄56'21	25°40'47
asc. node	3840 Dec 09 13:26	21°♄10'47		retrograde	3841 Nov 13 13:35	11°♄58'20	
min. Earth dist.	3840 Dec 10 05:45	20°♄16'58	0.67676 AU	evening set	3841 Nov 19 13:20	9°♄29'49	
inferior conj	3840 Dec 11 01:23	19°♄11'17	0°30'33	min. Earth dist.	3841 Nov 23 22:27	4°♄43'45	0.67030 AU
minimum elong	3840 Dec 11 00:39	19°♄13'45	0°30'15	inferior conj	3841 Nov 25 05:06	3°♄06'11	0°-25'-10
morning rise	3840 Dec 16 12:45	13°♄07'02		minimum elong	3841 Nov 25 05:45	3°♄04'06	0°24'55
direct	3840 Dec 20 06:09	11°♄47'35		asc. node	3841 Nov 26 10:28	1°♄33'58	
morning max el	3840 Dec 27 22:37	16°♄10'11	20°09'06		3841 Nov 27 18:28	30°♄	
greatest brilliancy	3841 Jan 03 17:12	24°♄17'40	-0.6m	morning rise	3841 Nov 30 23:03	27°♄10'23	
	3841 Jan 07 19:41	0°♄		direct	3841 Dec 04 04:50	26°♄09'58	
desc. node	3841 Jan 15 16:34	11°♄35'51		morning max el	3841 Dec 11 04:41	0°♄03'39	19°09'41
morning set	3841 Jan 24 04:20	24°♄32'58			3841 Dec 11 03:13	0°♄	
	3841 Jan 27 16:36	0°♄		greatest brilliancy	3841 Dec 21 23:26	14°♄13'36	-0.7m
max. Earth dist.	3841 Feb 03 17:35	11°♄07'29	1.43818 AU		3842 Jan 01 06:30	0°♄	
				desc. node	3842 Jan 02 13:37	2°♄00'48	
superior conj	3841 Feb 09 10:29	20°♄22'11	-2°-3'-53	morning set	3842 Jan 03 07:02	3°♄08'32	
minimum elong	3841 Feb 09 06:44	20°♄06'48	2°03'46	max. Earth dist.	3842 Jan 17 08:57	25°♄08'48	1.44896 AU
	3841 Feb 15 05:22	0°♄					
evening rise	3841 Feb 22 08:28	12°♄11'49		superior conj	3842 Jan 20 01:26	29°♄23'30	-1°-42'-21
	3841 Mar 04 20:57	0°♄		minimum elong	3842 Jan 19 16:41	28°♄48'49	1°41'37
asc. node	3841 Mar 07 12:46	4°♄00'40			3842 Jan 20 10:39	0°♄	
evening max el	3841 Mar 12 00:51	9°♄33'52	18°09'51	evening rise	3842 Feb 03 18:56	23°♄10'49	
retrograde	3841 Mar 18 11:21	12°♄57'12			3842 Feb 07 22:16	0°♄	
evening set	3841 Mar 21 06:36	12°♄17'11		asc. node	3842 Feb 22 09:48	21°♄44'12	
inferior conj	3841 Mar 27 12:27	7°♄02'24	3°32'42	evening max el	3842 Feb 23 13:04	22°♄57'25	18°29'39
minimum elong	3841 Mar 27 13:36	6°♄59'20	3°32'37	retrograde	3842 Mar 02 01:42	26°♄31'52	
min. Earth dist.	3841 Mar 30 06:55	4°♄06'26	0.62710 AU	evening set	3842 Mar 05 02:42	25°♄40'19	
morning rise	3841 Apr 02 18:21	0°♄58'36		inferior conj	3842 Mar 10 23:30	20°♄06'46	3°36'39
	3841 Apr 04 05:02	30°♄		minimum elong	3842 Mar 10 23:00	20°♄08'15	3°36'38
direct	3841 Apr 09 15:33	28°♄23'21		min. Earth dist.	3842 Mar 13 02:42	17°♄36'06	0.64560 AU
desc. node	3841 Apr 13 15:45	29°♄10'07		morning rise	3842 Mar 16 17:49	13°♄55'26	
	3841 Apr 15 12:06	0°♄		direct	3842 Mar 23 12:05	11°♄07'09	
morning max el	3841 Apr 23 15:42	6°♄21'28	27°49'59	desc. node	3842 Mar 31 12:48	14°♄13'49	
	3841 May 11 14:19	0°♄		morning max el	3842 Apr 06 01:14	19°♄00'47	27°21'42
morning set	3841 May 27 15:53	28°♄54'47			3842 Apr 15 08:51	0°♄	
	3841 May 28 04:46	0°♄			3842 May 04 13:32	0°♄	
max. Earth dist.	3841 Jun 02 03:44	10°♄21'32	1.32595 AU	morning set	3842 May 11 07:54	12°♄39'29	
asc. node	3841 Jun 03 12:04	13°♄15'21		max. Earth dist.	3842 May 16 02:51	22°♄17'04	1.33511 AU
superior conj	3841 Jun 04 07:17	14°♄59'17	0°08'24	superior conj	3842 May 19 11:51	29°♄20'55	0°-19'-34
minimum elong	3841 Jun 04 06:52	14°♄57'06	0°08'19	minimum elong	3842 May 19 12:52	29°♄26'14	0°19'22
behind sun begin	3841 Jun 04 02:24	14°♄32'50			3842 May 19 19:14	0°♄	
behind sun end	3841 Jun 04 11:21	15°♄21'23		asc. node	3842 May 21 09:06	3°♄21'44	
evening rise	3841 Jun 11 07:04	0°♄07'28		evening rise	3842 May 26 18:18	14°♄50'11	
	3841 Jun 11 05:40	0°♄			3842 Jun 03 10:00	0°♄	
	3841 Jun 27 22:45	0°♄		evening max el	3842 Jun 16 21:43	19°♄04'19	22°12'37
evening max el	3841 Jul 05 06:46	8°♄39'21	23°49'14	desc. node	3842 Jun 27 12:03	25°♄15'37	
desc. node	3841 Jul 10 15:02	12°♄54'42		retrograde	3842 Jun 29 18:50	25°♄27'41	
retrograde	3841 Jul 18 23:38	15°♄32'29		evening set	3842 Jul 02 17:15	25°♄08'34	
evening set	3841 Jul 23 08:37	14°♄50'22		min. Earth dist.	3842 Jul 11 03:35	21°♄30'18	0.55051 AU
min. Earth dist.	3841 Jul 29 16:58	11°♄48'07	0.56124 AU	inferior conj	3842 Jul 11 23:29	21°♄02'17	-3°-54'-2
inferior conj	3841 Jul 31 23:59	10°♄24'49	-4°-56'-13	minimum elong	3842 Jul 11 15:02	21°♄14'11	3°51'52
minimum elong	3841 Jul 31 19:16	10°♄31'59	4°55'41	morning rise	3842 Jul 20 14:50	17°♄11'59	
morning rise	3841 Aug 09 09:15	6°♄28'18		direct	3842 Jul 23 18:02	16°♄50'02	
direct	3841 Aug 12 04:01	6°♄08'40		morning max el	3842 Aug 04 11:35	22°♄18'14	21°23'23
morning max el	3841 Aug 22 06:22	10°♄50'00	19°59'26		3842 Aug 11 01:37	0°♄	
asc. node	3841 Aug 30 11:16	21°♄20'35		asc. node	3842 Aug 17 08:19	10°♄05'51	
	3841 Sep 04 09:35	0°♄		morning set	3842 Aug 24 15:34	24°♄23'35	
morning set	3841 Sep 09 07:02	9°♄38'20			3842 Aug 27 07:53	0°♄	

superior conj	3842 Sep 01 00:15	9° \mathbb{M} 49'22	1°43'33	morning set	3843 Aug 09 02:34	9° Ω 16'11	
minimum elong	3842 Aug 31 23:35	9° \mathbb{M} 45'55	1°43'32				
max. Earth dist.	3842 Sep 05 04:07	18° \mathbb{M} 19'02	1.35176 AU	superior conj	3843 Aug 16 05:08	24° Ω 29'07	1°37'03
evening rise	3842 Sep 09 11:30	26° \mathbb{M} 43'03		minimum elong	3843 Aug 16 03:25	24° Ω 20'00	1°36'54
	3842 Sep 11 05:29	0° $\underline{\Omega}$			3843 Aug 18 19:33	0° \mathbb{M}	
desc. node	3842 Sep 23 11:23	20° $\underline{\Omega}$ 54'37		max. Earth dist.	3843 Aug 18 23:47	0° \mathbb{M} 22'13	1.33777 AU
	3842 Sep 29 13:14	0° \mathbb{M}		evening rise	3843 Aug 23 23:06	10° \mathbb{M} 30'37	
evening max el	3842 Oct 14 19:05	18° \mathbb{M} 35'13	26°39'31		3843 Sep 03 14:26	0° $\underline{\Omega}$	
retrograde	3842 Oct 27 18:45	25° \mathbb{M} 50'17		desc. node	3843 Sep 10 08:24	10° $\underline{\Omega}$ 46'14	
evening set	3842 Nov 03 07:37	23° \mathbb{M} 11'59			3843 Sep 25 06:17	0° \mathbb{M}	
min. Earth dist.	3842 Nov 07 09:36	19° \mathbb{M} 02'04	0.66031 AU	evening max el	3843 Sep 27 07:21	2° \mathbb{M} 02'19	27°16'48
inferior conj	3842 Nov 09 03:51	16° \mathbb{M} 56'34	-1°-24'-37	retrograde	3843 Oct 10 18:13	9° \mathbb{M} 20'43	
minimum elong	3842 Nov 09 06:11	16° \mathbb{M} 49'38	1°23'39	evening set	3843 Oct 17 17:23	6° \mathbb{M} 40'10	
asc. node	3842 Nov 13 07:30	12° \mathbb{M} 32'18		min. Earth dist.	3843 Oct 21 13:04	3° \mathbb{M} 05'41	0.64686 AU
morning rise	3842 Nov 15 06:13	11° \mathbb{M} 11'52		inferior conj	3843 Oct 23 19:24	0° \mathbb{M} 37'54	-2°-25'-51
direct	3842 Nov 18 02:28	10° \mathbb{M} 26'44		minimum elong	3843 Oct 23 23:30	0° \mathbb{M} 26'45	2°24'18
morning max el	3842 Nov 24 16:53	14° \mathbb{M} 02'23	18°26'08		3843 Oct 24 09:23	30° \mathbb{R} $\underline{\Omega}$	
	3842 Dec 06 07:00	0° \mathbb{X}		morning rise	3843 Oct 30 07:42	25° $\underline{\Omega}$ 07'18	
morning set	3842 Dec 14 10:59	13° \mathbb{X} 02'44		asc. node	3843 Oct 31 04:33	24° $\underline{\Omega}$ 48'14	
desc. node	3842 Dec 20 10:38	22° \mathbb{X} 36'41		direct	3843 Nov 01 20:51	24° $\underline{\Omega}$ 33'26	
	3842 Dec 25 02:34	0° $\underline{\Omega}$		morning max el	3843 Nov 08 08:39	28° $\underline{\Omega}$ 00'18	17°59'23
					3843 Nov 10 04:15	0° \mathbb{M}	
superior conj	3842 Dec 30 03:50	7° $\underline{\Omega}$ 56'58	-1°-3'-7	morning set	3843 Nov 25 20:12	24° \mathbb{M} 23'25	
minimum elong	3842 Dec 29 20:07	7° $\underline{\Omega}$ 26'43	1°02'11		3843 Nov 29 04:44	0° \mathbb{X}	
max. Earth dist.	3842 Dec 31 03:24	9° $\underline{\Omega}$ 29'26	1.45256 AU	desc. node	3843 Dec 07 07:39	13° \mathbb{X} 19'40	
	3843 Jan 13 05:00	0° \approx					
evening rise	3843 Jan 15 06:03	3° \approx 13'21		superior conj	3843 Dec 09 14:18	16° \mathbb{X} 59'28	0°-15'-35
greatest brilliancy	3843 Jan 27 17:00	22° \approx 43'42	-0.7m	minimum elong	3843 Dec 09 12:24	16° \mathbb{X} 51'52	0°15'19
	3843 Feb 01 16:26	0° \mathbb{X}		behind sun begin	3843 Dec 09 09:01	16° \mathbb{X} 38'17	
evening max el	3843 Feb 06 22:33	6° \mathbb{X} 26'31	19°07'07	behind sun end	3843 Dec 09 15:48	17° \mathbb{X} 05'26	
asc. node	3843 Feb 09 06:48	8° \mathbb{X} 32'31		max. Earth dist.	3843 Dec 13 22:16	23° \mathbb{X} 52'49	1.44878 AU
retrograde	3843 Feb 13 21:12	10° \mathbb{X} 23'05			3843 Dec 17 19:45	0° $\underline{\Omega}$	
evening set	3843 Feb 17 04:51	9° \mathbb{X} 18'59		evening rise	3843 Dec 25 22:02	12° $\underline{\Omega}$ 33'22	
inferior conj	3843 Feb 22 19:37	3° \mathbb{X} 28'52	3°25'06		3844 Jan 06 08:34	0° \approx	
minimum elong	3843 Feb 22 17:55	3° \mathbb{X} 34'18	3°24'53	greatest brilliancy	3844 Jan 14 07:19	11° \approx 32'23	-0.6m
min. Earth dist.	3843 Feb 24 07:30	1° \mathbb{X} 34'42	0.66028 AU	evening max el	3844 Jan 21 03:33	19° \approx 58'08	20°00'29
	3843 Feb 25 14:29	30° \mathbb{R} \approx		asc. node	3844 Jan 27 03:49	24° \approx 11'05	
morning rise	3843 Feb 28 06:03	27° \approx 14'01		retrograde	3844 Jan 28 18:58	24° \approx 25'32	
direct	3843 Mar 06 15:19	24° \approx 26'12		evening set	3844 Feb 01 10:40	23° \approx 07'40	
	3843 Mar 17 08:06	0° \mathbb{X}		inferior conj	3844 Feb 06 21:51	17° \approx 03'26	3°01'38
desc. node	3843 Mar 18 09:50	1° \mathbb{X} 00'08		minimum elong	3844 Feb 06 19:30	17° \approx 11'19	3°01'08
morning max el	3843 Mar 19 11:11	2° \mathbb{X} 02'38	26°24'05	min. Earth dist.	3844 Feb 07 19:31	15° \approx 50'45	0.67084 AU
	3843 Apr 09 12:21	0° \mathbb{Y}		morning rise	3844 Feb 12 03:43	10° \approx 47'37	
morning set	3843 Apr 24 11:55	25° \mathbb{Y} 45'36		direct	3844 Feb 18 00:17	8° \approx 11'30	
	3843 Apr 26 17:27	0° \mathbb{X}		morning max el	3844 Feb 29 19:56	15° \approx 15'17	25°06'14
max. Earth dist.	3843 Apr 28 14:45	3° \mathbb{X} 40'16	1.34886 AU	desc. node	3844 Mar 04 06:52	18° \approx 59'52	
					3844 Mar 12 22:43	0° \mathbb{X}	
superior conj	3843 May 03 09:52	13° \mathbb{X} 18'53	0°-48'-35		3844 Apr 01 09:37	0° \mathbb{Y}	
minimum elong	3843 May 03 12:27	13° \mathbb{X} 32'09	0°48'06	morning set	3844 Apr 05 23:03	7° \mathbb{Y} 58'13	
asc. node	3843 May 08 06:08	23° \mathbb{X} 22'34		max. Earth dist.	3844 Apr 09 15:30	14° \mathbb{Y} 41'38	1.36704 AU
evening rise	3843 May 11 02:58	29° \mathbb{X} 20'35					
	3843 May 11 10:36	0° \mathbb{II}		superior conj	3844 Apr 15 22:20	26° \mathbb{Y} 44'18	-1°-16'-58
evening max el	3843 May 29 22:01	29° \mathbb{II} 54'10	20°45'42	minimum elong	3844 Apr 16 02:21	27° \mathbb{Y} 04'09	1°16'21
	3843 May 30 00:26	0° $\underline{\Omega}$			3844 Apr 17 13:49	0° \mathbb{X}	
retrograde	3843 Jun 10 07:46	5° $\underline{\Omega}$ 28'40		evening rise	3844 Apr 24 06:47	13° \mathbb{X} 31'11	
evening set	3843 Jun 12 10:12	5° $\underline{\Omega}$ 18'04		asc. node	3844 Apr 24 03:09	13° \mathbb{X} 12'53	
desc. node	3843 Jun 14 09:04	4° $\underline{\Omega}$ 50'24			3844 May 03 00:15	0° \mathbb{II}	
inferior conj	3843 Jun 21 16:57	1° $\underline{\Omega}$ 20'56	-2°-8'-32	evening max el	3844 May 11 10:32	11° \mathbb{II} 23'17	19°36'00
minimum elong	3843 Jun 21 10:58	1° $\underline{\Omega}$ 29'29	2°06'27	retrograde	3844 May 21 02:15	16° \mathbb{II} 04'49	
min. Earth dist.	3843 Jun 22 15:31	0° $\underline{\Omega}$ 48'42	0.54885 AU	evening set	3844 May 23 01:28	15° \mathbb{II} 54'00	
	3843 Jun 24 02:14	30° \mathbb{R} \mathbb{II}		desc. node	3844 May 31 06:05	12° \mathbb{II} 10'05	
morning rise	3843 Jun 30 10:46	27° \mathbb{II} 16'48		inferior conj	3844 May 31 18:43	11° \mathbb{II} 50'10	0°-9'-18
direct	3843 Jul 04 03:27	26° \mathbb{II} 47'23		minimum elong	3844 May 31 18:18	11° \mathbb{II} 50'49	0°09'10
	3843 Jul 13 10:39	0° $\underline{\Omega}$		transit middle	3844 May 31 18:18	11° \mathbb{II} 50'49	0°09'10
morning max el	3843 Jul 17 06:50	3° $\underline{\Omega}$ 06'28	23°02'12	transit begin	3844 May 31 15:06	11° \mathbb{II} 55'53	
asc. node	3843 Aug 04 05:22	29° $\underline{\Omega}$ 21'25		transit end	3844 May 31 21:31	11° \mathbb{II} 45'44	
	3843 Aug 04 13:18	0° Ω		min. Earth dist.	3844 Jun 03 05:12	10° \mathbb{II} 18'05	0.55684 AU

morning rise	3844 Jun 09 07:36	7°II15'50		morning rise	3845 May 20 15:10	17°844'37	
direct	3844 Jun 13 20:58	6°II29'23		direct	3845 May 26 03:55	16°829'57	
morning max el	3844 Jun 27 20:53	13°II30'53	24°45'00	morning max el	3845 Jun 09 12:16	24°800'20	26°16'18
	3844 Jul 10 17:17	0°8			3845 Jun 14 22:59	0°II	
asc. node	3844 Jul 21 02:25	18°858'34			3845 Jul 03 15:23	0°8	
morning set	3844 Jul 23 14:21	24°810'16		asc. node	3845 Jul 07 23:27	8°851'03	
	3844 Jul 26 07:35	0°8		morning set	3845 Jul 08 01:20	9°800'55	
superior conj	3844 Jul 30 14:15	9°820'03	1°25'03	superior conj	3845 Jul 15 01:36	24°815'36	1°08'22
minimum elong	3844 Jul 30 12:00	9°807'46	1°24'45	minimum elong	3845 Jul 14 23:18	24°802'52	1°07'59
max. Earth dist.	3844 Aug 01 03:58	12°845'00	1.32791 AU	max. Earth dist.	3845 Jul 15 13:50	25°822'55	1.32212 AU
evening rise	3844 Aug 06 20:40	24°846'29			3845 Jul 17 16:20	0°8	
	3844 Aug 09 11:11	0°8		evening rise	3845 Jul 22 01:11	9°821'24	
desc. node	3844 Aug 27 05:25	0°805'08			3845 Aug 01 19:23	0°8	
	3844 Aug 27 03:58	0°8		desc. node	3845 Aug 14 02:26	18°837'47	
evening max el	3844 Sep 08 17:45	15°805'04	27°26'04	evening max el	3845 Aug 21 23:31	27°829'42	27°02'44
retrograde	3844 Sep 22 11:05	22°820'51			3845 Aug 24 20:30	0°8	
evening set	3844 Sep 29 15:31	19°848'18		retrograde	3845 Sep 04 20:33	4°841'38	
min. Earth dist.	3844 Oct 03 06:51	16°845'24	0.63011 AU	evening set	3845 Sep 11 21:55	2°829'16	
inferior conj	3844 Oct 06 01:03	14°803'52	-3°-25'-51		3845 Sep 15 08:15	30°8	
minimum elong	3844 Oct 06 06:34	13°850'22	3°24'07	min. Earth dist.	3845 Sep 15 13:47	29°848'36	0.61068 AU
morning rise	3844 Oct 13 00:16	8°850'47		inferior conj	3845 Sep 18 17:32	27°805'55	-4°-19'-30
direct	3844 Oct 15 09:06	8°824'33		minimum elong	3845 Sep 18 23:21	26°853'23	4°18'12
asc. node	3844 Oct 17 01:35	8°838'11		morning rise	3845 Sep 26 03:53	22°813'58	
morning max el	3844 Oct 22 01:05	11°850'42	17°50'17	direct	3845 Sep 28 11:30	21°852'19	
	3844 Nov 03 07:13	0°8		asc. node	3845 Oct 03 22:40	23°858'00	
morning set	3844 Nov 07 05:39	6°854'16		morning max el	3845 Oct 05 15:09	25°825'58	17°59'51
					3845 Oct 09 11:19	0°8	
superior conj	3844 Nov 19 00:17	27°812'08	0°28'49	morning set	3845 Oct 21 08:53	20°815'35	
minimum elong	3844 Nov 19 03:04	27°823'46	0°28'25		3845 Oct 26 16:07	0°8	
	3844 Nov 20 16:40	0°8		superior conj	3845 Oct 31 12:56	8°842'53	1°03'29
desc. node	3844 Nov 23 04:42	4°806'30		minimum elong	3845 Oct 31 17:08	9°801'21	1°02'57
max. Earth dist.	3844 Nov 25 15:05	8°803'00	1.43809 AU	max. Earth dist.	3845 Nov 08 03:26	21°842'46	1.42181 AU
evening rise	3844 Dec 04 07:31	21°844'03		desc. node	3845 Nov 10 01:43	24°853'29	
	3844 Dec 09 17:16	0°8			3845 Nov 13 05:30	0°8	
greatest brilliancy	3844 Dec 28 22:01	27°827'30	-0.4m	evening rise	3845 Nov 14 02:36	1°824'11	
	3844 Dec 30 23:24	0°8			3845 Dec 03 05:32	0°8	
evening max el	3845 Jan 03 03:10	3°831'12	21°07'02	greatest brilliancy	3845 Dec 12 03:10	11°844'16	-0.3m
retrograde	3845 Jan 11 16:49	8°835'47		evening max el	3845 Dec 16 21:26	17°805'13	22°22'54
asc. node	3845 Jan 13 00:50	8°826'03		retrograde	3845 Dec 26 13:03	22°849'35	
evening set	3845 Jan 15 18:15	7°802'47		asc. node	3845 Dec 30 21:53	21°808'32	
inferior conj	3845 Jan 21 03:49	0°847'19	2°28'43	evening set	3845 Dec 31 01:54	21°800'31	
minimum elong	3845 Jan 21 01:20	0°855'53	2°27'59	inferior conj	3846 Jan 05 11:29	14°837'09	1°47'55
min. Earth dist.	3845 Jan 21 12:43	0°816'40	0.67729 AU	minimum elong	3846 Jan 05 09:21	14°844'35	1°47'09
	3845 Jan 21 17:33	30°8		min. Earth dist.	3846 Jan 05 08:48	14°846'31	0.67987 AU
morning rise	3845 Jan 26 08:04	24°832'24		morning rise	3846 Jan 10 16:41	8°824'49	
direct	3845 Jan 31 13:59	22°815'28		direct	3846 Jan 15 07:38	6°830'33	
morning max el	3845 Feb 11 04:31	28°834'16	23°38'31	morning max el	3846 Jan 24 16:03	12°800'15	22°10'30
	3845 Feb 12 13:25	0°8		greatest brilliancy	3846 Jan 29 06:14	17°808'29	-0.3m
desc. node	3845 Feb 19 03:53	7°852'14		desc. node	3846 Feb 06 00:56	27°821'47	
	3845 Mar 06 16:43	0°8			3846 Feb 07 21:58	0°8	
morning set	3845 Mar 18 11:25	19°802'02		morning set	3846 Feb 26 19:38	28°844'05	
max. Earth dist.	3845 Mar 22 10:55	25°855'03	1.38823 AU		3846 Feb 27 14:22	0°8	
	3845 Mar 24 17:59	0°8		max. Earth dist.	3846 Mar 04 08:30	7°851'36	1.40985 AU
superior conj	3845 Mar 29 21:36	9°828'07	-1°-42'-11	superior conj	3846 Mar 12 02:55	21°818'09	-2°00'-39
minimum elong	3845 Mar 30 02:18	9°850'16	1°41'42	minimum elong	3846 Mar 12 06:32	21°834'18	2°00'28
evening rise	3845 Apr 08 03:08	27°815'15			3846 Mar 16 22:13	0°8	
	3845 Apr 09 13:07	0°8		evening rise	3846 Mar 22 12:37	10°823'57	
asc. node	3845 Apr 11 00:10	2°848'14		asc. node	3846 Mar 28 21:13	22°802'44	
evening max el	3845 Apr 24 09:53	23°831'56	18°46'11		3846 Apr 02 17:38	0°8	
retrograde	3845 May 02 13:30	27°831'23		evening max el	3846 Apr 07 16:59	6°812'37	18°16'39
evening set	3845 May 04 17:21	27°815'37		retrograde	3846 Apr 14 19:54	9°846'04	
inferior conj	3845 May 12 15:19	22°854'11	1°32'07	evening set	3846 Apr 17 05:52	9°822'22	
minimum elong	3845 May 12 18:28	22°848'22	1°31'06	inferior conj	3846 Apr 24 09:27	4°840'06	2°42'01
min. Earth dist.	3845 May 15 21:46	20°830'55	0.57272 AU	minimum elong	3846 Apr 24 13:01	4°832'25	2°41'11
desc. node	3845 May 18 03:06	19°803'30					

min. Earth dist.	3846 Apr 27 19:33	1°♄44'37	0.59324 AU	inferior conj	3847 Apr 06 22:41	17°♃02'53	3°21'26
	3846 Apr 30 02:58	30°♄♂		minimum elong	3847 Apr 07 00:51	16°♃57'27	3°21'08
morning rise	3846 May 01 16:11	29°♃01'32		min. Earth dist.	3847 Apr 10 00:53	14°♃00'01	0.61504 AU
desc. node	3846 May 05 00:07	27°♃36'37		morning rise	3847 Apr 13 12:48	11°♃05'41	
direct	3846 May 08 00:18	27°♃11'53		direct	3847 Apr 20 07:57	8°♃43'48	
	3846 May 16 06:47	0°♄		desc. node	3847 Apr 21 21:09	8°♃50'45	
morning max el	3846 May 22 09:20	5°♄00'26	27°21'10	morning max el	3847 May 04 12:38	16°♃41'37	27°50'20
	3846 Jun 09 20:33	0°♄			3847 May 15 12:09	0°♄	
morning set	3846 Jun 22 09:49	23°♄42'43			3847 Jun 02 11:41	0°♄	
asc. node	3846 Jun 24 20:31	28°♄53'39		morning set	3847 Jun 06 13:49	8°♄08'29	
	3846 Jun 25 08:51	0°♄		asc. node	3847 Jun 11 17:33	19°♄01'03	
max. Earth dist.	3846 Jun 29 01:42	8°♄05'23	1.32031 AU	max. Earth dist.	3847 Jun 12 11:32	20°♄38'27	1.32262 AU
superior conj	3846 Jun 29 13:24	9°♄09'57	0°47'40	superior conj	3847 Jun 13 23:51	23°♄56'29	0°23'35
minimum elong	3846 Jun 29 11:30	8°♄59'26	0°47'18	minimum elong	3847 Jun 13 22:47	23°♄50'40	0°23'21
evening rise	3846 Jul 06 10:11	24°♄07'39			3847 Jun 16 18:13	0°♄	
	3846 Jul 09 06:00	0°♄		evening rise	3847 Jun 20 21:31	8°♄57'30	
	3846 Jul 26 23:20	0°♄			3847 Jul 01 18:06	0°♄	
desc. node	3846 Jul 31 23:26	6°♄05'23		evening max el	3847 Jul 16 13:56	19°♄58'54	24°43'55
evening max el	3846 Aug 03 22:16	9°♄07'11	26°06'37	desc. node	3847 Jul 18 20:28	22°♄00'40	
retrograde	3846 Aug 17 21:38	16°♄16'11		retrograde	3847 Jul 30 12:07	27°♄01'22	
evening set	3846 Aug 24 07:52	14°♄36'01		evening set	3847 Aug 04 17:35	25°♄59'41	
min. Earth dist.	3846 Aug 28 10:55	12°♄01'22	0.58997 AU	min. Earth dist.	3847 Aug 10 01:16	23°♄11'50	0.57053 AU
inferior conj	3846 Aug 31 17:20	9°♄34'54	-4°-58'-17	inferior conj	3847 Aug 12 21:26	21°♄20'54	-5°-9'-2
minimum elong	3846 Aug 31 21:09	9°♄27'44	4°57'53	minimum elong	3847 Aug 12 20:16	21°♄22'48	5°09'01
morning rise	3846 Sep 08 13:57	5°♄06'22		morning rise	3847 Aug 21 02:34	17°♄14'23	
direct	3846 Sep 10 23:29	4°♄46'59		direct	3847 Aug 23 17:04	16°♄55'24	
morning max el	3846 Sep 18 23:35	8°♄37'50	18°29'24	morning max el	3847 Sep 01 23:00	21°♄15'10	19°20'15
asc. node	3846 Sep 20 19:44	10°♄34'32		asc. node	3847 Sep 07 16:47	28°♄11'31	
	3846 Oct 02 19:52	0°♄			3847 Sep 08 21:33	0°♄	
morning set	3846 Oct 05 00:44	4°♄13'04		morning set	3847 Sep 19 01:13	18°♄35'08	
					3847 Sep 24 18:11	0°♄	
superior conj	3846 Oct 14 00:20	21°♄20'44	1°26'54	superior conj	3847 Sep 27 04:50	4°♄48'38	1°40'02
minimum elong	3846 Oct 14 03:45	21°♄36'33	1°26'35	minimum elong	3847 Sep 27 06:37	4°♄57'20	1°39'56
	3846 Oct 18 18:37	0°♄		max. Earth dist.	3847 Oct 03 14:25	16°♄55'14	1.38114 AU
max. Earth dist.	3846 Oct 21 10:21	4°♄39'47	1.40199 AU	evening rise	3847 Oct 07 09:56	23°♄45'15	
evening rise	3846 Oct 25 18:34	12°♄02'27			3847 Oct 11 01:07	0°♄	
desc. node	3846 Oct 27 22:46	15°♄37'32		desc. node	3847 Oct 14 19:48	6°♄14'11	
	3846 Nov 06 02:44	0°♄			3847 Oct 30 21:04	0°♄	
	3846 Nov 28 19:08	0°♄		evening max el	3847 Nov 12 00:18	14°♄23'11	25°00'15
evening max el	3846 Nov 29 11:45	0°♄42'08	23°42'46	retrograde	3847 Nov 23 19:27	21°♄13'41	
retrograde	3846 Dec 10 06:17	7°♄03'42		evening set	3847 Nov 29 10:59	18°♄53'07	
evening set	3846 Dec 15 08:01	4°♄58'20		min. Earth dist.	3847 Dec 04 00:26	13°♄46'21	0.67439 AU
asc. node	3846 Dec 17 18:57	2°♄27'09		asc. node	3847 Dec 04 15:59	12°♄55'19	
	3846 Dec 19 16:55	30°♄♂		inferior conj	3847 Dec 05 00:41	12°♄26'42	0°07'26
min. Earth dist.	3846 Dec 20 05:30	29°♄17'21	0.67886 AU	minimum elong	3847 Dec 05 00:30	12°♄27'18	0°07'21
inferior conj	3846 Dec 20 19:03	28°♄31'08	1°00'29	transit middle	3847 Dec 05 00:30	12°♄27'18	0°07'21
minimum elong	3846 Dec 20 17:41	28°♄35'49	0°59'55	transit begin	3847 Dec 04 22:02	12°♄35'25	
morning rise	3846 Dec 26 03:31	22°♄23'13		transit end	3847 Dec 05 02:58	12°♄19'12	
direct	3846 Dec 30 04:17	20°♄51'43		morning rise	3847 Dec 10 14:35	6°♄25'30	
morning max el	3847 Jan 07 09:48	25°♄36'33	20°49'54	direct	3847 Dec 14 02:44	5°♄14'38	
	3847 Jan 11 07:57	0°♄		morning max el	3847 Dec 21 11:22	9°♄23'58	19°41'52
greatest brilliancy	3847 Jan 13 02:04	2°♄11'43	-0.5m	greatest brilliancy	3847 Dec 29 08:48	19°♄09'51	-0.6m
desc. node	3847 Jan 23 21:58	17°♄18'24			3848 Jan 05 19:04	0°♄	
	3847 Feb 01 08:54	0°♄		desc. node	3848 Jan 10 19:01	7°♄34'42	
morning set	3847 Feb 06 01:17	7°♄13'49		morning set	3848 Jan 15 21:25	15°♄24'46	
max. Earth dist.	3847 Feb 14 12:30	20°♄41'43	1.42909 AU		3848 Jan 25 06:03	0°♄	
	3847 Feb 20 03:55	0°♄		max. Earth dist.	3848 Jan 27 23:51	4°♄20'06	1.44351 AU
superior conj	3847 Feb 21 09:12	2°♄03'05	-2°-7'-25	superior conj	3848 Feb 01 13:36	11°♄39'03	-1°-57'-12
minimum elong	3847 Feb 21 08:52	2°♄01'44	2°07'26	minimum elong	3848 Feb 01 07:19	11°♄13'40	1°56'51
evening rise	3847 Mar 05 07:09	22°♄48'05			3848 Feb 12 16:51	0°♄	
	3847 Mar 09 08:25	0°♄		evening rise	3848 Feb 15 06:19	4°♄19'22	
asc. node	3847 Mar 15 18:15	10°♄49'19		asc. node	3848 Mar 01 15:17	28°♄59'14	
evening max el	3847 Mar 22 04:29	19°♄16'25	18°06'54		3848 Mar 02 10:18	0°♄	
retrograde	3847 Mar 28 18:07	22°♄39'25		evening max el	3848 Mar 04 17:16	2°♄35'12	18°16'11
evening set	3847 Mar 31 09:59	22°♄05'51					

retrograde	3848 Mar 11 03:39	6°♈01'41			3849 Jan 16 23:25	0°♏	
evening set	3848 Mar 14 01:16	5°♈16'56		evening rise	3849 Jan 26 06:42	14°♏53'10	
inferior conj	3848 Mar 20 02:53	29°♋54'16	3°36'32		3849 Feb 04 16:02	0°♋	
minimum elong	3848 Mar 20 03:18	29°♋53'08	3°36'31	evening max el	3849 Feb 16 04:37	16°♋01'42	18°43'36
	3848 Mar 20 00:50	30°♌♋		asc. node	3849 Feb 16 12:18	16°♋20'55	
min. Earth dist.	3848 Mar 22 15:11	27°♋06'55	0.63533 AU	retrograde	3849 Feb 22 20:26	19°♋43'56	
morning rise	3848 Mar 26 03:24	23°♋46'46		evening set	3849 Feb 26 00:14	18°♋47'01	
direct	3848 Apr 02 00:25	21°♋03'53		inferior conj	3849 Mar 03 18:08	13°♋06'15	3°33'21
desc. node	3848 Apr 07 18:10	22°♋39'59		minimum elong	3849 Mar 03 17:03	13°♋09'33	3°33'17
morning max el	3848 Apr 15 20:24	29°♋01'45	27°42'03	min. Earth dist.	3849 Mar 05 14:42	10°♋50'18	0.65236 AU
	3848 Apr 16 19:10	0°♈		morning rise	3849 Mar 09 08:41	6°♋53'21	
	3848 May 08 09:04	0°♉		direct	3849 Mar 15 23:51	4°♋03'44	
morning set	3848 May 20 11:01	22°♉10'54		desc. node	3849 Mar 25 15:12	8°♋30'59	
	3848 May 24 07:01	0°♊		morning max el	3849 Mar 29 06:08	11°♋51'02	27°00'20
max. Earth dist.	3848 May 25 15:31	2°♊50'18	1.32924 AU		3849 Apr 12 17:44	0°♈	
					3849 Apr 30 22:18	0°♉	
superior conj	3848 May 28 07:10	8°♊29'28	0°-3'-14	morning set	3849 May 03 22:20	5°♉39'59	
minimum elong	3848 May 28 07:20	8°♊30'19	0°03'13	max. Earth dist.	3849 May 08 10:00	14°♉31'17	1.34040 AU
behind sun begin	3848 May 28 02:06	8°♊02'16					
behind sun end	3848 May 28 12:33	8°♊58'24		superior conj	3849 May 12 09:14	22°♉41'44	0°-31'-49
asc. node	3848 May 28 14:35	9°♊09'20		minimum elong	3849 May 12 10:53	22°♉50'27	0°31'29
evening rise	3848 Jun 04 09:18	23°♊44'56		asc. node	3849 May 15 11:36	29°♉13'48	
	3848 Jun 07 09:31	0°♊			3849 May 15 20:20	0°♊	
	3848 Jun 26 16:49	0°♋		evening rise	3849 May 19 19:39	8°♊23'02	
evening max el	3848 Jun 27 03:07	0°♋25'21	23°07'49		3849 May 31 08:11	0°♌	
desc. node	3848 Jul 04 17:27	5°♋50'06		evening max el	3849 Jun 08 21:23	10°♌57'49	21°33'54
retrograde	3848 Jul 10 13:46	7°♋07'56		retrograde	3849 Jun 21 04:38	17°♌01'29	
evening set	3848 Jul 14 06:53	6°♋37'49		desc. node	3849 Jun 21 14:26	17°♌01'05	
min. Earth dist.	3848 Jul 21 12:23	3°♋21'45	0.55576 AU	evening set	3849 Jun 23 16:33	16°♌47'19	
inferior conj	3848 Jul 23 05:53	2°♋21'19	-4°-36'-10	inferior conj	3849 Jul 03 01:03	12°♌46'59	-3°-13'-14
minimum elong	3848 Jul 22 22:58	2°♋31'26	4°34'56	minimum elong	3849 Jul 02 16:54	12°♌58'21	3°10'46
	3848 Jul 27 13:29	30°♌♌		min. Earth dist.	3849 Jul 02 23:06	12°♌49'42	0.54867 AU
morning rise	3848 Jul 31 17:54	28°♌29'05		morning rise	3849 Jul 11 18:08	8°♌53'32	
direct	3848 Aug 03 15:57	28°♌08'43		direct	3849 Jul 15 02:33	8°♌29'06	
	3848 Aug 10 05:51	0°♋		morning max el	3849 Jul 27 11:16	14°♌18'39	22°04'03
morning max el	3848 Aug 14 10:56	3°♋09'22	20°32'40		3849 Aug 08 07:41	0°♋	
asc. node	3848 Aug 24 13:49	16°♋35'16		asc. node	3849 Aug 11 10:52	5°♋34'45	
	3848 Aug 31 17:20	0°♌		morning set	3849 Aug 17 17:18	18°♋03'30	
morning set	3848 Sep 02 07:28	3°♌13'54			3849 Aug 23 08:38	0°♌	
superior conj	3848 Sep 09 21:36	18°♌52'44	1°44'25	superior conj	3849 Aug 24 22:54	3°♌22'17	1°41'31
minimum elong	3848 Sep 09 21:44	18°♌53'25	1°44'24	minimum elong	3849 Aug 24 21:44	3°♌16'09	1°41'28
max. Earth dist.	3848 Sep 14 21:31	28°♌49'18	1.36171 AU	max. Earth dist.	3849 Aug 28 12:20	10°♌45'50	1.34539 AU
	3848 Sep 15 12:10	0°♍		evening rise	3849 Sep 02 02:05	19°♌51'55	
evening rise	3848 Sep 18 21:54	6°♍25'29			3849 Sep 07 12:36	0°♍	
desc. node	3848 Sep 30 16:49	26°♍38'34		desc. node	3849 Sep 17 13:48	16°♍44'44	
	3848 Oct 02 20:16	0°♎			3849 Sep 26 20:39	0°♎	
evening max el	3848 Oct 24 12:48	28°♎05'41	26°07'59	evening max el	3849 Oct 07 01:26	11°♎42'02	26°58'23
	3848 Oct 26 14:28	0°♏		retrograde	3849 Oct 20 06:10	18°♎58'34	
retrograde	3848 Nov 06 03:34	5°♏14'04		evening set	3849 Oct 26 23:59	16°♎18'22	
evening set	3848 Nov 12 09:00	2°♏41'03		min. Earth dist.	3849 Oct 30 23:15	12°♎23'48	0.65508 AU
	3848 Nov 15 01:58	30°♏♎		inferior conj	3849 Nov 01 22:33	10°♎08'16	-1°-50'-30
min. Earth dist.	3848 Nov 16 15:08	28°♎10'02	0.66649 AU	minimum elong	3849 Nov 02 01:38	9°♎59'24	1°49'15
inferior conj	3848 Nov 18 02:32	26°♎20'21	0°-50'-3	asc. node	3849 Nov 07 10:03	4°♎55'22	
minimum elong	3848 Nov 18 03:53	26°♎16'12	0°49'29	morning rise	3849 Nov 08 04:59	4°♎29'09	
asc. node	3848 Nov 20 13:01	23°♎26'53		direct	3849 Nov 10 22:01	3°♎49'08	
morning rise	3848 Nov 23 23:50	20°♎28'37		morning max el	3849 Nov 17 10:17	7°♎19'37	18°12'40
direct	3848 Nov 27 01:19	19°♎35'04			3849 Dec 02 23:55	0°♏	
morning max el	3848 Dec 03 20:12	23°♎19'50	18°49'02	morning set	3849 Dec 06 02:11	5°♏03'19	
	3848 Dec 09 07:58	0°♏		desc. node	3849 Dec 14 13:07	18°♏44'45	
morning set	3848 Dec 25 09:21	24°♏29'52					
desc. node	3848 Dec 27 16:04	28°♏04'50		superior conj	3849 Dec 21 00:16	29°♏01'19	0°-43'-13
	3848 Dec 28 21:24	0°♐		minimum elong	3849 Dec 20 18:49	28°♏39'48	0°42'30
max. Earth dist.	3849 Jan 09 17:00	18°♐32'12	1.45142 AU		3849 Dec 21 15:09	0°♐	
				max. Earth dist.	3849 Dec 23 12:40	2°♐59'03	1.45191 AU
superior conj	3849 Jan 10 20:58	20°♐22'04	-1°-27'-28	evening rise	3850 Jan 06 08:51	24°♐35'57	
minimum elong	3849 Jan 10 11:45	19°♐45'51	1°26'31		3850 Jan 09 20:08	0°♑	

greatest brilliancy	3850 Jan 22 03:32	18° \approx 46'14	-0.7m	desc. node	3850 Dec 01 10:08	9° \approx 30'00	
evening max el	3850 Jan 30 12:23	29° \approx 32'16	19°27'56	max. Earth dist.	3850 Dec 06 07:05	17° \approx 19'28	1.44504 AU
	3850 Jan 30 23:25	0° \approx			3850 Dec 14 09:13	0° \approx	
asc. node	3850 Feb 03 09:18	2° \approx 41'41		evening rise	3850 Dec 16 20:09	3° \approx 47'17	
retrograde	3850 Feb 06 17:16	3° \approx 40'52			3851 Jan 03 08:48	0° \approx	
evening set	3850 Feb 10 04:13	2° \approx 30'51		greatest brilliancy	3851 Jan 07 14:06	5° \approx 49'31	-0.5m
	3850 Feb 12 22:35	30° \approx		evening max el	3851 Jan 13 15:04	13° \approx 04'10	20°27'18
inferior conj	3850 Feb 15 17:11	26° \approx 34'10	3°16'25	asc. node	3851 Jan 21 06:21	17° \approx 46'27	
minimum elong	3850 Feb 15 15:08	26° \approx 40'51	3°16'04	retrograde	3851 Jan 21 15:27	17° \approx 47'14	
min. Earth dist.	3850 Feb 16 22:43	24° \approx 57'43	0.66533 AU	evening set	3851 Jan 25 11:03	16° \approx 23'04	
morning rise	3850 Feb 21 01:17	20° \approx 18'47		inferior conj	3851 Jan 30 21:18	10° \approx 13'23	2°48'44
direct	3850 Feb 27 05:26	17° \approx 35'07		minimum elong	3851 Jan 30 18:50	10° \approx 21'47	2°48'06
morning max el	3850 Mar 11 15:45	24° \approx 58'53	25°52'53	min. Earth dist.	3851 Jan 31 13:19	9° \approx 18'50	0.67406 AU
desc. node	3850 Mar 12 12:16	25° \approx 51'40		morning rise	3851 Feb 05 02:08	3° \approx 57'33	
	3850 Mar 16 05:08	0° \approx		direct	3851 Feb 10 16:27	1° \approx 29'09	
	3850 Apr 06 05:07	0° \approx		morning max el	3851 Feb 22 00:26	8° \approx 15'28	24°29'30
morning set	3850 Apr 16 19:47	18° \approx 24'35		desc. node	3851 Feb 27 09:20	14° \approx 16'12	
max. Earth dist.	3850 Apr 20 17:09	25° \approx 43'33	1.35614 AU		3851 Mar 11 01:41	0° \approx	
	3850 Apr 22 21:58	0° \approx		morning set	3851 Mar 29 22:04	0° \approx 10'24	
					3851 Mar 29 19:41	0° \approx	
superior conj	3850 Apr 26 03:31	6° \approx 26'19	-1°00'-50	max. Earth dist.	3851 Apr 02 14:51	6° \approx 46'11	1.37576 AU
minimum elong	3850 Apr 26 06:46	6° \approx 42'41	1°00'16				
asc. node	3850 May 02 08:37	19° \approx 10'30		superior conj	3851 Apr 09 10:53	19° \approx 35'15	-1°-28'-15
evening rise	3850 May 04 02:32	22° \approx 45'41		minimum elong	3851 Apr 09 15:21	19° \approx 56'49	1°27'39
	3850 May 07 17:04	0° \approx			3851 Apr 14 18:01	0° \approx	
evening max el	3850 May 22 02:37	22° \approx 02'22	20°13'39	evening rise	3851 Apr 18 03:35	6° \approx 46'11	
retrograde	3850 Jun 01 18:29	27° \approx 14'21		asc. node	3851 Apr 19 05:39	8° \approx 55'15	
evening set	3850 Jun 03 18:01	27° \approx 04'21			3851 May 01 11:46	0° \approx	
desc. node	3850 Jun 08 11:27	25° \approx 12'45		evening max el	3851 May 04 20:02	3° \approx 14'01	19°12'21
inferior conj	3850 Jun 12 20:14	23° \approx 11'06	-1°-17'-29	retrograde	3851 May 13 19:33	8° \approx 11'15	
minimum elong	3850 Jun 12 16:35	23° \approx 11'06	1°16'08	evening set	3851 May 15 20:00	7° \approx 11'58	
min. Earth dist.	3850 Jun 14 11:23	22° \approx 07'54	0.55108 AU	inferior conj	3851 May 24 05:17	3° \approx 14'32	0°37'08
morning rise	3850 Jun 21 13:03	18° \approx 15'29		minimum elong	3851 May 24 06:48	3° \approx 14'00	0°36'36
direct	3850 Jun 25 13:33	18° \approx 15'29		desc. node	3851 May 26 08:29	2° \approx 12'15	
morning max el	3850 Jul 09 03:34	24° \approx 15'38	23°46'29	min. Earth dist.	3851 May 27 02:25	1° \approx 12'47	0.56268 AU
	3850 Jul 13 21:07	0° \approx			3851 May 30 06:42	30° \approx	
asc. node	3850 Jul 29 07:54	25° \approx 00'27		morning rise	3851 Jun 01 13:21	28° \approx 58'37	
	3850 Jul 31 18:53	0° \approx		direct	3851 Jun 06 12:30	28° \approx 01'30	
morning set	3850 Aug 02 04:52	2° \approx 57'43			3851 Jun 13 17:18	0° \approx	
				morning max el	3851 Jun 20 17:45	5° \approx 17'48	25°26'20
superior conj	3850 Aug 09 05:51	18° \approx 07'54	1°32'35		3851 Jul 08 13:54	0° \approx	
minimum elong	3850 Aug 09 03:52	17° \approx 57'07	1°32'23	asc. node	3851 Jul 16 04:57	14° \approx 45'06	
max. Earth dist.	3850 Aug 11 11:55	22° \approx 57'51	1.33301 AU	morning set	3851 Jul 17 16:32	17° \approx 51'26	
	3850 Aug 14 20:31	0° \approx			3851 Jul 23 07:01	0° \approx	
evening rise	3850 Aug 16 18:17	3° \approx 52'38					
	3850 Aug 31 06:32	0° \approx		superior conj	3851 Jul 24 16:13	3° \approx 02'11	1°18'31
desc. node	3850 Sep 04 10:48	6° \approx 24'12		minimum elong	3851 Jul 24 13:52	2° \approx 04'23	1°18'11
evening max el	3850 Sep 19 13:01	25° \approx 00'10	27°24'24	max. Earth dist.	3851 Jul 25 18:47	5° \approx 02'39	1.32484 AU
	3850 Sep 25 21:48	0° \approx		evening rise	3851 Jul 31 19:10	18° \approx 17'56	
retrograde	3850 Oct 03 02:51	2° \approx 18'00			3851 Aug 06 17:12	0° \approx	
	3850 Oct 09 17:39	30° \approx		desc. node	3851 Aug 22 07:48	25° \approx 25'46	
evening set	3850 Oct 10 05:16	29° \approx 39'05			3851 Aug 25 19:41	0° \approx	
min. Earth dist.	3850 Oct 13 22:37	26° \approx 19'11	0.64017 AU	evening max el	3851 Sep 01 21:37	7° \approx 47'58	27°20'15
inferior conj	3850 Oct 16 10:15	23° \approx 44'04	-2°-51'-40	retrograde	3851 Sep 15 17:03	15° \approx 03'02	
minimum elong	3850 Oct 16 15:02	23° \approx 31'37	2°49'58	evening set	3851 Sep 22 21:20	12° \approx 37'12	
morning rise	3850 Oct 23 03:09	18° \approx 20'48		min. Earth dist.	3851 Sep 26 11:52	9° \approx 45'23	0.62211 AU
asc. node	3850 Oct 25 07:06	17° \approx 51'03		inferior conj	3851 Sep 29 10:45	7° \approx 01'09	-3°-49'-46
direct	3850 Oct 25 14:09	17° \approx 50'37		minimum elong	3851 Sep 29 16:35	6° \approx 47'34	3°48'08
morning max el	3850 Nov 01 02:48	21° \approx 15'54	17°53'21	morning rise	3851 Oct 06 14:47	1° \approx 56'53	
	3850 Nov 07 18:45	0° \approx		direct	3851 Oct 08 22:33	1° \approx 33'05	
morning set	3850 Nov 17 22:29	16° \approx 56'24		asc. node	3851 Oct 12 04:10	2° \approx 20'38	
	3850 Nov 25 15:33	0° \approx		morning max el	3851 Oct 15 18:42	5° \approx 01'32	17°51'57
				morning set	3851 Oct 31 16:14	29° \approx 50'44	
superior conj	3850 Nov 30 19:40	8° \approx 31'13	0°04'11		3851 Oct 31 18:18	0° \approx	
minimum elong	3850 Nov 30 20:08	8° \approx 33'08	0°04'06				
behind sun begin	3850 Nov 30 10:26	7° \approx 53'35		superior conj	3851 Nov 11 17:14	19° \approx 18'07	0°44'51
behind sun end	3850 Dec 01 05:51	9° \approx 12'36		minimum elong	3851 Nov 11 20:59	19° \approx 18'34	0°44'21

desc. node	3851 Nov 18 07:09	0°♊17'20		superior conj	3852 Oct 23 16:13	1°♍19'10	1°14'45
	3851 Nov 18 02:54	0°♊		minimum elong	3852 Oct 23 20:16	1°♍37'22	1°14'18
max. Earth dist.	3851 Nov 18 21:39	1°♊16'27	1.43177 AU	max. Earth dist.	3852 Oct 31 07:25	14°♍38'21	1.41371 AU
evening rise	3851 Nov 26 07:47	13°♊05'38		desc. node	3852 Nov 04 04:10	21°♍03'42	
	3851 Dec 07 11:09	0°♋		evening rise	3852 Nov 05 11:00	23°♍09'07	
greatest brilliancy	3851 Dec 22 15:56	21°♋05'23	-0.4m		3852 Nov 09 18:13	0°♊	
evening max el	3851 Dec 27 12:15	26°♋37'16	21°38'28		3852 Nov 30 12:02	0°♋	
	3851 Dec 31 08:51	0°♌		greatest brilliancy	3852 Dec 03 19:24	4°♋10'14	-0.2m
retrograde	3852 Jan 05 12:53	1°♌59'13		evening max el	3852 Dec 09 04:46	10°♋13'21	22°56'47
asc. node	3852 Jan 08 03:25	1°♌22'25		retrograde	3852 Dec 19 07:55	16°♋13'51	
evening set	3852 Jan 09 18:52	0°♌19'41		evening set	3852 Dec 24 02:03	14°♋18'04	
	3852 Jan 10 04:23	30°♌♋		asc. node	3852 Dec 25 00:27	13°♋27'23	
inferior conj	3852 Jan 15 04:16	24°♋00'19	2°12'19	min. Earth dist.	3852 Dec 29 04:50	8°♋17'54	0.67991 AU
minimum elong	3852 Jan 15 01:52	24°♋08'38	2°11'31	inferior conj	3852 Dec 29 12:07	7°♋52'46	1°28'34
min. Earth dist.	3852 Jan 15 08:10	23°♋46'49	0.67884 AU	minimum elong	3852 Dec 29 10:15	7°♋59'13	1°27'51
morning rise	3852 Jan 20 08:35	17°♋46'01		morning rise	3853 Jan 03 18:26	1°♋41'57	
direct	3852 Jan 25 08:05	15°♋38'23			3853 Jan 07 09:50	30°♌♊	
morning max el	3852 Feb 04 09:46	21°♋36'54	23°00'26	direct	3853 Jan 08 03:17	29°♊57'15	
greatest brilliancy	3852 Feb 09 05:10	26°♋59'09	-0.3m		3853 Jan 08 21:04	0°♋	
	3852 Feb 11 15:20	0°♌		morning max el	3853 Jan 16 23:27	5°♋06'39	21°34'51
desc. node	3852 Feb 14 06:23	3°♌25'58		greatest brilliancy	3853 Jan 21 21:21	10°♋40'25	-0.4m
	3852 Mar 03 08:50	0°♌		desc. node	3853 Jan 31 03:25	23°♋08'26	
morning set	3852 Mar 09 22:55	10°♌40'24			3853 Feb 04 20:43	0°♌	
max. Earth dist.	3852 Mar 14 09:44	18°♌12'30	1.39749 AU	morning set	3853 Feb 17 18:51	19°♌48'14	
	3852 Mar 21 01:25	0°♍			3853 Feb 24 02:01	0°♌	
				max. Earth dist.	3853 Feb 24 09:44	0°♌31'56	1.41855 AU
superior conj	3852 Mar 22 03:08	1°♍57'36	-1°-51'-8	superior conj	3853 Mar 03 23:18	13°♌21'53	-2°-5'-16
minimum elong	3852 Mar 22 07:41	2°♍18'28	1°50'45	minimum elong	3853 Mar 04 01:38	13°♌32'02	2°05'13
evening rise	3852 Mar 31 19:46	20°♍16'05			3853 Mar 13 06:32	0°♍	
asc. node	3852 Apr 05 02:42	28°♍22'30		evening rise	3853 Mar 14 23:25	3°♍06'58	
	3852 Apr 05 23:56	0°♎		asc. node	3853 Mar 22 23:46	17°♍26'09	
evening max el	3852 Apr 16 23:12	16°♎12'46	18°31'15	evening max el	3853 Mar 31 08:39	29°♍04'45	18°10'07
retrograde	3852 Apr 24 14:49	19°♎58'51			3853 Apr 01 08:44	0°♎	
evening set	3852 Apr 26 21:15	19°♎40'03		retrograde	3853 Apr 07 04:20	2°♎31'32	
inferior conj	3852 May 04 11:06	15°♎10'17	2°05'47	evening set	3853 Apr 09 17:01	2°♎03'39	
minimum elong	3852 May 04 14:45	15°♎03'05	2°04'43		3853 Apr 13 07:18	30°♌♍	
min. Earth dist.	3852 May 07 21:06	12°♎30'12	0.58106 AU	inferior conj	3853 Apr 16 13:47	27°♍12'26	3°02'06
morning rise	3852 May 12 03:50	9°♎47'12		minimum elong	3853 Apr 16 16:53	27°♍05'19	3°01'30
desc. node	3852 May 12 05:33	9°♎45'06		min. Earth dist.	3853 Apr 19 21:36	24°♍10'56	0.60264 AU
direct	3852 May 18 01:53	8°♎17'34		morning rise	3853 Apr 23 13:15	21°♍25'05	
morning max el	3852 Jun 01 11:05	15°♎57'25	26°47'48	desc. node	3853 Apr 29 02:35	19°♍23'49	
	3852 Jun 12 21:23	0°♏		direct	3853 Apr 30 03:23	19°♍20'49	
	3852 Jun 29 20:13	0°♏		morning max el	3853 May 14 10:39	27°♍13'24	27°38'08
morning set	3852 Jul 01 02:37	2°♏38'30			3853 May 17 02:12	0°♎	
asc. node	3852 Jul 02 02:00	4°♏42'07			3853 Jun 06 12:14	0°♏	
				morning set	3853 Jun 15 09:24	17°♏13'33	
superior conj	3852 Jul 08 03:58	17°♏57'46	1°00'03	asc. node	3853 Jun 18 23:02	24°♏46'52	
minimum elong	3852 Jul 08 01:46	17°♏45'39	0°59'40		3853 Jun 21 08:36	0°♏	
max. Earth dist.	3852 Jul 08 05:45	18°♏07'36	1.32082 AU	max. Earth dist.	3853 Jun 21 17:14	0°♏47'18	1.32084 AU
	3852 Jul 13 16:15	0°♐					
evening rise	3852 Jul 15 01:51	2°♐58'21		superior conj	3853 Jun 22 15:22	2°♏48'55	0°37'50
	3852 Jul 29 14:21	0°♑		minimum elong	3853 Jun 22 13:46	2°♏40'07	0°37'30
desc. node	3852 Aug 08 04:50	13°♑33'20		evening rise	3853 Jun 29 12:04	17°♏46'37	
evening max el	3852 Aug 14 00:43	19°♑53'23	26°42'48		3853 Jul 05 12:31	0°♐	
retrograde	3852 Aug 27 23:19	27°♑04'09			3853 Jul 25 15:57	0°♑	
evening set	3852 Sep 03 19:38	25°♑04'31		desc. node	3853 Jul 26 01:51	0°♑24'57	
min. Earth dist.	3852 Sep 07 14:40	22°♑28'21	0.60186 AU	evening max el	3853 Jul 26 20:24	1°♑10'11	25°34'04
inferior conj	3852 Sep 10 20:33	19°♑50'20	-4°-38'-29	retrograde	3853 Aug 09 19:43	8°♑16'20	
minimum elong	3852 Sep 11 01:52	19°♑39'29	4°37'33	evening set	3853 Aug 15 19:19	6°♑52'40	
morning rise	3852 Sep 18 11:25	15°♑07'55		min. Earth dist.	3853 Aug 20 08:22	4°♑14'38	0.58136 AU
direct	3852 Sep 20 19:20	14°♑47'34		inferior conj	3853 Aug 23 12:10	2°♑01'25	-5°-7'-16
asc. node	3852 Sep 28 01:14	18°♑14'34		minimum elong	3853 Aug 23 14:12	1°♑57'49	5°07'10
morning max el	3852 Sep 28 06:44	18°♑27'42	18°09'51		3853 Aug 26 12:11	30°♌♐	
	3852 Oct 06 15:26	0°♑		morning rise	3853 Aug 31 12:35	27°♐42'25	
morning set	3852 Oct 14 01:25	13°♑29'12		direct	3853 Sep 03 00:04	27°♐23'15	
	3852 Oct 22 22:41	0°♒			3853 Sep 09 20:01	0°♑	

morning max el	3853 Sep 11 11:33	1° $\overline{\text{m}}$ 24'55	18°48'25	morning rise	3854 Aug 12 15:52	9° Ω 29'00	
asc. node	3853 Sep 14 22:16	5° $\overline{\text{m}}$ 17'55		direct	3854 Aug 15 09:27	9° Ω 09'36	
morning set	3853 Sep 27 21:20	27° $\overline{\text{m}}$ 38'06		morning max el	3854 Aug 25 06:18	13° Ω 44'48	19°48'36
	3853 Sep 29 02:18	0° $\underline{\text{a}}$		asc. node	3854 Sep 01 19:18	23° Ω 16'19	
					3854 Sep 05 18:19	0° $\overline{\text{m}}$	
superior conj	3853 Oct 06 11:28	14° $\underline{\text{a}}$ 19'35	1°33'39	morning set	3854 Sep 12 00:35	12° $\overline{\text{m}}$ 08'23	
minimum elong	3853 Oct 06 14:14	14° $\underline{\text{a}}$ 32'41	1°33'26				
max. Earth dist.	3853 Oct 13 13:06	27° $\underline{\text{a}}$ 18'16	1.39309 AU	superior conj	3854 Sep 19 21:44	28° $\overline{\text{m}}$ 04'48	1°42'53
	3853 Oct 15 01:52	0° $\overline{\text{m}}$		minimum elong	3854 Sep 19 22:48	28° $\overline{\text{m}}$ 10'04	1°42'50
evening rise	3853 Oct 17 12:58	4° $\overline{\text{m}}$ 14'41			3854 Sep 20 21:01	0° $\underline{\text{a}}$	
desc. node	3853 Oct 22 01:11	11° $\overline{\text{m}}$ 44'55		max. Earth dist.	3854 Sep 25 17:57	9° $\underline{\text{a}}$ 22'43	1.37252 AU
	3853 Nov 02 22:05	0° $\overline{\text{a}}$		evening rise	3854 Sep 29 13:34	16° $\underline{\text{a}}$ 23'00	
evening max el	3853 Nov 21 18:11	23° $\overline{\text{a}}$ 52'34	24°16'27		3854 Oct 07 12:22	0° $\overline{\text{m}}$	
	3853 Nov 30 09:04	0° $\overline{\text{z}}$		desc. node	3854 Oct 08 22:12	2° $\overline{\text{m}}$ 17'03	
retrograde	3853 Dec 02 23:22	0° $\overline{\text{z}}$ 26'54			3854 Oct 28 10:02	0° $\overline{\text{a}}$	
	3853 Dec 05 10:05	30° $\overline{\text{R}}$ $\overline{\text{a}}$		evening max el	3854 Nov 04 06:27	7° $\overline{\text{a}}$ 34'21	25°30'36
evening set	3853 Dec 08 07:00	28° $\overline{\text{a}}$ 14'48		retrograde	3854 Nov 16 10:27	14° $\overline{\text{a}}$ 33'55	
asc. node	3853 Dec 11 21:30	24° $\overline{\text{a}}$ 18'51		evening set	3854 Nov 22 08:06	12° $\overline{\text{a}}$ 07'15	
min. Earth dist.	3853 Dec 13 00:57	22° $\overline{\text{a}}$ 48'27	0.67744 AU	min. Earth dist.	3854 Nov 26 18:16	7° $\overline{\text{a}}$ 15'50	0.67149 AU
inferior conj	3853 Dec 13 19:03	21° $\overline{\text{a}}$ 47'37	0°38'36	inferior conj	3854 Nov 27 23:17	5° $\overline{\text{a}}$ 42'40	0°-16'-28
minimum elong	3853 Dec 13 18:08	21° $\overline{\text{a}}$ 50'42	0°38'14	minimum elong	3854 Nov 27 23:43	5° $\overline{\text{a}}$ 41'18	0°16'17
morning rise	3853 Dec 19 05:36	15° $\overline{\text{a}}$ 42'27		asc. node	3854 Nov 28 18:31	4° $\overline{\text{a}}$ 41'20	
direct	3853 Dec 23 00:53	14° $\overline{\text{a}}$ 19'58			3854 Dec 03 07:25	30° $\overline{\text{R}}$ $\overline{\text{m}}$	
morning max el	3853 Dec 30 20:28	18° $\overline{\text{a}}$ 47'50	20°19'15	morning rise	3854 Dec 03 16:08	29° $\overline{\text{m}}$ 45'26	
greatest brilliancy	3854 Jan 06 07:16	26° $\overline{\text{a}}$ 27'26	-0.5m	direct	3854 Dec 06 23:28	28° $\overline{\text{m}}$ 42'30	
	3854 Jan 08 21:49	0° $\overline{\text{z}}$			3854 Dec 10 20:19	0° $\overline{\text{a}}$	
desc. node	3854 Jan 18 00:26	13° $\overline{\text{z}}$ 14'09		morning max el	3854 Dec 14 01:25	2° $\overline{\text{a}}$ 39'54	19°17'30
morning set	3854 Jan 27 17:28	28° $\overline{\text{z}}$ 01'06		greatest brilliancy	3854 Dec 23 14:38	14° $\overline{\text{a}}$ 56'42	-0.7m
	3854 Jan 29 00:08	0° \approx			3855 Jan 02 13:20	0° $\overline{\text{z}}$	
max. Earth dist.	3854 Feb 06 17:38	13° \approx 46'39	1.43603 AU	desc. node	3855 Jan 04 21:28	3° $\overline{\text{z}}$ 36'54	
				morning set	3855 Jan 06 17:38	6° $\overline{\text{z}}$ 27'59	
superior conj	3854 Feb 12 18:37	23° \approx 37'02	-2°-5'-25	max. Earth dist.	3855 Jan 20 07:53	27° $\overline{\text{z}}$ 41'57	1.44777 AU
minimum elong	3854 Feb 12 15:48	23° \approx 25'24	2°05'21		3855 Jan 21 18:49	0° \approx	
	3854 Feb 16 14:25	0° $\overline{\text{H}}$					
evening rise	3854 Feb 25 10:12	15° $\overline{\text{H}}$ 09'28		superior conj	3855 Jan 23 12:44	2° \approx 46'16	-1°-46'-53
	3854 Mar 06 01:25	0° $\overline{\text{Y}}$		minimum elong	3855 Jan 23 04:27	2° \approx 13'20	1°46'14
asc. node	3854 Mar 09 20:47	5° $\overline{\text{Y}}$ 58'06		evening rise	3855 Feb 07 00:01	26° \approx 16'50	
evening max el	3854 Mar 14 20:59	12° $\overline{\text{Y}}$ 15'22	18°08'29		3855 Feb 09 05:49	0° $\overline{\text{H}}$	
retrograde	3854 Mar 21 08:02	15° $\overline{\text{Y}}$ 38'17		asc. node	3855 Feb 24 17:48	23° $\overline{\text{H}}$ 48'54	
evening set	3854 Mar 24 02:22	14° $\overline{\text{Y}}$ 59'59		evening max el	3855 Feb 26 09:22	25° $\overline{\text{H}}$ 37'37	18°25'35
inferior conj	3854 Mar 30 09:52	9° $\overline{\text{Y}}$ 48'06	3°30'23	retrograde	3855 Mar 04 21:13	29° $\overline{\text{H}}$ 09'47	
minimum elong	3854 Mar 30 11:18	9° $\overline{\text{Y}}$ 44'22	3°30'17	evening set	3855 Mar 07 21:17	28° $\overline{\text{H}}$ 20'05	
min. Earth dist.	3854 Apr 02 06:26	6° $\overline{\text{Y}}$ 49'44	0.62403 AU	inferior conj	3855 Mar 13 19:14	22° $\overline{\text{H}}$ 49'18	3°37'06
morning rise	3854 Apr 05 17:47	3° $\overline{\text{Y}}$ 45'43		minimum elong	3855 Mar 13 18:58	22° $\overline{\text{H}}$ 50'07	3°37'07
direct	3854 Apr 12 14:40	1° $\overline{\text{Y}}$ 13'39		min. Earth dist.	3855 Mar 16 00:51	20° $\overline{\text{H}}$ 13'46	0.64303 AU
desc. node	3854 Apr 15 23:36	1° $\overline{\text{Y}}$ 46'43		morning rise	3855 Mar 19 15:02	16° $\overline{\text{H}}$ 38'43	
morning max el	3854 Apr 26 16:14	9° $\overline{\text{Y}}$ 12'00	27°51'19	direct	3855 Mar 26 10:10	13° $\overline{\text{H}}$ 51'19	
	3854 May 12 18:36	0° $\overline{\text{B}}$		desc. node	3855 Apr 02 20:38	16° $\overline{\text{H}}$ 31'53	
	3854 May 29 16:55	0° $\overline{\text{II}}$		morning max el	3855 Apr 09 01:25	21° $\overline{\text{H}}$ 46'48	27°28'00
morning set	3854 May 30 10:49	1° $\overline{\text{II}}$ 30'16			3855 Apr 16 05:50	0° $\overline{\text{Y}}$	
max. Earth dist.	3854 Jun 05 01:16	13° $\overline{\text{II}}$ 13'43	1.32492 AU		3855 May 05 22:40	0° $\overline{\text{B}}$	
asc. node	3854 Jun 05 20:05	14° $\overline{\text{II}}$ 55'04		morning set	3855 May 14 04:15	15° $\overline{\text{B}}$ 19'51	
				max. Earth dist.	3855 May 19 01:42	25° $\overline{\text{B}}$ 13'30	1.33339 AU
superior conj	3854 Jun 07 00:42	17° $\overline{\text{II}}$ 30'09	0°12'29		3855 May 21 08:22	0° $\overline{\text{II}}$	
minimum elong	3854 Jun 07 00:06	17° $\overline{\text{II}}$ 26'57	0°12'21				
behind sun begin	3854 Jun 06 20:49	17° $\overline{\text{II}}$ 09'05		superior conj	3855 May 22 06:01	1° $\overline{\text{II}}$ 54'49	0°-15'-13
behind sun end	3854 Jun 07 03:24	17° $\overline{\text{II}}$ 44'50		minimum elong	3855 May 22 06:47	1° $\overline{\text{II}}$ 58'56	0°15'04
	3854 Jun 12 18:36	0° $\overline{\text{E}}$		behind sun begin	3855 May 22 04:59	1° $\overline{\text{II}}$ 49'18	
evening rise	3854 Jun 13 23:49	2° $\overline{\text{E}}$ 36'15		behind sun end	3855 May 22 08:36	2° $\overline{\text{II}}$ 08'34	
	3854 Jun 28 20:56	0° $\overline{\Omega}$		asc. node	3855 May 23 17:05	5° $\overline{\text{II}}$ 01'59	
evening max el	3854 Jul 08 10:05	11° $\overline{\Omega}$ 47'18	24°03'41	evening rise	3855 May 29 11:13	17° $\overline{\text{II}}$ 20'12	
desc. node	3854 Jul 12 22:51	15° $\overline{\Omega}$ 31'20			3855 Jun 04 18:13	0° $\overline{\text{E}}$	
retrograde	3854 Jul 22 04:42	18° $\overline{\Omega}$ 43'35		evening max el	3855 Jun 20 00:16	22° $\overline{\text{E}}$ 11'30	22°26'47
evening set	3854 Jul 26 19:13	17° $\overline{\Omega}$ 56'38		desc. node	3855 Jun 29 19:52	28° $\overline{\text{E}}$ 16'34	
min. Earth dist.	3854 Aug 01 20:34	14° $\overline{\Omega}$ 58'36	0.56346 AU	retrograde	3855 Jul 03 01:37	28° $\overline{\text{E}}$ 40'45	
inferior conj	3854 Aug 04 07:36	13° $\overline{\Omega}$ 27'38	-5°-1'-13	evening set	3855 Jul 06 04:24	28° $\overline{\text{E}}$ 19'20	
minimum elong	3854 Aug 04 03:48	13° $\overline{\Omega}$ 33'32	5°00'52	min. Earth dist.	3855 Jul 14 07:18	24° $\overline{\text{E}}$ 47'16	0.55157 AU

inferior conj	3855 Jul 15 09:09	24°☿10'36	-4°-6'-43	minimum elong	3856 Jun 23 19:50	4°☿39'09	2°24'00
minimum elong	3855 Jul 15 00:54	24°☿22'19	4°04'47	min. Earth dist.	3856 Jun 24 18:55	4°☿06'28	0.54851 AU
morning rise	3855 Jul 23 23:42	20°☿20'22		morning rise	3856 Jul 02 20:21	0°☿28'51	
direct	3855 Jul 27 01:22	19°☿58'59		direct	3856 Jul 06 10:45	0°☿00'55	
morning max el	3855 Aug 07 13:16	25°☿20'00	21°09'38	morning max el	3856 Jul 19 09:36	6°☿12'37	22°46'52
	3855 Aug 11 20:02	0°♊			3856 Aug 04 23:14	0°♊	
asc. node	3855 Aug 19 16:20	11°♊56'11		asc. node	3856 Aug 05 13:23	1°♊07'29	
morning set	3855 Aug 27 08:34	26°♊52'03		morning set	3856 Aug 10 19:20	11°♊43'39	
	3855 Aug 28 20:44	0°♋					
superior conj	3855 Sep 03 18:32	12°♋20'53	1°44'00	superior conj	3856 Aug 17 22:34	26°♊57'52	1°38'24
minimum elong	3855 Sep 03 18:04	12°♋18'28	1°43'59	minimum elong	3856 Aug 17 21:00	26°♊49'28	1°38'17
max. Earth dist.	3855 Sep 08 03:30	21°♋13'08	1.35424 AU	max. Earth dist.	3856 Aug 19 08:55	0°♋	
evening rise	3855 Sep 12 08:57	29°♋23'57		evening rise	3856 Aug 20 21:54	3°♋13'53	1.33963 AU
	3855 Sep 12 16:37	0°♌			3856 Aug 25 18:45	13°♋06'09	
desc. node	3855 Sep 25 19:13	22°♌34'11		desc. node	3856 Sep 03 22:49	0°♌	
	3855 Sep 30 16:42	0°♍			3856 Sep 11 16:13	12°♌29'37	
evening max el	3855 Oct 17 18:50	21°♍14'19	26°31'57	evening max el	3856 Sep 24 18:46	0°♍	
retrograde	3855 Oct 30 16:30	28°♍28'10		retrograde	3856 Sep 29 07:18	4°♍44'13	27°12'55
evening set	3855 Nov 06 03:26	25°♍51'05		evening set	3856 Oct 12 16:45	12°♍02'13	
min. Earth dist.	3855 Nov 10 06:28	21°♍35'36	0.66201 AU	min. Earth dist.	3856 Oct 19 14:38	9°♍21'36	
inferior conj	3855 Nov 11 22:55	19°♍34'01	-1°-15'-27	inferior conj	3856 Oct 23 11:16	5°♍41'52	0.64909 AU
minimum elong	3855 Nov 12 00:59	19°♍27'47	1°14'35	minimum elong	3856 Oct 25 15:44	3°♍17'08	-2°-16'-33
asc. node	3855 Nov 15 15:32	15°♍31'01			3856 Oct 25 19:34	3°♍06'32	2°15'06
morning rise	3855 Nov 17 23:55	13°♍47'21		morning rise	3856 Oct 28 20:14	30°♌	
direct	3855 Nov 20 21:25	13°♍00'11		asc. node	3856 Oct 28 02:27	27°♌44'06	
morning max el	3855 Nov 27 12:49	16°♍38'04	18°31'31	direct	3856 Nov 01 12:36	27°♌33'34	
	3855 Dec 07 12:07	0°♎			3856 Nov 03 16:31	27°♌08'45	
morning set	3855 Dec 17 17:14	16°♎09'02		morning max el	3856 Nov 09 13:06	0°♎	
desc. node	3855 Dec 22 18:31	24°♎11'27		morning set	3856 Nov 10 04:13	0°♎36'19	18°02'15
	3855 Dec 26 10:38	0°♏			3856 Nov 27 22:21	27°♎17'51	
superior conj	3856 Jan 02 15:50	11°♏20'54	-1°-9'-53	desc. node	3856 Nov 29 13:21	0°♏	
minimum elong	3856 Jan 02 07:32	10°♏48'17	1°08'55		3856 Dec 08 15:32	14°♏53'28	
max. Earth dist.	3856 Jan 03 01:58	12°♏00'35	1.45248 AU	superior conj	3856 Dec 11 23:50	20°♏15'26	0°-22'-48
	3856 Jan 14 12:39	0°♐		minimum elong	3856 Dec 11 21:01	20°♏04'11	0°22'25
evening rise	3856 Jan 18 14:33	6°♐27'27		max. Earth dist.	3856 Dec 15 21:10	26°♏25'22	1.44981 AU
	3856 Feb 02 16:45	0°♑			3856 Dec 18 03:46	0°♑	
evening max el	3856 Feb 09 19:26	9°♑06'39	19°00'30	evening rise	3856 Dec 28 08:49	15°♑52'18	
asc. node	3856 Feb 11 14:49	10°♑46'48			3857 Jan 06 13:53	0°♑	
retrograde	3856 Feb 16 16:06	12°♑59'07		greatest brilliancy	3857 Jan 15 21:03	13°♑42'18	-0.6m
evening set	3856 Feb 19 22:42	11°♑56'58		evening max el	3857 Jan 23 01:16	22°♑38'11	19°51'37
inferior conj	3856 Feb 25 14:13	6°♑09'19	3°27'39	asc. node	3857 Jan 28 11:52	26°♑37'01	
minimum elong	3856 Feb 25 12:40	6°♑14'13	3°27'29	retrograde	3857 Jan 30 13:41	27°♑00'18	
min. Earth dist.	3856 Feb 27 04:21	4°♑09'11	0.65837 AU	evening set	3857 Feb 03 04:08	25°♑44'28	
	3856 Mar 01 23:17	30°♒		inferior conj	3857 Feb 08 15:43	19°♑42'11	3°05'51
morning rise	3856 Mar 02 01:36	29°♒54'53		minimum elong	3857 Feb 08 13:26	19°♑49'49	3°05'22
direct	3856 Mar 08 12:36	27°♒06'04		min. Earth dist.	3857 Feb 09 15:23	18°♒23'20	0.66956 AU
	3856 Mar 15 23:50	0°♓		morning rise	3857 Feb 13 22:05	13°♒26'31	
desc. node	3856 Mar 19 17:41	3°♓04'55		direct	3857 Feb 19 20:44	10°♒48'10	
morning max el	3856 Mar 21 11:20	4°♓45'54	26°34'10	morning max el	3857 Mar 03 20:16	17°♒57'17	25°18'44
	3856 Apr 09 17:53	0°♈		desc. node	3857 Mar 06 14:44	20°♒55'04	
morning set	3856 Apr 26 10:18	28°♈32'17			3857 Mar 13 23:09	0°♈	
	3856 Apr 27 04:47	0°♉		morning set	3857 Apr 02 18:27	0°♈	
max. Earth dist.	3856 Apr 30 15:13	6°♉40'29	1.34653 AU	max. Earth dist.	3857 Apr 09 00:19	10°♈53'39	
					3857 Apr 12 17:32	17°♈43'52	1.36414 AU
superior conj	3856 May 05 05:10	15°♉56'45	0°-44'-10	superior conj	3857 Apr 18 19:17	29°♈27'31	-1°-12'-48
minimum elong	3856 May 05 07:31	16°♉08'50	0°43'44	minimum elong	3857 Apr 18 23:08	29°♈46'33	1°12'11
asc. node	3856 May 09 14:07	25°♉03'54			3857 Apr 19 01:50	0°♉	
	3856 May 11 22:42	0°♊		asc. node	3857 Apr 26 11:10	14°♉56'03	
evening rise	3856 May 12 20:23	1°♊52'40		evening rise	3857 Apr 27 01:06	16°♉06'38	
	3856 May 29 05:54	0°♋			3857 May 04 06:02	0°♊	
evening max el	3856 May 31 22:54	2°♋56'02	20°57'42	evening max el	3857 May 14 09:33	14°♊18'34	19°45'05
retrograde	3856 Jun 12 14:30	8°♋38'10		retrograde	3857 May 24 07:18	19°♊07'37	
evening set	3856 Jun 14 18:48	8°♋26'58		evening set	3857 May 26 06:21	18°♊57'08	
desc. node	3856 Jun 15 16:52	8°♋15'50		desc. node	3857 Jun 02 13:55	15°♊50'25	
inferior conj	3856 Jun 24 02:32	4°♋29'40	-2°-26'-18	inferior conj	3857 Jun 04 02:10	14°♊54'59	0°-26'-47

minimum elong	3857 Jun 04 00:57	14° Π 56'52	0°26'21	inferior conj	3858 May 15 19:40	25° 8 53'06	1°18'42
min. Earth dist.	3857 Jun 06 08:08	13° Π 31'39	0.55510 AU	minimum elong	3858 May 15 22:30	25° 8 48'00	1°17'45
morning rise	3857 Jun 12 16:22	10° Π 26'01		min. Earth dist.	3858 May 19 00:11	23° 8 36'28	0.56993 AU
direct	3857 Jun 17 02:20	9° Π 42'52		desc. node	3858 May 20 10:58	22° 8 39'02	
morning max el	3857 Jun 30 23:59	16° Π 38'28	24°30'09	morning rise	3858 May 23 21:48	20° 8 48'25	
	3857 Jul 11 19:19	0° 9		direct	3858 May 29 07:02	19° 8 38'42	
asc. node	3857 Jul 23 10:27	20° 9 41'52		morning max el	3858 Jun 12 14:58	27° 8 05'46	26°04'12
morning set	3857 Jul 26 07:10	26° 9 38'03			3858 Jun 15 10:13	0° Π	
	3857 Jul 27 21:02	0° 9			3858 Jul 05 01:58	0° 9	
				asc. node	3858 Jul 10 07:29	10° 9 32'19	
superior conj	3857 Aug 02 07:14	11° 9 47'40	1°27'10	morning set	3858 Jul 10 18:22	11° 9 29'37	
minimum elong	3857 Aug 02 05:02	11° 9 35'41	1°26'56				
max. Earth dist.	3857 Aug 04 01:05	15° 9 34'28	1.32908 AU	superior conj	3858 Jul 17 18:23	26° 9 42'55	1°11'11
evening rise	3857 Aug 09 15:04	27° 9 18'30		minimum elong	3858 Jul 17 16:03	26° 9 30'04	1°10'48
	3857 Aug 10 23:06	0° 9		max. Earth dist.	3858 Jul 18 10:20	28° 9 10'39	1.32265 AU
	3857 Aug 28 05:46	0° 9			3858 Jul 19 06:15	0° 9	
desc. node	3857 Aug 29 13:13	1° 9 54'22		evening rise	3858 Jul 24 18:42	11° 9 50'58	
evening max el	3857 Sep 11 18:12	17° 9 51'54	27°26'42		3858 Aug 03 03:28	0° 9	
retrograde	3857 Sep 25 10:37	25° 9 08'00		desc. node	3858 Aug 16 10:15	20° 9 35'12	
evening set	3857 Oct 02 14:48	22° 9 33'27			3858 Aug 24 15:16	0° 9	
min. Earth dist.	3857 Oct 06 06:33	19° 9 26'26	0.63282 AU	evening max el	3858 Aug 25 00:45	0° 9 22'38	27°08'23
inferior conj	3857 Oct 08 23:06	16° 9 46'16	-3°-16'-59	retrograde	3858 Sep 07 21:19	7° 9 35'27	
minimum elong	3857 Oct 09 04:27	16° 9 32'57	3°15'15	evening set	3858 Sep 14 23:53	5° 9 19'02	
morning rise	3857 Oct 15 20:40	11° 9 30'24		min. Earth dist.	3858 Sep 18 15:03	2° 9 36'06	0.61370 AU
direct	3857 Oct 18 06:01	11° 9 03'11		inferior conj	3858 Sep 21 17:47	29° 9 52'25	-4°-12'-7
asc. node	3857 Oct 19 09:41	11° 9 09'39		minimum elong	3858 Sep 21 23:40	29° 9 39'27	4°10'42
morning max el	3857 Oct 24 20:50	14° 9 28'45	17°50'29		3858 Sep 21 14:20	30° 9	
	3857 Nov 04 15:03	0° 9		morning rise	3858 Sep 29 02:32	24° 9 57'16	
morning set	3857 Nov 10 04:40	9° 9 39'52		direct	3858 Oct 01 10:05	24° 9 35'10	
				asc. node	3858 Oct 06 06:44	26° 9 16'39	
superior conj	3857 Nov 22 05:54	0° 9 16'43	0°22'36	morning max el	3858 Oct 08 11:30	28° 9 07'04	17°57'12
minimum elong	3857 Nov 22 08:11	0° 9 26'11	0°22'17		3858 Oct 10 05:21	0° 9	
	3857 Nov 22 01:52	0° 9		morning set	3858 Oct 24 05:38	22° 9 54'37	
desc. node	3857 Nov 25 12:33	5° 9 39'53			3858 Oct 28 02:39	0° 9	
max. Earth dist.	3857 Nov 28 14:44	10° 9 39'40	1.44011 AU	superior conj	3858 Nov 03 14:47	11° 9 36'30	0°58'55
evening rise	3857 Dec 07 18:18	25° 9 02'02		minimum elong	3858 Nov 03 18:57	11° 9 54'39	0°58'24
	3857 Dec 11 00:03	0° 9		max. Earth dist.	3858 Nov 11 03:45	24° 9 24'29	1.42454 AU
greatest brilliancy	3857 Dec 31 16:09	29° 9 51'29	-0.5m	desc. node	3858 Nov 12 09:33	26° 9 26'54	
	3857 Dec 31 18:48	0° 9			3858 Nov 14 14:03	0° 9	
evening max el	3858 Jan 06 01:42	6° 9 10'50	20°56'22	evening rise	3858 Nov 17 11:02	4° 9 35'20	
retrograde	3858 Jan 14 11:43	11° 9 09'38			3858 Dec 04 08:51	0° 9	
asc. node	3858 Jan 15 08:55	11° 9 05'21		greatest brilliancy	3858 Dec 15 03:14	14° 9 24'41	-0.3m
evening set	3858 Jan 18 11:37	9° 9 38'52		evening max el	3858 Dec 19 20:38	19° 9 44'10	22°11'09
inferior conj	3858 Jan 23 21:19	3° 9 24'44	2°34'16	retrograde	3858 Dec 29 08:21	25° 9 22'57	
minimum elong	3858 Jan 23 18:49	3° 9 33'19	2°33'32	asc. node	3859 Jan 02 05:59	24° 9 01'41	
min. Earth dist.	3858 Jan 24 07:58	2° 9 48'03	0.67661 AU	evening set	3859 Jan 02 19:22	23° 9 36'19	
	3858 Jan 26 10:38	30° 9		inferior conj	3859 Jan 08 04:52	17° 9 13'44	1°54'34
morning rise	3858 Jan 29 01:37	27° 9 09'36		minimum elong	3859 Jan 08 02:38	17° 9 21'28	1°53'47
direct	3858 Feb 03 09:44	24° 9 49'39		min. Earth dist.	3859 Jan 08 03:49	17° 9 17'22	0.67973 AU
	3858 Feb 12 21:50	0° 9		morning rise	3859 Jan 13 09:45	11° 9 00'49	
morning max el	3858 Feb 14 04:50	1° 9 15'36	23°51'47	direct	3859 Jan 18 02:50	9° 9 03'08	
desc. node	3858 Feb 21 11:48	9° 9 40'24		morning max el	3859 Jan 27 15:45	14° 9 40'23	22°23'14
	3858 Mar 07 22:49	0° 9		greatest brilliancy	3859 Feb 01 05:09	19° 9 45'41	-0.3m
morning set	3858 Mar 21 16:29	22° 9 08'32		desc. node	3859 Feb 08 08:49	29° 9 04'54	
max. Earth dist.	3858 Mar 25 13:29	28° 9 53'55	1.38499 AU		3859 Feb 09 00:46	0° 9	
	3858 Mar 26 04:20	0° 9			3859 Feb 28 22:41	0° 9	
superior conj	3858 Apr 01 20:48	12° 9 17'55	-1°-38'-43	morning set	3859 Mar 02 05:06	2° 9 03'13	
minimum elong	3858 Apr 02 01:30	12° 9 40'10	1°38'11	max. Earth dist.	3859 Mar 07 10:09	10° 9 41'53	1.40667 AU
evening rise	3858 Apr 10 22:48	29° 9 55'08					
	3858 Apr 10 23:47	0° 8		superior conj	3859 Mar 15 05:07	24° 8 16'40	-1°-58'-29
asc. node	3858 Apr 13 08:12	4° 8 33'58		minimum elong	3859 Mar 15 09:04	24° 8 34'27	1°58'15
evening max el	3858 Apr 27 07:27	26° 8 21'25	18°52'16		3859 Mar 18 08:45	0° 8	
	3858 May 02 21:37	0° 8		evening rise	3859 Mar 25 10:10	13° 8 09'47	
retrograde	3858 May 05 15:54	0° 8 26'26		asc. node	3859 Mar 31 05:16	23° 8 52'11	
evening set	3858 May 07 18:46	0° 8 11'40			3859 Apr 03 19:25	0° 8	
	3858 May 08 12:24	30° 8		evening max el	3859 Apr 10 13:39	8° 8 58'15	18°19'50

retrograde	3859 Apr 17 19:35	12°♄34'34		retrograde	3860 Mar 30 15:34	25°♃22'23	
evening set	3859 Apr 20 04:34	12°♄12'16		evening set	3860 Apr 02 06:37	24°♃50'20	
inferior conj	3859 Apr 27 10:44	7°♄33'20	2°33'28	inferior conj	3860 Apr 08 21:18	19°♃50'30	3°17'06
minimum elong	3859 Apr 27 14:23	7°♄25'37	2°32'32	minimum elong	3860 Apr 08 23:44	19°♃44'33	3°16'45
min. Earth dist.	3859 Apr 30 21:13	4°♄40'58	0.58998 AU	min. Earth dist.	3860 Apr 12 01:15	16°♃47'09	0.61184 AU
morning rise	3859 May 04 20:03	1°♄58'18		morning rise	3860 Apr 15 13:46	13°♃55'38	
desc. node	3859 May 07 08:00	0°♄51'32		direct	3860 Apr 22 07:57	11°♃37'53	
direct	3859 May 11 01:45	0°♄13'48		desc. node	3860 Apr 23 05:02	11°♃40'06	
morning max el	3859 May 25 11:06	8°♄00'41	27°13'36	morning max el	3860 May 06 13:23	19°♃34'43	27°48'21
	3859 Jun 11 02:02	0°♄			3860 May 15 10:17	0°♄	
morning set	3859 Jun 25 03:19	26°♄13'04			3860 Jun 02 22:26	0°♄	
	3859 Jun 26 22:14	0°♄		morning set	3860 Jun 08 08:04	10°♄41'09	
asc. node	3859 Jun 27 04:31	0°♄33'36		asc. node	3860 Jun 13 01:32	20°♄40'16	
				max. Earth dist.	3860 Jun 14 08:19	23°♄27'18	1.32202 AU
superior conj	3859 Jul 02 06:13	11°♄37'52	0°51'04	superior conj	3860 Jun 15 16:57	26°♄25'36	0°27'27
minimum elong	3859 Jul 02 04:13	11°♄26'51	0°50'41	minimum elong	3860 Jun 15 15:44	26°♄18'55	0°27'10
max. Earth dist.	3859 Jul 01 22:01	10°♄52'38	1.32031 AU		3860 Jun 17 08:02	0°♄	
evening rise	3859 Jul 09 03:10	26°♄35'51		evening rise	3860 Jun 22 14:14	11°♄25'15	
	3859 Jul 10 18:10	0°♄			3860 Jul 02 00:51	0°♄	
	3859 Jul 27 20:37	0°♄		evening max el	3860 Jul 18 17:09	23°♄04'26	24°57'27
desc. node	3859 Aug 03 07:16	8°♄13'56		desc. node	3860 Jul 20 04:17	24°♄24'52	
evening max el	3859 Aug 07 00:31	12°♄06'47	26°16'54		3860 Jul 30 19:26	0°♄	
retrograde	3859 Aug 20 23:52	19°♄16'34		retrograde	3860 Aug 01 15:59	0°♄08'02	
evening set	3859 Aug 27 13:08	17°♄31'01			3860 Aug 03 12:34	30°♄	
min. Earth dist.	3859 Aug 31 13:34	14°♄56'33	0.59304 AU	evening set	3860 Aug 07 02:24	29°♄00'50	
inferior conj	3859 Sep 03 20:13	12°♄26'22	-4°-53'-57	min. Earth dist.	3860 Aug 12 04:43	26°♄15'57	0.57323 AU
minimum elong	3859 Sep 04 00:32	12°♄18'05	4°53'24	inferior conj	3860 Aug 15 03:18	24°♄18'48	-5°-9'-55
morning rise	3859 Sep 11 15:25	7°♄54'18		minimum elong	3860 Aug 15 03:02	24°♄19'14	5°09'56
direct	3859 Sep 14 00:22	7°♄34'47		morning rise	3860 Aug 23 07:14	20°♄09'04	
morning max el	3859 Sep 21 20:57	11°♄22'34	18°23'40	direct	3860 Aug 25 20:51	19°♄50'05	
asc. node	3859 Sep 23 03:46	12°♄42'02		morning max el	3860 Sep 03 21:48	24°♄04'58	19°11'18
	3859 Oct 04 05:52	0°♄			3860 Sep 08 21:53	0°♄	
morning set	3859 Oct 07 19:49	6°♄46'58		asc. node	3860 Sep 09 00:46	0°♄10'14	
				morning set	3860 Sep 20 19:12	21°♄05'37	
superior conj	3859 Oct 16 23:06	24°♄04'51	1°24'02		3860 Sep 25 06:31	0°♄	
minimum elong	3859 Oct 17 02:43	24°♄21'29	1°23'41	superior conj	3860 Sep 29 01:19	7°♄25'46	1°38'39
	3859 Oct 20 05:19	0°♄		minimum elong	3860 Sep 29 03:22	7°♄35'40	1°38'31
max. Earth dist.	3859 Oct 24 11:03	7°♄26'33	1.40508 AU	max. Earth dist.	3860 Oct 05 15:20	19°♄47'34	1.38420 AU
evening rise	3859 Oct 28 23:30	15°♄03'44		evening rise	3860 Oct 09 11:28	26°♄37'00	
desc. node	3859 Oct 30 06:34	17°♄11'17			3860 Oct 11 10:37	0°♄	
	3859 Nov 07 09:22	0°♄		desc. node	3860 Oct 16 03:35	7°♄49'13	
	3859 Nov 29 08:28	0°♄			3860 Oct 30 22:50	0°♄	
evening max el	3859 Dec 02 11:23	3°♄20'21	23°30'53	evening max el	3860 Nov 14 00:10	17°♄01'18	24°49'12
retrograde	3859 Dec 13 02:06	9°♄36'53		retrograde	3860 Nov 25 15:51	23°♄47'48	
evening set	3859 Dec 18 01:47	7°♄34'03		evening set	3860 Dec 01 05:18	21°♄29'29	
asc. node	3859 Dec 20 03:01	5°♄31'14		min. Earth dist.	3860 Dec 05 19:55	16°♄17'33	0.67528 AU
min. Earth dist.	3859 Dec 23 00:36	1°♄47'57	0.67924 AU	asc. node	3860 Dec 06 00:01	16°♄04'01	
inferior conj	3859 Dec 23 12:31	1°♄07'08	1°08'03	inferior conj	3860 Dec 06 18:32	15°♄02'44	0°15'48
minimum elong	3859 Dec 23 11:00	1°♄12'19	1°07'27	minimum elong	3860 Dec 06 18:09	15°♄04'02	0°15'39
	3859 Dec 24 08:14	30°♄		transit middle	3860 Dec 06 18:09	15°♄04'02	0°15'39
morning rise	3859 Dec 28 20:21	24°♄58'17		transit begin	3860 Dec 06 17:26	15°♄06'25	
direct	3860 Jan 01 23:09	23°♄23'24		transit end	3860 Dec 06 18:52	15°♄01'40	
morning max el	3860 Jan 10 08:19	28°♄14'28	21°01'07	morning rise	3860 Dec 12 07:30	9°♄00'22	
	3860 Jan 12 00:17	0°♄		direct	3860 Dec 15 21:28	7°♄46'30	
greatest brilliancy	3860 Jan 15 19:12	4°♄31'24	-0.5m	morning max el	3860 Dec 23 08:40	12°♄00'14	19°51'04
desc. node	3860 Jan 26 05:50	18°♄57'42		greatest brilliancy	3860 Dec 30 19:52	21°♄08'09	-0.6m
	3860 Feb 02 15:39	0°♄			3861 Jan 06 00:02	0°♄	
morning set	3860 Feb 09 13:58	10°♄40'57		desc. node	3861 Jan 12 02:51	9°♄11'23	
max. Earth dist.	3860 Feb 17 12:47	23°♄22'48	1.42648 AU	morning set	3861 Jan 18 09:55	18°♄49'55	
	3860 Feb 21 13:06	0°♄			3861 Jan 25 14:09	0°♄	
superior conj	3860 Feb 24 15:05	5°♄11'36	-2°-7'-23	max. Earth dist.	3861 Jan 29 23:23	6°♄55'53	1.44181 AU
minimum elong	3860 Feb 24 15:33	5°♄13'36	2°07'24	superior conj	3861 Feb 03 23:20	14°♄57'34	-2°00'-1
evening rise	3860 Mar 07 07:09	25°♄40'35		minimum elong	3861 Feb 03 17:54	14°♄35'34	1°59'45
	3860 Mar 09 17:02	0°♄			3861 Feb 13 01:41	0°♄	
asc. node	3860 Mar 17 02:18	12°♄43'16					
evening max el	3860 Mar 24 00:42	21°♄58'55	18°07'10				

evening rise	3861 Feb 17 09:27	7° Υ 19'56		superior conj	3862 Jan 14 09:01	23° Z 46'02	-1°-33'-7
	3861 Mar 03 06:13	0° Υ		minimum elong	3862 Jan 13 23:49	23° Z 09'46	1°32'14
asc. node	3861 Mar 03 23:19	0° Υ 59'03			3862 Jan 18 07:39	0° \approx	
evening max el	3861 Mar 07 13:28	5° Υ 15'35	18°13'35	evening rise	3862 Jan 29 13:22	18° \approx 02'33	
retrograde	3861 Mar 13 23:39	8° Υ 40'34			3862 Feb 05 22:05	0° X	
evening set	3861 Mar 16 20:28	7° Υ 57'27		asc. node	3862 Feb 18 20:21	18° X 28'46	
inferior conj	3861 Mar 22 23:30	2° Υ 37'33	3°35'29	evening max el	3862 Feb 19 01:10	18° X 41'07	18°38'20
minimum elong	3861 Mar 23 00:10	2° Υ 35'43	3°35'28	retrograde	3862 Feb 25 15:40	22° X 20'22	
	3861 Mar 25 09:03	30° R X		evening set	3862 Feb 28 18:30	21° X 25'18	
min. Earth dist.	3861 Mar 25 14:00	29° X 46'50	0.63254 AU	inferior conj	3862 Mar 06 13:20	15° X 46'55	3°34'48
morning rise	3861 Mar 29 01:50	26° X 31'16		minimum elong	3862 Mar 06 12:28	15° X 49'35	3°34'45
direct	3861 Apr 04 23:07	23° X 50'47		min. Earth dist.	3862 Mar 08 12:12	13° X 25'42	0.65010 AU
desc. node	3861 Apr 10 02:04	25° X 07'19		morning rise	3862 Mar 12 05:09	9° X 34'31	
	3861 Apr 16 23:07	0° Υ		direct	3862 Mar 18 21:30	6° X 45'10	
morning max el	3861 Apr 18 20:34	1° Υ 48'49	27°45'32	desc. node	3862 Mar 27 23:06	10° X 42'10	
	3861 May 09 16:07	0° B		morning max el	3862 Apr 01 06:18	14° X 34'46	27°08'23
morning set	3861 May 23 06:24	24° B 46'51			3862 Apr 13 19:50	0° Υ	
	3861 May 25 19:59	0° II			3862 May 02 08:50	0° B	
max. Earth dist.	3861 May 28 13:25	5° II 42'34	1.32799 AU	morning set	3862 May 06 19:28	8° B 21'32	
asc. node	3861 May 30 22:34	10° II 48'13		max. Earth dist.	3862 May 11 09:39	17° B 28'54	1.33843 AU
superior conj	3861 May 31 00:49	11° II 00'24	0°01'00	superior conj	3862 May 15 03:49	25° B 15'59	0°-27'-25
minimum elong	3861 May 31 00:46	11° II 00'07	0°00'58	minimum elong	3862 May 15 05:15	25° B 23'29	0°27'08
behind sun begin	3861 May 30 19:30	10° II 31'44			3862 May 17 09:33	0° II	
behind sun end	3861 May 31 06:02	11° II 28'31		asc. node	3862 May 17 19:38	0° II 53'34	
evening rise	3861 Jun 07 02:03	26° II 12'58		evening rise	3862 May 22 12:45	10° II 52'53	
	3861 Jun 08 21:20	0° S			3862 Jun 01 11:39	0° S	
	3861 Jun 26 22:55	0° Q		evening max el	3862 Jun 11 23:14	14° S 01'43	21°47'15
evening max el	3861 Jun 30 06:16	3° Q 32'27	23°22'20	desc. node	3862 Jun 23 22:19	20° S 12'04	
desc. node	3861 Jul 07 01:18	8° Q 35'27		retrograde	3862 Jun 24 11:37	20° S 12'47	
retrograde	3861 Jul 13 19:19	10° Q 18'56		evening set	3862 Jun 27 02:55	19° S 57'07	
evening set	3861 Jul 17 17:59	9° Q 44'56		inferior conj	3862 Jul 06 10:56	15° S 54'58	-3°-28'-40
min. Earth dist.	3861 Jul 24 15:57	6° Q 34'01	0.55754 AU	minimum elong	3862 Jul 06 02:32	16° S 06'42	3°26'14
inferior conj	3861 Jul 26 14:27	5° Q 25'28	-4°-44'-25	min. Earth dist.	3862 Jul 06 02:32	16° S 06'41	0.54909 AU
minimum elong	3861 Jul 26 08:14	5° Q 34'40	4°43'28	morning rise	3862 Jul 15 03:29	12° S 03'11	
morning rise	3861 Aug 04 01:31	1° Q 32'00		direct	3862 Jul 18 10:00	11° S 39'45	
direct	3861 Aug 06 22:26	1° Q 11'53		morning max el	3862 Jul 30 13:31	17° S 21'39	21°49'32
morning max el	3861 Aug 17 11:28	6° Q 05'31	20°20'36		3862 Aug 09 12:09	0° Q	
asc. node	3861 Aug 26 21:48	18° Q 27'30		asc. node	3862 Aug 13 18:51	7° Q 22'19	
	3861 Sep 02 04:42	0° P		morning set	3862 Aug 20 10:12	20° Q 30'53	
morning set	3861 Sep 05 00:44	5° P 42'14			3862 Aug 24 22:06	0° P	
superior conj	3861 Sep 12 16:29	21° P 24'59	1°44'14	superior conj	3862 Aug 27 16:47	5° P 51'46	1°42'22
minimum elong	3861 Sep 12 16:52	21° P 26'52	1°44'14	minimum elong	3862 Aug 27 15:48	5° P 46'33	1°42'20
	3861 Sep 17 00:17	0° A		max. Earth dist.	3862 Aug 31 11:18	13° P 38'57	1.34755 AU
max. Earth dist.	3861 Sep 17 21:49	1° A 43'58	1.36442 AU	evening rise	3862 Sep 04 22:40	22° P 29'27	
evening rise	3861 Sep 21 20:35	9° A 09'00			3862 Sep 08 23:01	0° A	
desc. node	3861 Oct 03 00:35	28° A 15'40		desc. node	3862 Sep 19 21:37	18° A 25'11	
	3861 Oct 04 02:58	0° M			3862 Sep 27 20:34	0° M	
	3861 Oct 26 18:53	0° J		evening max el	3862 Oct 10 01:11	14° M 21'09	26°52'11
evening max el	3861 Oct 27 12:36	0° J 43'43	25°58'50	retrograde	3862 Oct 23 04:11	21° M 37'14	
retrograde	3861 Nov 09 00:40	7° J 49'55		evening set	3862 Oct 29 20:22	18° M 57'29	
evening set	3861 Nov 15 04:09	5° J 18'25		min. Earth dist.	3862 Nov 02 20:33	14° M 57'37	0.65703 AU
min. Earth dist.	3861 Nov 19 11:21	0° J 42'09	0.66789 AU	inferior conj	3862 Nov 04 18:06	12° M 45'24	-1°-41'-13
	3861 Nov 20 00:53	30° R M		minimum elong	3862 Nov 04 20:55	12° M 37'13	1°40'05
inferior conj	3861 Nov 20 21:04	28° M 56'41	0°-41'-6	asc. node	3862 Nov 09 18:05	7° M 48'02	
minimum elong	3861 Nov 20 22:09	28° M 53'16	0°40'38	morning rise	3862 Nov 10 23:05	7° M 04'22	
asc. node	3861 Nov 22 21:03	26° M 31'07		direct	3862 Nov 13 17:12	6° M 22'38	
morning rise	3861 Nov 26 17:09	23° M 03'28		morning max el	3862 Nov 20 06:03	9° M 54'37	18°17'00
direct	3861 Nov 29 20:08	22° M 07'33			3862 Dec 04 07:24	0° J	
morning max el	3861 Dec 06 16:33	25° M 55'06	18°55'56	morning set	3862 Dec 09 06:33	8° J 03'12	
	3861 Dec 10 05:51	0° J		desc. node	3862 Dec 16 20:54	20° J 17'56	
morning set	3861 Dec 28 18:16	27° J 43'46			3862 Dec 22 23:34	0° Z	
desc. node	3861 Dec 29 23:52	29° J 39'35		superior conj	3862 Dec 24 11:31	2° Z 21'37	0°-50'-24
	3861 Dec 30 05:05	0° Z		minimum elong	3862 Dec 24 05:11	1° Z 56'42	0°49'35
max. Earth dist.	3862 Jan 12 16:07	21° Z 05'03	1.45073 AU	max. Earth dist.	3862 Dec 26 11:26	5° Z 29'57	1.45230 AU

evening rise	3863 Jan 09 18:31	27°☿51'37		superior conj	3863 Dec 04 03:35	11°♄41'29	0°-2'-46
	3863 Jan 11 03:21	0°♊		minimum elong	3863 Dec 04 03:15	11°♄40'09	0°02'44
greatest brilliancy	3863 Jan 24 12:05	20°♊35'31	-0.7m	behind sun begin	3863 Dec 03 17:13	10°♄59'28	
	3863 Jan 31 10:18	0°♋		behind sun end	3863 Dec 04 13:18	12°♄20'46	
evening max el	3863 Feb 02 09:34	2°♋11'05	19°20'20	max. Earth dist.	3863 Dec 09 05:57	19°♄51'17	1.44647 AU
asc. node	3863 Feb 05 17:24	4°♋59'38			3863 Dec 15 17:08	0°♌	
retrograde	3863 Feb 09 12:09	6°♋15'22		evening rise	3863 Dec 20 07:10	7°♌05'12	
evening set	3863 Feb 12 21:55	5°♋07'27			3864 Jan 04 12:00	0°♍	
	3863 Feb 17 20:52	30°♌		greatest brilliancy	3864 Jan 10 05:57	8°♍05'49	-0.5m
inferior conj	3863 Feb 18 11:27	29°♌12'57	3°19'44	evening max el	3864 Jan 16 13:05	15°♍42'58	20°17'42
minimum elong	3863 Feb 18 09:31	29°♌19'12	3°19'25	asc. node	3864 Jan 23 14:26	20°♍16'52	
min. Earth dist.	3863 Feb 19 19:10	27°♌30'14	0.66364 AU	retrograde	3864 Jan 24 10:17	20°♍20'36	
morning rise	3863 Feb 23 20:18	22°♌57'36		evening set	3864 Jan 28 04:28	18°♍58'41	
direct	3863 Mar 02 02:16	20°♌12'21		inferior conj	3864 Feb 02 15:00	12°♍50'51	2°53'32
morning max el	3863 Mar 14 16:08	27°♌40'58	26°04'09	minimum elong	3864 Feb 02 12:34	12°♍59'07	2°52'56
desc. node	3863 Mar 14 20:09	27°♌51'08		min. Earth dist.	3864 Feb 03 08:58	11°♍49'55	0.67299 AU
	3863 Mar 16 20:47	0°♍		morning rise	3864 Feb 07 20:07	6°♍34'56	
	3863 Apr 07 12:34	0°♎		direct	3864 Feb 13 12:39	4°♍03'38	
morning set	3863 Apr 19 19:20	21°♎13'54		morning max el	3864 Feb 25 00:51	10°♍56'33	24°42'31
max. Earth dist.	3863 Apr 23 18:31	28°♎44'50	1.35351 AU	desc. node	3864 Feb 29 17:11	16°♍07'21	
	3863 Apr 24 10:00	0°♏			3864 Mar 11 05:29	0°♐	
					3864 Mar 30 05:27	0°♑	
superior conj	3863 Apr 28 23:30	9°♏05'16	0°-56'-30	morning set	3864 Apr 01 00:53	3°♑09'52	
minimum elong	3863 Apr 29 02:31	9°♏20'35	0°55'57	max. Earth dist.	3864 Apr 04 17:07	9°♑46'16	1.37266 AU
asc. node	3863 May 04 16:41	20°♏51'47					
evening rise	3863 May 06 20:21	25°♏18'18		superior conj	3864 Apr 11 08:46	22°♑20'27	-1°-24'-19
	3863 May 09 03:50	0°♐		minimum elong	3864 Apr 11 13:05	22°♑41'31	1°23'42
evening max el	3863 May 25 02:40	25°♐00'26	20°24'27		3864 Apr 15 05:59	0°♒	
	3863 Jun 02 05:51	0°♑		evening rise	3864 Apr 19 22:28	9°♒22'43	
retrograde	3863 Jun 05 00:56	0°♑20'28		asc. node	3864 Apr 20 13:45	10°♒38'51	
evening set	3863 Jun 07 01:06	0°♑10'25			3864 May 01 08:23	0°♓	
	3863 Jun 07 22:08	30°♒		evening max el	3864 May 06 18:27	6°♓41'11	19°20'10
desc. node	3863 Jun 10 19:22	29°♒02'56		retrograde	3864 May 15 23:28	11°♓09'50	
inferior conj	3863 Jun 16 05:09	26°♒12'36	-1°-35'-46	evening set	3864 May 17 23:20	10°♓58'09	
minimum elong	3863 Jun 16 00:39	26°♒19'11	1°34'08	inferior conj	3864 May 26 11:30	6°♓50'17	0°21'06
min. Earth dist.	3863 Jun 17 14:41	25°♒23'44	0.55007 AU	minimum elong	3864 May 26 12:23	6°♓48'49	0°20'46
morning rise	3863 Jun 24 22:28	22°♒01'34		desc. node	3864 May 27 16:23	6°♓02'33	
direct	3863 Jun 28 20:02	21°♒28'46		min. Earth dist.	3864 May 29 05:19	5°♓02'30	0.56050 AU
morning max el	3863 Jul 12 06:45	28°♒00'35	23°31'04	morning rise	3864 Jun 03 21:23	2°♓05'45	
	3863 Jul 14 06:34	0°♓		direct	3864 Jun 08 17:07	1°♓12'31	
asc. node	3863 Jul 31 15:55	26°♓44'18		morning max el	3864 Jun 22 20:45	8°♓24'04	25°12'13
	3863 Aug 02 07:01	0°♔			3864 Jul 08 21:04	0°♕	
morning set	3863 Aug 04 21:39	5°♔24'31		asc. node	3864 Jul 17 13:00	16°♕26'14	
				morning set	3864 Jul 19 09:23	20°♕18'09	
					3864 Jul 23 21:08	0°♖	
superior conj	3863 Aug 11 23:06	20°♖35'25	1°34'17				
minimum elong	3863 Aug 11 21:12	20°♖25'12	1°34'07	superior conj	3864 Jul 26 09:04	5°♖28'25	1°20'57
max. Earth dist.	3863 Aug 14 09:31	25°♖47'26	1.33457 AU	minimum elong	3864 Jul 26 06:45	5°♖15'45	1°20'38
	3863 Aug 16 09:41	0°♗		max. Earth dist.	3864 Jul 27 15:24	8°♖14'05	1.32581 AU
evening rise	3863 Aug 19 13:21	6°♗25'37		evening rise	3864 Aug 02 13:08	20°♖47'32	
	3863 Sep 01 13:07	0°♘			3864 Aug 07 04:10	0°♙	
desc. node	3863 Sep 06 18:39	8°♘09'10		desc. node	3864 Aug 23 15:41	27°♙17'03	
evening max el	3863 Sep 22 13:00	27°♘42'30	27°22'18		3864 Aug 25 15:48	0°♚	
	3863 Sep 25 02:50	0°♙		evening max el	3864 Sep 03 22:17	10°♚35'42	27°23'00
retrograde	3863 Oct 06 01:55	5°♙00'49		retrograde	3864 Sep 17 17:08	17°♚51'09	
evening set	3863 Oct 13 03:19	2°♙21'02		evening set	3864 Sep 24 21:36	15°♚22'48	
	3863 Oct 15 19:59	30°♒		min. Earth dist.	3864 Sep 28 12:18	12°♚27'16	0.62493 AU
min. Earth dist.	3863 Oct 16 21:25	28°♚56'08	0.64260 AU	inferior conj	3864 Oct 01 09:36	9°♚43'41	-3°-41'-27
inferior conj	3863 Oct 19 07:14	26°♚23'20	-2°-42'-29	minimum elong	3864 Oct 01 15:22	9°♚30'02	3°39'46
minimum elong	3863 Oct 19 11:47	26°♚11'18	2°40'51	morning rise	3864 Oct 08 11:57	4°♚36'15	
morning rise	3863 Oct 25 22:31	20°♚57'29		direct	3864 Oct 10 20:01	4°♚11'41	
asc. node	3863 Oct 27 15:08	20°♚29'21		asc. node	3864 Oct 13 12:11	4°♚44'50	
direct	3863 Oct 28 10:10	20°♚26'07		morning max el	3864 Oct 17 14:35	7°♚39'16	17°50'58
morning max el	3863 Nov 03 22:25	23°♚51'50	17°55'03		3864 Nov 01 04:03	0°♛	
	3863 Nov 08 20:54	0°♛		morning set	3864 Nov 02 14:08	2°♛32'01	
morning set	3863 Nov 20 23:08	19°♛45'22					
	3863 Nov 27 00:51	0°♜		superior conj	3864 Nov 13 21:06	22°♛16'27	0°39'21
desc. node	3863 Dec 03 17:56	11°♜02'26					

minimum elong	3864 Nov 14 00:34	22° \mathbb{M} 31'09	0°38'52	superior conj	3865 Oct 26 16:36	4° \mathbb{M} 07'35	1°10'57
	3864 Nov 18 12:11	0° \mathbb{M}		minimum elong	3865 Oct 26 20:44	4° \mathbb{M} 26'02	1°10'27
desc. node	3864 Nov 19 14:57	1° \mathbb{M} 49'42		max. Earth dist.	3865 Nov 03 08:09	17° \mathbb{M} 22'27	1.41663 AU
max. Earth dist.	3864 Nov 20 21:17	3° \mathbb{M} 53'05	1.43409 AU	desc. node	3865 Nov 06 11:59	22° \mathbb{M} 36'35	
evening rise	3864 Nov 28 17:43	16° \mathbb{M} 20'10		evening rise	3865 Nov 08 17:59	26° \mathbb{M} 15'38	
	3864 Dec 07 17:08	0° \mathbb{Z}			3865 Nov 11 02:16	0° \mathbb{M}	
greatest brilliancy	3864 Dec 24 12:20	23° \mathbb{Z} 35'13	-0.4m		3865 Dec 01 12:23	0° \mathbb{Z}	
evening max el	3864 Dec 29 11:07	29° \mathbb{Z} 16'05	21°27'20	greatest brilliancy	3865 Dec 07 03:24	7° \mathbb{Z} 13'15	-0.3m
	3864 Dec 30 04:46	0° \approx		evening max el	3865 Dec 12 04:15	12° \mathbb{Z} 51'46	22°44'49
retrograde	3865 Jan 07 07:51	4° \approx 31'52		retrograde	3865 Dec 22 03:17	18° \mathbb{Z} 46'30	
asc. node	3865 Jan 09 11:28	4° \approx 06'43		evening set	3865 Dec 26 19:34	16° \mathbb{Z} 53'02	
evening set	3865 Jan 11 12:12	2° \approx 54'41		asc. node	3865 Dec 27 08:28	16° \mathbb{Z} 25'00	
	3865 Jan 14 08:32	30° \mathbb{R} \mathbb{Z}		inferior conj	3866 Jan 01 05:27	10° \mathbb{Z} 28'22	1°35'37
inferior conj	3865 Jan 16 21:39	26° \mathbb{Z} 36'40	2°18'19	minimum elong	3866 Jan 01 03:29	10° \mathbb{Z} 35'12	1°34'53
minimum elong	3865 Jan 16 19:12	26° \mathbb{Z} 45'07	2°17'33	min. Earth dist.	3865 Dec 31 23:46	10° \mathbb{Z} 48'04	0.68004 AU
min. Earth dist.	3865 Jan 17 03:17	26° \mathbb{Z} 17'08	0.67839 AU	morning rise	3866 Jan 06 11:20	4° \mathbb{Z} 17'03	
morning rise	3865 Jan 22 01:53	20° \mathbb{Z} 22'06		direct	3866 Jan 10 22:20	2° \mathbb{Z} 28'58	
direct	3865 Jan 27 03:39	18° \mathbb{Z} 11'06		morning max el	3866 Jan 19 22:37	7° \mathbb{Z} 45'08	21°47'03
morning max el	3865 Feb 06 09:47	24° \mathbb{Z} 16'42	23°13'40	greatest brilliancy	3866 Jan 24 17:05	13° \mathbb{Z} 07'34	-0.4m
greatest brilliancy	3865 Feb 11 12:45	0° \approx 01'30	-0.2m	desc. node	3866 Feb 02 11:13	24° \mathbb{Z} 49'02	
	3865 Feb 11 12:15	0° \approx			3866 Feb 06 01:47	0° \approx	
desc. node	3865 Feb 15 14:12	5° \approx 10'59		morning set	3866 Feb 21 05:53	23° \approx 10'45	
	3865 Mar 04 16:17	0° \mathbb{H}			3866 Feb 25 11:00	0° \mathbb{H}	
morning set	3865 Mar 13 05:49	13° \mathbb{H} 51'38		max. Earth dist.	3866 Feb 27 11:02	3° \mathbb{H} 18'25	1.41561 AU
max. Earth dist.	3865 Mar 17 11:55	21° \mathbb{H} 06'59	1.39426 AU				
	3865 Mar 22 12:06	0° \mathbb{Y}		superior conj	3866 Mar 07 02:56	16° \mathbb{H} 23'38	-2°-3'-54
superior conj	3865 Mar 25 03:31	4° \mathbb{Y} 50'24	-1°-48'-7	minimum elong	3866 Mar 07 05:47	16° \mathbb{H} 36'11	2°03'49
minimum elong	3865 Mar 25 08:10	5° \mathbb{Y} 11'56	1°47'42		3866 Mar 14 16:44	0° \mathbb{Y}	
evening rise	3865 Apr 03 16:07	22° \mathbb{Y} 57'29		evening rise	3866 Mar 17 21:50	5° \mathbb{Y} 54'31	
asc. node	3865 Apr 07 10:47	0° \mathbb{X} 09'04		asc. node	3866 Mar 25 07:48	19° \mathbb{Y} 16'31	
	3865 Apr 07 08:51	0° \mathbb{X}			3866 Apr 01 13:02	0° \mathbb{X}	
evening max el	3865 Apr 19 20:21	18° \mathbb{X} 59'54	18°36'04	evening max el	3866 Apr 03 05:00	1° \mathbb{X} 47'53	18°12'01
retrograde	3865 Apr 27 15:51	22° \mathbb{X} 50'13		retrograde	3866 Apr 10 02:58	5° \mathbb{X} 16'41	
evening set	3865 Apr 29 21:25	22° \mathbb{X} 32'30		evening set	3866 Apr 12 14:44	4° \mathbb{X} 50'16	
inferior conj	3865 May 07 14:04	18° \mathbb{X} 05'42	1°54'25	inferior conj	3866 Apr 19 13:47	0° \mathbb{X} 02'05	2°55'29
minimum elong	3865 May 07 17:36	17° \mathbb{X} 58'53	1°53'21	minimum elong	3866 Apr 19 17:04	29° \mathbb{Y} 54'42	2°54'49
min. Earth dist.	3865 May 10 23:11	15° \mathbb{X} 31'04	0.57808 AU		3866 Apr 19 14:43	30° \mathbb{R} \mathbb{Y}	
desc. node	3865 May 14 13:25	13° \mathbb{X} 12'29		min. Earth dist.	3866 Apr 22 22:34	27° \mathbb{Y} 02'15	0.59933 AU
morning rise	3865 May 15 09:21	12° \mathbb{X} 47'14		morning rise	3866 Apr 26 15:46	24° \mathbb{Y} 17'37	
direct	3865 May 21 04:20	11° \mathbb{X} 22'53		desc. node	3866 May 01 10:26	22° \mathbb{Y} 26'48	
morning max el	3865 Jun 04 13:16	18° \mathbb{X} 59'30	26°37'24	direct	3866 May 03 03:58	22° \mathbb{Y} 18'27	
	3865 Jun 13 20:08	0° \mathbb{I}			3866 May 17 08:00	0° \mathbb{X}	
	3865 Jul 01 08:33	0° \mathbb{S}		morning max el	3866 May 17 11:55	0° \mathbb{X} 09'38	27°33'02
morning set	3865 Jul 03 19:47	5° \mathbb{S} 06'33			3866 Jun 07 20:38	0° \mathbb{I}	
asc. node	3865 Jul 04 10:03	6° \mathbb{S} 21'52		morning set	3866 Jun 18 03:10	19° \mathbb{I} 44'02	
				asc. node	3866 Jun 21 07:04	26° \mathbb{I} 25'58	
superior conj	3865 Jul 10 20:42	20° \mathbb{S} 24'09	1°03'07		3866 Jun 22 22:33	0° \mathbb{S}	
minimum elong	3865 Jul 10 18:27	20° \mathbb{S} 11'45	1°02'43	max. Earth dist.	3866 Jun 24 13:47	3° \mathbb{S} 34'57	1.32056 AU
max. Earth dist.	3865 Jul 11 02:04	20° \mathbb{S} 53'45	1.32117 AU				
	3865 Jul 15 05:52	0° \mathbb{Q}		superior conj	3866 Jun 25 08:14	5° \mathbb{S} 16'27	0°41'26
evening rise	3865 Jul 17 19:05	5° \mathbb{Q} 26'18		minimum elong	3866 Jun 25 06:31	5° \mathbb{S} 06'59	0°41'05
	3865 Jul 30 19:41	0° \mathbb{P}		evening rise	3866 Jul 02 04:53	20° \mathbb{S} 14'00	
desc. node	3865 Aug 10 12:42	15° \mathbb{P} 34'09			3866 Jul 06 23:10	0° \mathbb{Q}	
evening max el	3865 Aug 17 02:28	22° \mathbb{P} 48'32	26°50'32		3866 Jul 25 23:40	0° \mathbb{P}	
retrograde	3865 Aug 31 00:32	29° \mathbb{P} 59'32		desc. node	3866 Jul 28 09:43	2° \mathbb{P} 39'12	
evening set	3865 Sep 06 22:52	27° \mathbb{P} 55'16		evening max el	3866 Jul 29 23:10	4° \mathbb{P} 12'21	25°46'00
min. Earth dist.	3865 Sep 10 16:34	25° \mathbb{P} 17'52	0.60494 AU	retrograde	3866 Aug 12 22:28	11° \mathbb{P} 19'29	
inferior conj	3865 Sep 13 21:50	22° \mathbb{P} 37'56	-4°-32'-10	evening set	3866 Aug 19 02:11	9° \mathbb{P} 49'53	
minimum elong	3865 Sep 14 03:23	22° \mathbb{P} 26'23	4°31'05	min. Earth dist.	3866 Aug 23 11:19	7° \mathbb{P} 13'32	0.58433 AU
morning rise	3865 Sep 21 11:08	17° \mathbb{P} 52'03		inferior conj	3866 Aug 26 16:20	4° \mathbb{P} 55'18	-5°-4'-49
direct	3865 Sep 23 18:52	17° \mathbb{P} 31'17		minimum elong	3866 Aug 26 19:04	4° \mathbb{P} 50'22	5°04'38
asc. node	3865 Sep 30 09:14	20° \mathbb{P} 27'04		morning rise	3866 Sep 03 15:28	0° \mathbb{P} 33'02	
morning max el	3865 Oct 01 03:23	21° \mathbb{P} 09'01	18°05'56	direct	3866 Sep 06 02:15	0° \mathbb{P} 13'49	
	3865 Oct 07 20:39	0° \mathbb{A}		morning max el	3866 Sep 14 09:29	4° \mathbb{P} 11'21	18°41'20
morning set	3865 Oct 16 21:23	16° \mathbb{A} 05'15		asc. node	3866 Sep 17 06:16	7° \mathbb{P} 20'58	
	3865 Oct 24 09:38	0° \mathbb{M}		morning set	3866 Sep 30 15:54	0° \mathbb{A} 10'16	
					3866 Sep 30 13:48	0° \mathbb{A}	

superior conj	3866 Oct 09 09:12	17°♄00'22	1°31'26	superior conj	3867 Sep 22 17:31	0°♄39'39	1°42'00
minimum elong	3866 Oct 09 12:12	17°♄14'30	1°31'11	minimum elong	3867 Sep 22 18:50	0°♄46'09	1°41'58
max. Earth dist.	3866 Oct 16 14:14	0°♄08'25	1.39622 AU	max. Earth dist.	3867 Sep 28 18:33	12°♄15'32	1.37549 AU
	3866 Oct 16 12:19	0°♄		evening rise	3867 Oct 02 13:49	19°♄10'44	
evening rise	3866 Oct 20 16:25	7°♄11'29			3867 Oct 08 21:04	0°♄	
desc. node	3866 Oct 24 09:00	13°♄18'54		desc. node	3867 Oct 11 06:02	3°♄52'34	
	3866 Nov 04 03:16	0°♄			3867 Oct 29 07:26	0°♄	
evening max el	3866 Nov 24 17:54	26°♄30'11	24°04'41	evening max el	3867 Nov 07 06:11	10°♄11'27	25°20'13
	3866 Nov 28 16:47	0°♄		retrograde	3867 Nov 19 07:15	17°♄08'17	
retrograde	3866 Dec 05 19:23	3°♄00'12		evening set	3867 Nov 25 02:45	14°♄43'39	
evening set	3866 Dec 11 00:57	0°♄50'23		min. Earth dist.	3867 Nov 29 14:01	9°♄46'52	0.67255 AU
	3866 Dec 11 22:59	30°♄		inferior conj	3867 Nov 30 17:23	8°♄18'14	0°-7'-48
asc. node	3866 Dec 14 05:29	27°♄25'34		minimum elong	3867 Nov 30 17:35	8°♄17'36	0°07'45
min. Earth dist.	3866 Dec 15 20:06	25°♄18'56	0.67804 AU	transit middle	3867 Nov 30 17:35	8°♄17'36	0°07'45
inferior conj	3866 Dec 16 12:37	24°♄23'05	0°46'33	transit begin	3867 Nov 30 15:08	8°♄25'33	
minimum elong	3866 Dec 16 11:32	24°♄26'45	0°46'07	transit end	3867 Nov 30 20:02	8°♄09'40	
morning rise	3866 Dec 21 22:25	18°♄16'58		asc. node	3867 Dec 01 02:31	7°♄48'43	
direct	3866 Dec 25 19:34	16°♄51'25		morning rise	3867 Dec 06 09:10	2°♄19'36	
morning max el	3867 Jan 02 18:30	21°♄24'55	20°29'42	direct	3867 Dec 09 18:07	1°♄14'00	
greatest brilliancy	3867 Jan 08 22:13	28°♄39'36	-0.5m	morning max el	3867 Dec 16 22:18	5°♄15'28	19°25'43
	3867 Jan 09 22:31	0°♄		greatest brilliancy	3867 Dec 25 18:39	16°♄27'47	-0.7m
desc. node	3867 Jan 20 08:15	14°♄51'49			3868 Jan 03 19:58	0°♄	
	3867 Jan 30 07:39	0°♄		desc. node	3868 Jan 07 05:17	5°♄12'17	
morning set	3867 Jan 31 06:36	1°♄28'48		morning set	3868 Jan 10 04:52	9°♄48'42	
max. Earth dist.	3867 Feb 09 17:41	16°♄25'22	1.43372 AU		3868 Jan 23 03:07	0°♄	
				max. Earth dist.	3868 Jan 23 06:56	0°♄15'04	1.44641 AU
superior conj	3867 Feb 16 02:10	26°♄49'41	-2°-6'-32	superior conj	3868 Jan 26 23:46	6°♄07'57	-1°-50'-58
minimum elong	3867 Feb 16 00:17	26°♄41'48	2°06'30	minimum elong	3868 Jan 26 16:06	5°♄37'18	1°50'26
	3867 Feb 17 23:41	0°♄		evening rise	3868 Feb 10 04:39	29°♄21'15	
evening rise	3867 Feb 28 11:28	18°♄05'18			3868 Feb 10 13:56	0°♄	
	3867 Mar 07 07:35	0°♄		asc. node	3868 Feb 27 01:50	25°♄52'05	
asc. node	3867 Mar 12 04:49	7°♄54'07		evening max el	3868 Feb 29 05:41	28°♄17'45	18°21'54
evening max el	3867 Mar 17 17:06	14°♄56'31	18°07'31		3868 Mar 02 03:47	0°♄	
retrograde	3867 Mar 24 04:53	18°♄19'17		retrograde	3868 Mar 06 16:52	1°♄47'43	
evening set	3867 Mar 26 22:20	17°♄42'42		evening set	3868 Mar 09 16:03	0°♄59'48	
inferior conj	3867 Apr 02 07:34	12°♄33'52	3°27'37		3868 Mar 11 04:38	30°♄	
minimum elong	3867 Apr 02 09:16	12°♄29'30	3°27'27	inferior conj	3868 Mar 15 15:14	25°♄31'54	3°37'14
min. Earth dist.	3867 Apr 05 06:11	9°♄33'27	0.62089 AU	minimum elong	3868 Mar 15 15:11	25°♄32'02	3°37'13
morning rise	3867 Apr 08 17:35	6°♄33'05		min. Earth dist.	3868 Mar 17 23:14	22°♄51'50	0.64041 AU
direct	3867 Apr 15 13:59	4°♄04'22		morning rise	3868 Mar 21 12:36	19°♄22'14	
desc. node	3867 Apr 18 07:27	4°♄25'59		direct	3868 Mar 28 08:31	16°♄36'04	
morning max el	3867 Apr 29 16:50	12°♄02'51	27°51'48	desc. node	3868 Apr 04 04:29	18°♄51'57	
	3867 May 13 21:44	0°♄		morning max el	3868 Apr 11 01:36	24°♄32'52	27°33'34
	3867 May 31 04:49	0°♄			3868 Apr 16 00:07	0°♄	
morning set	3867 Jun 02 05:33	4°♄04'29			3868 May 06 07:26	0°♄	
max. Earth dist.	3867 Jun 07 22:35	16°♄04'29	1.32402 AU	morning set	3868 May 16 00:22	17°♄58'41	
asc. node	3867 Jun 08 04:06	16°♄34'16		max. Earth dist.	3868 May 21 00:16	28°♄08'12	1.33183 AU
					3868 May 21 21:36	0°♄	
superior conj	3867 Jun 09 18:00	19°♄59'57	0°16'31	superior conj	3868 May 24 00:04	4°♄27'35	0°-10'-54
minimum elong	3867 Jun 09 17:14	19°♄55'46	0°16'21	minimum elong	3868 May 24 00:37	4°♄30'30	0°10'48
	3867 Jun 14 07:58	0°♄		behind sun begin	3868 May 23 20:36	4°♄09'08	
evening rise	3867 Jun 16 16:32	5°♄04'06		behind sun end	3868 May 24 04:37	4°♄51'54	
	3867 Jun 29 22:26	0°♄		asc. node	3868 May 25 01:08	6°♄41'44	
evening max el	3867 Jul 11 13:22	14°♄53'58	24°17'57	evening rise	3868 May 31 04:06	19°♄49'12	
desc. node	3867 Jul 15 06:43	18°♄03'51			3868 Jun 05 03:51	0°♄	
retrograde	3867 Jul 25 09:28	21°♄52'52		evening max el	3868 Jun 22 03:01	25°♄18'13	22°41'02
evening set	3867 Jul 30 05:23	21°♄00'54			3868 Jun 28 07:57	0°♄	
min. Earth dist.	3867 Aug 05 00:08	18°♄06'42	0.56584 AU	desc. node	3868 Jul 01 03:45	1°♄12'31	
inferior conj	3867 Aug 07 14:45	16°♄28'23	-5°-5'-2	retrograde	3868 Jul 05 08:05	1°♄52'37	
minimum elong	3867 Aug 07 11:53	16°♄32'55	5°04'52	evening set	3868 Jul 08 15:35	1°♄28'32	
morning rise	3867 Aug 15 21:58	12°♄27'16			3868 Jul 12 17:49	30°♄	
direct	3867 Aug 18 14:26	12°♄08'03		min. Earth dist.	3868 Jul 16 11:02	28°♄02'18	0.55286 AU
morning max el	3867 Aug 28 05:55	16°♄37'33	19°38'14	inferior conj	3868 Jul 17 18:34	27°♄17'13	-4°-18'-20
asc. node	3867 Sep 04 03:18	25°♄11'56		minimum elong	3868 Jul 17 10:39	27°♄28'33	4°16'37
	3867 Sep 07 01:46	0°♄		morning rise	3868 Jul 26 08:15	23°♄26'35	
morning set	3867 Sep 14 18:13	14°♄37'36					
	3867 Sep 22 09:29	0°♄					

direct	3868 Jul 29 08:32	23° $\overline{5}$ 05'37		min. Earth dist.	3869 Jun 27 22:20	7° $\overline{5}$ 23'46	0.54837 AU
morning max el	3868 Aug 09 14:38	28° $\overline{5}$ 19'30	20°56'20	morning rise	3869 Jul 06 05:55	3° $\overline{5}$ 40'06	
	3868 Aug 11 07:06	0° Ω		direct	3869 Jul 09 18:10	3° $\overline{5}$ 13'30	
asc. node	3868 Aug 21 00:22	13° Ω 46'23		morning max el	3869 Jul 22 12:15	9° $\overline{5}$ 17'34	22°31'44
morning set	3868 Aug 29 01:40	29° Ω 19'43			3869 Aug 06 08:08	0° Ω	
	3868 Aug 29 09:28	0° $\overline{\eta}$		asc. node	3869 Aug 07 21:26	2° Ω 53'46	
				morning set	3869 Aug 13 12:09	14° Ω 10'50	
superior conj	3868 Sep 05 12:59	14° $\overline{\eta}$ 51'50	1°44'16	superior conj	3869 Aug 20 16:08	29° Ω 26'28	1°39'38
minimum elong	3868 Sep 05 12:44	14° $\overline{\eta}$ 50'30	1°44'16	minimum elong	3869 Aug 20 14:41	29° Ω 18'50	1°39'32
max. Earth dist.	3868 Sep 10 03:06	24° $\overline{\eta}$ 06'36	1.35677 AU		3869 Aug 20 22:27	0° $\overline{\eta}$	
	3868 Sep 13 04:12	0° $\underline{\Delta}$		max. Earth dist.	3869 Aug 23 20:16	6° $\overline{\eta}$ 05'54	1.34156 AU
evening rise	3868 Sep 14 06:42	2° $\underline{\Delta}$ 04'52		evening rise	3869 Aug 28 14:38	15° $\overline{\eta}$ 41'56	
desc. node	3868 Sep 27 03:04	24° $\underline{\Delta}$ 12'36			3869 Sep 05 07:53	0° $\underline{\Delta}$	
	3868 Sep 30 21:25	0° $\overline{\mathcal{M}}$		desc. node	3869 Sep 14 00:06	14° $\underline{\Delta}$ 12'15	
evening max el	3868 Oct 19 18:38	23° $\overline{\mathcal{M}}$ 52'45	26°24'01		3869 Sep 25 11:50	0° $\overline{\mathcal{M}}$	
	3868 Oct 28 01:38	0° $\overline{\mathcal{A}}$		evening max el	3869 Oct 02 07:16	7° $\overline{\mathcal{M}}$ 25'27	27°08'25
retrograde	3868 Nov 01 14:07	1° $\overline{\mathcal{A}}$ 05'03		retrograde	3869 Oct 15 15:10	14° $\overline{\mathcal{M}}$ 42'55	
	3868 Nov 05 17:55	30° $\overline{\mathcal{R}}$ $\overline{\mathcal{M}}$		evening set	3869 Oct 22 11:42	12° $\overline{\mathcal{M}}$ 02'21	
evening set	3868 Nov 07 23:06	28° $\overline{\mathcal{M}}$ 29'20		min. Earth dist.	3869 Oct 26 09:16	8° $\overline{\mathcal{M}}$ 17'27	0.65125 AU
min. Earth dist.	3868 Nov 12 03:14	24° $\overline{\mathcal{M}}$ 08'20	0.66361 AU	inferior conj	3869 Oct 28 11:53	5° $\overline{\mathcal{M}}$ 55'51	-2°-7'-16
inferior conj	3868 Nov 13 17:53	22° $\overline{\mathcal{M}}$ 10'49	-1°-6'-18	minimum elong	3869 Oct 28 15:28	5° $\overline{\mathcal{M}}$ 45'50	2°05'52
minimum elong	3868 Nov 13 19:41	22° $\overline{\mathcal{M}}$ 05'20	1°05'33	morning rise	3869 Nov 03 21:05	0° $\overline{\mathcal{M}}$ 20'32	
asc. node	3868 Nov 16 23:34	18° $\overline{\mathcal{M}}$ 31'09		asc. node	3869 Nov 03 20:39	0° $\overline{\mathcal{M}}$ 21'02	
morning rise	3868 Nov 19 17:32	16° $\overline{\mathcal{M}}$ 22'16			3869 Nov 04 18:14	30° $\overline{\mathcal{R}}$ $\underline{\Delta}$	
direct	3868 Nov 22 16:22	15° $\overline{\mathcal{M}}$ 32'58		direct	3869 Nov 06 12:09	29° $\underline{\Delta}$ 43'36	
morning max el	3868 Nov 29 08:52	19° $\overline{\mathcal{M}}$ 13'09	18°37'19		3869 Nov 08 06:16	0° $\overline{\mathcal{M}}$	
	3868 Dec 07 16:08	0° $\overline{\mathcal{A}}$		morning max el	3869 Nov 12 23:52	3° $\overline{\mathcal{M}}$ 11'58	18°05'31
morning set	3868 Dec 20 00:13	19° $\overline{\mathcal{A}}$ 16'59			3869 Nov 30 21:48	0° $\overline{\mathcal{A}}$	
desc. node	3868 Dec 24 02:19	25° $\overline{\mathcal{A}}$ 45'27		morning set	3869 Dec 01 01:05	0° $\overline{\mathcal{A}}$ 13'35	
	3868 Dec 26 18:48	0° $\overline{\mathcal{C}}$		desc. node	3869 Dec 10 23:20	16° $\overline{\mathcal{A}}$ 26'42	
superior conj	3869 Jan 05 04:01	14° $\overline{\mathcal{C}}$ 44'48	-1°-16'-25	superior conj	3869 Dec 15 09:54	23° $\overline{\mathcal{A}}$ 32'33	0°-30'-5
minimum elong	3869 Jan 04 19:13	14° $\overline{\mathcal{C}}$ 10'20	1°15'26	minimum elong	3869 Dec 15 06:08	23° $\overline{\mathcal{A}}$ 17'35	0°29'33
max. Earth dist.	3869 Jan 05 00:40	14° $\overline{\mathcal{C}}$ 31'43	1.45225 AU	max. Earth dist.	3869 Dec 18 20:09	28° $\overline{\mathcal{A}}$ 57'42	1.45070 AU
	3869 Jan 14 20:36	0° \approx			3869 Dec 19 11:59	0° $\overline{\mathcal{C}}$	
evening rise	3869 Jan 20 22:38	9° \approx 40'05		evening rise	3869 Dec 31 19:25	19° $\overline{\mathcal{C}}$ 10'27	
	3869 Feb 02 19:26	0° $\overline{\mathcal{H}}$			3870 Jan 07 19:54	0° \approx	
evening max el	3869 Feb 11 16:19	11° $\overline{\mathcal{H}}$ 46'27	18°54'14	greatest brilliancy	3870 Jan 18 09:44	15° \approx 47'55	-0.6m
asc. node	3869 Feb 12 22:53	12° $\overline{\mathcal{H}}$ 59'09		evening max el	3870 Jan 25 22:52	25° \approx 17'46	19°43'03
retrograde	3869 Feb 18 11:07	15° $\overline{\mathcal{H}}$ 35'03		asc. node	3870 Jan 30 19:56	29° \approx 00'39	
evening set	3869 Feb 21 16:43	14° $\overline{\mathcal{H}}$ 34'46		retrograde	3870 Feb 02 08:28	29° \approx 34'53	
inferior conj	3869 Feb 27 09:01	8° $\overline{\mathcal{H}}$ 49'32	3°29'56	evening set	3870 Feb 05 21:42	28° \approx 21'03	
minimum elong	3869 Feb 27 07:37	8° $\overline{\mathcal{H}}$ 53'53	3°29'47	inferior conj	3870 Feb 11 09:43	22° \approx 20'42	3°09'48
min. Earth dist.	3869 Mar 01 01:24	6° $\overline{\mathcal{H}}$ 43'41	0.65639 AU	minimum elong	3870 Feb 11 07:30	22° \approx 28'01	3°09'22
morning rise	3869 Mar 04 21:27	2° $\overline{\mathcal{H}}$ 35'36		min. Earth dist.	3870 Feb 12 11:24	20° \approx 55'42	0.66819 AU
	3869 Mar 09 12:11	30° $\overline{\mathcal{R}}$ \approx		morning rise	3870 Feb 16 16:38	16° \approx 05'09	
direct	3869 Mar 11 10:03	29° \approx 46'12		direct	3870 Feb 22 17:15	13° \approx 24'47	
	3869 Mar 13 09:43	0° $\overline{\mathcal{H}}$		morning max el	3870 Mar 06 20:38	20° \approx 39'07	25°30'57
desc. node	3869 Mar 22 01:32	5° $\overline{\mathcal{H}}$ 10'51		desc. node	3870 Mar 08 22:33	22° \approx 50'50	
morning max el	3869 Mar 24 11:29	7° $\overline{\mathcal{H}}$ 28'52	26°43'45		3870 Mar 14 22:03	0° $\overline{\mathcal{H}}$	
	3869 Apr 10 22:44	0° $\overline{\mathcal{Y}}$			3870 Apr 04 03:00	0° $\overline{\mathcal{Y}}$	
	3869 Apr 28 16:02	0° $\overline{\mathcal{B}}$		morning set	3870 Apr 12 01:07	13° $\overline{\mathcal{Y}}$ 47'20	
morning set	3869 Apr 29 08:22	1° $\overline{\mathcal{B}}$ 17'16		max. Earth dist.	3870 Apr 15 19:33	20° $\overline{\mathcal{Y}}$ 46'22	1.36128 AU
max. Earth dist.	3869 May 03 15:29	9° $\overline{\mathcal{B}}$ 39'41	1.34431 AU		3870 Apr 20 13:56	0° $\overline{\mathcal{B}}$	
superior conj	3869 May 08 00:19	18° $\overline{\mathcal{B}}$ 33'24	0°-39'-45	superior conj	3870 Apr 21 16:01	2° $\overline{\mathcal{B}}$ 09'36	-1°-8'-34
minimum elong	3869 May 08 02:25	18° $\overline{\mathcal{B}}$ 44'18	0°39'21	minimum elong	3870 Apr 21 19:39	2° $\overline{\mathcal{B}}$ 27'46	1°07'58
asc. node	3869 May 11 22:11	26° $\overline{\mathcal{B}}$ 44'43		asc. node	3870 Apr 28 19:15	16° $\overline{\mathcal{B}}$ 39'00	
	3869 May 13 11:18	0° $\overline{\mathcal{I}}$		evening rise	3870 Apr 29 19:20	18° $\overline{\mathcal{B}}$ 41'27	
evening rise	3869 May 15 13:45	4° $\overline{\mathcal{I}}$ 23'51			3870 May 05 13:43	0° $\overline{\mathcal{I}}$	
	3869 May 29 21:43	0° $\overline{\mathcal{G}}$		evening max el	3870 May 17 08:52	17° $\overline{\mathcal{I}}$ 14'43	19°54'38
evening max el	3869 Jun 04 00:04	5° $\overline{\mathcal{G}}$ 58'08	21°10'01	retrograde	3870 May 27 12:51	22° $\overline{\mathcal{I}}$ 11'40	
retrograde	3869 Jun 15 21:18	11° $\overline{\mathcal{G}}$ 47'52		evening set	3870 May 29 11:52	22° $\overline{\mathcal{I}}$ 01'27	
evening set	3869 Jun 18 03:54	11° $\overline{\mathcal{G}}$ 35'50		desc. node	3870 Jun 04 21:47	19° $\overline{\mathcal{I}}$ 29'54	
desc. node	3869 Jun 18 00:47	11° $\overline{\mathcal{G}}$ 37'09		inferior conj	3870 Jun 07 10:06	18° $\overline{\mathcal{I}}$ 00'45	0°-44'-38
inferior conj	3869 Jun 27 12:16	7° $\overline{\mathcal{G}}$ 37'56	-2°-43'-33	minimum elong	3870 Jun 07 08:03	18° $\overline{\mathcal{I}}$ 03'54	0°43'54
minimum elong	3869 Jun 27 04:56	7° $\overline{\mathcal{G}}$ 48'14	2°41'08				

min. Earth dist.	3870 Jun 09 11:08	16°II46'19	0.55350 AU		3871 May 17 09:52	30°R8	
morning rise	3870 Jun 16 01:24	13°II36'55		inferior conj	3871 May 19 00:31	28°853'21	1°04'28
direct	3870 Jun 20 07:59	12°II56'53		minimum elong	3871 May 19 02:57	28°849'04	1°03'37
morning max el	3870 Jul 04 03:11	19°II46'28	24°15'02	min. Earth dist.	3871 May 22 02:46	26°843'45	0.56725 AU
	3870 Jul 12 18:33	0°8		desc. node	3871 May 22 18:48	26°817'11	
asc. node	3870 Jul 25 18:29	22°825'34		morning rise	3871 May 27 04:51	23°853'44	
morning set	3870 Jul 28 23:57	29°805'48		direct	3871 Jun 01 10:31	22°848'40	
	3870 Jul 29 10:11	0°8		morning max el	3871 Jun 15 17:48	0°II12'17	25°51'27
					3871 Jun 15 12:40	0°II	
superior conj	3870 Aug 05 00:16	14°815'22	1°29'14		3871 Jul 06 11:41	0°8	
minimum elong	3870 Aug 04 22:08	14°803'46	1°28'59	asc. node	3871 Jul 12 15:31	12°814'09	
max. Earth dist.	3870 Aug 06 22:23	18°824'25	1.33037 AU	morning set	3871 Jul 13 11:20	13°858'15	
evening rise	3870 Aug 12 09:37	29°8150'52					
	3870 Aug 12 11:25	0°8		superior conj	3871 Jul 20 11:09	29°810'24	1°13'55
	3870 Aug 29 09:09	0°8		minimum elong	3871 Jul 20 08:49	28°857'31	1°13'32
desc. node	3870 Aug 31 21:07	3°842'53			3871 Jul 20 20:11	0°8	
evening max el	3870 Sep 14 18:29	20°837'23	27°26'30	max. Earth dist.	3871 Jul 21 06:49	0°858'24	1.32333 AU
retrograde	3870 Sep 28 09:57	27°853'56		evening rise	3871 Jul 27 12:19	14°820'51	
evening set	3870 Oct 05 13:42	25°817'36			3871 Aug 04 12:25	0°8	
min. Earth dist.	3870 Oct 09 05:57	22°806'15	0.63550 AU	desc. node	3871 Aug 18 18:08	22°831'26	
inferior conj	3870 Oct 11 20:50	19°827'40	-3°-8'-4		3871 Aug 24 21:39	0°8	
minimum elong	3870 Oct 12 02:00	19°814'36	3°06'19	evening max el	3871 Aug 28 01:41	3°814'00	27°13'11
morning rise	3870 Oct 18 16:46	14°809'09		retrograde	3871 Sep 10 21:53	10°827'44	
direct	3870 Oct 21 02:39	13°840'56		evening set	3871 Sep 18 01:18	8°807'40	
asc. node	3870 Oct 21 17:41	13°842'52		min. Earth dist.	3871 Sep 21 16:03	5°821'58	0.61669 AU
morning max el	3870 Oct 27 16:30	17°806'07	17°51'05	inferior conj	3871 Sep 24 17:34	2°837'42	-4°-4'-26
	3870 Nov 05 21:56	0°8		minimum elong	3871 Sep 24 23:29	2°824'26	4°02'55
morning set	3870 Nov 13 04:02	12°825'59			3871 Sep 27 20:16	30°88	
	3870 Nov 23 11:10	0°8		morning rise	3871 Oct 02 00:42	27°839'24	
				direct	3871 Oct 04 08:14	27°816'47	
superior conj	3870 Nov 25 12:05	3°822'28	0°16'13	asc. node	3871 Oct 08 14:42	28°836'40	
minimum elong	3870 Nov 25 13:47	3°829'30	0°15'58		3871 Oct 10 11:16	0°8	
behind sun begin	3870 Nov 25 12:29	3°824'09		morning max el	3871 Oct 11 07:40	0°847'14	17°54'58
behind sun end	3870 Nov 25 15:05	3°834'52		morning set	3871 Oct 27 02:34	25°834'00	
desc. node	3870 Nov 27 20:23	7°812'55			3871 Oct 29 13:03	0°8	
max. Earth dist.	3870 Dec 01 14:11	13°814'55	1.44199 AU				
evening rise	3870 Dec 11 05:10	28°819'47		superior conj	3871 Nov 06 17:04	14°831'14	0°54'08
	3870 Dec 12 07:14	0°8		minimum elong	3871 Nov 06 21:08	14°848'50	0°53'35
	3871 Jan 01 17:25	0°8		max. Earth dist.	3871 Nov 14 03:40	27°804'04	1.42716 AU
greatest brilliancy	3871 Jan 03 09:36	2°812'59	-0.5m	desc. node	3871 Nov 14 17:25	28°800'26	
evening max el	3871 Jan 09 00:03	8°849'49	20°45'59		3871 Nov 15 22:47	0°8	
retrograde	3871 Jan 17 06:35	13°843'03		evening rise	3871 Nov 20 19:49	7°847'20	
asc. node	3871 Jan 17 16:58	13°842'01			3871 Dec 05 13:00	0°8	
evening set	3871 Jan 21 04:58	12°814'33		greatest brilliancy	3871 Dec 18 01:59	17°801'31	-0.3m
inferior conj	3871 Jan 26 14:48	6°801'49	2°39'33	evening max el	3871 Dec 22 19:41	22°823'04	21°59'35
minimum elong	3871 Jan 26 12:19	6°810'23	2°38'53	retrograde	3872 Jan 01 03:32	27°856'10	
min. Earth dist.	3871 Jan 27 03:17	5°819'01	0.67580 AU	asc. node	3872 Jan 04 13:58	26°852'46	
morning rise	3871 Jan 31 19:14	29°846'27		evening set	3872 Jan 05 12:45	26°812'01	
	3871 Jan 31 13:18	30°88		inferior conj	3872 Jan 10 22:10	19°850'26	2°01'03
direct	3871 Feb 06 05:31	27°823'31		minimum elong	3872 Jan 10 19:52	19°858'24	2°00'16
	3871 Feb 12 17:32	0°8		min. Earth dist.	3872 Jan 10 22:50	19°848'07	0.67948 AU
morning max el	3871 Feb 17 05:13	3°856'46	24°05'04	morning rise	3872 Jan 16 02:48	13°836'55	
desc. node	3871 Feb 23 19:34	11°828'48		direct	3872 Jan 20 22:05	11°835'46	
	3871 Mar 09 04:25	0°8		morning max el	3872 Jan 30 15:30	17°820'34	22°36'08
morning set	3871 Mar 24 20:56	25°813'16		greatest brilliancy	3872 Feb 04 05:23	22°826'55	-0.3m
	3871 Mar 27 14:32	0°8			3872 Feb 10 02:20	0°8	
max. Earth dist.	3871 Mar 28 16:00	1°853'19	1.38170 AU	desc. node	3872 Feb 10 16:37	0°848'28	
					3872 Mar 01 06:44	0°8	
superior conj	3871 Apr 04 19:37	15°806'34	-1°-35'-6	morning set	3872 Mar 04 13:53	5°820'31	
minimum elong	3871 Apr 05 00:16	15°828'44	1°34'33	max. Earth dist.	3872 Mar 09 11:48	13°832'58	1.40346 AU
	3871 Apr 12 10:54	0°8					
evening rise	3871 Apr 13 18:14	2°834'22		superior conj	3872 Mar 17 06:46	27°813'42	-1°-56'-5
asc. node	3871 Apr 15 16:17	6°819'33		minimum elong	3872 Mar 17 11:00	27°832'50	1°55'48
evening max el	3871 Apr 30 05:13	29°811'57	18°58'52		3872 Mar 18 19:19	0°8	
	3871 May 01 01:58	0°II		evening rise	3872 Mar 27 07:20	15°854'27	
retrograde	3871 May 08 18:47	3°II22'49		asc. node	3872 Apr 01 13:19	25°841'07	
evening set	3871 May 10 20:41	3°II09'01			3872 Apr 04 00:02	0°8	

evening max el	3872 Apr 12 10:24	11°♄44'21	18°23'27	evening max el	3873 Mar 26 20:56	24°♃42'00	18°07'50
retrograde	3872 Apr 19 19:31	15°♄23'48		retrograde	3873 Apr 02 13:15	28°♃06'13	
evening set	3872 Apr 22 03:35	15°♄02'48		evening set	3873 Apr 05 03:30	27°♃35'39	
inferior conj	3872 Apr 29 12:23	10°♄27'10	2°24'10	inferior conj	3873 Apr 11 20:14	22°♃38'52	3°12'15
minimum elong	3872 Apr 29 16:05	10°♄19'33	2°23'12	minimum elong	3873 Apr 11 22:55	22°♃32'27	3°11'49
min. Earth dist.	3872 May 02 23:01	7°♄38'32	0.58679 AU	min. Earth dist.	3873 Apr 15 01:44	19°♃35'37	0.60863 AU
morning rise	3872 May 07 00:18	4°♄56'03		morning rise	3873 Apr 18 15:06	16°♃46'30	
desc. node	3872 May 08 15:48	4°♄10'10		direct	3873 Apr 25 08:08	14°♃33'12	
direct	3872 May 13 03:28	3°♄16'42		desc. node	3873 Apr 25 12:49	14°♃33'19	
morning max el	3872 May 27 12:56	11°♄01'32	27°05'15	morning max el	3873 May 09 14:12	22°♃28'44	27°45'35
	3872 Jun 11 06:02	0°♄			3873 May 16 05:33	0°♄	
morning set	3872 Jun 26 20:41	28°♄42'56			3873 Jun 04 08:36	0°♄	
	3872 Jun 27 11:20	0°♄		morning set	3873 Jun 11 02:11	13°♄13'30	
asc. node	3872 Jun 28 12:34	2°♄14'07		asc. node	3873 Jun 15 09:37	22°♄20'15	
				max. Earth dist.	3873 Jun 17 05:00	26°♄15'59	1.32149 AU
superior conj	3872 Jul 03 22:58	14°♄05'35	0°54'22	superior conj	3873 Jun 18 09:58	28°♄54'40	0°31'13
minimum elong	3872 Jul 03 20:54	13°♄54'08	0°53'58	minimum elong	3873 Jun 18 08:37	28°♄47'10	0°30'57
max. Earth dist.	3872 Jul 03 18:15	13°♄39'31	1.32039 AU		3873 Jun 18 21:53	0°♄	
evening rise	3872 Jul 10 20:09	29°♄04'08		evening rise	3873 Jun 25 06:58	13°♄53'20	
	3872 Jul 11 06:46	0°♄			3873 Jul 03 08:51	0°♄	
	3872 Jul 27 20:44	0°♄		evening max el	3873 Jul 21 20:23	26°♄10'14	25°10'46
desc. node	3872 Aug 04 15:08	10°♄20'47		desc. node	3873 Jul 22 12:08	26°♄47'09	
evening max el	3872 Aug 09 02:37	15°♄05'28	26°26'34		3873 Jul 26 12:33	0°♄	
retrograde	3872 Aug 23 01:51	22°♄15'44		retrograde	3873 Aug 04 19:33	3°♄14'46	
evening set	3872 Aug 29 17:49	20°♄25'04		evening set	3873 Aug 10 10:49	2°♄01'53	
min. Earth dist.	3872 Sep 02 16:02	17°♄50'21	0.59611 AU		3873 Aug 14 06:55	30°♄	
inferior conj	3872 Sep 05 22:37	15°♄17'00	-4°-48'-58	min. Earth dist.	3873 Aug 15 08:07	29°♄19'44	0.57600 AU
minimum elong	3872 Sep 06 03:21	15°♄07'42	4°48'18	inferior conj	3873 Aug 18 08:48	27°♄16'41	-5°-9'-53
morning rise	3872 Sep 13 16:21	10°♄41'19		minimum elong	3873 Aug 18 09:25	27°♄15'39	5°09'53
direct	3872 Sep 16 00:49	10°♄21'35		morning rise	3873 Aug 26 11:32	23°♄03'42	
morning max el	3872 Sep 23 18:04	14°♄06'36	18°18'23	direct	3873 Aug 29 00:20	22°♄44'41	
asc. node	3872 Sep 24 11:45	14°♄51'01		morning max el	3873 Sep 06 20:24	26°♄54'45	19°02'48
	3872 Oct 04 14:53	0°♄			3873 Sep 09 16:34	0°♄	
morning set	3872 Oct 09 15:04	9°♄21'36		asc. node	3873 Sep 11 08:48	2°♄11'04	
				morning set	3873 Sep 23 13:21	23°♄37'27	
superior conj	3872 Oct 18 22:12	26°♄50'14	1°20'56		3873 Sep 26 18:33	0°♄	
minimum elong	3872 Oct 19 01:59	27°♄07'33	1°20'32	superior conj	3873 Oct 01 22:08	10°♄04'38	1°37'01
	3872 Oct 20 16:02	0°♄		minimum elong	3873 Oct 02 00:26	10°♄15'44	1°36'53
max. Earth dist.	3872 Oct 26 11:41	10°♄12'45	1.40813 AU	max. Earth dist.	3873 Oct 08 16:28	22°♄40'49	1.38733 AU
evening rise	3872 Oct 31 04:56	18°♄06'46		evening rise	3873 Oct 12 13:30	29°♄30'58	
desc. node	3872 Oct 31 14:26	18°♄45'41			3873 Oct 12 20:14	0°♄	
	3872 Nov 07 16:19	0°♄		desc. node	3873 Oct 18 11:28	9°♄25'08	
	3872 Nov 29 02:07	0°♄			3873 Nov 01 01:35	0°♄	
evening max el	3872 Dec 04 11:00	5°♄59'18	23°18'58	evening max el	3873 Nov 17 00:03	19°♄40'07	24°37'51
retrograde	3872 Dec 14 21:46	12°♄10'25		retrograde	3873 Nov 28 12:06	26°♄22'24	
evening set	3872 Dec 19 19:26	10°♄10'06		evening set	3873 Dec 03 23:30	24°♄06'17	
asc. node	3872 Dec 21 10:58	8°♄34'36		asc. node	3873 Dec 08 08:00	19°♄13'23	
inferior conj	3872 Dec 25 05:55	3°♄43'38	1°15'32	min. Earth dist.	3873 Dec 08 15:18	18°♄49'16	0.67615 AU
minimum elong	3872 Dec 25 04:16	3°♄49'19	1°14'53	inferior conj	3873 Dec 09 12:19	17°♄39'22	0°24'07
min. Earth dist.	3872 Dec 24 19:38	4°♄19'00	0.67955 AU	minimum elong	3873 Dec 09 11:44	17°♄41'19	0°23'51
	3872 Dec 28 02:26	30°♄		morning rise	3873 Dec 15 00:23	11°♄35'55	
morning rise	3872 Dec 30 13:10	27°♄34'01		direct	3873 Dec 18 16:13	10°♄19'03	
direct	3873 Jan 03 18:05	25°♄55'40		morning max el	3873 Dec 26 06:09	14°♄37'23	20°00'36
	3873 Jan 11 09:08	0°♄		greatest brilliancy	3874 Jan 02 08:01	23°♄11'09	-0.6m
morning max el	3873 Jan 12 06:58	0°♄53'03	21°12'39		3874 Jan 07 04:00	0°♄	
greatest brilliancy	3873 Jan 17 12:56	6°♄53'27	-0.4m	desc. node	3874 Jan 14 10:42	10°♄49'07	
desc. node	3873 Jan 27 13:38	20°♄37'51		morning set	3874 Jan 21 22:42	22°♄16'44	
	3873 Feb 02 21:51	0°♄			3874 Jan 26 21:58	0°♄	
morning set	3873 Feb 12 02:20	14°♄07'47		max. Earth dist.	3874 Feb 01 23:08	9°♄33'19	1.43997 AU
max. Earth dist.	3873 Feb 19 13:21	26°♄05'58	1.42380 AU				
	3873 Feb 21 22:06	0°♄		superior conj	3874 Feb 07 08:31	18°♄15'17	-2°-2'-21
superior conj	3873 Feb 26 20:22	8°♄18'56	-2°-6'-59	minimum elong	3874 Feb 07 04:00	17°♄56'52	2°02'11
minimum elong	3873 Feb 26 21:33	8°♄24'03	2°06'58		3874 Feb 14 10:31	0°♄	
evening rise	3873 Mar 10 06:41	28°♄32'08		evening rise	3874 Feb 20 12:05	10°♄19'53	
	3873 Mar 11 02:09	0°♄			3874 Mar 04 06:34	0°♄	
asc. node	3873 Mar 19 10:19	14°♄36'35					

asc. node	3874 Mar 06 07:20	2°♊58'15			3875 Jan 19 15:48	0°♊	
evening max el	3874 Mar 10 09:39	7°♊56'44	18°11'23	evening rise	3875 Feb 01 19:33	21°♊11'28	
retrograde	3874 Mar 16 19:53	11°♊20'38			3875 Feb 07 04:41	0°♋	
evening set	3874 Mar 19 15:52	10°♊39'11		asc. node	3875 Feb 21 04:22	20°♋36'00	
inferior conj	3874 Mar 25 20:22	5°♊21'58	3°34'03	evening max el	3875 Feb 21 21:40	21°♋21'34	18°33'29
minimum elong	3874 Mar 25 21:18	5°♊19'28	3°33'59	retrograde	3875 Feb 28 11:05	24°♋58'09	
min. Earth dist.	3874 Mar 28 13:02	2°♊28'17	0.62965 AU	evening set	3875 Mar 03 12:55	24°♋04'57	
	3874 Mar 31 03:17	30°♋		inferior conj	3875 Mar 09 08:47	18°♋29'07	3°35'54
morning rise	3874 Apr 01 00:36	29°♋16'59		minimum elong	3875 Mar 09 08:06	18°♋31'08	3°35'52
direct	3874 Apr 07 21:56	26°♋39'13		min. Earth dist.	3875 Mar 11 09:59	16°♋02'42	0.64770 AU
desc. node	3874 Apr 12 09:52	27°♋38'10		morning rise	3875 Mar 15 01:55	12°♋17'14	
	3874 Apr 16 12:42	0°♌		direct	3875 Mar 21 19:18	9°♋28'23	
morning max el	3874 Apr 21 20:51	4°♌37'18	27°48'18	desc. node	3875 Mar 30 06:56	12°♋56'29	
	3874 May 10 22:08	0°♍		morning max el	3875 Apr 04 06:33	17°♋20'18	27°15'53
morning set	3874 May 26 01:40	27°♍22'59			3875 Apr 14 20:07	0°♎	
	3874 May 27 08:38	0°♎			3875 May 03 18:43	0°♏	
max. Earth dist.	3874 May 31 11:13	8°♎35'14	1.32680 AU	morning set	3875 May 09 16:22	11°♏03'31	
asc. node	3874 Jun 02 06:40	12°♎28'13		max. Earth dist.	3875 May 14 09:09	20°♏27'13	1.33658 AU
superior conj	3874 Jun 02 18:25	13°♎31'40	0°05'09	superior conj	3875 May 17 22:19	27°♏50'52	0°-23'-1
minimum elong	3874 Jun 02 18:10	13°♎30'20	0°05'06	minimum elong	3875 May 17 23:31	27°♏57'09	0°22'48
behind sun begin	3874 Jun 02 13:10	13°♎03'20			3875 May 18 22:43	0°♐	
behind sun end	3874 Jun 02 23:09	13°♎57'21		asc. node	3875 May 20 03:43	2°♐34'14	
evening rise	3874 Jun 09 18:49	28°♎41'46		evening rise	3875 May 25 05:52	13°♐23'33	
	3874 Jun 10 09:37	0°♑			3875 Jun 02 17:15	0°♑	
	3874 Jun 27 13:16	0°♒		evening max el	3875 Jun 15 01:20	17°♑07'13	22°00'48
evening max el	3874 Jul 03 09:32	6°♒40'36	23°36'55	desc. node	3875 Jun 26 06:10	23°♑19'49	
desc. node	3874 Jul 09 09:09	11°♒18'18		retrograde	3875 Jun 27 18:35	23°♑25'09	
retrograde	3874 Jul 17 00:45	13°♒30'51		evening set	3875 Jun 30 13:35	23°♑07'46	
evening set	3874 Jul 21 05:02	12°♒52'35		inferior conj	3875 Jul 09 20:46	19°♑03'28	-3°-43'-10
min. Earth dist.	3874 Jul 27 19:32	9°♒46'32	0.55945 AU	minimum elong	3875 Jul 09 12:16	19°♑15'22	3°40'52
inferior conj	3874 Jul 29 22:46	8°♒29'57	-4°-51'-36	min. Earth dist.	3875 Jul 09 06:04	19°♑24'04	0.54976 AU
minimum elong	3874 Jul 29 17:21	8°♒38'05	4°50'53	morning rise	3875 Jul 18 12:41	15°♑12'46	
morning rise	3874 Aug 07 08:53	4°♒35'00		direct	3875 Jul 21 17:24	14°♑50'09	
direct	3874 Aug 10 04:39	4°♒15'09		morning max el	3875 Aug 02 15:37	20°♑24'36	21°35'19
morning max el	3874 Aug 20 11:51	9°♒02'02	20°08'59		3875 Aug 10 13:46	0°♓	
asc. node	3874 Aug 29 05:53	20°♒21'54		asc. node	3875 Aug 16 02:58	9°♓11'29	
	3874 Sep 03 15:07	0°♑		morning set	3875 Aug 23 03:11	22°♓59'02	
morning set	3874 Sep 07 18:11	8°♑12'11			3875 Aug 26 11:22	0°♑	
superior conj	3874 Sep 15 11:42	23°♑59'15	1°43'53	superior conj	3875 Aug 30 10:51	8°♑22'21	1°43'04
minimum elong	3874 Sep 15 12:19	24°♑02'20	1°43'53	minimum elong	3875 Aug 30 10:02	8°♑18'06	1°43'03
	3874 Sep 18 12:24	0°♒		max. Earth dist.	3875 Sep 03 10:25	16°♑32'41	1.34980 AU
max. Earth dist.	3874 Sep 20 22:24	4°♒40'01	1.36722 AU	evening rise	3875 Sep 07 19:34	25°♑08'26	
evening rise	3874 Sep 24 19:45	11°♒54'54			3875 Sep 10 09:42	0°♓	
desc. node	3874 Oct 05 08:29	29°♒53'42		desc. node	3875 Sep 22 05:30	20°♓05'50	
	3874 Oct 05 10:04	0°♓			3875 Sep 28 21:57	0°♓	
	3874 Oct 27 06:32	0°♑		evening max el	3875 Oct 13 00:55	17°♓00'36	26°45'32
evening max el	3874 Oct 30 12:27	3°♑22'27	25°49'12	retrograde	3875 Oct 26 02:09	24°♓16'12	
retrograde	3874 Nov 11 21:44	10°♑26'23		evening set	3875 Nov 01 16:35	21°♓37'08	
evening set	3874 Nov 17 23:13	7°♑56'28		min. Earth dist.	3875 Nov 05 17:44	17°♓31'53	0.65886 AU
min. Earth dist.	3874 Nov 22 07:26	3°♑14'56	0.66926 AU	inferior conj	3875 Nov 07 13:31	15°♓23'11	-1°-32'00
inferior conj	3874 Nov 23 15:31	1°♑33'39	0°-32'-11	minimum elong	3875 Nov 07 16:04	15°♓15'41	1°30'56
minimum elong	3874 Nov 23 16:22	1°♑30'59	0°31'50	asc. node	3875 Nov 12 02:09	10°♓43'28	
	3874 Nov 24 21:36	30°♓		morning rise	3875 Nov 13 17:05	9°♓40'10	
asc. node	3874 Nov 25 05:04	29°♓37'28		direct	3875 Nov 16 12:18	8°♓56'40	
morning rise	3874 Nov 29 10:26	25°♓39'03		morning max el	3875 Nov 23 01:56	12°♓30'30	18°21'41
direct	3874 Dec 02 14:55	24°♓40'44			3875 Dec 05 14:03	0°♑	
morning max el	3874 Dec 09 13:04	28°♓31'23	19°03'08	morning set	3875 Dec 12 11:35	11°♑05'46	
	3874 Dec 10 22:26	0°♑		desc. node	3875 Dec 19 04:46	21°♑52'18	
	3874 Dec 31 12:23	0°♒			3875 Dec 24 07:45	0°♒	
morning set	3875 Jan 01 03:50	1°♒00'12		superior conj	3875 Dec 27 23:06	5°♒43'53	0°-57'-29
desc. node	3875 Jan 01 07:45	1°♒15'28		minimum elong	3875 Dec 27 15:58	5°♒15'53	0°56'35
max. Earth dist.	3875 Jan 15 15:12	23°♒38'32	1.44986 AU	max. Earth dist.	3875 Dec 29 10:07	8°♒01'18	1.45251 AU
superior conj	3875 Jan 17 20:55	27°♒10'18	-1°-38'-23		3876 Jan 12 10:40	0°♓	
minimum elong	3875 Jan 17 11:53	26°♒34'37	1°37'35	evening rise	3876 Jan 13 03:49	1°♓07'21	

greatest brilliancy	3876 Jan 26 18:09	22° \approx 15'50	-0.7m	minimum elong	3876 Dec 06 10:56	14° \approx 49'48	0°09'40
	3876 Feb 01 04:37	0° \approx		behind sun begin	3876 Dec 06 02:34	14° \approx 16'06	
evening max el	3876 Feb 05 06:39	4° \approx 50'55	19°13'05	behind sun end	3876 Dec 06 19:18	15° \approx 23'26	
asc. node	3876 Feb 08 01:24	7° \approx 16'39		max. Earth dist.	3876 Dec 11 04:48	22° \approx 23'54	1.44779 AU
retrograde	3876 Feb 12 07:05	8° \approx 51'01			3876 Dec 16 00:57	0° \approx	
evening set	3876 Feb 15 15:42	7° \approx 45'10		evening rise	3876 Dec 22 18:11	10° \approx 24'21	
inferior conj	3876 Feb 21 05:51	1° \approx 52'59	3°22'46		3877 Jan 04 16:02	0° \approx	
minimum elong	3876 Feb 21 04:03	1° \approx 58'47	3°22'31	greatest brilliancy	3877 Jan 11 21:08	10° \approx 20'46	-0.6m
min. Earth dist.	3876 Feb 22 15:47	0° \approx 04'04	0.66186 AU	evening max el	3877 Jan 18 10:59	18° \approx 22'43	20°08'18
	3876 Feb 22 17:05	30° \approx		asc. node	3877 Jan 24 22:27	22° \approx 45'58	
morning rise	3876 Feb 26 15:31	25° \approx 37'51		retrograde	3877 Jan 26 05:02	22° \approx 54'49	
direct	3876 Mar 03 23:17	22° \approx 51'07		evening set	3877 Jan 29 21:52	21° \approx 35'05	
desc. node	3876 Mar 16 03:58	29° \approx 53'00		inferior conj	3877 Feb 04 08:44	15° \approx 29'11	2°58'05
	3876 Mar 16 06:48	0° \approx		minimum elong	3877 Feb 04 06:20	15° \approx 37'15	2°57'33
morning max el	3876 Mar 16 16:29	0° \approx 24'14	26°15'04	min. Earth dist.	3877 Feb 05 04:41	14° \approx 21'52	0.67191 AU
	3876 Apr 07 19:13	0° \approx		morning rise	3877 Feb 09 14:13	9° \approx 13'17	
morning set	3876 Apr 21 18:29	24° \approx 03'04		direct	3877 Feb 15 08:56	6° \approx 39'17	
	3876 Apr 24 21:40	0° \approx		morning max el	3877 Feb 27 01:11	13° \approx 38'11	24°55'18
max. Earth dist.	3876 Apr 25 19:36	1° \approx 46'29	1.35098 AU	desc. node	3877 Mar 03 00:59	18° \approx 00'07	
					3877 Mar 12 08:02	0° \approx	
superior conj	3876 Apr 30 19:14	11° \approx 44'31	0°-52'-5		3877 Mar 31 14:48	0° \approx	
minimum elong	3876 Apr 30 22:01	11° \approx 58'43	0°51'36	morning set	3877 Apr 04 03:04	6° \approx 07'56	
asc. node	3876 May 06 00:44	22° \approx 33'36		max. Earth dist.	3877 Apr 07 19:12	12° \approx 47'07	1.36963 AU
evening rise	3876 May 08 14:02	27° \approx 51'21					
	3876 May 09 15:08	0° \approx		superior conj	3877 Apr 14 06:14	25° \approx 05'03	-1°-20'-16
evening max el	3876 May 27 03:01	28° \approx 00'26	20°35'41	minimum elong	3877 Apr 14 10:24	25° \approx 25'30	1°19'40
	3876 May 29 09:24	0° \approx			3877 Apr 16 17:56	0° \approx	
retrograde	3876 Jun 07 07:33	3° \approx 28'18		evening rise	3877 Apr 22 17:04	11° \approx 58'54	
evening set	3876 Jun 09 08:43	3° \approx 18'03		asc. node	3877 Apr 22 21:45	12° \approx 22'19	
desc. node	3876 Jun 12 03:12	2° \approx 34'08			3877 May 02 09:37	0° \approx	
	3876 Jun 17 10:56	30° \approx		evening max el	3877 May 09 17:01	9° \approx 34'42	19°28'27
inferior conj	3876 Jun 18 14:22	29° \approx 20'43	-1°-53'-57	retrograde	3877 May 19 03:42	14° \approx 10'07	
minimum elong	3876 Jun 18 09:01	29° \approx 28'25	1°52'04	evening set	3877 May 21 03:09	13° \approx 58'56	
min. Earth dist.	3876 Jun 19 18:05	28° \approx 40'47	0.54933 AU	inferior conj	3877 May 29 18:07	9° \approx 53'21	0°04'28
morning rise	3876 Jun 27 07:59	25° \approx 13'31		minimum elong	3877 May 29 18:18	9° \approx 53'02	0°04'24
direct	3876 Jul 01 02:52	24° \approx 42'36		transit middle	3877 May 29 18:18	9° \approx 53'02	0°04'24
	3876 Jul 13 03:36	0° \approx		transit begin	3877 May 29 14:34	9° \approx 59'03	
morning max el	3876 Jul 14 09:49	1° \approx 07'42	23°15'35	transit end	3877 May 29 22:03	9° \approx 47'00	
asc. node	3876 Aug 02 00:00	28° \approx 29'30		desc. node	3877 May 30 00:12	9° \approx 43'32	
	3876 Aug 02 18:23	0° \approx		min. Earth dist.	3877 Jun 01 08:11	8° \approx 13'52	0.55847 AU
morning set	3876 Aug 06 14:24	7° \approx 51'43		morning rise	3877 Jun 07 05:39	5° \approx 14'18	
				direct	3877 Jun 11 22:00	4° \approx 24'46	
superior conj	3876 Aug 13 16:24	23° \approx 03'36	1°35'52	morning max el	3877 Jun 25 23:43	11° \approx 31'03	24°57'47
minimum elong	3876 Aug 13 14:36	22° \approx 53'58	1°35'43		3877 Jul 10 02:29	0° \approx	
max. Earth dist.	3876 Aug 16 07:11	28° \approx 03'31	1.33621 AU	asc. node	3877 Jul 19 21:01	18° \approx 08'31	
	3876 Aug 16 22:54	0° \approx		morning set	3877 Jul 22 02:08	22° \approx 45'21	
evening rise	3876 Aug 21 08:35	8° \approx 59'41			3877 Jul 25 10:58	0° \approx	
	3876 Sep 01 20:25	0° \approx		superior conj	3877 Jul 29 01:54	7° \approx 55'19	1°23'17
desc. node	3876 Sep 08 02:32	9° \approx 54'02		minimum elong	3877 Jul 28 23:37	7° \approx 42'51	1°22'58
	3876 Sep 24 02:31	0° \approx		max. Earth dist.	3877 Jul 30 12:08	11° \approx 01'48	1.32686 AU
evening max el	3876 Sep 24 12:58	0° \approx 25'08	27°19'41	evening rise	3877 Aug 05 07:11	23° \approx 18'13	
retrograde	3876 Oct 08 00:53	7° \approx 43'43			3877 Aug 08 15:27	0° \approx	
evening set	3876 Oct 15 01:06	5° \approx 03'26		desc. node	3877 Aug 25 23:33	29° \approx 08'00	
min. Earth dist.	3876 Oct 18 20:02	1° \approx 33'25	0.64489 AU		3877 Aug 26 14:27	0° \approx	
	3876 Oct 20 06:59	30° \approx		evening max el	3877 Sep 06 22:54	13° \approx 23'34	27°25'03
inferior conj	3876 Oct 21 04:00	29° \approx 03'11	-2°-33'-19	retrograde	3877 Sep 20 17:00	20° \approx 39'13	
minimum elong	3876 Oct 21 08:18	28° \approx 51'37	2°31'42	evening set	3877 Sep 27 21:29	18° \approx 08'31	
morning rise	3876 Oct 27 17:40	23° \approx 34'46		min. Earth dist.	3877 Oct 01 12:29	15° \approx 09'08	0.62770 AU
asc. node	3876 Oct 28 23:12	23° \approx 10'44		inferior conj	3877 Oct 04 08:08	12° \approx 26'31	-3°-32'-56
direct	3876 Oct 30 06:04	23° \approx 02'08		minimum elong	3877 Oct 04 13:46	12° \approx 12'55	3°31'13
morning max el	3876 Nov 05 18:02	26° \approx 28'24	17°57'12	morning rise	3877 Oct 11 08:48	7° \approx 15'58	
	3876 Nov 08 19:04	0° \approx		direct	3877 Oct 13 17:14	6° \approx 50'33	
morning set	3876 Nov 23 00:19	22° \approx 36'56		asc. node	3877 Oct 15 20:14	7° \approx 11'53	
	3876 Nov 27 09:50	0° \approx		morning max el	3877 Oct 20 10:22	10° \approx 17'21	17°50'25
desc. node	3876 Dec 05 01:48	12° \approx 36'06			3877 Nov 02 13:05	0° \approx	
				morning set	3877 Nov 05 12:25	5° \approx 15'15	
superior conj	3876 Dec 06 12:06	14° \approx 54'31	0°-9'-49				

superior conj	3877 Nov 17 01:34	25° \mathbb{M} 17'24	0°33'35		3878 Oct 08 23:01	0° \mathbb{L}	
minimum elong	3877 Nov 17 04:41	25° \mathbb{M} 30'30	0°33'09	morning set	3878 Oct 19 17:33	18° \mathbb{L} 42'13	
	3877 Nov 19 21:22	0° \mathbb{J}			3878 Oct 25 20:28	0° \mathbb{M}	
desc. node	3877 Nov 21 22:49	3° \mathbb{J} 23'01					
max. Earth dist.	3877 Nov 23 21:00	6° \mathbb{J} 30'26	1.43632 AU	superior conj	3878 Oct 29 17:26	6° \mathbb{M} 57'40	1°06'52
evening rise	3877 Dec 02 04:01	19° \mathbb{J} 36'36		minimum elong	3878 Oct 29 21:37	7° \mathbb{M} 16'11	1°06'22
	3877 Dec 08 23:22	0° \mathbb{Z}		max. Earth dist.	3878 Nov 06 08:43	20° \mathbb{M} 05'35	1.41949 AU
greatest brilliancy	3877 Dec 27 07:55	26° \mathbb{Z} 03'26	-0.4m	desc. node	3878 Nov 08 19:52	24° \mathbb{M} 09'57	
	3877 Dec 30 14:51	0° \mathbb{X}		evening rise	3878 Nov 12 01:26	29° \mathbb{M} 23'38	
evening max el	3878 Jan 01 09:52	1° \mathbb{X} 55'40	21°16'18		3878 Nov 12 10:33	0° \mathbb{J}	
retrograde	3878 Jan 10 02:44	7° \mathbb{X} 05'17			3878 Dec 02 14:05	0° \mathbb{Z}	
asc. node	3878 Jan 11 19:28	6° \mathbb{X} 49'35		greatest brilliancy	3878 Dec 10 07:14	10° \mathbb{Z} 04'09	-0.3m
evening set	3878 Jan 14 05:31	5° \mathbb{X} 30'22		evening max el	3878 Dec 15 03:36	15° \mathbb{Z} 30'21	22°32'57
	3878 Jan 19 01:36	30° \mathbb{R} \mathbb{Z}		retrograde	3878 Dec 24 22:36	21° \mathbb{Z} 19'27	
inferior conj	3878 Jan 19 15:01	29° \mathbb{Z} 13'42	2°24'09	evening set	3878 Dec 29 13:03	19° \mathbb{Z} 28'19	
minimum elong	3878 Jan 19 12:33	29° \mathbb{Z} 22'14	2°23'24	asc. node	3878 Dec 29 16:29	19° \mathbb{Z} 21'10	
min. Earth dist.	3878 Jan 19 22:24	28° \mathbb{Z} 48'12	0.67790 AU	inferior conj	3879 Jan 03 22:46	13° \mathbb{Z} 04'19	1°42'33
morning rise	3878 Jan 24 19:14	22° \mathbb{Z} 58'56		minimum elong	3879 Jan 03 20:42	13° \mathbb{Z} 11'30	1°41'47
direct	3878 Jan 29 23:16	20° \mathbb{Z} 44'41		min. Earth dist.	3879 Jan 03 18:40	13° \mathbb{Z} 18'30	0.68003 AU
morning max el	3878 Feb 09 09:52	26° \mathbb{Z} 57'19	23°26'55	morning rise	3879 Jan 09 04:15	6° \mathbb{Z} 52'28	
	3878 Feb 12 05:50	0° \mathbb{X}		direct	3879 Jan 13 17:23	5° \mathbb{Z} 01'02	
greatest brilliancy	3878 Feb 15 07:18	3° \mathbb{X} 38'13	-0.2m	morning max el	3879 Jan 22 21:58	10° \mathbb{Z} 24'19	21°59'32
desc. node	3878 Feb 17 22:00	6° \mathbb{X} 57'18		greatest brilliancy	3879 Jan 27 13:47	15° \mathbb{Z} 37'55	-0.4m
	3878 Mar 05 23:11	0° \mathbb{K}		desc. node	3879 Feb 04 19:04	26° \mathbb{Z} 30'40	
morning set	3878 Mar 16 12:01	17° \mathbb{K} 01'16			3879 Feb 07 06:05	0° \mathbb{X}	
max. Earth dist.	3878 Mar 20 14:13	24° \mathbb{K} 03'10	1.39103 AU	morning set	3879 Feb 24 16:28	26° \mathbb{X} 32'36	
	3878 Mar 23 22:36	0° \mathbb{Y}			3879 Feb 26 19:42	0° \mathbb{K}	
				max. Earth dist.	3879 Mar 02 12:32	6° \mathbb{K} 06'42	1.41255 AU
superior conj	3878 Mar 28 03:26	7° \mathbb{Y} 42'16	-1°-44'-56				
minimum elong	3878 Mar 28 08:09	8° \mathbb{Y} 04'14	1°44'28	superior conj	3879 Mar 10 06:04	19° \mathbb{K} 24'34	-2°-2'-16
evening rise	3878 Apr 06 12:11	25° \mathbb{Y} 38'27		minimum elong	3879 Mar 10 09:23	19° \mathbb{K} 39'14	2°02'06
	3878 Apr 08 18:31	0° \mathbb{B}			3879 Mar 16 03:03	0° \mathbb{Y}	
asc. node	3878 Apr 09 18:46	1° \mathbb{B} 55'18		evening rise	3879 Mar 20 19:58	8° \mathbb{Y} 41'50	
evening max el	3878 Apr 22 17:36	21° \mathbb{B} 48'02	18°41'20	asc. node	3879 Mar 27 15:48	21° \mathbb{Y} 06'37	
retrograde	3878 Apr 30 17:20	25° \mathbb{B} 43'07			3879 Apr 02 06:15	0° \mathbb{B}	
evening set	3878 May 02 21:58	25° \mathbb{B} 26'28		evening max el	3879 Apr 06 01:27	4° \mathbb{B} 32'03	18°14'20
inferior conj	3878 May 10 17:28	21° \mathbb{B} 02'35	1°42'19	retrograde	3879 Apr 13 01:59	8° \mathbb{B} 03'16	
minimum elong	3878 May 10 20:49	20° \mathbb{B} 56'17	1°41'16	evening set	3879 Apr 15 12:46	7° \mathbb{B} 38'21	
min. Earth dist.	3878 May 14 01:17	18° \mathbb{B} 33'54	0.57512 AU	inferior conj	3879 Apr 22 14:13	2° \mathbb{B} 53'18	2°48'14
desc. node	3878 May 16 21:11	16° \mathbb{B} 43'22		minimum elong	3879 Apr 22 17:40	2° \mathbb{B} 45'43	2°47'28
morning rise	3878 May 18 15:13	15° \mathbb{B} 48'54			3879 Apr 25 21:41	30° \mathbb{R} \mathbb{Y}	
direct	3878 May 24 06:57	14° \mathbb{B} 29'50		min. Earth dist.	3879 Apr 25 23:48	29° \mathbb{Y} 55'36	0.59601 AU
morning max el	3878 Jun 07 15:35	22° \mathbb{B} 03'10	26°26'25	morning rise	3879 Apr 29 18:45	27° \mathbb{Y} 11'55	
	3878 Jun 14 15:28	0° \mathbb{H}		desc. node	3879 May 03 18:14	25° \mathbb{Y} 34'20	
	3878 Jul 02 20:10	0° \mathbb{G}		direct	3879 May 06 04:48	25° \mathbb{Y} 17'53	
morning set	3878 Jul 06 12:52	7° \mathbb{G} 35'12			3879 May 17 01:32	0° \mathbb{B}	
asc. node	3878 Jul 06 18:03	8° \mathbb{G} 02'35		morning max el	3879 May 20 13:24	3° \mathbb{B} 07'42	27°27'03
					3879 Jun 09 03:58	0° \mathbb{H}	
superior conj	3878 Jul 13 13:24	22° \mathbb{G} 51'12	1°06'06	morning set	3879 Jun 20 20:50	22° \mathbb{H} 14'48	
minimum elong	3878 Jul 13 11:07	22° \mathbb{G} 38'36	1°05'42	asc. node	3879 Jun 23 15:05	28° \mathbb{H} 05'39	
max. Earth dist.	3878 Jul 13 22:28	23° \mathbb{G} 41'08	1.32162 AU		3879 Jun 24 12:16	0° \mathbb{G}	
	3878 Jul 16 19:33	0° \mathbb{Q}		max. Earth dist.	3879 Jun 27 10:17	6° \mathbb{G} 22'52	1.32038 AU
evening rise	3878 Jul 20 12:24	7° \mathbb{Q} 55'14					
	3878 Aug 01 02:07	0° \mathbb{P}		superior conj	3879 Jun 28 01:04	7° \mathbb{G} 44'20	0°44'57
desc. node	3878 Aug 12 20:32	17° \mathbb{P} 33'56		minimum elong	3879 Jun 27 23:15	7° \mathbb{G} 34'16	0°44'35
evening max el	3878 Aug 20 03:59	25° \mathbb{P} 43'02	26°57'27	evening rise	3879 Jul 04 21:45	22° \mathbb{G} 41'53	
	3878 Aug 25 12:14	0° \mathbb{L}			3879 Jul 08 10:26	0° \mathbb{Q}	
retrograde	3878 Sep 03 01:27	2° \mathbb{L} 54'23			3879 Jul 26 14:09	0° \mathbb{P}	
evening set	3878 Sep 10 01:34	0° \mathbb{L} 45'39		desc. node	3879 Jul 30 17:33	4° \mathbb{P} 51'20	
	3878 Sep 11 06:00	30° \mathbb{R} \mathbb{P}		evening max el	3879 Aug 02 01:43	7° \mathbb{P} 13'36	25°57'19
min. Earth dist.	3878 Sep 13 18:12	28° \mathbb{P} 06'37	0.60804 AU	retrograde	3879 Aug 16 01:02	14° \mathbb{P} 21'44	
inferior conj	3878 Sep 16 22:41	25° \mathbb{P} 25'07	-4°-25'-22	evening set	3879 Aug 22 08:27	12° \mathbb{P} 46'20	
minimum elong	3878 Sep 17 04:25	25° \mathbb{P} 12'58	4°24'11	min. Earth dist.	3879 Aug 26 14:07	10° \mathbb{P} 11'06	0.58737 AU
morning rise	3878 Sep 24 10:25	20° \mathbb{P} 35'53		inferior conj	3879 Aug 29 20:01	7° \mathbb{P} 48'16	-5°-1'-36
direct	3878 Sep 26 18:03	20° \mathbb{P} 14'40		minimum elong	3879 Aug 29 23:23	7° \mathbb{P} 42'03	5°01'18
asc. node	3878 Oct 02 17:16	22° \mathbb{P} 41'42		morning rise	3879 Sep 06 17:50	3° \mathbb{P} 22'39	
morning max el	3878 Oct 03 23:51	23° \mathbb{P} 50'05	18°02'28	direct	3879 Sep 09 03:56	3° \mathbb{P} 03'22	

morning max el	3879 Sep 17 07:13	6° $\mathring{\text{M}}$ 57'09	18°34'43	morning max el	3880 Aug 30 05:17	19° $\mathring{\text{O}}$ 29'08	19°28'21
asc. node	3879 Sep 19 14:19	9° $\mathring{\text{M}}$ 25'38		asc. node	3880 Sep 05 11:22	27° $\mathring{\text{O}}$ 08'41	
	3879 Oct 02 00:52	0° $\mathring{\text{A}}$			3880 Sep 07 07:14	0° $\mathring{\text{M}}$	
morning set	3879 Oct 03 10:38	2° $\mathring{\text{A}}$ 42'47		morning set	3880 Sep 16 11:58	17° $\mathring{\text{M}}$ 07'00	
					3880 Sep 22 22:01	0° $\mathring{\text{A}}$	
superior conj	3879 Oct 12 07:15	19° $\mathring{\text{A}}$ 42'05	1°28'59	superior conj	3880 Sep 24 13:32	3° $\mathring{\text{A}}$ 15'03	1°40'59
minimum elong	3879 Oct 12 10:29	19° $\mathring{\text{A}}$ 57'11	1°28'42	minimum elong	3880 Sep 24 15:06	3° $\mathring{\text{A}}$ 22'47	1°40'54
	3879 Oct 17 22:55	0° $\mathring{\text{M}}$			3880 Sep 30 19:14	15° $\mathring{\text{A}}$ 07'56	1.37850 AU
max. Earth dist.	3879 Oct 19 15:08	2° $\mathring{\text{M}}$ 56'50	1.39933 AU	max. Earth dist.	3880 Oct 04 14:29	21° $\mathring{\text{A}}$ 59'39	
evening rise	3879 Oct 23 20:20	10° $\mathring{\text{M}}$ 09'30		evening rise	3880 Oct 09 06:10	0° $\mathring{\text{M}}$	
desc. node	3879 Oct 26 16:54	14° $\mathring{\text{M}}$ 52'57		desc. node	3880 Oct 12 13:55	5° $\mathring{\text{M}}$ 28'02	
	3879 Nov 05 09:07	0° $\mathring{\text{A}}$			3880 Oct 29 06:52	0° $\mathring{\text{A}}$	
evening max el	3879 Nov 27 17:35	29° $\mathring{\text{A}}$ 07'52	23°52'57	evening max el	3880 Nov 09 05:59	12° $\mathring{\text{A}}$ 48'46	25°09'39
	3879 Nov 28 15:00	0° $\mathring{\text{A}}$			3880 Nov 21 03:58	19° $\mathring{\text{A}}$ 42'27	
retrograde	3879 Dec 08 15:22	5° $\mathring{\text{A}}$ 33'30		retrograde	3880 Nov 26 21:19	17° $\mathring{\text{A}}$ 19'58	
evening set	3879 Dec 13 18:52	3° $\mathring{\text{A}}$ 26'03		evening set	3880 Dec 01 09:44	12° $\mathring{\text{A}}$ 17'49	0.67354 AU
asc. node	3879 Dec 16 13:31	0° $\mathring{\text{A}}$ 31'35		min. Earth dist.	3880 Dec 02 11:26	10° $\mathring{\text{A}}$ 53'56	0°00'43
	3879 Dec 16 23:40	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		inferior conj	3880 Dec 02 11:25	10° $\mathring{\text{A}}$ 53'59	0°00'43
min. Earth dist.	3879 Dec 18 15:14	27° $\mathring{\text{A}}$ 49'30	0.67850 AU	minimum elong	3880 Dec 02 11:25	10° $\mathring{\text{A}}$ 53'59	0°00'43
inferior conj	3879 Dec 19 06:11	26° $\mathring{\text{A}}$ 58'43	0°54'24	transit middle	3880 Dec 02 08:39	11° $\mathring{\text{A}}$ 03'03	
minimum elong	3879 Dec 19 04:56	27° $\mathring{\text{A}}$ 02'58	0°53'53	transit begin	3880 Dec 02 14:12	10° $\mathring{\text{A}}$ 44'55	
morning rise	3879 Dec 24 15:14	20° $\mathring{\text{A}}$ 51'39		transit end	3880 Dec 02 10:36	10° $\mathring{\text{A}}$ 56'41	
direct	3879 Dec 28 14:19	19° $\mathring{\text{A}}$ 22'57		asc. node	3880 Dec 08 02:11	4° $\mathring{\text{A}}$ 53'53	
morning max el	3880 Jan 05 16:44	24° $\mathring{\text{A}}$ 02'26	20°40'28	morning rise	3880 Dec 11 12:49	3° $\mathring{\text{A}}$ 45'29	
	3880 Jan 10 20:56	0° $\mathring{\text{A}}$		direct	3880 Dec 18 19:21	7° $\mathring{\text{A}}$ 51'09	19°34'16
greatest brilliancy	3880 Jan 11 14:04	0° $\mathring{\text{A}}$ 54'54	-0.5m	morning max el	3880 Dec 27 02:28	18° $\mathring{\text{A}}$ 13'17	-0.6m
desc. node	3880 Jan 22 16:08	16° $\mathring{\text{A}}$ 30'15		greatest brilliancy	3881 Jan 04 02:07	0° $\mathring{\text{A}}$	
	3880 Jan 31 14:53	0° $\mathring{\text{A}}$			3881 Jan 08 13:10	6° $\mathring{\text{A}}$ 48'15	
morning set	3880 Feb 03 19:45	4° $\mathring{\text{A}}$ 56'55		desc. node	3881 Jan 12 16:35	13° $\mathring{\text{A}}$ 10'59	
max. Earth dist.	3880 Feb 12 17:53	19° $\mathring{\text{A}}$ 05'21	1.43128 AU	morning set	3881 Jan 23 11:23	0° $\mathring{\text{A}}$	
					3881 Jan 25 06:06	2° $\mathring{\text{A}}$ 48'46	1.44491 AU
superior conj	3880 Feb 19 09:12	0° $\mathring{\text{H}}$ 01'11	-2°-7'-13	max. Earth dist.	3881 Jan 29 10:25	9° $\mathring{\text{A}}$ 28'38	-1°-54'-37
minimum elong	3880 Feb 19 08:12	29° $\mathring{\text{A}}$ 56'59	2°07'13	superior conj	3881 Jan 29 03:27	9° $\mathring{\text{A}}$ 00'42	1°54'12
	3880 Feb 19 08:55	0° $\mathring{\text{H}}$		minimum elong	3881 Feb 10 22:25	0° $\mathring{\text{H}}$	
evening rise	3880 Mar 02 12:21	21° $\mathring{\text{H}}$ 00'15			3881 Feb 12 08:47	2° $\mathring{\text{H}}$ 24'18	
	3880 Mar 07 14:53	0° $\mathring{\text{Y}}$		evening rise	3881 Feb 28 09:53	27° $\mathring{\text{H}}$ 54'03	
asc. node	3880 Mar 13 12:50	9° $\mathring{\text{Y}}$ 49'25		asc. node	3881 Mar 02 04:03	0° $\mathring{\text{Y}}$	
evening max el	3880 Mar 19 13:17	17° $\mathring{\text{Y}}$ 38'17	18°06'58		3881 Mar 03 02:01	0° $\mathring{\text{Y}}$ 58'07	18°18'37
retrograde	3880 Mar 26 01:59	21° $\mathring{\text{Y}}$ 01'05		evening max el	3881 Mar 09 12:41	4° $\mathring{\text{Y}}$ 26'02	
evening set	3880 Mar 28 18:34	20° $\mathring{\text{Y}}$ 26'08		retrograde	3881 Mar 12 11:01	3° $\mathring{\text{Y}}$ 39'51	
inferior conj	3880 Apr 04 05:38	15° $\mathring{\text{Y}}$ 20'27	3°24'18	evening set	3881 Mar 16 21:19	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$	
minimum elong	3880 Apr 04 07:36	15° $\mathring{\text{Y}}$ 15'29	3°24'04		3881 Mar 18 11:28	28° $\mathring{\text{H}}$ 14'46	3°36'53
min. Earth dist.	3880 Apr 07 06:14	12° $\mathring{\text{Y}}$ 18'28	0.61777 AU	inferior conj	3881 Mar 18 11:41	28° $\mathring{\text{H}}$ 14'12	3°36'54
morning rise	3880 Apr 10 17:51	9° $\mathring{\text{Y}}$ 21'27		minimum elong	3881 Mar 20 21:48	25° $\mathring{\text{H}}$ 30'36	0.63774 AU
direct	3880 Apr 17 13:37	6° $\mathring{\text{Y}}$ 56'20		min. Earth dist.	3881 Mar 24 10:31	22° $\mathring{\text{H}}$ 06'10	
desc. node	3880 Apr 19 15:16	7° $\mathring{\text{Y}}$ 08'45		morning rise	3881 Mar 31 07:06	19° $\mathring{\text{H}}$ 21'36	
morning max el	3880 May 01 17:32	14° $\mathring{\text{Y}}$ 54'37	27°51'20	direct	3881 Apr 06 12:19	21° $\mathring{\text{H}}$ 14'23	
	3880 May 13 23:19	0° $\mathring{\text{B}}$		desc. node	3881 Apr 14 01:48	27° $\mathring{\text{H}}$ 19'10	27°38'24
	3880 May 31 16:22	0° $\mathring{\text{II}}$		morning max el	3881 Apr 16 14:38	0° $\mathring{\text{Y}}$	
morning set	3880 Jun 04 00:07	6° $\mathring{\text{II}}$ 37'56			3881 May 07 15:40	0° $\mathring{\text{B}}$	
asc. node	3880 Jun 09 12:08	18° $\mathring{\text{II}}$ 13'19		morning set	3881 May 18 20:16	20° $\mathring{\text{B}}$ 36'25	
max. Earth dist.	3880 Jun 09 19:41	18° $\mathring{\text{II}}$ 54'08	1.32323 AU		3881 May 23 10:48	0° $\mathring{\text{II}}$	
				max. Earth dist.	3881 May 23 22:34	1° $\mathring{\text{II}}$ 01'38	1.33038 AU
superior conj	3880 Jun 11 11:14	22° $\mathring{\text{II}}$ 29'15	0°20'29				
minimum elong	3880 Jun 11 10:18	22° $\mathring{\text{II}}$ 24'08	0°20'17	superior conj	3881 May 26 18:01	6° $\mathring{\text{II}}$ 59'39	0°-6'-36
	3880 Jun 14 21:38	0° $\mathring{\text{B}}$		minimum elong	3881 May 26 18:21	7° $\mathring{\text{II}}$ 01'25	0°06'33
evening rise	3880 Jun 18 09:16	7° $\mathring{\text{B}}$ 31'36		behind sun begin	3881 May 26 13:26	6° $\mathring{\text{II}}$ 35'07	
	3880 Jun 30 02:25	0° $\mathring{\text{O}}$		behind sun end	3881 May 26 23:15	7° $\mathring{\text{II}}$ 27'44	
evening max el	3880 Jul 13 16:38	18° $\mathring{\text{O}}$ 00'03	24°32'00	asc. node	3881 May 27 09:11	8° $\mathring{\text{II}}$ 21'03	
desc. node	3880 Jul 16 14:33	20° $\mathring{\text{O}}$ 32'54		evening rise	3881 Jun 02 20:59	22° $\mathring{\text{II}}$ 17'48	
retrograde	3880 Jul 27 14:00	25° $\mathring{\text{O}}$ 01'01			3881 Jun 06 14:32	0° $\mathring{\text{B}}$	
evening set	3880 Aug 01 15:07	24° $\mathring{\text{O}}$ 03'52		evening max el	3881 Jun 25 05:59	28° $\mathring{\text{B}}$ 25'12	22°55'26
min. Earth dist.	3880 Aug 07 03:42	21° $\mathring{\text{O}}$ 13'13	0.56833 AU		3881 Jun 26 23:30	0° $\mathring{\text{O}}$	
inferior conj	3880 Aug 09 21:29	19° $\mathring{\text{O}}$ 27'57	-5°-7'-50	desc. node	3881 Jul 03 11:33	4° $\mathring{\text{O}}$ 04'30	
minimum elong	3880 Aug 09 19:33	19° $\mathring{\text{O}}$ 31'04	5°07'45	retrograde	3881 Jul 08 14:16	5° $\mathring{\text{O}}$ 04'14	
morning rise	3880 Aug 18 03:35	15° $\mathring{\text{O}}$ 24'01					
direct	3880 Aug 20 18:57	15° $\mathring{\text{O}}$ 04'57					

evening set	3881 Jul 12 02:51	4°♂37'04		desc. node	3882 Jun 20 08:34	14°♂55'00	
min. Earth dist.	3881 Jul 19 14:47	1°♂16'28	0.55430 AU	evening set	3882 Jun 21 13:31	14°♂45'10	
inferior conj	3881 Jul 21 03:46	0°♂23'07	-4°-28'-47	inferior conj	3882 Jun 30 22:07	10°♂46'10	-3°00'-17
minimum elong	3881 Jul 20 20:20	0°♂33'51	4°27'20	minimum elong	3882 Jun 30 14:16	10°♂57'08	2°57'49
	3881 Jul 21 19:48	30°♂		min. Earth dist.	3882 Jul 01 01:44	10°♂41'06	0.54842 AU
morning rise	3881 Jul 29 16:32	26°♂31'47		morning rise	3882 Jul 09 15:29	6°♂50'58	
direct	3881 Aug 01 15:35	26°♂11'10		direct	3882 Jul 13 01:40	6°♂25'34	
	3881 Aug 11 03:45	0°♂		morning max el	3882 Jul 25 14:47	12°♂21'51	22°16'47
morning max el	3881 Aug 12 15:45	1°♂17'57	20°43'26		3882 Aug 07 15:40	0°♂	
asc. node	3881 Aug 23 08:27	15°♂37'35		asc. node	3882 Aug 10 05:29	4°♂40'35	
	3881 Aug 30 21:47	0°♂		morning set	3882 Aug 16 05:01	16°♂38'08	
morning set	3881 Aug 31 18:51	1°♂47'48			3882 Aug 22 12:02	0°♂	
superior conj	3881 Sep 08 07:37	17°♂23'23	1°44'24	superior conj	3882 Aug 23 09:49	1°♂55'20	1°40'44
minimum elong	3881 Sep 08 07:35	17°♂23'10	1°44'24	minimum elong	3882 Aug 23 08:31	1°♂48'32	1°40'39
max. Earth dist.	3881 Sep 13 03:02	27°♂00'53	1.35939 AU	max. Earth dist.	3882 Aug 26 18:57	8°♂58'41	1.34357 AU
	3881 Sep 14 16:03	0°♂		evening rise	3882 Aug 31 10:46	18°♂18'19	
evening rise	3881 Sep 17 04:49	4°♂46'54			3882 Sep 06 17:32	0°♂	
desc. node	3881 Sep 29 10:55	25°♂50'36		desc. node	3882 Sep 16 07:55	15°♂53'50	
	3881 Oct 02 03:00	0°♂			3882 Sep 26 08:10	0°♂	
evening max el	3881 Oct 22 18:30	26°♂31'04	26°15'34	evening max el	3882 Oct 05 07:10	10°♂05'49	27°03'13
	3881 Oct 26 18:36	0°♂		retrograde	3882 Oct 18 13:22	17°♂22'42	
retrograde	3881 Nov 04 11:31	3°♂41'23		evening set	3882 Oct 25 08:28	14°♂42'17	
evening set	3881 Nov 10 18:35	1°♂07'08		min. Earth dist.	3882 Oct 29 06:58	10°♂52'11	0.65338 AU
	3881 Nov 12 00:15	30°♂		inferior conj	3882 Oct 31 07:48	8°♂33'47	-1°-57'-57
min. Earth dist.	3881 Nov 14 23:49	26°♂40'41	0.66520 AU	minimum elong	3882 Oct 31 11:06	8°♂24'25	1°56'38
inferior conj	3881 Nov 16 12:42	24°♂47'21	0°-57'-14	asc. node	3882 Nov 06 04:41	3°♂10'16	
minimum elong	3881 Nov 16 14:15	24°♂42'36	0°56'34	morning rise	3882 Nov 06 15:30	2°♂56'23	
asc. node	3881 Nov 19 07:39	21°♂32'46		direct	3882 Nov 09 07:36	2°♂17'49	
morning rise	3881 Nov 22 11:04	18°♂57'02		morning max el	3882 Nov 15 19:31	5°♂47'10	18°09'08
direct	3881 Nov 25 11:19	18°♂05'28			3882 Dec 02 06:01	0°♂	
morning max el	3881 Dec 02 05:01	21°♂47'59	18°43'27	morning set	3882 Dec 04 04:21	3°♂10'23	
	3881 Dec 08 18:32	0°♂		desc. node	3882 Dec 13 07:13	17°♂59'58	
morning set	3881 Dec 23 07:51	22°♂26'33		superior conj	3882 Dec 18 20:23	26°♂50'26	0°-37'-20
desc. node	3881 Dec 26 10:13	27°♂19'46		minimum elong	3882 Dec 18 15:40	26°♂31'48	0°36'43
	3881 Dec 28 02:55	0°♂			3882 Dec 20 20:24	0°♂	
max. Earth dist.	3882 Jan 07 23:28	17°♂02'48	1.45189 AU	max. Earth dist.	3882 Dec 21 19:05	1°♂29'14	1.45145 AU
superior conj	3882 Jan 08 16:10	18°♂08'22	-1°-22'-40	evening rise	3883 Jan 04 05:41	22°♂27'19	
minimum elong	3882 Jan 08 07:04	17°♂32'40	1°21'41		3883 Jan 09 02:30	0°♂	
	3882 Jan 16 04:47	0°♂		greatest brilliancy	3883 Jan 20 21:08	17°♂48'07	-0.7m
evening rise	3882 Jan 24 06:12	12°♂51'03		evening max el	3883 Jan 28 20:16	27°♂56'30	19°34'50
	3882 Feb 03 23:50	0°♂			3883 Jan 31 02:15	0°♂	
evening max el	3882 Feb 14 13:05	14°♂25'45	18°48'20	asc. node	3883 Feb 02 03:57	1°♂21'39	
asc. node	3882 Feb 15 06:55	15°♂09'25		retrograde	3883 Feb 05 03:15	2°♂08'56	
retrograde	3882 Feb 21 06:10	18°♂10'45		evening set	3883 Feb 08 15:17	0°♂57'07	
evening set	3882 Feb 24 10:49	17°♂12'16			3883 Feb 09 20:08	30°♂	
inferior conj	3882 Mar 02 03:56	11°♂29'26	3°31'53	inferior conj	3883 Feb 14 03:45	24°♂58'43	3°13'33
minimum elong	3882 Mar 02 02:43	11°♂33'12	3°31'47	minimum elong	3883 Feb 14 01:38	25°♂05'41	3°13'10
min. Earth dist.	3882 Mar 03 22:35	9°♂18'03	0.65428 AU	min. Earth dist.	3883 Feb 15 07:30	23°♂27'33	0.66665 AU
morning rise	3882 Mar 07 17:29	5°♂16'02		morning rise	3883 Feb 19 11:17	18°♂43'16	
direct	3882 Mar 14 07:31	2°♂26'23		direct	3883 Feb 25 13:50	16°♂01'04	
desc. node	3882 Mar 24 09:23	7°♂18'09		morning max el	3883 Mar 09 21:00	23°♂20'39	25°42'58
morning max el	3882 Mar 27 11:35	10°♂11'35	26°52'54	desc. node	3883 Mar 11 06:26	24°♂47'37	
	3882 Apr 12 02:43	0°♂			3883 Mar 15 18:58	0°♂	
	3882 Apr 30 03:05	0°♂			3883 Apr 05 11:11	0°♂	
morning set	3882 May 02 06:07	4°♂00'54		morning set	3883 Apr 15 01:28	16°♂39'17	
max. Earth dist.	3882 May 06 15:37	12°♂38'28	1.34216 AU	max. Earth dist.	3883 Apr 18 21:25	23°♂48'45	1.35845 AU
					3883 Apr 22 02:03	0°♂	
superior conj	3882 May 10 19:18	21°♂09'12	0°-35'-19	superior conj	3883 Apr 24 12:26	4°♂50'22	-1°-4'-16
minimum elong	3882 May 10 21:09	21°♂18'53	0°34'58	minimum elong	3883 Apr 24 15:52	5°♂07'35	1°03'42
asc. node	3882 May 14 06:13	28°♂24'54		asc. node	3883 May 01 03:15	18°♂20'49	
	3882 May 15 00:13	0°♂		evening rise	3883 May 02 13:23	21°♂15'21	
evening rise	3882 May 18 07:03	6°♂54'32			3883 May 06 22:49	0°♂	
	3882 May 30 19:29	0°♂		evening max el	3883 May 20 08:25	20°♂11'24	20°04'41
evening max el	3882 Jun 07 01:30	9°♂00'55	21°22'43	retrograde	3883 May 30 18:47	25°♂16'26	
retrograde	3882 Jun 19 04:12	14°♂58'15					

evening set	3883 Jun 01 17:58	25°II06'23		evening rise	3884 Apr 15 13:25	5°812'02	
desc. node	3883 Jun 07 05:36	23°II07'36		asc. node	3884 Apr 17 00:16	8°803'34	
inferior conj	3883 Jun 10 18:27	21°II06'52	-1°-2'-50		3884 Apr 30 05:26	0°II	
minimum elong	3883 Jun 10 15:31	21°II11'16	1°01'45	evening max el	3884 May 02 03:10	2°II02'35	19°05'58
min. Earth dist.	3883 Jun 12 14:13	20°II01'26	0.55212 AU	retrograde	3884 May 10 22:04	6°II19'33	
morning rise	3883 Jun 19 10:38	16°II47'50		evening set	3884 May 12 23:06	6°II06'36	
direct	3883 Jun 23 13:55	16°II10'36		inferior conj	3884 May 21 05:53	1°II53'47	0°49'33
morning max el	3883 Jul 07 06:25	22°II54'00	23°59'42	minimum elong	3884 May 21 07:50	1°II50'26	0°48'51
	3883 Jul 13 14:09	0°☿		min. Earth dist.	3884 May 24 05:31	29°851'32	0.56472 AU
asc. node	3883 Jul 28 02:31	24°☿08'59		desc. node	3884 May 24 02:38	29°856'19	
	3883 Jul 30 23:04	0°♂			3884 May 24 00:24	30°♂	
morning set	3883 Jul 31 16:42	1°♂32'43		morning rise	3884 May 29 12:16	26°859'21	
				direct	3884 Jun 03 14:25	25°858'39	
superior conj	3883 Aug 07 17:20	16°♂42'26	1°31'08		3884 Jun 13 23:36	0°II	
minimum elong	3883 Aug 07 15:16	16°♂31'17	1°30'55	morning max el	3884 Jun 17 20:43	3°II18'27	25°38'07
max. Earth dist.	3883 Aug 09 19:44	21°♂13'37	1.33177 AU		3884 Jul 06 20:39	0°☿	
	3883 Aug 14 00:12	0°♏		asc. node	3884 Jul 13 23:32	13°☿55'11	
evening rise	3883 Aug 15 04:18	2°♏22'47		morning set	3884 Jul 15 04:13	16°☿25'39	
	3883 Aug 30 14:01	0°♁			3884 Jul 21 10:17	0°♂	
desc. node	3883 Sep 03 04:54	5°♁29'15		superior conj	3884 Jul 22 03:56	1°♂36'56	1°16'31
evening max el	3883 Sep 17 18:34	23°♁20'55	27°25'37	minimum elong	3884 Jul 22 01:36	1°♂24'04	1°16'10
	3883 Sep 27 16:23	0°♌		max. Earth dist.	3884 Jul 23 03:17	3°♂44'57	1.32412 AU
retrograde	3883 Oct 01 09:07	0°♌38'09		evening rise	3884 Jul 29 06:01	16°♂50'03	
	3883 Oct 04 21:50	30°♌♁			3884 Aug 04 22:20	0°♏	
evening set	3883 Oct 08 12:15	28°♁00'20		desc. node	3884 Aug 20 01:56	24°♏25'05	
min. Earth dist.	3883 Oct 12 05:04	24°♁44'26	0.63807 AU		3884 Aug 24 11:02	0°♁	
inferior conj	3883 Oct 14 18:14	22°♁07'37	-2°-59'-1	evening max el	3884 Aug 30 02:31	6°♁03'31	27°17'17
minimum elong	3883 Oct 14 23:11	21°♁54'52	2°57'18	retrograde	3884 Sep 12 22:21	13°♁18'03	
morning rise	3883 Oct 21 12:32	16°♁46'33		evening set	3884 Sep 20 02:19	10°♁54'46	
direct	3883 Oct 23 22:59	16°♁17'19		min. Earth dist.	3884 Sep 23 16:51	8°♁05'55	0.61960 AU
asc. node	3883 Oct 24 01:43	16°♁17'23		inferior conj	3884 Sep 26 17:00	5°♁21'30	-3°-56'-28
morning max el	3883 Oct 30 12:06	19°♁42'23	17°52'05	minimum elong	3884 Sep 26 22:54	5°♁08'01	3°54'54
	3883 Nov 07 03:35	0°♌		morning rise	3884 Oct 03 22:30	0°♁20'01	
morning set	3883 Nov 16 03:47	15°♌12'28			3884 Oct 05 09:40	30°♌♏	
	3883 Nov 24 20:34	0°♊		direct	3884 Oct 06 06:06	29°♏56'48	
superior conj	3883 Nov 28 18:49	6°♊29'20	0°09'38		3884 Oct 07 02:25	0°♁	
minimum elong	3883 Nov 28 19:52	6°♊33'38	0°09'29	asc. node	3884 Oct 09 22:45	0°♁57'49	
behind sun begin	3883 Nov 28 11:51	6°♊00'46		morning max el	3884 Oct 13 03:43	3°♁26'10	17°53'11
behind sun end	3883 Nov 29 03:54	7°♊06'27		morning set	3884 Oct 28 23:51	28°♁13'39	
desc. node	3883 Nov 30 04:13	8°♊45'30			3884 Oct 29 23:22	0°♌	
max. Earth dist.	3883 Dec 04 13:21	15°♊48'18	1.44371 AU	superior conj	3884 Nov 08 19:55	17°♌26'56	0°49'04
	3883 Dec 13 14:51	0°♎		minimum elong	3884 Nov 08 23:50	17°♌43'45	0°48'33
evening rise	3883 Dec 14 16:05	1°♎37'14		max. Earth dist.	3884 Nov 16 03:28	29°♌42'16	1.42967 AU
	3884 Jan 02 18:17	0°♐		desc. node	3884 Nov 16 01:15	29°♌33'11	
greatest brilliancy	3884 Jan 06 02:18	4°♐31'48	-0.5m		3884 Nov 16 07:49	0°♊	
evening max el	3884 Jan 11 22:12	11°♐28'08	20°35'52	evening rise	3884 Nov 23 05:05	11°♊00'08	
retrograde	3884 Jan 20 01:24	16°♐15'56			3884 Dec 05 18:02	0°♎	
asc. node	3884 Jan 20 00:58	16°♐15'56		greatest brilliancy	3884 Dec 19 23:49	19°♎35'22	-0.4m
evening set	3884 Jan 23 22:17	14°♐49'44		evening max el	3884 Dec 24 18:40	25°♎01'39	21°48'06
inferior conj	3884 Jan 29 08:19	8°♐38'35	2°44'45		3884 Dec 31 11:49	0°♐	
minimum elong	3884 Jan 29 05:50	8°♐47'04	2°44'05	retrograde	3885 Jan 02 22:38	0°♐28'47	
min. Earth dist.	3884 Jan 29 22:41	7°♐49'29	0.67489 AU		3885 Jan 05 06:18	30°♌♎	
morning rise	3884 Feb 03 12:56	2°♐22'57		asc. node	3885 Jan 05 22:00	29°♎41'03	
	3884 Feb 08 05:48	30°♌♎		evening set	3885 Jan 07 06:05	28°♎47'08	
direct	3884 Feb 09 01:22	29°♎57'03		inferior conj	3885 Jan 12 15:29	22°♎26'42	2°07'24
	3884 Feb 09 21:20	0°♐		minimum elong	3885 Jan 12 13:08	22°♎34'52	2°06'36
morning max el	3884 Feb 20 05:36	6°♐37'29	24°18'16	min. Earth dist.	3885 Jan 12 17:53	22°♎18'22	0.67920 AU
desc. node	3884 Feb 26 03:27	13°♐18'01		morning rise	3885 Jan 17 19:56	16°♎12'42	
	3884 Mar 09 09:32	0°♏		direct	3885 Jan 22 17:28	14°♎08'02	
morning set	3884 Mar 27 00:45	28°♏15'36		morning max el	3885 Feb 01 15:21	20°♎00'14	22°49'07
	3884 Mar 28 00:39	0°♑		greatest brilliancy	3885 Feb 06 07:22	25°♎12'37	-0.3m
max. Earth dist.	3884 Mar 30 18:23	4°♑52'29	1.37846 AU		3885 Feb 10 02:35	0°♐	
superior conj	3884 Apr 06 18:02	17°♑53'20	-1°-31'-22	desc. node	3885 Feb 12 00:29	2°♐32'26	
minimum elong	3884 Apr 06 22:36	18°♑15'15	1°30'47		3885 Mar 02 14:43	0°♏	
	3884 Apr 12 22:27	0°♉		morning set	3885 Mar 07 21:57	8°♏34'58	

max. Earth dist.	3885 Mar 12 13:33	16° H 24'20	1.40028 AU	morning set	3886 Feb 15 14:20	17° \approx 33'01	
				max. Earth dist.	3886 Feb 22 14:12	28° \approx 49'51	1.42106 AU
superior conj	3885 Mar 20 07:56	0° Y 08'29	-1°-53'-28		3886 Feb 23 07:13	0° H	
minimum elong	3885 Mar 20 12:22	0° Y 28'41	1°53'07				
	3885 Mar 20 06:04	0° Y		superior conj	3886 Mar 02 01:07	11° H 24'04	-2°-6'-12
evening rise	3885 Mar 30 04:11	18° Y 37'09		minimum elong	3886 Mar 02 02:58	11° H 32'05	2°06'10
asc. node	3885 Apr 03 21:18	27° Y 28'10			3886 Mar 12 11:52	0° Y	
	3885 Apr 05 06:52	0° B		evening rise	3886 Mar 13 05:53	1° Y 21'58	
evening max el	3885 Apr 15 07:16	14° B 30'02	18°27'28	asc. node	3886 Mar 21 18:21	16° Y 28'13	
retrograde	3885 Apr 22 19:46	18° B 12'54		evening max el	3886 Mar 29 17:15	27° Y 24'42	18°08'53
evening set	3885 Apr 25 02:57	17° B 53'07			3886 Apr 02 04:03	0° B	
inferior conj	3885 May 02 14:27	13° B 20'42	2°14'14	retrograde	3886 Apr 05 11:15	0° B 50'05	
minimum elong	3885 May 02 18:09	13° B 13'16	2°13'11	evening set	3886 Apr 08 00:40	0° B 20'59	
min. Earth dist.	3885 May 06 00:54	10° B 36'24	0.58366 AU		3886 Apr 08 20:21	30° R Y	
morning rise	3885 May 10 04:58	7° B 53'47		inferior conj	3886 Apr 14 19:32	25° Y 27'12	3°06'47
desc. node	3885 May 10 23:40	7° B 31'16		minimum elong	3886 Apr 14 22:27	25° Y 20'23	3°06'16
direct	3885 May 16 05:27	6° B 19'39		min. Earth dist.	3886 Apr 18 02:23	22° Y 24'38	0.60538 AU
morning max el	3885 May 30 14:50	14° B 02'01	26°56'14	morning rise	3886 Apr 21 16:51	19° Y 37'29	
	3885 Jun 12 08:32	0° II		desc. node	3886 Apr 27 20:42	17° Y 29'39	
	3885 Jun 29 00:17	0° E		direct	3886 Apr 28 08:28	17° Y 28'59	
morning set	3885 Jun 29 13:59	1° E 11'38		morning max el	3886 May 12 15:10	25° Y 23'03	27°42'03
asc. node	3885 Jun 30 20:35	3° E 53'33			3886 May 16 21:21	0° B	
					3886 Jun 05 18:14	0° II	
superior conj	3885 Jul 06 15:44	16° E 32'23	0°57'35	morning set	3886 Jun 13 20:13	15° II 44'59	
minimum elong	3885 Jul 06 13:35	16° E 20'33	0°57'12	asc. node	3886 Jun 17 17:39	23° II 59'14	
max. Earth dist.	3885 Jul 06 14:30	16° E 25'33	1.32055 AU	max. Earth dist.	3886 Jun 20 01:42	29° II 04'11	1.32103 AU
	3885 Jul 12 19:54	0° O			3886 Jun 20 11:53	0° E	
evening rise	3885 Jul 13 13:15	1° O 31'53					
	3885 Jul 28 23:19	0° M		superior conj	3886 Jun 21 03:00	1° E 23'02	0°34'58
desc. node	3885 Aug 06 22:57	12° M 24'55		minimum elong	3886 Jun 21 01:30	1° E 14'48	0°34'39
evening max el	3885 Aug 12 04:40	18° M 02'48	26°35'39	evening rise	3886 Jun 27 23:47	16° E 21'02	
retrograde	3885 Aug 26 03:36	25° M 13'20			3886 Jul 04 18:04	0° O	
evening set	3885 Sep 01 22:02	23° M 17'44		desc. node	3886 Jul 24 19:57	29° O 06'09	
min. Earth dist.	3885 Sep 05 18:24	20° M 42'23	0.59919 AU	evening max el	3886 Jul 24 23:31	29° O 14'42	25°23'38
inferior conj	3885 Sep 09 00:40	18° M 06'22	-4°-43'-30		3886 Jul 25 18:57	0° M	
minimum elong	3885 Sep 09 05:46	17° M 56'10	4°42'40	retrograde	3886 Aug 07 22:49	6° M 20'06	
morning rise	3885 Sep 16 16:53	13° M 27'01		evening set	3886 Aug 13 18:45	5° M 01'24	
direct	3885 Sep 19 00:59	13° M 07'00		min. Earth dist.	3886 Aug 18 11:24	2° M 21'41	0.57886 AU
morning max el	3885 Sep 26 15:02	16° M 49'22	18°13'35	inferior conj	3886 Aug 21 13:54	0° M 13'00	-5°-8'-56
asc. node	3885 Sep 26 19:49	17° M 01'02		minimum elong	3886 Aug 21 15:19	0° M 10'31	5°08'53
	3885 Oct 05 22:53	0° A			3886 Aug 21 21:23	30° R O	
morning set	3885 Oct 12 10:37	11° A 56'28		morning rise	3886 Aug 29 15:24	25° O 56'46	
				direct	3886 Sep 01 03:29	25° O 37'40	
superior conj	3885 Oct 21 21:47	29° A 36'22	1°17'34	morning max el	3886 Sep 09 18:47	29° O 43'06	18°54'47
minimum elong	3885 Oct 22 01:44	29° A 54'13	1°17'09		3886 Sep 10 01:49	0° M	
	3885 Oct 22 03:00	0° M		asc. node	3886 Sep 13 16:53	4° M 12'25	
max. Earth dist.	3885 Oct 29 12:25	12° M 57'59	1.41116 AU	morning set	3886 Sep 26 07:41	26° M 09'11	
desc. node	3885 Nov 02 22:16	20° M 19'01			3886 Sep 28 06:33	0° A	
evening rise	3885 Nov 03 10:58	21° M 10'51					
	3885 Nov 08 23:51	0° J		superior conj	3886 Oct 04 19:17	12° A 43'46	1°35'13
	3885 Nov 29 23:05	0° E		minimum elong	3886 Oct 04 21:51	12° A 55'59	1°35'01
greatest brilliancy	3885 Dec 01 08:54	1° E 45'45	-0.2m	max. Earth dist.	3886 Oct 11 17:41	25° A 32'45	1.39049 AU
evening max el	3885 Dec 07 10:38	8° E 37'51	23°07'00		3886 Oct 14 06:21	0° M	
retrograde	3885 Dec 17 17:20	14° E 43'18		evening rise	3886 Oct 15 16:04	2° M 25'28	
evening set	3885 Dec 22 13:05	12° E 45'28		desc. node	3886 Oct 20 19:18	10° M 59'40	
asc. node	3885 Dec 23 19:03	11° E 35'34			3886 Nov 02 05:32	0° J	
inferior conj	3885 Dec 27 23:20	6° E 19'36	1°22'52	evening max el	3886 Nov 19 23:55	22° J 17'58	24°26'21
minimum elong	3885 Dec 27 21:33	6° E 25'43	1°22'11	retrograde	3886 Dec 01 08:16	28° J 55'58	
min. Earth dist.	3885 Dec 27 14:40	6° E 49'28	0.67982 AU	evening set	3886 Dec 06 17:40	26° J 42'00	
morning rise	3886 Jan 02 06:03	0° E 09'17		asc. node	3886 Dec 10 16:06	22° J 21'01	
	3886 Jan 02 10:48	30° R J		min. Earth dist.	3886 Dec 11 10:37	21° J 19'58	0.67692 AU
direct	3886 Jan 06 13:05	28° J 27'29		inferior conj	3886 Dec 12 06:04	20° J 14'55	0°32'14
	3886 Jan 11 00:57	0° E		minimum elong	3886 Dec 12 05:17	20° J 17'30	0°31'55
morning max el	3886 Jan 15 05:49	3° E 31'15	21°24'26	morning rise	3886 Dec 17 17:17	14° J 10'32	
greatest brilliancy	3886 Jan 20 07:12	9° E 16'27	-0.4m	direct	3886 Dec 21 10:58	12° J 50'39	
desc. node	3886 Jan 29 21:32	22° E 18'07		morning max el	3886 Dec 29 03:50	17° J 13'53	20°10'26
	3886 Feb 04 03:48	0° \approx		greatest brilliancy	3887 Jan 04 21:15	25° J 17'08	-0.6m

	3887 Jan 08 07:10	0°☿		morning rise	3887 Dec 02 03:38	28°♍13'47	
desc. node	3887 Jan 16 18:34	12°☿26'23		direct	3887 Dec 05 09:38	27°♍13'01	
morning set	3887 Jan 25 11:41	25°☿43'31			3887 Dec 11 05:12	0°♊	
	3887 Jan 28 05:50	0°♊		morning max el	3887 Dec 12 09:44	1°♊07'08	19°10'40
max. Earth dist.	3887 Feb 04 23:04	12°♊10'58	1.43793 AU	greatest brilliancy	3887 Dec 22 21:32	14°♊50'34	-0.7m
					3888 Jan 01 19:34	0°☿	
superior conj	3887 Feb 10 17:09	21°♊30'46	-2°-4'-15	desc. node	3888 Jan 03 15:36	2°☿50'53	
minimum elong	3887 Feb 10 13:34	21°♊16'03	2°04'09	morning set	3888 Jan 04 13:58	4°☿17'47	
	3887 Feb 15 19:37	0°♋		max. Earth dist.	3888 Jan 18 14:18	26°☿11'42	1.44879 AU
evening rise	3887 Feb 23 14:15	13°♋18'01					
	3887 Mar 05 09:56	0°♌		superior conj	3888 Jan 21 08:32	0°♊33'23	-1°-43'-16
asc. node	3887 Mar 08 15:23	4°♌55'59		minimum elong	3888 Jan 20 23:50	29°☿58'57	1°42'33
evening max el	3887 Mar 13 05:49	10°♌37'34	18°09'37		3888 Jan 21 00:06	0°♊	
retrograde	3887 Mar 19 16:22	14°♌00'49		evening rise	3888 Feb 05 01:10	24°♊18'29	
evening set	3887 Mar 22 11:29	13°♌21'03			3888 Feb 08 12:00	0°♋	
inferior conj	3887 Mar 28 17:33	8°♌06'39	3°32'07	asc. node	3888 Feb 23 12:26	22°♋41'31	
minimum elong	3887 Mar 28 18:45	8°♌03'28	3°32'02	evening max el	3888 Feb 24 18:05	24°♋01'29	18°29'02
min. Earth dist.	3887 Mar 31 12:21	5°♌10'16	0.62665 AU	retrograde	3888 Mar 02 06:34	27°♋35'35	
morning rise	3887 Apr 03 23:45	2°♌03'00		evening set	3888 Mar 05 07:27	26°♋44'17	
	3887 Apr 07 17:23	30°♌		inferior conj	3888 Mar 11 04:23	21°♋11'08	3°36'38
direct	3887 Apr 10 20:53	29°♋28'13		minimum elong	3888 Mar 11 03:56	21°♋12'29	3°36'37
	3887 Apr 14 03:46	0°♌		min. Earth dist.	3888 Mar 13 07:57	18°♋39'41	0.64523 AU
desc. node	3887 Apr 14 17:46	0°♌11'51		morning rise	3888 Mar 16 22:56	14°♋59'50	
morning max el	3887 Apr 24 21:16	7°♌26'28	27°50'19	direct	3888 Mar 23 17:17	12°♋11'43	
	3887 May 12 03:15	0°♍		desc. node	3888 Mar 31 14:47	15°♋12'29	
morning set	3887 May 28 20:45	29°♍58'16		morning max el	3888 Apr 06 06:47	20°♋05'44	27°22'40
	3887 May 28 21:05	0°♎			3888 Apr 14 18:39	0°♌	
max. Earth dist.	3887 Jun 03 08:56	11°♎27'21	1.32573 AU		3888 May 04 04:15	0°♍	
asc. node	3887 Jun 04 14:40	14°♎07'14		morning set	3888 May 11 12:56	13°♍43'49	
				max. Earth dist.	3888 May 16 08:14	23°♍23'39	1.33484 AU
					3888 May 19 11:59	0°♎	
superior conj	3887 Jun 05 11:55	16°♎02'11	0°09'17				
minimum elong	3887 Jun 05 11:28	15°♎59'48	0°09'10	superior conj	3888 May 19 16:36	0°♎24'25	0°-18'-39
behind sun begin	3887 Jun 05 07:11	15°♎36'32		minimum elong	3888 May 19 17:33	0°♎29'29	0°18'29
behind sun end	3887 Jun 05 15:46	16°♎23'04		asc. node	3888 May 21 11:42	4°♎13'56	
	3887 Jun 11 22:26	0°☿		evening rise	3888 May 26 22:50	15°♎53'03	
evening rise	3887 Jun 12 11:35	1°☿10'03			3888 Jun 03 00:45	0°☿	
	3887 Jun 28 09:12	0°♏		evening max el	3888 Jun 17 03:37	20°☿12'35	22°14'37
evening max el	3887 Jul 06 12:51	9°♏48'01	23°51'24	desc. node	3888 Jun 27 14:00	26°☿22'41	
desc. node	3887 Jul 11 17:00	13°♏57'01		retrograde	3888 Jun 30 01:24	26°☿36'51	
retrograde	3887 Jul 20 05:59	16°♏41'41		evening set	3888 Jul 03 00:26	26°☿17'25	
evening set	3887 Jul 24 15:51	15°♏58'49		min. Earth dist.	3888 Jul 11 09:39	22°☿40'05	0.55064 AU
min. Earth dist.	3887 Jul 30 23:05	12°♏57'18	0.56154 AU	inferior conj	3888 Jul 12 06:25	22°☿10'49	-3°-56'-39
inferior conj	3887 Aug 02 06:43	11°♏32'50	-4°-57'-30	minimum elong	3888 Jul 11 21:59	22°☿22'42	3°54'32
minimum elong	3887 Aug 02 02:10	11°♏39'47	4°57'01	morning rise	3888 Jul 20 21:36	18°☿20'34	
morning rise	3887 Aug 10 15:51	7°♏36'05		direct	3888 Jul 24 00:38	17°☿58'40	
direct	3887 Aug 13 10:27	7°♏16'28		morning max el	3888 Aug 04 17:24	23°☿25'52	21°21'25
morning max el	3887 Aug 23 12:00	11°♏56'55	19°57'48		3888 Aug 10 11:41	0°♏	
asc. node	3887 Aug 31 13:56	22°♏16'14		asc. node	3888 Aug 17 10:57	11°♏00'16	
	3887 Sep 05 00:43	0°♐		morning set	3888 Aug 24 20:09	25°♏26'32	
morning set	3887 Sep 10 11:41	10°♐41'30			3888 Aug 27 00:31	0°♐	
superior conj	3887 Sep 18 07:06	26°♐33'20	1°43'23	superior conj	3888 Sep 01 05:00	10°♐52'41	1°43'38
minimum elong	3887 Sep 18 07:57	26°♐37'38	1°43'21	minimum elong	3888 Sep 01 04:22	10°♐49'27	1°43'37
	3887 Sep 20 00:46	0°♑		max. Earth dist.	3888 Sep 05 09:37	19°♐25'43	1.35212 AU
max. Earth dist.	3887 Sep 23 23:01	7°♑34'43	1.37007 AU	evening rise	3888 Sep 09 16:42	27°♐47'42	
evening rise	3887 Sep 27 19:16	14°♑40'56			3888 Sep 10 20:49	0°♑	
	3887 Oct 06 17:56	0°♒		desc. node	3888 Sep 23 13:19	21°♑45'18	
desc. node	3887 Oct 07 16:19	1°♒30'15			3888 Sep 29 00:48	0°♒	
	3887 Oct 27 23:08	0°♊		evening max el	3888 Oct 15 00:36	19°♒39'25	26°38'28
evening max el	3887 Nov 02 12:14	6°♊00'11	25°39'19	retrograde	3888 Oct 28 00:00	26°♒54'20	
retrograde	3887 Nov 14 18:42	13°♊01'49		evening set	3888 Nov 03 12:35	24°♒16'14	
evening set	3887 Nov 20 18:09	10°♊33'35		min. Earth dist.	3888 Nov 07 14:44	20°♒05'31	0.66058 AU
min. Earth dist.	3887 Nov 25 03:24	5°♊46'46	0.67051 AU	inferior conj	3888 Nov 09 08:44	18°♒00'31	-1°-22'-46
inferior conj	3887 Nov 26 09:51	4°♊09'45	0°-23'-23	minimum elong	3888 Nov 09 11:01	17°♒53'44	1°21'49
minimum elong	3887 Nov 26 10:27	4°♊07'49	0°23'08	asc. node	3888 Nov 13 10:11	13°♒40'29	
asc. node	3887 Nov 27 13:09	2°♊43'47		morning rise	3888 Nov 15 10:55	12°♒15'32	
	3887 Nov 29 23:17	30°♒					




































































































































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morning max el	3888 Nov 24 21:50	15° \mathbb{M} 06'03	18°26'47		3889 Oct 25 15:01	30° \mathbb{R} \mathbb{A}	
	3888 Dec 05 19:54	0° \mathbb{A}		morning rise	3889 Oct 30 12:35	26° \mathbb{A} 11'51	
morning set	3888 Dec 14 17:17	14° \mathbb{A} 10'12		asc. node	3889 Oct 31 07:12	25° \mathbb{A} 54'23	
desc. node	3888 Dec 20 12:36	23° \mathbb{A} 26'31		direct	3889 Nov 02 01:51	25° \mathbb{A} 37'48	
	3888 Dec 24 15:56	0° \mathbb{B}		morning max el	3889 Nov 08 13:36	29° \mathbb{A} 04'44	17°59'45
					3889 Nov 09 10:42	0° \mathbb{M}	
superior conj	3888 Dec 30 10:59	9° \mathbb{B} 07'01	-1°-4'-24	morning set	3889 Nov 26 02:03	25° \mathbb{M} 30'10	
minimum elong	3888 Dec 30 03:09	8° \mathbb{B} 36'17	1°03'28		3889 Nov 28 18:37	0° \mathbb{A}	
max. Earth dist.	3888 Dec 31 08:41	10° \mathbb{B} 32'08	1.45258 AU	desc. node	3889 Dec 07 09:38	14° \mathbb{A} 09'42	
	3889 Jan 12 18:17	0° \mathbb{A}					
evening rise	3889 Jan 15 12:44	4° \mathbb{A} 22'03		superior conj	3889 Dec 09 21:13	18° \mathbb{A} 09'18	0°-16'-59
greatest brilliancy	3889 Jan 27 19:00	23° \mathbb{A} 35'23	-0.7m	minimum elong	3889 Dec 09 19:09	18° \mathbb{A} 01'00	0°16'42
	3889 Feb 01 03:15	0° \mathbb{H}		max. Earth dist.	3889 Dec 14 03:41	24° \mathbb{A} 56'28	1.44898 AU
evening max el	3889 Feb 07 03:38	7° \mathbb{H} 30'30	19°06'09		3889 Dec 17 08:55	0° \mathbb{B}	
asc. node	3889 Feb 09 09:28	9° \mathbb{H} 31'49		evening rise	3889 Dec 26 05:07	13° \mathbb{B} 43'27	
retrograde	3889 Feb 14 01:59	11° \mathbb{H} 26'28			3890 Jan 05 20:55	0° \mathbb{A}	
evening set	3889 Feb 17 09:30	10° \mathbb{H} 22'37		greatest brilliancy	3890 Jan 14 11:29	12° \mathbb{A} 32'44	-0.6m
inferior conj	3889 Feb 23 00:21	4° \mathbb{H} 32'52	3°25'32	evening max el	3890 Jan 21 08:47	21° \mathbb{A} 02'28	19°59'09
minimum elong	3889 Feb 22 22:41	4° \mathbb{H} 38'10	3°25'19	asc. node	3890 Jan 27 06:29	25° \mathbb{A} 13'01	
min. Earth dist.	3889 Feb 24 12:33	2° \mathbb{H} 37'49	0.66005 AU	retrograde	3890 Jan 28 23:44	25° \mathbb{A} 29'01	
	3889 Feb 26 17:50	30° \mathbb{R} \mathbb{A}		evening set	3890 Feb 01 15:17	24° \mathbb{A} 11'25	
morning rise	3889 Feb 28 10:54	28° \mathbb{A} 18'02		inferior conj	3890 Feb 07 02:31	18° \mathbb{A} 07'28	3°02'28
direct	3889 Mar 06 20:26	25° \mathbb{A} 30'03		minimum elong	3890 Feb 07 00:11	18° \mathbb{A} 15'17	3°01'57
	3889 Mar 16 08:10	0° \mathbb{H}		min. Earth dist.	3890 Feb 08 00:28	16° \mathbb{A} 53'52	0.67074 AU
desc. node	3889 Mar 18 11:49	1° \mathbb{H} 56'04		morning rise	3890 Feb 12 08:27	11° \mathbb{A} 51'38	
morning max el	3889 Mar 19 16:42	3° \mathbb{H} 07'02	26°25'29	direct	3890 Feb 18 05:19	9° \mathbb{A} 15'12	
	3889 Apr 09 01:18	0° \mathbb{Y}		morning max el	3890 Mar 02 01:30	16° \mathbb{A} 19'40	25°07'54
morning set	3889 Apr 24 17:11	26° \mathbb{Y} 50'22		desc. node	3890 Mar 05 08:52	19° \mathbb{A} 54'03	
	3889 Apr 26 09:11	0° \mathbb{B}			3890 Mar 13 09:25	0° \mathbb{H}	
max. Earth dist.	3889 Apr 28 20:16	4° \mathbb{B} 46'41	1.34855 AU		3890 Apr 01 23:53	0° \mathbb{Y}	
				morning set	3890 Apr 07 04:43	9° \mathbb{Y} 04'17	
superior conj	3889 May 03 14:43	14° \mathbb{B} 22'29	0°-47'-43	max. Earth dist.	3890 Apr 10 21:14	15° \mathbb{Y} 48'28	1.36665 AU
minimum elong	3889 May 03 17:15	14° \mathbb{B} 35'32	0°47'14				
asc. node	3889 May 08 08:44	24° \mathbb{B} 14'48		superior conj	3890 Apr 17 03:25	27° \mathbb{Y} 48'42	-1°-16'-11
evening rise	3889 May 11 07:33	0° \mathbb{I} 23'21		minimum elong	3890 Apr 17 07:25	28° \mathbb{Y} 08'26	1°15'33
	3889 May 11 03:02	0° \mathbb{I}			3890 Apr 18 05:56	0° \mathbb{B}	
	3889 May 29 03:37	0° \mathbb{B}		evening rise	3890 Apr 25 11:30	14° \mathbb{B} 34'29	
evening max el	3889 May 30 03:35	1° \mathbb{B} 00'56	20°47'19	asc. node	3890 Apr 25 05:46	14° \mathbb{B} 05'38	
retrograde	3889 Jun 10 14:10	6° \mathbb{B} 36'33			3890 May 03 14:00	0° \mathbb{I}	
evening set	3889 Jun 12 16:49	6° \mathbb{B} 25'53		evening max el	3890 May 12 15:51	12° \mathbb{I} 29'14	19°37'13
desc. node	3889 Jun 14 11:00	6° \mathbb{B} 01'41		retrograde	3890 May 22 08:24	17° \mathbb{I} 11'52	
inferior conj	3889 Jun 21 23:44	2° \mathbb{B} 28'47	-2°-11'-59	evening set	3890 May 24 07:34	17° \mathbb{I} 01'06	
minimum elong	3889 Jun 21 17:36	2° \mathbb{B} 37'31	2°09'50	desc. node	3890 Jun 01 08:03	13° \mathbb{I} 24'27	
min. Earth dist.	3889 Jun 22 21:28	1° \mathbb{B} 57'46	0.54877 AU	inferior conj	3890 Jun 02 01:12	12° \mathbb{I} 57'31	0°-12'-39
	3889 Jun 26 13:26	30° \mathbb{R} \mathbb{I}		minimum elong	3890 Jun 02 00:39	12° \mathbb{I} 58'25	0°12'27
morning rise	3889 Jun 30 17:29	28° \mathbb{I} 25'10		transit middle	3890 Jun 02 00:39	12° \mathbb{I} 58'25	0°12'27
direct	3889 Jul 04 09:54	27° \mathbb{I} 55'55		transit begin	3890 Jun 01 22:11	13° \mathbb{I} 02'17	
	3889 Jul 11 20:33	0° \mathbb{B}		transit end	3890 Jun 02 03:06	12° \mathbb{I} 54'32	
morning max el	3889 Jul 17 12:41	4° \mathbb{B} 14'01	23°00'12	min. Earth dist.	3890 Jun 04 11:04	11° \mathbb{I} 26'40	0.55656 AU
asc. node	3889 Aug 04 07:59	0° \mathbb{Q} 14'47		morning rise	3890 Jun 10 14:13	8° \mathbb{I} 24'00	
	3889 Aug 04 04:55	0° \mathbb{Q}		direct	3890 Jun 15 03:10	7° \mathbb{I} 37'58	
morning set	3889 Aug 09 07:08	10° \mathbb{Q} 18'56		morning max el	3890 Jun 29 02:47	14° \mathbb{I} 38'39	24°43'05
					3890 Jul 11 05:53	0° \mathbb{B}	
superior conj	3889 Aug 16 09:45	25° \mathbb{Q} 32'00	1°37'19	asc. node	3890 Jul 22 05:01	19° \mathbb{B} 51'25	
minimum elong	3889 Aug 16 08:04	25° \mathbb{Q} 23'03	1°37'12	morning set	3890 Jul 24 18:54	25° \mathbb{B} 13'04	
	3889 Aug 18 12:14	0° \mathbb{H}			3890 Jul 27 00:32	0° \mathbb{Q}	
max. Earth dist.	3889 Aug 19 05:04	1° \mathbb{H} 28'24	1.33796 AU				
evening rise	3889 Aug 24 04:01	11° \mathbb{H} 34'31		superior conj	3890 Jul 31 18:48	10° \mathbb{Q} 22'47	1°25'30
	3889 Sep 03 04:26	0° \mathbb{A}		minimum elong	3890 Jul 31 16:33	10° \mathbb{Q} 10'34	1°25'14
desc. node	3889 Sep 10 10:19	11° \mathbb{A} 37'55		max. Earth dist.	3890 Aug 02 09:06	13° \mathbb{Q} 50'55	1.32799 AU
	3889 Sep 24 11:17	0° \mathbb{M}		evening rise	3890 Aug 08 01:24	25° \mathbb{Q} 49'52	
evening max el	3889 Sep 27 12:56	3° \mathbb{M} 07'30	27°16'21		3890 Aug 10 03:07	0° \mathbb{H}	
retrograde	3889 Oct 10 23:38	10° \mathbb{M} 25'55			3890 Aug 27 15:09	0° \mathbb{A}	
evening set	3889 Oct 17 22:35	7° \mathbb{M} 45'25		desc. node	3890 Aug 28 07:20	0° \mathbb{A} 58'03	
min. Earth dist.	3889 Oct 21 18:25	4° \mathbb{M} 10'12	0.64716 AU	evening max el	3890 Sep 09 23:25	16° \mathbb{A} 11'03	27°26'17
inferior conj	3889 Oct 24 00:30	1° \mathbb{M} 42'48	-2°-24'00	retrograde	3890 Sep 23 16:37	23° \mathbb{A} 26'53	

evening set	3890 Sep 30 21:00	20°♄54'03		retrograde	3891 Sep 06 02:14	5°♄48'32	
min. Earth dist.	3890 Oct 04 12:24	17°♄50'36	0.63048 AU	evening set	3891 Sep 13 03:49	3°♄35'34	
inferior conj	3890 Oct 07 06:23	15°♄09'15	-3°-24'-11	min. Earth dist.	3891 Sep 16 19:35	0°♄54'34	0.61112 AU
minimum elong	3890 Oct 07 11:53	14°♄55'46	3°22'27		3891 Sep 17 21:23	30°♄	
morning rise	3890 Oct 14 05:23	9°♄55'45		inferior conj	3891 Sep 19 23:10	28°♄11'46	-4°-18'-17
direct	3890 Oct 16 14:16	9°♄29'25		minimum elong	3891 Sep 20 05:01	27°♄59'07	4°16'56
asc. node	3890 Oct 18 04:15	9°♄41'26		morning rise	3891 Sep 27 09:19	23°♄19'20	
morning max el	3890 Oct 23 06:05	12°♄55'29	17°50'17	direct	3891 Sep 29 16:54	22°♄57'39	
	3890 Nov 03 21:25	0°♄		asc. node	3891 Oct 05 01:18	24°♄58'27	
morning set	3890 Nov 08 11:04	7°♄59'52		morning max el	3891 Oct 06 20:13	26°♄31'03	17°59'26
					3891 Oct 09 21:02	0°♄	
superior conj	3890 Nov 20 06:39	28°♄20'25	0°27'34	morning set	3891 Oct 22 13:59	21°♄20'10	
minimum elong	3890 Nov 20 09:20	28°♄31'37	0°27'12		3891 Oct 27 07:08	0°♄	
	3890 Nov 21 06:35	0°♄					
desc. node	3890 Nov 24 06:39	4°♄56'21		superior conj	3891 Nov 01 18:46	9°♄49'33	1°02'33
max. Earth dist.	3890 Nov 26 20:40	9°♄07'28	1.43845 AU	minimum elong	3891 Nov 01 22:57	10°♄07'56	1°02'02
evening rise	3890 Dec 05 14:36	22°♄54'02		max. Earth dist.	3891 Nov 09 09:04	22°♄47'46	1.42224 AU
	3890 Dec 10 05:54	0°♄		desc. node	3891 Nov 11 03:40	25°♄43'16	
greatest brilliancy	3890 Dec 30 02:44	28°♄29'36	-0.4m		3891 Nov 13 19:00	0°♄	
	3890 Dec 31 07:35	0°♄		evening rise	3891 Nov 15 09:22	2°♄33'17	
evening max el	3891 Jan 04 08:31	4°♄35'29	21°05'29		3891 Dec 03 16:46	0°♄	
retrograde	3891 Jan 12 21:38	9°♄39'10		greatest brilliancy	3891 Dec 13 08:44	12°♄48'48	-0.3m
asc. node	3891 Jan 14 03:31	9°♄30'42		evening max el	3891 Dec 18 02:53	18°♄09'31	22°21'11
evening set	3891 Jan 16 22:52	8°♄06'28		retrograde	3891 Dec 27 17:56	23°♄53'08	
inferior conj	3891 Jan 22 08:27	1°♄51'09	2°29'51	evening set	3892 Jan 01 06:33	22°♄04'22	
minimum elong	3891 Jan 22 05:58	1°♄59'43	2°29'07	asc. node	3892 Jan 01 00:34	22°♄16'12	
min. Earth dist.	3891 Jan 22 17:35	1°♄19'40	0.67727 AU	inferior conj	3892 Jan 06 16:08	15°♄41'05	1°49'18
	3891 Jan 23 16:56	30°♄		minimum elong	3892 Jan 06 13:58	15°♄48'35	1°48'32
morning rise	3891 Jan 27 12:42	25°♄36'13		min. Earth dist.	3892 Jan 06 13:39	15°♄49'40	0.67990 AU
direct	3891 Feb 01 18:57	23°♄18'51		morning rise	3892 Jan 11 21:16	9°♄28'40	
morning max el	3891 Feb 12 10:07	29°♄38'37	23°40'17	direct	3892 Jan 16 12:31	7°♄33'54	
	3891 Feb 12 18:31	0°♄		morning max el	3892 Jan 25 21:33	13°♄04'36	22°12'13
desc. node	3891 Feb 20 05:54	8°♄44'58		greatest brilliancy	3892 Jan 30 11:36	18°♄12'18	-0.3m
	3891 Mar 07 05:31	0°♄		desc. node	3892 Feb 07 02:56	28°♄13'36	
morning set	3891 Mar 19 17:39	20°♄09'50			3892 Feb 08 09:22	0°♄	
max. Earth dist.	3891 Mar 23 16:45	27°♄01'33	1.38776 AU	morning set	3892 Feb 28 02:31	29°♄53'49	
	3891 Mar 25 08:56	0°♄			3892 Feb 28 04:03	0°♄	
				max. Earth dist.	3892 Mar 04 14:14	8°♄57'02	1.40942 AU
superior conj	3891 Mar 31 03:01	10°♄33'38	-1°-41'-34				
minimum elong	3891 Mar 31 07:44	10°♄55'51	1°41'04	superior conj	3892 Mar 12 08:46	22°♄24'54	-2°00'-18
evening rise	3891 Apr 09 08:04	28°♄19'27		minimum elong	3892 Mar 12 12:28	22°♄41'25	2°00'07
	3891 Apr 10 04:46	0°♄			3892 Mar 16 13:24	0°♄	
asc. node	3891 Apr 12 02:49	3°♄41'47		evening rise	3892 Mar 22 17:50	11°♄29'02	
evening max el	3891 Apr 25 15:04	24°♄37'33	18°47'03	asc. node	3892 Mar 28 23:52	22°♄57'00	
retrograde	3891 May 03 19:23	28°♄37'51			3892 Apr 02 05:31	0°♄	
evening set	3891 May 05 23:03	28°♄22'15		evening max el	3892 Apr 07 22:02	7°♄17'29	18°17'04
inferior conj	3891 May 13 21:27	24°♄01'14	1°29'28	retrograde	3892 Apr 15 01:23	10°♄51'21	
minimum elong	3891 May 14 00:32	23°♄55'33	1°28'27	evening set	3892 Apr 17 11:11	10°♄27'53	
min. Earth dist.	3891 May 17 03:37	21°♄38'57	0.57226 AU	inferior conj	3892 Apr 24 15:08	5°♄46'05	2°40'14
desc. node	3891 May 19 05:05	20°♄17'36		minimum elong	3892 Apr 24 18:42	5°♄38'23	2°39'23
morning rise	3891 May 21 21:36	18°♄52'24		min. Earth dist.	3892 Apr 28 01:18	2°♄51'00	0.59276 AU
direct	3891 May 27 09:52	17°♄38'27		morning rise	3892 May 01 22:14	0°♄07'59	
morning max el	3891 Jun 10 18:10	25°♄08'24	26°14'43		3892 May 02 03:58	30°♄	
	3891 Jun 15 06:18	0°♄		desc. node	3892 May 05 02:09	28°♄46'20	
	3891 Jul 04 07:06	0°♄		direct	3892 May 08 05:59	28°♄19'04	
morning set	3891 Jul 09 05:55	10°♄04'09			3892 May 14 14:00	0°♄	
asc. node	3891 Jul 09 02:04	9°♄43'49		morning max el	3892 May 22 15:05	6°♄07'24	27°20'11
					3892 Jun 09 10:10	0°♄	
superior conj	3891 Jul 16 06:09	25°♄18'36	1°08'59	morning set	3892 Jun 22 14:26	24°♄45'39	
minimum elong	3891 Jul 16 03:50	25°♄05'51	1°08'36	asc. node	3892 Jun 24 23:07	29°♄45'49	
max. Earth dist.	3891 Jul 16 18:55	26°♄28'56	1.32216 AU		3892 Jun 25 01:46	0°♄	
	3891 Jul 18 09:22	0°♄					
evening rise	3891 Jul 23 05:49	10°♄24'42		superior conj	3892 Jun 29 17:56	10°♄12'31	0°48'25
	3891 Aug 02 09:35	0°♄		minimum elong	3892 Jun 29 16:00	10°♄01'53	0°48'01
desc. node	3891 Aug 15 04:22	19°♄32'22		max. Earth dist.	3892 Jun 29 06:42	9°♄10'39	1.32029 AU
evening max el	3891 Aug 23 05:18	28°♄36'31	27°03'37	evening rise	3892 Jul 06 14:42	25°♄10'10	
	3891 Aug 24 18:06	0°♄			3892 Jul 08 22:17	0°♄	

	3892 Jul 26 09:11	0°♍				3893 Jul 01 08:08	0°♎	
desc. node	3892 Aug 01 01:24	7°♍01'42		evening max el		3893 Jul 16 19:55	21°♎06'31	24°45'52
evening max el	3892 Aug 04 04:07	10°♍14'13	26°08'06	desc. node		3893 Jul 18 22:26	22°♎59'56	
retrograde	3892 Aug 18 03:29	17°♍23'16		retrograde		3893 Jul 30 18:11	28°♎09'06	
evening set	3892 Aug 24 14:12	15°♍42'17		evening set		3893 Aug 05 00:24	27°♎06'35	
min. Earth dist.	3892 Aug 28 16:50	13°♍07'42	0.59040 AU	min. Earth dist.		3893 Aug 10 07:16	24°♎19'12	0.57089 AU
inferior conj	3892 Aug 31 23:16	10°♍40'44	-4°-57'-47	inferior conj		3893 Aug 13 03:47	22°♎27'25	-5°-9'-32
minimum elong	3892 Sep 01 03:12	10°♍33'20	4°57'20	minimum elong		3893 Aug 13 02:47	22°♎29'04	5°09'32
morning rise	3892 Sep 08 19:43	6°♍11'41		morning rise		3893 Aug 21 08:44	18°♎20'27	
direct	3892 Sep 11 05:09	5°♍52'18		direct		3893 Aug 23 23:06	18°♎01'28	
morning max el	3892 Sep 19 04:45	9°♍42'47	18°28'35	morning max el		3893 Sep 02 04:22	22°♎20'36	19°18'58
asc. node	3892 Sep 20 22:21	11°♍32'12		asc. node		3893 Sep 07 19:24	29°♎07'17	
	3892 Oct 02 11:15	0°♎				3893 Sep 08 09:40	0°♍	
morning set	3892 Oct 05 05:33	5°♎16'29		morning set		3893 Sep 19 05:52	19°♍37'50	
						3893 Sep 24 10:18	0°♎	
superior conj	3892 Oct 14 05:40	22°♎25'35	1°26'19	superior conj		3893 Sep 27 09:49	5°♎52'13	1°39'44
minimum elong	3892 Oct 14 09:07	22°♎41'34	1°25'59	minimum elong		3893 Sep 27 11:39	6°♎01'10	1°39'38
	3892 Oct 18 09:30	0°♎		max. Earth dist.		3893 Oct 03 20:04	18°♎01'12	1.38154 AU
max. Earth dist.	3892 Oct 21 15:59	5°♎45'09	1.40240 AU	evening rise		3893 Oct 07 15:38	24°♎50'57	
evening rise	3892 Oct 26 00:47	13°♎09'48				3893 Oct 10 15:21	0°♎	
desc. node	3892 Oct 28 00:41	16°♎27'10		desc. node		3893 Oct 14 21:42	7°♎03'48	
	3892 Nov 05 15:21	0°♏				3893 Oct 30 07:38	0°♏	
	3892 Nov 28 00:13	0°♏		evening max el		3893 Nov 12 05:48	15°♏27'10	24°58'45
evening max el	3892 Nov 29 17:15	1°♏46'30	23°41'06	retrograde		3893 Nov 24 00:30	22°♏17'12	
retrograde	3892 Dec 10 11:17	8°♏07'26		evening set		3893 Nov 29 15:44	19°♏56'58	
evening set	3892 Dec 15 12:43	6°♏02'27		min. Earth dist.		3893 Dec 04 05:20	14°♏49'30	0.67451 AU
asc. node	3892 Dec 17 21:36	3°♏37'17		asc. node		3893 Dec 04 18:38	14°♏05'48	
inferior conj	3892 Dec 20 23:41	29°♏35'16	1°02'04	inferior conj		3893 Dec 05 05:22	13°♏30'28	0°09'10
minimum elong	3892 Dec 20 22:18	29°♏40'02	1°01'31	minimum elong		3893 Dec 05 05:08	13°♏31'13	0°09'05
min. Earth dist.	3892 Dec 20 10:22	0°♏20'46	0.67892 AU	transit middle		3893 Dec 05 05:08	13°♏31'13	0°09'05
	3892 Dec 20 16:27	30°♏♏		transit begin		3893 Dec 05 02:51	13°♏38'46	
morning rise	3892 Dec 26 08:04	23°♏27'14		transit end		3893 Dec 05 07:26	13°♏23'41	
direct	3892 Dec 30 09:08	21°♏55'13		morning rise		3893 Dec 10 19:07	7°♏29'07	
morning max el	3893 Jan 07 15:09	26°♏40'54	20°51'29	direct		3893 Dec 14 07:32	6°♏17'48	
	3893 Jan 10 15:49	0°♏		morning max el		3893 Dec 21 16:31	10°♏27'43	19°43'08
greatest brilliancy	3893 Jan 13 06:37	3°♏13'19	-0.5m	greatest brilliancy		3893 Dec 29 12:21	20°♏07'38	-0.6m
desc. node	3893 Jan 23 23:58	18°♏09'38				3894 Jan 05 07:26	0°♏	
	3893 Jan 31 21:40	0°♏		desc. node		3894 Jan 10 20:58	8°♏24'58	
morning set	3893 Feb 06 08:43	8°♏25'18		morning set		3894 Jan 16 04:43	16°♏35'23	
max. Earth dist.	3893 Feb 14 18:10	21°♏46'36	1.42876 AU			3894 Jan 24 19:23	0°♏	
	3893 Feb 19 17:59	0°♏		max. Earth dist.		3894 Jan 28 05:20	5°♏23'47	1.44332 AU
superior conj	3893 Feb 21 15:38	3°♏11'45	-2°-7'-29	superior conj		3894 Feb 01 20:32	12°♏48'44	-1°-57'-49
minimum elong	3893 Feb 21 15:28	3°♏11'03	2°07'30	minimum elong		3894 Feb 01 14:23	12°♏23'56	1°57'28
evening rise	3893 Mar 05 12:47	23°♏54'30				3894 Feb 12 06:58	0°♏	
	3893 Mar 08 22:56	0°♏		evening rise		3894 Feb 15 12:21	5°♏26'31	
asc. node	3893 Mar 15 20:55	11°♏44'38		asc. node		3894 Mar 02 17:57	29°♏55'34	
evening max el	3893 Mar 22 09:29	20°♏20'55	18°06'50			3894 Mar 02 19:18	0°♏	
retrograde	3893 Mar 28 23:15	23°♏43'53		evening max el		3894 Mar 05 22:16	3°♏39'09	18°15'44
evening set	3893 Mar 31 15:00	23°♏10'33		retrograde		3894 Mar 12 08:35	7°♏05'19	
inferior conj	3893 Apr 07 03:59	18°♏08'01	3°20'25	evening set		3894 Mar 15 06:06	6°♏20'48	
minimum elong	3893 Apr 07 06:13	18°♏02'29	3°20'07	inferior conj		3894 Mar 21 07:54	0°♏58'31	3°36'12
min. Earth dist.	3893 Apr 10 06:27	15°♏05'01	0.61463 AU	minimum elong		3894 Mar 21 08:22	0°♏57'14	3°36'11
morning rise	3893 Apr 13 18:28	12°♏11'04				3894 Mar 22 04:50	30°♏♏	
direct	3893 Apr 20 13:29	9°♏49'47		min. Earth dist.		3894 Mar 23 20:31	28°♏10'38	0.63498 AU
desc. node	3893 Apr 21 23:11	9°♏55'30		morning rise		3894 Mar 27 08:42	24°♏51'07	
morning max el	3893 May 04 18:16	17°♏47'29	27°50'05	direct		3894 Apr 03 05:44	22°♏08'36	
	3893 May 14 22:50	0°♏		desc. node		3894 Apr 08 20:12	23°♏40'14	
	3893 Jun 02 03:23	0°♏				3894 Apr 16 23:20	0°♏	
morning set	3893 Jun 06 18:32	9°♏11'24		morning max el		3894 Apr 17 01:56	0°♏06'31	27°42'35
asc. node	3893 Jun 11 20:11	19°♏52'56				3894 May 08 22:59	0°♏	
max. Earth dist.	3893 Jun 12 16:34	21°♏43'26	1.32252 AU	morning set		3894 May 21 15:55	23°♏14'13	
superior conj	3893 Jun 14 04:25	24°♏58'56	0°24'24	max. Earth dist.		3894 May 24 23:41	0°♏	
minimum elong	3893 Jun 14 03:19	24°♏52'55	0°24'09			3894 May 26 20:42	3°♏55'35	1.32902 AU
	3893 Jun 16 11:22	0°♏		superior conj		3894 May 29 11:50	9°♏32'08	0°-2'-21
evening rise	3893 Jun 21 02:00	9°♏59'38						

minimum elong	3894 May 29 11:57	9°II32'46	0°02'21	max. Earth dist.	3895 May 09 15:31	15°837'44	1.34011 AU
behind sun begin	3894 May 29 06:41	9°II04'29					
behind sun end	3894 May 29 17:13	10°II01'04		superior conj	3895 May 13 14:02	23°844'59	0°-30'-55
asc. node	3894 May 29 17:15	10°II01'18		minimum elong	3895 May 13 15:39	23°853'27	0°30'36
evening rise	3894 Jun 05 13:48	24°II47'07		asc. node	3895 May 16 14:15	0°II05'48	
	3894 Jun 08 01:48	0°☾			3895 May 16 13:09	0°II	
	3894 Jun 26 20:25	0°♂		evening rise	3895 May 21 00:14	9°II25'37	
evening max el	3894 Jun 28 09:07	1°♂33'24	23°09'56		3895 May 31 20:56	0°☾	
desc. node	3894 Jul 05 19:27	6°♂53'54		evening max el	3895 Jun 10 03:10	12°☾05'11	21°35'45
retrograde	3894 Jul 11 20:07	8°♂16'37		retrograde	3895 Jun 22 11:09	18°☾09'58	
evening set	3894 Jul 15 14:06	7°♂45'56		desc. node	3895 Jun 22 16:28	18°☾09'51	
min. Earth dist.	3894 Jul 22 18:27	4°♂30'43	0.55595 AU	evening set	3895 Jun 24 23:34	17°☾55'36	
inferior conj	3894 Jul 24 12:41	3°♂29'08	-4°-38'-2	inferior conj	3895 Jul 04 08:00	13°☾55'00	-3°-16'-21
minimum elong	3894 Jul 24 05:52	3°♂39'06	4°36'53	minimum elong	3895 Jul 03 23:47	14°☾06'29	3°13'52
	3894 Jul 31 14:59	30°♂☾		min. Earth dist.	3895 Jul 04 05:06	13°☾59'03	0.54871 AU
morning rise	3894 Aug 02 00:31	29°☾36'48		morning rise	3895 Jul 13 00:57	10°☾01'54	
direct	3894 Aug 04 22:27	29°☾16'27		direct	3895 Jul 16 09:10	9°☾37'34	
	3894 Aug 09 01:29	0°♂		morning max el	3895 Jul 28 17:09	15°☾26'01	22°02'01
morning max el	3894 Aug 15 16:35	4°♂16'09	20°30'57		3895 Aug 08 21:18	0°♂	
asc. node	3894 Aug 25 16:26	17°♂30'02		asc. node	3895 Aug 12 13:27	6°♂28'10	
	3894 Sep 01 09:24	0°♂		morning set	3895 Aug 18 21:53	19°♂05'54	
morning set	3894 Sep 03 12:05	4°♂16'50			3895 Aug 24 01:29	0°♂	
superior conj	3894 Sep 11 02:24	19°♂56'06	1°44'21	superior conj	3895 Aug 26 03:35	4°♂24'54	1°41'41
minimum elong	3894 Sep 11 02:36	19°♂57'03	1°44'21	minimum elong	3895 Aug 26 02:27	4°♂18'58	1°41'38
max. Earth dist.	3894 Sep 16 03:10	29°♂56'12	1.36209 AU	max. Earth dist.	3895 Aug 29 17:46	11°♂52'01	1.34569 AU
	3894 Sep 16 03:57	0°♂		evening rise	3895 Sep 03 07:08	20°♂55'40	
evening rise	3894 Sep 20 03:15	7°♂30'31			3895 Sep 08 03:36	0°♂	
desc. node	3894 Oct 01 18:44	27°♂28'48		desc. node	3895 Sep 18 15:46	17°♂35'22	
	3894 Oct 03 09:09	0°♂			3895 Sep 27 06:47	0°♂	
evening max el	3894 Oct 25 18:19	29°♂09'46	26°06'40	evening max el	3895 Oct 08 06:57	12°♂45'49	26°57'30
	3894 Oct 26 15:29	0°♂		retrograde	3895 Oct 21 11:25	20°♂02'14	
retrograde	3894 Nov 07 08:43	6°♂17'49		evening set	3895 Oct 28 05:00	17°♂22'07	
evening set	3894 Nov 13 13:51	3°♂45'03		min. Earth dist.	3895 Nov 01 04:25	13°♂26'47	0.65539 AU
	3894 Nov 17 04:44	30°♂♂		inferior conj	3895 Nov 03 03:29	11°♂11'41	-1°-48'-38
min. Earth dist.	3894 Nov 17 20:09	29°♂13'17	0.66673 AU	minimum elong	3895 Nov 03 06:31	11°♂02'57	1°47'25
inferior conj	3894 Nov 19 07:20	27°♂24'08	0°-48'-12	asc. node	3895 Nov 08 12:40	6°♂01'55	
minimum elong	3894 Nov 19 08:37	27°♂20'08	0°47'40	morning rise	3895 Nov 09 09:43	5°♂32'18	
asc. node	3894 Nov 21 15:39	24°♂36'22		direct	3895 Nov 12 02:53	4°♂52'03	
morning rise	3894 Nov 25 04:27	21°♂32'12		morning max el	3895 Nov 18 15:12	8°♂22'40	18°13'11
direct	3894 Nov 28 06:09	20°♂38'19			3895 Dec 03 13:40	0°♂	
morning max el	3894 Dec 05 01:12	24°♂23'21	18°49'55	morning set	3895 Dec 07 08:12	6°♂09'23	
	3894 Dec 09 18:20	0°♂		desc. node	3895 Dec 15 15:01	19°♂33'39	
morning set	3894 Dec 26 16:04	25°♂38'28					
desc. node	3894 Dec 28 17:58	28°♂54'25		superior conj	3895 Dec 22 07:17	0°☾10'17	0°-44'-35
	3894 Dec 29 10:41	0°☾		minimum elong	3895 Dec 22 01:40	29°♂48'06	0°43'51
max. Earth dist.	3895 Jan 10 22:22	19°☾35'02	1.45135 AU		3895 Dec 22 04:40	0°☾	
				max. Earth dist.	3895 Dec 24 17:57	4°☾01'11	1.45197 AU
superior conj	3895 Jan 12 04:10	21°☾32'09	-1°-28'-34	evening rise	3896 Jan 07 15:38	25°☾44'15	
minimum elong	3895 Jan 11 18:56	20°☾55'51	1°27'38		3896 Jan 10 09:19	0°≈	
	3895 Jan 17 12:52	0°≈		greatest brilliancy	3896 Jan 23 07:07	19°≈43'38	-0.7m
evening rise	3895 Jan 27 13:10	16°≈01'13			3896 Jan 31 03:54	0°✠	
	3895 Feb 05 05:11	0°✠		evening max el	3896 Jan 31 17:30	0°✠35'47	19°26'54
evening max el	3895 Feb 17 09:40	17°✠05'32	18°42'50	asc. node	3896 Feb 04 11:59	3°✠41'29	
asc. node	3895 Feb 17 14:58	17°✠18'51		retrograde	3896 Feb 07 22:04	4°✠43'46	
retrograde	3895 Feb 24 01:16	20°✠47'18		evening set	3896 Feb 11 08:53	3°✠34'02	
evening set	3895 Feb 27 04:58	19°✠50'37			3896 Feb 15 01:02	30°✠≈	
inferior conj	3895 Mar 04 22:58	14°✠10'12	3°33'35	inferior conj	3896 Feb 16 21:53	27°≈37'40	3°17'03
minimum elong	3895 Mar 04 21:56	14°✠13'21	3°33'30	minimum elong	3896 Feb 16 19:52	27°≈44'15	3°16'43
min. Earth dist.	3895 Mar 06 19:53	11°✠53'26	0.65205 AU	min. Earth dist.	3896 Feb 18 03:44	26°≈00'17	0.66506 AU
morning rise	3895 Mar 10 13:42	7°✠57'19		morning rise	3896 Feb 22 06:06	21°≈22'16	
direct	3895 Mar 17 05:01	5°✠07'45		direct	3896 Feb 28 10:29	18°≈38'22	
desc. node	3895 Mar 26 17:12	9°✠28'06		morning max el	3896 Mar 11 21:21	26°≈02'59	25°54'34
morning max el	3895 Mar 30 11:41	12°✠55'25	27°01'31	desc. node	3896 Mar 12 14:13	26°≈46'15	
	3895 Apr 13 05:22	0°♀			3896 Mar 15 12:45	0°✠	
	3895 May 01 13:37	0°♂			3896 Apr 05 18:46	0°♀	
morning set	3895 May 05 03:29	6°♂44'10		morning set	3896 Apr 17 01:18	19°♀30'04	

max. Earth dist.	3896 Apr 20 22:58	26° Υ 50'51	1.35575 AU		3897 Mar 10 13:45	0° X	
	3896 Apr 22 13:59	0° B			3897 Mar 29 10:27	0° Υ	
				morning set	3897 Mar 30 03:59	1° Υ 16'33	
superior conj	3896 Apr 26 08:33	7° B 30'24	0°-59'-58	max. Earth dist.	3897 Apr 02 20:40	7° Υ 52'19	1.37532 AU
minimum elong	3896 Apr 26 11:45	7° B 46'35	0°59'24				
asc. node	3896 May 02 11:18	20° B 03'02		superior conj	3897 Apr 09 16:07	20° Υ 39'23	-1°-27'-31
evening rise	3896 May 04 07:15	23° B 48'52		minimum elong	3897 Apr 09 20:34	21° Υ 00'55	1°26'55
	3896 May 07 08:54	0° II			3897 Apr 14 10:14	0° B	
evening max el	3896 May 22 08:11	23° II 09'03	20°15'08	evening rise	3897 Apr 18 08:24	7° B 49'10	
retrograde	3896 Jun 02 00:59	28° II 22'12		asc. node	3897 Apr 19 08:20	9° B 47'46	
evening set	3896 Jun 04 00:33	28° II 12'13			3897 Apr 30 21:34	0° II	
desc. node	3896 Jun 08 13:28	26° II 43'09		evening max el	3897 May 05 01:19	4° II 54'06	19°13'26
inferior conj	3896 Jun 13 03:04	24° II 13'40	-1°-21'-3	retrograde	3897 May 14 01:37	9° II 17'18	
minimum elong	3896 Jun 12 23:15	24° II 19'17	1°19'40	evening set	3897 May 16 01:57	9° II 05'05	
min. Earth dist.	3896 Jun 14 17:23	23° II 17'10	0.55096 AU	inferior conj	3897 May 24 11:40	4° II 55'03	0°34'00
morning rise	3896 Jun 21 19:54	19° II 59'03		minimum elong	3897 May 24 13:03	4° II 52'43	0°33'30
direct	3896 Jun 25 20:03	19° II 24'18		desc. node	3897 May 26 10:29	3° II 36'20	
morning max el	3896 Jul 09 09:35	26° II 01'27	23°44'18	min. Earth dist.	3897 May 27 08:21	3° II 00'26	0.56235 AU
	3896 Jul 13 04:18	0° B		morning rise	3897 Jun 01 19:58	0° II 05'55	
asc. node	3896 Jul 29 10:31	25° B 52'57			3897 Jun 02 02:28	30° R B	
	3896 Jul 31 11:25	0° Ω		direct	3897 Jun 06 18:39	29° B 09'20	
morning set	3896 Aug 02 09:26	3° Ω 59'48			3897 Jun 11 10:49	0° II	
				morning max el	3897 Jun 20 23:41	6° II 24'57	25°24'26
superior conj	3896 Aug 09 10:28	19° Ω 10'00	1°32'56		3897 Jul 08 04:29	0° B	
minimum elong	3896 Aug 09 08:30	18° Ω 59'20	1°32'45	asc. node	3897 Jul 16 07:36	15° B 36'58	
max. Earth dist.	3896 Aug 11 17:08	24° Ω 03'00	1.33325 AU	morning set	3897 Jul 17 21:06	18° B 53'17	
	3896 Aug 14 13:10	0° B			3897 Jul 23 00:19	0° Ω	
evening rise	3896 Aug 16 23:10	4° B 55'28					
	3896 Aug 30 19:55	0° Ω		superior conj	3897 Jul 24 20:46	4° Ω 03'56	1°19'03
desc. node	3896 Sep 04 12:48	7° Ω 15'27		minimum elong	3897 Jul 24 18:26	3° Ω 51'09	1°18'43
evening max el	3896 Sep 19 18:34	26° Ω 04'08	27°24'07	max. Earth dist.	3897 Jul 25 23:51	6° Ω 32'10	1.32495 AU
	3896 Sep 24 11:59	0° B		evening rise	3897 Jul 31 23:52	19° Ω 20'07	
retrograde	3896 Oct 03 08:16	3° B 22'03			3897 Aug 06 08:49	0° B	
evening set	3896 Oct 10 10:31	0° B 43'03		desc. node	3897 Aug 22 09:49	26° B 18'18	
	3896 Oct 11 08:23	30° R Ω			3897 Aug 25 04:43	0° Ω	
min. Earth dist.	3896 Oct 14 04:00	27° Ω 22'25	0.64050 AU	evening max el	3897 Sep 02 03:19	8° Ω 52'57	27°20'43
inferior conj	3896 Oct 16 15:23	24° Ω 47'37	-2°-49'-55	retrograde	3897 Sep 15 22:41	16° Ω 08'04	
minimum elong	3896 Oct 16 20:08	24° Ω 35'14	2°48'15	evening set	3897 Sep 23 02:59	13° Ω 41'54	
morning rise	3896 Oct 23 08:04	19° Ω 24'00		min. Earth dist.	3897 Sep 26 17:32	10° Ω 49'33	0.62248 AU
asc. node	3896 Oct 25 09:43	18° Ω 54'28		inferior conj	3897 Sep 29 16:11	8° Ω 05'25	-3°-48'-19
direct	3896 Oct 25 19:08	18° Ω 53'41		minimum elong	3897 Sep 29 22:02	7° Ω 51'48	3°46'40
morning max el	3896 Nov 01 07:44	22° Ω 19'00	17°53'33	morning rise	3897 Oct 06 20:00	3° Ω 00'42	
	3896 Nov 07 07:11	0° B		direct	3897 Oct 09 03:47	2° Ω 36'49	
morning set	3896 Nov 18 04:03	18° B 01'03		asc. node	3897 Oct 12 06:47	3° Ω 21'21	
	3896 Nov 25 05:48	0° X		morning max el	3897 Oct 15 23:43	6° Ω 05'12	17°51'48
					3897 Oct 31 09:17	0° B	
superior conj	3896 Dec 01 02:17	9° X 38'57	0°02'50	morning set	3897 Oct 31 21:29	0° B 54'46	
minimum elong	3896 Dec 01 02:35	9° X 40'13	0°02'48				
behind sun begin	3896 Nov 30 16:42	8° X 59'58		superior conj	3897 Nov 11 23:21	20° B 24'38	0°43'46
behind sun end	3896 Dec 01 12:29	10° X 20'23		minimum elong	3897 Nov 12 03:02	20° B 40'22	0°43'14
desc. node	3896 Dec 01 12:03	10° X 18'40			3897 Nov 17 16:56	0° X	
max. Earth dist.	3896 Dec 06 12:25	18° X 21'43	1.44525 AU	desc. node	3897 Nov 18 09:06	1° X 06'14	
	3896 Dec 13 22:30	0° B		max. Earth dist.	3897 Nov 19 03:13	2° X 20'05	1.43211 AU
evening rise	3896 Dec 17 03:10	4° B 55'55		evening rise	3897 Nov 26 14:46	14° X 14'26	
	3897 Jan 02 20:30	0° \approx			3897 Dec 06 23:37	0° B	
greatest brilliancy	3897 Jan 07 18:31	6° \approx 49'48	-0.5m	greatest brilliancy	3897 Dec 22 20:59	22° B 07'43	-0.4m
evening max el	3897 Jan 13 20:17	14° \approx 07'23	20°25'56	evening max el	3897 Dec 27 17:39	27° B 40'49	21°36'48
asc. node	3897 Jan 21 09:01	18° \approx 48'30			3897 Dec 30 05:24	0° \approx	
retrograde	3897 Jan 21 20:14	18° \approx 49'42		retrograde	3898 Jan 05 17:43	3° \approx 01'49	
evening set	3897 Jan 25 15:39	17° \approx 25'48		asc. node	3898 Jan 08 06:02	2° \approx 27'34	
inferior conj	3897 Jan 31 01:56	11° \approx 16'23	2°49'40	evening set	3898 Jan 09 23:28	1° \approx 22'36	
minimum elong	3897 Jan 30 23:28	11° \approx 24'46	2°49'04		3898 Jan 11 11:19	30° R B	
min. Earth dist.	3897 Jan 31 18:13	10° \approx 20'54	0.67393 AU	inferior conj	3898 Jan 15 08:53	25° B 03'24	2°13'32
morning rise	3897 Feb 05 06:47	5° \approx 00'32		minimum elong	3898 Jan 15 06:28	25° B 11'45	2°12'46
direct	3897 Feb 10 21:25	2° \approx 31'41		min. Earth dist.	3898 Jan 15 13:01	24° B 49'04	0.67885 AU
morning max el	3897 Feb 22 06:00	9° \approx 18'58	24°31'19	morning rise	3898 Jan 20 13:11	18° B 49'03	
desc. node	3897 Feb 27 11:16	15° \approx 08'40		direct	3898 Jan 25 13:01	16° B 40'54	

morning max el	3898 Feb 04 15:19	22°  40'20	23°02'13	morning max el	3899 Jan 18 04:51	6°  09'41	21°36'29
greatest brilliancy	3898 Feb 09 11:37	28°  05'14	-0.3m	greatest brilliancy	3899 Jan 23 02:09	11°  41'27	-0.4m
	3898 Feb 11 00:52	0° 		desc. node	3899 Feb 01 05:22	23°  58'38	
desc. node	3898 Feb 14 08:20	4°  17'13			3899 Feb 05 09:10	0° 	
	3898 Mar 03 22:19	0° 		morning set	3899 Feb 19 01:56	20°  57'25	
morning set	3898 Mar 11 05:24	11°  47'54			3899 Feb 24 16:10	0° 	
max. Earth dist.	3898 Mar 15 15:30	19°  17'22	1.39708 AU	max. Earth dist.	3899 Feb 25 15:22	1°  35'41	1.41815 AU
	3898 Mar 21 16:44	0° 					
superior conj	3898 Mar 23 08:42	3°  02'25	-1°-50'-36	superior conj	3899 Mar 05 05:21	14°  28'04	-2°-5'-5
minimum elong	3898 Mar 23 13:16	3°  23'28	1°50'14	minimum elong	3899 Mar 05 07:47	14°  38'43	2°05'02
evening rise	3898 Apr 02 00:46	21°  19'20			3899 Mar 13 21:49	0° 	
asc. node	3898 Apr 06 05:23	29°  15'14		evening rise	3899 Mar 16 04:44	4°  11'15	
	3898 Apr 06 15:04	0° 		asc. node	3899 Mar 24 02:24	18°  19'41	
evening max el	3898 Apr 18 04:17	17°  16'42	18°31'54		3899 Apr 01 10:17	0° 	
retrograde	3898 Apr 25 20:26	21°  03'22		evening max el	3899 Apr 01 13:38	0°  08'17	18°10'22
evening set	3898 Apr 28 02:43	20°  44'44		retrograde	3899 Apr 08 09:38	3°  35'20	
inferior conj	3898 May 05 16:59	16°  15'24	2°03'29	evening set	3899 Apr 10 22:10	3°  07'42	
minimum elong	3898 May 05 20:36	16°  08'17	2°02'26		3899 Apr 15 20:42	30°  R 	
min. Earth dist.	3898 May 09 02:53	13°  36'04	0.58059 AU	inferior conj	3899 Apr 17 19:15	28°  16'54	3°00'42
morning rise	3898 May 13 10:04	10°  52'59		minimum elong	3899 Apr 17 22:23	28°  09'43	3°00'05
desc. node	3898 May 13 07:32	10°  56'08		min. Earth dist.	3899 Apr 21 03:14	25°  15'35	0.60211 AU
direct	3898 May 19 07:42	9°  24'06		morning rise	3899 Apr 24 19:05	22°  29'57	
morning max el	3898 Jun 02 16:52	17°  03'34	26°46'31	desc. node	3899 Apr 30 04:33	20°  30'21	
	3898 Jun 13 08:50	0°  II		direct	3899 May 01 08:56	20°  26'25	
	3898 Jun 30 12:48	0° 		morning max el	3899 May 15 16:19	28°  18'54	27°37'36
morning set	3898 Jul 02 07:14	3°  40'25			3899 May 17 07:44	0° 	
asc. node	3898 Jul 03 04:39	5°  33'43			3899 Jun 07 03:05	0°  II	
				morning set	3899 Jun 16 14:06	18°  16'02	
superior conj	3898 Jul 09 08:29	18°  59'27	1°00'44	asc. node	3899 Jun 20 01:41	25°  II38'31	
minimum elong	3898 Jul 09 06:17	18°  47'17	1°00'20		3899 Jun 22 01:50	0° 	
max. Earth dist.	3898 Jul 09 10:47	19°  12'08	1.32080 AU	max. Earth dist.	3899 Jun 22 22:19	1°  52'16	1.32073 AU
	3898 Jul 14 09:16	0° 					
evening rise	3898 Jul 16 06:26	4°  00'14		superior conj	3899 Jun 23 19:56	3°  51'01	0°38'37
	3898 Jul 30 03:35	0° 		minimum elong	3899 Jun 23 18:18	3°  42'04	0°38'17
desc. node	3898 Aug 09 06:50	14°  17'52		evening rise	3899 Jun 30 16:36	18°  48'38	
evening max el	3898 Aug 15 06:35	20°  59'37	26°44'02		3899 Jul 06 04:13	0° 	
retrograde	3898 Aug 29 05:06	28°  10'22			3899 Jul 25 20:10	0° 	
evening set	3898 Sep 05 01:46	26°  10'00		desc. node	3899 Jul 27 03:50	1°  17'22'18	
min. Earth dist.	3898 Sep 08 20:35	23°  33'42	0.60230 AU	evening max el	3899 Jul 28 02:25	2°  17'36	25°35'53
inferior conj	3898 Sep 12 02:22	20°  55'25	-4°-37'-31	retrograde	3899 Aug 11 01:43	9°  17'36	
minimum elong	3898 Sep 12 07:45	20°  44'25	4°36'32	evening set	3899 Aug 17 02:01	7°  17'36	
morning rise	3898 Sep 19 17:03	16°  12'29		min. Earth dist.	3899 Aug 21 14:25	5°  21'33	0.58181 AU
direct	3898 Sep 22 00:53	15°  52'06		inferior conj	3899 Aug 24 18:25	3°  07'34	-5°-7'-5
asc. node	3898 Sep 29 03:51	19°  12'53		minimum elong	3899 Aug 24 20:36	3°  03'42	5°06'59
morning max el	3898 Sep 29 11:52	19°  31'53	18°09'12		3899 Aug 29 16:36	30°  R 	
	3898 Oct 07 05:14	0° 		morning rise	3899 Sep 01 18:40	28°  048'06	
morning set	3898 Oct 15 06:24	14°  32'20		direct	3899 Sep 04 06:03	28°  028'56	
	3898 Oct 23 13:57	0° 			3899 Sep 09 11:00	0° 	
superior conj	3898 Oct 24 21:48	2°  23'59	1°13'58	morning max el	3899 Sep 12 16:53	2°  17'36	18°47'18
minimum elong	3898 Oct 25 01:52	2°  42'14	1°13'30	asc. node	3899 Sep 16 00:54	6°  14'25	
max. Earth dist.	3898 Nov 01 13:07	15°  42'43	1.41417 AU	morning set	3899 Sep 29 02:07	28°  14'25	
desc. node	3898 Nov 05 06:07	21°  52'26			3899 Sep 29 18:19	0° 	
evening rise	3898 Nov 06 17:32	24°  16'29		superior conj	3899 Oct 07 16:42	15°  023'24	1°33'10
	3898 Nov 10 07:41	0° 		minimum elong	3899 Oct 07 19:31	15°  036'42	1°32'57
	3898 Nov 30 22:18	0° 		max. Earth dist.	3899 Oct 14 18:50	28°  023'28	1.39361 AU
greatest brilliancy	3898 Dec 05 02:33	5°  18'18	-0.2m		3899 Oct 15 16:45	0° 	
evening max el	3898 Dec 10 10:14	11°  16'30	22°55'03	evening rise	3899 Oct 18 19:02	5°  16'45	
retrograde	3898 Dec 20 12:48	17°  16'11		desc. node	3899 Oct 23 03:08	12°  16'45	
evening set	3898 Dec 25 06:41	15°  20'41			3899 Nov 03 10:20	0° 	
asc. node	3898 Dec 26 03:05	14°  34'55		evening max el	3899 Nov 22 23:42	24°  55'32	24°14'45
inferior conj	3898 Dec 30 16:44	8°  55'28	1°30'02		3899 Nov 29 07:21	0° 	
minimum elong	3898 Dec 30 14:50	9°  02'00	1°29'19	retrograde	3899 Dec 04 04:21	1°  29'14	
min. Earth dist.	3898 Dec 30 09:40	9°  19'52	0.67999 AU		3899 Dec 08 13:37	30°  R 	
morning rise	3899 Jan 04 22:58	2°  44'36		evening set	3899 Dec 09 11:42	29°  17'27	
direct	3899 Jan 09 08:08	0° 		asc. node	3899 Dec 13 00:07	25°  17'27	
				min. Earth dist.	3899 Dec 14 05:49	23°  17'27	0.67758 AU

inferior conj	3899 Dec 14 23:42	22°♄50'13	0°40'16	inferior conj	3900 Nov 29 04:02	6°♄45'30	0°-14'-39
minimum elong	3899 Dec 14 22:45	22°♄53'25	0°39'53	minimum elong	3900 Nov 29 04:24	6°♄44'17	0°14'30
morning rise	3899 Dec 20 10:08	16°♄44'56		transit middle	3900 Nov 29 04:24	6°♄44'17	0°14'30
direct	3899 Dec 24 05:41	15°♄22'01		transit begin	3900 Nov 29 03:10	6°♄48'16	
morning max el	3900 Jan 01 01:42	19°♄50'34	20°20'37	transit end	3900 Nov 29 05:39	6°♄40'18	
greatest brilliancy	3900 Jan 07 11:26	27°♄26'24	-0.5m	asc. node	3900 Nov 29 21:09	5°♄50'47	
	3900 Jan 09 09:00	0°♄		morning rise	3900 Dec 04 20:43	0°♄48'05	
desc. node	3900 Jan 19 02:22	14°♄03'38			3900 Dec 06 13:08	30°♄	
morning set	3900 Jan 29 00:49	29°♄10'54		direct	3900 Dec 08 04:17	29°♄44'47	
	3900 Jan 29 13:30	0°♄			3900 Dec 09 20:24	0°♄	
max. Earth dist.	3900 Feb 07 23:08	14°♄49'29	1.43571 AU	morning max el	3900 Dec 15 06:31	3°♄42'43	19°18'36
				greatest brilliancy	3900 Dec 24 16:58	15°♄48'53	-0.7m
superior conj	3900 Feb 14 01:13	24°♄44'45	-2°-5'-43		3901 Jan 03 02:29	0°♄	
minimum elong	3900 Feb 13 22:34	24°♄33'49	2°05'40	desc. node	3901 Jan 05 23:23	4°♄25'59	
	3900 Feb 17 04:49	0°♄		morning set	3901 Jan 08 00:43	7°♄36'58	
evening rise	3900 Feb 26 15:57	16°♄14'59		max. Earth dist.	3901 Jan 21 13:18	28°♄44'23	1.44759 AU
	3900 Mar 06 15:12	0°♄			3901 Jan 22 08:27	0°♄	
asc. node	3900 Mar 10 23:26	6°♄52'45		superior conj	3901 Jan 24 19:50	3°♄55'30	-1°-47'-43
evening max el	3900 Mar 16 01:58	13°♄18'37	18°08'17	minimum elong	3901 Jan 24 11:39	3°♄22'55	1°47'06
retrograde	3900 Mar 22 13:05	16°♄41'29		evening rise	3901 Feb 08 06:15	27°♄23'43	
evening set	3900 Mar 25 07:17	16°♄03'25			3901 Feb 09 19:54	0°♄	
inferior conj	3900 Mar 31 15:01	10°♄51'58	3°29'45	asc. node	3901 Feb 25 20:27	24°♄45'11	
minimum elong	3900 Mar 31 16:30	10°♄48'07	3°29'36	evening max el	3901 Feb 27 14:24	26°♄40'57	18°25'01
min. Earth dist.	3900 Apr 03 11:53	7°♄53'14	0.62358 AU		3901 Mar 04 13:29	0°♄	
morning rise	3900 Apr 06 23:15	4°♄49'44		retrograde	3901 Mar 06 02:08	0°♄12'45	
direct	3900 Apr 13 20:02	2°♄18'10			3901 Mar 07 14:32	30°♄	
desc. node	3900 Apr 17 01:35	2°♄48'33		evening set	3901 Mar 09 02:05	29°♄23'18	
morning max el	3900 Apr 27 21:49	10°♄16'37	27°51'29	inferior conj	3901 Mar 15 00:11	23°♄52'57	3°37'02
	3900 May 13 07:14	0°♄		minimum elong	3901 Mar 14 23:57	23°♄53'37	3°37'01
	3900 May 30 09:14	0°♄		min. Earth dist.	3901 Mar 17 06:08	21°♄16'42	0.64268 AU
morning set	3900 May 31 15:37	2°♄32'42		morning rise	3901 Mar 20 20:13	17°♄42'24	
max. Earth dist.	3900 Jun 06 06:25	14°♄18'27	1.32478 AU	direct	3901 Mar 27 15:27	14°♄55'12	
asc. node	3900 Jun 06 22:43	15°♄46'17		desc. node	3901 Apr 03 22:36	17°♄30'05	
superior conj	3900 Jun 08 05:17	18°♄31'59	0°13'20	morning max el	3901 Apr 10 06:58	22°♄50'56	27°28'48
minimum elong	3900 Jun 08 04:39	18°♄28'34	0°13'12		3901 Apr 16 14:56	0°♄	
behind sun begin	3900 Jun 08 01:45	18°♄12'45			3901 May 06 13:25	0°♄	
behind sun end	3900 Jun 08 07:34	18°♄44'25		morning set	3901 May 15 09:14	16°♄22'49	
	3900 Jun 13 11:41	0°♄		max. Earth dist.	3901 May 20 06:59	26°♄18'28	1.33318 AU
evening rise	3900 Jun 15 04:18	3°♄37'44			3901 May 22 01:19	0°♄	
	3900 Jun 29 08:58	0°♄		superior conj	3901 May 23 10:43	2°♄56'59	0°-14'-20
evening max el	3900 Jul 09 16:04	12°♄54'22	24°05'42	minimum elong	3901 May 23 11:27	3°♄00'51	0°14'11
desc. node	3900 Jul 14 00:51	16°♄31'37		behind sun begin	3901 May 23 08:56	2°♄47'29	
retrograde	3900 Jul 23 10:54	19°♄51'00		behind sun end	3901 May 23 13:58	3°♄14'14	
evening set	3900 Jul 28 02:14	19°♄03'18		asc. node	3901 May 24 19:45	5°♄53'17	
min. Earth dist.	3900 Aug 03 02:35	16°♄05'52	0.56379 AU	evening rise	3901 May 30 15:45	18°♄21'45	
inferior conj	3900 Aug 05 14:08	14°♄33'53	-5°-2'-16		3901 Jun 05 09:45	0°♄	
minimum elong	3900 Aug 05 10:30	14°♄39'32	5°01'58	evening max el	3901 Jun 21 06:08	23°♄18'15	22°28'44
morning rise	3900 Aug 13 22:15	10°♄34'55		desc. node	3901 Jun 30 21:52	29°♄21'15	
direct	3900 Aug 16 15:41	10°♄15'33		retrograde	3901 Jul 04 08:01	29°♄48'15	
morning max el	3900 Aug 26 11:48	14°♄49'59	19°47'08	evening set	3901 Jul 07 11:29	29°♄26'27	
asc. node	3900 Sep 02 21:56	24°♄10'48		min. Earth dist.	3901 Jul 15 13:20	25°♄55'12	0.55172 AU
	3900 Sep 06 09:08	0°♄		inferior conj	3901 Jul 16 15:57	25°♄17'25	-4°-9'-10
morning set	3900 Sep 13 05:13	13°♄10'18		minimum elong	3901 Jul 16 07:44	25°♄29'05	4°07'15
superior conj	3900 Sep 21 02:40	29°♄07'27	1°42'40	morning rise	3901 Jul 25 06:19	21°♄27'09	
minimum elong	3900 Sep 21 03:46	29°♄12'59	1°42'38	direct	3901 Jul 28 07:50	21°♄05'49	
	3900 Sep 21 13:16	0°♄		morning max el	3901 Aug 08 18:58	26°♄25'52	21°07'50
max. Earth dist.	3900 Sep 26 23:36	10°♄28'07	1.37294 AU		3901 Aug 12 04:02	0°♄	
evening rise	3900 Sep 30 19:08	17°♄27'31		asc. node	3901 Aug 20 18:58	12°♄49'32	
	3900 Oct 08 02:23	0°♄		morning set	3901 Aug 28 13:09	27°♄53'45	
desc. node	3900 Oct 10 00:09	3°♄06'10			3901 Aug 29 13:28	0°♄	
	3900 Oct 28 19:00	0°♄		superior conj	3901 Sep 04 23:16	13°♄22'59	1°44'02
evening max el	3900 Nov 05 11:56	8°♄37'21	25°29'11	minimum elong	3901 Sep 04 22:51	13°♄20'48	1°44'02
retrograde	3900 Nov 17 15:34	15°♄36'37		max. Earth dist.	3901 Sep 09 08:59	22°♄18'33	1.35455 AU
evening set	3900 Nov 23 12:54	13°♄10'15			3901 Sep 13 08:18	0°♄	
min. Earth dist.	3900 Nov 27 23:13	8°♄18'06	0.67165 AU				

evening rise	3901 Sep 13 14:08	0°♄27'31			3902 Sep 05 13:16	0°♄	
desc. node	3901 Sep 26 21:11	23°♄24'00		desc. node	3902 Sep 13 18:14	13°♄20'45	
	3901 Oct 01 04:57	0°♄			3902 Sep 26 02:00	0°♄	
evening max el	3901 Oct 19 00:20	22°♄17'40	26°30'53	evening max el	3902 Oct 01 12:54	5°♄48'35	27°12'18
retrograde	3901 Oct 31 21:44	29°♄31'24		retrograde	3902 Oct 14 22:08	13°♄06'29	
evening set	3901 Nov 07 08:22	26°♄54'33		evening set	3902 Oct 21 19:48	10°♄25'55	
min. Earth dist.	3901 Nov 11 11:34	22°♄38'18	0.66224 AU	min. Earth dist.	3902 Oct 25 16:35	6°♄45'27	0.64942 AU
inferior conj	3901 Nov 13 03:47	20°♄37'13	-1°-13'-35	inferior conj	3902 Oct 27 20:47	4°♄21'08	-2°-14'-43
minimum elong	3901 Nov 13 05:48	20°♄31'09	1°12'45	minimum elong	3902 Oct 28 00:35	4°♄10'38	2°13'15
asc. node	3901 Nov 16 18:11	16°♄39'00			3902 Nov 01 07:47	30°♄	
morning rise	3901 Nov 19 04:36	14°♄50'19		morning rise	3902 Nov 03 07:18	28°♄47'45	
direct	3901 Nov 22 02:16	14°♄02'52		asc. node	3902 Nov 03 15:12	28°♄39'21	
morning max el	3901 Nov 28 17:48	17°♄40'59	18°32'16	direct	3902 Nov 05 21:30	28°♄12'11	
	3901 Dec 08 00:48	0°♄			3902 Nov 10 11:47	0°♄	
morning set	3901 Dec 18 23:41	17°♄16'10		morning max el	3902 Nov 12 09:11	1°♄39'50	18°02'39
desc. node	3901 Dec 23 20:25	25°♄00'12		morning set	3902 Nov 30 04:15	28°♄23'47	
	3901 Dec 27 00:13	0°♄			3902 Dec 01 03:25	0°♄	
				desc. node	3902 Dec 10 17:29	15°♄42'28	
superior conj	3902 Jan 03 23:03	12°♄30'16	-1°-11'-9	superior conj	3902 Dec 14 06:49	21°♄24'23	0°-24'-13
minimum elong	3902 Jan 03 14:38	11°♄57'15	1°10'10	minimum elong	3902 Dec 14 03:48	21°♄12'25	0°23'48
max. Earth dist.	3902 Jan 04 07:16	13°♄02'31	1.45251 AU	max. Earth dist.	3902 Dec 18 02:35	27°♄28'00	1.45002 AU
	3902 Jan 15 02:12	0°♄			3902 Dec 19 17:14	0°♄	
evening rise	3902 Jan 19 21:11	7°♄35'08		evening rise	3902 Dec 30 15:51	17°♄01'10	
	3902 Feb 03 04:46	0°♄			3903 Jan 08 02:43	0°♄	
evening max el	3902 Feb 11 00:32	10°♄09'39	18°59'35		3903 Jan 18 01:02	14°♄40'58	-0.6m
asc. node	3902 Feb 12 17:29	11°♄44'44		greatest brilliancy	3903 Jan 25 06:28	23°♄41'25	19°50'22
retrograde	3902 Feb 17 20:55	14°♄01'31		evening max el	3903 Jan 30 14:31	27°♄37'27	
evening set	3902 Feb 21 03:24	12°♄59'36		asc. node	3903 Feb 01 18:28	28°♄02'45	
inferior conj	3902 Feb 26 19:00	7°♄12'18	3°28'01	retrograde	3903 Feb 05 08:47	26°♄47'10	
minimum elong	3902 Feb 26 17:29	7°♄17'05	3°27'51	evening set	3903 Feb 10 20:24	20°♄45'09	3°06'35
min. Earth dist.	3902 Feb 28 09:28	5°♄11'18	0.65814 AU	inferior conj	3903 Feb 10 18:08	20°♄52'42	3°06'08
morning rise	3902 Mar 04 06:32	0°♄57'54		minimum elong	3903 Feb 11 20:22	19°♄25'24	0.66943 AU
	3902 Mar 05 11:27	30°♄		min. Earth dist.	3903 Feb 16 02:51	14°♄29'28	
direct	3902 Mar 10 17:45	28°♄09'00		morning rise	3903 Feb 22 01:46	11°♄50'50	
	3902 Mar 16 14:19	0°♄		direct	3903 Mar 06 01:51	19°♄00'42	25°20'22
desc. node	3902 Mar 21 19:37	3°♄59'58		morning max el	3903 Mar 08 16:40	21°♄48'13	
morning max el	3902 Mar 23 16:52	5°♄49'16	26°35'29	desc. node	3903 Mar 15 09:33	0°♄	
	3902 Apr 11 06:47	0°♄			3903 Apr 04 08:46	0°♄	
morning set	3902 Apr 28 15:33	29°♄36'04		morning set	3903 Apr 11 05:57	11°♄58'44	
	3902 Apr 28 20:36	0°♄		max. Earth dist.	3903 Apr 14 23:18	18°♄50'00	1.36371 AU
max. Earth dist.	3902 May 02 20:44	7°♄46'02	1.34618 AU		3903 Apr 20 18:06	0°♄	
superior conj	3902 May 07 10:01	16°♄59'27	0°-43'-18	superior conj	3903 Apr 21 00:22	0°♄31'07	-1°-11'-59
minimum elong	3902 May 07 12:19	17°♄11'19	0°42'51	minimum elong	3903 Apr 21 04:11	0°♄50'01	1°11'23
asc. node	3902 May 11 16:48	25°♄55'32		asc. node	3903 Apr 28 13:51	15°♄48'15	
	3902 May 13 15:27	0°♄		evening rise	3903 Apr 29 05:51	17°♄09'15	
evening rise	3902 May 15 00:59	2°♄54'35			3903 May 05 20:44	0°♄	
	3902 May 30 13:51	0°♄			3903 May 16 14:59	15°♄24'19	19°46'26
evening max el	3902 Jun 03 04:34	4°♄02'27	20°59'26	evening max el	3903 May 26 13:38	20°♄14'34	
retrograde	3902 Jun 14 20:59	9°♄45'45		retrograde	3903 May 28 12:38	20°♄04'08	
evening set	3902 Jun 17 01:36	9°♄34'27		evening set	3903 Jun 04 15:54	17°♄04'27	
desc. node	3902 Jun 17 18:52	9°♄26'01		desc. node	3903 Jun 06 08:49	16°♄02'12	0°-30'-15
inferior conj	3902 Jun 26 09:26	5°♄37'08	-2°-29'-41	inferior conj	3903 Jun 06 07:26	16°♄04'20	0°29'45
minimum elong	3902 Jun 26 02:36	5°♄46'47	2°27'22	minimum elong	3903 Jun 08 14:03	14°♄40'12	0.55482 AU
min. Earth dist.	3902 Jun 27 00:55	5°♄15'13	0.54842 AU	min. Earth dist.	3903 Jun 14 23:07	11°♄34'04	
morning rise	3902 Jul 05 03:09	1°♄36'50		morning rise	3903 Jun 19 08:39	10°♄51'21	
direct	3902 Jul 08 17:19	1°♄09'03		direct	3903 Jul 03 05:57	17°♄46'03	24°28'06
morning max el	3902 Jul 21 15:31	7°♄19'43	22°44'50	morning max el	3903 Jul 13 07:05	0°♄	
	3902 Aug 06 14:34	0°♄			3903 Jul 25 13:05	21°♄34'23	
asc. node	3902 Aug 07 16:01	2°♄00'28		asc. node	3903 Jul 28 11:43	27°♄40'15	
morning set	3902 Aug 12 23:55	12°♄45'49		morning set	3903 Jul 29 14:00	0°♄	
superior conj	3902 Aug 20 03:13	28°♄00'12	1°38'40	superior conj	3903 Aug 04 11:48	12°♄49'47	1°27'38
minimum elong	3902 Aug 20 01:41	27°♄51'58	1°38'33	minimum elong	3903 Aug 04 09:37	12°♄37'53	1°27'22
	3902 Aug 21 01:47	0°♄			3903 Aug 06 06:17	16°♄39'56	1.32925 AU
max. Earth dist.	3902 Aug 23 03:16	4°♄19'46	1.33985 AU	max. Earth dist.	3903 Aug 11 19:50	28°♄21'18	
evening rise	3902 Aug 27 23:43	14°♄09'34		evening rise			

	3903 Aug 12 15:22	0° $\mathring{\text{M}}$		max. Earth dist.	3904 Jul 19 15:23	29° $\mathring{\text{G}}$ 15'40	1.32274 AU
	3903 Aug 29 17:51	0° $\mathring{\text{A}}$			3904 Jul 19 23:27	0° $\mathring{\text{O}}$	
desc. node	3903 Aug 31 15:15	2° $\mathring{\text{A}}$ 46'32		evening rise	3904 Jul 25 23:20	12° $\mathring{\text{O}}$ 53'23	
evening max el	3903 Sep 13 23:48	18° $\mathring{\text{A}}$ 56'33	27°26'42		3904 Aug 03 18:14	0° $\mathring{\text{M}}$	
retrograde	3903 Sep 27 16:04	26° $\mathring{\text{A}}$ 12'40		desc. node	3904 Aug 17 12:15	21° $\mathring{\text{M}}$ 28'46	
evening set	3903 Oct 04 20:11	23° $\mathring{\text{A}}$ 37'54			3904 Aug 24 18:34	0° $\mathring{\text{A}}$	
min. Earth dist.	3903 Oct 08 12:02	20° $\mathring{\text{A}}$ 30'14	0.63321 AU	evening max el	3904 Aug 26 06:25	1° $\mathring{\text{A}}$ 28'04	27°09'06
inferior conj	3903 Oct 11 04:21	17° $\mathring{\text{A}}$ 50'19	-3°-15'-21	retrograde	3904 Sep 09 02:56	8° $\mathring{\text{A}}$ 40'58	
minimum elong	3903 Oct 11 09:40	17° $\mathring{\text{A}}$ 37'02	3°13'36	evening set	3904 Sep 16 05:38	6° $\mathring{\text{A}}$ 24'00	
morning rise	3903 Oct 18 01:42	12° $\mathring{\text{A}}$ 34'04		min. Earth dist.	3904 Sep 19 20:44	3° $\mathring{\text{A}}$ 40'41	0.61412 AU
direct	3903 Oct 20 11:06	12° $\mathring{\text{A}}$ 06'44		inferior conj	3904 Sep 22 23:17	0° $\mathring{\text{A}}$ 56'56	-4°-10'-49
asc. node	3903 Oct 21 12:16	12° $\mathring{\text{A}}$ 12'06		minimum elong	3904 Sep 23 05:12	0° $\mathring{\text{A}}$ 43'53	4°09'23
morning max el	3903 Oct 27 01:46	15° $\mathring{\text{A}}$ 32'13	17°50'32		3904 Sep 24 01:24	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
	3903 Nov 06 05:07	0° $\mathring{\text{M}}$		morning rise	3904 Sep 30 07:51	26° $\mathring{\text{M}}$ 01'21	
morning set	3903 Nov 12 10:05	10° $\mathring{\text{M}}$ 44'21		direct	3904 Oct 02 15:22	25° $\mathring{\text{M}}$ 39'11	
	3903 Nov 23 16:03	0° $\mathring{\text{X}}$		asc. node	3904 Oct 07 09:21	27° $\mathring{\text{M}}$ 16'22	
				morning max el	3904 Oct 09 16:30	29° $\mathring{\text{M}}$ 10'54	17°56'50
superior conj	3903 Nov 24 12:18	1° $\mathring{\text{X}}$ 24'02	0°21'22		3904 Oct 10 11:39	0° $\mathring{\text{A}}$	
minimum elong	3903 Nov 24 14:28	1° $\mathring{\text{X}}$ 33'02	0°21'03	morning set	3904 Oct 25 10:41	23° $\mathring{\text{A}}$ 58'10	
desc. node	3903 Nov 27 14:33	6° $\mathring{\text{X}}$ 29'00			3904 Oct 28 17:49	0° $\mathring{\text{M}}$	
max. Earth dist.	3903 Nov 30 20:12	11° $\mathring{\text{X}}$ 42'43	1.44041 AU				
evening rise	3903 Dec 10 01:21	26° $\mathring{\text{X}}$ 10'59		superior conj	3904 Nov 04 20:35	12° $\mathring{\text{M}}$ 42'15	0°57'59
	3903 Dec 12 13:02	0° $\mathring{\text{Z}}$		minimum elong	3904 Nov 05 00:44	13° $\mathring{\text{M}}$ 00'17	0°57'26
	3904 Jan 02 04:34	0° $\mathring{\approx}$		max. Earth dist.	3904 Nov 12 09:15	25° $\mathring{\text{M}}$ 28'10	1.42490 AU
greatest brilliancy	3904 Jan 02 20:48	0° $\mathring{\approx}$ 52'39	-0.5m	desc. node	3904 Nov 13 11:33	27° $\mathring{\text{M}}$ 16'15	
evening max el	3904 Jan 08 07:00	7° $\mathring{\approx}$ 14'21	20°54'53		3904 Nov 15 03:49	0° $\mathring{\text{X}}$	
retrograde	3904 Jan 16 16:31	12° $\mathring{\approx}$ 12'22		evening rise	3904 Nov 18 17:45	5° $\mathring{\text{X}}$ 43'31	
asc. node	3904 Jan 17 11:32	12° $\mathring{\approx}$ 08'56			3904 Dec 04 20:35	0° $\mathring{\text{Z}}$	
evening set	3904 Jan 20 16:14	10° $\mathring{\approx}$ 41'53		greatest brilliancy	3904 Dec 16 08:38	15° $\mathring{\text{Z}}$ 28'18	-0.3m
inferior conj	3904 Jan 26 01:56	4° $\mathring{\approx}$ 27'57	2°35'20	evening max el	3904 Dec 21 02:01	20° $\mathring{\text{Z}}$ 47'54	22°09'31
minimum elong	3904 Jan 25 23:26	4° $\mathring{\approx}$ 36'32	2°34'37	retrograde	3904 Dec 30 13:12	26° $\mathring{\text{Z}}$ 25'56	
min. Earth dist.	3904 Jan 26 12:51	3° $\mathring{\approx}$ 50'24	0.67652 AU	asc. node	3905 Jan 03 08:34	25° $\mathring{\text{Z}}$ 08'31	
	3904 Jan 29 12:21	30° $\mathring{\text{R}}$ $\mathring{\text{Z}}$		evening set	3905 Jan 03 23:58	24° $\mathring{\text{Z}}$ 39'39	
morning rise	3904 Jan 31 06:15	28° $\mathring{\text{Z}}$ 12'47		inferior conj	3905 Jan 09 09:27	18° $\mathring{\text{Z}}$ 17'12	1°55'56
direct	3904 Feb 05 14:40	25° $\mathring{\text{Z}}$ 52'24		minimum elong	3905 Jan 09 07:12	18° $\mathring{\text{Z}}$ 24'58	1°55'09
	3904 Feb 13 23:13	0° $\mathring{\approx}$		min. Earth dist.	3905 Jan 09 08:38	18° $\mathring{\text{Z}}$ 20'01	0.67971 AU
morning max el	3904 Feb 16 10:26	2° $\mathring{\approx}$ 19'25	23°53'39	morning rise	3905 Jan 14 14:17	12° $\mathring{\text{Z}}$ 04'11	
desc. node	3904 Feb 23 13:43	10° $\mathring{\approx}$ 32'30		direct	3905 Jan 19 07:42	10° $\mathring{\text{Z}}$ 06'00	
	3904 Mar 08 11:32	0° $\mathring{\text{X}}$		morning max el	3905 Jan 28 21:14	15° $\mathring{\text{Z}}$ 44'18	22°25'01
morning set	3904 Mar 22 22:41	23° $\mathring{\text{X}}$ 15'48		greatest brilliancy	3905 Feb 02 10:38	20° $\mathring{\text{Z}}$ 49'31	-0.3m
	3904 Mar 26 19:19	0° $\mathring{\text{Y}}$		desc. node	3905 Feb 09 10:45	29° $\mathring{\text{Z}}$ 56'14	
max. Earth dist.	3904 Mar 26 19:22	0° $\mathring{\text{Y}}$ 00'14	1.38452 AU		3905 Feb 09 11:51	0° $\mathring{\approx}$	
					3905 Mar 01 12:21	0° $\mathring{\text{X}}$	
superior conj	3904 Apr 03 02:12	13° $\mathring{\text{Y}}$ 22'54	-1°-38'-3	morning set	3905 Mar 03 11:54	3° $\mathring{\text{X}}$ 12'21	
minimum elong	3904 Apr 03 06:54	13° $\mathring{\text{Y}}$ 45'10	1°37'31	max. Earth dist.	3905 Mar 08 15:56	11° $\mathring{\text{X}}$ 47'18	1.40627 AU
	3904 Apr 11 15:43	0° $\mathring{\text{B}}$					
evening rise	3904 Apr 12 03:44	0° $\mathring{\text{B}}$ 58'52		superior conj	3905 Mar 16 10:53	25° $\mathring{\text{X}}$ 22'47	-1°-58'-6
asc. node	3904 Apr 14 10:54	5° $\mathring{\text{B}}$ 27'01		minimum elong	3905 Mar 16 14:54	25° $\mathring{\text{X}}$ 40'52	1°57'51
evening max el	3904 Apr 28 12:40	27° $\mathring{\text{B}}$ 26'35	18°53'10		3905 Mar 19 00:01	0° $\mathring{\text{Y}}$	
	3904 May 01 18:18	0° $\mathring{\text{II}}$		evening rise	3905 Mar 26 15:19	14° $\mathring{\text{Y}}$ 14'12	
retrograde	3904 May 06 21:52	1° $\mathring{\text{II}}$ 32'30		asc. node	3905 Apr 01 07:54	24° $\mathring{\text{Y}}$ 45'47	
evening set	3904 May 09 00:32	1° $\mathring{\text{II}}$ 17'54			3905 Apr 04 08:41	0° $\mathring{\text{B}}$	
	3904 May 12 09:52	30° $\mathring{\text{R}}$ $\mathring{\text{B}}$		evening max el	3905 Apr 11 18:41	10° $\mathring{\text{B}}$ 02'28	18°20'15
inferior conj	3904 May 17 01:52	26° $\mathring{\text{B}}$ 59'45	1°15'50	retrograde	3905 Apr 19 01:02	13° $\mathring{\text{B}}$ 39'11	
minimum elong	3904 May 17 04:37	26° $\mathring{\text{B}}$ 54'48	1°14'55	evening set	3905 Apr 21 09:52	13° $\mathring{\text{B}}$ 17'05	
min. Earth dist.	3904 May 20 06:04	24° $\mathring{\text{B}}$ 44'08	0.56952 AU	inferior conj	3905 Apr 28 16:25	8° $\mathring{\text{B}}$ 38'37	2°31'33
desc. node	3904 May 21 12:54	23° $\mathring{\text{B}}$ 53'06		minimum elong	3905 Apr 28 20:04	8° $\mathring{\text{B}}$ 30'56	2°30'38
morning rise	3904 May 25 04:18	21° $\mathring{\text{B}}$ 55'49		min. Earth dist.	3905 May 02 02:57	5° $\mathring{\text{B}}$ 46'43	0.58955 AU
direct	3904 May 30 13:01	20° $\mathring{\text{B}}$ 46'45		morning rise	3905 May 06 02:06	3° $\mathring{\text{B}}$ 04'06	
morning max el	3904 Jun 13 20:53	28° $\mathring{\text{B}}$ 13'20	26°02'28	desc. node	3905 May 08 09:56	2° $\mathring{\text{B}}$ 01'13	
	3904 Jun 15 15:08	0° $\mathring{\text{II}}$		direct	3905 May 12 07:28	1° $\mathring{\text{B}}$ 20'19	
	3904 Jul 05 17:30	0° $\mathring{\text{G}}$		morning max el	3905 May 26 16:51	9° $\mathring{\text{B}}$ 06'59	27°12'33
asc. node	3904 Jul 11 10:10	11° $\mathring{\text{G}}$ 24'44			3905 Jun 11 15:16	0° $\mathring{\text{II}}$	
morning set	3904 Jul 11 22:57	12° $\mathring{\text{G}}$ 31'59		morning set	3905 Jun 26 07:56	27° $\mathring{\text{II}}$ 15'21	
					3905 Jun 27 15:09	0° $\mathring{\text{G}}$	
superior conj	3904 Jul 18 22:55	27° $\mathring{\text{G}}$ 45'04	1°11'46	asc. node	3905 Jun 28 07:13	1° $\mathring{\text{G}}$ 25'42	
minimum elong	3904 Jul 18 20:35	27° $\mathring{\text{G}}$ 32'13	1°11'24				

superior conj	3905 Jul 03 10:44	12° \mathfrak{S} 39'50	0°51'46	superior conj	3906 Jun 17 21:31	27° \mathbb{I} 28'01	0°28'14
minimum elong	3905 Jul 03 08:43	12° \mathfrak{S} 28'44	0°51'23	minimum elong	3906 Jun 17 20:16	27° \mathbb{I} 21'09	0°27'59
max. Earth dist.	3905 Jul 03 03:00	11° \mathfrak{S} 57'12	1.32025 AU		3906 Jun 19 01:13	0° \mathfrak{S}	
evening rise	3905 Jul 10 07:41	27° \mathfrak{S} 37'50		evening rise	3906 Jun 24 18:43	12° \mathfrak{S} 27'27	
	3905 Jul 11 10:45	0° \mathcal{Q}			3906 Jul 03 15:25	0° \mathcal{Q}	
	3905 Jul 28 07:43	0° \mathfrak{M}		evening max el	3906 Jul 20 23:12	24° \mathcal{Q} 12'30	24°59'28
desc. node	3905 Aug 04 09:14	9° \mathfrak{M} 09'45		desc. node	3906 Jul 22 06:15	25° \mathcal{Q} 24'00	
evening max el	3905 Aug 08 06:24	13° \mathfrak{M} 13'36	26°18'25		3906 Jul 29 03:53	0° \mathfrak{M}	
retrograde	3905 Aug 22 05:45	20° \mathfrak{M} 23'29		retrograde	3906 Aug 03 22:05	1° \mathfrak{M} 16'16	
evening set	3905 Aug 28 19:27	18° \mathfrak{M} 37'09		evening set	3906 Aug 09 09:16	0° \mathfrak{M} 08'14	
min. Earth dist.	3905 Sep 01 19:30	16° \mathfrak{M} 02'43	0.59343 AU		3906 Aug 09 17:13	30° $\mathcal{R}\mathcal{Q}$	
inferior conj	3905 Sep 05 02:08	13° \mathfrak{M} 32'06	-4°-53'-16	min. Earth dist.	3906 Aug 14 10:48	27° \mathcal{Q} 23'50	0.57358 AU
minimum elong	3905 Sep 05 06:33	13° \mathfrak{M} 23'36	4°52'42	inferior conj	3906 Aug 17 09:41	25° \mathcal{Q} 25'52	-5°-10'-17
morning rise	3905 Sep 12 21:10	8° \mathfrak{M} 59'32		minimum elong	3906 Aug 17 09:35	25° \mathcal{Q} 26'01	5°10'18
direct	3905 Sep 15 05:59	8° \mathfrak{M} 40'01		morning rise	3906 Aug 25 13:27	21° \mathcal{Q} 15'42	
morning max el	3905 Sep 23 02:07	12° \mathfrak{M} 27'28	18°22'53	direct	3906 Aug 28 02:56	20° \mathcal{Q} 56'44	
asc. node	3905 Sep 24 06:24	13° \mathfrak{M} 40'02		morning max el	3906 Sep 06 03:13	25° \mathcal{Q} 10'58	19°10'03
	3905 Oct 04 20:57	0° \mathfrak{A}			3906 Sep 10 08:01	0° \mathfrak{M}	
morning set	3905 Oct 09 00:40	7° \mathfrak{A} 50'25		asc. node	3906 Sep 11 03:27	1° \mathfrak{M} 06'56	
				morning set	3906 Sep 22 23:55	22° \mathfrak{M} 09'00	
superior conj	3905 Oct 18 04:29	25° \mathfrak{A} 09'50	1°23'23		3906 Sep 26 22:33	0° \mathfrak{A}	
minimum elong	3905 Oct 18 08:08	25° \mathfrak{A} 26'35	1°23'02	superior conj	3906 Oct 01 06:24	8° \mathfrak{A} 30'04	1°38'17
	3905 Oct 20 20:17	0° \mathfrak{M}		minimum elong	3906 Oct 01 08:30	8° \mathfrak{A} 40'12	1°38'09
max. Earth dist.	3905 Oct 25 16:44	8° \mathfrak{M} 31'58	1.40550 AU	max. Earth dist.	3906 Oct 07 21:05	20° \mathfrak{A} 54'12	1.38467 AU
evening rise	3905 Oct 30 05:48	16° \mathfrak{M} 11'17		evening rise	3906 Oct 11 17:18	27° \mathfrak{A} 43'30	
desc. node	3905 Oct 31 08:34	18° \mathfrak{M} 01'12			3906 Oct 13 00:56	0° \mathfrak{M}	
	3905 Nov 07 22:11	0° \mathfrak{A}		desc. node	3906 Oct 18 05:35	8° \mathfrak{M} 39'28	
	3905 Nov 29 15:38	0° \mathfrak{S}			3906 Nov 01 09:51	0° \mathfrak{A}	
evening max el	3905 Dec 03 16:53	4° \mathfrak{S} 24'36	23°29'11	evening max el	3906 Nov 16 05:41	18° \mathfrak{A} 05'23	24°47'34
retrograde	3905 Dec 14 07:03	10° \mathfrak{S} 40'26		retrograde	3906 Nov 27 20:52	24° \mathfrak{A} 51'17	
evening set	3905 Dec 19 06:26	8° \mathfrak{S} 37'57		evening set	3906 Dec 03 10:01	22° \mathfrak{A} 33'18	
asc. node	3905 Dec 21 05:36	6° \mathfrak{S} 41'04		min. Earth dist.	3906 Dec 08 00:49	17° \mathfrak{A} 20'39	0.67546 AU
min. Earth dist.	3905 Dec 24 05:26	2° \mathfrak{S} 51'10	0.67932 AU	asc. node	3906 Dec 08 02:38	17° \mathfrak{A} 14'39	
inferior conj	3905 Dec 24 17:08	2° \mathfrak{S} 11'04	1°09'40	inferior conj	3906 Dec 08 23:13	16° \mathfrak{A} 06'30	0°17'33
minimum elong	3905 Dec 24 15:36	2° \mathfrak{S} 16'21	1°09'02	minimum elong	3906 Dec 08 22:47	16° \mathfrak{A} 07'56	0°17'22
	3905 Dec 26 08:06	30° $\mathcal{R}\mathfrak{A}$		morning rise	3906 Dec 14 12:02	10° \mathfrak{A} 03'59	
morning rise	3905 Dec 30 00:52	26° \mathfrak{A} 02'07		direct	3906 Dec 18 02:17	8° \mathfrak{A} 49'41	
direct	3906 Jan 03 03:59	24° \mathfrak{A} 26'42		morning max el	3906 Dec 25 13:49	13° \mathfrak{A} 03'57	19°52'19
morning max el	3906 Jan 11 13:40	29° \mathfrak{A} 18'39	21°02'42	greatest brilliancy	3907 Jan 01 23:38	22° \mathfrak{A} 06'47	-0.6m
	3906 Jan 12 05:48	0° \mathfrak{S}			3907 Jan 07 12:07	0° \mathfrak{S}	
greatest brilliancy	3906 Jan 16 23:45	5° \mathfrak{S} 32'52	-0.5m	desc. node	3907 Jan 14 04:49	10° \mathfrak{S} 01'52	
desc. node	3906 Jan 27 07:47	19° \mathfrak{S} 48'46		morning set	3907 Jan 20 17:12	20° \mathfrak{S} 00'30	
	3906 Feb 03 04:18	0° \approx			3907 Jan 27 03:25	0° \approx	
morning set	3906 Feb 10 21:17	11° \approx 51'56		max. Earth dist.	3907 Feb 01 04:48	7° \approx 59'22	1.44155 AU
max. Earth dist.	3906 Feb 18 18:25	24° \approx 27'29	1.42615 AU				
	3906 Feb 22 03:09	0° \mathfrak{H}		superior conj	3907 Feb 06 06:08	16° \approx 07'00	-2°00'-31
superior conj	3906 Feb 25 21:23	6° \mathfrak{H} 19'39	-2°-7'-23	minimum elong	3907 Feb 06 00:52	15° \approx 45'37	2°00'18
minimum elong	3906 Feb 25 22:00	6° \mathfrak{H} 22'16	2°07'24		3907 Feb 14 15:47	0° \mathfrak{H}	
evening rise	3906 Mar 09 12:40	26° \mathfrak{H} 46'25		evening rise	3907 Feb 19 15:22	8° \mathfrak{H} 26'59	
	3906 Mar 11 07:48	0° \mathfrak{Y}			3907 Mar 04 17:14	0° \mathfrak{Y}	
asc. node	3906 Mar 19 04:54	13° \mathfrak{Y} 38'00		asc. node	3907 Mar 06 01:55	1° \mathfrak{Y} 55'18	
evening max el	3906 Mar 26 05:41	23° \mathfrak{Y} 03'09	18°07'10	evening max el	3907 Mar 09 18:28	6° \mathfrak{Y} 20'02	18°13'16
retrograde	3906 Apr 01 20:43	26° \mathfrak{Y} 26'39		retrograde	3907 Mar 16 04:38	9° \mathfrak{Y} 44'50	
evening set	3906 Apr 04 11:39	25° \mathfrak{Y} 54'50		evening set	3907 Mar 19 01:20	9° \mathfrak{Y} 01'57	
inferior conj	3906 Apr 11 02:37	20° \mathfrak{Y} 55'25	3°16'03	inferior conj	3907 Mar 25 04:33	3° \mathfrak{Y} 42'26	3°35'06
minimum elong	3906 Apr 11 05:06	20° \mathfrak{Y} 49'22	3°15'39	minimum elong	3907 Mar 25 05:17	3° \mathfrak{Y} 40'28	3°35'04
min. Earth dist.	3906 Apr 14 06:48	17° \mathfrak{Y} 52'01	0.61142 AU	min. Earth dist.	3907 Mar 27 19:23	0° \mathfrak{Y} 51'15	0.63210 AU
morning rise	3906 Apr 17 19:27	15° \mathfrak{Y} 00'50			3907 Mar 28 15:16	30° $\mathcal{R}\mathfrak{H}$	
direct	3906 Apr 24 13:29	12° \mathfrak{Y} 43'43		morning rise	3907 Mar 31 07:11	27° \mathfrak{H} 36'19	
desc. node	3906 Apr 25 06:57	12° \mathfrak{Y} 45'14		direct	3907 Apr 07 04:26	24° \mathfrak{H} 56'15	
morning max el	3906 May 08 18:59	20° \mathfrak{Y} 40'23	27°48'02	desc. node	3907 Apr 12 03:59	26° \mathfrak{H} 08'40	
	3906 May 16 20:02	0° \mathfrak{B}			3907 Apr 17 22:50	0° \mathfrak{Y}	
	3906 Jun 04 13:56	0° \mathbb{I}		morning max el	3907 Apr 21 02:08	2° \mathfrak{Y} 54'21	27°46'02
morning set	3906 Jun 10 12:47	11° \mathbb{I} 43'58			3907 May 11 05:32	0° \mathfrak{B}	
asc. node	3906 Jun 15 04:13	21° \mathbb{I} 32'24		morning set	3907 May 25 11:19	25° \mathfrak{B} 50'58	
max. Earth dist.	3906 Jun 16 13:20	24° \mathbb{I} 32'07	1.32190 AU		3907 May 27 12:25	0° \mathbb{I}	

max. Earth dist.	3907 May 30 18:42	6°II49'02	1.32780 AU	morning set	3908 May 08 00:35	9°826'25	
				max. Earth dist.	3908 May 12 15:11	18°836'15	1.33817 AU
superior conj	3907 Jun 02 05:31	12°II03'53	0°01'53				
minimum elong	3907 Jun 02 05:25	12°II03'23	0°01'51	superior conj	3908 May 16 08:37	26°819'56	0°-26'-30
behind sun begin	3907 Jun 02 00:10	11°II35'08		minimum elong	3908 May 16 10:00	26°827'11	0°26'14
behind sun end	3907 Jun 02 10:40	12°II31'41			3908 May 18 02:16	0°II	
asc. node	3907 Jun 02 01:14	11°II40'51		asc. node	3908 May 18 22:16	1°II46'13	
evening rise	3907 Jun 09 06:36	27°II16'04		evening rise	3908 May 23 17:21	11°II56'11	
	3907 Jun 10 13:45	0°☾			3908 Jun 02 01:14	0°☾	
	3907 Jun 28 05:59	0°♂		evening max el	3908 Jun 13 05:03	15°☾09'49	21°49'06
evening max el	3907 Jul 02 12:19	4°♂41'16	23°24'25	desc. node	3908 Jun 25 00:16	21°☾20'33	
desc. node	3907 Jul 09 03:15	9°♂39'10		retrograde	3908 Jun 25 18:08	21°☾21'50	
retrograde	3907 Jul 16 01:41	11°♂28'18		evening set	3908 Jun 28 09:58	21°☾05'56	
evening set	3907 Jul 20 01:13	10°♂53'40		inferior conj	3908 Jul 07 17:51	17°☾03'26	-3°-31'-33
min. Earth dist.	3907 Jul 26 22:02	7°♂43'30	0.55781 AU	minimum elong	3908 Jul 07 09:25	17°☾15'14	3°29'10
inferior conj	3907 Jul 28 21:14	6°♂33'47	-4°-46'-7	min. Earth dist.	3908 Jul 07 08:33	17°☾16'27	0.54922 AU
minimum elong	3907 Jul 28 15:09	6°♂42'49	4°45'12	morning rise	3908 Jul 16 10:16	13°☾11'50	
morning rise	3907 Aug 06 08:09	2°♂40'10		direct	3908 Jul 19 16:36	12°☾48'29	
direct	3907 Aug 09 04:57	2°♂20'03		morning max el	3908 Jul 31 19:22	18°☾29'15	21°47'32
morning max el	3907 Aug 19 17:08	7°♂12'45	20°18'55		3908 Aug 10 00:42	0°♂	
asc. node	3907 Aug 29 00:30	19°♂23'08		asc. node	3908 Aug 14 21:33	8°♂16'34	
	3907 Sep 03 20:26	0°♐		morning set	3908 Aug 21 14:47	21°♂33'39	
morning set	3907 Sep 07 05:24	6°♐45'42			3908 Aug 25 14:53	0°♐	
superior conj	3907 Sep 14 21:24	22°♐28'58	1°44'09	superior conj	3908 Aug 28 21:30	6°♐54'47	1°42'31
minimum elong	3907 Sep 14 21:49	22°♐31'06	1°44'08	minimum elong	3908 Aug 28 20:33	6°♐49'47	1°42'28
	3907 Sep 18 16:08	0°♑		max. Earth dist.	3908 Sep 01 16:43	14°♐45'12	1.34786 AU
max. Earth dist.	3907 Sep 20 03:31	2°♑51'15	1.36484 AU	evening rise	3908 Sep 06 03:47	23°♐33'41	
evening rise	3907 Sep 24 02:04	10°♑14'41			3908 Sep 09 14:08	0°♑	
desc. node	3907 Oct 05 02:36	29°♑06'26		desc. node	3908 Sep 20 23:38	19°♑16'17	
	3907 Oct 05 16:05	0°♒			3908 Sep 28 07:15	0°♒	
	3907 Oct 27 23:19	0°♓		evening max el	3908 Oct 11 06:42	15°♒25'32	26°51'19
evening max el	3907 Oct 29 18:09	1°♓48'02	25°57'25	retrograde	3908 Oct 24 09:28	22°♒41'40	
retrograde	3907 Nov 11 05:49	8°♓53'51		evening set	3908 Oct 31 01:24	20°♒02'03	
evening set	3907 Nov 17 09:00	6°♓22'35		min. Earth dist.	3908 Nov 04 01:43	16°♒01'27	0.65726 AU
min. Earth dist.	3907 Nov 21 16:21	1°♓45'35	0.66814 AU	inferior conj	3908 Nov 05 23:02	13°♒49'41	-1°-39'-23
inferior conj	3907 Nov 23 01:51	0°♓00'39	0°-39'-15	minimum elong	3908 Nov 06 01:49	13°♒41'38	1°38'15
minimum elong	3907 Nov 23 02:53	29°♒57'23	0°38'49	asc. node	3908 Nov 10 20:45	8°♒55'53	
	3907 Nov 23 02:03	30°♒♒		morning rise	3908 Nov 12 03:50	8°♒08'24	
asc. node	3907 Nov 24 23:41	27°♒41'07		direct	3908 Nov 14 22:05	7°♒26'27	
morning rise	3907 Nov 28 21:46	24°♒07'15		morning max el	3908 Nov 21 11:02	10°♒58'39	18°17'38
direct	3907 Dec 02 00:58	23°♒10'59			3908 Dec 04 20:45	0°♓	
morning max el	3907 Dec 08 21:35	26°♒58'53	18°56'51	morning set	3908 Dec 10 12:46	9°♓10'47	
	3907 Dec 11 14:27	0°♓		desc. node	3908 Dec 17 22:55	21°♓08'06	
morning set	3907 Dec 31 01:03	28°♓52'43			3908 Dec 23 12:53	0°☿	
	3907 Dec 31 18:15	0°☿		superior conj	3908 Dec 25 18:41	3°☿32'04	0°-51'-46
desc. node	3908 Jan 01 01:51	0°☿29'44		minimum elong	3908 Dec 25 12:12	3°☿06'33	0°50'56
max. Earth dist.	3908 Jan 14 21:27	22°☿08'03	1.45062 AU	max. Earth dist.	3908 Dec 27 16:48	6°☿33'16	1.45234 AU
superior conj	3908 Jan 16 16:10	24°☿56'09	-1°-34'-9	evening rise	3909 Jan 11 01:22	29°☿01'04	
minimum elong	3908 Jan 16 06:58	24°☿19'54	1°33'17		3909 Jan 11 16:26	0°♈	
	3908 Jan 19 21:04	0°♈		greatest brilliancy	3909 Jan 25 15:20	21°♈32'28	-0.7m
evening rise	3908 Jan 31 19:44	19°♈10'36			3909 Jan 31 18:17	0°♈	
	3908 Feb 07 11:26	0°♈		evening max el	3909 Feb 03 14:42	3°♈15'27	19°19'16
asc. node	3908 Feb 20 22:57	19°♈26'41		asc. node	3909 Feb 06 20:00	5°♈59'46	
evening max el	3908 Feb 21 06:13	19°♈45'25	18°37'41	retrograde	3909 Feb 10 16:58	7°♈19'07	
retrograde	3908 Feb 27 20:33	23°♈24'16		evening set	3909 Feb 14 02:35	6°♈11'28	
evening set	3908 Mar 01 23:15	22°♈29'27		inferior conj	3909 Feb 19 16:11	0°♈17'18	3°20'16
inferior conj	3908 Mar 07 18:13	16°♈51'27	3°34'55	minimum elong	3909 Feb 19 14:17	0°♈23'27	3°19'59
minimum elong	3908 Mar 07 17:22	16°♈53'59	3°34'53		3909 Feb 19 21:32	30°♈♈	
min. Earth dist.	3908 Mar 09 17:25	14°♈29'26	0.64972 AU	min. Earth dist.	3909 Feb 21 00:14	28°♈33'39	0.66341 AU
morning rise	3908 Mar 13 10:13	10°♈39'05		morning rise	3909 Feb 25 01:09	24°♈01'57	
direct	3908 Mar 20 02:41	7°♈49'50		direct	3909 Mar 03 07:22	21°♈16'28	
desc. node	3908 Mar 29 01:02	11°♈40'12		desc. node	3909 Mar 15 22:05	28°♈46'43	
morning max el	3908 Apr 02 11:52	15°♈39'55	27°09'33	morning max el	3909 Mar 15 21:44	28°♈45'48	26°05'43
	3908 Apr 14 06:43	0°♐			3909 Mar 17 02:22	0°♈	
	3908 May 02 23:48	0°♑			3909 Apr 08 01:51	0°♐	

morning set	3909 Apr 21 00:45	22° Υ 19'37		direct	3910 Feb 14 17:39	5° \approx 07'06	
max. Earth dist.	3909 Apr 25 00:13	29° Υ 52'16	1.35314 AU	morning max el	3910 Feb 26 06:25	12° \approx 00'50	24°44'13
	3909 Apr 25 01:48	0° B		desc. node	3910 Mar 02 19:08	17° \approx 00'53	
					3910 Mar 12 16:57	0° H	
superior conj	3909 Apr 30 04:27	10° B 09'37	0°-55'-36		3910 Mar 31 19:56	0° Υ	
minimum elong	3909 Apr 30 07:25	10° B 24'43	0°55'05	morning set	3910 Apr 03 06:41	4° Υ 16'16	
asc. node	3909 May 05 19:19	21° B 44'34		max. Earth dist.	3910 Apr 06 22:49	10° Υ 52'41	1.37222 AU
evening rise	3909 May 08 01:00	26° B 21'45					
	3909 May 09 19:50	0° II		superior conj	3910 Apr 13 13:55	23° Υ 25'00	-1°-23'-34
evening max el	3909 May 26 08:13	26° II 07'39	20°26'02	minimum elong	3910 Apr 13 18:13	23° Υ 45'59	1°22'57
	3909 May 31 12:26	0° S			3910 Apr 16 22:06	0° B	
retrograde	3909 Jun 06 07:24	1° S 28'52		evening rise	3910 Apr 22 03:12	10° B 26'07	
evening set	3909 Jun 08 07:41	1° S 18'48		asc. node	3910 Apr 22 16:22	11° B 31'40	
desc. node	3909 Jun 11 21:18	0° S 16'13			3910 May 02 20:06	0° II	
	3909 Jun 12 12:34	30° R II		evening max el	3910 May 08 23:44	7° II 47'08	19°21'21
inferior conj	3909 Jun 17 12:00	27° II 21'03	-1°-39'-19	retrograde	3910 May 18 05:34	12° II 16'49	
minimum elong	3909 Jun 17 07:19	27° II 27'51	1°37'38	evening set	3910 May 20 05:19	12° II 05'14	
min. Earth dist.	3909 Jun 18 20:41	26° II 33'28	0.54996 AU	inferior conj	3910 May 28 17:55	7° II 57'46	0°17'50
morning rise	3909 Jun 26 05:18	23° II 10'35		minimum elong	3910 May 28 18:40	7° II 56'31	0°17'34
direct	3909 Jun 30 02:31	22° II 38'01		desc. node	3910 May 29 18:18	7° II 17'36	
morning max el	3909 Jul 13 12:43	29° II 08'49	23°28'53	min. Earth dist.	3910 May 31 11:12	6° II 11'10	0.56013 AU
	3909 Jul 14 09:55	0° S		morning rise	3910 Jun 06 03:59	3° II 14'06	
asc. node	3909 Aug 01 18:35	27° S 37'52		direct	3910 Jun 10 23:17	2° II 21'23	
	3909 Aug 02 23:09	0° Q		morning max el	3910 Jun 25 02:40	9° II 32'17	25°10'20
morning set	3909 Aug 06 02:10	6° Q 27'11			3910 Jul 10 10:47	0° S	
				asc. node	3910 Jul 19 15:38	17° S 19'28	
superior conj	3909 Aug 13 03:42	21° Q 38'10	1°34'37	morning set	3910 Jul 21 13:56	21° S 21'15	
minimum elong	3909 Aug 13 01:49	21° Q 28'04	1°34'27		3910 Jul 25 14:08	0° Q	
max. Earth dist.	3909 Aug 15 14:43	26° Q 53'14	1.33479 AU				
	3909 Aug 17 02:16	0° P		superior conj	3910 Jul 28 13:37	6° Q 31'27	1°21'27
evening rise	3909 Aug 20 18:13	7° P 29'11		minimum elong	3910 Jul 28 11:18	6° Q 18'50	1°21'09
	3909 Sep 02 02:41	0° A		max. Earth dist.	3910 Jul 29 20:32	9° Q 20'20	1.32591 AU
desc. node	3909 Sep 07 20:39	9° A 01'06		evening rise	3910 Aug 04 17:50	21° Q 51'07	
evening max el	3909 Sep 23 18:34	28° A 47'25	27°22'00		3910 Aug 08 19:44	0° P	
	3909 Sep 25 02:07	0° M		desc. node	3910 Aug 25 17:39	28° P 10'35	
retrograde	3909 Oct 07 07:23	6° M 05'49			3910 Aug 27 01:35	0° A	
evening set	3909 Oct 14 08:34	3° M 26'00		evening max el	3910 Sep 06 03:59	11° A 41'56	27°23'22
min. Earth dist.	3909 Oct 18 02:47	0° M 00'24	0.64290 AU	retrograde	3910 Sep 19 22:43	18° A 57'21	
	3909 Oct 18 02:57	30° R A		evening set	3910 Sep 27 03:12	16° A 28'39	
inferior conj	3909 Oct 20 12:22	27° A 27'55	-2°-40'-45	min. Earth dist.	3910 Sep 30 17:57	13° A 32'32	0.62536 AU
minimum elong	3909 Oct 20 16:52	27° A 15'58	2°39'06	inferior conj	3910 Oct 03 15:00	10° A 49'06	-3°-39'-53
morning rise	3909 Oct 27 03:26	22° A 01'43		minimum elong	3910 Oct 03 20:45	10° A 35'27	3°38'12
asc. node	3909 Oct 28 17:49	21° A 34'16		morning rise	3910 Oct 10 17:09	5° A 41'11	
direct	3909 Oct 29 15:10	21° A 30'12		direct	3910 Oct 13 01:13	5° A 16'31	
morning max el	3909 Nov 05 03:22	24° A 56'00	17°55'19	asc. node	3910 Oct 15 14:51	5° A 47'10	
	3909 Nov 09 07:46	0° M		morning max el	3910 Oct 19 19:35	8° A 43'58	17°50'48
morning set	3909 Nov 22 04:49	20° M 51'26			3910 Nov 02 18:40	0° M	
	3909 Nov 27 14:52	0° J		morning set	3910 Nov 04 19:25	3° M 37'02	
desc. node	3909 Dec 04 19:57	11° J 52'28					
				superior conj	3910 Nov 16 03:16	23° M 23'59	0°38'12
superior conj	3909 Dec 05 10:19	12° J 50'37	0°-4'-8	minimum elong	3910 Nov 16 06:40	23° M 38'22	0°37'44
minimum elong	3909 Dec 05 09:50	12° J 48'41	0°04'05		3910 Nov 20 02:04	0° J	
behind sun begin	3909 Dec 04 23:56	12° J 08'36		desc. node	3910 Nov 21 16:58	2° J 39'42	
behind sun end	3909 Dec 05 19:45	13° J 28'43		max. Earth dist.	3910 Nov 23 02:48	4° J 57'16	1.43448 AU
max. Earth dist.	3909 Dec 10 11:23	20° J 54'55	1.44669 AU	evening rise	3910 Dec 01 00:43	17° J 29'48	
	3909 Dec 16 06:14	0° S			3910 Dec 09 05:35	0° S	
evening rise	3909 Dec 21 14:16	8° S 15'10		greatest brilliancy	3910 Dec 26 17:21	24° S 38'10	-0.4m
	3910 Jan 04 23:51	0° \approx			3910 Dec 31 08:37	0° \approx	
greatest brilliancy	3910 Jan 11 10:16	9° \approx 06'42	-0.6m	evening max el	3910 Dec 31 16:29	0° \approx 20'16	21°25'42
evening max el	3910 Jan 17 18:19	16° \approx 47'11	20°16'17	retrograde	3911 Jan 09 12:40	5° \approx 35'08	
asc. node	3910 Jan 24 17:04	21° \approx 19'22		asc. node	3911 Jan 11 14:06	5° \approx 12'04	
retrograde	3910 Jan 25 15:04	21° \approx 23'57		evening set	3911 Jan 13 16:48	3° \approx 58'15	
evening set	3910 Jan 29 09:04	20° \approx 02'20			3911 Jan 17 09:10	30° R S	
inferior conj	3910 Feb 03 19:38	13° \approx 54'46	2°54'25	inferior conj	3911 Jan 19 02:14	27° S 40'25	2°19'31
minimum elong	3910 Feb 03 17:13	14° \approx 02'59	2°53'50	minimum elong	3911 Jan 18 23:48	27° S 48'52	2°18'45
min. Earth dist.	3910 Feb 04 13:54	12° \approx 52'53	0.67292 AU	min. Earth dist.	3911 Jan 19 08:07	27° S 20'03	0.67839 AU
morning rise	3910 Feb 09 00:48	7° \approx 38'48		morning rise	3911 Jan 24 06:28	21° S 25'49	

direct	3911 Jan 29 08:34	19°☾14'19		min. Earth dist.	3912 Jan 03 04:34	11°☾50'49	0.68005 AU
morning max el	3911 Feb 08 15:18	25°☾20'52	23°15'27	morning rise	3912 Jan 08 15:51	5°☾20'29	
	3911 Feb 12 20:26	0°☾		direct	3912 Jan 13 03:10	3°☾31'55	
greatest brilliancy	3911 Feb 13 19:42	1°☾09'55	-0.2m	morning max el	3912 Jan 22 04:02	8°☾49'04	21°48'47
desc. node	3911 Feb 17 16:11	6°☾03'18		greatest brilliancy	3912 Jan 26 22:02	14°☾09'57	-0.4m
	3911 Mar 06 05:23	0°☾		desc. node	3912 Feb 04 13:13	25°☾40'28	
morning set	3911 Mar 15 12:13	14°☾59'46			3912 Feb 07 13:44	0°☾	
max. Earth dist.	3911 Mar 19 17:40	22°☾12'47	1.39382 AU	morning set	3912 Feb 23 12:58	24°☾21'03	
	3911 Mar 24 03:10	0°☾			3912 Feb 27 00:50	0°☾	
				max. Earth dist.	3912 Feb 29 16:48	4°☾23'49	1.41517 AU
superior conj	3911 Mar 27 09:02	5°☾56'01	-1°-47'-34	superior conj	3912 Mar 08 08:57	17°☾30'55	-2°-3'-40
minimum elong	3911 Mar 27 13:43	6°☾17'41	1°47'08	minimum elong	3912 Mar 08 11:55	17°☾43'55	2°03'34
evening rise	3911 Apr 05 21:06	24°☾01'38			3912 Mar 15 07:51	0°☾	
	3911 Apr 09 00:08	0°☾		evening rise	3912 Mar 19 03:10	6°☾59'59	
asc. node	3911 Apr 09 13:23	1°☾02'21		asc. node	3912 Mar 26 10:25	20°☾10'52	
evening max el	3911 Apr 22 01:27	20°☾04'55	18°36'46		3912 Apr 01 20:52	0°☾	
retrograde	3911 Apr 29 21:32	23°☾55'55		evening max el	3912 Apr 04 10:02	2°☾52'38	18°12'17
evening set	3911 May 02 02:55	23°☾38'23		retrograde	3912 Apr 11 08:20	6°☾21'47	
inferior conj	3911 May 09 19:59	19°☾12'00	1°52'02	evening set	3912 Apr 13 19:56	5°☾55'36	
minimum elong	3911 May 09 23:29	19°☾05'17	1°50'58	inferior conj	3912 Apr 20 19:20	1°☾07'51	2°53'58
min. Earth dist.	3911 May 13 04:57	16°☾38'11	0.57760 AU	minimum elong	3912 Apr 20 22:39	1°☾00'25	2°53'15
desc. node	3911 May 16 15:20	14°☾25'13			3912 Apr 22 01:28	30°☾	
morning rise	3911 May 17 15:37	13°☾54'15		min. Earth dist.	3912 Apr 24 04:15	28°☾08'17	0.59884 AU
direct	3911 May 23 10:09	12°☾30'39		morning rise	3912 Apr 27 21:42	25°☾23'46	
morning max el	3911 Jun 06 19:03	20°☾06'51	26°36'04	desc. node	3912 May 02 12:22	23°☾35'15	
	3911 Jun 15 06:10	0°☾		direct	3912 May 04 09:34	23°☾25'22	
	3911 Jul 03 00:42	0°☾			3912 May 17 09:36	0°☾	
morning set	3911 Jul 06 00:22	6°☾09'35		morning max el	3912 May 18 17:38	1°☾16'22	27°32'17
asc. node	3911 Jul 06 12:39	7°☾14'28			3912 Jun 08 10:56	0°☾	
				morning set	3912 Jun 19 07:50	20°☾47'06	
superior conj	3911 Jul 13 01:13	21°☾26'57	1°03'46	asc. node	3912 Jun 22 09:41	27°☾18'09	
minimum elong	3911 Jul 12 22:57	21°☾14'30	1°03'22		3912 Jun 23 15:36	0°☾	
max. Earth dist.	3911 Jul 13 07:07	21°☾59'30	1.32117 AU	max. Earth dist.	3912 Jun 25 18:51	4°☾40'23	1.32050 AU
	3911 Jul 16 22:47	0°☾					
evening rise	3911 Jul 19 23:40	6°☾29'19		superior conj	3912 Jun 26 12:46	6°☾19'04	0°42'11
	3911 Aug 01 09:11	0°☾		minimum elong	3912 Jun 26 11:02	6°☾09'28	0°41'50
desc. node	3911 Aug 12 14:39	16°☾29'10		evening rise	3912 Jul 03 09:24	21°☾16'33	
evening max el	3911 Aug 19 08:15	23°☾55'22	26°51'35		3912 Jul 07 15:03	0°☾	
	3911 Aug 28 01:37	0°☾			3912 Jul 26 06:40	0°☾	
retrograde	3911 Sep 02 06:13	1°☾06'20		desc. node	3912 Jul 29 11:38	3°☾36'16	
	3911 Sep 07 07:10	30°☾		evening max el	3912 Jul 31 05:06	5°☾19'46	25°47'39
evening set	3911 Sep 09 04:51	29°☾01'23		retrograde	3912 Aug 14 04:22	12°☾26'58	
min. Earth dist.	3911 Sep 12 22:23	26°☾23'46	0.60541 AU	evening set	3912 Aug 20 08:41	10°☾56'29	
inferior conj	3911 Sep 16 03:32	23°☾43'37	-4°-31'-2	min. Earth dist.	3912 Aug 24 17:15	8°☾20'21	0.58476 AU
minimum elong	3911 Sep 16 09:08	23°☾31'55	4°29'56	inferior conj	3912 Aug 27 22:25	6°☾01'28	-5°-4'-30
morning rise	3911 Sep 23 16:40	18°☾57'13		minimum elong	3912 Aug 28 01:17	5°☾56'16	5°04'18
direct	3911 Sep 26 00:21	18°☾36'24		morning rise	3912 Sep 04 21:23	1°☾38'43	
asc. node	3911 Oct 02 11:53	21°☾26'33		direct	3912 Sep 07 08:02	1°☾19'30	
morning max el	3911 Oct 03 08:27	22°☾13'47	18°05'21	morning max el	3912 Sep 15 14:44	5°☾16'31	18°40'21
	3911 Oct 09 09:16	0°☾		asc. node	3912 Sep 18 08:55	8°☾18'12	
morning set	3911 Oct 19 02:20	17°☾09'03			3912 Oct 01 05:33	0°☾	
	3911 Oct 26 00:45	0°☾		morning set	3912 Oct 01 20:40	1°☾13'22	
superior conj	3911 Oct 28 22:12	5°☾13'09	1°10'06	superior conj	3912 Oct 10 14:25	18°☾04'40	1°30'55
minimum elong	3911 Oct 29 02:21	5°☾31'37	1°09'37	minimum elong	3912 Oct 10 17:27	18°☾18'59	1°30'39
max. Earth dist.	3911 Nov 05 13:43	18°☾26'57	1.41709 AU		3912 Oct 17 03:08	0°☾	
desc. node	3911 Nov 08 13:59	23°☾26'17		max. Earth dist.	3912 Oct 17 19:54	1°☾13'51	1.39668 AU
evening rise	3911 Nov 11 00:31	27°☾23'39		evening rise	3912 Oct 21 22:28	8°☾18'03	
	3911 Nov 12 15:40	0°☾		desc. node	3912 Oct 25 10:59	14°☾08'32	
	3911 Dec 02 23:00	0°☾			3912 Nov 04 15:36	0°☾	
greatest brilliancy	3911 Dec 09 09:40	8°☾19'26	-0.3m	evening max el	3912 Nov 25 23:22	27°☾33'47	24°03'04
evening max el	3911 Dec 14 09:41	13°☾55'38	22°43'10		3912 Nov 28 14:37	0°☾	
retrograde	3911 Dec 24 08:09	19°☾49'36		retrograde	3912 Dec 07 00:21	4°☾03'14	
evening set	3911 Dec 29 00:11	17°☾56'27		evening set	3912 Dec 12 05:38	1°☾53'43	
asc. node	3911 Dec 29 11:07	17°☾32'56			3912 Dec 14 03:40	30°☾	
inferior conj	3912 Jan 03 10:03	11°☾31'52	1°37'05		3912 Dec 15 08:09	28°☾35'11	
minimum elong	3912 Jan 03 08:03	11°☾38'47	1°36'20	asc. node			

min. Earth dist.	3912 Dec 17 00:56	26° ♁ 21'36	0.67813 AU	minimum elong	3913 Dec 01 22:17	9° ♁ 21'33	0°05'58
inferior conj	3912 Dec 17 17:15	25° ♁ 26'22	0°48'11	transit middle	3913 Dec 01 22:17	9° ♁ 21'33	0°05'58
minimum elong	3912 Dec 17 16:08	25° ♁ 30'10	0°47'44	transit begin	3913 Dec 01 19:41	9° ♁ 29'58	
morning rise	3912 Dec 23 02:56	19° ♁ 20'10		transit end	3913 Dec 02 00:52	9° ♁ 13'09	
direct	3912 Dec 27 00:22	17° ♁ 54'09		asc. node	3913 Dec 02 05:11	8° ♁ 59'12	
morning max el	3913 Jan 03 23:46	22° ♁ 28'25	20°31'07	morning rise	3913 Dec 07 13:45	3° ♁ 23'11	
greatest brilliancy	3913 Jan 10 02:34	29° ♁ 39'54	-0.5m	direct	3913 Dec 10 22:57	2° ♁ 17'11	
	3913 Jan 10 08:42	0° ♁		morning max el	3913 Dec 18 03:26	6° ♁ 19'09	19°26'50
desc. node	3913 Jan 21 10:14	15° ♁ 42'18		greatest brilliancy	3913 Dec 26 21:51	17° ♁ 23'59	-0.7m
	3913 Jan 30 20:44	0° ♁			3914 Jan 04 08:47	0° ♁	
morning set	3913 Feb 01 13:56	2° ♁ 39'15		desc. node	3914 Jan 08 07:17	6° ♁ 02'27	
max. Earth dist.	3913 Feb 10 23:14	17° ♁ 29'14	1.43341 AU	morning set	3914 Jan 11 12:00	10° ♁ 58'31	
					3914 Jan 23 16:35	0° ♁	
superior conj	3913 Feb 17 08:39	27° ♁ 57'47	-2°-6'-44	max. Earth dist.	3914 Jan 24 12:18	1° ♁ 17'55	1.44626 AU
minimum elong	3913 Feb 17 06:55	27° ♁ 50'35	2°06'43				
	3913 Feb 18 13:54	0° ♁		superior conj	3914 Jan 28 06:47	7° ♁ 17'27	-1°-51'-44
evening rise	3913 Mar 01 17:08	19° ♁ 11'14		minimum elong	3914 Jan 27 23:13	6° ♁ 47'14	1°51'13
	3913 Mar 07 21:41	0° ♁		evening rise	3914 Feb 11 10:47	0° ♁ 28'15	
asc. node	3913 Mar 13 07:27	8° ♁ 49'10			3914 Feb 11 04:01	0° ♁	
evening max el	3913 Mar 18 22:05	16° ♁ 00'25	18°07'24	asc. node	3914 Feb 28 04:29	26° ♁ 48'24	
retrograde	3913 Mar 25 09:59	19° ♁ 23'09		evening max el	3914 Mar 02 10:43	29° ♁ 21'22	18°21'24
evening set	3913 Mar 28 03:18	18° ♁ 46'48			3914 Mar 03 02:41	0° ♁	
inferior conj	3913 Apr 03 12:47	13° ♁ 38'24	3°26'49	retrograde	3914 Mar 08 21:48	2° ♁ 50'59	
minimum elong	3913 Apr 03 14:32	13° ♁ 33'55	3°26'38	evening set	3914 Mar 11 20:52	2° ♁ 03'18	
min. Earth dist.	3913 Apr 06 11:41	10° ♁ 37'43	0.62048 AU		3914 Mar 14 15:22	30° ♁	
morning rise	3913 Apr 09 23:08	7° ♁ 37'46		inferior conj	3914 Mar 17 20:13	26° ♁ 35'47	3°37'00
direct	3913 Apr 16 19:26	5° ♁ 09'36		minimum elong	3914 Mar 17 20:13	26° ♁ 35'46	3°37'01
desc. node	3913 Apr 19 09:24	5° ♁ 28'59		min. Earth dist.	3914 Mar 20 04:33	23° ♁ 55'04	0.64007 AU
morning max el	3913 Apr 30 22:26	13° ♁ 08'07	27°51'46	morning rise	3914 Mar 23 17:50	20° ♁ 26'12	
	3913 May 14 09:41	0° ♁		direct	3914 Mar 30 13:50	17° ♁ 40'16	
	3913 May 31 20:54	0° ♁		desc. node	3914 Apr 06 06:28	19° ♁ 50'52	
morning set	3913 Jun 03 10:19	5° ♁ 07'11		morning max el	3914 Apr 13 07:09	25° ♁ 37'13	27°34'16
max. Earth dist.	3913 Jun 09 03:39	17° ♁ 09'13	1.32387 AU		3914 Apr 17 07:50	0° ♁	
asc. node	3913 Jun 09 06:44	17° ♁ 25'50			3914 May 07 21:52	0° ♁	
				morning set	3914 May 18 05:20	19° ♁ 01'57	
superior conj	3913 Jun 10 22:35	21° ♁ 02'07	0°17'21	max. Earth dist.	3914 May 23 05:31	29° ♁ 13'27	1.33159 AU
minimum elong	3913 Jun 10 21:47	20° ♁ 57'45	0°17'11		3914 May 23 14:25	0° ♁	
	3913 Jun 15 01:05	0° ♁		superior conj	3914 May 26 04:47	5° ♁ 30'09	0°-10'00
evening rise	3913 Jun 17 21:01	6° ♁ 05'56		minimum elong	3914 May 26 05:17	5° ♁ 32'50	0°09'55
	3913 Jun 30 11:21	0° ♁		behind sun begin	3914 May 26 01:01	5° ♁ 10'07	
evening max el	3913 Jul 12 19:22	16° ♁ 01'34	24°20'00	behind sun end	3914 May 26 09:32	5° ♁ 55'34	
desc. node	3913 Jul 16 08:39	19° ♁ 03'55		asc. node	3914 May 27 03:47	7° ♁ 33'17	
retrograde	3913 Jul 26 15:40	23° ♁ 00'50		evening rise	3914 Jun 02 08:39	20° ♁ 51'14	
evening set	3913 Jul 31 12:22	22° ♁ 08'05			3914 Jun 06 19:43	0° ♁	
min. Earth dist.	3913 Aug 06 06:11	19° ♁ 14'27	0.56613 AU	evening max el	3914 Jun 24 08:58	26° ♁ 25'50	22°43'05
inferior conj	3913 Aug 08 21:15	17° ♁ 35'12	-5°-5'-57		3914 Jun 28 16:59	0° ♁	
minimum elong	3913 Aug 08 18:33	17° ♁ 39'29	5°05'47	desc. node	3914 Jul 03 05:40	2° ♁ 17'12	
morning rise	3913 Aug 17 04:17	13° ♁ 33'44		retrograde	3914 Jul 07 14:31	3° ♁ 00'58	
direct	3913 Aug 19 20:35	13° ♁ 14'33		evening set	3914 Jul 10 22:47	2° ♁ 36'26	
morning max el	3913 Aug 29 11:24	17° ♁ 43'23	19°36'53		3914 Jul 17 06:00	30° ♁	
asc. node	3913 Sep 05 05:58	26° ♁ 07'31		min. Earth dist.	3914 Jul 18 17:07	29° ♁ 11'03	0.55300 AU
	3913 Sep 07 15:41	0° ♁		inferior conj	3914 Jul 20 01:25	28° ♁ 24'50	-4°-20'-34
morning set	3913 Sep 15 22:54	15° ♁ 40'31		minimum elong	3914 Jul 19 17:34	28° ♁ 36'05	4°18'55
	3913 Sep 23 01:37	0° ♁		morning rise	3914 Jul 28 14:54	24° ♁ 34'09	
superior conj	3913 Sep 23 22:30	1° ♁ 43'22	1°41'47	direct	3914 Jul 31 15:05	24° ♁ 13'13	
minimum elong	3913 Sep 23 23:52	1° ♁ 50'08	1°41'43	morning max el	3914 Aug 11 20:22	29° ♁ 26'10	20°54'33
max. Earth dist.	3913 Sep 30 00:16	13° ♁ 22'03	1.37589 AU		3914 Aug 12 10:36	0° ♁	
evening rise	3913 Oct 03 19:28	20° ♁ 16'29		asc. node	3914 Aug 23 03:01	14° ♁ 40'42	
	3913 Oct 09 11:03	0° ♁		morning set	3914 Aug 31 06:17	0° ♁	
desc. node	3913 Oct 12 08:00	4° ♁ 42'38			3914 Aug 31 01:57	0° ♁	
	3913 Oct 29 16:58	0° ♁		superior conj	3914 Sep 07 17:48	15° ♁ 54'54	1°44'17
evening max el	3913 Nov 08 11:42	11° ♁ 15'27	25°18'43	minimum elong	3914 Sep 07 17:35	15° ♁ 53'49	1°44'17
retrograde	3913 Nov 20 12:21	18° ♁ 11'55		max. Earth dist.	3914 Sep 12 08:42	25° ♁ 13'10	1.35711 AU
evening set	3913 Nov 26 07:33	15° ♁ 47'36			3914 Sep 14 19:54	0° ♁	
min. Earth dist.	3913 Nov 30 18:59	10° ♁ 50'03	0.67273 AU	evening rise	3914 Sep 16 12:01	3° ♁ 09'30	
inferior conj	3913 Dec 01 22:08	9° ♁ 22'02	0°-6'-1				

desc. node	3914 Sep 29 05:01	25°♄02'53		desc. node	3915 Sep 16 02:01	15°♄02'51	
	3914 Oct 02 09:53	0°♄			3915 Sep 26 20:28	0°♄	
evening max el	3914 Oct 22 00:12	24°♄56'47	26°22'48	evening max el	3915 Oct 04 12:50	8°♄29'30	27°07'41
	3914 Oct 28 07:17	0°♄		retrograde	3915 Oct 17 20:28	15°♄46'50	
retrograde	3914 Nov 03 19:20	2°♄08'46		evening set	3915 Oct 24 16:47	13°♄06'20	
	3914 Nov 09 14:31	30°♄		min. Earth dist.	3915 Oct 28 14:30	9°♄20'40	0.65157 AU
evening set	3914 Nov 10 04:01	29°♄33'19		inferior conj	3915 Oct 30 16:53	6°♄59'30	-2°-5'-25
min. Earth dist.	3914 Nov 14 08:19	25°♄11'32	0.66388 AU	minimum elong	3915 Oct 30 20:24	6°♄49'37	2°04'02
inferior conj	3914 Nov 15 22:44	23°♄14'33	-1°-4'-26	asc. node	3915 Nov 05 23:18	1°♄26'56	
minimum elong	3914 Nov 16 00:29	23°♄09'13	1°03'42	morning rise	3915 Nov 06 01:52	1°♄23'53	
asc. node	3914 Nov 19 02:14	19°♄39'59		direct	3915 Nov 08 17:04	0°♄46'44	
morning rise	3914 Nov 21 22:12	17°♄25'45		morning max el	3915 Nov 15 04:47	4°♄15'11	18°05'58
direct	3914 Nov 24 21:15	16°♄36'06			3915 Dec 02 11:47	0°♄	
morning max el	3914 Dec 01 13:53	20°♄16'32	18°38'06	morning set	3915 Dec 03 07:02	1°♄19'30	
	3914 Dec 09 04:08	0°♄		desc. node	3915 Dec 13 01:21	17°♄15'54	
morning set	3914 Dec 22 06:47	20°♄24'47					
desc. node	3914 Dec 26 04:20	26°♄35'02		superior conj	3915 Dec 17 16:54	24°♄41'29	0°-31'-28
	3914 Dec 28 08:16	0°♄		minimum elong	3915 Dec 17 12:57	24°♄25'49	0°30'56
				max. Earth dist.	3915 Dec 21 01:31	0°♄00'06	1.45085 AU
superior conj	3915 Jan 07 11:14	15°♄54'33	-1°-17'-38		3915 Dec 21 01:30	0°♄	
minimum elong	3915 Jan 07 02:23	15°♄19'49	1°16'39	evening rise	3916 Jan 03 02:23	20°♄19'08	
max. Earth dist.	3915 Jan 07 06:00	15°♄33'59	1.45227 AU		3916 Jan 09 08:53	0°♄	
	3915 Jan 16 10:07	0°♄		greatest brilliancy	3916 Jan 20 13:34	16°♄46'07	-0.6m
evening rise	3915 Jan 23 05:13	10°♄47'54		evening max el	3916 Jan 28 04:01	26°♄21'00	19°41'51
	3915 Feb 04 08:01	0°♄		asc. node	3916 Feb 01 22:33	0°♄00'45	
evening max el	3915 Feb 13 21:23	12°♄49'47	18°53'23		3916 Feb 01 21:54	0°♄	
asc. node	3915 Feb 15 01:31	13°♄57'01		retrograde	3916 Feb 04 13:14	0°♄37'25	
retrograde	3915 Feb 20 15:55	16°♄37'47			3916 Feb 07 01:59	30°♄	
evening set	3915 Feb 23 21:24	15°♄37'43		evening set	3916 Feb 08 02:19	29°♄23'49	
inferior conj	3915 Mar 01 13:48	9°♄52'52	3°30'14	inferior conj	3916 Feb 13 14:23	23°♄23'44	3°10'32
minimum elong	3915 Mar 01 12:27	9°♄57'05	3°30'06	minimum elong	3916 Feb 13 12:11	23°♄30'58	3°10'07
min. Earth dist.	3915 Mar 03 06:32	7°♄46'09	0.65610 AU	min. Earth dist.	3916 Feb 14 16:21	21°♄57'50	0.66800 AU
morning rise	3915 Mar 07 02:24	3°♄38'58		morning rise	3916 Feb 18 21:23	17°♄08'11	
direct	3915 Mar 13 15:12	0°♄49'32		direct	3916 Feb 24 22:17	14°♄27'33	
desc. node	3915 Mar 24 03:32	6°♄06'45		morning max el	3916 Mar 08 02:12	21°♄42'39	25°32'39
morning max el	3915 Mar 26 17:02	8°♄32'39	26°45'05	desc. node	3916 Mar 10 00:35	23°♄44'40	
	3915 Apr 12 11:11	0°♄			3916 Mar 15 07:38	0°♄	
	3915 Apr 30 07:39	0°♄			3916 Apr 04 17:06	0°♄	
morning set	3915 May 01 13:37	2°♄21'30		morning set	3916 Apr 13 06:42	14°♄52'21	
max. Earth dist.	3915 May 05 21:04	10°♄45'59	1.34396 AU	max. Earth dist.	3916 Apr 17 01:19	21°♄52'46	1.36088 AU
					3916 Apr 21 06:08	0°♄	
superior conj	3915 May 10 05:11	19°♄36'40	0°-38'-51				
minimum elong	3915 May 10 07:15	19°♄47'19	0°38'27	superior conj	3916 Apr 22 21:02	3°♄13'06	-1°-7'-44
asc. node	3915 May 14 00:49	27°♄36'31		minimum elong	3916 Apr 23 00:39	3°♄31'06	1°07'08
	3915 May 15 04:04	0°♄		asc. node	3916 Apr 29 21:51	17°♄30'44	
evening rise	3915 May 17 18:23	5°♄26'21		evening rise	3916 May 01 00:01	19°♄43'59	
	3915 May 31 08:04	0°♄			3916 May 06 04:59	0°♄	
evening max el	3915 Jun 06 05:50	7°♄05'23	21°11'50	evening max el	3916 May 18 14:18	18°♄20'24	19°56'02
retrograde	3915 Jun 18 03:53	12°♄56'16		retrograde	3916 May 28 19:12	23°♄18'34	
evening set	3915 Jun 20 10:51	12°♄44'06		evening set	3916 May 30 18:13	23°♄08'23	
desc. node	3915 Jun 20 02:42	12°♄47'24		desc. node	3916 Jun 05 23:45	20°♄43'24	
inferior conj	3915 Jun 29 19:15	8°♄46'03	-2°-46'-56	inferior conj	3916 Jun 08 16:48	19°♄07'51	0°-48'-11
minimum elong	3915 Jun 29 11:49	8°♄56'30	2°44'29	minimum elong	3916 Jun 08 14:34	19°♄11'14	0°47'21
min. Earth dist.	3915 Jun 30 04:22	8°♄33'16	0.54834 AU	min. Earth dist.	3916 Jun 10 17:04	17°♄54'44	0.55330 AU
morning rise	3915 Jul 08 12:48	4°♄48'42		morning rise	3916 Jun 17 08:10	14°♄44'46	
direct	3915 Jul 12 00:50	4°♄22'13		direct	3916 Jun 21 14:19	14°♄05'07	
morning max el	3915 Jul 24 18:12	10°♄25'08	22°29'37	morning max el	3916 Jul 05 09:09	20°♄53'43	24°12'55
	3915 Aug 07 22:54	0°♄			3916 Jul 13 05:08	0°♄	
asc. node	3915 Aug 10 00:05	3°♄47'11		asc. node	3916 Jul 26 21:08	23°♄17'45	
morning set	3915 Aug 15 16:44	15°♄13'14		morning set	3916 Jul 30 04:29	0°♄07'27	
					3916 Jul 30 03:04	0°♄	
superior conj	3915 Aug 22 20:48	0°♄28'59	1°39'51				
minimum elong	3915 Aug 22 19:24	0°♄21'32	1°39'46	superior conj	3916 Aug 06 04:49	15°♄16'57	1°29'37
	3915 Aug 22 15:21	0°♄		minimum elong	3916 Aug 06 02:42	15°♄05'27	1°29'24
max. Earth dist.	3915 Aug 26 01:42	7°♄12'04	1.34184 AU	max. Earth dist.	3916 Aug 08 03:32	19°♄29'07	1.33056 AU
evening rise	3915 Aug 30 19:40	16°♄45'34			3916 Aug 13 03:55	0°♄	
	3915 Sep 06 22:35	0°♄		evening rise	3916 Aug 13 14:23	0°♄53'06	

	3916 Aug 29 21:53	0°♄		minimum elong	3917 Jul 21 13:19	29°♄58'49	1°14'06
desc. node	3916 Sep 01 23:02	4°♄33'56			3917 Jul 21 13:32	0°♄	
evening max el	3916 Sep 16 00:03	21°♄41'23	27°26'28	max. Earth dist.	3917 Jul 22 11:50	2°♄02'30	1.32340 AU
retrograde	3916 Sep 29 15:24	28°♄58'05		evening rise	3917 Jul 28 16:56	15°♄22'29	
evening set	3916 Oct 06 19:03	26°♄21'33			3917 Aug 05 03:39	0°♄	
min. Earth dist.	3916 Oct 10 11:23	23°♄09'34	0.63583 AU	desc. node	3917 Aug 19 20:03	23°♄23'50	
inferior conj	3916 Oct 13 02:02	20°♄31'13	-3°-6'-22		3917 Aug 25 04:00	0°♄	
minimum elong	3916 Oct 13 07:10	20°♄18'12	3°04'38	evening max el	3917 Aug 29 07:22	4°♄18'48	27°13'52
morning rise	3916 Oct 19 21:45	15°♄12'22		retrograde	3917 Sep 12 03:32	11°♄32'39	
direct	3916 Oct 22 07:41	14°♄44'02		evening set	3917 Sep 19 07:02	9°♄12'06	
asc. node	3916 Oct 22 20:21	14°♄45'25		min. Earth dist.	3917 Sep 22 21:44	6°♄25'59	0.61708 AU
morning max el	3916 Oct 28 21:26	18°♄09'12	17°51'12	inferior conj	3917 Sep 25 23:03	3°♄41'42	-4°-3'-5
	3916 Nov 06 11:35	0°♄		minimum elong	3917 Sep 26 04:59	3°♄28'21	4°01'33
morning set	3916 Nov 14 09:29	13°♄30'23			3917 Sep 30 14:09	30°♄	
	3916 Nov 24 01:24	0°♄		morning rise	3917 Oct 03 05:59	28°♄42'56	
				direct	3917 Oct 05 13:29	28°♄20'16	
superior conj	3916 Nov 26 18:33	4°♄29'53	0°14'55	asc. node	3917 Oct 09 17:23	29°♄36'26	
minimum elong	3916 Nov 26 20:08	4°♄36'24	0°14'42		3917 Oct 10 07:54	0°♄	
behind sun begin	3916 Nov 26 16:07	4°♄19'55		morning max el	3917 Oct 12 12:40	1°♄50'37	17°54'40
behind sun end	3916 Nov 27 00:08	4°♄52'51		morning set	3917 Oct 28 07:41	26°♄37'15	
desc. node	3916 Nov 28 22:21	8°♄01'47			3917 Oct 30 04:17	0°♄	
max. Earth dist.	3916 Dec 02 19:38	14°♄17'44	1.44222 AU				
evening rise	3916 Dec 12 12:14	29°♄28'45		superior conj	3917 Nov 07 22:58	15°♄36'47	0°53'07
	3916 Dec 12 20:22	0°♄		minimum elong	3917 Nov 08 03:00	15°♄54'13	0°52'35
	3917 Jan 02 04:05	0°♄		max. Earth dist.	3917 Nov 15 09:12	28°♄07'27	1.42752 AU
greatest brilliancy	3917 Jan 04 14:09	3°♄13'53	-0.5m	desc. node	3917 Nov 15 19:20	28°♄48'58	
evening max el	3917 Jan 10 05:20	9°♄53'22	20°44'30		3917 Nov 16 12:45	0°♄	
retrograde	3917 Jan 18 11:23	14°♄45'48		evening rise	3917 Nov 22 02:37	8°♄55'17	
asc. node	3917 Jan 18 19:36	14°♄45'10			3917 Dec 06 01:10	0°♄	
evening set	3917 Jan 22 09:34	13°♄17'36		greatest brilliancy	3917 Dec 19 07:21	18°♄04'30	-0.3m
inferior conj	3917 Jan 27 19:25	7°♄05'05	2°40'39	evening max el	3917 Dec 24 01:04	23°♄26'17	21°57'56
minimum elong	3917 Jan 27 16:56	7°♄13'38	2°39'57	retrograde	3918 Jan 02 08:23	28°♄58'34	
min. Earth dist.	3917 Jan 28 08:10	6°♄21'23	0.67570 AU	asc. node	3918 Jan 05 16:38	27°♄58'27	
morning rise	3917 Feb 01 23:52	0°♄49'39		evening set	3918 Jan 06 17:21	27°♄14'46	
	3917 Feb 03 00:24	30°♄		inferior conj	3918 Jan 12 02:45	20°♄53'19	2°02'22
direct	3917 Feb 07 10:27	28°♄26'17		minimum elong	3918 Jan 12 00:27	21°♄01'20	2°01'35
	3917 Feb 12 08:35	0°♄		min. Earth dist.	3918 Jan 12 03:39	20°♄50'12	0.67949 AU
morning max el	3917 Feb 18 10:48	5°♄00'33	24°06'54	morning rise	3918 Jan 17 07:21	14°♄39'44	
desc. node	3917 Feb 24 21:36	12°♄21'21		direct	3918 Jan 22 02:58	12°♄38'02	
	3917 Mar 09 16:55	0°♄		morning max el	3918 Jan 31 21:00	18°♄23'53	22°37'54
morning set	3917 Mar 26 03:01	26°♄19'54		greatest brilliancy	3918 Feb 05 11:00	23°♄30'32	-0.3m
	3917 Mar 28 05:28	0°♄			3918 Feb 10 13:03	0°♄	
max. Earth dist.	3917 Mar 29 21:53	2°♄59'30	1.38129 AU	desc. node	3918 Feb 11 18:36	1°♄39'36	
					3918 Mar 02 20:26	0°♄	
superior conj	3917 Apr 06 00:56	16°♄10'54	-1°-34'-25	morning set	3918 Mar 06 20:33	6°♄28'38	
minimum elong	3917 Apr 06 05:34	16°♄33'03	1°33'50	max. Earth dist.	3918 Mar 11 17:32	14°♄37'36	1.40305 AU
	3917 Apr 13 03:00	0°♄					
evening rise	3917 Apr 14 23:06	3°♄37'24		superior conj	3918 Mar 19 12:27	28°♄18'57	-1°-55'-39
asc. node	3917 Apr 16 18:52	7°♄11'38		minimum elong	3918 Mar 19 16:44	28°♄38'20	1°55'21
	3917 May 01 03:45	0°♄			3918 Mar 20 10:42	0°♄	
evening max el	3917 May 01 10:24	0°♄16'25	18°59'47	evening rise	3918 Mar 29 12:26	16°♄58'03	
retrograde	3917 May 10 00:42	4°♄28'10		asc. node	3918 Apr 03 15:55	26°♄33'47	
evening set	3917 May 12 02:27	4°♄14'30			3918 Apr 05 14:17	0°♄	
inferior conj	3917 May 20 06:44	29°♄59'13	1°01'35	evening max el	3918 Apr 14 15:26	12°♄48'04	18°23'57
minimum elong	3917 May 20 09:05	29°♄55'07	1°00'45	retrograde	3918 Apr 22 01:00	16°♄27'57	
	3917 May 20 06:18	30°♄		evening set	3918 Apr 24 08:55	16°♄07'10	
min. Earth dist.	3917 May 23 08:38	27°♄50'37	0.56689 AU	inferior conj	3918 May 01 18:07	11°♄32'00	2°22'10
desc. node	3917 May 23 20:47	27°♄30'29		minimum elong	3918 May 01 21:48	11°♄24'24	2°21'11
morning rise	3917 May 28 11:19	25°♄00'19		min. Earth dist.	3918 May 05 04:44	8°♄43'55	0.58633 AU
direct	3917 Jun 02 16:31	23°♄55'51		morning rise	3918 May 09 06:24	6°♄01'27	
	3917 Jun 15 13:32	0°♄		desc. node	3918 May 10 17:47	5°♄19'56	
morning max el	3917 Jun 16 23:42	1°♄18'56	25°49'40	direct	3918 May 15 09:12	4°♄22'49	
	3917 Jul 07 03:02	0°♄		morning max el	3918 May 29 18:41	12°♄07'24	27°04'10
asc. node	3917 Jul 13 18:09	13°♄05'34			3918 Jun 12 18:47	0°♄	
morning set	3917 Jul 14 15:52	14°♄59'43		morning set	3918 Jun 29 01:19	29°♄44'52	
					3918 Jun 29 04:12	0°♄	
superior conj	3917 Jul 21 15:40	0°♄11'42	1°14'27	asc. node	3918 Jun 30 15:10	3°♄05'17	

superior conj	3918 Jul 06 03:31	15°☿07'17	0°55'04	superior conj	3919 Jun 20 14:34	29°♄56'40	0°32'03
minimum elong	3918 Jul 06 01:25	14°☿55'44	0°54'40	minimum elong	3919 Jun 20 13:10	29°♄49'01	0°31'44
max. Earth dist.	3918 Jul 05 23:15	14°☿43'48	1.32034 AU		3919 Jun 20 15:10	0°☿	
	3918 Jul 12 23:36	0°♄		evening rise	3919 Jun 27 11:30	14°☿55'10	
evening rise	3918 Jul 13 00:43	0°♄05'54			3919 Jul 05 00:00	0°♄	
	3918 Jul 29 08:51	0°♄		evening max el	3919 Jul 24 02:24	27°♄17'26	25°12'37
desc. node	3918 Aug 06 17:04	11°♄15'46		desc. node	3919 Jul 24 14:06	27°♄45'00	
evening max el	3918 Aug 11 08:31	16°♄11'58	26°28'00		3919 Jul 27 05:29	0°♄	
retrograde	3918 Aug 25 07:43	23°♄22'17		retrograde	3919 Aug 07 01:35	4°♄22'01	
evening set	3918 Sep 01 00:05	21°♄30'53		evening set	3919 Aug 12 17:35	3°♄08'16	
min. Earth dist.	3918 Sep 04 22:00	18°♄56'07	0.59653 AU	min. Earth dist.	3919 Aug 17 14:10	0°♄26'32	0.57641 AU
inferior conj	3918 Sep 08 04:32	16°♄22'23	-4°-48'-12		3919 Aug 18 06:08	30°♄♄	
minimum elong	3918 Sep 08 09:22	16°♄12'53	4°47'29	inferior conj	3919 Aug 20 15:06	28°♄22'41	-5°-10'-1
morning rise	3918 Sep 15 22:06	11°♄46'10		minimum elong	3919 Aug 20 15:52	28°♄21'23	5°10'01
direct	3918 Sep 18 06:28	11°♄26'26		morning rise	3919 Aug 28 17:41	24°♄09'14	
morning max el	3918 Sep 25 23:16	15°♄11'05	18°17'38	direct	3919 Aug 31 06:23	23°♄50'13	
asc. node	3918 Sep 26 14:25	15°♄48'57		morning max el	3919 Sep 09 01:46	27°♄59'41	19°01'37
	3918 Oct 06 05:41	0°♄			3919 Sep 10 23:57	0°♄	
morning set	3918 Oct 11 20:01	10°♄24'43		asc. node	3919 Sep 13 11:27	3°♄06'51	
				morning set	3919 Sep 25 18:07	24°♄39'56	
superior conj	3918 Oct 21 03:42	27°♄54'53	1°20'14		3919 Sep 28 10:46	0°♄	
minimum elong	3918 Oct 21 07:31	28°♄12'17	1°19'49	superior conj	3919 Oct 04 03:17	11°♄08'03	1°36'38
	3918 Oct 22 07:15	0°♄		minimum elong	3919 Oct 04 05:38	11°♄19'22	1°36'28
max. Earth dist.	3918 Oct 28 17:22	11°♄17'19	1.40861 AU	max. Earth dist.	3919 Oct 10 22:12	23°♄46'07	1.38781 AU
evening rise	3918 Nov 02 11:21	19°♄13'55			3919 Oct 14 10:58	0°♄	
desc. node	3918 Nov 02 16:22	19°♄34'25		evening rise	3919 Oct 14 19:26	0°♄36'34	
	3918 Nov 09 05:33	0°♄		desc. node	3919 Oct 20 13:24	10°♄13'58	
	3918 Nov 30 10:58	0°♄			3919 Nov 02 13:19	0°♄	
evening max el	3918 Dec 06 16:29	7°♄02'28	23°17'14	evening max el	3919 Nov 19 05:35	20°♄43'09	24°36'15
retrograde	3918 Dec 17 02:41	13°♄12'47		retrograde	3919 Nov 30 17:07	27°♄24'49	
evening set	3918 Dec 22 00:05	11°♄12'49		evening set	3919 Dec 06 04:14	25°♄09'00	
asc. node	3918 Dec 23 13:40	9°♄42'40		asc. node	3919 Dec 10 10:42	20°♄22'39	
inferior conj	3918 Dec 27 10:33	4°♄46'25	1°17'03	min. Earth dist.	3919 Dec 10 20:12	19°♄51'19	0.67629 AU
minimum elong	3918 Dec 27 08:52	4°♄52'11	1°16'24	inferior conj	3919 Dec 11 17:01	18°♄42'01	0°25'47
min. Earth dist.	3918 Dec 27 00:29	5°♄21'01	0.67964 AU	minimum elong	3919 Dec 11 16:23	18°♄44'06	0°25'32
	3918 Dec 31 05:33	30°♄♄		morning rise	3919 Dec 17 04:57	12°♄38'29	
morning rise	3919 Jan 01 17:42	28°♄36'41		direct	3919 Dec 20 21:03	11°♄21'10	
direct	3919 Jan 05 22:56	26°♄57'50		morning max el	3919 Dec 28 11:21	15°♄40'06	20°01'54
	3919 Jan 12 10:15	0°♄		greatest brilliancy	3920 Jan 04 12:01	24°♄09'31	-0.6m
morning max el	3919 Jan 14 12:19	1°♄56'01	21°14'13		3920 Jan 08 16:01	0°♄	
greatest brilliancy	3919 Jan 19 17:34	7°♄54'04	-0.4m	desc. node	3920 Jan 16 12:40	11°♄38'35	
desc. node	3919 Jan 29 15:38	21°♄28'03		morning set	3920 Jan 24 06:02	23°♄26'25	
	3919 Feb 04 10:38	0°♄			3920 Jan 28 11:26	0°♄	
morning set	3919 Feb 14 09:33	15°♄17'24		max. Earth dist.	3920 Feb 04 04:38	10°♄36'09	1.43967 AU
max. Earth dist.	3919 Feb 21 18:55	27°♄09'24	1.42342 AU				
	3919 Feb 23 12:20	0°♄		superior conj	3920 Feb 09 15:15	19°♄23'29	-2°-2'-48
superior conj	3919 Mar 01 02:34	9°♄25'42	-2°-6'-54	minimum elong	3920 Feb 09 10:54	19°♄05'43	2°02'38
minimum elong	3919 Mar 01 03:54	9°♄31'24	2°06'54		3920 Feb 16 00:52	0°♄	
evening rise	3919 Mar 12 12:08	29°♄36'52		evening rise	3920 Feb 22 17:56	11°♄25'49	
	3919 Mar 12 17:15	0°♄			3920 Mar 04 19:06	0°♄	
asc. node	3919 Mar 21 12:57	15°♄30'25		asc. node	3920 Mar 07 10:01	3°♄53'36	
evening max el	3919 Mar 29 01:57	25°♄45'37	18°07'58	evening max el	3920 Mar 11 14:40	9°♄00'23	18°11'09
retrograde	3919 Apr 04 18:29	29°♄09'59		retrograde	3920 Mar 18 00:56	12°♄24'10	
evening set	3919 Apr 07 08:36	28°♄39'38		evening set	3920 Mar 20 20:48	11°♄42'57	
inferior conj	3919 Apr 14 01:37	23°♄43'17	3°11'02	inferior conj	3920 Mar 27 01:31	6°♄26'11	3°33'31
minimum elong	3919 Apr 14 04:21	23°♄36'47	3°10'35	minimum elong	3920 Mar 27 02:30	6°♄23'31	3°33'28
min. Earth dist.	3919 Apr 17 07:20	20°♄40'05	0.60814 AU	min. Earth dist.	3920 Mar 29 18:29	3°♄32'03	0.62918 AU
morning rise	3919 Apr 20 20:51	17°♄51'16		morning rise	3920 Apr 02 06:02	0°♄21'19	
direct	3919 Apr 27 13:40	15°♄38'41			3920 Apr 02 17:37	30°♄♄	
desc. node	3919 Apr 27 14:50	15°♄38'41		direct	3920 Apr 09 03:18	27°♄44'03	
morning max el	3919 May 11 19:50	23°♄34'01	27°45'12	desc. node	3920 Apr 13 11:52	28°♄39'25	
	3919 May 17 14:13	0°♄			3920 Apr 16 03:03	0°♄	
	3919 Jun 05 23:56	0°♄		morning max el	3920 Apr 23 02:28	5°♄42'15	27°48'42
morning set	3919 Jun 13 06:54	14°♄15'54			3920 May 11 11:23	0°♄	
asc. node	3919 Jun 17 12:12	23°♄11'20		morning set	3920 May 27 06:32	28°♄26'08	
max. Earth dist.	3919 Jun 19 10:05	27°♄20'43	1.32139 AU		3920 May 28 01:06	0°♄	

max. Earth dist.	3920 Jun 01 16:30	9°II40'53	1.32665 AU	morning set	3921 May 10 21:24	12°806'45	
asc. node	3920 Jun 03 09:16	13°II19'36		max. Earth dist.	3921 May 15 14:30	21°832'36	1.33631 AU
superior conj	3920 Jun 03 23:04	14°II34'11	0°06'03	superior conj	3921 May 19 03:02	28°853'15	0°-22'-8
minimum elong	3920 Jun 03 22:47	14°II32'37	0°05'58	minimum elong	3921 May 19 04:11	28°859'17	0°21'54
behind sun begin	3920 Jun 03 17:54	14°II06'12			3921 May 19 15:40	0°II	
behind sun end	3920 Jun 04 03:40	14°II59'04		asc. node	3921 May 21 06:20	3°II25'36	
evening rise	3920 Jun 10 23:21	29°II43'53		evening rise	3921 May 26 10:23	14°II25'20	
	3920 Jun 11 02:24	0°☾			3921 Jun 03 07:50	0°☾	
	3920 Jun 27 22:57	0°♂		evening max el	3921 Jun 16 07:10	18°☾14'13	22°02'47
evening max el	3920 Jul 04 15:35	7°♂48'15	23°38'57	desc. node	3921 Jun 27 08:07	24°☾26'25	
desc. node	3920 Jul 10 11:07	12°♂20'09		retrograde	3921 Jun 29 01:05	24°☾33'10	
retrograde	3920 Jul 18 07:01	14°♂38'54		evening set	3921 Jul 01 20:41	24°☾15'29	
evening set	3920 Jul 22 12:11	13°♂59'55		min. Earth dist.	3921 Jul 10 12:06	20°☾32'44	0.54985 AU
min. Earth dist.	3920 Jul 29 01:35	10°♂54'31	0.55978 AU	inferior conj	3921 Jul 11 03:40	20°☾10'54	-3°-45'-58
inferior conj	3920 Jul 31 05:28	9°♂36'50	-4°-52'-58	minimum elong	3921 Jul 10 19:10	20°☾22'50	3°43'41
minimum elong	3920 Jul 31 00:11	9°♂44'46	4°52'19	morning rise	3921 Jul 19 19:25	16°☾20'20	
morning rise	3920 Aug 08 15:25	5°♂41'37		direct	3921 Jul 22 23:57	15°☾57'48	
direct	3920 Aug 11 11:03	5°♂21'46		morning max el	3921 Aug 03 21:24	21°☾31'15	21°33'23
morning max el	3920 Aug 21 17:27	10°♂07'41	20°07'22		3921 Aug 11 01:10	0°♂	
asc. node	3920 Aug 30 08:29	21°♂16'06		asc. node	3921 Aug 17 05:33	10°♂04'47	
	3920 Sep 04 06:44	0°♐		morning set	3921 Aug 24 07:45	24°♂01'07	
morning set	3920 Sep 08 22:49	9°♐14'12			3921 Aug 27 04:11	0°♐	
superior conj	3920 Sep 16 16:35	25°♐01'52	1°43'46	superior conj	3921 Aug 31 15:34	9°♐24'46	1°43'10
minimum elong	3920 Sep 16 17:15	25°♐05'12	1°43'45	minimum elong	3921 Aug 31 14:47	9°♐20'45	1°43'10
	3920 Sep 19 04:34	0°♑		max. Earth dist.	3921 Sep 04 15:52	17°♐38'28	1.35010 AU
max. Earth dist.	3920 Sep 22 04:02	5°♑45'40	1.36763 AU	evening rise	3921 Sep 09 00:42	26°♐12'12	
evening rise	3920 Sep 26 01:14	12°♑59'15			3921 Sep 11 01:07	0°♑	
	3920 Oct 05 23:44	0°♒		desc. node	3921 Sep 23 07:27	20°♑56'02	
desc. node	3920 Oct 06 10:26	0°♒42'58			3921 Sep 29 09:22	0°♒	
	3920 Oct 27 13:27	0°♓		evening max el	3921 Oct 14 06:26	18°♒04'26	26°44'34
evening max el	3920 Oct 31 17:58	4°♓25'37	25°47'51	retrograde	3921 Oct 27 07:27	25°♒20'02	
retrograde	3920 Nov 13 02:52	11°♓29'17		evening set	3921 Nov 02 21:35	22°♒41'09	
evening set	3920 Nov 19 04:04	8°♓59'38		min. Earth dist.	3921 Nov 06 22:52	18°♒35'09	0.65910 AU
min. Earth dist.	3920 Nov 23 12:26	4°♓17'23	0.66945 AU	inferior conj	3921 Nov 08 18:26	16°♒26'53	-1°-30'-5
inferior conj	3920 Nov 24 20:18	2°♓36'38	0°-30'-22	minimum elong	3921 Nov 08 20:55	16°♒19'32	1°29'05
minimum elong	3920 Nov 24 21:05	2°♓34'07	0°30'02	asc. node	3921 Nov 13 04:46	11°♒51'13	
asc. node	3920 Nov 26 07:45	0°♓46'35		morning rise	3921 Nov 14 21:48	10°♒43'38	
	3920 Nov 26 23:35	30°♒♒		direct	3921 Nov 17 17:11	9°♒59'52	
morning rise	3920 Nov 30 15:03	26°♒41'52		morning max el	3921 Nov 24 06:55	13°♒33'57	18°22'23
direct	3920 Dec 03 19:45	25°♒43'13			3921 Dec 06 03:17	0°♓	
morning max el	3920 Dec 10 18:08	29°♒34'16	19°04'08	morning set	3921 Dec 13 17:56	12°♓13'07	
	3920 Dec 11 04:14	0°♔		desc. node	3921 Dec 20 06:45	22°♓41'42	
	3921 Jan 01 01:42	0°♕			3921 Dec 24 21:14	0°♕	
morning set	3921 Jan 02 10:44	2°♕08'39		superior conj	3921 Dec 29 06:23	6°♕54'00	0°-58'-49
desc. node	3921 Jan 02 09:42	2°♕04'38		minimum elong	3921 Dec 28 23:06	6°♕25'26	0°57'56
max. Earth dist.	3921 Jan 16 20:37	24°♕40'55	1.44974 AU	max. Earth dist.	3921 Dec 30 15:30	9°♕03'59	1.45257 AU
superior conj	3921 Jan 19 04:03	28°♕19'33	-1°-39'-22		3922 Jan 13 00:02	0°♖	
minimum elong	3921 Jan 18 19:04	27°♕44'02	1°38'34	evening rise	3922 Jan 14 10:41	2°♖16'08	
	3921 Jan 20 05:27	0°♗		greatest brilliancy	3922 Jan 27 20:52	23°♖09'49	-0.7m
evening rise	3921 Feb 03 01:52	22°♖18'29			3922 Feb 01 14:48	0°♘	
	3921 Feb 07 18:30	0°♙		evening max el	3922 Feb 06 11:46	5°♘54'20	19°11'59
asc. node	3921 Feb 22 07:03	21°♙32'44		asc. node	3922 Feb 09 04:05	8°♙15'35	
evening max el	3921 Feb 23 02:42	22°♙24'40	18°32'49	retrograde	3922 Feb 13 11:52	9°♙53'44	
retrograde	3921 Mar 01 15:58	26°♙00'52		evening set	3922 Feb 16 20:20	8°♙48'09	
evening set	3921 Mar 04 17:41	25°♙07'56		inferior conj	3922 Feb 22 10:35	2°♙56'20	3°23'16
inferior conj	3921 Mar 10 13:40	19°♙32'28	3°35'56	minimum elong	3922 Feb 22 08:49	3°♙02'01	3°23'00
minimum elong	3921 Mar 10 13:02	19°♙34'20	3°35'54	min. Earth dist.	3922 Feb 23 20:52	1°♙06'26	0.66168 AU
min. Earth dist.	3921 Mar 12 15:12	17°♙05'17	0.64737 AU		3922 Feb 24 18:12	30°♒♒	
morning rise	3921 Mar 16 07:00	13°♙20'36		morning rise	3922 Feb 27 20:23	26°♒41'09	
direct	3921 Mar 23 00:31	10°♙31'53		direct	3922 Mar 06 04:23	23°♒54'14	
desc. node	3921 Mar 31 08:55	13°♙53'47			3922 Mar 17 09:59	0°♙	
morning max el	3921 Apr 05 12:06	18°♙24'11	27°16'52	desc. node	3922 Mar 18 05:58	0°♙47'56	
	3921 Apr 15 06:42	0°♚		morning max el	3922 Mar 18 22:02	1°♙27'55	26°16'28
	3921 May 04 09:47	0°♛			3922 Apr 09 08:32	0°♚	

morning set	3922 Apr 23 23:49	25° Υ 07'16		direct	3923 Feb 17 13:57	7° \approx 42'13	
	3922 Apr 26 13:36	0° \mathcal{B}		morning max el	3923 Mar 01 06:46	14° \approx 41'58	24°57'04
max. Earth dist.	3922 Apr 28 01:09	2° \mathcal{B} 52'13	1.35061 AU	desc. node	3923 Mar 05 03:00	18° \approx 53'32	
					3923 Mar 13 19:12	0° \mathcal{H}	
superior conj	3922 May 03 00:08	12° \mathcal{B} 47'30	0°-51'-15		3923 Apr 02 05:15	0° Υ	
minimum elong	3922 May 03 02:52	13° \mathcal{B} 01'29	0°50'44	morning set	3923 Apr 06 08:51	7° Υ 13'57	
asc. node	3922 May 08 03:22	23° \mathcal{B} 25'21		max. Earth dist.	3923 Apr 10 00:58	13° Υ 53'29	1.36919 AU
evening rise	3922 May 10 18:38	28° \mathcal{B} 53'28					
	3922 May 11 07:34	0° Π		superior conj	3923 Apr 16 11:24	26° Υ 09'20	-1°-19'-30
evening max el	3922 May 29 08:34	29° Π 06'41	20°37'19	minimum elong	3923 Apr 16 15:33	26° Υ 29'40	1°18'53
	3922 May 30 07:21	0° \mathcal{E}			3923 Apr 18 10:07	0° \mathcal{B}	
retrograde	3922 Jun 09 14:01	4° \mathcal{E} 35'46		evening rise	3923 Apr 24 21:50	13° \mathcal{B} 02'04	
evening set	3922 Jun 11 15:21	4° \mathcal{E} 25'29		asc. node	3923 Apr 25 00:24	13° \mathcal{B} 14'53	
desc. node	3922 Jun 14 05:09	3° \mathcal{E} 45'43			3923 May 03 22:49	0° Π	
inferior conj	3922 Jun 20 21:11	0° \mathcal{E} 28'16	-1°-57'-31	evening max el	3923 May 11 22:23	10° Π 40'34	19°29'41
minimum elong	3922 Jun 20 15:41	0° \mathcal{E} 36'11	1°55'33	retrograde	3923 May 21 09:55	15° Π 17'05	
	3922 Jun 21 16:49	30° $\mathcal{R}\Pi$		evening set	3923 May 23 09:16	15° Π 06'00	
min. Earth dist.	3922 Jun 22 00:03	29° Π 49'37	0.54917 AU	inferior conj	3923 Jun 01 00:38	11° Π 00'44	0°01'08
morning rise	3922 Jun 29 14:45	26° Π 21'42		minimum elong	3923 Jun 01 00:41	11° Π 00'39	0°01'06
direct	3922 Jul 03 09:21	25° Π 50'59		transit middle	3923 Jun 01 00:41	11° Π 00'39	0°01'06
	3922 Jul 14 00:14	0° \mathcal{E}		transit begin	3923 May 31 20:48	11° Π 06'53	
morning max el	3922 Jul 16 15:44	2° \mathcal{E} 15'11	23°13'30	transit end	3923 Jun 01 04:34	10° Π 54'25	
asc. node	3922 Aug 04 02:36	29° \mathcal{E} 22'22		desc. node	3923 Jun 01 02:11	10° Π 58'15	
	3922 Aug 04 10:17	0° \mathcal{Q}		min. Earth dist.	3923 Jun 03 14:07	9° Π 22'31	0.55813 AU
morning set	3922 Aug 08 18:56	8° \mathcal{Q} 54'03		morning rise	3923 Jun 09 12:21	6° Π 22'36	
				direct	3923 Jun 14 04:14	5° Π 33'32	
superior conj	3922 Aug 15 20:59	24° \mathcal{Q} 06'03	1°36'10	morning max el	3923 Jun 28 05:41	12° Π 39'03	24°55'49
minimum elong	3922 Aug 15 19:13	23° \mathcal{Q} 56'34	1°36'02		3923 Jul 11 15:36	0° \mathcal{E}	
max. Earth dist.	3922 Aug 18 12:28	29° \mathcal{Q} 43'28	1.33642 AU	asc. node	3923 Jul 21 23:38	19° \mathcal{E} 01'17	
	3922 Aug 18 15:37	0° \mathcal{H}		morning set	3923 Jul 24 06:42	23° \mathcal{E} 48'06	
evening rise	3922 Aug 23 13:28	10° \mathcal{H} 03'04			3923 Jul 27 03:59	0° \mathcal{Q}	
	3922 Sep 03 10:23	0° \mathcal{A}					
desc. node	3922 Sep 10 04:27	10° \mathcal{A} 45'16		superior conj	3923 Jul 31 06:28	8° \mathcal{Q} 57'58	1°23'45
	3922 Sep 25 06:08	0° \mathcal{M}		minimum elong	3923 Jul 31 04:11	8° \mathcal{Q} 45'33	1°23'28
evening max el	3922 Sep 26 18:31	1° \mathcal{M} 29'38	27°19'14	max. Earth dist.	3923 Aug 01 17:18	12° \mathcal{Q} 07'44	1.32699 AU
retrograde	3922 Oct 10 06:16	8° \mathcal{M} 48'11		evening rise	3923 Aug 07 11:55	24° \mathcal{Q} 21'27	
evening set	3922 Oct 17 06:18	6° \mathcal{M} 07'53			3923 Aug 10 07:19	0° \mathcal{H}	
min. Earth dist.	3922 Oct 21 01:22	2° \mathcal{M} 37'06	0.64525 AU	desc. node	3923 Aug 28 01:27	0° \mathcal{A} 00'38	
inferior conj	3922 Oct 23 09:04	0° \mathcal{M} 07'15	-2°-31'-28		3923 Aug 28 01:17	0° \mathcal{A}	
minimum elong	3922 Oct 23 13:20	29° \mathcal{A} 55'46	2°29'53	evening max el	3923 Sep 09 04:32	14° \mathcal{A} 29'04	27°25'15
	3922 Oct 23 11:46	30° $\mathcal{R}\mathcal{A}$		retrograde	3923 Sep 22 22:30	21° \mathcal{A} 44'40	
morning rise	3922 Oct 29 22:32	24° \mathcal{A} 38'27		evening set	3923 Sep 30 02:59	19° \mathcal{A} 13'42	
asc. node	3922 Oct 31 01:48	24° \mathcal{A} 15'37		min. Earth dist.	3923 Oct 03 18:04	16° \mathcal{A} 13'41	0.62815 AU
direct	3922 Nov 01 11:02	24° \mathcal{A} 05'38		inferior conj	3923 Oct 06 13:28	13° \mathcal{A} 31'15	-3°-31'-20
morning max el	3922 Nov 07 22:57	27° \mathcal{A} 31'59	17°57'29	minimum elong	3923 Oct 06 19:06	13° \mathcal{A} 17'39	3°29'35
	3922 Nov 10 03:55	0° \mathcal{M}		morning rise	3923 Oct 13 13:56	8° \mathcal{A} 20'16	
morning set	3922 Nov 25 06:02	23° \mathcal{M} 42'28		direct	3923 Oct 15 22:24	7° \mathcal{A} 54'44	
	3922 Nov 28 23:58	0° \mathcal{J}		asc. node	3923 Oct 17 22:51	8° \mathcal{A} 14'02	
desc. node	3922 Dec 07 03:45	13° \mathcal{J} 25'15		morning max el	3923 Oct 22 15:19	11° \mathcal{A} 21'22	17°50'17
					3923 Nov 04 03:36	0° \mathcal{M}	
superior conj	3922 Dec 08 18:54	16° \mathcal{J} 03'08	0°-11'-12	morning set	3923 Nov 07 17:41	6° \mathcal{M} 19'41	
minimum elong	3922 Dec 08 17:33	15° \mathcal{J} 57'44	0°11'01				
behind sun begin	3922 Dec 08 09:54	15° \mathcal{J} 26'56		superior conj	3923 Nov 19 07:45	26° \mathcal{M} 24'24	0°32'24
behind sun end	3922 Dec 09 01:13	16° \mathcal{J} 28'30		minimum elong	3923 Nov 19 10:47	26° \mathcal{M} 37'08	0°31'59
max. Earth dist.	3922 Dec 13 10:09	23° \mathcal{J} 26'30	1.44801 AU		3923 Nov 21 11:26	0° \mathcal{J}	
	3922 Dec 17 14:17	0° \mathcal{C}		desc. node	3923 Nov 24 00:44	4° \mathcal{J} 12'07	
evening rise	3922 Dec 25 01:14	11° \mathcal{C} 33'26		max. Earth dist.	3923 Nov 26 02:24	7° \mathcal{J} 33'37	1.43668 AU
	3923 Jan 06 04:23	0° \approx		evening rise	3923 Dec 04 10:58	20° \mathcal{J} 45'30	
greatest brilliancy	3923 Jan 14 01:23	11° \approx 20'46	-0.6m		3923 Dec 10 12:04	0° \mathcal{C}	
evening max el	3923 Jan 20 16:12	19° \approx 26'17	20°06'58	greatest brilliancy	3923 Dec 29 12:47	27° \mathcal{C} 05'28	-0.4m
asc. node	3923 Jan 27 01:06	23° \approx 47'27			3923 Dec 31 22:01	0° \approx	
retrograde	3923 Jan 28 09:49	23° \approx 57'33		evening max el	3924 Jan 03 15:12	2° \approx 59'21	21°14'47
evening set	3923 Feb 01 02:28	22° \approx 38'06		retrograde	3924 Jan 12 07:32	8° \approx 08'09	
inferior conj	3923 Feb 06 13:22	16° \approx 32'29	2°58'58	asc. node	3924 Jan 13 22:07	7° \approx 54'03	
minimum elong	3923 Feb 06 10:59	16° \approx 40'30	2°58'25	evening set	3924 Jan 16 10:07	6° \approx 33'30	
min. Earth dist.	3923 Feb 07 09:37	15° \approx 24'15	0.67178 AU	inferior conj	3924 Jan 21 19:37	0° \approx 17'03	2°25'19
morning rise	3923 Feb 11 18:55	10° \approx 16'35		minimum elong	3924 Jan 21 17:09	0° \approx 25'35	2°24'35

min. Earth dist.	3924 Jan 22 03:15	29°☿50'42	0.67783 AU	asc. node	3924 Dec 30 19:09	20°☿28'58	
	3924 Jan 22 00:33	30°☿☿		inferior conj	3925 Jan 05 03:23	14°☿08'03	1°43'56
morning rise	3924 Jan 26 23:49	24°☿02'16		minimum elong	3925 Jan 05 01:17	14°☿15'18	1°43'11
direct	3924 Feb 01 04:10	21°☿47'33		min. Earth dist.	3925 Jan 04 23:30	14°☿21'31	0.68004 AU
morning max el	3924 Feb 11 15:24	28°☿01'11	23°28'47	morning rise	3925 Jan 10 08:48	7°☿56'09	
	3924 Feb 13 12:29	0°☿☿		direct	3925 Jan 14 22:15	6°☿04'14	
greatest brilliancy	3924 Feb 17 19:15	5°☿01'52	-0.2m	morning max el	3925 Jan 24 03:27	11°☿28'32	22°01'16
desc. node	3924 Feb 20 00:00	7°☿49'34		greatest brilliancy	3925 Jan 28 18:57	16°☿41'07	-0.4m
	3924 Mar 06 12:09	0°☿☿		desc. node	3925 Feb 05 21:01	27°☿22'12	
morning set	3924 Mar 17 18:21	18°☿09'13			3925 Feb 07 17:43	0°☿☿	
max. Earth dist.	3924 Mar 21 20:06	25°☿09'36	1.39057 AU	morning set	3925 Feb 25 23:27	27°☿42'38	
	3924 Mar 24 13:38	0°☿☿			3925 Feb 27 09:26	0°☿☿	
				max. Earth dist.	3925 Mar 03 18:22	7°☿12'30	1.41214 AU
superior conj	3924 Mar 29 08:56	8°☿47'47	-1°-44'-19				
minimum elong	3924 Mar 29 13:39	9°☿09'52	1°43'51	superior conj	3925 Mar 11 12:00	20°☿31'34	-2°-1'-56
evening rise	3924 Apr 07 17:10	26°☿42'35		minimum elong	3925 Mar 11 15:24	20°☿46'38	2°01'48
	3924 Apr 09 10:05	0°☿☿			3925 Mar 16 18:13	0°☿☿	
asc. node	3924 Apr 10 21:26	2°☿48'38		evening rise	3925 Mar 22 01:15	9°☿47'05	
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retrograde	3924 May 01 23:07	26°☿48'59			3925 Apr 02 17:02	0°☿☿	
evening set	3924 May 04 03:35	26°☿32'30		evening max el	3925 Apr 07 06:30	5°☿36'46	18°14'39
inferior conj	3924 May 11 23:31	22°☿09'00	1°39'47	retrograde	3925 Apr 14 07:25	9°☿08'19	
minimum elong	3924 May 12 02:49	22°☿02'49	1°38'44	evening set	3925 Apr 16 18:02	8°☿43'37	
min. Earth dist.	3924 May 15 07:07	19°☿41'13	0.57472 AU	inferior conj	3925 Apr 23 19:51	3°☿59'00	2°46'31
desc. node	3924 May 17 23:13	17°☿56'28		minimum elong	3925 Apr 23 23:19	3°☿51'23	2°45'45
morning rise	3924 May 19 21:36	16°☿56'00		min. Earth dist.	3925 Apr 27 05:30	1°☿01'39	0.59558 AU
direct	3924 May 25 12:50	15°☿37'40			3925 Apr 28 12:27	30°☿☿	
morning max el	3924 Jun 08 21:27	23°☿10'29	26°24'51	morning rise	3925 May 01 00:45	28°☿18'01	
	3924 Jun 15 00:11	0°☿☿		desc. node	3925 May 04 20:15	26°☿43'15	
	3924 Jul 03 12:10	0°☿☿		direct	3925 May 07 10:28	26°☿24'43	
morning set	3924 Jul 07 17:27	8°☿37'39			3925 May 16 20:07	0°☿☿	
asc. node	3924 Jul 07 20:41	8°☿54'41		morning max el	3925 May 21 19:09	4°☿14'19	27°26'09
					3925 Jun 09 17:56	0°☿☿	
superior conj	3924 Jul 14 17:56	23°☿53'24	1°06'43	morning set	3925 Jun 22 01:29	23°☿17'27	
minimum elong	3924 Jul 14 15:38	23°☿40'45	1°06'19	asc. node	3925 Jun 24 17:44	28°☿57'36	
max. Earth dist.	3924 Jul 15 03:29	24°☿46'07	1.32166 AU		3925 Jun 25 05:19	0°☿☿	
	3924 Jul 17 12:40	0°☿☿		max. Earth dist.	3925 Jun 28 15:18	7°☿27'42	1.32034 AU
evening rise	3924 Jul 21 17:00	8°☿57'40					
	3924 Aug 01 16:13	0°☿☿		superior conj	3925 Jun 29 05:38	8°☿46'38	0°45'42
desc. node	3924 Aug 13 22:30	18°☿28'05		minimum elong	3925 Jun 29 03:47	8°☿36'26	0°45'19
evening max el	3924 Aug 21 09:44	26°☿49'08	26°58'25	evening rise	3925 Jul 06 02:18	23°☿44'07	
	3924 Aug 25 03:53	0°☿☿			3925 Jul 09 02:40	0°☿☿	
retrograde	3924 Sep 04 07:08	4°☿00'34			3925 Jul 26 23:10	0°☿☿	
evening set	3924 Sep 11 07:28	1°☿51'12		desc. node	3925 Jul 31 19:32	5°☿47'54	
	3924 Sep 13 23:45	30°☿☿		evening max el	3925 Aug 03 07:37	8°☿20'39	25°58'55
min. Earth dist.	3924 Sep 14 23:57	29°☿11'57	0.60846 AU	retrograde	3925 Aug 17 06:56	15°☿28'55	
inferior conj	3924 Sep 18 04:19	26°☿30'16	-4°-24'-15	evening set	3925 Aug 23 14:52	13°☿52'41	
minimum elong	3924 Sep 18 10:05	26°☿18'00	4°23'00	min. Earth dist.	3925 Aug 27 20:04	11°☿17'36	0.58775 AU
morning rise	3924 Sep 25 15:52	21°☿40'36		inferior conj	3925 Aug 31 02:02	8°☿54'14	-5°-1'-12
direct	3924 Sep 27 23:27	21°☿19'20		minimum elong	3925 Aug 31 05:31	8°☿47'47	5°00'52
asc. node	3924 Oct 03 19:53	23°☿41'12		morning rise	3925 Sep 07 23:40	4°☿28'10	
morning max el	3924 Oct 05 04:54	24°☿54'31	18°02'00	direct	3925 Sep 10 09:38	4°☿08'53	
	3924 Oct 09 10:12	0°☿☿		morning max el	3925 Sep 18 12:26	8°☿02'16	18°33'52
morning set	3924 Oct 20 22:33	19°☿46'05		asc. node	3925 Sep 20 16:56	10°☿23'07	
	3924 Oct 26 11:36	0°☿☿			3925 Oct 02 16:25	0°☿☿	
				morning set	3925 Oct 04 15:28	3°☿46'19	
superior conj	3924 Oct 30 23:08	8°☿03'29	1°06'00				
minimum elong	3924 Oct 31 03:18	8°☿21'58	1°05'29	superior conj	3925 Oct 13 12:34	20°☿46'59	1°28'26
max. Earth dist.	3924 Nov 07 14:20	21°☿10'17	1.41989 AU	minimum elong	3925 Oct 13 15:50	21°☿02'15	1°28'07
desc. node	3924 Nov 09 21:46	24°☿59'15			3925 Oct 18 13:46	0°☿☿	
evening rise	3924 Nov 13 08:04	0°☿☿31'58		max. Earth dist.	3925 Oct 20 20:52	4°☿02'48	1.39975 AU
	3924 Nov 13 00:04	0°☿☿		evening rise	3925 Oct 25 02:30	11°☿16'49	
	3924 Dec 03 01:07	0°☿☿		desc. node	3925 Oct 27 18:49	15°☿42'36	
greatest brilliancy	3924 Dec 11 13:06	11°☿09'20	-0.3m		3925 Nov 05 21:35	0°☿☿	
evening max el	3924 Dec 16 09:02	16°☿34'27	22°31'17		3925 Nov 28 18:17	0°☿☿	
retrograde	3924 Dec 26 03:29	22°☿22'49		evening max el	3925 Nov 28 23:03	0°☿11'58	23°51'15
evening set	3924 Dec 30 17:41	20°☿31'59		retrograde	3925 Dec 09 20:20	6°☿37'00	

































































































































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asc. node	3925 Dec 17 16:11	1°☾41'32		min. Earth dist.	3926 Dec 03 14:40	13°♂21'25	0.67375 AU
	3925 Dec 19 00:01	30°♂♂		inferior conj	3926 Dec 04 16:09	11°♂58'09	0°02'31
inferior conj	3925 Dec 20 10:49	28°♂02'32	0°55'59	minimum elong	3926 Dec 04 16:05	11°♂58'21	0°02'29
minimum elong	3925 Dec 20 09:32	28°♂06'53	0°55'29	transit middle	3926 Dec 04 16:05	11°♂58'21	0°02'29
min. Earth dist.	3925 Dec 19 20:05	28°♂52'38	0.67862 AU	transit begin	3926 Dec 04 13:21	12°♂07'20	
morning rise	3925 Dec 25 19:46	21°♂55'20		transit end	3926 Dec 04 18:50	11°♂49'23	
direct	3925 Dec 29 19:07	20°♂26'09		asc. node	3926 Dec 04 13:13	12°♂07'45	
morning max el	3926 Jan 06 22:02	25°♂06'25	20°41'54	morning rise	3926 Dec 10 06:45	5°♂57'55	
	3926 Jan 11 05:51	0°☾		direct	3926 Dec 13 17:39	4°♂49'05	
greatest brilliancy	3926 Jan 12 18:33	1°☾56'02	-0.5m	morning max el	3926 Dec 21 00:29	8°♂55'14	19°35'24
desc. node	3926 Jan 23 18:03	17°☾20'52		greatest brilliancy	3926 Dec 29 06:00	19°♂11'18	-0.6m
	3926 Feb 01 03:47	0°♂			3927 Jan 05 14:36	0°☾	
morning set	3926 Feb 05 03:03	6°♂07'31		desc. node	3927 Jan 10 15:05	7°☾38'32	
max. Earth dist.	3926 Feb 13 23:22	20°♂09'09	1.43098 AU	morning set	3927 Jan 14 23:46	14°☾21'20	
	3926 Feb 19 23:04	0°♂			3927 Jan 25 00:42	0°♂	
				max. Earth dist.	3927 Jan 27 11:26	3°♂51'58	1.44475 AU
superior conj	3926 Feb 20 15:34	1°♂09'10	-2°-7'-21	superior conj	3927 Jan 31 17:20	10°♂38'18	-1°-55'-18
minimum elong	3926 Feb 20 14:44	1°♂05'36	2°07'21	minimum elong	3927 Jan 31 10:30	10°♂10'54	1°54'52
evening rise	3926 Mar 04 17:55	22°♂06'03			3927 Feb 12 12:27	0°♂	
	3926 Mar 09 05:16	0°♂		evening rise	3927 Feb 14 14:48	3°♂31'25	
asc. node	3926 Mar 15 15:31	10°♂44'39		asc. node	3927 Mar 02 12:33	28°♂50'39	
evening max el	3926 Mar 21 18:15	18°♂42'21	18°06'57		3927 Mar 03 10:51	0°♂	
retrograde	3926 Mar 28 07:06	22°♂05'09		evening max el	3927 Mar 05 07:00	2°♂02'07	18°18'11
evening set	3926 Mar 30 23:32	21°♂30'27		retrograde	3927 Mar 11 17:35	5°♂29'44	
inferior conj	3926 Apr 06 10:52	16°♂25'13	3°23'24	evening set	3927 Mar 14 15:49	4°♂43'46	
minimum elong	3926 Apr 06 12:53	16°♂20'08	3°23'10		3927 Mar 20 01:51	30°♂♂	
min. Earth dist.	3926 Apr 09 11:46	13°♂23'01	0.61731 AU	inferior conj	3927 Mar 20 16:27	29°♂19'07	3°36'40
morning rise	3926 Apr 12 23:25	10°♂26'27		minimum elong	3927 Mar 20 16:42	29°♂18'23	3°36'39
direct	3926 Apr 19 19:04	8°♂01'53		min. Earth dist.	3927 Mar 23 03:08	26°♂34'19	0.63735 AU
desc. node	3926 Apr 21 17:16	8°♂12'39		morning rise	3927 Mar 26 15:45	23°♂10'38	
morning max el	3926 May 03 23:08	16°♂00'13	27°51'18	direct	3927 Apr 02 12:23	20°♂26'22	
	3926 May 15 10:30	0°♂		desc. node	3927 Apr 08 14:18	22°♂14'21	
	3926 Jun 02 08:09	0°♂		morning max el	3927 Apr 16 07:19	28°♂24'05	27°39'04
morning set	3926 Jun 06 04:54	7°♂41'18			3927 Apr 17 20:18	0°♂	
asc. node	3926 Jun 11 14:48	19°♂05'33			3927 May 09 05:39	0°♂	
max. Earth dist.	3926 Jun 12 00:47	19°♂59'34	1.32306 AU	morning set	3927 May 21 01:11	21°♂40'23	
					3927 May 25 03:23	0°♂	
superior conj	3926 Jun 13 15:51	23°♂32'10	0°21'19	max. Earth dist.	3927 May 26 03:50	2°♂07'52	1.33014 AU
minimum elong	3926 Jun 13 14:53	23°♂26'51	0°21'06				
	3926 Jun 16 14:43	0°♂		superior conj	3927 May 28 22:41	8°♂02'57	0°-5'-44
evening rise	3926 Jun 20 13:47	8°♂34'12		minimum elong	3927 May 28 22:59	8°♂04'29	0°05'41
	3926 Jul 01 15:57	0°♂		behind sun begin	3927 May 28 17:57	7°♂37'33	
evening max el	3926 Jul 15 22:42	19°♂08'32	24°34'04	behind sun end	3927 May 29 04:00	8°♂31'26	
desc. node	3926 Jul 18 16:34	21°♂33'23		asc. node	3927 May 29 11:50	9°♂13'28	
retrograde	3926 Jul 29 20:12	26°♂09'47		evening rise	3927 Jun 05 01:30	23°♂20'36	
evening set	3926 Aug 03 22:08	25°♂11'50			3927 Jun 08 06:33	0°♂	
min. Earth dist.	3926 Aug 09 09:49	22°♂21'43	0.56864 AU	evening max el	3927 Jun 27 11:59	29°♂33'48	22°57'31
inferior conj	3926 Aug 12 03:59	20°♂35'33	-5°-8'-29		3927 Jun 27 22:57	0°♂	
minimum elong	3926 Aug 12 02:14	20°♂38'22	5°08'26	desc. node	3927 Jul 05 13:35	5°♂09'25	
morning rise	3926 Aug 20 09:56	16°♂31'13		retrograde	3927 Jul 10 20:41	6°♂13'26	
direct	3926 Aug 23 01:09	16°♂12'10		evening set	3927 Jul 14 10:04	5°♂45'45	
morning max el	3926 Sep 01 10:47	20°♂35'43	19°27'01	min. Earth dist.	3927 Jul 21 20:51	2°♂25'58	0.55453 AU
asc. node	3926 Sep 07 14:00	28°♂05'00		inferior conj	3927 Jul 23 10:36	1°♂31'25	-4°-30'-50
	3926 Sep 08 19:59	0°♂		minimum elong	3927 Jul 23 03:16	1°♂42'03	4°29'26
morning set	3926 Sep 18 16:42	18°♂10'43			3927 Jul 26 03:35	30°♂♂	
	3926 Sep 24 14:02	0°♂		morning rise	3927 Jul 31 23:12	27°♂39'59	
superior conj	3926 Sep 26 18:35	4°♂19'36	1°40'41	direct	3927 Aug 03 22:08	27°♂19'22	
minimum elong	3926 Sep 26 20:13	4°♂27'35	1°40'37		3927 Aug 11 21:07	0°♂	
max. Earth dist.	3926 Oct 03 00:59	16°♂15'00	1.37893 AU	morning max el	3927 Aug 14 21:27	2°♂25'09	20°41'38
evening rise	3926 Oct 06 20:15	23°♂06'18		asc. node	3927 Aug 25 11:03	16°♂32'26	
	3926 Oct 10 20:11	0°♂			3927 Sep 01 13:58	0°♂	
desc. node	3926 Oct 14 15:51	6°♂18'24		morning set	3927 Sep 02 23:27	2°♂50'48	
	3926 Oct 30 16:57	0°♂					
evening max el	3926 Nov 11 11:31	13°♂53'17	25°08'02	superior conj	3927 Sep 10 12:25	18°♂26'48	1°44'22
retrograde	3926 Nov 23 09:03	20°♂46'27		minimum elong	3927 Sep 10 12:25	18°♂26'51	1°44'22

max. Earth dist.	3927 Sep 15 08:36	28° \cap 07'40	1.35978 AU	max. Earth dist.	3928 Aug 28 00:18	10° \cap 04'54	1.34387 AU
	3927 Sep 16 07:46	0° Δ		evening rise	3928 Sep 01 15:47	19° \cap 22'14	
evening rise	3927 Sep 19 10:08	5° Δ 51'55			3928 Sep 07 08:21	0° Δ	
desc. node	3927 Oct 01 12:53	26° Δ 41'16		desc. node	3928 Sep 17 09:54	16° Δ 45'04	
	3927 Oct 03 15:43	0° \mathbb{M}			3928 Sep 26 17:41	0° \mathbb{M}	
evening max el	3927 Oct 25 00:01	27° \mathbb{M} 35'20	26°14'20	evening max el	3928 Oct 06 12:40	11° \mathbb{M} 10'07	27°02'29
	3927 Oct 27 15:58	0° \mathcal{A}		retrograde	3928 Oct 19 18:39	18° \mathbb{M} 26'57	
retrograde	3927 Nov 06 16:41	4° \mathcal{A} 45'20		evening set	3928 Oct 26 13:31	15° \mathbb{M} 46'37	
evening set	3927 Nov 12 23:27	2° \mathcal{A} 11'20		min. Earth dist.	3928 Oct 30 12:09	11° \mathbb{M} 55'47	0.65365 AU
	3927 Nov 15 05:57	30° $\mathbb{R}\mathbb{M}$		inferior conj	3928 Nov 01 12:45	9° \mathbb{M} 37'50	-1°-56'-6
min. Earth dist.	3927 Nov 17 04:51	27° \mathbb{M} 44'09	0.66543 AU	minimum elong	3928 Nov 01 16:00	9° \mathbb{M} 28'34	1°54'49
inferior conj	3927 Nov 18 17:30	25° \mathbb{M} 51'22	0°-55'-21	asc. node	3928 Nov 07 07:18	4° \mathbb{M} 17'06	
minimum elong	3927 Nov 18 19:00	25° \mathbb{M} 46'46	0°54'44	morning rise	3928 Nov 07 20:14	4° \mathbb{M} 00'10	
asc. node	3927 Nov 21 10:15	22° \mathbb{M} 42'19		direct	3928 Nov 10 12:29	3° \mathbb{M} 21'22	
morning rise	3927 Nov 24 15:41	20° \mathbb{M} 00'50		morning max el	3928 Nov 17 00:26	6° \mathbb{M} 50'51	18°09'40
direct	3927 Nov 27 16:08	19° \mathbb{M} 08'56			3928 Dec 02 19:41	0° \mathcal{A}	
morning max el	3927 Dec 04 09:59	22° \mathbb{M} 51'45	18°44'17	morning set	3928 Dec 05 10:22	4° \mathcal{A} 17'14	
	3927 Dec 10 05:31	0° \mathcal{A}		desc. node	3928 Dec 14 09:09	18° \mathcal{A} 49'42	
morning set	3927 Dec 25 14:29	23° \mathcal{A} 35'14					
desc. node	3927 Dec 28 12:08	28° \mathcal{A} 09'42		superior conj	3928 Dec 20 03:26	28° \mathcal{A} 00'25	0°-38'-44
	3927 Dec 29 16:09	0° \mathcal{B}		minimum elong	3928 Dec 19 22:33	27° \mathcal{A} 41'06	0°38'05
max. Earth dist.	3928 Jan 10 04:50	18° \mathcal{B} 06'05	1.45184 AU		3928 Dec 21 09:43	0° \mathcal{B}	
				max. Earth dist.	3928 Dec 23 00:28	2° \mathcal{B} 32'35	1.45152 AU
superior conj	3928 Jan 10 23:22	19° \mathcal{B} 18'52	-1°-23'-49	evening rise	3929 Jan 05 12:37	23° \mathcal{B} 36'57	
minimum elong	3928 Jan 10 14:14	18° \mathcal{B} 42'58	1°22'52		3929 Jan 09 15:23	0° \approx	
	3928 Jan 17 18:06	0° \approx		greatest brilliancy	3929 Jan 22 00:51	18° \approx 46'51	-0.7m
evening rise	3928 Jan 26 12:43	13° \approx 59'38		evening max el	3929 Jan 30 01:25	29° \approx 00'46	19°33'38
	3928 Feb 05 12:38	0° \mathcal{H}			3929 Jan 31 01:36	0° \mathcal{H}	
evening max el	3928 Feb 16 18:07	15° \mathcal{H} 30'00	18°47'31	asc. node	3929 Feb 03 06:35	2° \mathcal{H} 22'27	
asc. node	3928 Feb 17 09:34	16° \mathcal{H} 07'59		retrograde	3929 Feb 06 08:01	3° \mathcal{H} 12'32	
retrograde	3928 Feb 23 10:58	19° \mathcal{H} 14'28		evening set	3929 Feb 09 19:54	2° \mathcal{H} 00'59	
evening set	3928 Feb 26 15:29	18° \mathcal{H} 16'13			3929 Feb 12 02:49	30° $\mathbb{R}\approx$	
inferior conj	3928 Mar 03 08:43	12° \mathcal{H} 33'44	3°32'09	inferior conj	3929 Feb 15 08:26	26° \approx 02'52	3°14'12
minimum elong	3928 Mar 03 07:32	12° \mathcal{H} 37'22	3°32'03	minimum elong	3929 Feb 15 06:20	26° \approx 09'45	3°13'50
min. Earth dist.	3928 Mar 05 03:42	10° \mathcal{H} 21'32	0.65398 AU	min. Earth dist.	3929 Feb 16 12:28	24° \approx 30'47	0.66648 AU
morning rise	3928 Mar 08 22:27	6° \mathcal{H} 20'22		morning rise	3929 Feb 20 16:03	19° \approx 47'22	
direct	3928 Mar 15 12:40	3° \mathcal{H} 30'45		direct	3929 Feb 26 18:51	17° \approx 04'56	
desc. node	3928 Mar 25 11:19	8° \mathcal{H} 15'17		morning max el	3929 Mar 11 02:33	24° \approx 25'13	25°44'33
morning max el	3928 Mar 28 17:07	11° \mathcal{H} 16'21	26°54'09	desc. node	3929 Mar 12 08:20	25° \approx 42'28	
	3928 Apr 12 14:29	0° \mathcal{Y}			3929 Mar 16 03:12	0° \mathcal{H}	
	3928 Apr 30 18:21	0° \mathcal{B}			3929 Apr 06 00:52	0° \mathcal{Y}	
morning set	3928 May 03 11:15	5° \mathcal{B} 05'39		morning set	3929 Apr 16 06:56	17° \mathcal{Y} 44'45	
max. Earth dist.	3928 May 07 21:06	13° \mathcal{B} 45'24	1.34186 AU	max. Earth dist.	3929 Apr 20 03:06	24° \mathcal{Y} 55'40	1.35811 AU
					3929 Apr 22 18:02	0° \mathcal{B}	
superior conj	3928 May 12 00:05	22° \mathcal{B} 12'59	0°-34'-26				
minimum elong	3928 May 12 01:54	22° \mathcal{B} 22'25	0°34'04	superior conj	3929 Apr 25 17:24	5° \mathcal{B} 54'20	-1°-3'-26
asc. node	3928 May 15 08:52	29° \mathcal{B} 17'39		minimum elong	3929 Apr 25 20:47	6° \mathcal{B} 11'22	1°02'52
	3928 May 15 16:53	0° \mathbb{I}		asc. node	3929 May 02 05:54	19° \mathcal{B} 13'35	
evening rise	3928 May 19 11:36	7° \mathbb{I} 57'36		evening rise	3929 May 03 18:01	22° \mathcal{B} 18'22	
	3928 May 31 07:19	0° \mathcal{E}			3929 May 07 14:23	0° \mathbb{I}	
evening max el	3928 Jun 08 07:15	10° \mathcal{E} 08'44	21°24'33	evening max el	3929 May 21 13:49	21° \mathbb{I} 17'32	20°06'04
retrograde	3928 Jun 20 10:42	16° \mathcal{E} 07'10		retrograde	3929 Jun 01 01:06	26° \mathbb{I} 23'47	
desc. node	3928 Jun 21 10:35	16° \mathcal{E} 04'51		evening set	3929 Jun 03 00:17	26° \mathbb{I} 13'45	
evening set	3928 Jun 22 20:28	15° \mathcal{E} 53'54		desc. node	3929 Jun 08 07:34	24° \mathbb{I} 20'53	
inferior conj	3928 Jul 02 05:02	11° \mathcal{E} 54'41	-3°-3'-31	inferior conj	3929 Jun 12 01:05	22° \mathbb{I} 14'24	-1°-6'-17
minimum elong	3928 Jul 01 21:07	12° \mathcal{E} 05'46	3°01'01	minimum elong	3929 Jun 11 21:59	22° \mathbb{I} 19'03	1°05'09
min. Earth dist.	3928 Jul 02 07:43	11° \mathcal{E} 50'56	0.54846 AU	min. Earth dist.	3929 Jun 13 20:07	21° \mathbb{I} 10'13	0.55192 AU
morning rise	3928 Jul 10 22:17	7° \mathcal{E} 59'49		morning rise	3929 Jun 20 17:18	17° \mathbb{I} 56'04	
direct	3928 Jul 14 08:16	7° \mathcal{E} 34'32		direct	3929 Jun 24 20:12	17° \mathbb{I} 19'10	
morning max el	3928 Jul 26 20:38	13° \mathcal{E} 29'36	22°14'41	morning max el	3929 Jul 08 12:20	24° \mathbb{I} 01'44	23°57'41
	3928 Aug 08 05:39	0° \mathcal{Q}			3929 Jul 13 22:46	0° \mathcal{E}	
asc. node	3928 Aug 11 08:06	5° \mathcal{Q} 34'25		asc. node	3929 Jul 29 05:09	25° \mathcal{E} 02'07	
morning set	3928 Aug 17 09:33	17° \mathcal{Q} 40'48			3929 Jul 31 15:35	0° \mathcal{Q}	
	3928 Aug 23 04:50	0° \cap		morning set	3929 Aug 01 21:14	2° \mathcal{Q} 35'19	
superior conj	3928 Aug 24 14:27	2° \cap 58'08	1°40'55	superior conj	3929 Aug 08 21:54	17° \mathcal{Q} 45'02	1°31'31
minimum elong	3928 Aug 24 13:12	2° \cap 51'31	1°40'51	minimum elong	3929 Aug 08 19:51	17° \mathcal{Q} 33'59	1°31'18

max. Earth dist.	3929 Aug 11 00:54	22°♎19'24	1.33191 AU	morning set	3930 Jul 17 08:47	17°♎28'17	
	3929 Aug 14 16:37	0°♎			3930 Jul 23 03:26	0°♎	
evening rise	3929 Aug 16 09:05	3°♎26'07					
	3929 Aug 31 02:56	0°♎		superior conj	3930 Jul 24 08:28	2°♎39'26	1°17'04
desc. node	3929 Sep 04 06:54	6°♎21'38		minimum elong	3930 Jul 24 06:07	2°♎26'35	1°16'43
evening max el	3929 Sep 19 00:09	24°♎26'07	27°25'31	max. Earth dist.	3930 Jul 25 08:20	4°♎50'20	1.32416 AU
	3929 Sep 26 09:31	0°♎		evening rise	3930 Jul 31 10:40	17°♎52'57	
retrograde	3929 Oct 02 14:36	1°♎43'29			3930 Aug 06 13:36	0°♎	
	3929 Oct 08 09:04	30°♎		desc. node	3930 Aug 22 03:56	25°♎18'51	
evening set	3929 Oct 09 17:35	29°♎05'29			3930 Aug 25 18:50	0°♎	
min. Earth dist.	3929 Oct 13 10:30	25°♎48'57	0.63839 AU	evening max el	3930 Sep 01 08:12	7°♎09'34	27°17'54
inferior conj	3929 Oct 15 23:25	23°♎12'23	-2°-57'-19	retrograde	3930 Sep 15 03:59	14°♎24'14	
minimum elong	3929 Oct 16 04:21	22°♎59'41	2°55'35	evening set	3930 Sep 22 08:01	12°♎00'30	
morning rise	3929 Oct 22 17:31	17°♎50'57		min. Earth dist.	3930 Sep 25 22:33	9°♎11'10	0.62000 AU
direct	3929 Oct 25 04:01	17°♎21'35		inferior conj	3930 Sep 28 22:30	6°♎26'47	-3°-55'-4
asc. node	3929 Oct 25 04:20	17°♎21'35		minimum elong	3930 Sep 29 04:24	6°♎13'14	3°53'27
morning max el	3929 Oct 31 17:04	20°♎46'42	17°52'16	morning rise	3930 Oct 06 03:47	1°♎24'49	
	3929 Nov 07 16:18	0°♎		direct	3930 Oct 08 11:22	1°♎01'34	
morning set	3929 Nov 17 09:21	16°♎18'15		asc. node	3930 Oct 12 01:23	1°♎59'09	
	3929 Nov 25 10:35	0°♎		morning max el	3930 Oct 15 08:45	4°♎30'46	17°52'55
				morning set	3930 Oct 31 05:02	29°♎18'09	
superior conj	3929 Nov 30 01:26	7°♎38'12	0°08'18		3930 Oct 31 14:18	0°♎	
minimum elong	3929 Nov 30 02:21	7°♎41'55	0°08'10				
behind sun begin	3929 Nov 29 17:46	7°♎06'51		superior conj	3930 Nov 11 01:55	18°♎33'44	0°48'01
behind sun end	3929 Nov 30 10:55	8°♎16'56		minimum elong	3930 Nov 11 05:47	18°♎50'19	0°47'29
desc. node	3929 Dec 01 06:11	9°♎35'20			3930 Nov 17 21:40	0°♎	
max. Earth dist.	3929 Dec 05 18:50	16°♎52'15	1.44395 AU	desc. node	3930 Nov 18 03:13	0°♎22'43	
	3929 Dec 14 03:49	0°♎		max. Earth dist.	3930 Nov 18 08:58	0°♎46'12	1.43007 AU
evening rise	3929 Dec 15 23:13	2°♎47'20		evening rise	3930 Nov 25 11:57	12°♎09'06	
	3930 Jan 03 05:20	0°♎			3930 Dec 07 06:14	0°♎	
greatest brilliancy	3930 Jan 07 06:51	5°♎33'33	-0.5m	greatest brilliancy	3930 Dec 22 05:04	20°♎38'46	-0.4m
evening max el	3930 Jan 13 03:30	12°♎32'37	20°34'23	evening max el	3930 Dec 27 00:04	26°♎05'38	21°46'32
retrograde	3930 Jan 21 06:14	17°♎19'36			3930 Dec 31 15:12	0°♎	
asc. node	3930 Jan 21 03:36	17°♎19'32		retrograde	3931 Jan 05 03:30	1°♎31'57	
evening set	3930 Jan 25 02:54	15°♎53'42		asc. node	3931 Jan 08 00:38	0°♎47'08	
inferior conj	3930 Jan 30 12:58	9°♎42'47	2°45'43	evening set	3931 Jan 09 10:44	29°♎50'37	
minimum elong	3930 Jan 30 10:29	9°♎51'15	2°45'05		3931 Jan 09 05:54	30°♎	
min. Earth dist.	3930 Jan 31 03:36	8°♎52'47	0.67481 AU	inferior conj	3931 Jan 14 20:07	23°♎30'21	2°08'40
morning rise	3930 Feb 04 17:36	3°♎27'05		minimum elong	3931 Jan 14 17:45	23°♎38'34	2°07'53
direct	3930 Feb 10 06:22	1°♎00'45		min. Earth dist.	3931 Jan 14 22:46	23°♎21'10	0.67917 AU
morning max el	3930 Feb 21 11:13	7°♎42'11	24°20'03	morning rise	3931 Jan 20 00:31	17°♎16'19	
desc. node	3930 Feb 27 05:23	14°♎11'20		direct	3931 Jan 24 22:24	15°♎11'06	
	3930 Mar 10 21:31	0°♎		morning max el	3931 Feb 03 20:53	21°♎04'22	22°50'56
morning set	3930 Mar 29 06:45	29°♎22'45		greatest brilliancy	3931 Feb 08 13:14	26°♎17'42	-0.3m
	3930 Mar 29 15:17	0°♎			3931 Feb 11 12:24	0°♎	
max. Earth dist.	3930 Apr 02 00:13	5°♎59'20	1.37806 AU	desc. node	3931 Feb 14 02:26	3°♎24'17	
					3931 Mar 04 04:03	0°♎	
superior conj	3930 Apr 08 23:19	18°♎58'21	-1°-30'-38	morning set	3931 Mar 10 04:36	9°♎44'04	
minimum elong	3930 Apr 09 03:52	19°♎20'14	1°30'03	max. Earth dist.	3931 Mar 14 19:20	17°♎30'15	1.39980 AU
	3930 Apr 14 14:30	0°♎			3931 Mar 21 21:11	0°♎	
evening rise	3930 Apr 17 18:16	6°♎15'47					
asc. node	3930 Apr 19 02:56	8°♎56'45		superior conj	3931 Mar 22 13:38	1°♎14'53	-1°-52'-57
	3930 May 01 13:03	0°♎		minimum elong	3931 Mar 22 18:06	1°♎35'19	1°52'37
evening max el	3930 May 04 08:22	3°♎07'58	19°06'55	evening rise	3931 Apr 01 09:18	19°♎41'59	
retrograde	3930 May 13 04:00	7°♎25'47		asc. node	3931 Apr 05 23:58	28°♎22'11	
evening set	3930 May 15 04:53	7°♎12'59			3931 Apr 06 21:27	0°♎	
inferior conj	3930 May 23 12:08	3°♎00'34	0°46'32	evening max el	3931 Apr 17 12:24	15°♎35'26	18°28'05
minimum elong	3930 May 23 13:59	2°♎57'25	0°45'53	retrograde	3931 Apr 25 01:25	19°♎18'52	
desc. node	3930 May 26 04:36	1°♎10'34		evening set	3931 Apr 27 08:26	18°♎59'16	
min. Earth dist.	3930 May 26 11:22	0°♎59'22	0.56436 AU	inferior conj	3931 May 04 20:21	14°♎27'18	2°11'59
	3930 May 28 00:54	30°♎		minimum elong	3931 May 05 00:02	14°♎19'55	2°10'58
morning rise	3930 May 31 18:45	28°♎06'53		min. Earth dist.	3931 May 08 06:44	11°♎43'43	0.58319 AU
direct	3930 Jun 05 20:28	27°♎06'44		morning rise	3931 May 12 11:14	9°♎01'03	
	3930 Jun 14 14:12	0°♎		desc. node	3931 May 13 01:38	8°♎43'34	
morning max el	3930 Jun 20 02:36	4°♎26'00	25°36'21	direct	3931 May 18 11:19	7°♎27'40	
	3930 Jul 08 11:22	0°♎		morning max el	3931 Jun 01 20:40	15°♎09'35	26°54'56
asc. node	3930 Jul 16 02:11	14°♎47'52			3931 Jun 13 20:12	0°♎	

	3931 Jun 30 16:47	0°☿		direct	3932 Apr 29 14:03	18°♊35'38	
morning set	3931 Jul 01 18:37	2°☿14'44		morning max el	3932 May 13 20:52	26°♊29'28	27°41'29
asc. node	3931 Jul 02 23:15	4°☿46'11			3932 May 17 04:02	0°♊	
					3932 Jun 06 09:08	0°♊	
superior conj	3931 Jul 08 20:17	17°☿35'15	0°58'17	morning set	3932 Jun 15 00:55	16°♊47'52	
minimum elong	3931 Jul 08 18:08	17°☿23'19	0°57'53	asc. node	3932 Jun 18 20:18	24°♊51'18	
max. Earth dist.	3931 Jul 08 19:33	17°☿31'07	1.32057 AU		3932 Jun 21 05:03	0°☿	
	3931 Jul 14 12:41	0°♊		max. Earth dist.	3932 Jun 21 06:47	0°☿09'30	1.32101 AU
evening rise	3931 Jul 15 17:51	2°♊34'50					
	3931 Jul 30 11:57	0°♊		superior conj	3932 Jun 22 07:34	2°☿25'30	0°35'45
desc. node	3931 Aug 09 00:57	13°♊20'33		minimum elong	3932 Jun 22 06:02	2°☿17'06	0°35'26
evening max el	3931 Aug 14 10:32	19°♊09'54	26°36'53	evening rise	3932 Jun 29 04:18	17°☿23'23	
retrograde	3931 Aug 28 09:25	26°♊20'22			3932 Jul 05 09:31	0°♊	
evening set	3931 Sep 04 04:11	24°♊24'04		desc. node	3932 Jul 25 21:58	0°♊03'47	
min. Earth dist.	3931 Sep 08 00:19	21°♊48'36	0.59965 AU		3932 Jul 25 20:25	0°♊	
inferior conj	3931 Sep 11 06:31	19°♊12'16	-4°-42'-35	evening max el	3932 Jul 26 05:29	0°♊21'54	25°25'19
minimum elong	3931 Sep 11 11:41	19°♊01'53	4°41'43	retrograde	3932 Aug 09 04:43	7°♊27'16	
morning rise	3931 Sep 18 22:33	14°♊32'22		evening set	3932 Aug 15 01:21	6°♊07'41	
direct	3931 Sep 21 06:34	14°♊12'19		min. Earth dist.	3932 Aug 19 17:22	3°♊28'15	0.57929 AU
asc. node	3931 Sep 28 22:26	17°♊59'49		inferior conj	3932 Aug 22 20:03	1°♊18'54	-5°-8'-52
morning max el	3931 Sep 28 20:12	17°♊54'22	18°12'54	minimum elong	3932 Aug 22 21:38	1°♊16'09	5°08'50
	3931 Oct 07 12:58	0°♊			3932 Aug 24 18:23	30°♊♊	
morning set	3931 Oct 14 15:34	13°♊00'14		morning rise	3932 Aug 30 21:24	27°♊02'11	
	3931 Oct 23 18:08	0°♊		direct	3932 Sep 02 09:22	26°♊43'06	
					3932 Sep 10 02:45	0°♊	
superior conj	3931 Oct 24 03:20	0°♊41'43	1°16'49	morning max el	3932 Sep 11 00:04	0°♊47'56	18°53'43
minimum elong	3931 Oct 24 07:17	0°♊59'38	1°16'23	asc. node	3932 Sep 14 19:30	5°♊08'38	
max. Earth dist.	3931 Oct 31 18:03	14°♊02'54	1.41163 AU	morning set	3932 Sep 27 12:26	27°♊11'53	
desc. node	3931 Nov 05 00:15	21°♊08'34			3932 Sep 28 22:36	0°♊	
evening rise	3931 Nov 05 17:27	22°♊18'42					
	3931 Nov 10 13:04	0°♊		superior conj	3932 Oct 06 00:26	13°♊47'35	1°34'46
	3931 Dec 01 08:41	0°♊		minimum elong	3932 Oct 06 03:03	14°♊00'01	1°34'35
greatest brilliancy	3931 Dec 03 18:17	3°♊01'21	-0.2m	max. Earth dist.	3932 Oct 12 23:24	26°♊38'21	1.39091 AU
evening max el	3931 Dec 09 16:08	9°♊41'40	23°05'19		3932 Oct 14 21:05	0°♊	
retrograde	3931 Dec 19 22:15	15°♊46'16		evening rise	3932 Oct 16 22:00	3°♊31'34	
evening set	3931 Dec 24 17:44	13°♊48'45		desc. node	3932 Oct 21 21:17	11°♊49'13	
asc. node	3931 Dec 25 21:41	12°♊44'04			3932 Nov 02 17:27	0°♊	
inferior conj	3931 Dec 30 03:58	7°♊22'56	1°24'22	evening max el	3932 Nov 21 05:26	23°♊21'42	24°24'45
minimum elong	3931 Dec 30 02:10	7°♊29'08	1°23'40	retrograde	3932 Dec 02 13:17	29°♊59'09	
min. Earth dist.	3931 Dec 29 19:31	7°♊52'05	0.67988 AU	evening set	3932 Dec 07 22:22	27°♊45'29	
morning rise	3932 Jan 04 10:36	1°♊12'34		asc. node	3932 Dec 11 18:43	23°♊31'14	
	3932 Jan 06 09:40	30°♊♊		min. Earth dist.	3932 Dec 12 15:29	22°♊22'47	0.67702 AU
direct	3932 Jan 08 17:58	29°♊30'15		inferior conj	3932 Dec 13 10:43	21°♊18'22	0°33'57
	3932 Jan 11 05:24	0°♊		minimum elong	3932 Dec 13 09:55	21°♊21'05	0°33'37
morning max el	3932 Jan 17 11:13	4°♊34'50	21°26'03	morning rise	3932 Dec 18 21:49	15°♊13'53	
greatest brilliancy	3932 Jan 22 12:00	10°♊18'07	-0.4m	direct	3932 Dec 22 15:47	13°♊53'32	
desc. node	3932 Jan 31 23:28	23°♊08'49		morning max el	3932 Dec 30 09:05	18°♊17'27	20°11'51
	3932 Feb 05 16:13	0°♊		greatest brilliancy	3933 Jan 06 01:21	26°♊16'33	-0.6m
morning set	3932 Feb 17 21:31	18°♊43'13			3933 Jan 08 18:31	0°♊	
	3932 Feb 24 21:13	0°♊		desc. node	3933 Jan 17 20:31	13°♊16'31	
max. Earth dist.	3932 Feb 24 19:53	29°♊54'30	1.42063 AU	morning set	3933 Jan 26 19:07	26°♊54'13	
					3933 Jan 28 19:04	0°♊	
superior conj	3932 Mar 03 07:16	12°♊31'26	-2°-6'-5	max. Earth dist.	3933 Feb 06 04:39	13°♊14'46	1.43764 AU
minimum elong	3932 Mar 03 09:14	12°♊39'59	2°06'02				
	3932 Mar 13 02:55	0°♊		superior conj	3933 Feb 11 23:51	22°♊39'29	-2°-4'-37
evening rise	3932 Mar 14 11:18	2°♊27'24		minimum elong	3933 Feb 11 20:26	22°♊25'28	2°04'31
asc. node	3932 Mar 22 21:01	17°♊22'51			3933 Feb 16 09:52	0°♊	
evening max el	3932 Mar 30 22:18	28°♊29'21	18°09'06	evening rise	3933 Feb 24 20:04	14°♊24'24	
	3932 Apr 01 16:01	0°♊			3933 Mar 05 23:11	0°♊	
retrograde	3932 Apr 06 16:34	1°♊54'58		asc. node	3933 Mar 09 18:02	5°♊51'23	
evening set	3932 Apr 09 05:51	1°♊26'05		evening max el	3933 Mar 14 10:49	11°♊41'28	18°09'23
	3932 Apr 11 22:02	30°♊♊		retrograde	3933 Mar 20 21:26	15°♊04'37	
inferior conj	3932 Apr 16 01:02	26°♊32'44	3°05'28	evening set	3933 Mar 23 16:25	14°♊25'05	
minimum elong	3932 Apr 16 03:59	26°♊25'50	3°04'55	inferior conj	3933 Mar 29 22:42	9°♊11'06	3°31'32
min. Earth dist.	3932 Apr 19 08:02	23°♊30'20	0.60489 AU	minimum elong	3933 Mar 29 23:58	9°♊07'46	3°31'26
morning rise	3932 Apr 22 22:44	20°♊43'22		min. Earth dist.	3933 Apr 01 17:48	6°♊14'20	0.62621 AU
desc. node	3932 Apr 28 22:39	18°♊36'48		morning rise	3933 Apr 05 05:12	3°♊07'35	

direct	3933 Apr 12 02:16	0° Υ 33'18		min. Earth dist.	3934 Mar 15 13:12	19° Υ 42'17	0.64489 AU
desc. node	3933 Apr 15 19:42	1° Υ 13'46		morning rise	3934 Mar 19 04:02	16° Υ 03'15	
morning max el	3933 Apr 26 02:53	8° Υ 31'38	27°50'34	direct	3934 Mar 25 22:30	13° Υ 15'15	
	3933 May 12 16:02	0° Υ		desc. node	3934 Apr 02 16:43	16° Υ 10'05	
	3933 May 29 13:24	0° Π		morning max el	3934 Apr 08 12:19	21° Υ 09'37	27°23'37
morning set	3933 May 30 01:34	1° Π 01'18			3934 Apr 16 04:25	0° Υ	
max. Earth dist.	3933 Jun 04 14:07	12° Π 32'39	1.32557 AU		3934 May 05 19:06	0° Υ	
asc. node	3933 Jun 05 17:20	14° Π 59'04		morning set	3934 May 13 17:58	14° Υ 47'12	
				max. Earth dist.	3934 May 18 13:34	24° Υ 29'07	1.33453 AU
					3934 May 21 04:53	0° Π	
superior conj	3933 Jun 06 16:32	17° Π 04'37	0°10'08				
minimum elong	3933 Jun 06 16:03	17° Π 02'00	0°10'02				
behind sun begin	3933 Jun 06 11:59	16° Π 39'54		superior conj	3934 May 21 21:19	1° Π 26'58	0°-17'-46
behind sun end	3933 Jun 06 20:07	17° Π 24'06		minimum elong	3934 May 21 22:14	1° Π 31'47	0°17'35
	3933 Jun 12 15:21	0° Υ		asc. node	3934 May 23 14:22	5° Π 05'37	
evening rise	3933 Jun 13 16:05	2° Υ 12'05		evening rise	3934 May 29 03:22	16° Π 55'01	
	3933 Jun 28 20:23	0° Ω			3934 Jun 04 15:53	0° Υ	
evening max el	3933 Jul 07 18:50	10° Ω 55'34	23°53'26	evening max el	3934 Jun 19 09:32	21° Υ 20'14	22°16'44
desc. node	3933 Jul 12 18:58	14° Ω 58'12		desc. node	3934 Jun 29 15:58	27° Υ 29'03	
retrograde	3933 Jul 21 12:11	17° Ω 49'39		retrograde	3934 Jul 02 07:58	27° Υ 45'29	
evening set	3933 Jul 25 22:55	17° Ω 06'03		evening set	3934 Jul 05 07:40	27° Υ 25'44	
min. Earth dist.	3933 Aug 01 05:07	14° Ω 05'08	0.56186 AU	min. Earth dist.	3934 Jul 13 15:44	23° Υ 49'24	0.55073 AU
inferior conj	3933 Aug 03 13:18	12° Ω 39'37	-4°-58'-45	inferior conj	3934 Jul 14 13:24	23° Υ 18'50	-3°-59'-20
minimum elong	3933 Aug 03 08:55	12° Ω 46'20	4°58'17	minimum elong	3934 Jul 14 04:59	23° Υ 30'43	3°57'15
morning rise	3933 Aug 11 22:17	8° Ω 42'34		morning rise	3934 Jul 23 04:24	19° Υ 28'41	
direct	3933 Aug 14 16:44	8° Ω 22'59		direct	3934 Jul 26 07:16	19° Υ 06'51	
morning max el	3933 Aug 24 17:31	13° Ω 02'34	19°56'16	morning max el	3934 Aug 06 23:14	24° Υ 33'04	21°19'27
asc. node	3933 Sep 01 16:33	23° Ω 10'59			3934 Aug 11 21:04	0° Ω	
	3933 Sep 05 15:47	0° Υ		asc. node	3934 Aug 19 13:36	11° Ω 54'22	
morning set	3933 Sep 11 16:18	11° Υ 43'43		morning set	3934 Aug 27 00:43	26° Ω 29'01	
					3934 Aug 28 17:12	0° Υ	
superior conj	3933 Sep 19 11:58	27° Υ 36'13	1°43'12				
minimum elong	3933 Sep 19 12:53	27° Υ 40'46	1°43'11	superior conj	3934 Sep 03 09:44	11° Υ 55'31	1°43'42
	3933 Sep 20 16:55	0° Ω		minimum elong	3934 Sep 03 09:09	11° Υ 52'31	1°43'41
max. Earth dist.	3933 Sep 25 04:37	8° Ω 40'27	1.37046 AU	max. Earth dist.	3934 Sep 07 15:09	20° Υ 32'07	1.35248 AU
evening rise	3933 Sep 29 00:46	15° Ω 45'37		evening rise	3934 Sep 11 21:54	28° Υ 51'56	
	3933 Oct 07 07:44	0° Υ			3934 Sep 12 12:20	0° Ω	
desc. node	3933 Oct 08 18:17	2° Υ 19'56		desc. node	3934 Sep 25 15:18	22° Ω 35'42	
	3933 Oct 28 07:19	0° Υ			3934 Sep 30 12:41	0° Υ	
evening max el	3933 Nov 03 17:42	7° Υ 03'32	25°37'54	evening max el	3934 Oct 17 06:07	20° Υ 43'06	26°37'20
retrograde	3933 Nov 15 23:48	14° Υ 04'55		retrograde	3934 Oct 30 05:15	27° Υ 57'48	
evening set	3933 Nov 21 22:56	11° Υ 36'59		evening set	3934 Nov 05 17:31	25° Υ 19'56	
min. Earth dist.	3933 Nov 26 08:20	6° Υ 49'26	0.67068 AU	min. Earth dist.	3934 Nov 09 19:50	21° Υ 08'24	0.66088 AU
inferior conj	3933 Nov 27 14:34	5° Υ 12'58	0°-21'-34	inferior conj	3934 Nov 11 13:36	19° Υ 03'54	-1°-20'-54
minimum elong	3933 Nov 27 15:08	5° Υ 11'11	0°21'21	minimum elong	3934 Nov 11 15:49	18° Υ 57'15	1°19'59
asc. node	3933 Nov 28 15:45	3° Υ 53'27		asc. node	3934 Nov 15 12:47	14° Υ 48'19	
	3933 Dec 02 08:02	30° Υ		morning rise	3934 Nov 17 15:35	13° Υ 18'38	
morning rise	3933 Dec 03 08:11	29° Υ 16'49		direct	3934 Nov 20 12:09	12° Υ 32'57	
direct	3933 Dec 06 14:25	28° Υ 15'42		morning max el	3934 Nov 27 02:47	16° Υ 09'06	18°27'27
	3933 Dec 11 02:51	0° Υ			3934 Dec 07 08:50	0° Υ	
morning max el	3933 Dec 13 14:47	2° Υ 10'17	19°11'44	morning set	3934 Dec 16 23:37	15° Υ 17'05	
greatest brilliancy	3933 Dec 23 21:38	15° Υ 34'37	-0.7m	desc. node	3934 Dec 22 14:33	24° Υ 15'32	
	3934 Jan 02 08:42	0° Υ			3934 Dec 26 05:30	0° Υ	
desc. node	3934 Jan 04 17:32	3° Υ 40'19					
morning set	3934 Jan 05 20:59	5° Υ 26'51		superior conj	3935 Jan 01 18:09	10° Υ 16'24	-1°-5'-43
max. Earth dist.	3934 Jan 19 19:40	27° Υ 14'11	1.44868 AU	minimum elong	3935 Jan 01 10:12	9° Υ 45'11	1°04'45
	3934 Jan 21 13:40	0° Υ		max. Earth dist.	3935 Jan 02 13:57	11° Υ 34'01	1.45262 AU
					3935 Jan 14 07:47	0° Υ	
superior conj	3934 Jan 22 15:38	1° Υ 42'49	-1°-44'-9	evening rise	3935 Jan 17 19:25	5° Υ 29'54	
minimum elong	3934 Jan 22 07:01	1° Υ 08'39	1°43'28	greatest brilliancy	3935 Jan 29 20:30	24° Υ 24'14	-0.7m
evening rise	3934 Feb 06 07:25	25° Υ 25'29			3935 Feb 02 14:41	0° Υ	
	3934 Feb 09 01:56	0° Υ		evening max el	3935 Feb 09 08:42	8° Υ 33'34	19°05'12
asc. node	3934 Feb 24 15:03	23° Υ 37'51		asc. node	3935 Feb 11 12:04	10° Υ 29'59	
evening max el	3934 Feb 25 23:04	25° Υ 04'35	18°28'25	retrograde	3935 Feb 16 06:46	12° Υ 28'53	
retrograde	3934 Mar 04 11:26	28° Υ 38'19		evening set	3935 Feb 19 14:09	11° Υ 25'17	
evening set	3934 Mar 07 12:11	27° Υ 47'16		inferior conj	3935 Feb 25 05:05	5° Υ 35'53	3°25'57
inferior conj	3934 Mar 13 09:17	22° Υ 14'30	3°36'37	minimum elong	3935 Feb 25 03:27	5° Υ 41'04	3°25'45
minimum elong	3934 Mar 13 08:52	22° Υ 15'43	3°36'36	min. Earth dist.	3935 Feb 26 17:37	3° Υ 39'56	0.65980 AU

	3935 Mar 01 23:03	30° 		evening set	3936 Feb 03 19:54	25°  13'59	
morning rise	3935 Mar 02 15:47	29°  21'03		inferior conj	3936 Feb 09 07:10	19°  10'20	3°03'15
direct	3935 Mar 09 01:33	26°  32'56		minimum elong	3936 Feb 09 04:51	19°  18'06	3°02'46
	3935 Mar 17 06:02	0° 		min. Earth dist.	3936 Feb 10 05:25	17°  55'50	0.67056 AU
desc. node	3935 Mar 20 13:45	2°  50'56		morning rise	3936 Feb 14 13:10	12°  54'32	
morning max el	3935 Mar 21 22:14	4°  10'28	26°26'55	direct	3936 Feb 20 10:19	10°  17'45	
	3935 Apr 10 14:21	0° 		morning max el	3936 Mar 03 07:03	17°  23'03	25°09'42
morning set	3935 Apr 26 22:29	27°  54'28		desc. node	3936 Mar 06 10:47	20°  47'03	
	3935 Apr 28 01:02	0° 			3936 Mar 13 20:09	0° 	
max. Earth dist.	3935 May 01 01:49	5°  52'27	1.34817 AU		3936 Apr 02 14:15	0° 	
				morning set	3936 Apr 08 10:27	10°  09'50	
superior conj	3935 May 05 19:36	15°  25'28	0°-46'-49	max. Earth dist.	3936 Apr 12 03:05	16°  54'54	1.36623 AU
minimum elong	3935 May 05 22:06	15°  38'17	0°46'22				
asc. node	3935 May 10 11:23	25°  06'28		superior conj	3936 Apr 18 08:34	28°  52'36	-1°-15'-21
	3935 May 12 19:40	0° 		minimum elong	3936 Apr 18 12:32	29°  12'11	1°14'45
evening rise	3935 May 13 12:09	1°  25'29			3936 Apr 18 22:11	0° 	
	3935 May 30 09:01	0° 		asc. node	3936 Apr 26 08:26	14°  57'43	
evening max el	3935 Jun 01 09:16	2°  07'34	20°49'04	evening rise	3936 Apr 26 16:17	15°  37'18	
retrograde	3935 Jun 12 20:43	7°  44'23			3936 May 04 04:16	0° 	
evening set	3935 Jun 14 23:37	7°  33'38		evening max el	3936 May 13 21:15	13°  34'46	19°38'28
desc. node	3935 Jun 16 12:59	7°  12'50		retrograde	3936 May 23 14:40	18°  18'31	
inferior conj	3935 Jun 24 06:40	3°  36'33	-2°-15'-27	evening set	3936 May 25 13:46	18°  10'49	
minimum elong	3935 Jun 24 00:24	3°  45'29	2°13'17	desc. node	3936 Jun 02 09:59	14°  38'29	
min. Earth dist.	3935 Jun 25 03:30	3°  06'54	0.54866 AU	inferior conj	3936 Jun 03 07:48	14°  10'46	0°-16'-5
	3935 Jul 01 13:27	30°  11'33		minimum elong	3936 Jun 03 07:05	14°  10'53	0°15'50
morning rise	3935 Jul 03 00:20	29°  13'31		transit middle	3936 Jun 03 07:05	14°  10'53	0°15'50
direct	3935 Jul 06 16:30	29°  10'42		transit begin	3936 Jun 03 06:32	14°  10'62	25
	3935 Jul 11 15:49	0° 		transit end	3936 Jun 03 07:37	14°  10'44	43
morning max el	3935 Jul 19 18:38	5°  21'30	22°58'03	min. Earth dist.	3936 Jun 05 17:01	12°  34'51	0.55630 AU
	3935 Aug 05 20:31	0° 		morning rise	3936 Jun 11 20:57	9°  31'44	
asc. node	3935 Aug 06 10:39	1°  07'48		direct	3936 Jun 16 09:28	8°  46'08	
morning set	3935 Aug 11 11:41	11°  02'10		morning max el	3936 Jun 30 08:44	15°  45'54	24°41'04
					3936 Jul 11 18:23	0° 	
superior conj	3935 Aug 18 14:23	26°  03'41	1°37'37	asc. node	3936 Jul 23 07:42	20°  43'39	
minimum elong	3935 Aug 18 12:44	26°  02'52	1°37'29	morning set	3936 Jul 25 23:29	26°  45'55	
	3935 Aug 20 05:06	0° 			3936 Jul 27 17:39	0° 	
max. Earth dist.	3935 Aug 21 10:25	2°  34'09	1.33823 AU				
evening rise	3935 Aug 26 08:58	12°  37'43		superior conj	3936 Aug 01 23:23	11°  02'43	1°25'58
	3935 Sep 04 18:48	0° 		minimum elong	3936 Aug 01 21:10	11°  02'25	1°25'41
desc. node	3935 Sep 12 12:20	12°  28'50		max. Earth dist.	3936 Aug 03 14:17	14°  05'48	1.32815 AU
	3935 Sep 25 17:37	0° 		evening rise	3936 Aug 09 06:11	26°  02'15	
evening max el	3935 Sep 29 18:28	4°  11'15	27°15'45		3936 Aug 10 19:23	0° 	
retrograde	3935 Oct 13 04:57	11°  29'33			3936 Aug 28 02:59	0° 	
evening set	3935 Oct 20 03:44	8°  14'05		desc. node	3936 Aug 29 09:21	1°  49'50	
min. Earth dist.	3935 Oct 23 23:43	5°  13'04	0.64753 AU	evening max el	3936 Sep 11 05:03	17°  15'26	27°26'23
inferior conj	3935 Oct 26 05:32	2°  46'06	-2°-22'-13	retrograde	3936 Sep 24 22:07	24°  31'15	
minimum elong	3935 Oct 26 09:33	2°  35'09	2°20'41	evening set	3936 Oct 02 02:27	21°  08'10	
	3935 Oct 28 21:29	30°  11'33		min. Earth dist.	3936 Oct 05 17:55	18°  05'47	0.63087 AU
morning rise	3935 Nov 01 17:25	27°  14'48		inferior conj	3936 Oct 08 11:41	16°  05'27	-3°-22'-34
asc. node	3935 Nov 02 09:50	26°  15'02		minimum elong	3936 Oct 08 17:09	15°  05'30	3°20'50
direct	3935 Nov 04 06:47	26°  14'03		morning rise	3936 Oct 15 10:28	10°  05'04	
	3935 Nov 10 15:28	0° 		direct	3936 Oct 17 19:24	10°  03'36	
morning max el	3935 Nov 10 18:30	0°  10'73	18°00'02	asc. node	3936 Oct 19 06:54	10°  04'30	
morning set	3935 Nov 28 07:46	26°  13'50		morning max el	3936 Oct 24 11:02	13°  05'34	17°50'15
	3935 Nov 30 08:51	0° 			3936 Nov 04 11:50	0° 	
desc. node	3935 Dec 09 11:36	14°  58'22		morning set	3936 Nov 09 16:25	9°  10'41	
superior conj	3935 Dec 12 04:01	19°  17'12	0°-18'-22	superior conj	3936 Nov 21 12:55	29°  12'54	0°26'22
minimum elong	3935 Dec 12 01:46	19°  08'13	0°18'03	minimum elong	3936 Nov 21 15:31	29°  13'41	0°26'00
max. Earth dist.	3935 Dec 16 08:57	25°  58'10	1.44916 AU		3936 Nov 21 20:52	0° 	
	3935 Dec 18 22:26	0° 		desc. node	3936 Nov 25 08:39	5°  45'01	
evening rise	3935 Dec 28 12:05	14°  51'41		max. Earth dist.	3936 Nov 28 02:08	10°  10'05	1.43876 AU
	3936 Jan 07 09:41	0° 		evening rise	3936 Dec 06 21:35	24°  02'18	
greatest brilliancy	3936 Jan 16 15:42	13°  32'07	-0.6m		3936 Dec 10 18:57	0° 	
evening max el	3936 Jan 23 13:58	22°  05'31	19°57'56	greatest brilliancy	3936 Dec 31 07:28	29°  03'30	-0.4m
asc. node	3936 Jan 29 09:06	26°  13'38			3936 Dec 31 16:45	0° 	
retrograde	3936 Jan 31 04:30	26°  31'21		evening max el	3937 Jan 05 13:49	5°  38'26	21°03'58

retrograde	3937 Jan 14 02:25	10° \approx 41'18		greatest brilliancy	3937 Dec 14 14:16	13° \approx 52'18	-0.3m
asc. node	3937 Jan 15 06:08	10° \approx 34'01		evening max el	3937 Dec 19 08:18	19° \approx 12'51	22°19'27
evening set	3937 Jan 18 03:28	9° \approx 08'53		retrograde	3937 Dec 28 22:49	24° \approx 55'39	
inferior conj	3937 Jan 23 13:03	2° \approx 53'45	2°30'57	evening set	3938 Jan 02 11:10	23° \approx 07'14	
minimum elong	3937 Jan 23 10:34	3° \approx 02'19	2°30'13	asc. node	3938 Jan 02 03:10	23° \approx 22'52	
min. Earth dist.	3937 Jan 23 22:26	2° \approx 21'25	0.67721 AU	inferior conj	3938 Jan 07 20:44	16° \approx 44'01	1°50'43
	3937 Jan 25 16:32	30° \approx 38'47		minimum elong	3938 Jan 07 18:33	16° \approx 51'35	1°49'55
morning rise	3937 Jan 28 17:18	26° \approx 38'47		min. Earth dist.	3938 Jan 07 18:29	16° \approx 51'50	0.67997 AU
direct	3937 Feb 02 23:51	24° \approx 20'59		morning rise	3938 Jan 13 01:50	10° \approx 31'14	
	3937 Feb 12 22:48	0° \approx		direct	3938 Jan 17 17:24	8° \approx 36'14	
morning max el	3937 Feb 13 15:39	0° \approx 41'45	23°42'06	morning max el	3938 Jan 27 03:03	14° \approx 07'56	22°13'53
desc. node	3937 Feb 21 07:50	9° \approx 36'24		greatest brilliancy	3938 Jan 31 16:59	19° \approx 15'13	-0.3m
	3937 Mar 07 18:29	0° \approx		desc. node	3938 Feb 08 04:53	29° \approx 04'15	
morning set	3937 Mar 20 23:52	21° \approx 16'25			3938 Feb 08 20:55	0° \approx	
max. Earth dist.	3937 Mar 24 22:38	28° \approx 07'10	1.38734 AU		3938 Feb 28 17:56	0° \approx	
	3937 Mar 26 00:05	0° \approx		morning set	3938 Mar 01 09:19	1° \approx 02'09	
				max. Earth dist.	3938 Mar 06 19:54	10° \approx 01'11	1.40903 AU
superior conj	3937 Apr 01 08:25	11° \approx 37'52	-1°-40'-56	superior conj	3938 Mar 14 14:32	23° \approx 30'13	-1°-59'-57
minimum elong	3937 Apr 01 13:08	12° \approx 00'09	1°40'25	minimum elong	3938 Mar 14 18:19	23° \approx 47'05	1°59'45
evening rise	3937 Apr 10 12:59	29° \approx 22'22			3938 Mar 18 04:49	0° \approx	
	3937 Apr 10 20:43	0° \approx		evening rise	3938 Mar 24 23:00	12° \approx 32'42	
asc. node	3937 Apr 13 05:28	4° \approx 34'00		asc. node	3938 Mar 31 02:29	23° \approx 49'51	
evening max el	3937 Apr 26 20:12	25° \approx 41'34	18°47'51		3938 Apr 03 18:15	0° \approx	
retrograde	3937 May 05 01:12	29° \approx 42'40		evening max el	3938 Apr 10 03:03	8° \approx 20'56	18°17'29
evening set	3937 May 07 04:41	29° \approx 27'14		retrograde	3938 Apr 17 06:49	11° \approx 55'12	
inferior conj	3937 May 15 03:31	25° \approx 06'35	1°26'47	evening set	3938 Apr 19 16:26	11° \approx 31'57	
minimum elong	3937 May 15 06:32	25° \approx 01'03	1°25'48	inferior conj	3938 Apr 26 20:46	6° \approx 50'37	2°38'27
min. Earth dist.	3937 May 18 09:25	22° \approx 45'13	0.57186 AU	minimum elong	3938 Apr 27 00:21	6° \approx 42'55	2°37'35
desc. node	3937 May 20 07:01	21° \approx 30'00		min. Earth dist.	3938 Apr 30 07:00	3° \approx 55'57	0.59228 AU
morning rise	3937 May 23 03:58	19° \approx 58'26		morning rise	3938 May 04 04:14	1° \approx 12'59	
direct	3937 May 28 15:46	18° \approx 45'10			3938 May 06 21:26	30° \approx 37'00	
morning max el	3937 Jun 12 00:01	26° \approx 14'40	26°13'11	desc. node	3938 May 07 04:03	29° \approx 54'47	
	3937 Jun 15 13:24	0° \approx		direct	3938 May 10 11:39	29° \approx 24'48	
	3937 Jul 04 23:01	0° \approx			3938 May 14 04:07	0° \approx	
morning set	3937 Jul 10 10:32	11° \approx 05'46		morning max el	3938 May 24 20:48	7° \approx 12'59	27°19'16
asc. node	3937 Jul 10 04:46	10° \approx 35'24			3938 Jun 10 23:52	0° \approx	
superior conj	3937 Jul 17 10:42	26° \approx 20'01	1°09'34	morning set	3938 Jun 24 19:05	25° \approx 14'30	
minimum elong	3937 Jul 17 08:22	26° \approx 07'14	1°09'12		3938 Jun 26 18:50	0° \approx	
max. Earth dist.	3937 Jul 17 23:59	27° \approx 33'09	1.32216 AU	asc. node	3938 Jun 27 01:47	0° \approx 37'13	
	3937 Jul 19 02:42	0° \approx		superior conj	3938 Jul 01 22:27	11° \approx 14'04	0°49'07
evening rise	3937 Jul 24 10:27	11° \approx 26'24		minimum elong	3938 Jul 01 20:31	11° \approx 03'20	0°48'45
	3937 Aug 03 00:17	0° \approx		max. Earth dist.	3938 Jul 01 11:42	10° \approx 14'46	1.32022 AU
desc. node	3937 Aug 16 06:21	20° \approx 25'43		evening rise	3938 Jul 08 19:14	26° \approx 11'43	
evening max el	3937 Aug 24 11:05	29° \approx 42'04	27°04'33		3938 Jul 10 14:52	0° \approx	
	3937 Aug 24 18:43	0° \approx		desc. node	3938 Jul 27 19:43	7° \approx 57'23	
retrograde	3937 Sep 07 07:57	6° \approx 54'15		evening max el	3938 Aug 06 10:02	11° \approx 20'49	26°09'43
evening set	3937 Sep 14 09:44	4° \approx 40'40		retrograde	3938 Aug 20 09:25	18° \approx 30'03	
min. Earth dist.	3937 Sep 18 01:22	1° \approx 59'25	0.61149 AU	evening set	3938 Aug 26 20:37	16° \approx 48'15	
	3937 Sep 20 08:53	30° \approx 16'28	-4°-17'-1	min. Earth dist.	3938 Aug 30 22:50	14° \approx 13'44	0.59078 AU
inferior conj	3937 Sep 21 04:49	29° \approx 16'28	4°15'40	inferior conj	3938 Sep 03 05:18	11° \approx 46'15	-4°-57'-12
minimum elong	3937 Sep 21 10:41	29° \approx 03'44		minimum elong	3938 Sep 03 09:20	11° \approx 38'37	4°56'44
morning rise	3937 Sep 28 14:46	24° \approx 23'37		morning rise	3938 Sep 11 01:34	7° \approx 16'44	
direct	3937 Sep 30 22:17	24° \approx 01'54		direct	3938 Sep 13 10:52	6° \approx 57'21	
asc. node	3937 Oct 06 03:58	25° \approx 57'58		morning max el	3938 Sep 21 10:00	10° \approx 47'28	18°27'45
morning max el	3937 Oct 08 01:19	27° \approx 35'05	17°59'04	asc. node	3938 Sep 23 01:01	12° \approx 29'36	
	3937 Oct 10 05:52	0° \approx			3938 Oct 04 02:40	0° \approx	
morning set	3937 Oct 23 19:06	22° \approx 23'52		morning set	3938 Oct 07 10:26	6° \approx 19'33	
	3937 Oct 27 22:23	0° \approx		superior conj	3938 Oct 16 11:05	23° \approx 30'06	1°25'41
superior conj	3937 Nov 03 00:36	10° \approx 55'20	1°01'37	minimum elong	3938 Oct 16 14:34	23° \approx 46'14	1°25'21
minimum elong	3937 Nov 03 04:47	11° \approx 13'39	1°01'05		3938 Oct 20 00:36	0° \approx	
max. Earth dist.	3937 Nov 10 14:46	23° \approx 52'10	1.42265 AU	max. Earth dist.	3938 Oct 23 21:43	6° \approx 50'13	1.40287 AU
desc. node	3937 Nov 12 05:41	26° \approx 32'26		evening rise	3938 Oct 28 07:05	14° \approx 16'48	
	3937 Nov 14 08:47	0° \approx		desc. node	3938 Oct 30 02:43	17° \approx 16'29	
evening rise	3937 Nov 16 16:09	3° \approx 41'32					
	3937 Dec 04 04:23	0° \approx					

	3938 Nov 07 04:15	0°♄		desc. node	3939 Oct 16 23:43	7°♄53'20	
	3938 Nov 29 06:36	0°♄			3939 Oct 31 18:36	0°♄	
evening max el	3938 Dec 01 22:45	2°♄49'48	23°39'21	evening max el	3939 Nov 14 11:21	16°♄30'39	24°57'09
retrograde	3938 Dec 12 16:15	9°♄10'01		retrograde	3939 Nov 26 05:34	23°♄20'05	
evening set	3938 Dec 17 17:23	7°♄05'23		evening set	3939 Dec 01 20:28	21°♄00'12	
asc. node	3938 Dec 20 00:13	4°♄46'18		min. Earth dist.	3939 Dec 06 10:15	15°♄52'01	0.67468 AU
min. Earth dist.	3938 Dec 22 15:13	1°♄23'00	0.67905 AU	asc. node	3939 Dec 06 21:15	15°♄15'50	
inferior conj	3938 Dec 23 04:20	0°♄38'12	1°03'42	inferior conj	3939 Dec 07 10:04	14°♄33'37	0°10'57
minimum elong	3938 Dec 23 02:54	0°♄43'05	1°03'07	minimum elong	3939 Dec 07 09:47	14°♄34'31	0°10'50
	3938 Dec 23 15:32	30°♄		transit middle	3939 Dec 07 09:47	14°♄34'31	0°10'50
morning rise	3938 Dec 28 12:36	24°♄30'02		transit begin	3939 Dec 07 07:44	14°♄41'18	
direct	3939 Jan 01 13:58	22°♄57'31		transit end	3939 Dec 07 11:51	14°♄27'45	
morning max el	3939 Jan 09 20:28	27°♄44'00	20°52'56	morning rise	3939 Dec 12 23:40	8°♄32'07	
	3939 Jan 11 23:18	0°♄		direct	3939 Dec 16 12:21	7°♄20'21	
greatest brilliancy	3939 Jan 15 11:12	4°♄13'51	-0.5m	morning max el	3939 Dec 23 21:40	11°♄30'49	19°44'21
desc. node	3939 Jan 26 01:57	18°♄59'42		greatest brilliancy	3939 Dec 31 15:58	21°♄05'01	-0.6m
	3939 Feb 02 10:41	0°♄			3940 Jan 06 19:54	0°♄	
morning set	3939 Feb 08 15:58	9°♄34'59		desc. node	3940 Jan 12 22:58	9°♄14'51	
max. Earth dist.	3939 Feb 16 23:37	22°♄49'30	1.42843 AU	morning set	3940 Jan 18 12:00	17°♄45'13	
	3939 Feb 21 08:17	0°♄			3940 Jan 26 08:52	0°♄	
				max. Earth dist.	3940 Jan 30 10:47	6°♄26'36	1.44310 AU
superior conj	3939 Feb 23 21:56	4°♄18'43	-2°-7'-33				
minimum elong	3939 Feb 23 21:55	4°♄18'39	2°07'34	superior conj	3940 Feb 04 03:26	13°♄57'37	-1°-58'-23
evening rise	3939 Mar 07 18:17	24°♄59'19		minimum elong	3940 Feb 03 21:26	13°♄33'24	1°58'05
	3939 Mar 10 13:45	0°♄			3940 Feb 13 21:13	0°♄	
asc. node	3939 Mar 17 23:30	12°♄38'36		evening rise	3940 Feb 17 18:20	6°♄32'55	
evening max el	3939 Mar 24 14:27	21°♄24'18	18°06'52		3940 Mar 03 05:26	0°♄	
retrograde	3939 Mar 31 04:23	24°♄47'21		asc. node	3940 Mar 03 20:32	0°♄51'01	
evening set	3939 Apr 02 20:00	24°♄14'14		evening max el	3940 Mar 07 03:15	4°♄42'33	18°15'19
inferior conj	3939 Apr 09 09:15	19°♄12'10	3°19'27	retrograde	3940 Mar 13 13:30	8°♄08'27	
minimum elong	3939 Apr 09 11:32	19°♄06'32	3°19'08	evening set	3940 Mar 16 10:54	7°♄24'10	
min. Earth dist.	3939 Apr 12 12:01	16°♄09'02	0.61413 AU	inferior conj	3940 Mar 22 12:54	2°♄02'17	3°35'51
morning rise	3939 Apr 16 00:05	13°♄15'32		minimum elong	3940 Mar 22 13:24	2°♄00'51	3°35'50
direct	3939 Apr 22 18:56	10°♄54'53			3940 Mar 24 08:51	30°♄	
desc. node	3939 Apr 24 01:05	10°♄59'26		min. Earth dist.	3940 Mar 25 01:50	29°♄13'52	0.63459 AU
morning max el	3939 May 06 23:52	18°♄52'32	27°49'56	morning rise	3940 Mar 28 13:58	25°♄55'00	
	3939 May 16 09:20	0°♄		direct	3940 Apr 04 11:02	23°♄12'52	
	3939 Jun 03 19:04	0°♄		desc. node	3940 Apr 09 22:08	24°♄40'04	
morning set	3939 Jun 08 23:17	10°♄14'03			3940 Apr 17 02:23	0°♄	
asc. node	3939 Jun 13 22:49	20°♄44'33		morning max el	3940 Apr 18 07:27	1°♄10'52	27°43'06
max. Earth dist.	3939 Jun 14 21:40	22°♄48'25	1.32238 AU		3940 May 09 12:51	0°♄	
				morning set	3940 May 22 20:46	24°♄17'02	
superior conj	3939 Jun 16 09:00	26°♄01'08	0°25'13		3940 May 25 16:20	0°♄	
minimum elong	3939 Jun 16 07:52	25°♄54'56	0°24'59	max. Earth dist.	3940 May 28 01:54	5°♄00'40	1.32885 AU
	3939 Jun 18 04:35	0°♄					
evening rise	3939 Jun 23 06:30	11°♄01'36		superior conj	3940 May 30 16:27	10°♄34'21	0°-1'-28
	3939 Jul 02 22:27	0°♄		minimum elong	3940 May 30 16:31	10°♄34'44	0°01'29
evening max el	3939 Jul 19 01:59	22°♄14'16	24°47'53	behind sun begin	3940 May 30 11:14	10°♄06'19	
desc. node	3939 Jul 21 00:21	23°♄58'56		behind sun end	3940 May 30 21:48	11°♄03'10	
retrograde	3939 Aug 02 00:20	29°♄16'57		asc. node	3940 May 30 19:50	10°♄52'32	
evening set	3939 Aug 07 07:21	28°♄13'35		evening rise	3940 Jun 06 18:17	25°♄48'51	
min. Earth dist.	3939 Aug 12 13:22	25°♄26'41	0.57128 AU		3940 Jun 08 18:16	0°♄	
inferior conj	3939 Aug 15 10:13	23°♄34'01	-5°-10'-3		3940 Jun 27 01:50	0°♄	
minimum elong	3939 Aug 15 09:23	23°♄35'22	5°10'02	evening max el	3940 Jun 29 15:03	2°♄40'41	23°11'57
morning rise	3939 Aug 23 15:01	19°♄26'33		desc. node	3940 Jul 06 21:21	7°♄56'40	
direct	3939 Aug 26 05:14	19°♄07'35		retrograde	3940 Jul 13 02:23	9°♄24'25	
morning max el	3939 Sep 04 09:48	23°♄26'03	19°17'39	evening set	3940 Jul 16 21:12	8°♄53'09	
asc. node	3939 Sep 09 22:04	0°♄03'03		min. Earth dist.	3940 Jul 24 00:28	5°♄38'41	0.55621 AU
	3939 Sep 09 21:13	0°♄		inferior conj	3940 Jul 25 19:23	4°♄35'58	-4°-39'-52
morning set	3939 Sep 21 10:35	20°♄40'26		minimum elong	3940 Jul 25 12:41	4°♄45'48	4°38'44
	3939 Sep 26 02:32	0°♄		morning rise	3940 Aug 03 07:04	0°♄43'30	
				direct	3940 Aug 06 04:52	0°♄23'10	
superior conj	3939 Sep 29 14:53	6°♄55'43	1°39'24	morning max el	3940 Aug 16 22:11	5°♄21'51	20°29'15
minimum elong	3939 Sep 29 16:46	7°♄04'54	1°39'18	asc. node	3940 Aug 26 19:06	18°♄24'16	
max. Earth dist.	3939 Oct 06 01:48	19°♄06'59	1.38201 AU		3940 Sep 02 01:32	0°♄	
evening rise	3939 Oct 09 21:26	25°♄56'37		morning set	3940 Sep 04 16:40	5°♄18'45	
	3939 Oct 12 05:47	0°♄					

superior conj	3940 Sep 12 07:12	20° \cap 58'30	1°44'18	superior conj	3941 Aug 27 08:13	5° \cap 27'04	1°41'51
minimum elong	3940 Sep 12 07:26	20° \cap 59'42	1°44'17	minimum elong	3941 Aug 27 07:08	5° \cap 21'21	1°41'48
	3940 Sep 16 19:58	0° $\underline{\cap}$		max. Earth dist.	3941 Aug 30 23:08	12° \cap 57'38	1.34595 AU
max. Earth dist.	3940 Sep 17 08:43	1° $\underline{\cap}$ 01'50	1.36245 AU	evening rise	3941 Sep 04 12:09	21° \cap 59'02	
evening rise	3940 Sep 21 08:35	8° $\underline{\cap}$ 34'35			3941 Sep 08 18:44	0° $\underline{\cap}$	
desc. node	3940 Oct 02 20:42	28° $\underline{\cap}$ 18'32		desc. node	3941 Sep 19 17:42	18° $\underline{\cap}$ 25'50	
	3940 Oct 03 22:22	0° \cap			3941 Sep 27 17:12	0° \cap	
	3940 Oct 26 18:23	0° \nearrow		evening max el	3941 Oct 09 12:27	13° \cap 49'42	26°56'43
evening max el	3940 Oct 26 23:51	0° \nearrow 13'19	26°05'28	retrograde	3941 Oct 22 16:43	21° \cap 06'09	
retrograde	3940 Nov 08 13:53	7° \nearrow 21'09		evening set	3941 Oct 29 10:03	18° \cap 26'07	
evening set	3940 Nov 14 18:44	4° \nearrow 48'39		min. Earth dist.	3941 Nov 02 09:35	14° \cap 30'05	0.65563 AU
min. Earth dist.	3940 Nov 19 01:11	0° \nearrow 16'10	0.66689 AU	inferior conj	3941 Nov 04 08:26	12° \cap 15'23	-1°-46'-50
	3940 Nov 19 06:26	30° \cap		minimum elong	3941 Nov 04 11:25	12° \cap 06'47	1°45'37
inferior conj	3940 Nov 20 12:08	28° \cap 27'34	0°-46'-23	asc. node	3941 Nov 09 15:22	7° \cap 08'47	
minimum elong	3940 Nov 20 13:22	28° \cap 23'43	0°45'51	morning rise	3941 Nov 10 14:27	6° \cap 35'45	
asc. node	3940 Nov 22 18:18	25° \cap 45'32		direct	3941 Nov 13 07:46	5° \cap 55'17	
morning rise	3940 Nov 26 09:04	22° \cap 35'27		morning max el	3941 Nov 19 20:10	9° \cap 26'06	18°13'46
direct	3940 Nov 29 10:59	21° \cap 41'13			3941 Dec 04 03:18	0° \nearrow	
morning max el	3940 Dec 06 06:14	25° \cap 26'38	18°50'54	morning set	3941 Dec 08 14:20	7° \nearrow 16'11	
	3940 Dec 10 04:13	0° \nearrow		desc. node	3941 Dec 16 17:00	20° \nearrow 23'12	
morning set	3940 Dec 27 22:54	26° \nearrow 47'22			3941 Dec 22 18:07	0° \searrow	
desc. node	3940 Dec 29 20:00	29° \nearrow 44'19					
	3940 Dec 30 00:00	0° \searrow		superior conj	3941 Dec 23 14:25	1° \searrow 20'04	0°-45'-58
max. Earth dist.	3941 Jan 12 03:51	20° \searrow 38'15	1.45126 AU	minimum elong	3941 Dec 23 08:38	0° \searrow 57'15	0°45'13
				max. Earth dist.	3941 Dec 25 23:23	5° \searrow 04'11	1.45204 AU
superior conj	3941 Jan 13 11:29	22° \searrow 42'38	-1°-29'-42	evening rise	3942 Jan 08 22:33	26° \searrow 53'20	
minimum elong	3941 Jan 13 02:14	22° \searrow 06'15	1°28'46		3942 Jan 10 22:28	0° \approx	
	3941 Jan 18 02:21	0° \approx		greatest brilliancy	3942 Jan 24 10:37	20° \approx 41'01	-0.7m
evening rise	3941 Jan 28 19:44	17° \approx 09'37			3942 Jan 31 10:09	0° \nearrow	
	3941 Feb 05 18:27	0° \nearrow		evening max el	3942 Feb 01 22:41	1° \nearrow 39'40	19°25'47
evening max el	3941 Feb 18 14:45	18° \nearrow 09'26	18°42'00	asc. node	3942 Feb 05 14:37	4° \nearrow 41'27	
asc. node	3941 Feb 18 17:34	18° \nearrow 16'33		retrograde	3942 Feb 09 02:54	5° \nearrow 46'59	
retrograde	3941 Feb 25 06:08	21° \nearrow 50'42		evening set	3942 Feb 12 13:33	4° \nearrow 37'31	
evening set	3941 Feb 28 09:41	20° \nearrow 54'16			3942 Feb 17 02:18	30° \cap	
inferior conj	3941 Mar 06 03:49	15° \nearrow 14'11	3°33'44	inferior conj	3942 Feb 18 02:37	28° \approx 41'28	3°17'38
minimum elong	3941 Mar 06 02:49	15° \nearrow 17'12	3°33'40	minimum elong	3942 Feb 18 00:38	28° \approx 47'57	3°17'19
min. Earth dist.	3941 Mar 08 01:04	12° \nearrow 56'38	0.65178 AU	min. Earth dist.	3942 Feb 19 08:48	27° \approx 03'09	0.66486 AU
morning rise	3941 Mar 11 18:45	9° \nearrow 01'19		morning rise	3942 Feb 23 10:57	22° \approx 26'01	
direct	3941 Mar 18 10:13	6° \nearrow 11'49		direct	3942 Mar 01 15:35	19° \approx 41'54	
desc. node	3941 Mar 27 19:11	10° \nearrow 25'14		morning max el	3942 Mar 14 02:58	27° \approx 07'16	25°56'07
morning max el	3941 Mar 31 17:14	13° \nearrow 59'47	27°02'37	desc. node	3942 Mar 14 16:13	27° \approx 41'08	
	3941 Apr 13 16:49	0° \cap			3942 Mar 16 19:44	0° \nearrow	
	3941 May 02 04:53	0° \searrow			3942 Apr 07 08:21	0° \cap	
morning set	3941 May 06 08:36	7° \searrow 47'55		morning set	3942 Apr 19 06:47	20° \cap 35'12	
max. Earth dist.	3941 May 10 20:57	16° \searrow 43'36	1.33986 AU	max. Earth dist.	3942 Apr 23 04:40	27° \cap 57'32	1.35539 AU
					3942 Apr 24 05:59	0° \searrow	
superior conj	3941 May 14 18:48	24° \searrow 47'44	0°-30'00				
minimum elong	3941 May 14 20:22	24° \searrow 55'58	0°29'43	superior conj	3942 Apr 28 13:32	8° \searrow 34'08	0°-59'-6
	3941 May 17 06:02	0° \cap		minimum elong	3942 Apr 28 16:42	8° \searrow 50'07	0°58'33
asc. node	3941 May 17 16:51	0° \cap 57'20		asc. node	3942 May 04 13:55	20° \searrow 55'04	
evening rise	3941 May 22 04:47	10° \cap 27'41		evening rise	3942 May 06 11:55	24° \searrow 51'41	
	3941 Jun 01 10:12	0° \searrow			3942 May 09 00:53	0° \cap	
evening max el	3941 Jun 11 08:53	13° \searrow 11'51	21°37'34	evening max el	3942 May 24 13:41	24° \cap 15'24	20°16'37
retrograde	3941 Jun 23 17:36	19° \searrow 17'44		retrograde	3942 Jun 04 07:26	29° \cap 29'47	
desc. node	3941 Jun 23 18:23	19° \searrow 17'44		evening set	3942 Jun 06 07:02	29° \cap 19'48	
evening set	3941 Jun 26 06:29	19° \searrow 03'10		desc. node	3942 Jun 10 15:24	27° \cap 56'11	
inferior conj	3941 Jul 05 14:51	15° \searrow 02'21	-3°-19'-21	inferior conj	3942 Jun 15 09:50	25° \cap 21'25	-1°-24'-37
minimum elong	3941 Jul 05 06:34	15° \searrow 13'55	3°16'53	minimum elong	3942 Jun 15 05:51	25° \cap 27'16	1°23'09
min. Earth dist.	3941 Jul 05 11:04	15° \searrow 07'38	0.54876 AU	min. Earth dist.	3942 Jun 16 23:21	24° \cap 26'12	0.55077 AU
morning rise	3941 Jul 14 07:40	11° \searrow 09'33		morning rise	3942 Jun 24 02:41	21° \cap 07'29	
direct	3941 Jul 17 15:41	10° \searrow 45'20		direct	3942 Jun 28 02:28	20° \cap 33'02	
morning max el	3941 Jul 29 22:57	16° \searrow 32'42	22°00'02	morning max el	3942 Jul 11 15:33	27° \cap 09'20	23°42'13
	3941 Aug 09 10:38	0° \cap			3942 Jul 14 10:18	0° \searrow	
asc. node	3941 Aug 13 16:08	7° \cap 21'39		asc. node	3942 Jul 31 13:10	26° \searrow 46'08	
morning set	3941 Aug 20 02:24	20° \cap 07'53			3942 Aug 02 03:44	0° \cap	
	3941 Aug 24 18:23	0° \cap		morning set	3942 Aug 04 13:59	5° \cap 02'26	

superior conj	3942 Aug 11 15:04	20°♎12'41	1°33'18	morning set	3943 Jul 20 01:40	19°♊56'01	
minimum elong	3942 Aug 11 13:07	20°♎02'09	1°33'06		3943 Jul 24 17:26	0°♎	
max. Earth dist.	3942 Aug 13 22:24	25°♎09'06	1.33342 AU				
	3942 Aug 16 05:44	0°♎		superior conj	3943 Jul 27 01:19	5°♎06'34	1°19'34
evening rise	3942 Aug 19 04:01	5°♎58'58		minimum elong	3943 Jul 26 23:00	4°♎53'50	1°19'14
	3942 Sep 01 09:17	0°♎		max. Earth dist.	3943 Jul 28 04:56	7°♎37'41	1.32508 AU
desc. node	3942 Sep 06 14:45	8°♎07'22		evening rise	3943 Aug 03 04:34	20°♎23'12	
evening max el	3942 Sep 22 00:08	27°♎09'05	27°23'51		3943 Aug 08 00:22	0°♎	
	3942 Sep 25 06:39	0°♎		desc. node	3943 Aug 24 11:46	27°♎11'24	
retrograde	3942 Oct 05 13:43	4°♎27'06			3943 Aug 26 13:59	0°♎	
evening set	3942 Oct 12 15:49	1°♎48'00		evening max el	3943 Sep 04 08:57	9°♎58'29	27°21'06
	3942 Oct 14 19:09	30°♎♎		retrograde	3943 Sep 18 04:15	17°♎13'35	
min. Earth dist.	3942 Oct 16 09:25	28°♎26'38	0.64088 AU	evening set	3943 Sep 25 08:33	14°♎47'06	
inferior conj	3942 Oct 18 20:34	25°♎52'08	-2°-48'-9	min. Earth dist.	3943 Sep 28 23:09	11°♎54'12	0.62291 AU
minimum elong	3942 Oct 19 01:16	25°♎39'49	2°46'28	inferior conj	3943 Oct 01 21:34	9°♎10'11	-3°-46'-47
morning rise	3942 Oct 25 13:02	20°♎28'08		minimum elong	3943 Oct 02 03:25	8°♎56'32	3°45'08
asc. node	3942 Oct 27 12:24	19°♎58'54		morning rise	3943 Oct 09 01:11	4°♎05'00	
direct	3942 Oct 28 00:09	19°♎57'41		direct	3943 Oct 11 08:59	3°♎41'03	
morning max el	3942 Nov 03 12:41	23°♎23'01	17°53'42	asc. node	3943 Oct 14 09:26	4°♎22'43	
	3942 Nov 08 18:58	0°♎		morning max el	3943 Oct 18 04:41	7°♎09'18	17°51'36
morning set	3942 Nov 20 09:38	19°♎06'25			3943 Nov 02 00:07	0°♎	
	3942 Nov 26 19:55	0°♎♎		morning set	3943 Nov 03 02:41	1°♎59'04	
superior conj	3942 Dec 03 08:54	10°♎47'16	0°01'30	superior conj	3943 Nov 14 05:23	21°♎31'19	0°42'39
minimum elong	3942 Dec 03 09:04	10°♎47'58	0°01'28	minimum elong	3943 Nov 14 09:01	21°♎46'47	0°42'09
behind sun begin	3942 Dec 02 23:04	10°♎07'20			3943 Nov 19 06:52	0°♎♎	
behind sun end	3942 Dec 03 19:04	11°♎28'32		desc. node	3943 Nov 20 11:06	1°♎55'47	
desc. node	3942 Dec 03 14:04	11°♎08'15		max. Earth dist.	3943 Nov 21 08:37	3°♎23'30	1.43248 AU
max. Earth dist.	3942 Dec 08 17:46	19°♎24'36	1.44551 AU	evening rise	3943 Nov 28 21:38	15°♎23'16	
	3942 Dec 15 11:41	0°♎♎			3943 Dec 08 12:01	0°♎♎	
evening rise	3942 Dec 19 10:13	6°♎05'10		greatest brilliancy	3943 Dec 25 02:03	23°♎10'31	-0.4m
	3943 Jan 04 08:13	0°♎♎		evening max el	3943 Dec 29 23:00	28°♎44'43	21°35'16
greatest brilliancy	3943 Jan 09 23:02	7°♎50'53	-0.5m		3943 Dec 31 05:51	0°♎♎	
evening max el	3943 Jan 16 01:33	15°♎11'13	20°24'35	retrograde	3944 Jan 07 22:32	4°♎04'52	
asc. node	3943 Jan 23 11:41	19°♎51'05		asc. node	3944 Jan 10 08:42	3°♎33'02	
retrograde	3943 Jan 24 01:03	19°♎52'46		evening set	3944 Jan 12 04:05	2°♎25'58	
evening set	3943 Jan 27 20:17	18°♎29'09			3944 Jan 14 14:40	30°♎♎	
inferior conj	3943 Feb 02 06:36	12°♎20'00	2°50'38	inferior conj	3944 Jan 17 13:29	26°♎06'59	2°14'48
minimum elong	3943 Feb 02 04:09	12°♎28'20	2°50'01	minimum elong	3944 Jan 17 11:04	26°♎15'21	2°14'01
min. Earth dist.	3943 Feb 02 23:10	11°♎23'35	0.67381 AU	min. Earth dist.	3944 Jan 17 17:52	25°♎51'46	0.67879 AU
morning rise	3943 Feb 07 11:29	6°♎04'07		morning rise	3944 Jan 22 17:45	19°♎52'36	
direct	3943 Feb 13 02:25	3°♎34'50		direct	3944 Jan 27 17:55	17°♎43'57	
morning max el	3943 Feb 24 11:37	10°♎23'07	24°33'08	morning max el	3944 Feb 06 20:50	23°♎44'25	23°04'05
desc. node	3943 Mar 01 13:16	16°♎01'57		greatest brilliancy	3944 Feb 11 17:57	29°♎11'46	-0.3m
	3943 Mar 12 01:30	0°♎♎			3944 Feb 12 09:46	0°♎♎	
	3943 Mar 31 01:01	0°♎♎		desc. node	3944 Feb 16 10:19	5°♎09'27	
morning set	3943 Apr 01 09:57	2°♎23'31			3944 Mar 04 11:29	0°♎♎	
max. Earth dist.	3943 Apr 05 02:30	8°♎59'06	1.37485 AU	morning set	3944 Mar 12 11:58	12°♎56'56	
				max. Earth dist.	3944 Mar 16 21:22	20°♎23'53	1.39657 AU
superior conj	3943 Apr 11 21:24	21°♎44'24	-1°-26'-46		3944 Mar 22 07:46	0°♎♎	
minimum elong	3943 Apr 12 01:49	22°♎05'52	1°26'09	superior conj	3944 Mar 24 14:20	4°♎08'52	-1°-50'-5
	3943 Apr 16 02:20	0°♎♎		minimum elong	3944 Mar 24 18:57	4°♎30'05	1°49'40
evening rise	3943 Apr 20 13:15	8°♎53'01		evening rise	3944 Apr 03 05:51	22°♎24'16	
asc. node	3943 Apr 21 10:58	10°♎40'39		asc. node	3944 Apr 07 08:01	0°♎♎09'10	
	3943 May 02 08:06	0°♎♎			3944 Apr 07 06:02	0°♎♎	
evening max el	3943 May 07 06:38	6°♎00'10	19°14'32	evening max el	3944 Apr 19 09:27	18°♎22'27	18°32'36
retrograde	3943 May 16 07:44	10°♎24'19		retrograde	3944 Apr 27 02:09	22°♎09'47	
evening set	3943 May 18 07:55	10°♎12'14		evening set	3944 Apr 29 08:17	21°♎51'20	
inferior conj	3943 May 26 18:05	6°♎02'34	0°30'49	inferior conj	3944 May 06 22:58	17°♎22'25	2°01'09
minimum elong	3943 May 26 19:21	6°♎00'26	0°30'22	minimum elong	3944 May 07 02:34	17°♎15'22	2°00'05
desc. node	3943 May 28 12:27	4°♎51'32		min. Earth dist.	3944 May 10 08:44	14°♎43'54	0.58014 AU
min. Earth dist.	3943 May 29 14:17	4°♎09'07	0.56201 AU	desc. node	3944 May 14 09:28	12°♎09'23	
morning rise	3943 Jun 04 02:36	1°♎14'15		morning rise	3944 May 14 16:25	12°♎00'41	
direct	3943 Jun 09 00:51	0°♎18'11		direct	3944 May 20 13:36	10°♎32'35	
morning max el	3943 Jun 23 05:38	7°♎33'07	25°22'30	morning max el	3944 Jun 03 22:44	18°♎11'31	26°45'04
	3943 Jul 09 18:38	0°♎♎			3944 Jun 13 19:29	0°♎♎	
asc. node	3943 Jul 18 10:13	16°♎29'37					

	3944 Jul 01 05:05	0°☿			3945 May 17 11:53	0°♄		
morning set	3944 Jul 03 11:50	4°☿43'31			3945 Jun 07 17:36	0°♄		
asc. node	3944 Jul 04 07:16	6°☿26'15		morning set	3945 Jun 17 18:46	19°♄19'06		
				asc. node	3945 Jun 21 04:19	26°♄30'44		
superior conj	3944 Jul 10 13:02	20°☿02'16	1°01'23		3945 Jun 22 18:54	0°☿		
minimum elong	3944 Jul 10 10:49	19°☿50'02	1°00'59	max. Earth dist.	3945 Jun 24 03:22	2°☿57'40	1.32063 AU	
max. Earth dist.	3944 Jul 10 15:50	20°☿17'46	1.32087 AU					
	3944 Jul 15 02:10	0°♄		superior conj	3945 Jun 25 00:28	4°☿53'41	0°39'23	
evening rise	3944 Jul 17 11:02	5°♄03'12		minimum elong	3945 Jun 24 22:49	4°☿44'36	0°39'03	
	3944 Jul 30 16:51	0°♄		evening rise	3945 Jul 01 21:06	19°☿51'14		
desc. node	3944 Aug 10 08:46	15°♄22'43			3945 Jul 06 19:54	0°♄		
evening max el	3944 Aug 16 12:23	22°♄06'11	26°45'05		3945 Jul 26 01:25	0°♄		
retrograde	3944 Aug 30 10:46	29°♄16'48		desc. node	3945 Jul 28 05:45	2°♄20'00		
evening set	3944 Sep 06 07:44	27°♄15'47		evening max el	3945 Jul 29 08:24	3°♄25'33	25°37'41	
min. Earth dist.	3944 Sep 10 02:24	24°♄39'17	0.60276 AU	retrograde	3945 Aug 12 07:40	10°♄31'55		
inferior conj	3944 Sep 13 08:04	22°♄00'48	-4°-36'-29	evening set	3945 Aug 18 08:38	9°♄06'24		
minimum elong	3944 Sep 13 13:30	21°♄49'38	4°35'29	min. Earth dist.	3945 Aug 22 20:25	6°♄29'00	0.58221 AU	
morning rise	3944 Sep 20 22:33	17°♄17'20		inferior conj	3945 Aug 26 00:35	4°♄14'20	-5°-6'-57	
direct	3944 Sep 23 06:20	16°♄56'55		minimum elong	3945 Aug 26 02:54	4°♄10'12	5°06'48	
asc. node	3944 Sep 30 06:29	20°♄11'48			3945 Sep 02 16:23	30°♄♄		
morning max el	3944 Sep 30 16:55	20°♄36'24	18°08'37	morning rise	3945 Sep 03 00:40	29°♄54'24		
	3944 Oct 07 18:31	0°♄		direct	3945 Sep 05 11:55	29°♄35'15		
morning set	3944 Oct 16 11:18	15°♄35'57			3945 Sep 08 05:21	0°♄		
	3944 Oct 24 05:05	0°♄		morning max el	3945 Sep 13 22:10	3°♄35'45	18°46'15	
				asc. node	3945 Sep 17 03:32	7°♄11'51		
superior conj	3944 Oct 26 03:20	3°♄29'21	1°13'11	morning set	3945 Sep 30 06:53	29°♄44'28		
minimum elong	3944 Oct 26 07:25	3°♄47'37	1°12'43		3945 Sep 30 10:04	0°♄		
max. Earth dist.	3944 Nov 02 18:44	16°♄47'34	1.41459 AU					
desc. node	3944 Nov 06 08:06	22°♄42'07		superior conj	3945 Oct 08 21:54	16°♄28'16	1°32'41	
evening rise	3944 Nov 08 00:00	25°♄24'24		minimum elong	3945 Oct 09 00:45	16°♄41'47	1°32'27	
	3944 Nov 10 20:59	0°♄		max. Earth dist.	3945 Oct 16 00:34	29°♄29'55	1.39406 AU	
	3944 Dec 01 08:30	0°♄			3945 Oct 16 07:23	0°♄		
greatest brilliancy	3944 Dec 06 09:18	6°♄26'11	-0.2m	evening rise	3945 Oct 20 01:04	6°♄28'00		
evening max el	3944 Dec 11 15:39	12°♄20'31	22°53'22	desc. node	3945 Oct 24 05:06	13°♄24'00		
retrograde	3944 Dec 21 17:39	18°♄19'24			3945 Nov 03 22:19	0°♄		
evening set	3944 Dec 26 11:17	16°♄24'13		evening max el	3945 Nov 24 05:11	25°♄59'55	24°13'03	
asc. node	3944 Dec 27 05:43	15°♄43'10			3945 Nov 28 20:36	0°♄		
inferior conj	3944 Dec 31 21:18	9°♄59'04	1°31'31	retrograde	3945 Dec 05 09:19	2°♄33'04		
minimum elong	3944 Dec 31 19:23	10°♄05'41	1°30'47	evening set	3945 Dec 10 16:22	0°♄21'38		
min. Earth dist.	3944 Dec 31 14:27	10°♄22'46	0.68004 AU		3945 Dec 11 02:15	30°♄♄		
morning rise	3945 Jan 06 03:28	3°♄48'09		asc. node	3945 Dec 14 02:45	26°♄38'42		
direct	3945 Jan 10 12:57	2°♄02'26		min. Earth dist.	3945 Dec 15 10:39	24°♄53'52	0.67771 AU	
morning max el	3945 Jan 19 10:14	7°♄13'38	21°38'09	inferior conj	3945 Dec 16 04:20	23°♄54'19	0°41'57	
greatest brilliancy	3945 Jan 24 07:04	12°♄43'51	-0.4m	minimum elong	3945 Dec 16 03:20	23°♄57'39	0°41'32	
desc. node	3945 Feb 02 07:21	24°♄50'01		morning rise	3945 Dec 21 14:38	17°♄48'56		
	3945 Feb 05 21:16	0°♄		direct	3945 Dec 25 10:28	16°♄25'34		
morning set	3945 Feb 20 08:59	22°♄07'28		morning max el	3946 Jan 02 06:56	20°♄54'50	20°22'01	
	3945 Feb 25 06:03	0°♄		greatest brilliancy	3946 Jan 08 15:38	28°♄26'59	-0.5m	
max. Earth dist.	3945 Feb 26 21:03	2°♄40'42	1.41776 AU		3946 Jan 09 19:29	0°♄		
				desc. node	3946 Jan 20 04:23	14°♄54'46		
superior conj	3945 Mar 06 11:20	15°♄35'07	-2°-4'-54	morning set	3946 Jan 30 08:10	0°♄22'01		
minimum elong	3945 Mar 06 13:53	15°♄46'15	2°04'50		3946 Jan 30 02:29	0°♄		
	3945 Mar 14 12:53	0°♄		max. Earth dist.	3946 Feb 09 04:38	15°♄53'35	1.43546 AU	
evening rise	3945 Mar 17 10:02	5°♄16'24						
asc. node	3945 Mar 25 05:02	19°♄14'03		superior conj	3946 Feb 15 07:46	25°♄53'32	-2°-5'-59	
	3945 Apr 01 14:57	0°♄		minimum elong	3946 Feb 15 05:17	25°♄43'17	2°05'57	
evening max el	3945 Apr 02 18:38	1°♄12'43	18°10'37		3946 Feb 17 18:55	0°♄		
retrograde	3945 Apr 09 14:56	4°♄40'03		evening rise	3946 Feb 27 21:39	17°♄21'26		
evening set	3945 Apr 12 03:19	4°♄12'38			3946 Mar 07 04:55	0°♄		
	3945 Apr 18 08:03	30°♄♄		asc. node	3946 Mar 12 02:02	7°♄48'15		
inferior conj	3945 Apr 19 00:44	29°♄22'15	2°59'16	evening max el	3946 Mar 17 06:54	14°♄22'43	18°08'06	
minimum elong	3945 Apr 19 03:54	29°♄15'02	2°58'38	retrograde	3946 Mar 23 18:07	17°♄45'32		
min. Earth dist.	3945 Apr 22 08:51	26°♄21'09	0.60162 AU	evening set	3946 Mar 26 12:11	17°♄07'43		
morning rise	3945 Apr 26 00:55	23°♄35'40		inferior conj	3946 Apr 01 20:10	11°♄56'41	3°29'01	
desc. node	3945 May 01 06:30	21°♄37'54		minimum elong	3946 Apr 01 21:41	11°♄52'42	3°28'53	
direct	3945 May 02 14:30	21°♄32'54		min. Earth dist.	3946 Apr 04 17:21	8°♄57'34	0.62314 AU	
morning max el	3945 May 16 22:00	29°♄25'15	27°37'01	morning rise	3946 Apr 08 04:42	5°♄54'36		

direct	3946 Apr 15 01:23	3°♄23'31			3947 Mar 11 00:58	30°♄♂	
desc. node	3946 Apr 18 03:33	3°♄51'20		inferior conj	3947 Mar 16 05:06	24°♄57'27	3°36'55
morning max el	3946 Apr 29 03:23	11°♄22'04	27°51'39	minimum elong	3947 Mar 16 04:55	24°♄57'58	3°36'55
	3946 May 13 19:24	0°♄		min. Earth dist.	3947 Mar 18 11:25	22°♄20'28	0.64231 AU
	3946 May 31 01:16	0°♄		morning rise	3947 Mar 22 01:22	18°♄46'59	
morning set	3946 Jun 01 20:25	3°♄36'14		direct	3947 Mar 28 20:42	15°♄59'58	
max. Earth dist.	3946 Jun 07 11:33	15°♄24'10	1.32456 AU	desc. node	3947 Apr 05 00:36	18°♄29'24	
asc. node	3946 Jun 08 01:20	16°♄38'28		morning max el	3947 Apr 11 12:31	23°♄56'02	27°29'40
					3947 Apr 16 23:14	0°♄	
superior conj	3946 Jun 09 09:53	19°♄34'58	0°14'12		3947 May 07 03:47	0°♄	
minimum elong	3946 Jun 09 09:13	19°♄31'21	0°14'02	morning set	3947 May 16 14:15	17°♄27'16	
behind sun begin	3946 Jun 09 06:46	19°♄18'02		max. Earth dist.	3947 May 21 12:20	27°♄25'03	1.33290 AU
behind sun end	3946 Jun 09 11:40	19°♄44'41			3947 May 22 17:58	0°♄	
	3946 Jun 14 04:35	0°♄					
evening rise	3946 Jun 16 08:48	4°♄40'25		superior conj	3947 May 24 15:28	4°♄00'41	0°-13'-25
	3946 Jun 29 21:04	0°♄		minimum elong	3947 May 24 16:09	4°♄04'18	0°13'18
evening max el	3946 Jul 10 22:08	14°♄03'13	24°07'53	behind sun begin	3947 May 24 13:07	3°♄48'11	
desc. node	3946 Jul 15 02:46	17°♄33'19		behind sun end	3947 May 24 19:10	4°♄20'27	
retrograde	3946 Jul 24 17:13	21°♄00'20		asc. node	3947 May 25 22:22	6°♄45'44	
evening set	3946 Jul 29 09:25	20°♄11'52		evening rise	3947 May 31 20:18	19°♄24'51	
min. Earth dist.	3946 Aug 04 08:40	17°♄15'06	0.56407 AU		3947 Jun 06 01:09	0°♄	
inferior conj	3946 Aug 06 20:47	15°♄42'00	-5°-3'-20	evening max el	3947 Jun 22 12:07	24°♄27'08	22°30'50
minimum elong	3946 Aug 06 17:19	15°♄47'24	5°03'03		3947 Jun 30 14:19	0°♄	
morning rise	3946 Aug 15 04:44	11°♄42'44		desc. node	3947 Jul 01 23:48	0°♄27'49	
direct	3946 Aug 17 22:00	11°♄23'23		retrograde	3947 Jul 05 14:35	0°♄57'56	
morning max el	3946 Aug 27 17:22	15°♄57'04	19°45'37	evening set	3947 Jul 08 18:45	0°♄35'45	
asc. node	3946 Sep 04 00:34	25°♄07'02			3947 Jul 10 19:27	30°♄♂	
	3946 Sep 06 23:20	0°♄		min. Earth dist.	3947 Jul 16 19:27	27°♄05'25	0.55187 AU
morning set	3946 Sep 14 09:54	14°♄13'56		inferior conj	3947 Jul 17 22:55	26°♄26'24	-4°-11'-37
				minimum elong	3947 Jul 17 14:45	26°♄38'01	4°09'45
superior conj	3946 Sep 22 07:37	0°♄11'49	1°42'28	morning rise	3947 Jul 26 13:07	22°♄36'07	
minimum elong	3946 Sep 22 08:47	0°♄17'36	1°42'25	direct	3947 Jul 29 14:28	22°♄14'49	
	3946 Sep 22 05:14	0°♄		morning max el	3947 Aug 10 00:47	27°♄33'52	21°05'55
max. Earth dist.	3946 Sep 28 05:19	11°♄35'21	1.37339 AU		3947 Aug 12 10:08	0°♄	
evening rise	3946 Oct 02 00:45	18°♄33'46		asc. node	3947 Aug 21 21:38	13°♄44'38	
	3946 Oct 08 16:08	0°♄		morning set	3947 Aug 29 17:47	28°♄57'15	
desc. node	3946 Oct 11 02:06	3°♄56'38			3947 Aug 30 05:54	0°♄	
	3946 Oct 29 03:55	0°♄					
evening max el	3946 Nov 06 17:27	9°♄41'38	25°27'38	superior conj	3947 Sep 06 04:05	14°♄26'51	1°44'04
retrograde	3946 Nov 18 20:40	16°♄40'29		minimum elong	3947 Sep 06 03:42	14°♄24'55	1°44'04
evening set	3946 Nov 24 17:41	14°♄14'26		max. Earth dist.	3947 Sep 10 14:35	23°♄25'56	1.35494 AU
min. Earth dist.	3946 Nov 29 04:09	9°♄21'31	0.67187 AU		3947 Sep 13 23:48	0°♄	
inferior conj	3946 Nov 30 08:45	7°♄49'30	0°-12'-52	evening rise	3947 Sep 14 19:26	1°♄32'52	
minimum elong	3946 Nov 30 09:05	7°♄48'26	0°12'44	desc. node	3947 Sep 27 23:06	24°♄14'49	
transit middle	3946 Nov 30 09:05	7°♄48'26	0°12'44		3947 Oct 01 17:03	0°♄	
transit begin	3946 Nov 30 07:21	7°♄54'00		evening max el	3947 Oct 20 05:53	23°♄22'10	26°29'42
transit end	3946 Nov 30 10:48	7°♄42'53			3947 Oct 29 19:25	0°♄	
asc. node	3946 Nov 30 23:47	7°♄01'17		retrograde	3947 Nov 02 02:58	0°♄35'37	
morning rise	3946 Dec 06 01:17	1°♄51'54			3947 Nov 05 05:46	30°♄♄	
direct	3946 Dec 09 09:04	0°♄48'12		evening set	3947 Nov 08 13:18	27°♄59'01	
morning max el	3946 Dec 16 11:35	4°♄46'38	19°19'38	min. Earth dist.	3947 Nov 12 16:41	23°♄41'56	0.66253 AU
greatest brilliancy	3946 Dec 25 19:26	16°♄42'46	-0.7m	inferior conj	3947 Nov 14 08:39	21°♄41'24	-1°-11'-44
	3947 Jan 03 15:17	0°♄		minimum elong	3947 Nov 14 10:37	21°♄35'28	1°10'54
desc. node	3947 Jan 07 01:24	5°♄16'31		asc. node	3947 Nov 17 20:51	17°♄47'54	
morning set	3947 Jan 09 07:45	8°♄46'50		morning rise	3947 Nov 20 09:16	15°♄54'12	
	3947 Jan 22 21:47	0°♄		direct	3947 Nov 23 07:08	15°♄06'27	
max. Earth dist.	3947 Jan 22 18:38	29°♄47'34	1.44744 AU	morning max el	3947 Nov 29 22:47	18°♄44'49	18°32'58
					3947 Dec 08 13:03	0°♄	
superior conj	3947 Jan 26 02:53	5°♄05'33	-1°-48'-32	morning set	3947 Dec 20 06:07	18°♄24'05	
minimum elong	3947 Jan 25 18:47	4°♄33'19	1°47'56	desc. node	3947 Dec 24 22:25	25°♄50'14	
evening rise	3947 Feb 09 12:24	28°♄31'23			3947 Dec 27 13:33	0°♄	
	3947 Feb 10 09:45	0°♄					
asc. node	3947 Feb 26 23:04	25°♄42'18		superior conj	3948 Jan 05 06:14	13°♄40'29	-1°-12'-23
evening max el	3947 Feb 28 19:24	27°♄45'09	18°24'28	minimum elong	3948 Jan 04 21:43	13°♄07'06	1°11'25
	3947 Mar 03 11:46	0°♄		max. Earth dist.	3948 Jan 05 12:32	14°♄05'12	1.45251 AU
retrograde	3947 Mar 07 07:01	1°♄16'34			3948 Jan 15 15:32	0°♄	
evening set	3947 Mar 10 06:50	0°♄27'22		evening rise	3948 Jan 21 03:49	8°♄43'45	

	3948 Feb 03 16:45	0° H		evening rise	3948 Dec 30 22:52	18° Z 10'53	
evening max el	3948 Feb 12 05:37	11° H 13'47	18°58'41		3949 Jan 07 15:22	0° \approx	
asc. node	3948 Feb 13 20:07	12° H 43'43		greatest brilliancy	3949 Jan 18 05:03	15° \approx 40'47	-0.6m
retrograde	3948 Feb 19 01:43	15° H 05'05		evening max el	3949 Jan 25 11:41	24° \approx 45'43	19°49'07
evening set	3948 Feb 22 08:04	14° H 03'24		asc. node	3949 Jan 30 17:11	28° \approx 38'55	
inferior conj	3948 Feb 27 23:46	8° H 16'28	3°28'24	retrograde	3949 Feb 01 23:16	29° \approx 06'17	
minimum elong	3948 Feb 27 22:17	8° H 21'07	3°28'14	evening set	3949 Feb 05 13:25	27° \approx 50'57	
min. Earth dist.	3948 Feb 29 14:34	6° H 14'37	0.65786 AU	inferior conj	3949 Feb 11 01:05	21° \approx 49'13	3°07'22
morning rise	3948 Mar 04 11:27	2° H 02'07		minimum elong	3949 Feb 10 22:51	21° \approx 56'42	3°06'54
	3948 Mar 07 11:53	30° R \approx		min. Earth dist.	3949 Feb 12 01:20	20° \approx 28'34	0.66927 AU
direct	3948 Mar 10 22:53	29° \approx 13'08		morning rise	3949 Feb 16 07:37	15° \approx 33'31	
	3948 Mar 14 16:01	0° H		direct	3949 Feb 22 06:49	12° \approx 54'37	
desc. node	3948 Mar 21 21:39	4° H 56'33		morning max el	3949 Mar 06 07:25	20° \approx 05'12	25°22'04
morning max el	3948 Mar 23 22:24	6° H 53'52	26°36'53	desc. node	3949 Mar 08 18:41	22° \approx 42'47	
	3948 Apr 10 19:13	0° Y			3949 Mar 14 19:20	0° H	
morning set	3948 Apr 28 20:48	0° B 41'02			3949 Apr 03 22:45	0° Y	
	3948 Apr 28 12:07	0° B		morning set	3949 Apr 11 11:34	13° Y 04'42	
max. Earth dist.	3948 May 03 02:18	8° B 52'54	1.34588 AU	max. Earth dist.	3949 Apr 15 05:07	19° Y 57'19	1.36335 AU
					3949 Apr 20 10:09	0° B	
superior conj	3948 May 07 14:54	18° B 03'21	0°-42'-23	superior conj	3949 Apr 21 05:26	1° B 35'30	-1°-11'-10
minimum elong	3948 May 07 17:09	18° B 14'59	0°41'58	minimum elong	3949 Apr 21 09:13	1° B 54'14	1°10'33
asc. node	3948 May 11 19:24	26° B 47'51		asc. node	3949 Apr 28 16:27	16° B 40'47	
	3948 May 13 08:02	0° II		evening rise	3949 Apr 29 10:34	18° B 12'35	
evening rise	3948 May 15 05:36	3° II 57'40			3949 May 05 11:32	0° II	
	3948 May 29 22:36	0° E		evening max el	3949 May 16 20:22	16° II 30'21	19°47'41
evening max el	3948 Jun 03 10:14	5° E 09'46	21°01'07	retrograde	3949 May 26 19:52	21° II 21'44	
retrograde	3948 Jun 15 03:27	10° E 54'10		evening set	3949 May 28 18:50	21° II 11'22	
evening set	3948 Jun 17 08:22	10° E 42'45		desc. node	3949 Jun 04 17:53	18° II 18'27	
desc. node	3948 Jun 17 20:51	10° E 36'51		inferior conj	3949 Jun 06 15:24	17° II 09'36	0°-33'-40
inferior conj	3948 Jun 26 16:18	6° E 45'21	-2°-33'-4	minimum elong	3949 Jun 06 13:52	17° II 11'59	0°33'07
minimum elong	3948 Jun 26 09:21	6° E 55'10	2°30'43	min. Earth dist.	3949 Jun 08 19:56	15° II 48'50	0.55460 AU
min. Earth dist.	3948 Jun 27 06:56	6° E 24'42	0.54840 AU	morning rise	3949 Jun 15 05:48	12° II 42'12	
morning rise	3948 Jul 05 09:56	2° E 45'31		direct	3949 Jun 19 14:56	11° II 59'53	
direct	3948 Jul 08 23:53	2° E 17'52		morning max el	3949 Jul 03 11:53	18° II 53'41	24°26'05
morning max el	3948 Jul 21 21:24	8° E 27'26	22°42'46		3949 Jul 12 18:21	0° E	
	3948 Aug 06 05:35	0° Q		asc. node	3949 Jul 25 15:42	22° E 26'59	
asc. node	3948 Aug 07 18:41	2° Q 54'03		morning set	3949 Jul 28 16:15	28° E 42'36	
morning set	3948 Aug 13 04:29	13° Q 48'32			3949 Jul 29 06:51	0° Q	
superior conj	3948 Aug 20 07:53	29° Q 03'02	1°38'54	superior conj	3949 Aug 04 16:21	13° Q 52'04	1°28'02
minimum elong	3948 Aug 20 06:22	28° Q 54'58	1°38'48	minimum elong	3949 Aug 04 14:11	13° Q 40'16	1°27'48
	3948 Aug 20 18:36	0° M		max. Earth dist.	3949 Aug 06 11:26	17° Q 45'20	1.32937 AU
max. Earth dist.	3948 Aug 23 08:36	5° M 25'55	1.34009 AU	evening rise	3949 Aug 12 00:36	29° Q 24'14	
evening rise	3948 Aug 28 04:42	15° M 13'27			3949 Aug 12 07:39	0° M	
	3948 Sep 05 03:43	0° A		desc. node	3949 Aug 29 06:03	0° A	
desc. node	3948 Sep 13 20:08	14° A 11'58			3949 Aug 31 17:11	3° A 38'42	
	3948 Sep 25 09:39	0° M		evening max el	3949 Sep 14 05:26	20° A 01'48	27°26'48
evening max el	3948 Oct 01 18:29	6° M 53'23	27°11'45	retrograde	3949 Sep 27 21:34	27° A 18'02	
retrograde	3948 Oct 15 03:31	14° M 11'14		evening set	3949 Oct 05 01:37	24° A 43'01	
evening set	3948 Oct 22 00:58	11° M 30'44		min. Earth dist.	3949 Oct 08 17:33	21° A 34'46	0.63354 AU
min. Earth dist.	3948 Oct 25 21:53	7° M 49'32	0.64971 AU	inferior conj	3949 Oct 11 09:37	18° A 55'04	-3°-13'-40
inferior conj	3948 Oct 28 01:51	5° M 25'37	-2°-12'-52	minimum elong	3949 Oct 11 14:56	18° A 41'49	3°11'55
minimum elong	3948 Oct 28 05:35	5° M 15'14	2°11'26	morning rise	3949 Oct 18 06:46	13° A 38'27	
	3948 Nov 03 05:23	30° R A		direct	3949 Oct 20 16:12	13° A 11'00	
morning rise	3948 Nov 03 12:09	29° A 51'56		asc. node	3949 Oct 21 14:57	13° A 15'24	
asc. node	3948 Nov 03 17:55	29° A 45'41		morning max el	3949 Oct 27 06:45	16° A 36'26	17°50'36
direct	3948 Nov 06 02:29	29° A 16'09			3949 Nov 05 18:54	0° M	
	3948 Nov 08 23:57	0° M		morning set	3949 Nov 12 15:32	11° M 49'37	
morning max el	3948 Nov 12 14:08	2° M 43'51	18°03'04		3949 Nov 23 06:07	0° A	
morning set	3948 Nov 30 10:09	29° M 30'23		superior conj	3949 Nov 24 18:43	2° A 32'06	0°20'05
	3948 Nov 30 17:17	0° A		minimum elong	3949 Nov 24 20:47	2° A 40'37	0°19'48
desc. node	3948 Dec 10 19:26	16° A 32'13		desc. node	3949 Nov 27 16:27	7° A 18'23	
superior conj	3948 Dec 14 13:46	22° A 34'03	0°-25'-37	max. Earth dist.	3949 Dec 01 01:46	12° A 46'46	1.44071 AU
minimum elong	3948 Dec 14 10:35	22° A 21'23	0°25'11	evening rise	3949 Dec 10 08:25	27° A 20'35	
max. Earth dist.	3948 Dec 18 07:59	28° A 31'23	1.45016 AU		3949 Dec 12 01:55	0° Z	
	3948 Dec 19 06:30	0° Z					

	3950 Jan 01 14:35	0°♊		max. Earth dist.	3950 Nov 13 14:51	26°♊32'39	1.42533 AU
greatest brilliancy	3950 Jan 03 01:25	1°♊54'10	-0.5m	desc. node	3950 Nov 14 13:29	28°♊05'37	
evening max el	3950 Jan 08 12:18	8°♊18'14	20°53'21		3950 Nov 15 17:33	0°♊	
retrograde	3950 Jan 16 21:19	13°♊15'24		evening rise	3950 Nov 20 00:36	6°♊52'31	
asc. node	3950 Jan 17 14:13	13°♊12'41			3950 Dec 05 08:22	0°♊	
evening set	3950 Jan 20 20:50	11°♊45'12		greatest brilliancy	3950 Dec 17 13:58	16°♊31'43	-0.3m
inferior conj	3950 Jan 26 06:32	5°♊31'25	2°36'24	evening max el	3950 Dec 22 07:26	21°♊51'42	22°07'48
minimum elong	3950 Jan 26 04:03	5°♊39'59	2°35'41	retrograde	3950 Dec 31 18:03	27°♊28'54	
min. Earth dist.	3950 Jan 26 17:42	4°♊53'02	0.67649 AU	asc. node	3951 Jan 04 11:14	26°♊15'04	
	3950 Jan 30 16:28	30°♊		evening set	3951 Jan 05 04:35	25°♊42'56	
morning rise	3950 Jan 31 10:53	29°♊16'12		inferior conj	3951 Jan 10 14:03	19°♊20'36	1°57'15
direct	3950 Feb 05 19:37	26°♊55'23		minimum elong	3951 Jan 10 11:47	19°♊28'25	1°56'29
	3950 Feb 12 21:46	0°♊		min. Earth dist.	3951 Jan 10 13:28	19°♊22'34	0.67976 AU
morning max el	3950 Feb 16 16:00	3°♊23'23	23°55'23	morning rise	3951 Jan 15 18:50	13°♊07'28	
desc. node	3950 Feb 23 15:42	11°♊25'02		direct	3951 Jan 20 12:34	11°♊08'46	
	3950 Mar 09 00:06	0°♊		morning max el	3951 Jan 30 02:43	16°♊48'02	22°26'43
morning set	3950 Mar 24 04:46	24°♊22'42		greatest brilliancy	3951 Feb 03 16:10	21°♊53'22	-0.3m
	3950 Mar 27 10:12	0°♊			3951 Feb 09 22:47	0°♊	
max. Earth dist.	3950 Mar 28 01:08	1°♊06'13	1.38408 AU	desc. node	3951 Feb 10 12:44	0°♊47'36	
					3951 Mar 02 01:59	0°♊	
superior conj	3950 Apr 04 07:31	14°♊27'35	-1°-37'-24	morning set	3951 Mar 04 18:37	4°♊20'59	
minimum elong	3950 Apr 04 12:13	14°♊49'54	1°36'51	max. Earth dist.	3951 Mar 09 21:33	12°♊51'50	1.40583 AU
	3950 Apr 12 07:39	0°♊					
evening rise	3950 Apr 13 08:35	2°♊02'19		superior conj	3951 Mar 17 16:36	26°♊28'30	-1°-57'-41
asc. node	3950 Apr 15 13:30	6°♊19'52		minimum elong	3951 Mar 17 20:41	26°♊46'54	1°57'26
evening max el	3950 Apr 29 17:49	28°♊31'37	18°54'06		3951 Mar 19 15:17	0°♊	
	3950 May 01 09:59	0°♊		evening rise	3951 Mar 27 20:26	15°♊18'18	
retrograde	3950 May 08 03:46	2°♊38'24		asc. node	3951 Apr 02 10:32	25°♊39'15	
evening set	3950 May 10 06:15	2°♊23'59			3951 Apr 04 22:18	0°♊	
	3950 May 15 13:25	30°♊		evening max el	3951 Apr 12 23:42	11°♊06'43	18°20'45
inferior conj	3950 May 18 08:01	28°♊06'14	1°13'04	retrograde	3951 Apr 20 06:31	14°♊43'54	
minimum elong	3950 May 18 10:41	28°♊01'27	1°12'09	evening set	3951 Apr 22 15:11	14°♊22'01	
min. Earth dist.	3950 May 21 11:54	25°♊51'38	0.56909 AU	inferior conj	3951 Apr 29 22:06	9°♊44'02	2°29'38
desc. node	3950 May 22 14:54	25°♊06'51		minimum elong	3951 Apr 30 01:46	9°♊36'22	2°28'42
morning rise	3950 May 26 10:43	23°♊03'03		min. Earth dist.	3951 May 03 08:41	6°♊52'38	0.58904 AU
direct	3950 May 31 18:58	21°♊54'38		morning rise	3951 May 07 08:10	4°♊10'04	
morning max el	3950 Jun 15 02:45	29°♊20'46	26°00'50	desc. node	3951 May 09 11:56	3°♊11'08	
	3950 Jun 15 18:44	0°♊		direct	3951 May 13 13:08	2°♊27'02	
	3950 Jul 06 08:51	0°♊		morning max el	3951 May 27 22:34	10°♊13'29	27°11'31
asc. node	3950 Jul 12 12:44	12°♊16'56			3951 Jun 12 04:13	0°♊	
morning set	3950 Jul 13 03:31	13°♊34'38		morning set	3951 Jun 27 12:32	28°♊17'54	
					3951 Jun 28 07:56	0°♊	
superior conj	3950 Jul 20 03:26	28°♊47'32	1°12'21	asc. node	3951 Jun 29 09:46	2°♊17'25	
minimum elong	3950 Jul 20 01:06	28°♊34'41	1°11'59				
	3950 Jul 20 16:37	0°♊		superior conj	3951 Jul 04 15:14	13°♊42'06	0°52'30
max. Earth dist.	3950 Jul 20 20:27	0°♊21'04	1.32277 AU	minimum elong	3951 Jul 04 13:12	13°♊30'54	0°52'05
evening rise	3950 Jul 27 03:58	13°♊56'12		max. Earth dist.	3951 Jul 04 08:00	13°♊02'13	1.32023 AU
	3950 Aug 04 09:03	0°♊		evening rise	3951 Jul 11 12:12	28°♊40'07	
desc. node	3950 Aug 18 14:11	22°♊22'40			3951 Jul 12 03:22	0°♊	
	3950 Aug 24 22:52	0°♊			3951 Jul 28 19:10	0°♊	
evening max el	3950 Aug 27 12:09	2°♊34'18	27°09'53	desc. node	3951 Aug 05 11:12	10°♊05'25	
retrograde	3950 Sep 10 08:37	9°♊47'22		evening max el	3951 Aug 09 12:14	14°♊20'18	26°19'49
evening set	3950 Sep 17 11:28	7°♊29'52		retrograde	3951 Aug 23 11:34	21°♊30'08	
min. Earth dist.	3950 Sep 21 02:30	4°♊46'09	0.61453 AU	evening set	3951 Aug 30 01:40	19°♊43'02	
inferior conj	3950 Sep 24 04:52	2°♊02'19	-4°-9'-29	min. Earth dist.	3951 Sep 03 01:24	17°♊08'34	0.59388 AU
minimum elong	3950 Sep 24 10:48	1°♊49'12	4°08'02	inferior conj	3951 Sep 06 08:01	14°♊37'32	-4°-52'-35
	3950 Sep 26 14:22	30°♊		minimum elong	3951 Sep 06 12:32	14°♊28'50	4°51'59
morning rise	3950 Oct 01 13:13	27°♊06'17		morning rise	3951 Sep 14 02:52	10°♊04'24	
direct	3950 Oct 03 20:42	26°♊44'05		direct	3951 Sep 16 11:36	9°♊44'53	
asc. node	3950 Oct 08 11:58	28°♊16'58		morning max el	3951 Sep 24 07:16	13°♊32'00	18°22'06
	3950 Oct 10 15:04	0°♊		asc. node	3951 Sep 25 08:59	14°♊37'38	
morning max el	3950 Oct 10 21:34	0°♊15'37	17°56'30		3951 Oct 05 11:58	0°♊	
morning set	3950 Oct 26 15:49	25°♊02'35		morning set	3951 Oct 10 05:32	8°♊53'28	
	3950 Oct 29 08:54	0°♊					
				superior conj	3951 Oct 19 09:53	26°♊14'23	1°22'45
superior conj	3950 Nov 06 02:31	13°♊48'54	0°56'59	minimum elong	3951 Oct 19 13:34	26°♊31'15	1°22'21
minimum elong	3950 Nov 06 06:37	14°♊06'48	0°56'27		3951 Oct 21 11:25	0°♊	

max. Earth dist.	3951 Oct 26 22:20	9°♄36'32	1.40595 AU	superior conj	3952 Oct 01 11:26	9°♄33'12	1°37'56
evening rise	3951 Oct 31 12:06	17°♄18'20		minimum elong	3952 Oct 01 13:35	9°♄43'35	1°37'47
desc. node	3951 Nov 01 10:30	18°♄50'17		max. Earth dist.	3952 Oct 08 02:44	21°♄59'25	1.38511 AU
	3951 Nov 08 11:14	0°♄		evening rise	3952 Oct 11 23:05	28°♄48'50	
	3951 Nov 29 23:35	0°♄			3952 Oct 12 15:32	0°♄	
evening max el	3951 Dec 04 22:22	5°♄28'12	23°27'30	desc. node	3952 Oct 18 07:30	9°♄28'30	
retrograde	3951 Dec 15 12:00	11°♄43'17			3952 Oct 31 21:18	0°♄	
evening set	3951 Dec 20 11:05	9°♄41'10		evening max el	3952 Nov 16 11:12	19°♄08'44	24°46'02
asc. node	3951 Dec 22 08:15	7°♄49'58		retrograde	3952 Nov 28 01:53	25°♄54'07	
inferior conj	3951 Dec 25 21:46	3°♄14'20	1°11'13	evening set	3952 Dec 03 14:45	23°♄36'27	
minimum elong	3951 Dec 25 20:11	3°♄19'43	1°10'36	min. Earth dist.	3952 Dec 08 05:42	18°♄23'08	0.67556 AU
min. Earth dist.	3951 Dec 25 10:17	3°♄53'42	0.67937 AU	asc. node	3952 Dec 08 05:18	18°♄24'29	
	3951 Dec 28 08:43	30°♄		inferior conj	3952 Dec 09 03:54	17°♄09'37	0°19'16
morning rise	3951 Dec 31 05:24	27°♄05'18		minimum elong	3952 Dec 09 03:25	17°♄11'11	0°19'05
direct	3952 Jan 04 08:50	25°♄29'21		morning rise	3952 Dec 14 16:34	11°♄06'58	
	3952 Jan 12 10:04	0°♄		direct	3952 Dec 18 07:05	9°♄52'13	
morning max el	3952 Jan 12 19:01	0°♄22'09	21°04'18	morning max el	3952 Dec 25 19:00	14°♄07'06	19°53'39
greatest brilliancy	3952 Jan 18 04:23	6°♄33'59	-0.5m	greatest brilliancy	3953 Jan 02 03:23	23°♄04'44	-0.6m
desc. node	3952 Jan 28 09:45	20°♄39'20			3953 Jan 07 00:15	0°♄	
	3952 Feb 03 17:03	0°♄		desc. node	3953 Jan 14 06:46	10°♄51'38	
morning set	3952 Feb 12 04:37	13°♄02'22		morning set	3953 Jan 21 00:34	21°♄10'45	
max. Earth dist.	3952 Feb 20 00:02	25°♄31'36	1.42578 AU		3953 Jan 26 16:49	0°♄	
	3952 Feb 22 17:17	0°♄		max. Earth dist.	3953 Feb 01 10:21	9°♄02'44	1.44132 AU
superior conj	3952 Feb 27 03:41	7°♄27'13	-2°-7'-22	superior conj	3953 Feb 06 12:59	17°♄15'53	-2°-1'-3
minimum elong	3952 Feb 27 04:26	7°♄30'27	2°07'23	minimum elong	3953 Feb 06 07:53	16°♄55'08	2°00'49
evening rise	3952 Mar 09 18:10	27°♄51'50			3953 Feb 14 06:03	0°♄	
	3952 Mar 10 22:42	0°♄		evening rise	3953 Feb 19 21:19	9°♄33'24	
asc. node	3952 Mar 19 07:34	14°♄32'33			3953 Mar 04 05:03	0°♄	
evening max el	3952 Mar 26 10:41	24°♄07'10	18°07'14	asc. node	3953 Mar 06 04:37	2°♄50'53	
retrograde	3952 Apr 02 01:54	27°♄30'43		evening max el	3953 Mar 09 23:29	7°♄23'29	18°12'53
evening set	3952 Apr 04 16:42	26°♄59'07		retrograde	3953 Mar 16 09:37	10°♄48'04	
inferior conj	3952 Apr 11 07:58	22°♄00'09	3°14'54	evening set	3953 Mar 19 06:12	10°♄05'24	
minimum elong	3952 Apr 11 10:30	21°♄54'00	3°14'31	inferior conj	3953 Mar 25 09:37	4°♄46'15	3°34'38
min. Earth dist.	3952 Apr 14 12:23	18°♄56'43	0.61095 AU	minimum elong	3953 Mar 25 10:24	4°♄44'07	3°34'36
morning rise	3952 Apr 18 01:09	16°♄05'52		min. Earth dist.	3953 Mar 28 00:46	1°♄54'36	0.63174 AU
direct	3952 Apr 24 19:01	13°♄49'26			3953 Mar 29 22:59	30°♄	
desc. node	3952 Apr 25 08:57	13°♄50'24		morning rise	3953 Mar 31 12:32	28°♄40'13	
morning max el	3952 May 09 00:37	21°♄45'57	27°47'43	direct	3953 Apr 07 09:47	26°♄00'35	
	3952 May 16 05:25	0°♄		desc. node	3953 Apr 12 05:59	27°♄09'04	
	3952 Jun 04 05:21	0°♄			3953 Apr 16 20:33	0°♄	
morning set	3952 Jun 10 17:29	12°♄46'34		morning max el	3953 Apr 21 07:41	3°♄58'38	27°46'25
asc. node	3952 Jun 15 06:49	22°♄23'55			3953 May 10 19:07	0°♄	
max. Earth dist.	3952 Jun 16 18:24	25°♄37'01	1.32181 AU	morning set	3953 May 25 16:10	26°♄53'24	
					3953 May 27 05:03	0°♄	
superior conj	3952 Jun 18 02:04	28°♄30'10	0°29'04	max. Earth dist.	3953 May 30 23:51	7°♄53'30	1.32761 AU
minimum elong	3952 Jun 18 00:47	28°♄23'08	0°28'47				
	3952 Jun 18 18:26	0°♄		superior conj	3953 Jun 02 10:08	13°♄05'41	0°02'45
evening rise	3952 Jun 24 23:12	13°♄29'22		minimum elong	3953 Jun 02 10:00	13°♄04'59	0°02'43
	3952 Jul 03 06:16	0°♄		behind sun begin	3953 Jun 02 04:48	12°♄36'55	
evening max el	3952 Jul 21 05:11	25°♄19'50	25°01'22	behind sun end	3953 Jun 02 15:12	13°♄33'05	
desc. node	3952 Jul 22 08:13	26°♄22'21		asc. node	3953 Jun 02 03:53	12°♄32'00	
	3952 Jul 27 05:18	0°♄		evening rise	3953 Jun 09 11:05	28°♄17'27	
retrograde	3952 Aug 04 04:05	2°♄23'36			3953 Jun 10 06:30	0°♄	
evening set	3952 Aug 09 16:03	1°♄14'41			3953 Jun 27 14:28	0°♄	
	3952 Aug 12 05:46	30°♄		evening max el	3953 Jul 02 18:18	5°♄48'29	23°26'31
min. Earth dist.	3952 Aug 14 16:49	28°♄30'42	0.57399 AU	desc. node	3953 Jul 09 05:14	10°♄41'17	
inferior conj	3952 Aug 17 15:59	26°♄31'56	-5°-10'-32	retrograde	3953 Jul 16 07:59	12°♄36'07	
minimum elong	3952 Aug 17 16:03	26°♄31'49	5°10'34	evening set	3953 Jul 20 08:23	12°♄00'50	
morning rise	3952 Aug 25 19:37	22°♄21'16		min. Earth dist.	3953 Jul 27 04:04	8°♄51'27	0.55802 AU
direct	3952 Aug 28 08:58	22°♄02'18		inferior conj	3953 Jul 29 03:57	7°♄40'37	-4°-47'-44
morning max el	3952 Sep 06 08:33	26°♄15'52	19°08'48	minimum elong	3953 Jul 28 22:00	7°♄49'28	4°46'53
	3952 Sep 09 17:25	0°♄		morning rise	3953 Aug 06 14:41	3°♄46'51	
asc. node	3952 Sep 11 06:02	2°♄02'27		direct	3953 Aug 09 11:21	3°♄26'47	
morning set	3952 Sep 23 04:36	23°♄11'14		morning max el	3953 Aug 19 22:44	8°♄18'33	20°17'18
	3952 Sep 26 14:46	0°♄		asc. node	3953 Aug 29 03:06	20°♄17'21	
					3953 Sep 03 12:13	0°♄	

morning set	3953 Sep 07 10:02	7° \mathbb{M} 47'57		3954 Aug 26 07:46	0° \mathbb{M}	
superior conj	3953 Sep 15 02:14	23° \mathbb{M} 31'45	1°44'03	superior conj	3954 Aug 30 02:13	7° \mathbb{M} 57'11 1°42'38
minimum elong	3953 Sep 15 02:43	23° \mathbb{M} 34'08	1°44'03	minimum elong	3954 Aug 30 01:18	7° \mathbb{M} 52'24 1°42'36
	3953 Sep 18 08:13	0° \mathbb{A}		max. Earth dist.	3954 Sep 02 22:13	15° \mathbb{M} 51'19 1.34814 AU
max. Earth dist.	3953 Sep 20 09:11	3° \mathbb{A} 57'27	1.36521 AU	evening rise	3954 Sep 07 08:54	24° \mathbb{M} 37'21
evening rise	3953 Sep 24 07:29	11° \mathbb{A} 19'12			3954 Sep 10 05:28	0° \mathbb{A}
desc. node	3953 Oct 05 04:32	29° \mathbb{A} 56'05		desc. node	3954 Sep 22 01:35	20° \mathbb{A} 06'31
	3953 Oct 05 05:31	0° \mathbb{M}			3954 Sep 28 18:22	0° \mathbb{M}
	3953 Oct 27 04:59	0° \mathbb{J}		evening max el	3954 Oct 12 12:13	16° \mathbb{M} 29'08 26°50'21
evening max el	3953 Oct 29 23:42	2° \mathbb{J} 51'39	25°56'05	retrograde	3954 Oct 25 14:44	23° \mathbb{M} 45'12
retrograde	3953 Nov 11 10:59	9° \mathbb{J} 57'11		evening set	3954 Nov 01 06:24	21° \mathbb{M} 05'42
evening set	3953 Nov 17 13:52	7° \mathbb{J} 26'11		min. Earth dist.	3954 Nov 05 06:53	17° \mathbb{M} 04'20 0.65757 AU
min. Earth dist.	3953 Nov 21 21:21	2° \mathbb{J} 48'28	0.66835 AU	inferior conj	3954 Nov 07 03:58	14° \mathbb{M} 53'00 -1°-37'-29
inferior conj	3953 Nov 23 06:39	1° \mathbb{J} 04'02	0°-37'-24	minimum elong	3954 Nov 07 06:41	14° \mathbb{M} 45'05 1°36'23
minimum elong	3953 Nov 23 07:39	1° \mathbb{J} 00'55	0°36'59	asc. node	3954 Nov 11 23:22	10° \mathbb{M} 02'54
	3953 Nov 24 03:13	30° \mathbb{R} \mathbb{M}		morning rise	3954 Nov 13 08:34	9° \mathbb{M} 11'25
asc. node	3953 Nov 25 02:19	28° \mathbb{M} 50'37		direct	3954 Nov 16 02:58	8° \mathbb{M} 29'14
morning rise	3953 Nov 29 02:24	25° \mathbb{M} 10'29		morning max el	3954 Nov 22 16:00	12° \mathbb{M} 01'38 18°18'12
direct	3953 Dec 02 05:49	24° \mathbb{M} 13'52			3954 Dec 05 10:17	0° \mathbb{J}
morning max el	3953 Dec 09 02:39	28° \mathbb{M} 02'07	18°57'49	morning set	3954 Dec 11 18:57	10° \mathbb{J} 17'00
	3953 Dec 10 22:15	0° \mathbb{J}		desc. node	3954 Dec 19 00:50	21° \mathbb{J} 56'49
morning set	3953 Dec 31 07:57	0° \mathbb{Z} 01'30			3954 Dec 24 02:30	0° \mathbb{Z}
	3953 Dec 31 07:34	0° \mathbb{Z}		superior conj	3954 Dec 27 01:49	4° \mathbb{Z} 41'06 0°-53'-7
desc. node	3954 Jan 01 03:48	1° \mathbb{Z} 19'07		minimum elong	3954 Dec 26 19:10	4° \mathbb{Z} 14'59 0°52'17
max. Earth dist.	3954 Jan 15 02:55	23° \mathbb{Z} 10'52	1.45054 AU	max. Earth dist.	3954 Dec 28 22:06	7° \mathbb{Z} 35'03 1.45241 AU
superior conj	3954 Jan 16 23:25	26° \mathbb{Z} 06'04	-1°-35'-11	evening rise	3955 Jan 12 08:10	0° \approx 09'06
minimum elong	3954 Jan 16 14:14	25° \mathbb{Z} 29'53	1°34'20		3955 Jan 12 05:51	0° \approx
	3954 Jan 19 10:39	0° \approx		greatest brilliancy	3955 Jan 26 18:36	22° \approx 28'15 -0.7m
evening rise	3954 Feb 01 02:12	20° \approx 18'20			3955 Feb 01 03:31	0° \mathbb{H}
	3954 Feb 07 01:04	0° \mathbb{H}		evening max el	3955 Feb 04 19:50	4° \mathbb{H} 18'36 19°18'16
asc. node	3954 Feb 21 01:39	20° \mathbb{H} 23'53		asc. node	3955 Feb 07 22:40	6° \mathbb{H} 58'44
evening max el	3954 Feb 21 11:18	20° \mathbb{H} 48'52	18°36'55	retrograde	3955 Feb 11 21:48	8° \mathbb{H} 21'40
retrograde	3954 Feb 28 01:26	24° \mathbb{H} 27'17		evening set	3955 Feb 15 07:16	7° \mathbb{H} 14'17
evening set	3954 Mar 03 04:01	23° \mathbb{H} 32'42		inferior conj	3955 Feb 20 20:56	1° \mathbb{H} 20'28 3°20'51
inferior conj	3954 Mar 08 23:06	17° \mathbb{H} 55'03	3°35'02	minimum elong	3955 Feb 20 19:04	1° \mathbb{H} 26'31 3°20'33
minimum elong	3954 Mar 08 22:19	17° \mathbb{H} 57'26	3°34'59		3955 Feb 21 21:47	30° \mathbb{R} \approx
min. Earth dist.	3954 Mar 10 22:39	15° \mathbb{H} 32'14	0.64944 AU	min. Earth dist.	3955 Feb 22 05:18	29° \approx 35'53 0.66315 AU
morning rise	3954 Mar 14 15:18	11° \mathbb{H} 42'40		morning rise	3955 Feb 26 06:01	25° \approx 05'07
direct	3954 Mar 21 07:54	8° \mathbb{H} 53'32		direct	3955 Mar 04 12:28	22° \approx 19'26
desc. node	3954 Mar 30 03:02	12° \mathbb{H} 37'19		morning max el	3955 Mar 17 03:21	29° \approx 49'34 26°07'19
morning max el	3954 Apr 03 17:27	16° \mathbb{H} 43'56	27°10'34	desc. node	3955 Mar 17 00:04	29° \approx 41'20
	3954 Apr 14 17:44	0° \mathbb{Y}			3955 Mar 17 07:27	0° \mathbb{H}
	3954 May 03 15:00	0° \mathbb{B}			3955 Apr 08 15:18	0° \mathbb{Y}
morning set	3954 May 09 05:42	10° \mathbb{B} 29'44		morning set	3955 Apr 22 06:14	23° \mathbb{Y} 24'31
max. Earth dist.	3954 May 13 20:37	19° \mathbb{B} 41'40	1.33790 AU		3955 Apr 25 17:47	0° \mathbb{B}
superior conj	3954 May 17 13:24	27° \mathbb{B} 22'21	0°-25'-37	max. Earth dist.	3955 Apr 26 05:57	0° \mathbb{B} 58'52 1.35275 AU
minimum elong	3954 May 17 14:44	27° \mathbb{B} 29'22	0°25'21	superior conj	3955 May 01 09:27	11° \mathbb{B} 13'12 0°-54'-44
	3954 May 18 19:16	0° \mathbb{I}		minimum elong	3955 May 01 12:23	11° \mathbb{B} 28'06 0°54'12
asc. node	3954 May 20 00:56	2° \mathbb{I} 37'34		asc. node	3955 May 06 22:00	22° \mathbb{B} 36'36
evening rise	3954 May 24 21:55	12° \mathbb{I} 57'57		evening rise	3955 May 09 05:42	27° \mathbb{B} 24'28
	3954 Jun 02 15:28	0° \mathbb{S}			3955 May 10 12:09	0° \mathbb{I}
evening max el	3954 Jun 14 10:52	16° \mathbb{S} 16'33	21°51'00	evening max el	3955 May 27 13:50	27° \mathbb{I} 14'11 20°27'36
desc. node	3954 Jun 26 02:16	22° \mathbb{S} 27'37			3955 May 30 21:38	0° \mathbb{S}
retrograde	3954 Jun 27 00:40	22° \mathbb{S} 29'38		retrograde	3955 Jun 07 13:57	2° \mathbb{S} 36'35
evening set	3954 Jun 29 17:01	22° \mathbb{S} 13'30		evening set	3955 Jun 09 14:20	2° \mathbb{S} 26'30
min. Earth dist.	3954 Jul 08 14:34	18° \mathbb{S} 25'01	0.54925 AU	desc. node	3955 Jun 12 23:18	1° \mathbb{S} 28'40
inferior conj	3954 Jul 09 00:46	18° \mathbb{S} 10'45	-3°-34'-31		3955 Jun 16 02:19	30° \mathbb{R} \mathbb{I}
minimum elong	3954 Jul 08 16:18	18° \mathbb{S} 22'36	3°32'07	inferior conj	3955 Jun 18 18:53	28° \mathbb{I} 28'49 -1°-42'-55
morning rise	3954 Jul 17 17:02	14° \mathbb{S} 19'25		minimum elong	3955 Jun 18 14:03	28° \mathbb{I} 35'52 1°41'10
direct	3954 Jul 20 23:09	13° \mathbb{S} 56'08		min. Earth dist.	3955 Jun 20 02:44	27° \mathbb{I} 42'34 0.54984 AU
morning max el	3954 Aug 02 01:12	19° \mathbb{S} 35'56	21°45'37	morning rise	3955 Jun 27 12:09	24° \mathbb{I} 18'58
	3954 Aug 10 12:59	0° \mathbb{Q}		direct	3955 Jul 01 09:04	23° \mathbb{I} 46'37
asc. node	3954 Aug 16 00:09	9° \mathbb{Q} 09'45			3955 Jul 14 11:38	0° \mathbb{S}
morning set	3954 Aug 22 19:23	22° \mathbb{Q} 35'47		morning max el	3955 Jul 14 18:43	0° \mathbb{S} 16'26 23°26'43

asc. node	3955 Aug 02 21:13	28° $\overline{5}$ 30'25		desc. node	3956 May 29 20:19	8° $\overline{\text{II}}$ 31'52	
	3955 Aug 03 15:19	0° $\overline{\Omega}$		min. Earth dist.	3956 May 31 17:09	7° $\overline{\text{II}}$ 19'11	0.55985 AU
morning set	3955 Aug 07 06:45	7° $\overline{\Omega}$ 29'15		morning rise	3956 Jun 06 10:41	4° $\overline{\text{II}}$ 21'42	
				direct	3956 Jun 11 05:32	3° $\overline{\text{II}}$ 29'29	
superior conj	3955 Aug 14 08:19	22° $\overline{\Omega}$ 40'17	1°34'56	morning max el	3956 Jun 25 08:37	10° $\overline{\text{II}}$ 39'32	25°08'17
minimum elong	3955 Aug 14 06:28	22° $\overline{\Omega}$ 30'19	1°34'47		3956 Jul 10 00:34	0° $\overline{\Theta}$	
max. Earth dist.	3955 Aug 16 19:59	27° $\overline{\Omega}$ 58'33	1.33501 AU	asc. node	3956 Jul 19 18:16	18° $\overline{\Theta}$ 11'12	
	3955 Aug 17 19:03	0° $\overline{\eta}$		morning set	3956 Jul 21 18:28	22° $\overline{\Theta}$ 22'49	
evening rise	3955 Aug 21 23:07	8° $\overline{\eta}$ 32'08			3956 Jul 25 07:24	0° $\overline{\Omega}$	
	3955 Sep 02 16:35	0° $\overline{\Delta}$					
desc. node	3955 Sep 08 22:36	9° $\overline{\Delta}$ 52'03		superior conj	3956 Jul 28 18:09	7° $\overline{\Omega}$ 32'55	1°21'57
evening max el	3955 Sep 25 00:07	29° $\overline{\Delta}$ 51'22	27°21'37	minimum elong	3956 Jul 28 15:51	7° $\overline{\Omega}$ 20'20	1°21'38
	3955 Sep 25 03:45	0° $\overline{\text{M}}$		max. Earth dist.	3956 Jul 30 01:36	10° $\overline{\Omega}$ 24'39	1.32606 AU
retrograde	3955 Oct 08 12:47	7° $\overline{\text{M}}$ 09'47		evening rise	3956 Aug 04 22:32	22° $\overline{\Omega}$ 53'04	
evening set	3955 Oct 15 13:47	4° $\overline{\text{M}}$ 29'57			3956 Aug 08 11:43	0° $\overline{\eta}$	
min. Earth dist.	3955 Oct 19 08:09	1° $\overline{\text{M}}$ 03'35	0.64325 AU	desc. node	3956 Aug 25 19:37	29° $\overline{\eta}$ 02'27	
	3955 Oct 20 08:20	30° $\overline{\text{R}}$ $\overline{\Delta}$			3956 Aug 26 12:13	0° $\overline{\Delta}$	
inferior conj	3955 Oct 21 17:28	28° $\overline{\Delta}$ 31'27	-2°-38'-57	evening max el	3956 Sep 06 09:38	12° $\overline{\Delta}$ 46'23	27°23'42
minimum elong	3955 Oct 21 21:56	28° $\overline{\Delta}$ 19'35	2°37'19	retrograde	3956 Sep 20 04:16	20° $\overline{\Delta}$ 01'47	
morning rise	3955 Oct 28 08:19	23° $\overline{\Delta}$ 04'53		evening set	3956 Sep 27 08:43	17° $\overline{\Delta}$ 32'47	
asc. node	3955 Oct 29 20:25	22° $\overline{\Delta}$ 38'15		min. Earth dist.	3956 Sep 30 23:32	14° $\overline{\Delta}$ 36'07	0.62572 AU
direct	3955 Oct 30 20:08	22° $\overline{\Delta}$ 33'13		inferior conj	3956 Oct 03 20:21	11° $\overline{\Delta}$ 52'51	-3°-38'-23
morning max el	3955 Nov 06 08:17	25° $\overline{\Delta}$ 59'02	17°55'33	minimum elong	3956 Oct 04 02:05	11° $\overline{\Delta}$ 39'11	3°36'40
	3955 Nov 09 18:12	0° $\overline{\text{M}}$		morning rise	3956 Oct 10 22:16	6° $\overline{\Delta}$ 44'29	
morning set	3955 Nov 23 10:27	21° $\overline{\text{M}}$ 56'09		direct	3956 Oct 13 06:21	6° $\overline{\Delta}$ 19'45	
	3955 Nov 28 05:10	0° $\overline{\text{X}}$		asc. node	3956 Oct 15 17:27	6° $\overline{\Delta}$ 48'00	
desc. node	3955 Dec 05 21:52	12° $\overline{\text{X}}$ 40'57		morning max el	3956 Oct 20 00:31	9° $\overline{\Delta}$ 47'07	17°50'43
					3956 Nov 02 09:28	0° $\overline{\text{M}}$	
superior conj	3955 Dec 06 17:00	13° $\overline{\text{X}}$ 58'24	0°-5'-30	morning set	3956 Nov 05 00:40	4° $\overline{\text{M}}$ 40'51	
minimum elong	3955 Dec 06 16:22	13° $\overline{\text{X}}$ 55'47	0°05'25				
behind sun begin	3955 Dec 06 06:40	13° $\overline{\text{X}}$ 16'36		superior conj	3956 Nov 16 09:25	24° $\overline{\text{M}}$ 30'24	0°37'03
behind sun end	3955 Dec 07 02:03	14° $\overline{\text{X}}$ 34'53		minimum elong	3956 Nov 16 12:44	24° $\overline{\text{M}}$ 44'27	0°36'35
max. Earth dist.	3955 Dec 11 16:38	21° $\overline{\text{X}}$ 56'42	1.44692 AU		3956 Nov 19 16:14	0° $\overline{\text{X}}$	
	3955 Dec 16 19:40	0° $\overline{\Theta}$		desc. node	3956 Nov 21 18:53	3° $\overline{\text{X}}$ 28'17	
evening rise	3955 Dec 22 21:16	9° $\overline{\Theta}$ 23'32		max. Earth dist.	3956 Nov 23 08:19	6° $\overline{\text{X}}$ 00'31	1.43479 AU
	3956 Jan 05 12:09	0° $\overline{\approx}$		evening rise	3956 Dec 01 07:41	18° $\overline{\text{X}}$ 38'24	
greatest brilliancy	3956 Jan 12 14:35	10° $\overline{\approx}$ 06'24	-0.6m		3956 Dec 08 18:18	0° $\overline{\Theta}$	
evening max el	3956 Jan 18 23:32	17° $\overline{\approx}$ 50'09	20°14'59	greatest brilliancy	3956 Dec 26 22:16	25° $\overline{\Theta}$ 40'03	-0.4m
asc. node	3956 Jan 25 19:41	22° $\overline{\approx}$ 20'38			3956 Dec 30 14:14	0° $\overline{\approx}$	
retrograde	3956 Jan 26 19:49	22° $\overline{\approx}$ 26'08		evening max el	3956 Dec 31 21:50	1° $\overline{\approx}$ 23'43	21°24'07
evening set	3956 Jan 30 13:39	21° $\overline{\approx}$ 04'47		retrograde	3957 Jan 09 17:28	6° $\overline{\approx}$ 37'41	
inferior conj	3956 Feb 05 00:15	14° $\overline{\approx}$ 57'32	2°55'19	asc. node	3957 Jan 11 16:42	6° $\overline{\approx}$ 16'37	
minimum elong	3956 Feb 04 21:51	15° $\overline{\approx}$ 05'41	2°54'45	evening set	3957 Jan 13 21:23	5° $\overline{\approx}$ 01'06	
min. Earth dist.	3956 Feb 05 18:49	13° $\overline{\approx}$ 54'41	0.67277 AU		3957 Jan 18 08:35	30° $\overline{\text{R}}$ $\overline{\Theta}$	
morning rise	3956 Feb 10 05:28	8° $\overline{\approx}$ 41'34		inferior conj	3957 Jan 19 06:50	28° $\overline{\Theta}$ 43'27	2°20'43
direct	3956 Feb 15 22:37	6° $\overline{\approx}$ 09'27		minimum elong	3957 Jan 19 04:23	28° $\overline{\Theta}$ 51'55	2°19'57
morning max el	3956 Feb 27 11:59	13° $\overline{\approx}$ 04'06	24°46'03	min. Earth dist.	3957 Jan 19 12:57	28° $\overline{\Theta}$ 22'15	0.67836 AU
desc. node	3956 Mar 02 21:06	17° $\overline{\approx}$ 53'30		morning rise	3957 Jan 24 11:02	22° $\overline{\Theta}$ 28'50	
	3956 Mar 12 04:30	0° $\overline{\text{X}}$		direct	3957 Jan 29 13:29	20° $\overline{\Theta}$ 16'51	
	3956 Mar 31 10:32	0° $\overline{\text{Y}}$		morning max el	3957 Feb 08 20:51	26° $\overline{\Theta}$ 24'22	23°17'17
morning set	3956 Apr 03 12:33	5° $\overline{\text{Y}}$ 22'11			3957 Feb 12 04:17	0° $\overline{\approx}$	
max. Earth dist.	3956 Apr 07 04:40	11° $\overline{\text{Y}}$ 59'01	1.37177 AU	greatest brilliancy	3957 Feb 14 03:05	2° $\overline{\approx}$ 18'56	-0.2m
				desc. node	3957 Feb 17 18:07	6° $\overline{\approx}$ 54'48	
superior conj	3956 Apr 13 19:06	24° $\overline{\text{Y}}$ 29'04	-1°-22'-47		3957 Mar 05 18:36	0° $\overline{\text{X}}$	
minimum elong	3956 Apr 13 23:24	24° $\overline{\text{Y}}$ 49'58	1°22'10	morning set	3957 Mar 15 18:36	16° $\overline{\text{X}}$ 07'12	
	3956 Apr 16 14:20	0° $\overline{\text{X}}$		max. Earth dist.	3957 Mar 19 23:31	23° $\overline{\text{X}}$ 18'21	1.39340 AU
evening rise	3956 Apr 22 08:00	11° $\overline{\text{X}}$ 29'02			3957 Mar 23 18:21	0° $\overline{\text{Y}}$	
asc. node	3956 Apr 22 19:01	12° $\overline{\text{X}}$ 23'57					
	3956 May 02 08:37	0° $\overline{\text{II}}$		superior conj	3957 Mar 27 14:32	7° $\overline{\text{Y}}$ 00'54	-1°-46'-59
evening max el	3956 May 09 05:04	8° $\overline{\text{II}}$ 52'30	19°22'31	minimum elong	3957 Mar 27 19:14	7° $\overline{\text{Y}}$ 22'42	1°46'33
retrograde	3956 May 18 11:43	13° $\overline{\text{II}}$ 23'12		evening rise	3957 Apr 06 02:05	25° $\overline{\text{Y}}$ 05'01	
evening set	3956 May 20 11:23	13° $\overline{\text{II}}$ 11'42			3957 Apr 08 15:40	0° $\overline{\text{X}}$	
inferior conj	3956 May 29 00:25	9° $\overline{\text{II}}$ 04'32	0°14'35	asc. node	3957 Apr 09 16:02	1° $\overline{\text{X}}$ 55'04	
minimum elong	3956 May 29 01:02	9° $\overline{\text{II}}$ 03'31	0°14'20	evening max el	3957 Apr 22 06:34	21° $\overline{\text{X}}$ 09'11	18°37'29
transit middle	3956 May 29 01:02	9° $\overline{\text{II}}$ 03'31	0°14'20	retrograde	3957 Apr 30 03:15	25° $\overline{\text{X}}$ 00'52	
transit begin	3956 May 28 23:19	9° $\overline{\text{II}}$ 06'20		evening set	3957 May 02 08:28	24° $\overline{\text{X}}$ 43'30	
transit end	3956 May 29 02:45	9° $\overline{\text{II}}$ 00'43		inferior conj	3957 May 10 01:58	20° $\overline{\text{X}}$ 17'31	1°49'34

minimum elong	3957 May 10 05:25	20°♄10'54	1°48'30	evening set	3958 Apr 15 01:06	6°♄59'39	
min. Earth dist.	3957 May 13 10:43	17°♄44'35	0.57718 AU	inferior conj	3958 Apr 22 00:51	2°♄12'20	2°52'24
desc. node	3957 May 16 17:20	15°♄37'10		minimum elong	3958 Apr 22 04:11	2°♄04'51	2°51'41
morning rise	3957 May 17 21:56	15°♄00'27			3958 Apr 24 12:03	30°♄	
direct	3957 May 23 16:02	13°♄37'37		min. Earth dist.	3958 Apr 25 09:53	29°♄13'00	0.59834 AU
morning max el	3957 Jun 07 00:53	21°♄13'19	26°34'35	morning rise	3958 Apr 29 03:34	26°♄28'40	
	3957 Jun 14 16:02	0°♄		desc. node	3958 May 03 14:21	24°♄42'30	
	3957 Jul 02 16:59	0°♄		direct	3958 May 05 15:06	24°♄31'00	
morning set	3957 Jul 06 04:57	7°♄11'17			3958 May 17 09:43	0°♄	
asc. node	3957 Jul 06 15:18	8°♄05'58		morning max el	3958 May 19 23:19	2°♄21'56	27°31'38
					3958 Jun 09 01:15	0°♄	
superior conj	3957 Jul 13 05:43	22°♄28'25	1°04'24	morning set	3958 Jun 20 12:31	21°♄49'31	
minimum elong	3957 Jul 13 03:27	22°♄15'55	1°04'00	asc. node	3958 Jun 23 12:20	28°♄09'48	
max. Earth dist.	3957 Jul 13 12:08	23°♄03'48	1.32122 AU		3958 Jun 24 08:45	0°♄	
	3957 Jul 16 15:59	0°♄		max. Earth dist.	3958 Jun 26 23:54	5°♄45'12	1.32040 AU
evening rise	3957 Jul 20 04:15	7°♄31'01					
	3957 Jul 31 23:12	0°♄		superior conj	3958 Jun 27 17:20	7°♄21'08	0°42'57
desc. node	3957 Aug 12 16:38	17°♄22'55		minimum elong	3958 Jun 27 15:34	7°♄11'24	0°42'36
evening max el	3957 Aug 19 14:02	25°♄00'55	26°52'38	evening rise	3958 Jul 04 13:57	22°♄18'35	
	3957 Aug 26 02:11	0°♄			3958 Jul 08 07:10	0°♄	
retrograde	3957 Sep 02 11:53	2°♄11'53			3958 Jul 26 14:36	0°♄	
evening set	3957 Sep 09 10:49	0°♄06'17		desc. node	3958 Jul 30 13:39	4°♄33'11	
	3957 Sep 09 15:02	30°♄		evening max el	3958 Aug 01 11:05	6°♄27'06	25°49'24
min. Earth dist.	3957 Sep 13 04:12	27°♄28'27	0.60583 AU	retrograde	3958 Aug 15 10:21	13°♄34'28	
inferior conj	3957 Sep 16 09:13	24°♄48'07	-4°-30'00	evening set	3958 Aug 21 15:16	12°♄03'05	
minimum elong	3957 Sep 16 14:52	24°♄36'17	4°28'51	min. Earth dist.	3958 Aug 25 23:16	9°♄27'11	0.58519 AU
morning rise	3957 Sep 23 22:09	20°♄01'15		inferior conj	3958 Aug 29 04:35	7°♄07'38	-5°-4'-10
direct	3957 Sep 26 05:47	19°♄40'24		minimum elong	3958 Aug 29 07:35	7°♄02'10	5°03'56
asc. node	3957 Oct 02 14:30	22°♄24'58		morning rise	3958 Sep 06 03:23	2°♄44'25	
morning max el	3957 Oct 03 13:30	23°♄17'28	18°04'50	direct	3958 Sep 08 13:55	2°♄25'12	
	3957 Oct 08 21:37	0°♄		morning max el	3958 Sep 16 20:02	6°♄21'43	18°39'21
morning set	3957 Oct 19 07:18	18°♄12'05		asc. node	3958 Sep 19 11:33	9°♄15'15	
	3957 Oct 25 16:04	0°♄			3958 Oct 01 21:20	0°♄	
				morning set	3958 Oct 03 01:30	2°♄16'28	
superior conj	3957 Oct 29 03:50	6°♄18'03	1°09'17				
minimum elong	3957 Oct 29 07:59	6°♄36'31	1°08'47	superior conj	3958 Oct 11 19:43	19°♄09'02	1°30'22
max. Earth dist.	3957 Nov 05 19:22	19°♄31'07	1.41749 AU	minimum elong	3958 Oct 11 22:48	19°♄23'32	1°30'07
desc. node	3957 Nov 08 15:54	24°♄14'54			3958 Oct 17 18:06	0°♄	
evening rise	3957 Nov 11 07:06	28°♄31'09		max. Earth dist.	3958 Oct 19 01:38	2°♄19'17	1.39717 AU
	3957 Nov 12 05:19	0°♄		evening rise	3958 Oct 23 04:37	9°♄24'45	
	3957 Dec 02 10:00	0°♄		desc. node	3958 Oct 26 12:56	14°♄57'40	
greatest brilliancy	3957 Dec 09 15:52	9°♄24'53	-0.3m		3958 Nov 05 04:08	0°♄	
evening max el	3957 Dec 14 15:06	14°♄58'54	22°41'26	evening max el	3958 Nov 27 04:53	28°♄37'10	24°01'20
retrograde	3957 Dec 24 13:01	20°♄52'06			3958 Nov 28 15:27	0°♄	
evening set	3957 Dec 29 04:48	18°♄59'15		retrograde	3958 Dec 08 05:20	5°♄05'59	
asc. node	3957 Dec 29 13:44	18°♄40'10		evening set	3958 Dec 13 10:19	2°♄56'50	
inferior conj	3958 Jan 03 14:38	12°♄34'45	1°38'30	asc. node	3958 Dec 16 10:47	29°♄44'39	
minimum elong	3958 Jan 03 12:37	12°♄41'44	1°37'45		3958 Dec 16 05:49	30°♄	
min. Earth dist.	3958 Jan 03 09:22	12°♄52'58	0.68011 AU	min. Earth dist.	3958 Dec 18 05:47	27°♄23'59	0.67826 AU
morning rise	3958 Jan 08 20:22	6°♄23'18		inferior conj	3958 Dec 18 21:54	26°♄29'24	0°49'50
direct	3958 Jan 13 07:59	4°♄34'14		minimum elong	3958 Dec 18 20:45	26°♄33'19	0°49'21
morning max el	3958 Jan 22 09:27	9°♄52'18	21°50'27	morning rise	3958 Dec 24 07:28	20°♄23'05	
greatest brilliancy	3958 Jan 27 03:01	15°♄11'43	-0.4m	direct	3958 Dec 28 05:11	18°♄56'37	
desc. node	3958 Feb 04 15:08	26°♄30'54		morning max el	3959 Jan 05 05:02	23°♄31'38	20°32'32
	3958 Feb 07 01:48	0°♄			3959 Jan 10 18:37	0°♄	
morning set	3958 Feb 23 19:57	25°♄30'00		greatest brilliancy	3959 Jan 11 06:55	0°♄39'52	-0.5m
	3958 Feb 26 14:50	0°♄		desc. node	3959 Jan 22 12:10	16°♄32'11	
max. Earth dist.	3958 Mar 01 22:27	5°♄27'51	1.41479 AU		3959 Jan 31 09:52	0°♄	
				morning set	3959 Feb 02 21:18	3°♄49'26	
superior conj	3958 Mar 09 14:52	18°♄36'49	-2°-3'-25	max. Earth dist.	3959 Feb 12 04:45	18°♄32'29	1.43309 AU
minimum elong	3958 Mar 09 17:55	18°♄50'15	2°03'18				
	3958 Mar 15 23:10	0°♄		superior conj	3959 Feb 18 15:09	29°♄05'33	-2°-6'-57
evening rise	3958 Mar 20 08:25	8°♄04'03		minimum elong	3959 Feb 18 13:35	28°♄59'01	2°06'55
asc. node	3958 Mar 27 13:03	21°♄04'15			3959 Feb 19 04:12	0°♄	
	3958 Apr 02 06:25	0°♄		evening rise	3959 Mar 02 22:48	20°♄16'46	
evening max el	3958 Apr 05 15:00	3°♄56'05	18°12'35		3959 Mar 08 12:00	0°♄	
retrograde	3958 Apr 12 13:41	7°♄25'35		asc. node	3959 Mar 14 10:06	9°♄43'53	

evening max el	3959 Mar 20 03:03	17°♄03'56	18°07'17	asc. node	3960 Feb 29 07:09	27°♄44'54	
retrograde	3959 Mar 26 15:03	20°♄26'38			3960 Mar 02 05:58	0°♄	
evening set	3959 Mar 29 08:15	19°♄50'31		evening max el	3960 Mar 02 15:44	0°♄25'11	18°20'56
inferior conj	3959 Apr 04 17:59	14°♄42'36	3°26'03	retrograde	3960 Mar 09 02:44	3°♄54'28	
minimum elong	3959 Apr 04 19:47	14°♄37'59	3°25'50	evening set	3960 Mar 12 01:41	3°♄07'02	
min. Earth dist.	3959 Apr 07 17:12	11°♄41'36	0.62001 AU		3960 Mar 15 22:17	30°♄	
morning rise	3959 Apr 11 04:39	8°♄42'09		inferior conj	3960 Mar 18 01:11	27°♄39'57	3°36'51
direct	3959 Apr 18 00:50	6°♄14'31		minimum elong	3960 Mar 18 01:15	27°♄39'47	3°36'50
desc. node	3959 Apr 20 11:23	6°♄31'50		min. Earth dist.	3960 Mar 20 09:52	24°♄58'36	0.63967 AU
morning max el	3959 May 02 04:02	14°♄13'09	27°51'51	morning rise	3960 Mar 23 23:04	21°♄30'29	
	3959 May 14 21:26	0°♄		direct	3960 Mar 30 19:08	18°♄44'47	
	3959 Jun 01 12:53	0°♄		desc. node	3960 Apr 06 08:24	20°♄50'11	
morning set	3959 Jun 04 15:07	6°♄10'05		morning max el	3960 Apr 13 12:42	26°♄41'57	27°35'01
asc. node	3959 Jun 10 09:23	18°♄17'31			3960 Apr 16 14:49	0°♄	
max. Earth dist.	3959 Jun 10 08:48	18°♄14'25	1.32371 AU		3960 May 07 12:07	0°♄	
				morning set	3960 May 18 10:18	20°♄05'34	
superior conj	3959 Jun 12 03:11	22°♄04'30	0°18'12		3960 May 23 07:08	0°♄	
minimum elong	3959 Jun 12 02:21	21°♄59'55	0°18'01	max. Earth dist.	3960 May 23 10:49	0°♄19'11	1.33138 AU
	3959 Jun 15 18:13	0°♄					
evening rise	3959 Jun 19 01:32	7°♄08'00		superior conj	3960 May 26 09:29	6°♄33'01	0°-9'-7
	3959 Jul 01 00:34	0°♄		minimum elong	3960 May 26 09:56	6°♄35'29	0°09'02
evening max el	3959 Jul 14 01:25	17°♄09'26	24°22'03	behind sun begin	3960 May 26 05:28	6°♄11'35	
desc. node	3959 Jul 17 10:41	20°♄04'15		behind sun end	3960 May 26 14:24	6°♄59'23	
retrograde	3959 Jul 27 21:55	24°♄08'59		asc. node	3960 May 27 06:26	8°♄25'16	
evening set	3959 Aug 01 19:26	23°♄15'27		evening rise	3960 Jun 02 13:11	21°♄53'32	
min. Earth dist.	3959 Aug 07 12:16	20°♄22'24	0.56649 AU		3960 Jun 06 11:40	0°♄	
inferior conj	3959 Aug 10 03:48	18°♄42'09	-5°-6'-44	evening max el	3960 Jun 24 14:55	27°♄33'36	22°45'06
minimum elong	3959 Aug 10 01:17	18°♄46'09	5°06'37		3960 Jun 27 09:38	0°♄	
morning rise	3959 Aug 18 10:42	14°♄40'16		desc. node	3960 Jul 03 07:42	3°♄21'54	
direct	3959 Aug 21 02:49	14°♄21'07		retrograde	3960 Jul 07 20:55	4°♄09'22	
morning max el	3959 Aug 30 16:55	18°♄49'14	19°35'25	evening set	3960 Jul 11 05:56	3°♄44'22	
asc. node	3959 Sep 06 08:36	27°♄02'51		min. Earth dist.	3960 Jul 18 23:12	0°♄19'49	0.55322 AU
	3959 Sep 08 05:18	0°♄			3960 Jul 19 13:04	30°♄	
morning set	3959 Sep 17 03:35	16°♄43'03		inferior conj	3960 Jul 20 08:15	29°♄32'27	-4°-22'-48
	3959 Sep 23 17:51	0°♄		minimum elong	3960 Jul 20 00:29	29°♄43'36	4°21'10
				morning rise	3960 Jul 28 21:34	25°♄41'41	
superior conj	3959 Sep 25 03:29	2°♄46'40	1°41'31	direct	3960 Jul 31 21:37	25°♄20'46	
minimum elong	3959 Sep 25 04:55	2°♄53'41	1°41'28		3960 Aug 11 11:35	0°♄	
max. Earth dist.	3959 Oct 01 05:56	14°♄27'49	1.37635 AU	morning max el	3960 Aug 12 02:04	0°♄32'43	20°52'44
evening rise	3959 Oct 05 01:08	21°♄21'41		asc. node	3960 Aug 23 05:39	15°♄34'51	
	3959 Oct 10 01:15	0°♄			3960 Aug 30 18:23	0°♄	
desc. node	3959 Oct 13 09:59	5°♄32'07		morning set	3960 Aug 31 10:53	1°♄24'41	
	3959 Oct 30 03:00	0°♄					
evening max el	3959 Nov 09 17:12	12°♄18'44	25°17'14	superior conj	3960 Sep 07 22:34	16°♄57'38	1°44'17
retrograde	3959 Nov 21 17:27	19°♄14'47		minimum elong	3960 Sep 07 22:24	16°♄56'47	1°44'17
evening set	3959 Nov 27 12:20	16°♄50'48		max. Earth dist.	3960 Sep 12 14:14	26°♄19'08	1.35749 AU
min. Earth dist.	3959 Dec 01 23:56	11°♄52'30	0.67290 AU		3960 Sep 14 11:42	0°♄	
inferior conj	3959 Dec 03 02:52	10°♄25'06	0°-4'-14	evening rise	3960 Sep 16 17:17	4°♄13'47	
minimum elong	3959 Dec 03 02:58	10°♄24'45	0°04'12	desc. node	3960 Sep 29 07:02	25°♄53'08	
transit middle	3959 Dec 03 02:58	10°♄24'45	0°04'12		3960 Oct 01 22:34	0°♄	
transit begin	3959 Dec 03 00:17	10°♄33'30		evening max el	3960 Oct 22 05:43	26°♄00'28	26°21'39
transit end	3959 Dec 03 05:39	10°♄16'01			3960 Oct 26 22:29	0°♄	
asc. node	3959 Dec 03 07:49	10°♄09'00		retrograde	3960 Nov 04 00:32	3°♄12'13	
morning rise	3959 Dec 08 18:20	4°♄26'04		evening set	3960 Nov 10 08:56	0°♄37'02	
direct	3959 Dec 12 03:45	3°♄19'40			3960 Nov 11 01:57	30°♄	
morning max el	3959 Dec 19 08:33	7°♄22'10	19°27'56	min. Earth dist.	3960 Nov 14 13:23	26°♄14'30	0.66411 AU
greatest brilliancy	3959 Dec 28 00:59	18°♄19'29	-0.7m	inferior conj	3960 Nov 16 03:35	24°♄18'02	-1°-2'-35
	3960 Jan 04 21:38	0°♄		minimum elong	3960 Nov 16 05:17	24°♄12'51	1°01'52
desc. node	3960 Jan 09 09:12	6°♄51'51		asc. node	3960 Nov 19 04:52	20°♄48'42	
morning set	3960 Jan 12 19:07	12°♄07'52		morning rise	3960 Nov 22 02:52	18°♄29'01	
	3960 Jan 24 06:05	0°♄		direct	3960 Nov 25 02:06	17°♄39'04	
max. Earth dist.	3960 Jan 25 17:40	2°♄20'31	1.44604 AU	morning max el	3960 Dec 01 18:52	21°♄19'44	18°38'53
					3960 Dec 08 15:51	0°♄	
superior conj	3960 Jan 29 13:47	8°♄26'43	-1°-52'-28	morning set	3960 Dec 22 13:18	21°♄32'33	
minimum elong	3960 Jan 29 06:20	7°♄56'57	1°51'58	desc. node	3960 Dec 26 06:15	27°♄24'20	
	3960 Feb 11 18:07	0°♄			3960 Dec 27 21:42	0°♄	
evening rise	3960 Feb 12 16:54	1°♄35'11					

superior conj	3961 Jan 07 18:25	17°☾04'19	-1°-18'-49	max. Earth dist.	3961 Dec 21 06:59	1°☾03'36	1.45102 AU
minimum elong	3961 Jan 07 09:29	16°☾29'18	1°17'51	evening rise	3962 Jan 03 09:23	21°☾28'44	
max. Earth dist.	3961 Jan 07 11:19	16°☾36'30	1.45224 AU		3962 Jan 08 21:45	0°≈	
	3961 Jan 15 23:35	0°≈		greatest brilliancy	3962 Jan 20 17:22	17°≈44'47	-0.6m
evening rise	3961 Jan 23 11:46	11°≈55'56		evening max el	3962 Jan 28 09:12	27°≈24'54	19°40'36
	3961 Feb 03 20:42	0°✠			3962 Jan 31 07:47	0°✠	
evening max el	3961 Feb 14 02:28	13°✠53'26	18°52'31	asc. node	3962 Feb 02 01:11	1°✠01'24	
asc. node	3961 Feb 15 04:11	14°✠55'15		retrograde	3962 Feb 04 18:00	1°✠40'34	
retrograde	3961 Feb 20 20:44	17°✠40'53		evening set	3962 Feb 08 06:57	0°✠27'13	
evening set	3961 Feb 24 02:06	16°✠41'02			3962 Feb 08 21:32	30°☿≈	
inferior conj	3961 Mar 01 18:35	10°✠56'31	3°30'31	inferior conj	3962 Feb 13 19:03	24°≈27'24	3°11'11
minimum elong	3961 Mar 01 17:16	11°✠00'37	3°30'24	minimum elong	3962 Feb 13 16:53	24°≈34'33	3°10'47
min. Earth dist.	3961 Mar 03 11:39	8°✠48'59	0.65584 AU	min. Earth dist.	3962 Feb 14 21:20	23°≈00'36	0.66786 AU
morning rise	3961 Mar 07 07:21	4°✠42'39		morning rise	3962 Feb 19 02:09	18°≈11'49	
direct	3961 Mar 13 20:20	1°✠53'13		direct	3962 Feb 25 03:19	15°≈30'56	
desc. node	3961 Mar 24 05:26	7°✠02'51		morning max el	3962 Mar 09 07:46	22°≈46'46	25°34'14
morning max el	3961 Mar 26 22:31	9°✠36'41	26°46'21	desc. node	3962 Mar 11 02:28	24°≈38'46	
	3961 Apr 11 23:21	0°☿			3962 Mar 15 16:41	0°✠	
	3961 Apr 29 23:08	0°☿			3962 Apr 05 06:59	0°☿	
morning set	3961 May 01 18:47	3°☿25'36		morning set	3962 Apr 14 12:13	15°☿57'41	
max. Earth dist.	3961 May 06 02:32	11°☿52'05	1.34366 AU	max. Earth dist.	3962 Apr 18 07:01	22°☿59'20	1.36048 AU
					3962 Apr 21 22:11	0°☿	
superior conj	3961 May 10 10:00	20°☿39'46	0°-37'-58				
minimum elong	3961 May 10 12:00	20°☿50'11	0°37'34	superior conj	3962 Apr 24 02:03	4°☿16'59	-1°-6'-54
asc. node	3961 May 14 03:29	28°☿28'40		minimum elong	3962 Apr 24 05:36	4°☿34'49	1°06'19
	3961 May 14 20:49	0°☿		asc. node	3962 May 01 00:31	18°☿23'21	
evening rise	3961 May 17 22:56	6°☿28'42		evening rise	3962 May 02 04:41	20°☿46'55	
	3961 May 30 19:08	0°☿			3962 May 06 20:20	0°☿	
evening max el	3961 Jun 06 11:30	8°☿12'13	21°13'35	evening max el	3962 May 19 19:42	19°☿26'31	19°57'25
retrograde	3961 Jun 18 10:18	14°☿04'14		retrograde	3962 May 30 01:32	24°☿25'54	
desc. node	3961 Jun 20 04:41	13°☿56'58		evening set	3962 Jun 01 00:30	24°☿15'46	
evening set	3961 Jun 20 17:40	13°☿51'56		desc. node	3962 Jun 07 01:41	21°☿57'12	
inferior conj	3961 Jun 30 02:06	9°☿53'46	-2°-50'-11	inferior conj	3962 Jun 09 23:25	20°☿15'24	0°-51'-39
minimum elong	3961 Jun 29 18:33	10°☿04'22	2°47'44	minimum elong	3962 Jun 09 21:01	20°☿19'02	0°50'47
min. Earth dist.	3961 Jun 30 10:19	9°☿42'14	0.54831 AU	min. Earth dist.	3962 Jun 11 22:56	19°☿03'35	0.55304 AU
morning rise	3961 Jul 08 19:32	5°☿56'52		morning rise	3962 Jun 18 14:51	15°☿53'05	
direct	3961 Jul 12 07:21	5°☿30'31		direct	3962 Jun 22 20:36	15°☿13'47	
morning max el	3961 Jul 25 00:02	11°☿32'22	22°27'38	morning max el	3962 Jul 06 15:04	22°☿01'33	24°10'55
	3961 Aug 07 13:22	0°☿			3962 Jul 13 14:54	0°☿	
asc. node	3961 Aug 10 02:43	4°☿40'39		asc. node	3962 Jul 27 23:45	24°☿10'54	
morning set	3961 Aug 15 21:18	16°☿15'47			3962 Jul 30 19:41	0°☿	
	3961 Aug 22 08:11	0°☿		morning set	3962 Jul 31 09:01	1°☿10'11	
superior conj	3961 Aug 23 01:27	1°☿31'44	1°40'05	superior conj	3962 Aug 07 09:22	16°☿19'38	1°30'02
minimum elong	3961 Aug 23 00:05	1°☿24'28	1°40'00	minimum elong	3962 Aug 07 07:16	16°☿08'14	1°29'48
max. Earth dist.	3961 Aug 26 07:05	8°☿18'23	1.34206 AU	max. Earth dist.	3962 Aug 09 08:43	20°☿35'10	1.33069 AU
evening rise	3961 Aug 31 00:39	17°☿49'26			3962 Aug 13 20:16	0°☿	
	3961 Sep 06 13:16	0°☿		evening rise	3962 Aug 14 19:09	1°☿56'31	
desc. node	3961 Sep 16 04:02	15°☿54'23			3962 Aug 30 10:30	0°☿	
	3961 Sep 26 05:21	0°☿		desc. node	3962 Sep 03 01:02	5°☿26'36	
evening max el	3961 Oct 04 18:25	9°☿34'18	27°07'00	evening max el	3962 Sep 17 05:37	22°☿46'42	27°26'24
retrograde	3961 Oct 18 01:49	16°☿51'35			3962 Sep 29 18:15	0°☿	
evening set	3961 Oct 24 21:55	14°☿11'09		retrograde	3962 Sep 30 20:51	0°☿03'32	
min. Earth dist.	3961 Oct 28 19:46	10°☿24'46	0.65188 AU		3962 Oct 01 23:04	30°☿☿	
inferior conj	3961 Oct 30 21:54	8°☿04'01	-2°-3'-33	evening set	3962 Oct 08 00:24	27°☿26'50	
minimum elong	3961 Oct 31 01:23	7°☿54'15	2°02'11	min. Earth dist.	3962 Oct 11 16:50	24°☿14'11	0.63620 AU
morning rise	3961 Nov 06 06:40	2°☿28'07		inferior conj	3962 Oct 14 07:14	21°☿36'04	-3°-4'-40
asc. node	3961 Nov 06 01:53	2°☿33'54		minimum elong	3962 Oct 14 12:20	21°☿23'06	3°02'55
direct	3961 Nov 08 22:01	1°☿50'44		morning rise	3962 Oct 21 02:44	16°☿16'52	
morning max el	3961 Nov 15 09:45	5°☿19'18	18°06'27	direct	3962 Oct 23 12:44	15°☿48'25	
	3961 Dec 02 01:34	0°☿		asc. node	3962 Oct 23 22:56	15°☿49'18	
morning set	3961 Dec 03 13:02	2°☿26'25		morning max el	3962 Oct 30 02:22	19°☿13'32	17°51'19
desc. node	3961 Dec 13 03:18	18°☿05'40			3962 Nov 07 00:45	0°☿	
				morning set	3962 Nov 15 14:59	14°☿35'54	
superior conj	3961 Dec 17 23:57	25°☿51'25	0°-32'-53		3962 Nov 24 15:27	0°☿	
minimum elong	3961 Dec 17 19:50	25°☿35'03	0°32'19	superior conj	3962 Nov 28 01:04	5°☿38'20	0°13'38
	3961 Dec 20 14:50	0°☿					

minimum elong	3962 Nov 28 02:31	5° \mathcal{A} 44'18	0°13'25	asc. node	3963 Oct 10 19:59	0° \mathcal{A} 37'30	
behind sun begin	3962 Nov 27 21:05	5° \mathcal{A} 21'59		morning max el	3963 Oct 13 17:40	2° \mathcal{A} 55'19	17°54'22
behind sun end	3962 Nov 28 07:57	6° \mathcal{A} 06'36		morning set	3963 Oct 29 12:48	27° \mathcal{A} 41'46	
desc. node	3962 Nov 30 00:20	8° \mathcal{A} 51'37			3963 Oct 30 19:13	0° \mathcal{M}	
max. Earth dist.	3962 Dec 04 01:03	15° \mathcal{A} 21'20	1.44253 AU				
	3962 Dec 13 09:19	0° \mathcal{B}		superior conj	3963 Nov 09 04:53	16° \mathcal{M} 43'37	0°52'06
evening rise	3962 Dec 13 19:19	0° \mathcal{B} 38'29		minimum elong	3963 Nov 09 08:53	17° \mathcal{M} 00'53	0°51'34
	3963 Jan 02 14:50	0° \approx		max. Earth dist.	3963 Nov 16 14:41	29° \mathcal{M} 11'41	1.42791 AU
greatest brilliancy	3963 Jan 05 18:38	4° \approx 15'09	-0.5m	desc. node	3963 Nov 16 21:20	29° \mathcal{M} 38'56	
evening max el	3963 Jan 11 10:35	10° \approx 57'21	20°43'01		3963 Nov 17 02:30	0° \mathcal{A}	
retrograde	3963 Jan 19 16:11	15° \approx 49'01		evening rise	3963 Nov 23 09:27	10° \mathcal{A} 04'28	
asc. node	3963 Jan 19 22:11	15° \approx 48'41			3963 Dec 06 13:07	0° \mathcal{B}	
evening set	3963 Jan 23 14:10	14° \approx 21'06		greatest brilliancy	3963 Dec 20 12:35	19° \mathcal{B} 08'11	-0.3m
inferior conj	3963 Jan 29 00:02	8° \approx 08'50	2°41'39	evening max el	3963 Dec 25 06:28	24° \mathcal{B} 30'37	21°56'19
minimum elong	3963 Jan 28 21:33	8° \approx 17'20	2°40'59		3964 Jan 02 21:48	0° \approx	
min. Earth dist.	3963 Jan 29 13:03	7° \approx 24'12	0.67563 AU	retrograde	3964 Jan 03 13:14	0° \approx 02'04	
morning rise	3963 Feb 03 04:31	1° \approx 53'20			3964 Jan 04 04:27	30° \mathcal{R} \mathcal{B}	
	3963 Feb 06 02:01	30° \mathcal{R} \mathcal{B}		asc. node	3964 Jan 06 19:13	29° \mathcal{B} 05'17	
direct	3963 Feb 08 15:24	29° \mathcal{B} 29'32		evening set	3964 Jan 07 21:58	28° \mathcal{B} 18'36	
	3963 Feb 11 08:46	0° \approx		inferior conj	3964 Jan 13 07:22	21° \mathcal{B} 57'18	2°03'42
morning max el	3963 Feb 19 16:24	6° \approx 04'51	24°08'43	minimum elong	3964 Jan 13 05:03	22° \mathcal{B} 05'22	2°02'54
desc. node	3963 Feb 25 23:31	13° \approx 14'12		min. Earth dist.	3964 Jan 13 08:30	21° \mathcal{B} 53'21	0.67947 AU
	3963 Mar 10 05:09	0° \mathcal{H}		morning rise	3964 Jan 18 11:55	15° \mathcal{B} 43'40	
morning set	3963 Mar 27 09:05	27° \mathcal{H} 27'15		direct	3964 Jan 23 07:52	13° \mathcal{B} 41'27	
	3963 Mar 28 20:10	0° \mathcal{Y}		morning max el	3964 Feb 02 02:31	19° \mathcal{B} 28'20	22°39'41
max. Earth dist.	3963 Mar 31 03:41	4° \mathcal{Y} 06'06	1.38081 AU	greatest brilliancy	3964 Feb 06 16:48	24° \mathcal{B} 35'45	-0.3m
					3964 Feb 10 23:13	0° \approx	
superior conj	3963 Apr 07 06:15	17° \mathcal{Y} 16'06	-1°-33'-42	desc. node	3964 Feb 12 20:33	2° \approx 31'41	
minimum elong	3963 Apr 07 10:53	17° \mathcal{Y} 38'15	1°33'08		3964 Mar 02 09:46	0° \mathcal{H}	
	3963 Apr 13 18:57	0° \mathcal{B}		morning set	3964 Mar 07 03:15	7° \mathcal{H} 38'04	
evening rise	3963 Apr 16 03:58	4° \mathcal{B} 41'24		max. Earth dist.	3964 Mar 11 23:20	15° \mathcal{H} 43'44	1.40262 AU
asc. node	3963 Apr 17 21:32	8° \mathcal{B} 05'04					
	3963 May 01 08:03	0° \mathcal{I}		superior conj	3964 Mar 19 18:10	29° \mathcal{H} 25'30	-1°-55'-11
evening max el	3963 May 02 15:37	1° \mathcal{I} 22'19	19°00'48	minimum elong	3964 Mar 19 22:30	29° \mathcal{H} 45'09	1°54'53
retrograde	3963 May 11 06:44	5° \mathcal{I} 35'01			3964 Mar 20 01:46	0° \mathcal{Y}	
evening set	3963 May 13 08:17	5° \mathcal{I} 21'31		evening rise	3964 Mar 29 17:33	18° \mathcal{Y} 02'59	
inferior conj	3963 May 21 13:02	1° \mathcal{I} 06'40	0°58'34	asc. node	3964 Apr 03 18:33	27° \mathcal{Y} 27'51	
minimum elong	3963 May 21 15:16	1° \mathcal{I} 02'45	0°57'48		3964 Apr 05 04:29	0° \mathcal{B}	
	3963 May 23 03:04	30° \mathcal{R} \mathcal{B}		evening max el	3964 Apr 14 20:32	13° \mathcal{B} 53'14	18°24'28
min. Earth dist.	3963 May 24 14:33	28° \mathcal{B} 59'09	0.56647 AU	retrograde	3964 Apr 22 06:34	17° \mathcal{B} 33'36	
desc. node	3963 May 24 22:42	28° \mathcal{B} 45'37		evening set	3964 Apr 24 14:19	17° \mathcal{B} 12'59	
morning rise	3963 May 29 17:53	26° \mathcal{B} 08'34		inferior conj	3964 May 01 23:55	12° \mathcal{B} 38'18	2°20'05
direct	3963 Jun 03 22:34	25° \mathcal{B} 04'43		minimum elong	3964 May 02 03:36	12° \mathcal{B} 30'44	2°19'05
	3963 Jun 15 11:11	0° \mathcal{I}		min. Earth dist.	3964 May 05 10:32	9° \mathcal{B} 50'49	0.58588 AU
morning max el	3963 Jun 18 05:37	2° \mathcal{I} 27'17	25°47'53	morning rise	3964 May 09 12:35	7° \mathcal{B} 08'19	
	3963 Jul 07 17:52	0° \mathcal{B}		desc. node	3964 May 10 19:44	6° \mathcal{B} 31'25	
asc. node	3963 Jul 14 20:48	13° \mathcal{B} 58'48		direct	3964 May 15 15:00	5° \mathcal{B} 30'27	
morning set	3963 Jul 15 20:26	16° \mathcal{B} 02'52		morning max el	3964 May 30 00:28	13° \mathcal{B} 14'40	27°02'56
	3963 Jul 22 06:36	0° \mathcal{Q}			3964 Jun 12 06:57	0° \mathcal{I}	
					3964 Jun 28 20:47	0° \mathcal{B}	
superior conj	3963 Jul 22 20:11	1° \mathcal{Q} 14'41	1°15'02	morning set	3964 Jun 29 05:54	0° \mathcal{B} 47'42	
minimum elong	3963 Jul 22 17:51	1° \mathcal{Q} 01'49	1°14'40	asc. node	3964 Jun 30 17:51	3° \mathcal{B} 57'56	
max. Earth dist.	3963 Jul 23 16:54	3° \mathcal{Q} 08'26	1.32348 AU				
evening rise	3963 Jul 29 21:34	16° \mathcal{Q} 25'48		superior conj	3964 Jul 06 08:01	16° \mathcal{B} 09'49	0°55'45
	3963 Aug 05 18:42	0° \mathcal{M}		minimum elong	3964 Jul 06 05:55	15° \mathcal{B} 58'12	0°55'22
desc. node	3963 Aug 20 22:02	24° \mathcal{M} 17'56		max. Earth dist.	3964 Jul 06 04:15	15° \mathcal{B} 49'00	1.32035 AU
	3963 Aug 25 10:40	0° \mathcal{A}			3964 Jul 12 16:19	0° \mathcal{Q}	
evening max el	3963 Aug 30 13:03	5° \mathcal{A} 25'03	27°14'29	evening rise	3964 Jul 13 05:15	1° \mathcal{Q} 08'31	
retrograde	3963 Sep 13 09:10	12° \mathcal{A} 38'58			3964 Jul 28 21:05	0° \mathcal{M}	
evening set	3963 Sep 20 12:44	10° \mathcal{A} 17'57		desc. node	3964 Aug 06 19:03	12° \mathcal{M} 11'28	
min. Earth dist.	3963 Sep 24 03:25	7° \mathcal{A} 31'22	0.61751 AU	evening max el	3964 Aug 11 14:21	17° \mathcal{M} 18'54	26°29'20
inferior conj	3963 Sep 27 04:32	4° \mathcal{A} 47'04	-4°-1'-41	retrograde	3964 Aug 25 13:31	24° \mathcal{M} 29'11	
minimum elong	3963 Sep 27 10:29	4° \mathcal{A} 33'40	4°00'08	evening set	3964 Sep 01 06:15	22° \mathcal{M} 37'02	
	3963 Oct 03 21:43	30° \mathcal{R} \mathcal{M}		min. Earth dist.	3964 Sep 05 03:54	22° \mathcal{M} 02'12	0.59695 AU
morning rise	3963 Oct 04 11:16	29° \mathcal{M} 47'50		inferior conj	3964 Sep 08 10:22	17° \mathcal{M} 28'09	-4°-47'-23
direct	3963 Oct 06 18:45	29° \mathcal{M} 25'07		minimum elong	3964 Sep 08 15:16	17° \mathcal{M} 18'28	4°46'39
	3963 Oct 09 14:13	0° \mathcal{A}		morning rise	3964 Sep 16 03:44	12° \mathcal{M} 51'23	

direct	3964 Sep 18 12:00	12° \mathbb{M} 31'38			3965 Aug 20 03:36	30° \mathbb{R} \mathcal{L}	
morning max el	3964 Sep 26 04:22	16° \mathbb{M} 15'59	18°16'57	inferior conj	3965 Aug 20 21:22	29° \mathcal{L} 29'26	-5°-10'-9
asc. node	3964 Sep 26 17:03	16° \mathbb{M} 47'30		minimum elong	3965 Aug 20 22:17	29° \mathcal{L} 27'51	5°10'09
	3964 Oct 05 20:06	0° \mathcal{L}		morning rise	3965 Aug 28 23:47	25° \mathcal{L} 15'33	
morning set	3964 Oct 12 00:53	11° \mathcal{L} 28'26		direct	3965 Aug 31 12:22	24° \mathcal{L} 56'31	
				morning max el	3965 Sep 09 07:06	29° \mathcal{L} 05'23	19°00'29
superior conj	3964 Oct 21 09:09	29° \mathcal{L} 00'13	1°19'31		3965 Sep 10 05:07	0° \mathbb{M}	
minimum elong	3964 Oct 21 12:59	29° \mathcal{L} 17'43	1°19'07	asc. node	3965 Sep 13 14:07	4° \mathbb{M} 03'47	
	3964 Oct 21 22:17	0° \mathbb{M}		morning set	3965 Sep 25 22:51	25° \mathbb{M} 43'20	
max. Earth dist.	3964 Oct 28 23:01	12° \mathbb{M} 22'42	1.40902 AU		3965 Sep 28 02:45	0° \mathcal{L}	
evening rise	3964 Nov 02 17:43	20° \mathbb{M} 21'53					
desc. node	3964 Nov 02 18:22	20° \mathbb{M} 24'30		superior conj	3965 Oct 04 08:23	12° \mathcal{L} 12'26	1°36'13
	3964 Nov 08 18:33	0° \mathcal{L}		minimum elong	3965 Oct 04 10:47	12° \mathcal{L} 23'58	1°36'04
	3964 Nov 29 19:47	0° \mathcal{L}		max. Earth dist.	3965 Oct 11 03:56	24° \mathcal{L} 52'34	1.38824 AU
evening max el	3964 Dec 06 22:00	8° \mathcal{L} 07'07	23°15'34		3965 Oct 14 01:28	0° \mathbb{M}	
retrograde	3964 Dec 17 07:38	14° \mathcal{L} 16'43		evening rise	3965 Oct 15 01:18	1° \mathbb{M} 43'12	
evening set	3964 Dec 22 04:46	12° \mathcal{L} 17'06		desc. node	3965 Oct 20 15:23	11° \mathbb{M} 04'12	
asc. node	3964 Dec 23 16:16	10° \mathcal{L} 52'32			3965 Nov 02 00:51	0° \mathcal{L}	
min. Earth dist.	3964 Dec 27 05:20	6° \mathcal{L} 24'38	0.67968 AU	evening max el	3965 Nov 19 11:06	21° \mathcal{L} 47'29	24°34'38
inferior conj	3964 Dec 27 15:11	5° \mathcal{L} 50'46	1°18'38	retrograde	3965 Nov 30 22:08	28° \mathcal{L} 28'35	
minimum elong	3964 Dec 27 13:29	5° \mathcal{L} 56'37	1°17'58	evening set	3965 Dec 06 08:58	26° \mathcal{L} 13'06	
morning rise	3965 Jan 01 22:14	29° \mathcal{L} 40'58		asc. node	3965 Dec 10 13:20	21° \mathcal{L} 33'27	
	3965 Jan 01 13:01	30° \mathbb{R} \mathcal{L}		min. Earth dist.	3965 Dec 11 01:05	20° \mathcal{L} 54'44	0.67642 AU
direct	3965 Jan 06 03:47	28° \mathcal{L} 01'34		inferior conj	3965 Dec 11 21:41	19° \mathcal{L} 46'03	0°27'31
	3965 Jan 11 06:30	0° \mathcal{L}		minimum elong	3965 Dec 11 21:01	19° \mathcal{L} 48'17	0°27'14
morning max el	3965 Jan 14 17:43	3° \mathcal{L} 00'40	21°15'53	morning rise	3965 Dec 17 09:29	13° \mathcal{L} 42'25	
greatest brilliancy	3965 Jan 19 22:12	8° \mathcal{L} 56'11	-0.4m	direct	3965 Dec 21 01:51	12° \mathcal{L} 24'39	
desc. node	3965 Jan 29 17:36	22° \mathcal{L} 19'43		morning max el	3965 Dec 28 16:33	16° \mathcal{L} 44'11	20°03'14
	3965 Feb 03 22:57	0° \approx		greatest brilliancy	3966 Jan 04 15:57	25° \mathcal{L} 08'59	-0.6m
morning set	3965 Feb 14 16:53	16° \approx 28'54			3966 Jan 08 03:30	0° \mathcal{L}	
max. Earth dist.	3965 Feb 22 00:40	28° \approx 15'02	1.42307 AU	desc. node	3966 Jan 16 14:38	12° \mathcal{L} 29'22	
	3965 Feb 23 02:11	0° \mathcal{H}		morning set	3966 Jan 24 13:24	24° \mathcal{L} 37'35	
					3966 Jan 28 00:33	0° \approx	
superior conj	3965 Mar 01 08:50	10° \mathcal{H} 34'11	-2°-6'-50	max. Earth dist.	3966 Feb 04 10:09	11° \approx 40'18	1.43941 AU
minimum elong	3965 Mar 01 10:18	10° \mathcal{H} 40'29	2°06'49				
	3965 Mar 12 08:06	0° \mathbb{Y}		superior conj	3966 Feb 09 22:00	20° \approx 32'59	-2°-3'-13
evening rise	3965 Mar 12 17:39	0° \mathbb{Y} 43'14		minimum elong	3966 Feb 09 17:49	20° \approx 15'53	2°03'04
asc. node	3965 Mar 21 15:35	16° \mathbb{Y} 25'28			3966 Feb 15 14:56	0° \mathcal{H}	
evening max el	3965 Mar 29 06:59	26° \mathbb{Y} 50'32	18°08'01	evening rise	3966 Feb 22 23:49	12° \mathcal{H} 32'56	
	3965 Apr 03 04:43	0° \mathcal{B}			3966 Mar 05 07:43	0° \mathbb{Y}	
retrograde	3965 Apr 04 23:43	0° \mathcal{B} 14'59		asc. node	3966 Mar 08 12:38	4° \mathbb{Y} 49'42	
	3965 Apr 06 19:13	30° \mathbb{R} \mathbb{Y}		evening max el	3966 Mar 12 19:40	10° \mathbb{Y} 04'52	18°10'51
evening set	3965 Apr 07 13:42	29° \mathbb{Y} 44'52		retrograde	3966 Mar 19 05:57	13° \mathbb{Y} 28'32	
inferior conj	3965 Apr 14 07:02	24° \mathbb{Y} 48'54	3°09'50	evening set	3966 Mar 22 01:42	12° \mathbb{Y} 47'33	
minimum elong	3965 Apr 14 09:49	24° \mathbb{Y} 42'19	3°09'20	inferior conj	3966 Mar 28 06:37	7° \mathbb{Y} 31'10	3°33'01
min. Earth dist.	3965 Apr 17 12:57	21° \mathbb{Y} 45'47	0.60773 AU	minimum elong	3966 Mar 28 07:40	7° \mathbb{Y} 28'22	3°32'56
morning rise	3965 Apr 21 02:39	18° \mathbb{Y} 57'11		min. Earth dist.	3966 Mar 30 23:55	4° \mathbb{Y} 36'36	0.62876 AU
direct	3965 Apr 27 19:16	16° \mathbb{Y} 45'18		morning rise	3966 Apr 03 11:27	1° \mathbb{Y} 26'27	
desc. node	3965 Apr 27 16:47	16° \mathbb{Y} 45'20			3966 Apr 05 17:35	30° \mathbb{R} \mathcal{H}	
morning max el	3965 May 12 01:30	24° \mathbb{Y} 40'23	27°44'43	direct	3966 Apr 10 08:38	28° \mathcal{H} 49'38	
	3965 May 16 22:02	0° \mathcal{B}		desc. node	3966 Apr 14 13:49	29° \mathcal{H} 41'30	
	3965 Jun 05 14:58	0° \mathbb{I}			3966 Apr 15 07:14	0° \mathbb{Y}	
morning set	3965 Jun 13 11:37	15° \mathbb{I} 18'57		morning max el	3966 Apr 24 08:03	6° \mathbb{Y} 47'55	27°49'03
asc. node	3965 Jun 17 14:54	24° \mathbb{I} 03'45			3966 May 12 00:16	0° \mathcal{B}	
max. Earth dist.	3965 Jun 19 15:07	28° \mathbb{I} 25'50	1.32132 AU	morning set	3966 May 28 11:26	29° \mathcal{B} 30'03	
	3965 Jun 20 08:19	0° \mathcal{E}			3966 May 28 17:22	0° \mathbb{I}	
				max. Earth dist.	3966 Jun 02 21:44	10° \mathbb{I} 47'03	1.32646 AU
superior conj	3965 Jun 20 19:08	0° \mathcal{E} 59'19	0°32'49	asc. node	3966 Jun 04 11:56	14° \mathbb{I} 12'05	
minimum elong	3965 Jun 20 17:42	0° \mathcal{E} 51'30	0°32'31				
evening rise	3965 Jun 27 16:01	15° \mathcal{E} 57'39		superior conj	3966 Jun 05 03:45	15° \mathbb{I} 37'31	0°06'55
	3965 Jul 04 15:11	0° \mathcal{L}		minimum elong	3966 Jun 05 03:25	15° \mathbb{I} 35'42	0°06'50
evening max el	3965 Jul 24 08:24	28° \mathcal{L} 25'19	25°14'29	behind sun begin	3966 Jun 04 22:39	15° \mathbb{I} 09'58	
desc. node	3965 Jul 24 16:04	28° \mathcal{L} 43'28		behind sun end	3966 Jun 05 08:10	16° \mathbb{I} 01'28	
	3965 Jul 26 02:11	0° \mathbb{M}			3966 Jun 11 19:06	0° \mathcal{E}	
retrograde	3965 Aug 07 07:34	5° \mathbb{M} 29'59		evening rise	3966 Jun 12 03:54	0° \mathcal{E} 46'49	
evening set	3965 Aug 13 00:18	4° \mathbb{M} 15'22			3966 Jun 28 08:59	0° \mathcal{L}	
min. Earth dist.	3965 Aug 17 20:11	1° \mathbb{M} 34'02	0.57678 AU	evening max el	3966 Jul 05 21:38	8° \mathcal{L} 57'00	23°41'03

desc. node	3966 Jul 11 13:05	13°♂22'58		retrograde	3967 Jun 30 07:39	25°♂42'31	
retrograde	3966 Jul 19 13:23	15°♂48'10		evening set	3967 Jul 03 03:51	25°♂24'32	
evening set	3966 Jul 23 19:24	15°♂08'30		inferior conj	3967 Jul 12 10:38	21°♂19'36	-3°-48'-41
min. Earth dist.	3966 Jul 30 07:40	12°♂03'51	0.56004 AU	minimum elong	3967 Jul 12 02:07	21°♂31'34	3°46'27
inferior conj	3966 Aug 01 12:11	10°♂45'01	-4°-54'-26	min. Earth dist.	3967 Jul 11 18:10	21°♂42'43	0.54999 AU
minimum elong	3966 Aug 01 07:04	10°♂52'45	4°53'48	morning rise	3967 Jul 21 02:14	17°♂29'07	
morning rise	3966 Aug 09 21:59	6°♂49'37		direct	3967 Jul 24 06:34	17°♂06'40	
direct	3966 Aug 12 17:29	6°♂29'49		morning max el	3967 Aug 05 03:15	22°♂39'01	21°31'22
morning max el	3966 Aug 22 23:05	11°♂14'52	20°05'47		3967 Aug 11 11:40	0°♂	
asc. node	3966 Aug 31 11:10	22°♂12'01		asc. node	3967 Aug 18 08:12	10°♂59'12	
	3966 Sep 04 21:53	0°♂		morning set	3967 Aug 25 12:19	25°♂04'00	
morning set	3966 Sep 10 03:29	10°♂17'48			3967 Aug 27 20:52	0°♂	
superior conj	3966 Sep 17 21:30	26°♂06'03	1°43'38	superior conj	3967 Sep 01 20:17	10°♂27'57	1°43'17
minimum elong	3966 Sep 17 22:13	26°♂09'38	1°43'36	minimum elong	3967 Sep 01 19:33	10°♂24'09	1°43'15
	3966 Sep 19 20:30	0°♂		max. Earth dist.	3967 Sep 05 21:19	18°♂44'56	1.35045 AU
max. Earth dist.	3966 Sep 23 09:47	6°♂53'10	1.36804 AU	evening rise	3967 Sep 10 05:52	27°♂16'40	
evening rise	3966 Sep 27 06:45	14°♂05'10			3967 Sep 11 16:28	0°♂	
	3966 Oct 06 13:10	0°♂		desc. node	3967 Sep 24 09:27	21°♂47'02	
desc. node	3966 Oct 07 12:26	1°♂33'45			3967 Sep 29 20:51	0°♂	
	3966 Oct 27 20:33	0°♂		evening max el	3967 Oct 15 11:55	19°♂08'30	26°43'33
evening max el	3966 Nov 01 23:29	5°♂29'59	25°46'23	retrograde	3967 Oct 28 12:41	26°♂24'02	
retrograde	3966 Nov 14 07:59	12°♂33'17		evening set	3967 Nov 04 02:32	23°♂45'21	
evening set	3966 Nov 20 08:52	10°♂03'52		min. Earth dist.	3967 Nov 08 03:59	19°♂38'33	0.65937 AU
min. Earth dist.	3966 Nov 24 17:23	5°♂20'53	0.66969 AU	inferior conj	3967 Nov 09 23:18	17°♂30'47	-1°-28'-16
inferior conj	3966 Nov 26 01:03	3°♂40'40	0°-28'-33	minimum elong	3967 Nov 10 01:45	17°♂23'33	1°27'15
minimum elong	3966 Nov 26 01:48	3°♂38'18	0°28'14	asc. node	3967 Nov 14 07:24	12°♂59'10	
asc. node	3966 Nov 27 10:22	1°♂56'55		morning rise	3967 Nov 16 02:29	11°♂47'15	
	3966 Nov 29 03:37	30°♂		direct	3967 Nov 18 22:01	11°♂03'15	
morning rise	3966 Dec 01 19:38	27°♂45'42		morning max el	3967 Nov 25 11:51	14°♂37'33	18°23'01
direct	3966 Dec 05 00:33	26°♂46'42			3967 Dec 06 16:19	0°♂	
	3966 Dec 11 07:25	0°♂		morning set	3967 Dec 15 00:10	13°♂20'20	
morning max el	3966 Dec 11 23:11	0°♂38'09	19°05'05	desc. node	3967 Dec 21 08:43	23°♂31'28	
	3967 Jan 01 14:44	0°♂			3967 Dec 25 10:38	0°♂	
desc. node	3967 Jan 03 11:40	2°♂54'48		superior conj	3967 Dec 30 13:30	8°♂03'53	-1°00'-9
morning set	3967 Jan 03 17:36	3°♂17'57		minimum elong	3967 Dec 30 06:05	7°♂34'48	0°59'14
max. Earth dist.	3967 Jan 18 01:57	25°♂43'58	1.44961 AU	max. Earth dist.	3967 Dec 31 20:43	10°♂06'23	1.45259 AU
superior conj	3967 Jan 20 11:09	29°♂29'36	-1°-40'-19		3968 Jan 13 13:17	0°♂	
minimum elong	3967 Jan 20 02:12	28°♂54'14	1°39'32	evening rise	3968 Jan 15 17:22	3°♂24'45	
	3967 Jan 20 18:50	0°♂		greatest brilliancy	3968 Jan 28 23:38	24°♂04'37	-0.7m
evening rise	3967 Feb 04 08:09	23°♂26'20			3968 Feb 02 01:19	0°♂	
	3967 Feb 08 08:07	0°♂		evening max el	3968 Feb 07 16:51	6°♂58'18	19°11'03
asc. node	3967 Feb 23 09:39	22°♂30'14		asc. node	3968 Feb 10 06:40	9°♂14'57	
evening max el	3967 Feb 24 07:43	23°♂28'51	18°32'13	retrograde	3968 Feb 14 16:39	10°♂57'08	
retrograde	3967 Mar 02 20:51	27°♂04'41		evening set	3968 Feb 18 00:59	9°♂51'48	
evening set	3967 Mar 05 22:26	26°♂12'00		inferior conj	3968 Feb 23 15:19	4°♂00'20	3°23'43
inferior conj	3967 Mar 11 18:33	20°♂36'56	3°35'58	minimum elong	3968 Feb 23 13:34	4°♂05'55	3°23'30
minimum elong	3967 Mar 11 17:58	20°♂38'40	3°35'57	min. Earth dist.	3968 Feb 25 01:56	2°♂09'31	0.66140 AU
min. Earth dist.	3967 Mar 13 20:27	18°♂08'58	0.64698 AU		3968 Feb 26 20:38	30°♂	
morning rise	3967 Mar 17 12:06	14°♂25'07		morning rise	3968 Feb 29 01:14	27°♂45'11	
direct	3967 Mar 24 05:43	11°♂36'31		direct	3968 Mar 06 09:28	24°♂58'05	
desc. node	3967 Apr 01 10:50	14°♂52'11			3968 Mar 16 11:09	0°♂	
morning max el	3967 Apr 06 17:40	19°♂29'17	27°17'56	desc. node	3968 Mar 18 07:52	1°♂43'33	
	3967 Apr 15 16:39	0°♂		morning max el	3968 Mar 19 03:35	2°♂32'27	26°18'02
	3967 May 05 00:28	0°♂			3968 Apr 08 21:27	0°♂	
morning set	3967 May 12 02:29	13°♂11'28		morning set	3968 Apr 24 05:11	26°♂12'48	
max. Earth dist.	3967 May 16 19:58	22°♂39'40	1.33603 AU		3968 Apr 26 05:14	0°♂	
				max. Earth dist.	3968 Apr 28 06:49	3°♂59'41	1.35024 AU
superior conj	3967 May 20 07:49	29°♂57'05	0°-21'-13	superior conj	3968 May 03 05:03	13°♂51'46	0°-50'-20
minimum elong	3967 May 20 08:55	0°♂02'52	0°21'00	minimum elong	3968 May 03 07:44	14°♂05'32	0°49'51
	3967 May 20 08:22	0°♂		asc. node	3968 May 08 05:59	24°♂18'03	
asc. node	3967 May 22 08:57	4°♂18'07		evening rise	3968 May 10 23:16	29°♂56'53	
evening rise	3967 May 27 14:58	15°♂28'33			3968 May 10 23:52	0°♂	
	3967 Jun 03 22:26	0°♂			3968 May 29 08:26	0°♂	
evening max el	3967 Jun 17 13:03	19°♂22'38	22°04'44	evening max el	3968 May 29 14:12	0°♂14'14	20°39'00
desc. node	3967 Jun 28 10:06	25°♂34'10					

retrograde	3968 Jun 09 20:31	5°♄44'28		evening rise	3969 Apr 25 02:33	14°♄04'59	
evening set	3968 Jun 11 22:04	5°♄34'07		asc. node	3969 Apr 25 03:00	14°♄07'17	
desc. node	3968 Jun 14 07:05	4°♄58'24			3969 May 03 12:26	0°♄	
inferior conj	3968 Jun 21 04:07	1°♄36'55	-2°-1'-3	evening max el	3969 May 12 03:41	11°♄46'11	19°30'55
minimum elong	3968 Jun 20 22:27	1°♄45'03	1°59'03	retrograde	3969 May 21 16:04	16°♄23'47	
min. Earth dist.	3968 Jun 22 06:06	0°♄59'36	0.54911 AU	evening set	3969 May 23 15:20	16°♄12'47	
	3968 Jun 24 00:40	30°♄		inferior conj	3969 Jun 01 07:07	12°♄07'49	0°-2'-13
morning rise	3968 Jun 29 21:38	27°♄30'52		minimum elong	3969 Jun 01 07:01	12°♄07'58	0°02'11
direct	3968 Jul 03 15:57	27°♄00'21		transit middle	3969 Jun 01 07:01	12°♄07'58	0°02'11
	3968 Jul 12 15:44	0°♄		transit begin	3969 Jun 01 03:09	12°♄14'09	
morning max el	3968 Jul 16 21:42	3°♄23'26	23°11'16	transit end	3969 Jun 01 10:53	12°♄01'47	
asc. node	3968 Aug 04 05:15	0°♄15'49		desc. node	3969 Jun 01 04:05	12°♄12'40	
	3968 Aug 04 01:59	0°♄		min. Earth dist.	3969 Jun 03 19:59	10°♄30'51	0.55781 AU
morning set	3968 Aug 08 23:27	9°♄56'34		morning rise	3969 Jun 09 18:59	7°♄30'32	
				direct	3969 Jun 14 10:27	6°♄41'57	
superior conj	3968 Aug 16 01:36	25°♄08'40	1°36'29	morning max el	3969 Jun 28 11:35	13°♄46'41	24°53'52
minimum elong	3968 Aug 15 23:52	24°♄59'21	1°36'20		3969 Jul 11 04:28	0°♄	
	3968 Aug 18 08:22	0°♄		asc. node	3969 Jul 22 02:18	19°♄54'02	
max. Earth dist.	3968 Aug 18 17:42	0°♄49'10	1.33670 AU	morning set	3969 Jul 24 11:15	24°♄50'35	
evening rise	3968 Aug 23 18:23	11°♄06'36			3969 Jul 26 21:01	0°♄	
	3968 Sep 03 00:28	0°♄					
desc. node	3968 Sep 10 06:27	11°♄36'45		superior conj	3969 Jul 31 11:01	10°♄00'23	1°24'14
	3968 Sep 24 10:55	0°♄		minimum elong	3969 Jul 31 08:45	9°♄48'02	1°23'57
evening max el	3968 Sep 27 00:04	2°♄34'00	27°18'45	max. Earth dist.	3969 Aug 01 22:27	13°♄13'22	1.32710 AU
retrograde	3968 Oct 10 11:39	9°♄52'28		evening rise	3969 Aug 07 16:39	25°♄24'30	
evening set	3968 Oct 17 11:28	7°♄12'13			3969 Aug 09 23:19	0°♄	
min. Earth dist.	3968 Oct 21 06:41	3°♄40'41	0.64557 AU		3969 Aug 27 12:28	0°♄	
inferior conj	3968 Oct 23 14:07	1°♄11'13	-2°-29'-42	desc. node	3969 Aug 28 03:26	0°♄53'20	
minimum elong	3968 Oct 23 18:20	0°♄59'50	2°28'07	evening max el	3969 Sep 09 10:13	15°♄34'36	27°25'30
	3968 Oct 24 16:50	30°♄		retrograde	3969 Sep 23 04:03	22°♄50'11	
morning rise	3968 Oct 30 03:22	25°♄42'04		evening set	3969 Sep 30 08:31	20°♄18'55	
asc. node	3968 Oct 31 04:27	25°♄20'30		min. Earth dist.	3969 Oct 03 23:40	17°♄18'19	0.62853 AU
direct	3968 Nov 01 15:58	25°♄09'04		inferior conj	3969 Oct 06 18:50	14°♄36'05	-3°-29'-42
morning max el	3968 Nov 08 03:51	28°♄35'30	17°57'48	minimum elong	3969 Oct 07 00:26	14°♄22'30	3°27'58
	3968 Nov 09 11:24	0°♄		morning rise	3969 Oct 13 19:04	9°♄24'39	
morning set	3968 Nov 25 11:45	24°♄48'09		direct	3969 Oct 16 03:34	8°♄59'01	
	3968 Nov 28 14:03	0°♄		asc. node	3969 Oct 18 01:30	9°♄16'24	
desc. node	3968 Dec 07 05:45	14°♄14'50		morning max el	3969 Oct 22 20:18	12°♄25'33	17°50'15
					3969 Nov 03 18:00	0°♄	
superior conj	3968 Dec 09 01:41	17°♄11'57	0°-12'-34	morning set	3969 Nov 07 23:03	7°♄24'36	
minimum elong	3968 Dec 09 00:10	17°♄05'52	0°12'23				
behind sun begin	3968 Dec 08 17:25	16°♄38'44		superior conj	3969 Nov 19 14:03	27°♄31'59	0°31'13
behind sun end	3968 Dec 09 06:55	17°♄32'58		minimum elong	3969 Nov 19 17:00	27°♄44'20	0°30'47
max. Earth dist.	3968 Dec 13 15:31	24°♄29'28	1.44819 AU		3969 Nov 21 01:30	0°♄	
	3968 Dec 17 03:35	0°♄		desc. node	3969 Nov 24 02:46	5°♄01'48	
evening rise	3968 Dec 25 08:15	12°♄42'46		max. Earth dist.	3969 Nov 26 07:58	8°♄37'37	1.43702 AU
	3969 Jan 05 16:46	0°♄		evening rise	3969 Dec 04 18:03	21°♄55'04	
greatest brilliancy	3969 Jan 14 05:35	12°♄20'50	-0.6m		3969 Dec 10 00:48	0°♄	
evening max el	3969 Jan 20 21:24	20°♄30'03	20°05'38	greatest brilliancy	3969 Dec 29 17:38	28°♄07'38	-0.4m
asc. node	3969 Jan 27 03:42	24°♄49'01			3969 Dec 31 05:56	0°♄	
retrograde	3969 Jan 28 14:33	25°♄00'27		evening max el	3970 Jan 03 20:33	4°♄03'17	21°13'09
evening set	3969 Feb 01 07:03	23°♄41'16		retrograde	3970 Jan 12 12:20	9°♄11'11	
inferior conj	3969 Feb 06 17:59	17°♄35'56	2°59'47	asc. node	3970 Jan 14 00:44	8°♄58'38	
minimum elong	3969 Feb 06 15:37	17°♄43'54	2°59'16	evening set	3970 Jan 16 14:43	7°♄36'48	
min. Earth dist.	3969 Feb 07 14:31	16°♄26'47	0.67166 AU	inferior conj	3970 Jan 22 00:13	1°♄20'32	2°26'29
morning rise	3969 Feb 11 23:36	11°♄20'01		minimum elong	3970 Jan 21 21:45	1°♄29'04	2°25'44
direct	3969 Feb 17 18:56	8°♄45'17		min. Earth dist.	3970 Jan 22 08:06	0°♄53'20	0.67783 AU
morning max el	3969 Mar 01 12:18	15°♄45'48	24°58'47		3970 Jan 22 23:37	30°♄	
desc. node	3969 Mar 05 04:55	19°♄46'52		morning rise	3970 Jan 27 04:26	25°♄05'42	
	3969 Mar 13 06:07	0°♄		direct	3970 Feb 01 09:06	22°♄50'31	
	3969 Apr 01 19:36	0°♄		morning max el	3970 Feb 11 20:58	29°♄05'05	23°30'34
morning set	3969 Apr 06 14:33	8°♄19'44			3970 Feb 12 18:17	0°♄	
max. Earth dist.	3969 Apr 10 06:42	14°♄59'49	1.36877 AU	desc. node	3970 Feb 20 01:59	8°♄41'41	
					3970 Mar 07 01:06	0°♄	
superior conj	3969 Apr 16 16:29	27°♄13'23	-1°-18'-43	morning set	3970 Mar 19 00:38	19°♄16'31	
minimum elong	3969 Apr 16 20:37	27°♄33'37	1°18'06	max. Earth dist.	3970 Mar 23 01:52	26°♄15'08	1.39015 AU
	3969 Apr 18 02:16	0°♄			3970 Mar 25 04:42	0°♄	

superior conj	3970 Mar 30 14:22	9°Υ52'38	-1°-43'-44	superior conj	3971 Mar 12 17:55	21°✠37'50	-2°-1'-38
minimum elong	3970 Mar 30 19:06	10°Υ14'48	1°43'14	minimum elong	3971 Mar 12 21:24	21°✠53'19	2°01'29
evening rise	3970 Apr 08 22:06	27°Υ46'01			3971 Mar 17 09:29	0°Υ	
	3970 Apr 10 01:49	0°Ϡ		evening rise	3971 Mar 23 06:31	10°Υ51'38	
asc. node	3970 Apr 12 00:02	3°Ϡ41'16		asc. node	3971 Mar 29 21:05	22°Υ54'28	
evening max el	3970 Apr 25 03:52	23°Ϡ57'37	18°42'51		3971 Apr 03 04:43	0°Ϡ	
retrograde	3970 May 03 04:53	27°Ϡ54'13		evening max el	3971 Apr 08 11:32	6°Ϡ40'55	18°15'01
evening set	3970 May 05 09:09	27°Ϡ37'56		retrograde	3971 Apr 15 12:50	10°Ϡ12'52	
inferior conj	3970 May 13 05:31	23°Ϡ14'49	1°37'14	evening set	3971 Apr 17 23:17	9°Ϡ48'25	
minimum elong	3970 May 13 08:46	23°Ϡ08'45	1°36'11	inferior conj	3971 Apr 25 01:28	5°Ϡ04'16	2°44'52
min. Earth dist.	3970 May 16 12:54	20°Ϡ47'55	0.57425 AU	minimum elong	3971 Apr 25 04:58	4°Ϡ56'38	2°44'03
desc. node	3970 May 19 01:08	19°Ϡ09'09		min. Earth dist.	3971 Apr 28 11:14	2°Ϡ07'14	0.59506 AU
morning rise	3970 May 21 03:55	18°Ϡ02'32			3971 May 01 07:15	30°ϠΥ	
direct	3970 May 26 18:41	16°Ϡ44'54		morning rise	3971 May 02 06:44	29°Υ23'42	
morning max el	3970 Jun 10 03:16	24°Ϡ17'19	26°23'26	desc. node	3971 May 05 22:11	27°Υ51'57	
	3970 Jun 15 08:21	0°Π		direct	3971 May 08 16:06	27°Υ31'10	
	3970 Jul 04 04:05	0°ϣ			3971 May 16 09:47	0°Ϡ	
morning set	3970 Jul 08 22:03	9°ϣ40'09		morning max el	3971 May 23 00:54	5°Ϡ20'40	27°25'21
asc. node	3970 Jul 08 23:20	9°ϣ46'55			3971 Jun 10 07:45	0°Π	
				morning set	3971 Jun 23 06:10	24°Π20'12	
superior conj	3970 Jul 15 22:27	24°ϣ55'40	1°07'20	asc. node	3971 Jun 25 20:23	29°Π49'32	
minimum elong	3970 Jul 15 20:09	24°ϣ43'00	1°06'57		3971 Jun 25 22:19	0°ϣ	
max. Earth dist.	3970 Jul 16 08:34	25°ϣ51'24	1.32165 AU				
	3970 Jul 18 05:48	0°Ω		superior conj	3971 Jun 30 10:11	9°ϣ48'59	0°46'26
evening rise	3970 Jul 22 21:36	10°Ω00'13		minimum elong	3971 Jun 30 08:19	9°ϣ38'40	0°46'04
	3970 Aug 02 06:29	0°η		max. Earth dist.	3971 Jun 29 20:23	8°ϣ32'55	1.32026 AU
desc. node	3970 Aug 15 00:27	19°η22'22		evening rise	3971 Jul 07 06:51	24°ϣ46'27	
evening max el	3970 Aug 22 15:32	27°η55'35	26°59'25		3971 Jul 09 19:00	0°Ω	
	3970 Aug 24 23:44	0°Ϡ			3971 Jul 27 08:44	0°η	
retrograde	3970 Sep 05 12:52	5°Ϡ07'06		desc. node	3971 Aug 01 21:27	6°η44'18	
evening set	3970 Sep 12 13:27	2°Ϡ57'06		evening max el	3971 Aug 04 13:35	9°η27'59	26°00'33
min. Earth dist.	3970 Sep 16 05:47	0°Ϡ17'36	0.60891 AU	retrograde	3971 Aug 18 12:54	16°η36'21	
	3970 Sep 16 14:20	30°Ϡη		evening set	3971 Aug 24 21:23	14°η59'14	
inferior conj	3970 Sep 19 10:02	27°η35'42	-4°-23'-1	min. Earth dist.	3971 Aug 29 02:04	12°η24'18	0.58820 AU
minimum elong	3970 Sep 19 15:50	27°η23'19	4°21'45	inferior conj	3971 Sep 01 08:08	10°η00'19	-5°00'-43
morning rise	3970 Sep 26 21:23	22°η45'34		minimum elong	3971 Sep 01 11:44	9°η53'37	5°00'22
direct	3970 Sep 29 04:56	22°η24'15		morning rise	3971 Sep 09 05:37	5°η33'43	
asc. node	3970 Oct 04 22:34	24°η40'59		direct	3971 Sep 11 15:26	5°η14'28	
morning max el	3970 Oct 06 10:01	25°η59'08	18°01'29	morning max el	3971 Sep 19 17:43	9°η07'23	18°32'54
	3970 Oct 09 20:34	0°Ϡ		asc. node	3971 Sep 21 19:37	11°η20'38	
morning set	3970 Oct 22 03:36	20°Ϡ49'52			3971 Oct 03 07:58	0°Ϡ	
	3970 Oct 27 02:49	0°ℓ		morning set	3971 Oct 05 20:18	4°Ϡ49'22	
superior conj	3970 Nov 01 04:53	9°ℓ09'12	1°05'06	superior conj	3971 Oct 14 17:54	21°Ϡ51'23	1°27'50
minimum elong	3970 Nov 01 09:03	9°ℓ27'38	1°04'35	minimum elong	3971 Oct 14 21:13	22°Ϡ06'49	1°27'32
max. Earth dist.	3970 Nov 08 19:57	22°ℓ14'33	1.42035 AU		3971 Oct 19 04:49	0°ℓ	
desc. node	3970 Nov 10 23:47	25°ℓ48'35		max. Earth dist.	3971 Oct 22 02:35	5°ℓ07'57	1.40026 AU
	3970 Nov 13 13:46	0°Ϡ		evening rise	3971 Oct 26 08:43	12°ℓ23'35	
evening rise	3970 Nov 14 14:45	1°Ϡ40'05		desc. node	3971 Oct 28 20:48	16°ℓ31'51	
	3970 Dec 03 12:29	0°Ϡ			3971 Nov 06 10:23	0°Ϡ	
greatest brilliancy	3970 Dec 12 18:54	12°Ϡ13'43	-0.3m		3971 Nov 28 23:12	0°Ϡ	
evening max el	3970 Dec 17 14:29	17°Ϡ37'55	22°29'35	evening max el	3971 Nov 30 04:34	1°Ϡ15'15	23°49'33
retrograde	3970 Dec 27 08:23	23°Ϡ25'30		retrograde	3971 Dec 11 01:19	7°Ϡ39'37	
evening set	3970 Dec 31 22:19	21°Ϡ34'59		evening set	3971 Dec 16 04:14	5°Ϡ32'50	
asc. node	3970 Dec 31 21:47	21°Ϡ36'05		asc. node	3971 Dec 18 18:51	2°Ϡ50'37	
inferior conj	3971 Jan 06 08:00	15°Ϡ11'07	1°45'23		3971 Dec 20 23:26	30°ϠϠ	
minimum elong	3971 Jan 06 05:53	15°Ϡ18'27	1°44'36	min. Earth dist.	3971 Dec 21 00:57	29°Ϡ54'52	0.67873 AU
min. Earth dist.	3971 Jan 06 04:20	15°Ϡ23'49	0.68008 AU	inferior conj	3971 Dec 21 15:28	29°Ϡ05'27	0°57'37
morning rise	3971 Jan 11 13:22	8°Ϡ59'09		minimum elong	3971 Dec 21 14:09	29°Ϡ09'56	0°57'05
direct	3971 Jan 16 03:07	7°Ϡ06'45		morning rise	3971 Dec 27 00:19	22°Ϡ58'08	
morning max el	3971 Jan 25 08:55	12°Ϡ32'03	22°02'58	direct	3971 Dec 30 23:58	21°Ϡ28'27	
greatest brilliancy	3971 Jan 30 00:07	17°Ϡ43'36	-0.4m	morning max el	3972 Jan 08 03:21	26°Ϡ09'33	20°43'21
desc. node	3971 Feb 06 23:02	28°Ϡ13'14			3972 Jan 11 14:29	0°Ϡ	
	3971 Feb 08 05:25	0°≈		greatest brilliancy	3972 Jan 13 23:00	2°Ϡ56'13	-0.5m
morning set	3971 Feb 27 06:24	28°≈51'55		desc. node	3972 Jan 24 20:04	18°Ϡ11'04	
	3971 Feb 27 23:17	0°✠			3972 Feb 01 16:51	0°≈	
max. Earth dist.	3971 Mar 05 00:05	8°✠17'11	1.41170 AU	morning set	3972 Feb 06 10:23	7°≈17'34	

max. Earth dist.	3972 Feb 15 04:55	21° \approx 12'33	1.43063 AU	morning set	3973 Jan 15 07:02	15° \approx 31'03	
	3972 Feb 20 13:20	0° \approx			3973 Jan 24 14:12	0° \approx	
				max. Earth dist.	3973 Jan 27 16:51	4° \approx 54'37	1.44456 AU
superior conj	3972 Feb 21 22:00	2° \approx 16'43	-2°-7'-28	superior conj	3973 Feb 01 00:19	11° \approx 47'23	-1°-55'-57
minimum elong	3972 Feb 21 21:19	2° \approx 13'49	2°07'29	minimum elong	3973 Jan 31 17:37	11° \approx 20'30	1°55'33
evening rise	3972 Mar 04 23:33	23° \approx 11'29			3973 Feb 12 02:41	0° \approx	
	3972 Mar 08 19:54	0° \approx		evening rise	3973 Feb 14 20:53	4° \approx 38'00	
asc. node	3972 Mar 15 18:08	11° \approx 39'01		asc. node	3973 Mar 02 15:10	29° \approx 46'19	
evening max el	3972 Mar 21 23:15	19° \approx 45'59	18°06'53		3973 Mar 02 19:25	0° \approx	
retrograde	3972 Mar 28 12:13	23° \approx 08'45		evening max el	3973 Mar 05 12:01	3° \approx 05'29	18°17'43
evening set	3972 Mar 31 04:32	22° \approx 34'18		retrograde	3973 Mar 11 22:31	6° \approx 32'47	
inferior conj	3972 Apr 06 16:08	17° \approx 29'31	3°22'29	evening set	3973 Mar 14 20:38	5° \approx 47'03	
minimum elong	3972 Apr 06 18:12	17° \approx 24'19	3°22'14	inferior conj	3973 Mar 20 21:27	0° \approx 22'47	3°36'21
min. Earth dist.	3972 Apr 09 17:18	14° \approx 27'08	0.61687 AU	minimum elong	3973 Mar 20 21:46	0° \approx 21'55	3°36'21
morning rise	3972 Apr 13 05:01	11° \approx 30'59			3973 Mar 21 05:32	30° \approx	
direct	3972 Apr 20 00:33	9° \approx 06'59		min. Earth dist.	3973 Mar 23 08:28	27° \approx 37'25	0.63700 AU
desc. node	3972 Apr 21 19:14	9° \approx 16'10		morning rise	3973 Mar 26 21:02	24° \approx 14'25	
morning max el	3972 May 04 04:44	17° \approx 05'15	27°51'10	direct	3973 Apr 02 17:42	21° \approx 30'28	
	3972 May 14 21:34	0° \approx		desc. node	3973 Apr 08 16:17	23° \approx 13'41	
	3972 Jun 02 00:01	0° \approx		morning max el	3973 Apr 16 12:50	29° \approx 28'12	27°39'39
morning set	3972 Jun 06 09:39	8° \approx 43'37			3973 Apr 17 01:22	0° \approx	
asc. node	3972 Jun 11 17:25	19° \approx 56'42			3973 May 08 19:46	0° \approx	
max. Earth dist.	3972 Jun 12 05:50	21° \approx 03'55	1.32295 AU	morning set	3973 May 21 06:05	22° \approx 43'00	
					3973 May 24 20:10	0° \approx	
superior conj	3972 Jun 13 20:25	24° \approx 33'58	0°22'09	max. Earth dist.	3973 May 26 09:03	3° \approx 12'32	1.32996 AU
minimum elong	3972 Jun 13 19:25	24° \approx 28'28	0°21'56				
	3972 Jun 16 07:59	0° \approx		superior conj	3973 May 29 03:21	9° \approx 04'55	0°-4'-50
evening rise	3972 Jun 20 18:16	9° \approx 35'41		minimum elong	3973 May 29 03:35	9° \approx 06'12	0°04'49
	3972 Jul 01 06:01	0° \approx		behind sun begin	3973 May 28 22:28	8° \approx 38'45	
evening max el	3972 Jul 16 04:41	20° \approx 15'34	24°36'03	behind sun end	3973 May 29 08:42	9° \approx 33'39	
desc. node	3972 Jul 18 18:28	22° \approx 32'12		asc. node	3973 May 29 14:26	10° \approx 04'25	
retrograde	3972 Jul 30 02:19	27° \approx 17'01		evening rise	3973 Jun 05 06:00	24° \approx 22'01	
evening set	3972 Aug 04 05:01	26° \approx 18'15			3973 Jun 07 22:57	0° \approx	
min. Earth dist.	3972 Aug 09 15:52	23° \approx 28'38	0.56898 AU		3973 Jun 27 01:32	0° \approx	
inferior conj	3972 Aug 12 10:23	21° \approx 41'36	-5°-9'-9	evening max el	3973 Jun 27 17:54	0° \approx 40'37	22°59'31
minimum elong	3972 Aug 12 08:48	21° \approx 44'10	5°09'06	desc. node	3973 Jul 05 15:29	6° \approx 12'21	
morning rise	3972 Aug 20 16:10	17° \approx 36'50		retrograde	3973 Jul 11 02:58	7° \approx 20'49	
direct	3972 Aug 23 07:14	17° \approx 17'48		evening set	3973 Jul 14 17:10	6° \approx 52'38	
morning max el	3972 Sep 01 16:11	21° \approx 40'43	19°25'43	min. Earth dist.	3973 Jul 22 02:51	3° \approx 33'38	0.55472 AU
asc. node	3972 Sep 07 16:39	29° \approx 00'15		inferior conj	3973 Jul 23 17:19	2° \approx 37'59	-4°-32'-48
	3972 Sep 08 08:33	0° \approx		minimum elong	3973 Jul 23 10:05	2° \approx 48'29	4°31'27
morning set	3972 Sep 18 21:24	19° \approx 12'57			3973 Jul 28 16:05	30° \approx	
	3972 Sep 24 06:20	0° \approx		morning rise	3973 Aug 01 05:44	28° \approx 46'27	
superior conj	3972 Sep 26 23:35	5° \approx 22'42	1°40'24	direct	3973 Aug 04 04:36	28° \approx 25'50	
minimum elong	3972 Sep 27 01:16	5° \approx 30'56	1°40'19		3973 Aug 10 06:50	0° \approx	
max. Earth dist.	3972 Oct 03 06:40	17° \approx 20'33	1.37935 AU	morning max el	3973 Aug 15 03:04	3° \approx 30'42	20°39'58
evening rise	3972 Oct 07 01:58	24° \approx 11'30		asc. node	3973 Aug 25 13:41	17° \approx 26'13	
	3972 Oct 10 10:34	0° \approx			3973 Sep 01 06:18	0° \approx	
desc. node	3972 Oct 14 17:49	7° \approx 07'40		morning set	3973 Sep 03 04:02	3° \approx 52'38	
	3972 Oct 30 03:36	0° \approx		superior conj	3973 Sep 10 17:12	19° \approx 29'07	1°44'21
evening max el	3972 Nov 11 17:02	14° \approx 56'41	25°06'31	minimum elong	3973 Sep 10 17:15	19° \approx 29'25	1°44'20
retrograde	3972 Nov 23 14:08	21° \approx 49'23		max. Earth dist.	3973 Sep 15 14:10	29° \approx 13'23	1.36010 AU
evening set	3972 Nov 29 06:51	19° \approx 27'36			3973 Sep 15 23:46	0° \approx	
min. Earth dist.	3972 Dec 03 19:37	14° \approx 23'58	0.67390 AU	evening rise	3973 Sep 19 15:26	6° \approx 55'53	
inferior conj	3972 Dec 04 20:52	13° \approx 01'19	0°04'16	desc. node	3973 Oct 01 14:49	27° \approx 30'49	
minimum elong	3972 Dec 04 20:46	13° \approx 01'41	0°04'14		3973 Oct 03 04:46	0° \approx	
transit middle	3972 Dec 04 20:46	13° \approx 01'41	0°04'14	evening max el	3973 Oct 25 05:33	28° \approx 38'49	26°13'07
transit begin	3972 Dec 04 18:05	13° \approx 10'27			3973 Oct 26 16:17	0° \approx	
transit end	3972 Dec 04 23:26	12° \approx 52'55		retrograde	3973 Nov 06 21:51	5° \approx 48'32	
asc. node	3972 Dec 04 15:53	13° \approx 17'41		evening set	3973 Nov 13 04:20	3° \approx 14'48	
morning rise	3972 Dec 10 11:19	7° \approx 00'55			3973 Nov 16 09:20	30° \approx	
direct	3972 Dec 13 22:29	5° \approx 51'40		min. Earth dist.	3973 Nov 17 09:52	28° \approx 46'54	0.66566 AU
morning max el	3972 Dec 21 05:38	9° \approx 58'21	19°36'36	inferior conj	3973 Nov 18 22:18	26° \approx 54'37	0°-53'-32
greatest brilliancy	3972 Dec 29 09:32	20° \approx 08'15	-0.6m	minimum elong	3973 Nov 18 23:45	26° \approx 50'11	0°52'55
	3973 Jan 05 03:15	0° \approx		asc. node	3973 Nov 21 12:54	23° \approx 51'02	
desc. node	3973 Jan 10 17:06	8° \approx 28'19					

morning rise	3973 Nov 24 20:18	21° \mathbb{M} 03'52		morning max el	3974 Nov 18 05:22	7° \mathbb{M} 53'58	18°10'11
direct	3973 Nov 27 20:58	20° \mathbb{M} 11'38			3974 Dec 03 09:32	0° \mathbb{M}	
morning max el	3973 Dec 04 15:00	23° \mathbb{M} 54'45	18°45'10	morning set	3974 Dec 06 16:24	5° \mathbb{M} 23'18	
	3973 Dec 09 16:20	0° \mathbb{M}		desc. node	3974 Dec 15 11:08	19° \mathbb{M} 38'42	
morning set	3973 Dec 25 21:09	24° \mathbb{M} 43'07					
desc. node	3973 Dec 28 14:07	28° \mathbb{M} 58'56		superior conj	3974 Dec 21 10:30	29° \mathbb{M} 09'25	0°-40'-7
	3973 Dec 29 05:38	0° \mathbb{M}		minimum elong	3974 Dec 21 05:26	28° \mathbb{M} 49'25	0°39'28
max. Earth dist.	3974 Jan 10 10:14	19° \mathbb{M} 08'24	1.45183 AU		3974 Dec 21 23:18	0° \mathbb{M}	
				max. Earth dist.	3974 Dec 24 05:50	3° \mathbb{M} 34'49	1.45166 AU
superior conj	3974 Jan 11 06:35	20° \mathbb{M} 28'18	-1°-24'-58	evening rise	3975 Jan 06 19:32	24° \mathbb{M} 45'20	
minimum elong	3974 Jan 10 21:25	19° \mathbb{M} 52'16	1°24'00		3975 Jan 10 04:36	0° \mathbb{M}	
	3974 Jan 17 07:43	0° \mathbb{M}		greatest brilliancy	3975 Jan 23 04:25	19° \mathbb{M} 43'49	-0.7m
evening rise	3974 Jan 26 19:13	15° \mathbb{M} 07'00			3975 Jan 31 05:07	0° \mathbb{M}	
	3974 Feb 05 01:52	0° \mathbb{M}		evening max el	3975 Jan 31 06:32	0° \mathbb{M} 03'40	19°32'29
evening max el	3974 Feb 16 23:10	16° \mathbb{M} 32'54	18°46'41	asc. node	3975 Feb 04 09:13	3° \mathbb{M} 21'47	
asc. node	3974 Feb 17 12:11	17° \mathbb{M} 05'05		retrograde	3975 Feb 07 12:48	4° \mathbb{M} 14'46	
retrograde	3974 Feb 23 15:46	20° \mathbb{M} 16'49		evening set	3975 Feb 11 00:31	3° \mathbb{M} 03'28	
evening set	3974 Feb 26 20:11	19° \mathbb{M} 18'48			3975 Feb 14 05:50	30° \mathbb{R}	
inferior conj	3974 Mar 04 13:31	13° \mathbb{M} 36'40	3°32'21	inferior conj	3975 Feb 16 13:06	27° \mathbb{M} 05'39	3°14'51
minimum elong	3974 Mar 04 12:23	13° \mathbb{M} 40'10	3°32'16	minimum elong	3975 Feb 16 11:02	27° \mathbb{M} 12'25	3°14'29
min. Earth dist.	3974 Mar 06 08:51	11° \mathbb{M} 23'39	0.65371 AU	min. Earth dist.	3975 Feb 17 17:28	25° \mathbb{M} 32'38	0.66630 AU
morning rise	3974 Mar 10 03:26	7° \mathbb{M} 23'19		morning rise	3975 Feb 21 20:51	20° \mathbb{M} 50'07	
direct	3974 Mar 16 17:48	4° \mathbb{M} 33'45		direct	3975 Feb 27 23:54	18° \mathbb{M} 07'27	
desc. node	3974 Mar 26 13:19	9° \mathbb{M} 11'14		morning max el	3975 Mar 12 08:07	25° \mathbb{M} 28'28	25°46'09
morning max el	3974 Mar 29 22:39	12° \mathbb{M} 19'45	26°55'21	desc. node	3975 Mar 13 10:21	26° \mathbb{M} 36'17	
	3974 Apr 13 02:26	0° \mathbb{M}			3975 Mar 16 11:24	0° \mathbb{M}	
	3974 May 01 09:49	0° \mathbb{M}			3975 Apr 06 14:45	0° \mathbb{M}	
morning set	3974 May 04 16:24	6° \mathbb{M} 09'02		morning set	3975 Apr 17 12:25	18° \mathbb{M} 49'14	
max. Earth dist.	3974 May 09 02:34	14° \mathbb{M} 50'54	1.34154 AU	max. Earth dist.	3975 Apr 21 08:48	26° \mathbb{M} 01'36	1.35770 AU
					3975 Apr 23 10:11	0° \mathbb{M}	
superior conj	3974 May 13 04:53	23° \mathbb{M} 15'27	0°-33'-32				
minimum elong	3974 May 13 06:39	23° \mathbb{M} 24'40	0°33'11	superior conj	3975 Apr 26 22:23	6° \mathbb{M} 57'26	-1°-2'-35
asc. node	3974 May 16 11:28	0° \mathbb{M} 08'46		minimum elong	3975 Apr 27 01:44	7° \mathbb{M} 14'17	1°02'01
	3974 May 16 09:48	0° \mathbb{M}		asc. node	3975 May 03 08:30	20° \mathbb{M} 05'02	
evening rise	3974 May 20 16:10	8° \mathbb{M} 59'23		evening rise	3975 May 04 22:41	23° \mathbb{M} 20'36	
	3974 May 31 19:58	0° \mathbb{M}			3975 May 08 06:16	0° \mathbb{M}	
evening max el	3974 Jun 09 13:00	11° \mathbb{M} 15'25	21°26'25	evening max el	3975 May 22 19:18	22° \mathbb{M} 23'20	20°07'34
retrograde	3974 Jun 21 17:15	17° \mathbb{M} 15'00		retrograde	3975 Jun 02 07:33	27° \mathbb{M} 30'52	
desc. node	3974 Jun 22 12:30	17° \mathbb{M} 13'31		evening set	3975 Jun 04 06:45	27° \mathbb{M} 20'52	
evening set	3974 Jun 24 03:26	17° \mathbb{M} 01'34		desc. node	3975 Jun 09 09:32	25° \mathbb{M} 33'57	
inferior conj	3974 Jul 03 11:59	13° \mathbb{M} 02'09	-3°-6'-42	inferior conj	3975 Jun 13 07:51	23° \mathbb{M} 21'40	-1°-9'-53
minimum elong	3974 Jul 03 03:58	13° \mathbb{M} 13'21	3°04'12	minimum elong	3975 Jun 13 04:35	23° \mathbb{M} 26'33	1°08'40
min. Earth dist.	3974 Jul 03 13:42	12° \mathbb{M} 59'45	0.54845 AU	min. Earth dist.	3975 Jun 15 02:05	22° \mathbb{M} 18'49	0.55172 AU
morning rise	3974 Jul 12 05:06	9° \mathbb{M} 07'41		morning rise	3975 Jun 22 00:06	19° \mathbb{M} 04'01	
direct	3974 Jul 15 14:51	8° \mathbb{M} 42'32		direct	3975 Jun 26 02:35	18° \mathbb{M} 27'28	
morning max el	3974 Jul 28 02:31	14° \mathbb{M} 36'29	22°12'39	morning max el	3975 Jul 09 18:18	25° \mathbb{M} 09'05	23°55'31
	3974 Aug 08 19:31	0° \mathbb{M}			3975 Jul 14 06:46	0° \mathbb{M}	
asc. node	3974 Aug 12 10:43	6° \mathbb{M} 27'30		asc. node	3975 Jul 30 07:45	25° \mathbb{M} 54'20	
morning set	3974 Aug 18 14:06	18° \mathbb{M} 42'50			3975 Aug 01 08:11	0° \mathbb{M}	
	3974 Aug 23 21:47	0° \mathbb{M}		morning set	3975 Aug 03 01:45	3° \mathbb{M} 37'03	
superior conj	3974 Aug 25 19:06	4° \mathbb{M} 00'20	1°41'06	superior conj	3975 Aug 10 02:28	18° \mathbb{M} 46'46	1°31'53
minimum elong	3974 Aug 25 17:54	3° \mathbb{M} 53'55	1°41'03	minimum elong	3975 Aug 10 00:26	18° \mathbb{M} 35'50	1°31'41
max. Earth dist.	3974 Aug 29 05:45	11° \mathbb{M} 10'51	1.34414 AU	max. Earth dist.	3975 Aug 12 06:06	23° \mathbb{M} 24'20	1.33213 AU
evening rise	3974 Sep 02 20:49	20° \mathbb{M} 25'38			3975 Aug 15 09:18	0° \mathbb{M}	
	3974 Sep 07 23:24	0° \mathbb{M}		evening rise	3975 Aug 17 13:54	4° \mathbb{M} 28'33	
desc. node	3974 Sep 18 11:49	17° \mathbb{M} 35'22			3975 Aug 31 16:19	0° \mathbb{M}	
	3974 Sep 27 03:42	0° \mathbb{M}		desc. node	3975 Sep 05 08:50	7° \mathbb{M} 12'35	
evening max el	3974 Oct 07 18:12	12° \mathbb{M} 13'55	27°01'40	evening max el	3975 Sep 20 05:41	25° \mathbb{M} 29'54	27°25'19
retrograde	3974 Oct 20 23:56	19° \mathbb{M} 30'42			3975 Sep 25 19:36	0° \mathbb{M}	
evening set	3974 Oct 27 18:34	16° \mathbb{M} 50'27		retrograde	3975 Oct 03 20:02	2° \mathbb{M} 47'22	
min. Earth dist.	3974 Oct 31 17:21	12° \mathbb{M} 58'52	0.65396 AU	evening set	3975 Oct 10 22:52	0° \mathbb{M} 09'15	
inferior conj	3974 Nov 02 17:42	10° \mathbb{M} 41'20	-1°-54'-15		3975 Oct 11 03:49	30° \mathbb{R}	
minimum elong	3974 Nov 02 20:54	10° \mathbb{M} 32'12	1°52'58	min. Earth dist.	3975 Oct 14 15:53	26° \mathbb{M} 52'01	0.63874 AU
asc. node	3974 Nov 08 09:56	5° \mathbb{M} 23'25		inferior conj	3975 Oct 17 04:34	24° \mathbb{M} 15'43	-2°-55'-34
morning rise	3974 Nov 09 00:59	5° \mathbb{M} 03'23		minimum elong	3975 Oct 17 09:27	24° \mathbb{M} 03'05	2°53'52
direct	3974 Nov 11 17:23	4° \mathbb{M} 24'22		morning rise	3975 Oct 23 22:26	18° \mathbb{M} 53'57	

direct	3975 Oct 26 09:01	18°♂24'27		inferior conj	3976 Sep 29 03:55	7°♂30'38	-3°-53'-37
asc. node	3975 Oct 26 06:59	18°♂24'29		minimum elong	3976 Sep 29 09:50	7°♂17'03	3°52'00
morning max el	3975 Nov 01 21:58	21°♂49'35	17°52'26	morning rise	3976 Oct 06 09:00	2°♂28'12	
	3975 Nov 08 04:59	0°♂		direct	3976 Oct 08 16:34	2°♂04'53	
morning set	3975 Nov 18 14:51	17°♂22'37		asc. node	3976 Oct 12 04:03	2°♂59'18	
	3975 Nov 26 00:54	0°♂		morning max el	3976 Oct 15 13:43	5°♂33'59	17°52'41
				morning set	3976 Oct 31 10:10	0°♂21'28	
					3976 Oct 31 05:25	0°♂	
superior conj	3975 Dec 01 07:59	8°♂45'38	0°06'59				
minimum elong	3975 Dec 01 08:45	8°♂48'48	0°06'52				
behind sun begin	3975 Nov 30 23:45	8°♂11'58		superior conj	3976 Nov 11 07:53	19°♂39'27	0°46'57
behind sun end	3975 Dec 01 17:46	9°♂25'34		minimum elong	3976 Nov 11 11:42	19°♂55'49	0°46'26
desc. node	3975 Dec 02 08:09	10°♂24'05			3976 Nov 17 11:45	0°♂	
max. Earth dist.	3975 Dec 07 00:11	17°♂54'30	1.44416 AU	desc. node	3976 Nov 18 05:10	1°♂11'24	
	3975 Dec 14 17:07	0°♂		max. Earth dist.	3976 Nov 18 14:26	1°♂49'13	1.43040 AU
evening rise	3975 Dec 17 06:16	3°♂56'02		evening rise	3976 Nov 25 18:47	13°♂17'09	
	3976 Jan 03 16:53	0°♂			3976 Dec 06 18:41	0°♂	
greatest brilliancy	3976 Jan 08 11:19	6°♂34'00	-0.5m	greatest brilliancy	3976 Dec 22 10:19	21°♂41'35	-0.4m
evening max el	3976 Jan 14 08:46	13°♂35'57	20°32'58	evening max el	3976 Dec 27 05:27	27°♂09'03	21°44'57
retrograde	3976 Jan 22 11:02	18°♂22'10			3976 Dec 30 08:50	0°♂	
asc. node	3976 Jan 22 06:15	18°♂21'57		retrograde	3977 Jan 05 08:21	2°♂34'32	
evening set	3976 Jan 26 07:31	16°♂56'34		asc. node	3977 Jan 08 03:19	1°♂52'28	
inferior conj	3976 Jan 31 17:35	10°♂45'55	2°46'44	evening set	3977 Jan 09 15:20	0°♂53'32	
minimum elong	3976 Jan 31 15:07	10°♂54'21	2°46'06		3977 Jan 10 15:32	30°♂	
min. Earth dist.	3976 Feb 01 08:30	9°♂54'58	0.67468 AU	inferior conj	3977 Jan 15 00:43	24°♂33'26	2°09'56
morning rise	3976 Feb 05 22:15	4°♂30'10		minimum elong	3977 Jan 14 22:20	24°♂41'40	2°09'09
direct	3976 Feb 11 11:19	2°♂03'24		min. Earth dist.	3977 Jan 15 03:36	24°♂23'26	0.67914 AU
morning max el	3976 Feb 22 16:49	8°♂45'51	24°21'55	morning rise	3977 Jan 20 05:05	18°♂19'21	
desc. node	3976 Feb 28 07:23	15°♂04'00		direct	3977 Jan 25 03:18	16°♂13'37	
	3976 Mar 10 09:38	0°♂		morning max el	3977 Feb 04 02:25	22°♂07'54	22°52'45
	3976 Mar 29 06:02	0°♂		greatest brilliancy	3977 Feb 08 19:09	27°♂22'23	-0.3m
morning set	3976 Mar 29 12:47	0°♂29'19			3977 Feb 10 22:05	0°♂	
max. Earth dist.	3976 Apr 02 06:08	7°♂05'45	1.37763 AU	desc. node	3977 Feb 14 04:25	4°♂15'49	
					3977 Mar 03 17:29	0°♂	
superior conj	3976 Apr 09 04:37	20°♂02'48	-1°-29'-55	morning set	3977 Mar 10 11:12	10°♂52'13	
minimum elong	3976 Apr 09 09:09	20°♂24'38	1°29'19	max. Earth dist.	3977 Mar 15 01:09	18°♂35'35	1.39939 AU
	3976 Apr 14 06:41	0°♂			3977 Mar 21 12:26	0°♂	
evening rise	3976 Apr 17 23:08	7°♂18'59					
asc. node	3976 Apr 19 05:33	9°♂49'01		superior conj	3977 Mar 22 19:16	2°♂20'14	-1°-52'-28
	3976 Apr 30 22:12	0°♂		minimum elong	3977 Mar 22 23:47	2°♂40'52	1°52'06
evening max el	3976 May 04 13:39	4°♂13'04	19°07'56	evening rise	3977 Apr 01 14:22	20°♂45'43	
retrograde	3976 May 13 10:03	8°♂31'48		asc. node	3977 Apr 06 02:36	29°♂14'59	
evening set	3976 May 15 10:48	8°♂19'07			3977 Apr 06 12:25	0°♂	
inferior conj	3976 May 23 18:30	4°♂07'07	0°43'28	evening max el	3977 Apr 17 17:28	16°♂39'26	18°28'38
minimum elong	3976 May 23 20:14	4°♂04'10	0°42'50	retrograde	3977 Apr 25 06:59	20°♂23'21	
desc. node	3976 May 26 06:34	2°♂24'47		evening set	3977 Apr 27 13:50	20°♂03'57	
min. Earth dist.	3976 May 26 17:18	2°♂07'01	0.56403 AU	inferior conj	3977 May 05 02:10	15°♂32'23	2°09'50
	3976 May 30 07:57	30°♂		minimum elong	3977 May 05 05:49	15°♂25'04	2°08'47
morning rise	3976 Jun 01 01:21	29°♂14'13		min. Earth dist.	3977 May 08 12:29	12°♂49'29	0.58277 AU
direct	3976 Jun 06 02:36	28°♂14'38		morning rise	3977 May 12 17:25	10°♂06'46	
	3976 Jun 12 21:01	0°♂		desc. node	3977 May 13 03:37	9°♂54'16	
morning max el	3976 Jun 20 08:34	5°♂33'17	25°34'27	direct	3977 May 18 17:06	8°♂34'06	
	3976 Jul 08 02:02	0°♂		morning max el	3977 Jun 02 02:26	16°♂15'38	26°53'42
asc. node	3976 Jul 16 04:49	15°♂39'39			3977 Jun 13 07:52	0°♂	
morning set	3976 Jul 17 13:21	18°♂30'06			3977 Jun 30 09:24	0°♂	
	3976 Jul 22 20:45	0°♂		morning set	3977 Jul 01 23:14	3°♂16'38	
				asc. node	3977 Jul 03 01:53	5°♂37'35	
superior conj	3976 Jul 24 13:00	3°♂41'07	1°17'36				
minimum elong	3976 Jul 24 10:40	3°♂28'18	1°17'16	superior conj	3977 Jul 09 00:50	18°♂36'55	0°58'57
max. Earth dist.	3976 Jul 25 13:25	5°♂54'53	1.32428 AU	minimum elong	3977 Jul 08 22:39	18°♂24'56	0°58'33
evening rise	3976 Jul 31 15:20	18°♂55'01		max. Earth dist.	3977 Jul 09 00:32	18°♂35'20	1.32054 AU
	3976 Aug 06 05:13	0°♂			3977 Jul 14 05:43	0°♂	
desc. node	3976 Aug 22 05:52	26°♂11'07		evening rise	3977 Jul 15 22:25	3°♂36'39	
	3976 Aug 25 03:38	0°♂			3977 Jul 30 01:03	0°♂	
evening max el	3976 Sep 01 13:52	8°♂14'15	27°18'24	desc. node	3977 Aug 09 02:53	14°♂15'07	
retrograde	3976 Sep 15 09:35	15°♂28'56		evening max el	3977 Aug 14 16:24	20°♂16'14	26°38'13
evening set	3976 Sep 22 13:39	13°♂04'49		retrograde	3977 Aug 28 15:13	27°♂26'46	
min. Earth dist.	3976 Sep 26 04:12	10°♂14'57	0.62041 AU	evening set	3977 Sep 04 10:21	25°♂29'46	

min. Earth dist.	3977 Sep 08 06:14	22° \cap 54'13	0.60005 AU	retrograde	3978 Aug 10 10:46	8° \cap 35'04	
inferior conj	3977 Sep 11 12:21	20° \cap 17'36	-4°-41'-41	evening set	3978 Aug 16 08:04	7° \cap 14'35	
minimum elong	3977 Sep 11 17:36	20° \cap 07'02	4°40'47	min. Earth dist.	3978 Aug 20 23:24	4° \cap 35'34	0.57968 AU
morning rise	3977 Sep 19 04:12	15° \cap 37'12		inferior conj	3978 Aug 24 02:19	2° \cap 25'26	-5°-8'-50
direct	3977 Sep 21 12:09	15° \cap 17'08		minimum elong	3978 Aug 24 04:03	2° \cap 22'25	5°08'47
morning max el	3977 Sep 29 01:21	18° \cap 58'50	18°12'14		3978 Aug 27 19:18	30° \cap 00	
asc. node	3977 Sep 29 01:07	18° \cap 58'16		morning rise	3978 Sep 01 03:31	28° \cap 08'17	
	3977 Oct 07 02:51	0° \cap		direct	3978 Sep 03 15:21	27° \cap 04'12	
morning set	3977 Oct 14 20:31	14° \cap 03'37			3978 Sep 09 22:19	0° \cap	
	3977 Oct 23 09:21	0° \cap		morning max el	3978 Sep 12 05:25	1° \cap 53'29	18°52'36
				asc. node	3978 Sep 15 22:08	6° \cap 05'26	
superior conj	3977 Oct 24 08:52	1° \cap 46'45	1°16'04	morning set	3978 Sep 28 17:13	28° \cap 15'09	
minimum elong	3977 Oct 24 12:51	2° \cap 04'43	1°15'37		3978 Sep 29 14:34	0° \cap	
max. Earth dist.	3977 Oct 31 23:44	15° \cap 07'42	1.41208 AU				
desc. node	3977 Nov 05 02:11	21° \cap 57'41		superior conj	3978 Oct 07 05:38	14° \cap 51'53	1°34'19
evening rise	3977 Nov 05 23:55	23° \cap 26'18		minimum elong	3978 Oct 07 08:17	15° \cap 04'33	1°34'06
	3977 Nov 10 02:25	0° \cap		max. Earth dist.	3978 Oct 14 05:12	27° \cap 44'32	1.39140 AU
	3977 Nov 30 18:37	0° \cap			3978 Oct 15 11:50	0° \cap	
greatest brilliancy	3977 Dec 04 03:09	4° \cap 15'15	-0.2m	evening rise	3978 Oct 18 04:01	4° \cap 38'07	
evening max el	3977 Dec 09 21:37	10° \cap 45'22	23°03'36	desc. node	3978 Oct 22 23:13	12° \cap 38'38	
retrograde	3977 Dec 20 03:09	16° \cap 49'10			3978 Nov 03 05:28	0° \cap	
evening set	3977 Dec 24 22:23	14° \cap 51'59		evening max el	3978 Nov 22 10:57	24° \cap 25'18	24°23'03
asc. node	3977 Dec 26 00:21	13° \cap 52'20			3978 Nov 29 17:17	0° \cap	
inferior conj	3977 Dec 30 08:35	8° \cap 26'14	1°25'52	retrograde	3978 Dec 03 18:16	1° \cap 02'05	
minimum elong	3977 Dec 30 06:46	8° \cap 32'32	1°25'10		3978 Dec 07 10:58	30° \cap 00	
min. Earth dist.	3977 Dec 30 00:21	8° \cap 54'38	0.67995 AU	evening set	3978 Dec 09 03:04	28° \cap 48'45	
morning rise	3978 Jan 04 15:08	2° \cap 15'48		asc. node	3978 Dec 12 21:22	24° \cap 40'57	
direct	3978 Jan 08 22:48	0° \cap 32'59		min. Earth dist.	3978 Dec 13 20:20	23° \cap 25'20	0.67718 AU
morning max el	3978 Jan 17 16:36	5° \cap 38'24	21°27'41	inferior conj	3978 Dec 14 15:23	22° \cap 21'32	0°35'37
greatest brilliancy	3978 Jan 22 16:44	11° \cap 19'33	-0.4m	minimum elong	3978 Dec 14 14:32	22° \cap 24'23	0°35'16
desc. node	3978 Feb 01 01:27	23° \cap 59'40		morning rise	3978 Dec 20 02:21	16° \cap 16'58	
	3978 Feb 05 04:35	0° \cap		direct	3978 Dec 23 20:35	14° \cap 56'10	
morning set	3978 Feb 18 04:42	19° \cap 53'14		morning max el	3978 Dec 31 14:17	19° \cap 20'45	20°13'10
	3978 Feb 24 11:14	0° \cap		greatest brilliancy	3979 Jan 07 05:27	27° \cap 15'54	-0.6m
max. Earth dist.	3978 Feb 25 01:33	0° \cap 58'53	1.42025 AU		3979 Jan 09 05:41	0° \cap	
				desc. node	3979 Jan 18 22:29	14° \cap 06'41	
superior conj	3978 Mar 04 13:23	13° \cap 38'27	-2°-5'-55	morning set	3979 Jan 28 02:25	28° \cap 04'27	
minimum elong	3978 Mar 04 15:29	13° \cap 47'32	2°05'53		3979 Jan 29 08:17	0° \cap	
	3978 Mar 13 18:02	0° \cap		max. Earth dist.	3979 Feb 07 10:07	14° \cap 18'05	1.43732 AU
evening rise	3978 Mar 15 16:41	3° \cap 32'25					
asc. node	3978 Mar 23 23:38	18° \cap 16'52		superior conj	3979 Feb 13 06:27	23° \cap 47'52	-2°-4'-57
evening max el	3978 Apr 01 03:18	29° \cap 33'20	18°09'16	minimum elong	3979 Feb 13 03:12	23° \cap 34'31	2°04'52
	3978 Apr 01 14:30	0° \cap			3979 Feb 17 00:04	0° \cap	
retrograde	3978 Apr 07 21:50	2° \cap 59'10		evening rise	3979 Feb 26 01:49	15° \cap 30'34	
evening set	3978 Apr 10 10:59	2° \cap 30'30			3979 Mar 06 12:38	0° \cap	
	3978 Apr 14 13:45	30° \cap 00		asc. node	3979 Mar 10 20:40	6° \cap 46'54	
inferior conj	3978 Apr 17 06:28	27° \cap 37'33	3°04'06	evening max el	3979 Mar 15 15:48	12° \cap 45'34	18°09'14
minimum elong	3978 Apr 17 09:28	27° \cap 30'34	3°03'33	retrograde	3979 Mar 22 02:30	16° \cap 08'40	
min. Earth dist.	3978 Apr 20 13:39	24° \cap 35'17	0.60442 AU	evening set	3979 Mar 24 21:20	15° \cap 29'23	
morning rise	3978 Apr 24 04:32	21° \cap 48'32		inferior conj	3979 Mar 31 03:51	10° \cap 15'51	3°30'53
desc. node	3978 Apr 30 00:39	19° \cap 43'17		minimum elong	3979 Mar 31 05:10	10° \cap 12'22	3°30'48
direct	3978 Apr 30 19:35	19° \cap 41'31		min. Earth dist.	3979 Apr 02 23:15	7° \cap 18'41	0.62572 AU
morning max el	3978 May 15 02:31	27° \cap 35'08	27°40'58	morning rise	3979 Apr 06 10:39	4° \cap 12'29	
	3978 May 17 10:07	0° \cap		direct	3979 Apr 13 07:38	1° \cap 38'43	
	3978 Jun 06 23:59	0° \cap		desc. node	3979 Apr 16 21:40	2° \cap 16'13	
morning set	3978 Jun 16 05:37	17° \cap 50'26		morning max el	3979 Apr 27 08:29	9° \cap 37'13	27°50'51
asc. node	3978 Jun 19 22:54	25° \cap 42'47			3979 May 13 04:30	0° \cap	
	3978 Jun 21 22:15	0° \cap			3979 May 30 05:31	0° \cap	
max. Earth dist.	3978 Jun 22 11:50	1° \cap 14'21	1.32091 AU	morning set	3979 May 31 06:25	2° \cap 05'00	
				max. Earth dist.	3979 Jun 05 19:21	13° \cap 38'50	1.32541 AU
superior conj	3978 Jun 23 12:07	3° \cap 27'41	0°36'33	asc. node	3979 Jun 06 19:56	15° \cap 51'04	
minimum elong	3978 Jun 23 10:34	3° \cap 19'08	0°36'12				
evening rise	3978 Jun 30 08:50	18° \cap 25'28		superior conj	3979 Jun 07 21:10	18° \cap 07'43	0°11'01
	3978 Jul 06 01:09	0° \cap		minimum elong	3979 Jun 07 20:39	18° \cap 04'53	0°10'54
	3978 Jul 25 23:32	0° \cap		behind sun begin	3979 Jun 07 16:50	17° \cap 44'09	
desc. node	3978 Jul 26 23:55	1° \cap 01'29		behind sun end	3979 Jun 08 00:28	18° \cap 25'38	
evening max el	3978 Jul 27 11:31	1° \cap 29'33	25°27'11		3979 Jun 13 08:13	0° \cap	

evening rise	3979 Jun 14 20:37	3°☿14'51		evening rise	3980 May 29 07:53	17°♄57'42	
	3979 Jun 29 07:52	0°♄			3980 Jun 04 07:05	0°☿	
evening max el	3979 Jul 09 00:54	12°♄04'03	23°55'30	evening max el	3980 Jun 19 15:24	22°☿28'09	22°18'42
desc. node	3979 Jul 13 20:55	16°♄00'01		desc. node	3980 Jun 29 17:55	28°☿35'24	
retrograde	3979 Jul 22 18:29	18°♄58'31		retrograde	3980 Jul 02 14:25	28°☿54'13	
evening set	3979 Jul 27 06:05	18°♄14'09		evening set	3980 Jul 05 14:47	28°☿34'06	
min. Earth dist.	3979 Aug 02 11:12	15°♄13'52	0.56220 AU	min. Earth dist.	3980 Jul 13 21:47	24°☿58'37	0.55091 AU
inferior conj	3979 Aug 04 19:58	13°♄47'16	-4°-59'-54	inferior conj	3980 Jul 14 20:16	24°☿26'52	-4°-1'-54
minimum elong	3979 Aug 04 15:44	13°♄53'46	4°59'30	minimum elong	3980 Jul 14 11:53	24°☿38'44	3°59'50
morning rise	3979 Aug 13 04:47	9°♄49'54		morning rise	3980 Jul 23 11:07	20°☿36'43	
direct	3979 Aug 15 23:05	9°♄30'21		direct	3980 Jul 26 13:49	20°☿14'55	
morning max el	3979 Aug 25 23:05	14°♄09'04	19°54'42	morning max el	3980 Aug 07 04:59	25°☿40'07	21°17'32
asc. node	3979 Sep 02 19:10	24°♄06'18			3980 Aug 11 05:27	0°♄	
	3979 Sep 06 06:31	0°♄		asc. node	3980 Aug 19 16:12	12°♄48'21	
morning set	3979 Sep 12 20:58	12°♄46'42		morning set	3980 Aug 27 05:17	27°♄31'33	
					3980 Aug 28 09:49	0°♄	
superior conj	3979 Sep 20 16:55	28°♄39'54	1°43'02	superior conj	3980 Sep 03 14:28	12°♄58'26	1°43'46
minimum elong	3979 Sep 20 17:53	28°♄44'43	1°43'00	minimum elong	3980 Sep 03 13:56	12°♄55'40	1°43'46
	3979 Sep 21 09:01	0°♄		max. Earth dist.	3980 Sep 07 20:35	21°♄38'08	1.35282 AU
max. Earth dist.	3979 Sep 26 10:19	9°♄47'01	1.37091 AU	evening rise	3980 Sep 12 03:05	29°♄56'16	
evening rise	3979 Sep 30 06:20	16°♄51'09			3980 Sep 12 03:53	0°♄	
	3979 Oct 07 21:32	0°♄		desc. node	3980 Sep 25 17:14	23°♄26'07	
desc. node	3979 Oct 09 20:13	3°♄09'49			3980 Sep 30 00:40	0°♄	
	3979 Oct 28 15:49	0°♄		evening max el	3980 Oct 17 11:39	21°♄47'19	26°36'19
evening max el	3979 Nov 04 23:12	8°♄07'18	25°36'25	retrograde	3980 Oct 30 10:32	29°♄01'56	
retrograde	3979 Nov 17 04:54	15°♄08'22		evening set	3980 Nov 05 22:29	26°♄24'18	
evening set	3979 Nov 23 03:43	12°♄40'44		min. Earth dist.	3980 Nov 10 00:56	22°♄12'01	0.66109 AU
min. Earth dist.	3979 Nov 27 13:17	7°♄52'26	0.67089 AU	inferior conj	3980 Nov 11 18:28	20°♄08'01	-1°-19'-1
inferior conj	3979 Nov 28 19:18	6°♄16'31	0°-19'-46	minimum elong	3980 Nov 11 20:39	20°♄01'31	1°18'08
minimum elong	3979 Nov 28 19:49	6°♄14'53	0°19'33	asc. node	3980 Nov 15 15:26	15°♄56'57	
asc. node	3979 Nov 29 18:24	5°♄03'25		morning rise	3980 Nov 17 20:15	14°♄22'31	
morning rise	3979 Dec 04 12:46	0°♄20'10		direct	3980 Nov 20 17:00	13°♄36'33	
	3979 Dec 05 02:54	30°♄		morning max el	3980 Nov 27 07:47	17°♄13'00	18°28'14
direct	3979 Dec 07 19:12	29°♄18'42			3980 Dec 06 21:25	0°♄	
	3979 Dec 10 14:02	0°♄		morning set	3980 Dec 17 06:05	16°♄25'20	
morning max el	3979 Dec 14 19:52	3°♄13'44	19°12'45	desc. node	3980 Dec 22 16:31	25°♄05'31	
greatest brilliancy	3979 Dec 24 22:38	16°♄22'23	-0.7m		3980 Dec 25 18:50	0°☿	
	3980 Jan 02 21:43	0°☿		superior conj	3981 Jan 02 01:27	11°☿27'12	-1°-7'00
desc. node	3980 Jan 05 19:30	4°☿30'12		minimum elong	3981 Jan 01 17:23	10°☿55'32	1°06'04
morning set	3980 Jan 07 03:56	6°☿36'02		max. Earth dist.	3981 Jan 02 19:20	12°☿37'18	1.45264 AU
max. Earth dist.	3980 Jan 21 00:58	28°☿16'46	1.44852 AU		3981 Jan 13 21:02	0°☿	
	3980 Jan 22 03:08	0°☿		evening rise	3981 Jan 18 02:11	6°☿39'09	
superior conj	3980 Jan 23 22:42	2°☿52'26	-1°-45'-3	greatest brilliancy	3981 Jan 29 21:30	25°☿12'10	-0.8m
minimum elong	3980 Jan 23 14:09	2°☿18'33	1°44'21		3981 Feb 02 02:11	0°☿	
evening rise	3980 Feb 07 13:37	26°☿32'49		evening max el	3981 Feb 09 13:49	9°☿37'47	19°04'11
	3980 Feb 09 15:47	0°☿		asc. node	3981 Feb 11 14:43	11°☿29'17	
asc. node	3980 Feb 25 17:41	24°☿34'53		retrograde	3981 Feb 16 11:34	13°☿32'26	
evening max el	3980 Feb 27 04:04	26°☿08'25	18°27'52	evening set	3981 Feb 19 18:49	12°☿29'05	
retrograde	3980 Mar 04 16:19	29°☿41'48		inferior conj	3981 Feb 25 09:51	6°☿40'04	3°26'24
evening set	3980 Mar 07 16:56	28°☿51'00		minimum elong	3981 Feb 25 08:15	6°☿45'08	3°26'11
inferior conj	3980 Mar 13 14:10	23°☿18'40	3°36'35	min. Earth dist.	3981 Feb 26 22:43	4°☿43'11	0.65958 AU
minimum elong	3980 Mar 13 13:49	23°☿19'44	3°36'34	morning rise	3981 Mar 02 20:42	0°☿25'15	
min. Earth dist.	3980 Mar 15 18:27	20°☿45'42	0.64450 AU		3981 Mar 03 08:33	30°☿	
morning rise	3980 Mar 19 09:09	17°☿07'28		direct	3981 Mar 09 06:42	27°☿37'00	
direct	3980 Mar 26 03:43	14°☿19'38			3981 Mar 15 23:10	0°☿	
desc. node	3980 Apr 02 18:43	17°☿08'46		desc. node	3981 Mar 20 15:46	3°☿47'08	
morning max el	3980 Apr 08 17:51	22°☿14'23	27°24'33	morning max el	3981 Mar 22 03:47	5°☿15'01	26°28'18
	3980 Apr 15 13:30	0°☿			3981 Apr 10 03:02	0°☿	
	3980 May 05 09:38	0°☿		morning set	3981 Apr 27 03:46	28°☿59'21	
morning set	3980 May 13 22:58	15°☿51'19			3981 Apr 27 16:37	0°☿	
max. Earth dist.	3980 May 18 18:56	25°☿35'29	1.33428 AU	max. Earth dist.	3981 May 01 07:22	6°☿59'07	1.34784 AU
	3980 May 20 21:36	0°♄		superior conj	3981 May 06 00:28	16°☿29'10	0°-45'-56
superior conj	3980 May 22 02:02	2°♄30'14	0°-16'-52	minimum elong	3981 May 06 02:55	16°☿41'46	0°45'29
minimum elong	3980 May 22 02:53	2°♄34'49	0°16'42	asc. node	3981 May 10 14:00	25°☿58'49	
asc. node	3980 May 23 16:58	5°♄57'40					

	3981 May 12 12:10	0°♂		asc. node	3982 Apr 27 11:04	15°♂50'34	
evening rise	3981 May 13 16:44	2°♂28'20		evening rise	3982 Apr 27 21:00	16°♂40'41	
	3981 May 29 15:47	0°♂			3982 May 04 18:38	0°♂	
evening max el	3981 Jun 01 14:53	3°♂14'43	20°50'45	evening max el	3982 May 15 02:38	14°♂41'07	19°39'47
retrograde	3981 Jun 13 03:11	8°♂52'39		retrograde	3982 May 24 20:57	19°♂26'03	
evening set	3981 Jun 15 06:20	8°♂41'50		evening set	3982 May 26 19:58	19°♂15'26	
desc. node	3981 Jun 16 14:58	8°♂24'13		desc. node	3982 Jun 03 12:00	15°♂53'19	
inferior conj	3981 Jun 24 13:32	4°♂44'45	-2°-18'-56	inferior conj	3982 Jun 04 14:23	15°♂12'20	0°-19'-29
minimum elong	3981 Jun 24 07:07	4°♂53'52	2°16'43	minimum elong	3982 Jun 04 13:31	15°♂13'42	0°19'11
min. Earth dist.	3981 Jun 25 09:28	4°♂16'24	0.54859 AU	min. Earth dist.	3982 Jun 06 22:56	13°♂44'02	0.55597 AU
morning rise	3981 Jul 03 07:08	0°♂42'15		morning rise	3982 Jun 13 03:40	10°♂40'30	
direct	3981 Jul 06 23:04	0°♂13'20		direct	3982 Jun 17 15:43	9°♂55'22	
morning max el	3981 Jul 20 00:33	6°♂29'20	22°55'57	morning max el	3982 Jul 01 14:42	16°♂54'19	24°39'05
	3981 Aug 05 11:47	0°♂			3982 Jul 12 06:09	0°♂	
asc. node	3981 Aug 06 13:15	2°♂01'13		asc. node	3982 Jul 24 10:18	21°♂36'55	
morning set	3981 Aug 11 16:13	12°♂23'41		morning set	3982 Jul 27 04:03	27°♂18'13	
					3982 Jul 28 10:26	0°♂	
superior conj	3981 Aug 18 18:59	27°♂36'59	1°37'52	superior conj	3982 Aug 03 03:57	12°♂27'47	1°26'25
minimum elong	3981 Aug 18 17:22	27°♂28'21	1°37'46	minimum elong	3982 Aug 03 01:45	12°♂15'43	1°26'09
	3981 Aug 19 21:51	0°♂		max. Earth dist.	3982 Aug 04 19:29	16°♂02'25	1.32827 AU
max. Earth dist.	3981 Aug 21 15:42	3°♂40'22	1.33846 AU	evening rise	3982 Aug 10 10:57	27°♂56'07	
evening rise	3981 Aug 26 13:53	13°♂41'30			3982 Aug 11 11:25	0°♂	
	3981 Sep 04 09:05	0°♂			3982 Aug 28 14:39	0°♂	
desc. node	3981 Sep 12 14:15	13°♂20'15		desc. node	3982 Aug 30 11:17	2°♂42'55	
	3981 Sep 25 00:18	0°♂		evening max el	3982 Sep 12 10:43	18°♂21'30	27°26'29
evening max el	3981 Sep 30 00:02	5°♂16'08	27°15'15	retrograde	3982 Sep 26 03:38	25°♂37'20	
retrograde	3981 Oct 13 10:20	12°♂34'23		evening set	3982 Oct 03 07:57	23°♂03'59	
evening set	3981 Oct 20 08:54	9°♂53'57		min. Earth dist.	3982 Oct 06 23:29	19°♂59'19	0.63130 AU
min. Earth dist.	3981 Oct 24 05:03	6°♂17'12	0.64784 AU	inferior conj	3982 Oct 09 17:00	17°♂18'20	-3°-20'-54
inferior conj	3981 Oct 26 10:36	3°♂50'38	-2°-20'-22	minimum elong	3982 Oct 09 22:28	17°♂04'54	3°19'09
minimum elong	3981 Oct 26 14:34	3°♂39'48	2°18'52	morning rise	3982 Oct 16 15:35	12°♂04'02	
	3981 Oct 30 07:23	30°♂		direct	3982 Oct 19 00:34	11°♂37'27	
morning rise	3981 Nov 01 22:16	28°♂19'00		asc. node	3982 Oct 20 09:32	11°♂46'33	
asc. node	3981 Nov 02 12:29	28°♂05'00		morning max el	3982 Oct 25 16:01	15°♂03'17	17°50'12
direct	3981 Nov 04 11:45	27°♂44'33			3982 Nov 05 01:47	0°♂	
	3981 Nov 09 16:14	0°♂		morning set	3982 Nov 10 21:47	10°♂09'03	
morning max el	3981 Nov 10 23:27	1°♂11'36	18°00'25		3982 Nov 22 10:53	0°♂	
morning set	3981 Nov 28 13:37	27°♂41'31		superior conj	3982 Nov 22 19:16	0°♂34'58	0°25'08
	3981 Nov 29 22:47	0°♂		minimum elong	3982 Nov 22 21:45	0°♂45'18	0°24'47
desc. node	3981 Dec 09 13:32	15°♂48'03		desc. node	3982 Nov 26 10:34	6°♂34'40	
superior conj	3981 Dec 12 10:55	20°♂26'48	0°-19'-46	max. Earth dist.	3982 Nov 29 07:36	11°♂14'02	1.43911 AU
minimum elong	3981 Dec 12 08:30	20°♂17'07	0°19'26	evening rise	3982 Dec 08 04:39	25°♂12'05	
max. Earth dist.	3981 Dec 16 14:24	27°♂01'45	1.44935 AU		3982 Dec 11 07:42	0°♂	
	3981 Dec 18 11:41	0°♂			3983 Jan 01 02:02	0°♂	
evening rise	3981 Dec 28 19:08	16°♂01'32		greatest brilliancy	3983 Jan 01 12:14	0°♂32'44	-0.5m
	3982 Jan 06 22:12	0°♂		evening max el	3983 Jan 06 19:09	6°♂42'40	21°02'26
greatest brilliancy	3982 Jan 16 19:49	14°♂32'15	-0.6m	retrograde	3983 Jan 15 07:14	11°♂44'43	
evening max el	3982 Jan 23 19:12	23°♂09'44	19°56'37	asc. node	3983 Jan 16 08:50	11°♂38'30	
asc. node	3982 Jan 29 11:47	27°♂15'18		evening set	3983 Jan 19 08:05	10°♂12'34	
retrograde	3982 Jan 31 09:18	27°♂34'45		inferior conj	3983 Jan 24 17:41	3°♂57'37	2°32'03
evening set	3982 Feb 04 00:31	26°♂17'38		minimum elong	3983 Jan 24 15:12	4°♂06'11	2°31'20
inferior conj	3982 Feb 09 11:50	20°♂14'15	3°04'03	min. Earth dist.	3983 Jan 25 03:19	3°♂24'26	0.67716 AU
minimum elong	3982 Feb 09 09:32	20°♂21'57	3°03'34		3983 Jan 27 17:41	30°♂	
min. Earth dist.	3982 Feb 10 10:22	18°♂58'52	0.67045 AU	morning rise	3983 Jan 29 21:56	27°♂42'36	
morning rise	3982 Feb 14 17:55	13°♂58'26		direct	3983 Feb 04 04:47	25°♂24'22	
direct	3982 Feb 20 15:22	11°♂21'21			3983 Feb 13 00:58	0°♂	
morning max el	3982 Mar 04 12:38	18°♂27'23	25°11'23	morning max el	3983 Feb 14 21:14	1°♂46'08	23°43'54
desc. node	3982 Mar 07 12:47	21°♂41'13		desc. node	3983 Feb 22 09:49	10°♂29'14	
	3982 Mar 14 06:24	0°♂			3983 Mar 08 07:04	0°♂	
	3982 Apr 03 04:22	0°♂		morning set	3983 Mar 22 06:06	22°♂24'21	
morning set	3982 Apr 09 16:08	11°♂15'52		max. Earth dist.	3983 Mar 26 04:29	29°♂13'49	1.38688 AU
max. Earth dist.	3982 Apr 13 08:47	18°♂01'33	1.36581 AU		3983 Mar 26 14:55	0°♂	
superior conj	3982 Apr 19 13:39	29°♂57'02	-1°-14'-34	superior conj	3983 Apr 02 13:51	12°♂43'29	-1°-40'-17
minimum elong	3982 Apr 19 17:36	0°♂16'30	1°13'56	minimum elong	3983 Apr 02 18:35	13°♂05'50	1°39'46
	3982 Apr 19 14:15	0°♂					

evening rise	3983 Apr 11 17:57	0°♄26'41		superior conj	3984 Mar 14 20:24	24°♄37'20	-1°-59'-35
	3983 Apr 11 12:28	0°♄		minimum elong	3984 Mar 15 00:15	24°♄54'34	1°59'22
asc. node	3983 Apr 14 08:08	5°♄27'36			3984 Mar 17 19:53	0°♄	
evening max el	3983 Apr 28 01:23	26°♄47'08	18°48'41	evening rise	3984 Mar 25 04:14	13°♄38'09	
	3983 May 02 13:42	0°♄		asc. node	3984 Mar 31 05:10	24°♄44'28	
retrograde	3983 May 06 07:04	0°♄49'06			3984 Apr 03 07:05	0°♄	
evening set	3983 May 08 10:21	0°♄33'50		evening max el	3984 Apr 10 08:07	9°♄26'09	18°17'53
	3983 May 10 04:33	30°♄		retrograde	3984 Apr 17 12:17	13°♄00'47	
inferior conj	3983 May 16 09:38	26°♄13'36	1°24'06	evening set	3984 Apr 19 21:45	12°♄37'46	
minimum elong	3983 May 16 12:35	26°♄08'12	1°23'06	inferior conj	3984 Apr 27 02:28	7°♄56'54	2°36'35
min. Earth dist.	3983 May 19 15:16	23°♄53'10	0.57142 AU	minimum elong	3984 Apr 27 06:03	7°♄49'13	2°35'43
desc. node	3983 May 21 09:03	22°♄44'04		min. Earth dist.	3984 Apr 30 12:45	5°♄02'41	0.59182 AU
morning rise	3983 May 24 10:23	21°♄06'10		morning rise	3984 May 04 10:18	2°♄19'45	
direct	3983 May 29 21:40	19°♄53'36		desc. node	3984 May 07 06:03	1°♄05'06	
morning max el	3983 Jun 13 05:54	27°♄22'39	26°11'35	direct	3984 May 10 17:22	0°♄32'18	
	3983 Jun 15 18:57	0°♄		morning max el	3984 May 25 02:35	8°♄20'17	27°18'15
	3983 Jul 05 14:28	0°♄			3984 Jun 10 13:02	0°♄	
asc. node	3983 Jul 11 07:21	11°♄28'05		morning set	3984 Jun 24 23:43	26°♄50'38	
morning set	3983 Jul 11 15:07	12°♄08'56			3984 Jun 26 11:38	0°♄	
				asc. node	3984 Jun 27 04:24	1°♄29'36	
superior conj	3983 Jul 18 15:13	27°♄22'56	1°10'12	max. Earth dist.	3984 Jul 01 16:43	11°♄20'09	1.32020 AU
minimum elong	3983 Jul 18 12:54	27°♄10'08	1°09'48				
max. Earth dist.	3983 Jul 19 05:03	28°♄39'04	1.32220 AU	superior conj	3984 Jul 02 03:00	12°♄16'51	0°49'52
	3983 Jul 19 19:46	0°♄		minimum elong	3984 Jul 02 01:02	12°♄06'01	0°49'28
evening rise	3983 Jul 25 15:04	12°♄29'37		evening rise	3984 Jul 08 23:46	27°♄14'27	
	3983 Aug 03 14:49	0°♄			3984 Jul 10 07:18	0°♄	
desc. node	3983 Aug 17 08:20	21°♄20'14			3984 Jul 27 06:26	0°♄	
	3983 Aug 24 20:42	0°♄		desc. node	3984 Aug 03 05:21	8°♄53'52	
evening max el	3983 Aug 25 16:48	0°♄48'35	27°05'22	evening max el	3984 Aug 06 15:54	12°♄28'03	26°11'12
retrograde	3983 Sep 08 13:36	8°♄00'49		retrograde	3984 Aug 20 15:15	19°♄37'20	
evening set	3983 Sep 15 15:33	5°♄46'39		evening set	3984 Aug 27 02:55	17°♄54'45	
min. Earth dist.	3983 Sep 19 07:05	3°♄05'04	0.61194 AU	min. Earth dist.	3984 Aug 31 04:45	15°♄20'16	0.59120 AU
inferior conj	3983 Sep 22 10:23	0°♄22'00	-4°-15'-45	inferior conj	3984 Sep 03 11:13	12°♄52'19	-4°-56'-36
minimum elong	3983 Sep 22 16:18	0°♄09'09	4°14'22	minimum elong	3984 Sep 03 15:21	12°♄44'27	4°56'07
	3983 Sep 22 20:32	30°♄		morning rise	3984 Sep 11 07:19	8°♄22'16	
morning rise	3983 Sep 29 20:10	25°♄28'40		direct	3984 Sep 13 16:30	8°♄02'55	
direct	3983 Oct 02 03:38	25°♄06'55		morning max el	3984 Sep 21 15:10	11°♄52'38	18°26'56
asc. node	3983 Oct 07 06:34	26°♄58'19		asc. node	3984 Sep 23 03:36	13°♄27'33	
morning max el	3983 Oct 09 06:21	28°♄39'53	17°58'38		3984 Oct 03 17:47	0°♄	
	3983 Oct 10 12:50	0°♄		morning set	3984 Oct 07 15:15	7°♄23'07	
morning set	3983 Oct 25 00:07	23°♄28'03					
	3983 Oct 28 13:28	0°♄		superior conj	3984 Oct 16 16:24	24°♄35'06	1°25'05
				minimum elong	3984 Oct 16 19:55	24°♄51'22	1°24'43
superior conj	3983 Nov 04 06:22	12°♄01'36	1°00'41		3984 Oct 19 15:33	0°♄	
minimum elong	3983 Nov 04 10:32	12°♄19'49	1°00'09	max. Earth dist.	3984 Oct 24 03:19	7°♄55'38	1.40331 AU
max. Earth dist.	3983 Nov 11 20:19	24°♄56'40	1.42307 AU	evening rise	3984 Oct 28 13:17	15°♄24'14	
desc. node	3983 Nov 13 07:36	27°♄21'58		desc. node	3984 Oct 30 04:37	18°♄06'11	
	3983 Nov 14 22:25	0°♄			3984 Nov 06 17:01	0°♄	
evening rise	3983 Nov 17 22:50	4°♄50'10			3984 Nov 28 13:23	0°♄	
	3983 Dec 04 15:54	0°♄		evening max el	3984 Dec 02 04:11	3°♄53'53	23°37'41
greatest brilliancy	3983 Dec 15 19:50	14°♄56'48	-0.3m	retrograde	3984 Dec 12 21:10	10°♄13'27	
evening max el	3983 Dec 20 13:42	20°♄17'00	22°17'49	evening set	3984 Dec 17 22:01	8°♄09'10	
retrograde	3983 Dec 30 03:41	25°♄59'03		asc. node	3984 Dec 20 02:51	5°♄55'55	
asc. node	3984 Jan 03 05:51	24°♄30'13		inferior conj	3984 Dec 23 08:56	1°♄41'59	1°05'15
evening set	3984 Jan 03 15:47	24°♄10'57		minimum elong	3984 Dec 23 07:28	1°♄46'59	1°04'41
inferior conj	3984 Jan 09 01:20	17°♄47'51	1°52'03	min. Earth dist.	3984 Dec 22 20:02	2°♄26'04	0.67913 AU
minimum elong	3984 Jan 08 23:08	17°♄55'27	1°51'17		3984 Dec 24 15:08	30°♄	
min. Earth dist.	3984 Jan 08 23:19	17°♄54'52	0.67996 AU	morning rise	3984 Dec 28 17:06	25°♄33'42	
morning rise	3984 Jan 14 06:22	11°♄35'16		direct	3985 Jan 01 18:46	24°♄00'41	
direct	3984 Jan 18 22:15	9°♄39'29		morning max el	3985 Jan 10 01:46	28°♄47'59	20°54'27
morning max el	3984 Jan 28 08:32	15°♄12'17	22°15'39		3985 Jan 11 05:27	0°♄	
greatest brilliancy	3984 Feb 01 22:19	20°♄19'01	-0.3m	greatest brilliancy	3985 Jan 15 15:45	5°♄15'17	-0.5m
desc. node	3984 Feb 09 06:50	29°♄56'03		desc. node	3985 Jan 26 03:51	19°♄50'30	
	3984 Feb 09 07:59	0°♄			3985 Feb 01 23:22	0°♄	
	3984 Feb 29 07:27	0°♄		morning set	3985 Feb 08 23:14	10°♄45'40	
morning set	3984 Mar 01 16:14	2°♄12'14		max. Earth dist.	3985 Feb 17 05:08	23°♄53'43	1.42810 AU
max. Earth dist.	3984 Mar 07 01:43	11°♄07'15	1.40858 AU		3985 Feb 20 22:17	0°♄	

superior conj	3985 Feb 24 04:13	5° Υ 26'38	-2°-7'-37			3986 Jan 25 22:06	0° \approx	
minimum elong	3985 Feb 24 04:21	5° Υ 27'12	2°07'37	max. Earth dist.		3986 Jan 30 16:12	7° \approx 30'10	1.44293 AU
evening rise	3985 Mar 07 23:47	26° Υ 05'07						
	3985 Mar 10 04:25	0° Υ		superior conj		3986 Feb 04 10:16	15° \approx 07'05	-1°-58'-58
asc. node	3985 Mar 18 02:11	13° Υ 33'48		minimum elong		3986 Feb 04 04:26	14° \approx 43'28	1°58'40
evening max el	3985 Mar 24 19:25	22° Υ 28'34	18°06'53			3986 Feb 13 11:17	0° Υ	
retrograde	3985 Mar 31 09:31	25° Υ 51'38		evening rise		3986 Feb 18 00:16	7° Υ 39'49	
evening set	3985 Apr 03 01:00	25° Υ 18'45				3986 Mar 03 16:10	0° Υ	
inferior conj	3985 Apr 09 14:33	20° Υ 17'07	3°18'24	asc. node		3986 Mar 04 23:11	1° Υ 47'18	
minimum elong	3985 Apr 09 16:52	20° Υ 11'22	3°18'05	evening max el		3986 Mar 08 08:13	5° Υ 46'31	18°14'56
min. Earth dist.	3985 Apr 12 17:33	17° Υ 13'53	0.61370 AU	retrograde		3986 Mar 14 18:26	9° Υ 12'09	
morning rise	3985 Apr 16 05:44	14° Υ 20'45		evening set		3986 Mar 17 15:44	8° Υ 28'04	
direct	3985 Apr 23 00:25	12° Υ 00'42		inferior conj		3986 Mar 23 17:55	3° Υ 06'34	3°35'30
desc. node	3985 Apr 24 03:04	12° Υ 04'16		minimum elong		3986 Mar 23 18:29	3° Υ 05'00	3°35'28
morning max el	3985 May 07 05:26	19° Υ 58'13	27°49'42	min. Earth dist.		3986 Mar 26 07:11	0° Υ 17'37	0.63421 AU
	3985 May 15 19:18	0° Υ				3986 Mar 26 13:50	30° Υ	
	3985 Jun 03 10:32	0° Υ		morning rise		3986 Mar 29 19:16	26° Υ 59'24	
morning set	3985 Jun 09 04:00	11° Υ 17'04		direct		3986 Apr 05 16:20	24° Υ 17'39	
asc. node	3985 Jun 14 01:27	21° Υ 36'40		desc. node		3986 Apr 11 00:05	25° Υ 40'33	
max. Earth dist.	3985 Jun 15 02:41	23° Υ 53'27	1.32225 AU			3986 Apr 17 03:36	0° Υ	
				morning max el		3986 Apr 19 12:58	2° Υ 15'42	27°43'38
superior conj	3985 Jun 16 13:33	27° Υ 03'43	0°26'02			3986 May 10 02:26	0° Υ	
minimum elong	3985 Jun 16 12:23	26° Υ 57'21	0°25'47	morning set		3986 May 24 01:39	25° Υ 20'31	
	3985 Jun 17 21:43	0° Υ				3986 May 26 08:50	0° Υ	
evening rise	3985 Jun 23 10:59	12° Υ 03'56		max. Earth dist.		3986 May 29 07:07	6° Υ 06'21	1.32862 AU
	3985 Jul 02 12:53	0° Υ						
evening max el	3985 Jul 19 07:59	23° Υ 22'23	24°49'53	superior conj		3986 May 31 21:06	11° Υ 37'14	0°00'-36
desc. node	3985 Jul 21 02:21	24° Υ 58'31		minimum elong		3986 May 31 21:08	11° Υ 37'23	0°00'36
	3985 Jul 29 23:12	0° Υ		behind sun begin		3986 May 31 15:50	11° Υ 08'56	
retrograde	3985 Aug 02 06:27	0° Υ 25'16		behind sun end		3986 Jun 01 02:25	12° Υ 05'52	
	3985 Aug 05 13:59	30° Υ		asc. node		3986 May 31 22:29	11° Υ 44'43	
evening set	3985 Aug 07 14:14	29° Υ 21'05		evening rise		3986 Jun 07 22:47	26° Υ 51'18	
min. Earth dist.	3985 Aug 12 19:26	26° Υ 34'40	0.57160 AU			3986 Jun 09 10:43	0° Υ	
inferior conj	3985 Aug 15 16:36	24° Υ 41'10	-5°-10'-28			3986 Jun 27 08:14	0° Υ	
minimum elong	3985 Aug 15 15:56	24° Υ 42'15	5°10'29	evening max el		3986 Jun 30 21:05	3° Υ 49'07	23°14'06
morning rise	3985 Aug 23 21:14	20° Υ 33'17		desc. node		3986 Jul 07 23:22	9° Υ 00'31	
direct	3985 Aug 26 11:19	20° Υ 14'19		retrograde		3986 Jul 14 08:46	10° Υ 33'26	
morning max el	3985 Sep 04 15:13	24° Υ 32'12	19°16'25	evening set		3986 Jul 18 04:26	10° Υ 01'34	
	3985 Sep 09 07:46	0° Υ		min. Earth dist.		3986 Jul 25 06:31	6° Υ 47'54	0.55643 AU
asc. node	3985 Sep 10 00:38	0° Υ 59'25		inferior conj		3986 Jul 27 02:11	5° Υ 44'01	-4°-41'-41
morning set	3985 Sep 21 15:18	21° Υ 44'03		minimum elong		3986 Jul 26 19:36	5° Υ 53'41	4°40'36
	3985 Sep 25 18:34	0° Υ		morning rise		3986 Aug 04 13:41	1° Υ 51'24	
				direct		3986 Aug 07 11:22	1° Υ 31'05	
superior conj	3985 Sep 29 19:56	8° Υ 00'14	1°39'05	morning max el		3986 Aug 18 03:50	6° Υ 28'49	20°27'34
minimum elong	3985 Sep 29 21:53	8° Υ 09'40	1°38'58	asc. node		3986 Aug 27 21:41	19° Υ 19'14	
max. Earth dist.	3985 Oct 06 07:33	20° Υ 13'59	1.38243 AU			3986 Sep 02 17:21	0° Υ	
evening rise	3985 Oct 10 03:15	27° Υ 03'21		morning set		3986 Sep 05 21:18	6° Υ 21'57	
	3985 Oct 11 20:02	0° Υ						
desc. node	3985 Oct 17 01:39	8° Υ 43'43		superior conj		3986 Sep 13 12:03	22° Υ 02'12	1°44'13
	3985 Oct 31 05:25	0° Υ		minimum elong		3986 Sep 13 12:20	22° Υ 03'39	1°44'14
evening max el	3985 Nov 14 16:53	17° Υ 35'15	24°55'32			3986 Sep 17 11:51	0° Υ	
retrograde	3985 Nov 26 10:36	24° Υ 24'06		max. Earth dist.		3986 Sep 18 14:25	2° Υ 09'08	1.36284 AU
evening set	3985 Dec 02 01:12	22° Υ 04'34		evening rise		3986 Sep 22 14:00	9° Υ 40'00	
min. Earth dist.	3985 Dec 06 15:09	16° Υ 55'40	0.67487 AU	desc. node		3986 Oct 03 22:41	29° Υ 09'12	
asc. node	3985 Dec 06 23:51	16° Υ 27'03				3986 Oct 04 11:28	0° Υ	
inferior conj	3985 Dec 07 14:45	15° Υ 37'52	0°12'43			3986 Oct 26 22:14	0° Υ	
minimum elong	3985 Dec 07 14:26	15° Υ 38'55	0°12'35	evening max el		3986 Oct 28 05:23	1° Υ 17'41	26°04'06
transit middle	3985 Dec 07 14:26	15° Υ 38'55	0°12'35	retrograde		3986 Nov 09 19:01	8° Υ 25'11	
transit begin	3985 Dec 07 12:42	15° Υ 44'40		evening set		3986 Nov 15 23:35	5° Υ 52'55	
transit end	3985 Dec 07 16:11	15° Υ 33'11		min. Earth dist.		3986 Nov 20 06:11	1° Υ 19'41	0.66715 AU
morning rise	3985 Dec 13 04:13	9° Υ 36'13				3986 Nov 21 07:50	30° Υ	
direct	3985 Dec 16 17:11	8° Υ 24'00		inferior conj		3986 Nov 21 16:55	29° Υ 31'38	0°-44'-29
morning max el	3985 Dec 24 02:49	12° Υ 34'58	19°45'34	minimum elong		3986 Nov 21 18:06	29° Υ 27'56	0°44'00
greatest brilliancy	3985 Dec 31 19:43	22° Υ 03'52	-0.6m	asc. node		3986 Nov 23 20:53	26° Υ 55'35	
	3986 Jan 06 08:00	0° Υ		morning rise		3986 Nov 27 13:40	23° Υ 39'19	
desc. node	3986 Jan 13 00:53	10° Υ 05'16		direct		3986 Nov 30 15:49	22° Υ 44'45	
morning set	3986 Jan 18 19:15	18° Υ 55'50		morning max el		3986 Dec 07 11:15	26° Υ 30'28	18°51'49

	3986 Dec 10 13:14	0°♊		desc. node	3987 Dec 17 18:57	21°♊12'44	
morning set	3986 Dec 29 05:40	27°♊56'18			3987 Dec 23 07:33	0°♋	
desc. node	3986 Dec 30 21:56	0°♋34'14					
	3986 Dec 30 13:12	0°♋		superior conj	3987 Dec 24 21:34	2°♋30'00	0°-47'-21
max. Earth dist.	3987 Jan 13 09:13	21°♋41'20	1.45121 AU	minimum elong	3987 Dec 24 15:37	2°♋06'32	0°46'34
				max. Earth dist.	3987 Dec 27 04:43	6°♋06'57	1.45211 AU
superior conj	3987 Jan 14 18:42	23°♋52'54	-1°-30'-46	evening rise	3988 Jan 10 05:28	28°♋02'30	
minimum elong	3987 Jan 14 09:26	23°♋16'29	1°29'52		3988 Jan 11 11:36	0°♌	
	3987 Jan 18 15:46	0°♌		greatest brilliancy	3988 Jan 25 14:05	21°♌38'22	-0.7m
evening rise	3987 Jan 30 02:10	18°♌17'46			3988 Jan 31 17:42	0°♍	
	3987 Feb 06 07:46	0°♍		evening max el	3988 Feb 03 03:49	2°♍43'33	19°24'39
asc. node	3987 Feb 19 20:12	19°♍14'23		asc. node	3988 Feb 06 17:15	5°♍41'23	
evening max el	3987 Feb 19 19:47	19°♍13'19	18°41'15	retrograde	3988 Feb 10 07:41	6°♍50'14	
retrograde	3987 Feb 26 10:58	22°♍54'07		evening set	3988 Feb 13 18:11	5°♍41'02	
evening set	3987 Mar 01 14:23	21°♍57'56		inferior conj	3988 Feb 19 07:20	29°♍45'19	3°18'14
inferior conj	3987 Mar 07 08:38	16°♍18'11	3°33'56	minimum elong	3988 Feb 19 05:22	29°♍51'42	3°17'55
minimum elong	3987 Mar 07 07:41	16°♍21'04	3°33'51		3988 Feb 19 02:49	30°♎	
min. Earth dist.	3987 Mar 09 06:14	13°♍59'49	0.65145 AU	min. Earth dist.	3988 Feb 20 13:50	28°♎06'03	0.66465 AU
morning rise	3987 Mar 12 23:46	10°♍05'20		morning rise	3988 Feb 24 15:45	23°♎29'49	
direct	3987 Mar 19 15:23	7°♍15'55		direct	3988 Mar 01 20:39	20°♎45'29	
desc. node	3987 Mar 28 21:08	11°♍22'33		morning max el	3988 Mar 14 08:33	28°♎11'33	25°57'42
morning max el	3987 Apr 01 22:47	15°♍04'19	27°03'49	desc. node	3988 Mar 14 18:11	28°♎36'05	
	3987 Apr 14 03:58	0°♏			3988 Mar 16 01:58	0°♐	
	3987 May 02 19:58	0°♑			3988 Apr 06 21:49	0°♑	
morning set	3987 May 07 13:44	8°♑52'22		morning set	3988 Apr 19 12:14	21°♑40'20	
max. Earth dist.	3987 May 12 02:27	17°♑50'17	1.33955 AU	max. Earth dist.	3988 Apr 23 10:23	29°♑04'22	1.35503 AU
					3988 Apr 23 21:54	0°♒	
superior conj	3987 May 15 23:36	25°♒51'17	0°-29'-7				
minimum elong	3987 May 16 01:08	25°♒59'16	0°28'48	superior conj	3988 Apr 28 18:30	9°♒37'50	0°-58'-14
	3987 May 17 22:48	0°♓		minimum elong	3988 Apr 28 21:37	9°♒53'37	0°57'41
asc. node	3987 May 18 19:32	1°♓49'52		asc. node	3988 May 04 16:34	21°♒47'26	
evening rise	3987 May 23 09:21	11°♓30'36		evening rise	3988 May 06 16:35	25°♒54'28	
	3987 Jun 01 23:39	0°♔			3988 May 08 16:57	0°♓	
evening max el	3987 Jun 12 14:43	14°♔19'51	21°39'30	evening max el	3988 May 24 19:10	25°♓21'36	20°18'06
desc. node	3987 Jun 24 20:22	20°♔26'47			3988 May 31 20:16	0°♕	
retrograde	3987 Jun 25 00:12	20°♔26'51		retrograde	3988 Jun 04 13:50	0°♕37'10	
evening set	3987 Jun 27 13:35	20°♔12'03		evening set	3988 Jun 06 13:30	0°♕27'12	
inferior conj	3987 Jul 06 21:51	16°♕10'58	-3°-22'-29		3988 Jun 08 11:19	30°♖	
minimum elong	3987 Jul 06 13:31	16°♕22'37	3°20'00	desc. node	3988 Jun 10 17:25	29°♖08'48	
min. Earth dist.	3987 Jul 06 17:07	16°♕17'35	0.54882 AU	inferior conj	3988 Jun 15 16:35	26°♖28'55	-1°-28'-7
morning rise	3987 Jul 15 14:32	12°♕18'26		minimum elong	3988 Jun 15 12:27	26°♖35'01	1°26'37
direct	3987 Jul 18 22:20	11°♕54'20		min. Earth dist.	3988 Jun 17 05:19	25°♖34'59	0.55063 AU
morning max el	3987 Jul 31 04:51	17°♕40'32	21°57'58	morning rise	3988 Jun 24 09:26	22°♖15'37	
	3987 Aug 09 23:24	0°♗		direct	3988 Jun 28 08:53	21°♖41'25	
asc. node	3987 Aug 14 18:46	8°♗15'39		morning max el	3988 Jul 11 21:31	28°♖16'49	23°40'07
morning set	3987 Aug 21 07:00	21°♗10'43			3988 Jul 13 15:08	0°♘	
	3987 Aug 25 11:12	0°♙		asc. node	3988 Jul 31 15:51	27°♘38'57	
					3988 Aug 01 20:03	0°♚	
superior conj	3987 Aug 28 12:56	6°♙30'06	1°42'00	morning set	3988 Aug 04 18:32	6°♚04'29	
minimum elong	3987 Aug 28 11:53	6°♙24'35	1°41'58				
max. Earth dist.	3987 Sep 01 04:35	14°♙04'08	1.34627 AU	superior conj	3988 Aug 11 19:39	21°♚14'46	1°33'38
evening rise	3987 Sep 05 17:16	23°♙03'15		minimum elong	3988 Aug 11 17:43	21°♚04'22	1°33'27
	3987 Sep 09 09:52	0°♛		max. Earth dist.	3988 Aug 14 03:35	26°♚14'16	1.33360 AU
desc. node	3987 Sep 20 19:41	19°♛16'46			3988 Aug 15 22:27	0°♜	
	3987 Sep 28 03:49	0°♞		evening rise	3988 Aug 19 08:50	7°♜01'48	
evening max el	3987 Oct 10 17:59	14°♞53'53	26°55'49		3988 Aug 31 22:56	0°♞	
retrograde	3987 Oct 23 22:01	22°♞10'18		desc. node	3988 Sep 06 16:43	8°♞58'48	
evening set	3987 Oct 30 15:05	19°♞30'23		evening max el	3988 Sep 22 05:43	28°♞13'29	27°23'40
min. Earth dist.	3987 Nov 03 14:46	15°♞33'35	0.65592 AU		3988 Sep 24 04:51	0°♟	
inferior conj	3987 Nov 05 13:22	13°♞19'19	-1°-44'-57	retrograde	3988 Oct 05 19:12	5°♞31'37	
minimum elong	3987 Nov 05 16:18	13°♞10'50	1°43'46	evening set	3988 Oct 12 21:07	2°♞52'25	
asc. node	3987 Nov 10 17:57	8°♞16'06			3988 Oct 16 03:04	30°♠	
morning rise	3987 Nov 11 19:12	7°♞39'26		min. Earth dist.	3988 Oct 16 14:49	29°♠30'22	0.64118 AU
direct	3987 Nov 14 12:39	6°♞58'44		inferior conj	3988 Oct 19 01:43	26°♠56'10	-2°-46'-26
morning max el	3987 Nov 21 01:07	10°♞29'42	18°14'21	minimum elong	3988 Oct 19 06:23	26°♠43'56	2°44'44
	3987 Dec 04 16:50	0°♊		morning rise	3988 Oct 25 17:58	21°♠31'49	
morning set	3987 Dec 09 20:28	8°♊23'06		asc. node	3988 Oct 27 15:02	21°♠02'59	

direct	3988 Oct 28 05:10	21° Ω 01'13		direct	3989 Oct 11 14:11	4° Ω 44'54	
morning max el	3988 Nov 03 17:38	24° Ω 26'39	17°53'56	asc. node	3989 Oct 14 12:05	5° Ω 23'47	
	3988 Nov 08 06:18	0° \mathbb{M}		morning max el	3989 Oct 18 09:41	8° Ω 13'01	17°51'25
morning set	3988 Nov 20 15:16	20° \mathbb{M} 11'49			3989 Nov 01 15:00	0° \mathbb{M}	
	3988 Nov 26 10:05	0° \mathcal{A}		morning set	3989 Nov 03 07:54	3° \mathbb{M} 03'02	
superior conj	3988 Dec 03 15:36	11° \mathcal{A} 55'55	0°00'07	superior conj	3989 Nov 14 11:27	22° \mathbb{M} 37'42	0°41'33
minimum elong	3988 Dec 03 15:36	11° \mathcal{A} 55'57	0°00'08	minimum elong	3989 Nov 14 15:01	22° \mathbb{M} 52'53	0°41'03
behind sun begin	3988 Dec 03 05:38	11° \mathcal{A} 15'27			3989 Nov 18 20:57	0° \mathcal{A}	
behind sun end	3988 Dec 04 01:35	12° \mathcal{A} 36'22		desc. node	3989 Nov 20 13:00	2° \mathcal{A} 44'37	
desc. node	3988 Dec 03 16:00	11° \mathcal{A} 57'31		max. Earth dist.	3989 Nov 21 14:06	4° \mathcal{A} 26'53	1.43283 AU
max. Earth dist.	3988 Dec 08 23:13	20° \mathcal{A} 27'54	1.44570 AU	evening rise	3989 Nov 29 04:33	16° \mathcal{A} 31'50	
	3988 Dec 15 00:52	0° \mathcal{B}			3989 Dec 08 00:36	0° \mathcal{B}	
evening rise	3988 Dec 19 17:20	7° \mathcal{B} 14'50		greatest brilliancy	3989 Dec 25 07:11	24° \mathcal{B} 13'10	-0.4m
	3989 Jan 03 20:01	0° \approx		evening max el	3989 Dec 30 04:22	29° \mathcal{B} 48'15	21°33'41
greatest brilliancy	3989 Jan 10 03:29	8° \approx 52'02	-0.5m		3989 Dec 30 09:01	0° \approx	
evening max el	3989 Jan 16 06:51	16° \approx 15'24	20°23'10	retrograde	3990 Jan 08 03:21	5° \approx 07'33	
asc. node	3989 Jan 23 14:18	20° \approx 53'49		asc. node	3990 Jan 10 11:20	4° \approx 38'03	
retrograde	3989 Jan 24 05:53	20° \approx 56'08		evening set	3990 Jan 12 08:41	3° \approx 28'56	
evening set	3989 Jan 28 00:55	19° \approx 32'49			3990 Jan 15 15:44	30° \mathbb{R} \mathcal{B}	
inferior conj	3989 Feb 02 11:15	13° \approx 23'56	2°51'34	inferior conj	3990 Jan 17 18:05	27° \mathcal{B} 10'08	2°15'59
minimum elong	3989 Feb 02 08:49	13° \approx 32'14	2°50'58	minimum elong	3990 Jan 17 15:40	27° \mathcal{B} 18'31	2°15'14
min. Earth dist.	3989 Feb 03 04:06	12° \approx 26'35	0.67370 AU	min. Earth dist.	3990 Jan 17 22:43	26° \mathcal{B} 54'05	0.67878 AU
morning rise	3989 Feb 07 16:11	7° \approx 08'01		morning rise	3990 Jan 22 22:20	20° \mathcal{B} 55'44	
direct	3989 Feb 13 07:27	4° \approx 38'17		direct	3990 Jan 27 22:50	18° \mathcal{B} 46'34	
morning max el	3989 Feb 24 17:14	11° \approx 27'31	24°34'56	morning max el	3990 Feb 07 02:21	24° \mathcal{B} 48'00	23°05'53
desc. node	3989 Mar 01 15:12	16° \approx 55'15			3990 Feb 11 18:24	0° \approx	
	3989 Mar 11 13:06	0° \mathcal{H}		greatest brilliancy	3990 Feb 12 00:12	0° \approx 17'31	-0.3m
	3989 Mar 30 15:33	0° \mathcal{Y}		desc. node	3990 Feb 16 12:13	6° \approx 00'53	
morning set	3989 Apr 01 15:52	3° \mathcal{Y} 30'04			3990 Mar 05 00:44	0° \mathcal{H}	
max. Earth dist.	3989 Apr 05 08:21	10° \mathcal{Y} 05'44	1.37448 AU	morning set	3990 Mar 13 18:27	14° \mathcal{H} 04'52	
				max. Earth dist.	3990 Mar 18 03:08	21° \mathcal{H} 29'14	1.39613 AU
superior conj	3989 Apr 12 02:38	22° \mathcal{Y} 48'54	-1°-26'00		3990 Mar 22 22:55	0° \mathcal{Y}	
minimum elong	3989 Apr 12 07:02	23° \mathcal{Y} 10'17	1°25'24	superior conj	3990 Mar 25 19:54	5° \mathcal{Y} 14'12	-1°-49'-31
	3989 Apr 15 18:29	0° \mathcal{B}		minimum elong	3990 Mar 26 00:33	5° \mathcal{Y} 35'36	1°49'07
evening rise	3989 Apr 20 18:05	9° \mathcal{B} 56'15		evening rise	3990 Apr 04 10:53	23° \mathcal{Y} 28'05	
asc. node	3989 Apr 21 13:37	11° \mathcal{B} 33'12			3990 Apr 07 21:20	0° \mathcal{B}	
	3989 May 01 19:37	0° \mathbb{I}		asc. node	3990 Apr 08 10:39	1° \mathcal{B} 02'11	
evening max el	3989 May 07 11:53	7° \mathbb{I} 05'14	19°15'32	evening max el	3990 Apr 20 14:33	19° \mathcal{B} 26'57	18°33'15
retrograde	3989 May 16 13:44	11° \mathbb{I} 30'15		retrograde	3990 Apr 28 07:48	23° \mathcal{B} 14'53	
evening set	3989 May 18 13:48	11° \mathbb{I} 18'16		evening set	3990 Apr 30 13:46	22° \mathcal{B} 56'37	
inferior conj	3989 May 27 00:25	7° \mathbb{I} 08'57	0°27'42	inferior conj	3990 May 08 04:52	18° \mathcal{B} 28'06	1°58'48
minimum elong	3989 May 27 01:34	7° \mathbb{I} 07'02	0°27'17	minimum elong	3990 May 08 08:26	18° \mathcal{B} 21'08	1°57'44
desc. node	3989 May 28 14:26	6° \mathbb{I} 05'21		min. Earth dist.	3990 May 11 14:30	15° \mathcal{B} 50'22	0.57969 AU
min. Earth dist.	3989 May 29 20:09	5° \mathbb{I} 16'37	0.56172 AU	desc. node	3990 May 15 11:26	13° \mathcal{B} 21'13	
morning rise	3989 Jun 04 09:09	2° \mathbb{I} 21'25		morning rise	3990 May 15 22:40	13° \mathcal{B} 07'03	
direct	3989 Jun 09 07:00	1° \mathbb{I} 25'51		direct	3990 May 21 19:26	11° \mathcal{B} 39'41	
morning max el	3989 Jun 23 11:31	8° \mathbb{I} 40'04	25°20'37	morning max el	3990 Jun 05 04:31	19° \mathcal{B} 18'09	26°43'43
	3989 Jul 09 08:46	0° \mathcal{E}			3990 Jun 14 06:01	0° \mathbb{I}	
asc. node	3989 Jul 18 12:53	17° \mathcal{E} 21'40			3990 Jul 01 21:25	0° \mathcal{E}	
morning set	3989 Jul 20 06:12	20° \mathcal{E} 57'47		morning set	3990 Jul 04 16:26	5° \mathcal{E} 45'44	
	3989 Jul 24 10:41	0° \mathcal{Q}		asc. node	3990 Jul 05 09:54	7° \mathcal{E} 18'04	
superior conj	3989 Jul 27 05:50	6° \mathcal{Q} 08'13	1°20'05	superior conj	3990 Jul 11 17:33	21° \mathcal{E} 04'17	1°02'03
minimum elong	3989 Jul 27 03:31	5° \mathcal{Q} 55'31	1°19'45	minimum elong	3990 Jul 11 15:20	20° \mathcal{E} 51'59	1°01'39
max. Earth dist.	3989 Jul 28 09:59	8° \mathcal{Q} 42'11	1.32516 AU	max. Earth dist.	3990 Jul 11 20:52	21° \mathcal{E} 22'32	1.32087 AU
evening rise	3989 Aug 03 09:13	21° \mathcal{Q} 25'19			3990 Jul 15 19:14	0° \mathcal{Q}	
	3989 Aug 07 16:10	0° \mathbb{N}		evening rise	3990 Jul 18 15:37	6° \mathcal{Q} 05'24	
desc. node	3989 Aug 24 13:45	28° \mathbb{N} 04'00			3990 Jul 31 06:27	0° \mathbb{N}	
	3989 Aug 25 23:54	0° \mathcal{A}		desc. node	3990 Aug 11 10:46	16° \mathbb{N} 17'22	
evening max el	3989 Sep 04 14:37	11° \mathcal{A} 03'33	27°21'37	evening max el	3990 Aug 17 18:13	23° \mathbb{N} 12'33	26°46'15
retrograde	3989 Sep 18 09:50	18° \mathcal{A} 18'45			3990 Aug 28 15:28	0° \mathcal{A}	
evening set	3989 Sep 25 14:11	15° \mathcal{A} 51'55		retrograde	3990 Aug 31 16:32	0° \mathcal{A} 23'10	
min. Earth dist.	3989 Sep 29 04:48	12° \mathcal{A} 58'30	0.62327 AU		3990 Sep 03 16:20	30° \mathbb{R} \mathbb{N}	
inferior conj	3989 Oct 02 03:00	10° \mathcal{A} 14'34	-3°-45'-20	evening set	3990 Sep 07 13:48	28° \mathbb{N} 21'28	
minimum elong	3989 Oct 02 08:50	10° \mathcal{A} 00'53	3°43'39	min. Earth dist.	3990 Sep 11 08:15	25° \mathbb{N} 44'48	0.60319 AU
morning rise	3989 Oct 09 06:24	5° \mathcal{A} 08'56					

inferior conj	3990 Sep 14 13:50	23° \cap 06'04	-4°-35'-27	evening set	3991 Aug 19 15:08	10° \cap 12'13	
minimum elong	3990 Sep 14 19:20	22° \cap 54'45	4°34'25	min. Earth dist.	3991 Aug 24 02:22	7° \cap 35'02	0.58266 AU
morning rise	3990 Sep 22 04:08	18° \cap 22'05		inferior conj	3991 Aug 27 06:40	5° \cap 19'44	-5°-6'-40
direct	3990 Sep 24 11:52	18° \cap 01'38		minimum elong	3991 Aug 27 09:08	5° \cap 15'21	5°06'32
asc. node	3990 Oct 01 09:06	21° \cap 10'30		morning rise	3991 Sep 04 06:37	0° \cap 59'19	
morning max el	3990 Oct 01 22:03	21° \cap 40'48	18°08'02	direct	3991 Sep 06 17:44	0° \cap 40'10	
	3990 Oct 08 07:30	0° $\underline{\cap}$		morning max el	3991 Sep 15 03:25	4° \cap 40'06	18°45'15
morning set	3990 Oct 17 16:18	16° $\underline{\cap}$ 39'24		asc. node	3991 Sep 18 06:08	8° \cap 07'55	
	3990 Oct 24 20:22	0° \cap		morning set	3991 Oct 01 11:39	0° $\underline{\cap}$ 46'46	
					3991 Oct 01 02:03	0° $\underline{\cap}$	
superior conj	3990 Oct 27 08:58	4° \cap 34'30	1°12'22	superior conj	3991 Oct 10 03:06	17° $\underline{\cap}$ 31'46	1°32'11
minimum elong	3990 Oct 27 13:03	4° \cap 52'48	1°11'54	minimum elong	3991 Oct 10 06:00	17° $\underline{\cap}$ 45'28	1°31'57
max. Earth dist.	3990 Nov 04 00:24	17° \cap 52'04	1.41507 AU		3991 Oct 16 22:25	0° \cap	
desc. node	3990 Nov 07 10:03	23° \cap 31'04		max. Earth dist.	3991 Oct 17 06:16	0° \cap 34'44	1.39451 AU
evening rise	3990 Nov 09 06:34	26° \cap 32'03		evening rise	3991 Oct 21 07:05	7° \cap 33'45	
	3990 Nov 11 10:31	0° \propto		desc. node	3991 Oct 25 07:05	14° \cap 12'55	
	3990 Dec 01 19:10	0° \propto			3991 Nov 04 10:49	0° \propto	
greatest brilliancy	3990 Dec 07 15:59	7° \propto 33'00	-0.2m	evening max el	3991 Nov 25 10:39	27° \propto 02'51	24°11'25
evening max el	3990 Dec 12 21:07	13° \propto 23'48	22°51'39		3991 Nov 28 16:54	0° \propto	
retrograde	3990 Dec 22 22:32	19° \propto 21'50		retrograde	3991 Dec 06 14:18	3° \propto 35'28	
evening set	3990 Dec 27 15:54	17° \propto 26'58		evening set	3991 Dec 11 21:03	1° \propto 24'20	
asc. node	3990 Dec 28 08:21	16° \propto 50'40			3991 Dec 13 08:21	30° \propto	
inferior conj	3991 Jan 02 01:54	11° \propto 01'52	1°32'58	asc. node	3991 Dec 15 05:21	27° \propto 47'55	
minimum elong	3991 Jan 01 23:58	11° \propto 08'34	1°32'14	min. Earth dist.	3991 Dec 16 15:29	25° \propto 55'53	0.67780 AU
min. Earth dist.	3991 Jan 01 19:16	11° \propto 24'50	0.68010 AU	inferior conj	3991 Dec 17 08:58	24° \propto 56'58	0°43'37
morning rise	3991 Jan 07 08:00	4° \propto 50'54		minimum elong	3991 Dec 17 07:57	25° \propto 00'26	0°43'11
direct	3991 Jan 11 17:48	3° \propto 04'41		morning rise	3991 Dec 22 19:10	18° \propto 51'29	
morning max el	3991 Jan 20 15:38	8° \propto 16'46	21°39'47	direct	3991 Dec 26 15:16	17° \propto 27'39	
greatest brilliancy	3991 Jan 25 11:58	13° \propto 45'20	-0.4m	morning max el	3992 Jan 03 12:12	21° \propto 57'41	20°23'27
desc. node	3991 Feb 03 09:15	25° \propto 40'15		greatest brilliancy	3992 Jan 09 19:55	29° \propto 26'22	-0.5m
	3991 Feb 06 09:30	0° \approx			3992 Jan 10 06:05	0° \propto	
morning set	3991 Feb 21 16:04	23° \approx 16'53		desc. node	3992 Jan 21 06:18	15° \propto 44'16	
	3991 Feb 25 20:03	0° \propto			3992 Jan 30 15:44	0° \approx	
max. Earth dist.	3991 Feb 28 02:44	3° \propto 44'57	1.41733 AU	morning set	3992 Jan 31 15:33	1° \approx 32'02	
				max. Earth dist.	3992 Feb 10 10:09	16° \approx 56'39	1.43512 AU
superior conj	3991 Mar 07 17:22	16° \propto 41'35	-2°-4'-42	superior conj	3992 Feb 16 14:20	27° \approx 01'21	-2°-6'-15
minimum elong	3991 Mar 07 20:01	16° \propto 53'12	2°04'37	minimum elong	3992 Feb 16 12:01	26° \approx 51'47	2°06'13
	3991 Mar 15 04:07	0° \propto			3992 Feb 18 09:15	0° \propto	
evening rise	3991 Mar 18 15:21	6° \propto 21'03		evening rise	3992 Feb 29 03:22	18° \propto 27'02	
asc. node	3991 Mar 26 07:40	20° \propto 07'51			3992 Mar 06 18:59	0° \propto	
	3991 Apr 01 22:04	0° \propto		asc. node	3992 Mar 12 04:41	8° \propto 43'04	
evening max el	3991 Apr 03 23:39	2° \propto 16'46	18°10'54	evening max el	3992 Mar 17 11:54	15° \propto 26'19	18°08'00
retrograde	3991 Apr 10 20:17	5° \propto 44'25		retrograde	3992 Mar 23 23:13	18° \propto 49'06	
evening set	3991 Apr 13 08:31	5° \propto 17'14		evening set	3992 Mar 26 17:10	18° \propto 11'33	
inferior conj	3991 Apr 20 06:15	0° \propto 27'18	2°57'48	inferior conj	3992 Apr 02 01:22	13° \propto 00'58	3°28'19
minimum elong	3991 Apr 20 09:27	0° \propto 20'01	2°57'09	minimum elong	3992 Apr 02 02:57	12° \propto 56'51	3°28'10
	3991 Apr 20 18:13	30° \propto		min. Earth dist.	3992 Apr 04 22:51	10° \propto 01'33	0.62266 AU
min. Earth dist.	3991 Apr 23 14:30	27° \propto 26'26	0.60111 AU	morning rise	3992 Apr 08 10:14	6° \propto 59'04	
morning rise	3991 Apr 27 06:49	24° \propto 41'06		direct	3992 Apr 15 06:49	4° \propto 28'31	
desc. node	3991 May 02 08:27	22° \propto 45'18		desc. node	3992 Apr 18 05:28	4° \propto 53'47	
direct	3991 May 03 20:04	22° \propto 39'07		morning max el	3992 Apr 29 09:01	12° \propto 27'12	27°51'47
	3991 May 17 14:51	0° \propto			3992 May 13 07:31	0° \propto	
morning max el	3991 May 18 03:42	0° \propto 31'18	27°36'21		3992 May 30 17:22	0° \propto	
	3991 Jun 08 08:05	0° \propto		morning set	3992 Jun 02 01:13	4° \propto 39'03	
morning set	3991 Jun 18 23:26	20° \propto 21'35		max. Earth dist.	3992 Jun 07 16:43	16° \propto 29'21	1.32443 AU
asc. node	3991 Jun 22 06:56	27° \propto 22'17		asc. node	3992 Jun 08 03:59	17° \propto 30'02	
	3991 Jun 23 12:04	0° \propto					
max. Earth dist.	3991 Jun 25 08:27	4° \propto 02'40	1.32061 AU				
superior conj	3991 Jun 26 05:00	5° \propto 55'45	0°40'10	superior conj	3992 Jun 09 14:30	20° \propto 37'13	0°15'03
minimum elong	3991 Jun 26 03:20	5° \propto 46'31	0°39'49	minimum elong	3992 Jun 09 13:48	20° \propto 33'23	0°14'54
evening rise	3991 Jul 03 01:37	20° \propto 53'13		behind sun begin	3992 Jun 09 11:58	20° \propto 23'27	
	3991 Jul 07 11:53	0° \propto		behind sun end	3992 Jun 09 15:37	20° \propto 43'18	
	3991 Jul 26 08:05	0° \propto			3992 Jun 13 21:42	0° \propto	
desc. node	3991 Jul 29 07:46	3° \propto 16'50		evening rise	3992 Jun 16 13:18	5° \propto 42'17	
evening max el	3991 Jul 30 14:19	4° \propto 32'17	25°39'19		3992 Jun 29 09:51	0° \propto	
retrograde	3991 Aug 13 13:32	11° \propto 38'39		evening max el	3992 Jul 11 04:08	15° \propto 10'31	24°09'53

desc. node	3992 Jul 15 04:46	18°♄33'32		behind sun end	3993 May 25 00:14	5°♄24'32	
retrograde	3992 Jul 24 23:24	22°♄07'55		asc. node	3993 May 26 01:02	7°♄37'08	
evening set	3992 Jul 29 16:26	21°♄18'40		evening rise	3993 Jun 01 00:48	20°♄26'25	
min. Earth dist.	3992 Aug 04 14:44	18°♄22'26	0.56445 AU		3993 Jun 05 17:01	0°♄	
inferior conj	3992 Aug 07 03:19	16°♄48'20	-5°-4'-17	evening max el	3993 Jun 22 18:04	25°♄34'27	22°32'56
minimum elong	3992 Aug 07 00:01	16°♄53'29	5°04'02		3993 Jun 28 11:32	0°♄	
morning rise	3992 Aug 15 11:07	12°♄48'41		desc. node	3993 Jul 02 01:46	1°♄32'45	
direct	3992 Aug 18 04:15	12°♄29'22		retrograde	3993 Jul 05 21:06	2°♄06'05	
morning max el	3992 Aug 27 22:51	17°♄02'13	19°44'07	evening set	3993 Jul 09 01:59	1°♄43'30	
asc. node	3992 Sep 04 03:11	26°♄01'32			3993 Jul 13 18:12	30°♄	
	3992 Sep 06 13:36	0°♄		min. Earth dist.	3993 Jul 17 01:32	28°♄14'06	0.55201 AU
morning set	3992 Sep 14 14:31	15°♄15'41		inferior conj	3993 Jul 18 05:50	27°♄33'50	-4°-14'-3
	3992 Sep 21 21:34	0°♄		minimum elong	3993 Jul 17 21:43	27°♄45'25	4°12'13
				morning rise	3993 Jul 26 19:51	23°♄43'34	
superior conj	3992 Sep 22 12:32	1°♄14'17	1°42'15	direct	3993 Jul 29 21:03	23°♄22'18	
minimum elong	3992 Sep 22 13:45	1°♄20'19	1°42'12	morning max el	3993 Aug 10 06:33	28°♄40'24	21°04'02
max. Earth dist.	3992 Sep 28 10:52	12°♄40'13	1.37382 AU		3993 Aug 11 15:03	0°♄	
evening rise	3992 Oct 02 06:18	19°♄38'07		asc. node	3993 Aug 22 00:16	14°♄38'28	
	3992 Oct 08 06:22	0°♄		morning set	3993 Aug 29 22:22	29°♄59'22	
desc. node	3992 Oct 11 04:06	4°♄45'49			3993 Aug 29 22:29	0°♄	
	3992 Oct 28 13:37	0°♄					
evening max el	3992 Nov 06 22:56	10°♄44'30	25°26'13	superior conj	3993 Sep 06 08:51	15°♄29'24	1°44'06
retrograde	3992 Nov 19 01:46	17°♄43'04		minimum elong	3993 Sep 06 08:31	15°♄27'42	1°44'06
evening set	3992 Nov 24 22:27	15°♄17'20		max. Earth dist.	3993 Sep 10 20:09	24°♄32'00	1.35529 AU
min. Earth dist.	3992 Nov 29 09:05	10°♄23'42	0.67200 AU		3993 Sep 13 15:35	0°♄	
inferior conj	3992 Nov 30 13:28	8°♄52'15	0°-11'-4	evening rise	3993 Sep 15 00:42	2°♄36'56	
minimum elong	3992 Nov 30 13:45	8°♄51'20	0°10'58	desc. node	3993 Sep 28 01:08	25°♄04'58	
transit middle	3992 Nov 30 13:45	8°♄51'20	0°10'58		3993 Oct 01 05:35	0°♄	
transit begin	3992 Nov 30 11:42	8°♄57'58		evening max el	3993 Oct 20 11:26	24°♄25'48	26°28'33
transit end	3992 Nov 30 15:48	8°♄44'42			3993 Oct 27 16:08	0°♄	
asc. node	3992 Dec 01 02:24	8°♄10'42		retrograde	3993 Nov 02 08:13	1°♄39'01	
morning rise	3992 Dec 06 05:50	2°♄54'28			3993 Nov 07 11:19	30°♄	
direct	3992 Dec 09 13:52	1°♄50'24		evening set	3993 Nov 08 18:15	29°♄02'39	
morning max el	3992 Dec 16 16:41	5°♄49'20	19°20'46	min. Earth dist.	3993 Nov 12 21:48	24°♄44'47	0.66279 AU
greatest brilliancy	3992 Dec 25 22:09	17°♄36'18	-0.7m	inferior conj	3993 Nov 14 13:31	22°♄44'47	-1°-9'-50
	3993 Jan 03 04:21	0°♄		minimum elong	3993 Nov 14 15:26	22°♄39'00	1°09'03
desc. node	3993 Jan 07 03:20	6°♄05'36		asc. node	3993 Nov 17 23:27	18°♄56'18	
morning set	3993 Jan 09 14:51	9°♄55'49		morning rise	3993 Nov 20 13:57	16°♄57'19	
	3993 Jan 22 11:24	0°♄		direct	3993 Nov 23 12:00	16°♄09'15	
max. Earth dist.	3993 Jan 23 00:02	0°♄49'50	1.44727 AU	morning max el	3993 Nov 30 03:47	19°♄47'54	18°33'44
					3993 Dec 08 01:18	0°♄	
superior conj	3993 Jan 26 09:56	6°♄14'32	-1°-49'-20	morning set	3993 Dec 20 12:38	19°♄31'34	
minimum elong	3993 Jan 26 01:56	5°♄42'41	1°48'45	desc. node	3993 Dec 25 00:24	26°♄39'24	
evening rise	3993 Feb 09 18:35	29°♄37'56			3993 Dec 27 03:07	0°♄	
	3993 Feb 09 23:53	0°♄					
asc. node	3993 Feb 27 01:43	26°♄38'14		superior conj	3994 Jan 05 13:31	14°♄50'14	-1°-13'-39
evening max el	3993 Mar 01 00:25	28°♄48'10	18°23'55	minimum elong	3994 Jan 05 04:54	14°♄16'29	1°12'40
	3993 Mar 02 07:17	0°♄		max. Earth dist.	3994 Jan 05 17:56	15°♄07'34	1.45253 AU
retrograde	3993 Mar 07 11:55	2°♄19'13			3994 Jan 15 05:04	0°♄	
evening set	3993 Mar 10 11:37	1°♄30'15		evening rise	3994 Jan 21 10:30	9°♄51'45	
	3993 Mar 12 14:37	30°♄			3994 Feb 03 05:13	0°♄	
inferior conj	3993 Mar 16 10:03	26°♄00'45	3°36'47	evening max el	3994 Feb 12 10:43	12°♄16'58	18°57'44
minimum elong	3993 Mar 16 09:55	26°♄01'07	3°36'47	asc. node	3994 Feb 13 22:45	13°♄41'36	
min. Earth dist.	3993 Mar 18 16:44	23°♄23'03	0.64196 AU	retrograde	3994 Feb 19 06:32	16°♄07'37	
morning rise	3993 Mar 22 06:34	19°♄50'20		evening set	3994 Feb 22 12:45	15°♄06'11	
direct	3993 Mar 29 01:58	17°♄03'32		inferior conj	3994 Feb 28 04:33	9°♄19'34	3°28'43
desc. node	3993 Apr 05 02:31	19°♄27'23		minimum elong	3994 Feb 28 03:06	9°♄24'06	3°28'34
morning max el	3993 Apr 11 18:03	24°♄59'49	27°30'27	min. Earth dist.	3994 Mar 01 19:41	7°♄16'51	0.65763 AU
	3993 Apr 16 07:28	0°♄		morning rise	3994 Mar 05 16:24	3°♄05'13	
	3993 May 06 18:21	0°♄		direct	3994 Mar 12 04:04	0°♄16'11	
morning set	3993 May 16 19:14	18°♄30'10		desc. node	3994 Mar 22 23:34	5°♄51'46	
max. Earth dist.	3993 May 21 17:37	28°♄30'02	1.33263 AU	morning max el	3994 Mar 25 03:57	7°♄57'20	26°38'11
	3993 May 22 10:51	0°♄			3994 Apr 11 07:50	0°♄	
					3994 Apr 29 03:49	0°♄	
superior conj	3993 May 24 20:09	5°♄02'49	0°-12'-32	morning set	3994 Apr 30 02:04	1°♄44'45	
minimum elong	3993 May 24 20:47	5°♄06'12	0°12'24	max. Earth dist.	3994 May 04 07:47	9°♄58'16	1.34553 AU
behind sun begin	3993 May 24 17:21	4°♄47'53					

superior conj	3994 May 08 19:46	19°♄06'01	0°-41'-30	superior conj	3995 Apr 22 10:33	2°♄39'24	-1°-10'-19
minimum elong	3994 May 08 21:58	19°♄17'25	0°41'05	minimum elong	3995 Apr 22 14:18	2°♄58'00	1°09'43
asc. node	3994 May 12 22:05	27°♄39'26		asc. node	3995 Apr 29 19:07	17°♄33'01	
	3994 May 14 00:51	0°♄		evening rise	3995 Apr 30 15:19	19°♄15'28	
evening rise	3994 May 16 10:12	4°♄59'32			3995 May 06 02:40	0°♄	
	3994 May 30 08:35	0°♄		evening max el	3995 May 18 01:48	17°♄36'18	19°49'03
evening max el	3994 Jun 04 15:56	6°♄16'18	21°02'54	retrograde	3995 May 28 02:14	22°♄28'55	
retrograde	3994 Jun 16 10:00	12°♄01'54		evening set	3995 May 30 01:09	22°♄18'36	
evening set	3994 Jun 18 15:14	11°♄50'22		desc. node	3995 Jun 05 19:48	19°♄32'40	
desc. node	3994 Jun 18 22:47	11°♄46'56		inferior conj	3995 Jun 07 22:05	18°♄17'04	0°-37'-13
inferior conj	3994 Jun 27 23:14	7°♄52'57	-2°-36'-27	minimum elong	3995 Jun 07 20:23	18°♄19'41	0°36'35
minimum elong	3994 Jun 27 16:09	8°♄02'56	2°34'05	min. Earth dist.	3995 Jun 10 01:54	16°♄57'37	0.55433 AU
min. Earth dist.	3994 Jun 28 12:56	7°♄33'38	0.54831 AU	morning rise	3995 Jun 16 12:34	13°♄50'29	
morning rise	3994 Jul 06 16:46	3°♄53'40		direct	3995 Jun 20 21:15	13°♄08'35	
direct	3994 Jul 10 06:27	3°♄26'10		morning max el	3995 Jul 04 17:53	20°♄01'31	24°24'01
morning max el	3994 Jul 23 03:19	9°♄34'40	22°40'41		3995 Jul 13 05:10	0°♄	
	3994 Aug 06 20:29	0°♄		asc. node	3995 Jul 26 18:24	23°♄19'50	
asc. node	3994 Aug 08 21:20	3°♄47'16		morning set	3995 Jul 29 20:50	29°♄45'00	
morning set	3994 Aug 14 09:03	14°♄50'47			3995 Jul 29 23:40	0°♄	
	3994 Aug 21 11:31	0°♄					
superior conj	3994 Aug 21 12:31	0°♄05'24	1°39'09	superior conj	3995 Aug 05 20:56	14°♄54'24	1°28'28
minimum elong	3994 Aug 21 11:03	29°♄57'31	1°39'03	minimum elong	3995 Aug 05 18:47	14°♄42'41	1°28'14
max. Earth dist.	3994 Aug 24 14:01	6°♄32'04	1.34035 AU	max. Earth dist.	3995 Aug 07 16:39	18°♄51'00	1.32953 AU
evening rise	3994 Aug 29 09:41	16°♄16'54		evening rise	3995 Aug 13 05:23	0°♄27'13	
	3994 Sep 05 18:24	0°♄			3995 Aug 13 00:02	0°♄	
desc. node	3994 Sep 14 22:09	15°♄02'55		desc. node	3995 Aug 29 18:34	0°♄	
	3994 Sep 25 18:05	0°♄		evening max el	3995 Sep 01 19:09	4°♄30'40	
evening max el	3994 Oct 03 00:02	7°♄57'22	27°11'03	retrograde	3995 Sep 15 11:02	21°♄06'31	27°26'45
retrograde	3994 Oct 16 08:50	15°♄15'05		evening set	3995 Sep 29 03:02	28°♄22'46	
evening set	3994 Oct 23 06:05	12°♄34'38		min. Earth dist.	3995 Oct 06 07:01	25°♄47'31	
min. Earth dist.	3994 Oct 27 03:09	8°♄52'40	0.65008 AU	inferior conj	3995 Oct 09 23:01	22°♄38'39	0.63396 AU
inferior conj	3994 Oct 29 06:52	6°♄29'10	-2°-11'-2	minimum elong	3995 Oct 12 14:52	19°♄59'08	-3°-11'-59
minimum elong	3994 Oct 29 10:34	6°♄18'54	2°09'36	morning rise	3995 Oct 12 20:09	19°♄45'55	3°10'14
morning rise	3994 Nov 04 16:58	0°♄55'09		direct	3995 Oct 19 11:48	14°♄42'09	
asc. node	3994 Nov 04 20:31	0°♄51'13		asc. node	3995 Oct 21 21:18	14°♄14'35	
direct	3994 Nov 07 07:26	0°♄19'10		morning max el	3995 Oct 22 17:34	14°♄18'05	
morning max el	3994 Nov 13 19:04	3°♄46'53	18°03'26		3995 Oct 28 11:41	17°♄39'55	17°50'36
	3994 Dec 01 07:23	0°♄		morning set	3995 Nov 06 08:38	0°♄	
morning set	3994 Dec 01 16:00	0°♄35'47			3995 Nov 13 20:55	12°♄53'53	
desc. node	3994 Dec 11 21:26	17°♄21'09			3995 Nov 23 20:23	0°♄	
superior conj	3994 Dec 15 20:40	23°♄42'28	0°-27'00	superior conj	3995 Nov 26 01:05	3°♄39'09	0°18'51
minimum elong	3994 Dec 15 17:19	23°♄29'06	0°26'33	minimum elong	3995 Nov 26 03:01	3°♄47'10	0°18'34
max. Earth dist.	3994 Dec 19 13:17	29°♄33'17	1.45034 AU	desc. node	3995 Nov 28 18:27	8°♄07'23	
	3994 Dec 19 20:04	0°♄		max. Earth dist.	3995 Dec 02 07:09	13°♄49'21	1.44102 AU
evening rise	3995 Jan 01 05:50	19°♄19'18		evening rise	3995 Dec 11 15:24	28°♄29'08	
	3995 Jan 08 04:22	0°♄			3995 Dec 12 15:02	0°♄	
greatest brilliancy	3995 Jan 19 09:06	16°♄39'36	-0.6m	greatest brilliancy	3996 Jan 02 01:07	0°♄	
evening max el	3995 Jan 26 16:52	25°♄48'51	19°47'54	evening max el	3996 Jan 04 06:02	2°♄55'01	-0.5m
asc. node	3995 Jan 31 19:47	29°♄39'08		retrograde	3996 Jan 09 17:34	9°♄21'25	20°51'54
	3995 Feb 01 21:52	0°♄		asc. node	3996 Jan 18 02:06	14°♄17'49	
retrograde	3995 Feb 03 04:02	0°♄08'43		evening set	3996 Jan 18 16:48	14°♄15'46	
	3995 Feb 04 09:34	30°♄		inferior conj	3996 Jan 22 01:25	12°♄47'54	
evening set	3995 Feb 06 18:03	28°♄53'37		minimum elong	3996 Jan 27 11:08	6°♄34'20	2°37'28
inferior conj	3995 Feb 12 05:45	22°♄52'11	3°08'05	min. Earth dist.	3996 Jan 27 08:39	6°♄42'53	2°36'46
minimum elong	3995 Feb 12 03:32	22°♄59'35	3°07'39	morning rise	3996 Jan 27 22:33	5°♄55'03	0.67639 AU
min. Earth dist.	3995 Feb 13 06:18	21°♄30'37	0.66908 AU		3996 Feb 01 15:29	0°♄19'05	
morning rise	3995 Feb 17 12:21	16°♄36'30		direct	3996 Feb 02 00:21	30°♄	
direct	3995 Feb 23 11:49	13°♄57'17			3996 Feb 07 00:31	27°♄57'50	
morning max el	3995 Mar 07 13:00	21°♄08'41	25°23'50	morning max el	3996 Feb 12 16:12	0°♄	
desc. node	3995 Mar 09 20:37	23°♄36'10		desc. node	3996 Feb 17 21:34	4°♄26'55	23°57'15
	3995 Mar 15 05:06	0°♄			3996 Feb 24 17:39	12°♄17'07	
	3995 Apr 04 12:52	0°♄		morning set	3996 Mar 08 12:38	0°♄	
morning set	3995 Apr 12 17:15	14°♄10'10			3996 Mar 24 10:54	25°♄29'39	
max. Earth dist.	3995 Apr 16 10:56	21°♄03'51	1.36291 AU	max. Earth dist.	3996 Mar 27 01:06	0°♄	
	3995 Apr 21 02:19	0°♄			3996 Mar 28 07:04	2°♄12'39	1.38362 AU

superior conj	3996 Apr 04 12:52	15° Υ 32'18	-1°-36'-43	morning set	3997 Mar 05 01:20	5° Υ 29'49	
minimum elong	3996 Apr 04 17:34	15° Υ 54'37	1°36'10	max. Earth dist.	3997 Mar 10 03:17	13° Υ 56'58	1.40542 AU
	3996 Apr 11 23:39	0° Υ					
evening rise	3996 Apr 13 13:30	3° Υ 05'46		superior conj	3997 Mar 17 22:19	27° Υ 34'24	-1°-57'-17
asc. node	3996 Apr 15 16:08	7° Υ 12'28		minimum elong	3997 Mar 18 02:28	27° Υ 53'05	1°57'00
evening max el	3996 Apr 29 23:01	29° Υ 36'29	18°54'59		3997 Mar 19 06:30	0° Υ	
	3996 Apr 30 08:54	0° Υ		evening rise	3997 Mar 28 01:34	16° Υ 22'35	
retrograde	3996 May 08 09:40	3° Υ 44'07		asc. node	3997 Apr 02 13:08	26° Υ 32'33	
evening set	3996 May 10 11:59	3° Υ 29'51			3997 Apr 04 12:14	0° Υ	
	3996 May 17 11:14	30° Υ		evening max el	3997 Apr 13 04:45	12° Υ 11'02	18°21'15
inferior conj	3996 May 18 14:12	29° Υ 12'29	1°10'12	retrograde	3997 Apr 20 12:01	15° Υ 48'39	
minimum elong	3996 May 18 16:48	29° Υ 07'52	1°09'19	evening set	3997 Apr 22 20:31	15° Υ 26'59	
min. Earth dist.	3996 May 21 17:45	26° Υ 58'54	0.56872 AU	inferior conj	3997 Apr 30 03:50	10° Υ 49'26	2°27'41
desc. node	3996 May 22 16:50	26° Υ 20'32		minimum elong	3997 Apr 30 07:30	10° Υ 41'47	2°26'44
morning rise	3996 May 26 17:12	24° Υ 10'01		min. Earth dist.	3997 May 03 14:26	7° Υ 58'34	0.58859 AU
direct	3996 Jun 01 00:58	23° Υ 02'14		morning rise	3997 May 07 14:16	5° Υ 16'00	
	3996 Jun 14 20:57	0° Υ		desc. node	3997 May 09 13:51	4° Υ 21'14	
morning max el	3996 Jun 15 08:40	0° Υ 27'52	25°59'06	direct	3997 May 13 18:53	3° Υ 33'41	
	3996 Jul 06 00:11	0° Υ		morning max el	3997 May 28 04:19	11° Υ 19'49	27°10'24
asc. node	3996 Jul 12 15:25	13° Υ 08'58			3997 Jun 11 17:00	0° Υ	
morning set	3996 Jul 13 08:04	14° Υ 36'34		morning set	3997 Jun 27 17:08	29° Υ 20'04	
					3997 Jun 28 00:45	0° Υ	
superior conj	3996 Jul 20 07:57	29° Υ 49'16	1°12'55	asc. node	3997 Jun 29 12:26	3° Υ 09'14	
minimum elong	3996 Jul 20 05:37	29° Υ 36'25	1°12'34				
	3996 Jul 20 09:54	0° Υ		superior conj	3997 Jul 04 19:46	14° Υ 44'01	0°53'11
max. Earth dist.	3996 Jul 21 01:28	1° Υ 25'35	1.32283 AU	minimum elong	3997 Jul 04 17:43	14° Υ 32'43	0°52'48
evening rise	3996 Jul 27 08:35	14° Υ 58'14		max. Earth dist.	3997 Jul 04 12:58	14° Υ 06'33	1.32021 AU
	3996 Aug 04 00:10	0° Υ		evening rise	3997 Jul 11 16:44	29° Υ 42'03	
desc. node	3996 Aug 18 16:09	23° Υ 15'53			3997 Jul 11 20:08	0° Υ	
	3996 Aug 24 04:30	0° Υ			3997 Jul 28 07:03	0° Υ	
evening max el	3996 Aug 27 17:51	3° Υ 39'42	27°10'39	desc. node	3997 Aug 05 13:10	11° Υ 00'51	
retrograde	3996 Sep 10 14:16	10° Υ 52'56		evening max el	3997 Aug 09 18:07	15° Υ 26'55	26°21'17
evening set	3996 Sep 17 17:14	8° Υ 34'56		retrograde	3997 Aug 23 17:26	22° Υ 36'51	
min. Earth dist.	3996 Sep 21 08:12	5° Υ 50'51	0.61491 AU	evening set	3997 Aug 30 07:57	20° Υ 49'02	
inferior conj	3996 Sep 24 10:24	3° Υ 06'57	-4°-8'-9	min. Earth dist.	3997 Sep 03 07:20	18° Υ 14'33	0.59426 AU
minimum elong	3996 Sep 24 16:21	2° Υ 53'45	4°06'41	inferior conj	3997 Sep 06 13:55	15° Υ 43'07	-4°-51'-52
	3996 Sep 28 06:10	30° Υ		minimum elong	3997 Sep 06 18:31	15° Υ 34'12	4°51'14
morning rise	3996 Oct 01 18:33	28° Υ 10'29		morning rise	3997 Sep 14 08:35	11° Υ 09'29	
direct	3996 Oct 04 01:58	27° Υ 48'15		direct	3997 Sep 16 17:13	10° Υ 49'57	
asc. node	3996 Oct 08 14:37	29° Υ 17'02		morning max el	3997 Sep 24 12:27	14° Υ 36'47	18°21'22
	3996 Oct 09 14:31	0° Υ		asc. node	3997 Sep 25 11:39	15° Υ 35'43	
morning max el	3996 Oct 11 02:35	1° Υ 19'38	17°56'11		3997 Oct 05 02:46	0° Υ	
morning set	3996 Oct 26 20:54	26° Υ 06'24		morning set	3997 Oct 10 10:26	9° Υ 57'00	
	3996 Oct 29 00:03	0° Υ					
superior conj	3996 Nov 06 08:22	14° Υ 54'57	0°55'59	superior conj	3997 Oct 19 15:20	27° Υ 19'27	1°22'03
minimum elong	3996 Nov 06 12:27	15° Υ 12'43	0°55'27	minimum elong	3997 Oct 19 19:02	27° Υ 36'27	1°21'41
max. Earth dist.	3996 Nov 13 20:25	27° Υ 36'44	1.42571 AU		3997 Oct 21 02:32	0° Υ	
desc. node	3996 Nov 14 15:28	28° Υ 54'59		max. Earth dist.	3997 Oct 27 04:02	10° Υ 41'53	1.40640 AU
	3996 Nov 15 07:23	0° Υ		evening rise	3997 Oct 31 18:28	18° Υ 26'00	
evening rise	3996 Nov 20 07:23	8° Υ 00'59		desc. node	3997 Nov 01 12:29	19° Υ 39'58	
	3996 Dec 04 20:18	0° Υ			3997 Nov 08 00:16	0° Υ	
greatest brilliancy	3996 Dec 17 19:20	17° Υ 35'13	-0.3m		3997 Nov 29 07:55	0° Υ	
evening max el	3996 Dec 22 12:49	22° Υ 55'24	22°06'08	evening max el	3997 Dec 05 03:50	6° Υ 32'06	23°25'44
retrograde	3996 Dec 31 22:54	28° Υ 31'49		retrograde	3997 Dec 15 16:55	12° Υ 46'24	
asc. node	3997 Jan 04 13:49	27° Υ 21'40		evening set	3997 Dec 20 15:44	10° Υ 44'39	
evening set	3997 Jan 05 09:11	26° Υ 46'11		asc. node	3997 Dec 22 10:51	8° Υ 59'09	
inferior conj	3997 Jan 10 18:38	20° Υ 23'58	1°58'37	min. Earth dist.	3997 Dec 25 15:06	4° Υ 56'29	0.67950 AU
minimum elong	3997 Jan 10 16:22	20° Υ 31'51	1°57'50	inferior conj	3997 Dec 26 02:22	4° Υ 17'51	1°12'48
min. Earth dist.	3997 Jan 10 18:18	20° Υ 25'09	0.67978 AU	minimum elong	3997 Dec 26 00:46	4° Υ 23'20	1°12'09
morning rise	3997 Jan 15 23:23	14° Υ 10'47			3997 Dec 29 11:04	30° Υ	
direct	3997 Jan 20 17:26	12° Υ 11'33		morning rise	3997 Dec 31 09:55	28° Υ 08'42	
morning max el	3997 Jan 30 08:13	17° Υ 51'52	22°28'28	direct	3998 Jan 04 13:40	26° Υ 32'14	
greatest brilliancy	3997 Feb 03 21:43	22° Υ 57'17	-0.3m		3998 Jan 11 12:08	0° Υ	
	3997 Feb 09 09:30	0° Υ		morning max el	3998 Jan 13 00:20	1° Υ 25'48	21°05'48
desc. node	3997 Feb 10 14:40	1° Υ 39'00		greatest brilliancy	3998 Jan 18 09:04	7° Υ 35'26	-0.5m
	3997 Mar 01 15:33	0° Υ		desc. node	3998 Jan 28 11:43	21° Υ 30'01	
					3998 Feb 03 05:42	0° Υ	

morning set	3998 Feb 12 11:49	14° \approx 12'23		morning set	3999 Jan 22 07:53	22° \approx 21'17	
max. Earth dist.	3998 Feb 20 05:31	26° \approx 35'15	1.42545 AU		3999 Jan 27 06:05	0° \approx	
	3998 Feb 22 07:21	0° \approx		max. Earth dist.	3999 Feb 02 15:49	10° \approx 06'15	1.44110 AU
superior conj	3998 Feb 27 09:52	8° \approx 34'23	-2°-7'-21	superior conj	3999 Feb 07 19:47	18° \approx 25'00	-2°-1'-31
minimum elong	3998 Feb 27 10:46	8° \approx 38'13	2°07'21	minimum elong	3999 Feb 07 14:50	18° \approx 04'53	2°01'19
evening rise	3998 Mar 10 23:36	28° \approx 56'54			3999 Feb 14 20:11	0° \approx	
	3998 Mar 11 13:38	0° \approx		evening rise	3999 Feb 21 03:12	10° \approx 40'02	
asc. node	3998 Mar 20 10:09	15° \approx 26'46			3999 Mar 04 17:12	0° \approx	
evening max el	3998 Mar 27 15:39	25° \approx 11'03	18°07'20	asc. node	3999 Mar 07 07:12	3° \approx 46'34	
retrograde	3998 Apr 03 07:04	28° \approx 34'43		evening max el	3999 Mar 11 04:27	8° \approx 27'23	18°12'33
evening set	3998 Apr 05 21:44	28° \approx 03'20		retrograde	3999 Mar 17 14:35	11° \approx 51'46	
inferior conj	3998 Apr 12 13:17	23° \approx 04'49	3°13'49	evening set	3999 Mar 20 11:03	11° \approx 09'21	
minimum elong	3998 Apr 12 15:52	22° \approx 58'35	3°13'24	inferior conj	3999 Mar 26 14:40	5° \approx 50'36	3°34'12
min. Earth dist.	3998 Apr 15 17:57	20° \approx 01'21	0.61045 AU	minimum elong	3999 Mar 26 15:30	5° \approx 48'20	3°34'10
morning rise	3998 Apr 19 06:50	17° \approx 10'52		min. Earth dist.	3999 Mar 29 06:08	2° \approx 58'28	0.63131 AU
direct	3998 Apr 26 00:30	14° \approx 55'07			3999 Apr 01 10:06	30° \approx	
desc. node	3998 Apr 26 10:52	14° \approx 55'39		morning rise	3999 Apr 01 17:52	29° \approx 44'42	
morning max el	3998 May 10 06:14	22° \approx 51'33	27°47'28	direct	3999 Apr 08 15:06	27° \approx 05'30	
	3998 May 16 14:16	0° \approx		desc. node	3999 Apr 13 07:56	28° \approx 10'08	
	3998 Jun 04 20:35	0° \approx			3999 Apr 16 14:08	0° \approx	
morning set	3998 Jun 11 22:14	13° \approx 49'40		morning max el	3999 Apr 22 13:14	5° \approx 03'42	27°46'54
asc. node	3998 Jun 16 09:28	23° \approx 16'01			3999 May 11 08:19	0° \approx	
max. Earth dist.	3998 Jun 17 23:30	26° \approx 42'27	1.32167 AU	morning set	3999 May 26 21:03	27° \approx 57'03	
					3999 May 27 21:24	0° \approx	
superior conj	3998 Jun 19 06:39	29° \approx 32'53	0°29'52	max. Earth dist.	3999 Jun 01 05:05	8° \approx 59'32	1.32740 AU
minimum elong	3998 Jun 19 05:20	29° \approx 25'40	0°29'36	asc. node	3999 Jun 03 06:30	13° \approx 24'07	
	3998 Jun 19 11:36	0° \approx					
evening rise	3998 Jun 26 03:44	14° \approx 31'55		superior conj	3999 Jun 03 14:47	14° \approx 08'48	0°03'38
	3998 Jul 03 21:11	0° \approx		minimum elong	3999 Jun 03 14:36	14° \approx 07'50	0°03'35
evening max el	3998 Jul 22 11:17	26° \approx 28'11	25°03'20	behind sun begin	3999 Jun 03 09:27	13° \approx 40'03	
desc. node	3998 Jul 23 10:10	27° \approx 21'23		behind sun end	3999 Jun 03 19:45	14° \approx 35'38	
	3998 Jul 26 17:02	0° \approx		evening rise	3999 Jun 10 15:35	29° \approx 20'07	
retrograde	3998 Aug 05 10:13	3° \approx 32'02			3999 Jun 10 23:07	0° \approx	
evening set	3998 Aug 10 22:56	2° \approx 22'14			3999 Jun 27 23:24	0° \approx	
	3998 Aug 15 09:36	30° \approx		evening max el	3999 Jul 04 00:20	6° \approx 57'00	23°28'38
min. Earth dist.	3998 Aug 15 22:55	29° \approx 38'42	0.57437 AU	desc. node	3999 Jul 10 07:11	11° \approx 44'24	
inferior conj	3998 Aug 18 22:22	27° \approx 39'06	-5°-10'-50	retrograde	3999 Jul 17 14:17	13° \approx 45'07	
minimum elong	3998 Aug 18 22:37	27° \approx 38'42	5°10'50	evening set	3999 Jul 21 15:35	13° \approx 09'10	
morning rise	3998 Aug 27 01:50	23° \approx 27'58		min. Earth dist.	3999 Jul 28 10:09	10° \approx 00'31	0.55832 AU
direct	3998 Aug 29 15:03	23° \approx 08'59		inferior conj	3999 Jul 30 10:42	8° \approx 48'32	-4°-49'-20
morning max el	3998 Sep 07 13:58	27° \approx 21'56	19°07'35	minimum elong	3999 Jul 30 04:53	8° \approx 57'12	4°48'30
	3998 Sep 10 01:16	0° \approx		morning rise	3999 Aug 07 21:18	4° \approx 54'33	
asc. node	3998 Sep 12 08:43	2° \approx 59'15		direct	3999 Aug 10 17:49	4° \approx 34'30	
morning set	3998 Sep 24 09:23	24° \approx 14'48		morning max el	3999 Aug 21 04:22	9° \approx 25'16	20°15'37
	3998 Sep 27 06:50	0° \approx		asc. node	3999 Aug 30 05:46	21° \approx 12'38	
					3999 Sep 04 03:44	0° \approx	
superior conj	3998 Oct 02 16:36	10° \approx 37'45	1°37'33	morning set	3999 Sep 08 14:40	8° \approx 50'51	
minimum elong	3998 Oct 02 18:48	10° \approx 48'22	1°37'24				
max. Earth dist.	3998 Oct 09 08:34	23° \approx 06'14	1.38558 AU	superior conj	3999 Sep 16 07:06	24° \approx 35'09	1°43'57
evening rise	3998 Oct 13 05:01	29° \approx 55'38		minimum elong	3999 Sep 16 07:38	24° \approx 37'48	1°43'56
	3998 Oct 13 06:01	0° \approx			3999 Sep 19 00:14	0° \approx	
desc. node	3998 Oct 19 09:31	10° \approx 18'42		max. Earth dist.	3999 Sep 21 14:49	5° \approx 03'58	1.36562 AU
	3998 Nov 01 08:40	0° \approx		evening rise	3999 Sep 25 12:55	12° \approx 24'18	
evening max el	3998 Nov 17 16:46	20° \approx 12'59	24°44'21		3999 Oct 05 18:57	0° \approx	
retrograde	3998 Nov 29 06:55	26° \approx 57'44		desc. node	3999 Oct 06 06:32	0° \approx 46'27	
evening set	3998 Dec 04 19:29	24° \approx 40'24			3999 Oct 27 11:13	0° \approx	
asc. node	3998 Dec 09 07:55	19° \approx 35'13		evening max el	3999 Oct 31 05:14	3° \approx 55'42	25°54'46
min. Earth dist.	3998 Dec 09 10:36	19° \approx 26'22	0.67575 AU	retrograde	3999 Nov 12 16:08	11° \approx 01'01	
inferior conj	3998 Dec 10 08:35	18° \approx 13'29	0°21'01	evening set	3999 Nov 18 18:44	8° \approx 30'17	
minimum elong	3998 Dec 10 08:04	18° \approx 15'12	0°20'48	min. Earth dist.	3999 Nov 23 02:22	3° \approx 51'50	0.66853 AU
morning rise	3998 Dec 15 21:08	12° \approx 10'42		inferior conj	3999 Nov 24 11:26	2° \approx 07'57	0°-35'-35
direct	3998 Dec 19 11:55	10° \approx 55'31		minimum elong	3999 Nov 24 12:23	2° \approx 04'59	0°35'11
morning max el	3998 Dec 27 00:11	15° \approx 10'57	19°54'54	asc. node	3999 Nov 26 04:59	0° \approx 00'35	
greatest brilliancy	3999 Jan 03 07:15	24° \approx 03'39	-0.6m		3999 Nov 26 05:11	30° \approx	
	3999 Jan 07 12:06	0° \approx		morning rise	3999 Nov 30 07:00	26° \approx 14'13	
desc. node	3999 Jan 15 08:46	11° \approx 42'09		direct	3999 Dec 03 10:38	25° \approx 17'17	

morning max el	3999 Dec 10 07:42	29° \mathbb{M} 05'55	18°58'49	morning set	4000 Dec 12 01:09	11° \mathbb{X} 24'30	
	3999 Dec 11 04:29	0° \mathbb{X}		desc. node	4000 Dec 19 02:50	22° \mathbb{X} 46'55	
	3999 Dec 31 20:40	0° \mathbb{Z}			4000 Dec 23 15:50	0° \mathbb{Z}	
morning set	4000 Jan 01 14:51	1° \mathbb{Z} 11'00					
desc. node	4000 Jan 02 05:49	2° \mathbb{Z} 09'28		superior conj	4000 Dec 27 08:59	5° \mathbb{Z} 51'32	0°-54'-29
max. Earth dist.	4000 Jan 16 08:21	24° \mathbb{Z} 14'21	1.45041 AU	minimum elong	4000 Dec 27 02:12	5° \mathbb{Z} 24'50	0°53'37
				max. Earth dist.	4000 Dec 29 03:29	8° \mathbb{Z} 38'27	1.45244 AU
superior conj	4000 Jan 18 06:40	27° \mathbb{Z} 16'45	-1°-36'-14		4001 Jan 11 18:57	0° \approx	
minimum elong	4000 Jan 17 21:30	26° \mathbb{Z} 40'38	1°35'23	evening rise	4001 Jan 12 15:01	1° \approx 18'35	
	4000 Jan 20 00:00	0° \approx		greatest brilliancy	4001 Jan 26 21:49	23° \approx 25'02	-0.7m
evening rise	4000 Feb 02 08:38	21° \approx 26'52			4001 Jan 31 13:05	0° \mathbb{H}	
	4000 Feb 07 14:31	0° \mathbb{H}		evening max el	4001 Feb 05 00:58	5° \mathbb{H} 23'00	19°17'10
asc. node	4000 Feb 22 04:15	21° \mathbb{H} 21'45		asc. node	4001 Feb 08 01:19	7° \mathbb{H} 58'48	
evening max el	4000 Feb 22 16:20	21° \mathbb{H} 53'14	18°36'10	retrograde	4001 Feb 12 02:36	9° \mathbb{H} 25'23	
retrograde	4000 Feb 29 06:19	25° \mathbb{H} 31'14		evening set	4001 Feb 15 11:55	8° \mathbb{H} 18'17	
evening set	4000 Mar 03 08:45	24° \mathbb{H} 36'55		inferior conj	4001 Feb 21 01:39	2° \mathbb{H} 24'49	3°21'20
inferior conj	4000 Mar 09 03:58	18° \mathbb{H} 59'38	3°35'06	minimum elong	4001 Feb 20 23:49	2° \mathbb{H} 30'45	3°21'04
minimum elong	4000 Mar 09 03:13	19° \mathbb{H} 01'53	3°35'04	min. Earth dist.	4001 Feb 22 10:21	0° \mathbb{H} 39'18	0.66295 AU
min. Earth dist.	4000 Mar 11 03:52	16° \mathbb{H} 36'01	0.64911 AU		4001 Feb 22 22:46	30° \mathbb{R} \approx	
morning rise	4000 Mar 14 20:23	12° \mathbb{H} 47'17		morning rise	4001 Feb 26 10:52	26° \approx 09'26	
direct	4000 Mar 21 13:06	9° \mathbb{H} 58'14		direct	4001 Mar 04 17:34	23° \approx 23'33	
desc. node	4000 Mar 30 04:59	13° \mathbb{H} 35'32			4001 Mar 16 10:57	0° \mathbb{H}	
morning max el	4000 Apr 03 23:01	17° \mathbb{H} 49'01	27°11'38	desc. node	4001 Mar 17 02:01	0° \mathbb{H} 37'01	
	4000 Apr 14 04:08	0° \mathbb{Y}		morning max el	4001 Mar 17 08:55	0° \mathbb{H} 54'20	26°08'47
	4000 May 03 05:50	0° \mathbb{B}			4001 Apr 08 04:24	0° \mathbb{Y}	
morning set	4000 May 09 10:47	11° \mathbb{B} 34'14		morning set	4001 Apr 22 11:35	24° \mathbb{Y} 29'43	
max. Earth dist.	4000 May 14 02:03	20° \mathbb{B} 48'25	1.33764 AU		4001 Apr 25 09:31	0° \mathbb{B}	
				max. Earth dist.	4001 Apr 26 11:32	2° \mathbb{B} 05'37	1.35242 AU
superior conj	4000 May 17 18:10	28° \mathbb{B} 25'54	0°-24'-42				
minimum elong	4000 May 17 19:27	28° \mathbb{B} 32'40	0°24'27	superior conj	4001 May 01 14:21	12° \mathbb{B} 17'05	0°-53'-51
	4000 May 18 12:00	0° \mathbb{I}		minimum elong	4001 May 01 17:14	12° \mathbb{B} 31'46	0°53'20
asc. node	4000 May 20 03:33	3° \mathbb{I} 29'54		asc. node	4001 May 07 00:36	23° \mathbb{B} 28'59	
evening rise	4000 May 25 02:28	14° \mathbb{I} 00'52		evening rise	4001 May 09 10:19	28° \mathbb{B} 27'25	
	4000 Jun 02 05:42	0° \mathbb{E}			4001 May 10 04:23	0° \mathbb{I}	
evening max el	4000 Jun 14 16:40	17° \mathbb{E} 24'26	21°52'55	evening max el	4001 May 27 19:20	28° \mathbb{I} 20'52	20°29'08
desc. node	4000 Jun 26 04:12	23° \mathbb{E} 35'37			4001 May 29 15:34	0° \mathbb{E}	
retrograde	4000 Jun 27 07:11	23° \mathbb{E} 38'34		retrograde	4001 Jun 07 20:22	3° \mathbb{E} 44'25	
evening set	4000 Jun 30 00:05	23° \mathbb{E} 22'10		evening set	4001 Jun 09 20:50	3° \mathbb{E} 34'20	
inferior conj	4000 Jul 09 07:42	19° \mathbb{E} 19'07	-3°-37'-22	desc. node	4001 Jun 13 01:12	2° \mathbb{E} 41'06	
minimum elong	4000 Jul 08 23:12	19° \mathbb{E} 31'01	3°35'00		4001 Jun 18 09:35	30° \mathbb{R} \mathbb{I}	
min. Earth dist.	4000 Jul 08 20:35	19° \mathbb{E} 34'40	0.54935 AU	inferior conj	4001 Jun 19 01:38	29° \mathbb{I} 36'47	-1°-46'-25
morning rise	4000 Jul 17 23:48	15° \mathbb{E} 27'58		minimum elong	4001 Jun 18 20:38	29° \mathbb{I} 44'02	1°44'37
direct	4000 Jul 21 05:44	15° \mathbb{E} 04'47		min. Earth dist.	4001 Jun 20 08:40	28° \mathbb{I} 51'46	0.54968 AU
morning max el	4000 Aug 02 07:02	20° \mathbb{E} 43'30	21°43'35	morning rise	4001 Jun 27 18:52	25° \mathbb{I} 27'33	
	4000 Aug 10 00:32	0° \mathbb{O}		direct	4001 Jul 01 15:29	24° \mathbb{I} 55'25	
asc. node	4000 Aug 16 02:49	10° \mathbb{O} 04'02			4001 Jul 13 10:36	0° \mathbb{E}	
morning set	4000 Aug 22 23:55	23° \mathbb{O} 38'27		morning max el	4001 Jul 15 00:37	1° \mathbb{E} 24'22	23°24'41
	4000 Aug 26 00:30	0° \mathbb{P}		asc. node	4001 Aug 02 23:51	29° \mathbb{E} 23'59	
					4001 Aug 03 07:11	0° \mathbb{O}	
superior conj	4000 Aug 30 06:54	9° \mathbb{P} 00'07	1°42'46	morning set	4001 Aug 07 11:17	8° \mathbb{O} 32'09	
minimum elong	4000 Aug 30 06:01	8° \mathbb{P} 55'33	1°42'43				
max. Earth dist.	4000 Sep 03 03:37	16° \mathbb{P} 57'32	1.34846 AU	superior conj	4001 Aug 14 12:54	23° \mathbb{O} 43'17	1°35'16
evening rise	4000 Sep 07 13:59	25° \mathbb{P} 41'29		minimum elong	4001 Aug 14 11:05	23° \mathbb{O} 33'29	1°35'07
	4000 Sep 09 20:46	0° \mathbb{A}		max. Earth dist.	4001 Aug 17 01:14	29° \mathbb{O} 04'55	1.33518 AU
desc. node	4000 Sep 22 03:33	20° \mathbb{A} 57'26			4001 Aug 17 11:40	0° \mathbb{P}	
	4000 Sep 28 05:33	0° \mathbb{M}		evening rise	4001 Aug 22 03:58	9° \mathbb{P} 36'02	
evening max el	4000 Oct 12 17:44	17° \mathbb{M} 33'24	26°49'28		4001 Sep 02 06:21	0° \mathbb{A}	
retrograde	4000 Oct 25 20:02	24° \mathbb{M} 49'26		desc. node	4001 Sep 09 00:33	10° \mathbb{A} 44'14	
evening set	4000 Nov 01 11:25	22° \mathbb{M} 10'05			4001 Sep 24 06:22	0° \mathbb{M}	
min. Earth dist.	4000 Nov 05 12:02	18° \mathbb{M} 07'58	0.65781 AU	evening max el	4001 Sep 25 05:41	0° \mathbb{M} 56'43	27°21'18
inferior conj	4000 Nov 07 08:53	15° \mathbb{M} 57'04	-1°-35'-40	retrograde	4001 Oct 08 18:13	8° \mathbb{M} 15'14	
minimum elong	4000 Nov 07 11:33	15° \mathbb{M} 49'17	1°34'34	evening set	4001 Oct 15 19:03	5° \mathbb{M} 35'21	
asc. node	4000 Nov 12 02:03	11° \mathbb{M} 10'39		min. Earth dist.	4001 Oct 19 13:33	2° \mathbb{M} 08'14	0.64358 AU
morning rise	4000 Nov 13 13:17	10° \mathbb{M} 15'15		inferior conj	4001 Oct 21 22:36	29° \mathbb{A} 36'26	-2°-37'-9
direct	4000 Nov 16 07:49	9° \mathbb{M} 32'49		minimum elong	4001 Oct 22 03:01	29° \mathbb{A} 24'39	2°35'31
morning max el	4000 Nov 22 20:57	13° \mathbb{M} 05'27	18°18'50		4001 Oct 21 13:48	30° \mathbb{R} \mathbb{A}	
	4000 Dec 04 23:29	0° \mathbb{X}		morning rise	4001 Oct 28 13:14	24° \mathbb{A} 09'29	

asc. node	4001 Oct 29 23:04	23° Ω 43'45		min. Earth dist.	4002 Oct 02 05:08	15° Ω 41'24	0.62613 AU
direct	4001 Oct 31 01:08	23° Ω 37'40		inferior conj	4002 Oct 05 01:42	12° Ω 58'16	-3°-36'-46
morning max el	4001 Nov 06 13:14	27° Ω 03'32	17°55'49	minimum elong	4002 Oct 05 07:26	12° Ω 44'35	3°35'03
	4001 Nov 09 03:19	0° \mathbb{M}		morning rise	4002 Oct 12 03:25	7° Ω 49'26	
morning set	4001 Nov 23 16:08	23° \mathbb{M} 02'28		direct	4002 Oct 14 11:32	7° Ω 24'35	
	4001 Nov 27 19:08	0° \mathcal{A}		asc. node	4002 Oct 16 20:05	7° Ω 50'32	
desc. node	4001 Dec 05 23:52	13° \mathcal{A} 31'09		morning max el	4002 Oct 21 05:30	10° Ω 51'50	17°50'35
					4002 Nov 02 23:56	0° \mathbb{M}	
superior conj	4001 Dec 06 23:46	15° \mathcal{A} 07'48	0°-6'-52	morning set	4002 Nov 06 05:57	5° \mathbb{M} 45'57	
minimum elong	4001 Dec 06 22:58	15° \mathcal{A} 04'32	0°06'46				
behind sun begin	4001 Dec 06 13:35	14° \mathcal{A} 26'42		superior conj	4002 Nov 17 15:35	25° \mathbb{M} 37'57	0°35'54
behind sun end	4001 Dec 07 08:20	15° \mathcal{A} 42'20		minimum elong	4002 Nov 17 18:50	25° \mathbb{M} 51'40	0°35'26
max. Earth dist.	4001 Dec 11 22:02	23° \mathcal{A} 00'20	1.44714 AU		4002 Nov 20 06:11	0° \mathcal{A}	
	4001 Dec 16 08:47	0° \mathcal{B}		desc. node	4002 Nov 22 20:53	4° \mathcal{A} 18'17	
evening rise	4001 Dec 23 04:21	10° \mathcal{B} 33'39		max. Earth dist.	4002 Nov 24 13:46	7° \mathcal{A} 04'28	1.43516 AU
	4002 Jan 05 00:11	0° \approx		evening rise	4002 Dec 02 14:39	19° \mathcal{A} 47'53	
greatest brilliancy	4002 Jan 12 19:00	11° \approx 07'48	-0.6m		4002 Dec 09 06:50	0° \mathcal{B}	
evening max el	4002 Jan 19 04:47	18° \approx 54'39	20°13'37	greatest brilliancy	4002 Dec 28 03:11	26° \mathcal{B} 42'43	-0.4m
asc. node	4002 Jan 25 22:20	23° \approx 23'17			4002 Dec 30 20:43	0° \approx	
retrograde	4002 Jan 27 00:37	23° \approx 29'49		evening max el	4003 Jan 02 03:11	2° \approx 27'57	21°22'35
evening set	4002 Jan 30 18:17	22° \approx 08'44		retrograde	4003 Jan 10 22:16	7° \approx 41'02	
inferior conj	4002 Feb 05 04:55	16° \approx 01'45	2°56'13	asc. node	4003 Jan 12 19:20	7° \approx 21'51	
minimum elong	4002 Feb 05 02:31	16° \approx 09'52	2°55'39	evening set	4003 Jan 15 02:00	6° \approx 04'44	
min. Earth dist.	4002 Feb 05 23:45	14° \approx 57'59	0.67266 AU	inferior conj	4003 Jan 20 11:26	29° \mathcal{B} 47'17	2°21'56
morning rise	4002 Feb 10 10:11	9° \approx 45'47		minimum elong	4003 Jan 20 08:59	29° \mathcal{B} 55'46	2°21'09
direct	4002 Feb 16 03:38	7° \approx 13'16			4003 Jan 20 07:46	30° \mathcal{R} \mathcal{B}	
morning max el	4002 Feb 27 17:34	14° \approx 08'46	24°47'48	min. Earth dist.	4003 Jan 20 17:48	29° \mathcal{B} 25'13	0.67831 AU
desc. node	4002 Mar 03 23:04	18° \approx 47'31		morning rise	4003 Jan 25 15:38	23° \mathcal{B} 32'39	
	4002 Mar 12 15:32	0° \mathcal{H}		direct	4003 Jan 30 18:24	21° \mathcal{B} 20'11	
	4002 Apr 01 00:48	0° \mathcal{Y}		morning max el	4003 Feb 10 02:23	27° \mathcal{B} 28'42	23°19'08
morning set	4002 Apr 04 18:23	6° \mathcal{Y} 29'05			4003 Feb 12 11:11	0° \approx	
max. Earth dist.	4002 Apr 08 10:26	13° \mathcal{Y} 06'01	1.37135 AU	greatest brilliancy	4003 Feb 15 10:34	3° \approx 29'13	-0.2m
				desc. node	4003 Feb 18 20:07	7° \approx 47'27	
superior conj	4002 Apr 15 00:18	25° \mathcal{Y} 34'07	-1°-22'00		4003 Mar 06 07:27	0° \mathcal{H}	
minimum elong	4002 Apr 15 04:33	25° \mathcal{Y} 54'55	1°21'23	morning set	4003 Mar 17 01:03	17° \mathcal{H} 16'01	
	4002 Apr 17 06:21	0° \mathcal{B}		max. Earth dist.	4003 Mar 21 05:23	24° \mathcal{H} 25'13	1.39289 AU
evening rise	4002 Apr 23 12:47	12° \mathcal{B} 32'54			4003 Mar 24 09:13	0° \mathcal{Y}	
asc. node	4002 Apr 23 21:37	13° \mathcal{B} 16'58					
	4002 May 02 21:25	0° \mathbb{I}		superior conj	4003 Mar 28 20:05	8° \mathcal{Y} 07'16	-1°-46'-25
evening max el	4002 May 10 10:21	9° \mathbb{I} 58'39	19°23'38	minimum elong	4003 Mar 29 00:48	8° \mathcal{Y} 29'12	1°45'57
retrograde	4002 May 19 17:49	14° \mathbb{I} 30'22		evening rise	4003 Apr 07 07:06	26° \mathcal{Y} 09'57	
evening set	4002 May 21 17:22	14° \mathbb{I} 18'57			4003 Apr 09 07:00	0° \mathcal{B}	
inferior conj	4002 May 30 06:49	10° \mathbb{I} 12'07	0°11'18	asc. node	4003 Apr 10 18:38	2° \mathcal{B} 49'00	
minimum elong	4002 May 30 07:18	10° \mathbb{I} 11'19	0°11'07	evening max el	4003 Apr 23 11:44	22° \mathcal{B} 15'14	18°38'16
transit middle	4002 May 30 07:18	10° \mathbb{I} 11'19	0°11'07	retrograde	4003 May 01 09:03	26° \mathcal{B} 07'40	
transit begin	4002 May 30 04:31	10° \mathbb{I} 15'52		evening set	4003 May 03 14:06	25° \mathcal{B} 50'29	
transit end	4002 May 30 10:05	10° \mathbb{I} 06'47		inferior conj	4003 May 11 08:02	21° \mathcal{B} 24'55	1°47'04
desc. node	4002 May 30 22:14	9° \mathbb{I} 46'56		minimum elong	4003 May 11 11:27	21° \mathcal{B} 18'25	1°46'00
min. Earth dist.	4002 Jun 01 23:02	8° \mathbb{I} 27'56	0.55953 AU	min. Earth dist.	4003 May 14 16:35	18° \mathcal{B} 52'54	0.57671 AU
morning rise	4002 Jun 07 17:17	5° \mathbb{I} 30'07		desc. node	4003 May 17 19:15	16° \mathcal{B} 51'21	
direct	4002 Jun 12 11:42	4° \mathbb{I} 38'23		morning rise	4003 May 19 04:21	16° \mathcal{B} 08'34	
morning max el	4002 Jun 26 14:31	11° \mathbb{I} 47'40	25°06'23	direct	4003 May 24 21:57	14° \mathcal{B} 46'32	
	4002 Jul 10 13:45	0° \mathcal{S}		morning max el	4003 Jun 08 06:46	22° \mathcal{B} 21'44	26°33'03
asc. node	4002 Jul 20 20:52	19° \mathcal{S} 04'15			4003 Jun 15 00:51	0° \mathbb{I}	
morning set	4002 Jul 22 23:00	23° \mathcal{S} 25'51			4003 Jul 03 08:50	0° \mathcal{S}	
	4002 Jul 26 00:21	0° \mathcal{Q}		morning set	4003 Jul 07 09:33	8° \mathcal{S} 14'45	
				asc. node	4003 Jul 07 17:54	8° \mathcal{S} 58'54	
superior conj	4002 Jul 29 22:40	8° \mathcal{Q} 35'53	1°22'26				
minimum elong	4002 Jul 29 20:23	8° \mathcal{Q} 23'22	1°22'08	superior conj	4003 Jul 14 10:15	23° \mathcal{S} 31'36	1°05'02
max. Earth dist.	4002 Jul 31 06:42	11° \mathcal{Q} 30'38	1.32616 AU	minimum elong	4003 Jul 14 07:59	23° \mathcal{S} 19'04	1°04'39
evening rise	4002 Aug 06 03:13	23° \mathcal{Q} 56'36		max. Earth dist.	4003 Jul 14 17:13	24° \mathcal{S} 10'01	1.32128 AU
	4002 Aug 09 03:29	0° \mathbb{N}			4003 Jul 17 08:56	0° \mathcal{Q}	
desc. node	4002 Aug 26 21:33	29° \mathbb{N} 55'49		evening rise	4003 Jul 21 08:51	8° \mathcal{Q} 34'27	
	4002 Aug 26 22:45	0° \mathcal{L}			4003 Aug 01 13:04	0° \mathbb{N}	
evening max el	4002 Sep 07 15:17	13° \mathcal{L} 52'30	27°24'02	desc. node	4003 Aug 13 18:33	18° \mathbb{N} 17'51	
retrograde	4002 Sep 21 09:49	21° \mathcal{L} 07'55		evening max el	4003 Aug 20 19:50	26° \mathbb{N} 07'56	26°53'36
evening set	4002 Sep 28 14:15	18° \mathcal{L} 38'38			4003 Aug 25 13:13	0° \mathcal{L}	

retrograde	4003 Sep 03 17:34	3°♄18'49			4004 Jul 25 23:06	0°♄	
evening set	4003 Sep 10 16:46	1°♄12'34		desc. node	4004 Jul 30 15:33	5°♄30'06	
	4003 Sep 12 13:05	30°♄		evening max el	4004 Aug 01 17:00	7°♄34'32	25°51'01
min. Earth dist.	4003 Sep 14 10:00	28°♄34'29	0.60630 AU	retrograde	4004 Aug 15 16:15	14°♄42'00	
inferior conj	4003 Sep 17 14:54	25°♄53'59	-4°-28'-50	evening set	4004 Aug 21 21:45	13°♄09'44	
minimum elong	4003 Sep 17 20:36	25°♄42'01	4°27'40	min. Earth dist.	4004 Aug 26 05:14	10°♄34'00	0.58561 AU
morning rise	4003 Sep 25 03:38	21°♄06'36		inferior conj	4004 Aug 29 10:38	8°♄13'51	-5°-3'-50
direct	4003 Sep 27 11:14	20°♄45'43		minimum elong	4004 Aug 29 13:46	8°♄08'09	5°03'34
asc. node	4003 Oct 03 17:08	23°♄24'48		morning rise	4004 Sep 06 09:17	3°♄50'10	
morning max el	4003 Oct 04 18:34	24°♄22'29	18°04'18	direct	4004 Sep 08 19:41	3°♄30'59	
	4003 Oct 09 09:00	0°♄		morning max el	4004 Sep 17 01:16	7°♄27'00	18°38'24
morning set	4003 Oct 20 12:17	19°♄16'18		asc. node	4004 Sep 19 14:12	10°♄12'45	
	4003 Oct 26 07:10	0°♄			4004 Oct 01 12:55	0°♄	
				morning set	4004 Oct 03 06:17	3°♄19'54	
superior conj	4003 Oct 30 09:30	7°♄24'10	1°08'25	superior conj	4004 Oct 12 00:58	20°♄13'47	1°29'51
minimum elong	4003 Oct 30 13:39	7°♄42'36	1°07'55	minimum elong	4004 Oct 12 04:06	20°♄28'28	1°29'34
max. Earth dist.	4003 Nov 07 01:01	20°♄36'15	1.41794 AU		4004 Oct 17 08:58	0°♄	
desc. node	4003 Nov 09 17:53	25°♄04'52		max. Earth dist.	4004 Oct 19 07:19	3°♄25'04	1.39760 AU
evening rise	4003 Nov 12 13:42	29°♄39'43		evening rise	4004 Oct 23 10:44	10°♄31'55	
	4003 Nov 12 18:46	0°♄		desc. node	4004 Oct 26 14:54	15°♄47'35	
	4003 Dec 02 20:52	0°♄			4004 Nov 04 16:33	0°♄	
greatest brilliancy	4003 Dec 10 21:53	10°♄30'43	-0.3m	evening max el	4004 Nov 27 10:22	29°♄41'30	23°59'40
evening max el	4003 Dec 15 20:32	16°♄03'07	22°39'46		4004 Nov 27 17:52	0°♄	
retrograde	4003 Dec 25 17:53	21°♄55'32		retrograde	4004 Dec 08 10:20	6°♄09'47	
evening set	4003 Dec 30 09:25	20°♄02'58		evening set	4004 Dec 13 15:01	4°♄00'58	
asc. node	4003 Dec 30 16:22	19°♄48'16		asc. node	4004 Dec 16 13:25	0°♄55'07	
inferior conj	4004 Jan 04 19:14	13°♄38'32	1°39'57		4004 Dec 17 06:48	30°♄	
minimum elong	4004 Jan 04 17:12	13°♄45'35	1°39'12	min. Earth dist.	4004 Dec 18 10:39	28°♄27'25	0.67834 AU
min. Earth dist.	4004 Jan 04 14:11	13°♄56'02	0.68014 AU	inferior conj	4004 Dec 19 02:33	27°♄33'31	0°51'29
morning rise	4004 Jan 10 00:55	7°♄27'02		minimum elong	4004 Dec 19 01:22	27°♄37'33	0°51'00
direct	4004 Jan 14 12:51	5°♄37'28		morning rise	4004 Dec 24 11:59	21°♄27'03	
morning max el	4004 Jan 23 14:54	10°♄56'31	21°52'10	direct	4004 Dec 28 10:00	20°♄00'07	
greatest brilliancy	4004 Jan 28 08:07	16°♄14'46	-0.4m	morning max el	4005 Jan 05 10:20	24°♄35'57	20°34'02
desc. node	4004 Feb 05 17:09	27°♄22'35			4005 Jan 10 03:45	0°♄	
	4004 Feb 07 13:30	0°♄		greatest brilliancy	4005 Jan 11 11:18	1°♄40'55	-0.5m
morning set	4004 Feb 25 02:58	26°♄40'11		desc. node	4005 Jan 22 14:12	17°♄23'25	
	4004 Feb 27 04:32	0°♄			4005 Jan 30 22:44	0°♄	
max. Earth dist.	4004 Mar 02 04:12	6°♄33'23	1.41436 AU	morning set	4005 Feb 03 04:44	5°♄00'49	
				max. Earth dist.	4005 Feb 12 10:19	19°♄36'53	1.43279 AU
superior conj	4004 Mar 09 20:49	19°♄43'59	-2°-3'-9	superior conj	4005 Feb 18 21:41	0°♄14'20	-2°-7'-7
minimum elong	4004 Mar 09 23:59	19°♄57'52	2°03'02	minimum elong	4005 Feb 18 20:17	0°♄08'30	2°07'07
	4004 Mar 15 14:14	0°♄			4005 Feb 18 18:15	0°♄	
evening rise	4004 Mar 20 13:42	9°♄09'28		evening rise	4005 Mar 03 04:30	21°♄23'17	
asc. node	4004 Mar 27 15:40	21°♄58'40			4005 Mar 08 02:14	0°♄	
	4004 Apr 01 16:39	0°♄		asc. node	4005 Mar 14 12:43	10°♄39'12	
evening max el	4004 Apr 05 20:03	5°♄01'04	18°12'56	evening max el	4005 Mar 20 08:03	18°♄08'15	18°07'10
retrograde	4004 Apr 12 19:06	8°♄30'55		retrograde	4005 Mar 26 20:10	21°♄30'55	
evening set	4004 Apr 15 06:22	8°♄05'13		evening set	4005 Mar 29 13:13	20°♄55'03	
inferior conj	4004 Apr 22 06:27	3°♄18'20	2°50'48	inferior conj	4005 Apr 04 23:13	15°♄47'33	3°25'11
minimum elong	4004 Apr 22 09:50	3°♄10'50	2°50'04	minimum elong	4005 Apr 05 01:04	15°♄42'49	3°24'59
min. Earth dist.	4004 Apr 25 15:36	0°♄19'21	0.59785 AU	min. Earth dist.	4005 Apr 07 22:44	12°♄46'16	0.61958 AU
	4004 Apr 26 00:54	30°♄		morning rise	4005 Apr 11 10:13	9°♄47'18	
morning rise	4004 Apr 29 09:33	27°♄35'05		direct	4005 Apr 18 06:17	7°♄20'11	
desc. node	4004 May 03 16:18	25°♄51'29		desc. node	4005 Apr 20 13:22	7°♄35'31	
direct	4004 May 05 20:46	25°♄38'11		morning max el	4005 May 02 09:39	15°♄18'49	27°51'50
	4004 May 16 06:37	0°♄			4005 May 14 08:46	0°♄	
morning max el	4004 May 20 05:04	3°♄28'56	27°30'49	morning set	4005 Jun 01 04:42	0°♄	
	4004 Jun 08 15:11	0°♄		max. Earth dist.	4005 Jun 04 19:54	7°♄13'20	
morning set	4004 Jun 20 17:10	22°♄52'38		asc. node	4005 Jun 10 13:55	19°♄19'46	1.32355 AU
asc. node	4004 Jun 23 14:57	29°♄02'05			4005 Jun 10 12:00	19°♄09'27	
	4004 Jun 24 01:42	0°♄		superior conj	4005 Jun 12 07:48	23°♄07'12	0°19'03
max. Earth dist.	4004 Jun 27 04:57	6°♄50'42	1.32037 AU	minimum elong	4005 Jun 12 06:55	23°♄02'26	0°18'51
					4005 Jun 15 11:18	0°♄	
superior conj	4004 Jun 27 21:52	8°♄23'52	0°43'42	evening rise	4005 Jun 19 06:02	8°♄10'23	
minimum elong	4004 Jun 27 20:05	8°♄14'01	0°43'21				
evening rise	4004 Jul 04 18:28	23°♄21'14					
	4004 Jul 07 23:17	0°♄					

	4005 Jun 30 14:00	0°♌		minimum elong	4006 May 27 14:36	7°♊38'19	0°08'09
evening max el	4005 Jul 14 07:27	18°♌17'35	24°24'07	behind sun begin	4006 May 27 09:57	7°♊13'26	
desc. node	4005 Jul 17 12:35	21°♌04'33		behind sun end	4006 May 27 19:16	8°♊03'14	
retrograde	4005 Jul 28 04:08	25°♌17'25		asc. node	4006 May 28 09:03	9°♊17'08	
evening set	4005 Aug 02 02:27	24°♌23'06		evening rise	4006 Jun 03 17:43	22°♊56'04	
min. Earth dist.	4005 Aug 07 18:20	21°♌30'38	0.56681 AU		4006 Jun 07 03:42	0°♊	
inferior conj	4005 Aug 10 10:19	19°♌49'23	-5°-7'-34	evening max el	4006 Jun 25 20:56	28°♊42'04	22°47'14
minimum elong	4005 Aug 10 07:58	19°♌53'08	5°07'27		4006 Jun 27 06:39	0°♌	
morning rise	4005 Aug 18 17:03	15°♌47'08		desc. node	4006 Jul 04 09:38	4°♌27'03	
direct	4005 Aug 21 09:01	15°♌28'00		retrograde	4006 Jul 09 03:26	5°♌18'33	
morning max el	4005 Aug 30 22:25	19°♌55'26	19°34'01	evening set	4006 Jul 12 13:13	4°♌53'06	
asc. node	4005 Sep 06 11:16	27°♌58'50		min. Earth dist.	4006 Jul 20 05:18	1°♌29'27	0.55338 AU
	4005 Sep 07 18:22	0°♍		inferior conj	4006 Jul 21 15:10	0°♌40'52	-4°-25'00
morning set	4005 Sep 17 08:15	17°♍46'08		minimum elong	4006 Jul 21 07:29	0°♌51'56	4°23'26
	4005 Sep 23 09:58	0°♎			4006 Jul 22 19:48	30°♎♊	
				morning rise	4006 Jul 30 04:19	26°♊50'03	
superior conj	4005 Sep 25 08:28	3°♎50'33	1°41'16	direct	4006 Aug 02 04:13	26°♊29'11	
minimum elong	4005 Sep 25 09:56	3°♎57'49	1°41'12		4006 Aug 11 08:35	0°♌	
max. Earth dist.	4005 Oct 01 11:37	15°♎34'20	1.37678 AU	morning max el	4006 Aug 13 07:50	1°♌40'08	20°50'52
evening rise	4005 Oct 05 06:48	22°♎27'36		asc. node	4006 Aug 24 08:19	16°♌29'46	
	4005 Oct 09 15:22	0°♍			4006 Aug 31 10:38	0°♍	
desc. node	4005 Oct 13 11:54	6°♍22'02		morning set	4006 Sep 01 15:30	2°♍27'49	
	4005 Oct 29 13:03	0°♎					
evening max el	4005 Nov 09 22:44	13°♎22'50	25°15'41	superior conj	4006 Sep 09 03:22	18°♍01'08	1°44'17
retrograde	4005 Nov 21 22:33	20°♎18'25		minimum elong	4006 Sep 09 03:15	18°♍00'33	1°44'17
evening set	4005 Nov 27 17:06	17°♎54'47		max. Earth dist.	4006 Sep 13 19:52	27°♍26'19	1.35788 AU
min. Earth dist.	4005 Dec 02 04:51	12°♎55'45	0.67309 AU		4006 Sep 15 03:27	0°♎	
inferior conj	4005 Dec 03 07:34	11°♎28'56	0°-2'-29	evening rise	4006 Sep 17 22:36	5°♎18'52	
minimum elong	4005 Dec 03 07:38	11°♎28'45	0°02'27	desc. node	4006 Sep 30 08:55	26°♎43'26	
transit middle	4005 Dec 03 07:38	11°♎28'45	0°02'27		4006 Oct 02 11:15	0°♍	
transit begin	4005 Dec 03 04:53	11°♎37'42		evening max el	4006 Oct 23 11:14	27°♍04'34	26°20'23
transit end	4005 Dec 03 10:23	11°♎19'48			4006 Oct 26 18:18	0°♎	
asc. node	4005 Dec 03 10:29	11°♎19'27		retrograde	4006 Nov 05 05:42	4°♎15'58	
morning rise	4005 Dec 08 22:53	5°♎29'43		evening set	4006 Nov 11 13:49	1°♎41'02	
direct	4005 Dec 12 08:34	4°♎22'54			4006 Nov 13 09:05	30°♎♍	
morning max el	4005 Dec 19 13:40	8°♎25'56	19°29'05	min. Earth dist.	4006 Nov 15 18:27	27°♍17'42	0.66441 AU
greatest brilliancy	4005 Dec 28 04:10	19°♎15'50	-0.7m	inferior conj	4006 Nov 17 08:24	25°♍21'48	-1°00'-44
	4006 Jan 04 10:15	0°♏		minimum elong	4006 Nov 17 10:03	25°♍16'46	1°00'02
desc. node	4006 Jan 09 11:12	7°♏42'11		asc. node	4006 Nov 20 07:32	21°♍57'36	
morning set	4006 Jan 13 02:18	13°♏17'58		morning rise	4006 Nov 23 07:30	19°♍32'30	
	4006 Jan 23 19:26	0°♐		direct	4006 Nov 26 06:56	18°♍42'15	
max. Earth dist.	4006 Jan 25 23:04	3°♐23'42	1.44589 AU	morning max el	4006 Dec 02 23:50	22°♍23'08	18°39'38
					4006 Dec 09 03:10	0°♎	
superior conj	4006 Jan 29 20:48	9°♐36'29	-1°-53'-12	morning set	4006 Dec 23 19:49	22°♎40'21	
minimum elong	4006 Jan 29 13:28	9°♐07'11	1°52'43	desc. node	4006 Dec 27 08:12	28°♎13'54	
	4006 Feb 11 08:08	0°♑			4006 Dec 28 11:06	0°♏	
evening rise	4006 Feb 12 23:00	2°♑42'25		max. Earth dist.	4007 Jan 08 16:36	17°♏38'48	1.45223 AU
asc. node	4006 Mar 01 09:46	28°♑41'20					
	4006 Mar 02 11:51	0°♒		superior conj	4007 Jan 09 01:35	18°♏14'04	-1°-20'-1
evening max el	4006 Mar 03 20:44	1°♒29'02	18°20'25	minimum elong	4007 Jan 08 16:36	17°♏38'48	1°19'02
retrograde	4006 Mar 10 07:38	4°♒57'57			4007 Jan 16 13:02	0°♐	
evening set	4006 Mar 13 06:28	4°♒10'45		evening rise	4007 Jan 24 18:18	13°♐03'51	
	4006 Mar 18 03:08	30°♒♑			4007 Feb 04 09:32	0°♑	
inferior conj	4006 Mar 19 06:09	28°♑44'05	3°36'37	evening max el	4007 Feb 15 07:30	14°♑56'58	18°51'41
minimum elong	4006 Mar 19 06:15	28°♑43'46	3°36'37	asc. node	4007 Feb 16 06:48	15°♑53'16	
min. Earth dist.	4006 Mar 21 15:11	26°♑02'04	0.63930 AU	retrograde	4007 Feb 22 01:31	18°♑43'52	
morning rise	4006 Mar 25 04:17	22°♑34'41		evening set	4007 Feb 25 06:46	17°♑44'15	
direct	4006 Apr 01 00:26	19°♑49'15		inferior conj	4007 Mar 02 23:21	12°♑00'05	3°30'49
desc. node	4006 Apr 07 10:25	21°♑49'38		minimum elong	4007 Mar 02 22:05	12°♑04'02	3°30'42
morning max el	4006 Apr 14 18:15	27°♑46'37	27°35'45	min. Earth dist.	4007 Mar 04 16:45	9°♑51'42	0.65554 AU
	4006 Apr 16 21:05	0°♒		morning rise	4007 Mar 08 12:17	5°♑46'15	
	4006 May 08 02:14	0°♓		direct	4007 Mar 15 01:27	2°♑56'47	
morning set	4006 May 19 15:17	21°♓09'21		desc. node	4007 Mar 25 07:27	7°♑59'15	
	4006 May 23 23:48	0°♊		morning max el	4007 Mar 28 04:02	10°♑40'40	26°47'40
max. Earth dist.	4006 May 24 16:06	1°♊24'59	1.33111 AU		4007 Apr 12 11:23	0°♒	
					4007 Apr 30 14:32	0°♓	
superior conj	4006 May 27 14:12	7°♊36'08	0°-8'-12	morning set	4007 May 02 23:59	4°♓29'55	

max. Earth dist.	4007 May 07 08:03	12°♄58'25	1.34333 AU	max. Earth dist.	4008 Apr 18 12:50	24°♃06'28	1.36009 AU
					4008 Apr 21 14:13	0°♄	
superior conj	4007 May 11 14:50	21°♄43'05	0°-37'-3	superior conj	4008 Apr 24 07:04	5°♄20'55	-1°-6'-4
minimum elong	4007 May 11 16:47	21°♄53'16	0°36'41	minimum elong	4008 Apr 24 10:36	5°♄38'35	1°05'28
asc. node	4007 May 15 06:04	29°♄20'26		asc. node	4008 May 01 03:06	19°♄15'28	
	4007 May 15 13:35	0°♂		evening rise	4008 May 02 09:24	21°♄49'53	
evening rise	4007 May 19 03:31	7°♂31'16			4008 May 06 11:52	0°♂	
	4007 May 31 06:47	0°♄		evening max el	4008 May 20 01:09	20°♂32'34	19°58'47
evening max el	4007 Jun 07 17:14	9°♄19'27	21°15'23	retrograde	4008 May 30 07:52	25°♂33'07	
retrograde	4007 Jun 19 16:49	15°♄12'37		evening set	4008 Jun 01 06:51	25°♂23'01	
desc. node	4007 Jun 21 06:40	15°♄06'49		desc. node	4008 Jun 07 03:40	23°♂10'45	
evening set	4007 Jun 22 00:35	15°♄00'09		inferior conj	4008 Jun 10 06:07	21°♂22'47	0°-55'-11
inferior conj	4007 Jul 01 09:02	11°♄01'51	-2°-53'-28	minimum elong	4008 Jun 10 03:33	21°♂26'40	0°54'15
minimum elong	4007 Jul 01 01:23	11°♄12'35	2°51'00	min. Earth dist.	4008 Jun 12 04:52	20°♂12'16	0.55286 AU
min. Earth dist.	4007 Jul 01 16:20	10°♄51'38	0.54830 AU	morning rise	4008 Jun 18 21:36	17°♂01'10	
morning rise	4007 Jul 10 02:22	7°♄05'22		direct	4008 Jun 23 02:58	16°♂22'13	
direct	4007 Jul 13 13:58	6°♄39'10		morning max el	4008 Jul 06 21:02	23°♂09'03	24°08'49
morning max el	4007 Jul 26 05:56	12°♄39'51	22°25'32		4008 Jul 13 00:11	0°♄	
	4007 Aug 08 03:35	0°♂		asc. node	4008 Jul 28 02:21	25°♄03'06	
asc. node	4007 Aug 11 05:20	5°♂33'59			4008 Jul 30 12:23	0°♂	
morning set	4007 Aug 17 01:51	17°♂18'09		morning set	4008 Jul 31 13:33	2°♂12'08	
	4007 Aug 23 01:05	0°♂					
superior conj	4007 Aug 24 06:06	2°♂34'12	1°40'17	superior conj	4008 Aug 07 13:56	17°♂21'33	1°30'25
minimum elong	4007 Aug 24 04:46	2°♂27'08	1°40'12	minimum elong	4008 Aug 07 11:51	17°♂10'16	1°30'12
max. Earth dist.	4007 Aug 27 12:28	9°♂24'23	1.34235 AU	max. Earth dist.	4008 Aug 09 13:54	21°♂40'15	1.33087 AU
evening rise	4007 Sep 01 05:39	18°♂53'00			4008 Aug 13 12:51	0°♂	
	4007 Sep 07 04:10	0°♄		evening rise	4008 Aug 14 23:57	2°♂59'08	
desc. node	4007 Sep 17 05:57	16°♄44'57			4008 Aug 29 23:34	0°♄	
	4007 Sep 26 14:49	0°♂		desc. node	4008 Sep 03 02:58	6°♄17'58	
evening max el	4007 Oct 05 23:56	10°♂38'13	27°06'16	evening max el	4008 Sep 17 11:11	23°♄51'01	27°26'19
retrograde	4007 Oct 19 07:07	17°♂55'24			4008 Sep 26 02:15	0°♂	
evening set	4007 Oct 26 02:59	15°♂15'02		retrograde	4008 Oct 01 02:17	1°♂07'55	
min. Earth dist.	4007 Oct 30 00:58	11°♂27'55	0.65220 AU		4008 Oct 05 19:23	30°♂♄	
inferior conj	4007 Nov 01 02:53	9°♂07'34	-2°-1'-42	evening set	4008 Oct 08 05:44	28°♄31'01	
minimum elong	4007 Nov 01 06:18	8°♂57'55	2°00'21	min. Earth dist.	4008 Oct 11 22:16	25°♄17'45	0.63654 AU
morning rise	4007 Nov 07 11:27	3°♂31'23		inferior conj	4008 Oct 14 12:25	22°♄39'52	-3°-2'-56
asc. node	4007 Nov 07 04:33	3°♂39'53		minimum elong	4008 Oct 14 17:30	22°♄26'57	3°01'13
direct	4007 Nov 10 02:56	2°♂53'48		morning rise	4008 Oct 21 07:43	17°♄20'18	
morning max el	4007 Nov 16 14:40	6°♂22'26	18°06'52	direct	4008 Oct 23 17:46	16°♄51'44	
	4007 Dec 02 15:28	0°♂		asc. node	4008 Oct 24 01:35	16°♄52'16	
morning set	4007 Dec 04 18:56	3°♂32'13		morning max el	4008 Oct 30 07:18	20°♄16'50	17°51'26
desc. node	4007 Dec 14 05:14	18°♂54'41			4008 Nov 06 13:53	0°♂	
				morning set	4008 Nov 15 20:27	15°♂40'25	
superior conj	4007 Dec 19 06:53	27°♂00'14	0°-34'-16		4008 Nov 24 05:44	0°♂	
minimum elong	4007 Dec 19 02:35	26°♂43'10	0°33'41	superior conj	4008 Nov 28 07:32	6°♂45'47	0°12'20
	4007 Dec 21 04:20	0°♄		minimum elong	4008 Nov 28 08:51	6°♂51'13	0°12'09
max. Earth dist.	4007 Dec 22 12:18	2°♄05'54	1.45113 AU	behind sun begin	4008 Nov 28 02:24	6°♂24'42	
evening rise	4008 Jan 04 16:16	22°♄37'19		behind sun end	4008 Nov 28 15:19	7°♂17'42	
	4008 Jan 09 10:46	0°♂		desc. node	4008 Nov 30 02:15	9°♂40'22	
greatest brilliancy	4008 Jan 21 21:12	18°♂43'16	-0.6m	max. Earth dist.	4008 Dec 04 06:30	16°♂24'12	1.44279 AU
evening max el	4008 Jan 29 14:20	28°♂28'25	19°39'27		4008 Dec 12 22:31	0°♄	
	4008 Jan 31 04:53	0°♂		evening rise	4008 Dec 14 02:21	1°♄47'15	
asc. node	4008 Feb 03 03:50	2°♂01'42			4009 Jan 02 02:02	0°♂	
retrograde	4008 Feb 05 22:47	2°♂43'24		greatest brilliancy	4009 Jan 05 23:09	5°♂15'45	-0.5m
evening set	4008 Feb 09 11:34	1°♂30'19		evening max el	4009 Jan 11 15:50	12°♂00'31	20°41'33
	4008 Feb 11 06:11	30°♂		retrograde	4009 Jan 19 20:57	16°♂51'24	
inferior conj	4008 Feb 14 23:43	25°♂30'48	3°11'54	asc. node	4009 Jan 20 00:52	16°♂51'16	
minimum elong	4008 Feb 14 21:35	25°♂37'52	3°11'30	evening set	4009 Jan 23 18:44	15°♂23'47	
min. Earth dist.	4008 Feb 16 02:18	24°♂03'04	0.66764 AU	inferior conj	4009 Jan 29 04:38	9°♂11'42	2°42'40
morning rise	4008 Feb 20 06:54	19°♂15'11		minimum elong	4009 Jan 29 02:09	9°♂20'12	2°42'00
direct	4008 Feb 26 08:19	16°♂34'04		min. Earth dist.	4009 Jan 29 17:54	8°♂26'12	0.67556 AU
morning max el	4008 Mar 09 13:20	23°♂50'42	25°35'57	morning rise	4009 Feb 03 09:08	2°♂56'10	
desc. node	4008 Mar 11 04:27	25°♂33'01		direct	4009 Feb 08 20:20	0°♂31'56	
	4008 Mar 15 01:23	0°♂		morning max el	4009 Feb 19 21:57	7°♂08'15	24°10'29
	4008 Apr 04 20:47	0°♂		desc. node	4009 Feb 26 01:29	14°♂06'25	
morning set	4008 Apr 14 17:47	17°♂03'08					

	4009 Mar 09 17:28	0° H		morning max el	4010 Feb 02 08:02	20° Z 31'43	22°41'24
morning set	4009 Mar 27 15:03	28° H 33'19		greatest brilliancy	4010 Feb 06 22:40	25° Z 40'07	-0.3m
	4009 Mar 28 11:00	0° Y			4010 Feb 10 09:26	0° \approx	
max. Earth dist.	4009 Mar 31 09:27	5° Y 11'41	1.38039 AU	desc. node	4010 Feb 12 22:32	3° \approx 22'49	
					4010 Mar 02 23:21	0° H	
superior conj	4009 Apr 07 11:29	18° Y 20'02	-1°-33'-1	morning set	4010 Mar 08 09:51	8° H 45'52	
minimum elong	4009 Apr 07 16:07	18° Y 42'10	1°32'26	max. Earth dist.	4010 Mar 13 04:59	16° H 48'00	1.40220 AU
	4009 Apr 13 11:07	0° B					
evening rise	4009 Apr 16 08:47	5° B 44'09		superior conj	4010 Mar 20 23:48	0° Y 30'30	-1°-54'-44
asc. node	4009 Apr 18 00:09	8° B 57'14		minimum elong	4010 Mar 21 04:11	0° Y 50'24	1°54'25
	4009 Apr 30 14:58	0° II			4010 Mar 20 17:05	0° Y	
evening max el	4009 May 02 20:48	2° II 26'45	19°01'46	evening rise	4010 Mar 30 22:37	19° Y 06'22	
retrograde	4009 May 11 12:40	6° II 40'20		asc. node	4010 Apr 04 21:11	28° Y 20'36	
evening set	4009 May 13 14:03	6° II 26'59			4010 Apr 05 19:12	0° B	
inferior conj	4009 May 21 19:13	2° II 12'32	0°55'40	evening max el	4010 Apr 16 01:34	14° B 56'59	18°25'03
minimum elong	4009 May 21 21:22	2° II 08'47	0°54'54	retrograde	4010 Apr 23 12:06	18° B 37'53	
min. Earth dist.	4009 May 24 20:23	0° II 06'02	0.56609 AU	evening set	4010 Apr 25 19:41	18° B 17'28	
desc. node	4009 May 25 00:40	29° B 58'54		inferior conj	4010 May 03 05:41	13° B 43'13	2°18'00
	4009 May 25 00:00	30° R B		minimum elong	4010 May 03 09:22	13° B 35'43	2°17'00
morning rise	4009 May 30 00:19	27° B 15'10		min. Earth dist.	4010 May 06 16:18	10° B 56'21	0.58539 AU
direct	4009 Jun 04 04:34	26° B 11'53		morning rise	4010 May 10 18:43	8° B 13'52	
	4009 Jun 14 06:10	0° II		desc. node	4010 May 11 21:44	7° B 41'33	
morning max el	4009 Jun 18 11:29	3° II 33'57	25°46'10	direct	4010 May 16 20:45	6° B 36'45	
	4009 Jul 07 08:50	0° S		morning max el	4010 May 31 06:12	14° B 20'39	27°01'48
asc. node	4009 Jul 14 23:24	14° S 50'18			4010 Jun 12 19:06	0° II	
morning set	4009 Jul 16 01:00	17° S 04'42			4010 Jun 29 13:28	0° S	
	4009 Jul 21 23:55	0° Q		morning set	4010 Jun 30 10:31	1° S 49'44	
				asc. node	4010 Jul 01 20:26	4° S 49'15	
superior conj	4009 Jul 23 00:44	2° Q 16'24	1°15'35				
minimum elong	4009 Jul 22 22:23	2° Q 03'33	1°15'14	superior conj	4010 Jul 07 12:33	17° S 11'37	0°56'27
max. Earth dist.	4009 Jul 23 21:57	4° Q 12'53	1.32352 AU	minimum elong	4010 Jul 07 10:25	16° S 59'54	0°56'03
evening rise	4009 Jul 30 02:14	17° Q 27'53		max. Earth dist.	4010 Jul 07 09:16	16° S 53'31	1.32031 AU
	4009 Aug 05 10:07	0° np			4010 Jul 13 09:15	0° Q	
desc. node	4009 Aug 20 23:59	25° np 10'53		evening rise	4010 Jul 14 09:48	2° Q 10'24	
	4009 Aug 24 18:22	0° A			4010 Jul 29 09:46	0° np	
evening max el	4009 Aug 30 18:46	6° A 30'29	27°15'11	desc. node	4010 Aug 07 21:01	13° np 06'27	
retrograde	4009 Sep 13 14:50	13° A 44'36		evening max el	4010 Aug 12 20:16	18° np 25'25	26°30'44
evening set	4009 Sep 20 18:30	11° A 23'08		retrograde	4010 Aug 26 19:22	25° np 35'42	
min. Earth dist.	4009 Sep 24 09:08	8° A 36'06	0.61787 AU	evening set	4010 Sep 02 12:29	23° np 42'49	
inferior conj	4009 Sep 27 10:04	5° A 51'47	-4°00'-16	min. Earth dist.	4010 Sep 06 09:51	21° np 07'55	0.59738 AU
minimum elong	4009 Sep 27 16:01	5° A 38'19	3°58'42	inferior conj	4010 Sep 09 16:16	18° np 33'30	-4°-46'-34
morning rise	4009 Oct 04 16:35	0° A 52'07		minimum elong	4010 Sep 09 21:15	18° np 23'37	4°45'47
direct	4009 Oct 07 00:02	0° A 29'20		morning rise	4010 Sep 17 09:26	13° np 56'11	
asc. node	4009 Oct 10 22:37	1° A 38'00		direct	4010 Sep 19 17:37	13° np 36'25	
morning max el	4009 Oct 13 22:43	3° A 59'25	17°54'08	morning max el	4010 Sep 27 09:34	17° np 20'27	18°16'15
morning set	4009 Oct 29 18:01	28° A 45'56		asc. node	4010 Sep 27 19:40	17° np 45'26	
	4009 Oct 30 10:20	0° M			4010 Oct 06 10:28	0° A	
				morning set	4010 Oct 13 05:50	12° A 31'38	
superior conj	4009 Nov 09 10:55	17° M 50'07	0°51'03				
minimum elong	4009 Nov 09 14:53	18° M 07'12	0°50'31	superior conj	4010 Oct 22 14:41	0° M 05'01	1°18'49
desc. node	4009 Nov 16 23:17	0° J 27'56		minimum elong	4010 Oct 22 18:32	0° M 22'36	1°18'23
	4009 Nov 16 16:28	0° J			4010 Oct 22 13:35	0° M	
max. Earth dist.	4009 Nov 16 20:17	0° J 15'38	1.42830 AU	max. Earth dist.	4010 Oct 30 04:44	13° M 27'26	1.40949 AU
evening rise	4009 Nov 23 16:24	11° J 13'18		desc. node	4010 Nov 03 20:19	21° M 13'23	
	4009 Dec 06 01:22	0° Z		evening rise	4010 Nov 04 00:11	21° M 29'14	
greatest brilliancy	4009 Dec 20 17:45	20° Z 10'48	-0.3m		4010 Nov 09 07:54	0° J	
evening max el	4009 Dec 25 11:52	25° Z 34'05	21°54'36		4010 Nov 30 05:20	0° Z	
	4009 Dec 30 23:53	0° \approx		evening max el	4010 Dec 08 03:31	9° Z 10'32	23°13'50
retrograde	4010 Jan 03 18:05	1° \approx 04'38		retrograde	4010 Dec 18 12:35	15° Z 19'17	
asc. node	4010 Jan 06 21:53	0° \approx 10'58		evening set	4010 Dec 23 09:26	13° Z 20'01	
	4010 Jan 07 05:08	30° R Z		asc. node	4010 Dec 24 18:56	12° Z 00'47	
evening set	4010 Jan 08 02:34	29° Z 21'31		inferior conj	4010 Dec 28 19:49	6° Z 53'44	1°20'09
inferior conj	4010 Jan 13 11:58	23° Z 00'22	2°04'59	minimum elong	4010 Dec 28 18:05	6° Z 59'41	1°19'29
minimum elong	4010 Jan 13 09:38	23° Z 08'27	2°04'12	min. Earth dist.	4010 Dec 28 10:11	7° Z 26'53	0.67978 AU
min. Earth dist.	4010 Jan 13 13:21	22° Z 55'32	0.67952 AU	morning rise	4011 Jan 03 02:48	0° Z 43'52	
morning rise	4010 Jan 18 16:29	16° Z 46'37			4011 Jan 04 04:03	30° R J	
direct	4010 Jan 23 12:47	14° Z 43'53		direct	4011 Jan 07 08:40	29° J 03'57	

	4011 Jan 10 19:03	0°☾		minimum elong	4011 Dec 13 01:40	20°☾51'21	0°28'55
morning max el	4011 Jan 15 23:07	4°☾03'52	21°17'28	morning rise	4011 Dec 18 14:02	14°☾45'14	
greatest brilliancy	4011 Jan 21 02:58	9°☾57'17	-0.4m	direct	4011 Dec 22 06:41	13°☾27'02	
desc. node	4011 Jan 30 19:35	23°☾10'01		morning max el	4011 Dec 29 21:46	17°☾47'12	20°04'36
	4011 Feb 04 11:34	0°☾		greatest brilliancy	4012 Jan 05 19:52	26°☾07'17	-0.6m
morning set	4011 Feb 16 00:07	17°☾38'36			4012 Jan 08 15:08	0°☾	
max. Earth dist.	4011 Feb 23 06:18	29°☾18'47	1.42270 AU	desc. node	4012 Jan 17 16:36	13°☾19'06	
	4011 Feb 23 16:20	0°☾		morning set	4012 Jan 25 20:49	25°☾47'48	
					4012 Jan 28 13:55	0°☾	
superior conj	4011 Mar 02 15:01	11°☾40'57	-2°-6'-43	max. Earth dist.	4012 Feb 05 15:43	12°☾43'33	1.43913 AU
minimum elong	4011 Mar 02 16:37	11°☾47'48	2°06'43				
	4011 Mar 12 23:15	0°☾		superior conj	4012 Feb 11 04:47	21°☾41'30	-2°-3'-38
evening rise	4011 Mar 13 23:05	1°☾47'55		minimum elong	4012 Feb 11 00:46	21°☾25'05	2°03'30
asc. node	4011 Mar 22 18:14	17°☾19'21			4012 Feb 16 05:14	0°☾	
evening max el	4011 Mar 30 12:00	27°☾54'11	18°08'10	evening rise	4012 Feb 24 05:42	13°☾39'04	
	4011 Apr 02 02:00	0°☾			4012 Mar 04 20:54	0°☾	
retrograde	4011 Apr 06 04:58	1°☾18'48		asc. node	4012 Mar 08 15:17	5°☾44'50	
evening set	4011 Apr 08 18:48	0°☾48'54		evening max el	4012 Mar 13 00:40	11°☾08'14	18°10'32
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inferior conj	4011 Apr 15 12:27	25°☾53'23	3°08'33	evening set	4012 Mar 22 06:35	13°☾51'01	
minimum elong	4011 Apr 15 15:16	25°☾46'43	3°08'04	inferior conj	4012 Mar 28 11:43	8°☾35'02	3°32'27
min. Earth dist.	4011 Apr 18 18:33	22°☾50'20	0.60723 AU	minimum elong	4012 Mar 28 12:49	8°☾32'04	3°32'22
morning rise	4011 Apr 22 08:26	20°☾02'01		min. Earth dist.	4012 Mar 31 05:19	5°☾40'02	0.62837 AU
desc. node	4011 Apr 28 18:46	17°☾51'04		morning rise	4012 Apr 03 16:51	2°☾30'25	
direct	4011 Apr 29 00:49	17°☾50'53			4012 Apr 09 05:12	30°☾	
morning max el	4011 May 13 07:10	25°☾45'50	27°44'19	direct	4012 Apr 10 13:59	29°☾54'04	
	4011 May 17 05:29	0°☾			4012 Apr 11 23:26	0°☾	
	4011 Jun 06 06:02	0°☾		desc. node	4012 Apr 14 15:49	0°☾42'36	
morning set	4011 Jun 14 16:20	16°☾21'25		morning max el	4012 Apr 24 13:37	7°☾52'22	27°49'20
asc. node	4011 Jun 18 17:30	24°☾55'09			4012 May 11 13:16	0°☾	
max. Earth dist.	4011 Jun 20 20:13	29°☾30'47	1.32122 AU		4012 May 28 09:47	0°☾	
	4011 Jun 21 01:33	0°☾		morning set	4012 May 28 16:14	0°☾32'25	
				max. Earth dist.	4012 Jun 03 02:53	11°☾51'38	1.32631 AU
superior conj	4011 Jun 21 23:41	2°☾01'23	0°33'38	asc. node	4012 Jun 04 14:33	15°☾03'08	
minimum elong	4011 Jun 21 22:14	1°☾53'25	0°33'19				
evening rise	4011 Jun 28 20:31	16°☾59'34		superior conj	4012 Jun 05 08:20	16°☾39'14	0°07'46
	4011 Jul 05 06:38	0°☾		minimum elong	4012 Jun 05 07:58	16°☾37'13	0°07'41
evening max el	4011 Jul 25 14:27	29°☾32'43	25°16'22	behind sun begin	4012 Jun 05 03:21	16°☾12'16	
desc. node	4011 Jul 25 18:01	29°☾41'14		behind sun end	4012 Jun 05 12:35	17°☾02'13	
	4011 Jul 26 02:02	0°☾			4012 Jun 11 12:05	0°☾	
retrograde	4011 Aug 08 13:35	6°☾37'23		evening rise	4012 Jun 12 08:22	1°☾48'10	
evening set	4011 Aug 14 07:05	5°☾21'51			4012 Jun 27 19:59	0°☾	
min. Earth dist.	4011 Aug 19 02:14	2°☾40'53	0.57722 AU	evening max el	4012 Jul 06 03:35	10°☾03'56	23°43'05
inferior conj	4011 Aug 22 03:40	0°☾35'32	-5°-10'-13	desc. node	4012 Jul 11 15:03	14°☾24'00	
minimum elong	4011 Aug 22 04:45	0°☾33'40	5°10'12	retrograde	4012 Jul 19 19:36	16°☾55'38	
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morning rise	4011 Aug 30 05:56	26°☾21'08		min. Earth dist.	4012 Jul 30 13:40	13°☾11'17	0.56032 AU
direct	4011 Sep 01 18:24	26°☾02'06		inferior conj	4012 Aug 01 18:48	11°☾51'23	-4°-55'-47
	4011 Sep 10 08:03	0°☾		minimum elong	4012 Aug 01 13:49	11°☾58'54	4°55'12
morning max el	4011 Sep 10 12:27	0°☾10'18	18°59'18	morning rise	4012 Aug 10 04:26	7°☾55'46	
asc. node	4011 Sep 14 16:44	4°☾59'38		direct	4012 Aug 12 23:47	7°☾35'59	
morning set	4011 Sep 27 03:35	26°☾45'45		morning max el	4012 Aug 23 04:37	12°☾20'11	20°04'13
	4011 Sep 28 18:55	0°☾		asc. node	4012 Aug 31 13:47	23°☾06'10	
					4012 Sep 04 13:09	0°☾	
superior conj	4011 Oct 05 13:31	13°☾15'51	1°35'49	morning set	4012 Sep 10 08:05	11°☾19'40	
minimum elong	4011 Oct 05 15:59	13°☾27'37	1°35'38				
max. Earth dist.	4011 Oct 12 09:40	25°☾57'51	1.38871 AU	superior conj	4012 Sep 18 02:21	27°☾08'31	1°43'29
	4011 Oct 14 16:19	0°☾		minimum elong	4012 Sep 18 03:07	27°☾12'22	1°43'28
evening rise	4011 Oct 16 07:14	2°☾48'53			4012 Sep 19 12:45	0°☾	
desc. node	4011 Oct 21 17:20	11°☾53'05		max. Earth dist.	4012 Sep 23 15:23	7°☾58'38	1.36842 AU
	4011 Nov 02 12:52	0°☾		evening rise	4012 Sep 27 12:12	15°☾09'26	
evening max el	4011 Nov 20 16:38	22°☾50'43	24°33'01		4012 Oct 06 03:01	0°☾	
retrograde	4011 Dec 02 03:09	29°☾31'16		desc. node	4012 Oct 07 14:20	2°☾22'54	
evening set	4011 Dec 07 13:42	27°☾16'05			4012 Oct 27 04:34	0°☾	
asc. node	4011 Dec 11 15:59	22°☾43'07		evening max el	4012 Nov 02 05:00	6°☾33'18	25°45'03
min. Earth dist.	4011 Dec 12 05:58	21°☾57'02	0.67654 AU	retrograde	4012 Nov 14 13:08	13°☾36'23	
inferior conj	4011 Dec 13 02:22	20°☾49'00	0°29'13	evening set	4012 Nov 20 13:43	11°☾07'15	

































































































































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inferior conj	4012 Nov 26 05:49	4°♂43'51	0°-26'-43	minimum elong	4013 Nov 10 06:34	18°♂27'02	1°25'24
minimum elong	4012 Nov 26 06:31	4°♂41'38	0°26'25	asc. node	4013 Nov 14 10:02	14°♂06'39	
asc. node	4012 Nov 27 13:01	3°♂06'26		morning rise	4013 Nov 16 07:10	12°♂50'18	
	4012 Nov 30 10:25	30°♂		direct	4013 Nov 19 02:51	12°♂06'02	
morning rise	4012 Dec 02 00:14	28°♂48'45		morning max el	4013 Nov 25 16:48	15°♂40'36	18°23'41
direct	4012 Dec 05 05:22	27°♂49'23			4013 Dec 06 05:23	0°♂	
	4012 Dec 10 07:24	0°♂		morning set	4013 Dec 15 06:27	14°♂27'10	
morning max el	4012 Dec 12 04:16	1°♂41'18	19°06'10	desc. node	4013 Dec 21 10:37	24°♂20'19	
	4013 Jan 01 03:56	0°♂			4013 Dec 25 00:12	0°♂	
desc. node	4013 Jan 03 13:37	3°♂44'17		superior conj	4013 Dec 30 20:41	9°♂13'22	-1°-1'-28
morning set	4013 Jan 04 00:39	4°♂27'13		minimum elong	4013 Dec 30 13:08	8°♂43'46	1°00'33
max. Earth dist.	4013 Jan 18 07:27	26°♂47'01	1.44947 AU	max. Earth dist.	4014 Jan 01 02:01	11°♂08'29	1.45263 AU
	4013 Jan 20 08:22	0°♂			4014 Jan 13 02:42	0°♂	
superior conj	4013 Jan 20 18:25	0°♂39'41	-1°-41'-17	evening rise	4014 Jan 16 00:07	4°♂32'56	
minimum elong	4013 Jan 20 09:31	0°♂04'32	1°40'31	greatest brilliancy	4014 Jan 29 02:16	24°♂58'06	-0.7m
evening rise	4013 Feb 04 14:34	24°♂34'08			4014 Feb 01 12:28	0°♂	
	4013 Feb 07 21:56	0°♂		evening max el	4014 Feb 07 21:58	8°♂01'40	19°10'05
asc. node	4013 Feb 23 12:19	23°♂27'12		asc. node	4014 Feb 10 09:20	10°♂13'43	
evening max el	4013 Feb 24 12:47	24°♂32'30	18°31'30	retrograde	4014 Feb 14 21:29	11°♂59'53	
retrograde	4013 Mar 03 01:44	28°♂07'53		evening set	4014 Feb 18 05:40	10°♂54'49	
evening set	4013 Mar 06 03:12	27°♂15'28		inferior conj	4014 Feb 23 20:04	5°♂03'43	3°24'13
inferior conj	4013 Mar 11 23:27	21°♂40'48	3°36'00	minimum elong	4014 Feb 23 18:21	5°♂09'11	3°23'59
minimum elong	4013 Mar 11 22:55	21°♂42'23	3°35'58	min. Earth dist.	4014 Feb 25 07:01	3°♂11'59	0.66115 AU
min. Earth dist.	4013 Mar 14 01:43	19°♂12'02	0.64668 AU		4014 Feb 28 00:37	30°♂	
morning rise	4013 Mar 17 17:14	15°♂28'58		morning rise	4014 Mar 01 06:07	28°♂48'35	
direct	4013 Mar 24 10:58	12°♂40'30		direct	4014 Mar 07 14:36	26°♂01'18	
desc. node	4013 Apr 01 12:51	15°♂50'04			4014 Mar 16 10:24	0°♂	
morning max el	4013 Apr 06 23:15	20°♂33'34	27°18'50	desc. node	4014 Mar 19 09:51	2°♂38'43	
	4013 Apr 15 02:32	0°♂		morning max el	4014 Mar 20 09:10	3°♂36'19	26°19'32
	4013 May 04 15:20	0°♂			4014 Apr 09 10:29	0°♂	
morning set	4013 May 12 07:31	14°♂14'39		morning set	4014 Apr 25 10:33	27°♂17'27	
max. Earth dist.	4013 May 17 01:19	23°♂44'55	1.33580 AU		4014 Apr 26 21:01	0°♂	
	4013 May 20 01:18	0°♂		max. Earth dist.	4014 Apr 29 12:25	5°♂05'57	1.34987 AU
superior conj	4013 May 20 12:32	0°♂59'22	0°-20'-19	superior conj	4014 May 04 09:59	14°♂55'12	0°-49'-27
minimum elong	4013 May 20 13:35	1°♂04'55	0°20'07	minimum elong	4014 May 04 12:38	15°♂08'44	0°48'58
asc. node	4013 May 22 11:35	5°♂09'22		asc. node	4014 May 09 08:37	25°♂09'59	
evening rise	4013 May 27 19:29	16°♂30'11			4014 May 11 16:24	0°♂	
	4013 Jun 03 13:33	0°♂		evening rise	4014 May 12 03:55	0°♂59'26	
evening max el	4013 Jun 17 18:51	20°♂29'13	22°06'38		4014 May 29 12:25	0°♂	
desc. node	4013 Jun 28 12:04	26°♂39'56		evening max el	4014 May 30 19:50	1°♂20'55	20°40'39
retrograde	4013 Jun 30 14:07	26°♂50'01		retrograde	4014 Jun 11 03:02	6°♂52'20	
evening set	4013 Jul 03 10:52	26°♂31'45		evening set	4014 Jun 13 04:46	6°♂41'56	
min. Earth dist.	4013 Jul 12 00:09	22°♂50'52	0.55008 AU	desc. node	4014 Jun 15 09:06	6°♂10'02	
inferior conj	4013 Jul 12 17:27	22°♂26'33	-3°-51'-25	inferior conj	4014 Jun 22 11:00	2°♂44'48	-2°-4'-35
minimum elong	4013 Jul 12 08:56	22°♂38'31	3°49'11	minimum elong	4014 Jun 22 05:11	2°♂53'08	2°02'32
morning rise	4013 Jul 21 08:53	18°♂36'12		min. Earth dist.	4014 Jun 23 12:07	2°♂08'46	0.54900 AU
direct	4013 Jul 24 13:02	18°♂13'49			4014 Jun 27 13:18	30°♂	
morning max el	4013 Aug 05 09:00	23°♂45'14	21°29'29	morning rise	4014 Jul 01 04:28	28°♂39'20	
	4013 Aug 10 21:46	0°♂		direct	4014 Jul 04 22:30	28°♂09'00	
asc. node	4013 Aug 18 10:48	11°♂52'25			4014 Jul 11 23:37	0°♂	
morning set	4013 Aug 25 16:52	26°♂05'49		morning max el	4014 Jul 18 03:39	4°♂31'04	23°09'07
	4013 Aug 27 13:40	0°♂			4014 Aug 04 17:36	0°♂	
				asc. node	4014 Aug 05 07:50	1°♂08'42	
superior conj	4013 Sep 02 00:58	11°♂30'07	1°43'22	morning set	4014 Aug 10 04:01	10°♂58'55	
minimum elong	4013 Sep 02 00:17	11°♂26'32	1°43'21				
max. Earth dist.	4013 Sep 06 02:46	19°♂50'38	1.35074 AU	superior conj	4014 Aug 17 06:13	26°♂11'07	1°36'46
evening rise	4013 Sep 10 10:58	28°♂20'10		minimum elong	4014 Aug 17 04:30	26°♂01'56	1°36'38
	4013 Sep 11 08:04	0°♂			4014 Aug 19 01:11	0°♂	
desc. node	4013 Sep 24 11:21	22°♂36'53		max. Earth dist.	4014 Aug 19 23:00	1°♂55'00	1.33693 AU
	4013 Sep 29 08:43	0°♂		evening rise	4014 Aug 24 23:18	12°♂10'01	
evening max el	4013 Oct 15 17:24	20°♂12'01	26°42'35		4014 Sep 03 14:43	0°♂	
retrograde	4013 Oct 28 17:56	27°♂27'30		desc. node	4014 Sep 11 08:23	12°♂27'54	
evening set	4013 Nov 04 07:30	24°♂48'59			4014 Sep 24 16:36	0°♂	
min. Earth dist.	4013 Nov 08 09:06	20°♂41'25	0.65962 AU	evening max el	4014 Sep 28 05:37	3°♂38'23	27°18'16

retrograde	4014 Oct 11 17:03	10°♄56'50		evening rise	4015 Aug 08 21:24	26°♄27'17	
evening set	4014 Oct 18 16:39	8°♄16'37			4015 Aug 10 15:28	0°♄	
min. Earth dist.	4014 Oct 22 12:01	4°♄44'18	0.64593 AU		4015 Aug 28 00:04	0°♄	
inferior conj	4014 Oct 24 19:12	2°♄15'13	-2°-27'-51	desc. node	4015 Aug 29 05:26	1°♄45'36	
minimum elong	4014 Oct 24 23:22	2°♄03'56	2°26'18	evening max el	4015 Sep 10 15:51	16°♄39'25	27°25'38
	4014 Oct 26 23:01	30°♄		retrograde	4015 Sep 24 09:32	23°♄54'57	
morning rise	4014 Oct 31 08:14	26°♄45'42		evening set	4015 Oct 01 13:58	21°♄23'25	
asc. node	4014 Nov 01 07:03	26°♄25'33		min. Earth dist.	4015 Oct 05 05:12	18°♄22'12	0.62894 AU
direct	4014 Nov 02 20:57	26°♄12'32		inferior conj	4015 Oct 08 00:07	15°♄40'13	-3°-28'-6
morning max el	4014 Nov 09 08:47	29°♄38'58	17°58'04	minimum elong	4015 Oct 08 05:43	15°♄26'38	3°26'21
	4014 Nov 09 17:03	0°♄		morning rise	4015 Oct 15 00:09	10°♄28'21	
morning set	4014 Nov 26 17:28	25°♄53'33		direct	4015 Oct 17 08:41	10°♄02'37	
	4014 Nov 29 04:13	0°♄		asc. node	4015 Oct 19 04:05	10°♄18'11	
desc. node	4014 Dec 08 07:38	15°♄03'37		morning max el	4015 Oct 24 01:14	13°♄29'04	17°50'12
					4015 Nov 04 08:24	0°♄	
superior conj	4014 Dec 10 08:28	18°♄20'20	0°-13'-58	morning set	4015 Nov 09 04:22	8°♄28'52	
minimum elong	4014 Dec 10 06:47	18°♄13'35	0°13'44				
behind sun begin	4014 Dec 10 01:14	17°♄51'17		superior conj	4015 Nov 20 20:17	28°♄38'55	0°30'01
behind sun end	4014 Dec 10 12:20	18°♄35'53		minimum elong	4015 Nov 20 23:09	28°♄50'53	0°29'36
max. Earth dist.	4014 Dec 14 20:47	25°♄31'38	1.44842 AU		4015 Nov 21 15:41	0°♄	
	4014 Dec 17 17:00	0°♄		desc. node	4015 Nov 25 04:42	5°♄50'43	
evening rise	4014 Dec 26 15:15	13°♄51'31		max. Earth dist.	4015 Nov 27 13:28	9°♄40'57	1.43734 AU
	4015 Jan 06 05:21	0°♄		evening rise	4015 Dec 06 01:03	23°♄03'57	
greatest brilliancy	4015 Jan 15 09:48	13°♄20'31	-0.6m		4015 Dec 10 13:39	0°♄	
evening max el	4015 Jan 22 02:37	21°♄33'23	20°04'23	greatest brilliancy	4015 Dec 30 22:27	29°♄09'26	-0.4m
asc. node	4015 Jan 28 06:21	25°♄50'09			4015 Dec 31 14:33	0°♄	
retrograde	4015 Jan 29 19:19	26°♄03'00		evening max el	4016 Jan 05 01:53	5°♄06'58	21°11'38
evening set	4015 Feb 02 11:40	24°♄44'05		retrograde	4016 Jan 13 17:08	10°♄14'01	
inferior conj	4015 Feb 07 22:38	18°♄39'03	3°00'38	asc. node	4016 Jan 15 03:22	10°♄02'56	
minimum elong	4015 Feb 07 20:17	18°♄46'57	3°00'07	evening set	4016 Jan 17 19:19	8°♄39'56	
min. Earth dist.	4015 Feb 08 19:28	17°♄28'58	0.67150 AU	inferior conj	4016 Jan 23 04:49	2°♄23'50	2°27'37
morning rise	4015 Feb 13 04:18	12°♄23'08		minimum elong	4016 Jan 23 02:21	2°♄32'22	2°26'53
direct	4015 Feb 18 23:57	9°♄48'03		min. Earth dist.	4016 Jan 23 12:56	1°♄55'48	0.67775 AU
morning max el	4015 Mar 02 17:52	16°♄49'24	25°00'35		4016 Jan 24 23:04	30°♄	
desc. node	4015 Mar 06 06:52	20°♄40'05		morning rise	4016 Jan 28 09:02	26°♄09'00	
	4015 Mar 13 16:54	0°♄		direct	4016 Feb 02 14:01	23°♄53'22	
	4015 Apr 02 09:53	0°♄			4016 Feb 12 22:58	0°♄	
morning set	4015 Apr 07 20:21	9°♄25'50		morning max el	4016 Feb 13 02:32	0°♄08'58	23°32'27
max. Earth dist.	4015 Apr 11 12:33	16°♄06'39	1.36830 AU	desc. node	4016 Feb 21 03:55	9°♄33'44	
					4016 Mar 06 13:54	0°♄	
superior conj	4015 Apr 17 21:40	28°♄17'48	-1°-17'-55	morning set	4016 Mar 19 06:59	20°♄24'25	
minimum elong	4015 Apr 18 01:45	28°♄37'55	1°17'17	max. Earth dist.	4016 Mar 23 07:48	27°♄21'40	1.38968 AU
	4015 Apr 18 18:24	0°♄			4016 Mar 24 19:39	0°♄	
evening rise	4015 Apr 26 07:20	15°♄08'19					
asc. node	4015 Apr 26 05:40	14°♄59'56		superior conj	4016 Mar 30 19:51	10°♄58'09	-1°-43'-6
	4015 May 04 02:23	0°♄		minimum elong	4016 Mar 31 00:37	11°♄20'24	1°42'36
evening max el	4015 May 13 09:05	12°♄52'22	19°32'12	evening rise	4016 Apr 09 03:06	28°♄50'09	
retrograde	4015 May 22 22:20	17°♄31'05			4016 Apr 09 17:31	0°♄	
evening set	4015 May 24 21:32	17°♄20'09		asc. node	4016 Apr 12 02:43	4°♄34'43	
desc. node	4015 Jun 02 06:07	13°♄27'34		evening max el	4016 Apr 25 09:04	25°♄03'00	18°43'41
inferior conj	4015 Jun 02 13:44	13°♄15'27	0°-5'-35	retrograde	4016 May 03 10:45	29°♄00'23	
minimum elong	4015 Jun 02 13:29	13°♄15'51	0°05'32	evening set	4016 May 05 14:51	28°♄44'16	
transit middle	4015 Jun 02 13:29	13°♄15'51	0°05'32	inferior conj	4016 May 13 11:39	24°♄21'33	1°34'34
transit begin	4015 Jun 02 09:49	13°♄21'42		minimum elong	4016 May 13 14:50	24°♄15'37	1°33'32
transit end	4015 Jun 02 17:09	13°♄10'00		min. Earth dist.	4016 May 16 18:45	21°♄55'38	0.57382 AU
min. Earth dist.	4015 Jun 05 01:57	11°♄39'48	0.55753 AU	desc. node	4016 May 19 03:08	20°♄22'52	
morning rise	4015 Jun 11 01:45	8°♄39'01		morning rise	4016 May 21 10:23	19°♄10'00	
direct	4015 Jun 15 16:46	7°♄50'55		direct	4016 May 27 00:40	17°♄53'06	
morning max el	4015 Jun 29 17:35	14°♄54'44	24°51'46	morning max el	4016 Jun 10 09:11	25°♄25'00	26°21'50
	4015 Jul 11 17:00	0°♄			4016 Jun 14 15:38	0°♄	
asc. node	4015 Jul 23 04:53	20°♄46'22			4016 Jul 03 19:50	0°♄	
morning set	4015 Jul 25 15:48	25°♄52'53		morning set	4016 Jul 09 02:39	10°♄42'45	
	4015 Jul 27 14:02	0°♄		asc. node	4016 Jul 09 01:58	10°♄39'11	
superior conj	4015 Aug 01 15:34	11°♄02'36	1°24'43	superior conj	4016 Jul 16 03:00	25°♄58'01	1°07'58
minimum elong	4015 Aug 01 13:19	10°♄50'19	1°24'25	minimum elong	4016 Jul 16 00:42	25°♄45'19	1°07'34
max. Earth dist.	4015 Aug 03 03:36	14°♄18'43	1.32729 AU	max. Earth dist.	4016 Jul 16 13:39	26°♄56'41	1.32173 AU

	4016 Jul 17 22:59	0°♎		max. Earth dist.	4017 Jun 30 01:25	9°♊38'03	1.32016 AU
evening rise	4016 Jul 23 02:14	11°♎02'49					
	4016 Aug 01 20:58	0°♎		superior conj	4017 Jun 30 14:44	10°♊51'28	0°47'11
desc. node	4016 Aug 15 02:27	20°♎16'24		minimum elong	4017 Jun 30 12:51	10°♊41'02	0°46'48
evening max el	4016 Aug 22 21:17	29°♎01'27	27°00'16	evening rise	4017 Jul 07 11:23	25°♊48'53	
	4016 Aug 23 22:46	0°♎			4017 Jul 09 11:22	0°♎	
retrograde	4016 Sep 05 18:29	6°♎12'58			4017 Jul 26 18:44	0°♎	
evening set	4016 Sep 12 19:18	4°♎02'21		desc. node	4017 Aug 01 23:28	7°♎41'12	
min. Earth dist.	4016 Sep 16 11:32	1°♎22'33	0.60935 AU	evening max el	4017 Aug 04 19:32	10°♎35'37	26°02'14
	4016 Sep 18 02:44	30°♎		retrograde	4017 Aug 18 18:53	17°♎44'10	
inferior conj	4016 Sep 19 15:38	28°♎40'32	-4°-21'-50	evening set	4017 Aug 25 03:52	16°♎06'11	
minimum elong	4016 Sep 19 21:29	28°♎28'02	4°20'32	min. Earth dist.	4017 Aug 29 08:04	13°♎31'26	0.58860 AU
morning rise	4016 Sep 27 02:48	23°♎49'56		inferior conj	4017 Sep 01 14:13	11°♎06'50	-5°00'-13
direct	4016 Sep 29 10:18	23°♎28'36		minimum elong	4017 Sep 01 17:56	10°♎59'53	4°59'50
asc. node	4016 Oct 05 01:09	25°♎40'15		morning rise	4017 Sep 09 11:32	6°♎39'46	
morning max el	4016 Oct 06 15:03	27°♎03'12	18°01'02	direct	4017 Sep 11 21:13	6°♎20'31	
	4016 Oct 09 05:56	0°♎		morning max el	4017 Sep 19 22:59	10°♎13'01	18°31'59
morning set	4016 Oct 22 08:36	21°♎53'25		asc. node	4017 Sep 21 22:14	12°♎18'33	
	4016 Oct 26 18:03	0°♎			4017 Oct 02 23:17	0°♎	
				morning set	4017 Oct 06 01:09	5°♎53'08	
superior conj	4016 Nov 01 10:35	10°♎14'45	1°04'13				
minimum elong	4016 Nov 01 14:45	10°♎33'08	1°03'41	superior conj	4017 Oct 14 23:14	22°♎56'32	1°27'15
max. Earth dist.	4016 Nov 09 01:32	23°♎18'47	1.42074 AU	minimum elong	4017 Oct 15 02:35	23°♎12'07	1°26'56
desc. node	4016 Nov 11 01:44	26°♎37'46			4017 Oct 18 19:45	0°♎	
	4016 Nov 13 03:28	0°♎		max. Earth dist.	4017 Oct 22 08:18	6°♎13'54	1.40072 AU
evening rise	4016 Nov 14 21:24	2°♎48'09		evening rise	4017 Oct 26 14:56	13°♎31'10	
	4016 Dec 02 23:54	0°♎		desc. node	4017 Oct 28 22:45	17°♎21'43	
greatest brilliancy	4016 Dec 13 00:38	13°♎18'19	-0.3m		4017 Nov 05 23:02	0°♎	
evening max el	4016 Dec 17 19:53	18°♎41'41	22°27'53		4017 Nov 28 04:48	0°♎	
retrograde	4016 Dec 27 13:14	24°♎28'33		evening max el	4017 Nov 30 10:03	2°♎19'26	23°47'48
evening set	4017 Jan 01 02:56	22°♎38'22		retrograde	4017 Dec 11 06:17	8°♎43'08	
asc. node	4017 Jan 01 00:25	22°♎43'26		evening set	4017 Dec 16 08:54	6°♎36'43	
inferior conj	4017 Jan 06 12:35	16°♎14'36	1°46'45	asc. node	4017 Dec 18 21:27	4°♎00'41	
minimum elong	4017 Jan 06 10:27	16°♎21'58	1°46'00	min. Earth dist.	4017 Dec 21 05:47	0°♎58'02	0.67885 AU
min. Earth dist.	4017 Jan 06 09:08	16°♎26'32	0.68011 AU	inferior conj	4017 Dec 21 20:06	0°♎09'19	0°59'14
morning rise	4017 Jan 11 17:53	10°♎02'32		minimum elong	4017 Dec 21 18:45	0°♎13'54	0°58'41
direct	4017 Jan 16 07:56	8°♎09'39			4017 Dec 21 22:50	30°♎	
morning max el	4017 Jan 25 14:22	13°♎35'57	22°04'42	morning rise	4017 Dec 27 04:50	24°♎01'52	
greatest brilliancy	4017 Jan 30 05:18	18°♎46'35	-0.4m	direct	4017 Dec 31 04:47	22°♎31'42	
desc. node	4017 Feb 07 00:57	29°♎04'21		morning max el	4018 Jan 08 08:39	27°♎13'36	20°44'49
	4017 Feb 07 16:52	0°♎			4018 Jan 10 22:04	0°♎	
morning set	4017 Feb 27 13:18	0°♎01'18		greatest brilliancy	4018 Jan 14 03:28	3°♎57'23	-0.5m
	4017 Feb 27 12:59	0°♎		desc. node	4018 Jan 24 21:59	19°♎01'47	
max. Earth dist.	4017 Mar 05 05:47	9°♎22'06	1.41131 AU		4018 Feb 01 05:38	0°♎	
				morning set	4018 Feb 06 17:43	8°♎28'24	
superior conj	4017 Mar 12 23:46	22°♎44'09	-2°-1'-19	max. Earth dist.	4018 Feb 15 10:27	22°♎16'39	1.43033 AU
minimum elong	4017 Mar 13 03:20	23°♎00'00	2°01'09		4018 Feb 20 03:23	0°♎	
	4017 Mar 17 00:41	0°♎					
evening rise	4017 Mar 23 11:43	11°♎56'11		superior conj	4018 Feb 22 04:24	3°♎24'51	-2°-7'-35
asc. node	4017 Mar 29 23:45	23°♎48'23		minimum elong	4018 Feb 22 03:52	3°♎22'37	2°07'35
	4017 Apr 02 16:59	0°♎		evening rise	4018 Mar 06 05:08	24°♎17'23	
evening max el	4017 Apr 08 16:32	7°♎45'02	18°15'23		4018 Mar 09 10:27	0°♎	
retrograde	4017 Apr 15 18:15	11°♎17'22		asc. node	4018 Mar 16 20:47	12°♎34'05	
evening set	4017 Apr 18 04:31	10°♎53'09		evening max el	4018 Mar 23 04:12	20°♎50'00	18°06'49
inferior conj	4017 Apr 25 07:04	6°♎09'27	2°43'08	retrograde	4018 Mar 29 17:18	24°♎12'45	
minimum elong	4017 Apr 25 10:34	6°♎01'48	2°42'19	evening set	4018 Apr 01 09:30	23°♎38'31	
min. Earth dist.	4017 Apr 28 16:56	3°♎12'45	0.59457 AU	inferior conj	4018 Apr 07 21:21	18°♎34'13	3°21'34
morning rise	4017 May 02 12:42	0°♎29'21		minimum elong	4018 Apr 07 23:29	18°♎28'54	3°21'18
	4017 May 03 10:30	30°♎		min. Earth dist.	4018 Apr 10 22:49	15°♎31'35	0.61642 AU
desc. node	4017 May 06 00:10	29°♎00'39		morning rise	4018 Apr 14 10:35	12°♎35'54	
direct	4017 May 08 21:43	28°♎37'32		direct	4018 Apr 21 05:59	10°♎12'28	
	4017 May 14 14:13	0°♎		desc. node	4018 Apr 22 21:11	10°♎20'13	
morning max el	4017 May 23 06:38	6°♎26'56	27°24'33	morning max el	4018 May 05 10:20	18°♎10'47	27°51'06
	4017 Jun 09 21:22	0°♎			4018 May 15 08:08	0°♎	
morning set	4017 Jun 23 10:51	25°♎23'01			4018 Jun 02 15:36	0°♎	
asc. node	4017 Jun 25 23:03	0°♎41'45		morning set	4018 Jun 07 14:24	9°♎46'53	
	4017 Jun 25 15:15	0°♎		asc. node	4018 Jun 12 20:04	20°♎49'00	

max. Earth dist.	4018 Jun 13 10:55	22° Π 09'20	1.32276 AU		4019 May 09 09:26	0° \mathcal{B}	
				morning set	4019 May 22 11:00	23° \mathcal{B} 47'09	
superior conj	4018 Jun 15 01:00	25° Π 36'47	0°22'59		4019 May 25 12:37	0° Π	
minimum elong	4018 Jun 14 23:58	25° Π 31'06	0°22'45	max. Earth dist.	4019 May 27 14:18	4° Π 18'51	1.32974 AU
	4018 Jun 17 01:05	0° \mathcal{E}					
evening rise	4018 Jun 21 22:46	10° \mathcal{E} 38'13		superior conj	4019 May 30 08:02	10° Π 08'25	0°-3'-57
	4018 Jul 01 20:03	0° \mathcal{Q}		minimum elong	4019 May 30 08:13	10° Π 09'28	0°03'55
evening max el	4018 Jul 17 10:46	21° \mathcal{Q} 24'17	24°38'11	behind sun begin	4019 May 30 03:02	9° Π 41'37	
desc. node	4018 Jul 19 20:29	23° \mathcal{Q} 32'38		behind sun end	4019 May 30 13:25	10° Π 37'21	
retrograde	4018 Jul 31 08:33	28° \mathcal{Q} 25'59		asc. node	4019 May 30 17:06	10° Π 57'07	
evening set	4018 Aug 05 12:04	27° \mathcal{Q} 26'23		evening rise	4019 Jun 06 10:31	25° Π 25'01	
min. Earth dist.	4018 Aug 10 21:59	24° \mathcal{Q} 37'21	0.56932 AU		4019 Jun 08 15:10	0° \mathcal{E}	
inferior conj	4018 Aug 13 16:55	22° \mathcal{Q} 49'21	-5°-9'-44		4019 Jun 27 05:19	0° \mathcal{Q}	
minimum elong	4018 Aug 13 15:31	22° \mathcal{Q} 51'38	5°09'43	evening max el	4019 Jun 28 23:55	1° \mathcal{Q} 49'26	23°01'37
morning rise	4018 Aug 21 22:32	18° \mathcal{Q} 44'10		desc. node	4019 Jul 06 17:28	7° \mathcal{Q} 17'09	
direct	4018 Aug 24 13:26	18° \mathcal{Q} 25'10		retrograde	4019 Jul 12 09:21	8° \mathcal{Q} 30'15	
morning max el	4018 Sep 02 21:41	22° \mathcal{Q} 47'23	19°24'19	evening set	4019 Jul 16 00:24	8° \mathcal{Q} 01'31	
asc. node	4018 Sep 08 19:17	29° \mathcal{Q} 56'45		min. Earth dist.	4019 Jul 23 08:57	4° \mathcal{Q} 43'20	0.55495 AU
	4018 Sep 08 20:10	0° \mathcal{M}		inferior conj	4019 Jul 25 00:10	3° \mathcal{Q} 46'31	-4°-34'-49
morning set	4018 Sep 20 02:06	20° \mathcal{M} 16'31		minimum elong	4019 Jul 24 17:02	3° \mathcal{Q} 56'54	4°33'30
	4018 Sep 24 22:24	0° \mathcal{A}			4019 Aug 02 03:52	30° \mathcal{R} \mathcal{E}	
				morning rise	4019 Aug 02 12:25	29° \mathcal{E} 54'52	
superior conj	4018 Sep 28 04:37	6° \mathcal{A} 27'06	1°40'06	direct	4019 Aug 05 11:09	29° \mathcal{E} 34'16	
minimum elong	4018 Sep 28 06:22	6° \mathcal{A} 35'35	1°40'01		4019 Aug 08 15:55	0° \mathcal{Q}	
max. Earth dist.	4018 Oct 04 12:25	18° \mathcal{A} 27'34	1.37983 AU	morning max el	4019 Aug 16 08:46	4° \mathcal{Q} 38'07	20°38'11
evening rise	4018 Oct 08 07:43	25° \mathcal{A} 17'58		asc. node	4019 Aug 26 16:19	18° \mathcal{Q} 21'27	
	4018 Oct 11 00:47	0° \mathcal{M}			4019 Sep 01 22:15	0° \mathcal{M}	
desc. node	4018 Oct 15 19:47	7° \mathcal{M} 57'59		morning set	4019 Sep 04 08:40	4° \mathcal{M} 56'00	
	4018 Oct 30 14:12	0° \mathcal{J}					
evening max el	4018 Nov 12 22:33	16° \mathcal{J} 00'49	25°04'55	superior conj	4019 Sep 11 22:01	20° \mathcal{M} 32'54	1°44'17
retrograde	4018 Nov 24 19:11	22° \mathcal{J} 52'58		minimum elong	4019 Sep 11 22:08	20° \mathcal{M} 33'27	1°44'18
evening set	4018 Nov 30 11:35	20° \mathcal{J} 31'32			4019 Sep 16 15:35	0° \mathcal{A}	
min. Earth dist.	4018 Dec 05 00:31	15° \mathcal{J} 27'08	0.67410 AU	max. Earth dist.	4019 Sep 16 19:48	0° \mathcal{A} 20'32	1.36051 AU
asc. node	4018 Dec 05 18:29	14° \mathcal{J} 28'23		evening rise	4019 Sep 20 20:49	8° \mathcal{A} 01'18	
inferior conj	4018 Dec 06 01:34	14° \mathcal{J} 05'08	0°06'03	desc. node	4019 Oct 02 16:48	28° \mathcal{A} 21'41	
minimum elong	4018 Dec 06 01:25	14° \mathcal{J} 05'38	0°05'59		4019 Oct 03 17:42	0° \mathcal{M}	
transit middle	4018 Dec 06 01:25	14° \mathcal{J} 05'38	0°05'59	evening max el	4019 Oct 26 11:05	29° \mathcal{M} 43'12	26°11'50
transit begin	4018 Dec 05 22:50	14° \mathcal{J} 14'05			4019 Oct 26 18:04	0° \mathcal{J}	
transit end	4018 Dec 06 03:59	13° \mathcal{J} 57'12		retrograde	4019 Nov 08 03:01	6° \mathcal{J} 52'34	
morning rise	4018 Dec 11 15:51	8° \mathcal{J} 04'33		evening set	4019 Nov 14 09:12	4° \mathcal{J} 19'06	
direct	4018 Dec 15 03:17	6° \mathcal{J} 54'53			4019 Nov 18 11:45	30° \mathcal{R} \mathcal{M}	
morning max el	4018 Dec 22 10:44	11° \mathcal{J} 02'04	19°37'44	min. Earth dist.	4019 Nov 18 14:54	29° \mathcal{M} 50'26	0.66591 AU
greatest brilliancy	4018 Dec 30 12:58	21° \mathcal{J} 05'41	-0.6m	inferior conj	4019 Nov 20 03:07	27° \mathcal{M} 58'41	0°-51'-39
	4019 Jan 05 15:36	0° \mathcal{C}		minimum elong	4019 Nov 20 04:30	27° \mathcal{M} 54'24	0°51'04
desc. node	4019 Jan 11 19:01	9° \mathcal{C} 18'30		asc. node	4019 Nov 22 15:30	25° \mathcal{M} 00'48	
morning set	4019 Jan 16 14:11	16° \mathcal{C} 41'14		morning rise	4019 Nov 26 00:56	22° \mathcal{M} 07'44	
	4019 Jan 25 03:29	0° \mathcal{Z}		direct	4019 Nov 29 01:49	21° \mathcal{M} 15'10	
max. Earth dist.	4019 Jan 28 22:12	5° \mathcal{Z} 57'50	1.44435 AU	morning max el	4019 Dec 05 19:59	24° \mathcal{M} 58'31	18°46'00
					4019 Dec 10 02:22	0° \mathcal{J}	
superior conj	4019 Feb 02 07:12	12° \mathcal{Z} 56'59	-1°-56'-35	morning set	4019 Dec 27 03:47	25° \mathcal{J} 51'43	
minimum elong	4019 Feb 02 00:39	12° \mathcal{Z} 30'40	1°56'13	desc. node	4019 Dec 29 16:02	29° \mathcal{J} 48'53	
	4019 Feb 12 16:41	0° \mathcal{H}			4019 Dec 29 18:52	0° \mathcal{C}	
evening rise	4019 Feb 16 02:53	5° \mathcal{H} 45'13		max. Earth dist.	4020 Jan 11 15:33	20° \mathcal{C} 11'23	1.45177 AU
	4019 Mar 03 04:47	0° \mathcal{Y}					
asc. node	4019 Mar 03 17:47	0° \mathcal{Y} 42'59		superior conj	4020 Jan 12 13:46	21° \mathcal{C} 38'36	-1°-26'-5
evening max el	4019 Mar 06 17:00	4° \mathcal{Y} 09'47	18°17'18	minimum elong	4020 Jan 12 04:33	21° \mathcal{C} 02'25	1°25'09
retrograde	4019 Mar 13 03:27	7° \mathcal{Y} 36'48			4020 Jan 17 21:03	0° \mathcal{Z}	
evening set	4019 Mar 16 01:26	6° \mathcal{Y} 51'18		evening rise	4020 Jan 28 01:41	16° \mathcal{Z} 15'25	
inferior conj	4019 Mar 22 02:25	1° \mathcal{Y} 27'26	3°36'05		4020 Feb 05 14:54	0° \mathcal{H}	
minimum elong	4019 Mar 22 02:47	1° \mathcal{Y} 26'25	3°36'04	evening max el	4020 Feb 18 04:12	17° \mathcal{H} 37'08	18°45'54
	4019 Mar 23 09:26	30° \mathcal{R} \mathcal{H}		asc. node	4020 Feb 18 14:48	18° \mathcal{H} 03'28	
min. Earth dist.	4019 Mar 24 13:47	28° \mathcal{H} 41'30	0.63659 AU	retrograde	4020 Feb 24 20:35	21° \mathcal{H} 20'34	
morning rise	4019 Mar 28 02:16	25° \mathcal{H} 19'12		evening set	4020 Feb 28 00:52	20° \mathcal{H} 22'47	
direct	4019 Apr 03 22:59	22° \mathcal{H} 35'35		inferior conj	4020 Mar 04 18:19	14° \mathcal{H} 41'00	3°32'35
desc. node	4019 Apr 09 18:12	24° \mathcal{H} 14'07		minimum elong	4020 Mar 04 17:13	14° \mathcal{H} 44'22	3°32'30
	4019 Apr 17 04:50	0° \mathcal{Y}		min. Earth dist.	4020 Mar 06 13:58	12° \mathcal{H} 27'10	0.65340 AU
morning max el	4019 Apr 17 18:21	0° \mathcal{Y} 33'27	27°40'19	morning rise	4020 Mar 10 08:25	8° \mathcal{H} 27'40	

direct	4020 Mar 16 22:56	5° Υ 38'09		direct	4021 Feb 28 04:58	19° \approx 11'33	
desc. node	4020 Mar 26 15:13	10° Υ 08'32		morning max el	4021 Mar 12 13:44	26° \approx 33'19	25°47'43
morning max el	4020 Mar 30 04:09	13° Υ 24'33	26°56'34	desc. node	4021 Mar 13 12:16	27° \approx 31'25	
	4020 Apr 12 13:47	0° Υ			4021 Mar 15 18:31	0° Υ	
	4020 May 01 00:56	0° Υ			4021 Apr 06 04:12	0° Υ	
morning set	4020 May 04 21:32	7° Υ 13'39		morning set	4021 Apr 17 17:54	19° Υ 54'53	
max. Earth dist.	4020 May 09 08:04	15° Υ 57'49	1.34128 AU	max. Earth dist.	4021 Apr 21 14:31	27° Υ 08'49	1.35735 AU
					4021 Apr 23 02:02	0° Υ	
superior conj	4020 May 13 09:40	24° Υ 19'06	0°-32'-38				
minimum elong	4020 May 13 11:23	24° Υ 28'04	0°32'18	superior conj	4021 Apr 27 03:21	8° Υ 01'39	-1°-1'-44
	4020 May 16 02:30	0° Π		minimum elong	4021 Apr 27 06:40	8° Υ 18'18	1°01'10
asc. node	4020 May 16 14:07	1° Π 01'24		asc. node	4021 May 03 11:09	20° Υ 57'52	
evening rise	4020 May 20 20:43	10° Π 02'19		evening rise	4021 May 05 03:21	24° Υ 23'53	
	4020 May 31 08:49	0° Σ			4021 May 07 22:04	0° Π	
evening max el	4020 Jun 09 18:42	12° Σ 22'49	21°28'10	evening max el	4021 May 23 00:45	23° Π 29'50	20°08'59
retrograde	4020 Jun 21 23:40	18° Σ 23'28		retrograde	4021 Jun 02 13:55	28° Π 38'31	
desc. node	4020 Jun 22 14:29	18° Σ 22'35		evening set	4021 Jun 04 13:07	28° Π 28'33	
evening set	4020 Jun 24 10:19	18° Σ 09'51		desc. node	4021 Jun 09 11:30	26° Π 47'20	
inferior conj	4020 Jul 03 18:49	14° Σ 10'13	-3°-9'-48	inferior conj	4021 Jun 13 14:32	24° Π 29'28	-1°-13'-21
minimum elong	4020 Jul 03 10:43	14° Σ 21'32	3°07'18	minimum elong	4021 Jun 13 11:05	24° Π 34'35	1°12'06
min. Earth dist.	4020 Jul 03 19:38	14° Σ 09'04	0.54849 AU	min. Earth dist.	4021 Jun 15 07:59	23° Π 27'52	0.55155 AU
morning rise	4020 Jul 12 11:48	10° Σ 16'06		morning rise	4021 Jun 22 06:48	20° Π 12'29	
direct	4020 Jul 15 21:23	9° Σ 51'03		direct	4021 Jun 26 08:55	19° Π 36'12	
morning max el	4020 Jul 28 08:20	15° Σ 43'56	22°10'42	morning max el	4021 Jul 10 00:13	26° Π 16'56	23°53'28
	4020 Aug 08 08:53	0° Ω			4021 Jul 13 13:33	0° Σ	
asc. node	4020 Aug 12 13:21	7° Ω 21'27		asc. node	4021 Jul 30 10:24	26° Σ 47'36	
morning set	4020 Aug 18 18:40	19° Ω 45'39			4021 Aug 01 00:31	0° Ω	
	4020 Aug 23 14:35	0° η		morning set	4021 Aug 03 06:17	4° Ω 39'41	
superior conj	4020 Aug 25 23:47	5° η 03'21	1°41'17	superior conj	4021 Aug 10 07:01	19° Ω 49'25	1°32'16
minimum elong	4020 Aug 25 22:36	4° η 57'08	1°41'14	minimum elong	4021 Aug 10 05:01	19° Ω 38'36	1°32'04
max. Earth dist.	4020 Aug 29 11:08	12° η 17'18	1.34438 AU	max. Earth dist.	4021 Aug 12 11:16	24° Ω 30'07	1.33227 AU
evening rise	4020 Sep 03 01:51	21° η 29'48			4021 Aug 15 01:50	0° η	
	4020 Sep 07 14:23	0° Δ		evening rise	4021 Aug 17 18:41	5° η 31'58	
desc. node	4020 Sep 18 13:49	18° Δ 26'53			4021 Aug 31 05:34	0° Δ	
	4020 Sep 26 13:46	0° \mathbb{M}		desc. node	4021 Sep 05 10:51	8° Δ 05'02	
evening max el	4020 Oct 07 23:45	13° \mathbb{M} 18'48	27°00'56	evening max el	4021 Sep 20 11:15	26° Δ 35'11	27°25'12
retrograde	4020 Oct 21 05:15	20° \mathbb{M} 35'36			4021 Sep 24 11:35	0° \mathbb{M}	
evening set	4020 Oct 27 23:39	17° \mathbb{M} 55'26		retrograde	4021 Oct 04 01:30	3° \mathbb{M} 52'52	
min. Earth dist.	4020 Oct 31 22:34	14° \mathbb{M} 03'08	0.65421 AU	evening set	4021 Oct 11 04:12	1° \mathbb{M} 14'37	
inferior conj	4020 Nov 02 22:41	11° \mathbb{M} 46'01	-1°-52'-23		4021 Oct 12 17:08	30° \mathbb{R} Δ	
minimum elong	4020 Nov 03 01:51	11° \mathbb{M} 37'01	1°51'07	min. Earth dist.	4021 Oct 14 21:19	27° Δ 56'43	0.63905 AU
asc. node	4020 Nov 08 12:33	6° \mathbb{M} 31'09		inferior conj	4021 Oct 17 09:45	25° Δ 20'41	-2°-53'-51
morning rise	4020 Nov 09 05:46	6° \mathbb{M} 07'49		minimum elong	4021 Oct 17 14:37	25° Δ 08'06	2°52'08
direct	4020 Nov 11 22:18	5° \mathbb{M} 28'34		morning rise	4021 Oct 24 03:25	19° Δ 58'34	
morning max el	4020 Nov 18 10:21	8° \mathbb{M} 58'20	18°10'46	asc. node	4021 Oct 26 09:37	19° Δ 29'07	
	4020 Dec 02 23:03	0° \mathcal{A}		direct	4021 Oct 26 14:03	19° Δ 28'57	
morning set	4020 Dec 06 22:31	6° \mathcal{A} 30'53		morning max el	4021 Nov 02 02:57	22° Δ 54'07	17°52'38
desc. node	4020 Dec 15 13:05	20° \mathcal{A} 28'51			4021 Nov 07 16:54	0° \mathbb{M}	
				morning set	4021 Nov 18 20:27	18° \mathbb{M} 28'39	
					4021 Nov 25 14:57	0° \mathcal{A}	
superior conj	4020 Dec 21 17:38	0° \mathcal{B} 20'00	0°-41'-32				
minimum elong	4020 Dec 21 12:24	29° \mathcal{A} 59'20	0°40'50	superior conj	4021 Dec 01 14:38	9° \mathcal{A} 54'43	0°05'38
	4020 Dec 21 12:35	0° \mathcal{B}		minimum elong	4021 Dec 01 15:15	9° \mathcal{A} 57'15	0°05'33
max. Earth dist.	4020 Dec 24 11:19	4° \mathcal{B} 38'46	1.45176 AU	behind sun begin	4021 Dec 01 05:53	9° \mathcal{A} 19'00	
evening rise	4021 Jan 07 02:30	25° \mathcal{B} 55'19		behind sun end	4021 Dec 02 00:37	10° \mathcal{A} 35'25	
	4021 Jan 09 17:30	0° \approx		desc. node	4021 Dec 02 10:07	11° \mathcal{A} 14'03	
greatest brilliancy	4021 Jan 23 08:00	20° \approx 42'14	-0.7m	max. Earth dist.	4021 Dec 07 05:39	18° \mathcal{A} 58'24	1.44443 AU
	4021 Jan 30 10:15	0° Υ			4021 Dec 14 06:08	0° \mathcal{B}	
evening max el	4021 Jan 31 11:42	1° Υ 08'12	19°31'18	evening rise	4021 Dec 17 13:23	5° \mathcal{B} 06'06	
asc. node	4021 Feb 04 11:50	4° Υ 22'35			4022 Jan 03 04:20	0° \approx	
retrograde	4021 Feb 07 17:36	5° Υ 18'35		greatest brilliancy	4022 Jan 08 15:45	7° \approx 35'18	-0.5m
evening set	4021 Feb 11 05:10	4° Υ 07'34		evening max el	4022 Jan 14 14:02	14° \approx 40'12	20°31'31
	4021 Feb 15 07:41	30° \mathbb{R} \approx		asc. node	4022 Jan 22 08:52	19° \approx 25'09	
inferior conj	4021 Feb 16 17:49	28° \approx 10'01	3°15'28	retrograde	4022 Jan 22 15:50	19° \approx 25'36	
minimum elong	4021 Feb 16 15:47	28° \approx 16'42	3°15'07	evening set	4022 Jan 26 12:08	18° \approx 00'18	
min. Earth dist.	4021 Feb 17 22:29	26° \approx 36'06	0.66612 AU	inferior conj	4022 Jan 31 22:14	11° \approx 49'53	2°47'41
morning rise	4021 Feb 22 01:40	21° \approx 54'27					

minimum elong	4022 Jan 31 19:47	11°  58'17	2°47'03			4023 Jan 12 20:26	30° 	
min. Earth dist.	4022 Feb 01 13:26	10°  58'00	0.67462 AU	inferior conj		4023 Jan 16 05:20	25°  37'23	2°11'12
morning rise	4022 Feb 06 02:56	5°  34'04		minimum elong		4023 Jan 16 02:57	25°  45'40	2°10'25
direct	4022 Feb 11 16:19	3°  06'51		min. Earth dist.		4023 Jan 16 08:28	25°  26'33	0.67915 AU
morning max el	4022 Feb 22 22:24	9°  50'15	24°23'40	morning rise		4023 Jan 21 09:40	19°  23'15	
desc. node	4022 Feb 28 09:19	15°  57'13		direct		4023 Jan 26 08:14	17°  17'00	
	4022 Mar 10 21:24	0° 		morning max el		4023 Feb 05 07:57	23°  12'16	22°54'32
	4022 Mar 29 20:33	0° 		greatest brilliancy		4023 Feb 10 01:15	28°  28'23	-0.3m
morning set	4022 Mar 30 18:43	1°  36'16				4023 Feb 11 07:09	0° 	
max. Earth dist.	4022 Apr 03 11:52	8°  12'13	1.37717 AU	desc. node		4023 Feb 15 06:22	5°  07'55	
						4023 Mar 04 06:40	0° 	
superior conj	4022 Apr 10 09:51	21°  07'43	-1°-29'-11	morning set		4023 Mar 11 17:47	12°  01'07	
minimum elong	4022 Apr 10 14:22	21°  29'31	1°28'35	max. Earth dist.		4023 Mar 16 06:56	19°  41'31	1.39894 AU
	4022 Apr 14 22:42	0° 				4023 Mar 22 03:27	0° 	
evening rise	4022 Apr 19 03:57	8°  22'45						
asc. node	4022 Apr 20 08:12	10°  42'15		superior conj		4023 Mar 24 00:55	3°  26'26	-1°-51'-57
	4022 May 01 08:10	0° 		minimum elong		4023 Mar 24 05:28	3°  47'17	1°51'35
evening max el	4022 May 05 18:54	5°  18'59	19°09'02	evening rise		4023 Apr 02 19:27	21°  05'21	
retrograde	4022 May 14 16:06	9°  38'42		asc. node		4023 Apr 07 05:15	0°  08'48	
evening set	4022 May 16 16:42	9°  26'09				4023 Apr 07 03:20	0° 	
inferior conj	4022 May 25 00:50	5°  14'34	0°40'21	evening max el		4023 Apr 18 22:34	17°  44'39	18°29'15
minimum elong	4022 May 25 02:27	5°  11'49	0°39'46	retrograde		4023 Apr 26 12:36	21°  29'08	
desc. node	4022 May 27 08:31	3°  39'54		evening set		4023 Apr 28 19:17	21°  09'55	
min. Earth dist.	4022 May 27 23:13	3°  15'35	0.56363 AU	inferior conj		4023 May 06 08:02	16°  38'49	2°07'35
morning rise	4022 Jun 02 07:56	0°  22'29		minimum elong		4023 May 06 11:40	16°  31'34	2°06'32
	4022 Jun 03 10:03	30°  08'00		min. Earth dist.		4023 May 09 18:16	13°  56'37	0.58230 AU
direct	4022 Jun 07 08:42	29°  23'28		morning rise		4023 May 13 23:39	11°  13'50	
	4022 Jun 11 07:33	0° 		desc. node		4023 May 14 05:33	11°  06'32	
morning max el	4022 Jun 21 14:29	6°  41'32	25°32'37	direct		4023 May 19 22:56	9°  41'57	
	4022 Jul 08 16:14	0° 		morning max el		4023 Jun 03 08:14	17°  23'05	26°52'24
asc. node	4022 Jul 17 07:28	16°  32'48				4023 Jun 13 18:49	0° 	
morning set	4022 Jul 18 17:54	19°  33'12				4023 Jul 01 01:42	0° 	
	4022 Jul 23 13:48	0° 		morning set		4023 Jul 03 03:49	4°  19'35	
				asc. node		4023 Jul 04 04:31	6°  30'11	
superior conj	4022 Jul 25 17:33	4°  44'06	1°18'09					
minimum elong	4022 Jul 25 15:13	4°  31'19	1°17'48	superior conj		4023 Jul 10 05:20	19°  39'36	0°59'37
max. Earth dist.	4022 Jul 26 18:30	7°  00'50	1.32437 AU	minimum elong		4023 Jul 10 03:09	19°  27'32	0°59'13
evening rise	4022 Aug 01 20:01	19°  58'26		max. Earth dist.		4023 Jul 10 05:34	19°  40'54	1.32057 AU
	4022 Aug 06 20:40	0° 				4023 Jul 14 22:35	0° 	
desc. node	4022 Aug 23 07:52	27°  05'03		evening rise		4023 Jul 17 02:58	4°  39'27	
	4022 Aug 25 12:29	0° 				4023 Jul 30 14:12	0° 	
evening max el	4022 Sep 02 19:34	9°  20'35	27°18'55	desc. node		4023 Aug 10 04:52	15°  00'25	
retrograde	4022 Sep 16 15:14	16°  35'17		evening max el		4023 Aug 15 22:12	21°  22'56	26°39'22
evening set	4022 Sep 23 19:19	14°  10'47		retrograde		4023 Aug 29 20:54	28°  00'30	
min. Earth dist.	4022 Sep 27 09:54	11°  20'24	0.62083 AU	evening set		4023 Sep 05 16:24	26°  35'39	
inferior conj	4022 Sep 30 09:23	8°  36'09	-3°-52'-9	min. Earth dist.		4023 Sep 09 12:06	23°  05'54	0.60052 AU
minimum elong	4022 Sep 30 15:18	8°  22'31	3°50'30	inferior conj		4023 Sep 12 18:06	21°  00'30	-4°-40'-42
morning rise	4022 Oct 07 14:15	3°  33'14		minimum elong		4023 Sep 12 23:24	21°  00'20	4°39'47
direct	4022 Oct 09 21:49	3°  09'50		morning rise		4023 Sep 20 09:46	16°  42'06	
asc. node	4022 Oct 13 06:40	4°  01'00		direct		4023 Sep 22 17:39	16°  22'01	
morning max el	4022 Oct 16 18:44	6°  38'49	17°52'28	asc. node		4023 Sep 30 03:43	19°  00'54	
	4022 Oct 31 20:13	0° 		morning max el		4023 Sep 30 06:25	20°  03'22	18°11'35
morning set	4022 Nov 01 15:23	1°  26'24				4023 Oct 07 16:20	0° 	
				morning set		4023 Oct 16 01:24	15°  07'05	
superior conj	4022 Nov 12 13:57	20°  46'47	0°45'52			4023 Oct 24 00:32	0° 	
minimum elong	4022 Nov 12 17:43	21°  02'55	0°45'21					
	4022 Nov 18 01:37	0° 		superior conj		4023 Oct 25 14:22	2°  51'54	1°15'19
desc. node	4022 Nov 19 07:10	2°  01'22		minimum elong		4023 Oct 25 18:21	3°  09'56	1°14'52
max. Earth dist.	4022 Nov 19 19:57	2°  53'36	1.43079 AU	max. Earth dist.		4023 Nov 02 05:19	16°  12'26	1.41250 AU
evening rise	4022 Nov 27 01:44	14°  26'46		desc. node		4023 Nov 06 04:11	22°  04'25	
	4022 Dec 07 06:56	0° 		evening rise		4023 Nov 07 06:21	24°  00'02	
greatest brilliancy	4022 Dec 23 15:28	22°  45'02	-0.4m			4023 Nov 10 15:44	0° 	
evening max el	4022 Dec 28 10:52	28°  13'27	21°43'18			4023 Dec 01 04:41	0° 	
	4022 Dec 30 07:27	0° 		greatest brilliancy		4023 Dec 05 11:34	5°  28'11	-0.2m
retrograde	4023 Jan 06 13:12	3°  38'00		evening max el		4023 Dec 11 03:05	11°  49'30	23°01'57
asc. node	4023 Jan 09 05:56	2°  58'42		retrograde		4023 Dec 21 08:03	17°  25'33	
evening set	4023 Jan 10 19:58	1°  57'19		evening set		4023 Dec 26 03:01	15°  25'41	



































































































































asc. node	4023 Dec 27 02:57	15°☾01'09			4024 Nov 28 02:02	0°☾	
min. Earth dist.	4023 Dec 31 05:10	9°☾57'42	0.67997 AU	retrograde	4024 Dec 03 23:14	2°☾05'15	
inferior conj	4023 Dec 31 13:11	9°☾30'02	1°27'23	evening set	4024 Dec 09 07:45	29°☾52'14	
minimum elong	4023 Dec 31 11:20	9°☾36'25	1°26'41		4024 Dec 09 04:01	30°☾☿	
morning rise	4024 Jan 05 19:39	3°☾19'33		asc. node	4024 Dec 12 23:59	25°☾51'00	
direct	4024 Jan 10 03:39	1°☾36'12		min. Earth dist.	4024 Dec 14 01:10	24°☾28'09	0.67727 AU
morning max el	4024 Jan 18 22:00	6°☾42'34	21°29'24	inferior conj	4024 Dec 14 20:00	23°☾24'57	0°37'18
greatest brilliancy	4024 Jan 23 21:28	12°☾21'30	-0.4m	minimum elong	4024 Dec 14 19:07	23°☾27'56	0°36'56
desc. node	4024 Feb 02 03:24	24°☾50'58		morning rise	4024 Dec 20 06:51	17°☾20'18	
	4024 Feb 05 16:42	0°☾		direct	4024 Dec 24 01:22	15°☾59'04	
morning set	4024 Feb 19 11:57	21°☾04'09		morning max el	4024 Dec 31 19:29	20°☾24'21	20°14'35
	4024 Feb 25 01:03	0°☾		greatest brilliancy	4025 Jan 07 09:32	28°☾15'27	-0.5m
max. Earth dist.	4024 Feb 26 07:18	2°☾04'17	1.41985 AU		4025 Jan 08 16:31	0°☾	
				desc. node	4025 Jan 19 00:24	14°☾57'01	
superior conj	4024 Mar 04 19:33	14°☾46'19	-2°-5'-46	morning set	4025 Jan 28 09:49	29°☾15'20	
minimum elong	4024 Mar 04 21:46	14°☾55'56	2°05'43		4025 Jan 28 21:22	0°☾	
	4024 Mar 13 09:01	0°☾		max. Earth dist.	4025 Feb 07 15:41	15°☾22'07	1.43703 AU
evening rise	4024 Mar 15 22:07	4°☾38'16					
asc. node	4024 Mar 24 02:16	19°☾11'32		superior conj	4025 Feb 13 13:07	24°☾56'43	-2°-5'-17
	4024 Mar 31 17:25	0°☾		minimum elong	4025 Feb 13 10:02	24°☾44'05	2°05'13
evening max el	4024 Apr 01 08:20	0°☾38'03	18°09'24		4025 Feb 16 14:11	0°☾	
retrograde	4024 Apr 08 03:07	4°☾04'05		evening rise	4025 Feb 26 07:37	16°☾37'07	
evening set	4024 Apr 10 16:07	3°☾35'39			4025 Mar 06 02:15	0°☾	
	4024 Apr 16 02:01	30°☾☿		asc. node	4025 Mar 10 23:17	7°☾42'22	
inferior conj	4024 Apr 17 11:56	28°☾43'06	3°02'45	evening max el	4025 Mar 15 20:47	13°☾49'36	18°08'59
minimum elong	4024 Apr 17 14:58	28°☾36'03	3°02'10	retrograde	4025 Mar 22 07:32	17°☾12'36	
min. Earth dist.	4024 Apr 20 19:16	25°☾41'00	0.60397 AU	evening set	4025 Mar 25 02:15	16°☾33'34	
morning rise	4024 Apr 24 10:23	22°☾54'26		inferior conj	4025 Mar 31 09:00	11°☾20'25	3°30'15
desc. node	4024 Apr 30 02:34	20°☾50'40		minimum elong	4025 Mar 31 10:22	11°☾16'49	3°30'08
direct	4024 May 01 01:10	20°☾48'09		min. Earth dist.	4025 Apr 03 04:43	8°☾22'52	0.62531 AU
morning max el	4024 May 15 08:11	28°☾41'31	27°40'23	morning rise	4025 Apr 06 16:07	5°☾17'10	
	4024 May 16 15:00	0°☾		direct	4025 Apr 13 13:00	2°☾43'54	
	4024 Jun 06 14:35	0°☾		desc. node	4025 Apr 16 23:35	3°☾18'27	
morning set	4024 Jun 16 10:17	18°☾53'19		morning max el	4025 Apr 27 14:05	10°☾42'27	27°51'02
asc. node	4024 Jun 20 01:33	26°☾34'59			4025 May 12 16:53	0°☾	
	4024 Jun 21 15:21	0°☾			4025 May 29 21:40	0°☾	
max. Earth dist.	4024 Jun 22 16:52	2°☾19'30	1.32085 AU	morning set	4025 May 31 11:14	3°☾08'03	
				max. Earth dist.	4025 Jun 06 00:30	14°☾44'02	1.32523 AU
superior conj	4024 Jun 23 16:39	4°☾30'09	0°37'18	asc. node	4025 Jun 06 22:35	16°☾42'56	
minimum elong	4024 Jun 23 15:04	4°☾21'26	0°36'59				
evening rise	4024 Jun 30 13:19	19°☾27'46		superior conj	4025 Jun 08 01:47	19°☾10'10	0°11'52
	4024 Jul 05 16:50	0°☾		minimum elong	4025 Jun 08 01:13	19°☾07'07	0°11'44
	4024 Jul 25 04:07	0°☾		behind sun begin	4025 Jun 07 21:41	18°☾47'56	
desc. node	4024 Jul 27 01:53	1°☾59'04		behind sun end	4025 Jun 08 04:45	19°☾26'19	
evening max el	4024 Jul 27 17:26	2°☾36'53	25°28'56		4025 Jun 13 01:12	0°☾	
retrograde	4024 Aug 10 16:39	9°☾42'27		evening rise	4025 Jun 15 01:06	4°☾16'56	
evening set	4024 Aug 16 14:39	8°☾21'03			4025 Jun 28 19:55	0°☾	
min. Earth dist.	4024 Aug 21 05:20	5°☾42'21	0.58010 AU	evening max el	4025 Jul 09 06:55	13°☾12'00	23°57'37
inferior conj	4024 Aug 24 08:27	3°☾31'30	-5°-8'-44	desc. node	4025 Jul 13 22:52	17°☾01'20	
minimum elong	4024 Aug 24 10:20	3°☾28'13	5°08'40	retrograde	4025 Jul 23 00:47	20°☾06'58	
	4024 Aug 30 04:34	30°☾☿		evening set	4025 Jul 27 13:12	19°☾21'53	
morning rise	4024 Sep 01 09:30	29°☾13'54		min. Earth dist.	4025 Aug 02 17:14	16°☾22'16	0.56246 AU
direct	4024 Sep 03 21:14	28°☾54'49		inferior conj	4025 Aug 05 02:35	14°☾54'35	-5°-1'-7
	4024 Sep 08 07:56	0°☾		minimum elong	4025 Aug 04 22:31	15°☾00'50	5°00'44
morning max el	4024 Sep 12 10:40	2°☾58'29	18°51'31	morning rise	4025 Aug 13 11:14	10°☾56'58	
asc. node	4024 Sep 16 00:46	7°☾02'03		direct	4025 Aug 16 05:22	10°☾37'27	
morning set	4024 Sep 28 21:54	29°☾17'53		morning max el	4025 Aug 26 04:39	15°☾15'24	19°53'12
	4024 Sep 29 06:30	0°☾		asc. node	4025 Sep 02 21:48	25°☾01'45	
					4025 Sep 05 21:00	0°☾	
superior conj	4024 Oct 07 10:44	15°☾55'41	1°33'51	morning set	4025 Sep 13 01:36	13°☾49'40	
minimum elong	4024 Oct 07 13:26	16°☾08'33	1°33'39				
max. Earth dist.	4024 Oct 14 10:49	28°☾49'53	1.39183 AU	superior conj	4025 Sep 20 21:50	29°☾43'34	1°42'51
	4024 Oct 15 02:39	0°☾		minimum elong	4025 Sep 20 22:51	29°☾48'38	1°42'49
evening rise	4024 Oct 18 09:54	5°☾44'09			4025 Sep 21 01:08	0°☾	
desc. node	4024 Oct 23 01:11	13°☾28'17		max. Earth dist.	4025 Sep 26 16:02	10°☾53'50	1.37131 AU
	4024 Nov 02 17:36	0°☾		evening rise	4025 Sep 30 11:53	17°☾56'39	
evening max el	4024 Nov 22 16:24	25°☾28'58	24°21'28		4025 Oct 07 11:23	0°☾	

desc. node	4025 Oct 09 22:13	4°♁00'06		minimum elong	4026 Sep 04 18:44	13°♁58'54	1°43'49
	4025 Oct 28 00:41	0°♁		max. Earth dist.	4026 Sep 09 02:07	22°♁44'37	1.35317 AU
evening max el	4025 Nov 05 04:42	9°♁11'13	25°34'57		4026 Sep 12 19:31	0°♁	
retrograde	4025 Nov 17 10:00	16°♁11'57		evening rise	4026 Sep 13 08:19	1°♁00'42	
evening set	4025 Nov 23 08:31	13°♁44'35		desc. node	4026 Sep 26 19:15	24°♁16'43	
min. Earth dist.	4025 Nov 27 18:14	8°♁55'32	0.67110 AU		4026 Sep 30 12:53	0°♁	
inferior conj	4025 Nov 29 00:02	7°♁20'11	0°-17'-57	evening max el	4026 Oct 18 17:09	22°♁51'07	26°35'10
minimum elong	4025 Nov 29 00:30	7°♁18'42	0°17'45		4026 Oct 30 08:53	0°♁	
asc. node	4025 Nov 29 21:00	6°♁13'39		retrograde	4026 Oct 31 15:45	0°♁05'33	
morning rise	4025 Dec 04 17:20	1°♁23'38			4026 Nov 01 21:52	30°♁	
direct	4025 Dec 08 00:01	0°♁21'47		evening set	4026 Nov 07 03:25	27°♁28'09	
morning max el	4025 Dec 15 00:56	4°♁17'18	19°13'47	min. Earth dist.	4026 Nov 11 06:03	23°♁15'02	0.66138 AU
greatest brilliancy	4025 Dec 24 23:56	17°♁11'23	-0.7m	inferior conj	4026 Nov 12 23:20	21°♁11'33	-1°-17'-9
	4026 Jan 02 10:42	0°♁		minimum elong	4026 Nov 13 01:27	21°♁05'11	1°16'16
desc. node	4026 Jan 05 21:27	5°♁20'02		asc. node	4026 Nov 16 18:02	17°♁05'05	
morning set	4026 Jan 07 10:56	7°♁45'24		morning rise	4026 Nov 19 00:56	15°♁25'45	
max. Earth dist.	4026 Jan 21 06:20	29°♁19'37	1.44838 AU	direct	4026 Nov 21 21:52	14°♁39'30	
	4026 Jan 21 16:34	0°♁		morning max el	4026 Nov 28 12:44	18°♁16'10	18°28'54
					4026 Dec 07 09:59	0°♁	
superior conj	4026 Jan 24 05:47	4°♁02'10	-1°-45'-55	morning set	4026 Dec 18 12:26	17°♁32'22	
minimum elong	4026 Jan 23 21:18	3°♁28'35	1°45'15	desc. node	4026 Dec 23 18:31	25°♁54'51	
evening rise	4026 Feb 07 19:51	27°♁40'13			4026 Dec 26 08:23	0°♁	
	4026 Feb 09 05:40	0°♁					
asc. node	4026 Feb 25 20:18	25°♁31'39		superior conj	4027 Jan 03 08:37	12°♁36'38	-1°-8'-17
evening max el	4026 Feb 27 09:05	27°♁12'12	18°27'18	minimum elong	4027 Jan 03 00:26	12°♁04'32	1°07'19
	4026 Mar 02 23:44	0°♁		max. Earth dist.	4027 Jan 04 00:32	13°♁39'02	1.45266 AU
retrograde	4026 Mar 05 21:13	0°♁45'12			4027 Jan 14 10:29	0°♁	
evening set	4026 Mar 08 21:43	29°♁54'39		evening rise	4027 Jan 19 08:49	7°♁47'03	
	4026 Mar 08 17:45	30°♁		greatest brilliancy	4027 Jan 30 22:18	25°♁58'30	-0.8m
inferior conj	4026 Mar 14 19:06	24°♁22'44	3°36'30		4027 Feb 02 14:09	0°♁	
minimum elong	4026 Mar 14 18:48	24°♁23'39	3°36'30	evening max el	4027 Feb 10 18:54	10°♁41'12	19°03'18
min. Earth dist.	4026 Mar 16 23:44	21°♁49'02	0.64414 AU	asc. node	4027 Feb 12 17:19	12°♁27'40	
morning rise	4026 Mar 20 14:19	18°♁11'35		retrograde	4027 Feb 17 16:22	14°♁35'17	
direct	4026 Mar 27 08:59	15°♁23'54		evening set	4027 Feb 20 23:29	13°♁32'10	
desc. node	4026 Apr 03 20:37	18°♁07'10		inferior conj	4027 Feb 26 14:36	7°♁43'32	3°26'47
morning max el	4026 Apr 09 23:25	23°♁18'59	27°25'27	minimum elong	4027 Feb 26 13:03	7°♁48'29	3°26'36
	4026 Apr 15 22:15	0°♁		min. Earth dist.	4027 Feb 28 03:50	5°♁45'44	0.65927 AU
	4026 May 06 00:10	0°♁		morning rise	4027 Mar 04 01:36	1°♁28'46	
morning set	4026 May 15 04:00	16°♁55'07			4027 Mar 06 00:57	30°♁	
max. Earth dist.	4026 May 20 00:17	26°♁41'22	1.33401 AU	direct	4027 Mar 10 11:49	28°♁40'23	
	4026 May 21 14:23	0°♁			4027 Mar 15 09:04	0°♁	
				desc. node	4027 Mar 21 17:41	4°♁42'36	
superior conj	4026 May 23 06:46	3°♁33'14	0°-15'-57	morning max el	4027 Mar 23 09:20	6°♁18'59	26°29'48
minimum elong	4026 May 23 07:35	3°♁37'34	0°15'48		4027 Apr 10 15:40	0°♁	
behind sun begin	4026 May 23 06:47	3°♁33'17		morning set	4027 Apr 28 09:07	0°♁04'19	
behind sun end	4026 May 23 08:24	3°♁41'51			4027 Apr 28 08:12	0°♁	
asc. node	4026 May 24 19:37	6°♁49'34		max. Earth dist.	4027 May 02 13:02	8°♁06'05	1.34746 AU
evening rise	4026 May 30 12:27	19°♁00'05					
	4026 Jun 04 22:34	0°♁		superior conj	4027 May 07 05:24	17°♁33'01	0°-45'-1
evening max el	4026 Jun 20 21:20	23°♁36'02	22°20'44	minimum elong	4027 May 07 07:48	17°♁45'23	0°44'34
desc. node	4026 Jun 30 19:53	29°♁41'32		asc. node	4027 May 11 16:39	26°♁51'05	
	4026 Jul 02 17:44	0°♁			4027 May 13 04:46	0°♁	
retrograde	4026 Jul 03 20:57	0°♁02'57		evening rise	4027 May 14 21:24	3°♁31'21	
	4026 Jul 05 00:23	30°♁			4027 May 29 23:51	0°♁	
evening set	4026 Jul 06 21:59	29°♁42'28		evening max el	4027 Jun 02 20:37	4°♁22'12	20°52'30
min. Earth dist.	4026 Jul 15 03:53	26°♁07'54	0.55103 AU	retrograde	4027 Jun 14 09:45	10°♁01'18	
inferior conj	4026 Jul 16 03:12	25°♁34'56	-4°-4'-26	evening set	4027 Jun 16 13:13	9°♁50'23	
minimum elong	4026 Jul 15 18:50	25°♁46'46	4°02'26	desc. node	4027 Jun 17 16:53	9°♁35'55	
morning rise	4026 Jul 24 17:52	21°♁44'48		inferior conj	4027 Jun 25 20:33	5°♁53'15	-2°-22'-26
direct	4026 Jul 27 20:23	21°♁23'04		minimum elong	4027 Jun 25 14:00	6°♁02'34	2°20'11
morning max el	4026 Aug 08 10:48	26°♁47'15	21°15'38	min. Earth dist.	4027 Jun 26 15:33	5°♁26'15	0.54855 AU
	4026 Aug 11 12:41	0°♁		morning rise	4027 Jul 04 14:04	1°♁51'16	
asc. node	4026 Aug 20 18:51	13°♁42'32		direct	4027 Jul 08 05:46	1°♁22'30	
morning set	4026 Aug 28 09:54	28°♁34'12		morning max el	4027 Jul 21 06:33	7°♁37'20	22°53'44
	4026 Aug 29 02:25	0°♁			4027 Aug 06 02:57	0°♁	
				asc. node	4027 Aug 07 15:55	2°♁54'36	
superior conj	4026 Sep 04 19:14	14°♁01'26	1°43'50	morning set	4027 Aug 12 20:48	13°♁26'06	

superior conj	4027 Aug 19 23:39	28°♄39'31	1°38'09	superior conj	4028 Aug 03 08:31	13°♄29'33	1°26'51
minimum elong	4027 Aug 19 22:04	28°♄31'03	1°38'01	minimum elong	4028 Aug 03 06:19	13°♄17'34	1°26'36
	4027 Aug 20 14:46	0°♄		max. Earth dist.	4028 Aug 05 00:40	17°♄07'24	1.32843 AU
max. Earth dist.	4027 Aug 22 21:03	4°♄46'13	1.33876 AU	evening rise	4028 Aug 10 15:42	28°♄58'32	
evening rise	4027 Aug 27 18:53	14°♄45'02			4028 Aug 11 03:49	0°♄	
	4027 Sep 04 23:39	0°♄			4028 Aug 28 02:57	0°♄	
desc. node	4027 Sep 13 16:15	14°♄11'13		desc. node	4028 Aug 30 13:15	3°♄34'34	
	4027 Sep 25 07:54	0°♄		evening max el	4028 Sep 12 16:21	19°♄26'03	27°26'36
evening max el	4027 Oct 01 05:37	6°♄20'13	27°14'38	retrograde	4028 Sep 26 09:08	26°♄41'55	
retrograde	4027 Oct 14 15:42	13°♄38'18		evening set	4028 Oct 03 13:24	24°♄08'19	
evening set	4027 Oct 21 14:03	10°♄57'56		min. Earth dist.	4028 Oct 07 05:02	21°♄03'02	0.63166 AU
min. Earth dist.	4027 Oct 25 10:20	7°♄20'24	0.64818 AU	inferior conj	4028 Oct 09 22:18	18°♄22'18	-3°-19'-15
inferior conj	4027 Oct 27 15:39	4°♄54'16	-2°-18'-33	minimum elong	4028 Oct 10 03:44	18°♄08'53	3°17'29
minimum elong	4027 Oct 27 19:33	4°♄43'32	2°17'03	morning rise	4028 Oct 16 20:40	13°♄07'36	
	4027 Nov 01 23:02	30°♄		direct	4028 Oct 19 05:41	12°♄40'55	
morning rise	4027 Nov 03 03:05	29°♄22'16		asc. node	4028 Oct 20 12:11	12°♄48'43	
asc. node	4027 Nov 03 15:06	29°♄10'09		morning max el	4028 Oct 25 20:58	16°♄06'39	17°50'13
direct	4027 Nov 05 16:42	28°♄47'37			4028 Nov 04 15:51	0°♄	
	4027 Nov 09 10:41	0°♄		morning set	4028 Nov 11 03:11	11°♄13'26	
morning max el	4027 Nov 12 04:22	2°♄14'44	18°00'47		4028 Nov 22 01:08	0°♄	
morning set	4027 Nov 29 19:26	28°♄47'00					
	4027 Nov 30 12:56	0°♄		superior conj	4028 Nov 23 01:38	1°♄42'11	0°23'54
desc. node	4027 Dec 10 15:34	16°♄37'13		minimum elong	4028 Nov 23 04:01	1°♄52'05	0°23'33
				desc. node	4028 Nov 26 12:35	7°♄23'48	
superior conj	4027 Dec 13 17:48	21°♄35'21	0°-21'-9	max. Earth dist.	4028 Nov 29 13:08	12°♄17'22	1.43939 AU
minimum elong	4027 Dec 13 15:12	21°♄24'58	0°20'48	evening rise	4028 Dec 08 11:43	26°♄21'08	
max. Earth dist.	4027 Dec 17 19:45	28°♄04'04	1.44952 AU		4028 Dec 10 20:43	0°♄	
	4027 Dec 19 01:12	0°♄			4028 Dec 31 11:56	0°♄	
evening rise	4027 Dec 30 02:09	17°♄10'14		greatest brilliancy	4029 Jan 01 16:57	1°♄34'08	-0.5m
	4028 Jan 07 11:01	0°♄		evening max el	4029 Jan 07 00:29	7°♄46'13	21°00'51
greatest brilliancy	4028 Jan 17 23:53	15°♄31'18	-0.6m	retrograde	4029 Jan 15 12:02	12°♄47'27	
evening max el	4028 Jan 25 00:23	24°♄13'01	19°55'22	asc. node	4029 Jan 16 11:24	12°♄42'16	
asc. node	4028 Jan 30 14:21	28°♄15'55		evening set	4029 Jan 19 12:41	11°♄15'34	
retrograde	4028 Feb 01 14:03	28°♄37'14		inferior conj	4029 Jan 24 22:17	5°♄00'48	2°33'11
evening set	4028 Feb 05 05:08	27°♄20'23		minimum elong	4029 Jan 24 19:48	5°♄09'22	2°32'27
inferior conj	4028 Feb 10 16:29	21°♄17'17	3°04'50	min. Earth dist.	4029 Jan 25 08:10	4°♄26'46	0.67711 AU
minimum elong	4028 Feb 10 14:12	21°♄24'54	3°04'22		4029 Jan 28 20:26	30°♄	
min. Earth dist.	4028 Feb 11 15:18	20°♄00'59	0.67028 AU	morning rise	4029 Jan 30 02:33	28°♄45'45	
morning rise	4028 Feb 15 22:38	15°♄01'28		direct	4029 Feb 04 09:44	26°♄27'03	
direct	4028 Feb 21 20:22	12°♄24'04			4029 Feb 12 01:08	0°♄	
morning max el	4028 Mar 04 18:13	19°♄30'55	25°13'08	morning max el	4029 Feb 15 02:49	2°♄49'48	23°45'44
desc. node	4028 Mar 07 14:45	22°♄34'32		desc. node	4029 Feb 22 11:48	11°♄21'18	
	4028 Mar 13 16:37	0°♄			4029 Mar 07 19:47	0°♄	
	4028 Apr 02 18:34	0°♄		morning set	4029 Mar 22 12:18	23°♄31'10	
morning set	4028 Apr 09 21:49	12°♄21'19			4029 Mar 26 05:54	0°♄	
max. Earth dist.	4028 Apr 13 14:37	19°♄08'07	1.36539 AU	max. Earth dist.	4029 Mar 26 10:19	0°♄19'30	1.38646 AU
	4028 Apr 19 06:25	0°♄					
				superior conj	4029 Apr 02 19:13	13°♄47'55	-1°-39'-39
superior conj	4028 Apr 19 18:45	1°♄00'52	-1°-13'-44	minimum elong	4029 Apr 02 23:58	14°♄10'18	1°39'07
minimum elong	4028 Apr 19 22:40	1°♄20'11	1°13'08		4029 Apr 11 04:27	0°♄	
asc. node	4028 Apr 27 13:41	16°♄42'35		evening rise	4029 Apr 11 22:50	1°♄29'46	
evening rise	4028 Apr 28 01:44	17°♄43'26		asc. node	4029 Apr 14 10:43	6°♄19'46	
	4028 May 04 09:25	0°♄		evening max el	4029 Apr 28 06:31	27°♄51'25	18°49'31
evening max el	4028 May 15 08:02	15°♄46'46	19°41'05		4029 Apr 30 20:48	0°♄	
retrograde	4028 May 25 03:13	20°♄32'50		retrograde	4029 May 06 12:55	1°♄54'13	
evening set	4028 May 27 02:11	20°♄22'17		evening set	4029 May 08 16:01	1°♄39'08	
desc. node	4028 Jun 03 13:55	17°♄07'26			4029 May 12 15:31	30°♄	
inferior conj	4028 Jun 04 21:00	16°♄19'23	0°-22'-58	inferior conj	4029 May 16 15:44	27°♄19'17	1°21'22
minimum elong	4028 Jun 04 19:58	16°♄21'01	0°22'35	minimum elong	4029 May 16 18:37	27°♄14'02	1°20'24
min. Earth dist.	4028 Jun 07 04:51	14°♄52'25	0.55572 AU	min. Earth dist.	4029 May 19 21:05	24°♄59'48	0.57101 AU
morning rise	4028 Jun 13 10:25	11°♄48'24		desc. node	4029 May 21 10:57	23°♄57'01	
direct	4028 Jun 17 22:03	11°♄03'41		morning rise	4029 May 24 16:47	22°♄12'34	
morning max el	4028 Jul 01 20:41	18°♄01'43	24°37'01	direct	4029 May 30 03:35	21°♄00'41	
	4028 Jul 11 17:50	0°♄		morning max el	4029 Jun 13 11:46	28°♄29'16	26°09'59
	4028 Jul 24 12:59	22°♄29'17			4029 Jun 14 23:53	0°♄	
asc. node	4028 Jul 27 08:37	28°♄20'05			4029 Jul 05 06:02	0°♄	
morning set	4028 Jul 28 03:25	0°♄		asc. node	4029 Jul 11 10:01	12°♄19'53	

morning set	4029 Jul 11 19:41	13°☿10'45		morning set	4030 Jun 26 04:22	27°♄52'58	
					4030 Jun 27 04:31	0°☿	
superior conj	4029 Jul 18 19:44	28°♄24'33	1°10'46	asc. node	4030 Jun 28 07:02	2°☿21'11	
minimum elong	4029 Jul 18 17:25	28°♄11'44	1°10'24				
max. Earth dist.	4029 Jul 19 10:05	29°♄43'32	1.32223 AU	superior conj	4030 Jul 03 07:32	13°☿18'53	0°50'35
	4029 Jul 19 13:05	0°♄		minimum elong	4030 Jul 03 05:33	13°☿07'56	0°50'12
evening rise	4029 Jul 25 19:40	13°♄31'30		max. Earth dist.	4030 Jul 02 21:46	12°☿24'59	1.32012 AU
	4029 Aug 03 05:45	0°♄		evening rise	4030 Jul 10 04:19	28°☿16'30	
desc. node	4029 Aug 17 10:15	22°♄13'27			4030 Jul 10 23:58	0°♄	
	4029 Aug 24 00:34	0°♄			4030 Jul 27 17:42	0°♄	
evening max el	4029 Aug 25 22:33	1°♄54'07	27°06'15	desc. node	4030 Aug 04 07:16	9°♄49'38	
retrograde	4029 Sep 08 19:19	9°♄06'32		evening max el	4030 Aug 07 21:51	13°♄35'07	26°12'47
evening set	4029 Sep 15 21:26	6°♄51'46		retrograde	4030 Aug 21 21:13	20°♄44'29	
min. Earth dist.	4029 Sep 19 12:51	4°♄09'53	0.61236 AU	evening set	4030 Aug 28 09:20	19°♄01'03	
inferior conj	4029 Sep 22 16:01	1°♄26'39	-4°-14'-27	min. Earth dist.	4030 Sep 01 10:45	16°♄26'39	0.59165 AU
minimum elong	4029 Sep 22 21:57	1°♄13'43	4°13'03	inferior conj	4030 Sep 04 17:15	13°♄58'10	-4°-55'-58
	4029 Sep 24 08:39	30°♄		minimum elong	4030 Sep 04 21:30	13°♄50'05	4°55'27
morning rise	4029 Sep 30 01:35	26°♄32'53		morning rise	4030 Sep 12 13:11	9°♄27'35	
direct	4029 Oct 02 09:00	26°♄11'06		direct	4030 Sep 14 22:14	9°♄08'14	
asc. node	4029 Oct 07 09:15	27°♄58'00		morning max el	4030 Sep 22 20:25	12°♄57'34	18°26'03
morning max el	4029 Oct 09 11:25	29°♄43'49	17°58'12	asc. node	4030 Sep 24 06:17	14°♄25'21	
	4029 Oct 09 17:56	0°♄			4030 Oct 04 08:55	0°♄	
morning set	4029 Oct 25 05:11	24°♄31'28		morning set	4030 Oct 08 20:08	8°♄26'13	
	4029 Oct 28 04:44	0°♄					
superior conj	4029 Nov 04 12:11	13°♄07'08	0°59'43	superior conj	4030 Oct 17 21:49	25°♄39'38	1°24'25
minimum elong	4029 Nov 04 16:19	13°♄25'15	0°59'12	minimum elong	4030 Oct 18 01:22	25°♄56'02	1°24'05
max. Earth dist.	4029 Nov 12 01:54	26°♄00'27	1.42348 AU		4030 Oct 20 06:45	0°♄	
desc. node	4029 Nov 13 09:35	28°♄10'52		max. Earth dist.	4030 Oct 25 09:02	9°♄00'33	1.40382 AU
	4029 Nov 14 12:20	0°♄		evening rise	4030 Oct 29 19:36	16°♄31'12	
evening rise	4029 Nov 18 05:35	5°♄58'07		desc. node	4030 Oct 31 06:35	18°♄55'12	
	4029 Dec 04 03:48	0°♄			4030 Nov 07 06:07	0°♄	
greatest brilliancy	4029 Dec 16 01:23	16°♄00'14	-0.3m		4030 Nov 28 21:11	0°♄	
evening max el	4029 Dec 20 19:07	21°♄20'10	22°16'06	evening max el	4030 Dec 03 09:40	4°♄57'00	23°35'56
retrograde	4029 Dec 30 08:32	27°♄01'25		retrograde	4030 Dec 14 02:06	11°♄15'49	
asc. node	4030 Jan 03 08:28	25°♄36'30		evening set	4030 Dec 19 02:40	9°♄11'53	
evening set	4030 Jan 03 20:23	25°♄13'39		asc. node	4030 Dec 21 05:30	7°♄04'27	
inferior conj	4030 Jan 09 05:55	18°♄50'37	1°53'26	min. Earth dist.	4030 Dec 24 00:53	3°♄28'04	0.67925 AU
minimum elong	4030 Jan 09 03:42	18°♄58'18	1°52'39	inferior conj	4030 Dec 24 13:33	2°♄44'43	1°06'50
min. Earth dist.	4030 Jan 09 04:07	18°♄56'51	0.68000 AU	minimum elong	4030 Dec 24 12:04	2°♄49'49	1°06'15
morning rise	4030 Jan 14 10:54	12°♄37'57			4030 Dec 26 15:08	30°♄	
direct	4030 Jan 19 03:05	10°♄41'41		morning rise	4030 Dec 29 21:37	26°♄36'19	
morning max el	4030 Jan 28 13:59	16°♄15'28	22°17'22	direct	4031 Jan 02 23:35	25°♄02'46	
greatest brilliancy	4030 Feb 02 03:38	21°♄21'43	-0.3m		4031 Jan 11 10:41	0°♄	
	4030 Feb 08 19:11	0°♄		morning max el	4031 Jan 11 07:04	29°♄50'54	20°55'56
desc. node	4030 Feb 09 08:49	0°♄46'53		greatest brilliancy	4031 Jan 16 20:16	6°♄15'30	-0.5m
	4030 Feb 28 21:12	0°♄		desc. node	4031 Jan 27 05:51	20°♄40'35	
morning set	4030 Mar 02 23:02	3°♄20'42			4031 Feb 02 12:18	0°♄	
max. Earth dist.	4030 Mar 08 07:23	12°♄11'30	1.40815 AU	morning set	4031 Feb 10 06:30	11°♄55'21	
				max. Earth dist.	4031 Feb 18 10:38	24°♄56'49	1.42774 AU
superior conj	4030 Mar 16 02:11	25°♄42'49	-1°-59'-13		4031 Feb 21 12:31	0°♄	
minimum elong	4030 Mar 16 06:06	26°♄00'23	1°58'59	superior conj	4031 Feb 25 10:32	6°♄33'39	-2°-7'-38
	4030 Mar 18 11:13	0°♄		minimum elong	4031 Feb 25 10:49	6°♄34'51	2°07'39
evening rise	4030 Mar 26 09:24	14°♄41'57		evening rise	4031 Mar 09 05:18	27°♄10'02	
asc. node	4030 Apr 01 07:44	25°♄37'16			4031 Mar 10 19:20	0°♄	
	4030 Apr 03 20:37	0°♄		asc. node	4031 Mar 19 04:46	14°♄27'41	
evening max el	4030 Apr 11 13:07	10°♄29'49	18°18'20	evening max el	4031 Mar 26 00:24	23°♄32'02	18°06'55
retrograde	4030 Apr 18 17:43	14°♄04'54		retrograde	4031 Apr 01 14:39	26°♄55'09	
evening set	4030 Apr 21 03:00	13°♄42'05		evening set	4031 Apr 04 06:01	26°♄22'29	
inferior conj	4030 Apr 28 08:06	9°♄01'44	2°34'47	inferior conj	4031 Apr 10 19:50	21°♄21'18	3°17'24
minimum elong	4030 Apr 28 11:42	8°♄54'02	2°33'53	minimum elong	4031 Apr 10 22:12	21°♄15'28	3°17'03
min. Earth dist.	4030 May 01 18:28	6°♄07'53	0.59131 AU	min. Earth dist.	4031 Apr 13 23:05	18°♄17'59	0.61321 AU
morning rise	4030 May 05 16:18	3°♄25'04		morning rise	4031 Apr 17 11:21	15°♄25'15	
desc. node	4030 May 08 07:58	2°♄14'06		direct	4031 Apr 24 05:54	13°♄05'48	
direct	4030 May 11 23:01	1°♄38'22		desc. node	4031 Apr 25 05:01	13°♄08'30	
morning max el	4030 May 26 08:19	9°♄26'14	27°17'21	morning max el	4031 May 08 11:02	21°♄03'17	27°49'31
	4030 Jun 11 02:13	0°♄			4031 May 16 05:03	0°♄	

	4031 Jun 04 02:02	0°♂		morning rise	4032 Mar 30 00:36	28°♂03'31	
morning set	4031 Jun 10 08:44	12°♂19'32		direct	4032 Apr 05 21:40	25°♂22'09	
asc. node	4031 Jun 15 04:02	22°♂27'51		desc. node	4032 Apr 11 02:03	26°♂40'49	
max. Earth dist.	4031 Jun 16 07:45	24°♂58'06	1.32213 AU		4032 Apr 16 02:53	0°♀	
				morning max el	4032 Apr 19 18:31	3°♀20'13	27°44'09
superior conj	4031 Jun 17 18:07	28°♂05'45	0°26'52		4032 May 09 15:59	0°♂	
minimum elong	4031 Jun 17 16:56	27°♂59'11	0°26'36	morning set	4032 May 24 06:32	26°♂23'29	
	4031 Jun 18 14:58	0°♂			4032 May 26 01:23	0°♂	
evening rise	4031 Jun 24 15:28	13°♂05'42		max. Earth dist.	4032 May 29 12:21	7°♂11'37	1.32845 AU
	4031 Jul 03 03:40	0°♂					
evening max el	4031 Jul 20 14:00	24°♂29'44	24°51'50	superior conj	4032 Jun 01 01:46	12°♂39'35	0°00'18
desc. node	4031 Jul 22 04:16	25°♂57'02		minimum elong	4032 Jun 01 01:44	12°♂39'29	0°00'17
	4031 Jul 28 03:48	0°♂		behind sun begin	4032 May 31 20:27	12°♂11'04	
retrograde	4031 Aug 03 12:31	1°♂32'42		behind sun end	4032 Jun 01 07:01	13°♂07'56	
evening set	4031 Aug 08 21:05	0°♂27'40		asc. node	4032 Jun 01 01:05	12°♂35'54	
	4031 Aug 09 22:57	30°♂♂		evening rise	4032 Jun 08 03:18	27°♂53'09	
min. Earth dist.	4031 Aug 14 01:29	27°♂41'43	0.57199 AU		4032 Jun 09 03:22	0°♂	
inferior conj	4031 Aug 16 22:58	25°♂47'23	-5°-10'-53		4032 Jun 26 16:00	0°♂	
minimum elong	4031 Aug 16 22:29	25°♂48'11	5°10'54	evening max el	4032 Jul 01 03:03	4°♂56'28	23°16'07
morning rise	4031 Aug 25 03:27	21°♂39'02		desc. node	4032 Jul 08 01:17	10°♂03'05	
direct	4031 Aug 27 17:25	21°♂20'04		retrograde	4032 Jul 14 15:03	11°♂41'17	
morning max el	4031 Sep 05 20:36	25°♂37'17	19°15'08	evening set	4032 Jul 18 11:35	11°♂08'50	
	4031 Sep 09 17:43	0°♂		min. Earth dist.	4032 Jul 25 12:33	7°♂55'54	0.55669 AU
asc. node	4031 Sep 11 03:17	1°♂55'02		inferior conj	4032 Jul 27 08:53	6°♂50'54	-4°-43'-24
morning set	4031 Sep 22 20:01	22°♂46'23		minimum elong	4032 Jul 27 02:26	7°♂00'24	4°42'22
	4031 Sep 26 10:51	0°♂		morning rise	4032 Aug 04 20:14	2°♂58'08	
				direct	4032 Aug 07 17:49	2°♂37'49	
superior conj	4031 Oct 01 01:00	9°♂03'27	1°38'45	morning max el	4032 Aug 18 09:27	7°♂34'36	20°25'54
minimum elong	4031 Oct 01 03:00	9°♂13'07	1°38'37	asc. node	4032 Aug 28 00:19	20°♂13'24	
max. Earth dist.	4031 Oct 07 13:14	21°♂19'19	1.38290 AU		4032 Sep 02 09:15	0°♂	
evening rise	4031 Oct 11 09:02	28°♂08'43		morning set	4032 Sep 06 01:54	7°♂23'59	
	4031 Oct 12 10:41	0°♂					
desc. node	4031 Oct 18 03:37	9°♂32'49		superior conj	4032 Sep 13 16:52	23°♂04'44	1°44'10
	4031 Oct 31 16:50	0°♂		minimum elong	4032 Sep 13 17:12	23°♂06'27	1°44'09
evening max el	4031 Nov 15 22:24	18°♂38'24	24°53'58		4032 Sep 17 03:59	0°♂	
retrograde	4031 Nov 27 15:38	25°♂26'42		max. Earth dist.	4032 Sep 18 20:02	3°♂14'57	1.36321 AU
evening set	4031 Dec 03 05:57	23°♂07'31		evening rise	4032 Sep 22 19:23	10°♂44'13	
min. Earth dist.	4031 Dec 07 20:03	17°♂57'54	0.67502 AU	desc. node	4032 Oct 04 00:38	29°♂58'48	
asc. node	4031 Dec 08 02:31	17°♂36'39			4032 Oct 04 00:56	0°♂	
inferior conj	4031 Dec 08 19:27	16°♂40'45	0°14'27		4032 Oct 26 03:29	0°♂	
minimum elong	4031 Dec 08 19:05	16°♂41'56	0°14'18	evening max el	4032 Oct 28 10:56	2°♂21'09	26°02'50
transit middle	4031 Dec 08 19:05	16°♂41'56	0°14'18	retrograde	4032 Nov 10 00:12	9°♂28'22	
transit begin	4031 Dec 08 17:48	16°♂46'13		evening set	4032 Nov 16 04:27	6°♂56'21	
transit end	4031 Dec 08 20:23	16°♂37'39		min. Earth dist.	4032 Nov 20 11:12	2°♂22'26	0.66735 AU
morning rise	4031 Dec 14 08:46	10°♂38'57		inferior conj	4032 Nov 21 21:44	0°♂34'53	0°-42'-40
direct	4031 Dec 17 22:00	9°♂26'19		minimum elong	4032 Nov 21 22:52	0°♂31'20	0°42'11
morning max el	4031 Dec 25 07:58	13°♂37'48	19°46'49		4032 Nov 22 08:57	30°♂♂	
greatest brilliancy	4032 Jan 01 23:28	23°♂01'31	-0.6m	asc. node	4032 Nov 23 23:34	28°♂04'39	
	4032 Jan 06 20:19	0°♂		morning rise	4032 Nov 27 18:19	24°♂42'24	
desc. node	4032 Jan 14 02:53	10°♂54'56		direct	4032 Nov 30 20:40	23°♂47'29	
morning set	4032 Jan 20 02:32	20°♂05'32		morning max el	4032 Dec 07 16:18	27°♂33'33	18°52'44
	4032 Jan 26 11:34	0°♂			4032 Dec 09 21:36	0°♂	
max. Earth dist.	4032 Jan 31 21:38	8°♂32'50	1.44268 AU	morning set	4032 Dec 29 12:26	29°♂04'33	
					4032 Dec 30 02:35	0°♂	
superior conj	4032 Feb 05 17:09	16°♂15'48	-1°-59'-32	desc. node	4032 Dec 30 23:54	1°♂23'36	
minimum elong	4032 Feb 05 11:27	15°♂52'46	1°59'15	max. Earth dist.	4033 Jan 13 14:40	22°♂43'58	1.45115 AU
	4032 Feb 14 01:32	0°♂					
evening rise	4032 Feb 19 06:14	8°♂46'09		superior conj	4033 Jan 15 01:53	25°♂02'25	-1°-31'-52
	4032 Mar 03 03:40	0°♀		minimum elong	4033 Jan 14 16:37	24°♂25'59	1°30'56
asc. node	4032 Mar 05 01:48	2°♀42'48			4033 Jan 18 05:20	0°♂	
evening max el	4032 Mar 08 13:14	6°♀50'05	18°14'34	evening rise	4033 Jan 30 08:36	19°♂25'10	
retrograde	4032 Mar 14 23:24	10°♀15'29			4033 Feb 05 21:19	0°♂	
evening set	4032 Mar 17 20:35	9°♀31'38		asc. node	4033 Feb 19 22:51	20°♂11'28	
inferior conj	4032 Mar 23 22:58	4°♀10'32	3°35'05	evening max el	4033 Feb 20 00:50	20°♂16'31	18°40'29
minimum elong	4032 Mar 23 23:35	4°♀08'49	3°35'05	retrograde	4033 Feb 26 15:49	23°♂56'51	
min. Earth dist.	4032 Mar 26 12:34	1°♀21'05	0.63379 AU	evening set	4033 Mar 01 19:07	23°♂00'54	
	4032 Mar 27 20:09	30°♂♂		inferior conj	4033 Mar 07 13:29	17°♂21'30	3°34'02

minimum elong	4033 Mar 07 12:35	17°  24'14	3°33'59			4034 Feb 20 02:58	30° 	
min. Earth dist.	4033 Mar 09 11:25	15°  02'20	0.65116 AU	min. Earth dist.		4034 Feb 20 18:52	29°  08'26	0.66449 AU
morning rise	4033 Mar 13 04:48	11°  08'39		morning rise		4034 Feb 24 20:36	24°  33'06	
direct	4033 Mar 19 20:33	8°  19'19		direct		4034 Mar 03 01:44	21°  48'33	
desc. node	4033 Mar 28 23:06	12°  19'14		morning max el		4034 Mar 15 14:08	29°  15'19	25°59'11
morning max el	4033 Apr 02 04:20	16°  08'07	27°04'54	desc. node		4034 Mar 15 20:10	29°  30'38	
	4033 Apr 13 15:06	0° 				4034 Mar 16 07:33	0° 	
	4033 May 02 11:09	0° 				4034 Apr 07 11:17	0° 	
morning set	4033 May 07 18:49	9°  55'45		morning set		4034 Apr 20 17:39	22°  44'56	
max. Earth dist.	4033 May 12 07:52	18°  55'48	1.33925 AU	max. Earth dist.		4034 Apr 24 16:00	0°  10'18	1.35464 AU
						4034 Apr 24 13:51	0° 	
superior conj	4033 May 16 04:22	26°  53'47	0°-28'-13					
minimum elong	4033 May 16 05:50	27°  01'31	0°27'56	superior conj		4034 Apr 29 23:27	10°  41'06	0°-57'-23
	4033 May 17 15:43	0° 		minimum elong		4034 Apr 30 02:31	10°  56'42	0°56'50
asc. node	4033 May 18 22:08	2°  41'10		asc. node		4034 May 05 19:11	22°  39'13	
evening rise	4033 May 23 13:54	12°  32'26		evening rise		4034 May 07 21:13	26°  56'53	
	4033 Jun 01 13:39	0° 				4034 May 09 09:11	0° 	
evening max el	4033 Jun 12 20:30	15°  26'44	21°41'25	evening max el		4034 May 26 00:41	26°  27'50	20°19'40
desc. node	4033 Jun 24 22:18	21°  34'34				4034 May 30 14:35	0° 	
retrograde	4033 Jun 25 06:44	21°  34'51		retrograde		4034 Jun 05 20:18	1°  44'41	
evening set	4033 Jun 27 20:37	21°  31'50		evening set		4034 Jun 07 20:02	1°  34'43	
inferior conj	4033 Jul 07 04:46	17°  18'30	-3°-25'-29	desc. node		4034 Jun 11 19:20	0°  21'31	
minimum elong	4033 Jul 06 20:22	17°  30'13	3°23'01			4034 Jun 12 14:19	30°  R 	
min. Earth dist.	4033 Jul 06 23:06	17°  26'25	0.54883 AU	inferior conj		4034 Jun 16 23:23	27°  23'35	-1°-31'-43
morning rise	4033 Jul 15 21:17	13°  26'16		minimum elong		4034 Jun 16 19:04	27°  24'55	1°30'08
direct	4033 Jul 19 04:52	13°  02'16		min. Earth dist.		4034 Jun 18 11:18	26°  23'56	0.55042 AU
morning max el	4033 Jul 31 10:41	18°  47'27	21°56'01	morning rise		4034 Jun 25 16:13	23°  23'56	
	4033 Aug 09 11:53	0° 		direct		4034 Jun 29 15:16	22°  23'56	
asc. node	4033 Aug 14 21:23	9°  09'04		morning max el		4034 Jul 13 03:28	29°  24'33	23°38'01
morning set	4033 Aug 21 11:34	22°  13'06				4034 Jul 13 18:16	0° 	
	4033 Aug 25 04:03	0° 		asc. node		4034 Aug 01 18:27	28°  31'51	
						4034 Aug 02 12:11	0° 	
superior conj	4033 Aug 28 17:38	7°  32'45	1°42'10	morning set		4034 Aug 05 23:04	7°  06'56	
minimum elong	4033 Aug 28 16:37	7°  27'26	1°42'07					
max. Earth dist.	4033 Sep 01 10:04	15°  10'28	1.34653 AU	superior conj		4034 Aug 13 00:14	22°  01'16	1°33'59
evening rise	4033 Sep 05 22:21	24°  07'10		minimum elong		4034 Aug 12 22:20	22°  07'00	1°33'49
	4033 Sep 09 01:09	0° 		max. Earth dist.		4034 Aug 15 08:49	27°  02'05	1.33379 AU
desc. node	4033 Sep 20 21:39	20°  07'31				4034 Aug 16 15:08	0° 	
	4033 Sep 27 14:43	0° 		evening rise		4034 Aug 20 13:41	8°  05'08	
evening max el	4033 Oct 10 23:32	15°  58'11	26°54'57			4034 Sep 01 12:39	0° 	
retrograde	4033 Oct 24 03:20	23°  14'38		desc. node		4034 Sep 07 18:39	9°  05'24	
evening set	4033 Oct 30 20:09	20°  34'51		evening max el		4034 Sep 23 11:16	29°  01'10	27°23'21
min. Earth dist.	4033 Nov 03 19:58	16°  37'17	0.65621 AU			4034 Sep 24 05:12	0° 	
inferior conj	4033 Nov 05 18:21	14°  23'26	-1°-43'-3	retrograde		4034 Oct 07 00:39	6°  36'22	
minimum elong	4033 Nov 05 21:13	14°  15'06	1°41'53	evening set		4034 Oct 14 02:23	3°  57'07	
asc. node	4033 Nov 10 20:36	9°  23'39		min. Earth dist.		4034 Oct 17 20:12	0°  34'19	0.64153 AU
morning rise	4033 Nov 11 23:58	8°  43'17				4034 Oct 18 09:30	30°  R 	
direct	4033 Nov 14 17:34	8°  02'22		inferior conj		4034 Oct 20 06:51	28°  00'26	-2°-44'-36
morning max el	4033 Nov 21 06:06	11°  33'30	18°14'56	minimum elong		4034 Oct 20 11:28	27°  04'17	2°42'57
	4033 Dec 04 06:18	0° 		morning rise		4034 Oct 26 22:53	22°  03'43	
morning set	4033 Dec 10 02:41	9°  30'12		asc. node		4034 Oct 28 17:40	22°  07'22	
desc. node	4033 Dec 17 20:58	22°  30'23		direct		4034 Oct 29 10:09	22°  04'58	
	4033 Dec 22 21:02	0° 		morning max el		4034 Nov 04 22:34	25°  03'27	17°54'09
						4034 Nov 08 16:55	0° 	
superior conj	4033 Dec 25 04:46	3°  39'59	0°-48'-44	morning set		4034 Nov 21 20:53	21°  17'16	
minimum elong	4033 Dec 24 22:39	3°  15'52	0°47'57			4034 Nov 27 00:16	0° 	
max. Earth dist.	4033 Dec 27 10:08	7°  09'49	1.45224 AU					
evening rise	4034 Jan 10 12:24	29°  11'31		superior conj		4034 Dec 04 22:17	13°  37'04'25	0°-1'-14
	4034 Jan 11 00:49	0° 		minimum elong		4034 Dec 04 22:09	13°  37'03'52	0°01'14
greatest brilliancy	4034 Jan 25 17:27	22°  34'59	-0.7m	behind sun begin		4034 Dec 04 12:06	12°  37'23'04	
	4034 Jan 31 02:23	0° 		behind sun end		4034 Dec 05 08:12	13°  37'44'36	
evening max el	4034 Feb 03 08:57	3°  46'59	19°23'30	desc. node		4034 Dec 04 17:58	12°  37'46'56	
asc. node	4034 Feb 06 19:54	6°  40'48		max. Earth dist.		4034 Dec 10 04:34	21°  37'30'46	1.44594 AU
retrograde	4034 Feb 10 12:29	7°  53'00				4034 Dec 15 14:07	0° 	
evening set	4034 Feb 13 22:50	6°  44'04		evening rise		4034 Dec 21 00:26	8°  37'24'16	
inferior conj	4034 Feb 19 12:03	0°  48'39	3°18'47			4035 Jan 04 08:00	0° 	
minimum elong	4034 Feb 19 10:07	0° 	3°18'29	greatest brilliancy		4035 Jan 11 07:50	9°  37'52'34	-0.5m

evening max el	4035 Jan 17 12:06	17° \approx 19'11	20°21'46	retrograde	4036 Jan 09 08:10	6° \approx 10'49	
asc. node	4035 Jan 24 16:55	21° \approx 56'06		asc. node	4036 Jan 11 13:58	5° \approx 43'34	
retrograde	4035 Jan 25 10:40	21° \approx 59'05		evening set	4036 Jan 13 13:17	4° \approx 32'30	
evening set	4035 Jan 29 05:31	20° \approx 36'04			4036 Jan 17 15:44	30° \approx 3	
inferior conj	4035 Feb 03 15:53	14° \approx 27'29	2°52'32	inferior conj	4036 Jan 18 22:40	28° \approx 13'54	2°17'15
minimum elong	4035 Feb 03 13:27	14° \approx 35'44	2°51'55	minimum elong	4036 Jan 18 20:15	28° \approx 22'18	2°16'28
min. Earth dist.	4035 Feb 04 09:02	13° \approx 29'11	0.67359 AU	min. Earth dist.	4036 Jan 19 03:32	27° \approx 57'01	0.67873 AU
morning rise	4035 Feb 08 20:51	8° \approx 11'32		morning rise	4036 Jan 24 02:54	21° \approx 59'29	
direct	4035 Feb 14 12:26	5° \approx 41'24		direct	4036 Jan 29 03:44	19° \approx 49'48	
morning max el	4035 Feb 25 22:50	12° \approx 31'33	24°36'44	morning max el	4036 Feb 08 07:53	25° \approx 52'16	23°07'44
desc. node	4035 Mar 02 17:13	17° \approx 48'36			4036 Feb 12 02:18	0° \approx	
	4035 Mar 12 00:34	0° \approx		greatest brilliancy	4036 Feb 13 06:40	1° \approx 24'32	-0.3m
	4035 Mar 31 06:01	0° \approx		desc. node	4036 Feb 17 14:14	6° \approx 53'22	
morning set	4035 Apr 02 21:48	4° \approx 36'44			4036 Mar 04 13:45	0° \approx	
max. Earth dist.	4035 Apr 06 14:10	11° \approx 12'22	1.37403 AU	morning set	4036 Mar 14 00:57	15° \approx 13'28	
				max. Earth dist.	4036 Mar 18 09:00	22° \approx 35'37	1.39572 AU
superior conj	4035 Apr 13 07:52	23° \approx 53'38	-1°-25'-15		4036 Mar 22 13:53	0° \approx	
minimum elong	4035 Apr 13 12:15	24° \approx 14'56	1°24'38				
	4035 Apr 16 10:35	0° \approx		superior conj	4036 Mar 26 01:29	6° \approx 20'10	-1°-48'-59
evening rise	4035 Apr 21 22:54	10° \approx 59'46		minimum elong	4036 Mar 26 06:09	6° \approx 41'43	1°48'33
asc. node	4035 Apr 22 16:14	12° \approx 25'54		evening rise	4036 Apr 04 15:55	24° \approx 32'29	
	4035 May 02 07:39	0° \approx			4036 Apr 07 12:37	0° \approx	
evening max el	4035 May 08 17:11	8° \approx 11'05	19°16'40	asc. node	4036 Apr 08 13:15	1° \approx 55'34	
retrograde	4035 May 17 19:50	12° \approx 37'06		evening max el	4036 Apr 20 19:39	20° \approx 31'52	18°33'51
evening set	4035 May 19 19:48	12° \approx 25'14		retrograde	4036 Apr 28 13:27	24° \approx 20'24	
inferior conj	4035 May 28 06:51	8° \approx 16'19	0°24'28	evening set	4036 Apr 30 19:14	24° \approx 02'18	
minimum elong	4035 May 28 07:52	8° \approx 14'38	0°24'06	inferior conj	4036 May 08 10:46	19° \approx 34'10	1°56'28
desc. node	4035 May 29 16:22	7° \approx 20'25		minimum elong	4036 May 08 14:19	19° \approx 27'17	1°55'24
min. Earth dist.	4035 May 31 02:05	6° \approx 25'11	0.56136 AU	min. Earth dist.	4036 May 11 20:16	16° \approx 57'14	0.57930 AU
morning rise	4035 Jun 05 15:48	3° \approx 29'39		desc. node	4036 May 15 13:25	14° \approx 33'32	
direct	4035 Jun 10 13:11	2° \approx 34'37		morning rise	4036 May 16 04:57	14° \approx 13'47	
morning max el	4035 Jun 24 17:29	9° \approx 48'10	25°18'41	direct	4036 May 22 01:16	12° \approx 47'10	
	4035 Jul 09 22:27	0° \approx		morning max el	4036 Jun 05 10:19	20° \approx 25'07	26°42'19
asc. node	4035 Jul 19 15:30	18° \approx 14'22			4036 Jun 13 16:01	0° \approx	
morning set	4035 Jul 21 10:45	22° \approx 00'28			4036 Jul 01 13:36	0° \approx	
	4035 Jul 25 03:45	0° \approx		morning set	4036 Jul 04 21:00	6° \approx 48'04	
				asc. node	4036 Jul 05 12:31	8° \approx 10'06	
superior conj	4035 Jul 28 10:22	7° \approx 10'47	1°20'34				
minimum elong	4035 Jul 28 08:03	6° \approx 58'07	1°20'16	superior conj	4036 Jul 11 22:03	22° \approx 06'22	1°02'41
max. Earth dist.	4035 Jul 29 15:05	9° \approx 47'50	1.32528 AU	minimum elong	4036 Jul 11 19:49	21° \approx 54'02	1°02'17
evening rise	4035 Aug 04 13:54	22° \approx 28'21		max. Earth dist.	4036 Jul 12 01:50	22° \approx 27'16	1.32088 AU
	4035 Aug 08 07:55	0° \approx			4036 Jul 15 12:18	0° \approx	
desc. node	4035 Aug 25 15:39	28° \approx 56'48		evening rise	4036 Jul 18 20:09	7° \approx 07'41	
	4035 Aug 26 10:02	0° \approx			4036 Jul 30 20:13	0° \approx	
evening max el	4035 Sep 05 20:16	12° \approx 09'07	27°22'00	desc. node	4036 Aug 11 12:39	17° \approx 11'50	
retrograde	4035 Sep 19 15:23	19° \approx 24'15		evening max el	4036 Aug 18 00:00	24° \approx 18'59	26°47'26
evening set	4035 Sep 26 19:44	16° \approx 57'05			4036 Aug 25 20:26	0° \approx	
min. Earth dist.	4035 Sep 30 10:26	14° \approx 03'04	0.62369 AU	retrograde	4036 Aug 31 22:14	1° \approx 29'37	
inferior conj	4035 Oct 03 08:22	11° \approx 19'17	-3°-43'-47		4036 Sep 06 19:35	30° \approx 3	
minimum elong	4035 Oct 03 14:12	11° \approx 05'35	3°42'05	evening set	4036 Sep 07 19:49	29° \approx 27'16	
morning rise	4035 Oct 10 11:33	6° \approx 13'10		min. Earth dist.	4036 Sep 11 14:04	26° \approx 50'27	0.60359 AU
direct	4035 Oct 12 19:21	5° \approx 49'03		inferior conj	4036 Sep 14 19:33	24° \approx 11'29	-4°-34'-27
asc. node	4035 Oct 15 14:43	6° \approx 25'16		minimum elong	4036 Sep 15 01:07	24° \approx 00'01	4°33'23
morning max el	4035 Oct 19 14:37	9° \approx 17'03	17°51'14	morning rise	4036 Sep 22 09:40	19° \approx 27'02	
	4035 Nov 02 05:43	0° \approx		direct	4036 Sep 24 17:20	19° \approx 06'32	
morning set	4035 Nov 04 13:05	4° \approx 07'21		asc. node	4036 Oct 01 11:45	22° \approx 09'39	
				morning max el	4036 Oct 02 03:06	22° \approx 45'24	18°07'28
superior conj	4035 Nov 15 17:31	23° \approx 44'31	0°40'26		4036 Oct 07 19:52	0° \approx	
minimum elong	4035 Nov 15 21:01	23° \approx 59'25	0°39'57	morning set	4036 Oct 17 21:13	17° \approx 43'13	
	4035 Nov 19 10:58	0° \approx			4036 Oct 24 11:31	0° \approx	
desc. node	4035 Nov 21 14:58	3° \approx 34'04					
max. Earth dist.	4035 Nov 22 19:34	5° \approx 30'34	1.43317 AU	superior conj	4036 Oct 27 14:31	5° \approx 40'06	1°11'34
evening rise	4035 Nov 30 11:27	17° \approx 40'53		minimum elong	4036 Oct 27 18:37	5° \approx 58'24	1°11'05
	4035 Dec 08 13:06	0° \approx		max. Earth dist.	4036 Nov 04 06:01	18° \approx 57'06	1.41546 AU
greatest brilliancy	4035 Dec 26 12:15	25° \approx 16'11	-0.4m	desc. node	4036 Nov 07 11:58	24° \approx 20'40	
	4035 Dec 30 13:41	0° \approx		evening rise	4036 Nov 09 13:04	27° \approx 40'15	
evening max el	4035 Dec 31 09:44	0° \approx 52'22	21°32'06		4036 Nov 10 23:55	0° \approx	

	4036 Dec 01 05:44	0°☿		desc. node	4037 Oct 25 08:59	15°♍02'45	
greatest brilliancy	4036 Dec 07 22:44	8°☿41'09	-0.3m		4037 Nov 03 23:04	0°♊	
evening max el	4036 Dec 13 02:35	14°☿28'15	22°49'59	evening max el	4037 Nov 25 16:09	28°♊07'08	24°09'44
retrograde	4036 Dec 23 03:25	20°☿25'32			4037 Nov 27 16:05	0°☿	
evening set	4036 Dec 27 20:33	18°☿30'59		retrograde	4037 Dec 06 19:17	4°☿39'08	
asc. node	4036 Dec 28 10:59	17°☿59'22		evening set	4037 Dec 12 01:44	2°☿28'20	
inferior conj	4037 Jan 02 06:31	12°☿05'58	1°34'27		4037 Dec 14 11:49	30°♋♊	
minimum elong	4037 Jan 02 04:33	12°☿12'45	1°33'43	asc. node	4037 Dec 15 08:02	28°♊58'11	
min. Earth dist.	4037 Jan 02 00:05	12°☿28'12	0.68013 AU	min. Earth dist.	4037 Dec 16 20:20	26°♊59'11	0.67793 AU
morning rise	4037 Jan 07 12:31	5°☿54'57		inferior conj	4037 Dec 17 13:37	26°♊00'54	0°45'14
direct	4037 Jan 11 22:39	4°☿08'14		minimum elong	4037 Dec 17 12:33	26°♊04'29	0°44'49
morning max el	4037 Jan 20 21:03	9°☿21'15	21°41'31	morning rise	4037 Dec 22 23:41	19°♊55'18	
greatest brilliancy	4037 Jan 25 16:49	14°☿47'57	-0.4m	direct	4037 Dec 26 20:04	18°♊31'01	
desc. node	4037 Feb 03 11:14	26°☿32'07		morning max el	4038 Jan 03 17:27	23°♊01'47	20°24'52
	4037 Feb 05 21:18	0°♋			4038 Jan 09 15:57	0°☿	
morning set	4037 Feb 21 23:12	24°♋27'42		greatest brilliancy	4038 Jan 10 00:11	0°☿26'56	-0.5m
	4037 Feb 25 09:44	0°♋		desc. node	4038 Jan 21 08:16	16°☿35'11	
max. Earth dist.	4037 Feb 28 08:32	4°♋50'47	1.41695 AU		4038 Jan 30 04:39	0°♋	
				morning set	4038 Jan 31 22:55	2°♋43'09	
superior conj	4037 Mar 07 23:25	17°♋49'17	-2°-4'-28	max. Earth dist.	4038 Feb 10 15:41	18°♋00'52	1.43480 AU
minimum elong	4037 Mar 08 02:11	18°♋01'23	2°04'23				
	4037 Mar 14 19:06	0°♌		superior conj	4038 Feb 16 20:53	28°♋10'14	-2°-6'-30
evening rise	4037 Mar 18 20:43	7°♌26'49		minimum elong	4038 Feb 16 18:44	28°♋01'21	2°06'28
asc. node	4037 Mar 26 10:17	21°♌02'23			4038 Feb 17 23:16	0°♋	
	4037 Apr 01 06:34	0°♌		evening rise	4038 Mar 01 09:04	19°♋33'43	
evening max el	4037 Apr 04 04:40	3°♌21'31	18°11'06		4038 Mar 07 08:56	0°♌	
retrograde	4037 Apr 11 01:36	6°♌49'27		asc. node	4038 Mar 13 07:19	9°♌38'53	
evening set	4037 Apr 13 13:41	6°♌22'29		evening max el	4038 Mar 18 16:54	16°♌30'58	18°07'53
inferior conj	4037 Apr 20 11:46	1°♌32'57	2°56'17	retrograde	4038 Mar 25 04:19	19°♌53'43	
minimum elong	4037 Apr 20 15:00	1°♌25'37	2°55'37	evening set	4038 Mar 27 22:07	19°♌16'25	
	4037 Apr 22 04:33	30°♌♌		inferior conj	4038 Apr 03 06:34	14°♌06'18	3°27'33
min. Earth dist.	4037 Apr 23 20:09	28°♌32'18	0.60069 AU	minimum elong	4038 Apr 03 08:13	14°♌02'03	3°27'24
morning rise	4037 Apr 27 12:43	25°♌47'05		min. Earth dist.	4038 Apr 06 04:21	11°♌06'34	0.62219 AU
desc. node	4037 May 02 10:27	23°♌53'20		morning rise	4038 Apr 09 15:45	8°♌04'35	
direct	4037 May 04 01:39	23°♌45'51		direct	4038 Apr 16 12:15	5°♌34'34	
	4037 May 16 15:59	0°♌		desc. node	4038 Apr 19 07:29	5°♌57'28	
morning max el	4037 May 18 09:23	1°♌37'47	27°35'37	morning max el	4038 Apr 30 14:39	13°♌33'23	27°51'54
	4037 Jun 07 22:19	0°♍			4038 May 13 19:07	0°♌	
morning set	4037 Jun 19 04:06	21°♍24'22			4038 May 31 09:11	0°♍	
asc. node	4037 Jun 22 09:32	28°♍14'12		morning set	4038 Jun 03 06:04	5°♍43'04	
	4037 Jun 23 05:08	0°♍		max. Earth dist.	4038 Jun 08 21:55	17°♍35'37	1.32428 AU
max. Earth dist.	4037 Jun 25 13:27	5°♍07'39	1.32054 AU	asc. node	4038 Jun 09 06:35	18°♍22'23	
superior conj	4037 Jun 26 09:33	6°♍58'09	0°40'56	superior conj	4038 Jun 10 19:09	21°♍40'40	0°15'56
minimum elong	4037 Jun 26 07:51	6°♍48'47	0°40'34	minimum elong	4038 Jun 10 18:24	21°♍36'38	0°15'45
evening rise	4037 Jul 03 06:08	21°♍55'33		behind sun begin	4038 Jun 10 17:41	21°♍32'41	
	4037 Jul 07 03:53	0°♎		behind sun end	4038 Jun 10 19:08	21°♍40'36	
	4037 Jul 25 15:23	0°♎			4038 Jun 14 14:39	0°♍	
desc. node	4037 Jul 29 09:42	4°♎14'03		evening rise	4038 Jun 17 17:52	6°♍45'25	
evening max el	4037 Jul 30 20:17	5°♎39'51	25°41'04		4038 Jun 29 22:40	0°♎	
retrograde	4037 Aug 13 19:30	12°♎46'23		evening max el	4038 Jul 12 10:13	16°♎19'22	24°11'56
evening set	4037 Aug 19 21:42	11°♎19'05		desc. node	4038 Jul 16 06:44	19°♎34'59	
min. Earth dist.	4037 Aug 24 08:19	8°♎42'13	0.58303 AU	retrograde	4038 Jul 26 05:41	23°♎17'07	
inferior conj	4037 Aug 27 12:48	6°♎26'14	-5°-6'-29	evening set	4038 Jul 30 23:32	22°♎27'06	
minimum elong	4037 Aug 27 15:24	6°♎21'35	5°06'19	min. Earth dist.	4038 Aug 05 20:51	19°♎31'26	0.56478 AU
morning rise	4037 Sep 04 12:35	2°♎05'23		inferior conj	4038 Aug 08 09:55	17°♎56'20	-5°-5'-13
direct	4037 Sep 06 23:35	1°♎46'15		minimum elong	4038 Aug 08 06:48	18°♎01'14	5°05'01
morning max el	4037 Sep 15 08:42	5°♎45'42	18°44'17	morning rise	4038 Aug 16 17:34	13°♎56'19	
asc. node	4037 Sep 18 08:47	9°♎05'22		direct	4038 Aug 19 10:31	13°♎37'02	
	4037 Sep 30 17:44	0°♎		morning max el	4038 Aug 29 04:25	18°♎09'09	19°42'39
morning set	4037 Oct 01 16:26	1°♎50'27		asc. node	4038 Sep 05 05:49	26°♎57'42	
					4038 Sep 07 03:11	0°♎	
superior conj	4037 Oct 10 08:20	18°♎36'38	1°31'42	morning set	4038 Sep 15 19:14	16°♎19'22	
minimum elong	4037 Oct 10 11:17	18°♎50'32	1°31'26		4038 Sep 22 13:38	0°♎	
	4037 Oct 16 13:12	0°♏					
max. Earth dist.	4037 Oct 17 12:03	1°♏41'13	1.39495 AU	superior conj	4038 Sep 23 17:32	2°♎18'44	1°42'01
evening rise	4037 Oct 21 13:08	8°♏40'56		minimum elong	4038 Sep 23 18:49	2°♎25'02	1°41'58

max. Earth dist.	4038 Sep 29 16:37	13°♄47'24	1.37426 AU		4039 Aug 11 17:29	0°♄	
evening rise	4038 Oct 03 11:59	20°♄44'30		asc. node	4039 Aug 23 02:52	15°♄33'05	
	4038 Oct 08 20:19	0°♄			4039 Aug 30 14:51	0°♄	
desc. node	4038 Oct 12 06:01	5°♄36'08		morning set	4039 Aug 31 02:58	1°♄02'20	
	4038 Oct 28 23:09	0°♄					
evening max el	4038 Nov 08 04:26	11°♄48'51	25°24'40	superior conj	4039 Sep 07 13:37	16°♄32'44	1°44'07
retrograde	4038 Nov 20 06:51	18°♄47'00		minimum elong	4039 Sep 07 13:20	16°♄31'16	1°44'07
evening set	4038 Nov 26 03:14	16°♄21'36		max. Earth dist.	4039 Sep 12 01:37	25°♄38'22	1.35568 AU
min. Earth dist.	4038 Nov 30 14:02	11°♄27'11	0.67222 AU		4039 Sep 14 07:17	0°♄	
inferior conj	4038 Dec 01 18:12	9°♄56'19	0°-9'-17	evening rise	4039 Sep 16 05:57	3°♄41'44	
minimum elong	4038 Dec 01 18:26	9°♄55'34	0°09'11	desc. node	4039 Sep 29 03:04	25°♄55'32	
transit middle	4038 Dec 01 18:26	9°♄55'34	0°09'11		4039 Oct 01 18:05	0°♄	
transit begin	4038 Dec 01 16:08	10°♄03'00		evening max el	4039 Oct 21 16:58	25°♄30'06	26°27'26
transit end	4038 Dec 01 20:44	9°♄48'08			4039 Oct 27 03:22	0°♄	
asc. node	4038 Dec 02 05:04	9°♄21'20		retrograde	4039 Nov 03 13:27	2°♄43'05	
morning rise	4038 Dec 07 10:25	3°♄58'20		evening set	4039 Nov 09 23:10	0°♄06'59	
direct	4038 Dec 10 18:40	2°♄53'53			4039 Nov 10 02:32	30°♄	
morning max el	4038 Dec 17 21:47	6°♄53'17	19°21'50	min. Earth dist.	4039 Nov 14 02:52	25°♄48'22	0.66301 AU
greatest brilliancy	4038 Dec 27 01:04	18°♄31'49	-0.7m	inferior conj	4039 Nov 15 18:22	23°♄48'53	-1°-7'-58
	4039 Jan 03 17:04	0°♄		minimum elong	4039 Nov 15 20:13	23°♄43'16	1°07'12
desc. node	4039 Jan 08 05:18	6°♄55'56		asc. node	4039 Nov 19 02:06	20°♄05'19	
morning set	4039 Jan 10 21:54	11°♄05'42		morning rise	4039 Nov 21 18:36	18°♄01'11	
	4039 Jan 23 00:43	0°♄		direct	4039 Nov 24 16:51	17°♄12'49	
max. Earth dist.	4039 Jan 24 05:18	1°♄52'42	1.44710 AU	morning max el	4039 Dec 01 08:46	20°♄51'44	18°34'32
					4039 Dec 08 13:01	0°♄	
superior conj	4039 Jan 27 16:56	7°♄24'24	-1°-50'-8	morning set	4039 Dec 21 19:08	20°♄39'57	
minimum elong	4039 Jan 27 09:02	6°♄52'57	1°49'33	desc. node	4039 Dec 26 02:20	27°♄29'24	
	4039 Feb 10 13:46	0°♄			4039 Dec 27 16:24	0°♄	
evening rise	4039 Feb 11 00:42	0°♄45'24					
asc. node	4039 Feb 28 04:22	27°♄35'22		superior conj	4040 Jan 06 20:44	16°♄00'51	-1°-14'-53
evening max el	4039 Mar 02 05:25	29°♄52'27	18°23'28	minimum elong	4040 Jan 06 12:03	15°♄26'46	1°13'54
	4039 Mar 02 08:26	0°♄		max. Earth dist.	4040 Jan 06 23:16	16°♄10'45	1.45249 AU
retrograde	4039 Mar 08 16:49	3°♄23'12			4040 Jan 15 18:19	0°♄	
evening set	4039 Mar 11 16:25	2°♄34'28		evening rise	4040 Jan 22 17:08	11°♄00'41	
	4039 Mar 14 23:08	30°♄			4040 Feb 03 17:33	0°♄	
inferior conj	4039 Mar 17 15:00	27°♄05'24	3°36'39	evening max el	4040 Feb 13 15:49	13°♄21'25	18°56'52
minimum elong	4039 Mar 17 14:55	27°♄05'38	3°36'39	asc. node	4040 Feb 15 01:25	14°♄40'46	
min. Earth dist.	4039 Mar 19 22:02	24°♄27'01	0.64154 AU	retrograde	4040 Feb 20 11:20	17°♄11'27	
morning rise	4039 Mar 23 11:44	20°♄55'07		evening set	4040 Feb 23 17:26	16°♄10'15	
direct	4039 Mar 30 07:14	18°♄08'30		inferior conj	4040 Feb 29 09:19	10°♄24'02	3°29'05
desc. node	4039 Apr 06 04:32	20°♄27'06		minimum elong	4040 Feb 29 07:55	10°♄28'26	3°28'56
morning max el	4039 Apr 12 23:36	26°♄05'07	27°31'20	min. Earth dist.	4040 Mar 02 00:48	8°♄20'25	0.65734 AU
	4039 Apr 16 14:36	0°♄		morning rise	4040 Mar 05 21:20	4°♄09'42	
	4039 May 07 08:26	0°♄		direct	4040 Mar 12 09:12	1°♄20'37	
morning set	4039 May 18 00:14	19°♄34'50		desc. node	4040 Mar 23 01:33	6°♄48'39	
max. Earth dist.	4039 May 22 22:59	29°♄37'02	1.33238 AU	morning max el	4040 Mar 25 09:29	9°♄02'14	26°39'35
	4039 May 23 03:24	0°♄			4040 Apr 10 19:52	0°♄	
					4040 Apr 28 19:06	0°♄	
superior conj	4039 May 26 00:53	6°♄06'43	0°-11'-37	morning set	4040 Apr 30 07:19	2°♄50'05	
minimum elong	4039 May 26 01:28	6°♄09'51	0°11'31	max. Earth dist.	4040 May 04 13:23	11°♄05'46	1.34520 AU
behind sun begin	4039 May 25 21:42	5°♄49'42					
behind sun end	4039 May 26 05:15	6°♄30'01		superior conj	4040 May 09 00:37	20°♄10'16	0°-40'-36
asc. node	4039 May 27 03:37	8°♄29'37		minimum elong	4040 May 09 02:46	20°♄21'26	0°40'11
evening rise	4039 Jun 02 05:21	21°♄29'45		asc. node	4040 May 13 00:41	28°♄32'10	
	4039 Jun 06 08:42	0°♄			4040 May 13 17:24	0°♄	
evening max el	4039 Jun 24 00:01	26°♄43'14	22°34'57	evening rise	4040 May 16 14:47	6°♄02'59	
	4039 Jun 27 22:00	0°♄			4040 May 29 18:57	0°♄	
desc. node	4039 Jul 03 03:46	2°♄38'55		evening max el	4040 Jun 04 21:39	7°♄24'18	21°04'41
retrograde	4039 Jul 07 03:33	3°♄15'32		retrograde	4040 Jun 16 16:31	13°♄11'00	
evening set	4039 Jul 10 09:12	2°♄52'32		evening set	4040 Jun 18 22:06	12°♄59'21	
	4039 Jul 17 05:54	30°♄		desc. node	4040 Jun 19 00:47	12°♄58'11	
min. Earth dist.	4039 Jul 18 07:39	29°♄23'58	0.55224 AU	inferior conj	4040 Jun 28 06:12	9°♄01'48	-2°-39'-52
inferior conj	4039 Jul 19 12:45	28°♄42'31	-4°-16'-21	minimum elong	4040 Jun 27 22:59	9°♄11'58	2°37'27
minimum elong	4039 Jul 19 04:41	28°♄54'01	4°14'35	min. Earth dist.	4040 Jun 28 18:56	8°♄43'51	0.54832 AU
morning rise	4039 Jul 28 02:36	24°♄52'10		morning rise	4040 Jul 06 23:38	5°♄02'59	
direct	4039 Jul 31 03:41	24°♄30'55		direct	4040 Jul 10 13:07	4°♄35'38	
morning max el	4039 Aug 11 12:20	29°♄47'58	21°02'06	morning max el	4040 Jul 23 09:14	10°♄42'55	22°38'30

	4040 Aug 06 10:57	0°♌			4041 Jul 12 15:15	0°♏	
asc. node	4040 Aug 08 23:55	4°♌40'59		asc. node	4041 Jul 26 20:58	24°♏12'58	
morning set	4040 Aug 14 13:35	15°♌53'36			4041 Jul 29 16:16	0°♌	
	4040 Aug 21 04:19	0°♍		morning set	4041 Jul 30 01:22	0°♌48'01	
superior conj	4040 Aug 21 17:09	1°♍08'20	1°39'22	superior conj	4041 Aug 06 01:29	15°♌57'22	1°28'53
minimum elong	4040 Aug 21 15:42	1°♍00'37	1°39'17	minimum elong	4041 Aug 05 23:21	15°♌45'45	1°28'39
max. Earth dist.	4040 Aug 24 19:21	7°♍38'27	1.34065 AU	max. Earth dist.	4041 Aug 07 21:51	19°♌57'21	1.32966 AU
evening rise	4040 Aug 29 14:39	17°♍20'54			4041 Aug 12 16:20	0°♍	
	4040 Sep 05 09:03	0°♎		evening rise	4041 Aug 13 10:09	1°♍30'54	
desc. node	4040 Sep 15 00:05	15°♎54'13			4041 Aug 29 07:03	0°♎	
	4040 Sep 25 02:46	0°♏		desc. node	4041 Sep 01 21:05	5°♎23'25	
evening max el	4040 Oct 03 05:35	9°♏01'59	27°10'25	evening max el	4041 Sep 15 16:39	22°♎12'14	27°26'45
retrograde	4040 Oct 16 14:09	16°♏19'36		retrograde	4041 Sep 29 08:32	29°♎28'34	
evening set	4040 Oct 23 11:11	13°♏39'12		evening set	4041 Oct 06 12:26	26°♎53'06	
min. Earth dist.	4040 Oct 27 08:25	9°♏56'30	0.65037 AU	min. Earth dist.	4041 Oct 10 04:30	23°♎43'36	0.63435 AU
inferior conj	4040 Oct 29 11:52	7°♏33'27	-2°-9'-11	inferior conj	4041 Oct 12 20:08	21°♎04'17	-3°-10'-15
minimum elong	4040 Oct 29 15:31	7°♏23'17	2°07'47	minimum elong	4041 Oct 13 01:23	20°♎51'07	3°08'30
morning rise	4040 Nov 04 21:45	1°♏59'07		morning rise	4041 Oct 19 16:51	15°♎46'55	
asc. node	4040 Nov 04 23:10	1°♏57'32		direct	4041 Oct 22 02:25	15°♎19'14	
direct	4040 Nov 07 12:21	1°♏22'56		asc. node	4041 Oct 22 20:11	15°♎21'56	
morning max el	4040 Nov 13 23:58	4°♏50'44	18°03'52	morning max el	4041 Oct 28 16:38	18°♎44'30	17°50'38
	4040 Nov 30 21:13	0°♐			4041 Nov 05 21:55	0°♏	
morning set	4040 Dec 01 21:54	1°♐42'21		morning set	4041 Nov 14 02:21	13°♏59'26	
desc. node	4040 Dec 11 23:21	18°♐10'49			4041 Nov 23 10:26	0°♐	
superior conj	4040 Dec 16 03:37	24°♐52'09	0°-28'-24	superior conj	4041 Nov 26 07:32	4°♐47'34	0°17'33
minimum elong	4040 Dec 16 00:05	24°♐38'04	0°27'55	minimum elong	4041 Nov 26 09:22	4°♐55'06	0°17'18
	4040 Dec 19 09:22	0°♑		desc. node	4041 Nov 28 20:22	8°♐57'04	
max. Earth dist.	4040 Dec 19 18:43	0°♑36'49	1.45047 AU	max. Earth dist.	4041 Dec 02 12:37	14°♐53'14	1.44134 AU
evening rise	4041 Jan 01 12:49	20°♑29'01		evening rise	4041 Dec 11 22:31	29°♐39'04	
	4041 Jan 07 17:05	0°♒			4041 Dec 12 03:57	0°♑	
greatest brilliancy	4041 Jan 19 13:04	17°♒39'13	-0.6m		4042 Jan 01 11:39	0°♒	
evening max el	4041 Jan 26 22:02	26°♒53'01	19°46'38	greatest brilliancy	4042 Jan 04 10:39	3°♒56'47	-0.5m
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asc. node	4041 Jan 31 22:27	0°♓40'21		retrograde	4042 Jan 18 06:53	15°♒21'09	
retrograde	4041 Feb 03 08:47	1°♓12'08		asc. node	4042 Jan 18 19:28	15°♒19'39	
evening set	4041 Feb 06 22:38	29°♒57'16		evening set	4042 Jan 22 06:00	13°♒51'32	
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inferior conj	4041 Feb 12 10:24	23°♒56'06	3°08'49	minimum elong	4042 Jan 27 13:15	7°♒46'41	2°37'49
minimum elong	4041 Feb 12 08:11	24°♒03'25	3°08'23	min. Earth dist.	4042 Jan 28 03:25	6°♒57'59	0.67634 AU
min. Earth dist.	4041 Feb 13 11:14	22°♒33'39	0.66895 AU	morning rise	4042 Feb 01 20:06	1°♒22'49	
morning rise	4041 Feb 17 17:05	17°♒40'23			4042 Feb 03 17:13	30°♒♑	
direct	4041 Feb 23 16:50	15°♒00'54		direct	4042 Feb 07 05:26	29°♑01'09	
morning max el	4041 Mar 07 18:32	22°♒13'00	25°25'28		4042 Feb 11 01:16	0°♒	
desc. node	4041 Mar 09 22:35	24°♒30'35		morning max el	4042 Feb 18 03:08	5°♒31'13	23°59'02
	4041 Mar 14 14:15	0°♓		desc. node	4042 Feb 24 19:36	13°♒10'01	
	4041 Apr 04 02:42	0°♔			4042 Mar 09 00:54	0°♓	
morning set	4041 Apr 12 22:48	15°♔15'48		morning set	4042 Mar 25 17:00	26°♓36'56	
max. Earth dist.	4041 Apr 16 16:36	22°♔10'27	1.36252 AU		4042 Mar 27 15:48	0°♔	
	4041 Apr 20 18:18	0°♕		max. Earth dist.	4042 Mar 29 12:51	3°♔18'58	1.38318 AU
superior conj	4041 Apr 22 15:34	3°♕43'30	-1°-9'-31	superior conj	4042 Apr 05 18:12	16°♔37'19	-1°-36'-2
minimum elong	4041 Apr 22 19:16	4°♕01'57	1°08'54	minimum elong	4042 Apr 05 22:54	16°♔59'40	1°35'29
asc. node	4041 Apr 29 21:44	18°♕25'43			4042 Apr 12 15:35	0°♕	
evening rise	4041 Apr 30 19:58	20°♕18'35		evening rise	4042 Apr 14 18:21	4°♕09'30	
	4041 May 05 17:51	0°♖		asc. node	4042 Apr 16 18:46	8°♕05'38	
evening max el	4041 May 18 07:10	18°♖42'31	19°50'25		4042 Apr 30 11:39	0°♖	
retrograde	4041 May 28 08:32	23°♖36'22		evening max el	4042 May 01 04:09	0°♖41'42	18°55'54
evening set	4041 May 30 07:23	23°♖26'06		retrograde	4042 May 09 15:33	4°♖50'14	
desc. node	4041 Jun 05 21:47	20°♖46'50		evening set	4042 May 11 17:41	4°♖36'08	
inferior conj	4041 Jun 08 04:40	19°♖24'47	0°-40'-40	inferior conj	4042 May 19 20:21	0°♖19'12	1°07'23
minimum elong	4041 Jun 08 02:48	19°♖27'39	0°39'59	minimum elong	4042 May 19 22:51	0°♖14'45	1°06'31
min. Earth dist.	4041 Jun 10 07:47	18°♖06'37	0.55405 AU		4042 May 20 07:08	30°♒♕	
morning rise	4041 Jun 16 19:15	14°♖59'01		min. Earth dist.	4042 May 22 23:35	28°♕06'34	0.56827 AU
direct	4041 Jun 21 03:29	14°♖17'31		desc. node	4042 May 23 18:49	27°♕34'33	
morning max el	4041 Jul 04 23:48	21°♖09'38	24°22'02	morning rise	4042 May 27 23:36	25°♕17'28	

direct	4042 Jun 02 06:53	24°♄10'20		morning rise	4043 May 08 20:24	6°♄22'42	
	4042 Jun 14 20:52	0°♄		desc. node	4043 May 10 15:50	5°♄32'11	
morning max el	4042 Jun 16 14:31	1°♄35'34	25°57'30	direct	4043 May 15 00:40	4°♄41'08	
	4042 Jul 06 15:09	0°♄		morning max el	4043 May 29 10:06	12°♄27'00	27°09'19
asc. node	4042 Jul 13 18:00	14°♄01'35			4043 Jun 12 05:20	0°♄	
morning set	4042 Jul 14 12:38	15°♄39'36		morning set	4043 Jun 28 21:46	0°♄23'07	
	4042 Jul 21 03:00	0°♄			4043 Jun 28 17:21	0°♄	
				asc. node	4043 Jun 30 15:03	4°♄01'33	
superior conj	4042 Jul 21 12:28	0°♄52'07	1°13'31	max. Earth dist.	4043 Jul 05 18:00	15°♄12'00	1.32018 AU
minimum elong	4042 Jul 21 10:08	0°♄39'15	1°13'08				
max. Earth dist.	4042 Jul 22 06:33	2°♄31'28	1.32285 AU	superior conj	4043 Jul 06 00:18	15°♄46'45	0°53'54
evening rise	4042 Jul 28 13:12	16°♄01'24		minimum elong	4043 Jul 05 22:14	15°♄35'22	0°53'30
	4042 Aug 04 15:10	0°♄		evening rise	4043 Jul 12 21:18	0°♄44'49	
desc. node	4042 Aug 19 18:06	24°♄10'06			4043 Jul 12 12:50	0°♄	
	4042 Aug 24 10:39	0°♄			4043 Jul 28 19:05	0°♄	
evening max el	4042 Aug 28 23:34	4°♄46'12	27°11'23	desc. node	4043 Aug 06 15:07	11°♄56'53	
retrograde	4042 Sep 11 19:56	11°♄59'32		evening max el	4043 Aug 11 00:00	16°♄34'11	26°22'42
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minimum elong	4042 Sep 25 21:55	3°♄59'15	4°05'17	inferior conj	4043 Sep 07 19:50	16°♄49'09	-4°-51'-7
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morning rise	4042 Oct 02 23:55	29°♄15'35		morning rise	4043 Sep 15 14:20	12°♄14'59	
direct	4042 Oct 05 07:17	28°♄53'18		direct	4043 Sep 17 22:51	11°♄55'26	
	4042 Oct 09 05:17	0°♄		morning max el	4043 Sep 25 17:37	15°♄41'53	18°20'35
asc. node	4042 Oct 09 17:12	0°♄17'56		asc. node	4043 Sep 26 14:15	16°♄33'58	
morning max el	4042 Oct 12 07:37	2°♄24'29	17°55'48		4043 Oct 05 17:20	0°♄	
morning set	4042 Oct 28 02:00	27°♄10'44		morning set	4043 Oct 11 15:18	11°♄00'32	
	4042 Oct 29 15:05	0°♄					
				superior conj	4043 Oct 20 20:45	28°♄24'29	1°21'23
superior conj	4042 Nov 07 14:15	16°♄01'28	0°55'00	minimum elong	4043 Oct 21 00:29	28°♄41'35	1°20'59
minimum elong	4042 Nov 07 18:18	16°♄19'05	0°54'27		4043 Oct 21 17:40	0°♄	
max. Earth dist.	4042 Nov 15 01:56	28°♄40'56	1.42615 AU	max. Earth dist.	4043 Oct 28 09:39	11°♄46'54	1.40688 AU
desc. node	4042 Nov 15 17:23	29°♄44'23		evening rise	4043 Nov 02 00:48	19°♄33'30	
	4042 Nov 15 21:12	0°♄		desc. node	4043 Nov 02 14:25	20°♄29'20	
evening rise	4042 Nov 21 14:10	9°♄09'46			4043 Nov 08 13:23	0°♄	
	4042 Dec 05 08:16	0°♄			4043 Nov 29 16:44	0°♄	
greatest brilliancy	4042 Dec 19 00:42	18°♄38'53	-0.3m	evening max el	4043 Dec 06 09:19	7°♄35'52	23°24'04
evening max el	4042 Dec 23 18:12	23°♄59'16	22°04'29	retrograde	4043 Dec 16 21:51	13°♄49'24	
retrograde	4043 Jan 02 03:46	29°♄34'52		evening set	4043 Dec 21 20:23	11°♄48'00	
asc. node	4043 Jan 05 16:29	28°♄28'11		asc. node	4043 Dec 23 13:30	10°♄08'06	
evening set	4043 Jan 06 13:47	27°♄49'35		inferior conj	4043 Dec 27 07:00	5°♄21'14	1°14'20
inferior conj	4043 Jan 11 23:14	21°♄27'29	1°59'56	minimum elong	4043 Dec 27 05:23	5°♄26'50	1°13'41
minimum elong	4043 Jan 11 20:57	21°♄35'24	1°59'09	min. Earth dist.	4043 Dec 26 19:58	5°♄59'08	0.67958 AU
min. Earth dist.	4043 Jan 11 23:08	21°♄27'50	0.67978 AU		4043 Dec 31 16:17	30°♄	
morning rise	4043 Jan 17 03:56	15°♄14'13		morning rise	4044 Jan 01 14:27	29°♄12'00	
direct	4043 Jan 21 22:19	13°♄14'28		direct	4044 Jan 05 18:31	27°♄35'02	
morning max el	4043 Jan 31 13:43	18°♄55'53	22°30'14		4044 Jan 11 10:58	0°♄	
greatest brilliancy	4043 Feb 05 03:17	24°♄01'25	-0.3m	morning max el	4044 Jan 14 05:41	2°♄29'24	21°07'21
	4043 Feb 09 19:56	0°♄		greatest brilliancy	4044 Jan 19 13:43	8°♄36'42	-0.4m
desc. node	4043 Feb 11 16:38	2°♄30'39		desc. node	4044 Jan 29 13:39	22°♄20'40	
	4043 Mar 02 04:58	0°♄			4044 Feb 03 18:17	0°♄	
morning set	4043 Mar 06 08:07	6°♄39'08		morning set	4044 Feb 13 19:04	15°♄22'42	
max. Earth dist.	4043 Mar 11 09:02	15°♄02'32	1.40495 AU	max. Earth dist.	4044 Feb 21 11:07	27°♄39'24	1.42509 AU
					4044 Feb 22 21:22	0°♄	
superior conj	4043 Mar 19 04:05	28°♄40'51	-1°-56'-51	superior conj	4044 Feb 28 16:07	9°♄41'53	-2°-7'-19
minimum elong	4043 Mar 19 08:17	28°♄59'50	1°56'35	minimum elong	4044 Feb 28 17:09	9°♄46'18	2°07'19
	4043 Mar 19 21:36	0°♄		evening rise	4044 Mar 11 05:05	0°♄02'21	
evening rise	4043 Mar 29 06:43	17°♄27'25			4044 Mar 11 04:34	0°♄	
asc. node	4043 Apr 03 15:48	27°♄26'38			4044 Mar 20 12:51	16°♄21'28	
	4043 Apr 05 02:20	0°♄		asc. node	4044 Mar 27 20:40	26°♄15'15	18°07'25
evening max el	4043 Apr 14 09:50	13°♄16'02	18°21'45	evening max el	4044 Apr 03 12:17	29°♄39'01	
retrograde	4043 Apr 21 17:32	16°♄54'06		retrograde	4044 Apr 06 02:50	29°♄07'51	
evening set	4043 Apr 24 01:53	16°♄32'39		evening set	4044 Apr 12 18:40	24°♄09'43	3°12'37
inferior conj	4043 May 01 09:36	11°♄55'35	2°25'40	inferior conj	4044 Apr 12 21:18	24°♄03'24	3°12'12
minimum elong	4043 May 01 13:16	11°♄47'57	2°24'42	minimum elong	4044 Apr 15 23:33	21°♄06'18	0.61001 AU
min. Earth dist.	4043 May 04 20:12	9°♄05'15	0.58810 AU	min. Earth dist.			

































































































































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direct	4044 Apr 26 06:03	16° Υ 01'01		morning rise	4045 Apr 01 23:15	0° Υ 48'56	
desc. node	4044 Apr 26 12:52	16° Υ 01'15			4045 Apr 03 02:55	30° \Re \Re	
morning max el	4044 May 10 11:51	23° Υ 57'12	27°47'04	direct	4045 Apr 08 20:27	28° \Re 10'12	
	4044 May 15 22:38	0° \Re		desc. node	4045 Apr 13 09:55	29° \Re 11'04	
	4044 Jun 04 11:46	0° Π			4045 Apr 15 01:42	0° Υ	
morning set	4044 Jun 12 02:56	14° Π 52'11		morning max el	4045 Apr 22 18:48	6° Υ 08'25	27°47'16
asc. node	4044 Jun 16 12:06	24° Π 07'39			4045 May 10 21:30	0° \Re	
max. Earth dist.	4044 Jun 18 04:31	27° Π 47'06	1.32159 AU	morning set	4045 May 27 01:54	28° \Re 59'51	
					4045 May 27 13:51	0° Π	
superior conj	4044 Jun 19 11:12	0° \Re 34'59	0°30'40	max. Earth dist.	4045 Jun 01 10:17	10° Π 04'32	1.32723 AU
minimum elong	4044 Jun 19 09:52	0° \Re 27'37	0°30'23	asc. node	4045 Jun 03 09:10	14° Π 15'39	
	4044 Jun 19 04:50	0° \Re					
evening rise	4044 Jun 26 08:14	15° \Re 33'49		superior conj	4045 Jun 03 19:25	15° Π 10'59	0°04'29
	4044 Jul 03 12:24	0° Ω		minimum elong	4045 Jun 03 19:12	15° Π 09'48	0°04'27
evening max el	4044 Jul 22 17:16	27° Ω 35'33	25°05'15	behind sun begin	4045 Jun 03 14:07	14° Π 42'25	
desc. node	4044 Jul 23 12:09	28° Ω 19'40		behind sun end	4045 Jun 04 00:16	15° Π 37'14	
	4044 Jul 25 11:06	0° \Re		evening rise	4045 Jun 10 20:06	0° \Re 21'55	
retrograde	4044 Aug 05 16:15	4° \Re 39'29			4045 Jun 10 15:58	0° \Re	
evening set	4044 Aug 11 05:42	3° \Re 28'51			4045 Jun 27 09:21	0° Ω	
min. Earth dist.	4044 Aug 16 04:56	0° \Re 45'45	0.57472 AU	evening max el	4045 Jul 04 06:20	8° Ω 04'26	23°30'41
	4044 Aug 17 08:35	30° \Re Ω		desc. node	4045 Jul 10 09:11	12° Ω 46'24	
inferior conj	4044 Aug 19 04:39	28° Ω 45'22	-5°-11'-3	retrograde	4045 Jul 17 20:34	14° Ω 53'03	
minimum elong	4044 Aug 19 05:04	28° Ω 44'42	5°11'04	evening set	4045 Jul 21 22:43	14° Ω 16'27	
morning rise	4044 Aug 27 07:57	24° Ω 33'47		min. Earth dist.	4045 Jul 28 16:10	11° Ω 08'30	0.55855 AU
direct	4044 Aug 29 21:04	24° Ω 14'48		inferior conj	4045 Jul 30 17:22	9° Ω 55'26	-4°-50'-52
morning max el	4044 Sep 07 19:19	28° Ω 27'12	19°06'27	minimum elong	4045 Jul 30 11:41	10° Ω 03'54	4°50'06
	4044 Sep 09 07:42	0° \Re		morning rise	4045 Aug 08 03:47	6° Ω 01'15	
asc. node	4044 Sep 12 11:18	3° \Re 55'14		direct	4045 Aug 11 00:11	5° Ω 41'14	
morning set	4044 Sep 24 14:07	25° \Re 17'47		morning max el	4045 Aug 21 09:56	10° Ω 31'07	20°14'04
	4044 Sep 26 22:57	0° \Re		asc. node	4045 Aug 30 08:22	22° Ω 07'03	
					4045 Sep 03 19:11	0° \Re	
superior conj	4044 Oct 02 21:42	11° \Re 41'42	1°37'10	morning set	4045 Sep 08 19:17	9° \Re 53'19	
minimum elong	4044 Oct 02 23:57	11° \Re 52'34	1°37'01				
max. Earth dist.	4044 Oct 09 14:20	24° \Re 12'25	1.38600 AU	superior conj	4045 Sep 16 11:58	25° \Re 38'12	1°43'49
	4044 Oct 12 20:39	0° \Re		minimum elong	4045 Sep 16 12:32	25° \Re 41'06	1°43'49
evening rise	4044 Oct 13 10:53	1° \Re 01'52			4045 Sep 18 16:23	0° \Re	
desc. node	4044 Oct 19 11:27	11° \Re 08'21		max. Earth dist.	4045 Sep 21 20:31	6° \Re 10'31	1.36597 AU
	4044 Oct 31 20:15	0° \Re		evening rise	4045 Sep 25 18:22	13° \Re 29'08	
evening max el	4044 Nov 17 22:19	21° \Re 17'05	24°42'44		4045 Oct 05 08:34	0° \Re	
retrograde	4044 Nov 29 11:58	28° \Re 01'14		desc. node	4045 Oct 06 08:29	1° \Re 36'19	
evening set	4044 Dec 05 00:14	25° \Re 44'14			4045 Oct 26 18:14	0° \Re	
asc. node	4044 Dec 09 10:32	20° \Re 45'54		evening max el	4045 Oct 31 10:45	4° \Re 59'32	25°53'23
min. Earth dist.	4044 Dec 09 15:30	20° \Re 29'31	0.67590 AU	retrograde	4045 Nov 12 21:16	12° \Re 04'34	
inferior conj	4044 Dec 10 13:17	19° \Re 17'15	0°22'46	evening set	4045 Nov 18 23:34	9° \Re 34'04	
minimum elong	4044 Dec 10 12:44	19° \Re 19'06	0°22'32	min. Earth dist.	4045 Nov 23 07:21	4° \Re 54'54	0.66875 AU
morning rise	4044 Dec 16 01:42	13° \Re 14'21		inferior conj	4045 Nov 24 16:13	3° \Re 11'32	0°-33'-42
direct	4044 Dec 19 16:46	11° \Re 58'42		minimum elong	4045 Nov 24 17:06	3° \Re 08'44	0°33'20
morning max el	4044 Dec 27 05:24	16° \Re 14'42	19°56'13	asc. node	4045 Nov 26 07:35	1° \Re 10'26	
greatest brilliancy	4045 Jan 03 11:10	25° \Re 02'35	-0.6m		4045 Nov 27 08:20	30° \Re \Re	
	4045 Jan 06 23:51	0° \Re		morning rise	4045 Nov 30 11:37	27° \Re 17'38	
desc. node	4045 Jan 15 10:42	12° \Re 32'18		direct	4045 Dec 03 15:27	26° \Re 20'20	
morning set	4045 Jan 22 15:16	23° \Re 31'55			4045 Dec 10 08:59	0° \Re	
	4045 Jan 26 19:21	0° \Re		morning max el	4045 Dec 10 12:45	0° \Re 09'21	18°59'47
max. Earth dist.	4045 Feb 02 21:23	11° \Re 09'57	1.44089 AU		4045 Dec 31 09:54	0° \Re	
				morning set	4046 Jan 01 21:44	2° \Re 19'50	
superior conj	4045 Feb 08 02:37	19° \Re 34'05	-2°-2'00	desc. node	4046 Jan 02 07:44	2° \Re 58'54	
minimum elong	4045 Feb 07 21:50	19° \Re 14'38	2°01'48	max. Earth dist.	4046 Jan 16 13:45	25° \Re 17'00	1.45035 AU
	4045 Feb 14 10:22	0° \Re					
evening rise	4045 Feb 21 09:08	11° \Re 46'39		superior conj	4046 Jan 18 13:51	28° \Re 26'28	-1°-37'-14
	4045 Mar 04 05:47	0° Υ		minimum elong	4046 Jan 18 04:43	27° \Re 50'27	1°36'24
asc. node	4045 Mar 07 09:53	4° Υ 42'14			4046 Jan 19 13:33	0° \Re	
evening max el	4045 Mar 11 09:28	9° Υ 31'08	18°12'12	evening rise	4046 Feb 02 15:01	22° \Re 34'17	
retrograde	4045 Mar 17 19:35	12° Υ 55'18			4046 Feb 07 04:14	0° \Re	
evening set	4045 Mar 20 15:56	12° Υ 13'07		asc. node	4046 Feb 22 06:54	22° \Re 18'36	
inferior conj	4045 Mar 26 19:46	6° Υ 54'44	3°33'43	evening max el	4046 Feb 22 21:21	22° \Re 56'27	18°35'28
minimum elong	4045 Mar 26 20:39	6° Υ 52'20	3°33'40	retrograde	4046 Mar 01 11:10	26° \Re 34'01	

evening set	4046 Mar 04 13:29	25° K 39'57		inferior conj	4047 Feb 22 06:21	3° K 27'59	3°21'52
inferior conj	4046 Mar 10 08:49	20° K 03'02	3°35'12	minimum elong	4047 Feb 22 04:33	3° K 33'49	3°21'36
minimum elong	4046 Mar 10 08:07	20° K 05'08	3°35'10	min. Earth dist.	4047 Feb 23 15:24	1° K 41'30	0.66273 AU
min. Earth dist.	4046 Mar 12 09:05	17° K 38'37	0.64879 AU		4047 Feb 25 00:10	30° R \approx	
morning rise	4046 Mar 16 01:27	13° K 50'42		morning rise	4047 Feb 27 15:41	27° \approx 12'34	
direct	4046 Mar 22 18:18	11° K 01'45		direct	4047 Mar 05 22:38	24° \approx 26'29	
desc. node	4046 Mar 31 06:57	14° K 32'44			4047 Mar 16 13:27	0° K	
morning max el	4046 Apr 05 04:34	18° K 52'58	27°12'43	desc. node	4047 Mar 18 03:58	1° K 31'41	
	4046 Apr 14 14:34	0° Y		morning max el	4047 Mar 18 14:28	1° K 57'56	26°10'19
	4046 May 03 20:47	0° B			4047 Apr 08 17:37	0° Y	
morning set	4046 May 10 15:52	12° B 37'52		morning set	4047 Apr 23 16:58	25° Y 34'12	
max. Earth dist.	4046 May 15 07:28	21° B 54'10	1.33732 AU		4047 Apr 26 01:22	0° B	
				max. Earth dist.	4047 Apr 27 17:11	3° B 11'51	1.35204 AU
superior conj	4046 May 18 22:56	29° B 28'39	0°-23'-48				
minimum elong	4046 May 19 00:10	29° B 35'10	0°23'33	superior conj	4047 May 02 19:17	13° B 20'16	0°-52'-59
	4046 May 19 04:52	0° II		minimum elong	4047 May 02 22:07	13° B 34'44	0°52'28
asc. node	4046 May 21 06:13	4° II 21'37		asc. node	4047 May 08 03:14	24° B 20'46	
evening rise	4046 May 26 07:01	15° II 03'00		evening rise	4047 May 10 14:56	29° B 29'43	
	4046 Jun 02 20:21	0° S			4047 May 10 20:50	0° II	
evening max el	4046 Jun 15 22:32	18° S 31'52	21°54'55	evening max el	4047 May 29 00:54	29° II 27'08	20°30'45
desc. node	4046 Jun 27 06:12	24° S 43'04			4047 May 29 14:43	0° S	
retrograde	4046 Jun 28 13:46	24° S 47'05		retrograde	4047 Jun 09 02:51	4° S 51'53	
evening set	4046 Jul 01 07:14	24° S 30'25		evening set	4047 Jun 11 03:27	4° S 41'46	
min. Earth dist.	4046 Jul 10 02:39	20° S 43'57	0.54941 AU	desc. node	4047 Jun 14 03:13	3° S 52'58	
inferior conj	4046 Jul 10 14:41	20° S 27'06	-3°-40'-19	inferior conj	4047 Jun 20 08:30	0° S 44'20	-1°-49'-57
minimum elong	4046 Jul 10 06:09	20° S 39'03	3°37'57	minimum elong	4047 Jun 20 03:20	0° S 51'48	1°48'06
morning rise	4046 Jul 19 06:38	16° S 36'09		min. Earth dist.	4047 Jun 21 14:40	0° S 00'38	0.54957 AU
direct	4046 Jul 22 12:21	16° S 13'04			4047 Jun 21 15:07	30° R II	
morning max el	4046 Aug 03 12:54	21° S 50'43	21°41'34	morning rise	4047 Jun 29 01:43	26° II 35'42	
	4046 Aug 10 11:36	0° Q		direct	4047 Jul 02 22:01	26° II 03'48	
asc. node	4046 Aug 17 05:26	10° Q 57'39			4047 Jul 13 06:28	0° S	
morning set	4046 Aug 24 04:30	24° Q 40'50		morning max el	4047 Jul 16 06:35	2° S 31'46	23°22'28
	4046 Aug 26 17:18	0° P			4047 Aug 03 23:06	0° Q	
				asc. node	4047 Aug 04 02:28	0° Q 16'30	
superior conj	4046 Aug 31 11:36	10° P 02'45	1°42'52	morning set	4047 Aug 08 15:48	9° Q 33'51	
minimum elong	4046 Aug 31 10:46	9° P 58'24	1°42'51				
max. Earth dist.	4046 Sep 04 09:05	18° P 03'41	1.34877 AU	superior conj	4047 Aug 15 17:29	24° Q 45'03	1°35'35
evening rise	4046 Sep 08 19:06	26° P 45'23		minimum elong	4047 Aug 15 15:41	24° Q 35'22	1°35'25
	4046 Sep 10 12:14	0° A			4047 Aug 18 04:34	0° P	
desc. node	4046 Sep 23 05:30	21° A 47'47		max. Earth dist.	4047 Aug 18 06:26	0° P 09'53	1.33543 AU
	4046 Sep 28 17:05	0° M		evening rise	4047 Aug 23 08:49	10° P 38'38	
evening max el	4046 Oct 13 23:14	18° M 37'10	26°48'29		4047 Sep 02 20:34	0° A	
retrograde	4046 Oct 27 01:18	25° M 53'09		desc. node	4047 Sep 10 02:31	11° A 35'00	
evening set	4046 Nov 02 16:24	23° M 13'57			4047 Sep 24 10:51	0° M	
min. Earth dist.	4046 Nov 06 17:09	19° M 11'03	0.65809 AU	evening max el	4047 Sep 26 11:12	2° M 00'23	27°20'56
inferior conj	4046 Nov 08 13:47	17° M 00'36	-1°-33'-46	retrograde	4047 Oct 09 23:37	9° M 18'53	
minimum elong	4046 Nov 08 16:24	16° M 52'57	1°32'42	evening set	4047 Oct 17 00:15	6° M 38'59	
asc. node	4046 Nov 13 04:38	12° M 18'05		min. Earth dist.	4047 Oct 20 18:53	3° M 11'06	0.64390 AU
morning rise	4046 Nov 14 17:58	11° M 18'31		inferior conj	4047 Oct 23 03:40	0° M 39'41	-2°-35'-23
direct	4046 Nov 17 12:41	10° M 35'50		minimum elong	4047 Oct 23 08:03	0° M 27'59	2°33'46
morning max el	4046 Nov 24 01:54	14° M 08'40	18°19'27		4047 Oct 23 18:36	30° R A	
	4046 Dec 05 12:45	0° X		morning rise	4047 Oct 29 18:05	25° A 12'22	
morning set	4046 Dec 13 07:23	12° X 31'16		asc. node	4047 Oct 31 01:40	24° A 47'37	
desc. node	4046 Dec 20 04:44	23° X 35'54		direct	4047 Nov 01 06:04	24° A 40'23	
	4046 Dec 24 05:23	0° Z		morning max el	4047 Nov 07 18:07	28° A 06'20	17°56'05
					4047 Nov 09 11:42	0° M	
superior conj	4046 Dec 28 16:10	7° Z 01'06	0°-55'-50	morning set	4047 Nov 24 21:47	24° M 07'16	
minimum elong	4046 Dec 28 09:13	6° Z 33'49	0°54'57		4047 Nov 28 09:26	0° X	
max. Earth dist.	4046 Dec 30 08:46	9° Z 40'32	1.45251 AU	desc. node	4047 Dec 07 01:46	14° X 19'44	
	4047 Jan 12 08:19	0° \approx					
evening rise	4047 Jan 13 21:50	2° \approx 26'59		superior conj	4047 Dec 08 06:29	16° X 15'49	0°-8'-15
greatest brilliancy	4047 Jan 28 00:50	24° \approx 20'08	-0.7m	minimum elong	4047 Dec 08 05:31	16° X 11'53	0°08'06
	4047 Jan 31 23:32	0° K		behind sun begin	4047 Dec 07 20:33	15° X 35'44	
evening max el	4047 Feb 06 06:03	6° K 26'11	19°16'07	behind sun end	4047 Dec 08 14:28	16° X 47'59	
asc. node	4047 Feb 09 03:55	8° K 57'37		max. Earth dist.	4047 Dec 13 03:22	24° X 02'37	1.44731 AU
retrograde	4047 Feb 13 07:22	10° K 27'57			4047 Dec 16 22:12	0° Z	
evening set	4047 Feb 16 16:32	9° K 21'06		evening rise	4047 Dec 24 11:24	11° Z 42'27	

	4048 Jan 05 12:35	0°♊		evening rise	4048 Dec 02 21:34	20°♊56'07	
greatest brilliancy	4048 Jan 13 23:22	12°♊08'04	-0.6m		4048 Dec 08 19:43	0°♊	
evening max el	4048 Jan 20 10:01	19°♊58'12	20°12'17	greatest brilliancy	4048 Dec 28 08:10	27°♊44'40	-0.4m
asc. node	4048 Jan 27 00:56	24°♊24'54			4048 Dec 30 04:25	0°♊	
retrograde	4048 Jan 28 05:24	24°♊32'33		evening max el	4049 Jan 02 08:31	3°♊31'13	21°21'02
evening set	4048 Jan 31 22:53	23°♊11'46		retrograde	4049 Jan 11 03:03	8°♊43'28	
inferior conj	4048 Feb 06 09:32	17°♊05'04	2°57'05	asc. node	4049 Jan 12 21:58	8°♊26'05	
minimum elong	4048 Feb 06 07:09	17°♊13'08	2°56'32	evening set	4049 Jan 15 06:35	7°♊07'26	
min. Earth dist.	4048 Feb 07 04:40	16°♊00'23	0.67251 AU	inferior conj	4049 Jan 20 16:01	0°♊50'12	2°23'03
morning rise	4048 Feb 11 14:51	10°♊49'05		minimum elong	4049 Jan 20 13:34	0°♊58'42	2°22'19
direct	4048 Feb 17 08:39	8°♊16'10		min. Earth dist.	4049 Jan 20 22:39	0°♊27'18	0.67825 AU
morning max el	4048 Feb 28 23:09	15°♊12'34	24°49'38		4049 Jan 21 06:33	30°♊♊	
desc. node	4048 Mar 04 00:58	19°♊40'32		morning rise	4049 Jan 25 20:13	24°♊35'32	
	4048 Mar 12 02:37	0°♊		direct	4049 Jan 30 23:18	22°♊22'36	
	4048 Mar 31 15:12	0°♊		morning max el	4049 Feb 10 07:55	28°♊32'05	23°20'59
morning set	4048 Apr 05 00:13	7°♊35'06			4049 Feb 11 17:37	0°♊	
max. Earth dist.	4048 Apr 08 16:17	14°♊12'33	1.37096 AU	greatest brilliancy	4049 Feb 15 18:06	4°♊38'38	-0.2m
				desc. node	4049 Feb 18 22:00	8°♊38'50	
superior conj	4048 Apr 15 05:29	26°♊38'15	-1°-21'-12		4049 Mar 05 20:30	0°♊	
minimum elong	4048 Apr 15 09:43	26°♊58'57	1°20'36	morning set	4049 Mar 17 07:25	18°♊23'24	
	4048 Apr 16 22:32	0°♊		max. Earth dist.	4049 Mar 21 11:13	25°♊30'44	1.39247 AU
evening rise	4048 Apr 23 17:35	13°♊35'50			4049 Mar 24 00:19	0°♊	
asc. node	4048 Apr 24 00:15	14°♊09'12					
	4048 May 02 10:55	0°♊		superior conj	4049 Mar 29 01:35	9°♊12'07	-1°-45'-48
evening max el	4048 May 10 15:40	11°♊03'51	19°24'46	minimum elong	4049 Mar 29 06:20	9°♊34'10	1°45'21
retrograde	4048 May 19 23:56	15°♊36'31		evening rise	4049 Apr 07 12:05	27°♊13'19	
evening set	4048 May 21 23:23	15°♊25'12			4049 Apr 08 22:43	0°♊	
inferior conj	4048 May 30 13:17	11°♊18'39	0°08'02	asc. node	4049 Apr 10 21:18	3°♊41'39	
minimum elong	4048 May 30 13:37	11°♊18'05	0°07'54	evening max el	4049 Apr 23 16:50	23°♊19'21	18°38'57
transit middle	4048 May 30 13:37	11°♊18'05	0°07'54	retrograde	4049 May 01 14:45	27°♊12'29	
transit begin	4048 May 30 10:15	11°♊23'34		evening set	4049 May 03 19:37	26°♊55'28	
transit end	4048 May 30 17:00	11°♊12'36		inferior conj	4049 May 11 13:59	22°♊30'17	1°44'33
desc. node	4048 May 31 00:13	11°♊00'49		minimum elong	4049 May 11 17:21	22°♊23'53	1°43'30
min. Earth dist.	4048 Jun 02 04:56	9°♊35'42	0.55926 AU	min. Earth dist.	4049 May 14 22:21	19°♊59'05	0.57629 AU
morning rise	4048 Jun 07 23:56	6°♊37'29		desc. node	4049 May 17 21:13	18°♊03'17	
direct	4048 Jun 12 17:56	5°♊46'13		morning rise	4049 May 19 10:38	17°♊14'36	
morning max el	4048 Jun 26 20:26	12°♊54'39	25°04'23	direct	4049 May 25 03:47	15°♊53'17	
	4048 Jul 10 02:59	0°♊		morning max el	4049 Jun 08 12:35	23°♊28'01	26°31'38
asc. node	4048 Jul 20 23:31	19°♊56'06			4049 Jun 14 09:40	0°♊	
morning set	4048 Jul 23 03:32	24°♊27'24			4049 Jul 03 00:55	0°♊	
	4048 Jul 25 17:33	0°♊		morning set	4049 Jul 07 14:09	9°♊16'35	
				asc. node	4049 Jul 07 20:34	9°♊50'27	
superior conj	4048 Jul 30 03:12	9°♊37'20	1°22'56				
minimum elong	4048 Jul 30 00:55	9°♊24'52	1°22'37	superior conj	4049 Jul 14 14:48	24°♊33'13	1°05'41
max. Earth dist.	4048 Jul 31 11:47	12°♊35'03	1.32630 AU	minimum elong	4049 Jul 14 12:31	24°♊20'39	1°05'17
evening rise	4048 Aug 06 07:55	24°♊58'35		max. Earth dist.	4049 Jul 14 22:16	25°♊14'23	1.32128 AU
	4048 Aug 08 19:39	0°♊			4049 Jul 17 02:12	0°♊	
	4048 Aug 26 10:04	0°♊		evening rise	4049 Jul 21 13:28	9°♊36'19	
desc. node	4048 Aug 26 23:33	0°♊47'43			4049 Aug 01 03:25	0°♊	
evening max el	4048 Sep 07 20:54	14°♊56'52	27°24'20	desc. node	4049 Aug 13 20:34	19°♊11'52	
retrograde	4048 Sep 21 15:19	22°♊12'16		evening max el	4049 Aug 21 01:40	27°♊13'54	26°54'41
evening set	4048 Sep 28 19:46	19°♊42'42			4049 Aug 24 06:48	0°♊	
min. Earth dist.	4048 Oct 02 10:43	16°♊44'53	0.62651 AU	retrograde	4049 Sep 03 23:20	4°♊24'52	
inferior conj	4048 Oct 05 07:03	14°♊01'55	-3°-35'-15	evening set	4049 Sep 10 22:46	2°♊17'58	
minimum elong	4048 Oct 05 12:46	13°♊48'15	3°33'30		4049 Sep 14 05:39	30°♊♊	
morning rise	4048 Oct 12 08:33	8°♊52'40		min. Earth dist.	4049 Sep 14 15:50	29°♊39'43	0.60670 AU
direct	4048 Oct 14 16:41	8°♊27'43		inferior conj	4049 Sep 17 20:38	26°♊58'59	-4°-27'-41
asc. node	4048 Oct 16 22:43	8°♊51'27		minimum elong	4049 Sep 18 02:22	26°♊46'54	4°26'30
morning max el	4048 Oct 21 10:26	11°♊54'50	17°50'28	morning rise	4049 Sep 25 09:11	22°♊11'09	
	4048 Nov 02 14:38	0°♊		direct	4049 Sep 27 16:43	21°♊50'14	
morning set	4048 Nov 06 11:11	6°♊49'30		asc. node	4049 Oct 03 19:46	24°♊23'49	
				morning max el	4049 Oct 04 23:42	25°♊26'44	18°03'48
superior conj	4048 Nov 17 21:42	26°♊44'03	0°34'45		4049 Oct 08 19:54	0°♊	
minimum elong	4048 Nov 18 00:53	26°♊57'26	0°34'18	morning set	4049 Oct 20 17:20	20°♊19'51	
	4048 Nov 19 20:28	0°♊			4049 Oct 25 22:30	0°♊	
desc. node	4048 Nov 22 22:47	5°♊06'39					
max. Earth dist.	4048 Nov 24 19:13	8°♊07'14	1.43547 AU	superior conj	4049 Oct 30 15:13	8°♊29'34	1°07'33

minimum elong	4049 Oct 30 19:22	8° \mathbb{M} 47'59	1°07'02	superior conj	4050 Oct 13 06:18	21° $\underline{\mathbf{A}}$ 18'02	1°29'17
max. Earth dist.	4049 Nov 07 06:43	21° \mathbb{M} 40'43	1.41838 AU	minimum elong	4050 Oct 13 09:28	21° $\underline{\mathbf{A}}$ 32'53	1°29'00
desc. node	4049 Nov 09 19:51	25° \mathbb{M} 53'45			4050 Oct 18 00:04	0° \mathbb{M}	
	4049 Nov 12 08:31	0° \mathbb{A}		max. Earth dist.	4050 Oct 20 13:04	4° \mathbb{M} 30'21	1.39809 AU
evening rise	4049 Nov 12 20:22	0° \mathbb{A} 47'35		evening rise	4050 Oct 24 16:54	11° \mathbb{M} 38'29	
	4049 Dec 02 08:11	0° \mathbb{B}		desc. node	4050 Oct 27 16:54	16° \mathbb{M} 36'47	
greatest brilliancy	4049 Dec 11 03:56	11° \mathbb{B} 35'39	-0.3m		4050 Nov 05 05:20	0° \mathbb{A}	
evening max el	4049 Dec 16 02:00	17° \mathbb{B} 06'28	22°38'02		4050 Nov 27 22:13	0° \mathbb{B}	
retrograde	4049 Dec 25 22:46	22° \mathbb{B} 58'03		evening max el	4050 Nov 28 15:52	0° \mathbb{B} 44'40	23°57'57
evening set	4049 Dec 30 14:03	21° \mathbb{B} 05'49		retrograde	4050 Dec 09 15:19	7° \mathbb{B} 12'21	
asc. node	4049 Dec 30 19:00	20° \mathbb{B} 55'27		evening set	4050 Dec 14 19:42	5° \mathbb{B} 03'53	
inferior conj	4050 Jan 04 23:51	14° \mathbb{B} 41'26	1°41'22	asc. node	4050 Dec 17 16:02	2° \mathbb{B} 04'24	
minimum elong	4050 Jan 04 21:48	14° \mathbb{B} 48'32	1°40'37		4050 Dec 19 06:30	30° \mathbb{R} \mathbb{A}	
min. Earth dist.	4050 Jan 04 19:01	14° \mathbb{B} 58'10	0.68020 AU	min. Earth dist.	4050 Dec 19 15:31	29° \mathbb{A} 29'37	0.67847 AU
morning rise	4050 Jan 10 05:28	8° \mathbb{B} 29'52		inferior conj	4050 Dec 20 07:12	28° \mathbb{A} 36'23	0°53'08
direct	4050 Jan 14 17:43	6° \mathbb{B} 39'48		minimum elong	4050 Dec 20 05:59	28° \mathbb{A} 40'32	0°52'37
morning max el	4050 Jan 23 20:21	11° \mathbb{B} 59'49	21°53'50	morning rise	4050 Dec 25 16:32	22° \mathbb{A} 29'47	
greatest brilliancy	4050 Jan 28 13:12	17° \mathbb{B} 16'50	-0.4m	direct	4050 Dec 29 14:49	21° \mathbb{A} 02'23	
desc. node	4050 Feb 05 19:03	28° \mathbb{B} 12'57		morning max el	4051 Jan 06 15:38	25° \mathbb{A} 39'01	20°35'27
	4050 Feb 07 01:21	0° \approx			4051 Jan 10 12:44	0° \mathbb{B}	
morning set	4050 Feb 25 09:58	27° \approx 49'21		greatest brilliancy	4051 Jan 12 15:43	2° \mathbb{B} 40'57	-0.5m
	4050 Feb 26 18:25	0° \mathbb{H}		desc. node	4051 Jan 23 16:07	18° \mathbb{B} 13'08	
max. Earth dist.	4050 Mar 03 09:56	7° \mathbb{H} 37'52	1.41393 AU		4051 Jan 31 11:50	0° \approx	
				morning set	4051 Feb 04 12:04	6° \approx 10'47	
superior conj	4050 Mar 11 02:46	20° \mathbb{H} 50'09	-2°-2'-53	max. Earth dist.	4051 Feb 13 15:47	20° \approx 39'52	1.43243 AU
minimum elong	4050 Mar 11 06:01	21° \mathbb{H} 04'27	2°02'44		4051 Feb 19 08:30	0° \mathbb{H}	
	4050 Mar 16 05:31	0° \mathbb{Y}					
evening rise	4050 Mar 21 18:59	10° \mathbb{Y} 13'51		superior conj	4051 Feb 20 04:08	1° \mathbb{H} 21'54	-2°-7'-18
asc. node	4050 Mar 28 18:20	22° \mathbb{Y} 52'13		minimum elong	4051 Feb 20 02:54	1° \mathbb{H} 16'45	2°07'17
	4050 Apr 02 04:00	0° \mathbb{B}		evening rise	4051 Mar 04 10:08	22° \mathbb{H} 28'42	
evening max el	4050 Apr 07 01:05	6° \mathbb{B} 04'59	18°13'16		4051 Mar 08 16:44	0° \mathbb{Y}	
retrograde	4050 Apr 14 00:30	9° \mathbb{B} 35'11		asc. node	4051 Mar 15 15:22	11° \mathbb{Y} 33'56	
evening set	4050 Apr 16 11:36	9° \mathbb{B} 09'43		evening max el	4051 Mar 21 13:03	19° \mathbb{Y} 12'03	18°07'09
inferior conj	4050 Apr 23 12:02	4° \mathbb{B} 23'17	2°49'11	retrograde	4051 Mar 28 01:19	22° \mathbb{Y} 34'45	
minimum elong	4050 Apr 23 15:26	4° \mathbb{B} 15'45	2°48'26	evening set	4051 Mar 30 18:14	21° \mathbb{Y} 59'08	
min. Earth dist.	4050 Apr 26 21:17	1° \mathbb{B} 24'35	0.59734 AU	inferior conj	4051 Apr 06 04:28	16° \mathbb{Y} 52'07	3°24'22
	4050 Apr 28 15:57	30° \mathbb{R} \mathbb{Y}		minimum elong	4051 Apr 06 06:23	16° \mathbb{Y} 47'16	3°24'08
morning rise	4050 Apr 30 15:30	28° \mathbb{Y} 40'26		min. Earth dist.	4051 Apr 09 04:17	13° \mathbb{Y} 50'35	0.61906 AU
desc. node	4050 May 04 18:15	26° \mathbb{Y} 59'30		morning rise	4051 Apr 12 15:48	10° \mathbb{Y} 52'07	
direct	4050 May 07 02:23	26° \mathbb{Y} 44'18		direct	4051 Apr 19 11:45	8° \mathbb{Y} 25'33	
	4050 May 16 00:19	0° \mathbb{B}		desc. node	4051 Apr 21 15:17	8° \mathbb{Y} 38'59	
morning max el	4050 May 21 10:49	4° \mathbb{B} 34'56	27°30'05	morning max el	4051 May 03 15:17	16° \mathbb{Y} 24'17	27°51'52
	4050 Jun 09 05:09	0° \mathbb{I}			4051 May 14 19:53	0° \mathbb{B}	
morning set	4050 Jun 21 21:51	23° \mathbb{I} 55'04			4051 Jun 01 20:27	0° \mathbb{I}	
asc. node	4050 Jun 24 17:36	29° \mathbb{I} 53'42		morning set	4051 Jun 06 00:42	8° \mathbb{I} 16'32	
	4050 Jun 24 18:46	0° \mathbb{B}		asc. node	4051 Jun 11 14:40	20° \mathbb{I} 01'27	
max. Earth dist.	4050 Jun 28 10:02	7° \mathbb{B} 55'34	1.32030 AU	max. Earth dist.	4051 Jun 11 19:05	20° \mathbb{I} 25'20	1.32341 AU
superior conj	4050 Jun 29 02:26	9° \mathbb{B} 25'55	0°44'28	superior conj	4051 Jun 13 12:25	24° \mathbb{I} 09'52	0°19'53
minimum elong	4050 Jun 29 00:37	9° \mathbb{B} 15'55	0°44'06	minimum elong	4051 Jun 13 11:30	24° \mathbb{I} 04'54	0°19'42
evening rise	4050 Jul 05 23:01	24° \mathbb{B} 23'15			4051 Jun 16 04:26	0° \mathbb{B}	
	4050 Jul 08 15:38	0° \mathbb{Q}		evening rise	4051 Jun 20 10:34	9° \mathbb{B} 12'43	
	4050 Jul 26 08:26	0° \mathbb{M}			4051 Jul 01 03:46	0° \mathbb{Q}	
desc. node	4050 Jul 31 17:36	6° \mathbb{M} 26'43		evening max el	4051 Jul 15 13:30	19° \mathbb{Q} 25'34	24°26'08
evening max el	4050 Aug 02 22:58	8° \mathbb{M} 41'34	25°52'41	desc. node	4051 Jul 18 14:35	22° \mathbb{Q} 04'38	
retrograde	4050 Aug 16 22:12	15° \mathbb{M} 49'10		retrograde	4051 Jul 29 10:20	26° \mathbb{Q} 25'36	
evening set	4050 Aug 23 04:17	14° \mathbb{M} 16'00		evening set	4051 Aug 03 09:29	25° \mathbb{Q} 30'28	
min. Earth dist.	4050 Aug 27 11:15	11° \mathbb{M} 40'28	0.58604 AU	min. Earth dist.	4051 Aug 09 00:27	22° \mathbb{Q} 38'29	0.56721 AU
inferior conj	4050 Aug 30 16:45	9° \mathbb{M} 19'42	-5°-3'-24	inferior conj	4051 Aug 11 16:51	20° \mathbb{Q} 56'17	-5°-8'-18
minimum elong	4050 Aug 30 20:00	9° \mathbb{M} 13'45	5°03'08	minimum elong	4051 Aug 11 14:41	20° \mathbb{Q} 59'46	5°08'12
morning rise	4050 Sep 07 15:15	4° \mathbb{M} 55'32		morning rise	4051 Aug 19 23:26	16° \mathbb{Q} 53'35	
direct	4050 Sep 10 01:30	4° \mathbb{M} 36'22		direct	4051 Aug 22 15:16	16° \mathbb{Q} 34'28	
morning max el	4050 Sep 18 06:34	8° \mathbb{M} 31'54	18°37'27	morning max el	4051 Sep 01 03:54	21° \mathbb{Q} 01'09	19°32'33
asc. node	4050 Sep 20 16:49	11° \mathbb{M} 09'39		asc. node	4051 Sep 07 13:52	28° \mathbb{Q} 54'07	
	4050 Oct 02 04:35	0° $\underline{\mathbf{A}}$			4051 Sep 08 07:06	0° \mathbb{M}	
morning set	4050 Oct 04 11:08	4° $\underline{\mathbf{A}}$ 22'50		morning set	4051 Sep 18 12:56	18° \mathbb{M} 48'33	
					4051 Sep 24 02:16	0° $\underline{\mathbf{A}}$	

superior conj	4051 Sep 26 13:27	4°♄53'48	1°41'00	direct	4052 Aug 02 10:44	27°♄36'29	
minimum elong	4051 Sep 26 14:59	5°♄01'18	1°40'56		4052 Aug 10 00:23	0°♄	
max. Earth dist.	4051 Oct 02 17:15	16°♄39'49	1.37725 AU	morning max el	4052 Aug 13 13:30	2°♄46'29	20°49'04
evening rise	4051 Oct 06 12:29	23°♄32'51		asc. node	4052 Aug 24 10:56	17°♄23'56	
	4051 Oct 10 05:45	0°♄			4052 Aug 31 02:55	0°♄	
desc. node	4051 Oct 14 13:56	7°♄11'39		morning set	4052 Sep 01 20:04	3°♄30'01	
	4051 Oct 29 23:36	0°♄					
evening max el	4051 Nov 11 04:15	14°♄26'10	25°14'10	superior conj	4052 Sep 09 08:08	19°♄03'49	1°44'16
retrograde	4051 Nov 23 03:39	21°♄21'19		minimum elong	4052 Sep 09 08:04	19°♄03'27	1°44'16
evening set	4051 Nov 28 21:52	18°♄58'02		max. Earth dist.	4052 Sep 14 01:25	28°♄32'20	1.35823 AU
min. Earth dist.	4051 Dec 03 09:47	13°♄58'16	0.67325 AU		4052 Sep 14 19:23	0°♄	
inferior conj	4051 Dec 04 12:17	12°♄32'04	0°00'-40	evening rise	4052 Sep 18 03:53	6°♄23'08	
minimum elong	4051 Dec 04 12:18	12°♄32'00	0°00'41	desc. node	4052 Sep 30 10:55	27°♄33'40	
transit middle	4051 Dec 04 12:18	12°♄32'00	0°00'41		4052 Oct 02 00:12	0°♄	
transit begin	4051 Dec 04 09:31	12°♄41'04		evening max el	4052 Oct 23 16:47	28°♄08'28	26°19'13
transit end	4051 Dec 04 15:05	12°♄22'58			4052 Oct 25 17:17	0°♄	
asc. node	4051 Dec 04 13:05	12°♄29'29		retrograde	4052 Nov 05 10:54	5°♄19'38	
morning rise	4051 Dec 10 03:26	6°♄32'40		evening set	4052 Nov 11 18:43	2°♄44'57	
direct	4051 Dec 13 13:23	5°♄25'27			4052 Nov 14 13:37	30°♄	
morning max el	4051 Dec 20 18:46	9°♄28'59	19°30'14	min. Earth dist.	4052 Nov 15 23:31	28°♄20'52	0.66461 AU
greatest brilliancy	4051 Dec 29 07:27	20°♄11'57	-0.6m	inferior conj	4052 Nov 17 13:13	26°♄25'32	0°-58'-51
	4052 Jan 04 22:58	0°♄		minimum elong	4052 Nov 17 14:49	26°♄20'38	0°58'11
desc. node	4052 Jan 10 13:09	8°♄31'45		asc. node	4052 Nov 20 10:07	23°♄06'48	
morning set	4052 Jan 14 09:28	14°♄27'27		morning rise	4052 Nov 23 12:08	20°♄36'00	
	4052 Jan 24 08:55	0°♄		direct	4052 Nov 26 11:46	19°♄45'25	
max. Earth dist.	4052 Jan 27 04:26	4°♄26'13	1.44569 AU	morning max el	4052 Dec 03 04:50	23°♄26'38	18°40'31
					4052 Dec 08 14:06	0°♄	
superior conj	4052 Jan 31 03:47	10°♄45'38	-1°-53'-54	morning set	4052 Dec 24 02:29	23°♄48'53	
minimum elong	4052 Jan 30 20:35	10°♄16'49	1°53'27	desc. node	4052 Dec 27 10:11	29°♄03'42	
	4052 Feb 11 22:17	0°♄			4052 Dec 28 00:28	0°♄	
evening rise	4052 Feb 14 05:06	3°♄49'08					
asc. node	4052 Mar 01 12:23	29°♄37'20		superior conj	4053 Jan 09 08:55	19°♄24'37	-1°-21'-13
	4052 Mar 01 19:38	0°♄		minimum elong	4053 Jan 08 23:52	18°♄49'06	1°20'14
evening max el	4052 Mar 04 01:44	2°♄32'29	18°19'56	max. Earth dist.	4053 Jan 08 22:04	18°♄42'04	1.45221 AU
retrograde	4052 Mar 10 12:32	6°♄01'04			4053 Jan 16 02:26	0°♄	
evening set	4052 Mar 13 11:15	5°♄14'06		evening rise	4053 Jan 25 00:57	14°♄12'30	
inferior conj	4052 Mar 19 11:06	29°♄47'51	3°36'24		4053 Feb 03 22:27	0°♄	
minimum elong	4052 Mar 19 11:16	29°♄47'23	3°36'24	evening max el	4053 Feb 15 12:36	16°♄00'48	18°50'45
	4052 Mar 19 06:50	30°♄		asc. node	4053 Feb 16 09:24	16°♄51'22	
min. Earth dist.	4052 Mar 21 20:30	27°♄05'11	0.63893 AU	retrograde	4053 Feb 22 06:20	19°♄47'05	
morning rise	4052 Mar 25 09:29	23°♄38'34		evening set	4053 Feb 25 11:27	18°♄47'43	
direct	4052 Apr 01 05:42	20°♄53'25		inferior conj	4053 Mar 03 04:09	13°♄03'53	3°31'04
desc. node	4052 Apr 07 12:19	22°♄48'44		minimum elong	4053 Mar 03 02:54	13°♄07'43	3°30'57
morning max el	4052 Apr 14 23:45	28°♄50'56	27°36'27	min. Earth dist.	4053 Mar 04 21:52	10°♄54'41	0.65531 AU
	4052 Apr 16 02:37	0°♄		morning rise	4053 Mar 08 17:16	6°♄50'04	
	4052 May 07 16:17	0°♄		direct	4053 Mar 15 06:37	4°♄00'37	
morning set	4052 May 19 20:12	22°♄12'33		desc. node	4053 Mar 25 09:22	8°♄55'37	
	4052 May 23 16:28	0°♄		morning max el	4053 Mar 28 09:34	11°♄44'51	26°48'54
max. Earth dist.	4052 May 24 21:20	2°♄30'23	1.33089 AU		4053 Apr 11 23:14	0°♄	
					4053 Apr 30 05:53	0°♄	
superior conj	4052 May 27 18:51	8°♄38'36	0°-7'-20	morning set	4053 May 03 05:09	5°♄33'52	
minimum elong	4052 May 27 19:13	8°♄40'34	0°07'16	max. Earth dist.	4053 May 07 13:30	14°♄04'13	1.34304 AU
behind sun begin	4052 May 27 14:24	8°♄14'49					
behind sun end	4052 May 28 00:02	9°♄06'20		superior conj	4053 May 11 19:37	22°♄46'02	0°-36'-10
asc. node	4052 May 28 11:42	10°♄08'55		minimum elong	4053 May 11 21:32	22°♄55'59	0°35'48
evening rise	4052 Jun 03 22:12	23°♄58'00		asc. node	4053 May 15 08:43	0°♄12'21	
	4052 Jun 06 19:55	0°♄			4053 May 15 06:23	0°♄	
evening max el	4052 Jun 26 02:52	29°♄49'38	22°49'17	evening rise	4053 May 19 08:04	8°♄33'27	
	4052 Jun 26 07:10	0°♄			4053 May 30 19:03	0°♄	
desc. node	4052 Jul 04 11:34	5°♄31'12		evening max el	4053 Jun 07 22:54	10°♄26'15	21°17'10
retrograde	4052 Jul 09 09:49	6°♄26'45		retrograde	4053 Jun 19 23:18	16°♄20'34	
evening set	4052 Jul 12 20:23	6°♄00'50		desc. node	4053 Jun 21 08:35	16°♄16'04	
min. Earth dist.	4052 Jul 20 11:20	2°♄38'01	0.55358 AU	evening set	4053 Jun 22 07:26	16°♄07'57	
inferior conj	4052 Jul 21 21:59	1°♄48'15	-4°-27'-11	inferior conj	4053 Jul 01 15:54	12°♄09'31	-2°-56'-42
minimum elong	4052 Jul 21 14:22	1°♄59'13	4°25'38	minimum elong	4053 Jul 01 08:09	12°♄20'23	2°54'13
	4052 Jul 25 04:12	30°♄		min. Earth dist.	4053 Jul 01 22:16	12°♄00'35	0.54827 AU
morning rise	4052 Jul 30 10:57	27°♄57'22		morning rise	4053 Jul 10 09:07	8°♄13'29	

direct	4053 Jul 13 20:28	7°  47'24		direct	4054 Jun 24 09:18	17°  31'18	
morning max el	4053 Jul 26 11:45	13°  46'59	22°23'31	morning max el	4054 Jul 08 03:01	24°  17'19	24°06'44
	4053 Aug 07 17:31	0°  Ω			4054 Jul 13 08:29	0°  Ω	
asc. node	4053 Aug 11 07:59	6°  Ω27'36		asc. node	4054 Jul 29 05:01	25°  Ω56'35	
morning set	4053 Aug 17 06:23	18°  Ω20'32			4054 Jul 31 04:49	0°  Ω	
	4053 Aug 22 17:57	0°  η		morning set	4054 Aug 01 18:06	3°  Ω15'06	
superior conj	4053 Aug 24 10:43	3°  η36'43	1°40'29	superior conj	4054 Aug 08 18:31	18°  Ω24'29	1°30'50
minimum elong	4053 Aug 24 09:25	3°  η29'50	1°40'25	minimum elong	4054 Aug 08 16:27	18°  Ω13'18	1°30'36
max. Earth dist.	4053 Aug 27 17:50	10°  η30'35	1.34260 AU	max. Earth dist.	4054 Aug 10 19:08	22°  Ω46'35	1.33102 AU
evening rise	4053 Sep 01 10:37	19°  η56'40			4054 Aug 14 05:19	0°  η	
	4053 Sep 06 19:05	0°  Ω		evening rise	4054 Aug 16 04:45	4°  η02'46	
desc. node	4053 Sep 17 07:55	17°  Ω36'03			4054 Aug 30 12:34	0°  Ω	
	4053 Sep 26 00:32	0°  η		desc. node	4054 Sep 04 04:56	7°  Ω10'25	
evening max el	4053 Oct 06 05:26	11°  η42'31	27°05'33	evening max el	4054 Sep 18 16:47	24°  Ω56'19	27°26'10
retrograde	4053 Oct 19 12:24	18°  η59'40			4054 Sep 25 04:45	0°  η	
evening set	4053 Oct 26 08:03	16°  η19'22		retrograde	4054 Oct 02 07:45	2°  η13'17	
min. Earth dist.	4053 Oct 30 06:11	12°  η31'31	0.65251 AU		4054 Oct 08 21:33	30°  η	
inferior conj	4053 Nov 01 07:51	10°  η11'35	-1°-59'-52	evening set	4054 Oct 09 11:05	29°  Ω36'12	
minimum elong	4053 Nov 01 11:13	10°  η02'03	1°58'31	min. Earth dist.	4054 Oct 13 03:42	26°  Ω22'16	0.63695 AU
asc. node	4053 Nov 07 07:10	4°  η46'28		inferior conj	4054 Oct 15 17:38	23°  Ω44'36	-3°-1'-13
morning rise	4053 Nov 07 16:13	4°  η35'07		minimum elong	4054 Oct 15 22:41	23°  Ω31'44	2°59'29
direct	4053 Nov 10 07:50	3°  η57'18		morning rise	4054 Oct 22 12:43	18°  Ω24'40	
morning max el	4053 Nov 16 19:35	7°  η26'01	18°07'21	direct	4054 Oct 24 22:49	17°  Ω55'58	
	4053 Dec 02 05:15	0°  Ω		asc. node	4054 Oct 25 04:13	17°  Ω56'13	
morning set	4053 Dec 05 00:54	4°  Ω38'38		morning max el	4054 Oct 31 12:15	21°  Ω21'02	17°51'29
desc. node	4053 Dec 14 07:12	19°  Ω44'11			4054 Nov 07 02:30	0°  η	
				morning set	4054 Nov 17 01:55	16°  η45'36	
superior conj	4053 Dec 19 13:53	28°  Ω09'39	0°-35'-40		4054 Nov 24 19:53	0°  Ω	
minimum elong	4053 Dec 19 09:25	27°  Ω51'54	0°35'03				
	4053 Dec 20 17:47	0°  Ω		superior conj	4054 Nov 29 14:01	7°  Ω53'53	0°11'02
max. Earth dist.	4053 Dec 22 17:40	3°  Ω08'42	1.45128 AU	minimum elong	4054 Nov 29 15:12	7°  Ω58'45	0°10'52
evening rise	4054 Jan 04 23:13	23°  Ω46'24		behind sun begin	4054 Nov 29 07:56	7°  Ω28'54	
	4054 Jan 08 23:46	0°  Ω		behind sun end	4054 Nov 29 22:28	8°  Ω28'33	
greatest brilliancy	4054 Jan 22 01:00	19°  Ω41'46	-0.6m	desc. node	4054 Dec 01 04:13	10°  Ω29'57	
evening max el	4054 Jan 29 19:30	29°  Ω32'05	19°38'16	max. Earth dist.	4054 Dec 05 11:52	17°  Ω27'22	1.44309 AU
	4054 Jan 30 06:36	0°  Ω			4054 Dec 13 11:37	0°  Ω	
asc. node	4054 Feb 03 06:26	3°  Ω02'00		evening rise	4054 Dec 15 09:22	2°  Ω56'33	
retrograde	4054 Feb 06 03:33	3°  Ω46'25			4055 Jan 02 13:16	0°  Ω	
evening set	4054 Feb 09 16:11	2°  Ω33'35		greatest brilliancy	4055 Jan 07 03:42	6°  Ω17'00	-0.5m
	4054 Feb 12 10:37	30°  η		evening max el	4055 Jan 12 21:06	13°  Ω04'22	20°40'09
inferior conj	4054 Feb 15 04:24	26°  Ω34'21	3°12'33	retrograde	4055 Jan 21 01:45	17°  Ω54'29	
minimum elong	4054 Feb 15 02:17	26°  Ω41'20	3°12'11	asc. node	4055 Jan 21 03:28	17°  Ω54'27	
min. Earth dist.	4054 Feb 16 07:17	25°  Ω05'42	0.66747 AU	evening set	4055 Jan 24 23:21	16°  Ω27'10	
morning rise	4054 Feb 20 11:40	20°  Ω18'43		inferior conj	4055 Jan 30 09:15	10°  Ω15'19	2°43'40
direct	4054 Feb 26 13:21	17°  Ω37'21		minimum elong	4055 Jan 30 06:47	10°  Ω23'47	2°43'01
morning max el	4054 Mar 10 18:54	24°  Ω54'45	25°37'36	min. Earth dist.	4055 Jan 30 22:48	9°  Ω28'54	0.67545 AU
desc. node	4054 Mar 12 06:24	26°  Ω27'17		morning rise	4055 Feb 04 13:46	3°  Ω59'43	
	4054 Mar 15 09:35	0°  Ω		direct	4055 Feb 10 01:17	1°  Ω35'03	
	4054 Apr 05 10:29	0°  Ω		morning max el	4055 Feb 21 03:33	8°  Ω12'28	24°12'19
morning set	4054 Apr 15 23:20	18°  Ω08'37		desc. node	4055 Feb 27 03:26	14°  Ω59'21	
max. Earth dist.	4054 Apr 19 18:34	25°  Ω13'12	1.35968 AU		4055 Mar 10 05:27	0°  Ω	
	4054 Apr 22 06:12	0°  Ω		morning set	4055 Mar 28 21:08	29°  Ω40'42	
					4055 Mar 29 01:35	0°  Ω	
superior conj	4054 Apr 25 12:06	6°  Ω24'56	-1°-5'-12	max. Earth dist.	4055 Apr 01 15:21	6°  Ω18'43	1.37992 AU
minimum elong	4054 Apr 25 15:36	6°  Ω42'25	1°04'37				
asc. node	4054 May 02 05:45	20°  Ω07'57		superior conj	4055 Apr 08 16:49	19°  Ω25'19	-1°-32'-18
evening rise	4054 May 03 14:05	22°  Ω52'57		minimum elong	4055 Apr 08 21:26	19°  Ω47'26	1°31'43
	4054 May 07 03:31	0°  Ω			4055 Apr 14 03:06	0°  Ω	
evening max el	4054 May 21 06:35	21°  Ω38'57	20°00'13	evening rise	4055 Apr 17 13:41	6°  Ω48'14	
retrograde	4054 May 31 14:16	26°  Ω40'49		asc. node	4055 Apr 19 02:47	9°  Ω50'23	
evening set	4054 Jun 02 13:14	26°  Ω30'45			4055 Apr 30 23:05	0°  Ω	
desc. node	4054 Jun 08 05:36	24°  Ω24'50		evening max el	4055 May 04 02:04	3°  Ω32'39	19°02'46
inferior conj	4054 Jun 11 12:49	22°  Ω30'44	0°-58'-44	retrograde	4055 May 12 18:41	7°  Ω47'07	
minimum elong	4054 Jun 11 10:05	22°  Ω34'52	0°57'44	evening set	4055 May 14 19:54	7°  Ω33'55	
min. Earth dist.	4054 Jun 13 10:50	21°  Ω21'31	0.55260 AU	inferior conj	4055 May 23 01:32	3°  Ω19'53	0°52'38
morning rise	4054 Jun 20 04:22	18°  Ω09'52		minimum elong	4055 May 23 03:35	3°  Ω16'20	0°51'55

min. Earth dist.	4055 May 26 02:17	1°II14'29	0.56572 AU	evening set	4056 Apr 26 01:08	19°823'31	
desc. node	4055 May 26 02:38	1°II13'54		inferior conj	4056 May 03 11:32	14°849'41	2°15'52
	4055 May 28 01:29	30°R8		minimum elong	4056 May 03 15:12	14°842'13	2°14'51
morning rise	4055 May 31 06:53	28°823'18		min. Earth dist.	4056 May 06 22:05	12°803'29	0.58496 AU
direct	4055 Jun 05 10:41	27°820'36		morning rise	4056 May 11 00:56	9°820'57	
	4055 Jun 13 19:13	0°II		desc. node	4056 May 11 23:39	8°853'30	
morning max el	4055 Jun 19 17:27	4°II42'07	25°44'20	direct	4056 May 17 02:35	7°844'33	
	4055 Jul 07 23:24	0°☾		morning max el	4056 May 31 12:00	15°828'01	27°00'32
asc. node	4055 Jul 16 02:03	15°☾43'08			4056 Jun 12 06:39	0°II	
morning set	4055 Jul 17 05:34	18°☾07'31			4056 Jun 29 05:56	0°☾	
	4055 Jul 22 17:04	0°♂		morning set	4056 Jun 30 15:08	2°☾52'37	
				asc. node	4056 Jul 01 23:06	5°☾41'44	
superior conj	4055 Jul 24 05:16	3°♂19'03	1°16'08				
minimum elong	4055 Jul 24 02:56	3°♂06'12	1°15'47	superior conj	4056 Jul 07 17:05	18°☾14'15	0°57'08
max. Earth dist.	4055 Jul 25 03:01	5°♂18'25	1.32362 AU	minimum elong	4056 Jul 07 14:57	18°☾02'27	0°56'44
evening rise	4055 Jul 31 06:53	18°♂30'54		max. Earth dist.	4056 Jul 07 14:16	17°☾58'38	1.32033 AU
	4055 Aug 06 01:30	0°♍			4056 Jul 13 02:07	0°♂	
desc. node	4055 Aug 22 01:58	26°♍04'31		evening rise	4056 Jul 14 14:23	3°♂13'06	
	4055 Aug 25 02:30	0°♎			4056 Jul 28 22:35	0°♍	
evening max el	4055 Sep 01 00:26	7°♎36'17	27°15'46	desc. node	4056 Aug 07 22:59	14°♍01'55	
retrograde	4055 Sep 14 20:27	14°♎50'29		evening max el	4056 Aug 13 02:05	19°♍32'15	26°32'00
evening set	4055 Sep 22 00:10	12°♎28'36		retrograde	4056 Aug 27 01:08	26°♍42'29	
min. Earth dist.	4055 Sep 25 14:49	9°♎41'04	0.61829 AU	evening set	4056 Sep 02 18:37	24°♍48'55	
inferior conj	4055 Sep 28 15:32	6°♎56'47	-3°-58'-50	min. Earth dist.	4056 Sep 06 15:43	22°♍13'55	0.59779 AU
minimum elong	4055 Sep 28 21:29	6°♎43'16	3°57'16	inferior conj	4056 Sep 09 22:04	19°♍39'12	-4°-45'-41
morning rise	4055 Oct 05 21:51	1°♎56'39		minimum elong	4056 Sep 10 03:08	19°♍29'09	4°44'53
direct	4055 Oct 08 05:16	1°♎33'50		morning rise	4056 Sep 17 15:03	15°♍01'22	
asc. node	4055 Oct 12 01:15	2°♎38'57		direct	4056 Sep 19 23:10	14°♍41'35	
morning max el	4055 Oct 15 03:43	5°♎03'46	17°53'50	morning max el	4056 Sep 27 14:40	18°♍25'19	18°15'35
morning set	4055 Oct 30 23:08	29°♎50'10		asc. node	4056 Sep 27 22:19	18°♍44'06	
	4055 Oct 31 01:18	0°♏			4056 Oct 06 00:23	0°♎	
				morning set	4056 Oct 13 10:44	13°♎35'25	
superior conj	4055 Nov 10 16:51	18°♏56'40	0°50'01		4056 Oct 22 04:43	0°♏	
minimum elong	4055 Nov 10 20:46	19°♏13'32	0°49'29				
	4055 Nov 17 06:22	0°♐		superior conj	4056 Oct 22 20:09	1°♏10'23	1°18'04
max. Earth dist.	4055 Nov 18 01:44	1°♐19'32	1.42868 AU	minimum elong	4056 Oct 23 00:02	1°♏28'03	1°17'39
desc. node	4055 Nov 18 01:17	1°♐17'39		max. Earth dist.	4056 Oct 30 10:21	14°♏32'42	1.40991 AU
evening rise	4055 Nov 24 23:12	12°♐22'07		desc. node	4056 Nov 03 22:18	22°♏03'22	
	4055 Dec 06 13:33	0°♑		evening rise	4056 Nov 04 06:34	22°♏37'11	
greatest brilliancy	4055 Dec 21 23:01	21°♑14'25	-0.4m		4056 Nov 08 21:05	0°♐	
evening max el	4055 Dec 26 17:14	26°♑38'11	21°53'01		4056 Nov 29 14:53	0°♑	
	4055 Dec 30 12:54	0°♒		evening max el	4056 Dec 08 08:58	10°♑14'47	23°12'08
retrograde	4056 Jan 04 22:55	2°♒07'57		retrograde	4056 Dec 18 17:28	16°♑22'43	
asc. node	4056 Jan 08 00:30	1°♒17'23		evening set	4056 Dec 23 14:03	14°♑23'48	
evening set	4056 Jan 09 07:11	0°♒25'08		asc. node	4056 Dec 24 21:32	13°♑09'52	
	4056 Jan 09 19:05	30°R8		min. Earth dist.	4056 Dec 28 15:00	8°♑30'00	0.67985 AU
inferior conj	4056 Jan 14 16:34	24°♑04'09	2°06'17	inferior conj	4056 Dec 29 00:25	7°♑57'35	1°21'41
minimum elong	4056 Jan 14 14:14	24°♑12'17	2°05'30	minimum elong	4056 Dec 28 22:40	8°♑03'37	1°21'00
min. Earth dist.	4056 Jan 14 18:12	23°♑58'30	0.67949 AU	morning rise	4057 Jan 03 07:19	1°♑47'37	
morning rise	4056 Jan 19 21:03	17°♑50'22		direct	4057 Jan 07 13:30	0°♑07'12	
direct	4056 Jan 24 17:40	15°♑47'05		morning max el	4057 Jan 16 04:27	5°♑07'54	21°19'04
morning max el	4056 Feb 03 13:33	21°♑35'59	22°43'13	greatest brilliancy	4057 Jan 21 07:44	10°♑59'22	-0.4m
greatest brilliancy	4056 Feb 08 04:24	26°♑45'01	-0.3m	desc. node	4057 Jan 30 21:31	24°♑01'14	
	4056 Feb 10 19:04	0°♒			4057 Feb 03 23:50	0°♒	
desc. node	4056 Feb 14 00:29	4°♒14'51		morning set	4057 Feb 16 07:16	18°♒49'00	
	4056 Mar 02 12:35	0°♓			4057 Feb 23 06:11	0°♓	
morning set	4056 Mar 08 16:32	9°♓55'14		max. Earth dist.	4057 Feb 23 11:54	0°♓23'26	1.42234 AU
max. Earth dist.	4056 Mar 13 10:47	17°♓54'07	1.40175 AU				
	4056 Mar 20 08:05	0°♈		superior conj	4057 Mar 02 21:08	12°♈48'24	-2°-6'-38
				minimum elong	4057 Mar 02 22:51	12°♈55'48	2°06'36
superior conj	4056 Mar 21 05:31	1°♈37'06	-1°-54'-16		4057 Mar 12 14:11	0°♈	
minimum elong	4056 Mar 21 09:57	1°♈57'14	1°53'55	evening rise	4057 Mar 14 04:27	2°♈53'20	
evening rise	4056 Mar 31 03:46	20°♈11'24		asc. node	4057 Mar 22 20:51	18°♈13'55	
asc. node	4056 Apr 04 23:49	29°♈14'35		evening max el	4057 Mar 30 16:58	28°♈58'34	18°08'19
	4056 Apr 05 09:49	0°♉			4057 Mar 31 19:57	0°♉	
evening max el	4056 Apr 16 06:41	16°♉02'20	18°25'36	retrograde	4057 Apr 06 10:10	2°♉23'22	
retrograde	4056 Apr 23 17:41	19°♉43'44		evening set	4057 Apr 08 23:54	1°♉53'40	

	4057 Apr 12 06:23	30° Υ		asc. node	4058 Mar 09 17:52	6° Υ 40'33	
inferior conj	4057 Apr 15 17:51	26° Υ 58'34	3°07'18	evening max el	4058 Mar 14 05:36	12° Υ 12'21	18°10'17
minimum elong	4057 Apr 15 20:42	26° Υ 51'50	3°06'48	retrograde	4058 Mar 20 15:57	15° Υ 35'45	
min. Earth dist.	4057 Apr 19 00:09	23° Υ 55'37	0.60675 AU	evening set	4058 Mar 23 11:26	14° Υ 55'15	
morning rise	4057 Apr 22 14:11	21° Υ 07'33		inferior conj	4058 Mar 29 16:47	9° Υ 39'38	3°31'53
desc. node	4057 Apr 28 20:41	18° Υ 57'36		minimum elong	4058 Mar 29 17:56	9° Υ 36'33	3°31'49
direct	4057 Apr 29 06:19	18° Υ 57'09		min. Earth dist.	4058 Apr 01 10:42	6° Υ 44'13	0.62793 AU
morning max el	4057 May 13 12:47	26° Υ 51'56	27°43'54	morning rise	4058 Apr 04 22:13	3° Υ 35'09	
	4057 May 16 11:56	0° ♄		direct	4058 Apr 11 19:18	0° Υ 59'17	
	4057 Jun 05 20:48	0° ♂		desc. node	4058 Apr 15 17:43	1° Υ 44'32	
morning set	4057 Jun 14 21:02	17° ♂ 24'40		morning max el	4058 Apr 25 19:10	8° Υ 57'43	27°49'41
asc. node	4057 Jun 18 20:10	25° ♂ 47'33			4058 May 12 01:49	0° ♄	
	4057 Jun 20 18:38	0° ♄			4058 May 29 01:53	0° ♂	
max. Earth dist.	4057 Jun 21 01:17	0° ♄ 36'20	1.32110 AU	morning set	4058 May 29 21:04	1° ♂ 36'09	
				max. Earth dist.	4058 Jun 04 08:04	12° ♂ 57'41	1.32609 AU
superior conj	4057 Jun 22 04:15	3° ♄ 04'16	0°34'25	asc. node	4058 Jun 05 17:10	15° ♂ 55'31	
minimum elong	4057 Jun 22 02:47	2° ♄ 56'07	0°34'07				
evening rise	4057 Jun 29 01:02	18° ♄ 02'18		superior conj	4058 Jun 06 12:57	17° ♂ 42'25	0°08'38
	4057 Jul 04 22:04	0° ♂		minimum elong	4058 Jun 06 12:32	17° ♂ 40'11	0°08'33
	4057 Jul 25 03:38	0° ♄		behind sun begin	4058 Jun 06 08:06	17° ♂ 16'08	
desc. node	4057 Jul 25 19:59	0° ♄ 39'53		behind sun end	4058 Jun 06 16:59	18° ♂ 04'15	
evening max el	4057 Jul 25 20:29	0° ♄ 41'07	25°18'17		4058 Jun 12 04:52	0° ♄	
retrograde	4057 Aug 08 19:38	7° ♄ 45'54		evening rise	4058 Jun 13 12:51	2° ♄ 51'00	
evening set	4057 Aug 14 13:50	6° ♄ 29'27			4058 Jun 28 07:05	0° ♂	
min. Earth dist.	4057 Aug 19 08:17	3° ♄ 48'55	0.57758 AU	evening max el	4058 Jul 07 09:38	11° ♂ 12'50	23°45'15
inferior conj	4057 Aug 22 09:57	1° ♄ 42'47	-5°-10'-17	desc. node	4058 Jul 12 16:59	15° ♂ 26'40	
minimum elong	4057 Aug 22 11:12	1° ♄ 40'38	5°10'16	retrograde	4058 Jul 21 01:55	18° ♂ 05'03	
	4057 Aug 24 23:50	30° ♂		evening set	4058 Jul 25 09:42	17° ♂ 23'58	
morning rise	4057 Aug 30 12:04	27° ♂ 27'57		min. Earth dist.	4058 Jul 31 19:45	14° ♂ 20'42	0.56061 AU
direct	4057 Sep 02 00:23	27° ♂ 08'55		inferior conj	4058 Aug 03 01:31	12° ♂ 59'39	-4°-57'-9
	4057 Sep 09 06:33	0° ♄		minimum elong	4058 Aug 02 20:42	13° ♂ 06'57	4°56'36
morning max el	4057 Sep 10 17:48	1° ♄ 16'32	18°58'10	morning rise	4058 Aug 11 11:00	9° ♂ 03'47	
asc. node	4057 Sep 14 19:23	5° ♄ 57'00		direct	4058 Aug 14 06:11	8° ♂ 44'02	
morning set	4057 Sep 27 08:21	27° ♄ 49'44		morning max el	4058 Aug 24 10:13	13° ♂ 27'19	20°02'35
	4057 Sep 28 10:46	0° ♄		asc. node	4058 Sep 01 16:25	24° ♂ 02'04	
					4058 Sep 05 03:52	0° ♄	
superior conj	4057 Oct 05 18:41	14° ♄ 20'54	1°35'23	morning set	4058 Sep 11 12:43	12° ♄ 23'07	
minimum elong	4057 Oct 05 21:12	14° ♄ 32'53	1°35'12				
max. Earth dist.	4057 Oct 12 15:30	27° ♄ 05'07	1.38916 AU	superior conj	4058 Sep 19 07:15	28° ♄ 12'36	1°43'20
	4057 Oct 14 06:54	0° ♂		minimum elong	4058 Sep 19 08:04	28° ♄ 16'42	1°43'18
evening rise	4057 Oct 16 13:12	3° ♂ 56'14			4058 Sep 20 04:46	0° ♄	
desc. node	4057 Oct 21 19:20	12° ♂ 43'45		max. Earth dist.	4058 Sep 24 21:03	9° ♄ 05'49	1.36885 AU
	4057 Nov 02 00:34	0° ♄		evening rise	4058 Sep 28 17:42	16° ♄ 15'18	
evening max el	4057 Nov 20 22:10	23° ♄ 55'24	24°31'18		4058 Oct 06 16:40	0° ♂	
	4057 Nov 29 07:37	0° ♄		desc. node	4058 Oct 08 16:20	3° ♂ 13'42	
retrograde	4057 Dec 02 08:09	0° ♄ 35'19			4058 Oct 27 12:40	0° ♄	
	4057 Dec 05 03:54	30° ♄		evening max el	4058 Nov 03 10:30	7° ♄ 37'36	25°43'35
evening set	4057 Dec 07 18:24	28° ♄ 20'27		retrograde	4058 Nov 15 18:15	14° ♄ 40'25	
asc. node	4057 Dec 11 18:34	23° ♄ 54'14		evening set	4058 Nov 21 18:31	12° ♄ 11'33	
min. Earth dist.	4057 Dec 12 10:50	23° ♄ 00'42	0.67672 AU	min. Earth dist.	4058 Nov 26 03:19	7° ♄ 27'06	0.67005 AU
inferior conj	4057 Dec 13 07:01	21° ♄ 53'17	0°30'57	inferior conj	4058 Nov 27 10:33	5° ♄ 47'57	0°-24'-53
minimum elong	4057 Dec 13 06:17	21° ♄ 55'47	0°30'38	minimum elong	4058 Nov 27 11:12	5° ♄ 45'54	0°24'37
morning rise	4057 Dec 18 18:34	15° ♄ 49'25		asc. node	4058 Nov 28 15:37	4° ♄ 16'56	
direct	4057 Dec 22 11:29	14° ♄ 30'45		morning rise	4058 Dec 03 04:48	29° ♂ 52'40	
morning max el	4057 Dec 30 02:58	18° ♄ 51'32	20°05'55		4058 Dec 03 00:10	30° ♂	
greatest brilliancy	4058 Jan 05 23:53	27° ♄ 07'16	-0.6m	direct	4058 Dec 06 10:09	28° ♂ 52'58	
	4058 Jan 08 02:12	0° ♄			4058 Dec 09 23:56	0° ♄	
desc. node	4058 Jan 17 18:34	14° ♄ 10'04		morning max el	4058 Dec 13 09:18	2° ♄ 45'18	19°07'10
morning set	4058 Jan 26 04:08	26° ♄ 58'50			4059 Jan 01 16:51	0° ♄	
	4058 Jan 28 02:57	0° ♄		desc. node	4059 Jan 04 15:37	4° ♄ 34'52	
max. Earth dist.	4058 Feb 05 21:12	13° ♄ 47'34	1.43891 AU	morning set	4059 Jan 05 07:34	5° ♄ 36'58	
				max. Earth dist.	4059 Jan 19 12:46	27° ♄ 50'16	1.44934 AU
superior conj	4058 Feb 11 11:27	22° ♄ 50'37	-2°-4'-1		4059 Jan 20 21:40	0° ♄	
minimum elong	4058 Feb 11 07:36	22° ♄ 34'53	2°03'54				
	4058 Feb 15 19:16	0° ♄		superior conj	4059 Jan 22 01:33	1° ♄ 50'08	-1°-42'-13
evening rise	4058 Feb 24 11:29	14° ♄ 45'46		minimum elong	4059 Jan 21 16:42	1° ♄ 15'11	1°41'28
	4058 Mar 05 10:06	0° ♄		evening rise	4059 Feb 05 20:51	25° ♄ 42'18	

	4059 Feb 08 11:34	0° H		evening max el	4060 Feb 09 03:04	9° H 06'04	19°09'03
asc. node	4059 Feb 24 14:53	24° H 24'41		asc. node	4060 Feb 11 11:56	11° H 13'19	
evening max el	4059 Feb 25 17:46	25° H 36'46	18°30'51	retrograde	4060 Feb 16 02:16	13° H 03'38	
retrograde	4059 Mar 04 06:35	29° H 11'47		evening set	4060 Feb 19 10:19	11° H 58'50	
evening set	4059 Mar 07 07:55	28° H 19'37		inferior conj	4060 Feb 25 00:47	6° H 08'07	3°24'39
inferior conj	4059 Mar 13 04:19	22° H 45'21	3°35'58	minimum elong	4060 Feb 24 23:07	6° H 13'27	3°24'26
minimum elong	4059 Mar 13 03:50	22° H 46'48	3°35'58	min. Earth dist.	4060 Feb 26 12:04	4° H 15'27	0.66091 AU
min. Earth dist.	4059 Mar 15 06:56	20° H 15'47	0.64632 AU	morning rise	4060 Mar 01 10:59	29° \approx 52'58	
morning rise	4059 Mar 18 22:18	16° H 33'33			4060 Mar 01 07:51	30° R \approx	
direct	4059 Mar 25 16:09	13° H 45'13		direct	4060 Mar 07 19:43	27° \approx 05'31	
desc. node	4059 Apr 02 14:45	16° H 48'44			4060 Mar 15 05:50	0° H	
morning max el	4059 Apr 08 04:46	21° H 38'40	27°19'51	desc. node	4060 Mar 19 11:48	3° H 34'50	
	4059 Apr 15 11:44	0° Y		morning max el	4060 Mar 20 14:43	4° H 41'06	26°20'59
	4059 May 05 05:49	0° B			4060 Apr 08 23:09	0° Y	
morning set	4059 May 13 12:34	15° B 19'17		morning set	4060 Apr 25 15:52	28° Y 22'35	
max. Earth dist.	4059 May 18 06:43	24° B 51'50	1.33551 AU		4060 Apr 26 12:34	0° B	
	4059 May 20 17:56	0° II		max. Earth dist.	4060 Apr 29 18:00	6° B 12'48	1.34956 AU
superior conj	4059 May 21 17:16	2° II 03'08	0°-19'-25	superior conj	4060 May 04 14:52	15° B 59'05	0°-48'-34
minimum elong	4059 May 21 18:16	2° II 08'25	0°19'13	minimum elong	4060 May 04 17:28	16° B 12'24	0°48'05
asc. node	4059 May 23 14:12	6° II 01'58		asc. node	4060 May 09 11:13	26° B 02'20	
evening rise	4059 May 29 00:01	17° II 33'20			4060 May 11 08:52	0° II	
	4059 Jun 04 04:33	0° E		evening rise	4060 May 12 08:30	2° II 02'25	
evening max el	4059 Jun 19 00:44	21° E 37'49	22°08'40		4060 May 28 18:11	0° E	
desc. node	4059 Jun 29 13:58	27° E 47'32		evening max el	4060 May 31 01:23	2° E 27'48	20°42'14
retrograde	4059 Jul 01 20:40	27° E 59'35		retrograde	4060 Jun 11 09:28	8° E 00'17	
evening set	4059 Jul 04 18:03	27° E 41'00		evening set	4060 Jun 13 11:22	7° E 49'51	
min. Earth dist.	4059 Jul 13 06:14	24° E 01'05	0.55021 AU	desc. node	4060 Jun 15 10:59	7° E 21'38	
inferior conj	4059 Jul 14 00:26	23° E 35'28	-3°-54'-7	inferior conj	4060 Jun 22 17:48	3° E 52'44	-2°-8'-3
minimum elong	4059 Jul 13 15:55	23° E 47'27	3°51'56	minimum elong	4060 Jun 22 11:50	4° E 01'17	2°05'57
morning rise	4059 Jul 22 15:42	19° E 45'12		min. Earth dist.	4060 Jun 23 18:04	3° E 17'59	0.54892 AU
direct	4059 Jul 25 19:40	19° E 22'53			4060 Jun 30 18:09	30° R II	
morning max el	4059 Aug 06 14:50	24° E 53'15	21°27'28	morning rise	4060 Jul 01 11:12	29° II 47'50	
	4059 Aug 11 06:34	0° Q		direct	4060 Jul 05 04:59	29° II 17'40	
asc. node	4059 Aug 19 13:28	12° Q 47'13			4060 Jul 09 13:13	0° E	
morning set	4059 Aug 26 21:26	27° Q 08'56		morning max el	4060 Jul 18 09:33	5° E 38'46	23°07'04
	4059 Aug 28 06:13	0° M			4060 Aug 04 08:59	0° Q	
superior conj	4059 Sep 03 05:41	12° M 33'34	1°43'27	asc. node	4060 Aug 05 10:30	2° Q 02'16	
minimum elong	4059 Sep 03 05:03	12° M 30'13	1°43'26	morning set	4060 Aug 10 08:33	12° Q 01'33	
max. Earth dist.	4059 Sep 07 08:14	20° M 57'23	1.35110 AU	superior conj	4060 Aug 17 10:49	27° Q 13'51	1°37'03
evening rise	4059 Sep 11 16:08	29° M 24'56		minimum elong	4060 Aug 17 09:08	27° Q 04'50	1°36'55
	4059 Sep 11 23:32	0° A			4060 Aug 18 17:59	0° M	
desc. node	4059 Sep 25 13:20	23° A 27'54		max. Earth dist.	4060 Aug 20 04:16	3° M 01'04	1.33713 AU
	4059 Sep 29 20:33	0° L		evening rise	4060 Aug 25 04:12	13° M 13'43	
evening max el	4059 Oct 16 22:55	21° L 16'24	26°41'33		4060 Sep 03 04:59	0° A	
retrograde	4059 Oct 29 23:12	28° L 31'44		desc. node	4060 Sep 11 10:20	13° A 19'29	
evening set	4059 Nov 05 12:28	25° L 53'25			4060 Sep 23 22:54	0° L	
min. Earth dist.	4059 Nov 09 14:13	21° L 45'03	0.65988 AU	evening max el	4060 Sep 28 11:11	4° L 43'19	27°17'52
inferior conj	4059 Nov 11 09:03	19° L 38'14	-1°-24'-33	retrograde	4060 Oct 11 22:27	12° L 01'47	
minimum elong	4059 Nov 11 11:24	19° L 31'18	1°23'34	evening set	4060 Oct 18 21:52	9° L 21'35	
asc. node	4059 Nov 15 12:40	15° L 14'59		min. Earth dist.	4060 Oct 22 17:23	5° L 48'31	0.64622 AU
morning rise	4059 Nov 17 11:50	13° L 54'09		inferior conj	4060 Oct 25 00:18	3° L 19'49	-2°-26'-4
direct	4059 Nov 20 07:41	13° L 09'37		minimum elong	4060 Oct 25 04:26	3° L 08'38	2°24'30
morning max el	4059 Nov 26 21:45	16° L 44'27	18°24'22		4060 Oct 28 07:39	30° R A	
	4059 Dec 06 18:04	0° J		morning rise	4060 Oct 31 13:07	27° A 49'57	
morning set	4059 Dec 16 12:46	15° J 34'57		asc. node	4060 Nov 01 09:44	27° A 31'16	
desc. node	4059 Dec 22 12:37	25° J 10'34		direct	4060 Nov 03 01:56	27° A 16'36	
	4059 Dec 25 13:32	0° E			4060 Nov 08 19:36	0° L	
superior conj	4060 Jan 01 03:53	10° E 23'55	-1°-2'-48	morning max el	4060 Nov 09 13:44	0° L 43'06	17°58'25
minimum elong	4059 Dec 31 20:13	9° E 53'48	1°01'51	morning set	4060 Nov 26 23:16	26° L 59'58	
max. Earth dist.	4060 Jan 02 07:20	12° E 11'37	1.45264 AU	desc. node	4060 Nov 28 18:11	0° J	
	4060 Jan 13 15:53	0° \approx			4060 Dec 08 09:39	15° J 53'41	
evening rise	4060 Jan 17 06:54	5° \approx 42'15		superior conj	4060 Dec 10 15:20	19° J 29'56	0°-15'-21
greatest brilliancy	4060 Jan 30 04:46	25° \approx 52'08	-0.7m	minimum elong	4060 Dec 10 13:29	19° J 22'28	0°15'06
	4060 Feb 01 23:41	0° H		behind sun begin	4060 Dec 10 09:44	19° J 07'25	

behind sun end	4060 Dec 10 17:14	19°♂37'31		minimum elong	4061 Nov 21 05:20	29°♂58'08	0°28'25
max. Earth dist.	4060 Dec 15 02:12	26°♂35'12	1.44859 AU		4061 Nov 21 05:47	0°♂	
	4060 Dec 17 06:13	0°♂		desc. node	4061 Nov 25 06:40	6°♂40'21	
evening rise	4060 Dec 26 22:21	15°♂01'37		max. Earth dist.	4061 Nov 27 18:59	10°♂44'55	1.43768 AU
	4061 Jan 05 17:44	0°♂		evening rise	4061 Dec 06 08:04	24°♂13'25	
greatest brilliancy	4061 Jan 15 14:06	14°♂21'32	-0.6m		4061 Dec 10 02:26	0°♂	
evening max el	4061 Jan 22 07:52	22°♂37'59	20°03'03		4061 Dec 30 23:38	0°♂	
asc. node	4061 Jan 28 08:58	26°♂52'23		greatest brilliancy	4061 Dec 31 03:16	0°♂11'35	-0.4m
retrograde	4061 Jan 30 00:08	27°♂06'48		evening max el	4062 Jan 05 07:14	6°♂10'59	21°10'05
evening set	4061 Feb 02 16:18	25°♂48'07		retrograde	4062 Jan 13 21:58	11°♂17'09	
inferior conj	4061 Feb 08 03:19	19°♂43'23	3°01'28	asc. node	4062 Jan 15 06:02	11°♂07'26	
minimum elong	4061 Feb 08 00:59	19°♂51'13	3°00'57	evening set	4062 Jan 17 23:57	9°♂43'21	
min. Earth dist.	4061 Feb 09 00:26	18°♂32'23	0.67137 AU	inferior conj	4062 Jan 23 09:27	3°♂27'26	2°28'46
morning rise	4061 Feb 13 09:03	13°♂27'27		minimum elong	4062 Jan 23 06:59	3°♂35'58	2°28'01
direct	4061 Feb 19 05:00	10°♂52'01		min. Earth dist.	4062 Jan 23 17:49	2°♂58'33	0.67771 AU
morning max el	4061 Mar 02 23:28	17°♂54'09	25°02'20		4062 Jan 25 23:30	30°♂	
desc. node	4061 Mar 06 08:52	21°♂34'25		morning rise	4062 Jan 28 13:39	27°♂12'34	
	4061 Mar 13 03:11	0°♂		direct	4062 Feb 02 18:58	24°♂56'29	
	4061 Apr 01 23:57	0°♂			4062 Feb 12 02:08	0°♂	
morning set	4061 Apr 08 02:06	10°♂32'20		morning max el	4062 Feb 13 08:07	1°♂13'06	23°34'16
max. Earth dist.	4061 Apr 11 18:21	17°♂13'48	1.36793 AU	desc. node	4062 Feb 21 05:54	10°♂26'14	
					4062 Mar 07 02:35	0°♂	
superior conj	4061 Apr 18 02:49	29°♂22'32	-1°-17'-6	morning set	4062 Mar 20 13:18	21°♂32'23	
minimum elong	4061 Apr 18 06:52	29°♂42'31	1°16'29	max. Earth dist.	4062 Mar 24 13:41	28°♂28'15	1.38919 AU
	4061 Apr 18 10:25	0°♂			4062 Mar 25 10:30	0°♂	
asc. node	4061 Apr 26 08:15	15°♂52'34					
evening rise	4061 Apr 26 12:06	16°♂11'53		superior conj	4062 Apr 01 01:20	12°♂03'45	-1°-42'-29
	4061 May 03 16:37	0°♂		minimum elong	4062 Apr 01 06:06	12°♂26'05	1°41'58
evening max el	4061 May 13 14:25	13°♂58'18	19°33'21	evening rise	4062 Apr 10 08:03	29°♂54'24	
retrograde	4061 May 23 04:28	18°♂38'03			4062 Apr 10 09:13	0°♂	
evening set	4061 May 25 03:36	18°♂27'10		asc. node	4062 Apr 13 05:19	5°♂27'55	
desc. node	4061 Jun 02 08:02	14°♂42'00		evening max el	4062 Apr 26 14:15	26°♂08'29	18°44'31
inferior conj	4061 Jun 02 20:12	14°♂22'43	0°-8'-58		4062 May 03 07:36	0°♂	
minimum elong	4061 Jun 02 19:48	14°♂23'21	0°08'50	retrograde	4062 May 04 16:37	0°♂06'44	
transit middle	4061 Jun 02 19:48	14°♂23'21	0°08'50		4062 May 06 02:08	30°♂	
transit begin	4061 Jun 02 16:33	14°♂28'32		evening set	4062 May 06 20:32	29°♂50'47	
transit end	4061 Jun 02 23:04	14°♂18'10		inferior conj	4062 May 14 17:46	25°♂28'29	1°31'55
min. Earth dist.	4061 Jun 05 07:51	12°♂48'16	0.55727 AU	minimum elong	4062 May 14 20:53	25°♂22'40	1°30'54
morning rise	4061 Jun 11 08:23	9°♂47'05		min. Earth dist.	4062 May 18 00:37	23°♂03'30	0.57336 AU
direct	4061 Jun 15 22:59	8°♂59'25		desc. node	4062 May 20 05:05	21°♂36'53	
morning max el	4061 Jun 29 23:29	16°♂02'21	24°49'49	morning rise	4062 May 22 16:49	20°♂17'38	
	4061 Jul 11 05:10	0°♂		direct	4062 May 28 06:36	19°♂01'29	
asc. node	4061 Jul 23 07:32	21°♂39'09		morning max el	4062 Jun 11 15:05	26°♂32'55	26°20'15
morning set	4061 Jul 25 20:21	26°♂55'23			4062 Jun 14 21:58	0°♂	
	4061 Jul 27 06:58	0°♂			4062 Jul 04 11:22	0°♂	
				morning set	4062 Jul 10 07:15	11°♂45'45	
superior conj	4061 Aug 01 20:07	12°♂05'02	1°25'10	asc. node	4062 Jul 10 04:35	11°♂31'40	
minimum elong	4061 Aug 01 17:52	11°♂52'48	1°24'53				
max. Earth dist.	4061 Aug 03 08:42	15°♂24'10	1.32738 AU	superior conj	4062 Jul 17 07:33	27°♂00'46	1°08'34
evening rise	4061 Aug 09 02:06	27°♂30'19		minimum elong	4062 Jul 17 05:14	26°♂48'02	1°08'12
	4061 Aug 10 07:37	0°♂		max. Earth dist.	4062 Jul 17 18:45	28°♂02'28	1.32177 AU
	4061 Aug 27 11:46	0°♂			4062 Jul 18 16:06	0°♂	
desc. node	4061 Aug 29 07:21	2°♂38'14		evening rise	4062 Jul 24 06:52	12°♂05'52	
evening max el	4061 Sep 10 21:31	17°♂45'06	27°25'54		4062 Aug 02 11:30	0°♂	
retrograde	4061 Sep 24 15:05	25°♂00'41		desc. node	4062 Aug 16 04:23	21°♂10'40	
evening set	4061 Oct 01 19:30	22°♂28'53			4062 Aug 23 23:42	0°♂	
min. Earth dist.	4061 Oct 05 10:46	19°♂27'08	0.62930 AU	evening max el	4062 Aug 24 03:05	0°♂08'03	27°01'10
inferior conj	4061 Oct 08 05:29	16°♂45'16	-3°-26'-27	retrograde	4062 Sep 07 00:11	7°♂19'37	
minimum elong	4061 Oct 08 11:03	16°♂31'42	3°24'42	evening set	4062 Sep 14 01:14	5°♂08'22	
morning rise	4061 Oct 15 05:18	11°♂33'00		min. Earth dist.	4062 Sep 17 17:20	2°♂28'16	0.60979 AU
direct	4061 Oct 17 13:52	11°♂07'09		inferior conj	4062 Sep 20 21:17	29°♂46'06	-4°-20'-34
asc. node	4061 Oct 19 06:47	11°♂21'01		minimum elong	4062 Sep 21 03:10	29°♂33'29	4°19'15
morning max el	4061 Oct 24 06:14	14°♂33'29	17°50'09		4062 Sep 20 14:50	30°♂	
	4061 Nov 03 22:32	0°♂		morning rise	4062 Sep 28 08:16	24°♂55'01	
morning set	4061 Nov 09 09:43	9°♂33'56		direct	4062 Sep 30 15:43	24°♂33'39	
				asc. node	4062 Oct 06 03:49	26°♂40'21	
superior conj	4061 Nov 21 02:35	29°♂46'35	0°28'48	morning max el	4062 Oct 07 20:08	28°♂07'58	18°00'35

	4062 Oct 09 13:46	0°♄		morning max el	4063 Sep 21 04:10	11°♏17'36	18°31'06
morning set	4062 Oct 23 13:40	22°♄57'34		asc. node	4063 Sep 23 00:51	13°♏15'46	
	4062 Oct 27 09:14	0°♌			4063 Oct 03 14:38	0°♄	
				morning set	4063 Oct 07 05:56	6°♄55'57	
superior conj	4062 Nov 02 16:22	11°♌20'56	1°03'17				
minimum elong	4062 Nov 02 20:32	11°♌39'15	1°02'46	superior conj	4063 Oct 16 04:32	24°♄00'44	1°26'40
max. Earth dist.	4062 Nov 10 07:12	24°♌23'34	1.42119 AU	minimum elong	4063 Oct 16 07:55	24°♄16'29	1°26'20
desc. node	4062 Nov 12 03:42	27°♌27'16			4063 Oct 19 10:54	0°♌	
	4062 Nov 13 17:11	0°♊		max. Earth dist.	4063 Oct 23 13:53	7°♌18'30	1.40117 AU
evening rise	4062 Nov 16 04:07	3°♊56'44		evening rise	4063 Oct 27 21:06	14°♌37'47	
	4062 Dec 03 11:26	0°♊		desc. node	4063 Oct 30 00:43	18°♌10'54	
greatest brilliancy	4062 Dec 14 06:19	14°♊22'42	-0.3m		4063 Nov 06 11:58	0°♊	
evening max el	4062 Dec 19 01:18	19°♊45'25	22°26'11		4063 Nov 28 11:26	0°♊	
retrograde	4062 Dec 28 18:06	25°♊31'28		evening max el	4063 Dec 01 15:31	3°♊22'57	23°46'08
evening set	4063 Jan 02 07:33	23°♊41'35		retrograde	4063 Dec 12 11:15	9°♊46'03	
asc. node	4063 Jan 02 03:04	23°♊50'32		evening set	4063 Dec 17 13:33	7°♊40'00	
inferior conj	4063 Jan 07 17:12	17°♊17'53	1°48'10	asc. node	4063 Dec 20 00:05	5°♊09'59	
minimum elong	4063 Jan 07 15:03	17°♊25'19	1°47'23	min. Earth dist.	4063 Dec 22 10:37	2°♊00'36	0.67891 AU
min. Earth dist.	4063 Jan 07 13:58	17°♊29'03	0.68015 AU	inferior conj	4063 Dec 23 00:43	1°♊12'36	1°00'50
morning rise	4063 Jan 12 22:26	11°♊05'45		minimum elong	4063 Dec 22 23:20	1°♊17'17	1°00'17
direct	4063 Jan 17 12:48	9°♊12'21			4063 Dec 23 22:10	30°♏♊	
morning max el	4063 Jan 26 19:51	14°♊39'40	22°06'23	morning rise	4063 Dec 28 09:20	25°♊05'01	
greatest brilliancy	4063 Jan 31 10:33	19°♊49'32	-0.3m	direct	4064 Jan 01 09:35	23°♊34'21	
desc. node	4063 Feb 08 02:57	29°♊55'37		morning max el	4064 Jan 09 13:57	28°♊17'05	20°46'21
	4063 Feb 08 04:13	0°♐			4064 Jan 11 04:56	0°♊	
	4063 Feb 28 02:40	0°♏		greatest brilliancy	4064 Jan 15 07:58	4°♊58'04	-0.5m
morning set	4063 Feb 28 20:13	1°♏10'38		desc. node	4064 Jan 25 23:59	19°♊52'21	
max. Earth dist.	4063 Mar 06 11:28	10°♏26'54	1.41085 AU		4064 Feb 01 18:30	0°♐	
				morning set	4064 Feb 08 01:06	9°♐39'00	
superior conj	4063 Mar 14 05:38	23°♏50'32	-2°00'-59	max. Earth dist.	4064 Feb 16 15:59	23°♐20'22	1.42998 AU
minimum elong	4063 Mar 14 09:17	24°♏06'46	2°00'48		4064 Feb 20 17:30	0°♏	
	4063 Mar 17 15:52	0°♑					
evening rise	4063 Mar 24 16:57	13°♑00'56		superior conj	4064 Feb 23 10:49	4°♏32'46	-2°-7'-40
asc. node	4063 Mar 31 02:21	24°♑42'06		minimum elong	4064 Feb 23 10:27	4°♏31'12	2°07'41
	4063 Apr 03 05:41	0°♑		evening rise	4064 Mar 06 10:44	25°♏23'05	
evening max el	4063 Apr 09 21:35	8°♑49'39	18°15'49		4064 Mar 09 01:07	0°♑	
retrograde	4063 Apr 16 23:43	12°♑22'24		asc. node	4064 Mar 16 23:23	13°♑28'42	
evening set	4063 Apr 19 09:49	11°♑58'24		evening max el	4064 Mar 23 09:12	21°♑53'57	18°06'47
inferior conj	4063 Apr 26 12:43	7°♑15'13	2°41'24	retrograde	4064 Mar 29 22:26	25°♑16'43	
minimum elong	4063 Apr 26 16:15	7°♑07'33	2°40'34	evening set	4064 Apr 01 14:30	24°♑42'43	
min. Earth dist.	4063 Apr 29 22:39	4°♑18'55	0.59405 AU	inferior conj	4064 Apr 08 02:38	19°♑38'52	3°20'36
morning rise	4063 May 03 18:44	1°♑35'35		minimum elong	4064 Apr 08 04:48	19°♑33'26	3°20'19
desc. node	4063 May 07 02:07	0°♑10'08		min. Earth dist.	4064 Apr 11 04:23	16°♑36'04	0.61595 AU
	4063 May 07 18:22	30°♏♑		morning rise	4064 Apr 14 16:12	13°♑40'50	
direct	4063 May 10 03:24	29°♑44'31		direct	4064 Apr 21 11:27	11°♑17'59	
	4063 May 12 13:30	0°♑		desc. node	4064 Apr 22 23:10	11°♑24'25	
morning max el	4063 May 24 12:23	7°♑33'47	27°23'38	morning max el	4064 May 05 15:57	19°♑16'14	27°50'58
	4063 Jun 10 10:43	0°♒			4064 May 14 18:25	0°♑	
morning set	4063 Jun 24 15:29	26°♒25'52			4064 Jun 02 07:10	0°♒	
	4063 Jun 26 08:06	0°♑		morning set	4064 Jun 07 19:09	10°♒49'41	
asc. node	4063 Jun 27 01:37	1°♑33'35		asc. node	4064 Jun 12 22:39	21°♒40'27	
				max. Earth dist.	4064 Jun 13 16:00	23°♒14'23	1.32265 AU
superior conj	4063 Jul 01 19:16	11°♑53'56	0°47'55				
minimum elong	4063 Jul 01 17:21	11°♑43'24	0°47'33	superior conj	4064 Jun 15 05:34	26°♒39'05	0°23'49
max. Earth dist.	4063 Jul 01 06:28	10°♑43'21	1.32015 AU	minimum elong	4064 Jun 15 04:30	26°♒33'12	0°23'34
evening rise	4063 Jul 08 15:55	26°♑51'19			4064 Jun 16 18:16	0°♑	
	4063 Jul 10 03:51	0°♑		evening rise	4064 Jun 22 03:15	11°♑40'12	
	4063 Jul 27 05:19	0°♏			4064 Jul 01 10:28	0°♑	
desc. node	4063 Aug 03 01:23	8°♏37'16		evening max el	4064 Jul 17 16:46	22°♑31'46	24°40'09
evening max el	4063 Aug 06 01:24	11°♏42'26	26°03'43	desc. node	4064 Jul 19 22:23	24°♑31'41	
retrograde	4063 Aug 20 00:43	18°♏51'00		retrograde	4064 Jul 31 14:39	29°♑33'35	
evening set	4063 Aug 26 10:13	17°♏12'12		evening set	4064 Aug 05 18:57	28°♑33'10	
min. Earth dist.	4063 Aug 30 14:00	14°♏37'28	0.58906 AU	min. Earth dist.	4064 Aug 11 04:01	25°♑44'36	0.56971 AU
inferior conj	4063 Sep 02 20:10	12°♏12'21	-4°-59'-42	inferior conj	4064 Aug 13 23:19	23°♑55'43	-5°-10'-18
minimum elong	4063 Sep 03 00:01	12°♏05'11	4°59'17	minimum elong	4064 Aug 13 22:05	23°♑57'43	5°10'17
morning rise	4063 Sep 10 17:20	7°♏44'46		morning rise	4064 Aug 22 04:47	19°♑50'03	
direct	4063 Sep 13 02:54	7°♏25'32		direct	4064 Aug 24 19:32	19°♑31'03	

morning max el	4064 Sep 03 03:05	23°♂52'36	19°22'58	evening set	4065 Jul 16 07:39	9°♂09'20	
	4064 Sep 08 07:23	0°♍		min. Earth dist.	4065 Jul 23 15:02	5°♂52'03	0.55513 AU
asc. node	4064 Sep 08 21:53	0°♍52'09		inferior conj	4065 Jul 25 07:00	4°♂54'02	-4°-36'-46
morning set	4064 Sep 20 06:44	21°♍18'43		minimum elong	4065 Jul 24 23:58	5°♂04'16	4°35'31
	4064 Sep 24 14:40	0°♊		morning rise	4065 Aug 02 19:05	1°♂02'18	
				direct	4065 Aug 05 17:40	0°♂41'44	
superior conj	4064 Sep 28 09:35	7°♊30'08	1°39'48	morning max el	4065 Aug 16 14:27	5°♂44'36	20°36'25
minimum elong	4064 Sep 28 11:22	7°♊38'52	1°39'42	asc. node	4065 Aug 26 18:56	19°♂15'51	
max. Earth dist.	4064 Oct 04 18:02	19°♊32'52	1.38027 AU		4065 Sep 01 14:15	0°♍	
evening rise	4064 Oct 08 13:23	26°♊23'05		morning set	4065 Sep 04 13:16	5°♍58'31	
	4064 Oct 10 15:19	0°♌					
desc. node	4064 Oct 15 21:42	8°♌47'06		superior conj	4065 Sep 12 02:50	21°♍35'53	1°44'15
	4064 Oct 30 01:17	0°♌		minimum elong	4065 Sep 12 02:59	21°♍36'40	1°44'15
evening max el	4064 Nov 13 04:03	17°♌04'07	25°03'25		4065 Sep 16 07:35	0°♊	
retrograde	4064 Nov 25 00:13	23°♌55'46		max. Earth dist.	4065 Sep 17 01:28	1°♊27'13	1.36089 AU
evening set	4064 Nov 30 16:19	21°♌34'40		evening rise	4065 Sep 21 02:10	9°♊05'57	
min. Earth dist.	4064 Dec 05 05:24	16°♌29'34	0.67424 AU	desc. node	4065 Oct 02 18:43	29°♊11'30	
asc. node	4064 Dec 05 21:08	15°♌38'04			4065 Oct 03 06:56	0°♌	
inferior conj	4064 Dec 06 06:14	15°♌08'11	0°07'47		4065 Oct 25 21:34	0°♌	
minimum elong	4064 Dec 06 06:02	15°♌08'50	0°07'43	evening max el	4065 Oct 26 16:37	0°♌46'55	26°10'30
transit middle	4064 Dec 06 06:02	15°♌08'50	0°07'43	retrograde	4065 Nov 08 08:10	7°♌55'57	
transit begin	4064 Dec 06 03:36	15°♌16'50		evening set	4065 Nov 14 14:04	5°♌22'43	
transit end	4064 Dec 06 08:28	15°♌00'50		min. Earth dist.	4065 Nov 18 19:56	0°♌53'17	0.66618 AU
morning rise	4064 Dec 11 20:22	9°♌07'27			4065 Nov 19 13:15	30°♌	
direct	4064 Dec 15 08:04	7°♌57'20		inferior conj	4065 Nov 20 07:55	29°♌02'05	0°-49'-48
morning max el	4064 Dec 22 15:51	12°♌05'05	19°38'58	minimum elong	4065 Nov 20 09:16	28°♌57'57	0°49'14
greatest brilliancy	4064 Dec 30 16:27	22°♌02'35	-0.6m	asc. node	4065 Nov 22 18:10	26°♌09'48	
	4065 Jan 05 04:03	0°♍		morning rise	4065 Nov 26 05:34	23°♌10'54	
desc. node	4065 Jan 11 20:59	10°♍08'15		direct	4065 Nov 29 06:39	22°♌18'01	
morning set	4065 Jan 16 21:25	17°♍50'58		morning max el	4065 Dec 06 00:59	26°♌01'37	18°46'50
	4065 Jan 24 16:55	0°♎			4065 Dec 09 11:59	0°♌	
max. Earth dist.	4065 Jan 29 03:40	7°♎00'46	1.44416 AU	morning set	4065 Dec 27 10:27	26°♌59'41	
					4065 Dec 29 08:17	0°♍	
superior conj	4065 Feb 02 14:07	14°♎05'56	-1°-57'-13	desc. node	4065 Dec 29 18:00	0°♍38'11	
minimum elong	4065 Feb 02 07:43	13°♎40'10	1°56'51	max. Earth dist.	4066 Jan 11 20:54	21°♍13'38	1.45174 AU
	4065 Feb 12 06:53	0°♎					
evening rise	4065 Feb 16 08:54	6°♎51'39		superior conj	4066 Jan 12 20:58	22°♍48'09	-1°-27'-14
	4065 Mar 02 15:19	0°♏		minimum elong	4066 Jan 12 11:44	22°♍11'51	1°26'16
asc. node	4065 Mar 03 20:25	1°♏38'34			4066 Jan 17 10:37	0°♎	
evening max el	4065 Mar 06 21:59	5°♏13'00	18°16'51	evening rise	4066 Jan 28 08:11	17°♎22'56	
retrograde	4065 Mar 13 08:21	8°♏39'41			4066 Feb 05 04:18	0°♎	
evening set	4065 Mar 16 06:14	7°♏54'24		evening max el	4066 Feb 18 09:15	18°♎40'14	18°45'05
inferior conj	4065 Mar 22 07:24	2°♏30'56	3°35'44	asc. node	4066 Feb 18 17:27	19°♎00'42	
minimum elong	4065 Mar 22 07:49	2°♏29'46	3°35'44	retrograde	4066 Feb 25 01:25	22°♎23'10	
	4065 Mar 24 13:22	30°♎		evening set	4066 Feb 28 05:35	21°♎25'36	
min. Earth dist.	4065 Mar 24 19:06	29°♎44'25	0.63623 AU	inferior conj	4066 Mar 05 23:08	15°♎44'09	3°32'47
morning rise	4065 Mar 28 07:31	26°♎22'47		minimum elong	4066 Mar 05 22:04	15°♎47'23	3°32'42
direct	4065 Apr 04 04:17	23°♎39'31		min. Earth dist.	4066 Mar 07 19:07	13°♎29'31	0.65312 AU
desc. node	4065 Apr 09 20:11	25°♎13'30		morning rise	4066 Mar 11 13:24	9°♎30'50	
	4065 Apr 16 07:26	0°♏		direct	4066 Mar 18 04:05	6°♎41'21	
morning max el	4065 Apr 17 23:52	1°♏37'28	27°40'54	desc. node	4066 Mar 27 17:14	11°♎04'50	
	4065 May 08 23:16	0°♐		morning max el	4066 Mar 31 09:40	14°♎28'05	26°57'45
morning set	4065 May 22 15:55	24°♐49'56			4066 Apr 13 01:18	0°♏	
	4065 May 25 05:15	0°♑			4066 May 01 16:14	0°♐	
max. Earth dist.	4065 May 27 19:29	5°♑23'40	1.32949 AU	morning set	4066 May 06 02:41	8°♐17'09	
				max. Earth dist.	4066 May 10 13:32	17°♐03'16	1.34095 AU
superior conj	4065 May 30 12:41	11°♑10'35	0°-3'-3				
minimum elong	4065 May 30 12:50	11°♑11'23	0°03'03	superior conj	4066 May 14 14:28	25°♐21'40	0°-31'-44
behind sun begin	4065 May 30 07:35	10°♑43'14		minimum elong	4066 May 14 16:08	25°♐30'23	0°31'25
behind sun end	4065 May 30 18:05	11°♑39'34			4066 May 16 19:26	0°♑	
asc. node	4065 May 30 19:43	11°♑48'21		asc. node	4066 May 17 16:44	1°♑52'37	
evening rise	4065 Jun 06 15:00	26°♑26'40		evening rise	4066 May 22 01:18	11°♑04'13	
	4065 Jun 08 07:42	0°♒			4066 May 31 22:17	0°♑	
	4065 Jun 26 11:02	0°♒		evening max el	4066 Jun 11 00:29	13°♑29'43	21°30'04
evening max el	4065 Jun 29 05:55	2°♒57'09	23°03'47	retrograde	4066 Jun 23 06:15	19°♑31'35	
desc. node	4065 Jul 06 19:24	8°♒20'39		desc. node	4066 Jun 23 16:26	19°♑31'10	
retrograde	4065 Jul 12 15:46	9°♒38'38		evening set	4066 Jun 25 17:21	19°♑17'46	

inferior conj	4066 Jul 05 01:47	15°☿17'57	-3°-12'-59	inferior conj	4067 Jun 14 21:20	25°♊36'57	-1°-16'-58
minimum elong	4066 Jul 04 17:37	15°☿29'22	3°10'29	minimum elong	4067 Jun 14 17:43	25°♊42'19	1°15'38
min. Earth dist.	4066 Jul 05 01:40	15°☿18'07	0.54847 AU	min. Earth dist.	4067 Jun 16 13:59	24°♊36'40	0.55137 AU
morning rise	4066 Jul 13 18:39	11°☿24'14		morning rise	4067 Jun 23 13:37	21°♊20'39	
direct	4066 Jul 17 03:59	10°☿59'18		direct	4067 Jun 27 15:22	20°♊44'40	
morning max el	4066 Jul 29 14:14	16°☿51'07	22°08'39	morning max el	4067 Jul 11 06:14	27°♊24'31	23°51'22
	4066 Aug 08 22:01	0°♊			4067 Jul 13 19:26	0°☿	
asc. node	4066 Aug 13 15:58	8°♊14'41		asc. node	4067 Jul 31 13:02	27°☿39'59	
morning set	4066 Aug 19 23:15	20°♊47'57			4067 Aug 01 16:55	0°♊	
	4066 Aug 24 07:30	0°♊		morning set	4067 Aug 04 10:52	5°♊41'47	
superior conj	4066 Aug 27 04:28	6°♊05'50	1°41'28	superior conj	4067 Aug 11 11:39	20°♊51'31	1°32'37
minimum elong	4066 Aug 27 03:19	5°♊59'49	1°41'25	minimum elong	4067 Aug 11 09:40	20°♊40'49	1°32'26
max. Earth dist.	4066 Aug 30 16:36	13°♊23'30	1.34468 AU	max. Earth dist.	4067 Aug 13 16:32	25°♊35'30	1.33247 AU
evening rise	4066 Sep 04 06:55	22°♊33'28			4067 Aug 15 18:37	0°♊	
	4066 Sep 08 05:37	0°♊		evening rise	4067 Aug 18 23:33	6°♊34'49	
desc. node	4066 Sep 19 15:44	19°♊17'12			4067 Aug 31 19:14	0°♊	
	4066 Sep 27 00:25	0°♊		desc. node	4067 Sep 06 12:46	8°♊56'07	
evening max el	4066 Oct 09 05:17	14°♊22'30	27°00'03	evening max el	4067 Sep 21 16:49	27°♊39'21	27°24'58
retrograde	4066 Oct 22 10:33	21°♊39'12			4067 Sep 24 08:19	0°♊	
evening set	4066 Oct 29 04:42	18°♊59'07		retrograde	4067 Oct 05 06:57	4°♊57'06	
min. Earth dist.	4066 Nov 02 03:45	15°♊06'04	0.65456 AU	evening set	4067 Oct 12 09:30	2°♊18'43	
inferior conj	4066 Nov 04 03:39	12°♊49'20	-1°-50'-30		4067 Oct 15 02:21	30°♊♊	
minimum elong	4066 Nov 04 06:45	12°♊40'28	1°49'15	min. Earth dist.	4067 Oct 16 02:44	29°♊00'07	0.63942 AU
asc. node	4066 Nov 09 15:12	7°♊37'30		inferior conj	4067 Oct 18 14:56	26°♊24'22	-2°-52'-3
morning rise	4066 Nov 10 10:32	7°♊10'52		minimum elong	4067 Oct 18 19:45	26°♊11'52	2°50'22
direct	4066 Nov 13 03:12	6°♊31'24		morning rise	4067 Oct 25 08:23	21°♊01'52	
morning max el	4066 Nov 19 15:17	10°♊01'16	18°11'14	direct	4067 Oct 27 19:04	20°♊32'08	
	4066 Dec 03 12:51	0°♊		asc. node	4067 Oct 27 12:15	20°♊32'32	
morning set	4066 Dec 08 04:32	7°♊36'39		morning max el	4067 Nov 03 07:53	23°♊57'18	17°52'46
desc. node	4066 Dec 16 15:03	21°♊17'39			4067 Nov 08 04:39	0°♊	
	4066 Dec 22 02:13	0°♊		morning set	4067 Nov 20 01:59	19°♊33'08	
superior conj	4066 Dec 23 00:40	1°♊28'41	0°-42'-54		4067 Nov 26 05:18	0°♊	
minimum elong	4066 Dec 22 19:16	1°♊07'22	0°42'12	superior conj	4067 Dec 02 21:11	11°♊02'10	0°04'19
max. Earth dist.	4066 Dec 25 16:37	5°♊40'33	1.45187 AU	minimum elong	4067 Dec 02 21:40	11°♊04'09	0°04'15
evening rise	4067 Jan 08 09:22	27°♊03'25		behind sun begin	4067 Dec 02 12:03	10°♊24'51	
	4067 Jan 10 06:48	0°♊		behind sun end	4067 Dec 03 07:18	11°♊43'22	
greatest brilliancy	4067 Jan 24 11:39	21°♊39'30	-0.7m	desc. node	4067 Dec 03 12:04	12°♊02'42	
	4067 Jan 30 17:27	0°♊		max. Earth dist.	4067 Dec 08 11:00	20°♊00'38	1.44468 AU
evening max el	4067 Feb 01 16:51	2°♊11'14	19°30'12		4067 Dec 14 19:31	0°♊	
asc. node	4067 Feb 05 14:29	5°♊21'57		evening rise	4067 Dec 18 20:25	6°♊14'37	
retrograde	4067 Feb 08 22:24	6°♊20'59			4068 Jan 03 16:15	0°♊	
evening set	4067 Feb 12 09:48	5°♊10'13		greatest brilliancy	4068 Jan 09 20:13	8°♊35'32	-0.5m
	4067 Feb 17 08:06	30°♊		evening max el	4068 Jan 15 19:16	15°♊43'13	20°30'08
inferior conj	4067 Feb 17 22:31	29°♊13'00	3°16'07	asc. node	4068 Jan 23 11:32	20°♊27'05	
minimum elong	4067 Feb 17 20:30	29°♊19'36	3°15'46	retrograde	4068 Jan 23 20:37	20°♊27'52	
min. Earth dist.	4067 Feb 19 03:30	27°♊38'07	0.66589 AU	evening set	4068 Jan 27 16:44	19°♊02'51	
morning rise	4067 Feb 23 06:27	22°♊57'24		inferior conj	4068 Feb 02 02:51	12°♊52'42	2°48'40
direct	4067 Mar 01 10:00	20°♊14'17		minimum elong	4068 Feb 02 00:24	13°♊01'03	2°48'02
morning max el	4067 Mar 13 19:19	27°♊36'52	25°49'24	min. Earth dist.	4068 Feb 02 18:20	11°♊59'53	0.67451 AU
desc. node	4067 Mar 14 14:16	28°♊25'35		morning rise	4068 Feb 07 07:35	6°♊36'51	
	4067 Mar 16 01:25	0°♊		direct	4068 Feb 12 21:17	4°♊09'11	
	4067 Apr 06 17:48	0°♊		morning max el	4068 Feb 24 03:59	10°♊53'36	24°25'28
morning set	4067 Apr 18 23:26	20°♊59'52		desc. node	4068 Feb 29 11:19	16°♊49'41	
max. Earth dist.	4067 Apr 22 20:19	28°♊15'29	1.35695 AU		4068 Mar 10 09:17	0°♊	
	4067 Apr 23 18:02	0°♊			4068 Mar 29 11:13	0°♊	
superior conj	4067 Apr 28 08:23	9°♊05'13	-1°00'-52	morning set	4068 Mar 31 00:40	2°♊42'15	
minimum elong	4067 Apr 28 11:39	9°♊21'41	1°00'18	max. Earth dist.	4068 Apr 03 17:41	9°♊18'04	1.37675 AU
asc. node	4067 May 04 13:47	21°♊49'42		superior conj	4068 Apr 10 15:05	22°♊11'40	-1°-28'-27
evening rise	4067 May 06 08:04	25°♊26'33		minimum elong	4068 Apr 10 19:36	22°♊33'24	1°27'50
	4067 May 08 14:09	0°♊			4068 Apr 14 14:55	0°♊	
evening max el	4067 May 24 06:16	24°♊35'56	20°10'27	evening rise	4068 Apr 19 08:46	9°♊25'30	
retrograde	4067 Jun 03 20:22	29°♊45'51		asc. node	4068 Apr 20 10:49	11°♊34'15	
evening set	4067 Jun 05 19:37	29°♊35'54			4068 Apr 30 19:22	0°♊	
desc. node	4067 Jun 10 13:28	28°♊00'26		evening max el	4068 May 06 00:08	6°♊23'38	19°10'02

retrograde	4068 May 14 22:07	10°II44'14		evening max el	4069 Apr 19 03:38	18°848'32	18°29'51
evening set	4068 May 16 22:34	10°II31'48		retrograde	4069 Apr 26 18:10	22°833'35	
inferior conj	4068 May 25 07:09	6°II20'34	0°37'17	evening set	4069 Apr 29 00:43	22°814'32	
minimum elong	4068 May 25 08:39	6°II18'01	0°36'44	inferior conj	4069 May 06 13:52	17°843'51	2°05'22
desc. node	4068 May 27 10:31	4°II53'25		minimum elong	4069 May 06 17:29	17°836'40	2°04'18
min. Earth dist.	4068 May 28 05:06	4°II22'41	0.56331 AU	min. Earth dist.	4069 May 10 00:01	15°802'22	0.58186 AU
morning rise	4068 Jun 02 14:28	1°II29'16		morning rise	4069 May 14 05:50	12°819'30	
direct	4068 Jun 07 14:49	0°II30'45		desc. node	4069 May 14 07:33	12°817'23	
morning max el	4068 Jun 21 20:23	7°II48'10	25°30'47	direct	4069 May 20 04:43	10°848'22	
	4068 Jul 08 06:34	0°☿		morning max el	4069 Jun 03 13:58	18°829'02	26°51'06
asc. node	4068 Jul 17 10:05	17°☿24'14			4069 Jun 13 05:46	0°II	
morning set	4068 Jul 18 22:27	20°☿34'41			4069 Jun 30 18:10	0°☿	
	4068 Jul 23 07:08	0°♊		morning set	4069 Jul 03 08:23	5°☿21'13	
				asc. node	4069 Jul 04 07:07	7°☿21'22	
superior conj	4068 Jul 25 22:05	5°♊45'29	1°18'39	superior conj	4069 Jul 10 09:50	20°☿41'00	1°00'17
minimum elong	4068 Jul 25 19:45	5°♊32'43	1°18'20	minimum elong	4069 Jul 10 07:38	20°☿28'53	0°59'53
max. Earth dist.	4068 Jul 26 23:31	8°♊04'53	1.32443 AU	max. Earth dist.	4069 Jul 10 10:32	20°☿44'58	1.32056 AU
evening rise	4068 Aug 02 00:40	21°♊00'14			4069 Jul 14 15:44	0°♊	
	4068 Aug 06 12:31	0°♊		evening rise	4069 Jul 17 07:30	5°♊41'02	
desc. node	4068 Aug 23 09:47	27°♊57'16			4069 Jul 30 03:49	0°♊	
	4068 Aug 24 22:14	0°♊		desc. node	4069 Aug 10 06:49	16°♊04'41	
evening max el	4068 Sep 03 01:15	10°♊25'29	27°19'31	evening max el	4069 Aug 16 04:03	22°♊29'02	26°40'40
retrograde	4068 Sep 16 20:52	17°♊40'21		retrograde	4069 Aug 30 02:42	29°♊39'27	
evening set	4068 Sep 24 00:59	15°♊15'29		evening set	4069 Sep 05 22:30	27°♊41'03	
min. Earth dist.	4068 Sep 27 15:34	12°♊24'37	0.62117 AU	min. Earth dist.	4069 Sep 09 17:58	25°♊05'14	0.60090 AU
inferior conj	4068 Sep 30 14:50	9°♊40'25	-3°-50'-40	inferior conj	4069 Sep 12 23:53	22°♊28'06	-4°-39'-47
minimum elong	4068 Sep 30 20:45	9°♊26'46	3°49'01	minimum elong	4069 Sep 13 05:16	22°♊17'12	4°38'49
morning rise	4068 Oct 07 19:29	4°♊37'04		morning rise	4069 Sep 20 15:22	17°♊46'38	
direct	4068 Oct 10 03:03	4°♊13'36		direct	4069 Sep 22 23:09	17°♊26'31	
asc. node	4068 Oct 13 09:18	5°♊01'41		asc. node	4069 Sep 30 06:20	20°♊55'13	
morning max el	4068 Oct 16 23:44	7°♊42'30	17°52'17	morning max el	4069 Sep 30 11:32	21°♊07'35	18°11'00
	4068 Oct 31 11:11	0°♋			4069 Oct 07 05:34	0°♊	
morning set	4068 Nov 01 20:37	2°♋30'24		morning set	4069 Oct 16 06:21	16°♊10'28	
					4069 Oct 23 15:51	0°♋	
superior conj	4068 Nov 12 20:01	21°♋53'13	0°44'46	superior conj	4069 Oct 25 19:56	3°♋57'00	1°14'32
minimum elong	4068 Nov 12 23:44	22°♋09'05	0°44'16	minimum elong	4069 Oct 25 23:56	4°♋15'05	1°14'04
	4068 Nov 17 15:43	0°♋		max. Earth dist.	4069 Nov 02 11:04	17°♋17'26	1.41294 AU
desc. node	4068 Nov 19 09:05	2°♋50'14		desc. node	4069 Nov 06 06:06	23°♋36'20	
max. Earth dist.	4068 Nov 20 01:29	3°♋57'12	1.43114 AU	evening rise	4069 Nov 07 12:52	25°♋41'46	
evening rise	4068 Nov 27 08:41	15°♋35'30			4069 Nov 10 05:14	0°♋	
	4068 Dec 06 19:29	0°♋			4069 Nov 30 15:08	0°♋	
greatest brilliancy	4068 Dec 23 20:32	23°♋47'23	-0.4m	greatest brilliancy	4069 Dec 05 19:13	6°♋38'16	-0.2m
evening max el	4068 Dec 28 16:14	29°♋16'58	21°41'38	evening max el	4069 Dec 11 08:33	12°♋53'06	23°00'10
	4068 Dec 29 09:32	0°♋		retrograde	4069 Dec 21 12:56	18°♋55'18	
retrograde	4069 Jan 06 18:01	4°♋40'37		evening set	4069 Dec 26 07:38	16°♋58'44	
asc. node	4069 Jan 09 08:33	4°♋03'55		asc. node	4069 Dec 27 05:35	16°♋09'07	
evening set	4069 Jan 11 00:33	3°♋00'16		inferior conj	4069 Dec 31 17:47	10°♋33'09	1°28'52
	4069 Jan 13 22:16	30°♋♋		minimum elong	4069 Dec 31 15:55	10°♋39'37	1°28'09
inferior conj	4069 Jan 16 09:56	26°♋40'31	2°12'27	min. Earth dist.	4069 Dec 31 09:58	11°♋00'06	0.68007 AU
minimum elong	4069 Jan 16 07:32	26°♋48'49	2°11'41	morning rise	4070 Jan 06 00:10	4°♋22'36	
min. Earth dist.	4069 Jan 16 13:18	26°♋28'48	0.67917 AU	direct	4070 Jan 10 08:29	2°♋38'45	
morning rise	4069 Jan 21 14:15	20°♋26'19		morning max el	4070 Jan 19 03:23	7°♋45'58	21°31'00
direct	4069 Jan 26 13:09	18°♋19'33		greatest brilliancy	4070 Jan 24 02:19	13°♋23'04	-0.4m
morning max el	4069 Feb 05 13:27	24°♋15'44	22°56'17	desc. node	4070 Feb 02 05:22	25°♋41'34	
greatest brilliancy	4069 Feb 10 07:27	29°♋33'52	-0.3m		4070 Feb 05 04:57	0°♋	
	4069 Feb 10 16:05	0°♋		morning set	4070 Feb 19 19:02	22°♋13'35	
desc. node	4069 Feb 15 08:21	5°♋59'24			4070 Feb 24 15:02	0°♋	
	4069 Mar 03 20:00	0°♋		max. Earth dist.	4070 Feb 26 12:55	3°♋08'18	1.41949 AU
morning set	4069 Mar 12 00:16	13°♋08'46					
max. Earth dist.	4069 Mar 16 12:39	20°♋46'24	1.39854 AU	superior conj	4070 Mar 06 01:35	15°♋52'45	-2°-5'-35
	4069 Mar 21 18:38	0°♌		minimum elong	4070 Mar 06 03:55	16°♋02'53	2°05'33
superior conj	4069 Mar 24 06:28	4°♌31'23	-1°-51'-26		4070 Mar 14 00:12	0°♌	
minimum elong	4069 Mar 24 11:04	4°♌52'25	1°51'03	evening rise	4070 Mar 17 03:26	5°♌42'44	
evening rise	4069 Apr 03 00:27	22°♌53'42		asc. node	4070 Mar 25 04:53	20°♌05'11	
	4069 Apr 06 18:36	0°♌			4070 Mar 31 23:31	0°♌	
asc. node	4069 Apr 07 07:51	1°♌01'24					

evening max el	4070 Apr 02 13:18	1°♄41'41	18°09'37		4071 Mar 06 16:08	0°♄	
retrograde	4070 Apr 09 08:23	5°♄07'58		asc. node	4071 Mar 12 01:55	8°♄37'26	
evening set	4070 Apr 11 21:13	4°♄39'46		evening max el	4071 Mar 17 01:44	14°♄53'09	18°08'46
	4070 Apr 18 11:59	30°♄		retrograde	4071 Mar 23 12:34	18°♄16'06	
inferior conj	4070 Apr 18 17:21	29°♄47'39	3°01'21	evening set	4071 Mar 26 07:08	17°♄37'19	
minimum elong	4070 Apr 18 20:26	29°♄40'33	3°00'46	inferior conj	4071 Apr 01 14:06	12°♄24'37	3°29'36
min. Earth dist.	4070 Apr 22 00:52	26°♄45'43	0.60346 AU	minimum elong	4071 Apr 01 15:32	12°♄20'52	3°29'28
morning rise	4070 Apr 25 16:10	23°♄59'21		min. Earth dist.	4071 Apr 04 10:08	9°♄26'40	0.62487 AU
desc. node	4070 May 01 04:34	21°♄57'12		morning rise	4071 Apr 07 21:32	6°♄21'31	
direct	4070 May 02 06:41	21°♄53'51		direct	4071 Apr 14 18:21	3°♄48'44	
morning max el	4070 May 16 13:50	29°♄47'06	27°39'52	desc. node	4071 Apr 18 01:36	4°♄20'36	
	4070 May 16 19:01	0°♄		morning max el	4071 Apr 28 19:38	11°♄47'24	27°51'15
	4070 Jun 07 05:08	0°♄			4071 May 13 05:04	0°♄	
morning set	4070 Jun 17 14:57	19°♄55'50			4071 May 30 13:44	0°♄	
asc. node	4070 Jun 21 04:08	27°♄26'29		morning set	4071 Jun 01 16:01	4°♄10'58	
	4070 Jun 22 08:30	0°♄		max. Earth dist.	4071 Jun 07 05:38	15°♄49'17	1.32507 AU
max. Earth dist.	4070 Jun 23 21:55	3°♄24'30	1.32075 AU	asc. node	4071 Jun 08 01:10	17°♄34'24	
superior conj	4070 Jun 24 21:11	5°♄32'18	0°38'06	superior conj	4071 Jun 09 06:22	20°♄12'29	0°12'44
minimum elong	4070 Jun 24 19:35	5°♄23'27	0°37'45	minimum elong	4071 Jun 09 05:46	20°♄09'14	0°12'35
evening rise	4070 Jul 01 17:49	20°♄29'51		behind sun begin	4071 Jun 09 02:33	19°♄51'50	
	4070 Jul 06 08:43	0°♄		behind sun end	4071 Jun 09 08:58	20°♄26'38	
	4070 Jul 25 09:54	0°♄			4071 Jun 13 18:14	0°♄	
desc. node	4070 Jul 28 03:49	2°♄56'29		evening rise	4071 Jun 16 05:35	5°♄18'54	
evening max el	4070 Jul 28 23:26	3°♄44'23	25°30'46		4071 Jun 29 08:23	0°♄	
retrograde	4070 Aug 11 22:36	10°♄50'01		evening max el	4071 Jul 10 12:53	14°♄19'36	23°59'39
evening set	4070 Aug 17 21:19	9°♄27'42		desc. node	4071 Jul 15 00:50	18°♄02'13	
min. Earth dist.	4070 Aug 22 11:22	6°♄49'19	0.58053 AU	retrograde	4071 Jul 24 06:59	21°♄14'57	
inferior conj	4070 Aug 25 14:40	4°♄37'45	-5°-8'-38	evening set	4071 Jul 28 20:15	20°♄29'08	
minimum elong	4070 Aug 25 16:42	4°♄34'12	5°08'32	min. Earth dist.	4071 Aug 03 23:16	17°♄30'07	0.56280 AU
morning rise	4070 Sep 02 15:34	0°♄19'40		inferior conj	4071 Aug 06 09:08	16°♄01'22	-5°-2'-11
direct	4070 Sep 05 03:10	0°♄00'35		minimum elong	4071 Aug 06 05:14	16°♄07'23	5°01'51
morning max el	4070 Sep 13 15:59	4°♄03'39	18°50'26	morning rise	4071 Aug 14 17:40	12°♄03'26	
asc. node	4070 Sep 17 03:22	7°♄58'35		direct	4071 Aug 17 11:38	11°♄43'57	
	4070 Sep 29 22:25	0°♄		morning max el	4071 Aug 27 10:10	16°♄21'05	19°51'41
morning set	4070 Sep 30 02:41	0°♄20'51		asc. node	4071 Sep 04 00:24	25°♄56'31	
					4071 Sep 06 11:19	0°♄	
superior conj	4070 Oct 08 15:56	16°♄59'47	1°33'24	morning set	4071 Sep 14 06:13	14°♄51'54	
minimum elong	4070 Oct 08 18:41	17°♄12'51	1°33'11		4071 Sep 21 17:24	0°♄	
max. Earth dist.	4070 Oct 15 16:35	29°♄55'39	1.39231 AU				
	4070 Oct 15 17:34	0°♄		superior conj	4071 Sep 22 02:43	0°♄46'28	1°42'39
evening rise	4070 Oct 19 15:56	6°♄50'35		minimum elong	4071 Sep 22 03:47	0°♄51'48	1°42'37
desc. node	4070 Oct 24 03:06	14°♄17'27		max. Earth dist.	4071 Sep 27 21:35	11°♄59'18	1.37173 AU
	4070 Nov 03 05:54	0°♄		evening rise	4071 Oct 01 17:24	19°♄01'22	
evening max el	4070 Nov 23 21:55	26°♄32'32	24°19'46		4071 Oct 08 01:30	0°♄	
	4070 Nov 27 19:40	0°♄		desc. node	4071 Oct 11 00:08	4°♄49'26	
retrograde	4070 Dec 05 04:13	3°♄08'15			4071 Oct 28 10:03	0°♄	
evening set	4070 Dec 10 12:26	0°♄55'32		evening max el	4071 Nov 06 10:12	10°♄14'41	25°33'35
	4070 Dec 11 12:33	30°♄		retrograde	4071 Nov 18 15:08	17°♄15'10	
asc. node	4070 Dec 14 02:37	27°♄00'49		evening set	4071 Nov 24 13:20	14°♄48'06	
min. Earth dist.	4070 Dec 15 06:01	25°♄30'46	0.67741 AU	min. Earth dist.	4071 Nov 28 23:11	9°♄58'20	0.67123 AU
inferior conj	4070 Dec 16 00:39	24°♄28'13	0°38'57	inferior conj	4071 Nov 30 04:47	8°♄23'32	0°-16'-9
minimum elong	4070 Dec 15 23:44	24°♄31'19	0°38'35	minimum elong	4071 Nov 30 05:12	8°♄22'12	0°15'59
morning rise	4070 Dec 21 11:22	18°♄23'25		transit middle	4071 Nov 30 05:12	8°♄22'12	0°15'59
direct	4070 Dec 25 06:09	17°♄01'45		transit begin	4071 Nov 30 04:46	8°♄23'34	
morning max el	4071 Jan 02 00:43	21°♄27'43	20°15'58	transit end	4071 Nov 30 05:37	8°♄20'50	
greatest brilliancy	4071 Jan 08 13:39	29°♄14'50	-0.5m	asc. node	4071 Nov 30 23:39	7°♄23'28	
	4071 Jan 09 03:09	0°♄		morning rise	4071 Dec 05 21:54	2°♄26'50	
desc. node	4071 Jan 20 02:22	15°♄47'08		direct	4071 Dec 09 04:48	1°♄24'37	
	4071 Jan 29 10:32	0°♄		morning max el	4071 Dec 16 06:01	5°♄20'39	19°14'55
morning set	4071 Jan 29 17:12	0°♄25'45		greatest brilliancy	4071 Dec 26 01:22	18°♄00'47	-0.7m
max. Earth dist.	4071 Feb 08 21:10	16°♄25'24	1.43675 AU		4072 Jan 02 23:38	0°♄	
				desc. node	4072 Jan 06 23:23	6°♄09'50	
superior conj	4071 Feb 14 19:45	26°♄05'03	-2°-5'-36	morning set	4072 Jan 08 18:03	8°♄55'12	
minimum elong	4071 Feb 14 16:50	25°♄53'05	2°05'32		4072 Jan 22 05:58	0°♄	
	4071 Feb 17 04:24	0°♄		max. Earth dist.	4072 Jan 22 11:48	0°♄22'58	1.44819 AU
evening rise	4071 Feb 27 13:22	17°♄43'07					

superior conj	4072 Jan 25 12:58	5° \approx 12'27	-1°-46'-47	morning set	4072 Dec 18 18:51	18° \approx 40'02	
minimum elong	4072 Jan 25 04:35	4° \approx 39'11	1°46'08	desc. node	4072 Dec 23 20:24	26° \approx 44'14	
evening rise	4072 Feb 09 02:09	28° \approx 48'09			4072 Dec 25 21:48	0° \approx	
	4072 Feb 09 19:32	0° \approx					
asc. node	4072 Feb 26 22:58	26° \approx 28'53		superior conj	4073 Jan 03 15:50	13° \approx 46'48	-1°-9'-34
evening max el	4072 Feb 28 14:08	28° \approx 16'25	18°26'40	minimum elong	4073 Jan 03 07:33	13° \approx 14'17	1°08'36
	4072 Mar 01 12:39	0° \approx		max. Earth dist.	4073 Jan 04 05:54	14° \approx 41'57	1.45264 AU
retrograde	4072 Mar 06 02:08	1° \approx 49'01			4073 Jan 13 23:49	0° \approx	
evening set	4072 Mar 09 02:30	0° \approx 58'44		evening rise	4073 Jan 19 15:32	8° \approx 55'47	
	4072 Mar 10 13:37	30° \approx		greatest brilliancy	4073 Jan 30 22:03	26° \approx 41'16	-0.8m
inferior conj	4072 Mar 15 00:03	25° \approx 27'16	3°36'26		4073 Feb 02 02:14	0° \approx	
minimum elong	4072 Mar 14 23:47	25° \approx 28'01	3°36'25	evening max el	4073 Feb 11 00:02	11° \approx 45'19	19°02'22
min. Earth dist.	4072 Mar 17 05:03	22° \approx 52'48	0.64380 AU	asc. node	4073 Feb 12 20:01	13° \approx 26'47	
morning rise	4072 Mar 20 19:30	19° \approx 16'08		retrograde	4073 Feb 17 21:12	15° \approx 38'46	
direct	4072 Mar 27 14:16	16° \approx 28'39		evening set	4073 Feb 21 04:12	14° \approx 35'54	
desc. node	4072 Apr 03 22:37	19° \approx 06'13		inferior conj	4073 Feb 26 19:24	8° \approx 47'37	3°27'10
morning max el	4072 Apr 10 05:00	24° \approx 24'00	27°26'17	minimum elong	4073 Feb 26 17:52	8° \approx 52'27	3°27'00
	4072 Apr 15 06:25	0° \approx		min. Earth dist.	4073 Feb 28 08:57	6° \approx 48'57	0.65904 AU
	4072 May 05 14:33	0° \approx		morning rise	4073 Mar 04 06:32	2° \approx 32'52	
morning set	4072 May 15 09:00	17° \approx 58'58			4073 Mar 08 16:46	30° \approx	
max. Earth dist.	4072 May 20 05:37	27° \approx 47'23	1.33381 AU	direct	4073 Mar 10 16:59	29° \approx 44'24	
	4072 May 21 07:06	0° \approx			4073 Mar 12 19:17	0° \approx	
				desc. node	4073 Mar 21 19:39	5° \approx 38'44	
superior conj	4072 May 23 11:29	4° \approx 36'14	0°-15'-3	morning max el	4073 Mar 23 14:54	7° \approx 23'28	26°31'10
minimum elong	4072 May 23 12:15	4° \approx 40'19	0°14'55		4073 Apr 10 04:05	0° \approx	
behind sun begin	4072 May 23 10:17	4° \approx 29'50			4073 Apr 27 23:42	0° \approx	
behind sun end	4072 May 23 14:14	4° \approx 50'48		morning set	4073 Apr 28 14:24	1° \approx 09'04	
asc. node	4072 May 24 22:14	7° \approx 41'26		max. Earth dist.	4073 May 02 18:34	9° \approx 12'30	1.34715 AU
evening rise	4072 May 30 16:58	20° \approx 02'26					
	4072 Jun 04 14:12	0° \approx		superior conj	4073 May 07 10:17	18° \approx 36'38	0°-44'-8
evening max el	4072 Jun 21 03:12	24° \approx 43'33	22°22'41	minimum elong	4073 May 07 12:38	18° \approx 48'46	0°43'41
	4072 Jun 28 14:21	0° \approx		asc. node	4073 May 11 19:18	27° \approx 43'23	
desc. node	4072 Jun 30 21:53	0° \approx 47'09			4073 May 12 21:23	0° \approx	
retrograde	4072 Jul 04 03:24	1° \approx 11'15		evening rise	4073 May 15 02:01	4° \approx 34'08	
evening set	4072 Jul 07 05:05	0° \approx 50'25			4073 May 29 09:03	0° \approx	
	4072 Jul 09 22:31	30° \approx		evening max el	4073 Jun 03 02:15	5° \approx 29'12	20°54'10
min. Earth dist.	4072 Jul 15 09:55	27° \approx 16'43	0.55120 AU	retrograde	4073 Jun 14 16:14	11° \approx 09'26	
inferior conj	4072 Jul 16 10:03	26° \approx 42'34	-4°-6'-56	evening set	4073 Jun 16 19:57	10° \approx 58'26	
minimum elong	4072 Jul 16 01:43	26° \approx 54'23	4°04'57	desc. node	4073 Jun 17 18:54	10° \approx 46'49	
morning rise	4072 Jul 25 00:33	22° \approx 52'27		inferior conj	4073 Jun 26 03:25	7° \approx 01'19	-2°-25'-52
direct	4072 Jul 28 02:54	22° \approx 30'45		minimum elong	4073 Jun 25 20:43	7° \approx 10'48	2°23'34
morning max el	4072 Aug 08 16:32	27° \approx 53'58	21°13'44	min. Earth dist.	4073 Jun 26 21:33	6° \approx 35'35	0.54848 AU
	4072 Aug 10 18:37	0° \approx		morning rise	4073 Jul 04 20:51	2° \approx 59'51	
asc. node	4072 Aug 20 21:27	14° \approx 36'23		direct	4073 Jul 08 12:18	2° \approx 31'15	
morning set	4072 Aug 28 14:26	29° \approx 36'25		morning max el	4073 Jul 21 12:26	8° \approx 45'03	22°51'40
	4072 Aug 28 19:00	0° \approx			4073 Aug 05 17:50	0° \approx	
				asc. node	4073 Aug 07 18:31	3° \approx 47'58	
superior conj	4072 Sep 04 23:56	15° \approx 04'01	1°43'52	morning set	4073 Aug 13 01:21	14° \approx 28'52	
minimum elong	4072 Sep 04 23:29	15° \approx 01'43	1°43'52				
max. Earth dist.	4072 Sep 09 07:34	23° \approx 50'31	1.35350 AU	superior conj	4073 Aug 20 04:17	29° \approx 42'25	1°38'24
	4072 Sep 12 11:16	0° \approx		minimum elong	4073 Aug 20 02:44	29° \approx 43'47	1°38'17
evening rise	4072 Sep 13 13:29	2° \approx 04'41			4073 Aug 20 07:35	0° \approx	
desc. node	4072 Sep 26 21:10	25° \approx 06'50		max. Earth dist.	4073 Aug 23 02:23	5° \approx 52'36	1.33897 AU
	4072 Sep 30 01:18	0° \approx		evening rise	4073 Aug 27 23:50	15° \approx 49'00	
evening max el	4072 Oct 18 22:39	23° \approx 54'57	26°34'10		4073 Sep 04 14:10	0° \approx	
	4072 Oct 27 03:55	0° \approx		desc. node	4073 Sep 13 18:13	15° \approx 02'52	
retrograde	4072 Oct 31 21:00	1° \approx 09'16			4073 Sep 24 15:46	0° \approx	
	4072 Nov 05 04:59	30° \approx		evening max el	4073 Oct 01 11:12	7° \approx 25'13	27°14'05
evening set	4072 Nov 07 08:22	28° \approx 32'05		retrograde	4073 Oct 14 21:05	14° \approx 43'14	
min. Earth dist.	4072 Nov 11 11:10	24° \approx 18'12	0.66159 AU	evening set	4073 Oct 21 19:13	12° \approx 02'56	
inferior conj	4072 Nov 13 04:13	22° \approx 15'13	-1°-15'-18	min. Earth dist.	4073 Oct 25 15:39	8° \approx 24'39	0.64851 AU
minimum elong	4072 Nov 13 06:17	22° \approx 09'01	1°14'26	inferior conj	4073 Oct 27 20:43	5° \approx 58'54	-2°-16'-40
asc. node	4072 Nov 16 20:42	18° \approx 13'21		minimum elong	4073 Oct 28 00:34	5° \approx 48'17	2°15'12
morning rise	4072 Nov 19 05:36	16° \approx 29'10		morning rise	4073 Nov 03 07:56	0° \approx 26'34	
direct	4072 Nov 22 02:42	15° \approx 42'38		asc. node	4073 Nov 03 17:43	0° \approx 16'29	
morning max el	4072 Nov 28 17:43	19° \approx 19'35	18°29'38		4073 Nov 04 15:42	30° \approx	
	4072 Dec 06 22:16	0° \approx		direct	4073 Nov 05 21:41	29° \approx 51'43	

	4073 Nov 07 03:44	0°♄			4074 Nov 05 05:32	0°♄	
morning max el	4073 Nov 12 09:19	3°♄18'51	18°01'09	morning set	4074 Nov 12 08:34	12°♄18'34	
morning set	4073 Nov 30 01:17	29°♄53'26			4074 Nov 22 15:14	0°♄	
	4073 Nov 30 02:51	0°♄					
desc. node	4073 Dec 10 17:28	17°♄26'44		superior conj	4074 Nov 24 07:58	2°♄50'03	0°22'39
				minimum elong	4074 Nov 24 10:15	2°♄59'29	0°22'19
superior conj	4073 Dec 14 00:43	22°♄44'47	0°-22'-33	desc. node	4074 Nov 27 14:31	8°♄13'22	
minimum elong	4073 Dec 13 21:56	22°♄33'42	0°22'10	max. Earth dist.	4074 Nov 30 18:36	13°♄21'07	1.43972 AU
max. Earth dist.	4073 Dec 18 01:07	29°♄07'12	1.44972 AU	evening rise	4074 Dec 09 18:44	27°♄30'38	
	4073 Dec 18 14:31	0°♄			4074 Dec 11 09:35	0°♄	
evening rise	4073 Dec 30 09:10	18°♄19'47			4074 Dec 31 22:00	0°♄	
	4074 Jan 06 23:42	0°♄		greatest brilliancy	4075 Jan 02 21:37	2°♄35'58	-0.5m
greatest brilliancy	4074 Jan 18 04:02	16°♄31'19	-0.6m	evening max el	4075 Jan 08 05:46	8°♄50'16	20°59'22
evening max el	4074 Jan 25 05:37	25°♄17'06	19°54'06	retrograde	4075 Jan 16 16:50	13°♄50'41	
asc. node	4074 Jan 30 17:03	29°♄17'20		asc. node	4075 Jan 17 14:02	13°♄46'25	
retrograde	4074 Feb 01 18:50	29°♄40'33		evening set	4075 Jan 20 17:16	12°♄19'05	
evening set	4074 Feb 05 09:46	28°♄23'55		inferior conj	4075 Jan 26 02:53	6°♄04'31	2°34'15
inferior conj	4074 Feb 10 21:09	22°♄21'07	3°05'36	minimum elong	4075 Jan 26 00:24	6°♄13'03	2°33'33
minimum elong	4074 Feb 10 18:54	22°♄28'41	3°05'08	min. Earth dist.	4075 Jan 26 13:01	5°♄29'36	0.67702 AU
min. Earth dist.	4074 Feb 11 20:17	21°♄03'54	0.67012 AU	morning rise	4075 Jan 31 07:09	29°♄49'26	
morning rise	4074 Feb 16 03:22	16°♄05'18			4075 Jan 31 02:28	30°♄	
direct	4074 Feb 22 01:24	13°♄27'36		direct	4075 Feb 05 14:38	27°♄30'17	
morning max el	4074 Mar 05 23:47	20°♄35'13	25°14'52		4075 Feb 11 21:32	0°♄	
desc. node	4074 Mar 08 16:41	23°♄28'37		morning max el	4075 Feb 16 08:23	3°♄54'09	23°47'37
	4074 Mar 14 02:18	0°♄		desc. node	4075 Feb 23 13:44	12°♄14'00	
	4074 Apr 03 08:29	0°♄			4075 Mar 08 08:09	0°♄	
morning set	4074 Apr 11 03:31	13°♄27'36		morning set	4075 Mar 23 18:33	24°♄39'20	
max. Earth dist.	4074 Apr 14 20:26	20°♄15'23	1.36495 AU		4075 Mar 26 20:34	0°♄	
	4074 Apr 19 22:24	0°♄		max. Earth dist.	4075 Mar 27 16:13	1°♄26'36	1.38595 AU
superior conj	4074 Apr 20 23:53	2°♄05'35	-1°-12'-55	superior conj	4075 Apr 04 00:39	14°♄53'48	-1°-38'-59
minimum elong	4074 Apr 21 03:45	2°♄24'46	1°12'18	minimum elong	4075 Apr 04 05:24	15°♄16'14	1°38'26
asc. node	4074 Apr 28 16:21	17°♄35'40			4075 Apr 11 20:12	0°♄	
evening rise	4074 Apr 29 06:29	18°♄47'07		evening rise	4075 Apr 13 03:47	2°♄34'22	
	4074 May 05 00:15	0°♄		asc. node	4075 Apr 15 13:23	7°♄13'43	
evening max el	4074 May 16 13:26	16°♄53'22	19°42'23	evening max el	4075 Apr 29 11:44	28°♄57'35	18°50'27
retrograde	4074 May 26 09:31	21°♄40'38			4075 Apr 30 15:10	0°♄	
evening set	4074 May 28 08:26	21°♄30'08		retrograde	4075 May 07 18:52	3°♄01'17	
desc. node	4074 Jun 04 15:55	18°♄22'23		evening set	4075 May 09 21:47	2°♄46'22	
inferior conj	4074 Jun 06 03:37	17°♄27'29	0°-26'-25		4075 May 15 16:54	30°♄	
minimum elong	4074 Jun 06 02:26	17°♄29'21	0°25'59	inferior conj	4075 May 17 21:57	28°♄26'57	1°18'32
min. Earth dist.	4074 Jun 08 10:47	16°♄01'49	0.55544 AU	minimum elong	4075 May 18 00:45	28°♄21'51	1°17'36
morning rise	4074 Jun 14 17:09	12°♄57'19		min. Earth dist.	4075 May 21 02:58	26°♄08'31	0.57057 AU
direct	4074 Jun 19 04:21	12°♄13'04		desc. node	4075 May 22 12:56	25°♄12'05	
morning max el	4074 Jul 03 02:39	19°♄10'13	24°34'57	morning rise	4075 May 25 23:18	23°♄21'01	
	4074 Jul 12 04:44	0°♄		direct	4075 May 31 09:36	22°♄09'49	
asc. node	4074 Jul 25 15:34	23°♄22'20		morning max el	4075 Jun 14 17:42	29°♄37'55	26°08'16
morning set	4074 Jul 28 13:09	29°♄23'07			4075 Jun 15 02:46	0°♄	
	4074 Jul 28 20:07	0°♄			4075 Jul 05 21:08	0°♄	
				asc. node	4075 Jul 12 12:37	13°♄12'56	
superior conj	4074 Aug 04 13:05	14°♄32'31	1°27'18	morning set	4075 Jul 13 00:15	14°♄14'07	
minimum elong	4074 Aug 04 10:53	14°♄20'37	1°27'02				
max. Earth dist.	4074 Aug 06 05:51	18°♄13'41	1.32859 AU	superior conj	4075 Jul 20 00:16	29°♄27'40	1°11'23
evening rise	4074 Aug 11 20:28	0°♄02'09		minimum elong	4075 Jul 19 21:56	29°♄14'51	1°11'00
	4074 Aug 11 20:03	0°♄			4075 Jul 20 06:08	0°♄	
	4074 Aug 28 15:11	0°♄		max. Earth dist.	4075 Jul 20 15:10	0°♄49'42	1.32232 AU
desc. node	4074 Aug 31 15:15	4°♄27'28		evening rise	4075 Jul 27 00:18	14°♄34'55	
evening max el	4074 Sep 13 21:58	20°♄31'36	27°26'37		4075 Aug 03 20:34	0°♄	
retrograde	4074 Sep 27 14:35	27°♄47'27		desc. node	4075 Aug 18 12:14	23°♄07'52	
evening set	4074 Oct 04 18:48	25°♄13'36			4075 Aug 24 05:13	0°♄	
min. Earth dist.	4074 Oct 08 10:31	22°♄07'42	0.63207 AU	evening max el	4075 Aug 27 04:14	3°♄00'28	27°06'57
inferior conj	4074 Oct 11 03:33	19°♄27'11	-3°-17'-34	retrograde	4075 Sep 10 00:54	10°♄12'55	
minimum elong	4074 Oct 11 08:57	19°♄13'48	3°15'48	evening set	4075 Sep 17 03:12	7°♄57'36	
morning rise	4074 Oct 18 01:42	14°♄12'06		min. Earth dist.	4075 Sep 20 18:34	5°♄15'19	0.61282 AU
direct	4074 Oct 20 10:47	13°♄45'18		inferior conj	4075 Sep 23 21:32	2°♄32'01	-4°-13'-9
asc. node	4074 Oct 21 14:45	13°♄51'53		minimum elong	4075 Sep 24 03:30	2°♄18'59	4°11'43
morning max el	4074 Oct 27 01:54	17°♄10'57	17°50'14		4075 Sep 26 23:13	30°♄	

morning rise	4075 Oct 01 06:55	27° $\mathring{\text{M}}$ 37'47		morning rise	4076 Sep 12 18:57	10° $\mathring{\text{M}}$ 33'24	
direct	4075 Oct 03 14:18	27° $\mathring{\text{M}}$ 15'57		direct	4076 Sep 15 03:53	10° $\mathring{\text{M}}$ 14'03	
asc. node	4075 Oct 08 11:48	28° $\mathring{\text{M}}$ 58'19		morning max el	4076 Sep 23 01:35	14° $\mathring{\text{M}}$ 03'02	18°25'13
	4075 Oct 09 19:24	0° $\mathring{\text{A}}$		asc. node	4076 Sep 24 08:52	15° $\mathring{\text{M}}$ 23'41	
morning max el	4075 Oct 10 16:25	0° $\mathring{\text{A}}$ 48'27	17°57'48		4076 Oct 03 23:41	0° $\mathring{\text{A}}$	
morning set	4075 Oct 26 10:12	25° $\mathring{\text{A}}$ 35'37		morning set	4076 Oct 09 00:57	9° $\mathring{\text{A}}$ 30'04	
	4075 Oct 28 19:49	0° $\mathring{\text{M}}$					
superior conj	4075 Nov 05 17:56	14° $\mathring{\text{M}}$ 13'25	0°58'47	superior conj	4076 Oct 18 03:10	26° $\mathring{\text{A}}$ 44'59	1°23'47
minimum elong	4075 Nov 05 22:04	14° $\mathring{\text{M}}$ 31'25	0°58'15	minimum elong	4076 Oct 18 06:45	27° $\mathring{\text{A}}$ 01'31	1°23'26
max. Earth dist.	4075 Nov 13 07:22	27° $\mathring{\text{M}}$ 04'44	1.42388 AU		4076 Oct 19 21:45	0° $\mathring{\text{M}}$	
desc. node	4075 Nov 14 11:31	29° $\mathring{\text{M}}$ 00'34		max. Earth dist.	4076 Oct 25 14:40	10° $\mathring{\text{M}}$ 06'18	1.40427 AU
	4075 Nov 15 02:03	0° $\mathring{\text{A}}$		evening rise	4076 Oct 30 01:52	17° $\mathring{\text{M}}$ 39'06	
evening rise	4075 Nov 19 12:15	7° $\mathring{\text{A}}$ 06'47		desc. node	4076 Oct 31 08:32	19° $\mathring{\text{M}}$ 45'17	
	4075 Dec 04 15:30	0° $\mathring{\text{B}}$			4076 Nov 06 18:59	0° $\mathring{\text{A}}$	
greatest brilliancy	4075 Dec 17 06:48	17° $\mathring{\text{B}}$ 04'25	-0.3m	evening max el	4076 Nov 28 05:01	0° $\mathring{\text{B}}$	
evening max el	4075 Dec 22 00:28	22° $\mathring{\text{B}}$ 24'18	22°14'28	retrograde	4076 Dec 03 15:09	6° $\mathring{\text{B}}$ 01'35	23°34'14
retrograde	4075 Dec 31 13:22	28° $\mathring{\text{B}}$ 04'49		evening set	4076 Dec 14 07:03	12° $\mathring{\text{B}}$ 19'41	
asc. node	4076 Jan 04 11:03	26° $\mathring{\text{B}}$ 43'46		asc. node	4076 Dec 19 07:19	10° $\mathring{\text{B}}$ 16'08	
evening set	4076 Jan 05 00:58	26° $\mathring{\text{B}}$ 17'23		min. Earth dist.	4076 Dec 21 08:05	8° $\mathring{\text{B}}$ 14'39	
inferior conj	4076 Jan 10 10:29	19° $\mathring{\text{B}}$ 54'29	1°54'47	inferior conj	4076 Dec 24 05:42	4° $\mathring{\text{B}}$ 31'37	0.67934 AU
minimum elong	4076 Jan 10 08:16	20° $\mathring{\text{B}}$ 02'12	1°54'00	minimum elong	4076 Dec 24 18:10	3° $\mathring{\text{B}}$ 48'59	1°08'26
min. Earth dist.	4076 Jan 10 08:55	19° $\mathring{\text{B}}$ 59'54	0.67999 AU		4076 Dec 24 16:39	3° $\mathring{\text{B}}$ 54'12	1°07'49
morning rise	4076 Jan 15 15:25	13° $\mathring{\text{B}}$ 41'43			4076 Dec 27 16:57	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
direct	4076 Jan 20 07:55	11° $\mathring{\text{B}}$ 44'56		morning rise	4076 Dec 30 02:08	27° $\mathring{\text{A}}$ 40'28	
morning max el	4076 Jan 29 19:27	17° $\mathring{\text{B}}$ 19'46	22°19'08	direct	4077 Jan 03 04:25	26° $\mathring{\text{A}}$ 06'25	
greatest brilliancy	4076 Feb 03 09:03	22° $\mathring{\text{B}}$ 25'46	-0.3m		4077 Jan 10 13:30	0° $\mathring{\text{B}}$	
	4076 Feb 09 05:52	0° $\mathring{\text{A}}$		morning max el	4077 Jan 11 12:24	0° $\mathring{\text{B}}$ 55'23	20°57'29
desc. node	4076 Feb 10 10:45	1° $\mathring{\text{A}}$ 38'40		greatest brilliancy	4077 Jan 17 00:48	7° $\mathring{\text{B}}$ 17'20	-0.5m
	4076 Feb 29 10:36	0° $\mathring{\text{H}}$		desc. node	4077 Jan 27 07:46	21° $\mathring{\text{B}}$ 31'55	
morning set	4076 Mar 03 05:50	4° $\mathring{\text{H}}$ 30'22			4077 Feb 02 00:46	0° $\mathring{\text{A}}$	
max. Earth dist.	4076 Mar 08 13:05	13° $\mathring{\text{H}}$ 17'05	1.40772 AU	morning set	4077 Feb 10 13:50	13° $\mathring{\text{A}}$ 06'40	
				max. Earth dist.	4077 Feb 18 16:14	26° $\mathring{\text{A}}$ 01'43	1.42742 AU
					4077 Feb 21 02:23	0° $\mathring{\text{H}}$	
superior conj	4076 Mar 16 07:57	26° $\mathring{\text{H}}$ 49'30	-1°-58'-49	superior conj	4077 Feb 25 16:51	7° $\mathring{\text{H}}$ 42'05	-2°-7'-39
minimum elong	4076 Mar 16 11:57	27° $\mathring{\text{H}}$ 07'23	1°58'36	minimum elong	4077 Feb 25 17:17	7° $\mathring{\text{H}}$ 43'55	2°07'40
	4076 Mar 18 02:14	0° $\mathring{\text{Y}}$		evening rise	4077 Mar 09 10:50	28° $\mathring{\text{H}}$ 16'14	
evening rise	4076 Mar 26 14:33	15° $\mathring{\text{Y}}$ 46'57			4077 Mar 10 10:02	0° $\mathring{\text{Y}}$	
asc. node	4076 Apr 01 10:24	26° $\mathring{\text{Y}}$ 31'36		asc. node	4077 Mar 19 07:25	15° $\mathring{\text{Y}}$ 22'55	
	4076 Apr 03 10:12	0° $\mathring{\text{B}}$		evening max el	4077 Mar 26 05:23	24° $\mathring{\text{Y}}$ 36'35	18°06'55
evening max el	4076 Apr 11 18:09	11° $\mathring{\text{B}}$ 34'45	18°18'47	retrograde	4077 Apr 01 19:47	27° $\mathring{\text{Y}}$ 59'42	
retrograde	4076 Apr 18 23:11	15° $\mathring{\text{B}}$ 10'16		evening set	4077 Apr 04 11:01	27° $\mathring{\text{Y}}$ 27'15	
evening set	4076 Apr 21 08:19	14° $\mathring{\text{B}}$ 47'41		inferior conj	4077 Apr 11 01:07	22° $\mathring{\text{Y}}$ 26'30	3°16'20
inferior conj	4076 Apr 28 13:47	10° $\mathring{\text{B}}$ 07'46	2°32'53	minimum elong	4077 Apr 11 03:33	22° $\mathring{\text{Y}}$ 20'34	3°15'57
minimum elong	4076 Apr 28 17:24	10° $\mathring{\text{B}}$ 00'05	2°31'59	min. Earth dist.	4077 Apr 14 04:38	19° $\mathring{\text{Y}}$ 23'05	0.61278 AU
min. Earth dist.	4076 May 02 00:12	7° $\mathring{\text{B}}$ 14'23	0.59083 AU	morning rise	4077 Apr 17 17:01	16° $\mathring{\text{Y}}$ 30'42	
morning rise	4076 May 05 22:22	4° $\mathring{\text{B}}$ 31'37		direct	4077 Apr 24 11:24	14° $\mathring{\text{Y}}$ 11'54	
desc. node	4076 May 08 09:57	3° $\mathring{\text{B}}$ 24'26		desc. node	4077 Apr 25 06:59	14° $\mathring{\text{Y}}$ 13'49	
direct	4076 May 12 04:43	2° $\mathring{\text{B}}$ 45'39		morning max el	4077 May 08 16:39	22° $\mathring{\text{Y}}$ 09'15	27°49'16
morning max el	4076 May 26 14:03	10° $\mathring{\text{B}}$ 33'17	27°16'20		4077 May 15 14:07	0° $\mathring{\text{B}}$	
	4076 Jun 10 14:56	0° $\mathring{\text{H}}$			4077 Jun 03 17:15	0° $\mathring{\text{H}}$	
morning set	4076 Jun 26 08:59	28° $\mathring{\text{H}}$ 56'02		morning set	4077 Jun 10 13:27	13° $\mathring{\text{H}}$ 22'47	
	4076 Jun 26 21:10	0° $\mathring{\text{B}}$		asc. node	4077 Jun 15 06:43	23° $\mathring{\text{H}}$ 20'19	
asc. node	4076 Jun 28 09:40	3° $\mathring{\text{B}}$ 13'48		max. Earth dist.	4077 Jun 16 12:48	26° $\mathring{\text{H}}$ 03'28	1.32199 AU
max. Earth dist.	4076 Jul 03 02:45	13° $\mathring{\text{B}}$ 30'21	1.32007 AU				
superior conj	4076 Jul 03 12:02	14° $\mathring{\text{B}}$ 21'36	0°51'18	superior conj	4077 Jun 17 22:42	29° $\mathring{\text{H}}$ 08'35	0°27'40
minimum elong	4076 Jul 03 10:02	14° $\mathring{\text{B}}$ 10'34	0°50'55	minimum elong	4077 Jun 17 21:28	29° $\mathring{\text{H}}$ 01'51	0°27'24
evening rise	4076 Jul 10 08:49	29° $\mathring{\text{B}}$ 19'14			4077 Jun 18 08:05	0° $\mathring{\text{B}}$	
	4076 Jul 10 16:32	0° $\mathring{\text{B}}$		evening rise	4077 Jun 24 19:58	14° $\mathring{\text{B}}$ 08'19	
	4076 Jul 27 05:10	0° $\mathring{\text{M}}$			4077 Jul 02 18:28	0° $\mathring{\text{B}}$	
desc. node	4076 Aug 04 09:14	10° $\mathring{\text{M}}$ 46'08		evening max el	4077 Jul 20 20:04	25° $\mathring{\text{B}}$ 38'16	24°53'53
evening max el	4076 Aug 08 03:43	14° $\mathring{\text{M}}$ 42'36	26°14'18	desc. node	4077 Jul 22 06:16	26° $\mathring{\text{B}}$ 56'42	
retrograde	4076 Aug 22 03:06	21° $\mathring{\text{M}}$ 52'02			4077 Jul 26 07:58	0° $\mathring{\text{M}}$	
evening set	4076 Aug 28 15:39	20° $\mathring{\text{M}}$ 07'49		retrograde	4077 Aug 03 18:40	2° $\mathring{\text{M}}$ 41'24	
min. Earth dist.	4076 Sep 01 16:40	17° $\mathring{\text{M}}$ 33'28	0.59207 AU	evening set	4077 Aug 09 04:00	1° $\mathring{\text{M}}$ 35'30	
inferior conj	4076 Sep 04 23:12	15° $\mathring{\text{M}}$ 04'30	-4°-55'-19		4077 Aug 12 09:43	30° $\mathring{\text{R}}$ $\mathring{\text{B}}$	
minimum elong	4076 Sep 05 03:33	14° $\mathring{\text{M}}$ 56'12	4°54'46	min. Earth dist.	4077 Aug 14 07:34	28° $\mathring{\text{B}}$ 50'04	0.57233 AU

inferior conj	4077 Aug 17 05:23	26° Ω 54'53	-5°-11'-16		4078 Jun 27 00:16	0° Ω	
minimum elong	4077 Aug 17 05:04	26° Ω 55'24	5°11'17	evening max el	4078 Jul 02 09:07	6° Ω 05'29	23°18'16
morning rise	4077 Aug 25 09:42	22° Ω 46'04		desc. node	4078 Jul 09 03:17	11° Ω 07'11	
direct	4077 Aug 27 23:31	22° Ω 27'08		retrograde	4078 Jul 15 21:27	12° Ω 50'55	
morning max el	4077 Sep 06 02:01	26° Ω 43'43	19°13'51	evening set	4078 Jul 19 18:52	12° Ω 17'50	
	4077 Sep 09 02:10	0° \mathfrak{M}		min. Earth dist.	4078 Jul 26 18:40	9° Ω 05'43	0.55691 AU
asc. node	4077 Sep 11 05:55	2° \mathfrak{M} 51'53		inferior conj	4078 Jul 28 15:44	7° Ω 59'33	-4°-45'-11
morning set	4077 Sep 23 00:44	23° \mathfrak{M} 50'06		minimum elong	4078 Jul 28 09:24	8° Ω 08'53	4°44'12
	4077 Sep 26 02:52	0° Ω		morning rise	4078 Aug 06 02:55	4° Ω 06'39	
				direct	4078 Aug 09 00:22	3° Ω 46'21	
superior conj	4077 Oct 01 06:04	10° Ω 08'04	1°38'23	morning max el	4078 Aug 19 15:09	8° Ω 42'10	20°24'11
minimum elong	4077 Oct 01 08:07	10° Ω 17'59	1°38'16	asc. node	4078 Aug 29 02:59	21° Ω 09'06	
max. Earth dist.	4077 Oct 07 19:01	22° Ω 26'28	1.38337 AU		4078 Sep 03 00:43	0° \mathfrak{M}	
evening rise	4077 Oct 11 14:52	29° Ω 15'32		morning set	4078 Sep 07 06:35	8° \mathfrak{M} 27'43	
	4077 Oct 12 01:05	0° \mathfrak{M}					
desc. node	4077 Oct 18 05:33	10° \mathfrak{M} 23'09		superior conj	4078 Sep 14 21:46	24° \mathfrak{M} 08'55	1°44'03
	4077 Oct 31 04:02	0° \mathfrak{X}		minimum elong	4078 Sep 14 22:09	24° \mathfrak{M} 10'53	1°44'03
evening max el	4077 Nov 16 03:56	19° \mathfrak{X} 42'49	24°52'20		4078 Sep 17 19:55	0° Ω	
retrograde	4077 Nov 27 20:39	26° \mathfrak{X} 30'32		max. Earth dist.	4078 Sep 20 01:45	4° Ω 22'35	1.36363 AU
evening set	4077 Dec 03 10:40	24° \mathfrak{X} 11'40		evening rise	4078 Sep 24 00:50	11° Ω 50'05	
min. Earth dist.	4077 Dec 08 00:57	19° \mathfrak{X} 01'20	0.67521 AU		4078 Oct 04 14:13	0° \mathfrak{M}	
asc. node	4077 Dec 08 05:08	18° \mathfrak{X} 47'37		desc. node	4078 Oct 05 02:36	0° \mathfrak{M} 49'36	
inferior conj	4077 Dec 09 00:08	17° \mathfrak{X} 44'50	0°16'12		4078 Oct 26 09:12	0° \mathfrak{X}	
minimum elong	4077 Dec 08 23:44	17° \mathfrak{X} 46'09	0°16'02	evening max el	4078 Oct 29 16:28	3° \mathfrak{X} 25'39	26°01'25
transit middle	4077 Dec 08 23:44	17° \mathfrak{X} 46'09	0°16'02	retrograde	4078 Nov 11 05:20	10° \mathfrak{X} 32'29	
transit begin	4077 Dec 08 23:20	17° \mathfrak{X} 47'29		evening set	4078 Nov 17 09:19	8° \mathfrak{X} 00'43	
transit end	4077 Dec 09 00:08	17° \mathfrak{X} 44'50		min. Earth dist.	4078 Nov 21 16:12	3° \mathfrak{X} 26'03	0.66763 AU
morning rise	4077 Dec 14 13:19	11° \mathfrak{X} 42'52		inferior conj	4078 Nov 23 02:31	1° \mathfrak{X} 39'01	0°-40'-48
direct	4077 Dec 18 02:49	10° \mathfrak{X} 29'47		minimum elong	4078 Nov 23 03:37	1° \mathfrak{X} 35'38	0°40'21
morning max el	4077 Dec 25 13:06	14° \mathfrak{X} 41'49	19°48'01		4078 Nov 24 10:46	30° \mathfrak{M}	
greatest brilliancy	4078 Jan 02 03:10	24° \mathfrak{X} 00'05	-0.6m	asc. node	4078 Nov 25 02:11	29° \mathfrak{M} 14'49	
	4078 Jan 06 08:12	0° \mathfrak{Z}		morning rise	4078 Nov 28 22:56	25° \mathfrak{M} 46'21	
desc. node	4078 Jan 14 04:48	11° \mathfrak{Z} 45'24		direct	4078 Dec 02 01:30	24° \mathfrak{M} 51'06	
morning set	4078 Jan 20 09:47	21° \mathfrak{Z} 16'11		morning max el	4078 Dec 08 21:19	28° \mathfrak{M} 37'26	18°53'36
	4078 Jan 26 00:45	0° \approx			4078 Dec 10 04:29	0° \mathfrak{X}	
max. Earth dist.	4078 Feb 01 03:03	9° \approx 36'25	1.44247 AU	morning set	4078 Dec 30 19:10	0° \mathfrak{Z} 13'26	
					4078 Dec 30 15:44	0° \mathfrak{Z}	
superior conj	4078 Feb 05 23:59	17° \approx 25'21	-2°00'-4	desc. node	4079 Jan 01 01:50	2° \mathfrak{Z} 13'33	
minimum elong	4078 Feb 05 18:26	17° \approx 02'57	1°59'48	max. Earth dist.	4079 Jan 14 19:59	23° \mathfrak{Z} 46'53	1.45108 AU
	4078 Feb 13 15:33	0° \mathfrak{H}					
evening rise	4078 Feb 19 12:11	9° \mathfrak{H} 53'17		superior conj	4079 Jan 16 09:02	26° \mathfrak{Z} 12'33	-1°-32'-54
	4078 Mar 03 15:26	0° \mathfrak{Y}		minimum elong	4079 Jan 15 23:46	25° \mathfrak{Z} 36'07	1°32'01
asc. node	4078 Mar 06 04:26	3° \mathfrak{Y} 39'11			4079 Jan 18 18:43	0° \approx	
evening max el	4078 Mar 09 18:13	7° \mathfrak{Y} 54'22	18°14'12	evening rise	4079 Jan 31 15:00	20° \approx 33'16	
retrograde	4078 Mar 16 04:21	11° \mathfrak{Y} 19'33			4079 Feb 06 10:44	0° \mathfrak{H}	
evening set	4078 Mar 19 01:25	10° \mathfrak{Y} 35'55		evening max el	4079 Feb 21 05:52	21° \mathfrak{H} 20'34	18°39'46
inferior conj	4078 Mar 25 03:59	5° \mathfrak{Y} 15'12	3°34'44	asc. node	4079 Feb 21 01:29	21° \mathfrak{H} 09'20	
minimum elong	4078 Mar 25 04:39	5° \mathfrak{Y} 13'21	3°34'41	retrograde	4079 Feb 27 20:40	25° \mathfrak{H} 00'29	
min. Earth dist.	4078 Mar 27 17:55	2° \mathfrak{Y} 25'14	0.63338 AU	evening set	4079 Mar 02 23:50	24° \mathfrak{H} 04'46	
	4078 Mar 30 05:04	30° \mathfrak{R} \mathfrak{H}		inferior conj	4079 Mar 08 18:19	18° \mathfrak{H} 25'44	3°34'11
morning rise	4078 Mar 31 05:54	29° \mathfrak{H} 08'18		minimum elong	4079 Mar 08 17:28	18° \mathfrak{H} 28'21	3°34'08
direct	4078 Apr 07 02:58	26° \mathfrak{H} 27'21		min. Earth dist.	4079 Mar 10 16:35	16° \mathfrak{H} 05'46	0.65082 AU
desc. node	4078 Apr 12 04:01	27° \mathfrak{H} 41'54		morning rise	4079 Mar 14 09:50	12° \mathfrak{H} 12'55	
	4078 Apr 15 22:49	0° \mathfrak{Y}		direct	4079 Mar 21 01:42	9° \mathfrak{H} 23'40	
morning max el	4078 Apr 21 00:03	4° \mathfrak{Y} 25'30	27°44'43	desc. node	4079 Mar 30 01:03	13° \mathfrak{H} 16'58	
	4078 May 10 05:11	0° \mathfrak{Z}		morning max el	4079 Apr 03 09:53	17° \mathfrak{H} 12'54	27°06'05
morning set	4078 May 25 11:28	27° \mathfrak{Z} 27'34			4079 Apr 14 01:41	0° \mathfrak{Y}	
	4078 May 26 17:43	0° \mathfrak{H}			4079 May 03 02:00	0° \mathfrak{Z}	
max. Earth dist.	4078 May 30 17:36	8° \mathfrak{H} 17'51	1.32822 AU	morning set	4079 May 08 23:57	11° \mathfrak{Z} 00'23	
				max. Earth dist.	4079 May 13 13:22	20° \mathfrak{Z} 02'48	1.33897 AU
superior conj	4078 Jun 02 06:27	13° \mathfrak{H} 43'03	0°01'11				
minimum elong	4078 Jun 02 06:23	13° \mathfrak{H} 42'44	0°01'10	superior conj	4079 May 17 09:09	27° \mathfrak{Z} 57'28	0°-27'-18
behind sun begin	4078 Jun 02 01:07	13° \mathfrak{H} 14'20		minimum elong	4079 May 17 10:35	28° \mathfrak{Z} 04'58	0°27'02
behind sun end	4078 Jun 02 11:40	14° \mathfrak{H} 11'10			4079 May 18 08:26	0° \mathfrak{H}	
asc. node	4078 Jun 02 03:45	13° \mathfrak{H} 28'32		asc. node	4079 May 20 00:47	3° \mathfrak{H} 33'40	
evening rise	4078 Jun 09 07:50	28° \mathfrak{H} 56'12		evening rise	4079 May 24 18:28	13° \mathfrak{H} 35'28	
	4078 Jun 09 19:55	0° \mathfrak{Z}			4079 Jun 02 03:44	0° \mathfrak{Z}	

evening max el	4079 Jun 14 02:18	16°☿34'36	21°43'17	evening max el	4080 May 26 06:12	27°♄34'30	20°21'10
desc. node	4079 Jun 26 00:19	22°☿43'05			4080 May 29 02:37	0°☿	
retrograde	4079 Jun 26 13:16	22°☿43'46		retrograde	4080 Jun 06 02:43	2°☿52'28	
evening set	4079 Jun 29 03:39	22°☿28'31		evening set	4080 Jun 08 02:32	2°☿42'30	
inferior conj	4079 Jul 08 11:41	18°☿26'54	-3°-28'-28	desc. node	4080 Jun 11 21:20	1°☿34'16	
minimum elong	4079 Jul 08 03:15	18°☿38'42	3°26'01		4080 Jun 15 01:28	30°♁♄	
min. Earth dist.	4079 Jul 08 05:07	18°☿36'06	0.54891 AU	inferior conj	4080 Jun 17 06:09	28°♄44'27	-1°-35'-12
morning rise	4079 Jul 17 04:05	14°☿34'55		minimum elong	4080 Jun 17 01:40	28°♄51'00	1°33'35
direct	4079 Jul 20 11:29	14°☿11'00		min. Earth dist.	4080 Jun 18 17:16	27°♄53'04	0.55031 AU
morning max el	4079 Aug 01 16:33	19°☿55'06	21°54'01	morning rise	4080 Jun 25 22:58	24°♄32'23	
	4079 Aug 09 23:45	0°♄		direct	4080 Jun 29 21:43	23°♄58'42	
asc. node	4079 Aug 16 00:02	10°♄03'08			4080 Jul 12 19:23	0°☿	
morning set	4079 Aug 22 16:09	23°♄15'53		morning max el	4080 Jul 13 09:23	0°☿32'14	23°35'54
	4079 Aug 25 20:50	0°♄		asc. node	4080 Aug 01 21:04	29°☿24'48	
					4080 Aug 02 04:12	0°♄	
superior conj	4079 Aug 29 22:20	8°♄35'46	1°42'18	morning set	4080 Aug 06 03:35	8°♄09'11	
minimum elong	4079 Aug 29 21:22	8°♄30'39	1°42'15				
max. Earth dist.	4079 Sep 02 15:30	16°♄16'53	1.34682 AU	superior conj	4080 Aug 13 04:49	23°♄19'35	1°34'20
evening rise	4079 Sep 07 03:27	25°♄11'20		minimum elong	4080 Aug 13 02:56	23°♄09'27	1°34'09
	4079 Sep 09 16:26	0°♄		max. Earth dist.	4080 Aug 15 14:00	28°♄25'26	1.33398 AU
desc. node	4079 Sep 21 23:39	20°♄58'35			4080 Aug 16 07:53	0°♄	
	4079 Sep 28 01:48	0°♄		evening rise	4080 Aug 20 18:31	9°♄08'16	
evening max el	4079 Oct 12 05:03	17°♄02'31	26°54'06		4080 Sep 01 02:33	0°♄	
retrograde	4079 Oct 25 08:37	24°♄18'57		desc. node	4080 Sep 07 20:40	10°♄42'10	
evening set	4079 Nov 01 01:11	21°♄39'15			4080 Sep 23 07:19	0°♄	
min. Earth dist.	4079 Nov 05 01:08	17°♄40'58	0.65647 AU	evening max el	4080 Sep 23 16:48	0°♄22'44	27°23'07
inferior conj	4079 Nov 06 23:17	15°♄27'32	-1°-41'-11	retrograde	4080 Oct 07 06:05	7°♄41'05	
minimum elong	4079 Nov 07 02:07	15°♄19'20	1°40'02	evening set	4080 Oct 14 07:39	5°♄01'46	
asc. node	4079 Nov 11 23:14	10°♄31'18		min. Earth dist.	4080 Oct 18 01:35	1°♄38'16	0.64183 AU
morning rise	4079 Nov 13 04:42	9°♄47'08			4080 Oct 19 15:06	30°♁♄	
direct	4079 Nov 15 22:27	9°♄05'59		inferior conj	4080 Oct 20 11:58	29°♄04'41	-2°-42'-52
morning max el	4079 Nov 22 11:04	12°♄37'19	18°15'31	minimum elong	4080 Oct 20 16:34	28°♄52'36	2°41'12
	4079 Dec 04 19:38	0°♄		morning rise	4080 Oct 27 03:47	23°♄39'37	
morning set	4079 Dec 11 08:48	10°♄37'17		asc. node	4080 Oct 28 20:16	23°♄11'53	
desc. node	4079 Dec 18 22:53	22°♄52'00		direct	4080 Oct 29 15:08	23°♄08'43	
	4079 Dec 23 10:26	0°☿		morning max el	4080 Nov 05 03:29	26°♄34'16	17°54'24
					4080 Nov 08 02:41	0°♄	
superior conj	4079 Dec 26 11:52	4°☿49'58	0°-50'-7	morning set	4080 Nov 22 02:31	22°♄22'50	
minimum elong	4079 Dec 26 05:36	4°☿25'14	0°49'17		4080 Nov 26 14:25	0°♄	
max. Earth dist.	4079 Dec 28 15:29	8°☿12'52	1.45230 AU	desc. node	4080 Dec 04 19:54	13°♄36'22	
evening rise	4080 Jan 11 19:14	0°≈20'40					
	4080 Jan 11 13:56	0°≈		superior conj	4080 Dec 05 04:58	14°♄13'08	0°-2'-37
greatest brilliancy	4080 Jan 26 20:50	23°≈32'16	-0.7m	minimum elong	4080 Dec 05 04:40	14°♄11'53	0°02'35
	4080 Jan 31 11:38	0°♄		behind sun begin	4080 Dec 04 18:40	13°♄31'18	
evening max el	4080 Feb 04 14:05	4°♄51'04	19°22'26	behind sun end	4080 Dec 05 14:40	14°♄52'24	
asc. node	4080 Feb 07 22:31	7°♄40'47		max. Earth dist.	4080 Dec 10 09:57	22°♄33'54	1.44617 AU
retrograde	4080 Feb 11 17:17	8°♄56'27			4080 Dec 15 03:21	0°☿	
evening set	4080 Feb 15 03:29	7°♄47'48		evening rise	4080 Dec 21 07:30	9°☿33'45	
inferior conj	4080 Feb 20 16:45	1°♄52'42	3°19'20		4081 Jan 03 20:04	0°≈	
minimum elong	4080 Feb 20 14:51	1°♄58'53	3°19'03	greatest brilliancy	4081 Jan 11 12:11	10°≈53'11	-0.5m
min. Earth dist.	4080 Feb 21 23:54	0°♄11'34	0.66426 AU	evening max el	4081 Jan 17 17:19	18°≈22'56	20°20'21
	4080 Feb 22 03:30	30°♁≈		asc. node	4081 Jan 24 19:33	22°≈58'15	
morning rise	4080 Feb 26 01:25	25°≈37'09		retrograde	4081 Jan 25 15:25	23°≈01'59	
direct	4080 Mar 03 06:49	22°≈52'22		evening set	4081 Jan 29 10:05	21°≈39'16	
	4080 Mar 15 11:47	0°♄		inferior conj	4081 Feb 03 20:29	15°≈30'56	2°53'23
desc. node	4080 Mar 15 22:04	0°♄25'52		minimum elong	4081 Feb 03 18:04	15°≈39'09	2°52'49
morning max el	4080 Mar 15 19:43	0°♄19'54	26°00'46	min. Earth dist.	4081 Feb 04 13:56	14°≈31'42	0.67352 AU
	4080 Apr 07 00:25	0°♄		morning rise	4081 Feb 09 01:31	9°≈14'56	
morning set	4080 Apr 20 23:04	23°♄50'21		direct	4081 Feb 14 17:24	6°≈44'23	
	4080 Apr 24 05:35	0°♄		morning max el	4081 Feb 26 04:22	13°≈35'23	24°38'26
max. Earth dist.	4080 Apr 24 21:41	1°♄17'28	1.35429 AU	desc. node	4081 Mar 02 19:06	18°≈41'30	
					4081 Mar 11 11:53	0°♄	
superior conj	4080 Apr 30 04:23	11°♄45'09	0°-56'-30		4081 Mar 30 20:26	0°♄	
minimum elong	4080 Apr 30 07:25	12°♄00'32	0°55'58	morning set	4081 Apr 03 03:35	5°♄42'42	
asc. node	4080 May 05 21:49	23°♄31'48		max. Earth dist.	4081 Apr 06 19:51	12°♄18'15	1.37361 AU
evening rise	4080 May 08 01:52	28°♄00'01					
	4080 May 09 01:22	0°♄		superior conj	4081 Apr 13 13:00	24°♄57'42	-1°-24'-29

minimum elong	4081 Apr 13 17:22	25° Υ 18'56	1°23'53	superior conj	4082 Mar 27 06:59	7° Υ 25'16	-1°-48'-25
	4081 Apr 16 02:42	0° \mathcal{B}		minimum elong	4082 Mar 27 11:41	7° Υ 46'58	1°47'59
evening rise	4081 Apr 22 03:38	12° \mathcal{B} 02'42		evening rise	4082 Apr 05 20:53	25° Υ 36'03	
asc. node	4081 Apr 22 18:51	13° \mathcal{B} 18'25			4082 Apr 08 04:07	0° \mathcal{B}	
	4081 May 01 20:20	0° Π		asc. node	4082 Apr 09 15:52	2° \mathcal{B} 48'29	
evening max el	4081 May 08 22:25	9° Π 16'19	19°17'47	evening max el	4082 Apr 22 00:43	21° \mathcal{B} 36'15	18°34'33
retrograde	4081 May 18 01:52	13° Π 43'21		retrograde	4082 Apr 29 19:05	25° \mathcal{B} 25'26	
evening set	4081 May 20 01:43	13° Π 31'35		evening set	4082 May 02 00:43	25° \mathcal{B} 07'32	
inferior conj	4081 May 28 13:11	9° Π 23'01	0°21'16	inferior conj	4082 May 09 16:40	20° \mathcal{B} 39'50	1°54'04
minimum elong	4081 May 28 14:05	9° Π 21'33	0°20'57	minimum elong	4082 May 09 20:10	20° \mathcal{B} 33'02	1°53'01
desc. node	4081 May 29 18:18	8° Π 34'38		min. Earth dist.	4082 May 13 02:00	18° \mathcal{B} 03'41	0.57881 AU
min. Earth dist.	4081 May 31 07:57	7° Π 33'02	0.56101 AU	desc. node	4082 May 16 15:20	15° \mathcal{B} 45'32	
morning rise	4081 Jun 05 22:20	4° Π 37'11		morning rise	4082 May 17 11:10	15° \mathcal{B} 20'08	
direct	4081 Jun 10 19:17	3° Π 42'39		direct	4082 May 23 07:04	13° \mathcal{B} 54'17	
morning max el	4081 Jun 24 23:20	10° Π 55'31	25°16'49	morning max el	4082 Jun 06 16:05	21° \mathcal{B} 31'50	26°40'59
	4081 Jul 09 11:57	0° \mathcal{E}			4082 Jun 14 01:35	0° Π	
asc. node	4081 Jul 19 18:07	19° \mathcal{E} 06'48			4082 Jul 02 05:41	0° \mathcal{E}	
morning set	4081 Jul 21 15:17	23° \mathcal{E} 02'47		morning set	4082 Jul 06 01:34	7° \mathcal{E} 50'28	
	4081 Jul 24 20:51	0° \mathcal{Q}		asc. node	4082 Jul 06 15:09	9° \mathcal{E} 02'12	
superior conj	4081 Jul 28 14:53	8° \mathcal{Q} 13'03	1°21'06	superior conj	4082 Jul 13 02:33	23° \mathcal{E} 08'31	1°03'20
minimum elong	4081 Jul 28 12:35	8° \mathcal{Q} 00'25	1°20'47	minimum elong	4082 Jul 13 00:18	22° \mathcal{E} 56'07	1°02'56
max. Earth dist.	4081 Jul 29 20:09	10° \mathcal{Q} 53'02	1.32536 AU	max. Earth dist.	4082 Jul 13 06:52	23° \mathcal{E} 32'25	1.32089 AU
evening rise	4081 Aug 04 18:34	23° \mathcal{Q} 31'08			4082 Jul 16 05:24	0° \mathcal{Q}	
	4081 Aug 07 23:48	0° \mathcal{M}		evening rise	4082 Jul 20 00:42	8° \mathcal{Q} 10'03	
desc. node	4081 Aug 25 17:40	29° \mathcal{M} 49'59			4082 Jul 31 10:10	0° \mathcal{M}	
	4081 Aug 25 20:33	0° \mathcal{A}		desc. node	4082 Aug 12 14:40	18° \mathcal{M} 06'30	
evening max el	4081 Sep 06 01:57	13° \mathcal{A} 14'50	27°22'28	evening max el	4082 Aug 19 05:48	25° \mathcal{M} 25'19	26°48'33
retrograde	4081 Sep 19 20:59	20° \mathcal{A} 30'00			4082 Aug 25 01:34	0° \mathcal{A}	
evening set	4081 Sep 27 01:21	18° \mathcal{A} 02'29		retrograde	4082 Sep 02 03:55	2° \mathcal{A} 35'55	
min. Earth dist.	4081 Sep 30 16:04	15° \mathcal{A} 07'57	0.62407 AU	evening set	4082 Sep 09 01:49	0° \mathcal{A} 32'52	
inferior conj	4081 Oct 03 13:47	12° \mathcal{A} 24'17	-3°-42'-15		4082 Sep 09 23:19	30° \mathcal{R} \mathcal{M}	
minimum elong	4081 Oct 03 19:36	12° \mathcal{A} 10'34	3°40'32	min. Earth dist.	4082 Sep 12 19:54	27° \mathcal{M} 55'51	0.60405 AU
morning rise	4081 Oct 10 16:45	7° \mathcal{A} 17'40		inferior conj	4082 Sep 16 01:16	25° \mathcal{M} 16'40	-4°-33'-21
direct	4081 Oct 13 00:33	6° \mathcal{A} 53'28		minimum elong	4082 Sep 16 06:53	25° \mathcal{M} 05'04	4°32'15
asc. node	4081 Oct 15 17:18	7° \mathcal{A} 27'01		morning rise	4082 Sep 23 15:12	20° \mathcal{M} 31'42	
morning max el	4081 Oct 19 19:37	10° \mathcal{A} 21'23	17°51'07	direct	4082 Sep 25 22:49	20° \mathcal{M} 11'10	
	4081 Nov 01 20:22	0° \mathcal{M}		asc. node	4082 Oct 02 14:21	23° \mathcal{M} 08'26	
morning set	4081 Nov 04 18:23	5° \mathcal{M} 12'09		morning max el	4082 Oct 03 08:11	23° \mathcal{M} 49'41	18°06'54
					4082 Oct 08 07:48	0° \mathcal{A}	
superior conj	4081 Nov 15 23:42	24° \mathcal{M} 51'51	0°39'18	morning set	4082 Oct 19 02:11	18° \mathcal{A} 46'38	
minimum elong	4081 Nov 16 03:08	25° \mathcal{M} 06'26	0°38'48		4082 Oct 25 02:49	0° \mathcal{M}	
	4081 Nov 19 01:02	0° \mathcal{X}		superior conj	4082 Oct 28 20:08	6° \mathcal{M} 45'19	1°10'44
desc. node	4081 Nov 21 16:57	4° \mathcal{X} 23'39		minimum elong	4082 Oct 29 00:14	7° \mathcal{M} 03'38	1°10'15
max. Earth dist.	4081 Nov 23 01:08	6° \mathcal{X} 34'45	1.43355 AU	max. Earth dist.	4082 Nov 05 11:39	20° \mathcal{M} 01'30	1.41590 AU
evening rise	4081 Nov 30 18:29	18° \mathcal{X} 50'23		desc. node	4082 Nov 08 13:59	25° \mathcal{M} 09'59	
	4081 Dec 08 01:42	0° \mathcal{Z}		evening rise	4082 Nov 10 19:38	28° \mathcal{M} 47'59	
greatest brilliancy	4081 Dec 26 17:14	26° \mathcal{Z} 18'40	-0.4m		4082 Nov 11 13:33	0° \mathcal{X}	
	4081 Dec 29 19:43	0° \approx			4082 Dec 01 16:43	0° \mathcal{Z}	
evening max el	4081 Dec 31 15:07	1° \approx 56'17	21°30'26	greatest brilliancy	4082 Dec 09 05:16	9° \mathcal{Z} 47'52	-0.3m
retrograde	4082 Jan 09 12:58	7° \approx 13'45		evening max el	4082 Dec 14 08:02	15° \mathcal{Z} 31'51	22°48'17
asc. node	4082 Jan 11 16:33	6° \approx 48'42		retrograde	4082 Dec 24 08:18	21° \mathcal{Z} 28'23	
evening set	4082 Jan 13 17:52	5° \approx 35'45		evening set	4082 Dec 29 01:11	19° \mathcal{Z} 34'08	
	4082 Jan 18 14:55	30° \mathcal{R} \mathcal{Z}		asc. node	4082 Dec 29 13:35	19° \mathcal{Z} 07'14	
inferior conj	4082 Jan 19 03:15	29° \mathcal{Z} 17'19	2°18'26	inferior conj	4083 Jan 03 11:07	13° \mathcal{Z} 09'13	1°35'56
minimum elong	4082 Jan 19 00:50	29° \mathcal{Z} 25'44	2°17'40	minimum elong	4083 Jan 03 09:09	13° \mathcal{Z} 16'03	1°35'11
min. Earth dist.	4082 Jan 19 08:23	28° \mathcal{Z} 59'35	0.67875 AU	min. Earth dist.	4083 Jan 03 04:55	13° \mathcal{Z} 30'41	0.68016 AU
morning rise	4082 Jan 24 07:29	23° \mathcal{Z} 02'50		morning rise	4083 Jan 08 17:04	6° \mathcal{Z} 58'07	
direct	4082 Jan 29 08:39	20° \mathcal{Z} 52'40		direct	4083 Jan 13 03:30	5° \mathcal{Z} 10'54	
morning max el	4082 Feb 08 13:25	26° \mathcal{Z} 56'02	23°09'30	morning max el	4083 Jan 22 02:30	10° \mathcal{Z} 24'52	21°43'14
	4082 Feb 11 09:46	0° \approx		greatest brilliancy	4083 Jan 26 21:45	15° \mathcal{Z} 49'51	-0.4m
greatest brilliancy	4082 Feb 13 13:26	2° \approx 31'58	-0.3m	desc. node	4083 Feb 04 13:11	27° \mathcal{Z} 22'54	
desc. node	4082 Feb 17 16:08	7° \approx 45'00			4083 Feb 06 09:14	0° \approx	
	4082 Mar 05 02:51	0° \mathcal{H}		morning set	4083 Feb 23 06:20	25° \approx 37'36	
morning set	4082 Mar 15 07:21	16° \mathcal{H} 21'09			4083 Feb 25 23:36	0° \mathcal{H}	
max. Earth dist.	4082 Mar 19 14:44	23° \mathcal{H} 40'54	1.39529 AU	max. Earth dist.	4083 Mar 01 14:16	5° \mathcal{H} 55'32	1.41653 AU
	4082 Mar 23 04:56	0° \mathcal{Y}					

superior conj	4083 Mar 09 05:28	18° X 56'07	-2°-4'-15	max. Earth dist.	4084 Feb 11 21:18	19° \approx 04'39	1.43447 AU
minimum elong	4083 Mar 09 08:20	19° X 08'41	2°04'09				
	4083 Mar 15 10:16	0° Y		superior conj	4084 Feb 18 03:29	29° \approx 18'30	-2°-6'-44
evening rise	4083 Mar 20 02:03	8° Y 31'44		minimum elong	4084 Feb 18 01:31	29° \approx 10'20	2°06'43
asc. node	4083 Mar 27 12:54	21° Y 56'15			4084 Feb 18 13:28	0° X	
	4083 Apr 01 16:28	0° X		evening rise	4084 Mar 01 14:50	20° X 39'44	
evening max el	4083 Apr 05 09:41	4° X 25'39	18°11'21		4084 Mar 06 23:13	0° Y	
retrograde	4083 Apr 12 06:58	7° X 53'54		asc. node	4084 Mar 13 09:57	10° Y 33'42	
evening set	4083 Apr 14 18:52	7° X 27'10		evening max el	4084 Mar 18 21:54	17° Y 34'40	18°07'41
inferior conj	4083 Apr 21 17:18	2° X 38'03	2°54'46	retrograde	4084 Mar 25 09:25	20° Y 57'21	
minimum elong	4083 Apr 21 20:33	2° X 30'41	2°54'05	evening set	4084 Mar 28 03:05	20° Y 20'18	
	4083 Apr 24 15:28	30° R Y		inferior conj	4084 Apr 03 11:47	15° Y 10'37	3°26'48
min. Earth dist.	4083 Apr 25 01:49	29° Y 37'40	0.60019 AU	minimum elong	4084 Apr 03 13:28	15° Y 06'14	3°26'36
morning rise	4083 Apr 28 18:37	26° Y 52'36		min. Earth dist.	4084 Apr 06 09:52	12° Y 10'33	0.62178 AU
desc. node	4083 May 03 12:21	25° Y 01'05		morning rise	4084 Apr 09 21:18	9° Y 09'02	
direct	4083 May 05 07:15	24° Y 52'07		direct	4084 Apr 16 17:41	6° Y 39'33	
	4083 May 16 15:12	0° X		desc. node	4084 Apr 19 09:24	7° Y 00'07	
morning max el	4083 May 19 15:06	2° X 43'53	27°34'56	morning max el	4084 Apr 30 20:16	14° Y 38'21	27°51'54
	4083 Jun 08 12:29	0° II			4084 May 13 06:48	0° X	
morning set	4083 Jun 20 08:46	22° II 26'56			4084 May 31 01:10	0° II	
asc. node	4083 Jun 23 12:12	29° II 06'07		morning set	4084 Jun 03 10:50	6° II 45'23	
	4083 Jun 23 22:12	0° X		max. Earth dist.	4084 Jun 09 03:00	18° II 40'02	1.32415 AU
max. Earth dist.	4083 Jun 26 18:31	6° X 12'39	1.32048 AU	asc. node	4084 Jun 09 09:15	19° II 13'44	
superior conj	4083 Jun 27 14:05	8° X 00'18	0°41'41	superior conj	4084 Jun 10 23:44	22° II 42'25	0°16'45
minimum elong	4083 Jun 27 12:21	7° X 50'47	0°41'20	minimum elong	4084 Jun 10 22:57	22° II 38'10	0°16'35
evening rise	4083 Jul 04 10:39	22° X 57'37			4084 Jun 14 07:53	0° X	
	4083 Jul 07 20:04	0° X		evening rise	4084 Jun 17 22:20	7° X 46'48	
	4083 Jul 25 23:36	0° Y			4084 Jun 29 12:10	0° X	
desc. node	4083 Jul 30 11:40	5° Y 10'51		evening max el	4084 Jul 12 16:12	17° X 26'25	24°13'58
evening max el	4083 Aug 01 02:13	6° Y 46'52	25°42'45	desc. node	4084 Jul 16 08:40	20° X 34'39	
retrograde	4083 Aug 15 01:25	13° Y 53'29		retrograde	4084 Jul 26 11:54	24° X 24'31	
evening set	4083 Aug 21 04:15	12° Y 25'17		evening set	4084 Jul 31 06:33	23° X 23'45	
min. Earth dist.	4083 Aug 25 14:18	9° Y 48'39	0.58348 AU	min. Earth dist.	4084 Aug 06 02:53	20° X 23'41	0.56508 AU
inferior conj	4083 Aug 28 18:55	7° Y 31'59	-5°-6'-11	inferior conj	4084 Aug 08 16:26	19° X 02'36	-5°-6'-11
minimum elong	4083 Aug 28 21:40	7° Y 27'04	5°06'00	minimum elong	4084 Aug 08 13:28	19° X 07'14	5°05'59
morning rise	4083 Sep 05 18:34	3° Y 10'39		morning rise	4084 Aug 16 23:55	15° X 02'15	
direct	4083 Sep 08 05:26	2° Y 51'31		direct	4084 Aug 19 16:42	14° X 43'00	
morning max el	4083 Sep 16 13:57	6° Y 50'24	18°43'14	morning max el	4084 Aug 29 09:54	19° X 14'26	19°41'14
asc. node	4083 Sep 19 11:25	10° Y 01'58		asc. node	4084 Sep 05 08:29	27° X 52'40	
	4083 Oct 01 09:33	0° X			4084 Sep 06 16:41	0° Y	
morning set	4083 Oct 02 21:11	2° X 52'55		morning set	4084 Sep 15 23:52	17° Y 21'31	
					4084 Sep 22 05:58	0° X	
superior conj	4083 Oct 11 13:31	19° X 40'17	1°31'10	superior conj	4084 Sep 23 22:29	3° X 21'41	1°41'47
minimum elong	4083 Oct 11 16:31	19° X 54'22	1°30'56	minimum elong	4084 Sep 23 23:48	3° X 28'14	1°41'44
	4083 Oct 17 04:18	0° X			4084 Sep 29 22:17	14° X 53'09	1.37466 AU
max. Earth dist.	4083 Oct 18 17:40	2° X 45'57	1.39541 AU	max. Earth dist.	4084 Oct 03 17:34	21° X 49'23	
evening rise	4083 Oct 22 19:09	9° X 46'51		evening rise	4084 Oct 08 10:37	0° X	
desc. node	4083 Oct 26 11:00	15° X 51'55			4084 Oct 12 08:01	6° X 25'39	
	4083 Nov 04 11:43	0° X		desc. node	4084 Oct 28 09:18	0° X	
evening max el	4083 Nov 26 21:38	29° X 10'22	24°08'08		4084 Nov 08 09:58	12° X 52'17	25°23'13
	4083 Nov 27 18:03	0° X		evening max el	4084 Nov 20 11:59	19° X 50'06	
retrograde	4083 Dec 08 00:17	5° X 41'51		retrograde	4084 Nov 26 08:03	17° X 25'01	
evening set	4083 Dec 13 06:27	3° X 31'22		evening set	4084 Nov 30 19:00	12° X 29'51	0.67237 AU
asc. node	4083 Dec 16 10:38	0° X 07'44		min. Earth dist.	4084 Dec 01 22:56	10° X 59'35	0°-7'-28
	4083 Dec 16 13:06	30° R X		inferior conj	4084 Dec 01 23:08	10° X 58'59	0°07'24
min. Earth dist.	4083 Dec 18 01:11	28° X 01'32	0.67799 AU	minimum elong	4084 Dec 01 23:08	10° X 58'59	0°07'24
inferior conj	4083 Dec 18 18:16	27° X 03'52	0°46'56	transit middle	4084 Dec 01 20:39	11° X 07'01	
minimum elong	4083 Dec 18 17:10	27° X 07'35	0°46'28	transit begin	4084 Dec 02 01:37	10° X 50'57	
morning rise	4083 Dec 24 04:13	20° X 58'11		transit end	4084 Dec 02 07:41	10° X 31'23	
direct	4083 Dec 28 00:52	19° X 33'26		asc. node	4084 Dec 07 14:59	5° X 01'24	
morning max el	4084 Jan 04 22:43	24° X 05'00	20°26'20	morning rise	4084 Dec 10 23:29	3° X 56'33	
	4084 Jan 10 01:41	0° X		direct	4084 Dec 18 02:54	7° X 56'31	19°22'59
greatest brilliancy	4084 Jan 11 04:26	1° X 26'34	-0.5m	morning max el	4084 Dec 27 03:49	19° X 25'56	-0.7m
desc. node	4084 Jan 22 10:13	17° X 25'12		greatest brilliancy	4085 Jan 03 05:55	0° X	
	4084 Jan 30 17:45	0° X			4085 Jan 08 07:16	7° X 45'36	
morning set	4084 Feb 02 06:22	3° X 53'42		desc. node			

morning set	4085 Jan 11 05:05	12°☿15'22		morning rise	4085 Nov 21 23:14	19°♊04'07	
	4085 Jan 22 14:12	0°♊		direct	4085 Nov 24 21:41	18°♊15'27	
max. Earth dist.	4085 Jan 24 10:45	2°♊55'38	1.44692 AU	morning max el	4085 Dec 01 13:44	21°♊54'34	18°35'17
					4085 Dec 08 00:43	0°♊	
superior conj	4085 Jan 28 00:04	8°♊34'06	-1°-50'-55	morning set	4085 Dec 22 01:36	21°♊47'05	
minimum elong	4085 Jan 27 16:16	8°♊03'04	1°50'22	desc. node	4085 Dec 26 04:19	28°♊18'27	
	4085 Feb 10 03:50	0°♋			4085 Dec 27 06:00	0°♋	
evening rise	4085 Feb 11 06:56	1°♋52'41					
asc. node	4085 Feb 28 06:59	28°♋31'39		superior conj	4086 Jan 07 03:55	17°♋10'04	-1°-16'-7
	4085 Mar 01 13:15	0°♌		minimum elong	4086 Jan 06 19:09	16°♋35'39	1°15'07
evening max el	4085 Mar 02 10:28	0°♌56'09	18°22'54	max. Earth dist.	4086 Jan 07 04:30	17°♋12'22	1.45250 AU
retrograde	4085 Mar 08 21:46	4°♌26'31			4086 Jan 15 07:54	0°♌	
evening set	4085 Mar 11 21:15	3°♌38'02		evening rise	4086 Jan 22 23:42	12°♌08'08	
	4085 Mar 16 04:36	30°♍			4086 Feb 03 06:22	0°♍	
inferior conj	4085 Mar 17 19:59	28°♍09'21	3°36'28	evening max el	4086 Feb 13 20:53	14°♍24'30	18°56'01
minimum elong	4085 Mar 17 19:57	28°♍09'26	3°36'28	asc. node	4086 Feb 15 04:00	15°♍38'25	
min. Earth dist.	4085 Mar 20 03:22	25°♍30'19	0.64120 AU	retrograde	4086 Feb 20 16:08	18°♍13'59	
morning rise	4085 Mar 23 16:59	21°♍59'08		evening set	4086 Feb 23 22:08	17°♍13'00	
direct	4085 Mar 30 12:35	19°♍12'44		inferior conj	4086 Mar 01 14:06	11°♍27'09	3°29'24
desc. node	4085 Apr 06 06:27	21°♍25'53		minimum elong	4086 Mar 01 12:44	11°♍31'26	3°29'16
morning max el	4085 Apr 13 05:10	27°♍09'30	27°32'04	min. Earth dist.	4086 Mar 03 05:55	9°♍22'40	0.65703 AU
	4085 Apr 15 21:26	0°♎		morning rise	4086 Mar 07 02:16	5°♍12'53	
	4085 May 06 22:43	0°♏		direct	4086 Mar 13 14:20	2°♍23'44	
morning set	4085 May 18 05:13	20°♏37'53		desc. node	4086 Mar 24 03:30	7°♍44'13	
	4085 May 22 20:11	0°♐		morning max el	4086 Mar 26 15:01	10°♍05'50	26°41'00
max. Earth dist.	4085 May 23 04:15	0°♐41'59	1.33218 AU		4086 Apr 11 08:04	0°♎	
					4086 Apr 29 10:35	0°♏	
superior conj	4085 May 26 05:36	7°♐09'00	0°-10'-43	morning set	4086 May 01 12:36	3°♏54'23	
minimum elong	4085 May 26 06:09	7°♐11'53	0°10'37	max. Earth dist.	4086 May 05 18:59	12°♏12'07	1.34483 AU
behind sun begin	4085 May 26 02:05	6°♐50'12					
behind sun end	4085 May 26 10:13	7°♐33'36		superior conj	4086 May 10 05:30	21°♏13'32	0°-39'-41
asc. node	4085 May 27 06:17	9°♐20'58		minimum elong	4086 May 10 07:37	21°♏24'27	0°39'17
evening rise	4085 Jun 02 09:54	22°♐31'25		asc. node	4086 May 14 03:19	29°♏23'55	
	4085 Jun 06 00:52	0°♑			4086 May 14 10:11	0°♐	
evening max el	4085 Jun 24 05:56	27°♑50'11	22°36'55	evening rise	4086 May 17 19:24	7°♐05'26	
	4085 Jun 26 16:18	0°♒			4086 May 30 06:17	0°♑	
desc. node	4085 Jul 03 05:42	3°♒43'05		evening max el	4086 Jun 06 03:24	8°♑31'23	21°06'28
retrograde	4085 Jul 07 09:57	4°♒23'11		retrograde	4086 Jun 17 23:04	14°♑19'15	
evening set	4085 Jul 10 16:18	3°♒59'46		evening set	4086 Jun 20 05:02	14°♑07'28	
min. Earth dist.	4085 Jul 18 13:42	0°♒32'02	0.55239 AU	desc. node	4086 Jun 20 02:42	14°♑08'26	
inferior conj	4085 Jul 19 19:33	29°♑49'28	-4°-18'-40	inferior conj	4086 Jun 29 13:11	10°♑09'49	-2°-43'-14
minimum elong	4085 Jul 19 11:33	0°♒00'54	4°16'55	minimum elong	4086 Jun 29 05:51	10°♑20'08	2°40'49
	4085 Jul 19 12:11	30°♒		min. Earth dist.	4086 Jun 30 00:58	9°♑53'13	0.54829 AU
morning rise	4085 Jul 28 09:14	25°♑59'06		morning rise	4086 Jul 08 06:31	6°♑11'28	
direct	4085 Jul 31 10:10	25°♑37'52		direct	4086 Jul 11 19:47	5°♑44'16	
	4085 Aug 10 17:40	0°♓		morning max el	4086 Jul 24 15:11	11°♑50'24	22°36'21
morning max el	4085 Aug 11 18:01	0°♓53'59	21°00'19		4086 Aug 07 01:22	0°♓	
asc. node	4085 Aug 23 05:32	16°♓26'52		asc. node	4086 Aug 10 02:34	5°♓34'14	
	4085 Aug 30 07:20	0°♔		morning set	4086 Aug 15 18:08	16°♓55'46	
morning set	4085 Aug 31 07:33	2°♔04'19			4086 Aug 21 21:16	0°♔	
superior conj	4085 Sep 07 18:22	17°♔35'07	1°44'09	superior conj	4086 Aug 22 21:47	2°♔10'37	1°39'37
minimum elong	4085 Sep 07 18:08	17°♔33'53	1°44'08	minimum elong	4086 Aug 22 20:22	2°♔03'05	1°39'31
max. Earth dist.	4085 Sep 12 07:09	26°♔44'14	1.35601 AU	max. Earth dist.	4086 Aug 26 00:43	8°♔44'16	1.34094 AU
	4085 Sep 13 23:13	0°♕		evening rise	4086 Aug 30 19:39	18°♔24'16	
evening rise	4085 Sep 16 11:11	4°♕45'39			4086 Sep 05 23:59	0°♕	
desc. node	4085 Sep 29 05:02	26°♕45'28		desc. node	4086 Sep 16 02:03	16°♕44'51	
	4085 Oct 01 06:56	0°♖			4086 Sep 25 12:06	0°♖	
evening max el	4085 Oct 21 22:27	26°♖33'31	26°26'17	evening max el	4086 Oct 04 11:07	10°♖05'50	27°09'42
	4085 Oct 25 21:29	0°♗		retrograde	4086 Oct 17 19:27	17°♖23'18	
retrograde	4085 Nov 03 18:38	3°♗46'17		evening set	4086 Oct 24 16:16	14°♖42'58	
evening set	4085 Nov 10 04:04	1°♗10'27		min. Earth dist.	4086 Oct 28 13:38	10°♖59'31	0.65072 AU
	4085 Nov 11 11:20	30°♗		inferior conj	4086 Oct 30 16:51	8°♖36'53	-2°-7'-22
min. Earth dist.	4085 Nov 14 07:56	26°♗51'02	0.66328 AU	minimum elong	4086 Oct 30 20:27	8°♖26'51	2°05'57
inferior conj	4085 Nov 15 23:12	24°♗52'05	-1°-6'-7	morning rise	4086 Nov 06 02:32	3°♗02'15	
minimum elong	4085 Nov 16 01:00	24°♗46'36	1°05'22	asc. node	4086 Nov 06 01:46	3°♗03'08	
asc. node	4085 Nov 19 04:43	21°♗13'34		direct	4086 Nov 08 17:15	2°♗25'50	

morning max el	4086 Nov 15 04:52	5° \mathbb{M} 53'43	18°04'17	direct	4087 Oct 23 07:26	16° \mathbb{A} 22'15	
	4086 Dec 01 11:15	0° \mathbb{A}		asc. node	4087 Oct 23 22:48	16° \mathbb{A} 24'16	
morning set	4086 Dec 03 03:46	2° \mathbb{A} 47'51		morning max el	4087 Oct 29 21:32	19° \mathbb{A} 47'27	17°50'43
desc. node	4086 Dec 13 01:20	18° \mathbb{A} 59'46			4087 Nov 06 11:16	0° \mathbb{M}	
				morning set	4087 Nov 15 07:45	15° \mathbb{M} 03'33	
superior conj	4086 Dec 17 10:32	26° \mathbb{A} 00'37	0°-29'-47		4087 Nov 24 00:47	0° \mathbb{A}	
minimum elong	4086 Dec 17 06:49	25° \mathbb{A} 45'51	0°29'17				
	4086 Dec 19 22:58	0° \mathbb{B}		superior conj	4087 Nov 27 13:56	5° \mathbb{A} 54'39	0°16'18
max. Earth dist.	4086 Dec 21 00:03	1° \mathbb{B} 38'54	1.45064 AU	minimum elong	4087 Nov 27 15:38	6° \mathbb{A} 01'40	0°16'03
evening rise	4087 Jan 02 19:44	21° \mathbb{B} 37'18		behind sun begin	4087 Nov 27 14:44	5° \mathbb{A} 57'58	
	4087 Jan 08 06:09	0° \approx		behind sun end	4087 Nov 27 16:32	6° \mathbb{A} 05'21	
greatest brilliancy	4087 Jan 20 16:56	18° \approx 37'18	-0.6m	desc. node	4087 Nov 29 22:22	9° \mathbb{A} 45'59	
evening max el	4087 Jan 28 03:10	27° \approx 55'59	19°45'27	max. Earth dist.	4087 Dec 03 18:01	15° \mathbb{A} 55'52	1.44159 AU
	4087 Jan 30 09:10	0° \mathbb{H}			4087 Dec 12 17:09	0° \mathbb{B}	
asc. node	4087 Feb 02 01:01	1° \mathbb{H} 40'13		evening rise	4087 Dec 13 05:32	0° \mathbb{B} 47'43	
retrograde	4087 Feb 04 13:32	2° \mathbb{H} 14'22			4088 Jan 01 22:40	0° \approx	
evening set	4087 Feb 08 03:14	0° \mathbb{H} 59'45		greatest brilliancy	4088 Jan 05 15:13	4° \approx 57'37	-0.5m
	4087 Feb 09 08:48	30° \mathbb{R} \approx		evening max el	4088 Jan 11 04:07	11° \approx 28'52	20°48'52
inferior conj	4087 Feb 13 15:02	24° \approx 58'52	3°09'32	retrograde	4088 Jan 19 11:40	16° \approx 23'42	
minimum elong	4087 Feb 13 12:51	25° \approx 06'06	3°09'07	asc. node	4088 Jan 19 22:02	16° \approx 22'40	
min. Earth dist.	4087 Feb 14 16:10	23° \approx 35'29	0.66874 AU	evening set	4088 Jan 23 10:35	14° \approx 54'22	
morning rise	4087 Feb 18 21:48	18° \approx 43'09		inferior conj	4088 Jan 28 20:19	8° \approx 41'12	2°39'34
direct	4087 Feb 24 21:49	16° \approx 03'24		minimum elong	4088 Jan 28 17:50	8° \approx 49'43	2°38'53
morning max el	4087 Mar 09 00:06	23° \approx 16'21	25°27'14	min. Earth dist.	4088 Jan 29 08:16	8° \approx 00'08	0.67625 AU
desc. node	4087 Mar 11 00:32	25° \approx 24'01		morning rise	4088 Feb 03 00:42	2° \approx 25'50	
	4087 Mar 14 23:21	0° \mathbb{H}		direct	4088 Feb 08 10:21	0° \approx 03'42	
	4087 Apr 04 16:37	0° \mathbb{Y}		morning max el	4088 Feb 19 08:42	6° \approx 34'50	24°00'54
morning set	4087 Apr 14 04:25	16° \mathbb{Y} 21'06		desc. node	4088 Feb 25 21:34	14° \approx 02'16	
max. Earth dist.	4087 Apr 17 22:25	23° \mathbb{Y} 17'11	1.36206 AU		4088 Mar 08 13:13	0° \mathbb{H}	
	4087 Apr 21 10:22	0° \mathbb{B}		morning set	4088 Mar 25 23:07	27° \mathbb{H} 43'43	
					4088 Mar 27 06:35	0° \mathbb{Y}	
superior conj	4087 Apr 23 20:37	4° \mathbb{B} 47'18	-1°-8'-39	max. Earth dist.	4088 Mar 29 18:42	4° \mathbb{Y} 25'02	1.38273 AU
minimum elong	4087 Apr 24 00:17	5° \mathbb{B} 05'35	1°08'04				
asc. node	4087 May 01 00:19	19° \mathbb{B} 17'39		superior conj	4088 Apr 05 23:31	17° \mathbb{Y} 41'51	-1°-35'-21
evening rise	4087 May 02 00:41	21° \mathbb{B} 21'24		minimum elong	4088 Apr 06 04:13	18° \mathbb{Y} 04'12	1°34'47
	4087 May 06 09:19	0° \mathbb{H}			4088 Apr 12 07:38	0° \mathbb{B}	
evening max el	4087 May 19 12:37	19° \mathbb{H} 48'38	19°51'50	evening rise	4088 Apr 14 23:14	5° \mathbb{B} 12'48	
retrograde	4087 May 29 14:55	24° \mathbb{H} 43'43		asc. node	4088 Apr 16 21:21	8° \mathbb{B} 57'58	
evening set	4087 May 31 13:46	24° \mathbb{H} 33'30			4088 Apr 29 17:14	0° \mathbb{H}	
desc. node	4087 Jun 06 23:43	22° \mathbb{H} 01'02		evening max el	4088 May 01 09:21	1° \mathbb{H} 46'35	18°56'51
inferior conj	4087 Jun 09 11:24	20° \mathbb{H} 32'21	0°-44'-15	retrograde	4088 May 09 21:31	5° \mathbb{H} 56'01	
minimum elong	4087 Jun 09 09:22	20° \mathbb{H} 35'28	0°43'30	evening set	4088 May 11 23:28	5° \mathbb{H} 42'04	
min. Earth dist.	4087 Jun 11 13:44	19° \mathbb{H} 15'35	0.55382 AU	inferior conj	4088 May 20 02:35	1° \mathbb{H} 25'33	1°04'28
morning rise	4087 Jun 18 02:05	16° \mathbb{H} 07'22		minimum elong	4088 May 20 05:00	1° \mathbb{H} 21'16	1°03'38
direct	4087 Jun 22 09:54	15° \mathbb{H} 26'16			4088 May 22 02:48	30° \mathbb{R} \mathbb{B}	
morning max el	4087 Jul 06 05:48	22° \mathbb{H} 17'24	24°19'50	min. Earth dist.	4088 May 23 05:28	29° \mathbb{B} 13'57	0.56789 AU
	4087 Jul 13 00:57	0° \mathbb{B}		desc. node	4088 May 23 20:44	28° \mathbb{B} 48'29	
asc. node	4087 Jul 27 23:36	25° \mathbb{B} 05'23		morning rise	4088 May 28 06:07	26° \mathbb{B} 24'34	
	4087 Jul 30 08:59	0° \mathbb{Q}		direct	4088 Jun 02 12:53	25° \mathbb{B} 18'03	
morning set	4087 Jul 31 05:54	1° \mathbb{Q} 49'56			4088 Jun 13 18:26	0° \mathbb{H}	
				morning max el	4088 Jun 16 20:26	2° \mathbb{H} 42'45	25°55'44
superior conj	4087 Aug 07 06:02	16° \mathbb{Q} 59'10	1°29'18		4088 Jul 06 06:08	0° \mathbb{B}	
minimum elong	4087 Aug 07 03:55	16° \mathbb{Q} 47'39	1°29'04	asc. node	4088 Jul 13 20:39	14° \mathbb{B} 53'33	
max. Earth dist.	4087 Aug 09 03:01	21° \mathbb{Q} 02'26	1.32988 AU	morning set	4088 Jul 14 17:12	16° \mathbb{B} 41'34	
	4087 Aug 13 08:56	0° \mathbb{H}			4088 Jul 20 20:18	0° \mathbb{Q}	
evening rise	4087 Aug 14 14:55	2° \mathbb{H} 33'22					
	4087 Aug 29 20:05	0° \mathbb{A}		superior conj	4088 Jul 21 17:00	1° \mathbb{Q} 53'54	1°14'04
desc. node	4087 Sep 02 23:03	6° \mathbb{A} 14'47		minimum elong	4088 Jul 21 14:40	1° \mathbb{Q} 41'03	1°13'43
evening max el	4087 Sep 16 22:12	23° \mathbb{A} 16'14	27°26'40	max. Earth dist.	4088 Jul 22 11:35	3° \mathbb{Q} 36'04	1.32293 AU
	4087 Sep 27 03:25	0° \mathbb{M}		evening rise	4088 Jul 28 17:50	17° \mathbb{Q} 03'30	
retrograde	4087 Sep 30 13:56	0° \mathbb{M} 32'38			4088 Aug 04 06:34	0° \mathbb{H}	
	4087 Oct 03 21:08	30° \mathbb{R} \mathbb{A}		desc. node	4088 Aug 19 20:03	25° \mathbb{H} 02'58	
evening set	4087 Oct 07 17:45	27° \mathbb{A} 56'58			4088 Aug 23 18:02	0° \mathbb{A}	
min. Earth dist.	4087 Oct 11 09:56	24° \mathbb{A} 46'49	0.63473 AU	evening max el	4088 Aug 29 05:14	5° \mathbb{A} 51'18	27°12'04
inferior conj	4087 Oct 14 01:19	22° \mathbb{A} 07'45	-3°-8'-35	retrograde	4088 Sep 12 01:34	13° \mathbb{A} 04'44	
minimum elong	4087 Oct 14 06:32	21° \mathbb{A} 54'38	3°06'49	evening set	4088 Sep 19 04:45	10° \mathbb{A} 45'42	
morning rise	4087 Oct 20 21:49	16° \mathbb{A} 50'03		min. Earth dist.	4088 Sep 22 19:36	8° \mathbb{A} 00'48	0.61578 AU

inferior conj	4088 Sep 25 21:27	5°♌16'46	-4°-5'-24	retrograde	4089 Aug 25 05:12	24°♍51'21	
minimum elong	4088 Sep 26 03:26	5°♌03'25	4°03'53	evening set	4089 Aug 31 20:33	23°♍01'58	
morning rise	4088 Oct 03 05:13	0°♌19'22		min. Earth dist.	4089 Sep 04 19:17	20°♍27'27	0.59513 AU
	4088 Oct 04 16:36	30°♍		inferior conj	4089 Sep 08 01:49	17°♍55'11	-4°-50'-20
direct	4088 Oct 05 12:34	29°♍57'03		minimum elong	4089 Sep 08 06:36	17°♍45'51	4°49'38
	4088 Oct 06 08:23	0°♌		morning rise	4089 Sep 15 20:07	13°♍20'27	
asc. node	4088 Oct 09 19:52	1°♌17'48		direct	4089 Sep 18 04:32	13°♍00'55	
morning max el	4088 Oct 12 12:37	3°♌28'04	17°55'27	morning max el	4089 Sep 25 22:51	16°♍47'00	18°19'48
morning set	4088 Oct 28 07:05	28°♌14'04		asc. node	4089 Sep 26 16:56	17°♍32'27	
	4088 Oct 29 06:18	0°♍			4089 Oct 05 07:43	0°♌	
				morning set	4089 Oct 11 20:13	12°♌04'10	
superior conj	4088 Nov 07 20:06	17°♍07'03	0°53'59				
minimum elong	4088 Nov 08 00:07	17°♍24'31	0°53'28	superior conj	4089 Oct 21 02:15	29°♌29'39	1°20'40
	4088 Nov 15 11:15	0°♍		minimum elong	4089 Oct 21 06:00	29°♌46'50	1°20'17
max. Earth dist.	4088 Nov 15 07:25	29°♍44'16	1.42652 AU		4089 Oct 21 08:53	0°♍	
desc. node	4088 Nov 15 19:22	0°♍33'20		max. Earth dist.	4089 Oct 28 15:24	12°♍52'16	1.40737 AU
evening rise	4088 Nov 21 20:55	10°♍17'45		evening rise	4089 Nov 02 07:13	20°♍41'11	
	4088 Dec 04 20:30	0°♌		desc. node	4089 Nov 02 16:24	21°♍18'50	
greatest brilliancy	4088 Dec 19 06:03	19°♌41'58	-0.3m		4089 Nov 08 02:37	0°♍	
evening max el	4088 Dec 23 23:34	25°♌02'34	22°02'50		4089 Nov 29 01:57	0°♌	
	4088 Dec 30 12:38	0°♍		evening max el	4089 Dec 06 14:49	8°♌39'34	23°22'18
retrograde	4089 Jan 02 08:36	0°♍37'22		retrograde	4089 Dec 17 02:46	14°♌52'17	
	4089 Jan 05 00:19	30°♍		evening set	4089 Dec 22 01:02	12°♌51'14	
asc. node	4089 Jan 05 19:06	29°♌34'05		asc. node	4089 Dec 23 16:09	11°♌16'50	
evening set	4089 Jan 06 18:22	28°♌52'25		inferior conj	4089 Dec 27 11:37	6°♌24'31	1°15'53
inferior conj	4089 Jan 12 03:48	22°♌30'28	2°01'15	minimum elong	4089 Dec 27 09:58	6°♌30'12	1°15'14
minimum elong	4089 Jan 12 01:31	22°♌38'26	2°00'28	min. Earth dist.	4089 Dec 27 00:48	7°♌01'40	0.67970 AU
min. Earth dist.	4089 Jan 12 03:56	22°♌30'00	0.67979 AU	morning rise	4090 Jan 01 18:59	0°♌15'10	
morning rise	4089 Jan 17 08:28	16°♌17'08			4090 Jan 02 03:02	30°♍	
direct	4089 Jan 22 03:10	14°♌16'51		direct	4090 Jan 05 23:21	28°♍37'41	
morning max el	4089 Jan 31 19:11	19°♌59'18	22°31'59		4090 Jan 10 03:56	0°♌	
greatest brilliancy	4089 Feb 05 08:51	25°♌05'02	-0.3m	morning max el	4090 Jan 14 11:01	3°♌32'53	21°08'53
	4089 Feb 09 06:16	0°♍		greatest brilliancy	4090 Jan 19 18:20	9°♌37'44	-0.4m
desc. node	4089 Feb 11 18:36	3°♍21'50		desc. node	4090 Jan 29 15:39	23°♌11'19	
	4089 Mar 01 18:30	0°♍			4090 Feb 03 06:51	0°♍	
morning set	4089 Mar 06 14:48	7°♍47'28		morning set	4090 Feb 14 02:17	16°♍32'41	
max. Earth dist.	4089 Mar 11 14:44	16°♍07'13	1.40454 AU	max. Earth dist.	4090 Feb 21 16:40	28°♍43'12	1.42474 AU
					4090 Feb 22 11:24	0°♍	
superior conj	4089 Mar 19 09:47	29°♍46'17	-1°-56'-25				
minimum elong	4089 Mar 19 14:03	0°♍05'32	1°56'08	superior conj	4090 Feb 28 22:20	10°♍49'02	-2°-7'-16
	4089 Mar 19 12:49	0°♍		minimum elong	4090 Feb 28 23:30	10°♍54'03	2°07'16
evening rise	4089 Mar 29 11:49	18°♍31'11			4090 Mar 11 19:34	0°♍	
asc. node	4089 Apr 03 18:23	28°♍19'29		evening rise	4090 Mar 12 10:32	1°♍07'25	
	4089 Apr 04 16:51	0°♌		asc. node	4090 Mar 21 15:26	17°♍15'29	
evening max el	4089 Apr 14 14:51	14°♌19'54	18°22'15	evening max el	4090 Mar 29 01:39	27°♍19'02	18°07'30
retrograde	4089 Apr 21 23:00	17°♌58'26			4090 Apr 01 17:03	0°♌	
evening set	4089 Apr 24 07:11	17°♌37'10		retrograde	4090 Apr 04 17:27	0°♌42'54	
inferior conj	4089 May 01 15:18	13°♌00'35	2°23'42	evening set	4090 Apr 07 07:52	0°♌11'57	
minimum elong	4089 May 01 18:58	12°♌52'59	2°22'44		4090 Apr 07 19:13	30°♍	
min. Earth dist.	4089 May 05 01:56	10°♌10'46	0.58762 AU	inferior conj	4090 Apr 14 00:00	25°♍14'16	3°11'28
morning rise	4089 May 09 02:28	7°♌28'17		minimum elong	4090 Apr 14 02:40	25°♍07'51	3°11'01
desc. node	4089 May 10 17:46	6°♌42'06		min. Earth dist.	4090 Apr 17 05:06	22°♍10'50	0.60953 AU
direct	4089 May 15 06:22	5°♌47'26		morning rise	4090 Apr 20 18:16	19°♍20'58	
morning max el	4089 May 29 15:51	13°♌33'08	27°08'18	direct	4090 Apr 27 11:33	17°♍06'33	
	4089 Jun 11 17:37	0°♍		desc. node	4090 Apr 27 14:49	17°♍06'37	
	4089 Jun 28 10:01	0°♌		morning max el	4090 May 11 17:27	25°♍02'38	27°46'47
morning set	4089 Jun 29 02:26	1°♌25'34			4090 May 16 06:27	0°♌	
asc. node	4089 Jun 30 17:42	4°♌53'23			4090 Jun 05 02:49	0°♍	
				morning set	4090 Jun 13 07:40	15°♍55'03	
superior conj	4089 Jul 06 04:51	16°♌48'56	0°54'36	asc. node	4090 Jun 17 14:43	24°♍59'24	
minimum elong	4089 Jul 06 02:46	16°♌37'27	0°54'13	max. Earth dist.	4090 Jun 19 09:36	28°♍52'13	1.32145 AU
max. Earth dist.	4089 Jul 05 23:02	16°♌16'51	1.32010 AU		4090 Jun 19 22:00	0°♌	
	4089 Jul 12 05:42	0°♍					
evening rise	4089 Jul 13 01:51	1°♍47'04		superior conj	4090 Jun 20 15:47	1°♌37'29	0°31'29
	4089 Jul 28 07:31	0°♍		minimum elong	4090 Jun 20 14:25	1°♌29'56	0°31'11
desc. node	4089 Aug 06 17:04	12°♍52'27		evening rise	4090 Jun 27 12:45	16°♌36'08	
evening max el	4089 Aug 11 05:56	17°♍41'21	26°24'13		4090 Jul 04 03:42	0°♍	

evening max el	4090 Jul 23 23:20	28° Ω 43'41	25°07'14	behind sun begin	4091 Jun 04 18:49	15° Π 45'42	
desc. node	4090 Jul 24 14:06	29° Ω 18'20		behind sun end	4091 Jun 05 04:47	16° Π 39'32	
	4090 Jul 25 08:37	0° \mathbb{M}			4091 Jun 11 08:44	0° \mathfrak{S}	
retrograde	4090 Aug 06 22:20	5° \mathbb{M} 47'45		evening rise	4091 Jun 12 00:37	1° \mathfrak{S} 24'33	
evening set	4090 Aug 12 12:33	4° \mathbb{M} 36'13			4091 Jun 27 19:40	0° Ω	
min. Earth dist.	4090 Aug 17 11:02	1° \mathbb{M} 53'35	0.57511 AU	evening max el	4091 Jul 05 12:21	9° Ω 12'48	23°32'46
inferior conj	4090 Aug 20 11:03	29° Ω 52'23	-5°-11'-15	desc. node	4091 Jul 11 11:05	13° Ω 49'05	
minimum elong	4090 Aug 20 11:37	29° Ω 51'25	5°11'15	retrograde	4091 Jul 19 02:53	16° Ω 01'56	
	4090 Aug 20 06:34	30° $\mathbb{R}\Omega$		evening set	4091 Jul 23 05:54	15° Ω 24'40	
morning rise	4090 Aug 28 14:12	25° Ω 40'20		min. Earth dist.	4091 Jul 29 22:13	12° Ω 17'26	0.55884 AU
direct	4090 Aug 31 03:11	25° Ω 21'22		inferior conj	4091 Aug 01 00:05	11° Ω 03'13	-4°-52'-22
morning max el	4090 Sep 09 00:44	29° Ω 33'06	19°05'12	minimum elong	4091 Jul 31 18:33	11° Ω 11'29	4°51'38
	4090 Sep 09 11:51	0° \mathbb{M}		morning rise	4091 Aug 09 10:22	7° Ω 08'51	
asc. node	4090 Sep 13 13:59	4° \mathbb{M} 51'57		direct	4091 Aug 12 06:37	6° Ω 48'50	
morning set	4090 Sep 25 18:53	26° \mathbb{M} 21'02		morning max el	4091 Aug 22 15:34	11° Ω 37'48	20°12'25
	4090 Sep 27 15:02	0° \mathfrak{A}		asc. node	4091 Aug 31 11:01	23° Ω 02'17	
					4091 Sep 04 10:21	0° \mathbb{M}	
superior conj	4090 Oct 04 02:50	12° \mathfrak{A} 45'52	1°36'47	morning set	4091 Sep 09 23:56	10° \mathbb{M} 56'16	
minimum elong	4090 Oct 04 05:08	12° \mathfrak{A} 56'57	1°36'37				
max. Earth dist.	4090 Oct 10 20:05	25° \mathfrak{A} 18'38	1.38650 AU	superior conj	4091 Sep 17 16:51	26° \mathbb{M} 41'44	1°43'43
	4090 Oct 13 11:21	0° \mathbb{M}		minimum elong	4091 Sep 17 17:28	26° \mathbb{M} 44'53	1°43'41
evening rise	4090 Oct 14 16:48	2° \mathbb{M} 08'12			4091 Sep 19 08:29	0° \mathfrak{A}	
desc. node	4090 Oct 20 13:26	11° \mathbb{M} 58'05		max. Earth dist.	4091 Sep 23 02:11	7° \mathfrak{A} 17'12	1.36639 AU
	4090 Nov 01 08:02	0° \mathfrak{A}		evening rise	4091 Sep 26 23:50	14° \mathfrak{A} 34'22	
evening max el	4090 Nov 19 03:51	22° \mathfrak{A} 20'45	24°41'06		4091 Oct 05 22:13	0° \mathbb{M}	
retrograde	4090 Nov 30 16:59	29° \mathfrak{A} 04'18		desc. node	4091 Oct 07 10:27	2° \mathbb{M} 26'33	
evening set	4090 Dec 06 04:57	26° \mathfrak{A} 47'37			4091 Oct 27 01:45	0° \mathfrak{A}	
asc. node	4090 Dec 10 13:12	21° \mathfrak{A} 55'56		evening max el	4091 Nov 01 16:16	6° \mathfrak{A} 03'29	25°52'00
min. Earth dist.	4090 Dec 10 20:24	21° \mathfrak{A} 32'13	0.67607 AU	retrograde	4091 Nov 14 02:25	13° \mathfrak{A} 08'12	
inferior conj	4090 Dec 11 17:58	20° \mathfrak{A} 20'33	0°24'29	evening set	4091 Nov 20 04:24	10° \mathfrak{A} 37'57	
minimum elong	4090 Dec 11 17:22	20° \mathfrak{A} 22'33	0°24'14	min. Earth dist.	4091 Nov 24 12:19	5° \mathfrak{A} 58'04	0.66897 AU
morning rise	4090 Dec 17 06:15	14° \mathfrak{A} 17'33		inferior conj	4091 Nov 25 20:59	4° \mathfrak{A} 15'13	0°-31'-53
direct	4090 Dec 20 21:35	13° \mathfrak{A} 01'28		minimum elong	4091 Nov 25 21:50	4° \mathfrak{A} 12'34	0°31'32
morning max el	4090 Dec 28 10:34	17° \mathfrak{A} 18'01	19°57'27	asc. node	4091 Nov 27 10:14	2° \mathfrak{A} 20'16	
greatest brilliancy	4091 Jan 04 15:04	26° \mathfrak{A} 01'12	-0.6m		4091 Nov 29 13:55	30° $\mathbb{R}\mathbb{M}$	
	4091 Jan 07 11:29	0° \mathfrak{S}		morning rise	4091 Dec 01 16:13	28° \mathbb{M} 21'09	
desc. node	4091 Jan 16 12:42	13° \mathfrak{S} 22'30		direct	4091 Dec 04 20:17	27° \mathbb{M} 23'30	
morning set	4091 Jan 23 22:32	24° \mathfrak{S} 42'01			4091 Dec 10 10:32	0° \mathfrak{A}	
	4091 Jan 27 08:36	0° \approx		morning max el	4091 Dec 11 17:48	1° \mathfrak{A} 12'54	19°00'44
max. Earth dist.	4091 Feb 04 02:48	12° \approx 13'03	1.44062 AU		4091 Dec 31 23:01	0° \mathfrak{S}	
				morning set	4092 Jan 03 04:34	3° \mathfrak{S} 28'47	
superior conj	4091 Feb 09 09:21	20° \approx 42'50	-2°-2'-28	desc. node	4092 Jan 03 09:44	3° \mathfrak{S} 48'57	
minimum elong	4091 Feb 09 04:43	20° \approx 24'01	2°02'17	max. Earth dist.	4092 Jan 17 19:09	26° \mathfrak{S} 20'03	1.45024 AU
	4091 Feb 15 00:30	0° \mathfrak{H}					
evening rise	4091 Feb 22 15:00	12° \mathfrak{H} 53'07		superior conj	4092 Jan 19 20:59	29° \mathfrak{S} 36'23	-1°-38'-14
	4091 Mar 04 18:38	0° \mathbb{Y}		minimum elong	4092 Jan 19 11:53	29° \mathfrak{S} 00'29	1°37'24
asc. node	4091 Mar 08 12:29	5° \mathbb{Y} 37'55			4092 Jan 20 02:58	0° \approx	
evening max el	4091 Mar 12 14:27	10° \mathbb{Y} 35'07	18°11'55	evening rise	4092 Feb 03 21:21	23° \approx 42'04	
retrograde	4091 Mar 19 00:35	13° \mathbb{Y} 59'10			4092 Feb 07 17:52	0° \mathfrak{H}	
evening set	4091 Mar 21 20:48	13° \mathbb{Y} 17'12		asc. node	4092 Feb 23 09:31	23° \mathfrak{H} 15'57	
inferior conj	4091 Mar 28 00:50	7° \mathbb{Y} 59'15	3°33'13	evening max el	4092 Feb 24 02:22	24° \mathfrak{H} 00'16	18°34'46
minimum elong	4091 Mar 28 01:46	7° \mathbb{Y} 56'42	3°33'10	retrograde	4092 Mar 01 16:01	27° \mathfrak{H} 37'25	
min. Earth dist.	4091 Mar 30 16:56	5° \mathbb{Y} 06'11	0.63048 AU	evening set	4092 Mar 04 18:12	26° \mathfrak{H} 43'37	
morning rise	4091 Apr 03 04:37	1° \mathbb{Y} 53'35		inferior conj	4092 Mar 10 13:40	21° \mathfrak{H} 07'05	3°35'13
	4091 Apr 06 09:20	30° $\mathbb{R}\mathfrak{H}$		minimum elong	4092 Mar 10 13:01	21° \mathfrak{H} 09'02	3°35'12
direct	4091 Apr 10 01:45	29° \mathfrak{H} 15'18		min. Earth dist.	4092 Mar 12 14:16	18° \mathfrak{H} 41'53	0.64847 AU
	4091 Apr 13 23:05	0° \mathbb{Y}		morning rise	4092 Mar 16 06:29	14° \mathfrak{H} 54'45	
desc. node	4091 Apr 14 11:51	0° \mathbb{Y} 12'32		direct	4092 Mar 22 23:28	12° \mathfrak{H} 05'56	
morning max el	4091 Apr 24 00:21	7° \mathbb{Y} 13'37	27°47'43	desc. node	4092 Mar 31 08:54	15° \mathfrak{H} 30'39	
	4091 May 11 10:20	0° \mathfrak{S}		morning max el	4092 Apr 05 10:06	19° \mathfrak{H} 57'32	27°13'43
morning set	4091 May 28 06:46	0° \mathbb{I} 03'31			4092 Apr 14 00:28	0° \mathbb{Y}	
	4091 May 28 06:04	0° \mathbb{I}			4092 May 03 11:29	0° \mathfrak{S}	
max. Earth dist.	4091 Jun 02 15:31	11° \mathbb{I} 10'37	1.32705 AU	morning set	4092 May 10 20:53	13° \mathfrak{S} 41'47	
asc. node	4091 Jun 04 11:46	15° \mathbb{I} 07'38		max. Earth dist.	4092 May 15 12:50	23° \mathfrak{S} 00'16	1.33707 AU
					4092 May 18 21:37	0° \mathbb{I}	
superior conj	4091 Jun 05 00:04	16° \mathbb{I} 14'00	0°05'23				
minimum elong	4091 Jun 04 23:48	16° \mathbb{I} 12'36	0°05'19	superior conj	4092 May 19 03:38	0° \mathbb{I} 31'40	0°-22'-54

minimum elong	4092 May 19 04:49	0° Π 37'56	0°22'40	minimum elong	4093 May 03 02:57	14° C 38'11	0°51'36
asc. node	4092 May 21 08:48	5° Π 13'29		asc. node	4093 May 08 05:49	25° C 12'59	
evening rise	4092 May 26 11:32	16° Π 05'23		evening rise	4093 May 10 19:31	0° Π 32'30	
	4092 Jun 02 11:11	0° C			4093 May 10 13:13	0° Π	
evening max el	4092 Jun 16 04:18	19° C 39'13	21°56'48		4093 May 28 16:53	0° C	
desc. node	4092 Jun 27 08:05	25° C 50'09		evening max el	4093 May 29 06:25	0° C 33'49	20°32'20
retrograde	4092 Jun 28 20:14	25° C 55'25		retrograde	4093 Jun 09 09:14	5° C 59'45	
evening set	4092 Jul 01 14:14	25° C 38'30		evening set	4093 Jun 11 10:00	5° C 49'36	
inferior conj	4092 Jul 10 21:30	21° C 34'54	-3°-43'-5	desc. node	4093 Jun 14 05:07	5° C 05'06	
minimum elong	4092 Jul 10 12:57	21° C 46'53	3°40'45	inferior conj	4093 Jun 20 15:15	1° C 52'15	-1°-53'-29
min. Earth dist.	4092 Jul 10 08:37	21° C 52'57	0.54949 AU	minimum elong	4093 Jun 20 09:56	1° C 59'56	1°51'34
morning rise	4092 Jul 19 13:18	17° C 44'06		min. Earth dist.	4093 Jun 21 20:37	1° C 09'48	0.54943 AU
direct	4092 Jul 22 18:49	17° C 21'05			4093 Jun 23 22:37	30° R Π	
morning max el	4092 Aug 03 18:39	22° C 57'46	21°39'41	morning rise	4093 Jun 29 08:25	27° Π 44'13	
	4092 Aug 09 21:55	0° Q		direct	4093 Jul 03 04:26	27° Π 12'31	
asc. node	4092 Aug 17 08:03	11° Q 51'37			4093 Jul 11 20:57	0° C	
morning set	4092 Aug 24 09:03	25° Q 43'30		morning max el	4093 Jul 16 12:28	3° C 39'33	23°20'25
	4092 Aug 26 09:59	0° P			4093 Aug 03 14:40	0° Q	
				asc. node	4093 Aug 04 05:04	1° Q 09'52	
superior conj	4092 Aug 31 16:17	11° P 05'46	1°42'59	morning set	4093 Aug 08 20:18	10° Q 36'33	
minimum elong	4092 Aug 31 15:30	11° P 01'38	1°42'58				
max. Earth dist.	4092 Sep 04 14:31	19° P 10'07	1.34904 AU	superior conj	4093 Aug 15 22:03	25° Q 47'52	1°35'53
evening rise	4092 Sep 09 00:13	27° P 49'43		minimum elong	4093 Aug 15 20:16	25° Q 38'20	1°35'45
	4092 Sep 10 03:40	0° A			4093 Aug 17 21:17	0° P	
desc. node	4092 Sep 23 07:26	22° A 38'44		max. Earth dist.	4093 Aug 18 11:39	1° P 15'57	1.33561 AU
	4092 Sep 28 04:38	0° M		evening rise	4093 Aug 23 13:40	11° P 42'23	
evening max el	4092 Oct 14 04:45	19° M 41'46	26°47'34		4093 Sep 02 10:38	0° A	
retrograde	4092 Oct 27 06:36	26° M 57'48		desc. node	4093 Sep 10 04:26	12° A 26'49	
evening set	4092 Nov 02 21:25	24° M 18'46			4093 Sep 23 15:46	0° M	
min. Earth dist.	4092 Nov 06 22:19	20° M 15'06	0.65833 AU	evening max el	4093 Sep 26 16:45	3° M 05'35	27°20'35
inferior conj	4092 Nov 08 18:42	18° M 05'06	-1°-31'-53	retrograde	4093 Oct 10 05:03	10° M 24'08	
minimum elong	4092 Nov 08 21:16	17° M 57'36	1°30'50	evening set	4093 Oct 17 05:28	7° M 44'15	
asc. node	4092 Nov 13 07:16	13° M 26'32		min. Earth dist.	4093 Oct 21 00:13	4° M 15'39	0.64422 AU
morning rise	4092 Nov 14 22:41	12° M 22'45		inferior conj	4093 Oct 23 08:46	1° M 44'34	-2°-33'-33
direct	4092 Nov 17 17:33	11° M 39'50		minimum elong	4093 Oct 23 13:06	1° M 32'58	2°31'57
morning max el	4092 Nov 24 06:52	15° M 12'55	18°20'08		4093 Oct 25 00:46	30° R A	
	4092 Dec 05 01:40	0° X		morning rise	4093 Oct 29 22:57	26° A 16'53	
morning set	4092 Dec 13 13:41	13° X 39'16		asc. node	4093 Oct 31 04:18	25° A 53'13	
desc. node	4092 Dec 20 06:45	24° X 26'14		direct	4093 Nov 01 11:03	25° A 44'43	
	4092 Dec 23 18:42	0° C		morning max el	4093 Nov 07 23:04	29° A 10'46	17°56'23
					4093 Nov 08 17:58	0° M	
superior conj	4092 Dec 28 23:25	8° C 11'53	0°-57'-11	morning set	4093 Nov 25 03:31	25° M 13'43	
minimum elong	4092 Dec 28 16:20	7° C 44'02	0°56'19		4093 Nov 27 23:25	0° X	
max. Earth dist.	4092 Dec 30 14:09	10° C 43'57	1.45258 AU	desc. node	4093 Dec 07 03:45	15° X 09'53	
	4093 Jan 11 21:27	0° \approx					
evening rise	4093 Jan 14 04:42	3° \approx 36'32		superior conj	4093 Dec 08 13:18	17° X 25'22	0°-9'-38
greatest brilliancy	4093 Jan 28 03:48	25° \approx 15'53	-0.7m	minimum elong	4093 Dec 08 12:09	17° X 20'46	0°09'29
	4093 Jan 31 10:10	0° X		behind sun begin	4093 Dec 08 03:45	16° X 46'51	
evening max el	4093 Feb 06 11:10	7° X 30'20	19°15'01	behind sun end	4093 Dec 08 20:34	17° X 54'38	
asc. node	4093 Feb 09 06:32	9° X 57'16		max. Earth dist.	4093 Dec 13 08:46	25° X 06'14	1.44755 AU
retrograde	4093 Feb 13 12:09	11° X 31'25			4093 Dec 16 11:22	0° C	
evening set	4093 Feb 16 21:11	10° X 24'50		evening rise	4093 Dec 24 18:30	12° C 52'32	
inferior conj	4093 Feb 22 11:04	4° X 32'04	3°22'21		4094 Jan 05 00:49	0° \approx	
minimum elong	4093 Feb 22 09:18	4° X 37'47	3°22'06	greatest brilliancy	4094 Jan 14 03:35	13° \approx 08'43	-0.6m
min. Earth dist.	4093 Feb 23 20:27	2° X 44'38	0.66255 AU	evening max el	4094 Jan 20 15:15	21° \approx 02'29	20°10'55
	4093 Feb 26 03:16	30° R \approx		asc. node	4094 Jan 27 03:34	25° \approx 27'08	
morning rise	4093 Feb 27 20:32	28° \approx 16'38		retrograde	4094 Jan 28 10:10	25° \approx 35'58	
direct	4093 Mar 06 03:44	25° \approx 30'20		evening set	4094 Feb 01 03:29	24° \approx 15'27	
	4093 Mar 15 13:40	0° X		inferior conj	4094 Feb 06 14:11	18° \approx 09'03	2°57'58
desc. node	4093 Mar 18 05:57	2° X 27'20		minimum elong	4094 Feb 06 11:49	18° \approx 17'03	2°57'25
morning max el	4093 Mar 18 20:01	3° X 02'22	26°11'45	min. Earth dist.	4094 Feb 07 09:36	17° \approx 03'25	0.67241 AU
	4093 Apr 08 06:32	0° Y		morning rise	4094 Feb 11 19:34	11° \approx 53'03	
morning set	4093 Apr 23 22:18	26° Y 39'08		direct	4094 Feb 17 13:40	9° \approx 19'46	
	4093 Apr 25 17:01	0° C		morning max el	4094 Mar 01 04:44	16° \approx 16'59	24°51'23
max. Earth dist.	4093 Apr 27 22:44	4° C 18'17	1.35169 AU	desc. node	4094 Mar 05 03:00	20° \approx 34'34	
					4094 Mar 12 13:18	0° X	
superior conj	4093 May 03 00:09	14° C 23'55	0°-52'-7		4094 Apr 01 05:21	0° Y	

morning set	4094 Apr 06 06:00	8° Υ 41'41			4095 Feb 11 22:38	0° \approx	
max. Earth dist.	4094 Apr 09 22:02	15° Υ 19'25	1.37051 AU	greatest brilliancy	4095 Feb 17 02:13	5° \approx 50'58	-0.2m
				desc. node	4095 Feb 20 00:02	9° \approx 31'48	
superior conj	4094 Apr 16 10:38	27° Υ 43'04	-1°-20'-26		4095 Mar 06 09:11	0° X	
minimum elong	4094 Apr 16 14:51	28° Υ 03'40	1°19'48	morning set	4095 Mar 18 13:49	19° X 32'00	
	4094 Apr 17 14:32	0° X		max. Earth dist.	4095 Mar 22 17:05	26° X 37'29	1.39202 AU
evening rise	4094 Apr 24 22:20	14° X 39'30			4095 Mar 24 15:07	0° Υ	
asc. node	4094 Apr 25 02:51	15° X 02'05					
	4094 May 03 00:33	0° Π		superior conj	4095 Mar 30 07:07	10° Υ 18'14	-1°-45'-13
evening max el	4094 May 11 20:59	12° Π 10'13	19°25'59	minimum elong	4095 Mar 30 11:52	10° Υ 40'23	1°44'44
retrograde	4094 May 21 06:06	16° Π 43'58		evening rise	4095 Apr 08 17:05	28° Υ 17'59	
evening set	4094 May 23 05:28	16° Π 32'44			4095 Apr 09 14:15	0° X	
inferior conj	4094 May 31 19:46	12° Π 26'33	0°04'42	asc. node	4095 Apr 11 23:54	4° X 35'16	
minimum elong	4094 May 31 19:59	12° Π 26'13	0°04'37	evening max el	4095 Apr 24 21:59	24° X 24'55	18°39'40
transit middle	4094 May 31 19:59	12° Π 26'13	0°04'37	retrograde	4095 May 02 20:31	28° X 18'47	
transit begin	4094 May 31 16:16	12° Π 32'14		evening set	4095 May 05 01:13	28° X 01'57	
transit end	4094 May 31 23:41	12° Π 20'12		inferior conj	4095 May 12 20:00	23° X 37'09	1°42'04
desc. node	4094 Jun 01 02:10	12° Π 16'11		minimum elong	4095 May 12 23:20	23° X 30'51	1°41'00
min. Earth dist.	4094 Jun 03 10:51	10° Π 44'51	0.55891 AU	min. Earth dist.	4095 May 16 04:10	21° X 06'51	0.57587 AU
morning rise	4094 Jun 09 06:36	7° Π 46'16		desc. node	4095 May 18 23:13	19° X 16'53	
direct	4094 Jun 14 00:09	6° Π 55'30		morning rise	4095 May 20 17:00	18° X 22'11	
morning max el	4094 Jun 28 02:23	14° Π 03'12	25°02'25	direct	4095 May 26 09:41	17° X 01'36	
	4094 Jul 10 15:31	0° X		morning max el	4095 Jun 09 18:25	24° X 35'48	26°30'07
asc. node	4094 Jul 22 02:07	20° X 49'21			4095 Jun 14 17:21	0° Π	
morning set	4094 Jul 24 08:05	25° X 30'37			4095 Jul 03 16:36	0° X	
	4094 Jul 26 10:25	0° Ω		morning set	4095 Jul 08 18:43	10° X 19'33	
				asc. node	4095 Jul 08 23:10	10° X 43'00	
superior conj	4094 Jul 31 07:44	10° Ω 40'28	1°23'24				
minimum elong	4094 Jul 31 05:28	10° Ω 28'02	1°23'07	superior conj	4095 Jul 15 19:18	25° X 35'56	1°06'18
max. Earth dist.	4094 Aug 01 16:55	13° Ω 41'27	1.32642 AU	minimum elong	4095 Jul 15 17:01	25° X 23'20	1°05'55
evening rise	4094 Aug 07 12:37	26° Ω 02'16		max. Earth dist.	4095 Jul 16 03:17	26° X 20'00	1.32133 AU
	4094 Aug 09 11:34	0° X			4095 Jul 17 19:16	0° Ω	
	4094 Aug 26 21:13	0° X		evening rise	4095 Jul 22 18:02	10° Ω 39'15	
desc. node	4094 Aug 28 01:26	1° X 40'51			4095 Aug 01 17:42	0° X	
evening max el	4094 Sep 09 02:34	16° X 03'01	27°24'36	desc. node	4095 Aug 14 22:28	20° X 06'23	
retrograde	4094 Sep 22 20:50	23° X 18'22		evening max el	4095 Aug 22 07:25	28° X 20'24	26°55'39
evening set	4094 Sep 30 01:18	20° X 48'29			4095 Aug 24 03:45	0° X	
min. Earth dist.	4094 Oct 03 16:19	17° X 50'04	0.62694 AU	retrograde	4095 Sep 05 04:59	5° X 31'24	
inferior conj	4094 Oct 06 12:24	15° X 07'18	-3°-33'-37	evening set	4095 Sep 12 04:41	3° X 23'52	
minimum elong	4094 Oct 06 18:06	14° X 53'37	3°31'53	min. Earth dist.	4095 Sep 15 21:36	0° X 45'22	0.60714 AU
morning rise	4094 Oct 13 13:41	9° X 57'34			4095 Sep 16 19:41	30° X	
direct	4094 Oct 15 21:51	9° X 32'32		inferior conj	4095 Sep 19 02:16	28° X 04'27	-4°-26'-33
asc. node	4094 Oct 18 01:21	9° X 54'09		minimum elong	4095 Sep 19 08:04	27° X 52'14	4°25'19
morning max el	4094 Oct 22 15:23	12° X 59'31	17°50'22	morning rise	4095 Sep 26 14:38	23° X 16'09	
	4094 Nov 03 04:54	0° X		direct	4095 Sep 28 22:08	22° X 55'11	
morning set	4094 Nov 07 16:28	7° X 54'41		asc. node	4095 Oct 04 22:25	25° X 23'33	
				morning max el	4095 Oct 06 04:44	26° X 31'23	18°03'18
superior conj	4094 Nov 19 03:55	27° X 51'51	0°33'34		4095 Oct 09 05:38	0° X	
minimum elong	4094 Nov 19 07:00	28° X 04'52	0°33'08	morning set	4095 Oct 21 22:18	21° X 23'49	
	4094 Nov 20 10:28	0° X			4095 Oct 26 13:39	0° X	
desc. node	4094 Nov 24 00:45	5° X 56'37					
max. Earth dist.	4094 Nov 26 00:43	9° X 11'33	1.43583 AU	superior conj	4095 Oct 31 20:51	9° X 35'27	1°06'41
evening rise	4094 Dec 04 04:35	22° X 05'57		minimum elong	4095 Nov 01 01:00	9° X 53'50	1°06'11
	4094 Dec 09 08:18	0° X		max. Earth dist.	4095 Nov 08 12:17	22° X 45'29	1.41877 AU
greatest brilliancy	4094 Dec 29 13:06	28° X 47'38	-0.4m	desc. node	4095 Nov 10 21:47	26° X 43'26	
	4094 Dec 30 12:25	0° \approx			4095 Nov 12 22:05	0° X	
evening max el	4095 Jan 03 13:53	4° \approx 35'45	21°19'27	evening rise	4095 Nov 14 02:56	1° X 56'00	
retrograde	4095 Jan 12 07:52	9° \approx 47'07			4095 Dec 02 19:20	0° X	
asc. node	4095 Jan 14 00:37	9° \approx 31'27		greatest brilliancy	4095 Dec 12 10:01	12° X 41'54	-0.3m
evening set	4095 Jan 16 11:12	8° \approx 11'22		evening max el	4095 Dec 17 07:27	18° X 10'59	22°36'23
inferior conj	4095 Jan 21 20:38	1° \approx 54'19	2°24'16	retrograde	4095 Dec 27 03:40	24° X 01'52	
minimum elong	4095 Jan 21 18:11	2° \approx 02'49	2°23'31	evening set	4095 Dec 31 18:42	22° X 09'57	
min. Earth dist.	4095 Jan 22 03:30	1° \approx 30'35	0.67822 AU	asc. node	4095 Dec 31 21:40	22° X 03'47	
	4095 Jan 23 05:59	30° X		inferior conj	4096 Jan 06 04:28	15° X 45'38	1°42'48
morning rise	4095 Jan 27 00:49	25° X 39'38		minimum elong	4096 Jan 06 02:23	15° X 52'50	1°42'03
direct	4095 Feb 01 04:14	23° X 26'13		min. Earth dist.	4096 Jan 05 23:51	16° X 01'39	0.68019 AU
morning max el	4095 Feb 11 13:29	29° X 36'42	23°22'50	morning rise	4096 Jan 11 10:00	9° X 34'02	

direct	4096 Jan 15 22:33	7°☿43'29			4096 Dec 20 06:01	30°☿47	
morning max el	4096 Jan 25 01:50	13°☿04'31	21°55'38	morning rise	4096 Dec 25 21:02	23°☿33'33	
greatest brilliancy	4096 Jan 29 18:14	18°☿20'06	-0.4m	direct	4096 Dec 29 19:36	22°☿05'40	
desc. node	4096 Feb 06 21:03	29°☿05'06		morning max el	4097 Jan 06 20:54	26°☿43'07	20°36'56
	4096 Feb 07 12:40	0°☿			4097 Jan 09 20:41	0°☿	
morning set	4096 Feb 26 17:04	29°☿00'18		greatest brilliancy	4097 Jan 12 20:05	3°☿41'53	-0.5m
	4096 Feb 27 07:55	0°☿		desc. node	4097 Jan 23 18:04	19°☿04'06	
max. Earth dist.	4096 Mar 03 15:47	8°☿44'11	1.41351 AU		4097 Jan 31 00:35	0°☿	
				morning set	4097 Feb 04 19:26	7°☿21'58	
superior conj	4096 Mar 11 08:48	21°☿57'59	-2°-2'-34	max. Earth dist.	4097 Feb 13 21:21	21°☿44'21	1.43211 AU
minimum elong	4096 Mar 11 12:08	22°☿12'43	2°02'26		4097 Feb 18 22:27	0°☿	
	4096 Mar 15 20:28	0°☿					
evening rise	4096 Mar 22 00:20	11°☿19'52		superior conj	4097 Feb 20 10:36	2°☿30'34	-2°-7'-27
asc. node	4096 Mar 28 20:58	23°☿46'57		minimum elong	4097 Feb 20 09:32	2°☿26'05	2°07'27
	4096 Apr 01 15:42	0°☿		evening rise	4097 Mar 04 15:46	23°☿35'10	
evening max el	4096 Apr 07 06:08	7°☿10'10	18°13'31		4097 Mar 08 07:06	0°☿	
retrograde	4096 Apr 14 05:54	10°☿40'42		asc. node	4097 Mar 15 18:00	12°☿29'28	
evening set	4096 Apr 16 16:50	10°☿15'27		evening max el	4097 Mar 21 18:02	20°☿16'34	18°07'04
inferior conj	4096 Apr 23 17:39	5°☿29'27	2°47'31	retrograde	4097 Mar 28 06:25	23°☿39'13	
minimum elong	4096 Apr 23 21:04	5°☿21'53	2°46'45	evening set	4097 Mar 30 23:12	23°☿03'51	
min. Earth dist.	4096 Apr 27 03:00	2°☿31'03	0.59691 AU	inferior conj	4097 Apr 06 09:43	17°☿57'17	3°23'27
morning rise	4096 Apr 30 21:29	29°☿46'59		minimum elong	4097 Apr 06 11:40	17°☿52'19	3°23'14
	4096 Apr 30 12:52	30°☿		min. Earth dist.	4097 Apr 09 09:49	14°☿55'31	0.61862 AU
desc. node	4096 May 04 20:16	28°☿08'48		morning rise	4097 Apr 12 21:23	11°☿57'29	
direct	4096 May 07 08:02	27°☿51'35		direct	4097 Apr 19 17:13	9°☿31'29	
	4096 May 14 11:25	0°☿		desc. node	4097 Apr 21 17:17	9°☿43'10	
morning max el	4096 May 21 16:34	5°☿42'00	27°29'13	morning max el	4097 May 03 20:55	17°☿30'14	27°51'50
	4096 Jun 08 18:44	0°☿			4097 May 14 06:33	0°☿	
morning set	4096 Jun 22 02:31	24°☿58'07			4097 Jun 01 12:02	0°☿	
	4096 Jun 24 11:40	0°☿		morning set	4097 Jun 06 05:29	9°☿20'01	
asc. node	4096 Jun 24 20:13	0°☿45'52		asc. node	4097 Jun 11 17:16	20°☿53'31	
max. Earth dist.	4096 Jun 28 15:03	9°☿00'50	1.32026 AU	max. Earth dist.	4097 Jun 12 00:10	21°☿30'51	1.32326 AU
superior conj	4096 Jun 29 06:58	10°☿28'33	0°45'13	superior conj	4097 Jun 13 17:01	25°☿12'52	0°20'45
minimum elong	4096 Jun 29 05:08	10°☿18'26	0°44'50	minimum elong	4097 Jun 13 16:04	25°☿07'41	0°20'31
evening rise	4096 Jul 06 03:32	25°☿25'49			4097 Jun 15 21:31	0°☿	
	4096 Jul 08 07:58	0°☿		evening rise	4097 Jun 20 15:04	10°☿15'22	
	4096 Jul 25 18:08	0°☿			4097 Jun 30 17:41	0°☿	
desc. node	4096 Jul 31 19:31	7°☿23'27		evening max el	4097 Jul 15 19:33	20°☿34'02	24°28'12
evening max el	4096 Aug 03 04:51	9°☿48'55	25°54'17	desc. node	4097 Jul 18 16:32	23°☿05'05	
retrograde	4096 Aug 17 04:06	16°☿56'36		retrograde	4097 Jul 29 16:32	27°☿34'21	
evening set	4096 Aug 23 10:42	15°☿22'35		evening set	4097 Aug 03 16:30	26°☿38'25	
min. Earth dist.	4096 Aug 27 17:10	12°☿47'14	0.58643 AU	min. Earth dist.	4097 Aug 09 06:33	23°☿47'00	0.56751 AU
inferior conj	4096 Aug 30 22:46	10°☿25'53	-5°-3'-2	inferior conj	4097 Aug 11 23:21	22°☿03'53	-5°-9'-1
minimum elong	4096 Aug 31 02:09	10°☿19'40	5°02'43	minimum elong	4097 Aug 11 21:21	22°☿07'05	5°08'57
morning rise	4096 Sep 07 21:07	6°☿01'14		morning rise	4097 Aug 20 05:47	18°☿00'47	
direct	4096 Sep 10 07:14	5°☿42'05		direct	4097 Aug 22 21:26	17°☿41'42	
morning max el	4096 Sep 18 11:47	9°☿37'11	18°36'32	morning max el	4097 Sep 01 09:23	22°☿07'44	19°31'11
asc. node	4096 Sep 20 19:27	12°☿07'17		asc. node	4097 Sep 07 16:29	29°☿50'24	
	4096 Oct 01 19:59	0°☿			4097 Sep 07 19:03	0°☿	
morning set	4096 Oct 04 15:54	5°☿26'16		morning set	4097 Sep 18 17:38	19°☿52'10	
					4097 Sep 23 18:21	0°☿	
superior conj	4096 Oct 13 11:32	22°☿22'45	1°28'44	superior conj	4097 Sep 26 18:28	5°☿58'13	1°40'44
minimum elong	4096 Oct 13 14:45	22°☿37'47	1°28'26	minimum elong	4097 Sep 26 20:03	6°☿05'59	1°40'39
	4096 Oct 17 15:01	0°☿		max. Earth dist.	4097 Oct 02 22:59	17°☿46'59	1.37767 AU
max. Earth dist.	4096 Oct 20 18:44	5°☿36'08	1.39851 AU	evening rise	4097 Oct 06 18:11	24°☿39'19	
evening rise	4096 Oct 24 22:58	12°☿45'33			4097 Oct 09 19:56	0°☿	
desc. node	4096 Oct 27 18:47	17°☿26'27		desc. node	4097 Oct 14 15:50	8°☿01'54	
	4096 Nov 04 17:57	0°☿			4097 Oct 29 10:01	0°☿	
	4096 Nov 27 03:17	0°☿		evening max el	4097 Nov 11 09:44	15°☿30'32	25°12'35
evening max el	4096 Nov 28 21:19	1°☿48'49	23°56'19	retrograde	4097 Nov 23 08:42	22°☿25'12	
retrograde	4096 Dec 09 20:16	8°☿15'56		evening set	4097 Nov 29 02:36	20°☿02'15	
evening set	4096 Dec 15 00:22	6°☿07'47		min. Earth dist.	4097 Dec 03 14:42	15°☿01'42	0.67346 AU
asc. node	4096 Dec 17 18:43	3°☿14'19		inferior conj	4097 Dec 04 16:59	13°☿36'07	0°01'05
inferior conj	4096 Dec 20 11:50	29°☿40'16	0°54'42	minimum elong	4097 Dec 04 16:57	13°☿36'13	0°01'05
minimum elong	4096 Dec 20 10:34	29°☿44'31	0°54'13	transit middle	4097 Dec 04 16:57	13°☿36'13	0°01'05
min. Earth dist.	4096 Dec 19 20:20	0°☿32'49	0.67855 AU				

transit begin	4097 Dec 04 14:11	13° ♂ 45'16		evening max el	4098 Oct 24 22:18	29° ♂ 12'35	26°17'58
transit end	4097 Dec 04 19:44	13° ♂ 27'10			4098 Oct 25 18:18	0° ♂	
asc. node	4097 Dec 04 15:43	13° ♂ 40'14		retrograde	4098 Nov 06 16:04	6° ♂ 23'25	
morning rise	4097 Dec 10 07:59	7° ♂ 36'32		evening set	4098 Nov 12 23:35	3° ♂ 48'59	
direct	4097 Dec 13 18:11	6° ♂ 28'53			4098 Nov 16 16:34	30° ♂	
morning max el	4097 Dec 20 23:52	10° ♂ 32'54	19°31'20	min. Earth dist.	4098 Nov 17 04:32	29° ♂ 24'09	0.66487 AU
greatest brilliancy	4097 Dec 29 10:52	21° ♂ 09'21	-0.6m	inferior conj	4098 Nov 18 18:01	27° ♂ 29'20	0°-56'-59
	4098 Jan 04 11:24	0° ♂		minimum elong	4098 Nov 18 19:34	27° ♂ 24'36	0°56'21
desc. node	4098 Jan 10 15:05	9° ♂ 22'02		asc. node	4098 Nov 21 12:44	24° ♂ 16'00	
morning set	4098 Jan 14 16:34	15° ♂ 37'31		morning rise	4098 Nov 24 16:45	21° ♂ 39'35	
	4098 Jan 23 22:11	0° ♂		direct	4098 Nov 27 16:35	20° ♂ 48'40	
max. Earth dist.	4098 Jan 27 09:43	5° ♂ 29'08	1.44552 AU	morning max el	4098 Dec 04 09:48	24° ♂ 30'08	18°41'19
					4098 Dec 09 00:29	0° ♂	
superior conj	4098 Jan 31 10:42	11° ♂ 55'12	-1°-54'-36	morning set	4098 Dec 25 09:02	24° ♂ 57'02	
minimum elong	4098 Jan 31 03:37	11° ♂ 26'53	1°54'09	desc. node	4098 Dec 28 12:08	29° ♂ 53'26	
	4098 Feb 11 12:15	0° ♂			4098 Dec 28 13:47	0° ♂	
evening rise	4098 Feb 14 11:07	4° ♂ 56'14		max. Earth dist.	4099 Jan 10 03:21	19° ♂ 44'42	1.45217 AU
	4098 Mar 02 04:30	0° ♂					
asc. node	4098 Mar 02 15:01	0° ♂ 33'59		superior conj	4099 Jan 10 16:04	20° ♂ 34'36	-1°-22'-23
evening max el	4098 Mar 05 06:42	3° ♂ 36'32	18°19'31	minimum elong	4099 Jan 10 06:58	19° ♂ 58'53	1°21'25
retrograde	4098 Mar 11 17:26	7° ♂ 04'50			4099 Jan 16 15:49	0° ♂	
evening set	4098 Mar 14 16:03	6° ♂ 18'05		evening rise	4099 Jan 26 07:26	15° ♂ 20'36	
inferior conj	4098 Mar 20 16:04	0° ♂ 52'15	3°36'09		4099 Feb 04 11:26	0° ♂	
minimum elong	4098 Mar 20 16:17	0° ♂ 51'38	3°36'09	evening max el	4099 Feb 16 17:37	17° ♂ 04'39	18°49'57
	4098 Mar 21 10:23	30° ♂		asc. node	4099 Feb 17 12:02	17° ♂ 49'37	
min. Earth dist.	4098 Mar 23 01:48	28° ♂ 08'58	0.63852 AU	retrograde	4099 Feb 23 11:07	20° ♂ 50'24	
morning rise	4098 Mar 26 14:42	24° ♂ 43'06		evening set	4099 Feb 26 16:07	19° ♂ 51'16	
direct	4098 Apr 02 10:58	21° ♂ 58'13		inferior conj	4099 Mar 04 08:55	14° ♂ 07'48	3°31'21
desc. node	4098 Apr 08 14:18	23° ♂ 48'42		minimum elong	4099 Mar 04 07:43	14° ♂ 11'30	3°31'14
morning max el	4098 Apr 16 05:16	29° ♂ 55'53	27°37'11	min. Earth dist.	4099 Mar 06 02:59	11° ♂ 57'45	0.65498 AU
	4098 Apr 16 06:54	0° ♂		morning rise	4099 Mar 09 22:12	7° ♂ 54'01	
	4098 May 08 06:02	0° ♂		direct	4099 Mar 16 11:44	5° ♂ 04'35	
morning set	4098 May 21 01:08	23° ♂ 16'38		desc. node	4099 Mar 26 11:20	9° ♂ 52'27	
	4098 May 24 08:56	0° ♂		morning max el	4099 Mar 29 15:05	12° ♂ 49'18	26°50'15
max. Earth dist.	4098 May 26 02:37	3° ♂ 36'41	1.33064 AU		4099 Apr 12 10:45	0° ♂	
					4099 Apr 30 21:01	0° ♂	
superior conj	4098 May 28 23:32	9° ♂ 42'00	0°-6'-25	morning set	4099 May 04 10:21	6° ♂ 38'42	
minimum elong	4098 May 28 23:51	9° ♂ 43'44	0°06'23	max. Earth dist.	4099 May 08 19:04	15° ♂ 11'24	1.34270 AU
behind sun begin	4098 May 28 18:54	9° ♂ 17'15					
behind sun end	4098 May 29 04:48	10° ♂ 10'15		superior conj	4099 May 13 00:27	23° ♂ 49'54	0°-35'-16
asc. node	4098 May 29 14:17	11° ♂ 01'03		minimum elong	4099 May 13 02:19	23° ♂ 59'36	0°34'53
evening rise	4098 Jun 05 02:43	25° ♂ 00'53			4099 May 15 23:02	0° ♂	
	4098 Jun 07 12:07	0° ♂		asc. node	4099 May 16 11:19	1° ♂ 04'48	
	4098 Jun 26 09:38	0° ♂		evening rise	4099 May 20 12:39	9° ♂ 36'35	
evening max el	4098 Jun 27 08:52	0° ♂ 58'18	22°51'24		4099 May 31 07:35	0° ♂	
desc. node	4098 Jul 05 13:34	6° ♂ 36'18		evening max el	4099 Jun 09 04:41	11° ♂ 34'14	21°19'02
retrograde	4098 Jul 10 16:14	7° ♂ 36'02		retrograde	4099 Jun 21 05:52	17° ♂ 29'41	
evening set	4098 Jul 14 03:38	7° ♂ 09'37		desc. node	4099 Jun 22 10:33	17° ♂ 26'21	
min. Earth dist.	4098 Jul 21 17:26	3° ♂ 47'39	0.55380 AU	evening set	4099 Jun 23 14:27	17° ♂ 16'54	
inferior conj	4098 Jul 23 04:51	2° ♂ 56'41	-4°-29'-15	inferior conj	4099 Jul 02 22:54	13° ♂ 18'15	-3°00'-1
minimum elong	4098 Jul 22 21:20	3° ♂ 07'32	4°27'47	minimum elong	4099 Jul 02 15:03	13° ♂ 29'14	2°57'31
	4098 Jul 28 21:55	30° ♂		min. Earth dist.	4099 Jul 03 04:17	13° ♂ 10'42	0.54831 AU
morning rise	4098 Jul 31 17:40	29° ♂ 05'42		morning rise	4099 Jul 11 16:00	9° ♂ 22'36	
direct	4098 Aug 03 17:20	28° ♂ 44'50		direct	4099 Jul 15 03:10	8° ♂ 56'39	
	4098 Aug 09 04:54	0° ♂		morning max el	4099 Jul 27 17:41	14° ♂ 55'00	22°21'21
morning max el	4098 Aug 14 19:14	3° ♂ 53'48	20°47'14		4099 Aug 08 07:03	0° ♂	
asc. node	4098 Aug 25 13:30	18° ♂ 18'37		asc. node	4099 Aug 12 10:33	7° ♂ 21'12	
	4098 Aug 31 18:58	0° ♂		morning set	4099 Aug 18 10:56	19° ♂ 23'12	
morning set	4098 Sep 03 00:40	4° ♂ 33'01			4099 Aug 23 10:49	0° ♂	
superior conj	4098 Sep 10 12:55	20° ♂ 07'13	1°44'15	superior conj	4099 Aug 25 15:23	4° ♂ 39'32	1°40'41
minimum elong	4098 Sep 10 12:54	20° ♂ 07'07	1°44'15	minimum elong	4099 Aug 25 14:07	4° ♂ 32'50	1°40'37
	4098 Sep 15 11:15	0° ♂		max. Earth dist.	4099 Aug 28 23:14	11° ♂ 36'55	1.34292 AU
max. Earth dist.	4098 Sep 15 06:58	29° ♂ 39'05	1.35863 AU	evening rise	4099 Sep 02 15:39	21° ♂ 00'36	
evening rise	4098 Sep 19 09:11	7° ♂ 28'07			4099 Sep 07 10:08	0° ♂	
desc. node	4098 Oct 01 12:51	28° ♂ 24'06		desc. node	4099 Sep 18 09:52	18° ♂ 26'54	
	4098 Oct 02 13:10	0° ♂			4099 Sep 26 10:38	0° ♂	

evening max el	4099 Oct 07 10:58	12° \mathbb{M} 46'38	27°04'46	evening max el	4100 Sep 19 22:21	26° \mathbb{L} 00'59	27°26'05
retrograde	4099 Oct 20 17:40	20° \mathbb{M} 03'40			4100 Sep 24 17:55	0° \mathbb{M}	
evening set	4099 Oct 27 13:06	17° \mathbb{M} 23'26		retrograde	4100 Oct 03 13:14	3° \mathbb{M} 18'07	
min. Earth dist.	4099 Oct 31 11:23	13° \mathbb{M} 34'49	0.65280 AU	evening set	4100 Oct 10 16:27	0° \mathbb{M} 40'52	
inferior conj	4099 Nov 02 12:48	11° \mathbb{M} 15'20	-1°-57'-59		4100 Oct 11 13:38	30° \mathbb{R} \mathbb{L}	
minimum elong	4099 Nov 02 16:08	11° \mathbb{M} 05'56	1°56'41	min. Earth dist.	4100 Oct 14 09:09	27° \mathbb{L} 26'17	0.63728 AU
asc. node	4099 Nov 08 09:46	5° \mathbb{M} 52'53		inferior conj	4100 Oct 16 22:51	24° \mathbb{L} 48'51	-2°-59'-28
morning rise	4099 Nov 08 20:57	5° \mathbb{M} 38'36		minimum elong	4100 Oct 17 03:51	24° \mathbb{L} 36'02	2°57'44
direct	4099 Nov 11 12:43	5° \mathbb{M} 00'34		morning rise	4100 Oct 23 17:43	19° \mathbb{L} 28'34	
morning max el	4099 Nov 18 00:29	8° \mathbb{M} 29'23	18°07'51	direct	4100 Oct 26 03:53	18° \mathbb{L} 59'45	
	4099 Dec 02 19:02	0° \mathbb{X}		asc. node	4100 Oct 26 06:50	18° \mathbb{L} 59'49	
morning set	4099 Dec 06 06:53	5° \mathbb{X} 44'59		morning max el	4100 Nov 01 17:12	22° \mathbb{L} 24'48	17°51'38
desc. node	4099 Dec 15 09:08	20° \mathbb{X} 33'34			4100 Nov 07 14:50	0° \mathbb{M}	
				morning set	4100 Nov 18 07:27	17° \mathbb{M} 50'44	
superior conj	4099 Dec 20 20:54	29° \mathbb{X} 19'04	0°-37'-3		4100 Nov 25 10:07	0° \mathbb{X}	
minimum elong	4099 Dec 20 16:15	29° \mathbb{X} 00'38	0°36'26				
	4099 Dec 21 07:15	0° \mathbb{Z}		superior conj	4100 Nov 30 20:35	9° \mathbb{X} 02'02	0°09'43
max. Earth dist.	4099 Dec 23 23:03	4° \mathbb{Z} 11'36	1.45137 AU	minimum elong	4100 Nov 30 21:38	9° \mathbb{X} 06'21	0°09'34
evening rise	4100 Jan 06 06:09	24° \mathbb{Z} 55'32		behind sun begin	4100 Nov 30 13:41	8° \mathbb{X} 33'48	
	4100 Jan 09 12:46	0° \mathbb{Z}		behind sun end	4100 Dec 01 05:34	9° \mathbb{X} 38'52	
greatest brilliancy	4100 Jan 23 04:44	20° \mathbb{Z} 40'07	-0.6m	desc. node	4100 Dec 02 06:10	11° \mathbb{X} 19'10	
	4100 Jan 30 11:00	0° \mathbb{H}		max. Earth dist.	4100 Dec 06 17:19	18° \mathbb{X} 30'38	1.44333 AU
evening max el	4100 Jan 31 00:38	0° \mathbb{H} 35'48	19°37'04		4100 Dec 14 00:47	0° \mathbb{Z}	
asc. node	4100 Feb 04 09:04	4° \mathbb{H} 02'18		evening rise	4100 Dec 16 16:29	4° \mathbb{Z} 06'02	
retrograde	4100 Feb 07 08:19	4° \mathbb{H} 49'26			4101 Jan 03 00:43	0° \mathbb{Z}	
evening set	4100 Feb 10 20:47	3° \mathbb{H} 36'51					
	4100 Feb 14 12:45	30° \mathbb{R} \mathbb{Z}					
inferior conj	4100 Feb 16 09:03	27° \mathbb{Z} 37'53	3°13'15				
minimum elong	4100 Feb 16 06:57	27° \mathbb{Z} 44'47	3°12'51				
min. Earth dist.	4100 Feb 17 12:14	26° \mathbb{Z} 08'20	0.66729 AU				
morning rise	4100 Feb 21 16:25	21° \mathbb{Z} 22'14					
direct	4100 Feb 27 18:22	18° \mathbb{Z} 40'36					
morning max el	4100 Mar 12 00:27	25° \mathbb{Z} 58'44	25°39'14				
desc. node	4100 Mar 13 08:22	27° \mathbb{Z} 21'42					
	4100 Mar 15 17:16	0° \mathbb{H}					
	4100 Apr 06 00:07	0° \mathbb{Y}					
morning set	4100 Apr 17 04:50	19° \mathbb{Y} 13'44					
max. Earth dist.	4100 Apr 21 00:16	26° \mathbb{Y} 19'42	1.35931 AU				
	4100 Apr 22 22:09	0° \mathbb{B}					
superior conj	4100 Apr 26 17:05	7° \mathbb{B} 28'32	-1°-4'-22				
minimum elong	4100 Apr 26 20:32	7° \mathbb{B} 45'51	1°03'47				
asc. node	4100 May 03 08:22	21° \mathbb{B} 00'07					
evening rise	4100 May 04 18:44	23° \mathbb{B} 55'37					
	4100 May 07 19:21	0° \mathbb{I}					
evening max el	4100 May 22 11:59	22° \mathbb{I} 44'47	20°01'38				
retrograde	4100 Jun 01 20:37	27° \mathbb{I} 47'52					
evening set	4100 Jun 03 19:33	27° \mathbb{I} 37'51					
desc. node	4100 Jun 09 07:35	25° \mathbb{I} 38'00					
inferior conj	4100 Jun 12 19:29	23° \mathbb{I} 37'59	-1°-2'-15				
minimum elong	4100 Jun 12 16:35	23° \mathbb{I} 42'21	1°01'11				
min. Earth dist.	4100 Jun 14 16:44	22° \mathbb{I} 30'02	0.55239 AU				
morning rise	4100 Jun 21 11:04	19° \mathbb{I} 17'50					
direct	4100 Jun 25 15:35	18° \mathbb{I} 39'37					
morning max el	4100 Jul 09 08:56	25° \mathbb{I} 24'46	24°04'42				
	4100 Jul 13 16:09	0° \mathbb{S}					
asc. node	4100 Jul 30 07:37	26° \mathbb{S} 49'07					
	4100 Jul 31 21:17	0° \mathbb{Q}					
morning set	4100 Aug 02 22:39	4° \mathbb{Q} 17'17					
superior conj	4100 Aug 09 23:05	19° \mathbb{Q} 26'39	1°31'12				
minimum elong	4100 Aug 09 21:02	19° \mathbb{Q} 15'34	1°31'00				
max. Earth dist.	4100 Aug 12 00:19	23° \mathbb{Q} 51'55	1.33118 AU				
	4100 Aug 14 21:58	0° \mathbb{P}					
evening rise	4100 Aug 17 09:33	5° \mathbb{P} 05'39					
	4100 Aug 31 01:55	0° \mathbb{L}					
desc. node	4100 Sep 05 06:52	8° \mathbb{L} 02'04					

superior conj	4100 Apr 26 17:05	7°8'28"32	-1°-4'-22			4101 Mar 29 16:14	0°Υ	
minimum elong	4100 Apr 26 20:32	7°8'45"51	1°03'47	morning set		4101 Mar 30 03:08	0°Υ47'12	
asc. node	4100 May 03 08:22	21°8'00"07		max. Earth dist.		4101 Apr 02 21:09	7°Υ24'42	1.37952 AU
evening rise	4100 May 04 18:44	23°8'55"37						
	4100 May 07 19:21	0°Π		superior conj		4101 Apr 09 22:05	20°Υ29'36	-1°-31'-35
evening max el	4100 May 22 11:59	22°Π44'47	20°01'38	minimum elong		4101 Apr 10 02:42	20°Υ51'42	1°31'00
retrograde	4100 Jun 01 20:37	27°Π47'52				4101 Apr 14 19:13	0°8	
evening set	4100 Jun 03 19:33	27°Π37'51		evening rise		4101 Apr 18 18:30	7°8'51"15	
desc. node	4100 Jun 09 07:35	25°Π38'00		asc. node		4101 Apr 20 05:25	10°8'42"49	
inferior conj	4100 Jun 12 19:29	23°Π37'59	-1°-2'-15			4101 May 01 08:45	0°Π	
minimum elong	4100 Jun 12 16:35	23°Π42'21	1°01'11	evening max el		4101 May 05 07:14	4°Π37'18	19°03'43
min. Earth dist.	4100 Jun 14 16:44	22°Π30'02	0.55239 AU	retrograde		4101 May 14 00:36	8°Π52'39	
morning rise	4100 Jun 21 11:04	19°Π17'50		evening set		4101 May 16 01:40	8°Π39'35	
direct	4100 Jun 25 15:35	18°Π39'37		inferior conj		4101 May 24 07:45	4°Π25'58	0°49'41
morning max el	4100 Jul 09 08:56	25°Π24'46	24°04'42	minimum elong		4101 May 24 09:42	4°Π22'36	0°48'59
	4100 Jul 13 16:09	0°☿		desc. node		4101 May 27 04:38	2°Π27'25	
asc. node	4100 Jul 30 07:37	26°☿49'07		min. Earth dist.		4101 May 27 08:09	2°Π21'34	0.56534 AU
	4100 Jul 31 21:17	0°Ω				4101 May 31 09:48	30°R8	
morning set	4100 Aug 02 22:39	4°Ω17'17		morning rise		4101 Jun 01 13:21	29°8'30"08	
				direct		4101 Jun 06 16:41	28°8'28"01	
superior conj	4100 Aug 09 23:05	19°Ω26'39	1°31'12			4101 Jun 12 23:54	0°Π	
minimum elong	4100 Aug 09 21:02	19°Ω15'34	1°31'00	morning max el		4101 Jun 20 23:19	5°Π49'02	25°42'37
max. Earth dist.	4100 Aug 12 00:19	23°Ω51'55	1.33118 AU			4101 Jul 08 13:56	0°☿	
	4100 Aug 14 21:58	0°♊		asc. node		4101 Jul 17 04:40	16°☿35'04	
evening rise	4100 Aug 17 09:33	5°♊05'39		morning set		4101 Jul 18 10:07	19°☿09'34	
	4100 Aug 31 01:55	0°♊				4101 Jul 23 10:18	0°Ω	
desc. node	4100 Sep 05 06:52	8°♊02'04						
evening max el	4100 Sep 19 22:21	26°♊00'59	27°26'05	superior conj		4101 Jul 25 09:47	4°Ω20'58	1°16'41
	4100 Sep 24 17:55	0°♋		minimum elong		4101 Jul 25 07:27	4°Ω08'08	1°16'20
retrograde	4100 Oct 03 13:14	3°♋18'07		max. Earth dist.		4101 Jul 26 08:04	6°Ω23'15	1.32365 AU
evening set	4100 Oct 10 16:27	0°♋40'52		evening rise		4101 Aug 01 11:31	19°Ω33'12	
	4100 Oct 11 13:38	30°R♊				4101 Aug 06 17:06	0°♊	
min. Earth dist.	4100 Oct 14 09:09	27°♊26'17	0.63728 AU	desc. node		4101 Aug 23 03:55	26°♊57'34	
inferior conj	4100 Oct 16 22:51	24°♊48'51	-2°-59'-28			4101 Aug 25 11:19	0°♊	
minimum elong	4100 Oct 17 03:51	24°♊36'02	2°57'44	evening max el		4101 Sep 02 06:08	8°♊41'55	27°16'26
morning rise	4100 Oct 23 17:43	19°♊28'34		retrograde		4101 Sep 16 02:08	15°♊56'13	
direct	4100 Oct 26 03:53	18°♊59'45		evening set		4101 Sep 23 05:55	13°♊33'53	
asc. node	4100 Oct 26 06:50	18°♊59'49		min. Earth dist.		4101 Sep 26 20:32	10°♊45'55	0.61869 AU
morning max el	4100 Nov 01 17:12	22°♊24'48	17°51'38	inferior conj		4101 Sep 29 21:03	8°♊01'37	-3°-57'-25
	4100 Nov 07 14:50	0°♋		minimum elong		4101 Sep 30 03:01	7°♊48'03	3°55'48
morning set	4100 Nov 18 07:27	17°♋50'44		morning rise		4101 Oct 07 03:10	3°♊01'00	
	4100 Nov 25 10:07	0°♌		direct		4101 Oct 09 10:34	2°♊38'08	
superior conj	4100 Nov 30 20:35	9°♌02'02	0°09'43	asc. node		4101 Oct 13 03:54	3°♊39'44	
minimum elong	4100 Nov 30 21:38	9°♌06'21	0°09'34	morning max el		4101 Oct 16 08:45	6°♊07'56	17°53'32
behind sun begin	4100 Nov 30 13:41	8°♌33'48				4101 Oct 31 16:21	0°♋	
behind sun end	4100 Dec 01 05:34	9°♌38'52		morning set		4101 Nov 01 04:18	0°♋54'07	
desc. node	4100 Dec 02 06:10	11°♌19'10						
max. Earth dist.	4100 Dec 06 17:19	18°♌30'38	1.44333 AU	superior conj		4101 Nov 11 22:49	20°♋02'55	0°48'57
	4100 Dec 14 00:47	0°♍		minimum elong		4101 Nov 12 02:42	20°♋19'35	0°48'26
evening rise	4100 Dec 16 16:29	4°♍06'02				4101 Nov 17 20:26	0°♌	
	4101 Jan 03 00:43	0°♍		desc. node		4101 Nov 19 03:11	2°♌06'28	
greatest brilliancy	4101 Jan 08 08:13	7°♍18'04	-0.5m	max. Earth dist.		4101 Nov 19 07:17	2°♌23'14	1.42908 AU
evening max el	4101 Jan 14 02:23	14°♍08'11	20°38'39	evening rise		4101 Nov 26 06:04	13°♌30'37	
retrograde	4101 Jan 22 06:33	18°♍57'29				4101 Dec 07 01:58	0°♍	
asc. node	4101 Jan 22 06:07	18°♍57'29		greatest brilliancy		4101 Dec 23 04:19	22°♍17'24	-0.4m
evening set	4101 Jan 26 03:57	17°♍30'28		evening max el		4101 Dec 27 22:38	27°♍41'36	21°51'22
inferior conj	4101 Jan 31 13:53	11°♍18'51	2°44'41			4101 Dec 30 09:56	0°♍	
minimum elong	4101 Jan 31 11:25	11°♍27'17	2°44'02	retrograde		4102 Jan 06 03:47	3°♍10'30	
min. Earth dist.	4101 Feb 01 03:42	10°♍31'30	0.67538 AU	asc. node		4102 Jan 09 03:10	2°♍22'52	
morning rise	4101 Feb 05 18:25	5°♍03'10		evening set		4102 Jan 10 11:48	1°♍28'01	
direct	4101 Feb 11 06:14	2°♍38'04				4102 Jan 12 01:25	30°R♍	
morning max el	4101 Feb 22 09:08	9°♍16'25	24°14'06	inferior conj		4102 Jan 15 21:11	25°♍07'11	2°07'33
desc. node	4101 Feb 28 05:25	15°♍52'11		minimum elong		4102 Jan 15 18:50	25°♍15'21	2°06'46
	4101 Mar 10 17:26	0°♎		min. Earth dist.		4102 Jan 15 23:03	25°♍00'41	0.67950 AU
				morning rise		4102 Jan 21 01:37	18°♍53'20	

direct	4102 Jan 25 22:34	16°☾49'31		morning max el	4103 Jan 18 09:48	6°☾10'51	21°20'37
morning max el	4102 Feb 04 19:04	22°☾39'27	22°44'59	greatest brilliancy	4103 Jan 23 12:25	12°☾00'08	-0.4m
greatest brilliancy	4102 Feb 09 10:09	27°☾49'09	-0.3m	desc. node	4103 Feb 01 23:28	24°☾51'23	
	4102 Feb 11 04:37	0°≈			4103 Feb 05 12:18	0°≈	
desc. node	4102 Feb 15 02:26	5°≈06'09		morning set	4103 Feb 18 14:25	19°≈58'26	
	4102 Mar 04 01:58	0°✕			4103 Feb 24 20:15	0°✕	
morning set	4102 Mar 10 23:10	11°✕03'29		max. Earth dist.	4103 Feb 25 17:29	1°✕27'01	1.42195 AU
max. Earth dist.	4102 Mar 15 16:31	18°✕59'05	1.40130 AU				
	4102 Mar 21 23:14	0°☿		superior conj	4103 Mar 05 03:16	13°✕55'01	-2°-6'-31
				minimum elong	4103 Mar 05 05:07	14°✕02'57	2°06'29
superior conj	4102 Mar 23 11:12	2°☿42'36	-1°-53'-46		4103 Mar 14 05:21	0°☿	
minimum elong	4102 Mar 23 15:40	3°☿02'58	1°53'26	evening rise	4103 Mar 16 09:51	3°☿58'00	
evening rise	4102 Apr 02 08:51	21°☿15'19		asc. node	4103 Mar 24 23:30	19°☿07'47	
asc. node	4102 Apr 07 02:28	0°♄07'44			4103 Apr 01 21:03	0°♄	
	4102 Apr 07 00:47	0°♄		evening max el	4103 Apr 01 21:58	0°♄02'15	18°08'28
evening max el	4102 Apr 18 11:46	17°♄06'41	18°26'10	retrograde	4103 Apr 08 15:24	3°♄27'14	
retrograde	4102 Apr 25 23:15	20°♄48'34		evening set	4103 Apr 11 04:59	2°♄57'46	
evening set	4102 Apr 28 06:32	20°♄28'33			4103 Apr 15 19:33	30°♄☿	
inferior conj	4102 May 05 17:20	15°♄55'11	2°13'43	inferior conj	4103 Apr 17 23:14	28°☿03'04	3°06'00
minimum elong	4102 May 05 21:00	15°♄47'46	2°12'42	minimum elong	4103 Apr 18 02:08	27°☿56'15	3°05'29
min. Earth dist.	4102 May 09 03:51	13°♄09'37	0.58448 AU	min. Earth dist.	4103 Apr 21 05:43	25°☿00'14	0.60627 AU
morning rise	4102 May 13 07:06	10°♄27'04		morning rise	4103 Apr 24 19:57	22°☿12'25	
desc. node	4102 May 14 01:40	10°♄04'27		desc. node	4103 Apr 30 22:41	20°☿03'34	
direct	4102 May 19 08:22	8°♄51'25		direct	4103 May 01 11:50	20°☿02'43	
morning max el	4102 Jun 02 17:46	16°♄34'33	26°59'22	morning max el	4103 May 15 18:24	27°☿57'16	27°43'26
	4102 Jun 13 18:04	0°♅			4103 May 17 17:48	0°♄	
	4102 Jun 30 22:24	0°♄			4103 Jun 07 11:36	0°♅	
morning set	4102 Jul 02 19:46	3°♄55'02		morning set	4103 Jun 17 01:42	18°♅26'50	
asc. node	4102 Jul 04 01:43	6°♄33'29		asc. node	4103 Jun 20 22:45	26°♅38'42	
					4103 Jun 22 11:52	0°♄	
superior conj	4102 Jul 09 21:38	19°♄16'25	0°57'50	max. Earth dist.	4103 Jun 23 06:19	1°♄40'49	1.32104 AU
minimum elong	4102 Jul 09 19:29	19°♄04'33	0°57'25				
max. Earth dist.	4102 Jul 09 19:18	19°♄03'33	1.32031 AU	superior conj	4103 Jun 24 08:47	4°♄06'01	0°35'13
	4102 Jul 14 19:06	0°♄		minimum elong	4103 Jun 24 07:17	3°♄57'43	0°34'53
evening rise	4102 Jul 16 18:57	4°♄15'23		evening rise	4103 Jul 01 05:32	19°♄03'54	
	4102 Jul 30 11:44	0°♄			4103 Jul 06 13:52	0°♄	
desc. node	4102 Aug 10 00:57	14°♄57'01			4103 Jul 26 07:29	0°♄	
evening max el	4102 Aug 15 07:58	20°♄38'58	26°33'20	desc. node	4103 Jul 27 21:58	1°♄37'06	
retrograde	4102 Aug 29 06:57	27°♄49'11		evening max el	4103 Jul 28 02:26	1°♄47'49	25°20'03
evening set	4102 Sep 05 00:49	25°♄54'54		retrograde	4103 Aug 11 01:33	8°♄52'38	
min. Earth dist.	4102 Sep 08 21:40	23°♄19'48	0.59825 AU	evening set	4103 Aug 16 20:28	7°♄35'20	
inferior conj	4102 Sep 12 03:56	20°♄44'45	-4°-44'-49	min. Earth dist.	4103 Aug 21 14:14	4°♄55'08	0.57799 AU
minimum elong	4102 Sep 12 09:05	20°♄34'30	4°43'58	inferior conj	4103 Aug 24 16:08	2°♄48'17	-5°-10'-16
morning rise	4102 Sep 19 20:45	16°♄06'22		minimum elong	4103 Aug 24 17:31	2°♄45'52	5°10'15
direct	4102 Sep 22 04:47	15°♄46'33			4103 Aug 29 02:48	30°♄♄	
morning max el	4102 Sep 29 19:50	19°♄29'54	18°14'51	morning rise	4103 Sep 01 18:05	28°♄32'59	
asc. node	4102 Sep 30 00:56	19°♄42'22		direct	4103 Sep 04 06:18	28°♄13'57	
	4102 Oct 07 14:08	0°♅			4103 Sep 09 23:23	0°♄	
morning set	4102 Oct 15 15:39	14°♅38'39		morning max el	4103 Sep 12 23:05	2°♄20'59	18°57'05
	4102 Oct 23 20:03	0°♄		asc. node	4103 Sep 16 21:57	6°♄52'38	
				morning set	4103 Sep 29 13:05	28°♄51'58	
superior conj	4102 Oct 25 01:39	2°♄15'12	1°17'20		4103 Sep 30 02:53	0°♅	
minimum elong	4102 Oct 25 05:34	2°♄32'55	1°16'54				
max. Earth dist.	4102 Nov 01 16:00	15°♄37'12	1.41041 AU	superior conj	4103 Oct 07 23:48	15°♅24'11	1°34'57
desc. node	4102 Nov 06 00:13	22°♄52'09		minimum elong	4103 Oct 08 02:22	15°♅36'23	1°34'46
evening rise	4102 Nov 06 13:01	23°♄44'29		max. Earth dist.	4103 Oct 14 21:12	28°♅10'13	1.38960 AU
	4102 Nov 10 10:34	0°♄			4103 Oct 15 21:53	0°♄	
	4102 Dec 01 01:02	0°♄		evening rise	4103 Oct 18 19:06	5°♄01'45	
evening max el	4102 Dec 10 14:26	11°♄17'59	23°10'25	desc. node	4103 Oct 23 21:15	13°♄32'32	
retrograde	4102 Dec 20 22:21	17°♄25'04			4103 Nov 03 12:50	0°♄	
evening set	4102 Dec 25 18:41	15°♄26'28		evening max el	4103 Nov 23 03:40	24°♄58'33	24°29'42
asc. node	4102 Dec 27 00:12	14°♄17'43			4103 Nov 29 08:54	0°♄	
inferior conj	4102 Dec 31 05:02	9°♄00'19	1°23'10	retrograde	4103 Dec 04 13:08	1°♄37'53	
minimum elong	4102 Dec 31 03:15	9°♄06'27	1°22'29		4103 Dec 09 04:22	30°♄♄	
min. Earth dist.	4102 Dec 30 19:50	9°♄31'59	0.67995 AU	evening set	4103 Dec 09 23:05	29°♄23'20	
morning rise	4103 Jan 05 11:50	2°♄50'17		asc. node	4103 Dec 13 21:12	25°♄03'43	
direct	4103 Jan 09 18:20	1°♄09'21		min. Earth dist.	4103 Dec 14 15:40	24°♄02'55	0.67683 AU

inferior conj	4103 Dec 15 11:40	22°♄56'07	0°32'38	inferior conj	4104 Nov 28 15:17	6°♄50'57	0°-23'-3
minimum elong	4103 Dec 15 10:53	22°♄58'44	0°32'19	minimum elong	4104 Nov 28 15:53	6°♄49'02	0°22'49
morning rise	4103 Dec 20 23:05	16°♄52'09		asc. node	4104 Nov 29 18:13	5°♄26'20	
direct	4103 Dec 24 16:17	15°♄33'02		morning rise	4104 Dec 04 09:21	0°♄55'29	
morning max el	4104 Jan 01 08:10	19°♄54'29	20°07'17		4104 Dec 06 17:23	30°♄	
greatest brilliancy	4104 Jan 08 03:57	28°♄06'02	-0.6m	direct	4104 Dec 07 14:56	29°♄55'25	
	4104 Jan 09 13:24	0°♄			4104 Dec 08 12:45	0°♄	
desc. node	4104 Jan 19 20:29	14°♄59'37		morning max el	4104 Dec 14 14:22	3°♄48'13	19°08'13
morning set	4104 Jan 28 11:31	28°♄08'53			4105 Jan 02 06:02	0°♄	
	4104 Jan 29 16:15	0°♄		desc. node	4105 Jan 05 17:30	5°♄23'52	
max. Earth dist.	4104 Feb 08 02:45	14°♄50'46	1.43863 AU	morning set	4105 Jan 06 14:32	6°♄45'38	
				max. Earth dist.	4105 Jan 20 18:10	28°♄52'37	1.44924 AU
superior conj	4104 Feb 13 18:09	23°♄58'52	-2°-4'-25		4105 Jan 21 11:16	0°♄	
minimum elong	4104 Feb 13 14:29	23°♄43'49	2°04'17				
	4104 Feb 17 09:31	0°♄		superior conj	4105 Jan 23 08:39	2°♄59'19	-1°-43'-8
evening rise	4104 Feb 26 17:19	15°♄51'42		minimum elong	4105 Jan 22 23:53	2°♄24'36	1°42'24
	4104 Mar 05 23:44	0°♄		evening rise	4105 Feb 07 03:07	26°♄49'06	
asc. node	4104 Mar 10 20:31	7°♄35'37			4105 Feb 09 01:32	0°♄	
evening max el	4104 Mar 15 10:36	13°♄15'47	18°10'01	asc. node	4105 Feb 25 17:32	25°♄20'55	
retrograde	4104 Mar 21 20:59	16°♄39'03		evening max el	4105 Feb 26 22:45	26°♄39'37	18°30'13
evening set	4104 Mar 24 16:20	15°♄58'48			4105 Mar 03 20:52	0°♄	
inferior conj	4104 Mar 30 21:54	10°♄43'36	3°31'19	retrograde	4105 Mar 05 11:27	0°♄14'14	
minimum elong	4104 Mar 30 23:07	10°♄40'22	3°31'13		4105 Mar 07 01:40	30°♄	
min. Earth dist.	4104 Apr 02 16:08	7°♄47'46	0.62750 AU	evening set	4105 Mar 08 12:38	29°♄22'19	
morning rise	4104 Apr 06 03:38	4°♄39'14		inferior conj	4105 Mar 14 09:11	23°♄48'27	3°35'58
direct	4104 Apr 13 00:39	2°♄03'51		minimum elong	4105 Mar 14 08:45	23°♄49'44	3°35'57
desc. node	4104 Apr 16 19:42	2°♄45'58		min. Earth dist.	4105 Mar 16 12:10	21°♄18'07	0.64601 AU
morning max el	4104 Apr 27 00:45	10°♄02'22	27°49'57	morning rise	4105 Mar 20 03:24	17°♄36'40	
	4104 May 12 14:24	0°♄		direct	4105 Mar 26 21:22	14°♄48'27	
	4104 May 29 18:08	0°♄		desc. node	4105 Apr 03 16:43	17°♄46'04	
morning set	4104 May 31 01:52	2°♄38'39		morning max el	4105 Apr 09 10:18	22°♄42'16	27°20'46
max. Earth dist.	4104 Jun 05 13:14	14°♄02'29	1.32594 AU		4105 Apr 15 21:01	0°♄	
asc. node	4104 Jun 06 19:47	16°♄46'38			4105 May 05 20:32	0°♄	
				morning set	4105 May 14 17:34	16°♄22'13	
superior conj	4104 Jun 07 17:33	18°♄44'18	0°09'30	max. Earth dist.	4105 May 19 12:01	25°♄56'47	1.33522 AU
minimum elong	4104 Jun 07 17:05	18°♄41'50	0°09'24		4105 May 21 10:49	0°♄	
behind sun begin	4104 Jun 07 12:51	18°♄18'50					
behind sun end	4104 Jun 07 21:20	19°♄04'51		superior conj	4105 May 22 21:58	3°♄05'14	0°-18'-32
	4104 Jun 12 21:56	0°♄		minimum elong	4105 May 22 22:55	3°♄10'16	0°18'20
evening rise	4104 Jun 14 17:20	3°♄52'29		asc. node	4105 May 24 16:50	6°♄53'13	
	4104 Jun 28 19:04	0°♄		evening rise	4105 May 30 04:31	18°♄34'51	
evening max el	4104 Jul 08 15:35	12°♄19'47	23°47'15		4105 Jun 04 20:04	0°♄	
desc. node	4104 Jul 13 18:58	16°♄27'26		evening max el	4105 Jun 20 06:35	22°♄44'48	22°10'43
retrograde	4104 Jul 22 08:07	19°♄12'24		desc. node	4105 Jun 30 15:59	28°♄53'27	
evening set	4104 Jul 26 16:44	18°♄30'36		retrograde	4105 Jul 03 03:10	29°♄07'33	
min. Earth dist.	4104 Aug 02 01:44	15°♄27'57	0.56090 AU	evening set	4105 Jul 06 01:12	28°♄48'39	
inferior conj	4104 Aug 04 08:04	14°♄05'51	-4°-58'-24	min. Earth dist.	4105 Jul 14 12:17	25°♄09'41	0.55029 AU
minimum elong	4104 Aug 04 03:24	14°♄12'55	4°57'54	inferior conj	4105 Jul 15 07:20	24°♄42'51	-3°-56'-50
morning rise	4104 Aug 12 17:24	10°♄09'43		minimum elong	4105 Jul 14 22:50	24°♄54'50	3°54'39
direct	4104 Aug 15 12:26	9°♄49'59		morning rise	4105 Jul 23 22:26	20°♄52'40	
morning max el	4104 Aug 25 15:42	14°♄32'26	20°01'05	direct	4105 Jul 27 02:13	20°♄30'25	
asc. node	4104 Sep 02 18:59	24°♄56'08		morning max el	4105 Aug 07 20:37	25°♄59'49	21°25'33
	4104 Sep 05 18:42	0°♄			4105 Aug 11 14:44	0°♄	
morning set	4104 Sep 12 17:19	13°♄24'55		asc. node	4105 Aug 20 16:03	13°♄40'33	
				morning set	4105 Aug 28 02:00	28°♄11'01	
superior conj	4104 Sep 20 12:06	29°♄15'03	1°43'10		4105 Aug 28 22:56	0°♄	
minimum elong	4104 Sep 20 12:58	29°♄19'25	1°43'09				
	4104 Sep 20 21:05	0°♄		superior conj	4105 Sep 04 10:24	13°♄36'00	1°43'31
max. Earth dist.	4104 Sep 26 02:40	10°♄11'17	1.36922 AU	minimum elong	4105 Sep 04 09:48	13°♄32'52	1°43'31
evening rise	4104 Sep 29 23:09	17°♄19'33		max. Earth dist.	4105 Sep 08 13:43	22°♄03'16	1.35141 AU
	4104 Oct 07 06:44	0°♄		evening rise	4105 Sep 12 21:18	0°♄28'45	
desc. node	4104 Oct 09 18:16	4°♄02'53			4105 Sep 12 15:15	0°♄	
	4104 Oct 27 21:34	0°♄		desc. node	4105 Sep 26 15:18	24°♄18'06	
evening max el	4104 Nov 04 15:58	8°♄40'43	25°42'13		4105 Sep 30 08:47	0°♄	
retrograde	4104 Nov 16 23:20	15°♄43'18		evening max el	4105 Oct 18 04:26	22°♄20'07	26°40'31
evening set	4104 Nov 22 23:18	13°♄14'44		retrograde	4105 Oct 31 04:28	29°♄35'22	
min. Earth dist.	4104 Nov 27 08:15	8°♄29'33	0.67023 AU	evening set	4105 Nov 06 17:26	26°♄57'15	

min. Earth dist.	4105 Nov 10 19:20	22° \mathbb{M} 48'06	0.66015 AU	evening set	4106 Oct 21 03:02	10° \mathbb{M} 25'26	
inferior conj	4105 Nov 12 13:56	20° \mathbb{M} 41'46	-1°-22'-37	min. Earth dist.	4106 Oct 24 22:42	6° \mathbb{M} 51'35	0.64657 AU
minimum elong	4105 Nov 12 16:13	20° \mathbb{M} 34'59	1°21'41	inferior conj	4106 Oct 27 05:21	4° \mathbb{M} 23'19	-2°-24'-14
asc. node	4105 Nov 16 15:15	16° \mathbb{M} 22'58		minimum elong	4106 Oct 27 09:26	4° \mathbb{M} 12'14	2°22'41
morning rise	4105 Nov 18 16:31	14° \mathbb{M} 57'25			4106 Oct 31 20:04	30° \mathbb{R} $\underline{\mathbb{A}}$	
direct	4105 Nov 21 12:33	14° \mathbb{M} 12'36		morning rise	4106 Nov 02 17:57	28° $\underline{\mathbb{A}}$ 53'05	
morning max el	4105 Nov 28 02:43	17° \mathbb{M} 47'40	18°25'03	asc. node	4106 Nov 03 12:18	28° $\underline{\mathbb{A}}$ 36'00	
	4105 Dec 07 06:47	0° \mathbb{A}		direct	4106 Nov 05 06:53	28° $\underline{\mathbb{A}}$ 19'32	
morning set	4105 Dec 17 19:07	16° \mathbb{A} 42'04			4106 Nov 09 17:41	0° \mathbb{M}	
desc. node	4105 Dec 23 14:32	25° \mathbb{A} 59'32		morning max el	4106 Nov 11 18:38	1° \mathbb{M} 46'06	17°58'45
	4105 Dec 26 03:06	0° \mathbb{B}		morning set	4106 Nov 29 05:01	28° \mathbb{M} 05'11	
					4106 Nov 30 08:24	0° \mathbb{A}	
superior conj	4106 Jan 02 11:07	11° \mathbb{B} 33'37	-1°-4'-6	desc. node	4106 Dec 10 11:35	16° \mathbb{A} 42'30	
minimum elong	4106 Jan 02 03:19	11° \mathbb{B} 03'00	1°03'10				
max. Earth dist.	4106 Jan 03 12:39	13° \mathbb{B} 13'46	1.45271 AU	superior conj	4106 Dec 12 22:10	20° \mathbb{A} 38'18	0°-16'-45
	4106 Jan 14 05:21	0° \mathbb{A}		minimum elong	4106 Dec 12 20:08	20° \mathbb{A} 30'10	0°16'28
evening rise	4106 Jan 18 13:39	6° \mathbb{A} 50'26		max. Earth dist.	4106 Dec 17 07:34	27° \mathbb{A} 37'32	1.44877 AU
greatest brilliancy	4106 Jan 31 06:57	26° \mathbb{A} 43'45	-0.7m		4106 Dec 18 19:43	0° \mathbb{B}	
	4106 Feb 02 11:32	0° \mathbb{H}		evening rise	4106 Dec 29 05:23	16° \mathbb{B} 10'27	
evening max el	4106 Feb 10 08:10	10° \mathbb{H} 09'09	19°08'02		4107 Jan 07 06:28	0° \mathbb{A}	
asc. node	4106 Feb 12 14:34	12° \mathbb{H} 11'37		greatest brilliancy	4107 Jan 17 18:20	15° \mathbb{A} 21'16	-0.6m
retrograde	4106 Feb 17 07:02	14° \mathbb{H} 06'03		evening max el	4107 Jan 24 13:06	23° \mathbb{A} 41'28	20°01'45
evening set	4106 Feb 20 14:57	13° \mathbb{H} 01'29		asc. node	4107 Jan 30 11:36	27° \mathbb{A} 53'28	
inferior conj	4106 Feb 26 05:32	7° \mathbb{H} 11'07	3°25'05	retrograde	4107 Feb 01 04:54	28° \mathbb{A} 09'29	
minimum elong	4106 Feb 26 03:53	7° \mathbb{H} 16'22	3°24'53	evening set	4107 Feb 04 20:55	26° \mathbb{A} 51'05	
min. Earth dist.	4106 Feb 27 17:09	5° \mathbb{H} 17'32	0.66070 AU	inferior conj	4107 Feb 10 07:58	20° \mathbb{A} 46'38	3°02'16
morning rise	4106 Mar 03 15:52	0° \mathbb{H} 55'59		minimum elong	4107 Feb 10 05:39	20° \mathbb{A} 54'24	3°01'47
	4106 Mar 04 19:32	30° \mathbb{R} \mathbb{A}		min. Earth dist.	4107 Feb 11 05:23	19° \mathbb{A} 34'44	0.67121 AU
direct	4106 Mar 10 00:50	28° \mathbb{A} 08'23		morning rise	4107 Feb 15 13:46	14° \mathbb{A} 30'43	
	4106 Mar 15 20:39	0° \mathbb{H}		direct	4107 Feb 21 10:01	11° \mathbb{A} 54'57	
desc. node	4106 Mar 21 13:45	4° \mathbb{H} 29'39		morning max el	4107 Mar 05 05:04	18° \mathbb{A} 57'55	25°04'08
morning max el	4106 Mar 22 20:15	5° \mathbb{H} 44'29	26°22'23	desc. node	4107 Mar 08 10:48	22° \mathbb{A} 27'43	
	4106 Apr 10 12:00	0° \mathbb{Y}			4107 Mar 14 13:29	0° \mathbb{H}	
morning set	4106 Apr 27 21:10	29° \mathbb{Y} 26'35			4107 Apr 03 14:07	0° \mathbb{Y}	
	4106 Apr 28 04:17	0° \mathbb{B}		morning set	4107 Apr 10 07:53	11° \mathbb{Y} 38'14	
max. Earth dist.	4106 May 01 23:33	7° \mathbb{B} 18'25	1.34918 AU	max. Earth dist.	4107 Apr 14 00:11	18° \mathbb{Y} 20'25	1.36752 AU
superior conj	4106 May 06 19:45	17° \mathbb{B} 01'56	0°-47'-41	superior conj	4107 Apr 20 07:59	0° \mathbb{B} 26'46	-1°-16'-17
minimum elong	4106 May 06 22:18	17° \mathbb{B} 15'01	0°47'12	minimum elong	4107 Apr 20 12:01	0° \mathbb{B} 46'37	1°15'40
asc. node	4106 May 11 13:53	26° \mathbb{B} 54'01			4107 Apr 20 02:32	0° \mathbb{B}	
	4106 May 13 01:33	0° \mathbb{H}		asc. node	4107 Apr 28 10:57	16° \mathbb{B} 45'04	
evening rise	4106 May 14 13:07	3° \mathbb{H} 04'25		evening rise	4107 Apr 28 16:54	17° \mathbb{B} 14'59	
	4106 May 30 01:41	0° \mathbb{B}			4107 May 05 07:14	0° \mathbb{H}	
evening max el	4106 Jun 02 07:02	3° \mathbb{B} 34'14	20°43'57	evening max el	4107 May 15 19:48	15° \mathbb{H} 04'02	19°34'34
retrograde	4106 Jun 13 15:59	9° \mathbb{B} 07'56		retrograde	4107 May 25 10:43	19° \mathbb{H} 44'52	
evening set	4106 Jun 15 18:07	8° \mathbb{B} 57'26		evening set	4107 May 27 09:46	19° \mathbb{H} 34'04	
desc. node	4106 Jun 17 13:00	8° \mathbb{B} 32'46		desc. node	4107 Jun 04 10:01	15° \mathbb{H} 56'19	
inferior conj	4106 Jun 25 00:42	5° \mathbb{B} 00'23	-2°-11'-33	inferior conj	4107 Jun 05 02:46	15° \mathbb{H} 29'52	0°-12'-21
minimum elong	4106 Jun 24 18:35	5° \mathbb{B} 09'08	2°09'24	minimum elong	4107 Jun 05 02:13	15° \mathbb{H} 30'45	0°12'10
min. Earth dist.	4106 Jun 26 00:05	4° \mathbb{B} 26'58	0.54880 AU	transit middle	4107 Jun 05 02:13	15° \mathbb{H} 30'45	0°12'10
morning rise	4106 Jul 03 18:03	0° \mathbb{B} 56'05		transit begin	4107 Jun 04 23:41	15° \mathbb{H} 34'46	
direct	4106 Jul 07 11:34	0° \mathbb{B} 26'06		transit end	4107 Jun 05 04:46	15° \mathbb{H} 26'43	
morning max el	4106 Jul 20 15:30	6° \mathbb{B} 46'11	23°04'55	min. Earth dist.	4107 Jun 07 13:47	13° \mathbb{H} 56'43	0.55699 AU
	4106 Aug 06 00:18	0° \mathbb{Q}		morning rise	4107 Jun 13 15:07	10° \mathbb{H} 55'06	
asc. node	4106 Aug 07 13:07	2° \mathbb{Q} 55'00		direct	4107 Jun 18 05:17	10° \mathbb{H} 07'54	
morning set	4106 Aug 12 13:05	13° \mathbb{Q} 03'35		morning max el	4107 Jul 02 05:27	17° \mathbb{H} 09'57	24°47'47
					4107 Jul 12 17:02	0° \mathbb{B}	
superior conj	4106 Aug 19 15:26	28° \mathbb{Q} 15'58	1°37'20	asc. node	4107 Jul 25 10:12	22° \mathbb{B} 31'36	
minimum elong	4106 Aug 19 13:47	28° \mathbb{Q} 07'07	1°37'13	morning set	4107 Jul 28 00:55	27° \mathbb{B} 57'31	
	4106 Aug 20 10:55	0° \mathbb{H}			4107 Jul 28 23:56	0° \mathbb{Q}	
max. Earth dist.	4106 Aug 22 09:35	4° \mathbb{H} 06'42	1.33739 AU				
evening rise	4106 Aug 27 09:07	14° \mathbb{H} 16'49		superior conj	4107 Aug 04 00:40	13° \mathbb{Q} 07'03	1°25'37
	4106 Sep 04 19:34	0° \mathbb{A}		minimum elong	4107 Aug 03 22:27	12° \mathbb{Q} 54'54	1°25'20
desc. node	4106 Sep 13 12:19	14° \mathbb{A} 10'25		max. Earth dist.	4107 Aug 05 13:52	16° \mathbb{Q} 29'22	1.32754 AU
	4106 Sep 25 06:13	0° \mathbb{M}		evening rise	4107 Aug 11 06:51	28° \mathbb{Q} 32'55	
evening max el	4106 Sep 30 16:44	5° \mathbb{M} 47'15	27°17'20		4107 Aug 11 23:58	0° \mathbb{H}	
retrograde	4106 Oct 14 03:49	13° \mathbb{M} 05'37			4107 Aug 28 23:55	0° \mathbb{A}	

desc. node	4107 Aug 31 09:21	3°♂30'16		evening rise	4108 Jul 25 11:27	13°♂07'50	
evening max el	4107 Sep 13 03:08	18°♂49'42	27°26'02		4108 Aug 03 02:22	0°♂	
retrograde	4107 Sep 26 20:33	26°♂05'15		desc. node	4108 Aug 17 06:22	22°♂04'25	
evening set	4107 Oct 04 00:56	23°♂33'11			4108 Aug 24 02:36	0°♂	
min. Earth dist.	4107 Oct 07 16:18	20°♂30'49	0.62971 AU	evening max el	4108 Aug 25 08:50	1°♂13'51	27°02'09
inferior conj	4107 Oct 10 10:45	17°♂49'09	-3°-24'-51	retrograde	4108 Sep 08 05:53	8°♂25'34	
minimum elong	4107 Oct 10 16:19	17°♂35'36	3°23'05	evening set	4108 Sep 15 07:07	6°♂13'43	
morning rise	4107 Oct 17 10:22	12°♂36'29		min. Earth dist.	4108 Sep 18 23:05	3°♂33'24	0.61018 AU
direct	4107 Oct 19 18:59	12°♂10'31		inferior conj	4108 Sep 22 02:55	0°♂51'03	-4°-19'-22
asc. node	4107 Oct 21 09:23	12°♂22'45		minimum elong	4108 Sep 22 08:50	0°♂38'20	4°18'01
morning max el	4107 Oct 26 11:08	15°♂36'43	17°50'05		4108 Sep 23 02:54	30°♂♂	
	4107 Nov 05 12:43	0°♂		morning rise	4108 Sep 29 13:42	25°♂59'33	
morning set	4107 Nov 11 15:00	10°♂37'51		direct	4108 Oct 01 21:06	25°♂38'08	
	4107 Nov 22 20:05	0°♂		asc. node	4108 Oct 07 06:26	27°♂39'59	
				morning max el	4108 Oct 09 01:11	29°♂12'14	18°00'09
superior conj	4107 Nov 23 08:47	0°♂53'10	0°27'37		4108 Oct 09 19:53	0°♂	
minimum elong	4107 Nov 23 11:27	1°♂04'19	0°27'14	morning set	4108 Oct 24 18:42	24°♂01'18	
desc. node	4107 Nov 27 08:37	7°♂29'07			4108 Oct 28 00:28	0°♂	
max. Earth dist.	4107 Nov 30 00:24	11°♂47'42	1.43797 AU	superior conj	4108 Nov 03 22:06	12°♂26'42	1°02'22
evening rise	4107 Dec 08 15:01	25°♂21'56		minimum elong	4108 Nov 04 02:15	12°♂44'56	1°01'51
	4107 Dec 11 15:25	0°♂		max. Earth dist.	4108 Nov 11 12:49	25°♂28'04	1.42158 AU
	4108 Jan 01 09:16	0°♂		desc. node	4108 Nov 13 05:39	28°♂16'31	
greatest brilliancy	4108 Jan 02 08:07	1°♂13'24	-0.4m		4108 Nov 14 06:59	0°♂	
evening max el	4108 Jan 07 12:33	7°♂14'32	21°08'35	evening rise	4108 Nov 17 10:47	5°♂04'57	
retrograde	4108 Jan 16 02:45	12°♂19'57			4108 Dec 03 23:04	0°♂	
asc. node	4108 Jan 17 08:39	12°♂11'30		greatest brilliancy	4108 Dec 15 12:02	15°♂27'19	-0.3m
evening set	4108 Jan 20 04:33	10°♂46'24		evening max el	4108 Dec 20 06:44	20°♂49'17	22°24'30
inferior conj	4108 Jan 25 14:03	4°♂30'42	2°29'52	retrograde	4108 Dec 29 22:59	26°♂34'34	
minimum elong	4108 Jan 25 11:34	4°♂39'14	2°29'09	asc. node	4109 Jan 03 05:40	24°♂57'53	
min. Earth dist.	4108 Jan 25 22:40	4°♂00'58	0.67762 AU	evening set	4109 Jan 03 12:10	24°♂45'01	
	4108 Jan 29 01:17	30°♂♂		inferior conj	4109 Jan 08 21:47	18°♂21'23	1°49'32
morning rise	4108 Jan 30 18:15	28°♂15'48		minimum elong	4109 Jan 08 19:37	18°♂28'53	1°48'46
direct	4108 Feb 04 23:52	25°♂59'17		min. Earth dist.	4109 Jan 08 18:47	18°♂31'47	0.68016 AU
	4108 Feb 13 03:28	0°♂		morning rise	4109 Jan 14 02:58	12°♂09'11	
morning max el	4108 Feb 15 13:40	2°♂16'55	23°36'09	direct	4109 Jan 18 17:39	10°♂15'17	
desc. node	4108 Feb 23 07:49	11°♂18'16		morning max el	4109 Jan 28 01:19	15°♂43'39	22°08'08
	4108 Mar 07 15:13	0°♂		greatest brilliancy	4109 Feb 01 15:47	20°♂52'42	-0.3m
morning set	4108 Mar 21 19:36	22°♂39'59			4109 Feb 08 15:19	0°♂	
max. Earth dist.	4108 Mar 25 19:37	29°♂34'40	1.38878 AU	desc. node	4109 Feb 09 04:51	0°♂46'49	
	4108 Mar 26 01:22	0°♂			4109 Feb 28 16:13	0°♂	
superior conj	4108 Apr 02 06:47	13°♂08'54	-1°-41'-50	morning set	4109 Mar 02 03:08	2°♂20'15	
minimum elong	4108 Apr 02 11:34	13°♂31'19	1°41'19	max. Earth dist.	4109 Mar 07 17:15	11°♂32'20	1.41043 AU
	4108 Apr 11 01:04	0°♂		superior conj	4109 Mar 15 11:30	24°♂57'06	-2°00'-38
evening rise	4108 Apr 11 13:01	0°♂58'09		minimum elong	4109 Mar 15 15:14	25°♂13'42	2°00'27
asc. node	4108 Apr 14 07:59	6°♂20'55			4109 Mar 18 06:58	0°♂	
evening max el	4108 Apr 27 19:22	27°♂13'04	18°45'14	evening rise	4109 Mar 25 22:10	14°♂05'46	
	4108 May 01 11:08	0°♂		asc. node	4109 Apr 01 04:59	25°♂36'02	
retrograde	4108 May 05 22:23	1°♂12'05			4109 Apr 03 18:49	0°♂	
evening set	4108 May 08 02:07	0°♂56'18		evening max el	4109 Apr 11 02:37	9°♂54'05	18°16'11
	4108 May 10 15:44	30°♂♂		retrograde	4109 Apr 18 05:08	13°♂27'12	
inferior conj	4108 May 15 23:48	26°♂34'23	1°29'15	evening set	4109 Apr 20 15:04	13°♂03'26	
minimum elong	4108 May 16 02:52	26°♂28'42	1°28'15	inferior conj	4109 Apr 27 18:21	8°♂20'41	2°39'36
min. Earth dist.	4108 May 19 06:25	24°♂10'17	0.57299 AU	minimum elong	4109 Apr 27 21:53	8°♂13'01	2°38'45
desc. node	4108 May 21 07:03	22°♂49'45		min. Earth dist.	4109 May 01 04:22	5°♂24'47	0.59360 AU
morning rise	4108 May 23 23:10	21°♂24'12		morning rise	4109 May 05 00:44	2°♂41'30	
direct	4108 May 29 12:28	20°♂08'45		desc. node	4109 May 08 04:04	1°♂19'26	
morning max el	4108 Jun 12 20:56	27°♂39'40	26°18'40	direct	4109 May 11 09:05	0°♂51'10	
	4108 Jun 15 03:41	0°♂		morning max el	4109 May 25 18:08	8°♂40'15	27°22'41
	4108 Jul 05 02:59	0°♂			4109 Jun 10 23:55	0°♂	
morning set	4108 Jul 11 11:49	12°♂47'41		morning set	4109 Jun 25 20:07	27°♂28'20	
asc. node	4108 Jul 11 07:15	12°♂23'38			4109 Jun 27 00:57	0°♂	
				asc. node	4109 Jun 28 04:16	2°♂25'34	
superior conj	4108 Jul 18 12:04	28°♂02'28	1°09'11	superior conj	4109 Jul 02 23:47	12°♂56'04	0°48'39
minimum elong	4108 Jul 18 09:45	27°♂49'43	1°08'48	minimum elong	4109 Jul 02 21:51	12°♂45'25	0°48'16
max. Earth dist.	4108 Jul 18 23:45	29°♂06'54	1.32179 AU				
	4108 Jul 19 09:24	0°♂					

max. Earth dist.	4109 Jul 02 11:27	11° \mathfrak{D} 48'03	1.32011 AU	minimum elong	4110 Jun 17 09:04	27° \mathbb{I} 36'11	0°24'25
evening rise	4109 Jul 09 20:26	27° \mathfrak{D} 53'25			4110 Jun 18 11:20	0° \mathfrak{D}	
	4109 Jul 10 20:28	0° \mathcal{O}		evening rise	4110 Jun 24 07:46	12° \mathfrak{D} 43'08	
	4109 Jul 27 16:20	0° \mathfrak{M}			4110 Jul 03 00:57	0° \mathcal{O}	
desc. node	4109 Aug 04 03:23	9° \mathfrak{M} 33'34		evening max el	4110 Jul 19 22:50	23° \mathcal{O} 40'23	24°42'09
evening max el	4109 Aug 07 07:19	12° \mathfrak{M} 49'31	26°05'20	desc. node	4110 Jul 22 00:22	25° \mathcal{O} 31'46	
retrograde	4109 Aug 21 06:39	19° \mathfrak{M} 58'14			4110 Jul 29 13:58	0° \mathfrak{M}	
evening set	4109 Aug 27 16:38	18° \mathfrak{M} 18'37		retrograde	4110 Aug 02 20:49	0° \mathfrak{M} 42'19	
min. Earth dist.	4109 Aug 31 19:58	15° \mathfrak{M} 44'00	0.58944 AU		4110 Aug 07 04:22	30° \mathfrak{R} \mathcal{O}	
inferior conj	4109 Sep 04 02:11	13° \mathfrak{M} 18'22	-4°-59'-8	evening set	4110 Aug 08 01:55	29° \mathcal{O} 41'04	
minimum elong	4109 Sep 04 06:08	13° \mathfrak{M} 10'58	4°58'42	min. Earth dist.	4110 Aug 13 10:08	26° \mathcal{O} 52'59	0.57011 AU
morning rise	4109 Sep 11 23:11	8° \mathfrak{M} 50'19		inferior conj	4110 Aug 16 05:47	25° \mathcal{O} 03'12	-5°-10'-48
direct	4109 Sep 14 08:36	8° \mathfrak{M} 31'05		minimum elong	4110 Aug 16 04:43	25° \mathcal{O} 04'55	5°10'47
morning max el	4109 Sep 22 09:24	12° \mathfrak{M} 22'47	18°30'15	morning rise	4110 Aug 24 11:06	20° \mathcal{O} 57'04	
asc. node	4109 Sep 24 03:28	14° \mathfrak{M} 13'31		direct	4110 Aug 27 01:43	20° \mathcal{O} 38'04	
	4109 Oct 04 05:45	0° \mathfrak{A}		morning max el	4110 Sep 05 08:32	24° \mathcal{O} 58'56	19°21'36
morning set	4109 Oct 08 10:47	7° \mathfrak{A} 59'28			4110 Sep 09 17:32	0° \mathfrak{M}	
				asc. node	4110 Sep 11 00:30	1° \mathfrak{M} 48'31	
superior conj	4109 Oct 17 09:53	25° \mathfrak{A} 05'40	1°26'03	morning set	4110 Sep 22 11:27	22° \mathfrak{M} 22'05	
minimum elong	4109 Oct 17 13:18	25° \mathfrak{A} 21'34	1°25'43		4110 Sep 26 06:48	0° \mathfrak{A}	
	4109 Oct 20 01:59	0° \mathfrak{M}					
max. Earth dist.	4109 Oct 24 19:37	8° \mathfrak{M} 24'15	1.40163 AU	superior conj	4110 Sep 30 14:39	8° \mathfrak{A} 34'23	1°39'28
evening rise	4109 Oct 29 03:20	15° \mathfrak{M} 45'09		minimum elong	4110 Sep 30 16:29	8° \mathfrak{A} 43'21	1°39'23
desc. node	4109 Oct 31 02:41	19° \mathfrak{M} 00'36		max. Earth dist.	4110 Oct 06 23:44	20° \mathfrak{A} 39'18	1.38075 AU
	4109 Nov 07 00:52	0° \mathfrak{A}		evening rise	4110 Oct 10 19:11	27° \mathfrak{A} 29'28	
	4109 Nov 28 18:39	0° \mathfrak{Z}			4110 Oct 12 05:45	0° \mathfrak{M}	
evening max el	4109 Dec 02 20:58	4° \mathfrak{Z} 26'42	23°44'24	desc. node	4110 Oct 17 23:42	9° \mathfrak{M} 37'19	
retrograde	4109 Dec 13 16:10	10° \mathfrak{Z} 49'07			4110 Oct 31 12:20	0° \mathfrak{A}	
evening set	4109 Dec 18 18:12	8° \mathfrak{Z} 43'25		evening max el	4110 Nov 15 09:34	18° \mathfrak{A} 08'11	25°01'47
asc. node	4109 Dec 21 02:41	6° \mathfrak{Z} 19'30		retrograde	4110 Nov 27 05:16	24° \mathfrak{A} 59'15	
min. Earth dist.	4109 Dec 23 15:27	3° \mathfrak{Z} 03'17	0.67905 AU	evening set	4110 Dec 02 21:02	22° \mathfrak{A} 38'31	
inferior conj	4109 Dec 24 05:19	2° \mathfrak{Z} 16'00	1°02'27	min. Earth dist.	4110 Dec 07 10:18	17° \mathfrak{A} 32'41	0.67443 AU
minimum elong	4109 Dec 24 03:55	2° \mathfrak{Z} 20'48	1°01'52	asc. node	4110 Dec 07 23:42	16° \mathfrak{A} 48'47	
	4109 Dec 25 22:02	30° \mathfrak{R} \mathfrak{A}		inferior conj	4110 Dec 08 10:55	16° \mathfrak{A} 11'56	0°09'34
morning rise	4109 Dec 29 13:50	26° \mathfrak{A} 08'17		minimum elong	4110 Dec 08 10:40	16° \mathfrak{A} 12'43	0°09'28
direct	4110 Jan 02 14:22	24° \mathfrak{A} 37'07		transit middle	4110 Dec 08 10:40	16° \mathfrak{A} 12'43	0°09'28
morning max el	4110 Jan 10 19:13	29° \mathfrak{A} 20'39	20°47'48	transit begin	4110 Dec 08 08:26	16° \mathfrak{A} 20'06	
	4110 Jan 11 10:36	0° \mathfrak{Z}		transit end	4110 Dec 08 12:55	16° \mathfrak{A} 05'20	
greatest brilliancy	4110 Jan 16 12:27	5° \mathfrak{Z} 58'55	-0.5m	morning rise	4110 Dec 14 00:55	10° \mathfrak{A} 11'01	
desc. node	4110 Jan 27 01:53	20° \mathfrak{Z} 42'43		direct	4110 Dec 17 12:52	9° \mathfrak{A} 00'28	
	4110 Feb 02 07:16	0° \mathfrak{A}		morning max el	4110 Dec 24 20:58	13° \mathfrak{A} 08'43	19°40'09
morning set	4110 Feb 09 08:21	10° \mathfrak{A} 49'20		greatest brilliancy	4111 Jan 01 20:04	23° \mathfrak{A} 00'34	-0.6m
max. Earth dist.	4110 Feb 17 21:24	24° \mathfrak{A} 23'50	1.42962 AU		4111 Jan 06 16:15	0° \mathfrak{Z}	
	4110 Feb 21 07:32	0° \mathfrak{H}		desc. node	4111 Jan 13 22:56	10° \mathfrak{Z} 58'26	
				morning set	4111 Jan 19 04:37	19° \mathfrak{Z} 01'06	
superior conj	4110 Feb 24 17:08	5° \mathfrak{H} 40'30	-2°-7'-46		4111 Jan 26 06:12	0° \mathfrak{A}	
minimum elong	4110 Feb 24 16:55	5° \mathfrak{H} 39'35	2°07'46	max. Earth dist.	4111 Jan 31 09:01	8° \mathfrak{A} 03'45	1.44394 AU
evening rise	4110 Mar 08 16:15	26° \mathfrak{H} 28'44					
	4110 Mar 10 15:47	0° \mathfrak{Y}		superior conj	4111 Feb 04 20:59	15° \mathfrak{A} 15'15	-1°-57'-49
asc. node	4110 Mar 19 01:59	14° \mathfrak{Y} 23'38		minimum elong	4111 Feb 04 14:44	14° \mathfrak{A} 50'03	1°57'29
evening max el	4110 Mar 25 14:10	22° \mathfrak{Y} 58'14	18°06'51		4111 Feb 13 20:56	0° \mathfrak{H}	
retrograde	4110 Apr 01 03:34	26° \mathfrak{Y} 21'04		evening rise	4111 Feb 18 14:51	7° \mathfrak{H} 58'31	
evening set	4110 Apr 03 19:30	25° \mathfrak{Y} 47'18			4111 Mar 04 02:17	0° \mathfrak{Y}	
inferior conj	4110 Apr 10 07:54	20° \mathfrak{Y} 43'55	3°19'39	asc. node	4111 Mar 05 23:00	2° \mathfrak{Y} 34'47	
minimum elong	4110 Apr 10 10:08	20° \mathfrak{Y} 38'23	3°19'21	evening max el	4111 Mar 09 02:57	6° \mathfrak{Y} 17'04	18°16'29
min. Earth dist.	4110 Apr 13 09:55	17° \mathfrak{Y} 40'59	0.61544 AU	retrograde	4111 Mar 15 13:15	9° \mathfrak{Y} 43'29	
morning rise	4110 Apr 16 21:49	14° \mathfrak{Y} 46'11		evening set	4111 Mar 18 11:02	8° \mathfrak{Y} 58'26	
direct	4110 Apr 23 16:55	12° \mathfrak{Y} 23'57		inferior conj	4111 Mar 24 12:23	3° \mathfrak{Y} 35'24	3°35'28
desc. node	4110 Apr 25 01:04	12° \mathfrak{Y} 29'10		minimum elong	4111 Mar 24 12:51	3° \mathfrak{Y} 34'05	3°35'26
morning max el	4110 May 07 21:33	20° \mathfrak{Y} 22'12	27°50'53	min. Earth dist.	4111 Mar 27 00:26	0° \mathfrak{Y} 48'18	0.63579 AU
	4110 May 16 04:07	0° \mathfrak{B}			4111 Mar 27 18:41	30° \mathfrak{R} \mathfrak{H}	
	4110 Jun 03 22:29	0° \mathbb{I}		morning rise	4111 Mar 30 12:46	27° \mathfrak{H} 27'23	
morning set	4110 Jun 09 23:55	11° \mathbb{I} 53'19		direct	4111 Apr 06 09:33	24° \mathfrak{H} 44'29	
asc. node	4110 Jun 15 01:17	22° \mathbb{I} 32'56		desc. node	4111 Apr 11 22:07	26° \mathfrak{H} 13'59	
max. Earth dist.	4110 Jun 15 21:07	24° \mathbb{I} 20'20	1.32252 AU		4111 Apr 17 07:47	0° \mathfrak{Y}	
				morning max el	4111 Apr 20 05:23	2° \mathfrak{Y} 42'35	27°41'34
superior conj	4110 Jun 17 10:10	27° \mathbb{I} 42'15	0°24'39		4111 May 10 12:40	0° \mathfrak{B}	

morning set	4111 May 24 20:49	25°♄53'59		4112 Apr 13 12:13	0°♄	
	4111 May 26 21:36	0°♄		4112 May 02 07:10	0°♄	
max. Earth dist.	4111 May 30 00:47	6°♄30'10	1.32928 AU	morning set	4112 May 07 07:49	9°♄21'48
				max. Earth dist.	4112 May 11 19:00	18°♄10'06 1.34066 AU
superior conj	4111 Jun 01 17:20	12°♄13'58	0°-2'-10	superior conj	4112 May 15 19:15	26°♄25'21 0°-30'-50
minimum elong	4111 Jun 01 17:27	12°♄14'32	0°02'10	minimum elong	4112 May 15 20:52	26°♄33'50 0°30'31
behind sun begin	4111 Jun 01 12:10	11°♄46'10			4112 May 17 12:07	0°♄
behind sun end	4111 Jun 01 22:44	12°♄42'55		asc. node	4112 May 18 19:22	2°♄45'11
asc. node	4111 Jun 01 22:19	12°♄40'43		evening rise	4112 May 23 05:51	12°♄07'12
evening rise	4111 Jun 08 19:30	27°♄29'34			4112 Jun 01 11:51	0°♄
	4111 Jun 10 00:06	0°♄		evening max el	4112 Jun 12 06:14	14°♄37'30 21°31'56
	4111 Jun 27 17:41	0°♄		retrograde	4112 Jun 24 12:46	20°♄40'28
evening max el	4111 Jul 01 11:55	4°♄05'43	23°05'51	desc. node	4112 Jun 24 18:24	20°♄40'21
desc. node	4111 Jul 08 21:23	9°♄24'51		evening set	4112 Jun 27 00:20	20°♄26'27
retrograde	4111 Jul 14 22:07	10°♄47'43		inferior conj	4112 Jul 06 08:43	16°♄26'24 -3°-16'-4
evening set	4111 Jul 18 14:51	10°♄17'51		minimum elong	4112 Jul 06 00:28	16°♄37'55 3°13'35
min. Earth dist.	4111 Jul 25 21:04	7°♄01'20	0.55542 AU	min. Earth dist.	4112 Jul 06 07:39	16°♄27'53 0.54852 AU
inferior conj	4111 Jul 27 13:48	6°♄02'08	-4°-38'-40	morning rise	4112 Jul 15 01:26	12°♄33'00
minimum elong	4111 Jul 27 06:52	6°♄12'14	4°37'27	direct	4112 Jul 18 10:33	12°♄08'11
morning rise	4111 Aug 05 01:43	2°♄10'14		morning max el	4112 Jul 30 20:04	17°♄58'52 22°06'36
direct	4111 Aug 08 00:11	1°♄49'41			4112 Aug 09 10:34	0°♄
morning max el	4111 Aug 18 20:06	6°♄51'31	20°34'38	asc. node	4112 Aug 14 18:37	9°♄08'53
asc. node	4111 Aug 28 21:34	20°♄10'48		morning set	4112 Aug 21 03:47	21°♄50'45
	4111 Sep 03 06:02	0°♄			4112 Aug 25 00:17	0°♄
morning set	4111 Sep 06 17:51	7°♄01'19				
superior conj	4111 Sep 14 07:38	22°♄39'08	1°44'11	superior conj	4112 Aug 28 09:07	7°♄08'48 1°41'38
minimum elong	4111 Sep 14 07:50	22°♄40'11	1°44'11	minimum elong	4112 Aug 28 08:00	7°♄02'59 1°41'35
	4111 Sep 17 23:36	0°♄		max. Earth dist.	4112 Aug 31 21:59	14°♄29'57 1.34497 AU
max. Earth dist.	4111 Sep 19 07:02	2°♄33'41	1.36130 AU	evening rise	4112 Sep 05 11:56	23°♄37'36
evening rise	4111 Sep 23 07:31	10°♄10'50			4112 Sep 08 20:47	0°♄
desc. node	4111 Oct 04 20:43	0°♄02'03		desc. node	4112 Sep 20 17:44	20°♄08'32
	4111 Oct 04 20:12	0°♄			4112 Sep 27 11:06	0°♄
	4111 Oct 27 02:03	0°♄		evening max el	4112 Oct 10 10:48	15°♄27'00 26°59'15
evening max el	4111 Oct 28 22:08	1°♄51'03	26°09'16	retrograde	4112 Oct 23 15:50	22°♄43'42
retrograde	4111 Nov 10 13:19	8°♄59'49		evening set	4112 Oct 30 09:46	20°♄03'43
evening set	4111 Nov 16 18:56	6°♄26'50		min. Earth dist.	4112 Nov 03 08:56	16°♄09'57 0.65483 AU
min. Earth dist.	4111 Nov 21 00:57	1°♄56'42	0.66637 AU	inferior conj	4112 Nov 05 08:37	13°♄53'37 -1°-48'-40
inferior conj	4111 Nov 22 12:43	0°♄06'04	0°-47'-56	minimum elong	4112 Nov 05 11:40	13°♄44'53 1°47'26
minimum elong	4111 Nov 22 14:00	0°♄02'04	0°47'24	asc. node	4112 Nov 10 17:51	8°♄44'56
	4111 Nov 22 14:41	30°♄		morning rise	4112 Nov 11 15:17	8°♄14'55
asc. node	4111 Nov 24 20:46	27°♄19'34		direct	4112 Nov 14 08:06	7°♄35'14
morning rise	4111 Nov 28 10:11	24°♄14'41		morning max el	4112 Nov 20 20:13	11°♄05'14 18°11'46
direct	4111 Dec 01 11:28	23°♄21'27			4112 Dec 04 02:18	0°♄
morning max el	4111 Dec 08 06:00	27°♄05'25	18°47'47	morning set	4112 Dec 09 10:36	8°♄43'46
	4111 Dec 10 20:34	0°♄		desc. node	4112 Dec 17 16:59	22°♄07'33
morning set	4111 Dec 29 17:12	28°♄08'49			4112 Dec 22 15:34	0°♄
	4111 Dec 30 21:29	0°♄				
desc. node	4111 Dec 31 19:58	1°♄28'22		superior conj	4112 Dec 24 07:44	2°♄38'48 0°-44'-18
max. Earth dist.	4112 Jan 14 02:22	22°♄17'17	1.45166 AU	minimum elong	4112 Dec 24 02:10	2°♄16'49 0°43'33
superior conj	4112 Jan 15 04:14	23°♄58'56	-1°-28'-21	max. Earth dist.	4112 Dec 26 22:00	6°♄43'53 1.45197 AU
minimum elong	4112 Jan 14 18:58	23°♄22'32	1°27'25	evening rise	4113 Jan 09 16:16	28°♄12'57
	4112 Jan 18 23:56	0°♄			4113 Jan 10 19:48	0°♄
evening rise	4112 Jan 30 14:43	18°♄31'44		greatest brilliancy	4113 Jan 25 15:17	22°♄37'49 -0.7m
	4112 Feb 06 17:29	0°♄			4113 Jan 31 01:23	0°♄
evening max el	4112 Feb 20 14:19	19°♄44'38	18°44'16	evening max el	4113 Feb 02 21:59	3°♄15'24 19°29'02
asc. node	4112 Feb 20 20:03	19°♄59'01		asc. node	4113 Feb 06 17:07	6°♄22'19
retrograde	4112 Feb 27 06:15	23°♄27'03		retrograde	4113 Feb 10 03:11	7°♄24'30
evening set	4112 Mar 01 10:17	22°♄29'44		evening set	4113 Feb 13 14:26	6°♄14'00
inferior conj	4112 Mar 07 03:57	16°♄48'37	3°32'58	inferior conj	4113 Feb 19 03:13	0°♄17'04 3°16'40
minimum elong	4112 Mar 07 02:56	16°♄51'43	3°32'54	minimum elong	4113 Feb 19 01:13	0°♄23'35 3°16'21
min. Earth dist.	4112 Mar 09 00:16	14°♄33'11	0.65282 AU		4113 Feb 19 08:26	30°♄
morning rise	4112 Mar 12 18:25	10°♄35'19		min. Earth dist.	4113 Feb 20 08:30	28°♄41'16 0.66572 AU
direct	4112 Mar 19 09:16	7°♄45'54		morning rise	4113 Feb 24 11:15	24°♄01'25
desc. node	4112 Mar 28 19:09	12°♄02'23		direct	4113 Mar 02 15:03	21°♄18'04
morning max el	4112 Apr 01 15:14	15°♄33'01	26°58'57	morning max el	4113 Mar 15 00:53	28°♄41'22 25°50'56
				desc. node	4113 Mar 15 16:11	29°♄20'34

	4113 Mar 16 07:11	0°☿		min. Earth dist.	4114 Feb 03 23:14	13°≈02'54	0.67443 AU
	4113 Apr 07 07:06	0°☿		morning rise	4114 Feb 08 12:15	7°≈40'44	
morning set	4113 Apr 20 04:53	22°☿05'17		direct	4114 Feb 14 02:15	5°≈12'39	
max. Earth dist.	4113 Apr 24 01:57	29°☿22'14	1.35656 AU	morning max el	4114 Feb 25 09:34	11°≈58'02	24°27'13
	4113 Apr 24 09:49	0°☿		desc. node	4114 Mar 02 13:14	17°≈43'03	
					4114 Mar 11 20:43	0°☿	
superior conj	4113 Apr 29 13:21	10°☿09'13	-1°00'-1		4114 Mar 31 01:34	0°☿	
minimum elong	4113 Apr 29 16:34	10°☿25'30	0°59'27	morning set	4114 Apr 02 06:36	3°☿49'17	
asc. node	4113 May 05 16:26	22°☿42'23		max. Earth dist.	4114 Apr 05 23:27	10°☿24'45	1.37630 AU
evening rise	4113 May 07 12:42	26°☿29'38					
	4113 May 09 06:10	0°☿		superior conj	4114 Apr 12 20:20	23°☿16'43	-1°-27'-42
evening max el	4113 May 25 11:43	25°☿42'36	20°11'58	minimum elong	4114 Apr 13 00:49	23°☿38'24	1°27'06
	4113 May 31 15:58	0°☿			4114 Apr 16 06:54	0°☿	
retrograde	4113 Jun 05 02:47	0°☿53'49		evening rise	4114 Apr 21 13:35	10°☿29'21	
evening set	4113 Jun 07 02:03	0°☿43'53		asc. node	4114 Apr 22 13:28	12°☿27'26	
	4113 Jun 09 19:26	30°☿☿			4114 May 02 06:57	0°☿	
desc. node	4113 Jun 11 15:24	29°☿14'00		evening max el	4114 May 08 05:23	7°☿29'33	19°11'05
inferior conj	4113 Jun 16 04:03	26°☿45'08	-1°-20'-29	retrograde	4114 May 17 04:08	11°☿51'05	
minimum elong	4113 Jun 16 00:17	26°☿50'44	1°19'07	evening set	4114 May 19 04:26	11°☿38'47	
min. Earth dist.	4113 Jun 17 19:56	25°☿46'06	0.55113 AU	inferior conj	4114 May 27 13:27	7°☿27'58	0°34'09
morning rise	4113 Jun 24 20:21	22°☿29'31		minimum elong	4114 May 27 14:50	7°☿25'37	0°33'39
direct	4113 Jun 28 21:43	21°☿53'52		desc. node	4114 May 29 12:26	6°☿08'28	
morning max el	4113 Jul 12 12:11	28°☿32'55	23°49'19	min. Earth dist.	4114 May 30 10:58	5°☿31'11	0.56292 AU
	4113 Jul 13 23:34	0°☿		morning rise	4114 Jun 04 20:59	2°☿37'29	
asc. node	4113 Aug 01 15:41	28°☿33'46		direct	4114 Jun 09 20:55	1°☿39'30	
	4113 Aug 02 08:57	0°☿		morning max el	4114 Jun 24 02:16	8°☿56'21	25°28'59
morning set	4113 Aug 05 15:25	6°☿45'02			4114 Jul 09 20:17	0°☿	
				asc. node	4114 Jul 19 12:43	18°☿17'26	
superior conj	4113 Aug 12 16:14	21°☿54'48	1°33'00	morning set	4114 Jul 21 03:01	21°☿37'52	
minimum elong	4113 Aug 12 14:16	21°☿44'14	1°32'48		4114 Jul 25 00:08	0°☿	
max. Earth dist.	4113 Aug 14 21:46	26°☿42'11	1.33262 AU				
	4113 Aug 16 11:10	0°☿		superior conj	4114 Jul 28 02:36	6°☿48'33	1°19'12
evening rise	4113 Aug 20 04:23	7°☿38'53		minimum elong	4114 Jul 28 00:17	6°☿35'49	1°18'52
	4113 Sep 01 08:42	0°☿		max. Earth dist.	4114 Jul 29 04:36	9°☿11'00	1.32451 AU
desc. node	4113 Sep 07 14:46	9°☿48'52		evening rise	4114 Aug 04 05:20	22°☿03'45	
evening max el	4113 Sep 22 22:25	28°☿45'02	27°24'45		4114 Aug 08 04:08	0°☿	
	4113 Sep 24 07:05	0°☿		desc. node	4114 Aug 25 11:46	28°☿51'09	
retrograde	4113 Oct 06 12:26	6°☿02'52			4114 Aug 26 07:58	0°☿	
evening set	4113 Oct 13 14:50	3°☿24'22		evening max el	4114 Sep 05 06:54	11°☿31'44	27°19'59
	4113 Oct 17 10:10	30°☿☿		retrograde	4114 Sep 19 02:26	18°☿46'37	
min. Earth dist.	4113 Oct 17 08:10	0°☿05'04	0.63980 AU	evening set	4114 Sep 26 06:36	16°☿21'24	
inferior conj	4113 Oct 19 20:07	27°☿29'34	-2°-50'-18	min. Earth dist.	4114 Sep 29 21:13	13°☿29'59	0.62161 AU
minimum elong	4113 Oct 20 00:54	27°☿17'08	2°48'35	inferior conj	4114 Oct 02 20:15	10°☿45'51	-3°-49'-8
morning rise	4113 Oct 26 13:21	22°☿06'42		minimum elong	4114 Oct 03 02:10	10°☿32'10	3°47'29
asc. node	4113 Oct 28 14:53	21°☿37'34		morning rise	4114 Oct 10 00:42	5°☿42'01	
direct	4113 Oct 29 00:07	21°☿36'49		direct	4114 Oct 12 08:15	5°☿18'28	
morning max el	4113 Nov 04 12:51	25°☿02'00	17°52'54	asc. node	4114 Oct 15 11:55	6°☿03'32	
	4113 Nov 08 15:24	0°☿		morning max el	4114 Oct 19 04:43	8°☿47'13	17°52'02
morning set	4113 Nov 21 07:34	20°☿39'06			4114 Nov 02 01:53	0°☿	
	4113 Nov 26 19:21	0°☿		morning set	4114 Nov 04 01:47	3°☿35'06	
superior conj	4113 Dec 04 03:49	12°☿11'11	0°02'58	superior conj	4114 Nov 15 02:02	23°☿00'17	0°43'41
minimum elong	4113 Dec 04 04:09	12°☿12'31	0°02'56	minimum elong	4114 Nov 15 05:41	23°☿15'54	0°43'10
behind sun begin	4113 Dec 03 18:20	11°☿32'29			4114 Nov 19 05:40	0°☿	
behind sun end	4113 Dec 04 13:58	12°☿52'28		desc. node	4114 Nov 21 11:05	3°☿40'13	
desc. node	4113 Dec 04 14:03	12°☿52'47		max. Earth dist.	4114 Nov 22 06:55	5°☿01'09	1.43154 AU
max. Earth dist.	4113 Dec 09 16:24	21°☿04'19	1.44497 AU	evening rise	4114 Nov 29 15:33	16°☿44'43	
	4113 Dec 15 08:36	0°☿			4114 Dec 08 07:52	0°☿	
evening rise	4113 Dec 20 03:30	7°☿24'34		greatest brilliancy	4114 Dec 26 01:38	24°☿50'37	-0.4m
	4114 Jan 04 03:58	0°☿			4114 Dec 30 13:22	0°☿	
greatest brilliancy	4114 Jan 11 00:42	9°☿37'00	-0.5m	evening max el	4114 Dec 30 21:35	0°☿21'06	21°40'03
evening max el	4114 Jan 17 00:32	16°☿47'27	20°28'42	retrograde	4115 Jan 08 22:49	5°☿43'54	
asc. node	4114 Jan 24 14:09	21°☿30'03		asc. node	4115 Jan 11 11:09	5°☿09'44	
retrograde	4114 Jan 25 01:25	21°☿31'15		evening set	4115 Jan 13 05:08	4°☿03'51	
evening set	4114 Jan 28 21:20	20°☿06'32			4115 Jan 16 22:44	30°☿☿	
inferior conj	4114 Feb 03 07:29	13°☿56'38	2°49'34	inferior conj	4115 Jan 18 14:31	27°☿44'18	2°13'42
minimum elong	4114 Feb 03 05:02	14°☿04'57	2°48'58	minimum elong	4115 Jan 18 12:07	27°☿52'37	2°12'55

min. Earth dist.	4115 Jan 18 18:08	27°☾31'43	0.67914 AU	inferior conj	4116 Jan 02 22:22	11°☾36'50	1°30'22
morning rise	4115 Jan 23 18:48	21°☾30'04		minimum elong	4116 Jan 02 20:28	11°☾43'23	1°29'38
direct	4115 Jan 28 18:02	19°☾22'47		min. Earth dist.	4116 Jan 02 14:46	12°☾03'04	0.68012 AU
morning max el	4115 Feb 07 18:57	25°☾19'59	22°58'06	morning rise	4116 Jan 08 04:41	5°☾26'14	
	4115 Feb 12 00:15	0°≈		direct	4116 Jan 12 13:19	3°☾41'53	
greatest brilliancy	4115 Feb 12 13:31	0°≈39'46	-0.3m	morning max el	4116 Jan 21 08:44	8°☾49'57	21°32'39
desc. node	4115 Feb 17 10:17	6°≈51'37		greatest brilliancy	4116 Jan 26 07:11	14°☾25'24	-0.4m
	4115 Mar 05 08:59	0°✕		desc. node	4116 Feb 04 07:18	26°☾32'53	
morning set	4115 Mar 14 06:50	14°✕17'47			4116 Feb 06 16:53	0°≈	
max. Earth dist.	4115 Mar 18 18:26	21°✕52'35	1.39807 AU	morning set	4116 Feb 22 02:06	23°≈23'48	
	4115 Mar 23 09:31	0°☿			4116 Feb 26 04:46	0°✕	
				max. Earth dist.	4116 Feb 28 18:37	4°✕13'24	1.41911 AU
superior conj	4115 Mar 26 12:06	5°☿37'48	-1°-50'-55				
minimum elong	4115 Mar 26 16:43	5°☿59'01	1°50'31	superior conj	4116 Mar 07 07:36	16°✕59'59	-2°-5'-25
evening rise	4115 Apr 05 05:31	23°☿58'36		minimum elong	4116 Mar 07 10:03	17°✕10'37	2°05'21
	4115 Apr 08 09:43	0°♄			4116 Mar 14 15:11	0°☿	
asc. node	4115 Apr 09 10:29	1°♄55'22		evening rise	4116 Mar 18 08:45	6°☿48'04	
evening max el	4115 Apr 21 08:44	19°♄54'03	18°30'29	asc. node	4116 Mar 26 07:29	20°☿59'35	
retrograde	4115 Apr 28 23:48	23°♄39'42			4116 Apr 01 07:16	0°♄	
evening set	4115 May 01 06:11	23°♄20'50		evening max el	4116 Apr 03 18:17	2°♄46'09	18°09'50
inferior conj	4115 May 08 19:45	18°♄50'33	2°03'03	retrograde	4116 Apr 10 13:39	6°♄12'41	
minimum elong	4115 May 08 23:21	18°♄43'26	2°02'00	evening set	4116 Apr 13 02:21	5°♄44'42	
min. Earth dist.	4115 May 12 05:48	16°♄09'50	0.58141 AU	inferior conj	4116 Apr 19 22:49	0°♄52'59	2°59'57
desc. node	4115 May 16 09:26	13°♄30'13		minimum elong	4116 Apr 20 01:55	0°♄45'49	2°59'20
morning rise	4115 May 16 12:05	13°♄26'53			4116 Apr 20 21:43	30°♄☿	
direct	4115 May 22 10:33	11°♄56'30		min. Earth dist.	4116 Apr 23 06:28	27°☿51'15	0.60301 AU
morning max el	4115 Jun 05 19:45	19°♄36'40	26°49'46	morning rise	4116 Apr 26 22:00	25°☿05'02	
	4115 Jun 14 15:52	0°♄		desc. node	4116 May 02 06:28	23°☿04'37	
	4115 Jul 02 10:15	0°♄		direct	4116 May 03 12:13	23°☿00'17	
morning set	4115 Jul 05 12:59	6°♄24'19			4116 May 16 21:25	0°♄	
asc. node	4115 Jul 06 09:45	8°♄14'09		morning max el	4116 May 17 19:29	0°♄53'19	27°39'15
					4116 Jun 07 19:26	0°♄	
superior conj	4115 Jul 12 14:20	21°♄43'51	1°00'56	morning set	4116 Jun 18 19:36	20°♄58'35	
minimum elong	4115 Jul 12 12:08	21°♄31'40	1°00'33	asc. node	4116 Jun 22 06:47	28°♄18'36	
max. Earth dist.	4115 Jul 12 15:33	21°♄50'32	1.32058 AU		4116 Jun 23 01:33	0°♄	
	4115 Jul 16 08:40	0°♄		max. Earth dist.	4116 Jun 25 02:56	4°♄29'30	1.32068 AU
evening rise	4115 Jul 19 12:04	6°♄44'01					
	4115 Jul 31 17:21	0°♄		superior conj	4116 Jun 26 01:42	6°♄34'38	0°38'51
desc. node	4115 Aug 12 08:46	17°♄00'00		minimum elong	4116 Jun 26 00:04	6°♄25'38	0°38'31
evening max el	4115 Aug 18 09:51	23°♄35'59	26°41'50	evening rise	4116 Jul 02 22:18	21°♄32'06	
	4115 Aug 28 00:13	0°♄			4116 Jul 07 00:41	0°♄	
retrograde	4115 Sep 01 08:24	0°♄46'20			4116 Jul 25 16:37	0°♄	
	4115 Sep 05 14:18	30°♄☿		desc. node	4116 Jul 29 05:45	3°♄53'59	
evening set	4115 Sep 08 04:32	28°♄47'16		evening max el	4116 Jul 30 05:23	4°♄51'56	25°32'33
min. Earth dist.	4115 Sep 11 23:47	26°♄11'17	0.60135 AU	retrograde	4116 Aug 13 04:32	11°♄57'41	
inferior conj	4115 Sep 15 05:37	23°♄33'53	-4°-38'-45	evening set	4116 Aug 19 03:54	10°♄34'27	
minimum elong	4115 Sep 15 11:03	23°♄22'50	4°37'47	min. Earth dist.	4116 Aug 23 17:19	7°♄56'24	0.58089 AU
morning rise	4115 Sep 22 20:54	18°♄51'54		inferior conj	4116 Aug 26 20:48	5°♄44'10	-5°-8'-30
direct	4115 Sep 25 04:39	18°♄31'44		minimum elong	4116 Aug 26 22:59	5°♄40'20	5°08'24
asc. node	4115 Oct 02 08:57	21°♄54'21		morning rise	4116 Sep 03 21:32	1°♄25'38	
morning max el	4115 Oct 02 16:36	22°♄12'29	18°10'23	direct	4116 Sep 06 09:01	1°♄06'34	
	4115 Oct 08 18:08	0°♄		morning max el	4116 Sep 14 21:14	5°♄09'06	18°49'27
morning set	4115 Oct 18 11:16	17°♄14'21		asc. node	4116 Sep 18 06:00	8°♄55'43	
	4115 Oct 25 07:01	0°♄			4116 Sep 30 14:10	0°♄	
				morning set	4116 Oct 01 07:27	1°♄24'24	
superior conj	4115 Oct 28 01:27	5°♄02'32	1°13'45				
minimum elong	4115 Oct 28 05:28	5°♄20'39	1°13'18	superior conj	4116 Oct 09 21:07	18°♄04'32	1°32'55
max. Earth dist.	4115 Nov 04 16:39	18°♄22'27	1.41338 AU	minimum elong	4116 Oct 09 23:55	18°♄17'48	1°32'42
desc. node	4115 Nov 08 08:06	24°♄26'20			4116 Oct 16 08:23	0°♄	
evening rise	4115 Nov 09 19:18	26°♄49'48		max. Earth dist.	4116 Oct 16 22:23	1°♄02'17	1.39272 AU
	4115 Nov 11 18:37	0°♄		evening rise	4116 Oct 20 21:56	7°♄57'40	
	4115 Dec 02 01:36	0°♄		desc. node	4116 Oct 25 05:07	15°♄07'48	
greatest brilliancy	4115 Dec 08 02:28	7°♄47'44	-0.2m		4116 Nov 03 18:05	0°♄	
evening max el	4115 Dec 13 13:59	13°♄57'12	22°58'30	evening max el	4116 Nov 25 03:25	27°♄37'01	24°18'05
retrograde	4115 Dec 23 17:47	19°♄58'35			4116 Nov 27 17:16	0°♄	
evening set	4115 Dec 28 12:14	18°♄02'21		retrograde	4116 Dec 06 09:12	4°♄12'10	
asc. node	4115 Dec 29 08:10	17°♄17'39		evening set	4116 Dec 11 17:08	1°♄59'46	

	4116 Dec 13 17:23	30° RJ		retrograde	4117 Nov 19 20:15	18° J 18'56	
asc. node	4116 Dec 15 05:12	28° J 11'43		evening set	4117 Nov 25 18:07	15° J 52'11	
min. Earth dist.	4116 Dec 16 10:52	26° J 34'19	0.67754 AU	min. Earth dist.	4117 Nov 30 04:07	11° J 01'39	0.67143 AU
inferior conj	4116 Dec 17 05:18	25° J 32'23	0°40'41	inferior conj	4117 Dec 01 09:30	9° J 27'25	0°-14'-20
minimum elong	4116 Dec 17 04:20	25° J 35'37	0°40'17	minimum elong	4117 Dec 01 09:52	9° J 26'14	0°14'11
morning rise	4116 Dec 22 15:54	19° J 27'29		transit middle	4117 Dec 01 09:52	9° J 26'14	0°14'11
direct	4116 Dec 26 10:58	18° J 05'21		transit begin	4117 Dec 01 08:32	9° J 30'33	
morning max el	4117 Jan 03 05:58	22° J 32'02	20°17'22	transit end	4117 Dec 01 11:13	9° J 21'55	
greatest brilliancy	4117 Jan 09 17:50	0° J 15'16	-0.5m	asc. node	4117 Dec 02 02:16	8° J 33'58	
	4117 Jan 09 13:13	0° J		morning rise	4117 Dec 07 02:28	3° J 30'31	
desc. node	4117 Jan 21 04:21	16° J 38'08		direct	4117 Dec 10 09:36	2° J 27'55	
	4117 Jan 29 23:28	0° J		morning max el	4117 Dec 17 11:06	6° J 24'26	19°15'59
morning set	4117 Jan 31 00:35	1° J 36'56		greatest brilliancy	4117 Dec 27 03:24	18° J 52'47	-0.7m
max. Earth dist.	4117 Feb 10 02:43	17° J 29'39	1.43650 AU		4118 Jan 03 12:29	0° J	
				desc. node	4118 Jan 08 01:24	7° J 00'09	
superior conj	4117 Feb 16 02:21	27° J 13'57	-2°-5'-53	morning set	4118 Jan 10 01:06	10° J 04'56	
minimum elong	4117 Feb 15 23:37	27° J 02'42	2°05'50		4118 Jan 22 19:21	0° J	
	4117 Feb 17 18:25	0° J		max. Earth dist.	4118 Jan 23 17:07	1° J 25'47	1.44806 AU
evening rise	4117 Feb 28 19:07	18° J 49'39					
	4117 Mar 07 06:02	0° J		superior conj	4118 Jan 26 20:03	6° J 22'21	-1°-47'-37
asc. node	4117 Mar 13 04:30	9° J 32'47		minimum elong	4118 Jan 26 11:46	5° J 49'25	1°47'00
evening max el	4117 Mar 18 06:42	15° J 57'13	18°08'33	evening rise	4118 Feb 10 08:22	29° J 55'37	
retrograde	4117 Mar 24 17:36	19° J 20'03			4118 Feb 10 09:25	0° J	
evening set	4117 Mar 27 12:02	18° J 41'32		asc. node	4118 Feb 28 01:32	27° J 25'28	
inferior conj	4117 Apr 02 19:15	13° J 29'14	3°28'54	evening max el	4118 Mar 01 19:08	29° J 20'09	18°26'06
minimum elong	4117 Apr 02 20:44	13° J 25'21	3°28'46		4118 Mar 02 11:34	0° J	
min. Earth dist.	4117 Apr 05 15:35	10° J 30'56	0.62446 AU	retrograde	4118 Mar 08 07:00	2° J 52'23	
morning rise	4117 Apr 09 03:00	7° J 26'16		evening set	4118 Mar 11 07:15	2° J 02'20	
direct	4117 Apr 15 23:44	4° J 53'59			4118 Mar 13 23:50	30° RJ	
desc. node	4117 Apr 19 03:31	5° J 23'08		inferior conj	4118 Mar 17 04:57	26° J 31'17	3°36'19
morning max el	4117 Apr 30 01:14	12° J 52'43	27°51'23	minimum elong	4118 Mar 17 04:44	26° J 31'53	3°36'19
	4117 May 13 16:58	0° J		min. Earth dist.	4118 Mar 19 10:19	23° J 56'03	0.64344 AU
	4117 May 31 05:41	0° J		morning rise	4118 Mar 23 00:38	20° J 20'14	
morning set	4117 Jun 02 20:48	5° J 14'03		direct	4118 Mar 29 19:30	17° J 32'54	
max. Earth dist.	4117 Jun 08 10:45	16° J 54'29	1.32490 AU	desc. node	4118 Apr 06 00:35	20° J 04'54	
asc. node	4117 Jun 09 03:49	18° J 26'21		morning max el	4118 Apr 12 10:32	25° J 28'34	27°27'11
					4118 Apr 16 14:08	0° J	
superior conj	4117 Jun 10 10:57	21° J 15'01	0°13'34		4118 May 07 04:50	0° J	
minimum elong	4117 Jun 10 10:19	21° J 11'33	0°13'26	morning set	4118 May 17 14:02	19° J 02'56	
behind sun begin	4117 Jun 10 07:31	20° J 56'19		max. Earth dist.	4118 May 22 10:59	28° J 53'30	1.33352 AU
behind sun end	4117 Jun 10 13:07	21° J 26'48			4118 May 22 23:46	0° J	
	4117 Jun 14 11:17	0° J					
evening rise	4117 Jun 17 10:04	6° J 21'06		superior conj	4118 May 25 16:14	5° J 39'25	0°-14'-9
	4117 Jun 29 21:10	0° J		minimum elong	4118 May 25 16:57	5° J 43'15	0°14'01
evening max el	4117 Jul 11 18:53	15° J 27'36	24°01'44	behind sun begin	4118 May 25 14:19	5° J 29'15	
desc. node	4117 Jul 16 02:46	19° J 03'16		behind sun end	4118 May 25 19:35	5° J 57'16	
retrograde	4117 Jul 25 13:13	22° J 23'25		asc. node	4118 May 27 00:52	8° J 33'29	
evening set	4117 Jul 30 03:21	21° J 36'50		evening rise	4118 Jun 01 21:31	21° J 05'02	
min. Earth dist.	4117 Aug 05 05:19	18° J 38'26	0.56308 AU		4118 Jun 06 05:58	0° J	
inferior conj	4117 Aug 07 15:43	17° J 08'40	-5°-3'-19	evening max el	4118 Jun 23 09:09	25° J 51'48	22°24'45
minimum elong	4117 Aug 07 11:59	17° J 14'27	5°03'00		4118 Jun 28 15:02	0° J	
morning rise	4117 Aug 16 00:05	13° J 10'26		desc. node	4118 Jul 02 23:47	1° J 53'17	
direct	4117 Aug 18 17:54	12° J 50'59		retrograde	4118 Jul 06 09:57	2° J 20'20	
morning max el	4117 Aug 28 15:41	17° J 27'21	19°50'13	evening set	4118 Jul 09 12:19	1° J 59'09	
asc. node	4117 Sep 05 03:04	26° J 52'08			4118 Jul 14 18:38	30° RJ	
	4117 Sep 07 01:11	0° J		min. Earth dist.	4118 Jul 17 16:01	28° J 26'23	0.55134 AU
morning set	4117 Sep 15 10:52	15° J 54'56		inferior conj	4118 Jul 18 17:01	27° J 50'59	-4°-9'-26
	4117 Sep 22 09:34	0° J		minimum elong	4118 Jul 18 08:43	28° J 02'45	4°07'30
				morning rise	4118 Jul 27 07:21	24° J 00'53	
superior conj	4117 Sep 23 07:39	1° J 50'14	1°42'28	direct	4118 Jul 30 09:33	23° J 39'13	
minimum elong	4117 Sep 23 08:46	1° J 55'49	1°42'25	morning max el	4118 Aug 10 22:21	29° J 01'27	21°11'47
max. Earth dist.	4117 Sep 29 03:16	13° J 06'00	1.37212 AU		4118 Aug 11 22:37	0° J	
evening rise	4117 Oct 02 22:58	20° J 07'02		asc. node	4118 Aug 23 00:08	15° J 31'02	
	4117 Oct 08 15:31	0° J			4118 Aug 30 11:27	0° J	
desc. node	4117 Oct 12 02:07	5° J 39'48		morning set	4118 Aug 30 19:02	0° J 39'13	
	4117 Oct 28 19:31	0° J					
evening max el	4117 Nov 07 15:42	11° J 18'46	25°32'05	superior conj	4118 Sep 07 04:42	16° J 07'10	1°43'55

minimum elong	4118 Sep 07 04:18	16° \cap 05'06	1°43'54	minimum elong	4119 Aug 22 07:22	0° \cap 36'26	1°38'32
max. Earth dist.	4118 Sep 11 13:05	24° \cap 57'02	1.35387 AU		4119 Aug 22 00:32	0° \cap	
	4118 Sep 14 03:01	0° $\underline{\cap}$		max. Earth dist.	4119 Aug 25 07:41	6° \cap 58'08	1.33925 AU
evening rise	4118 Sep 15 18:43	3° $\underline{\cap}$ 09'16		evening rise	4119 Aug 30 04:45	16° \cap 52'09	
desc. node	4118 Sep 28 23:07	25° $\underline{\cap}$ 57'16			4119 Sep 06 04:58	0° $\underline{\cap}$	
	4118 Oct 01 13:49	0° \cap		desc. node	4119 Sep 15 20:09	15° $\underline{\cap}$ 53'30	
evening max el	4118 Oct 21 04:11	24° \cap 58'57	26°33'03		4119 Sep 26 00:26	0° \cap	
	4118 Oct 27 10:08	0° \propto		evening max el	4119 Oct 03 16:43	8° \cap 29'07	27°13'32
retrograde	4118 Nov 03 02:13	2° \propto 13'02		retrograde	4119 Oct 17 02:24	15° \cap 47'04	
	4118 Nov 09 01:10	30° \cap		evening set	4119 Oct 24 00:21	13° \cap 06'48	
evening set	4118 Nov 09 13:18	29° \cap 36'04		min. Earth dist.	4119 Oct 27 20:56	9° \cap 27'47	0.64881 AU
min. Earth dist.	4118 Nov 13 16:15	25° \cap 21'23	0.66186 AU	inferior conj	4119 Oct 30 01:44	7° \cap 02'28	-2°-14'-53
inferior conj	4118 Nov 15 09:04	23° \cap 18'56	-1°-13'-27	minimum elong	4119 Oct 30 05:33	6° \cap 51'56	2°13'24
minimum elong	4118 Nov 15 11:05	23° \cap 12'52	1°12'36	morning rise	4119 Nov 05 12:45	1° \cap 29'48	
asc. node	4118 Nov 18 23:21	19° \cap 21'45		asc. node	4119 Nov 05 20:24	1° \cap 21'44	
morning rise	4118 Nov 21 10:15	17° \cap 32'36		direct	4119 Nov 08 02:37	0° \cap 54'45	
direct	4118 Nov 24 07:33	16° \cap 45'46		morning max el	4119 Nov 14 14:13	4° \cap 21'57	18°01'32
morning max el	4118 Nov 30 22:40	20° \cap 22'59	18°30'22		4119 Dec 01 16:55	0° \propto	
	4118 Dec 08 10:18	0° \propto		morning set	4119 Dec 02 07:05	0° \propto 59'03	
morning set	4118 Dec 21 01:16	19° \propto 47'39		desc. node	4119 Dec 12 19:26	18° \propto 15'57	
desc. node	4118 Dec 25 22:25	27° \propto 34'00					
	4118 Dec 27 11:15	0° \propto		superior conj	4119 Dec 16 07:35	23° \propto 53'34	0°-23'-56
superior conj	4119 Jan 05 23:04	14° \propto 56'52	-1°-10'-51	minimum elong	4119 Dec 16 04:37	23° \propto 41'47	0°23'32
minimum elong	4119 Jan 05 14:40	14° \propto 23'57	1°09'51		4119 Dec 20 03:59	0° \propto	
max. Earth dist.	4119 Jan 06 11:13	15° \propto 44'30	1.45264 AU	max. Earth dist.	4119 Dec 20 06:28	0° \propto 09'48	1.44983 AU
	4119 Jan 15 13:11	0° \approx		evening rise	4120 Jan 01 16:09	19° \propto 28'54	
evening rise	4119 Jan 21 22:13	10° \approx 04'17			4120 Jan 08 12:30	0° \approx	
greatest brilliancy	4119 Feb 01 19:37	27° \approx 15'25	-0.8m	greatest brilliancy	4120 Jan 20 08:10	17° \approx 31'10	-0.6m
	4119 Feb 03 14:33	0° \propto		evening max el	4120 Jan 27 10:49	26° \approx 21'01	19°52'51
evening max el	4119 Feb 13 05:07	12° \propto 49'08	19°01'25		4120 Feb 01 02:39	0° \propto	
asc. node	4119 Feb 14 22:36	14° \propto 25'22		asc. node	4120 Feb 01 19:39	0° \propto 18'28	
retrograde	4119 Feb 20 02:00	16° \propto 41'57		retrograde	4120 Feb 03 23:37	0° \propto 43'44	
evening set	4119 Feb 23 08:51	15° \propto 39'20			4120 Feb 06 17:22	30° \cap	
inferior conj	4119 Mar 01 00:08	9° \propto 51'25	3°27'33	evening set	4120 Feb 07 14:24	29° \approx 27'20	
minimum elong	4119 Feb 28 22:39	9° \propto 56'07	3°27'23	inferior conj	4120 Feb 13 01:49	23° \approx 24'50	3°06'22
min. Earth dist.	4119 Mar 02 14:02	7° \propto 51'51	0.65876 AU	minimum elong	4120 Feb 12 23:34	23° \approx 32'19	3°05'55
morning rise	4119 Mar 06 11:26	3° \propto 36'42		min. Earth dist.	4120 Feb 14 01:14	22° \approx 06'42	0.66994 AU
direct	4119 Mar 12 22:08	0° \propto 48'07		morning rise	4120 Feb 18 08:06	17° \approx 09'00	
desc. node	4119 Mar 23 21:38	6° \propto 34'45		direct	4120 Feb 24 06:25	14° \approx 31'00	
morning max el	4119 Mar 25 20:27	8° \propto 27'41	26°32'36	morning max el	4120 Mar 07 05:22	21° \approx 39'22	25°16'39
	4119 Apr 11 16:22	0° \propto		desc. node	4120 Mar 09 18:39	24° \approx 22'41	
	4119 Apr 29 15:09	0° \propto			4120 Mar 14 11:43	0° \propto	
morning set	4119 Apr 30 19:41	2° \propto 13'44		morning set	4120 Apr 03 22:23	0° \propto	
max. Earth dist.	4119 May 05 00:09	10° \propto 19'05	1.34682 AU	max. Earth dist.	4120 Apr 12 09:12	14° \propto 33'27	
					4120 Apr 16 02:16	21° \propto 22'23	1.36458 AU
					4120 Apr 20 14:25	0° \propto	
superior conj	4119 May 09 15:10	19° \propto 40'10	0°-43'-13	superior conj	4120 Apr 22 04:58	3° \propto 09'45	-1°-12'-5
minimum elong	4119 May 09 17:28	19° \propto 52'04	0°42'48	minimum elong	4120 Apr 22 08:49	3° \propto 28'46	1°11'28
asc. node	4119 May 13 21:53	28° \propto 35'16		asc. node	4120 Apr 29 18:55	18° \propto 27'43	
	4119 May 14 14:03	0° \cap		evening rise	4120 Apr 30 11:13	19° \propto 50'10	
evening rise	4119 May 17 06:37	5° \cap 36'48			4120 May 05 15:26	0° \cap	
	4119 May 30 19:10	0° \propto		evening max el	4120 May 17 18:47	17° \cap 58'59	19°43'37
evening max el	4119 Jun 05 07:55	6° \propto 36'10	20°55'52	retrograde	4120 May 27 15:44	22° \cap 47'21	
retrograde	4119 Jun 16 22:43	12° \propto 17'29		evening set	4120 May 29 14:36	22° \cap 36'54	
evening set	4119 Jun 19 02:44	12° \propto 06'23		desc. node	4120 Jun 05 17:51	19° \cap 36'06	
desc. node	4119 Jun 19 20:50	11° \propto 57'32		inferior conj	4120 Jun 07 10:11	18° \cap 34'26	0°-29'-51
inferior conj	4119 Jun 28 10:19	8° \propto 09'13	-2°-29'-16	minimum elong	4120 Jun 07 08:49	18° \cap 36'32	0°29'22
minimum elong	4119 Jun 28 03:29	8° \propto 18'53	2°26'57	min. Earth dist.	4120 Jun 09 16:40	17° \cap 10'01	0.55523 AU
min. Earth dist.	4119 Jun 29 03:33	7° \propto 44'48	0.54846 AU	morning rise	4120 Jun 15 23:49	14° \cap 05'01	
morning rise	4119 Jul 07 03:41	4° \propto 08'16		direct	4120 Jun 20 10:37	13° \cap 21'10	
direct	4119 Jul 10 18:53	3° \propto 39'50		morning max el	4120 Jul 04 08:33	20° \cap 17'23	24°32'54
morning max el	4119 Jul 23 18:21	9° \propto 52'29	22°49'30		4120 Jul 12 15:28	0° \propto	
	4119 Aug 07 08:37	0° Ω		asc. node	4120 Jul 26 18:12	24° \propto 14'33	
asc. node	4119 Aug 09 21:11	4° Ω 41'14		morning set	4120 Jul 29 17:40	0° Ω 24'51	
morning set	4119 Aug 15 05:53	15° Ω 30'57			4120 Jul 29 12:58	0° Ω	
superior conj	4119 Aug 22 08:53	0° \cap 44'33	1°38'39				

superior conj	4120 Aug 05 17:36	15°♌34'09	1°27'43	morning set	4121 Jul 14 04:49	15°♍16'16	
minimum elong	4120 Aug 05 15:26	15°♌22'20	1°27'28		4121 Jul 20 23:25	0°♌	
max. Earth dist.	4120 Aug 07 10:57	19°♌18'23	1.32874 AU				
	4120 Aug 12 12:35	0°♍		superior conj	4121 Jul 21 04:47	0°♌29'37	1°11'58
evening rise	4120 Aug 13 01:11	1°♍04'25		minimum elong	4121 Jul 21 02:27	0°♌16'47	1°11'36
	4120 Aug 29 03:55	0°♎		max. Earth dist.	4121 Jul 21 20:13	1°♌54'33	1.32236 AU
desc. node	4120 Sep 01 17:10	5°♎18'59		evening rise	4121 Jul 28 04:55	15°♌37'11	
evening max el	4120 Sep 15 03:33	21°♎36'01	27°26'44		4121 Aug 04 11:45	0°♍	
retrograde	4120 Sep 28 20:04	28°♎51'57		desc. node	4121 Aug 19 14:10	24°♍01'14	
evening set	4120 Oct 06 00:12	26°♎17'52			4121 Aug 24 11:10	0°♎	
min. Earth dist.	4120 Oct 09 15:59	23°♎11'24	0.63243 AU	evening max el	4121 Aug 28 09:59	4°♎06'13	27°07'47
inferior conj	4120 Oct 12 08:48	20°♎31'02	-3°-15'-54	retrograde	4121 Sep 11 06:35	11°♎18'50	
minimum elong	4120 Oct 12 14:11	20°♎17'42	3°14'09	evening set	4121 Sep 18 09:02	9°♎02'57	
morning rise	4120 Oct 19 06:45	15°♎15'36		min. Earth dist.	4121 Sep 22 00:19	6°♎20'18	0.61323 AU
direct	4120 Oct 21 15:52	14°♎48'41		inferior conj	4121 Sep 25 03:08	3°♎36'55	-4°-11'-48
asc. node	4120 Oct 22 17:26	14°♎54'11		minimum elong	4121 Sep 25 09:07	3°♎23'48	4°10'21
morning max el	4120 Oct 28 06:50	18°♎14'15	17°50'14		4121 Sep 29 18:23	30°♏	
	4120 Nov 05 19:13	0°♏		morning rise	4121 Oct 02 12:19	28°♏42'14	
morning set	4120 Nov 13 13:54	13°♏22'43		direct	4121 Oct 04 19:39	28°♏20'22	
	4120 Nov 23 05:33	0°♐		asc. node	4121 Oct 09 14:27	29°♏58'22	
					4121 Oct 09 15:24	0°♑	
superior conj	4120 Nov 25 14:16	3°♐56'57	0°21'24	morning max el	4121 Oct 11 21:28	1°♑52'39	17°57'26
minimum elong	4120 Nov 25 16:26	4°♐05'55	0°21'06	morning set	4121 Oct 27 15:19	26°♑39'25	
desc. node	4120 Nov 28 16:27	9°♐02'09			4121 Oct 29 11:03	0°♒	
max. Earth dist.	4120 Dec 02 00:02	14°♐24'02	1.44000 AU				
evening rise	4120 Dec 11 01:42	28°♐39'12		superior conj	4121 Nov 06 23:49	15°♒19'23	0°57'48
	4120 Dec 11 22:42	0°♑		minimum elong	4121 Nov 07 03:55	15°♒37'16	0°57'16
	4121 Jan 01 08:37	0°♒		max. Earth dist.	4121 Nov 14 13:00	28°♒08'48	1.42432 AU
greatest brilliancy	4121 Jan 04 02:19	3°♒37'09	-0.5m	desc. node	4121 Nov 15 13:29	29°♒49'35	
evening max el	4121 Jan 09 11:03	9°♒53'32	20°57'52		4121 Nov 15 16:02	0°♓	
retrograde	4121 Jan 17 21:36	14°♒53'09		evening rise	4121 Nov 20 19:03	8°♓15'06	
asc. node	4121 Jan 18 16:41	14°♒49'42			4121 Dec 05 03:35	0°♑	
evening set	4121 Jan 21 21:51	13°♒21'50		greatest brilliancy	4121 Dec 18 12:14	18°♑07'34	-0.3m
inferior conj	4121 Jan 27 07:28	7°♒07'26	2°35'20	evening max el	4121 Dec 23 05:51	23°♑27'28	22°12'44
minimum elong	4121 Jan 27 04:59	7°♒15'59	2°34'37	retrograde	4122 Jan 01 18:12	29°♑07'09	
min. Earth dist.	4121 Jan 27 17:51	6°♒31'41	0.67695 AU	asc. node	4122 Jan 05 13:42	27°♑49'48	
morning rise	4121 Feb 01 11:44	0°♒52'19		evening set	4122 Jan 06 05:34	27°♑20'02	
	4121 Feb 02 13:59	30°♒♑		inferior conj	4122 Jan 11 15:04	20°♑57'14	1°56'08
direct	4121 Feb 06 19:32	28°♑32'44		minimum elong	4122 Jan 11 12:50	21°♑05'00	1°55'21
	4121 Feb 11 12:12	0°♒		min. Earth dist.	4122 Jan 11 13:44	21°♑01'50	0.68004 AU
morning max el	4121 Feb 17 13:56	4°♒57'38	23°49'26	morning rise	4122 Jan 16 19:57	14°♑44'23	
desc. node	4121 Feb 24 15:41	13°♒06'02		direct	4122 Jan 21 12:46	12°♑47'04	
	4121 Mar 08 20:38	0°♓		morning max el	4122 Jan 31 00:55	18°♑22'57	22°20'50
morning set	4121 Mar 25 00:42	25°♓46'11		greatest brilliancy	4122 Feb 04 14:29	23°♑28'47	-0.3m
	4121 Mar 27 11:24	0°♓			4122 Feb 09 16:41	0°♒	
max. Earth dist.	4121 Mar 28 22:04	2°♓32'35	1.38549 AU	desc. node	4122 Feb 11 12:43	2°♒29'30	
					4122 Mar 02 00:14	0°♓	
superior conj	4121 Apr 05 06:00	15°♓58'22	-1°-38'-19	morning set	4122 Mar 05 12:36	5°♓38'44	
minimum elong	4121 Apr 05 10:45	16°♓20'50	1°37'46	max. Earth dist.	4122 Mar 10 18:44	14°♓21'15	1.40726 AU
	4121 Apr 12 12:11	0°♔					
evening rise	4121 Apr 14 08:40	3°♔37'39		superior conj	4122 Mar 18 13:42	27°♓54'58	-1°-58'-26
asc. node	4121 Apr 16 15:57	8°♔06'04		minimum elong	4122 Mar 18 17:46	28°♓13'10	1°58'11
evening max el	4121 Apr 30 16:52	0°♕02'14	18°51'19		4122 Mar 19 17:29	0°♓	
	4121 Apr 30 15:58	0°♕		evening rise	4122 Mar 28 19:41	16°♓50'48	
retrograde	4121 May 09 00:43	4°♕06'47		asc. node	4122 Apr 03 12:59	27°♓24'34	
evening set	4121 May 11 03:28	3°♕52'02			4122 Apr 05 00:18	0°♔	
	4121 May 18 13:02	30°♕♔		evening max el	4122 Apr 13 23:11	12°♔38'46	18°19'18
inferior conj	4121 May 19 04:04	29°♔33'01	1°15'46	retrograde	4122 Apr 21 04:41	16°♔14'44	
minimum elong	4121 May 19 06:48	29°♔28'05	1°14'50	evening set	4122 Apr 23 13:37	15°♔52'22	
min. Earth dist.	4121 May 22 08:47	27°♔15'34	0.57014 AU	inferior conj	4122 Apr 30 19:29	11°♔12'57	2°31'01
desc. node	4121 May 23 14:51	26°♔25'28		minimum elong	4122 Apr 30 23:06	11°♔05'17	2°30'05
morning rise	4121 May 27 05:42	24°♔27'47		min. Earth dist.	4122 May 04 05:57	8°♔20'04	0.59030 AU
direct	4121 Jun 01 15:31	23°♔17'16		morning rise	4122 May 08 04:25	5°♔37'21	
	4121 Jun 15 04:34	0°♕		desc. node	4122 May 10 11:53	4°♔34'07	
morning max el	4121 Jun 15 23:35	0°♕44'55	26°06'38	direct	4122 May 14 10:25	3°♔52'07	
	4121 Jul 06 12:20	0°♖		morning max el	4122 May 28 19:48	11°♔39'35	27°15'22
asc. node	4121 Jul 13 15:13	14°♖04'41			4122 Jun 12 03:35	0°♕	

morning set	4122 Jun 28 13:36	29°II58'27			4123 Jun 05 08:29	0°II	
	4122 Jun 28 13:54	0°☾		morning set	4123 Jun 12 18:12	14°II25'33	
asc. node	4122 Jun 30 12:14	4°☾05'14		asc. node	4123 Jun 17 09:18	24°II11'44	
				max. Earth dist.	4123 Jun 18 17:55	27°II08'40	1.32187 AU
superior conj	4122 Jul 05 16:34	15°☾23'44	0°52'01				
minimum elong	4122 Jul 05 14:33	15°☾12'35	0°51'38	superior conj	4123 Jun 20 03:16	0°☾10'53	0°28'30
max. Earth dist.	4122 Jul 05 07:47	14°☾35'13	1.32004 AU	minimum elong	4123 Jun 20 02:01	0°☾03'58	0°28'14
	4122 Jul 12 09:20	0°♂			4123 Jun 20 01:17	0°☾	
evening rise	4122 Jul 12 13:22	0°♂21'21		evening rise	4123 Jun 27 00:28	15°☾10'22	
	4122 Jul 28 17:12	0°♂			4123 Jul 04 09:36	0°♂	
desc. node	4122 Aug 06 11:10	11°♂41'36		evening max el	4123 Jul 23 02:07	26°♂45'53	24°55'50
evening max el	4122 Aug 10 09:36	15°♂49'10	26°15'44	desc. node	4123 Jul 24 08:11	27°♂55'11	
retrograde	4122 Aug 24 08:56	22°♂58'37			4123 Jul 26 21:58	0°♂	
evening set	4122 Aug 30 21:57	21°♂13'37		retrograde	4123 Aug 06 00:45	3°♂49'01	
min. Earth dist.	4122 Sep 03 22:37	18°♂39'14	0.59253 AU	evening set	4123 Aug 11 10:52	2°♂42'15	
inferior conj	4122 Sep 07 05:08	16°♂09'49	-4°-54'-37		4123 Aug 16 11:55	30°♂49'01	
minimum elong	4122 Sep 07 09:35	16°♂01'18	4°54'02	min. Earth dist.	4123 Aug 16 13:38	29°♂57'15	0.57277 AU
morning rise	4122 Sep 15 00:43	11°♂38'11		inferior conj	4123 Aug 19 11:46	28°♂01'12	-5°-11'-36
direct	4122 Sep 17 09:33	11°♂18'49		minimum elong	4123 Aug 19 11:38	28°♂01'26	5°11'36
morning max el	4122 Sep 25 06:47	15°♂07'25	18°24'23	morning rise	4123 Aug 27 15:57	23°♂51'53	
asc. node	4122 Sep 26 11:29	16°♂21'04		direct	4123 Aug 30 05:38	23°♂32'55	
	4122 Oct 05 14:33	0°♂		morning max el	4123 Sep 08 07:25	27°♂48'49	19°12'32
morning set	4122 Oct 11 05:49	10°♂32'50			4123 Sep 10 09:37	0°♂	
				asc. node	4123 Sep 13 08:32	3°♂47'27	
superior conj	4122 Oct 20 08:34	27°♂49'12	1°23'08	morning set	4123 Sep 25 05:25	24°♂52'18	
minimum elong	4122 Oct 20 12:11	28°♂05'51	1°22'46		4123 Sep 27 19:09	0°♂	
	4122 Oct 21 13:05	0°♂					
max. Earth dist.	4122 Oct 27 20:16	11°♂10'32	1.40475 AU	superior conj	4123 Oct 03 11:07	11°♂11'10	1°38'02
evening rise	4122 Nov 01 08:10	18°♂45'46		minimum elong	4123 Oct 03 13:13	11°♂21'19	1°37'54
desc. node	4122 Nov 02 10:31	20°♂34'11		max. Earth dist.	4123 Oct 10 00:41	23°♂31'37	1.38385 AU
	4122 Nov 08 08:16	0°♂		evening rise	4123 Oct 13 20:39	0°♂20'46	
	4122 Nov 29 13:48	0°♂			4123 Oct 13 15:54	0°♂	
evening max el	4122 Dec 05 20:37	7°♂04'39	23°32'32	desc. node	4123 Oct 20 07:31	11°♂12'09	
retrograde	4122 Dec 16 11:59	13°♂22'01			4123 Nov 01 15:47	0°♂	
evening set	4122 Dec 21 11:58	11°♂18'51		evening max el	4123 Nov 18 09:27	20°♂45'55	24°50'46
asc. node	4122 Dec 23 10:43	9°♂23'05		retrograde	4123 Nov 30 01:41	27°♂33'04	
inferior conj	4122 Dec 26 22:47	4°♂51'43	1°10'00	evening set	4123 Dec 05 15:24	25°♂14'32	
minimum elong	4122 Dec 26 21:14	4°♂57'01	1°09'23	min. Earth dist.	4123 Dec 10 05:51	20°♂03'31	0.67535 AU
min. Earth dist.	4122 Dec 26 10:33	5°♂33'37	0.67942 AU	asc. node	4123 Dec 10 07:47	19°♂57'08	
	4122 Dec 30 20:29	30°♂43'06		inferior conj	4123 Dec 11 04:49	18°♂47'38	0°17'55
morning rise	4123 Jan 01 06:39	28°♂43'06		minimum elong	4123 Dec 11 04:22	18°♂49'06	0°17'45
direct	4123 Jan 05 09:14	27°♂08'32		morning rise	4123 Dec 16 17:51	12°♂45'33	
	4123 Jan 11 14:19	0°♂		direct	4123 Dec 20 07:37	11°♂32'02	
morning max el	4123 Jan 13 17:43	1°♂58'18	20°59'01	morning max el	4123 Dec 27 18:16	15°♂44'38	19°49'18
greatest brilliancy	4123 Jan 19 05:27	8°♂17'56	-0.5m	greatest brilliancy	4124 Jan 04 06:52	24°♂57'32	-0.6m
desc. node	4123 Jan 29 09:47	22°♂22'05			4124 Jan 07 20:15	0°♂	
	4123 Feb 03 13:34	0°♂		desc. node	4124 Jan 16 06:48	12°♂35'07	
morning set	4123 Feb 12 21:07	14°♂16'25		morning set	4124 Jan 22 17:06	22°♂25'56	
max. Earth dist.	4123 Feb 20 21:44	27°♂04'51	1.42704 AU		4124 Jan 27 14:10	0°♂	
	4123 Feb 22 16:32	0°♂		max. Earth dist.	4124 Feb 03 08:35	10°♂39'25	1.44224 AU
superior conj	4123 Feb 27 23:09	8°♂49'06	-2°-7'-40	superior conj	4124 Feb 08 06:50	18°♂33'55	-2°00'-36
minimum elong	4123 Feb 27 23:43	8°♂51'33	2°07'41	minimum elong	4124 Feb 08 01:27	18°♂12'08	2°00'21
evening rise	4123 Mar 11 16:20	29°♂21'08			4124 Feb 15 05:48	0°♂	
	4123 Mar 12 01:01	0°♂		evening rise	4124 Feb 21 18:08	10°♂59'25	
asc. node	4123 Mar 21 10:01	16°♂16'57			4124 Mar 04 03:55	0°♂	
evening max el	4123 Mar 28 10:23	25°♂40'15	18°07'01	asc. node	4124 Mar 07 07:05	4°♂34'23	
retrograde	4123 Apr 04 00:58	29°♂03'28		evening max el	4124 Mar 10 23:13	8°♂57'33	18°13'49
evening set	4123 Apr 06 16:05	28°♂31'15		retrograde	4124 Mar 17 09:18	12°♂22'28	
inferior conj	4123 Apr 13 06:28	23°♂30'58	3°15'14	evening set	4124 Mar 20 06:16	11°♂39'05	
minimum elong	4123 Apr 13 08:56	23°♂24'55	3°14'52	inferior conj	4124 Mar 26 09:01	6°♂18'45	3°34'16
min. Earth dist.	4123 Apr 16 10:14	20°♂27'29	0.61226 AU	minimum elong	4124 Mar 26 09:45	6°♂16'44	3°34'15
morning rise	4123 Apr 19 22:42	17°♂35'31		min. Earth dist.	4124 Mar 28 23:16	3°♂28'18	0.63300 AU
direct	4123 Apr 26 16:55	15°♂17'22		morning rise	4124 Apr 01 11:13	0°♂11'57	
desc. node	4123 Apr 27 08:56	15°♂18'39			4124 Apr 01 17:28	30°♂	
morning max el	4123 May 10 22:16	23°♂14'37	27°49'04	direct	4124 Apr 08 08:17	27°♂31'24	
	4123 May 16 22:53	0°♂		desc. node	4124 Apr 13 05:59	28°♂41'58	

	4124 Apr 15 14:55	0°Υ		direct	4125 Mar 22 06:53	10°κ27'07	
morning max el	4124 Apr 22 05:36	5°Υ29'37	27°45'11	desc. node	4125 Mar 31 03:03	14°κ13'55	
	4124 May 10 18:32	0°Ϡ		morning max el	4125 Apr 04 15:25	18°κ16'40	27°07'08
morning set	4124 May 26 16:19	28°Ϡ30'03			4125 Apr 14 12:19	0°Υ	
	4124 May 27 10:13	0°Π			4125 May 03 17:02	0°Ϡ	
max. Earth dist.	4124 May 31 22:46	9°Π22'28	1.32801 AU	morning set	4125 May 10 05:03	12°Ϡ03'37	
				max. Earth dist.	4125 May 14 18:45	21°Ϡ07'58	1.33868 AU
superior conj	4124 Jun 03 11:04	14°Π44'54	0°02'04				
minimum elong	4124 Jun 03 10:58	14°Π44'23	0°02'02	superior conj	4125 May 18 13:55	28°Ϡ59'47	0°-26'-24
behind sun begin	4124 Jun 03 05:43	14°Π16'07		minimum elong	4125 May 18 15:18	29°Ϡ07'01	0°26'09
behind sun end	4124 Jun 03 16:13	15°Π12'41			4125 May 19 01:22	0°Π	
asc. node	4124 Jun 03 06:21	14°Π19'29		asc. node	4125 May 21 03:24	4°Π24'48	
evening rise	4124 Jun 10 12:19	29°Π57'37		evening rise	4125 May 25 23:01	14°Π37'08	
	4124 Jun 10 12:46	0°ϣ			4125 Jun 02 18:21	0°ϣ	
	4124 Jun 27 09:47	0°Ω		evening max el	4125 Jun 15 08:03	17°ϣ41'14	21°45'10
evening max el	4124 Jul 03 15:06	7°Ω12'48	23°20'23	desc. node	4125 Jun 27 02:14	23°ϣ50'18	
desc. node	4124 Jul 10 05:12	12°Ω09'25		retrograde	4125 Jun 27 19:46	23°ϣ51'33	
retrograde	4124 Jul 17 03:46	13°Ω58'50		evening set	4125 Jun 30 10:39	23°ϣ36'05	
evening set	4124 Jul 21 02:03	13°Ω25'07		inferior conj	4125 Jul 09 18:34	19°ϣ34'15	-3°-31'-27
min. Earth dist.	4124 Jul 28 00:43	10°Ω13'48	0.55714 AU	minimum elong	4125 Jul 09 10:06	19°ϣ46'07	3°29'01
inferior conj	4124 Jul 29 22:28	9°Ω06'30	-4°-46'-52	min. Earth dist.	4125 Jul 09 11:06	19°ϣ44'42	0.54891 AU
minimum elong	4124 Jul 29 16:16	9°Ω15'39	4°45'56	morning rise	4125 Jul 18 10:48	15°ϣ42'34	
morning rise	4124 Aug 07 09:29	5°Ω13'26		direct	4125 Jul 21 17:59	15°ϣ18'46	
direct	4124 Aug 10 06:47	4°Ω53'11		morning max el	4125 Aug 02 22:22	21°ϣ01'54	21°52'05
morning max el	4124 Aug 20 20:46	9°Ω48'02	20°22'31		4125 Aug 10 11:14	0°Ω	
asc. node	4124 Aug 30 05:36	22°Ω03'24		asc. node	4125 Aug 17 02:39	10°Ω56'33	
	4124 Sep 03 16:17	0°η		morning set	4125 Aug 23 20:43	24°Ω18'09	
morning set	4124 Sep 08 11:11	9°η29'55			4125 Aug 26 13:40	0°η	
superior conj	4124 Sep 16 02:35	25°η11'39	1°43'58	superior conj	4125 Aug 31 03:00	9°η38'16	1°42'26
minimum elong	4124 Sep 16 03:02	25°η13'52	1°43'58	minimum elong	4125 Aug 31 02:05	9°η33'23	1°42'24
	4124 Sep 18 12:07	0°♄		max. Earth dist.	4125 Sep 03 20:58	17°η23'04	1.34709 AU
max. Earth dist.	4124 Sep 21 07:25	5°♄28'48	1.36400 AU	evening rise	4125 Sep 08 08:31	26°η15'06	
evening rise	4124 Sep 25 06:14	12°♄54'33			4125 Sep 10 07:54	0°♄	
	4124 Oct 05 03:52	0°♌		desc. node	4125 Sep 23 01:32	21°♄48'51	
desc. node	4124 Oct 06 04:31	1°♌39'12			4125 Sep 28 13:13	0°♌	
	4124 Oct 26 15:59	0°♊		evening max el	4125 Oct 13 10:34	18°♌06'24	26°53'10
evening max el	4124 Oct 30 22:00	4°♊29'12	26°00'06	retrograde	4125 Oct 26 13:54	25°♌22'46	
retrograde	4124 Nov 12 10:30	11°♊35'47		evening set	4125 Nov 02 06:11	22°♌43'12	
evening set	4124 Nov 18 14:11	9°♊04'16		min. Earth dist.	4125 Nov 06 06:16	18°♌44'10	0.65679 AU
min. Earth dist.	4124 Nov 22 21:13	4°♊28'52	0.66784 AU	inferior conj	4125 Nov 08 04:12	16°♌31'08	-1°-39'-18
inferior conj	4124 Nov 24 07:19	2°♊42'22	0°-38'-57	minimum elong	4125 Nov 08 06:59	16°♌23'04	1°38'10
minimum elong	4124 Nov 24 08:21	2°♊39'08	0°38'31	asc. node	4125 Nov 13 01:53	11°♌38'27	
asc. node	4124 Nov 26 04:50	0°♊24'10		morning rise	4125 Nov 14 09:26	10°♌50'28	
	4124 Nov 26 13:19	30°♋		direct	4125 Nov 17 03:19	10°♌09'05	
morning rise	4124 Nov 30 03:33	26°♋49'31		morning max el	4125 Nov 23 16:00	13°♋40'34	18°16'03
direct	4124 Dec 03 06:21	25°♋53'56			4125 Dec 05 09:01	0°♊	
morning max el	4124 Dec 10 02:22	29°♋40'37	18°54'33	morning set	4125 Dec 12 14:56	11°♊43'41	
	4124 Dec 10 10:01	0°♋		desc. node	4125 Dec 20 00:50	23°♊41'06	
	4124 Dec 31 05:03	0°♎			4125 Dec 24 00:01	0°♎	
morning set	4125 Jan 01 02:01	1°♎22'02		superior conj	4125 Dec 27 18:58	5°♎59'11	0°-51'-27
desc. node	4125 Jan 02 03:50	3°♎03'08		minimum elong	4125 Dec 27 12:32	5°♎33'51	0°50'38
max. Earth dist.	4125 Jan 16 01:26	24°♎49'37	1.45101 AU	max. Earth dist.	4125 Dec 29 20:46	9°♎14'55	1.45240 AU
superior conj	4125 Jan 17 16:17	27°♎22'25	-1°-33'-58		4126 Jan 12 03:16	0°≈	
minimum elong	4125 Jan 17 07:02	26°♎46'01	1°33'05	evening rise	4126 Jan 13 02:02	1°≈28'56	
	4125 Jan 19 08:15	0°≈		greatest brilliancy	4126 Jan 28 00:11	24°≈28'35	-0.7m
evening rise	4125 Feb 01 21:29	21°≈41'00			4126 Jan 31 21:47	0°κ	
	4125 Feb 07 00:23	0°κ		evening max el	4126 Feb 05 19:11	5°κ54'14	19°21'22
asc. node	4125 Feb 22 04:08	22°κ06'21		asc. node	4126 Feb 09 01:09	8°κ39'49	
evening max el	4125 Feb 22 10:55	22°κ23'50	18°38'57	retrograde	4126 Feb 12 22:04	9°κ58'58	
retrograde	4125 Mar 01 01:31	26°κ03'17		evening set	4126 Feb 16 08:07	8°κ50'35	
evening set	4125 Mar 04 04:34	25°κ07'49		inferior conj	4126 Feb 21 21:27	2°κ55'51	3°19'55
inferior conj	4125 Mar 09 23:09	19°κ29'08	3°34'17	minimum elong	4126 Feb 21 19:35	3°κ01'56	3°19'37
minimum elong	4125 Mar 09 22:21	19°κ31'35	3°34'14	min. Earth dist.	4126 Feb 23 04:55	1°κ13'45	0.66403 AU
min. Earth dist.	4125 Mar 11 21:47	17°κ08'21	0.65055 AU		4126 Feb 24 04:20	30°κ≈	
morning rise	4125 Mar 15 14:52	13°κ16'18		morning rise	4126 Feb 27 06:14	26°≈40'16	

direct	4126 Mar 05 11:52	23° 33 55'17		evening set	4127 Jan 31 14:40	22° 33 42'04	
	4126 Mar 16 15:05	0° 33		inferior conj	4127 Feb 06 01:06	16° 33 34'01	2°54'19
morning max el	4126 Mar 18 01:17	1° 33 23'36	26°02'20	minimum elong	4127 Feb 05 22:41	16° 33 42'10	2°53'44
desc. node	4126 Mar 18 00:05	1° 33 20'34		min. Earth dist.	4127 Feb 06 18:49	15° 33 33'51	0.67339 AU
	4126 Apr 08 13:39	0° 33		morning rise	4127 Feb 11 06:10	10° 33 18'00	
morning set	4126 Apr 23 04:31	24° 33 55'10		direct	4127 Feb 16 22:22	7° 33 47'02	
	4126 Apr 25 21:24	0° 33		morning max el	4127 Feb 28 09:55	14° 33 38'59	24°40'15
max. Earth dist.	4126 Apr 27 03:22	2° 33 23'51	1.35389 AU	desc. node	4127 Mar 04 21:06	19° 33 34'36	
					4127 Mar 12 23:04	0° 33	
superior conj	4126 May 02 09:22	12° 33 48'38	0°-55'-38		4127 Apr 01 10:47	0° 33	
minimum elong	4126 May 02 12:21	13° 33 03'49	0°55'05	morning set	4127 Apr 05 09:26	6° 33 48'57	
asc. node	4126 May 08 00:26	24° 33 23'36		max. Earth dist.	4127 Apr 09 01:39	13° 33 24'41	1.37317 AU
evening rise	4126 May 10 06:32	29° 33 02'36					
	4126 May 10 17:44	0° 33		superior conj	4127 Apr 15 18:12	26° 33 02'05	-1°-23'-44
evening max el	4126 May 28 11:44	28° 33 40'55	20°22'44	minimum elong	4127 Apr 15 22:33	26° 33 23'14	1°23'06
	4126 May 29 22:22	0° 33			4127 Apr 17 18:48	0° 33	
retrograde	4126 Jun 08 09:12	4° 33 00'06		evening rise	4127 Apr 24 08:25	13° 33 05'56	
evening set	4126 Jun 10 09:05	3° 33 50'08		asc. node	4127 Apr 24 21:27	14° 33 10'48	
desc. node	4126 Jun 13 23:16	2° 33 46'51			4127 May 03 09:29	0° 33	
	4126 Jun 19 07:39	30° 33 11		evening max el	4127 May 11 03:43	10° 33 21'52	19°18'54
inferior conj	4126 Jun 19 12:58	29° 33 152'14	-1°-38'-49	retrograde	4127 May 20 07:58	14° 33 49'52	
minimum elong	4126 Jun 19 08:19	29° 33 159'02	1°37'08	evening set	4127 May 22 07:42	14° 33 38'12	
min. Earth dist.	4126 Jun 20 23:15	29° 33 102'10	0.55013 AU	inferior conj	4127 May 30 19:37	10° 33 29'58	0°18'05
morning rise	4126 Jun 28 05:46	25° 33 140'51		minimum elong	4127 May 30 20:22	10° 33 28'42	0°17'47
direct	4126 Jul 02 04:11	25° 33 107'25		desc. node	4127 May 31 20:18	9° 33 49'03	
	4126 Jul 13 17:52	0° 33		min. Earth dist.	4127 Jun 02 13:51	8° 33 41'10	0.56071 AU
morning max el	4126 Jul 15 15:22	1° 33 40'05	23°33'47	morning rise	4127 Jun 08 04:58	5° 33 44'57	
asc. node	4126 Aug 03 23:41	0° 33 17'44		direct	4127 Jun 13 01:28	4° 33 50'55	
	4126 Aug 03 20:04	0° 33		morning max el	4127 Jun 27 05:15	12° 33 02'59	25°14'51
morning set	4126 Aug 08 08:08	9° 33 11'41			4127 Jul 11 01:14	0° 33	
				asc. node	4127 Jul 21 20:42	19° 33 58'50	
superior conj	4126 Aug 15 09:24	24° 33 122'08	1°34'39	morning set	4127 Jul 23 19:48	24° 33 04'49	
minimum elong	4126 Aug 15 07:33	24° 33 112'08	1°34'29		4127 Jul 26 13:58	0° 33	
max. Earth dist.	4126 Aug 17 19:16	29° 33 131'23	1.33418 AU				
	4126 Aug 18 00:40	0° 33		superior conj	4127 Jul 30 19:24	9° 33 15'00	1°21'35
evening rise	4126 Aug 22 23:22	10° 33 11'38		minimum elong	4127 Jul 30 17:06	9° 33 02'25	1°21'17
	4126 Sep 02 16:34	0° 33		max. Earth dist.	4127 Aug 01 01:11	11° 33 05'48	1.32549 AU
desc. node	4126 Sep 09 22:32	11° 33 33'25		evening rise	4127 Aug 06 23:14	24° 33 03'34	
	4126 Sep 24 10:51	0° 33			4127 Aug 09 15:51	0° 33	
evening max el	4126 Sep 25 22:21	1° 33 27'18	27°22'47		4127 Aug 27 07:32	0° 33	
retrograde	4126 Oct 09 11:29	8° 33 45'40		desc. node	4127 Aug 27 19:34	0° 33 42'17	
evening set	4126 Oct 16 12:53	6° 33 06'18		evening max el	4127 Sep 08 07:35	14° 33 19'52	27°22'51
min. Earth dist.	4126 Oct 20 06:57	2° 33 42'02	0.64221 AU	retrograde	4127 Sep 22 02:31	21° 33 35'05	
inferior conj	4126 Oct 22 17:05	0° 33 08'47	-2°-41'-2	evening set	4127 Sep 29 06:53	19° 33 07'17	
minimum elong	4126 Oct 22 21:38	29° 33 56'48	2°39'23	min. Earth dist.	4127 Oct 02 21:39	16° 33 12'11	0.62445 AU
	4126 Oct 22 20:25	30° 33 11		inferior conj	4127 Oct 05 19:08	13° 33 28'39	-3°-40'-42
morning rise	4126 Oct 29 08:42	24° 33 43'20		minimum elong	4127 Oct 06 00:57	13° 33 14'56	3°38'59
asc. node	4126 Oct 30 22:54	24° 33 16'18		morning rise	4127 Oct 12 21:53	8° 33 21'37	
direct	4126 Oct 31 20:07	24° 33 12'18		direct	4127 Oct 15 05:43	7° 33 57'19	
morning max el	4126 Nov 07 08:24	27° 33 37'51	17°54'35	asc. node	4127 Oct 17 19:55	8° 33 28'23	
	4126 Nov 09 11:27	0° 33		morning max el	4127 Oct 22 00:33	11° 33 25'09	17°50'59
morning set	4126 Nov 24 08:06	23° 33 127'54			4127 Nov 03 10:59	0° 33	
	4126 Nov 28 04:39	0° 33		morning set	4127 Nov 06 23:36	6° 33 16'23	
desc. node	4126 Dec 06 21:50	14° 33 25'22					
				superior conj	4127 Nov 18 05:47	25° 33 158'36	0°38'09
superior conj	4126 Dec 07 11:36	15° 33 21'09	0°-3'-58	minimum elong	4127 Nov 18 09:09	26° 33 12'52	0°37'41
minimum elong	4126 Dec 07 11:08	15° 33 19'18	0°03'54		4127 Nov 20 15:10	0° 33	
behind sun begin	4126 Dec 07 01:15	14° 33 39'16		desc. node	4127 Nov 23 18:52	5° 33 12'45	
behind sun end	4126 Dec 07 21:01	15° 33 59'17		max. Earth dist.	4127 Nov 25 06:36	7° 33 38'18	1.43388 AU
max. Earth dist.	4126 Dec 12 15:14	23° 33 36'14	1.44643 AU	evening rise	4127 Dec 03 01:25	19° 33 59'18	
	4126 Dec 16 16:42	0° 33			4127 Dec 09 14:22	0° 33	
evening rise	4126 Dec 23 14:29	10° 33 342'31		greatest brilliancy	4127 Dec 28 22:10	27° 33 21'07	-0.4m
	4127 Jan 05 08:20	0° 33			4127 Dec 31 02:45	0° 33	
greatest brilliancy	4127 Jan 13 16:33	11° 33 53'28	-0.5m	evening max el	4128 Jan 02 20:27	3° 33 00'10	21°28'51
evening max el	4127 Jan 19 22:31	19° 33 26'13	20°19'01	retrograde	4128 Jan 11 17:45	8° 33 16'43	
asc. node	4127 Jan 26 22:10	23° 33 59'56		asc. node	4128 Jan 13 19:11	7° 33 53'44	
retrograde	4127 Jan 27 20:10	24° 33 04'31		evening set	4128 Jan 15 22:27	6° 33 39'02	

inferior conj	4128 Jan 21 07:50	0° \approx 20'48	2°19'39	retrograde	4128 Dec 25 13:10	22° \approx 31'36	
minimum elong	4128 Jan 21 05:24	0° \approx 29'14	2°18'53	evening set	4128 Dec 30 05:47	20° \approx 37'40	
min. Earth dist.	4128 Jan 21 13:12	0° \approx 02'13	0.67872 AU	asc. node	4128 Dec 30 16:14	20° \approx 15'11	
	4128 Jan 21 13:51	30° \approx 30		inferior conj	4129 Jan 04 15:42	14° \approx 12'48	1°37'21
morning rise	4128 Jan 26 12:03	24° \approx 06'17		minimum elong	4129 Jan 04 13:42	14° \approx 19'43	1°36'37
direct	4128 Jan 31 13:33	21° \approx 55'38		min. Earth dist.	4129 Jan 04 09:42	14° \approx 33'34	0.68023 AU
morning max el	4128 Feb 10 18:55	27° \approx 59'57	23°11'20	morning rise	4129 Jan 09 21:35	8° \approx 01'39	
	4128 Feb 12 16:26	0° \approx		direct	4129 Jan 14 08:20	6° \approx 13'56	
greatest brilliancy	4128 Feb 15 20:15	3° \approx 39'49	-0.2m	morning max el	4129 Jan 23 07:54	11° \approx 28'49	21°44'53
desc. node	4128 Feb 19 18:07	8° \approx 37'10		greatest brilliancy	4129 Jan 28 02:45	16° \approx 52'24	-0.4m
	4128 Mar 05 15:46	0° \approx		desc. node	4129 Feb 05 15:09	28° \approx 14'08	
morning set	4128 Mar 16 13:46	17° \approx 29'16			4129 Feb 06 20:58	0° \approx	
max. Earth dist.	4128 Mar 20 20:34	24° \approx 46'59	1.39486 AU	morning set	4129 Feb 24 13:19	26° \approx 47'14	
	4128 Mar 23 19:51	0° \approx			4129 Feb 26 13:20	0° \approx	
				max. Earth dist.	4129 Mar 02 19:56	7° \approx 00'16	1.41617 AU
superior conj	4128 Mar 28 12:31	8° \approx 30'50	-1°-47'-51				
minimum elong	4128 Mar 28 17:14	8° \approx 52'41	1°47'25	superior conj	4129 Mar 10 11:24	20° \approx 02'41	-2°-3'-59
evening rise	4128 Apr 07 01:53	26° \approx 40'08		minimum elong	4129 Mar 10 14:22	20° \approx 15'42	2°03'54
	4128 Apr 08 19:36	0° \approx			4129 Mar 16 01:22	0° \approx	
asc. node	4128 Apr 10 18:29	3° \approx 41'42		evening rise	4129 Mar 21 07:19	9° \approx 36'28	
evening max el	4128 Apr 23 05:50	22° \approx 41'07	18°35'14	asc. node	4129 Mar 28 15:32	22° \approx 50'14	
retrograde	4128 May 01 00:46	26° \approx 30'58			4129 Apr 02 03:18	0° \approx	
evening set	4128 May 03 06:14	26° \approx 13'13		evening max el	4129 Apr 06 14:39	5° \approx 29'42	18°11'38
inferior conj	4128 May 10 22:37	21° \approx 45'55	1°51'41	retrograde	4129 Apr 13 12:16	8° \approx 58'15	
minimum elong	4128 May 11 02:05	21° \approx 39'13	1°50'37	evening set	4129 Apr 16 00:01	8° \approx 31'46	
min. Earth dist.	4128 May 14 07:47	19° \approx 10'36	0.57841 AU	inferior conj	4129 Apr 22 22:47	3° \approx 43'05	2°53'14
desc. node	4128 May 17 17:20	16° \approx 57'59		minimum elong	4129 Apr 23 02:04	3° \approx 35'40	2°52'33
morning rise	4128 May 18 17:28	16° \approx 26'52		min. Earth dist.	4129 Apr 26 07:26	0° \approx 42'56	0.59970 AU
direct	4128 May 24 12:56	15° \approx 01'47			4129 Apr 27 04:06	30° \approx 00'00	
morning max el	4128 Jun 07 21:53	22° \approx 38'48	26°39'31	morning rise	4129 Apr 30 00:28	27° \approx 58'01	
	4128 Jun 14 10:36	0° \approx		desc. node	4129 May 04 14:21	26° \approx 08'47	
	4128 Jul 02 21:41	0° \approx		direct	4129 May 06 12:47	25° \approx 58'18	
morning set	4128 Jul 07 06:08	8° \approx 52'40			4129 May 16 11:32	0° \approx	
asc. node	4128 Jul 07 17:44	9° \approx 53'56		morning max el	4129 May 20 20:46	3° \approx 49'59	27°34'18
					4129 Jun 09 02:25	0° \approx	
superior conj	4128 Jul 14 07:03	24° \approx 10'29	1°03'59	morning set	4129 Jun 21 13:26	23° \approx 12'50	
minimum elong	4128 Jul 14 04:48	23° \approx 58'02	1°03'35	asc. node	4129 Jun 24 14:48	29° \approx 15'02	
max. Earth dist.	4128 Jul 14 11:53	24° \approx 37'07	1.32094 AU		4129 Jun 24 15:10	0° \approx	
	4128 Jul 16 22:34	0° \approx		max. Earth dist.	4129 Jun 27 23:34	7° \approx 17'54	1.32038 AU
evening rise	4128 Jul 21 05:17	9° \approx 12'14					
	4128 Aug 01 00:23	0° \approx		superior conj	4129 Jun 28 18:38	9° \approx 02'50	0°42'27
desc. node	4128 Aug 13 16:36	19° \approx 00'40		minimum elong	4129 Jun 28 16:53	8° \approx 53'12	0°42'05
evening max el	4128 Aug 20 11:36	26° \approx 31'27	26°49'38	evening rise	4129 Jul 05 15:10	24° \approx 00'06	
	4128 Aug 24 15:35	0° \approx			4129 Jul 08 12:16	0° \approx	
retrograde	4128 Sep 03 09:37	3° \approx 42'02			4129 Jul 26 08:19	0° \approx	
evening set	4128 Sep 10 07:48	1° \approx 38'20		desc. node	4129 Jul 31 13:38	6° \approx 08'14	
	4128 Sep 12 19:00	30° \approx 30		evening max el	4129 Aug 02 08:12	7° \approx 54'41	25°44'31
min. Earth dist.	4128 Sep 14 01:42	29° \approx 01'08	0.60444 AU	retrograde	4129 Aug 16 07:23	15° \approx 01'28	
inferior conj	4128 Sep 17 06:57	26° \approx 21'46	-4°-32'-18	evening set	4129 Aug 22 10:51	13° \approx 32'22	
minimum elong	4128 Sep 17 12:37	26° \approx 10'01	4°31'11	min. Earth dist.	4129 Aug 26 20:19	10° \approx 55'59	0.58387 AU
morning rise	4128 Sep 24 20:41	21° \approx 36'19		inferior conj	4129 Aug 30 01:05	8° \approx 38'40	-5°-5'-54
direct	4128 Sep 27 04:14	21° \approx 15'45		minimum elong	4129 Aug 30 03:57	8° \approx 33'29	5°05'42
asc. node	4128 Oct 03 16:58	24° \approx 07'25		morning rise	4129 Sep 07 00:34	4° \approx 16'53	
morning max el	4128 Oct 04 13:14	24° \approx 54'01	18°06'24	direct	4129 Sep 09 11:18	3° \approx 57'46	
	4128 Oct 08 18:59	0° \approx		morning max el	4129 Sep 17 19:15	7° \approx 56'09	18°42'15
morning set	4128 Oct 20 07:10	19° \approx 50'23		asc. node	4129 Sep 20 14:01	10° \approx 59'29	
	4128 Oct 25 18:05	0° \approx			4129 Oct 02 01:06	0° \approx	
				morning set	4129 Oct 04 02:00	3° \approx 56'44	
superior conj	4128 Oct 30 01:46	7° \approx 50'55	1°09'55				
minimum elong	4128 Oct 30 05:52	8° \approx 09'15	1°09'25	superior conj	4129 Oct 12 18:49	20° \approx 45'23	1°30'39
max. Earth dist.	4128 Nov 06 17:22	21° \approx 06'40	1.41630 AU	minimum elong	4129 Oct 12 21:51	20° \approx 59'39	1°30'23
desc. node	4128 Nov 09 15:53	25° \approx 59'17			4129 Oct 17 19:13	0° \approx	
evening rise	4128 Nov 12 02:12	29° \approx 56'12		max. Earth dist.	4129 Oct 19 23:27	3° \approx 52'25	1.39587 AU
	4128 Nov 12 03:08	0° \approx		evening rise	4129 Oct 24 01:18	10° \approx 54'21	
	4128 Dec 02 03:43	0° \approx		desc. node	4129 Oct 27 12:55	16° \approx 41'49	
greatest brilliancy	4128 Dec 10 11:36	10° \approx 54'25	-0.3m		4129 Nov 05 00:11	0° \approx	
evening max el	4128 Dec 15 13:29	16° \approx 35'53	22°46'33		4129 Nov 27 21:16	0° \approx	

evening max el	4129 Nov 28 03:09	0°☾14'42	24°06'23	evening max el	4130 Nov 10 15:28	13°☾56'22	25°21'45
retrograde	4129 Dec 09 05:16	6°☾45'36		retrograde	4130 Nov 22 17:06	20°☾53'49	
evening set	4129 Dec 14 11:08	4°☾35'27		evening set	4130 Nov 28 12:50	18°☾29'04	
asc. node	4129 Dec 17 13:16	1°☾18'12		min. Earth dist.	4130 Dec 02 23:56	13°☾33'10	0.67253 AU
	4129 Dec 18 13:33	30°☾17		inferior conj	4130 Dec 04 03:40	12°☾03'29	0°-5'-41
inferior conj	4129 Dec 19 22:55	28°☾07'55	0°48'34	minimum elong	4130 Dec 04 03:48	12°☾03'02	0°05'38
minimum elong	4129 Dec 19 21:47	28°☾11'44	0°48'07	transit middle	4130 Dec 04 03:48	12°☾03'02	0°05'38
min. Earth dist.	4129 Dec 19 06:03	29°☾04'54	0.67814 AU	transit begin	4130 Dec 04 01:11	12°☾11'30	
morning rise	4129 Dec 25 08:45	22°☾02'04		transit end	4130 Dec 04 06:25	11°☾54'34	
direct	4129 Dec 29 05:41	20°☾36'53		asc. node	4130 Dec 04 10:19	11°☾41'58	
morning max el	4130 Jan 06 03:59	25°☾09'10	20°27'44	morning rise	4130 Dec 09 19:32	6°☾05'08	
	4130 Jan 10 10:37	0°☾		direct	4130 Dec 13 04:17	4°☾59'53	
greatest brilliancy	4130 Jan 12 08:45	2°☾27'20	-0.5m	morning max el	4130 Dec 20 07:59	9°☾00'23	19°24'06
desc. node	4130 Jan 23 12:11	18°☾16'02		greatest brilliancy	4130 Dec 29 06:36	20°☾21'01	-0.7m
	4130 Jan 31 06:37	0°☾			4131 Jan 04 18:28	0°☾	
morning set	4130 Feb 03 13:43	5°☾04'40		desc. node	4131 Jan 10 09:12	8°☾35'57	
max. Earth dist.	4130 Feb 13 02:46	20°☾08'29	1.43419 AU	morning set	4131 Jan 13 12:13	13°☾25'39	
					4131 Jan 24 03:26	0°☾	
superior conj	4130 Feb 19 10:00	0°☾27'00	-2°-6'-57	max. Earth dist.	4131 Jan 26 16:08	3°☾59'09	1.44673 AU
minimum elong	4130 Feb 19 08:12	0°☾19'30	2°06'56				
	4130 Feb 19 03:30	0°☾		superior conj	4131 Jan 30 07:07	9°☾44'24	-1°-51'-41
evening rise	4130 Mar 03 20:30	21°☾45'56		minimum elong	4131 Jan 29 23:27	9°☾13'49	1°51'09
	4130 Mar 08 13:29	0°☾			4131 Feb 11 17:41	0°☾	
asc. node	4130 Mar 15 12:35	11°☾29'01		evening rise	4131 Feb 13 13:06	3°☾00'35	
evening max el	4130 Mar 21 02:51	18°☾38'38	18°07'33	asc. node	4131 Mar 02 09:38	29°☾28'54	
retrograde	4130 Mar 27 14:27	22°☾01'17			4131 Mar 02 19:51	0°☾	
evening set	4130 Mar 30 07:59	21°☾24'29		evening max el	4131 Mar 04 15:29	2°☾00'38	18°22'22
inferior conj	4130 Apr 05 16:56	16°☾15'14	3°26'00	retrograde	4131 Mar 11 02:39	5°☾30'38	
minimum elong	4130 Apr 05 18:41	16°☾10'44	3°25'49	evening set	4131 Mar 14 02:01	4°☾42'23	
min. Earth dist.	4130 Apr 08 15:21	13°☾14'50	0.62133 AU		4131 Mar 19 08:52	30°☾	
morning rise	4130 Apr 12 02:46	10°☾13'51		inferior conj	4131 Mar 20 00:55	29°☾14'10	3°36'18
direct	4130 Apr 18 23:03	7°☾44'51		minimum elong	4131 Mar 20 00:56	29°☾14'05	3°36'18
desc. node	4130 Apr 21 11:24	8°☾03'20		min. Earth dist.	4131 Mar 22 08:39	26°☾34'25	0.64083 AU
morning max el	4130 May 03 01:50	15°☾43'46	27°52'01	morning rise	4131 Mar 25 22:10	23°☾04'01	
	4130 May 14 18:00	0°☾		direct	4131 Apr 01 17:51	20°☾17'52	
	4130 Jun 01 16:52	0°☾		desc. node	4131 Apr 08 08:25	22°☾25'48	
morning set	4130 Jun 05 15:37	7°☾48'50		morning max el	4131 Apr 15 10:43	28°☾14'51	27°32'51
asc. node	4130 Jun 11 11:51	20°☾05'48			4131 Apr 17 03:07	0°☾	
max. Earth dist.	4130 Jun 11 08:08	19°☾45'46	1.32396 AU		4131 May 08 12:35	0°☾	
				morning set	4131 May 20 10:11	21°☾42'09	
superior conj	4130 Jun 13 04:19	23°☾45'20	0°17'36		4131 May 24 12:40	0°☾	
minimum elong	4130 Jun 13 03:30	23°☾40'53	0°17'25	max. Earth dist.	4131 May 25 09:33	1°☾48'25	1.33195 AU
	4130 Jun 16 00:55	0°☾					
evening rise	4130 Jun 20 02:49	8°☾49'24		superior conj	4131 May 28 10:17	8°☾12'31	0°-9'-49
	4130 Jul 01 01:39	0°☾		minimum elong	4131 May 28 10:47	8°☾15'10	0°09'44
evening max el	4130 Jul 14 22:14	18°☾34'59	24°16'05	behind sun begin	4131 May 28 06:28	7°☾52'09	
desc. node	4130 Jul 18 10:40	21°☾35'44		behind sun end	4131 May 28 15:06	8°☾38'12	
retrograde	4130 Jul 28 18:09	25°☾33'26		asc. node	4131 May 29 08:54	10°☾13'27	
evening set	4130 Aug 02 13:38	24°☾41'53		evening rise	4131 Jun 04 14:24	23°☾34'19	
min. Earth dist.	4130 Aug 08 08:58	21°☾47'25	0.56542 AU		4131 Jun 07 16:51	0°☾	
inferior conj	4130 Aug 10 23:01	20°☾10'17	-5°-7'-2	evening max el	4131 Jun 26 11:52	28°☾58'41	22°38'58
minimum elong	4130 Aug 10 20:14	20°☾14'40	5°06'52		4131 Jun 27 14:05	0°☾	
morning rise	4130 Aug 19 06:22	16°☾09'34		desc. node	4131 Jul 05 07:40	4°☾48'38	
direct	4130 Aug 21 22:58	15°☾50'20		retrograde	4131 Jul 09 16:23	5°☾32'21	
morning max el	4130 Aug 31 15:26	20°☾21'02	19°39'44	evening set	4131 Jul 12 23:29	5°☾08'30	
asc. node	4130 Sep 07 11:05	28°☾48'33		min. Earth dist.	4131 Jul 20 19:45	1°☾41'38	0.55259 AU
	4130 Sep 08 05:29	0°☾		inferior conj	4131 Jul 22 02:25	0°☾57'52	-4°-20'-56
morning set	4130 Sep 18 04:32	18°☾24'41		minimum elong	4131 Jul 21 18:29	1°☾09'13	4°19'15
	4130 Sep 23 22:07	0°☾			4131 Jul 23 19:23	30°☾	
superior conj	4130 Sep 26 03:26	4°☾25'35	1°41'33	morning rise	4131 Jul 30 15:55	27°☾07'26	
minimum elong	4130 Sep 26 04:48	4°☾32'23	1°41'29	direct	4131 Aug 02 16:43	26°☾46'14	
max. Earth dist.	4130 Oct 02 03:55	15°☾59'34	1.37511 AU		4131 Aug 11 13:14	0°☾	
evening rise	4130 Oct 05 23:11	22°☾55'12		morning max el	4131 Aug 13 23:44	2°☾01'20	20°58'26
	4130 Oct 10 00:49	0°☾		asc. node	4131 Aug 25 08:07	17°☾21'33	
desc. node	4130 Oct 14 09:57	7°☾15'43			4131 Aug 31 23:32	0°☾	
	4130 Oct 29 19:29	0°☾		morning set	4131 Sep 02 12:06	3°☾07'12	

superior conj	4131 Sep 09 23:07	18° \cap 38'23	1°44'08	superior conj	4132 Aug 24 02:24	3° \cap 13'29	1°39'49
minimum elong	4131 Sep 09 22:55	18° \cap 37'24	1°44'08	minimum elong	4132 Aug 24 01:01	3° \cap 06'08	1°39'45
max. Earth dist.	4131 Sep 14 12:40	27° \cap 50'52	1.35639 AU	max. Earth dist.	4132 Aug 27 06:01	9° \cap 50'34	1.34115 AU
	4131 Sep 15 15:02	0° $\underline{\cap}$		evening rise	4132 Sep 01 00:35	19° \cap 28'14	
evening rise	4131 Sep 18 16:25	5° $\underline{\cap}$ 50'26			4132 Sep 06 14:48	0° $\underline{\cap}$	
desc. node	4131 Oct 01 06:58	27° $\underline{\cap}$ 36'02		desc. node	4132 Sep 17 03:59	17° $\underline{\cap}$ 36'22	
	4131 Oct 02 19:42	0° \cap			4132 Sep 25 21:29	0° \cap	
evening max el	4131 Oct 24 03:58	27° \cap 37'44	26°25'10	evening max el	4132 Oct 05 16:39	11° \cap 10'47	27°09'05
	4131 Oct 26 18:55	0° \nearrow		retrograde	4132 Oct 19 00:46	18° \cap 28'14	
retrograde	4131 Nov 05 23:49	4° \nearrow 50'16		evening set	4132 Oct 25 21:22	15° \cap 47'58	
evening set	4131 Nov 12 08:59	2° \nearrow 14'40		min. Earth dist.	4132 Oct 29 18:53	12° \cap 03'48	0.65100 AU
	4131 Nov 14 17:10	30° \cap		inferior conj	4132 Oct 31 21:52	9° \cap 41'33	-2°-5'-29
min. Earth dist.	4131 Nov 16 13:00	27° \cap 54'29	0.66350 AU	minimum elong	4132 Nov 01 01:24	9° \cap 31'38	2°04'06
inferior conj	4131 Nov 18 04:02	25° \cap 56'04	-1°-4'-15	morning rise	4132 Nov 07 07:20	4° \cap 06'37	
minimum elong	4131 Nov 18 05:47	25° \cap 50'45	1°03'32	asc. node	4132 Nov 07 04:22	4° \cap 10'06	
asc. node	4131 Nov 21 07:22	22° \cap 22'38		direct	4132 Nov 09 22:11	3° \cap 30'00	
morning rise	4131 Nov 24 03:52	20° \cap 07'52		morning max el	4132 Nov 16 09:48	6° \cap 57'57	18°04'45
direct	4131 Nov 27 02:30	19° \cap 18'53			4132 Dec 02 00:58	0° \nearrow	
morning max el	4131 Dec 03 18:41	22° \cap 58'17	18°36'04	morning set	4132 Dec 04 09:42	3° \nearrow 54'51	
	4131 Dec 09 11:46	0° \nearrow		desc. node	4132 Dec 14 03:15	19° \nearrow 49'40	
morning set	4131 Dec 24 08:06	22° \nearrow 55'27					
desc. node	4131 Dec 28 06:13	29° \nearrow 08'23		superior conj	4132 Dec 18 17:31	27° \nearrow 10'40	0°-31'-12
	4131 Dec 28 19:16	0° $\overline{\cap}$		minimum elong	4132 Dec 18 13:38	26° \nearrow 55'12	0°30'40
					4132 Dec 20 12:15	0° $\overline{\cap}$	
superior conj	4132 Jan 09 11:08	18° $\overline{\cap}$ 20'44	-1°-17'-20	max. Earth dist.	4132 Dec 22 05:27	2° $\overline{\cap}$ 42'33	1.45078 AU
minimum elong	4132 Jan 09 02:17	17° $\overline{\cap}$ 46'00	1°16'21	evening rise	4133 Jan 04 02:44	22° $\overline{\cap}$ 47'14	
max. Earth dist.	4132 Jan 09 09:51	18° $\overline{\cap}$ 15'42	1.45245 AU		4133 Jan 08 18:54	0° \approx	
	4132 Jan 16 21:07	0° \approx		greatest brilliancy	4133 Jan 21 20:51	19° \approx 37'00	-0.6m
evening rise	4132 Jan 25 06:20	13° \approx 17'14		evening max el	4133 Jan 29 08:22	29° \approx 00'29	19°44'13
	4132 Feb 04 18:59	0° \times			4133 Jan 30 08:39	0° \times	
evening max el	4132 Feb 16 01:58	15° \times 29'02	18°55'06	asc. node	4133 Feb 03 03:40	2° \times 41'35	
asc. node	4132 Feb 17 06:40	16° \times 37'35		retrograde	4133 Feb 05 18:19	3° \times 18'08	
retrograde	4132 Feb 22 20:56	19° \times 17'56		evening set	4133 Feb 09 07:52	2° \times 03'46	
evening set	4132 Feb 26 02:48	18° \times 17'11			4133 Feb 11 15:05	30° \cap	
inferior conj	4132 Mar 02 18:52	12° \times 31'41	3°29'43	inferior conj	4133 Feb 14 19:43	26° \approx 03'09	3°10'14
minimum elong	4132 Mar 02 17:32	12° \times 35'50	3°29'35	minimum elong	4133 Feb 14 17:33	26° \approx 10'19	3°09'50
min. Earth dist.	4132 Mar 04 11:00	10° \times 26'22	0.65678 AU	min. Earth dist.	4133 Feb 15 21:08	24° \approx 38'52	0.66858 AU
morning rise	4132 Mar 08 07:12	6° \times 17'27		morning rise	4133 Feb 20 02:34	19° \approx 47'25	
direct	4132 Mar 14 19:28	3° \times 28'16		direct	4133 Feb 26 02:51	17° \approx 07'24	
desc. node	4132 Mar 25 05:26	8° \times 41'14		morning max el	4133 Mar 10 05:40	24° \approx 21'06	25°28'54
morning max el	4132 Mar 27 20:32	11° \times 10'43	26°42'17	desc. node	4133 Mar 12 02:28	26° \approx 18'51	
	4132 Apr 11 19:46	0° Υ			4133 Mar 15 07:35	0° \times	
	4132 Apr 30 01:45	0° $\overline{\cap}$			4133 Apr 05 06:11	0° Υ	
morning set	4132 May 02 17:46	4° $\overline{\cap}$ 59'08		morning set	4133 Apr 15 10:00	17° Υ 27'13	
max. Earth dist.	4132 May 07 00:27	13° $\overline{\cap}$ 18'47	1.34457 AU	max. Earth dist.	4133 Apr 19 04:12	24° Υ 24'40	1.36169 AU
					4133 Apr 22 02:12	0° $\overline{\cap}$	
superior conj	4132 May 11 10:18	22° $\overline{\cap}$ 17'13	0°-38'-48				
minimum elong	4132 May 11 12:22	22° $\overline{\cap}$ 27'54	0°38'24	superior conj	4133 Apr 25 01:39	5° $\overline{\cap}$ 51'52	-1°-7'-50
asc. node	4132 May 15 05:56	0° \cap 16'27		minimum elong	4133 Apr 25 05:17	6° $\overline{\cap}$ 09'59	1°07'13
	4132 May 15 02:49	0° \cap		asc. node	4133 May 02 02:58	20° $\overline{\cap}$ 10'41	
evening rise	4132 May 18 23:57	8° \cap 08'19		evening rise	4133 May 03 05:22	22° $\overline{\cap}$ 24'57	
	4132 May 30 18:06	0° $\overline{\cap}$			4133 May 07 00:47	0° \cap	
evening max el	4132 Jun 07 09:00	9° $\overline{\cap}$ 38'25	21°08'08	evening max el	4133 May 20 17:59	20° \cap 55'02	19°53'09
retrograde	4132 Jun 19 05:26	15° $\overline{\cap}$ 27'23		retrograde	4133 May 30 21:11	25° \cap 51'18	
evening set	4132 Jun 21 11:45	15° $\overline{\cap}$ 15'27		evening set	4133 Jun 01 20:00	25° \cap 41'07	
desc. node	4132 Jun 21 04:40	15° $\overline{\cap}$ 18'19		desc. node	4133 Jun 08 01:42	23° \cap 15'07	
inferior conj	4132 Jun 30 19:58	11° $\overline{\cap}$ 17'43	-2°-46'-32	inferior conj	4133 Jun 10 18:00	21° \cap 40'09	0°-47'-41
minimum elong	4132 Jun 30 12:31	11° $\overline{\cap}$ 28'11	2°44'04	minimum elong	4133 Jun 10 15:47	21° \cap 43'31	0°46'54
min. Earth dist.	4132 Jul 01 06:54	11° $\overline{\cap}$ 02'20	0.54828 AU	min. Earth dist.	4133 Jun 12 19:36	20° \cap 24'38	0.55360 AU
morning rise	4132 Jul 09 13:12	7° $\overline{\cap}$ 19'50		morning rise	4133 Jun 19 08:44	17° \cap 15'54	
direct	4132 Jul 13 02:14	6° $\overline{\cap}$ 52'45		direct	4133 Jun 23 16:10	16° \cap 35'11	
morning max el	4132 Jul 25 20:59	12° $\overline{\cap}$ 57'49	22°34'22	morning max el	4133 Jul 07 11:42	23° \cap 25'27	24°17'49
	4132 Aug 07 15:21	0° \cap			4133 Jul 13 09:47	0° $\overline{\cap}$	
asc. node	4132 Aug 11 05:10	6° \cap 27'50		asc. node	4133 Jul 29 02:11	25° $\overline{\cap}$ 58'28	
morning set	4132 Aug 16 22:40	17° \cap 58'29			4133 Jul 31 01:27	0° \cap	
	4132 Aug 22 14:06	0° \cap		morning set	4133 Aug 01 10:25	2° \cap 52'44	

superior conj	4133 Aug 08 10:34	18°01'55	1°29'43			4134 Jul 07 20:39	0°09	
minimum elong	4133 Aug 08 08:28	17°05'30	1°29'29	asc. node		4134 Jul 15 23:15	15°09'46"38	
max. Earth dist.	4133 Aug 10 08:10	22°08'25	1.33001 AU	morning set		4134 Jul 16 21:46	17°09'44"56	
	4133 Aug 14 01:23	0°09				4134 Jul 22 13:21	0°09	
evening rise	4133 Aug 15 19:40	3°09'36"49						
	4133 Aug 30 08:59	0°09		superior conj		4134 Jul 23 21:32	2°09'57"05	1°14'39
desc. node	4133 Sep 04 01:01	7°09'26		minimum elong		4134 Jul 23 19:12	2°09'44"14	1°14'17
evening max el	4133 Sep 18 03:47	24°09'21"45	27°26'40	max. Earth dist.		4134 Jul 24 16:40	4°09'42"15	1.32303 AU
	4133 Sep 25 17:18	0°09		evening rise		4134 Jul 30 22:30	18°09'07"01	
retrograde	4133 Oct 01 19:23	1°09'38"16				4134 Aug 05 21:49	0°09	
	4133 Oct 07 11:48	30°09'09		desc. node		4134 Aug 21 22:02	25°09'57"10	
evening set	4133 Oct 08 23:07	29°09'02"23				4134 Aug 25 01:40	0°09	
min. Earth dist.	4133 Oct 12 15:23	25°09'51"37	0.63508 AU	evening max el		4134 Aug 31 10:56	6°09'57"39	27°12'41
inferior conj	4133 Oct 15 06:32	23°09'12"46	-3°-6'-52	retrograde		4134 Sep 14 07:12	14°09'11"09	
minimum elong	4133 Oct 15 11:43	22°09'59"42	3°05'06	evening set		4134 Sep 21 10:29	11°09'51"38	
morning rise	4133 Oct 22 02:49	17°09'54"42		min. Earth dist.		4134 Sep 25 01:19	9°09'06"16	0.61622 AU
direct	4133 Oct 24 12:29	17°09'26"47		inferior conj		4134 Sep 28 02:57	6°09'22"12	-4°-4'-2
asc. node	4133 Oct 25 01:24	17°09'28"13		minimum elong		4134 Sep 28 08:57	6°09'08"48	4°02'28
morning max el	4133 Oct 31 02:29	20°09'51"57	17°50'49	morning rise		4134 Oct 05 10:31	1°09'24"20	
	4133 Nov 07 00:00	0°09		direct		4134 Oct 07 17:51	1°09'01"58	
morning set	4133 Nov 16 13:13	16°09'09"09		asc. node		4134 Oct 11 22:27	2°09'18"46	
	4133 Nov 24 14:53	0°09		morning max el		4134 Oct 14 17:38	4°09'32"48	17°55'07
				morning set		4134 Oct 30 12:11	29°09'18"31	
						4134 Oct 30 21:17	0°09	
superior conj	4133 Nov 28 20:23	7°09'03"04	0°15'00					
minimum elong	4133 Nov 28 21:58	7°09'09"34	0°14'47					
behind sun begin	4133 Nov 28 18:05	6°09'53"36		superior conj		4134 Nov 10 02:00	18°09'13"45	0°53'00
behind sun end	4133 Nov 29 01:50	7°09'25"31		minimum elong		4134 Nov 10 05:59	18°09'31"02	0°52'27
desc. node	4133 Dec 01 00:16	10°09'35"40				4134 Nov 17 01:07	0°09	
max. Earth dist.	4133 Dec 04 23:29	16°09'59"47	1.44189 AU	max. Earth dist.		4134 Nov 17 12:53	0°09'48"26	1.42692 AU
	4133 Dec 13 06:07	0°09		desc. node		4134 Nov 17 21:19	1°09'22"59	
evening rise	4133 Dec 14 12:34	1°09'57"27		evening rise		4134 Nov 24 03:43	11°09'26"45	
	4134 Jan 02 09:40	0°09				4134 Dec 06 08:36	0°09	
greatest brilliancy	4134 Jan 06 19:46	5°09'59"14	-0.5m	greatest brilliancy		4134 Dec 21 11:19	20°09'45"34	-0.3m
evening max el	4134 Jan 12 09:23	12°09'33"00	20°47'25	evening max el		4134 Dec 26 04:57	26°09'06"40	22°01'12
retrograde	4134 Jan 20 16:28	17°09'27"02				4134 Dec 30 18:43	0°09	
asc. node	4134 Jan 21 00:41	17°09'26"24		retrograde		4135 Jan 04 13:26	1°09'40"39	
evening set	4134 Jan 24 15:11	15°09'58"00		asc. node		4135 Jan 07 21:43	0°09'40"43	
inferior conj	4134 Jan 30 00:56	9°09'45"03	2°40'35	evening set		4135 Jan 08 22:59	29°09'56"01	
minimum elong	4134 Jan 29 22:28	9°09'53"32	2°39'55			4135 Jan 08 20:59	30°09'03	
min. Earth dist.	4134 Jan 30 13:09	9°09'03"05	0.67616 AU	inferior conj		4135 Jan 14 08:24	23°09'34"12	2°02'33
morning rise	4134 Feb 04 05:20	3°09'29"37		minimum elong		4135 Jan 14 06:06	23°09'42"13	2°01'47
direct	4134 Feb 09 15:18	1°09'07"03		min. Earth dist.		4135 Jan 14 08:47	23°09'32"53	0.67979 AU
morning max el	4134 Feb 20 14:18	7°09'39"17	24°02'44	morning rise		4135 Jan 19 13:01	17°09'20"47	
desc. node	4134 Feb 26 23:31	14°09'55"19		direct		4135 Jan 24 08:03	15°09'19"59	
	4134 Mar 10 01:12	0°09		morning max el		4135 Feb 03 00:41	21°09'03"26	22°33'45
morning set	4134 Mar 28 05:14	28°09'51"32		greatest brilliancy		4135 Feb 07 14:29	26°09'09"34	-0.3m
	4134 Mar 28 21:05	0°09				4135 Feb 10 16:07	0°09	
max. Earth dist.	4134 Apr 01 00:32	5°09'32"03	1.38223 AU	desc. node		4135 Feb 13 20:33	4°09'13"40	
						4135 Mar 03 07:46	0°09	
superior conj	4134 Apr 08 04:52	18°09'47"28	-1°-34'-38	morning set		4135 Mar 08 21:31	8°09'56"42	
minimum elong	4134 Apr 08 09:34	19°09'09"49	1°34'04	max. Earth dist.		4135 Mar 13 20:27	17°09'12"44	1.40408 AU
	4134 Apr 13 23:30	0°09				4135 Mar 21 03:49	0°09	
evening rise	4134 Apr 17 04:07	6°09'17"12						
asc. node	4134 Apr 19 00:00	9°09'51"42		superior conj		4135 Mar 21 15:30	0°09'52"42	-1°-55'-58
	4134 May 01 00:19	0°09		minimum elong		4135 Mar 21 19:49	1°09'12"14	1°55'41
evening max el	4134 May 03 14:36	2°09'52"51	18°57'52	evening rise		4135 Mar 31 16:57	19°09'36"01	
retrograde	4134 May 12 03:33	7°09'03"13		asc. node		4135 Apr 05 21:03	29°09'13"34	
evening set	4134 May 14 05:18	6°09'49"26				4135 Apr 06 07:21	0°09	
inferior conj	4134 May 22 08:52	2°09'33"21	1°01'30	evening max el		4135 Apr 16 19:56	15°09'25"03	18°22'48
minimum elong	4134 May 22 11:12	2°09'29"14	1°00'42	retrograde		4135 Apr 24 04:34	19°09'04"05	
min. Earth dist.	4134 May 25 11:23	0°09'22"51	0.56746 AU	evening set		4135 Apr 26 12:35	18°09'43"01	
desc. node	4134 May 25 22:44	0°09'03"54		inferior conj		4135 May 03 21:06	14°09'06"55	2°21'38
	4134 May 26 01:06	30°09'08		minimum elong		4135 May 04 00:45	13°09'59"21	2°20'40
morning rise	4134 May 30 12:41	27°09'33"10		min. Earth dist.		4135 May 07 07:44	11°09'17"41	0.58713 AU
direct	4134 Jun 04 18:59	26°09'27"17		morning rise		4135 May 11 08:38	8°09'35"12	
	4134 Jun 14 11:31	0°09		desc. node		4135 May 12 19:46	7°09'53"30	
morning max el	4134 Jun 19 02:24	3°09'51"27	25°53'55	direct		4135 May 17 12:08	6°09'55"07	

minimum elong	4137 Mar 29 06:52	9°Υ00'38	3°32'40	inferior conj	4138 Mar 12 18:30	22°✠10'37	3°35'17
min. Earth dist.	4137 Mar 31 22:18	6°Υ09'49	0.63007 AU	minimum elong	4138 Mar 12 17:54	22°✠12'27	3°35'16
morning rise	4137 Apr 04 09:57	2°Υ57'47		min. Earth dist.	4138 Mar 14 19:27	19°✠44'37	0.64812 AU
direct	4137 Apr 11 07:04	0°Υ19'56		morning rise	4138 Mar 18 11:31	15°✠58'18	
desc. node	4137 Apr 15 13:48	1°Υ13'39		direct	4138 Mar 25 04:37	13°✠09'34	
morning max el	4137 Apr 25 05:54	8°Υ18'19	27°48'08	desc. node	4138 Apr 02 10:49	16°✠28'06	
	4137 May 11 23:07	0°♄		morning max el	4138 Apr 07 15:37	21°✠01'37	27°14'47
	4137 May 28 22:19	0°♅			4138 Apr 15 10:10	0°Υ	
morning set	4137 May 29 11:38	1°♅06'41			4138 May 05 02:11	0°♄	
max. Earth dist.	4137 Jun 03 20:42	12°♅15'55	1.32682 AU	morning set	4138 May 13 01:57	14°♄45'31	
asc. node	4137 Jun 05 14:25	15°♅59'31		max. Earth dist.	4138 May 17 18:15	24°♄06'14	1.33676 AU
					4138 May 20 14:25	0°♅	
superior conj	4137 Jun 06 04:42	17°♅16'35	0°06'14				
minimum elong	4137 Jun 06 04:24	17°♅14'57	0°06'11	superior conj	4138 May 21 08:23	1°♅34'33	0°-22'00
behind sun begin	4137 Jun 05 23:32	16°♅48'38		minimum elong	4138 May 21 09:31	1°♅40'34	0°21'47
behind sun end	4137 Jun 06 09:16	17°♅41'17		asc. node	4138 May 23 11:26	6°♅05'20	
	4137 Jun 12 01:37	0°♄		evening rise	4138 May 28 16:04	17°♅07'39	
evening rise	4137 Jun 13 05:06	2°♄26'43			4138 Jun 04 02:16	0°♄	
	4137 Jun 28 06:38	0°♅		evening max el	4138 Jun 18 10:09	20°♄46'48	21°58'48
evening max el	4137 Jul 06 18:23	10°♅20'59	23°34'55	desc. node	4138 Jun 29 10:06	26°♄57'21	
desc. node	4137 Jul 12 13:05	14°♅51'35		retrograde	4138 Jul 01 02:47	27°♄04'02	
retrograde	4137 Jul 20 09:14	17°♅10'44		evening set	4138 Jul 03 21:22	26°♄46'50	
evening set	4137 Jul 24 13:07	16°♅32'47		min. Earth dist.	4138 Jul 12 14:39	23°♄02'17	0.54957 AU
min. Earth dist.	4137 Jul 31 04:17	13°♅26'20	0.55908 AU	inferior conj	4138 Jul 13 04:27	22°♄42'57	-3°-45'-56
inferior conj	4137 Aug 02 06:50	12°♅10'57	-4°-53'-53	minimum elong	4138 Jul 12 19:53	22°♄54'58	3°43'37
minimum elong	4137 Aug 02 01:27	12°♅19'01	4°53'12	morning rise	4138 Jul 21 20:05	18°♄52'19	
morning rise	4137 Aug 10 16:57	8°♅16'25		direct	4138 Jul 25 01:24	18°♄29'23	
direct	4137 Aug 13 13:03	7°♅56'27		morning max el	4138 Aug 06 00:30	24°♄05'03	21°37'41
morning max el	4137 Aug 23 21:11	12°♅44'31	20°10'47		4138 Aug 11 07:30	0°♅	
asc. node	4137 Sep 01 13:38	23°♅57'29		asc. node	4138 Aug 19 10:39	12°♅45'25	
	4137 Sep 05 01:17	0°♄		morning set	4138 Aug 26 13:37	26°♅45'59	
morning set	4137 Sep 11 04:34	11°♄59'19			4138 Aug 28 02:42	0°♄	
superior conj	4137 Sep 18 21:43	27°♄45'19	1°43'34	superior conj	4138 Sep 02 21:00	12°♄08'32	1°43'05
minimum elong	4137 Sep 18 22:24	27°♄48'44	1°43'34	minimum elong	4138 Sep 02 20:15	12°♄04'37	1°43'04
	4137 Sep 20 00:36	0°♄		max. Earth dist.	4138 Sep 06 20:00	20°♄16'27	1.34938 AU
max. Earth dist.	4137 Sep 24 07:53	8°♄24'10	1.36680 AU	evening rise	4138 Sep 11 05:21	28°♄53'46	
evening rise	4137 Sep 28 05:18	15°♄39'43			4138 Sep 11 19:16	0°♄	
	4137 Oct 06 11:57	0°♅		desc. node	4138 Sep 25 09:26	23°♄29'16	
desc. node	4137 Oct 08 12:23	3°♅16'45			4138 Sep 29 16:34	0°♅	
	4137 Oct 27 09:47	0°♄		evening max el	4138 Oct 16 10:14	20°♅45'24	26°46'33
evening max el	4137 Nov 02 21:46	7°♄07'19	25°50'33	retrograde	4138 Oct 29 11:50	28°♅01'20	
retrograde	4137 Nov 15 07:30	14°♄11'42		evening set	4138 Nov 05 02:22	25°♅22'27	
evening set	4137 Nov 21 09:12	11°♄41'43		min. Earth dist.	4138 Nov 09 03:25	21°♅18'00	0.65864 AU
min. Earth dist.	4137 Nov 25 17:16	7°♄01'05	0.66922 AU	inferior conj	4138 Nov 10 23:35	19°♅08'29	-1°-30'-1
inferior conj	4137 Nov 27 01:44	5°♄18'45	0°-30'-2	minimum elong	4138 Nov 11 02:05	19°♅01'07	1°28'59
minimum elong	4137 Nov 27 02:31	5°♄16'15	0°29'43	asc. node	4138 Nov 15 09:51	14°♅33'57	
asc. node	4137 Nov 28 12:49	3°♄30'05		morning rise	4138 Nov 17 03:22	13°♅25'50	
	4137 Dec 02 00:02	30°♅		direct	4138 Nov 19 22:22	12°♅42'40	
morning rise	4137 Dec 02 20:48	29°♅24'29		morning max el	4138 Nov 26 11:48	16°♅15'58	18°20'43
direct	4137 Dec 06 01:04	28°♅26'30			4138 Dec 06 14:42	0°♄	
	4137 Dec 10 07:05	0°♄		morning set	4138 Dec 15 19:51	14°♄45'40	
morning max el	4137 Dec 12 22:49	2°♄16'15	19°01'39	desc. node	4138 Dec 22 08:39	25°♄15'09	
	4138 Jan 01 12:10	0°♄			4138 Dec 25 08:17	0°♄	
morning set	4138 Jan 04 11:22	4°♄37'21					
desc. node	4138 Jan 04 11:36	4°♄38'19		superior conj	4138 Dec 31 06:29	9°♄21'00	0°-58'-31
max. Earth dist.	4138 Jan 19 00:26	27°♄22'24	1.45015 AU	minimum elong	4138 Dec 30 23:16	8°♄52'36	0°57'37
	4138 Jan 20 16:27	0°♅		max. Earth dist.	4139 Jan 01 19:22	11°♄45'47	1.45263 AU
					4139 Jan 13 10:51	0°♅	
superior conj	4138 Jan 21 04:03	0°♅45'47	-1°-39'-11	evening rise	4139 Jan 16 11:24	4°♅44'31	
minimum elong	4138 Jan 20 19:00	0°♅10'02	1°38'23	greatest brilliancy	4139 Jan 30 06:50	26°♅11'00	-0.7m
evening rise	4138 Feb 05 03:38	24°♅49'16			4139 Feb 01 21:26	0°♄	
	4138 Feb 08 07:38	0°♄		evening max el	4139 Feb 08 16:14	8°♄33'34	19°14'02
asc. node	4138 Feb 24 12:08	24°♄12'48		asc. node	4139 Feb 11 09:08	10°♄56'01	
evening max el	4138 Feb 25 07:21	25°♄03'35	18°34'07	retrograde	4139 Feb 15 16:55	12°♄34'03	
retrograde	4138 Mar 03 20:51	28°♄40'20		evening set	4139 Feb 19 01:48	11°♄27'44	
evening set	4138 Mar 06 22:54	27°♄46'47		inferior conj	4139 Feb 24 15:46	5°♄35'19	3°22'50

minimum elong	4139 Feb 24 14:02	5° ✕ 40'56	3°22'36	greatest brilliancy	4140 Jan 16 07:50	14° ≈ 08'23	-0.6m
min. Earth dist.	4139 Feb 26 01:29	3° ✕ 46'58	0.66228 AU	evening max el	4140 Jan 22 20:27	22° ≈ 05'37	20°09'35
	4139 Mar 01 08:17	30° ℞		asc. node	4140 Jan 29 06:10	26° ≈ 28'11	
morning rise	4139 Mar 02 01:22	29° ≈ 19'54		retrograde	4140 Jan 30 14:55	26° ≈ 38'17	
direct	4139 Mar 08 08:48	26° ≈ 33'24		evening set	4140 Feb 03 08:03	25° ≈ 18'02	
	4139 Mar 16 11:32	0° ✕		inferior conj	4140 Feb 08 18:48	19° ≈ 11'55	2°58'47
desc. node	4139 Mar 20 07:50	3° ✕ 22'09		minimum elong	4140 Feb 08 16:26	19° ≈ 19'52	2°58'15
morning max el	4139 Mar 21 01:33	4° ✕ 06'09	26°13'18	min. Earth dist.	4140 Feb 09 14:31	18° ≈ 05'22	0.67229 AU
	4139 Apr 09 19:26	0° Υ		morning rise	4140 Feb 14 00:14	12° ≈ 55'54	
morning set	4139 Apr 26 03:40	27° Υ 43'55		direct	4140 Feb 19 18:38	10° ≈ 22'15	
	4139 Apr 27 08:40	0° ♄		morning max el	4140 Mar 02 10:15	17° ≈ 20'15	24°53'06
max. Earth dist.	4139 Apr 30 04:22	5° ♄ 24'48	1.35132 AU	desc. node	4140 Mar 06 04:53	21° ≈ 27'14	
					4140 Mar 13 00:04	0° ✕	
superior conj	4139 May 05 05:05	15° ♄ 27'26	0°-51'-13		4140 Apr 01 19:40	0° Υ	
minimum elong	4139 May 05 07:50	15° ♄ 41'29	0°50'43	morning set	4140 Apr 07 11:44	9° Υ 46'59	
asc. node	4139 May 10 08:28	26° ♄ 05'07		max. Earth dist.	4140 Apr 11 03:47	16° Υ 25'14	1.37011 AU
	4139 May 12 05:43	0° ♁					
evening rise	4139 May 13 00:10	1° ♁ 35'09		superior conj	4140 Apr 17 15:45	28° Υ 46'37	-1°-19'-39
	4139 May 29 21:31	0° ♄		minimum elong	4140 Apr 17 19:56	29° Υ 07'06	1°19'02
evening max el	4139 May 31 12:01	1° ♄ 40'27	20°33'57		4140 Apr 18 06:43	0° ♄	
retrograde	4139 Jun 11 15:44	7° ♄ 07'30		evening rise	4140 Apr 26 03:04	15° ♄ 41'54	
evening set	4139 Jun 13 16:39	6° ♄ 57'19		asc. node	4140 Apr 26 05:30	15° ♄ 54'05	
desc. node	4139 Jun 16 07:05	6° ♄ 16'58			4140 May 03 14:49	0° ♁	
inferior conj	4139 Jun 22 22:07	3° ♄ 00'00	-1°-56'-59	evening max el	4140 May 13 02:16	13° ♁ 15'04	19°27'09
minimum elong	4139 Jun 22 16:38	3° ♄ 07'54	1°55'02	retrograde	4140 May 22 12:11	17° ♁ 49'51	
min. Earth dist.	4139 Jun 24 02:37	2° ♄ 18'51	0.54934 AU	evening set	4140 May 24 11:29	17° ♁ 38'41	
	4139 Jun 28 12:35	30° ℞ ♁		inferior conj	4140 Jun 02 02:11	13° ♁ 32'47	0°01'24
morning rise	4139 Jul 01 15:14	28° ♁ 52'31		minimum elong	4140 Jun 02 02:15	13° ♁ 32'41	0°01'23
direct	4139 Jul 05 10:58	28° ♁ 21'01		transit middle	4140 Jun 02 02:15	13° ♁ 32'41	0°01'23
	4139 Jul 12 02:47	0° ♄		transit begin	4140 Jun 01 22:23	13° ♁ 38'56	
morning max el	4139 Jul 18 18:25	4° ♄ 47'01	23°18'16	transit end	4140 Jun 02 06:07	13° ♁ 26'25	
	4139 Aug 05 06:16	0° ♁		desc. node	4140 Jun 02 04:06	13° ♁ 29'41	
asc. node	4139 Aug 06 07:42	2° ♁ 02'37		min. Earth dist.	4140 Jun 04 16:43	11° ♁ 52'17	0.55862 AU
morning set	4139 Aug 11 00:51	11° ♁ 38'34		morning rise	4140 Jun 10 13:11	8° ♁ 53'18	
				direct	4140 Jun 15 06:20	8° ♁ 03'00	
superior conj	4139 Aug 18 02:40	26° ♁ 49'58	1°36'12	morning max el	4140 Jun 29 08:16	15° ♁ 09'54	25°00'31
minimum elong	4139 Aug 18 00:55	26° ♁ 40'36	1°36'03		4140 Jul 11 04:08	0° ♄	
	4139 Aug 19 14:13	0° ♐		asc. node	4140 Jul 23 04:47	21° ♄ 41'17	
max. Earth dist.	4139 Aug 20 16:54	2° ♐ 21'14	1.33585 AU	morning set	4140 Jul 25 12:38	26° ♄ 32'13	
evening rise	4139 Aug 25 18:34	12° ♐ 45'24			4140 Jul 27 03:32	0° ♁	
	4139 Sep 04 01:05	0° ♁					
desc. node	4139 Sep 12 06:27	13° ♁ 17'56		superior conj	4140 Aug 01 12:17	11° ♁ 42'01	1°23'53
	4139 Sep 24 22:00	0° ♐		minimum elong	4140 Aug 01 10:01	11° ♁ 29'39	1°23'36
evening max el	4139 Sep 28 22:18	4° ♐ 09'32	27°20'09	max. Earth dist.	4140 Aug 02 22:01	14° ♁ 45'57	1.32651 AU
retrograde	4139 Oct 12 10:26	11° ♐ 28'04		evening rise	4140 Aug 08 17:20	27° ♁ 04'24	
evening set	4139 Oct 19 10:39	8° ♐ 48'12			4140 Aug 10 03:54	0° ♐	
min. Earth dist.	4139 Oct 23 05:33	5° ♐ 18'50	0.64455 AU		4140 Aug 27 09:02	0° ♁	
inferior conj	4139 Oct 25 13:50	2° ♐ 48'07	-2°-31'-46	desc. node	4140 Aug 29 03:27	2° ♁ 33'02	
minimum elong	4139 Oct 25 18:08	2° ♐ 36'37	2°30'10	evening max el	4140 Sep 10 08:15	17° ♁ 07'56	27°24'57
	4139 Oct 28 08:01	30° ℞ ♁		retrograde	4140 Sep 24 02:25	24° ♁ 23'20	
morning rise	4139 Nov 01 03:49	27° ♁ 20'05		evening set	4140 Oct 01 06:51	21° ♁ 53'10	
asc. node	4139 Nov 02 06:53	26° ♁ 57'37		min. Earth dist.	4140 Oct 04 21:55	18° ♁ 54'13	0.62728 AU
direct	4139 Nov 03 16:01	26° ♁ 47'45		inferior conj	4140 Oct 07 17:46	16° ♁ 11'36	-3°-32'-2
	4139 Nov 09 22:20	0° ♐		minimum elong	4140 Oct 07 23:27	15° ♁ 57'56	3°30'17
morning max el	4139 Nov 10 03:58	0° ♐ 13'50	17°56'40	morning rise	4140 Oct 14 18:50	11° ♁ 01'27	
morning set	4139 Nov 27 09:11	26° ♐ 18'43		direct	4140 Oct 17 03:02	10° ♁ 36'18	
	4139 Nov 29 13:42	0° ♄		asc. node	4140 Oct 19 03:57	10° ♁ 55'52	
desc. node	4139 Dec 09 05:42	15° ♄ 58'41		morning max el	4140 Oct 23 20:23	14° ♁ 03'13	17°50'20
					4140 Nov 03 19:17	0° ♐	
superior conj	4139 Dec 10 20:02	18° ♄ 33'26	0°-11'00	morning set	4140 Nov 08 21:50	8° ♐ 59'11	
minimum elong	4139 Dec 10 18:43	18° ♄ 28'10	0°10'49				
behind sun begin	4139 Dec 10 10:59	17° ♄ 57'01		superior conj	4140 Nov 20 10:12	28° ♐ 59'00	0°32'23
behind sun end	4139 Dec 11 02:27	18° ♄ 59'17		minimum elong	4140 Nov 20 13:12	29° ♐ 11'38	0°31'56
max. Earth dist.	4139 Dec 15 14:04	26° ♄ 08'22	1.44775 AU		4140 Nov 21 00:43	0° ♄	
	4139 Dec 18 00:51	0° ♄		desc. node	4140 Nov 25 02:45	6° ♄ 45'46	
evening rise	4139 Dec 27 01:30	14° ♄ 01'11		max. Earth dist.	4140 Nov 27 06:20	10° ♄ 15'22	1.43616 AU
	4140 Jan 06 13:25	0° ≈		evening rise	4140 Dec 05 11:40	23° ♄ 15'09	

	4140 Dec 09 21:12	0°☿		max. Earth dist.	4141 Nov 09 17:58	23°☿49'55	1.41920 AU
greatest brilliancy	4140 Dec 30 17:56	29°☿49'22	-0.4m	desc. node	4141 Nov 11 23:47	27°☿32'31	
	4140 Dec 30 21:19	0°☿			4141 Nov 13 11:57	0°☿	
evening max el	4141 Jan 04 19:15	5°☿39'19	21°17'48	evening rise	4141 Nov 15 09:37	3°☿03'55	
retrograde	4141 Jan 13 12:41	10°☿49'45			4141 Dec 03 06:55	0°☿	
asc. node	4141 Jan 15 03:12	10°☿35'45		greatest brilliancy	4141 Dec 13 15:58	13°☿46'36	-0.3m
evening set	4141 Jan 17 15:48	9°☿14'18		evening max el	4141 Dec 18 12:53	19°☿14'20	22°34'38
inferior conj	4141 Jan 23 01:14	2°☿57'25	2°25'25	retrograde	4141 Dec 28 08:33	25°☿04'26	
minimum elong	4141 Jan 22 22:47	3°☿05'54	2°24'40	evening set	4142 Jan 01 23:20	23°☿12'49	
min. Earth dist.	4141 Jan 23 08:21	2°☿32'50	0.67823 AU	asc. node	4142 Jan 02 00:15	23°☿10'56	
	4141 Jan 25 05:45	30°☿☿		inferior conj	4142 Jan 07 09:04	16°☿48'36	1°44'14
morning rise	4141 Jan 28 05:25	26°☿42'41		minimum elong	4142 Jan 07 06:59	16°☿55'51	1°43'28
direct	4141 Feb 02 09:10	24°☿28'48		min. Earth dist.	4142 Jan 07 04:40	17°☿03'50	0.68025 AU
	4141 Feb 12 02:48	0°☿		morning rise	4142 Jan 12 14:33	10°☿36'54	
morning max el	4141 Feb 12 19:02	0°☿40'12	23°24'36	direct	4142 Jan 17 03:25	8°☿45'51	
greatest brilliancy	4141 Feb 18 11:18	7°☿05'13	-0.2m	morning max el	4142 Jan 26 07:17	14°☿07'52	21°57'18
desc. node	4141 Feb 21 01:57	10°☿23'19		greatest brilliancy	4142 Jan 30 23:20	19°☿22'14	-0.4m
	4141 Mar 06 22:05	0°☿		desc. node	4142 Feb 07 23:00	29°☿55'42	
morning set	4141 Mar 19 20:06	20°☿38'55			4142 Feb 08 00:13	0°☿	
max. Earth dist.	4141 Mar 23 22:53	27°☿42'43	1.39162 AU		4142 Feb 27 21:43	0°☿	
	4141 Mar 25 06:08	0°☿		morning set	4142 Feb 28 00:01	0°☿09'17	
				max. Earth dist.	4142 Mar 05 21:27	9°☿48'20	1.41311 AU
superior conj	4141 Mar 31 12:33	11°☿22'40	-1°-44'-36	superior conj	4142 Mar 13 14:42	23°☿03'54	-2°-2'-17
minimum elong	4141 Mar 31 17:20	11°☿44'56	1°44'08	minimum elong	4142 Mar 13 18:07	23°☿19'03	2°02'08
evening rise	4141 Apr 09 22:01	29°☿20'59			4142 Mar 17 11:43	0°☿	
	4141 Apr 10 06:06	0°☿		evening rise	4142 Mar 24 05:34	12°☿24'01	
asc. node	4141 Apr 13 02:32	5°☿27'37		asc. node	4142 Mar 30 23:34	24°☿40'07	
evening max el	4141 Apr 26 03:05	25°☿28'52	18°40'25		4142 Apr 03 04:18	0°☿	
retrograde	4141 May 04 02:14	29°☿23'27		evening max el	4142 Apr 09 11:08	8°☿13'49	18°13'51
evening set	4141 May 06 06:45	29°☿06'48		retrograde	4142 Apr 16 11:17	11°☿44'43	
inferior conj	4141 May 14 01:58	24°☿42'23	1°39'31	evening set	4142 Apr 18 22:02	11°☿19'44	
minimum elong	4141 May 14 05:15	24°☿36'12	1°38'29	inferior conj	4142 Apr 25 23:12	6°☿34'12	2°45'52
min. Earth dist.	4141 May 17 09:55	22°☿12'57	0.57542 AU	minimum elong	4142 Apr 26 02:39	6°☿26'36	2°45'05
desc. node	4141 May 20 01:08	20°☿28'53		min. Earth dist.	4142 Apr 29 08:41	3°☿36'05	0.59640 AU
morning rise	4141 May 21 23:17	19°☿28'07		morning rise	4142 May 03 03:25	0°☿52'10	
direct	4141 May 27 15:31	18°☿08'15			4142 May 04 19:58	30°☿☿	
morning max el	4141 Jun 11 00:13	25°☿42'01	26°28'41	desc. node	4142 May 06 22:10	29°☿16'54	
	4141 Jun 15 00:47	0°☿		direct	4142 May 09 13:38	28°☿57'31	
	4141 Jul 04 08:26	0°☿			4142 May 14 11:34	0°☿	
morning set	4141 Jul 09 23:17	11°☿21'17		morning max el	4142 May 23 22:16	6°☿47'49	27°28'27
asc. node	4141 Jul 10 01:49	11°☿34'39			4142 Jun 10 08:20	0°☿	
superior conj	4141 Jul 16 23:48	26°☿37'26	1°06'55	morning set	4142 Jun 24 07:09	26°☿00'27	
minimum elong	4141 Jul 16 21:31	26°☿24'47	1°06'32		4142 Jun 26 04:37	0°☿	
max. Earth dist.	4141 Jul 17 08:19	27°☿24'24	1.32133 AU	asc. node	4142 Jun 26 22:52	1°☿37'36	
	4141 Jul 18 12:34	0°☿		superior conj	4142 Jul 01 11:30	11°☿30'30	0°45'57
evening rise	4141 Jul 23 22:37	11°☿41'01		minimum elong	4142 Jul 01 09:38	11°☿20'16	0°45'35
	4141 Aug 02 08:24	0°☿		max. Earth dist.	4142 Jun 30 20:05	10°☿05'38	1.32018 AU
desc. node	4141 Aug 16 00:28	21°☿00'11		evening rise	4142 Jul 08 08:03	26°☿27'44	
evening max el	4141 Aug 23 13:12	29°☿26'13	26°56'44		4142 Jul 10 00:30	0°☿	
	4141 Aug 24 03:44	0°☿			4142 Jul 27 04:29	0°☿	
retrograde	4141 Sep 06 10:41	6°☿37'19		desc. node	4142 Aug 02 21:28	8°☿19'42	
evening set	4141 Sep 13 10:39	4°☿29'07		evening max el	4142 Aug 05 10:47	10°☿55'53	25°55'57
min. Earth dist.	4141 Sep 17 03:25	1°☿50'24	0.60754 AU	retrograde	4142 Aug 19 10:03	18°☿03'40	
	4141 Sep 19 08:09	30°☿☿		evening set	4142 Aug 25 17:12	16°☿28'46	
inferior conj	4141 Sep 20 07:58	29°☿09'17	-4°-25'-22	min. Earth dist.	4142 Aug 29 23:09	13°☿53'35	0.58688 AU
minimum elong	4141 Sep 20 13:48	28°☿56'57	4°24'07	inferior conj	4142 Sep 02 04:51	11°☿31'35	-5°-2'-34
morning rise	4141 Sep 27 20:08	24°☿20'32		minimum elong	4142 Sep 02 08:22	11°☿25'08	5°02'14
direct	4141 Sep 30 03:35	23°☿59'32		morning rise	4142 Sep 10 03:02	7°☿06'26	
asc. node	4141 Oct 06 01:02	26°☿22'36		direct	4142 Sep 12 13:02	6°☿47'17	
morning max el	4141 Oct 07 09:49	27°☿35'26	18°02'49	morning max el	4142 Sep 20 17:02	10°☿41'55	18°35'33
	4141 Oct 09 14:25	0°☿		asc. node	4142 Sep 22 22:06	13°☿04'18	
morning set	4141 Oct 23 03:20	22°☿27'16			4142 Oct 03 11:27	0°☿	
	4141 Oct 27 05:01	0°☿		morning set	4142 Oct 06 20:42	6°☿28'56	
superior conj	4141 Nov 02 02:35	10°☿40'51	1°05'48	superior conj	4142 Oct 15 16:49	23°☿26'45	1°28'09
minimum elong	4141 Nov 02 06:43	10°☿59'12	1°05'18				

minimum elong	4142 Oct 15 20:04	23° Ω 41'57	1°27'52	superior conj	4143 Sep 28 23:24	7° Ω 00'58	1°40'27
	4142 Oct 19 06:15	0° \mathbb{M}		minimum elong	4143 Sep 29 01:02	7° Ω 08'58	1°40'23
max. Earth dist.	4142 Oct 23 00:23	6° \mathbb{M} 40'52	1.39899 AU	max. Earth dist.	4143 Oct 05 04:36	18° Ω 52'08	1.37810 AU
evening rise	4142 Oct 27 05:07	13° \mathbb{M} 51'55		evening rise	4143 Oct 08 23:48	25° Ω 44'04	
desc. node	4142 Oct 29 20:47	18° \mathbb{M} 15'33			4143 Oct 11 10:31	0° \mathbb{M}	
	4142 Nov 06 06:56	0° \mathcal{A}		desc. node	4143 Oct 16 17:48	8° \mathbb{M} 51'06	
	4142 Nov 28 09:38	0° \mathcal{B}			4143 Oct 30 21:02	0° \mathcal{A}	
evening max el	4142 Dec 01 02:49	2° \mathcal{B} 52'01	23°54'38	evening max el	4143 Nov 13 15:14	16° \mathcal{A} 33'41	25°11'09
retrograde	4142 Dec 12 01:15	9° \mathcal{B} 18'31		retrograde	4143 Nov 25 13:46	23° \mathcal{A} 27'58	
evening set	4142 Dec 17 05:03	7° \mathcal{B} 10'44		evening set	4143 Dec 01 07:22	21° \mathcal{A} 05'21	
asc. node	4142 Dec 19 21:18	4° \mathcal{B} 23'36		min. Earth dist.	4143 Dec 05 19:38	16° \mathcal{A} 04'04	0.67357 AU
min. Earth dist.	4142 Dec 22 01:11	1° \mathcal{B} 35'03	0.67865 AU	inferior conj	4143 Dec 06 21:41	14° \mathcal{A} 39'07	0°02'52
inferior conj	4142 Dec 22 16:28	0° \mathcal{B} 43'10	0°56'22	minimum elong	4143 Dec 06 21:36	14° \mathcal{A} 39'22	0°02'50
minimum elong	4142 Dec 22 15:10	0° \mathcal{B} 47'33	0°55'50	transit middle	4143 Dec 06 21:36	14° \mathcal{A} 39'22	0°02'50
	4142 Dec 23 05:13	30° \mathbb{R} \mathcal{A}		transit begin	4143 Dec 06 18:52	14° \mathcal{A} 48'18	
morning rise	4142 Dec 28 01:33	24° \mathcal{A} 36'20		transit end	4143 Dec 07 00:20	14° \mathcal{A} 30'26	
direct	4143 Jan 01 00:24	23° \mathcal{A} 07'58		asc. node	4143 Dec 06 18:20	14° \mathcal{A} 50'02	
morning max el	4143 Jan 09 02:11	27° \mathcal{A} 46'14	20°38'24	morning rise	4143 Dec 12 12:31	8° \mathcal{A} 39'22	
	4143 Jan 11 04:10	0° \mathcal{B}		direct	4143 Dec 15 22:58	7° \mathcal{A} 31'18	
greatest brilliancy	4143 Jan 15 00:26	4° \mathcal{B} 41'48	-0.5m	morning max el	4143 Dec 23 04:59	11° \mathcal{A} 35'54	19°32'34
desc. node	4143 Jan 25 20:01	19° \mathcal{B} 54'08		greatest brilliancy	4143 Dec 31 14:04	22° \mathcal{A} 05'13	-0.6m
	4143 Feb 01 13:34	0° \approx			4144 Jan 05 23:56	0° \mathcal{B}	
morning set	4143 Feb 07 02:49	8° \approx 32'14		desc. node	4144 Jan 12 17:02	10° \mathcal{B} 11'43	
max. Earth dist.	4143 Feb 16 02:54	22° \approx 47'47	1.43177 AU	morning set	4144 Jan 16 23:50	16° \mathcal{B} 47'27	
	4143 Feb 20 12:37	0° \mathcal{H}			4144 Jan 25 11:36	0° \approx	
				max. Earth dist.	4144 Jan 29 15:12	6° \approx 32'15	1.44529 AU
superior conj	4143 Feb 22 17:06	3° \mathcal{H} 38'21	-2°-7'-36				
minimum elong	4143 Feb 22 16:11	3° \mathcal{H} 34'34	2°07'36	superior conj	4144 Feb 02 17:45	13° \approx 04'49	-1°-55'-17
evening rise	4143 Mar 06 21:26	24° \mathcal{H} 40'45		minimum elong	4144 Feb 02 10:49	12° \approx 37'01	1°54'52
	4143 Mar 09 21:45	0° \mathcal{Y}			4144 Feb 13 02:20	0° \mathcal{H}	
asc. node	4143 Mar 17 20:36	13° \mathcal{Y} 23'51		evening rise	4144 Feb 16 17:15	6° \mathcal{H} 03'25	
evening max el	4143 Mar 23 23:01	21° \mathcal{Y} 20'08	18°06'57		4144 Mar 02 14:26	0° \mathcal{Y}	
retrograde	4143 Mar 30 11:29	24° \mathcal{Y} 42'44		asc. node	4144 Mar 03 17:37	1° \mathcal{Y} 30'07	
evening set	4143 Apr 02 04:09	24° \mathcal{Y} 07'37		evening max el	4144 Mar 06 11:44	4° \mathcal{Y} 40'26	18°19'01
inferior conj	4143 Apr 08 14:55	19° \mathcal{Y} 01'32	3°22'36	retrograde	4144 Mar 12 22:23	8° \mathcal{Y} 08'23	
minimum elong	4143 Apr 08 16:56	18° \mathcal{Y} 56'26	3°22'20	evening set	4144 Mar 15 20:52	7° \mathcal{Y} 21'53	
min. Earth dist.	4143 Apr 11 15:19	15° \mathcal{Y} 59'31	0.61819 AU	inferior conj	4144 Mar 21 21:03	1° \mathcal{Y} 56'27	3°35'53
morning rise	4143 Apr 15 02:56	13° \mathcal{Y} 01'57		minimum elong	4144 Mar 21 21:20	1° \mathcal{Y} 55'40	3°35'53
direct	4143 Apr 21 22:38	10° \mathcal{Y} 36'30			4144 Mar 23 14:04	30° \mathbb{R} \mathcal{H}	
desc. node	4143 Apr 23 19:12	10° \mathcal{Y} 46'33		min. Earth dist.	4144 Mar 24 07:08	29° \mathcal{H} 12'35	0.63817 AU
morning max el	4143 May 06 02:30	18° \mathcal{Y} 35'15	27°51'45	morning rise	4144 Mar 27 19:58	25° \mathcal{H} 47'23	
	4143 May 15 17:08	0° \mathcal{B}		direct	4144 Apr 03 16:19	23° \mathcal{H} 02'49	
	4143 Jun 03 03:41	0° \mathbb{I}		desc. node	4144 Apr 09 16:13	24° \mathcal{H} 48'23	
morning set	4143 Jun 08 10:13	10° \mathbb{I} 22'23			4144 Apr 16 10:07	0° \mathcal{Y}	
asc. node	4143 Jun 13 19:53	21° \mathbb{I} 44'51		morning max el	4144 Apr 17 10:48	1° \mathcal{Y} 00'32	27°37'48
max. Earth dist.	4143 Jun 14 05:14	22° \mathbb{I} 35'24	1.32315 AU		4144 May 08 19:49	0° \mathcal{B}	
				morning set	4144 May 22 06:03	24° \mathcal{B} 19'43	
superior conj	4143 Jun 15 21:34	26° \mathbb{I} 14'41	0°21'34		4144 May 25 01:31	0° \mathbb{I}	
minimum elong	4143 Jun 15 20:35	26° \mathbb{I} 09'19	0°21'21	max. Earth dist.	4144 May 27 07:51	4° \mathbb{I} 41'47	1.33048 AU
	4143 Jun 17 14:45	0° \mathcal{B}					
evening rise	4143 Jun 22 19:32	11° \mathcal{B} 16'52		superior conj	4144 May 30 04:12	10° \mathbb{I} 44'23	0°-5'-32
	4143 Jul 02 08:05	0° \mathcal{Q}		minimum elong	4144 May 30 04:28	10° \mathbb{I} 45'51	0°05'30
evening max el	4143 Jul 18 01:30	21° \mathcal{Q} 41'03	24°30'10	behind sun begin	4144 May 29 23:25	10° \mathbb{I} 18'46	
desc. node	4143 Jul 20 18:28	24° \mathcal{Q} 04'05		behind sun end	4144 May 30 09:32	11° \mathbb{I} 12'58	
retrograde	4143 Jul 31 22:39	28° \mathcal{Q} 41'34		asc. node	4144 May 30 16:54	11° \mathbb{I} 52'30	
evening set	4143 Aug 05 23:23	27° \mathcal{Q} 44'51		evening rise	4144 Jun 06 07:13	26° \mathbb{I} 02'40	
min. Earth dist.	4143 Aug 11 12:34	24° \mathcal{Q} 53'57	0.56787 AU		4144 Jun 08 04:36	0° \mathcal{B}	
inferior conj	4143 Aug 14 05:46	23° \mathcal{Q} 09'55	-5°-9'-43		4144 Jun 26 14:24	0° \mathcal{Q}	
minimum elong	4143 Aug 14 03:56	23° \mathcal{Q} 12'51	5°09'38	evening max el	4144 Jun 28 14:46	2° \mathcal{Q} 05'20	22°53'21
morning rise	4143 Aug 22 12:02	19° \mathcal{Q} 06'23		desc. node	4144 Jul 06 15:29	7° \mathcal{Q} 39'36	
direct	4143 Aug 25 03:32	18° \mathcal{Q} 47'20		retrograde	4144 Jul 11 22:31	8° \mathcal{Q} 43'38	
morning max el	4143 Sep 03 14:48	23° \mathcal{Q} 12'41	19°29'49	evening set	4144 Jul 15 10:42	8° \mathcal{Q} 16'43	
	4143 Sep 09 06:43	0° \mathcal{H}		min. Earth dist.	4144 Jul 22 23:26	4° \mathcal{Q} 55'32	0.55402 AU
asc. node	4143 Sep 09 19:07	0° \mathcal{H} 45'29		inferior conj	4144 Jul 24 11:34	4° \mathcal{Q} 03'29	-4°-31'-17
morning set	4143 Sep 20 22:15	20° \mathcal{H} 54'05		minimum elong	4144 Jul 24 04:08	4° \mathcal{Q} 14'14	4°29'52
	4143 Sep 25 10:43	0° \mathcal{B}		morning rise	4144 Aug 02 00:13	0° \mathcal{Q} 12'24	
					4144 Aug 03 02:34	30° \mathbb{R} \mathcal{B}	

direct	4144 Aug 04 23:46	29° \mathfrak{C} 51'33		direct	4145 Jul 16 09:45	10° \mathfrak{C} 05'09	
	4144 Aug 06 20:11	0° \mathfrak{Q}		morning max el	4145 Jul 28 23:34	16° \mathfrak{C} 02'24	22°19'17
morning max el	4144 Aug 16 00:50	4° \mathfrak{Q} 59'34	20°45'29		4145 Aug 08 20:19	0° \mathfrak{Q}	
asc. node	4144 Aug 26 16:09	19° \mathfrak{Q} 12'35		asc. node	4145 Aug 13 13:11	8° \mathfrak{Q} 14'45	
	4144 Sep 01 11:07	0° \mathfrak{M}		morning set	4145 Aug 19 15:29	20° \mathfrak{Q} 25'40	
morning set	4144 Sep 04 05:13	5° \mathfrak{M} 34'53			4145 Aug 24 03:42	0° \mathfrak{M}	
superior conj	4144 Sep 11 17:39	21° \mathfrak{M} 09'31	1°44'13	superior conj	4145 Aug 26 20:02	5° \mathfrak{M} 42'10	1°40'53
minimum elong	4144 Sep 11 17:41	21° \mathfrak{M} 09'39	1°44'13	minimum elong	4145 Aug 26 18:48	5° \mathfrak{M} 35'40	1°40'49
	4144 Sep 16 03:21	0° \mathfrak{A}		max. Earth dist.	4145 Aug 30 04:39	12° \mathfrak{M} 43'10	1.34319 AU
max. Earth dist.	4144 Sep 16 12:29	0° \mathfrak{A} 44'43	1.35897 AU	evening rise	4145 Sep 03 20:41	22° \mathfrak{M} 04'24	
evening rise	4144 Sep 20 14:26	8° \mathfrak{A} 32'01			4145 Sep 08 01:18	0° \mathfrak{A}	
desc. node	4144 Oct 02 14:49	29° \mathfrak{A} 13'56		desc. node	4145 Sep 19 11:51	19° \mathfrak{A} 17'56	
	4144 Oct 03 02:26	0° \mathfrak{M}			4145 Sep 26 21:01	0° \mathfrak{M}	
	4144 Oct 25 21:12	0° \mathfrak{J}		evening max el	4145 Oct 08 16:31	13° \mathfrak{M} 50'57	27°03'59
evening max el	4144 Oct 26 03:47	0° \mathfrak{J} 16'01	26°16'48	retrograde	4145 Oct 21 22:58	21° \mathfrak{M} 07'55	
retrograde	4144 Nov 07 21:13	7° \mathfrak{J} 26'35		evening set	4145 Oct 28 18:10	18° \mathfrak{M} 27'45	
evening set	4144 Nov 14 04:27	4° \mathfrak{J} 52'25		min. Earth dist.	4145 Nov 01 16:35	14° \mathfrak{M} 38'24	0.65313 AU
min. Earth dist.	4144 Nov 18 09:33	0° \mathfrak{J} 26'51	0.66508 AU	inferior conj	4145 Nov 03 17:47	12° \mathfrak{M} 19'20	-1°-56'-8
	4144 Nov 18 18:23	30° \mathfrak{R} \mathfrak{M}		minimum elong	4145 Nov 03 21:03	12° \mathfrak{M} 10'03	1°54'49
inferior conj	4144 Nov 19 22:49	28° \mathfrak{M} 32'33	0°-55'-9	asc. node	4145 Nov 09 12:23	6° \mathfrak{M} 59'40	
minimum elong	4144 Nov 20 00:18	28° \mathfrak{M} 27'58	0°54'31	morning rise	4145 Nov 10 01:44	6° \mathfrak{M} 42'18	
asc. node	4144 Nov 22 15:22	25° \mathfrak{M} 24'38		direct	4145 Nov 12 17:38	6° \mathfrak{M} 04'03	
morning rise	4144 Nov 25 21:21	22° \mathfrak{M} 42'35		morning max el	4145 Nov 19 05:26	9° \mathfrak{M} 32'58	18°08'20
direct	4144 Nov 28 21:25	21° \mathfrak{M} 51'21			4145 Dec 03 08:45	0° \mathfrak{J}	
morning max el	4144 Dec 05 14:46	25° \mathfrak{M} 33'04	18°42'10	morning set	4145 Dec 07 12:52	6° \mathfrak{J} 51'21	
	4144 Dec 09 10:28	0° \mathfrak{J}		desc. node	4145 Dec 16 11:08	21° \mathfrak{J} 23'00	
morning set	4144 Dec 26 15:38	26° \mathfrak{J} 04'49			4145 Dec 21 20:46	0° \mathfrak{C}	
	4144 Dec 29 03:14	0° \mathfrak{C}		superior conj	4145 Dec 22 03:55	0° \mathfrak{C} 28'20	0°-38'-26
desc. node	4144 Dec 29 14:04	0° \mathfrak{C} 42'40		minimum elong	4145 Dec 21 23:06	0° \mathfrak{C} 09'14	0°37'48
superior conj	4145 Jan 11 23:15	21° \mathfrak{C} 44'10	-1°-23'-33	max. Earth dist.	4145 Dec 25 04:25	5° \mathfrak{C} 14'16	1.45153 AU
minimum elong	4145 Jan 11 14:06	21° \mathfrak{C} 08'15	1°22'34	evening rise	4146 Jan 07 13:03	26° \mathfrak{C} 04'16	
max. Earth dist.	4145 Jan 11 08:41	20° \mathfrak{C} 47'00	1.45213 AU		4146 Jan 10 01:53	0° \mathfrak{A}	
	4145 Jan 17 05:19	0° \mathfrak{A}		greatest brilliancy	4146 Jan 24 08:26	21° \mathfrak{A} 37'59	-0.7m
evening rise	4145 Jan 27 13:57	16° \mathfrak{A} 28'18			4146 Jan 30 17:20	0° \mathfrak{K}	
	4145 Feb 05 00:40	0° \mathfrak{K}		evening max el	4146 Feb 01 05:46	1° \mathfrak{K} 39'12	19°35'55
evening max el	4145 Feb 17 22:41	18° \mathfrak{K} 08'05	18°49'09	asc. node	4146 Feb 05 11:40	5° \mathfrak{K} 02'10	
asc. node	4145 Feb 18 14:39	18° \mathfrak{K} 47'17		retrograde	4146 Feb 08 13:06	5° \mathfrak{K} 52'08	
retrograde	4145 Feb 24 15:56	21° \mathfrak{K} 53'20		evening set	4146 Feb 12 01:25	4° \mathfrak{K} 39'49	
evening set	4145 Feb 27 20:50	20° \mathfrak{K} 54'25			4146 Feb 16 13:33	30° \mathfrak{R} \mathfrak{A}	
inferior conj	4145 Mar 05 13:43	15° \mathfrak{K} 11'18	3°31'33	inferior conj	4146 Feb 17 13:44	28° \mathfrak{A} 41'08	3°13'52
minimum elong	4145 Mar 05 12:34	15° \mathfrak{K} 14'52	3°31'28	minimum elong	4146 Feb 17 11:40	28° \mathfrak{A} 47'56	3°13'31
min. Earth dist.	4145 Mar 07 08:07	13° \mathfrak{K} 00'26	0.65469 AU	min. Earth dist.	4146 Feb 18 17:13	27° \mathfrak{A} 10'40	0.66709 AU
morning rise	4145 Mar 11 03:11	8° \mathfrak{K} 57'33		morning rise	4146 Feb 22 21:12	22° \mathfrak{A} 25'27	
direct	4145 Mar 17 16:52	6° \mathfrak{K} 08'08		direct	4146 Feb 28 23:24	19° \mathfrak{A} 43'35	
desc. node	4145 Mar 27 13:15	10° \mathfrak{K} 48'44		morning max el	4146 Mar 13 06:02	27° \mathfrak{A} 02'34	25°40'54
morning max el	4145 Mar 30 20:37	13° \mathfrak{K} 53'15	26°51'30	desc. node	4146 Mar 14 10:18	28° \mathfrak{A} 15'48	
	4145 Apr 12 22:14	0° \mathfrak{Y}			4146 Mar 16 00:27	0° \mathfrak{K}	
	4145 May 01 12:12	0° \mathfrak{B}			4146 Apr 06 13:39	0° \mathfrak{Y}	
morning set	4145 May 05 15:32	7° \mathfrak{B} 42'48		morning set	4146 Apr 18 10:23	20° \mathfrak{Y} 19'06	
max. Earth dist.	4145 May 10 00:35	16° \mathfrak{B} 17'39	1.34238 AU	max. Earth dist.	4146 Apr 22 06:01	27° \mathfrak{Y} 26'32	1.35886 AU
					4146 Apr 23 14:03	0° \mathfrak{B}	
superior conj	4145 May 14 05:16	24° \mathfrak{B} 53'01	0°-34'-21	superior conj	4146 Apr 27 22:06	8° \mathfrak{B} 32'31	-1°-3'-30
minimum elong	4145 May 14 07:05	25° \mathfrak{B} 02'29	0°34'00	minimum elong	4146 Apr 28 01:31	8° \mathfrak{B} 49'39	1°02'56
	4145 May 16 15:50	0° \mathfrak{I}		asc. node	4146 May 04 10:59	21° \mathfrak{B} 52'25	
asc. node	4145 May 17 13:57	1° \mathfrak{I} 56'36		evening rise	4146 May 05 23:26	24° \mathfrak{B} 58'42	
evening rise	4145 May 21 17:13	10° \mathfrak{I} 38'59			4146 May 08 11:15	0° \mathfrak{I}	
	4145 May 31 20:44	0° \mathfrak{C}		evening max el	4146 May 23 17:30	23° \mathfrak{I} 51'28	20°03'08
evening max el	4145 Jun 10 10:25	12° \mathfrak{C} 41'21	21°20'51	retrograde	4146 Jun 03 03:06	28° \mathfrak{I} 55'50	
retrograde	4145 Jun 22 12:23	18° \mathfrak{C} 37'58		evening set	4146 Jun 05 02:02	28° \mathfrak{I} 45'51	
desc. node	4145 Jun 23 12:29	18° \mathfrak{C} 35'37		desc. node	4146 Jun 10 09:31	26° \mathfrak{I} 52'11	
evening set	4145 Jun 24 21:23	18° \mathfrak{C} 25'00		inferior conj	4146 Jun 14 02:16	24° \mathfrak{I} 46'09	-1°-5'-51
inferior conj	4145 Jul 04 05:50	14° \mathfrak{C} 26'11	-3°-3'-13	minimum elong	4146 Jun 13 23:12	24° \mathfrak{I} 50'46	1°04'43
minimum elong	4145 Jul 03 21:54	14° \mathfrak{C} 37'19	3°00'43	min. Earth dist.	4146 Jun 15 22:43	23° \mathfrak{I} 39'34	0.55217 AU
min. Earth dist.	4145 Jul 04 10:17	14° \mathfrak{C} 19'59	0.54831 AU	morning rise	4146 Jun 22 17:54	20° \mathfrak{I} 26'45	
morning rise	4145 Jul 12 22:49	10° \mathfrak{C} 30'58					

direct	4146 Jun 26 22:00	19°II48'52		desc. node	4147 May 28 06:32	3°II42'39	
morning max el	4146 Jul 10 14:57	26°II33'06	24°02'31	min. Earth dist.	4147 May 28 14:05	3°II30'04	0.56495 AU
	4146 Jul 13 22:36	0°☿		morning rise	4147 Jun 02 19:57	0°II38'20	
asc. node	4146 Jul 31 10:15	27°☿42'13			4147 Jun 04 19:48	30°R8	
	4146 Aug 01 13:35	0°♊		direct	4147 Jun 07 22:48	29°836'48	
morning set	4146 Aug 04 03:11	5°♊19'55			4147 Jun 11 02:04	0°II	
				morning max el	4147 Jun 22 05:16	6°II57'14	25°40'45
superior conj	4146 Aug 11 03:40	20°♊29'16	1°31'36		4147 Jul 09 04:05	0°☿	
minimum elong	4146 Aug 11 01:38	20°♊18'18	1°31'23	asc. node	4147 Jul 18 07:19	17°☿27'54	
max. Earth dist.	4146 Aug 13 05:32	24°♊57'52	1.33140 AU	morning set	4147 Jul 19 14:42	20°☿12'22	
	4146 Aug 15 14:36	0°♋			4147 Jul 24 03:26	0°♊	
evening rise	4146 Aug 18 14:22	6°♋08'59					
	4146 Aug 31 15:23	0°♌		superior conj	4147 Jul 26 14:20	5°♊23'37	1°17'13
desc. node	4146 Sep 06 08:52	8°♌54'03		minimum elong	4147 Jul 26 12:00	5°♊10'49	1°16'53
evening max el	4146 Sep 21 03:54	27°♌05'34	27°25'51	max. Earth dist.	4147 Jul 27 13:09	7°♊28'49	1.32377 AU
	4146 Sep 24 12:24	0°♍		evening rise	4147 Aug 02 16:11	20°♊36'13	
retrograde	4146 Oct 04 18:38	4°♍22'46			4147 Aug 07 08:43	0°♋	
evening set	4146 Oct 11 21:44	1°♍45'23		desc. node	4147 Aug 24 05:52	27°♋50'51	
	4146 Oct 14 00:52	30°R♌			4147 Aug 25 20:34	0°♌	
min. Earth dist.	4146 Oct 15 14:33	28°♌30'05	0.63767 AU	evening max el	4147 Sep 03 11:48	9°♌47'30	27°16'56
inferior conj	4146 Oct 18 04:00	25°♌52'56	-2°-57'-44	retrograde	4147 Sep 17 07:43	17°♌01'48	
minimum elong	4146 Oct 18 08:58	25°♌40'11	2°56'00	evening set	4147 Sep 24 11:33	14°♌39'03	
morning rise	4146 Oct 24 22:39	20°♌32'18		min. Earth dist.	4147 Sep 28 02:11	11°♌50'35	0.61914 AU
direct	4146 Oct 27 08:53	20°♌03'22		inferior conj	4147 Oct 01 02:29	9°♌06'18	-3°-55'-56
asc. node	4146 Oct 27 09:27	20°♌03'22		minimum elong	4147 Oct 01 08:27	8°♌52'42	3°54'20
morning max el	4146 Nov 02 22:07	23°♌28'24	17°51'46	morning rise	4147 Oct 08 08:24	4°♌05'13	
	4146 Nov 08 02:43	0°♍		direct	4147 Oct 10 15:46	3°♌42'16	
morning set	4146 Nov 19 12:55	18°♍55'37		asc. node	4147 Oct 14 06:32	4°♌40'33	
	4146 Nov 26 00:22	0°♎		morning max el	4147 Oct 17 13:43	7°♌11'56	17°53'15
					4147 Nov 01 07:18	0°♍	
superior conj	4146 Dec 02 03:06	10°♎09'57	0°08'25	morning set	4147 Nov 02 09:24	1°♍58'01	
minimum elong	4146 Dec 02 04:00	10°♎13'42	0°08'16				
behind sun begin	4146 Dec 01 19:31	9°♎38'55		superior conj	4147 Nov 13 04:43	21°♍09'07	0°47'55
behind sun end	4146 Dec 02 12:30	10°♎48'24		minimum elong	4147 Nov 13 08:33	21°♍25'35	0°47'24
desc. node	4146 Dec 03 08:11	12°♎08'42			4147 Nov 18 10:28	0°♎	
max. Earth dist.	4146 Dec 07 22:41	19°♎33'29	1.44359 AU	desc. node	4147 Nov 20 05:12	2°♎56'02	
	4146 Dec 14 13:59	0°☿		max. Earth dist.	4147 Nov 20 12:41	3°♎26'40	1.42944 AU
evening rise	4146 Dec 17 23:32	5°☿15'11		evening rise	4147 Nov 27 12:51	14°♎39'08	
	4147 Jan 03 12:19	0°♏			4147 Dec 07 14:22	0°☿	
greatest brilliancy	4147 Jan 09 12:42	8°♏19'01	-0.5m	greatest brilliancy	4147 Dec 24 09:31	23°☿20'35	-0.4m
evening max el	4147 Jan 15 07:38	15°♏11'51	20°37'13	evening max el	4147 Dec 29 03:59	28°☿45'26	21°49'46
retrograde	4147 Jan 23 11:20	20°♏00'24			4147 Dec 30 10:32	0°♏	
asc. node	4147 Jan 23 08:42	20°♏00'20		retrograde	4148 Jan 07 08:35	4°♏13'30	
evening set	4147 Jan 27 08:32	18°♏33'40		asc. node	4148 Jan 10 05:45	3°♏28'46	
inferior conj	4147 Feb 01 18:29	12°♏22'18	2°45'41	evening set	4148 Jan 11 16:22	2°♏31'21	
minimum elong	4147 Feb 01 16:01	12°♏30'43	2°45'02		4148 Jan 14 04:24	30°R♏	
min. Earth dist.	4147 Feb 02 08:35	11°♏34'01	0.67526 AU	inferior conj	4148 Jan 17 01:44	26°☿10'42	2°08'50
morning rise	4147 Feb 06 23:03	6°♏06'34		minimum elong	4148 Jan 16 23:23	26°☿18'53	2°08'03
direct	4147 Feb 12 11:10	3°♏41'01		min. Earth dist.	4148 Jan 17 03:51	26°☿03'22	0.67948 AU
morning max el	4147 Feb 23 14:43	10°♏20'26	24°15'57	morning rise	4148 Jan 22 06:09	19°☿56'48	
desc. node	4147 Mar 01 07:23	16°♏45'05		direct	4148 Jan 27 03:26	17°☿52'28	
	4147 Mar 11 05:12	0°♐		morning max el	4148 Feb 06 00:32	23°☿43'25	22°46'47
	4147 Mar 30 06:43	0°♑		greatest brilliancy	4148 Feb 10 15:59	28°☿54'06	-0.3m
morning set	4147 Mar 31 09:11	1°♑54'22			4148 Feb 11 13:35	0°♏	
max. Earth dist.	4147 Apr 04 02:59	8°♑31'19	1.37903 AU	desc. node	4148 Feb 16 04:25	5°♏58'08	
					4148 Mar 03 15:07	0°♐	
superior conj	4147 Apr 11 03:24	21°♑34'41	-1°-30'-52	morning set	4148 Mar 11 05:46	12°♐12'10	
minimum elong	4147 Apr 11 08:00	21°♑56'44	1°30'15	max. Earth dist.	4148 Mar 15 22:16	20°♐04'43	1.40088 AU
	4147 Apr 15 11:13	0°♑			4148 Mar 21 14:14	0°♑	
evening rise	4147 Apr 19 23:23	8°♑55'07					
asc. node	4147 Apr 21 08:02	11°♑35'48		superior conj	4148 Mar 23 16:49	3°♑48'29	-1°-53'-17
	4147 May 01 19:09	0°♒		minimum elong	4148 Mar 23 21:20	4°♑09'04	1°52'56
evening max el	4147 May 06 12:30	5°♒43'10	19°04'46	evening rise	4148 Apr 02 13:54	22°♑19'34	
retrograde	4147 May 15 06:40	9°♒59'29			4148 Apr 06 15:47	0°♑	
evening set	4147 May 17 07:34	9°♒46'33		asc. node	4148 Apr 07 05:04	1°♑01'06	
inferior conj	4147 May 25 14:06	5°♒33'21	0°46'35	evening max el	4148 Apr 18 16:48	18°♑11'15	18°26'43
minimum elong	4147 May 25 15:56	5°♒30'11	0°45'56	retrograde	4148 Apr 26 04:46	21°♑53'38	

evening set	4148 Apr 28 11:53	21°♄33'48		evening set	4149 Apr 11 10:03	4°♄02'30	
inferior conj	4148 May 05 23:06	17°♄00'53	2°11'36		4149 Apr 17 06:14	30°♄0'00	
minimum elong	4148 May 06 02:45	16°♄53'31	2°10'34	inferior conj	4149 Apr 18 04:37	29°♄08'11	3°04'43
min. Earth dist.	4148 May 09 09:35	14°♄15'57	0.58403 AU	minimum elong	4149 Apr 18 07:33	29°♄01'18	3°04'10
morning rise	4148 May 13 13:14	11°♄33'22		min. Earth dist.	4149 Apr 21 11:16	26°♄05'27	0.60582 AU
desc. node	4148 May 14 03:34	11°♄15'44		morning rise	4149 Apr 25 01:41	23°♄17'51	
direct	4148 May 19 14:08	9°♄58'28		desc. node	4149 May 01 00:36	21°♄10'15	
morning max el	4148 Jun 02 23:31	17°♄41'15	26°58'12	direct	4149 May 01 17:20	21°♄08'52	
	4148 Jun 13 05:02	0°♄		morning max el	4149 May 16 00:00	29°♄03'13	27°42'59
	4148 Jun 30 14:43	0°♄			4149 May 16 22:27	0°♄	
morning set	4148 Jul 03 00:22	4°♄57'40			4149 Jun 07 02:07	0°♄	
asc. node	4148 Jul 04 04:22	7°♄25'49		morning set	4149 Jun 17 06:23	19°♄29'49	
				asc. node	4149 Jun 21 01:22	27°♄30'53	
superior conj	4148 Jul 10 02:08	20°♄18'47	0°58'29		4149 Jun 22 04:55	0°♄	
minimum elong	4148 Jul 09 23:58	20°♄06'51	0°58'06	max. Earth dist.	4149 Jun 23 11:19	2°♄45'59	1.32091 AU
max. Earth dist.	4148 Jul 10 00:17	20°♄08'36	1.32027 AU				
	4148 Jul 14 12:04	0°♄		superior conj	4149 Jun 24 13:19	5°♄08'38	0°35'59
evening rise	4148 Jul 16 23:29	5°♄17'52		minimum elong	4149 Jun 24 11:47	5°♄00'11	0°35'40
	4148 Jul 30 01:01	0°♄		evening rise	4149 Jul 01 10:00	20°♄06'24	
desc. node	4148 Aug 10 02:51	15°♄52'21			4149 Jul 06 05:35	0°♄	
evening max el	4148 Aug 15 13:50	21°♄46'06	26°34'43		4149 Jul 25 12:13	0°♄	
retrograde	4148 Aug 29 12:45	28°♄56'20		desc. node	4149 Jul 27 23:52	2°♄35'23	
evening set	4148 Sep 05 07:00	27°♄01'19		evening max el	4149 Jul 28 08:26	2°♄56'04	25°21'59
min. Earth dist.	4148 Sep 09 03:35	24°♄26'09	0.59866 AU	retrograde	4149 Aug 11 07:34	10°♄01'03	
inferior conj	4148 Sep 12 09:47	21°♄50'47	-4°-43'-53	evening set	4149 Aug 17 03:12	8°♄42'51	
minimum elong	4148 Sep 12 15:00	21°♄40'21	4°43'01	min. Earth dist.	4149 Aug 21 20:15	6°♄03'05	0.57836 AU
morning rise	4148 Sep 20 02:25	17°♄11'53		inferior conj	4149 Aug 24 22:24	3°♄55'27	-5°-10'-19
direct	4148 Sep 22 10:21	16°♄52'03		minimum elong	4149 Aug 24 23:57	3°♄52'45	5°10'15
morning max el	4148 Sep 30 00:58	20°♄35'04	18°14'09		4149 Aug 31 21:04	30°♄0'00	
asc. node	4148 Sep 30 03:35	20°♄41'27		morning rise	4149 Sep 02 00:12	29°♄39'43	
	4148 Oct 07 03:20	0°♄		direct	4149 Sep 04 12:18	29°♄20'42	
morning set	4148 Oct 15 20:33	15°♄42'37			4149 Sep 08 00:00	0°♄	
	4148 Oct 23 11:12	0°♄		morning max el	4149 Sep 13 04:25	3°♄27'08	18°55'57
superior conj	4148 Oct 25 07:08	3°♄20'47	1°16'35	asc. node	4149 Sep 17 00:37	7°♄50'07	
minimum elong	4148 Oct 25 11:04	3°♄38'35	1°16'09	morning set	4149 Sep 29 17:50	29°♄55'47	
max. Earth dist.	4148 Nov 01 21:41	16°♄42'49	1.41086 AU		4149 Sep 29 18:41	0°♄	
desc. node	4148 Nov 06 02:11	23°♄42'11		superior conj	4149 Oct 08 04:57	16°♄29'02	1°34'31
evening rise	4148 Nov 06 19:26	24°♄52'40		minimum elong	4149 Oct 08 07:33	16°♄41'26	1°34'19
	4148 Nov 09 23:51	0°♄		max. Earth dist.	4149 Oct 15 02:59	29°♄17'05	1.39008 AU
	4148 Nov 30 11:06	0°♄			4149 Oct 15 12:37	0°♄	
greatest brilliancy	4148 Dec 04 11:03	5°♄08'29	-0.2m	evening rise	4149 Oct 19 01:03	6°♄08'51	
evening max el	4148 Dec 10 19:54	12°♄22'19	23°08'41	desc. node	4149 Oct 23 23:12	14°♄22'46	
retrograde	4148 Dec 21 03:14	18°♄28'37			4149 Nov 03 00:52	0°♄	
evening set	4148 Dec 25 23:18	16°♄30'21		evening max el	4149 Nov 23 09:09	26°♄02'44	24°27'59
asc. node	4148 Dec 27 02:48	15°♄26'46			4149 Nov 27 23:04	0°♄	
inferior conj	4148 Dec 31 09:37	10°♄04'16	1°24'42	retrograde	4149 Dec 04 18:06	2°♄41'27	
minimum elong	4148 Dec 31 07:49	10°♄10'29	1°24'00	evening set	4149 Dec 10 03:46	0°♄27'12	
min. Earth dist.	4148 Dec 31 00:38	10°♄35'12	0.68003 AU		4149 Dec 10 16:05	30°♄0'00	
morning rise	4149 Jan 05 16:21	3°♄54'09		asc. node	4149 Dec 13 23:49	26°♄14'07	
direct	4149 Jan 09 23:09	2°♄12'43		min. Earth dist.	4149 Dec 14 20:31	25°♄06'05	0.67702 AU
morning max el	4149 Jan 18 15:09	7°♄15'05	21°22'14	inferior conj	4149 Dec 15 16:18	23°♄59'54	0°34'19
greatest brilliancy	4149 Jan 23 17:05	13°♄02'04	-0.4m	minimum elong	4149 Dec 15 15:29	24°♄02'39	0°33'58
desc. node	4149 Feb 02 01:27	25°♄42'55		morning rise	4149 Dec 21 03:36	17°♄55'49	
	4149 Feb 05 00:21	0°♄		direct	4149 Dec 24 21:04	16°♄36'17	
morning set	4149 Feb 18 21:35	21°♄09'01		morning max el	4150 Jan 01 13:20	20°♄58'20	20°08'33
	4149 Feb 24 09:59	0°♄		greatest brilliancy	4150 Jan 08 07:59	29°♄05'46	-0.6m
max. Earth dist.	4149 Feb 25 23:07	2°♄31'57	1.42160 AU		4150 Jan 09 00:03	0°♄	
superior conj	4149 Mar 05 09:23	15°♄02'36	-2°-6'-23	desc. node	4150 Jan 19 22:28	15°♄50'26	
minimum elong	4149 Mar 05 11:21	15°♄11'06	2°06'21	morning set	4150 Jan 28 18:46	29°♄19'27	
	4149 Mar 13 20:16	0°♄			4150 Jan 29 05:16	0°♄	
evening rise	4149 Mar 16 15:14	5°♄03'33		max. Earth dist.	4150 Feb 08 08:09	15°♄54'20	1.43835 AU
asc. node	4149 Mar 25 02:05	20°♄02'11					
	4149 Apr 01 01:30	0°♄		superior conj	4150 Feb 14 00:45	25°♄07'40	-2°-4'-45
evening max el	4149 Apr 02 02:56	1°♄06'36	18°08'36	minimum elong	4150 Feb 13 21:15	24°♄53'17	2°04'40
retrograde	4149 Apr 08 20:36	4°♄31'44			4150 Feb 16 23:31	0°♄	
				evening rise	4150 Feb 26 23:04	16°♄58'16	

	4150 Mar 06 13:19	0°♿			4151 Feb 09 15:15	0°♿		
asc. node	4150 Mar 11 23:06	8°♿31'18		asc. node	4151 Feb 26 20:08	26°♿18'14		
evening max el	4150 Mar 16 15:32	14°♿20'00	18°09'48	evening max el	4151 Feb 28 03:45	27°♿43'48	18°29'38	
retrograde	4150 Mar 23 01:59	17°♿43'13			4151 Mar 02 20:25	0°♿		
evening set	4150 Mar 25 21:11	17°♿03'12		retrograde	4151 Mar 06 16:18	1°♿18'03		
inferior conj	4150 Apr 01 02:59	11°♿48'25	3°30'42	evening set	4151 Mar 09 17:23	0°♿26'24		
minimum elong	4150 Apr 01 04:14	11°♿45'04	3°30'36		4151 Mar 10 10:26	30°♿		
min. Earth dist.	4150 Apr 03 21:32	8°♿52'10	0.62704 AU	inferior conj	4151 Mar 15 14:04	24°♿52'57	3°35'55	
morning rise	4150 Apr 07 09:00	5°♿44'12		minimum elong	4151 Mar 15 13:40	24°♿54'06	3°35'55	
direct	4150 Apr 14 05:57	3°♿09'18		min. Earth dist.	4151 Mar 17 17:23	22°♿21'52	0.64563 AU	
desc. node	4150 Apr 17 21:38	3°♿48'23		morning rise	4151 Mar 21 08:29	18°♿41'13		
morning max el	4150 Apr 28 06:17	11°♿07'57	27°50'18	direct	4151 Mar 28 02:34	15°♿53'09		
	4150 May 13 02:29	0°♿		desc. node	4151 Apr 04 18:41	18°♿45'00		
	4150 May 30 10:03	0°♿		morning max el	4151 Apr 10 15:50	23°♿47'23	27°21'45	
morning set	4150 Jun 01 06:42	3°♿42'34			4151 Apr 16 05:21	0°♿		
max. Earth dist.	4150 Jun 06 18:25	15°♿08'45	1.32575 AU		4151 May 06 10:48	0°♿		
asc. node	4150 Jun 07 22:23	17°♿39'01		morning set	4151 May 15 22:35	17°♿26'40		
				max. Earth dist.	4151 May 20 17:23	27°♿03'29	1.33497 AU	
superior conj	4150 Jun 08 22:10	19°♿47'37	0°10'22		4151 May 22 03:24	0°♿		
minimum elong	4150 Jun 08 21:40	19°♿44'57	0°10'15					
behind sun begin	4150 Jun 08 17:39	19°♿23'10		superior conj	4151 May 24 02:41	4°♿08'50	0°-17'-36	
behind sun end	4150 Jun 09 01:42	20°♿06'46		minimum elong	4151 May 24 03:36	4°♿13'38	0°17'27	
	4150 Jun 13 14:47	0°♿		asc. node	4151 May 25 19:24	7°♿45'28		
evening rise	4150 Jun 15 21:50	4°♿55'29		evening rise	4151 May 31 09:03	19°♿37'50		
	4150 Jun 29 07:03	0°♿			4151 Jun 05 11:29	0°♿		
evening max el	4150 Jul 09 21:38	13°♿28'42	23°49'23	evening max el	4151 Jun 21 12:26	23°♿52'55	22°12'39	
desc. node	4150 Jul 14 20:52	17°♿29'47		desc. node	4151 Jul 01 17:54	0°♿00'09		
retrograde	4150 Jul 23 14:26	20°♿21'48			4151 Jul 01 17:37	0°♿		
evening set	4150 Jul 27 23:54	19°♿39'17		retrograde	4151 Jul 04 09:37	0°♿16'29		
min. Earth dist.	4150 Aug 03 07:47	16°♿37'19	0.56119 AU	evening set	4151 Jul 07 08:17	29°♿57'15		
inferior conj	4150 Aug 05 14:45	15°♿14'05	-4°-59'-41		4151 Jul 07 02:57	30°♿		
minimum elong	4150 Aug 05 10:15	15°♿20'56	4°59'13	min. Earth dist.	4151 Jul 15 18:19	26°♿19'08	0.55044 AU	
morning rise	4150 Aug 13 23:55	11°♿17'42		inferior conj	4151 Jul 16 14:11	25°♿51'08	-3°-59'-23	
direct	4150 Aug 16 18:48	10°♿58'00		minimum elong	4151 Jul 16 05:42	26°♿03'06	3°57'16	
morning max el	4150 Aug 26 21:18	15°♿39'36	19°59'32	morning rise	4151 Jul 25 05:07	22°♿00'59		
asc. node	4150 Sep 03 21:39	25°♿52'13		direct	4151 Jul 28 08:44	21°♿38'47		
	4150 Sep 06 08:54	0°♿		morning max el	4151 Aug 09 02:23	27°♿07'11	21°23'40	
morning set	4150 Sep 13 21:59	14°♿28'34			4151 Aug 11 21:25	0°♿		
				asc. node	4151 Aug 21 18:41	14°♿35'00		
superior conj	4150 Sep 21 17:02	0°♿19'21	1°43'00	morning set	4151 Aug 29 06:34	29°♿13'55		
minimum elong	4150 Sep 21 17:57	0°♿23'58	1°42'58		4151 Aug 29 15:27	0°♿		
	4150 Sep 21 13:10	0°♿						
max. Earth dist.	4150 Sep 27 08:23	11°♿18'39	1.36965 AU	superior conj	4151 Sep 05 15:08	14°♿39'15	1°43'36	
evening rise	4150 Oct 01 04:43	18°♿25'38		minimum elong	4151 Sep 05 14:35	14°♿36'21	1°43'35	
	4150 Oct 07 20:35	0°♿		max. Earth dist.	4151 Sep 09 19:09	23°♿09'44	1.35172 AU	
desc. node	4150 Oct 10 20:12	4°♿53'27			4151 Sep 13 06:54	0°♿		
	4150 Oct 28 06:28	0°♿		evening rise	4151 Sep 14 02:28	1°♿33'23		
evening max el	4150 Nov 05 21:28	9°♿45'04	25°40'44	desc. node	4151 Sep 27 17:14	25°♿08'56		
retrograde	4150 Nov 18 04:27	16°♿47'17			4151 Sep 30 20:58	0°♿		
evening set	4150 Nov 24 04:06	14°♿18'59		evening max el	4151 Oct 19 09:56	23°♿24'38	26°39'32	
min. Earth dist.	4150 Nov 28 13:12	9°♿33'03	0.67046 AU		4151 Oct 28 20:40	0°♿		
inferior conj	4150 Nov 29 20:01	7°♿54'59	0°-21'-16	retrograde	4151 Nov 01 09:44	0°♿39'51		
minimum elong	4150 Nov 29 20:34	7°♿53'14	0°21'02		4151 Nov 04 17:34	30°♿		
asc. node	4150 Nov 30 20:52	6°♿36'44		evening set	4151 Nov 07 22:25	28°♿01'56		
morning rise	4150 Dec 05 13:56	1°♿59'20		min. Earth dist.	4151 Nov 12 00:27	23°♿52'01	0.66037 AU	
direct	4150 Dec 08 19:44	0°♿58'55		inferior conj	4151 Nov 13 18:50	21°♿46'10	-1°-20'-46	
morning max el	4150 Dec 15 19:25	4°♿52'08	19°09'11	minimum elong	4151 Nov 13 21:04	21°♿39'31	1°19'50	
greatest brilliancy	4150 Dec 26 14:43	19°♿03'42	-0.7m	asc. node	4151 Nov 17 17:55	17°♿31'43		
	4151 Jan 02 18:55	0°♿		morning rise	4151 Nov 19 21:13	16°♿01'33		
desc. node	4151 Jan 06 19:30	6°♿14'20		direct	4151 Nov 22 17:24	15°♿16'29		
morning set	4151 Jan 07 21:26	7°♿55'05		morning max el	4151 Nov 29 07:42	18°♿51'48	18°25'47	
max. Earth dist.	4151 Jan 21 23:28	29°♿55'40	1.44911 AU		4151 Dec 07 19:04	0°♿		
	4151 Jan 22 00:34	0°♿		morning set	4151 Dec 19 01:30	17°♿50'16		
				desc. node	4151 Dec 24 16:32	26°♿49'52		
superior conj	4151 Jan 24 15:42	4°♿09'20	-1°-44'-2		4151 Dec 26 16:24	0°♿		
minimum elong	4151 Jan 24 07:00	3°♿34'52	1°43'19					
evening rise	4151 Feb 08 09:20	27°♿56'53		superior conj	4152 Jan 03 18:21	12°♿44'24	-1°-5'-25	

minimum elong	4152 Jan 03 10:26	12°☿13'19	1°04'28	superior conj	4152 Dec 13 05:02	21°♄47'57	0°-18'-8
max. Earth dist.	4152 Jan 04 17:59	14°☿17'05	1.45272 AU	minimum elong	4152 Dec 13 02:50	21°♄39'07	0°17'51
	4152 Jan 14 18:31	0°♄		max. Earth dist.	4152 Dec 17 13:00	28°♄41'17	1.44896 AU
evening rise	4152 Jan 19 20:25	7°♄59'49			4152 Dec 18 08:58	0°☿	
greatest brilliancy	4152 Feb 01 09:04	27°♄36'17	-0.7m	evening rise	4152 Dec 29 12:27	17°☿20'25	
	4152 Feb 02 23:17	0°♄			4153 Jan 06 19:00	0°♄	
evening max el	4152 Feb 11 13:16	11°♄13'35	19°07'03	greatest brilliancy	4153 Jan 17 22:27	16°♄21'30	-0.6m
asc. node	4152 Feb 13 17:11	13°♄11'10		evening max el	4153 Jan 24 18:18	24°♄45'43	20°00'25
retrograde	4152 Feb 18 11:50	15°♄09'51		asc. node	4153 Jan 30 14:15	28°♄55'11	
evening set	4152 Feb 21 19:37	14°♄05'32		retrograde	4153 Feb 01 09:40	29°♄12'52	
inferior conj	4152 Feb 27 10:17	8°♄15'32	3°25'31	evening set	4153 Feb 05 01:31	27°♄54'43	
minimum elong	4152 Feb 27 08:40	8°♄20'39	3°25'19	inferior conj	4153 Feb 10 12:36	21°♄50'33	3°03'04
min. Earth dist.	4152 Feb 28 22:15	6°♄21'02	0.66047 AU	minimum elong	4153 Feb 10 10:19	21°♄58'14	3°02'34
morning rise	4152 Mar 03 20:46	2°♄00'24		min. Earth dist.	4153 Feb 11 10:19	20°♄37'43	0.67112 AU
	4152 Mar 06 19:25	30°♄		morning rise	4153 Feb 15 18:29	15°♄34'36	
direct	4152 Mar 10 05:58	29°♄12'40		direct	4153 Feb 21 15:02	12°♄58'30	
	4152 Mar 13 22:46	0°♄		morning max el	4153 Mar 05 10:36	20°♄02'11	25°05'47
desc. node	4152 Mar 21 15:45	5°♄26'02		desc. node	4153 Mar 08 12:47	23°♄21'50	
morning max el	4152 Mar 23 01:48	6°♄49'16	26°23'47		4153 Mar 13 23:19	0°♄	
	4152 Apr 10 00:21	0°♄			4153 Apr 03 04:04	0°♄	
	4152 Apr 27 19:40	0°♄		morning set	4153 Apr 10 13:32	12°♄44'10	
morning set	4152 Apr 28 02:27	0°♄31'45		max. Earth dist.	4153 Apr 14 05:53	19°♄27'01	1.36711 AU
max. Earth dist.	4152 May 02 05:07	8°♄25'24	1.34887 AU		4153 Apr 19 18:30	0°♄	
superior conj	4152 May 07 00:37	18°♄05'54	0°-46'-47	superior conj	4153 Apr 20 13:03	1°♄31'04	-1°-15'-30
minimum elong	4152 May 07 03:07	18°♄18'46	0°46'20	minimum elong	4153 Apr 20 17:03	1°♄50'47	1°14'52
asc. node	4152 May 11 16:27	27°♄46'23		evening rise	4153 Apr 28 21:35	18°♄18'12	
	4152 May 12 18:03	0°♄		asc. node	4153 Apr 28 13:31	17°♄37'36	
evening rise	4152 May 14 17:42	4°♄07'32			4153 May 04 21:58	0°♄	
	4152 May 29 10:06	0°♄		evening max el	4153 May 16 01:07	16°♄10'06	19°35'50
evening max el	4152 Jun 02 12:36	4°♄41'21	20°45'34	retrograde	4153 May 25 16:55	20°♄52'06	
retrograde	4152 Jun 13 22:22	10°♄16'09		evening set	4153 May 27 15:53	20°♄41'22	
evening set	4152 Jun 16 00:46	10°♄05'34		desc. node	4153 Jun 04 11:58	17°♄10'57	
desc. node	4152 Jun 17 14:56	9°♄44'15		inferior conj	4153 Jun 05 09:17	16°♄37'28	0°-15'-45
inferior conj	4152 Jun 25 07:31	6°♄08'31	-2°-15'00	minimum elong	4153 Jun 05 08:35	16°♄38'34	0°15'30
minimum elong	4152 Jun 25 01:16	6°♄17'27	2°12'48	transit middle	4153 Jun 05 08:35	16°♄38'34	0°15'30
min. Earth dist.	4152 Jun 26 06:03	5°♄36'21	0.54875 AU	transit begin	4153 Jun 05 07:38	16°♄40'05	
morning rise	4152 Jul 04 00:48	2°♄04'43		transit end	4153 Jun 05 09:32	16°♄37'04	
direct	4152 Jul 07 18:05	1°♄34'55		min. Earth dist.	4153 Jun 07 19:38	15°♄05'35	0.55668 AU
morning max el	4152 Jul 20 21:22	7°♄53'55	23°02'49	morning rise	4153 Jun 13 21:46	12°♄03'34	
	4152 Aug 05 15:17	0°♄		direct	4153 Jun 18 11:30	11°♄16'49	
asc. node	4152 Aug 07 15:44	3°♄48'26		morning max el	4153 Jul 02 11:22	18°♄18'04	24°45'49
morning set	4152 Aug 12 17:36	14°♄06'06			4153 Jul 12 04:16	0°♄	
superior conj	4152 Aug 19 20:01	29°♄18'38	1°37'36	asc. node	4153 Jul 25 12:47	23°♄24'36	
minimum elong	4152 Aug 19 18:23	29°♄09'56	1°37'29	morning set	4153 Jul 28 05:26	29°♄00'27	
	4152 Aug 20 03:45	0°♄			4153 Jul 28 16:40	0°♄	
max. Earth dist.	4152 Aug 22 14:48	5°♄12'33	1.33760 AU	superior conj	4153 Aug 04 05:12	14°♄09'54	1°26'04
evening rise	4152 Aug 27 14:00	15°♄20'27		minimum elong	4153 Aug 04 02:59	13°♄57'50	1°25'48
	4152 Sep 04 10:05	0°♄		max. Earth dist.	4153 Aug 05 19:01	17°♄35'35	1.32766 AU
desc. node	4152 Sep 13 14:15	15°♄01'54		evening rise	4153 Aug 11 11:34	29°♄36'26	
	4152 Sep 24 13:49	0°♄			4153 Aug 11 16:11	0°♄	
evening max el	4152 Sep 30 22:18	6°♄52'13	27°16'55		4153 Aug 28 12:02	0°♄	
retrograde	4152 Oct 14 09:13	14°♄10'34		desc. node	4153 Aug 31 11:16	4°♄23'07	
evening set	4152 Oct 21 08:13	11°♄30'25		evening max el	4153 Sep 13 08:47	19°♄55'36	27°26'13
min. Earth dist.	4152 Oct 25 04:01	7°♄55'52	0.64684 AU	retrograde	4153 Sep 27 02:03	27°♄11'10	
inferior conj	4152 Oct 27 10:25	5°♄27'58	-2°-22'-24	evening set	4153 Oct 04 06:25	24°♄38'50	
minimum elong	4152 Oct 27 14:27	5°♄16'59	2°20'52	min. Earth dist.	4153 Oct 07 21:52	21°♄35'51	0.63010 AU
morning rise	4152 Nov 02 22:47	29°♄57'23		inferior conj	4153 Oct 10 16:04	18°♄54'23	-3°-23'-10
	4152 Nov 02 20:27	30°♄		minimum elong	4153 Oct 10 21:36	18°♄40'52	3°21'24
asc. node	4152 Nov 03 14:59	29°♄41'57		morning rise	4153 Oct 17 15:28	13°♄41'18	
direct	4152 Nov 05 11:51	29°♄23'38		direct	4153 Oct 20 00:08	13°♄15'13	
	4152 Nov 08 03:22	0°♄		asc. node	4153 Oct 21 12:01	13°♄25'56	
morning max el	4152 Nov 11 23:34	2°♄50'18	17°59'07	morning max el	4153 Oct 26 16:06	16°♄41'18	17°50'04
morning set	4152 Nov 29 10:50	29°♄11'45			4153 Nov 05 02:29	0°♄	
	4152 Nov 29 22:21	0°♄		morning set	4153 Nov 11 20:23	11°♄43'15	
desc. node	4152 Dec 10 13:33	17°♄32'29			4153 Nov 22 10:10	0°♄	

superior conj	4153 Nov 23 15:07	2°♂01'18	0°26'22	morning max el	4154 Oct 10 06:12	0°♂16'38	17°59'42
minimum elong	4153 Nov 23 17:41	2°♂12'01	0°26'01	morning set	4154 Oct 25 23:41	25°♂05'03	
desc. node	4153 Nov 27 10:35	8°♂19'00			4154 Oct 28 15:39	0°♂	
max. Earth dist.	4153 Nov 30 05:56	12°♂52'00	1.43831 AU				
evening rise	4153 Dec 08 22:06	26°♂31'54		superior conj	4154 Nov 05 03:48	13°♂32'29	1°01'27
	4153 Dec 11 04:14	0°♂		minimum elong	4154 Nov 05 07:56	13°♂50'39	1°00'56
	4153 Dec 31 19:04	0°♂		max. Earth dist.	4154 Nov 12 18:18	26°♂32'07	1.42198 AU
greatest brilliancy	4154 Jan 02 12:54	2°♂15'45	-0.4m	desc. node	4154 Nov 14 07:35	29°♂05'54	
evening max el	4154 Jan 07 17:53	8°♂18'49	21°06'59		4154 Nov 14 20:48	0°♂	
retrograde	4154 Jan 16 07:33	13°♂23'21		evening rise	4154 Nov 18 17:24	6°♂13'09	
asc. node	4154 Jan 17 11:17	13°♂16'04			4154 Dec 04 10:48	0°♂	
evening set	4154 Jan 20 09:08	11°♂50'05		greatest brilliancy	4154 Dec 16 17:43	16°♂31'52	-0.3m
inferior conj	4154 Jan 25 18:39	5°♂34'32	2°31'00	evening max el	4154 Dec 21 12:07	21°♂53'12	22°22'52
minimum elong	4154 Jan 25 16:10	5°♂43'04	2°30'17	retrograde	4154 Dec 31 03:51	27°♂37'46	
min. Earth dist.	4154 Jan 26 03:30	5°♂03'58	0.67760 AU	asc. node	4155 Jan 04 08:19	26°♂05'07	
	4154 Jan 30 05:43	30°♂		evening set	4155 Jan 04 16:47	25°♂48'32	
morning rise	4154 Jan 30 22:51	29°♂19'36		inferior conj	4155 Jan 10 02:22	19°♂25'00	1°50'56
direct	4154 Feb 05 04:47	27°♂02'37		minimum elong	4155 Jan 10 00:11	19°♂32'33	1°50'10
	4154 Feb 12 01:42	0°♂		min. Earth dist.	4155 Jan 09 23:36	19°♂34'37	0.68014 AU
morning max el	4154 Feb 15 19:14	3°♂21'14	23°37'57	morning rise	4155 Jan 15 07:29	13°♂12'43	
desc. node	4154 Feb 23 09:49	12°♂11'02		direct	4155 Jan 19 22:29	11°♂18'19	
	4154 Mar 08 03:40	0°♂		morning max el	4155 Jan 29 06:47	16°♂47'46	22°09'56
morning set	4154 Mar 23 01:50	23°♂47'42		greatest brilliancy	4155 Feb 02 21:00	21°♂55'59	-0.3m
	4154 Mar 26 16:06	0°♂			4155 Feb 09 02:11	0°♂	
max. Earth dist.	4154 Mar 27 01:24	0°♂40'51	1.38833 AU	desc. node	4155 Feb 10 06:50	1°♂38'33	
					4155 Mar 01 05:40	0°♂	
superior conj	4154 Apr 03 12:12	14°♂14'14	-1°-41'-12	morning set	4155 Mar 03 10:05	3°♂30'18	
minimum elong	4154 Apr 03 16:59	14°♂36'42	1°40'40	max. Earth dist.	4155 Mar 08 23:02	12°♂38'02	1.40998 AU
	4154 Apr 11 16:51	0°♂					
evening rise	4154 Apr 12 17:57	2°♂02'07		superior conj	4155 Mar 16 17:24	26°♂04'05	-2°00'-16
asc. node	4154 Apr 15 10:34	7°♂13'59		minimum elong	4155 Mar 16 21:12	26°♂21'04	2°00'05
evening max el	4154 Apr 29 00:29	28°♂18'12	18°46'03		4155 Mar 18 22:00	0°♂	
	4154 Apr 30 23:46	0°♂		evening rise	4155 Mar 27 03:25	15°♂11'00	
retrograde	4154 May 07 04:12	2°♂18'02		asc. node	4155 Apr 02 07:36	26°♂30'09	
evening set	4154 May 09 07:44	2°♂02'26			4155 Apr 04 08:15	0°♂	
	4154 May 13 21:23	30°♂		evening max el	4155 Apr 12 07:39	10°♂58'54	18°16'32
inferior conj	4154 May 17 05:51	27°♂40'55	1°26'38	retrograde	4155 Apr 19 10:34	14°♂32'24	
minimum elong	4154 May 17 08:51	27°♂35'23	1°25'38	evening set	4155 Apr 21 20:19	14°♂08'52	
min. Earth dist.	4154 May 20 12:13	25°♂17'46	0.57254 AU	inferior conj	4155 Apr 29 00:00	9°♂26'35	2°37'48
desc. node	4154 May 22 09:00	24°♂03'23		minimum elong	4155 Apr 29 03:33	9°♂18'55	2°36'56
morning rise	4154 May 25 05:31	22°♂31'29		min. Earth dist.	4155 May 02 10:05	6°♂31'03	0.59313 AU
direct	4154 May 30 18:19	21°♂16'44		morning rise	4155 May 06 06:45	3°♂47'51	
morning max el	4154 Jun 14 02:46	28°♂47'13	26°17'08	desc. node	4155 May 09 06:01	2°♂29'16	
	4154 Jun 15 07:54	0°♂		direct	4155 May 12 14:45	1°♂58'16	
	4154 Jul 05 18:13	0°♂		morning max el	4155 May 26 23:53	9°♂47'08	27°21'44
asc. node	4154 Jul 12 09:49	13°♂16'01			4155 Jun 11 12:49	0°♂	
morning set	4154 Jul 12 16:22	13°♂50'33		morning set	4155 Jun 27 00:44	28°♂31'10	
					4155 Jun 27 17:41	0°♂	
superior conj	4154 Jul 19 16:33	29°♂05'05	1°09'47	asc. node	4155 Jun 29 06:51	3°♂17'33	
minimum elong	4154 Jul 19 14:14	28°♂52'19	1°09'24	max. Earth dist.	4155 Jul 03 16:27	12°♂53'13	1.32008 AU
max. Earth dist.	4154 Jul 20 04:47	0°♂12'31	1.32183 AU				
	4154 Jul 20 02:31	0°♂		superior conj	4155 Jul 04 04:18	13°♂58'31	0°49'23
evening rise	4154 Jul 26 16:01	14°♂10'42		minimum elong	4155 Jul 04 02:21	13°♂47'45	0°48'59
	4154 Aug 03 17:11	0°♂		evening rise	4155 Jul 11 00:56	28°♂55'48	
desc. node	4154 Aug 18 08:16	22°♂58'33			4155 Jul 11 13:05	0°♂	
	4154 Aug 24 06:38	0°♂			4155 Jul 28 03:41	0°♂	
evening max el	4154 Aug 26 14:31	2°♂20'02	27°02'59	desc. node	4155 Aug 05 05:17	10°♂29'37	
retrograde	4154 Sep 09 11:30	9°♂31'49		evening max el	4155 Aug 08 13:10	13°♂56'30	26°06'51
evening set	4154 Sep 16 12:56	7°♂19'22		retrograde	4155 Aug 22 12:30	21°♂05'15	
min. Earth dist.	4154 Sep 20 04:48	4°♂38'43	0.61064 AU	evening set	4155 Aug 28 22:57	19°♂24'48	
inferior conj	4154 Sep 23 08:29	1°♂56'13	-4°-18'-5	min. Earth dist.	4155 Sep 02 01:52	16°♂50'16	0.58989 AU
minimum elong	4154 Sep 23 14:26	1°♂43'24	4°16'43	inferior conj	4155 Sep 05 08:08	14°♂24'06	-4°-58'-35
	4154 Sep 25 16:24	30°♂		minimum elong	4155 Sep 05 12:12	14°♂16'28	4°58'06
morning rise	4154 Sep 30 19:05	27°♂04'15		morning rise	4155 Sep 13 04:58	9°♂55'31	
direct	4154 Oct 03 02:26	26°♂42'48		direct	4155 Sep 15 14:15	9°♂36'18	
asc. node	4154 Oct 08 09:03	28°♂39'55		morning max el	4155 Sep 23 14:34	13°♂27'35	18°29'21
	4154 Oct 09 23:15	0°♂		asc. node	4155 Sep 25 06:05	15°♂11'05	

	4155 Oct 04 20:47	0°♄		morning max el	4156 Sep 05 13:56	26°♄04'27	19°20'20
morning set	4155 Oct 09 15:33	9°♄02'22			4156 Sep 09 02:51	0°♄	
				asc. node	4156 Sep 11 03:07	2°♄44'18	
superior conj	4155 Oct 18 15:09	26°♄09'56	1°25'27	morning set	4156 Sep 22 16:08	23°♄24'57	
minimum elong	4155 Oct 18 18:36	26°♄25'58	1°25'06		4156 Sep 25 23:00	0°♄	
	4155 Oct 20 17:10	0°♄					
max. Earth dist.	4155 Oct 26 01:10	9°♄28'59	1.40209 AU	superior conj	4156 Sep 30 19:40	9°♄38'07	1°39'10
evening rise	4155 Oct 30 09:27	16°♄51'47		minimum elong	4156 Sep 30 21:34	9°♄47'20	1°39'03
desc. node	4155 Nov 01 04:34	19°♄49'44		max. Earth dist.	4156 Oct 07 05:27	21°♄45'35	1.38117 AU
	4155 Nov 07 13:55	0°♄		evening rise	4156 Oct 11 00:56	28°♄35'22	
	4155 Nov 29 02:30	0°♄			4156 Oct 11 20:19	0°♄	
evening max el	4155 Dec 04 02:25	5°♄30'15	23°42'48	desc. node	4156 Oct 18 01:36	10°♄26'55	
retrograde	4155 Dec 14 21:06	11°♄52'03			4156 Oct 30 23:37	0°♄	
evening set	4155 Dec 19 22:51	9°♄46'42		evening max el	4156 Nov 15 15:05	19°♄12'02	25°00'13
asc. node	4155 Dec 22 05:20	7°♄28'35		retrograde	4156 Nov 27 10:18	26°♄02'34	
inferior conj	4155 Dec 25 09:56	3°♄19'17	1°04'00	evening set	4156 Dec 03 01:47	23°♄42'11	
minimum elong	4155 Dec 25 08:29	3°♄24'11	1°03'26	min. Earth dist.	4156 Dec 07 15:13	18°♄35'36	0.67461 AU
min. Earth dist.	4155 Dec 24 20:16	4°♄05'52	0.67909 AU	asc. node	4156 Dec 08 02:21	17°♄59'07	
	4155 Dec 27 22:54	30°♄		inferior conj	4156 Dec 08 15:36	17°♄15'29	0°11'19
morning rise	4155 Dec 30 18:20	27°♄11'27		minimum elong	4156 Dec 08 15:19	17°♄16'25	0°11'12
direct	4156 Jan 03 19:10	25°♄39'47		transit middle	4156 Dec 08 15:19	17°♄16'25	0°11'12
	4156 Jan 11 14:42	0°♄		transit begin	4156 Dec 08 13:20	17°♄23'00	
morning max el	4156 Jan 12 00:30	0°♄24'12	20°49'21	transit end	4156 Dec 08 17:19	17°♄09'51	
greatest brilliancy	4156 Jan 17 16:53	6°♄59'36	-0.5m	morning rise	4156 Dec 14 05:27	11°♄14'25	
desc. node	4156 Jan 28 03:50	21°♄33'21		direct	4156 Dec 17 17:41	10°♄03'26	
	4156 Feb 02 19:58	0°♄		morning max el	4156 Dec 25 02:06	14°♄12'10	19°41'21
morning set	4156 Feb 10 15:42	12°♄00'01		greatest brilliancy	4157 Jan 01 23:43	23°♄58'22	-0.6m
max. Earth dist.	4156 Feb 19 02:59	25°♄28'04	1.42926 AU		4157 Jan 06 04:24	0°♄	
	4156 Feb 21 21:30	0°♄		desc. node	4157 Jan 14 00:53	11°♄48'26	
				morning set	4157 Jan 19 11:52	20°♄11'08	
					4157 Jan 25 19:32	0°♄	
superior conj	4156 Feb 25 23:31	6°♄48'32	-2°-7'-49	max. Earth dist.	4157 Jan 31 14:25	9°♄06'44	1.44375 AU
minimum elong	4156 Feb 25 23:27	6°♄48'16	2°07'50				
evening rise	4156 Mar 08 21:50	27°♄34'36					
	4156 Mar 10 06:30	0°♄		superior conj	4157 Feb 05 03:53	16°♄24'24	-1°-58'-26
asc. node	4156 Mar 19 04:38	15°♄18'33		minimum elong	4157 Feb 04 21:46	15°♄59'46	1°58'06
evening max el	4156 Mar 25 19:10	24°♄02'24	18°06'49		4157 Feb 13 11:02	0°♄	
retrograde	4156 Apr 01 08:42	27°♄25'13		evening rise	4157 Feb 18 20:51	9°♄05'11	
evening set	4156 Apr 04 00:31	26°♄51'41			4157 Mar 03 13:56	0°♄	
inferior conj	4156 Apr 10 13:12	21°♄48'44	3°18'36	asc. node	4157 Mar 06 01:40	3°♄30'45	
minimum elong	4156 Apr 10 15:28	21°♄43'05	3°18'18	evening max el	4157 Mar 09 07:58	7°♄20'48	18°16'05
min. Earth dist.	4156 Apr 13 15:28	18°♄45'41	0.61501 AU	retrograde	4157 Mar 15 18:13	10°♄46'58	
morning rise	4156 Apr 17 03:28	15°♄51'14		evening set	4157 Mar 18 15:54	10°♄02'08	
direct	4156 Apr 23 22:26	13°♄29'35		inferior conj	4157 Mar 24 17:25	4°♄39'28	3°35'04
desc. node	4156 Apr 25 03:03	13°♄33'43		minimum elong	4157 Mar 24 17:57	4°♄38'00	3°35'04
morning max el	4156 May 08 03:09	21°♄27'42	27°50'39	min. Earth dist.	4157 Mar 27 05:47	1°♄51'50	0.63540 AU
	4156 May 15 13:36	0°♄			4157 Mar 29 01:38	30°♄	
	4156 Jun 03 13:51	0°♄		morning rise	4157 Mar 30 18:04	28°♄31'34	
morning set	4156 Jun 10 04:38	12°♄55'54		direct	4157 Apr 06 14:53	25°♄49'01	
asc. node	4156 Jun 15 03:53	23°♄24'23		desc. node	4157 Apr 12 00:06	27°♄14'10	
max. Earth dist.	4156 Jun 16 02:08	25°♄24'53	1.32241 AU		4157 Apr 16 06:00	0°♄	
				morning max el	4157 Apr 20 10:55	3°♄47'08	27°42'08
superior conj	4156 Jun 17 14:44	28°♄44'23	0°25'29		4157 May 10 02:06	0°♄	
minimum elong	4156 Jun 17 13:35	28°♄38'07	0°25'13	morning set	4157 May 25 01:44	26°♄57'09	
	4156 Jun 18 04:33	0°♄			4157 May 26 14:05	0°♄	
evening rise	4156 Jun 24 12:14	13°♄44'56		max. Earth dist.	4157 May 30 06:01	7°♄35'30	1.32907 AU
	4156 Jul 02 15:49	0°♄					
evening max el	4156 Jul 20 04:50	24°♄47'52	24°44'08	superior conj	4157 Jun 01 22:01	13°♄16'29	0°-1'-16
desc. node	4156 Jul 22 02:18	26°♄30'39		minimum elong	4157 Jun 01 22:05	13°♄16'50	0°01'17
	4156 Jul 27 04:12	0°♄		behind sun begin	4157 Jun 01 16:47	12°♄48'22	
retrograde	4156 Aug 03 02:55	1°♄49'59		behind sun end	4157 Jun 02 03:23	13°♄45'20	
evening set	4156 Aug 08 08:48	0°♄47'55		asc. node	4157 Jun 02 00:56	13°♄32'12	
	4156 Aug 10 04:23	30°♄		evening rise	4157 Jun 09 00:02	28°♄31'38	
min. Earth dist.	4156 Aug 13 16:11	28°♄00'20	0.57043 AU		4157 Jun 09 16:47	0°♄	
inferior conj	4156 Aug 16 12:10	26°♄09'43	-5°-11'-18		4157 Jun 27 01:40	0°♄	
minimum elong	4156 Aug 16 11:16	26°♄11'10	5°11'18	evening max el	4157 Jul 01 17:55	5°♄13'28	23°07'55
morning rise	4156 Aug 24 17:19	22°♄03'10		desc. node	4157 Jul 08 23:20	10°♄28'08	
direct	4156 Aug 27 07:48	21°♄44'12		retrograde	4157 Jul 15 04:28	11°♄56'02	

evening set	4157 Jul 18 22:03	11°♂25'37		inferior conj	4158 Jul 07 15:45	17°♂34'45	-3°-19'-16
min. Earth dist.	4157 Jul 26 03:08	8°♂09'53	0.55563 AU	minimum elong	4158 Jul 07 07:26	17°♂46'21	3°16'45
inferior conj	4157 Jul 27 20:35	7°♂09'33	-4°-40'-30	min. Earth dist.	4158 Jul 07 13:42	17°♂37'36	0.54856 AU
minimum elong	4157 Jul 27 13:46	7°♂19'30	4°39'21	morning rise	4158 Jul 16 08:20	13°♂41'40	
morning rise	4157 Aug 05 08:20	3°♂17'32		direct	4158 Jul 19 17:15	13°♂16'57	
direct	4157 Aug 08 06:42	2°♂57'00		morning max el	4158 Aug 01 02:00	19°♂06'27	22°04'29
morning max el	4157 Aug 19 01:46	7°♂57'53	20°32'56		4158 Aug 09 22:47	0°♂	
asc. node	4157 Aug 29 00:09	21°♂05'06		asc. node	4158 Aug 15 21:14	10°♂02'20	
	4157 Sep 02 21:47	0°♂		morning set	4158 Aug 22 08:22	22°♂53'11	
morning set	4157 Sep 06 22:29	8°♂03'53			4158 Aug 25 17:10	0°♂	
superior conj	4157 Sep 14 12:28	23°♂42'11	1°44'08	superior conj	4158 Aug 29 13:49	8°♂11'25	1°41'47
minimum elong	4157 Sep 14 12:43	23°♂43'29	1°44'07	minimum elong	4158 Aug 29 12:45	8°♂05'49	1°41'45
	4157 Sep 17 15:43	0°♂		max. Earth dist.	4158 Sep 02 03:28	15°♂36'11	1.34529 AU
max. Earth dist.	4157 Sep 19 12:42	3°♂40'15	1.36167 AU	evening rise	4158 Sep 06 17:02	24°♂41'24	
evening rise	4157 Sep 23 12:54	11°♂15'34			4158 Sep 09 12:11	0°♂	
	4157 Oct 04 09:40	0°♂		desc. node	4158 Sep 21 19:39	20°♂58'49	
desc. node	4157 Oct 04 22:38	0°♂51'56			4158 Sep 27 22:15	0°♂	
	4157 Oct 26 07:36	0°♂		evening max el	4158 Oct 11 16:19	16°♂30'42	26°58'21
evening max el	4157 Oct 29 03:40	2°♂54'51	26°07'56	retrograde	4158 Oct 24 21:06	23°♂47'20	
retrograde	4157 Nov 10 18:28	10°♂03'15		evening set	4158 Oct 31 14:47	21°♂07'27	
evening set	4157 Nov 16 23:48	7°♂30'30		min. Earth dist.	4158 Nov 04 14:06	17°♂12'54	0.65514 AU
min. Earth dist.	4157 Nov 21 05:58	2°♂59'38	0.66664 AU	inferior conj	4158 Nov 06 13:32	14°♂57'01	-1°-46'-46
inferior conj	4157 Nov 22 17:31	1°♂09'31	0°-46'-4	minimum elong	4158 Nov 06 16:32	14°♂48'25	1°45'34
minimum elong	4157 Nov 22 18:45	1°♂05'41	0°45'33	asc. node	4158 Nov 11 20:27	9°♂51'34	
	4157 Nov 23 16:09	30°♂		morning rise	4158 Nov 12 20:01	9°♂18'02	
asc. node	4157 Nov 24 23:23	28°♂28'50		direct	4158 Nov 15 12:58	8°♂38'08	
morning rise	4157 Nov 28 14:48	25°♂17'56		morning max el	4158 Nov 22 01:09	12°♂08'16	18°12'19
direct	4157 Dec 01 16:19	24°♂24'22			4158 Dec 04 15:54	0°♂	
morning max el	4157 Dec 08 11:01	28°♂08'36	18°48'38	morning set	4158 Dec 10 16:40	9°♂49'55	
	4157 Dec 10 04:18	0°♂		desc. node	4158 Dec 18 18:57	22°♂56'32	
morning set	4157 Dec 29 23:53	29°♂16'50			4158 Dec 23 05:11	0°♂	
	4157 Dec 30 10:52	0°♂		superior conj	4158 Dec 25 14:49	3°♂47'53	0°-45'-39
desc. node	4157 Dec 31 21:56	2°♂17'43		minimum elong	4158 Dec 25 09:05	3°♂25'15	0°44'55
max. Earth dist.	4158 Jan 14 07:42	23°♂19'30	1.45163 AU	max. Earth dist.	4158 Dec 28 03:19	7°♂46'00	1.45207 AU
superior conj	4158 Jan 15 11:24	25°♂08'21	-1°-29'-26	evening rise	4159 Jan 10 23:09	29°♂21'19	
minimum elong	4158 Jan 15 02:07	24°♂31'53	1°28'31		4159 Jan 11 09:05	0°♂	
	4158 Jan 18 13:29	0°♂		greatest brilliancy	4159 Jan 26 18:48	23°♂34'43	-0.7m
evening rise	4158 Jan 30 21:09	19°♂39'05			4159 Jan 31 10:31	0°♂	
	4158 Feb 06 07:00	0°♂		evening max el	4159 Feb 04 03:05	4°♂18'27	19°27'55
asc. node	4158 Feb 20 22:41	20°♂56'14		asc. node	4159 Feb 07 19:44	7°♂21'32	
evening max el	4158 Feb 20 19:21	20°♂47'49	18°43'32	retrograde	4159 Feb 11 07:57	8°♂26'54	
retrograde	4158 Feb 27 11:04	24°♂29'47		evening set	4159 Feb 14 19:03	7°♂16'41	
evening set	4158 Mar 02 14:59	23°♂32'42		inferior conj	4159 Feb 20 07:53	1°♂20'03	3°17'18
inferior conj	4158 Mar 08 08:46	17°♂51'57	3°33'10	minimum elong	4159 Feb 20 05:55	1°♂26'28	3°16'58
minimum elong	4158 Mar 08 07:48	17°♂54'54	3°33'06		4159 Feb 21 08:21	30°♂	
min. Earth dist.	4158 Mar 10 05:26	15°♂35'40	0.65248 AU	min. Earth dist.	4159 Feb 21 13:30	29°♂43'19	0.66550 AU
morning rise	4158 Mar 13 23:24	11°♂38'41		morning rise	4159 Feb 25 16:02	25°♂04'23	
direct	4158 Mar 20 14:24	8°♂49'19		direct	4159 Mar 03 20:05	22°♂20'47	
desc. node	4158 Mar 29 21:09	12°♂59'07		morning max el	4159 Mar 16 06:27	29°♂44'53	25°52'34
morning max el	4158 Apr 02 20:47	16°♂36'57	27°00'14	desc. node	4159 Mar 16 18:12	0°♂14'54	
	4158 Apr 13 23:10	0°♂			4159 Mar 16 12:24	0°♂	
	4158 May 02 22:11	0°♂			4159 Apr 07 20:30	0°♂	
morning set	4158 May 08 13:01	10°♂25'59		morning set	4159 Apr 21 10:21	23°♂10'01	
max. Earth dist.	4158 May 13 00:33	19°♂16'34	1.34031 AU		4159 Apr 25 01:42	0°♂	
				max. Earth dist.	4159 Apr 25 07:39	0°♂28'32	1.35616 AU
superior conj	4158 May 17 00:05	27°♂28'37	0°-29'-55	superior conj	4159 Apr 30 18:19	11°♂12'32	0°-59'-9
minimum elong	4158 May 17 01:39	27°♂36'50	0°29'36	minimum elong	4159 Apr 30 21:30	11°♂28'37	0°58'35
	4158 May 18 04:55	0°♂		asc. node	4159 May 06 19:01	23°♂34'05	
asc. node	4158 May 19 21:59	3°♂37'00		evening rise	4159 May 08 17:21	27°♂32'03	
evening rise	4158 May 24 10:27	13°♂09'47			4159 May 09 22:26	0°♂	
	4158 Jun 02 01:53	0°♂		evening max el	4159 May 26 17:13	26°♂48'38	20°13'29
evening max el	4158 Jun 13 12:05	15°♂45'11	21°33'52		4159 May 30 17:26	0°♂	
retrograde	4158 Jun 25 19:24	21°♂49'18		retrograde	4159 Jun 06 09:14	2°♂01'04	
desc. node	4158 Jun 25 20:22	21°♂49'17		evening set	4159 Jun 08 08:32	1°♂51'09	
evening set	4158 Jun 28 07:26	21°♂35'04					

desc. node	4159 Jun 12 17:25	0°♄26'41			4160 May 01 19:27	0°♄	
	4159 Jun 13 15:38	30°♄11		evening max el	4160 May 08 10:35	8°♄34'13	19°12'07
inferior conj	4159 Jun 17 10:51	27°♄52'31	-1°-24'-4	retrograde	4160 May 17 10:06	12°♄56'41	
minimum elong	4159 Jun 17 06:54	27°♄58'22	1°22'37	evening set	4160 May 19 10:18	12°♄44'29	
min. Earth dist.	4159 Jun 19 01:55	26°♄54'49	0.55097 AU	inferior conj	4160 May 27 19:46	8°♄34'03	0°31'05
morning rise	4159 Jun 26 03:09	23°♄37'34		minimum elong	4160 May 27 21:02	8°♄31'55	0°30'36
direct	4159 Jun 30 04:07	23°♄02'12		desc. node	4160 May 29 14:26	7°♄22'01	
morning max el	4159 Jul 13 18:10	29°♄40'18	23°47'09	min. Earth dist.	4160 May 30 16:50	6°♄38'23	0.56260 AU
	4159 Jul 14 02:27	0°♄		morning rise	4160 Jun 05 03:31	3°♄44'22	
asc. node	4159 Aug 02 18:17	29°♄26'02		direct	4160 Jun 10 03:01	2°♄46'55	
	4159 Aug 03 01:08	0°♄		morning max el	4160 Jun 24 08:09	10°♄03'06	25°27'07
morning set	4159 Aug 06 19:56	7°♄46'46			4160 Jul 09 10:07	0°♄	
				asc. node	4160 Jul 19 15:19	19°♄08'59	
superior conj	4159 Aug 13 20:48	22°♄56'33	1°33'20	morning set	4160 Jul 21 07:32	22°♄39'24	
minimum elong	4159 Aug 13 18:52	22°♄46'07	1°33'10		4160 Jul 24 17:23	0°♄	
max. Earth dist.	4159 Aug 16 02:56	27°♄47'02	1.33282 AU				
	4159 Aug 17 04:02	0°♄		superior conj	4160 Jul 28 07:06	7°♄49'59	1°19'42
evening rise	4159 Aug 21 09:12	8°♄41'22		minimum elong	4160 Jul 28 04:47	7°♄37'16	1°19'23
	4159 Sep 01 22:43	0°♄		max. Earth dist.	4160 Jul 29 09:38	10°♄15'17	1.32460 AU
desc. node	4159 Sep 08 16:41	10°♄39'42		evening rise	4160 Aug 04 09:58	23°♄05'37	
evening max el	4159 Sep 24 03:56	29°♄48'53	27°24'31		4160 Aug 07 20:10	0°♄	
	4159 Sep 24 08:39	0°♄		desc. node	4160 Aug 25 13:42	29°♄43'18	
retrograde	4159 Oct 07 17:52	7°♄06'50			4160 Aug 25 18:33	0°♄	
evening set	4159 Oct 14 20:06	4°♄28'13		evening max el	4160 Sep 05 12:33	12°♄36'33	27°20'31
min. Earth dist.	4159 Oct 18 13:33	1°♄08'13	0.64013 AU	retrograde	4160 Sep 19 08:01	19°♄51'28	
	4159 Oct 19 16:02	30°♄19		evening set	4160 Sep 26 12:13	17°♄25'52	
inferior conj	4159 Oct 21 01:15	28°♄33'00	-2°-48'-31	min. Earth dist.	4160 Sep 30 02:51	14°♄33'57	0.62199 AU
minimum elong	4159 Oct 21 06:00	28°♄20'39	2°46'50	inferior conj	4160 Oct 03 01:40	11°♄49'54	-3°-47'-40
morning rise	4159 Oct 27 18:16	23°♄09'47		minimum elong	4160 Oct 03 07:35	11°♄36'10	3°45'59
asc. node	4159 Oct 29 17:30	22°♄40'57		morning rise	4160 Oct 10 05:54	6°♄45'35	
direct	4159 Oct 30 05:05	22°♄39'46		direct	4160 Oct 12 13:27	6°♄21'59	
morning max el	4159 Nov 05 17:45	26°♄05'00	17°53'05	asc. node	4160 Oct 15 14:33	7°♄04'10	
	4159 Nov 09 01:49	0°♄		morning max el	4160 Oct 19 09:41	9°♄50'36	17°51'49
morning set	4159 Nov 22 13:06	21°♄43'40			4160 Nov 01 16:47	0°♄	
	4159 Nov 27 09:43	0°♄		morning set	4160 Nov 04 06:57	4°♄38'39	
superior conj	4159 Dec 05 10:24	13°♄18'49	0°01'37	superior conj	4160 Nov 15 08:02	24°♄06'15	0°42'34
minimum elong	4159 Dec 05 10:35	13°♄19'36	0°01'36	minimum elong	4160 Nov 15 11:38	24°♄21'35	0°42'05
behind sun begin	4159 Dec 05 00:39	12°♄39'08			4160 Nov 18 19:55	0°♄	
behind sun end	4159 Dec 05 20:31	14°♄00'00		desc. node	4160 Nov 21 12:57	4°♄28'36	
desc. node	4159 Dec 05 15:59	13°♄41'32		max. Earth dist.	4160 Nov 22 12:25	6°♄04'21	1.43190 AU
max. Earth dist.	4159 Dec 10 21:45	22°♄06'42	1.44518 AU	evening rise	4160 Nov 29 22:25	17°♄52'55	
	4159 Dec 15 21:59	0°♄			4160 Dec 07 20:37	0°♄	
evening rise	4159 Dec 21 10:33	8°♄33'24		greatest brilliancy	4160 Dec 26 06:46	25°♄52'57	-0.4m
	4160 Jan 04 16:04	0°♄			4160 Dec 29 19:03	0°♄	
greatest brilliancy	4160 Jan 12 05:07	10°♄37'25	-0.5m	evening max el	4160 Dec 31 02:56	1°♄24'14	21°38'26
evening max el	4160 Jan 18 05:46	17°♄50'50	20°27'16	retrograde	4161 Jan 09 03:37	6°♄46'08	
asc. node	4160 Jan 25 16:46	22°♄32'08		asc. node	4161 Jan 11 13:48	6°♄14'21	
retrograde	4160 Jan 26 06:11	22°♄33'50		evening set	4161 Jan 13 09:42	5°♄06'24	
evening set	4160 Jan 30 01:54	21°♄09'25			4161 Jan 17 21:56	30°♄18	
inferior conj	4160 Feb 04 12:05	14°♄59'48	2°50'32	inferior conj	4161 Jan 18 19:04	28°♄47'01	2°14'53
minimum elong	4160 Feb 04 09:39	15°♄08'04	2°49'56	minimum elong	4161 Jan 18 16:40	28°♄55'21	2°14'08
min. Earth dist.	4160 Feb 05 04:07	14°♄05'06	0.67432 AU	min. Earth dist.	4161 Jan 18 22:56	28°♄33'37	0.67915 AU
morning rise	4160 Feb 09 16:53	8°♄43'50		morning rise	4161 Jan 23 23:21	22°♄32'45	
direct	4160 Feb 15 07:12	6°♄15'20		direct	4161 Jan 28 22:54	20°♄24'57	
morning max el	4160 Feb 26 15:07	13°♄01'39	24°29'01	morning max el	4161 Feb 08 00:26	26°♄23'07	22°59'52
desc. node	4160 Mar 02 15:12	18°♄35'50			4161 Feb 11 08:13	0°♄	
	4160 Mar 11 08:13	0°♄		greatest brilliancy	4161 Feb 12 19:36	1°♄44'40	-0.3m
	4160 Mar 30 16:04	0°♄		desc. node	4161 Feb 17 12:12	7°♄42'47	
morning set	4160 Apr 02 12:30	4°♄55'18			4161 Mar 04 22:12	0°♄	
max. Earth dist.	4160 Apr 06 05:15	11°♄30'44	1.37590 AU	morning set	4161 Mar 14 13:17	15°♄25'10	
				max. Earth dist.	4161 Mar 19 00:08	22°♄57'16	1.39766 AU
superior conj	4160 Apr 13 01:32	24°♄20'41	-1°-26'-57		4161 Mar 23 00:37	0°♄	
minimum elong	4160 Apr 13 06:01	24°♄42'18	1°26'21				
	4160 Apr 15 23:04	0°♄		superior conj	4161 Mar 26 17:38	6°♄42'34	-1°-50'-22
evening rise	4160 Apr 21 18:23	11°♄32'04		minimum elong	4161 Mar 26 22:18	7°♄03'58	1°49'59
asc. node	4160 Apr 22 16:03	13°♄19'25		evening rise	4161 Apr 05 10:31	25°♄01'49	

	4161 Apr 08 01:13	0°♄				4162 Mar 15 06:23	0°♅		
asc. node	4161 Apr 09 13:06	2°♄47'55			evening rise	4162 Mar 19 14:04	7°♅52'22		
evening max el	4161 Apr 21 13:47	20°♄57'51	18°31'06		asc. node	4162 Mar 27 10:08	21°♅53'09		
retrograde	4161 Apr 29 05:22	24°♄44'04				4162 Apr 01 16:42	0°♄		
evening set	4161 May 01 11:35	24°♄25'24			evening max el	4162 Apr 04 23:15	3°♄49'37	18°10'03	
inferior conj	4161 May 09 01:34	19°♄55'31	2°00'47		retrograde	4162 Apr 11 18:55	7°♄16'27		
minimum elong	4161 May 09 05:08	19°♄48'29	1°59'44		evening set	4162 Apr 14 07:28	6°♄48'41		
min. Earth dist.	4161 May 12 11:30	17°♄15'32	0.58095 AU		inferior conj	4162 Apr 21 04:15	1°♄57'24	2°58'30	
desc. node	4161 May 16 11:26	14°♄41'10			minimum elong	4162 Apr 21 07:23	1°♄50'11	2°57'53	
morning rise	4161 May 16 18:14	14°♄32'32				4162 Apr 23 07:14	30°♅♂		
direct	4161 May 22 16:18	13°♄02'53			min. Earth dist.	4162 Apr 24 12:03	28°♅55'50	0.60251 AU	
morning max el	4161 Jun 06 01:29	20°♄42'40	26°48'32		morning rise	4162 Apr 28 03:47	26°♅09'49		
	4161 Jun 14 01:56	0°♂			desc. node	4162 May 03 08:27	24°♅11'14		
	4161 Jul 02 02:28	0°♄			direct	4162 May 04 17:43	24°♅05'48		
morning set	4161 Jul 05 17:34	7°♄26'18				4162 May 16 22:24	0°♄		
asc. node	4161 Jul 06 12:20	9°♄05'30			morning max el	4162 May 19 01:07	1°♄58'43	27°38'43	
						4162 Jun 08 09:44	0°♂		
superior conj	4161 Jul 12 18:51	22°♄45'38	1°01'37		morning set	4162 Jun 20 00:16	22°♂00'52		
minimum elong	4161 Jul 12 16:38	22°♄33'23	1°01'12		asc. node	4162 Jun 23 09:22	29°♂09'53		
max. Earth dist.	4161 Jul 12 20:34	22°♄55'03	1.32055 AU			4162 Jun 23 18:40	0°♄		
	4161 Jul 16 01:51	0°♂			max. Earth dist.	4162 Jun 26 07:59	5°♄34'13	1.32059 AU	
evening rise	4161 Jul 19 16:37	7°♂45'59							
	4161 Jul 31 07:19	0°♅			superior conj	4162 Jun 27 06:14	7°♄36'31	0°39'38	
desc. node	4161 Aug 12 10:43	17°♅54'31			minimum elong	4162 Jun 27 04:34	7°♄27'23	0°39'17	
evening max el	4161 Aug 18 15:42	24°♅42'24	26°43'06		evening rise	4162 Jul 04 02:48	22°♄33'55		
	4161 Aug 25 17:39	0°♄				4162 Jul 07 16:51	0°♂		
retrograde	4161 Sep 01 14:11	1°♄52'47				4162 Jul 26 00:23	0°♅		
evening set	4161 Sep 08 10:39	29°♅53'01			desc. node	4162 Jul 30 07:45	4°♅51'01		
	4161 Sep 08 05:41	30°♅♂			evening max el	4162 Jul 31 11:20	5°♅58'58	25°34'19	
min. Earth dist.	4161 Sep 12 05:40	27°♅16'55	0.60177 AU		retrograde	4162 Aug 14 10:29	13°♅04'49		
inferior conj	4161 Sep 15 11:26	24°♅39'14	-4°-37'-46		evening set	4162 Aug 20 10:30	11°♅40'42		
minimum elong	4161 Sep 15 16:56	24°♅28'01	4°36'44		min. Earth dist.	4162 Aug 24 23:17	9°♅02'58	0.58131 AU	
morning rise	4161 Sep 23 02:32	19°♅56'44			inferior conj	4162 Aug 28 02:58	6°♅50'00	-5°-8'-18	
direct	4161 Sep 25 10:13	19°♅36'32			minimum elong	4162 Aug 28 05:17	6°♅45'55	5°08'11	
asc. node	4161 Oct 02 11:33	22°♅52'58			morning rise	4162 Sep 05 03:33	2°♅31'01		
morning max el	4161 Oct 02 21:44	23°♅16'57	18°09'45		direct	4162 Sep 07 14:54	2°♅11'57		
	4161 Oct 08 06:21	0°♄			morning max el	4162 Sep 16 02:32	6°♅13'56	18°48'24	
morning set	4161 Oct 18 16:14	18°♄17'47			asc. node	4162 Sep 19 08:35	9°♅52'01		
	4161 Oct 24 22:24	0°♅				4162 Oct 01 06:03	0°♄		
					morning set	4162 Oct 02 12:13	2°♄27'03		
superior conj	4161 Oct 28 07:03	6°♅07'40	1°12'57						
minimum elong	4161 Oct 28 11:05	6°♅25'49	1°12'29		superior conj	4162 Oct 11 02:19	19°♄08'18	1°32'26	
max. Earth dist.	4161 Nov 04 22:21	19°♅27'03	1.41386 AU		minimum elong	4162 Oct 11 05:10	19°♄21'46	1°32'12	
desc. node	4161 Nov 08 09:59	25°♅15'03				4162 Oct 16 23:30	0°♅		
evening rise	4161 Nov 10 01:51	27°♅57'28			max. Earth dist.	4162 Oct 18 04:06	2°♅07'30	1.39319 AU	
	4161 Nov 11 08:17	0°♄			evening rise	4162 Oct 22 03:57	9°♅03'41		
	4161 Dec 01 12:32	0°♄			desc. node	4162 Oct 26 07:02	15°♅56'41		
greatest brilliancy	4161 Dec 08 09:38	8°♄56'01	-0.2m			4162 Nov 04 06:42	0°♄		
evening max el	4161 Dec 13 19:26	15°♄00'28	22°56'44		evening max el	4162 Nov 26 08:54	28°♄40'11	24°16'27	
retrograde	4161 Dec 23 22:38	21°♄01'00				4162 Nov 27 18:16	0°♄		
evening set	4161 Dec 28 16:51	19°♄05'04			retrograde	4162 Dec 07 14:12	5°♄14'44		
asc. node	4161 Dec 29 10:49	18°♄25'06			evening set	4162 Dec 12 21:50	3°♄02'39		
inferior conj	4162 Jan 03 02:57	12°♄39'37	1°31'47			4162 Dec 15 19:23	30°♅♂		
minimum elong	4162 Jan 03 01:02	12°♄46'14	1°31'05		asc. node	4162 Dec 16 07:50	29°♄21'03		
min. Earth dist.	4162 Jan 02 19:35	13°♄05'06	0.68022 AU		min. Earth dist.	4162 Dec 17 15:43	27°♄36'31	0.67765 AU	
morning rise	4162 Jan 08 09:12	6°♄28'56			inferior conj	4162 Dec 18 09:57	26°♄35'12	0°42'20	
direct	4162 Jan 12 18:08	4°♄44'05			minimum elong	4162 Dec 18 08:57	26°♄38'33	0°41'55	
morning max el	4162 Jan 21 14:07	9°♄52'59	21°34'14		morning rise	4162 Dec 23 20:26	20°♄30'12		
greatest brilliancy	4162 Jan 26 12:00	15°♄26'36	-0.4m		direct	4162 Dec 27 15:46	19°♄07'38		
desc. node	4162 Feb 04 09:14	27°♄23'07			morning max el	4163 Jan 04 11:12	23°♄35'02	20°18'45	
	4162 Feb 06 05:01	0°♅				4163 Jan 09 23:15	0°♄		
morning set	4162 Feb 22 09:10	24°♅32'56			greatest brilliancy	4163 Jan 10 22:04	1°♄14'40	-0.5m	
	4162 Feb 25 18:43	0°♄			desc. node	4163 Jan 22 06:16	17°♄27'47		
max. Earth dist.	4162 Mar 01 00:13	5°♄17'08	1.41872 AU			4163 Jan 30 12:38	0°♅		
					morning set	4163 Feb 01 07:56	2°♅46'56		
superior conj	4162 Mar 08 13:37	18°♄06'11	-2°-5'-13		max. Earth dist.	4163 Feb 11 08:15	18°♅32'51	1.43618 AU	
minimum elong	4162 Mar 08 16:11	18°♄17'18	2°05'09						

superior conj	4163 Feb 17 08:56	28° \approx 21'54	-2°-6'-11	morning set	4164 Jan 11 08:09	11° \approx 14'09	
minimum elong	4163 Feb 17 06:22	28° \approx 11'20	2°06'07		4164 Jan 23 08:49	0° \approx	
	4163 Feb 18 08:37	0° \approx		max. Earth dist.	4164 Jan 24 22:30	2° \approx 28'26	1.44791 AU
evening rise	4163 Mar 02 00:51	19° \approx 55'24					
	4163 Mar 07 20:13	0° \approx		superior conj	4164 Jan 28 03:07	7° \approx 31'46	-1°-48'-27
asc. node	4163 Mar 14 07:10	10° \approx 27'50		minimum elong	4164 Jan 27 18:55	6° \approx 59'13	1°47'50
evening max el	4163 Mar 19 11:41	17° \approx 00'51	18°08'24		4164 Feb 10 23:25	0° \approx	
retrograde	4163 Mar 25 22:40	20° \approx 23'38		evening rise	4164 Feb 11 14:34	1° \approx 02'39	
evening set	4163 Mar 28 16:58	19° \approx 45'23		asc. node	4164 Feb 29 04:13	28° \approx 21'57	
inferior conj	4163 Apr 04 00:25	14° \approx 33'31	3°28'12		4164 Mar 01 15:00	0° \approx	
minimum elong	4163 Apr 04 01:57	14° \approx 29'30	3°28'03	evening max el	4164 Mar 02 00:08	0° \approx 23'32	18°25'31
min. Earth dist.	4163 Apr 06 21:03	11° \approx 34'53	0.62399 AU	retrograde	4164 Mar 08 11:53	3° \approx 55'25	
morning rise	4163 Apr 10 08:29	8° \approx 30'43		evening set	4164 Mar 11 12:01	3° \approx 05'37	
direct	4163 Apr 17 05:07	5° \approx 58'57			4164 Mar 15 06:05	30° \approx	
desc. node	4163 Apr 20 05:29	6° \approx 25'34		inferior conj	4164 Mar 17 09:52	27° \approx 34'57	3°36'12
morning max el	4163 May 01 06:50	13° \approx 57'49	27°51'33	minimum elong	4164 Mar 17 09:42	27° \approx 35'25	3°36'12
	4163 May 14 04:42	0° \approx		min. Earth dist.	4164 Mar 19 15:35	24° \approx 59'02	0.64311 AU
	4163 May 31 21:36	0° \approx		morning rise	4164 Mar 23 05:47	21° \approx 23'58	
morning set	4163 Jun 04 01:36	6° \approx 16'57		direct	4164 Mar 30 00:45	18° \approx 36'48	
max. Earth dist.	4163 Jun 09 15:55	17° \approx 59'43	1.32477 AU	desc. node	4164 Apr 06 02:31	21° \approx 03'18	
asc. node	4163 Jun 10 06:26	19° \approx 17'54		morning max el	4164 Apr 12 16:03	26° \approx 32'42	27°27'58
					4164 Apr 15 21:23	0° \approx	
superior conj	4163 Jun 11 15:33	22° \approx 17'20	0°14'26		4164 May 06 19:06	0° \approx	
minimum elong	4163 Jun 11 14:53	22° \approx 13'39	0°14'17	morning set	4164 May 17 18:58	20° \approx 06'00	
behind sun begin	4163 Jun 11 12:35	22° \approx 01'07		max. Earth dist.	4164 May 22 16:13	29° \approx 58'35	1.33329 AU
behind sun end	4163 Jun 11 17:11	22° \approx 26'11			4164 May 22 16:30	0° \approx	
	4163 Jun 15 04:25	0° \approx					
evening rise	4163 Jun 18 14:34	7° \approx 23'03		superior conj	4164 May 25 20:53	6° \approx 41'42	0°-13'-16
	4163 Jun 30 10:23	0° \approx		minimum elong	4164 May 25 21:34	6° \approx 45'18	0°13'08
evening max el	4163 Jul 13 00:53	16° \approx 35'07	24°03'45	behind sun begin	4164 May 25 18:26	6° \approx 28'42	
desc. node	4163 Jul 17 04:46	20° \approx 03'48		behind sun end	4164 May 26 00:41	7° \approx 01'55	
retrograde	4163 Jul 26 19:26	23° \approx 31'16		asc. node	4164 May 27 03:30	9° \approx 25'03	
evening set	4163 Jul 31 10:23	22° \approx 043'55		evening rise	4164 Jun 02 02:00	22° \approx 06'45	
min. Earth dist.	4163 Aug 06 11:22	19° \approx 046'06	0.56341 AU		4164 Jun 05 21:59	0° \approx	
inferior conj	4163 Aug 08 22:16	18° \approx 15'19	-5°-4'-19	evening max el	4164 Jun 23 15:00	26° \approx 58'53	22°26'45
minimum elong	4163 Aug 08 18:42	18° \approx 20'51	5°04'02		4164 Jun 27 04:15	0° \approx	
morning rise	4163 Aug 17 06:29	14° \approx 16'45		desc. node	4164 Jul 03 01:46	2° \approx 58'12	
direct	4163 Aug 20 00:08	13° \approx 57'19		retrograde	4164 Jul 06 16:21	3° \approx 28'13	
morning max el	4163 Aug 29 21:11	18° \approx 32'54	19°48'43	evening set	4164 Jul 09 19:25	3° \approx 06'39	
asc. node	4163 Sep 06 05:38	27° \approx 046'50			4164 Jul 17 04:02	30° \approx	
	4163 Sep 07 14:50	0° \approx		min. Earth dist.	4164 Jul 17 22:03	29° \approx 34'46	0.55148 AU
morning set	4163 Sep 16 15:30	16° \approx 57'09		inferior conj	4164 Jul 18 23:49	28° \approx 58'13	-4°-11'-53
	4163 Sep 23 01:54	0° \approx		minimum elong	4164 Jul 18 15:34	29° \approx 09'56	4°09'58
				morning rise	4164 Jul 27 13:58	25° \approx 08'08	
superior conj	4163 Sep 24 12:34	2° \approx 53'12	1°42'15	direct	4164 Jul 30 16:02	24° \approx 46'30	
minimum elong	4163 Sep 24 13:44	2° \approx 59'02	1°42'12	morning max el	4164 Aug 11 04:03	0° \approx 07'48	21°09'58
max. Earth dist.	4163 Sep 30 08:54	14° \approx 11'39	1.37254 AU		4164 Aug 11 00:40	0° \approx	
evening rise	4163 Oct 04 04:31	21° \approx 11'52		asc. node	4164 Aug 23 02:43	16° \approx 24'41	
	4163 Oct 09 05:49	0° \approx			4164 Aug 30 03:55	0° \approx	
desc. node	4163 Oct 13 04:05	6° \approx 29'14		morning set	4164 Aug 30 23:36	1° \approx 41'25	
	4163 Oct 29 05:32	0° \approx					
evening max el	4163 Nov 08 21:12	12° \approx 22'07	25°30'40	superior conj	4164 Sep 07 09:25	17° \approx 09'48	1°43'57
retrograde	4163 Nov 21 01:22	19° \approx 22'01		minimum elong	4164 Sep 07 09:04	17° \approx 07'57	1°43'57
evening set	4163 Nov 26 22:55	16° \approx 55'34		max. Earth dist.	4164 Sep 11 18:34	26° \approx 02'59	1.35417 AU
min. Earth dist.	4163 Dec 01 09:04	12° \approx 04'19	0.67159 AU		4164 Sep 13 18:54	0° \approx	
inferior conj	4163 Dec 02 14:15	10° \approx 30'39	0°-12'-30	evening rise	4164 Sep 15 23:55	4° \approx 13'24	
minimum elong	4163 Dec 02 14:34	10° \approx 29'37	0°12'23	desc. node	4164 Sep 29 01:06	26° \approx 47'41	
transit middle	4163 Dec 02 14:34	10° \approx 29'37	0°12'23		4164 Oct 01 02:30	0° \approx	
transit begin	4163 Dec 02 12:46	10° \approx 35'24		evening max el	4164 Oct 21 09:43	26° \approx 03'03	26°31'59
transit end	4163 Dec 02 16:22	10° \approx 23'50			4164 Oct 26 01:16	0° \approx	
asc. node	4163 Dec 03 04:53	9° \approx 43'51		retrograde	4164 Nov 03 07:30	3° \approx 17'00	
morning rise	4163 Dec 08 07:03	4° \approx 33'33		evening set	4164 Nov 09 18:15	0° \approx 40'18	
direct	4163 Dec 11 14:24	3° \approx 30'36			4164 Nov 10 12:50	30° \approx	
morning max el	4163 Dec 18 16:12	7° \approx 27'36	19°17'04	min. Earth dist.	4164 Nov 13 21:21	26° \approx 24'51	0.66209 AU
greatest brilliancy	4163 Dec 28 05:39	19° \approx 44'59	-0.7m	inferior conj	4164 Nov 15 13:55	24° \approx 22'54	-1°-11'-31
	4164 Jan 04 01:24	0° \approx		minimum elong	4164 Nov 15 15:53	24° \approx 16'59	1°10'43
desc. node	4164 Jan 09 03:19	7° \approx 49'33		asc. node	4164 Nov 19 01:55	20° \approx 30'42	

morning rise	4164 Nov 21 14:55	18° \mathbb{M} 36'19		morning max el	4165 Nov 14 19:07	5° \mathbb{M} 25'39	18°01'56
direct	4164 Nov 24 12:24	17° \mathbb{M} 49'11			4165 Dec 01 06:50	0° \mathbb{M}	
morning max el	4164 Dec 01 03:40	21° \mathbb{M} 26'40	18°31'09	morning set	4165 Dec 02 12:55	2° \mathbb{M} 05'16	
	4164 Dec 07 22:00	0° \mathbb{M}		desc. node	4165 Dec 12 21:23	19° \mathbb{M} 05'28	
morning set	4164 Dec 21 07:46	20° \mathbb{M} 55'45					
desc. node	4164 Dec 26 00:22	28° \mathbb{M} 23'38		superior conj	4165 Dec 16 14:30	25° \mathbb{M} 02'54	0°-25'-21
	4164 Dec 27 00:41	0° \mathbb{M}		minimum elong	4165 Dec 16 11:22	24° \mathbb{M} 50'24	0°24'55
					4165 Dec 19 17:23	0° \mathbb{M}	
superior conj	4165 Jan 06 06:21	16° \mathbb{M} 07'18	-1°-12'-6	max. Earth dist.	4165 Dec 20 11:51	1° \mathbb{M} 12'53	1.45001 AU
minimum elong	4165 Jan 05 21:52	15° \mathbb{M} 33'59	1°11'08	evening rise	4166 Jan 01 23:10	20° \mathbb{M} 38'20	
max. Earth dist.	4165 Jan 06 16:36	16° \mathbb{M} 47'27	1.45268 AU		4166 Jan 08 01:17	0° \mathbb{M}	
	4165 Jan 15 02:33	0° \mathbb{M}		greatest brilliancy	4166 Jan 20 12:11	18° \mathbb{M} 30'42	-0.6m
evening rise	4165 Jan 22 04:57	11° \mathbb{M} 13'01		evening max el	4166 Jan 27 16:00	27° \mathbb{M} 24'57	19°51'35
	4165 Feb 03 03:04	0° \mathbb{M}			4166 Jan 30 14:04	0° \mathbb{M}	
evening max el	4165 Feb 13 10:13	13° \mathbb{M} 52'48	19°00'25	asc. node	4166 Feb 01 22:15	1° \mathbb{M} 19'31	
asc. node	4165 Feb 15 01:14	15° \mathbb{M} 23'51		retrograde	4166 Feb 04 04:22	1° \mathbb{M} 46'53	
retrograde	4165 Feb 20 06:46	17° \mathbb{M} 44'56		evening set	4166 Feb 07 19:00	0° \mathbb{M} 30'45	
evening set	4165 Feb 23 13:30	16° \mathbb{M} 42'34			4166 Feb 08 11:03	30° \mathbb{M}	
inferior conj	4165 Mar 01 04:54	10° \mathbb{M} 55'00	3°27'54	inferior conj	4166 Feb 13 06:27	24° \mathbb{M} 28'31	3°07'07
minimum elong	4165 Mar 01 03:26	10° \mathbb{M} 59'35	3°27'44	minimum elong	4166 Feb 13 04:14	24° \mathbb{M} 35'56	3°06'41
min. Earth dist.	4165 Mar 02 19:07	8° \mathbb{M} 54'33	0.65856 AU	min. Earth dist.	4166 Feb 14 06:10	23° \mathbb{M} 09'30	0.66978 AU
morning rise	4165 Mar 06 16:21	4° \mathbb{M} 40'16		morning rise	4166 Feb 18 12:50	18° \mathbb{M} 12'42	
direct	4165 Mar 13 03:15	1° \mathbb{M} 51'37		direct	4166 Feb 24 11:25	15° \mathbb{M} 34'24	
desc. node	4165 Mar 23 23:34	7° \mathbb{M} 30'28		morning max el	4166 Mar 08 10:56	22° \mathbb{M} 43'34	25°18'23
morning max el	4165 Mar 26 01:58	9° \mathbb{M} 31'35	26°33'55	desc. node	4166 Mar 10 20:36	25° \mathbb{M} 16'46	
	4165 Apr 11 04:35	0° \mathbb{M}			4166 Mar 14 20:46	0° \mathbb{M}	
	4165 Apr 29 06:35	0° \mathbb{M}			4166 Apr 04 12:10	0° \mathbb{M}	
morning set	4165 May 01 00:55	3° \mathbb{M} 17'48		morning set	4166 Apr 13 14:52	15° \mathbb{M} 39'28	
max. Earth dist.	4165 May 05 05:38	11° \mathbb{M} 24'53	1.34649 AU	max. Earth dist.	4166 Apr 17 08:01	22° \mathbb{M} 29'19	1.36415 AU
					4166 Apr 21 06:20	0° \mathbb{M}	
superior conj	4165 May 09 19:59	20° \mathbb{M} 43'10	0°-42'-21				
minimum elong	4165 May 09 22:15	20° \mathbb{M} 54'50	0°41'55	superior conj	4166 Apr 23 10:04	4° \mathbb{M} 14'11	-1°-11'-15
asc. node	4165 May 14 00:33	29° \mathbb{M} 27'17		minimum elong	4166 Apr 23 13:52	4° \mathbb{M} 33'04	1°10'38
	4165 May 14 06:47	0° \mathbb{M}		asc. node	4166 Apr 30 21:34	19° \mathbb{M} 20'36	
evening rise	4165 May 17 11:10	6° \mathbb{M} 38'58		evening rise	4166 May 01 15:56	20° \mathbb{M} 53'33	
	4165 May 30 06:06	0° \mathbb{M}			4166 May 06 06:41	0° \mathbb{M}	
evening max el	4165 Jun 05 13:32	7° \mathbb{M} 42'45	20°57'35	evening max el	4166 May 19 00:10	19° \mathbb{M} 05'23	19°44'57
retrograde	4165 Jun 17 05:09	13° \mathbb{M} 25'14		retrograde	4166 May 28 22:03	23° \mathbb{M} 54'57	
evening set	4165 Jun 19 09:27	13° \mathbb{M} 14'02		evening set	4166 May 30 20:50	23° \mathbb{M} 44'34	
desc. node	4165 Jun 19 22:48	13° \mathbb{M} 07'44		desc. node	4166 Jun 06 19:49	20° \mathbb{M} 50'45	
inferior conj	4165 Jun 28 17:09	9° \mathbb{M} 16'51	-2°-32'-40	inferior conj	4166 Jun 08 16:48	19° \mathbb{M} 42'20	0°-33'-20
minimum elong	4165 Jun 28 10:11	9° \mathbb{M} 26'42	2°30'18	minimum elong	4166 Jun 08 15:17	19° \mathbb{M} 44'41	0°32'47
min. Earth dist.	4165 Jun 29 09:28	8° \mathbb{M} 53'45	0.54837 AU	min. Earth dist.	4166 Jun 10 22:35	18° \mathbb{M} 19'15	0.55495 AU
morning rise	4165 Jul 07 10:25	5° \mathbb{M} 16'28		morning rise	4166 Jun 17 06:34	15° \mathbb{M} 13'47	
direct	4165 Jul 11 01:24	4° \mathbb{M} 48'10		direct	4166 Jun 21 16:54	14° \mathbb{M} 30'22	
morning max el	4165 Jul 24 00:12	10° \mathbb{M} 59'48	22°47'27	morning max el	4166 Jul 05 14:31	21° \mathbb{M} 25'42	24°30'50
	4165 Aug 06 23:05	0° \mathbb{M}			4166 Jul 13 01:22	0° \mathbb{M}	
asc. node	4165 Aug 09 23:46	5° \mathbb{M} 34'27		asc. node	4166 Jul 27 20:50	25° \mathbb{M} 07'49	
morning set	4165 Aug 15 10:24	16° \mathbb{M} 33'18			4166 Jul 30 05:32	0° \mathbb{M}	
	4165 Aug 21 17:25	0° \mathbb{M}		morning set	4166 Jul 30 22:12	1° \mathbb{M} 27'44	
superior conj	4165 Aug 22 13:28	1° \mathbb{M} 47'02	1°38'53	superior conj	4166 Aug 06 22:08	16° \mathbb{M} 36'55	1°28'09
minimum elong	4165 Aug 22 11:59	1° \mathbb{M} 39'05	1°38'47	minimum elong	4166 Aug 06 19:59	16° \mathbb{M} 25'12	1°27'54
max. Earth dist.	4165 Aug 25 13:00	8° \mathbb{M} 04'14	1.33947 AU	max. Earth dist.	4166 Aug 08 16:07	20° \mathbb{M} 24'32	1.32890 AU
evening rise	4165 Aug 30 09:40	17° \mathbb{M} 55'42			4166 Aug 13 04:58	0° \mathbb{M}	
	4165 Sep 05 19:45	0° \mathbb{M}		evening rise	4166 Aug 14 05:55	2° \mathbb{M} 07'50	
desc. node	4165 Sep 15 22:07	16° \mathbb{M} 44'48			4166 Aug 29 16:36	0° \mathbb{M}	
	4165 Sep 25 09:23	0° \mathbb{M}		desc. node	4166 Sep 02 19:07	6° \mathbb{M} 11'31	
evening max el	4165 Oct 03 22:15	9° \mathbb{M} 33'37	27°12'58	evening max el	4166 Sep 16 09:07	22° \mathbb{M} 41'14	27°26'44
retrograde	4165 Oct 17 07:43	16° \mathbb{M} 51'31		retrograde	4166 Sep 30 01:30	29° \mathbb{M} 57'12	
evening set	4165 Oct 24 05:27	14° \mathbb{M} 11'17		evening set	4166 Oct 07 05:35	27° \mathbb{M} 22'52	
min. Earth dist.	4165 Oct 28 02:12	10° \mathbb{M} 31'31	0.64913 AU	min. Earth dist.	4166 Oct 10 21:26	24° \mathbb{M} 15'46	0.63284 AU
inferior conj	4165 Oct 30 06:44	8° \mathbb{M} 06'37	-2°-13'-2	inferior conj	4166 Oct 13 14:02	21° \mathbb{M} 35'37	-3°-14'-15
minimum elong	4165 Oct 30 10:30	7° \mathbb{M} 56'13	2°11'34	minimum elong	4166 Oct 13 19:23	21° \mathbb{M} 22'19	3°12'28
morning rise	4165 Nov 05 17:32	2° \mathbb{M} 33'38		morning rise	4166 Oct 20 11:46	16° \mathbb{M} 19'48	
asc. node	4165 Nov 05 22:57	2° \mathbb{M} 27'47		direct	4166 Oct 22 20:56	15° \mathbb{M} 52'46	
direct	4165 Nov 08 07:31	1° \mathbb{M} 58'23		asc. node	4166 Oct 23 20:01	15° \mathbb{M} 57'16	

morning max el	4166 Oct 29 11:44	19° Ω 18'13	17°50'14		4167 Oct 03 02:34	30° \mathbb{R} \mathbb{M}	
	4166 Nov 06 08:30	0° \mathbb{M}		morning rise	4167 Oct 03 17:38	29° \mathbb{M} 46'47	
morning set	4166 Nov 14 19:14	14° \mathbb{M} 27'33		direct	4167 Oct 06 00:55	29° \mathbb{M} 24'54	
	4166 Nov 23 19:44	0° \mathbb{A}			4167 Oct 08 21:30	0° Ω	
				asc. node	4167 Oct 10 17:03	0° Ω 58'41	
superior conj	4166 Nov 26 20:35	5° \mathbb{A} 04'35	0°20'10	morning max el	4167 Oct 13 02:28	2° Ω 57'00	17°57'03
minimum elong	4166 Nov 26 22:38	5° \mathbb{A} 13'05	0°19'53	morning set	4167 Oct 28 20:20	27° Ω 43'23	
desc. node	4166 Nov 29 18:22	9° \mathbb{A} 51'37			4167 Oct 30 02:08	0° \mathbb{M}	
max. Earth dist.	4166 Dec 03 05:24	15° \mathbb{A} 27'21	1.44029 AU				
evening rise	4166 Dec 12 08:41	29° \mathbb{A} 48'30		superior conj	4167 Nov 08 05:34	16° \mathbb{M} 25'30	0°56'50
	4166 Dec 12 11:40	0° \mathbb{B}		minimum elong	4167 Nov 08 09:39	16° \mathbb{M} 43'16	0°56'18
	4167 Jan 01 19:14	0° \approx		max. Earth dist.	4167 Nov 15 18:29	29° \mathbb{M} 13'04	1.42468 AU
greatest brilliancy	4167 Jan 05 06:59	4° \approx 39'01	-0.5m		4167 Nov 16 05:53	0° \mathbb{A}	
evening max el	4167 Jan 10 16:20	10° \approx 57'37	20°56'24	desc. node	4167 Nov 16 15:24	0° \mathbb{A} 39'07	
retrograde	4167 Jan 19 02:23	15° \approx 56'29		evening rise	4167 Nov 22 01:43	9° \mathbb{A} 23'38	
asc. node	4167 Jan 19 19:16	15° \approx 53'47			4167 Dec 05 15:29	0° \mathbb{B}	
evening set	4167 Jan 23 02:26	14° \approx 25'27		greatest brilliancy	4167 Dec 19 17:47	19° \mathbb{B} 12'11	-0.3m
inferior conj	4167 Jan 28 12:03	8° \approx 11'17	2°36'24	evening max el	4167 Dec 24 11:15	24° \mathbb{B} 31'47	22°11'09
minimum elong	4167 Jan 28 09:34	8° \approx 19'48	2°35'43		4168 Jan 01 11:09	0° \approx	
min. Earth dist.	4167 Jan 28 22:42	7° \approx 34'37	0.67684 AU	retrograde	4168 Jan 02 23:05	0° \approx 10'44	
morning rise	4167 Feb 02 16:20	1° \approx 56'06			4168 Jan 04 09:45	30° \mathbb{R} \mathbb{B}	
	4167 Feb 05 18:23	30° \mathbb{R} \mathbb{B}		asc. node	4168 Jan 06 16:18	28° \mathbb{B} 57'07	
direct	4167 Feb 08 00:26	29° \mathbb{B} 36'05		evening set	4168 Jan 07 10:11	28° \mathbb{B} 23'58	
	4167 Feb 10 09:34	0° \approx		inferior conj	4168 Jan 12 19:39	22° \mathbb{B} 01'17	1°57'28
morning max el	4167 Feb 18 19:30	6° \approx 02'03	23°51'20	minimum elong	4168 Jan 12 17:24	22° \mathbb{B} 09'06	1°56'42
desc. node	4167 Feb 25 17:36	13° \approx 58'56		min. Earth dist.	4168 Jan 12 18:33	22° \mathbb{B} 05'05	0.68000 AU
	4167 Mar 09 08:46	0° \mathbb{H}		morning rise	4168 Jan 18 00:29	15° \mathbb{B} 48'22	
morning set	4167 Mar 26 06:54	26° \mathbb{H} 54'09		direct	4168 Jan 22 17:38	13° \mathbb{B} 50'32	
	4167 Mar 28 01:58	0° \mathbb{Y}		morning max el	4168 Feb 01 06:25	19° \mathbb{B} 27'33	22°22'40
max. Earth dist.	4167 Mar 30 03:59	3° \mathbb{Y} 39'44	1.38505 AU	greatest brilliancy	4168 Feb 05 19:52	24° \mathbb{B} 32'58	-0.3m
					4168 Feb 10 02:50	0° \approx	
superior conj	4167 Apr 06 11:24	17° \mathbb{Y} 04'00	-1°-37'-37	desc. node	4168 Feb 12 14:37	3° \approx 21'31	
minimum elong	4167 Apr 06 16:09	17° \mathbb{Y} 26'30	1°37'05		4168 Mar 01 13:27	0° \mathbb{H}	
	4167 Apr 13 04:01	0° \mathbb{B}		morning set	4168 Mar 05 19:27	6° \mathbb{H} 48'56	
evening rise	4167 Apr 15 13:35	4° \mathbb{B} 41'58		max. Earth dist.	4168 Mar 11 00:35	15° \mathbb{H} 27'46	1.40683 AU
asc. node	4167 Apr 17 18:36	8° \mathbb{B} 59'33					
	4167 Apr 30 19:49	0° \mathbb{I}		superior conj	4168 Mar 18 19:32	29° \mathbb{H} 02'11	-1°-58'-1
evening max el	4167 May 01 22:03	1° \mathbb{I} 07'46	18°52'10	minimum elong	4168 Mar 18 23:39	29° \mathbb{H} 20'42	1°57'46
retrograde	4167 May 10 06:36	5° \mathbb{I} 13'10			4168 Mar 19 08:23	0° \mathbb{Y}	
evening set	4167 May 12 09:09	4° \mathbb{I} 58'35		evening rise	4168 Mar 29 00:53	17° \mathbb{Y} 56'20	
inferior conj	4167 May 20 10:13	0° \mathbb{I} 39'58	1°12'56	asc. node	4168 Apr 03 15:37	28° \mathbb{Y} 19'03	
minimum elong	4167 May 20 12:52	0° \mathbb{I} 35'11	1°12'02		4168 Apr 04 14:23	0° \mathbb{B}	
	4167 May 21 08:19	30° \mathbb{R} \mathbb{B}		evening max el	4168 Apr 14 04:16	13° \mathbb{B} 44'07	18°19'44
min. Earth dist.	4167 May 23 14:38	28° \mathbb{B} 23'28	0.56978 AU	retrograde	4168 Apr 21 10:10	17° \mathbb{B} 20'28	
desc. node	4167 May 24 16:50	27° \mathbb{B} 39'44		evening set	4168 Apr 23 18:58	16° \mathbb{B} 58'19	
morning rise	4167 May 28 12:09	25° \mathbb{B} 35'25		inferior conj	4168 May 01 01:13	12° \mathbb{B} 19'22	2°29'02
direct	4167 Jun 02 21:28	24° \mathbb{B} 25'34		minimum elong	4168 May 01 04:50	12° \mathbb{B} 11'42	2°28'06
	4167 Jun 15 03:57	0° \mathbb{I}		min. Earth dist.	4168 May 04 11:42	9° \mathbb{B} 26'59	0.58988 AU
morning max el	4167 Jun 17 05:28	1° \mathbb{I} 52'41	26°04'54	morning rise	4168 May 08 10:32	6° \mathbb{B} 44'15	
	4167 Jul 07 03:15	0° \mathbb{E}		desc. node	4168 May 10 13:51	5° \mathbb{B} 45'06	
asc. node	4167 Jul 14 17:52	14° \mathbb{E} 57'18		direct	4168 May 14 16:12	4° \mathbb{B} 59'45	
morning set	4167 Jul 15 09:22	16° \mathbb{E} 18'49		morning max el	4168 May 29 01:34	12° \mathbb{B} 46'53	27°14'14
	4167 Jul 21 16:35	0° \mathbb{Q}			4168 Jun 11 15:48	0° \mathbb{I}	
					4168 Jun 28 06:28	0° \mathbb{E}	
superior conj	4167 Jul 22 09:17	1° \mathbb{Q} 31'56	1°12'33	morning set	4168 Jun 28 18:14	1° \mathbb{E} 01'21	
minimum elong	4167 Jul 22 06:57	1° \mathbb{Q} 19'06	1°12'10	asc. node	4168 Jun 30 14:54	4° \mathbb{E} 57'43	
max. Earth dist.	4167 Jul 23 01:13	2° \mathbb{Q} 59'40	1.32243 AU				
evening rise	4167 Jul 29 09:30	16° \mathbb{Q} 39'47		superior conj	4168 Jul 05 21:06	16° \mathbb{E} 26'19	0°52'44
	4167 Aug 05 02:57	0° \mathbb{M}		minimum elong	4168 Jul 05 19:04	16° \mathbb{E} 15'05	0°52'20
desc. node	4167 Aug 20 16:08	24° \mathbb{M} 55'06		max. Earth dist.	4168 Jul 05 12:45	15° \mathbb{E} 40'15	1.32005 AU
	4167 Aug 24 17:51	0° Ω			4168 Jul 12 02:07	0° \mathbb{Q}	
evening max el	4167 Aug 29 15:39	5° Ω 12'05	27°08'33	evening rise	4168 Jul 12 17:55	1° \mathbb{Q} 23'55	
retrograde	4167 Sep 12 12:13	12° Ω 24'49			4168 Jul 28 05:25	0° \mathbb{M}	
evening set	4167 Sep 19 14:47	10° Ω 08'24		desc. node	4168 Aug 06 13:10	12° \mathbb{M} 37'41	
min. Earth dist.	4167 Sep 23 05:59	7° Ω 25'25	0.61364 AU	evening max el	4168 Aug 10 15:27	16° \mathbb{M} 56'14	26°17'11
inferior conj	4167 Sep 26 08:38	4° Ω 41'55	-4°-10'-31	retrograde	4168 Aug 24 14:46	24° \mathbb{M} 05'45	
minimum elong	4167 Sep 26 14:39	4° Ω 28'44	4°09'02	evening set	4168 Aug 31 04:12	22° \mathbb{M} 20'00	

min. Earth dist.	4168 Sep 04 04:33	19° $\mathring{\text{M}}$ 45'37	0.59292 AU		4169 Jul 25 16:33	0° $\mathring{\text{M}}$	
inferior conj	4168 Sep 07 11:01	17° $\mathring{\text{M}}$ 15'48	-4°-53'-55	retrograde	4169 Aug 06 06:52	4° $\mathring{\text{M}}$ 57'50	
minimum elong	4168 Sep 07 15:34	17° $\mathring{\text{M}}$ 07'04	4°53'20	evening set	4169 Aug 11 17:45	3° $\mathring{\text{M}}$ 50'14	
morning rise	4168 Sep 15 06:27	12° $\mathring{\text{M}}$ 43'39		min. Earth dist.	4169 Aug 16 19:44	1° $\mathring{\text{M}}$ 05'41	0.57314 AU
direct	4168 Sep 17 15:09	12° $\mathring{\text{M}}$ 24'19			4169 Aug 18 11:37	30° $\mathring{\text{R}}$ 0	
morning max el	4168 Sep 25 11:56	16° $\mathring{\text{M}}$ 12'34	18°23'38	inferior conj	4169 Aug 19 18:10	29° $\mathring{\text{O}}$ 08'48	-5°-11'-52
asc. node	4168 Sep 26 14:06	17° $\mathring{\text{M}}$ 19'23		minimum elong	4169 Aug 19 18:12	29° $\mathring{\text{O}}$ 08'45	5°11'53
	4168 Oct 05 04:59	0° $\mathring{\text{A}}$		morning rise	4169 Aug 27 22:11	24° $\mathring{\text{O}}$ 59'01	
morning set	4168 Oct 11 10:40	11° $\mathring{\text{A}}$ 36'36		direct	4169 Aug 30 11:45	24° $\mathring{\text{O}}$ 40'04	
				morning max el	4169 Sep 08 12:51	28° $\mathring{\text{O}}$ 55'21	19°11'18
superior conj	4168 Oct 20 13:56	28° $\mathring{\text{A}}$ 54'27	1°22'28		4169 Sep 09 14:48	0° $\mathring{\text{M}}$	
minimum elong	4168 Oct 20 17:35	29° $\mathring{\text{A}}$ 11'14	1°22'06	asc. node	4169 Sep 13 11:10	4° $\mathring{\text{M}}$ 44'26	
	4168 Oct 21 04:13	0° $\mathring{\text{M}}$		morning set	4169 Sep 25 10:10	25° $\mathring{\text{M}}$ 56'12	
max. Earth dist.	4168 Oct 28 01:56	12° $\mathring{\text{M}}$ 16'13	1.40518 AU		4169 Sep 27 11:08	0° $\mathring{\text{A}}$	
evening rise	4168 Nov 01 14:25	19° $\mathring{\text{M}}$ 53'30					
desc. node	4168 Nov 02 12:27	21° $\mathring{\text{M}}$ 24'05		superior conj	4169 Oct 03 16:14	12° $\mathring{\text{A}}$ 15'59	1°37'40
	4168 Nov 07 21:20	0° $\mathring{\text{X}}$		minimum elong	4169 Oct 03 18:22	12° $\mathring{\text{A}}$ 26'23	1°37'32
	4168 Nov 28 22:36	0° $\mathring{\text{Z}}$		max. Earth dist.	4169 Oct 10 06:27	24° $\mathring{\text{A}}$ 38'42	1.38431 AU
evening max el	4168 Dec 06 02:04	8° $\mathring{\text{Z}}$ 08'53	23°30'51		4169 Oct 13 06:26	0° $\mathring{\text{M}}$	
retrograde	4168 Dec 16 16:54	14° $\mathring{\text{Z}}$ 25'31		evening rise	4169 Oct 14 02:32	1° $\mathring{\text{M}}$ 27'48	
evening set	4168 Dec 21 16:36	12° $\mathring{\text{Z}}$ 22'42		desc. node	4169 Oct 20 09:30	12° $\mathring{\text{M}}$ 02'44	
asc. node	4168 Dec 23 13:20	10° $\mathring{\text{Z}}$ 32'39			4169 Nov 01 03:17	0° $\mathring{\text{X}}$	
min. Earth dist.	4168 Dec 26 15:22	6° $\mathring{\text{Z}}$ 36'46	0.67952 AU	evening max el	4169 Nov 18 14:59	21° $\mathring{\text{X}}$ 50'27	24°49'06
inferior conj	4168 Dec 27 03:23	5° $\mathring{\text{Z}}$ 55'36	1°11'33	retrograde	4169 Nov 30 06:42	28° $\mathring{\text{X}}$ 36'57	
minimum elong	4168 Dec 27 01:49	6° $\mathring{\text{Z}}$ 01'00	1°10'56	evening set	4169 Dec 05 20:07	26° $\mathring{\text{X}}$ 18'45	
morning rise	4169 Jan 01 11:09	29° $\mathring{\text{X}}$ 46'52		asc. node	4169 Dec 10 10:22	21° $\mathring{\text{X}}$ 08'12	
	4169 Jan 01 04:36	30° $\mathring{\text{R}}$ 0		min. Earth dist.	4169 Dec 10 10:44	21° $\mathring{\text{X}}$ 07'01	0.67554 AU
direct	4169 Jan 05 14:03	28° $\mathring{\text{X}}$ 11'48		inferior conj	4169 Dec 11 09:29	19° $\mathring{\text{X}}$ 51'46	0°19'41
	4169 Jan 10 10:04	0° $\mathring{\text{Z}}$		minimum elong	4169 Dec 11 09:00	19° $\mathring{\text{X}}$ 53'22	0°19'28
morning max el	4169 Jan 13 23:01	3° $\mathring{\text{Z}}$ 02'22	21°00'33	morning rise	4169 Dec 16 22:23	13° $\mathring{\text{X}}$ 49'32	
greatest brilliancy	4169 Jan 19 10:01	9° $\mathring{\text{Z}}$ 19'31	-0.5m	direct	4169 Dec 20 12:26	12° $\mathring{\text{X}}$ 35'34	
desc. node	4169 Jan 29 11:40	23° $\mathring{\text{Z}}$ 13'00		morning max el	4169 Dec 27 23:25	16° $\mathring{\text{X}}$ 48'41	19°50'31
	4169 Feb 03 01:59	0° $\mathring{\text{A}}$		greatest brilliancy	4170 Jan 04 10:43	25° $\mathring{\text{X}}$ 56'42	-0.6m
morning set	4169 Feb 13 04:22	15° $\mathring{\text{A}}$ 27'12			4170 Jan 07 07:50	0° $\mathring{\text{Z}}$	
max. Earth dist.	4169 Feb 21 03:14	28° $\mathring{\text{A}}$ 09'08	1.42668 AU	desc. node	4170 Jan 16 08:43	13° $\mathring{\text{Z}}$ 25'37	
	4169 Feb 22 06:21	0° $\mathring{\text{X}}$		morning set	4170 Jan 23 00:20	23° $\mathring{\text{Z}}$ 36'29	
					4170 Jan 27 03:18	0° $\mathring{\text{A}}$	
superior conj	4169 Feb 28 05:24	9° $\mathring{\text{X}}$ 57'07	-2°-7'-40	max. Earth dist.	4170 Feb 03 13:58	11° $\mathring{\text{A}}$ 42'52	1.44202 AU
minimum elong	4169 Feb 28 06:07	10° $\mathring{\text{X}}$ 00'12	2°07'40				
evening rise	4169 Mar 11 21:49	0° $\mathring{\text{Y}}$ 27'05		superior conj	4170 Feb 08 13:35	19° $\mathring{\text{A}}$ 43'11	-2°-1'-6
	4169 Mar 11 15:46	0° $\mathring{\text{Y}}$		minimum elong	4170 Feb 08 08:22	19° $\mathring{\text{A}}$ 22'02	2°00'52
asc. node	4169 Mar 21 12:39	17° $\mathring{\text{Y}}$ 12'08			4170 Feb 14 19:47	0° $\mathring{\text{X}}$	
evening max el	4169 Mar 28 15:22	26° $\mathring{\text{Y}}$ 44'57	18°07'06	evening rise	4170 Feb 22 00:00	12° $\mathring{\text{X}}$ 06'15	
	4169 Apr 02 22:34	0° $\mathring{\text{Z}}$			4170 Mar 04 16:27	0° $\mathring{\text{Y}}$	
retrograde	4169 Apr 04 06:09	0° $\mathring{\text{Z}}$ 08'17		asc. node	4170 Mar 08 09:41	5° $\mathring{\text{Y}}$ 30'33	
	4169 Apr 05 13:57	30° $\mathring{\text{R}}$ 0		evening max el	4170 Mar 12 04:11	10° $\mathring{\text{Y}}$ 01'47	18°13'31
evening set	4169 Apr 06 21:08	29° $\mathring{\text{Y}}$ 36'17		retrograde	4170 Mar 18 14:15	13° $\mathring{\text{Y}}$ 26'32	
inferior conj	4169 Apr 13 11:48	24° $\mathring{\text{Y}}$ 36'26	3°14'08	evening set	4170 Mar 21 11:06	12° $\mathring{\text{Y}}$ 43'22	
minimum elong	4169 Apr 13 14:19	24° $\mathring{\text{Y}}$ 30'17	3°13'44	inferior conj	4170 Mar 27 14:02	7° $\mathring{\text{Y}}$ 23'27	3°33'53
min. Earth dist.	4169 Apr 16 15:48	21° $\mathring{\text{Y}}$ 32'55	0.61178 AU	minimum elong	4170 Mar 27 14:49	7° $\mathring{\text{Y}}$ 21'17	3°33'50
morning rise	4169 Apr 20 04:24	18° $\mathring{\text{Y}}$ 41'19		min. Earth dist.	4170 Mar 30 04:37	4° $\mathring{\text{Y}}$ 32'28	0.63254 AU
direct	4169 Apr 26 22:25	16° $\mathring{\text{Y}}$ 23'49		morning rise	4170 Apr 02 16:31	1° $\mathring{\text{Y}}$ 16'46	
desc. node	4169 Apr 27 10:52	16° $\mathring{\text{Y}}$ 24'36			4170 Apr 04 14:07	30° $\mathring{\text{R}}$ 0	
morning max el	4169 May 11 03:53	24° $\mathring{\text{Y}}$ 20'57	27°48'49	direct	4170 Apr 09 13:34	28° $\mathring{\text{X}}$ 36'40	
	4169 May 16 06:47	0° $\mathring{\text{Z}}$		desc. node	4170 Apr 14 07:55	29° $\mathring{\text{X}}$ 43'18	
	4169 Jun 04 23:24	0° $\mathring{\text{II}}$			4170 Apr 14 22:08	0° $\mathring{\text{Y}}$	
morning set	4169 Jun 12 22:58	15° $\mathring{\text{II}}$ 29'17		morning max el	4170 Apr 23 11:08	6° $\mathring{\text{Y}}$ 35'03	27°45'45
asc. node	4169 Jun 17 11:57	25° $\mathring{\text{II}}$ 04'26			4170 May 11 07:21	0° $\mathring{\text{Z}}$	
max. Earth dist.	4169 Jun 18 23:01	28° $\mathring{\text{II}}$ 14'37	1.32176 AU	morning set	4170 May 27 21:12	29° $\mathring{\text{Z}}$ 34'20	
	4169 Jun 19 18:20	0° $\mathring{\text{Z}}$			4170 May 28 02:20	0° $\mathring{\text{II}}$	
superior conj	4169 Jun 20 07:53	1° $\mathring{\text{Z}}$ 14'13	0°29'19	max. Earth dist.	4170 Jun 02 04:03	10° $\mathring{\text{II}}$ 29'17	1.32779 AU
minimum elong	4169 Jun 20 06:35	1° $\mathring{\text{Z}}$ 07'07	0°29'03	asc. node	4170 Jun 04 08:59	15° $\mathring{\text{II}}$ 12'17	
evening rise	4169 Jun 27 05:01	16° $\mathring{\text{Z}}$ 13'29		superior conj	4170 Jun 04 15:44	15° $\mathring{\text{II}}$ 48'37	0°02'57
	4169 Jul 04 00:42	0° $\mathring{\text{O}}$		minimum elong	4170 Jun 04 15:35	15° $\mathring{\text{II}}$ 47'49	0°02'56
evening max el	4169 Jul 23 08:11	27° $\mathring{\text{O}}$ 54'37	24°57'47	behind sun begin	4170 Jun 04 10:23	15° $\mathring{\text{II}}$ 19'46	
desc. node	4169 Jul 24 10:11	28° $\mathring{\text{O}}$ 54'52		behind sun end	4170 Jun 04 20:47	16° $\mathring{\text{II}}$ 15'54	

	4170 Jun 11 05:22	0°☿		evening rise	4171 May 27 03:33	15°♊40'24	
evening rise	4170 Jun 11 16:50	1°☿00'54			4171 Jun 03 08:53	0°☿	
	4170 Jun 27 19:31	0°♊		evening max el	4171 Jun 16 13:53	18°☿49'37	21°47'08
evening max el	4170 Jul 04 21:10	8°♊21'58	23°22'31	desc. node	4171 Jun 28 04:11	24°☿59'02	
desc. node	4170 Jul 11 07:13	13°♊13'22		retrograde	4171 Jun 29 02:20	25°☿01'01	
retrograde	4170 Jul 18 10:08	15°♊08'31		evening set	4171 Jul 01 17:46	24°☿45'17	
evening set	4170 Jul 22 09:18	14°♊34'08		min. Earth dist.	4171 Jul 10 17:08	20°☿54'57	0.54900 AU
min. Earth dist.	4170 Jul 29 06:47	11°♊23'35	0.55744 AU	inferior conj	4171 Jul 11 01:33	20°☿43'11	-3°-34'-24
inferior conj	4170 Jul 31 05:17	10°♊15'04	-4°-48'-31	minimum elong	4171 Jul 10 17:02	20°☿55'06	3°31'59
minimum elong	4170 Jul 30 23:13	10°♊24'03	4°47'37	morning rise	4171 Jul 19 17:39	16°☿51'41	
morning rise	4170 Aug 08 16:09	6°♊21'49		direct	4171 Jul 23 00:36	16°☿27'59	
direct	4170 Aug 11 13:18	6°♊01'35		morning max el	4171 Aug 04 04:14	22°☿09'58	21°49'59
morning max el	4170 Aug 22 02:25	10°♊55'24	20°20'46		4171 Aug 10 21:48	0°♊	
asc. node	4170 Aug 31 08:13	22°♊58'54		asc. node	4171 Aug 18 05:16	11°♊50'58	
	4170 Sep 04 07:26	0°♋		morning set	4171 Aug 25 01:15	25°♊21'06	
morning set	4170 Sep 09 15:48	10°♋33'11			4171 Aug 27 06:20	0°♋	
superior conj	4170 Sep 17 07:26	26°♋15'25	1°43'52	superior conj	4171 Sep 01 07:41	10°♋41'27	1°42'34
minimum elong	4170 Sep 17 07:55	26°♋17'53	1°43'51	minimum elong	4171 Sep 01 06:47	10°♋36'47	1°42'31
	4170 Sep 19 04:10	0°♌		max. Earth dist.	4171 Sep 05 02:22	18°♋29'36	1.34744 AU
max. Earth dist.	4170 Sep 22 13:03	6°♌35'46	1.36444 AU	evening rise	4171 Sep 09 13:36	27°♋19'29	
evening rise	4170 Sep 26 11:39	13°♌59'58			4171 Sep 10 23:19	0°♌	
	4170 Oct 05 17:26	0°♍		desc. node	4171 Sep 24 03:33	22°♌40'06	
desc. node	4170 Oct 07 06:32	2°♍29'59			4171 Sep 29 00:44	0°♍	
	4170 Oct 26 23:07	0°♎		evening max el	4171 Oct 14 16:02	19°♍10'36	26°52'14
evening max el	4170 Nov 01 03:30	5°♎33'23	25°58'45	retrograde	4171 Oct 27 19:09	26°♍26'55	
retrograde	4170 Nov 13 15:36	12°♎39'40		evening set	4171 Nov 03 11:10	23°♍47'29	
evening set	4170 Nov 19 19:00	10°♎08'23		min. Earth dist.	4171 Nov 07 11:24	19°♍47'40	0.65706 AU
min. Earth dist.	4170 Nov 24 02:12	5°♎32'16	0.66806 AU	inferior conj	4171 Nov 09 09:06	17°♍35'05	-1°-37'-28
inferior conj	4170 Nov 25 12:04	3°♎46'19	0°-37'-6	minimum elong	4171 Nov 09 11:49	17°♍27'09	1°36'21
minimum elong	4170 Nov 25 13:04	3°♎43'14	0°36'41	asc. node	4171 Nov 14 04:28	12°♍46'05	
asc. node	4170 Nov 27 07:25	1°♎34'15		morning rise	4171 Nov 15 14:07	11°♍54'10	
	4170 Nov 28 17:54	30°♏		direct	4171 Nov 18 08:10	11°♍12'32	
morning rise	4170 Dec 01 08:08	27°♏53'17		morning max el	4171 Nov 24 20:55	14°♍44'13	18°16'39
direct	4170 Dec 04 11:08	26°♏57'22			4171 Dec 05 22:07	0°♎	
	4170 Dec 10 12:52	0°♎		morning set	4171 Dec 13 21:03	12°♎50'47	
morning max el	4170 Dec 11 07:22	0°♎44'24	18°55'29	desc. node	4171 Dec 21 02:47	24°♎30'59	
	4170 Dec 31 18:07	0°♏			4171 Dec 24 13:24	0°♏	
morning set	4171 Jan 02 08:47	2°♏31'11		superior conj	4171 Dec 29 02:04	7°♏09'13	0°-52'-49
desc. node	4171 Jan 03 05:46	3°♏53'20		minimum elong	4171 Dec 28 19:28	6°♏43'17	0°51'58
max. Earth dist.	4171 Jan 17 06:48	25°♏52'56	1.45091 AU	max. Earth dist.	4171 Dec 31 02:04	10°♏17'50	1.45244 AU
superior conj	4171 Jan 18 23:26	28°♏32'49	-1°-35'00		4172 Jan 12 16:24	0°♐	
minimum elong	4171 Jan 18 14:12	27°♏56'27	1°34'08	evening rise	4172 Jan 14 08:51	2°♐38'07	
	4171 Jan 19 21:33	0°♑		greatest brilliancy	4172 Jan 29 03:32	25°♐25'46	-0.7m
evening rise	4171 Feb 03 03:52	22°♑49'19			4172 Feb 01 08:09	0°♑	
	4171 Feb 07 13:50	0°♒		evening max el	4172 Feb 07 00:16	6°♑58'15	19°20'16
asc. node	4171 Feb 23 06:43	23°♑04'14		asc. node	4172 Feb 10 03:45	9°♑39'37	
evening max el	4171 Feb 23 15:55	23°♑28'05	18°38'15	retrograde	4172 Feb 14 02:49	11°♑02'21	
retrograde	4171 Mar 02 06:21	27°♑07'07		evening set	4172 Feb 17 12:43	9°♑54'14	
evening set	4171 Mar 05 09:15	26°♑11'54		inferior conj	4172 Feb 23 02:07	3°♑59'49	3°20'24
inferior conj	4171 Mar 11 03:58	20°♑33'34	3°34'23	minimum elong	4172 Feb 23 00:17	4°♑05'48	3°20'08
minimum elong	4171 Mar 11 03:12	20°♑35'53	3°34'21	min. Earth dist.	4172 Feb 24 09:55	2°♑16'47	0.66383 AU
min. Earth dist.	4171 Mar 13 02:56	18°♑11'59	0.65020 AU		4172 Feb 26 06:27	30°♒	
morning rise	4171 Mar 16 19:53	14°♑20'45		morning rise	4172 Feb 28 11:01	27°♒44'12	
direct	4171 Mar 23 12:02	11°♑31'40		direct	4172 Mar 05 16:53	24°♒58'59	
desc. node	4171 Apr 01 04:56	15°♑11'55			4172 Mar 15 16:23	0°♒	
morning max el	4171 Apr 05 20:57	19°♑21'41	27°08'18	desc. node	4172 Mar 18 01:58	2°♑15'48	
	4171 Apr 14 22:15	0°♓		morning max el	4172 Mar 18 06:47	2°♑27'56	26°03'50
	4171 May 04 07:37	0°♔			4172 Apr 08 02:35	0°♓	
morning set	4171 May 11 10:08	13°♔08'27		morning set	4172 Apr 23 09:52	26°♓00'11	
max. Earth dist.	4171 May 16 00:13	22°♔15'08	1.33837 AU		4172 Apr 25 13:01	0°♔	
superior conj	4171 May 19 18:40	0°♔03'41	0°-25'-30	max. Earth dist.	4172 Apr 27 08:56	3°♔30'23	1.35353 AU
minimum elong	4171 May 19 20:00	0°♔10'41	0°25'14	superior conj	4172 May 02 14:14	13°♔52'19	0°-54'-45
	4171 May 19 17:58	0°♔		minimum elong	4172 May 02 17:11	14°♔07'17	0°54'14
asc. node	4171 May 22 06:02	5°♔17'37		asc. node	4172 May 08 03:03	25°♔16'04	

evening rise	4172 May 10 11:06	0°II05'22		superior conj	4173 Apr 15 23:21	27°Y06'33	-1°-22'-57
	4172 May 10 10:04	0°II		minimum elong	4173 Apr 16 03:41	27°Y27'36	1°22'20
evening max el	4172 May 28 17:12	29°II47'24	20°24'16		4173 Apr 17 10:50	0°8	
	4172 May 28 22:24	0°8		evening rise	4173 Apr 24 13:11	14°809'11	
retrograde	4172 Jun 08 15:35	5°807'48		asc. node	4173 Apr 25 00:04	15°803'28	
evening set	4172 Jun 10 15:33	4°857'49			4173 May 02 23:02	0°II	
desc. node	4172 Jun 14 01:10	3°859'17		evening max el	4173 May 11 08:57	11°II27'21	19°20'00
inferior conj	4172 Jun 19 19:41	1°800'04	-1°-42'-19	retrograde	4173 May 20 14:00	15°II56'19	
minimum elong	4172 Jun 19 14:52	1°807'05	1°40'34	evening set	4173 May 22 13:37	15°II44'44	
min. Earth dist.	4172 Jun 21 05:10	0°811'15	0.54995 AU	inferior conj	4173 May 31 01:57	11°II36'51	0°14'51
	4172 Jun 21 12:58	30°RII		minimum elong	4173 May 31 02:34	11°II35'49	0°14'37
morning rise	4172 Jun 28 12:28	26°II49'19		transit middle	4173 May 31 02:34	11°II35'49	0°14'37
direct	4172 Jul 02 10:34	26°II16'08		transit begin	4173 May 31 01:00	11°II38'24	
	4172 Jul 12 12:35	0°8		transit end	4173 May 31 04:09	11°II33'14	
morning max el	4172 Jul 15 21:16	2°847'58	23°31'44	desc. node	4173 May 31 22:12	11°II03'24	
	4172 Aug 03 11:43	0°8		min. Earth dist.	4173 Jun 02 19:41	9°II49'12	0.56036 AU
asc. node	4172 Aug 04 02:19	1°811'14		morning rise	4173 Jun 08 11:29	6°II52'41	
morning set	4172 Aug 08 12:40	10°814'26		direct	4173 Jun 13 07:35	5°II59'08	
				morning max el	4173 Jun 27 11:06	13°II10'31	25°13'02
superior conj	4172 Aug 15 13:59	25°824'59	1°34'59		4173 Jul 10 14:07	0°8	
minimum elong	4172 Aug 15 12:09	25°815'07	1°34'49	asc. node	4173 Jul 21 23:21	20°851'43	
	4172 Aug 17 17:24	0°8		morning set	4173 Jul 24 00:21	25°807'30	
max. Earth dist.	4172 Aug 18 00:29	0°837'33	1.33435 AU		4173 Jul 26 06:56	0°8	
evening rise	4172 Aug 23 04:13	11°815'21					
	4172 Sep 02 06:37	0°8		superior conj	4173 Jul 30 23:55	10°817'35	1°22'05
desc. node	4172 Sep 10 00:32	12°825'36		minimum elong	4173 Jul 30 21:38	10°805'04	1°21'47
	4172 Sep 23 15:17	0°8		max. Earth dist.	4173 Aug 01 06:17	13°803'30	1.32555 AU
evening max el	4172 Sep 26 03:55	2°832'30	27°22'29	evening rise	4173 Aug 07 03:54	25°836'42	
retrograde	4172 Oct 09 16:56	9°850'56			4173 Aug 09 07:51	0°8	
evening set	4172 Oct 16 18:08	7°811'30			4173 Aug 26 18:38	0°8	
min. Earth dist.	4172 Oct 20 12:20	3°846'31	0.64255 AU	desc. node	4173 Aug 27 21:33	1°835'33	
inferior conj	4172 Oct 22 22:13	1°813'35	-2°-39'-15	evening max el	4173 Sep 08 13:14	15°825'49	27°23'15
minimum elong	4172 Oct 23 02:43	1°801'40	2°37'36	retrograde	4173 Sep 22 08:05	22°841'04	
	4172 Oct 24 02:25	30°R8		evening set	4173 Sep 29 12:28	20°812'57	
morning rise	4172 Oct 29 13:37	25°847'45		min. Earth dist.	4173 Oct 03 03:17	17°817'18	0.62486 AU
asc. node	4172 Oct 31 01:31	25°821'30		inferior conj	4173 Oct 06 00:32	14°833'53	-3°-39'-7
direct	4172 Nov 01 01:07	25°816'33		minimum elong	4173 Oct 06 06:20	14°820'09	3°37'23
morning max el	4172 Nov 07 13:21	28°842'09	17°54'49	morning rise	4173 Oct 13 03:04	9°826'23	
	4172 Nov 08 18:35	0°8		direct	4173 Oct 15 10:56	9°802'00	
morning set	4172 Nov 24 13:45	24°833'55		asc. node	4173 Oct 17 22:33	9°830'36	
	4172 Nov 27 18:45	0°8		morning max el	4173 Oct 22 05:33	12°829'39	17°50'49
desc. node	4172 Dec 06 23:49	15°815'20			4173 Nov 03 01:26	0°8	
				morning set	4173 Nov 07 04:52	7°821'09	
superior conj	4172 Dec 07 18:20	16°830'17	0°-5'-20				
minimum elong	4172 Dec 07 17:42	16°827'46	0°05'16	superior conj	4173 Nov 18 11:56	27°805'47	0°37'00
behind sun begin	4172 Dec 07 08:02	15°848'37		minimum elong	4173 Nov 18 15:13	27°819'44	0°36'32
behind sun end	4172 Dec 08 03:23	17°806'51			4173 Nov 20 05:18	0°8	
max. Earth dist.	4172 Dec 12 20:37	24°839'42	1.44667 AU	desc. node	4173 Nov 23 20:51	6°802'23	
	4172 Dec 16 05:55	0°8		max. Earth dist.	4173 Nov 25 12:04	8°842'05	1.43428 AU
evening rise	4172 Dec 23 21:34	11°852'23		evening rise	4173 Dec 03 08:22	21°808'30	
	4173 Jan 04 20:31	0°8			4173 Dec 09 03:04	0°8	
greatest brilliancy	4173 Jan 13 20:56	12°854'31	-0.5m	greatest brilliancy	4173 Dec 29 03:09	28°823'35	-0.4m
evening max el	4173 Jan 20 03:45	20°830'22	20°17'37		4173 Dec 30 10:35	0°8	
asc. node	4173 Jan 27 00:46	25°802'16		evening max el	4174 Jan 03 01:48	4°803'57	21°27'16
retrograde	4173 Jan 28 00:57	25°807'47		retrograde	4174 Jan 11 22:33	9°819'38	
evening set	4173 Jan 31 19:16	23°845'37		asc. node	4174 Jan 13 21:48	8°858'38	
inferior conj	4173 Feb 06 05:43	17°837'50	2°55'10	evening set	4174 Jan 16 03:03	7°842'13	
minimum elong	4173 Feb 06 03:19	17°845'57	2°54'37	inferior conj	4174 Jan 21 12:26	1°824'11	2°20'50
min. Earth dist.	4173 Feb 06 23:44	16°836'45	0.67330 AU	minimum elong	4174 Jan 21 10:00	1°832'37	2°20'04
morning rise	4173 Feb 11 10:50	11°821'48		min. Earth dist.	4174 Jan 21 18:03	1°804'44	0.67870 AU
direct	4173 Feb 17 03:22	8°850'25			4174 Jan 22 12:51	30°R8	
morning max el	4173 Feb 28 15:28	15°843'14	24°41'59	morning rise	4174 Jan 26 16:38	25°809'38	
desc. node	4173 Mar 04 23:00	20°828'03		direct	4174 Jan 31 18:28	22°858'30	
	4173 Mar 12 09:54	0°8		morning max el	4174 Feb 11 00:27	29°803'46	23°13'07
	4173 Apr 01 00:59	0°Y			4174 Feb 11 22:15	0°8	
morning set	4173 Apr 05 15:15	7°Y55'17		greatest brilliancy	4174 Feb 16 03:04	4°847'33	-0.2m
max. Earth dist.	4173 Apr 09 07:22	14°Y31'03	1.37276 AU	desc. node	4174 Feb 19 20:03	9°829'07	

	4174 Mar 06 04:37	0° Υ		desc. node	4175 Feb 06 17:06	29° Z 05'03	
morning set	4174 Mar 17 20:12	18° Υ 37'22			4175 Feb 07 08:39	0° \approx	
max. Earth dist.	4174 Mar 22 02:21	25° Υ 52'48	1.39439 AU	morning set	4175 Feb 25 20:20	27° \approx 56'47	
	4174 Mar 24 10:44	0° Υ			4175 Feb 27 03:04	0° Υ	
				max. Earth dist.	4175 Mar 04 01:39	8° Υ 05'02	1.41575 AU
superior conj	4174 Mar 29 18:03	9° Υ 36'27	-1°-47'-17				
minimum elong	4174 Mar 29 22:48	9° Υ 58'26	1°46'50	superior conj	4175 Mar 11 17:22	21° Υ 09'17	-2°-3'-45
evening rise	4174 Apr 08 06:53	27° Υ 44'17		minimum elong	4175 Mar 11 20:27	21° Υ 22'45	2°03'38
	4174 Apr 09 11:09	0° B			4175 Mar 16 16:30	0° Υ	
asc. node	4174 Apr 11 21:06	4° B 34'58		evening rise	4175 Mar 22 12:37	10° Υ 41'17	
evening max el	4174 Apr 24 10:57	23° B 46'12	18°35'57	asc. node	4175 Mar 29 18:09	23° Υ 44'01	
retrograde	4174 May 02 06:29	27° B 36'46			4175 Apr 02 14:52	0° B	
evening set	4174 May 04 11:47	27° B 19'12		evening max el	4175 Apr 07 19:41	6° B 33'57	18°11'55
inferior conj	4174 May 12 04:35	22° B 52'17	1°49'13	retrograde	4175 Apr 14 17:38	10° B 02'49	
minimum elong	4174 May 12 08:00	22° B 45'41	1°48'10	evening set	4175 Apr 17 05:13	9° B 36'33	
min. Earth dist.	4174 May 15 13:35	20° B 17'49	0.57793 AU	inferior conj	4175 Apr 24 04:20	4° B 48'19	2°51'42
desc. node	4174 May 18 19:14	18° B 10'59		minimum elong	4175 Apr 24 07:39	4° B 40'51	2°50'58
morning rise	4174 May 19 23:46	17° B 33'57		min. Earth dist.	4175 Apr 27 13:06	1° B 48'26	0.59922 AU
direct	4174 May 25 18:46	16° B 09'36			4175 Apr 29 20:12	30° R Υ	
morning max el	4174 Jun 09 03:42	23° B 46'08	26°38'08	morning rise	4175 May 01 06:23	29° Υ 03'37	
	4174 Jun 14 18:53	0° II		desc. node	4175 May 05 16:17	27° Υ 16'51	
	4174 Jul 03 13:29	0° E		direct	4175 May 07 18:23	27° Υ 04'39	
morning set	4174 Jul 08 10:44	9° E 55'32			4175 May 16 03:40	0° B	
asc. node	4174 Jul 08 20:23	10° E 46'30		morning max el	4175 May 22 02:29	4° B 56'09	27°33'34
					4175 Jun 09 16:14	0° II	
superior conj	4174 Jul 15 11:35	25° E 13'06	1°04'37	morning set	4175 Jun 22 18:05	24° II 32'14	
minimum elong	4174 Jul 15 09:19	25° E 00'37	1°04'14		4175 Jun 25 08:10	0° E	
max. Earth dist.	4174 Jul 15 16:56	25° E 42'39	1.32094 AU	asc. node	4175 Jun 25 17:26	0° E 49'45	
	4174 Jul 17 15:41	0° O		max. Earth dist.	4175 Jun 29 04:35	8° E 22'40	1.32034 AU
evening rise	4174 Jul 22 09:52	10° O 15'04					
	4174 Aug 01 14:39	0° P		superior conj	4175 Jun 29 23:09	10° E 04'49	0°43'11
desc. node	4174 Aug 14 18:33	19° P 55'25		minimum elong	4175 Jun 29 21:22	9° E 55'02	0°42'50
evening max el	4174 Aug 21 17:26	27° P 38'14	26°50'43	evening rise	4175 Jul 06 19:40	25° E 02'01	
	4174 Aug 24 10:13	0° A			4175 Jul 09 04:41	0° O	
retrograde	4174 Sep 04 15:21	4° A 48'49			4175 Jul 26 17:53	0° P	
evening set	4174 Sep 11 13:49	2° A 44'26		desc. node	4175 Aug 01 15:34	7° P 04'38	
	4174 Sep 15 11:04	30° R P		evening max el	4175 Aug 03 14:06	9° P 01'27	25°46'10
min. Earth dist.	4174 Sep 15 07:32	0° A 07'03	0.60490 AU	retrograde	4175 Aug 17 13:16	16° P 08'20	
inferior conj	4174 Sep 18 12:41	27° P 27'26	-4°-31'-9	evening set	4175 Aug 23 17:19	14° P 38'20	
minimum elong	4174 Sep 18 18:24	27° P 15'33	4°30'00	min. Earth dist.	4175 Aug 28 02:15	12° P 02'10	0.58427 AU
morning rise	4174 Sep 26 02:14	22° P 41'29		inferior conj	4175 Aug 31 07:07	9° P 44'14	-5°-5'-35
direct	4174 Sep 28 09:44	22° P 20'53		minimum elong	4175 Aug 31 10:08	9° P 38'48	5°05'21
asc. node	4174 Oct 04 19:36	25° P 06'53		morning rise	4175 Sep 08 06:27	5° P 21'59	
morning max el	4174 Oct 05 18:21	25° P 58'49	18°05'50	direct	4175 Sep 10 17:03	5° P 02'53	
	4174 Oct 09 05:14	0° A		morning max el	4175 Sep 19 00:29	9° P 00'47	18°41'20
morning set	4174 Oct 21 12:09	20° A 54'14		asc. node	4175 Sep 21 16:40	11° P 56'16	
	4174 Oct 26 09:21	0° M			4175 Oct 02 16:43	0° A	
				morning set	4175 Oct 05 06:47	4° A 59'34	
superior conj	4174 Oct 31 07:25	8° M 56'34	1°09'03				
minimum elong	4174 Oct 31 11:31	9° M 14'53	1°08'34	superior conj	4175 Oct 14 00:03	21° A 49'30	1°30'07
max. Earth dist.	4174 Nov 07 23:01	22° M 11'25	1.41678 AU	minimum elong	4175 Oct 14 03:07	22° A 03'57	1°29'51
desc. node	4174 Nov 10 17:53	26° M 48'51			4175 Oct 18 10:21	0° M	
	4174 Nov 12 16:50	0° J		max. Earth dist.	4175 Oct 21 05:10	4° M 57'50	1.39629 AU
evening rise	4174 Nov 13 08:47	1° J 04'17		evening rise	4175 Oct 25 07:22	12° M 00'50	
	4174 Dec 02 14:58	0° Z		desc. node	4175 Oct 28 14:55	17° M 31'18	
greatest brilliancy	4174 Dec 11 17:48	12° Z 00'13	-0.3m		4175 Nov 05 12:56	0° J	
evening max el	4174 Dec 16 18:56	17° Z 39'34	22°44'50		4175 Nov 28 02:00	0° Z	
retrograde	4174 Dec 26 18:03	23° Z 34'27		evening max el	4175 Nov 29 08:38	1° Z 18'22	24°04'43
evening set	4174 Dec 31 10:25	21° Z 40'49		retrograde	4175 Dec 10 10:15	7° Z 48'44	
asc. node	4174 Dec 31 18:50	21° Z 22'52		evening set	4175 Dec 15 15:49	5° Z 38'54	
inferior conj	4175 Jan 05 20:19	15° Z 16'00	1°38'49	asc. node	4175 Dec 18 15:52	2° Z 28'06	
minimum elong	4175 Jan 05 18:18	15° Z 22'59	1°38'04	min. Earth dist.	4175 Dec 20 10:54	0° Z 07'40	0.67824 AU
min. Earth dist.	4175 Jan 05 14:31	15° Z 36'03	0.68029 AU		4175 Dec 20 13:10	30° R J	
morning rise	4175 Jan 11 02:08	9° Z 04'48		inferior conj	4175 Dec 21 03:33	29° J 11'20	0°50'15
direct	4175 Jan 15 13:11	7° Z 16'36		minimum elong	4175 Dec 21 02:24	29° J 15'16	0°49'46
morning max el	4175 Jan 24 13:20	12° Z 32'24	21°46'32	morning rise	4175 Dec 26 13:16	23° J 05'22	
greatest brilliancy	4175 Jan 29 07:47	17° Z 54'41	-0.4m	direct	4175 Dec 30 10:29	21° J 39'42	

morning max el	4176 Jan 07 09:17	26° ♁ 12'48	20°29'12	morning rise	4176 Dec 10 00:04	7° ♁ 08'15	
	4176 Jan 10 19:09	0° ♁		direct	4176 Dec 13 09:04	6° ♁ 02'36	
greatest brilliancy	4176 Jan 13 13:05	3° ♁ 27'35	-0.5m	morning max el	4176 Dec 20 13:05	10° ♁ 03'36	19°25'14
desc. node	4176 Jan 24 14:10	19° ♁ 06'27		greatest brilliancy	4176 Dec 29 09:39	21° ♁ 16'24	-0.7m
	4176 Jan 31 19:35	0° ♁			4177 Jan 04 07:10	0° ♁	
morning set	4176 Feb 04 21:08	6° ♁ 15'20		desc. node	4177 Jan 10 11:11	9° ♁ 25'42	
max. Earth dist.	4176 Feb 14 08:20	21° ♁ 12'15	1.43390 AU	morning set	4177 Jan 13 19:21	14° ♁ 35'08	
	4176 Feb 19 17:36	0° ♁			4177 Jan 23 16:53	0° ♁	
				max. Earth dist.	4177 Jan 26 21:30	5° ♁ 01'38	1.44660 AU
superior conj	4176 Feb 20 16:33	1° ♁ 35'12	-2°-7'-9	superior conj	4177 Jan 30 14:08	10° ♁ 53'35	-1°-52'-26
minimum elong	4176 Feb 20 14:55	1° ♁ 28'25	2°07'09	minimum elong	4177 Jan 30 06:34	10° ♁ 23'27	1°51'55
evening rise	4176 Mar 04 02:12	22° ♁ 51'52			4177 Feb 11 07:48	0° ♁	
	4176 Mar 08 03:55	0° ♁		evening rise	4177 Feb 13 19:13	4° ♁ 07'13	
asc. node	4176 Mar 15 15:11	12° ♁ 23'41			4177 Mar 02 04:24	0° ♁	
evening max el	4176 Mar 21 07:50	19° ♁ 42'20	18°07'24	asc. node	4177 Mar 02 12:12	0° ♁ 24'33	
retrograde	4176 Mar 27 19:33	23° ♁ 04'55		evening max el	4177 Mar 04 20:26	3° ♁ 03'40	18°21'49
evening set	4176 Mar 30 12:56	22° ♁ 28'22		retrograde	4177 Mar 11 07:31	6° ♁ 33'18	
inferior conj	4176 Apr 05 22:08	17° ♁ 19'34	3°25'12	evening set	4177 Mar 14 06:45	5° ♁ 45'18	
minimum elong	4176 Apr 05 23:56	17° ♁ 14'56	3°25'00	inferior conj	4177 Mar 20 05:50	0° ♁ 17'28	3°36'05
min. Earth dist.	4176 Apr 08 20:51	14° ♁ 18'52	0.62091 AU	minimum elong	4177 Mar 20 05:55	0° ♁ 17'15	3°36'06
morning rise	4176 Apr 12 08:18	11° ♁ 18'20			4177 Mar 20 11:54	30° ♁	
direct	4176 Apr 19 04:29	8° ♁ 49'53		min. Earth dist.	4177 Mar 22 13:56	27° ♁ 37'03	0.64049 AU
desc. node	4176 Apr 21 13:20	9° ♁ 06'16		morning rise	4177 Mar 26 03:20	24° ♁ 07'25	
morning max el	4176 May 03 07:26	16° ♁ 48'48	27°52'01	direct	4177 Apr 01 23:06	21° ♁ 21'30	
	4176 May 14 05:06	0° ♁		desc. node	4177 Apr 08 10:22	23° ♁ 24'19	
	4176 Jun 01 08:38	0° ♁		morning max el	4177 Apr 15 16:13	29° ♁ 18'39	27°33'35
morning set	4176 Jun 05 20:22	8° ♁ 51'19			4177 Apr 16 08:26	0° ♁	
max. Earth dist.	4176 Jun 11 13:12	20° ♁ 50'19	1.32383 AU		4177 May 08 02:39	0° ♁	
asc. node	4176 Jun 11 14:28	20° ♁ 57'09		morning set	4177 May 20 15:07	22° ♁ 45'05	
					4177 May 24 05:20	0° ♁	
superior conj	4176 Jun 13 08:53	24° ♁ 47'16	0°18'26	max. Earth dist.	4177 May 25 14:47	2° ♁ 53'24	1.33168 AU
minimum elong	4176 Jun 13 08:02	24° ♁ 42'37	0°18'15				
	4176 Jun 15 18:08	0° ♁		superior conj	4177 May 28 14:57	9° ♁ 14'45	0°-8'-56
evening rise	4176 Jun 20 07:18	9° ♁ 50'58		minimum elong	4177 May 28 15:24	9° ♁ 17'08	0°08'51
	4176 Jun 30 15:40	0° ♁		behind sun begin	4177 May 28 10:53	8° ♁ 53'00	
evening max el	4176 Jul 15 04:11	19° ♁ 42'03	24°18'05	behind sun end	4177 May 28 19:56	9° ♁ 41'18	
desc. node	4176 Jul 18 12:35	22° ♁ 35'12		asc. node	4177 May 29 11:30	11° ♁ 04'42	
retrograde	4176 Jul 29 00:16	26° ♁ 40'48		evening rise	4177 Jun 04 18:53	24° ♁ 35'59	
evening set	4176 Aug 02 20:35	25° ♁ 48'29			4177 Jun 07 09:12	0° ♁	
min. Earth dist.	4176 Aug 08 14:59	22° ♁ 54'32	0.56573 AU	evening max el	4177 Jun 26 17:49	0° ♁ 06'12	22°41'05
inferior conj	4176 Aug 11 05:27	21° ♁ 16'28	-5°-7'-55		4177 Jun 26 15:16	0° ♁	
minimum elong	4176 Aug 11 02:50	21° ♁ 20'36	5°07'45	desc. node	4177 Jul 05 09:35	5° ♁ 53'03	
morning rise	4176 Aug 19 12:38	17° ♁ 15'23		retrograde	4177 Jul 09 22:52	6° ♁ 40'37	
direct	4176 Aug 22 05:06	16° ♁ 56'11		evening set	4177 Jul 13 06:42	6° ♁ 16'20	
morning max el	4176 Aug 31 20:51	21° ♁ 26'11	19°38'22	min. Earth dist.	4177 Jul 21 01:48	2° ♁ 50'23	0.55274 AU
asc. node	4176 Sep 07 13:43	29° ♁ 43'34		inferior conj	4177 Jul 22 09:17	2° ♁ 05'24	-4°-23'-12
	4176 Sep 07 18:02	0° ♁		minimum elong	4177 Jul 22 01:25	2° ♁ 16'40	4°21'33
morning set	4176 Sep 18 09:09	19° ♁ 26'53			4177 Jul 26 05:35	30° ♁	
	4176 Sep 23 14:27	0° ♁		morning rise	4177 Jul 30 22:37	28° ♁ 14'56	
superior conj	4176 Sep 26 08:21	5° ♁ 28'34	1°41'18	direct	4177 Aug 02 23:18	27° ♁ 53'45	
minimum elong	4176 Sep 26 09:47	5° ♁ 35'37	1°41'15		4177 Aug 10 02:42	0° ♁	
max. Earth dist.	4176 Oct 02 09:32	17° ♁ 05'11	1.37549 AU	morning max el	4177 Aug 14 05:28	3° ♁ 07'54	20°56'34
evening rise	4176 Oct 06 04:46	24° ♁ 00'11		asc. node	4177 Aug 25 10:46	18° ♁ 15'42	
	4176 Oct 09 15:15	0° ♁			4177 Aug 31 15:47	0° ♁	
desc. node	4176 Oct 14 11:55	8° ♁ 05'15		morning set	4177 Sep 02 16:40	4° ♁ 09'27	
	4176 Oct 29 06:04	0° ♁					
evening max el	4176 Nov 10 20:57	14° ♁ 59'51	25°20'16	superior conj	4177 Sep 10 03:51	19° ♁ 41'02	1°44'09
retrograde	4176 Nov 22 22:10	21° ♁ 56'56		minimum elong	4177 Sep 10 03:43	19° ♁ 40'18	1°44'08
evening set	4176 Nov 28 17:35	19° ♁ 32'31		max. Earth dist.	4177 Sep 14 18:13	28° ♁ 57'04	1.35674 AU
min. Earth dist.	4176 Dec 03 04:50	14° ♁ 35'53	0.67270 AU		4177 Sep 15 07:02	0° ♁	
inferior conj	4176 Dec 04 08:21	13° ♁ 06'47	0°-3'-53	evening rise	4177 Sep 18 21:40	6° ♁ 54'38	
minimum elong	4176 Dec 04 08:27	13° ♁ 06'29	0°03'51	desc. node	4177 Oct 01 08:55	28° ♁ 26'02	
transit middle	4176 Dec 04 08:27	13° ♁ 06'29	0°03'51		4177 Oct 02 08:47	0° ♁	
transit begin	4176 Dec 04 05:44	13° ♁ 15'16		evening max el	4177 Oct 24 09:29	28° ♁ 41'24	26°23'59
transit end	4176 Dec 04 11:09	12° ♁ 57'42			4177 Oct 25 19:09	0° ♁	
asc. node	4176 Dec 04 12:55	12° ♁ 52'00		retrograde	4177 Nov 06 05:00	5° ♁ 53'39	

evening set	4177 Nov 12 13:52	3°♄18'17		min. Earth dist.	4178 Oct 31 00:05	13°♍06'26	0.65131 AU
	4177 Nov 15 20:46	30°♌♍		inferior conj	4178 Nov 02 02:49	10°♍44'37	-2°-3'-40
min. Earth dist.	4177 Nov 16 18:03	28°♍57'20	0.66376 AU	minimum elong	4178 Nov 02 06:19	10°♍34'49	2°02'17
inferior conj	4177 Nov 18 08:50	26°♍59'27	-1°-2'-24	asc. node	4178 Nov 08 07:00	5°♍15'29	
minimum elong	4177 Nov 18 10:32	26°♍54'17	1°01'41	morning rise	4178 Nov 08 12:04	5°♍09'24	
asc. node	4177 Nov 21 09:58	23°♍31'12		direct	4178 Nov 11 03:04	4°♍32'34	
morning rise	4177 Nov 24 08:29	21°♍10'59		morning max el	4178 Nov 17 14:40	8°♍00'35	18°05'11
direct	4177 Nov 27 07:19	20°♍21'41			4178 Dec 02 14:57	0°♄	
morning max el	4177 Dec 03 23:38	24°♍01'21	18°36'51	morning set	4178 Dec 05 15:34	5°♄00'14	
	4177 Dec 08 22:35	0°♄		desc. node	4178 Dec 15 05:14	20°♄38'36	
morning set	4177 Dec 24 14:37	24°♄03'03					
desc. node	4177 Dec 28 08:12	29°♄57'46		superior conj	4178 Dec 20 00:27	28°♄19'12	0°-32'-34
	4177 Dec 28 08:46	0°♄		minimum elong	4178 Dec 19 20:22	28°♄03'02	0°32'02
					4178 Dec 21 01:52	0°♄	
superior conj	4178 Jan 09 18:22	19°♄30'24	-1°-18'-33	max. Earth dist.	4178 Dec 23 10:47	3°♄44'37	1.45088 AU
minimum elong	4178 Jan 09 09:26	18°♄55'24	1°17'33	evening rise	4179 Jan 05 09:40	23°♄55'46	
max. Earth dist.	4178 Jan 09 15:12	19°♄18'00	1.45246 AU		4179 Jan 09 08:00	0°♌	
	4178 Jan 16 10:38	0°♌		greatest brilliancy	4179 Jan 23 00:48	20°♌35'42	-0.6m
evening rise	4178 Jan 25 12:56	14°♌25'04		evening max el	4179 Jan 30 13:31	0°♌03'52	19°43'02
	4178 Feb 04 08:02	0°♌			4179 Jan 30 12:01	0°♌	
evening max el	4178 Feb 16 07:00	16°♌32'10	18°54'12	asc. node	4179 Feb 04 06:16	3°♌41'45	
asc. node	4178 Feb 17 09:14	17°♌35'08		retrograde	4179 Feb 06 23:05	4°♌20'51	
retrograde	4178 Feb 23 01:42	20°♌20'27		evening set	4179 Feb 10 12:29	3°♌06'44	
evening set	4178 Feb 26 07:27	19°♌19'56			4179 Feb 13 17:56	30°♌♍	
inferior conj	4178 Mar 03 23:36	13°♌34'47	3°29'59	inferior conj	4179 Feb 16 00:22	27°♌06'25	3°10'56
minimum elong	4178 Mar 03 22:19	13°♌38'48	3°29'52	minimum elong	4179 Feb 15 22:14	27°♌13'30	3°10'32
min. Earth dist.	4178 Mar 05 16:05	11°♌28'38	0.65652 AU	min. Earth dist.	4179 Feb 17 02:06	25°♌41'13	0.66837 AU
morning rise	4178 Mar 09 12:07	7°♌20'34		morning rise	4179 Feb 21 07:18	20°♌50'40	
direct	4178 Mar 16 00:36	4°♌31'22		direct	4179 Feb 27 07:51	18°♌10'23	
desc. node	4178 Mar 26 07:24	9°♌36'57		morning max el	4179 Mar 11 11:14	25°♌24'53	25°30'39
morning max el	4178 Mar 29 02:02	12°♌14'14	26°43'36	desc. node	4179 Mar 13 04:25	27°♌12'48	
	4178 Apr 12 07:38	0°♌			4179 Mar 15 15:39	0°♌	
	4178 Apr 30 17:07	0°♌			4179 Apr 05 19:52	0°♌	
morning set	4178 May 03 22:58	6°♌02'52		morning set	4179 Apr 16 15:36	18°♌32'34	
max. Earth dist.	4178 May 08 05:56	14°♌24'26	1.34424 AU	max. Earth dist.	4179 Apr 20 10:02	25°♌31'29	1.36131 AU
					4179 Apr 22 18:11	0°♌	
superior conj	4178 May 12 15:07	23°♌19'58	0°-37'-53				
minimum elong	4178 May 12 17:08	23°♌30'25	0°37'31	superior conj	4179 Apr 26 06:43	6°♌55'39	-1°-6'-58
	4178 May 15 19:39	0°♌		minimum elong	4179 Apr 26 10:19	7°♌13'35	1°06'22
asc. node	4178 May 16 08:31	1°♌07'46		asc. node	4179 May 03 05:34	21°♌02'31	
evening rise	4178 May 20 04:31	9°♌10'18		evening rise	4179 May 04 10:06	23°♌27'44	
	4178 May 31 06:38	0°♌			4179 May 07 16:35	0°♌	
evening max el	4178 Jun 08 14:42	10°♌45'08	21°09'56	evening max el	4179 May 21 23:25	22°♌00'43	19°54'28
retrograde	4178 Jun 20 11:58	16°♌35'16		retrograde	4179 Jun 01 03:30	26°♌58'10	
desc. node	4178 Jun 22 06:36	16°♌27'53		evening set	4179 Jun 03 02:18	26°♌48'02	
evening set	4178 Jun 22 18:38	16°♌23'12		desc. node	4179 Jun 09 03:37	24°♌28'32	
inferior conj	4178 Jul 02 02:54	12°♌25'21	-2°-49'-49	inferior conj	4179 Jun 12 00:39	22°♌47'13	0°-51'-14
minimum elong	4178 Jul 01 19:21	12°♌35'58	2°47'22	minimum elong	4179 Jun 11 22:17	22°♌50'50	0°50'22
min. Earth dist.	4178 Jul 02 12:53	12°♌11'20	0.54825 AU	min. Earth dist.	4179 Jun 14 01:32	21°♌32'59	0.55341 AU
morning rise	4178 Jul 10 20:02	8°♌27'57		morning rise	4179 Jun 20 15:29	18°♌23'42	
direct	4178 Jul 14 08:50	8°♌01'01		direct	4179 Jun 24 22:29	17°♌43'21	
morning max el	4178 Jul 27 02:52	14°♌04'55	22°32'13	morning max el	4179 Jul 08 17:40	24°♌32'41	24°15'43
	4178 Aug 08 05:14	0°♌			4179 Jul 13 18:11	0°♌	
asc. node	4178 Aug 12 07:47	7°♌20'54		asc. node	4179 Jul 30 04:50	26°♌50'41	
morning set	4178 Aug 18 03:11	19°♌00'22			4179 Jul 31 18:03	0°♌	
	4178 Aug 23 07:06	0°♌		morning set	4179 Aug 02 14:57	3°♌54'26	
superior conj	4178 Aug 25 07:00	4°♌15'27	1°40'03	superior conj	4179 Aug 09 15:08	19°♌03'34	1°30'06
minimum elong	4178 Aug 25 05:39	4°♌08'17	1°39'58	minimum elong	4179 Aug 09 13:03	18°♌52'15	1°29'53
max. Earth dist.	4178 Aug 28 11:23	10°♌56'09	1.34145 AU	max. Earth dist.	4179 Aug 11 13:20	23°♌13'11	1.33019 AU
evening rise	4178 Sep 02 05:33	20°♌31'17			4179 Aug 14 18:08	0°♌	
	4178 Sep 07 05:58	0°♌		evening rise	4179 Aug 17 00:26	4°♌39'07	
desc. node	4178 Sep 18 05:56	18°♌26'40			4179 Aug 30 22:26	0°♌	
	4178 Sep 26 07:38	0°♌		desc. node	4179 Sep 05 02:57	7°♌58'33	
evening max el	4178 Oct 06 22:09	12°♌14'12	27°08'23	evening max el	4179 Sep 19 09:20	25°♌25'41	27°26'36
retrograde	4178 Oct 20 06:02	19°♌31'34			4179 Sep 25 02:21	0°♌	
evening set	4178 Oct 27 02:26	16°♌51'22		retrograde	4179 Oct 03 00:49	2°♌42'15	

evening set	4179 Oct 10 04:27	0°♄06'10		desc. node	4180 Aug 21 23:57	26°♄49'51	
	4179 Oct 10 07:50	30°♄			4180 Aug 24 10:19	0°♄	
min. Earth dist.	4179 Oct 13 20:47	26°♄54'46	0.63545 AU	evening max el	4180 Aug 31 16:38	8°♄02'53	27°13'25
inferior conj	4179 Oct 16 11:43	24°♄16'08	-3°-5'-9	retrograde	4180 Sep 14 12:52	15°♄16'35	
minimum elong	4179 Oct 16 16:52	24°♄03'06	3°03'24	evening set	4180 Sep 21 16:14	12°♄56'36	
morning rise	4179 Oct 23 07:48	18°♄57'41		min. Earth dist.	4180 Sep 25 07:02	10°♄10'49	0.61659 AU
direct	4179 Oct 25 17:31	18°♄29'40		inferior conj	4180 Sep 28 08:29	7°♄26'44	-4°-2'-36
asc. node	4179 Oct 26 04:04	18°♄30'37		minimum elong	4180 Sep 28 14:30	7°♄13'15	4°01'03
morning max el	4179 Nov 01 07:23	21°♄54'47	17°50'53	morning rise	4180 Oct 05 15:51	2°♄28'25	
	4179 Nov 07 12:45	0°♄		direct	4180 Oct 07 23:07	2°♄06'00	
morning set	4179 Nov 17 18:36	17°♄13'02		asc. node	4180 Oct 12 01:07	3°♄19'05	
	4179 Nov 25 05:19	0°♄		morning max el	4180 Oct 14 22:40	5°♄36'43	17°54'50
				morning set	4180 Oct 30 17:20	0°♄22'19	
					4180 Oct 30 12:26	0°♄	
superior conj	4179 Nov 30 02:46	8°♄09'50	0°13'44	superior conj	4180 Nov 10 07:56	19°♄19'49	0°51'57
minimum elong	4179 Nov 30 04:13	8°♄15'48	0°13'31	minimum elong	4180 Nov 10 11:53	19°♄36'56	0°51'26
behind sun begin	4179 Nov 29 22:55	7°♄54'00			4180 Nov 16 15:13	0°♄	
behind sun end	4179 Nov 30 09:30	8°♄37'35		desc. node	4180 Nov 17 23:17	2°♄12'02	
desc. node	4179 Dec 02 02:15	11°♄24'19		max. Earth dist.	4180 Nov 17 18:27	1°♄52'14	1.42731 AU
max. Earth dist.	4179 Dec 06 04:51	18°♄02'04	1.44213 AU	evening rise	4180 Nov 24 10:34	12°♄35'08	
	4179 Dec 13 19:27	0°♄			4180 Dec 05 20:58	0°♄	
evening rise	4179 Dec 15 19:32	3°♄05'41		greatest brilliancy	4180 Dec 21 16:38	21°♄48'35	-0.3m
	4180 Jan 02 21:08	0°♄		evening max el	4180 Dec 26 10:20	27°♄10'02	21°59'32
greatest brilliancy	4180 Jan 08 00:23	6°♄59'59	-0.5m		4180 Dec 29 13:02	0°♄	
evening max el	4180 Jan 13 14:39	13°♄36'07	20°46'00	retrograde	4181 Jan 04 18:17	2°♄43'12	
retrograde	4180 Jan 21 21:15	18°♄29'24		asc. node	4181 Jan 08 00:21	1°♄46'29	
asc. node	4180 Jan 22 03:19	18°♄29'03		evening set	4181 Jan 09 03:35	0°♄58'54	
evening set	4180 Jan 25 19:46	17°♄00'40			4181 Jan 10 05:47	30°♄	
inferior conj	4180 Jan 31 05:32	10°♄47'55	2°41'38	inferior conj	4181 Jan 14 13:00	24°♄37'14	2°03'53
minimum elong	4180 Jan 31 03:04	10°♄56'24	2°40'58	minimum elong	4181 Jan 14 10:41	24°♄45'16	2°03'05
min. Earth dist.	4180 Jan 31 18:01	10°♄05'05	0.67604 AU	min. Earth dist.	4181 Jan 14 13:37	24°♄35'04	0.67980 AU
morning rise	4180 Feb 05 09:56	4°♄32'27		morning rise	4181 Jan 19 17:34	18°♄23'43	
direct	4180 Feb 10 20:12	2°♄09'27		direct	4181 Jan 24 12:56	16°♄22'23	
morning max el	4180 Feb 21 19:52	8°♄42'46	24°04'36	morning max el	4181 Feb 03 06:11	22°♄06'52	22°35'30
desc. node	4180 Feb 28 01:28	15°♄47'32		greatest brilliancy	4181 Feb 07 20:07	27°♄13'21	-0.3m
	4180 Mar 09 13:18	0°♄			4181 Feb 10 01:52	0°♄	
morning set	4180 Mar 28 11:19	29°♄58'07		desc. node	4181 Feb 13 22:32	5°♄04'55	
	4180 Mar 28 11:45	0°♄			4181 Mar 02 21:10	0°♄	
max. Earth dist.	4180 Apr 01 06:26	6°♄38'15	1.38180 AU	morning set	4181 Mar 09 04:12	10°♄05'05	
				max. Earth dist.	4181 Mar 14 02:08	18°♄17'28	1.40364 AU
superior conj	4180 Apr 08 10:12	19°♄51'50	-1°-33'-57		4181 Mar 20 18:57	0°♄	
minimum elong	4180 Apr 08 14:53	20°♄14'10	1°33'21	superior conj	4181 Mar 21 21:12	1°♄58'14	-1°-55'-31
	4180 Apr 13 15:36	0°♄		minimum elong	4181 Mar 22 01:34	2°♄18'01	1°55'12
evening rise	4180 Apr 17 08:59	7°♄20'17		evening rise	4181 Mar 31 22:03	20°♄39'55	
asc. node	4180 Apr 19 02:36	10°♄43'52		asc. node	4181 Apr 05 23:38	0°♄06'32	
	4180 Apr 30 09:21	0°♄			4181 Apr 05 22:12	0°♄	
evening max el	4180 May 03 19:46	3°♄57'21	18°58'45	evening max el	4181 Apr 17 01:00	16°♄29'15	18°23'21
retrograde	4180 May 12 09:26	8°♄08'33		retrograde	4181 Apr 24 10:06	20°♄08'47	
evening set	4180 May 14 11:02	7°♄54'55		evening set	4181 Apr 26 17:58	19°♄47'55	
inferior conj	4180 May 22 15:03	3°♄39'13	0°58'35	inferior conj	4181 May 04 02:52	15°♄12'16	2°19'36
minimum elong	4180 May 22 17:17	3°♄35'18	0°57'48	minimum elong	4181 May 04 06:31	15°♄04'44	2°18'36
min. Earth dist.	4180 May 25 17:12	1°♄29'44	0.56711 AU	min. Earth dist.	4181 May 07 13:29	12°♄23'38	0.58666 AU
desc. node	4180 May 26 00:38	1°♄17'19		morning rise	4181 May 11 14:46	9°♄41'09	
	4180 May 28 02:17	30°♄		desc. node	4181 May 12 21:42	9°♄04'04	
morning rise	4180 May 30 19:07	28°♄39'46		direct	4181 May 17 17:54	8°♄01'48	
direct	4180 Jun 05 00:59	27°♄34'28		morning max el	4181 Jun 01 03:23	15°♄46'48	27°05'59
	4180 Jun 12 23:58	0°♄			4181 Jun 12 16:59	0°♄	
morning max el	4180 Jun 19 08:17	4°♄58'09	25°52'12	morning set	4181 Jun 29 18:58	0°♄	
	4180 Jul 07 11:22	0°♄		asc. node	4181 Jul 01 11:39	3°♄30'46	
asc. node	4180 Jul 16 01:53	16°♄38'14			4181 Jul 02 22:55	6°♄37'21	
morning set	4180 Jul 17 02:20	18°♄46'37		superior conj	4181 Jul 08 13:54	18°♄53'36	0°56'00
	4180 Jul 22 06:42	0°♄		minimum elong	4181 Jul 08 11:47	18°♄41'57	0°55'36
superior conj	4180 Jul 24 02:04	3°♄58'36	1°15'12	max. Earth dist.	4181 Jul 08 09:03	18°♄26'51	1.32010 AU
minimum elong	4180 Jul 23 23:44	3°♄45'46	1°14'51		4181 Jul 13 15:32	0°♄	
max. Earth dist.	4180 Jul 24 21:42	5°♄46'30	1.32308 AU				
evening rise	4180 Jul 31 03:08	19°♄08'53					
	4180 Aug 05 13:29	0°♄					

evening rise	4181 Jul 15 10:57	3°Ω51'50		evening rise	4182 Jun 29 21:45	18°♄40'56	
	4181 Jul 29 09:15	0°♎			4182 Jul 05 10:44	0°Ω	
desc. node	4181 Aug 08 20:59	14°♎43'14			4182 Jul 25 11:15	0°♎	
evening max el	4181 Aug 13 17:39	19°♎54'49	26°26'55	evening max el	4182 Jul 26 11:23	0°♎59'25	25°11'00
retrograde	4181 Aug 27 16:50	27°♎04'45		desc. node	4182 Jul 26 17:58	1°♎15'02	
evening set	4181 Sep 03 08:58	25°♎13'55		retrograde	4182 Aug 09 10:21	8°♎03'31	
min. Earth dist.	4181 Sep 07 07:08	22°♎39'16	0.59602 AU	evening set	4182 Aug 15 02:05	6°♎50'11	
inferior conj	4181 Sep 10 13:33	20°♎06'16	-4°-48'-42	min. Earth dist.	4182 Aug 19 23:05	4°♎08'22	0.57596 AU
minimum elong	4181 Sep 10 18:30	19°♎56'33	4°47'57	inferior conj	4182 Aug 22 23:39	2°♎05'35	-5°-11'-31
morning rise	4181 Sep 18 07:30	15°♎30'28		minimum elong	4182 Aug 23 00:32	2°♎04'04	5°11'30
direct	4181 Sep 20 15:43	15°♎10'54			4182 Aug 26 05:21	30°♎Ω	
morning max el	4181 Sep 28 09:08	18°♎56'19	18°18'18	morning rise	4182 Aug 31 02:30	27°♎52'33	
asc. node	4181 Sep 28 22:10	19°♎28'42		direct	4182 Sep 02 15:13	27°♎33'35	
	4181 Oct 06 11:46	0°♊			4182 Sep 09 09:40	0°♎	
morning set	4181 Oct 14 05:58	14°♊10'44		morning max el	4182 Sep 11 11:25	1°♎43'59	19°02'46
	4181 Oct 22 15:27	0°♌		asc. node	4182 Sep 15 19:12	6°♎44'40	
				morning set	4182 Sep 28 04:17	28°♎26'44	
superior conj	4181 Oct 23 13:07	1°♌39'18	1°19'17		4182 Sep 28 23:08	0°♊	
minimum elong	4181 Oct 23 16:55	1°♌56'41	1°18'52	superior conj	4182 Oct 06 13:00	14°♊53'32	1°35'58
max. Earth dist.	4181 Oct 31 02:38	15°♌01'53	1.40828 AU	minimum elong	4182 Oct 06 15:24	15°♊05'04	1°35'48
evening rise	4181 Nov 04 19:55	22°♌55'55		max. Earth dist.	4182 Oct 13 07:31	27°♊30'24	1.38745 AU
desc. node	4181 Nov 04 20:19	22°♌57'32			4182 Oct 14 17:01	0°♌	
	4181 Nov 09 05:18	0°♈		evening rise	4182 Oct 17 04:31	4°♌20'17	
	4181 Nov 29 21:19	0°♉		desc. node	4182 Oct 22 17:19	13°♌37'03	
evening max el	4181 Dec 09 01:45	10°♉47'02	23°18'54		4182 Nov 02 08:01	0°♈	
retrograde	4181 Dec 19 12:36	16°♉58'10		evening max el	4182 Nov 21 14:50	24°♈27'57	24°37'51
evening set	4181 Dec 24 10:18	14°♉57'50			4182 Nov 28 18:16	0°♉	
asc. node	4181 Dec 25 21:23	13°♉34'21		retrograde	4182 Dec 03 02:56	1°♉10'19	
inferior conj	4181 Dec 29 20:50	8°♉31'13	1°18'58		4182 Dec 07 02:09	30°♌♈	
minimum elong	4181 Dec 29 19:08	8°♉37'05	1°18'17	evening set	4182 Dec 08 14:20	28°♈54'15	
min. Earth dist.	4181 Dec 29 10:27	9°♉06'54	0.67985 AU	asc. node	4182 Dec 12 18:26	24°♈15'52	
morning rise	4182 Jan 04 04:01	2°♉21'42		min. Earth dist.	4182 Dec 13 06:06	23°♈37'29	0.67637 AU
direct	4182 Jan 08 09:01	0°♉43'10		inferior conj	4182 Dec 14 03:15	22°♈27'06	0°27'53
morning max el	4182 Jan 16 21:41	5°♉40'01	21°12'03	minimum elong	4182 Dec 14 02:35	22°♈29'21	0°27'36
greatest brilliancy	4182 Jan 22 03:39	11°♉40'19	-0.4m	morning rise	4182 Dec 19 15:16	16°♈23'51	
desc. node	4182 Jan 31 19:35	24°♉52'53		direct	4182 Dec 23 07:09	15°♈06'53	
	4182 Feb 04 07:39	0°♊		morning max el	4182 Dec 30 20:53	19°♈24'38	20°00'04
morning set	4182 Feb 16 16:46	18°♊53'15		greatest brilliancy	4183 Jan 06 22:45	27°♈58'14	-0.6m
	4182 Feb 23 15:15	0°♋			4183 Jan 08 10:10	0°♉	
max. Earth dist.	4182 Feb 24 03:52	0°♋51'34	1.42398 AU	desc. node	4183 Jan 18 16:36	15°♉02'43	
				morning set	4183 Jan 26 13:09	27°♉02'32	
superior conj	4182 Mar 03 10:45	13°♋03'51	-2°-7'-7		4183 Jan 28 11:02	0°♊	
minimum elong	4182 Mar 03 12:12	13°♋10'02	2°07'07	max. Earth dist.	4183 Feb 06 13:46	14°♊19'41	1.44012 AU
	4182 Mar 13 01:30	0°♌					
evening rise	4182 Mar 14 21:25	3°♌18'04		superior conj	4183 Feb 11 22:49	23°♊00'14	-2°-3'-20
asc. node	4182 Mar 23 20:40	19°♌04'16		minimum elong	4183 Feb 11 18:31	22°♊42'45	2°03'11
evening max el	4182 Mar 31 11:38	29°♌27'24	18°07'45		4183 Feb 16 04:45	0°♋	
	4182 Apr 01 01:24	0°♍		evening rise	4183 Feb 25 02:42	15°♋05'46	
retrograde	4182 Apr 07 03:52	2°♍51'31			4183 Mar 05 21:10	0°♌	
evening set	4182 Apr 09 18:01	2°♍21'01		asc. node	4183 Mar 10 17:42	7°♌28'44	
	4182 Apr 13 13:21	30°♌♌		evening max el	4183 Mar 15 00:22	12°♌42'23	18°11'18
inferior conj	4182 Apr 16 10:45	27°♌24'12	3°09'03	retrograde	4183 Mar 21 10:31	16°♌06'07	
minimum elong	4182 Apr 16 13:30	27°♌17'37	3°08'34	evening set	4183 Mar 24 06:29	15°♌24'38	
min. Earth dist.	4182 Apr 19 16:17	24°♌20'51	0.60854 AU	inferior conj	4183 Mar 30 10:55	10°♌07'26	3°32'12
morning rise	4182 Apr 23 05:44	21°♌31'36		minimum elong	4183 Mar 30 11:58	10°♌04'36	3°32'08
direct	4182 Apr 29 22:35	19°♌18'36		min. Earth dist.	4183 Apr 02 03:39	7°♌13'28	0.62963 AU
desc. node	4182 Apr 29 18:44	19°♌18'40		morning rise	4183 Apr 05 15:17	4°♌02'01	
morning max el	4182 May 14 04:43	27°♌14'22	27°46'06	direct	4183 Apr 12 12:21	1°♌24'37	
	4182 May 16 19:46	0°♍		desc. node	4183 Apr 16 15:47	2°♌14'59	
	4182 Jun 06 08:25	0°♎		morning max el	4183 Apr 26 11:25	9°♌23'09	27°48'33
morning set	4182 Jun 15 17:05	18°♎01'03			4183 May 12 11:40	0°♍	
asc. node	4182 Jun 19 19:57	26°♎43'17			4183 May 29 14:26	0°♎	
	4182 Jun 21 08:13	0°♏		morning set	4183 May 30 16:27	2°♎09'51	
max. Earth dist.	4182 Jun 21 19:46	1°♏02'58	1.32125 AU	max. Earth dist.	4183 Jun 05 01:53	13°♎21'26	1.32664 AU
				asc. node	4183 Jun 06 16:59	16°♎51'04	
superior conj	4182 Jun 23 00:54	3°♏42'38	0°33'05				
minimum elong	4182 Jun 22 23:28	3°♏34'45	0°32'47				

superior conj	4183 Jun 07 09:17	18° Π 19'07	0°07'07	superior conj	4184 May 21 13:05	2° Π 37'25	0°-21'-6
minimum elong	4183 Jun 07 08:57	18° Π 17'17	0°07'02	minimum elong	4184 May 21 14:11	2° Π 43'11	0°20'54
behind sun begin	4183 Jun 07 04:12	17° Π 51'40		asc. node	4184 May 23 14:00	6° Π 56'58	
behind sun end	4183 Jun 07 13:41	18° Π 42'55		evening rise	4184 May 28 20:34	18° Π 09'53	
	4183 Jun 12 18:31	0° \mathfrak{E}			4184 Jun 03 17:32	0° \mathfrak{E}	
evening rise	4183 Jun 14 09:34	3° \mathfrak{E} 28'52		evening max el	4184 Jun 18 15:55	21° \mathfrak{E} 54'04	22°00'43
	4183 Jun 28 18:07	0° \mathfrak{Q}		desc. node	4184 Jun 29 12:01	28° \mathfrak{E} 04'03	
evening max el	4183 Jul 08 00:21	11° \mathfrak{Q} 28'51	23°37'00	retrograde	4184 Jul 01 09:14	28° \mathfrak{E} 12'19	
desc. node	4183 Jul 13 14:59	15° \mathfrak{Q} 53'29		evening set	4184 Jul 04 04:24	27° \mathfrak{E} 54'50	
retrograde	4183 Jul 21 15:27	18° \mathfrak{Q} 19'05		inferior conj	4184 Jul 13 11:18	23° \mathfrak{E} 50'41	-3°-48'-41
evening set	4183 Jul 25 20:14	17° \mathfrak{Q} 40'25		minimum elong	4184 Jul 13 02:43	24° \mathfrak{E} 02'43	3°46'24
min. Earth dist.	4183 Aug 01 10:17	14° \mathfrak{Q} 34'40	0.55938 AU	min. Earth dist.	4184 Jul 12 20:39	24° \mathfrak{E} 11'15	0.54964 AU
inferior conj	4183 Aug 03 13:29	13° \mathfrak{Q} 18'11	-4°-55'-17	morning rise	4184 Jul 22 02:46	20° \mathfrak{E} 00'13	
minimum elong	4183 Aug 03 08:14	13° \mathfrak{Q} 26'03	4°54'39	direct	4184 Jul 25 07:54	19° \mathfrak{E} 37'22	
morning rise	4183 Aug 11 23:27	9° \mathfrak{Q} 23'25		morning max el	4184 Aug 06 06:16	25° \mathfrak{E} 12'04	21°35'46
direct	4183 Aug 14 19:23	9° \mathfrak{Q} 03'29			4184 Aug 10 16:11	0° \mathfrak{Q}	
morning max el	4183 Aug 25 02:44	13° \mathfrak{Q} 50'37	20°09'09	asc. node	4184 Aug 19 13:16	13° \mathfrak{Q} 39'20	
asc. node	4183 Sep 02 16:14	24° \mathfrak{Q} 52'20		morning set	4184 Aug 26 18:09	27° \mathfrak{Q} 48'26	
	4183 Sep 05 16:04	0° \mathfrak{M}			4184 Aug 27 19:21	0° \mathfrak{M}	
morning set	4183 Sep 12 09:09	13° \mathfrak{M} 01'46					
				superior conj	4184 Sep 03 01:40	13° \mathfrak{M} 11'18	1°43'11
superior conj	4183 Sep 20 02:33	28° \mathfrak{M} 48'21	1°43'26	minimum elong	4184 Sep 03 00:57	13° \mathfrak{M} 07'37	1°43'10
minimum elong	4183 Sep 20 03:17	28° \mathfrak{M} 52'02	1°43'25	max. Earth dist.	4184 Sep 07 01:25	21° \mathfrak{M} 22'38	1.34967 AU
	4183 Sep 20 16:50	0° \mathfrak{A}		evening rise	4184 Sep 11 10:26	29° \mathfrak{M} 57'50	
max. Earth dist.	4183 Sep 25 13:28	9° \mathfrak{A} 30'13	1.36721 AU		4184 Sep 11 10:53	0° \mathfrak{A}	
evening rise	4183 Sep 29 10:43	16° \mathfrak{A} 44'30		desc. node	4184 Sep 25 11:18	24° \mathfrak{A} 19'41	
	4183 Oct 07 01:53	0° \mathfrak{M}			4184 Sep 29 04:35	0° \mathfrak{M}	
desc. node	4183 Oct 09 14:18	4° \mathfrak{M} 06'25		evening max el	4184 Oct 16 15:43	21° \mathfrak{M} 49'33	26°45'36
	4183 Oct 27 18:20	0° \mathfrak{J}		retrograde	4184 Oct 29 17:05	29° \mathfrak{M} 05'26	
evening max el	4183 Nov 04 03:15	8° \mathfrak{J} 10'58	25°49'12	evening set	4184 Nov 05 07:21	26° \mathfrak{M} 26'43	
retrograde	4183 Nov 16 12:37	15° \mathfrak{J} 15'08		min. Earth dist.	4184 Nov 09 08:32	22° \mathfrak{M} 21'32	0.65890 AU
evening set	4183 Nov 22 14:01	12° \mathfrak{J} 45'25		inferior conj	4184 Nov 11 04:28	20° \mathfrak{M} 12'26	-1°-28'-10
min. Earth dist.	4183 Nov 26 22:14	8° \mathfrak{J} 04'03	0.66940 AU	minimum elong	4184 Nov 11 06:55	20° \mathfrak{M} 05'13	1°27'08
inferior conj	4183 Nov 28 06:29	6° \mathfrak{J} 22'15	0°-28'-14	asc. node	4184 Nov 15 12:31	15° \mathfrak{M} 41'54	
minimum elong	4183 Nov 28 07:13	6° \mathfrak{J} 19'55	0°27'55	morning rise	4184 Nov 17 08:04	14° \mathfrak{M} 29'32	
asc. node	4183 Nov 29 15:28	4° \mathfrak{J} 39'47		direct	4184 Nov 20 03:13	13° \mathfrak{M} 46'07	
morning rise	4183 Dec 04 01:22	0° \mathfrak{J} 27'51		morning max el	4184 Nov 26 16:45	17° \mathfrak{M} 19'39	18°21'21
	4183 Dec 04 22:33	30° \mathfrak{R} \mathfrak{M}			4184 Dec 06 03:25	0° \mathfrak{J}	
direct	4183 Dec 07 05:51	29° \mathfrak{M} 29'32		morning set	4184 Dec 16 02:05	15° \mathfrak{J} 52'58	
	4183 Dec 09 14:52	0° \mathfrak{J}		desc. node	4184 Dec 22 10:36	26° \mathfrak{J} 04'47	
morning max el	4183 Dec 14 03:51	3° \mathfrak{J} 19'42	19°02'41		4184 Dec 24 21:43	0° \mathfrak{Z}	
	4184 Jan 02 01:14	0° \mathfrak{Z}					
morning set	4184 Jan 05 18:18	5° \mathfrak{Z} 46'43		superior conj	4184 Dec 31 13:38	10° \mathfrak{Z} 30'59	0°-59'-50
desc. node	4184 Jan 05 13:36	5° \mathfrak{Z} 28'25		minimum elong	4184 Dec 31 06:16	10° \mathfrak{Z} 02'03	0°58'56
max. Earth dist.	4184 Jan 20 05:52	28° \mathfrak{Z} 25'36	1.45003 AU	max. Earth dist.	4185 Jan 02 00:42	12° \mathfrak{Z} 48'35	1.45270 AU
	4184 Jan 21 05:50	0° \approx			4185 Jan 13 00:06	0° \approx	
superior conj	4184 Jan 22 11:16	1° \approx 56'06	-1°-40'-10	evening rise	4185 Jan 16 18:09	5° \approx 53'17	
minimum elong	4184 Jan 22 02:15	1° \approx 20'31	1°39'23	greatest brilliancy	4185 Jan 30 09:43	27° \approx 06'03	-0.7m
evening rise	4184 Feb 06 10:01	25° \approx 57'23			4185 Feb 01 08:53	0° \mathfrak{H}	
	4184 Feb 08 21:19	0° \mathfrak{H}		evening max el	4185 Feb 08 21:20	9° \mathfrak{H} 37'20	19°13'01
asc. node	4184 Feb 25 14:44	25° \mathfrak{H} 10'05		asc. node	4185 Feb 11 11:47	11° \mathfrak{H} 55'16	
evening max el	4184 Feb 26 12:22	26° \mathfrak{H} 07'30	18°33'23	retrograde	4185 Feb 15 21:42	13° \mathfrak{H} 37'10	
retrograde	4184 Mar 04 01:42	29° \mathfrak{H} 43'50		evening set	4185 Feb 19 06:27	12° \mathfrak{H} 31'07	
evening set	4184 Mar 07 03:37	28° \mathfrak{H} 50'32		inferior conj	4185 Feb 24 20:30	6° \mathfrak{H} 39'04	3°23'19
inferior conj	4184 Mar 12 23:21	23° \mathfrak{H} 14'46	3°35'18	minimum elong	4185 Feb 24 18:47	6° \mathfrak{H} 44'34	3°23'04
minimum elong	4184 Mar 12 22:48	23° \mathfrak{H} 16'26	3°35'17	min. Earth dist.	4185 Feb 26 06:32	4° \mathfrak{H} 49'46	0.66207 AU
min. Earth dist.	4184 Mar 15 00:40	20° \mathfrak{H} 47'57	0.64781 AU	morning rise	4185 Mar 02 06:13	0° \mathfrak{H} 23'37	
morning rise	4184 Mar 18 16:36	17° \mathfrak{H} 02'26			4185 Mar 02 17:12	30° \mathfrak{R} \approx	
direct	4184 Mar 25 09:48	14° \mathfrak{H} 13'50		direct	4185 Mar 08 13:54	27° \approx 36'57	
desc. node	4184 Apr 02 12:49	17° \mathfrak{H} 26'18			4185 Mar 15 05:06	0° \mathfrak{H}	
morning max el	4184 Apr 07 21:09	22° \mathfrak{H} 06'11	27°15'46	desc. node	4185 Mar 20 09:51	4° \mathfrak{H} 17'43	
	4184 Apr 14 19:22	0° \mathfrak{Y}		morning max el	4185 Mar 21 07:06	5° \mathfrak{H} 10'21	26°14'45
	4184 May 04 16:44	0° \mathfrak{B}			4185 Apr 09 08:07	0° \mathfrak{Y}	
morning set	4184 May 13 06:59	15° \mathfrak{B} 49'19		morning set	4185 Apr 26 09:01	28° \mathfrak{Y} 48'48	
					4185 Apr 27 00:13	0° \mathfrak{B}	
max. Earth dist.	4184 May 17 23:36	25° \mathfrak{B} 12'06	1.33650 AU	max. Earth dist.	4185 Apr 30 09:56	6° \mathfrak{B} 31'11	1.35095 AU
	4184 May 20 07:09	0° \mathfrak{H}					

superior conj	4185 May 05 09:59	16°♄31'06	0°-50'-21			4186 Apr 02 09:41	0°♄	
minimum elong	4185 May 05 12:41	16°♄44'55	0°49'51	morning set		4186 Apr 08 17:30	10°♄53'25	
asc. node	4185 May 10 11:04	26°♄57'15		max. Earth dist.		4186 Apr 12 09:32	17°♄32'00	1.36967 AU
	4185 May 11 22:13	0°♄						
evening rise	4185 May 13 04:46	2°♄37'56		superior conj		4186 Apr 18 20:54	29°♄51'21	-1°-18'-52
	4185 May 29 03:49	0°♄		minimum elong		4186 Apr 19 01:04	0°♄11'44	1°18'14
evening max el	4185 May 31 17:35	2°♄47'24	20°35'36			4186 Apr 18 22:40	0°♄	
retrograde	4185 Jun 11 22:14	8°♄15'39		evening rise		4186 Apr 27 07:50	16°♄45'33	
evening set	4185 Jun 13 23:17	8°♄05'26		asc. node		4186 Apr 27 08:07	16°♄46'57	
desc. node	4185 Jun 16 09:03	7°♄29'07				4186 May 04 05:08	0°♄	
inferior conj	4185 Jun 23 04:57	4°♄08'14	-2°00'-33	evening max el		4186 May 14 07:37	14°♄21'21	19°28'21
minimum elong	4185 Jun 22 23:18	4°♄16'21	1°58'32	retrograde		4186 May 23 18:22	18°♄57'12	
min. Earth dist.	4185 Jun 24 08:36	3°♄28'23	0.54917 AU	evening set		4186 May 25 17:34	18°♄46'07	
morning rise	4185 Jul 01 22:01	0°♄01'23		inferior conj		4186 Jun 03 08:41	14°♄40'30	0°-1°-54
	4185 Jul 02 00:06	30°♄		minimum elong		4186 Jun 03 08:36	14°♄40'38	0°01'54
direct	4185 Jul 05 17:28	29°♄30'05		transit middle		4186 Jun 03 08:36	14°♄40'38	0°01'54
	4185 Jul 09 09:09	0°♄		transit begin		4186 Jun 03 04:44	14°♄46'51	
morning max el	4185 Jul 19 00:21	5°♄55'10	23°16'12	transit end		4186 Jun 03 12:28	14°♄34'25	
	4185 Aug 04 21:28	0°♄		desc. node		4186 Jun 03 06:06	14°♄44'40	
asc. node	4185 Aug 06 10:18	2°♄56'08		min. Earth dist.		4186 Jun 05 22:38	13°♄01'15	0.55830 AU
morning set	4185 Aug 11 05:24	12°♄41'40		morning rise		4186 Jun 11 19:51	10°♄01'53	
				direct		4186 Jun 16 12:33	9°♄12'04	
superior conj	4185 Aug 18 07:16	27°♄53'09	1°36'29	morning max el		4186 Jun 30 14:11	16°♄18'07	24°58'33
minimum elong	4185 Aug 18 05:33	27°♄43'56	1°36'22			4186 Jul 11 16:02	0°♄	
	4185 Aug 19 06:59	0°♄		asc. node		4186 Jul 24 07:21	22°♄34'06	
max. Earth dist.	4185 Aug 20 22:13	3°♄27'58	1.33605 AU	morning set		4186 Jul 26 17:11	27°♄35'11	
evening rise	4185 Aug 25 23:28	13°♄49'32				4186 Jul 27 20:22	0°♄	
	4185 Sep 03 15:22	0°♄						
desc. node	4185 Sep 12 08:21	14°♄09'45		superior conj		4186 Aug 02 16:49	12°♄44'54	1°24'21
	4185 Sep 24 04:32	0°♄		minimum elong		4186 Aug 02 14:34	12°♄32'36	1°24'04
evening max el	4185 Sep 29 03:52	5°♄14'49	27°19'43	max. Earth dist.		4186 Aug 04 03:08	15°♄51'57	1.32665 AU
retrograde	4185 Oct 12 15:50	12°♄33'21		evening rise		4186 Aug 09 22:03	28°♄07'51	
evening set	4185 Oct 19 15:53	9°♄53'29				4186 Aug 10 20:03	0°♄	
min. Earth dist.	4185 Oct 23 10:56	6°♄23'20	0.64492 AU			4186 Aug 27 20:50	0°♄	
inferior conj	4185 Oct 25 18:57	3°♄52'59	-2°-29'-54	desc. node		4186 Aug 30 05:23	3°♄25'58	
minimum elong	4185 Oct 25 23:12	3°♄41'34	2°28'19	evening max el		4186 Sep 11 13:53	18°♄13'39	27°25'10
	4185 Oct 29 19:02	30°♄		retrograde		4186 Sep 25 07:55	25°♄29'01	
morning rise	4185 Nov 01 08:43	28°♄24'34		evening set		4186 Oct 02 12:20	22°♄58'35	
asc. node	4185 Nov 02 09:32	28°♄03'24		min. Earth dist.		4186 Oct 06 03:28	19°♄59'03	0.62769 AU
direct	4185 Nov 03 21:00	27°♄52'03		inferior conj		4186 Oct 08 23:05	17°♄16'36	-3°-30'-23
	4185 Nov 08 22:24	0°♄		minimum elong		4186 Oct 09 04:45	17°♄02'56	3°28'38
morning max el	4185 Nov 10 08:54	1°♄18'09	17°56'54	morning rise		4186 Oct 15 23:56	12°♄06'01	
morning set	4185 Nov 27 14:53	27°♄24'49		direct		4186 Oct 18 08:11	11°♄40'45	
	4185 Nov 29 03:44	0°♄		asc. node		4186 Oct 20 06:34	11°♄58'23	
desc. node	4185 Dec 09 07:38	16°♄48'19		morning max el		4186 Oct 25 01:19	15°♄07'33	17°50'14
						4186 Nov 04 09:22	0°♄	
superior conj	4185 Dec 11 02:48	19°♄42'32	0°-12'-23	morning set		4186 Nov 10 03:07	10°♄04'04	
minimum elong	4185 Dec 11 01:19	19°♄36'36	0°12'11					
behind sun begin	4185 Dec 10 18:27	19°♄08'58		superior conj		4186 Nov 21 16:23	0°♄06'27	0°31'11
behind sun end	4185 Dec 11 08:11	20°♄04'11		minimum elong		4186 Nov 21 19:18	0°♄18'42	0°30'47
max. Earth dist.	4185 Dec 15 19:24	27°♄11'28	1.44801 AU			4186 Nov 21 14:51	0°♄	
	4185 Dec 17 14:08	0°♄		desc. node		4186 Nov 26 04:41	7°♄35'22	
evening rise	4185 Dec 27 08:32	15°♄10'44		max. Earth dist.		4186 Nov 28 11:47	11°♄19'10	1.43650 AU
	4186 Jan 06 01:52	0°♄		evening rise		4186 Dec 06 18:37	24°♄24'32	
greatest brilliancy	4186 Jan 16 12:08	15°♄09'00	-0.6m			4186 Dec 10 09:57	0°♄	
evening max el	4186 Jan 23 01:40	23°♄09'34	20°08'16			4186 Dec 31 06:29	0°♄	
asc. node	4186 Jan 29 08:50	27°♄30'01		greatest brilliancy		4186 Dec 31 22:46	0°♄51'45	-0.4m
retrograde	4186 Jan 30 19:41	27°♄41'26		evening max el		4187 Jan 06 00:35	6°♄43'29	21°16'16
evening set	4186 Feb 03 12:40	26°♄21'27		retrograde		4187 Jan 14 17:28	11°♄53'04	
inferior conj	4186 Feb 08 23:26	20°♄15'37	2°59'38	asc. node		4187 Jan 16 05:52	11°♄40'34	
minimum elong	4186 Feb 08 21:06	20°♄23'30	2°59'06	evening set		4187 Jan 18 20:23	10°♄17'53	
min. Earth dist.	4186 Feb 09 19:27	19°♄08'08	0.67218 AU	inferior conj		4187 Jan 24 05:50	4°♄01'11	2°26'34
morning rise	4186 Feb 14 04:56	13°♄59'35		minimum elong		4187 Jan 24 03:22	4°♄09'42	2°25'49
direct	4186 Feb 19 23:39	11°♄25'34		min. Earth dist.		4187 Jan 24 13:11	3°♄35'47	0.67817 AU
morning max el	4186 Mar 03 15:48	18°♄24'24	24°54'50			4187 Jan 27 06:54	30°♄	
desc. node	4186 Mar 07 06:53	22°♄21'05		morning rise		4187 Jan 29 10:00	27°♄46'27	
	4186 Mar 13 10:20	0°♄		direct		4187 Feb 03 14:04	25°♄32'07	

	4187 Feb 12 04:56	0°♊		minimum elong	4188 Jan 08 11:31	17°♊59'47	1°44'52
morning max el	4187 Feb 14 00:35	1°♊44'32	23°26'27	min. Earth dist.	4188 Jan 08 09:27	18°♊06'58	0.68028 AU
greatest brilliancy	4187 Feb 19 21:02	8°♊22'26	-0.2m	morning rise	4188 Jan 13 19:03	11°♊40'42	
desc. node	4187 Feb 22 03:55	11°♊16'01		direct	4188 Jan 18 08:14	9°♊49'10	
	4187 Mar 07 10:36	0°♋		morning max el	4188 Jan 27 12:43	15°♊12'10	21°59'01
morning set	4187 Mar 21 02:28	21°♋47'21		greatest brilliancy	4188 Feb 01 04:29	20°♊25'37	-0.4m
max. Earth dist.	4187 Mar 25 04:47	28°♋49'37	1.39115 AU		4188 Feb 08 11:19	0°♋	
	4187 Mar 25 20:50	0°♌		desc. node	4188 Feb 09 00:57	0°♋47'25	
					4188 Feb 28 11:10	0°♋	
superior conj	4187 Apr 01 18:03	12°♌28'42	-1°-44'00	morning set	4188 Feb 29 06:55	1°♋19'07	
minimum elong	4187 Apr 01 22:51	12°♌51'03	1°43'30	max. Earth dist.	4188 Mar 06 03:09	10°♋53'45	1.41272 AU
	4187 Apr 10 21:43	0°♍					
evening rise	4187 Apr 11 03:01	0°♍25'37		superior conj	4188 Mar 13 20:32	24°♋10'41	-2°-1'-58
asc. node	4187 Apr 14 05:11	6°♍21'25		minimum elong	4188 Mar 14 00:03	24°♋26'13	2°01'48
evening max el	4187 Apr 27 08:14	26°♍34'32	18°41'10		4188 Mar 17 02:43	0°♌	
	4187 May 02 11:22	0°♍		evening rise	4188 Mar 24 10:46	13°♌29'03	
retrograde	4187 May 05 08:01	0°♍29'54		asc. node	4188 Mar 31 02:12	25°♌34'25	
evening set	4187 May 07 12:22	0°♍13'25			4188 Apr 02 17:08	0°♍	
	4187 May 08 07:00	30°♍		evening max el	4188 Apr 09 16:06	9°♍18'20	18°14'11
inferior conj	4187 May 15 08:01	25°♍49'24	1°36'56	retrograde	4188 Apr 16 16:39	12°♍49'35	
minimum elong	4187 May 15 11:14	25°♍43'20	1°35'54	evening set	4188 Apr 19 03:13	12°♍24'50	
min. Earth dist.	4187 May 18 15:44	23°♍20'52	0.57500 AU	inferior conj	4188 Apr 26 04:45	7°♍39'44	2°44'10
desc. node	4187 May 21 03:07	21°♍42'46		minimum elong	4188 Apr 26 08:13	7°♍32'08	2°43'23
morning rise	4187 May 23 05:39	20°♍35'48		min. Earth dist.	4188 Apr 29 14:20	4°♍41'58	0.59594 AU
direct	4187 May 28 21:25	19°♍16'42		morning rise	4188 May 03 09:20	1°♍58'08	
morning max el	4187 Jun 12 06:05	26°♍49'57	26°27'08	desc. node	4188 May 07 00:09	0°♍25'50	
	4187 Jun 15 06:50	0°♍		direct	4188 May 09 19:14	0°♍04'13	
	4187 Jul 04 23:52	0°♎		morning max el	4188 May 24 03:57	7°♍54'23	27°27'38
morning set	4187 Jul 11 03:52	12°♎24'17			4188 Jun 09 21:34	0°♍	
asc. node	4187 Jul 11 04:25	12°♎27'09		morning set	4188 Jun 24 11:47	27°♍03'21	
					4188 Jun 25 21:23	0°♎	
superior conj	4187 Jul 18 04:19	27°♎40'09	1°07'33	asc. node	4188 Jun 27 01:28	2°♎29'46	
minimum elong	4187 Jul 18 02:01	27°♎27'29	1°07'09	max. Earth dist.	4188 Jul 01 01:04	11°♎10'45	1.32011 AU
max. Earth dist.	4187 Jul 18 13:22	28°♎30'00	1.32138 AU				
	4187 Jul 19 05:42	0°♏		superior conj	4188 Jul 01 16:00	12°♎33'03	0°46'41
evening rise	4187 Jul 25 03:12	12°♏43'59		minimum elong	4188 Jul 01 14:07	12°♎22'42	0°46'19
	4187 Aug 02 23:02	0°♐		evening rise	4188 Jul 08 12:32	27°♎30'12	
desc. node	4187 Aug 17 02:25	21°♐54'38			4188 Jul 09 16:59	0°♏	
	4187 Aug 24 05:20	0°♑			4188 Jul 26 15:06	0°♐	
evening max el	4187 Aug 24 18:57	0°♑32'41	26°57'40	desc. node	4188 Aug 02 23:25	9°♐16'36	
retrograde	4187 Sep 07 16:18	7°♑43'48		evening max el	4188 Aug 05 16:41	12°♐03'27	25°57'38
evening set	4187 Sep 14 16:31	5°♑34'59		retrograde	4188 Aug 19 15:57	19°♐11'26	
min. Earth dist.	4187 Sep 18 09:09	2°♑55'59	0.60796 AU	evening set	4188 Aug 25 23:38	17°♐35'42	
inferior conj	4187 Sep 21 13:34	0°♑14'45	-4°-24'-11	min. Earth dist.	4188 Aug 30 05:06	15°♐00'39	0.58725 AU
minimum elong	4187 Sep 21 19:26	0°♑02'17	4°22'54	inferior conj	4188 Sep 02 10:53	12°♐38'05	-5°-2'-8
	4187 Sep 21 20:31	30°♑		minimum elong	4188 Sep 02 14:30	12°♐31'23	5°01'46
morning rise	4187 Sep 29 01:32	25°♑25'31		morning rise	4188 Sep 10 08:54	8°♑12'29	
direct	4187 Oct 01 08:56	25°♑04'29		direct	4188 Sep 12 18:45	7°♑53'21	
asc. node	4187 Oct 07 03:37	27°♑22'25		morning max el	4188 Sep 20 22:15	11°♑47'34	18°34'41
morning max el	4187 Oct 08 14:50	28°♑40'07	18°02'22	asc. node	4188 Sep 23 00:40	14°♑02'14	
	4187 Oct 09 21:19	0°♒			4188 Oct 03 02:33	0°♒	
morning set	4187 Oct 24 08:19	23°♒31'23		morning set	4188 Oct 07 01:30	7°♒32'55	
	4187 Oct 27 20:10	0°♓					
				superior conj	4188 Oct 15 22:06	24°♒32'08	1°27'36
superior conj	4187 Nov 03 08:15	11°♓46'56	1°04'55	minimum elong	4188 Oct 16 01:24	24°♒47'29	1°27'17
minimum elong	4187 Nov 03 12:23	12°♓05'14	1°04'24		4188 Oct 18 21:13	0°♓	
max. Earth dist.	4187 Nov 10 23:35	24°♓54'56	1.41960 AU	max. Earth dist.	4188 Oct 23 06:06	7°♓47'16	1.39941 AU
desc. node	4187 Nov 13 01:42	28°♓22'13		evening rise	4188 Oct 27 11:17	14°♓59'46	
	4187 Nov 14 01:37	0°♈		desc. node	4188 Oct 29 22:42	19°♓05'45	
evening rise	4187 Nov 16 16:12	4°♈12'29			4188 Nov 05 19:37	0°♈	
	4187 Dec 03 18:20	0°♉			4188 Nov 27 16:12	0°♉	
greatest brilliancy	4187 Dec 14 21:46	14°♉51'55	-0.3m	evening max el	4188 Dec 01 08:17	3°♉56'42	23°52'53
evening max el	4187 Dec 19 18:17	20°♉18'35	22°32'57	retrograde	4188 Dec 12 06:12	10°♉22'35	
retrograde	4187 Dec 29 13:23	26°♉07'56		evening set	4188 Dec 17 09:42	8°♉15'08	
evening set	4188 Jan 03 03:55	24°♉16'38		asc. node	4188 Dec 19 23:54	5°♉34'13	
asc. node	4188 Jan 03 02:53	24°♉18'43		inferior conj	4188 Dec 22 21:05	1°♉47'33	0°57'59
inferior conj	4188 Jan 08 13:38	17°♉52'28	1°45'37	minimum elong	4188 Dec 22 19:45	1°♉52'02	0°57'28

min. Earth dist.	4188 Dec 22 06:01	2°☾38'44	0.67877 AU	minimum elong	4189 Dec 07 02:14	15°☾43'40	0°04'35
	4188 Dec 24 05:09	30°☾☿		transit middle	4189 Dec 07 02:14	15°☾43'40	0°04'35
morning rise	4188 Dec 28 06:03	25°☾40'34		transit begin	4189 Dec 06 23:34	15°☾52'22	
direct	4189 Jan 01 05:12	24°☾11'43		transit end	4189 Dec 07 04:54	15°☾34'58	
morning max el	4189 Jan 09 07:28	28°☾50'46	20°39'52	morning rise	4189 Dec 12 17:02	9°☾43'20	
	4189 Jan 10 10:06	0°☾		direct	4189 Dec 16 03:45	8°☾34'50	
greatest brilliancy	4189 Jan 15 04:53	5°☾43'22	-0.5m	morning max el	4189 Dec 23 10:04	12°☾39'57	19°33'44
desc. node	4189 Jan 25 21:58	20°☾45'24		greatest brilliancy	4189 Dec 31 17:21	23°☾02'25	-0.6m
	4189 Feb 01 02:10	0°☾			4190 Jan 05 12:06	0°☾	
morning set	4189 Feb 07 10:09	9°☾43'28		desc. node	4190 Jan 12 18:59	11°☾02'19	
max. Earth dist.	4189 Feb 16 08:22	23°☾52'02	1.43149 AU	morning set	4190 Jan 17 07:01	17°☾58'01	
	4189 Feb 20 02:29	0°☾			4190 Jan 25 00:46	0°☾	
				max. Earth dist.	4190 Jan 29 20:35	7°☾35'51	1.44510 AU
superior conj	4189 Feb 22 23:29	4°☾46'51	-2°-7'-43				
minimum elong	4189 Feb 22 22:44	4°☾43'43	2°07'43	superior conj	4190 Feb 03 00:42	14°☾14'52	-1°-55'-57
evening rise	4189 Mar 07 03:00	25°☾46'57		minimum elong	4190 Feb 02 17:54	13°☾47'36	1°55'33
	4189 Mar 09 12:15	0°☾			4190 Feb 12 16:14	0°☾	
asc. node	4189 Mar 17 23:13	14°☾19'09		evening rise	4190 Feb 16 23:18	7°☾10'58	
evening max el	4189 Mar 24 03:56	22°☾24'19	18°06'52		4190 Mar 03 00:57	0°☾	
retrograde	4189 Mar 30 16:32	25°☾46'54		asc. node	4190 Mar 04 20:14	2°☾26'53	
evening set	4189 Apr 02 09:04	25°☾12'01		evening max el	4190 Mar 07 16:43	5°☾44'46	18°18'33
inferior conj	4189 Apr 08 20:07	20°☾06'22	3°21'40	retrograde	4190 Mar 14 03:15	9°☾12'23	
minimum elong	4189 Apr 08 22:10	20°☾01'09	3°21'24	evening set	4190 Mar 17 01:38	8°☾26'06	
min. Earth dist.	4189 Apr 11 20:48	17°☾04'06	0.61776 AU	inferior conj	4190 Mar 23 02:00	3°☾01'06	3°35'37
morning rise	4189 Apr 15 08:27	14°☾07'00		minimum elong	4190 Mar 23 02:20	3°☾00'10	3°35'36
direct	4189 Apr 22 04:03	11°☾42'07		min. Earth dist.	4190 Mar 25 12:26	0°☾16'36	0.63778 AU
desc. node	4189 Apr 23 21:11	11°☾50'41			4190 Mar 25 18:33	30°☾☿	
morning max el	4189 May 06 08:03	19°☾40'50	27°51'41	morning rise	4190 Mar 29 01:11	26°☾52'09	
	4189 May 15 03:10	0°☾		direct	4190 Apr 04 21:35	24°☾07'53	
	4189 Jun 02 19:03	0°☾		desc. node	4190 Apr 10 18:12	25°☾48'47	
morning set	4189 Jun 08 14:56	11°☾25'39			4190 Apr 16 11:31	0°☾	
asc. node	4189 Jun 13 22:29	22°☾37'00		morning max el	4190 Apr 18 16:19	2°☾05'45	27°38'30
max. Earth dist.	4189 Jun 14 10:17	23°☾40'48	1.32298 AU		4190 May 09 09:15	0°☾	
				morning set	4190 May 23 10:59	25°☾23'52	
superior conj	4189 Jun 16 02:07	27°☾17'29	0°22'24		4190 May 25 17:51	0°☾	
minimum elong	4189 Jun 16 01:06	27°☾11'55	0°22'10	max. Earth dist.	4190 May 28 13:06	5°☾48'07	1.33024 AU
	4189 Jun 17 07:49	0°☾					
evening rise	4189 Jun 22 23:59	12°☾19'22		superior conj	4190 May 31 08:52	11°☾47'51	0°-4'-38
	4189 Jul 01 22:27	0°☾		minimum elong	4190 May 31 09:06	11°☾49'06	0°04'37
evening max el	4189 Jul 18 07:32	22°☾49'37	24°32'17	behind sun begin	4190 May 31 03:57	11°☾21'31	
desc. node	4189 Jul 20 20:26	25°☾04'28		behind sun end	4190 May 31 14:15	12°☾16'43	
retrograde	4189 Aug 01 04:51	29°☾50'24		asc. node	4190 May 31 19:32	12°☾45'02	
evening set	4189 Aug 06 06:24	28°☾52'52		evening rise	4190 Jun 07 11:43	27°☾05'38	
min. Earth dist.	4189 Aug 11 18:38	26°☾02'32	0.56820 AU		4190 Jun 08 20:57	0°☾	
inferior conj	4189 Aug 14 12:15	24°☾17'32	-5°-10'-21		4190 Jun 26 20:06	0°☾	
minimum elong	4189 Aug 14 10:36	24°☾20'12	5°10'18	evening max el	4190 Jun 29 20:46	3°☾14'11	22°55'28
morning rise	4189 Aug 22 18:22	20°☾13'36		desc. node	4190 Jul 07 17:26	8°☾44'32	
direct	4189 Aug 25 09:42	19°☾54'33		retrograde	4190 Jul 13 04:56	9°☾53'07	
morning max el	4189 Sep 03 20:15	24°☾19'15	19°28'26	evening set	4190 Jul 16 17:57	9°☾25'41	
	4189 Sep 08 17:15	0°☾		min. Earth dist.	4190 Jul 24 05:31	6°☾05'21	0.55424 AU
asc. node	4189 Sep 09 21:42	1°☾41'49		inferior conj	4190 Jul 25 18:27	5°☾12'06	-4°-33'-21
morning set	4189 Sep 21 02:55	21°☾57'36		minimum elong	4190 Jul 25 11:06	5°☾22'43	4°31'58
	4189 Sep 25 02:48	0°☾		morning rise	4190 Aug 03 06:56	1°☾20'55	
				direct	4190 Aug 06 06:20	1°☾00'06	
superior conj	4189 Sep 29 04:23	8°☾05'18	1°40'10	morning max el	4190 Aug 17 06:33	6°☾07'04	20°43'39
minimum elong	4189 Sep 29 06:04	8°☾13'34	1°40'05	asc. node	4190 Aug 27 18:46	20°☾07'43	
max. Earth dist.	4189 Oct 05 10:17	19°☾59'04	1.37854 AU		4190 Sep 02 02:54	0°☾	
evening rise	4189 Oct 09 05:30	26°☾50'30		morning set	4190 Sep 05 09:49	6°☾38'08	
	4189 Oct 11 00:52	0°☾					
desc. node	4189 Oct 16 19:43	9°☾41'25		superior conj	4190 Sep 12 22:28	22°☾13'10	1°44'10
	4189 Oct 30 07:53	0°☾		minimum elong	4190 Sep 12 22:32	22°☾13'34	1°44'11
evening max el	4189 Nov 13 20:45	17°☾38'08	25°09'35		4190 Sep 16 19:18	0°☾	
retrograde	4189 Nov 25 18:50	24°☾31'54		max. Earth dist.	4190 Sep 17 18:06	1°☾51'51	1.35938 AU
evening set	4189 Dec 01 12:06	22°☾09'37		evening rise	4190 Sep 21 19:46	9°☾37'16	
min. Earth dist.	4189 Dec 06 00:31	17°☾07'36	0.67376 AU	desc. node	4190 Oct 03 16:44	0°☾04'26	
asc. node	4189 Dec 06 20:56	16°☾01'01			4190 Oct 03 15:37	0°☾	
inferior conj	4189 Dec 07 02:21	15°☾43'17	0°04'38		4190 Oct 26 01:03	0°☾	

evening max el	4190 Oct 27 09:18	1° ♂ 20'18	26°15'33	retrograde	4191 Oct 23 04:17	22° ♂ 12'17	
retrograde	4190 Nov 09 02:22	8° ♂ 30'34		evening set	4191 Oct 29 23:15	19° ♂ 32'11	
evening set	4190 Nov 15 09:19	5° ♂ 56'38		min. Earth dist.	4191 Nov 02 21:47	15° ♂ 42'08	0.65339 AU
min. Earth dist.	4190 Nov 19 14:35	1° ♂ 30'18	0.66533 AU	inferior conj	4191 Nov 04 22:46	13° ♂ 23'27	-1°-54'-16
	4190 Nov 20 20:01	30° ♂		minimum elong	4191 Nov 05 01:59	13° ♂ 14'18	1°52'59
inferior conj	4190 Nov 21 03:37	29° ♂ 36'34	0°-53'-17	asc. node	4191 Nov 10 15:02	8° ♂ 06'40	
minimum elong	4190 Nov 21 05:04	29° ♂ 32'08	0°52'41	morning rise	4191 Nov 11 06:30	7° ♂ 46'11	
asc. node	4190 Nov 23 17:59	26° ♂ 34'10		direct	4191 Nov 13 22:33	7° ♂ 07'42	
morning rise	4190 Nov 27 01:58	23° ♂ 46'22		morning max el	4191 Nov 20 10:22	10° ♂ 36'45	18°08'51
direct	4190 Nov 30 02:14	22° ♂ 54'48			4191 Dec 03 22:20	0° ♂	
morning max el	4190 Dec 06 19:44	26° ♂ 36'48	18°43'01	morning set	4191 Dec 08 18:53	7° ♂ 58'10	
	4190 Dec 09 19:29	0° ♂		desc. node	4191 Dec 17 13:01	22° ♂ 12'32	
morning set	4190 Dec 27 22:15	27° ♂ 13'28			4191 Dec 22 10:10	0° ♂	
	4190 Dec 29 16:29	0° ♂					
desc. node	4190 Dec 30 16:00	1° ♂ 32'40		superior conj	4191 Dec 23 10:58	1° ♂ 38'14	0°-39'-50
max. Earth dist.	4191 Jan 12 14:01	21° ♂ 50'08	1.45206 AU	minimum elong	4191 Dec 23 05:58	1° ♂ 18'27	0°39'10
				max. Earth dist.	4191 Dec 26 09:49	6° ♂ 17'32	1.45160 AU
superior conj	4191 Jan 13 06:29	22° ♂ 54'44	-1°-24'-42	evening rise	4192 Jan 08 20:00	27° ♂ 13'50	
minimum elong	4191 Jan 12 21:17	22° ♂ 18'38	1°23'44		4192 Jan 10 14:51	0° ♂	
	4191 Jan 17 18:37	0° ♂		greatest brilliancy	4192 Jan 25 12:13	22° ♂ 36'55	-0.7m
evening rise	4191 Jan 28 20:30	17° ♂ 37'04			4192 Jan 31 00:40	0° ♂	
	4191 Feb 05 13:45	0° ♂		evening max el	4192 Feb 02 10:57	2° ♂ 43'36	19°34'46
evening max el	4191 Feb 19 03:45	19° ♂ 12'29	18°48'19	asc. node	4192 Feb 06 14:20	6° ♂ 02'59	
asc. node	4191 Feb 19 17:17	19° ♂ 45'53		retrograde	4192 Feb 09 17:55	6° ♂ 55'52	
retrograde	4191 Feb 25 20:45	22° ♂ 57'13		evening set	4192 Feb 13 06:05	5° ♂ 43'48	
evening set	4191 Mar 01 01:31	21° ♂ 58'32		inferior conj	4192 Feb 18 18:26	29° ♂ 45'25	3°14'32
inferior conj	4191 Mar 06 18:31	16° ♂ 15'45	3°31'50	minimum elong	4192 Feb 18 16:24	29° ♂ 52'08	3°14'10
minimum elong	4191 Mar 06 17:24	16° ♂ 19'11	3°31'44		4192 Feb 18 14:00	30° ♂	
min. Earth dist.	4191 Mar 08 13:15	14° ♂ 04'04	0.65438 AU	min. Earth dist.	4192 Feb 19 22:14	28° ♂ 14'01	0.66688 AU
morning rise	4191 Mar 12 08:09	10° ♂ 02'02		morning rise	4192 Feb 24 02:00	23° ♂ 29'42	
direct	4191 Mar 18 22:01	7° ♂ 12'38		direct	4192 Mar 01 04:27	20° ♂ 47'36	
desc. node	4191 Mar 28 15:14	11° ♂ 46'12		morning max el	4192 Mar 13 11:39	28° ♂ 07'21	25°42'34
morning max el	4191 Apr 01 02:09	14° ♂ 58'06	26°52'47	desc. node	4192 Mar 14 12:16	29° ♂ 10'57	
	4191 Apr 13 09:15	0° ♂			4192 Mar 15 06:36	0° ♂	
	4191 May 02 03:09	0° ♂			4192 Apr 06 02:56	0° ♂	
morning set	4191 May 06 20:42	8° ♂ 47'32		morning set	4192 Apr 18 15:55	21° ♂ 24'57	
max. Earth dist.	4191 May 11 06:06	17° ♂ 24'33	1.34212 AU	max. Earth dist.	4192 Apr 22 11:50	28° ♂ 34'06	1.35851 AU
					4192 Apr 23 05:48	0° ♂	
superior conj	4191 May 15 10:04	25° ♂ 56'43	0°-33'-27				
minimum elong	4191 May 15 11:51	26° ♂ 05'56	0°33'06	superior conj	4192 Apr 28 03:07	9° ♂ 36'50	-1°-2'-39
	4191 May 17 08:31	0° ♂		minimum elong	4192 Apr 28 06:30	9° ♂ 53'46	1°02'04
asc. node	4191 May 18 16:34	2° ♂ 49'00		asc. node	4192 May 04 13:37	22° ♂ 45'04	
evening rise	4191 May 22 21:48	11° ♂ 41'56		evening rise	4192 May 06 04:07	26° ♂ 02'01	
	4191 Jun 01 10:10	0° ♂			4192 May 08 03:13	0° ♂	
evening max el	4191 Jun 11 16:07	13° ♂ 48'41	21°22'35	evening max el	4192 May 23 22:56	24° ♂ 57'46	20°04'29
retrograde	4191 Jun 23 18:49	19° ♂ 46'21			4192 Jun 02 06:58	0° ♂	
desc. node	4191 Jun 24 14:29	19° ♂ 44'47		retrograde	4192 Jun 03 09:25	0° ♂ 03'17	
evening set	4191 Jun 26 04:15	19° ♂ 33'13			4192 Jun 04 12:11	30° ♂	
inferior conj	4191 Jul 05 12:42	15° ♂ 34'13	-3°-6'-24	evening set	4192 Jun 05 08:22	29° ♂ 53'19	
minimum elong	4191 Jul 05 04:40	15° ♂ 45'27	3°03'53	desc. node	4192 Jun 10 11:31	28° ♂ 05'27	
min. Earth dist.	4191 Jul 05 16:15	15° ♂ 29'15	0.54835 AU	inferior conj	4192 Jun 14 08:57	25° ♂ 53'44	-1°-9'-20
morning rise	4191 Jul 14 05:34	11° ♂ 39'21		minimum elong	4192 Jun 14 05:42	25° ♂ 58'36	1°08'09
direct	4191 Jul 17 16:18	11° ♂ 13'39		min. Earth dist.	4192 Jun 16 04:37	24° ♂ 48'25	0.55201 AU
morning max el	4191 Jul 30 05:24	17° ♂ 09'47	22°17'16	morning rise	4192 Jun 23 00:37	21° ♂ 34'59	
	4191 Aug 09 09:10	0° ♂		direct	4192 Jun 27 04:22	20° ♂ 57'25	
asc. node	4191 Aug 14 15:49	9° ♂ 08'22		morning max el	4192 Jul 10 20:53	27° ♂ 40'44	24°00'26
morning set	4191 Aug 20 20:02	21° ♂ 28'11			4192 Jul 13 04:04	0° ♂	
	4191 Aug 24 20:34	0° ♂		asc. node	4192 Jul 31 12:51	28° ♂ 34'52	
					4192 Aug 01 05:50	0° ♂	
superior conj	4191 Aug 28 00:41	6° ♂ 44'51	1°41'03	morning set	4192 Aug 04 07:42	6° ♂ 22'07	
minimum elong	4191 Aug 27 23:29	6° ♂ 38'32	1°41'00				
max. Earth dist.	4191 Aug 31 10:00	13° ♂ 49'14	1.34345 AU	superior conj	4192 Aug 11 08:13	21° ♂ 31'27	1°31'58
evening rise	4191 Sep 05 01:41	23° ♂ 08'11		minimum elong	4192 Aug 11 06:12	21° ♂ 20'36	1°31'45
	4191 Sep 08 16:31	0° ♂		max. Earth dist.	4192 Aug 13 10:41	26° ♂ 03'08	1.33156 AU
desc. node	4191 Sep 20 13:46	20° ♂ 08'48			4192 Aug 15 07:21	0° ♂	
	4191 Sep 27 07:39	0° ♂		evening rise	4192 Aug 18 19:08	7° ♂ 11'53	
evening max el	4191 Oct 09 22:02	14° ♂ 55'19	27°03'17		4192 Aug 31 05:03	0° ♂	

desc. node	4192 Sep 06 10:49	9°♄45'50		evening rise	4193 Aug 02 20:51	21°♄39'07	
evening max el	4192 Sep 21 09:28	28°♄10'21	27°25'47		4193 Aug 07 00:27	0°♄	
	4192 Sep 23 10:09	0°♄		desc. node	4193 Aug 24 07:51	28°♄44'17	
retrograde	4192 Oct 05 00:06	5°♄27'45			4193 Aug 25 06:15	0°♄	
evening set	4192 Oct 12 03:04	2°♄50'12		evening max el	4193 Sep 03 17:29	10°♄53'19	27°17'30
	4192 Oct 15 09:33	30°♄		retrograde	4193 Sep 17 13:21	18°♄07'42	
min. Earth dist.	4192 Oct 15 19:59	29°♄34'15	0.63799 AU	evening set	4193 Sep 24 17:14	15°♄44'33	
inferior conj	4192 Oct 18 09:12	26°♄57'21	-2°-56'00	min. Earth dist.	4193 Sep 28 07:52	12°♄55'34	0.61955 AU
minimum elong	4192 Oct 18 14:08	26°♄44'40	2°54'16	inferior conj	4193 Oct 01 07:57	10°♄11'19	-3°-54'-29
morning rise	4192 Oct 25 03:38	21°♄36'21		minimum elong	4193 Oct 01 13:55	9°♄57'40	3°52'50
direct	4192 Oct 27 13:55	21°♄07'19		morning rise	4193 Oct 08 13:39	5°♄09'46	
asc. node	4192 Oct 27 12:05	21°♄07'20		direct	4193 Oct 10 21:01	4°♄46'45	
morning max el	4192 Nov 03 03:04	24°♄32'22	17°51'54	asc. node	4193 Oct 14 09:06	5°♄41'39	
	4192 Nov 07 13:59	0°♄		morning max el	4193 Oct 17 18:43	8°♄16'17	17°53'00
morning set	4192 Nov 19 18:27	20°♄00'52			4193 Oct 31 22:11	0°♄	
	4192 Nov 25 14:36	0°♄		morning set	4193 Nov 02 14:35	3°♄02'22	
superior conj	4192 Dec 02 09:37	11°♄18'07	0°07'05	superior conj	4193 Nov 13 10:45	22°♄15'51	0°46'51
minimum elong	4192 Dec 02 10:24	11°♄21'19	0°06'59	minimum elong	4193 Nov 13 14:32	22°♄32'04	0°46'19
behind sun begin	4192 Dec 02 01:28	10°♄44'46			4193 Nov 18 00:33	0°♄	
behind sun end	4192 Dec 02 19:20	11°♄57'48		desc. node	4193 Nov 20 07:07	3°♄45'15	
desc. node	4192 Dec 03 10:03	12°♄57'48		max. Earth dist.	4193 Nov 20 18:11	4°♄30'33	1.42986 AU
max. Earth dist.	4192 Dec 08 04:07	20°♄36'51	1.44386 AU	evening rise	4193 Nov 27 19:45	15°♄48'07	
	4192 Dec 14 03:11	0°♄			4193 Dec 07 02:51	0°♄	
evening rise	4192 Dec 18 06:34	6°♄24'30		greatest brilliancy	4193 Dec 24 14:38	24°♄23'19	-0.4m
	4193 Jan 03 00:03	0°♄		evening max el	4193 Dec 29 09:21	29°♄49'04	21°48'05
greatest brilliancy	4193 Jan 09 17:13	9°♄20'07	-0.5m		4193 Dec 29 13:40	0°♄	
evening max el	4193 Jan 15 12:53	16°♄15'33	20°35'47	retrograde	4194 Jan 07 13:23	5°♄16'12	
asc. node	4193 Jan 23 11:22	21°♄03'05		asc. node	4194 Jan 10 08:23	4°♄34'15	
retrograde	4193 Jan 23 16:08	21°♄03'18		evening set	4194 Jan 11 20:57	3°♄34'23	
evening set	4193 Jan 27 13:08	19°♄36'52			4194 Jan 15 05:17	30°♄	
inferior conj	4193 Feb 01 23:06	13°♄25'44	2°46'38	inferior conj	4194 Jan 17 06:19	27°♄13'53	2°10'04
minimum elong	4193 Feb 01 20:39	13°♄34'06	2°46'00	minimum elong	4194 Jan 17 03:57	27°♄22'06	2°09'18
min. Earth dist.	4193 Feb 02 13:29	12°♄36'31	0.67518 AU	min. Earth dist.	4194 Jan 17 08:41	27°♄05'40	0.67951 AU
morning rise	4193 Feb 07 03:41	7°♄09'57		morning rise	4194 Jan 22 10:42	20°♄59'54	
direct	4193 Feb 12 16:08	4°♄43'57		direct	4194 Jan 27 08:19	18°♄55'03	
morning max el	4193 Feb 23 20:18	11°♄24'23	24°17'44	morning max el	4194 Feb 06 06:01	24°♄46'56	22°48'31
desc. node	4193 Mar 01 09:18	17°♄37'50			4194 Feb 10 22:16	0°♄	
	4193 Mar 10 16:50	0°♄		greatest brilliancy	4194 Feb 10 21:54	29°♄58'54	-0.3m
	4193 Mar 29 21:09	0°♄		desc. node	4194 Feb 16 06:20	6°♄49'28	
morning set	4193 Mar 31 15:10	3°♄01'07			4194 Mar 04 04:20	0°♄	
max. Earth dist.	4193 Apr 04 08:44	9°♄37'33	1.37856 AU	morning set	4194 Mar 12 12:19	13°♄20'17	
				max. Earth dist.	4194 Mar 17 03:55	21°♄09'28	1.40042 AU
superior conj	4193 Apr 11 08:39	22°♄39'22	-1°-30'-8		4194 Mar 22 05:16	0°♄	
minimum elong	4193 Apr 11 13:14	23°♄01'23	1°29'32	superior conj	4194 Mar 24 22:26	4°♄53'56	-1°-52'-47
	4193 Apr 15 03:14	0°♄		minimum elong	4194 Mar 25 02:59	5°♄14'43	1°52'26
evening rise	4193 Apr 20 04:12	9°♄58'37		evening rise	4194 Apr 03 18:56	23°♄23'26	
asc. node	4193 Apr 21 10:40	12°♄28'43			4194 Apr 07 06:59	0°♄	
	4193 May 01 06:25	0°♄		asc. node	4194 Apr 08 07:42	1°♄54'20	
evening max el	4193 May 06 17:44	6°♄48'43	19°05'50	evening max el	4194 Apr 19 21:52	19°♄15'46	18°27'21
retrograde	4193 May 15 12:41	11°♄05'58		retrograde	4194 Apr 27 10:20	22°♄58'44	
evening set	4193 May 17 13:26	10°♄53'11		evening set	4194 Apr 29 17:18	22°♄39'05	
inferior conj	4193 May 25 20:24	6°♄40'23	0°43'32	inferior conj	4194 May 07 04:55	18°♄06'37	2°09'23
minimum elong	4193 May 25 22:08	6°♄37'25	0°42'54	minimum elong	4194 May 07 08:33	17°♄59'19	2°08'22
desc. node	4193 May 28 08:31	4°♄57'17		min. Earth dist.	4194 May 10 15:21	15°♄22'23	0.58352 AU
min. Earth dist.	4193 May 28 19:58	4°♄38'13	0.56456 AU	morning rise	4194 May 14 19:24	12°♄39'47	
morning rise	4193 Jun 03 02:29	1°♄46'11		desc. node	4194 May 15 05:33	12°♄27'12	
direct	4193 Jun 08 04:54	0°♄45'12		direct	4194 May 20 19:53	11°♄05'38	
morning max el	4193 Jun 22 11:11	8°♄05'03	25°38'55	morning max el	4194 Jun 04 05:16	18°♄48'03	26°56'59
	4193 Jul 08 18:02	0°♄			4194 Jun 13 15:36	0°♄	
asc. node	4193 Jul 18 09:54	18°♄20'16		morning set	4194 Jul 01 06:56	0°♄	
morning set	4193 Jul 19 19:14	21°♄15'01			4194 Jul 04 04:56	6°♄00'14	
	4193 Jul 23 20:32	0°♄		asc. node	4194 Jul 05 06:56	8°♄17'43	
superior conj	4193 Jul 26 18:51	6°♄26'08	1°17'47	superior conj	4194 Jul 11 06:38	21°♄21'04	0°59'11
minimum elong	4193 Jul 26 16:31	6°♄13'21	1°17'26	minimum elong	4194 Jul 11 04:27	21°♄09'04	0°58'46
max. Earth dist.	4193 Jul 27 18:12	8°♄34'13	1.32386 AU				

max. Earth dist.	4194 Jul 11 05:19	21°☿13'48	1.32028 AU			4195 Jun 22 22:01	0°☿	
	4194 Jul 15 05:06	0°♌		max. Earth dist.		4195 Jun 24 16:23	3°☿50'55	1.32084 AU
evening rise	4194 Jul 18 04:01	6°♌20'17						
	4194 Jul 30 14:36	0°♍		superior conj		4195 Jun 25 17:51	6°☿10'43	0°36'47
desc. node	4194 Aug 11 04:51	16°♍47'23		minimum elong		4195 Jun 25 16:17	6°☿02'07	0°36'27
evening max el	4194 Aug 16 19:39	22°♍52'30	26°35'55	evening rise		4195 Jul 02 14:29	21°☿08'21	
	4194 Aug 29 18:08	0°♎				4195 Jul 06 21:34	0°♌	
retrograde	4194 Aug 30 18:28	0°♎02'35				4195 Jul 25 18:25	0°♍	
	4194 Aug 31 18:41	30°♍♍		desc. node		4195 Jul 29 01:51	3°♍32'48	
evening set	4194 Sep 06 13:04	28°♍06'51		evening max el		4195 Jul 29 14:23	4°♍03'11	25°23'47
min. Earth dist.	4194 Sep 10 09:25	25°♍31'32	0.59915 AU	retrograde		4195 Aug 12 13:28	11°♍08'11	
inferior conj	4194 Sep 13 15:33	22°♍55'52	-4°-42'-56	evening set		4195 Aug 18 09:50	9°♍49'03	
minimum elong	4194 Sep 13 20:50	22°♍45'16	4°42'02	min. Earth dist.		4195 Aug 23 02:14	7°♍09'37	0.57879 AU
morning rise	4194 Sep 21 08:00	18°♍16'23		inferior conj		4195 Aug 26 04:35	5°♍01'15	-5°-10'-13
direct	4194 Sep 23 15:51	17°♍56'32		minimum elong		4195 Aug 26 06:18	4°♍58'17	5°10'10
asc. node	4194 Oct 01 06:08	21°♍39'26		morning rise		4195 Sep 03 06:15	0°♍45'02	
morning max el	4194 Oct 01 06:02	21°♍39'11	18°13'27	direct		4195 Sep 05 18:13	0°♍26'01	
	4194 Oct 07 16:20	0°♎		morning max el		4195 Sep 14 09:41	4°♍31'47	18°54'48
morning set	4194 Oct 17 01:25	16°♎45'30		asc. node		4195 Sep 18 03:11	8°♍46'03	
	4194 Oct 24 02:37	0°♏				4195 Sep 30 10:41	0°♎	
				morning set		4195 Sep 30 22:30	0°♎58'00	
superior conj	4194 Oct 26 12:36	4°♏25'17	1°15'51					
minimum elong	4194 Oct 26 16:32	4°♏43'09	1°15'24	superior conj		4195 Oct 09 10:02	17°♎32'17	1°34'04
max. Earth dist.	4194 Nov 03 03:15	17°♏46'53	1.41131 AU	minimum elong		4195 Oct 09 12:41	17°♎44'54	1°33'52
desc. node	4194 Nov 07 04:08	24°♏31'06				4195 Oct 16 03:41	0°♏	
evening rise	4194 Nov 08 01:49	25°♏59'42		max. Earth dist.		4195 Oct 16 08:37	0°♏22'00	1.39054 AU
	4194 Nov 10 13:27	0°♐		evening rise		4195 Oct 20 06:56	7°♏14'19	
	4194 Nov 30 21:41	0°♑		desc. node		4195 Oct 25 01:08	15°♏11'42	
greatest brilliancy	4194 Dec 05 22:51	6°♑31'16	-0.2m			4195 Nov 03 13:20	0°♐	
evening max el	4194 Dec 12 01:20	13°♑25'39	23°07'01	evening max el		4195 Nov 24 14:36	27°♐05'46	24°26'24
retrograde	4194 Dec 22 08:06	19°♑31'10				4195 Nov 27 19:34	0°♑	
evening set	4194 Dec 27 03:55	17°♑33'13		retrograde		4195 Dec 05 23:03	3°♑43'58	
asc. node	4194 Dec 28 05:23	16°♑34'45		evening set		4195 Dec 11 08:26	1°♑30'02	
min. Earth dist.	4195 Jan 01 05:26	11°♑37'26	0.68007 AU			4195 Dec 12 21:56	30°♑♍	
inferior conj	4195 Jan 01 14:12	11°♑07'13	1°26'11	asc. node		4195 Dec 15 02:25	27°♐23'33	
minimum elong	4195 Jan 01 12:22	11°♑13'31	1°25'30	min. Earth dist.		4195 Dec 16 01:20	26°♐08'15	0.67711 AU
morning rise	4195 Jan 06 20:50	4°♑57'03		inferior conj		4195 Dec 16 20:56	25°♐02'41	0°36'00
direct	4195 Jan 11 03:58	3°♑15'05		minimum elong		4195 Dec 16 20:04	25°♐05'34	0°35'38
morning max el	4195 Jan 19 20:30	8°♑18'22	21°23'54	morning rise		4195 Dec 22 08:05	18°♐58'30	
greatest brilliancy	4195 Jan 24 21:49	14°♑03'15	-0.4m	direct		4195 Dec 26 01:50	17°♐38'31	
desc. node	4195 Feb 03 03:21	26°♑33'21		morning max el		4196 Jan 02 18:31	22°♐01'15	20°09'57
	4195 Feb 05 12:33	0°♒				4196 Jan 09 10:39	0°♑	
morning set	4195 Feb 20 04:47	22°♒18'59		greatest brilliancy		4196 Jan 09 11:59	0°♑04'26	-0.6m
	4195 Feb 24 23:53	0°♓		desc. node		4196 Jan 21 00:22	16°♑40'01	
max. Earth dist.	4195 Feb 27 04:48	3°♓36'19	1.42121 AU			4196 Jan 29 18:28	0°♒	
				morning set		4196 Jan 30 02:08	0°♒29'35	
superior conj	4195 Mar 06 15:32	16°♓09'36	-2°-6'-14	max. Earth dist.		4196 Feb 09 13:42	16°♒57'41	1.43808 AU
minimum elong	4195 Mar 06 17:37	16°♓18'38	2°06'12					
	4195 Mar 14 11:21	0°♔		superior conj		4196 Feb 15 07:25	26°♒15'54	-2°-5'-7
evening rise	4195 Mar 17 20:38	6°♔08'31		minimum elong		4196 Feb 15 04:05	26°♒02'12	2°05'01
asc. node	4195 Mar 26 04:43	20°♔56'16				4196 Feb 17 13:42	0°♓	
	4195 Apr 01 08:28	0°♕		evening rise		4196 Feb 28 04:52	18°♓04'10	
evening max el	4195 Apr 03 07:55	2°♕10'33	18°08'45			4196 Mar 06 03:17	0°♔	
retrograde	4195 Apr 10 01:51	5°♕35'54		asc. node		4196 Mar 12 01:45	9°♔26'15	
evening set	4195 Apr 12 15:09	5°♕06'52		evening max el		4196 Mar 16 20:30	15°♔23'16	18°09'32
inferior conj	4195 Apr 19 10:02	0°♕13'00	3°03'22	retrograde		4196 Mar 23 07:00	18°♔46'22	
minimum elong	4195 Apr 19 13:00	0°♕06'02	3°02'48	evening set		4196 Mar 26 02:04	18°♔06'37	
	4195 Apr 19 15:35	30°♕♍		inferior conj		4196 Apr 01 08:05	12°♔52'13	3°30'05
min. Earth dist.	4195 Apr 22 16:52	27°♔10'23	0.60532 AU	minimum elong		4196 Apr 01 09:24	12°♔48'43	3°29'58
morning rise	4195 Apr 26 07:28	24°♔23'01		min. Earth dist.		4196 Apr 04 02:56	9°♔55'33	0.62665 AU
desc. node	4195 May 02 02:34	22°♔16'49		morning rise		4196 Apr 07 14:25	6°♔48'06	
direct	4195 May 02 22:52	22°♔14'47		direct		4196 Apr 14 11:18	4°♔13'39	
morning max el	4195 May 17 05:39	0°♕08'58	27°42'30	desc. node		4196 Apr 17 23:35	4°♔49'49	
	4195 May 17 02:01	0°♕		morning max el		4196 Apr 28 11:50	12°♔12'21	27°50'31
	4195 Jun 07 16:34	0°♖				4196 May 12 14:43	0°♕	
morning set	4195 Jun 18 11:03	20°♖32'20				4196 May 30 02:10	0°♖	
asc. node	4195 Jun 22 03:59	28°♖22'31		morning set		4196 Jun 01 11:30	4°♖44'54	

max. Earth dist.	4196 Jun 06 23:32	16° Π 13'10	1.32556 AU		4197 May 06 01:18	0° \mathcal{B}	
asc. node	4196 Jun 08 01:02	18° Π 30'16		morning set	4197 May 16 03:36	18° \mathcal{B} 29'39	
				max. Earth dist.	4197 May 20 22:42	28° \mathcal{B} 08'26	1.33471 AU
superior conj	4196 Jun 09 02:45	20° Π 49'22	0°11'13		4197 May 21 20:14	0° Π	
minimum elong	4196 Jun 09 02:13	20° Π 46'28	0°11'06				
behind sun begin	4196 Jun 08 22:27	20° Π 26'03		superior conj	4197 May 24 07:25	5° Π 11'01	0°-16'-44
behind sun end	4196 Jun 09 05:59	21° Π 06'54		minimum elong	4197 May 24 08:17	5° Π 15'34	0°16'33
	4196 Jun 13 07:57	0° \mathcal{E}		asc. node	4197 May 25 22:05	8° Π 36'50	
evening rise	4196 Jun 16 02:18	5° \mathcal{E} 56'51		evening rise	4197 May 31 13:35	20° Π 39'24	
	4196 Jun 28 19:49	0° \mathcal{Q}			4197 Jun 05 03:22	0° \mathcal{E}	
evening max el	4196 Jul 10 03:37	14° \mathcal{Q} 35'56	23°51'30	evening max el	4197 Jun 21 18:18	24° \mathcal{E} 59'54	22°14'39
desc. node	4196 Jul 14 22:51	18° \mathcal{Q} 30'37			4197 Jun 28 15:43	0° \mathcal{Q}	
retrograde	4196 Jul 23 20:42	21° \mathcal{Q} 29'35		desc. node	4197 Jul 01 19:53	1° \mathcal{Q} 05'39	
evening set	4196 Jul 28 07:01	20° \mathcal{Q} 46'21		retrograde	4197 Jul 04 16:09	1° \mathcal{Q} 24'24	
min. Earth dist.	4196 Aug 03 13:49	17° \mathcal{Q} 45'04	0.56144 AU	evening set	4197 Jul 07 15:25	1° \mathcal{Q} 04'51	
inferior conj	4196 Aug 05 21:22	16° \mathcal{Q} 20'46	-5°00'-56		4197 Jul 11 00:16	30° \mathcal{R} \mathcal{E}	
minimum elong	4196 Aug 05 17:01	16° \mathcal{Q} 27'23	5°00'29	min. Earth dist.	4197 Jul 16 00:21	27° \mathcal{E} 27'43	0.55051 AU
morning rise	4196 Aug 14 06:23	12° \mathcal{Q} 24'09		inferior conj	4197 Jul 16 21:05	26° \mathcal{E} 58'29	-4°-2'-2
direct	4196 Aug 17 01:06	12° \mathcal{Q} 04'29		minimum elong	4197 Jul 16 12:36	27° \mathcal{E} 10'26	3°59'56
morning max el	4196 Aug 27 02:51	16° \mathcal{Q} 45'18	19°58'00	morning rise	4197 Jul 25 11:50	23° \mathcal{E} 08'26	
asc. node	4196 Sep 04 00:15	26° \mathcal{Q} 46'51		direct	4197 Jul 28 15:15	22° \mathcal{E} 46'17	
	4196 Sep 05 23:04	0° \mathcal{M}		morning max el	4197 Aug 09 08:10	28° \mathcal{E} 13'46	21°21'47
morning set	4196 Sep 14 02:37	15° \mathcal{M} 30'52			4197 Aug 11 02:55	0° \mathcal{Q}	
	4196 Sep 21 05:29	0° \mathcal{A}		asc. node	4197 Aug 21 21:19	15° \mathcal{Q} 28'38	
				morning set	4197 Aug 29 11:09	0° \mathcal{M} 16'06	
superior conj	4196 Sep 21 21:55	1° \mathcal{A} 22'19	1°42'49		4197 Aug 29 08:03	0° \mathcal{M}	
minimum elong	4196 Sep 21 22:54	1° \mathcal{A} 27'12	1°42'48				
max. Earth dist.	4196 Sep 27 14:03	12° \mathcal{A} 24'43	1.37005 AU	superior conj	4197 Sep 05 19:52	15° \mathcal{M} 41'48	1°43'39
evening rise	4196 Oct 01 10:13	19° \mathcal{A} 30'26		minimum elong	4197 Sep 05 19:22	15° \mathcal{M} 39'08	1°43'39
	4196 Oct 07 10:46	0° \mathcal{M}		max. Earth dist.	4197 Sep 10 00:41	24° \mathcal{M} 15'54	1.35204 AU
desc. node	4196 Oct 10 22:10	5° \mathcal{M} 43'04			4197 Sep 12 22:46	0° \mathcal{A}	
	4196 Oct 27 16:01	0° \mathcal{A}		evening rise	4197 Sep 14 07:40	2° \mathcal{A} 37'20	
evening max el	4196 Nov 06 02:58	10° \mathcal{A} 48'28	25°39'17	desc. node	4197 Sep 27 19:13	25° \mathcal{A} 59'06	
retrograde	4196 Nov 18 09:34	17° \mathcal{A} 50'23			4197 Sep 30 09:33	0° \mathcal{M}	
evening set	4196 Nov 24 08:55	15° \mathcal{A} 22'21		evening max el	4197 Oct 19 15:27	24° \mathcal{M} 28'09	26°38'26
min. Earth dist.	4196 Nov 28 18:09	10° \mathcal{A} 35'42	0.67067 AU		4197 Oct 26 18:42	0° \mathcal{A}	
inferior conj	4196 Nov 30 00:46	8° \mathcal{A} 58'10	0°-19'-25	retrograde	4197 Nov 01 14:57	1° \mathcal{A} 43'12	
minimum elong	4196 Nov 30 01:16	8° \mathcal{A} 56'33	0°19'13		4197 Nov 06 21:56	30° \mathcal{R} \mathcal{M}	
asc. node	4196 Nov 30 23:27	7° \mathcal{A} 46'30		evening set	4197 Nov 08 03:21	29° \mathcal{M} 05'29	
morning rise	4196 Dec 05 18:31	3° \mathcal{A} 02'19		min. Earth dist.	4197 Nov 12 05:34	24° \mathcal{M} 54'45	0.66067 AU
direct	4196 Dec 09 00:32	2° \mathcal{A} 01'32		inferior conj	4197 Nov 13 23:42	22° \mathcal{M} 49'25	-1°-18'-52
morning max el	4196 Dec 16 00:29	5° \mathcal{A} 55'12	19°10'12	minimum elong	4197 Nov 14 01:53	22° \mathcal{M} 42'55	1°17'58
greatest brilliancy	4196 Dec 26 12:50	19° \mathcal{A} 40'13	-0.7m	asc. node	4197 Nov 17 20:30	18° \mathcal{M} 39'32	
	4197 Jan 02 07:59	0° \mathcal{E}		morning rise	4197 Nov 20 01:53	17° \mathcal{M} 04'30	
desc. node	4197 Jan 06 21:25	7° \mathcal{E} 03'32		direct	4197 Nov 22 22:15	16° \mathcal{M} 19'09	
morning set	4197 Jan 08 04:24	9° \mathcal{E} 03'52		morning max el	4197 Nov 29 12:40	19° \mathcal{M} 54'42	18°26'25
	4197 Jan 21 14:06	0° \approx			4197 Dec 07 07:25	0° \mathcal{A}	
max. Earth dist.	4197 Jan 22 04:50	0° \approx 58'01	1.44899 AU	morning set	4197 Dec 19 07:48	18° \mathcal{A} 56'51	
				desc. node	4197 Dec 24 18:28	27° \mathcal{A} 38'39	
superior conj	4197 Jan 24 22:48	5° \approx 18'35	-1°-44'-55		4197 Dec 26 06:03	0° \mathcal{E}	
minimum elong	4197 Jan 24 14:10	4° \approx 44'24	1°44'14				
evening rise	4197 Feb 08 15:36	29° \approx 03'50		superior conj	4198 Jan 04 01:30	13° \mathcal{E} 53'27	-1°-6'-42
	4197 Feb 09 05:15	0° \mathcal{H}		minimum elong	4198 Jan 03 17:27	13° \mathcal{E} 21'54	1°05'45
asc. node	4197 Feb 26 22:47	27° \mathcal{H} 14'32		max. Earth dist.	4198 Jan 04 23:13	15° \mathcal{E} 18'39	1.45277 AU
evening max el	4197 Feb 28 08:46	28° \mathcal{H} 46'54	18°29'00		4198 Jan 14 08:02	0° \approx	
	4197 Mar 01 16:05	0° \mathcal{Y}		evening rise	4198 Jan 20 03:04	9° \approx 07'26	
retrograde	4197 Mar 06 21:11	2° \mathcal{Y} 20'44		greatest brilliancy	4198 Feb 01 11:06	28° \approx 27'08	-0.7m
evening set	4197 Mar 09 22:07	1° \mathcal{Y} 29'20			4198 Feb 02 11:38	0° \mathcal{H}	
	4197 Mar 11 23:30	30° \mathcal{R} \mathcal{H}		evening max el	4198 Feb 11 18:21	12° \mathcal{H} 16'35	19°06'07
inferior conj	4197 Mar 15 18:58	25° \mathcal{H} 56'17	3°35'53	asc. node	4198 Feb 13 19:48	14° \mathcal{H} 09'14	
minimum elong	4197 Mar 15 18:37	25° \mathcal{H} 57'17	3°35'52	retrograde	4198 Feb 18 16:38	16° \mathcal{H} 12'15	
min. Earth dist.	4197 Mar 17 22:38	23° \mathcal{H} 24'26	0.64531 AU	evening set	4198 Feb 22 00:17	15° \mathcal{H} 08'11	
morning rise	4197 Mar 21 13:37	19° \mathcal{H} 44'34		inferior conj	4198 Feb 27 15:01	9° \mathcal{H} 18'33	3°25'55
direct	4197 Mar 28 07:47	16° \mathcal{H} 56'39		minimum elong	4198 Feb 27 13:27	9° \mathcal{H} 23'33	3°25'44
desc. node	4197 Apr 04 20:37	19° \mathcal{H} 42'38		min. Earth dist.	4198 Mar 01 03:19	7° \mathcal{H} 23'09	0.66020 AU
morning max el	4197 Apr 10 21:22	24° \mathcal{H} 51'11	27°22'37	morning rise	4198 Mar 05 01:38	3° \mathcal{H} 03'28	
	4197 Apr 15 13:39	0° \mathcal{Y}		direct	4198 Mar 11 11:05	0° \mathcal{H} 15'35	

desc. node	4198 Mar 22 17:40	6° Υ 21'02		morning max el	4199 Mar 06 16:08	21° \approx 05'27	25°07'33
morning max el	4198 Mar 24 07:20	7° Υ 52'49	26°25'17	desc. node	4199 Mar 09 14:42	24° \approx 14'52	
	4198 Apr 10 12:52	0° Υ			4199 Mar 14 09:08	0° Υ	
	4198 Apr 28 11:13	0° Υ			4199 Apr 03 18:07	0° Υ	
morning set	4198 Apr 29 07:49	1° Υ 36'13		morning set	4199 Apr 11 19:14	13° Υ 49'33	
max. Earth dist.	4198 May 03 10:44	9° Υ 31'36	1.34849 AU	max. Earth dist.	4199 Apr 15 11:42	20° Υ 33'25	1.36669 AU
					4199 Apr 20 10:35	0° Υ	
superior conj	4198 May 08 05:33	19° Υ 09'13	0°-45'-53	superior conj	4199 Apr 21 18:09	2° Υ 34'48	-1°-14'-40
minimum elong	4198 May 08 08:01	19° Υ 21'51	0°45'26	minimum elong	4199 Apr 21 22:07	2° Υ 54'24	1°14'03
asc. node	4198 May 12 19:08	28° Υ 38'21		asc. node	4199 Apr 29 16:09	18° Υ 29'41	
	4198 May 13 10:46	0° Π		evening rise	4199 Apr 30 02:19	19° Υ 20'52	
evening rise	4198 May 15 22:21	5° Π 10'00			4199 May 05 13:06	0° Π	
	4198 May 29 19:45	0° Σ		evening max el	4199 May 17 06:28	17° Π 15'28	19°37'05
evening max el	4198 Jun 03 18:17	5° Σ 48'07	20°47'15	retrograde	4199 May 26 23:07	21° Π 58'34	
retrograde	4198 Jun 15 04:54	11° Σ 24'04		evening set	4199 May 28 22:02	21° Π 47'54	
evening set	4198 Jun 17 07:33	11° Σ 13'25		desc. node	4199 Jun 05 13:55	18° Π 24'42	
desc. node	4198 Jun 18 16:54	10° Σ 55'21		inferior conj	4199 Jun 06 15:50	17° Π 44'13	0°-19'-9
inferior conj	4198 Jun 26 14:27	7° Σ 16'23	-2°-18'-29	minimum elong	4199 Jun 06 14:58	17° Π 45'34	0°18'51
minimum elong	4198 Jun 26 08:03	7° Σ 25'31	2°16'16	min. Earth dist.	4199 Jun 09 01:32	16° Π 13'37	0.55644 AU
min. Earth dist.	4198 Jun 27 12:06	6° Σ 45'31	0.54867 AU	morning rise	4199 Jun 15 04:26	13° Π 11'06	
morning rise	4198 Jul 05 07:39	3° Σ 13'08		direct	4199 Jun 19 17:46	12° Π 24'48	
direct	4198 Jul 09 00:40	2° Σ 43'31		morning max el	4199 Jul 03 17:18	19° Π 25'09	24°43'46
morning max el	4198 Jul 22 03:20	9° Σ 01'26	23°00'40		4199 Jul 12 15:23	0° Σ	
	4198 Aug 06 06:11	0° Ω		asc. node	4199 Jul 26 15:26	24° Σ 16'41	
asc. node	4198 Aug 08 18:23	4° Ω 41'29		morning set	4199 Jul 29 09:57	0° Ω 02'02	
morning set	4198 Aug 13 22:11	15° Ω 08'19			4199 Jul 29 09:34	0° Ω	
	4198 Aug 20 20:45	0° η					
superior conj	4198 Aug 21 00:39	0° η 20'55	1°37'53	superior conj	4199 Aug 05 09:43	15° Ω 11'23	1°26'31
minimum elong	4198 Aug 20 23:04	0° η 12'24	1°37'45	minimum elong	4199 Aug 05 07:31	14° Ω 59'24	1°26'15
max. Earth dist.	4198 Aug 23 20:08	6° η 18'14	1.33786 AU	max. Earth dist.	4199 Aug 07 00:07	18° Ω 40'07	1.32781 AU
evening rise	4198 Aug 28 18:57	16° η 23'45			4199 Aug 12 08:45	0° η	
	4198 Sep 05 00:52	0° Δ		evening rise	4199 Aug 12 16:17	0° η 38'31	
desc. node	4198 Sep 14 16:14	15° Δ 52'48			4199 Aug 29 00:43	0° Δ	
	4198 Sep 24 22:14	0° \mathbb{M}		desc. node	4199 Sep 01 13:15	5° Δ 14'50	
evening max el	4198 Oct 02 03:51	7° \mathbb{M} 56'12	27°16'21	evening max el	4199 Sep 14 14:23	21° Δ 00'02	27°26'24
retrograde	4198 Oct 15 14:34	15° \mathbb{M} 14'27		retrograde	4199 Sep 28 07:33	28° Δ 15'40	
evening set	4198 Oct 22 13:22	12° \mathbb{M} 34'22		evening set	4199 Oct 05 11:51	25° Δ 43'04	
min. Earth dist.	4198 Oct 26 09:19	8° \mathbb{M} 59'02	0.64720 AU	min. Earth dist.	4199 Oct 09 03:21	22° Δ 39'32	0.63045 AU
inferior conj	4198 Oct 28 15:28	6° \mathbb{M} 31'32	-2°-20'-34	inferior conj	4199 Oct 11 21:21	19° Δ 58'16	-3°-21'-33
minimum elong	4198 Oct 28 19:27	6° \mathbb{M} 20'39	2°19'03	minimum elong	4199 Oct 12 02:51	19° Δ 44'46	3°19'46
morning rise	4198 Nov 04 03:37	1° \mathbb{M} 00'36		morning rise	4199 Oct 18 20:31	14° Δ 44'47	
asc. node	4198 Nov 04 17:33	0° \mathbb{M} 46'59		direct	4199 Oct 21 05:13	14° Δ 18'36	
direct	4198 Nov 06 16:48	0° \mathbb{M} 26'39		asc. node	4199 Oct 22 14:36	14° Δ 27'54	
morning max el	4198 Nov 13 04:28	3° \mathbb{M} 53'20	17°59'26	morning max el	4199 Oct 27 21:01	17° Δ 44'38	17°50'05
morning set	4198 Nov 30 16:34	0° \mathbb{A} 16'54			4199 Nov 05 16:18	0° \mathbb{M}	
	4198 Nov 30 12:32	0° \mathbb{A}		morning set	4199 Nov 13 01:43	12° \mathbb{M} 47'32	
desc. node	4198 Dec 11 15:30	18° \mathbb{A} 21'13			4199 Nov 23 00:30	0° \mathbb{A}	
superior conj	4198 Dec 14 11:50	22° \mathbb{A} 56'07	0°-19'-32	superior conj	4199 Nov 24 21:25	3° \mathbb{A} 08'21	0°25'09
minimum elong	4198 Dec 14 09:27	22° \mathbb{A} 46'35	0°19'12	minimum elong	4199 Nov 24 23:52	3° \mathbb{A} 18'38	0°24'48
	4198 Dec 18 22:32	0° \mathbb{B}		desc. node	4199 Nov 28 12:32	9° \mathbb{A} 07'58	
max. Earth dist.	4198 Dec 18 18:17	29° \mathbb{A} 43'14	1.44915 AU	max. Earth dist.	4199 Dec 01 11:27	13° \mathbb{A} 55'24	1.43860 AU
evening rise	4198 Dec 30 19:25	18° \mathbb{B} 28'50		evening rise	4199 Dec 10 05:07	27° \mathbb{A} 40'49	
	4199 Jan 07 07:53	0° \approx			4199 Dec 11 17:16	0° \mathbb{B}	
greatest brilliancy	4199 Jan 19 02:34	17° \approx 20'36	-0.6m		4200 Jan 01 05:24	0° \approx	
evening max el	4199 Jan 25 23:29	25° \approx 48'45	19°59'10	greatest brilliancy	4200 Jan 03 17:36	3° \approx 17'10	-0.4m
asc. node	4199 Jan 31 16:49	29° \approx 55'41		evening max el	4200 Jan 08 23:11	9° \approx 22'21	21°05'26
	4199 Jan 31 22:19	0° \mathbb{K}		retrograde	4200 Jan 17 12:20	14° \approx 26'02	
retrograde	4199 Feb 02 14:24	0° \mathbb{K} 15'08		asc. node	4200 Jan 18 13:51	14° \approx 19'53	
	4199 Feb 04 05:18	30° $\mathbb{R}\approx$		evening set	4200 Jan 21 13:42	12° \approx 53'03	
evening set	4199 Feb 06 06:06	28° \approx 57'13		inferior conj	4200 Jan 26 23:13	6° \approx 37'41	2°32'06
inferior conj	4199 Feb 11 17:14	22° \approx 53'21	3°03'51	minimum elong	4200 Jan 26 20:45	6° \approx 46'13	2°31'23
minimum elong	4199 Feb 11 14:57	23° \approx 00'59	3°03'22	min. Earth dist.	4200 Jan 27 08:20	6° \approx 06'16	0.67755 AU
min. Earth dist.	4199 Feb 12 15:14	21° \approx 39'36	0.67095 AU	morning rise	4200 Feb 01 03:26	0° \approx 22'43	
morning rise	4199 Feb 16 23:10	16° \approx 37'24			4200 Feb 01 14:09	30° $\mathbb{R}\mathbb{B}$	
direct	4199 Feb 22 20:00	14° \approx 00'59		direct	4200 Feb 06 09:41	28° \mathbb{B} 05'17	

	4200 Feb 11 19:37	0°♊		min. Earth dist.	4201 Jan 11 04:23	20°♊37'01	0.68020 AU
morning max el	4200 Feb 17 00:47	4°♊24'55	23°39'47	morning rise	4201 Jan 16 12:00	14°♊15'49	
desc. node	4200 Feb 24 11:44	13°♊02'57		direct	4201 Jan 21 03:18	12°♊20'54	
	4200 Mar 08 16:10	0°♋		morning max el	4201 Jan 30 12:14	17°♊51'21	22°11'38
morning set	4200 Mar 24 08:02	24°♋54'43		greatest brilliancy	4201 Feb 04 02:17	22°♊59'00	-0.3m
	4200 Mar 27 06:54	0°♌			4201 Feb 09 13:01	0°♊	
max. Earth dist.	4200 Mar 28 07:15	1°♌46'47	1.38791 AU	desc. node	4201 Feb 11 08:45	2°♊29'30	
					4201 Mar 01 19:13	0°♋	
superior conj	4200 Apr 04 17:34	15°♌18'52	-1°-40'-32	morning set	4201 Mar 04 16:53	4°♋39'04	
minimum elong	4200 Apr 04 22:22	15°♌41'23	1°40'01	max. Earth dist.	4201 Mar 10 04:39	13°♋42'22	1.40958 AU
	4200 Apr 12 08:47	0°♍					
evening rise	4200 Apr 13 22:50	3°♍05'24		superior conj	4201 Mar 17 23:10	27°♋09'50	-1°-59'-55
asc. node	4200 Apr 16 13:10	8°♍06'31		minimum elong	4201 Mar 18 03:03	27°♋27'09	1°59'42
evening max el	4200 Apr 30 05:36	29°♍22'40	18°46'52		4201 Mar 19 13:09	0°♎	
	4200 Apr 30 21:33	0°♏		evening rise	4201 Mar 28 08:33	16°♎15'02	
retrograde	4200 May 08 10:00	3°♏23'18		asc. node	4201 Apr 03 10:11	27°♎23'21	
evening set	4200 May 10 13:21	3°♏07'52			4201 Apr 04 22:09	0°♏	
	4200 May 16 19:07	30°♏♌		evening max el	4201 Apr 13 12:37	12°♏02'42	18°16'58
inferior conj	4200 May 18 11:55	28°♏46'44	1°23'54	retrograde	4201 Apr 20 15:58	15°♏36'38	
minimum elong	4200 May 18 14:51	28°♏41'21	1°22'56	evening set	4201 Apr 23 01:32	15°♏13'20	
min. Earth dist.	4200 May 21 17:59	26°♏24'33	0.57214 AU	inferior conj	4201 Apr 30 05:35	10°♏31'32	2°36'00
desc. node	4200 May 23 10:56	25°♏16'21		minimum elong	4201 Apr 30 09:09	10°♏23'51	2°35'08
morning rise	4200 May 26 11:53	23°♏38'00		min. Earth dist.	4201 May 03 15:46	7°♏36'22	0.59262 AU
direct	4200 Jun 01 00:14	22°♏23'56		morning rise	4201 May 07 12:43	4°♏53'17	
	4200 Jun 15 11:06	0°♐		desc. node	4201 May 10 07:56	3°♏38'17	
morning max el	4200 Jun 15 08:36	29°♏53'55	26°15'31	direct	4201 May 13 20:22	3°♏04'26	
	4200 Jul 06 09:32	0°♑		morning max el	4201 May 28 05:34	10°♏53'10	27°20'52
morning set	4200 Jul 13 20:54	14°♑52'17			4201 Jun 12 01:36	0°♒	
asc. node	4200 Jul 13 12:27	14°♑07'48		morning set	4201 Jun 28 05:22	29°♒33'41	
					4201 Jun 28 10:23	0°♓	
superior conj	4200 Jul 20 21:02	0°♒06'36	1°10'23	asc. node	4201 Jun 30 09:29	4°♓09'30	
minimum elong	4200 Jul 20 18:43	29°♓53'49	1°10'00				
	4200 Jul 20 19:50	0°♓		superior conj	4201 Jul 05 08:49	15°♓00'44	0°50'06
max. Earth dist.	4200 Jul 21 09:47	1°♓16'51	1.32188 AU	minimum elong	4201 Jul 05 06:51	14°♓49'51	0°49'43
evening rise	4200 Jul 27 20:36	15°♓12'30		max. Earth dist.	4201 Jul 04 21:28	13°♓58'09	1.32000 AU
	4200 Aug 04 08:23	0°♔		evening rise	4201 Jul 12 05:27	29°♓58'02	
desc. node	4200 Aug 19 10:15	23°♔51'57			4201 Jul 12 05:50	0°♑	
	4200 Aug 24 12:07	0°♕			4201 Jul 28 15:25	0°♔	
evening max el	4200 Aug 27 20:14	3°♕25'26	27°03'53	desc. node	4201 Aug 06 07:15	11°♔25'50	
retrograde	4200 Sep 10 17:08	10°♕37'23		evening max el	4201 Aug 09 19:05	15°♔03'42	26°08'27
evening set	4200 Sep 17 18:46	8°♕24'21		retrograde	4201 Aug 23 18:25	22°♔12'33	
min. Earth dist.	4200 Sep 21 10:32	5°♕43'24	0.61102 AU	evening set	4201 Aug 30 05:21	20°♔31'17	
inferior conj	4200 Sep 24 14:04	3°♕00'47	-4°-16'-50	min. Earth dist.	4201 Sep 03 07:51	17°♔56'50	0.59032 AU
minimum elong	4200 Sep 24 20:02	2°♕47'52	4°15'26	inferior conj	4201 Sep 06 14:09	15°♔30'08	-4°-57'-56
	4200 Sep 28 08:48	30°♔♔		minimum elong	4201 Sep 06 18:19	15°♔22'16	4°57'27
morning rise	4200 Oct 02 00:27	28°♔08'23		morning rise	4201 Sep 14 10:49	11°♔01'01	
direct	4200 Oct 04 07:46	27°♔46'55		direct	4201 Sep 16 19:59	10°♔41'49	
asc. node	4200 Oct 09 11:39	29°♔39'23		morning max el	4201 Sep 24 19:47	14°♔32'43	18°28'29
	4200 Oct 09 22:37	0°♖		asc. node	4201 Sep 26 08:42	16°♔08'55	
morning max el	4200 Oct 11 11:13	1°♖20'32	17°59'19		4201 Oct 05 11:36	0°♖	
morning set	4200 Oct 27 04:43	26°♖08'37		morning set	4201 Oct 10 20:24	10°♖05'46	
	4200 Oct 29 06:55	0°♗					
				superior conj	4201 Oct 19 20:31	27°♖14'46	1°24'48
superior conj	4200 Nov 06 09:34	14°♗38'11	1°00'31	minimum elong	4201 Oct 20 00:01	27°♖30'57	1°24'28
minimum elong	4200 Nov 06 13:41	14°♗56'16	0°59'59		4201 Oct 21 08:24	0°♗	
max. Earth dist.	4200 Nov 13 23:55	27°♗36'23	1.42237 AU	max. Earth dist.	4201 Oct 27 06:52	10°♗34'19	1.40256 AU
desc. node	4200 Nov 15 09:33	29°♗55'05		evening rise	4201 Oct 31 15:43	17°♗59'06	
	4200 Nov 15 10:45	0°♘		desc. node	4201 Nov 02 06:34	20°♗39'22	
evening rise	4200 Nov 20 00:07	7°♘21'22			4201 Nov 08 03:02	0°♘	
	4200 Dec 04 22:43	0°♙			4201 Nov 29 10:49	0°♙	
greatest brilliancy	4200 Dec 17 23:17	17°♙35'49	-0.3m	evening max el	4201 Dec 05 07:54	6°♙34'03	23°41'03
evening max el	4200 Dec 22 17:30	22°♙56'45	22°21'08	retrograde	4201 Dec 16 02:04	12°♙55'07	
retrograde	4201 Jan 01 08:41	28°♙40'32		evening set	4201 Dec 21 03:30	10°♙50'09	
asc. node	4201 Jan 05 10:53	27°♙11'57		asc. node	4201 Dec 23 07:55	8°♙38'05	
evening set	4201 Jan 05 21:21	26°♙51'38		min. Earth dist.	4201 Dec 26 01:06	5°♙08'37	0.67921 AU
inferior conj	4201 Jan 11 06:56	20°♙28'12	1°52'18	inferior conj	4201 Dec 26 14:33	4°♙22'44	1°05'37
minimum elong	4201 Jan 11 04:44	20°♙35'48	1°51'32	minimum elong	4201 Dec 26 13:04	4°♙27'45	1°05'02

	4201 Dec 30 01:36	30° RA		inferior conj	4202 Dec 10 20:18	18° A 18'56	0°13'05
morning rise	4201 Dec 31 22:50	28° A 14'47		minimum elong	4202 Dec 10 19:59	18° A 20'00	0°12'56
direct	4202 Jan 04 23:59	26° A 42'36		transit middle	4202 Dec 10 19:59	18° A 20'00	0°12'56
	4202 Jan 11 16:33	0° C		transit begin	4202 Dec 10 18:19	18° A 25'29	
morning max el	4202 Jan 13 05:48	1° C 27'50	20°50'51	transit end	4202 Dec 10 21:39	18° A 14'32	
greatest brilliancy	4202 Jan 18 21:23	8° C 00'29	-0.5m	morning rise	4202 Dec 16 10:00	12° A 17'43	
desc. node	4202 Jan 29 05:47	22° C 23'54		direct	4202 Dec 19 22:29	11° A 06'18	
	4202 Feb 03 08:38	0° \approx		morning max el	4202 Dec 27 07:14	15° A 15'38	19°42'36
morning set	4202 Feb 11 23:01	13° \approx 10'31		greatest brilliancy	4203 Jan 04 03:14	24° A 55'51	-0.6m
max. Earth dist.	4202 Feb 20 08:30	26° \approx 31'49	1.42893 AU		4203 Jan 07 16:23	0° C	
	4202 Feb 22 11:29	0° H		desc. node	4203 Jan 16 02:50	12° C 38'38	
				morning set	4203 Jan 21 19:10	21° C 21'39	
superior conj	4202 Feb 27 05:53	7° H 56'18	-2°-7'-53		4203 Jan 27 08:46	0° \approx	
minimum elong	4202 Feb 27 05:58	7° H 56'42	2°07'53	max. Earth dist.	4203 Feb 02 19:53	10° \approx 10'19	1.44349 AU
evening rise	4202 Mar 11 03:23	28° H 40'09					
	4202 Mar 11 21:18	0° Y		superior conj	4203 Feb 07 10:49	17° \approx 34'10	-1°-59'-1
asc. node	4202 Mar 21 07:13	16° Y 13'01		minimum elong	4203 Feb 07 04:52	17° \approx 10'08	1°58'43
evening max el	4202 Mar 28 00:07	25° Y 06'17	18°06'48		4203 Feb 15 01:01	0° H	
retrograde	4202 Apr 03 13:48	28° Y 29'06		evening rise	4203 Feb 21 02:53	10° H 12'34	
evening set	4202 Apr 06 05:29	27° Y 55'49			4203 Mar 05 01:52	0° Y	
inferior conj	4202 Apr 12 18:27	22° Y 53'19	3°17'38	asc. node	4203 Mar 08 04:16	4° Y 27'10	
minimum elong	4202 Apr 12 20:46	22° Y 47'35	3°17'17	evening max el	4203 Mar 11 12:59	8° Y 25'15	18°15'41
min. Earth dist.	4202 Apr 15 20:59	19° Y 50'07	0.61454 AU	retrograde	4203 Mar 17 23:11	11° Y 51'09	
morning rise	4202 Apr 19 09:03	16° Y 56'07		evening set	4203 Mar 20 20:44	11° Y 06'33	
direct	4202 Apr 26 03:53	14° Y 35'05		inferior conj	4203 Mar 26 22:27	5° Y 44'18	3°34'43
desc. node	4202 Apr 27 04:58	14° Y 38'15		minimum elong	4203 Mar 26 23:02	5° Y 42'41	3°34'41
morning max el	4202 May 10 08:45	22° Y 33'10	27°50'32	min. Earth dist.	4203 Mar 29 11:09	2° Y 56'09	0.63500 AU
	4202 May 16 22:36	0° B			4203 Apr 01 11:51	30° RH	
	4202 Jun 05 05:03	0° II		morning rise	4203 Apr 01 23:23	29° H 36'32	
morning set	4202 Jun 12 09:22	13° II 58'55		direct	4203 Apr 08 20:13	26° H 54'22	
asc. node	4202 Jun 17 06:30	24° II 16'20		desc. node	4203 Apr 14 02:00	28° H 15'08	
max. Earth dist.	4202 Jun 18 07:13	26° II 30'11	1.32227 AU		4203 Apr 17 00:20	0° Y	
				morning max el	4203 Apr 22 16:29	4° Y 52'32	27°42'42
superior conj	4202 Jun 19 19:17	29° II 46'56	0°26'18		4203 May 11 15:13	0° B	
minimum elong	4202 Jun 19 18:07	29° II 40'30	0°26'02	morning set	4203 May 27 06:38	28° B 00'59	
	4202 Jun 19 21:41	0° S			4203 May 28 06:21	0° II	
evening rise	4202 Jun 26 16:43	14° S 47'14		max. Earth dist.	4203 Jun 01 11:16	8° II 41'34	1.32890 AU
	4202 Jul 04 06:46	0° Q					
evening max el	4202 Jul 22 10:52	25° Q 55'56	24°46'09	superior conj	4203 Jun 04 02:41	14° II 19'41	0°00'-22
desc. node	4202 Jul 24 04:16	27° Q 30'03		minimum elong	4203 Jun 04 02:42	14° II 19'45	0°00'23
	4202 Jul 27 11:41	0° P		behind sun begin	4203 Jun 03 21:24	13° II 51'16	
retrograde	4202 Aug 05 09:02	2° P 58'10		behind sun end	4203 Jun 04 08:00	14° II 48'16	
evening set	4202 Aug 10 15:42	1° P 55'15		asc. node	4203 Jun 04 03:34	14° II 24'27	
	4202 Aug 14 12:26	30° RQ		evening rise	4203 Jun 11 04:33	29° II 34'17	
min. Earth dist.	4202 Aug 15 22:15	29° Q 08'10	0.57082 AU		4203 Jun 11 09:24	0° S	
inferior conj	4202 Aug 18 18:35	27° Q 16'40	-5°-11'-45		4203 Jun 28 10:22	0° Q	
minimum elong	4202 Aug 18 17:52	27° Q 17'50	5°11'45	evening max el	4203 Jul 03 23:53	6° Q 21'36	23°09'57
morning rise	4202 Aug 26 23:36	23° Q 09'37		desc. node	4203 Jul 11 01:17	11° Q 31'38	
direct	4202 Aug 29 13:55	22° Q 50'40		retrograde	4203 Jul 17 10:45	13° Q 04'42	
morning max el	4202 Sep 07 19:22	27° Q 10'14	19°18'59	evening set	4203 Jul 21 05:12	12° Q 33'42	
	4202 Sep 10 10:55	0° P		min. Earth dist.	4203 Jul 28 09:11	9° Q 18'44	0.55589 AU
asc. node	4202 Sep 13 05:46	3° P 40'25		inferior conj	4203 Jul 30 03:20	8° Q 17'17	-4°-42'-19
morning set	4202 Sep 24 20:49	24° P 27'44		minimum elong	4203 Jul 29 20:38	8° Q 27'04	4°41'12
	4202 Sep 27 15:13	0° L		morning rise	4203 Aug 07 14:56	4° Q 25'07	
				direct	4203 Aug 10 13:11	4° Q 04'36	
superior conj	4202 Oct 03 00:41	10° L 41'44	1°38'49	morning max el	4203 Aug 21 07:23	9° Q 04'29	20°31'12
minimum elong	4202 Oct 03 02:38	10° L 51'12	1°38'43	asc. node	4203 Aug 31 02:48	22° Q 00'01	
max. Earth dist.	4202 Oct 09 11:06	22° L 51'24	1.38165 AU		4203 Sep 04 13:19	0° P	
evening rise	4202 Oct 13 06:40	29° L 41'04		morning set	4203 Sep 09 03:04	9° P 06'32	
	4202 Oct 13 11:00	0° M					
desc. node	4202 Oct 20 03:36	11° M 16'42		superior conj	4203 Sep 16 17:16	24° P 45'17	1°44'04
	4202 Nov 01 11:08	0° A		minimum elong	4203 Sep 16 17:34	24° P 46'50	1°44'03
evening max el	4202 Nov 17 20:35	20° A 15'42	24°58'42		4203 Sep 19 07:50	0° L	
retrograde	4202 Nov 29 15:21	27° A 05'45		max. Earth dist.	4203 Sep 21 18:16	4° L 46'36	1.36206 AU
evening set	4202 Dec 05 06:32	24° A 45'41		evening rise	4203 Sep 25 18:14	12° L 20'18	
min. Earth dist.	4202 Dec 09 20:08	19° A 38'24	0.67474 AU		4203 Oct 05 23:11	0° M	
asc. node	4202 Dec 10 04:58	19° A 09'25		desc. node	4203 Oct 07 00:38	1° M 42'19	

	4203 Oct 27 13:52	0°♊		evening max el	4204 Oct 12 21:51	17°♌35'33	26°57'32
evening max el	4203 Oct 31 09:11	3°♊58'44	26°06'41	retrograde	4204 Oct 26 02:24	24°♌52'12	
retrograde	4203 Nov 12 23:37	11°♊06'52		evening set	4204 Nov 01 19:50	22°♌12'24	
evening set	4203 Nov 19 04:40	8°♊34'22		min. Earth dist.	4204 Nov 05 19:17	18°♌17'07	0.65543 AU
min. Earth dist.	4203 Nov 23 10:58	4°♊02'48	0.66684 AU	inferior conj	4204 Nov 07 18:30	16°♌01'39	-1°-44'-53
inferior conj	4203 Nov 24 22:19	2°♊13'11	0°-44'-15	minimum elong	4204 Nov 07 21:27	15°♌53'11	1°43'42
minimum elong	4203 Nov 24 23:30	2°♊09'30	0°43'44	asc. node	4204 Nov 12 23:03	10°♌59'35	
	4203 Nov 26 18:25	30°♌		morning rise	4204 Nov 14 00:46	10°♌22'24	
asc. node	4203 Nov 27 02:02	29°♌38'19		direct	4204 Nov 16 17:52	9°♌42'16	
morning rise	4203 Nov 30 19:25	26°♌21'26		morning max el	4204 Nov 23 06:07	13°♌12'34	18°12'53
direct	4203 Dec 03 21:08	25°♌27'32			4204 Dec 05 05:09	0°♊	
morning max el	4203 Dec 10 16:01	29°♌12'05	18°49'31	morning set	4204 Dec 11 22:48	10°♊57'21	
	4203 Dec 11 10:30	0°♊		desc. node	4204 Dec 19 20:56	23°♊46'44	
morning set	4204 Jan 01 06:35	0°♋25'29			4204 Dec 23 18:33	0°♋	
	4204 Jan 01 00:05	0°♋					
desc. node	4204 Jan 02 23:52	3°♋07'35		superior conj	4204 Dec 26 21:56	4°♋58'12	0°-47'-3
max. Earth dist.	4204 Jan 16 13:05	24°♋22'39	1.45153 AU	minimum elong	4204 Dec 26 16:02	4°♋34'56	0°46'17
				max. Earth dist.	4204 Dec 29 08:42	8°♋49'25	1.45219 AU
superior conj	4204 Jan 17 18:35	26°♋18'32	-1°-30'-33		4205 Jan 11 22:08	0°♌	
minimum elong	4204 Jan 17 09:17	25°♋42'00	1°29'37	evening rise	4205 Jan 12 06:03	0°♌30'50	
	4204 Jan 20 02:50	0°♌		greatest brilliancy	4205 Jan 27 22:19	24°♌32'36	-0.7m
evening rise	4204 Feb 02 03:37	20°♌47'24			4205 Jan 31 20:02	0°♌	
	4204 Feb 07 20:23	0°♌		evening max el	4205 Feb 05 08:13	5°♌22'35	19°26'47
evening max el	4204 Feb 23 00:25	21°♌52'00	18°42'45	asc. node	4205 Feb 08 22:20	8°♌21'40	
asc. node	4204 Feb 23 01:19	21°♌54'17		retrograde	4205 Feb 12 12:45	9°♌30'21	
retrograde	4204 Feb 29 15:55	25°♌33'31		evening set	4205 Feb 15 23:41	8°♌20'25	
evening set	4204 Mar 03 19:43	24°♌36'40		inferior conj	4205 Feb 21 12:34	2°♌24'06	3°17'50
inferior conj	4204 Mar 09 13:36	18°♌56'16	3°33'16	minimum elong	4205 Feb 21 10:38	2°♌30'24	3°17'32
minimum elong	4204 Mar 09 12:41	18°♌59'05	3°33'14	min. Earth dist.	4205 Feb 22 18:30	0°♌46'24	0.66531 AU
min. Earth dist.	4204 Mar 11 10:36	16°♌39'11	0.65218 AU		4205 Feb 23 09:00	30°♌	
morning rise	4204 Mar 15 04:26	12°♌43'00		morning rise	4205 Feb 26 20:50	26°♌08'23	
direct	4204 Mar 21 19:33	9°♌53'43		direct	4205 Mar 05 01:08	23°♌24'33	
desc. node	4204 Mar 30 23:02	13°♌56'36			4205 Mar 16 16:05	0°♌	
morning max el	4204 Apr 04 02:19	17°♌41'43	27°01'22	morning max el	4205 Mar 17 12:01	0°♌49'27	25°54'09
	4204 Apr 14 09:38	0°♍		desc. node	4205 Mar 17 20:06	1°♌10'00	
	4204 May 03 12:58	0°♍			4205 Apr 08 09:33	0°♍	
morning set	4204 May 09 18:07	11°♍30'22		morning set	4205 Apr 22 15:48	24°♍15'38	
max. Earth dist.	4204 May 14 06:01	20°♍23'11	1.34005 AU	max. Earth dist.	4205 Apr 25 17:20	0°♍	
					4205 Apr 26 13:19	1°♍35'36	1.35576 AU
superior conj	4204 May 18 04:51	28°♍32'03	0°-29'00				
minimum elong	4204 May 18 06:23	28°♍40'02	0°28'43	superior conj	4205 May 01 23:16	12°♍16'47	0°-58'-17
	4204 May 18 21:37	0°♎		minimum elong	4205 May 02 02:25	12°♍32'40	0°57'44
asc. node	4204 May 21 00:37	4°♎29'19		asc. node	4205 May 07 21:38	24°♍26'49	
evening rise	4204 May 25 15:00	14°♎12'32		evening rise	4205 May 09 22:00	28°♍35'24	
	4204 Jun 02 16:08	0°♎			4205 May 10 14:35	0°♎	
evening max el	4204 Jun 14 17:48	16°♎52'37	21°35'41	evening max el	4205 May 27 22:43	27°♎55'38	20°15'01
desc. node	4204 Jun 26 22:17	22°♎57'46			4205 May 30 07:52	0°♎	
retrograde	4204 Jun 27 01:52	22°♎57'49		retrograde	4205 Jun 07 15:40	3°♎09'18	
evening set	4204 Jun 29 14:23	22°♎43'24		evening set	4205 Jun 09 15:01	2°♎59'24	
inferior conj	4204 Jul 08 22:36	18°♎42'51	-3°-22'-16	desc. node	4205 Jun 13 19:17	1°♎40'20	
minimum elong	4204 Jul 08 14:14	18°♎54'32	3°19'47		4205 Jun 17 01:01	30°♎	
min. Earth dist.	4204 Jul 08 19:40	18°♎46'58	0.54859 AU	inferior conj	4205 Jun 18 17:36	29°♎00'55	-1°-27'-39
morning rise	4204 Jul 17 15:04	14°♎50'05		minimum elong	4205 Jun 18 13:29	29°♎07'00	1°26'08
direct	4204 Jul 20 23:46	14°♎25'29		min. Earth dist.	4205 Jun 20 07:52	28°♎04'31	0.55077 AU
morning max el	4204 Aug 02 07:49	20°♎13'57	22°02'31	morning rise	4205 Jun 27 09:55	24°♎46'38	
	4204 Aug 10 10:23	0°♏		direct	4205 Jul 01 10:31	24°♎11'33	
asc. node	4204 Aug 16 23:51	10°♏56'25			4205 Jul 14 02:44	0°♎	
morning set	4204 Aug 23 12:55	23°♏56'03		morning max el	4205 Jul 15 00:06	0°♎48'46	23°45'02
	4204 Aug 26 09:54	0°♐		asc. node	4205 Aug 03 20:54	0°♏19'42	
					4205 Aug 03 16:54	0°♏	
superior conj	4204 Aug 30 18:29	9°♐14'32	1°41'57	morning set	4205 Aug 08 00:27	8°♏49'51	
minimum elong	4204 Aug 30 17:27	9°♐09'08	1°41'54				
max. Earth dist.	4204 Sep 03 08:53	16°♐42'52	1.34554 AU	superior conj	4205 Aug 15 01:21	23°♏59'41	1°33'42
evening rise	4204 Sep 07 22:05	25°♐45'44		minimum elong	4205 Aug 14 23:27	23°♏49'22	1°33'31
	4204 Sep 10 03:31	0°♑		max. Earth dist.	4205 Aug 17 08:09	28°♏53'28	1.33302 AU
desc. node	4204 Sep 22 21:39	21°♑50'20			4205 Aug 17 20:41	0°♑	
	4204 Sep 28 09:22	0°♑		evening rise	4205 Aug 22 14:01	9°♑45'18	

	4205 Sep 02 12:32	0°♄		max. Earth dist.	4206 Jul 31 14:44	11°♄21'44	1.32473 AU
desc. node	4205 Sep 09 18:39	11°♄32'08		evening rise	4206 Aug 06 14:39	24°♄09'25	
	4205 Sep 24 11:10	0°♄			4206 Aug 09 11:57	0°♄	
evening max el	4205 Sep 25 09:28	0°♄54'09	27°24'15		4206 Aug 27 05:02	0°♄	
retrograde	4205 Oct 08 23:17	8°♄12'13		desc. node	4206 Aug 27 15:37	0°♄36'57	
evening set	4205 Oct 16 01:21	5°♄33'32		evening max el	4206 Sep 07 18:13	13°♄42'48	27°20'54
min. Earth dist.	4205 Oct 19 18:55	2°♄12'47	0.64049 AU	retrograde	4206 Sep 21 13:35	20°♄57'39	
	4205 Oct 21 21:56	30°♄		evening set	4206 Sep 28 17:48	18°♄31'42	
inferior conj	4205 Oct 22 06:22	29°♄37'52	-2°-46'-44	min. Earth dist.	4206 Oct 02 08:28	15°♄39'12	0.62245 AU
minimum elong	4205 Oct 22 11:04	29°♄25'36	2°45'03	inferior conj	4206 Oct 05 07:04	12°♄55'15	-3°-46'-6
morning rise	4205 Oct 28 23:10	24°♄14'17		minimum elong	4206 Oct 05 12:57	12°♄41'31	3°44'24
asc. node	4205 Oct 30 20:05	23°♄45'52		morning rise	4206 Oct 12 11:04	7°♄50'27	
direct	4205 Oct 31 10:04	23°♄44'08		direct	4206 Oct 14 18:38	7°♄26'45	
morning max el	4205 Nov 06 22:40	27°♄09'23	17°53'17	asc. node	4206 Oct 17 17:09	8°♄06'07	
	4205 Nov 09 10:52	0°♄		morning max el	4206 Oct 21 14:37	10°♄55'15	17°51'35
morning set	4205 Nov 23 18:40	22°♄49'34			4206 Nov 03 07:20	0°♄	
	4205 Nov 27 23:49	0°♄		morning set	4206 Nov 06 12:06	5°♄43'22	
superior conj	4205 Dec 06 17:02	14°♄27'49	0°00'16	superior conj	4206 Nov 17 14:03	25°♄13'23	0°41'29
minimum elong	4205 Dec 06 17:04	14°♄27'55	0°00'15	minimum elong	4206 Nov 17 17:35	25°♄28'27	0°40'59
behind sun begin	4205 Dec 06 07:06	13°♄47'23			4206 Nov 20 09:56	0°♄	
behind sun end	4205 Dec 07 03:02	15°♄08'23		desc. node	4206 Nov 23 14:58	5°♄18'43	
desc. node	4205 Dec 06 17:58	14°♄31'38		max. Earth dist.	4206 Nov 24 17:50	7°♄08'20	1.43228 AU
max. Earth dist.	4205 Dec 12 03:04	23°♄10'01	1.44544 AU	evening rise	4206 Dec 02 05:17	19°♄02'15	
	4205 Dec 16 11:07	0°♄			4206 Dec 09 09:06	0°♄	
evening rise	4205 Dec 22 17:36	9°♄43'12		greatest brilliancy	4206 Dec 28 11:49	26°♄56'10	-0.4m
	4206 Jan 05 04:01	0°♄			4206 Dec 31 01:24	0°♄	
greatest brilliancy	4206 Jan 13 09:29	11°♄38'29	-0.5m	evening max el	4207 Jan 02 08:16	2°♄28'34	21°36'51
evening max el	4206 Jan 19 10:58	18°♄54'56	20°25'52	retrograde	4207 Jan 11 08:24	7°♄49'34	
asc. node	4206 Jan 26 19:20	23°♄34'50		asc. node	4207 Jan 13 16:22	7°♄20'10	
retrograde	4206 Jan 27 10:56	23°♄37'08		evening set	4207 Jan 15 14:16	6°♄10'09	
evening set	4206 Jan 31 06:29	22°♄13'01		inferior conj	4207 Jan 20 23:38	29°♄50'57	2°16'09
inferior conj	4206 Feb 05 16:41	16°♄03'39	2°51'29	minimum elong	4207 Jan 20 21:14	29°♄59'18	2°15'23
minimum elong	4206 Feb 05 14:16	16°♄11'54	2°50'52		4207 Jan 20 21:02	30°♄	
min. Earth dist.	4206 Feb 06 09:01	15°♄08'01	0.67421 AU	min. Earth dist.	4207 Jan 21 03:45	29°♄36'42	0.67911 AU
morning rise	4206 Feb 10 21:32	9°♄47'40		morning rise	4207 Jan 26 03:53	23°♄36'39	
direct	4206 Feb 16 12:09	7°♄18'44		direct	4207 Jan 31 03:47	21°♄28'20	
morning max el	4206 Feb 27 20:41	14°♄06'01	24°30'50	morning max el	4207 Feb 10 05:56	27°♄27'30	23°01'42
desc. node	4206 Mar 04 17:10	19°♄29'25			4207 Feb 12 15:07	0°♄	
	4206 Mar 12 19:17	0°♄		greatest brilliancy	4207 Feb 15 01:54	2°♄51'25	-0.3m
	4206 Apr 01 06:15	0°♄		desc. node	4207 Feb 19 14:12	8°♄35'24	
morning set	4206 Apr 04 18:26	6°♄02'34			4207 Mar 06 11:00	0°♄	
max. Earth dist.	4206 Apr 08 11:01	12°♄37'42	1.37540 AU	morning set	4207 Mar 16 19:47	16°♄34'04	
				max. Earth dist.	4207 Mar 21 05:57	24°♄03'43	1.39721 AU
superior conj	4206 Apr 15 06:46	25°♄25'59	-1°-26'-12		4207 Mar 24 15:24	0°♄	
minimum elong	4206 Apr 15 11:14	25°♄47'33	1°25'35	superior conj	4207 Mar 28 23:13	7°♄48'49	-1°-49'-50
	4206 Apr 17 14:58	0°♄		minimum elong	4207 Mar 29 03:54	8°♄10'23	1°49'25
evening rise	4206 Apr 23 23:11	12°♄36'12		evening rise	4207 Apr 07 15:32	26°♄06'32	
asc. node	4206 Apr 24 18:39	14°♄12'44			4207 Apr 09 16:30	0°♄	
	4206 May 03 08:05	0°♄		asc. node	4207 Apr 11 15:40	3°♄41'36	
evening max el	4206 May 10 15:53	9°♄40'47	19°13'17	evening max el	4207 Apr 23 18:53	22°♄03'15	18°31'45
retrograde	4206 May 19 16:13	14°♄04'17		retrograde	4207 May 01 11:01	25°♄50'05	
evening set	4206 May 21 16:17	13°♄52'12		evening set	4207 May 03 17:04	25°♄31'35	
inferior conj	4206 May 30 02:11	9°♄42'11	0°27'49	inferior conj	4207 May 11 07:28	21°♄02'08	1°58'29
minimum elong	4206 May 30 03:20	9°♄40'16	0°27'24	minimum elong	4207 May 11 11:00	20°♄55'11	1°57'25
desc. node	4206 May 31 16:19	8°♄38'01		min. Earth dist.	4207 May 14 17:17	18°♄22'57	0.58050 AU
min. Earth dist.	4206 Jun 01 22:47	7°♄47'43	0.56221 AU	desc. node	4207 May 18 13:21	15°♄54'02	
morning rise	4206 Jun 07 10:10	4°♄53'23		morning rise	4207 May 19 00:30	15°♄39'49	
direct	4206 Jun 12 09:11	3°♄56'29		direct	4207 May 24 22:09	14°♄10'56	
morning max el	4206 Jun 26 14:07	11°♄12'01	25°25'10	morning max el	4207 Jun 08 07:17	21°♄50'17	26°47'10
	4206 Jul 10 23:13	0°♄			4207 Jun 15 11:06	0°♄	
asc. node	4206 Jul 21 17:56	20°♄02'31			4207 Jul 03 18:21	0°♄	
morning set	4206 Jul 23 12:04	23°♄42'52		morning set	4207 Jul 07 22:09	8°♄29'19	
	4206 Jul 26 10:16	0°♄		asc. node	4207 Jul 08 14:58	9°♄58'15	
superior conj	4206 Jul 30 11:38	8°♄53'19	1°20'13	superior conj	4207 Jul 14 23:21	23°♄48'22	1°02'15
minimum elong	4206 Jul 30 09:19	8°♄40'40	1°19'54				

minimum elong	4207 Jul 14 21:07	23° $\overline{36}$ '04	1°01'52			4208 Jun 24 11:37	0° $\overline{39}$	
max. Earth dist.	4207 Jul 15 01:34	24° $\overline{50}$ '39	1.32057 AU	asc. node		4208 Jun 24 12:01	0° $\overline{50}$ '09	
	4207 Jul 17 18:52	0° $\overline{9}$		max. Earth dist.		4208 Jun 27 13:00	6° $\overline{39}$ '30	1.32051 AU
evening rise	4207 Jul 21 21:10	8° $\overline{9}$ '48'55						
	4207 Aug 01 21:16	0° $\overline{7}$		superior conj		4208 Jun 28 10:47	8° $\overline{39}$ '12	0°40'24
desc. node	4207 Aug 14 12:38	18° $\overline{7}$ '49'35		minimum elong		4208 Jun 28 09:05	8° $\overline{29}$ '55	0°40'03
evening max el	4207 Aug 20 21:31	25° $\overline{7}$ '49'23	26°44'16	evening rise		4208 Jul 05 07:19	23° $\overline{36}$ '30	
	4207 Aug 26 02:08	0° $\overline{5}$				4208 Jul 08 09:00	0° $\overline{9}$	
retrograde	4207 Sep 03 19:53	2° $\overline{5}$ '59'44				4208 Jul 26 08:38	0° $\overline{7}$	
evening set	4207 Sep 10 16:41	0° $\overline{5}$ '59'16		desc. node		4208 Jul 31 09:39	5° $\overline{7}$ '48'32	
	4207 Sep 12 06:36	30° \overline{R}		evening max el		4208 Aug 01 17:18	7° $\overline{7}$ '06'49	25°36'06
min. Earth dist.	4207 Sep 14 11:31	28° $\overline{7}$ '23'00	0.60221 AU	retrograde		4208 Aug 15 16:27	14° $\overline{7}$ '12'49	
inferior conj	4207 Sep 17 17:10	25° $\overline{7}$ '45'05	-4°-36'-43	evening set		4208 Aug 21 17:06	12° $\overline{7}$ '47'49	
minimum elong	4207 Sep 17 22:44	25° $\overline{7}$ '33'43	4°35'40	min. Earth dist.		4208 Aug 26 05:16	10° $\overline{7}$ '10'23	0.58168 AU
morning rise	4207 Sep 25 08:05	21° $\overline{7}$ '02'05		inferior conj		4208 Aug 29 09:08	7° $\overline{7}$ '56'44	-5°-8'-9
direct	4207 Sep 27 15:42	20° $\overline{7}$ '41'51		minimum elong		4208 Aug 29 11:35	7° $\overline{7}$ '52'22	5°08'00
asc. node	4207 Oct 04 14:12	23° $\overline{7}$ '52'25		morning rise		4208 Sep 06 09:34	3° $\overline{7}$ '37'19	
morning max el	4207 Oct 05 02:47	24° $\overline{7}$ '21'55	18°09'08	direct		4208 Sep 08 20:47	3° $\overline{7}$ '18'16	
	4207 Oct 09 17:43	0° $\overline{5}$		morning max el		4208 Sep 17 07:49	7° $\overline{7}$ '19'43	18°47'22
morning set	4207 Oct 20 21:08	19° $\overline{5}$ '21'48		asc. node		4208 Sep 20 11:16	10° $\overline{7}$ '49'39	
	4207 Oct 26 13:35	0° $\overline{7}$		morning set		4208 Oct 01 21:38	0° $\overline{5}$	
						4208 Oct 03 16:59	3° $\overline{5}$ '30'45	
superior conj	4207 Oct 30 12:34	7° $\overline{7}$ '13'26	1°12'09					
minimum elong	4207 Oct 30 16:37	7° $\overline{7}$ '31'36	1°11'41	superior conj		4208 Oct 12 07:31	20° $\overline{5}$ '13'10	1°31'56
max. Earth dist.	4207 Nov 07 03:58	20° $\overline{7}$ '32'21	1.41429 AU	minimum elong		4208 Oct 12 10:24	20° $\overline{5}$ '26'50	1°31'42
desc. node	4207 Nov 10 11:58	26° $\overline{7}$ '05'08				4208 Oct 17 14:24	0° $\overline{7}$	
evening rise	4207 Nov 12 08:19	29° $\overline{7}$ '05'48		max. Earth dist.		4208 Oct 19 09:50	3° $\overline{7}$ '13'59	1.39365 AU
	4207 Nov 12 21:46	0° $\overline{7}$		evening rise		4208 Oct 23 09:57	10° $\overline{7}$ '10'51	
	4207 Dec 02 23:18	0° $\overline{3}$		desc. node		4208 Oct 27 08:59	16° $\overline{7}$ '46'47	
greatest brilliancy	4207 Dec 10 16:50	10° $\overline{3}$ '05'43	-0.2m			4208 Nov 04 19:07	0° $\overline{7}$	
evening max el	4207 Dec 16 00:53	16° $\overline{3}$ '04'59	22°55'03	evening max el		4208 Nov 27 14:23	29° $\overline{7}$ '44'27	24°14'45
retrograde	4207 Dec 26 03:31	22° $\overline{3}$ '04'46				4208 Nov 27 20:42	0° $\overline{3}$	
evening set	4207 Dec 30 21:29	20° $\overline{3}$ '09'08		retrograde		4208 Dec 08 19:10	6° $\overline{3}$ '18'26	
asc. node	4207 Dec 31 13:25	19° $\overline{3}$ '33'58		evening set		4208 Dec 14 02:30	4° $\overline{3}$ '06'40	
inferior conj	4208 Jan 05 07:33	13° $\overline{3}$ '43'46	1°33'18	asc. node		4208 Dec 17 10:29	0° $\overline{3}$ '31'25	
minimum elong	4208 Jan 05 05:36	13° $\overline{3}$ '50'28	1°32'34			4208 Dec 17 20:18	30° \overline{R}	
min. Earth dist.	4208 Jan 05 00:23	14° $\overline{3}$ '08'31	0.68025 AU	min. Earth dist.		4208 Dec 18 20:33	28° $\overline{7}$ '39'50	0.67780 AU
morning rise	4208 Jan 10 13:43	7° $\overline{3}$ '33'02		inferior conj		4208 Dec 19 14:35	27° $\overline{7}$ '39'08	0°43'59
direct	4208 Jan 14 22:58	5° $\overline{3}$ '47'41		minimum elong		4208 Dec 19 13:33	27° $\overline{7}$ '42'36	0°43'34
morning max el	4208 Jan 23 19:31	10° $\overline{3}$ '57'31	21°35'57	morning rise		4208 Dec 25 00:57	21° $\overline{7}$ '34'01	
greatest brilliancy	4208 Jan 28 16:47	16° $\overline{3}$ '29'06	-0.4m	direct		4208 Dec 28 20:34	20° $\overline{7}$ '11'00	
desc. node	4208 Feb 06 11:13	28° $\overline{3}$ '15'04		morning max el		4209 Jan 05 16:26	24° $\overline{7}$ '39'05	20°20'06
	4208 Feb 07 16:38	0° $\overline{7}$				4209 Jan 10 08:29	0° $\overline{3}$	
morning set	4208 Feb 24 16:18	25° $\overline{7}$ '43'51		greatest brilliancy		4209 Jan 12 02:17	2° $\overline{3}$ '15'05	-0.5m
	4208 Feb 27 08:16	0° $\overline{7}$		desc. node		4209 Jan 23 08:15	18° $\overline{3}$ '18'43	
max. Earth dist.	4208 Mar 02 05:58	6° $\overline{7}$ '22'53	1.41834 AU			4209 Jan 31 01:30	0° $\overline{7}$	
				morning set		4209 Feb 02 15:15	3° $\overline{7}$ '57'49	
superior conj	4208 Mar 09 19:42	19° $\overline{7}$ '14'00	-2°-5'-1	max. Earth dist.		4209 Feb 12 13:43	19° $\overline{7}$ '36'44	1.43590 AU
minimum elong	4208 Mar 09 22:22	19° $\overline{7}$ '25'38	2°04'56					
	4208 Mar 15 21:17	0° $\overline{7}$		superior conj		4209 Feb 18 15:29	29° $\overline{7}$ '30'36	-2°-6'-26
evening rise	4208 Mar 20 19:27	8° $\overline{7}$ '58'15		minimum elong		4209 Feb 18 13:06	29° $\overline{7}$ '20'43	2°06'24
asc. node	4208 Mar 28 12:43	22° $\overline{7}$ '47'41				4209 Feb 18 22:35	0° $\overline{7}$	
	4208 Apr 02 02:50	0° $\overline{3}$		evening rise		4209 Mar 03 06:34	21° $\overline{7}$ '01'51	
evening max el	4208 Apr 06 04:15	4° $\overline{3}$ '54'27	18°10'14			4209 Mar 08 10:21	0° $\overline{7}$	
retrograde	4208 Apr 13 00:13	8° $\overline{3}$ '21'31		asc. node		4209 Mar 15 09:46	11° $\overline{7}$ '23'14	
evening set	4208 Apr 15 12:36	7° $\overline{3}$ '53'59		evening max el		4209 Mar 20 16:38	18° $\overline{7}$ '05'00	18°08'14
inferior conj	4208 Apr 22 09:43	3° $\overline{3}$ '03'04	2°57'04	retrograde		4209 Mar 27 03:42	21° $\overline{7}$ '27'44	
minimum elong	4208 Apr 22 12:54	2° $\overline{3}$ '55'48	2°56'25	evening set		4209 Mar 29 21:52	20° $\overline{7}$ '49'43	
min. Earth dist.	4208 Apr 25 17:41	0° $\overline{3}$ '01'42	0.60207 AU	inferior conj		4209 Apr 05 05:34	15° $\overline{7}$ '38'18	3°27'28
	4208 Apr 25 18:28	30° \overline{R}		minimum elong		4209 Apr 05 07:09	15° $\overline{7}$ '34'09	3°27'19
morning rise	4208 Apr 29 09:38	27° $\overline{7}$ '15'50		min. Earth dist.		4209 Apr 08 02:31	12° $\overline{7}$ '39'16	0.62355 AU
desc. node	4208 May 04 10:24	25° $\overline{7}$ '19'13		morning rise		4209 Apr 11 13:55	9° $\overline{7}$ '35'38	
direct	4208 May 05 23:18	25° $\overline{7}$ '12'33		direct		4209 Apr 18 10:28	7° $\overline{7}$ '04'21	
	4208 May 16 20:38	0° $\overline{3}$		desc. node		4209 Apr 21 07:26	7° $\overline{7}$ '28'33	
morning max el	4208 May 20 06:47	3° $\overline{3}$ '05'13	27°38'05	morning max el		4209 May 02 12:25	15° $\overline{7}$ '03'22	27°51'45
	4208 Jun 08 23:41	0° $\overline{3}$				4209 May 14 16:02	0° $\overline{3}$	
morning set	4208 Jun 21 04:56	23° $\overline{3}$ '03'57				4209 Jun 01 13:19	0° $\overline{3}$	

morning set	4209 Jun 05 06:27	7° Π 20'36		direct	4210 Apr 01 05:59	19° X 41'13	
max. Earth dist.	4209 Jun 10 21:05	19° Π 05'32	1.32456 AU	desc. node	4210 Apr 08 04:29	22° X 02'22	
asc. node	4209 Jun 11 09:03	20° Π 10'03		morning max el	4210 Apr 14 21:34	27° X 37'27	27°28'51
					4210 Apr 17 03:42	0° Υ	
superior conj	4209 Jun 12 20:11	23° Π 20'25	0°15'17		4210 May 08 09:05	0° B	
minimum elong	4209 Jun 12 19:28	23° Π 16'32	0°15'07	morning set	4210 May 19 23:58	21° B 10'06	
behind sun begin	4209 Jun 12 17:51	23° Π 07'43			4210 May 24 09:01	0° Π	
behind sun end	4209 Jun 12 21:06	23° Π 25'21		max. Earth dist.	4210 May 24 21:32	1° Π 04'48	1.33302 AU
	4209 Jun 15 21:26	0° S					
evening rise	4209 Jun 19 19:05	8° S 25'48		superior conj	4210 May 28 01:36	7° Π 45'03	0°-12'-21
	4209 Jun 30 23:43	0° Ω		minimum elong	4210 May 28 02:13	7° Π 48'23	0°12'15
evening max el	4209 Jul 14 06:57	17° Ω 43'53	24°05'53	behind sun begin	4210 May 27 22:42	7° Π 29'41	
desc. node	4209 Jul 18 06:41	21° Ω 05'15		behind sun end	4210 May 28 05:44	8° Π 07'07	
retrograde	4209 Jul 28 01:46	24° Ω 40'29		asc. node	4210 May 29 06:04	10° Π 17'03	
evening set	4209 Aug 01 17:32	23° Ω 52'23		evening rise	4210 Jun 04 06:31	23° Π 09'29	
min. Earth dist.	4209 Aug 07 17:27	20° Ω 55'13	0.56369 AU		4210 Jun 07 13:58	0° S	
inferior conj	4209 Aug 10 04:55	19° Ω 23'23	-5°-5'-23	evening max el	4210 Jun 25 20:55	28° S 07'11	22°28'48
minimum elong	4209 Aug 10 01:31	19° Ω 28'40	5°05'07		4210 Jun 27 22:59	0° Ω	
morning rise	4209 Aug 18 12:58	15° Ω 24'30		desc. node	4210 Jul 05 03:43	4° Ω 04'03	
direct	4209 Aug 21 06:26	15° Ω 05'06		retrograde	4210 Jul 08 22:50	4° Ω 37'16	
morning max el	4209 Aug 31 02:46	19° Ω 39'57	19°47'14	evening set	4210 Jul 12 02:36	4° Ω 15'19	
asc. node	4209 Sep 07 08:19	28° Ω 43'09		min. Earth dist.	4210 Jul 20 04:07	0° Ω 44'18	0.55164 AU
	4209 Sep 08 03:48	0° M		inferior conj	4210 Jul 21 06:43	0° Ω 06'33	-4°-14'-14
morning set	4209 Sep 17 20:12	18° M 00'51		minimum elong	4210 Jul 20 22:30	0° Ω 18'13	4°12'23
	4209 Sep 23 18:02	0° A			4210 Jul 21 11:19	30° R S	
				morning rise	4210 Jul 29 20:42	26° S 16'26	
superior conj	4209 Sep 25 17:32	3° A 57'37	1°42'02	direct	4210 Aug 01 22:36	25° S 54'51	
minimum elong	4209 Sep 25 18:46	4° A 03'42	1°41'59		4210 Aug 11 23:18	0° Ω	
max. Earth dist.	4209 Oct 01 14:39	15° A 19'05	1.37297 AU	morning max el	4210 Aug 13 09:49	1° Ω 15'08	21°08'03
evening rise	4209 Oct 05 10:09	22° A 18'10		asc. node	4210 Aug 25 05:21	17° Ω 19'15	
	4209 Oct 09 19:56	0° M			4210 Aug 31 20:12	0° M	
desc. node	4209 Oct 14 06:01	7° M 19'39		morning set	4210 Sep 02 04:11	2° M 44'16	
	4209 Oct 29 15:30	0° X					
evening max el	4209 Nov 10 02:42	13° X 26'27	25°29'07	superior conj	4210 Sep 09 14:11	18° M 13'00	1°43'59
retrograde	4209 Nov 22 06:27	20° X 25'55		minimum elong	4210 Sep 09 13:52	18° M 11'24	1°43'58
evening set	4209 Nov 28 03:42	17° X 59'47		max. Earth dist.	4210 Sep 14 00:04	27° M 09'31	1.35454 AU
min. Earth dist.	4209 Dec 02 14:01	13° X 07'45	0.67183 AU		4210 Sep 15 10:45	0° A	
inferior conj	4209 Dec 03 18:58	11° X 34'39	0°-10'-44	evening rise	4210 Sep 18 05:09	5° A 18'04	
minimum elong	4209 Dec 03 19:15	11° X 33'46	0°10'37	desc. node	4210 Oct 01 03:02	27° A 38'12	
transit middle	4209 Dec 03 19:15	11° X 33'46	0°10'37		4210 Oct 02 15:17	0° M	
transit begin	4209 Dec 03 17:08	11° X 40'35		evening max el	4210 Oct 23 15:12	27° M 07'08	26°30'52
transit end	4209 Dec 03 21:22	11° X 26'59			4210 Oct 26 21:09	0° X	
asc. node	4209 Dec 04 07:32	10° X 54'24		retrograde	4210 Nov 05 12:42	4° X 20'53	
morning rise	4209 Dec 09 11:37	5° X 37'21		evening set	4210 Nov 11 23:10	1° X 44'26	
direct	4209 Dec 12 19:12	4° X 34'01			4210 Nov 13 20:08	30° R M	
morning max el	4209 Dec 19 21:16	8° X 31'28	19°18'05	min. Earth dist.	4210 Nov 16 02:26	27° M 28'12	0.66234 AU
greatest brilliancy	4209 Dec 29 08:06	20° X 38'39	-0.7m	inferior conj	4210 Nov 17 18:46	25° M 26'46	-1°-9'-41
	4210 Jan 04 14:05	0° Z		minimum elong	4210 Nov 17 20:41	25° M 21'00	1°08'53
desc. node	4210 Jan 10 05:17	8° Z 39'49		asc. node	4210 Nov 21 04:34	21° M 39'23	
morning set	4210 Jan 12 15:08	12° Z 23'42		morning rise	4210 Nov 23 19:34	19° M 39'55	
	4210 Jan 23 22:07	0° \approx		direct	4210 Nov 26 17:14	18° M 52'30	
max. Earth dist.	4210 Jan 26 03:47	3° \approx 31'13	1.44777 AU	morning max el	4210 Dec 03 08:36	22° M 30'12	18°31'52
					4210 Dec 09 09:20	0° X	
superior conj	4210 Jan 29 10:06	8° \approx 41'26	-1°-49'-16	morning set	4210 Dec 23 14:10	22° X 03'29	
minimum elong	4210 Jan 29 02:00	8° \approx 09'14	1°48'39	desc. node	4210 Dec 28 02:19	29° X 13'26	
	4210 Feb 11 13:18	0° X			4210 Dec 28 14:04	0° Z	
evening rise	4210 Feb 12 20:42	2° X 09'56					
asc. node	4210 Mar 02 06:48	29° X 18'39		superior conj	4211 Jan 08 13:31	17° Z 17'21	-1°-13'-22
	4210 Mar 02 20:49	0° Υ		minimum elong	4211 Jan 08 04:56	16° Z 43'41	1°12'22
evening max el	4210 Mar 04 05:06	1° Υ 27'23	18°25'00	max. Earth dist.	4211 Jan 08 21:50	17° Z 49'58	1.45267 AU
retrograde	4210 Mar 10 16:45	4° Υ 58'54			4211 Jan 16 15:51	0° \approx	
evening set	4210 Mar 13 16:46	4° Υ 09'21		evening rise	4211 Jan 24 11:33	12° \approx 21'28	
	4210 Mar 18 10:30	30° R X			4211 Feb 04 15:40	0° X	
inferior conj	4210 Mar 19 14:46	28° X 39'07	3°36'03	evening max el	4211 Feb 15 15:16	14° X 56'42	18°59'32
minimum elong	4210 Mar 19 14:39	28° X 39'26	3°36'04	asc. node	4211 Feb 17 03:50	16° X 22'30	
min. Earth dist.	4210 Mar 21 20:50	26° X 02'29	0.64272 AU	retrograde	4211 Feb 22 11:32	18° X 48'14	
morning rise	4210 Mar 25 10:55	22° X 28'12		evening set	4211 Feb 25 18:09	17° X 46'06	

inferior conj	4211 Mar 03 09:38	11° K 58'54	3°28'14	inferior conj	4212 Feb 15 11:04	25° \approx 31'48	3°07'51
minimum elong	4211 Mar 03 08:13	12° K 03'21	3°28'05	minimum elong	4212 Feb 15 08:52	25° \approx 39'08	3°07'24
min. Earth dist.	4211 Mar 05 00:12	9° K 57'34	0.65828 AU	min. Earth dist.	4212 Feb 16 11:04	24° \approx 11'54	0.66965 AU
morning rise	4211 Mar 08 21:15	5° K 44'13		morning rise	4212 Feb 20 17:32	19° \approx 15'57	
direct	4211 Mar 15 08:21	2° K 55'29		direct	4212 Feb 26 16:24	16° \approx 37'23	
desc. node	4211 Mar 26 01:31	8° K 26'45		morning max el	4212 Mar 09 16:27	23° \approx 47'16	25°20'01
morning max el	4211 Mar 28 07:27	10° K 35'54	26°35'18	desc. node	4212 Mar 11 22:33	26° \approx 10'35	
	4211 Apr 12 16:28	0° Y			4212 Mar 15 05:31	0° K	
	4211 Apr 30 21:48	0° B			4212 Apr 05 01:57	0° Y	
morning set	4211 May 03 06:08	4° B 22'33		morning set	4212 Apr 14 20:24	16° Y 44'29	
max. Earth dist.	4211 May 07 11:11	12° B 31'42	1.34617 AU	max. Earth dist.	4212 Apr 18 13:42	23° Y 35'26	1.36378 AU
					4212 Apr 21 22:19	0° B	
superior conj	4211 May 12 00:49	21° B 46'50	0°-41'-27	superior conj	4212 Apr 24 15:03	5° B 17'39	-1°-10'-26
minimum elong	4211 May 12 03:02	21° B 58'15	0°41'02	minimum elong	4212 Apr 24 18:49	5° B 36'23	1°09'49
	4211 May 15 23:25	0° II					
asc. node	4211 May 16 03:06	0° II 19'21		asc. node	4212 May 02 00:08	20° B 12'28	
evening rise	4211 May 19 15:45	7° II 41'49		evening rise	4212 May 02 20:35	21° B 56'00	
	4211 May 31 17:34	0° B			4212 May 06 22:14	0° II	
evening max el	4211 Jun 07 19:10	8° B 49'55	20°59'17	evening max el	4212 May 20 05:29	20° II 10'43	19°46'15
retrograde	4211 Jun 19 11:34	14° B 33'30		retrograde	4212 May 30 04:14	25° II 01'28	
evening set	4211 Jun 21 16:14	14° B 22'10		evening set	4212 Jun 01 02:59	24° II 51'08	
desc. node	4211 Jun 22 00:43	14° B 18'18		desc. node	4212 Jun 07 21:43	22° II 04'06	
inferior conj	4211 Jul 01 00:01	10° B 24'53	-2°-36'-2	inferior conj	4212 Jun 09 23:19	20° II 49'06	0°-36'-47
minimum elong	4211 Jun 30 16:56	10° B 34'54	2°33'39	minimum elong	4212 Jun 09 21:38	20° II 51'42	0°36'09
min. Earth dist.	4211 Jul 01 15:27	10° B 03'05	0.54836 AU	min. Earth dist.	4212 Jun 12 04:24	19° II 27'17	0.55468 AU
morning rise	4211 Jul 09 17:12	6° B 24'57		morning rise	4212 Jun 18 13:10	16° II 21'21	
direct	4211 Jul 13 07:59	5° B 56'48		direct	4212 Jun 22 23:06	15° II 38'20	
morning max el	4211 Jul 26 06:04	12° B 07'15	22°45'20	morning max el	4212 Jul 06 20:23	22° II 32'49	24°28'52
	4211 Aug 08 13:18	0° Q			4212 Jul 13 10:54	0° B	
asc. node	4211 Aug 12 02:22	6° Q 27'38		asc. node	4212 Jul 28 23:24	26° B 00'05	
morning set	4211 Aug 17 14:54	17° Q 35'30			4212 Jul 30 22:11	0° Q	
	4211 Aug 23 10:22	0° B		morning set	4212 Aug 01 02:42	2° Q 29'45	
superior conj	4211 Aug 24 18:04	2° B 49'22	1°39'08	superior conj	4212 Aug 08 02:39	17° Q 38'53	1°28'33
minimum elong	4211 Aug 24 16:37	2° B 41'35	1°39'02	minimum elong	4212 Aug 08 00:31	17° Q 27'15	1°28'20
max. Earth dist.	4211 Aug 27 18:16	9° B 09'52	1.33974 AU	max. Earth dist.	4212 Aug 09 21:15	21° Q 29'45	1.32902 AU
evening rise	4211 Sep 01 14:36	18° B 59'04			4212 Aug 13 21:34	0° B	
	4211 Sep 07 10:43	0° B		evening rise	4212 Aug 15 10:39	3° B 10'29	
desc. node	4211 Sep 18 00:03	17° B 35'40			4212 Aug 30 05:37	0° B	
	4211 Sep 26 18:49	0° M		desc. node	4212 Sep 03 21:02	7° B 03'25	
evening max el	4211 Oct 06 03:47	10° M 37'49	27°12'23	evening max el	4212 Sep 17 14:43	23° B 46'13	27°26'51
retrograde	4211 Oct 19 13:02	17° M 55'37			4212 Sep 26 11:23	0° M	
evening set	4211 Oct 26 10:33	15° M 15'26		retrograde	4212 Oct 01 06:58	1° M 02'18	
min. Earth dist.	4211 Oct 30 07:26	11° M 34'57	0.64942 AU		4212 Oct 05 20:25	30° R 27	
inferior conj	4211 Nov 01 11:44	9° M 10'28	-2°-11'-11	evening set	4212 Oct 08 11:00	28° B 27'44	
minimum elong	4211 Nov 01 15:27	9° M 00'10	2°09'45	min. Earth dist.	4212 Oct 12 02:56	25° B 20'02	0.63317 AU
morning rise	4211 Nov 07 22:19	3° M 37'09		inferior conj	4212 Oct 14 19:17	22° B 40'05	-3°-12'-31
asc. node	4211 Nov 08 01:36	3° M 33'32		minimum elong	4212 Oct 15 00:36	22° B 26'49	3°10'45
direct	4211 Nov 10 12:26	3° M 01'41		morning rise	4212 Oct 21 16:47	17° B 23'54	
morning max el	4211 Nov 17 00:00	6° M 29'02	18°02'22	direct	4212 Oct 24 02:01	16° B 56'45	
	4211 Dec 02 20:47	0° J		asc. node	4212 Oct 24 22:38	17° B 00'21	
morning set	4211 Dec 04 18:46	3° J 11'16		morning max el	4212 Oct 30 16:41	20° B 22'09	17°50'20
desc. node	4211 Dec 14 23:20	19° J 54'53			4212 Nov 06 21:33	0° M	
				morning set	4212 Nov 16 00:42	15° M 32'39	
superior conj	4211 Dec 18 21:23	26° J 11'58	0°-26'-44		4212 Nov 24 09:59	0° J	
minimum elong	4211 Dec 18 18:05	25° J 58'46	0°26'17	superior conj	4212 Nov 28 03:02	6° J 12'36	0°18'53
	4211 Dec 21 06:50	0° B		minimum elong	4212 Nov 28 04:58	6° J 20'36	0°18'37
max. Earth dist.	4211 Dec 22 17:16	2° B 15'54	1.45016 AU	desc. node	4212 Nov 30 20:22	10° J 41'07	
evening rise	4212 Jan 04 06:09	21° B 47'28		max. Earth dist.	4212 Dec 04 10:58	16° J 31'11	1.44059 AU
	4212 Jan 09 14:09	0° \approx			4212 Dec 13 00:45	0° B	
greatest brilliancy	4212 Jan 22 16:07	19° \approx 29'44	-0.6m	evening rise	4212 Dec 13 15:49	0° B 58'09	
evening max el	4212 Jan 29 21:09	28° \approx 28'31	19°50'18		4213 Jan 02 06:11	0° \approx	
	4212 Jan 31 11:32	0° K		greatest brilliancy	4213 Jan 06 11:35	5° \approx 40'25	-0.5m
asc. node	4212 Feb 04 00:52	2° K 20'09		evening max el	4213 Jan 11 21:38	12° \approx 01'26	20°54'48
retrograde	4212 Feb 06 09:05	2° K 49'39		retrograde	4213 Jan 20 07:11	16° \approx 59'26	
evening set	4212 Feb 09 23:33	1° K 33'47		asc. node	4213 Jan 20 21:53	16° \approx 57'23	
	4212 Feb 11 18:58	30° R 22					

evening set	4213 Jan 24 07:01	15° \approx 28'42		asc. node	4214 Jan 07 18:56	0° \approx 03'26	
inferior conj	4213 Jan 29 16:39	9° \approx 14'42	2°37'29		4214 Jan 07 21:00	30° \approx 03'26	
minimum elong	4213 Jan 29 14:10	9° \approx 23'13	2°36'47	evening set	4214 Jan 08 14:48	29° \approx 27'01	
min. Earth dist.	4213 Jan 30 03:33	8° \approx 37'10	0.67682 AU	inferior conj	4214 Jan 14 00:15	23° \approx 04'28	1°58'50
morning rise	4213 Feb 03 20:56	2° \approx 59'27		minimum elong	4214 Jan 13 22:00	23° \approx 12'19	1°58'03
direct	4213 Feb 09 05:22	0° \approx 39'00		min. Earth dist.	4214 Jan 13 23:24	23° \approx 07'27	0.68001 AU
morning max el	4213 Feb 20 01:04	7° \approx 05'57	23°53'06	morning rise	4214 Jan 19 05:02	16° \approx 51'28	
desc. node	4213 Feb 26 19:36	14° \approx 51'27		direct	4214 Jan 23 22:30	14° \approx 53'06	
	4213 Mar 09 20:59	0° \approx		morning max el	4214 Feb 02 11:55	20° \approx 31'10	22°24'26
morning set	4213 Mar 27 13:01	28° \approx 00'54		greatest brilliancy	4214 Feb 07 01:20	25° \approx 36'27	-0.3m
	4213 Mar 28 16:39	0° \approx			4214 Feb 10 13:02	0° \approx	
max. Earth dist.	4213 Mar 31 09:44	4° \approx 45'22	1.38463 AU	desc. node	4214 Feb 13 16:39	4° \approx 12'56	
					4214 Mar 03 02:53	0° \approx	
superior conj	4213 Apr 07 16:43	18° \approx 08'26	-1°-36'-58	morning set	4214 Mar 08 02:16	7° \approx 57'53	
minimum elong	4213 Apr 07 21:28	18° \approx 30'56	1°36'24	max. Earth dist.	4214 Mar 13 06:20	16° \approx 32'45	1.40639 AU
	4213 Apr 13 20:03	0° \approx			4214 Mar 20 23:30	0° \approx	
evening rise	4213 Apr 16 18:26	5° \approx 45'05					
asc. node	4213 Apr 18 21:10	9° \approx 51'53		superior conj	4214 Mar 21 01:19	0° \approx 08'11	-1°-57'-36
	4213 May 01 02:20	0° \approx		minimum elong	4214 Mar 21 05:31	0° \approx 27'00	1°57'20
evening max el	4213 May 03 03:10	2° \approx 12'14	18°53'02	evening rise	4214 Mar 31 06:04	19° \approx 00'38	
retrograde	4213 May 11 12:28	6° \approx 18'29		asc. node	4214 Apr 05 18:14	29° \approx 12'17	
evening set	4213 May 13 14:49	6° \approx 04'04			4214 Apr 06 04:54	0° \approx	
inferior conj	4213 May 21 16:19	1° \approx 45'52	1°10'10	evening max el	4214 Apr 16 09:18	14° \approx 48'22	18°20'11
minimum elong	4213 May 21 18:53	1° \approx 41'15	1°09'16	retrograde	4214 Apr 23 15:39	18° \approx 25'10	
	4213 May 24 03:22	30° \approx 08'00		evening set	4214 Apr 26 00:17	18° \approx 03'13	
min. Earth dist.	4213 May 24 20:26	29° \approx 30'20	0.56935 AU	inferior conj	4214 May 03 06:56	13° \approx 24'45	2°27'05
desc. node	4213 May 25 18:46	28° \approx 52'59		minimum elong	4214 May 03 10:33	13° \approx 17'07	2°26'09
morning rise	4213 May 29 18:31	26° \approx 42'05		min. Earth dist.	4214 May 06 17:28	10° \approx 32'51	0.58940 AU
direct	4213 Jun 04 03:22	25° \approx 32'51		morning rise	4214 May 10 16:38	7° \approx 50'11	
	4213 Jun 15 00:55	0° \approx		desc. node	4214 May 12 15:49	6° \approx 55'12	
morning max el	4213 Jun 18 11:18	2° \approx 59'33	26°03'18	direct	4214 May 16 21:55	6° \approx 06'27	
	4213 Jul 07 18:07	0° \approx		morning max el	4214 May 31 07:21	13° \approx 53'21	27°13'11
asc. node	4213 Jul 15 20:26	15° \approx 49'09			4214 Jun 13 03:55	0° \approx	
morning set	4213 Jul 16 13:54	17° \approx 20'58			4214 Jun 29 23:03	0° \approx	
	4213 Jul 22 09:50	0° \approx		morning set	4214 Jun 30 22:51	2° \approx 03'47	
				asc. node	4214 Jul 02 17:30	5° \approx 49'22	
superior conj	4213 Jul 23 13:46	2° \approx 33'54	1°13'07	max. Earth dist.	4214 Jul 07 17:47	16° \approx 45'08	1.32001 AU
minimum elong	4213 Jul 23 11:26	2° \approx 21'03	1°12'45				
max. Earth dist.	4213 Jul 24 06:15	4° \approx 04'34	1.32245 AU	superior conj	4214 Jul 08 01:38	17° \approx 28'25	0°53'26
evening rise	4213 Jul 30 14:06	17° \approx 42'03		minimum elong	4214 Jul 07 23:34	17° \approx 17'05	0°53'03
	4213 Aug 05 18:21	0° \approx			4214 Jul 13 19:02	0° \approx	
desc. node	4213 Aug 21 18:03	25° \approx 48'25		evening rise	4214 Jul 14 22:27	2° \approx 26'03	
	4213 Aug 25 01:22	0° \approx			4214 Jul 29 18:02	0° \approx	
evening max el	4213 Aug 30 21:21	6° \approx 17'47	27°09'21	desc. node	4214 Aug 08 15:04	13° \approx 33'00	
retrograde	4213 Sep 13 17:53	13° \approx 30'39		evening max el	4214 Aug 12 21:21	18° \approx 02'59	26°18'39
evening set	4213 Sep 20 20:35	11° \approx 13'41		retrograde	4214 Aug 26 20:38	25° \approx 12'29	
min. Earth dist.	4213 Sep 24 11:42	8° \approx 30'19	0.61405 AU	evening set	4214 Sep 02 10:30	23° \approx 25'57	
inferior conj	4213 Sep 27 14:12	5° \approx 46'44	-4°-9'-9	min. Earth dist.	4214 Sep 06 10:30	20° \approx 51'33	0.59338 AU
minimum elong	4213 Sep 27 20:13	5° \approx 33'27	4°07'39	inferior conj	4214 Sep 09 16:58	18° \approx 21'16	-4°-53'-13
morning rise	4213 Oct 04 22:59	0° \approx 51'08		minimum elong	4214 Sep 09 21:37	18° \approx 12'20	4°52'34
direct	4213 Oct 07 06:14	0° \approx 29'11		morning rise	4214 Sep 17 12:13	13° \approx 48'34	
asc. node	4213 Oct 11 19:41	1° \approx 58'48		direct	4214 Sep 19 20:48	13° \approx 29'13	
morning max el	4213 Oct 14 07:30	4° \approx 01'07	17°56'41	morning max el	4214 Sep 27 17:07	17° \approx 17'05	18°22'47
morning set	4213 Oct 30 01:25	28° \approx 47'06		asc. node	4214 Sep 28 16:44	18° \approx 17'05	
	4213 Oct 30 17:20	0° \approx			4214 Oct 06 19:21	0° \approx	
				morning set	4214 Oct 13 15:30	12° \approx 39'22	
superior conj	4213 Nov 09 11:26	17° \approx 31'24	0°55'51				
minimum elong	4213 Nov 09 15:28	17° \approx 49'01	0°55'19	superior conj	4214 Oct 22 19:19	29° \approx 58'41	1°21'49
	4213 Nov 16 19:56	0° \approx		minimum elong	4214 Oct 22 22:59	0° \approx 15'34	1°21'26
max. Earth dist.	4213 Nov 17 00:00	0° \approx 16'48	1.42509 AU		4214 Oct 22 19:36	0° \approx	
desc. node	4213 Nov 17 17:22	1° \approx 28'10		max. Earth dist.	4214 Oct 30 07:32	13° \approx 20'34	1.40566 AU
evening rise	4213 Nov 23 08:29	10° \approx 31'53		evening rise	4214 Nov 03 20:42	21° \approx 00'10	
	4213 Dec 06 03:42	0° \approx		desc. node	4214 Nov 04 14:23	22° \approx 12'51	
greatest brilliancy	4213 Dec 20 23:13	20° \approx 15'38	-0.3m		4214 Nov 09 10:45	0° \approx	
evening max el	4213 Dec 25 16:39	25° \approx 35'18	22°09'29		4214 Nov 30 08:06	0° \approx	
	4213 Dec 31 02:34	0° \approx		evening max el	4214 Dec 08 07:34	9° \approx 12'08	23°29'12
retrograde	4214 Jan 04 03:57	1° \approx 13'28		retrograde	4214 Dec 18 21:51	15° \approx 28'03	

evening set	4214 Dec 23 21:16	13°☾25'34		desc. node	4215 Oct 22 11:24	12°♊51'36	
asc. node	4214 Dec 25 16:00	11°☾41'07			4215 Nov 02 15:16	0°♊	
inferior conj	4214 Dec 29 08:01	6°☾58'30	1°13'06	evening max el	4215 Nov 20 20:29	22°♊53'45	24°47'33
minimum elong	4214 Dec 29 06:25	7°☾04'01	1°12'29	retrograde	4215 Dec 02 11:43	29°♊39'43	
min. Earth dist.	4214 Dec 28 20:14	7°☾38'56	0.67957 AU	evening set	4215 Dec 08 00:51	27°♊21'51	
morning rise	4215 Jan 03 15:41	0°☾49'41		min. Earth dist.	4215 Dec 12 15:37	22°♊09'25	0.67566 AU
	4215 Jan 04 21:48	30°♊		asc. node	4215 Dec 12 13:02	22°♊17'56	
direct	4215 Jan 07 18:53	29°♊14'05		inferior conj	4215 Dec 13 14:10	20°♊54'48	0°21'23
	4215 Jan 10 20:34	0°☾		minimum elong	4215 Dec 13 13:38	20°♊56'32	0°21'11
morning max el	4215 Jan 16 04:21	4°☾05'32	21°02'08	morning rise	4215 Dec 19 02:56	14°♊52'27	
greatest brilliancy	4215 Jan 21 14:32	10°☾19'57	-0.5m	direct	4215 Dec 22 17:15	13°♊38'02	
desc. node	4215 Jan 31 13:39	24°☾03'27		morning max el	4215 Dec 30 04:35	17°♊51'43	19°51'50
	4215 Feb 04 14:35	0°♊		greatest brilliancy	4216 Jan 06 14:29	26°♊54'37	-0.6m
morning set	4215 Feb 15 11:42	16°♊37'28			4216 Jan 08 19:30	0°☾	
max. Earth dist.	4215 Feb 23 08:53	29°♊13'11	1.42630 AU	desc. node	4216 Jan 18 10:41	14°☾15'25	
	4215 Feb 23 20:21	0°♊		morning set	4216 Jan 25 07:42	24°☾46'41	
					4216 Jan 28 16:37	0°♊	
superior conj	4215 Mar 02 11:44	11°♊04'40	-2°-7'-38	max. Earth dist.	4216 Feb 05 19:29	12°♊46'04	1.44176 AU
minimum elong	4215 Mar 02 12:36	11°♊08'21	2°07'39				
	4215 Mar 13 06:44	0°♊		superior conj	4216 Feb 10 20:28	20°♊52'10	-2°-1'-37
evening rise	4215 Mar 14 03:22	1°♊32'32		minimum elong	4216 Feb 10 15:24	20°♊31'39	2°01'23
asc. node	4215 Mar 23 15:17	18°♊06'25			4216 Feb 16 09:56	0°♊	
evening max el	4215 Mar 30 20:24	27°♊48'56	18°07'08	evening rise	4216 Feb 24 05:59	13°♊12'50	
	4215 Apr 02 13:39	0°♊			4216 Mar 05 05:28	0°♊	
retrograde	4215 Apr 06 11:21	1°♊12'18		asc. node	4216 Mar 09 12:20	6°♊26'07	
evening set	4215 Apr 09 02:12	0°♊40'32		evening max el	4216 Mar 13 09:12	11°♊05'31	18°13'09
	4215 Apr 10 11:14	30°♊		retrograde	4216 Mar 19 19:15	14°♊30'04	
inferior conj	4215 Apr 15 17:09	25°♊41'05	3°12'58	evening set	4216 Mar 22 15:59	13°♊47'08	
minimum elong	4215 Apr 15 19:43	25°♊34'52	3°12'34	inferior conj	4216 Mar 28 19:07	8°♊27'35	3°33'23
min. Earth dist.	4215 Apr 18 21:23	22°♊37'35	0.61134 AU	minimum elong	4216 Mar 28 19:58	8°♊25'17	3°33'21
morning rise	4215 Apr 22 10:07	19°♊46'17		min. Earth dist.	4216 Mar 31 10:01	5°♊36'09	0.63215 AU
direct	4215 Apr 29 03:58	17°♊29'27		morning rise	4216 Apr 03 21:53	2°♊21'02	
desc. node	4215 Apr 29 12:52	17°♊29'50			4216 Apr 08 09:40	30°♊	
morning max el	4215 May 13 09:31	25°♊26'21	27°48'28	direct	4216 Apr 10 18:54	29°♊41'21	
	4215 May 17 14:25	0°♊			4216 Apr 13 06:14	0°♊	
	4215 Jun 06 14:26	0°♊		desc. node	4216 Apr 15 09:54	0°♊44'12	
morning set	4215 Jun 15 03:39	16°♊31'30		morning max el	4216 Apr 24 16:42	7°♊39'43	27°46'10
asc. node	4215 Jun 19 14:32	25°♊55'29			4216 May 11 20:15	0°♊	
max. Earth dist.	4215 Jun 21 04:03	29°♊18'55	1.32170 AU		4216 May 28 18:39	0°♊	
	4215 Jun 21 11:34	0°☾		morning set	4216 May 29 02:04	0°♊37'06	
				max. Earth dist.	4216 Jun 03 09:16	11°♊34'17	1.32764 AU
superior conj	4215 Jun 22 12:26	2°☾15'59	0°30'08	asc. node	4216 Jun 05 11:35	16°♊03'20	
minimum elong	4215 Jun 22 11:06	2°☾08'44	0°29'50				
evening rise	4215 Jun 29 09:30	17°☾15'01		superior conj	4216 Jun 05 20:22	16°♊50'42	0°03'51
	4215 Jul 05 16:15	0°♊		minimum elong	4216 Jun 05 20:11	16°♊49'42	0°03'47
evening max el	4215 Jul 25 14:09	29°♊01'28	24°59'39	behind sun begin	4216 Jun 05 15:02	16°♊21'58	
desc. node	4215 Jul 26 12:06	29°♊52'34		behind sun end	4216 Jun 06 01:19	17°♊17'28	
	4215 Jul 26 15:24	0°♊			4216 Jun 11 22:20	0°☾	
retrograde	4215 Aug 08 12:52	6°♊04'46		evening rise	4216 Jun 12 21:20	2°☾02'33	
evening set	4215 Aug 14 00:30	4°♊56'19			4216 Jun 28 06:22	0°♊	
min. Earth dist.	4215 Aug 19 01:45	2°♊12'12	0.57352 AU	evening max el	4216 Jul 06 03:06	9°♊28'58	23°24'29
inferior conj	4215 Aug 22 00:27	0°♊14'34	-5°-12'-9	desc. node	4216 Jul 12 09:08	14°♊15'02	
minimum elong	4215 Aug 22 00:39	0°♊14'14	5°12'10	retrograde	4216 Jul 19 16:22	16°♊15'59	
	4215 Aug 22 09:10	30°♊		evening set	4216 Jul 23 16:22	15°♊41'00	
morning rise	4215 Aug 30 04:19	26°♊04'20		min. Earth dist.	4216 Jul 30 12:46	12°♊31'08	0.55770 AU
direct	4215 Sep 01 17:45	25°♊45'23		inferior conj	4216 Aug 01 11:54	11°♊21'33	-4°-50'-4
	4215 Sep 10 18:10	0°♊		minimum elong	4216 Aug 01 05:59	11°♊30'20	4°49'14
morning max el	4215 Sep 10 18:11	0°♊00'03	19°10'05	morning rise	4216 Aug 09 22:38	7°♊28'08	
asc. node	4215 Sep 15 13:47	5°♊39'57		direct	4216 Aug 12 19:40	7°♊07'55	
morning set	4215 Sep 27 14:52	26°♊58'25		morning max el	4216 Aug 23 07:58	12°♊00'50	20°19'10
	4215 Sep 29 03:22	0°♊		asc. node	4216 Sep 01 10:48	23°♊52'53	
					4216 Sep 04 22:41	0°♊	
superior conj	4215 Oct 05 21:16	13°♊19'08	1°37'18	morning set	4216 Sep 10 20:23	11°♊35'07	
minimum elong	4215 Oct 05 23:28	13°♊29'45	1°37'09				
max. Earth dist.	4215 Oct 12 12:08	25°♊44'00	1.38474 AU	superior conj	4216 Sep 18 12:14	27°♊17'53	1°43'45
	4215 Oct 14 21:21	0°♊		minimum elong	4216 Sep 18 12:47	27°♊20'37	1°43'45
evening rise	4215 Oct 16 08:19	2°♊33'08			4216 Sep 19 20:29	0°♊	

max. Earth dist.	4216 Sep 23 18:39	7° Ω 41'33	1.36479 AU	evening rise	4217 Sep 10 18:42	28° η 23'20	
evening rise	4216 Sep 27 17:01	15° Ω 04'10			4217 Sep 11 14:57	0° Ω	
	4216 Oct 06 07:20	0° \mathbb{M}		desc. node	4217 Sep 25 05:26	23° Ω 30'15	
desc. node	4216 Oct 08 08:25	3° \mathbb{M} 19'14			4217 Sep 29 12:36	0° \mathbb{M}	
	4216 Oct 27 07:05	0° \mathcal{A}		evening max el	4217 Oct 15 21:31	20° \mathbb{M} 14'16	26°51'15
evening max el	4216 Nov 02 08:59	6° \mathcal{A} 36'41	25°57'25	retrograde	4217 Oct 29 00:23	27° \mathbb{M} 30'33	
retrograde	4216 Nov 14 20:43	13° \mathcal{A} 42'42		evening set	4217 Nov 04 16:09	24° \mathbb{M} 51'16	
evening set	4216 Nov 20 23:48	11° \mathcal{A} 11'40		min. Earth dist.	4217 Nov 08 16:31	20° \mathbb{M} 50'40	0.65736 AU
min. Earth dist.	4216 Nov 25 07:09	6° \mathcal{A} 34'50	0.66828 AU	inferior conj	4217 Nov 10 13:59	18° \mathbb{M} 38'32	-1°-35'-33
inferior conj	4216 Nov 26 16:49	4° \mathcal{A} 49'23	0°-35'-16	minimum elong	4217 Nov 10 16:39	18° \mathbb{M} 30'45	1°34'28
minimum elong	4216 Nov 26 17:45	4° \mathcal{A} 46'28	0°34'53	asc. node	4217 Nov 15 07:04	13° \mathbb{M} 53'17	
asc. node	4216 Nov 28 10:03	2° \mathcal{A} 43'20		morning rise	4217 Nov 16 18:48	12° \mathbb{M} 57'20	
	4216 Dec 01 01:33	30° \mathbb{R} \mathbb{M}		direct	4217 Nov 19 12:59	12° \mathbb{M} 15'29	
morning rise	4216 Dec 02 12:43	28° \mathbb{M} 56'11		morning max el	4217 Nov 26 01:50	15° \mathbb{M} 47'21	18°17'14
direct	4216 Dec 05 15:55	27° \mathbb{M} 59'55			4217 Dec 06 11:16	0° \mathcal{A}	
	4216 Dec 10 12:14	0° \mathcal{A}		morning set	4217 Dec 15 03:12	13° \mathcal{A} 57'15	
morning max el	4216 Dec 12 12:23	1° \mathcal{A} 47'19	18°56'26	desc. node	4217 Dec 22 04:42	25° \mathcal{A} 19'55	
	4217 Jan 01 07:26	0° \mathcal{B}			4217 Dec 25 03:01	0° \mathcal{B}	
morning set	4217 Jan 03 15:34	3° \mathcal{B} 39'20		superior conj	4217 Dec 30 09:10	8° \mathcal{B} 18'28	0°-54'-9
desc. node	4217 Jan 04 07:42	4° \mathcal{B} 42'24		minimum elong	4217 Dec 30 02:26	7° \mathcal{B} 51'56	0°53'19
max. Earth dist.	4217 Jan 18 12:10	26° \mathcal{B} 55'08	1.45084 AU	max. Earth dist.	4218 Jan 01 07:20	11° \mathcal{B} 19'47	1.45254 AU
					4218 Jan 13 05:46	0° \approx	
superior conj	4217 Jan 20 06:34	29° \mathcal{B} 41'58	-1°-36'-1	evening rise	4218 Jan 15 15:38	3° \approx 46'16	
minimum elong	4217 Jan 19 21:21	29° \mathcal{B} 05'41	1°35'10	greatest brilliancy	4218 Jan 30 06:42	26° \approx 21'20	-0.7m
	4217 Jan 20 11:08	0° \approx			4218 Feb 01 19:14	0° \mathcal{H}	
evening rise	4217 Feb 04 10:12	23° \approx 56'17		evening max el	4218 Feb 08 05:20	8° \mathcal{H} 01'11	19°19'13
	4217 Feb 08 03:36	0° \mathcal{H}		asc. node	4218 Feb 11 06:21	10° \mathcal{H} 38'18	
asc. node	4217 Feb 24 09:21	24° \mathcal{H} 00'56		retrograde	4218 Feb 15 07:34	12° \mathcal{H} 04'39	
evening max el	4217 Feb 24 20:55	24° \mathcal{H} 31'03	18°37'34	evening set	4218 Feb 18 17:19	10° \mathcal{H} 56'47	
retrograde	4217 Mar 03 11:11	28° \mathcal{H} 09'40		inferior conj	4218 Feb 24 06:48	5° \mathcal{H} 02'43	3°20'57
evening set	4217 Mar 06 13:58	27° \mathcal{H} 14'42		minimum elong	4218 Feb 24 04:59	5° \mathcal{H} 08'35	3°20'41
inferior conj	4217 Mar 12 08:48	21° \mathcal{H} 36'44	3°34'29	min. Earth dist.	4218 Feb 25 14:56	3° \mathcal{H} 18'43	0.66360 AU
minimum elong	4217 Mar 12 08:05	21° \mathcal{H} 38'55	3°34'27		4218 Feb 28 09:56	30° \mathbb{R} \approx	
min. Earth dist.	4217 Mar 14 08:07	19° \mathcal{H} 14'20	0.64985 AU	morning rise	4218 Mar 01 15:49	28° \approx 47'04	
morning rise	4217 Mar 18 00:54	15° \mathcal{H} 23'57		direct	4218 Mar 07 21:56	26° \approx 01'38	
direct	4217 Mar 24 17:11	12° \mathcal{H} 34'57			4218 Mar 16 15:58	0° \mathcal{H}	
desc. node	4217 Apr 02 06:56	16° \mathcal{H} 08'56		desc. node	4218 Mar 20 03:57	3° \mathcal{H} 10'20	
morning max el	4217 Apr 07 02:30	20° \mathcal{H} 25'29	27°09'27	morning max el	4218 Mar 20 12:19	3° \mathcal{H} 31'19	26°05'25
	4217 Apr 15 08:14	0° \mathcal{Y}			4218 Apr 09 15:36	0° \mathcal{Y}	
	4217 May 04 22:23	0° \mathcal{B}		morning set	4218 Apr 25 15:16	27° \mathcal{Y} 04'47	
morning set	4217 May 12 15:14	14° \mathcal{B} 12'08			4218 Apr 27 04:43	0° \mathcal{B}	
max. Earth dist.	4217 May 17 05:40	23° \mathcal{B} 21'04	1.33804 AU	max. Earth dist.	4218 Apr 29 14:34	4° \mathcal{B} 36'32	1.35310 AU
	4217 May 20 10:47	0° \mathbb{I}					
superior conj	4217 May 20 23:26	1° \mathbb{I} 06'28	0°-24'-35	superior conj	4218 May 04 19:10	14° \mathcal{B} 55'37	0°-53'-53
minimum elong	4217 May 21 00:43	1° \mathbb{I} 13'13	0°24'20	minimum elong	4218 May 04 22:04	15° \mathcal{B} 10'23	0°53'21
asc. node	4217 May 23 08:37	6° \mathbb{I} 09'01		asc. node	4218 May 10 05:39	26° \mathcal{B} 07'48	
evening rise	4217 May 28 08:05	16° \mathbb{I} 42'33			4218 May 12 02:33	0° \mathbb{I}	
	4217 Jun 03 23:53	0° \mathcal{E}		evening rise	4218 May 12 15:44	1° \mathbb{I} 07'50	
evening max el	4217 Jun 17 19:43	19° \mathcal{E} 57'04	21°49'07		4218 May 30 01:29	0° \mathcal{E}	
desc. node	4217 Jun 29 06:09	26° \mathcal{E} 06'39		evening max el	4218 May 30 22:47	0° \mathcal{E} 54'02	20°25'57
retrograde	4217 Jun 30 08:55	26° \mathcal{E} 09'33		retrograde	4218 Jun 10 22:07	6° \mathcal{E} 15'42	
evening set	4217 Jul 03 00:54	25° \mathcal{E} 53'34		evening set	4218 Jun 12 22:13	6° \mathcal{E} 05'42	
inferior conj	4217 Jul 12 08:32	21° \mathcal{E} 51'11	-3°-37'-23	desc. node	4218 Jun 16 03:11	5° \mathcal{E} 11'48	
minimum elong	4217 Jul 11 23:59	22° \mathcal{E} 03'09	3°34'58	inferior conj	4218 Jun 22 02:35	2° \mathcal{E} 08'03	-1°-45'-55
min. Earth dist.	4217 Jul 11 23:11	22° \mathcal{E} 04'16	0.54907 AU	minimum elong	4218 Jun 21 21:36	2° \mathcal{E} 15'18	1°44'08
morning rise	4217 Jul 21 00:29	17° \mathcal{E} 59'55		min. Earth dist.	4218 Jun 23 11:12	1° \mathcal{E} 20'35	0.54980 AU
direct	4217 Jul 24 07:13	17° \mathcal{E} 36'19			4218 Jun 25 21:09	30° \mathbb{R} \mathbb{I}	
morning max el	4217 Aug 05 10:06	23° \mathcal{E} 17'13	21°47'55	morning rise	4218 Jun 30 19:20	27° \mathbb{I} 57'56	
	4217 Aug 11 07:53	0° \mathcal{Q}		direct	4218 Jul 04 17:05	27° \mathbb{I} 25'00	
asc. node	4217 Aug 19 07:50	12° \mathcal{Q} 44'21			4218 Jul 13 01:46	0° \mathcal{E}	
morning set	4217 Aug 26 05:48	26° \mathcal{Q} 23'24		morning max el	4218 Jul 18 03:16	3° \mathcal{E} 55'50	23°29'30
	4217 Aug 27 23:06	0° \mathbb{M}			4218 Aug 05 03:19	0° \mathcal{Q}	
superior conj	4217 Sep 02 12:22	11° \mathbb{M} 44'01	1°42'40	asc. node	4218 Aug 06 04:53	2° \mathcal{Q} 03'50	
minimum elong	4217 Sep 02 11:31	11° \mathbb{M} 39'34	1°42'39	morning set	4218 Aug 10 17:11	11° \mathcal{Q} 16'35	
max. Earth dist.	4217 Sep 06 07:49	19° \mathbb{M} 35'46	1.34777 AU	superior conj	4218 Aug 17 18:33	26° \mathcal{Q} 27'10	1°35'18

minimum elong	4218 Aug 17 16:45	26°♎17'27	1°35'09		4219 Jul 12 02:46	0°♏	
	4218 Aug 19 10:18	0°♏		asc. node	4219 Jul 24 01:57	21°♏43'50	
max. Earth dist.	4218 Aug 20 05:42	1°♏43'00	1.33462 AU	morning set	4219 Jul 26 04:54	26°♏09'41	
evening rise	4218 Aug 25 09:04	12°♏18'23			4219 Jul 27 23:59	0°♎	
	4218 Sep 03 21:00	0°♎					
desc. node	4218 Sep 12 02:28	13°♎16'32		superior conj	4219 Aug 02 04:28	11°♎19'39	1°22'35
	4218 Sep 24 21:06	0°♎		minimum elong	4219 Aug 02 02:11	11°♎07'11	1°22'16
evening max el	4218 Sep 28 09:26	3°♎36'23	27°22'04	max. Earth dist.	4219 Aug 03 11:24	14°♎08'39	1.32569 AU
retrograde	4218 Oct 11 22:20	10°♎54'47		evening rise	4219 Aug 09 08:37	26°♎39'18	
evening set	4218 Oct 18 23:19	8°♎15'21			4219 Aug 11 00:05	0°♏	
min. Earth dist.	4218 Oct 22 17:40	4°♎49'36	0.64291 AU		4219 Aug 28 06:16	0°♎	
inferior conj	4218 Oct 25 03:17	2°♎17'01	-2°-37'-26	desc. node	4219 Aug 29 23:29	2°♎27'49	
minimum elong	4218 Oct 25 07:45	2°♎05'12	2°35'48	evening max el	4219 Sep 10 18:53	16°♎30'47	27°23'34
	4218 Oct 27 08:58	30°♎♎		retrograde	4219 Sep 24 13:36	23°♎45'58	
morning rise	4218 Oct 31 18:28	26°♎50'49		evening set	4219 Oct 01 18:00	21°♎17'32	
asc. node	4218 Nov 02 04:06	26°♎25'28		min. Earth dist.	4219 Oct 05 08:53	18°♎21'18	0.62528 AU
direct	4218 Nov 03 06:03	26°♎19'27		inferior conj	4219 Oct 08 05:53	15°♎38'02	-3°-37'-33
morning max el	4218 Nov 09 18:13	29°♎45'07	17°55'02	minimum elong	4219 Oct 08 11:41	15°♎24'18	3°35'48
	4218 Nov 10 00:07	0°♎		morning rise	4219 Oct 15 08:13	10°♎30'05	
morning set	4218 Nov 26 19:20	25°♎38'40		direct	4219 Oct 17 16:05	10°♎05'36	
	4218 Nov 29 09:04	0°♎♎		asc. node	4219 Oct 20 01:09	10°♎31'53	
desc. node	4218 Dec 09 01:44	16°♎04'03		morning max el	4219 Oct 24 10:29	13°♎33'07	17°50'39
					4219 Nov 04 15:56	0°♎	
superior conj	4218 Dec 10 00:59	17°♎38'10	0°-6'-42	morning set	4219 Nov 09 10:04	8°♎24'59	
minimum elong	4218 Dec 10 00:12	17°♎35'00	0°06'35				
behind sun begin	4218 Dec 09 14:49	16°♎57'05		superior conj	4219 Nov 20 18:01	28°♎12'09	0°35'51
behind sun end	4218 Dec 10 09:34	18°♎12'51		minimum elong	4219 Nov 20 21:14	28°♎25'46	0°35'24
max. Earth dist.	4218 Dec 15 01:54	25°♎41'49	1.44687 AU		4219 Nov 21 19:36	0°♎♎	
	4218 Dec 17 19:22	0°♎♎		desc. node	4219 Nov 25 22:45	6°♎51'06	
evening rise	4218 Dec 26 04:35	13°♎01'07		max. Earth dist.	4219 Nov 27 17:32	9°♎45'15	1.43462 AU
	4219 Jan 06 08:59	0°♎♎		evening rise	4219 Dec 05 15:16	22°♎16'59	
greatest brilliancy	4219 Jan 16 01:16	13°♎54'39	-0.6m		4219 Dec 10 15:56	0°♎♎	
evening max el	4219 Jan 22 08:58	21°♎33'45	20°16'16	greatest brilliancy	4219 Dec 31 08:10	29°♎25'52	-0.4m
asc. node	4219 Jan 29 03:23	26°♎03'50			4219 Dec 31 19:08	0°♎♎	
retrograde	4219 Jan 30 05:42	26°♎10'21		evening max el	4220 Jan 05 07:08	5°♎07'26	21°25'42
evening set	4219 Feb 02 23:50	24°♎48'29		retrograde	4220 Jan 14 03:20	10°♎22'15	
inferior conj	4219 Feb 08 10:19	18°♎41'00	2°56'05	asc. node	4220 Jan 16 00:26	10°♎03'06	
minimum elong	4219 Feb 08 07:56	18°♎49'03	2°55'31	evening set	4220 Jan 18 07:37	8°♎45'07	
min. Earth dist.	4219 Feb 09 04:37	17°♎38'57	0.67316 AU	inferior conj	4220 Jan 23 17:01	2°♎27'16	2°21'59
morning rise	4219 Feb 13 15:29	12°♎24'56		minimum elong	4220 Jan 23 14:34	2°♎35'44	2°21'15
direct	4219 Feb 19 08:20	9°♎53'10		min. Earth dist.	4220 Jan 23 22:51	2°♎07'01	0.67867 AU
morning max el	4219 Mar 02 21:01	16°♎46'53	24°43'48		4220 Jan 25 12:12	30°♎♎	
desc. node	4219 Mar 07 00:59	21°♎21'10		morning rise	4220 Jan 28 21:11	26°♎12'43	
	4219 Mar 13 20:41	0°♎♎		direct	4220 Feb 02 23:20	24°♎01'07	
	4219 Apr 02 15:13	0°♎♎		morning max el	4220 Feb 13 05:57	0°♎07'22	23°14'57
morning set	4219 Apr 07 21:06	9°♎01'27			4220 Feb 13 03:01	0°♎♎	
max. Earth dist.	4219 Apr 11 13:11	15°♎37'30	1.37232 AU	greatest brilliancy	4220 Feb 18 09:57	5°♎55'13	-0.2m
				desc. node	4220 Feb 21 22:00	10°♎20'55	
superior conj	4219 Apr 18 04:33	28°♎10'51	-1°-22'-10		4220 Mar 06 17:27	0°♎♎	
minimum elong	4219 Apr 18 08:51	28°♎31'48	1°21'33	morning set	4220 Mar 19 02:34	19°♎44'58	
	4219 Apr 19 02:54	0°♎♎		max. Earth dist.	4220 Mar 23 08:09	26°♎58'21	1.39398 AU
evening rise	4219 Apr 26 17:58	15°♎12'18			4220 Mar 25 01:39	0°♎♎	
asc. node	4219 Apr 27 02:42	15°♎55'51					
	4219 May 04 12:59	0°♎♎		superior conj	4220 Mar 30 23:33	10°♎41'30	-1°-46'-41
evening max el	4219 May 13 14:16	12°♎32'54	19°21'10	minimum elong	4220 Mar 31 04:19	11°♎03'37	1°46'14
retrograde	4219 May 22 20:07	17°♎02'53		evening rise	4220 Apr 09 11:51	28°♎47'50	
evening set	4219 May 24 19:38	16°♎51'23			4220 Apr 10 02:52	0°♎♎	
inferior conj	4219 Jun 02 08:24	12°♎43'51	0°11'36	asc. node	4220 Apr 12 23:45	5°♎27'52	
minimum elong	4219 Jun 02 08:54	12°♎43'03	0°11'24	evening max el	4220 Apr 25 16:01	24°♎50'27	18°36'37
transit middle	4219 Jun 02 08:54	12°♎43'03	0°11'24	retrograde	4220 May 03 12:08	28°♎41'40	
transit begin	4219 Jun 02 06:11	12°♎47'30		evening set	4220 May 05 17:16	28°♎24'17	
transit end	4219 Jun 02 11:37	12°♎38'36		inferior conj	4220 May 13 10:28	23°♎57'45	1°46'47
desc. node	4219 Jun 03 00:12	12°♎17'52		minimum elong	4220 May 13 13:51	23°♎51'15	1°45'44
min. Earth dist.	4219 Jun 05 01:36	10°♎57'26	0.56004 AU	min. Earth dist.	4220 May 16 19:20	21°♎24'04	0.57750 AU
morning rise	4219 Jun 10 18:08	8°♎00'32		desc. node	4220 May 19 21:13	19°♎22'55	
direct	4219 Jun 15 13:48	7°♎07'29		morning rise	4220 May 21 06:00	18°♎40'06	
morning max el	4219 Jun 29 17:03	14°♎18'07	25°11'04	direct	4220 May 27 00:34	17°♎16'28	

morning max el	4220 Jun 10 09:29	24°♄52'34	26°36'48			4221 May 02 18:18	30°♄♂		
	4220 Jun 15 02:45	0°♂		desc. node		4221 May 06 18:15	28°♂24'40		
	4220 Jul 04 05:17	0°♂		direct		4221 May 08 23:55	28°♂10'42		
morning set	4220 Jul 09 15:21	10°♂57'47				4221 May 15 12:58	0°♄		
asc. node	4220 Jul 09 23:01	11°♂38'18		morning max el		4221 May 23 08:08	6°♄02'05	27°32'54	
						4221 Jun 10 05:51	0°♂		
superior conj	4220 Jul 16 16:07	26°♂15'09	1°05'15	morning set		4221 Jun 23 22:44	25°♂34'55		
minimum elong	4220 Jul 16 13:50	26°♂02'37	1°04'52			4221 Jun 26 01:04	0°♂		
max. Earth dist.	4220 Jul 16 21:58	26°♂47'26	1.32091 AU	asc. node		4221 Jun 26 20:03	1°♂41'36		
	4220 Jul 18 08:55	0°♄		max. Earth dist.		4221 Jun 30 09:37	9°♂27'41	1.32022 AU	
evening rise	4220 Jul 23 14:27	11°♄17'20							
	4220 Aug 02 05:10	0°♄		superior conj		4221 Jul 01 03:41	11°♂07'07	0°43'57	
desc. node	4220 Aug 15 20:31	20°♄49'52		minimum elong		4221 Jul 01 01:53	10°♂57'13	0°43'35	
evening max el	4220 Aug 22 23:15	28°♄44'47	26°51'53	evening rise		4221 Jul 08 00:10	26°♂04'17		
	4220 Aug 24 08:17	0°♄				4221 Jul 09 21:06	0°♄		
retrograde	4220 Sep 05 21:06	5°♄55'29				4221 Jul 27 03:47	0°♄		
evening set	4220 Sep 12 19:52	3°♄50'27		desc. node		4221 Aug 02 17:33	8°♄01'50		
min. Earth dist.	4220 Sep 16 13:23	1°♄12'55	0.60530 AU	evening max el		4221 Aug 04 20:04	10°♄09'12	25°47'58	
	4220 Sep 18 01:00	30°♄♄		retrograde		4221 Aug 18 19:16	17°♄16'16		
inferior conj	4220 Sep 19 18:26	28°♄33'02	-4°-30'-3	evening set		4221 Aug 24 23:54	15°♄45'22		
minimum elong	4220 Sep 20 00:12	28°♄21'01	4°28'51	min. Earth dist.		4221 Aug 29 08:14	13°♄09'30	0.58465 AU	
morning rise	4220 Sep 27 07:48	23°♄46'38		inferior conj		4221 Sep 01 13:17	10°♄50'52	-5°-5'-14	
direct	4220 Sep 29 15:15	23°♄26'00		minimum elong		4221 Sep 01 16:25	10°♄45'11	5°04'59	
asc. node	4220 Oct 05 22:13	26°♄06'22		morning rise		4221 Sep 09 12:27	6°♄28'09		
morning max el	4220 Oct 06 23:28	27°♄03'37	18°05'17	direct		4221 Sep 11 22:53	6°♄09'05		
	4220 Oct 09 14:24	0°♄		morning max el		4221 Sep 20 05:47	10°♄06'30	18°40'20	
morning set	4220 Oct 22 17:09	21°♄58'16		asc. node		4221 Sep 22 19:16	12°♄53'49		
	4220 Oct 27 00:37	0°♄				4221 Oct 03 08:05	0°♄		
				morning set		4221 Oct 06 11:36	6°♄03'13		
superior conj	4220 Nov 01 13:05	10°♄02'26	1°08'12						
minimum elong	4220 Nov 01 17:11	10°♄20'44	1°07'42	superior conj		4221 Oct 15 05:19	22°♄54'25	1°29'35	
max. Earth dist.	4220 Nov 09 04:43	23°♄16'33	1.41722 AU	minimum elong		4221 Oct 15 08:26	23°♄09'03	1°29'18	
desc. node	4220 Nov 11 19:48	27°♄38'10				4221 Oct 19 01:24	0°♄		
	4220 Nov 13 06:33	0°♄		max. Earth dist.		4221 Oct 22 10:57	6°♄04'05	1.39678 AU	
evening rise	4220 Nov 14 15:24	2°♄12'40		evening rise		4221 Oct 26 13:29	13°♄08'04		
	4220 Dec 03 02:17	0°♄		desc. node		4221 Oct 29 16:50	18°♄20'57		
greatest brilliancy	4220 Dec 13 00:01	13°♄06'16	-0.3m			4221 Nov 06 01:40	0°♄		
evening max el	4220 Dec 18 00:22	18°♄43'28	22°43'04			4221 Nov 28 07:38	0°♄		
retrograde	4220 Dec 27 22:55	24°♄37'33		evening max el		4221 Nov 30 14:07	2°♄22'15	24°02'59	
evening set	4221 Jan 01 15:02	22°♄44'14		retrograde		4221 Dec 11 15:13	8°♄51'58		
asc. node	4221 Jan 01 21:29	22°♄30'37		evening set		4221 Dec 16 20:29	6°♄42'29		
inferior conj	4221 Jan 07 00:55	16°♄19'28	1°40'13	asc. node		4221 Dec 19 18:30	3°♄37'57		
minimum elong	4221 Jan 06 22:52	16°♄26'31	1°39'29	min. Earth dist.		4221 Dec 21 15:44	1°♄10'31	0.67839 AU	
min. Earth dist.	4221 Jan 06 19:20	16°♄38'46	0.68037 AU	inferior conj		4221 Dec 22 08:11	0°♄14'51	0°51'52	
morning rise	4221 Jan 12 06:39	10°♄08'11		minimum elong		4221 Dec 22 06:59	0°♄18'54	0°51'23	
direct	4221 Jan 16 18:02	8°♄19'30				4221 Dec 22 12:35	30°♄♄		
morning max el	4221 Jan 25 18:45	13°♄36'13	21°48'10	morning rise		4221 Dec 27 17:47	24°♄♄08'45		
greatest brilliancy	4221 Jan 30 12:47	18°♄57'06	-0.4m	direct		4221 Dec 31 15:17	22°♄42'38		
desc. node	4221 Feb 07 19:02	29°♄56'05		morning max el		4222 Jan 08 14:32	27°♄16'29	20°30'34	
	4221 Feb 07 20:09	0°♄				4222 Jan 11 02:51	0°♄		
morning set	4221 Feb 27 03:19	29°♄06'21		greatest brilliancy		4222 Jan 14 17:25	4°♄28'02	-0.5m	
	4221 Feb 27 16:43	0°♄		desc. node		4222 Jan 25 16:04	19°♄56'50		
max. Earth dist.	4221 Mar 05 07:19	9°♄09'41	1.41537 AU			4222 Feb 01 08:26	0°♄		
				morning set		4222 Feb 06 04:25	7°♄25'46		
superior conj	4221 Mar 12 23:18	22°♄15'48	-2°-3'-28	max. Earth dist.		4222 Feb 15 13:47	22°♄15'49	1.43358 AU	
minimum elong	4221 Mar 13 02:29	22°♄29'43	2°03'22			4222 Feb 20 07:36	0°♄		
	4221 Mar 17 07:35	0°♄							
evening rise	4221 Mar 23 17:53	11°♄46'00		superior conj		4222 Feb 21 23:00	2°♄43'20	-2°-7'-21	
asc. node	4221 Mar 30 20:47	24°♄37'57		minimum elong		4222 Feb 21 21:32	2°♄37'13	2°07'20	
	4221 Apr 03 03:04	0°♄		evening rise		4222 Mar 06 07:50	23°♄57'50		
evening max el	4221 Apr 09 00:39	7°♄37'54	18°12'11			4222 Mar 09 18:20	0°♄		
retrograde	4221 Apr 15 22:57	11°♄07'07		asc. node		4222 Mar 17 17:49	13°♄18'59		
evening set	4221 Apr 18 10:22	10°♄41'05		evening max el		4222 Mar 23 12:47	20°♄46'27	18°07'19	
inferior conj	4221 Apr 25 09:49	5°♄53'16	2°50'05	retrograde		4222 Mar 30 00:36	24°♄09'01		
minimum elong	4221 Apr 25 13:10	5°♄45'46	2°49'22	evening set		4222 Apr 01 17:52	23°♄32'43		
min. Earth dist.	4221 Apr 28 18:44	2°♄53'36	0.59874 AU	inferior conj		4222 Apr 08 03:19	18°♄24'24	3°24'22	
morning rise	4221 May 02 12:14	0°♄08'57		minimum elong		4222 Apr 08 05:10	18°♄19'39	3°24'09	

min. Earth dist.	4222 Apr 11 02:19	15°♄23'25	0.62043 AU	inferior conj	4223 Mar 22 10:45	1°♄21'52	3°35'54
morning rise	4222 Apr 14 13:48	12°♄23'23		minimum elong	4223 Mar 22 10:53	1°♄21'29	3°35'53
direct	4222 Apr 21 09:53	9°♄55'28			4223 Mar 23 15:13	30°♄	
desc. node	4222 Apr 23 15:16	10°♄09'57		min. Earth dist.	4223 Mar 24 19:12	28°♄40'48	0.64012 AU
morning max el	4222 May 05 13:01	17°♄54'31	27°52'06	morning rise	4223 Mar 28 08:31	25°♄11'56	
	4222 May 15 15:38	0°♄		direct	4223 Apr 04 04:20	22°♄26'16	
	4222 Jun 03 00:06	0°♄		desc. node	4223 Apr 10 12:18	24°♄24'06	
morning set	4222 Jun 08 01:08	9°♄54'51			4223 Apr 17 12:13	0°♄	
asc. node	4222 Jun 13 17:05	21°♄49'26		morning max el	4223 Apr 17 21:41	0°♄23'34	27°34'19
max. Earth dist.	4222 Jun 13 18:19	21°♄56'07	1.32367 AU		4223 May 09 16:18	0°♄	
				morning set	4223 May 22 20:01	23°♄48'53	
superior conj	4222 Jun 15 13:28	25°♄50'16	0°19'17		4223 May 25 21:45	0°♄	
minimum elong	4222 Jun 15 12:35	25°♄45'26	0°19'05	max. Earth dist.	4223 May 27 20:01	3°♄59'22	1.33148 AU
	4222 Jun 17 11:11	0°♄					
evening rise	4222 Jun 22 11:47	10°♄53'39		superior conj	4223 May 30 19:35	10°♄17'49	0°-8'-3
	4222 Jul 02 05:41	0°♄		minimum elong	4223 May 30 20:00	10°♄19'58	0°07'58
evening max el	4222 Jul 17 10:14	20°♄50'35	24°20'09	behind sun begin	4223 May 30 15:18	9°♄54'51	
desc. node	4222 Jul 20 14:33	23°♄35'57		behind sun end	4223 May 31 00:42	10°♄45'07	
retrograde	4222 Jul 31 06:29	27°♄49'37		asc. node	4223 May 31 14:07	11°♄56'55	
evening set	4222 Aug 05 03:37	26°♄56'30		evening rise	4223 Jun 06 23:21	25°♄38'30	
min. Earth dist.	4222 Aug 10 21:05	24°♄03'06	0.56607 AU		4223 Jun 09 01:28	0°♄	
inferior conj	4222 Aug 13 11:59	22°♄24'04	-5°-8'-41		4223 Jun 27 18:25	0°♄	
minimum elong	4222 Aug 13 09:33	22°♄27'56	5°08'34	evening max el	4223 Jun 28 23:41	1°♄14'03	22°43'04
morning rise	4222 Aug 21 19:01	18°♄22'35		desc. node	4223 Jul 07 11:33	6°♄57'43	
direct	4222 Aug 24 11:19	18°♄03'24		retrograde	4223 Jul 12 05:10	7°♄49'06	
morning max el	4222 Sep 03 02:21	22°♄32'41	19°36'56	evening set	4223 Jul 15 13:46	7°♄24'22	
	4222 Sep 09 05:43	0°♄		min. Earth dist.	4223 Jul 23 07:49	3°♄59'12	0.55295 AU
asc. node	4222 Sep 09 16:18	0°♄39'30		inferior conj	4223 Jul 24 16:02	3°♄13'06	-4°-25'-23
morning set	4222 Sep 20 13:50	20°♄30'11		minimum elong	4223 Jul 24 08:14	3°♄24'17	4°23'46
	4222 Sep 25 06:38	0°♄			4223 Jul 31 02:56	30°♄	
				morning rise	4223 Aug 02 05:12	29°♄22'34	
superior conj	4222 Sep 28 13:20	6°♄32'41	1°41'02	direct	4223 Aug 05 05:45	29°♄01'24	
minimum elong	4222 Sep 28 14:49	6°♄39'59	1°40'59		4223 Aug 10 02:41	0°♄	
max. Earth dist.	4222 Oct 04 15:13	18°♄11'51	1.37594 AU	morning max el	4223 Aug 16 11:06	4°♄14'35	20°54'49
evening rise	4222 Oct 08 10:26	25°♄06'17		asc. node	4223 Aug 27 13:20	19°♄10'05	
	4222 Oct 11 05:36	0°♄			4223 Sep 02 07:50	0°♄	
desc. node	4222 Oct 16 13:51	8°♄55'23		morning set	4223 Sep 04 21:13	5°♄12'08	
	4222 Oct 30 16:42	0°♄					
evening max el	4222 Nov 13 02:27	16°♄03'57	25°18'44	superior conj	4223 Sep 12 08:36	20°♄44'11	1°44'08
retrograde	4222 Nov 25 03:15	23°♄00'37		minimum elong	4223 Sep 12 08:30	20°♄43'41	1°44'08
evening set	4222 Nov 30 22:20	20°♄36'32			4223 Sep 16 23:00	0°♄	
min. Earth dist.	4222 Dec 05 09:46	15°♄39'07	0.67289 AU	max. Earth dist.	4223 Sep 16 23:41	0°♄03'26	1.35707 AU
inferior conj	4222 Dec 06 13:03	14°♄10'39	0°-2'-5	evening rise	4223 Sep 21 02:54	7°♄59'21	
minimum elong	4222 Dec 06 13:07	14°♄10'29	0°02'05	desc. node	4223 Oct 03 10:52	29°♄16'42	
transit middle	4222 Dec 06 13:07	14°♄10'29	0°02'05		4223 Oct 03 21:48	0°♄	
transit begin	4222 Dec 06 10:21	14°♄19'28		evening max el	4223 Oct 26 15:00	29°♄45'57	26°22'52
transit end	4222 Dec 06 15:52	14°♄01'31			4223 Oct 26 20:51	0°♄	
asc. node	4222 Dec 06 15:31	14°♄02'41		retrograde	4223 Nov 08 10:13	6°♄58'00	
morning rise	4222 Dec 12 04:37	8°♄11'55		evening set	4223 Nov 14 18:46	4°♄22'54	
direct	4222 Dec 15 13:51	7°♄05'51			4223 Nov 18 23:31	30°♄	
morning max el	4222 Dec 22 18:10	11°♄07'21	19°26'20	min. Earth dist.	4223 Nov 18 23:06	0°♄01'13	0.66395 AU
greatest brilliancy	4222 Dec 31 12:46	22°♄12'36	-0.7m	inferior conj	4223 Nov 20 13:40	28°♄03'52	-1°00'-30
	4223 Jan 05 19:37	0°♄		minimum elong	4223 Nov 20 15:19	27°♄58'50	0°59'49
desc. node	4223 Jan 12 13:06	10°♄15'49		asc. node	4223 Nov 23 12:32	24°♄41'00	
morning set	4223 Jan 16 02:27	15°♄45'05		morning rise	4223 Nov 26 13:07	22°♄15'10	
	4223 Jan 25 06:09	0°♄		direct	4223 Nov 29 12:10	21°♄25'32	
max. Earth dist.	4223 Jan 29 02:48	6°♄04'38	1.44642 AU	morning max el	4223 Dec 06 04:38	25°♄05'30	18°37'44
					4223 Dec 10 08:34	0°♄	
superior conj	4223 Feb 01 21:06	12°♄03'21	-1°-53'-10	morning set	4223 Dec 26 21:15	25°♄12'08	
minimum elong	4223 Feb 01 13:40	11°♄33'42	1°52'40		4223 Dec 29 21:59	0°♄	
	4223 Feb 12 21:42	0°♄		desc. node	4223 Dec 30 10:07	0°♄47'59	
evening rise	4223 Feb 16 01:18	5°♄14'35					
	4223 Mar 03 13:43	0°♄		superior conj	4224 Jan 12 01:40	20°♄41'32	-1°-19'-45
asc. node	4223 Mar 04 14:50	1°♄21'20		minimum elong	4224 Jan 11 16:40	20°♄06'15	1°18'47
evening max el	4223 Mar 07 01:25	4°♄07'44	18°21'19	max. Earth dist.	4224 Jan 11 20:38	20°♄21'46	1.45244 AU
retrograde	4223 Mar 13 12:23	7°♄37'02			4224 Jan 17 23:50	0°♄	
evening set	4223 Mar 16 11:30	6°♄49'17		evening rise	4224 Jan 27 19:35	15°♄34'20	

	4224 Feb 05 20:53	0° Υ		evening max el	4225 Jan 31 18:42	1° Υ 08'16	19°41'47
evening max el	4224 Feb 18 12:05	17° Υ 36'38	18°53'16	asc. node	4225 Feb 05 08:53	4° Υ 42'50	
asc. node	4224 Feb 19 11:51	18° Υ 34'00		retrograde	4225 Feb 08 03:52	5° Υ 24'31	
retrograde	4224 Feb 25 06:30	21° Υ 24'17		evening set	4225 Feb 11 17:06	4° Υ 10'39	
evening set	4224 Feb 28 12:07	20° Υ 24'01			4225 Feb 15 19:26	30° Υ	
inferior conj	4224 Mar 05 04:23	14° Υ 39'12	3°30'17	inferior conj	4225 Feb 17 05:02	28° Υ 10'35	3°11'37
minimum elong	4224 Mar 05 03:08	14° Υ 43'05	3°30'09	minimum elong	4225 Feb 17 02:56	28° Υ 17'35	3°11'13
min. Earth dist.	4224 Mar 06 21:12	12° Υ 32'12	0.65629 AU	min. Earth dist.	4225 Feb 18 07:04	26° Υ 44'30	0.66822 AU
morning rise	4224 Mar 10 17:04	8° Υ 24'59		morning rise	4225 Feb 22 12:04	21° Υ 54'49	
direct	4224 Mar 17 05:44	5° Υ 35'47		direct	4225 Feb 28 12:54	19° Υ 14'16	
desc. node	4224 Mar 27 09:20	10° Υ 33'59		morning max el	4225 Mar 12 16:49	26° Υ 29'31	25°32'16
morning max el	4224 Mar 30 07:34	13° Υ 19'00	26°44'51	desc. node	4225 Mar 14 06:22	28° Υ 07'35	
	4224 Apr 12 19:00	0° Υ			4225 Mar 15 22:53	0° Υ	
	4224 May 01 08:09	0° Υ			4225 Apr 06 09:17	0° Υ	
morning set	4224 May 05 04:07	7° Υ 07'27		morning set	4225 Apr 17 21:09	19° Υ 38'27	
max. Earth dist.	4224 May 09 11:25	15° Υ 31'03	1.34396 AU	max. Earth dist.	4225 Apr 21 15:44	26° Υ 38'30	1.36091 AU
					4225 Apr 23 09:56	0° Υ	
superior conj	4224 May 13 19:54	24° Υ 23'32	0°-37'00				
minimum elong	4224 May 13 21:52	24° Υ 33'44	0°36'37	superior conj	4225 Apr 27 11:44	8° Υ 00'01	-1°-6'-7
	4224 May 16 12:17	0° Υ		minimum elong	4225 Apr 27 15:17	8° Υ 17'48	1°05'32
asc. node	4224 May 17 11:09	2° Υ 00'14		asc. node	4225 May 04 08:12	21° Υ 55'29	
evening rise	4224 May 21 09:03	10° Υ 13'04		evening rise	4225 May 05 14:46	24° Υ 31'08	
	4224 May 31 19:25	0° Υ			4225 May 08 08:19	0° Υ	
evening max el	4224 Jun 09 20:20	11° Υ 52'20	21°11'40	evening max el	4225 May 23 04:49	23° Υ 07'22	19°55'53
retrograde	4224 Jun 21 18:23	17° Υ 43'33		retrograde	4225 Jun 02 09:52	28° Υ 06'05	
desc. node	4224 Jun 23 08:35	17° Υ 37'38		evening set	4225 Jun 04 08:37	27° Υ 56'01	
evening set	4224 Jun 24 01:25	17° Υ 31'22		desc. node	4225 Jun 10 05:36	25° Υ 42'52	
inferior conj	4224 Jul 03 09:43	13° Υ 33'22	-2°-53'-5	inferior conj	4225 Jun 13 07:20	23° Υ 55'25	0°-54'-44
minimum elong	4224 Jul 03 02:03	13° Υ 44'07	2°50'36	minimum elong	4225 Jun 13 04:47	23° Υ 59'16	0°53'48
min. Earth dist.	4224 Jul 03 18:47	13° Υ 20'38	0.54824 AU	min. Earth dist.	4225 Jun 15 07:28	22° Υ 42'29	0.55314 AU
morning rise	4224 Jul 12 02:45	9° Υ 36'25		morning rise	4225 Jun 21 22:13	19° Υ 32'41	
direct	4224 Jul 15 15:21	9° Υ 09'36		direct	4225 Jun 26 04:46	18° Υ 52'44	
morning max el	4224 Jul 28 08:41	15° Υ 12'24	22°30'11	morning max el	4225 Jul 09 23:37	25° Υ 41'14	24°13'38
	4224 Aug 08 18:35	0° Υ			4225 Jul 14 01:15	0° Υ	
asc. node	4224 Aug 13 10:23	8° Υ 14'34		asc. node	4225 Jul 31 07:27	27° Υ 44'15	
morning set	4224 Aug 19 07:41	20° Υ 02'57			4225 Aug 01 10:16	0° Υ	
	4224 Aug 23 23:55	0° Υ		morning set	4225 Aug 03 19:29	4° Υ 57'39	
superior conj	4224 Aug 26 11:35	5° Υ 18'11	1°40'15	superior conj	4225 Aug 10 19:41	20° Υ 06'44	1°30'31
minimum elong	4224 Aug 26 10:16	5° Υ 11'13	1°40'10	minimum elong	4225 Aug 10 17:37	19° Υ 55'31	1°30'17
max. Earth dist.	4224 Aug 29 16:41	12° Υ 02'25	1.34168 AU	max. Earth dist.	4225 Aug 12 18:32	24° Υ 19'43	1.33035 AU
evening rise	4224 Sep 03 10:28	21° Υ 35'08			4225 Aug 15 10:39	0° Υ	
	4224 Sep 07 21:01	0° Υ		evening rise	4225 Aug 18 05:13	5° Υ 42'59	
desc. node	4224 Sep 19 07:53	19° Υ 18'09			4225 Aug 31 11:39	0° Υ	
	4224 Sep 26 17:43	0° Υ		desc. node	4225 Sep 06 04:55	8° Υ 51'24	
evening max el	4224 Oct 08 03:40	13° Υ 19'04	27°07'47	evening max el	4225 Sep 20 14:55	26° Υ 31'19	27°26'32
retrograde	4224 Oct 21 11:20	20° Υ 36'26			4225 Sep 24 17:38	0° Υ	
evening set	4224 Oct 28 07:31	17° Υ 56'17		retrograde	4225 Oct 04 06:17	3° Υ 48'01	
min. Earth dist.	4224 Nov 01 05:19	14° Υ 10'39	0.65158 AU	evening set	4225 Oct 11 09:49	1° Υ 11'44	
inferior conj	4224 Nov 03 07:48	11° Υ 49'14	-2°-1'-48		4225 Oct 12 22:07	30° Υ	
minimum elong	4224 Nov 03 11:15	11° Υ 39'34	2°00'26	min. Earth dist.	4225 Oct 15 02:15	27° Υ 59'41	0.63583 AU
asc. node	4224 Nov 09 09:36	6° Υ 22'37		inferior conj	4225 Oct 17 16:56	25° Υ 21'15	-3°-3'-26
morning rise	4224 Nov 09 16:51	6° Υ 13'45		minimum elong	4225 Oct 17 22:04	25° Υ 08'17	3°01'40
direct	4224 Nov 12 07:59	5° Υ 36'41		morning rise	4225 Oct 24 12:48	20° Υ 02'28	
morning max el	4224 Nov 18 19:36	9° Υ 04'50	18°05'42	direct	4225 Oct 26 22:35	19° Υ 34'19	
	4224 Dec 03 04:34	0° Υ		asc. node	4225 Oct 27 06:39	19° Υ 34'52	
morning set	4224 Dec 06 21:33	6° Υ 07'26		morning max el	4225 Nov 02 12:19	22° Υ 59'23	17°50'58
desc. node	4224 Dec 16 07:08	21° Υ 28'34			4225 Nov 08 00:39	0° Υ	
				morning set	4225 Nov 19 00:04	18° Υ 18'44	
superior conj	4224 Dec 21 07:29	29° Υ 29'28	0°-34'00		4225 Nov 25 19:25	0° Υ	
minimum elong	4224 Dec 21 03:14	29° Υ 12'36	0°33'25				
	4224 Dec 21 15:11	0° Υ		superior conj	4225 Dec 01 09:15	9° Υ 18'30	0°12'26
max. Earth dist.	4224 Dec 24 16:14	4° Υ 48'32	1.45102 AU	minimum elong	4225 Dec 01 10:34	9° Υ 23'57	0°12'15
evening rise	4225 Jan 06 16:41	25° Υ 05'48		behind sun begin	4225 Dec 01 04:13	8° Υ 57'50	
	4225 Jan 09 20:48	0° Υ		behind sun end	4225 Dec 01 16:55	9° Υ 50'02	
greatest brilliancy	4225 Jan 24 04:37	21° Υ 34'58	-0.6m	desc. node	4225 Dec 03 04:10	12° Υ 14'14	
	4225 Jan 30 17:11	0° Υ		max. Earth dist.	4225 Dec 07 10:16	19° Υ 05'58	1.44241 AU

	4225 Dec 14 08:27	0°☾		desc. node	4226 Nov 20 01:13	3°☾01'38	
evening rise	4225 Dec 17 02:37	4°☾15'47		evening rise	4226 Nov 26 17:17	13°☾43'49	
	4226 Jan 03 08:25	0°☾			4226 Dec 07 09:13	0°☾	
greatest brilliancy	4226 Jan 09 04:58	8°☾02'00	-0.5m	greatest brilliancy	4226 Dec 23 22:02	22°☾52'46	-0.3m
evening max el	4226 Jan 14 19:57	14°☾40'40	20°44'31	evening max el	4226 Dec 28 15:43	28°☾14'20	21°57'59
retrograde	4226 Jan 23 02:04	19°☾33'09			4226 Dec 30 11:54	0°☾	
asc. node	4226 Jan 23 05:56	19°☾33'01		retrograde	4227 Jan 06 23:08	3°☾46'44	
evening set	4226 Jan 27 00:23	18°☾04'42		asc. node	4227 Jan 10 02:58	2°☾53'12	
inferior conj	4226 Feb 01 10:10	11°☾52'11	2°42'37	evening set	4227 Jan 11 08:12	2°☾02'46	
minimum elong	4226 Feb 01 07:42	12°☾00'38	2°41'59		4227 Jan 13 10:17	30°☾☾	
min. Earth dist.	4226 Feb 01 22:55	11°☾08'25	0.67595 AU	inferior conj	4227 Jan 16 17:35	25°☾41'15	2°05'09
morning rise	4226 Feb 06 14:35	5°☾36'38		minimum elong	4227 Jan 16 15:16	25°☾49'20	2°04'23
direct	4226 Feb 12 01:09	3°☾13'12		min. Earth dist.	4227 Jan 16 18:27	25°☾38'15	0.67974 AU
morning max el	4226 Feb 23 01:28	9°☾47'32	24°06'25	morning rise	4227 Jan 21 22:07	19°☾27'42	
desc. node	4226 Mar 01 03:24	16°☾40'55		direct	4227 Jan 26 17:48	17°☾25'49	
	4226 Mar 11 00:58	0°☾		morning max el	4227 Feb 05 11:42	23°☾11'27	22°37'22
	4226 Mar 30 02:07	0°☾		greatest brilliancy	4227 Feb 10 01:40	28°☾18'00	-0.3m
morning set	4226 Mar 30 17:26	1°☾05'55			4227 Feb 11 10:54	0°☾	
max. Earth dist.	4226 Apr 03 12:17	7°☾45'21	1.38135 AU	desc. node	4227 Feb 16 00:25	5°☾57'05	
					4227 Mar 04 10:11	0°☾	
superior conj	4226 Apr 10 15:32	20°☾57'27	-1°-33'-13	morning set	4227 Mar 11 10:59	11°☾15'07	
minimum elong	4226 Apr 10 20:13	21°☾19'46	1°32'39	max. Earth dist.	4227 Mar 16 08:00	19°☾24'07	1.40317 AU
	4226 Apr 15 07:29	0°☾			4227 Mar 22 09:46	0°☾	
evening rise	4226 Apr 19 13:53	8°☾24'37					
asc. node	4226 Apr 21 05:15	11°☾37'27		superior conj	4227 Mar 24 02:59	3°☾05'25	-1°-55'-3
	4226 May 01 19:07	0°☾		minimum elong	4227 Mar 24 07:24	3°☾25'28	1°54'43
evening max el	4226 May 06 00:59	5°☾03'16	18°59'41	evening rise	4227 Apr 03 03:14	21°☾45'27	
retrograde	4226 May 14 15:23	9°☾15'22			4227 Apr 07 12:56	0°☾	
evening set	4226 May 16 16:49	9°☾01'52		asc. node	4227 Apr 08 02:18	1°☾01'03	
inferior conj	4226 May 24 21:17	4°☾46'36	0°55'38	evening max el	4227 Apr 19 06:06	17°☾34'53	18°23'50
minimum elong	4226 May 24 23:25	4°☾42'52	0°54'52	retrograde	4227 Apr 26 15:39	21°☾14'50	
min. Earth dist.	4226 May 27 23:06	2°☾38'08	0.56673 AU	evening set	4227 Apr 28 23:21	20°☾54'10	
desc. node	4226 May 28 02:38	2°☾32'12		inferior conj	4227 May 06 08:40	16°☾18'57	2°17'27
	4226 Jun 01 14:08	30°☾☾		minimum elong	4227 May 06 12:19	16°☾11'28	2°16'27
morning rise	4226 Jun 02 01:37	29°☾47'54		min. Earth dist.	4227 May 09 19:16	13°☾30'57	0.58623 AU
direct	4226 Jun 07 07:00	28°☾43'13		morning rise	4227 May 13 20:57	10°☾48'25	
	4226 Jun 13 00:36	0°☾		desc. node	4227 May 14 23:39	10°☾16'06	
morning max el	4226 Jun 21 14:11	6°☾06'23	25°50'25	direct	4227 May 19 23:44	9°☾09'48	
	4226 Jul 09 01:33	0°☾		morning max el	4227 Jun 03 09:10	16°☾54'24	27°04'45
asc. node	4226 Jul 18 04:30	17°☾31'12			4227 Jun 14 04:01	0°☾	
morning set	4226 Jul 19 06:53	19°☾49'39			4227 Jul 01 11:14	0°☾	
	4226 Jul 23 23:45	0°☾		morning set	4227 Jul 03 16:15	4°☾33'48	
				asc. node	4227 Jul 05 01:33	7°☾29'58	
superior conj	4226 Jul 26 06:34	5°☾01'27	1°15'46				
minimum elong	4226 Jul 26 04:14	4°☾48'38	1°15'24	superior conj	4227 Jul 10 18:25	19°☾56'19	0°56'41
max. Earth dist.	4226 Jul 27 02:45	6°☾52'18	1.32317 AU	minimum elong	4227 Jul 10 16:17	19°☾44'35	0°56'17
evening rise	4226 Aug 02 07:45	20°☾12'04		max. Earth dist.	4227 Jul 10 14:02	19°☾32'08	1.32013 AU
	4226 Aug 07 05:00	0°☾			4227 Jul 15 08:27	0°☾	
desc. node	4226 Aug 24 01:57	27°☾43'51		evening rise	4227 Jul 17 15:30	4°☾54'35	
	4226 Aug 25 19:10	0°☾			4227 Jul 30 22:25	0°☾	
evening max el	4226 Sep 02 22:17	9°☾08'55	27°14'01	desc. node	4227 Aug 10 22:58	15°☾38'55	
retrograde	4226 Sep 16 18:28	16°☾22'38		evening max el	4227 Aug 15 23:27	21°☾01'40	26°28'13
evening set	4226 Sep 23 21:54	14°☾02'11		retrograde	4227 Aug 29 22:34	28°☾11'33	
min. Earth dist.	4226 Sep 27 12:42	11°☾15'56	0.61703 AU	evening set	4227 Sep 05 15:05	26°☾20'01	
inferior conj	4226 Sep 30 13:57	8°☾31'51	-4°-1'-13	min. Earth dist.	4227 Sep 09 12:59	23°☾45'17	0.59645 AU
minimum elong	4226 Sep 30 19:58	8°☾18'19	3°59'37	inferior conj	4227 Sep 12 19:21	21°☾11'57	-4°-47'-51
morning rise	4226 Oct 07 21:06	3°☾33'03		minimum elong	4227 Sep 13 00:23	21°☾02'03	4°47'04
direct	4226 Oct 10 04:21	3°☾10'36		morning rise	4227 Sep 20 13:08	16°☾35'38	
asc. node	4226 Oct 14 03:42	4°☾19'59		direct	4227 Sep 22 21:15	16°☾16'03	
morning max el	4226 Oct 17 03:39	6°☾41'09	17°54'30	morning max el	4227 Sep 30 14:13	20°☾01'07	18°17'34
	4226 Nov 01 03:23	0°☾		asc. node	4227 Oct 01 00:45	20°☾27'08	
morning set	4226 Nov 01 22:23	1°☾26'26			4227 Oct 08 01:12	0°☾	
				morning set	4227 Oct 16 10:48	15°☾14'12	
superior conj	4226 Nov 12 13:46	20°☾26'11	0°50'57		4227 Oct 24 06:42	0°☾	
minimum elong	4226 Nov 12 17:41	20°☾43'07	0°50'25				
	4226 Nov 18 05:12	0°☾		superior conj	4227 Oct 25 18:29	2°☾44'17	1°18'34
max. Earth dist.	4226 Nov 19 23:52	2°☾56'07	1.42768 AU	minimum elong	4227 Oct 25 22:19	3°☾01'45	1°18'09

max. Earth dist.	4227 Nov 02 08:11	16° \mathbb{M} 06'46	1.40872 AU	superior conj	4228 Oct 07 18:06	15° \mathbb{A} 58'03	1°35'33
desc. node	4227 Nov 06 22:15	23° \mathbb{M} 47'12		minimum elong	4228 Oct 07 20:33	16° \mathbb{A} 09'49	1°35'23
evening rise	4227 Nov 07 02:11	24° \mathbb{M} 03'22		max. Earth dist.	4228 Oct 14 13:17	28° \mathbb{A} 37'08	1.38788 AU
	4227 Nov 10 18:38	0° \mathbb{A}			4228 Oct 15 07:47	0° \mathbb{M}	
	4227 Dec 01 07:17	0° \mathbb{B}		evening rise	4228 Oct 18 10:24	5° \mathbb{M} 27'04	
evening max el	4227 Dec 11 07:10	11° \mathbb{B} 51'02	23°17'16	desc. node	4228 Oct 23 19:17	14° \mathbb{M} 27'21	
retrograde	4227 Dec 21 17:27	18° \mathbb{B} 01'26			4228 Nov 02 20:01	0° \mathbb{A}	
evening set	4227 Dec 26 14:55	16° \mathbb{B} 01'25		evening max el	4228 Nov 22 20:19	25° \mathbb{A} 32'14	24°36'10
asc. node	4227 Dec 27 23:59	14° \mathbb{B} 43'17			4228 Nov 28 03:57	0° \mathbb{B}	
min. Earth dist.	4227 Dec 31 15:15	10° \mathbb{B} 09'49	0.67989 AU	retrograde	4228 Dec 04 07:54	2° \mathbb{B} 13'58	
inferior conj	4228 Jan 01 01:25	9° \mathbb{B} 34'53	1°20'28	evening set	4228 Dec 09 19:01	29° \mathbb{A} 58'13	
minimum elong	4227 Dec 31 23:41	9° \mathbb{B} 40'50	1°19'48		4228 Dec 09 18:10	30° \mathbb{R} \mathbb{A}	
morning rise	4228 Jan 06 08:30	3° \mathbb{B} 25'17		asc. node	4228 Dec 13 20:59	25° \mathbb{A} 26'37	
direct	4228 Jan 10 13:49	1° \mathbb{B} 46'15		min. Earth dist.	4228 Dec 14 10:56	24° \mathbb{A} 40'46	0.67654 AU
morning max el	4228 Jan 19 03:00	6° \mathbb{B} 43'56	21°13'41	inferior conj	4228 Dec 15 07:54	23° \mathbb{A} 30'58	0°29'37
greatest brilliancy	4228 Jan 24 08:15	12° \mathbb{B} 41'54	-0.4m	minimum elong	4228 Dec 15 07:11	23° \mathbb{A} 33'21	0°29'19
desc. node	4228 Feb 02 21:26	25° \mathbb{B} 43'49		morning rise	4228 Dec 20 19:46	17° \mathbb{A} 27'36	
	4228 Feb 05 19:48	0° \mathbb{A}		direct	4228 Dec 24 11:56	16° \mathbb{A} 10'11	
morning set	4228 Feb 18 23:58	20° \mathbb{A} 04'00		morning max el	4229 Jan 01 02:02	20° \mathbb{A} 28'31	20°01'21
	4228 Feb 25 04:58	0° \mathbb{H}		greatest brilliancy	4229 Jan 08 02:45	28° \mathbb{A} 57'47	-0.6m
max. Earth dist.	4228 Feb 26 09:28	1° \mathbb{H} 56'25	1.42360 AU		4229 Jan 08 21:00	0° \mathbb{B}	
				desc. node	4229 Jan 19 18:29	15° \mathbb{B} 53'04	
superior conj	4228 Mar 04 16:56	14° \mathbb{H} 11'44	-2°-7'-3	morning set	4229 Jan 27 20:25	28° \mathbb{B} 13'03	
minimum elong	4228 Mar 04 18:30	14° \mathbb{H} 18'30	2°07'01		4229 Jan 29 00:06	0° \mathbb{A}	
	4228 Mar 13 16:21	0° \mathbb{Y}		max. Earth dist.	4229 Feb 07 19:12	15° \mathbb{A} 23'15	1.43989 AU
evening rise	4228 Mar 16 02:51	4° \mathbb{Y} 23'55					
asc. node	4228 Mar 24 23:19	19° \mathbb{Y} 59'16		superior conj	4229 Feb 13 05:28	24° \mathbb{A} 09'02	-2°-3'-45
	4228 Apr 01 04:00	0° \mathbb{B}		minimum elong	4229 Feb 13 01:21	23° \mathbb{A} 52'14	2°03'36
evening max el	4228 Apr 01 16:38	0° \mathbb{B} 32'06	18°07'52		4229 Feb 16 18:45	0° \mathbb{H}	
retrograde	4228 Apr 08 09:05	3° \mathbb{B} 56'23		evening rise	4229 Feb 26 08:29	16° \mathbb{H} 12'12	
evening set	4228 Apr 10 23:06	3° \mathbb{B} 26'05			4229 Mar 06 10:40	0° \mathbb{Y}	
	4228 Apr 16 01:10	30° \mathbb{R} \mathbb{Y}		asc. node	4229 Mar 11 20:19	8° \mathbb{Y} 24'25	
inferior conj	4228 Apr 17 16:08	28° \mathbb{Y} 29'39	3°07'47	evening max el	4229 Mar 16 05:18	13° \mathbb{Y} 46'20	18°11'04
minimum elong	4228 Apr 17 18:56	28° \mathbb{Y} 23'00	3°07'18	retrograde	4229 Mar 22 15:29	17° \mathbb{Y} 09'56	
min. Earth dist.	4228 Apr 20 21:52	25° \mathbb{Y} 26'23	0.60808 AU	evening set	4229 Mar 25 11:20	16° \mathbb{Y} 28'42	
morning rise	4228 Apr 24 11:29	22° \mathbb{Y} 37'23		inferior conj	4229 Mar 31 15:59	11° \mathbb{Y} 11'54	3°31'41
desc. node	4228 Apr 30 20:39	20° \mathbb{Y} 25'22		minimum elong	4229 Mar 31 17:05	11° \mathbb{Y} 08'55	3°31'36
direct	4228 May 01 04:07	20° \mathbb{Y} 25'05		min. Earth dist.	4229 Apr 03 09:02	8° \mathbb{Y} 17'29	0.62918 AU
morning max el	4228 May 15 10:20	28° \mathbb{Y} 20'36	27°45'40	morning rise	4229 Apr 06 20:38	5° \mathbb{Y} 06'36	
	4228 May 17 01:00	0° \mathbb{B}		direct	4229 Apr 13 17:39	2° \mathbb{Y} 29'40	
	4228 Jun 06 22:57	0° \mathbb{H}		desc. node	4229 Apr 17 17:40	3° \mathbb{Y} 16'40	
morning set	4228 Jun 16 21:47	19° \mathbb{H} 04'10		morning max el	4229 Apr 27 16:58	10° \mathbb{Y} 28'19	27°48'57
asc. node	4228 Jun 20 22:36	27° \mathbb{H} 35'36			4229 May 12 23:57	0° \mathbb{B}	
	4228 Jun 22 01:16	0° \mathbb{B}			4229 May 30 06:26	0° \mathbb{H}	
max. Earth dist.	4228 Jun 23 00:48	2° \mathbb{B} 08'17	1.32116 AU	morning set	4229 May 31 21:17	3° \mathbb{H} 13'25	
				max. Earth dist.	4229 Jun 06 07:05	14° \mathbb{H} 27'22	1.32643 AU
superior conj	4228 Jun 24 05:27	4° \mathbb{B} 45'20	0°33'53	asc. node	4229 Jun 07 19:37	17° \mathbb{H} 43'20	
minimum elong	4228 Jun 24 03:59	4° \mathbb{B} 37'18	0°33'34				
evening rise	4228 Jul 01 02:15	19° \mathbb{B} 43'28		superior conj	4229 Jun 08 13:54	19° \mathbb{H} 22'07	0°07'59
	4228 Jul 06 02:26	0° \mathbb{Q}		minimum elong	4229 Jun 08 13:31	19° \mathbb{H} 20'02	0°07'54
	4228 Jul 25 15:07	0° \mathbb{M}		behind sun begin	4229 Jun 08 08:56	18° \mathbb{H} 55'15	
evening max el	4228 Jul 27 17:23	2° \mathbb{M} 07'22	25°12'53	behind sun end	4229 Jun 08 18:06	19° \mathbb{H} 44'51	
desc. node	4228 Jul 27 19:58	2° \mathbb{M} 13'32			4229 Jun 13 11:24	0° \mathbb{B}	
retrograde	4228 Aug 10 16:21	9° \mathbb{M} 11'33		evening rise	4229 Jun 15 14:04	4° \mathbb{B} 31'29	
evening set	4228 Aug 16 08:49	7° \mathbb{M} 57'22			4229 Jun 29 05:57	0° \mathbb{Q}	
min. Earth dist.	4228 Aug 21 05:06	5° \mathbb{M} 15'57	0.57633 AU	evening max el	4229 Jul 09 06:24	12° \mathbb{Q} 37'27	23°39'09
inferior conj	4228 Aug 24 05:54	3° \mathbb{M} 12'24	-5°-11'-34	desc. node	4229 Jul 14 16:58	16° \mathbb{Q} 56'03	
minimum elong	4228 Aug 24 06:57	3° \mathbb{M} 10'36	5°11'34	retrograde	4229 Jul 22 21:47	19° \mathbb{Q} 28'10	
	4228 Aug 29 13:20	30° \mathbb{R} \mathbb{Q}		evening set	4229 Jul 27 03:27	18° \mathbb{Q} 48'48	
morning rise	4228 Sep 01 08:36	28° \mathbb{Q} 58'57		min. Earth dist.	4229 Aug 02 16:21	15° \mathbb{Q} 43'45	0.55966 AU
direct	4228 Sep 03 21:12	28° \mathbb{Q} 39'58		inferior conj	4229 Aug 04 20:12	14° \mathbb{Q} 26'07	-4°-56'-42
	4228 Sep 08 21:22	0° \mathbb{M}		minimum elong	4229 Aug 04 15:07	14° \mathbb{Q} 33'46	4°56'06
morning max el	4228 Sep 12 16:44	2° \mathbb{M} 49'48	19°01'37	morning rise	4229 Aug 13 06:01	10° \mathbb{Q} 31'06	
asc. node	4228 Sep 16 21:47	7° \mathbb{M} 41'26		direct	4229 Aug 16 01:47	10° \mathbb{Q} 11'12	
morning set	4228 Sep 29 09:00	29° \mathbb{M} 30'16		morning max el	4229 Aug 26 08:20	14° \mathbb{Q} 57'24	20°07'31
	4228 Sep 29 15:02	0° \mathbb{A}		asc. node	4229 Sep 03 18:50	25° \mathbb{Q} 47'41	
					4229 Sep 06 06:29	0° \mathbb{M}	

morning set	4229 Sep 13 13:46	14° \cap 04'50			4230 Aug 29 11:55	0° \cap	
superior conj	4229 Sep 21 07:25	29° \cap 52'02	1°43'17	superior conj	4230 Sep 05 06:24	14° \cap 14'29	1°43'16
minimum elong	4229 Sep 21 08:12	29° \cap 55'57	1°43'16	minimum elong	4230 Sep 05 05:44	14° \cap 11'01	1°43'15
	4229 Sep 21 09:01	0° Δ		max. Earth dist.	4230 Sep 09 06:53	22° \cap 29'07	1.35005 AU
max. Earth dist.	4229 Sep 26 19:09	10° Δ 37'08	1.36764 AU		4230 Sep 13 02:36	0° Δ	
evening rise	4229 Sep 30 16:12	17° Δ 49'56		evening rise	4230 Sep 13 15:37	1° Δ 02'18	
	4229 Oct 07 15:49	0° \cap		desc. node	4230 Sep 27 13:19	25° Δ 10'27	
desc. node	4229 Oct 10 16:18	4° \cap 56'55			4230 Sep 30 16:50	0° \cap	
	4229 Oct 28 03:10	0° \nearrow		evening max el	4230 Oct 18 21:13	22° \cap 53'26	26°44'32
evening max el	4229 Nov 05 08:43	9° \nearrow 14'51	25°47'44		4230 Oct 30 06:08	0° \nearrow	
retrograde	4229 Nov 17 17:42	16° \nearrow 18'42		retrograde	4230 Oct 31 22:20	0° \nearrow 09'10	
evening set	4229 Nov 23 18:48	13° \nearrow 49'15			4230 Nov 02 13:21	30° \cap	
min. Earth dist.	4229 Nov 28 03:10	9° \nearrow 07'09	0.66963 AU	evening set	4230 Nov 07 12:18	27° \cap 30'39	
inferior conj	4229 Nov 29 11:12	7° \nearrow 25'54	0°-26'-23	min. Earth dist.	4230 Nov 11 13:39	23° \cap 24'38	0.65918 AU
minimum elong	4229 Nov 29 11:53	7° \nearrow 23'42	0°26'06	inferior conj	4230 Nov 13 09:20	21° \cap 16'01	-1°-26'-17
asc. node	4229 Nov 30 18:01	5° \nearrow 49'52		minimum elong	4230 Nov 13 11:44	21° \cap 08'57	1°25'17
morning rise	4229 Dec 05 05:55	1° \nearrow 31'17		asc. node	4230 Nov 17 15:05	16° \cap 49'43	
direct	4229 Dec 08 10:37	0° \nearrow 32'38		morning rise	4230 Nov 19 12:44	15° \cap 32'51	
morning max el	4229 Dec 15 08:52	4° \nearrow 23'12	19°03'40	direct	4230 Nov 22 08:04	14° \cap 49'10	
	4230 Jan 02 14:16	0° \searrow		morning max el	4230 Nov 28 21:41	18° \cap 22'55	18°21'59
desc. node	4230 Jan 06 15:33	6° \searrow 18'18			4230 Dec 07 16:02	0° \searrow	
morning set	4230 Jan 07 01:09	6° \searrow 55'42		morning set	4230 Dec 18 08:20	16° \searrow 59'57	
max. Earth dist.	4230 Jan 21 11:09	29° \searrow 28'12	1.44992 AU	desc. node	4230 Dec 24 12:35	26° \searrow 54'19	
	4230 Jan 21 19:14	0° \approx			4230 Dec 26 11:15	0° \searrow	
superior conj	4230 Jan 23 18:22	3° \approx 05'51	-1°-41'-6	superior conj	4231 Jan 02 20:48	11° \searrow 40'44	-1°-1'-10
minimum elong	4230 Jan 23 09:24	2° \approx 30'26	1°40'21	minimum elong	4231 Jan 02 13:18	11° \searrow 11'16	1°00'14
evening rise	4230 Feb 07 16:17	27° \approx 04'53		max. Earth dist.	4231 Jan 04 05:57	13° \searrow 50'50	1.45273 AU
	4230 Feb 09 11:03	0° \asymp			4231 Jan 14 13:26	0° \approx	
asc. node	4230 Feb 26 17:19	26° \asymp 07'03		evening rise	4231 Jan 19 00:55	7° \approx 01'50	
evening max el	4230 Feb 27 17:21	27° \asymp 11'09	18°32'45	greatest brilliancy	4231 Feb 01 12:34	28° \approx 00'48	-0.7m
	4230 Mar 03 07:47	0° Υ			4231 Feb 02 20:39	0° \asymp	
retrograde	4230 Mar 06 06:32	0° Υ 47'07		evening max el	4231 Feb 11 02:25	10° \asymp 40'57	19°11'59
evening set	4230 Mar 09 08:19	29° \asymp 54'05		asc. node	4231 Feb 13 14:21	12° \asymp 54'09	
	4230 Mar 09 04:03	30° \cap		retrograde	4231 Feb 18 02:28	14° \asymp 40'08	
inferior conj	4230 Mar 15 04:12	24° \asymp 18'42	3°35'20	evening set	4231 Feb 21 11:04	13° \asymp 34'21	
minimum elong	4230 Mar 15 03:41	24° \asymp 20'14	3°35'19	inferior conj	4231 Feb 27 01:12	7° \asymp 42'40	3°23'45
min. Earth dist.	4230 Mar 17 05:52	21° \asymp 51'06	0.64743 AU	minimum elong	4231 Feb 26 23:31	7° \asymp 48'03	3°23'32
morning rise	4230 Mar 20 21:39	18° \asymp 06'25		min. Earth dist.	4231 Feb 28 11:35	5° \asymp 52'25	0.66183 AU
direct	4230 Mar 27 14:58	15° \asymp 17'55		morning rise	4231 Mar 04 11:03	1° \asymp 27'13	
desc. node	4230 Apr 04 14:43	18° \asymp 24'18			4231 Mar 06 09:10	30° \cap	
morning max el	4230 Apr 10 02:41	23° \asymp 10'46	27°16'52	direct	4231 Mar 10 18:58	28° \approx 40'22	
	4230 Apr 16 04:08	0° Υ			4231 Mar 15 15:15	0° \asymp	
	4230 May 06 07:06	0° \searrow		desc. node	4231 Mar 22 11:46	5° \asymp 13'01	
morning set	4230 May 15 12:03	16° \searrow 53'44		morning max el	4231 Mar 23 12:37	6° \asymp 14'21	26°16'15
max. Earth dist.	4230 May 20 05:01	26° \searrow 18'48	1.33618 AU		4231 Apr 10 20:43	0° Υ	
	4230 May 21 23:46	0° \cap		morning set	4231 Apr 28 14:21	29° Υ 53'30	
superior conj	4230 May 23 17:51	3° \cap 40'58	0°-20'-11		4231 Apr 28 15:44	0° \searrow	
minimum elong	4230 May 23 18:54	3° \cap 46'29	0°19'59	max. Earth dist.	4231 May 02 15:32	7° \searrow 37'39	1.35060 AU
asc. node	4230 May 25 16:39	7° \cap 49'25		superior conj	4231 May 07 14:52	17° \searrow 34'32	0°-49'-27
evening rise	4230 May 31 01:07	19° \cap 12'50		minimum elong	4231 May 07 17:32	17° \searrow 48'08	0°48'58
	4230 Jun 05 08:53	0° \searrow		asc. node	4231 May 12 13:41	27° \searrow 49'16	
evening max el	4230 Jun 20 21:50	23° \searrow 02'33	22°02'47		4231 May 13 14:48	0° \cap	
desc. node	4230 Jul 01 13:58	29° \searrow 11'45		evening rise	4231 May 15 09:22	3° \cap 40'28	
retrograde	4230 Jul 03 15:51	29° \searrow 21'48			4231 May 30 11:38	0° \searrow	
evening set	4230 Jul 06 11:38	29° \searrow 04'00		evening max el	4231 Jun 02 23:09	3° \searrow 53'56	20°37'13
min. Earth dist.	4230 Jul 15 02:45	25° \searrow 21'25	0.54976 AU	retrograde	4231 Jun 14 04:39	9° \searrow 23'19	
inferior conj	4230 Jul 15 18:20	24° \searrow 59'32	-3°-51'-30	evening set	4231 Jun 16 05:54	9° \searrow 13'04	
minimum elong	4230 Jul 15 09:45	25° \searrow 11'36	3°49'14	desc. node	4231 Jun 18 10:59	8° \searrow 40'35	
morning rise	4230 Jul 24 09:39	21° \searrow 09'10		inferior conj	4231 Jun 25 11:47	5° \searrow 15'55	-2°-4'-1
direct	4230 Jul 27 14:35	20° \searrow 46'24		minimum elong	4231 Jun 25 05:59	5° \searrow 24'15	2°01'58
morning max el	4230 Aug 08 12:09	26° \searrow 19'59	21°33'42	min. Earth dist.	4231 Jun 26 14:35	4° \searrow 37'21	0.54908 AU
	4230 Aug 11 23:37	0° \cap		morning rise	4231 Jul 04 04:48	1° \searrow 09'39	
asc. node	4230 Aug 21 15:54	14° \cap 33'44		direct	4231 Jul 07 23:59	0° \searrow 38'32	
morning set	4230 Aug 28 22:44	28° \cap 51'19		morning max el	4231 Jul 21 06:17	7° \searrow 02'38	23°14'04

	4231 Aug 06 12:40	0°♄		transit end	4232 Jun 04 18:35	15°♄41'30	
asc. node	4231 Aug 08 12:58	3°♄49'15		min. Earth dist.	4232 Jun 07 04:29	14°♄09'01	0.55802 AU
morning set	4231 Aug 13 09:57	13°♄43'47		morning rise	4232 Jun 13 02:27	11°♄09'18	
				direct	4232 Jun 17 18:44	10°♄19'55	
superior conj	4231 Aug 20 11:52	28°♄55'22	1°36'47	morning max el	4232 Jul 01 20:04	17°♄25'08	24°56'37
minimum elong	4231 Aug 20 10:11	28°♄46'18	1°36'39		4232 Jul 12 03:49	0°♄	
	4231 Aug 20 23:57	0°♄		asc. node	4232 Jul 25 10:01	23°♄26'25	
max. Earth dist.	4231 Aug 23 03:28	4°♄33'27	1.33627 AU	morning set	4232 Jul 27 21:43	28°♄37'05	
evening rise	4231 Aug 28 04:22	14°♄52'40			4232 Jul 28 13:19	0°♄	
	4231 Sep 05 06:01	0°♄					
desc. node	4231 Sep 14 10:19	15°♄00'55		superior conj	4232 Aug 03 21:21	13°♄46'42	1°24'49
	4231 Sep 25 12:03	0°♄		minimum elong	4232 Aug 03 19:07	13°♄34'28	1°24'32
evening max el	4231 Oct 01 09:26	6°♄19'08	27°19'20	max. Earth dist.	4232 Aug 05 08:15	16°♄56'50	1.32674 AU
retrograde	4231 Oct 14 21:15	13°♄37'38		evening rise	4232 Aug 11 02:44	29°♄10'15	
evening set	4231 Oct 21 21:06	10°♄57'46			4232 Aug 11 12:29	0°♄	
min. Earth dist.	4231 Oct 25 16:17	7°♄26'52	0.64523 AU		4232 Aug 28 09:05	0°♄	
inferior conj	4231 Oct 28 00:03	4°♄56'54	-2°-28'-7	desc. node	4232 Aug 31 07:21	4°♄18'09	
minimum elong	4231 Oct 28 04:15	4°♄45'35	2°26'31	evening max el	4232 Sep 12 19:32	19°♄18'43	27°25'29
	4231 Nov 02 12:35	30°♄		retrograde	4232 Sep 26 13:28	26°♄34'08	
morning rise	4231 Nov 03 13:35	29°♄28'07		evening set	4232 Oct 03 17:52	24°♄03'24	
asc. node	4231 Nov 04 12:10	29°♄08'20		min. Earth dist.	4232 Oct 07 09:03	21°♄03'19	0.62806 AU
direct	4231 Nov 06 01:59	28°♄55'26		inferior conj	4232 Oct 10 04:27	18°♄21'00	-3°-28'-47
	4231 Nov 09 15:19	0°♄		minimum elong	4232 Oct 10 10:06	18°♄07'21	3°27'00
morning max el	4231 Nov 12 13:50	2°♄21'36	17°57'13	morning rise	4232 Oct 17 05:05	13°♄10'00	
morning set	4231 Nov 29 20:37	28°♄30'20		direct	4232 Oct 19 13:22	12°♄44'38	
	4231 Nov 30 17:55	0°♄		asc. node	4232 Oct 21 09:14	13°♄00'27	
desc. node	4231 Dec 11 09:36	17°♄37'37		morning max el	4232 Oct 26 06:17	16°♄11'17	17°50'08
					4232 Nov 04 23:27	0°♄	
superior conj	4231 Dec 13 09:35	20°♄51'12	0°-13'-46	morning set	4232 Nov 11 08:25	11°♄08'21	
minimum elong	4231 Dec 13 07:56	20°♄44'34	0°13'32		4232 Nov 22 05:10	0°♄	
behind sun begin	4231 Dec 13 02:14	20°♄21'36					
behind sun end	4231 Dec 13 13:39	21°♄07'32		superior conj	4232 Nov 22 22:36	1°♄13'18	0°30'00
max. Earth dist.	4231 Dec 18 00:48	28°♄14'21	1.44819 AU	minimum elong	4232 Nov 23 01:26	1°♄25'10	0°29'35
	4231 Dec 19 03:34	0°♄		desc. node	4232 Nov 27 06:38	8°♄24'20	
evening rise	4231 Dec 29 15:35	16°♄20'00		max. Earth dist.	4232 Nov 29 17:17	12°♄22'30	1.43686 AU
	4232 Jan 07 14:29	0°♄		evening rise	4232 Dec 08 01:36	25°♄33'18	
greatest brilliancy	4232 Jan 18 16:26	16°♄09'17	-0.6m		4232 Dec 10 22:57	0°♄	
evening max el	4232 Jan 25 06:54	24°♄13'22	20°06'55		4232 Dec 31 16:19	0°♄	
asc. node	4232 Jan 31 11:25	28°♄31'30		greatest brilliancy	4233 Jan 02 03:38	1°♄53'27	-0.4m
retrograde	4232 Feb 02 00:28	28°♄44'23		evening max el	4233 Jan 07 05:54	7°♄46'48	21°14'41
evening set	4232 Feb 05 17:17	27°♄24'40		retrograde	4233 Jan 15 22:14	12°♄55'30	
inferior conj	4232 Feb 11 04:05	21°♄19'07	3°00'26	asc. node	4233 Jan 17 08:28	12°♄44'27	
minimum elong	4232 Feb 11 01:45	21°♄26'57	2°59'56	evening set	4233 Jan 20 00:58	11°♄20'36	
min. Earth dist.	4232 Feb 12 00:22	20°♄10'44	0.67205 AU	inferior conj	4233 Jan 25 10:25	5°♄04'05	2°27'41
morning rise	4232 Feb 16 09:38	15°♄03'05		minimum elong	4233 Jan 25 07:57	5°♄12'35	2°26'57
direct	4232 Feb 22 04:40	12°♄28'42		min. Earth dist.	4233 Jan 25 18:01	4°♄37'49	0.67815 AU
morning max el	4232 Mar 04 21:22	19°♄28'20	24°56'35		4233 Jan 29 09:40	30°♄	
desc. node	4232 Mar 08 08:49	23°♄14'30		morning rise	4233 Jan 30 14:35	28°♄49'17	
	4232 Mar 13 20:27	0°♄		direct	4233 Feb 04 18:58	26°♄34'30	
	4232 Apr 02 23:45	0°♄			4233 Feb 12 05:07	0°♄	
morning set	4232 Apr 09 23:15	11°♄59'12		morning max el	4233 Feb 15 06:06	2°♄47'52	23°28'13
max. Earth dist.	4232 Apr 13 15:18	18°♄38'18	1.36929 AU	greatest brilliancy	4233 Feb 21 08:25	9°♄43'51	-0.2m
	4232 Apr 19 14:43	0°♄		desc. node	4233 Feb 23 05:50	12°♄07'36	
					4233 Mar 07 23:17	0°♄	
superior conj	4232 Apr 20 02:02	0°♄55'21	-1°-18'-2	morning set	4233 Mar 22 08:44	22°♄54'25	
minimum elong	4232 Apr 20 06:10	1°♄15'37	1°17'26		4233 Mar 26 11:42	0°♄	
asc. node	4232 Apr 28 10:43	17°♄39'02		max. Earth dist.	4233 Mar 26 10:33	29°♄54'59	1.39070 AU
evening rise	4232 Apr 28 12:35	17°♄48'22					
	4232 May 04 19:53	0°♄		superior conj	4233 Apr 02 23:29	13°♄33'23	-1°-43'-23
evening max el	4232 May 15 12:55	15°♄26'33	19°29'30	minimum elong	4233 Apr 03 04:17	13°♄55'49	1°42'52
retrograde	4232 May 25 00:29	20°♄03'25			4233 Apr 11 13:35	0°♄	
evening set	4232 May 26 23:35	19°♄52'25		evening rise	4233 Apr 12 07:56	1°♄28'55	
desc. node	4232 Jun 04 08:01	15°♄58'27		asc. node	4233 Apr 15 07:46	7°♄13'52	
inferior conj	4232 Jun 04 15:07	15°♄47'03	0°-5'-14	evening max el	4233 Apr 28 13:20	27°♄38'53	18°41'57
minimum elong	4232 Jun 04 14:54	15°♄47'26	0°05'10		4233 May 01 11:40	0°♄	
transit middle	4232 Jun 04 14:54	15°♄47'26	0°05'10	retrograde	4233 May 06 13:46	1°♄35'03	
transit begin	4232 Jun 04 11:12	15°♄53'20		evening set	4233 May 08 17:56	1°♄18'45	

	4233 May 11 23:55	30°♄		evening max el	4234 Apr 11 21:06	10°♄22'06	18°14'34
inferior conj	4233 May 16 14:01	26°♄55'08	1°34'20	retrograde	4234 Apr 18 22:02	13°♄53'45	
minimum elong	4233 May 16 17:11	26°♄49'12	1°33'19	evening set	4234 Apr 21 08:26	13°♄29'13	
min. Earth dist.	4233 May 19 21:31	24°♄27'29	0.57455 AU	inferior conj	4234 Apr 28 10:19	8°♄44'36	2°42'30
desc. node	4233 May 22 05:02	22°♄55'28		minimum elong	4234 Apr 28 13:48	8°♄36'58	2°41'40
morning rise	4233 May 24 11:58	21°♄42'15		min. Earth dist.	4234 May 01 19:59	5°♄47'10	0.59542 AU
direct	4233 May 30 03:14	20°♄23'52		morning rise	4234 May 05 15:16	3°♄03'26	
morning max el	4233 Jun 13 11:54	27°♄56'42	26°25'40	desc. node	4234 May 09 02:03	1°♄34'19	
	4233 Jun 15 12:15	0°♄		direct	4234 May 12 00:50	1°♄10'16	
	4233 Jun 15 12:15	0°♄		morning max el	4234 May 26 09:39	9°♄00'20	27°26'49
morning set	4233 Jul 12 08:27	13°♄26'33			4234 Jun 11 10:44	0°♄	
asc. node	4233 Jul 12 07:02	13°♄19'08		morning set	4234 Jun 26 16:24	28°♄05'35	
					4234 Jun 27 14:13	0°♄	
superior conj	4233 Jul 19 08:50	28°♄42'11	1°08'10	asc. node	4234 Jun 29 04:03	3°♄21'13	
minimum elong	4233 Jul 19 06:32	28°♄29'30	1°07'47				
	4233 Jul 19 22:57	0°♄		superior conj	4234 Jul 03 20:30	13°♄34'55	0°47'25
max. Earth dist.	4233 Jul 19 18:25	29°♄35'00	1.32139 AU	minimum elong	4234 Jul 03 18:36	13°♄24'27	0°47'03
evening rise	4233 Jul 26 07:48	13°♄46'18		max. Earth dist.	4234 Jul 03 06:05	12°♄15'25	1.32007 AU
	4233 Aug 03 13:56	0°♄		evening rise	4234 Jul 10 17:02	28°♄32'02	
desc. node	4233 Aug 18 04:22	22°♄48'37			4234 Jul 11 09:42	0°♄	
	4233 Aug 24 08:40	0°♄			4234 Jul 28 02:24	0°♄	
evening max el	4233 Aug 26 00:44	1°♄38'53	26°58'39	desc. node	4234 Aug 05 01:21	10°♄12'27	
retrograde	4233 Sep 08 22:02	8°♄50'05		evening max el	4234 Aug 07 22:33	13°♄09'59	25°59'12
evening set	4233 Sep 15 22:28	6°♄40'37		retrograde	4234 Aug 21 21:48	20°♄18'03	
min. Earth dist.	4233 Sep 19 14:57	4°♄01'24	0.60841 AU	evening set	4234 Aug 28 06:01	18°♄41'27	
inferior conj	4233 Sep 22 19:15	1°♄19'56	-4°-22'-55	min. Earth dist.	4234 Sep 01 11:02	16°♄06'31	0.58769 AU
minimum elong	4233 Sep 23 01:09	1°♄07'22	4°21'37	inferior conj	4234 Sep 04 16:52	13°♄43'24	-5°-1'-36
	4233 Sep 24 09:36	30°♄		minimum elong	4234 Sep 04 20:37	13°♄36'28	5°01'13
morning rise	4233 Sep 30 07:02	26°♄30'14		morning rise	4234 Sep 12 14:43	9°♄17'17	
direct	4233 Oct 02 14:23	26°♄09'10		direct	4234 Sep 15 00:26	8°♄58'10	
asc. node	4233 Oct 08 06:15	28°♄22'00		morning max el	4234 Sep 23 03:27	12°♄51'57	18°33'47
morning max el	4233 Oct 09 19:55	29°♄44'31	18°01'52	asc. node	4234 Sep 25 03:16	14°♄59'06	
	4233 Oct 10 02:11	0°♄			4234 Oct 04 17:47	0°♄	
morning set	4233 Oct 25 13:21	24°♄35'02		morning set	4234 Oct 09 06:18	8°♄35'28	
	4233 Oct 28 11:30	0°♄					
superior conj	4233 Nov 04 13:59	12°♄52'32	1°04'00	superior conj	4234 Oct 18 03:24	25°♄36'03	1°27'00
minimum elong	4233 Nov 04 18:07	13°♄10'46	1°03'30	minimum elong	4234 Oct 18 06:43	25°♄51'34	1°26'41
max. Earth dist.	4233 Nov 12 05:14	25°♄59'15	1.42006 AU		4234 Oct 20 12:33	0°♄	
desc. node	4233 Nov 14 03:40	29°♄11'17		max. Earth dist.	4234 Oct 25 11:44	8°♄51'52	1.39988 AU
	4233 Nov 14 15:34	0°♄		evening rise	4234 Oct 29 17:26	16°♄06'03	
evening rise	4233 Nov 17 22:53	5°♄20'29		desc. node	4234 Nov 01 00:42	19°♄54'47	
	4233 Dec 04 06:10	0°♄			4234 Nov 07 08:47	0°♄	
greatest brilliancy	4233 Dec 16 03:32	15°♄56'04	-0.3m	evening max el	4234 Nov 28 23:55	0°♄	
evening max el	4233 Dec 20 23:42	21°♄21'46	22°31'13	retrograde	4234 Dec 03 13:44	4°♄59'45	23°51'13
retrograde	4233 Dec 30 18:14	27°♄10'16		evening set	4234 Dec 14 11:09	11°♄25'01	
evening set	4234 Jan 04 08:31	25°♄19'17		asc. node	4234 Dec 19 14:21	9°♄17'56	
asc. node	4234 Jan 04 05:29	25°♄25'24		min. Earth dist.	4234 Dec 22 02:30	6°♄43'09	
inferior conj	4234 Jan 09 18:13	18°♄55'10	1°47'01	inferior conj	4234 Dec 24 10:50	3°♄40'49	0.67885 AU
minimum elong	4234 Jan 09 16:05	19°♄02'33	1°46'15	minimum elong	4234 Dec 25 01:41	2°♄50'20	0°59'37
min. Earth dist.	4234 Jan 09 14:15	19°♄08'56	0.68035 AU		4234 Dec 25 00:20	2°♄54'56	0°59'04
morning rise	4234 Jan 14 23:35	12°♄43'20			4234 Dec 27 05:24	30°♄	
direct	4234 Jan 19 13:04	10°♄51'18		morning rise	4234 Dec 30 10:34	26°♄43'13	
morning max el	4234 Jan 28 18:08	16°♄15'17	22°00'40	direct	4235 Jan 03 09:59	25°♄13'53	
greatest brilliancy	4234 Feb 02 09:40	21°♄27'50	-0.4m	morning max el	4235 Jan 11 12:45	29°♄53'46	20°41'22
	4234 Feb 08 22:35	0°♄			4235 Jan 11 15:14	0°♄	
desc. node	4234 Feb 10 02:53	1°♄37'55		greatest brilliancy	4235 Jan 17 09:20	6°♄43'31	-0.5m
	4234 Mar 01 00:52	0°♄		desc. node	4235 Jan 27 23:55	21°♄35'22	
morning set	4234 Mar 02 13:48	2°♄27'49			4235 Feb 02 15:04	0°♄	
max. Earth dist.	4234 Mar 08 08:49	11°♄57'53	1.41228 AU	morning set	4235 Feb 09 17:30	10°♄53'31	
				max. Earth dist.	4235 Feb 18 13:52	24°♄55'12	1.43114 AU
superior conj	4234 Mar 16 02:24	25°♄16'26	-2°-1'-39		4235 Feb 21 16:35	0°♄	
minimum elong	4234 Mar 16 06:00	25°♄32'22	2°01'28	superior conj	4235 Feb 25 05:54	5°♄54'19	-2°-7'-50
	4234 Mar 18 17:54	0°♄		minimum elong	4235 Feb 25 05:19	5°♄51'53	2°07'50
evening rise	4234 Mar 26 15:58	14°♄33'06		evening rise	4235 Mar 09 08:36	26°♄52'15	
asc. node	4234 Apr 02 04:47	26°♄27'32			4235 Mar 11 03:01	0°♄	
	4234 Apr 04 06:34	0°♄		asc. node	4235 Mar 20 01:48	15°♄13'26	

evening max el	4235 Mar 26 08:54	23° Υ 27'54	18°06'50		4236 Feb 14 06:23	0° H	
retrograde	4235 Apr 01 21:40	26° Υ 50'30		evening rise	4236 Feb 19 05:20	8° H 17'17	
evening set	4235 Apr 04 14:03	26° Υ 15'51			4236 Mar 03 12:25	0° Υ	
inferior conj	4235 Apr 11 01:22	21° Υ 10'40	3°20'45	asc. node	4236 Mar 05 22:50	3° Υ 22'18	
minimum elong	4235 Apr 11 03:28	21° Υ 05'20	3°20'28	evening max el	4236 Mar 08 21:41	6° Υ 47'51	18°18'05
min. Earth dist.	4235 Apr 14 02:20	18° Υ 08'13	0.61728 AU	retrograde	4236 Mar 15 08:09	10° Υ 15'08	
morning rise	4235 Apr 17 14:03	15° Υ 11'33		evening set	4236 Mar 18 06:26	9° Υ 29'05	
direct	4235 Apr 24 09:30	12° Υ 47'14		inferior conj	4236 Mar 24 06:58	4° Υ 04'27	3°35'17
desc. node	4235 Apr 25 23:04	12° Υ 54'23		minimum elong	4236 Mar 24 07:21	4° Υ 03'24	3°35'17
morning max el	4235 May 08 13:38	20° Υ 45'55	27°51'36	min. Earth dist.	4236 Mar 26 17:45	1° Υ 19'22	0.63743 AU
	4235 May 16 12:59	0° B			4236 Mar 27 23:52	30° R H	
	4235 Jun 04 10:29	0° II		morning rise	4236 Mar 30 06:25	27° H 55'36	
morning set	4235 Jun 10 19:40	12° II 28'08		direct	4236 Apr 06 02:52	25° H 11'40	
asc. node	4235 Jun 16 01:05	23° II 28'19		desc. node	4236 Apr 11 20:07	26° H 47'54	
max. Earth dist.	4235 Jun 16 15:21	24° II 45'29	1.32287 AU		4236 Apr 16 11:33	0° Υ	
				morning max el	4236 Apr 19 21:49	3° Υ 09'35	27°39'06
superior conj	4235 Jun 18 06:40	28° II 19'27	0°23'13		4236 May 09 22:53	0° B	
minimum elong	4235 Jun 18 05:37	28° II 13'42	0°23'00	morning set	4236 May 24 15:52	26° B 26'27	
	4235 Jun 19 01:03	0° B			4236 May 26 10:24	0° II	
evening rise	4235 Jun 25 04:28	13° B 21'02		max. Earth dist.	4236 May 29 18:18	6° II 52'50	1.33001 AU
	4235 Jul 03 13:17	0° Ω					
evening max el	4235 Jul 20 13:30	23° Ω 56'43	24°34'15	superior conj	4236 Jun 01 13:30	12° II 49'49	0°-3'-45
desc. node	4235 Jul 22 22:21	26° Ω 03'18		minimum elong	4236 Jun 01 13:41	12° II 50'48	0°03'44
	4235 Jul 29 10:38	0° H		behind sun begin	4236 Jun 01 08:28	12° II 22'50	
retrograde	4235 Aug 03 10:56	0° H 57'39		behind sun end	4236 Jun 01 18:54	13° II 18'48	
evening set	4235 Aug 08 13:17	29° Ω 59'20		asc. node	4236 Jun 01 22:08	13° II 36'09	
	4235 Aug 08 12:33	30° R Ω		evening rise	4236 Jun 08 16:11	28° II 07'04	
min. Earth dist.	4235 Aug 14 00:39	27° Ω 09'28	0.56857 AU		4236 Jun 09 13:38	0° B	
inferior conj	4235 Aug 16 18:39	25° Ω 23'35	-5°-10'-57		4236 Jun 27 03:28	0° Ω	
minimum elong	4235 Aug 16 17:10	25° Ω 25'58	5°10'55	evening max el	4236 Jul 01 02:44	4° Ω 21'30	22°57'35
morning rise	4235 Aug 25 00:37	21° Ω 19'12		desc. node	4236 Jul 08 19:21	9° Ω 47'49	
direct	4235 Aug 27 15:48	21° Ω 00'10		retrograde	4236 Jul 14 11:19	11° Ω 01'06	
morning max el	4235 Sep 06 01:39	25° Ω 24'11	19°27'04	evening set	4236 Jul 18 01:09	10° Ω 33'09	
	4235 Sep 10 03:18	0° H		min. Earth dist.	4236 Jul 25 11:33	7° Ω 13'40	0.55442 AU
asc. node	4235 Sep 12 00:19	2° H 36'54		inferior conj	4236 Jul 27 01:14	6° Ω 19'14	-4°-35'-21
morning set	4235 Sep 23 07:33	22° H 59'36		minimum elong	4236 Jul 26 18:00	6° Ω 29'44	4°34'01
	4235 Sep 26 19:10	0° B		morning rise	4236 Aug 04 13:33	2° Ω 27'59	
				direct	4236 Aug 07 12:50	2° Ω 07'11	
superior conj	4235 Oct 01 09:21	9° B 08'08	1°39'53	morning max el	4236 Aug 18 12:13	7° Ω 13'12	20°41'54
minimum elong	4235 Oct 01 11:05	9° B 16'39	1°39'47	asc. node	4236 Aug 28 21:23	21° Ω 01'53	
max. Earth dist.	4235 Oct 07 15:52	21° B 04'09	1.37897 AU		4236 Sep 02 18:46	0° H	
evening rise	4235 Oct 11 11:09	27° B 55'25		morning set	4236 Sep 06 14:24	7° H 40'21	
	4235 Oct 12 15:36	0° H					
desc. node	4235 Oct 18 21:42	10° H 30'42		superior conj	4236 Sep 14 03:14	23° H 15'52	1°44'09
	4235 Oct 31 19:17	0° H		minimum elong	4236 Sep 14 03:22	23° H 16'30	1°44'08
evening max el	4235 Nov 16 02:14	18° H 41'19	25°08'05		4236 Sep 17 11:28	0° B	
retrograde	4235 Nov 27 23:53	25° H 34'38		max. Earth dist.	4236 Sep 18 23:42	2° B 58'09	1.35973 AU
evening set	4235 Dec 03 16:50	23° H 12'43		evening rise	4236 Sep 23 01:05	10° B 41'37	
min. Earth dist.	4235 Dec 08 05:25	18° H 09'58	0.67390 AU		4236 Oct 04 05:05	0° H	
asc. node	4235 Dec 08 23:32	17° H 10'50		desc. node	4236 Oct 04 18:43	0° H 54'33	
inferior conj	4235 Dec 09 07:02	16° H 46'16	0°06'25		4236 Oct 26 06:08	0° H	
minimum elong	4235 Dec 09 06:53	16° H 46'48	0°06'21	evening max el	4236 Oct 28 14:51	2° H 24'11	26°14'18
transit middle	4235 Dec 09 06:53	16° H 46'48	0°06'21	retrograde	4236 Nov 10 07:33	9° H 34'10	
transit begin	4235 Dec 09 04:19	16° H 55'09		evening set	4236 Nov 16 14:13	7° H 00'29	
transit end	4235 Dec 09 09:26	16° H 38'27		min. Earth dist.	4236 Nov 20 19:38	2° H 33'25	0.66557 AU
morning rise	4235 Dec 14 21:34	10° H 46'10		inferior conj	4236 Nov 22 08:26	0° H 40'13	0°-51'-24
direct	4235 Dec 18 08:33	9° H 37'14		minimum elong	4236 Nov 22 09:50	0° H 35'57	0°50'49
morning max el	4235 Dec 25 15:11	13° H 42'53	19°34'56		4236 Nov 22 21:34	30° R H	
greatest brilliancy	4236 Jan 02 20:51	23° H 59'11	-0.6m	asc. node	4236 Nov 24 20:35	27° H 43'32	
	4236 Jan 07 00:28	0° B		morning rise	4236 Nov 28 06:36	24° H 49'48	
desc. node	4236 Jan 14 20:57	11° B 51'55		direct	4236 Dec 01 07:04	23° H 57'54	
morning set	4236 Jan 19 14:14	19° B 07'32		morning max el	4236 Dec 08 00:45	27° H 40'12	18°43'53
	4236 Jan 26 14:12	0° \approx			4236 Dec 10 03:42	0° H	
max. Earth dist.	4236 Feb 01 02:00	8° \approx 38'27	1.44493 AU	morning set	4236 Dec 29 04:57	28° H 21'50	
					4236 Dec 30 05:52	0° B	
superior conj	4236 Feb 05 07:38	15° \approx 23'42	-1°-56'-36	desc. node	4236 Dec 31 18:01	2° B 22'24	
minimum elong	4236 Feb 05 00:58	14° \approx 56'58	1°56'13	max. Earth dist.	4237 Jan 13 19:29	22° B 53'02	1.45206 AU

superior conj	4237 Jan 14 13:46	24°☾04'49	-1°-25'-52	evening rise	4238 Jan 10 02:57	28°☾22'44	
minimum elong	4237 Jan 14 04:32	23°☾28'34	1°24'54		4238 Jan 11 04:01	0°☾	
	4237 Jan 18 08:06	0°☾		greatest brilliancy	4238 Jan 26 15:56	23°☾34'59	-0.7m
evening rise	4237 Jan 30 03:05	18°☾45'07			4238 Jan 31 09:14	0°☾	
	4237 Feb 06 03:09	0°☾		evening max el	4238 Feb 03 16:06	3°☾47'10	19°33'35
evening max el	4237 Feb 20 08:49	20°☾15'48	18°47'26	asc. node	4238 Feb 07 16:55	7°☾02'51	
asc. node	4237 Feb 20 19:52	20°☾43'15		retrograde	4238 Feb 10 22:42	7°☾58'47	
retrograde	4237 Feb 27 01:34	23°☾59'58		evening set	4238 Feb 14 10:42	6°☾47'00	
evening set	4237 Mar 02 06:12	23°☾01'31		inferior conj	4238 Feb 19 23:07	0°☾48'55	3°15'10
inferior conj	4237 Mar 07 23:19	17°☾19'04	3°32'00	minimum elong	4238 Feb 19 21:06	0°☾55'33	3°14'49
minimum elong	4237 Mar 07 22:15	17°☾22'22	3°31'55		4238 Feb 20 13:59	30°☾	
min. Earth dist.	4237 Mar 09 18:23	15°☾06'34	0.65414 AU	min. Earth dist.	4238 Feb 21 03:14	29°☾16'34	0.66667 AU
morning rise	4237 Mar 13 13:08	11°☾05'21		morning rise	4238 Feb 25 06:47	24°☾33'10	
direct	4237 Mar 20 03:11	8°☾15'59		direct	4238 Mar 03 09:29	21°☾50'49	
desc. node	4237 Mar 29 17:11	12°☾42'28		morning max el	4238 Mar 15 17:14	29°☾11'23	25°44'15
morning max el	4237 Apr 02 07:41	16°☾01'49	26°53'58	desc. node	4238 Mar 16 14:15	0°☾05'28	
	4237 Apr 13 20:23	0°☾			4238 Mar 16 12:09	0°☾	
	4237 May 02 18:16	0°☾			4238 Apr 07 16:16	0°☾	
morning set	4237 May 08 01:51	9°☾51'04		morning set	4238 Apr 20 21:29	22°☾30'23	
max. Earth dist.	4237 May 12 11:32	18°☾29'56	1.34179 AU	max. Earth dist.	4238 Apr 24 17:37	29°☾40'58	1.35811 AU
					4238 Apr 24 21:36	0°☾	
superior conj	4237 May 16 14:52	26°☾59'20	0°-32'-32	superior conj	4238 Apr 30 08:10	10°☾40'48	-1°-1'-46
minimum elong	4237 May 16 16:35	27°☾08'18	0°32'13	minimum elong	4238 Apr 30 11:30	10°☾57'33	1°01'12
	4237 May 18 01:23	0°☾		asc. node	4238 May 06 16:14	23°☾37'12	
asc. node	4237 May 19 19:11	3°☾40'23		evening rise	4238 May 08 08:50	27°☾05'02	
evening rise	4237 May 24 02:21	12°☾43'50			4238 May 09 19:21	0°☾	
	4237 Jun 02 00:08	0°☾		evening max el	4238 May 26 04:24	26°☾04'06	20°05'56
evening max el	4237 Jun 12 21:51	14°☾55'32	21°24'28		4238 May 31 14:18	0°☾	
retrograde	4237 Jun 25 01:23	20°☾54'25		retrograde	4238 Jun 05 15:51	1°☾10'53	
desc. node	4237 Jun 25 16:23	20°☾53'30		evening set	4238 Jun 07 14:48	1°☾00'57	
evening set	4237 Jun 27 11:14	20°☾41'06			4238 Jun 11 01:17	30°☾	
inferior conj	4237 Jul 06 19:38	16°☾41'56	-3°-9'-35	desc. node	4238 Jun 12 13:25	29°☾19'03	
minimum elong	4237 Jul 06 11:31	16°☾53'17	3°07'04	inferior conj	4238 Jun 16 15:42	27°☾01'34	-1°-12'-57
min. Earth dist.	4237 Jul 06 22:14	16°☾38'18	0.54831 AU	minimum elong	4238 Jun 16 12:17	27°☾06'40	1°11'41
morning rise	4237 Jul 15 12:22	12°☾47'30		min. Earth dist.	4238 Jun 18 10:37	25°☾57'32	0.55180 AU
direct	4237 Jul 18 22:51	12°☾21'56		morning rise	4238 Jun 25 07:25	22°☾43'31	
morning max el	4237 Jul 31 11:16	18°☾16'59	22°15'13	direct	4238 Jun 29 10:45	22°☾06'18	
	4237 Aug 09 21:40	0°☾		morning max el	4238 Jul 13 02:53	28°☾48'45	23°58'18
asc. node	4237 Aug 15 18:27	10°☾01'52			4238 Jul 14 08:02	0°☾	
morning set	4237 Aug 22 00:35	22°☾30'31		asc. node	4238 Aug 02 15:30	29°☾27'57	
	4237 Aug 25 13:28	0°☾			4238 Aug 02 21:56	0°☾	
superior conj	4237 Aug 29 05:19	7°☾47'19	1°41'14	morning set	4238 Aug 06 12:15	7°☾24'37	
minimum elong	4237 Aug 29 04:10	7°☾41'13	1°41'11	superior conj	4238 Aug 13 12:47	22°☾33'56	1°32'19
max. Earth dist.	4237 Sep 01 15:26	14°☾55'30	1.34373 AU	minimum elong	4238 Aug 13 10:48	22°☾23'13	1°32'08
evening rise	4237 Sep 06 06:42	24°☾11'50		max. Earth dist.	4238 Aug 15 15:54	27°☾08'55	1.33174 AU
	4237 Sep 09 07:53	0°☾			4238 Aug 17 00:06	0°☾	
desc. node	4237 Sep 21 15:44	20°☾59'30		evening rise	4238 Aug 20 23:57	8°☾15'05	
	4237 Sep 27 18:39	0°☾			4238 Sep 01 18:51	0°☾	
evening max el	4237 Oct 11 03:33	15°☾59'15	27°02'28	desc. node	4238 Sep 08 12:43	10°☾37'24	
retrograde	4237 Oct 24 09:34	23°☾16'11		evening max el	4238 Sep 23 15:00	29°☾14'55	27°25'35
evening set	4237 Oct 31 04:18	20°☾36'10			4238 Sep 24 10:23	0°☾	
min. Earth dist.	4237 Nov 04 02:59	16°☾45'22	0.65372 AU	retrograde	4238 Oct 07 05:32	6°☾32'22	
inferior conj	4237 Nov 06 03:43	14°☾27'05	-1°-52'-24	evening set	4238 Oct 14 08:22	3°☾54'40	
minimum elong	4237 Nov 06 06:53	14°☾18'04	1°51'07	min. Earth dist.	4238 Oct 18 01:22	0°☾38'02	0.63837 AU
asc. node	4237 Nov 11 17:39	9°☾13'16			4238 Oct 18 16:26	30°☾	
morning rise	4237 Nov 12 11:15	8°☾49'33		inferior conj	4238 Oct 20 14:21	28°☾01'23	-2°-54'-14
direct	4237 Nov 15 03:27	8°☾10'51		minimum elong	4238 Oct 20 19:15	27°☾48'46	2°52'30
morning max el	4237 Nov 21 15:17	11°☾39'59	18°09'21	morning rise	4238 Oct 27 08:35	22°☾40'00	
	4237 Dec 04 11:59	0°☾		direct	4238 Oct 29 18:55	22°☾10'50	
morning set	4237 Dec 10 00:54	9°☾04'23		asc. node	4238 Oct 29 14:43	22°☾10'59	
desc. node	4237 Dec 18 15:03	23°☾02'00		morning max el	4238 Nov 05 07:58	25°☾35'52	17°52'00
	4237 Dec 22 23:44	0°☾			4238 Nov 09 00:39	0°☾	
superior conj	4237 Dec 24 18:02	2°☾47'32	0°-41'-13	morning set	4238 Nov 21 23:54	21°☾05'33	
minimum elong	4237 Dec 24 12:51	2°☾27'04	0°40'32		4238 Nov 27 04:55	0°☾	
max. Earth dist.	4237 Dec 27 15:09	7°☾19'56	1.45171 AU				

superior conj	4238 Dec 04 16:07	12°♂25'50	0°05'47	superior conj	4239 Nov 15 16:42	23°♂22'23	0°45'45
minimum elong	4238 Dec 04 16:45	12°♂28'25	0°05'41	minimum elong	4239 Nov 15 20:26	23°♂38'23	0°45'15
behind sun begin	4238 Dec 04 07:28	11°♂50'27			4239 Nov 19 14:39	0°♂	
behind sun end	4238 Dec 05 02:02	13°♂06'18		desc. node	4239 Nov 22 09:03	4°♂34'40	
desc. node	4238 Dec 05 12:02	13°♂47'05		max. Earth dist.	4239 Nov 22 23:40	5°♂34'26	1.43021 AU
max. Earth dist.	4238 Dec 10 09:26	21°♂39'26	1.44410 AU	evening rise	4239 Nov 30 02:35	16°♂56'58	
	4238 Dec 15 16:29	0°♂			4239 Dec 08 15:20	0°♂	
evening rise	4238 Dec 20 13:33	7°♂33'23		greatest brilliancy	4239 Dec 26 19:50	25°♂26'41	-0.4m
	4239 Jan 04 11:57	0°♂			4239 Dec 30 18:19	0°♂	
greatest brilliancy	4239 Jan 11 21:45	10°♂21'11	-0.5m	evening max el	4239 Dec 31 14:42	0°♂53'06	21°46'29
evening max el	4239 Jan 17 18:08	17°♂19'14	20°34'24	retrograde	4240 Jan 09 18:12	6°♂19'24	
retrograde	4239 Jan 25 20:55	22°♂06'13		asc. node	4240 Jan 12 10:59	5°♂40'10	
asc. node	4239 Jan 25 13:57	22°♂05'45		evening set	4240 Jan 14 01:32	4°♂37'54	
evening set	4239 Jan 29 17:44	20°♂40'05			4240 Jan 18 05:07	30°♂	
inferior conj	4239 Feb 04 03:42	14°♂29'13	2°47'38	inferior conj	4240 Jan 19 10:54	28°♂17'36	2°11'21
minimum elong	4239 Feb 04 01:15	14°♂37'34	2°47'00	minimum elong	4240 Jan 19 08:31	28°♂25'50	2°10'35
min. Earth dist.	4239 Feb 04 18:21	13°♂39'05	0.67504 AU	min. Earth dist.	4240 Jan 19 13:30	28°♂08'31	0.67948 AU
morning rise	4239 Feb 09 08:19	8°♂13'24		morning rise	4240 Jan 24 15:15	22°♂03'34	
direct	4239 Feb 14 21:04	5°♂46'58		direct	4240 Jan 29 13:11	19°♂58'11	
morning max el	4239 Feb 26 01:53	12°♂28'30	24°19'36	morning max el	4240 Feb 08 11:31	25°♂51'06	22°50'21
desc. node	4239 Mar 03 11:16	18°♂31'00			4240 Feb 12 06:14	0°♂	
	4239 Mar 12 04:16	0°♂		greatest brilliancy	4240 Feb 13 03:45	1°♂04'05	-0.3m
	4239 Mar 31 11:29	0°♂		desc. node	4240 Feb 18 08:18	7°♂41'40	
morning set	4239 Apr 02 21:11	4°♂08'13			4240 Mar 04 17:18	0°♂	
max. Earth dist.	4239 Apr 06 14:39	10°♂44'34	1.37813 AU	morning set	4240 Mar 13 18:55	14°♂29'14	
				max. Earth dist.	4240 Mar 18 09:41	22°♂15'28	1.39999 AU
superior conj	4239 Apr 13 13:57	23°♂44'20	-1°-29'-23		4240 Mar 22 20:06	0°♂	
minimum elong	4239 Apr 13 18:31	24°♂06'18	1°28'46	superior conj	4240 Mar 26 04:04	6°♂00'08	-1°-52'-16
	4239 Apr 16 19:14	0°♂		minimum elong	4240 Mar 26 08:40	6°♂21'09	1°51'54
evening rise	4239 Apr 22 09:03	11°♂02'19		evening rise	4240 Apr 05 00:00	24°♂28'03	
asc. node	4239 Apr 23 13:15	13°♂21'19			4240 Apr 07 22:09	0°♂	
	4239 May 02 18:24	0°♂		asc. node	4240 Apr 09 10:15	2°♂47'47	
evening max el	4239 May 08 22:58	7°♂54'08	19°06'47	evening max el	4240 Apr 21 02:57	20°♂20'48	18°27'56
retrograde	4239 May 17 18:40	12°♂12'15		retrograde	4240 Apr 28 15:56	24°♂04'19	
evening set	4239 May 19 19:16	11°♂59'35		evening set	4240 Apr 30 22:44	23°♂44'51	
inferior conj	4239 May 28 02:42	7°♂47'11	0°40'27	inferior conj	4240 May 08 10:46	19°♂12'47	2°07'11
minimum elong	4239 May 28 04:19	7°♂44'25	0°39'52	minimum elong	4240 May 08 14:22	19°♂05'33	2°06'08
desc. node	4239 May 30 10:27	6°♂11'45		min. Earth dist.	4240 May 11 21:06	16°♂29'16	0.58310 AU
min. Earth dist.	4239 May 31 01:51	5°♂46'06	0.56425 AU	morning rise	4240 May 16 01:37	13°♂46'35	
morning rise	4239 Jun 05 09:02	2°♂53'44		desc. node	4240 May 16 07:29	13°♂39'15	
direct	4239 Jun 10 11:01	1°♂53'18		direct	4240 May 22 01:42	12°♂13'11	
morning max el	4239 Jun 24 17:05	9°♂12'30	25°37'03	morning max el	4240 Jun 05 11:02	19°♂55'05	26°55'39
	4239 Jul 10 07:52	0°♂			4240 Jun 14 01:43	0°♂	
asc. node	4239 Jul 20 12:32	19°♂12'29		morning set	4240 Jul 01 23:03	0°♂	
morning set	4239 Jul 21 23:46	22°♂17'06		asc. node	4240 Jul 05 09:31	7°♂02'41	
	4239 Jul 25 13:42	0°♂			4240 Jul 06 09:32	9°♂09'43	
superior conj	4239 Jul 28 23:21	7°♂28'04	1°18'17	superior conj	4240 Jul 12 11:08	22°♂23'18	0°59'50
minimum elong	4239 Jul 28 21:02	7°♂15'19	1°17'58	minimum elong	4240 Jul 12 08:57	22°♂11'14	0°59'27
max. Earth dist.	4239 Jul 29 23:13	9°♂38'53	1.32394 AU	max. Earth dist.	4240 Jul 12 10:16	22°♂18'34	1.32031 AU
evening rise	4239 Aug 05 01:28	22°♂41'27			4240 Jul 15 22:10	0°♂	
	4239 Aug 08 16:22	0°♂		evening rise	4240 Jul 19 08:34	7°♂22'39	
desc. node	4239 Aug 26 09:44	29°♂37'00			4240 Jul 31 04:24	0°♂	
	4239 Aug 26 16:28	0°♂		desc. node	4240 Aug 12 06:45	17°♂42'12	
evening max el	4239 Sep 05 23:07	11°♂58'42	27°18'07	evening max el	4240 Aug 18 01:29	23°♂59'10	26°37'11
retrograde	4239 Sep 19 18:57	19°♂13'13			4240 Aug 26 16:00	0°♂	
evening set	4239 Sep 26 22:53	16°♂49'41		retrograde	4240 Sep 01 00:15	1°♂09'15	
min. Earth dist.	4239 Sep 30 13:31	14°♂00'13	0.61992 AU		4240 Sep 06 05:24	30°♂	
inferior conj	4239 Oct 03 13:23	11°♂16'02	-3°-53'00	evening set	4240 Sep 07 19:10	29°♂12'50	
minimum elong	4239 Oct 03 19:22	11°♂02'20	3°51'21	min. Earth dist.	4240 Sep 11 15:17	26°♂37'26	0.59954 AU
morning rise	4239 Oct 10 18:52	6°♂14'01		inferior conj	4240 Sep 14 21:20	24°♂01'29	-4°-42'00
direct	4239 Oct 13 02:13	5°♂50'58		minimum elong	4240 Sep 15 02:41	23°♂50'43	4°41'04
asc. node	4239 Oct 16 11:45	6°♂42'43		morning rise	4240 Sep 22 13:35	19°♂21'30	
morning max el	4239 Oct 19 23:41	9°♂20'22	17°52'46	direct	4240 Sep 24 21:23	19°♂01'37	
	4239 Nov 02 13:00	0°♂		asc. node	4240 Oct 02 08:47	22°♂38'20	
morning set	4239 Nov 04 19:43	4°♂06'33		morning max el	4240 Oct 02 11:08	22°♂44'00	18°12'50

	4240 Oct 08 04:41	0°♄		morning max el	4241 Sep 15 15:02	5°♄37'53	18°53'41
morning set	4240 Oct 18 06:20	17°♄49'24		asc. node	4241 Sep 19 05:49	9°♄43'27	
	4240 Oct 24 17:52	0°♄			4241 Oct 01 02:24	0°♄	
				morning set	4241 Oct 02 03:17	2°♄01'47	
superior conj	4240 Oct 27 18:07	5°♄30'51	1°15'04				
minimum elong	4240 Oct 27 22:04	5°♄48'46	1°14'38	superior conj	4241 Oct 10 15:14	18°♄37'10	1°33'36
max. Earth dist.	4240 Nov 04 08:57	18°♄52'22	1.41175 AU	minimum elong	4241 Oct 10 17:56	18°♄50'00	1°33'23
desc. node	4240 Nov 08 06:04	25°♄20'47			4241 Oct 16 18:36	0°♄	
evening rise	4240 Nov 09 08:17	27°♄07'52		max. Earth dist.	4241 Oct 17 14:25	1°♄28'41	1.39103 AU
	4240 Nov 11 02:55	0°♄		evening rise	4241 Oct 21 12:57	8°♄21'29	
	4240 Dec 01 08:14	0°♄		desc. node	4241 Oct 26 03:05	16°♄01'46	
greatest brilliancy	4240 Dec 07 08:13	7°♄47'16	-0.2m		4241 Nov 04 01:38	0°♄	
evening max el	4240 Dec 13 06:47	14°♄29'47	23°05'15	evening max el	4241 Nov 25 20:06	28°♄10'02	24°24'41
retrograde	4240 Dec 23 12:57	20°♄34'26			4241 Nov 27 18:51	0°♄	
evening set	4240 Dec 28 08:31	18°♄36'49		retrograde	4241 Dec 07 04:02	4°♄47'38	
asc. node	4240 Dec 29 08:00	17°♄43'18		evening set	4241 Dec 12 13:07	2°♄33'59	
inferior conj	4241 Jan 02 18:46	12°♄10'51	1°27'41		4241 Dec 15 01:16	30°♄	
minimum elong	4241 Jan 02 16:55	12°♄17'15	1°26'59	asc. node	4241 Dec 16 05:03	28°♄34'00	
min. Earth dist.	4241 Jan 02 10:13	12°♄40'21	0.68018 AU	min. Earth dist.	4241 Dec 17 06:11	27°♄11'31	0.67727 AU
morning rise	4241 Jan 08 01:20	6°♄00'38		inferior conj	4241 Dec 18 01:34	26°♄06'35	0°37'40
direct	4241 Jan 12 08:47	4°♄18'10		minimum elong	4241 Dec 18 00:40	26°♄09'35	0°37'18
morning max el	4241 Jan 21 01:51	9°♄22'13	21°25'28	morning rise	4241 Dec 23 12:36	20°♄02'17	
greatest brilliancy	4241 Jan 26 02:37	15°♄05'18	-0.4m	direct	4241 Dec 27 06:37	18°♄41'51	
desc. node	4241 Feb 04 05:20	27°♄24'36		morning max el	4242 Jan 03 23:44	23°♄05'15	20°11'17
	4241 Feb 06 00:30	0°♄			4242 Jan 09 20:38	0°♄	
morning set	4241 Feb 21 11:52	23°♄29'02		greatest brilliancy	4242 Jan 10 16:04	1°♄04'20	-0.6m
	4241 Feb 25 13:36	0°♄		desc. node	4242 Jan 22 02:22	17°♄30'54	
max. Earth dist.	4241 Feb 28 10:22	4°♄40'43	1.42083 AU		4242 Jan 30 07:25	0°♄	
				morning set	4242 Jan 31 09:28	1°♄40'24	
superior conj	4241 Mar 07 21:34	17°♄16'44	-2°-6'-5	max. Earth dist.	4242 Feb 10 19:10	18°♄01'25	1.43781 AU
minimum elong	4241 Mar 07 23:47	17°♄26'17	2°06'03				
	4241 Mar 15 02:18	0°♄		superior conj	4242 Feb 16 14:02	27°♄24'43	-2°-5'-26
evening rise	4241 Mar 19 01:57	7°♄13'43		minimum elong	4242 Feb 16 10:52	27°♄11'42	2°05'22
asc. node	4241 Mar 27 07:17	21°♄50'32			4242 Feb 18 03:41	0°♄	
	4241 Apr 01 16:54	0°♄		evening rise	4242 Mar 01 10:37	19°♄10'39	
evening max el	4241 Apr 04 12:53	3°♄14'58	18°08'59		4242 Mar 07 17:11	0°♄	
retrograde	4241 Apr 11 07:06	6°♄40'34		asc. node	4242 Mar 14 04:20	10°♄21'46	
evening set	4241 Apr 13 20:15	6°♄11'47		evening max el	4242 Mar 19 01:26	16°♄27'24	18°09'20
inferior conj	4241 Apr 20 15:27	1°♄18'21	3°02'01	retrograde	4242 Mar 25 12:00	19°♄50'26	
minimum elong	4241 Apr 20 18:27	1°♄11'20	3°01'26	evening set	4242 Mar 28 06:56	19°♄10'56	
	4241 Apr 22 00:53	30°♄		inferior conj	4242 Apr 03 13:10	13°♄56'58	3°29'27
min. Earth dist.	4241 Apr 23 22:28	28°♄15'52	0.60480 AU	minimum elong	4242 Apr 03 14:33	13°♄53'20	3°29'20
morning rise	4241 Apr 27 13:14	25°♄28'44		min. Earth dist.	4242 Apr 06 08:21	10°♄59'54	0.62617 AU
desc. node	4241 May 03 04:30	23°♄24'05		morning rise	4242 Apr 09 19:48	7°♄53'01	
direct	4241 May 04 04:22	23°♄21'17		direct	4242 Apr 16 16:37	5°♄19'03	
	4241 May 17 03:50	0°♄		desc. node	4242 Apr 20 01:34	5°♄52'26	
morning max el	4241 May 18 11:18	1°♄15'22	27°42'03	morning max el	4242 Apr 30 17:24	13°♄17'57	27°50'51
	4241 Jun 08 06:41	0°♄			4242 May 14 02:22	0°♄	
morning set	4241 Jun 19 15:45	21°♄35'49			4242 May 31 17:54	0°♄	
asc. node	4241 Jun 23 06:34	29°♄14'45		morning set	4242 Jun 03 16:19	5°♄48'51	
	4241 Jun 23 14:57	0°♄		max. Earth dist.	4242 Jun 09 04:44	17°♄19'33	1.32536 AU
max. Earth dist.	4241 Jun 25 21:29	4°♄56'57	1.32074 AU	asc. node	4242 Jun 10 03:36	19°♄22'28	
superior conj	4241 Jun 26 22:24	7°♄13'49	0°37'34	superior conj	4242 Jun 11 07:22	21°♄52'43	0°12'06
minimum elong	4241 Jun 26 20:49	7°♄05'03	0°37'14	minimum elong	4242 Jun 11 06:47	21°♄49'36	0°11'57
evening rise	4241 Jul 03 19:01	22°♄11'22		behind sun begin	4242 Jun 11 03:20	21°♄30'49	
	4241 Jul 07 13:29	0°♄		behind sun end	4242 Jun 11 10:15	22°♄08'25	
	4241 Jul 26 01:13	0°♄			4242 Jun 15 00:51	0°♄	
desc. node	4241 Jul 30 03:46	4°♄31'04		evening rise	4242 Jun 18 06:48	6°♄59'51	
evening max el	4241 Jul 30 20:26	5°♄11'39	25°25'37		4242 Jun 30 08:34	0°♄	
retrograde	4241 Aug 13 19:29	12°♄16'42		evening max el	4242 Jul 12 09:39	15°♄44'46	23°53'36
evening set	4241 Aug 19 16:33	10°♄56'39		desc. node	4242 Jul 17 00:48	19°♄32'41	
min. Earth dist.	4241 Aug 24 08:16	8°♄17'33	0.57923 AU	retrograde	4242 Jul 26 02:58	22°♄38'52	
inferior conj	4241 Aug 27 10:51	6°♄08'27	-5°-10'-9	evening set	4242 Jul 30 14:10	21°♄54'52	
minimum elong	4241 Aug 27 12:42	6°♄05'12	5°10'04	min. Earth dist.	4242 Aug 05 19:54	18°♄54'13	0.56178 AU
morning rise	4241 Sep 04 12:21	1°♄51'44		inferior conj	4242 Aug 08 04:01	17°♄28'49	-5°-2'-4
direct	4241 Sep 07 00:12	1°♄32'44		minimum elong	4242 Aug 07 23:51	17°♄35'12	5°01'41

morning rise	4242 Aug 16 12:55	13°♊31'53			4243 Jul 15 17:44	30°♋☿	
direct	4242 Aug 19 07:27	13°♊12'16		min. Earth dist.	4243 Jul 18 06:24	28°♋37'30	0.55067 AU
morning max el	4242 Aug 29 08:26	17°♊52'11	19°56'23	inferior conj	4243 Jul 19 03:59	28°♋07'02	-4°-4'-33
asc. node	4242 Sep 06 02:52	27°♊42'37		minimum elong	4243 Jul 18 19:32	28°♋18'58	4°02'31
	4242 Sep 07 12:40	0°♎		morning rise	4243 Jul 27 18:35	24°♋17'02	
morning set	4242 Sep 16 07:15	16°♎34'02		direct	4243 Jul 30 21:51	23°♋54'56	
	4242 Sep 22 21:41	0°♏		morning max el	4243 Aug 11 13:57	29°♋21'25	21°19'49
					4243 Aug 12 06:09	0°♏	
superior conj	4242 Sep 24 02:49	2°♏26'08	1°42'38	asc. node	4243 Aug 23 23:55	16°♏23'11	
minimum elong	4242 Sep 24 03:51	2°♏31'16	1°42'36		4243 Aug 31 00:25	0°♎	
max. Earth dist.	4242 Sep 29 19:39	13°♏31'12	1.37050 AU	morning set	4243 Aug 31 15:42	1°♎19'01	
evening rise	4242 Oct 03 15:44	20°♏36'02					
	4242 Oct 09 00:52	0°♐		superior conj	4243 Sep 08 00:35	16°♐45'03	1°43'42
desc. node	4242 Oct 13 00:06	6°♐33'15		minimum elong	4243 Sep 08 00:06	16°♐42'38	1°43'42
	4242 Oct 29 01:39	0°♑		max. Earth dist.	4243 Sep 12 06:07	25°♐22'26	1.35240 AU
evening max el	4242 Nov 08 08:27	11°♑52'32	25°37'53		4243 Sep 14 14:31	0°♏	
retrograde	4242 Nov 20 14:41	18°♑54'11		evening rise	4243 Sep 16 12:49	3°♏41'58	
evening set	4242 Nov 26 13:43	16°♑26'27		desc. node	4243 Sep 29 21:08	26°♏49'47	
min. Earth dist.	4242 Nov 30 23:06	11°♑39'03	0.67083 AU		4243 Oct 01 22:04	0°♐	
inferior conj	4242 Dec 02 05:30	10°♑02'04	0°-17'-38	evening max el	4243 Oct 21 20:57	25°♐32'29	26°37'25
minimum elong	4242 Dec 02 05:57	10°♑00'37	0°17'26		4243 Oct 27 06:12	0°♑	
asc. node	4242 Dec 03 02:07	8°♑56'48		retrograde	4243 Nov 03 20:12	2°♑47'22	
morning rise	4242 Dec 07 23:05	4°♑06'04		evening set	4243 Nov 10 08:18	0°♑09'53	
direct	4242 Dec 11 05:19	3°♑04'56			4243 Nov 10 13:04	30°♐♐	
morning max el	4242 Dec 18 05:33	6°♑59'04	19°11'16	min. Earth dist.	4243 Nov 14 10:40	25°♐58'23	0.66092 AU
greatest brilliancy	4242 Dec 28 12:40	20°♑24'07	-0.7m	inferior conj	4243 Nov 16 04:34	23°♐53'31	-1°-17'-2
	4243 Jan 03 20:46	0°♒		minimum elong	4243 Nov 16 06:42	23°♐47'10	1°16'08
desc. node	4243 Jan 08 23:24	7°♒54'04		asc. node	4243 Nov 19 23:11	19°♐48'07	
morning set	4243 Jan 10 11:25	10°♒13'53		morning rise	4243 Nov 22 06:33	18°♐08'21	
	4243 Jan 23 03:20	0°♓		direct	4243 Nov 25 03:06	17°♐22'43	
max. Earth dist.	4243 Jan 24 10:13	2°♓01'30	1.44882 AU	morning max el	4243 Dec 01 17:36	20°♐58'31	18°27'06
					4243 Dec 08 19:14	0°♑	
superior conj	4243 Jan 27 05:57	6°♓29'10	-1°-45'-49	morning set	4243 Dec 21 14:07	20°♑04'40	
minimum elong	4243 Jan 26 21:24	5°♓55'17	1°45'08	desc. node	4243 Dec 26 20:24	28°♑28'39	
evening rise	4243 Feb 10 21:53	0°♈12'08			4243 Dec 27 19:24	0°♒	
	4243 Feb 10 18:56	0°♈					
asc. node	4243 Mar 01 01:24	28°♈12'05		superior conj	4244 Jan 06 08:39	15°♒03'49	-1°-7'-59
evening max el	4243 Mar 02 13:46	29°♈51'25	18°28'22	minimum elong	4244 Jan 06 00:30	14°♒31'50	1°07'01
	4243 Mar 02 17:12	0°♉		max. Earth dist.	4244 Jan 07 04:32	16°♒21'48	1.45278 AU
retrograde	4243 Mar 09 02:03	3°♉24'53			4244 Jan 15 21:14	0°♓	
evening set	4243 Mar 12 02:52	2°♉33'44		evening rise	4244 Jan 22 09:46	10°♓16'26	
	4243 Mar 15 07:36	30°♐♈		greatest brilliancy	4244 Feb 03 12:53	29°♓18'16	-0.7m
inferior conj	4243 Mar 17 23:51	27°♈01'06	3°35'48		4244 Feb 03 23:51	0°♈	
minimum elong	4243 Mar 17 23:34	27°♈01'57	3°35'47	evening max el	4244 Feb 13 23:26	13°♈20'50	19°05'08
min. Earth dist.	4243 Mar 20 03:54	24°♈28'29	0.64496 AU	asc. node	4244 Feb 15 22:28	15°♈08'34	
morning rise	4243 Mar 23 18:44	20°♈49'25		retrograde	4244 Feb 20 21:25	17°♈15'49	
direct	4243 Mar 30 13:01	18°♈01'39		evening set	4244 Feb 24 04:55	16°♈12'01	
desc. node	4243 Apr 06 22:36	20°♈41'59		inferior conj	4244 Feb 29 19:44	10°♈22'44	3°26'18
morning max el	4243 Apr 13 02:55	25°♈56'30	27°23'33	minimum elong	4244 Feb 29 18:12	10°♈27'37	3°26'07
	4243 Apr 16 20:52	0°♉		min. Earth dist.	4244 Mar 02 08:22	8°♈26'27	0.65998 AU
	4243 May 07 15:20	0°♊		morning rise	4244 Mar 06 06:31	4°♈07'38	
morning set	4243 May 18 08:37	19°♊34'11		direct	4244 Mar 12 16:11	1°♈19'38	
max. Earth dist.	4243 May 23 04:04	29°♊15'11	1.33445 AU	desc. node	4244 Mar 23 19:38	7°♈17'20	
	4243 May 23 12:44	0°♋		morning max el	4244 Mar 25 12:51	8°♈57'21	26°26'39
					4244 Apr 11 00:57	0°♉	
superior conj	4243 May 26 12:08	6°♋14'41	0°-15'-48		4244 Apr 29 02:30	0°♊	
minimum elong	4243 May 26 12:56	6°♋18'59	0°15'40	morning set	4244 Apr 30 13:03	2°♊41'02	
behind sun begin	4243 May 26 11:51	6°♋13'12		max. Earth dist.	4244 May 04 16:12	10°♊38'00	1.34816 AU
behind sun end	4243 May 26 14:02	6°♋24'46					
asc. node	4243 May 28 00:39	9°♋29'09		superior conj	4244 May 09 10:23	20°♊12'54	0°-45'-1
evening rise	4243 Jun 02 18:06	21°♋42'26		minimum elong	4244 May 09 12:48	20°♊25'19	0°44'33
	4243 Jun 06 19:05	0°♌		asc. node	4244 May 13 21:43	29°♊30'39	
evening max el	4243 Jun 24 00:11	26°♌08'16	22°16'39		4244 May 14 03:20	0°♋	
	4243 Jun 28 19:35	0°♍		evening rise	4244 May 17 02:55	6°♋12'49	
desc. node	4243 Jul 03 21:49	2°♍12'18			4244 May 30 06:03	0°♌	
retrograde	4243 Jul 06 22:38	2°♍33'36		evening max el	4244 Jun 04 23:51	6°♌55'11	20°48'55
evening set	4243 Jul 09 22:33	2°♍13'43		retrograde	4244 Jun 16 11:20	12°♌32'17	

evening set	4244 Jun 18 14:12	12°☿21'33		evening set	4245 May 30 04:08	22°♄55'22	
desc. node	4244 Jun 19 18:50	12°☿06'32		desc. node	4245 Jun 06 15:52	19°♄39'16	
inferior conj	4244 Jun 27 21:14	8°☿24'34	-2°-21'-56	inferior conj	4245 Jun 07 22:19	18°♄51'55	0°-22'-33
minimum elong	4244 Jun 27 14:42	8°☿33'53	2°19'40	minimum elong	4245 Jun 07 21:18	18°♄53'30	0°22'11
min. Earth dist.	4244 Jun 28 18:01	7°☿54'59	0.54855 AU	min. Earth dist.	4245 Jun 10 07:23	17°♄22'33	0.55613 AU
morning rise	4244 Jul 06 14:22	4°☿21'54		morning rise	4245 Jun 16 11:03	14°♄19'38	
direct	4244 Jul 10 07:08	3°☿52'26		direct	4245 Jun 20 23:56	13°♄33'46	
morning max el	4244 Jul 23 09:11	10°☿09'23	22°58'39	morning max el	4245 Jul 04 23:10	20°♄33'18	24°41'50
	4244 Aug 06 20:38	0°♄			4245 Jul 13 01:37	0°☿	
asc. node	4244 Aug 09 20:58	5°♄35'11		asc. node	4245 Jul 27 17:59	25°☿09'46	
morning set	4244 Aug 15 02:42	16°♄11'25			4245 Jul 30 02:08	0°♄	
	4244 Aug 21 13:32	0°♄		morning set	4245 Jul 30 14:29	1°♄05'10	
superior conj	4244 Aug 22 05:15	1°♄24'08	1°38'08	superior conj	4245 Aug 06 14:15	16°♄14'28	1°26'57
minimum elong	4244 Aug 22 03:41	1°♄15'47	1°38'02	minimum elong	4245 Aug 06 12:04	16°♄02'33	1°26'42
max. Earth dist.	4244 Aug 25 01:27	7°♄25'02	1.33806 AU	max. Earth dist.	4245 Aug 08 05:16	19°♄46'29	1.32791 AU
evening rise	4244 Aug 29 23:52	17°♄28'00			4245 Aug 13 01:05	0°♄	
	4244 Sep 05 15:30	0°♄		evening rise	4245 Aug 13 21:00	1°♄42'14	
desc. node	4244 Sep 15 18:09	16°♄44'40			4245 Aug 29 13:12	0°♄	
	4244 Sep 25 06:43	0°♄		desc. node	4245 Sep 02 15:09	6°♄07'49	
evening max el	4244 Oct 03 09:24	9°♄01'34	27°15'51	evening max el	4245 Sep 15 20:00	22°♄05'59	27°26'31
retrograde	4244 Oct 16 19:56	16°♄19'48		retrograde	4245 Sep 29 13:01	29°♄21'39	
evening set	4244 Oct 23 18:32	13°♄39'45		evening set	4245 Oct 06 17:17	26°♄48'47	
min. Earth dist.	4244 Oct 27 14:38	10°♄03'40	0.64754 AU	min. Earth dist.	4245 Oct 10 08:51	23°♄44'40	0.63086 AU
inferior conj	4244 Oct 29 20:32	7°♄36'33	-2°-18'-41	inferior conj	4245 Oct 13 02:37	21°♄03'34	-3°-19'-50
minimum elong	4244 Oct 30 00:28	7°♄25'47	2°17'11	minimum elong	4245 Oct 13 08:06	20°♄50'05	3°18'04
morning rise	4244 Nov 05 08:29	2°♄05'16		morning rise	4245 Oct 20 01:35	15°♄49'41	
asc. node	4244 Nov 05 20:12	1°♄53'33		direct	4245 Oct 22 10:20	15°♄23'23	
direct	4244 Nov 07 21:46	1°♄31'08		asc. node	4245 Oct 23 17:12	15°♄31'21	
morning max el	4244 Nov 14 09:24	4°♄57'50	17°59'46	morning max el	4245 Oct 29 01:58	18°♄49'17	17°50'02
	4244 Dec 01 02:23	0°♄			4245 Nov 06 05:37	0°♄	
morning set	4244 Dec 01 22:22	1°♄23'36		morning set	4245 Nov 14 07:03	13°♄52'51	
desc. node	4244 Dec 12 17:26	19°♄11'15			4245 Nov 23 14:38	0°♄	
superior conj	4244 Dec 15 18:42	24°♄05'51	0°-20'-55	superior conj	4245 Nov 26 03:42	4°♄16'20	0°23'54
minimum elong	4244 Dec 15 16:09	23°♄55'37	0°20'34	minimum elong	4245 Nov 26 06:04	4°♄26'10	0°23'35
	4244 Dec 19 11:48	0°☿		desc. node	4245 Nov 29 14:27	9°♄57'43	
max. Earth dist.	4244 Dec 19 23:40	0°☿46'48	1.44937 AU	max. Earth dist.	4245 Dec 02 16:54	14°♄59'18	1.43895 AU
evening rise	4245 Jan 01 02:27	19°☿38'48		evening rise	4245 Dec 11 12:07	28°♄50'28	
	4245 Jan 07 20:29	0°☿			4245 Dec 12 06:10	0°☿	
greatest brilliancy	4245 Jan 20 06:45	18°☿21'07	-0.6m		4246 Jan 01 15:49	0°☿	
evening max el	4245 Jan 27 04:41	26°☿53'03	19°57'51	greatest brilliancy	4246 Jan 04 22:15	4°☿19'04	-0.4m
	4245 Jan 30 21:10	0°☿		evening max el	4246 Jan 10 04:28	10°☿26'27	21°03'54
asc. node	4245 Feb 01 19:29	0°☿57'22		retrograde	4246 Jan 18 17:06	15°☿29'18	
retrograde	4245 Feb 03 19:09	1°☿18'37		asc. node	4246 Jan 19 16:29	15°☿24'08	
evening set	4245 Feb 07 10:42	0°☿00'57		evening set	4246 Jan 22 18:17	13°☿56'36	
	4245 Feb 07 11:14	30°☿		inferior conj	4246 Jan 28 03:48	7°☿41'25	2°33'12
inferior conj	4245 Feb 12 21:52	23°☿57'21	3°04'37	minimum elong	4246 Jan 28 01:20	7°☿49'56	2°32'30
minimum elong	4245 Feb 12 19:36	24°☿04'55	3°04'09	min. Earth dist.	4246 Jan 28 13:10	7°☿09'08	0.67749 AU
min. Earth dist.	4245 Feb 13 20:09	22°☿42'41	0.67083 AU	morning rise	4246 Feb 02 08:01	1°☿26'24	
morning rise	4245 Feb 18 03:53	17°☿41'24			4246 Feb 04 08:23	30°☿☿	
direct	4245 Feb 24 01:00	15°☿04'39		direct	4246 Feb 07 14:35	29°☿08'32	
morning max el	4245 Mar 07 21:40	22°☿09'52	25°09'15		4246 Feb 11 03:21	0°☿	
desc. node	4245 Mar 10 16:40	25°☿09'12		morning max el	4246 Feb 18 06:20	5°☿29'13	23°41'37
	4245 Mar 14 18:16	0°☿		desc. node	4246 Feb 25 13:42	13°☿55'49	
	4245 Apr 04 07:50	0°☿			4246 Mar 09 04:21	0°☿	
morning set	4245 Apr 13 00:54	14°☿55'47		morning set	4246 Mar 25 14:16	26°☿02'43	
max. Earth dist.	4245 Apr 16 17:25	21°☿40'18	1.36627 AU		4246 Mar 27 21:26	0°☿	
	4245 Apr 21 02:25	0°☿		max. Earth dist.	4246 Mar 29 13:06	2°☿53'38	1.38742 AU
superior conj	4245 Apr 22 23:14	3°☿39'24	-1°-13'-52	superior conj	4246 Apr 05 22:59	16°☿24'35	-1°-39'-54
minimum elong	4245 Apr 23 03:10	3°☿58'52	1°13'14	minimum elong	4246 Apr 06 03:47	16°☿47'09	1°39'21
asc. node	4245 Apr 30 18:45	19°☿22'32			4246 Apr 13 00:32	0°☿	
evening rise	4245 May 01 07:01	20°☿24'23		evening rise	4246 Apr 15 03:45	4°☿09'48	
	4245 May 06 04:13	0°♄		asc. node	4246 Apr 17 15:47	9°☿00'08	
evening max el	4245 May 18 11:47	18°♄21'43	19°38'20		4246 Apr 30 23:24	0°♄	
retrograde	4245 May 28 05:18	23°♄05'57		evening max el	4246 May 01 10:46	0°♄28'27	18°47'44

retrograde	4246 May 09 15:51	4°♄29'56		asc. node	4247 Apr 04 12:49	28°♄17'26	
evening set	4246 May 11 19:02	4°♄14'40			4247 Apr 05 12:09	0°♄	
inferior conj	4246 May 19 18:02	29°♄53'57	1°21'10	evening max el	4247 Apr 14 17:39	13°♄07'30	18°17'24
minimum elong	4246 May 19 20:54	29°♄48'43	1°20'13	retrograde	4247 Apr 21 21:25	16°♄41'50	
	4246 May 19 14:44	30°♄		evening set	4247 Apr 24 06:50	16°♄18'45	
min. Earth dist.	4246 May 22 23:49	27°♄32'44	0.57169 AU	inferior conj	4247 May 01 11:15	11°♄37'25	2°34'08
desc. node	4246 May 24 12:53	26°♄30'50		minimum elong	4247 May 01 14:50	11°♄29'44	2°33'15
morning rise	4246 May 27 18:18	24°♄45'56		min. Earth dist.	4247 May 04 21:29	8°♄42'43	0.59216 AU
direct	4246 Jun 02 06:10	23°♄32'35		morning rise	4247 May 08 18:45	5°♄59'39	
	4246 Jun 15 12:00	0°♄		desc. node	4247 May 11 09:56	4°♄48'21	
morning max el	4246 Jun 16 14:29	1°♄02'07	26°13'53	direct	4247 May 15 02:04	4°♄11'32	
	4246 Jul 07 00:25	0°♄		morning max el	4247 May 29 11:17	12°♄00'01	27°19'51
asc. node	4246 Jul 14 15:01	15°♄00'32			4247 Jun 12 14:01	0°♄	
morning set	4246 Jul 15 01:28	15°♄55'28		morning set	4247 Jun 29 09:57	0°♄36'23	
	4246 Jul 21 12:55	0°♄			4247 Jun 29 02:59	0°♄	
				asc. node	4247 Jul 01 12:04	5°♄01'30	
superior conj	4246 Jul 22 01:32	1°♄09'32	1°10'58	max. Earth dist.	4247 Jul 06 02:26	15°♄03'03	1.31997 AU
minimum elong	4246 Jul 21 23:13	0°♄56'44	1°10'36				
max. Earth dist.	4246 Jul 22 14:50	2°♄22'48	1.32193 AU	superior conj	4247 Jul 06 13:19	16°♄03'05	0°50'50
evening rise	4246 Jul 29 01:12	16°♄15'43		minimum elong	4247 Jul 06 11:19	15°♄52'07	0°50'26
	4246 Aug 04 23:26	0°♄			4247 Jul 12 22:36	0°♄	
desc. node	4246 Aug 20 12:10	24°♄46'13		evening rise	4247 Jul 13 09:57	1°♄00'20	
	4246 Aug 24 18:06	0°♄			4247 Jul 29 03:30	0°♄	
evening max el	4246 Aug 29 01:57	4°♄32'01	27°04'43	desc. node	4247 Aug 07 09:11	12°♄21'50	
retrograde	4246 Sep 11 22:46	11°♄44'02		evening max el	4247 Aug 11 00:56	16°♄10'40	26°09'59
evening set	4246 Sep 19 00:35	9°♄30'25		retrograde	4247 Aug 25 00:16	23°♄19'38	
min. Earth dist.	4246 Sep 22 16:15	6°♄49'07	0.61146 AU	evening set	4247 Aug 31 11:40	21°♄37'35	
inferior conj	4246 Sep 25 19:38	4°♄06'23	-4°-15'-32	min. Earth dist.	4247 Sep 04 13:46	19°♄03'09	0.59070 AU
minimum elong	4246 Sep 26 01:38	3°♄53'22	4°14'06	inferior conj	4247 Sep 07 20:04	16°♄35'59	-4°-57'-22
	4246 Oct 01 09:12	30°♄		minimum elong	4247 Sep 08 00:21	16°♄27'54	4°56'50
morning rise	4246 Oct 03 05:50	29°♄13'30		morning rise	4247 Sep 15 16:34	12°♄06'23	
direct	4246 Oct 05 13:05	28°♄52'00		direct	4247 Sep 18 01:37	11°♄47'11	
	4246 Oct 09 13:13	0°♄		morning max el	4247 Sep 26 00:57	15°♄37'44	18°27'41
asc. node	4246 Oct 10 14:14	0°♄39'51		asc. node	4247 Sep 27 11:17	17°♄06'46	
morning max el	4246 Oct 12 16:14	2°♄25'22	17°58'54		4247 Oct 06 02:11	0°♄	
morning set	4246 Oct 28 09:44	27°♄12'55		morning set	4247 Oct 12 01:13	11°♄09'20	
	4246 Oct 29 22:01	0°♄					
				superior conj	4247 Oct 21 01:52	28°♄19'50	1°24'11
superior conj	4246 Nov 07 15:20	15°♄44'35	0°59'34	minimum elong	4247 Oct 21 05:23	28°♄36'09	1°23'50
minimum elong	4246 Nov 07 19:26	16°♄02'33	0°59'02		4247 Oct 21 23:35	0°♄	
max. Earth dist.	4246 Nov 15 05:28	28°♄41'03	1.42280 AU	max. Earth dist.	4247 Oct 28 12:30	11°♄39'53	1.40297 AU
desc. node	4246 Nov 16 11:27	0°♄44'43		evening rise	4247 Nov 01 21:58	19°♄06'42	
	4246 Nov 16 00:35	0°♄		desc. node	4247 Nov 03 08:29	21°♄29'04	
evening rise	4246 Nov 21 06:48	8°♄30'07			4247 Nov 08 16:06	0°♄	
	4246 Dec 05 10:34	0°♄			4247 Nov 29 19:22	0°♄	
greatest brilliancy	4246 Dec 19 04:46	18°♄40'04	-0.3m	evening max el	4247 Dec 06 13:24	7°♄38'28	23°39'20
evening max el	4246 Dec 23 22:53	24°♄00'48	22°19'28	retrograde	4247 Dec 17 07:01	13°♄58'52	
retrograde	4247 Jan 02 13:31	29°♄43'50		evening set	4247 Dec 22 08:09	11°♄54'15	
asc. node	4247 Jan 06 13:30	28°♄19'07		asc. node	4247 Dec 24 10:32	9°♄48'08	
evening set	4247 Jan 07 01:57	27°♄55'15		min. Earth dist.	4247 Dec 27 05:57	6°♄12'01	0.67929 AU
inferior conj	4247 Jan 12 11:30	21°♄31'55	1°53'40	inferior conj	4247 Dec 27 19:10	5°♄26'51	1°07'13
minimum elong	4247 Jan 12 09:18	21°♄39'34	1°52'53	minimum elong	4247 Dec 27 17:40	5°♄31'59	1°06'37
min. Earth dist.	4247 Jan 12 09:11	21°♄39'56	0.68021 AU		4248 Jan 01 07:46	30°♄	
morning rise	4247 Jan 17 16:32	15°♄19'26		morning rise	4248 Jan 02 03:22	29°♄18'47	
direct	4247 Jan 22 08:09	13°♄24'01		direct	4248 Jan 06 04:49	27°♄46'06	
morning max el	4247 Jan 31 17:42	18°♄55'31	22°13'22		4248 Jan 11 14:32	0°♄	
greatest brilliancy	4247 Feb 05 07:39	24°♄02'48	-0.3m	morning max el	4248 Jan 14 11:08	2°♄32'08	20°52'24
	4247 Feb 09 23:26	0°♄		greatest brilliancy	4248 Jan 20 01:57	9°♄02'08	-0.5m
desc. node	4247 Feb 12 10:43	3°♄21'18		desc. node	4248 Jan 30 07:46	23°♄15'08	
	4247 Mar 02 08:32	0°♄			4248 Feb 03 21:06	0°♄	
morning set	4247 Mar 05 23:42	5°♄48'37		morning set	4248 Feb 13 06:23	14°♄21'39	
max. Earth dist.	4247 Mar 11 10:22	14°♄47'50	1.40915 AU	max. Earth dist.	4248 Feb 21 14:05	27°♄36'18	1.42863 AU
					4248 Feb 23 01:19	0°♄	
superior conj	4247 Mar 19 04:57	28°♄16'25	-1°-59'-32				
minimum elong	4247 Mar 19 08:55	28°♄34'05	1°59'19	superior conj	4248 Feb 28 12:15	9°♄04'35	-2°-7'-54
	4247 Mar 20 04:06	0°♄		minimum elong	4248 Feb 28 12:29	9°♄05'37	2°07'55
evening rise	4247 Mar 29 13:44	17°♄19'58		evening rise	4248 Mar 11 08:56	29°♄46'11	

	4248 Mar 11 12:02	0°♿		superior conj	4249 Feb 07 17:44	18°≈43'37	-1°-59'-35
asc. node	4248 Mar 21 09:51	17°♿07'58		minimum elong	4249 Feb 07 11:55	18°≈20'12	1°59'17
evening max el	4248 Mar 28 05:06	26°♿10'31	18°06'46		4249 Feb 14 15:02	0°✶	
retrograde	4248 Apr 03 18:56	29°♿33'21		evening rise	4249 Feb 21 08:53	11°✶19'28	
evening set	4248 Apr 06 10:29	29°♿00'17			4249 Mar 04 14:18	0°♿	
inferior conj	4248 Apr 12 23:44	23°♿58'13	3°16'33	asc. node	4249 Mar 08 06:54	5°♿23'05	
minimum elong	4248 Apr 13 02:06	23°♿52'22	3°16'13	evening max el	4249 Mar 11 17:58	9°♿29'00	18°15'15
min. Earth dist.	4248 Apr 16 02:33	20°♿54'54	0.61412 AU	retrograde	4249 Mar 18 04:06	12°♿54'37	
morning rise	4248 Apr 19 14:42	18°♿01'16		evening set	4249 Mar 21 01:32	12°♿10'15	
direct	4248 Apr 26 09:23	15°♿40'51		inferior conj	4249 Mar 27 03:27	6°♿48'23	3°34'20
desc. node	4248 Apr 27 06:59	15°♿43'12		minimum elong	4249 Mar 27 04:05	6°♿46'37	3°34'18
morning max el	4248 May 10 14:20	23°♿38'46	27°50'17	min. Earth dist.	4249 Mar 29 16:28	3°♿59'41	0.63461 AU
	4248 May 16 07:05	0°♿		morning rise	4249 Apr 02 04:40	0°♿40'43	
	4248 Jun 04 20:09	0°♿			4249 Apr 03 02:47	30°♿✶	
morning set	4248 Jun 12 14:05	15°♿01'42		direct	4249 Apr 09 01:31	27°♿58'57	
asc. node	4248 Jun 17 09:07	25°♿08'04		desc. node	4249 Apr 14 04:01	29°♿15'37	
max. Earth dist.	4248 Jun 18 12:15	27°♿35'04	1.32215 AU		4249 Apr 15 13:29	0°♿	
				morning max el	4249 Apr 22 22:01	5°♿57'13	27°43'16
superior conj	4248 Jun 19 23:51	0°♿49'16	0°27'07		4249 May 11 04:18	0°♿	
minimum elong	4248 Jun 19 22:38	0°♿42'39	0°26'50	morning set	4249 May 27 11:33	29°♿04'24	
	4248 Jun 19 14:50	0°♿			4249 May 27 22:39	0°♿	
evening rise	4248 Jun 26 21:12	15°♿49'19		max. Earth dist.	4249 Jun 01 16:29	9°♿47'07	1.32866 AU
	4248 Jul 03 21:58	0°♿					
evening max el	4248 Jul 22 16:52	27°♿03'40	24°48'08	superior conj	4249 Jun 04 07:21	15°♿22'28	0°00'31
desc. node	4248 Jul 24 06:13	28°♿28'59		minimum elong	4249 Jun 04 07:19	15°♿22'20	0°00'30
	4248 Jul 26 03:06	0°♿		behind sun begin	4249 Jun 04 02:02	14°♿53'51	
retrograde	4248 Aug 05 15:08	4°♿06'00		behind sun end	4249 Jun 04 12:37	15°♿50'50	
evening set	4248 Aug 10 22:34	3°♿02'15		asc. node	4249 Jun 04 06:11	15°♿16'11	
min. Earth dist.	4248 Aug 16 04:17	0°♿15'39	0.57116 AU	evening rise	4249 Jun 11 09:03	0°♿36'37	
	4248 Aug 16 14:04	30°♿♿			4249 Jun 11 02:09	0°♿	
inferior conj	4248 Aug 19 00:57	28°♿23'18	-5°-12'-10		4249 Jun 27 19:53	0°♿	
minimum elong	4248 Aug 19 00:24	28°♿24'12	5°12'11	evening max el	4249 Jul 04 05:55	7°♿29'57	23°12'06
morning rise	4248 Aug 27 05:48	24°♿15'48		desc. node	4249 Jul 11 03:15	12°♿35'11	
direct	4248 Aug 29 19:59	23°♿56'51		retrograde	4249 Jul 17 17:09	14°♿13'40	
morning max el	4248 Sep 08 00:44	28°♿15'49	19°17'44	evening set	4249 Jul 21 12:28	13°♿42'03	
	4248 Sep 09 17:27	0°♿		min. Earth dist.	4249 Jul 28 15:16	10°♿27'56	0.55611 AU
asc. node	4248 Sep 13 08:21	4°♿36'22		inferior conj	4249 Jul 30 10:10	9°♿25'17	-4°-44'-7
morning set	4248 Sep 25 01:30	25°♿30'41		minimum elong	4249 Jul 30 03:36	9°♿34'55	4°43'04
	4248 Sep 27 07:22	0°♿		morning rise	4249 Aug 07 21:37	5°♿33'00	
				direct	4249 Aug 10 19:42	5°♿12'31	
superior conj	4248 Oct 03 05:43	11°♿45'36	1°38'30	morning max el	4249 Aug 21 13:04	10°♿11'23	20°29'26
minimum elong	4248 Oct 03 07:42	11°♿55'18	1°38'22	asc. node	4249 Aug 31 05:25	22°♿54'53	
max. Earth dist.	4248 Oct 09 16:50	23°♿57'47	1.38206 AU		4249 Sep 04 04:40	0°♿	
	4248 Oct 13 01:41	0°♿		morning set	4249 Sep 09 07:41	10°♿09'26	
evening rise	4248 Oct 13 12:25	0°♿47'07					
desc. node	4248 Oct 20 05:30	12°♿06'24		superior conj	4249 Sep 16 22:05	25°♿48'37	1°43'58
	4248 Oct 31 22:42	0°♿		minimum elong	4249 Sep 16 22:26	25°♿50'26	1°43'58
evening max el	4248 Nov 18 02:07	21°♿19'52	24°57'07		4249 Sep 19 00:00	0°♿	
retrograde	4248 Nov 29 20:23	28°♿09'21		max. Earth dist.	4249 Sep 21 23:55	5°♿53'28	1.36246 AU
evening set	4248 Dec 05 11:16	25°♿49'37		evening rise	4249 Sep 25 23:37	13°♿25'18	
min. Earth dist.	4248 Dec 10 01:01	20°♿41'38	0.67490 AU		4249 Oct 05 12:49	0°♿	
asc. node	4248 Dec 10 07:35	20°♿20'06		desc. node	4249 Oct 07 02:32	2°♿32'19	
inferior conj	4248 Dec 11 00:59	19°♿22'47	0°14'49		4249 Oct 26 20:49	0°♿	
minimum elong	4248 Dec 11 00:37	19°♿24'00	0°14'41	evening max el	4249 Oct 31 14:41	5°♿02'39	26°05'22
transit middle	4248 Dec 11 00:37	19°♿24'00	0°14'41	retrograde	4249 Nov 13 04:45	12°♿10'28	
transit begin	4248 Dec 10 23:27	19°♿27'51		evening set	4249 Nov 19 09:30	9°♿38'13	
transit end	4248 Dec 11 01:47	19°♿20'09		min. Earth dist.	4249 Nov 23 15:58	5°♿05'52	0.66708 AU
morning rise	4248 Dec 16 14:32	13°♿21'25		inferior conj	4249 Nov 25 03:05	3°♿16'48	0°-42'-23
direct	4248 Dec 20 03:18	12°♿09'32		minimum elong	4249 Nov 25 04:13	3°♿13'17	0°41'54
morning max el	4248 Dec 27 12:23	16°♿19'25	19°43'51	asc. node	4249 Nov 27 04:39	0°♿47'50	
greatest brilliancy	4249 Jan 04 06:49	25°♿53'48	-0.6m		4249 Nov 27 22:04	30°♿♿	
	4249 Jan 07 04:09	0°♿		morning rise	4249 Dec 01 00:00	27°♿24'51	
desc. node	4249 Jan 16 04:47	13°♿28'56		direct	4249 Dec 04 01:57	26°♿30'37	
morning set	4249 Jan 22 02:27	22°♿32'10			4249 Dec 10 14:44	0°♿	
	4249 Jan 26 21:58	0°≈		morning max el	4249 Dec 10 21:00	0°♿15'27	18°50'25
max. Earth dist.	4249 Feb 03 01:21	11°≈13'48	1.44331 AU		4249 Dec 31 13:20	0°♿	
				morning set	4250 Jan 01 13:19	1°♿34'03	

desc. node	4250 Jan 03 01:47	3°☾57'08		superior conj	4250 Dec 28 04:58	6°☾07'21	0°-48'-25
max. Earth dist.	4250 Jan 16 18:27	25°☾25'23	1.45146 AU	minimum elong	4250 Dec 27 22:54	5°☾43'27	0°47'37
superior conj	4250 Jan 18 01:47	27°☾28'35	-1°-31'-37	max. Earth dist.	4250 Dec 30 13:59	9°☾51'38	1.45222 AU
minimum elong	4250 Jan 17 16:29	26°☾52'01	1°30'43	evening rise	4251 Jan 12 11:22	0°≈	
	4250 Jan 19 16:15	0°≈		greatest brilliancy	4251 Jan 29 01:52	25°≈30'07	-0.7m
evening rise	4250 Feb 02 10:05	21°≈55'24			4251 Feb 01 06:15	0°✕	
	4250 Feb 07 09:53	0°✕		evening max el	4251 Feb 06 13:21	6°✕26'16	19°25'43
evening max el	4250 Feb 23 05:27	22°✕55'41	18°41'58	asc. node	4251 Feb 10 00:58	9°✕21'23	
asc. node	4250 Feb 23 03:56	22°✕51'51		retrograde	4251 Feb 13 17:32	10°✕33'26	
retrograde	4250 Mar 01 20:45	26°✕36'44		evening set	4251 Feb 17 04:19	9°✕23'45	
evening set	4250 Mar 05 00:24	25°✕40'08		inferior conj	4251 Feb 22 17:16	3°✕27'46	3°18'26
inferior conj	4250 Mar 10 18:24	20°✕00'04	3°33'28	minimum elong	4251 Feb 22 15:21	3°✕33'59	3°18'08
minimum elong	4250 Mar 10 17:31	20°✕02'45	3°33'24	min. Earth dist.	4251 Feb 23 23:31	1°✕49'08	0.66505 AU
min. Earth dist.	4250 Mar 12 15:45	17°✕42'10	0.65186 AU		4251 Feb 25 10:21	30°☾	
morning rise	4250 Mar 16 09:26	13°✕46'50		morning rise	4251 Feb 28 01:37	27°≈12'02	
direct	4250 Mar 23 00:42	10°✕57'35		direct	4251 Mar 06 06:10	24°≈27'59	
desc. node	4250 Apr 01 01:02	14°✕53'54			4251 Mar 16 18:27	0°✕	
morning max el	4250 Apr 05 07:50	18°✕45'59	27°02'34	morning max el	4251 Mar 18 17:36	1°✕53'40	25°55'48
	4250 Apr 14 19:56	0°☿		desc. node	4251 Mar 18 22:02	2°✕04'54	
	4250 May 04 03:46	0°♄			4251 Apr 08 22:34	0°☿	
morning set	4250 May 10 23:15	12°♄34'29		morning set	4251 Apr 23 21:16	25°☿20'56	
max. Earth dist.	4250 May 15 11:30	21°♄29'32	1.33975 AU		4251 Apr 26 08:59	0°♄	
				max. Earth dist.	4251 Apr 27 19:05	2°♄42'45	1.35540 AU
superior conj	4250 May 19 09:38	29°♄35'10	0°-28'-6	superior conj	4251 May 03 04:15	13°♄20'38	0°-57'-24
minimum elong	4250 May 19 11:07	29°♄42'54	0°27'48	minimum elong	4251 May 03 07:21	13°♄36'18	0°56'51
	4250 May 19 14:22	0°♂		asc. node	4251 May 09 00:15	25°♄18'57	
asc. node	4250 May 22 03:13	5°♂21'06		evening rise	4251 May 11 02:40	29°♄38'18	
evening rise	4250 May 26 19:33	15°♂15'00			4251 May 11 06:54	0°♂	
	4250 Jun 03 06:44	0°♄		evening max el	4251 May 29 04:12	29°♂01'53	20°16'28
evening max el	4250 Jun 15 23:34	17°♄59'53	21°37'33		4251 May 30 05:10	0°♄	
retrograde	4250 Jun 28 08:23	24°♄06'13		retrograde	4251 Jun 08 22:04	4°♄16'40	
desc. node	4250 Jun 28 00:18	24°♄05'57		evening set	4251 Jun 10 21:29	4°♄06'47	
evening set	4250 Jun 30 21:24	23°♄51'34		desc. node	4251 Jun 14 21:18	2°♄52'49	
inferior conj	4250 Jul 10 05:33	19°♄50'47	-3°-25'-20	inferior conj	4251 Jun 20 00:22	0°♄08'24	-1°-31'-10
minimum elong	4250 Jul 09 21:07	20°♄02'34	3°22'50	minimum elong	4251 Jun 19 20:05	0°♄14'42	1°29'37
min. Earth dist.	4250 Jul 10 01:41	19°♄56'12	0.54865 AU		4251 Jun 20 06:03	30°☾♂	
morning rise	4250 Jul 18 21:53	15°♄58'19		min. Earth dist.	4251 Jun 21 13:49	29°♂13'17	0.55066 AU
direct	4250 Jul 22 06:22	15°♄33'51		morning rise	4251 Jun 28 16:41	25°♂54'44	
morning max el	4250 Aug 03 13:42	21°♄21'12	22°00'26	direct	4251 Jul 02 16:59	25°♂19'54	
	4250 Aug 10 21:35	0°♂			4251 Jul 14 00:44	0°♄	
asc. node	4250 Aug 18 02:27	11°♂49'46		morning max el	4251 Jul 16 06:03	1°♄56'09	23°42'52
morning set	4250 Aug 24 17:27	24°♂58'13			4251 Aug 04 08:48	0°♂	
	4250 Aug 27 02:45	0°♄		asc. node	4251 Aug 04 23:28	1°♂11'57	
superior conj	4250 Aug 31 23:08	10°♄16'53	1°42'05	morning set	4251 Aug 09 04:58	9°♂51'37	
minimum elong	4250 Aug 31 22:08	10°♄11'41	1°42'03	superior conj	4251 Aug 16 05:55	25°♂01'28	1°34'02
max. Earth dist.	4250 Sep 04 14:16	17°♄48'37	1.34586 AU	minimum elong	4251 Aug 16 04:02	24°♂51'17	1°33'51
evening rise	4250 Sep 09 03:07	26°♄49'12		max. Earth dist.	4251 Aug 18 13:19	29°♂58'20	1.33323 AU
	4250 Sep 10 19:05	0°♂			4251 Aug 18 13:38	0°♄	
desc. node	4250 Sep 23 23:34	22°♂40'33		evening rise	4251 Aug 23 18:50	10°♄47'52	
	4250 Sep 28 20:59	0°♂			4251 Sep 03 02:48	0°♂	
evening max el	4250 Oct 14 03:19	18°♂39'04	26°56'41	desc. node	4251 Sep 10 20:36	12°♂23'08	
retrograde	4250 Oct 27 07:39	25°♂55'40			4251 Sep 24 15:28	0°♂	
evening set	4250 Nov 03 00:50	23°♂15'57		evening max el	4251 Sep 26 14:59	1°♂58'04	27°24'01
min. Earth dist.	4250 Nov 07 00:25	19°♂19'57	0.65571 AU	retrograde	4251 Oct 10 04:41	9°♂16'12	
inferior conj	4250 Nov 08 23:24	17°♂04'53	-1°-43'-1	evening set	4251 Oct 17 06:36	6°♂37'27	
minimum elong	4250 Nov 09 02:18	16°♂56'32	1°41'51	min. Earth dist.	4251 Oct 21 00:17	3°♂15'59	0.64082 AU
asc. node	4250 Nov 14 01:40	12°♂06'12		inferior conj	4251 Oct 23 11:29	0°♂41'23	-2°-44'-58
morning rise	4250 Nov 15 05:28	11°♂25'23		minimum elong	4251 Oct 23 16:09	0°♂29'11	2°43'17
direct	4250 Nov 17 22:43	10°♂45'01			4251 Oct 24 03:23	30°☾♂	
morning max el	4250 Nov 24 11:00	14°♂15'29	18°13'25	morning rise	4251 Oct 30 04:04	25°♂17'26	
	4250 Dec 05 18:33	0°♄		asc. node	4251 Oct 31 22:41	24°♂49'30	
morning set	4250 Dec 13 04:50	12°♄03'28		direct	4251 Nov 01 15:02	24°♂47'08	
desc. node	4250 Dec 20 22:48	24°♄35'33		morning max el	4251 Nov 08 03:33	28°♂12'26	17°53'28
	4250 Dec 24 08:08	0°☾			4251 Nov 09 19:05	0°♂	

morning set	4251 Nov 25 00:12	23° \mathbb{M} 54'08		morning set	4252 Nov 02 22:01	0° \mathbb{M}	
	4251 Nov 28 14:11	0° \mathbb{X}			4252 Nov 06 17:22	6° \mathbb{M} 47'36	
superior conj	4251 Dec 07 23:36	15° \mathbb{X} 35'22	0°-1'-5	superior conj	4252 Nov 17 20:11	26° \mathbb{M} 20'05	0°40'21
minimum elong	4251 Dec 07 23:29	15° \mathbb{X} 34'54	0°01'04	minimum elong	4252 Nov 17 23:39	26° \mathbb{M} 34'51	0°39'51
behind sun begin	4251 Dec 07 13:29	14° \mathbb{X} 54'15			4252 Nov 20 00:13	0° \mathbb{X}	
behind sun end	4251 Dec 08 09:29	16° \mathbb{X} 15'28		desc. node	4252 Nov 23 16:53	6° \mathbb{X} 07'34	
desc. node	4251 Dec 07 19:48	15° \mathbb{X} 19'57		max. Earth dist.	4252 Nov 24 23:22	8° \mathbb{X} 11'57	1.43266 AU
max. Earth dist.	4251 Dec 13 08:23	24° \mathbb{X} 12'17	1.44566 AU	evening rise	4252 Dec 02 12:17	20° \mathbb{X} 11'08	
	4251 Dec 17 00:34	0° \mathbb{Z}			4252 Dec 08 21:53	0° \mathbb{Z}	
evening rise	4251 Dec 24 00:35	10° \mathbb{Z} 51'44		greatest brilliancy	4252 Dec 28 16:48	27° \mathbb{Z} 58'14	-0.4m
	4252 Jan 05 16:20	0° \mathbb{W}			4252 Dec 30 08:57	0° \mathbb{W}	
greatest brilliancy	4252 Jan 14 13:56	12° \mathbb{W} 38'54	-0.5m	evening max el	4253 Jan 02 13:38	3° \mathbb{W} 31'57	21°35'11
evening max el	4252 Jan 20 16:11	19° \mathbb{W} 58'06	20°24'31	retrograde	4253 Jan 11 13:11	8° \mathbb{W} 51'58	
asc. node	4252 Jan 27 21:59	24° \mathbb{W} 36'33		asc. node	4253 Jan 13 18:59	8° \mathbb{W} 24'49	
retrograde	4252 Jan 28 15:41	24° \mathbb{W} 39'31		evening set	4253 Jan 15 18:51	7° \mathbb{W} 12'52	
evening set	4252 Feb 01 11:03	23° \mathbb{W} 15'40		inferior conj	4253 Jan 21 04:13	0° \mathbb{W} 53'50	2°17'20
inferior conj	4252 Feb 06 21:16	17° \mathbb{W} 06'35	2°52'22	minimum elong	4253 Jan 21 01:48	1° \mathbb{W} 02'13	2°16'35
minimum elong	4252 Feb 06 18:52	17° \mathbb{W} 14'47	2°51'47	min. Earth dist.	4253 Jan 21 08:35	0° \mathbb{W} 38'44	0.67913 AU
min. Earth dist.	4252 Feb 07 13:53	16° \mathbb{W} 10'01	0.67409 AU		4253 Jan 21 19:46	30° \mathbb{R} \mathbb{Z}	
morning rise	4252 Feb 12 02:09	10° \mathbb{W} 50'34		morning rise	4253 Jan 26 08:27	24° \mathbb{Z} 39'28	
direct	4252 Feb 17 17:06	8° \mathbb{W} 21'11		direct	4253 Jan 31 08:41	22° \mathbb{Z} 30'41	
morning max el	4252 Feb 29 02:13	15° \mathbb{W} 09'27	24°32'38	morning max el	4253 Feb 10 11:26	28° \mathbb{Z} 30'44	23°03'28
desc. node	4252 Mar 04 19:03	20° \mathbb{W} 21'56			4253 Feb 11 21:37	0° \mathbb{W}	
	4252 Mar 12 06:26	0° \mathbb{X}		greatest brilliancy	4253 Feb 15 08:22	3° \mathbb{W} 57'31	-0.3m
	4252 Mar 31 20:34	0° \mathbb{Y}		desc. node	4253 Feb 19 16:06	9° \mathbb{W} 26'34	
morning set	4252 Apr 05 00:18	7° \mathbb{Y} 08'34			4253 Mar 06 00:04	0° \mathbb{X}	
max. Earth dist.	4252 Apr 08 16:46	13° \mathbb{Y} 43'36	1.37497 AU	morning set	4253 Mar 17 02:13	17° \mathbb{X} 41'30	
				max. Earth dist.	4253 Mar 21 11:39	25° \mathbb{X} 08'29	1.39676 AU
					4253 Mar 24 06:24	0° \mathbb{Y}	
superior conj	4252 Apr 15 11:57	26° \mathbb{Y} 30'01	-1°-25'-26				
minimum elong	4252 Apr 15 16:24	26° \mathbb{Y} 51'30	1°24'49				
	4252 Apr 17 07:04	0° \mathbb{X}		superior conj	4253 Mar 29 04:45	8° \mathbb{Y} 53'41	-1°-49'-17
evening rise	4252 Apr 24 03:57	13° \mathbb{X} 39'02		minimum elong	4253 Mar 29 09:28	9° \mathbb{Y} 15'24	1°48'52
asc. node	4252 Apr 24 21:17	15° \mathbb{X} 05'02		evening rise	4253 Apr 07 20:31	27° \mathbb{Y} 09'51	
	4252 May 02 21:30	0° \mathbb{II}			4253 Apr 09 08:08	0° \mathbb{X}	
evening max el	4252 May 10 21:07	10° \mathbb{II} 45'47	19°14'22	asc. node	4253 Apr 11 18:19	4° \mathbb{X} 34'22	
retrograde	4252 May 19 22:15	15° \mathbb{II} 10'14		evening max el	4253 Apr 23 23:57	23° \mathbb{X} 07'26	18°32'27
evening set	4252 May 21 22:10	14° \mathbb{II} 58'16		retrograde	4253 May 01 16:39	26° \mathbb{X} 54'56	
inferior conj	4252 May 30 08:31	10° \mathbb{II} 48'36	0°24'40	evening set	4253 May 03 22:33	26° \mathbb{X} 36'37	
minimum elong	4252 May 30 09:33	10° \mathbb{II} 46'53	0°24'17	inferior conj	4253 May 11 13:21	22° \mathbb{X} 07'36	1°56'06
desc. node	4252 May 31 18:17	9° \mathbb{II} 51'56		minimum elong	4253 May 11 16:51	22° \mathbb{X} 00'44	1°55'03
min. Earth dist.	4252 Jun 02 04:39	8° \mathbb{II} 55'16	0.56187 AU	min. Earth dist.	4253 May 14 23:03	19° \mathbb{X} 29'10	0.58000 AU
morning rise	4252 Jun 07 16:43	6° \mathbb{II} 00'36		desc. node	4253 May 18 15:19	17° \mathbb{X} 05'46	
direct	4252 Jun 12 15:17	5° \mathbb{II} 04'13		morning rise	4253 May 19 06:44	16° \mathbb{X} 45'58	
morning max el	4252 Jun 26 19:59	12° \mathbb{II} 19'02	25°23'17	direct	4253 May 25 03:56	15° \mathbb{X} 17'51	
	4252 Jul 10 12:26	0° \mathbb{S}		morning max el	4253 Jun 08 13:04	22° \mathbb{X} 56'47	26°45'52
asc. node	4252 Jul 21 20:31	20° \mathbb{S} 54'16			4253 Jun 14 20:02	0° \mathbb{II}	
morning set	4252 Jul 23 16:37	24° \mathbb{S} 44'45			4253 Jul 03 10:18	0° \mathbb{S}	
	4252 Jul 26 03:24	0° \mathbb{Q}		morning set	4253 Jul 08 02:44	9° \mathbb{S} 31'33	
				asc. node	4253 Jul 08 17:34	10° \mathbb{S} 49'55	
superior conj	4252 Jul 30 16:09	9° \mathbb{Q} 55'07	1°20'45				
minimum elong	4252 Jul 30 13:51	9° \mathbb{Q} 42'30	1°20'25	superior conj	4253 Jul 15 03:52	24° \mathbb{S} 50'22	1°02'55
max. Earth dist.	4252 Jul 31 19:47	12° \mathbb{Q} 26'21	1.32482 AU	minimum elong	4253 Jul 15 01:37	24° \mathbb{S} 38'01	1°02'31
evening rise	4252 Aug 06 19:19	25° \mathbb{Q} 11'43		max. Earth dist.	4253 Jul 15 06:37	25° \mathbb{S} 05'38	1.32057 AU
	4252 Aug 09 04:07	0° \mathbb{P}			4253 Jul 17 12:04	0° \mathbb{Q}	
	4252 Aug 26 16:13	0° \mathbb{A}		evening rise	4253 Jul 22 01:44	9° \mathbb{Q} 51'07	
desc. node	4252 Aug 27 17:37	1° \mathbb{A} 29'31			4253 Aug 01 11:35	0° \mathbb{P}	
evening max el	4252 Sep 07 23:53	14° \mathbb{A} 47'58	27°21'22	desc. node	4253 Aug 14 14:38	19° \mathbb{P} 44'06	
retrograde	4252 Sep 21 19:11	22° \mathbb{A} 02'53		evening max el	4253 Aug 21 03:21	26° \mathbb{P} 55'43	26°45'25
evening set	4252 Sep 28 23:24	19° \mathbb{A} 36'38			4253 Aug 24 18:07	0° \mathbb{A}	
min. Earth dist.	4252 Oct 02 14:07	16° \mathbb{A} 43'35	0.62282 AU	retrograde	4253 Sep 04 01:38	4° \mathbb{A} 05'59	
inferior conj	4252 Oct 05 12:29	13° \mathbb{A} 59'45	-3°-44'-34	evening set	4253 Sep 10 22:45	2° \mathbb{A} 04'50	
minimum elong	4252 Oct 05 18:22	13° \mathbb{A} 45'59	3°42'51		4253 Sep 14 00:59	30° \mathbb{R} \mathbb{P}	
morning rise	4252 Oct 12 16:17	8° \mathbb{A} 54'29		min. Earth dist.	4253 Sep 14 17:22	29° \mathbb{P} 28'24	0.60268 AU
direct	4252 Oct 14 23:51	8° \mathbb{A} 30'43		inferior conj	4253 Sep 17 22:56	26° \mathbb{P} 50'14	-4°-35'-38
asc. node	4252 Oct 17 19:43	9° \mathbb{A} 07'17		minimum elong	4253 Sep 18 04:33	26° \mathbb{P} 38'43	4°34'34
morning max el	4252 Oct 21 19:37	11° \mathbb{A} 59'06	17°51'26	morning rise	4253 Sep 25 13:40	22° \mathbb{P} 06'41	

direct	4253 Sep 27 21:13	21° \mathbb{M} 46'26		minimum elong	4254 Aug 30 17:56	8° \mathbb{M} 58'12	5°07'42
asc. node	4253 Oct 04 16:46	24° \mathbb{M} 50'56		morning rise	4254 Sep 07 15:37	4° \mathbb{M} 42'55	
morning max el	4253 Oct 05 07:54	25° \mathbb{M} 26'10	18°08'31	direct	4254 Sep 10 02:42	4° \mathbb{M} 23'53	
	4253 Oct 09 04:34	0° $\underline{\mathbb{A}}$		morning max el	4254 Sep 18 13:07	8° \mathbb{M} 24'43	18°46'15
morning set	4253 Oct 21 02:06	20° $\underline{\mathbb{A}}$ 25'01		asc. node	4254 Sep 21 13:51	11° \mathbb{M} 46'12	
	4253 Oct 26 05:02	0° \mathbb{M}			4254 Oct 02 13:20	0° $\underline{\mathbb{A}}$	
				morning set	4254 Oct 04 21:44	4° $\underline{\mathbb{A}}$ 33'21	
superior conj	4253 Oct 30 18:11	8° \mathbb{M} 18'24	1°11'21	superior conj	4254 Oct 13 12:43	21° $\underline{\mathbb{A}}$ 16'56	1°31'25
minimum elong	4253 Oct 30 22:14	8° \mathbb{M} 36'35	1°10'51	minimum elong	4254 Oct 13 15:39	21° $\underline{\mathbb{A}}$ 30'48	1°31'11
max. Earth dist.	4253 Nov 07 09:38	21° \mathbb{M} 36'44	1.41476 AU		4254 Oct 18 05:38	0° \mathbb{M}	
desc. node	4253 Nov 10 13:55	26° \mathbb{M} 53'58		max. Earth dist.	4254 Oct 20 15:31	4° \mathbb{M} 19'00	1.39415 AU
	4253 Nov 12 11:35	0° \mathbb{A}		evening rise	4254 Oct 24 15:59	11° \mathbb{M} 16'53	
evening rise	4253 Nov 12 14:52	0° \mathbb{A} 13'16		desc. node	4254 Oct 28 10:57	17° \mathbb{M} 35'47	
	4253 Dec 02 10:36	0° \mathbb{Z}			4254 Nov 05 07:57	0° \mathbb{A}	
greatest brilliancy	4253 Dec 10 23:40	11° \mathbb{Z} 12'57	-0.2m		4254 Nov 28 01:03	0° \mathbb{Z}	
evening max el	4253 Dec 16 06:21	17° \mathbb{Z} 08'15	22°53'19	evening max el	4254 Nov 28 19:52	0° \mathbb{Z} 47'32	24°13'05
retrograde	4253 Dec 26 08:24	23° \mathbb{Z} 07'12		retrograde	4254 Dec 10 00:09	7° \mathbb{Z} 20'59	
evening set	4253 Dec 31 02:06	21° \mathbb{Z} 11'53		evening set	4254 Dec 15 07:12	5° \mathbb{Z} 09'33	
asc. node	4253 Dec 31 16:01	20° \mathbb{Z} 41'27		asc. node	4254 Dec 18 13:05	1° \mathbb{Z} 40'51	
min. Earth dist.	4254 Jan 05 05:12	15° \mathbb{Z} 10'37	0.68032 AU		4254 Dec 19 20:02	30° \mathbb{R} \mathbb{A}	
inferior conj	4254 Jan 05 12:09	14° \mathbb{Z} 46'36	1°34'45	min. Earth dist.	4254 Dec 20 01:24	29° \mathbb{A} 42'00	0.67791 AU
minimum elong	4254 Jan 05 10:11	14° \mathbb{Z} 53'22	1°34'01	inferior conj	4254 Dec 20 19:14	28° \mathbb{A} 41'57	0°45'39
morning rise	4254 Jan 10 18:15	8° \mathbb{Z} 35'48		minimum elong	4254 Dec 20 18:10	28° \mathbb{A} 45'34	0°45'13
direct	4254 Jan 15 03:49	6° \mathbb{Z} 49'57		morning rise	4254 Dec 26 05:28	22° \mathbb{A} 36'44	
morning max el	4254 Jan 24 00:55	12° \mathbb{Z} 00'42	21°37'36	direct	4254 Dec 30 01:21	21° \mathbb{A} 13'17	
greatest brilliancy	4254 Jan 28 21:42	17° \mathbb{Z} 30'38	-0.4m	morning max el	4255 Jan 06 21:40	25° \mathbb{A} 42'07	20°21'31
desc. node	4254 Feb 06 13:09	29° \mathbb{Z} 05'25			4255 Jan 10 17:30	0° \mathbb{Z}	
	4254 Feb 07 04:31	0° \approx		greatest brilliancy	4255 Jan 13 06:27	3° \mathbb{Z} 14'20	-0.5m
morning set	4254 Feb 24 23:24	26° \approx 53'11		desc. node	4255 Jan 24 10:11	19° \mathbb{Z} 08'30	
	4254 Feb 26 22:06	0° \mathbb{H}			4255 Jan 31 14:35	0° \approx	
max. Earth dist.	4254 Mar 03 11:38	7° \mathbb{H} 26'57	1.41793 AU	morning set	4255 Feb 03 22:39	5° \approx 08'02	
				max. Earth dist.	4255 Feb 13 19:15	20° \approx 40'02	1.43559 AU
superior conj	4254 Mar 11 01:44	20° \mathbb{H} 20'21	-2°-4'-48	superior conj	4255 Feb 19 22:05	0° \mathbb{H} 38'39	-2°-6'-42
minimum elong	4254 Mar 11 04:30	20° \mathbb{H} 32'27	2°04'43	minimum elong	4255 Feb 19 19:52	0° \mathbb{H} 29'28	2°06'40
	4254 Mar 16 12:27	0° \mathbb{Y}			4255 Feb 19 12:44	0° \mathbb{H}	
evening rise	4254 Mar 22 00:45	10° \mathbb{Y} 02'43		evening rise	4255 Mar 04 12:19	22° \mathbb{H} 07'39	
asc. node	4254 Mar 29 15:21	23° \mathbb{Y} 41'20			4255 Mar 09 00:45	0° \mathbb{Y}	
	4254 Apr 02 14:07	0° \mathbb{B}		asc. node	4255 Mar 16 12:24	12° \mathbb{Y} 17'59	
evening max el	4254 Apr 07 09:15	5° \mathbb{B} 58'16	18°10'30	evening max el	4255 Mar 21 21:37	19° \mathbb{Y} 08'26	18°08'01
retrograde	4254 Apr 14 05:33	9° \mathbb{B} 25'39		retrograde	4255 Mar 28 08:46	22° \mathbb{Y} 31'07	
evening set	4254 Apr 16 17:46	8° \mathbb{B} 58'21		evening set	4255 Mar 31 02:47	21° \mathbb{Y} 53'21	
inferior conj	4254 Apr 23 15:13	4° \mathbb{B} 07'54	2°55'34	inferior conj	4255 Apr 06 10:43	16° \mathbb{Y} 42'21	3°26'45
minimum elong	4254 Apr 23 18:25	4° \mathbb{B} 00'35	2°54'55	minimum elong	4255 Apr 06 12:21	16° \mathbb{Y} 38'05	3°26'34
min. Earth dist.	4254 Apr 26 23:19	1° \mathbb{B} 06'45	0.60153 AU	min. Earth dist.	4255 Apr 09 07:58	13° \mathbb{Y} 42'58	0.62312 AU
	4254 Apr 28 07:33	30° \mathbb{R} \mathbb{Y}		morning rise	4255 Apr 12 19:24	10° \mathbb{Y} 39'51	
morning rise	4254 Apr 30 15:30	28° \mathbb{Y} 21'03		direct	4255 Apr 19 15:51	8° \mathbb{Y} 09'04	
desc. node	4254 May 05 12:21	26° \mathbb{Y} 26'34		desc. node	4255 Apr 22 09:23	8° \mathbb{Y} 30'55	
direct	4254 May 07 04:52	26° \mathbb{Y} 18'33		morning max el	4255 May 03 17:59	16° \mathbb{Y} 08'07	27°51'52
	4254 May 16 16:03	0° \mathbb{B}			4255 May 15 03:20	0° \mathbb{B}	
morning max el	4254 May 21 12:30	4° \mathbb{B} 11'09	27°37'31		4255 Jun 02 05:06	0° \mathbb{H}	
	4254 Jun 09 13:35	0° \mathbb{H}		morning set	4255 Jun 06 11:13	8° \mathbb{H} 23'05	
morning set	4254 Jun 22 09:38	24° \mathbb{H} 06'39		max. Earth dist.	4255 Jun 12 02:11	20° \mathbb{H} 10'11	1.32440 AU
	4254 Jun 25 04:35	0° \mathbb{S}		asc. node	4255 Jun 12 11:41	21° \mathbb{H} 01'26	
asc. node	4254 Jun 25 14:38	0° \mathbb{S} 53'57		superior conj	4255 Jun 14 00:45	24° \mathbb{H} 22'18	0°16'07
max. Earth dist.	4254 Jun 28 18:06	7° \mathbb{S} 44'46	1.32042 AU	minimum elong	4255 Jun 14 00:00	24° \mathbb{H} 18'13	0°15'58
					4255 Jun 16 14:39	0° \mathbb{S}	
superior conj	4254 Jun 29 15:19	9° \mathbb{S} 41'29	0°41'10	evening rise	4255 Jun 20 23:32	9° \mathbb{S} 27'20	
minimum elong	4254 Jun 29 13:37	9° \mathbb{S} 32'04	0°40'49		4255 Jul 01 13:34	0° \mathbb{B}	
evening rise	4254 Jul 06 11:50	24° \mathbb{S} 38'42		evening max el	4255 Jul 15 12:55	18° \mathbb{B} 51'08	24°07'58
	4254 Jul 09 01:20	0° \mathbb{B}		desc. node	4255 Jul 19 08:39	22° \mathbb{B} 05'20	
	4254 Jul 26 17:43	0° \mathbb{M}		retrograde	4255 Jul 29 07:58	25° \mathbb{B} 48'08	
desc. node	4254 Aug 01 11:38	6° \mathbb{M} 45'40		evening set	4255 Aug 03 00:34	24° \mathbb{B} 59'19	
evening max el	4254 Aug 02 23:18	8° \mathbb{M} 14'14	25°37'52	min. Earth dist.	4255 Aug 08 23:29	22° \mathbb{B} 02'45	0.56399 AU
retrograde	4254 Aug 16 22:24	15° \mathbb{M} 20'19		inferior conj	4255 Aug 11 11:27	20° \mathbb{B} 29'53	-5°-6'-21
evening set	4254 Aug 22 23:44	13° \mathbb{M} 54'22					
min. Earth dist.	4254 Aug 27 11:17	11° \mathbb{M} 17'13	0.58215 AU				
inferior conj	4254 Aug 30 15:20	9° \mathbb{M} 02'50	-5°-7'-51				

minimum elong	4255 Aug 11 08:13	20°034'54	5°06'07		4256 Jun 26 22:08	0°00	
morning rise	4255 Aug 19 19:21	16°030'41		desc. node	4256 Jul 05 05:40	5°008'32	
direct	4255 Aug 22 12:39	16°011'19		retrograde	4256 Jul 09 05:14	5°045'04	
morning max el	4255 Sep 01 08:15	20°045'28	19°45'46	evening set	4256 Jul 12 09:41	5°022'43	
asc. node	4255 Sep 08 10:54	29°038'01		min. Earth dist.	4256 Jul 20 10:07	1°052'35	0.55176 AU
	4255 Sep 08 16:35	0°00		inferior conj	4256 Jul 21 13:30	1°013'42	-4°-16'-38
morning set	4255 Sep 19 00:49	19°003'05		minimum elong	4256 Jul 21 05:20	1°025'18	4°14'49
	4255 Sep 24 10:23	0°00			4256 Jul 23 18:16	30°00	
superior conj	4255 Sep 26 22:27	5°000'37	1°41'47	morning rise	4256 Jul 30 03:18	27°023'35	
minimum elong	4255 Sep 26 23:44	5°006'58	1°41'45	direct	4256 Aug 02 05:03	27°002'02	
max. Earth dist.	4255 Oct 02 20:17	16°024'50	1.37338 AU		4256 Aug 10 17:53	0°00	
evening rise	4255 Oct 06 15:42	23°023'06		morning max el	4256 Aug 13 15:30	2°021'25	21°06'16
	4255 Oct 10 10:23	0°00		asc. node	4256 Aug 25 07:57	18°013'07	
desc. node	4255 Oct 15 07:58	8°009'08			4256 Aug 31 12:30	0°00	
	4255 Oct 30 01:59	0°00		morning set	4256 Sep 02 08:44	3°0046'27	
evening max el	4255 Nov 11 08:12	14°029'56	25°27'40	superior conj	4256 Sep 09 18:53	19°015'35	1°43'59
retrograde	4255 Nov 23 11:35	21°029'05		minimum elong	4256 Sep 09 18:37	19°014'14	1°43'59
evening set	4255 Nov 29 08:29	19°003'15		max. Earth dist.	4256 Sep 14 05:34	28°015'42	1.35485 AU
min. Earth dist.	4255 Dec 03 18:57	14°010'30	0.67200 AU		4256 Sep 15 02:45	0°00	
inferior conj	4255 Dec 04 23:42	12°037'59	0°-8'-54	evening rise	4256 Sep 18 10:20	6°022'09	
minimum elong	4255 Dec 04 23:56	12°037'15	0°08'49	desc. node	4256 Oct 01 04:58	28°028'21	
transit middle	4255 Dec 04 23:56	12°037'15	0°08'49		4256 Oct 02 04:16	0°00	
transit begin	4255 Dec 04 21:35	12°044'48		evening max el	4256 Oct 23 20:41	28°010'57	26°29'46
transit end	4255 Dec 05 02:16	12°029'41			4256 Oct 25 20:09	0°00	
asc. node	4255 Dec 05 10:07	12°004'31		retrograde	4256 Nov 05 17:53	5°024'30	
morning rise	4255 Dec 10 16:11	6°040'29		evening set	4256 Nov 12 04:04	2°048'17	
direct	4255 Dec 14 00:00	5°036'45			4256 Nov 15 00:46	30°00	
morning max el	4255 Dec 21 02:22	9°034'45	19°19'11	min. Earth dist.	4256 Nov 16 07:30	28°031'16	0.66260 AU
greatest brilliancy	4255 Dec 30 10:29	21°031'31	-0.7m	inferior conj	4256 Nov 17 23:36	26°030'22	-1°-7'-48
	4256 Jan 05 02:50	0°00		minimum elong	4256 Nov 18 01:27	26°024'44	1°07'01
desc. node	4256 Jan 11 07:13	9°029'25		asc. node	4256 Nov 21 07:09	22°048'00	
morning set	4256 Jan 13 22:15	13°033'16		morning rise	4256 Nov 24 00:12	20°043'15	
	4256 Jan 24 11:32	0°00		direct	4256 Nov 26 22:04	19°055'31	
max. Earth dist.	4256 Jan 27 09:13	4°034'10	1.44762 AU	morning max el	4256 Dec 03 13:34	23°033'28	18°32'36
					4256 Dec 08 20:21	0°00	
superior conj	4256 Jan 30 17:14	9°051'10	-1°-50'-4	morning set	4256 Dec 23 20:36	23°010'57	
minimum elong	4256 Jan 30 09:14	9°019'23	1°49'30	desc. node	4256 Dec 28 04:13	0°002'36	
	4256 Feb 12 03:18	0°00			4256 Dec 28 03:34	0°00	
evening rise	4256 Feb 14 02:56	3°017'17		superior conj	4257 Jan 08 20:42	18°027'01	-1°-14'-36
asc. node	4256 Mar 02 09:26	0°015'01		minimum elong	4257 Jan 08 12:01	17°052'59	1°13'36
	4256 Mar 02 04:31	0°00		max. Earth dist.	4257 Jan 09 03:07	18°052'13	1.45271 AU
evening max el	4256 Mar 04 10:08	2°030'58	18°24'23		4257 Jan 16 05:17	0°00	
retrograde	4256 Mar 10 21:38	6°002'04		evening rise	4257 Jan 24 18:09	13°029'27	
evening set	4256 Mar 13 21:31	5°012'46			4257 Feb 04 04:32	0°00	
inferior conj	4256 Mar 19 19:41	29°042'56	3°35'55	evening max el	4257 Feb 15 20:19	16°000'02	18°58'37
minimum elong	4256 Mar 19 19:38	29°043'06	3°35'54	asc. node	4257 Feb 17 06:27	17°020'33	
	4256 Mar 19 13:48	30°00		retrograde	4257 Feb 22 16:19	19°050'59	
min. Earth dist.	4256 Mar 22 02:07	27°005'36	0.64241 AU	evening set	4257 Feb 25 22:48	18°049'05	
morning rise	4256 Mar 25 16:05	23°032'04		inferior conj	4257 Mar 03 14:22	13°002'14	3°28'34
direct	4256 Apr 01 11:15	20°045'17		minimum elong	4257 Mar 03 13:00	13°006'34	3°28'25
desc. node	4256 Apr 08 06:25	23°001'02		min. Earth dist.	4257 Mar 05 05:16	11°000'03	0.65803 AU
morning max el	4256 Apr 15 03:06	28°041'43	27°29'36	morning rise	4257 Mar 09 02:09	6°047'36	
	4256 Apr 16 09:25	0°00		direct	4257 Mar 15 13:28	3°058'48	
	4256 May 07 23:08	0°00		desc. node	4257 Mar 26 03:26	9°022'29	
morning set	4256 May 20 04:55	22°013'10		morning max el	4257 Mar 28 12:58	11°039'42	26°36'40
	4256 May 24 01:40	0°00			4257 Apr 12 04:19	0°00	
max. Earth dist.	4256 May 25 02:46	2°009'45	1.33279 AU		4257 Apr 30 13:05	0°00	
superior conj	4256 May 28 06:16	8°047'19	0°-11'-28	morning set	4257 May 03 11:23	5°026'51	
minimum elong	4256 May 28 06:51	8°050'25	0°11'22	max. Earth dist.	4257 May 07 16:41	13°037'46	1.34582 AU
behind sun begin	4256 May 28 03:01	8°029'57					
behind sun end	4256 May 28 10:42	9°010'55		superior conj	4257 May 12 05:40	22°050'05	0°-40'-33
asc. node	4256 May 29 08:43	11°008'32		minimum elong	4257 May 12 07:50	23°001'17	0°40'08
evening rise	4256 Jun 04 11:00	24°011'07			4257 May 15 16:09	0°00	
	4256 Jun 07 06:16	0°00		asc. node	4257 May 16 05:45	1°011'23	
evening max el	4256 Jun 26 02:47	29°014'14	22°30'47	evening rise	4257 May 19 20:20	8°044'16	

	4257 May 31 05:42	0°♄			4258 May 07 13:50	0°♂	
evening max el	4257 Jun 08 00:50	9°♄56'55	21°01'03	evening max el	4258 May 21 10:53	21°♂16'56	19°47'35
retrograde	4257 Jun 19 18:04	15°♄41'41		retrograde	4258 May 31 10:33	26°♂08'53	
evening set	4257 Jun 21 23:03	15°♄30'14		evening set	4258 Jun 02 09:16	25°♂58'37	
desc. node	4257 Jun 22 02:41	15°♄28'38		desc. node	4258 Jun 08 23:42	23°♂18'21	
inferior conj	4257 Jul 01 06:55	11°♄32'55	-2°-39'-25	inferior conj	4258 Jun 11 05:57	21°♂56'47	0°-40'-15
minimum elong	4257 Jun 30 23:42	11°♄43'06	2°37'00	minimum elong	4258 Jun 11 04:07	21°♂59'37	0°39'35
min. Earth dist.	4257 Jul 01 21:26	11°♄12'25	0.54828 AU	min. Earth dist.	4258 Jun 13 10:19	20°♂36'16	0.55445 AU
morning rise	4257 Jul 10 00:01	7°♄33'31		morning rise	4258 Jun 19 19:54	17°♂29'48	
direct	4257 Jul 13 14:32	7°♄05'31		direct	4258 Jun 24 05:25	16°♂47'12	
morning max el	4257 Jul 26 11:58	13°♄14'54	22°43'15	morning max el	4258 Jul 08 02:20	23°♂40'46	24°26'45
	4257 Aug 08 03:11	0°♂			4258 Jul 13 19:37	0°♄	
asc. node	4257 Aug 12 04:59	7°♂21'09		asc. node	4258 Jul 30 02:01	26°♄52'52	
morning set	4257 Aug 17 19:27	18°♂38'09			4258 Jul 31 14:40	0°♂	
	4257 Aug 23 03:15	0°♄		morning set	4258 Aug 02 07:13	3°♂32'08	
superior conj	4257 Aug 24 22:42	3°♄52'08	1°39'22	superior conj	4258 Aug 09 07:11	18°♂41'11	1°28'59
minimum elong	4257 Aug 24 21:16	3°♄44'32	1°39'16	minimum elong	4258 Aug 09 05:04	18°♂29'38	1°28'44
max. Earth dist.	4257 Aug 27 23:38	10°♄16'14	1.33998 AU	max. Earth dist.	4258 Aug 11 02:24	22°♂35'15	1.32920 AU
evening rise	4257 Sep 01 19:33	20°♄02'55			4258 Aug 14 14:11	0°♄	
	4257 Sep 07 01:42	0°♄		evening rise	4258 Aug 16 15:24	4°♄13'26	
desc. node	4257 Sep 18 02:00	18°♄26'58			4258 Aug 30 18:49	0°♄	
	4257 Sep 26 04:30	0°♄		desc. node	4258 Sep 04 23:02	7°♄55'37	
evening max el	4257 Oct 06 09:19	11°♄42'23	27°11'44	evening max el	4258 Sep 18 20:17	24°♄50'59	27°26'51
retrograde	4257 Oct 19 18:21	19°♄00'07			4258 Sep 25 12:33	0°♄	
evening set	4257 Oct 26 15:40	16°♄19'59		retrograde	4258 Oct 02 12:23	2°♄07'08	
min. Earth dist.	4257 Oct 30 12:41	12°♄38'45	0.64977 AU		4258 Oct 09 00:11	30°♄	
inferior conj	4257 Nov 01 16:44	10°♄14'39	-2°-9'-20	evening set	4258 Oct 09 16:21	29°♄32'21	
minimum elong	4257 Nov 01 20:24	10°♄04'29	2°07'53	min. Earth dist.	4258 Oct 13 08:22	26°♄24'01	0.63354 AU
morning rise	4257 Nov 08 03:07	4°♄41'01		inferior conj	4258 Oct 16 00:29	23°♄44'19	-3°-10'-51
asc. node	4257 Nov 08 04:10	4°♄39'50		minimum elong	4258 Oct 16 05:47	23°♄31'05	3°09'04
direct	4257 Nov 10 17:22	4°♄05'21		morning rise	4258 Oct 22 21:46	18°♄27'45	
morning max el	4257 Nov 17 04:55	7°♄32'44	18°02'44	direct	4258 Oct 25 07:03	18°♄00'29	
	4257 Dec 02 10:40	0°♄		asc. node	4258 Oct 26 01:12	18°♄03'17	
morning set	4257 Dec 05 00:36	4°♄17'21		morning max el	4258 Oct 31 21:35	21°♄25'50	17°50'23
desc. node	4257 Dec 15 01:15	20°♄44'07			4258 Nov 07 10:17	0°♄	
				morning set	4258 Nov 17 06:04	16°♄37'24	
superior conj	4257 Dec 19 04:17	27°♄21'01	0°-28'-8		4258 Nov 25 00:16	0°♄	
minimum elong	4257 Dec 19 00:48	27°♄07'08	0°27'39	superior conj	4258 Nov 29 09:24	7°♄20'13	0°17'38
	4257 Dec 20 20:19	0°♄		minimum elong	4258 Nov 29 11:13	7°♄27'43	0°17'22
max. Earth dist.	4257 Dec 22 22:35	3°♄18'33	1.45036 AU	desc. node	4258 Dec 01 22:18	11°♄30'28	
evening rise	4258 Jan 04 13:05	22°♄56'27		max. Earth dist.	4258 Dec 05 16:24	17°♄34'35	1.44086 AU
	4258 Jan 09 03:04	0°♄			4258 Dec 13 13:50	0°♄	
greatest brilliancy	4258 Jan 22 20:03	20°♄28'40	-0.6m	evening rise	4258 Dec 14 22:49	2°♄07'21	
evening max el	4258 Jan 30 02:18	29°♄32'03	19°49'05		4259 Jan 02 17:18	0°♄	
	4258 Jan 30 13:25	0°♄		greatest brilliancy	4259 Jan 07 16:11	6°♄41'54	-0.5m
asc. node	4258 Feb 04 03:27	3°♄20'41		evening max el	4259 Jan 13 02:54	13°♄05'18	20°53'20
retrograde	4258 Feb 06 13:50	3°♄52'27		retrograde	4259 Jan 21 11:58	18°♄02'32	
evening set	4258 Feb 10 04:09	2°♄36'49		asc. node	4259 Jan 22 00:28	18°♄01'03	
	4258 Feb 12 22:54	30°♄		evening set	4259 Jan 25 11:36	16°♄32'06	
inferior conj	4258 Feb 15 15:43	26°♄35'08	3°08'33	inferior conj	4259 Jan 30 21:14	10°♄18'17	2°38'30
minimum elong	4258 Feb 15 13:32	26°♄42'23	3°08'08	minimum elong	4259 Jan 30 18:46	10°♄26'47	2°37'50
min. Earth dist.	4258 Feb 16 16:00	25°♄14'18	0.66948 AU	min. Earth dist.	4259 Jan 31 08:24	9°♄39'53	0.67672 AU
morning rise	4258 Feb 20 22:15	20°♄19'16		morning rise	4259 Feb 05 01:32	4°♄03'01	
direct	4258 Feb 26 21:23	17°♄40'25		direct	4259 Feb 10 10:16	1°♄42'07	
morning max el	4258 Mar 10 21:59	24°♄51'06	25°21'44	morning max el	4259 Feb 21 06:39	8°♄10'09	23°54'58
desc. node	4258 Mar 13 00:27	27°♄04'24		desc. node	4259 Feb 27 21:29	15°♄44'03	
	4258 Mar 15 13:48	0°♄			4259 Mar 10 08:57	0°♄	
	4258 Apr 05 15:35	0°♄		morning set	4259 Mar 28 19:09	29°♄08'27	
morning set	4258 Apr 16 02:00	17°♄50'10			4259 Mar 29 07:09	0°♄	
max. Earth dist.	4258 Apr 19 19:31	24°♄42'27	1.36336 AU	max. Earth dist.	4259 Apr 01 15:37	5°♄52'12	1.38418 AU
	4258 Apr 22 14:11	0°♄					
superior conj	4258 Apr 25 20:06	6°♄21'49	-1°-9'-35	superior conj	4259 Apr 08 22:05	19°♄13'44	-1°-36'-16
minimum elong	4258 Apr 25 23:50	6°♄40'23	1°08'59	minimum elong	4259 Apr 09 02:49	19°♄36'15	1°35'42
asc. node	4258 May 03 02:46	21°♄05'00			4259 Apr 14 11:56	0°♄	
evening rise	4258 May 04 01:17	22°♄59'11		evening rise	4259 Apr 17 23:20	6°♄49'08	

asc. node	4259 Apr 19 23:48	10°♄45'09		superior conj	4260 Mar 21 07:03	1°♃14'26	-1°-57'-11
	4259 May 01 10:15	0°♄		minimum elong	4260 Mar 21 11:17	1°♃33'32	1°56'54
evening max el	4259 May 04 08:21	3°♄17'46	18°53'57	evening rise	4260 Mar 31 11:10	20°♃05'12	
retrograde	4259 May 12 18:24	7°♄24'53		asc. node	4260 Apr 05 20:51	0°♄06'03	
evening set	4259 May 14 20:34	7°♄10'38			4260 Apr 05 19:30	0°♄	
inferior conj	4259 May 22 22:31	2°♄52'49	1°07'15	evening max el	4260 Apr 16 14:19	15°♄52'55	18°20'39
minimum elong	4259 May 23 01:00	2°♄48'22	1°06'24	retrograde	4260 Apr 23 21:06	19°♄30'09	
min. Earth dist.	4259 May 26 02:18	0°♄38'21	0.56898 AU	evening set	4260 Apr 26 05:34	19°♄08'25	
desc. node	4259 May 26 20:43	0°♄07'29		inferior conj	4260 May 03 12:36	14°♄30'26	2°25'07
	4259 May 27 01:18	30°♄		minimum elong	4260 May 03 16:14	14°♄22'49	2°24'10
morning rise	4259 May 31 01:00	27°♄49'46		min. Earth dist.	4260 May 06 23:11	11°♄39'01	0.58893 AU
direct	4259 Jun 05 09:23	26°♄41'10		morning rise	4260 May 10 22:40	8°♄56'25	
	4259 Jun 14 17:28	0°♄		desc. node	4260 May 12 17:44	8°♄05'43	
morning max el	4259 Jun 19 17:12	4°♄07'20	26°01'32	direct	4260 May 17 03:36	7°♄13'23	
	4259 Jul 08 08:42	0°♄		morning max el	4260 May 31 13:04	15°♄00'03	27°12'09
asc. node	4259 Jul 16 23:05	16°♄41'39			4260 Jun 12 15:37	0°♄	
morning set	4259 Jul 17 18:27	18°♄23'28			4260 Jun 29 15:27	0°♄	
	4259 Jul 23 03:01	0°♄		morning set	4260 Jul 01 03:28	3°♄06'39	
				asc. node	4260 Jul 02 20:09	6°♄41'51	
superior conj	4259 Jul 24 18:17	3°♄36'11	1°13'41				
minimum elong	4259 Jul 24 15:57	3°♄23'21	1°13'19	superior conj	4260 Jul 08 06:09	18°♄31'00	0°54'08
max. Earth dist.	4259 Jul 25 11:16	5°♄09'37	1.32255 AU	minimum elong	4260 Jul 08 04:05	18°♄19'35	0°53'45
evening rise	4259 Jul 31 18:43	18°♄44'38		max. Earth dist.	4260 Jul 07 22:46	17°♄50'19	1.31996 AU
	4259 Aug 06 09:51	0°♄			4260 Jul 13 11:54	0°♄	
desc. node	4259 Aug 22 20:03	26°♄42'04		evening rise	4260 Jul 15 02:58	3°♄28'40	
	4259 Aug 25 09:30	0°♄			4260 Jul 29 06:48	0°♄	
evening max el	4259 Sep 01 03:00	7°♄23'23	27°10'04	desc. node	4260 Aug 08 17:04	14°♄29'11	
retrograde	4259 Sep 14 23:29	14°♄36'22		evening max el	4260 Aug 13 03:14	19°♄10'24	26°20'09
evening set	4259 Sep 22 02:18	12°♄18'56		retrograde	4260 Aug 27 02:32	26°♄19'57	
min. Earth dist.	4259 Sep 25 17:23	9°♄35'09	0.61444 AU	evening set	4260 Sep 02 16:48	24°♄32'40	
inferior conj	4259 Sep 28 19:41	6°♄51'30	-4°-7'-48	min. Earth dist.	4260 Sep 06 16:27	21°♄58'17	0.59378 AU
minimum elong	4259 Sep 29 01:43	6°♄38'10	4°06'17	inferior conj	4260 Sep 09 22:54	19°♄27'34	-4°-52'-26
morning rise	4259 Oct 06 04:16	1°♄55'29		minimum elong	4260 Sep 10 03:38	19°♄18'25	4°51'46
direct	4259 Oct 08 11:29	1°♄33'30		morning rise	4260 Sep 17 17:58	14°♄54'21	
asc. node	4259 Oct 12 22:16	2°♄59'03		direct	4260 Sep 20 02:27	14°♄35'00	
morning max el	4259 Oct 15 12:29	5°♄05'16	17°56'23	morning max el	4260 Sep 27 22:18	18°♄22'32	18°22'00
morning set	4259 Oct 31 06:29	29°♄51'06		asc. node	4260 Sep 28 19:21	19°♄15'44	
	4259 Oct 31 08:26	0°♄			4260 Oct 06 09:14	0°♄	
				morning set	4260 Oct 13 20:22	13°♄43'25	
superior conj	4259 Nov 10 17:15	18°♄37'39	0°54'52		4260 Oct 22 10:47	0°♄	
minimum elong	4259 Nov 10 21:16	18°♄55'07	0°54'20				
	4259 Nov 17 09:55	0°♄		superior conj	4260 Oct 23 00:44	1°♄04'15	1°21'07
max. Earth dist.	4259 Nov 18 05:31	1°♄20'59	1.42544 AU	minimum elong	4260 Oct 23 04:26	1°♄21'15	1°20'44
desc. node	4259 Nov 18 19:21	2°♄17'50		max. Earth dist.	4260 Oct 30 13:14	14°♄26'29	1.40610 AU
evening rise	4259 Nov 24 15:13	11°♄40'33		evening rise	4260 Nov 04 03:02	22°♄08'19	
	4259 Dec 06 15:50	0°♄		desc. node	4260 Nov 04 16:23	23°♄03'10	
greatest brilliancy	4259 Dec 22 04:35	21°♄19'32	-0.3m		4260 Nov 08 23:56	0°♄	
evening max el	4259 Dec 26 22:01	26°♄39'23	22°07'49		4260 Nov 29 17:31	0°♄	
	4259 Dec 30 16:41	0°♄		evening max el	4260 Dec 08 13:03	10°♄16'42	23°27'27
retrograde	4260 Jan 05 08:46	2°♄16'47		retrograde	4260 Dec 19 02:47	16°♄31'50	
asc. node	4260 Jan 08 21:31	1°♄10'17		evening set	4260 Dec 24 01:54	14°♄29'42	
evening set	4260 Jan 09 19:23	0°♄30'41		asc. node	4260 Dec 25 18:34	12°♄51'01	
	4260 Jan 10 09:39	30°♄		min. Earth dist.	4260 Dec 29 01:03	8°♄42'24	0.67968 AU
inferior conj	4260 Jan 15 04:50	24°♄08'15	2°00'09	inferior conj	4260 Dec 29 12:37	8°♄02'42	1°14'41
minimum elong	4260 Jan 15 02:33	24°♄16'10	1°59'22	minimum elong	4260 Dec 29 11:00	8°♄08'18	1°14'03
min. Earth dist.	4260 Jan 15 04:13	24°♄10'24	0.68001 AU	morning rise	4261 Jan 03 20:11	1°♄53'45	
morning rise	4260 Jan 20 09:33	17°♄55'09		direct	4261 Jan 07 23:43	0°♄17'38	
direct	4260 Jan 25 03:21	15°♄56'17		morning max el	4261 Jan 16 09:41	5°♄09'54	21°03'41
morning max el	4260 Feb 03 17:24	21°♄35'22	22°26'12	greatest brilliancy	4261 Jan 21 19:07	11°♄21'49	-0.5m
greatest brilliancy	4260 Feb 08 06:50	26°♄40'39	-0.3m	desc. node	4261 Jan 31 15:35	24°♄54'45	
	4260 Feb 10 22:44	0°♄			4261 Feb 04 02:49	0°♄	
desc. node	4260 Feb 14 18:32	5°♄04'37		morning set	4261 Feb 15 18:57	17°♄48'26	
	4260 Mar 02 16:06	0°♄			4261 Feb 23 10:05	0°♄	
morning set	4260 Mar 08 09:00	9°♄07'07		max. Earth dist.	4261 Feb 23 14:27	0°♄17'50	1.42598 AU
max. Earth dist.	4260 Mar 13 12:01	17°♄38'06	1.40598 AU				
	4260 Mar 20 14:27	0°♄		superior conj	4261 Mar 02 17:59	12°♄12'42	-2°-7'-37
				minimum elong	4261 Mar 02 18:59	12°♄17'00	2°07'36

	4261 Mar 12 21:32	0°♿		max. Earth dist.	4262 Feb 06 00:54	13°≈50'00	1.44149 AU
evening rise	4261 Mar 14 08:49	2°♿38'21					
asc. node	4261 Mar 23 17:52	19°♿01'11		superior conj	4262 Feb 11 03:16	22°≈01'56	-2°-2'-6
evening max el	4261 Mar 31 01:20	28°♿53'16	18°07'10	minimum elong	4262 Feb 10 22:22	21°≈42'04	2°01'54
	4261 Apr 01 06:49	0°♿			4262 Feb 15 23:48	0°♿	
retrograde	4261 Apr 06 16:28	2°♿16'41		evening rise	4262 Feb 24 11:53	14°♿20'14	
evening set	4261 Apr 09 07:11	1°♿45'09			4262 Mar 05 18:27	0°♿	
	4261 Apr 12 06:54	30°♿		asc. node	4262 Mar 10 14:54	7°♿22'30	
inferior conj	4261 Apr 15 22:27	26°♿46'08	3°11'51	evening max el	4262 Mar 14 14:10	12°♿10'12	18°12'49
minimum elong	4261 Apr 16 01:03	26°♿39'49	3°11'25	retrograde	4262 Mar 21 00:13	15°♿34'35	
min. Earth dist.	4261 Apr 19 02:54	23°♿42'35	0.61087 AU	evening set	4262 Mar 23 20:49	14°♿51'53	
morning rise	4261 Apr 22 15:45	20°♿51'38		inferior conj	4262 Mar 30 00:09	9°♿32'45	3°32'56
direct	4261 Apr 29 09:27	18°♿35'27		minimum elong	4262 Mar 30 01:03	9°♿30'18	3°32'53
desc. node	4261 Apr 29 14:46	18°♿35'36		min. Earth dist.	4262 Apr 01 15:22	6°♿40'49	0.63171 AU
morning max el	4261 May 13 15:06	26°♿32'15	27°48'12	morning rise	4262 Apr 05 03:12	3°♿26'19	
	4261 May 16 21:08	0°♿		direct	4262 Apr 12 00:12	0°♿47'03	
	4261 Jun 06 05:09	0°♿		desc. node	4262 Apr 16 11:47	1°♿46'09	
morning set	4261 Jun 15 08:22	17°♿34'49		morning max el	4262 Apr 25 22:14	8°♿45'31	27°46'40
asc. node	4261 Jun 19 17:11	26°♿47'59			4262 May 12 08:39	0°♿	
	4261 Jun 21 04:36	0°♿			4262 May 29 10:36	0°♿	
max. Earth dist.	4261 Jun 21 09:05	0°♿24'30	1.32155 AU	morning set	4262 May 30 06:56	1°♿41'23	
				max. Earth dist.	4262 Jun 04 14:30	12°♿40'54	1.32744 AU
superior conj	4261 Jun 22 16:58	3°♿18'54	0°30'55	asc. node	4262 Jun 06 14:12	16°♿56'08	
minimum elong	4261 Jun 22 15:37	3°♿11'28	0°30'38				
evening rise	4261 Jun 29 13:58	18°♿17'44		superior conj	4262 Jun 07 01:00	17°♿54'23	0°04'43
	4261 Jul 05 07:41	0°♿		minimum elong	4262 Jun 07 00:46	17°♿53'08	0°04'40
	4261 Jul 25 16:00	0°♿		behind sun begin	4262 Jun 06 19:43	17°♿25'49	
evening max el	4261 Jul 25 20:12	0°♿10'08	25°01'41	behind sun end	4262 Jun 07 05:50	18°♿20'28	
desc. node	4261 Jul 26 14:04	0°♿51'57			4262 Jun 12 15:03	0°♿	
retrograde	4261 Aug 08 18:57	7°♿13'32		evening rise	4262 Jun 14 01:50	3°♿05'46	
evening set	4261 Aug 14 07:22	6°♿04'12			4262 Jun 28 17:17	0°♿	
min. Earth dist.	4261 Aug 19 07:49	3°♿20'34	0.57391 AU	evening max el	4262 Jul 07 09:07	10°♿38'00	23°26'36
inferior conj	4261 Aug 22 06:50	1°♿22'05	-5°-12'-22	desc. node	4262 Jul 13 11:03	15°♿18'31	
minimum elong	4261 Aug 22 07:12	1°♿21'28	5°12'23	retrograde	4262 Jul 20 22:41	17°♿25'34	
	4261 Aug 24 09:00	30°♿		evening set	4262 Jul 24 23:35	16°♿49'54	
morning rise	4261 Aug 30 10:34	27°♿11'23		min. Earth dist.	4262 Jul 31 18:50	13°♿40'48	0.55798 AU
direct	4261 Sep 01 23:51	26°♿52'27		inferior conj	4262 Aug 02 18:40	12°♿30'03	-4°-51'-41
	4261 Sep 09 17:19	0°♿		minimum elong	4262 Aug 02 12:53	12°♿38'38	4°50'52
morning max el	4261 Sep 10 23:34	1°♿06'25	19°08'48	morning rise	4262 Aug 11 05:15	8°♿36'27	
asc. node	4261 Sep 15 16:25	6°♿37'01		direct	4262 Aug 14 02:08	8°♿16'16	
morning set	4261 Sep 27 19:33	28°♿02'01		morning max el	4262 Aug 24 13:36	13°♿08'13	20°17'27
	4261 Sep 28 19:19	0°♿		asc. node	4262 Sep 02 13:27	24°♿48'42	
					4262 Sep 05 13:23	0°♿	
superior conj	4261 Oct 06 02:20	14°♿23'37	1°36'54	morning set	4262 Sep 12 00:59	12°♿38'33	
minimum elong	4261 Oct 06 04:35	14°♿34'28	1°36'46				
max. Earth dist.	4261 Oct 12 17:52	26°♿50'46	1.38522 AU	superior conj	4262 Sep 19 17:05	28°♿21'50	1°43'38
	4261 Oct 14 12:04	0°♿		minimum elong	4262 Sep 19 17:40	28°♿24'49	1°43'37
evening rise	4261 Oct 16 14:08	3°♿39'47			4262 Sep 20 12:35	0°♿	
desc. node	4261 Oct 22 13:24	13°♿42'03		max. Earth dist.	4262 Sep 25 00:17	8°♿48'41	1.36523 AU
	4261 Nov 02 03:06	0°♿		evening rise	4262 Sep 28 22:27	16°♿09'48	
evening max el	4261 Nov 21 01:59	23°♿58'01	24°45'57		4262 Oct 06 21:04	0°♿	
	4261 Nov 29 07:07	0°♿		desc. node	4262 Oct 09 10:24	4°♿10'03	
retrograde	4261 Dec 02 16:43	0°♿43'24			4262 Oct 27 15:13	0°♿	
	4261 Dec 05 20:25	30°♿		evening max el	4262 Nov 03 14:28	7°♿40'56	25°56'02
evening set	4261 Dec 08 05:33	28°♿25'51		retrograde	4262 Nov 16 01:49	14°♿46'38	
asc. node	4261 Dec 12 15:36	23°♿28'46		evening set	4262 Nov 22 04:37	12°♿15'51	
min. Earth dist.	4261 Dec 12 20:29	23°♿12'43	0.67582 AU	min. Earth dist.	4262 Nov 26 12:06	7°♿38'17	0.66850 AU
inferior conj	4261 Dec 13 18:49	21°♿58'44	0°23'09	inferior conj	4262 Nov 27 21:34	5°♿53'21	0°-33'-26
minimum elong	4261 Dec 13 18:15	22°♿00'37	0°22'54	minimum elong	4262 Nov 27 22:27	5°♿50'35	0°33'04
morning rise	4261 Dec 19 07:26	15°♿56'16		asc. node	4262 Nov 29 12:39	3°♿53'28	
direct	4261 Dec 22 22:01	14°♿41'25		morning rise	4262 Dec 03 17:17	29°♿59'59	
morning max el	4261 Dec 30 09:42	18°♿55'40	19°53'06		4262 Dec 03 17:17	30°♿	
greatest brilliancy	4262 Jan 06 18:10	27°♿53'14	-0.6m	direct	4262 Dec 06 20:43	29°♿03'23	
	4262 Jan 08 06:41	0°♿			4262 Dec 10 03:06	0°♿	
desc. node	4262 Jan 18 12:38	15°♿06'13		morning max el	4262 Dec 13 17:23	2°♿51'08	18°57'22
morning set	4262 Jan 25 15:00	25°♿57'41			4263 Jan 01 20:26	0°♿	
	4262 Jan 28 05:38	0°≈		morning set	4263 Jan 04 22:21	4°♿48'36	

desc. node	4263 Jan 05 09:39	5°☾32'47		superior conj	4263 Dec 31 16:21	9°☾29'07	0°-55'-32
max. Earth dist.	4263 Jan 19 17:30	27°☾58'28	1.45069 AU	minimum elong	4263 Dec 31 09:27	9°☾02'01	0°54'39
	4263 Jan 21 00:23	0°☾		max. Earth dist.	4264 Jan 02 12:41	12°☾23'17	1.45260 AU
					4264 Jan 13 18:50	0°☾	
superior conj	4263 Jan 21 13:42	0°☾52'29	-1°-37'-2	evening rise	4264 Jan 16 22:28	4°☾55'53	
minimum elong	4263 Jan 21 04:31	0°☾16'15	1°36'11	greatest brilliancy	4264 Jan 31 09:55	27°☾18'22	-0.7m
evening rise	4263 Feb 05 16:35	25°☾04'48			4264 Feb 02 06:16	0°☾	
	4263 Feb 08 17:05	0°☾		evening max el	4264 Feb 09 10:28	9°☾05'43	19°18'09
asc. node	4263 Feb 25 11:55	24°☾58'58		asc. node	4264 Feb 12 08:56	11°☾38'22	
evening max el	4263 Feb 26 01:57	25°☾35'39	18°36'52	retrograde	4264 Feb 16 12:22	13°☾08'32	
retrograde	4263 Mar 04 16:02	29°☾13'51		evening set	4264 Feb 19 21:58	12°☾00'57	
evening set	4263 Mar 07 18:41	28°☾19'09		inferior conj	4264 Feb 25 11:31	6°☾07'14	3°21'26
inferior conj	4263 Mar 13 13:38	22°☾41'35	3°34'32	minimum elong	4264 Feb 25 09:44	6°☾12'59	3°21'12
minimum elong	4263 Mar 13 12:58	22°☾43'37	3°34'31	min. Earth dist.	4264 Feb 26 19:59	4°☾22'17	0.66338 AU
min. Earth dist.	4263 Mar 15 13:18	20°☾18'22	0.64950 AU	morning rise	4264 Mar 01 20:39	29°☾51'34	
morning rise	4263 Mar 19 05:56	16°☾28'47			4264 Mar 01 16:56	30°☾	
direct	4263 Mar 25 22:20	13°☾39'54		direct	4264 Mar 08 03:02	27°☾05'56	
desc. node	4263 Apr 03 08:49	17°☾07'27			4264 Mar 15 11:31	0°☾	
morning max el	4263 Apr 08 08:01	21°☾30'49	27°10'33	desc. node	4264 Mar 20 05:52	4°☾06'14	
	4263 Apr 15 17:24	0°☾		morning max el	4264 Mar 20 17:54	4°☾36'19	26°06'57
	4263 May 05 12:45	0°☾			4264 Apr 09 04:10	0°☾	
morning set	4263 May 13 20:18	15°☾16'53		morning set	4264 Apr 25 20:39	28°☾10'30	
max. Earth dist.	4263 May 18 11:07	24°☾28'11	1.33780 AU		4264 Apr 26 20:07	0°☾	
	4263 May 21 03:20	0°☾		max. Earth dist.	4264 Apr 29 20:12	5°☾43'54	1.35275 AU
superior conj	4263 May 22 04:10	2°☾10'16	0°-23'-40	superior conj	4264 May 05 00:05	16°☾00'00	0°-52'-59
minimum elong	4263 May 22 05:24	2°☾16'46	0°23'26	minimum elong	4264 May 05 02:57	16°☾14'33	0°52'29
asc. node	4263 May 24 11:13	7°☾01'38		asc. node	4264 May 10 08:14	27°☾00'35	
evening rise	4263 May 29 12:37	17°☾45'40			4264 May 11 18:53	0°☾	
	4263 Jun 04 14:54	0°☾		evening rise	4264 May 12 20:21	2°☾11'18	
evening max el	4263 Jun 19 01:28	21°☾04'52	21°50'57		4264 May 29 06:29	0°☾	
desc. node	4263 Jun 30 08:03	27°☾14'21		evening max el	4264 May 31 04:18	2°☾01'14	20°27'30
retrograde	4263 Jul 01 15:22	27°☾18'19		retrograde	4264 Jun 11 04:32	7°☾24'01	
evening set	4263 Jul 04 07:52	27°☾02'05		evening set	4264 Jun 13 04:45	7°☾14'00	
min. Earth dist.	4263 Jul 13 05:08	23°☾13'44	0.54916 AU	desc. node	4264 Jun 16 05:04	6°☾24'36	
inferior conj	4263 Jul 13 15:22	22°☾59'25	-3°-40'-12	inferior conj	4264 Jun 22 09:22	3°☾16'25	-1°-49'-27
minimum elong	4263 Jul 13 06:47	23°☾11'26	3°37'49	minimum elong	4264 Jun 22 04:14	3°☾23'53	1°47'36
morning rise	4263 Jul 22 07:10	19°☾08'19		min. Earth dist.	4264 Jun 23 17:10	2°☾30'14	0.54969 AU
direct	4263 Jul 25 13:43	18°☾44'48			4264 Jun 28 13:32	30°☾	
morning max el	4263 Aug 06 15:52	24°☾24'42	21°45'59	morning rise	4264 Jul 01 02:05	29°☾06'53	
	4263 Aug 11 17:01	0°☾		direct	4264 Jul 04 23:32	28°☾34'09	
asc. node	4263 Aug 20 10:29	13°☾38'44			4264 Jul 11 04:24	0°☾	
morning set	4263 Aug 27 10:20	27°☾26'17		morning max el	4264 Jul 18 09:10	5°☾04'00	23°27'23
	4263 Aug 28 15:42	0°☾			4264 Aug 04 18:37	0°☾	
				asc. node	4264 Aug 06 07:30	2°☾57'28	
superior conj	4263 Sep 03 17:02	12°☾47'13	1°42'48	morning set	4264 Aug 10 21:41	12°☾19'24	
minimum elong	4263 Sep 03 16:13	12°☾42'59	1°42'46				
max. Earth dist.	4263 Sep 07 13:13	20°☾42'18	1.34805 AU	superior conj	4264 Aug 17 23:07	27°☾30'04	1°35'37
evening rise	4263 Sep 11 23:47	29°☾27'46		minimum elong	4264 Aug 17 21:21	27°☾20'30	1°35'28
	4263 Sep 12 06:31	0°☾			4264 Aug 19 03:06	0°☾	
desc. node	4263 Sep 26 07:24	24°☾21'31		max. Earth dist.	4264 Aug 20 10:54	2°☾49'04	1.33481 AU
	4263 Sep 30 00:26	0°☾		evening rise	4264 Aug 25 13:55	13°☾22'10	
evening max el	4263 Oct 17 03:01	21°☾18'58	26°50'23		4264 Sep 03 11:18	0°☾	
retrograde	4263 Oct 30 05:40	28°☾35'16		desc. node	4264 Sep 12 04:25	14°☾08'35	
evening set	4263 Nov 05 21:09	25°☾56'08			4264 Sep 24 03:16	0°☾	
min. Earth dist.	4263 Nov 09 21:40	21°☾54'47	0.65761 AU	evening max el	4264 Sep 28 14:58	4°☾41'35	27°21'45
inferior conj	4263 Nov 11 18:54	19°☾43'05	-1°-33'-42	retrograde	4264 Oct 12 03:45	12°☾00'05	
minimum elong	4263 Nov 11 21:31	19°☾35'26	1°32'37	evening set	4264 Oct 19 04:34	9°☾20'39	
asc. node	4263 Nov 16 09:41	15°☾01'42		min. Earth dist.	4264 Oct 22 23:01	5°☾54'10	0.64322 AU
morning rise	4263 Nov 17 23:31	14°☾01'37		inferior conj	4264 Oct 25 08:24	3°☾21'55	-2°-35'-39
direct	4263 Nov 20 17:51	13°☾19'31		minimum elong	4264 Oct 25 12:49	3°☾10'11	2°34'00
morning max el	4263 Nov 27 06:48	16°☾51'38	18°17'52		4264 Oct 28 18:31	30°☾	
	4263 Dec 06 23:59	0°☾		morning rise	4264 Oct 31 23:21	27°☾55'21	
morning set	4263 Dec 16 09:26	15°☾05'04		asc. node	4264 Nov 02 06:44	27°☾30'59	
desc. node	4263 Dec 23 06:41	26°☾10'16		direct	4264 Nov 03 11:02	27°☾23'50	
	4263 Dec 25 16:20	0°☾			4264 Nov 09 02:06	0°☾	
				morning max el	4264 Nov 09 23:09	0°☾49'33	17°55'19

morning set	4264 Nov 27 01:02	26° \mathbb{M} 44'59		direct	4265 Oct 17 21:16	11° \mathbb{A} 10'24	
	4264 Nov 28 23:07	0° \mathbb{A}		asc. node	4265 Oct 20 03:47	11° \mathbb{A} 34'26	
desc. node	4264 Dec 09 03:44	16° \mathbb{A} 54'10		morning max el	4265 Oct 24 15:27	14° \mathbb{A} 37'47	17°50'30
					4265 Nov 04 06:05	0° \mathbb{M}	
superior conj	4264 Dec 10 07:44	18° \mathbb{A} 47'31	0°-8'-4	morning set	4265 Nov 09 15:20	9° \mathbb{M} 30'01	
minimum elong	4264 Dec 10 06:47	18° \mathbb{A} 43'42	0°07'57				
behind sun begin	4264 Dec 09 21:49	18° \mathbb{A} 07'28		superior conj	4265 Nov 21 00:12	29° \mathbb{M} 19'43	0°34'41
behind sun end	4264 Dec 10 15:45	19° \mathbb{A} 19'52		minimum elong	4265 Nov 21 03:20	29° \mathbb{M} 32'59	0°34'15
max. Earth dist.	4264 Dec 15 07:16	26° \mathbb{A} 45'22	1.44712 AU		4265 Nov 21 09:44	0° \mathbb{A}	
	4264 Dec 17 08:35	0° \mathbb{C}		desc. node	4265 Nov 26 00:46	7° \mathbb{A} 41'05	
evening rise	4264 Dec 26 11:39	14° \mathbb{C} 11'05		max. Earth dist.	4265 Nov 27 23:02	10° \mathbb{A} 49'24	1.43500 AU
	4265 Jan 05 21:18	0° \mathbb{M}		evening rise	4265 Dec 05 22:16	23° \mathbb{A} 26'37	
greatest brilliancy	4265 Jan 16 05:33	14° \mathbb{M} 55'27	-0.6m		4265 Dec 10 04:39	0° \mathbb{C}	
evening max el	4265 Jan 22 14:11	22° \mathbb{M} 37'55	20°14'54		4265 Dec 31 04:01	0° \mathbb{M}	
asc. node	4265 Jan 29 05:59	27° \mathbb{M} 06'03		greatest brilliancy	4265 Dec 31 13:06	0° \mathbb{M} 28'34	-0.4m
retrograde	4265 Jan 30 10:27	27° \mathbb{M} 13'41		evening max el	4266 Jan 05 12:29	6° \mathbb{M} 11'38	21°24'05
evening set	4265 Feb 03 04:26	25° \mathbb{M} 52'05		retrograde	4266 Jan 14 08:08	11° \mathbb{M} 25'31	
inferior conj	4265 Feb 08 14:57	19° \mathbb{M} 44'53	2°56'56	asc. node	4266 Jan 16 03:02	11° \mathbb{M} 08'12	
minimum elong	4265 Feb 08 12:35	19° \mathbb{M} 52'53	2°56'23	evening set	4266 Jan 18 12:13	9° \mathbb{M} 48'41	
min. Earth dist.	4265 Feb 09 09:33	18° \mathbb{M} 41'52	0.67306 AU	inferior conj	4266 Jan 23 21:36	3° \mathbb{M} 31'00	2°23'11
morning rise	4265 Feb 13 20:10	13° \mathbb{M} 28'48		minimum elong	4266 Jan 23 19:09	3° \mathbb{M} 39'28	2°22'25
direct	4265 Feb 19 13:19	10° \mathbb{M} 56'38		min. Earth dist.	4266 Jan 24 03:42	3° \mathbb{M} 09'54	0.67866 AU
morning max el	4265 Mar 03 02:35	17° \mathbb{M} 51'11	24°45'33		4266 Jan 26 12:42	30° \mathbb{R} \mathbb{C}	
desc. node	4265 Mar 07 02:55	22° \mathbb{M} 14'53		morning rise	4266 Jan 29 01:47	27° \mathbb{C} 16'25	
	4265 Mar 13 07:03	0° \mathbb{H}		direct	4266 Feb 03 04:16	25° \mathbb{C} 04'19	
	4265 Apr 02 05:12	0° \mathbb{Y}			4266 Feb 12 06:07	0° \mathbb{M}	
morning set	4265 Apr 08 02:56	10° \mathbb{Y} 08'11		morning max el	4266 Feb 13 11:29	1° \mathbb{M} 11'33	23°16'44
max. Earth dist.	4265 Apr 11 18:55	16° \mathbb{Y} 44'18	1.37184 AU	greatest brilliancy	4266 Feb 18 17:14	7° \mathbb{M} 04'39	-0.2m
				desc. node	4266 Feb 21 23:59	11° \mathbb{M} 13'21	
superior conj	4265 Apr 18 09:43	29° \mathbb{Y} 15'47	-1°-21'-23		4266 Mar 07 06:05	0° \mathbb{H}	
minimum elong	4265 Apr 18 14:00	29° \mathbb{Y} 36'39	1°20'46	morning set	4266 Mar 20 08:58	20° \mathbb{H} 53'10	
	4265 Apr 18 18:47	0° \mathbb{B}		max. Earth dist.	4266 Mar 24 13:57	28° \mathbb{H} 04'30	1.39352 AU
evening rise	4265 Apr 26 22:43	16° \mathbb{B} 16'05			4266 Mar 25 16:23	0° \mathbb{Y}	
asc. node	4265 Apr 27 05:17	16° \mathbb{B} 48'51					
	4265 May 04 03:04	0° \mathbb{H}		superior conj	4266 Apr 01 05:04	11° \mathbb{Y} 47'15	-1°-46'-6
evening max el	4265 May 13 19:35	13° \mathbb{H} 39'26	19°22'25	minimum elong	4266 Apr 01 09:52	12° \mathbb{Y} 09'29	1°45'38
retrograde	4265 May 23 02:17	18° \mathbb{H} 10'30		evening rise	4266 Apr 10 16:51	29° \mathbb{Y} 52'09	
evening set	4265 May 25 01:43	17° \mathbb{H} 59'07			4266 Apr 10 18:29	0° \mathbb{B}	
inferior conj	4265 Jun 02 14:55	13° \mathbb{H} 51'56	0°08'14	asc. node	4266 Apr 14 02:20	6° \mathbb{B} 21'09	
minimum elong	4265 Jun 02 15:16	13° \mathbb{H} 51'22	0°08'06	evening max el	4266 Apr 26 21:09	25° \mathbb{B} 55'46	18°37'22
transit middle	4265 Jun 02 15:16	13° \mathbb{H} 51'22	0°08'06	retrograde	4266 May 04 17:52	29° \mathbb{B} 47'44	
transit begin	4265 Jun 02 11:56	13° \mathbb{H} 56'49		evening set	4266 May 06 22:50	29° \mathbb{B} 30'32	
transit end	4265 Jun 02 18:36	13° \mathbb{H} 45'54		inferior conj	4266 May 14 16:28	25° \mathbb{B} 04'25	1°44'19
desc. node	4265 Jun 03 02:06	13° \mathbb{H} 33'35		minimum elong	4266 May 14 19:48	24° \mathbb{B} 58'02	1°43'15
min. Earth dist.	4265 Jun 05 07:33	12° \mathbb{H} 06'46	0.55967 AU	min. Earth dist.	4266 May 18 01:07	22° \mathbb{B} 31'38	0.57702 AU
morning rise	4265 Jun 11 00:49	9° \mathbb{H} 09'30		desc. node	4266 May 20 23:09	20° \mathbb{B} 36'21	
direct	4265 Jun 15 20:02	8° \mathbb{H} 16'59		morning rise	4266 May 22 12:19	19° \mathbb{B} 47'29	
morning max el	4265 Jun 29 23:01	15° \mathbb{H} 26'51	25°09'05	direct	4266 May 28 06:26	18° \mathbb{B} 24'38	
	4265 Jul 11 14:48	0° \mathbb{C}		morning max el	4266 Jun 11 15:19	26° \mathbb{B} 00'18	26°35'22
asc. node	4265 Jul 24 04:34	22° \mathbb{C} 37'14			4266 Jun 15 09:30	0° \mathbb{H}	
morning set	4265 Jul 26 09:27	27° \mathbb{C} 13'02			4266 Jul 04 20:45	0° \mathbb{C}	
	4265 Jul 27 16:46	0° \mathbb{Q}		morning set	4266 Jul 10 19:55	12° \mathbb{C} 00'51	
				asc. node	4266 Jul 11 01:37	12° \mathbb{C} 30'53	
superior conj	4265 Aug 02 09:00	12° \mathbb{Q} 22'55	1°23'04				
minimum elong	4265 Aug 02 06:44	12° \mathbb{Q} 10'29	1°22'46	superior conj	4266 Jul 17 20:37	27° \mathbb{C} 17'55	1°05'53
max. Earth dist.	4265 Aug 03 16:33	15° \mathbb{Q} 15'09	1.32582 AU	minimum elong	4266 Jul 17 18:20	27° \mathbb{C} 05'21	1°05'30
evening rise	4265 Aug 09 13:20	27° \mathbb{Q} 43'06		max. Earth dist.	4266 Jul 18 03:02	27° \mathbb{C} 53'18	1.32096 AU
	4265 Aug 10 16:10	0° \mathbb{H}			4266 Jul 19 02:00	0° \mathbb{Q}	
	4265 Aug 27 17:51	0° \mathbb{A}		evening rise	4266 Jul 24 19:02	12° \mathbb{Q} 20'21	
desc. node	4265 Aug 30 01:26	3° \mathbb{A} 21'13			4266 Aug 02 19:43	0° \mathbb{H}	
evening max el	4265 Sep 11 00:35	17° \mathbb{A} 37'01	27°23'51	desc. node	4266 Aug 16 22:27	21° \mathbb{H} 44'29	
retrograde	4265 Sep 24 19:10	24° \mathbb{A} 52'07		evening max el	4266 Aug 24 05:01	29° \mathbb{H} 51'22	26°52'53
evening set	4265 Oct 01 23:33	22° \mathbb{A} 23'21			4266 Aug 24 08:41	0° \mathbb{A}	
min. Earth dist.	4265 Oct 05 14:30	19° \mathbb{A} 26'32	0.62571 AU	retrograde	4266 Sep 07 02:44	7° \mathbb{A} 02'01	
inferior conj	4265 Oct 08 11:16	16° \mathbb{A} 43'26	-3°-35'-55	evening set	4266 Sep 14 01:47	4° \mathbb{A} 56'18	
minimum elong	4265 Oct 08 17:03	16° \mathbb{A} 29'41	3°34'10	min. Earth dist.	4266 Sep 17 19:11	2° \mathbb{A} 18'30	0.60578 AU
morning rise	4265 Oct 15 13:22	11° \mathbb{A} 34'59			4266 Sep 20 13:51	30° \mathbb{R} \mathbb{H}	

inferior conj	4266 Sep 21 00:06	29° $\mathring{\text{M}}$ 38'27	-4°-28'-51	evening set	4267 Aug 26 06:22	16° $\mathring{\text{M}}$ 51'47	
minimum elong	4266 Sep 21 05:55	29° $\mathring{\text{M}}$ 26'18	4°27'38	min. Earth dist.	4267 Aug 30 14:09	14° $\mathring{\text{M}}$ 16'06	0.58508 AU
morning rise	4266 Sep 28 13:17	24° $\mathring{\text{M}}$ 51'32		inferior conj	4267 Sep 02 19:20	11° $\mathring{\text{M}}$ 56'50	-5°-4'-51
direct	4266 Sep 30 20:41	24° $\mathring{\text{M}}$ 30'52		minimum elong	4267 Sep 02 22:36	11° $\mathring{\text{M}}$ 50'53	5°04'34
asc. node	4266 Oct 07 00:51	27° $\mathring{\text{M}}$ 05'49		morning rise	4267 Sep 10 18:21	7° $\mathring{\text{M}}$ 33'38	
morning max el	4266 Oct 08 04:30	28° $\mathring{\text{M}}$ 08'08	18°04'43	direct	4267 Sep 13 04:39	7° $\mathring{\text{M}}$ 14'35	
	4266 Oct 09 22:13	0° $\mathring{\text{A}}$		morning max el	4267 Sep 21 11:00	11° $\mathring{\text{M}}$ 11'31	18°39'21
morning set	4266 Oct 23 22:05	23° $\mathring{\text{A}}$ 01'52		asc. node	4267 Sep 23 21:54	13° $\mathring{\text{M}}$ 51'05	
	4266 Oct 27 15:55	0° $\mathring{\text{M}}$			4267 Oct 03 23:25	0° $\mathring{\text{A}}$	
				morning set	4267 Oct 07 16:20	7° $\mathring{\text{A}}$ 06'09	
superior conj	4266 Nov 02 18:41	11° $\mathring{\text{M}}$ 07'54	1°07'21	superior conj	4267 Oct 16 10:31	23° $\mathring{\text{A}}$ 58'36	1°29'01
minimum elong	4266 Nov 02 22:47	11° $\mathring{\text{M}}$ 26'10	1°06'51	minimum elong	4267 Oct 16 13:40	24° $\mathring{\text{A}}$ 13'23	1°28'45
max. Earth dist.	4266 Nov 10 10:16	24° $\mathring{\text{M}}$ 20'58	1.41765 AU		4267 Oct 19 16:35	0° $\mathring{\text{M}}$	
desc. node	4266 Nov 12 21:47	28° $\mathring{\text{M}}$ 27'45		max. Earth dist.	4267 Oct 23 16:33	7° $\mathring{\text{M}}$ 09'14	1.39723 AU
	4266 Nov 13 20:20	0° $\mathring{\text{A}}$		evening rise	4267 Oct 27 19:31	14° $\mathring{\text{M}}$ 14'32	
evening rise	4266 Nov 15 21:56	3° $\mathring{\text{A}}$ 20'37		desc. node	4267 Oct 30 18:46	19° $\mathring{\text{M}}$ 10'23	
	4266 Dec 03 13:45	0° $\mathring{\text{B}}$			4267 Nov 06 14:34	0° $\mathring{\text{A}}$	
greatest brilliancy	4266 Dec 14 06:17	14° $\mathring{\text{B}}$ 12'33	-0.3m		4267 Nov 28 14:11	0° $\mathring{\text{B}}$	
evening max el	4266 Dec 19 05:47	19° $\mathring{\text{B}}$ 47'22	22°41'25	evening max el	4267 Dec 01 19:32	3° $\mathring{\text{B}}$ 25'47	24°01'20
retrograde	4266 Dec 29 03:46	25° $\mathring{\text{B}}$ 40'43		retrograde	4267 Dec 12 20:09	9° $\mathring{\text{B}}$ 54'55	
evening set	4267 Jan 02 19:39	23° $\mathring{\text{B}}$ 47'42		evening set	4267 Dec 18 01:08	7° $\mathring{\text{B}}$ 45'47	
asc. node	4267 Jan 03 00:05	23° $\mathring{\text{B}}$ 38'25		asc. node	4267 Dec 20 21:07	4° $\mathring{\text{B}}$ 47'24	
inferior conj	4267 Jan 08 05:29	17° $\mathring{\text{B}}$ 23'02	1°41'40	min. Earth dist.	4267 Dec 22 20:32	2° $\mathring{\text{B}}$ 13'07	0.67848 AU
minimum elong	4267 Jan 08 03:26	17° $\mathring{\text{B}}$ 30'09	1°40'55	inferior conj	4267 Dec 23 12:47	1° $\mathring{\text{B}}$ 18'06	0°53'29
min. Earth dist.	4267 Jan 08 00:08	17° $\mathring{\text{B}}$ 41'34	0.68038 AU	minimum elong	4267 Dec 23 11:33	1° $\mathring{\text{B}}$ 22'16	0°52'59
morning rise	4267 Jan 13 11:10	11° $\mathring{\text{B}}$ 11'42			4267 Dec 24 12:02	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
direct	4267 Jan 17 22:50	9° $\mathring{\text{B}}$ 22'30		morning rise	4267 Dec 28 22:16	25° $\mathring{\text{A}}$ 11'52	
morning max el	4267 Jan 27 00:10	14° $\mathring{\text{B}}$ 40'14	21°49'56	direct	4268 Jan 01 20:03	23° $\mathring{\text{A}}$ 45'17	
greatest brilliancy	4267 Jan 31 17:43	19° $\mathring{\text{B}}$ 59'32	-0.4m	morning max el	4268 Jan 09 19:45	28° $\mathring{\text{A}}$ 19'55	20°32'01
	4267 Feb 08 07:25	0° $\mathring{\text{A}}$			4268 Jan 11 09:42	0° $\mathring{\text{B}}$	
desc. node	4267 Feb 08 21:01	0° $\mathring{\text{A}}$ 47'37		greatest brilliancy	4268 Jan 15 21:44	5° $\mathring{\text{B}}$ 28'17	-0.5m
morning set	4267 Feb 28 10:24	0° $\mathring{\text{H}}$ 16'39		desc. node	4268 Jan 26 18:02	20° $\mathring{\text{B}}$ 47'16	
	4267 Feb 28 06:14	0° $\mathring{\text{H}}$			4268 Feb 01 21:16	0° $\mathring{\text{A}}$	
max. Earth dist.	4267 Mar 06 13:05	10° $\mathring{\text{H}}$ 15'06	1.41495 AU	morning set	4268 Feb 07 11:44	8° $\mathring{\text{A}}$ 36'13	
				max. Earth dist.	4268 Feb 16 19:18	23° $\mathring{\text{A}}$ 19'30	1.43327 AU
superior conj	4267 Mar 14 05:19	23° $\mathring{\text{H}}$ 23'02	-2°-3'-12		4268 Feb 20 21:36	0° $\mathring{\text{H}}$	
minimum elong	4267 Mar 14 08:35	23° $\mathring{\text{H}}$ 37'23	2°03'04	superior conj	4268 Feb 23 05:27	3° $\mathring{\text{H}}$ 51'20	-2°-7'-31
	4267 Mar 17 22:34	0° $\mathring{\text{Y}}$		minimum elong	4268 Feb 23 04:09	3° $\mathring{\text{H}}$ 45'55	2°07'31
evening rise	4267 Mar 24 23:12	12° $\mathring{\text{Y}}$ 51'23		evening rise	4268 Mar 06 13:28	25° $\mathring{\text{H}}$ 03'37	
asc. node	4267 Mar 31 23:23	25° $\mathring{\text{Y}}$ 32'01			4268 Mar 09 08:53	0° $\mathring{\text{Y}}$	
	4267 Apr 03 15:39	0° $\mathring{\text{B}}$		asc. node	4268 Mar 17 20:24	14° $\mathring{\text{Y}}$ 13'40	
evening max el	4267 Apr 10 05:40	8° $\mathring{\text{B}}$ 42'30	18°12'26	evening max el	4268 Mar 23 17:43	21° $\mathring{\text{Y}}$ 50'06	18°07'11
retrograde	4267 Apr 17 04:19	12° $\mathring{\text{B}}$ 12'02		retrograde	4268 Mar 30 05:39	25° $\mathring{\text{Y}}$ 12'37	
evening set	4267 Apr 19 15:33	11° $\mathring{\text{B}}$ 46'15		evening set	4268 Apr 01 22:46	24° $\mathring{\text{Y}}$ 36'33	
inferior conj	4267 Apr 26 15:22	6° $\mathring{\text{B}}$ 58'51	2°48'30	inferior conj	4268 Apr 08 08:29	19° $\mathring{\text{Y}}$ 28'40	3°23'30
minimum elong	4267 Apr 26 18:44	6° $\mathring{\text{B}}$ 51'20	2°47'45	minimum elong	4268 Apr 08 10:23	19° $\mathring{\text{Y}}$ 23'48	3°23'17
min. Earth dist.	4267 Apr 30 00:24	3° $\mathring{\text{B}}$ 59'28	0.59827 AU	min. Earth dist.	4268 Apr 11 07:47	16° $\mathring{\text{Y}}$ 27'23	0.62000 AU
morning rise	4267 May 03 18:09	1° $\mathring{\text{B}}$ 14'56		morning rise	4268 Apr 14 19:18	13° $\mathring{\text{Y}}$ 27'50	
	4267 May 06 08:05	30° $\mathring{\text{R}}$ $\mathring{\text{Y}}$		direct	4268 Apr 21 15:17	11° $\mathring{\text{Y}}$ 00'26	
desc. node	4267 May 07 20:11	29° $\mathring{\text{Y}}$ 33'22		desc. node	4268 Apr 23 17:12	11° $\mathring{\text{Y}}$ 13'06	
direct	4267 May 10 05:31	29° $\mathring{\text{Y}}$ 17'26		morning max el	4268 May 05 18:35	18° $\mathring{\text{Y}}$ 59'32	27°52'07
	4267 May 14 06:03	0° $\mathring{\text{B}}$			4268 May 15 02:03	0° $\mathring{\text{B}}$	
morning max el	4267 May 24 13:51	7° $\mathring{\text{B}}$ 08'38	27°32'09		4268 Jun 02 15:38	0° $\mathring{\text{H}}$	
	4267 Jun 10 19:12	0° $\mathring{\text{H}}$		morning set	4268 Jun 08 05:54	10° $\mathring{\text{H}}$ 57'35	
morning set	4267 Jun 25 03:24	26° $\mathring{\text{H}}$ 37'46		asc. node	4268 Jun 13 19:41	22° $\mathring{\text{H}}$ 40'55	
	4267 Jun 26 17:53	0° $\mathring{\text{B}}$		max. Earth dist.	4268 Jun 13 23:23	23° $\mathring{\text{H}}$ 00'53	1.32349 AU
asc. node	4267 Jun 27 22:39	2° $\mathring{\text{B}}$ 33'36		superior conj	4268 Jun 15 18:02	26° $\mathring{\text{H}}$ 52'28	0°20'07
max. Earth dist.	4267 Jul 01 14:38	10° $\mathring{\text{B}}$ 32'49	1.32016 AU	minimum elong	4268 Jun 15 17:07	26° $\mathring{\text{H}}$ 47'26	0°19'55
					4268 Jun 17 04:22	0° $\mathring{\text{B}}$	
superior conj	4267 Jul 02 08:12	12° $\mathring{\text{B}}$ 09'34	0°44'42	evening rise	4268 Jun 22 16:15	11° $\mathring{\text{B}}$ 55'31	
minimum elong	4267 Jul 02 06:23	11° $\mathring{\text{B}}$ 59'32	0°44'20		4268 Jul 01 20:06	0° $\mathring{\text{B}}$	
evening rise	4267 Jul 09 04:40	27° $\mathring{\text{B}}$ 06'37		evening max el	4268 Jul 17 16:15	21° $\mathring{\text{B}}$ 58'31	24°22'17
	4267 Jul 10 13:36	0° $\mathring{\text{B}}$		desc. node	4268 Jul 20 16:27	24° $\mathring{\text{B}}$ 35'53	
	4267 Jul 27 14:13	0° $\mathring{\text{M}}$		retrograde	4268 Jul 31 12:44	28° $\mathring{\text{B}}$ 57'54	
desc. node	4267 Aug 03 19:27	8° $\mathring{\text{M}}$ 58'25					
evening max el	4267 Aug 06 01:58	11° $\mathring{\text{M}}$ 16'23	25°49'37				
retrograde	4267 Aug 20 01:09	18° $\mathring{\text{M}}$ 23'33					

evening set	4268 Aug 05 10:40	28°♄03'59		evening rise	4269 Jun 07 03:52	26°♄40'28	
min. Earth dist.	4268 Aug 11 03:08	25°♄11'13	0.56636 AU		4269 Jun 08 17:57	0°♄	
inferior conj	4268 Aug 13 18:31	23°♄31'12	-5°-9'-31		4269 Jun 26 23:25	0°♄	
minimum elong	4268 Aug 13 16:15	23°♄34'47	5°09'24	evening max el	4269 Jun 29 05:39	2°♄21'53	22°45'11
morning rise	4268 Aug 22 01:23	19°♄29'20		desc. node	4269 Jul 07 13:28	8°♄02'07	
direct	4268 Aug 24 17:30	19°♄10'12		retrograde	4269 Jul 12 11:36	8°♄57'39	
morning max el	4268 Sep 03 07:50	23°♄38'49	19°35'31	evening set	4269 Jul 15 21:00	8°♄32'26	
	4268 Sep 08 16:48	0°♄		min. Earth dist.	4269 Jul 23 13:54	5°♄08'10	0.55310 AU
asc. node	4268 Sep 09 18:55	1°♄35'21		inferior conj	4269 Jul 24 22:54	4°♄20'54	-4°-27'-33
morning set	4268 Sep 20 18:30	21°♄33'13		minimum elong	4269 Jul 24 15:11	4°♄31'59	4°26'00
	4268 Sep 24 22:52	0°♄		morning rise	4269 Aug 02 11:53	0°♄30'19	
				direct	4269 Aug 05 12:18	0°♄09'11	
superior conj	4268 Sep 28 18:18	7°♄36'31	1°40'47	morning max el	4269 Aug 16 16:50	5°♄21'23	20°52'59
minimum elong	4268 Sep 28 19:50	7°♄44'04	1°40'42	asc. node	4269 Aug 27 15:57	20°♄04'29	
max. Earth dist.	4268 Oct 04 20:57	19°♄18'34	1.37637 AU		4269 Sep 01 23:49	0°♄	
evening rise	4268 Oct 08 16:06	26°♄12'09		morning set	4269 Sep 05 01:50	6°♄14'47	
	4268 Oct 10 20:04	0°♄					
desc. node	4268 Oct 16 15:47	9°♄45'18		superior conj	4269 Sep 12 13:23	21°♄47'13	1°44'08
	4268 Oct 30 03:36	0°♄		minimum elong	4269 Sep 12 13:20	21°♄46'59	1°44'07
evening max el	4268 Nov 13 07:57	17°♄07'50	25°17'10		4269 Sep 16 15:05	0°♄	
retrograde	4268 Nov 25 08:18	24°♄04'01		max. Earth dist.	4269 Sep 17 05:18	1°♄10'04	1.35745 AU
evening set	4268 Dec 01 03:05	21°♄40'15		evening rise	4269 Sep 21 08:13	9°♄04'00	
min. Earth dist.	4268 Dec 05 14:41	16°♄42'05	0.67311 AU		4269 Oct 03 11:05	0°♄	
inferior conj	4268 Dec 06 17:45	15°♄14'13	0°00'-18	desc. node	4269 Oct 03 12:48	0°♄06'48	
minimum elong	4268 Dec 06 17:46	15°♄14'12	0°00'19		4269 Oct 26 00:19	0°♄	
transit middle	4268 Dec 06 17:46	15°♄14'12	0°00'19	evening max el	4269 Oct 26 20:31	0°♄49'43	26°21'36
transit begin	4268 Dec 06 14:59	15°♄23'15		retrograde	4269 Nov 08 15:23	8°♄01'25	
transit end	4268 Dec 06 20:33	15°♄05'09		evening set	4269 Nov 14 23:39	5°♄26'35	
asc. node	4268 Dec 06 18:08	15°♄12'59		min. Earth dist.	4269 Nov 19 04:09	1°♄04'07	0.66424 AU
morning rise	4268 Dec 12 09:10	9°♄15'16			4269 Nov 20 01:15	30°♄	
direct	4268 Dec 15 18:39	8°♄08'47		inferior conj	4269 Nov 20 18:29	29°♄07'17	0°-58'-38
morning max el	4268 Dec 22 23:15	12°♄10'46	19°27'26	minimum elong	4269 Nov 20 20:04	29°♄02'25	0°57'58
greatest brilliancy	4268 Dec 31 15:56	23°♄08'35	-0.7m	asc. node	4269 Nov 23 15:10	25°♄49'45	
	4269 Jan 05 08:04	0°♄		morning rise	4269 Nov 26 17:45	23°♄18'21	
desc. node	4269 Jan 12 15:03	11°♄05'42		direct	4269 Nov 29 17:00	22°♄28'24	
morning set	4269 Jan 16 09:31	16°♄54'32		morning max el	4269 Dec 06 09:35	26°♄08'34	18°38'29
	4269 Jan 24 19:31	0°♄			4269 Dec 09 18:10	0°♄	
max. Earth dist.	4269 Jan 29 08:07	7°♄07'10	1.44627 AU	morning set	4269 Dec 27 03:45	26°♄19'37	
					4269 Dec 29 11:28	0°♄	
superior conj	4269 Feb 02 04:02	13°♄12'28	-1°-53'-52	desc. node	4269 Dec 30 12:06	1°♄37'22	
minimum elong	4269 Feb 01 20:43	12°♄43'16	1°53'24				
	4269 Feb 12 11:45	0°♄		superior conj	4270 Jan 12 08:49	21°♄50'56	-1°-20'-57
evening rise	4269 Feb 16 07:21	6°♄21'13		minimum elong	4270 Jan 11 23:46	21°♄15'26	1°19'58
	4269 Mar 03 00:06	0°♄		max. Earth dist.	4270 Jan 12 01:53	21°♄23'42	1.45243 AU
asc. node	4269 Mar 04 17:25	2°♄17'13			4270 Jan 17 13:20	0°♄	
evening max el	4269 Mar 07 06:23	5°♄11'05	18°20'51	evening rise	4270 Jan 28 02:06	16°♄41'55	
retrograde	4269 Mar 13 17:15	8°♄40'02			4270 Feb 05 10:06	0°♄	
evening set	4269 Mar 16 16:16	7°♄52'30		evening max el	4270 Feb 18 17:07	18°♄39'51	18°52'27
inferior conj	4269 Mar 22 15:41	2°♄25'29	3°35'38	asc. node	4270 Feb 19 14:26	19°♄31'36	
minimum elong	4269 Mar 22 15:52	2°♄24'58	3°35'38	retrograde	4270 Feb 25 11:16	22°♄26'58	
	4269 Mar 24 18:39	30°♄		evening set	4270 Feb 28 16:46	21°♄26'55	
min. Earth dist.	4269 Mar 25 00:28	29°♄43'47	0.63975 AU	inferior conj	4270 Mar 06 09:08	15°♄42'28	3°30'32
morning rise	4269 Mar 28 13:41	26°♄15'38		minimum elong	4270 Mar 06 07:56	15°♄46'14	3°30'26
direct	4269 Apr 04 09:36	23°♄30'13		min. Earth dist.	4270 Mar 08 02:18	13°♄34'37	0.65597 AU
desc. node	4269 Apr 10 14:14	25°♄23'07		morning rise	4270 Mar 11 22:00	9°♄28'18	
	4269 Apr 16 15:02	0°♄		direct	4270 Mar 18 10:50	6°♄39'05	
morning max el	4269 Apr 18 03:11	1°♄27'41	27°35'03	desc. node	4270 Mar 28 11:17	11°♄30'04	
	4269 May 09 06:02	0°♄		morning max el	4270 Mar 31 13:04	14°♄22'45	26°46'12
morning set	4269 May 23 00:57	24°♄52'04			4270 Apr 13 06:23	0°♄	
	4269 May 25 14:16	0°♄			4270 May 01 23:16	0°♄	
max. Earth dist.	4269 May 28 01:14	5°♄04'31	1.33122 AU	morning set	4270 May 06 09:20	8°♄11'41	
				max. Earth dist.	4270 May 10 16:58	16°♄37'29	1.34362 AU
superior conj	4269 May 31 00:16	11°♄20'19	0°-7'-8				
minimum elong	4269 May 31 00:38	11°♄22'14	0°07'06	superior conj	4270 May 15 00:45	25°♄26'46	0°-36'-5
behind sun begin	4269 May 30 19:46	10°♄56'17		minimum elong	4270 May 15 02:40	25°♄36'44	0°35'43
behind sun end	4269 May 31 05:29	11°♄48'12			4270 May 17 05:03	0°♄	
asc. node	4269 May 31 16:42	12°♄48'17		asc. node	4270 May 18 13:44	2°♄51'57	

evening rise	4270 May 22 13:39	11° Π 15'34		evening rise	4271 May 06 19:26	25° U 33'29	
	4270 Jun 01 08:44	0° S			4271 May 09 00:23	0° Π	
evening max el	4270 Jun 11 02:05	12° S 59'32	21°13'29	evening max el	4271 May 24 10:13	24° Π 12'48	19°57'15
retrograde	4270 Jun 23 00:55	18° S 51'54		retrograde	4271 Jun 03 16:11	29° Π 12'42	
desc. node	4270 Jun 24 10:29	18° S 47'19		evening set	4271 Jun 05 14:55	29° Π 02'40	
evening set	4270 Jun 25 08:22	18° S 39'32		desc. node	4271 Jun 11 07:32	26° Π 55'47	
inferior conj	4270 Jul 04 16:41	14° S 41'23	-2°-56'-24	inferior conj	4271 Jun 14 13:58	25° Π 02'13	0°-58'-16
minimum elong	4270 Jul 04 08:55	14° S 52'16	2°53'53	minimum elong	4271 Jun 14 11:16	25° Π 06'19	0°57'16
min. Earth dist.	4270 Jul 05 00:48	14° S 29'59	0.54824 AU	min. Earth dist.	4271 Jun 16 13:21	23° Π 50'34	0.55294 AU
morning rise	4270 Jul 13 09:37	10° S 44'51		morning rise	4271 Jun 23 04:55	20° Π 40'12	
direct	4270 Jul 16 21:59	10° S 18'10		direct	4271 Jun 27 11:05	20° Π 00'35	
morning max el	4270 Jul 29 14:36	16° S 19'49	22°28'05	morning max el	4271 Jul 11 05:33	26° Π 48'11	24°11'35
	4270 Aug 09 07:44	0° Ω			4271 Jul 14 07:50	0° S	
asc. node	4270 Aug 14 13:00	9° Ω 07'49		asc. node	4271 Aug 01 10:04	28° S 36'18	
morning set	4270 Aug 20 12:15	21° Ω 05'14			4271 Aug 02 02:41	0° Ω	
	4270 Aug 24 16:54	0° M		morning set	4271 Aug 05 00:00	5° Ω 59'15	
superior conj	4270 Aug 27 16:16	6° M 20'37	1°40'27	superior conj	4271 Aug 12 00:14	21° Ω 08'17	1°30'53
minimum elong	4270 Aug 27 14:59	6° M 13'50	1°40'23	minimum elong	4271 Aug 11 22:11	20° Ω 57'11	1°30'41
max. Earth dist.	4270 Aug 30 22:06	13° M 08'23	1.34197 AU	max. Earth dist.	4271 Aug 13 23:41	25° Ω 24'24	1.33050 AU
evening rise	4270 Sep 04 15:30	22° M 38'41			4271 Aug 16 03:31	0° M	
	4270 Sep 08 12:21	0° A		evening rise	4271 Aug 19 09:59	6° M 45'15	
desc. node	4270 Sep 20 09:49	20° A 08'37			4271 Sep 01 01:24	0° A	
	4270 Sep 27 04:23	0° M		desc. node	4271 Sep 07 06:50	9° A 42'29	
evening max el	4270 Oct 09 09:14	14° M 23'01	27°07'02	evening max el	4271 Sep 21 20:29	27° A 35'36	27°26'32
retrograde	4270 Oct 22 16:39	21° M 40'16			4271 Sep 24 13:58	0° M	
evening set	4270 Oct 29 12:36	19° M 00'10		retrograde	4271 Oct 05 11:45	4° M 52'30	
min. Earth dist.	4270 Nov 02 10:32	15° M 13'48	0.65190 AU	evening set	4271 Oct 12 15:11	2° M 16'03	
inferior conj	4270 Nov 04 12:47	12° M 52'48	-1°-59'-55		4271 Oct 15 08:07	30° R A	
minimum elong	4270 Nov 04 16:11	12° M 43'15	1°58'35	min. Earth dist.	4271 Oct 16 07:42	29° A 03'21	0.63614 AU
morning rise	4270 Nov 10 21:37	7° M 17'01		inferior conj	4271 Oct 18 22:09	26° A 25'10	-3°-1'-41
asc. node	4270 Nov 10 12:13	7° M 28'44		minimum elong	4271 Oct 19 03:15	26° A 12'15	2°59'56
direct	4270 Nov 13 12:54	6° M 39'44		morning rise	4271 Oct 25 17:48	21° A 06'02	
morning max el	4270 Nov 20 00:32	10° M 07'58	18°06'09	direct	4271 Oct 28 03:37	20° A 37'47	
	4270 Dec 03 18:24	0° A		asc. node	4271 Oct 28 09:18	20° A 38'03	
morning set	4270 Dec 08 03:30	7° A 13'18		morning max el	4271 Nov 03 17:16	24° A 02'50	17°51'07
desc. node	4270 Dec 17 09:08	22° A 17'42			4271 Nov 08 12:21	0° M	
	4270 Dec 22 04:48	0° S		morning set	4271 Nov 20 05:35	19° M 23'36	
superior conj	4270 Dec 22 14:28	0° S 38'21	0°-35'-23		4271 Nov 26 09:47	0° A	
minimum elong	4270 Dec 22 10:03	0° S 20'47	0°34'47	superior conj	4271 Dec 02 15:48	10° A 26'26	0°11'06
max. Earth dist.	4270 Dec 25 21:37	5° S 50'55	1.45116 AU	minimum elong	4271 Dec 02 16:59	10° A 31'19	0°10'57
evening rise	4271 Jan 07 23:37	26° S 14'25		behind sun begin	4271 Dec 02 09:48	10° A 01'46	
	4271 Jan 10 09:57	0° \approx		behind sun end	4271 Dec 03 00:10	11° A 00'49	
greatest brilliancy	4271 Jan 25 08:23	22° \approx 32'56	-0.6m	desc. node	4271 Dec 04 06:09	13° A 03'23	
	4271 Jan 31 00:15	0° K		max. Earth dist.	4271 Dec 08 15:46	20° A 09'15	1.44266 AU
evening max el	4271 Feb 01 23:50	2° K 11'27	19°40'35		4271 Dec 14 21:43	0° S	
asc. node	4271 Feb 06 11:29	5° K 42'38		evening rise	4271 Dec 18 09:45	5° S 25'08	
retrograde	4271 Feb 09 08:37	6° K 26'59			4272 Jan 03 20:05	0° \approx	
evening set	4271 Feb 12 21:42	5° K 13'23		greatest brilliancy	4272 Jan 10 09:29	9° \approx 02'53	-0.5m
	4271 Feb 17 19:36	30° R \approx		evening max el	4272 Jan 16 01:14	15° \approx 44'15	20°42'58
inferior conj	4271 Feb 18 09:41	29° \approx 13'35	3°12'18	retrograde	4272 Jan 24 06:52	20° \approx 35'56	
minimum elong	4271 Feb 18 07:36	29° \approx 20'30	3°11'55	asc. node	4272 Jan 24 08:32	20° \approx 35'54	
min. Earth dist.	4271 Feb 19 12:01	27° \approx 46'35	0.66804 AU	evening set	4272 Jan 28 04:59	19° \approx 07'47	
morning rise	4271 Feb 23 16:49	22° \approx 57'47		inferior conj	4272 Feb 02 14:46	12° \approx 55'29	2°43'40
direct	4271 Mar 01 17:54	20° \approx 17'00		minimum elong	4272 Feb 02 12:19	13° \approx 03'54	2°43'01
morning max el	4271 Mar 13 22:23	27° \approx 33'02	25°33'56	min. Earth dist.	4272 Feb 03 03:48	12° \approx 10'48	0.67590 AU
desc. node	4271 Mar 15 08:21	29° \approx 01'30		morning rise	4272 Feb 07 19:13	6° \approx 39'52	
	4271 Mar 16 05:50	0° K		direct	4272 Feb 13 06:06	4° \approx 15'59	
	4271 Apr 06 22:50	0° Y		morning max el	4272 Feb 24 07:04	10° \approx 51'18	24°08'12
morning set	4271 Apr 19 02:41	20° Y 43'14		desc. node	4272 Mar 01 05:24	17° \approx 33'33	
max. Earth dist.	4271 Apr 22 21:29	27° Y 44'47	1.36053 AU		4272 Mar 10 12:47	0° K	
	4271 Apr 24 01:51	0° S			4272 Mar 29 16:40	0° Y	
superior conj	4271 Apr 28 16:44	9° S 03'20	-1°-5'-17	morning set	4272 Mar 30 23:27	2° Y 12'14	
minimum elong	4271 Apr 28 20:15	9° S 20'55	1°04'41	max. Earth dist.	4272 Apr 03 18:04	8° Y 51'01	1.38095 AU
asc. node	4271 May 05 10:46	22° S 47'03		superior conj	4272 Apr 10 20:48	22° Y 01'31	-1°-32'-31

minimum elong	4272 Apr 11 01:28	22° Υ 23'49	1°31'55	max. Earth dist.	4273 Mar 16 13:41	20° Υ 28'47	1.40276 AU
	4272 Apr 14 23:35	0° Υ			4273 Mar 22 00:49	0° Υ	
evening rise	4272 Apr 19 18:42	9° Υ 27'25					
asc. node	4272 Apr 21 07:49	12° Υ 29'21		superior conj	4273 Mar 24 08:39	4° Υ 10'46	-1°-54'-34
	4272 May 01 06:12	0° Π		minimum elong	4273 Mar 24 13:07	4° Υ 31'03	1°54'14
evening max el	4272 May 06 06:08	6° Π 07'38	19°00'37	evening rise	4273 Apr 03 08:18	22° Υ 49'08	
retrograde	4272 May 14 21:18	10° Π 20'36			4273 Apr 07 04:06	0° Υ	
evening set	4272 May 16 22:33	10° Π 07'16		asc. node	4273 Apr 08 04:52	1° Υ 53'41	
inferior conj	4272 May 25 03:29	5° Π 52'24	0°52'42	evening max el	4273 Apr 19 11:07	18° Υ 38'47	18°24'22
minimum elong	4272 May 25 05:31	5° Π 48'50	0°51'58	retrograde	4273 Apr 26 21:08	22° Υ 19'13	
min. Earth dist.	4272 May 28 04:56	3° Π 44'56	0.56635 AU	evening set	4273 Apr 29 04:40	21° Υ 58'45	
desc. node	4272 May 28 04:35	3° Π 45'32		inferior conj	4273 May 06 14:23	17° Υ 24'01	2°15'24
morning rise	4272 Jun 02 08:04	0° Π 54'27		minimum elong	4273 May 06 18:02	17° Υ 16'35	2°14'22
	4272 Jun 05 12:48	30° \Re		min. Earth dist.	4273 May 10 00:59	14° Υ 36'36	0.58575 AU
direct	4272 Jun 07 12:59	29° Υ 50'20		morning rise	4273 May 14 03:02	11° Υ 54'05	
	4272 Jun 09 13:20	0° Π		desc. node	4273 May 15 01:36	11° Υ 26'31	
morning max el	4272 Jun 21 20:02	7° Π 12'57	25°48'40	direct	4273 May 20 05:27	10° Υ 16'13	
	4272 Jul 08 15:51	0° Υ		morning max el	4273 Jun 03 14:54	18° Υ 00'32	27°03'38
asc. node	4272 Jul 18 07:06	18° Υ 22'42			4273 Jun 13 15:00	0° Π	
morning set	4272 Jul 19 11:24	20° Υ 51'13			4273 Jul 01 03:33	0° Υ	
	4272 Jul 23 17:02	0° Ω		morning set	4273 Jul 03 20:50	5° Υ 35'59	
				asc. node	4273 Jul 05 04:07	8° Υ 21'24	
superior conj	4272 Jul 26 11:04	6° Ω 02'53	1°16'18				
minimum elong	4272 Jul 26 08:44	5° Ω 50'04	1°15'57	superior conj	4273 Jul 10 22:55	20° Υ 58'13	0°57'22
max. Earth dist.	4272 Jul 27 07:45	7° Ω 56'30	1.32321 AU	minimum elong	4273 Jul 10 20:46	20° Υ 46'25	0°56'58
evening rise	4272 Aug 02 12:21	21° Ω 13'51		max. Earth dist.	4273 Jul 10 19:02	20° Υ 36'50	1.32009 AU
	4272 Aug 06 20:53	0° \Re			4273 Jul 15 01:32	0° Ω	
desc. node	4272 Aug 24 03:51	28° \Re 36'23		evening rise	4273 Jul 17 20:01	5° Ω 56'37	
	4272 Aug 25 04:50	0° Ω			4273 Jul 30 11:56	0° \Re	
evening max el	4272 Sep 03 03:58	10° Ω 14'05	27°14'46	desc. node	4273 Aug 11 00:52	16° \Re 33'49	
retrograde	4272 Sep 17 00:09	17° Ω 27'58		evening max el	4273 Aug 16 05:20	22° \Re 08'21	26°29'37
evening set	4272 Sep 24 03:39	15° Ω 07'04		retrograde	4273 Aug 30 04:23	29° \Re 18'12	
min. Earth dist.	4272 Sep 27 18:23	12° Ω 20'24	0.61740 AU	evening set	4273 Sep 05 21:18	27° \Re 25'55	
inferior conj	4272 Sep 30 19:27	9° Ω 36'16	-3°-59'-47	min. Earth dist.	4273 Sep 09 18:55	24° \Re 51'07	0.59690 AU
minimum elong	4272 Oct 01 01:29	9° Ω 22'41	3°58'10	inferior conj	4273 Sep 13 01:13	22° \Re 17'25	-4°-47'00
morning rise	4272 Oct 08 02:24	4° Ω 37'01		minimum elong	4273 Sep 13 06:21	22° \Re 07'19	4°46'10
direct	4272 Oct 10 09:37	4° Ω 14'31		morning rise	4273 Sep 20 18:50	17° \Re 40'31	
asc. node	4272 Oct 14 06:21	5° Ω 20'21		direct	4273 Sep 23 02:52	17° \Re 20'56	
morning max el	4272 Oct 17 08:39	7° Ω 44'57	17°54'13	morning max el	4273 Sep 30 19:22	21° \Re 05'37	18°16'49
	4272 Oct 31 18:26	0° \Re		asc. node	4273 Oct 01 03:23	21° \Re 25'18	
morning set	4272 Nov 02 03:32	2° \Re 30'12			4273 Oct 07 14:24	0° Ω	
				morning set	4273 Oct 16 15:41	16° Ω 17'18	
superior conj	4272 Nov 12 19:43	21° \Re 32'17	0°49'53		4273 Oct 23 22:08	0° \Re	
minimum elong	4272 Nov 12 23:36	21° \Re 49'02	0°49'23				
	4272 Nov 17 19:23	0° \Re		superior conj	4273 Oct 25 23:57	3° \Re 48'57	1°17'50
max. Earth dist.	4272 Nov 20 05:26	3° \Re 59'55	1.42805 AU	minimum elong	4273 Oct 26 03:48	4° \Re 06'30	1°17'25
desc. node	4272 Nov 20 03:09	3° \Re 50'32		max. Earth dist.	4273 Nov 02 13:50	17° \Re 11'23	1.40919 AU
evening rise	4272 Nov 27 00:09	14° \Re 52'20		evening rise	4273 Nov 07 08:35	25° \Re 10'35	
	4272 Dec 06 21:44	0° Υ		desc. node	4273 Nov 07 00:09	24° \Re 36'02	
greatest brilliancy	4272 Dec 24 03:20	23° Υ 55'49	-0.3m		4273 Nov 10 08:13	0° \Re	
evening max el	4272 Dec 28 21:07	29° Υ 17'52	21°56'16		4273 Nov 30 17:43	0° Υ	
	4272 Dec 29 14:04	0° \Re		evening max el	4273 Dec 11 12:39	12° Υ 54'26	23°15'33
retrograde	4273 Jan 07 03:58	4° \Re 49'22		retrograde	4273 Dec 21 22:21	19° Υ 04'02	
asc. node	4273 Jan 10 05:36	3° \Re 58'53		evening set	4273 Dec 26 19:33	17° Υ 04'21	
evening set	4273 Jan 11 12:48	3° \Re 05'44		asc. node	4273 Dec 28 02:38	15° Υ 51'25	
	4273 Jan 14 11:54	30° \Re		inferior conj	4274 Jan 01 06:01	10° Υ 37'52	1°21'58
inferior conj	4273 Jan 16 22:10	26° Υ 44'23	2°06'28	minimum elong	4274 Jan 01 04:15	10° Υ 43'56	1°21'18
minimum elong	4273 Jan 16 19:50	26° Υ 52'30	2°05'41	min. Earth dist.	4273 Dec 31 20:04	11° Υ 12'05	0.67998 AU
min. Earth dist.	4273 Jan 16 23:17	26° Υ 40'32	0.67978 AU	morning rise	4274 Jan 06 13:00	4° Υ 28'12	
morning rise	4273 Jan 22 02:40	20° Υ 30'45		direct	4274 Jan 10 18:38	2° Υ 48'39	
direct	4273 Jan 26 22:41	18° Υ 28'20		morning max el	4274 Jan 19 08:21	7° Υ 47'11	21°15'17
morning max el	4273 Feb 05 17:11	24° Υ 14'57	22°39'07	greatest brilliancy	4274 Jan 24 12:50	13° Υ 42'38	-0.4m
greatest brilliancy	4273 Feb 10 07:23	29° Υ 22'05	-0.3m	desc. node	4274 Feb 02 23:25	26° Υ 34'25	
	4273 Feb 10 19:52	0° \Re			4274 Feb 05 08:04	0° \Re	
desc. node	4273 Feb 16 02:25	6° \Re 48'31		morning set	4274 Feb 19 07:12	21° \Re 14'00	
	4273 Mar 03 23:27	0° Υ			4274 Feb 24 18:51	0° Υ	
morning set	4273 Mar 11 17:37	12° Υ 23'19		max. Earth dist.	4274 Feb 26 15:05	3° Υ 00'24	1.42322 AU

superior conj	4274 Mar 05 23:08	15° K 18'52	-2°-6'-56	morning set	4275 Jan 29 03:49	29° Z 23'35	
minimum elong	4274 Mar 06 00:50	15° K 26'12	2°06'55		4275 Jan 29 13:15	0° \approx	
	4274 Mar 14 07:23	0° Y		max. Earth dist.	4275 Feb 09 00:44	16° \approx 26'52	1.43957 AU
evening rise	4274 Mar 17 08:18	5° Y 29'00					
asc. node	4274 Mar 26 01:54	20° Y 53'10		superior conj	4275 Feb 14 12:15	25° \approx 18'02	-2°-4'-10
	4274 Apr 01 09:51	0° Z		minimum elong	4275 Feb 14 08:18	25° \approx 01'54	2°04'01
evening max el	4274 Apr 02 21:36	1° Z 35'57	18°07'58		4275 Feb 17 08:48	0° K	
retrograde	4274 Apr 09 14:16	5° Z 00'21		evening rise	4275 Feb 27 14:22	17° K 18'54	
evening set	4274 Apr 12 04:09	4° Z 30'18			4275 Mar 07 00:22	0° Y	
	4274 Apr 18 10:36	30° R Y		asc. node	4275 Mar 12 22:56	9° Y 20'06	
inferior conj	4274 Apr 18 21:30	29° Y 34'18	3°06'31	evening max el	4275 Mar 17 10:19	14° Y 50'29	18°10'46
minimum elong	4274 Apr 19 00:20	29° Y 27'34	3°06'01	retrograde	4275 Mar 23 20:31	18° Y 14'00	
min. Earth dist.	4274 Apr 22 03:24	26° Y 31'06	0.60761 AU	evening set	4275 Mar 26 16:15	17° Y 33'00	
morning rise	4274 Apr 25 17:13	23° Y 42'22		inferior conj	4275 Apr 01 21:06	12° Y 16'36	3°31'04
desc. node	4274 May 01 22:38	21° Y 31'23		minimum elong	4275 Apr 01 22:16	12° Y 13'29	3°30'59
direct	4274 May 02 09:37	21° Y 30'47		min. Earth dist.	4275 Apr 04 14:28	9° Y 21'46	0.62875 AU
morning max el	4274 May 16 15:56	29° Y 26'06	27°45'15	morning rise	4275 Apr 08 02:04	6° Y 11'27	
	4274 May 17 05:26	0° Z		direct	4275 Apr 14 23:00	3° Y 34'59	
	4274 Jun 07 13:28	0° II		desc. node	4275 Apr 18 19:40	4° Y 18'47	
morning set	4274 Jun 18 02:27	20° II 06'34		morning max el	4275 Apr 28 22:33	11° Y 33'41	27°49'15
asc. node	4274 Jun 22 01:08	28° II 26'46			4275 May 13 12:04	0° Z	
	4274 Jun 22 18:23	0° Z			4275 May 30 22:25	0° II	
max. Earth dist.	4274 Jun 24 05:49	3° Z 12'57	1.32109 AU	morning set	4275 Jun 02 02:07	4° II 16'35	
				max. Earth dist.	4275 Jun 07 12:17	15° II 32'55	1.32631 AU
superior conj	4274 Jun 25 09:58	5° Z 47'19	0°34'41	asc. node	4275 Jun 08 22:11	18° II 34'44	
minimum elong	4274 Jun 25 08:29	5° Z 39'08	0°34'21				
evening rise	4274 Jul 02 06:43	20° Z 45'16		superior conj	4275 Jun 09 18:31	20° II 24'37	0°08'52
	4274 Jul 06 18:23	0° Z		minimum elong	4275 Jun 09 18:06	20° II 22'19	0°08'46
	4274 Jul 25 20:35	0° Z		behind sun begin	4275 Jun 09 13:42	19° II 58'30	
desc. node	4274 Jul 28 21:53	3° Z 10'59		behind sun end	4275 Jun 09 22:30	20° II 46'11	
evening max el	4274 Jul 28 23:19	3° Z 14'25	25°14'42		4275 Jun 14 04:26	0° Z	
retrograde	4274 Aug 11 22:17	10° Z 18'39		evening rise	4275 Jun 16 18:33	5° Z 33'36	
evening set	4274 Aug 17 15:28	9° Z 03'36			4275 Jun 29 18:23	0° Z	
min. Earth dist.	4274 Aug 22 11:04	6° Z 22'33	0.57674 AU	evening max el	4275 Jul 10 12:20	13° Z 44'49	23°41'06
inferior conj	4274 Aug 25 12:06	4° Z 18'16	-5°-11'-38	desc. node	4275 Jul 15 18:54	17° Z 57'18	
minimum elong	4274 Aug 25 13:19	4° Z 16'11	5°11'37	retrograde	4275 Jul 24 03:59	20° Z 35'57	
morning rise	4274 Sep 02 14:40	0° Z 04'21		evening set	4275 Jul 28 10:29	19° Z 55'54	
	4274 Sep 02 22:10	30° R Z		min. Earth dist.	4275 Aug 03 22:20	16° Z 51'29	0.55997 AU
direct	4274 Sep 05 03:10	29° Z 45'22		inferior conj	4275 Aug 06 02:46	15° Z 32'47	-4°-57'-59
	4274 Sep 07 06:52	0° Z		minimum elong	4275 Aug 05 21:51	15° Z 40'13	4°57'26
morning max el	4274 Sep 13 22:01	3° Z 54'34	19°00'28	morning rise	4275 Aug 14 12:27	11° Z 37'32	
asc. node	4274 Sep 18 00:23	8° Z 37'22		direct	4275 Aug 17 08:05	11° Z 17'39	
	4274 Sep 30 07:05	0° Z		morning max el	4275 Aug 27 13:51	16° Z 02'59	20°05'58
morning set	4274 Sep 30 13:42	0° Z 32'36		asc. node	4275 Sep 04 21:24	26° Z 42'06	
					4275 Sep 06 20:48	0° Z	
superior conj	4274 Oct 08 23:11	17° Z 01'23	1°35'08	morning set	4275 Sep 14 18:21	15° Z 06'56	
minimum elong	4274 Oct 09 01:40	17° Z 13'21	1°34'57		4275 Sep 22 01:22	0° Z	
	4274 Oct 15 22:53	0° Z					
max. Earth dist.	4274 Oct 15 18:55	29° Z 42'14	1.38834 AU	superior conj	4275 Sep 22 12:15	0° Z 54'44	1°43'08
evening rise	4274 Oct 19 16:14	6° Z 32'34		minimum elong	4275 Sep 22 13:05	0° Z 58'55	1°43'06
desc. node	4274 Oct 24 21:10	15° Z 16'11		max. Earth dist.	4275 Sep 28 00:44	11° Z 42'49	1.36802 AU
	4274 Nov 03 08:26	0° Z		evening rise	4275 Oct 01 21:37	18° Z 54'23	
evening max el	4274 Nov 24 01:48	26° Z 35'27	24°34'37		4275 Oct 08 05:59	0° Z	
	4274 Nov 27 22:09	0° Z		desc. node	4275 Oct 11 18:12	5° Z 46'16	
retrograde	4274 Dec 05 12:53	3° Z 16'41			4275 Oct 28 12:32	0° Z	
evening set	4274 Dec 10 23:43	1° Z 01'14		evening max el	4275 Nov 06 14:11	10° Z 18'14	25°46'24
	4274 Dec 12 02:08	30° R Z		retrograde	4275 Nov 18 22:48	17° Z 21'50	
asc. node	4274 Dec 14 23:39	26° Z 36'08		evening set	4275 Nov 24 23:36	14° Z 52'39	
min. Earth dist.	4274 Dec 15 15:47	25° Z 43'06	0.67664 AU	min. Earth dist.	4275 Nov 29 08:06	10° Z 09'50	0.66980 AU
inferior conj	4274 Dec 16 12:32	24° Z 33'57	0°31'17	inferior conj	4275 Nov 30 15:56	8° Z 29'06	0°-24'-35
minimum elong	4274 Dec 16 11:47	24° Z 36'27	0°30'59	minimum elong	4275 Nov 30 16:34	8° Z 27'03	0°24'19
morning rise	4274 Dec 22 00:17	18° Z 30'29		asc. node	4275 Dec 01 20:40	6° Z 59'17	
direct	4274 Dec 25 16:43	17° Z 12'37		morning rise	4275 Dec 06 10:29	2° Z 34'19	
morning max el	4275 Jan 02 07:13	21° Z 31'37	20°02'44	direct	4275 Dec 09 15:25	1° Z 35'19	
	4275 Jan 09 07:45	0° Z		morning max el	4275 Dec 16 13:54	5° Z 26'19	19°04'40
greatest brilliancy	4275 Jan 09 06:40	29° Z 56'21	-0.6m		4276 Jan 03 03:21	0° Z	
desc. node	4275 Jan 20 20:26	16° Z 43'02		desc. node	4276 Jan 07 17:27	7° Z 07'41	

morning set	4276 Jan 08 08:02	8°☾04'27		morning max el	4276 Nov 29 02:39	19°♌26'41	18°22'40
	4276 Jan 22 08:41	0°≈			4276 Dec 07 04:21	0°♏	
max. Earth dist.	4276 Jan 22 16:32	0°≈30'54	1.44979 AU	morning set	4276 Dec 18 14:39	18°♏07'29	
				desc. node	4276 Dec 24 14:31	27°♏43'56	
superior conj	4276 Jan 25 01:27	4°≈15'20	-1°-42'-4		4276 Dec 26 00:43	0°☾	
minimum elong	4276 Jan 24 16:32	3°≈40'08	1°41'17	superior conj	4277 Jan 03 04:00	12°☾50'52	-1°-2'-29
evening rise	4276 Feb 08 22:34	28°≈12'10		minimum elong	4277 Jan 02 20:22	12°☾20'54	1°01'33
	4276 Feb 10 00:53	0°♏		max. Earth dist.	4277 Jan 04 11:15	14°☾53'29	1.45280 AU
asc. node	4276 Feb 27 19:59	27°♏04'01			4277 Jan 14 02:43	0°≈	
evening max el	4276 Feb 28 22:22	28°♏14'42	18°32'08	evening rise	4277 Jan 19 07:41	8°≈10'36	
	4276 Mar 01 21:30	0°♐		greatest brilliancy	4277 Feb 01 15:16	28°≈55'02	-0.7m
retrograde	4276 Mar 06 11:25	1°♐50'16			4277 Feb 02 08:39	0°♏	
evening set	4276 Mar 09 13:04	0°♐57'30		evening max el	4277 Feb 11 07:31	11°♏44'35	19°10'59
	4276 Mar 10 22:41	30°♏		asc. node	4277 Feb 13 17:01	13°♏53'08	
inferior conj	4276 Mar 15 09:05	25°♏22'31	3°35'18	retrograde	4277 Feb 18 07:15	15°♏43'08	
minimum elong	4276 Mar 15 08:37	25°♏23'54	3°35'18	evening set	4277 Feb 21 15:43	14°♏37'35	
min. Earth dist.	4276 Mar 17 11:06	22°♏54'09	0.64709 AU	inferior conj	4277 Feb 27 05:56	8°♏46'15	3°24'13
morning rise	4276 Mar 21 02:45	19°♏10'15		minimum elong	4277 Feb 27 04:17	8°♏51'32	3°24'00
direct	4276 Mar 27 20:11	16°♏21'53		min. Earth dist.	4277 Feb 28 16:39	6°♏55'04	0.66160 AU
desc. node	4276 Apr 04 16:41	19°♏22'20		morning rise	4277 Mar 04 15:55	2°♏30'48	
morning max el	4276 Apr 10 08:14	24°♏15'09	27°17'51		4277 Mar 08 23:25	30°♏≈	
	4276 Apr 15 12:32	0°♐		direct	4277 Mar 11 00:04	29°≈43'47	
	4276 May 05 21:28	0°♑		desc. node	4277 Mar 13 02:54	0°♏	
morning set	4276 May 15 17:05	17°♑57'29		morning max el	4277 Mar 22 13:44	6°♏08'28	
max. Earth dist.	4276 May 20 10:23	27°♑24'42	1.33591 AU		4277 Mar 23 18:10	7°♏18'23	26°17'43
	4276 May 21 16:26	0°♒			4277 Apr 10 09:10	0°♐	
superior conj	4276 May 23 22:34	4°♒43'52	0°-19'-17	morning set	4277 Apr 28 07:09	0°♑	
minimum elong	4276 May 23 23:34	4°♒49'08	0°19'05	max. Earth dist.	4277 Apr 28 19:42	0°♑58'25	
asc. node	4276 May 25 19:15	8°♒41'07			4277 May 02 21:07	8°♑44'07	1.35019 AU
evening rise	4276 May 31 05:38	20°♒15'07		superior conj	4277 May 07 19:47	18°♑38'16	0°-48'-34
	4276 Jun 05 00:31	0°☾		minimum elong	4277 May 07 22:24	18°♑51'38	0°48'04
evening max el	4276 Jun 21 03:41	24°☾10'07	22°04'46	asc. node	4277 May 12 16:18	28°♑41'34	
	4276 Jun 30 07:55	0°♓			4277 May 13 07:22	0°♒	
desc. node	4276 Jul 01 15:55	0°♓18'21		evening rise	4277 May 15 13:59	4°♒43'21	
retrograde	4276 Jul 03 22:22	0°♓30'19			4277 May 29 20:28	0°☾	
evening set	4276 Jul 06 18:45	0°♓12'13		evening max el	4277 Jun 03 04:46	5°☾01'11	20°38'56
	4276 Jul 07 15:24	30°♏☾		retrograde	4277 Jun 14 11:11	10°☾31'50	
min. Earth dist.	4276 Jul 15 08:47	26°☾30'35	0.54986 AU	evening set	4277 Jun 16 12:38	10°☾21'31	
inferior conj	4276 Jul 16 01:14	26°☾07'29	-3°-54'-13	desc. node	4277 Jun 18 12:58	9°☾52'48	
minimum elong	4276 Jul 15 16:39	26°☾19'32	3°51'59	inferior conj	4277 Jun 25 18:42	6°☾24'28	-2°-7'-36
morning rise	4276 Jul 24 16:23	22°☾17'12		minimum elong	4277 Jun 25 12:45	6°☾33'00	2°05'30
direct	4276 Jul 27 21:07	21°☾54'31		min. Earth dist.	4277 Jun 26 20:37	5°☾47'14	0.54894 AU
morning max el	4276 Aug 08 17:56	27°☾27'07	21°31'45	morning rise	4277 Jul 04 11:39	2°☾18'49	
	4276 Aug 11 05:56	0°♓		direct	4277 Jul 08 06:33	1°☾47'55	
asc. node	4276 Aug 21 18:28	15°♓27'28		morning max el	4277 Jul 21 12:15	8°☾11'00	23°11'53
morning set	4276 Aug 29 03:17	29°♓53'52			4277 Aug 06 03:29	0°♓	
	4276 Aug 29 04:28	0°♑		asc. node	4277 Aug 08 15:32	4°♓42'37	
superior conj	4276 Sep 05 11:06	15°♑17'23	1°43'21	morning set	4277 Aug 13 14:29	14°♓46'41	
minimum elong	4276 Sep 05 10:29	15°♑14'09	1°43'20	superior conj	4277 Aug 20 16:28	29°♓58'22	1°37'04
max. Earth dist.	4276 Sep 09 12:21	23°♑35'28	1.35036 AU	minimum elong	4277 Aug 20 14:49	29°♓49'27	1°36'57
	4276 Sep 12 18:23	0°♒			4277 Aug 20 16:47	0°♑	
evening rise	4276 Sep 13 20:46	2°♒06'35		max. Earth dist.	4277 Aug 23 08:45	5°♑39'54	1.33653 AU
desc. node	4276 Sep 27 15:14	26°♒01'00		evening rise	4277 Aug 28 09:16	15°♑56'37	
	4276 Sep 30 05:12	0°♌			4277 Sep 04 20:37	0°♒	
evening max el	4276 Oct 19 02:43	23°♌57'39	26°43'33	desc. node	4277 Sep 14 12:16	15°♒52'28	
	4276 Oct 27 06:02	0°♏			4277 Sep 24 19:58	0°♌	
retrograde	4276 Nov 01 03:36	1°♏13'22		evening max el	4277 Oct 01 14:59	7°♌23'52	27°18'48
	4276 Nov 05 15:43	30°♌♌		retrograde	4277 Oct 15 02:37	14°♌42'16	
evening set	4276 Nov 07 17:17	28°♌35'03		evening set	4277 Oct 22 02:15	12°♌02'26	
min. Earth dist.	4276 Nov 11 18:47	24°♌28'15	0.65945 AU	min. Earth dist.	4277 Oct 25 21:36	8°♌30'45	0.64560 AU
inferior conj	4276 Nov 13 14:14	22°♌20'07	-1°-24'-22	inferior conj	4277 Oct 28 05:05	6°♌01'11	-2°-26'-14
minimum elong	4276 Nov 13 16:34	22°♌13'11	1°23'24	minimum elong	4277 Oct 28 09:15	5°♌49'58	2°24'40
asc. node	4276 Nov 17 17:41	17°♌58'06		morning rise	4277 Nov 03 18:25	0°♌32'01	
morning rise	4276 Nov 19 17:25	16°♌36'39		asc. node	4277 Nov 04 14:44	0°♌13'44	
direct	4276 Nov 22 12:55	15°♌52'43					

	4277 Nov 05 21:11	30° $\text{R}\Omega$		min. Earth dist.	4278 Oct 08 14:35	22° Ω 07'57	0.62851 AU
direct	4277 Nov 06 06:55	29° Ω 59'08		inferior conj	4278 Oct 11 09:44	19° Ω 25'50	-3°-27'-7
	4277 Nov 06 16:40	0° M		minimum elong	4278 Oct 11 15:22	19° Ω 12'12	3°25'21
morning max el	4277 Nov 12 18:44	3° M 25'22	17°57'30	morning rise	4278 Oct 18 10:10	14° Ω 14'23	
morning set	4277 Nov 30 02:19	29° M 36'09		direct	4278 Oct 20 18:28	13° Ω 48'55	
	4277 Nov 30 07:59	0° J		asc. node	4278 Oct 22 11:48	14° Ω 02'59	
desc. node	4277 Dec 11 11:33	18° J 27'08		morning max el	4278 Oct 27 11:12	17° Ω 15'25	17°50'01
					4278 Nov 05 13:13	0° M	
superior conj	4277 Dec 13 16:22	22° J 00'08	0°-15'-9	morning set	4278 Nov 12 13:39	12° M 12'58	
minimum elong	4277 Dec 13 14:33	21° J 52'49	0°14'54		4278 Nov 22 19:23	0° J	
behind sun begin	4277 Dec 13 10:29	21° J 36'29					
behind sun end	4277 Dec 13 18:37	22° J 09'08		superior conj	4278 Nov 24 04:46	2° J 20'32	0°28'48
max. Earth dist.	4277 Dec 18 06:07	29° J 17'13	1.44839 AU	minimum elong	4278 Nov 24 07:30	2° J 32'00	0°28'25
	4277 Dec 18 16:57	0° Z		desc. node	4278 Nov 28 08:33	9° J 13'46	
evening rise	4277 Dec 29 22:37	17° Z 29'25		max. Earth dist.	4278 Nov 30 22:40	13° J 26'01	1.43719 AU
	4278 Jan 07 03:05	0° \approx		evening rise	4278 Dec 09 08:31	26° J 42'27	
greatest brilliancy	4278 Jan 18 20:38	17° \approx 09'31	-0.6m		4278 Dec 11 11:50	0° Z	
evening max el	4278 Jan 25 12:06	25° \approx 17'19	20°05'36		4279 Jan 01 02:16	0° \approx	
asc. node	4278 Jan 31 14:02	29° \approx 33'06		greatest brilliancy	4279 Jan 03 08:28	2° \approx 55'52	-0.4m
retrograde	4278 Feb 02 05:12	29° \approx 47'30		evening max el	4279 Jan 08 11:11	8° \approx 50'51	21°13'10
evening set	4278 Feb 05 21:51	28° \approx 28'03		retrograde	4279 Jan 17 03:00	13° \approx 58'45	
inferior conj	4278 Feb 11 08:42	22° \approx 22'47	3°01'18	asc. node	4279 Jan 18 11:04	13° \approx 49'03	
minimum elong	4278 Feb 11 06:23	22° \approx 30'34	3°00'47	evening set	4279 Jan 21 05:32	12° \approx 24'06	
min. Earth dist.	4278 Feb 12 05:17	21° \approx 13'28	0.67190 AU	inferior conj	4279 Jan 26 14:58	6° \approx 07'47	2°28'49
morning rise	4278 Feb 16 14:19	16° \approx 06'45		minimum elong	4279 Jan 26 12:31	6° \approx 16'18	2°28'05
direct	4278 Feb 22 09:39	13° \approx 32'01		min. Earth dist.	4279 Jan 26 22:49	5° \approx 40'41	0.67808 AU
morning max el	4278 Mar 06 02:56	20° \approx 32'30	24°58'24	morning rise	4279 Jan 31 19:08	29° Z 52'59	
desc. node	4278 Mar 09 10:48	24° \approx 08'26			4279 Jan 31 16:00	30° RZ	
	4278 Mar 14 06:11	0° H		direct	4279 Feb 05 23:50	27° Z 37'44	
	4278 Apr 03 13:37	0° Y			4279 Feb 12 01:13	0° \approx	
morning set	4278 Apr 11 05:03	13° Y 05'46		morning max el	4279 Feb 16 11:37	3° \approx 52'09	23°30'06
max. Earth dist.	4278 Apr 14 21:07	19° Y 45'25	1.36883 AU	desc. node	4279 Feb 24 07:48	13° \approx 00'21	
	4278 Apr 20 06:36	0° B			4279 Mar 08 11:37	0° H	
				morning set	4279 Mar 23 15:02	24° H 02'35	
superior conj	4278 Apr 21 07:12	2° B 00'13	-1°-17'-15		4279 Mar 27 02:18	0° Y	
minimum elong	4278 Apr 21 11:18	2° B 20'21	1°16'37	max. Earth dist.	4279 Mar 27 16:24	1° Y 01'40	1.39027 AU
evening rise	4278 Apr 29 17:21	18° B 52'06					
asc. node	4278 Apr 29 13:21	18° B 32'04		superior conj	4279 Apr 04 04:56	14° Y 39'06	-1°-42'-44
	4278 May 05 10:40	0° II		minimum elong	4279 Apr 04 09:45	15° Y 01'37	1°42'14
evening max el	4278 May 16 18:16	16° II 33'05	19°30'46		4279 Apr 12 05:18	0° B	
retrograde	4278 May 26 06:43	21° II 11'05		evening rise	4279 Apr 13 12:53	2° B 33'13	
evening set	4278 May 28 05:44	21° II 00'10		asc. node	4279 Apr 16 10:23	8° B 07'22	
desc. node	4278 Jun 05 09:59	17° II 13'47		evening max el	4279 Apr 29 18:27	28° B 44'09	18°42'42
inferior conj	4278 Jun 05 21:41	16° II 55'07	0°-8'-38		4279 May 01 04:26	0° II	
minimum elong	4278 Jun 05 21:18	16° II 55'44	0°08'31	retrograde	4279 May 07 19:32	2° II 41'04	
transit middle	4278 Jun 05 21:18	16° II 55'44	0°08'31	evening set	4279 May 09 23:30	2° II 24'56	
transit begin	4278 Jun 05 18:00	17° II 01'01			4279 May 15 01:36	30° RB	
transit end	4278 Jun 06 00:36	16° II 50'27		inferior conj	4279 May 17 20:02	28° B 01'42	1°31'45
min. Earth dist.	4278 Jun 08 10:25	15° II 18'24	0.55769 AU	minimum elong	4279 May 17 23:08	27° B 55'54	1°30'44
morning rise	4278 Jun 14 09:10	12° II 18'15		min. Earth dist.	4279 May 21 03:18	25° B 34'57	0.57413 AU
direct	4278 Jun 19 01:01	11° II 29'22		desc. node	4279 May 23 07:01	24° B 08'57	
morning max el	4278 Jul 03 02:03	18° II 33'47	24°54'35	morning rise	4279 May 25 18:18	22° B 49'31	
	4278 Jul 12 14:50	0° S		direct	4279 May 31 09:06	21° B 31'50	
asc. node	4278 Jul 26 12:36	24° S 19'33		morning max el	4279 Jun 14 17:43	29° B 04'11	26°24'09
morning set	4278 Jul 29 02:15	29° S 40'13			4279 Jun 15 16:12	0° II	
	4278 Jul 29 06:00	0° Ω			4279 Jul 06 06:31	0° S	
				asc. node	4279 Jul 13 09:38	14° S 11'36	
superior conj	4278 Aug 05 01:53	14° Ω 49'41	1°25'17	morning set	4279 Jul 13 13:00	14° S 29'18	
minimum elong	4278 Aug 04 23:40	14° Ω 37'32	1°25'00				
max. Earth dist.	4278 Aug 06 13:25	18° Ω 03'12	1.32690 AU	superior conj	4279 Jul 20 13:20	29° S 44'43	1°08'46
evening rise	4278 Aug 12 07:28	0° M 13'50		minimum elong	4279 Jul 20 11:01	29° S 31'59	1°08'23
	4278 Aug 12 04:46	0° M			4279 Jul 20 16:06	0° Ω	
	4278 Aug 28 21:22	0° Ω		max. Earth dist.	4279 Jul 20 23:25	0° Ω 40'20	1.32140 AU
desc. node	4278 Sep 01 09:16	5° Ω 10'56		evening rise	4279 Jul 27 12:21	14° Ω 49'04	
evening max el	4278 Sep 14 01:09	20° Ω 24'20	27°25'38		4279 Aug 04 04:51	0° M	
retrograde	4278 Sep 27 18:55	27° Ω 39'40		desc. node	4279 Aug 19 06:17	23° M 43'01	
evening set	4278 Oct 04 23:19	25° Ω 08'39			4279 Aug 24 13:04	0° Ω	

evening max el	4279 Aug 27 06:28	2°♄45'27	26°59'39	desc. node	4280 Aug 05 03:19	11°♎09'19	
retrograde	4279 Sep 10 03:42	9°♄56'49		evening max el	4280 Aug 08 04:28	14°♎17'43	26°00'53
evening set	4279 Sep 17 04:22	7°♄46'44		retrograde	4280 Aug 22 03:45	21°♎25'57	
min. Earth dist.	4279 Sep 20 20:42	5°♄07'16	0.60881 AU	evening set	4280 Aug 28 12:28	19°♎48'31	
inferior conj	4279 Sep 24 00:53	2°♄25'36	-4°-21'-44	min. Earth dist.	4280 Sep 01 16:59	17°♎13'46	0.58806 AU
minimum elong	4279 Sep 24 06:50	2°♄12'56	4°20'23	inferior conj	4280 Sep 04 22:54	14°♎50'04	-5°-1'-6
	4279 Sep 27 01:03	30°♎		minimum elong	4280 Sep 05 02:46	14°♎42'53	5°00'42
morning rise	4279 Oct 01 12:28	27°♎35'29		morning rise	4280 Sep 12 20:36	10°♎23'28	
direct	4279 Oct 03 19:46	27°♎14'23		direct	4280 Sep 15 06:10	10°♎04'23	
asc. node	4279 Oct 09 08:51	29°♎22'13		morning max el	4280 Sep 23 08:40	13°♎57'47	18°32'53
	4279 Oct 10 03:26	0°♄		asc. node	4280 Sep 25 05:52	15°♎57'22	
morning max el	4279 Oct 11 00:58	0°♄49'28	18°01'23		4280 Oct 04 08:33	0°♄	
morning set	4279 Oct 26 18:19	25°♄39'20		morning set	4280 Oct 09 11:07	9°♄39'31	
	4279 Oct 29 02:37	0°♌					
superior conj	4279 Nov 05 19:40	13°♌58'51	1°03'06	superior conj	4280 Oct 18 08:42	26°♄41'29	1°26'24
minimum elong	4279 Nov 05 23:47	14°♌17'01	1°02'35	minimum elong	4280 Oct 18 12:04	26°♄57'10	1°26'04
max. Earth dist.	4279 Nov 13 10:48	27°♌04'18	1.42047 AU		4280 Oct 20 03:38	0°♌	
desc. node	4279 Nov 15 05:33	0°♌01'01		max. Earth dist.	4280 Oct 25 17:29	9°♌58'20	1.40034 AU
	4279 Nov 15 05:18	0°♌		evening rise	4280 Oct 29 23:37	17°♌13'55	
evening rise	4279 Nov 19 05:30	6°♌29'17		desc. node	4280 Nov 01 02:35	20°♌44'46	
	4279 Dec 04 17:46	0°♄			4280 Nov 06 21:41	0°♌	
greatest brilliancy	4279 Dec 17 09:20	17°♄01'31	-0.3m		4280 Nov 28 07:44	0°♄	
evening max el	4279 Dec 22 05:06	22°♄26'14	22°29'31	evening max el	4280 Dec 03 19:12	6°♄04'09	23°49'28
retrograde	4279 Dec 31 23:05	28°♄13'58		retrograde	4280 Dec 14 16:05	12°♄28'44	
asc. node	4280 Jan 05 08:05	26°♄33'20		evening set	4280 Dec 19 18:59	10°♄22'00	
evening set	4280 Jan 05 13:07	26°♄23'19		asc. node	4280 Dec 22 05:07	7°♄53'13	
inferior conj	4280 Jan 10 22:47	19°♄59'17	1°48'24	min. Earth dist.	4280 Dec 24 15:40	4°♄44'10	0.67900 AU
minimum elong	4280 Jan 10 20:38	20°♄06'43	1°47'39	inferior conj	4280 Dec 25 06:18	3°♄54'22	1°01'12
min. Earth dist.	4280 Jan 10 19:02	20°♄12'15	0.68037 AU	minimum elong	4280 Dec 25 04:55	3°♄59'05	1°00'39
morning rise	4280 Jan 16 04:05	13°♄47'21			4280 Dec 28 07:28	30°♎♌	
direct	4280 Jan 20 17:53	11°♄54'50		morning rise	4280 Dec 30 15:04	27°♌47'07	
morning max el	4280 Jan 29 23:35	17°♄19'50	22°02'24	direct	4281 Jan 03 14:47	26°♌17'17	
greatest brilliancy	4280 Feb 03 14:48	22°♄31'22	-0.4m		4281 Jan 10 17:57	0°♄	
	4280 Feb 09 09:15	0°♌		morning max el	4281 Jan 11 18:00	0°♄57'57	20°42'47
desc. node	4280 Feb 11 04:48	2°♌29'51		greatest brilliancy	4281 Jan 17 13:47	7°♄44'51	-0.5m
	4280 Feb 29 14:09	0°♌		desc. node	4281 Jan 28 01:49	22°♄26'18	
morning set	4280 Mar 02 20:43	3°♌38'02			4281 Feb 02 03:37	0°♌	
max. Earth dist.	4280 Mar 08 14:32	13°♌03'41	1.41189 AU	morning set	4281 Feb 10 00:45	12°♌04'20	
				max. Earth dist.	4281 Feb 18 19:18	25°♌59'13	1.43082 AU
superior conj	4280 Mar 16 08:16	26°♌23'34	-2°-1'-18		4281 Feb 21 06:24	0°♌	
minimum elong	4280 Mar 16 11:57	26°♌39'53	2°01'08	superior conj	4281 Feb 25 12:15	7°♌02'35	-2°-7'-56
	4280 Mar 18 08:47	0°♎		minimum elong	4281 Feb 25 11:49	7°♌00'48	2°07'56
evening rise	4280 Mar 26 21:12	15°♎38'27		evening rise	4281 Mar 09 14:08	27°♌58'22	
asc. node	4280 Apr 02 07:24	27°♎21'56			4281 Mar 10 17:36	0°♎	
	4280 Apr 03 20:04	0°♄		asc. node	4281 Mar 20 04:25	16°♎08'48	
evening max el	4280 Apr 12 02:05	11°♄26'52	18°14'54	evening max el	4281 Mar 26 13:51	24°♎32'21	18°06'49
retrograde	4280 Apr 19 03:23	14°♄58'53		retrograde	4281 Apr 02 02:44	27°♎54'57	
evening set	4280 Apr 21 13:38	14°♄34'34		evening set	4281 Apr 04 19:00	27°♎20'33	
inferior conj	4280 Apr 28 15:54	9°♄50'23	2°40'44	inferior conj	4281 Apr 11 06:35	22°♎15'49	3°19'47
minimum elong	4280 Apr 28 19:23	9°♄42'45	2°39'54	minimum elong	4281 Apr 11 08:44	22°♎10'24	3°19'30
min. Earth dist.	4280 May 02 01:40	6°♄53'16	0.59497 AU	min. Earth dist.	4281 Apr 14 07:50	19°♎13'12	0.61680 AU
morning rise	4280 May 05 21:12	4°♄09'38		morning rise	4281 Apr 17 19:36	16°♎16'59	
desc. node	4280 May 09 04:02	2°♄43'42		direct	4281 Apr 24 14:56	13°♎53'13	
direct	4280 May 12 06:26	2°♄17'10		desc. node	4281 Apr 26 01:03	13°♎59'07	
morning max el	4280 May 26 15:21	10°♄07'02	27°25'56	morning max el	4281 May 08 19:13	21°♎51'57	27°51'34
	4280 Jun 10 23:30	0°♌			4281 May 15 22:04	0°♄	
morning set	4280 Jun 26 21:01	29°♌08'33			4281 Jun 04 01:34	0°♌	
	4280 Jun 27 06:52	0°♌		morning set	4281 Jun 11 00:26	13°♌31'56	
asc. node	4280 Jun 29 06:40	4°♌13'30		asc. node	4281 Jun 16 03:42	24°♌20'52	
max. Earth dist.	4280 Jul 03 11:04	13°♌20'36	1.31999 AU	max. Earth dist.	4281 Jun 16 20:26	25°♌51'24	1.32271 AU
superior conj	4280 Jul 04 01:01	14°♌37'31	0°48'10	superior conj	4281 Jun 18 11:16	29°♌22'48	0°24'04
minimum elong	4280 Jul 03 23:06	14°♌26'56	0°47'46	minimum elong	4281 Jun 18 10:10	29°♌16'51	0°23'49
evening rise	4280 Jul 10 21:32	29°♌34'37			4281 Jun 18 18:04	0°♌	
	4280 Jul 11 02:20	0°♌		evening rise	4281 Jun 25 08:58	14°♌24'05	
	4280 Jul 27 13:48	0°♎			4281 Jul 03 04:00	0°♌	

evening max el	4281 Jul 20 19:35	25°♂05'45	24°36'20	superior conj	4282 Jun 02 18:10	13°♂53'22	0°-2'-52
desc. node	4281 Jul 23 00:20	27°♂03'52		minimum elong	4282 Jun 02 18:18	13°♂54'07	0°02'51
	4281 Jul 27 05:44	0°♂		behind sun begin	4282 Jun 02 13:02	13°♂25'52	
retrograde	4281 Aug 03 17:08	2°♂06'54		behind sun end	4282 Jun 02 23:34	14°♂22'24	
evening set	4281 Aug 08 20:18	1°♂07'44		asc. node	4282 Jun 03 00:44	14°♂28'38	
	4281 Aug 11 08:33	30°♂		evening rise	4282 Jun 09 20:42	29°♂10'07	
min. Earth dist.	4281 Aug 14 06:47	28°♂18'24	0.56891 AU		4282 Jun 10 06:09	0°♂	
inferior conj	4281 Aug 17 01:09	26°♂31'37	-5°-11'-31		4282 Jun 27 11:25	0°♂	
minimum elong	4281 Aug 16 23:51	26°♂33'43	5°11'30	evening max el	4282 Jul 02 08:42	5°♂30'09	22°59'39
morning rise	4281 Aug 25 06:58	22°♂26'48		desc. node	4282 Jul 09 21:22	10°♂52'21	
direct	4281 Aug 27 22:00	22°♂07'47		retrograde	4282 Jul 15 17:39	12°♂10'18	
morning max el	4281 Sep 06 07:08	26°♂31'08	19°25'44	evening set	4282 Jul 19 08:20	11°♂41'49	
	4281 Sep 09 11:45	0°♂		min. Earth dist.	4282 Jul 26 17:36	8°♂23'07	0.55466 AU
asc. node	4281 Sep 12 02:55	3°♂33'41		inferior conj	4282 Jul 28 08:02	7°♂27'32	-4°-37'-18
morning set	4281 Sep 23 12:17	24°♂03'36		minimum elong	4282 Jul 28 00:54	7°♂37'53	4°36'01
	4281 Sep 26 11:14	0°♂		morning rise	4282 Aug 05 20:11	3°♂36'09	
				direct	4282 Aug 08 19:23	3°♂15'21	
superior conj	4281 Oct 01 14:25	10°♂13'00	1°39'33	morning max el	4282 Aug 19 17:53	8°♂20'22	20°40'08
minimum elong	4281 Oct 01 16:12	10°♂21'45	1°39'28	asc. node	4282 Aug 29 23:58	21°♂56'50	
max. Earth dist.	4281 Oct 07 21:38	22°♂11'31	1.37944 AU		4282 Sep 03 10:18	0°♂	
evening rise	4281 Oct 11 16:56	29°♂02'23		morning set	4282 Sep 07 19:00	8°♂43'28	
	4281 Oct 12 06:04	0°♂					
desc. node	4281 Oct 18 23:37	11°♂21'08		superior conj	4282 Sep 15 08:03	24°♂19'25	1°44'05
	4281 Oct 31 06:27	0°♂		minimum elong	4282 Sep 15 08:13	24°♂20'19	1°44'05
evening max el	4281 Nov 16 07:45	19°♂45'55	25°06'27		4282 Sep 18 03:33	0°♂	
retrograde	4281 Nov 28 04:56	26°♂38'39		max. Earth dist.	4282 Sep 20 05:16	4°♂04'55	1.36011 AU
evening set	4281 Dec 03 21:35	24°♂17'05		evening rise	4282 Sep 24 06:25	11°♂46'47	
min. Earth dist.	4281 Dec 08 10:21	19°♂13'35	0.67412 AU		4282 Oct 04 18:29	0°♂	
inferior conj	4281 Dec 09 11:44	17°♂50'32	0°08'11	desc. node	4282 Oct 05 20:40	1°♂45'12	
minimum elong	4281 Dec 09 11:32	17°♂51'12	0°08'06		4282 Oct 26 11:50	0°♂	
transit middle	4281 Dec 09 11:32	17°♂51'12	0°08'06	evening max el	4282 Oct 29 20:23	3°♂28'41	26°13'05
transit begin	4281 Dec 09 09:08	17°♂59'04		retrograde	4282 Nov 11 12:44	10°♂38'23	
transit end	4281 Dec 09 13:56	17°♂43'20		evening set	4282 Nov 17 19:06	8°♂04'57	
asc. node	4281 Dec 09 02:09	18°♂21'58		min. Earth dist.	4282 Nov 22 00:40	3°♂37'10	0.66578 AU
morning rise	4281 Dec 15 02:07	11°♂50'14		inferior conj	4282 Nov 23 13:15	1°♂44'29	0°-49'-31
direct	4281 Dec 18 13:22	10°♂40'53		minimum elong	4282 Nov 23 14:35	1°♂40'22	0°48'58
morning max el	4281 Dec 25 20:18	14°♂46'59	19°36'04		4282 Nov 24 23:47	30°♂	
greatest brilliancy	4282 Jan 03 00:23	24°♂57'18	-0.6m	asc. node	4282 Nov 25 23:11	28°♂53'34	
	4282 Jan 06 12:25	0°♂		morning rise	4282 Nov 29 11:14	25°♂53'53	
desc. node	4282 Jan 14 22:51	12°♂42'20		direct	4282 Dec 02 11:55	25°♂01'38	
morning set	4282 Jan 19 21:23	20°♂17'56		morning max el	4282 Dec 09 05:46	28°♂44'14	18°44'46
	4282 Jan 26 03:21	0°♂			4282 Dec 10 10:26	0°♂	
max. Earth dist.	4282 Feb 01 07:18	9°♂41'40	1.44475 AU	morning set	4282 Dec 30 11:38	29°♂30'55	
					4282 Dec 30 19:01	0°♂	
superior conj	4282 Feb 05 14:31	16°♂33'25	-1°-57'-14	desc. node	4283 Jan 01 19:54	3°♂12'29	
minimum elong	4282 Feb 05 08:00	16°♂07'16	1°56'52	max. Earth dist.	4283 Jan 15 00:54	23°♂56'39	1.45200 AU
	4282 Feb 13 20:16	0°♂					
evening rise	4282 Feb 19 11:19	9°♂24'33		superior conj	4283 Jan 15 21:00	25°♂15'36	-1°-27'00
	4282 Mar 04 00:03	0°♂		minimum elong	4283 Jan 15 11:44	24°♂39'13	1°26'03
asc. node	4282 Mar 07 01:28	4°♂18'58			4283 Jan 18 21:20	0°♂	
evening max el	4282 Mar 10 02:40	7°♂52'09	18°17'41	evening rise	4283 Jan 31 09:37	19°♂53'59	
retrograde	4282 Mar 16 13:03	11°♂19'09			4283 Feb 06 16:20	0°♂	
evening set	4282 Mar 19 11:13	10°♂33'20		evening max el	4283 Feb 21 13:52	21°♂20'16	18°46'36
inferior conj	4282 Mar 25 11:56	5°♂09'07	3°35'01	asc. node	4283 Feb 21 22:30	21°♂41'48	
minimum elong	4282 Mar 25 12:22	5°♂07'54	3°34'59	retrograde	4283 Feb 28 06:23	25°♂03'54	
min. Earth dist.	4282 Mar 27 23:03	2°♂23'27	0.63701 AU	evening set	4283 Mar 03 10:54	24°♂05'42	
	4282 Mar 30 07:51	30°♂		inferior conj	4283 Mar 09 04:07	18°♂23'36	3°32'13
morning rise	4282 Mar 31 11:39	29°♂00'24		minimum elong	4283 Mar 09 03:05	18°♂26'45	3°32'08
direct	4282 Apr 07 08:08	26°♂16'47		min. Earth dist.	4283 Mar 10 23:31	16°♂10'16	0.65384 AU
desc. node	4282 Apr 12 22:05	27°♂48'34		morning rise	4283 Mar 14 18:07	12°♂09'53	
	4282 Apr 16 08:10	0°♂		direct	4283 Mar 21 08:20	9°♂20'35	
morning max el	4282 Apr 21 03:19	4°♂14'50	27°39'48	desc. node	4283 Mar 30 19:07	13°♂40'05	
	4282 May 10 11:59	0°♂		morning max el	4283 Apr 03 13:13	17°♂06'48	26°55'12
morning set	4282 May 25 20:46	27°♂30'41			4283 Apr 14 06:54	0°♂	
	4282 May 27 02:36	0°♂			4283 May 03 09:00	0°♂	
max. Earth dist.	4282 May 30 23:34	7°♂59'23	1.32979 AU	morning set	4283 May 09 06:59	10°♂55'51	
				max. Earth dist.	4283 May 13 17:02	19°♂37'03	1.34151 AU

superior conj	4283 May 17 19:39	28°♄03'08	0°-31'-38	superior conj	4284 Apr 30 13:05	11°♄44'34	-1°00'-55
minimum elong	4283 May 17 21:19	28°♄11'52	0°31'18	minimum elong	4284 Apr 30 16:23	12°♄01'08	1°00'21
	4283 May 18 17:59	0°♂		asc. node	4284 May 06 18:51	24°♄29'46	
asc. node	4283 May 20 21:48	4°♂33'01		evening rise	4284 May 08 13:26	28°♄07'54	
evening rise	4283 May 25 06:53	13°♂46'55			4284 May 09 11:29	0°♂	
	4283 Jun 02 14:09	0°♄		evening max el	4284 May 26 09:48	27°♂10'23	20°07'24
evening max el	4283 Jun 14 03:35	16°♄03'16	21°26'17		4284 May 29 20:38	0°♄	
retrograde	4283 Jun 26 07:51	22°♄03'13		retrograde	4284 Jun 05 22:12	2°♄18'24	
desc. node	4283 Jun 26 18:23	22°♄02'46		evening set	4284 Jun 07 21:09	2°♄08'30	
evening set	4283 Jun 28 18:10	21°♄49'43		desc. node	4284 Jun 12 15:23	0°♄32'14	
inferior conj	4283 Jul 08 02:32	17°♄50'18	-3°-12'-43		4284 Jun 13 16:53	30°♂♂	
minimum elong	4283 Jul 07 18:20	18°♄01'45	3°10'12	inferior conj	4284 Jun 16 22:22	28°♂09'18	-1°-16'-26
min. Earth dist.	4283 Jul 08 04:11	17°♄47'59	0.54837 AU	minimum elong	4284 Jun 16 18:47	28°♂14'39	1°15'08
morning rise	4283 Jul 16 19:09	13°♄56'12		min. Earth dist.	4284 Jun 18 16:31	27°♂06'32	0.55158 AU
direct	4283 Jul 20 05:26	13°♄30'44		morning rise	4284 Jun 25 14:05	23°♂51'58	
morning max el	4283 Aug 01 17:06	19°♄24'37	22°13'09	direct	4284 Jun 29 17:01	23°♂15'04	
	4283 Aug 10 09:34	0°♂			4284 Jul 13 10:12	0°♄	
asc. node	4283 Aug 16 21:01	10°♂55'38		morning max el	4284 Jul 13 08:47	29°♂56'41	23°56'15
morning set	4283 Aug 23 05:05	23°♂33'08		asc. node	4284 Aug 02 18:05	0°♂21'06	
	4283 Aug 26 06:15	0°♂			4284 Aug 02 13:50	0°♂	
				morning set	4284 Aug 06 16:46	8°♂27'21	
superior conj	4283 Aug 30 09:57	8°♂50'06	1°41'24	superior conj	4284 Aug 13 17:19	23°♂36'41	1°32'42
minimum elong	4283 Aug 30 08:50	8°♂44'12	1°41'21	minimum elong	4284 Aug 13 15:22	23°♂26'05	1°32'30
max. Earth dist.	4283 Sep 02 20:47	16°♂01'44	1.34401 AU	max. Earth dist.	4284 Aug 15 21:04	28°♂14'56	1.33189 AU
evening rise	4283 Sep 07 11:41	25°♂15'46			4284 Aug 16 16:49	0°♂	
	4283 Sep 09 23:15	0°♂		evening rise	4284 Aug 21 04:43	9°♂18'35	
desc. node	4283 Sep 22 17:42	21°♂50'44			4284 Sep 01 08:40	0°♂	
	4283 Sep 28 05:45	0°♂		desc. node	4284 Sep 08 14:43	11°♂29'50	
evening max el	4283 Oct 12 09:04	17°♂03'47	27°01'45		4284 Sep 23 12:07	0°♂	
retrograde	4283 Oct 25 14:51	24°♂20'44		evening max el	4284 Sep 23 20:34	0°♂20'13	27°25'27
evening set	4283 Nov 01 09:21	21°♂40'47		retrograde	4284 Oct 07 11:00	7°♂37'49	
min. Earth dist.	4283 Nov 05 08:10	17°♂49'16	0.65397 AU	evening set	4284 Oct 14 13:41	4°♂59'59	
inferior conj	4283 Nov 07 08:40	15°♂31'24	-1°-50'-31	min. Earth dist.	4284 Oct 18 06:47	1°♂42'40	0.63871 AU
minimum elong	4283 Nov 07 11:47	15°♂22'31	1°49'16		4284 Oct 19 22:49	30°♂♂	
asc. node	4283 Nov 12 20:15	10°♂20'40		inferior conj	4284 Oct 20 19:32	29°♂06'15	-2°-52'-28
morning rise	4283 Nov 13 16:00	9°♂53'37		minimum elong	4284 Oct 21 00:23	28°♂53'42	2°50'44
direct	4283 Nov 16 08:19	9°♂14'42		morning rise	4284 Oct 27 13:32	23°♂44'31	
morning max el	4283 Nov 22 20:13	12°♂43'59	18°09'54	direct	4284 Oct 29 23:56	23°♂15'12	
	4283 Dec 05 01:21	0°♂		asc. node	4284 Oct 29 17:17	23°♂15'36	
morning set	4283 Dec 11 06:57	10°♂11'34		morning max el	4284 Nov 05 12:54	26°♂40'16	17°52'11
desc. node	4283 Dec 19 16:56	23°♂51'46			4284 Nov 08 10:13	0°♂	
	4283 Dec 23 13:07	0°♂		morning set	4284 Nov 22 05:28	22°♂11'26	
					4284 Nov 26 19:04	0°♂	
superior conj	4283 Dec 26 01:07	3°♂57'45	0°-42'-38	superior conj	4284 Dec 04 22:44	13°♂34'47	0°04'26
minimum elong	4283 Dec 25 19:46	3°♂36'37	0°41'54	minimum elong	4284 Dec 04 23:13	13°♂36'48	0°04'22
max. Earth dist.	4283 Dec 28 20:34	8°♂23'33	1.45181 AU	behind sun begin	4284 Dec 04 13:40	12°♂57'44	
evening rise	4284 Jan 11 09:54	29°♂32'27		behind sun end	4284 Dec 05 08:47	14°♂15'47	
	4284 Jan 11 16:59	0°♂		desc. node	4284 Dec 05 13:58	14°♂36'54	
greatest brilliancy	4284 Jan 27 19:35	24°♂33'26	-0.7m	max. Earth dist.	4284 Dec 10 14:51	22°♂43'11	1.44436 AU
	4284 Jan 31 18:20	0°♂			4284 Dec 15 05:38	0°♂	
evening max el	4284 Feb 04 21:14	4°♂51'19	19°32'22	evening rise	4284 Dec 20 20:42	8°♂43'32	
asc. node	4284 Feb 08 19:33	8°♂03'18			4285 Jan 03 23:48	0°♂	
retrograde	4284 Feb 12 03:28	9°♂02'14		greatest brilliancy	4285 Jan 12 02:13	11°♂22'39	-0.5m
evening set	4284 Feb 15 15:18	7°♂50'43		evening max el	4285 Jan 17 23:24	18°♂23'31	20°32'54
inferior conj	4284 Feb 21 03:47	1°♂52'55	3°15'45	asc. node	4285 Jan 25 16:34	23°♂08'52	
minimum elong	4284 Feb 21 01:48	1°♂59'27	3°15'25	retrograde	4285 Jan 26 01:42	23°♂09'39	
min. Earth dist.	4284 Feb 22 08:12	0°♂19'39	0.66652 AU	evening set	4285 Jan 29 22:19	21°♂43'50	
	4284 Feb 22 14:16	30°♂♂		inferior conj	4285 Feb 04 08:18	15°♂33'12	2°48'33
morning rise	4284 Feb 26 11:33	25°♂37'07		minimum elong	4285 Feb 04 05:52	15°♂41'30	2°47'57
direct	4284 Mar 03 14:31	22°♂54'32		min. Earth dist.	4285 Feb 04 23:15	14°♂42'07	0.67498 AU
	4284 Mar 15 16:30	0°♂		morning rise	4285 Feb 09 12:57	9°♂17'18	
morning max el	4284 Mar 15 22:47	0°♂15'48	25°45'47	direct	4285 Feb 15 02:02	6°♂50'26	
desc. node	4284 Mar 16 16:09	1°♂00'21		morning max el	4285 Feb 26 07:27	13°♂32'54	24°21'22
	4284 Apr 07 05:22	0°♂		desc. node	4285 Mar 03 13:10	19°♂24'14	
morning set	4284 Apr 21 02:55	23°♂35'37			4285 Mar 11 15:28	0°♂	
	4284 Apr 24 13:15	0°♂					
max. Earth dist.	4284 Apr 24 23:13	0°♂47'27	1.35774 AU				

	4285 Mar 31 01:44	0°♄		desc. node	4286 Feb 18 10:12	8°≈33'34	
morning set	4285 Apr 03 03:08	5°♄15'05			4286 Mar 05 06:13	0°♄	
max. Earth dist.	4285 Apr 06 20:24	11°♄50'57	1.37771 AU	morning set	4286 Mar 15 01:33	15°♄38'20	
				max. Earth dist.	4286 Mar 19 15:31	23°♄21'37	1.39952 AU
superior conj	4285 Apr 13 19:11	24°♄49'06	-1°-28'-38		4286 Mar 23 10:55	0°♄	
minimum elong	4285 Apr 13 23:44	25°♄11'02	1°28'02				
	4285 Apr 16 11:12	0°♄		superior conj	4286 Mar 27 09:45	7°♄06'31	-1°-51'-44
evening rise	4285 Apr 22 13:51	12°♄05'49		minimum elong	4286 Mar 27 14:23	7°♄27'43	1°51'22
asc. node	4285 Apr 23 15:53	14°♄14'16		evening rise	4286 Apr 06 05:06	25°♄32'49	
	4285 May 02 06:57	0°♄			4286 Apr 08 13:25	0°♄	
evening max el	4285 May 09 04:08	8°♄59'29	19°07'47	asc. node	4286 Apr 10 12:54	3°♄41'36	
retrograde	4285 May 18 00:36	13°♄18'31		evening max el	4286 Apr 22 08:03	21°♄26'00	18°28'31
evening set	4285 May 20 01:03	13°♄05'59		retrograde	4286 Apr 29 21:32	25°♄10'03	
inferior conj	4285 May 28 08:56	8°♄54'01	0°37'23	evening set	4286 May 02 04:10	24°♄50'47	
minimum elong	4285 May 28 10:26	8°♄51'27	0°36'51	inferior conj	4286 May 09 16:38	20°♄19'08	2°04'52
desc. node	4285 May 30 12:24	7°♄26'08		minimum elong	4286 May 09 20:13	20°♄11'58	2°03'50
min. Earth dist.	4285 May 31 07:42	6°♄54'00	0.56386 AU	min. Earth dist.	4286 May 13 02:53	17°♄36'22	0.58265 AU
morning rise	4285 Jun 05 15:30	4°♄01'23		morning rise	4286 May 17 07:51	14°♄53'36	
direct	4285 Jun 10 17:02	3°♄01'30		desc. node	4286 May 17 09:24	14°♄51'39	
morning max el	4285 Jun 24 22:57	10°♄20'10	25°35'16	direct	4286 May 23 07:33	13°♄20'57	
	4285 Jul 09 21:19	0°♄		morning max el	4286 Jun 06 16:50	21°♄02'24	26°54'20
asc. node	4285 Jul 20 15:07	20°♄05'09			4286 Jun 14 11:19	0°♄	
morning set	4285 Jul 22 04:18	23°♄19'48			4286 Jul 02 15:02	0°♄	
	4285 Jul 25 06:43	0°♄		morning set	4286 Jul 06 14:06	8°♄05'27	
				asc. node	4286 Jul 07 12:10	10°♄02'05	
superior conj	4285 Jul 29 03:51	8°♄30'39	1°18'50				
minimum elong	4285 Jul 29 01:32	8°♄17'55	1°18'29	superior conj	4286 Jul 13 15:38	23°♄25'48	1°00'31
max. Earth dist.	4285 Jul 30 04:15	10°♄44'31	1.32400 AU	minimum elong	4286 Jul 13 13:26	23°♄13'40	1°00'07
evening rise	4285 Aug 05 06:05	23°♄44'27		max. Earth dist.	4286 Jul 13 15:17	23°♄23'50	1.32033 AU
	4285 Aug 08 08:14	0°♄			4286 Jul 16 15:15	0°♄	
desc. node	4285 Aug 26 11:43	0°♄30'35		evening rise	4286 Jul 20 13:07	8°♄25'15	
	4285 Aug 26 02:53	0°♄			4286 Jul 31 18:20	0°♄	
evening max el	4285 Sep 06 04:46	13°♄04'36	27°18'39	desc. node	4286 Aug 13 08:43	18°♄37'19	
retrograde	4285 Sep 20 00:31	20°♄19'07		evening max el	4286 Aug 19 07:17	25°♄05'51	26°38'25
evening set	4285 Sep 27 04:30	17°♄55'11			4286 Aug 25 16:22	0°♄	
min. Earth dist.	4285 Sep 30 19:10	15°♄05'11	0.62035 AU	retrograde	4286 Sep 02 05:58	2°♄15'52	
inferior conj	4285 Oct 03 18:49	12°♄21'02	-3°-51'-31	evening set	4286 Sep 09 01:14	0°♄18'46	
minimum elong	4285 Oct 04 00:47	12°♄07'19	3°49'50		4286 Sep 09 14:12	30°♄	
morning rise	4285 Oct 11 00:05	7°♄18'32		min. Earth dist.	4286 Sep 12 21:08	27°♄43'14	0.60000 AU
direct	4285 Oct 13 07:26	6°♄55'24		inferior conj	4286 Sep 16 03:06	25°♄06'59	-4°-41'-1
asc. node	4285 Oct 16 14:19	7°♄43'59		minimum elong	4286 Sep 16 08:32	24°♄56'03	4°40'03
morning max el	4285 Oct 20 04:39	10°♄24'39	17°52'30	morning rise	4286 Sep 23 19:11	20°♄26'28	
	4285 Nov 02 03:44	0°♄		direct	4286 Sep 26 02:55	20°♄06'33	
morning set	4285 Nov 05 00:51	5°♄10'45		asc. node	4286 Oct 03 11:21	23°♄36'56	
				morning max el	4286 Oct 03 16:13	23°♄48'33	18°12'09
superior conj	4285 Nov 15 22:40	24°♄28'56	0°44'42		4286 Oct 08 16:31	0°♄	
minimum elong	4285 Nov 16 02:20	24°♄44'41	0°44'11	morning set	4286 Oct 19 11:12	18°♄52'42	
	4285 Nov 19 04:47	0°♄			4286 Oct 25 09:15	0°♄	
desc. node	4285 Nov 22 10:59	5°♄24'04					
max. Earth dist.	4285 Nov 23 05:05	6°♄38'05	1.43059 AU	superior conj	4286 Oct 28 23:35	6°♄35'45	1°14'18
evening rise	4285 Nov 30 09:25	18°♄05'44		minimum elong	4286 Oct 29 03:33	6°♄53'41	1°13'51
	4285 Dec 08 03:54	0°♄		max. Earth dist.	4286 Nov 05 14:29	19°♄56'43	1.41221 AU
greatest brilliancy	4285 Dec 27 01:04	26°♄30'04	-0.4m	desc. node	4286 Nov 09 08:00	26°♄10'01	
	4285 Dec 30 00:16	0°♄		evening rise	4286 Nov 10 14:40	28°♄15'12	
evening max el	4285 Dec 31 20:05	1°≈57'04	21°44'55		4286 Nov 11 16:35	0°♄	
retrograde	4286 Jan 09 23:02	7°≈22'31			4286 Dec 01 19:08	0°♄	
asc. node	4286 Jan 12 13:34	6°≈45'56		greatest brilliancy	4286 Dec 08 17:06	9°♄01'14	-0.2m
evening set	4286 Jan 14 06:08	5°≈41'19		evening max el	4286 Dec 14 12:13	15°♄33'22	23°03'38
	4286 Jan 19 04:17	30°♄		retrograde	4286 Dec 24 17:49	21°♄37'14	
inferior conj	4286 Jan 19 15:29	29°♄21'12	2°12'36	evening set	4286 Dec 29 13:08	19°♄39'56	
minimum elong	4286 Jan 19 13:06	29°♄29'28	2°11'50	asc. node	4286 Dec 30 10:36	18°♄51'26	
min. Earth dist.	4286 Jan 19 18:20	29°♄11'17	0.67944 AU	inferior conj	4287 Jan 03 23:22	13°♄14'04	1°29'10
morning rise	4286 Jan 24 19:48	23°♄07'08		minimum elong	4287 Jan 03 21:30	13°♄20'32	1°28'28
direct	4286 Jan 29 18:05	21°♄01'14		min. Earth dist.	4287 Jan 03 15:02	13°♄42'48	0.68020 AU
morning max el	4286 Feb 08 17:02	26°♄55'13	22°52'12	morning rise	4287 Jan 09 05:51	7°♄03'46	
	4286 Feb 11 13:37	0°♄		direct	4287 Jan 13 13:36	5°♄20'48	
greatest brilliancy	4286 Feb 13 09:37	2°≈09'14	-0.3m	morning max el	4287 Jan 22 07:12	10°♄25'45	21°27'10

greatest brilliancy	4287 Jan 27 07:20	16°☿06'44	-0.4m	direct	4287 Dec 28 11:26	19°♄44'44	
desc. node	4287 Feb 05 07:13	28°☿15'17		morning max el	4288 Jan 05 04:58	24°♄08'49	20°12'41
	4287 Feb 06 12:25	0°♊			4288 Jan 10 06:19	0°☿	
morning set	4287 Feb 22 19:03	24°♊39'21		greatest brilliancy	4288 Jan 11 20:13	2°☿03'58	-0.6m
	4287 Feb 26 03:18	0°♋		desc. node	4288 Jan 23 04:17	18°☿20'59	
max. Earth dist.	4287 Mar 01 16:05	5°♋45'37	1.42040 AU		4288 Jan 30 20:27	0°♌	
				morning set	4288 Feb 01 16:51	2°♌51'00	
superior conj	4287 Mar 09 03:42	18°♋24'07	-2°-5'-56	max. Earth dist.	4288 Feb 12 00:44	19°♌05'09	1.43753 AU
minimum elong	4287 Mar 09 06:02	18°♋34'12	2°05'52				
	4287 Mar 15 17:16	0°♍		superior conj	4288 Feb 17 20:42	28°♌33'17	-2°-5'-46
evening rise	4287 Mar 20 07:21	8°♍19'09		minimum elong	4288 Feb 17 17:43	28°♌20'59	2°05'41
asc. node	4287 Mar 28 09:56	22°♍44'58			4288 Feb 18 17:44	0°♎	
	4287 Apr 02 02:37	0°♏		evening rise	4288 Mar 01 16:25	20°♎16'55	
evening max el	4287 Apr 05 17:55	4°♏19'28	18°09'10		4288 Mar 07 07:18	0°♐	
retrograde	4287 Apr 12 12:24	7°♏45'18		asc. node	4288 Mar 14 06:57	11°♐16'58	
evening set	4287 Apr 15 01:25	7°♏16'44		evening max el	4288 Mar 19 06:27	17°♐31'16	18°09'07
inferior conj	4287 Apr 21 20:56	2°♏23'41	3°00'36	retrograde	4288 Mar 25 17:04	20°♐54'11	
minimum elong	4287 Apr 21 23:59	2°♏16'36	3°00'00	evening set	4288 Mar 28 11:52	20°♐14'56	
	4287 Apr 24 10:49	30°♑		inferior conj	4288 Apr 03 18:21	15°♐01'23	3°28'47
min. Earth dist.	4287 Apr 25 04:06	29°♐21'24	0.60435 AU	minimum elong	4288 Apr 03 19:46	14°♐57'37	3°28'39
morning rise	4287 Apr 28 19:06	26°♐34'25		min. Earth dist.	4288 Apr 06 13:49	12°♐03'56	0.62574 AU
desc. node	4287 May 04 06:26	24°♐31'26		morning rise	4288 Apr 10 01:17	8°♐57'34	
direct	4287 May 05 09:57	24°♐27'42		direct	4288 Apr 16 22:01	6°♐24'06	
	4287 May 17 03:53	0°♑		desc. node	4288 Apr 20 03:28	6°♐54'41	
morning max el	4287 May 19 16:58	2°♑21'30	27°41'26	morning max el	4288 Apr 30 23:01	14°♐23'05	27°51'03
	4287 Jun 08 20:49	0°♒			4288 May 13 14:00	0°♑	
morning set	4287 Jun 20 20:25	22°♒38'18			4288 May 31 09:46	0°♒	
asc. node	4287 Jun 24 09:13	0°♓06'32		morning set	4288 Jun 03 21:09	6°♒51'45	
	4287 Jun 24 08:00	0°♈		max. Earth dist.	4288 Jun 09 09:54	18°♒24'41	1.32521 AU
max. Earth dist.	4287 Jun 27 02:30	6°♈01'40	1.32070 AU	asc. node	4288 Jun 10 06:16	20°♒14'09	
superior conj	4287 Jun 28 02:56	8°♈15'51	0°38'20	superior conj	4288 Jun 11 11:59	22°♒55'01	0°12'57
minimum elong	4287 Jun 28 01:19	8°♈06'57	0°38'00	minimum elong	4288 Jun 11 11:22	22°♒51'42	0°12'49
evening rise	4287 Jul 04 23:31	23°♈13'17		behind sun begin	4288 Jun 11 08:16	22°♒34'49	
	4287 Jul 08 05:44	0°♉		behind sun end	4288 Jun 11 14:29	23°♒08'35	
	4287 Jul 26 09:16	0°♊			4288 Jun 14 18:00	0°♈	
desc. node	4287 Jul 31 05:44	5°♊28'11		evening rise	4288 Jun 18 11:18	8°♈01'47	
evening max el	4287 Aug 01 02:22	6°♊18'38	25°27'22		4288 Jun 29 21:56	0°♉	
retrograde	4287 Aug 15 01:25	13°♊23'47		evening max el	4288 Jul 12 15:39	16°♉52'19	23°55'38
evening set	4287 Aug 20 23:08	12°♊02'51		desc. node	4288 Jul 17 02:46	20°♉33'25	
min. Earth dist.	4287 Aug 25 14:13	9°♊24'06	0.57961 AU	retrograde	4288 Jul 26 09:13	23°♉46'47	
inferior conj	4287 Aug 28 17:00	7°♊14'17	-5°-10'-1	evening set	4288 Jul 30 21:15	23°♉02'03	
minimum elong	4287 Aug 28 19:00	7°♊10'46	5°09'56	min. Earth dist.	4288 Aug 06 01:57	20°♉02'02	0.56208 AU
morning rise	4287 Sep 05 18:21	2°♊57'09		inferior conj	4288 Aug 08 10:37	18°♉35'36	-5°-3'-14
direct	4287 Sep 08 06:04	2°♊38'09		minimum elong	4288 Aug 08 06:36	18°♉41'44	5°02'52
morning max el	4287 Sep 16 20:18	6°♊42'47	18°52'39	morning rise	4288 Aug 16 19:21	14°♉38'21	
asc. node	4287 Sep 20 08:25	10°♊39'50		direct	4288 Aug 19 13:43	14°♉18'46	
	4287 Oct 01 18:13	0°♋		morning max el	4288 Aug 29 13:57	18°♉57'54	19°54'53
morning set	4287 Oct 03 08:02	3°♋04'39		asc. node	4288 Sep 06 05:29	28°♉37'29	
					4288 Sep 07 02:06	0°♌	
superior conj	4287 Oct 11 20:24	19°♋41'10	1°33'07	morning set	4288 Sep 16 11:52	17°♌36'25	
minimum elong	4287 Oct 11 23:08	19°♋54'12	1°32'55		4288 Sep 22 14:02	0°♍	
	4287 Oct 17 09:42	0°♎					
max. Earth dist.	4287 Oct 18 20:09	2°♎34'31	1.39145 AU	superior conj	4288 Sep 24 07:43	3°♍29'15	1°42'26
evening rise	4287 Oct 22 18:54	9°♎27'46		minimum elong	4288 Sep 24 08:48	3°♍34'38	1°42'24
desc. node	4287 Oct 27 05:03	16°♎51'18		max. Earth dist.	4288 Sep 30 01:19	14°♍37'20	1.37089 AU
	4287 Nov 04 14:11	0°♏		evening rise	4288 Oct 03 21:16	21°♍41'01	
evening max el	4287 Nov 27 01:37	29°♏13'49	24°23'02		4288 Oct 08 15:13	0°♎	
	4287 Nov 27 20:38	0°☿		desc. node	4288 Oct 13 02:05	7°♎22'59	
retrograde	4287 Dec 08 09:01	5°☿50'50			4288 Oct 28 11:45	0°♏	
evening set	4287 Dec 13 17:49	3°☿37'31		evening max el	4288 Nov 08 13:56	12°♏56'01	25°36'25
asc. node	4287 Dec 17 07:38	29°♏44'13		retrograde	4288 Nov 20 19:46	19°♏57'24	
	4287 Dec 17 02:40	30°♑		evening set	4288 Nov 26 18:29	17°♏29'58	
min. Earth dist.	4287 Dec 18 11:02	28°♏14'21	0.67739 AU	min. Earth dist.	4288 Dec 01 04:02	12°♏41'49	0.67104 AU
inferior conj	4287 Dec 19 06:13	27°♏10'01	0°39'23	inferior conj	4288 Dec 02 10:13	11°♏05'23	0°-15'-47
minimum elong	4287 Dec 19 05:17	27°♏13'09	0°39'00	minimum elong	4288 Dec 02 10:38	11°♏04'05	0°15'37
morning rise	4287 Dec 24 17:08	21°♏05'37		transit middle	4288 Dec 02 10:38	11°♏04'05	0°15'37

transit begin	4288 Dec 02 09:54	11° ♂ 06'23		evening max el	4289 Oct 22 02:27	26° ♂ 36'05	26°36'16
transit end	4288 Dec 02 11:21	11° ♂ 01'47			4289 Oct 26 00:21	0° ♂	
asc. node	4288 Dec 03 04:41	10° ♂ 06'48		retrograde	4289 Nov 04 01:26	3° ♂ 50'44	
morning rise	4288 Dec 08 03:38	5° ♂ 09'10		evening set	4289 Nov 10 13:13	1° ♂ 13'29	
direct	4288 Dec 11 10:06	4° ♂ 07'41			4289 Nov 11 22:00	30° ♂	
morning max el	4288 Dec 18 10:36	8° ♂ 02'17	19°12'19	min. Earth dist.	4289 Nov 14 15:45	27° ♂ 01'11	0.66120 AU
greatest brilliancy	4288 Dec 28 13:40	21° ♂ 11'34	-0.7m	inferior conj	4289 Nov 16 09:24	24° ♂ 56'50	-1°-15'-8
	4289 Jan 03 09:42	0° ♂		minimum elong	4289 Nov 16 11:29	24° ♂ 50'38	1°14'16
desc. node	4289 Jan 09 01:20	8° ♂ 43'29		asc. node	4289 Nov 20 01:44	20° ♂ 56'10	
morning set	4289 Jan 10 18:24	11° ♂ 22'50		morning rise	4289 Nov 22 11:12	19° ♂ 11'23	
	4289 Jan 22 16:49	0° ♂		direct	4289 Nov 25 07:55	18° ♂ 25'27	
max. Earth dist.	4289 Jan 24 15:31	3° ♂ 03'40	1.44871 AU	morning max el	4289 Dec 01 22:32	22° ♂ 01'30	18°27'47
					4289 Dec 08 06:57	0° ♂	
superior conj	4289 Jan 27 13:01	7° ♂ 38'25	-1°-46'-40	morning set	4289 Dec 21 20:29	21° ♂ 11'41	
minimum elong	4289 Jan 27 04:33	7° ♂ 04'50	1°46'01	desc. node	4289 Dec 26 22:21	29° ♂ 17'46	
	4289 Feb 10 08:56	0° ♂			4289 Dec 27 08:59	0° ♂	
evening rise	4289 Feb 11 04:06	1° ♂ 18'57					
asc. node	4289 Mar 01 03:58	29° ♂ 08'11		superior conj	4290 Jan 06 15:50	16° ♂ 13'19	-1°-9'-16
	4289 Mar 01 22:09	0° ♂		minimum elong	4290 Jan 06 07:35	15° ♂ 40'54	1°08'17
evening max el	4289 Mar 02 18:45	0° ♂ 54'31	18°27'48	max. Earth dist.	4290 Jan 07 09:47	17° ♂ 23'40	1.45281 AU
retrograde	4289 Mar 09 06:55	4° ♂ 27'38			4290 Jan 15 10:42	0° ♂	
evening set	4289 Mar 12 07:37	3° ♂ 36'44		evening rise	4290 Jan 22 16:26	11° ♂ 24'24	
	4289 Mar 16 12:22	30° ♂		greatest brilliancy	4290 Feb 03 14:10	0° ♂ 06'21	-0.7m
inferior conj	4289 Mar 18 04:45	28° ♂ 04'31	3°35'44		4290 Feb 03 12:30	0° ♂	
minimum elong	4289 Mar 18 04:30	28° ♂ 05'13	3°35'43	evening max el	4290 Feb 14 04:29	14° ♂ 23'56	19°04'11
min. Earth dist.	4289 Mar 20 09:09	25° ♂ 31'08	0.64458 AU	asc. node	4290 Feb 16 01:00	16° ♂ 06'32	
morning rise	4289 Mar 23 23:51	21° ♂ 52'55		retrograde	4290 Feb 21 02:09	18° ♂ 18'17	
direct	4289 Mar 30 18:14	19° ♂ 05'16		evening set	4290 Feb 24 09:32	17° ♂ 14'44	
desc. node	4289 Apr 07 00:31	21° ♂ 39'59		inferior conj	4290 Mar 02 00:27	11° ♂ 25'49	3°26'41
morning max el	4289 Apr 13 08:27	27° ♂ 00'31	27°24'32	minimum elong	4290 Mar 01 22:57	11° ♂ 30'35	3°26'31
	4289 Apr 16 03:53	0° ♂		min. Earth dist.	4290 Mar 03 13:25	9° ♂ 28'36	0.65971 AU
	4289 May 07 05:31	0° ♂		morning rise	4290 Mar 07 11:22	5° ♂ 10'44	
morning set	4289 May 18 13:40	20° ♂ 37'53		direct	4290 Mar 13 21:16	2° ♂ 22'37	
	4289 May 23 05:22	0° ♂		desc. node	4290 Mar 24 21:33	8° ♂ 12'32	
max. Earth dist.	4289 May 23 09:26	0° ♂ 21'00	1.33413 AU	morning max el	4290 Mar 26 18:21	10° ♂ 00'52	26°28'07
					4290 Apr 11 13:08	0° ♂	
superior conj	4289 May 26 16:53	7° ♂ 17'34	0°-14'-54		4290 Apr 29 17:52	0° ♂	
minimum elong	4289 May 26 17:38	7° ♂ 21'37	0°14'45	morning set	4290 May 01 18:20	3° ♂ 45'17	
behind sun begin	4289 May 26 15:31	7° ♂ 10'23		max. Earth dist.	4290 May 05 21:47	11° ♂ 44'09	1.34779 AU
behind sun end	4289 May 26 19:45	7° ♂ 32'51					
asc. node	4289 May 28 03:18	10° ♂ 20'58		superior conj	4290 May 10 15:15	21° ♂ 16'01	0°-44'-6
evening rise	4289 Jun 02 22:38	22° ♂ 44'43		minimum elong	4290 May 10 17:37	21° ♂ 28'12	0°43'40
	4289 Jun 06 11:06	0° ♂			4290 May 14 20:03	0° ♂	
evening max el	4289 Jun 24 06:08	27° ♂ 16'16	22°18'45	asc. node	4290 May 15 00:19	0° ♂ 22'18	
	4289 Jun 27 10:00	0° ♂		evening rise	4290 May 18 07:30	7° ♂ 15'05	
desc. node	4289 Jul 03 23:46	3° ♂ 18'26			4290 May 30 17:16	0° ♂	
retrograde	4289 Jul 07 05:13	3° ♂ 42'31		evening max el	4290 Jun 06 05:30	8° ♂ 01'55	20°50'40
evening set	4289 Jul 10 05:50	3° ♂ 22'16		retrograde	4290 Jun 17 17:50	13° ♂ 40'11	
	4289 Jul 18 03:16	30° ♂		evening set	4290 Jun 19 20:59	13° ♂ 29'22	
min. Earth dist.	4289 Jul 18 12:31	29° ♂ 47'00	0.55080 AU	desc. node	4290 Jun 20 20:48	13° ♂ 17'17	
inferior conj	4289 Jul 19 10:59	29° ♂ 15'17	-4°-7'-11	inferior conj	4290 Jun 29 04:10	9° ♂ 32'22	-2°-25'-21
minimum elong	4289 Jul 19 02:34	29° ♂ 27'11	4°05'09	minimum elong	4290 Jun 28 21:29	9° ♂ 41'52	2°23'05
morning rise	4289 Jul 28 01:25	25° ♂ 25'19		min. Earth dist.	4290 Jun 30 00:01	9° ♂ 04'09	0.54849 AU
direct	4289 Jul 31 04:30	25° ♂ 03'17		morning rise	4290 Jul 07 21:14	5° ♂ 30'16	
	4289 Aug 11 07:07	0° ♂		direct	4290 Jul 11 13:45	5° ♂ 00'58	
morning max el	4289 Aug 11 19:47	0° ♂ 28'43	21°17'48	morning max el	4290 Jul 24 15:08	11° ♂ 16'48	22°56'26
asc. node	4289 Aug 24 02:33	17° ♂ 17'20			4290 Aug 07 11:04	0° ♂	
	4289 Aug 30 16:49	0° ♂		asc. node	4290 Aug 10 23:36	6° ♂ 28'08	
morning set	4289 Aug 31 20:17	2° ♂ 21'30		morning set	4290 Aug 16 07:13	17° ♂ 13'16	
					4290 Aug 22 06:34	0° ♂	
superior conj	4289 Sep 08 05:19	17° ♂ 47'53	1°43'45				
minimum elong	4289 Sep 08 04:54	17° ♂ 45'41	1°43'45	superior conj	4290 Aug 23 09:51	2° ♂ 26'05	1°38'24
max. Earth dist.	4289 Sep 12 11:38	26° ♂ 28'38	1.35278 AU	minimum elong	4290 Aug 23 08:19	2° ♂ 17'53	1°38'17
	4289 Sep 14 06:29	0° ♂		max. Earth dist.	4290 Aug 26 06:44	8° ♂ 30'25	1.33835 AU
evening rise	4289 Sep 16 18:02	4° ♂ 46'12		evening rise	4290 Aug 31 04:46	18° ♂ 30'56	
desc. node	4289 Sep 29 23:06	27° ♂ 40'00			4290 Sep 06 06:33	0° ♂	
	4289 Oct 01 10:56	0° ♂		desc. node	4290 Sep 16 20:07	17° ♂ 45'17	

	4290 Sep 25 16:08	0°♄		desc. node	4291 Sep 03 17:08	6°♄59'26	
evening max el	4290 Oct 04 14:55	10°♄05'10	27°15'17	evening max el	4291 Sep 17 01:34	23°♄10'17	27°26'38
retrograde	4290 Oct 18 01:14	17°♄23'16			4291 Sep 27 16:29	0°♄	
evening set	4290 Oct 24 23:38	14°♄43'15		retrograde	4291 Sep 30 18:28	0°♄26'00	
min. Earth dist.	4290 Oct 28 19:54	11°♄06'25	0.64788 AU		4291 Oct 03 17:54	30°♄	
inferior conj	4290 Oct 31 01:32	8°♄39'43	-2°-16'-53	evening set	4291 Oct 07 22:41	27°♄52'53	
minimum elong	4290 Oct 31 05:25	8°♄29'04	2°15'23	min. Earth dist.	4291 Oct 11 14:20	24°♄48'10	0.63123 AU
morning rise	4290 Nov 06 13:15	3°♄08'06		inferior conj	4291 Oct 14 07:52	22°♄07'14	-3°-18'-11
asc. node	4290 Nov 06 22:47	2°♄58'21		minimum elong	4291 Oct 14 13:20	21°♄53'48	3°16'24
direct	4290 Nov 09 02:40	2°♄33'46		morning rise	4291 Oct 21 06:37	16°♄53'00	
morning max el	4290 Nov 15 14:15	6°♄00'31	18°00'06	direct	4291 Oct 23 15:25	16°♄26'35	
	4290 Dec 01 16:33	0°♄		asc. node	4291 Oct 24 19:50	16°♄33'20	
morning set	4290 Dec 03 04:05	2°♄28'35		morning max el	4291 Oct 30 06:52	19°♄52'22	17°50'01
desc. node	4290 Dec 13 19:23	20°♄00'00			4291 Nov 06 19:00	0°♄	
				morning set	4291 Nov 15 12:22	14°♄56'44	
superior conj	4290 Dec 17 01:29	25°♄13'57	0°-22'-18		4291 Nov 24 05:05	0°♄	
minimum elong	4290 Dec 16 22:46	25°♄03'02	0°21'56				
	4290 Dec 20 01:25	0°♄		superior conj	4291 Nov 27 09:57	5°♄22'57	0°22'41
max. Earth dist.	4290 Dec 21 04:59	1°♄48'54	1.44952 AU	minimum elong	4291 Nov 27 12:13	5°♄32'20	0°22'22
evening rise	4291 Jan 02 09:24	20°♄47'17		desc. node	4291 Nov 30 16:24	10°♄46'25	
	4291 Jan 08 09:25	0°♄		max. Earth dist.	4291 Dec 03 22:19	16°♄02'02	1.43925 AU
greatest brilliancy	4291 Jan 21 10:53	19°♄20'29	-0.6m	evening rise	4291 Dec 12 19:04	29°♄58'50	
evening max el	4291 Jan 28 09:51	27°♄56'20	19°56'35		4291 Dec 12 19:22	0°♄	
	4291 Jan 30 15:26	0°♄			4292 Jan 02 02:46	0°♄	
asc. node	4291 Feb 02 22:02	1°♄57'55		greatest brilliancy	4292 Jan 06 02:58	5°♄20'10	-0.5m
retrograde	4291 Feb 04 23:53	2°♄21'08		evening max el	4292 Jan 11 09:44	11°♄29'31	21°02'23
evening set	4291 Feb 08 15:17	1°♄03'44		retrograde	4292 Jan 19 21:51	16°♄31'35	
	4291 Feb 09 22:07	30°♄		asc. node	4292 Jan 20 19:04	16°♄27'20	
inferior conj	4291 Feb 14 02:28	25°♄00'25	3°05'22	evening set	4292 Jan 23 22:50	14°♄59'10	
minimum elong	4291 Feb 14 00:14	25°♄07'54	3°04'55	inferior conj	4292 Jan 29 08:22	8°♄44'10	2°34'15
min. Earth dist.	4291 Feb 15 01:03	23°♄44'52	0.67066 AU	minimum elong	4292 Jan 29 05:54	8°♄52'41	2°33'34
morning rise	4291 Feb 19 08:34	18°♄44'28		min. Earth dist.	4292 Jan 29 17:59	8°♄11'01	0.67743 AU
direct	4291 Feb 25 05:58	16°♄07'25		morning rise	4292 Feb 03 12:35	2°♄29'07	
morning max el	4291 Mar 09 03:12	23°♄13'27	25°11'02	direct	4292 Feb 08 19:27	0°♄10'49	
desc. node	4291 Mar 11 18:34	26°♄02'34		morning max el	4292 Feb 19 11:50	6°♄32'29	23°43'25
	4291 Mar 15 03:18	0°♄		desc. node	4292 Feb 26 15:35	14°♄47'31	
	4291 Apr 04 21:39	0°♄			4292 Mar 08 16:42	0°♄	
morning set	4291 Apr 14 06:33	16°♄01'12		morning set	4292 Mar 25 20:25	27°♄09'24	
max. Earth dist.	4291 Apr 17 23:12	22°♄46'42	1.36588 AU		4292 Mar 27 12:10	0°♄	
	4291 Apr 21 18:23	0°♄		max. Earth dist.	4292 Mar 29 18:54	3°♄59'09	1.38699 AU
superior conj	4291 Apr 24 04:18	4°♄43'11	-1°-13'-1	superior conj	4292 Apr 06 04:20	17°♄28'56	-1°-39'-14
minimum elong	4291 Apr 24 08:13	5°♄02'29	1°12'25	minimum elong	4292 Apr 06 09:08	17°♄51'33	1°38'41
asc. node	4291 May 01 21:21	20°♄14'27			4292 Apr 12 16:32	0°♄	
evening rise	4291 May 02 11:44	21°♄27'03		evening rise	4292 Apr 15 08:38	5°♄12'50	
	4291 May 06 19:41	0°♄		asc. node	4292 Apr 17 18:22	9°♄52'24	
evening max el	4291 May 19 17:08	19°♄27'06	19°39'35		4292 Apr 30 04:43	0°♄	
retrograde	4291 May 29 11:30	24°♄12'27		evening max el	4292 May 01 15:52	1°♄32'38	18°48'33
evening set	4291 May 31 10:17	24°♄01'55		retrograde	4292 May 09 21:39	5°♄34'58	
desc. node	4291 Jun 07 17:47	20°♄52'54		evening set	4292 May 12 00:38	5°♄19'53	
inferior conj	4291 Jun 09 04:51	19°♄58'40	0°-25'-58	inferior conj	4292 May 20 00:04	0°♄59'34	1°18'26
minimum elong	4291 Jun 09 03:41	20°♄00'30	0°25'33	minimum elong	4292 May 20 02:52	0°♄54'28	1°17'30
min. Earth dist.	4291 Jun 11 13:16	18°♄30'35	0.55588 AU		4292 May 21 08:34	30°♄	
morning rise	4291 Jun 17 17:43	15°♄27'13		min. Earth dist.	4292 May 23 05:36	28°♄39'15	0.57127 AU
direct	4291 Jun 22 06:11	14°♄41'46		desc. node	4292 May 24 14:47	27°♄43'43	
morning max el	4291 Jul 06 05:05	21°♄40'23	24°39'48	morning rise	4292 May 28 00:38	25°♄52'15	
	4291 Jul 13 11:39	0°♄		direct	4292 Jun 02 12:00	24°♄39'33	
asc. node	4291 Jul 28 20:37	26°♄01'57			4292 Jun 14 11:20	0°♄	
	4291 Jul 30 18:52	0°♄		morning max el	4292 Jun 16 20:18	2°♄08'41	26°12'21
morning set	4291 Jul 31 19:00	2°♄06'52			4292 Jul 06 15:24	0°♄	
				asc. node	4292 Jul 14 17:39	15°♄52'23	
superior conj	4291 Aug 07 18:46	17°♄16'03	1°27'24	morning set	4292 Jul 15 06:02	16°♄57'31	
minimum elong	4291 Aug 07 16:36	17°♄04'13	1°27'08		4292 Jul 21 06:13	0°♄	
max. Earth dist.	4291 Aug 09 10:23	20°♄51'13	1.32807 AU				
	4291 Aug 13 17:45	0°♄		superior conj	4292 Jul 22 06:03	2°♄11'22	1°11'34
evening rise	4291 Aug 15 01:43	2°♄44'27		minimum elong	4292 Jul 22 03:44	1°♄58'34	1°11'12
	4291 Aug 30 02:17	0°♄		max. Earth dist.	4292 Jul 22 19:53	3°♄27'30	1.32193 AU

evening rise	4292 Jul 29 05:48	17°♎17'53		superior conj	4293 Jul 06 17:50	17°♎05'09	0°51'32
	4292 Aug 04 14:50	0°♎		minimum elong	4293 Jul 06 15:50	16°♎54'05	0°51'09
desc. node	4292 Aug 20 14:08	25°♎39'49		max. Earth dist.	4293 Jul 06 07:26	16°♎07'49	1.31990 AU
	4292 Aug 24 01:12	0°♎			4293 Jul 12 15:30	0°♎	
evening max el	4292 Aug 29 07:42	5°♎37'56	27°05'37	evening rise	4293 Jul 13 14:29	2°♎02'25	
retrograde	4292 Sep 12 04:29	12°♎50'07			4293 Jul 28 15:56	0°♎	
evening set	4292 Sep 19 06:27	10°♎35'54		desc. node	4293 Aug 07 11:09	13°♎17'42	
min. Earth dist.	4292 Sep 22 22:00	7°♎54'19	0.61186 AU	evening max el	4293 Aug 11 06:50	17°♎17'40	26°11'33
inferior conj	4292 Sep 26 01:15	5°♎11'26	-4°-14'-11	retrograde	4293 Aug 25 06:10	24°♎26'44	
minimum elong	4292 Sep 26 07:17	4°♎58'20	4°12'45	evening set	4293 Aug 31 18:02	22°♎43'52	
morning rise	4292 Oct 03 11:15	0°♎18'07		min. Earth dist.	4293 Sep 04 19:45	20°♎09'29	0.59113 AU
	4292 Oct 04 20:38	30°♎		inferior conj	4293 Sep 08 02:04	17°♎41'50	-4°-56'-40
direct	4292 Oct 05 18:28	29°♎56'34		minimum elong	4293 Sep 08 06:27	17°♎33'31	4°56'07
	4292 Oct 06 16:08	0°♎		morning rise	4293 Sep 15 22:23	13°♎11'43	
asc. node	4292 Oct 10 16:52	1°♎39'54		direct	4293 Sep 18 07:19	12°♎52'31	
morning max el	4292 Oct 12 21:18	3°♎29'44	17°58'30	morning max el	4293 Sep 26 06:11	16°♎42'41	18°26'50
morning set	4292 Oct 28 14:50	28°♎16'48		asc. node	4293 Sep 27 13:55	18°♎04'35	
	4292 Oct 29 13:16	0°♎			4293 Oct 05 16:39	0°♎	
				morning set	4293 Oct 12 06:05	12°♎12'35	
superior conj	4292 Nov 07 21:11	16°♎50'35	0°58'36	superior conj	4293 Oct 21 07:15	29°♎24'31	1°23'32
minimum elong	4292 Nov 08 01:15	17°♎08'26	0°58'04	minimum elong	4293 Oct 21 10:49	29°♎40'58	1°23'10
max. Earth dist.	4292 Nov 15 11:06	29°♎45'23	1.42323 AU		4293 Oct 21 14:56	0°♎	
	4292 Nov 15 14:38	0°♎		max. Earth dist.	4293 Oct 28 18:11	12°♎44'56	1.40346 AU
desc. node	4292 Nov 16 13:27	1°♎33'58		evening rise	4293 Nov 02 04:15	20°♎13'48	
evening rise	4292 Nov 21 13:34	9°♎38'29		desc. node	4293 Nov 03 10:29	22°♎18'31	
	4292 Dec 04 22:43	0°♎			4293 Nov 08 05:26	0°♎	
greatest brilliancy	4292 Dec 19 10:16	19°♎43'38	-0.3m		4293 Nov 29 04:35	0°♎	
evening max el	4292 Dec 24 04:17	25°♎04'11	22°17'44	evening max el	4293 Dec 06 18:52	8°♎41'53	23°37'38
	4292 Dec 30 13:36	0°♎		retrograde	4293 Dec 17 11:57	15°♎01'34	
retrograde	4293 Jan 02 18:22	0°♎46'22		evening set	4293 Dec 22 12:49	12°♎57'19	
	4293 Jan 05 17:45	30°♎		asc. node	4293 Dec 24 13:08	10°♎57'05	
asc. node	4293 Jan 06 16:06	29°♎25'31		inferior conj	4293 Dec 27 23:48	6°♎29'56	1°08'49
evening set	4293 Jan 07 06:33	28°♎58'08		minimum elong	4293 Dec 27 22:16	6°♎35'09	1°08'12
inferior conj	4293 Jan 12 16:05	22°♎34'52	1°55'01	min. Earth dist.	4293 Dec 27 10:48	7°♎14'21	0.67940 AU
minimum elong	4293 Jan 12 13:52	22°♎42'35	1°54'14	morning rise	4294 Jan 02 07:53	0°♎21'44	
min. Earth dist.	4293 Jan 12 14:00	22°♎42'06	0.68028 AU		4294 Jan 02 19:55	30°♎	
morning rise	4293 Jan 17 21:04	16°♎22'18		direct	4294 Jan 06 09:38	28°♎48'33	
direct	4293 Jan 22 13:00	14°♎26'23			4294 Jan 10 06:17	0°♎	
morning max el	4293 Jan 31 23:09	19°♎58'53	22°15'02	morning max el	4294 Jan 14 16:27	3°♎35'23	20°53'53
greatest brilliancy	4293 Feb 05 13:02	25°♎05'50	-0.3m	greatest brilliancy	4294 Jan 20 06:31	10°♎02'50	-0.5m
	4293 Feb 09 09:51	0°♎		desc. node	4294 Jan 30 09:43	24°♎05'27	
desc. node	4293 Feb 12 12:39	4°♎12'06			4294 Feb 03 09:44	0°♎	
	4293 Mar 01 22:01	0°♎		morning set	4294 Feb 13 13:39	15°♎31'40	
morning set	4293 Mar 06 06:29	6°♎57'09		max. Earth dist.	4294 Feb 21 19:33	28°♎39'37	1.42826 AU
max. Earth dist.	4293 Mar 11 16:02	15°♎52'12	1.40873 AU		4294 Feb 22 15:17	0°♎	
				superior conj	4294 Feb 28 18:33	10°♎11'56	-2°-7'-56
superior conj	4293 Mar 19 10:43	29°♎22'01	-1°-59'-10	minimum elong	4294 Feb 28 18:56	10°♎13'37	2°07'57
minimum elong	4293 Mar 19 14:45	29°♎40'00	1°58'55		4294 Mar 12 02:55	0°♎	
	4293 Mar 19 19:13	0°♎		evening rise	4294 Mar 12 14:27	0°♎51'27	
evening rise	4293 Mar 29 18:52	18°♎23'53		asc. node	4294 Mar 22 12:26	18°♎02'18	
asc. node	4293 Apr 04 15:24	29°♎10'30		evening max el	4294 Mar 29 10:05	27°♎14'28	18°06'50
	4293 Apr 05 02:35	0°♎			4294 Apr 02 05:16	0°♎	
evening max el	4293 Apr 14 22:39	14°♎11'20	18°17'50	retrograde	4294 Apr 05 00:06	0°♎37'24	
retrograde	4293 Apr 22 02:50	17°♎46'04		evening set	4294 Apr 07 15:31	0°♎04'34	
evening set	4293 Apr 24 12:05	17°♎23'12			4294 Apr 07 19:52	30°♎	
inferior conj	4293 May 01 16:53	12°♎42'21	2°32'18	inferior conj	4294 Apr 14 05:03	25°♎02'57	3°15'30
minimum elong	4293 May 01 20:28	12°♎34'41	2°31'24	minimum elong	4294 Apr 14 07:27	24°♎57'00	3°15'08
min. Earth dist.	4293 May 05 03:11	9°♎48'04	0.59166 AU	min. Earth dist.	4294 Apr 17 08:06	21°♎59'33	0.61362 AU
morning rise	4293 May 09 00:44	7°♎05'06		morning rise	4294 Apr 20 20:22	19°♎06'21	
desc. node	4293 May 11 11:49	5°♎57'39		direct	4294 Apr 27 14:52	16°♎46'33	
direct	4293 May 15 07:43	5°♎17'42		desc. node	4294 Apr 28 08:52	16°♎48'11	
morning max el	4293 May 29 17:00	13°♎06'03	27°18'56	morning max el	4294 May 11 19:56	24°♎44'23	27°50'06
	4293 Jun 12 02:20	0°♎			4294 May 16 14:59	0°♎	
	4293 Jun 28 19:35	0°♎			4294 Jun 05 11:06	0°♎	
morning set	4293 Jun 29 14:35	1°♎38'46		morning set	4294 Jun 13 18:49	16°♎04'47	
asc. node	4293 Jul 01 14:41	5°♎53'14					

asc. node	4294 Jun 18 11:44	26°II00'02			4295 May 11 17:12	0°8	
max. Earth dist.	4294 Jun 19 17:21	28°II40'27	1.32204 AU	morning set	4295 May 28 16:23	0°II07'29	
	4294 Jun 20 07:57	0°8			4295 May 28 14:52	0°II	
				max. Earth dist.	4295 Jun 02 21:41	10°II52'30	1.32849 AU
superior conj	4294 Jun 21 04:25	1°851'54	0°27'56				
minimum elong	4294 Jun 21 03:11	1°845'06	0°27'40	superior conj	4295 Jun 05 11:57	16°II24'55	0°01'24
evening rise	4294 Jun 28 01:42	16°851'41		minimum elong	4295 Jun 05 11:53	16°II24'33	0°01'22
	4294 Jul 04 13:17	0°8		behind sun begin	4295 Jun 05 06:36	15°II56'08	
evening max el	4294 Jul 23 22:55	28°811'39	24°50'06	behind sun end	4295 Jun 05 17:10	16°II53'01	
desc. node	4294 Jul 25 08:09	29°827'58		asc. node	4295 Jun 05 08:46	16°II07'46	
	4294 Jul 25 23:03	0°8			4295 Jun 11 18:58	0°8	
retrograde	4294 Aug 06 21:14	5°814'04		evening rise	4295 Jun 12 13:31	1°838'37	
evening set	4294 Aug 12 05:27	4°809'29			4295 Jun 28 06:10	0°8	
min. Earth dist.	4294 Aug 17 10:21	1°823'20	0.57156 AU	evening max el	4295 Jul 05 11:52	8°837'35	23°14'09
	4294 Aug 19 13:19	30°81		desc. node	4295 Jul 12 05:09	13°837'53	
inferior conj	4294 Aug 20 07:21	29°830'08	-5°-12'-33	retrograde	4295 Jul 18 23:26	15°821'51	
minimum elong	4294 Aug 20 06:59	29°830'44	5°12'33	evening set	4295 Jul 22 19:35	14°849'39	
morning rise	4294 Aug 28 12:03	25°822'10		min. Earth dist.	4295 Jul 29 21:15	11°836'17	0.55635 AU
direct	4294 Aug 31 02:07	25°803'12		inferior conj	4295 Jul 31 16:51	10°832'30	-4°-45'-52
morning max el	4294 Sep 09 06:09	29°821'30	19°16'25	minimum elong	4295 Jul 31 10:24	10°841'58	4°44'50
	4294 Sep 09 21:58	0°8		morning rise	4295 Aug 09 04:09	6°840'05	
asc. node	4294 Sep 14 10:58	5°832'29		direct	4295 Aug 12 02:06	6°819'37	
morning set	4294 Sep 26 06:12	26°833'32		morning max el	4295 Aug 22 18:39	11°817'33	20°27'46
	4294 Sep 27 23:33	0°8		asc. node	4295 Sep 01 08:02	23°849'35	
					4295 Sep 04 19:52	0°8	
superior conj	4294 Oct 04 10:46	12°849'21	1°38'09	morning set	4295 Sep 10 12:15	11°811'56	
minimum elong	4294 Oct 04 12:48	12°859'17	1°38'01				
max. Earth dist.	4294 Oct 10 22:31	25°803'42	1.38252 AU	superior conj	4295 Sep 18 02:52	26°851'39	1°43'53
	4294 Oct 13 16:30	0°8		minimum elong	4295 Sep 18 03:17	26°853'43	1°43'53
evening rise	4294 Oct 14 18:13	1°853'02			4295 Sep 19 16:13	0°8	
desc. node	4294 Oct 21 07:31	12°856'14		max. Earth dist.	4295 Sep 23 05:31	6°859'54	1.36281 AU
	4294 Nov 01 10:31	0°8		evening rise	4295 Sep 27 04:57	14°830'03	
evening max el	4294 Nov 19 07:39	22°823'37	24°55'32		4295 Oct 06 02:33	0°8	
retrograde	4294 Dec 01 01:26	29°812'31		desc. node	4295 Oct 08 04:30	3°822'39	
evening set	4294 Dec 06 16:00	26°853'09			4295 Oct 27 04:16	0°8	
min. Earth dist.	4294 Dec 11 05:55	21°844'27	0.67506 AU	evening max el	4295 Nov 01 20:13	6°806'52	26°04'06
asc. node	4294 Dec 11 10:11	21°830'27		retrograde	4295 Nov 14 09:54	13°814'29	
inferior conj	4294 Dec 12 05:40	20°826'13	0°16'36	evening set	4295 Nov 20 14:22	10°842'28	
minimum elong	4294 Dec 12 05:16	20°827'34	0°16'25	min. Earth dist.	4295 Nov 24 20:59	6°809'25	0.66727 AU
morning rise	4294 Dec 17 19:04	14°824'43		inferior conj	4295 Nov 26 07:52	4°820'53	0°-40'-31
direct	4294 Dec 21 08:07	13°812'24		minimum elong	4295 Nov 26 08:57	4°817'31	0°40'03
morning max el	4294 Dec 28 17:31	17°822'47	19°45'05	asc. node	4295 Nov 28 07:14	1°857'58	
greatest brilliancy	4295 Jan 05 10:30	26°851'45	-0.6m		4295 Nov 30 04:33	30°88	
	4295 Jan 07 15:52	0°8		morning rise	4295 Dec 02 04:36	28°828'45	
desc. node	4295 Jan 17 06:46	14°819'07		direct	4295 Dec 05 06:46	27°834'10	
morning set	4295 Jan 23 09:43	23°842'19			4295 Dec 10 15:38	0°8	
	4295 Jan 27 11:13	0°8		morning max el	4295 Dec 12 02:02	1°819'23	18°51'25
max. Earth dist.	4295 Feb 04 06:48	12°817'02	1.44309 AU		4296 Jan 01 02:27	0°8	
				morning set	4296 Jan 02 20:09	2°843'29	
superior conj	4295 Feb 09 00:35	19°852'45	-2°00'-8	desc. node	4296 Jan 04 03:48	4°847'34	
minimum elong	4295 Feb 08 18:56	19°829'56	1°59'52	max. Earth dist.	4296 Jan 17 23:56	26°829'05	1.45140 AU
	4295 Feb 15 05:04	0°8					
evening rise	4295 Feb 22 14:51	12°826'10		superior conj	4296 Jan 19 09:05	28°839'24	-1°-32'-43
	4295 Mar 05 03:04	0°8		minimum elong	4296 Jan 18 23:47	28°802'49	1°31'49
asc. node	4295 Mar 09 09:29	6°818'46			4296 Jan 20 05:34	0°8	
evening max el	4295 Mar 12 22:57	10°832'45	18°14'51	evening rise	4296 Feb 03 16:37	23°804'05	
retrograde	4295 Mar 19 09:01	13°858'06			4296 Feb 07 23:21	0°8	
evening set	4295 Mar 22 06:21	13°813'58		asc. node	4296 Feb 24 06:30	23°849'31	
inferior conj	4295 Mar 28 08:27	7°852'30	3°33'55	evening max el	4296 Feb 24 10:29	23°859'42	18°41'07
minimum elong	4295 Mar 28 09:08	7°850'35	3°33'53	retrograde	4296 Mar 02 01:34	27°840'15	
min. Earth dist.	4295 Mar 30 21:48	5°803'17	0.63423 AU	evening set	4296 Mar 05 05:05	26°843'54	
morning rise	4295 Apr 03 09:57	1°844'57		inferior conj	4296 Mar 10 23:13	21°804'11	3°33'33
	4295 Apr 06 04:40	30°88		minimum elong	4296 Mar 10 22:23	21°806'43	3°33'30
direct	4295 Apr 10 06:48	29°803'35		min. Earth dist.	4296 Mar 12 20:54	18°845'28	0.65160 AU
	4295 Apr 14 15:15	0°8		morning rise	4296 Mar 16 14:27	14°850'55	
desc. node	4295 Apr 15 05:55	0°816'08		direct	4296 Mar 23 05:52	12°801'45	
morning max el	4295 Apr 24 03:31	7°801'54	27°43'46	desc. node	4296 Apr 01 02:58	15°851'26	

morning max el	4296 Apr 05 13:22	19° ✕ 50'30	27°03'40	morning max el	4297 Mar 18 23:10	2° ✕ 58'11	25°57'23
	4296 Apr 14 05:53	0° Υ		desc. node	4297 Mar 19 00:00	3° ✕ 00'19	
	4296 May 03 18:26	0° ♄			4297 Apr 08 11:24	0° Υ	
morning set	4296 May 11 04:19	13° ♄ 38'25		morning set	4297 Apr 24 02:43	26° Υ 26'29	
max. Earth dist.	4296 May 15 16:52	22° ♄ 35'29	1.33947 AU		4297 Apr 26 00:31	0° ♄	
	4296 May 19 07:05	0° ♁		max. Earth dist.	4297 Apr 28 00:44	3° ♄ 49'45	1.35500 AU
superior conj	4296 May 19 14:22	0° ♁ 38'10	0°-27'-11	superior conj	4297 May 03 09:12	14° ♄ 24'48	0°-56'-30
minimum elong	4296 May 19 15:48	0° ♁ 45'39	0°26'55	minimum elong	4297 May 03 12:15	14° ♄ 40'16	0°55'59
asc. node	4296 May 22 05:48	6° ♁ 12'57		asc. node	4297 May 09 02:49	26° ♄ 11'23	
evening rise	4296 May 27 00:03	16° ♁ 17'18			4297 May 10 23:12	0° ♁	
	4296 Jun 02 21:33	0° ♄		evening rise	4297 May 11 07:18	0° ♁ 41'32	
evening max el	4296 Jun 16 05:17	19° ♄ 07'05	21°39'25		4297 May 29 06:06	0° ♄	
desc. node	4296 Jun 28 02:10	25° ♄ 13'53		evening max el	4297 May 29 09:42	0° ♄ 08'52	20°18'01
retrograde	4296 Jun 28 14:52	25° ♄ 14'32		retrograde	4297 Jun 09 04:31	5° ♄ 24'56	
evening set	4296 Jul 01 04:21	24° ♄ 59'40		evening set	4297 Jun 11 04:00	5° ♄ 15'03	
inferior conj	4296 Jul 10 12:24	20° ♄ 58'41	-3°-28'-18	desc. node	4297 Jun 14 23:11	4° ♄ 06'14	
minimum elong	4296 Jul 10 03:55	21° ♄ 10'32	3°25'50	inferior conj	4297 Jun 20 07:09	1° ♄ 16'51	-1°-34'-47
min. Earth dist.	4296 Jul 10 07:38	21° ♄ 05'21	0.54867 AU	minimum elong	4297 Jun 20 02:42	1° ♄ 23'24	1°33'09
morning rise	4296 Jul 19 04:35	17° ♄ 06'30		min. Earth dist.	4297 Jun 21 19:48	0° ♄ 23'02	0.55046 AU
direct	4296 Jul 22 12:50	16° ♄ 42'09			4297 Jun 22 11:45	30° ♁ ♁	
morning max el	4296 Aug 03 19:28	22° ♄ 28'28	21°58'27	morning rise	4297 Jun 28 23:28	27° ♁ 03'53	
	4296 Aug 10 08:01	0° ♁		direct	4297 Jul 02 23:24	26° ♁ 29'20	
asc. node	4296 Aug 18 05:04	12° ♁ 43'47			4297 Jul 12 18:12	0° ♄	
morning set	4296 Aug 24 21:57	26° ♁ 00'49		morning max el	4297 Jul 16 12:02	3° ♄ 04'44	23°40'44
	4296 Aug 26 19:27	0° ♁			4297 Aug 04 00:17	0° ♁	
superior conj	4296 Sep 01 03:45	11° ♁ 19'42	1°42'14	asc. node	4297 Aug 05 02:06	2° ♁ 05'45	
minimum elong	4296 Sep 01 02:48	11° ♁ 14'43	1°42'11	morning set	4297 Aug 09 09:29	10° ♁ 54'45	
max. Earth dist.	4296 Sep 04 19:38	18° ♁ 55'01	1.34612 AU	superior conj	4297 Aug 16 10:28	26° ♁ 04'39	1°34'22
evening rise	4296 Sep 09 08:07	27° ♁ 53'15		minimum elong	4297 Aug 16 08:37	25° ♁ 54'37	1°34'12
	4296 Sep 10 10:36	0° ♁			4297 Aug 18 06:21	0° ♁	
desc. node	4296 Sep 24 01:29	23° ♁ 31'32		max. Earth dist.	4297 Aug 18 18:33	1° ♁ 04'58	1.33343 AU
	4296 Sep 28 08:36	0° ♁		evening rise	4297 Aug 23 23:39	11° ♁ 51'52	
evening max el	4296 Oct 14 08:48	19° ♁ 43'30	26°55'51		4297 Sep 02 16:54	0° ♁	
retrograde	4296 Oct 27 12:55	27° ♁ 00'09		desc. node	4297 Sep 10 22:29	13° ♁ 15'13	
evening set	4296 Nov 03 05:50	24° ♁ 20'33			4297 Sep 23 20:19	0° ♁	
min. Earth dist.	4296 Nov 07 05:33	20° ♁ 23'48	0.65598 AU	evening max el	4297 Sep 26 20:31	3° ♁ 03'20	27°23'42
inferior conj	4296 Nov 09 04:19	18° ♁ 09'08	-1°-41'-10	retrograde	4297 Oct 10 10:06	10° ♁ 21'29	
minimum elong	4296 Nov 09 07:09	18° ♁ 00'56	1°40'00	evening set	4297 Oct 17 11:50	7° ♁ 42'39	
asc. node	4296 Nov 14 04:17	13° ♁ 13'57		min. Earth dist.	4297 Oct 21 05:39	4° ♁ 20'27	0.64120 AU
morning rise	4296 Nov 15 10:10	12° ♁ 29'24		inferior conj	4297 Oct 23 16:36	1° ♁ 46'09	-2°-43'-10
direct	4296 Nov 18 03:34	11° ♁ 48'48		minimum elong	4297 Oct 23 21:13	1° ♁ 34'02	2°41'29
morning max el	4296 Nov 24 15:56	15° ♁ 19'26	18°14'00		4297 Oct 25 10:07	30° ♁ ♁	
	4296 Dec 05 07:36	0° ♁		morning rise	4297 Oct 30 08:58	26° ♁ 21'48	
morning set	4296 Dec 13 10:57	13° ♁ 10'49		asc. node	4297 Nov 01 01:19	25° ♁ 54'27	
desc. node	4296 Dec 21 00:48	25° ♁ 25'41		direct	4297 Nov 01 20:00	25° ♁ 51'22	
	4296 Dec 23 21:31	0° ♄		morning max el	4297 Nov 08 08:27	29° ♁ 16'41	17°53'38
superior conj	4296 Dec 28 12:07	7° ♄ 17'40	0°-49'-48		4297 Nov 09 01:12	0° ♁	
minimum elong	4296 Dec 28 05:53	6° ♄ 53'08	0°48'59	morning set	4297 Nov 25 05:45	24° ♁ 59'49	
max. Earth dist.	4296 Dec 30 19:20	10° ♄ 54'48	1.45231 AU	desc. node	4297 Nov 28 04:19	0° ♁	
	4297 Jan 12 00:27	0° ♁			4297 Dec 07 21:48	16° ♁ 09'58	
evening rise	4297 Jan 13 19:46	2° ♁ 48'53		superior conj	4297 Dec 08 06:13	16° ♁ 44'09	0°-2'-26
greatest brilliancy	4297 Jan 29 05:18	26° ♁ 27'41	-0.7m	minimum elong	4297 Dec 08 05:56	16° ♁ 43'00	0°02'24
	4297 Jan 31 16:46	0° ♁		behind sun begin	4297 Dec 07 19:58	16° ♁ 02'32	
evening max el	4297 Feb 06 18:28	7° ♁ 30'23	19°24'35	behind sun end	4297 Dec 08 15:54	17° ♁ 23'25	
asc. node	4297 Feb 10 03:32	10° ♁ 21'20		max. Earth dist.	4297 Dec 13 13:41	25° ♁ 15'29	1.44590 AU
retrograde	4297 Feb 13 22:18	11° ♁ 36'53			4297 Dec 16 13:47	0° ♄	
evening set	4297 Feb 17 08:56	10° ♁ 27'28		evening rise	4297 Dec 24 07:36	12° ♄ 01'24	
inferior conj	4297 Feb 22 21:57	4° ♁ 31'50	3°18'59		4298 Jan 05 04:28	0° ♁	
minimum elong	4297 Feb 22 20:04	4° ♁ 37'56	3°18'42	greatest brilliancy	4298 Jan 14 18:22	13° ♁ 40'18	-0.5m
min. Earth dist.	4297 Feb 24 04:32	2° ♁ 52'13	0.66485 AU	evening max el	4298 Jan 20 21:25	21° ♁ 02'25	20°23'10
	4297 Feb 26 13:12	30° ♁ ♁		asc. node	4298 Jan 28 00:34	25° ♁ 39'18	
morning rise	4297 Feb 28 06:25	28° ♁ 16'02		retrograde	4298 Jan 28 20:28	25° ♁ 43'02	
direct	4297 Mar 06 11:13	25° ♁ 31'46		evening set	4298 Feb 01 15:39	24° ♁ 19'29	
	4297 Mar 15 18:46	0° ♁		inferior conj	4298 Feb 07 01:53	18° ♁ 10'40	2°53'18

minimum elong	4298 Feb 06 23:30	18° \approx 18'49	2°52'43	min. Earth dist.	4299 Jan 22 13:25	1° \approx 41'57	0.67906 AU
min. Earth dist.	4298 Feb 07 18:48	17° \approx 13'10	0.67395 AU		4299 Jan 23 19:09	30° \approx 3	
morning rise	4298 Feb 12 06:49	11° \approx 54'38		morning rise	4299 Jan 27 13:01	25° \approx 43'33	
direct	4298 Feb 17 22:05	9° \approx 24'49		direct	4299 Feb 01 13:34	23° \approx 34'15	
morning max el	4298 Mar 01 07:48	16° \approx 14'05	24°34'29	morning max el	4299 Feb 11 16:57	29° \approx 35'21	23°05'22
desc. node	4298 Mar 05 21:02	21° \approx 15'53			4299 Feb 12 02:38	0° \approx	
	4298 Mar 12 17:03	0° \approx		greatest brilliancy	4299 Feb 16 14:37	5° \approx 04'19	-0.3m
	4298 Apr 01 10:35	0° \approx		desc. node	4299 Feb 20 18:04	10° \approx 19'23	
morning set	4298 Apr 06 06:14	8° \approx 15'56			4299 Mar 06 12:38	0° \approx	
max. Earth dist.	4298 Apr 09 22:37	14° \approx 51'03	1.37452 AU	morning set	4299 Mar 18 08:46	18° \approx 50'56	
				max. Earth dist.	4299 Mar 22 17:33	26° \approx 15'36	1.39629 AU
					4299 Mar 24 21:00	0° \approx	
superior conj	4298 Apr 16 17:12	27° \approx 35'27	-1°-24'-39				
minimum elong	4298 Apr 16 21:37	27° \approx 56'51	1°24'02				
	4298 Apr 17 22:55	0° \approx		superior conj	4299 Mar 30 10:22	10° \approx 00'31	-1°-48'-43
evening rise	4298 Apr 25 08:47	14° \approx 43'16		minimum elong	4299 Mar 30 15:07	10° \approx 22'24	1°48'17
asc. node	4298 Apr 25 23:51	15° \approx 58'07		evening rise	4299 Apr 09 01:35	28° \approx 15'09	
	4298 May 03 11:03	0° \approx			4299 Apr 09 23:30	0° \approx	
evening max el	4298 May 12 02:25	11° \approx 52'11	19°15'27	asc. node	4299 Apr 12 20:55	5° \approx 28'25	
retrograde	4298 May 21 04:20	16° \approx 17'33		evening max el	4299 Apr 25 05:06	24° \approx 13'24	18°33'06
evening set	4298 May 23 04:08	16° \approx 05'42		retrograde	4299 May 02 22:21	28° \approx 01'31	
inferior conj	4298 May 31 14:56	11° \approx 56'24	0°21'27	evening set	4299 May 05 04:05	27° \approx 43'23	
minimum elong	4298 May 31 15:49	11° \approx 54'54	0°21'06	inferior conj	4299 May 12 19:19	23° \approx 14'44	1°53'42
desc. node	4298 Jun 01 20:14	11° \approx 07'22		minimum elong	4299 May 12 22:48	23° \approx 07'57	1°52'39
min. Earth dist.	4298 Jun 03 10:33	10° \approx 04'16	0.56156 AU	min. Earth dist.	4299 May 16 04:52	20° \approx 37'08	0.57959 AU
morning rise	4298 Jun 08 23:20	7° \approx 09'14		desc. node	4299 May 19 17:15	18° \approx 19'24	
direct	4298 Jun 13 21:30	6° \approx 13'22		morning rise	4299 May 20 13:03	17° \approx 53'46	
morning max el	4298 Jun 28 01:55	13° \approx 27'26	25°21'20	direct	4299 May 26 09:50	16° \approx 26'24	
	4298 Jul 11 01:04	0° \approx		morning max el	4299 Jun 09 18:54	24° \approx 04'44	26°44'25
asc. node	4298 Jul 22 23:08	21° \approx 47'15			4299 Jun 15 03:58	0° \approx	
morning set	4298 Jul 24 21:09	25° \approx 47'40			4299 Jul 04 01:57	0° \approx	
	4298 Jul 26 20:18	0° \approx		morning set	4299 Jul 09 07:20	10° \approx 34'39	
				asc. node	4299 Jul 09 20:10	11° \approx 42'29	
superior conj	4298 Jul 31 20:40	10° \approx 57'55	1°21'14				
minimum elong	4298 Jul 31 18:23	10° \approx 45'20	1°20'55	superior conj	4299 Jul 16 08:24	25° \approx 53'12	1°03'33
max. Earth dist.	4298 Aug 02 00:51	13° \approx 32'06	1.32495 AU	minimum elong	4299 Jul 16 06:09	25° \approx 40'48	1°03'10
evening rise	4298 Aug 07 23:59	26° \approx 14'59		max. Earth dist.	4299 Jul 16 11:38	26° \approx 11'07	1.32063 AU
	4298 Aug 09 20:10	0° \approx			4299 Jul 18 05:10	0° \approx	
	4298 Aug 27 03:28	0° \approx		evening rise	4299 Jul 23 06:20	10° \approx 54'07	
desc. node	4298 Aug 28 19:31	2° \approx 22'38			4299 Aug 02 01:56	0° \approx	
evening max el	4298 Sep 09 05:30	15° \approx 53'45	27°21'47	desc. node	4299 Aug 15 16:33	20° \approx 38'55	
retrograde	4298 Sep 23 00:43	23° \approx 08'41		evening max el	4299 Aug 22 09:09	28° \approx 02'28	26°46'31
evening set	4298 Sep 30 04:58	20° \approx 42'06			4299 Aug 24 14:04	0° \approx	
min. Earth dist.	4298 Oct 03 19:44	17° \approx 48'30	0.62324 AU	retrograde	4299 Sep 05 07:19	5° \approx 12'43	
inferior conj	4298 Oct 06 17:51	15° \approx 04'47	-3°-43'00	evening set	4299 Sep 12 04:43	3° \approx 10'54	
minimum elong	4298 Oct 06 23:44	14° \approx 51'00	3°41'17	min. Earth dist.	4299 Sep 15 23:10	0° \approx 34'18	0.60309 AU
morning rise	4298 Oct 13 21:26	9° \approx 59'04			4299 Sep 16 16:23	30° \approx 17	
direct	4298 Oct 16 05:01	9° \approx 35'13		inferior conj	4299 Sep 19 04:38	27° \approx 55'55	-4°-34'-34
asc. node	4298 Oct 18 22:22	10° \approx 09'12		minimum elong	4299 Sep 19 10:18	27° \approx 44'15	4°33'28
morning max el	4298 Oct 23 00:33	13° \approx 03'26	17°51'14	morning rise	4299 Sep 26 19:10	23° \approx 11'54	
	4298 Nov 03 12:25	0° \approx		direct	4299 Sep 29 02:40	22° \approx 51'36	
morning set	4298 Nov 07 22:32	7° \approx 52'10		asc. node	4299 Oct 05 19:25	25° \approx 50'26	
				morning max el	4299 Oct 06 12:58	26° \approx 31'03	18°07'58
superior conj	4298 Nov 19 02:12	27° \approx 27'04	0°39'13		4299 Oct 09 14:13	0° \approx	
minimum elong	4298 Nov 19 05:36	27° \approx 41'32	0°38'45	morning set	4299 Oct 22 07:02	21° \approx 29'07	
	4298 Nov 20 14:21	0° \approx			4299 Oct 26 20:16	0° \approx	
desc. node	4298 Nov 24 18:50	6° \approx 57'20		superior conj	4299 Oct 31 23:45	9° \approx 24'16	1°10'31
max. Earth dist.	4298 Nov 26 04:46	9° \approx 15'44	1.43301 AU	minimum elong	4299 Nov 01 03:48	9° \approx 42'27	1°10'02
evening rise	4298 Dec 03 19:07	21° \approx 20'16		max. Earth dist.	4299 Nov 08 15:17	22° \approx 42'07	1.41517 AU
	4298 Dec 09 10:30	0° \approx		desc. node	4299 Nov 11 15:51	27° \approx 43'51	
greatest brilliancy	4298 Dec 29 21:55	29° \approx 01'42	-0.4m		4299 Nov 13 01:12	0° \approx	
	4298 Dec 30 16:52	0° \approx		evening rise	4299 Nov 13 21:22	1° \approx 21'40	
evening max el	4299 Jan 03 18:59	4° \approx 36'21	21°33'39		4299 Dec 02 21:41	0° \approx	
retrograde	4299 Jan 12 17:59	9° \approx 55'34		greatest brilliancy	4299 Dec 12 06:15	12° \approx 20'37	-0.2m
asc. node	4299 Jan 14 21:37	9° \approx 30'33		evening max el	4299 Dec 17 11:46	18° \approx 12'35	22°51'37
evening set	4299 Jan 16 23:27	8° \approx 16'44		retrograde	4299 Dec 27 13:15	24° \approx 10'44	
inferior conj	4299 Jan 22 08:48	1° \approx 57'55	2°18'34	evening set	4300 Jan 01 06:42	22° \approx 15'44	
minimum elong	4299 Jan 22 06:23	2° \approx 06'19	2°17'48				

asc. node	4300 Jan 01 18:40	21°☾49'47		evening set	4300 Dec 16 11:51	6°☾13'52	
inferior conj	4300 Jan 06 16:43	15°☾50'29	1°36'12	asc. node	4300 Dec 19 15:42	2°☾51'32	
minimum elong	4300 Jan 06 14:44	15°☾57'20	1°35'28	inferior conj	4300 Dec 21 23:51	29°☾46'14	0°47'18
min. Earth dist.	4300 Jan 06 09:58	16°☾13'47	0.68038 AU	minimum elong	4300 Dec 21 22:45	29°☾49'57	0°46'52
morning rise	4300 Jan 11 22:45	9°☾39'38		min. Earth dist.	4300 Dec 21 06:14	0°☾45'37	0.67807 AU
direct	4300 Jan 16 08:38	7°☾53'18			4300 Dec 21 19:46	30°☾☿	
morning max el	4300 Jan 25 06:18	13°☾04'56	21°39'15	morning rise	4300 Dec 27 09:59	23°☾40'51	
greatest brilliancy	4300 Jan 30 02:39	18°☾33'24	-0.4m	direct	4300 Dec 31 06:08	22°☾16'56	
desc. node	4300 Feb 07 15:07	29°☾57'03		morning max el	4301 Jan 08 02:54	26°☾46'29	20°22'53
	4300 Feb 07 15:57	0°☾			4301 Jan 11 01:25	0°☾	
morning set	4300 Feb 26 06:26	28°☾03'30		greatest brilliancy	4301 Jan 14 10:43	4°☾15'12	-0.5m
	4300 Feb 27 11:36	0°☾		desc. node	4301 Jan 25 12:09	19°☾59'38	
max. Earth dist.	4300 Mar 04 17:18	8°☾32'13	1.41753 AU		4301 Feb 01 03:19	0°☾	
				morning set	4301 Feb 05 05:57	6°☾19'03	
superior conj	4300 Mar 12 07:43	21°☾27'40	-2°-4'-34	max. Earth dist.	4301 Feb 15 00:41	21°☾43'57	1.43533 AU
minimum elong	4300 Mar 12 10:35	21°☾40'15	2°04'29		4301 Feb 20 02:36	0°☾	
	4300 Mar 17 03:20	0°☾					
evening rise	4300 Mar 23 06:03	11°☾08'11		superior conj	4301 Feb 21 04:35	1°☾47'18	-2°-6'-55
asc. node	4300 Mar 30 17:57	24°☾35'52		minimum elong	4301 Feb 21 02:32	1°☾38'49	2°06'54
	4300 Apr 03 01:47	0°☾		evening rise	4301 Mar 05 17:58	23°☾14'01	
evening max el	4300 Apr 08 14:15	7°☾03'04	18°10'47		4301 Mar 09 15:00	0°☾	
retrograde	4300 Apr 15 10:52	10°☾30'45		asc. node	4301 Mar 17 14:59	13°☾13'24	
evening set	4300 Apr 17 22:56	10°☾03'41		evening max el	4301 Mar 23 02:32	20°☾12'37	18°07'54
inferior conj	4300 Apr 24 20:43	5°☾13'40	2°54'04	retrograde	4301 Mar 29 13:47	23°☾35'15	
minimum elong	4300 Apr 24 23:57	5°☾06'18	2°53'23	evening set	4301 Apr 01 07:40	22°☾57'45	
min. Earth dist.	4300 Apr 28 04:57	2°☾12'43	0.60103 AU	inferior conj	4301 Apr 07 15:50	17°☾47'12	3°25'58
	4300 May 01 01:06	30°☾☿		minimum elong	4301 Apr 07 17:32	17°☾42'48	3°25'48
morning rise	4300 May 01 21:21	29°☾27'12		min. Earth dist.	4301 Apr 10 13:25	14°☾47'27	0.62265 AU
desc. node	4300 May 06 14:17	27°☾34'58		morning rise	4301 Apr 14 00:50	11°☾44'52	
direct	4300 May 08 10:25	27°☾25'27		direct	4301 Apr 20 21:12	9°☾14'35	
	4300 May 16 06:09	0°☾		desc. node	4301 Apr 23 11:20	9°☾34'15	
morning max el	4300 May 22 18:11	5°☾17'57	27°36'55	morning max el	4301 May 04 23:32	17°☾13'48	27°52'04
	4300 Jun 10 03:06	0°☾			4301 May 15 14:01	0°☾	
morning set	4300 Jun 23 14:19	25°☾10'11			4301 Jun 02 20:33	0°☾	
	4300 Jun 25 21:22	0°☾		morning set	4301 Jun 07 16:00	9°☾26'59	
asc. node	4300 Jun 26 17:14	1°☾46'22		max. Earth dist.	4301 Jun 13 07:19	21°☾16'22	1.32419 AU
max. Earth dist.	4300 Jun 29 23:11	8°☾50'43	1.32032 AU	asc. node	4301 Jun 13 14:15	21°☾53'46	
superior conj	4300 Jun 30 19:53	10°☾44'37	0°41'56	superior conj	4301 Jun 15 05:21	25°☾25'40	0°17'00
minimum elong	4300 Jun 30 18:09	10°☾35'03	0°41'35	minimum elong	4301 Jun 15 04:33	25°☾21'21	0°16'48
evening rise	4300 Jul 07 16:21	25°☾41'46			4301 Jun 17 07:37	0°☾	
	4300 Jul 09 17:36	0°☾		evening rise	4301 Jun 22 04:01	10°☾30'21	
	4300 Jul 27 03:07	0°☾			4301 Jul 02 03:22	0°☾	
desc. node	4300 Aug 02 13:34	7°☾43'29		evening max el	4301 Jul 16 18:59	20°☾00'17	24°10'08
evening max el	4300 Aug 04 05:17	9°☾22'36	25°39'39	desc. node	4301 Jul 20 10:35	23°☾06'55	
retrograde	4300 Aug 18 04:23	16°☾28'48		retrograde	4301 Jul 30 14:15	26°☾57'41	
evening set	4300 Aug 24 06:21	15°☾01'56		evening set	4301 Aug 04 07:44	26°☾08'03	
min. Earth dist.	4300 Aug 28 17:18	12°☾25'04	0.58254 AU	min. Earth dist.	4301 Aug 10 05:36	23°☾12'07	0.56432 AU
inferior conj	4300 Aug 31 21:30	10°☾10'00	-5°-7'-36	inferior conj	4301 Aug 12 18:05	21°☾38'11	-5°-7'-17
minimum elong	4300 Sep 01 00:15	10°☾05'06	5°07'25	minimum elong	4301 Aug 12 15:02	21°☾42'57	5°07'05
morning rise	4300 Sep 08 21:38	5°☾49'36		morning rise	4301 Aug 21 01:50	17°☾38'37	
direct	4300 Sep 11 08:34	5°☾30'35		direct	4301 Aug 23 18:58	17°☾19'17	
morning max el	4300 Sep 19 18:25	9°☾30'53	18°45'14	morning max el	4301 Sep 02 13:49	21°☾52'37	19°44'12
asc. node	4300 Sep 22 16:28	12°☾44'07			4301 Sep 09 04:28	0°☾	
	4300 Oct 03 04:41	0°☾		asc. node	4301 Sep 09 13:30	0°☾34'19	
morning set	4300 Oct 06 02:31	5°☾37'29		morning set	4301 Sep 20 05:28	20°☾06'40	
					4301 Sep 25 02:32	0°☾	
superior conj	4300 Oct 14 17:57	22°☾22'18	1°30'55	superior conj	4301 Sep 28 03:23	6°☾04'55	1°41'34
minimum elong	4300 Oct 14 20:56	22°☾36'20	1°30'39	minimum elong	4301 Sep 28 04:43	6°☾11'31	1°41'30
	4300 Oct 18 20:36	0°☾		max. Earth dist.	4301 Oct 04 01:56	17°☾31'44	1.37385 AU
max. Earth dist.	4300 Oct 21 21:18	5°☾25'58	1.39460 AU	evening rise	4301 Oct 07 21:19	24°☾29'17	
evening rise	4300 Oct 25 22:04	12°☾24'36			4301 Oct 11 00:40	0°☾	
desc. node	4300 Oct 29 12:53	18°☾26'11		desc. node	4301 Oct 16 09:54	8°☾59'33	
	4300 Nov 05 20:29	0°☾			4301 Oct 30 12:27	0°☾	
	4300 Nov 28 05:55	0°☾					
evening max el	4300 Nov 30 01:21	1°☾52'09	24°11'20	evening max el	4301 Nov 12 13:41	15°☾34'08	25°26'09
retrograde	4300 Dec 11 05:06	8°☾24'59		retrograde	4301 Nov 24 16:39	22°☾32'54	

evening set	4301 Nov 30 13:14	20° $\overline{\text{A}}$ 07'24		max. Earth dist.	4302 Sep 16 11:06	29° $\overline{\text{M}}$ 22'41	1.35525 AU
min. Earth dist.	4301 Dec 04 23:52	15° $\overline{\text{A}}$ 13'53	0.67220 AU		4302 Sep 16 18:40	0° $\overline{\text{A}}$	
inferior conj	4301 Dec 06 04:23	13° $\overline{\text{A}}$ 41'57	0°-7'-7	evening rise	4302 Sep 20 15:34	7° $\overline{\text{A}}$ 27'14	
minimum elong	4301 Dec 06 04:34	13° $\overline{\text{A}}$ 41'22	0°07'03	desc. node	4302 Oct 03 06:53	29° $\overline{\text{A}}$ 19'00	
transit middle	4301 Dec 06 04:34	13° $\overline{\text{A}}$ 41'22	0°07'03		4302 Oct 03 17:16	0° $\overline{\text{M}}$	
transit begin	4301 Dec 06 02:03	13° $\overline{\text{A}}$ 49'29		evening max el	4302 Oct 26 02:12	29° $\overline{\text{M}}$ 15'16	26°28'36
transit end	4301 Dec 06 07:05	13° $\overline{\text{A}}$ 33'15			4302 Oct 26 21:06	0° $\overline{\text{A}}$	
asc. node	4301 Dec 06 12:44	13° $\overline{\text{A}}$ 15'07		retrograde	4302 Nov 07 23:04	6° $\overline{\text{A}}$ 28'31	
morning rise	4301 Dec 11 20:42	7° $\overline{\text{A}}$ 44'16		evening set	4302 Nov 14 08:58	3° $\overline{\text{A}}$ 52'31	
direct	4301 Dec 15 04:46	6° $\overline{\text{A}}$ 40'09			4302 Nov 18 04:01	30° $\overline{\text{R}}$ $\overline{\text{M}}$	
morning max el	4301 Dec 22 07:24	10° $\overline{\text{A}}$ 38'38	19°20'16	min. Earth dist.	4302 Nov 18 12:33	29° $\overline{\text{M}}$ 34'43	0.66287 AU
greatest brilliancy	4301 Dec 31 13:03	22° $\overline{\text{A}}$ 25'54	-0.7m	inferior conj	4302 Nov 20 04:25	27° $\overline{\text{M}}$ 34'20	-1°-5'-56
	4302 Jan 05 15:19	0° $\overline{\text{B}}$		minimum elong	4302 Nov 20 06:13	27° $\overline{\text{M}}$ 28'53	1°05'10
desc. node	4302 Jan 12 09:11	10° $\overline{\text{B}}$ 20'00		asc. node	4302 Nov 23 09:46	23° $\overline{\text{M}}$ 56'58	
morning set	4302 Jan 15 05:17	14° $\overline{\text{B}}$ 43'18		morning rise	4302 Nov 26 04:50	21° $\overline{\text{M}}$ 46'58	
	4302 Jan 25 00:44	0° \approx		direct	4302 Nov 29 02:53	20° $\overline{\text{M}}$ 58'55	
max. Earth dist.	4302 Jan 28 14:30	5° \approx 37'18	1.44745 AU	morning max el	4302 Dec 05 18:30	24° $\overline{\text{M}}$ 37'07	18°33'20
					4302 Dec 10 06:44	0° $\overline{\text{A}}$	
superior conj	4302 Feb 01 00:14	11° \approx 01'17	-1°-50'-51	morning set	4302 Dec 26 03:02	24° $\overline{\text{A}}$ 18'58	
minimum elong	4302 Jan 31 16:21	10° \approx 29'54	1°50'18		4302 Dec 29 16:54	0° $\overline{\text{B}}$	
	4302 Feb 12 17:06	0° H		desc. node	4302 Dec 30 06:11	0° $\overline{\text{B}}$ 52'38	
evening rise	4302 Feb 15 09:04	4° H 25'00					
	4302 Mar 03 13:13	0° Y		superior conj	4303 Jan 11 03:53	19° $\overline{\text{B}}$ 37'20	-1°-15'-49
asc. node	4302 Mar 04 12:00	1° Y 12'00		minimum elong	4303 Jan 10 19:07	19° $\overline{\text{B}}$ 02'58	1°14'50
evening max el	4302 Mar 06 15:05	3° Y 35'12	18°23'50	max. Earth dist.	4303 Jan 11 08:26	19° $\overline{\text{B}}$ 55'12	1.45268 AU
retrograde	4302 Mar 13 02:28	7° Y 05'57			4303 Jan 17 18:33	0° \approx	
evening set	4302 Mar 16 02:15	6° Y 16'53		evening rise	4303 Jan 27 00:47	14° \approx 38'13	
inferior conj	4302 Mar 22 00:34	0° Y 47'30	3°35'44		4303 Feb 05 17:20	0° H	
minimum elong	4302 Mar 22 00:34	0° Y 47'31	3°35'45	evening max el	4303 Feb 18 01:22	17° H 04'10	18°57'42
	4302 Mar 22 16:55	30° R H		asc. node	4303 Feb 19 09:03	18° H 19'19	
min. Earth dist.	4302 Mar 24 07:22	28° H 09'25	0.64202 AU	retrograde	4303 Feb 24 21:05	20° H 54'29	
morning rise	4302 Mar 27 21:13	24° H 36'42		evening set	4303 Feb 28 03:26	19° H 52'50	
direct	4302 Apr 03 16:27	21° H 50'08		inferior conj	4303 Mar 05 19:06	14° H 06'20	3°28'53
desc. node	4302 Apr 10 08:22	24° H 00'42		minimum elong	4303 Mar 05 17:45	14° H 10'32	3°28'44
morning max el	4302 Apr 17 08:35	29° H 46'49	27°30'29	min. Earth dist.	4303 Mar 07 10:19	12° H 03'18	0.65777 AU
	4302 Apr 17 13:48	0° Y		morning rise	4303 Mar 11 07:02	7° H 51'42	
	4302 May 09 12:46	0° B		direct	4303 Mar 17 18:34	5° H 02'52	
morning set	4302 May 22 09:53	23° B 17'37		desc. node	4303 Mar 28 05:24	10° H 19'09	
	4302 May 25 18:01	0° II		morning max el	4303 Mar 30 18:27	12° H 44'11	26°38'00
max. Earth dist.	4302 May 27 08:05	3° II 16'27	1.33252 AU		4303 Apr 13 15:48	0° Y	
					4303 May 02 04:08	0° B	
superior conj	4302 May 30 10:57	9° II 51'00	0°-10'-33	morning set	4303 May 05 16:34	6° B 31'25	
minimum elong	4302 May 30 11:29	9° II 53'52	0°10'28	max. Earth dist.	4303 May 09 22:09	14° B 44'11	1.34553 AU
behind sun begin	4302 May 30 07:22	9° II 31'53					
behind sun end	4302 May 30 15:37	10° II 15'52		superior conj	4303 May 14 10:28	23° B 53'35	0°-39'-39
asc. node	4302 May 31 11:17	12° II 00'56		minimum elong	4303 May 14 12:35	24° B 04'32	0°39'15
evening rise	4302 Jun 06 15:30	25° II 14'14			4303 May 17 08:47	0° II	
	4302 Jun 08 22:23	0° B		asc. node	4303 May 18 08:19	2° II 03'26	
	4302 Jun 27 23:21	0° Q		evening rise	4303 May 22 00:52	9° II 46'56	
evening max el	4302 Jun 28 08:44	0° Q 23'07	22°32'54		4303 Jun 01 18:15	0° B	
desc. node	4302 Jul 07 07:35	6° Q 14'38		evening max el	4303 Jun 10 06:27	11° B 03'53	21°02'44
retrograde	4302 Jul 11 11:44	6° Q 54'43		retrograde	4303 Jun 22 00:29	16° B 49'45	
evening set	4302 Jul 14 16:56	6° Q 31'57		evening set	4303 Jun 24 05:46	16° B 38'11	
min. Earth dist.	4302 Jul 22 16:12	3° Q 02'44	0.55194 AU	desc. node	4303 Jun 24 04:36	16° B 38'41	
inferior conj	4302 Jul 23 20:26	2° Q 22'36	-4°-18'-59	inferior conj	4303 Jul 03 13:43	12° B 40'48	-2°-42'-45
minimum elong	4302 Jul 23 12:20	2° Q 34'08	4°17'12	minimum elong	4303 Jul 03 06:23	12° B 51'08	2°40'18
	4302 Jul 28 07:33	30° R B		min. Earth dist.	4303 Jul 04 03:22	12° B 21'34	0.54824 AU
morning rise	4302 Aug 01 10:05	28° B 32'27		morning rise	4303 Jul 12 06:43	8° B 41'53	
direct	4302 Aug 04 11:41	28° B 10'56		direct	4303 Jul 15 21:01	8° B 14'02	
	4302 Aug 11 03:58	0° Q		morning max el	4303 Jul 28 17:48	14° B 22'21	22°41'14
morning max el	4302 Aug 15 21:16	3° Q 29'17	21°04'19		4303 Aug 09 16:46	0° Q	
asc. node	4302 Aug 27 10:33	19° Q 08'04		asc. node	4303 Aug 14 07:35	8° Q 14'40	
	4302 Sep 02 04:31	0° M		morning set	4303 Aug 19 23:59	19° Q 40'46	
morning set	4302 Sep 04 13:18	4° M 49'39			4303 Aug 24 20:09	0° M	
superior conj	4302 Sep 11 23:38	20° M 19'10	1°44'00	superior conj	4303 Aug 27 03:18	4° M 54'53	1°39'35
minimum elong	4302 Sep 11 23:25	20° M 18'03	1°44'00	minimum elong	4303 Aug 27 01:54	4° M 47'28	1°39'30

max. Earth dist.	4303 Aug 30 04:57	11° $\overline{\text{m}}$ 22'31	1.34020 AU	max. Earth dist.	4304 Aug 12 07:33	23° Ω 40'48	1.32930 AU
evening rise	4303 Sep 04 00:29	21° $\overline{\text{m}}$ 06'46			4304 Aug 15 06:50	0° $\overline{\text{m}}$	
	4303 Sep 08 16:46	0° $\underline{\text{a}}$		evening rise	4304 Aug 17 20:08	5° $\overline{\text{m}}$ 16'28	
desc. node	4303 Sep 20 03:53	19° $\underline{\text{a}}$ 18'08			4304 Aug 31 08:07	0° $\underline{\text{a}}$	
	4303 Sep 27 14:30	0° $\overline{\text{m}}$		desc. node	4304 Sep 06 00:56	8° $\underline{\text{a}}$ 47'43	
evening max el	4303 Oct 08 14:52	12° $\overline{\text{m}}$ 47'12	27°11'09	evening max el	4304 Sep 20 01:53	25° $\underline{\text{a}}$ 56'19	27°26'55
retrograde	4303 Oct 21 23:41	20° $\overline{\text{m}}$ 04'53			4304 Sep 25 00:31	0° $\overline{\text{m}}$	
evening set	4303 Oct 28 20:48	17° $\overline{\text{m}}$ 24'49		retrograde	4304 Oct 03 17:54	3° $\overline{\text{m}}$ 12'37	
min. Earth dist.	4303 Nov 01 17:57	13° $\overline{\text{m}}$ 42'52	0.65006 AU	evening set	4304 Oct 10 21:46	0° $\overline{\text{m}}$ 37'36	
inferior conj	4303 Nov 03 21:46	11° $\overline{\text{m}}$ 19'09	-2°-7'-26		4304 Oct 11 17:44	30° $\overline{\text{R}}$ $\underline{\text{a}}$	
minimum elong	4303 Nov 04 01:23	11° $\overline{\text{m}}$ 09'06	2°06'02	min. Earth dist.	4304 Oct 14 13:51	27° $\underline{\text{a}}$ 28'41	0.63389 AU
morning rise	4303 Nov 10 07:55	5° $\overline{\text{m}}$ 45'13		inferior conj	4304 Oct 17 05:45	24° $\underline{\text{a}}$ 49'08	-3°-9'-6
asc. node	4303 Nov 10 06:49	5° $\overline{\text{m}}$ 46'30		minimum elong	4304 Oct 17 11:01	24° $\underline{\text{a}}$ 35'58	3°07'20
direct	4303 Nov 12 22:19	5° $\overline{\text{m}}$ 09'20		morning rise	4304 Oct 24 02:50	19° $\underline{\text{a}}$ 32'14	
morning max el	4303 Nov 19 09:51	8° $\overline{\text{m}}$ 36'46	18°03'11	direct	4304 Oct 26 12:10	19° $\underline{\text{a}}$ 04'50	
	4303 Dec 04 00:25	0° $\overline{\text{x}}$		asc. node	4304 Oct 27 03:51	19° $\underline{\text{a}}$ 06'56	
morning set	4303 Dec 07 06:31	5° $\overline{\text{x}}$ 24'03		morning max el	4304 Nov 02 02:33	22° $\underline{\text{a}}$ 30'08	17°50'27
desc. node	4303 Dec 17 03:12	21° $\overline{\text{x}}$ 33'56			4304 Nov 07 22:33	0° $\overline{\text{m}}$	
				morning set	4304 Nov 18 11:31	17° $\overline{\text{m}}$ 42'40	
superior conj	4303 Dec 21 11:15	28° $\overline{\text{x}}$ 30'47	0°-29'-32		4304 Nov 25 14:32	0° $\overline{\text{x}}$	
minimum elong	4303 Dec 21 07:36	28° $\overline{\text{x}}$ 16'11	0°29'03	superior conj	4304 Nov 30 15:50	8° $\overline{\text{x}}$ 28'17	0°16'19
	4303 Dec 22 09:43	0° $\overline{\text{z}}$		minimum elong	4304 Nov 30 17:32	8° $\overline{\text{x}}$ 35'17	0°16'06
max. Earth dist.	4303 Dec 25 03:59	4° $\overline{\text{z}}$ 21'58	1.45051 AU	behind sun begin	4304 Nov 30 17:15	8° $\overline{\text{x}}$ 34'06	
evening rise	4304 Jan 06 20:07	24° $\overline{\text{z}}$ 06'14		behind sun end	4304 Nov 30 17:49	8° $\overline{\text{x}}$ 36'28	
	4304 Jan 10 15:54	0° \approx		desc. node	4304 Dec 03 00:13	12° $\overline{\text{x}}$ 19'48	
greatest brilliancy	4304 Jan 25 00:03	21° \approx 28'23	-0.6m	max. Earth dist.	4304 Dec 06 21:54	18° $\overline{\text{x}}$ 38'20	1.44118 AU
	4304 Jan 31 17:41	0° $\overline{\text{H}}$			4304 Dec 14 02:58	0° $\overline{\text{z}}$	
evening max el	4304 Feb 01 07:29	0° $\overline{\text{H}}$ 36'14	19°47'49	evening rise	4304 Dec 16 05:52	3° $\overline{\text{z}}$ 16'51	
asc. node	4304 Feb 06 06:05	4° $\overline{\text{H}}$ 21'47			4305 Jan 03 04:37	0° \approx	
retrograde	4304 Feb 08 18:36	4° $\overline{\text{H}}$ 55'53		greatest brilliancy	4305 Jan 08 20:47	7° \approx 43'13	-0.5m
evening set	4304 Feb 12 08:46	3° $\overline{\text{H}}$ 40'30		evening max el	4305 Jan 14 08:11	14° \approx 09'05	20°51'50
	4304 Feb 16 00:54	30° $\overline{\text{R}}$ \approx		retrograde	4305 Jan 22 16:46	19° \approx 05'29	
inferior conj	4304 Feb 17 20:22	27° \approx 39'04	3°09'17	asc. node	4305 Jan 23 03:08	19° \approx 04'28	
minimum elong	4304 Feb 17 18:13	27° \approx 46'15	3°08'51	evening set	4305 Jan 26 16:12	17° \approx 35'19	
min. Earth dist.	4304 Feb 18 20:57	26° \approx 17'20	0.66934 AU	inferior conj	4305 Feb 01 01:51	11° \approx 21'43	2°39'33
morning rise	4304 Feb 23 03:00	21° \approx 23'11		minimum elong	4305 Jan 31 23:23	11° \approx 30'11	2°38'53
direct	4304 Feb 29 02:24	18° \approx 44'04		min. Earth dist.	4305 Feb 01 13:17	10° \approx 42'25	0.67667 AU
morning max el	4304 Mar 12 03:33	25° \approx 55'27	25°23'24	morning rise	4305 Feb 06 06:10	5° \approx 06'21	
desc. node	4304 Mar 14 02:27	27° \approx 58'58		direct	4305 Feb 11 15:13	2° \approx 45'02	
	4304 Mar 15 21:26	0° $\overline{\text{H}}$		morning max el	4305 Feb 22 12:13	9° \approx 14'06	23°56'45
	4304 Apr 06 05:05	0° $\overline{\text{Y}}$		desc. node	4305 Feb 28 23:29	16° \approx 36'43	
morning set	4304 Apr 17 07:35	18° $\overline{\text{Y}}$ 55'49			4305 Mar 10 20:52	0° $\overline{\text{H}}$	
max. Earth dist.	4304 Apr 21 01:15	25° $\overline{\text{Y}}$ 49'15	1.36299 AU		4305 Mar 29 21:39	0° $\overline{\text{Y}}$	
	4304 Apr 23 05:59	0° $\overline{\text{B}}$		morning set	4305 Mar 30 01:16	0° $\overline{\text{Y}}$ 15'31	
superior conj	4304 Apr 27 01:08	7° $\overline{\text{B}}$ 25'53	-1°-8'-45	max. Earth dist.	4305 Apr 02 21:27	6° $\overline{\text{Y}}$ 58'27	1.38371 AU
minimum elong	4304 Apr 27 04:50	7° $\overline{\text{B}}$ 44'17	1°08'09	superior conj	4305 Apr 10 03:25	20° $\overline{\text{Y}}$ 18'35	-1°-35'-35
asc. node	4304 May 04 05:21	21° $\overline{\text{B}}$ 57'17		minimum elong	4305 Apr 10 08:09	20° $\overline{\text{Y}}$ 41'07	1°35'00
evening rise	4304 May 05 05:58	24° $\overline{\text{B}}$ 02'12			4305 Apr 15 03:53	0° $\overline{\text{B}}$	
	4304 May 08 05:35	0° $\overline{\text{II}}$		evening rise	4305 Apr 19 04:13	7° $\overline{\text{B}}$ 52'44	
evening max el	4304 May 22 16:13	22° $\overline{\text{II}}$ 22'42	19°48'51	asc. node	4305 Apr 21 02:25	11° $\overline{\text{B}}$ 37'56	
retrograde	4304 Jun 01 16:46	27° $\overline{\text{II}}$ 15'49			4305 May 01 19:35	0° $\overline{\text{II}}$	
evening set	4304 Jun 03 15:26	27° $\overline{\text{II}}$ 05'35		evening max el	4305 May 05 13:32	4° $\overline{\text{II}}$ 22'57	18°54'53
desc. node	4304 Jun 10 01:39	24° $\overline{\text{II}}$ 31'53		retrograde	4305 May 14 00:18	8° $\overline{\text{II}}$ 30'57	
inferior conj	4304 Jun 12 12:29	23° $\overline{\text{II}}$ 03'57	0°-43'-42	evening set	4305 May 16 02:18	8° $\overline{\text{II}}$ 16'52	
minimum elong	4304 Jun 12 10:29	23° $\overline{\text{II}}$ 07'02	0°42'58	inferior conj	4305 May 24 04:42	3° $\overline{\text{II}}$ 59'29	1°04'24
min. Earth dist.	4304 Jun 14 16:11	21° $\overline{\text{II}}$ 44'39	0.55421 AU	minimum elong	4305 May 24 07:06	3° $\overline{\text{II}}$ 55'12	1°03'33
morning rise	4304 Jun 21 02:31	18° $\overline{\text{II}}$ 37'42		min. Earth dist.	4305 May 27 08:09	1° $\overline{\text{II}}$ 46'01	0.56855 AU
direct	4304 Jun 25 11:36	17° $\overline{\text{II}}$ 55'30		desc. node	4305 May 27 22:41	1° $\overline{\text{II}}$ 21'36	
morning max el	4304 Jul 09 08:14	24° $\overline{\text{II}}$ 48'14	24°24'47		4305 May 30 04:01	30° $\overline{\text{R}}$ $\overline{\text{B}}$	
	4304 Jul 14 03:38	0° $\overline{\text{S}}$		morning rise	4305 Jun 01 07:28	28° $\overline{\text{B}}$ 57'11	
asc. node	4304 Jul 31 04:36	27° $\overline{\text{S}}$ 45'29		direct	4305 Jun 06 15:22	27° $\overline{\text{B}}$ 49'13	
	4304 Aug 01 07:05	0° $\overline{\Omega}$			4305 Jun 14 03:44	0° $\overline{\text{II}}$	
morning set	4304 Aug 03 11:45	4° $\overline{\Omega}$ 34'31		morning max el	4305 Jun 20 23:06	5° $\overline{\text{II}}$ 14'56	25°59'51
					4305 Jul 08 23:06	0° $\overline{\text{S}}$	
superior conj	4304 Aug 10 11:43	19° $\overline{\Omega}$ 43'32	1°29'23	asc. node	4305 Jul 18 01:39	17° $\overline{\text{S}}$ 33'51	
minimum elong	4304 Aug 10 09:37	19° $\overline{\Omega}$ 32'05	1°29'09				

morning set	4305 Jul 18 23:01	19° $\overline{5}$ 26'06			4306 Jul 01 07:52	0° $\overline{5}$	
	4305 Jul 23 20:11	0° Ω		morning set	4306 Jul 03 08:03	4° $\overline{5}$ 08'55	
				asc. node	4306 Jul 04 22:42	7° $\overline{5}$ 33'18	
superior conj	4305 Jul 25 22:48	4° Ω 38'38	1°14'15				
minimum elong	4305 Jul 25 20:29	4° Ω 25'48	1°13'54	superior conj	4306 Jul 10 10:38	19° $\overline{5}$ 32'58	0°54'51
max. Earth dist.	4305 Jul 26 16:20	6° Ω 15'03	1.32259 AU	minimum elong	4306 Jul 10 08:33	19° $\overline{5}$ 21'28	0°54'26
evening rise	4305 Aug 01 23:21	19° Ω 47'25		max. Earth dist.	4306 Jul 10 03:45	18° $\overline{5}$ 54'55	1.31997 AU
	4305 Aug 07 01:26	0° $\overline{\eta}$			4306 Jul 15 04:56	0° Ω	
desc. node	4305 Aug 23 21:58	27° $\overline{\eta}$ 35'37		evening rise	4306 Jul 17 07:29	4° Ω 30'39	
	4305 Aug 25 18:08	0° $\underline{\Delta}$			4306 Jul 30 20:00	0° $\overline{\eta}$	
evening max el	4305 Sep 02 08:43	8° $\underline{\Delta}$ 29'29	27°10'49	desc. node	4306 Aug 10 18:59	15° $\overline{\eta}$ 24'13	
retrograde	4305 Sep 16 05:09	15° $\underline{\Delta}$ 42'35		evening max el	4306 Aug 15 09:03	20° $\overline{\eta}$ 16'38	26°21'31
evening set	4305 Sep 23 08:05	13° $\underline{\Delta}$ 24'37		retrograde	4306 Aug 29 08:17	27° $\overline{\eta}$ 26'09	
min. Earth dist.	4305 Sep 26 23:07	10° $\underline{\Delta}$ 40'25	0.61487 AU	evening set	4306 Sep 04 22:58	25° $\overline{\eta}$ 38'09	
inferior conj	4305 Sep 30 01:14	7° $\underline{\Delta}$ 56'43	-4°-6'-24	min. Earth dist.	4306 Sep 08 22:19	23° $\overline{\eta}$ 03'42	0.59422 AU
minimum elong	4305 Sep 30 07:18	7° $\underline{\Delta}$ 43'18	4°04'51	inferior conj	4306 Sep 12 04:44	20° $\overline{\eta}$ 32'37	-4°-51'-41
morning rise	4305 Oct 07 09:38	3° $\underline{\Delta}$ 00'13		minimum elong	4306 Sep 12 09:33	20° $\overline{\eta}$ 23'16	4°50'59
direct	4305 Oct 09 16:48	2° $\underline{\Delta}$ 38'12		morning rise	4306 Sep 19 23:38	15° $\overline{\eta}$ 58'51	
asc. node	4305 Oct 14 00:53	3° $\underline{\Delta}$ 59'42		direct	4306 Sep 22 08:01	15° $\overline{\eta}$ 39'29	
morning max el	4305 Oct 16 17:31	6° $\underline{\Delta}$ 09'46	17°56'01	morning max el	4306 Sep 30 03:25	19° $\overline{\eta}$ 26'42	18°21'16
	4305 Oct 31 23:30	0° $\overline{\mathcal{M}}$		asc. node	4306 Sep 30 21:55	20° $\overline{\eta}$ 13'13	
morning set	4305 Nov 01 11:35	0° $\overline{\mathcal{M}}$ 55'13			4306 Oct 07 23:02	0° $\underline{\Delta}$	
				morning set	4306 Oct 16 01:12	14° $\underline{\Delta}$ 46'14	
superior conj	4305 Nov 11 23:09	19° $\overline{\mathcal{M}}$ 43'59	0°53'51		4306 Oct 24 02:14	0° $\overline{\mathcal{M}}$	
minimum elong	4305 Nov 12 03:08	20° $\overline{\mathcal{M}}$ 01'18	0°53'19				
	4305 Nov 18 00:00	0° $\overline{\mathcal{X}}$		superior conj	4306 Oct 25 06:07	2° $\overline{\mathcal{M}}$ 08'37	1°20'27
max. Earth dist.	4305 Nov 19 11:04	2° $\overline{\mathcal{X}}$ 25'05	1.42587 AU	minimum elong	4306 Oct 25 09:51	2° $\overline{\mathcal{M}}$ 25'42	1°20'03
desc. node	4305 Nov 19 21:15	3° $\overline{\mathcal{X}}$ 06'57		max. Earth dist.	4306 Nov 01 18:48	15° $\overline{\mathcal{M}}$ 30'50	1.40653 AU
evening rise	4305 Nov 25 22:02	12° $\overline{\mathcal{X}}$ 49'11		evening rise	4306 Nov 06 09:19	23° $\overline{\mathcal{M}}$ 15'13	
	4305 Dec 07 04:10	0° $\overline{\mathcal{Z}}$		desc. node	4306 Nov 06 18:17	23° $\overline{\mathcal{M}}$ 52'02	
greatest brilliancy	4305 Dec 23 09:56	22° $\overline{\mathcal{Z}}$ 22'52	-0.3m		4306 Nov 10 13:26	0° $\overline{\mathcal{X}}$	
evening max el	4305 Dec 28 03:25	27° $\overline{\mathcal{Z}}$ 42'57	22°06'09		4306 Dec 01 03:30	0° $\overline{\mathcal{Z}}$	
	4305 Dec 30 14:01	0° \approx		evening max el	4306 Dec 10 18:31	11° $\overline{\mathcal{Z}}$ 20'14	23°25'47
retrograde	4306 Jan 06 13:37	3° \approx 19'31		retrograde	4306 Dec 21 07:42	17° $\overline{\mathcal{Z}}$ 34'38	
asc. node	4306 Jan 10 00:10	2° \approx 16'22		evening set	4306 Dec 26 06:32	15° $\overline{\mathcal{Z}}$ 32'52	
evening set	4306 Jan 10 23:59	1° \approx 33'44		asc. node	4306 Dec 27 21:11	13° $\overline{\mathcal{Z}}$ 59'40	
	4306 Jan 12 15:30	30° $\overline{\mathcal{R}}$ $\overline{\mathcal{Z}}$		min. Earth dist.	4306 Dec 31 05:52	9° $\overline{\mathcal{Z}}$ 44'52	0.67973 AU
inferior conj	4306 Jan 16 09:26	25° $\overline{\mathcal{Z}}$ 11'25	2°01'27	inferior conj	4306 Dec 31 17:14	9° $\overline{\mathcal{Z}}$ 05'54	1°16'13
minimum elong	4306 Jan 16 07:08	25° $\overline{\mathcal{Z}}$ 19'22	2°00'41	minimum elong	4306 Dec 31 15:34	9° $\overline{\mathcal{Z}}$ 11'36	1°15'35
min. Earth dist.	4306 Jan 16 09:03	25° $\overline{\mathcal{Z}}$ 12'44	0.68004 AU	morning rise	4307 Jan 06 00:41	2° $\overline{\mathcal{Z}}$ 56'53	
morning rise	4306 Jan 21 14:07	18° $\overline{\mathcal{Z}}$ 58'14		direct	4307 Jan 10 04:32	1° $\overline{\mathcal{Z}}$ 20'14	
direct	4306 Jan 26 08:13	16° $\overline{\mathcal{Z}}$ 58'49		morning max el	4307 Jan 18 15:01	6° $\overline{\mathcal{Z}}$ 13'20	21°05'18
morning max el	4306 Feb 04 22:52	22° $\overline{\mathcal{Z}}$ 38'56	22°27'55	greatest brilliancy	4307 Jan 23 23:45	12° $\overline{\mathcal{Z}}$ 22'53	-0.5m
greatest brilliancy	4306 Feb 09 12:22	27° $\overline{\mathcal{Z}}$ 44'18	-0.3m	desc. node	4307 Feb 02 17:32	25° $\overline{\mathcal{Z}}$ 45'19	
	4306 Feb 11 08:18	0° \approx			4307 Feb 05 15:12	0° \approx	
desc. node	4306 Feb 15 20:31	5° \approx 55'57		morning set	4307 Feb 18 02:16	18° \approx 58'49	
	4306 Mar 04 05:24	0° $\overline{\mathcal{H}}$			4307 Feb 24 23:57	0° $\overline{\mathcal{H}}$	
morning set	4306 Mar 10 15:43	10° $\overline{\mathcal{H}}$ 15'42		max. Earth dist.	4307 Feb 25 20:04	1° $\overline{\mathcal{H}}$ 21'57	1.42561 AU
max. Earth dist.	4306 Mar 15 17:40	18° $\overline{\mathcal{H}}$ 42'45	1.40553 AU				
	4306 Mar 22 05:28	0° $\overline{\mathcal{Y}}$		superior conj	4307 Mar 05 00:15	13° $\overline{\mathcal{H}}$ 20'11	-2°-7'-33
				minimum elong	4307 Mar 05 01:24	13° $\overline{\mathcal{H}}$ 25'06	2°07'34
superior conj	4306 Mar 23 12:46	2° $\overline{\mathcal{Y}}$ 20'12	-1°-56'-44		4307 Mar 14 12:29	0° $\overline{\mathcal{Y}}$	
minimum elong	4306 Mar 23 17:04	2° $\overline{\mathcal{Y}}$ 39'35	1°56'27	evening rise	4307 Mar 16 14:19	3° $\overline{\mathcal{Y}}$ 43'42	
evening rise	4306 Apr 02 16:18	21° $\overline{\mathcal{Y}}$ 09'22		asc. node	4307 Mar 25 20:30	19° $\overline{\mathcal{Y}}$ 55'28	
	4306 Apr 07 10:21	0° $\overline{\mathcal{B}}$			4307 Apr 02 07:28	0° $\overline{\mathcal{B}}$	
asc. node	4306 Apr 07 23:28	0° $\overline{\mathcal{B}}$ 59'23		evening max el	4307 Apr 02 06:20	29° $\overline{\mathcal{Y}}$ 57'12	18°07'13
evening max el	4306 Apr 18 19:22	16° $\overline{\mathcal{B}}$ 57'17	18°21'10	retrograde	4307 Apr 08 21:38	3° $\overline{\mathcal{B}}$ 20'42	
retrograde	4306 Apr 26 02:36	20° $\overline{\mathcal{B}}$ 34'59		evening set	4307 Apr 11 12:14	2° $\overline{\mathcal{B}}$ 49'22	
evening set	4306 Apr 28 10:54	20° $\overline{\mathcal{B}}$ 13'28			4307 Apr 15 19:51	30° $\overline{\mathcal{R}}$ $\overline{\mathcal{Y}}$	
inferior conj	4306 May 05 18:20	15° $\overline{\mathcal{B}}$ 35'56	2°23'07	inferior conj	4307 Apr 18 03:47	27° $\overline{\mathcal{Y}}$ 50'47	3°10'38
minimum elong	4306 May 05 21:58	15° $\overline{\mathcal{B}}$ 28'21	2°22'09	minimum elong	4307 Apr 18 06:27	27° $\overline{\mathcal{Y}}$ 44'23	3°10'12
min. Earth dist.	4306 May 09 04:55	12° $\overline{\mathcal{B}}$ 45'05	0.58845 AU	min. Earth dist.	4307 Apr 21 08:29	24° $\overline{\mathcal{Y}}$ 47'14	0.61042 AU
morning rise	4306 May 13 04:46	10° $\overline{\mathcal{B}}$ 02'29		morning rise	4307 Apr 24 21:28	21° $\overline{\mathcal{Y}}$ 56'35	
desc. node	4306 May 14 19:44	9° $\overline{\mathcal{B}}$ 16'09		direct	4307 May 01 14:57	19° $\overline{\mathcal{Y}}$ 41'06	
direct	4306 May 19 09:20	8° $\overline{\mathcal{B}}$ 20'12		desc. node	4307 May 01 16:45	19° $\overline{\mathcal{Y}}$ 41'07	
morning max el	4306 Jun 02 18:47	16° $\overline{\mathcal{B}}$ 06'32	27°11'02	morning max el	4307 May 15 20:42	27° $\overline{\mathcal{Y}}$ 37'40	27°47'50
	4306 Jun 14 03:04	0° $\overline{\mathcal{I}}$			4307 May 18 03:15	0° $\overline{\mathcal{B}}$	

	4307 Jun 07 19:53	0°♂		desc. node	4308 Apr 17 13:46	2°♄46'37	
morning set	4307 Jun 17 13:02	18°♂37'07		morning max el	4308 Apr 27 03:45	9°♄49'35	27°47'05
asc. node	4307 Jun 21 19:45	27°♂39'10			4308 May 12 21:17	0°♄	
	4307 Jun 22 21:46	0°♄			4308 May 30 02:48	0°♂	
max. Earth dist.	4307 Jun 23 14:07	1°♄29'06	1.32147 AU	morning set	4308 May 31 11:46	2°♂43'49	
				max. Earth dist.	4308 Jun 05 19:38	13°♂45'27	1.32722 AU
superior conj	4307 Jun 24 21:29	4°♄20'45	0°31'44	asc. node	4308 Jun 07 16:48	17°♂47'10	
minimum elong	4307 Jun 24 20:06	4°♄13'09	0°31'26				
evening rise	4307 Jul 01 18:26	19°♄19'22		superior conj	4308 Jun 08 05:36	18°♂56'12	0°05'36
	4307 Jul 06 23:29	0°♂		minimum elong	4308 Jun 08 05:19	18°♂54'44	0°05'32
	4307 Jul 26 19:08	0°♄		behind sun begin	4308 Jun 08 00:21	18°♂27'56	
evening max el	4307 Jul 28 02:09	1°♄17'00	25°03'32	behind sun end	4308 Jun 08 10:17	19°♂21'34	
desc. node	4307 Jul 28 16:01	1°♄49'36			4308 Jun 13 08:05	0°♄	
retrograde	4307 Aug 11 00:53	8°♄20'24		evening rise	4308 Jun 15 06:17	4°♄07'11	
evening set	4307 Aug 16 14:03	7°♄10'12			4308 Jun 29 05:06	0°♂	
min. Earth dist.	4307 Aug 21 13:46	4°♄26'58	0.57430 AU	evening max el	4308 Jul 08 15:06	11°♂45'26	23°28'46
inferior conj	4307 Aug 24 13:04	2°♄27'42	-5°-12'-33	desc. node	4308 Jul 14 13:01	16°♂20'23	
minimum elong	4307 Aug 24 13:35	2°♄26'49	5°12'34	retrograde	4308 Jul 22 04:58	18°♂33'35	
	4307 Aug 28 11:20	30°♄♂		evening set	4308 Jul 26 06:46	17°♂57'15	
morning rise	4307 Sep 01 16:38	28°♂16'32		min. Earth dist.	4308 Aug 02 00:51	14°♂48'56	0.55821 AU
direct	4307 Sep 04 05:48	27°♂57'36		inferior conj	4308 Aug 04 01:22	13°♂37'02	-4°-53'-12
	4307 Sep 10 11:35	0°♄		minimum elong	4308 Aug 03 19:44	13°♂45'26	4°52'27
morning max el	4307 Sep 13 04:51	2°♄10'57	19°07'37	morning rise	4308 Aug 12 11:48	9°♂43'15	
asc. node	4307 Sep 17 18:58	7°♄32'23		direct	4308 Aug 15 08:31	9°♂23'07	
morning set	4307 Sep 30 00:12	29°♄04'04		morning max el	4308 Aug 25 19:11	14°♂14'08	20°15'48
	4307 Sep 30 11:29	0°♄		asc. node	4308 Sep 03 16:00	25°♂43'01	
					4308 Sep 06 04:05	0°♄	
superior conj	4307 Oct 08 07:20	15°♄26'39	1°36'32	morning set	4308 Sep 13 05:34	13°♄40'48	
minimum elong	4307 Oct 08 09:38	15°♄37'43	1°36'22				
max. Earth dist.	4307 Oct 14 23:30	27°♄55'58	1.38564 AU	superior conj	4308 Sep 20 21:53	29°♄24'37	1°43'30
	4307 Oct 16 03:07	0°♄		minimum elong	4308 Sep 20 22:32	29°♄27'51	1°43'30
evening rise	4307 Oct 18 19:53	4°♄45'01			4308 Sep 21 04:55	0°♄	
desc. node	4307 Oct 24 15:17	14°♄30'56		max. Earth dist.	4308 Sep 26 05:55	9°♄54'53	1.36562 AU
	4307 Nov 03 15:20	0°♄		evening rise	4308 Sep 30 03:50	17°♄14'20	
evening max el	4307 Nov 23 07:28	25°♄01'19	24°44'23		4308 Oct 07 11:07	0°♄	
	4307 Nov 29 10:36	0°♄		desc. node	4308 Oct 10 12:18	4°♄59'35	
retrograde	4307 Dec 04 21:41	1°♄46'10			4308 Oct 28 00:01	0°♄	
	4307 Dec 09 18:36	30°♄♄		evening max el	4308 Nov 04 19:57	8°♄44'24	25°54'40
evening set	4307 Dec 10 10:14	29°♄28'55		retrograde	4308 Nov 17 06:56	15°♄49'51	
asc. node	4307 Dec 14 18:13	24°♄38'28		evening set	4308 Nov 23 09:26	13°♄19'19	
min. Earth dist.	4307 Dec 15 01:19	24°♄15'08	0.67595 AU	min. Earth dist.	4308 Nov 27 17:03	8°♄41'01	0.66871 AU
inferior conj	4307 Dec 15 23:27	23°♄01'46	0°24'50	inferior conj	4308 Nov 29 02:19	6°♄56'37	0°-31'-35
minimum elong	4307 Dec 15 22:50	23°♄03'47	0°24'36	minimum elong	4308 Nov 29 03:09	6°♄53'59	0°31'14
morning rise	4307 Dec 21 11:55	16°♄59'11		asc. node	4308 Nov 30 15:14	5°♄02'57	
direct	4307 Dec 25 02:47	15°♄43'52		morning rise	4308 Dec 04 21:51	1°♄03'04	
morning max el	4308 Jan 01 14:51	19°♄58'44	19°54'25	direct	4308 Dec 08 01:30	0°♄06'07	
greatest brilliancy	4308 Jan 08 21:56	28°♄51'14	-0.6m	morning max el	4308 Dec 14 22:23	3°♄54'14	18°58'20
	4308 Jan 09 17:54	0°♄			4309 Jan 02 09:38	0°♄	
desc. node	4308 Jan 20 14:32	15°♄55'54		morning set	4309 Jan 06 05:11	5°♄57'14	
morning set	4308 Jan 27 22:19	27°♄07'43		desc. node	4309 Jan 06 11:33	6°♄22'05	
	4308 Jan 29 18:53	0°♄		max. Earth dist.	4309 Jan 20 22:52	29°♄00'56	1.45062 AU
max. Earth dist.	4308 Feb 08 06:26	14°♄53'13	1.44128 AU		4309 Jan 21 13:53	0°♄	
superior conj	4308 Feb 13 10:03	23°♄10'28	-2°-2'-35	superior conj	4309 Jan 22 20:53	2°♄02'09	-1°-38'-2
minimum elong	4308 Feb 13 05:19	22°♄51'15	2°02'22	minimum elong	4309 Jan 22 11:44	1°♄26'03	1°37'13
	4308 Feb 17 13:55	0°♄		evening rise	4309 Feb 06 22:58	26°♄12'16	
evening rise	4308 Feb 26 17:46	15°♄26'17			4309 Feb 09 06:51	0°♄	
	4308 Mar 06 07:59	0°♄		asc. node	4309 Feb 26 14:33	25°♄55'44	
asc. node	4308 Mar 11 17:32	8°♄17'35		evening max el	4309 Feb 27 06:57	26°♄38'50	18°36'07
evening max el	4308 Mar 15 19:07	13°♄13'17	18°12'27		4309 Mar 04 03:18	0°♄	
retrograde	4308 Mar 22 05:09	16°♄37'27		retrograde	4309 Mar 05 20:52	0°♄16'36	
evening set	4308 Mar 25 01:37	15°♄54'59			4309 Mar 07 13:55	30°♄♄	
inferior conj	4308 Mar 31 05:10	10°♄36'12	3°32'26	evening set	4309 Mar 08 23:22	29°♄22'09	
minimum elong	4308 Mar 31 06:07	10°♄33'37	3°32'22	inferior conj	4309 Mar 14 18:28	23°♄44'56	3°34'37
min. Earth dist.	4308 Apr 02 20:42	7°♄43'49	0.63133 AU	minimum elong	4309 Mar 14 17:51	23°♄46'50	3°34'35
morning rise	4308 Apr 06 08:31	4°♄29'53		min. Earth dist.	4309 Mar 16 18:29	21°♄20'55	0.64919 AU
direct	4308 Apr 13 05:30	1°♄51'03		morning rise	4309 Mar 20 10:59	17°♄32'09	

direct	4309 Mar 27 03:31	14° ✕ 43'20		direct	4310 Mar 10 08:06	28° ≈ 09'09	
desc. node	4309 Apr 04 10:48	18° ✕ 04'44			4310 Mar 16 02:16	0° ✕	
morning max el	4309 Apr 09 13:33	22° ✕ 34'39	27°11'36	desc. node	4310 Mar 22 07:49	5° ✕ 01'17	
	4309 Apr 16 02:39	0° γ		morning max el	4310 Mar 22 23:29	5° ✕ 40'17	26°08'33
	4309 May 06 03:21	0° ♄			4310 Apr 10 16:50	0° γ	
morning set	4309 May 15 01:22	16° ♄ 20'15		morning set	4310 Apr 28 02:06	29° γ 15'31	
max. Earth dist.	4309 May 19 16:30	25° ♄ 33'37	1.33750 AU		4310 Apr 28 11:39	0° ♄	
	4309 May 21 20:08	0° ♁		max. Earth dist.	4310 May 02 01:55	6° ♄ 50'41	1.35239 AU
superior conj	4309 May 23 08:55	3° ♁ 12'43	0°-22'-46	superior conj	4310 May 07 05:04	17° ♄ 03'41	0°-52'-6
minimum elong	4309 May 23 10:06	3° ♁ 18'58	0°22'32	minimum elong	4310 May 07 07:53	17° ♄ 18'01	0°51'35
asc. node	4309 May 25 13:50	7° ♁ 52'56		asc. node	4310 May 12 10:53	27° ♄ 52'37	
evening rise	4309 May 30 17:09	18° ♁ 47'31			4310 May 13 11:27	0° ♁	
	4309 Jun 05 06:22	0° ♄		evening rise	4310 May 15 01:02	3° ♁ 14'03	
evening max el	4309 Jun 20 07:17	22° ♄ 11'59	21°52'57		4310 May 30 13:26	0° ♄	
desc. node	4309 Jul 01 10:03	28° ♄ 21'20		evening max el	4310 Jun 02 09:54	3° ♄ 07'48	20°29'03
retrograde	4309 Jul 02 21:55	28° ♄ 26'33		retrograde	4310 Jun 13 11:02	8° ♄ 31'42	
evening set	4309 Jul 05 14:59	28° ♄ 10'04		evening set	4310 Jun 15 11:22	8° ♄ 21'40	
inferior conj	4309 Jul 14 22:19	24° ♄ 07'09	-3°-43'-7	desc. node	4310 Jun 18 07:04	7° ♄ 36'36	
minimum elong	4309 Jul 14 13:43	24° ♄ 19'12	3°40'44	inferior conj	4310 Jun 24 16:13	4° ♄ 24'11	-1°-53'-1
min. Earth dist.	4309 Jul 14 11:11	24° ♄ 22'45	0.54921 AU	minimum elong	4310 Jun 24 10:55	4° ♄ 31'52	1°51'07
morning rise	4309 Jul 23 13:58	20° ♄ 16'16		min. Earth dist.	4310 Jun 25 23:11	3° ♄ 39'17	0.54958 AU
direct	4309 Jul 26 20:18	19° ♄ 52'51		morning rise	4310 Jul 03 08:55	0° ♄ 15'15	
morning max el	4309 Aug 07 21:43	25° ♄ 31'44	21°43'58		4310 Jul 04 10:32	30° ♁	
	4309 Aug 12 01:25	0° ♁		direct	4310 Jul 07 06:06	29° ♁ 42'43	
asc. node	4309 Aug 21 13:03	14° ♁ 32'05			4310 Jul 10 00:47	0° ♄	
morning set	4309 Aug 28 14:53	28° ♁ 28'27		morning max el	4310 Jul 20 15:09	6° ♄ 11'34	23°25'13
	4309 Aug 29 08:25	0° ♄			4310 Aug 06 09:56	0° ♁	
superior conj	4309 Sep 04 21:43	13° ♄ 49'39	1°42'53	asc. node	4310 Aug 08 10:07	3° ♁ 50'04	
minimum elong	4309 Sep 04 20:57	13° ♄ 45'38	1°42'52	morning set	4310 Aug 13 02:15	13° ♁ 21'28	
max. Earth dist.	4309 Sep 08 18:40	21° ♄ 48'17	1.34837 AU	superior conj	4310 Aug 20 03:44	28° ♁ 32'12	1°35'55
	4309 Sep 12 22:20	0° ♁		minimum elong	4310 Aug 20 01:59	28° ♁ 22'46	1°35'46
evening rise	4309 Sep 13 04:53	0° ♁ 31'26			4310 Aug 20 20:06	0° ♄	
desc. node	4309 Sep 27 09:20	25° ♁ 11'35		max. Earth dist.	4310 Aug 22 16:10	3° ♄ 54'27	1.33505 AU
	4309 Sep 30 12:44	0° ♄		evening rise	4310 Aug 27 18:48	14° ♄ 25'10	
evening max el	4309 Oct 18 08:30	22° ♄ 22'21	26°49'23		4310 Sep 05 01:58	0° ♁	
retrograde	4309 Oct 31 10:54	29° ♄ 38'34		desc. node	4310 Sep 14 06:22	14° ♁ 59'27	
evening set	4309 Nov 07 02:07	26° ♄ 59'33			4310 Sep 25 10:33	0° ♄	
min. Earth dist.	4309 Nov 11 02:47	22° ♄ 57'26	0.65791 AU	evening max el	4310 Sep 30 20:30	5° ♄ 45'32	27°21'22
inferior conj	4309 Nov 12 23:46	20° ♄ 46'11	-1°-31'-48	retrograde	4310 Oct 14 09:08	13° ♄ 04'00	
minimum elong	4309 Nov 13 02:21	20° ♄ 38'40	1°30'45	evening set	4310 Oct 21 09:46	10° ♄ 24'33	
asc. node	4309 Nov 17 12:16	16° ♄ 08'44		min. Earth dist.	4310 Oct 25 04:23	6° ♄ 57'17	0.64358 AU
morning rise	4309 Nov 19 04:12	15° ♄ 04'26		inferior conj	4310 Oct 27 13:29	4° ♄ 25'24	-2°-33'-49
direct	4309 Nov 21 22:41	14° ♄ 22'06		minimum elong	4310 Oct 27 17:51	4° ♄ 13'45	2°32'12
morning max el	4309 Nov 28 11:43	17° ♄ 54'24	18°18'27		4310 Nov 01 08:09	30° ♁	
	4309 Dec 07 12:52	0° ♄		morning rise	4310 Nov 03 04:13	28° ♁ 58'28	
morning set	4309 Dec 17 15:34	16° ♄ 11'18		asc. node	4310 Nov 04 09:19	28° ♁ 35'12	
desc. node	4309 Dec 24 08:35	26° ♄ 59'01		direct	4310 Nov 05 16:00	28° ♁ 26'46	
	4309 Dec 26 05:59	0° ♄			4310 Nov 09 23:20	0° ♄	
superior conj	4310 Jan 01 23:27	10° ♄ 38'15	0°-56'-51	morning max el	4310 Nov 12 04:03	1° ♄ 52'31	17°55'32
minimum elong	4310 Jan 01 16:24	10° ♄ 10'34	0°55'59	morning set	4310 Nov 29 06:39	27° ♄ 49'39	
max. Earth dist.	4310 Jan 03 17:57	13° ♄ 25'08	1.45263 AU		4310 Nov 30 13:27	0° ♄	
	4310 Jan 14 08:14	0° ≈		desc. node	4310 Dec 11 05:37	17° ♄ 42'41	
evening rise	4310 Jan 18 05:15	6° ≈ 04'05		superior conj	4310 Dec 12 14:23	19° ♄ 55'15	0°-9'-26
greatest brilliancy	4310 Feb 01 13:10	28° ≈ 14'21	-0.7m	minimum elong	4310 Dec 12 13:17	19° ♄ 50'46	0°09'16
	4310 Feb 02 17:56	0° ✕		behind sun begin	4310 Dec 12 04:49	19° ♄ 16'37	
evening max el	4310 Feb 10 15:34	10° ✕ 09'07	19°17'08	behind sun end	4310 Dec 12 21:44	20° ♄ 24'52	
asc. node	4310 Feb 13 11:34	12° ✕ 37'20		max. Earth dist.	4310 Dec 17 12:32	27° ♄ 47'18	1.44731 AU
retrograde	4310 Feb 17 17:10	14° ✕ 11'18			4310 Dec 18 22:08	0° ♄	
evening set	4310 Feb 21 02:37	13° ✕ 03'59		evening rise	4310 Dec 28 18:37	15° ♄ 19'31	
inferior conj	4310 Feb 26 16:14	7° ✕ 10'39	3°21'58		4311 Jan 07 09:57	0° ≈	
minimum elong	4310 Feb 26 14:29	7° ✕ 16'18	3°21'43	greatest brilliancy	4311 Jan 18 09:57	15° ≈ 55'40	-0.6m
min. Earth dist.	4310 Feb 28 01:02	5° ✕ 24'45	0.66311 AU	evening max el	4311 Jan 24 19:24	23° ≈ 41'12	20°13'36
morning rise	4310 Mar 04 01:29	0° ✕ 54'59		asc. node	4311 Jan 31 08:37	28° ≈ 07'23	
	4310 Mar 05 04:28	30° ♁		retrograde	4311 Feb 01 15:13	28° ≈ 16'11	

evening set	4311 Feb 05 09:02	26° \approx 54'52		retrograde	4312 Jan 16 12:55	12° \approx 28'18	
inferior conj	4311 Feb 10 19:34	20° \approx 47'57	2°57'47	asc. node	4312 Jan 18 05:38	12° \approx 12'42	
minimum elong	4311 Feb 10 17:13	20° \approx 55'55	2°57'16	evening set	4312 Jan 20 16:48	10° \approx 51'44	
min. Earth dist.	4311 Feb 11 14:27	19° \approx 44'02	0.67290 AU	inferior conj	4312 Jan 26 02:11	4° \approx 34'15	2°24'20
morning rise	4311 Feb 16 00:50	14° \approx 31'53		minimum elong	4312 Jan 25 23:44	4° \approx 42'43	2°23'35
direct	4311 Feb 21 18:18	11° \approx 59'19		min. Earth dist.	4312 Jan 26 08:32	4° \approx 12'18	0.67864 AU
morning max el	4311 Mar 05 08:08	18° \approx 54'48	24°47'24		4312 Jan 29 14:35	30° \approx 00'00	
desc. node	4311 Mar 09 04:51	23° \approx 07'55		morning rise	4312 Jan 31 06:21	28° \approx 19'37	
	4311 Mar 14 17:22	0° \approx 00'00		direct	4312 Feb 05 09:09	26° \approx 07'04	
	4311 Apr 03 19:17	0° \approx 00'00			4312 Feb 13 07:25	0° \approx 00'00	
morning set	4311 Apr 10 08:46	11° \approx 14'18		morning max el	4312 Feb 15 17:01	2° \approx 15'14	23°18'34
max. Earth dist.	4311 Apr 14 00:45	17° \approx 50'51	1.37143 AU	greatest brilliancy	4312 Feb 21 00:49	8° \approx 14'32	-0.2m
	4311 Apr 20 10:47	0° \approx 00'00		desc. node	4312 Feb 24 01:54	12° \approx 05'09	
					4312 Mar 07 18:43	0° \approx 00'00	
superior conj	4311 Apr 20 14:54	0° \approx 20'04	-1°-20'-35	morning set	4312 Mar 21 15:20	22° \approx 00'50	
minimum elong	4311 Apr 20 19:10	0° \approx 40'49	1°19'57	max. Earth dist.	4312 Mar 25 19:46	29° \approx 10'18	1.39308 AU
evening rise	4311 Apr 29 03:31	17° \approx 19'12			4312 Mar 26 07:10	0° \approx 00'00	
asc. node	4311 Apr 29 07:56	17° \approx 41'16					
	4311 May 05 17:39	0° \approx 00'00		superior conj	4312 Apr 02 10:33	12° \approx 52'24	-1°-45'-29
evening max el	4311 May 16 00:54	14° \approx 14'48	19°23'31	minimum elong	4312 Apr 02 15:22	13° \approx 14'45	1°45'02
retrograde	4311 May 25 08:24	19° \approx 16'51			4312 Apr 11 10:14	0° \approx 00'00	
evening set	4311 May 27 07:44	19° \approx 05'32		evening rise	4312 Apr 11 21:48	0° \approx 55'49	
inferior conj	4311 Jun 04 21:21	14° \approx 58'38	0°04'58	asc. node	4312 Apr 15 04:57	7° \approx 14'08	
minimum elong	4311 Jun 04 21:34	14° \approx 58'17	0°04'52	evening max el	4312 Apr 28 02:15	27° \approx 00'23	18°38'06
transit middle	4311 Jun 04 21:34	14° \approx 58'17	0°04'52		4312 May 02 05:02	0° \approx 00'00	
transit begin	4311 Jun 04 17:52	15° \approx 04'18		retrograde	4312 May 05 23:35	0° \approx 53'05	
transit end	4311 Jun 05 01:15	14° \approx 52'16		evening set	4312 May 08 04:22	0° \approx 36'03	
desc. node	4311 Jun 05 04:06	14° \approx 47'38			4312 May 09 22:17	30° \approx 00'00	
min. Earth dist.	4311 Jun 07 13:27	13° \approx 14'41	0.55941 AU	inferior conj	4312 May 15 22:26	26° \approx 10'21	1°41'46
morning rise	4311 Jun 13 07:27	10° \approx 17'02		minimum elong	4312 May 16 01:44	26° \approx 04'04	1°40'44
direct	4311 Jun 18 02:14	9° \approx 24'58		min. Earth dist.	4312 May 19 06:54	23° \approx 38'25	0.57658 AU
morning max el	4311 Jul 02 04:56	16° \approx 33'59	25°07'07	desc. node	4312 May 22 01:07	21° \approx 49'00	
	4311 Jul 13 02:50	0° \approx 00'00		morning rise	4312 May 23 18:38	20° \approx 54'05	
asc. node	4311 Jul 26 07:11	23° \approx 29'08		direct	4312 May 29 12:17	19° \approx 32'00	
morning set	4311 Jul 28 13:59	28° \approx 14'47		morning max el	4312 Jun 12 21:08	27° \approx 07'11	26°33'52
	4311 Jul 29 09:46	0° \approx 00'00			4312 Jun 15 15:37	0° \approx 00'00	
					4312 Jul 05 12:16	0° \approx 00'00	
superior conj	4311 Aug 04 13:33	13° \approx 24'35	1°23'33	morning set	4312 Jul 12 00:29	13° \approx 03'00	
minimum elong	4311 Aug 04 11:17	13° \approx 12'14	1°23'15	asc. node	4312 Jul 12 04:13	13° \approx 22'44	
max. Earth dist.	4311 Aug 05 21:37	16° \approx 19'39	1.32594 AU				
evening rise	4311 Aug 11 18:02	28° \approx 14'51		superior conj	4312 Jul 19 01:07	28° \approx 19'50	1°06'31
	4311 Aug 12 08:37	0° \approx 00'00		minimum elong	4312 Jul 18 22:50	28° \approx 07'13	1°06'08
	4311 Aug 29 06:04	0° \approx 00'00		max. Earth dist.	4312 Jul 19 08:03	28° \approx 58'07	1.32098 AU
desc. node	4311 Sep 01 03:24	4° \approx 13'17			4312 Jul 19 19:16	0° \approx 00'00	
evening max el	4311 Sep 13 06:14	18° \approx 41'56	27°24'14	evening rise	4312 Jul 25 23:36	13° \approx 22'31	
retrograde	4311 Sep 27 00:44	25° \approx 57'06			4312 Aug 03 10:36	0° \approx 00'00	
evening set	4311 Oct 04 05:06	23° \approx 28'04		desc. node	4312 Aug 18 00:25	22° \approx 00'38	
min. Earth dist.	4311 Oct 07 20:06	20° \approx 30'44	0.62606 AU		4312 Aug 24 11:07	0° \approx 00'00	
inferior conj	4311 Oct 10 16:38	17° \approx 47'45	-3°-34'-20	evening max el	4312 Aug 25 10:49	0° \approx 57'30	26°53'56
minimum elong	4311 Oct 10 22:24	17° \approx 34'01	3°32'34	retrograde	4312 Sep 08 08:27	8° \approx 08'12	
morning rise	4311 Oct 17 18:31	12° \approx 38'53		evening set	4312 Sep 15 07:46	6° \approx 01'50	
direct	4311 Oct 20 02:27	12° \approx 14'12		min. Earth dist.	4312 Sep 19 00:59	3° \approx 23'50	0.60619 AU
asc. node	4311 Oct 22 06:23	12° \approx 36'05		inferior conj	4312 Sep 22 05:48	0° \approx 43'35	-4°-27'-42
morning max el	4311 Oct 26 20:25	15° \approx 41'30	17°50'25	minimum elong	4312 Sep 22 11:39	0° \approx 31'18	4°26'27
	4311 Nov 05 20:17	0° \approx 00'00			4312 Sep 23 02:45	30° \approx 00'00	
morning set	4311 Nov 11 20:38	10° \approx 34'23		morning rise	4312 Sep 29 18:46	25° \approx 56'12	
				direct	4312 Oct 02 02:08	25° \approx 35'30	
superior conj	4311 Nov 23 06:23	0° \approx 26'39	0°33'31	asc. node	4312 Oct 08 03:25	28° \approx 05'01	
minimum elong	4311 Nov 23 09:26	0° \approx 39'34	0°33'05	morning max el	4312 Oct 09 09:34	29° \approx 12'29	18°04'13
	4311 Nov 23 00:04	0° \approx 00'00			4312 Oct 10 04:14	0° \approx 00'00	
desc. node	4311 Nov 28 02:40	8° \approx 30'00		morning set	4312 Oct 25 03:05	24° \approx 05'32	
max. Earth dist.	4311 Nov 30 04:34	11° \approx 53'05	1.43533 AU		4312 Oct 28 07:15	0° \approx 00'00	
evening rise	4311 Dec 08 05:15	24° \approx 35'38					
	4311 Dec 11 17:34	0° \approx 00'00		superior conj	4312 Nov 04 00:21	12° \approx 13'29	1°06'29
	4312 Jan 01 13:30	0° \approx 00'00		minimum elong	4312 Nov 04 04:27	12° \approx 31'44	1°05'58
greatest brilliancy	4312 Jan 02 17:58	1° \approx 30'35	-0.4m	max. Earth dist.	4312 Nov 11 15:58	25° \approx 25'50	1.41808 AU
evening max el	4312 Jan 07 17:50	7° \approx 15'19	21°22'29	desc. node	4312 Nov 13 23:42	29° \approx 16'51	

	4312 Nov 14 10:13	0°♊		desc. node	4313 Oct 31 20:43	19°♌59'51	
evening rise	4312 Nov 17 04:33	4°♊28'44			4313 Nov 07 03:33	0°♊	
	4312 Dec 04 01:23	0°♋			4313 Nov 28 21:24	0°♋	
greatest brilliancy	4312 Dec 15 12:21	15°♋18'00	-0.3m	evening max el	4313 Dec 03 01:00	4°♋29'25	23°59'37
evening max el	4312 Dec 20 11:12	20°♋51'00	22°39'39	retrograde	4313 Dec 14 01:06	10°♋57'57	
retrograde	4312 Dec 30 08:37	26°♋43'32		evening set	4313 Dec 19 05:47	8°♋49'10	
evening set	4313 Jan 04 00:14	24°♋50'49		asc. node	4313 Dec 21 23:41	5°♋57'06	
asc. node	4313 Jan 04 02:40	24°♋45'47		min. Earth dist.	4313 Dec 24 01:22	3°♋15'46	0.67860 AU
inferior conj	4313 Jan 09 10:03	18°♋26'12	1°43'04	inferior conj	4313 Dec 24 17:23	2°♋21'26	0°55'07
minimum elong	4313 Jan 09 07:59	18°♋33'23	1°42'19	minimum elong	4313 Dec 24 16:08	2°♋25'43	0°54'36
min. Earth dist.	4313 Jan 09 04:55	18°♋44'01	0.68046 AU		4313 Dec 26 12:05	30°♌♊	
morning rise	4313 Jan 14 15:40	12°♋14'48		morning rise	4313 Dec 30 02:45	26°♌♊15'04	
direct	4313 Jan 19 03:40	10°♋25'06		direct	4314 Jan 03 00:49	24°♌♊48'02	
morning max el	4313 Jan 28 05:35	15°♋43'48	21°51'35	morning max el	4314 Jan 11 00:59	29°♌♊23'26	20°33'27
greatest brilliancy	4313 Feb 01 22:46	21°♋01'51	-0.4m		4314 Jan 11 15:18	0°♋	
	4313 Feb 08 18:40	0°♌		greatest brilliancy	4314 Jan 17 02:03	6°♋28'33	-0.5m
desc. node	4313 Feb 09 22:56	1°♌38'25		desc. node	4314 Jan 27 19:56	21°♋37'36	
	4313 Feb 28 19:49	0°♍			4314 Feb 02 10:03	0°♌	
morning set	4313 Mar 01 17:20	1°♍25'53		morning set	4314 Feb 08 19:05	9°♌46'45	
max. Earth dist.	4313 Mar 07 18:42	11°♍19'26	1.41453 AU	max. Earth dist.	4314 Feb 18 00:44	24°♌22'55	1.43294 AU
					4314 Feb 21 11:34	0°♍	
superior conj	4313 Mar 15 11:12	24°♍29'16	-2°-2'-54	superior conj	4314 Feb 24 11:55	4°♍59'26	-2°-7'-41
minimum elong	4313 Mar 15 14:33	24°♍44'02	2°02'46	minimum elong	4314 Feb 24 10:47	4°♍54'42	2°07'41
	4313 Mar 18 13:37	0°♎		evening rise	4314 Mar 08 19:05	26°♍09'30	
evening rise	4313 Mar 26 04:24	13°♎55'51			4314 Mar 10 23:27	0°♎	
asc. node	4313 Apr 02 01:59	26°♎25'44		asc. node	4314 Mar 19 23:00	15°♎08'36	
	4313 Apr 04 04:46	0°♏		evening max el	4314 Mar 25 22:39	22°♎54'00	18°07'05
evening max el	4313 Apr 11 10:38	9°♏46'34	18°12'48	retrograde	4314 Apr 01 10:42	26°♎16'31	
retrograde	4313 Apr 18 09:40	13°♏16'29		evening set	4314 Apr 04 03:41	25°♎40'42	
evening set	4313 Apr 20 20:44	12°♏50'57		inferior conj	4314 Apr 10 13:39	20°♎33'17	3°22'41
inferior conj	4313 Apr 27 20:53	8°♏04'02	2°46'52	minimum elong	4314 Apr 10 15:36	20°♎28'18	3°22'26
minimum elong	4313 Apr 28 00:17	7°♏56'29	2°46'06	min. Earth dist.	4314 Apr 13 13:16	17°♎31'43	0.61952 AU
min. Earth dist.	4313 May 01 06:02	5°♏04'57	0.59772 AU	morning rise	4314 Apr 17 00:47	14°♎32'41	
morning rise	4313 May 05 00:02	2°♏20'34		direct	4314 Apr 23 20:39	12°♎05'49	
desc. node	4313 May 08 22:08	0°♏41'48		desc. node	4314 Apr 25 19:09	12°♎16'49	
direct	4313 May 11 11:05	0°♏23'49		morning max el	4314 May 08 00:08	20°♎04'58	27°52'10
morning max el	4313 May 25 19:32	8°♏14'59	27°31'28		4314 May 16 11:57	0°♏	
	4313 Jun 11 08:20	0°♐			4314 Jun 04 06:57	0°♐	
morning set	4313 Jun 26 08:03	27°♐40'49		morning set	4314 Jun 10 10:39	12°♐00'51	
	4313 Jun 27 10:36	0°♑		asc. node	4314 Jun 15 22:17	23°♐32'56	
asc. node	4313 Jun 29 01:15	3°♑25'45		max. Earth dist.	4314 Jun 16 04:29	24°♐06'28	1.32333 AU
max. Earth dist.	4313 Jul 02 19:41	11°♑38'25	1.32008 AU				
superior conj	4313 Jul 03 12:43	13°♑12'14	0°45'28	superior conj	4314 Jun 17 22:36	27°♐55'12	0°20'58
minimum elong	4313 Jul 03 10:53	13°♑02'05	0°45'05	minimum elong	4314 Jun 17 21:38	27°♐49'58	0°20'45
evening rise	4313 Jul 10 09:11	28°♑09'15			4314 Jun 18 21:26	0°♑	
	4313 Jul 11 06:09	0°♒		evening rise	4314 Jun 24 20:42	12°♑57'56	
	4313 Jul 28 01:01	0°♓			4314 Jul 03 10:38	0°♒	
desc. node	4313 Aug 04 21:25	9°♓55'32		evening max el	4314 Jul 19 22:15	23°♒06'38	24°24'19
evening max el	4313 Aug 07 07:55	12°♓24'10	25°51'20	desc. node	4314 Jul 22 18:26	25°♒36'07	
retrograde	4313 Aug 21 07:05	19°♓31'27			4314 Aug 01 03:23	0°♓	
evening set	4313 Aug 27 12:54	17°♓58'47		retrograde	4314 Aug 02 18:53	0°♓06'15	
min. Earth dist.	4313 Aug 31 20:10	15°♓23'17	0.58554 AU		4314 Aug 04 10:32	30°♓♒	
inferior conj	4313 Sep 04 01:27	13°♓03'22	-5°-4'-24	evening set	4314 Aug 07 17:38	29°♒11'33	
minimum elong	4313 Sep 04 04:51	12°♓57'10	5°04'06	min. Earth dist.	4314 Aug 13 09:10	26°♒19'19	0.56673 AU
morning rise	4313 Sep 12 00:19	8°♓39'40		inferior conj	4314 Aug 16 01:00	24°♒38'20	-5°-10'-12
direct	4313 Sep 14 10:29	8°♓20'37		minimum elong	4314 Aug 15 22:55	24°♒41'39	5°10'07
morning max el	4313 Sep 22 16:16	12°♓17'01	18°38'20	morning rise	4314 Aug 24 07:44	20°♒36'03	
asc. node	4313 Sep 25 00:28	14°♓48'34		direct	4314 Aug 26 23:41	20°♒16'56	
	4313 Oct 04 14:34	0°♔		morning max el	4314 Sep 05 13:18	24°♒44'51	19°34'04
morning set	4313 Oct 08 21:07	8°♔09'29			4314 Sep 10 03:05	0°♓	
				asc. node	4314 Sep 11 21:30	2°♓31'01	
superior conj	4313 Oct 17 15:47	25°♔03'14	1°28'28	morning set	4314 Sep 22 23:07	22°♓35'57	
minimum elong	4313 Oct 17 18:59	25°♔18'12	1°28'10		4314 Sep 26 15:07	0°♔	
	4313 Oct 20 07:48	0°♕					
max. Earth dist.	4313 Oct 24 22:13	8°♕14'44	1.39773 AU	superior conj	4314 Sep 30 23:15	8°♔40'03	1°40'29
evening rise	4313 Oct 29 01:39	15°♕21'31		minimum elong	4314 Oct 01 00:50	8°♔47'51	1°40'26

max. Earth dist.	4314 Oct 07 02:32	20°♄24'26	1.37683 AU		4315 Sep 03 15:37	0°♍	
evening rise	4314 Oct 10 21:43	27°♄17'40		morning set	4315 Sep 07 06:23	7°♍17'28	
	4314 Oct 12 10:39	0°♍					
desc. node	4314 Oct 18 17:44	10°♍35'05		superior conj	4315 Sep 14 18:07	22°♍50'19	1°44'05
	4314 Oct 31 14:44	0°♎		minimum elong	4315 Sep 14 18:07	22°♍50'18	1°44'06
evening max el	4314 Nov 15 13:26	18°♎11'35	25°15'41		4315 Sep 18 07:09	0°♏	
retrograde	4314 Nov 27 13:23	25°♎07'20		max. Earth dist.	4315 Sep 19 10:49	2°♏16'36	1.35781 AU
evening set	4314 Dec 03 07:50	22°♎43'55		evening rise	4315 Sep 23 13:27	10°♏08'39	
min. Earth dist.	4314 Dec 07 19:36	17°♎45'01	0.67326 AU		4315 Oct 05 00:25	0°♐	
inferior conj	4314 Dec 08 22:27	16°♎17'46	0°01'28	desc. node	4315 Oct 05 14:46	0°♐57'21	
minimum elong	4314 Dec 08 22:24	16°♎17'53	0°01'27		4315 Oct 27 04:44	0°♑	
transit middle	4314 Dec 08 22:24	16°♎17'53	0°01'27	evening max el	4315 Oct 29 02:01	1°♑53'52	26°20'27
transit begin	4314 Dec 08 19:38	16°♎26'55		retrograde	4315 Nov 10 20:33	9°♑05'21	
transit end	4314 Dec 09 01:11	16°♎08'52		evening set	4315 Nov 17 04:32	6°♑30'46	
asc. node	4314 Dec 08 20:44	16°♎23'21		min. Earth dist.	4315 Nov 21 09:12	2°♑07'33	0.66447 AU
morning rise	4314 Dec 14 13:41	10°♎18'39		inferior conj	4315 Nov 22 23:18	0°♑11'16	0°-56'-46
direct	4314 Dec 17 23:26	9°♎11'45		minimum elong	4315 Nov 23 00:50	0°♑06'33	0°56'07
morning max el	4314 Dec 25 04:20	13°♎14'17	19°28'36		4315 Nov 23 02:59	30°♒♍	
greatest brilliancy	4315 Jan 02 19:03	24°♎04'38	-0.7m	asc. node	4315 Nov 25 17:47	26°♒59'09	
	4315 Jan 06 20:22	0°♓		morning rise	4315 Nov 28 22:23	24°♒22'06	
desc. node	4315 Jan 14 16:58	11°♓55'44		direct	4315 Dec 01 21:50	23°♒31'50	
morning set	4315 Jan 18 16:42	18°♓04'44		morning max el	4315 Dec 08 14:34	27°♒12'16	18°39'17
	4315 Jan 26 08:45	0°♈			4315 Dec 11 02:45	0°♈	
max. Earth dist.	4315 Jan 31 13:33	8°♈10'36	1.44606 AU	morning set	4315 Dec 29 10:18	27°♈27'56	
					4315 Dec 31 00:45	0°♉	
superior conj	4315 Feb 04 11:04	14°♈22'29	-1°-54'-35	desc. node	4316 Jan 01 13:59	2°♉27'03	
minimum elong	4315 Feb 04 03:53	13°♈53'47	1°54'08				
	4315 Feb 14 01:38	0°♊		superior conj	4316 Jan 14 16:00	23°♉01'11	-1°-22'-7
evening rise	4315 Feb 18 13:29	7°♊28'50		minimum elong	4316 Jan 14 06:53	22°♉25'26	1°21'08
	4315 Mar 04 10:55	0°♋		max. Earth dist.	4316 Jan 14 07:14	22°♉26'46	1.45242 AU
asc. node	4315 Mar 06 20:02	3°♋13'59			4316 Jan 19 02:38	0°♌	
evening max el	4315 Mar 09 11:23	6°♋15'23	18°20'20	evening rise	4316 Jan 30 08:39	17°♌50'24	
retrograde	4315 Mar 15 22:09	9°♋43'58			4316 Feb 06 23:14	0°♍	
evening set	4315 Mar 18 21:03	8°♋56'41		evening max el	4316 Feb 20 22:11	19°♍43'52	18°51'35
inferior conj	4315 Mar 24 20:38	3°♋30'05	3°35'25	asc. node	4316 Feb 21 17:05	20°♍30'00	
minimum elong	4315 Mar 24 20:52	3°♋29'25	3°35'24	retrograde	4316 Feb 27 16:05	23°♍30'26	
min. Earth dist.	4315 Mar 27 05:47	0°♋47'45	0.63938 AU	evening set	4316 Mar 01 21:28	22°♍30'37	
	4315 Mar 27 23:23	30°♌♋		inferior conj	4316 Mar 07 13:55	16°♌46'30	3°30'46
morning rise	4315 Mar 30 18:54	27°♌20'20		minimum elong	4316 Mar 07 12:45	16°♌50'07	3°30'40
direct	4315 Apr 06 14:53	24°♌35'12		min. Earth dist.	4316 Mar 09 07:24	14°♌37'50	0.65572 AU
desc. node	4315 Apr 12 16:10	26°♌23'11		morning rise	4316 Mar 13 02:57	10°♌32'21	
	4315 Apr 17 15:46	0°♎		direct	4316 Mar 19 15:58	7°♌43'08	
morning max el	4315 Apr 20 08:43	2°♎32'48	27°35'45	desc. node	4316 Mar 29 13:12	12°♌26'49	
	4315 May 10 19:26	0°♏		morning max el	4316 Apr 01 18:34	15°♌27'09	26°47'27
morning set	4315 May 25 05:52	25°♏55'54			4316 Apr 13 17:23	0°♐	
	4315 May 27 06:36	0°♑			4316 May 02 14:11	0°♑	
max. Earth dist.	4315 May 30 06:29	6°♑10'27	1.33102 AU	morning set	4316 May 07 14:30	9°♑16'09	
				max. Earth dist.	4316 May 11 22:25	17°♑43'49	1.34330 AU
superior conj	4315 Jun 02 04:56	12°♑23'25	0°-6'-15				
minimum elong	4315 Jun 02 05:15	12°♑25'05	0°06'12	superior conj	4316 May 16 05:33	26°♑30'15	0°-35'-11
behind sun begin	4315 Jun 02 00:15	11°♑58'26		minimum elong	4316 May 16 07:25	26°♑39'58	0°34'49
behind sun end	4315 Jun 02 10:14	12°♑51'46			4316 May 17 21:44	0°♒	
asc. node	4315 Jun 02 19:19	13°♑40'29		asc. node	4316 May 19 16:23	3°♒44'23	
evening rise	4315 Jun 09 08:21	27°♑42'59		evening rise	4316 May 23 18:12	12°♒18'19	
	4315 Jun 10 10:25	0°♓			4316 Jun 01 22:20	0°♓	
	4315 Jun 28 05:40	0°♑		evening max el	4316 Jun 12 07:46	14°♓06'57	21°15'17
evening max el	4315 Jul 01 11:34	3°♑29'54	22°47'13	retrograde	4316 Jun 24 07:24	20°♓00'31	
desc. node	4315 Jul 09 15:27	9°♑06'37		desc. node	4316 Jun 25 12:27	19°♓57'04	
retrograde	4315 Jul 14 17:57	10°♑06'17		evening set	4316 Jun 26 15:15	19°♓48'00	
evening set	4315 Jul 18 04:08	9°♑40'37		inferior conj	4316 Jul 05 23:34	15°♓49'44	-2°-59'-38
min. Earth dist.	4315 Jul 25 19:55	6°♑17'10	0.55330 AU	minimum elong	4316 Jul 05 15:42	16°♓00'46	2°57'08
inferior conj	4315 Jul 27 05:41	5°♑28'45	-4°-29'-41	min. Earth dist.	4316 Jul 06 06:47	15°♓39'37	0.54819 AU
minimum elong	4315 Jul 26 22:03	5°♑39'43	4°28'10	morning rise	4316 Jul 14 16:22	11°♓53'40	
morning rise	4315 Aug 04 18:31	1°♑38'06		direct	4316 Jul 18 04:30	11°♓27'08	
direct	4315 Aug 07 18:47	1°♑16'59		morning max el	4316 Jul 30 20:28	17°♓27'43	22°26'05
morning max el	4315 Aug 18 22:29	6°♑28'12	20°51'11		4316 Aug 09 20:17	0°♒	
asc. node	4315 Aug 29 18:33	20°♑59'04		asc. node	4316 Aug 15 15:37	10°♒01'54	

morning set	4316 Aug 21 16:49	22°♂08'26			4317 Jul 14 12:41	0°♂	
	4316 Aug 25 09:40	0°♂		asc. node	4317 Aug 02 12:40	29°♂29'50	
					4317 Aug 02 18:41	0°♂	
superior conj	4316 Aug 28 20:55	7°♂23'59	1°40'39	morning set	4317 Aug 06 04:32	7°♂02'27	
minimum elong	4316 Aug 28 19:40	7°♂17'24	1°40'35				
max. Earth dist.	4316 Sep 01 03:30	14°♂15'27	1.34220 AU	superior conj	4317 Aug 13 04:47	22°♂11'28	1°31'17
evening rise	4316 Sep 05 20:30	23°♂43'12		minimum elong	4317 Aug 13 02:46	22°♂00'28	1°31'04
	4316 Sep 09 03:31	0°♂		max. Earth dist.	4317 Aug 15 04:53	26°♂30'57	1.33065 AU
desc. node	4316 Sep 21 11:48	21°♂00'31			4317 Aug 16 20:08	0°♂	
	4316 Sep 27 14:58	0°♂		evening rise	4317 Aug 20 14:46	7°♂49'09	
evening max el	4316 Oct 10 14:47	15°♂28'12	27°06'18		4317 Sep 01 14:58	0°♂	
retrograde	4316 Oct 23 21:59	22°♂45'25		desc. node	4317 Sep 08 08:50	10°♂35'22	
evening set	4316 Oct 30 17:42	20°♂05'23		evening max el	4317 Sep 23 02:03	28°♂41'10	27°26'24
min. Earth dist.	4316 Nov 03 15:46	16°♂18'18	0.65224 AU		4317 Sep 24 12:32	0°♂	
inferior conj	4316 Nov 05 17:48	13°♂57'40	-1°-58'-1	retrograde	4317 Oct 06 17:11	5°♂58'09	
minimum elong	4316 Nov 05 21:08	13°♂48'16	1°56'41	evening set	4317 Oct 13 20:31	3°♂21'31	
asc. node	4316 Nov 11 14:48	8°♂36'23		min. Earth dist.	4317 Oct 17 13:07	0°♂08'09	0.63653 AU
morning rise	4316 Nov 12 02:25	8°♂21'37			4317 Oct 17 16:25	30°♂	
direct	4316 Nov 14 17:51	7°♂44'06		inferior conj	4317 Oct 20 03:20	27°♂30'12	-2°-59'-56
morning max el	4316 Nov 21 05:28	11°♂12'24	18°06'36	minimum elong	4317 Oct 20 08:24	27°♂17'20	2°58'10
	4316 Dec 04 07:54	0°♂		morning rise	4317 Oct 26 22:46	22°♂10'42	
morning set	4316 Dec 09 09:28	8°♂20'24		direct	4317 Oct 29 08:39	21°♂42'19	
desc. node	4316 Dec 18 11:03	23°♂07'38		asc. node	4317 Oct 29 11:51	21°♂42'24	
	4316 Dec 22 18:10	0°♂		morning max el	4317 Nov 04 22:11	25°♂07'21	17°51'12
					4317 Nov 08 23:07	0°♂	
superior conj	4316 Dec 23 21:29	1°♂48'24	0°-36'-47	morning set	4317 Nov 21 11:02	20°♂29'12	
minimum elong	4316 Dec 23 16:53	1°♂30'10	0°36'10		4317 Nov 26 23:57	0°♂	
max. Earth dist.	4316 Dec 27 03:00	6°♂54'23	1.45134 AU				
evening rise	4317 Jan 09 06:35	27°♂24'05		superior conj	4317 Dec 03 22:17	11°♂34'58	0°09'49
	4317 Jan 10 22:52	0°♂		minimum elong	4317 Dec 03 23:20	11°♂39'18	0°09'39
greatest brilliancy	4317 Jan 26 12:11	23°♂31'55	-0.6m	behind sun begin	4317 Dec 03 15:28	11°♂07'01	
	4317 Jan 31 08:07	0°♂		behind sun end	4317 Dec 04 07:11	12°♂11'31	
evening max el	4317 Feb 03 05:00	3°♂15'34	19°39'22	desc. node	4317 Dec 05 08:06	13°♂53'20	
asc. node	4317 Feb 07 14:07	6°♂43'19		max. Earth dist.	4317 Dec 09 21:09	21°♂12'54	1.44296 AU
retrograde	4317 Feb 10 13:24	7°♂30'23			4317 Dec 15 10:49	0°♂	
evening set	4317 Feb 14 02:19	6°♂17'02		evening rise	4317 Dec 19 16:47	6°♂34'55	
inferior conj	4317 Feb 19 14:22	0°♂17'32	3°12'54		4318 Jan 04 07:41	0°♂	
minimum elong	4317 Feb 19 12:18	0°♂24'21	3°12'33	greatest brilliancy	4318 Jan 11 13:59	10°♂04'26	-0.5m
	4317 Feb 19 19:40	30°♂		evening max el	4318 Jan 17 06:29	16°♂48'26	20°41'31
min. Earth dist.	4317 Feb 20 17:00	28°♂49'35	0.66788 AU	retrograde	4318 Jan 25 11:39	21°♂39'20	
morning rise	4317 Feb 24 21:35	24°♂01'41		asc. node	4318 Jan 25 11:07	21°♂39'20	
direct	4317 Mar 02 22:55	21°♂20'39		evening set	4318 Jan 29 09:33	20°♂11'30	
morning max el	4317 Mar 15 03:57	28°♂37'27	25°35'33	inferior conj	4318 Feb 03 19:22	13°♂59'25	2°44'38
desc. node	4317 Mar 16 10:14	29°♂56'06		minimum elong	4318 Feb 03 16:55	14°♂07'49	2°44'00
	4317 Mar 16 11:42	0°♂		min. Earth dist.	4318 Feb 04 08:40	13°♂13'49	0.67580 AU
	4317 Apr 07 12:03	0°♂		morning rise	4318 Feb 08 23:50	7°♂43'45	
morning set	4317 Apr 20 08:13	21°♂49'03		direct	4318 Feb 14 11:02	5°♂19'26	
max. Earth dist.	4317 Apr 24 03:13	28°♂51'56	1.36011 AU	morning max el	4318 Feb 25 12:38	11°♂55'50	24°10'02
	4317 Apr 24 17:31	0°♂		desc. node	4318 Mar 03 07:18	18°♂26'45	
					4318 Mar 12 00:10	0°♂	
superior conj	4317 Apr 29 21:45	10°♂07'42	-1°-4'-25		4318 Mar 31 06:53	0°♂	
minimum elong	4317 Apr 30 01:13	10°♂25'07	1°03'50	morning set	4318 Apr 02 05:30	3°♂19'55	
asc. node	4317 May 06 13:26	23°♂40'01		max. Earth dist.	4318 Apr 05 23:53	9°♂58'05	1.38047 AU
evening rise	4317 May 08 00:07	26°♂36'54					
	4317 May 09 16:20	0°♂		superior conj	4318 Apr 13 02:07	23°♂07'05	-1°-31'-47
evening max el	4317 May 25 15:39	25°♂19'31	19°58'40	minimum elong	4318 Apr 13 06:46	23°♂29'21	1°31'11
	4317 Jun 02 05:03	0°♂			4318 Apr 16 15:25	0°♂	
retrograde	4317 Jun 04 22:33	0°♂20'40		evening rise	4318 Apr 21 23:34	10°♂31'46	
evening set	4317 Jun 06 21:16	0°♂10'40		asc. node	4318 Apr 23 10:28	13°♂23'03	
	4317 Jun 07 18:10	30°♂			4318 May 02 17:36	0°♂	
desc. node	4317 Jun 12 09:29	28°♂09'58		evening max el	4318 May 08 11:22	7°♂13'52	19°01'38
inferior conj	4317 Jun 15 20:38	26°♂10'25	-1°-1'-46	retrograde	4318 May 17 03:19	11°♂27'45	
minimum elong	4317 Jun 15 17:46	26°♂14'45	1°00'43	evening set	4318 May 19 04:23	11°♂14'33	
min. Earth dist.	4317 Jun 17 19:16	25°♂00'03	0.55269 AU	inferior conj	4318 May 27 09:46	7°♂00'06	0°49'37
morning rise	4317 Jun 24 11:38	21°♂49'09		minimum elong	4318 May 27 11:42	6°♂56'44	0°48'57
direct	4317 Jun 28 17:24	21°♂09'53		desc. node	4318 May 30 06:29	5°♂01'01	
morning max el	4317 Jul 12 11:30	27°♂56'41	24°09'32	min. Earth dist.	4318 May 30 10:50	4°♂53'45	0.56596 AU

morning rise	4318 Jun 04 14:36	2°II02'57		morning rise	4319 May 16 09:10	13°800'52	
direct	4318 Jun 09 19:04	0°II59'25		desc. node	4319 May 17 03:31	12°838'15	
morning max el	4318 Jun 24 01:57	8°II21'28	25°46'51	direct	4319 May 22 11:12	11°823'44	
	4318 Jul 10 05:33	0°8		morning max el	4319 Jun 05 20:37	19°807'38	27°02'25
asc. node	4318 Jul 20 09:44	19°815'57			4319 Jun 15 01:19	0°II	
morning set	4318 Jul 21 15:57	21°854'25			4319 Jul 02 19:38	0°8	
	4318 Jul 25 10:02	0°8		morning set	4319 Jul 06 01:24	6°838'46	
				asc. node	4319 Jul 07 06:46	9°814'03	
superior conj	4318 Jul 28 15:34	7°805'55	1°16'51	superior conj	4319 Jul 13 03:23	22°800'45	0°58'02
minimum elong	4318 Jul 28 13:15	6°853'08	1°16'30	minimum elong	4319 Jul 13 01:14	21°848'52	0°57'39
max. Earth dist.	4318 Jul 29 12:47	9°802'23	1.32331 AU	max. Earth dist.	4319 Jul 12 23:59	21°841'58	1.32007 AU
evening rise	4318 Aug 04 16:59	22°817'13			4319 Jul 16 18:31	0°8	
	4318 Aug 08 12:35	0°8		evening rise	4319 Jul 20 00:31	6°859'13	
desc. node	4318 Aug 26 05:50	29°830'23			4319 Aug 01 01:32	0°8	
	4318 Aug 26 14:34	0°8		desc. node	4319 Aug 13 02:49	17°829'27	
evening max el	4318 Sep 05 09:36	11°820'16	27°15'21	evening max el	4319 Aug 18 11:10	23°815'29	26°31'00
retrograde	4318 Sep 19 05:43	18°834'14			4319 Aug 29 05:09	0°8	
evening set	4318 Sep 26 09:18	16°812'54		retrograde	4319 Sep 01 10:10	0°825'20	
min. Earth dist.	4318 Sep 30 00:02	13°825'44	0.61781 AU		4319 Sep 04 14:04	30°8	
inferior conj	4318 Oct 03 00:53	10°841'37	-3°-58'-20	evening set	4319 Sep 08 03:27	28°832'19	
minimum elong	4318 Oct 03 06:55	10°827'59	3°56'43	min. Earth dist.	4319 Sep 12 00:47	25°857'28	0.59729 AU
morning rise	4318 Oct 10 07:38	5°841'54		inferior conj	4319 Sep 15 07:02	23°823'26	-4°-46'-6
direct	4318 Oct 12 14:49	5°819'20		minimum elong	4319 Sep 15 12:14	23°813'09	4°45'15
asc. node	4318 Oct 16 08:54	6°821'37		morning rise	4319 Sep 23 00:26	18°846'01	
morning max el	4318 Oct 19 13:37	8°849'37	17°53'57	direct	4319 Sep 25 08:23	18°826'24	
	4318 Nov 02 09:13	0°8		morning max el	4319 Oct 03 00:28	22°810'48	18°16'09
morning set	4318 Nov 04 08:37	3°834'47		asc. node	4319 Oct 03 05:57	22°824'14	
					4319 Oct 09 02:54	0°8	
superior conj	4318 Nov 15 01:37	22°839'11	0°48'52	morning set	4319 Oct 18 20:33	17°821'26	
minimum elong	4318 Nov 15 05:27	22°855'44	0°48'20		4319 Oct 25 13:20	0°8	
	4318 Nov 19 09:23	0°8		superior conj	4319 Oct 28 05:24	4°854'44	1°17'06
desc. node	4318 Nov 22 05:07	4°840'37		minimum elong	4319 Oct 28 09:16	5°812'21	1°16'41
max. Earth dist.	4318 Nov 22 10:51	5°804'08	1.42843 AU	max. Earth dist.	4319 Nov 04 19:31	18°817'19	1.40960 AU
evening rise	4318 Nov 29 06:56	16°801'33		desc. node	4319 Nov 09 02:08	25°826'27	
	4318 Dec 08 10:02	0°8		evening rise	4319 Nov 09 14:58	26°819'01	
greatest brilliancy	4318 Dec 26 08:30	24°859'29	-0.3m		4319 Nov 11 21:34	0°8	
	4318 Dec 30 17:48	0°8			4319 Dec 02 03:58	0°8	
evening max el	4318 Dec 31 02:27	0°822'14	21°54'39	evening max el	4319 Dec 13 18:08	13°859'20	23°13'49
retrograde	4319 Jan 09 08:46	5°852'53		retrograde	4319 Dec 24 03:15	20°808'07	
asc. node	4319 Jan 12 08:08	5°805'27		evening set	4319 Dec 29 00:10	18°808'46	
evening set	4319 Jan 13 17:21	4°809'36		asc. node	4319 Dec 30 05:10	17°801'16	
	4319 Jan 17 12:16	30°8		inferior conj	4320 Jan 03 10:36	11°842'22	1°23'32
inferior conj	4319 Jan 19 02:43	27°848'25	2°07'45	minimum elong	4320 Jan 03 08:49	11°848'30	1°22'51
minimum elong	4319 Jan 19 00:23	27°856'34	2°06'58	min. Earth dist.	4320 Jan 03 00:52	12°815'50	0.68005 AU
min. Earth dist.	4319 Jan 19 04:05	27°843'43	0.67977 AU	morning rise	4320 Jan 08 17:30	5°832'37	
morning rise	4319 Jan 24 07:11	21°834'42		direct	4320 Jan 12 23:28	3°852'31	
direct	4319 Jan 29 03:32	19°831'47		morning max el	4320 Jan 21 13:42	8°851'55	21°16'55
morning max el	4319 Feb 07 22:39	25°819'24	22°40'54	greatest brilliancy	4320 Jan 26 17:31	14°845'05	-0.4m
	4319 Feb 12 04:01	0°8		desc. node	4320 Feb 05 01:21	27°826'11	
greatest brilliancy	4319 Feb 12 13:08	0°827'21	-0.3m		4320 Feb 06 19:53	0°8	
desc. node	4319 Feb 18 04:19	7°840'44		morning set	4320 Feb 21 14:26	22°825'11	
	4319 Mar 05 12:21	0°8			4320 Feb 26 08:24	0°8	
morning set	4319 Mar 14 00:14	13°832'33		max. Earth dist.	4320 Feb 28 20:46	4°805'51	1.42290 AU
max. Earth dist.	4319 Mar 18 19:24	21°834'44	1.40234 AU				
	4319 Mar 23 15:34	0°8		superior conj	4320 Mar 07 05:18	16°826'58	-2°-6'-49
superior conj	4319 Mar 26 14:17	5°817'11	-1°-54'-5	minimum elong	4320 Mar 07 07:08	16°834'52	2°06'47
minimum elong	4319 Mar 26 18:48	5°837'41	1°53'44		4320 Mar 14 22:11	0°8	
evening rise	4319 Apr 05 13:22	23°853'54		evening rise	4320 Mar 18 13:42	6°834'57	
	4319 Apr 08 19:08	0°8		asc. node	4320 Mar 27 04:28	21°847'53	
asc. node	4319 Apr 10 07:28	2°847'40			4320 Apr 01 17:25	0°8	
evening max el	4319 Apr 21 16:09	19°843'50	18°24'54	evening max el	4320 Apr 04 02:34	2°840'31	18°08'02
retrograde	4319 Apr 29 02:38	23°824'47		retrograde	4320 Apr 10 19:27	6°805'03	
evening set	4319 May 01 10:02	23°804'30		evening set	4320 Apr 13 09:11	5°835'13	
inferior conj	4319 May 08 20:09	18°830'11	2°13'14	inferior conj	4320 Apr 20 02:51	0°839'36	3°05'15
minimum elong	4319 May 08 23:47	18°822'48	2°12'14	minimum elong	4320 Apr 20 05:44	0°832'47	3°04'43
min. Earth dist.	4319 May 12 06:43	15°843'24	0.58531 AU				

	4320 Apr 20 19:32	30° Υ		inferior conj	4321 Apr 03 02:10	13° Υ 21'31	3°30'31
min. Earth dist.	4320 Apr 23 08:57	27° Υ 36'29	0.60719 AU	minimum elong	4321 Apr 03 03:23	13° Υ 18'15	3°30'25
morning rise	4320 Apr 26 22:56	24° Υ 47'59		min. Earth dist.	4321 Apr 05 19:51	10° Υ 26'14	0.62833 AU
desc. node	4320 May 03 00:32	22° Υ 38'11		morning rise	4321 Apr 09 07:26	7° Υ 16'29	
direct	4320 May 03 15:08	22° Υ 37'07		direct	4321 Apr 16 04:20	4° Υ 40'29	
	4320 May 17 08:22	0° X		desc. node	4321 Apr 19 21:34	5° Υ 21'09	
morning max el	4320 May 17 21:33	0° X 32'13	27°44'47	morning max el	4321 Apr 30 04:07	12° Υ 39'16	27°49'36
	4320 Jun 08 03:43	0° Π			4321 May 13 23:50	0° X	
morning set	4320 Jun 19 07:06	21° Π 09'32			4321 May 31 14:11	0° Π	
asc. node	4320 Jun 23 03:47	29° Π 19'09		morning set	4321 Jun 03 06:58	5° Π 20'29	
	4320 Jun 23 11:21	0° S		max. Earth dist.	4321 Jun 08 17:29	16° Π 39'03	1.32611 AU
max. Earth dist.	4320 Jun 25 10:49	4° S 18'09	1.32098 AU	asc. node	4321 Jun 10 00:49	19° Π 27'12	
superior conj	4320 Jun 26 14:29	6° S 49'55	0°35'27	superior conj	4321 Jun 10 23:09	21° Π 27'54	0°09'44
minimum elong	4320 Jun 26 12:58	6° S 41'34	0°35'08	minimum elong	4321 Jun 10 22:41	21° Π 25'23	0°09'38
evening rise	4320 Jul 03 11:11	21° S 47'44		behind sun begin	4321 Jun 10 18:29	21° Π 02'39	
	4320 Jul 07 10:19	0° Q		behind sun end	4321 Jun 11 02:53	21° Π 48'07	
	4320 Jul 26 02:49	0° P			4321 Jun 14 21:21	0° S	
desc. node	4320 Jul 29 23:50	4° P 09'21		evening rise	4321 Jun 17 23:04	6° S 36'30	
evening max el	4320 Jul 30 05:19	4° P 22'32	25°16'38		4321 Jun 30 06:58	0° Q	
retrograde	4320 Aug 13 04:16	11° P 26'53		evening max el	4321 Jul 11 18:23	14° Q 53'38	23°43'14
evening set	4320 Aug 18 22:12	10° P 10'55		desc. node	4321 Jul 16 20:51	18° Q 59'45	
min. Earth dist.	4320 Aug 23 17:04	7° P 30'17	0.57710 AU	retrograde	4321 Jul 25 10:19	21° Q 45'19	
inferior conj	4320 Aug 26 18:22	5° P 25'14	-5°-11'-40	evening set	4321 Jul 29 17:42	21° Q 04'33	
minimum elong	4320 Aug 26 19:44	5° P 22'52	5°11'38	min. Earth dist.	4321 Aug 05 04:25	18° Q 00'51	0.56025 AU
morning rise	4320 Sep 03 20:46	1° P 10'51		inferior conj	4321 Aug 07 09:29	16° Q 41'01	-4°-59'-21
direct	4320 Sep 06 09:08	0° P 51'54		minimum elong	4321 Aug 07 04:43	16° Q 48'13	4°58'49
morning max el	4320 Sep 15 03:20	5° P 00'28	18°59'20	morning rise	4321 Aug 15 19:01	12° Q 45'32	
asc. node	4320 Sep 19 03:01	9° P 34'32		direct	4321 Aug 18 14:29	12° Q 25'42	
	4320 Sep 30 22:50	0° A		morning max el	4321 Aug 28 19:28	17° Q 10'09	20°04'20
morning set	4320 Oct 01 18:24	1° A 36'11		asc. node	4321 Sep 06 00:04	27° Q 38'03	
					4321 Sep 07 10:34	0° P	
superior conj	4320 Oct 10 04:17	18° A 05'59	1°34'41	morning set	4321 Sep 15 23:00	16° P 10'22	
minimum elong	4320 Oct 10 06:49	18° A 18'10	1°34'31		4321 Sep 22 17:33	0° A	
	4320 Oct 16 13:46	0° M					
max. Earth dist.	4320 Oct 17 00:40	0° M 48'59	1.38878 AU	superior conj	4321 Sep 23 17:09	1° A 58'47	1°42'58
evening rise	4320 Oct 20 22:08	7° M 39'27		minimum elong	4321 Sep 23 18:02	2° A 03'13	1°42'56
desc. node	4320 Oct 25 23:09	16° M 06'34		max. Earth dist.	4321 Sep 29 06:24	12° A 49'54	1.36846 AU
	4320 Nov 03 20:38	0° J		evening rise	4321 Oct 03 03:08	20° A 00'10	
evening max el	4320 Nov 25 07:17	27° J 39'53	24°32'57		4321 Oct 08 20:03	0° M	
	4320 Nov 27 19:57	0° Z		desc. node	4321 Oct 12 20:10	6° M 36'49	
retrograde	4320 Dec 06 17:52	4° Z 20'33			4321 Oct 28 22:00	0° J	
evening set	4320 Dec 12 04:24	2° Z 05'24		evening max el	4321 Nov 07 19:41	11° J 22'25	25°44'58
	4320 Dec 14 06:46	30° R J		retrograde	4321 Nov 20 03:55	18° J 25'41	
asc. node	4320 Dec 16 02:13	27° J 47'04		evening set	4321 Nov 26 04:24	15° J 56'45	
min. Earth dist.	4320 Dec 16 20:38	26° J 46'35	0.67678 AU	min. Earth dist.	4321 Nov 30 13:03	11° J 13'12	0.67001 AU
inferior conj	4320 Dec 17 17:11	25° J 38'03	0°33'01	inferior conj	4321 Dec 01 20:40	9° J 32'59	0°-22'-46
minimum elong	4320 Dec 17 16:23	25° J 40'42	0°32'41	minimum elong	4321 Dec 01 21:16	9° J 31'06	0°22'31
morning rise	4320 Dec 23 04:47	19° J 34'28		asc. node	4321 Dec 02 23:17	8° J 09'37	
direct	4320 Dec 26 21:30	18° J 16'10		morning rise	4321 Dec 07 15:03	3° J 38'02	
morning max el	4321 Jan 03 12:23	22° J 35'47	20°04'04	direct	4321 Dec 10 20:12	2° J 38'40	
	4321 Jan 09 17:53	0° Z		morning max el	4321 Dec 17 18:57	6° J 30'06	19°05'40
greatest brilliancy	4321 Jan 10 10:34	0° Z 55'49	-0.6m		4322 Jan 03 16:14	0° Z	
desc. node	4321 Jan 21 22:23	17° Z 33'58		desc. node	4322 Jan 08 19:25	7° Z 57'56	
morning set	4321 Jan 30 11:10	0° \approx 34'48		morning set	4322 Jan 09 14:57	9° Z 13'58	
	4321 Jan 30 02:09	0° \approx			4322 Jan 22 21:58	0° \approx	
max. Earth dist.	4321 Feb 10 06:14	17° \approx 30'58	1.43931 AU	max. Earth dist.	4322 Jan 23 21:52	1° \approx 34'02	1.44963 AU
superior conj	4321 Feb 15 18:58	26° \approx 27'29	-2°-4'-32	superior conj	4322 Jan 26 08:35	5° \approx 25'39	-1°-42'-59
minimum elong	4321 Feb 15 15:12	26° \approx 12'03	2°04'26	minimum elong	4322 Jan 25 23:44	4° \approx 50'40	1°42'14
	4321 Feb 17 22:40	0° H		evening rise	4322 Feb 10 04:53	29° \approx 20'18	
evening rise	4321 Feb 28 20:12	18° H 25'59			4322 Feb 10 14:34	0° H	
	4321 Mar 07 14:04	0° Υ		asc. node	4322 Feb 28 22:33	28° H 01'27	
asc. node	4321 Mar 14 01:30	10° Υ 15'56		evening max el	4322 Mar 02 03:23	29° H 19'05	18°31'30
evening max el	4321 Mar 18 15:16	15° Υ 54'52	18°10'29		4322 Mar 02 20:14	0° Υ	
retrograde	4321 Mar 25 01:31	19° Υ 18'15		retrograde	4322 Mar 08 16:18	2° Υ 54'16	
evening set	4321 Mar 27 21:06	18° Υ 37'30		evening set	4322 Mar 11 17:49	2° Υ 01'44	

	4322 Mar 14 08:44	30° RH		evening max el	4323 Feb 13 12:37	12° $\text{H}48'44$	19°10'02
inferior conj	4322 Mar 17 13:58	26° $\text{H}27'11$	3°35'18	asc. node	4323 Feb 15 19:36	14° $\text{H}52'25$	
minimum elong	4322 Mar 17 13:33	26° $\text{H}28'25$	3°35'17	retrograde	4323 Feb 20 12:04	16° $\text{H}46'40$	
min. Earth dist.	4322 Mar 19 16:20	23° $\text{H}58'01$	0.64671 AU	evening set	4323 Feb 23 20:23	15° $\text{H}41'23$	
morning rise	4322 Mar 23 07:51	20° $\text{H}14'57$		inferior conj	4323 Mar 01 10:40	9° $\text{H}50'25$	3°24'37
direct	4322 Mar 30 01:24	17° $\text{H}26'43$		minimum elong	4323 Mar 01 09:03	9° $\text{H}55'35$	3°24'26
desc. node	4322 Apr 06 18:37	20° $\text{H}21'12$		min. Earth dist.	4323 Mar 02 21:43	7° $\text{H}58'20$	0.66132 AU
morning max el	4322 Apr 12 13:48	25° $\text{H}20'22$	27°18'52	morning rise	4323 Mar 06 20:47	3° $\text{H}35'00$	
	4322 Apr 16 20:08	0° Y		direct	4323 Mar 13 05:11	0° $\text{H}47'48$	
	4322 May 07 11:33	0° B		desc. node	4323 Mar 24 15:39	7° $\text{H}04'25$	
morning set	4322 May 17 22:09	19° $\text{B}02'02$		morning max el	4323 Mar 25 23:43	8° $\text{H}23'02$	26°19'15
max. Earth dist.	4322 May 22 15:49	28° $\text{B}31'36$	1.33567 AU		4323 Apr 11 21:18	0° Y	
	4322 May 23 08:57	0° II			4323 Apr 29 22:25	0° B	
				morning set	4323 May 01 01:03	2° $\text{B}03'45$	
superior conj	4322 May 26 03:20	5° $\text{II}47'31$	0°-18'-21	max. Earth dist.	4323 May 05 02:45	9° $\text{B}51'20$	1.34986 AU
minimum elong	4322 May 26 04:16	5° $\text{II}52'32$	0°18'11				
asc. node	4322 May 27 21:51	9° $\text{II}33'24$		superior conj	4323 May 10 00:41	19° $\text{B}42'20$	0°-47'-39
evening rise	4322 Jun 02 10:12	21° $\text{II}18'05$		minimum elong	4323 May 10 03:15	19° $\text{B}55'29$	0°47'11
	4322 Jun 06 16:13	0° S		asc. node	4323 May 14 18:53	29° $\text{B}33'55$	
evening max el	4322 Jun 23 09:31	25° $\text{S}18'05$	22°06'40		4323 May 14 23:53	0° II	
	4322 Jun 29 16:46	0° Q		evening rise	4323 May 17 18:37	5° $\text{II}46'31$	
desc. node	4322 Jul 03 17:52	1° $\text{Q}25'05$			4323 May 31 06:16	0° S	
retrograde	4322 Jul 06 04:52	1° $\text{Q}39'06$		evening max el	4323 Jun 05 10:22	6° $\text{S}08'15$	20°40'31
evening set	4322 Jul 09 01:50	1° $\text{Q}20'43$		retrograde	4323 Jun 16 17:36	11° $\text{S}39'57$	
	4322 Jul 13 02:32	30° RS		evening set	4323 Jun 18 19:17	11° $\text{S}29'34$	
min. Earth dist.	4322 Jul 17 14:49	27° $\text{S}39'59$	0.55001 AU	desc. node	4323 Jun 20 14:53	11° $\text{S}04'24$	
inferior conj	4322 Jul 18 08:07	27° $\text{S}15'39$	-3°-56'-51	inferior conj	4323 Jun 28 01:32	7° $\text{S}32'31$	-2°-11'-3
minimum elong	4322 Jul 17 23:33	27° $\text{S}27'43$	3°54'39	minimum elong	4323 Jun 27 19:26	7° $\text{S}41'15$	2°08'55
morning rise	4322 Jul 26 23:07	23° $\text{S}25'27$		min. Earth dist.	4323 Jun 29 02:36	6° $\text{S}56'34$	0.54891 AU
direct	4322 Jul 30 03:41	23° $\text{S}02'49$		morning rise	4323 Jul 06 18:27	3° $\text{S}27'22$	
morning max el	4322 Aug 10 23:45	28° $\text{S}34'25$	21°29'47	direct	4323 Jul 10 13:05	2° $\text{S}56'39$	
	4322 Aug 12 10:38	0° Q		morning max el	4323 Jul 23 18:09	9° $\text{S}18'36$	23°09'42
asc. node	4322 Aug 23 21:07	16° $\text{Q}21'43$			4323 Aug 07 18:13	0° Q	
	4322 Aug 30 20:57	0° P		asc. node	4323 Aug 10 18:09	5° $\text{Q}35'44$	
morning set	4322 Aug 31 07:50	0° $\text{P}56'24$		morning set	4323 Aug 15 18:59	15° $\text{Q}48'47$	
					4323 Aug 22 09:45	0° P	
superior conj	4322 Sep 07 15:49	16° $\text{P}20'14$	1°43'26	superior conj	4323 Aug 22 21:03	1° $\text{P}00'33$	1°37'21
minimum elong	4322 Sep 07 15:14	16° $\text{P}17'13$	1°43'24	minimum elong	4323 Aug 22 19:25	0° $\text{P}51'48$	1°37'13
max. Earth dist.	4322 Sep 11 17:46	24° $\text{P}41'33$	1.35069 AU	max. Earth dist.	4323 Aug 25 13:57	6° $\text{P}45'10$	1.33678 AU
	4322 Sep 14 10:14	0° A		evening rise	4323 Aug 30 14:09	16° $\text{P}59'45$	
evening rise	4322 Sep 16 01:54	3° $\text{A}10'43$			4323 Sep 06 11:28	0° A	
desc. node	4322 Sep 29 17:13	26° $\text{A}51'36$		desc. node	4323 Sep 16 14:14	16° $\text{A}43'36$	
	4322 Oct 01 17:47	0° M			4323 Sep 26 04:33	0° M	
evening max el	4322 Oct 21 08:12	25° $\text{M}01'35$	26°42'35	evening max el	4323 Oct 03 20:30	8° $\text{M}28'06$	27°18'23
	4322 Oct 27 12:46	0° J		retrograde	4323 Oct 17 07:59	15° $\text{M}46'29$	
retrograde	4322 Nov 03 08:51	2° $\text{J}17'13$		evening set	4323 Oct 24 07:25	13° $\text{M}06'42$	
	4322 Nov 09 11:36	30° RM		min. Earth dist.	4323 Oct 28 02:54	9° $\text{M}34'18$	0.64590 AU
evening set	4322 Nov 09 22:14	29° $\text{M}39'04$		inferior conj	4323 Oct 30 10:08	7° $\text{M}05'05$	-2°-24'-27
min. Earth dist.	4322 Nov 13 23:53	25° $\text{M}31'30$	0.65969 AU	minimum elong	4323 Oct 30 14:15	6° $\text{M}53'58$	2°22'53
inferior conj	4322 Nov 15 19:06	23° $\text{M}23'50$	-1°-22'-32	morning rise	4323 Nov 05 23:15	1° $\text{M}35'36$	
minimum elong	4322 Nov 15 21:24	23° $\text{M}17'03$	1°21'34	asc. node	4323 Nov 06 17:23	1° $\text{M}18'52$	
asc. node	4322 Nov 19 20:20	19° $\text{M}06'06$		direct	4323 Nov 08 11:52	1° $\text{M}02'32$	
morning rise	4322 Nov 21 22:06	17° $\text{M}40'06$		morning max el	4323 Nov 14 23:37	4° $\text{M}28'48$	17°57'50
direct	4322 Nov 24 17:45	16° $\text{M}55'54$			4323 Dec 01 22:06	0° J	
morning max el	4322 Dec 01 07:35	20° $\text{M}30'08$	18°23'19	morning set	4323 Dec 02 08:02	0° $\text{J}41'46$	
	4322 Dec 08 16:27	0° J		desc. node	4323 Dec 13 13:30	19° $\text{J}16'26$	
morning set	4322 Dec 20 20:54	19° $\text{J}14'42$					
desc. node	4322 Dec 26 16:28	28° $\text{J}33'33$		superior conj	4323 Dec 15 23:08	23° $\text{J}08'46$	0°-16'-32
	4322 Dec 27 14:11	0° Z		minimum elong	4323 Dec 15 21:09	23° $\text{J}00'46$	0°16'15
superior conj	4323 Jan 05 11:08	14° $\text{Z}00'48$	-1°-3'-48		4323 Dec 20 06:24	0° Z	
minimum elong	4323 Jan 05 03:22	13° $\text{Z}30'20$	1°02'51	max. Earth dist.	4323 Dec 20 11:27	0° $\text{Z}19'59$	1.44859 AU
max. Earth dist.	4323 Jan 06 16:31	15° $\text{Z}56'04$	1.45279 AU	evening rise	4324 Jan 01 05:36	18° $\text{Z}38'29$	
	4323 Jan 15 15:59	0° Z			4324 Jan 08 15:49	0° Z	
evening rise	4323 Jan 21 14:24	9° $\text{Z}19'20$		greatest brilliancy	4324 Jan 21 00:50	18° $\text{Z}09'28$	-0.6m
greatest brilliancy	4323 Feb 03 18:00	29° $\text{Z}49'41$	-0.7m	evening max el	4324 Jan 27 17:17	26° $\text{Z}20'52$	20°04'18
	4323 Feb 03 20:45	0° H			4324 Feb 01 07:26	0° H	

asc. node	4324 Feb 02 16:38	0° K 34'15		4325 Jan 01 12:40	0° \approx	
retrograde	4324 Feb 04 09:55	0° K 50'13		greatest brilliancy	4325 Jan 04 13:14	3° \approx 57'30 -0.4m
	4324 Feb 07 08:30	30° R \approx		evening max el	4325 Jan 09 16:30	9° \approx 54'24 21°11'32
evening set	4324 Feb 08 02:26	29° \approx 31'01		retrograde	4325 Jan 18 07:46	15° \approx 01'23
inferior conj	4324 Feb 13 13:18	23° \approx 26'03 3°02'03		asc. node	4325 Jan 19 13:39	14° \approx 52'58
minimum elong	4324 Feb 13 11:01	23° \approx 33'45 3°01'34		evening set	4325 Jan 22 10:05	13° \approx 27'02
min. Earth dist.	4324 Feb 14 10:11	22° \approx 15'48 0.67177 AU		inferior conj	4325 Jan 27 19:32	7° \approx 10'51 2°29'56
morning rise	4324 Feb 18 18:59	17° \approx 09'59		minimum elong	4325 Jan 27 17:04	7° \approx 19'22 2°29'12
direct	4324 Feb 24 14:36	14° \approx 34'54		min. Earth dist.	4325 Jan 28 03:37	6° \approx 42'55 0.67807 AU
morning max el	4324 Mar 07 08:27	21° \approx 36'09 25°00'08		morning rise	4325 Feb 01 23:42	0° \approx 56'01
desc. node	4324 Mar 10 12:41	25° \approx 01'45			4325 Feb 03 04:23	30° R Z
	4324 Mar 14 15:42	0° K		direct	4325 Feb 07 04:43	28° Z 40'18
	4324 Apr 04 03:29	0° Y			4325 Feb 11 15:04	0° \approx
morning set	4324 Apr 12 10:44	14° Y 11'32		morning max el	4325 Feb 17 17:08	4° \approx 55'41 23°31'53
max. Earth dist.	4324 Apr 16 02:50	20° Y 51'46 1.36838 AU		desc. node	4325 Feb 25 09:45	13° \approx 52'14
	4324 Apr 20 22:31	0° B			4325 Mar 09 00:04	0° K
				morning set	4325 Mar 24 21:16	25° K 09'37
superior conj	4324 Apr 22 12:17	3° B 04'18 -1°-16'-26			4325 Mar 27 17:02	0° Y
minimum elong	4324 Apr 22 16:21	3° B 24'18 1°15'48		max. Earth dist.	4325 Mar 28 22:09	2° Y 07'02 1.38980 AU
evening rise	4324 Apr 30 22:02	19° B 55'04				
asc. node	4324 Apr 30 15:56	19° B 24'22		superior conj	4325 Apr 05 10:20	15° Y 43'46 -1°-42'-7
	4324 May 06 01:46	0° II		minimum elong	4325 Apr 05 15:09	16° Y 06'21 1°41'36
evening max el	4324 May 17 23:35	17° II 38'54 19°32'02			4325 Apr 12 21:11	0° B
retrograde	4324 May 27 12:53	22° II 18'02		evening rise	4325 Apr 14 17:46	3° B 36'30
evening set	4324 May 29 11:51	22° II 07'12		asc. node	4325 Apr 17 12:57	8° B 59'51
desc. node	4324 Jun 06 11:52	18° II 28'21		evening max el	4325 Apr 30 23:32	29° B 48'43 18°43'32
inferior conj	4324 Jun 07 04:12	18° II 02'26 0°-12'-3			4325 May 01 04:13	0° II
minimum elong	4324 Jun 07 03:40	18° II 03'17 0°11'52		retrograde	4325 May 09 01:18	3° II 46'28
transit middle	4324 Jun 07 03:40	18° II 03'17 0°11'52		evening set	4325 May 11 05:06	3° II 30'31
transit begin	4324 Jun 07 01:03	18° II 07'28			4325 May 17 21:33	30° R B
transit end	4324 Jun 07 06:17	17° II 59'07		inferior conj	4325 May 19 02:02	29° B 07'42 1°29'07
min. Earth dist.	4324 Jun 09 16:18	16° II 26'59 0.55737 AU		minimum elong	4325 May 19 05:05	29° B 02'02 1°28'07
morning rise	4324 Jun 15 15:50	13° II 26'25		min. Earth dist.	4325 May 22 09:04	26° B 41'53 0.57363 AU
direct	4324 Jun 20 07:14	12° II 38'01		desc. node	4325 May 24 08:54	25° B 22'06
morning max el	4324 Jul 04 07:58	19° II 41'36 24°52'35		morning rise	4325 May 27 00:36	23° B 56'16
	4324 Jul 13 01:32	0° S		direct	4325 Jun 01 14:56	22° B 39'19
asc. node	4324 Jul 27 15:12	25° S 12'13			4325 Jun 15 18:52	0° II
	4324 Jul 29 22:42	0° Q		morning max el	4325 Jun 15 23:33	0° II 11'17 26°22'41
morning set	4324 Jul 30 06:47	0° Q 42'42			4325 Jul 06 21:36	0° S
				morning set	4325 Jul 14 17:33	15° S 31'51
superior conj	4324 Aug 06 06:25	15° Q 52'06 1°25'45		asc. node	4325 Jul 14 12:13	15° S 03'45
minimum elong	4324 Aug 06 04:12	15° Q 40'01 1°25'28			4325 Jul 21 09:18	0° Q
max. Earth dist.	4324 Aug 07 18:33	19° Q 08'53 1.32704 AU				
	4324 Aug 12 21:14	0° np		superior conj	4325 Jul 21 17:49	0° Q 47'00 1°09'23
evening rise	4324 Aug 13 12:11	1° np 16'53		minimum elong	4325 Jul 21 15:30	0° Q 34'15 1°09'00
	4324 Aug 29 09:58	0° u		max. Earth dist.	4325 Jul 22 04:29	1° Q 45'47 1.32143 AU
desc. node	4324 Sep 02 11:14	6° u 03'27		evening rise	4325 Jul 28 16:56	15° Q 51'38
evening max el	4324 Sep 15 06:48	21° u 29'42 27°25'49			4325 Aug 04 19:59	0° np
retrograde	4324 Sep 29 00:25	28° u 45'01		desc. node	4325 Aug 20 08:13	24° np 36'57
evening set	4324 Oct 06 04:47	26° u 13'43			4325 Aug 24 18:43	0° u
min. Earth dist.	4324 Oct 09 20:08	23° u 12'25 0.62891 AU		evening max el	4325 Aug 28 12:12	3° u 51'30 27°00'33
inferior conj	4324 Oct 12 15:03	20° u 30'29 -3°-25'-26		retrograde	4325 Sep 11 09:20	11° u 02'53
minimum elong	4324 Oct 12 20:39	20° u 16'53 3°23'40		evening set	4325 Sep 18 10:14	8° u 52'10
morning rise	4324 Oct 19 15:15	15° u 18'37		min. Earth dist.	4325 Sep 22 02:27	6° u 12'24 0.60930 AU
direct	4324 Oct 21 23:36	14° u 53'02		inferior conj	4325 Sep 25 06:29	3° u 30'34 -4°-20'-24
asc. node	4324 Oct 23 14:24	15° u 05'28		minimum elong	4325 Sep 25 12:28	3° u 17'47 4°19'03
morning max el	4324 Oct 28 16:09	18° u 19'26 17°49'59			4325 Sep 29 20:51	30° R np
	4324 Nov 06 02:50	0° ml		morning rise	4325 Oct 02 17:54	28° np 39'57
morning set	4324 Nov 13 18:59	13° ml 17'42		direct	4325 Oct 05 01:09	28° np 18'49
	4324 Nov 23 09:42	0° x			4325 Oct 09 23:19	0° u
				asc. node	4325 Oct 10 11:27	0° u 21'43
superior conj	4324 Nov 25 11:03	3° x 27'57 0°27'35		morning max el	4325 Oct 12 05:59	1° u 53'35 18°00'53
minimum elong	4324 Nov 25 13:41	3° x 39'01 0°27'12		morning set	4325 Oct 27 23:18	26° u 42'38
desc. node	4324 Nov 29 10:33	10° x 03'13			4325 Oct 29 17:57	0° ml
max. Earth dist.	4324 Dec 02 04:13	14° x 29'49 1.43754 AU				
evening rise	4324 Dec 10 15:35	27° x 51'45		superior conj	4325 Nov 07 01:22	15° ml 04'08 1°02'11
	4324 Dec 12 00:51	0° Z		minimum elong	4325 Nov 07 05:28	15° ml 22'14 1°01'40

max. Earth dist.	4325 Nov 14 16:19	28° \mathbb{M} 07'57	1.42092 AU	max. Earth dist.	4326 Oct 27 23:04	11° \mathbb{M} 02'49	1.40083 AU
	4325 Nov 15 19:23	0° \mathbb{M}		evening rise	4326 Nov 01 05:46	18° \mathbb{M} 20'16	
desc. node	4325 Nov 16 07:33	0° \mathbb{M} 50'08		desc. node	4326 Nov 03 04:33	21° \mathbb{M} 33'49	
evening rise	4325 Nov 20 12:08	7° \mathbb{M} 36'58			4326 Nov 08 10:59	0° \mathbb{M}	
	4325 Dec 05 05:48	0° \mathbb{M}			4326 Nov 29 16:26	0° \mathbb{M}	
greatest brilliancy	4325 Dec 18 15:03	18° \mathbb{M} 05'36	-0.3m	evening max el	4326 Dec 06 00:39	7° \mathbb{M} 07'14	23°47'49
evening max el	4325 Dec 23 10:28	23° \mathbb{M} 29'24	22°27'50	retrograde	4326 Dec 16 21:02	13° \mathbb{M} 31'10	
retrograde	4326 Jan 02 03:56	29° \mathbb{M} 16'26		evening set	4326 Dec 21 23:38	11° \mathbb{M} 24'47	
asc. node	4326 Jan 06 10:40	27° \mathbb{M} 39'59		asc. node	4326 Dec 24 07:44	9° \mathbb{M} 02'01	
evening set	4326 Jan 06 17:42	27° \mathbb{M} 26'05		inferior conj	4326 Dec 27 10:54	4° \mathbb{M} 57'09	1°02'48
inferior conj	4326 Jan 12 03:21	21° \mathbb{M} 02'09	1°49'49	minimum elong	4326 Dec 27 09:29	5° \mathbb{M} 01'58	1°02'14
minimum elong	4326 Jan 12 01:11	21° \mathbb{M} 09'39	1°49'02	min. Earth dist.	4326 Dec 26 20:29	5° \mathbb{M} 46'15	0.67908 AU
min. Earth dist.	4326 Jan 11 23:50	21° \mathbb{M} 14'20	0.68039 AU		4326 Dec 31 11:34	30° \mathbb{R}	
morning rise	4326 Jan 17 08:35	14° \mathbb{M} 50'08		morning rise	4327 Jan 01 19:33	28° \mathbb{M} 49'47	
direct	4326 Jan 21 22:41	12° \mathbb{M} 57'07		direct	4327 Jan 05 19:35	27° \mathbb{M} 19'28	
morning max el	4326 Jan 31 05:01	18° \mathbb{M} 23'10	22°04'09		4327 Jan 11 18:19	0° \mathbb{M}	
greatest brilliancy	4326 Feb 04 19:57	23° \mathbb{M} 33'46	-0.4m	morning max el	4327 Jan 13 23:17	2° \mathbb{M} 00'58	20°44'17
	4326 Feb 09 20:03	0° \mathbb{M}		greatest brilliancy	4327 Jan 19 18:14	8° \mathbb{M} 45'02	-0.5m
desc. node	4326 Feb 12 06:48	3° \mathbb{M} 20'52		desc. node	4327 Jan 30 03:49	23° \mathbb{M} 16'32	
	4326 Mar 02 03:40	0° \mathbb{M}			4327 Feb 03 16:23	0° \mathbb{M}	
morning set	4326 Mar 05 03:40	4° \mathbb{M} 47'14		morning set	4327 Feb 12 08:05	13° \mathbb{M} 14'25	
max. Earth dist.	4326 Mar 10 20:14	14° \mathbb{M} 08'14	1.41144 AU	max. Earth dist.	4327 Feb 21 00:52	27° \mathbb{M} 02'46	1.43048 AU
					4327 Feb 22 20:25	0° \mathbb{M}	
superior conj	4326 Mar 18 14:09	27° \mathbb{M} 29'45	-2°00'58	superior conj	4327 Feb 27 18:39	8° \mathbb{M} 10'06	-2°8'00
minimum elong	4326 Mar 18 17:54	27° \mathbb{M} 46'26	2°00'46	minimum elong	4327 Feb 27 18:23	8° \mathbb{M} 08'59	2°08'02
	4326 Mar 19 23:52	0° \mathbb{M}		evening rise	4327 Mar 11 19:45	29° \mathbb{M} 03'43	
evening rise	4326 Mar 29 02:25	16° \mathbb{M} 42'53			4327 Mar 12 08:26	0° \mathbb{M}	
asc. node	4326 Apr 04 09:58	28° \mathbb{M} 15'15		asc. node	4327 Mar 22 07:01	17° \mathbb{M} 02'58	
	4326 Apr 05 10:03	0° \mathbb{M}		evening max el	4327 Mar 28 18:50	25° \mathbb{M} 35'52	18°06'45
evening max el	4326 Apr 14 07:06	12° \mathbb{M} 30'59	18°15'17	retrograde	4327 Apr 04 07:50	28° \mathbb{M} 58'27	
retrograde	4326 Apr 21 08:49	16° \mathbb{M} 03'24		evening set	4327 Apr 06 23:58	28° \mathbb{M} 24'17	
evening set	4326 Apr 23 18:52	15° \mathbb{M} 39'20		inferior conj	4327 Apr 13 11:50	23° \mathbb{M} 20'00	3°18'48
inferior conj	4326 Apr 30 21:30	10° \mathbb{M} 55'38	2°38'59	minimum elong	4327 Apr 13 14:02	23° \mathbb{M} 14'27	3°18'30
minimum elong	4326 May 01 01:01	10° \mathbb{M} 47'59	2°38'08	min. Earth dist.	4327 Apr 16 13:21	20° \mathbb{M} 17'11	0.61638 AU
min. Earth dist.	4326 May 04 07:22	7° \mathbb{M} 58'52	0.59445 AU	morning rise	4327 Apr 20 01:11	17° \mathbb{M} 21'23	
morning rise	4326 May 08 03:11	5° \mathbb{M} 15'21		direct	4327 Apr 26 20:24	14° \mathbb{M} 58'12	
desc. node	4326 May 11 05:56	3° \mathbb{M} 52'51		desc. node	4327 Apr 28 02:59	15° \mathbb{M} 02'56	
direct	4326 May 14 12:05	3° \mathbb{M} 23'38		morning max el	4327 May 11 00:48	22° \mathbb{M} 56'50	27°51'24
morning max el	4326 May 28 21:05	11° \mathbb{M} 13'22	27°25'07		4327 May 17 07:05	0° \mathbb{M}	
	4326 Jun 12 12:10	0° \mathbb{M}			4327 Jun 05 16:50	0° \mathbb{M}	
	4326 Jun 28 23:31	0° \mathbb{M}		morning set	4327 Jun 13 05:10	14° \mathbb{M} 34'07	
morning set	4326 Jun 29 01:40	0° \mathbb{M} 11'11		asc. node	4327 Jun 18 06:18	25° \mathbb{M} 11'58	
asc. node	4326 Jul 01 09:16	5° \mathbb{M} 05'19		max. Earth dist.	4327 Jun 19 01:28	26° \mathbb{M} 55'38	1.32257 AU
max. Earth dist.	4326 Jul 05 16:06	14° \mathbb{M} 25'41	1.31992 AU		4327 Jun 20 11:20	0° \mathbb{M}	
superior conj	4326 Jul 06 05:32	15° \mathbb{M} 39'46	0°48'53	superior conj	4327 Jun 20 15:49	0° \mathbb{M} 24'30	0°24'53
minimum elong	4326 Jul 06 03:36	15° \mathbb{M} 29'05	0°48'31	minimum elong	4327 Jun 20 14:42	0° \mathbb{M} 18'22	0°24'38
	4326 Jul 12 19:07	0° \mathbb{M}		evening rise	4327 Jun 27 13:26	15° \mathbb{M} 25'29	
evening rise	4326 Jul 13 02:03	0° \mathbb{M} 36'48			4327 Jul 04 19:15	0° \mathbb{M}	
	4326 Jul 29 01:44	0° \mathbb{M}		evening max el	4327 Jul 23 01:36	26° \mathbb{M} 13'00	24°38'23
desc. node	4326 Aug 07 05:12	12° \mathbb{M} 05'17		desc. node	4327 Jul 25 02:13	28° \mathbb{M} 02'29	
evening max el	4326 Aug 10 10:22	15° \mathbb{M} 24'43	26°02'29		4327 Jul 27 16:07	0° \mathbb{M}	
retrograde	4326 Aug 24 09:39	22° \mathbb{M} 33'01		retrograde	4327 Aug 05 23:17	3° \mathbb{M} 14'21	
evening set	4326 Aug 30 18:53	20° \mathbb{M} 54'44		evening set	4327 Aug 11 03:13	2° \mathbb{M} 14'22	
min. Earth dist.	4326 Sep 03 22:56	18° \mathbb{M} 20'05	0.58853 AU		4327 Aug 15 14:27	30° \mathbb{R}	
inferior conj	4326 Sep 07 04:55	15° \mathbb{M} 55'47	-5°00'32	min. Earth dist.	4327 Aug 16 12:50	29° \mathbb{M} 25'35	0.56923 AU
minimum elong	4326 Sep 07 08:54	15° \mathbb{M} 48'22	5°00'05	inferior conj	4327 Aug 19 07:34	27° \mathbb{M} 37'55	-5°-12'-7
morning rise	4326 Sep 15 02:28	11° \mathbb{M} 28'40		minimum elong	4327 Aug 19 06:27	27° \mathbb{M} 39'45	5°12'05
direct	4326 Sep 17 11:54	11° \mathbb{M} 09'35		morning rise	4327 Aug 27 13:13	23° \mathbb{M} 32'40	
morning max el	4326 Sep 25 13:53	15° \mathbb{M} 02'31	18°31'55	direct	4327 Aug 30 04:05	23° \mathbb{M} 13'40	
asc. node	4326 Sep 27 08:30	16° \mathbb{M} 54'42		morning max el	4327 Sep 08 12:33	27° \mathbb{M} 36'24	19°24'25
	4326 Oct 05 23:23	0° \mathbb{M}			4327 Sep 10 19:19	0° \mathbb{M}	
morning set	4326 Oct 11 15:53	10° \mathbb{M} 42'11		asc. node	4327 Sep 14 05:33	4° \mathbb{M} 29'14	
superior conj	4326 Oct 20 13:58	27° \mathbb{M} 45'29	1°25'47	morning set	4327 Sep 25 16:58	25° \mathbb{M} 06'04	
minimum elong	4326 Oct 20 17:22	28° \mathbb{M} 01'18	1°25'28		4327 Sep 28 03:32	0° \mathbb{M}	
	4326 Oct 21 19:01	0° \mathbb{M}					

superior conj	4327 Oct 03 19:25	11°♄16'20	1°39'14	morning max el	4328 Aug 20 23:32	9°♂26'25	20°38'27
minimum elong	4327 Oct 03 21:15	11°♄25'20	1°39'08	asc. node	4328 Aug 31 02:36	22°♂51'06	
max. Earth dist.	4327 Oct 10 03:22	23°♄17'32	1.37986 AU		4328 Sep 04 01:51	0°♈	
evening rise	4327 Oct 13 22:39	0°♈07'51		morning set	4328 Sep 08 23:37	9°♈45'49	
	4327 Oct 13 20:52	0°♈					
desc. node	4327 Oct 21 01:34	12°♈10'33		superior conj	4328 Sep 16 12:51	25°♈22'13	1°44'02
	4327 Nov 01 18:06	0°♈		minimum elong	4328 Sep 16 13:04	25°♈23'22	1°44'01
evening max el	4327 Nov 18 13:17	20°♈49'29	25°04'54		4328 Sep 18 19:49	0°♄	
retrograde	4327 Nov 30 10:00	27°♈41'43		max. Earth dist.	4328 Sep 21 10:54	5°♄11'20	1.36046 AU
evening set	4327 Dec 06 02:20	25°♈20'29		evening rise	4328 Sep 25 11:45	12°♄51'16	
min. Earth dist.	4327 Dec 10 15:16	20°♈16'15	0.67430 AU		4328 Oct 05 08:11	0°♈	
asc. node	4327 Dec 11 04:46	19°♈32'06		desc. node	4328 Oct 06 22:35	2°♈34'59	
inferior conj	4327 Dec 11 16:27	18°♈53'48	0°09'57		4328 Oct 26 18:32	0°♈	
minimum elong	4327 Dec 11 16:12	18°♈54'38	0°09'52	evening max el	4328 Oct 31 01:54	4°♈32'22	26°11'47
transit middle	4327 Dec 11 16:12	18°♈54'38	0°09'52	retrograde	4328 Nov 12 17:52	11°♈41'46	
transit begin	4327 Dec 11 14:00	19°♈01'51		evening set	4328 Nov 18 23:57	9°♈08'34	
transit end	4327 Dec 11 18:24	18°♈47'26		min. Earth dist.	4328 Nov 23 05:41	4°♈40'03	0.66605 AU
morning rise	4327 Dec 17 06:41	12°♈53'21		inferior conj	4328 Nov 24 18:03	2°♈47'52	0°-47'-40
direct	4327 Dec 20 18:11	11°♈43'34		minimum elong	4328 Nov 24 19:20	2°♈43'55	0°47'07
morning max el	4327 Dec 28 01:26	15°♈50'11	19°37'16	asc. node	4328 Nov 27 01:49	0°♈02'39	
greatest brilliancy	4328 Jan 05 03:51	25°♈54'12	-0.6m		4328 Nov 27 02:47	30°♈♈	
	4328 Jan 08 00:29	0°♄		morning rise	4328 Nov 30 15:51	26°♈57'03	
desc. node	4328 Jan 17 00:52	13°♄32'14		direct	4328 Dec 03 16:45	26°♈04'29	
morning set	4328 Jan 22 04:38	21°♄27'42		morning max el	4328 Dec 10 10:45	29°♈47'19	18°45'36
	4328 Jan 27 16:42	0°♈			4328 Dec 10 15:47	0°♈	
max. Earth dist.	4328 Feb 03 12:45	10°♈44'30	1.44457 AU		4328 Dec 31 08:26	0°♄	
				morning set	4328 Dec 31 18:16	0°♄38'45	
superior conj	4328 Feb 07 21:28	17°♈42'28	-1°-57'-51	desc. node	4329 Jan 02 21:53	4°♄01'51	
minimum elong	4328 Feb 07 15:06	17°♈16'52	1°57'30	max. Earth dist.	4329 Jan 16 06:12	24°♄58'43	1.45198 AU
	4328 Feb 15 10:23	0°♈					
evening rise	4328 Feb 21 17:23	10°♈31'08		superior conj	4329 Jan 17 04:10	26°♄24'57	-1°-28'-7
	4328 Mar 04 12:24	0°♈		minimum elong	4329 Jan 16 18:53	25°♄48'29	1°27'10
asc. node	4328 Mar 08 04:04	5°♈14'28			4329 Jan 19 10:52	0°♈	
evening max el	4328 Mar 11 07:40	8°♈55'29	18°17'13	evening rise	4329 Feb 01 16:05	21°♈01'20	
retrograde	4328 Mar 17 17:59	12°♈22'11			4329 Feb 07 05:54	0°♈	
evening set	4328 Mar 20 16:02	11°♈36'35		evening max el	4329 Feb 22 18:54	22°♈23'17	18°45'49
inferior conj	4328 Mar 26 16:56	6°♈12'45	3°34'38	asc. node	4329 Feb 23 01:06	22°♈38'50	
minimum elong	4328 Mar 26 17:25	6°♈11'23	3°34'37	retrograde	4329 Mar 01 11:11	26°♈06'27	
min. Earth dist.	4328 Mar 29 04:22	3°♈26'32	0.63666 AU	evening set	4329 Mar 04 15:35	25°♈08'28	
morning rise	4328 Apr 01 16:55	0°♈04'07		inferior conj	4329 Mar 10 08:54	19°♈26'44	3°32'23
	4328 Apr 01 19:00	30°♈♈		minimum elong	4329 Mar 10 07:55	19°♈29'45	3°32'19
direct	4328 Apr 08 13:27	27°♈20'51		min. Earth dist.	4329 Mar 12 04:39	17°♈12'34	0.65353 AU
desc. node	4328 Apr 14 00:02	28°♈48'11		morning rise	4329 Mar 15 23:05	13°♈13'02	
	4328 Apr 16 01:18	0°♈		direct	4329 Mar 22 13:26	10°♈23'47	
morning max el	4328 Apr 22 08:50	5°♈18'56	27°40'22	desc. node	4329 Mar 31 21:06	14°♈36'31	
	4328 May 11 01:17	0°♄		morning max el	4329 Apr 04 18:44	18°♈10'28	26°56'27
morning set	4328 May 27 01:41	28°♄33'21			4329 Apr 14 17:30	0°♈	
	4328 May 27 19:02	0°♈			4329 May 03 23:53	0°♄	
max. Earth dist.	4328 Jun 01 04:45	9°♈03'59	1.32958 AU	morning set	4329 May 10 12:09	11°♄59'44	
				max. Earth dist.	4329 May 14 22:33	20°♄43'08	1.34118 AU
superior conj	4328 Jun 03 22:49	14°♈55'22	0°-1'-58				
minimum elong	4328 Jun 03 22:55	14°♈55'55	0°01'59	superior conj	4329 May 19 00:28	29°♄06'04	0°-30'-43
behind sun begin	4328 Jun 03 17:37	14°♈27'28		minimum elong	4329 May 19 02:05	29°♄14'32	0°30'24
behind sun end	4328 Jun 04 04:14	15°♈24'23			4329 May 19 10:47	0°♈	
asc. node	4328 Jun 04 03:22	15°♈19'45		asc. node	4329 May 22 00:23	5°♈24'27	
	4328 Jun 10 23:00	0°♄		evening rise	4329 May 26 11:28	14°♈49'09	
evening rise	4328 Jun 11 01:12	0°♄11'38			4329 Jun 03 04:40	0°♄	
	4328 Jun 27 20:41	0°♈		evening max el	4329 Jun 15 09:21	17°♄10'24	21°28'09
evening max el	4328 Jul 03 14:39	6°♈37'22	23°01'43	retrograde	4329 Jun 27 14:25	23°♄11'32	
desc. node	4328 Jul 10 23:15	11°♈55'12		desc. node	4329 Jun 27 20:17	23°♄11'23	
retrograde	4328 Jul 16 23:59	13°♈18'09		evening set	4329 Jun 30 01:10	22°♄57'50	
evening set	4328 Jul 20 15:29	12°♈49'07		inferior conj	4329 Jul 09 09:29	18°♄58'14	-3°-15'-53
min. Earth dist.	4328 Jul 27 23:39	9°♈31'15	0.55483 AU	minimum elong	4329 Jul 09 01:13	19°♄09'47	3°13'22
inferior conj	4328 Jul 29 14:47	8°♈34'33	-4°-39'-13	min. Earth dist.	4329 Jul 09 10:12	18°♄57'14	0.54837 AU
minimum elong	4328 Jul 29 07:45	8°♈44'46	4°37'59	morning rise	4329 Jul 18 01:59	15°♄04'30	
morning rise	4328 Aug 07 02:47	4°♈43'06		direct	4329 Jul 21 12:02	14°♄39'10	
direct	4328 Aug 10 01:50	4°♈22'20		morning max el	4329 Aug 02 23:00	20°♄31'58	22°11'06

	4329 Aug 10 21:05	0°♌		direct	4330 Jul 01 23:25	24°♐23'29	
asc. node	4329 Aug 17 23:39	11°♌49'08			4330 Jul 14 10:24	0°♍	
morning set	4329 Aug 24 09:39	24°♌35'34		morning max el	4330 Jul 15 14:45	1°♍04'10	23°54'05
	4329 Aug 26 23:07	0°♎			4330 Aug 04 05:45	0°♌	
				asc. node	4330 Aug 04 20:40	1°♌13'30	
superior conj	4329 Aug 31 14:37	9°♎52'42	1°41'34	morning set	4330 Aug 08 21:15	9°♌29'12	
minimum elong	4329 Aug 31 13:32	9°♎47'00	1°41'31				
max. Earth dist.	4329 Sep 04 02:14	17°♎08'00	1.34429 AU	superior conj	4330 Aug 15 21:52	24°♌38'31	1°33'02
evening rise	4329 Sep 08 16:44	26°♎19'32		minimum elong	4330 Aug 15 19:55	24°♌28'02	1°32'52
	4329 Sep 10 14:48	0°♏		max. Earth dist.	4330 Aug 18 02:13	29°♌19'53	1.33209 AU
desc. node	4329 Sep 23 19:35	22°♏41'09			4330 Aug 18 09:45	0°♎	
	4329 Sep 28 17:13	0°♍		evening rise	4330 Aug 23 09:30	10°♎21'10	
evening max el	4329 Oct 13 14:35	18°♍07'46	27°00'54		4330 Sep 02 22:53	0°♏	
retrograde	4329 Oct 26 20:07	25°♍24'38		desc. node	4330 Sep 10 16:37	12°♏20'51	
evening set	4329 Nov 02 14:23	22°♍44'47			4330 Sep 24 15:44	0°♍	
min. Earth dist.	4329 Nov 06 13:20	18°♍52'30	0.65429 AU	evening max el	4330 Sep 26 02:04	1°♍24'17	27°25'17
inferior conj	4329 Nov 08 13:36	16°♍35'03	-1°-48'-39	retrograde	4330 Oct 09 16:25	8°♍42'03	
minimum elong	4329 Nov 08 16:40	16°♍26'18	1°47'24	evening set	4330 Oct 16 18:57	6°♍04'06	
asc. node	4329 Nov 13 22:52	11°♍27'26		min. Earth dist.	4330 Oct 20 12:09	2°♍46'05	0.63903 AU
morning rise	4329 Nov 14 20:44	10°♍56'59		inferior conj	4330 Oct 23 00:39	0°♍09'57	-2°-50'-41
direct	4329 Nov 17 13:12	10°♍17'50		minimum elong	4330 Oct 23 05:28	29°♏57'28	2°48'58
morning max el	4329 Nov 24 01:08	13°♍47'15	18°10'24		4330 Oct 23 04:30	30°♐♏	
	4329 Dec 05 14:49	0°♐		morning rise	4330 Oct 29 18:26	24°♏47'53	
morning set	4329 Dec 12 12:57	11°♐17'43		asc. node	4330 Oct 31 19:54	24°♏19'09	
desc. node	4329 Dec 20 18:54	24°♐40'56		direct	4330 Nov 01 04:53	24°♏18'27	
	4329 Dec 24 02:44	0°♑		morning max el	4330 Nov 07 17:47	27°♏43'32	17°52'22
					4330 Nov 09 18:58	0°♍	
superior conj	4329 Dec 27 08:08	5°♑06'48	0°-44'00	morning set	4330 Nov 24 10:58	23°♍16'15	
minimum elong	4329 Dec 27 02:37	4°♑45'01	0°43'16		4330 Nov 28 09:25	0°♐	
max. Earth dist.	4329 Dec 30 01:54	9°♑25'49	1.45194 AU				
	4330 Jan 12 06:14	0°♒		superior conj	4330 Dec 07 05:17	14°♐42'44	0°03'06
evening rise	4330 Jan 12 16:45	0°♒40'51		minimum elong	4330 Dec 07 05:38	14°♐44'07	0°03'03
greatest brilliancy	4330 Jan 28 23:07	25°♒30'33	-0.7m	behind sun begin	4330 Dec 06 19:52	14°♐04'17	
	4330 Feb 01 04:22	0°♑		behind sun end	4330 Dec 07 15:23	15°♐23'52	
evening max el	4330 Feb 06 02:20	5°♑54'24	19°31'15	desc. node	4330 Dec 07 15:55	15°♐26'00	
asc. node	4330 Feb 09 22:07	9°♑02'33		max. Earth dist.	4330 Dec 12 20:12	23°♐45'53	1.44458 AU
retrograde	4330 Feb 13 08:13	10°♑04'39			4330 Dec 16 18:59	0°♑	
evening set	4330 Feb 16 19:54	8°♑53'24		evening rise	4330 Dec 23 03:44	9°♑52'37	
inferior conj	4330 Feb 22 08:26	2°♑55'54	3°16'22		4331 Jan 05 11:54	0°♒	
minimum elong	4330 Feb 22 06:28	3°♑02'20	3°16'02	greatest brilliancy	4331 Jan 14 06:38	12°♒23'21	-0.5m
min. Earth dist.	4330 Feb 23 13:10	1°♑21'42	0.66631 AU	evening max el	4331 Jan 20 04:37	19°♒27'06	20°31'28
	4330 Feb 24 14:48	30°♐♒		asc. node	4331 Jan 27 19:09	24°♒11'15	
morning rise	4330 Feb 27 16:18	26°♒40'04		retrograde	4331 Jan 28 06:27	24°♒12'27	
direct	4330 Mar 05 19:31	23°♒57'15		evening set	4331 Feb 01 02:52	22°♒46'56	
	4330 Mar 16 19:55	0°♑		inferior conj	4331 Feb 06 12:53	16°♒36'34	2°49'32
morning max el	4330 Mar 18 04:20	1°♑19'21	25°47'26	minimum elong	4331 Feb 06 10:28	16°♒44'50	2°48'56
desc. node	4330 Mar 18 18:08	1°♑54'39		min. Earth dist.	4331 Feb 07 04:07	15°♒44'32	0.67488 AU
	4330 Apr 08 18:33	0°♒		morning rise	4331 Feb 11 17:35	10°♒20'37	
morning set	4330 Apr 23 08:23	24°♒40'28		direct	4331 Feb 17 06:57	7°♒53'18	
	4330 Apr 26 04:58	0°♑		morning max el	4331 Feb 28 13:00	14°♒36'45	24°23'12
max. Earth dist.	4330 Apr 27 04:55	1°♑53'55	1.35734 AU	desc. node	4331 Mar 05 15:09	20°♒17'17	
					4331 Mar 13 02:37	0°♑	
superior conj	4330 May 02 18:03	12°♑48'02	-1°00'-3		4331 Apr 01 15:59	0°♒	
minimum elong	4330 May 02 21:18	13°♑04'24	0°59'29	morning set	4331 Apr 05 09:04	6°♒21'34	
asc. node	4330 May 08 21:24	25°♑21'24		max. Earth dist.	4331 Apr 09 02:11	12°♒57'13	1.37729 AU
evening rise	4330 May 10 18:05	29°♑10'28					
	4330 May 11 03:48	0°♐		superior conj	4331 Apr 16 00:24	25°♒53'31	-1°-27'-54
evening max el	4330 May 28 15:16	28°♐16'28	20°08'53	minimum elong	4331 Apr 16 04:56	26°♒15'22	1°27'16
	4330 May 30 13:51	0°♑			4331 Apr 18 03:12	0°♑	
retrograde	4330 Jun 08 04:37	3°♑25'42		evening rise	4331 Apr 24 18:38	13°♑09'00	
evening set	4330 Jun 10 03:36	3°♑15'50		asc. node	4331 Apr 25 18:26	15°♑06'30	
desc. node	4330 Jun 14 17:19	1°♑45'09			4331 May 03 20:03	0°♐	
	4330 Jun 17 23:49	30°♐♐		evening max el	4331 May 11 09:21	10°♐04'38	19°08'50
inferior conj	4330 Jun 19 05:07	29°♐16'45	-1°-20'-2	retrograde	4331 May 20 06:35	14°♐24'36	
minimum elong	4330 Jun 19 01:22	29°♐22'20	1°18'39	evening set	4331 May 22 06:55	14°♐12'11	
min. Earth dist.	4330 Jun 20 22:27	28°♐15'19	0.55141 AU	inferior conj	4331 May 30 15:15	10°♐00'35	0°34'18
morning rise	4330 Jun 27 20:52	25°♐00'05		minimum elong	4331 May 30 16:38	9°♐58'14	0°33'47

desc. node	4331 Jun 01 14:21	8°II40'20		minimum elong	4332 May 11 01:58	21°817'26	2°01'37
min. Earth dist.	4331 Jun 02 13:34	8°II01'42	0.56353 AU	min. Earth dist.	4332 May 14 08:35	18°842'26	0.58219 AU
morning rise	4331 Jun 07 22:02	5°II08'45		desc. node	4332 May 18 11:22	16°802'57	
direct	4331 Jun 12 23:07	4°II09'25		morning rise	4332 May 18 13:58	15°859'38	
morning max el	4331 Jun 27 04:50	11°II27'24	25°33'22	direct	4332 May 24 13:17	14°827'44	
	4331 Jul 11 10:39	0°☾		morning max el	4332 Jun 07 22:33	22°808'50	26°53'08
asc. node	4331 Jul 22 17:42	20°☾57'00			4332 Jun 14 20:35	0°II	
morning set	4331 Jul 24 08:48	24°☾21'39			4332 Jul 03 06:59	0°☾	
	4331 Jul 26 23:51	0°♌		morning set	4332 Jul 07 18:41	9°☾07'54	
				asc. node	4332 Jul 08 14:44	10°☾53'52	
superior conj	4331 Jul 31 08:20	9°♌32'24	1°19'20	superior conj	4332 Jul 14 20:08	24°☾28'00	1°01'10
minimum elong	4331 Jul 31 06:01	9°♌19'42	1°19'01	minimum elong	4332 Jul 14 17:56	24°☾15'48	1°00'46
max. Earth dist.	4331 Aug 01 09:15	11°♌49'01	1.32412 AU	max. Earth dist.	4332 Jul 14 20:17	24°☾28'50	1.32029 AU
evening rise	4331 Aug 07 10:43	24°♌46'37			4332 Jul 17 08:24	0°♌	
	4331 Aug 10 00:23	0°♍		evening rise	4332 Jul 21 17:39	9°♌27'39	
	4331 Aug 27 13:55	0°♎			4332 Aug 01 08:30	0°♍	
desc. node	4331 Aug 28 13:37	1°♎22'57		desc. node	4332 Aug 14 10:38	19°♍32'12	
evening max el	4331 Sep 08 10:24	14°♎09'36	27°19'11	evening max el	4332 Aug 20 13:09	26°♍12'46	26°39'43
retrograde	4331 Sep 22 06:06	21°♎24'11			4332 Aug 25 03:52	0°♎	
evening set	4331 Sep 29 10:06	18°♎59'54		retrograde	4332 Sep 03 11:44	3°♎22'48	
min. Earth dist.	4331 Oct 03 00:47	16°♎09'23	0.62072 AU	evening set	4332 Sep 10 07:22	1°♎24'59	
inferior conj	4331 Oct 06 00:12	13°♎25'19	-3°-50'-1		4332 Sep 12 12:50	30°♍	
minimum elong	4331 Oct 06 06:11	13°♎11'33	3°48'20	min. Earth dist.	4332 Sep 14 03:03	28°♍49'20	0.60042 AU
morning rise	4331 Oct 13 05:16	8°♎22'21		inferior conj	4332 Sep 17 08:56	26°♍12'48	-4°-40'-1
direct	4331 Oct 15 12:36	7°♎59'09		minimum elong	4332 Sep 17 14:25	26°♍01'42	4°39'01
asc. node	4331 Oct 18 16:57	8°♎44'47		morning rise	4332 Sep 25 00:49	21°♍31'46	
morning max el	4331 Oct 22 09:36	11°♎28'19	17°52'18	direct	4332 Sep 27 08:28	21°♍11'50	
	4331 Nov 03 18:29	0°♏		asc. node	4332 Oct 04 13:59	24°♍36'00	
morning set	4331 Nov 07 06:00	6°♏14'43		morning max el	4332 Oct 04 21:21	24°♍53'29	18°11'30
					4332 Oct 09 03:35	0°♎	
superior conj	4331 Nov 18 04:39	25°♏35'21	0°43'35	morning set	4332 Oct 20 16:09	19°♎56'35	
minimum elong	4331 Nov 18 08:16	25°♏50'50	0°43'06		4332 Oct 26 00:35	0°♏	
	4331 Nov 20 19:02	0°♐		superior conj	4332 Oct 30 05:09	7°♏41'21	1°13'31
desc. node	4331 Nov 24 12:55	6°♐13'11		minimum elong	4332 Oct 30 09:08	7°♏59'19	1°13'03
max. Earth dist.	4331 Nov 25 10:36	7°♐41'49	1.43092 AU	max. Earth dist.	4332 Nov 06 20:12	21°♏02'06	1.41266 AU
evening rise	4331 Dec 02 16:17	19°♐14'30		desc. node	4332 Nov 10 09:56	26°♏59'31	
	4331 Dec 09 16:34	0°♑		evening rise	4332 Nov 11 21:11	29°♏23'23	
greatest brilliancy	4331 Dec 29 06:12	27°♑33'00	-0.4m		4332 Nov 12 06:13	0°♐	
	4331 Dec 31 07:13	0°♒			4332 Dec 02 06:05	0°♑	
evening max el	4332 Jan 03 01:26	3°♒00'53	21°43'16	greatest brilliancy	4332 Dec 10 01:30	10°♑14'07	-0.2m
retrograde	4332 Jan 12 03:50	8°♒25'25		evening max el	4332 Dec 15 17:42	16°♑37'29	23°01'52
asc. node	4332 Jan 14 16:12	7°♒51'20		retrograde	4332 Dec 25 22:42	22°♑40'33	
evening set	4332 Jan 16 10:42	6°♒44'33		evening set	4332 Dec 30 17:46	20°♑43'33	
inferior conj	4332 Jan 21 20:02	0°♒24'36	2°13'50	asc. node	4332 Dec 31 13:14	19°♑59'54	
minimum elong	4332 Jan 21 17:39	0°♒32'54	2°13'04	inferior conj	4333 Jan 05 03:58	14°♑17'46	1°30'39
min. Earth dist.	4332 Jan 21 23:08	0°♒13'51	0.67945 AU	minimum elong	4333 Jan 05 02:04	14°♑24'19	1°29'56
	4332 Jan 22 03:08	30°♒		min. Earth dist.	4333 Jan 04 19:51	14°♑45'46	0.68029 AU
morning rise	4332 Jan 27 00:19	24°♑10'30		morning rise	4333 Jan 10 10:22	8°♑07'24	
direct	4332 Jan 31 22:58	22°♑04'04		direct	4333 Jan 14 18:26	6°♑23'55	
morning max el	4332 Feb 10 22:31	27°♑59'01	22°53'59	morning max el	4333 Jan 23 12:36	11°♑29'45	21°28'48
	4332 Feb 12 20:20	0°♒		greatest brilliancy	4333 Jan 28 12:04	17°♑08'35	-0.4m
greatest brilliancy	4332 Feb 15 15:39	3°♒14'38	-0.3m	desc. node	4333 Feb 06 09:12	29°♑06'36	
desc. node	4332 Feb 20 12:10	9°♒25'29			4333 Feb 07 00:09	0°♒	
	4332 Mar 05 19:09	0°♓		morning set	4333 Feb 24 02:12	25°♒49'38	
morning set	4332 Mar 16 08:03	16°♓46'26			4333 Feb 26 16:57	0°♓	
max. Earth dist.	4332 Mar 20 21:14	24°♓26'53	1.39912 AU	max. Earth dist.	4333 Mar 02 21:43	6°♓50'18	1.42004 AU
	4332 Mar 24 01:47	0°♈		superior conj	4333 Mar 10 09:48	19°♓31'22	-2°-5'-44
superior conj	4332 Mar 28 15:18	8°♈11'53	-1°-51'-13	minimum elong	4333 Mar 10 12:15	19°♓41'59	2°05'41
minimum elong	4332 Mar 28 19:59	8°♈33'17	1°50'49		4333 Mar 16 08:14	0°♈	
evening rise	4332 Apr 07 10:06	26°♈36'34		evening rise	4333 Mar 21 12:43	9°♈24'25	
	4332 Apr 09 04:53	0°♉		asc. node	4333 Mar 29 12:31	23°♈39'06	
asc. node	4332 Apr 11 15:28	4°♉34'28			4333 Apr 02 13:19	0°♉	
evening max el	4332 Apr 23 13:04	22°♉30'13	18°29'06	evening max el	4333 Apr 06 22:53	5°♉23'39	18°09'20
retrograde	4332 May 01 03:04	26°♉14'49		retrograde	4333 Apr 13 17:39	8°♉49'43	
evening set	4332 May 03 09:32	25°♉55'43					
inferior conj	4332 May 10 22:24	21°♉24'31	2°02'40				

evening set	4333 Apr 16 06:30	8°♄21'22		evening max el	4334 Mar 21 11:26	18°♄35'53	18°08'56
inferior conj	4333 Apr 23 02:20	3°♄28'44	2°59'11	retrograde	4334 Mar 27 22:08	21°♄58'46	
minimum elong	4333 Apr 23 05:25	3°♄21'36	2°58'35	evening set	4334 Mar 30 16:48	21°♄19'46	
min. Earth dist.	4333 Apr 26 09:40	0°♄26'36	0.60386 AU	inferior conj	4334 Apr 05 23:30	16°♄06'40	3°28'04
	4333 Apr 26 21:59	30°♄		minimum elong	4334 Apr 06 00:58	16°♄02'45	3°27'56
morning rise	4333 Apr 30 00:52	27°♄39'50		min. Earth dist.	4334 Apr 08 19:17	13°♄08'49	0.62527 AU
desc. node	4333 May 05 08:25	25°♄38'35		morning rise	4334 Apr 12 06:45	10°♄02'59	
direct	4333 May 06 15:27	25°♄33'50		direct	4334 Apr 19 03:23	7°♄30'01	
	4333 May 17 01:28	0°♄		desc. node	4334 Apr 22 05:27	7°♄58'00	
morning max el	4333 May 20 22:36	3°♄27'29	27°40'57	morning max el	4334 May 03 04:37	15°♄29'07	27°51'17
	4333 Jun 09 10:42	0°♄			4334 May 15 01:06	0°♄	
morning set	4333 Jun 22 01:06	23°♄41'17			4334 Jun 02 01:20	0°♄	
asc. node	4333 Jun 25 11:46	0°♄58'21		morning set	4334 Jun 06 01:58	7°♄55'39	
	4333 Jun 25 00:55	0°♄		max. Earth dist.	4334 Jun 11 15:06	19°♄30'58	1.32507 AU
max. Earth dist.	4333 Jun 28 07:33	7°♄07'01	1.32059 AU	asc. node	4334 Jun 12 08:50	21°♄06'20	
superior conj	4333 Jun 29 07:28	9°♄18'27	0°39'08	superior conj	4334 Jun 13 16:36	23°♄58'17	0°13'49
minimum elong	4333 Jun 29 05:49	9°♄09'24	0°38'46	minimum elong	4334 Jun 13 15:57	23°♄54'45	0°13'40
evening rise	4333 Jul 06 04:00	24°♄15'46		behind sun begin	4334 Jun 13 13:16	23°♄40'11	
	4333 Jul 08 21:57	0°♄		behind sun end	4334 Jun 13 18:38	24°♄09'20	
	4333 Jul 26 17:45	0°♄			4334 Jun 16 10:59	0°♄	
desc. node	4333 Aug 01 07:41	6°♄26'00		evening rise	4334 Jun 20 15:49	9°♄04'41	
evening max el	4333 Aug 02 08:21	7°♄26'37	25°29'14		4334 Jul 01 11:23	0°♄	
retrograde	4333 Aug 16 07:25	14°♄31'55		evening max el	4334 Jul 14 21:40	18°♄00'49	23°57'41
evening set	4333 Aug 22 05:49	13°♄10'05		desc. node	4334 Jul 19 04:42	21°♄34'56	
min. Earth dist.	4333 Aug 26 20:14	10°♄31'41	0.58002 AU	retrograde	4334 Jul 28 15:28	24°♄55'40	
inferior conj	4333 Aug 29 23:14	8°♄21'06	-5°-9'-53	evening set	4334 Aug 02 04:21	24°♄10'12	
minimum elong	4333 Aug 30 01:23	8°♄17'19	5°09'46	min. Earth dist.	4334 Aug 08 08:00	21°♄10'47	0.56241 AU
morning rise	4333 Sep 07 00:27	4°♄03'32		inferior conj	4334 Aug 10 17:13	19°♄43'17	-5°-4'-17
direct	4333 Sep 09 12:02	3°♄44'32		minimum elong	4334 Aug 10 13:23	19°♄49'11	5°03'58
morning max el	4333 Sep 18 01:38	7°♄48'34	18°51'31	morning rise	4334 Aug 19 01:48	15°♄45'44	
asc. node	4333 Sep 21 11:02	11°♄37'01		direct	4334 Aug 21 20:00	15°♄26'11	
	4333 Oct 02 09:51	0°♄		morning max el	4334 Aug 31 19:30	20°♄04'31	19°53'21
morning set	4333 Oct 04 12:47	4°♄08'01		asc. node	4334 Sep 08 08:04	29°♄33'05	
					4334 Sep 08 14:55	0°♄	
superior conj	4333 Oct 13 01:34	20°♄45'36	1°32'39	morning set	4334 Sep 18 16:30	18°♄39'32	
minimum elong	4333 Oct 13 04:21	20°♄58'50	1°32'25		4334 Sep 24 06:16	0°♄	
	4333 Oct 18 00:46	0°♄		superior conj	4334 Sep 26 12:38	4°♄33'03	1°42'14
max. Earth dist.	4333 Oct 20 01:51	3°♄40'29	1.39194 AU	minimum elong	4334 Sep 26 13:46	4°♄38'42	1°42'12
evening rise	4333 Oct 24 00:52	10°♄34'24		max. Earth dist.	4334 Oct 02 06:58	15°♄43'58	1.37132 AU
desc. node	4333 Oct 28 06:58	17°♄40'54		evening rise	4334 Oct 06 02:48	22°♄46'38	
	4333 Nov 05 02:47	0°♄			4334 Oct 10 05:30	0°♄	
	4333 Nov 28 00:01	0°♄		desc. node	4334 Oct 15 04:00	8°♄13'04	
evening max el	4333 Nov 28 07:06	0°♄17'40	24°21'24		4334 Oct 29 21:56	0°♄	
retrograde	4333 Dec 09 14:01	6°♄54'08		evening max el	4334 Nov 10 19:25	14°♄00'03	25°34'59
evening set	4333 Dec 14 22:31	4°♄41'08		retrograde	4334 Nov 23 00:52	21°♄01'06	
asc. node	4333 Dec 18 10:17	0°♄54'15		evening set	4334 Nov 28 23:17	18°♄33'57	
	4333 Dec 19 03:01	30°♄		min. Earth dist.	4334 Dec 03 08:58	13°♄45'04	0.67123 AU
min. Earth dist.	4333 Dec 19 15:53	29°♄17'16	0.67751 AU	inferior conj	4334 Dec 04 14:57	12°♄09'12	0°-14'00
inferior conj	4333 Dec 20 10:53	28°♄13'35	0°41'02	minimum elong	4334 Dec 04 15:19	12°♄08'03	0°13'51
minimum elong	4333 Dec 20 09:54	28°♄16'50	0°40'39	transit middle	4334 Dec 04 15:19	12°♄08'03	0°13'51
morning rise	4333 Dec 25 21:40	22°♄09'05		transit begin	4334 Dec 04 13:52	12°♄12'41	
direct	4333 Dec 29 16:14	20°♄47'46		transit end	4334 Dec 04 16:45	12°♄03'24	
morning max el	4334 Jan 06 10:11	25°♄12'33	20°14'03	asc. node	4334 Dec 05 07:20	11°♄17'04	
	4334 Jan 10 15:25	0°♄		morning rise	4334 Dec 10 08:12	6°♄12'47	
greatest brilliancy	4334 Jan 13 00:19	3°♄03'42	-0.5m	direct	4334 Dec 13 14:53	5°♄10'56	
desc. node	4334 Jan 24 06:14	19°♄11'38		morning max el	4334 Dec 20 15:40	9°♄06'01	19°13'21
	4334 Jan 31 09:21	0°♄		greatest brilliancy	4334 Dec 30 14:56	22°♄00'44	-0.7m
morning set	4334 Feb 03 00:14	4°♄02'00			4335 Jan 04 22:23	0°♄	
max. Earth dist.	4334 Feb 13 06:14	20°♄09'08	1.43719 AU	desc. node	4335 Jan 11 03:16	9°♄33'40	
superior conj	4334 Feb 19 03:21	29°♄42'23	-2°-6'-4	morning set	4335 Jan 13 01:22	12°♄32'27	
minimum elong	4334 Feb 19 00:32	29°♄30'46	2°06'00		4335 Jan 24 06:04	0°♄	
	4334 Feb 19 07:38	0°♄		max. Earth dist.	4335 Jan 26 20:52	4°♄06'56	1.44853 AU
evening rise	4334 Mar 03 22:12	21°♄23'48					
	4334 Mar 08 21:22	0°♄		superior conj	4335 Jan 29 20:05	8°♄48'30	-1°-47'-32
asc. node	4334 Mar 16 09:35	12°♄12'53		minimum elong	4335 Jan 29 11:42	8°♄15'16	1°46'52

	4335 Feb 11 22:41	0° H		desc. node	4335 Dec 29 00:18	0° Z 08'04	
evening rise	4335 Feb 13 10:19	2° H 26'49					
asc. node	4335 Mar 03 06:38	0° Y 05'34		superior conj	4336 Jan 08 23:06	17° Z 24'17	-1°-10'-32
	4335 Mar 03 04:45	0° Y		minimum elong	4336 Jan 08 14:43	16° Z 51'27	1°09'34
evening max el	4335 Mar 04 23:46	1° Y 58'51	18°27'13	max. Earth dist.	4336 Jan 09 15:07	18° Z 27'04	1.45285 AU
retrograde	4335 Mar 11 11:48	5° Y 31'35			4336 Jan 16 23:51	0° \approx	
evening set	4335 Mar 14 12:22	4° Y 40'57		evening rise	4336 Jan 24 23:10	12° \approx 33'46	
	4335 Mar 19 16:10	30° R H			4336 Feb 05 00:59	0° H	
inferior conj	4335 Mar 20 09:39	29° H 09'09	3°35'36	greatest brilliancy	4336 Feb 05 14:54	0° H 53'32	-0.8m
minimum elong	4335 Mar 20 09:27	29° H 09'42	3°35'37	evening max el	4336 Feb 16 09:34	15° H 28'17	19°03'11
min. Earth dist.	4335 Mar 22 14:24	26° H 35'02	0.64422 AU	asc. node	4336 Feb 18 03:38	17° H 05'47	
morning rise	4335 Mar 26 04:59	22° H 57'36		retrograde	4336 Feb 23 06:55	19° H 21'58	
direct	4335 Apr 01 23:28	20° H 10'08		evening set	4336 Feb 26 14:11	18° H 18'40	
desc. node	4335 Apr 09 02:28	22° H 39'19		inferior conj	4336 Mar 03 05:11	12° H 30'06	3°27'03
morning max el	4335 Apr 15 13:58	28° H 05'41	27°25'25	minimum elong	4336 Mar 03 03:43	12° H 34'44	3°26'53
	4335 Apr 17 09:44	0° Y		min. Earth dist.	4336 Mar 04 18:30	10° H 31'59	0.65949 AU
	4335 May 08 19:20	0° B		morning rise	4336 Mar 08 16:15	6° H 15'03	
morning set	4335 May 20 18:38	21° B 42'04		direct	4336 Mar 15 02:23	3° H 26'49	
	4335 May 24 21:47	0° II		desc. node	4336 Mar 25 23:31	9° H 09'03	
max. Earth dist.	4335 May 25 14:43	1° II 27'18	1.33391 AU	morning max el	4336 Mar 27 23:52	11° H 05'31	26°29'29
					4336 Apr 12 00:51	0° Y	
superior conj	4335 May 28 21:33	8° II 20'56	0°-14'00		4336 Apr 30 08:58	0° B	
minimum elong	4335 May 28 22:16	8° II 24'44	0°13'52	morning set	4336 May 02 23:35	4° B 50'21	
behind sun begin	4335 May 28 19:32	8° II 10'11		max. Earth dist.	4336 May 07 03:17	12° B 50'58	1.34745 AU
behind sun end	4335 May 29 01:00	8° II 39'17					
asc. node	4335 May 30 05:53	11° II 13'11		superior conj	4336 May 11 20:05	22° B 19'57	0°-43'-13
evening rise	4335 Jun 05 03:08	23° II 47'27		minimum elong	4336 May 11 22:24	22° B 31'53	0°42'46
	4335 Jun 08 03:07	0° S			4336 May 15 12:36	0° II	
evening max el	4335 Jun 26 11:58	28° S 24'12	22°20'42	asc. node	4336 May 16 02:55	1° II 14'53	
	4335 Jun 28 05:55	0° Q		evening rise	4336 May 19 12:03	8° II 18'09	
desc. node	4335 Jul 06 01:42	4° Q 24'16			4336 May 31 04:52	0° S	
retrograde	4335 Jul 09 11:36	4° Q 51'12		evening max el	4336 Jun 07 11:06	9° S 09'20	20°52'22
evening set	4335 Jul 12 12:53	4° Q 30'36		retrograde	4336 Jun 19 00:15	14° S 48'45	
min. Earth dist.	4335 Jul 20 18:32	0° Q 56'11	0.55095 AU	evening set	4336 Jun 21 03:42	14° S 37'50	
inferior conj	4335 Jul 21 17:47	0° Q 23'19	-4°-9'-38	desc. node	4336 Jun 21 22:43	14° S 28'30	
minimum elong	4335 Jul 21 09:24	0° Q 35'11	4°07'39	inferior conj	4336 Jun 30 11:00	10° S 40'50	-2°-28'-50
	4335 Jul 22 10:18	30° R S		minimum elong	4336 Jun 30 04:11	10° S 50'31	2°26'29
morning rise	4335 Jul 30 08:02	26° S 33'20		min. Earth dist.	4336 Jul 01 05:58	10° S 13'54	0.54841 AU
direct	4335 Aug 02 10:58	26° S 11'21		morning rise	4336 Jul 09 03:59	6° S 39'16	
	4335 Aug 12 04:39	0° Q		direct	4336 Jul 12 20:16	6° S 10'07	
morning max el	4335 Aug 14 01:29	1° Q 35'50	21°15'57	morning max el	4336 Jul 25 20:59	12° S 24'54	22°54'21
asc. node	4335 Aug 26 05:06	18° Q 11'36			4336 Aug 08 00:58	0° Q	
	4335 Sep 01 09:02	0° M		asc. node	4336 Aug 12 02:08	7° Q 21'50	
morning set	4335 Sep 03 00:49	3° M 24'20		morning set	4336 Aug 17 11:43	18° Q 16'14	
					4336 Aug 22 23:22	0° M	
superior conj	4335 Sep 10 10:01	18° M 51'07	1°43'47				
minimum elong	4335 Sep 10 09:38	18° M 49'10	1°43'47	superior conj	4336 Aug 24 14:25	3° M 29'11	1°38'38
max. Earth dist.	4335 Sep 14 17:04	27° M 35'12	1.35308 AU	minimum elong	4336 Aug 24 12:55	3° M 21'10	1°38'32
	4335 Sep 15 22:22	0° A		max. Earth dist.	4336 Aug 27 12:00	9° M 36'59	1.33858 AU
evening rise	4335 Sep 18 23:12	5° A 50'55		evening rise	4336 Sep 01 09:40	19° M 35'05	
desc. node	4335 Oct 02 01:00	28° A 30'50			4336 Sep 06 21:24	0° A	
	4335 Oct 02 23:43	0° M		desc. node	4336 Sep 17 22:01	18° A 26'58	
evening max el	4335 Oct 24 07:57	27° M 40'46	26°35'15		4336 Sep 26 01:29	0° M	
	4335 Oct 26 21:35	0° J		evening max el	4336 Oct 05 20:27	11° M 10'20	27°14'45
retrograde	4335 Nov 06 06:40	4° J 55'21		retrograde	4336 Oct 19 06:34	18° M 28'22	
evening set	4335 Nov 12 18:09	2° J 18'21		evening set	4336 Oct 26 04:45	15° M 48'24	
	4335 Nov 15 04:15	30° R M		min. Earth dist.	4336 Oct 30 01:09	12° M 10'49	0.64819 AU
min. Earth dist.	4335 Nov 16 20:50	28° M 05'16	0.66143 AU	inferior conj	4336 Nov 01 06:32	9° M 44'31	-2°-15'00
inferior conj	4335 Nov 18 14:15	26° M 01'25	-1°-13'-14	minimum elong	4336 Nov 01 10:23	9° M 33'59	2°13'31
minimum elong	4335 Nov 18 16:17	25° M 55'22	1°12'23	morning rise	4336 Nov 07 18:03	4° M 12'34	
asc. node	4335 Nov 22 04:20	22° M 05'32		asc. node	4336 Nov 08 01:22	4° M 04'55	
morning rise	4335 Nov 24 15:51	20° M 15'43		direct	4336 Nov 10 07:35	3° M 38'02	
direct	4335 Nov 27 12:46	19° M 29'30		morning max el	4336 Nov 16 19:09	7° M 04'52	18°00'31
morning max el	4335 Dec 04 03:30	23° M 05'47	18°28'33		4336 Dec 02 06:20	0° J	
	4335 Dec 09 17:56	0° J		morning set	4336 Dec 04 09:55	3° J 35'24	
morning set	4335 Dec 24 02:55	22° J 20'14		desc. node	4336 Dec 14 21:18	20° J 50'01	
	4335 Dec 28 22:16	0° Z					

superior conj	4336 Dec 18 08:24	26° ♂ 23'51	0°-23'-42		4337 Nov 24 19:16	0° ♂	
minimum elong	4336 Dec 18 05:29	26° ♂ 12'14	0°23'18				
	4336 Dec 20 14:43	0° ♂		superior conj	4337 Nov 28 16:15	6° ♂ 30'55	0°21'26
max. Earth dist.	4336 Dec 22 10:23	2° ♂ 52'38	1.44972 AU	minimum elong	4337 Nov 28 18:24	6° ♂ 39'51	0°21'09
evening rise	4337 Jan 03 16:26	21° ♂ 57'20		desc. node	4337 Dec 01 18:18	11° ♂ 36'09	
	4337 Jan 08 22:05	0° \approx		max. Earth dist.	4337 Dec 05 03:44	17° ♂ 05'52	1.43957 AU
greatest brilliancy	4337 Jan 22 14:53	20° \approx 20'26	-0.6m		4337 Dec 13 08:19	0° ♂	
evening max el	4337 Jan 29 15:01	29° \approx 00'41	19°55'17	evening rise	4337 Dec 14 02:03	1° ♂ 08'29	
	4337 Jan 30 15:11	0° ♂			4338 Jan 02 13:36	0° \approx	
asc. node	4337 Feb 04 00:39	2° ♂ 59'27		greatest brilliancy	4338 Jan 07 07:40	6° \approx 22'22	-0.5m
retrograde	4337 Feb 06 04:37	3° ♂ 24'39		evening max el	4338 Jan 12 15:01	12° \approx 33'48	21°00'53
evening set	4337 Feb 09 19:52	2° ♂ 07'31		retrograde	4338 Jan 21 02:38	17° \approx 35'05	
	4337 Feb 12 03:45	30° ♂		asc. node	4338 Jan 21 21:41	17° \approx 31'39	
inferior conj	4337 Feb 15 07:06	26° \approx 04'27	3°06'09	evening set	4338 Jan 25 03:25	16° \approx 02'56	
minimum elong	4337 Feb 15 04:53	26° \approx 11'53	3°05'41	inferior conj	4338 Jan 30 12:56	9° \approx 48'08	2°35'21
min. Earth dist.	4337 Feb 16 05:58	24° \approx 48'00	0.67052 AU	minimum elong	4338 Jan 30 10:29	9° \approx 56'38	2°34'39
morning rise	4337 Feb 20 13:16	19° \approx 48'30		min. Earth dist.	4338 Jan 30 22:49	9° \approx 14'07	0.67735 AU
direct	4337 Feb 26 10:58	17° \approx 11'09		morning rise	4338 Feb 04 17:10	3° \approx 33'02	
morning max el	4337 Mar 10 08:46	24° \approx 17'59	25°12'45	direct	4338 Feb 10 00:21	1° \approx 14'17	
desc. node	4337 Mar 12 20:33	26° \approx 57'08		morning max el	4338 Feb 20 17:23	7° \approx 37'01	23°45'16
	4337 Mar 15 11:38	0° ♂		desc. node	4338 Feb 27 17:34	15° \approx 40'41	
	4337 Apr 05 11:10	0° ♂			4338 Mar 10 04:37	0° ♂	
morning set	4337 Apr 15 12:13	17° ♂ 07'36		morning set	4338 Mar 28 02:38	28° ♂ 17'27	
max. Earth dist.	4337 Apr 19 04:57	23° ♂ 53'58	1.36544 AU		4338 Mar 29 02:34	0° ♂	
	4337 Apr 22 10:06	0° ♂		max. Earth dist.	4338 Apr 01 00:44	5° ♂ 06'03	1.38654 AU
superior conj	4337 Apr 25 09:23	5° ♂ 47'59	-1°-12'-12	superior conj	4338 Apr 08 09:44	18° ♂ 34'39	-1°-38'-33
minimum elong	4337 Apr 25 13:15	6° ♂ 07'09	1°11'35	minimum elong	4338 Apr 08 14:32	18° ♂ 57'18	1°38'01
asc. node	4337 May 02 23:56	21° ♂ 07'31			4338 Apr 14 08:18	0° ♂	
evening rise	4337 May 03 16:26	22° ♂ 30'48		evening rise	4338 Apr 17 13:33	6° ♂ 17'15	
	4337 May 07 11:04	0° ♂		asc. node	4338 Apr 19 20:59	10° ♂ 45'57	
evening max el	4337 May 20 22:30	20° ♂ 33'55	19°40'56		4338 May 01 11:36	0° ♂	
retrograde	4337 May 30 17:48	25° ♂ 20'30		evening max el	4338 May 03 21:01	2° ♂ 38'22	18°49'24
evening set	4337 Jun 01 16:31	25° ♂ 10'02		retrograde	4338 May 12 03:32	6° ♂ 41'33	
desc. node	4337 Jun 08 19:46	22° ♂ 08'08		evening set	4338 May 14 06:19	6° ♂ 26'38	
inferior conj	4337 Jun 10 11:28	21° ♂ 07'04	0°-29'-27	inferior conj	4338 May 22 06:12	2° ♂ 06'43	1°15'41
minimum elong	4337 Jun 10 10:08	21° ♂ 09'09	0°28'59	minimum elong	4338 May 22 08:55	2° ♂ 01'47	1°14'45
min. Earth dist.	4337 Jun 12 19:10	19° ♂ 40'19	0.55557 AU		4338 May 25 04:13	30° ♂	
morning rise	4337 Jun 19 00:27	16° ♂ 36'29		min. Earth dist.	4338 May 25 11:26	29° ♂ 47'24	0.57086 AU
direct	4337 Jun 23 12:28	15° ♂ 51'30		desc. node	4338 May 26 16:48	28° ♂ 58'08	
morning max el	4337 Jul 07 11:03	22° ♂ 49'16	24°37'44	morning rise	4338 May 30 07:03	27° ♂ 00'09	
	4337 Jul 13 20:33	0° ♂		direct	4338 Jun 04 17:56	25° ♂ 48'07	
asc. node	4337 Jul 29 23:11	26° ♂ 55'27			4338 Jun 15 07:00	0° ♂	
	4337 Jul 31 11:12	0° ♂		morning max el	4338 Jun 19 02:11	3° ♂ 16'46	26°10'42
morning set	4337 Aug 01 23:31	3° ♂ 10'17			4338 Jul 08 05:57	0° ♂	
superior conj	4337 Aug 08 23:18	18° ♂ 19'22	1°27'49	asc. node	4338 Jul 16 20:14	16° ♂ 45'05	
minimum elong	4337 Aug 08 21:08	18° ♂ 07'37	1°27'34	morning set	4338 Jul 17 10:35	18° ♂ 00'32	
max. Earth dist.	4337 Aug 10 15:34	21° ♂ 58'02	1.32823 AU		4338 Jul 22 23:19	0° ♂	
	4337 Aug 14 10:10	0° ♂		superior conj	4338 Jul 24 10:33	3° ♂ 14'09	1°12'09
evening rise	4337 Aug 16 06:27	3° ♂ 48'26		minimum elong	4338 Jul 24 08:13	3° ♂ 01'20	1°11'46
	4337 Aug 30 15:10	0° ♂		max. Earth dist.	4338 Jul 25 00:54	4° ♂ 33'11	1.32200 AU
desc. node	4337 Sep 04 19:02	7° ♂ 52'22		evening rise	4338 Jul 31 10:23	18° ♂ 20'55	
evening max el	4337 Sep 18 07:10	24° ♂ 16'09	27°26'41		4338 Aug 06 06:11	0° ♂	
	4337 Sep 26 01:57	0° ♂		desc. node	4338 Aug 22 16:04	26° ♂ 33'58	
retrograde	4337 Oct 01 23:54	1° ♂ 31'52			4338 Aug 25 08:47	0° ♂	
	4337 Oct 07 13:10	30° ♂		evening max el	4338 Aug 31 13:23	6° ♂ 44'10	27°06'25
evening set	4337 Oct 09 04:05	28° ♂ 58'29		retrograde	4338 Sep 14 10:06	13° ♂ 56'27	
min. Earth dist.	4337 Oct 12 19:49	25° ♂ 53'08	0.63166 AU	evening set	4338 Sep 21 12:14	11° ♂ 41'41	
inferior conj	4337 Oct 15 13:07	23° ♂ 12'25	-3°-16'-28	min. Earth dist.	4338 Sep 25 03:42	8° ♂ 59'45	0.61229 AU
minimum elong	4337 Oct 15 18:33	22° ♂ 59'00	3°14'41	inferior conj	4338 Sep 28 06:47	6° ♂ 16'44	-4°-12'-53
morning rise	4337 Oct 22 11:39	17° ♂ 57'45		minimum elong	4338 Sep 28 12:50	6° ♂ 03'33	4°11'24
direct	4337 Oct 24 20:31	17° ♂ 31'13		morning rise	4338 Oct 05 16:36	1° ♂ 22'58	
asc. node	4337 Oct 25 22:24	17° ♂ 36'51		direct	4338 Oct 07 23:46	1° ♂ 01'23	
morning max el	4337 Oct 31 11:47	20° ♂ 56'52	17°49'59	asc. node	4338 Oct 12 19:27	2° ♂ 40'20	
	4337 Nov 07 07:44	0° ♂		morning max el	4338 Oct 15 02:18	4° ♂ 34'20	17°58'05
morning set	4337 Nov 16 17:41	16° ♂ 01'57		morning set	4338 Oct 30 19:50	29° ♂ 20'53	

	4338 Oct 31 04:20	0°♌			4339 Oct 07 06:44	0°♎	
				morning set	4339 Oct 14 10:54	13°♎16'07	
superior conj	4338 Nov 10 02:54	17°♌56'46	0°57'39		4339 Oct 23 06:12	0°♌	
minimum elong	4338 Nov 10 06:58	18°♌14'30	0°57'07				
	4338 Nov 17 04:35	0°♏		superior conj	4339 Oct 23 12:35	0°♌29'30	1°22'53
max. Earth dist.	4338 Nov 17 16:34	0°♏49'39	1.42361 AU	minimum elong	4339 Oct 23 16:10	0°♌46'03	1°22'31
desc. node	4338 Nov 18 15:20	2°♏23'29		max. Earth dist.	4339 Oct 30 23:49	13°♌50'26	1.40390 AU
evening rise	4338 Nov 23 20:13	10°♏47'04		evening rise	4339 Nov 04 10:27	21°♌21'13	
	4338 Dec 06 10:45	0°♐		desc. node	4339 Nov 05 12:22	23°♌08'04	
greatest brilliancy	4338 Dec 21 15:51	20°♐48'20	-0.3m		4339 Nov 09 18:40	0°♏	
evening max el	4338 Dec 26 09:40	26°♐08'30	22°16'07		4339 Nov 30 13:54	0°♐	
	4338 Dec 30 21:47	0°♑		evening max el	4339 Dec 09 00:18	9°♐45'57	23°35'57
retrograde	4339 Jan 04 23:13	1°♑49'57		retrograde	4339 Dec 19 16:52	16°♐04'55	
asc. node	4339 Jan 08 18:44	0°♑32'50		evening set	4339 Dec 24 17:26	14°♐01'01	
evening set	4339 Jan 09 11:09	0°♑02'02		asc. node	4339 Dec 26 15:46	12°♐06'26	
	4339 Jan 09 12:09	30°♑♐		min. Earth dist.	4339 Dec 29 15:36	8°♐17'21	0.67950 AU
inferior conj	4339 Jan 14 20:40	23°♐38'53	1°56'21	inferior conj	4339 Dec 30 04:23	7°♐33'39	1°10'20
minimum elong	4339 Jan 14 18:26	23°♐46'39	1°55'35	minimum elong	4339 Dec 30 02:50	7°♐38'58	1°09'44
min. Earth dist.	4339 Jan 14 18:49	23°♐45'19	0.68024 AU	morning rise	4340 Jan 04 12:22	1°♐25'20	
morning rise	4339 Jan 20 01:35	17°♐26'15			4340 Jan 07 08:38	30°♑♏	
direct	4339 Jan 24 17:50	15°♐29'49		direct	4340 Jan 08 14:26	29°♏51'37	
morning max el	4339 Feb 03 04:38	21°♐03'25	22°16'51		4340 Jan 09 21:04	0°♐	
greatest brilliancy	4339 Feb 07 18:19	26°♐09'46	-0.3m	morning max el	4340 Jan 16 21:44	4°♐39'17	20°55'24
	4339 Feb 10 19:38	0°♑		greatest brilliancy	4340 Jan 22 11:01	11°♐04'05	-0.5m
desc. node	4339 Feb 14 14:35	5°♑04'14		desc. node	4340 Feb 01 11:36	24°♐56'16	
	4339 Mar 03 11:07	0°♒			4340 Feb 04 22:05	0°♑	
morning set	4339 Mar 08 13:23	8°♒07'24		morning set	4340 Feb 15 20:53	16°♑42'16	
max. Earth dist.	4339 Mar 13 21:50	16°♒58'29	1.40830 AU	max. Earth dist.	4340 Feb 24 01:05	29°♑43'52	1.42793 AU
	4339 Mar 21 10:01	0°♓			4340 Feb 24 05:03	0°♒	
superior conj	4339 Mar 21 16:35	0°♓29'16	-1°-58'-45	superior conj	4340 Mar 02 00:49	11°♒19'48	-2°-7'-57
minimum elong	4339 Mar 21 20:40	0°♓47'35	1°58'31	minimum elong	4340 Mar 02 01:21	11°♒22'06	2°07'57
evening rise	4339 Apr 01 00:06	19°♓29'25			4340 Mar 12 17:41	0°♓	
asc. node	4339 Apr 06 18:03	0°♔04'57		evening rise	4340 Mar 13 19:56	1°♓57'11	
	4339 Apr 06 16:56	0°♔		asc. node	4340 Mar 23 15:05	18°♓57'15	
evening max el	4339 Apr 17 03:42	15°♔16'32	18°18'13	evening max el	4340 Mar 30 15:02	28°♓18'40	18°06'51
retrograde	4339 Apr 24 08:17	18°♔51'39			4340 Apr 01 14:21	0°♔	
evening set	4339 Apr 26 17:22	18°♔29'00		retrograde	4340 Apr 06 05:12	1°♔41'37	
inferior conj	4339 May 03 22:34	13°♔48'36	2°30'22	evening set	4340 Apr 08 20:30	1°♔09'00	
minimum elong	4339 May 04 02:09	13°♔40'57	2°29'28		4340 Apr 10 23:01	30°♑♓	
min. Earth dist.	4339 May 07 08:55	10°♔54'45	0.59123 AU	inferior conj	4340 Apr 15 10:18	26°♓07'49	3°14'24
morning rise	4339 May 11 06:48	8°♔11'49		minimum elong	4340 Apr 15 12:46	26°♓01'46	3°14'02
desc. node	4339 May 13 13:50	7°♔08'18		min. Earth dist.	4340 Apr 18 13:37	23°♓04'21	0.61316 AU
direct	4339 May 17 13:26	6°♔25'09		morning rise	4340 Apr 22 01:58	20°♓11'30	
morning max el	4339 May 31 22:46	14°♔13'14	27°17'54	direct	4340 Apr 28 20:20	17°♓52'19	
	4339 Jun 13 14:09	0°♕		desc. node	4340 Apr 29 10:51	17°♓53'23	
	4339 Jun 30 12:00	0°♖		morning max el	4340 May 13 01:31	25°♓50'03	27°49'55
morning set	4339 Jul 01 19:13	2°♖41'45			4340 May 16 22:13	0°♔	
asc. node	4339 Jul 03 17:18	6°♖45'30			4340 Jun 06 01:54	0°♕	
superior conj	4339 Jul 08 22:21	18°♖07'48	0°52'16	morning set	4340 Jun 14 23:33	17°♕07'55	
minimum elong	4339 Jul 08 20:20	17°♖56'38	0°51'51	asc. node	4340 Jun 19 14:22	26°♕52'06	
max. Earth dist.	4339 Jul 08 12:26	17°♖13'02	1.31988 AU	max. Earth dist.	4340 Jun 20 22:23	29°♕45'37	1.32189 AU
	4339 Jul 14 08:22	0°♗			4340 Jun 21 01:01	0°♖	
evening rise	4339 Jul 15 19:00	3°♗05'02		superior conj	4340 Jun 22 08:59	2°♖54'38	0°28'45
	4339 Jul 30 04:35	0°♘		minimum elong	4340 Jun 22 07:43	2°♖47'39	0°28'28
desc. node	4339 Aug 09 13:07	14°♘13'49		evening rise	4340 Jun 29 06:12	17°♖54'10	
evening max el	4339 Aug 13 12:42	18°♘24'50	26°13'01		4340 Jul 05 04:44	0°♗	
retrograde	4339 Aug 27 12:01	25°♘33'55		evening max el	4340 Jul 25 04:57	29°♗19'59	24°52'08
evening set	4339 Sep 03 00:19	23°♘50'17			4340 Jul 25 22:01	0°♘	
min. Earth dist.	4339 Sep 07 01:39	21°♘15'57	0.59154 AU	desc. node	4340 Jul 26 10:08	0°♘27'21	
inferior conj	4339 Sep 10 07:58	18°♘47'50	-4°-56'-1	retrograde	4340 Aug 08 03:20	6°♘22'35	
minimum elong	4339 Sep 10 12:28	18°♘39'18	4°55'26	evening set	4340 Aug 13 12:21	5°♘17'09	
morning rise	4339 Sep 18 04:08	14°♘17'11		min. Earth dist.	4340 Aug 18 16:26	2°♘31'30	0.57190 AU
direct	4339 Sep 20 12:56	13°♘58'00		inferior conj	4340 Aug 21 13:45	0°♘37'28	-5°-12'-53
morning max el	4339 Sep 28 11:20	17°♘47'49	18°26'01	minimum elong	4340 Aug 21 13:34	0°♘37'48	5°12'55
asc. node	4339 Sep 29 16:31	19°♘02'43			4340 Aug 22 12:35	30°♑♗	

morning rise	4340 Aug 29 18:18	26° Ω 29'04		min. Earth dist.	4341 Jul 31 03:18	12° Ω 45'30	0.55660 AU
direct	4340 Sep 01 08:13	26° Ω 10'08		inferior conj	4341 Aug 01 23:38	11° Ω 40'32	-4°-47'-33
	4340 Sep 09 23:26	0° \cap		minimum elong	4341 Aug 01 17:19	11° Ω 49'49	4°46'36
morning max el	4340 Sep 10 11:34	0° \cap 27'47	19°15'09	morning rise	4341 Aug 10 10:46	7° Ω 47'58	
asc. node	4340 Sep 15 13:33	6° \cap 29'05		direct	4341 Aug 13 08:36	7° Ω 27'31	
morning set	4340 Sep 27 10:55	27° \cap 37'10		morning max el	4341 Aug 24 00:18	12° Ω 24'29	20°26'03
	4340 Sep 28 15:34	0° $\underline{\Omega}$		asc. node	4341 Sep 02 10:35	24° Ω 44'30	
					4341 Sep 05 10:46	0° \cap	
superior conj	4340 Oct 05 15:49	13° $\underline{\Omega}$ 53'52	1°37'47	morning set	4341 Sep 11 16:51	12° \cap 14'56	
minimum elong	4340 Oct 05 17:55	14° $\underline{\Omega}$ 04'02	1°37'39				
max. Earth dist.	4340 Oct 12 04:16	26° $\underline{\Omega}$ 10'40	1.38298 AU	superior conj	4341 Sep 19 07:42	27° \cap 55'09	1°43'47
	4340 Oct 14 07:14	0° \cap		minimum elong	4341 Sep 19 08:09	27° \cap 57'27	1°43'47
evening rise	4340 Oct 16 00:01	2° \cap 59'43			4341 Sep 20 08:25	0° $\underline{\Omega}$	
desc. node	4340 Oct 22 09:25	13° \cap 46'19		max. Earth dist.	4341 Sep 24 11:10	8° $\underline{\Omega}$ 06'47	1.36322 AU
	4340 Nov 01 22:18	0° \nearrow		evening rise	4341 Sep 28 10:20	15° $\underline{\Omega}$ 35'12	
evening max el	4340 Nov 20 13:09	23° \nearrow 27'52	24°53'53		4341 Oct 06 16:22	0° \cap	
	4340 Nov 30 05:16	0° $\overline{\cap}$		desc. node	4341 Oct 09 06:27	4° \cap 12'57	
retrograde	4340 Dec 02 06:25	0° $\overline{\cap}$ 16'09			4341 Oct 27 12:16	0° \nearrow	
	4340 Dec 04 05:22	30° \cap \nearrow		evening max el	4341 Nov 03 01:43	7° \nearrow 10'49	26°02'44
evening set	4340 Dec 07 20:42	27° \nearrow 57'06		retrograde	4341 Nov 15 15:01	14° \nearrow 18'05	
min. Earth dist.	4340 Dec 12 10:48	22° \nearrow 47'41	0.67527 AU	evening set	4341 Nov 21 19:11	11° \nearrow 46'18	
asc. node	4340 Dec 12 12:47	22° \nearrow 41'09		min. Earth dist.	4341 Nov 26 01:56	7° \nearrow 12'32	0.66752 AU
inferior conj	4340 Dec 13 10:20	21° \nearrow 30'05	0°18'20	inferior conj	4341 Nov 27 12:37	5° \nearrow 24'31	0°-38'-38
minimum elong	4340 Dec 13 09:52	21° \nearrow 31'35	0°18'09	minimum elong	4341 Nov 27 13:39	5° \nearrow 21'18	0°38'13
morning rise	4340 Dec 18 23:36	15° \nearrow 28'25		asc. node	4341 Nov 29 09:48	3° \nearrow 07'42	
direct	4340 Dec 22 12:54	14° \nearrow 15'40			4341 Dec 02 16:08	30° \cap \cap	
morning max el	4340 Dec 29 22:38	18° \nearrow 26'32	19°46'16	morning rise	4341 Dec 03 09:11	29° \cap 32'12	
greatest brilliancy	4341 Jan 06 14:15	27° \nearrow 50'19	-0.6m	direct	4341 Dec 06 11:33	28° \cap 37'17	
	4341 Jan 08 03:16	0° $\overline{\cap}$			4341 Dec 10 10:59	0° \nearrow	
desc. node	4341 Jan 18 08:38	15° $\overline{\cap}$ 09'14		morning max el	4341 Dec 13 07:01	2° \nearrow 22'48	18°52'17
morning set	4341 Jan 24 16:54	24° $\overline{\cap}$ 52'28			4342 Jan 01 15:38	0° $\overline{\cap}$	
	4341 Jan 28 00:22	0° \approx		morning set	4342 Jan 04 02:51	3° $\overline{\cap}$ 51'59	
max. Earth dist.	4341 Feb 05 12:08	13° \approx 20'04	1.44289 AU	desc. node	4342 Jan 05 05:41	5° $\overline{\cap}$ 37'08	
				max. Earth dist.	4342 Jan 19 05:15	27° $\overline{\cap}$ 31'48	1.45132 AU
superior conj	4341 Feb 10 07:21	21° \approx 01'44	-2°00'-40				
minimum elong	4341 Feb 10 01:52	20° \approx 39'34	2°00'24	superior conj	4342 Jan 20 16:12	29° $\overline{\cap}$ 49'12	-1°-33'-45
	4341 Feb 15 19:02	0° \cap		minimum elong	4342 Jan 20 06:55	29° $\overline{\cap}$ 12'38	1°32'53
evening rise	4341 Feb 23 20:43	13° \cap 32'44			4342 Jan 20 18:57	0° \approx	
	4341 Mar 05 16:03	0° \cap		evening rise	4342 Feb 04 22:59	24° \approx 11'50	
asc. node	4341 Mar 10 12:06	7° \cap 14'43			4342 Feb 08 12:54	0° \cap	
evening max el	4341 Mar 14 03:53	11° \cap 36'30	18°14'30	asc. node	4342 Feb 25 09:07	24° \cap 47'01	
retrograde	4341 Mar 20 13:56	15° \cap 01'40		evening max el	4342 Feb 25 15:28	25° \cap 03'23	18°40'24
evening set	4341 Mar 23 11:09	14° \cap 17'45		retrograde	4342 Mar 04 06:22	28° \cap 43'28	
inferior conj	4341 Mar 29 13:26	8° \cap 56'39	3°33'31	evening set	4342 Mar 07 09:46	27° \cap 47'23	
minimum elong	4341 Mar 29 14:10	8° \cap 54'36	3°33'28	inferior conj	4342 Mar 13 04:00	22° \cap 08'01	3°33'41
min. Earth dist.	4341 Apr 01 03:07	6° \cap 06'55	0.63380 AU	minimum elong	4342 Mar 13 03:13	22° \cap 10'25	3°33'38
morning rise	4341 Apr 04 15:12	2° \cap 49'14		min. Earth dist.	4342 Mar 15 02:01	19° \cap 48'29	0.65125 AU
direct	4341 Apr 11 12:03	0° \cap 08'14		morning rise	4342 Mar 18 19:25	15° \cap 54'46	
desc. node	4341 Apr 16 07:52	1° \cap 16'54		direct	4342 Mar 25 10:59	13° \cap 05'41	
morning max el	4341 Apr 25 09:00	8° \cap 06'39	27°44'21	desc. node	4342 Apr 03 04:52	16° \cap 48'51	
	4341 May 12 05:52	0° \cap		morning max el	4342 Apr 07 18:53	20° \cap 54'55	27°04'51
	4341 May 29 06:58	0° \cap			4342 Apr 15 15:29	0° \cap	
morning set	4341 May 29 21:15	1° \cap 11'05			4342 May 05 08:57	0° \cap	
max. Earth dist.	4341 Jun 04 02:54	11° \cap 58'25	1.32825 AU	morning set	4342 May 13 09:24	14° \cap 42'42	
asc. node	4341 Jun 06 11:23	16° \cap 59'56		max. Earth dist.	4342 May 17 22:20	23° \cap 42'09	1.33917 AU
					4342 May 20 23:42	0° \cap	
superior conj	4341 Jun 06 16:35	17° \cap 27'55	0°02'17				
minimum elong	4341 Jun 06 16:28	17° \cap 27'18	0°02'15	superior conj	4342 May 21 19:07	1° \cap 41'31	0°-26'-17
behind sun begin	4341 Jun 06 11:13	16° \cap 59'02		minimum elong	4342 May 21 20:29	1° \cap 48'45	0°26'01
behind sun end	4341 Jun 06 21:43	17° \cap 55'37		asc. node	4342 May 24 08:25	7° \cap 05'12	
	4341 Jun 12 11:46	0° \cap		evening rise	4342 May 29 04:35	17° \cap 20'01	
evening rise	4341 Jun 13 18:00	2° \cap 41'11			4342 Jun 04 12:33	0° \cap	
	4341 Jun 28 16:54	0° \cap		evening max el	4342 Jun 18 11:04	20° \cap 14'49	21°41'21
evening max el	4341 Jul 06 17:52	9° \cap 46'02	23°16'17	desc. node	4342 Jun 30 04:08	26° \cap 22'06	
desc. node	4341 Jul 13 07:09	14° \cap 41'21		retrograde	4342 Jun 30 21:23	26° \cap 23'19	
retrograde	4341 Jul 20 05:46	16° \cap 30'53		evening set	4342 Jul 03 11:25	26° \cap 08'13	
evening set	4341 Jul 24 02:48	15° \cap 58'04		inferior conj	4342 Jul 12 19:20	22° \cap 06'55	-3°-31'-20

minimum elong	4342 Jul 12 10:49	22°☿18'50	3°28'52	inferior conj	4343 Jun 22 13:51	2°☿24'01	-1°-38'-16
min. Earth dist.	4342 Jul 12 13:37	22°☿14'54	0.54875 AU	minimum elong	4343 Jun 22 09:14	2°☿30'47	1°36'36
morning rise	4342 Jul 21 11:23	18°☿14'58		min. Earth dist.	4343 Jun 24 01:43	1°☿31'27	0.55030 AU
direct	4342 Jul 24 19:26	17°☿50'42			4343 Jun 26 19:48	30°☿II	
morning max el	4342 Aug 06 01:19	23°☿35'52	21°56'24	morning rise	4343 Jul 01 06:09	28°II11'40	
	4342 Aug 11 17:46	0°♊		direct	4343 Jul 05 05:44	27°II37'22	
asc. node	4342 Aug 20 07:38	13°♊37'22			4343 Jul 13 06:16	0°☿	
morning set	4342 Aug 27 02:29	27°♊03'13		morning max el	4343 Jul 18 17:55	4°☿11'52	23°38'39
	4342 Aug 28 12:11	0°♊			4343 Aug 05 15:50	0°♊	
				asc. node	4343 Aug 07 04:42	2°♊58'18	
superior conj	4342 Sep 03 08:24	12°♊22'20	1°42'21	morning set	4343 Aug 11 13:59	11°♊56'40	
minimum elong	4342 Sep 03 07:30	12°♊17'34	1°42'19				
max. Earth dist.	4342 Sep 07 01:02	20°♊01'04	1.34645 AU	superior conj	4343 Aug 18 15:02	27°♊06'38	1°34'42
evening rise	4342 Sep 11 13:11	28°♊57'05		minimum elong	4343 Aug 18 13:11	26°♊56'43	1°34'32
	4342 Sep 12 02:18	0°♋			4343 Aug 19 23:18	0°♊	
desc. node	4342 Sep 26 03:28	24°♋22'11		max. Earth dist.	4343 Aug 20 23:42	2°♊10'02	1.33360 AU
	4342 Sep 29 20:34	0°♋		evening rise	4343 Aug 26 04:27	12°♊54'40	
evening max el	4342 Oct 16 14:16	20°♋47'20	26°54'58		4343 Sep 04 07:22	0°♋	
retrograde	4342 Oct 29 18:10	28°♋03'58		desc. node	4343 Sep 13 00:28	14°♋06'35	
evening set	4342 Nov 05 10:49	25°♋24'30			4343 Sep 25 02:23	0°♋	
min. Earth dist.	4342 Nov 09 10:41	21°♋26'58	0.65625 AU	evening max el	4343 Sep 29 02:05	4°♋07'46	27°23'30
inferior conj	4342 Nov 11 09:12	19°♋12'45	-1°-39'-16	retrograde	4343 Oct 12 15:34	11°♋26'04	
minimum elong	4342 Nov 11 12:00	19°♋04'41	1°38'08	evening set	4343 Oct 19 17:07	8°♋47'10	
asc. node	4342 Nov 16 06:50	14°♋21'12		min. Earth dist.	4343 Oct 23 11:02	5°♋24'16	0.64150 AU
morning rise	4342 Nov 17 14:51	13°♋32'44		inferior conj	4343 Oct 25 21:44	2°♋50'16	-2°-41'-22
direct	4342 Nov 20 08:24	12°♋51'55		minimum elong	4343 Oct 26 02:19	2°♋38'13	2°39'42
morning max el	4342 Nov 26 20:50	16°♋22'45	18°14'36		4343 Oct 28 18:20	30°☿♋	
	4342 Dec 06 20:39	0°♌		morning rise	4343 Nov 01 13:53	27°♋25'34	
morning set	4342 Dec 15 17:04	14°♌17'28		asc. node	4343 Nov 03 03:54	26°♋58'55	
desc. node	4342 Dec 23 02:42	26°♌14'56		direct	4343 Nov 04 01:00	26°♋54'58	
	4342 Dec 25 11:04	0°♍			4343 Nov 10 05:01	0°♋	
				morning max el	4343 Nov 10 13:24	0°♋20'22	17°53'54
superior conj	4342 Dec 30 19:12	8°♍27'17	0°-51'-9	morning set	4343 Nov 27 11:25	26°♋05'25	
minimum elong	4342 Dec 30 12:49	8°♍02'08	0°50'20		4343 Nov 29 18:34	0°♌	
max. Earth dist.	4343 Jan 02 00:39	11°♍57'21	1.45238 AU	desc. node	4343 Dec 09 23:44	16°♌59'18	
	4343 Jan 13 13:41	0°♎					
evening rise	4343 Jan 16 02:36	3°♎57'42		superior conj	4343 Dec 10 12:57	17°♌52'56	0°-3'-49
greatest brilliancy	4343 Jan 31 08:41	27°♎24'34	-0.7m	minimum elong	4343 Dec 10 12:31	17°♌51'08	0°03'46
	4343 Feb 02 03:49	0°♏		behind sun begin	4343 Dec 10 02:40	17°♌11'10	
evening max el	4343 Feb 08 23:32	8°♏33'52	19°23'27	behind sun end	4343 Dec 10 22:22	18°♌31'03	
asc. node	4343 Feb 12 06:08	11°♏20'41		max. Earth dist.	4343 Dec 15 19:08	26°♌18'44	1.44612 AU
retrograde	4343 Feb 16 03:03	12°♏39'43			4343 Dec 18 03:09	0°♍	
evening set	4343 Feb 19 13:31	11°♏30'34		evening rise	4343 Dec 26 14:45	13°♍11'08	
inferior conj	4343 Feb 25 02:36	5°♏35'15	3°19'31		4344 Jan 06 16:49	0°♎	
minimum elong	4343 Feb 25 00:45	5°♏41'16	3°19'15	greatest brilliancy	4344 Jan 16 22:44	14°♎40'58	-0.5m
min. Earth dist.	4343 Feb 26 09:31	3°♏54'42	0.66466 AU	evening max el	4344 Jan 23 02:41	22°♎06'19	20°21'41
	4343 Mar 01 18:01	30°☿♎		asc. node	4344 Jan 30 03:10	26°♎41'26	
morning rise	4343 Mar 02 11:11	29°♎19'26		retrograde	4344 Jan 31 01:15	26°♎46'02	
direct	4343 Mar 08 16:14	26°♎34'55		evening set	4344 Feb 03 20:14	25°♎22'47	
	4343 Mar 16 16:41	0°♏		inferior conj	4344 Feb 09 06:31	19°♎14'15	2°54'11
morning max el	4343 Mar 21 04:41	4°♏02'01	25°58'55	minimum elong	4344 Feb 09 04:08	19°♎22'21	2°53'37
desc. node	4343 Mar 21 01:54	3°♏55'02		min. Earth dist.	4344 Feb 09 23:43	18°♎15'47	0.67388 AU
	4343 Apr 10 00:15	0°♐		morning rise	4344 Feb 14 11:29	12°♎58'10	
morning set	4343 Apr 26 08:05	27°♐31'04		direct	4344 Feb 20 03:05	10°♎27'56	
	4343 Apr 27 16:06	0°♑		morning max el	4344 Mar 02 13:23	17°♎18'02	24°36'13
max. Earth dist.	4343 Apr 30 06:20	4°♑55'49	1.35465 AU	desc. node	4344 Mar 06 22:57	22°♎08'58	
					4344 Mar 13 03:42	0°♏	
superior conj	4343 May 05 14:05	15°♑27'59	0°-55'-39		4344 Apr 02 00:44	0°♐	
minimum elong	4343 May 05 17:06	15°♑43'15	0°55'07	morning set	4344 Apr 07 12:05	9°♐21'55	
asc. node	4343 May 11 05:27	27°♑03'22		max. Earth dist.	4344 Apr 11 04:22	15°♐57'00	1.37413 AU
	4343 May 12 15:40	0°♒					
evening rise	4343 May 13 11:53	1°♒43'49		superior conj	4344 Apr 17 22:23	28°♐39'28	-1°-23'-53
	4343 May 30 10:06	0°☿		minimum elong	4344 Apr 18 02:46	29°♐00'46	1°23'16
evening max el	4343 May 31 15:08	1°☿14'45	20°19'32		4344 Apr 18 14:57	0°♑	
retrograde	4343 Jun 11 10:53	6°☿31'59		evening rise	4344 Apr 26 13:32	15°♑46'00	
evening set	4343 Jun 13 10:26	6°☿22'05		asc. node	4344 Apr 27 02:29	16°♑50'20	
desc. node	4343 Jun 17 01:09	5°☿18'06			4344 May 04 01:13	0°♒	

evening max el	4344 May 13 07:38	12° Π 56'59	19°16'31	asc. node	4345 Apr 13 23:32	6° 8 21'18	
retrograde	4344 May 22 10:19	17° Π 23'18		evening max el	4345 Apr 26 10:12	25° 8 17'53	18°33'46
evening set	4344 May 24 10:01	17° Π 11'33		retrograde	4345 May 04 04:01	29° 8 06'39	
inferior conj	4344 Jun 01 21:15	13° Π 02'36	0°18'17	evening set	4345 May 06 09:34	28° 8 48'42	
minimum elong	4344 Jun 01 22:00	13° Π 01'20	0°17'59	inferior conj	4345 May 14 01:14	24° 8 20'28	1°51'17
desc. node	4344 Jun 02 22:11	12° Π 21'00		minimum elong	4345 May 14 04:40	24° 8 13'47	1°50'14
min. Earth dist.	4344 Jun 04 16:24	11° Π 11'36	0.56122 AU	min. Earth dist.	4345 May 17 10:38	21° 8 43'41	0.57913 AU
morning rise	4344 Jun 10 05:51	8° Π 16'16		desc. node	4345 May 20 19:13	19° 8 31'36	
direct	4344 Jun 15 03:36	7° Π 20'54		morning rise	4345 May 21 19:19	19° 8 00'12	
morning max el	4344 Jun 29 07:47	14° Π 34'19	25°19'30	direct	4345 May 27 15:40	17° 8 33'35	
	4344 Jul 11 13:41	0° 8		morning max el	4345 Jun 11 00:42	25° 8 11'28	26°43'04
asc. node	4344 Jul 24 01:45	22° 8 39'17			4345 Jun 15 11:33	0° Π	
morning set	4344 Jul 26 01:40	26° 8 49'32			4345 Jul 04 17:38	0° 8	
	4344 Jul 27 13:20	0° 9		morning set	4345 Jul 10 11:55	11° 8 36'57	
				asc. node	4345 Jul 10 22:48	12° 8 34'25	
superior conj	4344 Aug 02 01:10	11° 9 59'41	1°21'44	superior conj	4345 Jul 17 12:54	26° 8 55'15	1°04'13
minimum elong	4344 Aug 01 22:53	11° 9 47'09	1°21'25	minimum elong	4345 Jul 17 10:39	26° 8 42'48	1°03'48
max. Earth dist.	4344 Aug 03 05:55	14° 9 36'56	1.32501 AU	max. Earth dist.	4345 Jul 17 16:40	27° 8 16'03	1.32063 AU
evening rise	4344 Aug 09 04:37	27° 9 17'15			4345 Jul 18 22:24	0° 9	
	4344 Aug 10 12:29	0° 9		evening rise	4345 Jul 24 10:54	11° 9 56'22	
	4344 Aug 27 15:13	0° 9			4345 Aug 02 16:34	0° 9	
desc. node	4344 Aug 29 21:30	3° 9 15'13		desc. node	4345 Aug 16 18:31	21° 9 33'20	
evening max el	4344 Sep 10 11:11	16° 9 59'00	27°22'16	evening max el	4345 Aug 23 14:58	29° 9 08'49	26°47'40
retrograde	4344 Sep 24 06:18	24° 9 13'58			4345 Aug 24 13:10	0° 9	
evening set	4344 Oct 01 10:34	21° 9 47'02		retrograde	4345 Sep 06 13:03	6° 9 19'03	
min. Earth dist.	4344 Oct 05 01:22	18° 9 52'54	0.62362 AU	evening set	4345 Sep 13 10:46	4° 9 16'34	
inferior conj	4344 Oct 07 23:16	16° 9 09'17	-3°-41'-28	min. Earth dist.	4345 Sep 17 05:01	1° 9 39'48	0.60355 AU
minimum elong	4344 Oct 08 05:08	15° 9 55'29	3°39'43		4345 Sep 19 06:02	30° 9	
morning rise	4344 Oct 15 02:38	11° 9 03'06		inferior conj	4345 Sep 20 10:23	29° 9 01'08	-4°-33'-27
direct	4344 Oct 17 10:14	10° 9 39'09		minimum elong	4345 Sep 20 16:07	28° 9 49'20	4°32'19
asc. node	4344 Oct 20 00:58	11° 9 10'34		morning rise	4345 Sep 28 00:45	24° 9 16'36	
morning max el	4344 Oct 24 05:32	14° 9 07'15	17°51'04	direct	4345 Sep 30 08:12	23° 9 56'16	
	4344 Nov 04 02:52	0° 9		asc. node	4345 Oct 06 22:01	26° 9 49'15	
morning set	4344 Nov 09 03:46	8° 9 56'16		morning max el	4345 Oct 07 18:04	27° 9 35'20	18°07'21
					4345 Oct 09 22:51	0° 9	
superior conj	4344 Nov 20 08:18	28° 9 33'38	0°38'05	morning set	4345 Oct 23 11:59	22° 9 32'20	
minimum elong	4344 Nov 20 11:38	28° 9 47'48	0°37'37		4345 Oct 27 11:43	0° 9	
	4344 Nov 21 04:41	0° 9		superior conj	4345 Nov 02 05:20	10° 9 29'13	1°09'41
desc. node	4344 Nov 25 20:46	7° 9 46'15		minimum elong	4345 Nov 02 09:24	10° 9 47'24	1°09'12
max. Earth dist.	4344 Nov 27 10:18	10° 9 19'19	1.43337 AU	max. Earth dist.	4345 Nov 09 20:53	23° 9 46'14	1.41564 AU
evening rise	4344 Dec 05 02:04	22° 9 29'00		desc. node	4345 Nov 12 17:48	28° 9 32'40	
	4344 Dec 09 23:23	0° 9			4345 Nov 13 15:08	0° 9	
greatest brilliancy	4344 Dec 31 03:02	0° \approx 04'17	-0.4m	evening rise	4345 Nov 15 03:53	2° 9 29'03	
	4344 Dec 31 01:39	0° \approx			4345 Dec 03 09:15	0° 9	
evening max el	4345 Jan 05 00:22	5° \approx 39'56	21°32'02	greatest brilliancy	4345 Dec 13 12:58	13° 9 27'31	-0.3m
retrograde	4345 Jan 13 22:49	10° \approx 58'16		evening max el	4345 Dec 18 17:13	19° 9 15'49	22°49'56
asc. node	4345 Jan 16 00:13	10° \approx 35'22		retrograde	4345 Dec 28 18:07	25° 9 13'12	
evening set	4345 Jan 18 04:04	9° \approx 19'44		evening set	4346 Jan 02 11:20	23° 9 18'29	
inferior conj	4345 Jan 23 13:25	3° \approx 01'06	2°19'45	asc. node	4346 Jan 02 21:16	22° 9 57'08	
minimum elong	4345 Jan 23 10:59	3° \approx 09'30	2°19'00	inferior conj	4346 Jan 07 21:19	16° 9 53'18	1°37'38
min. Earth dist.	4345 Jan 23 18:15	2° \approx 44'18	0.67905 AU	minimum elong	4346 Jan 07 19:19	17° 9 00'14	1°36'54
	4345 Jan 25 19:00	30° 9		min. Earth dist.	4346 Jan 07 14:48	17° 9 15'52	0.68042 AU
morning rise	4345 Jan 28 17:36	26° 9 46'42		morning rise	4346 Jan 13 03:16	10° 9 42'24	
direct	4345 Feb 02 18:30	24° 9 36'54		direct	4346 Jan 17 13:27	8° 9 55'34	
	4345 Feb 12 06:44	0° \approx		morning max el	4346 Jan 26 11:42	14° 9 08'09	21°40'56
morning max el	4345 Feb 12 22:30	0° \approx 39'01	23°07'11	greatest brilliancy	4346 Jan 31 07:29	19° 9 34'48	-0.4m
greatest brilliancy	4345 Feb 17 21:01	6° \approx 10'30	-0.3m		4346 Feb 08 03:32	0° \approx	
desc. node	4345 Feb 21 19:59	11° \approx 10'59		desc. node	4346 Feb 08 17:01	0° \approx 47'29	
	4345 Mar 07 01:26	0° 9		morning set	4346 Feb 27 13:32	29° \approx 13'10	
morning set	4345 Mar 19 15:16	19° 9 58'53			4346 Feb 28 01:17	0° 9	
max. Earth dist.	4345 Mar 23 23:21	27° 9 21'05	1.39585 AU	max. Earth dist.	4346 Mar 05 23:02	9° 9 36'45	1.41709 AU
	4345 Mar 25 11:51	0° 9					
superior conj	4345 Mar 31 15:57	11° 9 05'53	-1°-48'-8	superior conj	4346 Mar 13 13:46	22° 9 34'23	-2°-4'-20
minimum elong	4345 Mar 31 20:43	11° 9 27'54	1°47'42	minimum elong	4346 Mar 13 16:45	22° 9 47'26	2°04'13
evening rise	4345 Apr 10 06:37	29° 9 18'58			4346 Mar 17 18:24	0° 9	
	4345 Apr 10 15:10	0° 8					

evening rise	4346 Mar 24 11:24	12°♈13'04		superior conj	4347 Feb 22 11:09	2°♊55'27	-2°-7'-10
asc. node	4346 Mar 31 20:34	25°♈29'39		minimum elong	4347 Feb 22 09:17	2°♊47'40	2°07'08
	4346 Apr 03 14:14	0°♈		evening rise	4347 Mar 06 23:42	24°♊19'58	
evening max el	4346 Apr 09 19:16	8°♈07'10	18°11'01		4347 Mar 10 05:29	0°♈	
retrograde	4346 Apr 16 16:13	11°♈35'12		asc. node	4347 Mar 18 17:36	14°♈08'17	
evening set	4346 Apr 19 04:06	11°♈08'22		evening max el	4347 Mar 24 07:32	21°♈16'28	18°07'45
inferior conj	4346 Apr 26 02:14	6°♈18'46	2°52'31	retrograde	4347 Mar 30 18:52	24°♈39'02	
minimum elong	4346 Apr 26 05:30	6°♈11'22	2°51'49	evening set	4347 Apr 02 12:37	24°♈01'48	
min. Earth dist.	4346 Apr 29 10:36	3°♈18'05	0.60055 AU	inferior conj	4347 Apr 08 21:02	18°♈51'42	3°25'12
morning rise	4346 May 03 03:15	0°♈32'41		minimum elong	4347 Apr 08 22:47	18°♈47'11	3°25'00
	4346 May 04 02:13	30°♈		min. Earth dist.	4347 Apr 11 18:54	15°♈51'40	0.62219 AU
desc. node	4346 May 07 16:14	28°♈42'49		morning rise	4347 Apr 15 06:21	12°♈49'33	
direct	4346 May 09 15:59	28°♈31'41		direct	4347 Apr 22 02:38	10°♈19'48	
	4346 May 15 12:06	0°♈		desc. node	4347 Apr 24 13:15	10°♈37'19	
morning max el	4346 May 23 23:52	6°♈23'58	27°36'12	morning max el	4347 May 06 05:09	18°♈19'06	27°52'08
	4346 Jun 10 16:39	0°♈			4347 May 16 00:36	0°♈	
morning set	4346 Jun 24 18:57	26°♈12'26			4347 Jun 03 12:06	0°♈	
	4346 Jun 26 14:18	0°♈		morning set	4347 Jun 08 20:46	10°♈29'42	
asc. node	4346 Jun 27 19:50	2°♈37'50		max. Earth dist.	4347 Jun 14 12:26	22°♈21'18	1.32408 AU
max. Earth dist.	4346 Jul 01 04:12	9°♈55'19	1.32030 AU	asc. node	4347 Jun 14 16:52	22°♈45'14	
superior conj	4346 Jul 02 00:24	11°♈46'25	0°42'42	superior conj	4347 Jun 16 09:55	26°♈27'47	0°17'50
minimum elong	4346 Jul 01 22:38	11°♈36'44	0°42'20	minimum elong	4347 Jun 16 09:06	26°♈23'17	0°17'39
evening rise	4346 Jul 08 20:51	26°♈43'29			4347 Jun 18 00:49	0°♈	
	4346 Jul 10 10:12	0°♈		evening rise	4347 Jun 23 08:30	11°♈32'05	
	4346 Jul 27 13:29	0°♈			4347 Jul 02 17:44	0°♈	
desc. node	4346 Aug 03 15:32	8°♈39'47		evening max el	4347 Jul 18 00:56	21°♈07'21	24°12'05
evening max el	4346 Aug 05 11:10	10°♈29'04	25°41'17	desc. node	4347 Jul 21 12:32	24°♈06'32	
retrograde	4346 Aug 19 10:15	17°♈35'19		retrograde	4347 Jul 31 20:22	28°♈05'00	
evening set	4346 Aug 25 12:49	16°♈07'35		evening set	4347 Aug 05 14:40	27°♈14'36	
min. Earth dist.	4346 Aug 29 23:12	13°♈30'57	0.58296 AU	min. Earth dist.	4347 Aug 11 11:36	24°♈19'11	0.56467 AU
inferior conj	4346 Sep 02 03:33	11°♈15'15	-5°-7'-16	inferior conj	4347 Aug 14 00:32	22°♈44'18	-5°-8'-9
minimum elong	4346 Sep 02 06:26	11°♈10'06	5°07'05	minimum elong	4347 Aug 13 21:39	22°♈48'48	5°07'59
morning rise	4346 Sep 10 03:32	6°♈54'24		morning rise	4347 Aug 22 08:09	18°♈44'21	
direct	4346 Sep 12 14:20	6°♈35'24		direct	4347 Aug 25 01:06	18°♈25'03	
morning max el	4346 Sep 20 23:38	10°♈35'12	18°44'16	morning max el	4347 Sep 03 19:14	22°♈57'39	19°42'47
asc. node	4346 Sep 23 19:03	13°♈40'21			4347 Sep 09 16:10	0°♈	
	4346 Oct 03 20:14	0°♈		asc. node	4347 Sep 10 16:05	1°♈28'58	
morning set	4346 Oct 07 07:16	6°♈39'48		morning set	4347 Sep 21 10:04	21°♈08'32	
					4347 Sep 25 18:57	0°♈	
superior conj	4346 Oct 15 23:08	23°♈25'50	1°30'23	superior conj	4347 Sep 29 08:16	7°♈07'34	1°41'19
minimum elong	4346 Oct 16 02:09	23°♈40'03	1°30'08	minimum elong	4347 Sep 29 09:39	7°♈14'25	1°41'16
	4346 Oct 19 11:56	0°♈		max. Earth dist.	4347 Oct 05 07:30	18°♈36'58	1.37425 AU
max. Earth dist.	4346 Oct 23 02:58	6°♈30'48	1.39504 AU	evening rise	4347 Oct 09 02:50	25°♈33'52	
evening rise	4346 Oct 27 04:03	13°♈30'24			4347 Oct 11 15:20	0°♈	
desc. node	4346 Oct 30 14:50	19°♈15'04		desc. node	4347 Oct 17 11:51	9°♈48'50	
	4346 Nov 06 09:31	0°♈			4347 Oct 30 23:27	0°♈	
	4346 Nov 28 12:15	0°♈		evening max el	4347 Nov 13 19:07	16°♈37'15	25°24'42
evening max el	4346 Dec 01 06:48	2°♈55'14	24°09'43	retrograde	4347 Nov 25 21:41	23°♈35'43	
retrograde	4346 Dec 12 10:04	9°♈27'32		evening set	4347 Dec 01 17:58	21°♈10'32	
evening set	4346 Dec 17 16:31	7°♈16'44		min. Earth dist.	4347 Dec 06 04:45	16°♈16'16	0.67236 AU
asc. node	4346 Dec 20 18:17	4°♈00'49		inferior conj	4347 Dec 07 09:04	14°♈44'55	0°-5'-18
min. Earth dist.	4346 Dec 22 11:03	1°♈47'47	0.67815 AU	minimum elong	4347 Dec 07 09:12	14°♈44'30	0°05'16
inferior conj	4346 Dec 23 04:28	0°♈49'02	0°48'58	transit middle	4347 Dec 07 09:12	14°♈44'30	0°05'16
minimum elong	4346 Dec 23 03:20	0°♈52'52	0°48'30	transit begin	4347 Dec 07 06:33	14°♈53'02	
	4346 Dec 23 19:04	30°♈		transit end	4347 Dec 07 11:50	14°♈35'58	
morning rise	4346 Dec 28 14:28	24°♈43'33		asc. node	4347 Dec 07 15:17	14°♈24'51	
direct	4347 Jan 01 10:55	23°♈19'10		morning rise	4347 Dec 13 01:13	8°♈47'03	
morning max el	4347 Jan 09 08:09	27°♈49'31	20°24'21	direct	4347 Dec 16 09:31	7°♈42'32	
	4347 Jan 11 08:55	0°♈		morning max el	4347 Dec 23 12:28	11°♈41'31	19°21'23
greatest brilliancy	4347 Jan 15 14:58	5°♈14'46	-0.5m	greatest brilliancy	4348 Jan 01 15:55	23°♈20'17	-0.7m
desc. node	4347 Jan 26 14:03	20°♈49'22			4348 Jan 06 03:58	0°♈	
	4347 Feb 01 16:18	0°♈		desc. node	4348 Jan 13 11:04	11°♈09'12	
morning set	4347 Feb 06 13:21	7°♈29'24		morning set	4348 Jan 16 12:20	15°♈52'20	
max. Earth dist.	4347 Feb 16 06:14	22°♈47'27	1.43498 AU		4348 Jan 25 14:11	0°♈	
	4347 Feb 20 16:39	0°♈		max. Earth dist.	4348 Jan 29 19:48	6°♈39'28	1.44730 AU

superior conj	4348 Feb 02 07:13	12° \approx 10'13	-1°-51'-37	morning set	4348 Dec 26 09:30	25° \approx 26'33	
minimum elong	4348 Feb 01 23:27	11° \approx 39'16	1°51'05		4348 Dec 29 06:24	0° \approx	
	4348 Feb 13 07:09	0° \approx		desc. node	4348 Dec 30 08:07	1° \approx 41'56	
evening rise	4348 Feb 16 15:10	5° \approx 31'28					
	4348 Mar 02 23:15	0° \approx		superior conj	4349 Jan 11 11:05	20° \approx 47'02	-1°-17'-3
asc. node	4348 Mar 04 14:36	2° \approx 07'48		minimum elong	4349 Jan 11 02:14	20° \approx 12'22	1°16'04
evening max el	4348 Mar 06 20:03	4° \approx 38'14	18°23'20	max. Earth dist.	4349 Jan 11 13:44	20° \approx 57'28	1.45271 AU
retrograde	4348 Mar 13 07:20	8° \approx 08'38			4349 Jan 17 08:00	0° \approx	
evening set	4348 Mar 16 06:59	7° \approx 19'49		evening rise	4349 Jan 27 07:23	15° \approx 46'07	
inferior conj	4348 Mar 22 05:29	1° \approx 50'49	3°35'34		4349 Feb 05 06:26	0° \approx	
minimum elong	4348 Mar 22 05:31	1° \approx 50'42	3°35'34	evening max el	4349 Feb 18 06:25	18° \approx 07'21	18°56'47
	4348 Mar 23 19:45	30° \approx		asc. node	4349 Feb 19 11:37	19° \approx 17'01	
min. Earth dist.	4348 Mar 24 12:38	29° \approx 12'04	0.64165 AU	retrograde	4349 Feb 25 01:50	21° \approx 57'02	
morning rise	4348 Mar 28 02:22	25° \approx 40'09		evening set	4349 Feb 28 08:04	20° \approx 55'37	
direct	4348 Apr 03 21:41	22° \approx 53'47		inferior conj	4349 Mar 05 23:50	15° \approx 09'28	3°29'10
desc. node	4348 Apr 10 10:16	24° \approx 59'09		minimum elong	4349 Mar 05 22:32	15° \approx 13'33	3°29'03
	4348 Apr 16 17:31	0° \approx		min. Earth dist.	4349 Mar 07 15:24	13° \approx 05'33	0.65751 AU
morning max el	4348 Apr 17 14:05	0° \approx 50'43	27°31'18	morning rise	4349 Mar 11 11:56	8° \approx 54'51	
	4348 May 09 02:34	0° \approx		direct	4349 Mar 17 23:40	6° \approx 05'58	
morning set	4348 May 22 14:50	24° \approx 20'50		desc. node	4349 Mar 28 07:18	11° \approx 14'45	
	4348 May 25 10:32	0° \approx		morning max el	4349 Mar 30 23:57	13° \approx 47'43	26°39'22
max. Earth dist.	4348 May 27 13:21	4° \approx 21'46	1.33224 AU		4349 Apr 13 03:20	0° \approx	
					4349 May 01 19:17	0° \approx	
superior conj	4348 May 30 15:38	10° \approx 53'30	0°-9'-40	morning set	4349 May 05 21:47	7° \approx 35'29	
minimum elong	4348 May 30 16:07	10° \approx 56'06	0°09'34	max. Earth dist.	4349 May 10 03:40	15° \approx 50'10	1.34515 AU
behind sun begin	4348 May 30 11:45	10° \approx 32'49					
behind sun end	4348 May 30 20:29	11° \approx 19'24		superior conj	4349 May 14 15:18	24° \approx 56'39	0°-38'-44
asc. node	4348 May 31 13:55	12° \approx 52'33		minimum elong	4349 May 14 17:22	25° \approx 07'22	0°38'21
evening rise	4348 Jun 06 20:00	26° \approx 16'09			4349 May 17 01:32	0° \approx	
	4348 Jun 08 14:50	0° \approx		asc. node	4349 May 18 10:56	2° \approx 55'17	
	4348 Jun 27 03:08	0° \approx		evening rise	4349 May 22 05:26	10° \approx 49'14	
evening max el	4348 Jun 28 14:40	1° \approx 30'51	22°35'01		4349 Jun 01 07:21	0° \approx	
desc. node	4348 Jul 07 09:32	7° \approx 19'29		evening max el	4349 Jun 10 12:10	12° \approx 11'04	21°04'35
retrograde	4348 Jul 11 18:12	8° \approx 03'14		retrograde	4349 Jun 22 07:04	17° \approx 58'10	
evening set	4348 Jul 15 00:09	7° \approx 40'03		desc. node	4349 Jun 24 06:33	17° \approx 48'59	
min. Earth dist.	4348 Jul 22 22:17	4° \approx 11'45	0.55210 AU	evening set	4349 Jun 24 12:42	17° \approx 46'30	
inferior conj	4348 Jul 24 03:20	3° \approx 30'24	-4°-21'-20	inferior conj	4349 Jul 03 20:42	13° \approx 49'02	-2°-46'-7
minimum elong	4348 Jul 23 19:18	3° \approx 41'52	4°19'36	minimum elong	4349 Jul 03 13:15	13° \approx 59'31	2°43'40
	4348 Jul 31 11:31	30° \approx		min. Earth dist.	4349 Jul 04 09:22	13° \approx 31'11	0.54818 AU
morning rise	4348 Aug 01 16:49	29° \approx 40'14		morning rise	4349 Jul 12 13:36	9° \approx 50'39	
direct	4348 Aug 04 18:17	29° \approx 18'45		direct	4349 Jul 16 03:39	9° \approx 22'58	
	4348 Aug 08 21:03	0° \approx		morning max el	4349 Jul 28 23:44	15° \approx 30'09	22°39'04
morning max el	4348 Aug 16 03:01	4° \approx 36'06	21°02'24		4349 Aug 09 06:01	0° \approx	
asc. node	4348 Aug 27 13:08	20° \approx 02'10		asc. node	4349 Aug 14 10:11	9° \approx 08'09	
	4348 Sep 01 20:34	0° \approx		morning set	4349 Aug 20 04:31	20° \approx 43'15	
morning set	4348 Sep 04 17:51	5° \approx 52'01			4349 Aug 24 13:04	0° \approx	
superior conj	4348 Sep 12 04:22	21° \approx 11'56	1°44'01	superior conj	4349 Aug 27 07:56	5° \approx 57'28	1°39'49
minimum elong	4348 Sep 12 04:12	21° \approx 11'04	1°44'00	minimum elong	4349 Aug 27 06:34	5° \approx 50'14	1°39'43
	4348 Sep 16 10:46	0° \approx		max. Earth dist.	4349 Aug 30 10:21	12° \approx 28'53	1.34051 AU
max. Earth dist.	4348 Sep 16 16:37	0° \approx 28'54	1.35562 AU	evening rise	4349 Sep 04 05:28	22° \approx 10'26	
evening rise	4348 Sep 20 20:49	8° \approx 31'33			4349 Sep 08 08:01	0° \approx	
desc. node	4348 Oct 03 08:53	0° \approx 09'17		desc. node	4349 Sep 20 05:54	20° \approx 09'11	
	4348 Oct 03 06:32	0° \approx			4349 Sep 27 00:59	0° \approx	
	4348 Oct 25 23:53	0° \approx		evening max el	4349 Oct 08 20:23	13° \approx 51'11	27°10'25
evening max el	4348 Oct 26 07:43	0° \approx 19'01	26°27'25	retrograde	4349 Oct 22 04:57	21° \approx 08'44	
retrograde	4348 Nov 08 04:16	7° \approx 32'00		evening set	4349 Oct 29 01:51	18° \approx 28'42	
evening set	4348 Nov 14 13:51	4° \approx 56'16		min. Earth dist.	4349 Nov 01 23:11	14° \approx 45'58	0.65042 AU
min. Earth dist.	4348 Nov 18 17:36	0° \approx 37'41	0.66314 AU	inferior conj	4349 Nov 04 02:44	12° \approx 22'43	-2°-5'-35
	4348 Nov 19 06:09	30° \approx		minimum elong	4349 Nov 04 06:18	12° \approx 12'46	2°04'11
inferior conj	4348 Nov 20 09:14	28° \approx 37'50	-1°-4'-2	asc. node	4349 Nov 10 09:23	6° \approx 52'20	
minimum elong	4348 Nov 20 10:59	28° \approx 32'32	1°03'18	morning rise	4349 Nov 10 12:41	6° \approx 48'28	
asc. node	4348 Nov 23 12:19	25° \approx 05'43		direct	4349 Nov 13 03:13	6° \approx 12'22	
morning rise	4348 Nov 26 09:27	22° \approx 50'13		morning max el	4349 Nov 19 14:43	9° \approx 39'51	18°03'34
direct	4348 Nov 29 07:42	22° \approx 01'51			4349 Dec 03 14:19	0° \approx	
morning max el	4348 Dec 05 23:26	25° \approx 40'17	18°34'07	morning set	4349 Dec 07 12:21	6° \approx 29'38	
	4348 Dec 09 16:40	0° \approx		desc. node	4349 Dec 17 05:11	22° \approx 23'08	

superior conj	4349 Dec 21 18:09	29° ♄ 39'27	0°-30'-55		4350 Nov 26 04:55	0° ♄	
minimum elong	4349 Dec 21 14:18	29° ♄ 24'11	0°30'24				
	4349 Dec 21 23:19	0° ♄		superior conj	4350 Dec 01 22:11	9° ♄ 35'34	0°15'05
max. Earth dist.	4349 Dec 25 09:18	5° ♄ 24'17	1.45065 AU	minimum elong	4350 Dec 01 23:45	9° ♄ 42'03	0°14'51
evening rise	4350 Jan 07 03:03	25° ♄ 14'57		behind sun begin	4350 Dec 01 20:00	9° ♄ 26'34	
	4350 Jan 10 04:57	0° ♄		behind sun end	4350 Dec 02 03:30	9° ♄ 57'30	
greatest brilliancy	4350 Jan 25 04:02	22° ♄ 27'21	-0.6m	desc. node	4350 Dec 04 02:12	13° ♄ 09'04	
	4350 Jan 30 23:56	0° ♄		max. Earth dist.	4350 Dec 08 03:14	19° ♄ 41'04	1.44146 AU
evening max el	4350 Feb 01 12:38	1° ♄ 39'42	19°46'36		4350 Dec 14 16:13	0° ♄	
asc. node	4350 Feb 06 08:39	5° ♄ 22'05		evening rise	4350 Dec 17 12:50	4° ♄ 25'38	
retrograde	4350 Feb 08 23:21	5° ♄ 58'39			4351 Jan 03 16:09	0° ♄	
evening set	4350 Feb 12 13:22	4° ♄ 43'31		greatest brilliancy	4351 Jan 10 01:24	8° ♄ 44'29	-0.5m
	4350 Feb 17 01:25	30° ♄		evening max el	4351 Jan 15 13:26	15° ♄ 12'37	20°50'22
inferior conj	4350 Feb 18 01:00	28° ♄ 42'22	3°09'58	retrograde	4351 Jan 23 21:32	20° ♄ 08'16	
minimum elong	4350 Feb 17 22:52	28° ♄ 49'28	3°09'34	asc. node	4351 Jan 24 05:42	20° ♄ 07'38	
min. Earth dist.	4350 Feb 19 01:53	27° ♄ 19'44	0.66914 AU	evening set	4351 Jan 27 20:46	18° ♄ 38'24	
morning rise	4350 Feb 23 07:43	22° ♄ 26'29		inferior conj	4351 Feb 02 06:26	12° ♄ 25'00	2°40'35
direct	4350 Mar 01 07:23	19° ♄ 47'05		minimum elong	4351 Feb 02 03:58	12° ♄ 33'28	2°39'55
morning max el	4350 Mar 13 09:06	26° ♄ 59'19	25°25'10	min. Earth dist.	4351 Feb 02 18:07	11° ♄ 44'49	0.67657 AU
desc. node	4350 Mar 15 04:21	28° ♄ 52'52		morning rise	4351 Feb 07 10:45	6° ♄ 09'36	
	4350 Mar 16 04:37	0° ♄		direct	4351 Feb 12 20:06	3° ♄ 47'51	
	4350 Apr 06 18:32	0° ♄		morning max el	4351 Feb 23 17:46	10° ♄ 17'59	23°58'36
morning set	4350 Apr 18 13:13	20° ♄ 01'30		desc. node	4351 Mar 02 01:24	17° ♄ 29'16	
max. Earth dist.	4350 Apr 22 07:02	26° ♄ 56'05	1.36257 AU		4351 Mar 11 08:38	0° ♄	
	4350 Apr 23 21:47	0° ♄			4351 Mar 30 12:04	0° ♄	
				morning set	4351 Mar 31 07:22	1° ♄ 22'37	
superior conj	4350 Apr 28 06:13	8° ♄ 30'01	-1°-7'-54	max. Earth dist.	4351 Apr 04 03:18	8° ♄ 04'53	1.38328 AU
minimum elong	4350 Apr 28 09:53	8° ♄ 48'15	1°07'18				
asc. node	4350 May 05 07:59	22° ♄ 49'44		superior conj	4351 Apr 11 08:44	21° ♄ 23'25	-1°-34'-52
evening rise	4350 May 06 10:42	25° ♄ 05'20		minimum elong	4351 Apr 11 13:29	21° ♄ 45'57	1°34'18
	4350 May 08 21:28	0° ♄			4351 Apr 15 19:50	0° ♄	
evening max el	4350 May 23 21:39	23° ♄ 28'57	19°50'13	evening rise	4351 Apr 20 09:05	8° ♄ 56'16	
retrograde	4350 Jun 02 23:08	28° ♄ 23'17		asc. node	4351 Apr 22 05:01	12° ♄ 30'40	
evening set	4350 Jun 04 21:45	28° ♄ 13'07			4351 May 02 06:01	0° ♄	
desc. node	4350 Jun 11 03:34	25° ♄ 46'07		evening max el	4351 May 06 18:40	5° ♄ 27'50	18°55'45
inferior conj	4350 Jun 13 19:10	24° ♄ 11'40	0°-47'-15	retrograde	4351 May 15 06:10	9° ♄ 36'41	
minimum elong	4350 Jun 13 17:00	24° ♄ 15'01	0°46'27	evening set	4351 May 17 07:59	9° ♄ 22'45	
min. Earth dist.	4350 Jun 15 22:08	22° ♄ 53'42	0.55396 AU	inferior conj	4351 May 25 10:50	5° ♄ 05'46	1°01'30
morning rise	4350 Jun 22 09:17	19° ♄ 46'14		minimum elong	4351 May 25 13:09	5° ♄ 01'40	1°00'42
direct	4350 Jun 26 17:56	19° ♄ 04'26		min. Earth dist.	4351 May 28 13:59	2° ♄ 53'15	0.56818 AU
morning max el	4350 Jul 10 14:13	25° ♄ 56'17	24°22'42	desc. node	4351 May 29 00:35	2° ♄ 35'25	
	4350 Jul 14 10:40	0° ♄		morning rise	4351 Jun 02 13:51	0° ♄	
					4351 Jun 02 17:57	30° ♄	
asc. node	4350 Aug 01 07:16	28° ♄ 38'31		direct	4351 Jun 07 21:18	28° ♄ 56'49	
	4350 Aug 01 23:23	0° ♄			4351 Jun 13 01:36	0° ♄	
morning set	4350 Aug 04 16:18	5° ♄ 37'06		morning max el	4351 Jun 22 04:58	6° ♄ 22'04	25°58'12
					4351 Jul 09 13:23	0° ♄	
superior conj	4350 Aug 11 16:18	20° ♄ 46'01	1°29'48	asc. node	4351 Jul 19 04:19	18° ♄ 26'16	
minimum elong	4350 Aug 11 14:12	20° ♄ 34'40	1°29'34	morning set	4351 Jul 20 03:35	20° ♄ 28'25	
max. Earth dist.	4350 Aug 13 12:44	24° ♄ 46'34	1.32948 AU		4351 Jul 24 13:23	0° ♄	
	4350 Aug 15 23:34	0° ♄					
evening rise	4350 Aug 19 00:55	6° ♄ 19'36		superior conj	4351 Jul 27 03:19	5° ♄ 40'47	1°14'49
	4350 Aug 31 21:39	0° ♄		minimum elong	4351 Jul 27 01:00	5° ♄ 27'57	1°14'28
desc. node	4350 Sep 07 02:55	9° ♄ 39'47		max. Earth dist.	4351 Jul 27 21:21	7° ♄ 19'58	1.32261 AU
evening max el	4350 Sep 21 07:27	27° ♄ 01'02	27°26'51	evening rise	4351 Aug 03 03:57	20° ♄ 49'53	
	4350 Sep 24 18:29	0° ♄			4351 Aug 07 17:09	0° ♄	
retrograde	4350 Oct 04 23:20	4° ♄ 17'24		desc. node	4351 Aug 24 23:55	28° ♄ 29'11	
evening set	4350 Oct 12 03:07	1° ♄ 42'11			4351 Aug 26 03:19	0° ♄	
	4350 Oct 14 05:48	30° ♄		evening max el	4351 Sep 03 14:26	9° ♄ 35'30	27°11'37
min. Earth dist.	4350 Oct 15 19:17	28° ♄ 32'37	0.63430 AU	retrograde	4351 Sep 17 10:51	16° ♄ 48'48	
inferior conj	4350 Oct 18 10:58	25° ♄ 53'16	-3°-7'-23	evening set	4351 Sep 24 13:52	14° ♄ 30'20	
minimum elong	4350 Oct 18 16:12	25° ♄ 40'08	3°05'36	min. Earth dist.	4351 Sep 28 04:50	11° ♄ 45'47	0.61525 AU
morning rise	4350 Oct 25 07:50	20° ♄ 36'00		inferior conj	4351 Oct 01 06:48	9° ♄ 02'00	-4°-5'00
direct	4350 Oct 27 17:13	20° ♄ 08'30		minimum elong	4351 Oct 01 12:52	8° ♄ 48'31	4°03'26
asc. node	4350 Oct 28 06:27	20° ♄ 10'00		morning rise	4351 Oct 08 14:58	4° ♄ 05'02	
morning max el	4350 Nov 03 07:28	23° ♄ 33'42	17°50'27	direct	4351 Oct 10 22:05	3° ♄ 42'59	
	4350 Nov 08 10:28	0° ♄		asc. node	4351 Oct 15 03:31	5° ♄ 00'37	
morning set	4350 Nov 19 16:53	18° ♄ 47'06					

morning max el	4351 Oct 17 22:33	7°♄14'25	17°55'41	morning max el	4352 Sep 30 08:35	20°♄32'04	18°20'31
	4351 Nov 01 14:28	0°♄		asc. node	4352 Oct 01 00:34	21°♄12'01	
morning set	4351 Nov 02 16:41	1°♄59'36			4352 Oct 07 12:14	0°♄	
				morning set	4352 Oct 16 06:05	15°♄50'14	
superior conj	4351 Nov 13 05:01	20°♄50'37	0°52'50		4352 Oct 23 17:30	0°♄	
minimum elong	4351 Nov 13 08:58	21°♄07'46	0°52'18				
	4351 Nov 18 14:02	0°♄		superior conj	4352 Oct 25 11:33	3°♄14'08	1°19'44
max. Earth dist.	4351 Nov 20 16:39	3°♄29'44	1.42627 AU	minimum elong	4352 Oct 25 15:18	3°♄31'19	1°19'20
desc. node	4351 Nov 20 23:14	3°♄56'46		max. Earth dist.	4352 Nov 02 00:30	16°♄36'40	1.40701 AU
evening rise	4351 Nov 27 04:50	13°♄58'13		evening rise	4352 Nov 06 15:40	24°♄23'16	
	4351 Dec 07 16:27	0°♄		desc. node	4352 Nov 06 20:15	24°♄42'04	
greatest brilliancy	4351 Dec 24 15:18	23°♄26'47	-0.3m		4352 Nov 10 02:48	0°♄	
evening max el	4351 Dec 29 08:48	28°♄47'04	22°04'27		4352 Nov 30 13:32	0°♄	
	4351 Dec 30 14:41	0°♄		evening max el	4352 Dec 10 23:58	12°♄24'21	23°24'01
retrograde	4352 Jan 07 18:27	4°♄22'46		retrograde	4352 Dec 21 12:34	18°♄37'55	
asc. node	4352 Jan 11 02:44	3°♄23'02		evening set	4352 Dec 26 11:09	16°♄36'30	
evening set	4352 Jan 12 04:34	2°♄37'20		asc. node	4352 Dec 27 23:46	15°♄08'50	
	4352 Jan 14 18:17	30°♄		inferior conj	4352 Dec 31 21:49	10°♄09'35	1°17'47
inferior conj	4352 Jan 17 14:00	26°♄15'09	2°02'47	minimum elong	4352 Dec 31 20:07	10°♄15'23	1°17'07
minimum elong	4352 Jan 17 11:42	26°♄23'08	2°02'00	min. Earth dist.	4352 Dec 31 10:41	10°♄47'48	0.67987 AU
min. Earth dist.	4352 Jan 17 13:51	26°♄15'39	0.68008 AU	morning rise	4353 Jan 06 05:11	4°♄00'27	
morning rise	4352 Jan 22 18:39	20°♄01'53		direct	4353 Jan 10 09:20	2°♄23'18	
direct	4352 Jan 27 13:05	18°♄01'57		morning max el	4353 Jan 18 20:18	7°♄17'10	21°06'47
morning max el	4352 Feb 06 04:21	23°♄43'05	22°29'38	greatest brilliancy	4353 Jan 24 04:21	13°♄24'21	-0.4m
greatest brilliancy	4352 Feb 10 17:56	28°♄48'38	-0.3m	desc. node	4353 Feb 02 19:28	26°♄36'21	
	4352 Feb 11 17:17	0°♄			4353 Feb 05 03:21	0°♄	
desc. node	4352 Feb 16 22:26	6°♄47'44		morning set	4353 Feb 18 09:25	20°♄09'02	
	4352 Mar 03 18:29	0°♄			4353 Feb 24 13:40	0°♄	
morning set	4352 Mar 10 22:24	11°♄24'42		max. Earth dist.	4353 Feb 26 01:31	2°♄25'50	1.42526 AU
max. Earth dist.	4352 Mar 15 23:22	19°♄48'07	1.40513 AU				
	4352 Mar 21 20:20	0°♄		superior conj	4353 Mar 05 06:24	14°♄27'38	-2°-7'-30
superior conj	4352 Mar 23 18:27	3°♄26'18	-1°-56'-18	minimum elong	4353 Mar 05 07:42	14°♄33'08	2°07'30
minimum elong	4352 Mar 23 22:49	3°♄45'58	1°55'59		4353 Mar 14 03:19	0°♄	
evening rise	4352 Apr 02 21:24	22°♄13'49		evening rise	4353 Mar 16 19:42	4°♄49'07	
	4352 Apr 07 01:16	0°♄		asc. node	4353 Mar 25 23:03	20°♄49'57	
asc. node	4352 Apr 08 02:02	1°♄52'51			4353 Apr 01 11:43	0°♄	
evening max el	4352 Apr 19 00:22	18°♄01'45	18°21'38	evening max el	4353 Apr 02 11:16	1°♄01'30	18°07'21
retrograde	4352 Apr 26 08:02	21°♄39'52		retrograde	4353 Apr 09 02:47	4°♄25'09	
evening set	4352 Apr 28 16:11	21°♄18'32		evening set	4353 Apr 11 17:15	3°♄54'03	
inferior conj	4352 May 06 00:01	16°♄41'28	2°21'07		4353 Apr 17 06:02	30°♄	
minimum elong	4352 May 06 03:38	16°♄33'54	2°20'08	inferior conj	4353 Apr 18 09:06	28°♄55'54	3°09'29
min. Earth dist.	4352 May 09 10:36	13°♄51'08	0.58800 AU	minimum elong	4353 Apr 18 11:47	28°♄49'25	3°09'01
morning rise	4352 May 13 10:48	11°♄08'33		min. Earth dist.	4353 Apr 21 14:00	25°♄52'22	0.60992 AU
desc. node	4352 May 14 21:37	10°♄26'44		morning rise	4353 Apr 25 03:07	23°♄02'04	
direct	4352 May 19 15:03	9°♄26'59		direct	4353 May 01 20:24	20°♄47'16	
morning max el	4352 Jun 03 00:29	17°♄13'01	27°09'58	desc. node	4353 May 01 18:38	20°♄47'17	
	4352 Jun 13 14:10	0°♄		morning max el	4353 May 16 02:16	28°♄43'41	27°47'34
	4352 Jul 01 00:08	0°♄			4353 May 17 08:09	0°♄	
morning set	4352 Jul 03 12:39	5°♄11'27		morning set	4353 Jun 07 10:16	0°♄	
asc. node	4352 Jul 05 01:20	8°♄25'30		asc. node	4353 Jun 17 17:43	19°♄40'33	
					4353 Jun 21 22:21	28°♄31'37	
superior conj	4352 Jul 10 15:08	20°♄35'15	0°55'32		4353 Jun 22 14:42	0°♄	
minimum elong	4352 Jul 10 13:02	20°♄23'40	0°55'08	max. Earth dist.	4353 Jun 23 19:10	2°♄34'52	1.32136 AU
max. Earth dist.	4352 Jul 10 08:42	19°♄59'43	1.31991 AU				
	4352 Jul 14 21:56	0°♄		superior conj	4353 Jun 25 02:02	5°♄23'47	0°32'32
evening rise	4352 Jul 17 12:00	5°♄32'59		minimum elong	4353 Jun 25 00:37	5°♄16'01	0°32'14
	4352 Jul 30 09:18	0°♄		evening rise	4353 Jul 01 22:55	20°♄22'14	
desc. node	4352 Aug 10 20:56	16°♄19'59			4353 Jul 06 15:11	0°♄	
evening max el	4352 Aug 15 14:55	21°♄23'54	26°23'02		4353 Jul 25 23:14	0°♄	
retrograde	4352 Aug 29 14:09	28°♄33'31		evening max el	4353 Jul 28 08:10	2°♄25'32	25°05'29
evening set	4352 Sep 05 05:15	26°♄44'45		desc. node	4353 Jul 28 17:55	2°♄48'34	
min. Earth dist.	4352 Sep 09 04:16	24°♄10'19	0.59460 AU	retrograde	4353 Aug 11 06:56	9°♄29'01	
inferior conj	4352 Sep 12 10:39	21°♄38'49	-4°-50'-52	evening set	4353 Aug 16 20:52	8°♄17'56	
minimum elong	4352 Sep 12 15:34	21°♄29'16	4°50'09	min. Earth dist.	4353 Aug 21 19:49	5°♄35'08	0.57469 AU
morning rise	4352 Sep 20 05:22	17°♄04'33		inferior conj	4353 Aug 24 19:23	3°♄35'04	-5°-12'-44
direct	4352 Sep 22 13:38	16°♄45'11		minimum elong	4353 Aug 24 20:05	3°♄33'53	5°12'44
					4353 Aug 31 01:33	30°♄	

morning rise	4353 Sep 01 22:48	29°02'35"		min. Earth dist.	4354 Aug 03 06:49	15°05'39"	0.55851 AU
direct	4353 Sep 04 11:51	29°04'29"		inferior conj	4354 Aug 05 07:59	14°04'39"	-4°-54'-40"
	4353 Sep 08 16:55	0°00'		minimum elong	4354 Aug 05 02:30	14°05'25"	4°53'57"
morning max el	4353 Sep 13 10:13	3°00'17"	19°06'24"	morning rise	4354 Aug 13 18:16	10°05'03"	
asc. node	4353 Sep 17 21:35	8°00'29"	31'	direct	4354 Aug 16 14:51	10°03'03"	
morning set	4353 Sep 30 04:56	0°00'07"	49'	morning max el	4354 Aug 27 00:43	15°02'03"	20°14'12"
	4353 Sep 30 03:21	0°00'		asc. node	4354 Sep 04 18:37	26°03'8"	20'
					4354 Sep 06 18:23	0°00'	
superior conj	4353 Oct 08 12:27	16°03'12"	1°36'07"	morning set	4354 Sep 14 10:09	14°00'43"	41'
minimum elong	4353 Oct 08 14:48	16°04'39"	1°35'58"		4354 Sep 21 21:09	0°00'	
max. Earth dist.	4353 Oct 15 05:15	29°02'47"	1.38611 AU				
	4353 Oct 15 17:58	0°00'		superior conj	4354 Sep 22 02:43	0°02'8"	1°43'23"
evening rise	4353 Oct 19 01:47	5°00'51"	57'	minimum elong	4354 Sep 22 03:24	0°03'13"	1°43'22"
desc. node	4353 Oct 24 17:16	15°00'21"	19'	max. Earth dist.	4354 Sep 27 11:30	11°01'26"	1.36600 AU
	4353 Nov 03 03:25	0°00'		evening rise	4354 Oct 01 09:14	18°01'31"	
evening max el	4353 Nov 23 12:58	26°00'54"	24°42'42"		4354 Oct 08 01:07	0°00'	
	4353 Nov 28 01:20	0°00'		desc. node	4354 Oct 11 14:16	5°00'50"	05'
retrograde	4353 Dec 05 02:41	2°00'49"	54'		4354 Oct 28 08:57	0°00'	
evening set	4353 Dec 10 14:56	0°00'32"	58'	evening max el	4354 Nov 06 01:26	9°00'48"	25°53'22"
	4353 Dec 11 05:44	30°00'		retrograde	4354 Nov 18 12:03	16°00'53"	57'
asc. node	4353 Dec 14 20:48	25°00'49"	16'	evening set	4354 Nov 24 14:15	14°00'23"	40'
min. Earth dist.	4353 Dec 15 06:10	25°00'18"	30'	min. Earth dist.	4354 Nov 28 22:01	9°00'44"	0.66888 AU
inferior conj	4353 Dec 16 04:06	24°00'05"	44'	inferior conj	4354 Nov 30 07:04	8°00'00"	47'
minimum elong	4353 Dec 16 03:27	24°00'07"	53'	minimum elong	4354 Nov 30 07:51	7°00'58"	19'
morning rise	4353 Dec 21 16:26	18°00'03"	02'	asc. node	4354 Dec 01 17:50	6°00'13"	22'
direct	4353 Dec 25 07:35	16°00'47"	17'	morning rise	4354 Dec 06 02:25	2°00'07"	04'
morning max el	4354 Jan 01 20:00	21°00'02"	42'	direct	4354 Dec 09 06:17	1°00'09"	47'
greatest brilliancy	4354 Jan 09 01:48	29°00'50"	27'	morning max el	4354 Dec 16 03:25	4°00'58"	20'
	4354 Jan 09 04:36	0°00'			4355 Jan 02 22:31	0°00'	
desc. node	4354 Jan 20 16:31	16°00'46"	42'	morning set	4355 Jan 07 12:06	7°00'07"	07'
morning set	4354 Jan 28 05:35	28°00'18"	26'	desc. node	4355 Jan 07 13:33	7°00'12"	46'
	4354 Jan 29 07:53	0°00'		max. Earth dist.	4355 Jan 22 04:18	0°00'04"	48'
max. Earth dist.	4354 Feb 08 11:52	15°00'56"	57'		4355 Jan 22 03:05	0°00'	
superior conj	4354 Feb 13 16:47	24°00'19"	44'	superior conj	4355 Jan 24 04:07	3°00'13"	05'
minimum elong	4354 Feb 13 12:13	24°00'01"	12'	minimum elong	4355 Jan 23 18:59	2°00'37"	06'
	4354 Feb 17 03:48	0°00'		evening rise	4355 Feb 08 05:22	27°00'20"	59'
evening rise	4354 Feb 26 23:37	16°00'33"	12'		4355 Feb 09 20:22	0°00'	
	4354 Mar 06 21:26	0°00'		asc. node	4355 Feb 27 17:07	26°00'53"	32'
asc. node	4354 Mar 12 20:04	9°00'13"	27'	evening max el	4355 Feb 28 11:58	27°00'43"	18°35'23"
evening max el	4354 Mar 17 00:03	14°00'17"	33'		4355 Mar 03 04:25	0°00'	
retrograde	4354 Mar 23 10:05	17°00'41"	33'	retrograde	4355 Mar 07 01:42	1°00'20"	39'
evening set	4354 Mar 26 06:26	16°00'59"	20'	evening set	4355 Mar 10 04:05	0°00'26"	28'
inferior conj	4354 Apr 01 10:11	11°00'40"	58'		4355 Mar 10 20:43	30°00'	
minimum elong	4354 Apr 01 11:11	11°00'38"	14'	inferior conj	4355 Mar 15 23:19	24°00'49"	38'
min. Earth dist.	4354 Apr 04 02:02	8°00'48"	06'	minimum elong	4355 Mar 15 22:44	24°00'51"	22'
morning rise	4354 Apr 07 13:49	5°00'34"	46'	min. Earth dist.	4355 Mar 17 23:40	22°00'24"	50'
direct	4354 Apr 14 10:45	2°00'56"	24'	morning rise	4355 Mar 21 16:02	18°00'36"	51'
desc. node	4354 Apr 18 15:41	3°00'48"	29'	direct	4355 Mar 28 08:42	15°00'48"	09'
morning max el	4354 Apr 28 09:16	10°00'55"	03'	desc. node	4355 Apr 05 12:44	19°00'03"	21'
	4354 May 13 09:21	0°00'		morning max el	4355 Apr 10 19:05	23°00'39"	49'
	4354 May 30 18:39	0°00'			4355 Apr 16 11:02	0°00'	
morning set	4354 Jun 01 16:34	3°00'47"	37'		4355 May 06 17:33	0°00'	
max. Earth dist.	4354 Jun 07 00:49	14°00'51"	42'	morning set	4355 May 16 06:24	17°00'24"	40'
asc. node	4354 Jun 08 19:22	18°00'39"	26'	max. Earth dist.	4355 May 20 21:52	26°00'40"	10'
					4355 May 22 12:39	0°00'	
superior conj	4354 Jun 09 10:11	19°00'59"	21'				
minimum elong	4354 Jun 09 09:52	19°00'57"	41'	superior conj	4355 May 24 13:37	4°00'16"	12'
behind sun begin	4354 Jun 09 05:01	19°00'31"	30'	minimum elong	4355 May 24 14:46	4°00'22"	12'
behind sun end	4354 Jun 09 14:43	20°00'23"	53'	asc. node	4355 May 26 16:24	8°00'45"	13'
	4354 Jun 14 00:56	0°00'		evening rise	4355 May 31 21:39	19°00'50"	20'
evening rise	4354 Jun 16 10:44	5°00'09"	57'		4355 Jun 05 21:47	0°00'	
	4354 Jun 29 17:05	0°00'		evening max el	4355 Jun 21 13:02	23°00'19"	46'
evening max el	4354 Jul 09 21:03	12°00'53"	43'	desc. node	4355 Jul 02 11:57	29°00'28"	41'
desc. node	4354 Jul 15 14:55	17°00'22"	53'	retrograde	4355 Jul 04 04:22	29°00'35"	18'
retrograde	4354 Jul 23 11:11	19°00'42"	19'	evening set	4355 Jul 06 22:00	29°00'18"	33'
evening set	4354 Jul 27 13:50	19°00'05"	19'	min. Earth dist.	4355 Jul 15 17:09	25°00'32"	10'
							0.54931 AU

inferior conj	4355 Jul 16 05:10	25°☿15'20	-3°-45'-52	evening set	4356 Jun 15 17:57	9°☿29'58	
minimum elong	4355 Jul 15 20:32	25°☿27'26	3°43'32	desc. node	4356 Jun 18 08:58	8°☿49'06	
morning rise	4355 Jul 24 20:40	21°☿24'37		inferior conj	4356 Jun 24 23:01	5°☿32'38	-1°-56'-33
direct	4355 Jul 28 02:48	21°☿01'17		minimum elong	4356 Jun 24 17:34	5°☿40'32	1°54'35
morning max el	4355 Aug 09 03:29	26°☿39'07	21°41'59	min. Earth dist.	4356 Jun 26 05:09	4°☿49'01	0.54942 AU
	4355 Aug 12 08:30	0°♊		morning rise	4356 Jul 03 15:41	1°☿24'20	
asc. node	4355 Aug 22 15:40	15°♊26'23		direct	4356 Jul 07 12:33	0°☿52'03	
morning set	4355 Aug 29 19:23	29°♊31'05		morning max el	4356 Jul 20 21:05	7°☿20'01	23°23'07
	4355 Aug 30 00:56	0°♊			4356 Aug 06 00:47	0°♊	
				asc. node	4356 Aug 08 12:44	4°♊43'57	
superior conj	4355 Sep 06 02:21	14°♊52'33	1°43'00	morning set	4356 Aug 13 06:46	14°♊24'39	
minimum elong	4355 Sep 06 01:37	14°♊48'45	1°42'58				
max. Earth dist.	4355 Sep 10 00:00	22°♊54'25	1.34867 AU	superior conj	4356 Aug 20 08:19	29°♊35'28	1°36'13
	4355 Sep 13 14:03	0°♋		minimum elong	4356 Aug 20 06:35	29°♊26'12	1°36'05
evening rise	4355 Sep 14 09:55	1°♋35'36			4356 Aug 20 12:53	0°♊	
desc. node	4355 Sep 28 11:17	26°♋02'34		max. Earth dist.	4356 Aug 22 21:25	5°♊01'12	1.33525 AU
	4355 Oct 01 00:59	0°♋		evening rise	4356 Aug 27 23:40	15°♊29'21	
evening max el	4355 Oct 19 13:58	23°♋26'48	26°48'32		4356 Sep 04 16:27	0°♋	
	4355 Oct 28 22:50	0°♌		desc. node	4356 Sep 14 08:18	15°♋51'39	
retrograde	4355 Nov 01 16:10	0°♌43'03			4356 Sep 24 17:58	0°♋	
	4355 Nov 05 03:58	30°♌		evening max el	4356 Oct 01 02:04	6°♋50'59	27°20'59
evening set	4355 Nov 08 07:06	28°♋04'12		retrograde	4356 Oct 14 14:33	14°♋09'27	
min. Earth dist.	4355 Nov 12 07:54	24°♋01'20	0.65812 AU	evening set	4356 Oct 21 14:59	11°♋29'57	
inferior conj	4355 Nov 14 04:40	21°♋50'30	-1°-29'-58	min. Earth dist.	4356 Oct 25 09:44	8°♋01'56	0.64393 AU
minimum elong	4355 Nov 14 07:11	21°♋43'09	1°28'55	inferior conj	4356 Oct 27 18:35	5°♋30'24	-2°-31'-59
asc. node	4355 Nov 18 14:55	17°♋17'01		minimum elong	4356 Oct 27 22:55	5°♋18'51	2°30'22
morning rise	4355 Nov 20 08:52	16°♋08'32		morning rise	4356 Nov 03 09:06	0°♋03'04	
direct	4355 Nov 23 03:31	15°♋25'56			4356 Nov 03 12:06	30°♋	
morning max el	4355 Nov 29 16:39	18°♋58'29	18°19'08	asc. node	4356 Nov 04 11:57	29°♋40'59	
	4355 Dec 08 01:13	0°♌		direct	4356 Nov 05 20:58	29°♋31'13	
morning set	4355 Dec 18 21:49	17°♌19'10			4356 Nov 08 05:47	0°♋	
desc. node	4355 Dec 25 10:34	27°♌49'21		morning max el	4356 Nov 12 08:58	2°♋57'00	17°55'47
	4355 Dec 26 19:19	0°♍		morning set	4356 Nov 29 12:19	28°♋56'00	
					4356 Nov 30 03:27	0°♌	
superior conj	4356 Jan 03 06:38	11°♍48'58	0°-58'-13	desc. node	4356 Dec 11 07:37	18°♌32'56	
minimum elong	4356 Jan 02 23:27	11°♍20'44	0°57'18				
max. Earth dist.	4356 Jan 04 23:18	14°♍28'38	1.45267 AU	superior conj	4356 Dec 12 21:08	21°♌04'41	0°-10'-48
	4356 Jan 14 21:19	0°♎		minimum elong	4356 Dec 12 19:52	20°♌59'32	0°10'38
evening rise	4356 Jan 19 12:05	7°♎13'43		behind sun begin	4356 Dec 12 12:04	20°♌28'05	
greatest brilliancy	4356 Feb 02 16:16	29°♎10'53	-0.7m	behind sun end	4356 Dec 13 03:39	21°♌30'57	
	4356 Feb 03 05:33	0°♏		max. Earth dist.	4356 Dec 17 17:55	28°♌51'00	1.44754 AU
evening max el	4356 Feb 11 20:41	11°♏13'32	19°16'03		4356 Dec 18 11:23	0°♍	
asc. node	4356 Feb 14 14:10	13°♏37'11		evening rise	4356 Dec 29 01:42	16°♍29'38	
retrograde	4356 Feb 18 21:57	15°♏15'03			4357 Jan 06 22:20	0°♎	
evening set	4356 Feb 22 07:15	14°♏08'00		greatest brilliancy	4357 Jan 18 14:20	16°♎57'03	-0.6m
inferior conj	4356 Feb 27 20:57	8°♏15'00	3°22'25	evening max el	4357 Jan 25 00:39	24°♎45'46	20°12'14
minimum elong	4356 Feb 27 19:14	8°♏20'33	3°22'11	asc. node	4357 Jan 31 11:14	29°♎09'49	
min. Earth dist.	4356 Feb 29 06:05	6°♏28'09	0.66292 AU	retrograde	4357 Feb 01 20:00	29°♎19'54	
morning rise	4356 Mar 04 06:20	1°♏59'17		evening set	4357 Feb 05 13:38	27°♎58'50	
	4356 Mar 07 03:58	30°♏		inferior conj	4357 Feb 11 00:12	21°♎52'13	2°58'38
direct	4356 Mar 10 13:11	29°♎13'16		minimum elong	4357 Feb 10 21:52	22°♎00'06	2°58'07
	4356 Mar 14 04:39	0°♏		min. Earth dist.	4357 Feb 11 19:23	20°♎47'22	0.67279 AU
desc. node	4356 Mar 22 09:46	5°♏57'13		morning rise	4357 Feb 16 05:32	15°♎36'07	
morning max el	4356 Mar 23 05:02	6°♏45'00	26°10'00	direct	4357 Feb 21 23:19	13°♎03'10	
	4356 Apr 10 05:11	0°♐		morning max el	4357 Mar 05 13:43	19°♎59'30	24°49'10
morning set	4356 Apr 28 07:26	0°♑20'48		desc. node	4357 Mar 09 06:49	24°♎02'08	
	4356 Apr 28 02:57	0°♑			4357 Mar 14 03:07	0°♏	
max. Earth dist.	4356 May 02 07:29	7°♑57'28	1.35202 AU		4357 Apr 03 09:04	0°♐	
				morning set	4357 Apr 10 14:35	12°♐21'12	
superior conj	4356 May 07 09:58	18°♑07'42	0°-51'-12	max. Earth dist.	4357 Apr 14 06:31	18°♐57'57	1.37100 AU
minimum elong	4356 May 07 12:44	18°♑21'48	0°50'43		4357 Apr 20 02:35	0°♑	
asc. node	4356 May 12 13:28	28°♑45'05					
	4356 May 13 03:53	0°♒		superior conj	4357 Apr 20 20:05	1°♑25'10	-1°-19'-47
evening rise	4356 May 15 05:37	4°♒17'09		minimum elong	4357 Apr 21 00:19	1°♑45'49	1°19'10
	4356 May 29 21:30	0°♓		evening rise	4357 Apr 29 08:17	18°♑23'07	
evening max el	4356 Jun 02 15:25	4°♓14'54	20°30'40	asc. node	4357 Apr 29 10:31	18°♑34'13	
retrograde	4356 Jun 13 17:28	9°♓40'02			4357 May 05 08:17	0°♒	

evening max el	4357 May 16 06:11	15°II51'06	19°24'39	minimum elong	4358 Apr 03 20:56	14°V21'22	1°44'23
retrograde	4357 May 25 14:31	20°II24'10			4358 Apr 12 01:48	0°B	
evening set	4357 May 27 13:44	20°II12'57		evening rise	4358 Apr 13 02:49	2°B00'52	
inferior conj	4357 Jun 05 03:46	16°II06'22	0°01'39	asc. node	4358 Apr 16 07:33	8°B07'59	
minimum elong	4357 Jun 05 03:51	16°II06'16	0°01'37	evening max el	4358 Apr 29 07:24	28°B06'20	18°38'49
transit middle	4357 Jun 05 03:51	16°II06'16	0°01'37		4358 May 01 13:23	0°II	
transit begin	4357 Jun 04 23:59	16°II12'31		retrograde	4358 May 07 05:22	1°II59'47	
transit end	4357 Jun 05 07:42	15°II59'59		evening set	4358 May 09 09:58	1°II42'56	
desc. node	4357 Jun 05 06:00	16°II02'45			4358 May 13 07:32	30°RB	
min. Earth dist.	4357 Jun 07 19:19	14°II23'38	0.55908 AU	inferior conj	4358 May 17 04:28	27°B17'37	1°39'12
morning rise	4357 Jun 13 14:03	11°II25'39		minimum elong	4358 May 17 07:43	27°B11'27	1°38'10
direct	4357 Jun 18 08:25	10°II34'05		min. Earth dist.	4358 May 20 12:43	24°B46'35	0.57615 AU
morning max el	4357 Jul 02 10:50	17°II42'18	25°05'11	desc. node	4358 May 23 03:01	23°B03'15	
	4357 Jul 12 14:08	0°E		morning rise	4358 May 25 01:00	22°B02'03	
asc. node	4357 Jul 26 09:46	24°E22'18		direct	4358 May 30 18:10	20°B40'42	
morning set	4357 Jul 28 18:31	29°E17'55		morning max el	4358 Jun 14 03:00	28°B15'21	26°32'20
	4357 Jul 29 02:27	0°Q			4358 Jun 15 20:16	0°II	
					4358 Jul 06 03:25	0°E	
superior conj	4357 Aug 04 18:03	14°Q27'36	1°24'01	morning set	4358 Jul 13 05:03	14°E06'11	
minimum elong	4357 Aug 04 15:48	14°Q15'18	1°23'44	asc. node	4358 Jul 13 06:48	14°E15'27	
max. Earth dist.	4357 Aug 06 02:43	17°Q25'52	1.32606 AU				
evening rise	4357 Aug 11 22:42	29°Q48'54		superior conj	4358 Jul 20 05:37	29°E22'43	1°07'08
	4357 Aug 12 00:52	0°M		minimum elong	4358 Jul 20 03:20	29°E10'05	1°06'45
	4357 Aug 28 18:11	0°A		max. Earth dist.	4358 Jul 20 13:05	0°Q03'52	1.32105 AU
desc. node	4357 Sep 01 05:19	5°A06'26			4358 Jul 20 12:23	0°Q	
evening max el	4357 Sep 13 11:50	19°A47'48	27°24'29	evening rise	4358 Jul 27 04:11	14°Q25'37	
retrograde	4357 Sep 27 06:12	27°A02'56			4358 Aug 04 01:27	0°M	
evening set	4357 Oct 04 10:35	24°A33'36		desc. node	4358 Aug 19 02:19	23°M33'03	
min. Earth dist.	4357 Oct 08 01:39	21°A35'39	0.62650 AU		4358 Aug 24 14:46	0°A	
inferior conj	4357 Oct 10 21:57	18°A52'50	-3°-32'-41	evening max el	4358 Aug 26 16:33	2°A04'05	26°54'53
minimum elong	4357 Oct 11 03:42	18°A39'06	3°30'55	retrograde	4358 Sep 09 14:05	9°A14'46	
morning rise	4357 Oct 17 23:38	13°A43'31		evening set	4358 Sep 16 13:38	7°A07'46	
direct	4357 Oct 20 07:36	13°A18'44		min. Earth dist.	4358 Sep 20 06:42	4°A29'32	0.60664 AU
asc. node	4357 Oct 22 09:00	13°A38'35		inferior conj	4358 Sep 23 11:25	1°A49'05	-4°-26'-29
morning max el	4357 Oct 27 01:20	16°A45'51	17°50'16	minimum elong	4358 Sep 23 17:19	1°A36'41	4°25'13
	4357 Nov 05 10:08	0°M			4358 Sep 25 17:06	30°RM	
morning set	4357 Nov 12 01:50	11°M39'03		morning rise	4358 Oct 01 00:13	27°M01'14	
	4357 Nov 22 14:17	0°J		direct	4358 Oct 03 07:31	26°M40'29	
				asc. node	4358 Oct 09 06:02	29°M04'49	
superior conj	4357 Nov 23 12:28	1°J33'48	0°32'21		4358 Oct 10 07:23	0°A	
minimum elong	4357 Nov 23 15:27	1°J46'21	0°31'56	morning max el	4358 Oct 10 14:35	0°A17'10	18°03'41
desc. node	4357 Nov 28 04:38	9°J19'48		morning set	4358 Oct 26 08:00	25°A09'25	
max. Earth dist.	4357 Nov 30 09:56	12°J56'36	1.43568 AU		4358 Oct 28 22:29	0°M	
evening rise	4357 Dec 08 12:08	25°J44'45					
	4357 Dec 11 06:24	0°E		superior conj	4358 Nov 05 05:57	13°M19'13	1°05'36
	4357 Dec 31 23:11	0°W		minimum elong	4358 Nov 05 10:02	13°M37'25	1°05'06
greatest brilliancy	4358 Jan 02 22:55	2°W33'26	-0.4m	max. Earth dist.	4358 Nov 12 21:30	26°M30'27	1.41851 AU
evening max el	4358 Jan 07 23:09	8°W19'30	21°20'59	desc. node	4358 Nov 15 01:38	0°J06'30	
retrograde	4358 Jan 16 17:42	13°W31'40			4358 Nov 15 00:03	0°J	
asc. node	4358 Jan 18 08:15	13°W17'41		evening rise	4358 Nov 18 11:04	5°J36'50	
evening set	4358 Jan 20 21:23	11°W55'23			4358 Dec 04 13:02	0°E	
inferior conj	4358 Jan 26 06:46	5°W38'06	2°25'30	greatest brilliancy	4358 Dec 16 18:17	16°E23'26	-0.3m
minimum elong	4358 Jan 26 04:19	5°W46'35	2°24'46	evening max el	4358 Dec 21 16:34	21°E54'54	22°38'01
min. Earth dist.	4358 Jan 26 13:21	5°W15'17	0.67855 AU	retrograde	4358 Dec 31 13:26	27°E46'41	
	4358 Jan 30 19:14	30°RE		evening set	4359 Jan 05 04:48	25°E54'16	
morning rise	4358 Jan 31 10:54	29°E23'28		asc. node	4359 Jan 05 05:16	25°E53'19	
direct	4358 Feb 05 14:02	27°E10'25		inferior conj	4359 Jan 10 14:36	19°E29'43	1°44'29
	4358 Feb 12 05:25	0°W		minimum elong	4359 Jan 10 12:31	19°E36'58	1°43'44
morning max el	4358 Feb 15 22:32	3°W19'39	23°20'29	min. Earth dist.	4359 Jan 10 09:40	19°E46'47	0.68046 AU
greatest brilliancy	4358 Feb 21 08:13	9°W24'40	-0.2m	morning rise	4359 Jan 15 20:09	13°E18'15	
desc. node	4358 Feb 24 03:52	12°W57'57		direct	4359 Jan 20 08:27	11°E28'04	
	4358 Mar 08 07:02	0°K		morning max el	4359 Jan 29 10:59	16°E47'46	21°53'18
morning set	4358 Mar 22 21:47	23°K09'49		greatest brilliancy	4359 Feb 03 03:50	22°E04'44	-0.4m
	4358 Mar 26 21:40	0°V			4359 Feb 09 05:35	0°W	
max. Earth dist.	4358 Mar 27 01:40	0°V17'26	1.39258 AU	desc. node	4359 Feb 11 00:53	2°W29'57	
					4359 Mar 01 09:11	0°K	
superior conj	4358 Apr 03 16:06	13°V58'55	-1°-44'-53	morning set	4359 Mar 03 00:17	2°K35'55	

max. Earth dist.	4359 Mar 09 00:26	12° ✕ 24'56	1.41409 AU	max. Earth dist.	4360 Feb 19 06:11	25° ≈ 26'42	1.43266 AU
					4360 Feb 22 01:25	0° ✕	
superior conj	4359 Mar 16 17:06	25° ✕ 36'17	-2°-2'-37	superior conj	4360 Feb 25 18:20	6° ✕ 07'36	-2°-7'-49
minimum elong	4359 Mar 16 20:33	25° ✕ 51'29	2°02'28	minimum elong	4360 Feb 25 17:21	6° ✕ 03'33	2°07'50
	4359 Mar 19 04:30	0° Υ		evening rise	4360 Mar 09 00:41	27° ✕ 15'25	
evening rise	4359 Mar 27 09:39	15° Υ 01'06			4360 Mar 10 14:02	0° Υ	
asc. node	4359 Apr 03 04:34	27° Υ 19'59		asc. node	4360 Mar 20 01:34	16° Υ 03'30	
	4359 Apr 04 18:05	0° ♄		evening max el	4360 Mar 26 03:36	23° Υ 58'00	18°07'02
evening max el	4359 Apr 12 15:38	10° ♄ 51'22	18°13'09	retrograde	4360 Apr 01 15:46	27° Υ 20'29	
retrograde	4359 Apr 19 15:03	14° ♄ 21'39		evening set	4360 Apr 04 08:37	26° Υ 44'55	
evening set	4359 Apr 22 01:57	13° ♄ 56'20		inferior conj	4360 Apr 10 18:51	21° Υ 37'56	3°21'46
inferior conj	4359 Apr 29 02:28	9° ♄ 09'52	2°45'12	minimum elong	4360 Apr 10 20:51	21° Υ 32'50	3°21'31
minimum elong	4359 Apr 29 05:52	9° ♄ 02'17	2°44'25	min. Earth dist.	4360 Apr 13 18:45	18° Υ 36'07	0.61907 AU
min. Earth dist.	4359 May 02 11:42	6° ♄ 11'05	0.59725 AU	morning rise	4360 Apr 17 06:19	15° Υ 37'33	
morning rise	4359 May 06 05:58	3° ♄ 26'47		direct	4360 Apr 24 02:05	13° Υ 11'12	
desc. node	4359 May 10 00:03	1° ♄ 50'59		desc. node	4360 Apr 25 21:06	13° Υ 20'38	
direct	4359 May 12 16:42	1° ♄ 30'47		morning max el	4360 May 08 05:42	21° Υ 10'23	27°52'11
morning max el	4359 May 27 01:15	9° ♄ 21'46	27°30'38		4360 May 15 21:29	0° ♄	
	4359 Jun 11 21:14	0° ♄			4360 Jun 03 22:11	0° ♄	
morning set	4359 Jun 27 12:40	28° ♄ 43'44		morning set	4360 Jun 10 15:24	13° ♄ 04'00	
	4359 Jun 28 03:16	0° ♄		asc. node	4360 Jun 16 00:52	24° ♄ 24'45	
asc. node	4359 Jun 30 03:50	4° ♄ 17'50		max. Earth dist.	4360 Jun 16 09:33	25° ♄ 11'44	1.32316 AU
max. Earth dist.	4359 Jul 04 00:41	12° ♄ 43'37	1.32004 AU				
superior conj	4359 Jul 04 17:14	14° ♄ 14'45	0°46'12	superior conj	4360 Jun 18 03:10	28° ♄ 57'52	0°21'48
minimum elong	4359 Jul 04 15:22	14° ♄ 04'28	0°45'50	minimum elong	4360 Jun 18 02:10	28° ♄ 52'26	0°21'35
evening rise	4359 Jul 11 13:40	29° ♄ 11'42			4360 Jun 18 14:33	0° ♄	
	4359 Jul 11 22:47	0° ♄		evening rise	4360 Jun 25 01:11	14° ♄ 00'16	
	4359 Jul 28 12:17	0° ♄			4360 Jul 03 01:24	0° ♄	
desc. node	4359 Aug 05 23:19	10° ♄ 52'06		evening max el	4360 Jul 20 04:17	24° ♄ 14'56	24°26'26
evening max el	4359 Aug 08 13:48	13° ♄ 31'31	25°52'59	desc. node	4360 Jul 22 20:20	26° ♄ 36'10	
retrograde	4359 Aug 22 12:59	20° ♄ 38'56			4360 Jul 28 07:48	0° ♄	
evening set	4359 Aug 28 19:21	19° ♄ 05'24		retrograde	4360 Aug 03 01:05	1° ♄ 14'50	
min. Earth dist.	4359 Sep 02 02:07	16° ♄ 30'03	0.58593 AU	evening set	4360 Aug 08 00:40	0° ♄ 19'19	
inferior conj	4359 Sep 05 07:28	14° ♄ 09'33	-5°-3'-59		4360 Aug 08 20:36	30° ♄ 00'16	
minimum elong	4359 Sep 05 11:00	14° ♄ 03'07	5°03'39	min. Earth dist.	4360 Aug 13 15:16	27° ♄ 27'40	0.56706 AU
morning rise	4359 Sep 13 06:11	9° ♄ 45'23		inferior conj	4360 Aug 16 07:31	25° ♄ 45'42	-5°-10'-56
direct	4359 Sep 15 16:12	9° ♄ 26'22		minimum elong	4360 Aug 16 05:37	25° ♄ 48'44	5°10'51
morning max el	4359 Sep 23 21:28	13° ♄ 22'20	18°37'25	morning rise	4360 Aug 24 14:06	21° ♄ 43'00	
asc. node	4359 Sep 26 03:04	15° ♄ 46'12		direct	4360 Aug 27 05:53	21° ♄ 23'54	
	4359 Oct 05 05:32	0° ♄		morning max el	4360 Sep 05 18:46	25° ♄ 51'07	19°32'39
morning set	4359 Oct 10 01:53	9° ♄ 13'00			4360 Sep 09 12:21	0° ♄	
				asc. node	4360 Sep 12 00:07	3° ♄ 27'03	
superior conj	4359 Oct 18 21:02	26° ♄ 08'07	1°27'54	morning set	4360 Sep 23 03:47	23° ♄ 39'05	
minimum elong	4359 Oct 19 00:16	26° ♄ 23'15	1°27'36		4360 Sep 26 07:20	0° ♄	
	4359 Oct 20 22:58	0° ♄		superior conj	4360 Oct 01 04:13	9° ♄ 43'59	1°40'13
max. Earth dist.	4359 Oct 26 03:56	9° ♄ 20'48	1.39817 AU	minimum elong	4360 Oct 01 05:52	9° ♄ 52'02	1°40'08
evening rise	4359 Oct 30 07:46	16° ♄ 28'50		max. Earth dist.	4360 Oct 07 08:13	21° ♄ 30'55	1.37728 AU
desc. node	4359 Nov 01 22:38	20° ♄ 49'46		evening rise	4360 Oct 11 03:24	28° ♄ 23'39	
	4359 Nov 07 16:30	0° ♄			4360 Oct 12 01:16	0° ♄	
	4359 Nov 29 04:58	0° ♄		desc. node	4360 Oct 18 19:39	11° ♄ 24'59	
evening max el	4359 Dec 04 06:27	5° ♄ 33'38	23°57'53		4360 Oct 31 02:00	0° ♄	
retrograde	4359 Dec 15 06:02	12° ♄ 01'34		evening max el	4360 Nov 15 18:56	19° ♄ 15'31	25°14'06
evening set	4359 Dec 20 10:25	9° ♄ 53'06		retrograde	4360 Nov 27 18:26	26° ♄ 10'47	
asc. node	4359 Dec 23 02:17	7° ♄ 07'15		evening set	4360 Dec 03 12:34	23° ♄ 47'43	
inferior conj	4359 Dec 25 22:00	3° ♄ 25'20	0°56'45	min. Earth dist.	4360 Dec 08 00:29	18° ♄ 48'03	0.67346 AU
minimum elong	4359 Dec 25 20:42	3° ♄ 29'45	0°56'14	asc. node	4360 Dec 08 23:20	17° ♄ 33'46	
min. Earth dist.	4359 Dec 25 06:10	4° ♄ 19'00	0.67873 AU	inferior conj	4360 Dec 09 03:07	17° ♄ 21'25	0°03'14
	4359 Dec 28 13:27	30° ♄ 00'00		minimum elong	4360 Dec 09 03:02	17° ♄ 21'42	0°03'13
morning rise	4359 Dec 31 07:15	27° ♄ 18'50		transit middle	4360 Dec 09 03:02	17° ♄ 21'42	0°03'13
direct	4360 Jan 04 05:36	25° ♄ 51'18		transit begin	4360 Dec 09 00:19	17° ♄ 30'35	
	4360 Jan 11 19:04	0° ♄		transit end	4360 Dec 09 05:46	17° ♄ 12'49	
morning max el	4360 Jan 12 06:15	0° ♄ 27'29	20°34'54	morning rise	4360 Dec 14 18:13	11° ♄ 22'07	
greatest brilliancy	4360 Jan 18 06:27	7° ♄ 29'34	-0.5m	direct	4360 Dec 18 04:13	10° ♄ 14'48	
desc. node	4360 Jan 28 21:55	22° ♄ 28'34		morning max el	4360 Dec 25 09:25	14° ♄ 17'49	19°29'44
	4360 Feb 02 22:42	0° ♄		greatest brilliancy	4361 Jan 02 22:19	25° ♄ 01'15	-0.6m
morning set	4360 Feb 10 02:23	10° ♄ 57'31					

	4361 Jan 06 08:33	0°☿		morning rise	4361 Nov 29 03:00	25°♊25'23	
desc. node	4361 Jan 14 18:57	12°☿45'58		direct	4361 Dec 02 02:39	24°♊34'47	
morning set	4361 Jan 18 23:50	19°☿14'33		morning max el	4361 Dec 08 19:31	28°♊15'28	18°40'04
	4361 Jan 25 22:02	0°≈			4361 Dec 10 10:22	0°♊	
max. Earth dist.	4361 Jan 31 18:51	9°≈13'18	1.44590 AU	morning set	4361 Dec 29 16:51	28°♊35'45	
					4361 Dec 30 14:10	0°☿	
superior conj	4361 Feb 04 18:01	15°≈31'51	-1°-55'-16	desc. node	4362 Jan 01 15:58	3°☿16'39	
minimum elong	4361 Feb 04 10:58	15°≈03'40	1°54'50				
	4361 Feb 13 15:37	0°♋		superior conj	4362 Jan 14 23:11	24°☿10'56	-1°-23'-17
evening rise	4361 Feb 18 19:32	8°♋35'42		minimum elong	4362 Jan 14 14:02	23°☿34'59	1°22'19
	4361 Mar 03 22:26	0°♌		max. Earth dist.	4362 Jan 14 12:34	23°☿29'13	1.45239 AU
asc. node	4361 Mar 06 22:36	4°♌09'59			4362 Jan 18 16:04	0°≈	
evening max el	4361 Mar 09 16:21	7°♌18'59	18°19'52	evening rise	4362 Jan 30 15:12	18°≈58'21	
retrograde	4361 Mar 16 03:01	10°♌47'14			4362 Feb 06 12:33	0°♋	
evening set	4361 Mar 19 01:48	10°♌00'10		evening max el	4362 Feb 21 03:13	20°♋47'22	18°50'44
inferior conj	4361 Mar 25 01:33	4°♌34'00	3°35'08	asc. node	4362 Feb 21 19:40	21°♋27'43	
minimum elong	4361 Mar 25 01:51	4°♌33'11	3°35'08	retrograde	4362 Feb 27 20:52	24°♋33'22	
min. Earth dist.	4361 Mar 27 11:04	1°♌51'00	0.63898 AU	evening set	4362 Mar 03 02:07	23°♋33'47	
	4361 Mar 29 05:28	30°♌		inferior conj	4362 Mar 08 18:41	17°♋50'01	3°31'01
morning rise	4361 Mar 31 00:05	28°♋24'21		minimum elong	4362 Mar 08 17:33	17°♋53'30	3°30'55
direct	4361 Apr 06 20:08	25°♋39'29		min. Earth dist.	4362 Mar 10 12:29	15°♋40'31	0.65542 AU
desc. node	4361 Apr 12 18:10	27°♋22'49		morning rise	4362 Mar 14 07:53	11°♋35'53	
	4361 Apr 16 14:30	0°♌		direct	4362 Mar 20 21:05	8°♋46'41	
morning max el	4361 Apr 20 14:13	3°♌37'17	27°36'32	desc. node	4362 Mar 30 15:13	13°♋23'26	
	4361 May 10 08:46	0°♍		morning max el	4362 Apr 03 00:05	16°♋31'09	26°48'46
morning set	4361 May 25 10:50	26°♍59'43			4362 Apr 14 04:16	0°♌	
	4361 May 26 22:55	0°♎			4362 May 03 05:07	0°♍	
max. Earth dist.	4361 May 30 11:47	7°♎16'30	1.33073 AU	morning set	4362 May 08 19:41	10°♍20'17	
				max. Earth dist.	4362 May 13 03:55	18°♍50'01	1.34299 AU
superior conj	4361 Jun 02 09:37	13°♎26'32	0°-5'-20				
minimum elong	4361 Jun 02 09:54	13°♎27'59	0°05'19	superior conj	4362 May 17 10:22	27°♍33'22	0°-34'-16
behind sun begin	4361 Jun 02 04:48	13°♎00'44		minimum elong	4362 May 17 12:11	27°♍42'51	0°33'56
behind sun end	4361 Jun 02 14:59	13°♎55'15			4362 May 18 14:28	0°♎	
asc. node	4361 Jun 02 21:55	14°♎32'22		asc. node	4362 May 20 18:56	4°♎35'55	
evening rise	4361 Jun 09 12:52	28°♎45'35		evening rise	4362 May 24 22:46	13°♎20'40	
	4361 Jun 10 02:59	0°♏			4362 Jun 02 12:22	0°♏	
	4361 Jun 27 13:00	0°♑		evening max el	4362 Jun 13 13:29	15°♏13'57	21°17'05
evening max el	4361 Jul 01 17:36	4°♑38'33	22°49'23	retrograde	4362 Jun 25 13:54	21°♏08'39	
desc. node	4361 Jul 09 17:22	10°♑11'26		desc. node	4362 Jun 26 14:25	21°♏06'12	
retrograde	4361 Jul 15 00:27	11°♑15'37		evening set	4362 Jun 27 22:09	20°♏55'58	
evening set	4361 Jul 18 11:27	10°♑49'27		inferior conj	4362 Jul 07 06:29	16°♏57'32	-3°-2'-52
min. Earth dist.	4361 Jul 26 02:02	7°♑26'55	0.55350 AU	minimum elong	4362 Jul 06 22:31	17°♏08'41	3°00'21
inferior conj	4361 Jul 27 12:37	6°♑37'14	-4°-31'-48	min. Earth dist.	4362 Jul 07 12:46	16°♏48'44	0.54819 AU
minimum elong	4361 Jul 27 05:05	6°♑48'05	4°30'21	morning rise	4362 Jul 15 23:11	13°♏01'52	
morning rise	4361 Aug 05 01:17	2°♑46'30		direct	4362 Jul 19 11:05	12°♏35'28	
direct	4361 Aug 08 01:26	2°♑25'25		morning max el	4362 Aug 01 02:20	18°♏34'54	22°24'00
morning max el	4361 Aug 19 04:15	7°♑35'37	20°49'18		4362 Aug 10 08:37	0°♑	
asc. node	4361 Aug 29 21:11	21°♑53'56		asc. node	4362 Aug 16 18:13	10°♑55'06	
	4361 Sep 03 07:17	0°♒		morning set	4362 Aug 22 21:21	23°♑10'35	
morning set	4361 Sep 07 11:00	8°♒20'27			4362 Aug 26 02:36	0°♒	
superior conj	4361 Sep 14 22:56	23°♒53'42	1°44'03	superior conj	4362 Aug 30 01:33	8°♒26'13	1°40'49
minimum elong	4361 Sep 14 22:58	23°♒53'57	1°44'04	minimum elong	4362 Aug 30 00:20	8°♒19'50	1°40'46
	4361 Sep 17 23:18	0°♓		max. Earth dist.	4362 Sep 02 08:52	15°♒21'14	1.34248 AU
max. Earth dist.	4361 Sep 19 16:27	3°♓23'31	1.35823 AU	evening rise	4362 Sep 07 01:30	24°♒46'33	
evening rise	4361 Sep 23 18:48	11°♓13'37			4362 Sep 09 19:01	0°♓	
	4361 Oct 04 13:54	0°♊		desc. node	4362 Sep 22 13:41	21°♓50'47	
desc. node	4361 Oct 05 16:39	1°♊47'24			4362 Sep 28 02:10	0°♊	
	4361 Oct 26 10:14	0°♋		evening max el	4362 Oct 11 20:17	16°♊32'01	27°05'35
evening max el	4361 Oct 29 07:33	2°♋57'46	26°19'10	retrograde	4362 Oct 25 03:16	23°♊49'13	
retrograde	4361 Nov 11 01:42	10°♋08'53		evening set	4362 Oct 31 22:47	21°♊09'15	
evening set	4361 Nov 17 09:24	7°♋34'31		min. Earth dist.	4362 Nov 04 20:59	17°♊21'26	0.65253 AU
min. Earth dist.	4361 Nov 21 14:15	3°♋10'32	0.66476 AU	inferior conj	4362 Nov 06 22:46	15°♊01'12	-1°-56'-9
inferior conj	4361 Nov 23 04:06	1°♋14'47	0°-54'-54	minimum elong	4362 Nov 07 02:04	14°♊51'55	1°54'50
minimum elong	4361 Nov 23 05:35	1°♋10'14	0°54'16	asc. node	4362 Nov 12 17:28	9°♊42'38	
	4361 Nov 24 04:49	30°♊		morning rise	4362 Nov 13 07:12	9°♊24'52	
asc. node	4361 Nov 25 20:24	28°♊08'06		direct	4362 Nov 15 22:45	8°♊47'09	

morning max el	4362 Nov 22 10:23	12° \mathbb{M} 15'32	18°07'03	minimum elong	4363 Oct 21 13:33	28° \mathbb{A} 21'15	2°56'25
	4362 Dec 04 21:34	0° \mathbb{A}		morning rise	4363 Oct 28 03:45	23° \mathbb{A} 14'11	
morning set	4362 Dec 10 15:24	9° \mathbb{A} 26'21		direct	4363 Oct 30 13:41	22° \mathbb{A} 45'41	
desc. node	4362 Dec 19 12:59	23° \mathbb{A} 56'41		asc. node	4363 Oct 30 14:30	22° \mathbb{A} 45'41	
	4362 Dec 23 07:46	0° \mathbb{B}		morning max el	4363 Nov 06 03:07	26° \mathbb{A} 10'43	17°51'19
					4363 Nov 09 09:26	0° \mathbb{M}	
superior conj	4362 Dec 25 04:28	2° \mathbb{B} 57'24	0°-38'-10	morning set	4363 Nov 22 16:30	21° \mathbb{M} 33'45	
minimum elong	4362 Dec 24 23:41	2° \mathbb{B} 38'29	0°37'32		4363 Nov 27 14:23	0° \mathbb{A}	
max. Earth dist.	4362 Dec 28 08:20	7° \mathbb{B} 56'50	1.45144 AU				
evening rise	4363 Jan 10 13:30	28° \mathbb{B} 32'53		superior conj	4363 Dec 05 04:45	12° \mathbb{A} 42'27	0°08'29
	4363 Jan 11 12:00	0° \mathbb{A}		minimum elong	4363 Dec 05 05:40	12° \mathbb{A} 46'13	0°08'22
greatest brilliancy	4363 Jan 27 16:01	24° \mathbb{A} 30'23	-0.6m	behind sun begin	4363 Dec 04 21:16	12° \mathbb{A} 11'44	
	4363 Jan 31 17:02	0° \mathbb{H}		behind sun end	4363 Dec 05 14:04	13° \mathbb{A} 20'38	
evening max el	4363 Feb 04 10:08	4° \mathbb{H} 19'05	19°38'11	desc. node	4363 Dec 06 09:59	14° \mathbb{A} 41'59	
asc. node	4363 Feb 08 16:44	7° \mathbb{H} 43'21		max. Earth dist.	4363 Dec 11 02:35	22° \mathbb{A} 15'44	1.44323 AU
retrograde	4363 Feb 11 18:10	8° \mathbb{H} 33'14			4363 Dec 16 00:12	0° \mathbb{B}	
evening set	4363 Feb 15 06:56	7° \mathbb{H} 20'09		evening rise	4363 Dec 20 23:48	7° \mathbb{B} 43'39	
inferior conj	4363 Feb 20 19:01	1° \mathbb{H} 20'56	3°13'35		4364 Jan 04 19:42	0° \mathbb{A}	
minimum elong	4363 Feb 20 16:59	1° \mathbb{H} 27'41	3°13'13	greatest brilliancy	4364 Jan 12 18:30	11° \mathbb{A} 05'01	-0.5m
	4363 Feb 21 19:33	30° \mathbb{R} \mathbb{A}		evening max el	4364 Jan 18 11:43	17° \mathbb{A} 51'33	20°40'03
min. Earth dist.	4363 Feb 21 21:57	29° \mathbb{A} 52'04	0.66769 AU	retrograde	4364 Jan 26 16:24	22° \mathbb{A} 41'37	
morning rise	4363 Feb 26 02:20	25° \mathbb{A} 05'03		asc. node	4364 Jan 26 13:46	22° \mathbb{A} 41'33	
direct	4363 Mar 04 03:55	22° \mathbb{A} 23'46		evening set	4364 Jan 30 14:07	21° \mathbb{A} 14'05	
morning max el	4363 Mar 16 09:30	29° \mathbb{A} 41'20	25°37'13	inferior conj	4364 Feb 04 23:56	15° \mathbb{A} 02'15	2°45'36
	4363 Mar 16 16:50	0° \mathbb{H}		minimum elong	4364 Feb 04 21:30	15° \mathbb{A} 10'36	2°44'59
desc. node	4363 Mar 17 12:14	0° \mathbb{H} 50'32		min. Earth dist.	4364 Feb 05 13:30	14° \mathbb{A} 15'44	0.67574 AU
	4363 Apr 08 01:18	0° \mathbb{Y}		morning rise	4364 Feb 10 04:26	8° \mathbb{A} 46'30	
morning set	4363 Apr 21 13:44	22° \mathbb{Y} 54'08		direct	4364 Feb 15 15:57	6° \mathbb{A} 21'44	
	4363 Apr 25 09:16	0° \mathbb{B}		morning max el	4364 Feb 26 18:10	12° \mathbb{A} 59'09	24°11'47
max. Earth dist.	4363 Apr 25 08:57	29° \mathbb{Y} 58'29	1.35975 AU	desc. node	4364 Mar 03 09:14	19° \mathbb{A} 19'03	
					4364 Mar 11 11:43	0° \mathbb{H}	
superior conj	4363 May 01 02:44	11° \mathbb{B} 11'15	-1°-3'-34		4364 Mar 30 21:18	0° \mathbb{Y}	
minimum elong	4363 May 01 06:11	11° \mathbb{B} 28'28	1°02'59	morning set	4364 Apr 02 11:27	4° \mathbb{Y} 25'54	
asc. node	4363 May 07 15:59	24° \mathbb{B} 31'42		max. Earth dist.	4364 Apr 06 05:37	11° \mathbb{Y} 03'33	1.38004 AU
evening rise	4363 May 09 04:47	27° \mathbb{B} 39'29					
	4363 May 10 08:32	0° \mathbb{H}		superior conj	4364 Apr 13 07:20	24° \mathbb{Y} 10'59	-1°-31'-4
evening max el	4363 May 26 21:02	26° \mathbb{H} 25'04	20°00'01	minimum elong	4364 Apr 13 11:59	24° \mathbb{Y} 33'13	1°30'28
	4363 May 31 14:59	0° \mathbb{B}			4364 Apr 16 07:30	0° \mathbb{B}	
retrograde	4363 Jun 06 04:50	1° \mathbb{B} 27'23		evening rise	4364 Apr 22 04:21	11° \mathbb{B} 34'26	
evening set	4363 Jun 08 03:33	1° \mathbb{B} 17'25		asc. node	4364 Apr 23 13:02	14° \mathbb{B} 15'00	
	4363 Jun 12 04:38	30° \mathbb{R} \mathbb{H}			4364 May 02 06:02	0° \mathbb{H}	
desc. node	4363 Jun 13 11:27	29° \mathbb{H} 22'41		evening max el	4364 May 08 16:30	8° \mathbb{H} 18'19	19°02'36
inferior conj	4363 Jun 17 03:16	27° \mathbb{H} 17'19	-1°-5'-17	retrograde	4364 May 17 09:12	12° \mathbb{H} 33'04	
minimum elong	4363 Jun 17 00:13	27° \mathbb{H} 21'55	1°04'10	evening set	4364 May 19 10:07	12° \mathbb{H} 20'01	
min. Earth dist.	4363 Jun 19 01:10	26° \mathbb{H} 08'12	0.55250 AU	inferior conj	4364 May 27 15:56	8° \mathbb{H} 06'00	0°46'40
morning rise	4363 Jun 25 18:18	22° \mathbb{H} 56'44		minimum elong	4364 May 27 17:46	8° \mathbb{H} 02'50	0°46'01
direct	4363 Jun 29 23:41	22° \mathbb{H} 17'49		desc. node	4364 May 30 08:27	6° \mathbb{H} 14'24	
morning max el	4363 Jul 13 17:25	29° \mathbb{H} 03'44	24°07'29	min. Earth dist.	4364 May 30 16:38	6° \mathbb{H} 00'41	0.56557 AU
	4363 Jul 14 16:35	0° \mathbb{B}		morning rise	4364 Jun 04 21:01	3° \mathbb{H} 09'38	
	4363 Aug 03 10:51	0° \mathbb{Q}		direct	4364 Jun 10 01:04	2° \mathbb{H} 06'39	
asc. node	4363 Aug 03 15:15	0° \mathbb{Q} 21'54		morning max el	4364 Jun 24 07:48	9° \mathbb{H} 28'13	25°45'09
morning set	4363 Aug 07 09:03	8° \mathbb{Q} 04'09			4364 Jul 09 19:20	0° \mathbb{B}	
				asc. node	4364 Jul 20 12:16	20° \mathbb{B} 07'30	
superior conj	4363 Aug 14 09:19	23° \mathbb{Q} 13'09	1°31'39	morning set	4364 Jul 21 20:29	22° \mathbb{B} 56'22	
minimum elong	4363 Aug 14 07:19	23° \mathbb{Q} 02'16	1°31'27		4364 Jul 25 03:13	0° \mathbb{Q}	
max. Earth dist.	4363 Aug 16 10:01	27° \mathbb{Q} 35'44	1.33080 AU				
	4363 Aug 17 13:04	0° \mathbb{H}		superior conj	4364 Jul 28 20:04	8° \mathbb{Q} 07'44	1°17'24
evening rise	4363 Aug 21 19:31	8° \mathbb{H} 51'31		minimum elong	4364 Jul 28 17:45	7° \mathbb{Q} 54'58	1°17'03
	4363 Sep 02 05:00	0° \mathbb{A}		max. Earth dist.	4364 Jul 29 17:48	10° \mathbb{Q} 07'06	1.32334 AU
desc. node	4363 Sep 09 10:44	11° \mathbb{A} 26'30		evening rise	4364 Aug 04 21:36	23° \mathbb{Q} 19'27	
evening max el	4363 Sep 24 07:36	29° \mathbb{A} 45'27	27°26'22		4364 Aug 08 04:36	0° \mathbb{H}	
	4363 Sep 24 13:47	0° \mathbb{M}		desc. node	4364 Aug 26 07:44	0° \mathbb{A} 23'14	
retrograde	4363 Oct 07 22:39	7° \mathbb{M} 02'36			4364 Aug 26 00:58	0° \mathbb{A}	
evening set	4363 Oct 15 01:51	4° \mathbb{M} 25'47		evening max el	4364 Sep 05 15:18	12° \mathbb{A} 25'48	27°16'02
min. Earth dist.	4363 Oct 18 18:32	1° \mathbb{M} 11'48	0.63686 AU	retrograde	4364 Sep 19 11:21	19° \mathbb{A} 39'54	
	4363 Oct 19 23:01	30° \mathbb{R} \mathbb{A}		evening set	4364 Sep 26 15:01	17° \mathbb{A} 18'09	
inferior conj	4363 Oct 21 08:32	28° \mathbb{A} 34'02	-2°-58'-10	min. Earth dist.	4364 Sep 30 05:44	14° \mathbb{A} 30'30	0.61821 AU

inferior conj	4364 Oct 03 06:23	11° Ω 46'23	-3°-56'-51		4365 Sep 07 16:37	30° \mathbb{R} \mathbb{M}	
minimum elong	4364 Oct 03 12:25	11° Ω 32'42	3°55'13	evening set	4365 Sep 08 09:34	29° \mathbb{M} 37'49	
morning rise	4364 Oct 10 12:54	6° Ω 46'12		min. Earth dist.	4365 Sep 12 06:39	27° \mathbb{M} 02'52	0.59773 AU
direct	4364 Oct 12 20:05	6° Ω 23'35		inferior conj	4365 Sep 15 12:50	24° \mathbb{M} 28'30	-4°-45'-11
asc. node	4364 Oct 16 11:30	7° Ω 22'24		minimum elong	4365 Sep 15 18:06	24° \mathbb{M} 18'03	4°44'18
morning max el	4364 Oct 19 18:37	9° Ω 53'43	17°53'41	morning rise	4365 Sep 23 06:03	19° \mathbb{M} 50'32	
	4364 Nov 02 00:07	0° \mathbb{M}		direct	4365 Sep 25 13:56	19° \mathbb{M} 30'54	
morning set	4364 Nov 04 13:47	4° \mathbb{M} 38'48		morning max el	4365 Oct 03 05:34	23° \mathbb{M} 14'58	18°15'28
				asc. node	4365 Oct 03 08:31	23° \mathbb{M} 22'08	
superior conj	4364 Nov 15 07:36	23° \mathbb{M} 45'33	0°47'47		4365 Oct 08 15:09	0° Ω	
minimum elong	4364 Nov 15 11:23	24° \mathbb{M} 01'52	0°47'16	morning set	4365 Oct 19 01:26	18° Ω 24'24	
	4364 Nov 18 23:39	0° \mathbb{M}			4365 Oct 25 04:51	0° \mathbb{M}	
desc. node	4364 Nov 22 07:01	5° \mathbb{M} 29'26					
max. Earth dist.	4364 Nov 22 16:24	6° \mathbb{M} 07'53	1.42885 AU	superior conj	4365 Oct 28 10:53	5° \mathbb{M} 59'18	1°16'22
evening rise	4364 Nov 29 13:49	17° \mathbb{M} 10'09		minimum elong	4365 Oct 28 14:46	6° \mathbb{M} 16'58	1°15'55
	4364 Dec 07 22:42	0° \mathbb{M}		max. Earth dist.	4365 Nov 05 01:07	19° \mathbb{M} 21'35	1.41006 AU
greatest brilliancy	4364 Dec 26 13:41	26° \mathbb{M} 02'04	-0.4m	desc. node	4365 Nov 09 04:03	26° \mathbb{M} 15'11	
	4364 Dec 29 23:24	0° \approx		evening rise	4365 Nov 09 21:22	27° \mathbb{M} 26'05	
evening max el	4364 Dec 31 07:49	1° \approx 25'28	21°52'57		4365 Nov 11 11:19	0° \mathbb{M}	
retrograde	4365 Jan 09 13:34	6° \approx 55'13			4365 Dec 01 14:51	0° \mathbb{M}	
asc. node	4365 Jan 12 10:47	6° \approx 10'35		evening max el	4365 Dec 13 23:35	15° \mathbb{M} 02'34	23°12'07
evening set	4365 Jan 13 21:55	5° \approx 12'14		retrograde	4365 Dec 24 08:08	21° \mathbb{M} 10'32	
	4365 Jan 18 11:24	30° \mathbb{R} \mathbb{M}		evening set	4365 Dec 29 04:47	19° \mathbb{M} 11'32	
inferior conj	4365 Jan 19 07:17	28° \mathbb{M} 51'12	2°08'59	asc. node	4365 Dec 30 07:47	18° \mathbb{M} 09'08	
minimum elong	4365 Jan 19 04:56	28° \mathbb{M} 59'23	2°08'13	min. Earth dist.	4366 Jan 03 05:40	13° \mathbb{M} 17'56	0.68012 AU
min. Earth dist.	4365 Jan 19 08:53	28° \mathbb{M} 45'39	0.67981 AU	inferior conj	4366 Jan 03 15:11	12° \mathbb{M} 45'11	1°25'02
morning rise	4365 Jan 24 11:43	22° \mathbb{M} 37'25		minimum elong	4366 Jan 03 13:23	12° \mathbb{M} 51'24	1°24'21
direct	4365 Jan 29 08:24	20° \mathbb{M} 33'58		morning rise	4366 Jan 08 22:00	6° \mathbb{M} 35'22	
morning max el	4365 Feb 08 04:07	26° \mathbb{M} 22'32	22°42'37	direct	4366 Jan 13 04:17	4° \mathbb{M} 54'46	
	4365 Feb 11 12:02	0° \approx		morning max el	4366 Jan 21 19:03	9° \mathbb{M} 54'59	21°18'32
greatest brilliancy	4365 Feb 12 18:54	1° \approx 31'20	-0.3m	greatest brilliancy	4366 Jan 26 22:16	15° \mathbb{M} 46'11	-0.4m
desc. node	4365 Feb 18 06:16	8° \approx 31'48		desc. node	4366 Feb 05 03:18	28° \mathbb{M} 16'31	
	4365 Mar 05 01:32	0° \mathbb{M}			4366 Feb 06 08:02	0° \approx	
morning set	4365 Mar 14 06:47	14° \mathbb{M} 40'13		morning set	4366 Feb 21 21:37	23° \approx 34'51	
max. Earth dist.	4365 Mar 19 01:00	22° \mathbb{M} 38'54	1.40191 AU		4366 Feb 25 22:15	0° \mathbb{M}	
	4365 Mar 23 06:35	0° \mathbb{Y}		max. Earth dist.	4366 Mar 01 02:22	5° \mathbb{M} 09'40	1.42251 AU
superior conj	4365 Mar 26 19:53	6° \mathbb{Y} 22'08	-1°-53'-36	superior conj	4366 Mar 08 11:26	17° \mathbb{M} 33'44	-2°-6'-41
minimum elong	4365 Mar 27 00:27	6° \mathbb{Y} 42'53	1°53'15	minimum elong	4366 Mar 08 13:24	17° \mathbb{M} 42'10	2°06'40
evening rise	4365 Apr 05 18:23	24° \mathbb{Y} 57'18			4366 Mar 15 13:14	0° \mathbb{Y}	
	4365 Apr 08 10:31	0° \mathbb{M}		evening rise	4366 Mar 19 19:05	7° \mathbb{Y} 39'42	
asc. node	4365 Apr 10 10:04	3° \mathbb{M} 40'19		asc. node	4366 Mar 28 07:06	22° \mathbb{Y} 41'46	
evening max el	4365 Apr 21 21:10	20° \mathbb{M} 47'40	18°25'29		4366 Apr 02 02:41	0° \mathbb{M}	
retrograde	4365 Apr 29 08:09	24° \mathbb{M} 29'10		evening max el	4366 Apr 05 07:33	3° \mathbb{M} 44'16	18°08'12
evening set	4365 May 01 15:22	24° \mathbb{M} 09'05		retrograde	4366 Apr 12 00:40	7° \mathbb{M} 09'00	
inferior conj	4365 May 09 01:53	19° \mathbb{M} 35'12	2°11'06	evening set	4366 Apr 14 14:17	6° \mathbb{M} 39'24	
minimum elong	4365 May 09 05:30	19° \mathbb{M} 27'52	2°10'05	inferior conj	4366 Apr 21 08:15	1° \mathbb{M} 44'13	3°03'53
min. Earth dist.	4365 May 12 12:25	16° \mathbb{M} 49'04	0.58482 AU	minimum elong	4366 Apr 21 11:10	1° \mathbb{M} 37'20	3°03'22
morning rise	4365 May 16 15:15	14° \mathbb{M} 06'33			4366 Apr 23 04:16	30° \mathbb{R} \mathbb{Y}	
desc. node	4365 May 17 05:28	13° \mathbb{M} 48'52		min. Earth dist.	4366 Apr 24 14:33	28° \mathbb{Y} 41'13	0.60668 AU
direct	4365 May 22 16:54	12° \mathbb{M} 30'09		morning rise	4366 Apr 28 04:42	25° \mathbb{Y} 52'57	
morning max el	4365 Jun 06 02:19	20° \mathbb{M} 13'41	27°01'16	desc. node	4366 May 04 02:30	23° \mathbb{Y} 44'29	
	4365 Jun 14 11:29	0° \mathbb{M}		direct	4366 May 04 20:38	23° \mathbb{Y} 42'51	
	4365 Jul 02 11:47	0° \mathbb{M}			4366 May 17 09:59	0° \mathbb{M}	
morning set	4365 Jul 06 05:58	7° \mathbb{M} 40'48		morning max el	4366 May 19 03:11	1° \mathbb{M} 37'46	27°44'20
asc. node	4365 Jul 07 09:18	10° \mathbb{M} 05'17			4366 Jun 08 17:56	0° \mathbb{M}	
superior conj	4365 Jul 13 07:52	23° \mathbb{M} 02'32	0°58'44	morning set	4366 Jun 20 11:46	22° \mathbb{M} 11'57	
minimum elong	4365 Jul 13 05:42	22° \mathbb{M} 50'35	0°58'19	asc. node	4366 Jun 24 06:21	0° \mathbb{M} 10'27	
max. Earth dist.	4365 Jul 13 04:57	22° \mathbb{M} 46'28	1.32006 AU		4366 Jun 24 04:25	0° \mathbb{M}	
	4365 Jul 16 11:41	0° \mathbb{M}		max. Earth dist.	4366 Jun 26 15:53	5° \mathbb{M} 23'04	1.32091 AU
evening rise	4365 Jul 20 05:02	8° \mathbb{M} 01'07		superior conj	4366 Jun 27 19:01	7° \mathbb{M} 51'54	0°36'15
	4365 Jul 31 15:32	0° \mathbb{M}		minimum elong	4366 Jun 27 17:28	7° \mathbb{M} 43'23	0°35'55
desc. node	4365 Aug 13 04:45	18° \mathbb{M} 24'07		evening rise	4366 Jul 04 15:40	22° \mathbb{M} 49'34	
evening max el	4365 Aug 18 16:59	24° \mathbb{M} 21'43	26°32'19		4366 Jul 08 02:31	0° \mathbb{M}	
	4365 Aug 26 11:37	0° Ω			4366 Jul 26 10:19	0° \mathbb{M}	
retrograde	4365 Sep 01 15:55	1° Ω 31'32		desc. node	4366 Jul 31 01:46	5° \mathbb{M} 06'38	

evening max el	4366 Jul 31 11:17	5° \mathring{M} 29'36	25°18'26		4367 Jun 30 20:13	0° Ω	
retrograde	4366 Aug 14 10:12	12° \mathring{M} 33'58		evening max el	4367 Jul 13 00:20	16° Ω 00'46	23°45'19
evening set	4366 Aug 20 04:51	11° \mathring{M} 17'05		desc. node	4367 Jul 17 22:47	20° Ω 00'33	
min. Earth dist.	4366 Aug 24 23:03	8° \mathring{M} 36'49	0.57753 AU	retrograde	4367 Jul 26 16:32	22° Ω 52'59	
inferior conj	4366 Aug 28 00:34	6° \mathring{M} 31'01	-5°-11'-38	evening set	4367 Jul 31 00:47	22° Ω 11'30	
minimum elong	4366 Aug 28 02:06	6° \mathring{M} 28'23	5°11'36	min. Earth dist.	4367 Aug 06 10:25	19° Ω 08'29	0.56051 AU
morning rise	4366 Sep 05 02:49	2° \mathring{M} 16'10		inferior conj	4367 Aug 08 16:05	17° Ω 47'35	-5°00'-37
direct	4366 Sep 07 15:04	1° \mathring{M} 57'12		minimum elong	4367 Aug 08 11:29	17° Ω 54'34	5°00'07
morning max el	4366 Sep 16 08:37	6° \mathring{M} 05'09	18°58'11	morning rise	4367 Aug 17 01:28	13° Ω 51'52	
asc. node	4366 Sep 20 05:34	10° \mathring{M} 30'20		direct	4367 Aug 19 20:45	13° Ω 32'04	
	4366 Oct 01 14:47	0° $\underline{\Omega}$		morning max el	4367 Aug 30 01:00	18° Ω 15'42	20°02'48
morning set	4366 Oct 02 23:06	2° $\underline{\Omega}$ 38'30		asc. node	4367 Sep 07 02:38	28° Ω 32'30	
					4367 Sep 08 00:13	0° \mathring{M}	
superior conj	4366 Oct 11 09:22	19° $\underline{\Omega}$ 09'21	1°34'16	morning set	4367 Sep 17 03:35	17° \mathring{M} 12'33	
minimum elong	4366 Oct 11 11:58	19° $\underline{\Omega}$ 21'45	1°34'04		4367 Sep 23 09:57	0° $\underline{\Omega}$	
	4366 Oct 17 04:59	0° \mathring{M}					
max. Earth dist.	4366 Oct 18 06:21	1° \mathring{M} 54'14	1.38923 AU	superior conj	4367 Sep 24 22:00	3° $\underline{\Omega}$ 01'37	1°42'47
evening rise	4366 Oct 22 04:01	8° \mathring{M} 45'03		minimum elong	4367 Sep 24 22:56	3° $\underline{\Omega}$ 06'18	1°42'46
desc. node	4366 Oct 27 01:04	16° \mathring{M} 55'30		max. Earth dist.	4367 Sep 30 12:01	13° $\underline{\Omega}$ 55'50	1.36882 AU
	4366 Nov 04 09:17	0° \mathring{M}		evening rise	4367 Oct 04 08:35	21° $\underline{\Omega}$ 04'50	
evening max el	4366 Nov 26 12:47	28° \mathring{M} 43'11	24°31'21		4367 Oct 09 10:24	0° \mathring{M}	
	4366 Nov 27 20:56	0° \mathring{M}		desc. node	4367 Oct 13 22:05	7° \mathring{M} 26'21	
retrograde	4366 Dec 07 22:51	5° \mathring{M} 23'20			4367 Oct 29 07:56	0° \mathring{M}	
evening set	4366 Dec 13 09:06	3° \mathring{M} 08'29		evening max el	4367 Nov 09 01:11	12° \mathring{M} 26'05	25°43'36
	4366 Dec 16 08:47	30° \mathring{M}		retrograde	4367 Nov 21 09:04	19° \mathring{M} 29'11	
asc. node	4366 Dec 17 04:50	28° \mathring{M} 56'45		evening set	4367 Nov 27 09:14	17° \mathring{M} 00'32	
min. Earth dist.	4366 Dec 18 01:29	27° \mathring{M} 49'00	0.67689 AU	min. Earth dist.	4367 Dec 01 18:01	12° \mathring{M} 16'15	0.67018 AU
inferior conj	4366 Dec 18 21:50	26° \mathring{M} 41'05	0°34'42	inferior conj	4367 Dec 03 01:25	10° \mathring{M} 36'35	0°-20'-54
minimum elong	4366 Dec 18 21:00	26° \mathring{M} 43'51	0°34'22	minimum elong	4367 Dec 03 01:58	10° \mathring{M} 34'50	0°20'41
morning rise	4366 Dec 24 09:18	20° \mathring{M} 37'24		asc. node	4367 Dec 04 01:52	9° \mathring{M} 19'45	
direct	4366 Dec 28 02:17	19° \mathring{M} 18'39		morning rise	4367 Dec 08 19:37	4° \mathring{M} 41'27	
morning max el	4367 Jan 04 17:36	23° \mathring{M} 38'57	20°05'27	direct	4367 Dec 12 01:00	3° \mathring{M} 41'43	
	4367 Jan 10 03:56	0° \mathring{M}		morning max el	4367 Dec 19 00:01	7° \mathring{M} 33'37	19°06'44
greatest brilliancy	4367 Jan 11 14:32	1° \mathring{M} 54'32	-0.6m		4368 Jan 04 05:09	0° \mathring{M}	
desc. node	4367 Jan 23 00:20	18° \mathring{M} 23'50		desc. node	4368 Jan 09 21:22	8° \mathring{M} 47'46	
	4367 Jan 30 15:17	0° \approx		morning set	4368 Jan 10 21:59	10° \mathring{M} 23'31	
morning set	4367 Jan 31 18:33	1° \approx 45'04			4368 Jan 23 11:21	0° \approx	
max. Earth dist.	4367 Feb 11 11:48	18° \approx 34'27	1.43906 AU	max. Earth dist.	4368 Jan 25 03:19	2° \approx 37'08	1.44952 AU
superior conj	4367 Feb 17 01:41	27° \approx 35'54	-2°-4'-55	superior conj	4368 Jan 27 15:49	6° \approx 35'51	-1°-43'-55
minimum elong	4367 Feb 16 22:04	27° \approx 21'09	2°04'48	minimum elong	4368 Jan 27 07:02	6° \approx 01'08	1°43'11
	4367 Feb 18 12:46	0° \mathring{M}		evening rise	4368 Feb 11 11:15	0° \mathring{M} 28'09	
evening rise	4367 Mar 02 02:02	19° \mathring{M} 32'01			4368 Feb 11 04:24	0° \mathring{M}	
	4367 Mar 08 04:10	0° \mathring{Y}		asc. node	4368 Mar 01 01:12	28° \mathring{M} 58'14	
asc. node	4367 Mar 15 04:09	11° \mathring{Y} 10'57			4368 Mar 01 23:38	0° \mathring{Y}	
evening max el	4367 Mar 19 20:14	16° \mathring{Y} 58'11	18°10'11	evening max el	4368 Mar 02 08:25	0° \mathring{Y} 22'38	18°30'47
retrograde	4367 Mar 26 06:31	20° \mathring{Y} 21'25		retrograde	4368 Mar 08 21:09	3° \mathring{Y} 57'24	
evening set	4367 Mar 29 01:57	19° \mathring{Y} 40'56		evening set	4368 Mar 11 22:33	3° \mathring{Y} 05'08	
inferior conj	4367 Apr 04 07:15	14° \mathring{Y} 25'19	3°29'52		4368 Mar 15 14:34	30° \mathring{M}	
minimum elong	4367 Apr 04 08:31	14° \mathring{Y} 21'55	3°29'46	inferior conj	4368 Mar 17 18:51	27° \mathring{M} 30'57	3°35'15
min. Earth dist.	4367 Apr 07 01:14	11° \mathring{Y} 29'38	0.62794 AU	minimum elong	4368 Mar 17 18:29	27° \mathring{M} 32'02	3°35'14
morning rise	4367 Apr 10 12:49	8° \mathring{Y} 20'24		min. Earth dist.	4368 Mar 19 21:35	25° \mathring{M} 01'00	0.64643 AU
direct	4367 Apr 17 09:40	5° \mathring{Y} 44'52		morning rise	4368 Mar 23 12:57	21° \mathring{M} 18'43	
desc. node	4367 Apr 20 23:33	6° \mathring{Y} 22'34		direct	4368 Mar 30 06:37	18° \mathring{M} 30'36	
morning max el	4367 May 01 09:40	13° \mathring{Y} 43'43	27°49'51	desc. node	4368 Apr 06 20:36	21° \mathring{M} 19'18	
	4367 May 14 11:42	0° \mathring{M}		morning max el	4368 Apr 12 19:20	26° \mathring{M} 24'32	27°19'46
	4367 Jun 01 06:08	0° \mathring{M}			4368 Apr 16 03:28	0° \mathring{Y}	
morning set	4367 Jun 04 11:44	6° \mathring{M} 22'48			4368 May 07 01:47	0° \mathring{M}	
max. Earth dist.	4367 Jun 09 22:35	17° \mathring{M} 43'32	1.32594 AU	morning set	4368 May 18 03:10	20° \mathring{M} 05'16	
asc. node	4367 Jun 11 03:25	20° \mathring{M} 18'18		max. Earth dist.	4368 May 22 21:07	29° \mathring{M} 36'45	1.33540 AU
					4368 May 23 01:38	0° \mathring{M}	
superior conj	4367 Jun 12 03:43	22° \mathring{M} 29'38	0°10'35				
minimum elong	4367 Jun 12 03:13	22° \mathring{M} 26'54	0°10'28	superior conj	4368 May 26 08:02	6° \mathring{M} 49'53	0°-17'-28
behind sun begin	4367 Jun 11 23:15	22° \mathring{M} 05'25		minimum elong	4368 May 26 08:56	6° \mathring{M} 54'39	0°17'18
behind sun end	4367 Jun 12 07:11	22° \mathring{M} 48'24		asc. node	4368 May 28 00:28	10° \mathring{M} 24'49	
	4367 Jun 15 14:31	0° \mathring{M}		evening rise	4368 Jun 02 14:42	22° \mathring{M} 19'49	
evening rise	4367 Jun 19 03:30	7° \mathring{M} 37'52			4368 Jun 06 08:15	0° \mathring{M}	

evening max el	4368 Jun 23 15:20	26°☿25'05	22°08'38		4369 May 14 16:30	0°♊	
	4368 Jun 28 00:28	0°♊		evening rise	4369 May 17 23:14	6°♊49'22	
desc. node	4368 Jul 03 19:50	2°♊30'50			4369 May 30 16:57	0°☿	
retrograde	4368 Jul 06 11:20	2°♊47'05		evening max el	4369 Jun 05 15:59	7°☿15'14	20°42'09
evening set	4368 Jul 09 08:55	2°♊28'24		retrograde	4369 Jun 17 00:06	12°☿48'03	
	4368 Jul 15 16:43	30°☿☿		evening set	4369 Jun 19 01:58	12°☿37'38	
min. Earth dist.	4368 Jul 17 20:49	28°☿48'39	0.55008 AU	desc. node	4369 Jun 20 16:51	12°☿15'51	
inferior conj	4368 Jul 18 14:58	28°☿23'07	-3°-59'-32	inferior conj	4369 Jun 28 08:24	8°☿40'37	-2°-14'-34
minimum elong	4368 Jul 18 06:25	28°☿35'10	3°57'21	minimum elong	4369 Jun 28 02:09	8°☿49'34	2°12'23
morning rise	4368 Jul 27 05:49	24°☿33'03		min. Earth dist.	4369 Jun 29 08:35	8°☿05'59	0.54881 AU
direct	4368 Jul 30 10:11	24°☿10'29		morning rise	4369 Jul 07 01:16	4°☿36'05	
morning max el	4368 Aug 11 05:30	29°☿41'10	21°27'53	direct	4369 Jul 10 19:38	4°☿05'32	
	4368 Aug 11 13:31	0°♊		morning max el	4369 Jul 24 00:05	10°☿26'29	23°07'34
asc. node	4368 Aug 23 23:42	17°♊15'24			4369 Aug 07 08:39	0°♊	
	4368 Aug 30 13:24	0°♊		asc. node	4369 Aug 10 20:45	6°♊29'00	
morning set	4368 Aug 31 12:22	1°♊58'40		morning set	4369 Aug 15 23:30	16°♊51'21	
					4369 Aug 22 02:41	0°♊	
superior conj	4368 Sep 07 20:29	17°♊22'51	1°43'28	superior conj	4369 Aug 23 01:38	2°♊03'11	1°37'36
minimum elong	4368 Sep 07 19:57	17°♊20'04	1°43'28	minimum elong	4369 Aug 23 00:02	1°♊54'36	1°37'30
max. Earth dist.	4368 Sep 11 23:13	25°♊47'43	1.35100 AU	max. Earth dist.	4369 Aug 25 19:14	7°♊51'19	1.33702 AU
	4368 Sep 14 02:11	0°♊		evening rise	4369 Aug 30 19:02	18°♊03'22	
evening rise	4368 Sep 16 07:01	4°♊14'42			4369 Sep 06 02:20	0°♊	
desc. node	4368 Sep 29 19:07	27°♊41'48		desc. node	4369 Sep 16 16:08	17°♊34'47	
	4368 Oct 01 06:33	0°♊			4369 Sep 25 13:30	0°♊	
evening max el	4368 Oct 21 13:41	26°♊05'28	26°41'34	evening max el	4369 Oct 04 02:00	9°♊32'31	27°17'52
	4368 Oct 26 04:11	0°♊		retrograde	4369 Oct 17 13:17	16°♊50'50	
retrograde	4368 Nov 03 14:05	3°♊20'59		evening set	4369 Oct 24 12:32	14°♊11'04	
evening set	4368 Nov 10 03:11	0°♊43'02		min. Earth dist.	4369 Oct 28 08:11	10°♊37'53	0.64627 AU
	4368 Nov 10 23:09	30°☿♊		inferior conj	4369 Oct 30 15:10	8°♊09'05	-2°-22'-35
min. Earth dist.	4368 Nov 14 04:59	26°♊34'41	0.65996 AU	minimum elong	4369 Oct 30 19:14	7°♊58'04	2°21'02
inferior conj	4368 Nov 15 23:58	24°♊27'30	-1°-20'-37	morning rise	4369 Nov 06 04:04	2°♊39'13	
minimum elong	4368 Nov 16 02:12	24°♊20'51	1°19'42	asc. node	4369 Nov 06 19:57	2°♊24'12	
asc. node	4368 Nov 19 22:55	20°♊14'13		direct	4369 Nov 08 16:47	2°♊05'58	
morning rise	4368 Nov 22 02:45	18°♊43'29		morning max el	4369 Nov 15 04:29	5°♊32'14	17°58'06
direct	4368 Nov 24 22:34	17°♊59'00			4369 Dec 01 12:11	0°♊	
morning max el	4368 Dec 01 12:31	21°♊33'29	18°23'59	morning set	4369 Dec 02 13:41	1°♊47'09	
	4368 Dec 08 04:17	0°♊		desc. node	4369 Dec 13 15:23	20°♊05'28	
morning set	4368 Dec 21 03:12	20°♊21'57					
desc. node	4368 Dec 26 18:23	29°♊22'54		superior conj	4369 Dec 16 05:50	24°♊17'10	0°-17'-54
	4368 Dec 27 03:42	0°♊		minimum elong	4369 Dec 16 03:41	24°♊08'30	0°17'36
superior conj	4369 Jan 05 18:20	15°♊10'43	-1°-5'-6		4369 Dec 19 19:53	0°♊	
minimum elong	4369 Jan 05 10:26	14°♊39'46	1°04'09	max. Earth dist.	4369 Dec 20 16:41	1°♊22'19	1.44878 AU
max. Earth dist.	4369 Jan 06 21:48	16°♊58'31	1.45283 AU	evening rise	4370 Jan 01 12:31	19°♊47'20	
	4369 Jan 15 05:18	0°♊			4370 Jan 08 04:34	0°♊	
evening rise	4369 Jan 21 21:09	10°♊27'59		greatest brilliancy	4370 Jan 21 05:05	19°♊09'41	-0.6m
	4369 Feb 03 09:07	0°♊		evening max el	4370 Jan 27 22:27	27°♊24'35	20°03'04
greatest brilliancy	4369 Feb 03 20:33	0°♊43'17	-0.7m		4370 Jan 30 20:16	0°♊	
evening max el	4369 Feb 13 17:43	13°♊52'32	19°09'02	asc. node	4370 Feb 02 19:14	1°♊35'33	
asc. node	4369 Feb 15 22:13	15°♊51'19		retrograde	4370 Feb 04 14:40	1°♊53'12	
retrograde	4369 Feb 20 16:51	17°♊49'48		evening set	4370 Feb 08 07:01	0°♊34'14	
evening set	4369 Feb 24 01:02	16°♊44'47			4370 Feb 09 00:28	30°☿♊	
inferior conj	4369 Mar 01 15:23	10°♊54'12	3°25'05	inferior conj	4370 Feb 13 17:55	24°♊29'34	3°02'52
minimum elong	4369 Mar 01 13:49	10°♊59'14	3°24'53	minimum elong	4370 Feb 13 15:39	24°♊37'12	3°02'23
min. Earth dist.	4369 Mar 03 02:47	9°♊01'11	0.66107 AU	min. Earth dist.	4370 Feb 14 15:05	23°♊18'24	0.67159 AU
morning rise	4369 Mar 07 01:39	4°♊38'47		morning rise	4370 Feb 18 23:39	18°♊13'32	
direct	4369 Mar 13 10:18	1°♊51'26		direct	4370 Feb 24 19:34	15°♊38'06	
desc. node	4369 Mar 24 17:38	8°♊00'13		morning max el	4370 Mar 08 13:59	22°♊40'13	25°01'58
morning max el	4369 Mar 26 05:17	9°♊27'18	26°20'45	desc. node	4370 Mar 11 14:38	25°♊55'37	
	4369 Apr 11 09:24	0°♊			4370 Mar 15 00:46	0°♊	
	4369 Apr 29 13:41	0°♊			4370 Apr 04 17:09	0°♊	
morning set	4369 May 01 06:24	3°♊08'44		morning set	4370 Apr 13 16:29	15°♊18'00	
max. Earth dist.	4369 May 05 08:22	10°♊57'59	1.34951 AU	max. Earth dist.	4370 Apr 17 08:41	21°♊59'07	1.36796 AU
					4370 Apr 21 14:18	0°♊	
superior conj	4369 May 10 05:37	20°♊46'07	0°-46'-45	superior conj	4370 Apr 23 17:25	4°♊09'04	-1°-15'-36
minimum elong	4369 May 10 08:08	20°♊59'01	0°46'17	minimum elong	4370 Apr 23 21:28	4°♊28'56	1°14'59
asc. node	4369 May 14 21:31	0°♊26'08					

asc. node	4370 May 01 18:32	20°♄17'12		superior conj	4371 Apr 06 15:46	16°♃49'38	-1°-41'-27
evening rise	4370 May 02 02:48	20°♄58'43		minimum elong	4371 Apr 06 20:36	17°♃12'18	1°40'56
	4370 May 06 16:59	0°♄			4371 Apr 13 12:53	0°♄	
evening max el	4370 May 19 04:56	18°♄45'05	19°33'14	evening rise	4371 Apr 15 22:42	4°♄41'00	
retrograde	4370 May 28 19:04	23°♄25'18		asc. node	4371 Apr 18 15:34	9°♄53'30	
evening set	4370 May 30 17:58	23°♄14'32			4371 May 01 07:27	0°♄	
desc. node	4370 Jun 07 13:53	19°♄42'54		evening max el	4371 May 02 04:41	0°♄54'22	18°44'21
inferior conj	4370 Jun 08 10:43	19°♄09'59	0°-15'-25	retrograde	4371 May 10 07:07	4°♄52'55	
minimum elong	4370 Jun 08 10:02	19°♄11'05	0°15'11	evening set	4371 May 12 10:44	4°♄37'08	
transit middle	4370 Jun 08 10:02	19°♄11'05	0°15'11	inferior conj	4371 May 20 08:08	0°♄14'43	1°26'24
transit begin	4370 Jun 08 08:49	19°♄13'01		minimum elong	4371 May 20 11:07	0°♄09'11	1°25'25
transit end	4370 Jun 08 11:15	19°♄09'08			4371 May 20 16:03	30°♄	
min. Earth dist.	4370 Jun 10 22:12	17°♄35'49	0.55714 AU	min. Earth dist.	4371 May 23 14:53	27°♄49'52	0.57324 AU
morning rise	4370 Jun 16 22:30	14°♄34'47		desc. node	4371 May 25 10:53	26°♄36'15	
direct	4370 Jun 21 13:29	13°♄46'50		morning rise	4371 May 28 07:01	25°♄03'57	
morning max el	4370 Jul 05 13:53	20°♄49'27	24°50'30	direct	4371 Jun 02 20:52	23°♄47'43	
	4370 Jul 13 11:44	0°♄			4371 Jun 15 19:26	0°♄	
asc. node	4370 Jul 28 17:46	26°♄04'41		morning max el	4371 Jun 17 05:25	1°♄19'09	26°21'01
	4370 Jul 30 15:21	0°♄			4371 Jul 07 12:28	0°♄	
morning set	4370 Jul 31 11:17	1°♄44'55		morning set	4371 Jul 15 22:06	16°♄34'30	
				asc. node	4371 Jul 15 14:49	15°♄56'07	
					4371 Jul 22 02:29	0°♄	
superior conj	4370 Aug 07 10:55	16°♄54'13	1°26'11				
minimum elong	4370 Aug 07 08:43	16°♄42'13	1°25'55	superior conj	4371 Jul 22 22:19	1°♄49'22	1°09'59
max. Earth dist.	4370 Aug 08 23:36	20°♄13'57	1.32721 AU	minimum elong	4371 Jul 22 20:00	1°♄36'37	1°09'36
	4370 Aug 13 13:47	0°♄		max. Earth dist.	4371 Jul 23 09:30	2°♄51'01	1.32151 AU
evening rise	4370 Aug 14 16:52	2°♄19'34		evening rise	4371 Jul 29 21:31	16°♄54'17	
	4370 Aug 29 22:50	0°♄			4371 Aug 05 11:16	0°♄	
desc. node	4370 Sep 03 13:10	6°♄55'39		desc. node	4371 Aug 21 10:12	25°♄30'59	
evening max el	4370 Sep 16 12:22	22°♄34'36	27°26'00		4371 Aug 25 01:16	0°♄	
retrograde	4370 Sep 30 05:53	29°♄49'58		evening max el	4371 Aug 29 17:54	4°♄57'30	27°01'25
evening set	4370 Oct 07 10:12	27°♄18'25		retrograde	4371 Sep 12 14:57	12°♄08'58	
min. Earth dist.	4370 Oct 11 01:36	24°♄16'34	0.62928 AU	evening set	4371 Sep 19 16:02	9°♄57'39	
inferior conj	4370 Oct 13 20:18	21°♄34'48	-3°-23'-49	min. Earth dist.	4371 Sep 23 08:10	7°♄17'35	0.60970 AU
minimum elong	4370 Oct 14 01:53	21°♄21'13	3°22'02	inferior conj	4371 Sep 26 12:03	4°♄35'38	-4°-19'-12
morning rise	4370 Oct 20 20:17	16°♄22'33		minimum elong	4371 Sep 26 18:04	4°♄22'45	4°17'48
direct	4370 Oct 23 04:41	15°♄56'52			4371 Oct 03 05:28	30°♄	
asc. node	4370 Oct 24 16:58	16°♄07'46		morning rise	4371 Oct 03 23:16	29°♄44'35	
morning max el	4370 Oct 29 21:02	19°♄23'10	17°49'57	direct	4371 Oct 06 06:28	29°♄23'25	
	4370 Nov 06 16:12	0°♄			4371 Oct 09 05:26	0°♄	
morning set	4370 Nov 15 00:15	14°♄22'12		asc. node	4371 Oct 11 14:01	1°♄21'33	
	4370 Nov 24 00:00	0°♄		morning max el	4371 Oct 13 10:59	2°♄57'58	18°00'29
				morning set	4371 Oct 29 04:18	27°♄46'38	
superior conj	4370 Nov 26 17:14	4°♄35'07	0°26'23		4371 Oct 30 09:09	0°♄	
minimum elong	4370 Nov 26 19:46	4°♄45'46	0°26'01				
desc. node	4370 Nov 30 12:25	10°♄52'22		superior conj	4371 Nov 08 07:04	16°♄10'12	1°01'16
max. Earth dist.	4370 Dec 03 09:39	15°♄33'21	1.43784 AU	minimum elong	4371 Nov 08 11:10	16°♄28'13	1°00'45
evening rise	4370 Dec 11 22:29	29°♄00'49		max. Earth dist.	4371 Nov 15 21:55	29°♄12'48	1.42130 AU
	4370 Dec 12 13:49	0°♄			4371 Nov 16 09:18	0°♄	
	4371 Jan 01 23:11	0°♄		desc. node	4371 Nov 17 09:27	1°♄39'35	
greatest brilliancy	4371 Jan 05 17:59	4°♄59'36	-0.4m	evening rise	4371 Nov 21 18:46	8°♄45'30	
evening max el	4371 Jan 10 21:47	10°♄58'25	21°10'02		4371 Dec 05 17:42	0°♄	
retrograde	4371 Jan 19 12:32	16°♄04'36		greatest brilliancy	4371 Dec 19 20:42	19°♄10'18	-0.3m
asc. node	4371 Jan 20 16:15	15°♄57'21		evening max el	4371 Dec 24 15:50	24°♄33'27	22°26'08
evening set	4371 Jan 23 14:39	14°♄30'31			4372 Jan 01 07:17	0°♄	
inferior conj	4371 Jan 29 00:06	8°♄14'34	2°31'01	retrograde	4372 Jan 03 08:45	0°♄19'42	
minimum elong	4371 Jan 28 21:38	8°♄23'03	2°30'19		4372 Jan 05 07:53	30°♄	
min. Earth dist.	4371 Jan 29 08:26	7°♄45'45	0.67798 AU	evening set	4372 Jan 07 22:16	28°♄29'41	
morning rise	4371 Feb 03 04:16	1°♄59'40		asc. node	4372 Jan 07 13:16	28°♄47'17	
	4371 Feb 06 12:57	30°♄		inferior conj	4372 Jan 13 07:54	22°♄05'49	1°51'09
direct	4371 Feb 08 09:35	29°♄43'31		minimum elong	4372 Jan 13 05:43	22°♄13'22	1°50'24
	4371 Feb 10 08:19	0°♄		min. Earth dist.	4372 Jan 13 04:36	22°♄17'15	0.68044 AU
morning max el	4371 Feb 18 22:40	5°♄59'58	23°33'47	morning rise	4372 Jan 18 13:05	15°♄53'44	
desc. node	4371 Feb 26 11:38	14°♄44'49		direct	4372 Jan 23 03:30	14°♄00'12	
	4371 Mar 09 12:11	0°♄		morning max el	4372 Feb 01 10:26	19°♄27'16	22°05'50
morning set	4371 Mar 26 03:34	26°♄17'54		greatest brilliancy	4372 Feb 06 01:10	24°♄37'10	-0.3m
	4371 Mar 28 07:29	0°♄			4372 Feb 10 06:23	0°♄	
max. Earth dist.	4371 Mar 30 04:04	3°♄14'10	1.38934 AU				

desc. node	4372 Feb 13 08:40	4° \approx 12'17		desc. node	4373 Jan 30 05:43	24° \approx 07'28	
	4372 Mar 01 16:57	0° \approx			4373 Feb 03 04:49	0° \approx	
morning set	4372 Mar 05 10:29	5° \approx 56'39		morning set	4373 Feb 12 15:22	14° \approx 25'17	
max. Earth dist.	4372 Mar 11 01:50	15° \approx 13'10	1.41103 AU	max. Earth dist.	4373 Feb 21 06:18	28° \approx 06'42	1.43016 AU
					4373 Feb 22 10:10	0° \approx	
superior conj	4372 Mar 18 19:56	28° \approx 36'11	-2°00'-37	superior conj	4373 Feb 28 01:00	9° \approx 18'18	-2°-8'-5
minimum elong	4372 Mar 18 23:46	28° \approx 53'14	2°00'25	minimum elong	4373 Feb 28 00:53	9° \approx 17'50	2°08'05
	4372 Mar 19 14:46	0° \approx			4373 Mar 11 23:05	0° \approx	
evening rise	4372 Mar 29 07:34	17° \approx 47'38		evening rise	4373 Mar 12 01:16	0° \approx 09'41	
asc. node	4372 Apr 04 12:36	29° \approx 09'21		asc. node	4373 Mar 22 09:38	17° \approx 58'07	
	4372 Apr 05 00:08	0° \approx		evening max el	4373 Mar 28 23:46	26° \approx 40'10	18°06'44
evening max el	4372 Apr 14 12:04	13° \approx 35'32	18°15'42		4373 Apr 03 18:51	0° \approx	
retrograde	4372 Apr 21 14:12	17° \approx 08'21		retrograde	4373 Apr 04 12:55	0° \approx 02'46	
evening set	4372 Apr 24 00:05	16° \approx 44'32			4373 Apr 05 07:03	30° \approx 00'00	
inferior conj	4372 May 01 03:05	12° \approx 01'19	2°37'11	evening set	4373 Apr 07 04:55	29° \approx 28'49	
minimum elong	4372 May 01 06:36	11° \approx 53'40	2°36'21	inferior conj	4373 Apr 13 17:03	24° \approx 25'00	3°17'50
min. Earth dist.	4372 May 04 13:02	9° \approx 04'56	0.59393 AU	minimum elong	4373 Apr 13 19:18	24° \approx 19'21	3°17'31
morning rise	4372 May 08 09:07	6° \approx 21'32		min. Earth dist.	4373 Apr 16 18:52	21° \approx 22'00	0.61589 AU
desc. node	4372 May 11 07:53	5° \approx 02'31		morning rise	4373 Apr 20 06:45	18° \approx 26'40	
direct	4372 May 14 17:42	4° \approx 30'32		direct	4373 Apr 27 01:49	16° \approx 04'04	
morning max el	4372 May 29 02:47	12° \approx 20'11	27°24'17	desc. node	4373 Apr 28 04:56	16° \approx 07'48	
	4372 Jun 12 00:24	0° \approx		morning max el	4373 May 11 06:22	24° \approx 02'43	27°51'23
	4372 Jun 28 15:58	0° \approx			4373 May 16 15:13	0° \approx	
morning set	4372 Jun 29 06:19	1° \approx 14'32			4373 Jun 05 07:41	0° \approx	
asc. node	4372 Jul 01 11:52	5° \approx 57'52		morning set	4373 Jun 13 09:55	15° \approx 37'56	
				asc. node	4373 Jun 18 08:55	26° \approx 04'35	
superior conj	4372 Jul 06 10:04	16° \approx 42'47	0°49'38	max. Earth dist.	4373 Jun 19 06:34	28° \approx 01'46	1.32239 AU
minimum elong	4372 Jul 06 08:06	16° \approx 31'59	0°49'15		4373 Jun 20 04:18	0° \approx	
max. Earth dist.	4372 Jul 05 21:07	15° \approx 31'25	1.31985 AU				
	4372 Jul 12 11:51	0° \approx		superior conj	4373 Jun 20 20:23	1° \approx 27'51	0°25'43
evening rise	4372 Jul 13 06:34	1° \approx 39'48		minimum elong	4373 Jun 20 19:14	1° \approx 21'32	0°25'28
	4372 Jul 28 13:47	0° \approx		evening rise	4373 Jun 27 17:55	16° \approx 28'33	
desc. node	4372 Aug 07 07:12	13° \approx 02'21			4373 Jul 04 10:19	0° \approx	
evening max el	4372 Aug 10 16:17	16° \approx 32'41	26°04'06	evening max el	4373 Jul 23 07:40	27° \approx 02'03	24°40'28
retrograde	4372 Aug 24 15:35	23° \approx 41'06		desc. node	4373 Jul 25 04:14	29° \approx 02'57	
evening set	4372 Aug 31 01:19	22° \approx 01'59			4373 Jul 26 08:16	0° \approx	
min. Earth dist.	4372 Sep 04 04:56	19° \approx 27'25	0.58895 AU	retrograde	4373 Aug 06 05:28	4° \approx 23'33	
inferior conj	4372 Sep 07 10:58	17° \approx 02'34	-4°-59'-55	evening set	4373 Aug 11 10:13	3° \approx 22'44	
minimum elong	4372 Sep 07 15:04	16° \approx 54'55	4°59'28	min. Earth dist.	4373 Aug 16 18:56	0° \approx 34'29	0.56962 AU
morning rise	4372 Sep 15 08:21	12° \approx 34'56			4373 Aug 17 16:34	30° \approx 00'00	
direct	4372 Sep 17 17:39	12° \approx 15'52		inferior conj	4373 Aug 19 14:04	28° \approx 04'52	-5°-12'-33
morning max el	4372 Sep 25 19:08	16° \approx 08'23	18°31'01	minimum elong	4373 Aug 19 13:08	28° \approx 04'24	5°12'34
asc. node	4372 Sep 27 11:04	17° \approx 53'02		morning rise	4373 Aug 27 19:35	24° \approx 04'09	
	4372 Oct 05 13:47	0° \approx		direct	4373 Aug 30 10:18	24° \approx 02'11	
morning set	4372 Oct 11 20:43	11° \approx 46'12		morning max el	4373 Sep 08 18:02	28° \approx 04'31	19°22'59
					4373 Sep 10 00:42	0° \approx	
superior conj	4372 Oct 20 19:19	28° \approx 50'55	1°25'10	asc. node	4373 Sep 14 08:09	5° \approx 25'56	
minimum elong	4372 Oct 20 22:45	29° \approx 06'52	1°24'50	morning set	4373 Sep 25 21:38	26° \approx 09'37	
	4372 Oct 21 10:13	0° \approx			4373 Sep 27 19:36	0° \approx	
max. Earth dist.	4372 Oct 28 04:43	12° \approx 08'45	1.40131 AU	superior conj	4373 Oct 04 00:25	12° \approx 20'42	1°38'54
evening rise	4372 Nov 01 11:59	19° \approx 28'07		minimum elong	4373 Oct 04 02:19	12° \approx 29'56	1°38'48
desc. node	4372 Nov 03 06:30	22° \approx 23'52		max. Earth dist.	4373 Oct 10 09:02	24° \approx 24'11	1.38036 AU
	4372 Nov 08 00:05	0° \approx			4373 Oct 13 11:33	0° \approx	
	4372 Nov 29 01:08	0° \approx		evening rise	4373 Oct 14 04:23	1° \approx 14'15	
evening max el	4372 Dec 06 06:07	8° \approx 11'33	23°46'04	desc. node	4373 Oct 21 03:32	13° \approx 00'53	
retrograde	4372 Dec 17 01:58	14° \approx 34'48			4373 Nov 01 05:42	0° \approx	
evening set	4372 Dec 22 04:17	12° \approx 28'47		evening max el	4373 Nov 18 18:47	21° \approx 53'41	25°03'20
asc. node	4372 Dec 24 10:19	10° \approx 12'03		retrograde	4373 Nov 30 15:02	28° \approx 54'52	
min. Earth dist.	4372 Dec 27 01:18	6° \approx 49'31	0.67920 AU	evening set	4373 Dec 06 07:04	26° \approx 24'27	
inferior conj	4372 Dec 27 15:30	6° \approx 01'08	1°04'24	min. Earth dist.	4373 Dec 10 20:10	21° \approx 19'30	0.67447 AU
minimum elong	4372 Dec 27 14:04	6° \approx 06'04	1°03'49	asc. node	4373 Dec 11 07:22	20° \approx 42'53	
	4373 Jan 01 20:46	30° \approx 00'00		inferior conj	4373 Dec 11 21:07	19° \approx 57'42	0°11'44
morning rise	4373 Jan 02 00:03	29° \approx 53'39		minimum elong	4373 Dec 11 20:50	19° \approx 58'40	0°11'36
direct	4373 Jan 06 00:22	28° \approx 22'50		transit middle	4373 Dec 11 20:50	19° \approx 58'40	0°11'36
	4373 Jan 10 13:07	0° \approx		transit begin	4373 Dec 11 18:54	20° \approx 50'00	
morning max el	4373 Jan 14 04:33	3° \approx 05'06	20°45'45				
greatest brilliancy	4373 Jan 19 22:42	9° \approx 46'22	-0.5m				

transit end	4373 Dec 11 22:46	19°♂52'19		min. Earth dist.	4374 Nov 24 10:41	5°♂43'33	0.66628 AU
morning rise	4373 Dec 17 11:12	13°♂57'05		inferior conj	4374 Nov 25 22:50	3°♂51'54	0°-45'-48
direct	4373 Dec 20 22:58	12°♂46'51		minimum elong	4374 Nov 26 00:04	3°♂48'05	0°45'17
morning max el	4373 Dec 28 06:32	16°♂54'02	19°38'26	asc. node	4374 Nov 28 04:25	1°♂12'31	
greatest brilliancy	4374 Jan 05 07:17	26°♂51'47	-0.6m		4374 Nov 29 08:03	30°♂	
	4374 Jan 07 12:09	0°♂		morning rise	4374 Dec 01 20:27	28°♂00'53	
desc. node	4374 Jan 17 02:45	14°♂22'41		direct	4374 Dec 04 21:33	27°♂07'59	
morning set	4374 Jan 22 11:49	22°♂38'16			4374 Dec 10 18:15	0°♂	
	4374 Jan 27 05:47	0°♂		morning max el	4374 Dec 11 15:43	0°♂51'05	18°46'27
max. Earth dist.	4374 Feb 03 18:09	11°♂48'14	1.44434 AU		4374 Dec 31 21:34	0°♂	
				morning set	4375 Jan 02 00:53	1°♂47'28	
superior conj	4374 Feb 08 04:22	18°♂52'24	-1°-58'-27	desc. node	4375 Jan 03 23:47	4°♂51'53	
minimum elong	4374 Feb 07 22:09	18°♂27'23	1°58'08	max. Earth dist.	4375 Jan 17 11:32	26°♂01'59	1.45191 AU
	4374 Feb 15 00:12	0°♂					
evening rise	4374 Feb 21 23:23	11°♂38'42		superior conj	4375 Jan 18 11:19	27°♂35'20	-1°-29'-13
	4374 Mar 05 00:44	0°♂		minimum elong	4375 Jan 18 02:00	26°♂58'46	1°28'17
asc. node	4374 Mar 09 06:41	6°♂11'15			4375 Jan 20 00:07	0°♂	
evening max el	4374 Mar 12 12:39	10°♂00'04	18°16'47	evening rise	4375 Feb 02 22:33	22°♂09'54	
retrograde	4374 Mar 18 22:53	13°♂26'29			4375 Feb 07 19:13	0°♂	
evening set	4374 Mar 21 20:49	12°♂41'07		evening max el	4375 Feb 23 23:55	23°♂27'33	18°45'00
inferior conj	4374 Mar 27 21:54	7°♂17'41	3°34'19	asc. node	4375 Feb 24 03:43	23°♂37'07	
minimum elong	4374 Mar 27 22:27	7°♂16'11	3°34'17	retrograde	4375 Mar 02 15:59	27°♂10'14	
min. Earth dist.	4374 Mar 30 09:41	4°♂30'54	0.63625 AU	evening set	4375 Mar 05 20:15	26°♂12'29	
morning rise	4374 Apr 02 22:10	1°♂09'11		inferior conj	4375 Mar 11 13:40	20°♂31'05	3°32'32
	4374 Apr 04 13:33	30°♂		minimum elong	4375 Mar 11 12:44	20°♂33'58	3°32'28
direct	4374 Apr 09 18:44	28°♂26'16		min. Earth dist.	4375 Mar 13 09:44	18°♂16'07	0.65324 AU
desc. node	4374 Apr 15 01:57	29°♂49'15		morning rise	4375 Mar 17 04:03	14°♂17'24	
	4374 Apr 15 10:25	0°♂		direct	4375 Mar 23 18:33	11°♂28'11	
morning max el	4374 Apr 23 14:21	6°♂24'29	27°41'01	desc. node	4375 Apr 01 22:58	15°♂34'05	
	4374 May 11 14:02	0°♂		morning max el	4375 Apr 06 00:13	19°♂15'13	26°57'37
morning set	4374 May 28 06:35	29°♂37'39			4375 Apr 15 03:28	0°♂	
	4374 May 28 11:04	0°♂			4375 May 04 14:27	0°♂	
max. Earth dist.	4374 Jun 02 10:00	10°♂10'34	1.32937 AU	morning set	4375 May 11 17:14	13°♂04'11	
				max. Earth dist.	4375 May 16 03:57	21°♂49'38	1.34091 AU
superior conj	4374 Jun 05 03:29	15°♂59'03	0°-1'-5				
minimum elong	4374 Jun 05 03:32	15°♂59'19	0°01'05	superior conj	4375 May 20 05:12	0°♂09'32	0°-29'-50
behind sun begin	4374 Jun 04 22:13	15°♂30'47		minimum elong	4375 May 20 06:46	0°♂17'46	0°29'31
behind sun end	4374 Jun 05 08:51	16°♂27'53			4375 May 20 03:22	0°♂	
asc. node	4374 Jun 05 05:59	16°♂12'28		asc. node	4375 May 23 03:01	6°♂17'00	
	4374 Jun 11 15:36	0°♂		evening rise	4375 May 27 15:58	15°♂51'56	
evening rise	4374 Jun 12 05:41	1°♂14'47			4375 Jun 03 19:16	0°♂	
	4374 Jun 28 06:13	0°♂		evening max el	4375 Jun 16 15:00	18°♂17'47	21°29'57
evening max el	4374 Jul 04 20:39	7°♂46'16	23°03'48	retrograde	4375 Jun 28 20:50	24°♂20'04	
desc. node	4374 Jul 12 01:14	12°♂59'38		desc. node	4375 Jun 28 22:14	24°♂20'03	
retrograde	4374 Jul 18 06:21	14°♂27'38		evening set	4375 Jul 01 08:03	24°♂06'11	
evening set	4374 Jul 21 22:42	13°♂58'02		inferior conj	4375 Jul 10 16:18	20°♂06'23	-3°-18'-57
min. Earth dist.	4374 Jul 29 05:42	10°♂40'59	0.55508 AU	minimum elong	4375 Jul 10 07:57	20°♂18'03	3°16'26
inferior conj	4374 Jul 30 21:36	9°♂43'06	-4°-41'-7	min. Earth dist.	4375 Jul 10 16:07	20°♂06'38	0.54837 AU
minimum elong	4374 Jul 30 14:41	9°♂53'10	4°39'55	morning rise	4375 Jul 19 08:40	16°♂13'01	
morning rise	4374 Aug 08 09:26	5°♂51'31		direct	4375 Jul 22 18:29	15°♂47'48	
direct	4374 Aug 11 08:21	5°♂30'46		morning max el	4375 Aug 04 04:47	21°♂39'36	22°09'09
morning max el	4374 Aug 22 05:11	10°♂33'49	20°36'39		4375 Aug 11 07:50	0°♂	
asc. node	4374 Sep 01 05:12	23°♂46'24		asc. node	4375 Aug 19 02:14	12°♂43'17	
	4374 Sep 04 16:59	0°♂		morning set	4375 Aug 25 14:11	25°♂38'36	
morning set	4374 Sep 10 04:11	10°♂49'04			4375 Aug 27 15:47	0°♂	
superior conj	4374 Sep 17 17:37	26°♂25'53	1°43'57	superior conj	4375 Sep 01 19:15	10°♂55'58	1°41'44
minimum elong	4374 Sep 17 17:54	26°♂27'17	1°43'57	minimum elong	4375 Sep 01 18:12	10°♂50'28	1°41'41
	4374 Sep 19 11:56	0°♂		max. Earth dist.	4375 Sep 05 07:36	18°♂14'47	1.34453 AU
max. Earth dist.	4374 Sep 22 16:29	6°♂18'24	1.36087 AU	evening rise	4375 Sep 09 21:45	27°♂23'59	
evening rise	4374 Sep 26 17:04	13°♂56'33			4375 Sep 11 06:15	0°♂	
	4374 Oct 05 21:48	0°♂		desc. node	4375 Sep 24 21:34	23°♂32'50	
desc. node	4374 Oct 08 00:34	3°♂25'49			4375 Sep 29 04:38	0°♂	
	4374 Oct 27 01:37	0°♂		evening max el	4375 Oct 14 20:05	19°♂12'47	27°00'07
evening max el	4374 Nov 01 07:24	5°♂36'39	26°10'32	retrograde	4375 Oct 28 01:25	26°♂29'40	
retrograde	4374 Nov 13 22:59	12°♂45'46		evening set	4375 Nov 03 19:26	23°♂49'53	
evening set	4374 Nov 20 04:48	10°♂12'48		min. Earth dist.	4375 Nov 07 18:31	19°♂56'54	0.65458 AU

inferior conj	4375 Nov 09 18:34	17° \mathbb{M} 39'50	-1°-46'-44	retrograde	4376 Oct 09 21:50	9° \mathbb{M} 47'38	
minimum elong	4375 Nov 09 21:34	17° \mathbb{M} 31'13	1°45'31	evening set	4376 Oct 17 00:13	7° \mathbb{M} 09'34	
asc. node	4375 Nov 15 01:26	12° \mathbb{M} 35'33		min. Earth dist.	4376 Oct 20 17:33	3° \mathbb{M} 50'51	0.63939 AU
morning rise	4375 Nov 16 01:29	12° \mathbb{M} 01'30		inferior conj	4376 Oct 23 05:47	1° \mathbb{M} 14'59	-2°-48'-54
direct	4375 Nov 18 18:05	11° \mathbb{M} 22'08		minimum elong	4376 Oct 23 10:35	1° \mathbb{M} 02'35	2°47'11
morning max el	4375 Nov 25 06:04	14° \mathbb{M} 51'41	18°10'57		4376 Oct 24 11:09	30° \mathbb{R} \mathbb{A}	
	4375 Dec 06 03:54	0° \mathbb{A}		morning rise	4376 Oct 29 23:22	25° \mathbb{A} 52'32	
morning set	4375 Dec 13 19:02	12° \mathbb{A} 25'12		asc. node	4376 Oct 31 22:27	25° \mathbb{A} 24'07	
desc. node	4375 Dec 21 20:49	25° \mathbb{A} 31'06		direct	4376 Nov 01 09:53	25° \mathbb{A} 22'58	
	4375 Dec 24 16:04	0° \mathbb{B}		morning max el	4376 Nov 07 22:42	28° \mathbb{A} 48'05	17°52'32
					4376 Nov 09 01:51	0° \mathbb{M}	
superior conj	4375 Dec 28 15:13	6° \mathbb{B} 17'14	0°-45'-24	morning set	4376 Nov 24 16:31	24° \mathbb{M} 22'09	
minimum elong	4375 Dec 28 09:32	5° \mathbb{B} 54'48	0°44'38		4376 Nov 27 23:34	0° \mathbb{A}	
max. Earth dist.	4375 Dec 31 07:17	10° \mathbb{B} 29'27	1.45206 AU				
	4376 Jan 12 19:13	0° \mathbb{A}		superior conj	4376 Dec 07 11:53	15° \mathbb{A} 51'35	0°01'45
evening rise	4376 Jan 13 23:40	1° \mathbb{A} 50'38		minimum elong	4376 Dec 07 12:04	15° \mathbb{A} 52'23	0°01'43
greatest brilliancy	4376 Jan 30 02:42	26° \mathbb{A} 28'56	-0.7m	behind sun begin	4376 Dec 07 02:12	15° \mathbb{A} 12'05	
	4376 Feb 01 14:34	0° \mathbb{H}		behind sun end	4376 Dec 07 21:57	16° \mathbb{A} 32'35	
evening max el	4376 Feb 07 07:27	6° \mathbb{H} 58'41	19°30'04	desc. node	4376 Dec 07 17:54	16° \mathbb{A} 16'05	
asc. node	4376 Feb 11 00:43	10° \mathbb{H} 02'56		max. Earth dist.	4376 Dec 13 01:34	24° \mathbb{A} 49'26	1.44487 AU
retrograde	4376 Feb 14 12:58	11° \mathbb{H} 08'14			4376 Dec 16 08:11	0° \mathbb{B}	
evening set	4376 Feb 18 00:30	9° \mathbb{H} 57'15		evening rise	4376 Dec 23 10:46	11° \mathbb{B} 02'24	
inferior conj	4376 Feb 23 13:06	4° \mathbb{H} 00'04	3°16'55		4377 Jan 04 23:58	0° \mathbb{A}	
minimum elong	4376 Feb 23 11:10	4° \mathbb{H} 06'24	3°16'37	greatest brilliancy	4377 Jan 14 11:02	13° \mathbb{A} 24'30	-0.5m
min. Earth dist.	4376 Feb 24 18:09	2° \mathbb{H} 24'54	0.66613 AU	evening max el	4377 Jan 20 09:50	20° \mathbb{A} 31'08	20°30'03
	4376 Feb 26 16:48	30° \mathbb{R} \mathbb{A}		asc. node	4377 Jan 27 21:43	25° \mathbb{A} 13'57	
morning rise	4376 Feb 28 21:04	27° \mathbb{A} 44'09		retrograde	4377 Jan 28 11:12	25° \mathbb{A} 15'40	
direct	4376 Mar 06 00:32	25° \mathbb{A} 01'07		evening set	4377 Feb 01 07:27	23° \mathbb{A} 50'26	
	4376 Mar 15 21:15	0° \mathbb{H}		inferior conj	4377 Feb 06 17:29	17° \mathbb{A} 40'19	2°50'26
morning max el	4376 Mar 18 09:53	2° \mathbb{H} 23'57	25°48'59	minimum elong	4377 Feb 06 15:05	17° \mathbb{A} 48'33	2°49'51
desc. node	4376 Mar 18 20:01	2° \mathbb{H} 49'47		min. Earth dist.	4377 Feb 07 09:00	16° \mathbb{A} 47'21	0.67478 AU
	4376 Apr 08 07:22	0° \mathbb{Y}		morning rise	4377 Feb 11 22:13	11° \mathbb{A} 24'20	
morning set	4376 Apr 23 13:48	25° \mathbb{Y} 45'59		direct	4377 Feb 17 11:55	8° \mathbb{A} 56'35	
	4376 Apr 25 20:27	0° \mathbb{B}		morning max el	4377 Feb 28 18:33	15° \mathbb{A} 41'01	24°24'59
max. Earth dist.	4376 Apr 27 10:34	3° \mathbb{B} 00'54	1.35697 AU	desc. node	4377 Mar 05 17:03	21° \mathbb{A} 10'32	
					4377 Mar 12 13:27	0° \mathbb{H}	
superior conj	4376 May 02 22:59	13° \mathbb{B} 52'08	0°-59'-11		4377 Apr 01 06:03	0° \mathbb{Y}	
minimum elong	4376 May 03 02:12	14° \mathbb{B} 08'18	0°58'38	morning set	4377 Apr 05 14:59	7° \mathbb{Y} 28'35	
asc. node	4376 May 09 00:02	26° \mathbb{B} 14'11		max. Earth dist.	4377 Apr 09 07:54	14° \mathbb{Y} 03'48	1.37681 AU
evening rise	4376 May 10 22:42	0° \mathbb{I} 13'36					
	4376 May 10 20:02	0° \mathbb{I}		superior conj	4377 Apr 16 05:37	26° \mathbb{Y} 58'33	-1°-27'-8
evening max el	4376 May 28 20:41	29° \mathbb{I} 22'58	20°10'19	minimum elong	4377 Apr 16 10:08	27° \mathbb{Y} 20'21	1°26'31
	4376 May 29 12:18	0° \mathbb{B}			4377 Apr 17 19:03	0° \mathbb{B}	
retrograde	4376 Jun 08 10:56	4° \mathbb{B} 33'23		evening rise	4377 Apr 24 23:26	14° \mathbb{B} 12'51	
evening set	4376 Jun 10 09:57	4° \mathbb{B} 23'31		asc. node	4377 Apr 25 21:03	15° \mathbb{B} 59'45	
desc. node	4376 Jun 14 19:14	2° \mathbb{B} 58'16			4377 May 03 09:24	0° \mathbb{I}	
inferior conj	4376 Jun 19 11:45	0° \mathbb{B} 24'37	-1°-23'-31	evening max el	4377 May 11 14:36	11° \mathbb{I} 10'44	19°09'56
minimum elong	4376 Jun 19 07:50	0° \mathbb{B} 30'26	1°22'05	retrograde	4377 May 20 12:39	15° \mathbb{I} 31'40	
	4376 Jun 20 04:17	30° \mathbb{R} \mathbb{I}		evening set	4377 May 22 12:49	15° \mathbb{I} 19'23	
min. Earth dist.	4376 Jun 21 04:20	29° \mathbb{I} 24'25	0.55121 AU	inferior conj	4377 May 30 21:35	11° \mathbb{I} 08'11	0°31'06
morning rise	4376 Jun 28 03:31	26° \mathbb{I} 08'38		minimum elong	4377 May 30 22:51	11° \mathbb{I} 06'02	0°30'39
direct	4376 Jul 02 05:43	25° \mathbb{I} 32'18		desc. node	4377 Jun 01 16:15	9° \mathbb{I} 55'40	
	4376 Jul 13 07:22	0° \mathbb{B}		min. Earth dist.	4377 Jun 02 19:28	9° \mathbb{I} 10'27	0.56315 AU
morning max el	4376 Jul 15 20:38	2° \mathbb{B} 12'11	23°52'04	morning rise	4377 Jun 08 04:36	6° \mathbb{I} 17'11	
	4376 Aug 03 21:20	0° \mathbb{Q}		direct	4377 Jun 13 05:15	5° \mathbb{I} 18'23	
asc. node	4376 Aug 04 23:16	2° \mathbb{Q} 06'56		morning max el	4377 Jun 27 10:44	12° \mathbb{I} 35'44	25°31'30
morning set	4376 Aug 09 01:46	10° \mathbb{Q} 32'07			4377 Jul 10 23:26	0° \mathbb{B}	
				asc. node	4377 Jul 22 20:19	21° \mathbb{B} 50'10	
superior conj	4376 Aug 16 02:24	25° \mathbb{Q} 41'28	1°33'24	morning set	4377 Jul 24 13:20	25° \mathbb{B} 24'45	
minimum elong	4376 Aug 16 00:29	25° \mathbb{Q} 31'07	1°33'13		4377 Jul 26 16:44	0° \mathbb{Q}	
	4376 Aug 18 02:29	0° \mathbb{M}					
max. Earth dist.	4376 Aug 18 07:24	0° \mathbb{M} 26'10	1.33223 AU	superior conj	4377 Jul 31 12:51	10° \mathbb{Q} 35'22	1°19'52
evening rise	4376 Aug 23 14:17	11° \mathbb{M} 24'54		minimum elong	4377 Jul 31 10:32	10° \mathbb{Q} 22'42	1°19'32
	4376 Sep 02 12:56	0° \mathbb{A}		max. Earth dist.	4377 Aug 01 14:19	12° \mathbb{Q} 54'58	1.32421 AU
desc. node	4376 Sep 10 18:35	13° \mathbb{A} 13'23		evening rise	4377 Aug 07 15:22	25° \mathbb{Q} 50'02	
	4376 Sep 23 19:59	0° \mathbb{M}			4377 Aug 09 16:23	0° \mathbb{M}	
evening max el	4376 Sep 26 07:36	2° \mathbb{M} 29'44	27°25'07		4377 Aug 27 00:57	0° \mathbb{A}	

desc. node	4377 Aug 28 15:35	2°♄16'36			4378 Aug 01 22:52	0°♍	
evening max el	4377 Sep 08 16:04	15°♄15'46	27°19'40	desc. node	4378 Aug 15 12:37	20°♍27'00	
retrograde	4377 Sep 22 11:41	22°♄30'23		evening max el	4378 Aug 21 18:56	27°♍19'12	26°40'53
evening set	4377 Sep 29 15:43	20°♄05'44			4378 Aug 24 21:25	0°♄	
min. Earth dist.	4377 Oct 03 06:25	17°♄14'41	0.62115 AU	retrograde	4378 Sep 04 17:26	4°♄29'09	
inferior conj	4377 Oct 06 05:37	14°♄30'40	-3°-48'-29	evening set	4378 Sep 11 13:23	2°♄30'39	
minimum elong	4377 Oct 06 11:36	14°♄16'53	3°46'46		4378 Sep 15 06:11	30°♋♍	
morning rise	4377 Oct 13 10:28	9°♄27'14		min. Earth dist.	4378 Sep 15 08:51	29°♍54'51	0.60085 AU
direct	4377 Oct 15 17:49	9°♄03'57		inferior conj	4378 Sep 18 14:39	27°♍18'05	-4°-38'-59
asc. node	4377 Oct 18 19:31	9°♄46'35		minimum elong	4378 Sep 18 20:12	27°♍06'49	4°37'58
morning max el	4377 Oct 22 14:34	12°♄32'58	17°52'04	morning rise	4378 Sep 26 06:21	22°♍36'31	
	4377 Nov 03 08:57	0°♌		direct	4378 Sep 28 13:56	22°♍16'33	
morning set	4377 Nov 07 11:10	7°♌19'26		asc. node	4378 Oct 05 16:34	25°♍34'43	
				morning max el	4378 Oct 06 02:24	25°♍57'54	18°10'54
superior conj	4377 Nov 18 10:41	26°♌42'26	0°42'30		4378 Oct 09 13:51	0°♄	
minimum elong	4377 Nov 18 14:14	26°♌57'40	0°42'00	morning set	4378 Oct 21 21:03	21°♄00'07	
	4377 Nov 20 09:11	0°♌			4378 Oct 26 15:57	0°♌	
desc. node	4377 Nov 24 14:53	7°♌03'00		superior conj	4378 Oct 31 10:40	8°♌46'37	1°12'44
max. Earth dist.	4377 Nov 25 16:02	8°♌45'48	1.43133 AU	minimum elong	4378 Oct 31 14:39	9°♌04'38	1°12'16
evening rise	4377 Dec 02 23:10	20°♌23'47		max. Earth dist.	4378 Nov 08 01:51	22°♌07'06	1.41307 AU
	4377 Dec 09 05:11	0°♄		desc. node	4378 Nov 11 11:55	27°♌49'12	
greatest brilliancy	4377 Dec 29 11:14	28°♄35'58	-0.4m		4378 Nov 12 19:55	0°♌	
	4377 Dec 30 14:51	0°♌		evening rise	4378 Nov 13 03:37	0°♌31'16	
evening max el	4378 Jan 03 06:47	4°♌04'58	21°41'39		4378 Dec 02 17:11	0°♄	
retrograde	4378 Jan 12 08:37	9°♌28'35		greatest brilliancy	4378 Dec 11 09:22	11°♄25'28	-0.2m
asc. node	4378 Jan 14 18:45	8°♌56'58		evening max el	4378 Dec 16 23:10	17°♄41'42	23°00'10
evening set	4378 Jan 16 15:16	7°♌48'02		retrograde	4378 Dec 27 03:36	23°♄43'59	
inferior conj	4378 Jan 22 00:37	1°♌28'16	2°15'04	evening set	4378 Dec 31 22:23	21°♄47'18	
minimum elong	4378 Jan 21 22:13	1°♌36'35	2°14'18	asc. node	4379 Jan 01 15:48	21°♄08'35	
min. Earth dist.	4378 Jan 22 03:58	1°♌16'39	0.67944 AU	inferior conj	4379 Jan 06 08:33	15°♄21'34	1°32'09
	4378 Jan 23 02:11	30°♋♄		minimum elong	4379 Jan 06 06:38	15°♄28'12	1°31'26
morning rise	4378 Jan 27 04:53	25°♄14'06		min. Earth dist.	4379 Jan 06 00:39	15°♄48'52	0.68033 AU
direct	4378 Feb 01 03:51	23°♄07'10		morning rise	4379 Jan 11 14:53	9°♄11'10	
morning max el	4378 Feb 11 04:00	29°♄03'04	22°55'46	direct	4379 Jan 15 23:16	7°♄27'10	
	4378 Feb 12 02:04	0°♌		morning max el	4379 Jan 24 18:00	12°♄33'55	21°30'30
greatest brilliancy	4378 Feb 15 21:49	4°♌20'37	-0.3m	greatest brilliancy	4379 Jan 29 16:53	18°♄10'48	-0.4m
desc. node	4378 Feb 20 14:05	10°♌17'30		desc. node	4379 Feb 07 11:08	29°♄57'55	
	4378 Mar 06 07:55	0°♌			4379 Feb 07 11:43	0°♌	
morning set	4378 Mar 17 14:34	17°♌55'01		morning set	4379 Feb 25 09:23	27°♌00'15	
max. Earth dist.	4378 Mar 22 03:00	25°♌32'43	1.39867 AU		4379 Feb 27 06:30	0°♌	
	4378 Mar 24 16:31	0°♍		max. Earth dist.	4379 Mar 04 03:30	7°♌55'40	1.41967 AU
superior conj	4378 Mar 29 20:54	9°♍17'51	-1°-50'-40	superior conj	4379 Mar 11 15:55	20°♌38'53	-2°-5'-33
minimum elong	4378 Mar 30 01:36	9°♍39'25	1°50'17	minimum elong	4379 Mar 11 18:28	20°♌50'00	2°05'28
evening rise	4378 Apr 08 15:08	27°♍40'59			4379 Mar 16 23:09	0°♍	
	4378 Apr 09 20:19	0°♄		evening rise	4379 Mar 22 18:07	10°♍29'55	
asc. node	4378 Apr 12 18:05	5°♄28'01		asc. node	4379 Mar 30 15:08	24°♍33'19	
evening max el	4378 Apr 24 18:10	23°♄35'18	18°29'45		4379 Apr 03 00:45	0°♄	
retrograde	4378 May 02 08:41	27°♄20'30		evening max el	4379 Apr 08 03:53	6°♄28'01	18°09'29
evening set	4378 May 04 15:00	27°♄01'36		retrograde	4379 Apr 14 22:55	9°♄54'17	
inferior conj	4378 May 12 04:17	22°♄30'48	2°00'21	evening set	4379 Apr 17 11:37	9°♄26'11	
minimum elong	4378 May 12 07:49	22°♄23'47	1°59'18	inferior conj	4379 Apr 24 07:47	4°♄33'56	2°57'46
min. Earth dist.	4378 May 15 14:22	19°♄49'28	0.58173 AU	minimum elong	4379 Apr 24 10:54	4°♄26'44	2°57'08
morning rise	4378 May 19 20:12	17°♄06'35		min. Earth dist.	4379 Apr 27 15:16	1°♄31'58	0.60342 AU
desc. node	4378 May 19 13:18	17°♄15'26			4379 Apr 29 11:57	30°♋♍	
direct	4378 May 25 19:06	15°♄35'27		morning rise	4379 May 01 06:42	28°♍45'22	
morning max el	4378 Jun 09 04:19	23°♄16'02	26°51'47	desc. node	4379 May 06 10:20	26°♍46'02	
	4378 Jun 15 05:07	0°♌		direct	4379 May 07 21:01	26°♍40'06	
	4378 Jul 03 22:44	0°♄			4379 May 16 19:29	0°♄	
morning set	4378 Jul 08 23:15	10°♄10'29		morning max el	4379 May 22 04:16	4°♄33'33	27°40'21
asc. node	4378 Jul 09 17:22	11°♄46'14			4379 Jun 10 00:29	0°♌	
superior conj	4378 Jul 16 00:37	25°♄30'19	1°01'49	morning set	4379 Jun 23 05:45	24°♌43'50	
minimum elong	4378 Jul 15 22:24	25°♄18'04	1°01'26		4379 Jun 25 17:51	0°♄	
max. Earth dist.	4378 Jul 16 01:17	25°♄33'57	1.32033 AU	asc. node	4379 Jun 26 14:25	1°♄50'15	
	4378 Jul 18 01:32	0°♌		max. Earth dist.	4379 Jun 29 12:34	8°♄11'50	1.32052 AU
evening rise	4378 Jul 22 22:11	10°♌30'07					

superior conj	4379 Jun 30 11:59	10°☿20'34	0°39'53	superior conj	4380 Jun 13 21:11	25°♄00'35	0°14'40
minimum elong	4379 Jun 30 10:19	10°☿11'23	0°39'32	minimum elong	4380 Jun 13 20:30	24°♄56'50	0°14'31
evening rise	4379 Jul 07 08:29	25°☿17'47		behind sun begin	4380 Jun 13 18:21	24°♄45'11	
	4379 Jul 09 14:21	0°♊		behind sun end	4380 Jun 13 22:39	25°♄08'30	
	4379 Jul 27 03:06	0°♋			4380 Jun 16 04:08	0°☿	
desc. node	4379 Aug 02 09:38	7°♋23'03		evening rise	4380 Jun 20 20:17	10°☿06'37	
evening max el	4379 Aug 03 14:16	8°♋33'43	25°30'59		4380 Jul 01 01:17	0°♊	
retrograde	4379 Aug 17 13:17	15°♋39'05		evening max el	4380 Jul 15 03:41	19°♊08'46	23°59'50
evening set	4379 Aug 23 12:23	14°♋16'20		desc. node	4380 Jul 19 06:38	22°♊35'50	
min. Earth dist.	4379 Aug 28 02:10	11°♋38'14	0.58041 AU	retrograde	4380 Jul 28 21:46	26°♊04'08	
inferior conj	4379 Aug 31 05:21	9°♋26'59	-5°-9'-42	evening set	4380 Aug 02 11:29	25°♊17'56	
minimum elong	4379 Aug 31 07:39	9°♋22'55	5°09'35	min. Earth dist.	4380 Aug 08 14:03	22°♊19'12	0.56267 AU
morning rise	4379 Sep 08 06:25	5°♋08'56		inferior conj	4380 Aug 10 23:50	20°♊50'37	-5°-5'-25
direct	4379 Sep 10 17:52	4°♋49'58		minimum elong	4380 Aug 10 20:11	20°♊56'15	5°05'06
morning max el	4379 Sep 19 06:52	8°♋53'25	18°50'29	morning rise	4380 Aug 19 08:17	16°♊52'47	
asc. node	4379 Sep 22 13:39	12°♋33'38		direct	4380 Aug 22 02:18	16°♊33'16	
	4379 Oct 03 01:28	0°♌		morning max el	4380 Sep 01 01:03	21°♊10'50	19°51'48
morning set	4379 Oct 05 17:29	5°♌10'47		asc. node	4380 Sep 08 10:42	0°♋28'34	
					4380 Sep 08 03:18	0°♋	
superior conj	4379 Oct 14 06:41	21°♌49'30	1°32'09	morning set	4380 Sep 18 21:08	19°♋42'20	
minimum elong	4379 Oct 14 09:31	22°♌02'55	1°31'56		4380 Sep 23 22:35	0°♌	
	4379 Oct 18 15:58	0°♍		superior conj	4380 Sep 26 17:31	5°♌36'32	1°42'01
max. Earth dist.	4379 Oct 21 07:32	4°♍46'06	1.39236 AU	minimum elong	4380 Sep 26 18:42	5°♌42'26	1°41'59
evening rise	4379 Oct 25 06:47	11°♍40'36		max. Earth dist.	4380 Oct 02 12:37	16°♌50'23	1.37174 AU
desc. node	4379 Oct 29 08:56	18°♍30'29		evening rise	4380 Oct 06 08:20	23°♌51'57	
	4379 Nov 05 15:32	0°♎			4380 Oct 09 19:56	0°♍	
	4379 Nov 28 04:40	0°♏		desc. node	4380 Oct 15 05:58	9°♍03'01	
evening max el	4379 Nov 29 12:33	1°♏21'24	24°19'46		4380 Oct 29 08:27	0°♎	
retrograde	4379 Dec 10 18:58	7°♏57'23		evening max el	4380 Nov 11 00:53	15°♎03'42	25°33'30
evening set	4379 Dec 16 03:11	5°♏44'41		retrograde	4380 Nov 23 05:57	22°♎04'23	
asc. node	4379 Dec 19 12:52	2°♏04'22		evening set	4380 Nov 29 04:03	19°♎37'32	
min. Earth dist.	4379 Dec 20 20:42	0°♏20'08	0.67762 AU	min. Earth dist.	4380 Dec 03 13:53	14°♎47'54	0.67143 AU
	4379 Dec 21 02:43	30°♏♎		inferior conj	4380 Dec 04 19:39	13°♎12'35	0°-12'-10
inferior conj	4379 Dec 21 15:30	29°♎17'04	0°42'43	minimum elong	4380 Dec 04 19:58	13°♎11'35	0°12'03
minimum elong	4379 Dec 21 14:29	29°♎20'27	0°42'18	transit middle	4380 Dec 04 19:58	13°♎11'35	0°12'03
morning rise	4379 Dec 27 02:09	23°♎12'27		transit begin	4380 Dec 04 18:05	13°♎17'35	
direct	4379 Dec 30 20:59	21°♎50'42		transit end	4380 Dec 04 21:50	13°♎05'36	
morning max el	4380 Jan 07 15:23	26°♎16'12	20°15'27	asc. node	4380 Dec 05 09:54	12°♎27'08	
	4380 Jan 10 23:55	0°♏		morning rise	4380 Dec 10 12:44	7°♎16'00	
greatest brilliancy	4380 Jan 14 04:23	4°♏03'18	-0.5m	direct	4380 Dec 13 19:39	6°♎13'45	
desc. node	4380 Jan 25 08:10	20°♏01'59		morning max el	4380 Dec 20 20:42	10°♎09'18	19°14'23
	4380 Jan 31 22:16	0°♐		greatest brilliancy	4380 Dec 30 16:27	22°♎50'28	-0.7m
morning set	4380 Feb 04 07:37	5°♐12'43			4381 Jan 04 11:07	0°♏	
max. Earth dist.	4380 Feb 14 11:45	21°♐12'48	1.43694 AU	desc. node	4381 Jan 11 05:11	10°♏23'22	
	4380 Feb 19 21:36	0°♑		morning set	4381 Jan 13 08:22	13°♏41'41	
superior conj	4380 Feb 20 09:59	0°♑50'55	-2°-6'-21		4381 Jan 23 19:26	0°♐	
minimum elong	4380 Feb 20 07:20	0°♑40'02	2°06'18	max. Earth dist.	4381 Jan 27 02:11	5°♐09'31	1.44839 AU
evening rise	4380 Mar 04 03:57	22°♑29'59		superior conj	4381 Jan 30 03:08	9°♐58'04	-1°-48'-21
	4380 Mar 08 11:39	0°♒		minimum elong	4381 Jan 29 18:51	9°♐25'10	1°47'44
asc. node	4380 Mar 16 12:09	13°♒07'47			4381 Feb 11 12:36	0°♑	
evening max el	4380 Mar 21 16:22	19°♒39'27	18°08'41	evening rise	4381 Feb 13 16:31	3°♑34'01	
retrograde	4380 Mar 28 03:08	23°♒02'14			4381 Mar 02 13:05	0°♒	
evening set	4380 Mar 30 21:39	22°♒23'30		asc. node	4381 Mar 03 09:11	1°♒01'55	
inferior conj	4380 Apr 06 04:36	17°♒10'48	3°27'23	evening max el	4381 Mar 05 04:44	3°♒02'23	18°26'38
minimum elong	4380 Apr 06 06:07	17°♒06'46	3°27'14	retrograde	4381 Mar 11 16:39	6°♒34'43	
min. Earth dist.	4380 Apr 09 00:42	14°♒12'34	0.62486 AU	evening set	4381 Mar 14 17:05	5°♒44'20	
morning rise	4380 Apr 12 12:09	11°♒07'16		inferior conj	4381 Mar 20 14:31	0°♒12'57	3°35'29
direct	4380 Apr 19 08:44	8°♒34'46		minimum elong	4381 Mar 20 14:23	0°♒13'22	3°35'29
desc. node	4380 Apr 22 07:21	9°♒00'14			4381 Mar 20 18:57	30°♒♑	
morning max el	4380 May 03 10:11	16°♒33'58	27°51'30	min. Earth dist.	4381 Mar 22 19:39	27°♑38'06	0.64386 AU
	4380 May 14 12:12	0°♓		morning rise	4381 Mar 26 10:05	24°♑01'27	
	4380 Jun 01 17:00	0°♐		direct	4381 Apr 02 04:41	21°♑14'10	
morning set	4380 Jun 06 06:47	8°♐58'33		desc. node	4381 Apr 09 04:23	23°♑37'50	
max. Earth dist.	4380 Jun 11 20:13	20°♐35'58	1.32486 AU	morning max el	4381 Apr 15 19:29	29°♑10'01	27°26'18
asc. node	4380 Jun 12 11:28	21°♐58'00			4381 Apr 16 15:01	0°♒	

	4381 May 08 09:14	0°♄		morning rise	4382 Mar 09 21:07	7°♄18'36	
morning set	4381 May 20 23:37	22°♄45'39		direct	4382 Mar 16 07:28	4°♄30'16	
	4381 May 24 14:19	0°♄		desc. node	4382 Mar 27 01:24	10°♄04'46	
max. Earth dist.	4381 May 25 20:02	2°♄32'59	1.33365 AU	morning max el	4382 Mar 29 05:22	12°♄09'31	26°30'59
					4382 Apr 12 12:32	0°♄	
superior conj	4381 May 29 02:15	9°♄23'42	0°-13'-5		4382 May 01 00:06	0°♄	
minimum elong	4381 May 29 02:55	9°♄27'15	0°12'58	morning set	4382 May 04 04:52	5°♄55'02	
behind sun begin	4381 May 28 23:43	9°♄10'11		max. Earth dist.	4382 May 08 08:53	13°♄57'40	1.34712 AU
behind sun end	4381 May 29 06:08	9°♄44'20					
asc. node	4381 May 30 08:29	12°♄04'47		superior conj	4382 May 13 00:57	23°♄23'31	0°-42'-17
evening rise	4381 Jun 05 07:38	24°♄49'35		minimum elong	4382 May 13 03:14	23°♄35'13	0°41'52
	4381 Jun 07 19:23	0°♄			4382 May 16 05:16	0°♄	
evening max el	4381 Jun 26 17:52	29°♄31'52	22°22'44	asc. node	4382 May 17 05:30	2°♄06'50	
	4381 Jun 27 05:37	0°♄		evening rise	4382 May 20 16:39	9°♄20'53	
desc. node	4381 Jul 06 03:39	5°♄29'41			4382 May 31 17:12	0°♄	
retrograde	4381 Jul 09 18:07	5°♄59'41		evening max el	4382 Jun 08 16:45	10°♄16'17	20°54'03
evening set	4381 Jul 12 20:04	5°♄38'42		retrograde	4382 Jun 20 06:43	15°♄56'47	
min. Earth dist.	4381 Jul 21 00:35	2°♄05'14	0.55109 AU	evening set	4382 Jun 22 10:28	15°♄45'45	
inferior conj	4381 Jul 22 00:40	1°♄31'08	-4°-12'-5	desc. node	4382 Jun 23 00:38	15°♄39'03	
minimum elong	4381 Jul 21 16:20	1°♄42'58	4°10'09	inferior conj	4382 Jul 01 17:54	11°♄48'41	-2°-32'-13
	4381 Jul 24 18:47	30°♄		minimum elong	4382 Jul 01 10:57	11°♄58'32	2°29'52
morning rise	4381 Jul 30 14:47	27°♄41'11		min. Earth dist.	4382 Jul 02 11:58	11°♄23'03	0.54841 AU
direct	4381 Aug 02 17:32	27°♄19'15		morning rise	4382 Jul 10 10:48	7°♄47'35	
	4381 Aug 10 21:15	0°♄		direct	4382 Jul 14 02:51	7°♄18'36	
morning max el	4381 Aug 14 07:15	2°♄42'44	21°14'01	morning max el	4382 Jul 27 02:53	13°♄32'11	22°52'10
asc. node	4381 Aug 26 07:44	19°♄05'40			4382 Aug 08 14:51	0°♄	
	4381 Sep 01 01:16	0°♄		asc. node	4382 Aug 13 04:46	8°♄14'47	
morning set	4381 Sep 03 05:22	4°♄26'37		morning set	4382 Aug 18 16:14	19°♄18'08	
					4382 Aug 23 16:25	0°♄	
superior conj	4381 Sep 10 14:44	19°♄53'44	1°43'50				
minimum elong	4381 Sep 10 14:24	19°♄52'01	1°43'49	superior conj	4382 Aug 25 19:01	4°♄31'10	1°38'53
max. Earth dist.	4381 Sep 14 22:34	28°♄41'18	1.35345 AU	minimum elong	4382 Aug 25 17:33	4°♄23'20	1°38'47
	4381 Sep 15 14:27	0°♄		max. Earth dist.	4382 Aug 28 17:16	10°♄42'14	1.33886 AU
evening rise	4381 Sep 19 04:23	6°♄54'57		evening rise	4382 Sep 02 14:36	20°♄38'05	
desc. node	4381 Oct 02 02:59	29°♄20'59			4382 Sep 07 12:40	0°♄	
	4381 Oct 02 12:52	0°♄		desc. node	4382 Sep 18 23:59	19°♄17'34	
evening max el	4381 Oct 24 13:24	28°♄44'10	26°34'08		4382 Sep 26 11:37	0°♄	
	4381 Oct 25 21:56	0°♄		evening max el	4382 Oct 07 01:58	12°♄14'02	27°14'10
retrograde	4381 Nov 06 11:50	5°♄58'31		retrograde	4382 Oct 20 11:52	19°♄31'58	
evening set	4381 Nov 12 23:03	3°♄21'43		evening set	4382 Oct 27 09:51	16°♄52'03	
	4381 Nov 16 07:57	30°♄		min. Earth dist.	4382 Oct 31 06:23	13°♄13'44	0.64851 AU
min. Earth dist.	4381 Nov 17 01:54	29°♄07'50	0.66171 AU	inferior conj	4382 Nov 02 11:32	10°♄47'50	-2°-13'-11
inferior conj	4381 Nov 18 19:05	27°♄04'30	-1°-11'-22	minimum elong	4382 Nov 02 15:19	10°♄37'24	2°11'42
minimum elong	4381 Nov 18 21:03	26°♄58'36	1°10'33	morning rise	4382 Nov 08 22:50	5°♄15'33	
asc. node	4381 Nov 22 06:55	23°♄13'25		asc. node	4382 Nov 09 03:58	5°♄10'04	
morning rise	4381 Nov 24 20:28	21°♄18'31		direct	4382 Nov 11 12:30	4°♄40'48	
direct	4381 Nov 27 17:33	20°♄32'01		morning max el	4382 Nov 18 00:02	8°♄07'40	18°00'53
morning max el	4381 Dec 04 08:25	24°♄08'32	18°29'14		4382 Dec 02 20:25	0°♄	
	4381 Dec 09 04:51	0°♄		morning set	4382 Dec 05 15:41	4°♄40'36	
morning set	4381 Dec 24 09:13	23°♄27'00		desc. node	4382 Dec 15 23:16	21°♄38'55	
	4381 Dec 28 11:51	0°♄					
desc. node	4381 Dec 29 02:14	0°♄57'09		superior conj	4382 Dec 19 15:12	27°♄32'04	0°-25'-5
				minimum elong	4382 Dec 19 12:07	27°♄19'45	0°24'40
superior conj	4382 Jan 09 06:12	18°♄33'30	-1°-11'-48		4382 Dec 21 04:22	0°♄	
minimum elong	4382 Jan 08 21:44	18°♄00'16	1°10'49	max. Earth dist.	4382 Dec 23 15:41	3°♄54'42	1.44987 AU
max. Earth dist.	4382 Jan 09 20:19	19°♄28'51	1.45283 AU	evening rise	4383 Jan 04 23:21	23°♄05'44	
	4382 Jan 16 13:17	0°♄			4383 Jan 09 11:07	0°♄	
evening rise	4382 Jan 25 05:45	13°♄41'36		greatest brilliancy	4383 Jan 23 18:56	21°♄19'24	-0.6m
	4382 Feb 04 13:50	0°♄			4383 Jan 30 18:42	0°♄	
greatest brilliancy	4382 Feb 05 15:15	1°♄38'13	-0.8m	evening max el	4383 Jan 30 20:10	0°♄03'46	19°54'03
evening max el	4382 Feb 16 14:37	16°♄31'45	19°02'19	asc. node	4383 Feb 05 03:13	3°♄59'42	
asc. node	4382 Feb 18 06:12	18°♄04'00		retrograde	4383 Feb 07 09:20	4°♄27'00	
retrograde	4382 Feb 23 11:42	20°♄24'52		evening set	4383 Feb 11 00:26	3°♄10'06	
evening set	4382 Feb 26 18:49	19°♄21'48			4383 Feb 14 06:07	30°♄	
inferior conj	4382 Mar 04 09:54	13°♄33'37	3°27'23	inferior conj	4383 Feb 16 11:42	27°♄07'20	3°06'51
minimum elong	4382 Mar 04 08:29	13°♄38'07	3°27'15	minimum elong	4383 Feb 16 09:31	27°♄14'40	3°06'26
min. Earth dist.	4382 Mar 05 23:33	11°♄34'37	0.65919 AU	min. Earth dist.	4383 Feb 17 10:52	25°♄49'57	0.67035 AU

morning rise	4383 Feb 21 17:57	20° \approx 51'21		min. Earth dist.	4384 Feb 01 03:39	10° \approx 16'17	0.67732 AU
direct	4383 Feb 27 15:55	18° \approx 13'43		morning rise	4384 Feb 05 21:46	4° \approx 36'00	
morning max el	4383 Mar 11 14:17	25° \approx 21'19	25°14'30	direct	4384 Feb 11 05:16	2° \approx 16'48	
desc. node	4383 Mar 13 22:27	27° \approx 50'24		morning max el	4384 Feb 21 22:57	8° \approx 40'33	23°47'04
	4383 Mar 15 19:49	0° \approx		desc. node	4384 Feb 28 19:31	16° \approx 32'41	
	4383 Apr 06 00:50	0° \approx			4384 Mar 09 16:44	0° \approx	
morning set	4383 Apr 16 17:50	18° \approx 12'48		morning set	4384 Mar 28 08:46	29° \approx 24'02	
max. Earth dist.	4383 Apr 20 10:44	25° \approx 00'22	1.36503 AU		4384 Mar 28 17:11	0° \approx	
	4383 Apr 23 02:00	0° \approx		max. Earth dist.	4384 Apr 01 06:31	6° \approx 11'30	1.38610 AU
superior conj	4383 Apr 26 14:26	6° \approx 51'35	-1°-11'-22	superior conj	4384 Apr 08 15:04	19° \approx 38'55	-1°-37'-53
minimum elong	4383 Apr 26 18:16	7° \approx 10'36	1°10'45	minimum elong	4384 Apr 08 19:52	20° \approx 01'35	1°37'20
asc. node	4383 May 04 02:31	21° \approx 59'24			4384 Apr 14 00:20	0° \approx	
evening rise	4383 May 04 21:07	23° \approx 33'21		evening rise	4384 Apr 17 18:24	7° \approx 20'12	
	4383 May 08 02:49	0° \approx		asc. node	4384 Apr 19 23:33	11° \approx 38'05	
evening max el	4383 May 22 03:50	21° \approx 39'17	19°42'12		4384 Apr 30 20:26	0° \approx	
retrograde	4383 Jun 01 00:00	26° \approx 12'01		evening max el	4384 May 04 02:08	3° \approx 42'42	18°50'17
evening set	4383 Jun 02 22:41	26° \approx 16'37		retrograde	4384 May 12 09:23	7° \approx 46'44	
desc. node	4383 Jun 09 21:38	23° \approx 12'44		evening set	4384 May 14 11:58	7° \approx 32'00	
inferior conj	4383 Jun 11 18:01	22° \approx 13'51	0°-32'-56	inferior conj	4384 May 22 12:18	3° \approx 12'30	1°12'53
minimum elong	4383 Jun 11 16:31	22° \approx 16'11	0°32'23	minimum elong	4384 May 22 14:56	3° \approx 07'43	1°11'59
min. Earth dist.	4383 Jun 14 01:02	20° \approx 48'23	0.55532 AU	min. Earth dist.	4384 May 25 17:14	0° \approx 54'09	0.57042 AU
morning rise	4383 Jun 20 07:06	17° \approx 44'03		desc. node	4384 May 26 18:41	0° \approx 11'23	
direct	4383 Jun 24 18:43	16° \approx 59'30			4384 May 27 01:44	30° \approx	
morning max el	4383 Jul 08 16:58	23° \approx 56'23	24°35'42	morning rise	4384 May 30 13:26	28° \approx 06'40	
	4383 Jul 14 05:16	0° \approx		direct	4384 Jun 04 23:51	26° \approx 55'18	
asc. node	4383 Jul 31 01:49	27° \approx 47'39			4384 Jun 13 23:01	0° \approx	
	4383 Aug 01 03:46	0° \approx		morning max el	4384 Jun 19 08:02	4° \approx 23'31	26°09'06
morning set	4383 Aug 03 04:03	4° \approx 12'04			4384 Jul 07 20:35	0° \approx	
superior conj	4383 Aug 10 03:50	19° \approx 21'04	1°28'15	asc. node	4384 Jul 16 22:51	17° \approx 36'58	
minimum elong	4383 Aug 10 01:42	19° \approx 09'25	1°28'00	morning set	4384 Jul 17 15:07	19° \approx 02'32	
max. Earth dist.	4383 Aug 11 20:42	23° \approx 02'52	1.32837 AU		4384 Jul 22 16:35	0° \approx	
	4383 Aug 15 02:58	0° \approx		superior conj	4384 Jul 24 15:03	4° \approx 15'57	1°12'43
evening rise	4383 Aug 17 11:11	4° \approx 50'48		minimum elong	4384 Jul 24 12:43	4° \approx 03'08	1°12'22
	4383 Aug 31 04:36	0° \approx		max. Earth dist.	4384 Jul 25 05:56	5° \approx 37'57	1.32203 AU
desc. node	4383 Sep 05 20:59	8° \approx 44'00		evening rise	4384 Jul 31 14:59	19° \approx 23'02	
evening max el	4383 Sep 19 12:47	25° \approx 20'46	27°26'48		4384 Aug 05 21:50	0° \approx	
	4383 Sep 25 09:24	0° \approx		desc. node	4384 Aug 22 18:00	27° \approx 27'13	
retrograde	4383 Oct 03 05:24	2° \approx 36'34			4384 Aug 24 17:16	0° \approx	
evening set	4383 Oct 10 09:31	0° \approx 02'57		evening max el	4384 Aug 31 19:05	7° \approx 49'46	27°07'15
	4383 Oct 10 11:10	30° \approx		retrograde	4384 Sep 14 15:46	15° \approx 02'13	
min. Earth dist.	4383 Oct 14 01:19	26° \approx 57'00	0.63200 AU	evening set	4384 Sep 21 18:04	12° \approx 46'54	
inferior conj	4383 Oct 16 18:23	24° \approx 16'30	-3°-14'-46	min. Earth dist.	4384 Sep 25 09:27	10° \approx 04'35	0.61272 AU
minimum elong	4383 Oct 16 23:47	24° \approx 03'07	3°12'59	inferior conj	4384 Sep 28 12:22	7° \approx 21'28	-4°-11'-30
morning rise	4383 Oct 23 16:42	19° \approx 01'28		minimum elong	4384 Sep 28 18:27	7° \approx 08'12	4°10'01
direct	4383 Oct 26 01:36	18° \approx 34'50		morning rise	4384 Oct 05 21:59	2° \approx 27'14	
asc. node	4383 Oct 27 01:01	18° \approx 39'27		direct	4384 Oct 08 05:06	2° \approx 05'37	
morning max el	4383 Nov 01 16:44	22° \approx 00'26	17°50'04	asc. node	4384 Oct 12 22:06	3° \approx 40'17	
	4383 Nov 07 20:23	0° \approx		morning max el	4384 Oct 15 07:21	5° \approx 38'20	17°57'40
morning set	4383 Nov 17 23:07	17° \approx 06'38			4384 Oct 30 19:35	0° \approx	
	4383 Nov 25 09:41	0° \approx		morning set	4384 Oct 31 00:53	0° \approx 24'22	
superior conj	4383 Nov 29 22:39	7° \approx 38'26	0°20'11	superior conj	4384 Nov 10 08:43	19° \approx 02'24	0°56'40
minimum elong	4383 Nov 30 00:41	7° \approx 46'53	0°19'53	minimum elong	4384 Nov 10 12:45	19° \approx 20'01	0°56'09
desc. node	4383 Dec 02 20:19	12° \approx 25'24			4384 Nov 16 18:47	0° \approx	
max. Earth dist.	4383 Dec 06 09:19	18° \approx 09'29	1.43987 AU	max. Earth dist.	4384 Nov 17 22:06	1° \approx 53'21	1.42404 AU
	4383 Dec 13 21:33	0° \approx		desc. node	4384 Nov 18 17:20	3° \approx 12'33	
evening rise	4383 Dec 15 09:09	2° \approx 17'43		evening rise	4384 Nov 24 02:57	11° \approx 55'04	
	4384 Jan 03 00:53	0° \approx			4384 Dec 05 23:07	0° \approx	
greatest brilliancy	4384 Jan 08 12:18	7° \approx 23'29	-0.5m	greatest brilliancy	4384 Dec 21 21:20	21° \approx 51'43	-0.3m
evening max el	4384 Jan 13 20:19	13° \approx 37'15	20°59'17	evening max el	4384 Dec 26 15:03	27° \approx 11'41	22°14'25
retrograde	4384 Jan 22 07:25	18° \approx 37'39			4384 Dec 29 16:48	0° \approx	
asc. node	4384 Jan 23 00:15	18° \approx 34'59		retrograde	4385 Jan 05 04:04	2° \approx 52'21	
evening set	4384 Jan 26 07:59	17° \approx 05'48		asc. node	4385 Jan 08 21:19	1° \approx 38'57	
inferior conj	4384 Jan 31 17:32	10° \approx 51'09	2°36'26	evening set	4385 Jan 09 15:45	1° \approx 04'47	
minimum elong	4384 Jan 31 15:04	10° \approx 59'39	2°35'44		4385 Jan 10 20:06	30° \approx	

inferior conj	4385 Jan 15 01:15	24°☾41'45	1°57'43	minimum elong	4385 Dec 30 07:24	8°☾41'55	1°11'17
minimum elong	4385 Jan 14 23:00	24°☾49'34	1°56'56	min. Earth dist.	4385 Dec 29 20:26	9°☾19'28	0.67959 AU
min. Earth dist.	4385 Jan 14 23:38	24°☾47'21	0.68028 AU	morning rise	4386 Jan 04 16:52	2°☾28'05	
morning rise	4385 Jan 20 06:06	18°☾29'00		direct	4386 Jan 08 19:14	0°☾53'51	
direct	4385 Jan 24 22:40	16°☾32'03		morning max el	4386 Jan 17 03:01	5°☾42'21	20°56'55
morning max el	4385 Feb 03 10:05	22°☾06'41	22°18'34	greatest brilliancy	4386 Jan 22 15:29	12°☾04'26	-0.5m
greatest brilliancy	4385 Feb 07 23:41	27°☾12'39	-0.3m	desc. node	4386 Feb 01 13:36	25°☾46'44	
	4385 Feb 10 05:29	0°☾			4386 Feb 04 10:35	0°☾	
desc. node	4385 Feb 14 16:35	5°☾55'17		morning set	4386 Feb 16 04:10	17°☾52'19	
	4385 Mar 03 00:30	0°☾			4386 Feb 23 18:57	0°☾	
morning set	4385 Mar 08 20:10	9°☾15'55		max. Earth dist.	4386 Feb 24 06:38	0°☾47'29	1.42756 AU
max. Earth dist.	4385 Mar 14 03:27	18°☾02'38	1.40786 AU				
	4385 Mar 21 01:05	0°☾		superior conj	4386 Mar 03 07:08	12°☾27'11	-2°-7'-56
				minimum elong	4386 Mar 03 07:49	12°☾30'07	2°07'57
superior conj	4385 Mar 21 22:20	1°☾34'50	-1°-58'-21		4386 Mar 13 08:37	0°☾	
minimum elong	4385 Mar 22 02:30	1°☾53'28	1°58'05	evening rise	4386 Mar 15 01:28	3°☾02'27	
evening rise	4385 Apr 01 05:14	20°☾33'19		asc. node	4386 Mar 24 17:39	19°☾51'16	
	4385 Apr 06 07:44	0°☾		evening max el	4386 Mar 31 20:00	29°☾22'26	18°06'52
asc. node	4385 Apr 06 20:36	0°☾57'49			4386 Apr 01 11:56	0°☾	
evening max el	4385 Apr 17 08:42	16°☾20'27	18°18'42	retrograde	4386 Apr 07 10:19	2°☾45'25	
retrograde	4385 Apr 24 13:44	19°☾56'02		evening set	4386 Apr 10 01:29	2°☾13'01	
evening set	4385 Apr 26 22:39	19°☾33'36			4386 Apr 13 14:20	30°☾☾	
inferior conj	4385 May 04 04:13	14°☾53'42	2°28'30	inferior conj	4386 Apr 16 15:35	27°☾12'16	3°13'20
minimum elong	4385 May 04 07:49	14°☾46'04	2°27'33	minimum elong	4386 Apr 16 18:05	27°☾06'08	3°12'55
min. Earth dist.	4385 May 07 14:39	12°☾00'18	0.59070 AU	min. Earth dist.	4386 Apr 19 19:08	24°☾08'44	0.61270 AU
morning rise	4385 May 11 12:49	9°☾17'29		morning rise	4386 Apr 23 07:36	21°☾16'15	
desc. node	4385 May 13 15:44	8°☾18'04		direct	4386 Apr 30 01:48	18°☾57'43	
direct	4385 May 17 19:06	7°☾31'33		desc. node	4386 Apr 30 12:47	18°☾58'19	
morning max el	4385 Jun 01 04:29	15°☾19'28	27°16'58	morning max el	4386 May 14 07:05	26°☾55'19	27°49'41
	4385 Jun 13 01:50	0°☾			4386 May 17 04:53	0°☾	
	4385 Jun 30 04:25	0°☾			4386 Jun 06 16:40	0°☾	
morning set	4385 Jul 01 23:50	3°☾44'18		morning set	4386 Jun 16 04:14	18°☾10'25	
asc. node	4385 Jul 03 19:54	7°☾37'21		asc. node	4386 Jun 20 16:55	27°☾43'25	
max. Earth dist.	4385 Jul 08 17:28	18°☾18'06	1.31982 AU		4386 Jun 21 18:09	0°☾	
				max. Earth dist.	4386 Jun 22 03:25	0°☾50'21	1.32179 AU
superior conj	4385 Jul 09 02:52	19°☾10'02	0°52'58				
minimum elong	4385 Jul 09 00:50	18°☾58'46	0°52'35	superior conj	4386 Jun 23 13:31	3°☾56'39	0°29'34
	4385 Jul 14 01:21	0°☾		minimum elong	4386 Jun 23 12:13	3°☾49'30	0°29'16
evening rise	4385 Jul 15 23:32	4°☾07'17		evening rise	4386 Jun 30 10:39	18°☾55'56	
	4385 Jul 29 17:34	0°☾			4386 Jul 05 20:26	0°☾	
desc. node	4385 Aug 09 15:00	15°☾09'25			4386 Jul 25 23:42	0°☾	
evening max el	4385 Aug 13 18:36	19°☾31'53	26°14'33	evening max el	4386 Jul 26 10:55	0°☾27'16	24°54'03
retrograde	4385 Aug 27 17:55	26°☾40'59		desc. node	4386 Jul 27 12:01	1°☾25'29	
evening set	4385 Sep 03 06:40	24°☾56'33		retrograde	4386 Aug 09 09:20	7°☾29'55	
min. Earth dist.	4385 Sep 07 07:37	22°☾22'15	0.59201 AU	evening set	4386 Aug 14 19:07	6°☾23'38	
inferior conj	4385 Sep 10 13:58	19°☾53'37	-4°-55'-17	min. Earth dist.	4386 Aug 19 22:26	3°☾38'27	0.57229 AU
minimum elong	4385 Sep 10 18:33	19°☾44'52	4°54'40	inferior conj	4386 Aug 22 20:04	1°☾43'36	-5°-13'-13
morning rise	4385 Sep 18 09:57	15°☾22'25		minimum elong	4386 Aug 22 20:02	1°☾43'39	5°13'14
direct	4385 Sep 20 18:38	15°☾03'14			4386 Aug 25 12:55	30°☾☾	
morning max el	4385 Sep 28 16:32	18°☾52'38	18°25'07	morning rise	4386 Aug 31 00:28	27°☾34'44	
asc. node	4385 Sep 29 19:09	20°☾00'38		direct	4386 Sep 02 14:14	27°☾15'49	
	4385 Oct 06 20:39	0°☾			4386 Sep 09 21:11	0°☾	
morning set	4385 Oct 14 15:43	14°☾19'03		morning max el	4386 Sep 11 16:54	1°☾32'49	19°13'53
	4385 Oct 22 21:40	0°☾		asc. node	4386 Sep 16 16:11	7°☾24'54	
				morning set	4386 Sep 28 15:34	28°☾39'30	
superior conj	4385 Oct 23 17:56	1°☾33'52	1°22'13		4386 Sep 29 07:44	0°☾	
minimum elong	4385 Oct 23 21:33	1°☾50'32	1°21'51				
max. Earth dist.	4385 Oct 31 05:25	14°☾54'58	1.40441 AU	superior conj	4386 Oct 06 20:49	14°☾57'06	1°37'25
evening rise	4385 Nov 04 16:42	22°☾28'02		minimum elong	4386 Oct 06 22:58	15°☾07'30	1°37'17
desc. node	4385 Nov 05 14:20	23°☾57'11		max. Earth dist.	4386 Oct 13 09:56	27°☾16'11	1.38343 AU
	4385 Nov 09 08:12	0°☾			4386 Oct 14 22:15	0°☾	
	4385 Nov 29 23:48	0°☾		evening rise	4386 Oct 17 05:45	4°☾05'06	
evening max el	4385 Dec 09 05:46	10°☾49'10	23°34'15	desc. node	4386 Oct 23 11:21	14°☾35'34	
retrograde	4385 Dec 19 21:48	17°☾07'23			4386 Nov 02 10:27	0°☾	
evening set	4385 Dec 24 22:04	15°☾03'50		evening max el	4386 Nov 21 18:37	24°☾31'13	24°52'20
asc. node	4385 Dec 26 18:23	13°☾14'57			4386 Nov 28 18:58	0°☾	
inferior conj	4385 Dec 30 08:59	8°☾36'30	1°11'55	retrograde	4386 Dec 03 11:25	1°☾18'59	

	4386 Dec 07 17:12	30° \mathbb{R} 27		evening max el	4387 Nov 04 07:10	8° \mathbb{Z} 14'26	26°01'26
evening set	4386 Dec 09 01:24	29° \mathbb{Z} 00'15		retrograde	4387 Nov 16 20:06	15° \mathbb{Z} 21'28	
min. Earth dist.	4386 Dec 13 15:40	23° \mathbb{Z} 50'09	0.67540 AU	evening set	4387 Nov 22 23:59	12° \mathbb{Z} 49'55	
asc. node	4386 Dec 13 15:25	23° \mathbb{Z} 50'58		min. Earth dist.	4387 Nov 27 06:53	8° \mathbb{Z} 15'27	0.66774 AU
inferior conj	4386 Dec 14 14:59	22° \mathbb{Z} 33'11	0°20'03	inferior conj	4387 Nov 28 17:22	6° \mathbb{Z} 27'55	0°-36'-50
minimum elong	4386 Dec 14 14:29	22° \mathbb{Z} 34'49	0°19'51	minimum elong	4387 Nov 28 18:21	6° \mathbb{Z} 24'52	0°36'24
morning rise	4386 Dec 20 04:06	16° \mathbb{Z} 31'23		asc. node	4387 Nov 30 12:26	4° \mathbb{Z} 17'02	
direct	4386 Dec 23 17:41	15° \mathbb{Z} 18'12		morning rise	4387 Dec 04 13:45	0° \mathbb{Z} 35'27	
morning max el	4386 Dec 31 03:45	19° \mathbb{Z} 29'38	19°47'32		4387 Dec 05 19:39	30° \mathbb{R} \mathbb{M}	
greatest brilliancy	4387 Jan 07 17:53	28° \mathbb{Z} 47'56	-0.6m	direct	4387 Dec 07 16:20	29° \mathbb{M} 40'11	
	4387 Jan 08 14:36	0° \mathbb{Z}			4387 Dec 09 14:02	0° \mathbb{Z}	
desc. node	4387 Jan 19 10:37	15° \mathbb{Z} 59'19		morning max el	4387 Dec 14 12:00	3° \mathbb{Z} 26'03	18°53'12
morning set	4387 Jan 26 00:11	26° \mathbb{Z} 02'35			4388 Jan 02 04:49	0° \mathbb{Z}	
	4387 Jan 28 13:35	0° \approx		morning set	4388 Jan 05 09:34	5° \mathbb{Z} 00'23	
max. Earth dist.	4387 Feb 06 17:37	14° \approx 23'17	1.44265 AU	desc. node	4388 Jan 06 07:38	6° \mathbb{Z} 26'46	
				max. Earth dist.	4388 Jan 20 10:35	28° \mathbb{Z} 34'22	1.45127 AU
superior conj	4387 Feb 11 14:12	22° \approx 10'48	-2°-1'-11		4388 Jan 21 08:23	0° \approx	
minimum elong	4387 Feb 11 08:53	21° \approx 49'15	2°00'57				
	4387 Feb 16 09:03	0° \mathbb{H}		superior conj	4388 Jan 21 23:19	0° \approx 58'46	-1°-34'-48
evening rise	4387 Feb 25 02:41	14° \mathbb{H} 39'25		minimum elong	4388 Jan 21 14:02	0° \approx 22'14	1°33'55
	4387 Mar 06 05:19	0° \mathbb{Y}		evening rise	4388 Feb 06 05:20	25° \approx 19'20	
asc. node	4387 Mar 11 14:41	8° \mathbb{Y} 10'14			4388 Feb 09 02:33	0° \mathbb{H}	
evening max el	4387 Mar 15 08:51	12° \mathbb{Y} 40'14	18°14'06	asc. node	4388 Feb 26 11:42	25° \mathbb{H} 44'03	
retrograde	4387 Mar 21 18:52	16° \mathbb{Y} 05'10		evening max el	4388 Feb 26 20:28	26° \mathbb{H} 06'43	18°39'40
evening set	4387 Mar 24 15:58	15° \mathbb{Y} 21'29		retrograde	4388 Mar 04 11:11	29° \mathbb{H} 46'23	
inferior conj	4387 Mar 30 18:26	10° \mathbb{Y} 00'45	3°33'03	evening set	4388 Mar 07 14:27	28° \mathbb{H} 50'32	
minimum elong	4387 Mar 30 19:14	9° \mathbb{Y} 58'33	3°33'01	inferior conj	4388 Mar 13 08:48	23° \mathbb{H} 11'32	3°33'45
min. Earth dist.	4387 Apr 02 08:26	7° \mathbb{Y} 10'32	0.63342 AU	minimum elong	4388 Mar 13 08:04	23° \mathbb{H} 13'47	3°33'43
morning rise	4387 Apr 05 20:30	3° \mathbb{Y} 53'26		min. Earth dist.	4388 Mar 15 07:10	20° \mathbb{H} 51'11	0.65094 AU
direct	4387 Apr 12 17:20	1° \mathbb{Y} 12'51		morning rise	4388 Mar 19 00:25	16° \mathbb{H} 58'17	
desc. node	4387 Apr 17 09:49	2° \mathbb{Y} 17'40		direct	4388 Mar 25 16:06	14° \mathbb{H} 09'18	
morning max el	4387 Apr 26 14:30	9° \mathbb{Y} 11'16	27°44'50	desc. node	4388 Apr 03 06:50	17° \mathbb{H} 46'07	
	4387 May 12 18:27	0° \mathbb{B}		morning max el	4388 Apr 08 00:23	21° \mathbb{H} 58'58	27°05'58
	4387 May 29 23:05	0° \mathbb{I}			4388 Apr 15 00:51	0° \mathbb{Y}	
morning set	4387 May 31 02:05	2° \mathbb{I} 13'59			4388 May 04 23:28	0° \mathbb{B}	
max. Earth dist.	4387 Jun 05 08:03	13° \mathbb{I} 03'25	1.32808 AU	morning set	4388 May 13 14:29	15° \mathbb{B} 46'33	
				max. Earth dist.	4388 May 18 03:45	24° \mathbb{B} 48'10	1.33885 AU
superior conj	4387 Jun 07 21:11	18° \mathbb{I} 30'09	0°03'10		4388 May 20 16:23	0° \mathbb{I}	
minimum elong	4387 Jun 07 21:02	18° \mathbb{I} 29'20	0°03'07				
behind sun begin	4387 Jun 07 15:49	18° \mathbb{I} 01'18		superior conj	4388 May 21 23:51	2° \mathbb{I} 44'27	0°-25'-22
behind sun end	4387 Jun 08 02:14	18° \mathbb{I} 57'24		minimum elong	4388 May 22 01:11	2° \mathbb{I} 51'27	0°25'07
asc. node	4387 Jun 07 13:57	17° \mathbb{I} 51'12		asc. node	4388 May 24 10:59	7° \mathbb{I} 56'49	
	4387 Jun 13 04:43	0° \mathbb{S}		evening rise	4388 May 29 09:06	18° \mathbb{I} 22'18	
evening rise	4387 Jun 14 22:27	3° \mathbb{S} 42'58			4388 Jun 04 03:48	0° \mathbb{S}	
	4387 Jun 29 04:23	0° \mathbb{Q}		evening max el	4388 Jun 18 16:50	21° \mathbb{S} 22'13	21°43'17
evening max el	4387 Jul 07 23:46	10° \mathbb{Q} 53'19	23°18'18	desc. node	4388 Jun 30 06:02	27° \mathbb{S} 29'55	
desc. node	4387 Jul 14 09:02	15° \mathbb{Q} 43'26		retrograde	4388 Jul 01 03:55	27° \mathbb{S} 31'51	
retrograde	4387 Jul 21 11:58	17° \mathbb{Q} 38'42		evening set	4388 Jul 03 18:27	27° \mathbb{S} 16'32	
evening set	4387 Jul 25 09:52	17° \mathbb{Q} 05'16		inferior conj	4388 Jul 13 02:15	23° \mathbb{S} 15'00	-3°-34'-17
min. Earth dist.	4387 Aug 01 09:15	13° \mathbb{Q} 53'26	0.55683 AU	minimum elong	4388 Jul 12 17:41	23° \mathbb{S} 26'59	3°31'50
inferior conj	4387 Aug 03 06:15	12° \mathbb{Q} 47'24	-4°-49'-12	min. Earth dist.	4388 Jul 12 19:36	23° \mathbb{S} 24'17	0.54876 AU
minimum elong	4387 Aug 03 00:04	12° \mathbb{Q} 56'30	4°48'17	morning rise	4388 Jul 21 18:09	19° \mathbb{S} 23'21	
morning rise	4387 Aug 11 17:15	8° \mathbb{Q} 54'42		direct	4388 Jul 25 01:59	18° \mathbb{S} 59'11	
direct	4387 Aug 14 14:56	8° \mathbb{Q} 34'16		morning max el	4388 Aug 06 07:09	24° \mathbb{S} 43'23	21°54'25
morning max el	4387 Aug 25 05:50	13° \mathbb{Q} 30'19	20°24'25		4388 Aug 11 02:37	0° \mathbb{Q}	
asc. node	4387 Sep 03 13:12	25° \mathbb{Q} 39'00		asc. node	4388 Aug 20 10:14	14° \mathbb{Q} 31'21	
	4387 Sep 06 01:35	0° \mathbb{P}		morning set	4388 Aug 27 07:02	28° \mathbb{Q} 06'04	
morning set	4387 Sep 12 21:25	13° \mathbb{P} 17'11			4388 Aug 28 04:48	0° \mathbb{P}	
superior conj	4387 Sep 20 12:28	28° \mathbb{P} 57'54	1°43'41	superior conj	4388 Sep 03 13:05	13° \mathbb{P} 25'26	1°42'29
minimum elong	4387 Sep 20 12:58	29° \mathbb{P} 00'27	1°43'40	minimum elong	4388 Sep 03 12:13	13° \mathbb{P} 20'53	1°42'27
	4387 Sep 21 00:45	0° \mathbb{A}		max. Earth dist.	4388 Sep 07 06:29	21° \mathbb{P} 07'51	1.34672 AU
max. Earth dist.	4387 Sep 25 16:43	9° \mathbb{A} 12'52	1.36358 AU	evening rise	4388 Sep 11 18:16	0° \mathbb{A} 01'27	
evening rise	4387 Sep 29 15:40	16° \mathbb{A} 39'38			4388 Sep 11 17:58	0° \mathbb{A}	
	4387 Oct 07 06:22	0° \mathbb{M}		desc. node	4388 Sep 26 05:22	25° \mathbb{A} 13'05	
desc. node	4387 Oct 10 08:20	5° \mathbb{M} 02'43			4388 Sep 29 08:34	0° \mathbb{M}	
	4387 Oct 27 20:48	0° \mathbb{Z}		evening max el	4388 Oct 16 19:46	21° \mathbb{M} 51'49	26°54'02

retrograde	4388 Oct 29 23:26	29°♄08'25		desc. node	4389 Sep 13 02:23	14°♄58'17	
evening set	4388 Nov 05 15:49	26°♄29'04			4389 Sep 24 09:02	0°♄	
min. Earth dist.	4388 Nov 09 15:50	22°♄30'47	0.65656 AU	evening max el	4389 Sep 29 07:35	5°♄12'31	27°23'09
inferior conj	4388 Nov 11 14:07	20°♄16'59	-1°-37'-22	retrograde	4389 Oct 12 20:57	12°♄30'52	
minimum elong	4388 Nov 11 16:51	20°♄09'04	1°36'15	evening set	4389 Oct 19 22:19	9°♄51'57	
asc. node	4388 Nov 16 09:27	15°♄29'05		min. Earth dist.	4389 Oct 23 16:23	6°♄28'17	0.64185 AU
morning rise	4388 Nov 17 19:34	14°♄36'42		inferior conj	4389 Oct 26 02:49	3°♄54'37	-2°-39'-32
direct	4388 Nov 20 13:15	13°♄55'39		minimum elong	4389 Oct 26 07:22	3°♄42'40	2°37'53
morning max el	4388 Nov 27 01:46	17°♄26'38	18°15'09		4389 Oct 30 06:03	30°♄	
	4388 Dec 06 09:26	0°♄		morning rise	4389 Nov 01 18:45	28°♄29'33	
morning set	4388 Dec 15 23:11	15°♄24'29		asc. node	4389 Nov 03 06:30	28°♄03'41	
desc. node	4388 Dec 23 04:39	27°♄04'40		direct	4389 Nov 04 05:57	27°♄58'48	
	4388 Dec 25 00:33	0°♄			4389 Nov 09 04:38	0°♄	
				morning max el	4389 Nov 10 18:17	1°♄24'14	17°54'07
superior conj	4388 Dec 31 02:18	9°♄37'05	0°-52'-31	morning set	4389 Nov 27 17:00	27°♄10'57	
minimum elong	4388 Dec 30 19:45	9°♄11'20	0°51'41		4389 Nov 29 08:46	0°♄	
max. Earth dist.	4389 Jan 02 05:57	13°♄00'06	1.45251 AU	desc. node	4389 Dec 10 01:42	17°♄48'59	
	4389 Jan 13 02:53	0°♄					
evening rise	4389 Jan 16 09:25	5°♄06'30		superior conj	4389 Dec 10 19:35	19°♄01'32	0°-5'-10
greatest brilliancy	4389 Jan 31 11:59	28°♄21'14	-0.7m	minimum elong	4389 Dec 10 19:00	18°♄59'07	0°05'06
	4389 Feb 01 15:10	0°♄		behind sun begin	4389 Dec 10 09:20	18°♄19'59	
evening max el	4389 Feb 09 04:37	9°♄37'25	19°22'23	behind sun end	4389 Dec 11 04:39	19°♄38'11	
asc. node	4389 Feb 12 08:44	12°♄20'00		max. Earth dist.	4389 Dec 16 00:25	27°♄21'37	1.44636 AU
retrograde	4389 Feb 16 07:48	13°♄42'36			4389 Dec 17 16:28	0°♄	
evening set	4389 Feb 19 18:08	12°♄33'44		evening rise	4389 Dec 26 21:47	14°♄20'36	
inferior conj	4389 Feb 25 07:17	6°♄38'44	3°20'02		4390 Jan 06 05:10	0°♄	
minimum elong	4389 Feb 25 05:28	6°♄44'39	3°19'46	greatest brilliancy	4390 Jan 17 03:04	15°♄41'46	-0.5m
min. Earth dist.	4389 Feb 26 14:31	4°♄57'15	0.66445 AU	evening max el	4390 Jan 23 07:53	23°♄10'17	20°20'20
morning rise	4389 Mar 02 16:00	0°♄22'53		asc. node	4390 Jan 30 05:46	27°♄43'40	
	4389 Mar 03 02:35	30°♄		retrograde	4390 Jan 31 05:59	27°♄49'11	
direct	4389 Mar 08 21:17	27°♄38'10		evening set	4390 Feb 04 00:48	26°♄26'14	
	4389 Mar 15 10:29	0°♄		inferior conj	4390 Feb 09 11:07	20°♄17'59	2°55'05
desc. node	4389 Mar 21 03:53	4°♄50'05		minimum elong	4390 Feb 09 08:45	20°♄26'02	2°54'32
morning max el	4389 Mar 21 10:14	5°♄06'02	26°00'27	min. Earth dist.	4390 Feb 10 04:36	19°♄18'34	0.67376 AU
	4389 Apr 09 12:55	0°♄		morning rise	4390 Feb 14 16:08	14°♄01'53	
morning set	4389 Apr 26 13:29	28°♄36'07		direct	4390 Feb 20 08:02	11°♄31'15	
	4389 Apr 27 07:33	0°♄		morning max el	4390 Mar 03 18:55	18°♄22'15	24°38'02
max. Earth dist.	4389 Apr 30 11:56	6°♄02'22	1.35424 AU	desc. node	4390 Mar 08 00:56	23°♄02'41	
					4390 Mar 13 13:57	0°♄	
superior conj	4389 May 05 19:01	16°♄31'46	0°-54'-46		4390 Apr 02 14:40	0°♄	
minimum elong	4389 May 05 21:59	16°♄46'49	0°54'14	morning set	4390 Apr 08 17:58	10°♄28'48	
asc. node	4389 May 11 08:01	27°♄55'29		max. Earth dist.	4390 Apr 12 10:09	17°♄03'56	1.37368 AU
	4389 May 12 08:07	0°♄					
evening rise	4389 May 13 16:30	2°♄46'44		superior conj	4390 Apr 19 03:35	29°♄44'28	-1°-23'-7
	4389 May 29 15:51	0°♄		minimum elong	4390 Apr 19 07:58	0°♄05'41	1°22'28
evening max el	4389 May 31 20:41	2°♄21'37	20°21'07		4390 Apr 19 06:47	0°♄	
retrograde	4389 Jun 11 17:22	7°♄40'04		evening rise	4390 Apr 27 18:20	16°♄49'50	
evening set	4389 Jun 13 16:59	7°♄30'11		asc. node	4390 Apr 28 05:05	17°♄43'17	
desc. node	4389 Jun 17 03:05	6°♄31'01			4390 May 04 15:28	0°♄	
inferior conj	4389 Jun 22 20:40	3°♄32'13	-1°-41'-52	evening max el	4390 May 14 12:55	14°♄03'11	19°17'39
minimum elong	4389 Jun 22 15:53	3°♄39'14	1°40'07	retrograde	4390 May 23 16:25	18°♄30'31	
min. Earth dist.	4389 Jun 24 07:42	2°♄40'58	0.55014 AU	evening set	4390 May 25 16:01	18°♄18'51	
	4389 Jun 29 14:27	30°♄		inferior conj	4390 Jun 03 03:40	14°♄10'16	0°15'00
morning rise	4389 Jul 01 12:56	29°♄20'31		minimum elong	4390 Jun 03 04:18	14°♄09'13	0°14'46
direct	4389 Jul 05 12:11	28°♄46'28		transit middle	4390 Jun 03 04:18	14°♄09'13	0°14'46
	4389 Jul 11 05:57	0°♄		transit begin	4390 Jun 03 02:49	14°♄11'41	
morning max el	4389 Jul 18 23:52	5°♄20'02	23°36'31	transit end	4390 Jun 03 05:47	14°♄06'45	
	4389 Aug 05 07:04	0°♄		desc. node	4390 Jun 04 00:06	13°♄36'18	
asc. node	4389 Aug 07 07:16	3°♄51'30		min. Earth dist.	4390 Jun 05 22:19	12°♄20'28	0.56089 AU
morning set	4389 Aug 11 18:31	12°♄59'24		morning rise	4390 Jun 11 12:29	9°♄24'47	
				direct	4390 Jun 16 09:47	8°♄29'56	
superior conj	4389 Aug 18 19:36	28°♄09'24	1°35'01	morning max el	4390 Jun 30 13:43	15°♄42'34	25°17'32
minimum elong	4389 Aug 18 17:47	27°♄59'39	1°34'52		4390 Jul 12 01:41	0°♄	
	4389 Aug 19 16:10	0°♄		asc. node	4390 Jul 25 04:20	23°♄32'05	
max. Earth dist.	4389 Aug 21 04:55	3°♄16'05	1.33382 AU	morning set	4390 Jul 27 06:12	27°♄52'20	
evening rise	4389 Aug 26 09:18	13°♄58'17			4390 Jul 28 06:10	0°♄	
	4389 Sep 03 21:50	0°♄					

superior conj	4390 Aug 03 05:41	13°♌02'22	1°22'13	morning set	4391 Jul 11 16:29	12°♎39'39	
minimum elong	4390 Aug 03 03:25	12°♌49'54	1°21'55	asc. node	4391 Jul 12 01:24	13°♎26'44	
max. Earth dist.	4390 Aug 04 10:59	15°♌42'34	1.32515 AU				
evening rise	4390 Aug 10 09:18	28°♌20'26		superior conj	4391 Jul 18 17:23	27°♎57'42	1°04'50
	4390 Aug 11 04:44	0°♍		minimum elong	4391 Jul 18 15:07	27°♎45'12	1°04'27
	4390 Aug 28 03:06	0°♎		max. Earth dist.	4391 Jul 18 21:40	28°♎21'19	1.32062 AU
desc. node	4390 Aug 30 23:24	4°♎08'03			4391 Jul 19 15:33	0°♏	
evening max el	4390 Sep 11 16:49	18°♎04'38	27°22'38	evening rise	4391 Jul 25 15:26	12°♏59'02	
retrograde	4390 Sep 25 11:49	25°♎19'33			4391 Aug 03 07:15	0°♐	
evening set	4390 Oct 02 16:06	22°♎52'17		desc. node	4391 Aug 17 20:25	22°♐28'02	
min. Earth dist.	4390 Oct 06 06:57	19°♎57'36	0.62402 AU		4391 Aug 24 14:10	0°♑	
inferior conj	4390 Oct 09 04:36	17°♎14'07	-3°-39'-52	evening max el	4391 Aug 24 20:45	0°♑15'43	26°48'51
minimum elong	4390 Oct 09 10:28	17°♎00'19	3°38'08	retrograde	4391 Sep 07 18:45	7°♑26'01	
morning rise	4390 Oct 16 07:45	12°♎07'28		evening set	4391 Sep 14 16:47	5°♑22'51	
direct	4390 Oct 18 15:22	11°♎43'26		min. Earth dist.	4391 Sep 18 10:51	2°♑45'55	0.60395 AU
asc. node	4390 Oct 21 03:34	12°♎12'26		inferior conj	4391 Sep 21 16:07	0°♑07'01	-4°-32'-21
morning max el	4390 Oct 25 10:28	15°♎11'26	17°50'55	minimum elong	4391 Sep 21 21:53	29°♐55'05	4°31'11
	4390 Nov 04 17:02	0°♒			4391 Sep 21 19:31	30°♐	
morning set	4390 Nov 10 08:57	10°♒00'52		morning rise	4391 Sep 29 06:16	25°♐22'01	
				direct	4391 Oct 01 13:40	25°♐01'40	
superior conj	4390 Nov 21 14:22	29°♒40'46	0°36'57	asc. node	4391 Oct 08 00:38	27°♐49'01	
minimum elong	4390 Nov 21 17:38	29°♒54'37	0°36'30	morning max el	4391 Oct 08 23:07	28°♐40'25	18°06'48
	4390 Nov 21 18:54	0°♓			4391 Oct 10 05:36	0°♑	
desc. node	4390 Nov 26 22:43	8°♓36'00		morning set	4391 Oct 24 16:55	23°♑36'40	
max. Earth dist.	4390 Nov 28 15:46	11°♓23'21	1.43370 AU		4391 Oct 28 02:55	0°♒	
evening rise	4390 Dec 06 08:58	23°♓38'20					
	4390 Dec 10 12:07	0°♑		superior conj	4391 Nov 03 10:55	11°♒35'23	1°08'51
	4390 Dec 31 10:39	0°♒		minimum elong	4391 Nov 03 14:59	11°♒53'34	1°08'21
greatest brilliancy	4391 Jan 01 08:00	1°♒07'18	-0.4m	max. Earth dist.	4391 Nov 11 02:34	24°♒51'57	1.41604 AU
evening max el	4391 Jan 06 05:42	6°♒44'16	21°30'26	desc. node	4391 Nov 13 19:43	29°♒22'45	
retrograde	4391 Jan 15 03:35	12°♒01'42			4391 Nov 14 04:48	0°♓	
asc. node	4391 Jan 17 02:50	11°♒40'46		evening rise	4391 Nov 16 10:25	3°♓37'50	
evening set	4391 Jan 19 08:37	10°♒23'28			4391 Dec 03 20:33	0°♑	
inferior conj	4391 Jan 24 17:58	4°♒05'01	2°20'57	greatest brilliancy	4391 Dec 14 19:34	14°♑35'36	-0.3m
minimum elong	4391 Jan 24 15:32	4°♒13'27	2°20'12	evening max el	4391 Dec 19 22:39	20°♑20'33	22°48'12
min. Earth dist.	4391 Jan 24 23:03	3°♒47'23	0.67902 AU	retrograde	4391 Dec 29 22:59	26°♑17'10	
	4391 Jan 27 20:15	30°♒		evening set	4392 Jan 03 15:56	24°♑22'45	
morning rise	4391 Jan 29 22:09	27°♑50'36		asc. node	4392 Jan 03 23:52	24°♑05'51	
direct	4391 Feb 03 23:22	25°♑40'18		inferior conj	4392 Jan 09 01:54	17°♑57'39	1°39'06
	4391 Feb 12 08:46	0°♒		minimum elong	4392 Jan 08 23:53	18°♑04'38	1°38'21
morning max el	4391 Feb 14 04:00	1°♒43'24	23°09'00	min. Earth dist.	4392 Jan 08 19:35	18°♑19'29	0.68048 AU
greatest brilliancy	4391 Feb 19 03:39	7°♒18'15	-0.3m	morning rise	4392 Jan 14 07:46	11°♑46'40	
desc. node	4391 Feb 22 21:58	12°♒03'39		direct	4392 Jan 18 18:16	9°♑59'20	
	4391 Mar 07 13:55	0°♓		morning max el	4392 Jan 27 17:07	15°♑12'52	21°42'38
morning set	4391 Mar 20 21:40	21°♓07'20		greatest brilliancy	4392 Feb 01 12:22	20°♑37'44	-0.4m
max. Earth dist.	4391 Mar 25 05:10	28°♓27'28	1.39545 AU		4392 Feb 08 14:34	0°♒	
	4391 Mar 26 02:27	0°♑		desc. node	4392 Feb 09 19:00	1°♒39'36	
				morning set	4392 Feb 28 20:35	0°♓23'48	
superior conj	4391 Apr 01 21:28	12°♑11'44	-1°-47'-34		4392 Feb 28 14:37	0°♓	
minimum elong	4391 Apr 02 02:15	12°♑33'53	1°47'06	max. Earth dist.	4392 Mar 06 04:43	10°♓42'20	1.41674 AU
evening rise	4391 Apr 11 11:35	0°♒23'16					
	4391 Apr 11 06:44	0°♒		superior conj	4392 Mar 13 19:45	23°♓41'53	-2°-4'-3
asc. node	4391 Apr 15 02:07	7°♒14'43		minimum elong	4392 Mar 13 22:50	23°♓55'24	2°03'58
evening max el	4391 Apr 27 15:15	26°♒22'48	18°34'23		4392 Mar 17 09:13	0°♑	
	4391 May 03 14:25	0°♒		evening rise	4392 Mar 24 16:41	13°♑18'38	
retrograde	4391 May 05 09:38	0°♒12'12		asc. node	4392 Mar 31 23:09	26°♑24'02	
	4391 May 07 05:43	30°♒			4392 Apr 03 02:56	0°♒	
evening set	4391 May 07 15:01	29°♒54'25		evening max el	4392 Apr 10 00:12	9°♒11'44	18°11'13
inferior conj	4391 May 15 07:06	25°♒26'35	1°48'54	retrograde	4392 Apr 16 21:29	12°♒40'02	
minimum elong	4391 May 15 10:30	25°♒19'59	1°47'51	evening set	4392 Apr 19 09:12	12°♒13'26	
min. Earth dist.	4391 May 18 16:21	22°♒50'35	0.57871 AU	inferior conj	4392 Apr 26 07:41	7°♒24'15	2°50'58
desc. node	4391 May 21 21:09	20°♒44'11		minimum elong	4392 Apr 26 10:58	7°♒16'48	2°50'15
morning rise	4391 May 23 01:31	20°♒06'59		min. Earth dist.	4392 Apr 29 16:12	4°♒23'46	0.60010 AU
direct	4391 May 28 21:27	18°♒41'06		morning rise	4392 May 03 09:04	1°♒38'32	
morning max el	4391 Jun 12 06:28	26°♒18'33	26°41'42		4392 May 07 02:51	30°♒	
	4391 Jun 15 18:12	0°♒		desc. node	4392 May 07 18:12	29°♑51'06	
	4391 Jul 05 09:06	0°♑		direct	4392 May 09 21:30	29°♑38'14	

	4392 May 12 17:49	0°♄		desc. node	4393 Apr 24 15:13	11°♅41'28	
morning max el	4392 May 24 05:30	7°♄30'21	27°35'32	morning max el	4393 May 06 10:44	19°♅25'18	27°52'14
	4392 Jun 10 05:51	0°♅			4393 May 15 10:30	0°♄	
morning set	4392 Jun 24 23:35	27°♅15'29			4393 Jun 03 03:17	0°♅	
	4392 Jun 26 07:00	0°♄		morning set	4393 Jun 09 01:33	11°♅33'43	
asc. node	4392 Jun 27 22:25	3°♄30'00		max. Earth dist.	4393 Jun 14 17:34	23°♅27'36	1.32393 AU
max. Earth dist.	4392 Jul 01 09:11	11°♄00'36	1.32019 AU	asc. node	4393 Jun 14 19:26	23°♅37'41	
superior conj	4392 Jul 02 04:53	12°♄49'05	0°43'27	superior conj	4393 Jun 16 14:30	27°♅31'15	0°18'42
minimum elong	4392 Jul 02 03:06	12°♄39'16	0°43'05	minimum elong	4393 Jun 16 13:39	27°♅26'33	0°18'30
evening rise	4392 Jul 09 01:19	27°♄46'05			4393 Jun 17 17:46	0°♄	
	4392 Jul 10 02:41	0°♄		evening rise	4393 Jun 23 12:59	12°♄35'13	
	4392 Jul 26 23:56	0°♅			4393 Jul 02 08:01	0°♄	
desc. node	4392 Aug 03 17:27	9°♅37'15		evening max el	4393 Jul 18 06:58	22°♄16'20	24°14'10
evening max el	4392 Aug 05 17:06	11°♅37'08	25°43'06	desc. node	4393 Jul 21 14:27	25°♄07'43	
retrograde	4392 Aug 19 16:13	18°♅43'37		retrograde	4393 Aug 01 02:38	29°♄14'16	
evening set	4392 Aug 25 19:24	17°♅15'00		evening set	4393 Aug 05 21:44	28°♄23'06	
min. Earth dist.	4392 Aug 30 05:10	14°♅38'39	0.58335 AU	min. Earth dist.	4393 Aug 11 17:40	25°♄28'17	0.56501 AU
inferior conj	4392 Sep 02 09:42	12°♅22'14	-5°-6'-59	inferior conj	4393 Aug 14 07:05	23°♄52'24	-5°-9'00
minimum elong	4392 Sep 02 12:43	12°♅16'49	5°06'45	minimum elong	4393 Aug 14 04:23	23°♄56'38	5°08'51
morning rise	4392 Sep 10 09:32	8°♅00'57		morning rise	4393 Aug 22 14:33	19°♄52'03	
direct	4392 Sep 12 20:11	7°♅41'58		direct	4393 Aug 25 07:20	19°♄32'48	
morning max el	4392 Sep 21 04:55	11°♅41'15	18°43'14	morning max el	4393 Sep 04 00:45	24°♄04'41	19°41'18
asc. node	4392 Sep 23 21:39	14°♅38'19			4393 Sep 09 02:40	0°♅	
	4392 Oct 03 11:20	0°♄		asc. node	4393 Sep 10 18:41	2°♅25'22	
morning set	4392 Oct 07 12:01	7°♄43'41		morning set	4393 Sep 21 14:43	22°♅12'12	
					4393 Sep 25 11:06	0°♄	
superior conj	4392 Oct 16 04:20	24°♄30'56	1°29'51	superior conj	4393 Sep 29 13:14	8°♄12'00	1°41'04
minimum elong	4392 Oct 16 07:23	24°♄45'20	1°29'35	minimum elong	4393 Sep 29 14:40	8°♄19'06	1°41'00
	4392 Oct 19 03:01	0°♅		max. Earth dist.	4393 Oct 05 13:11	19°♄44'05	1.37471 AU
max. Earth dist.	4392 Oct 23 08:39	7°♅37'14	1.39551 AU	evening rise	4393 Oct 09 08:28	26°♄40'14	
evening rise	4392 Oct 27 10:05	14°♅37'47			4393 Oct 11 05:46	0°♅	
desc. node	4392 Oct 30 16:44	20°♅05'07		desc. node	4393 Oct 17 13:44	10°♅39'08	
	4392 Nov 05 22:17	0°♄			4393 Oct 30 10:18	0°♄	
	4392 Nov 27 18:51	0°♅		evening max el	4393 Nov 14 00:36	17°♄41'34	25°23'11
evening max el	4392 Dec 01 12:16	3°♄59'36	24°08'01	retrograde	4393 Nov 26 02:45	24°♄39'34	
retrograde	4392 Dec 12 15:01	10°♄31'17		evening set	4393 Dec 01 22:43	22°♄14'42	
evening set	4392 Dec 17 21:11	8°♄20'50		min. Earth dist.	4393 Dec 06 09:40	17°♄19'39	0.67256 AU
asc. node	4392 Dec 20 20:54	5°♄11'09		inferior conj	4393 Dec 07 13:45	15°♄48'56	0°-3'-33
min. Earth dist.	4392 Dec 22 15:52	2°♄51'09	0.67828 AU	minimum elong	4393 Dec 07 13:51	15°♄48'39	0°03'30
inferior conj	4392 Dec 23 09:05	1°♄53'03	0°50'35	transit middle	4393 Dec 07 13:51	15°♄48'39	0°03'30
minimum elong	4392 Dec 23 07:54	1°♄57'01	0°50'07	transit begin	4393 Dec 07 11:07	15°♄57'28	
	4392 Dec 24 19:05	30°♅		transit end	4393 Dec 07 16:34	15°♄39'50	
morning rise	4392 Dec 28 18:57	25°♄47'27		asc. node	4393 Dec 07 17:56	15°♄35'27	
direct	4393 Jan 01 15:41	24°♄22'37		morning rise	4393 Dec 13 05:45	9°♄50'51	
morning max el	4393 Jan 09 13:21	28°♄53'43	20°25'45	direct	4393 Dec 16 14:17	8°♄45'56	
	4393 Jan 10 14:54	0°♄		morning max el	4393 Dec 23 17:31	12°♄45'24	19°22'27
greatest brilliancy	4393 Jan 15 19:11	6°♄15'25	-0.5m	greatest brilliancy	4394 Jan 01 18:44	24°♄15'36	-0.7m
desc. node	4393 Jan 26 16:00	21°♄40'34			4394 Jan 05 16:16	0°♄	
	4393 Feb 01 04:55	0°♅		desc. node	4394 Jan 13 13:01	11°♄59'40	
morning set	4393 Feb 06 20:41	8°♅40'41		morning set	4394 Jan 16 19:23	17°♄02'21	
max. Earth dist.	4393 Feb 16 11:42	23°♅51'43	1.43465 AU		4394 Jan 25 03:20	0°♅	
	4393 Feb 20 06:24	0°♄		max. Earth dist.	4394 Jan 30 01:06	7°♅42'41	1.44710 AU
superior conj	4393 Feb 22 17:40	4°♅04'30	-2°-7'-22	superior conj	4394 Feb 02 14:12	13°♅20'18	-1°-52'-23
minimum elong	4393 Feb 22 15:58	3°♅57'24	2°07'21	minimum elong	4394 Feb 02 06:33	12°♅49'47	1°51'51
evening rise	4393 Mar 07 05:22	25°♅26'48			4394 Feb 12 20:55	0°♅	
	4393 Mar 09 19:47	0°♄		evening rise	4394 Feb 16 21:16	6°♅39'14	
asc. node	4393 Mar 18 20:10	15°♄04'04			4394 Mar 03 09:36	0°♄	
evening max el	4393 Mar 24 12:28	22°♄21'12	18°07'37	asc. node	4394 Mar 05 17:12	3°♄05'02	
retrograde	4393 Mar 30 23:55	25°♄43'44		evening max el	4394 Mar 08 01:02	5°♄42'50	18°22'51
evening set	4393 Apr 02 17:31	25°♄06'44		retrograde	4394 Mar 14 12:13	9°♄12'54	
inferior conj	4393 Apr 09 02:11	19°♄57'07	3°24'22	evening set	4394 Mar 17 11:45	8°♄24'19	
minimum elong	4393 Apr 09 03:59	19°♄52'28	3°24'10	inferior conj	4394 Mar 23 10:24	2°♄55'46	3°35'22
min. Earth dist.	4393 Apr 12 00:22	16°♄56'45	0.62173 AU	minimum elong	4394 Mar 23 10:30	2°♄55'29	3°35'22
morning rise	4393 Apr 15 11:50	13°♄55'09		min. Earth dist.	4394 Mar 25 17:54	0°♄16'21	0.64124 AU
direct	4393 Apr 22 08:00	11°♄25'55					

	4394 Mar 25 23:47	30° RH		inferior conj	4395 Mar 07 04:36	16° H 13'57	3°29'28
morning rise	4394 Mar 29 07:32	26° H 45'11		minimum elong	4395 Mar 07 03:20	16° H 17'54	3°29'21
direct	4394 Apr 05 02:56	23° H 59'03		min. Earth dist.	4395 Mar 08 20:30	14° H 09'10	0.65723 AU
desc. node	4394 Apr 11 12:15	25° H 59'25		morning rise	4395 Mar 12 16:52	9° H 59'22	
	4394 Apr 16 19:06	0° Y		direct	4395 Mar 19 04:48	7° H 10'26	
morning max el	4394 Apr 18 19:36	1° Y 56'13	27°32'07	desc. node	4395 Mar 29 09:17	12° H 11'54	
	4394 May 09 15:52	0° B		morning max el	4395 Apr 01 05:28	14° H 52'36	26°40'43
morning set	4394 May 23 19:47	25° B 25'20			4395 Apr 13 14:19	0° Y	
	4394 May 26 02:44	0° II			4395 May 02 10:06	0° B	
max. Earth dist.	4394 May 28 18:38	5° II 28'28	1.33204 AU	morning set	4395 May 07 03:00	8° B 40'36	
				max. Earth dist.	4395 May 11 09:13	16° B 57'26	1.34484 AU
superior conj	4394 May 31 20:18	11° II 57'13	0°-8'-45				
minimum elong	4394 May 31 20:45	11° II 59'35	0°08'41	superior conj	4395 May 15 20:07	26° B 00'41	0°-37'-50
behind sun begin	4394 May 31 16:10	11° II 35'11		minimum elong	4395 May 15 22:09	26° B 11'10	0°37'27
behind sun end	4394 Jun 01 01:19	12° II 24'00			4395 May 17 18:06	0° II	
asc. node	4394 Jun 01 16:27	13° II 44'54		asc. node	4395 May 19 13:31	3° II 47'48	
evening rise	4394 Jun 08 00:30	27° II 19'16		evening rise	4395 May 23 10:00	11° II 52'28	
	4394 Jun 09 07:09	0° S			4395 Jun 01 20:39	0° S	
	4394 Jun 27 08:16	0° Q		evening max el	4395 Jun 11 17:50	13° S 18'41	21°06'19
evening max el	4394 Jun 29 20:33	2° Q 39'12	22°36'58	retrograde	4395 Jun 23 13:29	19° S 06'52	
desc. node	4394 Jul 08 11:29	8° Q 24'42		desc. node	4395 Jun 25 08:31	18° S 59'20	
retrograde	4394 Jul 13 00:31	9° Q 12'10		evening set	4395 Jun 25 19:31	18° S 55'03	
evening set	4394 Jul 16 07:15	8° Q 48'32		inferior conj	4395 Jul 05 03:34	14° S 57'27	-2°-49'-27
min. Earth dist.	4394 Jul 24 04:19	5° Q 21'02	0.55233 AU	minimum elong	4395 Jul 04 20:01	15° S 08'05	2°46'58
inferior conj	4394 Jul 25 10:06	4° Q 38'34	-4°-23'-31	min. Earth dist.	4395 Jul 05 15:19	14° S 40'55	0.54819 AU
minimum elong	4394 Jul 25 02:09	4° Q 49'56	4°21'50	morning rise	4395 Jul 13 20:23	10° S 59'30	
morning rise	4394 Aug 02 23:26	0° Q 48'19		direct	4395 Jul 17 10:13	10° S 31'56	
direct	4394 Aug 06 00:47	0° Q 26'51		morning max el	4395 Jul 30 05:35	16° S 37'57	22°36'57
morning max el	4394 Aug 17 08:41	5° Q 43'11	21°00'34		4395 Aug 09 18:49	0° Q	
asc. node	4394 Aug 28 15:42	20° Q 56'43		asc. node	4395 Aug 15 12:45	10° Q 01'43	
	4394 Sep 02 12:25	0° P		morning set	4395 Aug 21 09:01	21° Q 45'52	
morning set	4394 Sep 05 22:24	6° P 54'53			4395 Aug 25 05:55	0° P	
superior conj	4394 Sep 13 09:06	22° P 25'12	1°44'00	superior conj	4395 Aug 28 12:31	7° P 00'12	1°40'00
minimum elong	4394 Sep 13 08:59	22° P 24'34	1°44'00	minimum elong	4395 Aug 28 11:11	6° P 53'10	1°39'56
	4394 Sep 17 02:50	0° A		max. Earth dist.	4395 Aug 31 15:38	13° P 34'59	1.34077 AU
max. Earth dist.	4394 Sep 17 22:05	1° A 35'19	1.35597 AU	evening rise	4395 Sep 05 10:24	23° P 14'15	
evening rise	4394 Sep 22 02:02	9° A 36'20			4395 Sep 08 23:17	0° A	
	4394 Oct 03 19:47	0° M		desc. node	4395 Sep 21 07:48	21° A 00'19	
desc. node	4394 Oct 04 10:46	0° M 59'48			4395 Sep 27 11:36	0° M	
	4394 Oct 26 03:39	0° J		evening max el	4395 Oct 10 01:55	14° M 55'54	27°09'49
evening max el	4394 Oct 27 13:12	1° J 23'27	26°26'19	retrograde	4395 Oct 23 10:16	22° M 13'24	
retrograde	4394 Nov 09 09:27	8° J 36'15		evening set	4395 Oct 30 06:57	19° M 33'25	
evening set	4394 Nov 15 18:45	6° J 00'47		min. Earth dist.	4395 Nov 03 04:24	15° M 50'00	0.65070 AU
min. Earth dist.	4394 Nov 19 22:40	1° J 41'27	0.66335 AU	inferior conj	4395 Nov 05 07:44	13° M 27'07	-2°-3'-42
	4394 Nov 21 08:10	30° RM		minimum elong	4395 Nov 05 11:15	13° M 17'19	2°02'20
inferior conj	4394 Nov 21 14:03	29° M 42'07	-1°-2'-9	morning rise	4395 Nov 11 17:28	7° M 52'36	
minimum elong	4394 Nov 21 15:45	29° M 36'58	1°01'27	asc. node	4395 Nov 11 12:00	7° M 59'07	
asc. node	4394 Nov 24 14:57	26° M 15'09		direct	4395 Nov 14 08:07	7° M 16'17	
morning rise	4394 Nov 27 14:05	23° M 54'16		morning max el	4395 Nov 20 19:38	10° M 43'53	18°04'02
direct	4394 Nov 30 12:32	23° M 05'35			4395 Dec 04 03:56	0° J	
morning max el	4394 Dec 07 04:25	26° M 44'17	18°34'55	morning set	4395 Dec 08 18:16	7° J 36'26	
	4394 Dec 10 01:35	0° J		desc. node	4395 Dec 18 07:04	23° J 12'50	
morning set	4394 Dec 27 16:02	26° J 35'10			4395 Dec 22 12:43	0° S	
	4394 Dec 29 19:39	0° S					
desc. node	4394 Dec 31 10:02	2° S 32'03		superior conj	4395 Dec 23 01:07	0° S 49'18	0°-32'-20
				minimum elong	4395 Dec 22 21:06	0° S 33'19	0°31'47
superior conj	4395 Jan 12 18:18	21° S 57'46	-1°-18'-16	max. Earth dist.	4395 Dec 26 14:45	6° S 27'59	1.45081 AU
minimum elong	4395 Jan 12 09:23	21° S 22'48	1°17'17	evening rise	4396 Jan 08 10:02	26° S 24'39	
max. Earth dist.	4395 Jan 12 19:04	22° S 00'46	1.45268 AU		4396 Jan 10 17:49	0° A	
	4395 Jan 17 21:11	0° A		greatest brilliancy	4396 Jan 26 07:52	23° A 26'29	-0.6m
evening rise	4395 Jan 28 14:00	16° A 55'09			4396 Jan 31 07:16	0° H	
	4395 Feb 05 19:22	0° H		evening max el	4396 Feb 02 17:48	2° H 43'45	19°45'20
evening max el	4395 Feb 19 11:29	19° H 11'50	18°55'54	asc. node	4396 Feb 07 11:18	6° H 22'56	
asc. node	4395 Feb 20 14:15	20° H 16'01		retrograde	4396 Feb 10 04:06	7° H 01'55	
retrograde	4395 Feb 26 06:37	23° H 00'56		evening set	4396 Feb 13 17:57	5° H 47'03	
evening set	4395 Mar 01 12:45	21° H 59'44		inferior conj	4396 Feb 19 05:39	29° A 46'09	3°10'39

minimum elong	4396 Feb 19 03:32	29° \approx 53'10	3°10'15	retrograde	4397 Jan 24 02:18	21° \approx 11'24	
	4396 Feb 19 01:28	30° \approx		asc. node	4397 Jan 24 08:21	21° \approx 11'03	
min. Earth dist.	4396 Feb 20 06:49	28° \approx 22'36	0.66900 AU	evening set	4397 Jan 28 01:21	19° \approx 41'49	
morning rise	4396 Feb 24 12:27	23° \approx 30'13		inferior conj	4397 Feb 02 11:01	13° \approx 28'38	2°41'35
direct	4396 Mar 01 12:24	20° \approx 50'33		minimum elong	4397 Feb 02 08:33	13° \approx 37'03	2°40'56
morning max el	4396 Mar 13 14:40	28° \approx 03'33	25°26'48	min. Earth dist.	4397 Feb 02 22:58	12° \approx 47'31	0.67652 AU
desc. node	4396 Mar 15 06:19	29° \approx 47'22		morning rise	4397 Feb 07 15:22	7° \approx 13'08	
	4396 Mar 15 10:59	0° \approx		direct	4397 Feb 13 01:00	4° \approx 50'57	
	4396 Apr 06 07:49	0° \approx		morning max el	4397 Feb 23 23:19	11° \approx 22'05	24°00'22
morning set	4396 Apr 18 18:46	21° \approx 07'08		desc. node	4397 Mar 02 03:21	18° \approx 22'09	
max. Earth dist.	4396 Apr 22 12:43	28° \approx 02'49	1.36214 AU		4397 Mar 10 20:14	0° \approx	
	4396 Apr 23 13:27	0° \approx			4397 Mar 30 02:25	0° \approx	
				morning set	4397 Mar 31 13:26	2° \approx 29'41	
superior conj	4396 Apr 28 11:13	9° \approx 34'10	-1°-7'-4	max. Earth dist.	4397 Apr 04 09:01	9° \approx 10'51	1.38283 AU
minimum elong	4396 Apr 28 14:50	9° \approx 52'14	1°06'27				
asc. node	4396 May 05 10:35	23° \approx 42'20		superior conj	4397 Apr 11 14:03	22° \approx 28'17	-1°-34'-10
evening rise	4396 May 06 15:20	26° \approx 08'30		minimum elong	4397 Apr 11 18:47	22° \approx 50'48	1°33'35
	4396 May 08 13:22	0° \approx			4397 Apr 15 11:45	0° \approx	
evening max el	4396 May 24 03:02	24° \approx 35'26	19°51'39	evening rise	4397 Apr 20 13:56	9° \approx 59'53	
retrograde	4396 Jun 03 05:28	29° \approx 31'02		asc. node	4397 Apr 22 07:38	13° \approx 23'36	
evening set	4396 Jun 05 04:03	29° \approx 20'55			4397 May 01 17:11	0° \approx	
desc. node	4396 Jun 11 05:32	27° \approx 00'25		evening max el	4397 May 06 23:49	6° \approx 33'05	18°56'42
inferior conj	4396 Jun 14 01:49	25° \approx 19'42	0°-50'-46	retrograde	4397 May 15 12:05	10° \approx 42'51	
minimum elong	4396 Jun 13 23:28	25° \approx 23'17	0°49'54	evening set	4397 May 17 13:42	10° \approx 29'05	
min. Earth dist.	4396 Jun 16 04:01	24° \approx 03'04	0.55366 AU	inferior conj	4397 May 25 17:00	6° \approx 12'33	0°58'37
morning rise	4396 Jun 22 16:00	20° \approx 55'04		minimum elong	4397 May 25 19:13	6° \approx 08'37	0°57'50
direct	4396 Jun 27 00:14	20° \approx 13'39		min. Earth dist.	4397 May 28 19:49	4° \approx 01'02	0.56773 AU
morning max el	4396 Jul 10 20:10	27° \approx 04'41	24°20'39	desc. node	4397 May 29 02:35	3° \approx 49'39	
	4396 Jul 13 16:28	0° \approx		morning rise	4397 Jun 02 20:17	1° \approx 11'45	
asc. node	4396 Aug 01 09:49	29° \approx 31'40		direct	4397 Jun 08 03:15	0° \approx 04'59	
	4396 Aug 01 15:27	0° \approx		morning max el	4397 Jun 22 10:49	7° \approx 29'47	25°56'31
morning set	4396 Aug 04 20:50	6° \approx 40'10			4397 Jul 09 03:17	0° \approx	
				asc. node	4397 Jul 19 06:52	19° \approx 18'41	
superior conj	4396 Aug 11 20:50	21° \approx 49'01	1°30'12	morning set	4397 Jul 20 08:07	21° \approx 31'15	
minimum elong	4396 Aug 11 18:46	21° \approx 37'47	1°29'59		4397 Jul 24 06:26	0° \approx	
max. Earth dist.	4396 Aug 13 17:57	25° \approx 53'03	1.32963 AU				
	4396 Aug 15 16:13	0° \approx		superior conj	4397 Jul 27 07:49	6° \approx 43'25	1°15'23
evening rise	4396 Aug 19 05:41	7° \approx 23'20		minimum elong	4397 Jul 27 05:29	6° \approx 30'37	1°15'01
	4396 Aug 31 11:12	0° \approx		max. Earth dist.	4397 Jul 28 02:24	8° \approx 25'37	1.32266 AU
desc. node	4396 Sep 07 04:50	10° \approx 32'18		evening rise	4397 Aug 03 08:33	21° \approx 52'51	
evening max el	4396 Sep 21 13:02	28° \approx 06'34	27°26'48		4397 Aug 07 08:53	0° \approx	
	4396 Sep 23 15:37	0° \approx		desc. node	4397 Aug 25 01:51	29° \approx 22'54	
retrograde	4396 Oct 05 04:47	5° \approx 23'01			4397 Aug 25 12:54	0° \approx	
evening set	4396 Oct 12 08:30	2° \approx 47'35		evening max el	4397 Sep 03 20:05	10° \approx 41'26	27°12'17
	4396 Oct 15 15:23	30° \approx		retrograde	4397 Sep 17 16:27	17° \approx 54'47	
min. Earth dist.	4396 Oct 16 00:45	29° \approx 37'22	0.63470 AU	evening set	4397 Sep 24 19:34	15° \approx 35'50	
inferior conj	4396 Oct 18 16:12	26° \approx 58'14	-3°-5'-36	min. Earth dist.	4397 Sep 28 10:30	12° \approx 50'50	0.61571 AU
minimum elong	4396 Oct 18 21:24	26° \approx 45'09	3°03'50	inferior conj	4397 Oct 01 12:16	10° \approx 06'59	-4°-3'-35
morning rise	4396 Oct 25 12:51	21° \approx 40'35		minimum elong	4397 Oct 01 18:21	9° \approx 53'26	4°01'59
direct	4396 Oct 27 22:17	21° \approx 12'58		morning rise	4397 Oct 08 20:16	5° \approx 09'32	
asc. node	4396 Oct 28 09:02	21° \approx 13'57		direct	4397 Oct 11 03:21	4° \approx 47'26	
morning max el	4396 Nov 03 12:24	24° \approx 38'04	17°50'30	asc. node	4397 Oct 15 06:05	6° \approx 01'11	
	4396 Nov 07 21:36	0° \approx		morning max el	4397 Oct 18 03:32	8° \approx 18'40	17°55'18
morning set	4396 Nov 19 22:19	19° \approx 52'27			4397 Nov 01 05:27	0° \approx	
	4396 Nov 25 19:10	0° \approx		morning set	4397 Nov 02 21:43	3° \approx 03'22	
superior conj	4396 Dec 02 04:38	10° \approx 43'50	0°13'46	superior conj	4397 Nov 13 10:50	21° \approx 56'36	0°51'50
minimum elong	4396 Dec 02 06:05	10° \approx 49'48	0°13'35	minimum elong	4397 Nov 13 14:45	22° \approx 13'34	0°51'18
behind sun begin	4396 Dec 02 00:52	10° \approx 28'18			4397 Nov 18 04:13	0° \approx	
behind sun end	4396 Dec 02 11:17	11° \approx 11'16		max. Earth dist.	4397 Nov 20 22:03	4° \approx 33'13	1.42668 AU
desc. node	4396 Dec 04 04:07	13° \approx 58'37		desc. node	4397 Nov 21 01:08	4° \approx 45'52	
max. Earth dist.	4396 Dec 08 08:40	20° \approx 44'43	1.44178 AU	evening rise	4397 Nov 27 11:32	15° \approx 06'29	
	4396 Dec 14 05:22	0° \approx			4397 Dec 07 04:55	0° \approx	
evening rise	4396 Dec 17 19:55	5° \approx 35'21		greatest brilliancy	4397 Dec 24 20:40	24° \approx 30'16	-0.3m
	4397 Jan 03 03:42	0° \approx		evening max el	4397 Dec 29 14:09	29° \approx 50'42	22°02'50
greatest brilliancy	4397 Jan 10 05:59	9° \approx 46'03	-0.5m		4397 Dec 29 17:50	0° \approx	
evening max el	4397 Jan 15 18:42	16° \approx 16'34	20°48'50	retrograde	4398 Jan 07 23:16	5° \approx 25'36	

asc. node	4398 Jan 11 05:21	4° \approx 29'04		evening set	4398 Dec 27 15:45	17° \approx 39'31	
evening set	4398 Jan 12 09:09	3° \approx 40'30		asc. node	4398 Dec 29 02:22	16° \approx 17'12	
	4398 Jan 15 19:00	30° \approx 18'28	2°04'04	min. Earth dist.	4399 Jan 01 15:28	11° \approx 50'09	0.67993 AU
inferior conj	4398 Jan 17 18:33	27° \approx 18'28	2°04'04	inferior conj	4399 Jan 02 02:23	11° \approx 12'40	1°19'16
minimum elong	4398 Jan 17 16:15	27° \approx 26'30	2°03'17	minimum elong	4399 Jan 02 00:40	11° \approx 18'33	1°18'37
min. Earth dist.	4398 Jan 17 18:39	27° \approx 18'08	0.68005 AU	morning rise	4399 Jan 07 09:40	5° \approx 03'27	
morning rise	4398 Jan 22 23:09	21° \approx 05'08		direct	4399 Jan 11 14:07	3° \approx 25'47	
direct	4398 Jan 27 17:55	19° \approx 04'41		morning max el	4399 Jan 20 01:35	8° \approx 20'29	21°08'22
morning max el	4398 Feb 06 09:49	24° \approx 46'54	22°31'27	greatest brilliancy	4399 Jan 25 08:54	14° \approx 25'15	-0.4m
greatest brilliancy	4398 Feb 10 23:26	29° \approx 52'32	-0.3m	desc. node	4399 Feb 03 21:22	27° \approx 26'49	
	4398 Feb 11 01:54	0° \approx			4399 Feb 05 15:32	0° \approx	
desc. node	4398 Feb 17 00:23	7° \approx 39'24		morning set	4399 Feb 19 16:36	21° \approx 19'04	
	4398 Mar 04 07:33	0° \approx			4399 Feb 25 03:27	0° \approx	
morning set	4398 Mar 12 05:09	12° \approx 33'54		max. Earth dist.	4399 Feb 27 07:07	3° \approx 29'58	1.42491 AU
max. Earth dist.	4398 Mar 17 05:07	20° \approx 53'38	1.40467 AU				
	4398 Mar 22 11:11	0° \approx		superior conj	4399 Mar 06 12:35	15° \approx 34'50	-2°-7'-26
superior conj	4398 Mar 25 00:13	4° \approx 32'38	-1°-55'-49	minimum elong	4399 Mar 06 14:01	15° \approx 40'55	2°07'25
minimum elong	4398 Mar 25 04:37	4° \approx 52'34	1°55'31		4399 Mar 14 18:15	0° \approx	
evening rise	4398 Apr 04 02:32	23° \approx 18'28		evening rise	4399 Mar 18 01:08	5° \approx 54'14	
	4398 Apr 07 16:17	0° \approx		asc. node	4399 Mar 27 01:42	21° \approx 44'12	
asc. node	4398 Apr 09 04:40	2° \approx 46'36			4399 Apr 01 18:35	0° \approx	
evening max el	4398 Apr 20 05:25	19° \approx 06'28	18°22'07	evening max el	4399 Apr 03 16:13	2° \approx 05'16	18°07'24
retrograde	4398 Apr 27 13:31	22° \approx 45'02		retrograde	4399 Apr 10 07:56	5° \approx 28'59	
evening set	4398 Apr 29 21:30	22° \approx 23'54		evening set	4399 Apr 12 22:16	4° \approx 58'07	
inferior conj	4398 May 07 05:44	17° \approx 47'17	2°19'02	inferior conj	4399 Apr 19 14:25	0° \approx 00'21	3°08'14
minimum elong	4398 May 07 09:21	17° \approx 39'47	2°18'04	minimum elong	4399 Apr 19 17:09	29° \approx 53'46	3°07'46
min. Earth dist.	4398 May 10 16:21	14° \approx 57'31	0.58753 AU		4399 Apr 19 14:33	30° \approx 19'17	
morning rise	4398 May 14 16:54	12° \approx 14'58		min. Earth dist.	4399 Apr 22 19:31	26° \approx 56'51	0.60949 AU
desc. node	4398 May 15 23:35	11° \approx 37'44		morning rise	4399 Apr 26 08:48	24° \approx 06'48	
direct	4398 May 20 20:47	10° \approx 34'07		desc. node	4399 May 02 20:36	21° \approx 52'49	
morning max el	4398 Jun 04 06:14	18° \approx 19'50	27°08'52	direct	4399 May 03 01:54	21° \approx 52'41	
	4398 Jun 14 00:51	0° \approx		morning max el	4399 May 17 07:50	29° \approx 48'51	27°47'11
	4398 Jul 01 16:18	0° \approx			4399 May 17 12:18	0° \approx	
morning set	4398 Jul 04 17:14	6° \approx 14'05		morning set	4399 Jun 08 00:46	0° \approx	
asc. node	4398 Jul 06 03:54	9° \approx 17'25		asc. node	4399 Jun 18 22:23	20° \approx 42'42	
					4399 Jun 23 00:57	29° \approx 22'55	
superior conj	4398 Jul 11 19:37	21° \approx 37'33	0°56'14		4399 Jun 23 07:49	0° \approx	
minimum elong	4398 Jul 11 17:31	21° \approx 25'53	0°55'49	max. Earth dist.	4399 Jun 25 00:09	3° \approx 39'04	1.32124 AU
max. Earth dist.	4398 Jul 11 13:41	21° \approx 04'43	1.31989 AU				
	4398 Jul 15 14:58	0° \approx		superior conj	4399 Jun 26 06:33	6° \approx 25'32	0°33'20
evening rise	4398 Jul 18 16:30	6° \approx 35'19		minimum elong	4399 Jun 26 05:06	6° \approx 17'36	0°33'01
	4398 Jul 30 22:53	0° \approx		evening rise	4399 Jul 03 03:22	21° \approx 23'47	
desc. node	4398 Aug 11 22:52	17° \approx 15'21			4399 Jul 07 07:14	0° \approx	
evening max el	4398 Aug 16 20:44	22° \approx 30'37	26°24'25		4399 Jul 26 05:02	0° \approx	
retrograde	4398 Aug 30 19:55	29° \approx 40'10		evening max el	4399 Jul 29 14:08	3° \approx 32'45	25°07'26
evening set	4398 Sep 06 11:25	27° \approx 50'40		desc. node	4399 Jul 29 19:53	3° \approx 46'23	
min. Earth dist.	4398 Sep 10 10:08	25° \approx 16'10	0.59505 AU	retrograde	4399 Aug 12 12:56	10° \approx 36'23	
inferior conj	4398 Sep 13 16:29	22° \approx 44'18	-4°-50'-3	evening set	4399 Aug 18 03:36	9° \approx 24'27	
minimum elong	4398 Sep 13 21:29	22° \approx 34'33	4°49'17	min. Earth dist.	4399 Aug 23 01:48	6° \approx 42'05	0.57502 AU
morning rise	4398 Sep 21 11:01	18° \approx 09'28		inferior conj	4399 Aug 26 01:39	4° \approx 41'14	-5°-12'-52
direct	4398 Sep 23 19:11	17° \approx 50'06		minimum elong	4399 Aug 26 02:31	4° \approx 39'47	5°12'52
morning max el	4398 Oct 01 13:41	21° \approx 36'35	18°19'44	morning rise	4399 Sep 03 04:55	0° \approx 29'11	
asc. node	4398 Oct 02 03:06	22° \approx 09'59		direct	4399 Sep 05 17:50	0° \approx 10'15	
	4398 Oct 08 01:09	0° \approx		morning max el	4399 Sep 14 15:32	4° \approx 22'22	19°05'15
morning set	4398 Oct 17 10:53	16° \approx 53'14		asc. node	4399 Sep 19 00:09	9° \approx 25'32	
	4398 Oct 24 08:56	0° \approx			4399 Sep 30 19:19	0° \approx	
superior conj	4398 Oct 26 16:54	4° \approx 18'38	1°19'03	morning set	4399 Oct 01 09:38	1° \approx 10'41	
minimum elong	4398 Oct 26 20:41	4° \approx 35'54	1°18'38				
max. Earth dist.	4398 Nov 03 06:04	17° \approx 41'15	1.40746 AU	superior conj	4399 Oct 09 17:31	17° \approx 35'12	1°35'43
evening rise	4398 Nov 07 21:55	25° \approx 30'13		minimum elong	4399 Oct 09 19:55	17° \approx 46'43	1°35'33
desc. node	4398 Nov 07 22:08	25° \approx 31'05			4399 Oct 16 09:01	0° \approx	
	4398 Nov 10 16:23	0° \approx		max. Earth dist.	4399 Oct 16 11:00	0° \approx 08'55	1.38654 AU
	4398 Nov 30 23:59	0° \approx		evening rise	4399 Oct 20 07:37	6° \approx 58'02	
evening max el	4398 Dec 12 05:22	13° \approx 27'47	23°22'22	desc. node	4399 Oct 25 19:10	16° \approx 10'46	
retrograde	4398 Dec 22 17:26	19° \approx 40'37			4399 Nov 03 15:46	0° \approx	
				evening max el	4399 Nov 24 18:28	27° \approx 09'26	24°41'04
					4399 Nov 27 21:46	0° \approx	

retrograde	4399 Dec 06 07:39	3°☾53'04			4400 Oct 27 18:27	0°☿	
evening set	4399 Dec 11 19:37	1°☾36'27		evening max el	4400 Nov 06 06:56	10°☿52'17	25°51'57
	4399 Dec 13 11:35	30°☿☿		retrograde	4400 Nov 18 17:09	17°☿57'13	
asc. node	4399 Dec 15 23:22	26°☿59'31		evening set	4400 Nov 24 19:03	15°☿27'11	
min. Earth dist.	4399 Dec 16 11:01	26°☿21'17	0.67630 AU	min. Earth dist.	4400 Nov 29 02:58	10°☿47'27	0.66912 AU
inferior conj	4399 Dec 17 08:45	25°☿09'08	0°28'18	inferior conj	4400 Nov 30 11:48	9°☿04'05	0°-27'-53
minimum elong	4399 Dec 17 08:03	25°☿11'25	0°28'01	minimum elong	4400 Nov 30 12:32	9°☿01'46	0°27'35
morning rise	4399 Dec 22 20:57	19°☿06'18		asc. node	4400 Dec 01 20:25	7°☿23'04	
direct	4399 Dec 26 12:22	17°☿50'06		morning rise	4400 Dec 06 07:00	3°☿10'11	
morning max el	4400 Jan 03 01:09	22°☿06'05	19°56'58	direct	4400 Dec 09 11:05	2°☿12'32	
	4400 Jan 09 15:10	0°☾		morning max el	4400 Dec 16 08:27	6°☿01'28	19°00'19
greatest brilliancy	4400 Jan 10 05:41	0°☾49'08	-0.6m		4401 Jan 02 11:39	0°☾	
desc. node	4400 Jan 21 18:24	17°☾36'33		morning set	4401 Jan 07 18:56	8°☾15'34	
morning set	4400 Jan 29 12:51	29°☾28'30		desc. node	4401 Jan 07 15:27	8°☾02'00	
	4400 Jan 29 21:01	0°☿			4401 Jan 21 16:34	0°☿	
max. Earth dist.	4400 Feb 09 17:19	17°☿00'03	1.44083 AU	max. Earth dist.	4401 Jan 22 09:38	1°☿07'05	1.45041 AU
superior conj	4400 Feb 14 23:29	25°☿28'12	-2°-3'-27	superior conj	4401 Jan 24 11:13	4°☿22'23	-1°-40'00
minimum elong	4400 Feb 14 19:06	25°☿10'21	2°03'17	minimum elong	4401 Jan 24 02:08	3°☿46'34	1°39'12
	4400 Feb 17 17:51	0°☿		evening rise	4401 Feb 08 11:41	28°☿28'05	
evening rise	4400 Feb 28 05:27	17°☿39'16			4401 Feb 09 10:13	0°☿	
	4400 Mar 06 11:15	0°☿		asc. node	4401 Feb 27 19:43	27°☿50'08	
asc. node	4400 Mar 12 22:42	10°☿08'40		evening max el	4401 Feb 28 16:57	28°☿46'26	18°34'43
evening max el	4400 Mar 17 05:00	15°☿20'51	18°11'50		4401 Mar 02 00:21	0°☿	
retrograde	4400 Mar 23 15:02	18°☿44'43		retrograde	4401 Mar 07 06:32	2°☿23'22	
evening set	4400 Mar 26 11:16	18°☿02'44		evening set	4401 Mar 10 08:47	1°☿29'27	
inferior conj	4400 Apr 01 15:14	12°☿44'44	3°31'24		4401 Mar 12 09:06	30°☿☿	
minimum elong	4400 Apr 01 16:17	12°☿41'51	3°31'19	inferior conj	4401 Mar 16 04:09	25°☿53'00	3°34'41
min. Earth dist.	4400 Apr 04 07:24	9°☿51'24	0.63050 AU	minimum elong	4401 Mar 16 03:37	25°☿54'36	3°34'39
morning rise	4400 Apr 07 19:09	6°☿38'38		min. Earth dist.	4401 Mar 18 04:51	23°☿27'24	0.64853 AU
direct	4400 Apr 14 16:02	4°☿00'42		morning rise	4401 Mar 21 21:05	19°☿40'14	
desc. node	4400 Apr 18 17:38	4°☿49'26		direct	4401 Mar 28 13:52	16°☿51'39	
morning max el	4400 Apr 28 14:46	11°☿59'23	27°47'53	desc. node	4401 Apr 05 14:40	20°☿00'48	
	4400 May 12 21:32	0°☿		morning max el	4401 Apr 11 00:38	24°☿43'48	27°13'42
	4400 May 30 10:39	0°☿			4401 Apr 15 19:19	0°☿	
morning set	4400 Jun 01 21:23	4°☿50'12			4401 May 06 07:53	0°☿	
max. Earth dist.	4400 Jun 07 05:59	15°☿56'29	1.32687 AU	morning set	4401 May 16 11:28	18°☿28'22	
asc. node	4400 Jun 08 21:59	19°☿30'44		max. Earth dist.	4401 May 21 03:17	27°☿46'06	1.33695 AU
					4401 May 22 05:19	0°☿	
superior conj	4400 Jun 09 14:47	21°☿01'22	0°07'20				
minimum elong	4400 Jun 09 14:26	20°☿59'27	0°07'15	superior conj	4401 May 24 18:23	5°☿19'02	0°-20'-57
behind sun begin	4400 Jun 09 09:43	20°☿33'59		minimum elong	4401 May 24 19:28	5°☿24'47	0°20'44
behind sun end	4400 Jun 09 19:09	21°☿24'56		asc. node	4401 May 26 19:02	9°☿36'56	
	4400 Jun 13 18:02	0°☿		evening rise	4401 Jun 01 02:12	20°☿52'32	
evening rise	4400 Jun 16 15:13	6°☿11'35			4401 Jun 05 13:33	0°☿	
	4400 Jun 29 05:45	0°☿		evening max el	4401 Jun 21 18:54	24°☿27'12	21°56'48
evening max el	4400 Jul 10 03:02	14°☿01'10	23°32'53		4401 Jun 30 03:29	0°☿	
desc. node	4400 Jul 15 16:54	18°☿24'31		desc. node	4401 Jul 02 13:55	0°☿35'31	
retrograde	4400 Jul 23 17:29	20°☿50'20		retrograde	4401 Jul 04 10:55	0°☿43'43	
evening set	4400 Jul 27 21:00	20°☿12'40		evening set	4401 Jul 07 05:08	0°☿26'41	
min. Earth dist.	4400 Aug 03 12:50	17°☿05'44	0.55873 AU		4401 Jul 08 22:18	30°☿☿	
inferior conj	4400 Aug 05 14:40	15°☿51'37	-4°-56'-7	min. Earth dist.	4401 Jul 15 23:12	26°☿41'17	0.54941 AU
minimum elong	4400 Aug 05 09:19	15°☿59'37	4°55'27	inferior conj	4401 Jul 16 12:07	26°☿23'11	-3°-48'-44
morning rise	4400 Aug 14 00:47	11°☿57'27		minimum elong	4401 Jul 16 03:29	26°☿35'18	3°46'24
direct	4400 Aug 16 21:12	11°☿37'21		morning rise	4401 Jul 25 03:27	22°☿32'35	
morning max el	4400 Aug 27 06:18	16°☿26'35	20°12'37	direct	4401 Jul 28 09:23	22°☿09'20	
asc. node	4400 Sep 04 21:12	27°☿32'50		morning max el	4401 Aug 09 09:20	27°☿46'08	21°39'59
	4400 Sep 06 08:31	0°☿			4401 Aug 11 14:28	0°☿	
morning set	4400 Sep 14 14:46	15°☿46'11		asc. node	4401 Aug 22 18:17	16°☿19'54	
	4400 Sep 21 13:31	0°☿		morning set	4401 Aug 29 23:57	0°☿33'17	
					4401 Aug 29 17:33	0°☿	
superior conj	4400 Sep 22 07:34	1°☿31'11	1°43'14				
minimum elong	4400 Sep 22 08:19	1°☿34'56	1°43'13	superior conj	4401 Sep 06 07:04	15°☿55'04	1°43'04
max. Earth dist.	4400 Sep 27 17:11	12°☿07'56	1.36637 AU	minimum elong	4401 Sep 06 06:23	15°☿51'29	1°43'04
evening rise	4400 Oct 01 14:41	19°☿24'22		max. Earth dist.	4401 Sep 10 05:28	24°☿00'20	1.34900 AU
	4400 Oct 07 15:20	0°☿			4401 Sep 13 06:01	0°☿	
desc. node	4400 Oct 11 16:12	6°☿39'49		evening rise	4401 Sep 14 15:04	2°☿39'23	

desc. node	4401 Sep 28 13:13	26°♄52'40		desc. node	4402 Sep 05 07:25	0°♄	
	4401 Sep 30 13:38	0°♄			4402 Sep 15 10:16	16°♄42'12	
evening max el	4401 Oct 19 19:27	24°♄30'18	26°47'33		4402 Sep 25 02:30	0°♄	
	4401 Oct 26 21:35	0°♄		evening max el	4402 Oct 02 07:35	7°♄54'39	27°20'39
retrograde	4401 Nov 01 21:25	1°♄46'30		retrograde	4402 Oct 15 19:56	15°♄13'09	
	4401 Nov 07 07:47	30°♄		evening set	4402 Oct 22 20:10	12°♄33'40	
evening set	4401 Nov 08 12:04	29°♄07'49		min. Earth dist.	4402 Oct 26 15:03	9°♄04'56	0.64421 AU
min. Earth dist.	4401 Nov 12 13:01	25°♄04'09	0.65841 AU	inferior conj	4402 Oct 28 23:39	6°♄33'45	-2°-30'-11
inferior conj	4401 Nov 14 09:32	22°♄53'47	-1°-28'-3	minimum elong	4402 Oct 29 03:56	6°♄22'18	2°28'34
minimum elong	4401 Nov 14 12:00	22°♄46'34	1°27'02	morning rise	4402 Nov 04 13:56	1°♄06'05	
asc. node	4401 Nov 18 17:28	18°♄24'27		asc. node	4402 Nov 05 14:32	0°♄45'17	
morning rise	4401 Nov 20 13:33	17°♄11'32		direct	4402 Nov 07 01:54	0°♄34'03	
direct	4401 Nov 23 08:21	16°♄28'41		morning max el	4402 Nov 13 13:51	3°♄59'56	17°56'06
morning max el	4401 Nov 29 21:34	20°♄01'27	18°19'45	morning set	4402 Nov 30 17:59	0°♄01'05	
	4401 Dec 07 13:38	0°♄			4402 Nov 30 17:44	0°♄	
morning set	4401 Dec 19 04:01	18°♄25'41		desc. node	4402 Dec 12 09:30	19°♄21'41	
desc. node	4401 Dec 25 12:29	28°♄38'14					
	4401 Dec 26 08:59	0°♄		superior conj	4402 Dec 14 03:53	22°♄12'58	0°-12'-12
superior conj	4402 Jan 03 13:46	12°♄58'13	0°-59'-32	minimum elong	4402 Dec 14 02:26	22°♄07'08	0°11'59
minimum elong	4402 Jan 03 06:26	12°♄29'26	0°58'38	behind sun begin	4402 Dec 13 19:28	21°♄39'04	
max. Earth dist.	4402 Jan 05 04:33	15°♄30'26	1.45273 AU	behind sun end	4402 Dec 14 09:24	22°♄35'11	
	4402 Jan 14 10:44	0°♄		max. Earth dist.	4402 Dec 18 23:17	29°♄53'34	1.44770 AU
evening rise	4402 Jan 19 18:51	8°♄21'49			4402 Dec 19 00:55	0°♄	
	4402 Feb 02 17:43	0°♄		evening rise	4402 Dec 30 08:45	17°♄38'40	
greatest brilliancy	4402 Feb 02 19:18	0°♄05'56	-0.7m		4403 Jan 07 11:03	0°♄	
evening max el	4402 Feb 12 01:45	12°♄16'35	19°15'01	greatest brilliancy	4403 Jan 19 18:35	17°♄57'06	-0.6m
asc. node	4402 Feb 14 16:46	14°♄35'39		evening max el	4403 Jan 26 05:52	25°♄49'21	20°10'53
retrograde	4402 Feb 19 02:42	16°♄17'27			4403 Jan 31 23:17	0°♄	
evening set	4402 Feb 22 11:51	15°♄10'40		asc. node	4403 Feb 01 13:48	0°♄11'10	
inferior conj	4402 Feb 28 01:38	9°♄18'02	3°22'54	retrograde	4403 Feb 03 00:45	0°♄22'37	
minimum elong	4402 Feb 27 23:56	9°♄23'28	3°22'40		4403 Feb 05 00:22	30°♄	
min. Earth dist.	4402 Mar 01 11:06	7°♄30'15	0.66268 AU	evening set	4403 Feb 06 18:13	29°♄01'50	
morning rise	4402 Mar 05 11:08	3°♄02'20		inferior conj	4403 Feb 12 04:49	22°♄55'30	2°59'28
direct	4402 Mar 11 18:15	0°♄16'06		minimum elong	4403 Feb 12 02:30	23°♄03'20	2°58'58
desc. node	4402 Mar 23 11:43	6°♄52'01		min. Earth dist.	4403 Feb 13 00:17	21°♄49'44	0.67266 AU
morning max el	4402 Mar 24 10:33	7°♄48'29	26°11'31	morning rise	4403 Feb 17 10:12	16°♄39'23	
	4402 Apr 10 17:39	0°♄		direct	4403 Feb 23 04:18	14°♄06'04	
	4402 Apr 28 18:24	0°♄		morning max el	4403 Mar 06 19:16	21°♄03'12	24°50'57
morning set	4402 Apr 29 12:47	1°♄25'07		desc. node	4403 Mar 10 08:44	24°♄55'20	
max. Earth dist.	4402 May 03 13:05	9°♄03'30	1.35166 AU		4403 Mar 14 12:51	0°♄	
				morning set	4403 Apr 03 23:00	0°♄	
superior conj	4402 May 08 14:51	19°♄10'44	0°-50'-20	max. Earth dist.	4403 Apr 11 20:21	13°♄26'55	
minimum elong	4402 May 08 17:34	19°♄24'37	0°49'49		4403 Apr 15 12:19	20°♄04'14	1.37062 AU
asc. node	4402 May 13 16:05	29°♄36'45			4403 Apr 20 18:33	0°♄	
	4402 May 13 20:33	0°♄		superior conj	4403 Apr 22 01:13	2°♄29'03	-1°-18'-58
evening rise	4402 May 16 10:13	5°♄19'18		minimum elong	4403 Apr 22 05:25	2°♄49'34	1°18'21
	4402 May 30 06:58	0°♄		evening rise	4403 Apr 30 13:01	19°♄25'46	
evening max el	4402 Jun 03 20:57	5°♄20'56	20°32'15	asc. node	4403 Apr 30 13:07	19°♄26'15	
retrograde	4402 Jun 14 23:52	10°♄47'12			4403 May 05 23:22	0°♄	
evening set	4402 Jun 17 00:32	10°♄37'06		evening max el	4403 May 17 11:27	16°♄56'06	19°25'47
desc. node	4402 Jun 19 10:58	10°♄00'12		retrograde	4403 May 26 20:35	21°♄30'10	
inferior conj	4402 Jun 26 05:49	6°♄39'50	-2°00'-1	evening set	4403 May 28 19:43	21°♄19'02	
minimum elong	4402 Jun 26 00:13	6°♄47'57	1°58'02	inferior conj	4403 Jun 06 10:11	17°♄12'45	0°-1'-37
min. Earth dist.	4402 Jun 27 11:07	5°♄57'30	0.54933 AU	minimum elong	4403 Jun 06 10:07	17°♄12'52	0°01'37
morning rise	4402 Jul 04 22:27	2°♄32'07		transit middle	4403 Jun 06 10:07	17°♄12'52	0°01'37
direct	4402 Jul 08 19:02	2°♄00'02		transit begin	4403 Jun 06 06:15	17°♄19'07	
morning max el	4402 Jul 22 02:59	8°♄26'58	23°20'57	transit end	4403 Jun 06 13:58	17°♄06'36	
	4402 Aug 06 15:46	0°♄		desc. node	4403 Jun 06 07:59	17°♄16'19	
asc. node	4402 Aug 09 15:20	5°♄36'17		min. Earth dist.	4403 Jun 09 01:09	15°♄31'14	0.55880 AU
morning set	4402 Aug 14 11:15	15°♄26'05		morning rise	4403 Jun 14 20:39	12°♄32'51	
	4402 Aug 21 05:59	0°♄		direct	4403 Jun 19 14:35	11°♄41'45	
				morning max el	4403 Jul 03 16:42	18°♄49'10	25°03'12
superior conj	4402 Aug 21 12:52	0°♄36'58	1°36'30		4403 Jul 13 01:23	0°♄	
minimum elong	4402 Aug 21 11:10	0°♄27'51	1°36'22	asc. node	4403 Jul 27 12:22	25°♄14'08	
max. Earth dist.	4402 Aug 24 02:34	6°♄05'44	1.33548 AU	morning set	4403 Jul 29 23:00	0°♄19'23	
evening rise	4402 Aug 29 04:29	16°♄31'44			4403 Jul 29 19:20	0°♄	

superior conj	4403 Aug 05 22:32	15°♎28'57	1°24'29	morning set	4404 Jul 13 09:36	15°♏08'16	
minimum elong	4403 Aug 05 20:18	15°♎16'43	1°24'11	asc. node	4404 Jul 13 09:24	15°♏07'13	
max. Earth dist.	4403 Aug 07 07:46	18°♎30'18	1.32619 AU				
	4403 Aug 12 17:29	0°♎		superior conj	4404 Jul 20 10:06	0°♎24'34	1°07'46
evening rise	4403 Aug 13 03:21	0°♎50'49		minimum elong	4404 Jul 20 07:48	0°♎11'54	1°07'22
	4403 Aug 29 06:55	0°♎			4404 Jul 20 05:39	0°♎	
desc. node	4403 Sep 02 07:17	5°♏58'15		max. Earth dist.	4404 Jul 20 18:05	1°♎08'38	1.32104 AU
evening max el	4403 Sep 14 17:27	20°♏52'18	27°24'49	evening rise	4404 Jul 27 08:44	15°♎27'43	
retrograde	4403 Sep 28 11:41	28°♏07'27			4404 Aug 03 16:36	0°♎	
evening set	4403 Oct 05 16:04	25°♏37'49		desc. node	4404 Aug 19 04:18	24°♎27'07	
min. Earth dist.	4403 Oct 09 07:12	22°♏39'20	0.62686 AU		4404 Aug 23 19:50	0°♏	
inferior conj	4403 Oct 12 03:16	19°♏56'41	-3°-31'-7	evening max el	4404 Aug 26 22:18	3°♏10'09	26°55'56
minimum elong	4403 Oct 12 09:00	19°♏42'57	3°29'19	retrograde	4404 Sep 09 19:46	10°♏20'57	
morning rise	4403 Oct 19 04:43	14°♏46'56		evening set	4404 Sep 16 19:35	8°♏13'19	
direct	4403 Oct 21 12:42	14°♏22'04		min. Earth dist.	4404 Sep 20 12:29	5°♏34'52	0.60708 AU
asc. node	4403 Oct 23 11:35	14°♏39'59		inferior conj	4404 Sep 23 17:05	2°♏54'10	-4°-25'-16
morning max el	4403 Oct 28 06:15	17°♏49'04	17°50'11	minimum elong	4404 Sep 23 23:02	2°♏41'39	4°23'59
	4403 Nov 06 00:01	0°♎			4404 Sep 27 10:26	30°♎	
morning set	4403 Nov 13 07:04	12°♎42'54		morning rise	4404 Oct 01 05:42	28°♎05'52	
	4403 Nov 23 04:44	0°♎		direct	4404 Oct 03 12:57	27°♎45'05	
				asc. node	4404 Oct 09 08:37	0°♏04'08	
superior conj	4403 Nov 24 18:37	2°♎40'17	0°31'10		4404 Oct 09 06:30	0°♏	
minimum elong	4403 Nov 24 21:30	2°♎52'27	0°30'46	morning max el	4404 Oct 10 19:39	1°♏21'27	18°03'09
desc. node	4403 Nov 29 06:31	10°♎08'25		morning set	4404 Oct 26 12:59	26°♏12'52	
max. Earth dist.	4403 Dec 01 15:26	13°♎59'55	1.43599 AU		4404 Oct 28 13:51	0°♎	
evening rise	4403 Dec 09 19:04	26°♎53'19					
	4403 Dec 11 19:28	0°♏		superior conj	4404 Nov 05 11:36	14°♎24'34	1°04'43
	4404 Jan 01 09:26	0°♏		minimum elong	4404 Nov 05 15:42	14°♎42'43	1°04'12
greatest brilliancy	4404 Jan 04 03:52	3°♏35'27	-0.4m	max. Earth dist.	4404 Nov 13 03:05	27°♎34'36	1.41896 AU
evening max el	4404 Jan 09 04:28	9°♏22'55	21°19'23		4404 Nov 14 14:06	0°♎	
retrograde	4404 Jan 17 22:28	14°♏34'14		desc. node	4404 Nov 15 03:34	0°♎55'26	
asc. node	4404 Jan 19 10:50	14°♏21'47		evening rise	4404 Nov 18 17:39	6°♎44'37	
evening set	4404 Jan 22 01:56	12°♏58'13			4404 Dec 04 00:58	0°♏	
inferior conj	4404 Jan 27 11:19	6°♏41'07	2°26'37	greatest brilliancy	4404 Dec 17 00:17	17°♏28'24	-0.3m
minimum elong	4404 Jan 27 08:52	6°♏49'35	2°25'54	evening max el	4404 Dec 21 21:59	22°♏58'15	22°36'18
min. Earth dist.	4404 Jan 27 18:09	6°♏17'28	0.67853 AU	retrograde	4404 Dec 31 18:17	28°♏49'16	
morning rise	4404 Feb 01 15:27	0°♏26'26		evening set	4405 Jan 05 09:24	26°♏57'10	
	4404 Feb 02 04:08	30°♎		asc. node	4405 Jan 05 07:52	27°♏00'19	
direct	4404 Feb 06 18:54	28°♏12'56		inferior conj	4405 Jan 10 19:10	20°♏32'41	1°45'52
	4404 Feb 11 22:55	0°♏		minimum elong	4405 Jan 10 17:04	20°♏40'00	1°45'07
morning max el	4404 Feb 17 04:02	4°♏23'09	23°22'17	min. Earth dist.	4405 Jan 10 14:28	20°♏48'59	0.68051 AU
greatest brilliancy	4404 Feb 22 16:03	10°♏35'14	-0.2m	morning rise	4405 Jan 16 00:39	14°♏21'08	
desc. node	4404 Feb 25 05:45	13°♏49'35		direct	4405 Jan 20 13:15	12°♏30'28	
	4404 Mar 07 19:31	0°♎		morning max el	4405 Jan 29 16:23	17°♏51'10	21°55'00
morning set	4404 Mar 23 04:05	24°♎17'03		greatest brilliancy	4405 Feb 03 08:50	23°♏06'48	-0.4m
	4404 Mar 26 12:23	0°♎			4405 Feb 08 16:29	0°♏	
max. Earth dist.	4404 Mar 27 07:26	1°♎22'45	1.39216 AU	desc. node	4405 Feb 11 02:46	3°♏20'38	
					4405 Feb 28 22:40	0°♎	
superior conj	4404 Apr 03 21:33	15°♎03'40	-1°-44'-15	morning set	4405 Mar 03 07:16	3°♎45'17	
minimum elong	4404 Apr 04 02:23	15°♎26'13	1°43'46	max. Earth dist.	4405 Mar 09 06:06	13°♎29'28	1.41366 AU
	4404 Apr 11 17:39	0°♎					
evening rise	4404 Apr 13 07:44	3°♎04'10		superior conj	4405 Mar 16 23:01	26°♎42'39	-2°-2'-18
asc. node	4404 Apr 16 10:09	9°♎00'32		minimum elong	4405 Mar 17 02:33	26°♎58'15	2°02'08
evening max el	4404 Apr 29 12:27	29°♎10'29	18°39'32		4405 Mar 18 19:30	0°♎	
	4404 Apr 30 09:55	0°♎		evening rise	4405 Mar 27 14:53	16°♎05'42	
retrograde	4404 May 07 11:02	3°♎04'39		asc. node	4405 Apr 03 07:10	28°♎13'37	
evening set	4404 May 09 15:27	2°♎47'59			4405 Apr 04 07:52	0°♎	
	4404 May 15 05:23	30°♎		evening max el	4405 Apr 12 20:37	11°♎55'26	18°13'28
inferior conj	4404 May 17 10:23	28°♎23'03	1°36'40	retrograde	4405 Apr 19 20:24	15°♎26'05	
minimum elong	4404 May 17 13:34	28°♎17'01	1°35'39	evening set	4405 Apr 22 07:07	15°♎01'00	
min. Earth dist.	4404 May 20 18:26	25°♎52'53	0.57571 AU	inferior conj	4405 Apr 29 08:00	10°♎15'00	2°43'31
desc. node	4404 May 23 04:58	24°♎15'30		minimum elong	4405 Apr 29 11:25	10°♎07'24	2°42'43
morning rise	4404 May 25 07:14	23°♎08'12		min. Earth dist.	4405 May 02 17:22	7°♎16'31	0.59674 AU
direct	4404 May 30 23:57	21°♎47'34		morning rise	4405 May 06 11:52	4°♎32'21	
morning max el	4404 Jun 14 08:45	29°♎21'48	26°30'56	desc. node	4405 May 10 01:59	2°♎59'36	
	4404 Jun 15 00:14	0°♎		direct	4405 May 12 22:16	2°♎37'05	
	4404 Jul 05 18:40	0°♏		morning max el	4405 May 27 06:56	10°♎27'57	27°29'52

	4405 Jun 11 10:00	0°♂			4406 May 16 06:30	0°♂		
morning set	4405 Jun 27 17:18	29°♂46'19			4406 Jun 04 13:16	0°♂		
	4405 Jun 27 19:56	0°♂		morning set	4406 Jun 11 20:10	14°♂07'19		
asc. node	4405 Jun 30 06:26	5°♂09'36		asc. node	4406 Jun 17 03:29	25°♂16'50		
max. Earth dist.	4405 Jul 04 05:43	13°♂48'38	1.31998 AU	max. Earth dist.	4406 Jun 17 14:40	26°♂17'19	1.32306 AU	
superior conj	4405 Jul 04 21:44	15°♂16'56	0°46'57	superior conj	4406 Jun 19 07:45	0°♂00'39	0°22'39	
minimum elong	4405 Jul 04 19:51	15°♂06'32	0°46'34	minimum elong	4406 Jun 19 06:43	29°♂55'01	0°22'25	
evening rise	4405 Jul 11 18:10	0°♂13'50			4406 Jun 19 07:38	0°♂		
	4405 Jul 11 15:34	0°♂		evening rise	4406 Jun 26 05:40	15°♂02'42		
	4405 Jul 28 00:01	0°♂			4406 Jul 03 16:23	0°♂		
desc. node	4405 Aug 06 01:18	11°♂48'33		evening max el	4406 Jul 21 10:17	25°♂22'47	24°28'23	
evening max el	4405 Aug 08 19:42	14°♂38'31	25°54'36	desc. node	4406 Jul 23 22:19	27°♂35'52		
retrograde	4405 Aug 22 18:53	21°♂46'01			4406 Jul 27 08:36	0°♂		
evening set	4405 Aug 29 01:46	20°♂11'38		retrograde	4406 Aug 04 07:12	2°♂22'48		
min. Earth dist.	4405 Sep 02 08:02	17°♂36'27	0.58637 AU	evening set	4406 Aug 09 07:36	1°♂26'29		
inferior conj	4405 Sep 05 13:30	15°♂15'21	-5°-3'-27		4406 Aug 12 11:18	30°♂		
minimum elong	4405 Sep 05 17:09	15°♂08'40	5°03'07	min. Earth dist.	4406 Aug 14 21:20	28°♂35'18	0.56745 AU	
morning rise	4405 Sep 13 12:04	10°♂50'40		inferior conj	4406 Aug 17 13:57	26°♂52'27	-5°-11'-32	
direct	4405 Sep 15 21:56	10°♂31'41		minimum elong	4406 Aug 17 12:14	26°♂55'13	5°11'29	
morning max el	4405 Sep 24 02:42	14°♂27'11	18°36'28	morning rise	4406 Aug 25 20:24	22°♂49'18		
asc. node	4405 Sep 26 05:38	16°♂43'18		direct	4406 Aug 28 12:02	22°♂30'14		
	4405 Oct 04 20:27	0°♂		morning max el	4406 Sep 07 00:11	26°♂56'44	19°31'15	
morning set	4405 Oct 10 06:40	10°♂15'50			4406 Sep 09 20:35	0°♂		
				asc. node	4406 Sep 13 02:41	4°♂22'32		
superior conj	4405 Oct 19 02:17	27°♂12'15	1°27'19	morning set	4406 Sep 24 08:25	24°♂41'35		
minimum elong	4405 Oct 19 05:34	27°♂27'32	1°27'00		4406 Sep 26 23:38	0°♂		
	4405 Oct 20 14:22	0°♂						
max. Earth dist.	4405 Oct 26 09:33	10°♂25'43	1.39865 AU	superior conj	4406 Oct 02 09:10	10°♂47'19	1°39'55	
evening rise	4405 Oct 30 13:51	17°♂35'14		minimum elong	4406 Oct 02 10:52	10°♂55'36	1°39'50	
desc. node	4405 Nov 02 00:36	21°♂38'58		max. Earth dist.	4406 Oct 08 13:49	22°♂36'36	1.37772 AU	
	4405 Nov 07 05:45	0°♂		evening rise	4406 Oct 12 09:02	29°♂29'00		
	4405 Nov 28 13:22	0°♂			4406 Oct 12 16:03	0°♂		
evening max el	4405 Dec 04 11:54	6°♂36'51	23°56'15	desc. node	4406 Oct 19 21:39	12°♂14'45		
retrograde	4405 Dec 15 10:59	13°♂04'11			4406 Oct 31 13:32	0°♂		
evening set	4405 Dec 20 15:04	10°♂56'05		evening max el	4406 Nov 17 00:24	20°♂19'04	25°12'37	
asc. node	4405 Dec 23 04:52	8°♂16'24		retrograde	4406 Nov 28 23:29	27°♂13'54		
min. Earth dist.	4405 Dec 25 11:00	5°♂21'16	0.67881 AU	evening set	4406 Dec 04 17:18	24°♂51'10		
inferior conj	4405 Dec 26 02:36	4°♂28'18	0°58'22	min. Earth dist.	4406 Dec 09 05:24	19°♂50'47	0.67362 AU	
minimum elong	4405 Dec 26 01:16	4°♂32'48	0°57'49	inferior conj	4406 Dec 10 07:49	18°♂24'46	0°05'02	
	4405 Dec 29 16:27	30°♂		minimum elong	4406 Dec 10 07:41	18°♂25'11	0°04'58	
morning rise	4405 Dec 31 11:45	28°♂21'40		transit middle	4406 Dec 10 07:41	18°♂25'11	0°04'58	
direct	4406 Jan 04 10:22	26°♂53'39		transit begin	4406 Dec 10 05:02	18°♂33'49		
	4406 Jan 10 20:47	0°♂		transit end	4406 Dec 10 10:20	18°♂16'34		
morning max el	4406 Jan 12 11:31	1°♂30'41	20°36'22	asc. node	4406 Dec 10 01:55	18°♂44'00		
greatest brilliancy	4406 Jan 18 10:50	8°♂29'46	-0.5m	morning rise	4406 Dec 15 22:45	12°♂25'18		
desc. node	4406 Jan 28 23:48	23°♂18'36		direct	4406 Dec 19 09:00	11°♂17'34		
	4406 Feb 02 11:26	0°♂		morning max el	4406 Dec 26 14:30	15°♂21'05	19°30'53	
morning set	4406 Feb 10 09:45	12°♂07'59		greatest brilliancy	4407 Jan 04 01:42	25°♂57'59	-0.6m	
max. Earth dist.	4406 Feb 19 11:42	26°♂30'23	1.43227 AU		4407 Jan 06 20:40	0°♂		
	4406 Feb 21 15:19	0°♂		desc. node	4407 Jan 15 20:51	13°♂35'43		
				morning set	4407 Jan 20 06:58	20°♂24'14		
superior conj	4406 Feb 26 00:47	7°♂15'43	-2°-7'-58		4407 Jan 26 11:19	0°♂		
minimum elong	4406 Feb 25 23:59	7°♂12'21	2°07'58	max. Earth dist.	4407 Feb 02 00:12	10°♂16'04	1.44571 AU	
evening rise	4406 Mar 10 06:19	28°♂21'24						
	4406 Mar 11 04:40	0°♂		superior conj	4407 Feb 06 00:56	16°♂41'06	-1°-55'-56	
asc. node	4406 Mar 21 04:12	16°♂58'36		minimum elong	4407 Feb 05 18:01	16°♂13'26	1°55'31	
evening max el	4406 Mar 27 08:36	25°♂02'19	18°07'00		4407 Feb 14 05:35	0°♂		
retrograde	4406 Apr 02 20:54	28°♂24'49		evening rise	4407 Feb 20 01:34	9°♂42'33		
evening set	4406 Apr 05 13:37	27°♂49'30			4407 Mar 04 10:23	0°♂		
inferior conj	4406 Apr 12 00:06	22°♂43'00	3°20'52	asc. node	4407 Mar 08 01:14	5°♂06'12		
minimum elong	4406 Apr 12 02:10	22°♂37'47	3°20'36	evening max el	4407 Mar 10 21:20	8°♂22'45	18°19'25	
min. Earth dist.	4406 Apr 15 00:17	19°♂40'59	0.61857 AU	retrograde	4407 Mar 17 07:56	11°♂50'43		
morning rise	4406 Apr 18 11:55	16°♂42'52		evening set	4407 Mar 20 06:36	11°♂03'53		
direct	4406 Apr 25 07:33	14°♂17'06		inferior conj	4407 Mar 26 06:31	5°♂38'06	3°34'51	
desc. node	4406 Apr 26 23:00	14°♂25'01		minimum elong	4407 Mar 26 06:52	5°♂37'08	3°34'50	
morning max el	4406 May 09 11:20	22°♂16'18	27°52'09	min. Earth dist.	4407 Mar 28 16:22	2°♂54'30	0.63860 AU	

	4407 Mar 31 14:19	30° RH		inferior conj	4408 Mar 08 23:27	18° $\text{H}53'53$	3°31'13
morning rise	4407 Apr 01 05:19	29° $\text{H}28'34$		minimum elong	4408 Mar 08 22:22	18° $\text{H}57'15$	3°31'08
direct	4407 Apr 08 01:24	26° $\text{H}44'00$		min. Earth dist.	4408 Mar 10 17:36	16° $\text{H}43'32$	0.65517 AU
desc. node	4407 Apr 13 20:02	28° $\text{H}22'35$		morning rise	4408 Mar 14 12:50	12° $\text{H}39'45$	
	4407 Apr 16 09:58	0° Y		direct	4408 Mar 21 02:12	9° $\text{H}50'34$	
morning max el	4407 Apr 21 19:43	4° $\text{Y}41'55$	27°37'13	desc. node	4408 Mar 30 17:06	14° $\text{H}20'09$	
	4407 May 10 21:57	0° B		morning max el	4408 Apr 03 05:36	17° $\text{H}35'27$	26°50'01
morning set	4407 May 26 15:44	28° $\text{B}03'13$			4408 Apr 13 14:50	0° Y	
	4407 May 27 15:10	0° H			4408 May 02 19:53	0° B	
max. Earth dist.	4407 May 31 17:00	8° $\text{H}22'10$	1.33051 AU	morning set	4408 May 09 00:51	11° $\text{B}24'37$	
				max. Earth dist.	4408 May 13 09:23	19° $\text{B}56'20$	1.34265 AU
superior conj	4407 Jun 03 14:16	14° $\text{H}29'24$	0°-4'-28				
minimum elong	4407 Jun 03 14:30	14° $\text{H}30'34$	0°04'25	superior conj	4408 May 17 15:09	28° $\text{B}36'45$	0°-33'-22
behind sun begin	4407 Jun 03 09:19	14° $\text{H}02'51$		minimum elong	4408 May 17 16:55	28° $\text{B}45'59$	0°33'02
behind sun end	4407 Jun 03 19:40	14° $\text{H}58'19$			4408 May 18 07:07	0° H	
asc. node	4407 Jun 04 00:32	15° $\text{H}24'25$		asc. node	4408 May 20 21:35	5° $\text{H}28'16$	
evening rise	4407 Jun 10 17:21	29° $\text{H}47'53$		evening rise	4408 May 25 03:18	14° $\text{H}23'19$	
	4407 Jun 10 19:38	0° B			4408 Jun 02 02:35	0° B	
	4407 Jun 27 21:26	0° Q		evening max el	4408 Jun 13 19:12	16° $\text{B}21'29$	21°18'57
evening max el	4407 Jul 02 23:32	5° $\text{Q}46'32$	22°51'28	retrograde	4408 Jun 25 20:26	22° $\text{B}17'23$	
desc. node	4407 Jul 10 19:18	11° $\text{Q}15'35$		desc. node	4408 Jun 26 16:19	22° $\text{B}15'46$	
retrograde	4407 Jul 16 06:49	12° $\text{Q}24'15$		evening set	4408 Jun 28 05:05	22° $\text{B}04'33$	
evening set	4407 Jul 19 18:38	11° $\text{Q}57'35$		inferior conj	4408 Jul 07 13:24	18° $\text{B}05'58$	-3°-6'-6
min. Earth dist.	4407 Jul 27 08:04	8° $\text{Q}35'53$	0.55370 AU	minimum elong	4408 Jul 07 05:20	18° $\text{B}17'15$	3°03'35
inferior conj	4407 Jul 28 19:25	7° $\text{Q}45'03$	-4°-33'-54	min. Earth dist.	4408 Jul 07 18:43	17° $\text{B}58'31$	0.54815 AU
minimum elong	4407 Jul 28 11:58	7° $\text{Q}55'47$	4°32'28	morning rise	4408 Jul 16 05:58	14° $\text{B}10'46$	
morning rise	4407 Aug 06 07:55	3° $\text{Q}54'15$		direct	4408 Jul 19 17:38	13° $\text{B}44'31$	
direct	4407 Aug 09 07:58	3° $\text{Q}33'10$		morning max el	4408 Aug 01 08:12	19° $\text{B}42'51$	22°21'56
morning max el	4407 Aug 20 09:55	8° $\text{Q}42'24$	20°47'31		4408 Aug 09 20:14	0° Q	
asc. node	4407 Aug 30 23:46	22° $\text{Q}48'32$		asc. node	4408 Aug 16 20:50	11° $\text{Q}49'16$	
	4407 Sep 03 22:47	0° M		morning set	4408 Aug 23 01:53	24° $\text{Q}13'35$	
morning set	4407 Sep 08 15:34	9° $\text{M}23'11$			4408 Aug 25 19:20	0° M	
superior conj	4407 Sep 16 03:41	24° $\text{M}56'54$	1°44'01	superior conj	4408 Aug 30 06:10	9° $\text{M}29'23$	1°41'01
minimum elong	4407 Sep 16 03:47	24° $\text{M}57'23$	1°44'01	minimum elong	4408 Aug 30 05:00	9° $\text{M}23'11$	1°40'57
	4407 Sep 18 15:29	0° A		max. Earth dist.	4408 Sep 02 14:17	16° $\text{M}28'13$	1.34275 AU
max. Earth dist.	4407 Sep 20 22:00	4° $\text{A}30'06$	1.35858 AU	evening rise	4408 Sep 07 06:29	25° $\text{M}50'52$	
evening rise	4407 Sep 25 00:05	12° $\text{A}18'26$			4408 Sep 09 10:24	0° A	
	4407 Oct 05 03:28	0° M		desc. node	4408 Sep 22 15:40	22° $\text{A}42'21$	
desc. node	4407 Oct 06 18:40	2° $\text{M}38'09$			4408 Sep 27 13:21	0° M	
	4407 Oct 26 16:21	0° J		evening max el	4408 Oct 12 01:47	17° $\text{M}36'41$	27°04'48
evening max el	4407 Oct 30 13:05	4° $\text{J}02'10$	26°17'57	retrograde	4408 Oct 25 08:31	24° $\text{M}53'49$	
retrograde	4407 Nov 12 06:53	11° $\text{J}13'00$		evening set	4408 Nov 01 03:49	22° $\text{M}13'54$	
evening set	4407 Nov 18 14:17	8° $\text{J}38'54$		min. Earth dist.	4408 Nov 05 02:09	18° $\text{M}25'20$	0.65287 AU
min. Earth dist.	4407 Nov 22 19:17	4° $\text{J}14'11$	0.66499 AU	inferior conj	4408 Nov 07 03:43	16° $\text{M}05'32$	-1°-54'-17
inferior conj	4407 Nov 24 08:55	2° $\text{J}18'58$	0°-52'-59	minimum elong	4408 Nov 07 06:57	15° $\text{M}56'22$	1°52'58
minimum elong	4407 Nov 24 10:21	2° $\text{J}14'34$	0°52'23	asc. node	4408 Nov 12 20:01	10° $\text{M}49'52$	
	4407 Nov 26 07:40	30° RM		morning rise	4408 Nov 13 11:55	10° $\text{M}28'55$	
asc. node	4407 Nov 26 22:57	29° $\text{M}18'01$		direct	4408 Nov 16 03:37	9° $\text{M}50'59$	
morning rise	4407 Nov 30 07:37	26° $\text{M}29'20$		morning max el	4408 Nov 22 15:17	13° $\text{M}19'27$	18°07'32
direct	4407 Dec 03 07:29	25° $\text{M}38'25$			4408 Dec 04 10:57	0° J	
morning max el	4407 Dec 10 00:31	29° $\text{M}19'23$	18°40'56	morning set	4408 Dec 10 21:21	10° $\text{J}33'05$	
	4407 Dec 10 16:16	0° J		desc. node	4408 Dec 19 14:57	24° $\text{J}46'39$	
morning set	4407 Dec 30 23:30	29° $\text{J}44'33$			4408 Dec 22 21:13	0° B	
	4407 Dec 31 03:24	0° B					
desc. node	4408 Jan 02 17:55	4° $\text{B}06'45$		superior conj	4408 Dec 25 11:27	4° $\text{B}07'09$	0°-39'-34
max. Earth dist.	4408 Jan 15 17:59	24° $\text{B}32'36$	1.45239 AU	minimum elong	4408 Dec 25 06:31	3° $\text{B}47'34$	0°38'54
				max. Earth dist.	4408 Dec 28 13:40	8° $\text{B}59'55$	1.45158 AU
superior conj	4408 Jan 16 06:27	25° $\text{B}21'32$	-1°-24'-27	evening rise	4409 Jan 10 20:25	29° $\text{B}42'16$	
minimum elong	4408 Jan 15 21:15	24° $\text{B}45'24$	1°23'29		4409 Jan 11 01:00	0° \approx	
	4408 Jan 19 05:22	0° \approx		greatest brilliancy	4409 Jan 27 19:45	25° \approx 29'03	-0.6m
evening rise	4408 Jan 31 21:47	20° \approx 07'00			4409 Jan 31 02:28	0° H	
	4408 Feb 07 01:49	0° H		evening max el	4409 Feb 04 15:15	5° $\text{H}23'03$	19°36'59
evening max el	4408 Feb 22 08:17	21° $\text{H}51'15$	18°49'50	asc. node	4409 Feb 08 19:17	8° $\text{H}43'40$	
asc. node	4408 Feb 22 22:16	22° $\text{H}25'45$		retrograde	4409 Feb 11 22:55	9° $\text{H}36'32$	
retrograde	4408 Feb 29 01:39	25° $\text{H}36'40$		evening set	4409 Feb 15 11:31	8° $\text{H}23'43$	
evening set	4408 Mar 03 06:47	24° $\text{H}37'20$		inferior conj	4409 Feb 20 23:39	2° $\text{H}24'47$	3°14'12

minimum elong	4409 Feb 20 21:39	2° X 31'26	3°13'51	greatest brilliancy	4410 Jan 12 22:59	12° \approx 06'28	-0.5m
min. Earth dist.	4409 Feb 22 02:54	0° X 54'59	0.66750 AU	evening max el	4410 Jan 18 16:55	18° \approx 55'37	20°38'38
	4409 Feb 22 19:55	30° R \approx		retrograde	4410 Jan 26 21:08	23° \approx 44'55	
morning rise	4409 Feb 26 07:04	26° \approx 08'52		asc. node	4410 Jan 26 16:18	23° \approx 44'41	
direct	4409 Mar 04 08:55	23° \approx 27'20		evening set	4410 Jan 30 18:40	22° \approx 17'40	
	4409 Mar 15 20:38	0° X		inferior conj	4410 Feb 05 04:30	16° \approx 06'04	2°46'35
morning max el	4409 Mar 16 15:03	0° X 45'44	25°38'54	minimum elong	4410 Feb 05 02:04	16° \approx 14'24	2°45'58
desc. node	4409 Mar 17 14:09	1° X 45'19		min. Earth dist.	4410 Feb 05 18:21	15° \approx 18'37	0.67562 AU
	4409 Apr 07 14:18	0° Y		morning rise	4410 Feb 10 09:01	9° \approx 50'17	
morning set	4409 Apr 21 19:17	24° Y 00'03		direct	4410 Feb 15 20:50	7° \approx 25'06	
	4409 Apr 25 00:49	0° Z		morning max el	4410 Feb 26 23:42	14° \approx 03'33	24°13'38
max. Earth dist.	4409 Apr 25 14:39	1° Z 05'35	1.35932 AU	desc. node	4410 Mar 04 11:10	20° \approx 12'28	
					4410 Mar 11 22:46	0° X	
superior conj	4409 May 01 07:45	12° Z 15'41	-1°-2'-41		4410 Mar 31 11:22	0° Y	
minimum elong	4409 May 01 11:09	12° Z 32'44	1°02'07	morning set	4410 Apr 03 17:27	5° Y 33'24	
asc. node	4409 May 07 18:36	25° Z 24'34		max. Earth dist.	4410 Apr 07 11:27	12° Y 10'43	1.37959 AU
evening rise	4409 May 09 09:27	28° Z 42'59					
	4409 May 10 00:37	0° II		superior conj	4410 Apr 14 12:37	25° Y 16'21	-1°-30'-19
evening max el	4409 May 27 02:28	27° II 32'02	20°01'29	minimum elong	4410 Apr 14 17:15	25° Y 38'33	1°29'44
	4409 May 30 00:49	0° S			4410 Apr 16 23:18	0° Z	
retrograde	4409 Jun 06 11:16	2° S 35'40		evening rise	4410 Apr 23 09:11	12° Z 38'34	
evening set	4409 Jun 08 09:57	2° S 25'44		asc. node	4410 Apr 24 15:37	15° Z 08'12	
desc. node	4409 Jun 13 13:20	0° S 37'06			4410 May 02 18:40	0° II	
	4409 Jun 14 17:24	30° R II		evening max el	4410 May 09 21:42	9° II 24'12	19°03'35
inferior conj	4409 Jun 17 09:59	28° II 25'51	-1°-8'-52	retrograde	4410 May 18 15:09	13° II 39'51	
minimum elong	4409 Jun 17 06:47	28° II 30'41	1°07'41	evening set	4410 May 20 15:55	13° II 26'56	
min. Earth dist.	4409 Jun 19 07:07	27° II 18'04	0.55225 AU	inferior conj	4410 May 28 22:11	9° II 13'19	0°43'37
morning rise	4409 Jun 26 01:05	24° II 06'01		minimum elong	4410 May 28 23:55	9° II 10'21	0°43'00
direct	4409 Jun 30 06:01	23° II 27'29		desc. node	4410 May 31 10:22	7° II 29'24	
	4409 Jul 13 18:02	0° S		min. Earth dist.	4410 May 31 22:30	7° II 09'04	0.56522 AU
morning max el	4409 Jul 13 23:24	0° S 12'33	24°05'21	morning rise	4410 Jun 06 03:31	4° II 17'44	
	4409 Aug 03 02:34	0° Q		direct	4410 Jun 11 07:06	3° II 15'20	
asc. node	4409 Aug 03 17:53	1° Q 15'49		morning max el	4410 Jun 25 13:41	10° II 36'19	25°43'19
morning set	4409 Aug 07 13:34	9° Q 07'29			4410 Jul 10 08:37	0° S	
				asc. node	4410 Jul 21 14:54	21° S 00'32	
superior conj	4409 Aug 14 13:52	24° Q 16'25	1°32'02	morning set	4410 Jul 23 01:00	23° S 59'11	
minimum elong	4409 Aug 14 11:53	24° Q 05'40	1°31'50		4410 Jul 25 20:11	0° Q	
max. Earth dist.	4409 Aug 16 15:13	28° Q 42'25	1.33098 AU				
	4409 Aug 17 05:45	0° P		superior conj	4410 Jul 30 00:33	9° Q 10'24	1°17'55
evening rise	4409 Aug 22 00:18	9° P 55'30		minimum elong	4410 Jul 29 22:14	8° Q 57'40	1°17'35
	4409 Sep 01 18:51	0° A		max. Earth dist.	4410 Jul 30 22:49	11° Q 12'36	1.32343 AU
desc. node	4409 Sep 09 12:40	12° A 19'04		evening rise	4410 Aug 06 02:12	24° Q 22'29	
	4409 Sep 23 16:09	0° M			4410 Aug 08 20:32	0° P	
evening max el	4409 Sep 24 13:08	0° M 50'49	27°26'10		4410 Aug 26 11:32	0° A	
retrograde	4409 Oct 08 04:04	8° M 08'02		desc. node	4410 Aug 27 09:41	1° A 16'51	
evening set	4409 Oct 15 07:08	5° M 31'03		evening max el	4410 Sep 06 20:56	13° A 31'50	27°16'39
min. Earth dist.	4409 Oct 18 23:55	2° M 16'23	0.63727 AU	retrograde	4410 Sep 20 16:57	20° A 46'02	
	4409 Oct 21 05:27	30° R A		evening set	4410 Sep 27 20:39	18° A 23'51	
inferior conj	4409 Oct 21 13:41	29° A 38'51	-2°-56'-25	min. Earth dist.	4410 Oct 01 11:23	15° A 35'45	0.61861 AU
minimum elong	4409 Oct 21 18:40	29° A 26'07	2°54'39	inferior conj	4410 Oct 04 11:49	12° A 51'39	-3°-55'-23
morning rise	4409 Oct 28 08:42	24° A 18'38		minimum elong	4410 Oct 04 17:51	12° A 37'55	3°53'43
direct	4409 Oct 30 18:41	23° A 50'00		morning rise	4410 Oct 11 18:08	7° A 50'59	
asc. node	4409 Oct 30 17:04	23° A 50'01		direct	4410 Oct 14 01:17	7° A 28'19	
morning max el	4409 Nov 06 08:00	27° A 14'58	17°51'22	asc. node	4410 Oct 17 14:06	8° A 23'52	
	4409 Nov 08 18:26	0° M		morning max el	4410 Oct 20 23:35	10° A 58'20	17°53'24
morning set	4409 Nov 22 21:54	22° M 39'01			4410 Nov 02 14:45	0° M	
	4409 Nov 27 04:35	0° Z		morning set	4410 Nov 05 18:52	5° M 43'20	
superior conj	4409 Dec 05 11:10	13° Z 50'38	0°07'12	superior conj	4410 Nov 16 13:30	24° M 52'24	0°46'43
minimum elong	4409 Dec 05 11:57	13° Z 53'51	0°07'05	minimum elong	4410 Nov 16 17:14	25° M 08'30	0°46'13
behind sun begin	4409 Dec 05 03:06	13° Z 17'34			4410 Nov 19 13:43	0° Z	
behind sun end	4409 Dec 05 20:48	14° Z 30'03		desc. node	4410 Nov 23 08:58	6° Z 19'26	
desc. node	4409 Dec 06 11:57	15° Z 31'53		max. Earth dist.	4410 Nov 23 21:51	7° Z 12'13	1.42922 AU
max. Earth dist.	4409 Dec 11 07:50	23° Z 18'47	1.44351 AU	evening rise	4410 Nov 30 20:36	18° Z 19'19	
	4409 Dec 15 13:23	0° Z			4410 Dec 08 11:09	0° Z	
evening rise	4409 Dec 21 06:45	8° Z 53'04		greatest brilliancy	4410 Dec 27 18:56	27° Z 06'05	-0.4m
	4410 Jan 04 07:33	0° \approx			4410 Dec 30 05:37	0° \approx	

evening max el	4411 Jan 01 13:10	2° \approx 29'55	21°51'21		4411 Nov 12 00:50	0° \approx	
retrograde	4411 Jan 10 18:22	7° \approx 58'49			4411 Dec 02 01:33	0° \approx	
asc. node	4411 Jan 13 13:20	7° \approx 17'02		evening max el	4411 Dec 15 05:01	16° \approx 06'59	23°10'23
evening set	4411 Jan 15 02:29	6° \approx 16'10		retrograde	4411 Dec 25 12:58	22° \approx 14'07	
inferior conj	4411 Jan 20 11:51	29° \approx 55'18	2°10'16	evening set	4411 Dec 30 09:23	20° \approx 15'26	
minimum elong	4411 Jan 20 09:29	0° \approx 03'30	2°09'30	asc. node	4411 Dec 31 10:22	19° \approx 18'08	
	4411 Jan 20 10:30	30° \approx 30		inferior conj	4412 Jan 04 19:46	13° \approx 49'09	1°26'32
min. Earth dist.	4411 Jan 20 13:41	29° \approx 48'54	0.67979 AU	minimum elong	4412 Jan 04 17:56	13° \approx 55'28	1°25'50
morning rise	4411 Jan 25 16:14	23° \approx 41'28		min. Earth dist.	4412 Jan 04 10:28	14° \approx 21'10	0.68023 AU
direct	4411 Jan 30 13:16	21° \approx 37'28		morning rise	4412 Jan 10 02:30	7° \approx 39'15	
morning max el	4411 Feb 09 09:36	27° \approx 27'06	22°44'25	direct	4412 Jan 14 09:05	5° \approx 58'09	
	4411 Feb 11 18:53	0° \approx		morning max el	4412 Jan 23 00:22	10° \approx 59'08	21°20'05
greatest brilliancy	4411 Feb 14 00:37	2° \approx 36'35	-0.3m	greatest brilliancy	4412 Jan 28 02:59	16° \approx 48'17	-0.4m
desc. node	4411 Feb 19 08:11	9° \approx 24'16		desc. node	4412 Feb 06 05:14	29° \approx 07'55	
	4411 Mar 05 14:15	0° \approx			4412 Feb 06 19:44	0° \approx	
morning set	4411 Mar 15 13:24	15° \approx 49'38		morning set	4412 Feb 23 04:42	24° \approx 45'12	
max. Earth dist.	4411 Mar 20 06:47	23° \approx 45'20	1.40148 AU		4412 Feb 26 11:47	0° \approx	
	4411 Mar 23 21:12	0° \approx		max. Earth dist.	4412 Mar 01 07:54	6° \approx 14'13	1.42215 AU
superior conj	4411 Mar 28 01:32	7° \approx 28'47	-1°-53'-6	superior conj	4412 Mar 08 17:30	18° \approx 41'11	-2°-6'-33
minimum elong	4411 Mar 28 06:08	7° \approx 49'44	1°52'43	minimum elong	4412 Mar 08 19:35	18° \approx 50'10	2°06'31
evening rise	4411 Apr 06 23:27	26° \approx 02'19			4412 Mar 15 04:03	0° \approx	
	4411 Apr 09 01:42	0° \approx		evening rise	4412 Mar 20 00:26	8° \approx 45'09	
asc. node	4411 Apr 11 12:38	4° \approx 34'14		asc. node	4412 Mar 28 09:40	23° \approx 36'17	
evening max el	4411 Apr 23 02:14	21° \approx 52'58	18°26'01		4412 Apr 01 12:47	0° \approx	
retrograde	4411 Apr 30 13:40	25° \approx 34'56		evening max el	4412 Apr 05 12:29	4° \approx 48'45	18°08'23
evening set	4411 May 02 20:45	25° \approx 15'02		retrograde	4412 Apr 12 05:52	8° \approx 13'42	
inferior conj	4411 May 10 07:41	20° \approx 41'34	2°08'56	evening set	4412 Apr 14 19:20	7° \approx 44'19	
minimum elong	4411 May 10 11:16	20° \approx 34'18	2°07'54	inferior conj	4412 Apr 21 13:37	2° \approx 49'32	3°02'36
min. Earth dist.	4411 May 13 18:08	17° \approx 56'06	0.58441 AU	minimum elong	4412 Apr 21 16:34	2° \approx 42'35	3°02'02
morning rise	4411 May 17 21:24	15° \approx 13'30			4412 Apr 24 14:07	30° \approx 30	
desc. node	4411 May 18 07:23	15° \approx 00'59		min. Earth dist.	4412 Apr 24 20:06	29° \approx 46'38	0.60619 AU
direct	4411 May 23 22:41	13° \approx 37'50		morning rise	4412 Apr 28 10:25	26° \approx 58'38	
morning max el	4411 Jun 07 08:03	21° \approx 20'55	27°00'01	desc. node	4412 May 04 04:24	24° \approx 51'34	
	4411 Jun 14 20:53	0° \approx		direct	4412 May 05 02:06	24° \approx 49'14	
	4411 Jul 03 03:39	0° \approx			4412 May 16 09:13	0° \approx	
morning set	4411 Jul 07 10:32	8° \approx 43'39		morning max el	4412 May 19 08:46	2° \approx 44'00	27°43'56
asc. node	4411 Jul 08 11:56	10° \approx 57'50			4412 Jun 08 07:48	0° \approx	
superior conj	4411 Jul 14 12:22	24° \approx 05'09	0°59'23	morning set	4412 Jun 20 16:28	23° \approx 15'25	
minimum elong	4411 Jul 14 10:11	23° \approx 53'08	0°59'00		4412 Jun 23 21:15	0° \approx	
max. Earth dist.	4411 Jul 14 09:54	23° \approx 51'36	1.32006 AU	asc. node	4412 Jun 24 08:58	1° \approx 02'58	
	4411 Jul 17 04:45	0° \approx		max. Earth dist.	4412 Jun 26 20:56	6° \approx 28'50	1.32079 AU
evening rise	4411 Jul 21 09:34	9° \approx 03'51		superior conj	4412 Jun 27 23:34	8° \approx 54'58	0°37'02
	4411 Aug 01 05:33	0° \approx		minimum elong	4412 Jun 27 21:59	8° \approx 46'18	0°36'42
desc. node	4411 Aug 14 06:42	19° \approx 19'34		evening rise	4412 Jul 04 20:10	23° \approx 52'33	
evening max el	4411 Aug 19 22:48	25° \approx 28'50	26°33'38		4412 Jul 07 18:37	0° \approx	
	4411 Aug 25 16:29	0° \approx			4412 Jul 25 18:11	0° \approx	
retrograde	4411 Sep 02 21:40	2° \approx 38'40		desc. node	4412 Jul 31 03:42	6° \approx 05'10	
evening set	4411 Sep 09 15:41	0° \approx 44'16		evening max el	4412 Jul 31 17:18	6° \approx 38'11	25°20'20
	4411 Sep 10 21:32	30° \approx 30		retrograde	4412 Aug 14 16:15	13° \approx 42'41	
min. Earth dist.	4411 Sep 13 12:31	28° \approx 09'13	0.59812 AU	evening set	4412 Aug 20 11:35	12° \approx 24'55	
inferior conj	4411 Sep 16 18:38	25° \approx 34'34	-4°-44'-15	min. Earth dist.	4412 Aug 25 05:04	9° \approx 45'02	0.57791 AU
minimum elong	4411 Sep 16 23:58	25° \approx 23'56	4°43'21	inferior conj	4412 Aug 28 06:50	7° \approx 38'28	-5°-11'-36
morning rise	4411 Sep 24 11:40	20° \approx 56'06		minimum elong	4412 Aug 28 08:32	7° \approx 35'33	5°11'33
direct	4411 Sep 26 19:28	20° \approx 36'27		morning rise	4412 Sep 05 08:57	3° \approx 23'10	
asc. node	4411 Oct 04 11:09	24° \approx 21'21		direct	4412 Sep 07 21:03	3° \approx 04'13	
morning max el	4411 Oct 04 10:40	24° \approx 20'10	18°14'49	morning max el	4412 Sep 16 13:58	7° \approx 11'35	18°57'05
	4411 Oct 09 02:27	0° \approx		asc. node	4412 Sep 20 08:12	11° \approx 28'01	
morning set	4411 Oct 20 06:20	19° \approx 28'34			4412 Oct 01 06:21	0° \approx	
	4411 Oct 25 20:07	0° \approx		morning set	4412 Oct 03 03:53	3° \approx 42'41	
superior conj	4411 Oct 29 16:21	7° \approx 05'04	1°15'36	superior conj	4412 Oct 11 14:34	20° \approx 14'36	1°33'48
minimum elong	4411 Oct 29 20:15	7° \approx 22'48	1°15'10	minimum elong	4412 Oct 11 17:12	20° \approx 27'12	1°33'36
max. Earth dist.	4411 Nov 06 06:47	20° \approx 27'21	1.41051 AU		4412 Oct 16 19:57	0° \approx	
desc. node	4411 Nov 10 06:00	27° \approx 05'21		max. Earth dist.	4412 Oct 18 12:10	3° \approx 01'28	1.38970 AU
evening rise	4411 Nov 11 03:46	28° \approx 34'25		evening rise	4412 Oct 22 10:00	9° \approx 52'33	

desc. node	4412 Oct 27 03:03	17° \mathbb{M} 46'06		max. Earth dist.	4413 Sep 30 17:40	15° \mathbb{A} 02'42	1.36925 AU
	4412 Nov 03 21:40	0° \mathbb{Z}		evening rise	4413 Oct 04 14:05	22° \mathbb{A} 10'33	
	4412 Nov 26 23:15	0° \mathbb{Z}			4413 Oct 09 00:39	0° \mathbb{M}	
evening max el	4412 Nov 26 18:17	29° \mathbb{Z} 47'48	24°29'37	desc. node	4413 Oct 14 00:05	8° \mathbb{M} 16'56	
retrograde	4412 Dec 08 03:50	6° \mathbb{Z} 27'17			4413 Oct 28 17:56	0° \mathbb{Z}	
evening set	4412 Dec 13 13:47	4° \mathbb{Z} 12'45		evening max el	4413 Nov 09 06:39	13° \mathbb{Z} 30'18	25°42'11
asc. node	4412 Dec 17 07:25	0° \mathbb{Z} 07'37		retrograde	4413 Nov 21 14:09	20° \mathbb{Z} 33'09	
	4412 Dec 17 09:47	30° \mathbb{R} \mathbb{Z}		evening set	4413 Nov 27 14:01	18° \mathbb{Z} 04'47	
min. Earth dist.	4412 Dec 18 06:19	28° \mathbb{Z} 52'33	0.67708 AU	min. Earth dist.	4413 Dec 01 22:57	13° \mathbb{Z} 19'45	0.67038 AU
inferior conj	4412 Dec 19 02:28	27° \mathbb{Z} 45'15	0°36'25	inferior conj	4413 Dec 03 06:09	11° \mathbb{Z} 40'37	0°-19'-5
minimum elong	4412 Dec 19 01:36	27° \mathbb{Z} 48'09	0°36'03	minimum elong	4413 Dec 03 06:39	11° \mathbb{Z} 39'03	0°18'53
morning rise	4412 Dec 24 13:49	21° \mathbb{Z} 41'27		asc. node	4413 Dec 04 04:28	10° \mathbb{Z} 30'18	
direct	4412 Dec 28 07:05	20° \mathbb{Z} 22'15		morning rise	4413 Dec 09 00:11	5° \mathbb{Z} 45'19	
morning max el	4413 Jan 04 22:47	24° \mathbb{Z} 43'09	20°06'44	direct	4413 Dec 12 05:46	4° \mathbb{Z} 45'14	
	4413 Jan 09 13:11	0° \mathbb{Z}		morning max el	4413 Dec 19 05:03	8° \mathbb{Z} 37'35	19°07'45
greatest brilliancy	4413 Jan 11 18:38	2° \mathbb{Z} 54'41	-0.6m		4414 Jan 03 17:52	0° \mathbb{Z}	
desc. node	4413 Jan 23 02:17	19° \mathbb{Z} 14'44		desc. node	4414 Jan 09 23:20	9° \mathbb{Z} 38'15	
	4413 Jan 30 04:08	0° \mathbb{A}		morning set	4414 Jan 11 04:55	11° \mathbb{Z} 33'14	
morning set	4413 Feb 01 01:49	2° \mathbb{A} 55'52			4414 Jan 23 00:33	0° \mathbb{A}	
max. Earth dist.	4413 Feb 11 17:14	19° \mathbb{A} 38'15	1.43881 AU	max. Earth dist.	4414 Jan 25 08:39	3° \mathbb{A} 40'26	1.44939 AU
superior conj	4413 Feb 17 08:17	28° \mathbb{A} 44'49	-2°-5'-15	superior conj	4414 Jan 27 22:55	7° \mathbb{A} 46'13	-1°-44'-49
minimum elong	4413 Feb 17 04:52	28° \mathbb{A} 30'46	2°05'10	minimum elong	4414 Jan 27 14:12	7° \mathbb{A} 11'44	1°44'06
	4413 Feb 18 02:36	0° \mathbb{H}			4414 Feb 10 18:04	0° \mathbb{H}	
evening rise	4413 Mar 02 07:47	20° \mathbb{H} 38'37		evening rise	4414 Feb 11 17:31	1° \mathbb{H} 36'13	
	4413 Mar 07 18:08	0° \mathbb{Y}		asc. node	4414 Mar 02 03:45	29° \mathbb{H} 55'31	
asc. node	4413 Mar 15 06:43	12° \mathbb{Y} 06'33			4414 Mar 02 05:19	0° \mathbb{Y}	
evening max el	4413 Mar 20 01:10	18° \mathbb{Y} 02'20	18°09'58	evening max el	4414 Mar 03 13:23	1° \mathbb{Y} 26'51	18°30'09
retrograde	4413 Mar 26 11:29	21° \mathbb{Y} 25'28		retrograde	4414 Mar 10 02:00	5° \mathbb{Y} 01'13	
evening set	4413 Mar 29 06:48	20° \mathbb{Y} 45'14		evening set	4414 Mar 13 03:15	4° \mathbb{Y} 09'13	
inferior conj	4413 Apr 04 12:19	15° \mathbb{Y} 30'02	3°29'16		4414 Mar 17 18:41	30° \mathbb{R} \mathbb{H}	
minimum elong	4413 Apr 04 13:38	15° \mathbb{Y} 26'30	3°29'10	inferior conj	4414 Mar 18 23:42	28° \mathbb{H} 35'27	3°35'10
min. Earth dist.	4413 Apr 07 06:37	12° \mathbb{Y} 33'55	0.62747 AU	minimum elong	4414 Mar 18 23:23	28° \mathbb{H} 36'23	3°35'10
morning rise	4413 Apr 10 18:11	9° \mathbb{Y} 25'14		min. Earth dist.	4414 Mar 21 02:47	26° \mathbb{H} 04'43	0.64607 AU
direct	4413 Apr 17 14:57	6° \mathbb{Y} 50'11		morning rise	4414 Mar 24 18:01	22° \mathbb{H} 23'15	
desc. node	4413 Apr 21 01:27	7° \mathbb{Y} 25'00		direct	4414 Mar 31 11:48	19° \mathbb{H} 35'16	
morning max el	4413 May 01 15:12	14° \mathbb{Y} 49'14	27°50'13	desc. node	4414 Apr 07 22:30	22° \mathbb{H} 18'12	
	4413 May 13 22:59	0° \mathbb{B}		morning max el	4414 Apr 14 00:50	27° \mathbb{H} 29'33	27°20'44
	4413 May 31 21:42	0° \mathbb{II}			4414 Apr 16 09:48	0° \mathbb{Y}	
morning set	4413 Jun 04 16:33	7° \mathbb{II} 26'42			4414 May 07 15:38	0° \mathbb{B}	
max. Earth dist.	4413 Jun 10 03:47	18° \mathbb{II} 49'52	1.32573 AU	morning set	4414 May 19 08:09	21° \mathbb{B} 09'39	
asc. node	4413 Jun 11 06:00	21° \mathbb{II} 10'40			4414 May 23 18:02	0° \mathbb{II}	
superior conj	4413 Jun 12 08:19	23° \mathbb{II} 32'56	0°11'27	max. Earth dist.	4414 May 24 02:27	0° \mathbb{II} 43'20	1.33513 AU
minimum elong	4413 Jun 12 07:46	23° \mathbb{II} 29'58	0°11'20	superior conj	4414 May 27 12:43	7° \mathbb{II} 53'24	0°-16'-33
behind sun begin	4413 Jun 12 04:05	23° \mathbb{II} 09'56		minimum elong	4414 May 27 13:34	7° \mathbb{II} 57'55	0°16'24
behind sun end	4413 Jun 12 11:28	23° \mathbb{II} 50'01		asc. node	4414 May 29 03:02	11° \mathbb{II} 17'09	
	4413 Jun 15 07:28	0° \mathbb{E}		evening rise	4414 Jun 03 19:11	23° \mathbb{II} 22'43	
evening rise	4413 Jun 19 07:59	8° \mathbb{E} 40'48			4414 Jun 07 00:10	0° \mathbb{E}	
	4413 Jun 30 09:28	0° \mathbb{Q}		evening max el	4414 Jun 24 21:10	27° \mathbb{E} 33'17	22°10'39
evening max el	4413 Jul 13 06:21	17° \mathbb{Q} 09'34	23°47'26		4414 Jun 27 16:10	0° \mathbb{Q}	
desc. node	4413 Jul 18 00:44	21° \mathbb{Q} 02'43		desc. node	4414 Jul 04 21:44	3° \mathbb{Q} 37'29	
retrograde	4413 Jul 26 22:50	24° \mathbb{Q} 02'13		retrograde	4414 Jul 07 17:47	3° \mathbb{Q} 56'09	
evening set	4413 Jul 31 07:56	23° \mathbb{Q} 20'00		evening set	4414 Jul 10 16:02	3° \mathbb{Q} 37'08	
min. Earth dist.	4413 Aug 06 16:28	20° \mathbb{Q} 17'39	0.56082 AU	min. Earth dist.	4414 Jul 19 02:52	29° \mathbb{E} 58'17	0.55022 AU
inferior conj	4413 Aug 08 22:44	18° \mathbb{Q} 55'39	-5°-1'-51		4414 Jul 19 01:38	30° \mathbb{R} \mathbb{E}	
minimum elong	4413 Aug 08 18:18	19° \mathbb{Q} 02'24	5°01'24	inferior conj	4414 Jul 19 21:52	29° \mathbb{E} 31'32	-4°-2'-7
morning rise	4413 Aug 17 07:59	14° \mathbb{Q} 59'39		minimum elong	4414 Jul 19 13:19	29° \mathbb{E} 43'34	3°59'59
direct	4413 Aug 20 03:06	14° \mathbb{Q} 39'53		morning rise	4414 Jul 28 12:32	25° \mathbb{E} 41'30	
morning max el	4413 Aug 30 06:34	19° \mathbb{Q} 22'38	20°01'12	direct	4414 Jul 31 16:44	25° \mathbb{E} 19'00	
asc. node	4413 Sep 07 05:16	29° \mathbb{Q} 28'21			4414 Aug 11 13:29	0° \mathbb{Q}	
	4413 Sep 07 13:12	0° \mathbb{M}		morning max el	4414 Aug 12 11:16	0° \mathbb{Q} 48'37	21°25'53
morning set	4413 Sep 17 08:13	18° \mathbb{M} 15'50		asc. node	4414 Aug 25 02:18	18° \mathbb{Q} 09'49	
	4413 Sep 23 02:11	0° \mathbb{A}			4414 Aug 31 05:41	0° \mathbb{M}	
superior conj	4413 Sep 25 02:53	4° \mathbb{A} 05'33	1°42'37	morning set	4414 Sep 01 16:53	3° \mathbb{M} 01'19	
minimum elong	4413 Sep 25 03:53	4° \mathbb{A} 10'30	1°42'35	superior conj	4414 Sep 09 01:10	18° \mathbb{M} 25'50	1°43'33

minimum elong	4414 Sep 09 00:40	18° $\mathring{\text{M}}$ 23'17	1°43'32	superior conj	4415 Aug 24 06:11	3° $\mathring{\text{M}}$ 05'45	1°37'52
max. Earth dist.	4414 Sep 13 04:36	26° $\mathring{\text{M}}$ 53'51	1.35134 AU	minimum elong	4415 Aug 24 04:37	2° $\mathring{\text{M}}$ 57'20	1°37'46
	4414 Sep 14 18:07	0° $\underline{\text{A}}$		max. Earth dist.	4415 Aug 27 00:28	8° $\mathring{\text{M}}$ 57'20	1.33722 AU
evening rise	4414 Sep 17 12:08	5° $\underline{\text{A}}$ 19'02		evening rise	4415 Aug 31 23:53	19° $\mathring{\text{M}}$ 06'55	
desc. node	4414 Sep 30 21:05	28° $\underline{\text{A}}$ 32'34			4415 Sep 06 17:16	0° $\underline{\text{A}}$	
	4414 Oct 01 19:23	0° $\mathring{\text{M}}$		desc. node	4415 Sep 17 18:04	18° $\underline{\text{A}}$ 26'16	
evening max el	4414 Oct 22 19:10	27° $\mathring{\text{M}}$ 09'37	26°40'35		4415 Sep 25 22:46	0° $\mathring{\text{M}}$	
	4414 Oct 26 00:03	0° $\mathring{\text{A}}$		evening max el	4415 Oct 05 07:33	10° $\mathring{\text{M}}$ 37'24	27°17'27
retrograde	4414 Nov 04 19:20	4° $\mathring{\text{A}}$ 25'03		retrograde	4415 Oct 18 18:40	17° $\mathring{\text{M}}$ 55'42	
evening set	4414 Nov 11 08:07	1° $\mathring{\text{A}}$ 47'18		evening set	4415 Oct 25 17:43	15° $\mathring{\text{M}}$ 15'56	
	4414 Nov 13 06:39	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		min. Earth dist.	4415 Oct 29 13:29	11° $\mathring{\text{M}}$ 42'01	0.64656 AU
min. Earth dist.	4414 Nov 15 10:04	27° $\mathring{\text{M}}$ 38'11	0.66019 AU	inferior conj	4415 Oct 31 20:13	9° $\mathring{\text{M}}$ 13'36	-2°-20'-45
inferior conj	4414 Nov 17 04:49	25° $\mathring{\text{M}}$ 31'28	-1°-18'-46	minimum elong	4415 Nov 01 00:14	9° $\mathring{\text{M}}$ 02'42	2°19'12
minimum elong	4414 Nov 17 07:00	25° $\mathring{\text{M}}$ 24'59	1°17'51	morning rise	4415 Nov 07 08:53	3° $\mathring{\text{M}}$ 43'23	
asc. node	4414 Nov 21 01:32	21° $\mathring{\text{M}}$ 22'40		asc. node	4415 Nov 07 22:34	3° $\mathring{\text{M}}$ 30'08	
morning rise	4414 Nov 23 07:24	19° $\mathring{\text{M}}$ 47'13		direct	4415 Nov 09 21:44	3° $\mathring{\text{M}}$ 09'57	
direct	4414 Nov 26 03:23	19° $\mathring{\text{M}}$ 02'27		morning max el	4415 Nov 16 09:24	6° $\mathring{\text{M}}$ 36'17	17°58'28
morning max el	4414 Dec 02 17:26	22° $\mathring{\text{M}}$ 37'11	18°24'41		4415 Dec 02 02:07	0° $\mathring{\text{A}}$	
	4414 Dec 08 15:37	0° $\mathring{\text{A}}$		morning set	4415 Dec 03 19:29	2° $\mathring{\text{A}}$ 53'35	
morning set	4414 Dec 22 09:30	21° $\mathring{\text{A}}$ 29'43		desc. node	4415 Dec 14 17:22	20° $\mathring{\text{A}}$ 55'31	
desc. node	4414 Dec 27 20:21	0° $\mathring{\text{C}}$ 13'01					
	4414 Dec 27 17:05	0° $\mathring{\text{C}}$		superior conj	4415 Dec 17 12:43	25° $\mathring{\text{A}}$ 26'46	0°-19'-18
superior conj	4415 Jan 07 01:31	16° $\mathring{\text{C}}$ 21'11	-1°-6'-25	minimum elong	4415 Dec 17 10:23	25° $\mathring{\text{A}}$ 17'24	0°18'59
minimum elong	4415 Jan 06 17:30	15° $\mathring{\text{C}}$ 49'45	1°05'26		4415 Dec 20 09:15	0° $\mathring{\text{C}}$	
max. Earth dist.	4415 Jan 08 03:07	18° $\mathring{\text{C}}$ 01'36	1.45285 AU	max. Earth dist.	4415 Dec 21 22:08	2° $\mathring{\text{C}}$ 26'01	1.44897 AU
	4415 Jan 15 18:30	0° $\mathring{\text{A}}$		evening rise	4416 Jan 02 19:38	20° $\mathring{\text{C}}$ 57'24	
evening rise	4415 Jan 23 03:54	11° $\mathring{\text{A}}$ 37'07			4416 Jan 08 17:13	0° $\mathring{\text{A}}$	
	4415 Feb 03 21:31	0° $\mathring{\text{H}}$		greatest brilliancy	4416 Jan 22 09:17	20° $\mathring{\text{A}}$ 10'12	-0.6m
greatest brilliancy	4415 Feb 04 22:54	1° $\mathring{\text{H}}$ 36'37	-0.7m	evening max el	4416 Jan 29 03:40	28° $\mathring{\text{A}}$ 28'53	20°01'41
evening max el	4415 Feb 14 22:47	14° $\mathring{\text{H}}$ 56'35	19°07'59		4416 Jan 30 17:48	0° $\mathring{\text{H}}$	
asc. node	4415 Feb 17 00:47	16° $\mathring{\text{H}}$ 50'24		asc. node	4416 Feb 03 21:49	2° $\mathring{\text{H}}$ 37'12	
retrograde	4415 Feb 21 21:35	18° $\mathring{\text{H}}$ 53'10		retrograde	4416 Feb 05 19:25	2° $\mathring{\text{H}}$ 56'38	
evening set	4415 Feb 25 05:38	17° $\mathring{\text{H}}$ 48'24		evening set	4416 Feb 09 11:36	1° $\mathring{\text{H}}$ 37'57	
inferior conj	4415 Mar 02 20:04	11° $\mathring{\text{H}}$ 58'10	3°25'26		4416 Feb 11 08:04	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
minimum elong	4415 Mar 02 18:32	12° $\mathring{\text{H}}$ 03'06	3°25'16	inferior conj	4416 Feb 14 22:32	25° $\mathring{\text{A}}$ 33'32	3°03'39
min. Earth dist.	4415 Mar 04 07:48	10° $\mathring{\text{H}}$ 04'14	0.66087 AU	minimum elong	4416 Feb 14 20:17	25° $\mathring{\text{A}}$ 41'06	3°03'10
morning rise	4415 Mar 08 06:29	5° $\mathring{\text{H}}$ 42'45		min. Earth dist.	4416 Feb 15 19:59	24° $\mathring{\text{A}}$ 21'29	0.67149 AU
direct	4415 Mar 14 15:22	2° $\mathring{\text{H}}$ 55'16		morning rise	4416 Feb 20 04:21	19° $\mathring{\text{A}}$ 17'29	
desc. node	4415 Mar 25 19:32	8° $\mathring{\text{H}}$ 56'09		direct	4416 Feb 26 00:35	16° $\mathring{\text{A}}$ 41'44	
morning max el	4415 Mar 27 10:46	10° $\mathring{\text{H}}$ 31'34	26°22'07	morning max el	4416 Mar 08 19:32	23° $\mathring{\text{A}}$ 44'35	25°03'40
	4415 Apr 11 21:16	0° $\mathring{\text{Y}}$		desc. node	4416 Mar 11 16:35	26° $\mathring{\text{A}}$ 49'46	
	4415 Apr 30 04:51	0° $\mathring{\text{B}}$			4416 Mar 14 09:23	0° $\mathring{\text{H}}$	
morning set	4415 May 02 11:38	4° $\mathring{\text{B}}$ 13'16		morning set	4416 Apr 04 06:46	0° $\mathring{\text{Y}}$	
max. Earth dist.	4415 May 06 13:50	12° $\mathring{\text{B}}$ 04'07	1.34919 AU	max. Earth dist.	4416 Apr 13 22:10	16° $\mathring{\text{Y}}$ 23'54	
					4416 Apr 17 14:23	23° $\mathring{\text{Y}}$ 05'35	1.36759 AU
					4416 Apr 21 06:07	0° $\mathring{\text{B}}$	
superior conj	4415 May 11 10:25	21° $\mathring{\text{B}}$ 49'27	0°-45'-52				
minimum elong	4415 May 11 12:54	22° $\mathring{\text{B}}$ 02'08	0°45'24	superior conj	4416 Apr 23 22:30	5° $\mathring{\text{B}}$ 13'15	-1°-14'-47
	4415 May 15 09:06	0° $\mathring{\text{H}}$		minimum elong	4416 Apr 24 02:31	5° $\mathring{\text{B}}$ 32'59	1°14'10
asc. node	4415 May 16 00:04	1° $\mathring{\text{H}}$ 18'07		asc. node	4416 May 01 21:06	21° $\mathring{\text{B}}$ 09'25	
evening rise	4415 May 19 03:46	7° $\mathring{\text{H}}$ 51'49		evening rise	4416 May 02 07:30	22° $\mathring{\text{B}}$ 01'45	
	4415 May 31 04:20	0° $\mathring{\text{C}}$			4416 May 06 08:25	0° $\mathring{\text{H}}$	
evening max el	4415 Jun 06 21:29	8° $\mathring{\text{C}}$ 21'46	20°43'47	evening max el	4416 May 19 10:11	19° $\mathring{\text{H}}$ 50'34	19°34'24
retrograde	4415 Jun 18 06:27	13° $\mathring{\text{C}}$ 55'44		retrograde	4416 May 29 01:10	24° $\mathring{\text{H}}$ 31'50	
evening set	4415 Jun 20 08:33	13° $\mathring{\text{C}}$ 45'14		evening set	4416 May 30 23:59	24° $\mathring{\text{H}}$ 21'09	
desc. node	4415 Jun 21 18:43	13° $\mathring{\text{C}}$ 26'41		desc. node	4416 Jun 07 15:45	20° $\mathring{\text{H}}$ 56'44	
inferior conj	4415 Jun 29 15:09	9° $\mathring{\text{C}}$ 48'18	-2°-18'00	inferior conj	4416 Jun 08 17:08	20° $\mathring{\text{H}}$ 16'51	0°-18'-47
minimum elong	4415 Jun 29 08:45	9° $\mathring{\text{C}}$ 57'25	2°15'46	minimum elong	4416 Jun 08 16:17	20° $\mathring{\text{H}}$ 18'11	0°18'29
min. Earth dist.	4415 Jun 30 14:29	9° $\mathring{\text{C}}$ 14'55	0.54870 AU	min. Earth dist.	4416 Jun 11 04:00	18° $\mathring{\text{H}}$ 43'53	0.55684 AU
morning rise	4415 Jul 08 07:56	5° $\mathring{\text{C}}$ 44'20		morning rise	4416 Jun 17 05:03	15° $\mathring{\text{H}}$ 42'30	
direct	4415 Jul 12 02:04	5° $\mathring{\text{C}}$ 13'58		direct	4416 Jun 21 19:37	14° $\mathring{\text{H}}$ 54'59	
morning max el	4415 Jul 25 05:55	11° $\mathring{\text{C}}$ 33'57	23°05'31	morning max el	4416 Jul 05 19:43	21° $\mathring{\text{H}}$ 56'47	24°48'36
	4415 Aug 07 22:49	0° $\mathring{\text{O}}$			4416 Jul 12 21:25	0° $\mathring{\text{C}}$	
asc. node	4415 Aug 11 23:21	7° $\mathring{\text{O}}$ 22'24		asc. node	4416 Jul 28 20:22	26° $\mathring{\text{C}}$ 57'20	
morning set	4415 Aug 17 03:59	17° $\mathring{\text{O}}$ 53'48			4416 Jul 30 07:54	0° $\mathring{\text{O}}$	
	4415 Aug 22 19:35	0° $\mathring{\text{M}}$		morning set	4416 Jul 31 15:46	2° $\mathring{\text{O}}$ 47'18	

superior conj	4416 Aug 07 15:24	17° Ω 56'30	1°26'37	morning set	4417 Jul 16 02:39	17° Ω 37'06	
minimum elong	4416 Aug 07 13:13	17° Ω 44'34	1°26'22		4417 Jul 21 19:40	0° Ω	
max. Earth dist.	4416 Aug 09 04:42	21° Ω 19'29	1.32730 AU				
	4416 Aug 13 06:21	0° \mathbb{M}		superior conj	4417 Jul 23 02:49	2° Ω 51'44	1°10'34
evening rise	4416 Aug 14 21:32	3° \mathbb{M} 22'28		minimum elong	4417 Jul 23 00:30	2° Ω 38'57	1°10'12
	4416 Aug 29 11:49	0° $\underline{\Omega}$		max. Earth dist.	4417 Jul 23 14:32	3° Ω 56'18	1.32156 AU
desc. node	4416 Sep 03 15:04	7° $\underline{\Omega}$ 48'01		evening rise	4417 Jul 30 02:06	17° Ω 56'54	
evening max el	4416 Sep 16 17:57	23° $\underline{\Omega}$ 39'55	27°26'13		4417 Aug 05 02:40	0° \mathbb{M}	
	4416 Sep 25 21:54	0° \mathbb{M}		desc. node	4417 Aug 21 12:04	26° \mathbb{M} 24'40	
retrograde	4416 Sep 30 11:20	0° \mathbb{M} 55'20			4417 Aug 24 08:35	0° $\underline{\Omega}$	
	4416 Oct 04 19:33	30° \mathbb{R} $\underline{\Omega}$		evening max el	4417 Aug 29 23:38	6° $\underline{\Omega}$ 03'35	27°02'18
evening set	4416 Oct 07 15:38	28° $\underline{\Omega}$ 23'30		retrograde	4417 Sep 12 20:36	13° $\underline{\Omega}$ 15'06	
min. Earth dist.	4416 Oct 11 07:06	25° $\underline{\Omega}$ 21'04	0.62967 AU	evening set	4417 Sep 19 21:53	11° $\underline{\Omega}$ 03'11	
inferior conj	4416 Oct 14 01:35	22° $\underline{\Omega}$ 39'27	-3°-22'-7	min. Earth dist.	4417 Sep 23 13:53	8° $\underline{\Omega}$ 22'49	0.61014 AU
minimum elong	4416 Oct 14 07:08	22° $\underline{\Omega}$ 25'53	3°20'20	inferior conj	4417 Sep 26 17:39	5° $\underline{\Omega}$ 40'42	-4°-17'-52
morning rise	4416 Oct 21 01:21	17° $\underline{\Omega}$ 26'48		minimum elong	4417 Sep 26 23:41	5° $\underline{\Omega}$ 27'43	4°16'27
direct	4416 Oct 23 09:48	17° $\underline{\Omega}$ 01'00		morning rise	4417 Oct 04 04:40	0° $\underline{\Omega}$ 49'11	
asc. node	4416 Oct 24 19:36	17° $\underline{\Omega}$ 10'28		direct	4417 Oct 06 11:49	0° $\underline{\Omega}$ 27'58	
morning max el	4416 Oct 30 01:57	20° $\underline{\Omega}$ 27'08	17°49'53	asc. node	4417 Oct 11 16:39	2° $\underline{\Omega}$ 21'28	
	4416 Nov 06 05:17	0° \mathbb{M}		morning max el	4417 Oct 13 16:01	4° $\underline{\Omega}$ 02'15	18°00'01
morning set	4416 Nov 15 05:33	15° \mathbb{M} 26'48		morning set	4417 Oct 29 09:18	28° $\underline{\Omega}$ 50'12	
	4416 Nov 23 14:21	0° \mathbb{M}			4417 Oct 30 00:24	0° \mathbb{M}	
superior conj	4416 Nov 26 23:27	5° \mathbb{M} 42'20	0°25'10	superior conj	4417 Nov 08 12:47	17° \mathbb{M} 15'45	1°00'20
minimum elong	4416 Nov 27 01:54	5° \mathbb{M} 52'33	0°24'49	minimum elong	4417 Nov 08 16:51	17° \mathbb{M} 33'40	0°59'49
desc. node	4416 Nov 30 14:23	11° \mathbb{M} 41'46			4417 Nov 15 23:25	0° \mathbb{M}	
max. Earth dist.	4416 Dec 03 15:03	16° \mathbb{M} 36'40	1.43817 AU	max. Earth dist.	4417 Nov 16 03:27	0° \mathbb{M} 16'45	1.42174 AU
evening rise	4416 Dec 12 05:26	0° \mathbb{M} 09'47		desc. node	4417 Nov 17 11:24	2° \mathbb{M} 28'42	
	4416 Dec 12 02:54	0° \mathbb{M}		evening rise	4417 Nov 22 01:23	9° \mathbb{M} 53'21	
	4417 Jan 01 10:02	0° \approx			4417 Dec 05 05:52	0° \mathbb{M}	
greatest brilliancy	4417 Jan 05 22:46	6° \approx 01'31	-0.4m	greatest brilliancy	4417 Dec 20 02:21	20° \mathbb{M} 14'21	-0.3m
evening max el	4417 Jan 11 03:05	12° \approx 02'09	21°08'32	evening max el	4417 Dec 24 21:13	25° \mathbb{M} 36'50	22°24'31
retrograde	4417 Jan 19 17:19	17° \approx 07'32			4417 Dec 30 05:08	0° \approx	
asc. node	4417 Jan 20 18:51	17° \approx 01'23		retrograde	4418 Jan 03 13:36	1° \approx 22'20	
evening set	4417 Jan 23 19:15	15° \approx 33'43		asc. node	4418 Jan 07 15:54	29° \mathbb{M} 53'53	
inferior conj	4417 Jan 29 04:41	9° \approx 17'57	2°32'10		4418 Jan 07 12:30	30° \mathbb{R} \mathbb{M}	
minimum elong	4417 Jan 29 02:14	9° \approx 26'27	2°31'27	evening set	4418 Jan 08 02:52	29° \mathbb{M} 32'37	
min. Earth dist.	4417 Jan 29 13:17	8° \approx 48'17	0.67791 AU	inferior conj	4418 Jan 13 12:29	23° \mathbb{M} 08'51	1°52'32
morning rise	4417 Feb 03 08:51	3° \approx 03'02		minimum elong	4418 Jan 13 10:17	23° \mathbb{M} 16'27	1°51'46
direct	4417 Feb 08 14:29	0° \approx 46'26		min. Earth dist.	4418 Jan 13 09:25	23° \mathbb{M} 19'29	0.68043 AU
morning max el	4417 Feb 19 04:13	7° \approx 03'56	23°35'39	morning rise	4418 Jan 18 17:36	16° \mathbb{M} 56'40	
desc. node	4417 Feb 26 13:37	15° \approx 37'21		direct	4418 Jan 23 08:20	15° \mathbb{M} 02'38	
	4417 Mar 09 00:17	0° \mathbb{M}		morning max el	4418 Feb 01 15:53	20° \mathbb{M} 30'47	22°07'35
morning set	4417 Mar 26 09:52	27° \mathbb{M} 25'47		greatest brilliancy	4418 Feb 06 06:25	25° \mathbb{M} 39'59	-0.3m
	4417 Mar 27 21:59	0° \mathbb{M}			4418 Feb 09 16:38	0° \approx	
max. Earth dist.	4417 Mar 30 09:57	4° \mathbb{M} 20'40	1.38886 AU	desc. node	4418 Feb 13 10:40	5° \approx 03'31	
					4418 Mar 02 06:16	0° \mathbb{M}	
superior conj	4417 Apr 06 21:13	17° \mathbb{M} 55'08	-1°-40'-48	morning set	4418 Mar 06 17:24	7° \mathbb{M} 06'06	
minimum elong	4417 Apr 07 02:04	18° \mathbb{M} 17'51	1°40'16	max. Earth dist.	4418 Mar 12 07:37	16° \mathbb{M} 18'25	1.41055 AU
	4417 Apr 13 04:42	0° \mathbb{M}					
evening rise	4417 Apr 16 03:40	5° \mathbb{M} 45'08		superior conj	4418 Mar 20 01:48	29° \mathbb{M} 42'41	-2°00'-15
asc. node	4417 Apr 18 18:08	10° \mathbb{M} 46'28		minimum elong	4418 Mar 20 05:43	0° \mathbb{M} 00'06	2°00'02
	4417 Apr 30 13:23	0° \mathbb{M}			4418 Mar 20 05:42	0° \mathbb{M}	
evening max el	4417 May 02 09:50	1° \mathbb{M} 59'35	18°45'09	evening rise	4418 Mar 30 12:48	18° \mathbb{M} 52'29	
retrograde	4417 May 10 12:57	5° \mathbb{M} 58'59		asc. node	4418 Apr 05 15:11	0° \mathbb{M} 03'00	
evening set	4417 May 12 16:23	5° \mathbb{M} 43'23			4418 Apr 05 14:30	0° \mathbb{M}	
inferior conj	4417 May 20 14:13	1° \mathbb{M} 21'22	1°23'42	evening max el	4418 Apr 15 17:08	14° \mathbb{M} 40'12	18°16'07
minimum elong	4417 May 20 17:08	1° \mathbb{M} 15'59	1°22'44	retrograde	4418 Apr 22 19:40	18° \mathbb{M} 13'25	
	4417 May 22 10:04	30° \mathbb{R} \mathbb{M}		evening set	4418 Apr 25 05:23	17° \mathbb{M} 49'48	
min. Earth dist.	4417 May 23 20:42	28° \mathbb{M} 57'27	0.57281 AU	inferior conj	4418 May 02 08:46	13° \mathbb{M} 07'05	2°35'22
desc. node	4417 May 25 12:48	27° \mathbb{M} 50'12		minimum elong	4418 May 02 12:18	12° \mathbb{M} 59'25	2°34'29
morning rise	4417 May 28 13:25	26° \mathbb{M} 11'19		min. Earth dist.	4418 May 05 18:46	10° \mathbb{M} 11'08	0.59346 AU
direct	4417 Jun 03 02:46	24° \mathbb{M} 55'47		morning rise	4418 May 09 15:11	7° \mathbb{M} 27'45	
	4417 Jun 14 17:45	0° \mathbb{M}		desc. node	4418 May 12 09:50	6° \mathbb{M} 12'27	
morning max el	4417 Jun 17 11:17	2° \mathbb{M} 26'44	26°19'24	direct	4418 May 15 23:25	5° \mathbb{M} 37'31	
	4417 Jul 07 03:12	0° \mathbb{M}		morning max el	4418 May 30 08:33	13° \mathbb{M} 26'56	27°23'16
asc. node	4417 Jul 15 17:24	16° \mathbb{M} 48'23			4418 Jun 12 12:30	0° \mathbb{M}	

	4418 Jun 29 08:30	0°☿		morning max el	4419 May 12 11:57	25°☿08'00	27°51'12
morning set	4418 Jun 30 10:55	2°☿16'56			4419 May 16 23:01	0°☿	
asc. node	4418 Jul 02 14:27	6°☿49'24			4419 Jun 05 22:39	0°☿	
max. Earth dist.	4418 Jul 07 02:07	16°☿36'06	1.31987 AU	morning set	4419 Jun 14 14:38	16°☿40'28	
				asc. node	4419 Jun 19 11:30	26°☿55'50	
superior conj	4418 Jul 07 14:34	17°☿44'48	0°50'21	max. Earth dist.	4419 Jun 20 11:38	29°☿06'26	1.32229 AU
minimum elong	4418 Jul 07 12:36	17°☿33'54	0°49'58		4419 Jun 20 21:29	0°☿	
	4418 Jul 13 04:49	0°☿					
evening rise	4418 Jul 14 11:05	2°☿41'45		superior conj	4419 Jun 22 00:57	2°☿29'54	0°26'33
	4418 Jul 29 02:27	0°☿		minimum elong	4419 Jun 21 23:46	2°☿23'24	0°26'17
desc. node	4418 Aug 08 09:06	13°☿57'41		evening rise	4419 Jun 28 22:24	17°☿30'19	
evening max el	4418 Aug 11 22:08	17°☿39'01	26°05'34		4419 Jul 05 01:51	0°☿	
retrograde	4418 Aug 25 21:24	24°☿47'27		evening max el	4419 Jul 24 13:38	28°☿29'12	24°42'23
evening set	4418 Sep 01 07:36	23°☿07'33		desc. node	4419 Jul 26 06:07	0°☿01'20	
min. Earth dist.	4418 Sep 05 10:50	20°☿33'00	0.58938 AU		4419 Jul 26 05:30	0°☿	
inferior conj	4418 Sep 08 16:53	18°☿07'42	-4°-59'-21	retrograde	4419 Aug 07 11:31	5°☿30'48	
minimum elong	4418 Sep 08 21:05	17°☿59'49	4°58'51	evening set	4419 Aug 12 17:03	4°☿29'10	
morning rise	4418 Sep 16 14:06	13°☿39'34		min. Earth dist.	4419 Aug 18 00:57	1°☿41'23	0.56999 AU
direct	4418 Sep 18 23:17	13°☿20'31		inferior conj	4419 Aug 20 20:25	29°☿51'55	-5°-13'-2
morning max el	4418 Sep 27 00:17	17°☿12'38	18°30'12	minimum elong	4419 Aug 20 19:39	29°☿53'11	5°13'02
asc. node	4418 Sep 28 13:41	18°☿50'11			4419 Aug 20 15:29	30°☿☿	
	4418 Oct 06 04:12	0°☿		morning rise	4419 Aug 29 01:47	25°☿45'45	
morning set	4418 Oct 13 01:30	12°☿48'52		direct	4419 Aug 31 16:22	25°☿26'47	
				morning max el	4419 Sep 09 23:23	29°☿48'09	19°21'41
superior conj	4418 Oct 22 00:37	29°☿55'01	1°24'33		4419 Sep 10 04:23	0°☿	
minimum elong	4418 Oct 22 04:05	0°☿11'06	1°24'13	asc. node	4419 Sep 15 10:45	6°☿21'18	
	4418 Oct 22 01:41	0°☿		morning set	4419 Sep 27 02:16	27°☿11'47	
max. Earth dist.	4418 Oct 29 10:20	13°☿13'28	1.40173 AU		4419 Sep 28 11:53	0°☿	
evening rise	4418 Nov 02 18:09	20°☿34'40					
desc. node	4418 Nov 04 08:25	23°☿12'54		superior conj	4419 Oct 05 05:23	13°☿23'43	1°38'35
	4418 Nov 08 13:31	0°☿		minimum elong	4419 Oct 05 07:20	13°☿33'12	1°38'28
	4418 Nov 29 10:29	0°☿		max. Earth dist.	4419 Oct 11 14:39	25°☿29'30	1.38078 AU
evening max el	4418 Dec 07 11:33	9°☿14'59	23°44'25		4419 Oct 14 02:32	0°☿	
retrograde	4418 Dec 18 06:53	15°☿37'37		evening rise	4419 Oct 15 10:04	2°☿19'24	
evening set	4418 Dec 23 08:55	13°☿31'57		desc. node	4419 Oct 22 05:26	13°☿49'56	
asc. node	4418 Dec 25 12:56	11°☿21'07			4419 Nov 01 17:42	0°☿	
inferior conj	4418 Dec 28 20:07	7°☿04'18	1°05'59	evening max el	4419 Nov 20 00:15	22°☿56'58	25°01'47
minimum elong	4418 Dec 28 18:38	7°☿09'21	1°05'24	retrograde	4419 Dec 01 20:02	29°☿48'07	
min. Earth dist.	4418 Dec 28 06:08	7°☿51'58	0.67928 AU	evening set	4419 Dec 07 11:46	27°☿27'34	
morning rise	4419 Jan 03 04:33	0°☿56'41		min. Earth dist.	4419 Dec 12 01:01	22°☿21'55	0.67463 AU
	4419 Jan 04 17:17	30°☿☿		asc. node	4419 Dec 12 09:59	21°☿52'35	
direct	4419 Jan 07 05:10	29°☿25'21		inferior conj	4419 Dec 13 01:46	21°☿00'43	0°13'27
	4419 Jan 09 20:24	0°☿		minimum elong	4419 Dec 13 01:26	21°☿01'49	0°13'19
morning max el	4419 Jan 15 09:51	4°☿08'27	20°47'17	transit middle	4419 Dec 13 01:26	21°☿01'49	0°13'19
greatest brilliancy	4419 Jan 21 03:11	10°☿46'56	-0.5m	transit begin	4419 Dec 12 23:51	21°☿06'59	
desc. node	4419 Jan 31 07:43	24°☿57'59		transit end	4419 Dec 13 03:00	20°☿56'39	
	4419 Feb 03 17:24	0°☿		morning rise	4419 Dec 18 15:42	14°☿59'57	
morning set	4419 Feb 13 22:43	15°☿35'39		direct	4419 Dec 22 03:44	13°☿49'17	
max. Earth dist.	4419 Feb 22 11:49	29°☿10'19	1.42982 AU	morning max el	4419 Dec 29 11:37	17°☿56'58	19°39'40
	4419 Feb 23 00:04	0°☿		greatest brilliancy	4420 Jan 06 10:50	27°☿48'54	-0.6m
					4420 Jan 07 23:54	0°☿	
superior conj	4419 Mar 01 07:23	10°☿25'59	-2°-8'-7	desc. node	4420 Jan 18 04:44	15°☿12'24	
minimum elong	4419 Mar 01 07:26	10°☿26'10	2°08'09	morning set	4420 Jan 23 19:01	23°☿47'47	
	4419 Mar 12 13:55	0°☿			4420 Jan 27 19:08	0°☿	
evening rise	4419 Mar 13 06:51	1°☿15'12		max. Earth dist.	4420 Feb 04 23:32	12°☿50'43	1.44416 AU
asc. node	4419 Mar 23 12:13	18°☿52'29					
evening max el	4419 Mar 30 04:45	27°☿44'00	18°06'44	superior conj	4420 Feb 09 11:13	20°☿00'59	-1°-59'-3
	4419 Apr 02 01:04	0°☿		minimum elong	4420 Feb 09 05:09	19°☿36'33	1°58'43
retrograde	4419 Apr 05 18:03	1°☿06'38			4420 Feb 15 14:18	0°☿	
evening set	4419 Apr 08 09:56	0°☿32'55		evening rise	4420 Feb 23 05:20	12°☿44'45	
	4419 Apr 09 12:38	30°☿☿			4420 Mar 04 13:43	0°☿	
inferior conj	4419 Apr 14 22:20	25°☿29'32	3°16'47	asc. node	4420 Mar 09 09:15	7°☿06'25	
minimum elong	4419 Apr 15 00:38	25°☿23'47	3°16'28	evening max el	4420 Mar 12 17:35	11°☿03'05	18°16'23
min. Earth dist.	4419 Apr 18 00:24	22°☿26'24	0.61543 AU	retrograde	4420 Mar 19 03:46	14°☿29'12	
morning rise	4419 Apr 21 12:22	19°☿31'29		evening set	4420 Mar 22 01:36	13°☿44'04	
direct	4419 Apr 28 07:18	17°☿09'29		inferior conj	4420 Mar 28 02:51	8°☿21'02	3°33'56
desc. node	4419 Apr 29 06:54	17°☿12'18		minimum elong	4420 Mar 28 03:27	8°☿19'23	3°33'55

min. Earth dist.	4420 Mar 30 14:58	5°Υ33'40	0.63585 AU	evening set	4421 Mar 06 00:53	27°✠15'11	
morning rise	4420 Apr 03 03:23	2°Υ12'38		inferior conj	4421 Mar 11 18:25	21°✠34'05	3°32'42
	4420 Apr 07 00:28	30°✠		minimum elong	4421 Mar 11 17:32	21°✠36'50	3°32'38
direct	4420 Apr 09 23:58	29°✠30'05		min. Earth dist.	4421 Mar 13 14:50	19°✠18'19	0.65293 AU
	4420 Apr 13 02:54	0°Υ		morning rise	4421 Mar 17 08:59	15°✠20'25	
desc. node	4420 Apr 15 03:56	0°Υ48'55		direct	4421 Mar 23 23:39	12°✠31'15	
morning max el	4420 Apr 23 19:51	7°Υ28'26	27°41'41	desc. node	4421 Apr 02 00:58	16°✠30'38	
	4420 May 11 02:59	0°♄		morning max el	4421 Apr 06 05:42	20°✠18'45	26°58'52
morning set	4420 May 28 11:29	0°♄40'41			4421 Apr 14 13:30	0°Υ	
	4420 May 28 03:18	0°♄			4421 May 04 05:10	0°♄	
max. Earth dist.	4420 Jun 02 15:14	11°♄15'50	1.32910 AU	morning set	4421 May 11 22:21	14°♄07'47	
				max. Earth dist.	4421 May 16 09:24	22°♄55'21	1.34056 AU
superior conj	4420 Jun 05 08:08	17°♄01'26	0°00'-10		4421 May 19 20:07	0°♄	
minimum elong	4420 Jun 05 08:08	17°♄01'28	0°00'12				
behind sun begin	4420 Jun 05 02:50	16°♄32'59		superior conj	4421 May 20 09:58	1°♄12'13	0°-28'-54
behind sun end	4420 Jun 05 13:26	17°♄29'59		minimum elong	4421 May 20 11:29	1°♄20'12	0°28'37
asc. node	4420 Jun 05 08:32	17°♄03'39		asc. node	4421 May 23 05:33	7°♄08'12	
	4420 Jun 11 08:29	0°♄		evening rise	4421 May 27 20:30	16°♄53'57	
evening rise	4420 Jun 12 10:10	2°♄16'41			4421 Jun 03 10:17	0°♄	
	4420 Jun 27 16:43	0°♄		evening max el	4421 Jun 16 20:47	19°♄24'56	21°31'54
evening max el	4420 Jul 05 02:40	8°♄54'18	23°05'59	retrograde	4421 Jun 29 03:24	25°♄28'23	
desc. node	4420 Jul 12 03:09	14°♄02'58		desc. node	4421 Jun 29 00:11	25°♄28'20	
retrograde	4420 Jul 18 12:46	15°♄36'19		evening set	4421 Jul 01 15:05	25°♄14'18	
evening set	4420 Jul 22 05:59	15°♄06'08		inferior conj	4421 Jul 10 23:16	21°♄14'18	-3°-22'-4
min. Earth dist.	4420 Jul 29 11:46	11°♄49'58	0.55529 AU	minimum elong	4421 Jul 10 14:52	21°♄26'02	3°19'33
inferior conj	4420 Jul 31 04:27	10°♄50'51	-4°-42'-58	min. Earth dist.	4421 Jul 10 22:08	21°♄15'53	0.54838 AU
minimum elong	4420 Jul 30 21:39	11°♄00'46	4°41'50	morning rise	4421 Jul 19 15:30	17°♄21'16	
morning rise	4420 Aug 08 16:08	6°♄59'10		direct	4421 Jul 23 01:05	16°♄56'11	
direct	4420 Aug 11 14:54	6°♄38'28		morning max el	4421 Aug 04 10:40	22°♄46'51	22°07'02
morning max el	4420 Aug 22 10:53	11°♄40'30	20°34'50		4421 Aug 10 18:07	0°♄	
asc. node	4420 Sep 01 07:47	24°♄40'57		asc. node	4421 Aug 19 04:49	13°♄36'33	
	4420 Sep 04 08:05	0°♄		morning set	4421 Aug 25 18:43	26°♄40'45	
morning set	4420 Sep 10 08:46	11°♄51'34			4421 Aug 27 08:35	0°♄	
superior conj	4420 Sep 17 22:25	27°♄28'51	1°43'53	superior conj	4421 Sep 01 23:53	11°♄58'16	1°41'52
minimum elong	4420 Sep 17 22:44	27°♄30'30	1°43'52	minimum elong	4421 Sep 01 22:53	11°♄52'59	1°41'50
	4420 Sep 19 04:14	0°♄		max. Earth dist.	4421 Sep 05 13:00	19°♄20'42	1.34486 AU
max. Earth dist.	4420 Sep 22 22:08	7°♄24'59	1.36129 AU	evening rise	4421 Sep 10 02:46	28°♄27'27	
evening rise	4420 Sep 26 22:25	15°♄01'09			4421 Sep 10 22:00	0°♄	
	4420 Oct 05 11:42	0°♄		desc. node	4421 Sep 24 23:28	24°♄22'54	
desc. node	4420 Oct 08 02:26	4°♄15'27			4421 Sep 28 16:37	0°♄	
	4420 Oct 26 09:32	0°♄		evening max el	4421 Oct 15 01:32	20°♄16'07	26°59'13
evening max el	4420 Nov 01 12:53	6°♄40'08	26°09'10	retrograde	4421 Oct 28 06:39	27°♄32'58	
retrograde	4420 Nov 14 04:06	13°♄48'53		evening set	4421 Nov 04 00:25	24°♄53'17	
evening set	4420 Nov 20 09:37	11°♄16'09		min. Earth dist.	4421 Nov 07 23:38	20°♄59'32	0.65491 AU
min. Earth dist.	4420 Nov 24 15:39	6°♄46'09	0.66655 AU	inferior conj	4421 Nov 09 23:27	18°♄42'52	-1°-44'-52
inferior conj	4420 Nov 26 03:35	4°♄55'03	0°-43'-57	minimum elong	4421 Nov 10 02:25	18°♄34'23	1°43'40
minimum elong	4420 Nov 26 04:46	4°♄51'24	0°43'27	asc. node	4421 Nov 15 04:03	13°♄41'52	
asc. node	4420 Nov 28 07:01	2°♄21'26		morning rise	4421 Nov 16 06:10	13°♄04'17	
	4420 Nov 30 16:46	30°♄		direct	4421 Nov 18 22:55	12°♄24'42	
morning rise	4420 Dec 02 01:01	29°♄03'49		morning max el	4421 Nov 25 10:56	15°♄54'22	18°11'25
direct	4420 Dec 05 02:20	28°♄10'35			4421 Dec 05 17:12	0°♄	
	4420 Dec 09 16:48	0°♄		morning set	4421 Dec 14 00:59	13°♄30'50	
morning max el	4420 Dec 11 20:40	1°♄53'59	18°47'18	desc. node	4421 Dec 21 22:45	26°♄19'53	
	4420 Dec 31 10:55	0°♄			4421 Dec 24 05:46	0°♄	
morning set	4421 Jan 02 07:31	2°♄55'16		superior conj	4421 Dec 28 22:11	7°♄25'52	0°-46'-44
desc. node	4421 Jan 04 01:44	5°♄41'09		minimum elong	4421 Dec 28 16:20	7°♄02'47	0°45'59
max. Earth dist.	4421 Jan 17 16:52	27°♄04'09	1.45187 AU	max. Earth dist.	4421 Dec 31 12:30	11°♄31'06	1.45214 AU
superior conj	4421 Jan 18 18:28	28°♄44'40	-1°-30'-19		4422 Jan 12 08:31	0°♄	
minimum elong	4421 Jan 18 09:08	28°♄08'02	1°29'23	evening rise	4422 Jan 14 06:28	2°♄58'44	
	4421 Jan 19 13:38	0°♄		greatest brilliancy	4422 Jan 30 06:21	27°♄26'23	-0.7m
evening rise	4421 Feb 03 04:58	23°♄17'14			4422 Feb 01 01:29	0°♄	
	4421 Feb 07 08:51	0°♄		evening max el	4422 Feb 07 12:32	8°♄01'46	19°28'59
evening max el	4421 Feb 24 04:54	24°♄30'29	18°44'12	asc. node	4422 Feb 11 03:19	11°♄02'09	
asc. node	4421 Feb 24 06:17	24°♄33'59		retrograde	4422 Feb 14 17:43	12°♄10'42	
retrograde	4421 Mar 02 20:45	28°♄12'40		evening set	4422 Feb 18 05:05	11°♄00'00	

inferior conj	4422 Feb 23 17:44	5° H 03'08	3°17'31		4423 Jan 05 12:22	0° \approx	
minimum elong	4422 Feb 23 15:50	5° H 09'22	3°17'12	greatest brilliancy	4423 Jan 15 15:28	14° \approx 24'50	-0.5m
min. Earth dist.	4422 Feb 24 23:07	3° H 27'01	0.66590 AU	evening max el	4423 Jan 21 15:02	21° \approx 34'14	20°28'39
	4422 Feb 27 20:09	30° R \approx		asc. node	4423 Jan 29 00:22	26° \approx 15'40	
morning rise	4422 Mar 01 01:49	28° \approx 47'12		retrograde	4423 Jan 29 15:57	26° \approx 17'57	
direct	4422 Mar 07 05:31	26° \approx 03'55		evening set	4423 Feb 02 12:00	24° \approx 53'01	
	4422 Mar 15 20:48	0° H		inferior conj	4423 Feb 07 22:04	18° \approx 43'11	2°51'22
morning max el	4422 Mar 19 15:24	3° H 27'33	25°50'39	minimum elong	4423 Feb 07 19:40	18° \approx 51'22	2°50'47
desc. node	4422 Mar 19 21:58	3° H 44'16		min. Earth dist.	4423 Feb 08 13:51	17° \approx 49'17	0.67468 AU
	4422 Apr 08 20:17	0° Y		morning rise	4423 Feb 13 02:49	12° \approx 27'09	
morning set	4422 Apr 24 19:16	26° Y 50'53		direct	4423 Feb 18 16:50	9° \approx 58'59	
	4422 Apr 26 12:03	0° B		morning max el	4423 Mar 02 00:05	16° \approx 44'23	24°26'45
max. Earth dist.	4422 Apr 28 16:17	4° B 07'26	1.35658 AU	desc. node	4423 Mar 06 19:00	22° \approx 03'13	
					4423 Mar 13 00:18	0° H	
superior conj	4422 May 04 03:57	14° B 55'36	0°-58'-19		4423 Apr 01 20:14	0° Y	
minimum elong	4422 May 04 07:07	15° B 11'34	0°57'45	morning set	4423 Apr 06 20:52	8° Y 34'29	
asc. node	4422 May 10 02:36	27° B 05'52		max. Earth dist.	4423 Apr 10 13:40	15° Y 09'35	1.37640 AU
	4422 May 11 12:28	0° II					
evening rise	4422 May 12 03:20	1° II 16'10		superior conj	4423 Apr 17 10:48	28° Y 02'28	-1°-26'-23
	4422 May 29 14:32	0° B		minimum elong	4423 Apr 17 15:18	28° Y 24'11	1°25'45
evening max el	4422 May 30 02:09	0° B 29'00	20°11'48		4423 Apr 18 11:05	0° B	
retrograde	4422 Jun 09 17:20	5° B 40'38		evening rise	4423 Apr 26 04:12	15° B 15'33	
evening set	4422 Jun 11 16:24	5° B 30'47		asc. node	4423 Apr 26 23:38	16° B 51'43	
desc. node	4422 Jun 15 21:11	4° B 10'51			4423 May 03 23:25	0° II	
inferior conj	4422 Jun 20 18:30	1° B 32'01	-1°-27'-6	evening max el	4423 May 12 19:47	12° II 15'22	19°10'57
minimum elong	4422 Jun 20 14:24	1° B 38'05	1°25'36	retrograde	4423 May 21 18:35	16° II 37'11	
min. Earth dist.	4422 Jun 22 10:17	0° B 33'06	0.55103 AU	evening set	4423 May 23 18:38	16° II 25'00	
	4422 Jun 23 09:11	30° R II		inferior conj	4423 Jun 01 03:50	12° II 14'11	0°28'02
morning rise	4422 Jun 29 10:16	27° II 16'40		minimum elong	4423 Jun 01 04:59	12° II 12'15	0°27'36
direct	4422 Jul 03 12:07	26° II 40'39		desc. node	4423 Jun 02 18:12	11° II 09'09	
	4422 Jul 13 00:29	0° B		min. Earth dist.	4423 Jun 04 01:17	10° II 17'32	0.56281 AU
morning max el	4422 Jul 17 02:35	3° B 19'38	23°49'57	morning rise	4423 Jun 09 11:04	7° II 24'00	
	4422 Aug 04 12:58	0° Q		direct	4423 Jun 14 11:19	6° II 25'42	
asc. node	4422 Aug 06 01:51	2° Q 59'16		morning max el	4423 Jun 28 16:35	13° II 42'26	25°29'44
morning set	4422 Aug 10 06:17	11° Q 34'04			4423 Jul 11 12:16	0° B	
				asc. node	4423 Jul 23 22:54	22° B 41'51	
superior conj	4422 Aug 17 06:58	26° Q 43'27	1°33'44	morning set	4423 Jul 25 17:53	26° B 26'38	
minimum elong	4422 Aug 17 05:04	26° Q 33'14	1°33'34		4423 Jul 27 09:49	0° Q	
	4422 Aug 18 19:29	0° H					
max. Earth dist.	4422 Aug 19 12:35	1° H 31'19	1.33244 AU	superior conj	4423 Aug 01 17:22	11° Q 37'09	1°20'22
evening rise	4422 Aug 24 19:06	12° H 27'39		minimum elong	4423 Aug 01 15:04	11° Q 24'32	1°20'03
	4422 Sep 03 03:26	0° Q		max. Earth dist.	4423 Aug 02 19:22	13° Q 59'35	1.32426 AU
desc. node	4422 Sep 11 20:29	14° Q 04'21		evening rise	4423 Aug 08 20:01	26° Q 52'18	
	4422 Sep 24 01:43	0° M			4423 Aug 10 08:43	0° H	
evening max el	4422 Sep 27 13:08	3° M 33'48	27°24'52		4423 Aug 27 12:34	0° Q	
retrograde	4422 Oct 11 03:16	10° M 51'45		desc. node	4423 Aug 29 17:30	3° Q 09'08	
evening set	4422 Oct 18 05:29	8° M 13'35		evening max el	4423 Sep 09 21:45	16° Q 21'13	27°20'15
min. Earth dist.	4422 Oct 21 22:55	4° M 54'11	0.63975 AU	retrograde	4423 Sep 23 17:18	23° Q 35'57	
inferior conj	4422 Oct 24 10:55	2° M 18'35	-2°-47'-5	evening set	4423 Sep 30 21:23	21° Q 10'57	
minimum elong	4422 Oct 24 15:40	2° M 06'16	2°45'23	min. Earth dist.	4423 Oct 04 12:06	18° Q 19'23	0.62151 AU
	4422 Oct 26 18:27	30° R Q		inferior conj	4423 Oct 07 11:05	15° Q 35'27	-3°-46'-55
morning rise	4422 Oct 31 04:16	26° Q 55'46		minimum elong	4423 Oct 07 17:03	15° Q 21'38	3°45'12
asc. node	4422 Nov 02 01:05	26° Q 27'43		morning rise	4423 Oct 14 15:42	10° Q 31'34	
direct	4422 Nov 02 14:51	26° Q 26'03		direct	4423 Oct 16 23:03	10° Q 08'13	
morning max el	4422 Nov 09 03:36	29° Q 51'12	17°52'41	asc. node	4423 Oct 19 22:07	10° Q 47'59	
	4422 Nov 09 07:07	0° M		morning max el	4423 Oct 23 19:34	13° Q 37'07	17°51'54
morning set	4422 Nov 25 22:01	25° M 26'37			4423 Nov 03 23:28	0° M	
	4422 Nov 28 13:59	0° J		morning set	4423 Nov 08 16:24	8° M 23'50	
superior conj	4422 Dec 08 18:24	16° J 59'04	0°00'24	superior conj	4423 Nov 19 16:46	27° M 49'16	0°41'22
minimum elong	4422 Dec 08 18:27	16° J 59'15	0°00'24	minimum elong	4423 Nov 19 20:16	28° M 04'12	0°40'53
behind sun begin	4422 Dec 08 08:32	16° J 18'49			4423 Nov 20 23:30	0° J	
behind sun end	4422 Dec 09 04:22	17° J 39'36		desc. node	4423 Nov 25 16:48	7° J 52'07	
desc. node	4422 Dec 08 19:46	17° J 04'36		max. Earth dist.	4423 Nov 26 21:35	9° J 49'47	1.43172 AU
max. Earth dist.	4422 Dec 14 06:53	25° J 51'43	1.44511 AU	evening rise	4423 Dec 04 06:07	21° J 32'50	
	4422 Dec 16 21:41	0° B			4423 Dec 09 17:59	0° B	
evening rise	4422 Dec 24 17:45	12° B 10'55		greatest brilliancy	4423 Dec 30 16:18	29° B 38'31	-0.4m

	4423 Dec 30 23:16	0°♊				4424 Nov 12 09:44	0°♊	
evening max el	4424 Jan 04 12:09	5°♊08'36	21°39'58		evening rise	4424 Nov 13 10:09	1°♊39'18	
retrograde	4424 Jan 13 13:24	10°♊31'17				4424 Dec 02 04:31	0°♊	
asc. node	4424 Jan 15 21:23	10°♊01'59			greatest brilliancy	4424 Dec 11 16:38	12°♊34'33	-0.2m
evening set	4424 Jan 17 19:51	8°♊51'03			evening max el	4424 Dec 17 04:37	18°♊45'27	22°58'25
inferior conj	4424 Jan 23 05:12	2°♊31'27	2°16'17		retrograde	4424 Dec 27 08:28	24°♊46'52	
minimum elong	4424 Jan 23 02:47	2°♊39'48	2°15'31		evening set	4425 Jan 01 03:00	22°♊50'30	
min. Earth dist.	4424 Jan 23 08:47	2°♊18'59	0.67948 AU		asc. node	4425 Jan 01 18:26	22°♊16'29	
	4424 Jan 25 01:37	30°♊♊			min. Earth dist.	4425 Jan 06 05:27	16°♊51'24	0.68043 AU
morning rise	4424 Jan 28 09:27	26°♊17'15			inferior conj	4425 Jan 06 13:09	16°♊24'50	1°33'36
direct	4424 Feb 02 08:44	24°♊09'49			minimum elong	4425 Jan 06 11:12	16°♊31'32	1°32'53
	4424 Feb 12 06:51	0°♊			morning rise	4425 Jan 11 19:24	10°♊14'21	
morning max el	4424 Feb 12 09:30	0°♊06'37	22°57'30		direct	4425 Jan 16 04:06	8°♊29'52	
greatest brilliancy	4424 Feb 17 03:58	5°♊26'07	-0.3m		morning max el	4425 Jan 24 23:22	13°♊37'28	21°32'05
desc. node	4424 Feb 21 16:03	11°♊09'10			greatest brilliancy	4425 Jan 29 21:46	19°♊12'41	-0.4m
	4424 Mar 05 20:45	0°♊				4425 Feb 06 23:19	0°♊	
morning set	4424 Mar 17 21:01	19°♊02'41			desc. node	4425 Feb 07 13:06	0°♊48'47	
max. Earth dist.	4424 Mar 22 08:40	26°♊37'35	1.39826 AU		morning set	4425 Feb 25 16:26	28°♊09'51	
	4424 Mar 24 07:20	0°♊				4425 Feb 26 20:07	0°♊	
					max. Earth dist.	4425 Mar 04 09:06	8°♊59'53	1.41928 AU
superior conj	4424 Mar 30 02:26	10°♊22'54	-1°-50'-8		superior conj	4425 Mar 11 21:55	21°♊45'32	-2°-5'-20
minimum elong	4424 Mar 30 07:10	10°♊44'39	1°49'43		minimum elong	4425 Mar 12 00:35	21°♊57'09	2°05'16
evening rise	4424 Apr 08 20:07	28°♊44'30				4425 Mar 16 14:07	0°♊	
	4424 Apr 09 11:56	0°♊			evening rise	4425 Mar 22 23:24	11°♊34'41	
asc. node	4424 Apr 12 20:41	6°♊20'48			asc. node	4425 Mar 30 17:44	25°♊27'16	
evening max el	4424 Apr 24 23:12	24°♊39'24	18°30'22			4425 Apr 02 12:51	0°♊	
retrograde	4424 May 02 14:15	28°♊25'13			evening max el	4425 Apr 08 08:50	7°♊32'03	18°09'44
evening set	4424 May 04 20:25	28°♊06'29			retrograde	4425 Apr 15 04:11	10°♊58'38	
inferior conj	4424 May 12 10:06	23°♊36'05	1°58'04		evening set	4425 Apr 17 16:44	10°♊30'45	
minimum elong	4424 May 12 13:36	23°♊29'09	1°57'01		inferior conj	4425 Apr 24 13:14	5°♊38'58	2°56'17
min. Earth dist.	4424 May 15 20:05	20°♊55'29	0.58128 AU		minimum elong	4425 Apr 24 16:22	5°♊31'43	2°55'39
desc. node	4424 May 19 15:15	18°♊26'51			min. Earth dist.	4425 Apr 27 20:52	2°♊37'10	0.60290 AU
morning rise	4424 May 20 02:21	18°♊12'32				4425 May 01 06:40	30°♊♊	
direct	4424 May 26 00:50	16°♊42'07			morning rise	4425 May 01 12:29	29°♊50'47	
morning max el	4424 Jun 09 10:02	24°♊22'16	26°50'33		desc. node	4425 May 06 12:18	27°♊53'29	
	4424 Jun 14 13:17	0°♊			direct	4425 May 08 02:31	27°♊46'17	
	4424 Jul 03 14:29	0°♊				4425 May 15 07:56	0°♊	
morning set	4424 Jul 09 03:49	11°♊12'39			morning max el	4425 May 22 09:55	5°♊39'38	27°39'49
asc. node	4424 Jul 09 19:56	12°♊37'47				4425 Jun 09 14:00	0°♊	
superior conj	4424 Jul 16 05:07	26°♊32'16	1°02'29		morning set	4425 Jun 23 10:24	25°♊46'46	
minimum elong	4424 Jul 16 02:53	26°♊19'57	1°02'05			4425 Jun 25 10:39	0°♊	
max. Earth dist.	4424 Jul 16 06:16	26°♊38'37	1.32029 AU		asc. node	4425 Jun 26 16:59	2°♊42'08	
	4424 Jul 17 18:46	0°♊			max. Earth dist.	4425 Jun 29 17:37	9°♊17'18	1.32044 AU
evening rise	4424 Jul 23 02:44	11°♊32'15			superior conj	4425 Jun 30 16:30	11°♊23'06	0°40'40
	4424 Aug 01 13:26	0°♊			minimum elong	4425 Jun 30 14:48	11°♊13'45	0°40'19
desc. node	4424 Aug 15 14:32	21°♊21'37			evening rise	4425 Jul 07 12:58	26°♊20'13	
evening max el	4424 Aug 22 00:47	28°♊25'51	26°42'11			4425 Jul 09 06:46	0°♊	
	4424 Aug 23 18:35	0°♊				4425 Jul 26 12:52	0°♊	
retrograde	4424 Sep 04 23:13	5°♊35'52			desc. node	4425 Aug 02 11:33	8°♊20'27	
evening set	4424 Sep 11 19:30	3°♊36'40			evening max el	4425 Aug 03 20:15	9°♊41'29	25°32'47
min. Earth dist.	4424 Sep 15 14:43	1°♊00'46	0.60125 AU		retrograde	4425 Aug 17 19:14	16°♊46'56	
	4424 Sep 16 21:18	30°♊♊			evening set	4425 Aug 23 19:00	15°♊23'15	
inferior conj	4424 Sep 18 20:27	28°♊23'42	-4°-37'-58		min. Earth dist.	4425 Aug 28 08:10	12°♊45'28	0.58084 AU
minimum elong	4424 Sep 19 02:04	28°♊12'17	4°36'54		inferior conj	4425 Aug 31 11:32	10°♊33'29	-5°-9'-31
morning rise	4424 Sep 26 11:57	23°♊41'38			minimum elong	4425 Aug 31 13:59	10°♊29'09	5°09'22
direct	4424 Sep 28 19:28	23°♊21'38			morning rise	4425 Sep 08 12:27	6°♊14'57	
asc. node	4424 Oct 05 19:10	26°♊33'42			direct	4425 Sep 10 23:46	5°♊56'00	
morning max el	4424 Oct 06 07:32	27°♊02'40	18°10'18		morning max el	4425 Sep 19 12:09	9°♊58'51	18°49'25
	4424 Oct 08 23:00	0°♊			asc. node	4425 Sep 22 16:13	13°♊30'35	
morning set	4424 Oct 22 02:01	22°♊03'56				4425 Oct 02 16:55	0°♊	
	4424 Oct 26 07:21	0°♊			morning set	4425 Oct 05 22:14	6°♊14'01	
superior conj	4424 Oct 31 16:15	9°♊52'08	1°11'55		superior conj	4425 Oct 14 11:53	22°♊53'55	1°31'40
minimum elong	4424 Oct 31 20:15	10°♊10'10	1°11'27		minimum elong	4425 Oct 14 14:45	23°♊07'32	1°31'26
max. Earth dist.	4424 Nov 08 07:33	23°♊12'16	1.41354 AU			4425 Oct 18 07:11	0°♊	
desc. node	4424 Nov 11 13:50	28°♊38'27						

max. Earth dist.	4425 Oct 21 13:16	5°♄52'08	1.39283 AU	superior conj	4426 Sep 27 22:23	6°♄39'48	1°41'48
evening rise	4425 Oct 25 12:48	12°♄47'19		minimum elong	4426 Sep 27 23:37	6°♄45'57	1°41'46
desc. node	4425 Oct 29 10:51	19°♄20'00		max. Earth dist.	4426 Oct 03 18:09	17°♄56'16	1.37213 AU
	4425 Nov 05 04:21	0°♄		evening rise	4426 Oct 07 13:49	24°♄57'07	
	4425 Nov 27 10:17	0°♄			4426 Oct 10 10:26	0°♄	
evening max el	4425 Nov 29 18:02	2°♄25'15	24°18'04	desc. node	4426 Oct 16 07:51	9°♄52'48	
retrograde	4425 Dec 10 23:57	9°♄00'40			4426 Oct 29 19:07	0°♄	
evening set	4425 Dec 16 07:52	6°♄48'17		evening max el	4426 Nov 12 06:21	16°♄07'43	25°32'07
asc. node	4425 Dec 19 15:28	3°♄14'26		retrograde	4426 Nov 24 11:03	23°♄08'12	
min. Earth dist.	4425 Dec 21 01:33	1°♄23'02	0.67776 AU	evening set	4426 Nov 30 08:49	20°♄41'40	
inferior conj	4425 Dec 21 20:07	0°♄20'36	0°44'23	min. Earth dist.	4426 Dec 04 18:49	15°♄51'17	0.67156 AU
minimum elong	4425 Dec 21 19:05	0°♄24'07	0°43'58	inferior conj	4426 Dec 06 00:21	14°♄16'33	0°-10'-22
	4425 Dec 22 02:16	30°♄		minimum elong	4426 Dec 06 00:37	14°♄15'42	0°10'15
morning rise	4425 Dec 27 06:39	24°♄15'53		transit middle	4426 Dec 06 00:37	14°♄15'42	0°10'15
direct	4425 Dec 31 01:46	22°♄53'40		transit begin	4426 Dec 05 22:27	14°♄22'40	
morning max el	4426 Jan 07 20:36	27°♄19'53	20°16'50	transit end	4426 Dec 06 02:47	14°♄08'44	
	4426 Jan 10 07:39	0°♄		asc. node	4426 Dec 06 12:29	13°♄37'45	
greatest brilliancy	4426 Jan 14 08:31	5°♄03'06	-0.5m	morning rise	4426 Dec 11 17:16	8°♄19'46	
desc. node	4426 Jan 25 10:07	20°♄52'29		direct	4426 Dec 15 00:25	7°♄17'09	
	4426 Jan 31 11:07	0°♄		morning max el	4426 Dec 22 01:46	11°♄13'13	19°15'32
morning set	4426 Feb 04 14:57	6°♄23'24		greatest brilliancy	4426 Dec 31 18:14	23°♄41'50	-0.7m
max. Earth dist.	4426 Feb 14 17:14	22°♄16'30	1.43665 AU		4427 Jan 04 23:36	0°♄	
	4426 Feb 19 11:31	0°♄		desc. node	4427 Jan 12 07:07	11°♄13'47	
				morning set	4427 Jan 14 15:29	14°♄52'05	
superior conj	4426 Feb 20 16:34	1°♄59'30	-2°-6'-38		4427 Jan 24 08:37	0°♄	
minimum elong	4426 Feb 20 14:06	1°♄49'18	2°06'35	max. Earth dist.	4427 Jan 28 07:36	6°♄13'11	1.44823 AU
evening rise	4426 Mar 05 09:41	23°♄36'17					
	4426 Mar 09 01:58	0°♄		superior conj	4427 Jan 31 10:18	11°♄08'46	-1°-49'-12
asc. node	4426 Mar 17 14:46	14°♄03'04		minimum elong	4427 Jan 31 02:07	10°♄36'15	1°48'35
evening max el	4426 Mar 22 21:18	20°♄43'20	18°08'28		4427 Feb 12 02:20	0°♄	
retrograde	4426 Mar 29 08:08	24°♄06'02		evening rise	4427 Feb 14 22:47	4°♄42'16	
evening set	4426 Apr 01 02:31	23°♄27'34			4427 Mar 02 22:16	0°♄	
inferior conj	4426 Apr 07 09:41	18°♄15'18	3°26'39	asc. node	4427 Mar 04 11:47	1°♄59'04	
minimum elong	4426 Apr 07 11:16	18°♄11'08	3°26'29	evening max el	4427 Mar 06 09:44	4°♄06'39	18°25'59
min. Earth dist.	4426 Apr 10 06:06	15°♄16'43	0.62443 AU	retrograde	4427 Mar 12 21:29	7°♄38'34	
morning rise	4426 Apr 13 17:34	12°♄11'55		evening set	4427 Mar 15 21:48	6°♄48'26	
direct	4426 Apr 20 14:04	9°♄39'55		inferior conj	4427 Mar 21 19:24	1°♄17'28	3°35'22
desc. node	4426 Apr 23 09:20	10°♄03'03		minimum elong	4427 Mar 21 19:19	1°♄17'44	3°35'21
morning max el	4426 May 04 15:43	17°♄39'13	27°51'39		4427 Mar 22 21:51	30°♄	
	4426 May 14 22:52	0°♄		min. Earth dist.	4427 Mar 24 00:54	28°♄41'52	0.64355 AU
	4426 Jun 02 08:27	0°♄		morning rise	4427 Mar 27 15:13	25°♄06'01	
morning set	4426 Jun 07 11:30	10°♄01'35		direct	4427 Apr 03 09:55	22°♄18'55	
max. Earth dist.	4426 Jun 13 01:18	21°♄41'14	1.32472 AU	desc. node	4427 Apr 10 06:22	24°♄37'15	
asc. node	4426 Jun 13 14:01	22°♄49'43			4427 Apr 16 19:01	0°♄	
				morning max el	4427 Apr 17 01:00	0°♄14'56	27°27'05
superior conj	4426 Jun 15 01:43	26°♄03'02	0°15'31		4427 May 08 22:52	0°♄	
minimum elong	4426 Jun 15 01:00	25°♄59'05	0°15'21	morning set	4427 May 22 04:33	23°♄49'22	
behind sun begin	4426 Jun 14 23:37	25°♄51'36			4427 May 25 06:42	0°♄	
behind sun end	4426 Jun 15 02:22	26°♄06'34		max. Earth dist.	4427 May 27 01:17	3°♄38'44	1.33343 AU
	4426 Jun 16 21:12	0°♄					
evening rise	4426 Jun 22 00:42	11°♄08'42		superior conj	4427 May 30 06:54	10°♄26'36	0°-12'-12
	4426 Jul 01 15:23	0°♄		minimum elong	4427 May 30 07:31	10°♄29'55	0°12'05
evening max el	4426 Jul 16 09:36	20°♄16'25	24°01'52	behind sun begin	4427 May 30 03:56	10°♄10'49	
desc. node	4426 Jul 20 08:34	23°♄36'23		behind sun end	4427 May 30 11:07	10°♄49'01	
retrograde	4426 Jul 30 03:54	27°♄12'09		asc. node	4427 May 31 11:03	12°♄56'43	
evening set	4426 Aug 03 18:28	26°♄25'12		evening rise	4427 Jun 06 12:05	25°♄51'51	
min. Earth dist.	4426 Aug 09 20:03	23°♄27'02	0.56300 AU		4427 Jun 08 11:41	0°♄	
inferior conj	4426 Aug 12 06:19	21°♄57'27	-5°-6'-24		4427 Jun 27 07:50	0°♄	
minimum elong	4426 Aug 12 02:50	22°♄02'51	5°06'08	evening max el	4427 Jun 27 23:40	0°♄39'25	22°24'42
morning rise	4426 Aug 20 14:38	17°♄59'18		desc. node	4427 Jul 07 05:35	6°♄34'53	
direct	4426 Aug 23 08:29	17°♄39'49		retrograde	4427 Jul 11 00:28	7°♄08'00	
morning max el	4426 Sep 02 06:30	22°♄16'37	19°50'19	evening set	4427 Jul 14 03:06	6°♄46'40	
	4426 Sep 08 15:09	0°♄		min. Earth dist.	4427 Jul 22 06:33	3°♄14'05	0.55123 AU
asc. node	4426 Sep 09 13:15	1°♄23'39		inferior conj	4427 Jul 23 07:27	2°♄38'50	-4°-14'-30
morning set	4426 Sep 20 01:42	20°♄44'51		minimum elong	4427 Jul 22 23:09	2°♄50'36	4°12'36
	4426 Sep 24 14:54	0°♄			4427 Jul 28 09:26	30°♄	
				morning rise	4427 Jul 31 21:23	28°♄48'54	

direct	4427 Aug 04 00:00	28° $\overline{5}$ 27'00		morning rise	4428 Jul 10 17:35	8° $\overline{5}$ 56'38	
	4427 Aug 10 04:51	0° Ω		direct	4428 Jul 14 09:23	8° $\overline{5}$ 27'49	
morning max el	4427 Aug 15 12:56	3° Ω 49'33	21°12'09	morning max el	4428 Jul 27 08:46	14° $\overline{5}$ 40'21	22°50'05
asc. node	4427 Aug 27 10:17	19° Ω 59'50			4428 Aug 08 04:08	0° Ω	
	4427 Sep 01 17:19	0° $\overline{\eta}$		asc. node	4428 Aug 13 07:19	9° Ω 08'38	
morning set	4427 Sep 04 09:52	5° $\overline{\eta}$ 29'04		morning set	4428 Aug 18 20:45	20° Ω 21'17	
					4428 Aug 23 09:12	0° $\overline{\eta}$	
superior conj	4427 Sep 11 19:23	20° $\overline{\eta}$ 56'35	1°43'50	superior conj	4428 Aug 25 23:36	5° $\overline{\eta}$ 34'25	1°39'07
minimum elong	4427 Sep 11 19:06	20° $\overline{\eta}$ 55'05	1°43'51	minimum elong	4428 Aug 25 22:10	5° $\overline{\eta}$ 26'45	1°39'01
max. Earth dist.	4427 Sep 16 03:58	29° $\overline{\eta}$ 47'29	1.35376 AU	max. Earth dist.	4428 Aug 28 22:37	11° $\overline{\eta}$ 49'11	1.33910 AU
	4427 Sep 16 06:29	0° $\underline{\Delta}$		evening rise	4428 Sep 02 19:31	21° $\overline{\eta}$ 42'25	
evening rise	4427 Sep 20 09:29	7° $\underline{\Delta}$ 59'14			4428 Sep 07 03:42	0° $\underline{\Delta}$	
desc. node	4427 Oct 03 04:51	0° $\overline{\text{M}}$ 11'24		desc. node	4428 Sep 19 01:54	20° $\underline{\Delta}$ 09'20	
	4427 Oct 03 01:59	0° $\overline{\text{M}}$			4428 Sep 25 21:39	0° $\overline{\text{M}}$	
evening max el	4427 Oct 25 23:42	0° $\overline{\text{A}}$		evening max el	4428 Oct 07 07:29	13° $\overline{\text{M}}$ 19'09	27°13'34
retrograde	4427 Oct 25 18:53	29° $\overline{\text{M}}$ 48'26	26°33'08	retrograde	4428 Oct 20 17:10	20° $\overline{\text{M}}$ 37'00	
evening set	4427 Nov 07 17:02	7° $\overline{\text{A}}$ 02'39		evening set	4428 Oct 27 14:58	17° $\overline{\text{M}}$ 57'07	
	4427 Nov 14 03:57	4° $\overline{\text{A}}$ 26'04		min. Earth dist.	4428 Oct 31 11:39	14° $\overline{\text{M}}$ 18'03	0.64886 AU
	4427 Nov 18 10:49	30° $\overline{\text{R}}$ $\overline{\text{M}}$		inferior conj	4428 Nov 02 16:33	11° $\overline{\text{M}}$ 52'33	-2°-11'-17
min. Earth dist.	4427 Nov 18 06:57	0° $\overline{\text{A}}$ 11'26	0.66192 AU	minimum elong	4428 Nov 02 20:17	11° $\overline{\text{M}}$ 42'14	2°09'50
inferior conj	4427 Nov 19 23:53	28° $\overline{\text{M}}$ 08'37	-1°-9'-30	morning rise	4428 Nov 09 03:38	6° $\overline{\text{M}}$ 19'56	
minimum elong	4427 Nov 20 01:48	28° $\overline{\text{M}}$ 02'52	1°08'42	asc. node	4428 Nov 09 06:33	6° $\overline{\text{M}}$ 16'45	
asc. node	4427 Nov 23 09:31	24° $\overline{\text{M}}$ 22'24		direct	4428 Nov 11 17:26	5° $\overline{\text{M}}$ 44'59	
morning rise	4427 Nov 26 01:05	22° $\overline{\text{M}}$ 22'22		morning max el	4428 Nov 18 04:55	9° $\overline{\text{M}}$ 11'52	18°01'14
direct	4427 Nov 28 22:22	21° $\overline{\text{M}}$ 35'34			4428 Dec 02 10:08	0° $\overline{\text{A}}$	
morning max el	4427 Dec 05 13:21	25° $\overline{\text{M}}$ 12'23	18°30'00	morning set	4428 Dec 05 21:29	5° $\overline{\text{A}}$ 47'05	
	4427 Dec 09 14:54	0° $\overline{\text{A}}$		desc. node	4428 Dec 16 01:09	22° $\overline{\text{A}}$ 28'37	
morning set	4427 Dec 25 15:39	24° $\overline{\text{A}}$ 35'16					
	4427 Dec 29 01:10	0° $\overline{\text{C}}$		superior conj	4428 Dec 19 22:03	28° $\overline{\text{A}}$ 41'35	0°-26'-29
desc. node	4427 Dec 30 04:07	1° $\overline{\text{C}}$ 47'03		minimum elong	4428 Dec 19 18:48	28° $\overline{\text{A}}$ 28'35	0°26'02
					4428 Dec 20 17:44	0° $\overline{\text{C}}$	
superior conj	4428 Jan 10 13:25	19° $\overline{\text{C}}$ 44'11	-1°-13'-4	max. Earth dist.	4428 Dec 23 20:59	4° $\overline{\text{C}}$ 57'55	1.45005 AU
minimum elong	4428 Jan 10 04:51	19° $\overline{\text{C}}$ 10'34	1°12'05	evening rise	4429 Jan 05 06:19	24° $\overline{\text{C}}$ 15'25	
max. Earth dist.	4428 Jan 11 01:41	20° $\overline{\text{C}}$ 32'16	1.45284 AU		4429 Jan 08 23:52	0° \approx	
	4428 Jan 17 02:29	0° \approx		greatest brilliancy	4429 Jan 23 23:02	22° \approx 19'42	-0.6m
evening rise	4428 Jan 26 12:27	14° \approx 50'45			4429 Jan 29 23:50	0° $\overline{\text{H}}$	
	4428 Feb 05 02:35	0° $\overline{\text{H}}$		evening max el	4429 Jan 31 01:21	1° $\overline{\text{H}}$ 08'09	19°52'50
greatest brilliancy	4428 Feb 06 13:43	2° $\overline{\text{H}}$ 16'28	-0.8m	asc. node	4429 Feb 05 05:52	5° $\overline{\text{H}}$ 01'12	
evening max el	4428 Feb 17 19:42	17° $\overline{\text{H}}$ 36'04	19°01'21	retrograde	4429 Feb 07 14:06	5° $\overline{\text{H}}$ 30'39	
asc. node	4428 Feb 19 08:50	19° $\overline{\text{H}}$ 03'06		evening set	4429 Feb 11 05:03	4° $\overline{\text{H}}$ 13'59	
retrograde	4428 Feb 24 16:28	21° $\overline{\text{H}}$ 28'32			4429 Feb 15 07:21	30° $\overline{\text{R}}$ \approx	
evening set	4428 Feb 27 23:28	20° $\overline{\text{H}}$ 25'43		inferior conj	4429 Feb 16 16:22	28° \approx 11'30	3°07'36
inferior conj	4428 Mar 04 14:38	14° $\overline{\text{H}}$ 37'53	3°27'45	minimum elong	4429 Feb 16 14:11	28° \approx 18'46	3°07'10
minimum elong	4428 Mar 04 13:15	14° $\overline{\text{H}}$ 42'16	3°27'36	min. Earth dist.	4429 Feb 17 15:49	26° \approx 53'13	0.67017 AU
min. Earth dist.	4428 Mar 06 04:37	12° $\overline{\text{H}}$ 38'00	0.65895 AU	morning rise	4429 Feb 21 22:41	21° \approx 55'31	
morning rise	4428 Mar 10 02:01	8° $\overline{\text{H}}$ 22'53		direct	4429 Feb 27 20:55	19° \approx 17'35	
direct	4428 Mar 16 12:36	5° $\overline{\text{H}}$ 34'28		morning max el	4429 Mar 11 19:50	26° \approx 25'59	25°16'15
desc. node	4428 Mar 27 03:22	11° $\overline{\text{H}}$ 01'25		desc. node	4429 Mar 14 00:23	28° \approx 45'04	
morning max el	4428 Mar 29 10:54	13° $\overline{\text{H}}$ 14'11	26°32'20		4429 Mar 15 03:04	0° $\overline{\text{H}}$	
	4428 Apr 11 23:53	0° $\overline{\text{Y}}$		morning set	4429 Apr 05 14:07	0° $\overline{\text{Y}}$	
	4428 Apr 30 15:03	0° $\overline{\text{B}}$		max. Earth dist.	4429 Apr 16 23:31	19° $\overline{\text{Y}}$ 19'24	
morning set	4428 May 04 10:07	6° $\overline{\text{B}}$ 59'59			4429 Apr 20 16:32	26° $\overline{\text{Y}}$ 08'01	1.36461 AU
max. Earth dist.	4428 May 08 14:23	15° $\overline{\text{B}}$ 04'18	1.34679 AU		4429 Apr 22 17:36	0° $\overline{\text{B}}$	
				superior conj	4429 Apr 26 19:32	7° $\overline{\text{B}}$ 56'37	-1°-10'-31
superior conj	4428 May 13 05:48	24° $\overline{\text{B}}$ 27'22	0°-41'-24	minimum elong	4429 Apr 26 23:20	8° $\overline{\text{B}}$ 15'28	1°09'54
minimum elong	4428 May 13 08:01	24° $\overline{\text{B}}$ 38'49	0°40'58	asc. node	4429 May 04 05:09	22° $\overline{\text{B}}$ 52'37	
	4428 May 15 21:51	0° $\overline{\text{II}}$		evening rise	4429 May 05 01:51	24° $\overline{\text{B}}$ 37'20	
asc. node	4428 May 17 08:06	2° $\overline{\text{II}}$ 59'18			4429 May 07 18:28	0° $\overline{\text{II}}$	
evening rise	4428 May 20 21:13	10° $\overline{\text{II}}$ 23'52		evening max el	4429 May 22 09:13	22° $\overline{\text{II}}$ 46'07	19°43'30
	4428 May 31 05:53	0° $\overline{\text{E}}$		retrograde	4429 Jun 01 06:17	27° $\overline{\text{II}}$ 35'02	
evening max el	4428 Jun 08 22:23	11° $\overline{\text{E}}$ 23'41	20°55'45	evening set	4429 Jun 03 04:55	27° $\overline{\text{II}}$ 24'41	
retrograde	4428 Jun 20 13:12	17° $\overline{\text{E}}$ 05'21		desc. node	4429 Jun 09 23:39	24° $\overline{\text{II}}$ 36'36	
evening set	4428 Jun 22 17:13	16° $\overline{\text{E}}$ 54'14		inferior conj	4429 Jun 12 00:37	23° $\overline{\text{II}}$ 22'08	0°-36'-22
desc. node	4428 Jun 23 02:37	16° $\overline{\text{E}}$ 49'57		minimum elong	4429 Jun 11 22:58	23° $\overline{\text{II}}$ 24'43	0°35'47
inferior conj	4428 Jul 02 00:45	12° $\overline{\text{E}}$ 57'09	-2°-35'-38	min. Earth dist.	4429 Jun 14 06:57	21° $\overline{\text{II}}$ 57'57	0.55508 AU
minimum elong	4428 Jul 01 17:40	13° $\overline{\text{E}}$ 07'10	2°33'14				
min. Earth dist.	4428 Jul 02 17:55	12° $\overline{\text{E}}$ 32'50	0.54833 AU				

morning rise	4429 Jun 20 13:49	18° Π 53'08		desc. node	4430 May 27 20:40	1° Π 26'40	
direct	4429 Jun 25 00:59	18° Π 09'00			4430 May 30 06:36	30° \mathbb{R} 8	
morning max el	4429 Jul 08 22:55	25° Π 05'00	24°33'37	morning rise	4430 May 31 19:56	29° \mathbb{R} 15'11	
	4429 Jul 13 12:45	0° \mathfrak{S}		direct	4430 Jun 06 05:52	28° \mathbb{R} 04'29	
asc. node	4429 Jul 31 04:22	28° \mathfrak{S} 40'50			4430 Jun 13 06:41	0° Π	
	4429 Jul 31 19:59	0° Ω		morning max el	4430 Jun 20 13:58	5° Π 32'09	26°07'20
morning set	4429 Aug 03 08:34	5° Ω 15'08			4430 Jul 08 10:42	0° \mathfrak{S}	
				asc. node	4430 Jul 18 01:27	18° \mathfrak{S} 29'53	
superior conj	4429 Aug 10 08:22	20° Ω 24'03	1°28'40	morning set	4430 Jul 18 19:41	20° \mathfrak{S} 05'45	
minimum elong	4429 Aug 10 06:15	20° Ω 12'29	1°28'25		4430 Jul 23 09:38	0° Ω	
max. Earth dist.	4429 Aug 12 01:51	24° Ω 09'03	1.32854 AU				
	4429 Aug 14 19:34	0° \mathbb{M}		superior conj	4430 Jul 25 19:34	5° Ω 18'55	1°13'19
evening rise	4429 Aug 17 15:55	5° \mathbb{M} 54'24		minimum elong	4430 Jul 25 17:14	5° Ω 06'06	1°12'56
	4429 Aug 30 17:56	0° \mathfrak{A}		max. Earth dist.	4430 Jul 26 10:59	6° Ω 43'47	1.32213 AU
desc. node	4429 Sep 05 22:57	9° \mathfrak{A} 36'46		evening rise	4430 Aug 01 19:36	20° Ω 26'17	
evening max el	4429 Sep 19 18:20	26° \mathfrak{A} 26'11	27°26'48		4430 Aug 06 13:25	0° \mathbb{M}	
	4429 Sep 24 00:10	0° \mathbb{M}		desc. node	4430 Aug 23 19:59	28° \mathbb{M} 21'22	
retrograde	4429 Oct 03 10:50	3° \mathbb{M} 42'02			4430 Aug 25 02:03	0° \mathfrak{A}	
evening set	4429 Oct 10 14:52	1° \mathbb{M} 08'11		evening max el	4430 Sep 02 00:45	8° \mathfrak{A} 55'56	27°07'57
	4429 Oct 12 02:12	30° \mathbb{R} 8		retrograde	4430 Sep 15 21:21	16° \mathfrak{A} 08'27	
min. Earth dist.	4429 Oct 14 06:45	28° \mathfrak{A} 01'38	0.63240 AU	evening set	4430 Sep 22 23:47	13° \mathfrak{A} 52'37	
inferior conj	4429 Oct 16 23:36	25° \mathfrak{A} 21'19	-3°-13'-4	min. Earth dist.	4430 Sep 26 15:07	11° \mathfrak{A} 09'54	0.61314 AU
minimum elong	4429 Oct 17 04:59	25° \mathfrak{A} 07'59	3°11'16	inferior conj	4430 Sep 29 17:52	8° \mathfrak{A} 26'43	-4°-10'-10
morning rise	4429 Oct 23 21:42	20° \mathfrak{A} 05'55		minimum elong	4430 Sep 29 23:57	8° \mathfrak{A} 13'22	4°08'39
direct	4429 Oct 26 06:40	19° \mathfrak{A} 39'10		morning rise	4430 Oct 07 03:17	3° \mathfrak{A} 32'02	
asc. node	4429 Oct 27 03:35	19° \mathfrak{A} 42'51		direct	4430 Oct 09 10:21	3° \mathfrak{A} 10'24	
morning max el	4429 Nov 01 21:38	23° \mathfrak{A} 04'40	17°50'03	asc. node	4430 Oct 14 00:38	4° \mathfrak{A} 40'49	
	4429 Nov 07 08:23	0° \mathbb{M}		morning max el	4430 Oct 16 12:19	6° \mathfrak{A} 42'55	17°57'19
morning set	4429 Nov 18 04:26	18° \mathbb{M} 11'39			4430 Oct 31 10:35	0° \mathbb{M}	
	4429 Nov 24 23:57	0° \mathfrak{A}		morning set	4430 Nov 01 05:55	1° \mathbb{M} 28'37	
superior conj	4429 Nov 30 04:56	8° \mathfrak{A} 46'13	0°18'56	superior conj	4430 Nov 11 14:29	20° \mathbb{M} 08'49	0°55'42
minimum elong	4429 Nov 30 06:51	8° \mathfrak{A} 54'11	0°18'39	minimum elong	4430 Nov 11 18:29	20° \mathbb{M} 26'18	0°55'10
desc. node	4429 Dec 02 22:12	13° \mathfrak{A} 14'58			4430 Nov 17 08:48	0° \mathfrak{A}	
max. Earth dist.	4429 Dec 06 14:40	19° \mathfrak{A} 13'01	1.44016 AU	max. Earth dist.	4430 Nov 19 03:36	2° \mathfrak{A} 57'54	1.42442 AU
	4429 Dec 13 10:36	0° \mathfrak{S}		desc. node	4430 Nov 19 19:14	4° \mathfrak{A} 02'16	
evening rise	4429 Dec 15 16:05	3° \mathfrak{S} 27'04		evening rise	4430 Nov 25 09:37	13° \mathfrak{A} 03'51	
	4430 Jan 02 12:06	0° \approx			4430 Dec 06 11:17	0° \mathfrak{S}	
greatest brilliancy	4430 Jan 08 16:58	8° \approx 25'35	-0.5m	greatest brilliancy	4430 Dec 23 02:45	22° \mathfrak{S} 56'00	-0.3m
evening max el	4430 Jan 14 01:35	14° \approx 41'31	20°57'51	evening max el	4430 Dec 27 20:23	28° \mathfrak{S} 15'54	22°12'46
retrograde	4430 Jan 22 12:12	19° \approx 41'09			4430 Dec 29 15:53	0° \approx	
asc. node	4430 Jan 23 02:53	19° \approx 39'07		retrograde	4431 Jan 06 08:52	3° \approx 55'48	
evening set	4430 Jan 26 12:34	18° \approx 09'35		asc. node	4431 Jan 09 23:54	2° \approx 45'57	
inferior conj	4430 Jan 31 22:07	11° \approx 55'09	2°37'28	evening set	4431 Jan 10 20:18	2° \approx 08'33	
minimum elong	4430 Jan 31 19:39	12° \approx 03'37	2°36'48		4431 Jan 13 00:08	30° \mathbb{R} 8	
min. Earth dist.	4430 Feb 01 08:29	11° \approx 19'23	0.67720 AU	inferior conj	4431 Jan 16 05:47	25° \mathfrak{S} 45'38	1°59'01
morning rise	4430 Feb 06 02:21	5° \approx 39'57		minimum elong	4431 Jan 16 03:32	25° \mathfrak{S} 53'30	1°58'15
direct	4430 Feb 11 10:09	3° \approx 20'19		min. Earth dist.	4431 Jan 16 04:25	25° \mathfrak{S} 50'26	0.68029 AU
morning max el	4430 Feb 22 04:31	9° \approx 45'12	23°48'59	morning rise	4431 Jan 21 10:36	19° \mathfrak{S} 32'48	
desc. node	4430 Feb 28 21:25	17° \approx 25'48		direct	4431 Jan 26 03:29	17° \mathfrak{S} 35'20	
	4430 Mar 10 04:20	0° \mathfrak{H}		morning max el	4431 Feb 04 15:31	23° \mathfrak{S} 11'01	22°20'19
	4430 Mar 29 07:23	0° \mathbb{Y}		greatest brilliancy	4431 Feb 09 05:05	28° \mathfrak{S} 16'49	-0.3m
morning set	4430 Mar 29 15:01	0° \mathbb{Y} 32'35			4431 Feb 10 14:37	0° \approx	
max. Earth dist.	4430 Apr 02 12:28	7° \mathbb{Y} 19'16	1.38560 AU	desc. node	4431 Feb 15 18:27	6° \approx 47'07	
					4431 Mar 03 13:31	0° \mathfrak{H}	
superior conj	4430 Apr 09 20:30	20° \mathbb{Y} 45'11	-1°-37'-12	morning set	4431 Mar 10 02:54	10° \mathfrak{H} 25'27	
minimum elong	4430 Apr 10 01:18	21° \mathbb{Y} 07'53	1°36'38	max. Earth dist.	4431 Mar 15 09:07	19° \mathfrak{H} 08'11	1.40743 AU
	4430 Apr 14 16:01	0° \mathbb{R}			4431 Mar 21 15:49	0° \mathbb{Y}	
evening rise	4430 Apr 18 23:21	8° \mathbb{R} 25'09					
asc. node	4430 Apr 21 02:13	12° \mathbb{R} 32'12		superior conj	4431 Mar 23 04:04	2° \mathbb{Y} 41'27	-1°-57'-56
	4430 May 01 05:56	0° Π		minimum elong	4431 Mar 23 08:17	3° \mathbb{Y} 00'23	1°57'40
evening max el	4430 May 05 07:21	4° Π 49'04	18°51'10	evening rise	4431 Apr 02 10:21	21° \mathbb{Y} 38'16	
retrograde	4430 May 13 15:18	8° Π 53'58			4431 Apr 06 22:25	0° \mathbb{R}	
evening set	4430 May 15 17:43	8° Π 39'23		asc. node	4431 Apr 07 23:14	1° \mathbb{R} 52'07	
inferior conj	4430 May 23 18:30	4° Π 20'18	1°10'00	evening max el	4431 Apr 18 13:42	17° \mathbb{R} 25'24	18°19'10
minimum elong	4430 May 23 21:03	4° Π 15'41	1°09'08	retrograde	4431 Apr 25 19:11	21° \mathbb{R} 01'24	
min. Earth dist.	4430 May 26 23:07	2° Π 02'58	0.57003 AU	evening set	4431 Apr 28 03:55	20° \mathbb{R} 39'11	

inferior conj	4431 May 05 09:53	15°♄59'45	2°26'31	inferior conj	4432 Apr 16 20:50	28°♃17'13	3°12'12
minimum elong	4431 May 05 13:29	15°♄52'08	2°25'36	minimum elong	4432 Apr 16 23:23	28°♃11'00	3°11'48
min. Earth dist.	4431 May 08 20:21	13°♄06'50	0.59023 AU	min. Earth dist.	4432 Apr 20 00:38	25°♃13'36	0.61223 AU
morning rise	4431 May 12 18:51	10°♄24'04		morning rise	4432 Apr 23 13:11	22°♃21'30	
desc. node	4431 May 14 17:41	9°♄28'50		direct	4432 Apr 30 07:14	20°♃03'36	
direct	4431 May 19 00:48	8°♄38'51		desc. node	4432 Apr 30 14:42	20°♃03'53	
morning max el	4431 Jun 02 10:11	16°♄26'30	27°15'58	morning max el	4432 May 14 12:37	28°♃01'04	27°49'29
	4431 Jun 13 13:00	0°♂			4432 May 16 10:30	0°♄	
	4431 Jun 30 20:36	0°♄			4432 Jun 06 07:08	0°♂	
morning set	4431 Jul 03 04:27	4°♄47'27		morning set	4432 Jun 16 08:56	19°♂13'44	
asc. node	4431 Jul 04 22:31	8°♄29'57		asc. node	4432 Jun 20 19:32	28°♂35'52	
					4432 Jun 21 11:06	0°♄	
superior conj	4431 Jul 10 07:23	20°♄12'52	0°53'41	max. Earth dist.	4432 Jun 22 08:27	1°♄55'57	1.32163 AU
minimum elong	4431 Jul 10 05:19	20°♄01'31	0°53'17				
max. Earth dist.	4431 Jul 09 22:26	19°♄23'30	1.31978 AU	superior conj	4432 Jun 23 18:02	4°♄59'34	0°30'22
	4431 Jul 14 18:15	0°♂		minimum elong	4432 Jun 23 16:42	4°♄52'14	0°30'05
evening rise	4431 Jul 17 04:02	5°♂10'07		evening rise	4432 Jun 30 15:06	19°♄58'39	
	4431 Jul 30 06:40	0°♄			4432 Jul 05 12:05	0°♂	
desc. node	4431 Aug 10 16:59	16°♄05'49			4432 Jul 25 02:41	0°♄	
evening max el	4431 Aug 15 00:28	20°♄39'26	26°16'04	evening max el	4432 Jul 26 16:58	1°♄35'59	24°56'07
retrograde	4431 Aug 28 23:46	27°♄48'36		desc. node	4432 Jul 27 14:00	2°♄25'02	
evening set	4431 Sep 04 12:57	26°♄03'25		retrograde	4432 Aug 09 15:27	8°♄38'46	
min. Earth dist.	4431 Sep 08 13:33	23°♄29'07	0.59241 AU	evening set	4432 Aug 15 02:01	7°♄31'36	
inferior conj	4431 Sep 11 19:53	21°♄00'02	-4°-54'-33	min. Earth dist.	4432 Aug 20 04:29	4°♄46'56	0.57265 AU
minimum elong	4431 Sep 12 00:34	20°♄51'04	4°53'54	inferior conj	4432 Aug 23 02:28	2°♄51'12	-5°-13'-28
morning rise	4431 Sep 19 15:42	16°♄28'19		minimum elong	4432 Aug 23 02:37	2°♄50'57	5°13'30
direct	4431 Sep 22 00:16	16°♄09'08			4432 Aug 27 19:57	30°♄♂	
morning max el	4431 Sep 29 21:41	19°♄58'10	18°24'19	morning rise	4432 Aug 31 06:43	28°♂41'52	
asc. node	4431 Sep 30 21:42	20°♄59'11		direct	4432 Sep 02 20:20	28°♂22'57	
	4431 Oct 07 09:59	0°♂			4432 Sep 08 10:53	0°♄	
morning set	4431 Oct 15 20:32	15°♂23'05		morning max el	4432 Sep 11 22:17	2°♄39'17	19°12'34
	4431 Oct 23 12:55	0°♂		asc. node	4432 Sep 16 18:45	8°♄21'47	
				morning set	4432 Sep 28 20:14	29°♄43'06	
superior conj	4431 Oct 24 23:18	2°♂39'22	1°21'33		4432 Sep 28 23:38	0°♂	
minimum elong	4431 Oct 25 02:56	2°♂56'10	1°21'10	superior conj	4432 Oct 07 01:51	16°♂01'36	1°37'02
max. Earth dist.	4431 Nov 01 11:02	16°♂00'48	1.40485 AU	minimum elong	4432 Oct 07 04:03	16°♂12'14	1°36'54
evening rise	4431 Nov 05 22:58	23°♂36'04		max. Earth dist.	4432 Oct 13 15:39	28°♂23'04	1.38392 AU
desc. node	4431 Nov 06 16:16	24°♂47'21			4432 Oct 14 13:06	0°♂	
	4431 Nov 09 21:29	0°♄		evening rise	4432 Oct 17 11:33	5°♂11'46	
	4431 Nov 30 09:34	0°♄		desc. node	4432 Oct 23 13:17	15°♂25'51	
evening max el	4431 Dec 10 11:13	11°♄53'43	23°32'31		4432 Nov 01 22:29	0°♄	
retrograde	4431 Dec 21 02:41	18°♄11'10		evening max el	4432 Nov 22 00:06	25°♄35'25	24°50'42
evening set	4431 Dec 26 02:41	16°♄07'59			4432 Nov 27 05:48	0°♄	
asc. node	4431 Dec 27 20:55	14°♄24'52		retrograde	4432 Dec 03 16:23	2°♄22'34	
min. Earth dist.	4431 Dec 31 01:13	10°♄22'55	0.67970 AU	evening set	4432 Dec 09 06:05	0°♄04'09	
inferior conj	4431 Dec 31 13:33	9°♄40'41	1°13'29		4432 Dec 09 08:02	30°♄♄	
minimum elong	4431 Dec 31 11:57	9°♄46'12	1°12'51	asc. node	4432 Dec 13 17:57	25°♄01'41	
morning rise	4432 Jan 05 21:21	3°♄32'09		min. Earth dist.	4432 Dec 13 20:30	24°♄53'20	0.67559 AU
direct	4432 Jan 10 00:02	1°♄57'24		inferior conj	4432 Dec 14 19:37	23°♄37'00	0°21'48
morning max el	4432 Jan 18 08:17	6°♄46'40	20°58'26	minimum elong	4432 Dec 14 19:04	23°♄38'47	0°21'34
greatest brilliancy	4432 Jan 23 20:03	13°♄06'16	-0.5m	morning rise	4432 Dec 20 08:35	17°♄35'05	
desc. node	4432 Feb 02 15:30	26°♄37'57		direct	4432 Dec 23 22:26	16°♄21'27	
	4432 Feb 04 22:42	0°♄		morning max el	4432 Dec 31 08:51	20°♄33'27	19°48'46
morning set	4432 Feb 17 11:23	19°♄03'09		greatest brilliancy	4433 Jan 07 21:30	29°♄46'14	-0.6m
	4432 Feb 24 08:34	0°♄			4433 Jan 08 01:29	0°♄	
max. Earth dist.	4432 Feb 25 12:06	1°♄51'48	1.42725 AU	desc. node	4433 Jan 19 12:31	16°♄49'48	
				morning set	4433 Jan 26 07:25	27°♄13'10	
superior conj	4432 Mar 03 13:21	13°♄35'09	-2°-7'-55		4433 Jan 28 02:35	0°♄	
minimum elong	4432 Mar 03 14:11	13°♄38'41	2°07'56	max. Earth dist.	4433 Feb 06 23:02	15°♄26'58	1.44242 AU
	4432 Mar 12 23:20	0°♄					
evening rise	4432 Mar 15 06:54	4°♄08'12		superior conj	4433 Feb 11 20:59	23°♄20'15	-2°-1'-41
asc. node	4432 Mar 24 20:15	20°♄46'12		minimum elong	4433 Feb 11 15:49	22°♄59'21	2°01'28
	4432 Mar 31 14:23	0°♄			4433 Feb 15 22:53	0°♄	
evening max el	4432 Apr 01 00:55	0°♄26'41	18°06'54	evening rise	4433 Feb 25 08:35	15°♄46'28	
retrograde	4432 Apr 07 15:24	3°♄49'43			4433 Mar 05 18:38	0°♄	
evening set	4432 Apr 10 06:27	3°♄17'33		asc. node	4433 Mar 11 17:16	9°♄06'23	
	4432 Apr 15 01:26	30°♄♄					

evening max el	4433 Mar 15 13:47	13° Υ 44'27	18°13'45		4434 Mar 02 15:16	0° Υ	
retrograde	4433 Mar 21 23:46	17° Υ 09'10		retrograde	4434 Mar 05 16:00	0° Υ 49'53	
evening set	4433 Mar 24 20:45	16° Υ 25'43		evening set	4434 Mar 08 19:07	29° K 54'17	
inferior conj	4433 Mar 30 23:25	11° Υ 05'23	3°32'38		4434 Mar 08 15:07	30° R K	
minimum elong	4433 Mar 31 00:16	11° Υ 03'03	3°32'34	inferior conj	4434 Mar 14 13:36	24° K 15'39	3°33'52
min. Earth dist.	4433 Apr 02 13:44	8° Υ 14'39	0.63299 AU	minimum elong	4434 Mar 14 12:54	24° K 17'46	3°33'49
morning rise	4433 Apr 06 01:45	4° Υ 58'11		min. Earth dist.	4434 Mar 16 12:18	21° K 54'30	0.65061 AU
direct	4433 Apr 12 22:35	2° Υ 18'01		morning rise	4434 Mar 20 05:24	18° K 02'25	
desc. node	4433 Apr 17 11:43	3° Υ 19'05		direct	4434 Mar 26 21:13	15° K 13'30	
morning max el	4433 Apr 26 20:01	10° Υ 16'34	27°45'23	desc. node	4434 Apr 04 08:45	18° K 43'59	
	4433 May 12 06:38	0° B		morning max el	4434 Apr 09 05:53	23° K 03'34	27°07'06
	4433 May 29 14:56	0° II			4434 Apr 15 09:36	0° Υ	
morning set	4433 May 31 06:57	3° II 18'00			4434 May 05 13:46	0° B	
max. Earth dist.	4433 Jun 05 13:16	14° II 09'43	1.32785 AU	morning set	4434 May 14 19:33	16° B 50'45	
asc. node	4433 Jun 07 16:33	18° II 43'44		max. Earth dist.	4434 May 19 09:10	25° B 54'35	1.33859 AU
					4434 May 21 08:57	0° II	
superior conj	4433 Jun 08 01:49	19° II 33'34	0°04'03				
minimum elong	4433 Jun 08 01:37	19° II 32'29	0°04'00	superior conj	4434 May 23 04:35	3° II 47'42	0°-24'-28
behind sun begin	4433 Jun 07 20:28	19° II 04'48		minimum elong	4434 May 23 05:52	3° II 54'26	0°24'13
behind sun end	4433 Jun 08 06:45	20° II 00'12		asc. node	4434 May 25 13:35	8° II 48'58	
	4433 Jun 12 21:32	0° S		evening rise	4434 May 30 13:37	19° II 24'53	
evening rise	4433 Jun 15 02:56	4° S 45'55			4434 Jun 04 19:12	0° S	
	4433 Jun 28 16:02	0° Q		evening max el	4434 Jun 19 22:34	22° S 29'32	21°45'07
evening max el	4433 Jul 08 05:48	12° Q 02'14	23°20'27	desc. node	4434 Jul 01 08:01	28° S 37'22	
desc. node	4433 Jul 14 10:59	16° Q 46'59		retrograde	4434 Jul 02 10:21	28° S 40'11	
retrograde	4433 Jul 21 18:19	18° Q 48'11		evening set	4434 Jul 05 01:24	28° S 24'38	
evening set	4433 Jul 25 17:06	18° Q 14'06		inferior conj	4434 Jul 14 09:05	24° S 22'51	-3°-37'-11
min. Earth dist.	4433 Aug 01 15:20	15° Q 03'03	0.55709 AU	minimum elong	4434 Jul 14 00:28	24° S 34'53	3°34'45
inferior conj	4433 Aug 03 13:02	13° Q 55'50	-4°-50'-52	min. Earth dist.	4434 Jul 14 01:34	24° S 33'21	0.54884 AU
minimum elong	4433 Aug 03 07:00	14° Q 04'45	4°49'59	morning rise	4434 Jul 23 00:50	20° S 31'24	
morning rise	4433 Aug 11 23:53	10° Q 02'57		direct	4434 Jul 26 08:29	20° S 07'20	
direct	4433 Aug 14 21:25	9° Q 42'34		morning max el	4434 Aug 07 12:57	25° S 50'31	21°52'28
morning max el	4433 Aug 25 11:29	14° Q 37'35	20°22'41		4434 Aug 11 10:35	0° Q	
asc. node	4433 Sep 03 15:48	26° Q 34'28		asc. node	4434 Aug 21 12:50	15° Q 25'09	
	4433 Sep 05 15:56	0° M		morning set	4434 Aug 28 11:35	29° Q 08'30	
morning set	4433 Sep 13 02:01	14° M 20'28			4434 Aug 28 21:26	0° M	
superior conj	4433 Sep 20 17:18	0° A 01'40	1°43'33	superior conj	4434 Sep 04 17:44	14° M 28'09	1°42'36
minimum elong	4433 Sep 20 17:51	0° A 04'29	1°43'34	minimum elong	4434 Sep 04 16:55	14° M 23'48	1°42'34
	4433 Sep 20 16:58	0° A		max. Earth dist.	4434 Sep 08 11:51	22° M 13'50	1.34700 AU
max. Earth dist.	4433 Sep 25 22:22	10° A 19'59	1.36402 AU		4434 Sep 12 09:46	0° A	
evening rise	4433 Sep 29 21:04	17° A 45'05		evening rise	4434 Sep 12 23:19	1° A 05'20	
	4433 Oct 06 20:20	0° M		desc. node	4434 Sep 27 07:20	26° A 03'51	
desc. node	4433 Oct 10 10:18	5° M 53'14			4434 Sep 29 20:50	0° M	
	4433 Oct 27 05:37	0° J		evening max el	4434 Oct 18 01:15	22° M 55'57	26°53'12
evening max el	4433 Nov 04 12:38	9° J 18'26	26°00'03		4434 Oct 29 05:04	0° J	
retrograde	4433 Nov 17 01:12	16° J 25'08		retrograde	4434 Oct 31 04:42	0° J 12'34	
evening set	4433 Nov 23 04:47	13° J 53'50			4434 Nov 02 02:44	30° R M	
min. Earth dist.	4433 Nov 27 11:50	9° J 18'37	0.66799 AU	evening set	4434 Nov 06 20:50	27° M 33'20	
inferior conj	4433 Nov 28 22:06	7° J 31'37	0°-34'-58	min. Earth dist.	4434 Nov 10 20:58	23° M 34'19	0.65681 AU
minimum elong	4433 Nov 28 23:02	7° J 28'42	0°34'35	inferior conj	4434 Nov 12 19:02	21° M 20'55	-1°-35'-29
asc. node	4433 Nov 30 15:00	5° J 26'54		minimum elong	4434 Nov 12 21:43	21° M 13'08	1°34'23
morning rise	4433 Dec 04 18:19	1° J 38'57		asc. node	4434 Nov 17 12:03	16° M 36'50	
direct	4433 Dec 07 21:07	0° J 43'22		morning rise	4434 Nov 19 00:17	15° M 40'23	
morning max el	4433 Dec 14 16:58	4° J 29'31	18°54'05	direct	4434 Nov 21 18:07	14° M 59'05	
	4434 Jan 01 17:54	0° Z		morning max el	4434 Nov 28 06:43	18° M 30'17	18°15'45
morning set	4434 Jan 05 16:16	6° Z 09'02			4434 Dec 06 22:05	0° J	
desc. node	4434 Jan 06 09:32	7° Z 16'37		morning set	4434 Dec 17 05:20	16° J 31'32	
max. Earth dist.	4434 Jan 20 15:52	29° Z 37'06	1.45116 AU	desc. node	4434 Dec 24 06:34	27° J 54'14	
	4434 Jan 20 21:42	0° \approx			4434 Dec 25 14:03	0° Z	
superior conj	4434 Jan 22 06:26	2° \approx 08'43	-1°-35'-49	superior conj	4435 Jan 01 09:24	10° Z 47'01	0°-53'-53
minimum elong	4434 Jan 21 21:10	1° \approx 32'14	1°34'57	minimum elong	4435 Jan 01 02:43	10° Z 20'41	0°53'01
evening rise	4434 Feb 06 11:42	26° \approx 27'19		max. Earth dist.	4435 Jan 03 11:17	14° Z 03'01	1.45256 AU
	4434 Feb 08 16:07	0° K			4435 Jan 13 16:04	0° \approx	
asc. node	4434 Feb 26 14:17	26° K 41'35		evening rise	4435 Jan 17 16:15	6° \approx 15'34	
evening max el	4434 Feb 27 01:27	27° K 10'37	18°38'56	greatest brilliancy	4435 Feb 01 15:21	29° \approx 18'22	-0.7m

	4435 Feb 02 02:44	0°☿		behind sun begin	4435 Dec 11 16:08	19°☿29'02	
evening max el	4435 Feb 10 09:45	10°☿41'23	19°21'18	behind sun end	4435 Dec 12 10:52	20°☿44'50	
asc. node	4435 Feb 13 11:20	13°☿19'37		max. Earth dist.	4435 Dec 17 05:48	28°☿24'40	1.44660 AU
retrograde	4435 Feb 17 12:35	14°☿45'54			4435 Dec 18 05:54	0°☿	
evening set	4435 Feb 20 22:45	13°☿37'19		evening rise	4435 Dec 28 04:48	15°☿29'49	
inferior conj	4435 Feb 26 11:59	7°☿42'41	3°20'33		4436 Jan 06 17:41	0°☿	
minimum elong	4435 Feb 26 10:12	7°☿48'28	3°20'18	greatest brilliancy	4436 Jan 18 07:27	16°☿42'17	-0.5m
min. Earth dist.	4435 Feb 27 19:33	6°☿00'15	0.66423 AU	evening max el	4436 Jan 24 13:06	24°☿13'49	20°18'57
morning rise	4435 Mar 03 20:49	1°☿26'47		asc. node	4436 Jan 31 08:23	28°☿45'21	
	4435 Mar 05 18:34	30°☿☿		retrograde	4436 Feb 01 10:45	28°☿51'53	
direct	4435 Mar 10 02:21	28°☿41'52		evening set	4436 Feb 05 05:24	27°☿29'11	
	4435 Mar 14 20:31	0°☿		inferior conj	4436 Feb 10 15:44	21°☿21'12	2°55'55
desc. node	4435 Mar 22 05:47	5°☿45'23		minimum elong	4436 Feb 10 13:22	21°☿29'12	2°55'23
morning max el	4435 Mar 22 15:47	6°☿10'26	26°01'59	min. Earth dist.	4436 Feb 11 09:30	20°☿20'52	0.67368 AU
	4435 Apr 10 01:24	0°☿		morning rise	4436 Feb 15 20:48	15°☿05'04	
morning set	4435 Apr 27 18:52	29°☿41'13		direct	4436 Feb 21 13:01	12°☿34'02	
	4435 Apr 27 22:56	0°☿		morning max el	4436 Mar 04 00:27	19°☿25'54	24°39'45
max. Earth dist.	4435 May 01 17:36	7°☿09'09	1.35391 AU	desc. node	4436 Mar 08 02:49	23°☿55'34	
					4436 Mar 13 00:08	0°☿	
superior conj	4435 May 06 23:56	17°☿35'29	0°-53'-53		4436 Apr 02 04:39	0°☿	
minimum elong	4435 May 07 02:52	17°☿50'19	0°53'22	morning set	4436 Apr 08 23:45	11°☿34'44	
asc. node	4435 May 12 10:38	28°☿47'43		max. Earth dist.	4436 Apr 12 15:50	18°☿09'46	1.37324 AU
	4435 May 13 00:36	0°☿			4436 Apr 18 22:43	0°☿	
evening rise	4435 May 14 21:08	3°☿49'30					
	4435 May 29 23:16	0°☿		superior conj	4436 Apr 19 08:44	0°☿48'34	-1°-22'-19
evening max el	4435 Jun 02 02:09	3°☿27'54	20°22'36	minimum elong	4436 Apr 19 13:05	1°☿09'42	1°21'42
retrograde	4435 Jun 12 23:43	8°☿47'27		evening rise	4436 Apr 27 23:04	17°☿52'46	
evening set	4435 Jun 14 23:27	8°☿37'33		asc. node	4436 Apr 28 07:41	18°☿35'40	
desc. node	4435 Jun 18 05:02	7°☿42'56			4436 May 04 06:08	0°☿	
inferior conj	4435 Jun 24 03:23	4°☿39'42	-1°-45'-19	evening max el	4436 May 14 18:11	15°☿08'33	19°18'48
minimum elong	4435 Jun 23 22:26	4°☿46'56	1°43'33	retrograde	4436 May 23 22:29	19°☿36'54	
min. Earth dist.	4435 Jun 25 13:37	3°☿49'41	0.55001 AU	evening set	4436 May 25 21:58	19°☿25'20	
morning rise	4435 Jul 02 19:38	0°☿28'36		inferior conj	4436 Jun 03 10:03	15°☿17'05	0°11'45
	4435 Jul 05 05:36	30°☿☿		minimum elong	4436 Jun 03 10:33	15°☿16'16	0°11'34
direct	4435 Jul 06 18:36	29°☿54'45		transit middle	4436 Jun 03 10:33	15°☿16'16	0°11'34
	4435 Jul 08 07:23	0°☿		transit begin	4436 Jun 03 07:53	15°☿20'40	
morning max el	4435 Jul 20 05:45	6°☿27'25	23°34'26	transit end	4436 Jun 03 13:12	15°☿11'52	
	4435 Aug 05 22:14	0°☿		desc. node	4436 Jun 04 02:02	14°☿50'36	
asc. node	4435 Aug 08 09:53	4°☿44'21		min. Earth dist.	4436 Jun 06 04:11	13°☿28'29	0.56054 AU
morning set	4435 Aug 12 23:01	14°☿01'30		morning rise	4436 Jun 11 19:03	10°☿32'28	
				direct	4436 Jun 16 15:54	9°☿38'07	
superior conj	4435 Aug 20 00:09	29°☿11'35	1°35'20	morning max el	4436 Jun 30 19:35	16°☿50'01	25°15'39
minimum elong	4435 Aug 19 22:22	29°☿01'58	1°35'11		4436 Jul 11 13:26	0°☿	
	4435 Aug 20 09:09	0°☿		asc. node	4436 Jul 25 06:56	24°☿24'32	
max. Earth dist.	4435 Aug 22 10:06	4°☿21'26	1.33399 AU	morning set	4436 Jul 27 10:43	28°☿54'42	
evening rise	4435 Aug 27 14:07	15°☿01'19			4436 Jul 27 23:01	0°☿	
	4435 Sep 04 12:30	0°☿					
desc. node	4435 Sep 14 04:22	15°☿49'49		superior conj	4436 Aug 03 10:12	14°☿04'39	1°22'43
	4435 Sep 24 16:26	0°☿		minimum elong	4436 Aug 03 07:56	13°☿52'14	1°22'25
evening max el	4435 Sep 30 13:08	6°☿17'07	27°22'55	max. Earth dist.	4436 Aug 04 16:04	16°☿47'53	1.32525 AU
retrograde	4435 Oct 14 02:23	13°☿35'35		evening rise	4436 Aug 10 13:59	29°☿23'15	
evening set	4435 Oct 21 03:35	10°☿56'37			4436 Aug 10 21:08	0°☿	
min. Earth dist.	4435 Oct 24 21:46	7°☿32'14	0.64216 AU		4436 Aug 27 15:17	0°☿	
inferior conj	4435 Oct 27 07:57	4°☿58'52	-2°-37'-46	desc. node	4436 Aug 31 01:24	5°☿00'57	
minimum elong	4435 Oct 27 12:27	4°☿47'00	2°36'05	evening max el	4436 Sep 11 22:29	19°☿10'12	27°23'01
	4435 Nov 02 01:38	30°☿☿		retrograde	4436 Sep 25 17:23	26°☿25'08	
morning rise	4435 Nov 02 23:39	29°☿33'26		evening set	4436 Oct 02 21:40	23°☿57'33	
asc. node	4435 Nov 04 09:06	29°☿08'28		min. Earth dist.	4436 Oct 06 12:34	21°☿02'19	0.62442 AU
direct	4435 Nov 05 10:56	29°☿02'33		inferior conj	4436 Oct 09 09:59	18°☿18'57	-3°-38'-17
	4435 Nov 08 19:52	0°☿		minimum elong	4436 Oct 09 15:51	18°☿05'08	3°36'31
morning max el	4435 Nov 11 23:13	2°☿28'01	17°54'22	morning rise	4436 Oct 16 12:55	13°☿11'49	
morning set	4435 Nov 28 22:38	28°☿16'26		direct	4436 Oct 18 20:34	12°☿47'41	
	4435 Nov 29 23:00	0°☿		asc. node	4436 Oct 21 06:09	13°☿14'18	
desc. node	4435 Dec 11 03:37	18°☿38'11		morning max el	4436 Oct 25 15:26	16°☿15'33	17°50'46
					4436 Nov 04 07:07	0°☿	
superior conj	4435 Dec 12 02:16	20°☿10'03	0°-6'-33	morning set	4436 Nov 10 14:12	11°☿05'21	
minimum elong	4435 Dec 12 01:30	20°☿06'57	0°06'26		4436 Nov 21 09:16	0°☿	

superior conj	4436 Nov 21 20:31	0° \mathcal{A} 47'43	0°35'48	morning max el	4437 Oct 09 04:09	29° \mathcal{M} 44'19	18°06'15
minimum elong	4436 Nov 21 23:42	1° \mathcal{A} 01'13	0°35'20		4437 Oct 09 10:30	0° \mathcal{A}	
desc. node	4436 Nov 27 00:40	9° \mathcal{A} 25'13		morning set	4437 Oct 24 21:50	24° \mathcal{A} 39'44	
max. Earth dist.	4436 Nov 28 21:16	12° \mathcal{A} 26'59	1.43409 AU		4437 Oct 27 18:22	0° \mathcal{M}	
evening rise	4436 Dec 06 15:56	24° \mathcal{A} 47'21					
	4436 Dec 10 01:03	0° \mathcal{B}		superior conj	4437 Nov 03 16:30	12° \mathcal{M} 40'18	1°08'00
	4436 Dec 30 20:19	0° \mathcal{A}		minimum elong	4437 Nov 03 20:34	12° \mathcal{M} 58'27	1°07'30
greatest brilliancy	4437 Jan 01 12:56	2° \mathcal{A} 09'20	-0.4m	max. Earth dist.	4437 Nov 11 08:09	25° \mathcal{M} 56'03	1.41647 AU
evening max el	4437 Jan 06 11:02	7° \mathcal{A} 47'46	21°28'48	desc. node	4437 Nov 13 21:42	0° \mathcal{A} 11'47	
retrograde	4437 Jan 15 08:21	13° \mathcal{A} 04'14			4437 Nov 13 18:50	0° \mathcal{A}	
asc. node	4437 Jan 17 05:24	12° \mathcal{A} 45'12		evening rise	4437 Nov 16 16:56	4° \mathcal{A} 45'14	
evening set	4437 Jan 19 13:11	11° \mathcal{A} 26'17			4437 Dec 03 08:19	0° \mathcal{B}	
inferior conj	4437 Jan 24 22:32	5° \mathcal{A} 08'02	2°22'06	greatest brilliancy	4437 Dec 15 01:56	15° \mathcal{B} 41'41	-0.3m
minimum elong	4437 Jan 24 20:06	5° \mathcal{A} 16'27	2°21'22	evening max el	4437 Dec 20 04:03	21° \mathcal{B} 23'53	22°46'31
min. Earth dist.	4437 Jan 25 03:52	4° \mathcal{A} 49'32	0.67903 AU	retrograde	4437 Dec 30 03:49	27° \mathcal{B} 19'44	
	4437 Jan 28 23:14	30° \mathcal{R} \mathcal{B}		evening set	4438 Jan 03 20:32	25° \mathcal{B} 25'37	
morning rise	4437 Jan 30 02:42	28° \mathcal{B} 53'32		asc. node	4438 Jan 04 02:25	25° \mathcal{B} 13'11	
direct	4437 Feb 04 04:15	26° \mathcal{B} 42'46		inferior conj	4438 Jan 09 06:27	19° \mathcal{B} 00'35	1°40'32
	4437 Feb 11 08:47	0° \mathcal{A}		minimum elong	4438 Jan 09 04:25	19° \mathcal{B} 07'39	1°39'47
morning max el	4437 Feb 14 09:29	2° \mathcal{A} 46'46	23°10'46	min. Earth dist.	4438 Jan 09 00:21	19° \mathcal{B} 21'41	0.68050 AU
greatest brilliancy	4437 Feb 19 10:25	8° \mathcal{A} 25'27	-0.2m	morning rise	4438 Jan 14 12:16	12° \mathcal{B} 49'34	
desc. node	4437 Feb 22 23:51	12° \mathcal{A} 55'06		direct	4438 Jan 18 23:05	11° \mathcal{B} 01'43	
	4437 Mar 07 02:34	0° \mathcal{H}		morning max el	4438 Jan 27 22:31	16° \mathcal{B} 16'15	21°44'21
morning set	4437 Mar 21 04:03	22° \mathcal{H} 14'47		greatest brilliancy	4438 Feb 01 17:19	21° \mathcal{B} 39'37	-0.4m
max. Earth dist.	4437 Mar 25 10:53	29° \mathcal{H} 32'34	1.39498 AU		4438 Feb 08 01:47	0° \mathcal{A}	
	4437 Mar 25 17:13	0° \mathcal{Y}		desc. node	4438 Feb 09 20:54	2° \mathcal{A} 30'14	
					4438 Feb 28 04:10	0° \mathcal{H}	
superior conj	4437 Apr 02 02:57	13° \mathcal{Y} 16'42	-1°-46'-59	morning set	4438 Mar 01 03:40	1° \mathcal{H} 33'26	
minimum elong	4437 Apr 02 07:46	13° \mathcal{Y} 38'59	1°46'31	max. Earth dist.	4438 Mar 07 10:27	11° \mathcal{H} 47'00	1.41631 AU
	4437 Apr 10 22:30	0° \mathcal{B}					
evening rise	4437 Apr 11 16:33	1° \mathcal{B} 26'46		superior conj	4438 Mar 15 01:44	24° \mathcal{H} 48'27	-2°-3'-48
asc. node	4437 Apr 15 04:43	8° \mathcal{B} 07'29		minimum elong	4438 Mar 15 04:55	25° \mathcal{H} 02'24	2°03'41
evening max el	4437 Apr 27 20:19	27° \mathcal{B} 27'14	18°35'07		4438 Mar 18 00:13	0° \mathcal{Y}	
	4437 May 01 02:55	0° \mathcal{II}		evening rise	4438 Mar 25 21:59	14° \mathcal{Y} 23'20	
retrograde	4437 May 05 15:17	1° \mathcal{II} 17'22		asc. node	4438 Apr 02 01:44	27° \mathcal{Y} 17'39	
evening set	4437 May 07 20:30	0° \mathcal{II} 59'46			4438 Apr 03 16:14	0° \mathcal{B}	
	4437 May 10 09:41	30° \mathcal{R} \mathcal{B}		evening max el	4438 Apr 11 05:11	10° \mathcal{B} 15'42	18°11'29
inferior conj	4437 May 15 13:01	26° \mathcal{B} 32'21	1°46'26	retrograde	4438 Apr 18 02:48	13° \mathcal{B} 44'18	
minimum elong	4437 May 15 16:22	26° \mathcal{B} 25'52	1°45'24	evening set	4438 Apr 20 14:21	13° \mathcal{B} 17'57	
min. Earth dist.	4437 May 18 22:06	23° \mathcal{B} 57'11	0.57823 AU	inferior conj	4438 Apr 27 13:11	8° \mathcal{B} 29'12	2°49'23
desc. node	4437 May 21 23:04	21° \mathcal{B} 56'37		minimum elong	4438 Apr 27 16:30	8° \mathcal{B} 21'44	2°48'39
morning rise	4437 May 23 07:46	21° \mathcal{B} 13'27		min. Earth dist.	4438 Apr 30 21:50	5° \mathcal{B} 28'59	0.59961 AU
direct	4437 May 29 03:14	19° \mathcal{B} 48'21		morning rise	4438 May 04 14:56	2° \mathcal{B} 43'53	
morning max el	4437 Jun 12 12:14	27° \mathcal{B} 25'22	26°40'19	desc. node	4438 May 08 20:05	0° \mathcal{B} 59'06	
	4437 Jun 15 00:03	0° \mathcal{II}		direct	4438 May 11 03:05	0° \mathcal{B} 44'21	
	4437 Jul 05 00:29	0° \mathcal{B}		morning max el	4438 May 25 11:11	8° \mathcal{B} 36'19	27°34'50
morning set	4437 Jul 11 21:01	13° \mathcal{B} 41'54			4438 Jun 10 19:00	0° \mathcal{II}	
asc. node	4437 Jul 12 03:59	14° \mathcal{B} 18'38		morning set	4438 Jun 26 04:12	28° \mathcal{II} 17'47	
					4438 Jun 26 23:46	0° \mathcal{B}	
superior conj	4437 Jul 18 21:51	28° \mathcal{B} 59'40	1°05'28	asc. node	4438 Jun 29 01:01	4° \mathcal{B} 21'38	
minimum elong	4437 Jul 18 19:35	28° \mathcal{B} 47'08	1°05'05	max. Earth dist.	4438 Jul 02 14:11	12° \mathcal{B} 05'18	1.32015 AU
max. Earth dist.	4437 Jul 19 02:41	29° \mathcal{B} 26'19	1.32066 AU				
	4437 Jul 19 08:47	0° \mathcal{Q}		superior conj	4438 Jul 03 09:22	13° \mathcal{B} 50'57	0°44'12
evening rise	4437 Jul 25 19:58	14° \mathcal{Q} 01'14		minimum elong	4438 Jul 03 07:34	13° \mathcal{B} 41'00	0°43'50
	4437 Aug 02 22:12	0° \mathcal{M}		evening rise	4438 Jul 10 05:47	28° \mathcal{B} 47'51	
desc. node	4437 Aug 17 22:24	23° \mathcal{M} 22'11			4438 Jul 10 19:24	0° \mathcal{Q}	
	4437 Aug 23 17:13	0° \mathcal{A}			4438 Jul 27 11:09	0° \mathcal{M}	
evening max el	4437 Aug 25 02:30	1° \mathcal{A} 21'37	26°49'53	desc. node	4438 Aug 04 19:23	10° \mathcal{M} 33'27	
retrograde	4437 Sep 08 00:23	8° \mathcal{A} 31'52		evening max el	4438 Aug 06 22:58	12° \mathcal{M} 43'41	25°44'45
evening set	4437 Sep 14 22:42	6° \mathcal{A} 28'02		retrograde	4438 Aug 20 22:02	19° \mathcal{M} 50'14	
min. Earth dist.	4437 Sep 18 16:36	3° \mathcal{A} 50'52	0.60441 AU	evening set	4438 Aug 27 01:50	18° \mathcal{M} 20'44	
inferior conj	4437 Sep 21 21:45	1° \mathcal{A} 11'46	-4°-31'-11	min. Earth dist.	4438 Aug 31 11:05	15° \mathcal{M} 44'34	0.58379 AU
minimum elong	4437 Sep 22 03:35	0° \mathcal{A} 59'42	4°30'00	inferior conj	4438 Sep 03 15:43	13° \mathcal{M} 27'31	-5°-6'-36
	4437 Sep 23 09:00	30° \mathcal{R} \mathcal{M}		minimum elong	4438 Sep 03 18:52	13° \mathcal{M} 21'51	5°06'21
morning rise	4437 Sep 29 11:44	26° \mathcal{M} 26'16		morning rise	4438 Sep 11 15:25	9° \mathcal{M} 05'45	
direct	4437 Oct 01 19:04	26° \mathcal{M} 05'53		direct	4438 Sep 14 01:56	8° \mathcal{M} 46'47	
asc. node	4437 Oct 08 03:11	28° \mathcal{M} 47'39		morning max el	4438 Sep 22 10:06	12° \mathcal{M} 45'32	18°42'13

asc. node	4438 Sep 25 00:14	15° \cap 34'42		direct	4439 Aug 26 13:32	20° Ω 38'59	
	4438 Oct 04 02:36	0° Ω		morning max el	4439 Sep 05 06:13	25° Ω 10'12	19°39'51
morning set	4438 Oct 08 16:42	8° Ω 45'53			4439 Sep 09 12:42	0° \cap	
				asc. node	4439 Sep 11 21:17	3° \cap 20'32	
superior conj	4438 Oct 17 09:29	25° Ω 34'22	1°29'19	morning set	4439 Sep 22 19:20	23° \cap 14'30	
minimum elong	4438 Oct 17 12:34	25° Ω 48'57	1°29'03		4439 Sep 26 03:28	0° Ω	
	4438 Oct 19 18:27	0° \cap					
max. Earth dist.	4438 Oct 24 14:14	8° \cap 41'45	1.39595 AU	superior conj	4439 Sep 30 18:08	9° Ω 15'04	1°40'48
evening rise	4438 Oct 28 16:03	15° \cap 43'32		minimum elong	4439 Sep 30 19:37	9° Ω 22'25	1°40'45
desc. node	4438 Oct 31 18:42	20° \cap 54'10		max. Earth dist.	4439 Oct 06 18:49	20° Ω 49'55	1.37512 AU
	4438 Nov 06 11:29	0° \nearrow		evening rise	4439 Oct 10 14:03	27° Ω 45'17	
	4438 Nov 28 02:30	0° \searrow			4439 Oct 11 20:31	0° \cap	
evening max el	4438 Dec 02 17:41	5° \searrow 02'40	24°06'24	desc. node	4439 Oct 18 15:43	11° \cap 28'46	
retrograde	4438 Dec 13 19:57	11° \searrow 33'53			4439 Oct 30 21:37	0° \nearrow	
evening set	4438 Dec 19 01:49	9° \searrow 23'45		evening max el	4439 Nov 15 06:06	18° \nearrow 45'04	25°21'41
asc. node	4438 Dec 21 23:27	6° \searrow 20'29		retrograde	4439 Nov 27 07:50	25° \nearrow 42'40	
min. Earth dist.	4438 Dec 23 20:40	3° \searrow 53'23	0.67835 AU	evening set	4439 Dec 03 03:28	23° \nearrow 18'08	
inferior conj	4438 Dec 24 13:40	2° \searrow 55'57	0°52'15	min. Earth dist.	4439 Dec 07 14:35	18° \nearrow 22'21	0.67274 AU
minimum elong	4438 Dec 24 12:28	3° \searrow 00'01	0°51'45	inferior conj	4439 Dec 08 18:27	16° \nearrow 52'13	0°-1'-43
	4438 Dec 26 19:36	30° \nearrow		minimum elong	4439 Dec 08 18:30	16° \nearrow 52'05	0°01'43
morning rise	4438 Dec 29 23:25	26° \nearrow 50'13		transit middle	4439 Dec 08 18:30	16° \nearrow 52'05	0°01'43
direct	4439 Jan 02 20:25	25° \nearrow 24'56		transit begin	4439 Dec 08 15:43	17° \nearrow 01'04	
	4439 Jan 10 19:51	0° \searrow		transit end	4439 Dec 08 21:16	16° \nearrow 43'06	
morning max el	4439 Jan 10 18:35	29° \nearrow 56'49	20°27'13	asc. node	4439 Dec 08 20:29	16° \nearrow 45'39	
greatest brilliancy	4439 Jan 16 23:25	7° \searrow 15'06	-0.5m	morning rise	4439 Dec 14 10:17	10° \nearrow 53'57	
desc. node	4439 Jan 27 17:55	22° \searrow 30'31		direct	4439 Dec 17 19:04	9° \nearrow 48'37	
	4439 Feb 01 17:47	0° \approx		morning max el	4439 Dec 24 22:36	13° \nearrow 48'37	19°23'35
morning set	4439 Feb 08 04:03	9° \approx 50'57		greatest brilliancy	4440 Jan 02 21:32	25° \nearrow 10'03	-0.7m
max. Earth dist.	4439 Feb 17 17:12	24° \approx 55'03	1.43436 AU		4440 Jan 06 04:39	0° \searrow	
	4439 Feb 20 20:23	0° \bowtie		desc. node	4440 Jan 14 14:58	12° \searrow 49'24	
				morning set	4440 Jan 18 02:31	18° \searrow 11'56	
superior conj	4439 Feb 24 00:11	5° \bowtie 12'21	-2°-7'-34		4440 Jan 25 16:41	0° \approx	
minimum elong	4439 Feb 23 22:39	5° \bowtie 05'58	2°07'33	max. Earth dist.	4440 Jan 31 06:30	8° \approx 45'27	1.44695 AU
evening rise	4439 Mar 08 11:02	26° \bowtie 32'21					
	4439 Mar 10 10:25	0° Υ		superior conj	4440 Feb 03 21:15	14° \approx 29'46	-1°-53'-7
asc. node	4439 Mar 19 22:45	15° Υ 58'26		minimum elong	4440 Feb 03 13:43	13° \approx 59'43	1°52'37
evening max el	4439 Mar 25 17:24	23° Υ 24'26	18°07'27		4440 Feb 13 10:55	0° \bowtie	
retrograde	4439 Apr 01 04:56	26° Υ 46'55		evening rise	4440 Feb 18 03:26	7° \bowtie 46'14	
evening set	4439 Apr 03 22:25	26° Υ 10'10			4440 Mar 02 20:53	0° Υ	
inferior conj	4439 Apr 10 07:20	21° Υ 00'58	3°23'33	asc. node	4440 Mar 05 19:47	4° Υ 00'55	
minimum elong	4439 Apr 10 09:11	20° Υ 56'12	3°23'20	evening max el	4440 Mar 08 06:02	6° Υ 46'14	18°22'18
min. Earth dist.	4439 Apr 13 05:50	18° Υ 00'17	0.62132 AU	retrograde	4440 Mar 14 17:06	10° Υ 15'54	
morning rise	4439 Apr 16 17:18	14° Υ 59'10		evening set	4440 Mar 17 16:31	9° Υ 27'34	
direct	4439 Apr 23 13:23	12° Υ 30'26		inferior conj	4440 Mar 23 15:20	3° Υ 59'24	3°35'09
desc. node	4439 Apr 25 17:06	12° Υ 44'05		minimum elong	4440 Mar 23 15:29	3° Υ 58'59	3°35'08
morning max el	4439 May 07 16:16	20° Υ 29'49	27°52'16	min. Earth dist.	4440 Mar 25 23:11	1° Υ 19'20	0.64091 AU
	4439 May 15 20:32	0° \bowtie			4440 Mar 27 04:34	30° \nearrow \bowtie	
	4439 May 03 18:43	0° Π		morning rise	4440 Mar 29 12:43	27° \bowtie 48'54	
morning set	4439 Jun 10 06:17	12° Π 35'54		direct	4440 Apr 05 08:13	25° \bowtie 03'00	
asc. node	4439 Jun 15 22:04	24° Π 28'56		desc. node	4440 Apr 11 14:08	26° \bowtie 58'16	
max. Earth dist.	4439 Jun 15 22:36	24° Π 31'50	1.32375 AU		4440 Apr 15 19:26	0° Υ	
				morning max el	4440 Apr 19 01:07	3° Υ 00'19	27°32'51
superior conj	4439 Jun 17 19:03	28° Π 32'53	0°19'31		4440 May 09 05:25	0° \bowtie	
minimum elong	4439 Jun 17 18:09	28° Π 27'59	0°19'20	morning set	4440 May 24 00:44	26° \bowtie 28'18	
	4439 Jun 18 11:01	0° \searrow			4440 May 25 19:11	0° Π	
evening rise	4439 Jun 24 17:25	13° \searrow 36'31		max. Earth dist.	4440 May 28 23:52	6° Π 33'22	1.33180 AU
	4439 Jul 02 22:52	0° Ω					
evening max el	4439 Jul 19 12:57	23° Ω 23'36	24°16'17	superior conj	4440 Jun 01 00:59	12° Π 59'28	0°-7'-51
desc. node	4439 Jul 22 16:23	26° Ω 07'15		minimum elong	4440 Jun 01 01:23	13° Π 01'35	0°07'48
	4439 Jul 30 06:42	0° \cap		behind sun begin	4440 May 31 20:38	12° Π 36'14	
retrograde	4439 Aug 02 08:50	0° \cap 21'55		behind sun end	4440 Jun 01 06:08	13° Π 26'57	
	4439 Aug 05 11:34	30° \nearrow Ω		asc. node	4440 Jun 01 19:05	14° Π 36'14	
evening set	4439 Aug 07 04:45	29° Ω 30'00		evening rise	4440 Jun 08 05:00	28° Π 20'56	
min. Earth dist.	4439 Aug 12 23:42	26° Ω 35'48	0.56530 AU		4440 Jun 08 23:50	0° \searrow	
inferior conj	4439 Aug 15 13:36	24° Ω 58'54	-5°-9'-52		4440 Jun 26 15:09	0° Ω	
minimum elong	4439 Aug 15 11:05	25° Ω 02'52	5°09'44	evening max el	4440 Jun 30 02:30	3° Ω 46'36	22°39'03
morning rise	4439 Aug 23 20:55	20° Ω 58'13		desc. node	4440 Jul 08 13:24	9° Ω 28'51	

retrograde	4440 Jul 13 06:59	10°♂20'18		evening set	4441 Jun 26 02:25	20°♂03'16	
evening set	4440 Jul 16 14:26	9°♂56'15		inferior conj	4441 Jul 05 10:32	16°♂05'33	-2°-52'-46
min. Earth dist.	4440 Jul 24 10:22	6°♂29'40	0.55246 AU	minimum elong	4441 Jul 05 02:51	16°♂16'20	2°50'17
inferior conj	4440 Jul 25 16:58	5°♂46'00	-4°-25'-47	min. Earth dist.	4441 Jul 05 21:21	15°♂50'19	0.54818 AU
minimum elong	4440 Jul 25 09:04	5°♂57'18	4°24'08	morning rise	4441 Jul 14 03:15	12°♂08'03	
morning rise	4440 Aug 03 06:07	1°♂55'45		direct	4441 Jul 17 16:50	11°♂40'39	
direct	4440 Aug 06 07:18	1°♂34'20		morning max el	4441 Jul 30 11:31	17°♂45'30	22°34'49
morning max el	4440 Aug 17 14:24	6°♂49'44	20°58'44		4441 Aug 09 07:22	0°♂	
asc. node	4440 Aug 28 18:20	21°♂50'55		asc. node	4441 Aug 15 15:24	10°♂55'12	
	4440 Sep 02 04:15	0°♂		morning set	4441 Aug 21 13:35	22°♂48'14	
morning set	4440 Sep 06 02:59	7°♂57'13			4441 Aug 24 22:52	0°♂	
superior conj	4440 Sep 13 13:52	23°♂27'55	1°44'00	superior conj	4441 Aug 28 17:10	8°♂02'42	1°40'13
minimum elong	4440 Sep 13 13:47	23°♂27'32	1°43'59	minimum elong	4441 Aug 28 15:53	7°♂55'50	1°40'08
	4440 Sep 16 19:05	0°♂		max. Earth dist.	4441 Aug 31 21:01	14°♂40'59	1.34105 AU
max. Earth dist.	4440 Sep 18 03:40	2°♂41'44	1.35633 AU	evening rise	4441 Sep 05 15:24	24°♂17'50	
evening rise	4440 Sep 22 07:17	10°♂40'37			4441 Sep 08 14:45	0°♂	
	4440 Oct 03 09:21	0°♂		desc. node	4441 Sep 21 09:46	21°♂51'03	
desc. node	4440 Oct 04 12:45	1°♂49'54			4441 Sep 26 22:39	0°♂	
	4440 Oct 25 08:48	0°♂		evening max el	4441 Oct 10 07:26	15°♂59'51	27°09'05
evening max el	4440 Oct 27 18:42	2°♂26'59	26°25'06	retrograde	4441 Oct 23 15:33	23°♂17'16	
retrograde	4440 Nov 09 14:36	9°♂39'29		evening set	4441 Oct 30 12:01	20°♂37'21	
evening set	4440 Nov 15 23:37	7°♂04'15		min. Earth dist.	4441 Nov 03 09:37	16°♂53'11	0.65105 AU
min. Earth dist.	4440 Nov 20 03:43	2°♂44'07	0.66364 AU	inferior conj	4441 Nov 05 12:42	14°♂30'42	-2°-1'-51
inferior conj	4440 Nov 21 18:52	0°♂45'20	-1°00'-17	minimum elong	4441 Nov 05 16:10	14°♂21'01	2°00'28
minimum elong	4440 Nov 21 20:31	0°♂40'20	0°59'35	morning rise	4441 Nov 11 22:14	8°♂55'52	
	4440 Nov 22 09:52	30°♂		asc. node	4441 Nov 11 14:36	9°♂05'10	
asc. node	4440 Nov 24 17:32	27°♂23'40		direct	4441 Nov 14 13:02	8°♂19'20	
morning rise	4440 Nov 27 18:42	24°♂57'13		morning max el	4441 Nov 21 00:32	11°♂46'58	18°04'26
direct	4440 Nov 30 17:21	24°♂08'14			4441 Dec 03 17:43	0°♂	
morning max el	4440 Dec 07 09:21	27°♂47'08	18°35'40	morning set	4441 Dec 09 00:07	8°♂42'01	
	4440 Dec 09 09:53	0°♂		desc. node	4441 Dec 18 09:03	24°♂01'57	
morning set	4440 Dec 27 22:29	27°♂42'24			4441 Dec 22 02:23	0°♂	
	4440 Dec 29 09:11	0°♂		superior conj	4441 Dec 23 08:00	1°♂57'50	0°-33'-42
desc. node	4440 Dec 31 12:01	3°♂21'17		minimum elong	4441 Dec 23 03:49	1°♂41'11	0°33'08
superior conj	4441 Jan 13 01:28	23°♂07'09	-1°-19'-28	max. Earth dist.	4441 Dec 26 20:02	7°♂30'01	1.45096 AU
minimum elong	4441 Jan 12 16:29	22°♂31'54	1°18'29	evening rise	4442 Jan 08 16:55	27°♂33'03	
max. Earth dist.	4441 Jan 13 00:19	23°♂02'40	1.45267 AU		4442 Jan 10 06:58	0°♂	
	4441 Jan 17 10:40	0°♂		greatest brilliancy	4442 Jan 26 11:46	24°♂24'59	-0.6m
evening rise	4441 Jan 28 20:34	18°♂02'54			4442 Jan 30 15:49	0°♂	
	4441 Feb 05 08:38	0°♂		evening max el	4442 Feb 02 22:56	3°♂46'59	19°44'11
evening max el	4441 Feb 19 16:33	20°♂15'14	18°55'04	asc. node	4442 Feb 07 13:51	7°♂22'52	
asc. node	4441 Feb 20 16:49	21°♂13'45		retrograde	4442 Feb 10 08:51	8°♂04'29	
retrograde	4441 Feb 26 11:25	24°♂03'48		evening set	4442 Feb 13 22:33	6°♂49'52	
evening set	4441 Mar 01 17:25	23°♂02'50		inferior conj	4442 Feb 19 10:17	0°♂49'16	3°11'19
inferior conj	4441 Mar 07 09:22	17°♂17'25	3°29'44	minimum elong	4442 Feb 19 08:11	0°♂56'12	3°10'57
minimum elong	4441 Mar 07 08:08	17°♂21'14	3°29'38		4442 Feb 20 01:07	30°♂	
min. Earth dist.	4441 Mar 09 01:36	15°♂11'47	0.65692 AU	min. Earth dist.	4442 Feb 20 11:45	29°♂24'47	0.66878 AU
morning rise	4441 Mar 12 21:47	11°♂02'53		morning rise	4442 Feb 24 17:10	24°♂33'19	
direct	4441 Mar 19 09:55	8°♂13'55		direct	4442 Mar 02 17:22	21°♂53'24	
desc. node	4441 Mar 29 11:12	13°♂08'02		morning max el	4442 Mar 14 20:12	29°♂07'16	25°28'33
morning max el	4441 Apr 01 11:00	15°♂56'34	26°42'08		4442 Mar 15 16:41	0°♂	
	4441 Apr 13 01:19	0°♂		desc. node	4442 Mar 16 08:15	0°♂41'19	
	4441 May 02 01:02	0°♂		morning set	4442 Apr 06 21:05	0°♂	
morning set	4441 May 07 08:16	9°♂45'08		max. Earth dist.	4442 Apr 20 00:22	22°♂12'41	
max. Earth dist.	4441 May 11 14:48	18°♂04'01	1.34451 AU		4442 Apr 23 18:34	29°♂09'57	1.36172 AU
					4442 Apr 24 05:09	0°♂	
superior conj	4441 May 16 01:00	27°♂04'11	0°-36'-54	superior conj	4442 Apr 29 16:16	10°♂38'11	-1°-6'-12
minimum elong	4441 May 16 02:59	27°♂14'25	0°36'32	minimum elong	4442 Apr 29 19:51	10°♂56'04	1°05'36
	4441 May 17 10:48	0°♂		asc. node	4442 May 06 13:09	24°♂34'27	
asc. node	4441 May 19 16:08	4°♂39'45		evening rise	4442 May 07 20:02	27°♂11'31	
evening rise	4441 May 23 14:37	12°♂55'10			4442 May 09 05:26	0°♂	
	4441 Jun 01 10:29	0°♂		evening max el	4442 May 25 08:27	25°♂41'29	19°53'01
evening max el	4441 Jun 11 23:34	14°♂25'54	21°08'05		4442 May 31 19:34	0°♂	
retrograde	4441 Jun 23 20:01	20°♂15'15		retrograde	4442 Jun 04 11:47	0°♂38'17	
desc. node	4441 Jun 25 10:25	20°♂09'14					

evening set	4442 Jun 06 10:22	0°☿28'12		asc. node	4443 Apr 23 10:10	14°♄16'05	
	4442 Jun 08 08:02	30°♌II			4443 May 02 05:07	0°♌	
desc. node	4442 Jun 12 07:27	28°♌14'12		evening max el	4443 May 08 04:59	7°♌38'11	18°57'39
inferior conj	4442 Jun 15 08:29	26°♌27'09	0°-54'-19	retrograde	4443 May 16 18:00	11°♌48'49	
minimum elong	4442 Jun 15 05:58	26°♌30'59	0°53'23	evening set	4443 May 18 19:27	11°♌35'12	
min. Earth dist.	4442 Jun 17 09:56	25°♌11'49	0.55348 AU	inferior conj	4443 May 26 23:12	7°♌19'04	0°55'39
morning rise	4442 Jun 23 22:45	22°♌03'14		minimum elong	4443 May 27 01:19	7°♌15'19	0°54'54
direct	4442 Jun 28 06:35	21°♌22'13		min. Earth dist.	4443 May 30 01:39	5°♌08'37	0.56735 AU
morning max el	4442 Jul 12 02:08	28°♌12'18	24°18'30	desc. node	4443 May 30 04:28	5°♌03'53	
	4442 Jul 13 21:21	0°☿		morning rise	4443 Jun 04 02:44	2°♌19'02	
	4442 Aug 02 07:37	0°♌		direct	4443 Jun 09 19:16	1°♌12'52	
asc. node	4442 Aug 02 12:27	0°♌24'12		morning max el	4443 Jun 23 16:41	8°♌37'08	25°54'45
morning set	4442 Aug 06 01:20	7°♌42'05			4443 Jul 09 17:06	0°☿	
				asc. node	4443 Jul 20 09:28	20°☿10'54	
superior conj	4442 Aug 13 01:22	22°♌50'52	1°30'35	morning set	4443 Jul 21 12:37	22°☿33'23	
minimum elong	4442 Aug 12 23:19	22°♌39'45	1°30'22		4443 Jul 24 23:35	0°♌	
max. Earth dist.	4442 Aug 14 23:05	26°♌58'00	1.32981 AU				
	4442 Aug 16 09:07	0°♍		superior conj	4443 Jul 28 12:17	7°♌45'24	1°15'55
evening rise	4442 Aug 20 10:25	8°♍25'51		minimum elong	4443 Jul 28 09:58	7°♌32'36	1°15'35
	4442 Sep 01 01:10	0°♌		max. Earth dist.	4443 Jul 29 07:23	9°♌30'24	1.32274 AU
desc. node	4442 Sep 08 06:46	11°♌23'46		evening rise	4443 Aug 04 13:09	22°♌55'10	
evening max el	4442 Sep 22 18:36	29°♌10'59	27°26'48		4443 Aug 08 00:51	0°♍	
	4442 Sep 23 15:44	0°♌			4443 Aug 25 23:05	0°♌	
retrograde	4442 Oct 06 10:14	6°♌27'34		desc. node	4443 Aug 26 03:46	0°♌15'58	
evening set	4442 Oct 13 13:50	3°♌51'56		evening max el	4443 Sep 05 01:44	11°♌46'55	27°13'00
min. Earth dist.	4442 Oct 17 06:11	0°♌41'06	0.63503 AU	retrograde	4443 Sep 18 22:04	19°♌00'26	
	4442 Oct 17 22:49	30°♌♌		evening set	4443 Sep 26 01:17	16°♌41'01	
inferior conj	4442 Oct 19 21:23	28°♌02'11	-3°-3'-54	min. Earth dist.	4443 Sep 29 16:11	13°♌55'34	0.61610 AU
minimum elong	4442 Oct 20 02:33	27°♌49'10	3°02'07	inferior conj	4443 Oct 02 17:45	11°♌11'41	-4°-2'-8
morning rise	4442 Oct 26 17:49	22°♌44'12		minimum elong	4443 Oct 02 23:51	10°♌58'05	4°00'32
direct	4442 Oct 29 03:18	22°♌16'28		morning rise	4443 Oct 10 01:32	6°♌13'48	
asc. node	4442 Oct 29 11:39	22°♌17'04		direct	4443 Oct 12 08:35	5°♌51'39	
morning max el	4442 Nov 04 17:18	25°♌41'35	17°50'37	asc. node	4443 Oct 16 08:42	7°♌01'45	
	4442 Nov 08 08:15	0°♌		morning max el	4443 Oct 19 08:30	9°♌22'44	17°55'00
morning set	4442 Nov 21 03:44	20°♌57'12			4443 Nov 01 20:23	0°♌	
	4442 Nov 26 09:34	0°♌♌		morning set	4443 Nov 04 02:48	4°♌07'18	
superior conj	4442 Dec 03 11:04	11°♌51'33	0°12'29	superior conj	4443 Nov 14 16:42	23°♌02'49	0°50'47
minimum elong	4442 Dec 03 12:23	11°♌56'58	0°12'18	minimum elong	4443 Nov 14 20:35	23°♌19'37	0°50'17
behind sun begin	4442 Dec 03 06:06	11°♌31'06			4443 Nov 18 18:25	0°♌	
behind sun end	4442 Dec 03 18:39	12°♌22'48		max. Earth dist.	4443 Nov 22 03:33	5°♌37'09	1.42706 AU
desc. node	4442 Dec 05 06:05	14°♌47'58		desc. node	4443 Nov 22 03:05	5°♌35'17	
max. Earth dist.	4442 Dec 09 14:08	21°♌48'04	1.44203 AU	evening rise	4443 Nov 28 18:19	16°♌15'06	
	4442 Dec 14 18:38	0°☿			4443 Dec 07 17:25	0°☿	
evening rise	4442 Dec 19 02:57	6°☿44'33		greatest brilliancy	4443 Dec 26 01:56	25°☿33'38	-0.3m
	4443 Jan 03 15:28	0°☿			4443 Dec 29 22:34	0°☿	
greatest brilliancy	4443 Jan 11 10:31	10°☿47'10	-0.5m	evening max el	4443 Dec 30 19:29	0°☿54'24	22°01'08
evening max el	4443 Jan 16 23:57	17°☿20'13	20°47'20	retrograde	4444 Jan 09 04:04	6°☿28'28	
retrograde	4443 Jan 25 07:04	22°☿14'15		asc. node	4444 Jan 12 07:55	5°☿35'05	
asc. node	4443 Jan 25 10:53	22°☿14'07		evening set	4444 Jan 13 13:42	4°☿43'42	
evening set	4443 Jan 29 05:54	20°☿44'59			4444 Jan 17 18:36	30°♌☿	
inferior conj	4443 Feb 03 15:35	14°☿32'00	2°42'37	inferior conj	4444 Jan 18 23:05	28°☿21'49	2°05'22
minimum elong	4443 Feb 03 13:08	14°☿40'24	2°41'58	minimum elong	4444 Jan 18 20:46	28°☿29'53	2°04'35
min. Earth dist.	4443 Feb 04 03:48	13°☿49'59	0.67645 AU	min. Earth dist.	4444 Jan 18 23:26	28°☿20'37	0.68010 AU
morning rise	4443 Feb 08 19:57	8°☿16'27		morning rise	4444 Jan 24 03:39	22°☿08'23	
direct	4443 Feb 14 05:55	5°☿53'49		direct	4444 Jan 28 22:44	20°☿07'24	
morning max el	4443 Feb 25 04:53	12°☿26'02	24°02'12	morning max el	4444 Feb 07 15:15	25°☿50'36	22°33'10
desc. node	4443 Mar 03 05:17	19°☿14'49			4444 Feb 11 10:02	0°☿	
	4443 Mar 11 07:43	0°♄		greatest brilliancy	4444 Feb 12 05:00	0°☿56'33	-0.3m
	4443 Mar 30 16:42	0°♄		desc. node	4444 Feb 18 02:19	8°☿31'00	
morning set	4443 Apr 01 19:29	3°♄36'36			4444 Mar 03 20:36	0°♄	
max. Earth dist.	4443 Apr 05 14:49	10°♄17'06	1.38239 AU	morning set	4444 Mar 12 11:45	13°♄42'19	
				max. Earth dist.	4444 Mar 17 10:42	21°♄58'14	1.40426 AU
					4444 Mar 22 02:02	0°♄	
superior conj	4443 Apr 12 19:19	23°♄32'59	-1°-33'-27				
minimum elong	4443 Apr 13 00:03	23°♄55'29	1°32'52				
	4443 Apr 16 03:40	0°♄		superior conj	4444 Mar 25 05:50	5°♄38'15	-1°-55'-23
evening rise	4443 Apr 21 18:45	11°♄03'19		minimum elong	4444 Mar 25 10:18	5°♄58'26	1°55'03

evening rise	4444 Apr 04 07:34	24° Υ 22'26			4445 Mar 14 09:07	0° Υ	
	4444 Apr 07 07:28	0° \mathcal{B}		evening rise	4445 Mar 18 06:33	6° Υ 59'37	
asc. node	4444 Apr 09 07:12	3° \mathcal{B} 39'37		asc. node	4445 Mar 27 04:14	22° Υ 38'24	
evening max el	4444 Apr 20 10:23	20° \mathcal{B} 10'43	18°22'39		4445 Apr 01 02:59	0° \mathcal{B}	
retrograde	4444 Apr 27 18:58	23° \mathcal{B} 49'48		evening max el	4445 Apr 03 21:10	3° \mathcal{B} 09'24	18°07'29
evening set	4444 Apr 30 02:48	23° \mathcal{B} 28'52		retrograde	4445 Apr 10 13:05	6° \mathcal{B} 33'15	
inferior conj	4444 May 07 11:25	18° \mathcal{B} 52'44	2°17'01	evening set	4445 Apr 13 03:16	6° \mathcal{B} 02'36	
minimum elong	4444 May 07 15:01	18° \mathcal{B} 45'16	2°16'01	inferior conj	4445 Apr 19 19:43	1° \mathcal{B} 05'16	3°07'02
min. Earth dist.	4444 May 10 22:03	16° \mathcal{B} 03'31	0.58702 AU	minimum elong	4445 Apr 19 22:29	0° \mathcal{B} 58'37	3°06'32
morning rise	4444 May 14 22:56	13° \mathcal{B} 21'02			4445 Apr 20 22:50	30° $\mathcal{R}\Upsilon$	
desc. node	4444 May 16 01:28	12° \mathcal{B} 48'32		min. Earth dist.	4445 Apr 23 01:02	28° Υ 01'47	0.60900 AU
direct	4444 May 21 02:26	11° \mathcal{B} 40'56		morning rise	4445 Apr 26 14:27	25° Υ 12'04	
morning max el	4444 Jun 04 11:55	19° \mathcal{B} 26'25	27°07'50	desc. node	4445 May 02 22:31	22° Υ 59'02	
	4444 Jun 13 11:07	0° Π		direct	4445 May 03 07:21	22° Υ 58'38	
	4444 Jul 01 08:20	0° \mathcal{E}			4445 May 16 14:50	0° \mathcal{B}	
morning set	4444 Jul 04 21:50	7° \mathcal{E} 16'58		morning max el	4445 May 17 13:25	0° \mathcal{B} 54'44	27°46'54
asc. node	4444 Jul 06 06:30	10° \mathcal{E} 09'40			4445 Jun 07 14:54	0° Π	
				morning set	4445 Jun 19 03:04	21° Π 45'55	
superior conj	4444 Jul 12 00:07	22° \mathcal{E} 40'11	0°56'55	asc. node	4445 Jun 23 03:30	0° \mathcal{E} 14'57	
minimum elong	4444 Jul 11 21:59	22° \mathcal{E} 28'26	0°56'31		4445 Jun 23 00:44	0° \mathcal{E}	
max. Earth dist.	4444 Jul 11 18:41	22° \mathcal{E} 10'09	1.31983 AU	max. Earth dist.	4445 Jun 25 05:12	4° \mathcal{E} 44'42	1.32112 AU
	4444 Jul 15 08:00	0° Ω					
evening rise	4444 Jul 18 21:01	7° Ω 38'03		superior conj	4445 Jun 26 11:04	7° \mathcal{E} 28'21	0°34'08
	4444 Jul 30 12:35	0° \mathcal{M}		minimum elong	4445 Jun 26 09:36	7° \mathcal{E} 20'15	0°33'49
desc. node	4444 Aug 12 00:46	18° \mathcal{M} 11'04		evening rise	4445 Jul 03 07:50	22° \mathcal{E} 26'26	
evening max el	4444 Aug 17 02:38	23° \mathcal{M} 38'07	26°25'52		4445 Jul 06 23:13	0° Ω	
	4444 Aug 26 15:23	0° \mathcal{A}			4445 Jul 25 11:33	0° \mathcal{M}	
retrograde	4444 Aug 31 01:46	0° \mathcal{A} 47'39		desc. node	4445 Jul 29 21:47	4° \mathcal{M} 44'56	
	4444 Sep 04 10:18	30° $\mathcal{R}\mathcal{M}$		evening max el	4445 Jul 29 20:08	4° \mathcal{M} 41'01	25°09'21
evening set	4444 Sep 06 17:41	28° \mathcal{M} 57'23		retrograde	4445 Aug 12 18:56	11° \mathcal{M} 44'42	
min. Earth dist.	4444 Sep 10 16:05	26° \mathcal{M} 22'52	0.59550 AU	evening set	4445 Aug 18 10:21	10° \mathcal{M} 31'51	
inferior conj	4444 Sep 13 22:24	23° \mathcal{M} 50'35	-4°-49'-10	min. Earth dist.	4445 Aug 23 07:49	7° \mathcal{M} 49'56	0.57545 AU
minimum elong	4444 Sep 14 03:29	23° \mathcal{M} 40'38	4°48'22	inferior conj	4445 Aug 26 07:57	5° \mathcal{M} 48'17	-5°-12'-58
morning rise	4444 Sep 21 16:45	19° \mathcal{M} 15'11		minimum elong	4445 Aug 26 08:58	5° \mathcal{M} 46'32	5°12'57
direct	4444 Sep 24 00:49	18° \mathcal{M} 55'48		morning rise	4445 Sep 03 11:05	1° \mathcal{M} 35'44	
morning max el	4444 Oct 01 18:51	22° \mathcal{M} 41'55	18°18'56	direct	4445 Sep 05 23:51	1° \mathcal{M} 16'49	
asc. node	4444 Oct 02 05:44	23° \mathcal{M} 08'52		morning max el	4445 Sep 14 20:52	5° \mathcal{M} 28'16	19°04'01
	4444 Oct 07 13:26	0° \mathcal{A}		asc. node	4445 Sep 19 02:46	10° \mathcal{M} 22'28	
morning set	4444 Oct 17 15:46	17° \mathcal{A} 57'02			4445 Sep 30 11:08	0° \mathcal{A}	
	4444 Oct 24 00:18	0° \mathcal{M}		morning set	4445 Oct 01 14:20	2° \mathcal{A} 13'55	
superior conj	4444 Oct 26 22:21	5° \mathcal{M} 23'58	1°18'18	superior conj	4445 Oct 09 22:36	18° \mathcal{A} 39'24	1°35'18
minimum elong	4444 Oct 27 02:09	5° \mathcal{M} 41'20	1°17'54	minimum elong	4445 Oct 10 01:02	18° \mathcal{A} 51'08	1°35'07
max. Earth dist.	4444 Nov 03 11:43	18° \mathcal{M} 46'36	1.40796 AU		4445 Oct 16 00:05	0° \mathcal{M}	
evening rise	4444 Nov 08 04:18	26° \mathcal{M} 38'05		max. Earth dist.	4445 Oct 16 16:41	1° \mathcal{M} 15'04	1.38703 AU
desc. node	4444 Nov 08 00:06	26° \mathcal{M} 20'50		evening rise	4445 Oct 20 13:28	8° \mathcal{M} 04'24	
	4444 Nov 10 05:57	0° \mathcal{A}		desc. node	4445 Oct 25 21:07	17° \mathcal{M} 00'40	
	4444 Nov 30 10:32	0° \mathcal{B}			4445 Nov 03 04:10	0° \mathcal{A}	
evening max el	4444 Dec 12 10:50	14° \mathcal{B} 31'44	23°20'36	evening max el	4445 Nov 24 23:56	28° \mathcal{A} 13'19	24°39'28
retrograde	4444 Dec 22 22:19	20° \mathcal{B} 43'43			4445 Nov 26 21:20	0° \mathcal{B}	
evening set	4444 Dec 27 20:21	18° \mathcal{B} 42'58		retrograde	4445 Dec 06 12:37	4° \mathcal{B} 56'24	
asc. node	4444 Dec 29 04:58	17° \mathcal{B} 25'59		evening set	4445 Dec 12 00:19	2° \mathcal{B} 40'05	
inferior conj	4445 Jan 02 06:57	12° \mathcal{B} 16'09	1°20'49		4445 Dec 14 14:42	30° $\mathcal{R}\mathcal{A}$	
minimum elong	4445 Jan 02 05:13	12° \mathcal{B} 22'08	1°20'09	asc. node	4445 Dec 16 02:00	28° \mathcal{A} 09'46	
min. Earth dist.	4445 Jan 01 20:15	12° \mathcal{B} 52'55	0.68004 AU	min. Earth dist.	4445 Dec 16 15:53	27° \mathcal{A} 24'14	0.67643 AU
morning rise	4445 Jan 07 14:09	6° \mathcal{B} 06'51		inferior conj	4445 Dec 17 13:23	26° \mathcal{A} 12'44	0°30'00
direct	4445 Jan 11 18:56	4° \mathcal{B} 28'40		minimum elong	4445 Dec 17 12:40	26° \mathcal{A} 15'09	0°29'42
morning max el	4445 Jan 20 06:53	9° \mathcal{B} 24'11	21°09'55	morning rise	4445 Dec 23 01:28	20° \mathcal{A} 09'47	
greatest brilliancy	4445 Jan 25 13:29	15° \mathcal{B} 26'33	-0.4m	direct	4445 Dec 26 17:09	18° \mathcal{A} 53'09	
desc. node	4445 Feb 03 23:21	28° \mathcal{B} 17'55		morning max el	4446 Jan 03 06:18	23° \mathcal{A} 09'45	19°58'16
	4445 Feb 05 03:33	0° \approx			4446 Jan 09 01:16	0° \mathcal{B}	
morning set	4445 Feb 19 23:48	22° \approx 29'23		greatest brilliancy	4446 Jan 10 09:32	1° \mathcal{B} 48'01	-0.6m
	4445 Feb 24 17:07	0° \mathcal{H}		desc. node	4446 Jan 21 20:23	18° \mathcal{B} 27'13	
max. Earth dist.	4445 Feb 27 12:40	4° \mathcal{H} 34'11	1.42455 AU		4446 Jan 29 09:59	0° \approx	
				morning set	4446 Jan 29 20:11	0° \approx 39'17	
superior conj	4445 Mar 06 18:46	16° \mathcal{H} 42'18	-2°-7'-20	max. Earth dist.	4446 Feb 09 22:48	18° \approx 03'54	1.44054 AU
minimum elong	4445 Mar 06 20:20	16° \mathcal{H} 48'58	2°07'20				

superior conj	4446 Feb 15 06:15	26° \approx 37'34	-2°-3'-52	superior conj	4447 Jan 25 18:19	5° \approx 32'32	-1°-40'-58
minimum elong	4446 Feb 15 02:01	26° \approx 20'22	2°03'43	minimum elong	4447 Jan 25 09:17	4° \approx 56'53	1°40'10
	4446 Feb 17 07:42	0° \mathbb{H}		evening rise	4447 Feb 09 18:00	29° \approx 36'07	
evening rise	4446 Feb 28 11:20	18° \mathbb{H} 46'20			4447 Feb 09 23:51	0° \mathbb{H}	
	4446 Mar 07 01:00	0° \mathbb{Y}		asc. node	4447 Feb 28 22:21	28° \mathbb{H} 47'36	
asc. node	4446 Mar 14 01:17	11° \mathbb{Y} 04'37		evening max el	4447 Mar 01 21:58	29° \mathbb{H} 50'31	18°34'02
evening max el	4446 Mar 18 09:59	16° \mathbb{Y} 25'17	18°11'31		4447 Mar 02 01:44	0° \mathbb{Y}	
retrograde	4446 Mar 24 20:02	19° \mathbb{Y} 49'00		retrograde	4447 Mar 08 11:23	3° \mathbb{Y} 27'03	
evening set	4446 Mar 27 16:08	19° \mathbb{Y} 07'16		evening set	4447 Mar 11 13:30	2° \mathbb{Y} 33'23	
inferior conj	4446 Apr 02 20:17	13° \mathbb{Y} 49'39	3°30'49		4447 Mar 14 16:29	30° \mathbb{R} \mathbb{H}	
minimum elong	4446 Apr 02 21:24	13° \mathbb{Y} 46'39	3°30'45	inferior conj	4447 Mar 17 09:00	26° \mathbb{H} 57'19	3°34'37
min. Earth dist.	4446 Apr 05 12:46	10° \mathbb{Y} 55'54	0.63007 AU	minimum elong	4447 Mar 17 08:31	26° \mathbb{H} 58'46	3°34'37
morning rise	4446 Apr 09 00:30	7° \mathbb{Y} 43'41		min. Earth dist.	4447 Mar 19 10:03	24° \mathbb{H} 30'55	0.64822 AU
direct	4446 Apr 15 21:21	5° \mathbb{Y} 06'12		morning rise	4447 Mar 23 02:08	20° \mathbb{H} 44'33	
desc. node	4446 Apr 19 19:34	5° \mathbb{Y} 51'40		direct	4447 Mar 29 19:02	17° \mathbb{H} 56'04	
morning max el	4446 Apr 29 20:19	13° \mathbb{Y} 04'58	27°48'17	desc. node	4447 Apr 06 16:36	20° \mathbb{H} 59'13	
	4446 May 13 09:11	0° \mathbb{B}		morning max el	4447 Apr 12 06:08	25° \mathbb{H} 48'35	27°14'40
	4446 May 31 02:22	0° \mathbb{H}			4447 Apr 16 02:46	0° \mathbb{Y}	
morning set	4446 Jun 03 02:14	5° \mathbb{H} 53'59			4447 May 06 21:56	0° \mathbb{B}	
max. Earth dist.	4446 Jun 08 11:10	17° \mathbb{H} 02'33	1.32669 AU	morning set	4447 May 17 16:29	19° \mathbb{B} 32'26	
asc. node	4446 Jun 10 00:33	20° \mathbb{H} 22'49		max. Earth dist.	4447 May 22 08:37	28° \mathbb{B} 52'16	1.33668 AU
					4447 May 22 21:49	0° \mathbb{H}	
superior conj	4446 Jun 10 19:24	22° \mathbb{H} 04'29	0°08'13	superior conj	4447 May 25 23:05	6° \mathbb{H} 22'14	0°-20'-3
minimum elong	4446 Jun 10 19:00	22° \mathbb{H} 02'21	0°08'07	minimum elong	4447 May 26 00:07	6° \mathbb{H} 27'44	0°19'51
behind sun begin	4446 Jun 10 14:27	21° \mathbb{H} 37'45		asc. node	4447 May 27 21:37	10° \mathbb{H} 28'59	
behind sun end	4446 Jun 10 23:33	22° \mathbb{H} 26'59		evening rise	4447 Jun 02 06:41	21° \mathbb{H} 55'06	
	4446 Jun 14 10:58	0° \mathbb{B}			4447 Jun 06 05:20	0° \mathbb{B}	
evening rise	4446 Jun 17 19:42	7° \mathbb{B} 14'18		evening max el	4447 Jun 23 00:40	25° \mathbb{B} 34'53	21°58'44
	4446 Jun 29 18:32	0° \mathbb{Q}			4447 Jun 28 19:42	0° \mathbb{Q}	
evening max el	4446 Jul 11 09:00	15° \mathbb{Q} 09'28	23°34'56	desc. node	4447 Jul 03 15:49	1° \mathbb{Q} 42'27	
desc. node	4446 Jul 16 18:48	19° \mathbb{Q} 26'47		retrograde	4447 Jul 05 17:24	1° \mathbb{Q} 52'23	
retrograde	4446 Jul 24 23:43	21° \mathbb{Q} 59'09		evening set	4447 Jul 08 12:09	1° \mathbb{Q} 35'06	
evening set	4446 Jul 29 04:06	21° \mathbb{Q} 20'49			4447 Jul 13 02:37	30° \mathbb{R} \mathbb{B}	
min. Earth dist.	4446 Aug 04 18:51	18° \mathbb{Q} 14'35	0.55902 AU	min. Earth dist.	4447 Jul 17 05:11	27° \mathbb{B} 50'41	0.54946 AU
inferior conj	4446 Aug 06 21:19	16° \mathbb{Q} 59'22	-4°-57'-31	inferior conj	4447 Jul 17 18:57	27° \mathbb{B} 31'22	-3°-51'-26
minimum elong	4446 Aug 06 16:07	17° \mathbb{Q} 07'09	4°56'53	minimum elong	4447 Jul 17 10:18	27° \mathbb{B} 43'30	3°49'09
morning rise	4446 Aug 15 07:18	13° \mathbb{Q} 04'59		morning rise	4447 Jul 26 10:07	23° \mathbb{B} 40'57	
direct	4446 Aug 18 03:34	12° \mathbb{Q} 44'56		direct	4447 Jul 29 15:52	23° \mathbb{B} 17'46	
morning max el	4446 Aug 28 11:52	17° \mathbb{Q} 33'16	20°11'00	morning max el	4447 Aug 10 15:06	28° \mathbb{B} 53'40	21°38'06
asc. node	4446 Sep 05 23:49	28° \mathbb{Q} 28'16			4447 Aug 11 18:29	0° \mathbb{Q}	
	4446 Sep 06 22:09	0° \mathbb{M}		asc. node	4447 Aug 23 20:52	17° \mathbb{Q} 14'19	
morning set	4446 Sep 15 19:22	16° \mathbb{M} 49'11			4447 Aug 30 09:54	0° \mathbb{M}	
	4446 Sep 22 05:48	0° \mathbb{A}		morning set	4447 Aug 31 04:30	1° \mathbb{M} 36'26	
superior conj	4446 Sep 23 12:24	2° \mathbb{A} 34'44	1°43'06	superior conj	4447 Sep 07 11:45	16° \mathbb{M} 58'33	1°43'11
minimum elong	4446 Sep 23 13:12	2° \mathbb{A} 38'44	1°43'04	minimum elong	4447 Sep 07 11:06	16° \mathbb{M} 55'12	1°43'09
max. Earth dist.	4446 Sep 28 22:46	13° \mathbb{A} 14'31	1.36678 AU	max. Earth dist.	4447 Sep 11 10:55	25° \mathbb{M} 07'24	1.34927 AU
evening rise	4446 Oct 02 20:06	20° \mathbb{A} 29'38			4447 Sep 13 21:49	0° \mathbb{A}	
	4446 Oct 08 05:32	0° \mathbb{M}		evening rise	4447 Sep 15 20:10	3° \mathbb{A} 44'14	
desc. node	4446 Oct 12 18:08	7° \mathbb{M} 30'09		desc. node	4447 Sep 29 15:09	27° \mathbb{A} 43'58	
	4446 Oct 28 04:05	0° \mathbb{J}			4447 Oct 01 02:06	0° \mathbb{M}	
evening max el	4446 Nov 07 12:24	11° \mathbb{J} 56'23	25°50'36	evening max el	4447 Oct 21 00:57	25° \mathbb{M} 35'18	26°46'36
retrograde	4446 Nov 19 22:16	19° \mathbb{J} 01'04			4447 Oct 26 08:52	0° \mathbb{J}	
evening set	4446 Nov 25 23:52	16° \mathbb{J} 31'17		retrograde	4447 Nov 03 02:41	2° \mathbb{J} 51'29	
min. Earth dist.	4446 Nov 30 07:55	11° \mathbb{J} 50'51	0.66931 AU	evening set	4447 Nov 09 17:03	0° \mathbb{J} 12'58	
inferior conj	4446 Dec 01 16:33	10° \mathbb{J} 07'59	0°-26'-5		4447 Nov 09 23:21	30° \mathbb{R} \mathbb{M}	
minimum elong	4446 Dec 01 17:14	10° \mathbb{J} 05'49	0°25'47	min. Earth dist.	4447 Nov 13 18:09	26° \mathbb{M} 08'32	0.65868 AU
asc. node	4446 Dec 02 23:04	8° \mathbb{J} 33'11		inferior conj	4447 Nov 15 14:27	23° \mathbb{M} 58'37	-1°-26'-9
morning rise	4446 Dec 07 11:35	4° \mathbb{J} 13'55		minimum elong	4447 Nov 15 16:51	23° \mathbb{M} 51'33	1°25'09
direct	4446 Dec 10 15:53	3° \mathbb{J} 15'56		asc. node	4447 Nov 19 20:05	19° \mathbb{M} 33'28	
morning max el	4446 Dec 17 13:28	7° \mathbb{J} 05'15	19°01'16	morning rise	4447 Nov 21 18:15	18° \mathbb{M} 16'04	
	4447 Jan 03 00:32	0° \mathbb{C}		direct	4447 Nov 24 13:12	17° \mathbb{M} 32'59	
desc. node	4447 Jan 08 17:25	8° \mathbb{C} 52'17		morning max el	4447 Dec 01 02:32	21° \mathbb{M} 05'58	18°20'23
morning set	4447 Jan 09 01:45	9° \mathbb{C} 24'49			4447 Dec 08 01:24	0° \mathbb{J}	
	4447 Jan 22 05:49	0° \mathbb{A}		morning set	4447 Dec 20 10:17	19° \mathbb{J} 33'47	
max. Earth dist.	4447 Jan 23 15:00	2° \mathbb{A} 10'22	1.45030 AU	desc. node	4447 Dec 26 14:28	29° \mathbb{J} 28'43	

	4447 Dec 26 22:18	0°☿		superior conj	4448 Dec 14 10:37	23°☿22'19	0°-13'-33
				minimum elong	4448 Dec 14 09:00	23°☿15'49	0°13'21
superior conj	4448 Jan 04 20:57	14°☿09'00	-1°00'-52	behind sun begin	4448 Dec 14 03:08	22°☿52'12	
minimum elong	4448 Jan 04 13:30	13°☿39'42	0°59'57	behind sun end	4448 Dec 14 14:52	23°☿39'25	
max. Earth dist.	4448 Jan 06 09:53	16°☿33'56	1.45283 AU		4448 Dec 18 14:13	0°☿	
	4448 Jan 14 23:50	0°☿		max. Earth dist.	4448 Dec 19 04:35	0°☿56'52	1.44795 AU
evening rise	4448 Jan 21 01:39	9°☿31'21		evening rise	4448 Dec 30 15:45	18°☿48'32	
	4448 Feb 03 05:46	0°☿			4449 Jan 06 23:33	0°☿	
greatest brilliancy	4448 Feb 03 22:16	1°☿01'49	-0.7m	greatest brilliancy	4449 Jan 19 22:47	18°☿57'45	-0.6m
evening max el	4448 Feb 13 06:51	13°☿20'50	19°13'57	evening max el	4449 Jan 26 11:02	26°☿53'33	20°09'33
asc. node	4448 Feb 15 19:23	15°☿35'14			4449 Jan 30 02:21	0°☿	
retrograde	4448 Feb 20 07:28	17°☿21'01		asc. node	4449 Feb 01 16:23	1°☿13'07	
evening set	4448 Feb 23 16:29	16°☿14'30		retrograde	4449 Feb 03 05:28	1°☿25'59	
inferior conj	4448 Feb 29 06:20	10°☿22'12	3°23'19	evening set	4449 Feb 06 22:46	0°☿05'28	
minimum elong	4448 Feb 29 04:41	10°☿27'31	3°23'07		4449 Feb 07 01:45	30°☿	
min. Earth dist.	4448 Mar 01 16:08	8°☿33'29	0.66249 AU	inferior conj	4449 Feb 12 09:24	23°☿59'26	3°00'19
morning rise	4448 Mar 05 15:59	4°☿06'28		minimum elong	4449 Feb 12 07:06	24°☿07'12	2°59'48
direct	4448 Mar 11 23:20	1°☿20'03		min. Earth dist.	4449 Feb 13 05:10	22°☿52'43	0.67254 AU
desc. node	4448 Mar 23 13:40	7°☿47'57		morning rise	4449 Feb 17 14:51	17°☿43'18	
morning max el	4448 Mar 24 16:04	8°☿53'03	26°12'58	direct	4449 Feb 23 09:15	15°☿09'37	
	4448 Apr 10 05:43	0°☿		morning max el	4449 Mar 07 00:47	22°☿07'35	24°52'43
	4448 Apr 28 09:35	0°☿		desc. node	4449 Mar 10 10:43	25°☿49'31	
morning set	4448 Apr 29 18:06	2°☿30'17			4449 Mar 13 22:00	0°☿	
max. Earth dist.	4448 May 03 18:36	10°☿10'04	1.35130 AU		4449 Apr 03 12:37	0°☿	
				morning set	4449 Apr 12 02:07	14°☿33'40	
superior conj	4448 May 08 19:43	20°☿14'41	0°-49'-26	max. Earth dist.	4449 Apr 15 18:04	21°☿11'22	1.37016 AU
minimum elong	4448 May 08 22:24	20°☿28'20	0°48'57		4449 Apr 20 10:15	0°☿	
asc. node	4448 May 13 18:39	0°☿29'10					
	4448 May 13 13:03	0°☿		superior conj	4449 Apr 22 06:21	3°☿34'04	-1°-18'-11
evening rise	4448 May 16 14:48	6°☿22'22		minimum elong	4449 Apr 22 10:31	3°☿54'28	1°17'33
	4448 May 29 17:03	0°☿		evening rise	4449 Apr 30 17:45	20°☿29'39	
evening max el	4448 Jun 04 02:29	6°☿28'00	20°33'51	asc. node	4449 Apr 30 15:41	20°☿19'19	
retrograde	4448 Jun 15 06:17	11°☿55'26			4449 May 05 14:23	0°☿	
evening set	4448 Jun 17 07:05	11°☿45'17		evening max el	4449 May 17 16:45	18°☿02'40	19°27'01
desc. node	4448 Jun 19 12:51	11°☿12'16		retrograde	4449 May 27 02:44	22°☿37'51	
inferior conj	4448 Jun 26 12:35	7°☿48'06	-2°-3'-33	evening set	4449 May 29 01:47	22°☿26'48	
minimum elong	4448 Jun 26 06:49	7°☿56'25	2°01'29	desc. node	4449 Jun 06 09:52	18°☿31'46	
min. Earth dist.	4448 Jun 27 17:03	7°☿07'01	0.54919 AU	inferior conj	4449 Jun 06 16:40	18°☿20'49	0°-5'00
morning rise	4448 Jul 05 05:09	3°☿40'59		minimum elong	4449 Jun 06 16:27	18°☿21'11	0°04'56
direct	4448 Jul 09 01:27	3°☿09'06		transit middle	4449 Jun 06 16:27	18°☿21'11	0°04'56
morning max el	4448 Jul 22 08:51	9°☿35'05	23°18'53	transit begin	4449 Jun 06 12:45	18°☿27'08	
	4448 Aug 06 06:12	0°☿		transit end	4449 Jun 06 20:08	18°☿15'12	
asc. node	4448 Aug 09 17:54	6°☿29'58		min. Earth dist.	4449 Jun 09 07:03	16°☿40'34	0.55847 AU
morning set	4448 Aug 14 15:46	16°☿29'10		morning rise	4449 Jun 15 03:17	13°☿41'47	
	4448 Aug 20 22:48	0°☿		direct	4449 Jun 19 20:47	12°☿51'12	
				morning max el	4449 Jul 03 22:37	19°☿57'46	25°01'12
superior conj	4448 Aug 21 17:25	1°☿40'09	1°36'48		4449 Jul 12 11:42	0°☿	
minimum elong	4448 Aug 21 15:45	1°☿31'11	1°36'40	asc. node	4449 Jul 27 14:57	26°☿07'26	
max. Earth dist.	4448 Aug 24 07:48	7°☿12'18	1.33567 AU		4449 Jul 29 11:51	0°☿	
evening rise	4448 Aug 29 09:20	17°☿35'52		morning set	4449 Jul 30 03:30	1°☿22'34	
	4448 Sep 04 22:07	0°☿					
desc. node	4448 Sep 15 12:10	17°☿34'13		superior conj	4449 Aug 06 03:02	16°☿32'01	1°24'56
	4448 Sep 24 10:57	0°☿		minimum elong	4449 Aug 06 00:48	16°☿19'51	1°24'40
evening max el	4448 Oct 02 13:06	8°☿59'58	27°20'14	max. Earth dist.	4449 Aug 07 12:52	19°☿36'33	1.32633 AU
retrograde	4448 Oct 16 01:18	16°☿18'28			4449 Aug 12 09:51	0°☿	
evening set	4448 Oct 23 01:20	13°☿39'01		evening rise	4449 Aug 13 08:02	1°☿54'27	
min. Earth dist.	4448 Oct 26 20:22	10°☿09'31	0.64457 AU		4449 Aug 28 19:28	0°☿	
inferior conj	4448 Oct 29 04:42	7°☿38'41	-2°-28'-19	desc. node	4449 Sep 02 09:09	6°☿51'12	
minimum elong	4448 Oct 29 08:56	7°☿27'20	2°26'44	evening max el	4449 Sep 14 23:03	21°☿58'14	27°25'03
morning rise	4448 Nov 04 18:46	2°☿10'39		retrograde	4449 Sep 28 17:09	29°☿13'20	
asc. node	4448 Nov 05 17:07	1°☿51'14		evening set	4449 Oct 05 21:31	26°☿43'24	
direct	4448 Nov 07 06:51	1°☿38'26		min. Earth dist.	4449 Oct 09 12:42	23°☿44'20	0.62728 AU
morning max el	4448 Nov 13 18:45	5°☿04'20	17°56'23	inferior conj	4449 Oct 12 08:33	21°☿01'51	-3°-29'-26
	4448 Nov 30 07:42	0°☿		minimum elong	4449 Oct 12 14:15	20°☿48'08	3°27'39
morning set	4448 Nov 30 23:40	1°☿07'25		morning rise	4449 Oct 19 09:47	15°☿51'39	
desc. node	4448 Dec 12 11:29	20°☿11'52		direct	4449 Oct 21 17:48	15°☿26'41	
				asc. node	4449 Oct 23 14:10	15°☿42'46	

morning max el	4449 Oct 28 11:09	18°♄53'33	17°50'05	minimum elong	4450 Sep 25 04:39	3°♄46'56	4°22'45
	4449 Nov 05 13:23	0°♄			4450 Sep 30 11:12	30°♄	
morning set	4449 Nov 13 12:18	13°♄47'58		morning rise	4450 Oct 02 11:06	29°♄10'48	
	4449 Nov 22 18:57	0°♄		direct	4450 Oct 04 18:18	28°♄50'00	
					4450 Oct 08 21:10	0°♄	
superior conj	4449 Nov 25 00:46	3°♄47'56	0°29'59	asc. node	4450 Oct 10 11:13	1°♄04'03	
minimum elong	4449 Nov 25 03:34	3°♄59'44	0°29'36	morning max el	4450 Oct 12 00:38	2°♄26'05	18°02'42
desc. node	4449 Nov 29 08:28	10°♄58'24		morning set	4450 Oct 27 17:55	27°♄16'58	
max. Earth dist.	4449 Dec 01 20:53	15°♄04'06	1.43633 AU		4450 Oct 29 05:01	0°♄	
evening rise	4449 Dec 10 02:00	28°♄02'57					
	4449 Dec 11 08:18	0°♄		superior conj	4450 Nov 06 17:14	15°♄30'41	1°03'49
	4449 Dec 31 19:40	0°♄		minimum elong	4450 Nov 06 21:19	15°♄48'46	1°03'19
greatest brilliancy	4450 Jan 04 08:39	4°♄38'05	-0.4m	max. Earth dist.	4450 Nov 14 08:39	28°♄39'42	1.41933 AU
evening max el	4450 Jan 09 09:46	10°♄27'19	21°17'49		4450 Nov 15 03:58	0°♄	
retrograde	4450 Jan 18 03:13	15°♄37'45		desc. node	4450 Nov 16 05:28	1°♄45'18	
asc. node	4450 Jan 19 13:25	15°♄26'45		evening rise	4450 Nov 20 00:13	7°♄53'17	
evening set	4450 Jan 22 06:29	14°♄02'01			4450 Dec 04 12:41	0°♄	
inferior conj	4450 Jan 27 15:52	7°♄45'06	2°27'47	greatest brilliancy	4450 Dec 18 06:16	18°♄34'35	-0.3m
minimum elong	4450 Jan 27 13:25	7°♄53'34	2°27'03	evening max el	4450 Dec 23 03:23	24°♄02'52	22°34'37
min. Earth dist.	4450 Jan 27 22:56	7°♄20'37	0.67847 AU	retrograde	4451 Jan 01 23:08	29°♄53'10	
morning rise	4450 Feb 01 20:00	1°♄30'24		asc. node	4451 Jan 06 10:27	28°♄08'33	
	4450 Feb 04 00:18	30°♄		evening set	4451 Jan 06 14:00	28°♄01'24	
direct	4450 Feb 06 23:46	29°♄16'26		inferior conj	4451 Jan 11 23:44	21°♄37'01	1°47'17
	4450 Feb 10 04:44	0°♄		minimum elong	4451 Jan 11 21:36	21°♄44'23	1°46'32
morning max el	4450 Feb 17 09:33	5°♄27'40	23°24'09	min. Earth dist.	4451 Jan 11 19:15	21°♄52'32	0.68052 AU
greatest brilliancy	4450 Feb 23 00:46	11°♄49'30	-0.2m	morning rise	4451 Jan 17 05:09	15°♄25'22	
desc. node	4450 Feb 25 07:44	14°♄42'38		direct	4451 Jan 21 18:04	13°♄34'12	
	4450 Mar 08 07:37	0°♄		morning max el	4451 Jan 30 21:50	18°♄55'56	21°56'46
morning set	4450 Mar 24 10:24	25°♄25'29		greatest brilliancy	4451 Feb 04 13:53	24°♄10'15	-0.4m
	4450 Mar 27 02:48	0°♄			4451 Feb 09 02:47	0°♄	
max. Earth dist.	4450 Mar 28 13:17	2°♄29'40	1.39172 AU	desc. node	4451 Feb 12 04:45	4°♄12'56	
					4451 Mar 01 11:49	0°♄	
superior conj	4450 Apr 05 03:00	16°♄09'37	-1°-43'-39	morning set	4451 Mar 04 14:15	4°♄55'51	
minimum elong	4450 Apr 05 07:51	16°♄32'15	1°43'08	max. Earth dist.	4451 Mar 10 11:51	14°♄35'26	1.41328 AU
	4450 Apr 12 09:17	0°♄					
evening rise	4450 Apr 14 12:40	4°♄08'41		superior conj	4451 Mar 18 04:56	27°♄50'04	-2°-1'-58
asc. node	4450 Apr 17 12:42	9°♄54'03		minimum elong	4451 Mar 18 08:34	28°♄06'04	2°01'48
	4450 Apr 30 11:06	0°♄			4451 Mar 19 10:16	0°♄	
evening max el	4450 Apr 30 17:33	0°♄15'58	18°40'17	evening rise	4451 Mar 28 20:09	17°♄11'17	
retrograde	4450 May 08 16:46	4°♄10'52		asc. node	4451 Apr 04 09:44	29°♄07'53	
evening set	4450 May 10 21:00	3°♄54'23			4451 Apr 04 21:44	0°♄	
	4450 May 18 00:17	30°♄		evening max el	4451 Apr 14 01:36	13°♄00'13	18°13'44
inferior conj	4450 May 18 16:23	29°♄29'51	1°34'07	retrograde	4451 Apr 21 01:45	16°♄31'11	
minimum elong	4450 May 18 19:31	29°♄23'55	1°33'05	evening set	4451 Apr 23 12:18	16°♄06'21	
min. Earth dist.	4450 May 22 00:12	27°♄00'35	0.57529 AU	inferior conj	4451 Apr 30 13:33	11°♄20'45	2°41'48
desc. node	4450 May 24 06:55	25°♄29'13		minimum elong	4451 Apr 30 16:59	11°♄13'09	2°40'59
morning rise	4450 May 26 13:33	24°♄15'41		min. Earth dist.	4451 May 03 23:01	8°♄22'35	0.59631 AU
direct	4450 Jun 01 05:49	22°♄55'47		morning rise	4451 May 07 17:48	5°♄38'30	
	4450 Jun 15 02:14	0°♄		desc. node	4451 May 11 03:58	4°♄08'54	
morning max el	4450 Jun 15 14:34	0°♄29'30	26°29'23	direct	4451 May 14 03:53	3°♄43'57	
	4450 Jul 06 09:33	0°♄		morning max el	4451 May 28 12:37	11°♄34'35	27°29'01
asc. node	4450 Jul 14 11:58	15°♄59'42			4451 Jun 11 22:26	0°♄	
morning set	4450 Jul 14 14:07	16°♄11'02		morning set	4451 Jun 28 21:55	0°♄49'07	
	4450 Jul 20 22:47	0°♄			4451 Jun 28 12:28	0°♄	
				asc. node	4451 Jul 01 09:00	6°♄01'36	
superior conj	4450 Jul 21 14:33	1°♄27'03	1°08'21	max. Earth dist.	4451 Jul 05 10:40	14°♄53'35	1.31992 AU
minimum elong	4450 Jul 21 12:15	1°♄14'22	1°07'59				
max. Earth dist.	4450 Jul 21 23:04	2°♄14'00	1.32109 AU	superior conj	4451 Jul 06 02:14	16°♄19'20	0°47'41
evening rise	4450 Jul 28 13:15	16°♄30'27		minimum elong	4451 Jul 06 00:19	16°♄08'50	0°47'18
	4450 Aug 04 07:45	0°♄			4451 Jul 12 08:21	0°♄	
desc. node	4450 Aug 20 06:10	25°♄21'19		evening rise	4451 Jul 12 22:39	1°♄16'11	
	4450 Aug 24 01:43	0°♄			4451 Jul 28 12:01	0°♄	
evening max el	4450 Aug 28 04:00	4°♄16'32	26°56'56	desc. node	4451 Aug 07 03:12	12°♄45'00	
retrograde	4450 Sep 11 01:23	11°♄27'24		evening max el	4451 Aug 10 01:34	15°♄45'49	25°56'15
evening set	4450 Sep 18 01:26	9°♄19'07		retrograde	4451 Aug 24 00:47	22°♄53'28	
min. Earth dist.	4450 Sep 21 18:13	6°♄40'25	0.60748 AU	evening set	4451 Aug 30 08:11	21°♄18'15	
inferior conj	4450 Sep 24 22:41	3°♄59'33	-4°-24'-5	min. Earth dist.	4451 Sep 03 13:57	18°♄43'15	0.58675 AU

inferior conj	4451 Sep 06 19:31	16° $\mathring{\text{M}}$ 21'32	-5°-3'-1		4452 Aug 14 17:01	30° $\mathring{\text{R}}$ $\mathring{\text{Q}}$	
minimum elong	4451 Sep 06 23:17	16° $\mathring{\text{M}}$ 14'36	5°02'38	min. Earth dist.	4452 Aug 15 03:26	29° $\mathring{\text{Q}}$ 43'57	0.56777 AU
morning rise	4451 Sep 14 17:55	11° $\mathring{\text{M}}$ 56'24		inferior conj	4452 Aug 17 20:28	28° $\mathring{\text{Q}}$ 00'09	-5°-12'-10
direct	4451 Sep 17 03:39	11° $\mathring{\text{M}}$ 37'25		minimum elong	4452 Aug 17 18:55	28° $\mathring{\text{Q}}$ 02'39	5°12'08
morning max el	4451 Sep 25 07:54	15° $\mathring{\text{M}}$ 32'30	18°35'33	morning rise	4452 Aug 26 02:46	23° $\mathring{\text{Q}}$ 56'35	
asc. node	4451 Sep 27 08:16	17° $\mathring{\text{M}}$ 41'08		direct	4452 Aug 28 18:13	23° $\mathring{\text{Q}}$ 37'32	
	4451 Oct 05 11:02	0° $\mathring{\text{A}}$		morning max el	4452 Sep 07 05:41	28° $\mathring{\text{Q}}$ 03'22	19°29'51
morning set	4451 Oct 11 11:25	11° $\mathring{\text{A}}$ 19'18			4452 Sep 09 03:04	0° $\mathring{\text{M}}$	
				asc. node	4452 Sep 13 05:18	5° $\mathring{\text{M}}$ 18'59	
superior conj	4451 Oct 20 07:31	28° $\mathring{\text{A}}$ 17'03	1°26'44	morning set	4452 Sep 24 13:07	25° $\mathring{\text{M}}$ 45'07	
minimum elong	4451 Oct 20 10:50	28° $\mathring{\text{A}}$ 32'30	1°26'25		4452 Sep 26 15:46	0° $\mathring{\text{A}}$	
	4451 Oct 21 05:38	0° $\mathring{\text{M}}$					
max. Earth dist.	4451 Oct 27 15:12	11° $\mathring{\text{M}}$ 31'28	1.39907 AU	superior conj	4452 Oct 02 14:11	11° $\mathring{\text{A}}$ 51'39	1°39'37
evening rise	4451 Oct 31 19:56	18° $\mathring{\text{M}}$ 42'25		minimum elong	4452 Oct 02 15:55	12° $\mathring{\text{A}}$ 00'11	1°39'31
desc. node	4451 Nov 03 02:29	22° $\mathring{\text{M}}$ 28'38		max. Earth dist.	4452 Oct 08 19:33	23° $\mathring{\text{A}}$ 43'36	1.37818 AU
	4451 Nov 07 18:52	0° $\mathring{\text{A}}$			4452 Oct 12 06:45	0° $\mathring{\text{M}}$	
	4451 Nov 28 21:53	0° $\mathring{\text{B}}$		evening rise	4452 Oct 12 14:45	0° $\mathring{\text{M}}$ 35'22	
evening max el	4451 Dec 05 17:21	7° $\mathring{\text{B}}$ 41'05	23°54'34	desc. node	4452 Oct 19 23:31	13° $\mathring{\text{M}}$ 04'42	
retrograde	4451 Dec 16 15:56	14° $\mathring{\text{B}}$ 07'48			4452 Oct 31 01:04	0° $\mathring{\text{A}}$	
evening set	4451 Dec 21 19:43	12° $\mathring{\text{B}}$ 00'02		evening max el	4452 Nov 17 05:54	21° $\mathring{\text{A}}$ 23'12	25°11'03
asc. node	4451 Dec 24 07:31	9° $\mathring{\text{B}}$ 26'21		retrograde	4452 Nov 29 04:31	28° $\mathring{\text{A}}$ 17'29	
min. Earth dist.	4451 Dec 26 15:49	6° $\mathring{\text{B}}$ 24'31	0.67891 AU	evening set	4452 Dec 04 22:02	25° $\mathring{\text{A}}$ 55'05	
inferior conj	4451 Dec 27 07:12	5° $\mathring{\text{B}}$ 32'13	0°59'57	min. Earth dist.	4452 Dec 09 10:18	20° $\mathring{\text{A}}$ 53'56	0.67382 AU
minimum elong	4451 Dec 27 05:51	5° $\mathring{\text{B}}$ 36'51	0°59'25	asc. node	4452 Dec 10 04:33	19° $\mathring{\text{A}}$ 54'29	
	4451 Dec 31 23:18	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		inferior conj	4452 Dec 10 12:29	19° $\mathring{\text{A}}$ 28'33	0°06'46
morning rise	4452 Jan 01 16:14	29° $\mathring{\text{A}}$ 25'29		minimum elong	4452 Dec 10 12:19	19° $\mathring{\text{A}}$ 29'07	0°06'43
direct	4452 Jan 05 15:09	27° $\mathring{\text{A}}$ 56'58		transit middle	4452 Dec 10 12:19	19° $\mathring{\text{A}}$ 29'07	0°06'43
	4452 Jan 10 18:12	0° $\mathring{\text{B}}$		transit begin	4452 Dec 10 09:48	19° $\mathring{\text{A}}$ 37'22	
morning max el	4452 Jan 13 16:46	2° $\mathring{\text{B}}$ 34'48	20°37'50	transit end	4452 Dec 10 14:51	19° $\mathring{\text{A}}$ 20'52	
greatest brilliancy	4452 Jan 19 15:11	9° $\mathring{\text{B}}$ 30'45	-0.5m	morning rise	4452 Dec 16 03:17	13° $\mathring{\text{A}}$ 28'53	
desc. node	4452 Jan 30 01:46	24° $\mathring{\text{B}}$ 09'45		direct	4452 Dec 19 13:48	12° $\mathring{\text{A}}$ 20'43	
	4452 Feb 02 23:55	0° $\mathring{\text{A}}$		morning max el	4452 Dec 26 19:35	16° $\mathring{\text{A}}$ 24'44	19°32'01
morning set	4452 Feb 11 17:05	13° $\mathring{\text{A}}$ 19'07		greatest brilliancy	4453 Jan 04 04:59	26° $\mathring{\text{A}}$ 54'49	-0.6m
max. Earth dist.	4452 Feb 20 17:12	27° $\mathring{\text{A}}$ 34'39	1.43196 AU		4453 Jan 06 08:32	0° $\mathring{\text{B}}$	
	4452 Feb 22 05:02	0° $\mathring{\text{H}}$		desc. node	4453 Jan 15 22:47	14° $\mathring{\text{B}}$ 25'56	
				morning set	4453 Jan 20 14:06	21° $\mathring{\text{B}}$ 34'15	
superior conj	4452 Feb 27 07:14	8° $\mathring{\text{H}}$ 24'18	-2°-8'-4		4453 Jan 26 00:29	0° $\mathring{\text{A}}$	
minimum elong	4452 Feb 27 06:35	8° $\mathring{\text{H}}$ 21'37	2°08'05	max. Earth dist.	4453 Feb 02 05:32	11° $\mathring{\text{A}}$ 19'08	1.44550 AU
evening rise	4452 Mar 10 11:56	29° $\mathring{\text{H}}$ 27'45					
	4452 Mar 10 19:14	0° $\mathring{\text{Y}}$		superior conj	4453 Feb 06 07:51	17° $\mathring{\text{A}}$ 50'41	-1°-56'-36
asc. node	4452 Mar 21 06:47	17° $\mathring{\text{Y}}$ 53'48		minimum elong	4453 Feb 06 01:05	17° $\mathring{\text{A}}$ 23'34	1°56'11
evening max el	4452 Mar 27 13:33	26° $\mathring{\text{Y}}$ 06'41	18°06'55		4453 Feb 13 19:27	0° $\mathring{\text{H}}$	
retrograde	4452 Apr 03 01:57	29° $\mathring{\text{Y}}$ 29'08		evening rise	4453 Feb 20 07:36	10° $\mathring{\text{H}}$ 49'45	
evening set	4452 Apr 05 18:33	28° $\mathring{\text{Y}}$ 54'04			4453 Mar 03 22:37	0° $\mathring{\text{Y}}$	
inferior conj	4452 Apr 12 05:19	23° $\mathring{\text{Y}}$ 48'01	3°19'54	asc. node	4453 Mar 08 03:51	6° $\mathring{\text{Y}}$ 02'42	
minimum elong	4452 Apr 12 07:25	23° $\mathring{\text{Y}}$ 42'42	3°19'38	evening max el	4453 Mar 11 02:19	9° $\mathring{\text{Y}}$ 26'55	18°19'00
min. Earth dist.	4452 Apr 15 05:47	20° $\mathring{\text{Y}}$ 45'46	0.61813 AU	retrograde	4453 Mar 17 12:50	12° $\mathring{\text{Y}}$ 54'34	
morning rise	4452 Apr 18 17:27	17° $\mathring{\text{Y}}$ 48'07		evening set	4453 Mar 20 11:23	12° $\mathring{\text{Y}}$ 07'58	
direct	4452 Apr 25 12:58	15° $\mathring{\text{Y}}$ 22'55		inferior conj	4453 Mar 26 11:29	6° $\mathring{\text{Y}}$ 42'36	3°34'33
desc. node	4452 Apr 27 01:00	15° $\mathring{\text{Y}}$ 29'31		minimum elong	4453 Mar 26 11:52	6° $\mathring{\text{Y}}$ 41'29	3°34'33
morning max el	4452 May 09 16:55	23° $\mathring{\text{Y}}$ 22'07	27°52'07	min. Earth dist.	4453 Mar 28 21:40	3° $\mathring{\text{Y}}$ 58'25	0.63818 AU
	4452 May 15 15:00	0° $\mathring{\text{B}}$		morning rise	4453 Apr 01 10:32	0° $\mathring{\text{Y}}$ 33'12	
	4452 Jun 04 04:13	0° $\mathring{\text{H}}$			4453 Apr 02 03:56	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$	
morning set	4452 Jun 12 00:57	15° $\mathring{\text{H}}$ 10'50		direct	4453 Apr 08 06:41	27° $\mathring{\text{H}}$ 48'56	
asc. node	4452 Jun 17 06:03	26° $\mathring{\text{H}}$ 08'51		desc. node	4453 Apr 13 22:02	29° $\mathring{\text{H}}$ 23'01	
max. Earth dist.	4452 Jun 17 19:46	27° $\mathring{\text{H}}$ 22'55	1.32290 AU		4453 Apr 15 00:10	0° $\mathring{\text{Y}}$	
	4452 Jun 19 00:41	0° $\mathring{\text{B}}$		morning max el	4453 Apr 22 01:13	5° $\mathring{\text{Y}}$ 46'59	27°37'57
					4453 May 10 10:51	0° $\mathring{\text{B}}$	
superior conj	4452 Jun 19 12:21	1° $\mathring{\text{B}}$ 03'39	0°23'30	morning set	4453 May 26 20:41	29° $\mathring{\text{B}}$ 07'16	
minimum elong	4452 Jun 19 11:17	0° $\mathring{\text{B}}$ 57'49	0°23'15		4453 May 27 07:17	0° $\mathring{\text{H}}$	
evening rise	4452 Jun 26 10:10	16° $\mathring{\text{B}}$ 05'23		max. Earth dist.	4453 May 31 22:17	9° $\mathring{\text{H}}$ 28'27	1.33030 AU
	4452 Jul 03 07:29	0° $\mathring{\text{Q}}$					
evening max el	4452 Jul 21 16:21	26° $\mathring{\text{Q}}$ 31'25	24°30'28	superior conj	4453 Jun 03 18:57	15° $\mathring{\text{H}}$ 32'44	0°-3'-32
desc. node	4452 Jul 24 00:15	28° $\mathring{\text{Q}}$ 36'03		minimum elong	4453 Jun 03 19:08	15° $\mathring{\text{H}}$ 33'41	0°03'32
	4452 Jul 25 20:13	0° $\mathring{\text{M}}$		behind sun begin	4453 Jun 03 13:53	15° $\mathring{\text{H}}$ 05'36	
retrograde	4452 Aug 04 13:26	3° $\mathring{\text{M}}$ 31'41		behind sun end	4453 Jun 04 00:23	16° $\mathring{\text{H}}$ 01'48	
evening set	4452 Aug 09 14:37	2° $\mathring{\text{M}}$ 34'33		asc. node	4453 Jun 04 03:06	16° $\mathring{\text{H}}$ 16'22	

evening rise	4453 Jun 10 21:52	0°☿50'42		evening rise	4454 May 26 07:51	15°♄26'17	
	4453 Jun 10 12:18	0°☿			4454 Jun 02 17:04	0°☿	
	4453 Jun 27 06:37	0°♄		evening max el	4454 Jun 15 00:55	17°♄29'03	21°20'45
evening max el	4453 Jul 03 05:30	6°♄54'54	22°53'30	retrograde	4454 Jun 27 02:55	23°♄26'02	
desc. node	4453 Jul 10 21:17	12°♄19'54		desc. node	4454 Jun 27 18:17	23°♄25'04	
retrograde	4453 Jul 16 13:10	13°♄33'10		evening set	4454 Jun 29 12:02	23°♄13'01	
evening set	4453 Jul 20 01:49	13°♄05'59		inferior conj	4454 Jul 08 20:19	19°♄14'12	-3°-9'-19
min. Earth dist.	4453 Jul 27 14:08	9°♄45'05	0.55394 AU	minimum elong	4454 Jul 08 12:11	19°♄25'35	3°06'46
inferior conj	4453 Jul 29 02:15	8°♄53'06	-4°-35'-50	min. Earth dist.	4454 Jul 09 00:41	19°♄08'05	0.54822 AU
minimum elong	4453 Jul 28 18:54	9°♄03'43	4°34'29	morning rise	4454 Jul 17 12:48	15°♄19'21	
morning rise	4453 Aug 06 14:36	5°♄02'11		direct	4454 Jul 21 00:16	14°♄53'12	
direct	4453 Aug 09 14:30	4°♄41'09		morning max el	4454 Aug 02 14:04	20°♄50'21	22°19'47
morning max el	4453 Aug 20 15:37	9°♄49'19	20°45'41		4454 Aug 10 07:28	0°♄	
asc. node	4453 Aug 31 02:20	23°♄43'04		asc. node	4454 Aug 17 23:22	12°♄42'27	
	4453 Sep 03 14:09	0°♄		morning set	4454 Aug 24 06:23	25°♄15'46	
morning set	4453 Sep 08 20:09	10°♄25'52			4454 Aug 26 12:11	0°♄	
superior conj	4453 Sep 16 08:28	25°♄59'58	1°43'58	superior conj	4454 Aug 31 10:47	10°♄31'43	1°41'11
minimum elong	4453 Sep 16 08:36	26°♄00'42	1°43'58	minimum elong	4454 Aug 31 09:39	10°♄25'44	1°41'08
	4453 Sep 18 07:44	0°♄		max. Earth dist.	4454 Sep 03 19:36	17°♄33'53	1.34307 AU
max. Earth dist.	4453 Sep 21 03:32	5°♄36'26	1.35897 AU	evening rise	4454 Sep 08 11:28	26°♄54'19	
evening rise	4453 Sep 25 05:22	13°♄23'05			4454 Sep 10 02:03	0°♄	
	4453 Oct 04 17:11	0°♄		desc. node	4454 Sep 23 17:35	23°♄32'49	
desc. node	4453 Oct 06 20:34	3°♄28'11			4454 Sep 28 00:59	0°♄	
	4453 Oct 25 23:18	0°♄		evening max el	4454 Oct 13 07:17	18°♄40'31	27°04'03
evening max el	4453 Oct 30 18:34	5°♄05'58	26°16'44	retrograde	4454 Oct 26 13:47	25°♄57'37	
retrograde	4453 Nov 12 12:01	12°♄16'31		evening set	4454 Nov 02 08:50	23°♄17'46	
evening set	4453 Nov 18 19:08	9°♄42'39		min. Earth dist.	4454 Nov 06 07:19	19°♄28'28	0.65314 AU
min. Earth dist.	4453 Nov 23 00:17	5°♄17'12	0.66523 AU	inferior conj	4454 Nov 08 08:38	17°♄09'05	-1°-52'-23
inferior conj	4453 Nov 24 13:42	3°♄22'30	0°-51'-8	minimum elong	4454 Nov 08 11:50	17°♄00'03	1°51'07
minimum elong	4453 Nov 24 15:05	3°♄18'14	0°50'33	asc. node	4454 Nov 13 22:36	11°♄56'22	
asc. node	4453 Nov 27 01:35	0°♄27'05		morning rise	4454 Nov 14 16:38	11°♄32'12	
	4453 Nov 27 11:51	30°♄		direct	4454 Nov 17 08:28	10°♄54'03	
morning rise	4453 Nov 30 12:13	27°♄32'40		morning max el	4454 Nov 23 20:10	14°♄22'39	18°08'03
direct	4453 Dec 03 12:18	26°♄41'24			4454 Dec 05 00:23	0°♄	
	4453 Dec 09 20:14	0°♄		morning set	4454 Dec 12 03:18	11°♄39'16	
morning max el	4453 Dec 10 05:28	0°♄22'36	18°41'45	desc. node	4454 Dec 20 16:51	25°♄35'45	
	4453 Dec 30 16:44	0°♄			4454 Dec 23 10:48	0°♄	
morning set	4453 Dec 31 06:02	0°♄52'31		superior conj	4454 Dec 26 18:26	5°♄16'21	0°-40'-56
desc. node	4454 Jan 02 19:49	4°♄56'14		minimum elong	4454 Dec 26 13:19	4°♄56'05	0°40'15
max. Earth dist.	4454 Jan 15 23:15	25°♄35'02	1.45232 AU	max. Earth dist.	4454 Dec 29 19:03	10°♄02'42	1.45168 AU
superior conj	4454 Jan 16 13:35	26°♄31'19	-1°-25'-36		4455 Jan 11 14:09	0°♄	
minimum elong	4454 Jan 16 04:20	25°♄55'02	1°24'38	evening rise	4455 Jan 12 03:19	0°♄51'04	
	4454 Jan 18 18:44	0°♄		greatest brilliancy	4455 Jan 28 23:25	26°♄26'58	-0.7m
evening rise	4454 Feb 01 04:15	21°♄15'01			4455 Jan 31 12:36	0°♄	
	4454 Feb 06 15:10	0°♄		evening max el	4455 Feb 05 20:21	6°♄26'25	19°35'48
evening max el	4454 Feb 22 13:18	22°♄55'07	18°49'03	asc. node	4455 Feb 09 21:54	9°♄43'26	
asc. node	4454 Feb 23 00:53	23°♄23'49		retrograde	4455 Feb 13 03:38	10°♄39'10	
retrograde	4454 Mar 01 06:26	26°♄40'04		evening set	4455 Feb 16 16:05	9°♄26'37	
evening set	4454 Mar 04 11:27	25°♄40'56		inferior conj	4455 Feb 22 04:17	3°♄27'58	3°14'49
inferior conj	4454 Mar 10 04:13	19°♄57'52	3°31'26	minimum elong	4455 Feb 22 02:17	3°♄34'31	3°14'28
minimum elong	4454 Mar 10 03:10	20°♄01'05	3°31'22	min. Earth dist.	4455 Feb 23 07:49	1°♄57'14	0.66732 AU
min. Earth dist.	4454 Mar 11 22:42	17°♄46'41	0.65482 AU		4455 Feb 24 20:52	30°♄	
morning rise	4454 Mar 15 17:46	13°♄43'45		morning rise	4455 Feb 27 11:47	27°♄12'00	
direct	4454 Mar 22 07:18	10°♄54'36		direct	4455 Mar 05 13:53	24°♄30'13	
desc. node	4454 Mar 31 19:03	15°♄17'16			4455 Mar 15 23:16	0°♄	
morning max el	4454 Apr 04 11:06	18°♄39'56	26°51'21	morning max el	4455 Mar 17 20:34	1°♄49'24	25°40'31
	4454 Apr 14 01:02	0°♄		desc. node	4455 Mar 18 16:04	2°♄39'34	
	4454 May 03 10:29	0°♄			4455 Apr 08 03:21	0°♄	
morning set	4454 May 10 06:01	12°♄29'20		morning set	4455 Apr 23 00:44	25°♄04'52	
max. Earth dist.	4454 May 14 14:57	21°♄03'31	1.34234 AU		4455 Apr 25 16:25	0°♄	
				max. Earth dist.	4455 Apr 26 20:18	2°♄11'47	1.35892 AU
superior conj	4454 May 18 19:57	29°♄40'28	0°-32'-27	superior conj	4455 May 02 12:40	13°♄19'03	-1°-1'-51
minimum elong	4454 May 18 21:40	29°♄49'26	0°32'07	minimum elong	4455 May 02 16:02	13°♄35'54	1°01'16
	4454 May 18 23:42	0°♄		asc. node	4455 May 08 21:11	26°♄16'31	
asc. node	4454 May 22 00:08	6°♄20'25					

evening rise	4455 May 10 14:02	29°♄45'24		superior conj	4456 Apr 14 17:49	26°♃20'20	-1°-29'-36
	4455 May 10 16:54	0°♂		minimum elong	4456 Apr 14 22:26	26°♃42'29	1°28'59
evening max el	4455 May 28 07:52	28°♂37'53	20°02'57		4456 Apr 16 15:19	0°♄	
	4455 May 29 20:01	0°♄		evening rise	4456 Apr 23 13:57	13°♄41'18	
retrograde	4455 Jun 07 17:37	3°♄42'44		asc. node	4456 Apr 24 18:13	16°♄00'24	
evening set	4455 Jun 09 16:17	3°♄32'51			4456 May 02 08:03	0°♂	
desc. node	4455 Jun 14 15:17	1°♄50'02		evening max el	4456 May 10 02:51	10°♂28'50	19°04'36
	4455 Jun 17 22:42	30°♂♂		retrograde	4456 May 18 21:04	14°♂45'26	
inferior conj	4455 Jun 18 16:39	29°♂33'09	-1°-12'-25	evening set	4456 May 20 21:41	14°♂32'39	
minimum elong	4455 Jun 18 13:16	29°♂38'14	1°11'10	inferior conj	4456 May 29 04:24	10°♂19'28	0°40'37
min. Earth dist.	4455 Jun 20 13:00	28°♂26'40	0.55202 AU	minimum elong	4456 May 29 06:00	10°♂16'42	0°40'01
morning rise	4455 Jun 27 07:46	25°♂14'03		desc. node	4456 May 31 12:19	8°♂43'07	
direct	4455 Jul 01 12:18	24°♂35'50		min. Earth dist.	4456 Jun 01 04:20	8°♂16'16	0.56480 AU
	4455 Jul 13 17:39	0°♄		morning rise	4456 Jun 06 09:57	5°♂24'42	
morning max el	4455 Jul 15 05:18	1°♄20'03	24°03'17	direct	4456 Jun 11 13:05	4°♂22'52	
	4455 Aug 03 18:20	0°♂		morning max el	4456 Jun 25 19:31	11°♂43'21	25°41'35
asc. node	4455 Aug 04 20:25	2°♂08'15			4456 Jul 09 21:48	0°♄	
morning set	4455 Aug 08 18:04	10°♂09'40		asc. node	4456 Jul 21 17:27	21°♄52'29	
				morning set	4456 Jul 23 05:31	25°♄01'25	
superior conj	4455 Aug 15 18:24	25°♂18'37	1°32'23		4456 Jul 25 13:14	0°♂	
minimum elong	4455 Aug 15 16:26	25°♂07'59	1°32'12	superior conj	4456 Jul 30 05:02	10°♂12'30	1°18'28
	4455 Aug 17 22:39	0°♂		minimum elong	4456 Jul 30 02:44	9°♂59'47	1°18'07
max. Earth dist.	4455 Aug 17 20:23	29°♂47'54	1.33115 AU	max. Earth dist.	4456 Jul 31 03:51	12°♂17'43	1.32347 AU
evening rise	4455 Aug 23 05:04	10°♂58'27		evening rise	4456 Aug 06 06:49	25°♂25'00	
	4455 Sep 02 09:04	0°♂			4456 Aug 08 12:41	0°♂	
desc. node	4455 Sep 10 14:35	13°♂10'40			4456 Aug 25 22:36	0°♂	
	4455 Sep 23 20:08	0°♂		desc. node	4456 Aug 27 11:36	2°♂09'50	
evening max el	4455 Sep 25 18:40	1°♂55'27	27°26'03	evening max el	4456 Sep 07 02:36	14°♂37'25	27°17'15
retrograde	4455 Oct 09 09:30	9°♂12'50		retrograde	4456 Sep 20 22:35	21°♂51'38	
evening set	4455 Oct 16 12:27	6°♂35'43		evening set	4456 Sep 28 02:20	19°♂29'03	
min. Earth dist.	4455 Oct 20 05:20	3°♂20'20	0.63762 AU	min. Earth dist.	4456 Oct 01 17:02	16°♂40'28	0.61905 AU
inferior conj	4455 Oct 22 18:51	0°♂43'04	-2°-54'-36	inferior conj	4456 Oct 04 17:17	13°♂56'21	-3°-53'-52
minimum elong	4455 Oct 22 23:48	0°♂30'24	2°52'52	minimum elong	4456 Oct 04 23:19	13°♂42'35	3°52'11
	4455 Oct 23 11:46	30°♂♂		morning rise	4456 Oct 11 23:23	8°♂55'12	
morning rise	4455 Oct 29 13:38	25°♂22'29		direct	4456 Oct 14 06:32	8°♂32'27	
direct	4455 Oct 31 23:41	24°♂53'43		asc. node	4456 Oct 17 16:41	9°♂24'42	
asc. node	4455 Oct 31 19:38	24°♂53'52		morning max el	4456 Oct 21 04:34	12°♂02'19	17°53'05
morning max el	4455 Nov 07 12:55	28°♂18'42	17°51'32		4456 Nov 02 05:30	0°♂	
	4455 Nov 09 02:20	0°♂		morning set	4456 Nov 06 00:00	6°♂47'06	
morning set	4455 Nov 24 03:25	23°♂44'08					
	4455 Nov 27 18:57	0°♂		superior conj	4456 Nov 16 19:27	25°♂58'28	0°45'39
superior conj	4455 Dec 06 17:45	14°♂58'50	0°05'51	minimum elong	4456 Nov 16 23:08	26°♂14'19	0°45'09
minimum elong	4455 Dec 06 18:23	15°♂01'27	0°05'46		4456 Nov 19 04:06	0°♂	
behind sun begin	4455 Dec 06 09:10	14°♂23'42		desc. node	4456 Nov 23 10:53	7°♂08'12	
behind sun end	4455 Dec 07 03:36	15°♂39'06		max. Earth dist.	4456 Nov 24 03:17	8°♂15'24	1.42964 AU
desc. node	4455 Dec 07 13:52	16°♂21'02		evening rise	4456 Dec 01 03:25	19°♂27'36	
max. Earth dist.	4455 Dec 12 13:15	24°♂21'55	1.44378 AU		4456 Dec 07 23:57	0°♂	
	4455 Dec 16 02:45	0°♂		greatest brilliancy	4456 Dec 28 00:09	28°♂08'42	-0.4m
evening rise	4455 Dec 22 13:52	10°♂02'28			4456 Dec 29 13:07	0°♂	
	4456 Jan 04 19:40	0°♂		evening max el	4457 Jan 01 18:31	3°♂33'10	21°49'43
greatest brilliancy	4456 Jan 14 03:27	13°♂07'14	-0.5m	retrograde	4457 Jan 10 23:11	9°♂01'11	
evening max el	4456 Jan 19 22:09	19°♂59'06	20°37'07	asc. node	4457 Jan 13 15:57	8°♂22'05	
asc. node	4456 Jan 27 18:55	24°♂47'06		evening set	4457 Jan 15 07:04	7°♂18'52	
retrograde	4456 Jan 28 01:53	24°♂47'34		inferior conj	4457 Jan 20 16:25	0°♂58'10	2°11'31
evening set	4456 Jan 31 23:13	23°♂20'37		minimum elong	4457 Jan 20 14:03	1°♂06'24	2°10'45
inferior conj	4456 Feb 06 09:05	17°♂09'15	2°47'33	min. Earth dist.	4457 Jan 20 18:30	0°♂50'55	0.67979 AU
minimum elong	4456 Feb 06 06:39	17°♂17'33	2°46'56		4457 Jan 21 09:12	30°♂♂	
min. Earth dist.	4456 Feb 06 23:13	16°♂20'51	0.67557 AU	morning rise	4457 Jan 25 20:46	24°♂44'18	
morning rise	4456 Feb 11 13:38	10°♂53'23		direct	4457 Jan 30 18:08	22°♂39'47	
direct	4456 Feb 17 01:45	8°♂27'44		morning max el	4457 Feb 09 15:05	28°♂30'26	22°46'13
morning max el	4456 Feb 28 05:14	15°♂07'08	24°15'24		4457 Feb 11 01:23	0°♂	
desc. node	4456 Mar 04 13:07	21°♂05'05		greatest brilliancy	4457 Feb 14 06:26	3°♂40'51	-0.3m
	4456 Mar 11 09:55	0°♂		desc. node	4457 Feb 19 10:09	10°♂15'38	
	4456 Mar 31 01:38	0°♂			4457 Mar 05 03:14	0°♂	
morning set	4456 Apr 03 23:24	6°♂39'31		morning set	4457 Mar 15 20:00	16°♂57'49	
max. Earth dist.	4456 Apr 07 17:07	13°♂16'01	1.37916 AU	max. Earth dist.	4457 Mar 20 12:32	24°♂50'19	1.40102 AU

	4457 Mar 23 12:04	0°♿				4458 Feb 26 01:31	0°♿	
				max. Earth dist.		4458 Mar 02 13:34	7°♿18'20	1.42176 AU
superior conj	4457 Mar 28 07:11	8°♿34'15	-1°-52'-34		superior conj	4458 Mar 09 23:39	19°♿47'59	-2°-6'-23
minimum elong	4457 Mar 28 11:50	8°♿55'25	1°52'12		minimum elong	4458 Mar 10 01:51	19°♿57'30	2°06'21
evening rise	4457 Apr 07 04:31	27°♿06'10				4458 Mar 15 19:04	0°♿	
	4457 Apr 08 17:12	0°♿			evening rise	4458 Mar 21 05:50	9°♿50'00	
asc. node	4457 Apr 11 15:15	5°♿27'14			asc. node	4458 Mar 29 12:18	24°♿30'06	
evening max el	4457 Apr 23 07:17	22°♿57'17	18°26'36			4458 Apr 01 23:59	0°♿	
retrograde	4457 Apr 30 19:14	26°♿39'47			evening max el	4458 Apr 06 17:29	5°♿52'29	18°08'30
evening set	4457 May 03 02:08	26°♿20'05			retrograde	4458 Apr 13 11:07	9°♿17'37	
inferior conj	4457 May 10 13:29	21°♿47'05	2°06'42		evening set	4458 Apr 16 00:26	8°♿48'28	
minimum elong	4457 May 10 17:03	21°♿39'52	2°05'41		inferior conj	4458 Apr 22 19:01	3°♿54'04	3°01'13
min. Earth dist.	4457 May 13 23:54	19°♿02'16	0.58391 AU		minimum elong	4458 Apr 22 22:00	3°♿47'04	3°00'39
morning rise	4457 May 18 03:34	16°♿19'40			min. Earth dist.	4458 Apr 26 01:39	0°♿51'19	0.60574 AU
desc. node	4457 May 18 09:21	16°♿12'20				4458 Apr 27 01:28	30°♿♿	
direct	4457 May 24 04:28	14°♿44'45			morning rise	4458 Apr 29 16:11	28°♿03'30	
morning max el	4457 Jun 07 13:49	22°♿27'29	26°58'51		desc. node	4458 May 05 06:24	25°♿57'59	
	4457 Jun 14 05:59	0°♿			direct	4458 May 06 07:38	25°♿54'49	
	4457 Jul 02 19:32	0°♿				4458 May 16 06:09	0°♿	
morning set	4457 Jul 07 15:08	9°♿46'06			morning max el	4458 May 20 14:23	3°♿49'20	27°43'26
asc. node	4457 Jul 08 14:31	11°♿49'35				4458 Jun 08 21:47	0°♿	
					morning set	4458 Jun 21 21:07	24°♿17'27	
superior conj	4457 Jul 14 16:52	25°♿07'18	1°00'04			4458 Jun 24 14:17	0°♿	
minimum elong	4457 Jul 14 14:41	24°♿55'13	0°59'40		asc. node	4458 Jun 25 11:34	1°♿54'05	
max. Earth dist.	4457 Jul 14 14:57	24°♿56'40	1.32004 AU		max. Earth dist.	4458 Jun 28 01:56	7°♿33'04	1.32072 AU
	4457 Jul 16 21:56	0°♿						
evening rise	4457 Jul 21 14:06	10°♿06'07			superior conj	4458 Jun 29 04:05	9°♿56'35	0°37'49
	4457 Jul 31 19:52	0°♿			minimum elong	4458 Jun 29 02:28	9°♿47'46	0°37'28
desc. node	4457 Aug 14 08:38	20°♿14'22			evening rise	4458 Jul 06 00:38	24°♿54'00	
evening max el	4457 Aug 20 04:39	26°♿35'29	26°34'57			4458 Jul 08 11:05	0°♿	
	4457 Aug 24 06:29	0°♿				4458 Jul 26 03:16	0°♿	
retrograde	4457 Sep 03 03:27	3°♿45'15			desc. node	4458 Aug 01 05:40	7°♿02'04	
evening set	4457 Sep 09 21:50	1°♿50'06			evening max el	4458 Aug 01 23:14	7°♿44'55	25°22'10
	4457 Sep 12 18:13	30°♿♿			retrograde	4458 Aug 15 22:10	14°♿49'32	
min. Earth dist.	4457 Sep 13 18:25	29°♿14'58	0.59860 AU		evening set	4458 Aug 21 18:13	13°♿30'54	
inferior conj	4457 Sep 17 00:28	26°♿39'59	-4°-43'-17		min. Earth dist.	4458 Aug 26 11:02	10°♿51'23	0.57828 AU
minimum elong	4457 Sep 17 05:53	26°♿29'10	4°42'20		inferior conj	4458 Aug 29 13:01	8°♿44'05	-5°-11'-32
morning rise	4457 Sep 24 17:20	22°♿00'57			minimum elong	4458 Aug 29 14:52	8°♿40'54	5°11'28
direct	4457 Sep 27 01:02	21°♿41'17			morning rise	4458 Sep 06 14:59	4°♿28'22	
morning max el	4457 Oct 04 15:47	25°♿24'36	18°14'04		direct	4458 Sep 09 02:58	4°♿09'25	
asc. node	4457 Oct 04 13:44	25°♿19'39			morning max el	4458 Sep 17 19:15	8°♿16'14	18°56'00
	4457 Oct 08 13:14	0°♿			asc. node	4458 Sep 21 10:47	12°♿24'00	
morning set	4457 Oct 20 11:12	20°♿31'34				4458 Oct 01 22:07	0°♿	
	4457 Oct 25 11:39	0°♿			morning set	4458 Oct 04 08:36	4°♿45'09	
superior conj	4457 Oct 29 21:49	8°♿09'41	1°14'51		superior conj	4458 Oct 12 19:41	21°♿18'08	1°33'20
minimum elong	4457 Oct 30 01:44	8°♿27'27	1°14'23		minimum elong	4458 Oct 12 22:22	21°♿30'57	1°33'08
max. Earth dist.	4457 Nov 06 12:24	21°♿31'42	1.41100 AU			4458 Oct 17 11:15	0°♿	
desc. node	4457 Nov 10 07:54	27°♿54'03			max. Earth dist.	4458 Oct 19 17:53	4°♿06'54	1.39013 AU
evening rise	4457 Nov 11 10:10	29°♿41'30			evening rise	4458 Oct 23 15:54	10°♿58'21	
	4457 Nov 11 14:42	0°♿			desc. node	4458 Oct 28 04:56	18°♿35'02	
	4457 Dec 01 12:48	0°♿				4458 Nov 04 10:29	0°♿	
greatest brilliancy	4457 Dec 08 23:18	9°♿49'10	-0.2m			4458 Nov 27 03:28	0°♿	
evening max el	4457 Dec 15 10:28	17°♿10'08	23°08'42		evening max el	4458 Nov 27 23:47	0°♿51'11	24°27'59
retrograde	4457 Dec 25 17:51	23°♿16'29			retrograde	4458 Dec 09 08:49	7°♿30'08	
evening set	4457 Dec 30 14:00	21°♿18'06			evening set	4458 Dec 14 18:29	5°♿15'55	
asc. node	4457 Dec 31 13:00	20°♿25'48			asc. node	4458 Dec 18 10:01	1°♿17'25	
min. Earth dist.	4458 Jan 04 15:16	15°♿23'10	0.68029 AU			4458 Dec 19 09:41	30°♿♿	
inferior conj	4458 Jan 05 00:21	14°♿51'54	1°28'00		min. Earth dist.	4458 Dec 19 11:10	29°♿55'03	0.67721 AU
minimum elong	4458 Jan 04 22:30	14°♿58'17	1°27'18		inferior conj	4458 Dec 20 07:07	28°♿48'20	0°38'06
morning rise	4458 Jan 10 07:01	8°♿41'55			minimum elong	4458 Dec 20 06:13	28°♿51'23	0°37'44
direct	4458 Jan 14 13:54	7°♿00'19			morning rise	4458 Dec 25 18:20	22°♿44'27	
morning max el	4458 Jan 23 05:43	12°♿02'11	21°21'42		direct	4458 Dec 29 11:53	21°♿24'49	
greatest brilliancy	4458 Jan 28 07:39	17°♿49'05	-0.4m		morning max el	4459 Jan 06 03:59	25°♿46'22	20°08'06
desc. node	4458 Feb 06 07:10	29°♿58'16				4459 Jan 09 22:11	0°♿	
	4458 Feb 06 07:39	0°♿			greatest brilliancy	4459 Jan 12 22:41	3°♿53'43	-0.6m
morning set	4458 Feb 23 11:52	25°♿54'52						

desc. node	4459 Jan 24 04:12	20°☾04'34			4460 Jan 04 06:44	0°☾		
	4459 Jan 30 17:11	0°☾			desc. node	4460 Jan 11 01:13	10°☾27'28	
morning set	4459 Feb 02 09:11	4°☾06'09			morning set	4460 Jan 12 11:50	12°☾41'59	
max. Earth dist.	4459 Feb 12 22:46	20°☾41'34	1.43855 AU			4460 Jan 23 14:00	0°☾	
					max. Earth dist.	4460 Jan 26 13:59	4°☾42'45	1.44930 AU
superior conj	4459 Feb 18 14:59	29°☾53'13	-2°-5'-36		superior conj	4460 Jan 29 05:58	8°☾55'24	-1°-45'-41
minimum elong	4459 Feb 18 11:44	29°☾39'52	2°05'31		minimum elong	4460 Jan 28 21:20	8°☾21'14	1°45'00
	4459 Feb 18 16:38	0°☾				4460 Feb 11 08:00	0°☾	
evening rise	4459 Mar 03 13:37	21°☾44'42			evening rise	4460 Feb 12 23:44	2°☾43'03	
	4459 Mar 08 08:25	0°☾				4460 Mar 01 13:06	0°☾	
asc. node	4459 Mar 16 09:21	13°☾01'31			asc. node	4460 Mar 02 06:22	0°☾51'43	
evening max el	4459 Mar 21 06:08	19°☾05'46	18°09'41		evening max el	4460 Mar 03 18:21	2°☾29'51	18°29'32
retrograde	4459 Mar 27 16:30	22°☾28'48			retrograde	4460 Mar 10 06:49	6°☾03'49	
evening set	4459 Mar 30 11:41	21°☾48'48			evening set	4460 Mar 13 07:57	5°☾12'05	
inferior conj	4459 Apr 05 17:25	16°☾34'00	3°28'37			4460 Mar 18 21:20	30°☾	
minimum elong	4459 Apr 05 18:48	16°☾30'21	3°28'29		inferior conj	4460 Mar 19 04:33	29°☾38'44	3°35'07
min. Earth dist.	4459 Apr 08 12:02	13°☾37'28	0.62707 AU		minimum elong	4460 Mar 19 04:17	29°☾39'31	3°35'06
morning rise	4459 Apr 11 23:35	10°☾29'20			min. Earth dist.	4460 Mar 21 08:00	27°☾07'14	0.64573 AU
direct	4459 Apr 18 20:17	7°☾54'44			morning rise	4460 Mar 24 23:06	23°☾26'34	
desc. node	4459 Apr 22 03:26	8°☾26'48			direct	4460 Mar 31 16:59	20°☾38'44	
morning max el	4459 May 02 20:46	15°☾53'50	27°50'27		desc. node	4460 Apr 08 00:27	23°☾16'04	
	4459 May 14 10:19	0°☾			morning max el	4460 Apr 14 06:21	28°☾33'26	27°21'41
	4459 Jun 01 13:27	0°☾				4460 Apr 15 15:46	0°☾	
morning set	4459 Jun 05 21:21	8°☾29'07				4460 May 07 05:37	0°☾	
max. Earth dist.	4459 Jun 11 08:54	19°☾54'26	1.32558 AU		morning set	4460 May 19 13:10	22°☾13'00	
asc. node	4459 Jun 12 08:37	22°☾01'46				4460 May 23 10:35	0°☾	
					max. Earth dist.	4460 May 24 07:46	1°☾48'43	1.33484 AU
superior conj	4459 Jun 13 12:54	24°☾34'43	0°12'19		superior conj	4460 May 27 17:25	8°☾55'56	0°-15'-40
minimum elong	4459 Jun 13 12:19	24°☾31'33	0°12'10		minimum elong	4460 May 27 18:14	9°☾00'12	0°15'30
behind sun begin	4459 Jun 13 08:56	24°☾13'11			behind sun begin	4460 May 27 16:52	8°☾53'02	
behind sun end	4459 Jun 13 15:42	24°☾49'56			behind sun end	4460 May 27 19:35	9°☾07'22	
	4459 Jun 16 00:41	0°☾			asc. node	4460 May 29 05:39	12°☾08'40	
evening rise	4459 Jun 20 12:27	9°☾42'12			evening rise	4460 Jun 03 23:41	24°☾24'37	
	4459 Jun 30 23:21	0°☾				4460 Jun 06 16:25	0°☾	
evening max el	4459 Jul 14 12:17	18°☾16'33	23°49'28		evening max el	4460 Jun 25 03:02	28°☾40'44	22°12'41
desc. node	4459 Jul 19 02:41	22°☾03'08				4460 Jun 26 13:19	0°☾	
retrograde	4459 Jul 28 05:03	25°☾09'39			desc. node	4460 Jul 04 23:42	4°☾43'17	
evening set	4459 Aug 01 14:57	24°☾26'45			retrograde	4460 Jul 08 00:18	5°☾04'30	
min. Earth dist.	4459 Aug 07 22:26	21°☾25'02	0.56107 AU		evening set	4460 Jul 10 23:11	4°☾45'09	
inferior conj	4459 Aug 10 05:17	20°☾01'59	-5°-3'-2		min. Earth dist.	4460 Jul 19 08:55	1°☾07'16	0.55032 AU
minimum elong	4459 Aug 10 01:00	20°☾08'30	5°02'37		inferior conj	4460 Jul 20 04:46	0°☾39'17	-4°-4'-45
morning rise	4459 Aug 18 14:22	16°☾05'45			minimum elong	4460 Jul 19 20:14	0°☾51'19	4°02'39
direct	4459 Aug 21 09:19	15°☾46'01				4460 Jul 21 08:47	30°☾	
morning max el	4459 Aug 31 12:04	20°☾28'02	19°59'44		morning rise	4460 Jul 28 19:16	26°☾49'19	
asc. node	4459 Sep 08 07:50	0°☾			direct	4460 Jul 31 23:16	26°☾26'53	
	4459 Sep 08 02:01	0°☾				4460 Aug 10 10:00	0°☾	
morning set	4459 Sep 18 12:49	19°☾18'00			morning max el	4460 Aug 12 17:02	1°☾55'33	21°23'58
	4459 Sep 23 18:37	0°☾			asc. node	4460 Aug 25 04:52	19°☾03'35	
						4460 Aug 30 21:57	0°☾	
superior conj	4459 Sep 26 07:45	5°☾08'25	1°42'25		morning set	4460 Sep 01 21:26	4°☾03'45	
minimum elong	4459 Sep 26 08:47	5°☾13'37	1°42'24		superior conj	4460 Sep 09 05:52	19°☾28'36	1°43'35
max. Earth dist.	4459 Oct 01 23:18	16°☾08'43	1.36961 AU		minimum elong	4460 Sep 09 05:25	19°☾26'17	1°43'35
evening rise	4459 Oct 05 19:33	23°☾15'14			max. Earth dist.	4460 Sep 13 10:05	28°☾00'10	1.35166 AU
	4459 Oct 09 15:11	0°☾				4460 Sep 14 10:11	0°☾	
desc. node	4459 Oct 15 01:58	9°☾06'19			evening rise	4460 Sep 17 17:17	6°☾23'13	
	4459 Oct 29 04:25	0°☾			desc. node	4460 Sep 30 23:00	29°☾22'50	
evening max el	4459 Nov 10 12:07	14°☾33'44	25°40'45			4460 Oct 01 08:25	0°☾	
retrograde	4459 Nov 22 19:15	21°☾36'18			evening max el	4460 Oct 23 00:38	28°☾13'30	26°39'31
evening set	4459 Nov 28 18:48	19°☾08'13				4460 Oct 24 23:02	0°☾	
min. Earth dist.	4459 Dec 03 03:52	14°☾22'28	0.67059 AU		retrograde	4460 Nov 05 00:32	5°☾28'48	
inferior conj	4459 Dec 04 10:52	12°☾43'52	0°-17'-15		evening set	4460 Nov 11 13:02	2°☾51'16	
minimum elong	4459 Dec 04 11:19	12°☾42'27	0°17'04			4460 Nov 14 11:33	30°☾	
asc. node	4459 Dec 05 07:03	11°☾40'05			min. Earth dist.	4460 Nov 15 15:09	28°☾41'21	0.66047 AU
morning rise	4459 Dec 10 04:44	6°☾48'21			inferior conj	4460 Nov 17 09:39	26°☾35'08	-1°-16'-50
direct	4459 Dec 13 10:33	5°☾47'55						
morning max el	4459 Dec 20 10:06	9°☾40'43	19°08'46					
greatest brilliancy	4459 Dec 31 05:33	23°☾52'27	-0.7m					

minimum elong	4460 Nov 17 11:47	26° \mathbb{M} 28'48	1°15'58	morning rise	4461 Nov 07 13:39	4° \mathbb{M} 46'39	
asc. node	4460 Nov 21 04:04	22° \mathbb{M} 31'01		asc. node	4461 Nov 08 01:06	4° \mathbb{M} 35'18	
morning rise	4460 Nov 23 12:02	20° \mathbb{M} 50'35		direct	4461 Nov 10 02:37	4° \mathbb{M} 13'01	
direct	4460 Nov 26 08:12	20° \mathbb{M} 05'33		morning max el	4461 Nov 16 14:15	7° \mathbb{M} 39'25	17°58'49
morning max el	4460 Dec 02 22:21	23° \mathbb{M} 40'30	18°25'21		4461 Dec 01 16:10	0° \mathbb{M}	
	4460 Dec 08 02:40	0° \mathbb{M}		morning set	4461 Dec 04 01:12	3° \mathbb{M} 59'05	
morning set	4460 Dec 22 15:48	22° \mathbb{M} 36'52		desc. node	4461 Dec 14 19:16	21° \mathbb{M} 44'32	
	4460 Dec 27 06:38	0° \mathbb{M}					
desc. node	4460 Dec 27 22:14	1° \mathbb{M} 02'06		superior conj	4461 Dec 17 19:30	26° \mathbb{M} 35'26	0°-20'-42
				minimum elong	4461 Dec 17 17:00	26° \mathbb{M} 25'22	0°20'20
superior conj	4461 Jan 07 08:40	17° \mathbb{M} 30'48	-1°-7'-42		4461 Dec 19 22:47	0° \mathbb{M}	
minimum elong	4461 Jan 07 00:32	16° \mathbb{M} 58'55	1°06'43	max. Earth dist.	4461 Dec 22 03:28	3° \mathbb{M} 28'40	1.44912 AU
max. Earth dist.	4461 Jan 08 08:20	19° \mathbb{M} 03'38	1.45292 AU	evening rise	4462 Jan 03 02:37	22° \mathbb{M} 06'30	
	4461 Jan 15 07:53	0° \mathbb{M}			4462 Jan 08 06:03	0° \mathbb{M}	
evening rise	4461 Jan 23 10:34	12° \mathbb{M} 45'15		greatest brilliancy	4462 Jan 22 13:23	21° \mathbb{M} 09'56	-0.6m
	4461 Feb 03 10:15	0° \mathbb{M}		evening max el	4462 Jan 29 08:50	29° \mathbb{M} 32'37	20°00'23
greatest brilliancy	4461 Feb 05 00:59	2° \mathbb{M} 28'04	-0.7m		4462 Jan 29 19:43	0° \mathbb{M}	
evening max el	4461 Feb 15 03:49	15° \mathbb{M} 59'44	19°07'00	asc. node	4462 Feb 04 00:23	3° \mathbb{M} 38'17	
asc. node	4461 Feb 17 03:22	17° \mathbb{M} 48'37		retrograde	4462 Feb 06 00:09	3° \mathbb{M} 59'34	
retrograde	4461 Feb 22 02:18	19° \mathbb{M} 55'42		evening set	4462 Feb 09 16:10	2° \mathbb{M} 41'08	
evening set	4461 Feb 25 10:13	18° \mathbb{M} 51'11			4462 Feb 12 11:37	30° \mathbb{R}	
inferior conj	4461 Mar 03 00:45	13° \mathbb{M} 01'18	3°25'51	inferior conj	4462 Feb 15 03:08	26° \mathbb{M} 37'01	3°04'25
minimum elong	4461 Mar 02 23:15	13° \mathbb{M} 06'06	3°25'40	minimum elong	4462 Feb 15 00:54	26° \mathbb{M} 44'31	3°03'57
min. Earth dist.	4461 Mar 04 12:49	11° \mathbb{M} 06'27	0.66064 AU	min. Earth dist.	4462 Feb 16 00:53	25° \mathbb{M} 24'03	0.67133 AU
morning rise	4461 Mar 08 11:19	6° \mathbb{M} 45'54		morning rise	4462 Feb 20 09:02	20° \mathbb{M} 20'57	
direct	4461 Mar 14 20:25	3° \mathbb{M} 58'16		direct	4462 Feb 26 05:32	17° \mathbb{M} 44'53	
desc. node	4461 Mar 25 21:27	9° \mathbb{M} 51'25		morning max el	4462 Mar 10 01:04	24° \mathbb{M} 48'34	25°05'27
morning max el	4461 Mar 27 16:14	11° \mathbb{M} 35'07	26°23'34	desc. node	4462 Mar 12 18:28	27° \mathbb{M} 43'29	
	4461 Apr 11 09:08	0° \mathbb{M}			4462 Mar 14 17:39	0° \mathbb{M}	
	4461 Apr 29 20:02	0° \mathbb{M}			4462 Apr 04 20:19	0° \mathbb{M}	
morning set	4461 May 02 16:54	5° \mathbb{M} 17'35		morning set	4462 Apr 15 03:51	17° \mathbb{M} 29'50	
max. Earth dist.	4461 May 06 19:22	13° \mathbb{M} 10'13	1.34882 AU	max. Earth dist.	4462 Apr 18 20:12	24° \mathbb{M} 12'31	1.36719 AU
					4462 Apr 21 21:52	0° \mathbb{M}	
superior conj	4461 May 11 15:16	22° \mathbb{M} 52'38	0°-44'-58	superior conj	4462 Apr 25 03:36	6° \mathbb{M} 17'32	-1°-13'-57
minimum elong	4461 May 11 17:41	23° \mathbb{M} 05'05	0°44'31	minimum elong	4462 Apr 25 07:34	6° \mathbb{M} 37'07	1°13'20
	4461 May 15 01:46	0° \mathbb{M}		asc. node	4462 May 02 23:43	22° \mathbb{M} 01'59	
asc. node	4461 May 16 02:41	2° \mathbb{M} 10'00		evening rise	4462 May 03 12:12	23° \mathbb{M} 04'55	
evening rise	4461 May 19 08:20	8° \mathbb{M} 54'11			4462 May 07 00:00	0° \mathbb{M}	
	4461 May 30 16:21	0° \mathbb{M}		evening max el	4462 May 20 15:31	20° \mathbb{M} 56'26	19°35'38
evening max el	4461 Jun 07 03:06	9° \mathbb{M} 28'31	20°45'29	retrograde	4462 May 30 07:22	25° \mathbb{M} 38'49	
retrograde	4461 Jun 18 12:54	15° \mathbb{M} 03'40		evening set	4462 Jun 01 06:06	25° \mathbb{M} 28'12	
evening set	4461 Jun 20 15:17	14° \mathbb{M} 53'05		desc. node	4462 Jun 08 17:43	22° \mathbb{M} 10'58	
desc. node	4461 Jun 21 20:43	14° \mathbb{M} 37'36		inferior conj	4462 Jun 09 23:40	21° \mathbb{M} 24'08	0°-22'-11
inferior conj	4461 Jun 29 22:01	10° \mathbb{M} 56'10	-2°-21'-27	minimum elong	4462 Jun 09 22:40	21° \mathbb{M} 25'43	0°21'50
minimum elong	4461 Jun 29 15:29	11° \mathbb{M} 05'29	2°19'11	min. Earth dist.	4462 Jun 12 09:52	19° \mathbb{M} 52'28	0.55659 AU
min. Earth dist.	4461 Jun 30 20:28	10° \mathbb{M} 24'07	0.54863 AU	morning rise	4462 Jun 18 11:44	16° \mathbb{M} 50'37	
morning rise	4461 Jul 08 14:45	6° \mathbb{M} 52'46		direct	4462 Jun 23 01:52	16° \mathbb{M} 03'33	
direct	4461 Jul 12 08:37	6° \mathbb{M} 22'35		morning max el	4462 Jul 07 01:39	23° \mathbb{M} 04'28	24°46'32
morning max el	4461 Jul 25 11:49	12° \mathbb{M} 41'28	23°03'20		4462 Jul 13 06:28	0° \mathbb{M}	
	4461 Aug 07 12:47	0° \mathbb{M}		asc. node	4462 Jul 29 22:58	27° \mathbb{M} 49'49	
asc. node	4461 Aug 12 01:54	8° \mathbb{M} 15'16			4462 Jul 31 00:24	0° \mathbb{M}	
morning set	4461 Aug 17 08:29	18° \mathbb{M} 55'50		morning set	4462 Aug 01 20:16	3° \mathbb{M} 49'25	
	4461 Aug 22 12:35	0° \mathbb{M}					
superior conj	4461 Aug 24 10:45	4° \mathbb{M} 07'53	1°38'08	superior conj	4462 Aug 08 19:54	18° \mathbb{M} 58'30	1°27'04
minimum elong	4461 Aug 24 09:12	3° \mathbb{M} 59'37	1°38'01	minimum elong	4462 Aug 08 17:44	18° \mathbb{M} 46'39	1°26'48
max. Earth dist.	4461 Aug 27 05:42	10° \mathbb{M} 02'47	1.33748 AU	max. Earth dist.	4462 Aug 10 09:49	22° \mathbb{M} 24'40	1.32747 AU
evening rise	4461 Sep 01 04:45	20° \mathbb{M} 10'01			4462 Aug 13 23:04	0° \mathbb{M}	
	4461 Sep 06 08:27	0° \mathbb{M}		evening rise	4462 Aug 16 02:14	4° \mathbb{M} 25'05	
desc. node	4461 Sep 17 20:01	19° \mathbb{M} 17'11			4462 Aug 30 01:07	0° \mathbb{M}	
	4461 Sep 25 08:39	0° \mathbb{M}		desc. node	4462 Sep 04 17:03	8° \mathbb{M} 40'06	
evening max el	4461 Oct 05 13:03	11° \mathbb{M} 41'23	27°16'57	evening max el	4462 Sep 17 23:31	24° \mathbb{M} 44'37	27°26'22
retrograde	4461 Oct 18 23:59	18° \mathbb{M} 59'37			4462 Sep 24 20:55	0° \mathbb{M}	
evening set	4461 Oct 25 22:49	16° \mathbb{M} 19'53		retrograde	4462 Oct 01 16:46	2° \mathbb{M} 00'03	
min. Earth dist.	4461 Oct 29 18:44	12° \mathbb{M} 45'14	0.64688 AU		4462 Oct 08 01:44	30° \mathbb{R}	
inferior conj	4461 Nov 01 01:13	10° \mathbb{M} 17'13	-2°-18'-54	evening set	4462 Oct 08 21:02	29° \mathbb{M} 27'57	
minimum elong	4461 Nov 01 05:11	10° \mathbb{M} 06'25	2°17'23	min. Earth dist.	4462 Oct 12 12:35	26° \mathbb{M} 24'55	0.63004 AU

inferior conj	4462 Oct 15 06:49	23°♄43'31	-3°-20'-30	min. Earth dist.	4463 Sep 24 19:37	9°♄28'22	0.61053 AU
minimum elong	4462 Oct 15 12:21	23°♄29'59	3°18'41	inferior conj	4463 Sep 27 23:16	6°♄46'04	-4°-16'-35
morning rise	4462 Oct 22 06:22	18°♄30'28		minimum elong	4463 Sep 28 05:20	6°♄33'00	4°15'08
direct	4462 Oct 24 14:52	18°♄04'34		morning rise	4463 Oct 05 10:06	1°♄54'07	
asc. node	4462 Oct 25 22:10	18°♄12'42		direct	4463 Oct 07 17:11	1°♄32'53	
morning max el	4462 Oct 31 06:50	21°♄30'36	17°49'53	asc. node	4463 Oct 12 19:14	3°♄21'42	
	4462 Nov 06 18:05	0°♄		morning max el	4463 Oct 14 21:04	5°♄06'56	17°59'35
morning set	4462 Nov 16 10:50	16°♄31'11		morning set	4463 Oct 30 14:19	29°♄54'21	
	4462 Nov 24 04:45	0°♄			4463 Oct 30 15:33	0°♄	
superior conj	4462 Nov 28 05:41	6°♄49'29	0°23'57	superior conj	4463 Nov 09 18:32	18°♄21'59	0°59'24
minimum elong	4462 Nov 28 08:02	6°♄59'16	0°23'37	minimum elong	4463 Nov 09 22:35	18°♄39'48	0°58'52
desc. node	4462 Dec 01 16:18	12°♄30'56			4463 Nov 16 13:27	0°♄	
max. Earth dist.	4462 Dec 04 20:32	17°♄40'12	1.43844 AU	max. Earth dist.	4463 Nov 17 09:02	1°♄21'27	1.42213 AU
	4462 Dec 12 16:01	0°♄		desc. node	4463 Nov 18 13:20	3°♄18'22	
evening rise	4462 Dec 13 12:24	1°♄18'53		evening rise	4463 Nov 23 08:03	11°♄02'01	
	4463 Jan 01 21:02	0°♄			4463 Dec 05 17:57	0°♄	
greatest brilliancy	4463 Jan 07 03:33	7°♄03'37	-0.4m	greatest brilliancy	4463 Dec 21 08:02	21°♄19'14	-0.3m
evening max el	4463 Jan 12 08:23	13°♄06'06	21°06'59	evening max el	4463 Dec 26 02:38	26°♄41'03	22°22'49
retrograde	4463 Jan 20 22:05	18°♄10'41			4463 Dec 29 20:12	0°♄	
asc. node	4463 Jan 21 21:26	18°♄05'32		retrograde	4464 Jan 04 18:28	2°♄25'46	
evening set	4463 Jan 24 23:48	16°♄37'09		asc. node	4464 Jan 08 18:28	1°♄01'18	
inferior conj	4463 Jan 30 09:15	10°♄21'34	2°33'13	evening set	4464 Jan 09 07:29	0°♄36'23	
minimum elong	4463 Jan 30 06:47	10°♄30'03	2°32'32		4464 Jan 10 00:06	30°♄	
min. Earth dist.	4463 Jan 30 18:05	9°♄51'03	0.67785 AU	inferior conj	4464 Jan 14 17:04	24°♄12'42	1°53'53
morning rise	4463 Feb 04 13:25	4°♄06'37		minimum elong	4464 Jan 14 14:51	24°♄20'21	1°53'08
direct	4463 Feb 09 19:22	1°♄49'33		min. Earth dist.	4464 Jan 14 14:13	24°♄22'33	0.68045 AU
morning max el	4463 Feb 20 09:45	8°♄08'05	23°37'29	morning rise	4464 Jan 19 22:07	18°♄00'26	
desc. node	4463 Feb 27 15:30	16°♄29'46		direct	4464 Jan 24 13:10	16°♄05'54	
	4463 Mar 09 12:15	0°♄		morning max el	4464 Feb 02 21:21	21°♄35'04	22°09'19
morning set	4463 Mar 27 16:05	28°♄33'20		greatest brilliancy	4464 Feb 07 11:38	26°♄43'29	-0.3m
	4463 Mar 28 12:25	0°♄			4464 Feb 10 02:22	0°♄	
max. Earth dist.	4463 Mar 31 15:46	5°♄26'56	1.38846 AU	desc. node	4464 Feb 14 12:33	5°♄55'08	
					4464 Mar 01 19:24	0°♄	
superior conj	4463 Apr 08 02:37	19°♄00'14	-1°-40'-8	morning set	4464 Mar 07 00:16	8°♄15'54	
minimum elong	4463 Apr 08 07:27	19°♄23'00	1°39'36	max. Earth dist.	4464 Mar 12 13:19	17°♄23'52	1.41014 AU
	4463 Apr 13 20:32	0°♄			4464 Mar 19 20:30	0°♄	
evening rise	4463 Apr 17 08:34	6°♄48'50					
asc. node	4463 Apr 19 20:45	11°♄39'29		superior conj	4464 Mar 20 07:38	0°♄49'27	-1°-59'-52
	4463 Apr 30 21:15	0°♄		minimum elong	4464 Mar 20 11:38	1°♄07'12	1°59'39
evening max el	4463 May 03 14:54	3°♄04'13	18°45'53	evening rise	4464 Mar 30 18:00	19°♄57'28	
retrograde	4463 May 11 18:42	7°♄04'23			4464 Apr 05 04:59	0°♄	
evening set	4463 May 13 21:55	6°♄48'58		asc. node	4464 Apr 05 17:48	0°♄57'02	
inferior conj	4463 May 21 20:13	2°♄27'20	1°21'00	evening max el	4464 Apr 15 22:07	15°♄44'46	18°16'29
minimum elong	4463 May 21 23:03	2°♄22'06	1°20'04	retrograde	4464 Apr 23 01:03	19°♄18'21	
min. Earth dist.	4463 May 25 02:28	0°♄04'18	0.57242 AU	evening set	4464 Apr 25 10:36	18°♄54'58	
	4463 May 25 04:56	30°♄		inferior conj	4464 May 02 14:21	14°♄12'41	2°33'31
desc. node	4463 May 26 14:44	29°♄03'19		minimum elong	4464 May 02 17:54	14°♄05'02	2°32'38
morning rise	4463 May 29 19:42	27°♄18'00		min. Earth dist.	4464 May 06 00:27	11°♄17'06	0.59300 AU
direct	4463 Jun 04 08:35	26°♄03'08		morning rise	4464 May 09 21:08	8°♄33'50	
	4463 Jun 14 13:06	0°♄		desc. node	4464 May 12 11:46	7°♄22'15	
morning max el	4463 Jun 18 17:05	3°♄33'39	26°17'53	direct	4464 May 16 05:03	6°♄44'18	
	4463 Jul 07 17:50	0°♄		morning max el	4464 May 30 14:14	14°♄33'32	27°22'22
asc. node	4463 Jul 16 20:02	17°♄40'38			4464 Jun 12 00:16	0°♄	
morning set	4463 Jul 17 07:13	18°♄39'28			4464 Jun 29 00:51	0°♄	
	4463 Jul 22 12:53	0°♄		morning set	4464 Jun 30 15:32	3°♄19'49	
				asc. node	4464 Jul 02 17:04	7°♄41'44	
superior conj	4463 Jul 24 07:18	3°♄53'53	1°11'10				
minimum elong	4463 Jul 24 04:59	3°♄41'06	1°10'47	superior conj	4464 Jul 07 19:05	18°♄47'22	0°51'05
max. Earth dist.	4463 Jul 24 19:31	5°♄01'14	1.32156 AU	minimum elong	4464 Jul 07 17:05	18°♄36'21	0°50'41
evening rise	4463 Jul 31 06:41	18°♄59'20		max. Earth dist.	4464 Jul 07 07:06	17°♄41'19	1.31979 AU
	4463 Aug 05 18:12	0°♄			4464 Jul 12 21:42	0°♄	
desc. node	4463 Aug 22 14:04	27°♄18'47		evening rise	4464 Jul 14 15:35	3°♄44'18	
	4463 Aug 24 16:32	0°♄			4464 Jul 28 15:11	0°♄	
evening max el	4463 Aug 31 05:21	7°♄09'47	27°03'15	desc. node	4464 Aug 08 11:06	14°♄54'18	
retrograde	4463 Sep 14 02:17	14°♄21'30		evening max el	4464 Aug 12 04:02	18°♄46'37	26°07'11
evening set	4463 Sep 21 03:45	12°♄09'00		retrograde	4464 Aug 26 03:21	25°♄55'10	

evening set	4464 Sep 01 14:00	24° \cap 14'28		retrograde	4465 Aug 07 17:36	6° \cap 39'34	
min. Earth dist.	4464 Sep 05 16:47	21° \cap 40'03	0.58979 AU	evening set	4465 Aug 12 23:56	5° \cap 37'05	
inferior conj	4464 Sep 08 22:54	19° \cap 14'12	-4°-58'-41	min. Earth dist.	4465 Aug 18 07:02	2° \cap 49'46	0.57040 AU
minimum elong	4464 Sep 09 03:12	19° \cap 06'06	4°58'10	inferior conj	4465 Aug 21 02:50	0° \cap 59'28	-5°-13'-25
morning rise	4464 Sep 16 19:57	14° \cap 45'33		minimum elong	4465 Aug 21 02:14	1° \cap 00'26	5°13'26
direct	4464 Sep 19 04:59	14° \cap 26'31			4465 Aug 22 15:45	30° \mathbb{R} Ω	
morning max el	4464 Sep 27 05:30	18° \cap 18'16	18°29'18	morning rise	4465 Aug 29 08:03	26° Ω 52'49	
asc. node	4464 Sep 28 16:17	19° \cap 48'29		direct	4465 Aug 31 22:30	26° Ω 33'51	
	4464 Oct 05 18:06	0° $\underline{\Omega}$			4465 Sep 09 04:16	0° \cap	
morning set	4464 Oct 13 06:20	13° $\underline{\Omega}$ 52'36		morning max el	4465 Sep 10 04:48	0° \cap 54'31	19°20'20
	4464 Oct 21 17:00	0° \mathbb{L}		asc. node	4465 Sep 15 13:20	7° \cap 17'54	
				morning set	4465 Sep 27 06:57	28° \cap 15'13	
					4465 Sep 28 03:55	0° $\underline{\Omega}$	
superior conj	4464 Oct 22 05:56	1° \mathbb{L} 00'08	1°23'55				
minimum elong	4464 Oct 22 09:26	1° \mathbb{L} 16'21	1°23'34	superior conj	4465 Oct 05 10:24	14° $\underline{\Omega}$ 28'01	1°38'14
max. Earth dist.	4464 Oct 29 16:00	14° \mathbb{L} 19'11	1.40222 AU	minimum elong	4465 Oct 05 12:24	14° $\underline{\Omega}$ 37'44	1°38'07
evening rise	4464 Nov 03 00:20	21° \mathbb{L} 42'08		max. Earth dist.	4465 Oct 11 20:19	26° $\underline{\Omega}$ 36'03	1.38127 AU
desc. node	4464 Nov 04 10:23	24° \mathbb{L} 02'49			4465 Oct 13 17:22	0° \mathbb{L}	
	4464 Nov 08 02:49	0° \mathbb{X}		evening rise	4465 Oct 15 15:48	3° \mathbb{L} 25'49	
	4464 Nov 28 19:57	0° $\overline{\mathbb{C}}$		desc. node	4465 Oct 22 07:25	14° \mathbb{L} 40'18	
evening max el	4464 Dec 07 17:01	10° $\overline{\mathbb{C}}$ 18'59	23°42'44		4465 Nov 01 05:34	0° \mathbb{X}	
retrograde	4464 Dec 18 11:49	16° $\overline{\mathbb{C}}$ 40'55		evening max el	4465 Nov 20 05:44	24° \mathbb{X} 01'06	25°00'12
evening set	4464 Dec 23 13:34	14° $\overline{\mathbb{C}}$ 35'35			4465 Nov 28 06:44	0° $\overline{\mathbb{C}}$	
asc. node	4464 Dec 25 15:31	12° $\overline{\mathbb{C}}$ 30'42		retrograde	4465 Dec 02 01:02	0° $\overline{\mathbb{C}}$ 51'41	
min. Earth dist.	4464 Dec 28 10:58	8° $\overline{\mathbb{C}}$ 54'54	0.67937 AU		4465 Dec 05 12:17	30° \mathbb{R} \mathbb{X}	
inferior conj	4464 Dec 29 00:43	8° $\overline{\mathbb{C}}$ 07'58	1°07'34	evening set	4465 Dec 07 16:28	28° \mathbb{X} 31'28	
minimum elong	4464 Dec 28 23:13	8° $\overline{\mathbb{C}}$ 13'06	1°06'58	min. Earth dist.	4465 Dec 12 05:53	23° \mathbb{X} 25'04	0.67481 AU
morning rise	4465 Jan 03 09:03	2° $\overline{\mathbb{C}}$ 00'13		asc. node	4465 Dec 12 12:32	23° \mathbb{X} 03'20	
direct	4465 Jan 07 09:58	0° $\overline{\mathbb{C}}$ 28'23		inferior conj	4465 Dec 13 06:25	22° \mathbb{X} 04'30	0°15'14
morning max el	4465 Jan 15 15:07	5° $\overline{\mathbb{C}}$ 12'20	20°48'46	minimum elong	4465 Dec 13 06:02	22° \mathbb{X} 05'45	0°15'04
greatest brilliancy	4465 Jan 21 07:36	11° $\overline{\mathbb{C}}$ 47'56	-0.5m	transit middle	4465 Dec 13 06:02	22° \mathbb{X} 05'45	0°15'04
desc. node	4465 Jan 31 09:35	25° $\overline{\mathbb{C}}$ 48'48		transit begin	4465 Dec 13 05:01	22° \mathbb{X} 09'06	
	4465 Feb 03 05:44	0° \approx		transit end	4465 Dec 13 07:03	22° \mathbb{X} 02'25	
morning set	4465 Feb 14 06:00	16° \approx 46'37		morning rise	4465 Dec 18 20:12	16° \mathbb{X} 03'35	
max. Earth dist.	4465 Feb 22 17:19	0° \mathbb{X} 14'36	1.42943 AU	direct	4465 Dec 22 08:30	14° \mathbb{X} 52'30	
	4465 Feb 22 13:43	0° \mathbb{X}		morning max el	4465 Dec 29 16:42	19° \mathbb{X} 00'40	19°40'50
superior conj	4465 Mar 01 13:44	11° \mathbb{X} 34'25	-2°-8'-11	greatest brilliancy	4466 Jan 06 14:25	28° \mathbb{X} 47'00	-0.6m
minimum elong	4465 Mar 01 13:56	11° \mathbb{X} 35'15	2°08'11		4466 Jan 07 11:12	0° $\overline{\mathbb{C}}$	
	4465 Mar 12 04:33	0° \mathbb{Y}		desc. node	4466 Jan 18 06:38	16° $\overline{\mathbb{C}}$ 02'48	
evening rise	4465 Mar 13 12:24	2° \mathbb{Y} 21'32		morning set	4466 Jan 24 02:11	24° $\overline{\mathbb{C}}$ 58'06	
asc. node	4465 Mar 23 14:49	19° \mathbb{Y} 47'53			4466 Jan 27 08:12	0° \approx	
evening max el	4465 Mar 30 09:44	28° \mathbb{Y} 48'57	18°06'46	max. Earth dist.	4466 Feb 05 04:51	13° \approx 54'01	1.44392 AU
	4465 Mar 31 17:13	0° \mathbb{B}					
retrograde	4465 Apr 05 23:12	2° \mathbb{B} 11'37		superior conj	4466 Feb 09 18:03	21° \approx 10'32	-1°-59'-37
evening set	4465 Apr 08 14:56	1° \mathbb{B} 38'09		minimum elong	4466 Feb 09 12:08	20° \approx 46'42	1°59'19
	4465 Apr 11 08:53	30° \mathbb{R} \mathbb{Y}			4466 Feb 15 04:06	0° \mathbb{X}	
inferior conj	4465 Apr 15 03:37	26° \mathbb{Y} 35'13	3°15'46	evening rise	4466 Feb 23 11:17	13° \mathbb{X} 51'58	
minimum elong	4465 Apr 15 05:58	26° \mathbb{Y} 29'22	3°15'24		4466 Mar 05 02:38	0° \mathbb{Y}	
min. Earth dist.	4465 Apr 18 05:57	23° \mathbb{Y} 32'00	0.61493 AU	asc. node	4466 Mar 10 11:50	8° \mathbb{Y} 02'55	
morning rise	4465 Apr 21 18:00	20° \mathbb{Y} 37'29		evening max el	4466 Mar 13 22:33	12° \mathbb{Y} 07'32	18°16'01
direct	4465 Apr 28 12:47	18° \mathbb{Y} 16'06		retrograde	4466 Mar 20 08:40	15° \mathbb{Y} 33'26	
desc. node	4465 Apr 29 08:47	18° \mathbb{Y} 18'07		evening set	4466 Mar 23 06:23	14° \mathbb{Y} 48'31	
morning max el	4465 May 12 17:34	26° \mathbb{Y} 14'33	27°51'04	inferior conj	4466 Mar 29 07:50	9° \mathbb{Y} 25'53	3°33'34
	4465 May 16 05:43	0° \mathbb{B}		minimum elong	4466 Mar 29 08:28	9° \mathbb{Y} 24'05	3°33'32
	4465 Jun 05 13:11	0° \mathbb{I}		min. Earth dist.	4466 Mar 31 20:17	6° \mathbb{Y} 37'59	0.63541 AU
morning set	4465 Jun 14 19:23	17° \mathbb{I} 44'24		morning rise	4466 Apr 04 08:37	3° \mathbb{Y} 17'38	
asc. node	4465 Jun 19 14:06	27° \mathbb{I} 48'37		direct	4466 Apr 11 05:13	0° \mathbb{Y} 35'27	
max. Earth dist.	4465 Jun 20 16:43	0° $\overline{\mathbb{C}}$ 12'38	1.32219 AU	desc. node	4466 Apr 16 05:48	1° \mathbb{Y} 50'08	
	4465 Jun 20 14:23	0° $\overline{\mathbb{C}}$		morning max el	4466 Apr 25 01:19	8° \mathbb{Y} 33'52	27°42'18
					4466 May 11 15:22	0° \mathbb{B}	
superior conj	4465 Jun 22 05:31	3° $\overline{\mathbb{C}}$ 33'21	0°27'22		4466 May 28 19:11	0° \mathbb{I}	
minimum elong	4465 Jun 22 04:18	3° $\overline{\mathbb{C}}$ 26'40	0°27'07	morning set	4466 May 29 16:20	1° \mathbb{I} 44'48	
evening rise	4465 Jun 29 02:54	18° $\overline{\mathbb{C}}$ 33'29		max. Earth dist.	4466 Jun 03 20:28	12° \mathbb{I} 22'21	1.32892 AU
	4465 Jul 04 17:16	0° Ω		asc. node	4466 Jun 06 11:08	17° \mathbb{I} 56'13	
evening max el	4465 Jul 24 19:40	29° Ω 37'53	24°44'21				
	4465 Jul 25 05:00	0° \cap		superior conj	4466 Jun 06 12:45	18° \mathbb{I} 04'54	0°00'42
desc. node	4465 Jul 26 08:05	1° \cap 01'13		minimum elong	4466 Jun 06 12:42	18° \mathbb{I} 04'41	0°00'42

behind sun begin	4466 Jun 06 07:24	17° Π 36'10		minimum elong	4467 May 21 16:10	2° Π 23'45	0°27'43
behind sun end	4466 Jun 06 18:01	18° Π 33'14		asc. node	4467 May 24 08:09	8° Π 00'55	
	4466 Jun 12 01:12	0° \mathfrak{S}		evening rise	4467 May 29 01:00	17° Π 57'01	
evening rise	4466 Jun 13 14:38	3° \mathfrak{S} 19'39			4467 Jun 04 01:16	0° \mathfrak{S}	
	4466 Jun 28 03:35	0° Ω		evening max el	4467 Jun 18 02:30	20° \mathfrak{S} 32'53	21°33'46
evening max el	4466 Jul 06 08:35	10° Ω 02'40	23°07'59	retrograde	4467 Jun 30 09:53	26° \mathfrak{S} 37'26	
desc. node	4466 Jul 13 05:04	15° Ω 06'35		desc. node	4467 Jun 30 02:05	26° \mathfrak{S} 37'11	
retrograde	4466 Jul 19 19:00	16° Ω 45'10		evening set	4467 Jul 02 22:03	26° \mathfrak{S} 23'08	
evening set	4466 Jul 23 13:04	16° Ω 14'26		inferior conj	4467 Jul 12 06:09	22° \mathfrak{S} 22'53	-3°-25'-7
min. Earth dist.	4466 Jul 30 17:44	12° Ω 58'59	0.55557 AU	minimum elong	4467 Jul 11 21:41	22° \mathfrak{S} 34'43	3°22'36
inferior conj	4466 Aug 01 11:08	11° Ω 58'45	-4°-44'-46	min. Earth dist.	4467 Jul 12 04:04	22° \mathfrak{S} 25'48	0.54842 AU
minimum elong	4466 Aug 01 04:27	12° Ω 08'30	4°43'40	morning rise	4467 Jul 20 22:14	18° \mathfrak{S} 30'10	
morning rise	4466 Aug 09 22:40	8° Ω 06'56		direct	4467 Jul 24 07:37	18° \mathfrak{S} 05'12	
direct	4466 Aug 12 21:20	7° Ω 46'13		morning max el	4467 Aug 05 16:28	23° \mathfrak{S} 54'46	22°05'00
morning max el	4466 Aug 23 16:27	12° Ω 47'17	20°33'07		4467 Aug 11 03:22	0° Ω	
asc. node	4466 Sep 02 10:22	25° Ω 36'00		asc. node	4467 Aug 20 07:24	14° Ω 30'57	
	4466 Sep 04 22:51	0° \mathfrak{M}		morning set	4467 Aug 26 23:12	27° Ω 43'44	
morning set	4466 Sep 11 13:19	12° \mathfrak{M} 54'28			4467 Aug 28 01:09	0° \mathfrak{M}	
superior conj	4466 Sep 19 03:10	28° \mathfrak{M} 32'15	1°43'48	superior conj	4467 Sep 03 04:30	13° \mathfrak{M} 01'28	1°42'01
minimum elong	4466 Sep 19 03:33	28° \mathfrak{M} 34'09	1°43'48	minimum elong	4467 Sep 03 03:32	12° \mathfrak{M} 56'23	1°41'59
	4466 Sep 19 20:28	0° \mathfrak{A}		max. Earth dist.	4467 Sep 06 18:22	20° \mathfrak{M} 27'28	1.34514 AU
max. Earth dist.	4466 Sep 24 03:39	8° \mathfrak{A} 31'33	1.36166 AU	evening rise	4467 Sep 11 07:46	29° \mathfrak{M} 31'51	
evening rise	4466 Sep 28 03:43	16° \mathfrak{A} 06'12			4467 Sep 11 13:36	0° \mathfrak{A}	
	4466 Oct 06 01:32	0° \mathfrak{M}		desc. node	4467 Sep 26 01:25	25° \mathfrak{A} 14'24	
desc. node	4466 Oct 09 04:25	5° \mathfrak{M} 06'14			4467 Sep 29 04:28	0° \mathfrak{M}	
	4466 Oct 26 17:37	0° \mathfrak{X}		evening max el	4467 Oct 16 07:00	21° \mathfrak{M} 20'50	26°58'24
evening max el	4466 Nov 02 18:23	7° \mathfrak{X} 44'37	26°07'56	retrograde	4467 Oct 29 11:53	28° \mathfrak{M} 37'42	
retrograde	4466 Nov 15 09:13	14° \mathfrak{X} 53'07		evening set	4467 Nov 05 05:24	25° \mathfrak{M} 58'08	
evening set	4466 Nov 21 14:27	12° \mathfrak{X} 20'38		min. Earth dist.	4467 Nov 09 04:46	22° \mathfrak{M} 03'38	0.65518 AU
min. Earth dist.	4466 Nov 25 20:37	7° \mathfrak{X} 49'56	0.66675 AU	inferior conj	4467 Nov 11 04:21	19° \mathfrak{M} 47'23	-1°-43'00
inferior conj	4466 Nov 27 08:20	5° \mathfrak{X} 59'21	0°-42'-4	minimum elong	4467 Nov 11 07:16	19° \mathfrak{M} 39'02	1°41'48
minimum elong	4466 Nov 27 09:28	5° \mathfrak{X} 55'51	0°41'36	asc. node	4467 Nov 16 06:37	14° \mathfrak{M} 49'49	
asc. node	4466 Nov 29 09:34	3° \mathfrak{X} 31'47		morning rise	4467 Nov 17 10:52	14° \mathfrak{M} 08'33	
morning rise	4466 Dec 03 05:36	0° \mathfrak{X} 07'57		direct	4467 Nov 20 03:46	13° \mathfrak{M} 28'45	
	4466 Dec 03 11:17	30° \mathfrak{R} \mathfrak{M}		morning max el	4467 Nov 26 15:51	16° \mathfrak{M} 58'34	18°12'00
direct	4466 Dec 06 07:08	29° \mathfrak{M} 14'23			4467 Dec 06 06:01	0° \mathfrak{X}	
	4466 Dec 09 05:08	0° \mathfrak{X}		morning set	4467 Dec 15 07:03	14° \mathfrak{X} 38'17	
morning max el	4466 Dec 13 01:39	2° \mathfrak{X} 58'07	18°48'15	desc. node	4467 Dec 23 00:41	27° \mathfrak{X} 10'06	
	4466 Dec 31 23:57	0° \mathfrak{Z}			4467 Dec 24 19:08	0° \mathfrak{Z}	
morning set	4467 Jan 03 14:16	4° \mathfrak{Z} 04'44		superior conj	4467 Dec 30 05:16	8° \mathfrak{Z} 36'16	0°-48'-8
desc. node	4467 Jan 05 03:40	6° \mathfrak{Z} 31'39		minimum elong	4467 Dec 29 23:16	8° \mathfrak{Z} 12'34	0°47'20
max. Earth dist.	4467 Jan 18 22:17	28° \mathfrak{Z} 08'00	1.45181 AU	max. Earth dist.	4468 Jan 01 17:51	12° \mathfrak{Z} 34'38	1.45225 AU
superior conj	4467 Jan 20 01:41	29° \mathfrak{Z} 55'36	-1°-31'-24		4468 Jan 12 21:32	0° \approx	
minimum elong	4467 Jan 19 16:21	29° \mathfrak{Z} 18'55	1°30'29	evening rise	4468 Jan 15 13:21	4° \approx 08'25	
	4467 Jan 20 02:48	0° \approx		greatest brilliancy	4468 Jan 31 09:50	28° \approx 24'26	-0.7m
evening rise	4467 Feb 04 11:28	24° \approx 26'08			4468 Feb 01 12:26	0° \mathfrak{H}	
	4467 Feb 07 22:11	0° \mathfrak{H}		evening max el	4468 Feb 08 17:38	9° \mathfrak{H} 05'59	19°27'50
asc. node	4467 Feb 25 08:51	25° \mathfrak{H} 32'11		asc. node	4468 Feb 12 05:53	12° \mathfrak{H} 02'17	
evening max el	4467 Feb 25 09:55	25° \mathfrak{H} 34'56	18°43'24	retrograde	4468 Feb 15 22:28	13° \mathfrak{H} 14'15	
retrograde	4467 Mar 04 01:33	29° \mathfrak{H} 16'37		evening set	4468 Feb 19 09:41	12° \mathfrak{H} 03'49	
evening set	4467 Mar 07 05:33	28° \mathfrak{H} 19'22		inferior conj	4468 Feb 24 22:24	6° \mathfrak{H} 07'15	3°18'03
inferior conj	4467 Mar 12 23:12	22° \mathfrak{H} 38'38	3°32'50	minimum elong	4468 Feb 24 20:31	6° \mathfrak{H} 13'24	3°17'46
minimum elong	4467 Mar 12 22:21	22° \mathfrak{H} 41'14	3°32'46	min. Earth dist.	4468 Feb 26 04:06	4° \mathfrak{H} 30'12	0.66572 AU
min. Earth dist.	4467 Mar 14 19:57	20° \mathfrak{H} 22'01	0.65263 AU	morning rise	4468 Mar 01 06:35	29° \approx 51'17	
morning rise	4467 Mar 18 13:57	16° \mathfrak{H} 24'57			4468 Mar 01 02:45	30° \mathfrak{R} \approx	
direct	4467 Mar 25 04:46	13° \mathfrak{H} 35'51		direct	4468 Mar 07 10:33	27° \approx 07'45	
desc. node	4467 Apr 03 02:51	17° \mathfrak{H} 28'30			4468 Mar 14 16:37	0° \mathfrak{H}	
morning max el	4467 Apr 07 11:13	21° \mathfrak{H} 23'46	27°00'03	desc. node	4468 Mar 19 23:53	4° \mathfrak{H} 39'35	
	4467 Apr 14 22:46	0° \mathfrak{Y}		morning max el	4468 Mar 19 20:57	4° \mathfrak{H} 32'09	25°52'13
	4467 May 04 19:29	0° \mathfrak{B}			4468 Apr 08 08:51	0° \mathfrak{Y}	
morning set	4467 May 13 03:26	15° \mathfrak{B} 12'32		morning set	4468 Apr 25 00:43	27° \mathfrak{Y} 56'35	
max. Earth dist.	4467 May 17 14:50	24° \mathfrak{B} 02'19	1.34026 AU		4468 Apr 26 03:23	0° \mathfrak{B}	
	4467 May 20 12:36	0° \mathfrak{I}		max. Earth dist.	4468 Apr 28 21:53	5° \mathfrak{B} 14'21	1.35615 AU
superior conj	4467 May 21 14:42	2° \mathfrak{I} 16'00	0°-28'00	superior conj	4468 May 04 08:53	15° \mathfrak{B} 59'54	0°-57'-26

minimum elong	4468 May 04 12:01	16°♄15'40	0°56'53	morning set	4469 Apr 07 02:47	9°♃41'39	
asc. node	4468 May 10 05:12	27°♄58'44		max. Earth dist.	4469 Apr 10 19:26	16°♃16'30	1.37595 AU
	4468 May 11 04:45	0°♂					
evening rise	4468 May 12 07:57	2°♂19'33		superior conj	4469 Apr 17 16:03	29°♃07'42	-1°-25'-36
	4468 May 28 18:48	0°♄		minimum elong	4469 Apr 17 20:31	29°♃29'21	1°25'00
evening max el	4468 May 30 07:37	1°♄36'14	20°13'23		4469 Apr 18 02:51	0°♄	
retrograde	4468 Jun 09 23:47	6°♄49'10		evening rise	4469 Apr 26 09:01	16°♄19'33	
evening set	4468 Jun 11 22:53	6°♄39'20		asc. node	4469 Apr 27 02:14	17°♄44'54	
desc. node	4468 Jun 15 23:06	5°♄24'41			4469 May 03 13:27	0°♂	
inferior conj	4468 Jun 21 01:16	2°♄40'46	-1°-30'-40	evening max el	4469 May 13 01:03	13°♂21'35	19°12'02
minimum elong	4468 Jun 20 21:01	2°♄47'03	1°29'07	retrograde	4469 May 22 00:37	17°♂44'23	
min. Earth dist.	4468 Jun 22 16:16	1°♄43'09	0.55080 AU	evening set	4469 May 24 00:33	17°♂32'19	
	4468 Jun 25 19:21	30°♂♂		inferior conj	4469 Jun 01 10:11	13°♂21'53	0°24'50
morning rise	4468 Jun 29 17:02	28°♂26'08		minimum elong	4469 Jun 01 11:13	13°♂20'10	0°24'27
direct	4468 Jul 03 18:29	27°♂50'24		desc. node	4469 Jun 02 20:08	12°♂24'31	
	4468 Jul 11 09:56	0°♄		min. Earth dist.	4469 Jun 04 07:10	11°♂26'24	0.56243 AU
morning max el	4468 Jul 17 08:33	4°♄28'32	23°47'49	morning rise	4469 Jun 09 17:38	8°♂32'33	
	4468 Aug 04 04:08	0°♂		direct	4469 Jun 14 17:26	7°♂34'48	
asc. node	4468 Aug 06 04:28	3°♂53'22		morning max el	4469 Jun 28 22:29	14°♂50'53	25°27'52
morning set	4468 Aug 10 10:49	12°♂37'34			4469 Jul 11 00:24	0°♄	
				asc. node	4469 Jul 24 01:31	23°♄35'06	
superior conj	4468 Aug 17 11:31	27°♂46'59	1°34'05	morning set	4469 Jul 25 22:25	27°♄29'50	
minimum elong	4468 Aug 17 09:39	27°♂36'54	1°33'55		4469 Jul 27 02:35	0°♂	
	4468 Aug 18 12:13	0°♂					
max. Earth dist.	4468 Aug 19 17:48	2°♂38'16	1.33263 AU	superior conj	4469 Aug 01 21:53	12°♂40'13	1°20'53
evening rise	4468 Aug 24 23:55	13°♂31'58		minimum elong	4469 Aug 01 19:35	12°♂27'38	1°20'34
	4468 Sep 02 17:41	0°♄		max. Earth dist.	4469 Aug 03 00:27	15°♂05'46	1.32437 AU
desc. node	4468 Sep 11 22:26	14°♄57'02		evening rise	4469 Aug 09 00:41	27°♂55'49	
	4468 Sep 23 07:43	0°♂			4469 Aug 10 00:52	0°♂	
evening max el	4468 Sep 27 18:41	4°♂39'25	27°24'35		4469 Aug 27 00:12	0°♄	
retrograde	4468 Oct 11 08:42	11°♂57'25		desc. node	4469 Aug 29 19:28	4°♄02'45	
evening set	4468 Oct 18 10:45	9°♂19'10		evening max el	4469 Sep 10 03:23	17°♄27'19	27°20'41
min. Earth dist.	4468 Oct 22 04:18	5°♂59'01	0.64015 AU	retrograde	4469 Sep 23 22:51	24°♄41'59	
inferior conj	4468 Oct 24 16:04	3°♂23'41	-2°-45'-18	evening set	4469 Oct 01 02:57	22°♄16'38	
minimum elong	4468 Oct 24 20:46	3°♂11'27	2°43'35	min. Earth dist.	4469 Oct 04 17:43	19°♄24'31	0.62195 AU
	4468 Oct 28 04:56	30°♂♂		inferior conj	4469 Oct 07 16:28	16°♄40'41	-3°-45'-22
morning rise	4468 Oct 31 09:12	28°♄00'29		minimum elong	4469 Oct 07 22:26	16°♄26'51	3°43'38
asc. node	4468 Nov 02 03:40	27°♄32'56		morning rise	4469 Oct 14 20:53	11°♄36'17	
direct	4468 Nov 02 19:52	27°♄30'38		direct	4469 Oct 17 04:14	11°♄12'51	
	4468 Nov 08 08:33	0°♂		asc. node	4469 Oct 20 00:43	11°♄49'54	
morning max el	4468 Nov 09 08:31	0°♂55'46	17°52'48	morning max el	4469 Oct 24 00:31	14°♄41'36	17°51'39
morning set	4468 Nov 26 03:32	26°♂32'27			4469 Nov 03 13:42	0°♂	
	4468 Nov 28 04:07	0°♄		morning set	4469 Nov 08 21:32	9°♂28'20	
desc. node	4468 Dec 08 21:42	17°♄54'34					
				superior conj	4469 Nov 19 22:44	28°♂56'09	0°40'16
superior conj	4468 Dec 09 00:59	18°♄07'57	0°00'-56	minimum elong	4469 Nov 20 02:11	29°♂10'48	0°39'47
minimum elong	4468 Dec 09 00:53	18°♄07'29	0°00'56		4469 Nov 20 13:44	0°♄	
behind sun begin	4468 Dec 08 14:56	17°♄26'59		desc. node	4469 Nov 25 18:46	8°♄41'58	
behind sun end	4468 Dec 09 10:49	18°♄47'55		max. Earth dist.	4469 Nov 27 03:00	10°♄53'39	1.43209 AU
max. Earth dist.	4468 Dec 14 12:11	26°♄55'03	1.44539 AU	evening rise	4469 Dec 04 12:57	22°♄41'52	
	4468 Dec 16 10:55	0°♄			4469 Dec 09 06:42	0°♄	
evening rise	4468 Dec 25 00:47	13°♄20'44			4469 Dec 30 08:00	0°♂	
	4469 Jan 05 00:33	0°♂		greatest brilliancy	4469 Dec 30 21:27	0°♂41'57	-0.4m
greatest brilliancy	4469 Jan 15 19:54	15°♂26'14	-0.5m	evening max el	4470 Jan 04 17:29	6°♂12'48	21°38'24
evening max el	4469 Jan 21 20:16	22°♂38'30	20°27'15	retrograde	4470 Jan 13 18:12	11°♂34'38	
asc. node	4469 Jan 29 02:56	27°♂18'24		asc. node	4470 Jan 15 23:58	11°♂07'36	
retrograde	4469 Jan 29 20:42	27°♂21'23		evening set	4470 Jan 18 00:25	9°♂54'41	
evening set	4469 Feb 02 16:35	25°♂56'44		inferior conj	4470 Jan 23 09:45	3°♂35'17	2°17'29
inferior conj	4469 Feb 08 02:40	19°♂47'10	2°52'15	minimum elong	4470 Jan 23 07:21	3°♂43'38	2°16'44
minimum elong	4469 Feb 08 00:17	19°♂55'19	2°51'42	min. Earth dist.	4470 Jan 23 13:36	3°♂21'58	0.67943 AU
min. Earth dist.	4469 Feb 08 18:45	18°♂52'19	0.67458 AU		4470 Jan 26 02:11	30°♂♂	
morning rise	4469 Feb 13 07:28	13°♂31'05		morning rise	4470 Jan 28 13:59	27°♂21'03	
direct	4469 Feb 18 21:47	11°♂02'30		direct	4470 Feb 02 13:37	25°♂13'06	
morning max el	4469 Mar 02 05:37	17°♂48'50	24°28'32		4470 Feb 11 09:50	0°♂	
desc. node	4469 Mar 06 20:55	22°♂56'52		morning max el	4470 Feb 12 14:59	1°♂10'58	22°59'22
	4469 Mar 12 10:37	0°♄		greatest brilliancy	4470 Feb 17 10:00	6°♂32'03	-0.3m
	4469 Apr 01 10:07	0°♃		desc. node	4470 Feb 21 17:58	12°♂01'34	

	4470 Mar 06 09:15	0°♂				4471 Feb 07 10:37	0°♁		
morning set	4470 Mar 19 03:34	20°♂11'50			desc. node	4471 Feb 08 15:00	1°♁39'59		
max. Earth dist.	4470 Mar 23 14:31	27°♂44'11	1.39780 AU		morning set	4471 Feb 26 23:28	29°♁19'51		
	4470 Mar 24 21:52	0°♀				4471 Feb 27 09:34	0°♂		
					max. Earth dist.	4471 Mar 05 14:44	10°♂04'44	1.41891 AU	
superior conj	4470 Mar 31 08:04	11°♀29'27	-1°-49'-35		superior conj	4471 Mar 13 03:54	22°♂52'34	-2°-5'-8	
minimum elong	4470 Mar 31 12:50	11°♀51'21	1°49'09		minimum elong	4471 Mar 13 06:41	23°♂04'40	2°05'02	
evening rise	4470 Apr 10 01:11	29°♀49'28				4471 Mar 17 04:59	0°♀		
	4470 Apr 10 03:23	0°♂			evening rise	4471 Mar 24 04:42	12°♀39'49		
asc. node	4470 Apr 13 23:17	7°♂14'38			asc. node	4471 Mar 31 20:19	26°♀21'23		
evening max el	4470 Apr 26 04:18	25°♂44'55	18°30'58			4471 Apr 03 01:24	0°♂		
retrograde	4470 May 03 19:53	29°♂31'17			evening max el	4471 Apr 09 13:47	8°♂36'15	18°09'56	
evening set	4470 May 06 01:52	29°♂12'45			retrograde	4471 Apr 16 09:26	12°♂03'07		
inferior conj	4470 May 13 15:59	24°♂42'44	1°55'42		evening set	4471 Apr 18 21:49	11°♂35'28		
minimum elong	4470 May 13 19:27	24°♂35'53	1°54'39		inferior conj	4471 Apr 25 18:39	6°♂44'05	2°54'50	
min. Earth dist.	4470 May 17 01:50	22°♂02'55	0.58085 AU		minimum elong	4471 Apr 25 21:50	6°♂36'47	2°54'10	
desc. node	4470 May 20 17:09	19°♂39'54			min. Earth dist.	4471 Apr 29 02:27	3°♂42'27	0.60244 AU	
morning rise	4470 May 21 08:36	19°♂19'51			morning rise	4471 May 02 18:16	0°♂56'14		
direct	4470 May 27 06:41	17°♂50'11				4471 May 04 11:36	30°♂♀		
morning max el	4470 Jun 10 15:50	25°♂29'49	26°49'12		desc. node	4471 May 07 14:11	29°♀01'04		
	4470 Jun 14 20:23	0°♂			direct	4471 May 09 08:00	28°♀52'28		
	4470 Jul 04 05:57	0°♂				4471 May 14 09:32	0°♂		
morning set	4470 Jul 10 08:24	12°♂15'37			morning max el	4471 May 23 15:32	6°♂45'38	27°39'14	
asc. node	4470 Jul 10 22:34	13°♂30'23				4471 Jun 10 03:22	0°♂		
					morning set	4471 Jun 24 15:03	26°♂49'33		
superior conj	4470 Jul 17 09:38	27°♂34'58	1°03'08			4471 Jun 26 03:26	0°♂		
minimum elong	4470 Jul 17 07:23	27°♂22'36	1°02'44		asc. node	4471 Jun 27 19:36	3°♂34'10		
max. Earth dist.	4470 Jul 17 11:16	27°♂44'01	1.32032 AU		max. Earth dist.	4471 Jun 30 22:37	10°♂22'19	1.32033 AU	
	4470 Jul 18 11:54	0°♂							
evening rise	4470 Jul 24 07:17	12°♂35'06			superior conj	4471 Jul 01 21:01	12°♂25'28	0°41'25	
	4470 Aug 02 04:03	0°♂			minimum elong	4471 Jul 01 19:18	12°♂15'59	0°41'04	
desc. node	4470 Aug 16 16:29	22°♂16'36			evening rise	4471 Jul 08 17:27	27°♂22'31		
evening max el	4470 Aug 23 06:34	29°♂32'37	26°43'20			4471 Jul 09 23:18	0°♂		
	4470 Aug 23 18:17	0°♂				4471 Jul 26 23:09	0°♂		
retrograde	4470 Sep 06 04:53	6°♂42'35			desc. node	4471 Aug 03 13:28	9°♂17'50		
evening set	4470 Sep 13 01:30	4°♂42'43			evening max el	4471 Aug 05 02:12	10°♂49'14	25°34'38	
min. Earth dist.	4470 Sep 16 20:32	2°♂06'39	0.60168 AU		retrograde	4471 Aug 19 01:13	17°♂54'52		
	4470 Sep 19 11:11	30°♂♂			evening set	4471 Aug 25 01:37	16°♂30'18		
inferior conj	4470 Sep 20 02:09	29°♂29'20	-4°-36'-52		min. Earth dist.	4471 Aug 29 14:07	13°♂52'51	0.58119 AU	
minimum elong	4470 Sep 20 07:50	29°♂17'46	4°35'48		inferior conj	4471 Sep 01 17:41	11°♂40'09	-5°-9'-17	
morning rise	4470 Sep 27 17:29	24°♂46'46			minimum elong	4471 Sep 01 20:17	11°♂35'33	5°09'07	
direct	4470 Sep 30 00:57	24°♂26'44			morning rise	4471 Sep 09 18:27	7°♂21'11		
asc. node	4470 Oct 06 21:46	27°♂32'56			direct	4471 Sep 12 05:37	7°♂02'15		
morning max el	4470 Oct 07 12:34	28°♂07'25	18°09'41		morning max el	4471 Sep 20 17:26	11°♂04'36	18°48'24	
	4470 Oct 09 06:40	0°♂			asc. node	4471 Sep 23 18:49	14°♂28'01		
morning set	4470 Oct 23 06:54	23°♂07'41				4471 Oct 03 08:10	0°♂		
	4470 Oct 26 22:41	0°♂			morning set	4471 Oct 07 02:59	7°♂17'43		
superior conj	4470 Nov 01 21:45	10°♂57'35	1°11'06		superior conj	4471 Oct 15 17:04	23°♂58'48	1°31'09	
minimum elong	4470 Nov 02 01:45	11°♂15'37	1°10'38		minimum elong	4471 Oct 15 19:59	24°♂12'37	1°30'55	
max. Earth dist.	4470 Nov 09 13:08	24°♂17'12	1.41397 AU			4471 Oct 18 22:20	0°♂		
desc. node	4470 Nov 12 15:48	29°♂28'15			max. Earth dist.	4471 Oct 22 19:03	6°♂58'48	1.39327 AU	
	4470 Nov 12 23:31	0°♂			evening rise	4471 Oct 26 18:49	13°♂54'30		
evening rise	4470 Nov 14 16:34	2°♂47'13			desc. node	4471 Oct 30 12:49	20°♂10'13		
	4470 Dec 02 15:52	0°♂				4471 Nov 05 17:08	0°♂		
greatest brilliancy	4470 Dec 12 23:47	13°♂43'42	-0.2m			4471 Nov 27 16:34	0°♂		
evening max el	4470 Dec 18 10:01	19°♂49'25	22°56'43		evening max el	4471 Nov 30 23:30	3°♂29'29	24°16'20	
retrograde	4470 Dec 28 13:17	25°♂50'03			retrograde	4471 Dec 12 04:54	10°♂04'16		
evening set	4471 Jan 02 07:35	23°♂53'59			evening set	4471 Dec 17 12:31	7°♂52'12		
asc. node	4471 Jan 02 21:00	23°♂24'38			asc. node	4471 Dec 20 18:01	4°♂24'51		
inferior conj	4471 Jan 07 17:42	17°♂28'23	1°35'04		min. Earth dist.	4471 Dec 22 06:21	2°♂26'15	0.67792 AU	
minimum elong	4471 Jan 07 15:44	17°♂35'10	1°34'20		inferior conj	4471 Dec 23 00:44	1°♂24'27	0°46'04	
min. Earth dist.	4471 Jan 07 10:13	17°♂54'13	0.68049 AU		minimum elong	4471 Dec 22 23:39	1°♂28'04	0°45'37	
morning rise	4471 Jan 12 23:53	11°♂17'50				4471 Dec 24 02:05	30°♂♂		
direct	4471 Jan 17 08:53	9°♂32'52			morning rise	4471 Dec 28 11:09	25°♂19'35		
morning max el	4471 Jan 26 04:42	14°♂41'20	21°33'43		direct	4472 Jan 01 06:33	23°♂56'54		
greatest brilliancy	4471 Jan 31 02:35	20°♂14'48	-0.4m						

morning max el	4472 Jan 09 01:49	28° ♂ 23'49	20°18'11	morning rise	4472 Dec 11 21:47	9° ♂ 23'10	
	4472 Jan 10 14:19	0° ♂		direct	4472 Dec 15 05:10	8° ♂ 20'09	
greatest brilliancy	4472 Jan 15 12:45	6° ♂ 03'27	-0.5m	morning max el	4472 Dec 22 06:48	12° ♂ 16'42	19°16'35
desc. node	4472 Jan 26 12:03	21° ♂ 43'07		greatest brilliancy	4472 Dec 31 20:29	24° ♂ 34'31	-0.7m
	4472 Jan 31 23:54	0° \approx			4473 Jan 04 12:07	0° ♂	
morning set	4472 Feb 05 22:14	7° \approx 33'55		desc. node	4473 Jan 12 09:05	12° ♂ 03'49	
max. Earth dist.	4472 Feb 15 22:40	23° \approx 20'05	1.43640 AU	morning set	4473 Jan 14 22:28	16° ♂ 01'26	
	4472 Feb 20 01:23	0° ✕			4473 Jan 23 21:55	0° \approx	
				max. Earth dist.	4473 Jan 28 12:51	7° \approx 15'38	1.44810 AU
superior conj	4472 Feb 21 23:04	3° ✕ 07'46	-2°-6'-53				
minimum elong	4472 Feb 21 20:46	2° ✕ 58'17	2°06'51	superior conj	4473 Jan 31 17:19	12° \approx 18'15	-1°-49'-59
evening rise	4472 Mar 05 15:21	24° ✕ 42'16		minimum elong	4473 Jan 31 09:13	11° \approx 46'07	1°49'24
	4472 Mar 08 16:21	0° ♀			4473 Feb 11 16:13	0° ✕	
asc. node	4472 Mar 17 17:19	14° ♀ 57'58		evening rise	4473 Feb 15 04:55	5° ✕ 49'22	
evening max el	4472 Mar 23 02:12	21° ♀ 47'01	18°08'18		4473 Mar 02 08:29	0° ♀	
retrograde	4472 Mar 29 13:07	25° ♀ 09'38		asc. node	4473 Mar 04 14:19	2° ♀ 55'19	
evening set	4472 Apr 01 07:22	24° ♀ 31'25		evening max el	4473 Mar 06 14:40	5° ♀ 10'10	18°25'26
inferior conj	4472 Apr 07 14:47	19° ♀ 19'35	3°25'55	retrograde	4473 Mar 13 02:19	8° ♀ 41'44	
minimum elong	4472 Apr 07 16:25	19° ♀ 15'18	3°25'45	evening set	4473 Mar 16 02:31	7° ♀ 51'52	
min. Earth dist.	4472 Apr 10 11:30	16° ♀ 20'38	0.62398 AU	inferior conj	4473 Mar 22 00:16	2° ♀ 21'19	3°35'12
morning rise	4472 Apr 13 22:58	13° ♀ 16'21		minimum elong	4473 Mar 22 00:14	2° ♀ 21'25	3°35'12
direct	4472 Apr 20 19:23	10° ♀ 44'51			4473 Mar 24 00:50	30° ✕	
desc. node	4472 Apr 23 11:12	11° ♀ 05'40		min. Earth dist.	4473 Mar 24 06:07	29° ✕ 44'59	0.64317 AU
morning max el	4472 May 04 21:15	18° ♀ 44'17	27°51'50	morning rise	4473 Mar 27 20:19	26° ✕ 09'56	
	4472 May 14 09:16	0° ♂		direct	4473 Apr 03 15:07	23° ✕ 23'00	
	4472 Jun 01 23:51	0° ♂		desc. node	4473 Apr 10 08:15	25° ✕ 36'04	
morning set	4472 Jun 07 16:16	11° ♂ 04'40			4473 Apr 15 21:56	0° ♀	
max. Earth dist.	4472 Jun 13 06:24	22° ♂ 46'31	1.32452 AU	morning max el	4473 Apr 17 06:28	1° ♀ 19'20	27°28'00
asc. node	4472 Jun 13 16:37	23° ♂ 41'33			4473 May 08 12:26	0° ♂	
				morning set	4473 May 22 09:31	24° ♂ 53'13	
superior conj	4472 Jun 15 06:17	27° ♂ 05'35	0°16'22		4473 May 24 23:02	0° ♂	
minimum elong	4472 Jun 15 05:31	27° ♂ 01'25	0°16'12	max. Earth dist.	4473 May 27 06:35	4° ♂ 44'46	1.33315 AU
	4472 Jun 16 14:18	0° ♂					
evening rise	4472 Jun 22 05:09	12° ♂ 10'54		superior conj	4473 May 30 11:35	11° ♂ 29'40	0°-11'-17
	4472 Jul 01 05:43	0° ♂		minimum elong	4473 May 30 12:09	11° ♂ 32'43	0°11'11
evening max el	4472 Jul 16 15:37	21° ♂ 24'40	24°04'01	behind sun begin	4473 May 30 08:14	11° ♂ 11'53	
desc. node	4472 Jul 20 10:29	24° ♂ 37'14		behind sun end	4473 May 30 16:04	11° ♂ 53'35	
retrograde	4472 Jul 30 10:10	28° ♂ 20'49		asc. node	4473 May 31 13:38	13° ♂ 48'39	
evening set	4472 Aug 04 01:34	27° ♂ 33'06		evening rise	4473 Jun 06 16:35	26° ♂ 54'21	
min. Earth dist.	4472 Aug 10 02:06	24° ♂ 35'35	0.56328 AU		4473 Jun 08 04:05	0° ♂	
inferior conj	4472 Aug 12 12:55	23° ♂ 04'57	-5°-7'-26		4473 Jun 26 11:55	0° ♂	
minimum elong	4472 Aug 12 09:36	23° ♂ 10'06	5°07'11	evening max el	4473 Jun 28 05:35	1° ♂ 47'35	22°26'48
morning rise	4472 Aug 20 21:04	19° ♂ 06'27		desc. node	4473 Jul 07 07:28	7° ♂ 40'25	
direct	4472 Aug 23 14:44	18° ♂ 47'01		retrograde	4473 Jul 11 06:57	8° ♂ 16'56	
morning max el	4472 Sep 02 12:01	23° ♂ 23'04	19°48'49	evening set	4473 Jul 14 10:19	7° ♂ 55'12	
	4472 Sep 08 02:14	0° ♂		min. Earth dist.	4473 Jul 22 12:38	4° ♂ 23'31	0.55140 AU
asc. node	4472 Sep 09 15:51	2° ♂ 19'23		inferior conj	4473 Jul 23 14:22	3° ♂ 47'02	-4°-16'-54
morning set	4472 Sep 20 06:20	21° ♂ 47'56		minimum elong	4473 Jul 23 06:07	3° ♂ 58'45	4°15'03
	4472 Sep 24 07:11	0° ♂			4473 Jul 31 23:13	30° ✕	
				morning rise	4473 Aug 01 04:08	29° ♂ 57'05	
superior conj	4472 Sep 28 03:18	7° ♂ 43'37	1°41'35	direct	4473 Aug 04 06:37	29° ♂ 35'13	
minimum elong	4472 Sep 28 04:35	7° ♂ 50'01	1°41'31		4473 Aug 07 11:43	0° ♂	
max. Earth dist.	4472 Oct 03 23:51	19° ♂ 03'02	1.37256 AU	morning max el	4473 Aug 15 18:42	4° ♂ 56'44	21°10'12
evening rise	4472 Oct 07 19:24	26° ♂ 02'50		asc. node	4473 Aug 27 12:55	20° ♂ 54'15	
	4472 Oct 10 00:59	0° ♂			4473 Sep 01 09:18	0° ♂	
desc. node	4472 Oct 16 09:49	10° ♂ 43'01		morning set	4473 Sep 04 14:26	6° ♂ 31'38	
	4472 Oct 29 06:01	0° ♂					
evening max el	4472 Nov 12 11:49	17° ♂ 11'34	25°30'35	superior conj	4473 Sep 12 00:07	21° ♂ 59'30	1°43'52
retrograde	4472 Nov 24 16:07	24° ♂ 11'41		minimum elong	4473 Sep 11 23:53	21° ♂ 58'16	1°43'51
evening set	4472 Nov 30 13:34	21° ♂ 45'27			4473 Sep 15 22:39	0° ♂	
min. Earth dist.	4472 Dec 04 23:43	16° ♂ 54'18	0.67179 AU	max. Earth dist.	4473 Sep 16 09:26	0° ♂ 53'41	1.35415 AU
inferior conj	4472 Dec 06 05:02	15° ♂ 20'09	0°-8'-32	evening rise	4473 Sep 20 14:43	9° ♂ 03'39	
minimum elong	4472 Dec 06 05:15	15° ♂ 19'27	0°08'27		4473 Oct 02 15:21	0° ♂	
transit middle	4472 Dec 06 05:15	15° ♂ 19'27	0°08'27	desc. node	4473 Oct 03 06:49	1° ♂ 01'40	
transit begin	4472 Dec 06 02:52	15° ♂ 27'08			4473 Oct 25 03:07	0° ♂	
transit end	4472 Dec 06 07:39	15° ♂ 11'47		evening max el	4473 Oct 26 00:23	0° ♂ 52'16	26°31'59
asc. node	4472 Dec 06 15:03	14° ♂ 48'05		retrograde	4473 Nov 07 22:15	8° ♂ 06'14	

evening set	4473 Nov 14 08:51	5°♂29'55		min. Earth dist.	4474 Nov 01 16:56	15°♂21'23	0.64913 AU
min. Earth dist.	4473 Nov 18 12:01	1°♂14'29	0.66218 AU	inferior conj	4474 Nov 03 21:34	12°♂56'17	-2°-9'-27
	4473 Nov 19 12:52	30°♂12'11		minimum elong	4474 Nov 04 01:16	12°♂46'05	2°08'00
inferior conj	4473 Nov 20 04:43	29°♂12'11	-1°-7'-37	morning rise	4474 Nov 10 08:26	7°♂23'22	
minimum elong	4473 Nov 20 06:35	29°♂06'35	1°06'50	asc. node	4474 Nov 10 09:11	7°♂22'31	
asc. node	4473 Nov 23 12:06	25°♂30'57		direct	4474 Nov 12 22:21	6°♂48'12	
morning rise	4473 Nov 26 05:42	23°♂25'40		morning max el	4474 Nov 19 09:50	10°♂15'11	18°01'41
direct	4473 Nov 29 03:11	22°♂38'33			4474 Dec 03 00:01	0°♂	
morning max el	4473 Dec 05 18:16	26°♂15'36	18°30'45	morning set	4474 Dec 07 03:21	6°♂53'09	
	4473 Dec 09 00:27	0°♂		desc. node	4474 Dec 17 03:08	23°♂18'06	
morning set	4473 Dec 25 22:04	25°♂42'50					
	4473 Dec 28 14:40	0°♂		superior conj	4474 Dec 21 05:01	29°♂50'50	0°-27'-53
desc. node	4473 Dec 30 06:07	2°♂36'43		minimum elong	4474 Dec 21 01:35	29°♂37'08	0°27'25
					4474 Dec 21 07:19	0°♂	
superior conj	4474 Jan 10 20:38	20°♂54'06	-1°-14'-19	max. Earth dist.	4474 Dec 25 02:27	6°♂01'07	1.45018 AU
minimum elong	4474 Jan 10 11:58	20°♂20'08	1°13'19	evening rise	4475 Jan 06 13:23	25°♂24'54	
max. Earth dist.	4474 Jan 11 06:59	21°♂34'40	1.45284 AU		4475 Jan 09 12:49	0°♂	
	4474 Jan 16 15:51	0°♂		greatest brilliancy	4475 Jan 25 03:05	23°♂19'12	-0.6m
evening rise	4474 Jan 26 19:06	15°♂59'05			4475 Jan 30 06:39	0°♂	
	4474 Feb 04 15:36	0°♂		evening max el	4475 Feb 01 06:34	2°♂12'02	19°51'30
evening max el	4474 Feb 18 00:45	18°♂39'37	19°00'23	asc. node	4475 Feb 06 08:25	6°♂01'59	
asc. node	4474 Feb 19 11:22	20°♂01'13		retrograde	4475 Feb 08 18:53	6°♂33'46	
retrograde	4474 Feb 24 21:13	22°♂31'25		evening set	4475 Feb 12 09:39	5°♂17'20	
evening set	4474 Feb 28 04:05	21°♂28'50			4475 Feb 17 07:31	30°♂	
inferior conj	4474 Mar 05 19:21	15°♂41'22	3°28'03	inferior conj	4475 Feb 17 21:01	29°♂15'07	3°08'20
minimum elong	4474 Mar 05 18:00	15°♂45'38	3°27'56	minimum elong	4475 Feb 17 18:51	29°♂22'18	3°07'54
min. Earth dist.	4474 Mar 07 09:40	13°♂40'37	0.65870 AU	min. Earth dist.	4475 Feb 18 20:45	27°♂55'57	0.67003 AU
morning rise	4474 Mar 11 06:53	9°♂26'23		morning rise	4475 Feb 23 03:25	22°♂59'07	
direct	4474 Mar 17 17:41	6°♂37'55		direct	4475 Mar 01 01:57	20°♂20'53	
desc. node	4474 Mar 28 05:19	11°♂57'21		morning max el	4475 Mar 13 01:25	27°♂30'02	25°17'57
morning max el	4474 Mar 30 16:23	14°♂18'02	26°33'43	desc. node	4475 Mar 15 02:22	29°♂39'12	
	4474 Apr 12 11:13	0°♂			4475 Mar 15 09:55	0°♂	
	4474 May 01 06:05	0°♂			4475 Apr 06 03:31	0°♂	
morning set	4474 May 05 15:19	8°♂04'07		morning set	4475 Apr 18 05:08	20°♂24'44	
max. Earth dist.	4474 May 09 19:54	16°♂10'24	1.36468 AU	max. Earth dist.	4475 Apr 21 22:17	27°♂14'22	1.36425 AU
					4475 Apr 23 09:23	0°♂	
superior conj	4474 May 14 10:36	25°♂30'23	0°-40'-29				
minimum elong	4474 May 14 12:47	25°♂41'36	0°40'05	superior conj	4475 Apr 28 00:35	9°♂00'17	-1°-9'-40
	4474 May 16 14:33	0°♂		minimum elong	4475 Apr 28 04:21	9°♂18'58	1°09'04
asc. node	4474 May 18 10:40	3°♂50'51		asc. node	4475 May 05 07:42	23°♂44'17	
evening rise	4474 May 22 01:46	11°♂26'02		evening rise	4475 May 06 06:32	25°♂39'55	
	4474 May 31 19:12	0°♂			4475 May 08 10:27	0°♂	
evening max el	4474 Jun 10 03:59	12°♂30'09	20°57'27	evening max el	4475 May 23 14:32	23°♂51'20	19°44'44
retrograde	4474 Jun 21 19:36	18°♂12'55		retrograde	4475 Jun 02 12:29	28°♂41'21	
evening set	4474 Jun 23 23:57	18°♂01'42		evening set	4475 Jun 04 11:03	28°♂31'04	
desc. node	4474 Jun 24 04:30	17°♂59'42		desc. node	4475 Jun 11 01:33	25°♂49'43	
inferior conj	4474 Jul 03 07:35	14°♂04'32	-2°-38'-59	inferior conj	4475 Jun 13 07:08	24°♂28'42	0°-39'-50
minimum elong	4474 Jul 03 00:22	14°♂14'44	2°36'33	minimum elong	4475 Jun 13 05:19	24°♂31'32	0°39'10
min. Earth dist.	4474 Jul 03 23:51	13°♂41'32	0.54829 AU	min. Earth dist.	4475 Jun 15 12:48	23°♂05'46	0.55484 AU
morning rise	4474 Jul 12 00:20	10°♂04'32		morning rise	4475 Jun 21 20:26	20°♂00'29	
direct	4474 Jul 15 15:54	9°♂35'52		direct	4475 Jun 26 07:11	19°♂16'45	
morning max el	4474 Jul 28 14:37	15°♂47'18	22°48'00	morning max el	4475 Jul 10 04:47	26°♂11'53	24°31'38
	4474 Aug 08 17:21	0°♂			4475 Jul 13 19:48	0°♂	
asc. node	4474 Aug 14 09:58	10°♂01'40		asc. node	4475 Aug 01 07:00	29°♂33'03	
morning set	4474 Aug 20 01:16	21°♂23'06			4475 Aug 01 12:20	0°♂	
	4474 Aug 24 02:14	0°♂		morning set	4475 Aug 04 13:04	6°♂16'50	
superior conj	4474 Aug 27 04:12	6°♂36'21	1°39'20	superior conj	4475 Aug 11 12:52	21°♂25'40	1°29'04
minimum elong	4474 Aug 27 02:47	6°♂28'52	1°39'15	minimum elong	4475 Aug 11 10:46	21°♂14'12	1°28'50
max. Earth dist.	4474 Aug 30 03:54	12°♂54'34	1.33934 AU	max. Earth dist.	4475 Aug 13 06:57	25°♂13'52	1.32866 AU
evening rise	4474 Sep 04 00:25	22°♂45'23			4475 Aug 15 12:26	0°♂	
	4474 Sep 07 19:08	0°♂		evening rise	4475 Aug 18 20:37	6°♂56'41	
desc. node	4474 Sep 20 03:49	20°♂59'50			4475 Aug 31 07:41	0°♂	
	4474 Sep 26 08:22	0°♂		desc. node	4475 Sep 07 00:51	10°♂28'14	
evening max el	4474 Oct 08 13:02	14°♂23'10	27°13'03	evening max el	4475 Sep 20 23:55	27°♂30'45	27°26'56
retrograde	4474 Oct 21 22:30	21°♂41'00			4475 Sep 23 19:57	0°♂	
evening set	4474 Oct 28 20:06	19°♂01'10		retrograde	4475 Oct 04 16:19	4°♂46'45	

evening set	4475 Oct 11 20:18	2°♄12'40		evening max el	4476 Sep 02 06:28	10°♄01'44	27°08'47
	4475 Oct 14 13:01	30°♄		retrograde	4476 Sep 16 03:03	17°♄14'23	
min. Earth dist.	4475 Oct 15 12:14	29°♄05'32	0.63276 AU	evening set	4476 Sep 23 05:35	14°♄57'59	
inferior conj	4475 Oct 18 04:52	26°♄25'21	-3°-11'-21	min. Earth dist.	4476 Sep 26 20:51	12°♄14'55	0.61357 AU
minimum elong	4475 Oct 18 10:13	26°♄12'04	3°09'33	inferior conj	4476 Sep 29 23:26	9°♄31'37	-4°-8'-45
morning rise	4475 Oct 25 02:45	21°♄09'37		minimum elong	4476 Sep 30 05:33	9°♄18'12	4°07'13
direct	4475 Oct 27 11:46	20°♄42'45		morning rise	4476 Oct 07 08:40	4°♄36'27	
asc. node	4475 Oct 28 06:15	20°♄45'38		direct	4476 Oct 09 15:41	4°♄14'46	
morning max el	4475 Nov 03 02:34	24°♄08'10	17°50'04	asc. node	4476 Oct 14 03:17	5°♄41'07	
	4475 Nov 07 20:04	0°♄		morning max el	4476 Oct 16 17:21	7°♄47'06	17°56'54
morning set	4475 Nov 19 09:48	19°♄16'03			4476 Oct 31 01:43	0°♄	
	4475 Nov 25 14:25	0°♄		morning set	4476 Nov 01 10:58	2°♄32'13	
superior conj	4475 Dec 01 11:17	9°♄53'26	0°17'40	superior conj	4476 Nov 11 20:19	21°♄14'35	0°54'41
minimum elong	4475 Dec 01 13:05	10°♄00'54	0°17'25	minimum elong	4476 Nov 12 00:17	21°♄31'54	0°54'11
desc. node	4475 Dec 04 00:09	14°♄03'56			4476 Nov 16 23:05	0°♄	
max. Earth dist.	4475 Dec 07 20:07	20°♄16'07	1.44046 AU	max. Earth dist.	4476 Nov 19 09:08	4°♄01'37	1.42486 AU
	4475 Dec 13 23:55	0°♄		desc. node	4476 Nov 19 21:11	4°♄51'11	
evening rise	4475 Dec 16 23:06	4°♄35'57		evening rise	4476 Nov 25 16:21	14°♄11'54	
	4476 Jan 02 23:43	0°♄			4476 Dec 05 23:49	0°♄	
greatest brilliancy	4476 Jan 09 21:40	9°♄26'54	-0.5m	greatest brilliancy	4476 Dec 23 08:14	23°♄59'23	-0.3m
evening max el	4476 Jan 15 06:53	15°♄44'57	20°56'19	evening max el	4476 Dec 28 01:46	29°♄19'05	22°11'06
retrograde	4476 Jan 23 16:59	20°♄43'48			4476 Dec 28 18:15	0°♄	
asc. node	4476 Jan 24 05:30	20°♄42'19		retrograde	4477 Jan 06 13:42	4°♄58'09	
evening set	4476 Jan 27 17:10	19°♄12'31		asc. node	4477 Jan 10 02:32	3°♄51'46	
inferior conj	4476 Feb 02 02:42	12°♄58'17	2°38'31	evening set	4477 Jan 11 00:54	3°♄11'14	
minimum elong	4476 Feb 02 00:15	13°♄06'43	2°37'51		4477 Jan 14 01:27	30°♄	
min. Earth dist.	4476 Feb 02 13:21	12°♄21'37	0.67714 AU	inferior conj	4477 Jan 16 10:22	26°♄48'26	2°00'21
morning rise	4476 Feb 07 06:57	6°♄43'00		minimum elong	4477 Jan 16 08:05	26°♄56'20	1°59'34
direct	4476 Feb 12 15:04	4°♄22'56		min. Earth dist.	4477 Jan 16 09:13	26°♄52'25	0.68030 AU
morning max el	4476 Feb 23 10:05	10°♄48'52	23°50'48	morning rise	4477 Jan 21 15:07	20°♄35'31	
desc. node	4476 Feb 29 23:24	18°♄18'08		direct	4477 Jan 26 08:20	18°♄37'31	
	4476 Mar 09 16:08	0°♄		morning max el	4477 Feb 04 20:59	24°♄14'16	22°22'03
	4476 Mar 28 21:49	0°♄		greatest brilliancy	4477 Feb 09 10:28	29°♄19'49	-0.3m
morning set	4476 Mar 29 21:10	1°♄39'30			4477 Feb 09 23:41	0°♄	
max. Earth dist.	4476 Apr 02 18:17	8°♄25'08	1.38516 AU	desc. node	4477 Feb 15 20:25	7°♄38'12	
					4477 Mar 03 02:44	0°♄	
superior conj	4476 Apr 10 01:51	21°♄49'48	-1°-36'-30	morning set	4477 Mar 10 09:41	11°♄34'09	
minimum elong	4476 Apr 10 06:39	22°♄12'30	1°35'56	max. Earth dist.	4477 Mar 15 14:49	20°♄12'52	1.40696 AU
	4476 Apr 14 07:59	0°♄			4477 Mar 21 06:45	0°♄	
evening rise	4476 Apr 19 04:14	9°♄28'27		superior conj	4477 Mar 23 09:50	3°♄47'18	-1°-57'-30
asc. node	4476 Apr 21 04:46	13°♄24'24		minimum elong	4477 Mar 23 14:07	4°♄06'32	1°57'13
	4476 Apr 30 16:48	0°♄		evening rise	4477 Apr 02 15:30	22°♄42'29	
evening max el	4476 May 05 12:29	5°♄53'41	18°52'02		4477 Apr 06 13:26	0°♄	
retrograde	4476 May 13 21:09	9°♄59'27		asc. node	4477 Apr 08 01:48	2°♄45'10	
evening set	4476 May 15 23:23	9°♄45'02		evening max el	4477 Apr 18 18:44	18°♄29'42	18°19'39
inferior conj	4476 May 24 00:37	5°♄26'23	1°07'11	retrograde	4477 Apr 26 00:38	22°♄06'09	
minimum elong	4476 May 24 03:05	5°♄21'55	1°06'19	evening set	4477 Apr 28 09:13	21°♄44'09	
min. Earth dist.	4476 May 27 04:57	3°♄10'00	0.56961 AU	inferior conj	4477 May 05 15:34	17°♄05'12	2°24'34
desc. node	4476 May 27 22:35	2°♄40'15		minimum elong	4477 May 05 19:10	16°♄57'37	2°23'37
morning rise	4476 Jun 01 02:19	0°♄22'00		min. Earth dist.	4477 May 09 02:04	14°♄12'49	0.58973 AU
	4476 Jun 02 00:51	30°♄		morning rise	4477 May 13 00:54	11°♄30'04	
direct	4476 Jun 06 11:46	29°♄11'56		desc. node	4477 May 14 19:36	10°♄39'11	
	4476 Jun 10 23:40	0°♄		direct	4477 May 19 06:30	9°♄45'35	
morning max el	4476 Jun 20 19:49	6°♄39'10	26°05'42	morning max el	4477 Jun 02 15:55	17°♄32'59	27°14'54
	4476 Jul 08 00:54	0°♄			4477 Jun 12 23:59	0°♄	
asc. node	4476 Jul 18 04:01	19°♄21'43			4477 Jun 30 12:51	0°♄	
morning set	4476 Jul 19 00:14	21°♄07'56		morning set	4477 Jul 03 09:02	5°♄49'45	
	4476 Jul 23 02:50	0°♄		asc. node	4477 Jul 05 01:02	9°♄21'18	
superior conj	4476 Jul 26 00:04	6°♄20'54	1°13'52	superior conj	4477 Jul 10 11:52	21°♄14'50	0°54'23
minimum elong	4476 Jul 25 21:44	6°♄08'05	1°13'31	minimum elong	4477 Jul 10 09:47	21°♄03'23	0°53'59
max. Earth dist.	4476 Jul 26 16:01	7°♄48'41	1.32216 AU	max. Earth dist.	4477 Jul 10 03:25	20°♄28'10	1.31978 AU
evening rise	4476 Aug 02 00:12	21°♄28'34			4477 Jul 14 11:21	0°♄	
	4476 Aug 06 05:16	0°♄		evening rise	4477 Jul 17 08:32	6°♄12'05	
desc. node	4476 Aug 23 21:52	29°♄14'35			4477 Jul 29 20:14	0°♄	
	4476 Aug 24 11:32	0°♄					

desc. node	4477 Aug 10 18:53	17° $\mathring{\text{M}}$ 00'49			4478 Jul 25 07:37	0° $\mathring{\text{M}}$	
evening max el	4477 Aug 15 06:17	21° $\mathring{\text{M}}$ 45'42	26°17'27	evening max el	4478 Jul 27 22:55	2° $\mathring{\text{M}}$ 43'08	24°57'58
retrograde	4477 Aug 29 05:32	28° $\mathring{\text{M}}$ 54'50		desc. node	4478 Jul 28 15:53	3° $\mathring{\text{M}}$ 22'54	
evening set	4477 Sep 04 19:09	27° $\mathring{\text{M}}$ 08'54		retrograde	4478 Aug 10 21:25	9° $\mathring{\text{M}}$ 45'54	
min. Earth dist.	4477 Sep 08 19:26	24° $\mathring{\text{M}}$ 34'33	0.59286 AU	evening set	4478 Aug 16 08:44	8° $\mathring{\text{M}}$ 37'53	
inferior conj	4477 Sep 12 01:44	22° $\mathring{\text{M}}$ 05'05	-4°-53'-47	min. Earth dist.	4478 Aug 21 10:27	5° $\mathring{\text{M}}$ 53'37	0.57307 AU
minimum elong	4477 Sep 12 06:31	21° $\mathring{\text{M}}$ 55'54	4°53'06	inferior conj	4478 Aug 24 08:43	3° $\mathring{\text{M}}$ 57'05	-5°-13'-42
morning rise	4477 Sep 19 21:23	17° $\mathring{\text{M}}$ 32'49		minimum elong	4478 Aug 24 09:02	3° $\mathring{\text{M}}$ 56'33	5°13'43
direct	4477 Sep 22 05:50	17° $\mathring{\text{M}}$ 13'38			4478 Aug 31 18:16	30° $\mathring{\text{R}}$ 0	
morning max el	4477 Sep 30 02:48	21° $\mathring{\text{M}}$ 02'19	18°23'32	morning rise	4478 Sep 01 12:50	29° $\mathring{\text{O}}$ 47'16	
asc. node	4477 Oct 01 00:17	21° $\mathring{\text{M}}$ 56'36		direct	4478 Sep 04 02:20	29° $\mathring{\text{O}}$ 28'20	
	4477 Oct 06 23:14	0° $\mathring{\text{A}}$			4478 Sep 07 07:28	0° $\mathring{\text{M}}$	
morning set	4477 Oct 16 01:21	16° $\mathring{\text{A}}$ 25'43		morning max el	4478 Sep 13 03:35	3° $\mathring{\text{M}}$ 44'02	19°11'19
	4477 Oct 23 04:29	0° $\mathring{\text{M}}$		asc. node	4478 Sep 17 21:19	9° $\mathring{\text{M}}$ 17'18	
					4478 Sep 29 15:45	0° $\mathring{\text{A}}$	
superior conj	4477 Oct 25 04:38	3° $\mathring{\text{M}}$ 43'30	1°20'52	morning set	4478 Sep 30 00:52	0° $\mathring{\text{A}}$ 45'12	
minimum elong	4477 Oct 25 08:19	4° $\mathring{\text{M}}$ 00'24	1°20'29				
max. Earth dist.	4477 Nov 01 16:37	17° $\mathring{\text{M}}$ 05'06	1.40531 AU	superior conj	4478 Oct 08 06:51	17° $\mathring{\text{A}}$ 04'37	1°36'40
evening rise	4477 Nov 06 05:12	24° $\mathring{\text{M}}$ 42'40		minimum elong	4478 Oct 08 09:05	17° $\mathring{\text{A}}$ 15'28	1°36'30
desc. node	4477 Nov 06 18:12	25° $\mathring{\text{M}}$ 36'12		max. Earth dist.	4478 Oct 14 21:15	29° $\mathring{\text{A}}$ 28'05	1.38435 AU
	4477 Nov 09 11:10	0° $\mathring{\text{A}}$			4478 Oct 15 04:17	0° $\mathring{\text{M}}$	
	4477 Nov 29 19:58	0° $\mathring{\text{Z}}$		evening rise	4478 Oct 18 17:17	6° $\mathring{\text{M}}$ 16'56	
evening max el	4477 Dec 10 16:38	12° $\mathring{\text{Z}}$ 56'50	23°30'51	desc. node	4478 Oct 24 15:11	16° $\mathring{\text{M}}$ 14'52	
retrograde	4477 Dec 21 07:34	19° $\mathring{\text{Z}}$ 13'35			4478 Nov 02 10:56	0° $\mathring{\text{A}}$	
evening set	4477 Dec 26 07:17	17° $\mathring{\text{Z}}$ 10'45		evening max el	4478 Nov 23 05:34	26° $\mathring{\text{A}}$ 38'39	24°49'09
asc. node	4477 Dec 27 23:32	15° $\mathring{\text{Z}}$ 33'09			4478 Nov 27 00:23	0° $\mathring{\text{Z}}$	
inferior conj	4477 Dec 31 18:08	10° $\mathring{\text{Z}}$ 43'29	1°15'02	retrograde	4478 Dec 04 21:21	3° $\mathring{\text{Z}}$ 25'16	
minimum elong	4477 Dec 31 16:30	10° $\mathring{\text{Z}}$ 49'06	1°14'23	evening set	4478 Dec 10 10:45	1° $\mathring{\text{Z}}$ 07'11	
min. Earth dist.	4477 Dec 31 06:01	11° $\mathring{\text{Z}}$ 24'58	0.67977 AU		4478 Dec 11 15:35	30° $\mathring{\text{R}}$ 0	
morning rise	4478 Jan 06 01:49	4° $\mathring{\text{Z}}$ 34'51		asc. node	4478 Dec 14 20:34	26° $\mathring{\text{A}}$ 11'19	
direct	4478 Jan 10 04:49	2° $\mathring{\text{Z}}$ 59'36		min. Earth dist.	4478 Dec 15 01:19	25° $\mathring{\text{A}}$ 55'42	0.67572 AU
morning max el	4478 Jan 18 13:35	7° $\mathring{\text{Z}}$ 49'42	21°00'00	inferior conj	4478 Dec 16 00:14	24° $\mathring{\text{A}}$ 39'58	0°23'30
greatest brilliancy	4478 Jan 24 00:36	14° $\mathring{\text{Z}}$ 06'50	-0.5m	minimum elong	4478 Dec 15 23:39	24° $\mathring{\text{A}}$ 41'52	0°23'16
desc. node	4478 Feb 02 17:27	27° $\mathring{\text{Z}}$ 28'17		morning rise	4478 Dec 21 13:04	18° $\mathring{\text{A}}$ 37'56	
	4478 Feb 04 11:02	0° $\mathring{\text{A}}$		direct	4478 Dec 25 03:12	17° $\mathring{\text{A}}$ 23'51	
morning set	4478 Feb 17 18:40	20° $\mathring{\text{A}}$ 13'13		morning max el	4479 Jan 01 13:58	21° $\mathring{\text{A}}$ 36'25	19°50'03
	4478 Feb 23 22:23	0° $\mathring{\text{K}}$			4479 Jan 08 12:20	0° $\mathring{\text{Z}}$	
max. Earth dist.	4478 Feb 25 17:37	2° $\mathring{\text{K}}$ 55'21	1.42686 AU	greatest brilliancy	4479 Jan 09 01:16	0° $\mathring{\text{Z}}$ 44'12	-0.6m
				desc. node	4479 Jan 20 14:28	17° $\mathring{\text{Z}}$ 39'37	
superior conj	4478 Mar 04 19:38	14° $\mathring{\text{K}}$ 42'29	-2°-7'-53	morning set	4479 Jan 27 14:40	28° $\mathring{\text{Z}}$ 22'59	
minimum elong	4478 Mar 04 20:36	14° $\mathring{\text{K}}$ 46'39	2°07'54		4479 Jan 28 15:48	0° $\mathring{\text{A}}$	
	4478 Mar 13 14:15	0° $\mathring{\text{Y}}$		max. Earth dist.	4479 Feb 08 04:29	16° $\mathring{\text{A}}$ 29'57	1.44221 AU
evening rise	4478 Mar 16 12:23	5° $\mathring{\text{Y}}$ 13'27					
asc. node	4478 Mar 25 22:49	21° $\mathring{\text{Y}}$ 40'22		superior conj	4479 Feb 13 03:45	24° $\mathring{\text{A}}$ 28'44	-2°-2'-11
	4478 Mar 31 20:03	0° $\mathring{\text{Z}}$		minimum elong	4479 Feb 12 22:45	24° $\mathring{\text{A}}$ 08'27	2°01'58
evening max el	4478 Apr 02 05:54	1° $\mathring{\text{Z}}$ 30'40	18°06'59		4479 Feb 16 12:56	0° $\mathring{\text{K}}$	
retrograde	4478 Apr 08 20:35	4° $\mathring{\text{Z}}$ 53'49		evening rise	4479 Feb 26 14:27	16° $\mathring{\text{K}}$ 52'31	
evening set	4478 Apr 11 11:29	4° $\mathring{\text{Z}}$ 21'53			4479 Mar 06 08:20	0° $\mathring{\text{Y}}$	
	4478 Apr 17 10:25	30° $\mathring{\text{R}}$ 0		asc. node	4479 Mar 12 19:51	10° $\mathring{\text{Y}}$ 01'30	
inferior conj	4478 Apr 18 02:09	29° $\mathring{\text{Y}}$ 21'59	3°11'02	evening max el	4479 Mar 16 18:44	14° $\mathring{\text{Y}}$ 47'39	18°13'24
minimum elong	4478 Apr 18 04:45	29° $\mathring{\text{Y}}$ 15'40	3°10'37	retrograde	4479 Mar 23 04:41	18° $\mathring{\text{Y}}$ 12'10	
min. Earth dist.	4478 Apr 21 06:12	26° $\mathring{\text{Y}}$ 18'22	0.61174 AU	evening set	4479 Mar 26 01:33	17° $\mathring{\text{Y}}$ 28'57	
morning rise	4478 Apr 24 18:53	23° $\mathring{\text{Y}}$ 26'36		inferior conj	4479 Apr 01 04:25	12° $\mathring{\text{Y}}$ 09'00	3°32'07
direct	4478 May 01 12:44	21° $\mathring{\text{Y}}$ 09'23		minimum elong	4479 Apr 01 05:19	12° $\mathring{\text{Y}}$ 06'31	3°32'04
desc. node	4478 May 01 16:38	21° $\mathring{\text{Y}}$ 09'27		min. Earth dist.	4479 Apr 03 19:04	9° $\mathring{\text{Y}}$ 17'47	0.63260 AU
morning max el	4478 May 15 18:13	29° $\mathring{\text{Y}}$ 06'39	27°49'12	morning rise	4479 Apr 07 07:02	6° $\mathring{\text{Y}}$ 01'54	
	4478 May 16 15:16	0° $\mathring{\text{Z}}$		direct	4479 Apr 14 03:51	3° $\mathring{\text{Y}}$ 22'10	
	4478 Jun 06 21:36	0° $\mathring{\text{II}}$		desc. node	4479 Apr 18 13:40	4° $\mathring{\text{Y}}$ 19'37	
morning set	4478 Jun 17 13:37	20° $\mathring{\text{II}}$ 16'23		morning max el	4479 Apr 28 01:31	11° $\mathring{\text{Y}}$ 20'49	27°45'52
asc. node	4478 Jun 21 22:05	29° $\mathring{\text{II}}$ 27'11			4479 May 12 18:54	0° $\mathring{\text{Z}}$	
	4478 Jun 22 04:10	0° $\mathring{\text{Z}}$			4479 May 30 06:56	0° $\mathring{\text{II}}$	
max. Earth dist.	4478 Jun 23 13:30	3° $\mathring{\text{Z}}$ 00'55	1.32156 AU	morning set	4479 Jun 01 11:47	4° $\mathring{\text{II}}$ 20'46	
				max. Earth dist.	4479 Jun 06 18:27	15° $\mathring{\text{II}}$ 14'48	1.32763 AU
superior conj	4478 Jun 24 22:34	6° $\mathring{\text{Z}}$ 01'44	0°31'11	asc. node	4479 Jun 08 19:08	19° $\mathring{\text{II}}$ 34'58	
minimum elong	4478 Jun 24 21:12	5° $\mathring{\text{Z}}$ 54'15	0°30'53				
evening rise	4478 Jul 01 19:34	21° $\mathring{\text{Z}}$ 00'36		superior conj	4479 Jun 09 06:24	20° $\mathring{\text{II}}$ 35'43	0°04'56
	4478 Jul 06 04:03	0° $\mathring{\text{O}}$		minimum elong	4479 Jun 09 06:10	20° $\mathring{\text{II}}$ 34'26	0°04'52

behind sun begin	4479 Jun 09 01:07	20°II07'11		minimum elong	4480 May 23 10:34	4°II56'57	0°23'20
behind sun end	4479 Jun 09 11:13	21°II01'43		asc. node	4480 May 25 16:10	9°II40'27	
	4479 Jun 13 14:34	0°☿		evening rise	4480 May 30 18:08	20°II27'01	
evening rise	4479 Jun 16 07:23	5°☿47'40			4480 Jun 04 10:52	0°☿	
	4479 Jun 29 04:24	0°♌		evening max el	4480 Jun 20 04:22	23°☿36'58	21°47'06
evening max el	4479 Jul 09 11:47	13°♌10'00	23°22'37	desc. node	4480 Jul 01 09:56	29°☿44'52	
desc. node	4479 Jul 15 12:53	17°♌49'12		retrograde	4480 Jul 02 16:56	29°☿48'46	
retrograde	4479 Jul 23 00:39	19°♌56'33		evening set	4480 Jul 05 08:30	29°☿32'58	
evening set	4479 Jul 27 00:18	19°♌21'49		inferior conj	4480 Jul 14 16:02	25°☿30'59	-3°-40'-8
min. Earth dist.	4479 Aug 02 21:20	16°♌11'34	0.55732 AU	minimum elong	4480 Jul 14 07:23	25°☿43'03	3°37'43
inferior conj	4479 Aug 04 19:46	15°♌03'10	-4°-52'-27	min. Earth dist.	4480 Jul 14 07:36	25°☿42'46	0.54886 AU
minimum elong	4479 Aug 04 13:52	15°♌11'54	4°51'37	morning rise	4480 Jul 23 07:38	21°☿39'47	
morning rise	4479 Aug 13 06:28	11°♌10'08		direct	4480 Jul 26 15:02	21°☿15'50	
direct	4479 Aug 16 03:50	10°♌49'47		morning max el	4480 Aug 07 18:48	26°☿58'00	21°50'26
morning max el	4479 Aug 26 17:05	15°♌43'52	20°21'00		4480 Aug 10 17:18	0°♌	
asc. node	4479 Sep 04 18:22	27°♌29'07		asc. node	4480 Aug 21 15:25	16°♌19'01	
	4479 Sep 06 06:10	0°♍		morning set	4480 Aug 28 16:07	0°♍11'10	
morning set	4479 Sep 14 06:36	15°♍22'59			4480 Aug 28 13:59	0°♍	
	4479 Sep 21 09:20	0°♎		superior conj	4480 Sep 04 22:25	15°♍31'03	1°42'42
superior conj	4479 Sep 21 22:06	1°♎04'43	1°43'27	minimum elong	4480 Sep 04 21:37	15°♍26'56	1°42'41
minimum elong	4479 Sep 21 22:43	1°♎07'48	1°43'26	max. Earth dist.	4480 Sep 08 17:19	23°♍20'24	1.34732 AU
max. Earth dist.	4479 Sep 27 04:01	11°♎26'33	1.36441 AU		4480 Sep 12 01:38	0°♎	
evening rise	4479 Oct 01 02:27	18°♎49'53		evening rise	4480 Sep 13 04:24	2°♎09'31	
	4479 Oct 07 10:31	0°♏		desc. node	4480 Sep 27 09:14	26°♎54'22	
desc. node	4479 Oct 11 12:12	6°♏43'04			4480 Sep 29 09:18	0°♏	
	4479 Oct 27 14:54	0°♐		evening max el	4480 Oct 18 06:44	23°♏59'53	26°52'13
evening max el	4479 Nov 05 18:08	10°♐22'14	25°58'42		4480 Oct 26 08:47	0°♐	
retrograde	4479 Nov 18 06:19	17°♐28'41		retrograde	4480 Oct 31 09:57	1°♐16'26	
evening set	4479 Nov 24 09:37	14°♐57'37			4480 Nov 05 01:27	30°♏♏	
min. Earth dist.	4479 Nov 28 16:48	10°♐21'40	0.66821 AU	evening set	4480 Nov 07 01:48	28°♏37'20	
inferior conj	4479 Nov 30 02:51	8°♐35'12	0°-33'-7	min. Earth dist.	4480 Nov 11 02:05	24°♏37'32	0.65714 AU
minimum elong	4479 Nov 30 03:44	8°♐32'27	0°32'45	inferior conj	4480 Nov 12 23:55	22°♏24'34	-1°-33'-36
asc. node	4479 Dec 01 17:36	6°♐36'38		minimum elong	4480 Nov 13 02:33	22°♏16'55	1°32'31
morning rise	4479 Dec 05 22:53	2°♐42'21		asc. node	4480 Nov 17 14:39	17°♏44'18	
direct	4479 Dec 09 01:54	1°♐46'25		morning rise	4480 Nov 19 04:58	16°♏43'45	
morning max el	4479 Dec 15 21:59	5°♐32'57	18°55'03	direct	4480 Nov 21 22:57	16°♏02'13	
	4480 Jan 02 07:00	0°♑		morning max el	4480 Nov 28 11:37	19°♏33'35	18°16'17
morning set	4480 Jan 06 23:05	7°♑17'53			4480 Dec 06 10:34	0°♑	
desc. node	4480 Jan 07 11:30	8°♑06'26		morning set	4480 Dec 17 11:26	17°♑38'05	
	4480 Jan 21 11:06	0°♒		desc. node	4480 Dec 24 08:32	28°♑43'39	
max. Earth dist.	4480 Jan 21 21:17	0°♒40'03	1.45111 AU		4480 Dec 25 03:38	0°♑	
superior conj	4480 Jan 23 13:38	3°♒18'43	-1°-36'-51	superior conj	4481 Jan 01 16:29	11°♑56'26	0°-55'-12
minimum elong	4480 Jan 23 04:23	2°♒42'19	1°35'59	minimum elong	4481 Jan 01 09:38	11°♑29'31	0°54'21
evening rise	4480 Feb 07 18:08	27°♒35'08		max. Earth dist.	4481 Jan 03 16:30	15°♑05'04	1.45263 AU
	4480 Feb 09 05:49	0°♓			4481 Jan 13 05:21	0°♒	
asc. node	4480 Feb 27 16:54	27°♓38'35		evening rise	4481 Jan 17 23:02	7°♒24'06	
evening max el	4480 Feb 28 06:28	28°♓14'01	18°38'10		4481 Feb 01 14:37	0°♓	
	4480 Mar 01 05:41	0°♈		greatest brilliancy	4481 Feb 01 18:44	0°♓15'13	-0.7m
retrograde	4480 Mar 05 20:49	1°♈52'49		evening max el	4481 Feb 10 14:50	11°♓44'55	19°20'15
evening set	4480 Mar 08 23:48	0°♈57'29		asc. node	4481 Feb 13 13:56	14°♓18'48	
	4480 Mar 10 08:37	30°♈♓		retrograde	4481 Feb 17 17:21	15°♓48'49	
inferior conj	4480 Mar 14 18:25	25°♓19'11	3°33'54	evening set	4481 Feb 21 03:22	14°♓40'29	
minimum elong	4480 Mar 14 17:46	25°♓21'10	3°33'52	inferior conj	4481 Feb 26 16:40	8°♓46'12	3°21'04
min. Earth dist.	4480 Mar 16 17:28	22°♓57'14	0.65032 AU	minimum elong	4481 Feb 26 14:54	8°♓51'54	3°20'49
morning rise	4480 Mar 20 10:25	19°♓05'57		min. Earth dist.	4481 Feb 28 00:33	7°♓02'48	0.66399 AU
direct	4480 Mar 27 02:23	16°♓17'07		morning rise	4481 Mar 04 01:36	2°♓30'18	
desc. node	4480 Apr 04 10:43	19°♓41'24			4481 Mar 08 09:14	30°♓♓	
morning max el	4480 Apr 09 11:24	24°♓07'35	27°08'11	direct	4481 Mar 10 07:23	29°♓45'09	
	4480 Apr 14 18:09	0°♈			4481 Mar 12 07:32	0°♓	
	4480 May 05 04:07	0°♉		desc. node	4481 Mar 22 07:47	6°♓40'40	
morning set	4480 May 15 00:37	17°♉54'24		morning max el	4481 Mar 22 21:19	7°♓14'28	26°03'35
max. Earth dist.	4480 May 19 14:32	27°♉00'11	1.33827 AU		4481 Apr 09 13:47	0°♈	
	4480 May 21 01:36	0°♊			4481 Apr 27 14:15	0°♉	
superior conj	4480 May 23 09:20	4°♊50'27	0°-23'-34	morning set	4481 Apr 28 00:19	0°♉46'27	
				max. Earth dist.	4481 May 01 23:16	8°♉15'57	1.35351 AU

superior conj	4481 May 07 04:54	18°♄39'25	0°-53'00	superior conj	4482 Apr 20 13:55	1°♄53'18	-1°-21'-32
minimum elong	4481 May 07 07:47	18°♄54'02	0°52'28	minimum elong	4482 Apr 20 18:14	2°♄14'20	1°20'54
asc. node	4481 May 12 13:14	29°♄39'55		evening rise	4482 Apr 29 03:51	18°♄56'19	
	4481 May 12 17:07	0°♄		asc. node	4482 Apr 29 10:16	19°♄28'18	
evening rise	4481 May 15 01:47	4°♄52'31			4482 May 04 20:56	0°♄	
	4481 May 29 07:50	0°♄		evening max el	4482 May 15 23:26	16°♄14'18	19°19'53
evening max el	4481 Jun 02 07:42	4°♄34'47	20°24'10	retrograde	4482 May 25 04:32	20°♄43'36	
retrograde	4481 Jun 13 06:11	9°♄55'33		evening set	4482 May 27 03:54	20°♄32'08	
evening set	4481 Jun 15 06:02	9°♄45'38		inferior conj	4482 Jun 04 16:25	16°♄24'12	0°08'32
desc. node	4481 Jun 18 06:58	8°♄55'35		minimum elong	4482 Jun 04 16:47	16°♄23'36	0°08'23
inferior conj	4481 Jun 24 10:13	5°♄47'57	-1°-48'-57	transit middle	4482 Jun 04 16:47	16°♄23'36	0°08'23
minimum elong	4481 Jun 24 05:06	5°♄55'24	1°47'06	transit begin	4482 Jun 04 13:30	16°♄29'00	
min. Earth dist.	4481 Jun 25 19:37	4°♄59'14	0.54985 AU	transit end	4482 Jun 04 20:04	16°♄18'11	
morning rise	4481 Jul 03 02:27	1°♄37'30		desc. node	4482 Jun 05 04:00	16°♄05'04	
direct	4481 Jul 07 01:06	1°♄03'54		min. Earth dist.	4482 Jun 07 10:02	14°♄36'46	0.56026 AU
morning max el	4481 Jul 20 11:44	7°♄35'39	23°32'17	morning rise	4482 Jun 13 01:37	11°♄40'24	
	4481 Aug 05 13:05	0°♄		direct	4482 Jun 17 22:04	10°♄46'32	
asc. node	4481 Aug 08 12:29	5°♄37'38		morning max el	4482 Jul 02 01:28	17°♄57'39	25°13'43
morning set	4481 Aug 13 03:34	15°♄04'17			4482 Jul 12 00:46	0°♄	
				asc. node	4482 Jul 26 09:31	25°♄16'57	
superior conj	4481 Aug 20 04:45	0°♄14'25	1°35'38	morning set	4482 Jul 28 15:15	29°♄57'05	
minimum elong	4481 Aug 20 02:59	0°♄04'57	1°35'30		4482 Jul 28 15:48	0°♄	
	4481 Aug 20 02:04	0°♄		superior conj	4482 Aug 04 14:42	15°♄06'55	1°23'11
max. Earth dist.	4481 Aug 22 15:21	5°♄27'36	1.33421 AU	minimum elong	4482 Aug 04 12:27	14°♄54'33	1°22'54
evening rise	4481 Aug 27 18:58	16°♄04'59		max. Earth dist.	4482 Aug 05 21:06	17°♄53'04	1.32535 AU
	4481 Sep 04 03:13	0°♄		evening rise	4482 Aug 11 18:38	0°♄26'03	
desc. node	4481 Sep 14 06:15	16°♄41'12			4482 Aug 11 13:35	0°♄	
	4481 Sep 24 00:21	0°♄			4482 Aug 28 03:41	0°♄	
evening max el	4481 Sep 30 18:39	7°♄21'49	27°22'33	desc. node	4482 Sep 01 03:16	5°♄53'30	
retrograde	4481 Oct 14 07:46	14°♄40'14		evening max el	4482 Sep 13 04:06	20°♄15'45	27°23'27
evening set	4481 Oct 21 08:47	12°♄01'13		retrograde	4482 Sep 26 22:54	27°♄30'45	
min. Earth dist.	4481 Oct 25 03:06	8°♄36'05	0.64254 AU	evening set	4482 Oct 04 03:12	25°♄02'53	
inferior conj	4481 Oct 27 13:02	6°♄03'04	-2°-35'-54	min. Earth dist.	4482 Oct 07 18:09	22°♄07'07	0.62479 AU
minimum elong	4481 Oct 27 17:29	5°♄51'17	2°34'15	inferior conj	4482 Oct 10 15:21	19°♄23'52	-3°-36'-40
morning rise	4481 Nov 03 04:32	0°♄37'14		minimum elong	4482 Oct 10 21:11	19°♄10'04	3°34'54
asc. node	4481 Nov 04 11:43	0°♄13'15		morning rise	4482 Oct 17 18:04	14°♄16'20	
direct	4481 Nov 05 15:53	0°♄06'11		direct	4482 Oct 20 01:43	13°♄52'06	
morning max el	4481 Nov 12 04:06	3°♄31'41	17°54'32	asc. node	4482 Oct 22 08:45	14°♄16'28	
morning set	4481 Nov 29 04:11	29°♄21'37		morning max el	4482 Oct 26 20:22	17°♄19'50	17°50'38
	4481 Nov 29 13:13	0°♄			4482 Nov 04 20:54	0°♄	
desc. node	4481 Dec 11 05:33	19°♄27'30		morning set	4482 Nov 11 19:25	12°♄10'06	
					4482 Nov 21 23:32	0°♄	
superior conj	4481 Dec 12 08:52	21°♄18'13	0°-7'-53	superior conj	4482 Nov 23 02:36	1°♄54'59	0°34'37
minimum elong	4481 Dec 12 07:57	21°♄14'31	0°07'46	minimum elong	4482 Nov 23 05:43	2°♄08'09	0°34'12
behind sun begin	4481 Dec 11 22:58	20°♄38'10		desc. node	4482 Nov 28 02:33	10°♄14'45	
behind sun end	4481 Dec 12 16:55	21°♄50'48		max. Earth dist.	4482 Nov 30 02:44	13°♄31'08	1.43443 AU
max. Earth dist.	4481 Dec 17 11:03	29°♄27'11	1.44683 AU	evening rise	4482 Dec 07 22:51	25°♄56'46	
	4481 Dec 17 19:20	0°♄			4482 Dec 10 13:53	0°♄	
evening rise	4481 Dec 28 11:46	16°♄38'46			4482 Dec 31 06:05	0°♄	
	4482 Jan 06 06:14	0°♄		greatest brilliancy	4483 Jan 02 17:52	3°♄12'12	-0.4m
greatest brilliancy	4482 Jan 18 11:50	17°♄43'02	-0.5m	evening max el	4483 Jan 07 16:21	8°♄52'01	21°27'12
evening max el	4482 Jan 24 18:18	25°♄17'32	20°17'38	retrograde	4483 Jan 16 13:07	14°♄07'36	
asc. node	4482 Jan 31 10:59	29°♄47'10		asc. node	4483 Jan 18 08:00	13°♄50'20	
retrograde	4482 Feb 01 15:29	29°♄54'48		evening set	4483 Jan 20 17:45	12°♄29'56	
evening set	4482 Feb 05 09:57	28°♄32'23		inferior conj	4483 Jan 26 03:05	6°♄11'52	2°23'17
inferior conj	4482 Feb 10 20:19	22°♄24'42	2°56'49	minimum elong	4483 Jan 26 00:39	6°♄20'18	2°22'32
minimum elong	4482 Feb 10 17:58	22°♄32'39	2°56'16	min. Earth dist.	4483 Jan 26 08:40	5°♄52'31	0.67901 AU
min. Earth dist.	4482 Feb 11 14:22	21°♄23'26	0.67352 AU	morning rise	4483 Jan 31 07:15	29°♄57'21	
morning rise	4482 Feb 16 01:25	16°♄08'34			4483 Jan 31 06:03	30°♄	
direct	4482 Feb 21 17:58	13°♄37'07		direct	4483 Feb 05 09:07	27°♄46'06	
morning max el	4482 Mar 05 05:59	20°♄29'56	24°41'35		4483 Feb 11 04:29	0°♄	
desc. node	4482 Mar 09 04:48	24°♄49'16		morning max el	4483 Feb 15 14:58	3°♄51'03	23°12'35
	4482 Mar 13 09:53	0°♄		greatest brilliancy	4483 Feb 20 17:14	9°♄33'41	-0.2m
	4482 Apr 02 18:26	0°♄		desc. node	4483 Feb 24 01:49	13°♄47'45	
morning set	4482 Apr 10 05:35	12°♄41'20			4483 Mar 07 14:51	0°♄	
max. Earth dist.	4482 Apr 13 21:39	19°♄16'44	1.37282 AU				
	4482 Apr 19 14:31	0°♄					

morning set	4483 Mar 22 10:24	23° Υ 23'05		greatest brilliancy	4484 Feb 02 22:20	22° \eth 42'31	-0.4m
	4483 Mar 26 07:42	0° Υ			4484 Feb 08 12:35	0° \approx	
max. Earth dist.	4483 Mar 26 16:40	0° Υ 38'49	1.39456 AU	desc. node	4484 Feb 10 22:50	3° \approx 21'46	
					4484 Feb 28 17:29	0° Υ	
superior conj	4483 Apr 03 08:26	14° Υ 22'28	-1°-46'-23	morning set	4484 Mar 01 10:34	2° Υ 43'13	
minimum elong	4483 Apr 03 13:16	14° Υ 44'53	1°45'55	max. Earth dist.	4484 Mar 07 16:02	12° Υ 51'51	1.41592 AU
	4483 Apr 11 14:07	0° \eth					
evening rise	4483 Apr 12 21:29	2° \eth 31'02		superior conj	4484 Mar 15 07:37	25° Υ 55'14	-2°-3'-31
asc. node	4483 Apr 16 07:17	9° \eth 00'50		minimum elong	4484 Mar 15 10:54	26° Υ 09'38	2°03'24
evening max el	4483 Apr 29 01:23	28° \eth 32'14	18°35'47		4484 Mar 17 15:02	0° Υ	
	4483 Apr 30 17:27	0° \eth		evening rise	4484 Mar 26 03:11	15° Υ 28'20	
retrograde	4483 May 06 20:56	2° \eth 23'02		asc. node	4484 Apr 02 04:19	28° Υ 11'52	
evening set	4483 May 09 01:59	2° \eth 05'37			4484 Apr 03 05:42	0° \eth	
	4483 May 13 12:35	30° \eth		evening max el	4484 Apr 11 10:08	11° \eth 20'11	18°11'49
inferior conj	4483 May 16 18:54	27° \eth 38'33	1°44'00	retrograde	4484 Apr 18 08:06	14° \eth 49'09	
minimum elong	4483 May 16 22:13	27° \eth 32'11	1°42'57	evening set	4484 Apr 20 19:29	14° \eth 23'02	
min. Earth dist.	4483 May 20 03:49	25° \eth 04'13	0.57782 AU	inferior conj	4484 Apr 27 18:39	9° \eth 34'45	2°47'47
desc. node	4483 May 23 01:02	23° \eth 09'25		minimum elong	4484 Apr 27 21:59	9° \eth 27'14	2°47'03
morning rise	4483 May 24 13:59	22° \eth 20'19		min. Earth dist.	4484 May 01 03:25	6° \eth 34'47	0.59909 AU
direct	4483 May 30 09:01	20° \eth 55'56		morning rise	4484 May 04 20:45	3° \eth 49'50	
morning max el	4483 Jun 13 17:59	28° \eth 32'25	26°38'53	desc. node	4484 May 08 22:02	2° \eth 07'44	
	4483 Jun 15 04:43	0° \eth		direct	4484 May 11 08:35	1° \eth 51'03	
	4483 Jul 05 15:40	0° \eth		morning max el	4484 May 25 16:50	9° \eth 42'57	27°34'11
morning set	4483 Jul 13 01:33	14° \eth 44'24			4484 Jun 10 07:42	0° \eth	
asc. node	4483 Jul 13 06:32	15° \eth 10'42		morning set	4484 Jun 26 08:50	29° \eth 21'10	
					4484 Jun 26 16:17	0° \eth	
superior conj	4483 Jul 20 02:19	0° \eth 01'56	1°06'06	asc. node	4484 Jun 29 03:34	5° \eth 13'56	
minimum elong	4483 Jul 20 00:03	29° \eth 49'22	1°05'42	max. Earth dist.	4484 Jul 02 19:13	13° \eth 11'10	1.32005 AU
	4483 Jul 20 01:58	0° \eth					
max. Earth dist.	4483 Jul 20 07:38	0° \eth 31'17	1.32067 AU	superior conj	4484 Jul 03 13:53	14° \eth 53'58	0°44'58
evening rise	4483 Jul 27 00:30	15° \eth 03'44		minimum elong	4484 Jul 03 12:03	14° \eth 43'53	0°44'35
	4483 Aug 03 13:13	0° \eth		evening rise	4484 Jul 10 10:16	29° \eth 50'50	
desc. node	4483 Aug 19 00:18	24° \eth 16'40			4484 Jul 10 12:00	0° \eth	
	4483 Aug 23 21:21	0° \eth			4484 Jul 26 22:25	0° \eth	
evening max el	4483 Aug 26 08:17	2° \eth 28'17	26°51'01	desc. node	4484 Aug 04 21:19	11° \eth 30'59	
retrograde	4483 Sep 09 06:05	9° \eth 38'38		evening max el	4484 Aug 07 04:55	13° \eth 51'57	25°46'30
evening set	4483 Sep 16 04:40	7° \eth 34'09		retrograde	4484 Aug 21 04:00	20° \eth 58'39	
min. Earth dist.	4483 Sep 19 22:22	4° \eth 56'51	0.60479 AU	evening set	4484 Aug 27 08:23	19° \eth 28'14	
inferior conj	4483 Sep 23 03:26	2° \eth 17'30	-4°-30'-4	min. Earth dist.	4484 Aug 31 17:04	16° \eth 52'18	0.58419 AU
minimum elong	4483 Sep 23 09:19	2° \eth 05'18	4°28'50	inferior conj	4484 Sep 03 21:50	14° \eth 34'36	-5°-6'-13
	4483 Sep 26 01:05	30° \eth		minimum elong	4484 Sep 04 01:07	14° \eth 28'40	5°05'57
morning rise	4483 Sep 30 17:13	27° \eth 31'33		morning rise	4484 Sep 11 21:22	10° \eth 12'20	
direct	4483 Oct 03 00:30	27° \eth 11'07		direct	4484 Sep 14 07:44	9° \eth 53'24	
asc. node	4483 Oct 09 05:46	29° \eth 47'28		morning max el	4484 Sep 22 15:22	13° \eth 51'39	18°41'15
	4483 Oct 09 11:42	0° \eth		asc. node	4484 Sep 25 02:48	16° \eth 32'44	
morning max el	4483 Oct 10 09:12	0° \eth 49'18	18°05'45		4484 Oct 03 17:23	0° \eth	
morning set	4483 Oct 26 02:48	25° \eth 44'02		morning set	4484 Oct 08 21:30	9° \eth 50'00	
	4483 Oct 28 09:36	0° \eth					
				superior conj	4484 Oct 17 14:45	26° \eth 39'49	1°28'46
superior conj	4483 Nov 04 22:07	13° \eth 46'28	1°07'08	minimum elong	4484 Oct 17 17:53	26° \eth 54'34	1°28'28
minimum elong	4483 Nov 05 02:11	14° \eth 04'36	1°06'38		4484 Oct 19 09:38	0° \eth	
max. Earth dist.	4483 Nov 12 13:50	27° \eth 01'37	1.41690 AU	max. Earth dist.	4484 Oct 24 19:59	9° \eth 48'27	1.39643 AU
	4483 Nov 14 08:40	0° \eth		evening rise	4484 Oct 28 22:11	16° \eth 51'21	
desc. node	4483 Nov 14 23:34	1° \eth 01'27		desc. node	4484 Oct 31 20:36	21° \eth 44'15	
evening rise	4483 Nov 17 23:29	5° \eth 53'55			4484 Nov 06 00:25	0° \eth	
	4483 Dec 03 19:55	0° \eth			4484 Nov 27 10:14	0° \eth	
greatest brilliancy	4483 Dec 16 08:05	16° \eth 48'02	-0.3m	evening max el	4484 Dec 02 23:09	6° \eth 07'08	24°04'38
evening max el	4483 Dec 21 09:27	22° \eth 28'10	22°44'45	retrograde	4484 Dec 14 00:54	12° \eth 37'44	
retrograde	4483 Dec 31 08:39	28° \eth 23'10		evening set	4484 Dec 19 06:28	10° \eth 27'56	
evening set	4484 Jan 05 01:06	26° \eth 29'22		asc. node	4484 Dec 22 02:03	7° \eth 30'53	
asc. node	4484 Jan 05 05:02	26° \eth 21'08		min. Earth dist.	4484 Dec 24 01:29	4° \eth 56'50	0.67850 AU
inferior conj	4484 Jan 10 11:00	20° \eth 04'23	1°41'56	inferior conj	4484 Dec 24 18:17	4° \eth 00'04	0°53'52
minimum elong	4484 Jan 10 08:57	20° \eth 11'30	1°41'12	minimum elong	4484 Dec 24 17:02	4° \eth 04'16	0°53'22
min. Earth dist.	4484 Jan 10 05:07	20° \eth 24'45	0.68060 AU		4484 Dec 27 22:06	30° \eth	
morning rise	4484 Jan 15 16:45	13° \eth 53'17		morning rise	4484 Dec 30 03:55	27° \eth 54'12	
direct	4484 Jan 20 03:52	12° \eth 04'57		direct	4485 Jan 03 01:12	26° \eth 28'26	
morning max el	4484 Jan 29 03:53	17° \eth 20'23	21°45'58		4485 Jan 09 22:19	0° \eth	

morning max el	4485 Jan 10 23:49	1°☿01'06	20°28'37	asc. node	4485 Dec 08 23:05	17°♄56'37	
greatest brilliancy	4485 Jan 17 03:45	8°☿16'05	-0.5m	morning rise	4485 Dec 14 14:49	11°♄57'59	
desc. node	4485 Jan 27 19:51	23°☿21'33		direct	4485 Dec 17 23:51	10°♄52'15	
	4485 Feb 01 06:20	0°♊		morning max el	4485 Dec 25 03:41	14°♄52'46	19°24'45
morning set	4485 Feb 08 11:22	11°♊02'00		greatest brilliancy	4486 Jan 03 00:29	26°♄06'07	-0.7m
max. Earth dist.	4485 Feb 17 22:38	25°♊59'00	1.43406 AU		4486 Jan 05 16:38	0°☿	
	4485 Feb 20 10:07	0°♋		desc. node	4486 Jan 14 16:53	13°☿40'03	
				morning set	4486 Jan 18 09:41	19°☿22'41	
superior conj	4485 Feb 24 06:39	6°♋20'58	-2°-7'-44		4486 Jan 25 05:45	0°♊	
minimum elong	4485 Feb 24 05:16	6°♋15'16	2°07'44	max. Earth dist.	4486 Jan 31 11:53	9°♊49'16	1.44676 AU
evening rise	4485 Mar 08 16:40	27°♋38'43					
	4485 Mar 10 00:52	0°♌		superior conj	4486 Feb 04 04:19	15°♊40'23	-1°-53'-51
asc. node	4485 Mar 20 01:21	16°♌53'54		minimum elong	4486 Feb 03 20:54	15°♊10'50	1°53'22
evening max el	4485 Mar 25 22:19	24°♌28'46	18°07'21		4486 Feb 13 00:37	0°♋	
retrograde	4485 Apr 01 09:58	27°♌51'12		evening rise	4486 Feb 18 09:36	8°♋54'24	
evening set	4485 Apr 04 03:18	27°♌14'43			4486 Mar 03 08:19	0°♌	
inferior conj	4485 Apr 10 12:28	22°♌05'59	3°22'42	asc. node	4486 Mar 06 22:24	4°♌58'11	
minimum elong	4485 Apr 10 14:22	22°♌01'06	3°22'29	evening max el	4486 Mar 09 11:01	7°♌50'54	18°21'45
min. Earth dist.	4485 Apr 13 11:16	19°♌05'00	0.62084 AU	retrograde	4486 Mar 15 21:58	11°♌20'12	
morning rise	4485 Apr 16 22:46	16°♌04'24		evening set	4486 Mar 18 21:16	10°♌32'07	
direct	4485 Apr 23 18:45	13°♌36'11		inferior conj	4486 Mar 24 20:15	5°♌04'22	3°34'54
desc. node	4485 Apr 25 19:05	13°♌48'07		minimum elong	4486 Mar 24 20:27	5°♌03'48	3°34'54
morning max el	4485 May 07 21:49	21°♌35'40	27°52'23	min. Earth dist.	4486 Mar 27 04:28	2°♌23'37	0.64055 AU
	4485 May 15 05:43	0°♍			4486 Mar 29 11:53	30°♌	
	4485 Jun 03 09:43	0°♎		morning rise	4486 Mar 30 17:54	28°♌53'57	
morning set	4485 Jun 10 11:02	13°♎39'41		direct	4486 Apr 06 13:29	26°♌08'19	
max. Earth dist.	4485 Jun 16 03:41	25°♎37'54	1.32359 AU	desc. node	4486 Apr 12 16:07	27°♌58'43	
asc. node	4485 Jun 16 00:36	25°♎21'14			4486 Apr 15 16:31	0°♌	
				morning max el	4486 Apr 20 06:38	4°♌05'45	27°33'36
superior conj	4485 Jun 17 23:36	29°♎36'07	0°20'23		4486 May 09 18:28	0°♍	
minimum elong	4485 Jun 17 22:40	29°♎31'01	0°20'10	morning set	4486 May 25 05:39	27°♍32'36	
	4485 Jun 18 03:58	0°☿			4486 May 26 11:17	0°♎	
evening rise	4485 Jun 24 21:52	14°☿39'25		max. Earth dist.	4486 May 30 05:08	7°♎39'52	1.33158 AU
	4485 Jul 02 13:36	0°♏					
evening max el	4485 Jul 19 18:56	24°♏32'12	24°18'20	superior conj	4486 Jun 02 05:38	14°♎03'00	0°-6'-57
desc. node	4485 Jul 22 18:21	27°♏08'03		minimum elong	4486 Jun 02 05:59	14°♎04'53	0°06'54
	4485 Jul 27 07:30	0°♐		behind sun begin	4486 Jun 02 01:05	13°♎38'43	
retrograde	4485 Aug 02 14:59	1°♐30'47		behind sun end	4486 Jun 02 10:53	14°♎31'03	
evening set	4485 Aug 07 11:44	0°♐38'04		asc. node	4486 Jun 02 21:40	15°♎28'43	
	4485 Aug 09 01:45	30°♐		evening rise	4486 Jun 09 09:28	29°♎23'53	
min. Earth dist.	4485 Aug 13 05:45	27°♐44'24	0.56566 AU		4486 Jun 09 16:19	0°☿	
inferior conj	4485 Aug 15 20:06	26°♐06'32	-5°-10'-36		4486 Jun 26 22:43	0°♏	
minimum elong	4485 Aug 15 17:45	26°♐10'14	5°10'30	evening max el	4486 Jul 01 08:24	4°♏55'05	22°41'06
morning rise	4485 Aug 24 03:16	22°♐05'26		desc. node	4486 Jul 09 15:23	10°♏33'57	
direct	4485 Aug 26 19:43	21°♐46'14		retrograde	4486 Jul 14 13:22	11°♏29'25	
morning max el	4485 Sep 05 11:41	26°♐16'41	19°38'24	evening set	4486 Jul 17 21:35	11°♏04'55	
	4485 Sep 08 21:22	0°♑		min. Earth dist.	4486 Jul 25 16:23	7°♏39'11	0.55267 AU
asc. node	4485 Sep 11 23:50	4°♑16'31		inferior conj	4486 Jul 26 23:47	6°♏54'20	-4°-27'-57
morning set	4485 Sep 22 23:57	24°♑17'43		minimum elong	4486 Jul 26 15:58	7°♏05'31	4°26'21
	4485 Sep 25 19:40	0°♒		morning rise	4486 Aug 04 12:47	3°♏04'01	
				direct	4486 Aug 07 13:50	2°♏42'36	
superior conj	4485 Sep 30 23:04	10°♒19'05	1°40'33	morning max el	4486 Aug 18 20:05	7°♏56'59	20°56'52
minimum elong	4485 Oct 01 00:37	10°♒26'40	1°40'28	asc. node	4486 Aug 29 20:54	22°♏45'38	
max. Earth dist.	4485 Oct 07 00:23	21°♒56'15	1.37556 AU		4486 Sep 02 19:47	0°♑	
evening rise	4485 Oct 10 19:39	28°♒51'15		morning set	4486 Sep 07 07:30	9°♑00'04	
	4485 Oct 11 11:09	0°♓					
desc. node	4485 Oct 18 17:38	12°♓18'57		superior conj	4486 Sep 14 18:34	24°♑31'10	1°43'58
	4485 Oct 30 08:53	0°♄		minimum elong	4486 Sep 14 18:32	24°♑31'01	1°43'58
evening max el	4485 Nov 15 11:35	19°♄49'25	25°20'14		4486 Sep 17 11:13	0°♒	
retrograde	4485 Nov 27 12:55	26°♄46'39		max. Earth dist.	4486 Sep 19 09:08	3°♒48'17	1.35670 AU
evening set	4485 Dec 03 08:14	24°♄22'28		evening rise	4486 Sep 23 12:29	11°♒45'22	
min. Earth dist.	4485 Dec 07 19:30	19°♄25'57	0.67288 AU		4486 Oct 03 22:50	0°♓	
inferior conj	4485 Dec 08 23:09	17°♄56'25	0°00'03	desc. node	4486 Oct 05 14:40	2°♓40'30	
minimum elong	4485 Dec 08 23:09	17°♄56'26	0°00'04		4486 Oct 25 14:29	0°♄	
transit middle	4485 Dec 08 23:09	17°♄56'26	0°00'04	evening max el	4486 Oct 29 00:13	3°♄31'26	26°24'01
transit begin	4485 Dec 08 20:21	18°♄05'28		retrograde	4486 Nov 10 19:48	10°♄43'44	
transit end	4485 Dec 09 01:56	17°♄47'23		evening set	4486 Nov 17 04:31	8°♄08'43	

min. Earth dist.	4486 Nov 21 08:46	3°♊47'52	0.66384 AU	inferior conj	4487 Nov 06 17:42	15°♍35'31	-1°-59'-56
inferior conj	4486 Nov 22 23:41	1°♊49'37	0°-58'-24	minimum elong	4487 Nov 06 21:07	15°♍25'58	1°58'35
minimum elong	4486 Nov 23 01:17	1°♊44'45	0°57'44	asc. node	4487 Nov 12 17:11	10°♍12'37	
	4486 Nov 24 12:29	30°♍		morning rise	4487 Nov 13 03:01	10°♍00'25	
asc. node	4486 Nov 25 20:09	28°♍33'16		direct	4487 Nov 15 17:57	9°♍23'39	
morning rise	4486 Nov 28 23:19	26°♍01'15		morning max el	4487 Nov 22 05:27	12°♍51'21	18°04'53
direct	4486 Dec 01 22:10	25°♍11'57			4487 Dec 04 07:06	0°♊	
morning max el	4486 Dec 08 14:19	28°♍51'09	18°36'29	morning set	4487 Dec 10 06:02	9°♊49'08	
	4486 Dec 09 16:28	0°♊		desc. node	4487 Dec 19 10:56	24°♊51'57	
morning set	4486 Dec 29 05:01	28°♊51'12			4487 Dec 22 15:45	0°♋	
	4486 Dec 29 22:23	0°♋					
desc. node	4487 Jan 01 13:54	4°♋11'27		superior conj	4487 Dec 24 15:00	3°♋08'02	0°-35'-7
				minimum elong	4487 Dec 24 10:37	2°♋50'41	0°34'31
superior conj	4487 Jan 14 08:42	24°♋18'07	-1°-20'-40	max. Earth dist.	4487 Dec 28 01:25	8°♋33'45	1.45110 AU
minimum elong	4487 Jan 13 23:39	23°♋42'36	1°19'41	evening rise	4488 Jan 09 23:55	28°♋43'09	
max. Earth dist.	4487 Jan 14 05:45	24°♋06'31	1.45264 AU		4488 Jan 10 19:48	0°♌	
	4487 Jan 17 23:50	0°♌		greatest brilliancy	4488 Jan 27 15:43	25°♌24'50	-0.6m
evening rise	4487 Jan 30 03:12	19°♌12'13			4488 Jan 31 00:44	0°♍	
	4487 Feb 05 21:40	0°♍		evening max el	4488 Feb 04 04:06	4°♍51'32	19°42'55
evening max el	4487 Feb 20 21:38	21°♍19'48	18°54'07	asc. node	4488 Feb 08 16:29	8°♍24'03	
asc. node	4487 Feb 21 19:28	22°♍12'46		retrograde	4488 Feb 11 13:37	9°♍08'19	
retrograde	4487 Feb 27 16:13	25°♍07'45		evening set	4488 Feb 15 03:10	7°♍53'56	
evening set	4487 Mar 02 22:05	24°♍07'02		inferior conj	4488 Feb 20 14:56	1°♍53'37	3°11'59
inferior conj	4487 Mar 08 14:07	18°♍21'56	3°30'00	minimum elong	4488 Feb 20 12:52	2°♍00'28	3°11'37
minimum elong	4487 Mar 08 12:56	18°♍25'37	3°29'53	min. Earth dist.	4488 Feb 21 16:43	0°♍28'13	0.66863 AU
min. Earth dist.	4487 Mar 10 06:41	16°♍15'29	0.65669 AU		4488 Feb 22 01:20	30°♍	
morning rise	4487 Mar 14 02:43	12°♍07'24		morning rise	4488 Feb 25 21:54	25°♍37'38	
direct	4487 Mar 20 15:03	9°♍18'26		direct	4488 Mar 02 22:22	22°♍57'27	
desc. node	4487 Mar 30 13:08	14°♍05'17			4488 Mar 14 20:58	0°♍	
morning max el	4487 Apr 02 16:31	17°♍01'26	26°43'23	morning max el	4488 Mar 15 01:46	0°♍12'03	25°30'13
	4487 Apr 13 11:50	0°♎		desc. node	4488 Mar 16 10:10	1°♍36'22	
	4487 May 02 15:43	0°♎			4488 Apr 06 10:03	0°♎	
morning set	4487 May 08 13:25	10°♎49'48		morning set	4488 Apr 20 05:56	23°♎18'48	
max. Earth dist.	4487 May 12 20:14	19°♎10'29	1.34421 AU		4488 Apr 23 20:38	0°♎	
				max. Earth dist.	4488 Apr 24 00:17	0°♎17'15	1.36134 AU
superior conj	4487 May 17 05:47	28°♎07'50	0°-36'-1				
minimum elong	4487 May 17 07:43	28°♎17'48	0°35'38	superior conj	4488 Apr 29 21:17	11°♎42'45	-1°-5'-21
	4487 May 18 03:22	0°♏		minimum elong	4488 Apr 30 00:50	12°♎00'27	1°04'45
asc. node	4487 May 20 18:44	5°♏32'13		asc. node	4488 May 06 15:47	25°♎27'24	
evening rise	4487 May 24 19:09	13°♏58'01		evening rise	4488 May 08 00:43	28°♎15'05	
	4487 Jun 02 00:31	0°♐			4488 May 08 21:28	0°♏	
evening max el	4487 Jun 13 05:11	15°♐33'15	21°09'50	evening max el	4488 May 25 13:49	26°♏47'58	19°54'20
retrograde	4487 Jun 25 02:28	21°♐23'45			4488 May 29 15:53	0°♐	
desc. node	4487 Jun 26 12:23	21°♐19'03		retrograde	4488 Jun 04 18:04	1°♐45'59	
evening set	4487 Jun 27 09:13	21°♐11'38		evening set	4488 Jun 06 16:36	1°♐35'57	
inferior conj	4487 Jul 06 17:21	17°♐13'50	-2°-56'-4		4488 Jun 11 08:35	30°♏	
minimum elong	4487 Jul 06 09:34	17°♐24'45	2°53'32	desc. node	4488 Jun 12 09:25	29°♏28'08	
min. Earth dist.	4487 Jul 07 03:17	16°♐59'53	0.54812 AU	inferior conj	4488 Jun 15 15:04	27°♏35'06	0°-57'-47
morning rise	4487 Jul 15 09:58	13°♐16'50		minimum elong	4488 Jun 15 12:23	27°♏39'11	0°56'48
direct	4487 Jul 18 23:19	12°♐49'34		min. Earth dist.	4488 Jun 17 15:49	26°♏21'01	0.55323 AU
morning max el	4487 Jul 31 17:20	18°♐53'22	22°32'48	morning rise	4488 Jun 24 05:24	23°♏11'56	
	4487 Aug 09 19:15	0°♑		direct	4488 Jun 28 12:48	22°♏31'17	
asc. node	4487 Aug 16 17:57	11°♑49'07		morning max el	4488 Jul 12 08:02	29°♏20'34	24°16'29
morning set	4487 Aug 22 18:06	23°♑51'20			4488 Jul 13 00:23	0°♑	
	4487 Aug 25 15:36	0°♒			4488 Aug 01 23:25	0°♑	
				asc. node	4488 Aug 02 15:00	1°♑17'25	
superior conj	4487 Aug 29 21:46	9°♒05'55	1°40'25	morning set	4488 Aug 06 05:51	8°♑45'08	
minimum elong	4487 Aug 29 20:30	8°♒59'15	1°40'21				
max. Earth dist.	4487 Sep 02 02:22	15°♒47'56	1.34128 AU	superior conj	4488 Aug 13 05:53	23°♑53'52	1°30'59
evening rise	4487 Sep 06 20:20	25°♒22'11		minimum elong	4488 Aug 13 03:51	23°♑42'51	1°30'45
	4487 Sep 09 06:06	0°♓		max. Earth dist.	4488 Aug 15 04:13	28°♑04'18	1.32995 AU
desc. node	4487 Sep 22 11:41	22°♓42'46			4488 Aug 16 01:50	0°♒	
	4487 Sep 27 09:39	0°♓		evening rise	4488 Aug 20 15:09	9°♒29'32	
evening max el	4487 Oct 11 12:57	17°♓05'00	27°08'26		4488 Aug 31 14:59	0°♓	
retrograde	4487 Oct 24 20:52	24°♓22'23		desc. node	4488 Sep 08 08:43	12°♓16'27	
evening set	4487 Oct 31 17:07	21°♓42'31			4488 Sep 22 17:13	0°♓	
min. Earth dist.	4487 Nov 04 14:51	17°♓57'37	0.65136 AU	evening max el	4488 Sep 23 00:08	0°♓16'30	27°26'44

retrograde	4488 Oct 06 15:39	7°♄33'10		desc. node	4489 Aug 26 05:43	1°♄09'45	
evening set	4488 Oct 13 19:09	4°♄57'20		evening max el	4489 Sep 05 07:22	12°♄53'00	27°13'37
min. Earth dist.	4488 Oct 17 11:35	1°♄45'52	0.63542 AU	retrograde	4489 Sep 19 03:38	20°♄06'33	
	4488 Oct 19 05:46	30°♄		evening set	4489 Sep 26 06:57	17°♄46'41	
inferior conj	4488 Oct 20 02:34	29°♄07'08	-3°-2'-7	min. Earth dist.	4489 Sep 29 21:50	15°♄00'46	0.61653 AU
minimum elong	4488 Oct 20 07:42	28°♄54'10	3°00'21	inferior conj	4489 Oct 02 23:12	12°♄16'52	-4°00'-43
morning rise	4488 Oct 26 22:47	23°♄48'46		minimum elong	4489 Oct 03 05:18	12°♄03'13	3°59'04
direct	4488 Oct 29 08:20	23°♄20'55		morning rise	4489 Oct 10 06:47	7°♄18'31	
asc. node	4488 Oct 29 14:12	23°♄21'12		direct	4489 Oct 12 13:48	6°♄56'19	
morning max el	4488 Nov 04 22:12	26°♄45'57	17°50'40	asc. node	4489 Oct 16 11:14	8°♄02'44	
	4488 Nov 07 17:46	0°♄		morning max el	4489 Oct 19 13:27	10°♄27'13	17°54'40
morning set	4488 Nov 21 09:08	22°♄02'29			4489 Nov 01 11:09	0°♄	
	4488 Nov 25 23:49	0°♄		morning set	4489 Nov 04 07:51	5°♄11'31	
superior conj	4488 Dec 03 17:27	12°♄59'40	0°11'11	superior conj	4489 Nov 14 22:33	24°♄09'16	0°49'46
minimum elong	4488 Dec 03 18:38	13°♄04'33	0°11'02	minimum elong	4489 Nov 15 02:23	24°♄25'52	0°49'15
behind sun begin	4488 Dec 03 11:33	12°♄35'20			4489 Nov 18 08:36	0°♄	
behind sun end	4488 Dec 04 01:44	13°♄33'44		desc. node	4489 Nov 22 04:59	6°♄24'45	
desc. node	4488 Dec 05 07:58	15°♄37'32		max. Earth dist.	4489 Nov 22 08:58	6°♄41'06	1.42746 AU
max. Earth dist.	4488 Dec 09 19:28	22°♄51'25	1.44233 AU	evening rise	4489 Nov 29 01:03	17°♄23'48	
	4488 Dec 14 07:50	0°♄			4489 Dec 07 05:55	0°♄	
evening rise	4488 Dec 19 09:55	7°♄53'58		greatest brilliancy	4489 Dec 26 07:11	26°♄37'06	-0.3m
	4489 Jan 03 03:14	0°♄			4489 Dec 29 04:26	0°♄	
greatest brilliancy	4489 Jan 11 15:04	11°♄48'48	-0.5m	evening max el	4489 Dec 31 00:49	1°♄58'16	21°59'32
evening max el	4489 Jan 17 05:11	18°♄24'18	20°45'55	retrograde	4490 Jan 09 08:51	7°♄31'31	
retrograde	4489 Jan 25 11:50	23°♄17'33		asc. node	4490 Jan 12 10:29	6°♄41'11	
asc. node	4489 Jan 25 13:29	23°♄17'31		evening set	4490 Jan 13 18:15	5°♄47'03	
evening set	4489 Jan 29 10:28	21°♄48'35			4490 Jan 18 17:39	30°♄	
inferior conj	4489 Feb 03 20:10	15°♄35'49	2°43'36	inferior conj	4490 Jan 19 03:38	29°♄25'20	2°06'38
minimum elong	4489 Feb 03 17:43	15°♄44'12	2°42'58	minimum elong	4490 Jan 19 01:18	29°♄33'26	2°05'52
min. Earth dist.	4489 Feb 04 08:39	14°♄52'54	0.67632 AU	min. Earth dist.	4490 Jan 19 04:13	29°♄23'17	0.68007 AU
morning rise	4489 Feb 09 00:32	9°♄20'14		morning rise	4490 Jan 24 08:09	23°♄11'50	
direct	4489 Feb 14 10:49	6°♄57'09		direct	4490 Jan 29 03:35	21°♄10'19	
morning max el	4489 Feb 25 10:27	13°♄30'30	24°04'05	morning max el	4490 Feb 07 20:42	26°♄54'34	22°34'58
desc. node	4489 Mar 03 07:12	20°♄08'02			4490 Feb 10 17:27	0°♄	
	4489 Mar 10 18:51	0°♄		greatest brilliancy	4490 Feb 12 10:36	2°♄00'56	-0.3m
	4489 Mar 30 06:45	0°♄		desc. node	4490 Feb 18 04:13	9°♄22'47	
morning set	4489 Apr 02 01:37	4°♄44'36			4490 Mar 04 09:27	0°♄	
max. Earth dist.	4489 Apr 05 20:42	11°♄24'29	1.38188 AU	morning set	4490 Mar 13 18:25	14°♄51'28	
				max. Earth dist.	4490 Mar 18 16:24	23°♄03'52	1.40379 AU
superior conj	4489 Apr 13 00:40	24°♄38'47	-1°-32'-43		4490 Mar 22 16:43	0°♄	
minimum elong	4489 Apr 13 05:23	25°♄01'17	1°32'08	superior conj	4490 Mar 26 11:31	6°♄44'36	-1°-54'-53
	4489 Apr 15 19:25	0°♄		minimum elong	4490 Mar 26 16:02	7°♄05'02	1°54'34
evening rise	4489 Apr 21 23:38	12°♄07'51		evening rise	4490 Apr 05 12:39	25°♄27'11	
asc. node	4489 Apr 23 12:48	15°♄09'49			4490 Apr 07 22:37	0°♄	
	4489 May 01 17:24	0°♄		asc. node	4490 Apr 10 09:49	4°♄33'35	
evening max el	4489 May 08 10:12	8°♄44'28	18°58'38	evening max el	4490 Apr 21 15:27	21°♄15'50	18°23'13
retrograde	4489 May 16 23:58	12°♄55'59		retrograde	4490 Apr 29 00:31	24°♄55'25	
evening set	4489 May 19 01:15	12°♄42'31		evening set	4490 May 01 08:10	24°♄34'41	
inferior conj	4489 May 27 05:28	8°♄26'50	0°52'38	inferior conj	4490 May 08 17:12	19°♄58'59	2°14'52
minimum elong	4489 May 27 07:29	8°♄23'16	0°51'55	minimum elong	4490 May 08 20:48	19°♄51'34	2°13'52
desc. node	4489 May 30 06:25	6°♄19'21		min. Earth dist.	4490 May 12 03:48	17°♄10'25	0.58657 AU
min. Earth dist.	4489 May 30 07:32	6°♄17'28	0.56696 AU	morning rise	4490 May 16 05:05	14°♄27'54	
morning rise	4489 Jun 04 09:16	3°♄27'35		desc. node	4490 May 17 03:26	14°♄00'17	
direct	4489 Jun 09 15:20	2°♄22'02		direct	4490 May 22 08:13	12°♄48'32	
morning max el	4489 Jun 23 22:37	9°♄45'44	25°52'54	morning max el	4490 Jun 05 17:40	20°♄33'35	27°06'36
	4489 Jul 09 06:27	0°♄			4490 Jun 13 20:52	0°♄	
asc. node	4489 Jul 20 12:02	21°♄03'47		morning set	4490 Jul 02 00:16	0°♄	
morning set	4489 Jul 21 17:10	23°♄36'32		asc. node	4490 Jul 06 02:24	8°♄19'39	
	4489 Jul 24 16:32	0°♄			4490 Jul 07 09:05	11°♄01'53	
superior conj	4489 Jul 28 16:47	8°♄48'20	1°16'29	superior conj	4490 Jul 13 04:36	23°♄42'35	0°57'36
minimum elong	4489 Jul 28 14:28	8°♄35'34	1°16'08	minimum elong	4490 Jul 13 02:28	23°♄30'46	0°57'12
max. Earth dist.	4489 Jul 29 12:25	10°♄36'16	1.32285 AU	max. Earth dist.	4490 Jul 12 23:38	23°♄15'09	1.31986 AU
evening rise	4489 Aug 04 17:46	23°♄58'26			4490 Jul 16 01:05	0°♄	
	4489 Aug 07 16:45	0°♄		evening rise	4490 Jul 20 01:32	8°♄40'30	
	4489 Aug 25 09:27	0°♄					

	4490 Jul 31 02:35	0°♎		minimum elong	4491 Jun 27 14:06	8°♎22'26	0°34'36
desc. node	4490 Aug 13 02:44	19°♎06'24		evening rise	4491 Jul 04 12:19	23°♎28'37	
evening max el	4490 Aug 18 08:27	24°♎44'48	26°27'12		4491 Jul 07 15:25	0°♏	
	4490 Aug 25 08:54	0°♏			4491 Jul 25 19:09	0°♎	
retrograde	4490 Sep 01 07:31	1°♏54'19		desc. node	4491 Jul 30 23:45	5°♎42'59	
evening set	4490 Sep 07 23:49	0°♏03'21		evening max el	4491 Jul 31 02:09	5°♎48'44	25°11'15
	4490 Sep 08 02:16	30°♎		retrograde	4491 Aug 14 00:56	12°♎52'29	
min. Earth dist.	4490 Sep 11 21:57	27°♎28'44	0.59592 AU	evening set	4491 Aug 19 17:06	11°♎38'45	
inferior conj	4490 Sep 15 04:12	24°♎56'07	-4°-48'-19	min. Earth dist.	4491 Aug 24 13:49	8°♎57'15	0.57583 AU
minimum elong	4490 Sep 15 09:22	24°♎45'59	4°47'29	inferior conj	4491 Aug 27 14:14	6°♎54'48	-5°-13'00
morning rise	4490 Sep 22 22:23	20°♎20'11		minimum elong	4491 Aug 27 15:25	6°♎52'47	5°13'00
direct	4490 Sep 25 06:22	20°♎00'47		morning rise	4491 Sep 04 17:12	2°♎41'48	
morning max el	4490 Oct 02 23:56	23°♎46'35	18°18'14	direct	4491 Sep 07 05:51	2°♎22'53	
asc. node	4490 Oct 03 08:17	24°♎07'06		morning max el	4491 Sep 16 02:12	6°♎33'42	19°02'50
	4490 Oct 08 01:12	0°♏		asc. node	4491 Sep 20 05:21	11°♎18'53	
morning set	4490 Oct 18 20:36	19°♏00'30			4491 Oct 01 02:56	0°♏	
	4490 Oct 24 15:43	0°♎		morning set	4491 Oct 02 19:02	3°♏16'54	
superior conj	4490 Oct 28 03:45	6°♎29'01	1°17'36	superior conj	4491 Oct 11 03:41	19°♏43'23	1°34'51
minimum elong	4490 Oct 28 07:34	6°♎46'27	1°17'10	minimum elong	4491 Oct 11 06:10	19°♏55'20	1°34'41
max. Earth dist.	4490 Nov 04 17:19	19°♎51'41	1.40838 AU		4491 Oct 16 15:14	0°♎	
evening rise	4490 Nov 09 10:37	27°♎45'44		max. Earth dist.	4491 Oct 17 22:26	2°♎21'17	1.38748 AU
desc. node	4490 Nov 09 02:01	27°♎10'23		evening rise	4491 Oct 21 19:20	9°♎10'37	
	4490 Nov 10 19:34	0°♏		desc. node	4491 Oct 26 23:02	17°♎50'13	
	4490 Nov 30 21:14	0°♏			4491 Nov 03 16:44	0°♏	
evening max el	4490 Dec 13 16:18	15°♏35'56	23°18'54	evening max el	4491 Nov 26 05:26	29°♏17'06	24°37'49
retrograde	4490 Dec 24 03:12	21°♏47'07			4491 Nov 26 23:08	0°♏	
evening set	4490 Dec 29 00:58	19°♏46'43		retrograde	4491 Dec 07 17:36	5°♏59'37	
asc. node	4490 Dec 30 07:31	18°♏35'08		evening set	4491 Dec 13 05:00	3°♏43'35	
inferior conj	4491 Jan 03 11:32	13°♏19'58	1°22'20		4491 Dec 16 16:04	30°♎	
minimum elong	4491 Jan 03 09:46	13°♏26'02	1°21'40	asc. node	4491 Dec 17 04:34	29°♏19'58	
min. Earth dist.	4491 Jan 03 01:03	13°♏55'59	0.68011 AU	min. Earth dist.	4491 Dec 17 20:43	28°♏27'03	0.67659 AU
morning rise	4491 Jan 08 18:38	7°♏10'34		inferior conj	4491 Dec 18 18:01	27°♏16'10	0°31'43
direct	4491 Jan 12 23:44	5°♏31'52		minimum elong	4491 Dec 18 17:15	27°♏18'43	0°31'24
morning max el	4491 Jan 21 12:13	10°♏28'11	21°11'32	morning rise	4491 Dec 24 05:58	21°♏13'06	
greatest brilliancy	4491 Jan 26 18:09	16°♏28'18	-0.4m	direct	4491 Dec 27 21:55	19°♏56'01	
desc. node	4491 Feb 05 01:15	29°♏08'57		morning max el	4492 Jan 04 11:28	24°♏13'14	19°59'35
	4491 Feb 05 15:24	0°♏			4492 Jan 09 11:00	0°♏	
morning set	4491 Feb 21 07:01	23°♏39'59		greatest brilliancy	4492 Jan 11 13:23	2°♏46'41	-0.6m
	4491 Feb 25 06:42	0°♏		desc. node	4492 Jan 22 22:17	19°♏17'16	
max. Earth dist.	4491 Feb 28 18:17	5°♏38'47	1.42421 AU		4492 Jan 29 23:01	0°♏	
				morning set	4492 Jan 31 03:29	1°♏49'39	
superior conj	4491 Mar 08 00:57	17°♏49'55	-2°-7'-14	max. Earth dist.	4492 Feb 11 04:17	19°♏07'17	1.44031 AU
minimum elong	4491 Mar 08 02:39	17°♏57'09	2°07'13				
	4491 Mar 14 23:57	0°♏		superior conj	4492 Feb 16 12:58	27°♏46'15	-2°-4'-17
evening rise	4491 Mar 19 11:58	8°♏05'06		minimum elong	4492 Feb 16 08:55	27°♏29'45	2°04'08
asc. node	4491 Mar 28 06:51	23°♏32'52			4492 Feb 17 21:40	0°♏	
	4491 Apr 01 12:37	0°♏		evening rise	4492 Feb 29 17:10	19°♏52'37	
evening max el	4491 Apr 05 02:08	4°♏13'35	18°07'35		4492 Mar 06 15:00	0°♏	
retrograde	4491 Apr 11 18:15	7°♏37'35		asc. node	4492 Mar 14 03:53	11°♏59'51	
evening set	4491 Apr 14 08:19	7°♏07'09		evening max el	4492 Mar 18 14:55	17°♏28'49	18°11'13
inferior conj	4491 Apr 21 01:04	2°♏10'13	3°05'45	retrograde	4492 Mar 25 00:59	20°♏52'22	
minimum elong	4491 Apr 21 03:53	2°♏03'29	3°05'15	evening set	4492 Mar 27 20:57	20°♏10'53	
	4491 Apr 23 07:33	30°♎		inferior conj	4492 Apr 03 01:19	14°♏53'40	3°30'18
min. Earth dist.	4491 Apr 24 06:36	29°♏06'47	0.60854 AU	minimum elong	4492 Apr 03 02:29	14°♏50'31	3°30'12
morning rise	4491 Apr 27 20:10	26°♏17'20		min. Earth dist.	4492 Apr 05 18:07	11°♏59'26	0.62964 AU
desc. node	4491 May 04 00:28	24°♏05'23		morning rise	4492 Apr 09 05:50	8°♏47'49	
direct	4491 May 04 12:51	24°♏04'37		direct	4492 Apr 16 02:39	6°♏10'46	
	4491 May 16 15:45	0°♏		desc. node	4492 Apr 19 21:30	6°♏53'06	
morning max el	4491 May 18 19:01	2°♏00'29	27°46'30	morning max el	4492 Apr 30 01:52	14°♏09'42	27°48'45
	4491 Jun 08 04:58	0°♏			4492 May 12 20:48	0°♏	
morning set	4491 Jun 20 07:45	22°♏48'41			4492 May 30 18:07	0°♏	
	4491 Jun 23 17:41	0°♏		morning set	4492 Jun 03 07:06	6°♏57'18	
asc. node	4491 Jun 24 06:08	1°♏06'52		max. Earth dist.	4492 Jun 08 16:22	18°♏08'07	1.32645 AU
max. Earth dist.	4491 Jun 26 10:15	5°♏49'47	1.32102 AU	asc. node	4492 Jun 10 03:11	21°♏14'42	
superior conj	4491 Jun 27 15:36	8°♏30'41	0°34'55	superior conj	4492 Jun 11 00:02	23°♏07'12	0°09'05

minimum elong	4492 Jun 10 23:36	23° Π 04'51	0°08'59	superior conj	4493 May 26 03:49	7° Π 25'03	0°-19'-8
behind sun begin	4492 Jun 10 19:14	22° Π 41'14		minimum elong	4493 May 26 04:48	7° Π 30'18	0°18'57
behind sun end	4492 Jun 11 03:58	23° Π 28'28		asc. node	4493 May 28 00:13	11° Π 20'38	
	4492 Jun 14 04:02	0° \mathfrak{S}		evening rise	4493 Jun 02 11:12	22° Π 57'17	
evening rise	4492 Jun 18 00:12	8° \mathfrak{S} 16'37			4493 Jun 05 21:21	0° \mathfrak{S}	
	4492 Jun 29 07:44	0° \mathcal{Q}		evening max el	4493 Jun 23 06:30	26° \mathfrak{S} 42'20	22°00'43
evening max el	4492 Jul 11 15:03	16° \mathcal{Q} 17'55	23°37'08		4493 Jun 27 05:32	0° \mathcal{Q}	
desc. node	4492 Jul 16 20:47	20° \mathcal{Q} 29'02		desc. node	4493 Jul 03 17:49	2° \mathcal{Q} 48'59	
retrograde	4492 Jul 25 06:06	23° \mathcal{Q} 08'10		retrograde	4493 Jul 05 23:54	3° \mathcal{Q} 00'49	
evening set	4492 Jul 29 11:22	22° \mathcal{Q} 29'08		evening set	4493 Jul 08 19:16	2° \mathcal{Q} 43'14	
min. Earth dist.	4492 Aug 05 00:57	19° \mathcal{Q} 23'39	0.55928 AU		4493 Jul 15 15:31	30° \mathcal{R} \mathfrak{S}	
inferior conj	4492 Aug 07 04:05	18° \mathcal{Q} 07'17	-4°-58'-56	min. Earth dist.	4493 Jul 17 11:13	28° \mathfrak{S} 59'48	0.54956 AU
minimum elong	4492 Aug 06 23:03	18° \mathcal{Q} 14'50	4°58'21	inferior conj	4493 Jul 18 01:52	28° \mathfrak{S} 39'14	-3°-54'-12
morning rise	4492 Aug 15 13:55	14° \mathcal{Q} 12'41		minimum elong	4493 Jul 17 17:13	28° \mathfrak{S} 51'22	3°51'56
direct	4492 Aug 18 10:00	13° \mathcal{Q} 52'40		morning rise	4493 Jul 26 16:54	24° \mathfrak{S} 48'56	
morning max el	4492 Aug 28 17:31	18° \mathcal{Q} 40'05	20°09'19	direct	4493 Jul 29 22:27	24° \mathfrak{S} 25'51	
asc. node	4492 Sep 06 02:25	29° \mathcal{Q} 23'34			4493 Aug 10 20:37	0° \mathcal{Q}	
	4492 Sep 06 11:26	0° \mathfrak{M}		morning max el	4493 Aug 10 20:56	0° \mathcal{Q} 00'44	21°36'05
morning set	4492 Sep 16 00:00	17° \mathfrak{M} 52'10		asc. node	4493 Aug 23 23:28	18° \mathcal{Q} 07'59	
	4492 Sep 21 22:09	0° \mathfrak{A}			4493 Aug 30 02:21	0° \mathfrak{M}	
				morning set	4493 Aug 31 09:03	2° \mathfrak{M} 38'36	
superior conj	4492 Sep 23 17:17	3° \mathfrak{A} 38'19	1°42'55	superior conj	4493 Sep 07 16:26	18° \mathfrak{M} 01'00	1°43'15
minimum elong	4492 Sep 23 18:08	3° \mathfrak{A} 42'34	1°42'54	minimum elong	4493 Sep 07 15:50	17° \mathfrak{M} 57'52	1°43'14
max. Earth dist.	4492 Sep 29 04:28	14° \mathfrak{A} 21'21	1.36722 AU	max. Earth dist.	4493 Sep 11 16:20	26° \mathfrak{M} 13'11	1.34961 AU
evening rise	4492 Oct 03 01:35	21° \mathfrak{A} 34'58			4493 Sep 13 13:54	0° \mathfrak{A}	
	4492 Oct 07 19:53	0° \mathfrak{M}		evening rise	4493 Sep 16 01:16	4° \mathfrak{A} 47'56	
desc. node	4492 Oct 12 20:04	8° \mathfrak{M} 20'06		desc. node	4493 Sep 29 17:07	28° \mathfrak{A} 34'08	
	4492 Oct 27 14:08	0° \mathfrak{X}			4493 Sep 30 15:03	0° \mathfrak{M}	
evening max el	4492 Nov 07 17:53	13° \mathfrak{X} 00'00	25°49'08	evening max el	4493 Oct 21 06:25	26° \mathfrak{M} 38'45	26°45'37
retrograde	4492 Nov 20 03:21	20° \mathfrak{X} 04'22			4493 Oct 25 03:09	0° \mathfrak{X}	
evening set	4492 Nov 26 04:40	17° \mathfrak{X} 34'51		retrograde	4493 Nov 03 07:56	3° \mathfrak{X} 54'48	
min. Earth dist.	4492 Nov 30 12:52	12° \mathfrak{X} 53'39	0.66957 AU	evening set	4493 Nov 09 22:00	1° \mathfrak{X} 16'28	
inferior conj	4492 Dec 01 21:17	11° \mathfrak{X} 11'19	0°-24'-14		4493 Nov 11 08:22	30° \mathcal{R} \mathfrak{M}	
minimum elong	4492 Dec 01 21:55	11° \mathfrak{X} 09'19	0°23'58	min. Earth dist.	4493 Nov 13 23:15	27° \mathfrak{M} 11'16	0.65896 AU
asc. node	4492 Dec 03 01:38	9° \mathfrak{X} 42'58		inferior conj	4493 Nov 15 19:19	25° \mathfrak{M} 01'48	-1°-24'-15
morning rise	4492 Dec 07 16:08	5° \mathfrak{X} 17'04		minimum elong	4493 Nov 15 21:40	24° \mathfrak{M} 54'53	1°23'17
direct	4492 Dec 10 20:39	4° \mathfrak{X} 18'45		asc. node	4493 Nov 19 22:40	20° \mathfrak{M} 40'58	
morning max el	4492 Dec 17 18:29	8° \mathfrak{X} 08'26	19°02'12	morning rise	4493 Nov 21 22:55	19° \mathfrak{M} 18'59	
	4493 Jan 02 13:31	0° \mathfrak{Z}		direct	4493 Nov 24 18:02	18° \mathfrak{M} 35'38	
desc. node	4493 Jan 08 19:18	9° \mathfrak{Z} 41'39		morning max el	4493 Dec 01 07:27	22° \mathfrak{M} 08'51	18°20'59
morning set	4493 Jan 09 08:35	10° \mathfrak{Z} 33'25			4493 Dec 07 13:11	0° \mathfrak{X}	
	4493 Jan 21 19:15	0° \approx		morning set	4493 Dec 20 16:27	20° \mathfrak{X} 40'13	
max. Earth dist.	4493 Jan 23 20:16	3° \approx 12'34	1.45019 AU		4493 Dec 26 11:57	0° \mathfrak{Z}	
				desc. node	4493 Dec 26 16:20	0° \mathfrak{Z} 17'32	
superior conj	4493 Jan 26 01:25	6° \approx 41'59	-1°-41'-54	superior conj	4494 Jan 05 04:02	15° \mathfrak{Z} 18'10	-1°-2'-11
minimum elong	4493 Jan 25 16:26	6° \approx 06'32	1°41'08	minimum elong	4494 Jan 04 20:26	14° \mathfrak{Z} 48'21	1°01'15
	4493 Feb 09 13:40	0° \mathfrak{H}		max. Earth dist.	4494 Jan 06 15:07	17° \mathfrak{Z} 35'50	1.45285 AU
evening rise	4493 Feb 10 00:17	0° \mathfrak{H} 43'23			4494 Jan 14 13:13	0° \approx	
asc. node	4493 Mar 01 00:55	29° \mathfrak{H} 44'12		evening rise	4494 Jan 21 08:21	10° \approx 39'25	
	4493 Mar 01 06:36	0° \mathfrak{Y}			4494 Feb 02 18:13	0° \mathfrak{H}	
evening max el	4493 Mar 02 02:56	0° \mathfrak{Y} 53'49	18°33'22	greatest brilliancy	4494 Feb 04 01:15	1° \mathfrak{H} 56'53	-0.7m
retrograde	4493 Mar 08 16:12	4° \mathfrak{Y} 29'57		evening max el	4494 Feb 13 11:55	14° \mathfrak{H} 24'11	19°12'58
evening set	4493 Mar 11 18:11	3° \mathfrak{Y} 36'32		asc. node	4494 Feb 15 21:57	16° \mathfrak{H} 33'50	
	4493 Mar 15 20:53	30° \mathcal{R} \mathfrak{H}		retrograde	4494 Feb 20 12:13	18° \mathfrak{H} 23'44	
inferior conj	4493 Mar 17 13:49	28° \mathfrak{H} 00'52	3°34'39	evening set	4494 Feb 23 21:05	17° \mathfrak{H} 17'29	
minimum elong	4493 Mar 17 13:23	28° \mathfrak{H} 02'11	3°34'38	inferior conj	4494 Mar 01 11:01	11° \mathfrak{H} 25'33	3°23'46
min. Earth dist.	4493 Mar 19 15:14	25° \mathfrak{H} 33'39	0.64786 AU	minimum elong	4494 Mar 01 09:24	11° \mathfrak{H} 30'45	3°23'34
morning rise	4493 Mar 23 07:10	21° \mathfrak{H} 48'07		min. Earth dist.	4494 Mar 02 21:09	9° \mathfrak{H} 35'54	0.66223 AU
direct	4493 Mar 30 00:10	18° \mathfrak{H} 59'44		morning rise	4494 Mar 06 20:48	5° \mathfrak{H} 09'50	
desc. node	4493 Apr 06 18:32	21° \mathfrak{H} 57'00		direct	4494 Mar 13 04:23	2° \mathfrak{H} 23'14	
morning max el	4493 Apr 12 11:38	26° \mathfrak{H} 52'39	27°15'45	desc. node	4494 Mar 24 15:32	8° \mathfrak{H} 43'05	
	4493 Apr 15 09:49	0° \mathfrak{Y}		morning max el	4494 Mar 25 21:35	9° \mathfrak{H} 56'53	26°14'29
morning set	4493 May 06 12:01	0° \mathfrak{B}			4494 Apr 10 17:46	0° \mathfrak{Y}	
max. Earth dist.	4493 May 17 21:32	20° \mathfrak{B} 36'10			4494 Apr 29 00:49	0° \mathfrak{B}	
	4493 May 22 14:01	29° \mathfrak{B} 58'12	1.33638 AU	morning set	4494 Apr 30 23:25	3° \mathfrak{B} 34'53	
	4493 May 22 14:22	0° \mathfrak{H}					

max. Earth dist.	4494 May 05 00:12	11°♄16'28	1.35096 AU		4495 Apr 04 02:25	0°♄	
				morning set	4495 Apr 13 07:47	15°♄38'49	
superior conj	4494 May 10 00:36	21°♄18'00	0°-48'-32	max. Earth dist.	4495 Apr 16 23:44	22°♄16'57	1.36976 AU
minimum elong	4494 May 10 03:14	21°♄31'26	0°48'03		4495 Apr 21 02:09	0°♄	
	4494 May 14 05:41	0°♄					
asc. node	4494 May 14 21:15	1°♄21'00		superior conj	4495 Apr 23 11:24	4°♄37'31	-1°-17'-22
evening rise	4494 May 17 19:24	7°♄24'46		minimum elong	4495 Apr 23 15:33	4°♄57'48	1°16'45
	4494 May 30 04:07	0°♄		evening rise	4495 May 01 22:25	21°♄31'58	
evening max el	4494 Jun 05 08:01	7°♄34'18	20°35'26	asc. node	4495 May 01 18:17	21°♄11'11	
retrograde	4494 Jun 16 12:41	13°♄02'48			4495 May 06 05:51	0°♄	
evening set	4494 Jun 18 13:41	12°♄52'37		evening max el	4495 May 18 21:59	19°♄07'28	19°28'11
desc. node	4494 Jun 20 14:49	12°♄23'16		retrograde	4495 May 28 08:47	23°♄43'42	
inferior conj	4494 Jun 27 19:22	8°♄55'28	-2°-6'-59	evening set	4495 May 30 07:45	23°♄32'43	
minimum elong	4494 Jun 27 13:27	9°♄03'59	2°04'54	desc. node	4495 Jun 07 11:47	19°♄45'04	
min. Earth dist.	4494 Jun 28 22:59	8°♄15'41	0.54911 AU	inferior conj	4495 Jun 07 23:02	19°♄27'00	0°-8'-18
morning rise	4494 Jul 06 11:54	4°♄48'55		minimum elong	4495 Jun 07 22:40	19°♄27'36	0°08'11
direct	4494 Jul 10 07:57	4°♄17'12		transit middle	4495 Jun 07 22:40	19°♄27'36	0°08'11
morning max el	4494 Jul 23 14:44	10°♄42'10	23°16'45	transit begin	4495 Jun 07 19:20	19°♄32'58	
	4494 Aug 06 20:40	0°♄		transit end	4495 Jun 08 02:01	19°♄22'13	
asc. node	4494 Aug 10 20:30	7°♄22'29		min. Earth dist.	4495 Jun 10 12:51	17°♄47'57	0.55818 AU
morning set	4494 Aug 15 20:15	17°♄30'53		morning rise	4495 Jun 16 09:49	14°♄48'48	
	4494 Aug 21 15:53	0°♄		direct	4495 Jun 21 02:53	13°♄58'40	
				morning max el	4495 Jul 05 04:26	21°♄04'26	24°59'19
superior conj	4494 Aug 22 21:59	2°♄41'57	1°37'05		4495 Jul 12 21:58	0°♄	
minimum elong	4494 Aug 22 20:20	2°♄33'09	1°36'57	asc. node	4495 Jul 28 17:32	26°♄59'21	
max. Earth dist.	4494 Aug 25 13:01	8°♄17'20	1.33590 AU		4495 Jul 30 04:33	0°♄	
evening rise	4494 Aug 30 14:11	18°♄38'35		morning set	4495 Jul 31 08:01	2°♄24'17	
	4494 Sep 05 13:15	0°♄					
desc. node	4494 Sep 16 14:09	18°♄25'04		superior conj	4495 Aug 07 07:32	17°♄33'41	1°25'24
	4494 Sep 24 20:20	0°♄		minimum elong	4495 Aug 07 05:19	17°♄21'36	1°25'07
evening max el	4494 Oct 03 18:36	10°♄03'49	27°19'51	max. Earth dist.	4495 Aug 08 17:56	20°♄41'15	1.32642 AU
retrograde	4494 Oct 17 06:39	17°♄22'19			4495 Aug 13 02:34	0°♄	
evening set	4494 Oct 24 06:30	14°♄42'53		evening rise	4495 Aug 14 12:42	2°♄56'43	
min. Earth dist.	4494 Oct 28 01:40	11°♄12'39	0.64488 AU		4495 Aug 29 08:32	0°♄	
inferior conj	4494 Oct 30 09:45	8°♄42'11	-2°-26'-30	desc. node	4495 Sep 03 11:09	7°♄43'26	
minimum elong	4494 Oct 30 13:56	8°♄30'56	2°24'55	evening max el	4495 Sep 16 04:41	23°♄03'15	27°25'22
morning rise	4494 Nov 05 23:36	3°♄13'48			4495 Sep 27 08:12	0°♄	
asc. node	4494 Nov 06 19:42	2°♄55'52		retrograde	4495 Sep 29 22:41	0°♄18'25	
direct	4494 Nov 08 11:47	2°♄41'25			4495 Oct 02 11:26	30°♄18'25	
morning max el	4494 Nov 14 23:37	6°♄07'20	17°56'40	evening set	4495 Oct 07 03:01	27°♄48'12	
	4494 Nov 30 21:55	0°♄		min. Earth dist.	4495 Oct 10 18:15	24°♄48'35	0.62764 AU
morning set	4494 Dec 02 05:19	2°♄12'25		inferior conj	4495 Oct 13 13:52	22°♄06'14	-3°-27'-48
desc. node	4494 Dec 13 13:22	21°♄00'32		minimum elong	4495 Oct 13 19:34	21°♄52'32	3°26'00
				morning rise	4495 Oct 20 14:53	16°♄55'38	
superior conj	4494 Dec 15 17:19	24°♄30'23	0°-14'-57	direct	4495 Oct 22 22:57	16°♄30'32	
minimum elong	4494 Dec 15 15:32	24°♄23'13	0°14'41	asc. node	4495 Oct 24 16:43	16°♄44'50	
behind sun begin	4494 Dec 15 11:12	24°♄05'44		morning max el	4495 Oct 29 16:06	19°♄57'19	17°50'03
behind sun end	4494 Dec 15 19:53	24°♄40'40			4495 Nov 06 02:42	0°♄	
	4494 Dec 19 03:49	0°♄		morning set	4495 Nov 14 17:37	14°♄52'27	
max. Earth dist.	4494 Dec 20 09:54	1°♄59'13	1.44815 AU		4495 Nov 23 09:24	0°♄	
evening rise	4494 Dec 31 22:44	19°♄57'10					
	4495 Jan 07 12:24	0°♄		superior conj	4495 Nov 26 07:01	4°♄55'03	0°28'47
greatest brilliancy	4495 Jan 21 03:03	19°♄57'30	-0.6m	minimum elong	4495 Nov 26 09:44	5°♄06'27	0°28'23
evening max el	4495 Jan 27 16:12	27°♄56'39	20°08'12	desc. node	4495 Nov 30 10:25	11°♄47'28	
	4495 Jan 29 21:24	0°♄		max. Earth dist.	4495 Dec 03 02:26	16°♄07'41	1.43669 AU
asc. node	4495 Feb 02 18:58	2°♄13'54		evening rise	4495 Dec 11 09:02	29°♄12'00	
retrograde	4495 Feb 04 10:10	2°♄28'16			4495 Dec 11 21:27	0°♄	
evening set	4495 Feb 08 03:19	1°♄08'01			4496 Jan 01 06:27	0°♄	
	4495 Feb 09 11:31	30°♄		greatest brilliancy	4496 Jan 05 13:24	5°♄39'29	-0.4m
inferior conj	4495 Feb 13 13:59	25°♄02'15	3°01'04	evening max el	4496 Jan 10 15:05	11°♄30'39	21°16'11
minimum elong	4495 Feb 13 11:42	25°♄09'57	3°00'35	retrograde	4496 Jan 19 07:58	16°♄40'09	
min. Earth dist.	4495 Feb 14 10:02	23°♄54'37	0.67243 AU	asc. node	4496 Jan 20 15:59	16°♄30'31	
morning rise	4495 Feb 18 19:30	18°♄46'07		evening set	4496 Jan 23 11:02	15°♄04'42	
direct	4495 Feb 24 14:12	16°♄12'05		inferior conj	4496 Jan 28 20:25	8°♄47'57	2°28'52
morning max el	4495 Mar 08 06:16	23°♄10'49	24°54'25	minimum elong	4496 Jan 28 17:58	8°♄56'25	2°28'10
desc. node	4495 Mar 11 12:33	26°♄42'18		min. Earth dist.	4496 Jan 29 03:45	8°♄22'37	0.67848 AU
	4495 Mar 14 07:07	0°♄		morning rise	4496 Feb 03 00:34	2°♄33'12	

direct	4496 Feb 08 04:39	0° \approx 18'47		asc. node	4497 Jan 06 13:00	29° Z 15'25	
morning max el	4496 Feb 18 15:03	6° \approx 30'57	23°25'54	inferior conj	4497 Jan 12 04:19	22° Z 39'56	1°48'42
greatest brilliancy	4496 Feb 24 10:36	13° \approx 05'59	-0.2m	minimum elong	4497 Jan 12 02:10	22° Z 47'22	1°47'56
desc. node	4496 Feb 26 09:36	15° \approx 34'05		min. Earth dist.	4497 Jan 12 00:03	22° Z 54'42	0.68056 AU
	4496 Mar 07 19:57	0° X		morning rise	4497 Jan 17 09:40	16° Z 28'14	
morning set	4496 Mar 24 16:38	26° X 32'16		direct	4497 Jan 21 22:54	14° Z 36'33	
	4496 Mar 26 17:27	0° Y		morning max el	4497 Jan 31 03:16	19° Z 59'19	21°58'28
max. Earth dist.	4496 Mar 28 19:01	3° Y 34'46	1.39129 AU	greatest brilliancy	4497 Feb 04 19:03	25° Z 12'41	-0.4m
					4497 Feb 08 13:16	0° \approx	
superior conj	4496 Apr 05 08:23	17° Y 14'00	-1°-43'-1	desc. node	4497 Feb 12 06:40	5° \approx 03'40	
minimum elong	4496 Apr 05 13:15	17° Y 36'43	1°42'30		4497 Mar 01 01:13	0° X	
	4496 Apr 12 01:12	0° Z		morning set	4497 Mar 04 21:12	6° X 05'01	
evening rise	4496 Apr 14 17:34	5° Z 11'40		max. Earth dist.	4497 Mar 10 17:31	15° X 39'53	1.41284 AU
asc. node	4496 Apr 17 15:18	10° Z 46'25					
	4496 Apr 29 16:01	0° II		superior conj	4497 Mar 18 10:50	28° X 56'13	-2°-1'-38
evening max el	4496 Apr 30 22:36	1° II 20'00	18°41'03	minimum elong	4497 Mar 18 14:32	29° X 12'36	2°01'27
retrograde	4496 May 08 22:28	5° II 15'43			4497 Mar 19 01:14	0° Y	
evening set	4496 May 11 02:32	4° II 59'24		evening rise	4497 Mar 29 01:22	18° Y 15'41	
inferior conj	4496 May 18 22:19	0° II 35'17	1°31'29	asc. node	4497 Apr 04 12:20	0° Z 01'19	
minimum elong	4496 May 19 01:24	0° II 29'29	1°30'30		4497 Apr 04 12:02	0° Z	
	4496 May 19 17:01	30° R Z		evening max el	4497 Apr 14 06:35	14° Z 04'17	18°14'07
min. Earth dist.	4496 May 22 05:56	28° Z 06'53	0.57483 AU	retrograde	4497 Apr 21 07:09	17° Z 35'38	
desc. node	4496 May 24 08:48	26° Z 41'40		evening set	4497 Apr 23 17:31	17° Z 11'02	
morning rise	4496 May 26 19:48	25° Z 21'49		inferior conj	4497 Apr 30 19:08	12° Z 25'57	2°40'04
direct	4496 Jun 01 11:36	24° Z 02'38		minimum elong	4497 Apr 30 22:36	12° Z 18'19	2°39'14
	4496 Jun 14 02:51	0° II		min. Earth dist.	4497 May 04 04:42	9° Z 28'07	0.59579 AU
morning max el	4496 Jun 15 20:21	1° II 35'57	26°27'56	morning rise	4497 May 07 23:45	6° Z 44'10	
	4496 Jul 06 00:30	0° S		desc. node	4497 May 11 05:50	5° Z 17'57	
morning set	4496 Jul 14 18:39	17° S 13'01		direct	4497 May 14 09:31	4° Z 50'22	
asc. node	4496 Jul 14 14:34	16° S 51'28		morning max el	4497 May 28 18:21	12° Z 40'54	27°28'12
	4496 Jul 20 16:04	0° Q			4497 Jun 11 10:43	0° II	
					4497 Jun 28 04:58	0° S	
superior conj	4496 Jul 21 19:01	2° Q 28'46	1°08'58	morning set	4497 Jun 29 02:32	1° S 51'41	
minimum elong	4496 Jul 21 16:43	2° Q 16'04	1°08'35	asc. node	4497 Jul 01 11:38	6° S 53'34	
max. Earth dist.	4496 Jul 22 04:05	3° Q 18'45	1.32110 AU	max. Earth dist.	4497 Jul 05 15:42	15° S 58'38	1.31987 AU
evening rise	4496 Jul 28 17:48	17° Q 32'28					
	4496 Aug 03 23:13	0° P		superior conj	4497 Jul 06 06:44	17° S 21'32	0°48'24
desc. node	4496 Aug 20 08:09	26° P 15'07		minimum elong	4497 Jul 06 04:48	17° S 10'55	0°48'02
	4496 Aug 23 08:41	0° A			4497 Jul 12 01:15	0° Q	
evening max el	4496 Aug 28 09:45	5° A 22'23	26°57'56	evening rise	4497 Jul 13 03:09	2° Q 18'19	
retrograde	4496 Sep 11 07:02	12° A 33'20			4497 Jul 28 00:26	0° P	
evening set	4496 Sep 18 07:20	10° A 24'25		desc. node	4497 Aug 07 05:09	13° P 41'05	
min. Earth dist.	4496 Sep 21 23:58	7° A 45'27	0.60791 AU	evening max el	4497 Aug 10 07:27	16° P 52'44	25°57'52
inferior conj	4496 Sep 25 04:19	5° A 04'25	-4°-22'-49	retrograde	4497 Aug 24 06:39	24° P 00'28	
minimum elong	4496 Sep 25 10:19	4° A 51'40	4°21'28	evening set	4497 Aug 30 14:36	22° P 24'24	
morning rise	4496 Oct 02 16:32	0° A 15'11		min. Earth dist.	4497 Sep 03 19:55	19° P 49'28	0.58720 AU
	4496 Oct 03 19:10	30° R P		inferior conj	4497 Sep 07 01:32	17° P 27'12	-5°-2'-27
direct	4496 Oct 04 23:41	29° P 54'21		minimum elong	4497 Sep 07 05:25	17° P 20'01	5°02'02
	4496 Oct 06 03:53	0° A		morning rise	4497 Sep 14 23:47	13° P 01'32	
asc. node	4496 Oct 10 13:46	2° A 03'19		direct	4497 Sep 17 09:24	12° P 42'34	
morning max el	4496 Oct 12 05:41	3° A 30'10	18°02'14	morning max el	4497 Sep 25 13:06	16° P 37'11	18°34'36
morning set	4496 Oct 27 22:56	28° A 20'24		asc. node	4497 Sep 27 10:51	18° P 38'16	
	4496 Oct 28 20:23	0° M			4497 Oct 05 01:33	0° A	
				morning set	4497 Oct 11 16:11	12° A 22'00	
superior conj	4496 Nov 06 22:57	16° M 36'06	1°02'55				
minimum elong	4496 Nov 07 03:01	16° M 54'07	1°02'24	superior conj	4497 Oct 20 12:47	29° A 21'07	1°26'08
max. Earth dist.	4496 Nov 14 14:17	29° M 43'54	1.41977 AU	minimum elong	4497 Oct 20 16:07	29° A 36'43	1°25'49
	4496 Nov 14 18:09	0° J			4497 Oct 20 21:07	0° M	
desc. node	4496 Nov 16 07:27	2° J 34'24		max. Earth dist.	4497 Oct 27 20:47	12° M 36'07	1.39954 AU
evening rise	4496 Nov 20 06:52	9° J 01'07		evening rise	4497 Nov 01 02:03	19° M 48'52	
	4496 Dec 04 00:50	0° Z		desc. node	4497 Nov 03 04:29	23° M 17'57	
greatest brilliancy	4496 Dec 18 12:04	19° Z 38'59	-0.3m		4497 Nov 07 08:18	0° J	
evening max el	4496 Dec 23 08:47	25° Z 06'11	22°32'54		4497 Nov 28 07:03	0° Z	
	4496 Dec 29 14:39	0° \approx		evening max el	4497 Dec 05 22:48	8° Z 44'27	23°52'55
retrograde	4497 Jan 02 04:00	0° \approx 55'43		retrograde	4497 Dec 16 20:53	15° Z 10'36	
	4497 Jan 05 10:44	30° R Z		evening set	4497 Dec 22 00:23	13° Z 03'10	
evening set	4497 Jan 06 18:36	29° Z 04'15		asc. node	4497 Dec 24 10:04	10° Z 35'44	

inferior conj	4497 Dec 27 11:49	6°☿35'21	1°01'36	evening max el	4498 Nov 18 11:24	22°♂26'57	25°09'35
minimum elong	4497 Dec 27 10:26	6°☿40'05	1°01'02	retrograde	4498 Nov 30 09:36	29°♂20'49	
min. Earth dist.	4497 Dec 26 20:39	7°☿26'56	0.67899 AU	evening set	4498 Dec 06 02:47	26°♂58'44	
morning rise	4498 Jan 01 20:44	0°☿28'28		min. Earth dist.	4498 Dec 10 15:12	21°♂56'53	0.67394 AU
	4498 Jan 02 13:16	30°♂♂		asc. node	4498 Dec 11 07:07	21°♂05'01	
direct	4498 Jan 05 19:56	28°♂♂59'29		inferior conj	4498 Dec 11 17:11	20°♂32'07	0°08'35
	4498 Jan 09 08:16	0°☿		minimum elong	4498 Dec 11 16:58	20°♂32'49	0°08'29
morning max el	4498 Jan 13 22:02	3°☿38'08	20°39'20	transit middle	4498 Dec 11 16:58	20°♂32'49	0°08'29
greatest brilliancy	4498 Jan 19 19:34	10°☿31'00	-0.5m	transit begin	4498 Dec 11 14:36	20°♂40'33	
desc. node	4498 Jan 30 03:43	25°☿00'03		transit end	4498 Dec 11 19:20	20°♂25'06	
	4498 Feb 02 12:32	0°♂♂		morning rise	4498 Dec 17 07:48	14°♂32'18	
morning set	4498 Feb 12 00:28	14°♂♂29'35		direct	4498 Dec 20 18:35	13°♂23'41	
max. Earth dist.	4498 Feb 20 22:44	28°♂♂38'17	1.43163 AU	morning max el	4498 Dec 28 00:42	17°♂28'16	19°33'15
	4498 Feb 21 18:54	0°♂♂		greatest brilliancy	4499 Jan 05 08:11	27°♂51'11	-0.6m
					4499 Jan 06 20:16	0°☿	
superior conj	4498 Feb 27 13:41	9°♂♂32'13	-2°-8'-10	desc. node	4499 Jan 17 00:45	15°☿16'12	
minimum elong	4498 Feb 27 13:13	9°♂♂30'13	2°08'11	morning set	4499 Jan 21 21:23	22°☿44'45	
	4498 Mar 11 09:59	0°♂♂			4499 Jan 26 13:41	0°♂♂	
evening rise	4498 Mar 11 17:34	0°♂♂33'27		max. Earth dist.	4499 Feb 03 11:02	12°♂♂22'48	1.44531 AU
asc. node	4498 Mar 22 09:23	18°♂♂48'15					
evening max el	4498 Mar 28 18:30	27°♂♂10'23	18°06'48	superior conj	4499 Feb 07 14:54	19°♂♂00'41	-1°-57'-14
	4498 Apr 01 17:07	0°♂♂		minimum elong	4499 Feb 07 08:17	18°♂♂34'08	1°56'52
retrograde	4498 Apr 04 07:02	0°♂♂32'49			4499 Feb 14 09:20	0°♂♂	
evening set	4498 Apr 06 23:29	29°♂♂57'59		evening rise	4499 Feb 21 13:45	11°♂♂57'15	
	4498 Apr 06 21:34	30°♂♂♂			4499 Mar 04 11:13	0°♂♂	
inferior conj	4498 Apr 13 10:32	24°♂♂52'23	3°18'58	asc. node	4499 Mar 09 06:25	6°♂♂58'49	
minimum elong	4498 Apr 13 12:41	24°♂♂46'57	3°18'40	evening max el	4499 Mar 12 07:19	10°♂♂30'56	18°18'28
min. Earth dist.	4498 Apr 16 11:18	21°♂♂49'55	0.61770 AU	retrograde	4499 Mar 18 17:44	13°♂♂58'13	
morning rise	4498 Apr 19 23:00	18°♂♂52'43		evening set	4499 Mar 21 16:10	13°♂♂11'52	
direct	4498 Apr 26 18:24	16°♂♂28'05		inferior conj	4499 Mar 27 16:27	7°♂♂46'52	3°34'13
desc. node	4498 Apr 28 02:53	16°♂♂33'27		minimum elong	4499 Mar 27 16:54	7°♂♂45'37	3°34'12
morning max el	4498 May 10 22:28	24°♂♂27'11	27°52'00	min. Earth dist.	4499 Mar 30 02:58	5°♂♂02'06	0.63785 AU
	4498 May 15 23:12	0°♂♂		morning rise	4499 Apr 02 15:46	1°♂♂37'33	
	4498 Jun 04 19:13	0°♂♂			4499 Apr 05 02:52	30°♂♂♂	
morning set	4498 Jun 13 05:39	16°♂♂13'15		direct	4499 Apr 09 11:59	28°♂♂53'37	
asc. node	4498 Jun 18 08:41	27°♂♂00'24			4499 Apr 14 04:44	0°♂♂	
max. Earth dist.	4498 Jun 19 00:48	28°♂♂27'29	1.32278 AU	desc. node	4499 Apr 14 23:56	0°♂♂23'07	
	4498 Jun 19 17:50	0°☿		morning max el	4499 Apr 23 06:45	6°♂♂51'43	27°38'33
					4499 May 10 23:45	0°♂♂	
superior conj	4498 Jun 20 16:52	2°☿05'34	0°24'18		4499 May 27 23:28	0°♂♂	
minimum elong	4498 Jun 20 15:46	1°☿05'33	0°24'04	morning set	4499 May 28 01:34	0°♂♂10'28	
evening rise	4498 Jun 27 14:36	17°☿06'59		max. Earth dist.	4499 Jun 02 03:28	10°♂♂33'37	1.33010 AU
	4498 Jul 03 22:55	0°♂♂					
evening max el	4498 Jul 22 22:18	27°♂♂38'40	24°32'28	superior conj	4499 Jun 04 23:35	16°♂♂35'13	0°-2'-40
desc. node	4498 Jul 25 02:09	29°♂♂34'56		minimum elong	4499 Jun 04 23:43	16°♂♂35'57	0°02'39
	4498 Jul 25 14:27	0°♂♂		behind sun begin	4499 Jun 04 18:26	16°♂♂07'36	
retrograde	4498 Aug 05 19:32	4°♂♂39'07		behind sun end	4499 Jun 05 05:01	17°♂♂04'19	
evening set	4498 Aug 10 21:30	3°♂♂41'13		asc. node	4499 Jun 05 05:44	17°♂♂08'12	
min. Earth dist.	4498 Aug 16 09:26	0°♂♂51'08	0.56812 AU		4499 Jun 11 05:08	0°☿	
	4498 Aug 17 17:40	30°♂♂♂		evening rise	4499 Jun 12 02:20	1°☿05'23'38	
inferior conj	4498 Aug 19 02:52	29°♂♂06'26	-5°-12'-46		4499 Jun 27 16:44	0°♂♂	
minimum elong	4498 Aug 19 01:30	29°♂♂08'39	5°12'44	evening max el	4499 Jul 04 11:25	8°♂♂02'23	22°55'31
morning rise	4498 Aug 27 09:01	25°♂♂02'27		desc. node	4499 Jul 11 23:11	13°♂♂23'12	
direct	4498 Aug 30 00:18	24°♂♂43'25		retrograde	4499 Jul 17 19:29	14°♂♂41'17	
morning max el	4498 Sep 08 11:05	29°♂♂08'36	19°28'30	evening set	4499 Jul 21 08:55	14°♂♂13'35	
	4498 Sep 09 08:03	0°♂♂		min. Earth dist.	4499 Jul 28 20:08	10°♂♂53'33	0.55412 AU
asc. node	4498 Sep 14 07:55	6°♂♂14'27		inferior conj	4499 Jul 30 08:58	10°♂♂00'25	-4°-37'-51
morning set	4498 Sep 25 17:43	26°♂♂47'24		minimum elong	4499 Jul 30 01:43	10°♂♂10'54	4°36'31
	4498 Sep 27 08:03	0°♂♂		morning rise	4499 Aug 07 21:10	6°♂♂09'27	
				direct	4499 Aug 10 20:56	5°♂♂48'27	
superior conj	4498 Oct 03 19:07	12°♂♂54'46	1°39'18	morning max el	4499 Aug 21 21:13	10°♂♂55'40	20°43'56
minimum elong	4498 Oct 03 20:54	13°♂♂03'33	1°39'13	asc. node	4499 Sep 01 04:58	24°♂♂37'40	
max. Earth dist.	4498 Oct 10 01:09	24°♂♂49'11	1.37859 AU		4499 Sep 04 05:20	0°♂♂	
	4498 Oct 12 21:42	0°♂♂		morning set	4499 Sep 10 00:41	11°♂♂28'18	
evening rise	4498 Oct 13 20:22	1°♂♂40'34					
desc. node	4498 Oct 21 01:30	13°♂♂54'22		superior conj	4499 Sep 17 13:11	27°♂♂02'50	1°43'55
	4498 Oct 31 12:56	0°♂♂		minimum elong	4499 Sep 17 13:23	27°♂♂03'49	1°43'55

	4499 Sep 19 00:02	0°♄		max. Earth dist.	4500 Sep 05 01:00	18°♄40'39	1.34335 AU
max. Earth dist.	4499 Sep 22 09:06	6°♄42'56	1.35932 AU	evening rise	4500 Sep 09 16:28	27°♄58'35	
evening rise	4499 Sep 26 10:37	14°♄27'34			4500 Sep 10 17:37	0°♄	
	4499 Oct 05 07:00	0°♄		desc. node	4500 Sep 24 19:31	24°♄24'04	
desc. node	4499 Oct 07 22:30	4°♄18'26			4500 Sep 28 12:37	0°♄	
	4499 Oct 26 06:48	0°♄		evening max el	4500 Oct 14 12:46	19°♄45'02	27°03'13
evening max el	4499 Nov 01 00:02	6°♄09'51	26°15'31	retrograde	4500 Oct 27 19:02	27°♄02'04	
retrograde	4499 Nov 13 17:08	13°♄20'09		evening set	4500 Nov 03 13:51	24°♄22'18	
evening set	4499 Nov 19 23:59	10°♄46'31		min. Earth dist.	4500 Nov 07 12:28	20°♄32'16	0.65349 AU
min. Earth dist.	4499 Nov 24 05:17	6°♄20'20	0.66547 AU	inferior conj	4500 Nov 09 13:34	18°♄13'15	-1°-50'-31
inferior conj	4499 Nov 25 18:28	4°♄26'09	0°-49'-17	minimum elong	4500 Nov 09 16:42	18°♄04'21	1°49'15
minimum elong	4499 Nov 25 19:48	4°♄22'03	0°48'43	asc. node	4500 Nov 15 01:11	13°♄03'36	
asc. node	4499 Nov 28 04:10	1°♄36'25		morning rise	4500 Nov 15 21:22	12°♄36'06	
	4499 Nov 29 18:59	30°♄		direct	4500 Nov 18 13:21	11°♄57'44	
morning rise	4499 Dec 01 16:48	28°♄36'06		morning max el	4500 Nov 25 01:03	15°♄26'24	18°08'30
direct	4499 Dec 04 17:05	27°♄44'31			4500 Dec 05 13:35	0°♄	
	4499 Dec 09 20:43	0°♄		morning set	4500 Dec 13 09:14	12°♄45'42	
morning max el	4499 Dec 11 10:24	1°♄25'59	18°42'36	desc. node	4500 Dec 21 18:47	26°♄25'25	
	4499 Dec 31 06:00	0°♄			4500 Dec 24 00:19	0°♄	
morning set	4500 Jan 01 12:38	2°♄00'48					
desc. node	4500 Jan 03 21:46	5°♄46'02		superior conj	4500 Dec 28 01:22	6°♄25'42	0°-42'-19
max. Earth dist.	4500 Jan 17 04:34	26°♄37'48	1.45228 AU	minimum elong	4500 Dec 27 20:05	6°♄04'47	0°41'36
				max. Earth dist.	4500 Dec 31 00:18	11°♄05'15	1.45181 AU
superior conj	4500 Jan 17 20:46	27°♄41'24	-1°-26'-45		4501 Jan 12 03:13	0°♄	
minimum elong	4500 Jan 17 11:29	27°♄04'58	1°25'46	evening rise	4501 Jan 13 10:08	1°♄59'56	
	4500 Jan 19 08:04	0°♄		greatest brilliancy	4501 Jan 30 03:07	27°♄25'19	-0.7m
evening rise	4500 Feb 02 10:46	22°♄23'16			4501 Jan 31 23:04	0°♄	
	4500 Feb 07 04:33	0°♄		evening max el	4501 Feb 07 01:27	7°♄30'12	19°34'42
evening max el	4500 Feb 23 18:20	23°♄59'00	18°48'14	asc. node	4501 Feb 11 00:27	10°♄43'27	
asc. node	4500 Feb 24 03:26	24°♄21'40		retrograde	4501 Feb 14 08:23	11°♄42'19	
retrograde	4500 Mar 02 11:14	27°♄43'27		evening set	4501 Feb 17 20:41	10°♄30'01	
evening set	4500 Mar 05 16:07	26°♄44'34		inferior conj	4501 Feb 23 08:55	4°♄31'41	3°15'25
inferior conj	4500 Mar 11 09:00	21°♄01'50	3°31'37	minimum elong	4501 Feb 23 06:57	4°♄38'08	3°15'06
minimum elong	4500 Mar 11 08:00	21°♄04'55	3°31'33	min. Earth dist.	4501 Feb 24 12:47	3°♄00'00	0.66707 AU
min. Earth dist.	4500 Mar 13 03:49	18°♄49'50	0.65452 AU		4501 Feb 26 23:23	30°♄	
morning rise	4500 Mar 16 22:43	14°♄47'45		morning rise	4501 Feb 28 16:31	28°♄15'41	
direct	4500 Mar 23 12:25	11°♄58'38		direct	4501 Mar 06 18:52	25°♄33'40	
desc. node	4500 Apr 01 20:57	16°♄14'21			4501 Mar 15 23:45	0°♄	
morning max el	4500 Apr 05 16:37	19°♄44'23	26°52'39	morning max el	4501 Mar 19 02:07	2°♄53'44	25°42'14
	4500 Apr 14 10:58	0°♄		desc. node	4501 Mar 19 17:59	3°♄34'25	
	4500 May 04 01:02	0°♄			4501 Apr 08 16:06	0°♄	
morning set	4500 May 11 11:12	13°♄33'58		morning set	4501 Apr 24 06:15	26°♄10'53	
max. Earth dist.	4500 May 15 20:27	22°♄10'12	1.34202 AU		4501 Apr 26 07:49	0°♄	
	4500 May 19 16:17	0°♄		max. Earth dist.	4501 Apr 28 02:05	3°♄19'31	1.35849 AU
superior conj	4500 May 20 00:46	0°♄44'05	0°-31'-31	superior conj	4501 May 03 17:41	14°♄23'38	-1°00'-57
minimum elong	4500 May 20 02:26	0°♄52'49	0°31'12	minimum elong	4501 May 03 21:00	14°♄40'18	1°00'24
asc. node	4500 May 23 02:44	7°♄12'35		asc. node	4501 May 09 23:45	27°♄09'11	
evening rise	4500 May 27 12:25	16°♄29'10			4501 May 11 09:06	0°♄	
	4500 Jun 03 07:49	0°♄		evening rise	4501 May 11 18:43	0°♄49'03	
evening max el	4500 Jun 16 06:39	18°♄36'40	21°22'35	evening max el	4501 May 29 13:20	29°♄45'00	20°04'26
retrograde	4500 Jun 28 09:26	24°♄34'50			4501 May 29 19:33	0°♄	
desc. node	4500 Jun 28 20:11	24°♄34'22		retrograde	4501 Jun 09 00:01	4°♄51'06	
evening set	4500 Jun 30 18:59	24°♄21'38		evening set	4501 Jun 10 22:44	4°♄41'14	
inferior conj	4500 Jul 10 03:15	20°♄22'41	-3°-12'-29	desc. node	4501 Jun 15 17:12	3°♄04'14	
minimum elong	4500 Jul 09 19:02	20°♄34'11	3°09'57	inferior conj	4501 Jun 19 23:25	0°♄41'41	-1°-16'00
min. Earth dist.	4500 Jul 10 06:41	20°♄17'52	0.54821 AU	minimum elong	4501 Jun 19 19:52	0°♄47'00	1°14'42
morning rise	4500 Jul 18 19:36	16°♄28'14			4501 Jun 21 03:11	30°♄	
direct	4500 Jul 22 06:49	16°♄02'14		min. Earth dist.	4501 Jun 21 18:57	29°♄36'32	0.55184 AU
morning max el	4500 Aug 03 19:57	21°♄58'18	22°17'42	morning rise	4501 Jun 28 14:34	26°♄23'17	
	4500 Aug 10 17:58	0°♄		direct	4501 Jul 02 18:44	25°♄45'23	
asc. node	4500 Aug 19 01:59	13°♄36'37			4501 Jul 13 13:41	0°♄	
morning set	4500 Aug 25 10:55	26°♄18'43		morning max el	4501 Jul 16 11:18	2°♄28'40	24°01'04
	4500 Aug 27 04:53	0°♄			4501 Aug 04 09:51	0°♄	
				asc. node	4501 Aug 05 23:01	3°♄01'35	
superior conj	4500 Sep 01 15:24	11°♄34'50	1°41'22	morning set	4501 Aug 09 22:34	11°♄12'26	
minimum elong	4500 Sep 01 14:19	11°♄29'03	1°41'18				

superior conj	4501 Aug 16 22:56	26°02'22	1°32'45	morning set	4502 Jul 25 10:03	26°04'23	
minimum elong	4501 Aug 16 21:00	26°01'05	1°32'34		4502 Jul 27 06:07	0°0	
	4501 Aug 18 15:29	0°0					
max. Earth dist.	4501 Aug 19 01:33	0°05'51	1.33138 AU	superior conj	4502 Aug 01 09:33	11°01'52	1°18'59
evening rise	4501 Aug 24 09:51	12°01'56		minimum elong	4502 Aug 01 07:15	11°02'39	1°18'39
	4501 Sep 02 23:20	0°0		max. Earth dist.	4502 Aug 02 08:54	13°02'23	1.32361 AU
desc. node	4501 Sep 11 16:32	14°02'43		evening rise	4502 Aug 08 11:28	26°02'13	
	4501 Sep 24 01:05	0°0			4502 Aug 10 04:49	0°0	
evening max el	4501 Sep 27 00:11	3°00'16	27°25'51		4502 Aug 27 09:54	0°0	
retrograde	4501 Oct 10 14:54	10°01'45		desc. node	4502 Aug 29 13:33	3°03'11	
evening set	4501 Oct 17 17:42	7°04'30		evening max el	4502 Sep 09 08:14	15°04'31	27°17'45
min. Earth dist.	4501 Oct 21 10:42	4°02'26	0.63798 AU	retrograde	4502 Sep 23 04:08	22°05'27	
inferior conj	4501 Oct 23 23:58	1°04'26	-2°-52'-50	evening set	4502 Sep 30 07:56	20°03'43	
minimum elong	4501 Oct 24 04:52	1°03'45	2°51'06	min. Earth dist.	4502 Oct 03 22:40	17°04'52	0.61946 AU
	4501 Oct 25 18:56	30°00		inferior conj	4502 Oct 06 22:41	15°01'20	-3°-52'-21
morning rise	4501 Oct 30 18:32	26°02'29		minimum elong	4502 Oct 07 04:43	14°04'32	3°50'40
asc. node	4501 Nov 01 22:13	25°05'59		morning rise	4502 Oct 14 04:35	9°05'44	
direct	4501 Nov 02 04:38	25°05'37		direct	4502 Oct 16 11:43	9°03'55	
morning max el	4501 Nov 08 17:48	29°02'37	17°51'40	asc. node	4502 Oct 19 19:17	10°02'05	
	4501 Nov 09 08:20	0°0		morning max el	4502 Oct 23 09:30	13°06'38	17°52'51
morning set	4501 Nov 25 08:52	24°04'49			4502 Nov 03 20:00	0°0	
	4501 Nov 28 09:14	0°0		morning set	4502 Nov 08 05:07	7°05'13	
superior conj	4501 Dec 08 00:13	16°07'03	0°04'33	superior conj	4502 Nov 19 01:23	27°05'17	0°44'34
minimum elong	4501 Dec 08 00:43	16°09'05	0°04'28	minimum elong	4502 Nov 19 05:01	27°02'54	0°44'05
behind sun begin	4501 Dec 07 15:13	15°03'14			4502 Nov 20 18:18	0°0	
behind sun end	4501 Dec 08 10:12	16°04'50		desc. node	4502 Nov 25 12:51	7°05'07	
desc. node	4501 Dec 08 15:49	17°01'46		max. Earth dist.	4502 Nov 26 08:43	9°01'29	1.42999 AU
max. Earth dist.	4501 Dec 13 18:35	25°02'57	1.44403 AU	evening rise	4502 Dec 03 10:14	20°03'46	
	4501 Dec 16 16:01	0°0			4502 Dec 09 12:33	0°0	
evening rise	4501 Dec 23 20:50	11°01'52		greatest brilliancy	4502 Dec 30 05:16	29°01'28	-0.4m
	4502 Jan 05 07:44	0°0			4502 Dec 30 20:56	0°0	
greatest brilliancy	4502 Jan 15 07:55	14°08'37	-0.5m	evening max el	4503 Jan 03 23:51	4°03'26	21°48'04
evening max el	4502 Jan 21 03:22	21°03'08	20°35'43	retrograde	4503 Jan 13 03:57	10°04'33	
asc. node	4502 Jan 28 21:28	25°05'02		asc. node	4503 Jan 15 18:31	9°02'04	
retrograde	4502 Jan 29 06:38	25°05'50		evening set	4503 Jan 17 11:37	8°02'34	
evening set	4502 Feb 02 03:46	24°02'11		inferior conj	4503 Jan 22 20:57	2°02'03	2°12'45
inferior conj	4502 Feb 07 13:39	18°01'35	2°48'30	minimum elong	4503 Jan 22 18:35	2°01'18	2°11'59
minimum elong	4502 Feb 07 11:14	18°02'10	2°47'54	min. Earth dist.	4503 Jan 22 23:17	1°05'53	0.67980 AU
min. Earth dist.	4502 Feb 08 04:04	17°02'44	0.67544 AU		4503 Jan 24 08:30	30°00	
morning rise	4502 Feb 12 18:14	11°05'10		morning rise	4503 Jan 28 01:17	25°04'07	
direct	4502 Feb 18 06:40	9°03'10		direct	4503 Feb 01 22:59	23°04'35	
morning max el	4502 Mar 01 10:47	16°01'34	24°17'16	morning max el	4503 Feb 11 20:32	29°03'40	22°47'59
desc. node	4502 Mar 06 15:01	21°05'30			4503 Feb 12 06:29	0°0	
	4502 Mar 12 20:35	0°0		greatest brilliancy	4503 Feb 16 12:19	4°04'19	-0.3m
	4502 Apr 01 15:33	0°0		desc. node	4503 Feb 21 12:05	11°07'56	
morning set	4502 Apr 06 05:24	7°04'47			4503 Mar 06 15:52	0°0	
max. Earth dist.	4502 Apr 09 22:57	14°02'31	1.37868 AU	morning set	4503 Mar 18 02:32	18°06'34	
				max. Earth dist.	4503 Mar 22 18:12	25°05'55	1.40061 AU
superior conj	4502 Apr 16 23:05	27°02'51	-1°-28'-51		4503 Mar 25 02:40	0°0	
minimum elong	4502 Apr 17 03:41	27°04'56	1°28'14	superior conj	4503 Mar 30 12:46	9°04'17	-1°-52'-4
	4502 Apr 18 07:03	0°0		minimum elong	4503 Mar 30 17:27	10°01'38	1°51'40
evening rise	4502 Apr 25 18:47	14°04'53		evening rise	4503 Apr 09 09:32	28°01'34	
asc. node	4502 Apr 26 20:47	16°05'34			4503 Apr 10 08:34	0°0	
	4502 May 03 21:30	0°0		asc. node	4503 Apr 13 17:49	6°02'46	
evening max el	4502 May 12 08:06	11°03'51	19°05'40	evening max el	4503 Apr 25 12:18	24°02'12	18°27'12
retrograde	4502 May 21 03:07	15°02'44		retrograde	4503 May 03 00:45	27°04'51	
evening set	4502 May 23 03:35	15°02'40		evening set	4503 May 05 07:30	27°02'54	
inferior conj	4502 May 31 10:45	11°02'18	0°37'27	inferior conj	4503 May 12 19:15	22°05'11	2°04'30
minimum elong	4502 May 31 12:15	11°02'43	0°36'55	minimum elong	4503 May 12 22:48	22°04'02	2°03'28
desc. node	4502 Jun 02 14:13	9°02'58		min. Earth dist.	4503 May 16 05:37	20°09'02	0.58342 AU
min. Earth dist.	4502 Jun 03 10:14	9°02'51	0.56444 AU	morning rise	4503 May 20 09:41	17°02'26	
morning rise	4502 Jun 08 16:32	6°03'32		desc. node	4503 May 20 11:14	17°02'26	
direct	4502 Jun 13 19:14	5°03'20		direct	4503 May 26 10:11	15°02'16	
morning max el	4502 Jun 28 01:27	12°02'51	25°39'40	morning max el	4503 Jun 09 19:33	23°03'43	26°57'42
	4502 Jul 11 10:28	0°0			4503 Jun 15 14:18	0°0	
asc. node	4502 Jul 23 20:04	22°04'52					

	4503 Jul 04 11:08	0°☿		direct	4504 May 07 13:06	27°♊01'11	
morning set	4503 Jul 09 19:45	10°☿49'22			4504 May 15 22:36	0°♊	
asc. node	4503 Jul 10 17:08	12°☿42'21		morning max el	4504 May 21 20:00	4°♊55'38	27°43'03
					4504 Jun 09 11:17	0°♊	
superior conj	4503 Jul 16 21:23	26°☿10'19	1°00'44	morning set	4504 Jun 23 01:48	25°♊20'59	
minimum elong	4503 Jul 16 19:11	25°☿58'10	1°00'21		4504 Jun 25 07:00	0°☿	
max. Earth dist.	4503 Jul 16 19:58	26°☿02'29	1.31999 AU	asc. node	4504 Jun 26 14:09	2°☿46'36	
	4503 Jul 18 15:00	0°♊		max. Earth dist.	4504 Jun 29 06:58	8°☿39'00	1.32057 AU
evening rise	4503 Jul 23 18:39	11°♊09'18					
	4503 Aug 02 10:10	0°♊		superior conj	4504 Jun 30 08:36	10°☿59'44	0°38'35
desc. node	4503 Aug 16 10:33	21°♊10'05		minimum elong	4504 Jun 30 06:58	10°☿50'46	0°38'15
evening max el	4503 Aug 22 10:33	27°♊43'15	26°36'18	evening rise	4504 Jul 07 05:07	25°☿57'03	
	4503 Aug 25 00:52	0°♊			4504 Jul 09 03:21	0°♊	
retrograde	4503 Sep 05 09:16	4°♊53'00			4504 Jul 26 12:25	0°♊	
evening set	4503 Sep 12 04:01	2°♊57'07		desc. node	4504 Aug 02 07:34	8°♊00'38	
min. Earth dist.	4503 Sep 16 00:20	0°♊21'55	0.59903 AU	evening max el	4504 Aug 03 05:16	8°♊53'47	25°24'07
	4503 Sep 16 11:40	30°♊		retrograde	4504 Aug 17 04:11	15°♊58'32	
inferior conj	4503 Sep 19 06:20	27°♊46'35	-4°-42'-16	evening set	4504 Aug 23 00:58	14°♊38'57	
minimum elong	4503 Sep 19 11:49	27°♊35'36	4°41'17	min. Earth dist.	4504 Aug 27 17:04	11°♊59'51	0.57868 AU
morning rise	4503 Sep 26 23:00	23°♊07'01		inferior conj	4504 Aug 30 19:19	9°♊51'46	-5°-11'-26
direct	4503 Sep 29 06:37	22°♊47'19		minimum elong	4504 Aug 30 21:19	9°♊48'17	5°11'21
asc. node	4503 Oct 06 16:21	26°♊19'23		morning rise	4504 Sep 07 21:08	5°♊35'34	
morning max el	4503 Oct 06 20:56	26°♊30'18	18°13'22	direct	4504 Sep 10 08:58	5°♊16'39	
	4503 Oct 09 22:40	0°♊		morning max el	4504 Sep 19 00:36	9°♊22'48	18°54'49
morning set	4503 Oct 22 16:07	21°♊36'04		asc. node	4504 Sep 22 13:25	13°♊21'55	
	4503 Oct 27 02:55	0°♊			4504 Oct 02 13:28	0°♊	
				morning set	4504 Oct 05 13:20	5°♊49'11	
superior conj	4503 Nov 01 03:21	9°♊15'50	1°14'03				
minimum elong	4503 Nov 01 07:17	9°♊33'39	1°13'36	superior conj	4504 Oct 14 00:50	22°♊23'13	1°32'51
max. Earth dist.	4503 Nov 08 18:07	22°♊37'44	1.41147 AU	minimum elong	4504 Oct 14 03:33	22°♊36'13	1°32'38
desc. node	4503 Nov 12 09:53	28°♊44'26			4504 Oct 18 02:19	0°♊	
	4503 Nov 13 04:19	0°♊		max. Earth dist.	4504 Oct 20 23:38	5°♊13'50	1.39064 AU
evening rise	4503 Nov 13 16:38	0°♊50'13		evening rise	4504 Oct 24 21:51	12°♊05'39	
	4503 Dec 02 23:48	0°♊		desc. node	4504 Oct 29 06:54	19°♊25'27	
greatest brilliancy	4503 Dec 11 12:08	11°♊16'25	-0.2m		4504 Nov 04 23:06	0°♊	
evening max el	4503 Dec 17 15:56	18°♊14'47	23°06'55		4504 Nov 27 08:25	0°♊	
retrograde	4503 Dec 27 22:43	24°♊20'16		evening max el	4504 Nov 29 05:15	1°♊55'30	24°26'18
evening set	4504 Jan 01 18:36	22°♊22'13		retrograde	4504 Dec 10 13:46	8°♊33'52	
asc. node	4504 Jan 02 15:34	21°♊34'54		evening set	4504 Dec 15 23:09	6°♊19'57	
inferior conj	4504 Jan 07 04:56	15°♊56'04	1°29'31	asc. node	4504 Dec 19 12:37	2°♊27'58	
minimum elong	4504 Jan 07 03:03	16°♊02'32	1°28'48	min. Earth dist.	4504 Dec 20 16:00	0°♊58'22	0.67738 AU
min. Earth dist.	4504 Jan 06 20:04	16°♊26'37	0.68040 AU	inferior conj	4504 Dec 21 11:44	29°♊52'19	0°39'47
morning rise	4504 Jan 12 11:30	9°♊46'02		minimum elong	4504 Dec 21 10:48	29°♊55'28	0°39'23
direct	4504 Jan 16 18:43	8°♊03'55			4504 Dec 21 09:27	30°♊	
morning max el	4504 Jan 25 11:04	13°♊06'38	21°23'17	morning rise	4504 Dec 26 22:50	23°♊48'18	
greatest brilliancy	4504 Jan 30 12:23	18°♊51'27	-0.4m	direct	4504 Dec 30 16:38	22°♊28'14	
	4504 Feb 07 19:04	0°♊		morning max el	4505 Jan 07 09:09	26°♊50'26	20°09'24
desc. node	4504 Feb 08 09:08	0°♊50'03			4505 Jan 10 06:10	0°♊	
morning set	4504 Feb 25 19:00	27°♊05'30		greatest brilliancy	4505 Jan 14 02:40	4°♊53'32	-0.6m
	4504 Feb 27 14:56	0°♊		desc. node	4505 Jan 25 06:10	20°♊55'40	
max. Earth dist.	4504 Mar 03 19:11	8°♊23'22	1.42142 AU		4505 Jan 31 05:55	0°♊	
				morning set	4505 Feb 03 16:29	5°♊17'10	
superior conj	4504 Mar 11 05:43	20°♊55'36	-2°-6'-14	max. Earth dist.	4505 Feb 14 04:11	21°♊45'32	1.43826 AU
minimum elong	4504 Mar 11 08:03	21°♊05'40	2°06'11		4505 Feb 19 06:22	0°♊	
	4504 Mar 16 09:50	0°♊					
evening rise	4504 Mar 22 11:11	10°♊55'36		superior conj	4505 Feb 19 21:36	1°♊02'25	-2°-5'-55
asc. node	4504 Mar 30 14:52	25°♊24'31		minimum elong	4505 Feb 19 18:31	0°♊49'46	2°05'51
	4504 Apr 02 11:37	0°♊		evening rise	4505 Mar 04 19:23	22°♊51'41	
evening max el	4504 Apr 07 22:25	6°♊56'58	18°08'39		4505 Mar 08 22:29	0°♊	
retrograde	4504 Apr 14 16:18	10°♊22'17		asc. node	4505 Mar 17 11:54	13°♊57'22	
evening set	4504 Apr 17 05:28	9°♊53'22		evening max el	4505 Mar 22 11:04	20°♊10'18	18°09'27
inferior conj	4504 Apr 24 00:22	4°♊59'24	2°59'52	retrograde	4505 Mar 28 21:30	23°♊33'16	
minimum elong	4504 Apr 24 03:24	4°♊52'19	2°59'17	evening set	4505 Mar 31 16:32	22°♊53'32	
min. Earth dist.	4504 Apr 27 07:12	1°♊56'43	0.60525 AU	inferior conj	4505 Apr 06 22:30	17°♊39'10	3°27'56
	4504 Apr 29 16:20	30°♊		minimum elong	4505 Apr 06 23:55	17°♊35'22	3°27'49
morning rise	4504 Apr 30 21:54	29°♊09'09		min. Earth dist.	4505 Apr 09 17:25	14°♊42'13	0.62662 AU
desc. node	4504 May 06 08:18	27°♊05'18		morning rise	4505 Apr 13 04:58	11°♊34'38	

direct	4505 Apr 20 01:36	9°Υ00'30		inferior conj	4506 Mar 21 09:23	0°Υ43'19	3°35'00
desc. node	4505 Apr 23 05:20	9°Υ29'54		minimum elong	4506 Mar 21 09:10	0°Υ43'57	3°35'00
morning max el	4505 May 04 02:18	16°Υ59'44	27°50'46		4506 Mar 22 00:01	30°℞℥	
	4505 May 14 20:57	0°♄		min. Earth dist.	4506 Mar 23 13:11	28°℥11'03	0.64539 AU
	4505 Jun 02 04:47	0°♂		morning rise	4506 Mar 27 04:10	24°℥31'11	
morning set	4505 Jun 07 02:10	9°♂33'15		direct	4506 Apr 02 22:09	21°℥43'30	
max. Earth dist.	4505 Jun 12 14:04	21°♂00'52	1.32538 AU	desc. node	4506 Apr 10 02:22	24°℥15'19	
asc. node	4505 Jun 13 11:11	22°♂54'18		morning max el	4506 Apr 16 11:49	29°℥38'31	27°22'35
					4506 Apr 16 20:18	0°Υ	
superior conj	4505 Jun 14 17:30	25°♂38'14	0°13'11		4506 May 08 19:12	0°♄	
minimum elong	4505 Jun 14 16:52	25°♂34'51	0°13'02	morning set	4506 May 21 18:07	23°♄17'12	
behind sun begin	4505 Jun 14 13:51	25°♂18'30			4506 May 25 02:53	0°♂	
behind sun end	4505 Jun 14 19:53	25°♂51'13		max. Earth dist.	4506 May 26 13:03	2°♂55'03	1.33461 AU
	4505 Jun 16 17:36	0°♄					
evening rise	4505 Jun 21 16:55	10°♄45'22		superior conj	4506 May 29 22:05	9°♂59'17	0°-14'-45
	4505 Jul 01 13:06	0°♂		minimum elong	4506 May 29 22:50	10°♂03'18	0°14'37
evening max el	4505 Jul 15 18:18	19°♂25'37	23°51'36	behind sun begin	4506 May 29 20:36	9°♂51'26	
desc. node	4505 Jul 20 04:34	23°♂05'15		behind sun end	4506 May 30 01:05	10°♂15'11	
retrograde	4505 Jul 29 11:20	26°♂19'12		asc. node	4506 May 31 08:12	13°♂00'48	
evening set	4505 Aug 02 22:07	25°♂35'34		evening rise	4506 Jun 06 04:09	25°♂27'20	
min. Earth dist.	4505 Aug 09 04:30	22°♂34'31	0.56137 AU		4506 Jun 08 08:35	0°♄	
inferior conj	4505 Aug 11 11:56	21°♂10'22	-5°-4'-13	evening max el	4506 Jun 27 08:49	29°♄48'34	22°14'36
minimum elong	4505 Aug 11 07:49	21°♂16'38	5°03'50		4506 Jun 27 13:32	0°♂	
morning rise	4505 Aug 19 20:53	17°♂13'50		desc. node	4506 Jul 07 01:34	5°♂49'13	
direct	4505 Aug 22 15:40	16°♂54'09		retrograde	4506 Jul 10 06:42	6°♂13'09	
morning max el	4505 Sep 01 17:38	21°♂35'19	19°58'08	evening set	4506 Jul 13 06:12	5°♂53'29	
	4505 Sep 08 13:55	0°♄		min. Earth dist.	4506 Jul 21 14:53	2°♂16'28	0.55044 AU
asc. node	4505 Sep 09 10:26	1°♄19'01		inferior conj	4506 Jul 22 11:32	1°♂47'20	-4°-7'-14
morning set	4505 Sep 19 17:26	20°♄21'37		minimum elong	4506 Jul 22 03:02	1°♂59'20	4°05'11
	4505 Sep 24 10:49	0°♄			4506 Jul 25 18:25	30°℞♄	
				morning rise	4506 Jul 31 01:53	27°♄57'26	
superior conj	4505 Sep 27 12:38	6°♄12'41	1°42'14	direct	4506 Aug 03 05:43	27°♄35'02	
minimum elong	4505 Sep 27 13:44	6°♄18'08	1°42'11		4506 Aug 11 00:31	0°♂	
max. Earth dist.	4505 Oct 03 04:56	17°♄15'50	1.37006 AU	morning max el	4506 Aug 14 22:44	3°♂02'47	21°22'07
evening rise	4505 Oct 07 01:04	24°♄21'17		asc. node	4506 Aug 27 07:27	19°♂58'06	
	4505 Oct 10 05:32	0°♄			4506 Sep 01 14:00	0°♄	
desc. node	4505 Oct 16 03:54	9°♄56'57		morning set	4506 Sep 04 01:58	5°♄06'41	
	4505 Oct 29 14:51	0°♄					
evening max el	4505 Nov 11 17:36	15°♄38'05	25°39'18	superior conj	4506 Sep 11 10:33	20°♄31'56	1°43'38
retrograde	4505 Nov 24 00:20	22°♄40'18		minimum elong	4506 Sep 11 10:09	20°♄29'51	1°43'38
evening set	4505 Nov 29 23:34	20°♄12'30		max. Earth dist.	4506 Sep 15 15:31	29°♄06'53	1.35196 AU
min. Earth dist.	4505 Dec 04 08:48	15°♄25'59	0.67081 AU		4506 Sep 16 02:11	0°♄	
inferior conj	4505 Dec 05 15:35	13°♄47'56	0°-15'-27	evening rise	4506 Sep 19 22:25	7°♄27'59	
minimum elong	4505 Dec 05 15:58	13°♄46'39	0°15'17		4506 Oct 02 21:25	0°♄	
transit middle	4505 Dec 05 15:58	13°♄46'39	0°15'17	desc. node	4506 Oct 03 00:54	0°♄13'46	
transit begin	4505 Dec 05 15:04	13°♄49'34		evening max el	4506 Oct 25 06:07	29°♄18'16	26°38'31
transit end	4505 Dec 05 16:53	13°♄43'45			4506 Oct 25 23:46	0°♄	
asc. node	4505 Dec 06 09:40	12°♄50'38		retrograde	4506 Nov 07 05:46	6°♄33'28	
morning rise	4505 Dec 11 09:17	7°♄52'14		evening set	4506 Nov 13 17:59	3°♄56'09	
direct	4505 Dec 14 15:19	6°♄51'26			4506 Nov 17 15:16	30°℞♄	
morning max el	4505 Dec 21 15:07	10°♄44'40	19°09'45	min. Earth dist.	4506 Nov 17 20:15	29°♄45'28	0.66071 AU
greatest brilliancy	4506 Jan 01 03:41	24°♄30'04	-0.7m	inferior conj	4506 Nov 19 14:31	27°♄39'44	-1°-14'-58
	4506 Jan 04 19:18	0°♄		minimum elong	4506 Nov 19 16:35	27°♄33'33	1°14'05
desc. node	4506 Jan 12 03:11	11°♄18'03		asc. node	4506 Nov 23 06:41	23°♄40'15	
morning set	4506 Jan 13 18:44	13°♄51'37		morning rise	4506 Nov 25 16:41	21°♄54'55	
	4506 Jan 24 03:09	0°♄		direct	4506 Nov 28 13:02	21°♄09'35	
max. Earth dist.	4506 Jan 27 19:16	5°♄45'59	1.44915 AU	morning max el	4506 Dec 05 03:19	24°♄44'48	18°26'05
					4506 Dec 09 12:56	0°♄	
superior conj	4506 Jan 30 13:01	10°♄05'37	-1°-46'-34	morning set	4506 Dec 24 22:11	23°♄45'15	
minimum elong	4506 Jan 30 04:27	9°♄31'44	1°45'53		4506 Dec 28 19:56	0°♄	
	4506 Feb 11 21:40	0°℥		desc. node	4506 Dec 30 00:12	1°♄52'34	
evening rise	4506 Feb 14 05:57	3°℥51'04					
	4506 Mar 02 21:42	0°Υ		superior conj	4507 Jan 09 15:53	18°♄41'41	-1°-8'-59
asc. node	4506 Mar 04 08:56	1°Υ49'00		minimum elong	4507 Jan 09 07:39	18°♄09'23	1°08'01
evening max el	4506 Mar 05 23:19	3°Υ34'09	18°28'55	max. Earth dist.	4507 Jan 10 13:41	20°♄07'10	1.45295 AU
retrograde	4506 Mar 12 11:39	7°Υ07'44			4507 Jan 16 21:00	0°♄	
evening set	4506 Mar 15 12:39	6°Υ16'15		evening rise	4507 Jan 25 17:18	13°♄54'41	

	4507 Feb 04 22:50	0°♄			4508 Jan 31 00:01	0°♄	
greatest brilliancy	4507 Feb 07 02:53	3°♄19'54	-0.7m	evening max el	4508 Jan 31 14:01	0°♄36'42	19°59'04
evening max el	4507 Feb 17 08:54	17°♄04'08	19°06'00	asc. node	4508 Feb 06 02:59	4°♄39'38	
asc. node	4507 Feb 19 05:57	18°♄47'53		retrograde	4508 Feb 08 04:52	5°♄02'49	
retrograde	4507 Feb 24 07:04	20°♄59'25		evening set	4508 Feb 11 20:45	3°♄44'38	
evening set	4507 Feb 27 14:51	19°♄55'09			4508 Feb 15 13:15	30°♄	
inferior conj	4507 Mar 05 05:29	14°♄05'37	3°26'12	inferior conj	4508 Feb 17 07:46	27°♄40'48	3°05'11
minimum elong	4507 Mar 05 04:00	14°♄10'18	3°26'02	minimum elong	4508 Feb 17 05:33	27°♄48'14	3°04'43
min. Earth dist.	4507 Mar 06 17:52	12°♄09'53	0.66042 AU	min. Earth dist.	4508 Feb 18 05:48	26°♄26'54	0.67121 AU
morning rise	4507 Mar 10 16:11	7°♄50'14		morning rise	4508 Feb 22 13:44	21°♄24'42	
direct	4507 Mar 17 01:32	5°♄02'29		direct	4508 Feb 28 10:32	18°♄48'20	
desc. node	4507 Mar 27 23:25	10°♄47'55		morning max el	4508 Mar 11 06:36	25°♄52'45	25°07'08
morning max el	4507 Mar 29 21:45	12°♄39'48	26°24'57	desc. node	4508 Mar 13 20:27	28°♄37'42	
	4507 Apr 12 20:33	0°♄			4508 Mar 15 01:21	0°♄	
	4507 May 01 10:58	0°♄			4508 Apr 05 09:44	0°♄	
morning set	4507 May 04 22:08	6°♄22'31		morning set	4508 Apr 16 09:30	18°♄35'52	
max. Earth dist.	4507 May 09 00:51	14°♄16'48	1.34850 AU	max. Earth dist.	4508 Apr 20 01:55	25°♄19'18	1.36675 AU
					4508 Apr 22 13:32	0°♄	
superior conj	4507 May 13 20:05	23°♄56'25	0°-44'-4				
minimum elong	4507 May 13 22:28	24°♄08'38	0°43'38	superior conj	4508 Apr 26 08:40	7°♄21'57	-1°-13'-8
	4507 May 16 18:19	0°♄		minimum elong	4508 Apr 26 12:36	7°♄41'24	1°12'31
asc. node	4507 May 18 05:13	3°♄02'12		asc. node	4508 May 04 02:16	22°♄54'30	
evening rise	4507 May 21 12:53	9°♄57'04		evening rise	4508 May 04 16:54	24°♄08'16	
	4507 Jun 01 04:48	0°♄			4508 May 07 15:38	0°♄	
evening max el	4507 Jun 09 08:38	10°♄35'28	20°47'07	evening max el	4508 May 21 20:51	22°♄02'42	19°36'56
retrograde	4507 Jun 20 19:16	16°♄11'42		retrograde	4508 May 31 13:35	26°♄46'17	
evening set	4507 Jun 22 21:53	16°♄01'02		evening set	4508 Jun 02 12:16	26°♄35'43	
desc. node	4507 Jun 23 22:36	15°♄48'27		desc. node	4508 Jun 09 19:38	23°♄25'42	
inferior conj	4507 Jul 02 04:46	12°♄04'06	-2°-24'-52	inferior conj	4508 Jun 11 06:12	22°♄31'56	0°-25'-39
minimum elong	4507 Jul 01 22:06	12°♄13'36	2°22'34	minimum elong	4508 Jun 11 05:03	22°♄33'45	0°25'14
min. Earth dist.	4507 Jul 03 02:23	11°♄33'18	0.54855 AU	min. Earth dist.	4508 Jun 13 15:45	21°♄01'34	0.55628 AU
morning rise	4507 Jul 10 21:26	8°♄01'14		morning rise	4508 Jun 19 18:24	17°♄59'15	
direct	4507 Jul 14 15:03	7°♄31'13		direct	4508 Jun 24 08:06	17°♄12'40	
morning max el	4507 Jul 27 17:38	13°♄49'03	23°01'18	morning max el	4508 Jul 08 07:34	24°♄12'45	24°44'31
	4507 Aug 09 02:20	0°♄			4508 Jul 13 14:37	0°♄	
asc. node	4507 Aug 14 04:29	9°♄08'47		asc. node	4508 Jul 31 01:32	28°♄42'51	
morning set	4507 Aug 19 12:58	19°♄58'30			4508 Jul 31 16:41	0°♄	
	4507 Aug 24 05:28	0°♄		morning set	4508 Aug 03 00:47	4°♄52'22	
superior conj	4507 Aug 26 15:18	5°♄10'40	1°38'23	superior conj	4508 Aug 10 00:25	20°♄01'21	1°27'29
minimum elong	4507 Aug 26 13:47	5°♄02'35	1°38'17	minimum elong	4508 Aug 09 22:16	19°♄49'36	1°27'15
max. Earth dist.	4507 Aug 29 10:56	11°♄08'57	1.33768 AU	max. Earth dist.	4508 Aug 11 14:58	23°♄30'53	1.32760 AU
evening rise	4507 Sep 03 09:37	21°♄13'51			4508 Aug 14 15:41	0°♄	
	4507 Sep 07 23:33	0°♄		evening rise	4508 Aug 17 06:57	5°♄28'36	
desc. node	4507 Sep 19 21:54	20°♄08'42			4508 Aug 30 14:23	0°♄	
	4507 Sep 26 18:34	0°♄		desc. node	4508 Sep 05 18:56	9°♄32'42	
evening max el	4507 Oct 07 18:35	12°♄46'31	27°16'30	evening max el	4508 Sep 19 05:09	25°♄50'23	27°26'30
retrograde	4507 Oct 21 05:20	20°♄04'44			4508 Sep 24 07:41	0°♄	
evening set	4507 Oct 28 03:58	17°♄25'03		retrograde	4508 Oct 02 22:15	3°♄05'51	
min. Earth dist.	4507 Nov 01 00:01	13°♄49'41	0.64718 AU	evening set	4508 Oct 10 02:29	0°♄33'28	
inferior conj	4507 Nov 03 06:15	11°♄22'01	-2°-17'-2		4508 Oct 10 20:43	30°♄	
minimum elong	4507 Nov 03 10:10	11°♄11'20	2°15'31	min. Earth dist.	4508 Oct 13 18:06	27°♄29'50	0.63044 AU
morning rise	4507 Nov 09 18:29	5°♄51'08		inferior conj	4508 Oct 16 12:06	24°♄48'37	-3°-18'-45
asc. node	4507 Nov 10 03:44	5°♄41'44		minimum elong	4508 Oct 16 17:37	24°♄35'07	3°16'57
direct	4507 Nov 12 07:34	5°♄17'17		morning rise	4508 Oct 23 11:26	19°♄35'10	
morning max el	4507 Nov 18 19:09	8°♄43'44	17°59'12	direct	4508 Oct 25 19:59	19°♄09'08	
	4507 Dec 03 05:58	0°♄		asc. node	4508 Oct 27 00:46	19°♄16'03	
morning set	4507 Dec 06 07:00	5°♄05'44		morning max el	4508 Nov 01 11:46	22°♄35'04	17°49'52
desc. node	4507 Dec 16 21:13	22°♄34'32			4508 Nov 07 06:18	0°♄	
				morning set	4508 Nov 17 16:11	17°♄36'25	
superior conj	4507 Dec 20 02:22	27°♄45'05	0°-22'-5		4508 Nov 24 19:04	0°♄	
minimum elong	4507 Dec 19 23:41	27°♄34'20	0°21'43				
	4507 Dec 21 12:10	0°♄		superior conj	4508 Nov 29 12:00	7°♄57'28	0°22'41
max. Earth dist.	4507 Dec 24 08:51	4°♄32'14	1.44934 AU	minimum elong	4508 Nov 29 14:15	8°♄06'48	0°22'23
evening rise	4508 Jan 05 09:38	23°♄16'22		desc. node	4508 Dec 02 18:14	13°♄20'38	
	4508 Jan 09 18:47	0°♄		max. Earth dist.	4508 Dec 06 02:02	18°♄44'16	1.43878 AU
greatest brilliancy	4508 Jan 24 17:26	22°♄09'53	-0.6m		4508 Dec 13 05:05	0°♄	

evening rise	4508 Dec 14 19:27	2°☾28'36		evening rise	4509 Nov 24 14:42	12°♄10'15	
	4509 Jan 02 08:11	0°☾			4509 Dec 06 06:11	0°☾	
greatest brilliancy	4509 Jan 08 08:15	8°☾05'34	-0.4m	greatest brilliancy	4509 Dec 22 13:41	22°☾23'48	-0.3m
evening max el	4509 Jan 13 13:41	14°☾10'10	21°05'25	evening max el	4509 Dec 27 08:01	27°☾45'00	22°21'09
retrograde	4509 Jan 22 02:52	19°☾13'53			4509 Dec 29 17:38	0°☾	
asc. node	4509 Jan 23 00:03	19°☾09'39		retrograde	4510 Jan 05 23:19	3°☾29'00	
evening set	4509 Jan 26 04:23	17°☾40'38		asc. node	4510 Jan 09 21:05	2°☾08'21	
inferior conj	4509 Jan 31 13:50	11°☾25'12	2°34'19	evening set	4510 Jan 10 12:04	1°☾39'57	
minimum elong	4509 Jan 31 11:23	11°☾33'40	2°33'38		4510 Jan 12 05:39	30°☾	
min. Earth dist.	4509 Jan 31 22:55	10°☾53'50	0.67781 AU	inferior conj	4510 Jan 15 21:38	25°☾16'23	1°55'16
morning rise	4509 Feb 05 18:01	5°☾10'12		minimum elong	4510 Jan 15 19:25	25°☾24'05	1°54'30
direct	4509 Feb 11 00:16	2°☾52'42		min. Earth dist.	4510 Jan 15 19:02	25°☾25'25	0.68044 AU
morning max el	4509 Feb 21 15:18	9°☾12'15	23°39'18	morning rise	4510 Jan 21 02:38	19°☾04'01	
desc. node	4509 Feb 28 17:30	17°☾22'31		direct	4510 Jan 25 17:59	17°☾08'58	
	4509 Mar 10 00:06	0°☾		morning max el	4510 Feb 04 02:49	22°☾39'13	22°11'08
morning set	4509 Mar 28 22:18	29°☾40'55		greatest brilliancy	4510 Feb 08 16:53	27°☾46'52	-0.3m
	4509 Mar 29 02:47	0°☾			4510 Feb 10 11:49	0°☾	
max. Earth dist.	4509 Apr 01 21:35	6°☾33'15	1.38800 AU	desc. node	4510 Feb 15 14:32	6°☾46'56	
					4510 Mar 03 08:31	0°☾	
superior conj	4509 Apr 09 08:00	20°☾05'31	-1°-39'-29	morning set	4510 Mar 09 07:12	9°☾25'45	
minimum elong	4509 Apr 09 12:52	20°☾28'19	1°38'56	max. Earth dist.	4510 Mar 14 19:04	18°☾29'21	1.40972 AU
	4509 Apr 14 12:21	0°☾			4510 Mar 21 11:19	0°☾	
evening rise	4509 Apr 18 13:28	7°☾52'47					
asc. node	4509 Apr 20 23:19	12°☾32'26		superior conj	4510 Mar 22 13:31	1°☾56'14	-1°-59'-28
	4509 May 01 06:22	0°☾		minimum elong	4510 Mar 22 17:35	2°☾14'20	1°59'14
evening max el	4509 May 04 20:02	4°☾09'29	18°46'45	evening rise	4510 Apr 01 23:13	21°☾02'28	
retrograde	4509 May 13 00:32	8°☾10'29			4510 Apr 06 19:40	0°☾	
evening set	4509 May 15 03:34	7°☾55'14		asc. node	4510 Apr 07 20:23	1°☾50'46	
inferior conj	4509 May 23 02:18	3°☾34'01	1°18'17	evening max el	4510 Apr 18 03:08	16°☾49'18	18°16'50
minimum elong	4509 May 23 05:04	3°☾28'56	1°17'21	retrograde	4510 Apr 25 06:28	20°☾23'15	
min. Earth dist.	4509 May 26 08:16	1°☾11'58	0.57198 AU	evening set	4510 Apr 27 15:51	20°☾00'06	
desc. node	4509 May 27 16:42	0°☾17'19		inferior conj	4510 May 04 19:59	15°☾18'17	2°31'39
	4509 May 28 03:36	30°☾		minimum elong	4510 May 04 23:32	15°☾10'38	2°30'45
morning rise	4509 May 31 02:05	28°☾25'25		min. Earth dist.	4510 May 08 06:10	12°☾23'06	0.59255 AU
direct	4509 Jun 05 14:30	27°☾11'14		morning rise	4510 May 12 03:08	9°☾39'54	
	4509 Jun 14 03:21	0°☾		desc. node	4510 May 14 13:44	8°☾32'11	
morning max el	4509 Jun 19 22:56	4°☾41'17	26°16'16	direct	4510 May 18 10:43	7°☾51'05	
	4509 Jul 08 08:10	0°☾		morning max el	4510 Jun 01 19:57	15°☾40'02	27°21'23
asc. node	4509 Jul 17 22:35	18°☾32'49			4510 Jun 13 11:47	0°☾	
morning set	4509 Jul 18 11:44	19°☾42'04			4510 Jun 30 17:12	0°☾	
	4509 Jul 23 06:01	0°☾		morning set	4510 Jul 02 20:08	4°☾22'14	
				asc. node	4510 Jul 04 19:38	8°☾33'21	
superior conj	4509 Jul 25 11:47	4°☾56'13	1°11'45				
minimum elong	4509 Jul 25 09:28	4°☾43'26	1°11'23	superior conj	4510 Jul 09 23:34	19°☾49'24	0°51'47
max. Earth dist.	4509 Jul 26 00:33	6°☾06'33	1.32164 AU	minimum elong	4510 Jul 09 21:33	19°☾38'18	0°51'23
evening rise	4509 Aug 01 11:15	20°☾01'56		max. Earth dist.	4510 Jul 09 12:04	18°☾45'58	1.31977 AU
	4509 Aug 06 09:50	0°☾			4510 Jul 14 14:44	0°☾	
desc. node	4509 Aug 23 15:57	28°☾12'22		evening rise	4510 Jul 16 20:04	4°☾46'18	
	4509 Aug 25 01:09	0°☾			4510 Jul 30 04:21	0°☾	
evening max el	4509 Sep 01 11:00	8°☾15'34	27°04'03	desc. node	4510 Aug 10 12:59	15°☾49'42	
retrograde	4509 Sep 15 07:52	15°☾27'22		evening max el	4510 Aug 14 09:51	19°☾53'07	26°08'41
evening set	4509 Sep 22 09:32	13°☾14'19		retrograde	4510 Aug 28 09:09	27°☾01'41	
min. Earth dist.	4509 Sep 26 01:20	10°☾33'18	0.61097 AU	evening set	4510 Sep 03 20:16	25°☾20'12	
inferior conj	4509 Sep 29 04:48	7°☾50'54	-4°-15'-15	min. Earth dist.	4510 Sep 07 22:39	22°☾45'49	0.59021 AU
minimum elong	4509 Sep 29 10:53	7°☾37'44	4°13'47	inferior conj	4510 Sep 11 04:47	20°☾19'28	-4°-58'-3
morning rise	4509 Oct 06 15:26	2°☾58'30		minimum elong	4510 Sep 11 09:12	20°☾11'09	4°57'30
direct	4509 Oct 08 22:29	2°☾37'14		morning rise	4510 Sep 19 01:41	15°☾50'18	
asc. node	4509 Oct 13 21:49	4°☾21'35		direct	4510 Sep 21 10:36	15°☾31'16	
morning max el	4509 Oct 16 02:03	6°☾11'02	17°59'11	morning max el	4510 Sep 29 10:38	19°☾22'38	18°28'26
	4509 Oct 31 06:43	0°☾		asc. node	4510 Sep 30 18:52	20°☾45'52	
morning set	4509 Oct 31 19:19	0°☾57'59			4510 Oct 07 07:52	0°☾	
				morning set	4510 Oct 15 11:04	14°☾55'15	
superior conj	4509 Nov 11 00:15	19°☾27'46	0°58'26		4510 Oct 23 08:30	0°☾	
minimum elong	4509 Nov 11 04:17	19°☾45'29	0°57'55				
	4509 Nov 17 03:36	0°☾		superior conj	4510 Oct 24 11:11	2°☾04'11	1°23'17
max. Earth dist.	4509 Nov 18 14:32	2°☾25'31	1.42251 AU	minimum elong	4510 Oct 24 14:42	2°☾20'31	1°22'55
desc. node	4509 Nov 19 15:16	4°☾07'38		max. Earth dist.	4510 Oct 31 21:32	15°☾23'41	1.40264 AU

evening rise	4510 Nov 05 06:27	22° \mathbb{M} 48'37		minimum elong	4511 Oct 07 17:26	15° \mathbb{A} 41'35	1°37'45
desc. node	4510 Nov 06 12:15	24° \mathbb{M} 51'47		max. Earth dist.	4511 Oct 14 02:02	27° \mathbb{A} 42'17	1.38171 AU
	4510 Nov 09 16:21	0° \mathbb{A}			4511 Oct 15 08:23	0° \mathbb{M}	
	4510 Nov 30 05:51	0° \mathbb{B}		evening rise	4511 Oct 17 21:31	4° \mathbb{M} 31'34	
evening max el	4510 Dec 09 22:26	11° \mathbb{B} 22'32	23°41'06	desc. node	4511 Oct 24 09:17	15° \mathbb{M} 29'41	
retrograde	4510 Dec 20 16:44	17° \mathbb{B} 43'49			4511 Nov 02 17:44	0° \mathbb{A}	
evening set	4510 Dec 25 18:11	15° \mathbb{B} 38'50		evening max el	4511 Nov 22 11:12	25° \mathbb{A} 04'44	24°58'37
asc. node	4510 Dec 27 18:08	13° \mathbb{B} 39'38			4511 Nov 28 11:57	0° \mathbb{B}	
min. Earth dist.	4510 Dec 30 15:45	9° \mathbb{B} 57'28	0.67944 AU	retrograde	4511 Dec 04 06:01	1° \mathbb{B} 54'46	
inferior conj	4510 Dec 31 05:17	9° \mathbb{B} 11'14	1°09'07		4511 Dec 09 08:41	30° \mathbb{R} \mathbb{A}	
minimum elong	4510 Dec 31 03:45	9° \mathbb{B} 16'28	1°08'32	evening set	4511 Dec 09 21:10	29° \mathbb{A} 34'52	
morning rise	4511 Jan 05 13:30	3° \mathbb{B} 03'23		min. Earth dist.	4511 Dec 14 10:45	24° \mathbb{A} 27'45	0.67498 AU
direct	4511 Jan 09 14:44	1° \mathbb{B} 31'01		asc. node	4511 Dec 14 15:09	24° \mathbb{A} 13'23	
morning max el	4511 Jan 17 20:22	6° \mathbb{B} 15'49	20°50'19	inferior conj	4511 Dec 15 11:04	23° \mathbb{A} 07'50	0°16'57
greatest brilliancy	4511 Jan 23 12:01	12° \mathbb{B} 48'35	-0.5m	minimum elong	4511 Dec 15 10:39	23° \mathbb{A} 09'13	0°16'47
desc. node	4511 Feb 02 11:32	26° \mathbb{B} 39'26		morning rise	4511 Dec 21 00:42	17° \mathbb{A} 06'45	
	4511 Feb 04 18:05	0° \mathbb{A}		direct	4511 Dec 24 13:16	15° \mathbb{A} 55'13	
morning set	4511 Feb 16 13:19	17° \mathbb{A} 57'09		morning max el	4511 Dec 31 21:47	20° \mathbb{A} 03'55	19°42'03
	4511 Feb 24 03:28	0° \mathbb{H}			4512 Jan 08 22:26	0° \mathbb{B}	
max. Earth dist.	4511 Feb 24 22:53	1° \mathbb{H} 18'38	1.42911 AU	greatest brilliancy	4512 Jan 08 17:55	29° \mathbb{A} 44'18	-0.6m
				desc. node	4512 Jan 20 08:33	16° \mathbb{B} 52'42	
superior conj	4511 Mar 03 20:05	12° \mathbb{H} 42'12	-2°-8'-12	morning set	4512 Jan 26 09:24	26° \mathbb{B} 08'04	
minimum elong	4511 Mar 03 20:26	12° \mathbb{H} 43'41	2°08'13		4512 Jan 28 21:23	0° \mathbb{A}	
	4511 Mar 13 19:21	0° \mathbb{Y}		max. Earth dist.	4512 Feb 07 10:15	14° \mathbb{A} 57'01	1.44371 AU
evening rise	4511 Mar 15 17:56	3° \mathbb{Y} 27'05					
asc. node	4511 Mar 25 17:25	20° \mathbb{Y} 42'16		superior conj	4512 Feb 12 00:54	22° \mathbb{A} 19'34	-2°00'-11
evening max el	4511 Apr 01 14:41	29° \mathbb{Y} 52'39	18°06'43	minimum elong	4512 Feb 11 19:08	21° \mathbb{A} 56'21	1°59'53
	4511 Apr 01 17:41	0° \mathbb{B}			4512 Feb 16 18:03	0° \mathbb{H}	
retrograde	4511 Apr 08 04:16	3° \mathbb{B} 15'18		evening rise	4512 Feb 25 17:14	14° \mathbb{H} 58'35	
evening set	4511 Apr 10 19:53	2° \mathbb{B} 42'03			4512 Mar 05 15:57	0° \mathbb{Y}	
	4511 Apr 14 21:18	30° \mathbb{R} \mathbb{Y}		asc. node	4512 Mar 11 14:26	8° \mathbb{Y} 58'35	
inferior conj	4511 Apr 17 08:50	27° \mathbb{Y} 39'33	3°14'40	evening max el	4512 Mar 15 03:31	13° \mathbb{Y} 11'08	18°15'37
minimum elong	4511 Apr 17 11:14	27° \mathbb{Y} 33'36	3°14'19	retrograde	4512 Mar 21 13:35	16° \mathbb{Y} 36'47	
min. Earth dist.	4511 Apr 20 11:26	24° \mathbb{Y} 36'12	0.61451 AU	evening set	4512 Mar 24 11:11	15° \mathbb{Y} 52'06	
morning rise	4511 Apr 23 23:35	21° \mathbb{Y} 42'03		inferior conj	4512 Mar 30 12:49	10° \mathbb{Y} 29'51	3°33'08
direct	4511 Apr 30 18:15	19° \mathbb{Y} 21'16		minimum elong	4512 Mar 30 13:31	10° \mathbb{Y} 27'54	3°33'07
desc. node	4511 May 01 10:45	19° \mathbb{Y} 22'39		min. Earth dist.	4512 Apr 02 01:35	7° \mathbb{Y} 41'26	0.63502 AU
morning max el	4511 May 14 23:08	27° \mathbb{Y} 19'36	27°50'53	morning rise	4512 Apr 05 13:53	4° \mathbb{Y} 21'42	
	4511 May 17 12:09	0° \mathbb{B}		direct	4512 Apr 12 10:29	1° \mathbb{Y} 39'53	
	4511 Jun 07 03:54	0° \mathbb{I}		desc. node	4512 Apr 17 07:46	2° \mathbb{Y} 50'35	
morning set	4511 Jun 17 00:05	18° \mathbb{I} 46'47		morning max el	4512 Apr 26 06:49	9° \mathbb{Y} 38'21	27°42'52
asc. node	4511 Jun 21 16:40	28° \mathbb{I} 39'49			4512 May 12 03:51	0° \mathbb{B}	
	4511 Jun 22 07:31	0° \mathbb{B}			4512 May 29 11:14	0° \mathbb{I}	
max. Earth dist.	4511 Jun 22 21:43	1° \mathbb{B} 17'04	1.32205 AU	morning set	4512 May 30 21:12	2° \mathbb{I} 47'53	
				max. Earth dist.	4512 Jun 05 01:40	13° \mathbb{I} 27'35	1.32871 AU
superior conj	4511 Jun 24 10:03	4° \mathbb{B} 35'17	0°28'12				
minimum elong	4511 Jun 24 08:48	4° \mathbb{B} 28'25	0°27'55	superior conj	4512 Jun 07 17:22	19° \mathbb{I} 07'20	0°01'37
evening rise	4511 Jul 01 07:20	19° \mathbb{B} 35'08		minimum elong	4512 Jun 07 17:18	19° \mathbb{I} 06'54	0°01'35
	4511 Jul 06 09:04	0° \mathbb{Q}		behind sun begin	4512 Jun 07 12:00	18° \mathbb{I} 38'28	
	4511 Jul 26 07:08	0° \mathbb{M}		behind sun end	4512 Jun 07 22:35	19° \mathbb{I} 35'23	
evening max el	4511 Jul 27 01:40	0° \mathbb{M} 45'29	24°46'24	asc. node	4512 Jun 07 13:41	18° \mathbb{I} 47'30	
desc. node	4511 Jul 28 10:00	1° \mathbb{M} 59'50			4512 Jun 12 18:10	0° \mathbb{B}	
retrograde	4511 Aug 09 23:42	7° \mathbb{M} 47'20		evening rise	4512 Jun 14 19:07	4° \mathbb{B} 21'38	
evening set	4511 Aug 15 06:49	6° \mathbb{M} 44'01			4512 Jun 28 15:13	0° \mathbb{Q}	
min. Earth dist.	4511 Aug 20 13:03	3° \mathbb{M} 57'15	0.57072 AU	evening max el	4512 Jul 07 14:33	11° \mathbb{Q} 10'25	23°10'05
inferior conj	4511 Aug 23 09:13	2° \mathbb{M} 06'04	-5°-13'-50	desc. node	4512 Jul 14 07:02	16° \mathbb{Q} 09'26	
minimum elong	4511 Aug 23 08:48	2° \mathbb{M} 06'46	5°13'51	retrograde	4512 Jul 21 01:18	17° \mathbb{Q} 53'31	
	4511 Aug 26 18:22	30° \mathbb{R} \mathbb{Q}		evening set	4512 Jul 24 20:16	17° \mathbb{Q} 22'10	
morning rise	4511 Aug 31 14:18	27° \mathbb{Q} 58'59		min. Earth dist.	4512 Jul 31 23:47	14° \mathbb{Q} 07'32	0.55579 AU
direct	4511 Sep 03 04:34	27° \mathbb{Q} 40'04		inferior conj	4512 Aug 02 17:54	13° \mathbb{Q} 06'09	-4°-46'-29
	4511 Sep 09 23:26	0° \mathbb{M}		minimum elong	4512 Aug 02 11:21	13° \mathbb{Q} 15'44	4°45'28
morning max el	4511 Sep 12 10:11	2° \mathbb{M} 00'05	19°19'01	morning rise	4512 Aug 11 05:17	9° \mathbb{Q} 14'12	
asc. node	4511 Sep 17 15:54	8° \mathbb{M} 13'48		direct	4512 Aug 14 03:48	8° \mathbb{Q} 53'33	
morning set	4511 Sep 29 11:36	29° \mathbb{M} 17'59		morning max el	4512 Aug 24 22:05	13° \mathbb{Q} 53'37	20°31'23
	4511 Sep 29 20:01	0° \mathbb{A}		asc. node	4512 Sep 03 12:55	26° \mathbb{Q} 30'19	
					4512 Sep 05 13:31	0° \mathbb{M}	
superior conj	4511 Oct 07 15:23	15° \mathbb{A} 31'38	1°37'53	morning set	4512 Sep 12 17:54	13° \mathbb{M} 56'54	

superior conj	4512 Sep 20 07:58	29° \mathring{M} 35'08	1°43'42	superior conj	4513 Sep 04 09:10	14° \mathring{M} 03'49	1°42'09
minimum elong	4512 Sep 20 08:23	29° \mathring{M} 37'17	1°43'42	minimum elong	4513 Sep 04 08:14	13° \mathring{M} 58'57	1°42'07
	4512 Sep 20 12:52	0° \underline{A}		max. Earth dist.	4513 Sep 07 23:46	21° \mathring{M} 33'12	1.34547 AU
max. Earth dist.	4512 Sep 25 09:16	9° \underline{A} 37'55	1.36206 AU		4513 Sep 12 05:31	0° \underline{A}	
evening rise	4512 Sep 29 09:04	17° \underline{A} 10'45		evening rise	4513 Sep 12 12:50	0° \underline{A} 35'21	
	4512 Oct 06 15:40	0° \mathring{M}		desc. node	4513 Sep 27 03:20	26° \underline{A} 04'28	
desc. node	4512 Oct 10 06:19	5° \mathring{M} 55'53			4513 Sep 29 16:51	0° \mathring{M}	
	4512 Oct 27 02:27	0° \mathring{A}		evening max el	4513 Oct 17 12:29	22° \mathring{M} 24'20	26°57'31
evening max el	4512 Nov 03 23:50	8° \mathring{A} 47'57	26°06'35	retrograde	4513 Oct 30 17:07	29° \mathring{M} 41'09	
retrograde	4512 Nov 16 14:18	15° \mathring{A} 56'08		evening set	4513 Nov 06 10:24	27° \mathring{M} 01'40	
evening set	4512 Nov 22 19:15	13° \mathring{A} 23'53		min. Earth dist.	4513 Nov 10 09:54	23° \mathring{M} 06'26	0.65547 AU
min. Earth dist.	4512 Nov 27 01:35	8° \mathring{A} 52'26	0.66701 AU	inferior conj	4513 Nov 12 09:15	20° \mathring{M} 50'36	-1°-41'-5
inferior conj	4512 Nov 28 13:05	7° \mathring{A} 02'22	0°-40'-13	minimum elong	4513 Nov 12 12:07	20° \mathring{M} 42'23	1°39'56
minimum elong	4512 Nov 28 14:09	6° \mathring{A} 59'01	0°39'46	asc. node	4513 Nov 17 09:11	15° \mathring{M} 56'32	
asc. node	4512 Nov 30 12:09	4° \mathring{A} 40'43		morning rise	4513 Nov 18 15:34	15° \mathring{M} 11'29	
morning rise	4512 Dec 04 10:10	1° \mathring{A} 10'47		direct	4513 Nov 21 08:36	14° \mathring{M} 31'27	
direct	4512 Dec 07 11:55	0° \mathring{A} 16'52		morning max el	4513 Nov 27 20:45	18° \mathring{M} 01'26	18°12'33
morning max el	4512 Dec 14 06:36	4° \mathring{A} 00'53	18°49'05		4513 Dec 06 18:58	0° \mathring{A}	
	4513 Jan 01 13:15	0° \mathring{B}		morning set	4513 Dec 16 13:06	15° \mathring{A} 44'17	
morning set	4513 Jan 04 20:53	5° \mathring{B} 12'24		desc. node	4513 Dec 24 02:37	27° \mathring{A} 58'57	
desc. node	4513 Jan 06 05:35	7° \mathring{B} 20'47			4513 Dec 25 08:50	0° \mathring{B}	
max. Earth dist.	4513 Jan 20 03:32	29° \mathring{B} 09'52	1.45173 AU				
	4513 Jan 20 16:18	0° \approx		superior conj	4513 Dec 31 12:18	9° \mathring{B} 45'11	0°-49'-28
				minimum elong	4513 Dec 31 06:08	9° \mathring{B} 20'51	0°48'41
superior conj	4513 Jan 21 08:46	1° \approx 04'44	-1°-32'-28	max. Earth dist.	4514 Jan 02 23:08	13° \mathring{B} 36'37	1.45233 AU
minimum elong	4513 Jan 20 23:26	0° \approx 28'02	1°31'33		4514 Jan 13 10:52	0° \approx	
evening rise	4513 Feb 05 17:50	25° \approx 33'21		evening rise	4514 Jan 16 20:09	5° \approx 16'37	
	4513 Feb 08 11:51	0° \mathring{K}		greatest brilliancy	4514 Feb 01 13:20	29° \approx 21'20	-0.7m
asc. node	4513 Feb 26 11:27	26° \mathring{K} 29'18			4514 Feb 02 00:00	0° \mathring{K}	
evening max el	4513 Feb 26 14:55	26° \mathring{K} 38'12	18°42'41	evening max el	4514 Feb 09 22:43	10° \mathring{K} 09'03	19°26'44
	4513 Mar 03 09:23	0° \mathring{Y}		asc. node	4514 Feb 13 08:29	13° \mathring{K} 01'19	
retrograde	4513 Mar 05 06:21	0° \mathring{Y} 19'28		retrograde	4514 Feb 17 03:13	14° \mathring{K} 16'40	
	4513 Mar 07 02:38	30° \mathring{R} \mathring{K}		evening set	4514 Feb 20 14:16	13° \mathring{K} 06'31	
evening set	4513 Mar 08 10:14	29° \mathring{K} 22'28		inferior conj	4514 Feb 26 03:03	7° \mathring{K} 10'17	3°18'38
inferior conj	4513 Mar 14 04:00	23° \mathring{K} 42'06	3°32'58	minimum elong	4514 Feb 26 01:12	7° \mathring{K} 16'19	3°18'20
minimum elong	4513 Mar 14 03:11	23° \mathring{K} 44'35	3°32'55	min. Earth dist.	4514 Feb 27 09:04	5° \mathring{K} 32'17	0.66548 AU
min. Earth dist.	4513 Mar 16 01:05	21° \mathring{K} 24'40	0.65226 AU	morning rise	4514 Mar 03 11:21	0° \mathring{K} 54'17	
morning rise	4513 Mar 19 18:55	17° \mathring{K} 28'27			4514 Mar 04 13:53	30° \mathring{R} \approx	
direct	4513 Mar 26 09:52	14° \mathring{K} 39'25		direct	4514 Mar 09 15:33	28° \approx 10'32	
desc. node	4513 Apr 04 04:48	18° \mathring{K} 25'38			4514 Mar 15 07:39	0° \mathring{K}	
morning max el	4513 Apr 08 16:44	22° \mathring{K} 27'51	27°01'19	morning max el	4514 Mar 22 02:30	5° \mathring{K} 35'45	25°53'51
	4513 Apr 15 07:56	0° \mathring{Y}		desc. node	4514 Mar 22 01:51	5° \mathring{K} 34'07	
	4513 May 05 09:53	0° \mathring{B}			4514 Apr 09 21:32	0° \mathring{Y}	
morning set	4513 May 14 08:35	16° \mathring{B} 16'46		morning set	4514 Apr 27 06:09	29° \mathring{Y} 01'21	
max. Earth dist.	4513 May 18 20:22	25° \mathring{B} 09'01	1.33995 AU		4514 Apr 27 18:51	0° \mathring{B}	
	4513 May 21 05:13	0° \mathring{I}		max. Earth dist.	4514 May 01 03:34	6° \mathring{B} 20'47	1.35576 AU
superior conj	4513 May 22 19:29	3° \mathring{I} 19'16	0°-27'-5	superior conj	4514 May 06 13:49	17° \mathring{B} 03'17	0°-56'-34
minimum elong	4513 May 22 20:55	3° \mathring{I} 26'45	0°26'48	minimum elong	4514 May 06 16:54	17° \mathring{B} 18'50	0°56'00
asc. node	4513 May 25 10:44	8° \mathring{I} 52'38		asc. node	4514 May 12 07:46	28° \mathring{B} 50'28	
evening rise	4513 May 30 05:34	18° \mathring{I} 59'38			4514 May 12 21:15	0° \mathring{I}	
	4513 Jun 04 16:37	0° \mathring{B}		evening rise	4514 May 14 12:34	3° \mathring{I} 22'00	
evening max el	4513 Jun 19 08:17	21° \mathring{B} 40'22	21°35'40		4514 May 30 01:20	0° \mathring{B}	
desc. node	4513 Jul 01 04:02	27° \mathring{B} 45'22		evening max el	4514 Jun 01 13:06	2° \mathring{B} 42'18	20°14'54
retrograde	4513 Jul 01 16:26	27° \mathring{B} 45'59		retrograde	4514 Jun 12 06:13	7° \mathring{B} 56'24	
evening set	4513 Jul 04 05:06	27° \mathring{B} 31'29		evening set	4514 Jun 14 05:22	7° \mathring{B} 46'34	
inferior conj	4513 Jul 13 13:06	23° \mathring{B} 30'57	-3°-28'-12	desc. node	4514 Jun 18 01:04	6° \mathring{B} 36'59	
minimum elong	4513 Jul 13 04:35	23° \mathring{B} 42'51	3°25'41	inferior conj	4514 Jun 23 08:02	3° \mathring{B} 48'07	-1°-34'-15
min. Earth dist.	4513 Jul 13 10:05	23° \mathring{B} 35'10	0.54850 AU	minimum elong	4514 Jun 23 03:36	3° \mathring{B} 54'39	1°32'38
morning rise	4513 Jul 22 05:05	19° \mathring{B} 38'29		min. Earth dist.	4514 Jun 24 22:13	2° \mathring{B} 51'49	0.55066 AU
direct	4513 Jul 25 14:15	19° \mathring{B} 13'37			4514 Jun 30 16:12	30° \mathring{R} \mathring{I}	
morning max el	4513 Aug 06 22:21	25° \mathring{B} 02'03	22°02'54	morning rise	4514 Jul 01 23:48	29° \mathring{I} 34'08	
	4513 Aug 11 12:02	0° \mathring{I}		direct	4514 Jul 06 00:55	28° \mathring{I} 58'40	
asc. node	4513 Aug 21 09:58	15° \mathring{I} 24'08			4514 Jul 11 06:41	0° \mathring{B}	
morning set	4513 Aug 28 03:45	28° \mathring{I} 45'52		morning max el	4514 Jul 19 14:30	5° \mathring{B} 35'51	23°45'40
	4513 Aug 28 17:54	0° \mathring{M}			4514 Aug 05 19:27	0° \mathring{I}	
				asc. node	4514 Aug 08 07:02	4° \mathring{I} 45'38	

morning set	4514 Aug 12 15:19	13°♎39'22			4515 Jul 12 12:31	0°♏	
				asc. node	4515 Jul 26 04:05	24°♏26'56	
superior conj	4514 Aug 19 16:05	28°♎48'48	1°34'24	morning set	4515 Jul 28 02:55	28°♏31'41	
minimum elong	4514 Aug 19 14:14	28°♎38'51	1°34'15		4515 Jul 28 19:32	0°♎	
	4514 Aug 20 05:17	0°♎					
max. Earth dist.	4514 Aug 21 22:58	3°♎43'11	1.33283 AU	superior conj	4515 Aug 04 02:22	13°♎41'58	1°21'23
evening rise	4514 Aug 27 04:44	14°♎34'35		minimum elong	4515 Aug 04 00:05	13°♎29'26	1°21'04
	4514 Sep 04 08:27	0°♎		max. Earth dist.	4515 Aug 05 05:29	16°♎10'28	1.32445 AU
desc. node	4514 Sep 14 00:21	15°♎47'53		evening rise	4515 Aug 11 05:18	28°♎58'03	
	4514 Sep 24 14:58	0°♎			4515 Aug 11 17:20	0°♎	
evening max el	4514 Sep 30 00:13	5°♎43'29	27°24'23		4515 Aug 28 12:23	0°♎	
retrograde	4514 Oct 13 14:08	13°♎01'38		desc. node	4515 Aug 31 21:23	4°♎55'04	
evening set	4514 Oct 20 16:01	10°♎23'19		evening max el	4515 Sep 12 09:04	18°♎32'32	27°21'12
min. Earth dist.	4514 Oct 24 09:41	7°♎02'27	0.64045 AU	retrograde	4515 Sep 26 04:27	25°♎47'15	
inferior conj	4514 Oct 26 21:11	4°♎27'26	-2°-43'-28	evening set	4515 Oct 03 08:34	23°♎21'32	
minimum elong	4514 Oct 27 01:51	4°♎15'16	2°41'47	min. Earth dist.	4515 Oct 06 23:22	20°♎28'55	0.62235 AU
	4514 Oct 31 20:03	30°♎		inferior conj	4515 Oct 09 21:54	17°♎45'08	-3°-43'-48
morning rise	4514 Nov 02 14:06	29°♎03'53		minimum elong	4515 Oct 10 03:51	17°♎31'17	3°42'03
asc. node	4514 Nov 04 06:15	28°♎36'55		morning rise	4515 Oct 17 02:06	12°♎40'16	
direct	4514 Nov 05 00:50	28°♎33'53		direct	4515 Oct 19 09:26	12°♎16'46	
	4514 Nov 09 04:41	0°♎		asc. node	4515 Oct 22 03:19	12°♎51'08	
morning max el	4514 Nov 11 13:25	1°♎59'04	17°53'03	morning max el	4515 Oct 26 05:29	15°♎45'23	17°51'26
morning set	4514 Nov 28 09:08	27°♎37'32			4515 Nov 05 03:58	0°♎	
	4514 Nov 29 18:30	0°♎		morning set	4515 Nov 11 02:43	10°♎32'17	
desc. node	4514 Dec 10 23:38	18°♎43'35					
				superior conj	4515 Nov 22 04:47	0°♎02'32	0°39'08
superior conj	4514 Dec 11 07:38	19°♎16'09	0°-2'-19	minimum elong	4515 Nov 22 08:09	0°♎16'53	0°38'40
minimum elong	4514 Dec 11 07:23	19°♎15'05	0°02'17		4515 Nov 22 04:11	0°♎	
behind sun begin	4514 Dec 10 21:28	18°♎34'44		desc. node	4515 Nov 27 20:39	9°♎30'41	
behind sun end	4514 Dec 11 17:18	19°♎55'22		max. Earth dist.	4515 Nov 29 08:31	11°♎57'10	1.43246 AU
max. Earth dist.	4514 Dec 16 17:34	27°♎57'54	1.44561 AU	evening rise	4515 Dec 06 19:51	23°♎50'28	
	4514 Dec 18 00:24	0°♎			4515 Dec 10 19:40	0°♎	
evening rise	4514 Dec 27 07:53	14°♎30'01			4515 Dec 31 17:27	0°♎	
	4515 Jan 06 13:02	0°♎		greatest brilliancy	4516 Jan 02 02:32	1°♎44'25	-0.4m
greatest brilliancy	4515 Jan 18 00:17	16°♎26'44	-0.5m	evening max el	4516 Jan 06 22:51	7°♎16'15	21°36'46
evening max el	4515 Jan 24 01:30	23°♎42'03	20°25'48	retrograde	4516 Jan 15 22:59	12°♎37'08	
asc. node	4515 Jan 31 05:32	28°♎20'21		asc. node	4516 Jan 18 02:35	12°♎12'14	
retrograde	4515 Feb 01 01:28	28°♎24'05		evening set	4516 Jan 20 04:59	10°♎57'30	
evening set	4515 Feb 04 21:09	26°♎59'44		inferior conj	4516 Jan 25 14:19	4°♎38'16	2°18'40
inferior conj	4515 Feb 10 07:16	20°♎50'26	2°53'11	minimum elong	4516 Jan 25 11:54	4°♎46'38	2°17'55
minimum elong	4515 Feb 10 04:53	20°♎58'32	2°52'37	min. Earth dist.	4516 Jan 25 18:24	4°♎24'07	0.67944 AU
min. Earth dist.	4515 Feb 10 23:38	19°♎54'38	0.67450 AU		4516 Jan 29 04:07	30°♎	
morning rise	4515 Feb 15 12:06	14°♎34'19		morning rise	4516 Jan 30 18:31	28°♎24'00	
direct	4515 Feb 21 02:45	12°♎05'17		direct	4516 Feb 04 18:29	26°♎15'33	
morning max el	4515 Mar 04 11:10	18°♎52'30	24°30'19		4516 Feb 12 11:07	0°♎	
desc. node	4515 Mar 08 22:54	23°♎49'51		morning max el	4516 Feb 14 20:28	2°♎14'22	23°01'08
	4515 Mar 13 20:58	0°♎		greatest brilliancy	4516 Feb 19 16:11	7°♎37'32	-0.3m
	4515 Apr 03 00:09	0°♎		desc. node	4516 Feb 23 19:55	12°♎53'09	
morning set	4515 Apr 09 08:39	10°♎47'38			4516 Mar 06 21:55	0°♎	
max. Earth dist.	4515 Apr 13 01:09	17°♎22'15	1.37553 AU	morning set	4516 Mar 20 10:01	21°♎19'31	
				max. Earth dist.	4516 Mar 24 20:14	28°♎49'13	1.39736 AU
					4516 Mar 25 12:36	0°♎	
superior conj	4515 Apr 19 21:13	0°♎11'40	-1°-24'-51				
minimum elong	4515 Apr 20 01:41	0°♎33'14	1°24'13	superior conj	4516 Apr 01 13:36	12°♎34'33	-1°-49'00
	4515 Apr 19 18:48	0°♎		minimum elong	4516 Apr 01 18:24	12°♎56'36	1°48'35
evening rise	4515 Apr 28 13:46	17°♎22'16			4516 Apr 10 19:05	0°♎	
asc. node	4515 Apr 29 04:49	18°♎36'55		evening rise	4516 Apr 11 06:10	0°♎53'01	
	4515 May 05 04:02	0°♎		asc. node	4516 Apr 15 01:52	8°♎07'22	
evening max el	4515 May 15 06:15	14°♎26'25	19°13'07	evening max el	4516 Apr 27 09:21	26°♎49'10	18°31'37
retrograde	4515 May 24 06:37	18°♎50'11			4516 May 01 23:52	0°♎	
evening set	4515 May 26 06:25	18°♎38'13		retrograde	4516 May 05 01:29	0°♎36'11	
inferior conj	4515 Jun 03 16:30	14°♎28'11	0°21'41	evening set	4516 May 07 07:18	0°♎17'50	
minimum elong	4515 Jun 03 17:24	14°♎26'40	0°21'21		4516 May 08 05:39	30°♎	
desc. node	4515 Jun 04 22:06	13°♎38'19		inferior conj	4516 May 14 21:49	25°♎48'16	1°53'21
min. Earth dist.	4515 Jun 06 13:02	12°♎33'49	0.56208 AU	minimum elong	4516 May 15 01:16	25°♎41'30	1°52'18
morning rise	4515 Jun 12 00:09	9°♎39'41		min. Earth dist.	4516 May 18 07:33	23°♎09'12	0.58035 AU
direct	4515 Jun 16 23:31	8°♎42'27		desc. node	4516 May 21 19:08	20°♎51'45	
morning max el	4515 Jul 01 04:21	15°♎57'52	25°26'00				

morning rise	4516 May 22 14:46	20°♄26'04		min. Earth dist.	4517 Apr 30 08:01	4°♄47'35	0.60194 AU
direct	4516 May 28 12:27	18°♄57'11		morning rise	4517 May 04 00:03	2°♄01'32	
morning max el	4516 Jun 11 21:35	26°♄36'28	26°47'56	desc. node	4517 May 08 16:09	0°♄08'36	
	4516 Jun 15 02:56	0°♄			4517 May 09 19:53	30°♄	
	4516 Jul 04 21:23	0°♄		direct	4517 May 10 13:30	29°♄58'29	
morning set	4516 Jul 11 12:59	13°♄18'08			4517 May 11 07:14	0°♄	
asc. node	4516 Jul 12 01:07	14°♄22'14		morning max el	4517 May 24 21:09	7°♄51'31	27°38'40
					4517 Jun 10 16:34	0°♄	
superior conj	4516 Jul 18 14:07	28°♄37'13	1°03'47	morning set	4517 Jun 25 19:41	27°♄52'10	
minimum elong	4516 Jul 18 11:52	28°♄24'49	1°03'23		4517 Jun 26 20:10	0°♄	
max. Earth dist.	4516 Jul 18 16:18	28°♄49'19	1.32030 AU	asc. node	4517 Jun 28 22:09	4°♄25'43	
	4516 Jul 19 05:06	0°♄		max. Earth dist.	4517 Jul 02 03:38	11°♄27'19	1.32026 AU
evening rise	4516 Jul 25 11:49	13°♄37'34					
	4516 Aug 02 18:54	0°♄		superior conj	4517 Jul 03 01:31	13°♄27'39	0°42'12
desc. node	4516 Aug 17 18:24	23°♄11'14		minimum elong	4517 Jul 02 23:46	13°♄18'03	0°41'49
	4516 Aug 23 20:03	0°♄		evening rise	4517 Jul 09 21:54	28°♄24'37	
evening max el	4516 Aug 24 12:24	0°♄39'25	26°44'33		4517 Jul 10 15:56	0°♄	
retrograde	4516 Sep 07 10:38	7°♄49'22			4517 Jul 27 10:00	0°♄	
evening set	4516 Sep 14 07:35	5°♄48'47		desc. node	4517 Aug 04 15:26	10°♄14'46	
min. Earth dist.	4516 Sep 18 02:24	3°♄12'35	0.60216 AU	evening max el	4517 Aug 06 08:06	11°♄56'22	25°36'21
inferior conj	4516 Sep 21 07:57	0°♄34'58	-4°-35'-47	retrograde	4517 Aug 20 07:05	19°♄02'07	
minimum elong	4516 Sep 21 13:41	0°♄23'15	4°34'39	evening set	4517 Aug 26 08:08	17°♄36'40	
	4516 Sep 22 01:09	30°♄		min. Earth dist.	4517 Aug 30 20:03	14°♄59'29	0.58162 AU
morning rise	4516 Sep 28 23:06	25°♄51'53		inferior conj	4517 Sep 02 23:47	12°♄46'06	-5°-8'-59
direct	4516 Oct 01 06:29	25°♄31'49		minimum elong	4517 Sep 03 02:31	12°♄41'14	5°08'49
asc. node	4516 Oct 08 00:21	28°♄32'00		morning rise	4517 Sep 11 00:25	8°♄26'41	
morning max el	4516 Oct 08 17:40	29°♄12'07	18°09'01	direct	4517 Sep 13 11:27	8°♄07'46	
	4516 Oct 09 12:33	0°♄		morning max el	4517 Sep 21 22:40	12°♄09'34	18°47'20
morning set	4516 Oct 24 11:49	24°♄11'11		asc. node	4517 Sep 24 21:22	15°♄24'40	
	4516 Oct 27 14:07	0°♄			4517 Oct 03 23:26	0°♄	
				morning set	4517 Oct 08 07:42	8°♄20'28	
superior conj	4516 Nov 03 03:18	12°♄02'49	1°10'17				
minimum elong	4516 Nov 03 07:20	12°♄20'52	1°09'48	superior conj	4517 Oct 16 22:13	25°♄02'43	1°30'39
max. Earth dist.	4516 Nov 10 18:46	25°♄21'51	1.41447 AU	minimum elong	4517 Oct 17 01:10	25°♄16'43	1°30'23
desc. node	4516 Nov 13 17:40	0°♄17'08			4517 Oct 19 13:43	0°♄	
	4516 Nov 13 13:30	0°♄		max. Earth dist.	4517 Oct 24 00:40	8°♄03'59	1.39374 AU
evening rise	4516 Nov 15 23:04	3°♄54'56		evening rise	4517 Oct 28 00:46	15°♄00'40	
	4516 Dec 03 03:32	0°♄		desc. node	4517 Oct 31 14:42	20°♄59'17	
greatest brilliancy	4516 Dec 14 06:56	14°♄52'12	-0.2m		4517 Nov 06 06:13	0°♄	
evening max el	4516 Dec 19 15:26	20°♄52'49	22°54'59		4517 Nov 27 23:48	0°♄	
retrograde	4516 Dec 29 18:07	26°♄52'39		evening max el	4517 Dec 02 04:57	4°♄32'54	24°14'42
evening set	4517 Jan 03 12:10	24°♄56'52		retrograde	4517 Dec 13 09:50	11°♄07'08	
asc. node	4517 Jan 03 23:37	24°♄32'04		evening set	4517 Dec 18 17:10	8°♄55'24	
inferior conj	4517 Jan 08 22:16	18°♄31'21	1°36'29	asc. node	4517 Dec 21 20:37	5°♄34'24	
minimum elong	4517 Jan 08 20:17	18°♄38'12	1°35'46	min. Earth dist.	4517 Dec 23 11:10	3°♄28'45	0.67802 AU
min. Earth dist.	4517 Jan 08 15:00	18°♄56'26	0.68056 AU	inferior conj	4517 Dec 24 05:20	2°♄27'34	0°47'42
morning rise	4517 Jan 14 04:22	12°♄20'44		minimum elong	4517 Dec 24 04:13	2°♄31'19	0°47'15
direct	4517 Jan 18 13:41	10°♄35'15			4517 Dec 26 02:19	30°♄	
morning max el	4517 Jan 27 10:04	15°♄44'39	21°35'21	morning rise	4517 Dec 29 15:38	26°♄22'37	
greatest brilliancy	4517 Feb 01 07:20	21°♄16'06	-0.4m	direct	4518 Jan 02 11:18	24°♄59'29	
	4517 Feb 07 21:56	0°♄		morning max el	4518 Jan 10 07:01	29°♄27'09	20°19'36
desc. node	4517 Feb 09 16:55	2°♄30'40			4518 Jan 10 19:54	0°♄	
	4517 Feb 27 23:07	0°♄		greatest brilliancy	4518 Jan 16 16:56	7°♄03'12	-0.5m
morning set	4517 Feb 28 06:32	0°♄29'28		desc. node	4518 Jan 27 13:56	22°♄33'14	
max. Earth dist.	4517 Mar 06 20:21	11°♄08'59	1.41849 AU		4518 Feb 01 12:42	0°♄	
				morning set	4518 Feb 07 05:35	8°♄44'30	
superior conj	4517 Mar 14 09:56	23°♄59'15	-2°-4'-53	max. Earth dist.	4518 Feb 17 04:10	24°♄23'43	1.43607 AU
minimum elong	4517 Mar 14 12:49	24°♄11'49	2°04'48		4518 Feb 20 15:15	0°♄	
	4517 Mar 17 19:55	0°♄					
evening rise	4517 Mar 25 10:01	13°♄44'38		superior conj	4518 Feb 23 05:39	4°♄16'16	-2°-7'-8
asc. node	4517 Apr 01 22:55	27°♄15'12		minimum elong	4518 Feb 23 03:31	4°♄07'28	2°07'06
	4517 Apr 03 14:27	0°♄		evening rise	4518 Mar 07 21:05	25°♄48'33	
evening max el	4517 Apr 10 18:45	9°♄40'13	18°10'08		4518 Mar 10 06:46	0°♄	
retrograde	4517 Apr 17 14:42	13°♄07'22		asc. node	4518 Mar 19 19:56	15°♄53'17	
evening set	4517 Apr 20 02:55	12°♄39'58		evening max el	4518 Mar 25 07:10	22°♄51'03	18°08'07
inferior conj	4517 Apr 27 00:04	7°♄49'00	2°53'19	retrograde	4518 Mar 31 18:10	26°♄13'37	
minimum elong	4517 Apr 27 03:17	7°♄41'39	2°52'39	evening set	4518 Apr 03 12:16	25°♄35'40	

inferior conj	4518 Apr 09 19:56	20° Υ 24'16	3°25'08	retrograde	4519 Mar 15 07:11	9° Υ 45'01	
minimum elong	4518 Apr 09 21:37	20° Υ 19'52	3°24'57	evening set	4519 Mar 18 07:15	8° Υ 55'23	
min. Earth dist.	4518 Apr 12 16:58	17° Υ 24'58	0.62354 AU	inferior conj	4519 Mar 24 05:10	3° Υ 25'14	3°35'02
morning rise	4518 Apr 16 04:26	14° Υ 21'12		minimum elong	4519 Mar 24 05:11	3° Υ 25'12	3°35'01
direct	4518 Apr 23 00:45	11° Υ 50'12		min. Earth dist.	4519 Mar 26 11:21	0° Υ 48'14	0.64283 AU
desc. node	4518 Apr 25 13:10	12° Υ 08'53			4519 Mar 27 04:45	30° \Re \mathcal{H}	
morning max el	4518 May 07 02:49	19° Υ 49'41	27°51'58	morning rise	4519 Mar 30 01:27	27° \mathcal{H} 13'56	
	4518 May 15 19:16	0° \mathcal{B}		direct	4519 Apr 05 20:21	24° \mathcal{H} 27'12	
	4518 Jun 03 15:08	0° Π		desc. node	4519 Apr 12 10:11	26° \mathcal{H} 35'04	
morning set	4518 Jun 09 21:02	12° Π 07'45			4519 Apr 16 23:14	0° Υ	
max. Earth dist.	4518 Jun 15 11:30	23° Π 51'50	1.32438 AU	morning max el	4519 Apr 19 11:58	2° Υ 23'47	27°28'48
asc. node	4518 Jun 15 19:11	24° Π 33'13			4519 May 10 01:53	0° \mathcal{B}	
				morning set	4519 May 24 14:27	25° \mathcal{B} 56'46	
superior conj	4518 Jun 17 10:51	28° Π 08'03	0°17'13		4519 May 26 15:21	0° Π	
minimum elong	4518 Jun 17 10:03	28° Π 03'41	0°17'02	max. Earth dist.	4519 May 29 11:48	5° Π 50'16	1.33289 AU
	4518 Jun 18 07:24	0° \mathcal{E}					
evening rise	4518 Jun 24 09:37	13° \mathcal{E} 13'00		superior conj	4519 Jun 01 16:14	12° Π 32'29	0°-10'-24
	4518 Jul 02 20:20	0° \mathcal{Q}		minimum elong	4519 Jun 01 16:46	12° Π 35'17	0°10'18
evening max el	4518 Jul 18 21:34	22° \mathcal{Q} 32'18	24°06'01	behind sun begin	4519 Jun 01 12:35	12° Π 12'59	
desc. node	4518 Jul 22 12:27	25° \mathcal{Q} 37'34		behind sun end	4519 Jun 01 20:57	12° Π 57'36	
retrograde	4518 Aug 01 16:20	29° \mathcal{Q} 28'46		asc. node	4519 Jun 02 16:15	14° Π 40'34	
evening set	4518 Aug 06 08:33	28° \mathcal{Q} 40'19		evening rise	4519 Jun 08 21:04	27° Π 56'33	
min. Earth dist.	4518 Aug 12 08:06	25° \mathcal{Q} 43'23	0.56360 AU		4519 Jun 09 20:35	0° \mathcal{E}	
inferior conj	4518 Aug 14 19:24	24° \mathcal{Q} 11'46	-5°-8'-19		4519 Jun 27 17:39	0° \mathcal{Q}	
minimum elong	4518 Aug 14 16:15	24° \mathcal{Q} 16'39	5°08'07	evening max el	4519 Jun 30 11:28	2° \mathcal{Q} 55'26	22°28'51
morning rise	4518 Aug 23 03:24	20° \mathcal{Q} 12'55		desc. node	4519 Jul 09 09:27	8° \mathcal{Q} 45'36	
direct	4518 Aug 25 20:54	19° \mathcal{Q} 53'31		retrograde	4519 Jul 13 13:22	9° \mathcal{Q} 25'35	
morning max el	4518 Sep 04 17:28	24° \mathcal{Q} 28'51	19°47'22	evening set	4519 Jul 16 17:28	9° \mathcal{Q} 03'27	
	4518 Sep 09 12:39	0° \mathcal{M}		min. Earth dist.	4519 Jul 24 18:41	5° \mathcal{Q} 32'40	0.55152 AU
asc. node	4518 Sep 11 18:23	3° \mathcal{M} 14'28		inferior conj	4519 Jul 25 21:12	4° \mathcal{Q} 55'02	-4°-19'-18
morning set	4518 Sep 22 10:55	22° \mathcal{M} 50'26		minimum elong	4519 Jul 25 13:00	5° \mathcal{Q} 06'41	4°17'28
	4518 Sep 25 23:31	0° \mathcal{A}		morning rise	4519 Aug 03 10:48	1° \mathcal{Q} 05'05	
superior conj	4518 Sep 30 08:10	8° \mathcal{A} 46'53	1°41'20	direct	4519 Aug 06 13:06	0° \mathcal{Q} 43'16	
minimum elong	4518 Sep 30 09:30	8° \mathcal{A} 53'32	1°41'17	morning max el	4519 Aug 18 00:24	6° \mathcal{Q} 03'51	21°08'23
max. Earth dist.	4518 Oct 06 05:26	20° \mathcal{A} 09'02	1.37296 AU	asc. node	4519 Aug 29 15:27	21° \mathcal{Q} 48'34	
evening rise	4518 Oct 10 00:54	27° \mathcal{A} 07'59			4519 Sep 03 01:04	0° \mathcal{M}	
	4518 Oct 11 15:40	0° \mathcal{M}		morning set	4519 Sep 06 18:59	7° \mathcal{M} 34'35	
desc. node	4518 Oct 18 11:43	11° \mathcal{M} 32'42		superior conj	4519 Sep 14 04:51	23° \mathcal{M} 02'52	1°43'52
	4518 Oct 30 17:09	0° \mathcal{J}		minimum elong	4519 Sep 14 04:39	23° \mathcal{M} 01'52	1°43'52
evening max el	4518 Nov 14 17:16	18° \mathcal{J} 15'17	25°29'10		4519 Sep 17 14:46	0° \mathcal{A}	
retrograde	4518 Nov 26 21:11	25° \mathcal{J} 15'04		max. Earth dist.	4519 Sep 18 14:58	2° \mathcal{A} 00'37	1.35447 AU
evening set	4518 Dec 02 18:19	22° \mathcal{J} 49'09		evening rise	4519 Sep 22 19:56	10° \mathcal{A} 08'34	
min. Earth dist.	4518 Dec 07 04:37	17° \mathcal{J} 57'17	0.67196 AU		4519 Oct 04 04:41	0° \mathcal{M}	
inferior conj	4518 Dec 08 09:44	16° \mathcal{J} 23'42	0°-6'-44	desc. node	4519 Oct 05 08:46	1° \mathcal{M} 52'34	
minimum elong	4518 Dec 08 09:54	16° \mathcal{J} 23'09	0°06'40		4519 Oct 26 07:22	0° \mathcal{J}	
transit middle	4518 Dec 08 09:54	16° \mathcal{J} 23'09	0°06'40	evening max el	4519 Oct 28 05:54	1° \mathcal{J} 56'53	26°30'51
transit begin	4518 Dec 08 07:21	16° \mathcal{J} 31'22		retrograde	4519 Nov 10 03:27	9° \mathcal{J} 10'40	
transit end	4518 Dec 08 12:27	16° \mathcal{J} 14'57		evening set	4519 Nov 16 13:46	6° \mathcal{J} 34'36	
asc. node	4518 Dec 08 17:38	15° \mathcal{J} 58'19		min. Earth dist.	4519 Nov 20 17:06	2° \mathcal{J} 18'23	0.66245 AU
morning rise	4518 Dec 14 02:19	10° \mathcal{J} 26'31		inferior conj	4519 Nov 22 09:33	0° \mathcal{J} 16'36	-1°-5'-41
direct	4518 Dec 17 09:56	9° \mathcal{J} 23'07		minimum elong	4519 Nov 22 11:22	0° \mathcal{J} 11'09	1°04'56
morning max el	4518 Dec 24 11:51	13° \mathcal{J} 20'10	19°17'39		4519 Nov 22 15:05	30° \Re \mathcal{M}	
greatest brilliancy	4519 Jan 02 22:55	25° \mathcal{J} 27'50	-0.7m	asc. node	4519 Nov 25 14:39	26° \mathcal{M} 40'36	
	4519 Jan 06 00:31	0° \mathcal{Z}		morning rise	4519 Nov 28 10:21	24° \mathcal{M} 29'50	
desc. node	4519 Jan 14 10:57	12° \mathcal{Z} 53'29		direct	4519 Dec 01 08:01	23° \mathcal{M} 42'24	
morning set	4519 Jan 17 05:29	17° \mathcal{Z} 10'54		morning max el	4519 Dec 07 23:14	27° \mathcal{M} 19'40	18°31'29
	4519 Jan 25 11:11	0° \approx			4519 Dec 10 08:52	0° \mathcal{J}	
max. Earth dist.	4519 Jan 30 18:12	8° \approx 18'32	1.44796 AU	morning set	4519 Dec 28 04:32	26° \mathcal{J} 51'09	
					4519 Dec 30 03:59	0° \mathcal{Z}	
superior conj	4519 Feb 03 00:18	13° \approx 27'49	-1°-50'-47	desc. node	4520 Jan 01 08:00	3° \mathcal{Z} 26'36	
minimum elong	4519 Feb 02 16:19	12° \approx 56'06	1°50'12				
	4519 Feb 13 06:04	0° \mathcal{H}		superior conj	4520 Jan 13 03:51	22° \mathcal{Z} 04'36	-1°-15'-33
evening rise	4519 Feb 17 11:03	6° \mathcal{H} 56'34		minimum elong	4520 Jan 12 19:06	21° \mathcal{Z} 30'18	1°14'34
	4519 Mar 03 19:20	0° Υ		max. Earth dist.	4520 Jan 13 12:17	22° \mathcal{Z} 37'40	1.45289 AU
asc. node	4519 Mar 06 16:58	3° Υ 51'55			4520 Jan 18 05:05	0° \approx	
evening max el	4519 Mar 08 19:39	6° Υ 13'50	18°24'54	evening rise	4520 Jan 29 01:45	17° \approx 07'52	

	4520 Feb 06 04:35	0° Υ		evening max el	4521 Feb 02 11:43	3° Υ 16'14	19°50'15
evening max el	4520 Feb 20 05:49	19° Υ 43'30	18°59'27	asc. node	4521 Feb 07 11:00	7° Υ 03'04	
asc. node	4520 Feb 21 13:59	20° Υ 59'47		retrograde	4521 Feb 09 23:37	7° Υ 37'11	
retrograde	4520 Feb 27 01:59	23° Υ 34'41		evening set	4521 Feb 13 14:14	6° Υ 21'02	
evening set	4520 Mar 01 08:44	22° Υ 32'20		inferior conj	4521 Feb 19 01:38	0° Υ 19'06	3°09'02
inferior conj	4520 Mar 07 00:05	16° Υ 45'13	3°28'22	minimum elong	4521 Feb 18 23:30	0° Υ 26'12	3°08'37
minimum elong	4520 Mar 06 22:47	16° Υ 49'20	3°28'14		4521 Feb 19 07:22	30° Υ	
min. Earth dist.	4520 Mar 08 14:45	14° Υ 43'34	0.65847 AU	min. Earth dist.	4521 Feb 20 01:40	28° Υ 58'59	0.66987 AU
morning rise	4520 Mar 12 11:47	10° Υ 30'14		morning rise	4521 Feb 24 08:07	24° Υ 03'04	
direct	4520 Mar 18 22:47	7° Υ 41'41		direct	4521 Mar 02 06:55	21° Υ 24'34	
desc. node	4520 Mar 29 07:13	12° Υ 53'36		morning max el	4521 Mar 14 06:58	28° Υ 34'33	25°19'42
morning max el	4520 Mar 31 21:52	15° Υ 22'14	26°35'03		4521 Mar 15 15:48	0° Υ	
	4520 Apr 12 22:14	0° Υ		desc. node	4521 Mar 16 04:16	0° Υ 33'43	
	4520 May 01 20:56	0° Υ			4521 Apr 06 16:38	0° Υ	
morning set	4520 May 06 20:32	9° Υ 08'44		morning set	4521 Apr 19 10:46	21° Υ 31'05	
max. Earth dist.	4520 May 11 01:23	17° Υ 16'50	1.34612 AU	max. Earth dist.	4521 Apr 23 04:04	28° Υ 21'50	1.36382 AU
					4521 Apr 24 00:54	0° Υ	
superior conj	4520 May 15 15:26	26° Υ 33'58	0°-39'-36	superior conj	4521 Apr 29 05:39	10° Υ 05'06	-1°-8'-50
minimum elong	4520 May 15 17:34	26° Υ 44'57	0°39'11	minimum elong	4521 Apr 29 09:23	10° Υ 23'37	1°08'13
	4520 May 17 07:09	0° Υ		asc. node	4521 May 06 10:21	24° Υ 37'31	
asc. node	4520 May 19 13:18	4° Υ 43'18		evening rise	4521 May 07 11:15	26° Υ 43'40	
evening rise	4520 May 23 06:20	12° Υ 28'51			4521 May 09 02:19	0° Υ	
	4520 Jun 01 08:44	0° Υ		evening max el	4521 May 24 19:56	24° Υ 58'10	19°46'05
evening max el	4520 Jun 11 09:38	13° Υ 37'35	20°59'13	retrograde	4521 Jun 03 18:49	29° Υ 49'25	
retrograde	4520 Jun 23 02:04	19° Υ 21'34		evening set	4521 Jun 05 17:19	29° Υ 39'11	
evening set	4520 Jun 25 06:46	19° Υ 10'13		desc. node	4521 Jun 12 03:29	27° Υ 04'37	
desc. node	4520 Jun 25 06:29	19° Υ 10'20		inferior conj	4521 Jun 14 13:46	25° Υ 37'03	0°-43'-20
inferior conj	4520 Jul 04 14:29	15° Υ 13'02	-2°-42'-22	minimum elong	4521 Jun 14 11:47	25° Υ 40'07	0°42'37
minimum elong	4520 Jul 04 07:09	15° Υ 23'23	2°39'55	min. Earth dist.	4521 Jun 16 18:42	24° Υ 15'27	0.55457 AU
min. Earth dist.	4520 Jul 05 05:49	14° Υ 51'20	0.54821 AU	morning rise	4521 Jun 23 03:11	21° Υ 09'39	
morning rise	4520 Jul 13 07:08	11° Υ 13'33		direct	4521 Jun 27 13:30	20° Υ 26'20	
direct	4520 Jul 16 22:28	10° Υ 45'02		morning max el	4521 Jul 11 10:46	27° Υ 20'35	24°29'32
morning max el	4520 Jul 29 20:31	16° Υ 55'24	22°45'54		4521 Jul 14 01:15	0° Υ	
	4520 Aug 09 05:56	0° Υ		asc. node	4521 Aug 02 09:36	0° Υ 26'32	
asc. node	4520 Aug 15 12:31	10° Υ 55'25			4521 Aug 02 04:19	0° Υ	
morning set	4520 Aug 21 05:47	22° Υ 26'06		morning set	4521 Aug 05 17:35	7° Υ 19'58	
	4520 Aug 24 19:03	0° Υ					
superior conj	4520 Aug 28 08:48	7° Υ 39'29	1°39'34	superior conj	4521 Aug 12 17:24	22° Υ 28'41	1°29'29
minimum elong	4520 Aug 28 07:25	7° Υ 32'10	1°39'29	minimum elong	4521 Aug 12 15:19	22° Υ 17'19	1°29'15
max. Earth dist.	4520 Aug 31 09:14	14° Υ 01'18	1.33959 AU	max. Earth dist.	4521 Aug 14 12:07	26° Υ 20'14	1.32883 AU
evening rise	4520 Sep 05 05:22	23° Υ 49'35			4521 Aug 16 05:08	0° Υ	
	4520 Sep 08 10:25	0° Υ		evening rise	4521 Aug 20 01:21	8° Υ 00'21	
desc. node	4520 Sep 21 05:48	21° Υ 51'34			4521 Aug 31 21:20	0° Υ	
	4520 Sep 26 19:03	0° Υ		desc. node	4521 Sep 08 02:48	11° Υ 20'55	
evening max el	4520 Oct 09 18:34	15° Υ 28'07	27°12'24	evening max el	4521 Sep 22 05:28	28° Υ 36'10	27°26'56
retrograde	4520 Oct 23 03:49	22° Υ 45'51			4521 Sep 23 18:18	0° Υ	
evening set	4520 Oct 30 01:11	20° Υ 06'03		retrograde	4521 Oct 05 21:43	5° Υ 52'14	
min. Earth dist.	4520 Nov 02 22:10	16° Υ 25'31	0.64947 AU	evening set	4521 Oct 13 01:38	3° Υ 17'55	
inferior conj	4520 Nov 05 02:33	14° Υ 00'50	-2°-7'-32	min. Earth dist.	4521 Oct 16 17:40	0° Υ 10'08	0.63314 AU
minimum elong	4520 Nov 05 06:12	13° Υ 50'45	2°06'07		4521 Oct 16 21:52	30° Υ	
asc. node	4520 Nov 11 11:43	8° Υ 29'17		inferior conj	4521 Oct 19 10:04	27° Υ 30'10	-3°-9'-38
morning rise	4520 Nov 11 13:12	8° Υ 27'35		minimum elong	4521 Oct 19 15:23	27° Υ 16'56	3°07'50
direct	4520 Nov 14 03:15	7° Υ 52'13		morning rise	4521 Oct 26 07:44	22° Υ 14'03	
morning max el	4520 Nov 20 14:43	11° Υ 19'15	18°02'05	direct	4521 Oct 28 16:47	21° Υ 47'05	
	4520 Dec 03 13:38	0° Υ		asc. node	4521 Oct 29 08:47	21° Υ 49'15	
morning set	4520 Dec 08 09:12	7° Υ 59'44		morning max el	4521 Nov 04 07:27	25° Υ 12'24	17°50'06
desc. node	4520 Dec 18 05:04	24° Υ 07'55			4521 Nov 08 06:51	0° Υ	
	4520 Dec 21 20:45	0° Υ		morning set	4521 Nov 20 15:09	20° Υ 21'16	
					4521 Nov 26 04:41	0° Υ	
superior conj	4520 Dec 22 11:56	1° Υ 00'30	0°-29'-18	superior conj	4521 Dec 02 17:37	11° Υ 01'32	0°16'24
minimum elong	4520 Dec 22 08:19	0° Υ 46'06	0°28'48	minimum elong	4521 Dec 02 19:18	11° Υ 08'30	0°16'10
max. Earth dist.	4520 Dec 26 07:49	7° Υ 04'29	1.45036 AU	desc. node	4521 Dec 05 02:04	14° Υ 53'46	
evening rise	4521 Jan 07 20:22	26° Υ 34'37		max. Earth dist.	4521 Dec 09 01:31	21° Υ 19'54	1.44073 AU
	4521 Jan 10 01:40	0° Υ			4521 Dec 14 13:00	0° Υ	
greatest brilliancy	4521 Jan 26 07:00	24° Υ 18'46	-0.6m	evening rise	4521 Dec 18 06:05	5° Υ 45'41	
	4521 Jan 30 14:24	0° Υ					

	4522 Jan 03 11:10	0°♊			4522 Dec 29 21:49	0°♊	
greatest brilliancy	4522 Jan 11 02:17	10°♊29'04	-0.5m	evening max el	4522 Dec 30 07:09	0°♊23'54	22°09'26
evening max el	4522 Jan 16 12:08	16°♊49'22	20°54'49	retrograde	4523 Jan 08 18:33	6°♊02'11	
retrograde	4522 Jan 24 21:45	21°♊47'27		asc. node	4523 Jan 12 05:04	4°♊59'18	
asc. node	4522 Jan 25 08:03	21°♊46'27		evening set	4523 Jan 13 05:29	4°♊15'36	
evening set	4522 Jan 28 21:43	20°♊16'27			4523 Jan 17 01:52	30°♋♊	
inferior conj	4522 Feb 03 07:16	14°♋02'26	2°39'33	inferior conj	4523 Jan 18 14:55	27°♋52'57	2°01'40
minimum elong	4522 Feb 03 04:49	14°♋10'52	2°38'54	minimum elong	4523 Jan 18 12:38	28°♋00'53	2°00'54
min. Earth dist.	4522 Feb 03 18:10	13°♋24'53	0.67705 AU	min. Earth dist.	4523 Jan 18 14:01	27°♋56'05	0.68030 AU
morning rise	4522 Feb 08 11:31	7°♋47'07		morning rise	4523 Jan 23 19:38	21°♋39'57	
direct	4522 Feb 13 19:56	5°♋26'35		direct	4523 Jan 28 13:10	19°♋41'25	
morning max el	4522 Feb 24 15:38	11°♋53'36	23°52'40	morning max el	4523 Feb 07 02:27	25°♋19'14	22°23'51
desc. node	4522 Mar 03 01:18	19°♋11'25			4523 Feb 11 07:43	0°♋	
	4522 Mar 11 03:28	0°♋		greatest brilliancy	4523 Feb 11 15:53	0°♋24'30	-0.3m
	4522 Mar 30 11:55	0°♋		desc. node	4523 Feb 17 22:18	8°♋30'40	
morning set	4522 Apr 01 03:18	2°♋47'28			4523 Mar 04 15:30	0°♋	
max. Earth dist.	4522 Apr 05 00:07	9°♋32'11	1.38474 AU	morning set	4523 Mar 12 16:28	12°♋44'20	
				max. Earth dist.	4523 Mar 17 20:34	21°♋19'16	1.40657 AU
superior conj	4522 Apr 12 07:11	22°♋55'25	-1°-35'-47		4523 Mar 22 21:20	0°♋	
minimum elong	4522 Apr 12 11:59	23°♋18'08	1°35'13				
	4522 Apr 15 23:43	0°♌		superior conj	4523 Mar 25 15:36	4°♋54'28	-1°-57'-3
evening rise	4522 Apr 21 09:06	10°♌32'45		minimum elong	4523 Mar 25 19:56	5°♋13'59	1°56'46
asc. node	4522 Apr 23 07:22	14°♌17'57		evening rise	4523 Apr 04 20:38	23°♋47'53	
	4522 May 02 04:11	0°♌			4523 Apr 08 04:19	0°♌	
evening max el	4522 May 07 17:36	6°♌59'13	18°52'53	asc. node	4523 Apr 10 04:23	3°♌39'29	
retrograde	4522 May 16 02:59	11°♌05'48		evening max el	4523 Apr 20 23:44	19°♌34'49	18°20'03
evening set	4522 May 18 05:02	10°♌51'33		retrograde	4523 Apr 28 06:02	23°♌11'39	
inferior conj	4522 May 26 06:43	6°♌33'17	1°04'19	evening set	4523 Apr 30 14:28	22°♌49'51	
minimum elong	4522 May 26 09:06	6°♌29'01	1°03'30	inferior conj	4523 May 07 21:14	18°♌11'21	2°22'33
min. Earth dist.	4522 May 29 10:45	4°♌17'53	0.56924 AU	minimum elong	4523 May 08 00:49	18°♌03'47	2°21'36
desc. node	4522 May 30 00:31	3°♌54'37		min. Earth dist.	4523 May 11 07:45	15°♌19'26	0.58932 AU
morning rise	4522 Jun 03 08:42	1°♌29'38		morning rise	4523 May 15 06:56	12°♌36'44	
direct	4522 Jun 08 17:42	0°♌20'11		desc. node	4523 May 16 21:32	11°♌50'16	
morning max el	4522 Jun 23 01:39	7°♌46'55	26°04'01	direct	4523 May 21 12:12	10°♌52'58	
	4522 Jul 09 14:42	0°♍		morning max el	4523 Jun 04 21:37	18°♌40'02	27°13'49
asc. node	4522 Jul 20 06:39	20°♍14'34			4523 Jun 14 10:26	0°♌	
morning set	4522 Jul 21 04:45	22°♍10'40			4523 Jul 02 04:52	0°♍	
	4522 Jul 24 19:53	0°♍		morning set	4523 Jul 05 13:36	6°♍52'39	
				asc. node	4523 Jul 07 03:40	10°♍13'53	
superior conj	4522 Jul 28 04:31	7°♍23'26	1°14'26				
minimum elong	4522 Jul 28 02:12	7°♍10'38	1°14'04	superior conj	4523 Jul 12 16:20	22°♍17'28	0°55'05
max. Earth dist.	4522 Jul 28 20:58	8°♍53'58	1.32220 AU	minimum elong	4523 Jul 12 14:15	22°♍05'56	0°54'41
evening rise	4522 Aug 04 04:45	22°♍31'23		max. Earth dist.	4523 Jul 12 08:20	21°♍33'17	1.31974 AU
	4522 Aug 07 21:04	0°♎			4523 Jul 16 04:21	0°♍	
desc. node	4522 Aug 25 23:49	0°♎08'37		evening rise	4523 Jul 19 13:01	7°♍14'44	
	4522 Aug 25 21:16	0°♎			4523 Jul 31 09:49	0°♎	
evening max el	4522 Sep 04 12:07	11°♎07'59	27°09'36	desc. node	4523 Aug 12 20:50	17°♎57'01	
retrograde	4522 Sep 18 08:41	18°♎20'48		evening max el	4523 Aug 17 12:08	22°♎53'14	26°18'59
evening set	4522 Sep 25 11:20	16°♎03'54			4523 Aug 30 11:32	0°♎	
min. Earth dist.	4522 Sep 29 02:31	13°♎20'29	0.61395 AU	retrograde	4523 Aug 31 11:23	0°♎02'26	
inferior conj	4522 Oct 02 04:57	10°♎37'04	-4°-7'-24		4523 Sep 01 11:08	30°♏♎	
minimum elong	4522 Oct 02 11:04	10°♎23'35	4°05'50	evening set	4523 Sep 07 01:25	28°♎15'45	
morning rise	4522 Oct 09 13:58	5°♎41'29		min. Earth dist.	4523 Sep 11 01:21	25°♎41'26	0.59325 AU
direct	4522 Oct 11 20:57	5°♎19'45		inferior conj	4523 Sep 14 07:38	23°♎11'31	-4°-53'00
asc. node	4522 Oct 16 05:50	6°♎42'04		minimum elong	4523 Sep 14 12:31	23°♎02'09	4°52'18
morning max el	4522 Oct 18 22:20	8°♎51'55	17°56'33	morning rise	4523 Sep 22 03:07	18°♎38'44	
	4522 Nov 01 16:33	0°♏		direct	4523 Sep 24 11:26	18°♎19'34	
morning set	4522 Nov 03 15:59	3°♏36'45		morning max el	4523 Oct 02 07:57	22°♎07'53	18°22'44
				asc. node	4523 Oct 03 02:52	22°♎55'28	
superior conj	4522 Nov 14 02:05	22°♏21'20	0°53'42		4523 Oct 08 11:41	0°♏	
minimum elong	4522 Nov 14 06:02	22°♏38'31	0°53'11	morning set	4523 Oct 18 06:10	17°♏29'48	
	4522 Nov 18 13:07	0°♏			4523 Oct 24 19:47	0°♏	
max. Earth dist.	4522 Nov 21 14:38	5°♏06'26	1.42521 AU				
desc. node	4522 Nov 21 23:05	5°♏41'13		superior conj	4523 Oct 27 10:00	4°♏49'04	1°20'11
evening rise	4522 Nov 27 23:03	15°♏21'08		minimum elong	4523 Oct 27 13:42	5°♏06'03	1°19'48
	4522 Dec 07 12:02	0°♐		max. Earth dist.	4523 Nov 03 22:17	18°♏11'08	1.40577 AU
greatest brilliancy	4522 Dec 25 13:43	25°♐04'20	-0.3m	evening rise	4523 Nov 08 11:27	25°♏50'43	

desc. node	4523 Nov 08 20:06	26° \mathbb{M} 26'20		evening rise	4524 Oct 19 23:08	7° \mathbb{M} 24'02	
	4523 Nov 11 00:35	0° \mathbb{X}		desc. node	4524 Oct 25 17:09	17° \mathbb{M} 05'23	
	4523 Dec 01 06:13	0° \mathbb{Z}			4524 Nov 02 23:09	0° \mathbb{X}	
evening max el	4523 Dec 12 22:05	14° \mathbb{Z} 01'20	23°29'08	evening max el	4524 Nov 24 11:03	27° \mathbb{X} 43'07	24°47'29
retrograde	4523 Dec 23 12:27	20° \mathbb{Z} 17'18			4524 Nov 26 22:20	0° \mathbb{Z}	
evening set	4523 Dec 28 11:54	18° \mathbb{Z} 14'48		retrograde	4524 Dec 06 02:20	4° \mathbb{Z} 29'06	
asc. node	4523 Dec 30 02:06	16° \mathbb{Z} 42'48		evening set	4524 Dec 11 15:27	2° \mathbb{Z} 11'20	
inferior conj	4524 Jan 02 22:43	11° \mathbb{Z} 47'35	1°16'34		4524 Dec 13 20:02	30° \mathbb{R} \mathbb{X}	
minimum elong	4524 Jan 02 21:03	11° \mathbb{Z} 53'18	1°15'55	asc. node	4524 Dec 15 23:07	27° \mathbb{X} 22'16	
min. Earth dist.	4524 Jan 02 10:49	12° \mathbb{Z} 28'20	0.67987 AU	min. Earth dist.	4524 Dec 16 06:11	26° \mathbb{X} 59'07	0.67591 AU
morning rise	4524 Jan 08 06:18	5° \mathbb{Z} 38'51		inferior conj	4524 Dec 17 04:53	25° \mathbb{X} 44'01	0°25'15
direct	4524 Jan 12 09:36	4° \mathbb{Z} 03'04		minimum elong	4524 Dec 17 04:16	25° \mathbb{X} 46'04	0°24'59
morning max el	4524 Jan 20 18:51	8° \mathbb{Z} 54'00	21°01'33	morning rise	4524 Dec 22 17:35	19° \mathbb{X} 41'51	
greatest brilliancy	4524 Jan 26 05:05	15° \mathbb{Z} 08'28	-0.5m	direct	4524 Dec 26 07:59	18° \mathbb{X} 27'20	
desc. node	4524 Feb 04 19:19	28° \mathbb{Z} 19'35		morning max el	4525 Jan 02 19:05	22° \mathbb{X} 40'24	19°51'17
	4524 Feb 05 22:56	0° \mathbb{A}			4525 Jan 08 22:34	0° \mathbb{Z}	
morning set	4524 Feb 20 01:54	21° \mathbb{A} 24'21		greatest brilliancy	4525 Jan 10 05:05	1° \mathbb{Z} 43'18	-0.6m
	4524 Feb 25 11:51	0° \mathbb{H}		desc. node	4525 Jan 21 16:22	18° \mathbb{Z} 30'13	
max. Earth dist.	4524 Feb 27 23:09	4° \mathbb{H} 00'09	1.42649 AU	morning set	4525 Jan 28 21:55	29° \mathbb{Z} 33'42	
					4525 Jan 29 04:44	0° \mathbb{A}	
superior conj	4524 Mar 06 01:52	15° \mathbb{H} 50'52	-2°-7'-51	max. Earth dist.	4525 Feb 09 09:51	17° \mathbb{A} 33'32	1.44194 AU
minimum elong	4524 Mar 06 02:59	15° \mathbb{H} 55'39	2°07'51				
	4524 Mar 14 04:53	0° \mathbb{Y}		superior conj	4525 Feb 14 10:30	25° \mathbb{A} 38'11	-2°-2'-39
evening rise	4524 Mar 17 17:51	6° \mathbb{Y} 19'45		minimum elong	4525 Feb 14 05:40	25° \mathbb{A} 18'35	2°02'27
asc. node	4524 Mar 27 01:24	22° \mathbb{Y} 35'36			4525 Feb 17 02:42	0° \mathbb{H}	
	4524 Apr 01 03:21	0° \mathbb{B}		evening rise	4525 Feb 27 20:19	17° \mathbb{H} 59'39	
evening max el	4524 Apr 03 10:52	2° \mathbb{B} 35'39	18°07'03		4525 Mar 06 21:54	0° \mathbb{Y}	
retrograde	4524 Apr 10 01:44	5° \mathbb{B} 58'53		asc. node	4525 Mar 13 22:26	10° \mathbb{Y} 57'47	
evening set	4524 Apr 12 16:30	5° \mathbb{B} 27'11		evening max el	4525 Mar 17 23:41	15° \mathbb{Y} 52'14	18°13'06
inferior conj	4524 Apr 19 07:28	0° \mathbb{B} 27'43	3°09'52	retrograde	4525 Mar 24 09:39	19° \mathbb{Y} 16'36	
minimum elong	4524 Apr 19 10:06	0° \mathbb{B} 21'18	3°09'25	evening set	4525 Mar 27 06:23	18° \mathbb{Y} 33'38	
	4524 Apr 19 18:51	30° \mathbb{R} \mathbb{Y}		inferior conj	4525 Apr 02 09:27	13° \mathbb{Y} 14'05	3°31'40
min. Earth dist.	4524 Apr 22 11:43	27° \mathbb{Y} 24'06	0.61126 AU	minimum elong	4525 Apr 02 10:24	13° \mathbb{Y} 11'28	3°31'36
morning rise	4524 Apr 26 00:32	24° \mathbb{Y} 32'40		min. Earth dist.	4525 Apr 05 00:25	10° \mathbb{Y} 22'23	0.63213 AU
direct	4524 May 02 18:13	22° \mathbb{Y} 16'07		morning rise	4525 Apr 08 12:21	7° \mathbb{Y} 07'08	
desc. node	4524 May 02 18:32	22° \mathbb{Y} 16'07		direct	4525 Apr 15 09:07	4° \mathbb{Y} 27'50	
	4524 May 16 18:27	0° \mathbb{B}		desc. node	4525 Apr 19 15:34	5° \mathbb{Y} 21'44	
morning max el	4524 May 16 23:48	0° \mathbb{B} 13'15	27°48'56	morning max el	4525 Apr 29 07:03	12° \mathbb{Y} 26'37	27°46'24
	4524 Jun 07 11:39	0° \mathbb{I}			4525 May 13 06:33	0° \mathbb{B}	
morning set	4524 Jun 18 18:20	21° \mathbb{I} 20'14			4525 May 30 22:33	0° \mathbb{I}	
	4524 Jun 22 20:59	0° \mathbb{S}		morning set	4525 Jun 02 16:38	5° \mathbb{I} 25'07	
asc. node	4524 Jun 23 00:41	0° \mathbb{S} 19'57		max. Earth dist.	4525 Jun 07 23:42	16° \mathbb{I} 21'41	1.32745 AU
max. Earth dist.	4524 Jun 24 18:33	4° \mathbb{S} 06'59	1.32146 AU	asc. node	4525 Jun 09 21:43	20° \mathbb{I} 27'37	
superior conj	4524 Jun 26 03:08	7° \mathbb{S} 05'11	0°32'00	superior conj	4525 Jun 10 11:02	21° \mathbb{I} 39'24	0°05'49
minimum elong	4524 Jun 26 01:44	6° \mathbb{S} 57'31	0°31'42	minimum elong	4525 Jun 10 10:45	21° \mathbb{I} 37'53	0°05'45
evening rise	4524 Jul 03 00:04	22° \mathbb{S} 03'50		behind sun begin	4525 Jun 10 05:48	21° \mathbb{I} 11'11	
	4524 Jul 06 19:54	0° \mathbb{Q}		behind sun end	4525 Jun 10 15:42	22° \mathbb{I} 04'37	
	4524 Jul 25 13:15	0° \mathbb{N}			4525 Jun 14 07:24	0° \mathbb{S}	
evening max el	4524 Jul 29 04:57	3° \mathbb{N} 52'00	24°59'56	evening rise	4525 Jun 17 11:53	6° \mathbb{S} 50'56	
desc. node	4524 Jul 29 17:51	4° \mathbb{N} 22'23			4525 Jun 29 16:52	0° \mathbb{Q}	
retrograde	4524 Aug 12 03:28	10° \mathbb{N} 54'50		evening max el	4525 Jul 10 17:46	14° \mathbb{Q} 18'44	23°24'38
evening set	4524 Aug 17 15:34	9° \mathbb{N} 45'58		desc. node	4525 Jul 16 14:52	18° \mathbb{Q} 52'21	
min. Earth dist.	4524 Aug 22 16:31	7° \mathbb{N} 02'08	0.57346 AU	retrograde	4525 Jul 24 06:54	21° \mathbb{Q} 05'44	
inferior conj	4524 Aug 25 15:04	5° \mathbb{N} 04'48	-5°-13'-52	evening set	4525 Jul 28 07:26	20° \mathbb{Q} 30'21	
minimum elong	4524 Aug 25 15:34	5° \mathbb{N} 03'59	5°13'54	min. Earth dist.	4525 Aug 04 03:21	17° \mathbb{Q} 20'47	0.55764 AU
morning rise	4524 Sep 02 19:03	0° \mathbb{N} 54'31		inferior conj	4525 Aug 06 02:28	16° \mathbb{Q} 11'15	-4°-53'-58
direct	4524 Sep 05 08:25	0° \mathbb{N} 35'36		minimum elong	4525 Aug 05 20:43	16° \mathbb{Q} 19'47	4°53'11
morning max el	4524 Sep 14 08:58	4° \mathbb{N} 50'38	19°10'05	morning rise	4525 Aug 14 13:02	12° \mathbb{Q} 18'00	
asc. node	4524 Sep 18 23:54	10° \mathbb{N} 14'32		direct	4525 Aug 17 10:16	11° \mathbb{Q} 57'40	
	4524 Sep 30 07:31	0° \mathbb{U}		morning max el	4525 Aug 27 22:41	16° \mathbb{Q} 50'47	20°19'19
morning set	4524 Oct 01 05:36	1° \mathbb{U} 49'12		asc. node	4525 Sep 05 20:57	28° \mathbb{Q} 24'24	
					4525 Sep 06 19:57	0° \mathbb{N}	
superior conj	4524 Oct 09 11:56	18° \mathbb{U} 09'32	1°36'15	morning set	4525 Sep 15 11:11	16° \mathbb{Q} 26'00	
minimum elong	4524 Oct 09 14:14	18° \mathbb{U} 20'37	1°36'06		4525 Sep 22 01:39	0° \mathbb{U}	
	4524 Oct 15 19:14	0° \mathbb{M}					
max. Earth dist.	4524 Oct 16 03:00	0° \mathbb{M} 35'13	1.38484 AU	superior conj	4525 Sep 23 02:56	2° \mathbb{U} 08'17	1°43'19

minimum elong	4525 Sep 23 03:35	2°♄11'36	1°43'18	superior conj	4526 Sep 07 03:03	16°♍33'57	1°42'49
max. Earth dist.	4525 Sep 28 09:35	12°♄33'04	1.36481 AU	minimum elong	4526 Sep 07 02:18	16°♍30'02	1°42'47
evening rise	4525 Oct 02 07:51	19°♄55'05		max. Earth dist.	4526 Sep 10 22:40	24°♍26'34	1.34766 AU
	4525 Oct 08 00:43	0°♍			4526 Sep 13 17:32	0°♄	
desc. node	4525 Oct 12 14:12	7°♍33'40		evening rise	4526 Sep 15 09:27	3°♄13'38	
	4525 Oct 28 00:22	0°♄		desc. node	4526 Sep 29 11:13	27°♄45'21	
evening max el	4525 Nov 06 23:37	11°♄26'26	25°57'23		4526 Sep 30 21:53	0°♍	
retrograde	4525 Nov 19 11:26	18°♄32'38		evening max el	4526 Oct 20 12:12	25°♍04'03	26°51'20
evening set	4525 Nov 25 14:26	16°♄01'49			4526 Oct 26 15:36	0°♄	
min. Earth dist.	4525 Nov 29 21:45	11°♄25'10	0.66840 AU	retrograde	4526 Nov 02 15:12	2°♄20'37	
inferior conj	4525 Dec 01 07:36	9°♄39'12	0°-31'-15		4526 Nov 08 21:24	30°♍	
minimum elong	4525 Dec 01 08:26	9°♄36'37	0°30'55	evening set	4526 Nov 09 06:47	29°♍41'40	
asc. node	4525 Dec 02 20:10	7°♄46'56		min. Earth dist.	4526 Nov 13 07:12	25°♍41'07	0.65737 AU
morning rise	4525 Dec 07 03:28	3°♄46'11		inferior conj	4526 Nov 15 04:48	23°♍28'35	-1°-31'-44
direct	4525 Dec 10 06:42	2°♄49'55		minimum elong	4526 Nov 15 07:23	23°♍21'05	1°30'40
morning max el	4525 Dec 17 03:00	6°♄36'50	18°56'02	asc. node	4526 Nov 19 17:14	18°♍52'16	
	4526 Jan 02 19:55	0°♄		morning rise	4526 Nov 21 09:39	17°♍47'31	
morning set	4526 Jan 08 05:54	8°♄27'15		direct	4526 Nov 24 03:47	17°♍05'45	
desc. node	4526 Jan 08 13:25	8°♄56'38		morning max el	4526 Nov 30 16:32	20°♍37'20	18°16'56
	4526 Jan 22 00:19	0°♄			4526 Dec 07 22:39	0°♄	
max. Earth dist.	4526 Jan 23 02:41	1°♄43'32	1.45098 AU	morning set	4526 Dec 19 17:36	18°♄45'26	
				desc. node	4526 Dec 26 10:27	29°♄33'29	
superior conj	4526 Jan 24 20:47	4°♄29'12	-1°-37'-51		4526 Dec 26 17:05	0°♄	
minimum elong	4526 Jan 24 11:34	3°♄52'54	1°37'01	superior conj	4527 Jan 03 23:36	13°♄06'40	0°-56'-34
evening rise	4526 Feb 09 00:30	28°♄43'32		minimum elong	4527 Jan 03 16:37	12°♄39'11	0°55'40
	4526 Feb 09 19:20	0°♄		max. Earth dist.	4527 Jan 05 21:50	16°♄08'13	1.45269 AU
asc. node	4526 Feb 28 19:28	28°♄36'24			4527 Jan 14 18:30	0°♄	
evening max el	4526 Mar 01 11:28	29°♄18'24	18°37'28	evening rise	4527 Jan 20 05:51	8°♄33'22	
	4526 Mar 02 04:33	0°♄			4527 Feb 03 02:34	0°♄	
retrograde	4526 Mar 08 01:39	2°♄56'46		greatest brilliancy	4527 Feb 03 22:00	1°♄12'06	-0.7m
evening set	4526 Mar 11 04:31	2°♄01'42		evening max el	4527 Feb 12 19:55	12°♄48'53	19°19'08
	4526 Mar 13 18:05	30°♄		asc. node	4527 Feb 15 16:31	15°♄18'18	
inferior conj	4526 Mar 16 23:14	26°♄23'48	3°33'57	retrograde	4527 Feb 19 22:06	16°♄52'06	
minimum elong	4526 Mar 16 22:38	26°♄25'37	3°33'56	evening set	4527 Feb 23 07:58	15°♄44'03	
min. Earth dist.	4526 Mar 18 22:39	24°♄01'01	0.64995 AU	inferior conj	4527 Feb 28 21:20	9°♄50'05	3°21'31
morning rise	4526 Mar 22 15:27	20°♄10'34		minimum elong	4527 Feb 28 19:37	9°♄55'40	3°21'17
direct	4526 Mar 29 07:33	17°♄21'49		min. Earth dist.	4527 Mar 02 05:34	8°♄05'45	0.66381 AU
desc. node	4526 Apr 06 12:36	20°♄39'48		morning rise	4527 Mar 06 06:24	3°♄34'08	
morning max el	4526 Apr 11 16:57	25°♄12'46	27°09'19	direct	4527 Mar 12 12:26	0°♄48'46	
	4526 Apr 16 01:49	0°♄		desc. node	4527 Mar 24 09:39	7°♄35'58	
	4526 May 06 18:05	0°♄		morning max el	4527 Mar 25 02:50	8°♄18'43	26°05'04
morning set	4526 May 17 05:42	18°♄59'12			4527 Apr 11 01:58	0°♄	
max. Earth dist.	4526 May 21 20:00	28°♄07'23	1.33799 AU		4527 Apr 29 05:28	0°♄	
	4526 May 22 17:59	0°♄		morning set	4527 Apr 30 05:39	1°♄51'25	
superior conj	4526 May 25 14:04	5°♄54'19	0°-22'-39	max. Earth dist.	4527 May 04 04:47	9°♄22'15	1.35312 AU
minimum elong	4526 May 25 15:15	6°♄00'33	0°22'25	superior conj	4527 May 09 09:46	19°♄43'03	0°-52'-7
asc. node	4526 May 27 18:46	10°♄33'05		minimum elong	4527 May 09 12:36	19°♄57'27	0°51'36
evening rise	4526 Jun 01 22:39	21°♄30'11			4527 May 14 09:36	0°♄	
	4526 Jun 06 02:29	0°♄		asc. node	4527 May 14 15:50	0°♄32'16	
evening max el	4526 Jun 22 10:10	24°♄45'09	21°49'02	evening rise	4527 May 17 06:20	5°♄55'15	
	4526 Jun 30 00:48	0°♄			4527 May 30 17:25	0°♄	
desc. node	4526 Jul 03 11:53	0°♄52'48		evening max el	4527 Jun 04 13:11	5°♄41'31	20°25'47
retrograde	4526 Jul 04 23:27	0°♄57'56		retrograde	4527 Jun 15 12:36	11°♄03'31	
evening set	4526 Jul 07 15:34	0°♄41'52		evening set	4527 Jun 17 12:34	10°♄53'35	
	4526 Jul 10 03:36	30°♄		desc. node	4527 Jun 20 08:52	10°♄07'54	
inferior conj	4526 Jul 16 22:57	26°♄39'34	-3°-43'00	inferior conj	4527 Jun 26 16:59	6°♄56'02	-1°-52'-28
minimum elong	4526 Jul 16 14:17	26°♄51'42	3°40'36	minimum elong	4527 Jun 26 11:43	7°♄03'43	1°50'34
min. Earth dist.	4526 Jul 16 13:36	26°♄52'39	0.54898 AU	min. Earth dist.	4527 Jun 28 01:34	6°♄08'36	0.54967 AU
morning rise	4526 Jul 25 14:25	22°♄48'31		morning rise	4527 Jul 05 09:11	2°♄46'14	
direct	4526 Jul 28 21:36	22°♄24'40		direct	4527 Jul 09 07:30	2°♄12'54	
morning max el	4526 Aug 10 00:37	28°♄05'43	21°48'22	morning max el	4527 Jul 22 17:38	8°♄43'44	23°30'10
	4526 Aug 11 22:29	0°♄			4527 Aug 07 03:40	0°♄	
asc. node	4526 Aug 23 18:01	17°♄13'11		asc. node	4527 Aug 10 15:05	6°♄31'09	
	4526 Aug 30 06:25	0°♄		morning set	4527 Aug 15 08:04	16°♄07'05	
morning set	4526 Aug 30 20:37	1°♄13'48			4527 Aug 21 18:57	0°♄	

superior conj	4527 Aug 22 09:18	1° $\mathring{\text{M}}$ 17'18	1°35'57		4528 Jul 12 11:36	0° $\mathring{\text{E}}$	
minimum elong	4527 Aug 22 07:34	1° $\mathring{\text{M}}$ 07'59	1°35'48	asc. node	4528 Jul 27 12:07	26° $\mathring{\text{E}}$ 09'46	
max. Earth dist.	4527 Aug 24 20:34	6° $\mathring{\text{M}}$ 33'51	1.33441 AU		4528 Jul 29 08:26	0° $\mathring{\text{O}}$	
evening rise	4527 Aug 29 23:48	17° $\mathring{\text{M}}$ 08'46		morning set	4528 Jul 29 19:45	0° $\mathring{\text{O}}$ 59'46	
	4527 Sep 05 17:59	0° $\mathring{\text{A}}$					
desc. node	4527 Sep 16 08:14	17° $\mathring{\text{A}}$ 33'15		superior conj	4528 Aug 05 19:12	16° $\mathring{\text{O}}$ 09'29	1°23'41
	4527 Sep 25 08:42	0° $\mathring{\text{M}}$		minimum elong	4528 Aug 05 16:57	15° $\mathring{\text{O}}$ 57'11	1°23'23
evening max el	4527 Oct 03 00:12	8° $\mathring{\text{M}}$ 26'52	27°22'11	max. Earth dist.	4528 Aug 07 02:12	18° $\mathring{\text{O}}$ 58'57	1.32544 AU
retrograde	4527 Oct 16 13:11	15° $\mathring{\text{M}}$ 45'17			4528 Aug 12 06:02	0° $\mathring{\text{M}}$	
evening set	4527 Oct 23 14:00	13° $\mathring{\text{M}}$ 06'15		evening rise	4528 Aug 12 23:17	1° $\mathring{\text{M}}$ 29'10	
min. Earth dist.	4527 Oct 27 08:27	9° $\mathring{\text{M}}$ 40'22	0.64290 AU		4528 Aug 28 16:16	0° $\mathring{\text{A}}$	
inferior conj	4527 Oct 29 18:08	7° $\mathring{\text{M}}$ 07'39	-2°-34'-5	desc. node	4528 Sep 02 05:14	6° $\mathring{\text{A}}$ 46'29	
minimum elong	4527 Oct 29 22:32	6° $\mathring{\text{M}}$ 55'59	2°32'26	evening max el	4528 Sep 14 09:43	21° $\mathring{\text{A}}$ 21'23	27°23'46
morning rise	4527 Nov 05 09:24	1° $\mathring{\text{M}}$ 41'27		retrograde	4528 Sep 28 04:24	28° $\mathring{\text{A}}$ 36'20	
asc. node	4527 Nov 06 14:17	1° $\mathring{\text{M}}$ 18'34		evening set	4528 Oct 05 08:42	26° $\mathring{\text{A}}$ 08'08	
direct	4527 Nov 07 20:52	1° $\mathring{\text{M}}$ 10'13		min. Earth dist.	4528 Oct 08 23:43	23° $\mathring{\text{A}}$ 11'47	0.62524 AU
morning max el	4527 Nov 14 09:00	4° $\mathring{\text{M}}$ 35'45	17°54'46	inferior conj	4528 Oct 11 20:41	20° $\mathring{\text{A}}$ 28'40	-3°-35'-2
morning set	4527 Dec 01 09:48	0° $\mathring{\text{A}}$ 27'25		minimum elong	4528 Oct 12 02:30	20° $\mathring{\text{A}}$ 14'51	3°33'15
	4527 Dec 01 03:21	0° $\mathring{\text{A}}$		morning rise	4528 Oct 18 23:11	15° $\mathring{\text{A}}$ 20'38	
desc. node	4527 Dec 13 07:31	20° $\mathring{\text{A}}$ 17'14		direct	4528 Oct 21 06:52	14° $\mathring{\text{A}}$ 56'19	
				asc. node	4528 Oct 23 11:19	15° $\mathring{\text{A}}$ 18'31	
superior conj	4527 Dec 14 15:34	22° $\mathring{\text{A}}$ 27'07	0°-9'-15	morning max el	4528 Oct 28 01:17	18° $\mathring{\text{A}}$ 23'51	17°50'27
minimum elong	4527 Dec 14 14:29	22° $\mathring{\text{A}}$ 22'44	0°09'07		4528 Nov 05 10:34	0° $\mathring{\text{M}}$	
behind sun begin	4527 Dec 14 06:00	21° $\mathring{\text{A}}$ 48'26		morning set	4528 Nov 13 00:36	13° $\mathring{\text{M}}$ 14'18	
behind sun end	4527 Dec 14 22:58	22° $\mathring{\text{A}}$ 56'59			4528 Nov 22 13:57	0° $\mathring{\text{A}}$	
	4527 Dec 19 08:45	0° $\mathring{\text{E}}$					
max. Earth dist.	4527 Dec 19 16:24	0° $\mathring{\text{E}}$ 30'19	1.44708 AU	superior conj	4528 Nov 24 08:40	3° $\mathring{\text{A}}$ 01'39	0°33'29
evening rise	4527 Dec 30 18:49	17° $\mathring{\text{E}}$ 48'24		minimum elong	4528 Nov 24 11:42	3° $\mathring{\text{A}}$ 14'28	0°33'03
	4528 Jan 07 18:47	0° $\mathring{\text{A}}$		desc. node	4528 Nov 29 04:32	11° $\mathring{\text{A}}$ 04'06	
greatest brilliancy	4528 Jan 20 16:10	18° $\mathring{\text{A}}$ 43'45	-0.5m	max. Earth dist.	4528 Dec 01 08:08	14° $\mathring{\text{A}}$ 34'24	1.43482 AU
evening max el	4528 Jan 26 23:31	26° $\mathring{\text{A}}$ 21'24	20°16'13	evening rise	4528 Dec 09 05:43	27° $\mathring{\text{A}}$ 05'25	
	4528 Jan 31 11:36	0° $\mathring{\text{H}}$			4528 Dec 11 02:54	0° $\mathring{\text{E}}$	
asc. node	4528 Feb 02 13:33	0° $\mathring{\text{H}}$ 48'58			4528 Dec 31 16:22	0° $\mathring{\text{A}}$	
retrograde	4528 Feb 03 20:13	0° $\mathring{\text{H}}$ 57'47		greatest brilliancy	4529 Jan 03 22:50	4° $\mathring{\text{A}}$ 14'31	-0.4m
	4528 Feb 07 00:03	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		evening max el	4529 Jan 08 21:39	9° $\mathring{\text{A}}$ 55'32	21°25'39
evening set	4528 Feb 07 14:31	29° $\mathring{\text{A}}$ 35'39		retrograde	4529 Jan 17 17:52	15° $\mathring{\text{A}}$ 10'16	
inferior conj	4528 Feb 13 00:54	23° $\mathring{\text{A}}$ 28'15	2°57'37	asc. node	4529 Jan 19 10:33	14° $\mathring{\text{A}}$ 54'44	
minimum elong	4528 Feb 12 22:34	23° $\mathring{\text{A}}$ 36'08	2°57'06	evening set	4529 Jan 21 22:18	13° $\mathring{\text{A}}$ 32'52	
min. Earth dist.	4528 Feb 13 19:15	22° $\mathring{\text{A}}$ 26'02	0.67344 AU	inferior conj	4529 Jan 27 07:38	7° $\mathring{\text{A}}$ 15'00	2°24'26
morning rise	4528 Feb 18 06:04	17° $\mathring{\text{A}}$ 12'03		minimum elong	4529 Jan 27 05:12	7° $\mathring{\text{A}}$ 23'26	2°23'42
direct	4528 Feb 23 22:55	14° $\mathring{\text{A}}$ 40'14		min. Earth dist.	4529 Jan 27 13:28	6° $\mathring{\text{A}}$ 54'49	0.67896 AU
morning max el	4528 Mar 06 11:30	21° $\mathring{\text{A}}$ 33'52	24°43'19	morning rise	4529 Feb 01 11:47	1° $\mathring{\text{A}}$ 00'28	
desc. node	4528 Mar 10 06:41	25° $\mathring{\text{A}}$ 42'36			4529 Feb 02 19:31	30° $\mathring{\text{R}}$ $\mathring{\text{E}}$	
	4528 Mar 13 19:22	0° $\mathring{\text{H}}$		direct	4529 Feb 06 13:58	28° $\mathring{\text{E}}$ 48'44	
	4528 Apr 03 08:12	0° $\mathring{\text{Y}}$			4529 Feb 10 17:15	0° $\mathring{\text{A}}$	
morning set	4528 Apr 11 11:23	13° $\mathring{\text{Y}}$ 47'27		morning max el	4529 Feb 16 20:28	4° $\mathring{\text{A}}$ 54'44	23°14'27
max. Earth dist.	4528 Apr 15 03:20	20° $\mathring{\text{Y}}$ 22'50	1.37239 AU	greatest brilliancy	4529 Feb 22 00:01	10° $\mathring{\text{A}}$ 41'16	-0.2m
	4528 Apr 20 06:20	0° $\mathring{\text{E}}$		desc. node	4529 Feb 25 03:44	14° $\mathring{\text{A}}$ 39'42	
					4529 Mar 08 03:12	0° $\mathring{\text{H}}$	
superior conj	4528 Apr 21 19:03	2° $\mathring{\text{E}}$ 57'36	-1°-20'-44	morning set	4529 Mar 23 16:50	24° $\mathring{\text{H}}$ 31'14	
minimum elong	4528 Apr 21 23:21	3° $\mathring{\text{E}}$ 18'31	1°20'07		4529 Mar 26 22:14	0° $\mathring{\text{Y}}$	
evening rise	4528 Apr 30 08:34	19° $\mathring{\text{E}}$ 59'23		max. Earth dist.	4529 Mar 27 22:28	1° $\mathring{\text{Y}}$ 44'50	1.39408 AU
asc. node	4528 Apr 30 12:51	20° $\mathring{\text{E}}$ 20'45					
	4528 May 05 12:00	0° $\mathring{\text{I}}$		superior conj	4529 Apr 04 13:58	15° $\mathring{\text{Y}}$ 28'07	-1°-45'-46
evening max el	4528 May 17 04:40	17° $\mathring{\text{I}}$ 19'48	19°21'01	minimum elong	4529 Apr 04 18:49	15° $\mathring{\text{Y}}$ 50'39	1°45'18
retrograde	4528 May 26 10:34	21° $\mathring{\text{I}}$ 50'07			4529 Apr 12 05:49	0° $\mathring{\text{E}}$	
evening set	4528 May 28 09:50	21° $\mathring{\text{I}}$ 38'45		evening rise	4529 Apr 14 02:29	3° $\mathring{\text{E}}$ 35'12	
inferior conj	4528 Jun 05 22:46	17° $\mathring{\text{I}}$ 31'10	0°05'15	asc. node	4529 Apr 17 09:52	9° $\mathring{\text{E}}$ 53'58	
minimum elong	4528 Jun 05 23:00	17° $\mathring{\text{I}}$ 30'48	0°05'10	evening max el	4529 Apr 30 06:29	29° $\mathring{\text{E}}$ 37'17	18°36'30
transit middle	4528 Jun 05 23:00	17° $\mathring{\text{I}}$ 36'48	0°05'10		4529 Apr 30 16:01	0° $\mathring{\text{I}}$	
transit begin	4528 Jun 05 19:20	17° $\mathring{\text{I}}$ 36'48		retrograde	4529 May 08 02:38	3° $\mathring{\text{I}}$ 28'48	
transit end	4528 Jun 06 02:39	17° $\mathring{\text{I}}$ 24'48		evening set	4529 May 10 07:30	3° $\mathring{\text{I}}$ 11'34	
desc. node	4528 Jun 06 05:53	17° $\mathring{\text{I}}$ 19'28			4529 May 16 08:48	30° $\mathring{\text{R}}$ $\mathring{\text{E}}$	
min. Earth dist.	4528 Jun 08 15:52	15° $\mathring{\text{I}}$ 44'56	0.55988 AU	inferior conj	4529 May 18 00:51	28° $\mathring{\text{E}}$ 44'54	1°41'28
morning rise	4528 Jun 14 08:08	12° $\mathring{\text{I}}$ 48'16		minimum elong	4529 May 18 04:07	28° $\mathring{\text{E}}$ 38'38	1°40'26
direct	4528 Jun 19 04:10	11° $\mathring{\text{I}}$ 54'54		min. Earth dist.	4529 May 21 09:35	26° $\mathring{\text{E}}$ 11'25	0.57735 AU
morning max el	4528 Jul 03 07:19	19° $\mathring{\text{I}}$ 05'20	25°11'52	desc. node	4529 May 24 02:54	24° $\mathring{\text{E}}$ 22'41	

morning rise	4529 May 25 20:16	23°♄27'22		min. Earth dist.	4530 May 03 09:04	7°♄40'01	0.59863 AU
direct	4529 May 31 14:52	22°♄03'44		morning rise	4530 May 07 02:38	4°♄55'11	
morning max el	4529 Jun 14 23:47	29°♄39'44	26°37'28	desc. node	4530 May 10 23:56	3°♄15'57	
	4529 Jun 15 08:03	0°♄		direct	4530 May 13 14:09	2°♄57'07	
	4529 Jul 06 06:41	0°♄		morning max el	4530 May 27 22:30	10°♄48'50	27°33'25
morning set	4529 Jul 14 06:07	15°♄47'06			4530 Jun 11 20:27	0°♄	
asc. node	4529 Jul 14 09:09	16°♄03'05			4530 Jun 28 08:58	0°♄	
	4529 Jul 20 19:09	0°♄		morning set	4530 Jun 28 13:27	0°♄23'18	
				asc. node	4530 Jul 01 06:11	6°♄05'28	
superior conj	4529 Jul 21 06:49	1°♄04'21	1°06'43	max. Earth dist.	4530 Jul 05 00:11	14°♄15'31	1.31999 AU
minimum elong	4529 Jul 21 04:32	0°♄51'45	1°06'20				
max. Earth dist.	4529 Jul 21 12:40	1°♄36'39	1.32069 AU	superior conj	4530 Jul 05 18:22	15°♄55'40	0°45'42
evening rise	4529 Jul 28 05:03	16°♄06'21		minimum elong	4530 Jul 05 16:31	15°♄45'28	0°45'20
	4529 Aug 04 04:23	0°♄			4530 Jul 12 04:53	0°♄	
desc. node	4529 Aug 20 02:13	25°♄10'58		evening rise	4530 Jul 12 14:44	0°♄52'28	
	4529 Aug 24 02:42	0°♄			4530 Jul 28 10:24	0°♄	
evening max el	4529 Aug 27 14:01	3°♄34'37	26°52'04	desc. node	4530 Aug 06 23:13	12°♄27'01	
retrograde	4529 Sep 10 11:44	10°♄44'59		evening max el	4530 Aug 09 10:49	14°♄58'40	25°48'13
evening set	4529 Sep 17 10:36	8°♄39'50		retrograde	4530 Aug 23 09:55	22°♄05'31	
min. Earth dist.	4529 Sep 21 04:08	6°♄02'19	0.60525 AU	evening set	4530 Aug 29 14:51	20°♄34'14	
inferior conj	4529 Sep 24 09:06	3°♄22'44	-4°-28'-50	min. Earth dist.	4530 Sep 02 22:59	17°♄58'32	0.58456 AU
minimum elong	4529 Sep 24 15:01	3°♄10'24	4°27'36	inferior conj	4530 Sep 06 03:53	15°♄40'12	-5°-5'-49
	4529 Sep 28 21:31	30°♄		minimum elong	4530 Sep 06 07:18	15°♄34'01	5°05'31
morning rise	4529 Oct 01 22:42	28°♄36'18		morning rise	4530 Sep 14 03:15	11°♄17'29	
direct	4529 Oct 04 05:56	28°♄15'50		direct	4530 Sep 16 13:29	10°♄58'34	
	4529 Oct 09 07:29	0°♄		morning max el	4530 Sep 24 20:35	14°♄56'23	18°40'20
asc. node	4529 Oct 10 08:21	0°♄46'45		asc. node	4530 Sep 27 05:24	17°♄29'43	
morning max el	4529 Oct 11 14:14	1°♄53'39	18°05'09		4530 Oct 05 08:13	0°♄	
morning set	4529 Oct 27 07:42	26°♄47'23		morning set	4530 Oct 11 02:16	10°♄52'54	
	4529 Oct 29 00:59	0°♄					
superior conj	4529 Nov 06 03:41	14°♄51'38	1°06'16	superior conj	4530 Oct 19 19:59	27°♄44'02	1°28'11
minimum elong	4529 Nov 06 07:45	15°♄09'44	1°05'46	minimum elong	4530 Oct 19 23:09	27°♄58'57	1°27'55
max. Earth dist.	4529 Nov 13 19:21	28°♄05'44	1.41736 AU		4530 Oct 21 01:03	0°♄	
	4529 Nov 14 22:45	0°♄		max. Earth dist.	4530 Oct 27 01:42	10°♄53'58	1.39685 AU
desc. node	4529 Nov 16 01:32	1°♄50'42		evening rise	4530 Oct 31 04:15	17°♄57'56	
evening rise	4529 Nov 19 05:59	7°♄01'28		desc. node	4530 Nov 02 22:34	22°♄33'44	
	4529 Dec 04 07:51	0°♄			4530 Nov 07 13:41	0°♄	
greatest brilliancy	4529 Dec 17 14:12	17°♄53'26	-0.3m	evening max el	4530 Nov 28 18:42	0°♄	
evening max el	4529 Dec 22 14:50	23°♄31'28	22°43'05		4530 Dec 05 04:37	7°♄10'47	24°02'57
retrograde	4530 Jan 01 13:28	29°♄25'43		retrograde	4530 Dec 16 05:51	13°♄40'47	
evening set	4530 Jan 06 05:40	27°♄32'14		evening set	4530 Dec 21 11:07	11°♄31'19	
asc. node	4530 Jan 06 07:35	27°♄28'17		asc. node	4530 Dec 24 04:36	8°♄40'39	
inferior conj	4530 Jan 11 15:33	21°♄07'18	1°43'22	inferior conj	4530 Dec 26 22:53	5°♄03'25	0°55'32
minimum elong	4530 Jan 11 13:29	21°♄14'30	1°42'37	minimum elong	4530 Dec 26 21:37	5°♄07'44	0°55'01
min. Earth dist.	4530 Jan 11 09:53	21°♄26'55	0.68063 AU	min. Earth dist.	4530 Dec 26 06:19	5°♄59'32	0.67862 AU
morning rise	4530 Jan 16 21:14	14°♄56'08			4530 Dec 31 03:03	30°♄	
direct	4530 Jan 21 08:40	13°♄07'19		morning rise	4531 Jan 01 08:25	28°♄57'25	
morning max el	4530 Jan 30 09:16	18°♄23'43	21°47'39	direct	4531 Jan 05 05:59	27°♄31'10	
greatest brilliancy	4530 Feb 04 03:18	23°♄44'32	-0.4m		4531 Jan 10 21:59	0°♄	
	4530 Feb 08 23:24	0°♄		morning max el	4531 Jan 13 05:05	2°♄04'36	20°30'03
desc. node	4530 Feb 12 00:45	4°♄12'37		greatest brilliancy	4531 Jan 19 08:06	9°♄16'23	-0.5m
	4530 Mar 01 06:54	0°♄		desc. node	4531 Jan 29 21:49	24°♄11'55	
morning set	4530 Mar 03 17:33	3°♄52'37			4531 Feb 02 19:03	0°♄	
max. Earth dist.	4530 Mar 09 21:43	13°♄56'30	1.41550 AU	morning set	4531 Feb 10 18:42	12°♄12'20	
				max. Earth dist.	4531 Feb 20 04:09	27°♄02'32	1.43378 AU
superior conj	4530 Mar 17 13:32	27°♄01'40	-2°-3'-15		4531 Feb 22 00:00	0°♄	
minimum elong	4530 Mar 17 16:55	27°♄16'29	2°03'06	superior conj	4531 Feb 26 13:07	7°♄28'51	-2°-7'-54
	4530 Mar 19 05:58	0°♄		minimum elong	4531 Feb 26 11:55	7°♄23'51	2°07'54
evening rise	4530 Mar 28 08:26	16°♄32'59		evening rise	4531 Mar 10 22:19	28°♄44'21	
asc. node	4530 Apr 04 06:53	29°♄05'23			4531 Mar 11 15:32	0°♄	
	4530 Apr 04 19:35	0°♄		asc. node	4531 Mar 22 03:55	17°♄48'16	
evening max el	4530 Apr 13 15:07	12°♄24'10	18°12'06	evening max el	4531 Mar 28 03:16	25°♄32'17	18°07'14
retrograde	4530 Apr 20 13:26	15°♄53'28		retrograde	4531 Apr 03 15:01	28°♄54'40	
evening set	4530 Apr 23 00:39	15°♄27'36		evening set	4531 Apr 06 08:14	28°♄18'25	
inferior conj	4530 Apr 30 00:10	10°♄39'43	2°46'10	inferior conj	4531 Apr 12 17:40	23°♄10'08	3°21'50
minimum elong	4530 Apr 30 03:32	10°♄32'11	2°45'24	minimum elong	4531 Apr 12 19:37	23°♄05'08	3°21'35

min. Earth dist.	4531 Apr 15 16:45	20° Υ 08'53	0.62042 AU	retrograde	4532 Mar 17 02:50	12° Υ 22'58	
morning rise	4531 Apr 19 04:17	17° Υ 08'44		evening set	4532 Mar 20 02:01	11° Υ 35'07	
direct	4531 Apr 26 00:10	14° Υ 41'03		inferior conj	4532 Mar 26 01:10	6° Υ 07'47	3°34'39
desc. node	4531 Apr 27 20:59	14° Υ 51'19		minimum elong	4532 Mar 26 01:25	6° Υ 07'04	3°34'39
morning max el	4531 May 10 03:23	22° Υ 40'33	27°52'23	min. Earth dist.	4532 Mar 28 09:44	3° Υ 26'22	0.64017 AU
	4531 May 16 14:49	0° X		morning rise	4532 Mar 31 23:04	29° X 57'29	
	4531 Jun 05 00:54	0° Π			4532 Mar 31 21:50	30° R X	
morning set	4531 Jun 12 15:47	14° Π 42'07		direct	4532 Apr 07 18:43	27° X 12'06	
asc. node	4531 Jun 18 03:13	26° Π 12'31		desc. node	4532 Apr 13 18:02	28° X 57'42	
max. Earth dist.	4531 Jun 18 08:45	26° Π 42'21	1.32344 AU		4532 Apr 15 10:32	0° Υ	
	4531 Jun 19 21:11	0° S		morning max el	4532 Apr 21 12:07	5° Υ 09'43	27°34'23
					4532 May 10 07:40	0° X	
superior conj	4531 Jun 20 04:10	0° S 38'02	0°21'12	morning set	4532 May 26 10:37	28° X 35'53	
minimum elong	4531 Jun 20 03:12	0° S 32'44	0°21'00		4532 May 27 03:34	0° Π	
evening rise	4531 Jun 27 02:20	15° S 40'58		max. Earth dist.	4532 May 31 10:24	8° Π 45'16	1.33131 AU
	4531 Jul 04 04:50	0° Ω					
evening max el	4531 Jul 22 00:56	25° Ω 39'35	24°20'24	superior conj	4532 Jun 03 10:19	15° Π 05'34	0°-6'-3
desc. node	4531 Jul 24 20:14	28° Ω 07'19		minimum elong	4532 Jun 03 10:38	15° Π 07'13	0°06'01
	4531 Jul 27 12:08	0° P		behind sun begin	4532 Jun 03 05:36	14° Π 40'22	
retrograde	4531 Aug 04 21:09	2° P 38'27		behind sun end	4532 Jun 03 15:39	15° Π 34'05	
evening set	4531 Aug 09 18:44	1° P 44'57		asc. node	4532 Jun 04 00:16	16° Π 20'09	
	4531 Aug 13 13:25	30° R Ω			4532 Jun 10 09:05	0° S	
min. Earth dist.	4531 Aug 15 11:49	28° Ω 51'50	0.56595 AU	evening rise	4532 Jun 10 13:59	0° S 25'55	
inferior conj	4531 Aug 18 02:34	27° Ω 13'03	-5°-11'-24		4532 Jun 27 07:31	0° Ω	
minimum elong	4531 Aug 18 00:24	27° Ω 16'29	5°11'18	evening max el	4532 Jul 02 14:23	6° Ω 02'58	22°43'13
morning rise	4531 Aug 26 09:35	23° Ω 11'33		desc. node	4532 Jul 10 17:16	11° Ω 38'13	
direct	4531 Aug 29 01:52	22° Ω 52'23		retrograde	4532 Jul 15 19:48	12° Ω 38'00	
morning max el	4531 Sep 07 17:08	27° Ω 22'11	19°37'02	evening set	4532 Jul 19 04:50	12° Ω 13'02	
	4531 Sep 10 05:05	0° P		min. Earth dist.	4532 Jul 26 22:29	8° Ω 48'11	0.55285 AU
asc. node	4531 Sep 14 02:28	5° P 11'55		inferior conj	4532 Jul 28 06:40	8° Ω 02'08	-4°-30'-8
morning set	4531 Sep 25 04:37	25° P 20'17		minimum elong	4532 Jul 27 22:56	8° Ω 13'14	4°28'35
	4531 Sep 27 12:00	0° A		morning rise	4532 Aug 05 19:31	4° Ω 11'47	
				direct	4532 Aug 08 20:27	3° Ω 50'24	
superior conj	4531 Oct 03 04:02	11° A 22'27	1°40'16	morning max el	4532 Aug 20 01:50	9° Ω 03'47	20°55'00
minimum elong	4531 Oct 03 05:37	11° A 30'18	1°40'11	asc. node	4532 Aug 30 23:32	23° Ω 40'02	
max. Earth dist.	4531 Oct 09 06:05	23° A 02'27	1.37596 AU		4532 Sep 03 11:17	0° P	
evening rise	4531 Oct 13 01:17	29° A 56'41		morning set	4532 Sep 08 12:06	10° P 02'31	
	4531 Oct 13 02:02	0° M					
desc. node	4531 Oct 20 19:35	13° M 08'35		superior conj	4532 Sep 15 23:20	25° P 34'02	1°43'57
	4531 Oct 31 20:31	0° X		minimum elong	4532 Sep 15 23:21	25° P 34'08	1°43'56
evening max el	4531 Nov 17 17:04	20° X 53'01	25°18'41		4532 Sep 18 03:33	0° A	
retrograde	4531 Nov 29 17:59	27° X 49'49		max. Earth dist.	4532 Sep 20 14:42	4° A 54'37	1.35707 AU
evening set	4531 Dec 05 12:59	25° X 25'58		evening rise	4532 Sep 24 17:46	12° A 49'49	
min. Earth dist.	4531 Dec 10 00:25	20° X 28'41	0.67309 AU		4532 Oct 04 12:36	0° M	
inferior conj	4531 Dec 11 03:50	18° X 59'46	0°01'51	desc. node	4532 Oct 06 16:35	3° M 30'28	
minimum elong	4531 Dec 11 03:47	18° X 59'55	0°01'51		4532 Oct 25 21:10	0° X	
transit middle	4531 Dec 11 03:47	18° X 59'55	0°01'51	evening max el	4532 Oct 30 05:44	4° X 35'10	26°22'47
transit begin	4531 Dec 11 01:01	19° X 08'55		retrograde	4532 Nov 12 00:58	11° X 47'08	
transit end	4531 Dec 11 06:34	18° X 50'56		evening set	4532 Nov 18 09:24	9° X 12'23	
asc. node	4531 Dec 11 01:40	19° X 06'50		min. Earth dist.	4532 Nov 22 13:47	4° X 50'45	0.66411 AU
morning rise	4531 Dec 16 19:21	13° X 01'08		inferior conj	4532 Nov 24 04:29	2° X 53'01	0°-56'-32
direct	4531 Dec 20 04:39	11° X 54'58		minimum elong	4532 Nov 24 06:01	2° X 48'19	0°55'52
morning max el	4531 Dec 27 08:46	15° X 55'58	19°25'52	asc. node	4532 Nov 26 22:44	29° M 42'08	
greatest brilliancy	4532 Jan 05 03:39	27° X 01'51	-0.7m		4532 Nov 26 15:58	30° R M	
	4532 Jan 07 04:47	0° S		morning rise	4532 Nov 30 03:56	27° M 04'25	
desc. node	4532 Jan 16 18:51	14° S 29'48		direct	4532 Dec 03 02:59	26° M 14'47	
morning set	4532 Jan 20 16:47	20° S 32'01			4532 Dec 09 21:33	0° X	
	4532 Jan 26 19:06	0° \approx		morning max el	4532 Dec 09 19:15	29° M 54'14	18°37'17
max. Earth dist.	4532 Feb 02 17:10	10° \approx 51'28	1.44662 AU	morning set	4532 Dec 30 11:33	29° X 58'51	
					4532 Dec 30 11:50	0° S	
superior conj	4532 Feb 06 11:17	16° \approx 49'23	-1°-54'-33	desc. node	4533 Jan 02 15:53	5° S 00'53	
minimum elong	4532 Feb 06 04:00	16° \approx 20'18	1°54'06				
	4532 Feb 14 14:37	0° X		superior conj	4533 Jan 15 15:54	25° S 27'44	-1°-21'-52
evening rise	4532 Feb 20 15:40	10° X 00'54		minimum elong	4533 Jan 15 06:47	24° S 52'00	1°20'52
	4532 Mar 03 20:33	0° Υ		max. Earth dist.	4533 Jan 15 11:03	25° S 08'44	1.45264 AU
asc. node	4532 Mar 08 00:57	5° Υ 53'41			4533 Jan 18 13:17	0° \approx	
evening max el	4532 Mar 10 15:58	8° Υ 54'00	18°21'16	evening rise	4533 Jan 31 09:46	20° \approx 20'00	

	4533 Feb 06 11:04	0° Υ		evening max el	4534 Feb 05 09:14	5° Υ 55'06	19°41'42
evening max el	4533 Feb 22 02:39	22° Υ 22'57	18°53'14	asc. node	4534 Feb 09 19:02	9° Υ 24'08	
asc. node	4533 Feb 22 21:59	23° Υ 10'06		retrograde	4534 Feb 12 18:22	10° Υ 11'11	
retrograde	4533 Feb 28 20:57	26° Υ 10'18		evening set	4534 Feb 16 07:45	8° Υ 57'05	
evening set	4533 Mar 04 02:42	25° Υ 09'49		inferior conj	4534 Feb 21 19:34	2° Υ 57'02	3°12'38
inferior conj	4533 Mar 09 18:51	19° Υ 25'04	3°30'14	minimum elong	4534 Feb 21 17:31	3° Υ 03'48	3°12'17
minimum elong	4533 Mar 09 17:42	19° Υ 28'38	3°30'08	min. Earth dist.	4534 Feb 22 21:39	1° Υ 30'43	0.66843 AU
min. Earth dist.	4533 Mar 11 11:45	17° Υ 17'46	0.65640 AU		4534 Feb 24 01:51	30° Υ	
morning rise	4533 Mar 15 07:37	13° Υ 10'33		morning rise	4534 Feb 27 02:37	26° Υ 41'02	
direct	4533 Mar 21 20:08	10° Υ 21'36		direct	4534 Mar 05 03:21	24° Υ 00'34	
desc. node	4533 Mar 31 15:05	15° Υ 01'21			4534 Mar 16 00:19	0° Υ	
morning max el	4533 Apr 03 22:00	18° Υ 05'03	26°44'44	morning max el	4534 Mar 17 07:19	1° Υ 16'00	25°31'56
	4533 Apr 13 22:25	0° Υ		desc. node	4534 Mar 18 12:06	2° Υ 30'40	
	4533 May 03 06:31	0° Υ			4534 Apr 07 23:05	0° Υ	
morning set	4533 May 09 18:36	11° Υ 53'43		morning set	4534 Apr 22 11:29	24° Υ 24'02	
max. Earth dist.	4533 May 14 01:45	20° Υ 16'35	1.34388 AU		4534 Apr 25 12:14	0° Υ	
				max. Earth dist.	4534 Apr 26 06:02	1° Υ 23'52	1.36097 AU
superior conj	4533 May 18 10:35	29° Υ 10'44	0°-35'-5	superior conj	4534 May 02 02:17	12° Υ 46'25	-1°-4'-28
minimum elong	4533 May 18 12:27	29° Υ 20'29	0°34'44	minimum elong	4534 May 02 05:47	13° Υ 03'56	1°03'53
	4533 May 18 20:04	0° Υ		asc. node	4534 May 08 18:18	26° Υ 19'07	
asc. node	4533 May 21 21:17	6° Υ 23'36		evening rise	4534 May 10 05:22	29° Υ 17'45	
evening rise	4533 May 25 23:41	15° Υ 00'09			4534 May 10 13:42	0° Υ	
	4533 Jun 02 15:00	0° Υ		evening max el	4534 May 27 19:11	27° Υ 53'37	19°55'41
evening max el	4533 Jun 14 10:53	16° Υ 40'06	21°11'38		4534 May 30 05:47	0° Υ	
retrograde	4533 Jun 26 08:58	22° Υ 31'45		retrograde	4534 Jun 07 00:22	2° Υ 52'49	
desc. node	4533 Jun 27 14:18	22° Υ 28'14		evening set	4534 Jun 08 22:52	2° Υ 42'50	
evening set	4533 Jun 28 16:07	22° Υ 19'30		desc. node	4534 Jun 14 11:18	0° Υ 41'13	
inferior conj	4533 Jul 08 00:16	18° Υ 21'32	-2°-59'-18		4534 Jun 15 17:16	30° Υ	
minimum elong	4533 Jul 07 16:24	18° Υ 32'35	2°56'47	inferior conj	4534 Jun 17 21:41	28° Υ 42'09	-1°-1'-19
min. Earth dist.	4533 Jul 08 09:14	18° Υ 08'58	0.54813 AU	minimum elong	4534 Jun 17 18:51	28° Υ 46'29	1°00'16
morning rise	4533 Jul 16 16:48	14° Υ 25'00		min. Earth dist.	4534 Jun 19 21:43	27° Υ 29'21	0.55304 AU
direct	4533 Jul 20 05:55	13° Υ 57'53		morning rise	4534 Jun 26 12:05	24° Υ 19'43	
morning max el	4533 Aug 01 23:13	20° Υ 00'30	22°30'38	direct	4534 Jun 30 19:04	23° Υ 39'26	
	4533 Aug 10 06:55	0° Υ			4534 Jul 14 01:59	0° Υ	
asc. node	4533 Aug 17 20:34	12° Υ 42'14		morning max el	4534 Jul 14 13:56	0° Υ 27'48	24°14'22
morning set	4533 Aug 23 22:35	24° Υ 53'08			4534 Aug 03 15:20	0° Υ	
	4533 Aug 26 08:33	0° Υ		asc. node	4534 Aug 04 17:35	2° Υ 09'44	
superior conj	4533 Aug 31 02:21	10° Υ 07'49	1°40'36	morning set	4534 Aug 08 10:19	9° Υ 46'51	
minimum elong	4533 Aug 31 01:08	10° Υ 01'21	1°40'32	superior conj	4534 Aug 15 10:23	24° Υ 55'31	1°31'21
max. Earth dist.	4533 Sep 03 07:41	16° Υ 53'21	1.34158 AU	minimum elong	4534 Aug 15 08:23	24° Υ 44'37	1°31'08
evening rise	4533 Sep 08 01:17	26° Υ 25'10		max. Earth dist.	4534 Aug 17 09:20	29° Υ 09'06	1.33013 AU
	4533 Sep 09 21:48	0° Υ			4534 Aug 17 18:49	0° Υ	
desc. node	4533 Sep 23 13:36	23° Υ 32'59		evening rise	4534 Aug 22 19:53	10° Υ 31'52	
	4533 Sep 27 21:17	0° Υ			4534 Sep 02 05:17	0° Υ	
evening max el	4533 Oct 12 18:27	18° Υ 08'32	27°07'46	desc. node	4534 Sep 10 10:37	13° Υ 07'36	
retrograde	4533 Oct 26 02:07	25° Υ 25'54			4534 Sep 23 20:45	0° Υ	
evening set	4533 Nov 01 22:10	22° Υ 46'05		evening max el	4534 Sep 25 05:38	1° Υ 20'33	27°26'42
min. Earth dist.	4533 Nov 05 20:02	19° Υ 00'28	0.65164 AU	retrograde	4534 Oct 08 21:04	8° Υ 37'23	
inferior conj	4533 Nov 07 22:39	16° Υ 38'47	-1°-58'-6	evening set	4534 Oct 16 00:28	6° Υ 01'22	
minimum elong	4533 Nov 08 02:01	16° Υ 29'21	1°56'45	min. Earth dist.	4534 Oct 19 16:58	2° Υ 49'15	0.63577 AU
asc. node	4533 Nov 13 19:47	11° Υ 18'30		inferior conj	4534 Oct 22 07:44	0° Υ 10'44	-3°00'-23
morning rise	4533 Nov 14 07:44	11° Υ 03'24		minimum elong	4534 Oct 22 12:50	29° Υ 57'49	2°58'37
direct	4533 Nov 16 22:48	10° Υ 26'26			4534 Oct 22 11:58	30° Υ	
morning max el	4533 Nov 23 10:19	13° Υ 54'14	18°05'22	morning rise	4534 Oct 29 03:44	24° Υ 52'02	
	4533 Dec 04 20:42	0° Υ		direct	4534 Oct 31 13:20	24° Υ 24'04	
morning set	4533 Dec 11 11:56	10° Υ 54'55		asc. node	4534 Oct 31 16:50	24° Υ 24'10	
desc. node	4533 Dec 20 12:54	25° Υ 41'07		morning max el	4534 Nov 07 03:05	27° Υ 49'05	17°50'45
	4533 Dec 23 05:24	0° Υ			4534 Nov 09 02:28	0° Υ	
superior conj	4533 Dec 25 21:57	4° Υ 16'59	0°-36'-30	morning set	4534 Nov 23 14:31	23° Υ 06'48	
minimum elong	4533 Dec 25 17:24	3° Υ 58'57	0°35'54		4534 Nov 27 14:18	0° Υ	
max. Earth dist.	4533 Dec 29 06:47	9° Υ 36'20	1.45119 AU	superior conj	4534 Dec 05 23:51	14° Υ 06'58	0°09'54
evening rise	4534 Jan 11 06:52	29° Υ 52'03		minimum elong	4534 Dec 06 00:54	14° Υ 11'19	0°09'45
	4534 Jan 11 08:56	0° Υ		behind sun begin	4534 Dec 05 17:08	13° Υ 39'22	
greatest brilliancy	4534 Jan 28 19:33	26° Υ 23'28	-0.6m	behind sun end	4534 Dec 06 08:40	14° Υ 43'12	
	4534 Jan 31 10:31	0° Υ					

desc. node	4534 Dec 07 09:54	16° ♁ 26'28		max. Earth dist.	4535 Nov 24 14:29	7° ♁ 45'03	1.42787 AU
max. Earth dist.	4534 Dec 12 00:49	23° ♁ 54'08	1.44256 AU	evening rise	4535 Dec 01 07:52	18° ♁ 32'27	
	4534 Dec 15 21:14	0° ♁			4535 Dec 08 18:36	0° ♁	
evening rise	4534 Dec 21 16:54	9° ♁ 02'46		greatest brilliancy	4535 Dec 28 12:31	27° ♁ 40'30	-0.3m
	4535 Jan 04 15:16	0° ♁			4535 Dec 30 11:21	0° ♁	
greatest brilliancy	4535 Jan 13 19:38	12° ♁ 49'53	-0.5m	evening max el	4536 Jan 02 06:11	3° ♁ 01'56	21°57'52
evening max el	4535 Jan 19 10:26	19° ♁ 27'46	20°44'26	retrograde	4536 Jan 11 13:40	8° ♁ 34'17	
retrograde	4535 Jan 27 16:35	24° ♁ 20'14		asc. node	4536 Jan 14 13:06	7° ♁ 46'55	
asc. node	4535 Jan 27 16:05	24° ♁ 20'14		evening set	4536 Jan 15 22:50	6° ♁ 50'10	
evening set	4535 Jan 31 15:02	22° ♁ 51'34		inferior conj	4536 Jan 21 08:12	0° ♁ 28'35	2°07'55
inferior conj	4535 Feb 06 00:43	16° ♁ 39'03	2°44'36	minimum elong	4536 Jan 21 05:52	0° ♁ 36'43	2°07'08
minimum elong	4535 Feb 05 22:17	16° ♁ 47'23	2°43'58	min. Earth dist.	4536 Jan 21 09:02	0° ♁ 25'42	0.68009 AU
min. Earth dist.	4535 Feb 06 13:30	15° ♁ 55'11	0.67624 AU		4536 Jan 21 16:26	30° ♁	
morning rise	4535 Feb 11 05:07	10° ♁ 23'22		morning rise	4536 Jan 26 12:41	24° ♁ 15'02	
direct	4535 Feb 16 15:41	7° ♁ 59'51		direct	4536 Jan 31 08:26	22° ♁ 12'58	
morning max el	4535 Feb 27 15:58	14° ♁ 34'13	24°05'54	morning max el	4536 Feb 10 02:10	27° ♁ 58'16	22°36'44
desc. node	4535 Mar 05 09:07	21° ♁ 00'41			4536 Feb 12 00:15	0° ♁	
	4535 Mar 12 06:02	0° ♁		greatest brilliancy	4536 Feb 14 16:11	3° ♁ 04'56	-0.3m
	4535 Mar 31 20:57	0° ♁		desc. node	4536 Feb 20 06:10	10° ♁ 14'24	
morning set	4535 Apr 04 07:37	5° ♁ 51'12			4536 Mar 04 22:22	0° ♁	
max. Earth dist.	4535 Apr 08 02:29	12° ♁ 30'26	1.38147 AU	morning set	4536 Mar 15 01:05	16° ♁ 00'09	
				max. Earth dist.	4536 Mar 19 22:06	24° ♁ 09'02	1.40334 AU
superior conj	4535 Apr 15 05:56	25° ♁ 43'11	-1°-32'00		4536 Mar 23 07:27	0° ♁	
minimum elong	4535 Apr 15 10:38	26° ♁ 05'38	1°31'24				
	4535 Apr 17 11:21	0° ♁		superior conj	4536 Mar 27 17:12	7° ♁ 50'29	-1°-54'-25
evening rise	4535 Apr 24 04:27	13° ♁ 10'56		minimum elong	4536 Mar 27 21:46	8° ♁ 11'09	1°54'04
asc. node	4535 Apr 25 15:20	16° ♁ 01'56		evening rise	4536 Apr 06 17:44	26° ♁ 31'25	
	4535 May 03 06:29	0° ♁			4536 Apr 08 13:57	0° ♁	
evening max el	4535 May 10 15:19	9° ♁ 49'03	18°59'32	asc. node	4536 Apr 11 12:22	5° ♁ 26'43	
retrograde	4535 May 19 05:49	14° ♁ 01'27		evening max el	4536 Apr 22 20:29	22° ♁ 20'21	18°23'46
evening set	4535 May 21 06:56	13° ♁ 48'07		retrograde	4536 Apr 30 06:00	26° ♁ 00'25	
inferior conj	4535 May 29 11:36	9° ♁ 32'52	0°49'41	evening set	4536 May 02 13:30	25° ♁ 39'53	
minimum elong	4535 May 29 13:31	9° ♁ 29'29	0°49'00	inferior conj	4536 May 09 22:56	21° ♁ 04'39	2°12'46
desc. node	4535 Jun 01 08:18	7° ♁ 32'58		minimum elong	4536 May 10 02:31	20° ♁ 57'16	2°11'45
min. Earth dist.	4535 Jun 01 13:20	7° ♁ 24'29	0.56658 AU	min. Earth dist.	4536 May 13 09:30	18° ♁ 16'41	0.58608 AU
morning rise	4535 Jun 06 15:39	4° ♁ 34'22		morning rise	4536 May 17 11:11	15° ♁ 34'10	
direct	4535 Jun 11 21:17	3° ♁ 29'24		desc. node	4536 May 18 05:21	15° ♁ 11'31	
morning max el	4535 Jun 26 04:27	10° ♁ 52'39	25°51'13	direct	4536 May 23 13:57	13° ♁ 55'33	
	4535 Jul 10 19:49	0° ♁		morning max el	4536 Jun 06 23:23	21° ♁ 40'16	27°05'29
asc. node	4535 Jul 22 14:37	21° ♁ 55'42			4536 Jun 14 06:15	0° ♁	
morning set	4535 Jul 23 21:41	24° ♁ 38'39			4536 Jul 02 16:07	0° ♁	
	4535 Jul 26 09:37	0° ♁		morning set	4536 Jul 07 06:59	9° ♁ 22'17	
				asc. node	4536 Jul 08 11:38	11° ♁ 53'41	
superior conj	4535 Jul 30 21:17	9° ♁ 50'19	1°17'01				
minimum elong	4535 Jul 30 18:57	9° ♁ 37'34	1°16'41	superior conj	4536 Jul 14 09:06	24° ♁ 44'57	0°58'17
max. Earth dist.	4535 Jul 31 17:26	11° ♁ 41'07	1.32288 AU	minimum elong	4536 Jul 14 06:57	24° ♁ 33'03	0°57'53
evening rise	4535 Aug 06 22:22	25° ♁ 00'48		max. Earth dist.	4536 Jul 14 04:38	24° ♁ 20'13	1.31984 AU
	4535 Aug 09 08:54	0° ♁			4536 Jul 16 18:14	0° ♁	
	4535 Aug 26 20:20	0° ♁		evening rise	4536 Jul 21 06:03	9° ♁ 42'58	
desc. node	4535 Aug 28 07:37	2° ♁ 02'50			4536 Jul 31 16:47	0° ♁	
evening max el	4535 Sep 07 13:04	13° ♁ 58'47	27°14'20	desc. node	4536 Aug 14 04:38	20° ♁ 01'38	
retrograde	4535 Sep 21 09:18	21° ♁ 12'29		evening max el	4536 Aug 19 14:17	25° ♁ 51'45	26°28'35
evening set	4535 Sep 28 12:40	18° ♁ 52'09			4536 Aug 24 17:35	0° ♁	
min. Earth dist.	4535 Oct 02 03:31	16° ♁ 05'48	0.61693 AU	retrograde	4536 Sep 02 13:19	3° ♁ 01'16	
inferior conj	4535 Oct 05 04:43	13° ♁ 21'53	-3°-59'-12	evening set	4536 Sep 09 06:00	1° ♁ 09'35	
minimum elong	4535 Oct 05 10:49	13° ♁ 08'10	3°57'34		4536 Sep 11 04:00	30° ♁	
morning rise	4535 Oct 12 12:05	8° ♁ 23'02		min. Earth dist.	4536 Sep 13 03:52	28° ♁ 34'54	0.59637 AU
direct	4535 Oct 14 19:04	8° ♁ 00'47		inferior conj	4536 Sep 16 10:04	26° ♁ 01'56	-4°-47'-22
asc. node	4535 Oct 18 13:51	9° ♁ 03'41		minimum elong	4536 Sep 16 15:19	25° ♁ 51'37	4°46'31
morning max el	4535 Oct 21 18:28	11° ♁ 31'34	17°54'21	morning rise	4536 Sep 24 04:04	21° ♁ 25'29	
	4535 Nov 03 01:56	0° ♁		direct	4536 Sep 26 11:58	21° ♁ 06'04	
morning set	4535 Nov 06 12:58	6° ♁ 15'37		morning max el	4536 Oct 04 05:04	24° ♁ 51'29	18°17'29
				asc. node	4536 Oct 04 10:53	25° ♁ 05'43	
superior conj	4535 Nov 17 04:28	25° ♁ 15'38	0°48'42		4536 Oct 08 12:15	0° ♁	
minimum elong	4535 Nov 17 08:16	25° ♁ 32'02	0°48'12	morning set	4536 Oct 20 01:29	20° ♁ 04'02	
	4535 Nov 19 22:54	0° ♁			4536 Oct 25 07:12	0° ♁	
desc. node	4535 Nov 24 06:56	7° ♁ 14'02					

superior conj	4536 Oct 29 09:13	7° \mathbb{M} 34'06	1°16'51	superior conj	4537 Oct 12 08:47	20° \mathbb{A} 47'31	1°34'26
minimum elong	4536 Oct 29 13:03	7° \mathbb{M} 51'36	1°16'25	minimum elong	4537 Oct 12 11:19	20° \mathbb{A} 59'40	1°34'14
max. Earth dist.	4536 Nov 05 22:57	20° \mathbb{M} 56'38	1.40888 AU		4537 Oct 17 06:27	0° \mathbb{M}	
desc. node	4536 Nov 10 03:58	27° \mathbb{M} 59'48		max. Earth dist.	4537 Oct 19 04:07	3° \mathbb{M} 27'15	1.38796 AU
evening rise	4536 Nov 10 17:00	28° \mathbb{M} 53'17		evening rise	4537 Oct 23 01:12	10° \mathbb{M} 16'57	
	4536 Nov 11 09:20	0° \mathbb{A}		desc. node	4537 Oct 28 00:59	18° \mathbb{M} 39'57	
	4536 Dec 01 08:14	0° \mathbb{B}			4537 Nov 04 05:24	0° \mathbb{A}	
evening max el	4536 Dec 14 21:44	16° \mathbb{B} 39'33	23°17'12		4537 Nov 27 02:29	0° \mathbb{B}	
retrograde	4536 Dec 25 08:04	22° \mathbb{B} 49'55		evening max el	4537 Nov 27 10:55	0° \mathbb{B} 21'00	24°36'11
evening set	4536 Dec 30 05:35	20° \mathbb{B} 49'51		retrograde	4537 Dec 08 22:35	7° \mathbb{B} 02'55	
asc. node	4536 Dec 31 10:08	19° \mathbb{B} 43'27		evening set	4537 Dec 14 09:41	4° \mathbb{B} 47'12	
min. Earth dist.	4537 Jan 04 05:52	14° \mathbb{B} 58'26	0.68020 AU	asc. node	4537 Dec 18 07:11	0° \mathbb{B} 30'11	
inferior conj	4537 Jan 04 16:07	14° \mathbb{B} 23'10	1°23'52		4537 Dec 18 16:28	30° \mathbb{R} \mathbb{A}	
minimum elong	4537 Jan 04 14:20	14° \mathbb{B} 29'19	1°23'10	min. Earth dist.	4537 Dec 19 01:33	29° \mathbb{A} 30'00	0.67674 AU
morning rise	4537 Jan 09 23:08	8° \mathbb{B} 13'42		inferior conj	4537 Dec 19 22:40	28° \mathbb{A} 19'43	0°33'24
direct	4537 Jan 14 04:33	6° \mathbb{B} 34'29		minimum elong	4537 Dec 19 21:52	28° \mathbb{A} 22'24	0°33'05
morning max el	4537 Jan 22 17:32	11° \mathbb{B} 31'38	21°13'07	morning rise	4537 Dec 25 10:29	22° \mathbb{A} 16'33	
greatest brilliancy	4537 Jan 27 22:49	17° \mathbb{B} 29'34	-0.4m	direct	4537 Dec 29 02:43	20° \mathbb{A} 59'02	
desc. node	4537 Feb 06 03:13	29° \mathbb{B} 59'50		morning max el	4538 Jan 05 16:38	25° \mathbb{A} 16'51	20°00'53
	4537 Feb 06 03:16	0° \mathbb{A}			4538 Jan 09 20:10	0° \mathbb{B}	
morning set	4537 Feb 22 14:13	24° \mathbb{A} 50'12		greatest brilliancy	4538 Jan 12 17:21	3° \mathbb{B} 45'55	-0.6m
	4537 Feb 25 20:18	0° \mathbb{H}		desc. node	4538 Jan 24 00:16	20° \mathbb{B} 07'51	
max. Earth dist.	4537 Mar 01 23:49	6° \mathbb{H} 42'53	1.42378 AU		4538 Jan 30 11:58	0° \mathbb{A}	
				morning set	4538 Feb 01 10:47	3° \mathbb{A} 00'10	
superior conj	4537 Mar 09 07:08	18° \mathbb{H} 57'22	-2°-7'-7	max. Earth dist.	4538 Feb 12 09:46	20° \mathbb{A} 10'58	1.44005 AU
minimum elong	4537 Mar 09 08:57	19° \mathbb{H} 05'11	2°07'06				
	4537 Mar 15 14:47	0° \mathbb{Y}		superior conj	4538 Feb 17 19:40	28° \mathbb{A} 55'09	-2°-4'-40
evening rise	4537 Mar 20 17:23	9° \mathbb{Y} 10'34		minimum elong	4538 Feb 17 15:47	28° \mathbb{A} 39'20	2°04'33
asc. node	4537 Mar 29 09:25	24° \mathbb{Y} 27'18			4538 Feb 18 11:31	0° \mathbb{H}	
	4537 Apr 01 23:09	0° \mathbb{B}		evening rise	4538 Mar 02 22:59	20° \mathbb{H} 59'13	
evening max el	4537 Apr 06 07:07	5° \mathbb{B} 18'10	18°07'47		4538 Mar 08 05:02	0° \mathbb{Y}	
retrograde	4537 Apr 12 23:30	8° \mathbb{B} 42'23		asc. node	4538 Mar 16 06:28	12° \mathbb{Y} 55'25	
evening set	4537 Apr 15 13:25	8° \mathbb{B} 12'11		evening max el	4538 Mar 20 19:52	18° \mathbb{Y} 32'50	18°10'56
inferior conj	4537 Apr 22 06:28	3° \mathbb{B} 15'40	3°04'27	retrograde	4538 Mar 27 05:58	21° \mathbb{Y} 56'16	
minimum elong	4537 Apr 22 09:20	3° \mathbb{B} 08'52	3°03'56	evening set	4538 Mar 30 01:48	21° \mathbb{Y} 15'02	
min. Earth dist.	4537 Apr 25 12:12	0° \mathbb{B} 12'21	0.60800 AU	inferior conj	4538 Apr 05 06:23	15° \mathbb{Y} 58'13	3°29'40
	4537 Apr 25 17:43	30° \mathbb{R} \mathbb{Y}		minimum elong	4538 Apr 05 07:36	15° \mathbb{Y} 54'56	3°29'35
morning rise	4537 Apr 29 01:56	27° \mathbb{Y} 23'10		min. Earth dist.	4538 Apr 07 23:30	13° \mathbb{Y} 03'33	0.62920 AU
desc. node	4537 May 05 02:23	25° \mathbb{Y} 12'27		morning rise	4538 Apr 11 11:11	9° \mathbb{Y} 52'29	
direct	4537 May 05 18:22	25° \mathbb{Y} 11'11		direct	4538 Apr 18 07:56	7° \mathbb{Y} 15'55	
	4537 May 16 14:10	0° \mathbb{B}		desc. node	4538 Apr 21 23:27	7° \mathbb{Y} 55'12	
morning max el	4537 May 20 00:39	3° \mathbb{B} 06'52	27°46'08	morning max el	4538 May 02 07:24	15° \mathbb{Y} 14'58	27°49'06
	4537 Jun 08 18:45	0° \mathbb{I}			4538 May 14 08:02	0° \mathbb{B}	
morning set	4537 Jun 21 12:27	23° \mathbb{I} 52'07			4538 Jun 01 09:40	0° \mathbb{I}	
	4537 Jun 24 10:30	0° \mathbb{B}		morning set	4538 Jun 05 11:53	8° \mathbb{I} 00'43	
asc. node	4537 Jun 25 08:41	1° \mathbb{B} 58'58		max. Earth dist.	4538 Jun 10 21:32	19° \mathbb{I} 13'54	1.32628 AU
max. Earth dist.	4537 Jun 27 15:20	6° \mathbb{B} 55'42	1.32095 AU	asc. node	4538 Jun 12 05:45	22° \mathbb{I} 06'33	
superior conj	4537 Jun 28 20:09	9° \mathbb{B} 33'41	0°35'43	superior conj	4538 Jun 13 04:36	24° \mathbb{I} 10'00	0°09'57
minimum elong	4537 Jun 28 18:37	9° \mathbb{B} 25'16	0°35'24	minimum elong	4538 Jun 13 04:08	24° \mathbb{I} 07'25	0°09'50
evening rise	4537 Jul 05 16:49	24° \mathbb{B} 31'27		behind sun begin	4538 Jun 12 23:59	23° \mathbb{I} 44'57	
	4537 Jul 08 07:38	0° \mathbb{B}		behind sun end	4538 Jun 13 08:17	24° \mathbb{I} 29'55	
	4537 Jul 26 03:24	0° \mathbb{M}			4538 Jun 15 21:02	0° \mathbb{B}	
desc. node	4537 Aug 01 01:39	6° \mathbb{M} 41'09		evening rise	4538 Jun 20 04:38	9° \mathbb{B} 19'02	
evening max el	4537 Aug 01 08:09	6° \mathbb{M} 56'50	25°13'06		4538 Jun 30 21:13	0° \mathbb{B}	
retrograde	4537 Aug 15 06:55	14° \mathbb{M} 00'35		evening max el	4538 Jul 13 21:01	17° \mathbb{B} 26'05	23°39'13
evening set	4537 Aug 20 23:50	12° \mathbb{M} 45'57		desc. node	4538 Jul 18 22:39	21° \mathbb{B} 30'48	
min. Earth dist.	4537 Aug 25 19:50	10° \mathbb{M} 04'49	0.57627 AU	retrograde	4538 Jul 27 12:21	24° \mathbb{B} 16'49	
inferior conj	4537 Aug 28 20:30	8° \mathbb{M} 01'36	-5°-13'-2	evening set	4538 Jul 31 18:28	23° \mathbb{B} 37'04	
minimum elong	4537 Aug 28 21:51	7° \mathbb{M} 59'17	5°12'59	min. Earth dist.	4538 Aug 07 06:57	20° \mathbb{B} 32'18	0.55956 AU
morning rise	4537 Sep 05 23:20	3° \mathbb{M} 48'06		inferior conj	4538 Aug 09 10:42	19° \mathbb{B} 14'49	-5°00'-15
direct	4537 Sep 08 11:51	3° \mathbb{M} 29'12		minimum elong	4538 Aug 09 05:49	19° \mathbb{B} 22'09	4°59'42
morning max el	4537 Sep 17 07:31	7° \mathbb{M} 39'22	19°01'38	morning rise	4538 Aug 17 20:24	15° \mathbb{B} 19'58	
asc. node	4537 Sep 21 07:56	12° \mathbb{M} 15'35		direct	4538 Aug 20 16:18	15° \mathbb{B} 00'00	
	4537 Oct 01 18:38	0° \mathbb{A}		morning max el	4538 Aug 30 23:03	19° \mathbb{B} 46'32	20°07'44
morning set	4537 Oct 03 23:44	4° \mathbb{A} 20'01		asc. node	4538 Sep 08 05:00	0° \mathbb{M} 18'51	
					4538 Sep 08 00:15	0° \mathbb{M}	

morning set	4538 Sep 18 04:34	18° $\mathring{\text{M}}$ 55'05		asc. node	4539 Aug 26 02:02	19° $\mathring{\text{O}}$ 02'27	
	4538 Sep 23 14:27	0° $\mathring{\text{A}}$			4539 Aug 31 18:31	0° $\mathring{\text{M}}$	
				morning set	4539 Sep 02 13:33	3° $\mathring{\text{M}}$ 41'37	
superior conj	4538 Sep 25 22:07	4° $\mathring{\text{A}}$ 41'51	1°42'46				
minimum elong	4538 Sep 25 23:01	4° $\mathring{\text{A}}$ 46'22	1°42'44	superior conj	4539 Sep 09 21:05	19° $\mathring{\text{M}}$ 04'21	1°43'19
max. Earth dist.	4538 Oct 01 10:04	15° $\mathring{\text{A}}$ 28'01	1.36761 AU	minimum elong	4539 Sep 09 20:31	19° $\mathring{\text{M}}$ 01'27	1°43'18
evening rise	4538 Oct 05 07:01	22° $\mathring{\text{A}}$ 40'18		max. Earth dist.	4539 Sep 13 21:45	27° $\mathring{\text{M}}$ 20'03	1.34991 AU
	4538 Oct 09 10:15	0° $\mathring{\text{M}}$			4539 Sep 15 05:49	0° $\mathring{\text{A}}$	
desc. node	4538 Oct 14 21:59	9° $\mathring{\text{M}}$ 10'18		evening rise	4539 Sep 18 06:22	5° $\mathring{\text{A}}$ 52'39	
	4538 Oct 29 00:17	0° $\mathring{\text{A}}$		desc. node	4539 Oct 01 18:58	29° $\mathring{\text{A}}$ 25'00	
evening max el	4538 Nov 09 23:22	14° $\mathring{\text{A}}$ 04'18	25°47'46		4539 Oct 02 03:52	0° $\mathring{\text{M}}$	
retrograde	4538 Nov 22 08:29	21° $\mathring{\text{A}}$ 08'28		evening max el	4539 Oct 23 11:53	27° $\mathring{\text{M}}$ 43'21	26°44'37
evening set	4538 Nov 28 09:28	18° $\mathring{\text{A}}$ 39'14			4539 Oct 26 00:26	0° $\mathring{\text{A}}$	
min. Earth dist.	4538 Dec 02 17:49	13° $\mathring{\text{A}}$ 57'18	0.66975 AU	retrograde	4539 Nov 05 13:09	4° $\mathring{\text{A}}$ 59'21	
inferior conj	4538 Dec 04 02:01	12° $\mathring{\text{A}}$ 15'31	0°-22'-24	evening set	4539 Nov 12 02:56	2° $\mathring{\text{A}}$ 21'12	
minimum elong	4538 Dec 04 02:36	12° $\mathring{\text{A}}$ 13'40	0°22'09		4539 Nov 14 14:44	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
asc. node	4538 Dec 05 04:14	10° $\mathring{\text{A}}$ 53'35		min. Earth dist.	4539 Nov 16 04:20	28° $\mathring{\text{M}}$ 15'13	0.65924 AU
morning rise	4538 Dec 09 20:42	6° $\mathring{\text{A}}$ 21'04		inferior conj	4539 Nov 18 00:09	26° $\mathring{\text{M}}$ 06'13	-1°-22'-22
direct	4538 Dec 13 01:25	5° $\mathring{\text{A}}$ 22'24		minimum elong	4539 Nov 18 02:28	25° $\mathring{\text{M}}$ 59'26	1°21'25
morning max el	4538 Dec 19 23:31	9° $\mathring{\text{A}}$ 12'33	19°03'15	asc. node	4539 Nov 22 01:16	21° $\mathring{\text{M}}$ 49'40	
	4539 Jan 04 02:13	0° $\mathring{\text{C}}$		morning rise	4539 Nov 24 03:34	20° $\mathring{\text{M}}$ 23'07	
desc. node	4539 Jan 10 21:17	10° $\mathring{\text{C}}$ 32'18		direct	4539 Nov 26 22:51	19° $\mathring{\text{M}}$ 39'30	
morning set	4539 Jan 11 15:33	11° $\mathring{\text{C}}$ 43'24		morning max el	4539 Dec 03 12:21	23° $\mathring{\text{M}}$ 12'56	18°21'38
	4539 Jan 23 08:25	0° $\mathring{\text{A}}$			4539 Dec 09 00:16	0° $\mathring{\text{A}}$	
max. Earth dist.	4539 Jan 26 01:42	4° $\mathring{\text{A}}$ 16'19	1.45010 AU	morning set	4539 Dec 22 22:42	21° $\mathring{\text{A}}$ 48'01	
					4539 Dec 28 01:19	0° $\mathring{\text{C}}$	
superior conj	4539 Jan 28 08:37	7° $\mathring{\text{A}}$ 52'47	-1°-42'-51	desc. node	4539 Dec 28 18:17	1° $\mathring{\text{C}}$ 07'42	
minimum elong	4539 Jan 27 23:42	7° $\mathring{\text{A}}$ 17'33	1°42'06				
	4539 Feb 11 03:17	0° $\mathring{\text{H}}$		superior conj	4540 Jan 07 11:11	16° $\mathring{\text{C}}$ 28'39	-1°-3'-30
evening rise	4539 Feb 12 06:40	1° $\mathring{\text{H}}$ 51'52		minimum elong	4540 Jan 07 03:28	15° $\mathring{\text{C}}$ 58'20	1°02'33
	4539 Mar 02 13:13	0° $\mathring{\text{Y}}$		max. Earth dist.	4540 Jan 08 20:22	18° $\mathring{\text{C}}$ 38'50	1.45292 AU
asc. node	4539 Mar 03 03:31	0° $\mathring{\text{Y}}$ 41'33			4540 Jan 16 02:22	0° $\mathring{\text{A}}$	
evening max el	4539 Mar 04 07:56	1° $\mathring{\text{Y}}$ 57'57	18°32'38	evening rise	4540 Jan 23 15:06	11° $\mathring{\text{A}}$ 48'39	
retrograde	4539 Mar 10 21:02	5° $\mathring{\text{Y}}$ 33'38			4540 Feb 04 06:36	0° $\mathring{\text{H}}$	
evening set	4539 Mar 13 22:53	4° $\mathring{\text{Y}}$ 40'30		greatest brilliancy	4540 Feb 06 04:04	2° $\mathring{\text{H}}$ 52'09	-0.7m
	4539 Mar 19 00:08	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$		evening max el	4540 Feb 15 16:59	15° $\mathring{\text{H}}$ 28'19	19°11'56
inferior conj	4539 Mar 19 18:39	29° $\mathring{\text{H}}$ 05'12	3°34'36	asc. node	4540 Feb 18 00:32	17° $\mathring{\text{H}}$ 33'11	
minimum elong	4539 Mar 19 18:16	29° $\mathring{\text{H}}$ 06'22	3°34'35	retrograde	4540 Feb 22 16:57	19° $\mathring{\text{H}}$ 27'12	
min. Earth dist.	4539 Mar 21 20:26	26° $\mathring{\text{H}}$ 37'12	0.64757 AU	evening set	4540 Feb 26 01:41	18° $\mathring{\text{H}}$ 21'12	
morning rise	4539 Mar 25 12:13	22° $\mathring{\text{H}}$ 52'28		inferior conj	4540 Mar 02 15:42	12° $\mathring{\text{H}}$ 29'38	3°24'12
direct	4539 Apr 01 05:22	20° $\mathring{\text{H}}$ 04'11		minimum elong	4540 Mar 02 14:07	12° $\mathring{\text{H}}$ 34'44	3°24'00
desc. node	4539 Apr 08 20:30	22° $\mathring{\text{H}}$ 55'40		min. Earth dist.	4540 Mar 04 02:11	10° $\mathring{\text{H}}$ 39'03	0.66202 AU
morning max el	4539 Apr 14 17:09	27° $\mathring{\text{H}}$ 57'27	27°16'42	morning rise	4540 Mar 08 01:37	6° $\mathring{\text{H}}$ 13'55	
	4539 Apr 16 15:55	0° $\mathring{\text{Y}}$		direct	4540 Mar 14 09:27	3° $\mathring{\text{H}}$ 27'10	
	4539 May 08 01:51	0° $\mathring{\text{C}}$		desc. node	4540 Mar 25 17:32	9° $\mathring{\text{H}}$ 39'16	
morning set	4539 May 20 02:32	21° $\mathring{\text{C}}$ 40'14		morning max el	4540 Mar 27 03:06	11° $\mathring{\text{H}}$ 01'24	26°15'58
	4539 May 24 06:46	0° $\mathring{\text{H}}$			4540 Apr 11 05:29	0° $\mathring{\text{Y}}$	
max. Earth dist.	4539 May 24 19:18	1° $\mathring{\text{H}}$ 04'11	1.33610 AU		4540 Apr 29 15:49	0° $\mathring{\text{C}}$	
				morning set	4540 May 02 04:45	4° $\mathring{\text{C}}$ 40'13	
superior conj	4539 May 28 08:30	8° $\mathring{\text{H}}$ 28'14	0°-18'-14	max. Earth dist.	4540 May 06 05:45	12° $\mathring{\text{C}}$ 23'19	1.35057 AU
minimum elong	4539 May 28 09:26	8° $\mathring{\text{H}}$ 33'14	0°18'04				
asc. node	4539 May 30 02:47	12° $\mathring{\text{H}}$ 12'37		superior conj	4540 May 11 05:29	22° $\mathring{\text{C}}$ 22'07	0°-47'-38
evening rise	4539 Jun 04 15:41	23° $\mathring{\text{H}}$ 59'49		minimum elong	4540 May 11 08:04	22° $\mathring{\text{C}}$ 35'19	0°47'10
	4539 Jun 07 13:23	0° $\mathring{\text{C}}$			4540 May 14 22:10	0° $\mathring{\text{H}}$	
evening max el	4539 Jun 25 12:17	27° $\mathring{\text{C}}$ 50'10	22°02'43	asc. node	4540 May 15 23:48	2° $\mathring{\text{H}}$ 13'28	
	4539 Jun 27 22:44	0° $\mathring{\text{O}}$		evening rise	4540 May 18 23:58	8° $\mathring{\text{H}}$ 27'59	
desc. node	4539 Jul 05 19:41	3° $\mathring{\text{O}}$ 55'44			4540 May 30 15:34	0° $\mathring{\text{C}}$	
retrograde	4539 Jul 08 06:22	4° $\mathring{\text{O}}$ 09'39		evening max el	4540 Jun 06 13:35	8° $\mathring{\text{C}}$ 41'47	20°37'06
evening set	4539 Jul 11 02:20	3° $\mathring{\text{O}}$ 51'47		retrograde	4540 Jun 17 19:09	14° $\mathring{\text{C}}$ 11'30	
min. Earth dist.	4539 Jul 19 17:13	0° $\mathring{\text{O}}$ 09'19	0.54962 AU	evening set	4540 Jun 19 20:20	14° $\mathring{\text{C}}$ 01'17	
	4539 Jul 19 23:52	30° $\mathring{\text{R}}$ $\mathring{\text{C}}$		desc. node	4540 Jun 21 16:43	13° $\mathring{\text{C}}$ 35'33	
inferior conj	4539 Jul 20 08:44	29° $\mathring{\text{C}}$ 47'33	-3°-56'-55	inferior conj	4540 Jun 29 02:13	10° $\mathring{\text{C}}$ 04'15	-2°-10'-33
minimum elong	4539 Jul 20 00:05	29° $\mathring{\text{C}}$ 59'41	3°54'41	minimum elong	4540 Jun 28 20:08	10° $\mathring{\text{C}}$ 12'59	2°08'25
morning rise	4539 Jul 28 23:36	25° $\mathring{\text{C}}$ 57'23		min. Earth dist.	4540 Jun 30 04:58	9° $\mathring{\text{C}}$ 25'47	0.54895 AU
direct	4539 Aug 01 04:56	25° $\mathring{\text{C}}$ 34'23		morning rise	4540 Jul 07 18:41	5° $\mathring{\text{C}}$ 58'21	
	4539 Aug 11 19:36	0° $\mathring{\text{O}}$		direct	4540 Jul 11 14:28	5° $\mathring{\text{C}}$ 26'51	
morning max el	4539 Aug 13 02:41	1° $\mathring{\text{O}}$ 08'18	21°34'09	morning max el	4540 Jul 24 20:40	11° $\mathring{\text{C}}$ 50'52	23°14'38

	4540 Aug 07 10:30	0°♌		transit end	4541 Jun 09 07:42	20°♊31'26	
asc. node	4540 Aug 11 23:03	8°♌16'29		min. Earth dist.	4541 Jun 11 18:43	18°♊57'10	0.55789 AU
morning set	4540 Aug 17 00:46	18°♌34'17		morning rise	4541 Jun 17 16:27	15°♊57'37	
	4540 Aug 22 08:40	0°♍		direct	4541 Jun 22 09:06	15°♊07'57	
				morning max el	4541 Jul 06 10:20	22°♊12'50	24°57'18
superior conj	4540 Aug 24 02:33	3°♍45'26	1°37'21		4541 Jul 13 07:13	0°♋	
minimum elong	4540 Aug 24 00:56	3°♍36'47	1°37'14	asc. node	4541 Jul 29 20:05	27°♋52'22	
max. Earth dist.	4540 Aug 26 18:18	9°♍24'26	1.33612 AU		4541 Jul 30 20:57	0°♌	
evening rise	4540 Aug 31 19:03	19°♍43'02		morning set	4541 Aug 01 12:31	3°♌27'17	
	4540 Sep 06 04:08	0°♍					
desc. node	4540 Sep 17 15:59	19°♍16'58		superior conj	4541 Aug 08 12:02	18°♌36'34	1°25'51
	4540 Sep 25 05:37	0°♍		minimum elong	4541 Aug 08 09:50	18°♌24'32	1°25'35
evening max el	4540 Oct 05 00:08	11°♍09'15	27°19'23	max. Earth dist.	4541 Aug 09 23:01	21°♌47'15	1.32656 AU
retrograde	4540 Oct 18 12:00	18°♍27'39			4541 Aug 13 19:06	0°♎	
evening set	4540 Oct 25 11:39	15°♍48'12		evening rise	4541 Aug 15 17:23	4°♎00'11	
min. Earth dist.	4540 Oct 29 06:58	12°♍17'12	0.64526 AU		4541 Aug 29 21:33	0°♏	
inferior conj	4540 Oct 31 14:48	9°♍47'06	-2°-24'-37	desc. node	4541 Sep 04 13:02	8°♏36'14	
minimum elong	4540 Oct 31 18:56	9°♍35'57	2°23'03	evening max el	4541 Sep 17 10:16	24°♏08'57	27°25'35
morning rise	4540 Nov 07 04:26	4°♍18'20			4541 Sep 25 11:42	0°♐	
asc. node	4540 Nov 07 22:18	4°♍01'58		retrograde	4541 Oct 01 04:08	1°♐24'09	
direct	4540 Nov 09 16:43	3°♍45'45			4541 Oct 06 12:58	30°♐♏	
morning max el	4540 Nov 16 04:30	7°♍11'42	17°56'54	evening set	4541 Oct 08 08:27	28°♏53'40	
	4540 Dec 01 11:49	0°♎		min. Earth dist.	4541 Oct 11 23:46	25°♏53'28	0.62803 AU
morning set	4540 Dec 03 10:57	3°♎18'35		inferior conj	4541 Oct 14 19:09	23°♏11'17	-3°-26'-7
desc. node	4540 Dec 14 15:16	21°♎50'26		minimum elong	4541 Oct 15 00:49	22°♏57'36	3°24'19
				morning rise	4541 Oct 21 19:57	18°♏00'17	
superior conj	4540 Dec 17 00:01	25°♎39'33	0°-16'-19	direct	4541 Oct 24 04:04	17°♏35'05	
minimum elong	4540 Dec 16 22:04	25°♎31'42	0°16'02	asc. node	4541 Oct 25 19:19	17°♏47'44	
behind sun begin	4540 Dec 16 20:50	25°♎26'43		morning max el	4541 Oct 30 20:59	21°♏01'42	17°49'58
behind sun end	4540 Dec 16 23:19	25°♎36'41			4541 Nov 06 15:30	0°♐	
	4540 Dec 19 17:10	0°♏		morning set	4541 Nov 15 22:52	15°♐57'27	
max. Earth dist.	4540 Dec 21 15:11	3°♏02'27	1.44838 AU		4541 Nov 23 23:41	0°♑	
evening rise	4541 Jan 02 05:42	21°♏06'49					
	4541 Jan 08 01:01	0°♑		superior conj	4541 Nov 27 13:10	6°♑02'41	0°27'34
greatest brilliancy	4541 Jan 22 07:17	20°♑58'16	-0.6m	minimum elong	4541 Nov 27 15:47	6°♑13'40	0°27'12
evening max el	4541 Jan 28 21:22	29°♑00'53	20°06'55	desc. node	4541 Dec 01 12:18	12°♑37'12	
	4541 Jan 29 21:25	0°♒		max. Earth dist.	4541 Dec 04 07:50	17°♑11'43	1.43700 AU
asc. node	4541 Feb 03 21:34	3°♒15'44			4541 Dec 12 10:22	0°♓	
retrograde	4541 Feb 05 14:54	3°♒31'42		evening rise	4541 Dec 12 15:56	0°♓21'34	
evening set	4541 Feb 09 07:53	2°♒11'42			4542 Jan 01 17:08	0°♓	
	4541 Feb 11 16:37	30°♒♑		greatest brilliancy	4542 Jan 06 18:14	6°♓42'16	-0.4m
inferior conj	4541 Feb 14 18:35	26°♓06'13	3°01'54	evening max el	4542 Jan 11 20:22	12°♓35'07	21°14'39
minimum elong	4541 Feb 14 16:19	26°♓13'52	3°01'24	retrograde	4542 Jan 20 12:44	17°♓43'49	
min. Earth dist.	4541 Feb 15 14:55	24°♓57'41	0.67228 AU	asc. node	4542 Jan 21 18:36	17°♓35'26	
morning rise	4541 Feb 20 00:09	19°♓50'05		evening set	4542 Jan 24 15:36	16°♓08'38	
direct	4541 Feb 25 19:09	17°♓15'42		inferior conj	4542 Jan 30 00:59	9°♓52'06	2°30'00
morning max el	4541 Mar 09 11:47	24°♓15'19	24°56'12	minimum elong	4542 Jan 29 22:32	10°♓00'33	2°29'17
desc. node	4541 Mar 12 14:33	27°♓36'43		min. Earth dist.	4542 Jan 30 08:33	9°♓25'54	0.67841 AU
	4541 Mar 14 15:27	0°♒		morning rise	4542 Feb 04 05:07	3°♓37'18	
	4541 Apr 04 15:49	0°♑		direct	4542 Feb 09 09:31	1°♓22'26	
morning set	4541 Apr 14 13:31	16°♑45'36		morning max el	4542 Feb 19 20:34	7°♓35'38	23°27'46
max. Earth dist.	4541 Apr 18 05:31	23°♑24'21	1.36934 AU	greatest brilliancy	4542 Feb 25 21:36	14°♓27'35	-0.2m
	4541 Apr 21 17:45	0°♒		desc. node	4542 Feb 27 11:33	16°♓27'15	
					4542 Mar 09 07:47	0°♒	
superior conj	4541 Apr 24 16:32	5°♒42'36	-1°-16'-34	morning set	4542 Mar 26 22:56	27°♒40'56	
minimum elong	4541 Apr 24 20:39	6°♒02'45	1°15'56		4542 Mar 28 07:41	0°♑	
asc. node	4541 May 02 20:50	22°♒04'11		max. Earth dist.	4542 Mar 31 00:54	4°♑42'01	1.39085 AU
evening rise	4541 May 03 03:10	22°♒35'56					
	4541 May 06 21:12	0°♓		superior conj	4542 Apr 07 13:51	18°♑20'14	-1°-42'-22
evening max el	4541 May 20 03:18	20°♓14'00	19°29'22	minimum elong	4542 Apr 07 18:44	18°♑43'01	1°41'51
retrograde	4541 May 29 14:56	24°♓51'18			4542 Apr 13 16:49	0°♒	
evening set	4541 May 31 13:49	24°♓40'24		evening rise	4542 Apr 16 22:31	6°♒16'29	
desc. node	4541 Jun 08 13:46	21°♓00'06		asc. node	4542 Apr 19 17:53	11°♒40'11	
inferior conj	4541 Jun 09 05:31	20°♓34'57	0°-11'-39		4542 Apr 30 22:35	0°♓	
minimum elong	4541 Jun 09 05:00	20°♓35'47	0°11'29	evening max el	4542 May 03 03:43	2°♓25'44	18°41'47
transit middle	4541 Jun 09 05:00	20°♓35'47	0°11'29	retrograde	4542 May 11 04:14	6°♓22'12	
transit begin	4541 Jun 09 02:17	20°♓40'07		evening set	4542 May 13 08:06	6°♓06'04	

inferior conj	4542 May 21 04:21	1°II42'18	1°28'53	evening max el	4543 Apr 16 11:33	15°808'52	18°14'28
minimum elong	4542 May 21 07:22	1°II36'39	1°27'53	retrograde	4543 Apr 23 12:29	18°840'35	
	4542 May 23 10:51	30°R8		evening set	4543 Apr 25 22:42	18°816'13	
min. Earth dist.	4542 May 24 11:43	29°814'49	0.57445 AU	inferior conj	4543 May 03 00:40	13°831'35	2°38'18
desc. node	4542 May 26 10:47	27°855'44		minimum elong	4543 May 03 04:09	13°823'57	2°37'29
morning rise	4542 May 29 02:08	26°829'30		min. Earth dist.	4543 May 06 10:20	10°834'06	0.59532 AU
direct	4542 Jun 03 17:28	25°811'02		morning rise	4543 May 10 05:39	7°850'15	
	4542 Jun 15 00:22	0°II		desc. node	4543 May 13 07:49	6°827'23	
morning max el	4542 Jun 18 02:10	2°II43'48	26°26'22	direct	4543 May 16 15:06	5°857'10	
	4542 Jul 07 15:03	0°8		morning max el	4543 May 31 00:01	13°847'35	27°27'24
morning set	4542 Jul 16 23:12	18°815'54			4543 Jun 12 22:36	0°II	
asc. node	4542 Jul 16 17:08	17°843'53			4543 Jun 29 21:18	0°8	
	4542 Jul 22 09:12	0°Q		morning set	4543 Jul 01 07:10	2°854'50	
				asc. node	4543 Jul 03 14:12	7°845'47	
superior conj	4542 Jul 23 23:31	3°Q31'25	1°09'35	superior conj	4543 Jul 08 11:15	18°824'19	0°49'09
minimum elong	4542 Jul 23 21:13	3°Q18'41	1°09'11	minimum elong	4543 Jul 08 09:18	18°813'35	0°48'46
max. Earth dist.	4542 Jul 24 09:04	4°Q24'06	1.32115 AU	max. Earth dist.	4543 Jul 07 20:41	17°804'03	1.31979 AU
evening rise	4542 Jul 30 22:23	18°Q35'21			4543 Jul 13 18:06	0°Q	
	4542 Aug 05 14:38	0°n		evening rise	4543 Jul 15 07:39	3°Q21'04	
desc. node	4542 Aug 22 10:04	27°n09'24			4543 Jul 29 12:58	0°n	
	4542 Aug 24 16:10	0°A		desc. node	4543 Aug 09 07:05	14°n37'58	
evening max el	4542 Aug 30 15:27	6°A28'48	26°58'52	evening max el	4543 Aug 12 13:22	18°n00'36	25°59'32
retrograde	4542 Sep 13 12:40	13°A39'51		retrograde	4543 Aug 26 12:35	25°n08'29	
evening set	4542 Sep 20 13:10	11°A30'19		evening set	4543 Sep 01 21:02	23°n31'35	
min. Earth dist.	4542 Sep 24 05:40	8°A51'07	0.60830 AU	min. Earth dist.	4543 Sep 06 01:53	20°n56'48	0.58758 AU
inferior conj	4542 Sep 27 09:53	6°A09'54	-4°-21'-35	inferior conj	4543 Sep 09 07:34	18°n33'58	-5°-1'-55
minimum elong	4542 Sep 27 15:56	5°A57'03	4°20'12	minimum elong	4543 Sep 09 11:34	18°n26'33	5°01'29
morning rise	4542 Oct 04 21:55	1°A20'14		morning rise	4543 Sep 17 05:39	14°n07'49	
direct	4542 Oct 07 05:01	0°A59'21		direct	4543 Sep 19 15:07	13°n48'52	
asc. node	4542 Oct 12 16:22	3°A03'29		morning max el	4543 Sep 27 18:20	17°n43'06	18°33'44
morning max el	4542 Oct 14 10:41	4°A34'57	18°01'48	asc. node	4543 Sep 29 13:25	19°n36'35	
morning set	4542 Oct 30 03:54	29°A24'40			4543 Oct 06 15:32	0°A	
	4542 Oct 30 11:31	0°M		morning set	4543 Oct 13 21:01	13°A26'11	
superior conj	4542 Nov 09 04:37	17°M42'21	1°02'00	superior conj	4543 Oct 22 18:06	0°M26'42	1°25'32
minimum elong	4542 Nov 09 08:40	18°M00'18	1°01'29	minimum elong	4543 Oct 22 21:29	0°M42'26	1°25'12
	4542 Nov 16 08:07	0°x			4543 Oct 22 12:23	0°M	
max. Earth dist.	4542 Nov 16 19:53	0°x49'03	1.42016 AU	max. Earth dist.	4543 Oct 30 02:31	13°M42'40	1.39999 AU
desc. node	4542 Nov 18 09:20	3°x24'07		evening rise	4543 Nov 03 08:15	20°M56'53	
evening rise	4542 Nov 22 13:27	10°x09'49		desc. node	4543 Nov 05 06:23	24°M08'05	
	4542 Dec 05 12:47	0°8			4543 Nov 08 21:29	0°x	
greatest brilliancy	4542 Dec 20 17:48	20°844'14	-0.3m		4543 Nov 29 16:10	0°8	
evening max el	4542 Dec 25 14:09	26°810'32	22°31'13	evening max el	4543 Dec 08 04:16	9°849'01	23°51'10
	4542 Dec 30 00:40	0°≈		retrograde	4543 Dec 19 01:49	16°814'30	
retrograde	4543 Jan 04 08:49	1°≈59'16		evening set	4543 Dec 24 05:01	14°807'25	
evening set	4543 Jan 08 23:10	0°≈08'07		asc. node	4543 Dec 26 12:40	11°845'59	
asc. node	4543 Jan 08 15:38	0°≈23'01		min. Earth dist.	4543 Dec 29 01:28	8°830'27	0.67913 AU
	4543 Jan 09 03:04	30°R8		inferior conj	4543 Dec 29 16:25	7°839'35	1°03'11
inferior conj	4543 Jan 14 08:52	23°843'51	1°50'03	minimum elong	4543 Dec 29 15:00	7°844'25	1°02'37
minimum elong	4543 Jan 14 06:42	23°851'21	1°49'18	morning rise	4544 Jan 04 01:13	1°832'32	
min. Earth dist.	4543 Jan 14 04:49	23°857'53	0.68060 AU	direct	4544 Jan 08 00:43	0°803'03	
morning rise	4543 Jan 19 14:10	17°832'04		morning max el	4544 Jan 16 03:18	4°842'29	20°40'47
direct	4543 Jan 24 03:42	15°839'54		greatest brilliancy	4544 Jan 22 00:01	11°832'27	-0.5m
morning max el	4543 Feb 02 08:41	21°803'39	22°00'09	desc. node	4544 Feb 01 05:38	25°851'11	
greatest brilliancy	4543 Feb 07 00:14	26°816'15	-0.4m		4544 Feb 04 00:51	0°≈	
	4543 Feb 09 23:08	0°≈		morning set	4544 Feb 14 07:44	15°≈40'33	
desc. node	4543 Feb 14 08:35	5°≈55'29		max. Earth dist.	4544 Feb 23 04:09	29°≈42'16	1.43133 AU
	4543 Mar 02 14:19	0°K			4544 Feb 23 08:32	0°K	
morning set	4543 Mar 07 04:02	7°K14'47		superior conj	4544 Feb 29 20:02	10°K40'31	-2°-8'-15
max. Earth dist.	4543 Mar 12 23:11	16°K45'14	1.41245 AU	minimum elong	4544 Feb 29 19:43	10°K39'10	2°08'16
superior conj	4543 Mar 20 16:38	0°Y02'58	-2°-1'-17		4544 Mar 12 00:35	0°Y	
minimum elong	4543 Mar 20 20:26	0°Y19'44	2°01'06	evening rise	4544 Mar 12 23:06	1°Y39'30	
	4543 Mar 20 15:58	0°Y		asc. node	4544 Mar 23 11:58	19°Y43'26	
evening rise	4543 Mar 31 06:33	19°Y20'42		evening max el	4544 Mar 29 23:25	28°Y14'38	18°06'47
	4543 Apr 06 02:21	0°8			4544 Apr 01 00:49	0°8	
asc. node	4543 Apr 06 14:56	0°855'31					

retrograde	4544 Apr 05 12:05	1°♄37'04		superior conj	4545 Feb 08 21:48	20°♊10'28	-1°-57'-53
evening set	4544 Apr 08 04:25	1°♄02'28		minimum elong	4545 Feb 08 15:19	19°♊44'29	1°57'31
	4544 Apr 10 01:33	30°♄			4545 Feb 14 23:06	0°♄	
inferior conj	4544 Apr 14 15:43	25°♄57'18	3°17'59	evening rise	4545 Feb 22 19:44	13°♄04'35	
minimum elong	4544 Apr 14 17:55	25°♄51'45	3°17'41		4545 Mar 04 23:58	0°♄	
min. Earth dist.	4544 Apr 17 16:46	22°♄54'39	0.61723 AU	asc. node	4545 Mar 10 09:00	7°♄55'20	
morning rise	4544 Apr 21 04:32	19°♄57'54		evening max el	4545 Mar 13 12:16	11°♄35'08	18°18'01
direct	4544 Apr 27 23:48	17°♄33'49		retrograde	4545 Mar 19 22:35	15°♄02'07	
desc. node	4544 Apr 29 04:51	17°♄38'07		evening set	4545 Mar 22 20:55	14°♄15'59	
morning max el	4544 May 12 04:00	25°♄32'54	27°51'59	inferior conj	4545 Mar 28 21:22	8°♄51'24	3°33'53
	4544 May 16 06:32	0°♄		minimum elong	4545 Mar 28 21:52	8°♄50'00	3°33'52
	4544 Jun 05 09:53	0°♄		min. Earth dist.	4545 Mar 31 08:14	6°♄06'01	0.63744 AU
morning set	4544 Jun 14 10:22	17°♄16'47		morning rise	4545 Apr 03 20:57	2°♄42'11	
asc. node	4544 Jun 19 11:14	27°♄52'36			4545 Apr 10 01:30	30°♄	
max. Earth dist.	4544 Jun 20 05:51	29°♄33'13	1.32261 AU	direct	4545 Apr 10 17:12	29°♄58'35	
	4544 Jun 20 10:47	0°♄			4545 Apr 11 09:06	0°♄	
				desc. node	4545 Apr 16 01:52	1°♄23'46	
superior conj	4544 Jun 21 21:25	3°♄08'36	0°25'09	morning max el	4545 Apr 24 12:13	7°♄56'47	27°39'15
minimum elong	4544 Jun 21 20:17	3°♄02'25	0°24'53		4545 May 11 12:17	0°♄	
evening rise	4544 Jun 28 19:04	18°♄09'45			4545 May 28 15:23	0°♄	
	4544 Jul 04 14:18	0°♄		morning set	4545 May 29 06:27	1°♄14'28	
evening max el	4544 Jul 24 04:20	28°♄47'20	24°34'33	max. Earth dist.	4545 Jun 03 08:43	11°♄39'59	1.32987 AU
	4544 Jul 25 11:51	0°♄					
desc. node	4544 Jul 26 04:07	0°♄35'05		superior conj	4545 Jun 06 04:13	17°♄38'35	0°-1'-46
retrograde	4544 Aug 07 01:41	5°♄47'59		minimum elong	4545 Jun 06 04:18	17°♄39'02	0°01'46
evening set	4544 Aug 12 04:29	4°♄49'15		behind sun begin	4545 Jun 05 22:59	17°♄10'31	
min. Earth dist.	4544 Aug 17 15:31	1°♄59'42	0.56848 AU	behind sun end	4545 Jun 06 09:37	18°♄07'35	
inferior conj	4544 Aug 20 09:20	0°♄14'05	-5°-13'-17	asc. node	4545 Jun 06 08:17	18°♄00'24	
minimum elong	4544 Aug 20 08:09	0°♄16'00	5°13'17		4545 Jun 11 21:50	0°♄	
	4544 Aug 20 18:05	30°♄		evening rise	4545 Jun 13 06:47	2°♄55'27	
morning rise	4544 Aug 28 15:20	26°♄09'39			4545 Jun 28 03:13	0°♄	
direct	4544 Aug 31 06:29	25°♄50'38		evening max el	4545 Jul 05 17:22	9°♄11'00	22°57'38
	4544 Sep 09 09:59	0°♄		desc. node	4545 Jul 13 01:07	14°♄27'28	
morning max el	4544 Sep 09 16:31	0°♄15'08	19°27'05	retrograde	4545 Jul 19 01:50	15°♄50'29	
asc. node	4544 Sep 15 10:28	7°♄10'48		evening set	4545 Jul 22 16:08	15°♄22'14	
morning set	4544 Sep 26 22:22	27°♄50'48		min. Earth dist.	4545 Jul 30 02:09	12°♄03'01	0.55437 AU
	4544 Sep 28 00:08	0°♄		inferior conj	4545 Jul 31 15:47	11°♄08'41	-4°-39'-47
				minimum elong	4545 Jul 31 08:38	11°♄19'02	4°38'30
superior conj	4544 Oct 05 00:05	13°♄58'59	1°39'00	morning rise	4545 Aug 09 03:50	7°♄17'36	
minimum elong	4544 Oct 05 01:56	14°♄08'00	1°38'53	direct	4545 Aug 12 03:27	6°♄56'36	
max. Earth dist.	4544 Oct 11 06:48	25°♄55'46	1.37906 AU	morning max el	4545 Aug 23 02:52	12°♄02'47	20°42'06
	4544 Oct 13 12:32	0°♄		asc. node	4545 Sep 02 07:30	25°♄32'28	
evening rise	4544 Oct 15 02:03	2°♄46'50			4545 Sep 04 20:13	0°♄	
desc. node	4544 Oct 22 03:24	14°♄44'29		morning set	4545 Sep 11 05:13	12°♄31'06	
	4544 Nov 01 00:45	0°♄					
evening max el	4544 Nov 19 16:53	23°♄31'10	25°08'01	superior conj	4545 Sep 18 17:56	28°♄06'04	1°43'51
	4544 Nov 29 01:06	0°♄		minimum elong	4545 Sep 18 18:10	28°♄07'18	1°43'51
retrograde	4544 Dec 01 14:37	0°♄24'30			4545 Sep 19 16:18	0°♄	
	4544 Dec 04 00:45	30°♄		max. Earth dist.	4545 Sep 23 14:38	7°♄49'31	1.35973 AU
evening set	4544 Dec 07 07:30	28°♄02'46		evening rise	4545 Sep 27 15:53	15°♄32'23	
min. Earth dist.	4544 Dec 11 20:05	23°♄00'11	0.67413 AU		4545 Oct 05 20:54	0°♄	
asc. node	4544 Dec 12 09:42	22°♄15'47		desc. node	4545 Oct 09 00:24	5°♄08'41	
inferior conj	4544 Dec 12 21:50	21°♄36'02	0°10'21		4545 Oct 26 14:46	0°♄	
minimum elong	4544 Dec 12 21:34	21°♄36'53	0°10'14	evening max el	4545 Nov 02 05:31	7°♄13'53	26°14'18
transit middle	4544 Dec 12 21:34	21°♄36'53	0°10'14	retrograde	4545 Nov 14 22:15	14°♄23'53	
transit begin	4544 Dec 12 19:25	21°♄43'56		evening set	4545 Nov 21 04:49	11°♄50'28	
transit end	4544 Dec 12 23:44	21°♄29'51		min. Earth dist.	4545 Nov 25 10:16	7°♄23'33	0.66569 AU
morning rise	4544 Dec 18 12:18	15°♄36'03		inferior conj	4545 Nov 26 23:13	5°♄29'55	0°-47'-24
direct	4544 Dec 21 23:21	14°♄27'01		minimum elong	4545 Nov 27 00:30	5°♄25'58	0°46'52
morning max el	4544 Dec 29 05:46	18°♄32'05	19°34'25	asc. node	4545 Nov 29 06:44	2°♄45'55	
greatest brilliancy	4545 Jan 06 11:32	28°♄48'29	-0.6m		4545 Dec 02 08:14	30°♄	
	4545 Jan 07 07:42	0°♄		morning rise	4545 Dec 02 21:22	29°♄39'39	
desc. node	4545 Jan 18 02:40	16°♄06'39		direct	4545 Dec 05 21:52	28°♄47'44	
morning set	4545 Jan 23 04:33	23°♄55'07			4545 Dec 09 14:39	0°♄	
	4545 Jan 27 02:45	0°♄		morning max el	4545 Dec 12 15:21	2°♄29'30	18°43'28
max. Earth dist.	4545 Feb 04 16:23	13°♄26'09	1.44510 AU		4545 Dec 31 19:11	0°♄	
				morning set	4546 Jan 02 19:14	3°♄09'23	

desc. node	4546 Jan 04 23:40	6°☾35'56		superior conj	4546 Dec 29 08:28	7°☾35'47	0°-43'-43
max. Earth dist.	4546 Jan 18 09:57	27°☾41'05	1.45221 AU	minimum elong	4546 Dec 29 03:00	7°☾14'12	0°42'59
superior conj	4546 Jan 19 03:58	28°☾51'50	-1°-27'-52	max. Earth dist.	4547 Jan 01 05:41	12°☾08'33	1.45190 AU
minimum elong	4546 Jan 18 18:39	28°☾15'16	1°26'55	evening rise	4547 Jan 12 16:16	0°☾	
	4546 Jan 19 21:20	0°☾		greatest brilliancy	4547 Jan 14 17:06	3°☾09'39	
evening rise	4546 Feb 03 17:18	23°☾31'54			4547 Jan 31 06:50	28°☾24'04	-0.7m
	4546 Feb 07 17:54	0°☾		evening max el	4547 Feb 01 09:51	0°☾	
evening max el	4546 Feb 24 23:21	25°☾03'05	18°47'22	asc. node	4547 Feb 08 06:36	8°☾34'25	19°33'29
asc. node	4546 Feb 25 06:02	25°☾19'49		retrograde	4547 Feb 12 03:04	11°☾43'51	
retrograde	4546 Mar 03 16:00	28°☾47'00		evening set	4547 Feb 15 13:09	12°☾45'51	
evening set	4546 Mar 06 20:45	27°☾48'22		inferior conj	4547 Feb 19 01:17	11°☾33'50	
inferior conj	4546 Mar 12 13:44	22°☾05'57	3°31'49	minimum elong	4547 Feb 24 13:35	5°☾35'47	3°16'02
minimum elong	4546 Mar 12 12:46	22°☾08'54	3°31'44	min. Earth dist.	4547 Feb 24 11:39	5°☾42'09	3°15'42
min. Earth dist.	4546 Mar 14 08:53	19°☾53'08	0.65424 AU		4547 Feb 25 17:46	4°☾03'09	0.66690 AU
morning rise	4546 Mar 18 03:39	15°☾51'53		morning rise	4547 Mar 01 04:19	30°☾	
direct	4546 Mar 24 17:31	13°☾02'47			4547 Mar 01 21:17	29°☾19'44	
desc. node	4546 Mar 24 17:31	13°☾02'47		direct	4547 Mar 07 23:54	26°☾37'28	
morning max el	4546 Apr 02 22:54	17°☾11'45			4547 Mar 15 21:28	0°☾	
	4546 Apr 06 22:06	20°☾48'55	26°53'52	morning max el	4547 Mar 20 07:41	3°☾58'15	25°43'51
	4546 Apr 14 20:32	0°☾		desc. node	4547 Mar 20 19:56	4°☾29'33	
	4546 May 04 15:29	0°☾			4547 Apr 09 04:47	0°☾	
morning set	4546 May 12 16:17	14°☾38'10		morning set	4547 Apr 25 11:44	27°☾16'16	
max. Earth dist.	4546 May 17 01:52	23°☾16'27	1.34175 AU		4547 Apr 26 23:14	0°☾	
	4546 May 20 08:51	0°☾		max. Earth dist.	4547 Apr 29 07:47	4°☾26'19	1.35814 AU
superior conj	4546 May 21 05:29	1°☾47'17	0°-30'-38	superior conj	4547 May 04 22:39	15°☾27'29	-1°00'-5
minimum elong	4546 May 21 07:07	1°☾55'45	0°30'18	minimum elong	4547 May 05 01:55	15°☾43'56	0°59'31
asc. node	4546 May 24 05:18	8°☾04'37		asc. node	4547 May 11 02:20	28°☾01'25	
evening rise	4546 May 28 16:55	17°☾31'37			4547 May 12 01:27	0°☾	
	4546 Jun 03 22:49	0°☾		evening rise	4547 May 12 23:21	1°☾51'54	
evening max el	4546 Jun 17 12:17	19°☾43'39	21°24'22		4547 May 29 22:40	0°☾	
retrograde	4546 Jun 29 15:51	25°☾42'55		evening max el	4547 May 30 18:43	0°☾50'53	20°05'48
desc. node	4546 Jun 29 22:07	25°☾42'46		retrograde	4547 Jun 10 06:18	5°☾58'09	
evening set	4546 Jul 02 01:49	25°☾29'33		evening set	4547 Jun 12 05:02	5°☾48'18	
inferior conj	4546 Jul 11 10:03	21°☾30'24	-3°-15'-38	desc. node	4547 Jun 16 19:10	4°☾16'47	
minimum elong	4546 Jul 11 01:45	21°☾42'00	3°13'04	inferior conj	4547 Jun 21 06:01	1°☾48'55	-1°-19'-29
min. Earth dist.	4546 Jul 11 12:35	21°☾26'51	0.54822 AU	minimum elong	4547 Jun 21 02:18	1°☾54'29	1°18'07
morning rise	4546 Jul 20 02:18	17°☾36'19		min. Earth dist.	4547 Jun 23 00:51	0°☾44'59	0.55165 AU
direct	4546 Jul 23 13:17	17°☾10'27			4547 Jun 24 07:58	30°☾	
morning max el	4546 Aug 05 01:44	23°☾05'26	22°15'42	morning rise	4547 Jun 29 21:12	27°☾31'10	
	4546 Aug 11 03:54	0°☾		direct	4547 Jul 04 01:00	26°☾53'35	
asc. node	4546 Aug 20 04:33	14°☾30'06			4547 Jul 13 05:42	0°☾	
morning set	4546 Aug 26 15:24	27°☾21'06		morning max el	4547 Jul 17 17:11	3°☾36'03	23°59'02
	4546 Aug 27 21:36	0°☾			4547 Aug 05 01:19	0°☾	
superior conj	4546 Sep 02 20:00	12°☾37'22	1°41'30	asc. node	4547 Aug 07 01:34	3°☾54'12	
minimum elong	4546 Sep 02 18:56	12°☾31'47	1°41'28	morning set	4547 Aug 11 03:03	12°☾14'38	
max. Earth dist.	4546 Sep 06 06:19	19°☾46'43	1.34360 AU	superior conj	4547 Aug 18 03:27	27°☾23'34	1°33'06
evening rise	4546 Sep 10 21:25	29°☾02'17		minimum elong	4547 Aug 18 01:32	27°☾13'11	1°32'55
	4546 Sep 11 09:21	0°☾			4547 Aug 19 08:26	0°☾	
desc. node	4546 Sep 25 21:25	25°☾14'51		max. Earth dist.	4547 Aug 20 06:40	1°☾59'14	1.33151 AU
	4546 Sep 29 00:33	0°☾		evening rise	4547 Aug 25 14:35	13°☾04'52	
evening max el	4546 Oct 15 18:14	20°☾49'20	27°02'30		4547 Sep 03 13:48	0°☾	
retrograde	4546 Oct 29 00:19	28°☾06'25		desc. node	4547 Sep 12 18:27	14°☾54'25	
evening set	4546 Nov 04 18:54	25°☾26'43			4547 Sep 24 06:57	0°☾	
min. Earth dist.	4546 Nov 08 17:38	21°☾35'58	0.65375 AU	evening max el	4547 Sep 28 05:42	4°☾05'04	27°25'45
inferior conj	4546 Nov 10 18:30	19°☾17'20	-1°-48'-37	retrograde	4547 Oct 11 20:21	11°☾22'42	
minimum elong	4546 Nov 10 21:35	19°☾08'35	1°47'22	evening set	4547 Oct 18 23:00	8°☾45'18	
asc. node	4546 Nov 16 03:46	14°☾10'53		min. Earth dist.	4547 Oct 22 16:06	5°☾28'34	0.63833 AU
morning rise	4546 Nov 17 02:06	13°☾39'57		inferior conj	4547 Oct 25 05:08	2°☾51'48	-2°-51'-3
direct	4546 Nov 19 18:13	13°☾01'21		minimum elong	4547 Oct 25 10:00	2°☾39'17	2°49'18
morning max el	4546 Nov 26 05:58	16°☾30'09	18°09'03		4547 Oct 28 04:00	30°☾	
	4546 Dec 06 02:37	0°☾		morning rise	4547 Oct 31 23:29	27°☾30'29	
morning set	4546 Dec 14 15:16	13°☾52'40		direct	4547 Nov 03 09:39	27°☾01'29	
desc. node	4546 Dec 22 20:41	27°☾15'03		asc. node	4547 Nov 03 00:48	27°☾02'10	
	4546 Dec 24 13:49	0°☾			4547 Nov 09 11:44	0°☾	
				morning max el	4547 Nov 09 22:43	0°☾26'29	17°51'48

morning set	4547 Nov 26 14:22	25° \mathbb{M} 54'27		morning set	4548 Nov 03 10:28	0° \mathbb{M}	
	4547 Nov 28 23:35	0° \mathbb{X}			4548 Nov 08 10:16	8° \mathbb{M} 55'38	
superior conj	4547 Dec 09 06:44	17° \mathbb{X} 15'06	0°03'12	superior conj	4548 Nov 19 07:22	28° \mathbb{M} 11'42	0°43'29
minimum elong	4547 Dec 09 07:05	17° \mathbb{X} 16'33	0°03'10	minimum elong	4548 Nov 19 10:57	28° \mathbb{M} 27'03	0°42'59
behind sun begin	4547 Dec 08 21:24	16° \mathbb{X} 36'55			4548 Nov 20 08:42	0° \mathbb{X}	
behind sun end	4547 Dec 09 16:47	17° \mathbb{X} 56'05		desc. node	4548 Nov 25 14:45	8° \mathbb{X} 47'03	
desc. node	4547 Dec 09 17:42	17° \mathbb{X} 59'52		max. Earth dist.	4548 Nov 26 14:11	10° \mathbb{X} 23'01	1.43041 AU
max. Earth dist.	4547 Dec 14 23:57	26° \mathbb{X} 28'08	1.44430 AU	evening rise	4548 Dec 03 17:06	21° \mathbb{X} 45'20	
	4547 Dec 17 05:26	0° \mathbb{Z}			4548 Dec 09 01:25	0° \mathbb{Z}	
evening rise	4547 Dec 25 03:51	12° \mathbb{Z} 21'00			4548 Dec 30 05:38	0° \approx	
	4548 Jan 05 20:00	0° \approx		greatest brilliancy	4548 Dec 30 10:25	0° \approx 14'48	-0.4m
greatest brilliancy	4548 Jan 16 12:25	15° \approx 09'38	-0.5m	evening max el	4549 Jan 04 05:12	5° \approx 40'51	21°46'28
evening max el	4548 Jan 22 08:37	22° \approx 06'48	20°34'19	retrograde	4549 Jan 13 08:45	11° \approx 07'05	
retrograde	4548 Jan 30 11:25	26° \approx 53'41		asc. node	4549 Jan 15 21:08	10° \approx 33'06	
asc. node	4548 Jan 30 00:06	26° \approx 52'28		evening set	4549 Jan 17 16:12	9° \approx 25'23	
evening set	4548 Feb 03 08:22	25° \approx 27'20		inferior conj	4549 Jan 23 01:32	3° \approx 05'03	2°13'57
inferior conj	4548 Feb 08 18:15	19° \approx 16'29	2°49'26	minimum elong	4549 Jan 22 23:09	3° \approx 13'20	2°13'13
minimum elong	4548 Feb 08 15:51	19° \approx 24'42	2°48'50	min. Earth dist.	4549 Jan 23 04:07	2° \approx 56'04	0.67979 AU
min. Earth dist.	4548 Feb 09 08:57	18° \approx 26'12	0.67533 AU		4549 Jan 25 08:19	30° \mathbb{R} \mathbb{Z}	
morning rise	4548 Feb 13 22:52	13° \approx 00'32		morning rise	4549 Jan 28 05:50	26° \mathbb{Z} 51'03	
direct	4548 Feb 19 11:37	10° \approx 34'00		direct	4549 Feb 02 03:51	24° \mathbb{Z} 45'31	
morning max el	4548 Mar 01 16:22	17° \approx 15'32	24°19'06		4549 Feb 11 10:36	0° \approx	
desc. node	4548 Mar 06 16:57	22° \approx 51'28		morning max el	4549 Feb 12 02:01	0° \approx 38'06	22°49'47
	4548 Mar 12 07:12	0° \mathbb{X}		greatest brilliancy	4549 Feb 16 18:10	5° \approx 50'50	-0.3m
	4548 Apr 01 05:33	0° \mathbb{Y}		desc. node	4549 Feb 21 13:59	11° \approx 59'18	
morning set	4548 Apr 06 11:24	8° \mathbb{Y} 54'02			4549 Mar 06 04:38	0° \mathbb{X}	
max. Earth dist.	4548 Apr 10 04:46	15° \mathbb{Y} 29'49	1.37820 AU	morning set	4549 Mar 18 09:07	19° \mathbb{X} 14'53	
				max. Earth dist.	4549 Mar 22 23:55	27° \mathbb{X} 01'05	1.40012 AU
					4549 Mar 24 17:22	0° \mathbb{Y}	
superior conj	4548 Apr 17 04:22	28° \mathbb{Y} 30'44	-1°-28'-4				
minimum elong	4548 Apr 17 08:57	28° \mathbb{Y} 52'46	1°27'28				
	4548 Apr 17 22:54	0° \mathbb{X}		superior conj	4549 Mar 30 18:24	10° \mathbb{Y} 46'00	-1°-51'-31
evening rise	4548 Apr 25 23:37	15° \mathbb{X} 49'13		minimum elong	4549 Mar 30 23:07	11° \mathbb{Y} 07'33	1°51'08
asc. node	4548 Apr 26 23:23	17° \mathbb{X} 46'29		evening rise	4549 Apr 09 14:35	29° \mathbb{Y} 14'45	
	4548 May 03 11:28	0° \mathbb{II}			4549 Apr 10 00:06	0° \mathbb{X}	
evening max el	4548 May 12 13:21	12° \mathbb{II} 40'52	19°06'43	asc. node	4549 Apr 13 20:26	7° \mathbb{X} 14'03	
retrograde	4548 May 21 09:08	16° \mathbb{II} 59'19		evening max el	4549 Apr 25 17:24	25° \mathbb{X} 07'04	18°27'51
evening set	4548 May 23 09:27	16° \mathbb{II} 46'48		retrograde	4549 May 03 06:23	28° \mathbb{X} 50'44	
inferior conj	4548 May 31 17:04	12° \mathbb{II} 34'25	0°34'20	evening set	4549 May 05 12:58	28° \mathbb{X} 31'24	
minimum elong	4548 May 31 18:27	12° \mathbb{II} 32'03	0°33'50	inferior conj	4549 May 13 01:07	23° \mathbb{X} 59'15	2°02'12
desc. node	4548 Jun 02 16:12	11° \mathbb{II} 13'35		minimum elong	4549 May 13 04:39	23° \mathbb{X} 52'11	2°01'10
min. Earth dist.	4548 Jun 03 16:08	10° \mathbb{II} 33'30	0.56407 AU	min. Earth dist.	4549 May 16 11:24	21° \mathbb{X} 15'52	0.58295 AU
morning rise	4548 Jun 08 23:06	7° \mathbb{II} 41'17		morning rise	4549 May 20 15:55	18° \mathbb{X} 33'11	
direct	4548 Jun 14 01:22	6° \mathbb{II} 40'33		desc. node	4549 May 20 13:13	18° \mathbb{X} 36'38	
morning max el	4548 Jun 28 07:22	13° \mathbb{II} 59'44	25°37'49	direct	4549 May 26 16:01	16° \mathbb{X} 59'46	
	4548 Jul 10 22:58	0° \mathbb{S}		morning max el	4549 Jun 10 01:19	24° \mathbb{X} 41'39	26°56'22
asc. node	4548 Jul 23 22:37	23° \mathbb{S} 37'48			4549 Jun 14 22:04	0° \mathbb{II}	
morning set	4548 Jul 25 14:36	27° \mathbb{S} 06'58			4549 Jul 04 02:44	0° \mathbb{S}	
	4548 Jul 26 23:02	0° \mathbb{Q}		morning set	4549 Jul 10 00:19	11° \mathbb{S} 51'44	
				asc. node	4549 Jul 10 19:41	13° \mathbb{S} 34'04	
superior conj	4548 Aug 01 14:04	12° \mathbb{Q} 17'46	1°19'31				
minimum elong	4548 Aug 01 11:46	12° \mathbb{Q} 05'07	1°19'11	superior conj	4549 Jul 17 01:52	27° \mathbb{S} 12'25	1°01'25
max. Earth dist.	4548 Aug 02 13:57	14° \mathbb{Q} 28'49	1.32370 AU	minimum elong	4549 Jul 16 23:40	27° \mathbb{S} 00'12	1°01'00
evening rise	4548 Aug 08 16:07	27° \mathbb{Q} 31'06		max. Earth dist.	4549 Jul 17 00:58	27° \mathbb{S} 07'24	1.32005 AU
	4548 Aug 09 21:06	0° \mathbb{P}			4549 Jul 18 08:14	0° \mathbb{Q}	
	4548 Aug 26 21:33	0° \mathbb{A}		evening rise	4549 Jul 23 23:11	12° \mathbb{Q} 11'31	
desc. node	4548 Aug 29 15:30	3° \mathbb{A} 56'18			4549 Aug 02 00:53	0° \mathbb{P}	
evening max el	4548 Sep 09 13:54	16° \mathbb{A} 48'56	27°18'17	desc. node	4549 Aug 16 12:31	22° \mathbb{P} 04'34	
retrograde	4548 Sep 23 09:44	24° \mathbb{A} 03'14		evening max el	4549 Aug 22 16:20	28° \mathbb{P} 49'16	26°37'27
evening set	4548 Sep 30 13:35	21° \mathbb{A} 39'54			4549 Aug 23 23:19	0° \mathbb{A}	
min. Earth dist.	4548 Oct 04 04:21	18° \mathbb{A} 50'14	0.61989 AU	retrograde	4549 Sep 05 14:57	5° \mathbb{A} 58'53	
inferior conj	4548 Oct 07 04:08	16° \mathbb{A} 06'14	-3°-50'-50	evening set	4549 Sep 12 10:02	4° \mathbb{A} 02'21	
minimum elong	4548 Oct 07 10:10	15° \mathbb{A} 52'24	3°49'07	min. Earth dist.	4549 Sep 16 06:09	1° \mathbb{A} 26'58	0.59949 AU
morning rise	4548 Oct 14 09:49	11° \mathbb{A} 04'08			4549 Sep 18 02:06	30° \mathbb{R} \mathbb{P}	
direct	4548 Oct 16 16:57	10° \mathbb{A} 41'16		inferior conj	4549 Sep 19 12:03	28° \mathbb{P} 51'23	-4°-41'-16
asc. node	4548 Oct 19 21:51	11° \mathbb{A} 27'18		minimum elong	4549 Sep 19 17:36	28° \mathbb{P} 40'14	4°40'15
morning max el	4548 Oct 23 14:29	14° \mathbb{A} 10'49	17°52'35	morning rise	4549 Sep 27 04:33	24° \mathbb{P} 11'16	

direct	4549 Sep 29 12:06	23° \cap 51'33		minimum elong	4550 Sep 01 03:36	10° \cap 53'37	5°11'10
asc. node	4549 Oct 06 18:53	27° \cap 17'22		morning rise	4550 Sep 09 03:07	6° \cap 40'41	
morning max el	4549 Oct 07 01:58	27° \cap 34'12	18°12'44	direct	4550 Sep 11 14:49	6° \cap 21'47	
	4549 Oct 09 07:20	0° $\underline{\cap}$		morning max el	4550 Sep 20 05:50	10° \cap 27'18	18°53'43
morning set	4549 Oct 22 20:59	22° $\underline{\cap}$ 38'55		asc. node	4550 Sep 23 15:57	14° \cap 17'52	
	4549 Oct 26 18:29	0° \cap			4550 Oct 03 05:02	0° $\underline{\cap}$	
				morning set	4550 Oct 06 18:00	6° $\underline{\cap}$ 51'23	
superior conj	4549 Nov 01 08:48	10° \cap 20'21	1°13'17	superior conj	4550 Oct 15 05:54	23° $\underline{\cap}$ 26'31	1°32'23
minimum elong	4549 Nov 01 12:45	10° \cap 38'12	1°12'49	minimum elong	4550 Oct 15 08:40	23° $\underline{\cap}$ 39'43	1°32'10
max. Earth dist.	4549 Nov 08 23:41	23° \cap 41'52	1.41189 AU		4550 Oct 18 17:45	0° \cap	
desc. node	4549 Nov 12 11:48	29° \cap 33'13		max. Earth dist.	4550 Oct 22 05:17	6° \cap 18'52	1.39108 AU
	4549 Nov 12 18:19	0° \mathcal{A}		evening rise	4550 Oct 26 03:43	13° \cap 11'11	
evening rise	4549 Nov 13 23:01	1° \mathcal{A} 57'17		desc. node	4550 Oct 30 08:48	20° \cap 14'20	
	4549 Dec 02 11:17	0° \mathcal{B}			4550 Nov 05 12:09	0° \mathcal{A}	
greatest brilliancy	4549 Dec 11 22:01	12° \mathcal{B} 33'21	-0.2m		4550 Nov 27 14:40	0° \mathcal{B}	
evening max el	4549 Dec 17 21:21	19° \mathcal{B} 18'12	23°05'14	evening max el	4550 Nov 30 10:40	2° \mathcal{B} 58'37	24°24'41
retrograde	4549 Dec 28 03:34	25° \mathcal{B} 22'54		retrograde	4550 Dec 11 18:42	9° \mathcal{B} 36'29	
evening set	4550 Jan 01 23:12	23° \mathcal{B} 25'10		evening set	4550 Dec 17 03:47	7° \mathcal{B} 22'52	
asc. node	4550 Jan 02 18:09	22° \mathcal{B} 42'45		asc. node	4550 Dec 20 15:11	3° \mathcal{B} 37'24	
inferior conj	4550 Jan 07 09:30	16° \mathcal{B} 59'05	1°30'59	min. Earth dist.	4550 Dec 21 20:47	2° \mathcal{B} 00'37	0.67749 AU
minimum elong	4550 Jan 07 07:36	17° \mathcal{B} 05'38	1°30'16	inferior conj	4550 Dec 22 16:20	0° \mathcal{B} 55'10	0°41'27
min. Earth dist.	4550 Jan 07 00:50	17° \mathcal{B} 28'55	0.68044 AU	minimum elong	4550 Dec 22 15:21	0° \mathcal{B} 58'27	0°41'03
morning rise	4550 Jan 12 15:59	10° \mathcal{B} 48'59			4550 Dec 23 08:53	30° \mathcal{R} \mathcal{A}	
direct	4550 Jan 16 23:31	9° \mathcal{B} 06'22		morning rise	4550 Dec 28 03:18	24° \mathcal{A} 51'03	
morning max el	4550 Jan 25 16:25	14° \mathcal{B} 09'58	21°24'58	direct	4550 Dec 31 21:22	23° \mathcal{A} 30'32	
greatest brilliancy	4550 Jan 30 17:09	19° \mathcal{B} 52'49	-0.4m	morning max el	4551 Jan 08 14:19	27° \mathcal{A} 53'27	20°10'48
	4550 Feb 07 06:39	0° \approx			4551 Jan 10 13:38	0° \mathcal{B}	
desc. node	4550 Feb 08 11:01	1° \approx 40'31		greatest brilliancy	4551 Jan 15 06:41	5° \mathcal{B} 52'23	-0.6m
morning set	4550 Feb 26 02:11	28° \approx 15'28		desc. node	4551 Jan 26 08:02	21° \mathcal{B} 45'18	
	4550 Feb 27 04:32	0° \mathcal{H}			4551 Jan 31 18:54	0° \approx	
max. Earth dist.	4550 Mar 05 00:52	9° \mathcal{H} 27'47	1.42102 AU	morning set	4551 Feb 04 23:48	6° \approx 27'13	
				max. Earth dist.	4551 Feb 15 09:41	22° \approx 48'43	1.43800 AU
superior conj	4550 Mar 12 11:51	22° \mathcal{H} 02'35	-2°-6'-3		4551 Feb 19 20:22	0° \mathcal{H}	
minimum elong	4550 Mar 12 14:17	22° \mathcal{H} 13'10	2°05'59	superior conj	4551 Feb 21 04:12	2° \mathcal{H} 10'26	-2°-6'-14
	4550 Mar 17 00:46	0° \mathcal{Y}		minimum elong	4551 Feb 21 01:18	1° \mathcal{H} 58'29	2°06'10
evening rise	4550 Mar 23 16:34	12° \mathcal{Y} 00'36		evening rise	4551 Mar 06 01:07	23° \mathcal{H} 57'20	
asc. node	4550 Mar 31 17:29	26° \mathcal{Y} 18'29			4551 Mar 09 12:54	0° \mathcal{Y}	
	4550 Apr 02 23:59	0° \mathcal{B}		asc. node	4551 Mar 18 14:30	14° \mathcal{Y} 52'00	
evening max el	4550 Apr 09 03:24	8° \mathcal{B} 00'57	18°08'50	evening max el	4551 Mar 23 15:58	21° \mathcal{Y} 13'21	18°09'12
retrograde	4550 Apr 15 21:33	11° \mathcal{B} 26'32		retrograde	4551 Mar 30 02:28	24° \mathcal{Y} 36'12	
evening set	4550 Apr 18 10:34	10° \mathcal{B} 57'50		evening set	4551 Apr 01 21:21	23° \mathcal{Y} 56'45	
inferior conj	4550 Apr 25 05:48	6° \mathcal{B} 04'17	2°58'26	inferior conj	4551 Apr 08 03:33	18° \mathcal{Y} 42'46	3°27'16
minimum elong	4550 Apr 25 08:52	5° \mathcal{B} 57'09	2°57'50	minimum elong	4551 Apr 08 05:02	18° \mathcal{Y} 38'51	3°27'08
min. Earth dist.	4550 Apr 28 12:48	3° \mathcal{B} 01'45	0.60476 AU	min. Earth dist.	4551 Apr 10 22:48	15° \mathcal{Y} 45'25	0.62619 AU
morning rise	4550 May 02 03:42	0° \mathcal{B} 14'24		morning rise	4551 Apr 14 10:19	12° \mathcal{Y} 38'22	
	4550 May 02 13:02	30° \mathcal{R} \mathcal{Y}		direct	4551 Apr 21 06:54	10° \mathcal{Y} 04'42	
desc. node	4550 May 07 10:15	28° \mathcal{Y} 12'23		desc. node	4551 Apr 24 07:15	10° \mathcal{Y} 31'33	
direct	4550 May 08 18:37	28° \mathcal{Y} 07'12		morning max el	4551 May 05 07:50	18° \mathcal{Y} 04'05	27°51'03
	4550 May 15 08:44	0° \mathcal{B}			4551 May 15 07:44	0° \mathcal{B}	
morning max el	4550 May 23 01:39	6° \mathcal{B} 01'27	27°42'31		4551 Jun 02 20:20	0° \mathcal{B}	
	4550 Jun 10 00:49	0° \mathcal{B}		morning set	4551 Jun 08 06:57	10° \mathcal{B} 35'51	
morning set	4550 Jun 24 06:27	26° \mathcal{B} 23'27		max. Earth dist.	4551 Jun 13 19:10	22° \mathcal{B} 05'35	1.32516 AU
	4550 Jun 25 23:51	0° \mathcal{B}		asc. node	4551 Jun 14 13:47	23° \mathcal{B} 45'40	
asc. node	4550 Jun 27 16:45	3° \mathcal{B} 38'07		superior conj	4551 Jun 15 22:04	26° \mathcal{B} 40'14	0°14'02
max. Earth dist.	4550 Jun 30 12:02	9° \mathcal{B} 43'54	1.32051 AU	minimum elong	4551 Jun 15 21:24	26° \mathcal{B} 36'39	0°13'53
				behind sun begin	4551 Jun 15 18:50	26° \mathcal{B} 22'43	
superior conj	4550 Jul 01 13:07	12° \mathcal{B} 01'43	0°39'22	behind sun end	4551 Jun 15 23:58	26° \mathcal{B} 50'35	
minimum elong	4550 Jul 01 11:28	11° \mathcal{B} 52'37	0°39'01		4551 Jun 17 10:46	0° \mathcal{B}	
evening rise	4550 Jul 08 09:35	26° \mathcal{B} 58'55		evening rise	4551 Jun 22 21:22	11° \mathcal{B} 46'59	
	4550 Jul 09 19:56	0° \mathcal{B}			4551 Jul 02 03:26	0° \mathcal{B}	
	4550 Jul 26 22:36	0° \cap		evening max el	4551 Jul 17 00:19	20° \mathcal{B} 33'23	23°53'48
desc. node	4550 Aug 03 09:32	8° \cap 57'34		desc. node	4551 Jul 21 06:32	24° \mathcal{B} 06'06	
evening max el	4550 Aug 04 11:11	10° \cap 00'41	25°25'52	retrograde	4551 Jul 30 17:37	27° \mathcal{B} 27'30	
retrograde	4550 Aug 18 10:04	17° \cap 05'27		evening set	4551 Aug 04 05:16	26° \mathcal{B} 43'07	
evening set	4550 Aug 24 07:33	15° \cap 44'57					
min. Earth dist.	4550 Aug 28 23:00	13° \cap 06'10	0.57911 AU				
inferior conj	4550 Sep 01 01:27	10° \cap 57'21	-5°-11'-16				

min. Earth dist.	4551 Aug 10 10:34	23°042'47	0.56164 AU		4552 Jun 08 01:02	0°☿	
inferior conj	4551 Aug 12 18:35	22°017'31	-5°-5'-22		4552 Jun 26 16:24	0°0	
minimum elong	4551 Aug 12 14:39	22°023'33	5°05'01	evening max el	4552 Jun 27 14:42	0°056'08	22°16'42
morning rise	4551 Aug 21 03:23	18°020'44		desc. node	4552 Jul 07 03:33	6°054'49	
direct	4551 Aug 23 21:58	18°001'05		retrograde	4552 Jul 10 13:13	7°021'38	
morning max el	4551 Sep 02 23:11	22°041'27	19°56'33	evening set	4552 Jul 13 13:23	7°001'38	
	4551 Sep 09 01:28	0°☿		min. Earth dist.	4552 Jul 21 20:56	3°025'37	0.55053 AU
asc. node	4551 Sep 10 13:00	2°☿14'01		inferior conj	4552 Jul 22 18:28	2°055'14	-4°-9'-49
morning set	4551 Sep 20 22:02	21°☿24'09		minimum elong	4552 Jul 22 10:00	3°007'12	4°07'48
	4551 Sep 25 03:12	0°☿			4552 Jul 28 12:29	30°☿☿	
				morning rise	4552 Jul 31 08:39	29°☿05'24	
superior conj	4551 Sep 28 17:30	7°☿15'54	1°42'01	direct	4552 Aug 03 12:19	28°☿43'05	
minimum elong	4551 Sep 28 18:39	7°☿21'36	1°41'59		4552 Aug 09 04:25	0°0	
max. Earth dist.	4551 Oct 04 10:35	18°☿22'07	1.37049 AU	morning max el	4552 Aug 15 04:32	4°009'52	21°20'09
evening rise	4551 Oct 08 06:34	25°☿26'21		asc. node	4552 Aug 27 10:02	20°052'02	
	4551 Oct 10 20:11	0°☿			4552 Sep 01 06:04	0°☿	
desc. node	4551 Oct 17 05:49	10°☿46'35		morning set	4552 Sep 04 06:31	6°☿09'05	
	4551 Oct 30 01:47	0°☿					
evening max el	4551 Nov 12 23:03	16°☿41'28	25°37'48	superior conj	4552 Sep 11 15:15	21°☿34'40	1°43'40
retrograde	4551 Nov 25 05:24	23°☿43'22		minimum elong	4552 Sep 11 14:54	21°☿32'49	1°43'40
evening set	4551 Dec 01 04:19	21°☿15'51			4552 Sep 15 18:22	0°☿	
min. Earth dist.	4551 Dec 05 13:42	16°☿28'35	0.67103 AU	max. Earth dist.	4552 Sep 15 21:01	0°☿13'11	1.35233 AU
inferior conj	4551 Dec 06 20:16	14°☿51'05	0°-13'-36	evening rise	4552 Sep 20 03:36	8°☿32'08	
minimum elong	4551 Dec 06 20:37	14°☿49'58	0°13'28		4552 Oct 02 10:48	0°☿	
transit middle	4551 Dec 06 20:37	14°☿49'58	0°13'28	desc. node	4552 Oct 03 02:51	1°☿03'58	
transit begin	4551 Dec 06 19:04	14°☿54'55			4552 Oct 25 02:38	0°☿	
transit end	4551 Dec 06 22:10	14°☿45'01		evening max el	4552 Oct 25 11:36	0°☿21'46	26°37'23
asc. node	4551 Dec 07 12:12	14°☿00'30		retrograde	4552 Nov 07 10:58	7°☿36'44	
morning rise	4551 Dec 12 13:48	8°☿55'11		evening set	4552 Nov 13 22:53	4°☿59'38	
direct	4551 Dec 15 20:04	7°☿54'01		min. Earth dist.	4552 Nov 18 01:19	0°☿48'08	0.66102 AU
morning max el	4551 Dec 22 20:07	11°☿47'41	19°10'46		4552 Nov 18 17:35	30°☿☿	
greatest brilliancy	4552 Jan 02 03:38	25°☿13'39	-0.7m	inferior conj	4552 Nov 19 19:20	28°☿42'55	-1°-13'-3
	4552 Jan 05 08:00	0°☿		minimum elong	4552 Nov 19 21:22	28°☿36'53	1°12'13
desc. node	4552 Jan 13 05:03	12°☿07'18		asc. node	4552 Nov 23 09:14	24°☿48'16	
morning set	4552 Jan 15 01:40	15°☿00'25		morning rise	4552 Nov 25 21:19	22°☿57'49	
	4552 Jan 24 16:34	0°☿		direct	4552 Nov 28 17:51	22°☿12'12	
max. Earth dist.	4552 Jan 29 00:32	6°☿48'06	1.44903 AU	morning max el	4552 Dec 05 08:13	25°☿47'38	18°26'43
					4552 Dec 08 22:57	0°☿	
superior conj	4552 Jan 31 20:04	11°☿14'51	-1°-47'-24	morning set	4552 Dec 25 04:27	24°☿51'53	
minimum elong	4552 Jan 31 11:36	10°☿41'18	1°46'45		4552 Dec 28 09:33	0°☿	
	4552 Feb 12 11:35	0°☿		desc. node	4552 Dec 30 02:06	2°☿41'27	
evening rise	4552 Feb 15 12:09	4°☿57'57					
	4552 Mar 02 07:37	0°☿		superior conj	4553 Jan 09 22:59	19°☿50'48	-1°-10'-15
asc. node	4552 Mar 04 11:31	2°☿45'05		minimum elong	4553 Jan 09 14:38	19°☿18'04	1°09'16
evening max el	4552 Mar 06 04:16	4°☿37'12	18°28'18	max. Earth dist.	4553 Jan 10 18:53	21°☿08'52	1.45297 AU
retrograde	4552 Mar 12 16:28	8°☿10'23			4553 Jan 16 10:26	0°☿	
evening set	4552 Mar 15 17:20	7°☿19'09		evening rise	4553 Jan 25 23:55	15°☿02'27	
inferior conj	4552 Mar 21 14:14	1°☿46'37	3°34'55		4553 Feb 04 11:49	0°☿	
minimum elong	4552 Mar 21 14:03	1°☿47'07	3°34'54	greatest brilliancy	4553 Feb 07 04:46	4°☿10'30	-0.7m
	4552 Mar 23 02:22	30°☿☿		evening max el	4553 Feb 17 13:57	18°☿07'23	19°05'05
min. Earth dist.	4552 Mar 23 18:24	29°☿13'35	0.64505 AU	asc. node	4553 Feb 19 08:31	19°☿45'59	
morning rise	4552 Mar 27 09:14	25°☿34'32		retrograde	4553 Feb 24 11:49	22°☿02'02	
direct	4552 Apr 03 03:20	22°☿46'59		evening set	4553 Feb 27 19:28	20°☿58'01	
desc. node	4552 Apr 10 04:16	25°☿13'18		inferior conj	4553 Mar 05 10:10	15°☿08'52	3°26'34
	4552 Apr 16 00:13	0°☿		minimum elong	4553 Mar 05 08:44	15°☿13'26	3°26'25
morning max el	4552 Apr 16 17:18	0°☿42'18	27°23'31	min. Earth dist.	4553 Mar 06 22:54	13°☿12'14	0.66013 AU
	4552 May 08 08:58	0°☿		morning rise	4553 Mar 10 21:01	8°☿53'30	
morning set	4552 May 21 23:06	24°☿20'27		direct	4553 Mar 17 06:36	6°☿05'39	
	4552 May 24 19:20	0°☿		desc. node	4553 Mar 28 01:18	11°☿43'22	
max. Earth dist.	4552 May 26 18:20	4°☿00'19	1.33431 AU	morning max el	4553 Mar 30 03:14	13°☿43'33	26°26'26
					4553 Apr 12 08:00	0°☿	
superior conj	4552 May 30 02:46	11°☿01'44	0°-13'-51		4553 May 01 01:59	0°☿	
minimum elong	4552 May 30 03:29	11°☿05'30	0°13'43	morning set	4553 May 05 03:26	7°☿27'05	
behind sun begin	4552 May 30 00:39	10°☿50'27		max. Earth dist.	4553 May 09 06:26	15°☿23'15	1.34815 AU
behind sun end	4552 May 30 06:19	11°☿20'33					
asc. node	4552 May 31 10:49	13°☿52'17		superior conj	4553 May 14 00:58	24°☿59'51	0°-43'-10
evening rise	4552 Jun 06 08:38	26°☿29'10		minimum elong	4553 May 14 03:18	25°☿11'50	0°42'43

	4553 May 16 10:58	0°♊		minimum elong	4554 Apr 27 17:38	8°♊45'06	1°11'41
asc. node	4553 May 18 07:51	3°♊54'16		asc. node	4554 May 05 04:53	23°♊46'43	
evening rise	4553 May 21 17:29	10°♊59'40		evening rise	4554 May 05 21:36	25°♊11'02	
	4553 May 31 17:49	0°♊			4554 May 08 07:31	0°♊	
evening max el	4553 Jun 09 14:17	11°♊42'22	20°48'48	evening max el	4554 May 23 02:09	23°♊08'05	19°38'09
retrograde	4553 Jun 21 01:45	17°♊19'44		retrograde	4554 Jun 01 19:45	27°♊52'46	
evening set	4553 Jun 23 04:39	17°♊09'00		evening set	4554 Jun 03 18:22	27°♊42'16	
desc. node	4553 Jun 24 00:33	16°♊59'12		desc. node	4554 Jun 10 21:34	24°♊39'12	
inferior conj	4553 Jul 02 11:40	13°♊12'03	-2°-28'-18	inferior conj	4554 Jun 12 12:41	23°♊38'41	0°-29'-2
minimum elong	4553 Jul 02 04:51	13°♊21'44	2°25'58	minimum elong	4554 Jun 12 11:23	23°♊40'45	0°28'34
min. Earth dist.	4553 Jul 03 08:22	12°♊42'34	0.54849 AU	min. Earth dist.	4554 Jun 14 21:36	22°♊09'32	0.55604 AU
morning rise	4553 Jul 11 04:15	9°♊09'44		morning rise	4554 Jun 21 01:00	19°♊06'47	
direct	4553 Jul 14 21:38	8°♊39'53		direct	4554 Jun 25 14:17	18°♊20'37	
morning max el	4553 Jul 27 23:33	14°♊56'38	22°59'09	morning max el	4554 Jul 09 13:27	25°♊19'50	24°42'33
	4553 Aug 08 15:40	0°♊			4554 Jul 13 22:17	0°♊	
asc. node	4553 Aug 14 07:06	10°♊01'54		asc. node	4554 Aug 01 04:10	29°♊35'12	
morning set	4553 Aug 19 17:31	21°♊00'48			4554 Aug 01 09:03	0°♊	
	4553 Aug 23 22:28	0°♊		morning set	4554 Aug 04 05:19	5°♊54'20	
superior conj	4553 Aug 26 19:55	6°♊13'03	1°38'38	superior conj	4554 Aug 11 04:57	21°♊03'15	1°27'55
minimum elong	4553 Aug 26 18:26	6°♊05'09	1°38'32	minimum elong	4554 Aug 11 02:49	20°♊51'35	1°27'40
max. Earth dist.	4553 Aug 29 16:15	12°♊14'49	1.33794 AU	max. Earth dist.	4554 Aug 12 20:04	24°♊35'49	1.32771 AU
evening rise	4553 Sep 03 14:33	22°♊17'16			4554 Aug 15 08:32	0°♊	
	4553 Sep 07 14:55	0°♊		evening rise	4554 Aug 18 11:39	6°♊31'07	
desc. node	4553 Sep 19 23:53	20°♊59'42			4554 Aug 31 04:02	0°♊	
	4553 Sep 26 05:07	0°♊		desc. node	4554 Sep 06 20:55	10°♊24'48	
evening max el	4553 Oct 08 00:06	13°♊50'35	27°15'55	evening max el	4554 Sep 20 10:46	26°♊55'24	27°26'42
retrograde	4553 Oct 21 10:38	21°♊08'43			4554 Sep 24 00:57	0°♊	
evening set	4553 Oct 28 09:05	18°♊29'05		retrograde	4554 Oct 04 03:46	4°♊11'01	
min. Earth dist.	4553 Nov 01 05:18	14°♊52'56	0.64753 AU	evening set	4554 Oct 11 07:56	1°♊38'23	
inferior conj	4553 Nov 03 11:16	12°♊25'41	-2°-15'-10		4554 Oct 13 09:53	30°♊	
minimum elong	4553 Nov 03 15:08	12°♊15'06	2°13'40	min. Earth dist.	4554 Oct 14 23:36	28°♊34'13	0.63078 AU
morning rise	4553 Nov 09 23:17	6°♊54'27		inferior conj	4554 Oct 17 17:24	25°♊53'08	-3°-17'-4
asc. node	4553 Nov 10 06:17	6°♊47'11		minimum elong	4554 Oct 17 22:53	25°♊39'40	3°15'15
direct	4553 Nov 12 12:30	6°♊20'25		morning rise	4554 Oct 24 16:30	20°♊39'20	
morning max el	4553 Nov 19 00:02	9°♊46'52	17°59'31	direct	4554 Oct 27 01:06	20°♊13'12	
	4553 Dec 02 19:58	0°♊		asc. node	4554 Oct 28 03:21	20°♊18'57	
morning set	4553 Dec 06 12:44	6°♊11'02		morning max el	4554 Nov 02 16:44	23°♊39'04	17°49'54
desc. node	4553 Dec 16 23:08	23°♊23'28			4554 Nov 07 18:09	0°♊	
superior conj	4553 Dec 20 09:09	28°♊53'24	0°-23'-29	morning set	4554 Nov 18 21:34	18°♊41'21	
minimum elong	4553 Dec 20 06:17	28°♊41'58	0°23'04		4554 Nov 25 09:29	0°♊	
	4553 Dec 21 01:49	0°♊		superior conj	4554 Nov 30 18:21	9°♊05'11	0°21'27
max. Earth dist.	4553 Dec 24 14:08	5°♊34'26	1.44952 AU	minimum elong	4554 Nov 30 20:28	9°♊14'03	0°21'08
evening rise	4554 Jan 05 16:35	24°♊25'00		desc. node	4554 Dec 03 20:11	14°♊10'05	
	4554 Jan 09 07:46	0°♊		max. Earth dist.	4554 Dec 07 07:34	19°♊48'10	1.43909 AU
greatest brilliancy	4554 Jan 24 21:34	23°♊09'22	-0.6m		4554 Dec 13 18:16	0°♊	
	4554 Jan 30 06:17	0°♊		evening rise	4554 Dec 16 02:30	3°♊38'05	
evening max el	4554 Jan 31 19:11	1°♊40'01	19°57'49		4555 Jan 02 19:32	0°♊	
asc. node	4554 Feb 06 05:34	5°♊40'10		greatest brilliancy	4555 Jan 09 12:54	9°♊07'08	-0.4m
retrograde	4554 Feb 08 09:36	6°♊05'23		evening max el	4555 Jan 14 18:59	15°♊14'02	21°03'49
evening set	4554 Feb 12 01:19	4°♊47'26		retrograde	4555 Jan 23 07:38	20°♊16'52	
	4554 Feb 16 13:28	30°♊		asc. node	4555 Jan 24 02:36	20°♊13'29	
inferior conj	4554 Feb 17 12:22	28°♊43'53	3°05'54	evening set	4555 Jan 27 08:57	18°♊43'55	
minimum elong	4554 Feb 17 10:10	28°♊51'14	3°05'28	inferior conj	4555 Feb 01 18:25	12°♊28'40	2°35'23
min. Earth dist.	4554 Feb 18 10:42	27°♊29'05	0.67105 AU	minimum elong	4555 Feb 01 15:57	12°♊37'07	2°34'42
morning rise	4554 Feb 22 18:24	22°♊27'47		min. Earth dist.	4555 Feb 02 03:45	11°♊56'25	0.67778 AU
direct	4554 Feb 28 15:29	19°♊51'07		morning rise	4555 Feb 06 22:36	6°♊13'36	
morning max el	4554 Mar 12 12:07	26°♊56'19	25°08'53	direct	4555 Feb 12 05:10	3°♊55'40	
desc. node	4554 Mar 14 22:20	29°♊31'09		morning max el	4555 Feb 22 20:51	10°♊16'13	23°41'05
	4554 Mar 15 08:38	0°♊		desc. node	4555 Mar 01 19:23	18°♊14'49	
	4554 Apr 05 23:10	0°♊			4555 Mar 10 11:52	0°♊	
morning set	4554 Apr 17 15:09	19°♊41'21			4555 Mar 29 17:08	0°♊	
max. Earth dist.	4554 Apr 21 07:41	26°♊25'46	1.36636 AU	morning set	4555 Mar 30 04:27	0°♊48'03	
	4554 Apr 23 05:15	0°♊		max. Earth dist.	4555 Apr 03 03:24	7°♊39'18	1.38758 AU
superior conj	4554 Apr 27 13:43	8°♊25'49	-1°-12'-18	superior conj	4555 Apr 10 13:21	21°♊10'18	-1°-38'-48

minimum elong	4555 Apr 10 18:12	21° Υ 33'08	1°38'15	max. Earth dist.	4556 Mar 15 00:40	19° Υ 34'01	1.40930 AU
	4555 Apr 15 04:13	0° Υ			4556 Mar 21 02:06	0° Υ	
evening rise	4555 Apr 19 18:20	8° Υ 56'13					
asc. node	4555 Apr 22 01:55	13° Υ 25'09		superior conj	4556 Mar 22 19:15	3° Υ 02'19	-1°-59'-5
	4555 May 01 16:42	0° Π		minimum elong	4556 Mar 22 23:23	3° Υ 20'45	1°58'50
evening max el	4555 May 06 01:08	5° Π 14'06	18°47'34	evening rise	4556 Apr 02 04:20	22° Υ 06'54	
retrograde	4555 May 14 06:19	9° Π 15'56			4556 Apr 06 10:29	0° Υ	
evening set	4555 May 16 09:10	9° Π 00'50		asc. node	4556 Apr 07 22:56	2° Υ 44'19	
inferior conj	4555 May 24 08:20	4° Π 40'02	1°15'31	evening max el	4556 Apr 18 08:06	17° Υ 53'40	18°17'17
minimum elong	4555 May 24 11:02	4° Π 35'06	1°14'37	retrograde	4556 Apr 25 11:52	21° Υ 28'04	
min. Earth dist.	4555 May 27 14:02	2° Π 18'55	0.57157 AU	evening set	4556 Apr 27 21:04	21° Υ 05'08	
desc. node	4555 May 28 18:36	1° Π 30'40		inferior conj	4556 May 05 01:36	16° Υ 23'49	2°29'47
	4555 May 31 08:47	30° Υ		minimum elong	4556 May 05 05:09	16° Υ 16'11	2°28'52
morning rise	4555 Jun 01 08:25	29° Υ 32'07		min. Earth dist.	4556 May 08 11:50	13° Υ 29'04	0.59203 AU
direct	4555 Jun 06 20:22	28° Υ 18'37		morning rise	4556 May 12 09:06	10° Υ 45'58	
	4555 Jun 13 09:50	0° Π		desc. node	4556 May 14 15:37	9° Υ 42'17	
morning max el	4555 Jun 21 04:45	5° Π 48'13	26°14'41	direct	4556 May 18 16:21	8° Υ 57'53	
	4555 Jul 08 22:26	0° Υ		morning max el	4556 Jun 02 01:38	16° Υ 46'41	27°20'29
asc. node	4555 Jul 19 01:12	19° Υ 24'58			4556 Jun 12 22:52	0° Π	
morning set	4555 Jul 19 16:16	20° Υ 44'15			4556 Jun 30 09:20	0° Υ	
	4555 Jul 23 23:13	0° Ω		morning set	4556 Jul 03 00:44	5° Υ 25'14	
				asc. node	4556 Jul 04 22:14	9° Υ 25'46	
superior conj	4555 Jul 26 16:15	5° Ω 58'10	1°12'20	max. Earth dist.	4556 Jul 09 17:03	19° Υ 51'23	1.31971 AU
minimum elong	4555 Jul 26 13:56	5° Ω 45'23	1°11'58				
max. Earth dist.	4555 Jul 27 05:32	7° Ω 11'22	1.32165 AU	superior conj	4556 Jul 10 04:03	20° Υ 52'05	0°52'30
evening rise	4555 Aug 02 15:49	21° Ω 04'12		minimum elong	4556 Jul 10 02:01	20° Υ 40'53	0°52'07
	4555 Aug 07 01:38	0° Π			4556 Jul 14 07:41	0° Ω	
desc. node	4555 Aug 24 17:56	29° Π 06'11		evening rise	4556 Jul 17 00:33	5° Ω 48'58	
	4555 Aug 25 10:17	0° Ω			4556 Jul 29 17:36	0° Π	
evening max el	4555 Sep 02 16:44	9° Ω 21'39	27°05'00	desc. node	4556 Aug 10 14:55	16° Π 46'03	
retrograde	4555 Sep 16 13:33	16° Ω 33'40		evening max el	4556 Aug 14 15:44	21° Π 00'40	26°10'15
evening set	4555 Sep 23 15:23	14° Ω 20'02		retrograde	4556 Aug 28 15:01	28° Π 09'19	
min. Earth dist.	4555 Sep 27 07:04	11° Ω 38'43	0.61134 AU	evening set	4556 Sep 04 02:37	26° Π 27'01	
inferior conj	4555 Sep 30 10:23	8° Ω 56'10	-4°-13'-55	min. Earth dist.	4556 Sep 08 04:37	23° Π 52'40	0.59065 AU
minimum elong	4555 Sep 30 16:30	8° Ω 42'55	4°12'26	inferior conj	4556 Sep 11 10:45	21° Π 25'49	-4°-57'-20
morning rise	4555 Oct 07 20:49	4° Ω 03'20		minimum elong	4556 Sep 11 15:17	21° Π 17'16	4°56'45
direct	4555 Oct 10 03:49	3° Ω 42'02		morning rise	4556 Sep 19 07:29	16° Π 56'07	
asc. node	4555 Oct 15 00:25	5° Ω 21'56		direct	4556 Sep 21 16:17	16° Π 37'05	
morning max el	4555 Oct 17 07:05	7° Ω 15'39	17°58'48	morning max el	4556 Sep 29 15:49	20° Π 28'03	18°27'34
	4555 Oct 31 21:48	0° Π		asc. node	4556 Sep 30 21:27	21° Π 44'12	
morning set	4555 Nov 02 00:22	2° Π 02'11			4556 Oct 06 21:05	0° Ω	
				morning set	4556 Oct 15 15:53	15° Ω 58'59	
superior conj	4555 Nov 12 06:03	20° Π 34'07	0°57'28		4556 Oct 22 23:54	0° Π	
minimum elong	4555 Nov 12 10:04	20° Π 51'43	0°56'57				
	4555 Nov 17 17:45	0° Υ		superior conj	4556 Oct 24 16:32	3° Π 09'22	1°22'37
max. Earth dist.	4555 Nov 19 20:10	3° Υ 30'23	1.42293 AU	minimum elong	4556 Oct 24 20:05	3° Π 25'51	1°22'16
desc. node	4555 Nov 20 17:13	4° Υ 57'17		max. Earth dist.	4556 Nov 01 03:10	16° Π 29'14	1.40312 AU
evening rise	4555 Nov 25 21:26	13° Υ 19'02		evening rise	4556 Nov 05 12:42	23° Π 56'18	
	4555 Dec 06 18:29	0° Υ		desc. node	4556 Nov 06 14:14	25° Π 41'45	
greatest brilliancy	4555 Dec 23 19:13	23° Υ 28'02	-0.3m		4556 Nov 09 05:48	0° Υ	
evening max el	4555 Dec 28 13:24	28° Υ 48'53	22°19'24		4556 Nov 29 15:50	0° Υ	
	4555 Dec 29 18:32	0° \approx		evening max el	4556 Dec 10 03:54	12° Υ 26'40	23°39'21
retrograde	4556 Jan 07 04:08	4° \approx 32'04		retrograde	4556 Dec 20 21:39	18° Υ 47'13	
asc. node	4556 Jan 10 23:38	3° \approx 15'15		evening set	4556 Dec 25 22:48	16° Υ 42'36	
evening set	4556 Jan 11 16:39	2° \approx 43'21		asc. node	4556 Dec 27 20:40	14° Υ 49'19	
	4556 Jan 14 08:05	30° Υ		inferior conj	4556 Dec 31 09:52	10° Υ 15'01	1°10'44
inferior conj	4556 Jan 17 02:11	26° Υ 19'52	1°56'36	minimum elong	4556 Dec 31 08:19	10° Υ 20'22	1°10'06
minimum elong	4556 Jan 16 23:57	26° Υ 27'37	1°55'50	min. Earth dist.	4556 Dec 30 20:33	11° Υ 00'31	0.67955 AU
min. Earth dist.	4556 Jan 16 23:49	26° Υ 28'06	0.68051 AU	morning rise	4557 Jan 05 17:59	4° Υ 07'02	
morning rise	4556 Jan 22 07:09	20° Υ 07'25		direct	4557 Jan 09 19:31	2° Υ 34'11	
direct	4556 Jan 26 22:49	18° Υ 11'50		morning max el	4557 Jan 18 01:39	7° Υ 19'45	20°51'49
morning max el	4556 Feb 05 08:15	23° Υ 43'07	22°12'48	greatest brilliancy	4557 Jan 23 16:30	13° Υ 49'49	-0.5m
greatest brilliancy	4556 Feb 09 22:13	28° Υ 50'21	-0.3m	desc. node	4557 Feb 02 13:27	27° Υ 30'25	
	4556 Feb 10 20:55	0° \approx			4557 Feb 04 06:16	0° \approx	
desc. node	4556 Feb 16 16:25	7° \approx 38'18		morning set	4557 Feb 16 20:36	19° \approx 07'55	
	4556 Mar 02 21:37	0° Υ			4557 Feb 23 17:06	0° Υ	
morning set	4556 Mar 09 13:58	10° Υ 34'48		max. Earth dist.	4557 Feb 25 04:21	2° Υ 22'38	1.42877 AU

superior conj	4557 Mar 04 02:24	13° K 50'16	-2°-8'-13	morning set	4558 Jan 26 16:44	27° Z 19'15	
minimum elong	4557 Mar 04 02:54	13° K 52'24	2°08'14		4558 Jan 28 10:20	0° \approx	
	4557 Mar 13 10:04	0° Y		max. Earth dist.	4558 Feb 07 15:47	16° \approx 01'21	1.44347 AU
evening rise	4557 Mar 15 23:27	4° Y 32'57					
asc. node	4557 Mar 25 19:58	21° Y 36'57		superior conj	4558 Feb 12 07:51	23° \approx 29'50	-2°00'-43
	4557 Mar 31 21:47	0° Z		minimum elong	4558 Feb 12 02:15	23° \approx 07'15	2°00'28
evening max el	4557 Apr 01 19:36	0° Z 56'53	18°06'42		4558 Feb 16 07:47	0° K	
retrograde	4557 Apr 08 09:20	4° Z 19'35		evening rise	4558 Feb 25 23:16	16° K 06'24	
evening set	4557 Apr 11 00:49	3° Z 46'34			4558 Mar 06 05:12	0° Y	
	4557 Apr 16 06:54	30° R Y		asc. node	4558 Mar 12 16:59	9° Y 55'02	
inferior conj	4557 Apr 17 14:04	28° Y 44'30	3°13'38	evening max el	4558 Mar 16 08:29	14° Y 15'47	18°15'10
minimum elong	4557 Apr 17 16:30	28° Y 38'27	3°13'14	retrograde	4558 Mar 22 18:30	17° Y 41'08	
min. Earth dist.	4557 Apr 20 16:55	25° Y 41'03	0.61404 AU	evening set	4558 Mar 25 15:59	16° Y 56'43	
morning rise	4557 Apr 24 05:09	22° Y 47'19		inferior conj	4558 Mar 31 17:48	11° Y 34'50	3°32'43
direct	4557 Apr 30 23:39	20° Y 27'10		minimum elong	4558 Mar 31 18:33	11° Y 32'45	3°32'40
desc. node	4557 May 01 12:38	20° Y 28'02		min. Earth dist.	4558 Apr 03 06:53	8° Y 45'54	0.63465 AU
morning max el	4557 May 15 04:39	28° Y 25'23	27°50'42	morning rise	4558 Apr 06 19:10	5° Y 26'47	
	4557 May 16 17:26	0° Z		direct	4558 Apr 13 15:47	2° Y 45'23	
	4557 Jun 06 18:17	0° II		desc. node	4558 Apr 18 09:40	3° Y 52'06	
morning set	4557 Jun 17 04:45	19° II 49'58		morning max el	4558 Apr 27 12:21	10° Y 43'53	27°43'22
asc. node	4557 Jun 21 19:15	29° II 32'01			4558 May 12 15:54	0° Z	
	4557 Jun 22 00:26	0° Z			4558 May 30 03:01	0° II	
max. Earth dist.	4557 Jun 23 02:45	2° Z 22'34	1.32194 AU	morning set	4558 Jun 01 02:03	3° II 51'38	
				max. Earth dist.	4558 Jun 06 06:50	14° II 33'31	1.32855 AU
superior conj	4557 Jun 24 14:33	5° Z 37'59	0°29'00				
minimum elong	4557 Jun 24 13:16	5° Z 30'57	0°28'43	superior conj	4558 Jun 08 21:58	20° II 10'23	0°02'29
evening rise	4557 Jul 01 11:45	20° Z 37'35		minimum elong	4558 Jun 08 21:51	20° II 09'45	0°02'27
	4557 Jul 06 00:50	0° Z		behind sun begin	4558 Jun 08 16:36	19° II 41'29	
	4557 Jul 25 10:46	0° Y		behind sun end	4558 Jun 09 03:06	20° II 38'03	
evening max el	4557 Jul 27 07:37	1° Y 53'27	24°48'20	asc. node	4558 Jun 08 16:16	19° II 39'46	
desc. node	4557 Jul 28 11:55	2° Y 58'52			4558 Jun 13 11:01	0° Z	
retrograde	4557 Aug 10 05:43	8° Y 55'20		evening rise	4558 Jun 15 23:34	5° Z 24'12	
evening set	4557 Aug 15 13:36	7° Y 51'12			4558 Jun 29 03:09	0° Z	
min. Earth dist.	4557 Aug 20 19:02	5° Y 04'53	0.57112 AU	evening max el	4558 Jul 08 20:28	12° Z 18'30	23°12'07
inferior conj	4557 Aug 23 15:32	3° Y 12'51	-5°-14'-10	desc. node	4558 Jul 15 08:56	17° Z 12'29	
minimum elong	4557 Aug 23 15:17	3° Y 13'16	5°14'11	retrograde	4558 Jul 22 07:32	19° Z 02'08	
	4557 Aug 29 04:59	30° R Z		evening set	4558 Jul 26 03:20	18° Z 30'12	
morning rise	4557 Aug 31 20:28	29° Z 05'17		min. Earth dist.	4558 Aug 02 05:45	15° Z 16'19	0.55604 AU
direct	4557 Sep 03 10:35	28° Z 46'22		inferior conj	4558 Aug 04 00:34	14° Z 13'49	-4°-48'-13
	4557 Sep 08 08:53	0° Y		minimum elong	4558 Aug 03 18:08	14° Z 23'14	4°47'13
morning max el	4557 Sep 12 15:30	3° Y 05'44	19°17'43	morning rise	4558 Aug 12 11:49	10° Z 21'44	
asc. node	4557 Sep 17 18:29	9° Y 10'03		direct	4558 Aug 15 10:10	10° Z 01'06	
morning set	4557 Sep 29 16:13	0° Z 20'49		morning max el	4558 Aug 26 03:38	15° Z 00'12	20°29'41
	4557 Sep 29 12:02	0° Z		asc. node	4558 Sep 04 15:31	27° Z 25'27	
					4558 Sep 06 03:47	0° Y	
superior conj	4557 Oct 07 20:21	16° Z 35'22	1°37'31	morning set	4558 Sep 13 22:25	14° Y 59'37	
minimum elong	4557 Oct 07 22:26	16° Z 45'32	1°37'24		4558 Sep 21 05:10	0° Z	
max. Earth dist.	4557 Oct 14 07:37	28° Z 48'11	1.38214 AU				
	4557 Oct 14 23:25	0° Y		superior conj	4558 Sep 21 12:41	0° Z 38'18	1°43'37
evening rise	4557 Oct 18 03:12	5° Y 37'24		minimum elong	4558 Sep 21 13:10	0° Z 40'41	1°43'36
desc. node	4557 Oct 24 11:15	16° Y 19'43		max. Earth dist.	4558 Sep 26 14:47	10° Z 44'24	1.36242 AU
	4557 Nov 02 05:55	0° Z		evening rise	4558 Sep 30 14:20	18° Z 15'33	
evening max el	4557 Nov 22 16:41	26° Z 08'51	24°57'08		4558 Oct 07 05:44	0° Y	
	4557 Nov 27 03:23	0° Z		desc. node	4558 Oct 11 08:15	6° Y 46'24	
retrograde	4557 Dec 04 11:02	2° Z 58'24			4558 Oct 27 11:24	0° Z	
evening set	4557 Dec 10 01:52	0° Z 38'49		evening max el	4558 Nov 05 05:17	9° Z 52'07	26°05'23
	4557 Dec 10 19:11	30° R Z		retrograde	4558 Nov 17 19:24	17° Z 00'07	
min. Earth dist.	4557 Dec 14 15:37	25° Z 31'02	0.67509 AU	evening set	4558 Nov 24 00:04	14° Z 28'05	
asc. node	4557 Dec 14 17:42	25° Z 24'11		min. Earth dist.	4558 Nov 28 06:32	9° Z 55'57	0.66719 AU
inferior conj	4557 Dec 15 15:43	24° Z 11'44	0°18'43	inferior conj	4558 Nov 29 17:50	8° Z 06'23	0°-38'-24
minimum elong	4557 Dec 15 15:15	24° Z 13'16	0°18'31	minimum elong	4558 Nov 29 18:51	8° Z 03'12	0°37'57
morning rise	4557 Dec 21 05:12	18° Z 10'32		asc. node	4558 Dec 01 14:45	5° Z 50'42	
direct	4557 Dec 24 18:02	16° Z 58'33		morning rise	4558 Dec 05 14:43	2° Z 14'37	
morning max el	4558 Jan 01 02:54	21° Z 07'51	19°43'22	direct	4558 Dec 08 16:41	1° Z 20'23	
	4558 Jan 08 09:11	0° Z		morning max el	4558 Dec 15 11:35	5° Z 04'44	18°50'02
greatest brilliancy	4558 Jan 08 21:24	0° Z 42'14	-0.6m		4559 Jan 02 02:15	0° Z	
desc. node	4558 Jan 20 10:29	17° Z 43'27		morning set	4559 Jan 06 03:37	6° Z 21'42	

desc. node	4559 Jan 07 07:30	8°☾11'06		morning set	4559 Dec 17 19:10	16°☾51'40	
	4559 Jan 21 05:29	0°☾		desc. node	4559 Dec 25 04:34	28°☾49'13	
max. Earth dist.	4559 Jan 21 08:56	0°☾13'36	1.45163 AU		4559 Dec 25 22:14	0°☾	
superior conj	4559 Jan 22 15:58	2°☾15'31	-1°-33'-33	superior conj	4560 Jan 01 19:21	10°☾55'26	0°-50'-51
minimum elong	4559 Jan 22 06:38	1°☾38'48	1°32'38	minimum elong	4560 Jan 01 13:02	10°☾30'30	0°50'01
evening rise	4559 Feb 07 00:18	26°☾42'12		max. Earth dist.	4560 Jan 04 04:25	14°☾39'52	1.45243 AU
	4559 Feb 09 01:15	0°☾			4560 Jan 13 23:54	0°☾	
asc. node	4559 Feb 27 14:02	27°☾27'28		evening rise	4560 Jan 18 02:59	6°☾26'05	
evening max el	4559 Feb 27 19:58	27°☾42'43	18°41'53		4560 Feb 02 11:30	0°☾	
	4559 Mar 02 12:15	0°☾		greatest brilliancy	4560 Feb 02 16:52	0°☾19'34	-0.7m
retrograde	4559 Mar 06 11:11	1°☾23'32		evening max el	4560 Feb 11 03:50	11°☾13'26	19°25'40
evening set	4559 Mar 09 14:56	0°☾26'47		asc. node	4560 Feb 14 11:04	14°☾01'29	
	4559 Mar 10 07:20	30°☾		retrograde	4560 Feb 18 08:00	15°☾20'24	
inferior conj	4559 Mar 15 08:49	24°☾46'46	3°33'02	evening set	4560 Feb 21 18:54	14°☾10'30	
minimum elong	4559 Mar 15 08:03	24°☾49'06	3°33'00	inferior conj	4560 Feb 27 07:44	8°☾14'36	3°19'07
min. Earth dist.	4559 Mar 17 06:15	22°☾28'32	0.65198 AU	minimum elong	4560 Feb 27 05:55	8°☾20'33	3°18'52
morning rise	4559 Mar 20 23:56	18°☾33'07		min. Earth dist.	4560 Feb 28 14:05	6°☾35'39	0.66526 AU
direct	4559 Mar 27 15:01	15°☾44'08		morning rise	4560 Mar 03 16:09	1°☾58'34	
desc. node	4559 Apr 05 06:42	19°☾23'46			4560 Mar 06 13:16	30°☾	
morning max el	4559 Apr 09 22:16	23°☾32'56	27°02'26	direct	4560 Mar 09 20:36	29°☾14'35	
	4559 Apr 15 16:23	0°☾			4560 Mar 13 10:01	0°☾	
	4559 May 06 00:02	0°☾		desc. node	4560 Mar 22 03:45	6°☾29'45	
morning set	4559 May 15 13:40	17°☾21'24		morning max el	4560 Mar 22 08:03	6°☾40'36	25°55'27
max. Earth dist.	4559 May 20 01:47	26°☾15'43	1.33967 AU		4560 Apr 09 09:47	0°☾	
	4559 May 21 21:40	0°☾		morning set	4560 Apr 27 11:36	0°☾07'23	
					4560 Apr 27 10:00	0°☾	
superior conj	4559 May 24 00:14	4°☾22'56	0°-26'-10	max. Earth dist.	4560 May 01 09:16	7°☾28'22	1.35536 AU
minimum elong	4559 May 24 01:37	4°☾30'10	0°25'54				
asc. node	4559 May 26 13:20	9°☾45'06		superior conj	4560 May 06 18:48	18°☾07'57	0°-55'-39
evening rise	4559 May 31 10:05	20°☾02'37		minimum elong	4560 May 06 21:50	18°☾23'17	0°55'08
	4559 Jun 05 08:01	0°☾		asc. node	4560 May 12 10:22	29°☾43'24	
evening max el	4559 Jun 20 14:01	22°☾48'09	21°37'31		4560 May 12 13:35	0°☾	
desc. node	4559 Jul 02 05:56	28°☾53'44		evening rise	4560 May 14 17:14	4°☾25'45	
retrograde	4559 Jul 02 22:55	28°☾54'55			4560 May 29 08:56	0°☾	
evening set	4559 Jul 05 12:04	28°☾40'11		evening max el	4560 Jun 01 18:37	3°☾49'43	20°16'25
inferior conj	4559 Jul 14 19:59	24°☾39'28	-3°-31'-9	retrograde	4560 Jun 12 12:39	9°☾05'00	
minimum elong	4559 Jul 14 11:25	24°☾51'26	3°28'40	evening set	4560 Jun 14 11:52	8°☾55'11	
min. Earth dist.	4559 Jul 14 16:04	24°☾44'56	0.54852 AU	desc. node	4560 Jun 18 02:58	7°☾50'36	
morning rise	4559 Jul 23 11:49	20°☾47'19		inferior conj	4560 Jun 23 14:48	4°☾56'53	-1°-37'-49
direct	4559 Jul 26 20:45	20°☾22'34		minimum elong	4560 Jun 23 10:13	5°☾03'39	1°36'09
morning max el	4559 Aug 08 04:11	26°☾10'00	22°00'54	min. Earth dist.	4560 Jun 25 04:10	4°☾01'53	0.55049 AU
	4559 Aug 11 19:22	0°☾		morning rise	4560 Jul 02 06:35	0°☾43'34	
asc. node	4559 Aug 22 12:34	16°☾18'39		direct	4560 Jul 06 07:22	0°☾08'21	
morning set	4559 Aug 29 08:16	29°☾49'07		morning max el	4560 Jul 19 20:27	6°☾44'39	23°43'31
	4559 Aug 29 10:21	0°☾			4560 Aug 05 10:15	0°☾	
				asc. node	4560 Aug 08 09:37	5°☾39'27	
superior conj	4559 Sep 05 13:48	15°☾07'18	1°42'17	morning set	4560 Aug 12 19:50	14°☾42'37	
minimum elong	4559 Sep 05 12:55	15°☾02'39	1°42'15				
max. Earth dist.	4559 Sep 09 05:10	22°☾40'17	1.34574 AU	superior conj	4560 Aug 19 20:38	29°☾52'06	1°34'45
	4559 Sep 12 21:15	0°☾		minimum elong	4560 Aug 19 18:49	29°☾42'18	1°34'34
evening rise	4559 Sep 13 17:51	1°☾40'03			4560 Aug 19 22:06	0°☾	
desc. node	4559 Sep 28 05:18	26°☾56'08		max. Earth dist.	4560 Aug 22 04:11	4°☾49'47	1.33305 AU
	4559 Sep 30 05:01	0°☾		evening rise	4560 Aug 27 09:33	15°☾38'42	
evening max el	4559 Oct 18 17:59	23°☾29'17	26°56'39		4560 Sep 03 23:01	0°☾	
	4559 Oct 28 01:01	0°☾		desc. node	4560 Sep 14 02:19	16°☾40'19	
retrograde	4559 Oct 31 22:24	0°☾46'05			4560 Sep 23 22:24	0°☾	
	4559 Nov 04 13:57	30°☾		evening max el	4560 Sep 30 05:43	6°☾48'46	27°24'04
evening set	4559 Nov 07 15:24	28°☾06'42		retrograde	4560 Oct 13 19:30	14°☾06'57	
min. Earth dist.	4559 Nov 11 15:02	24°☾10'43	0.65578 AU	evening set	4560 Oct 20 21:13	11°☾28'34	
inferior conj	4559 Nov 13 14:10	21°☾55'16	-1°-39'-12	min. Earth dist.	4560 Oct 24 15:02	8°☾06'57	0.64083 AU
minimum elong	4559 Nov 13 16:59	21°☾47'12	1°38'03	inferior conj	4560 Oct 27 02:17	5°☾32'15	-2°-41'-39
asc. node	4559 Nov 18 11:47	17°☾04'50		minimum elong	4560 Oct 27 06:54	5°☾20'10	2°39'58
morning rise	4559 Nov 19 20:17	16°☾15'53		morning rise	4560 Nov 02 18:59	0°☾08'18	
direct	4559 Nov 22 13:28	15°☾35'37			4560 Nov 03 03:49	30°☾	
morning max el	4559 Nov 29 01:40	19°☾05'45	18°13'05	asc. node	4560 Nov 04 08:50	29°☾42'03	
	4559 Dec 07 07:23	0°☾		direct	4560 Nov 05 05:47	29°☾38'10	

	4560 Nov 07 07:36	0°♄		asc. node	4561 Oct 22 05:53	13°♄53'11	
morning max el	4560 Nov 11 18:18	3°♄03'22	17°53'13	morning max el	4561 Oct 26 10:23	16°♄49'50	17°51'14
morning set	4560 Nov 28 14:40	28°♄43'16			4561 Nov 04 17:51	0°♄	
	4560 Nov 29 08:39	0°♄		morning set	4561 Nov 11 07:52	11°♄36'58	
desc. node	4560 Dec 11 01:37	19°♄33'42			4561 Nov 21 18:27	0°♄	
superior conj	4560 Dec 11 14:13	20°♄24'54	0°-3'-39	superior conj	4561 Nov 22 10:47	1°♄09'39	0°38'01
minimum elong	4560 Dec 11 13:47	20°♄23'10	0°03'37	minimum elong	4561 Nov 22 14:05	1°♄23'42	0°37'33
behind sun begin	4560 Dec 11 03:58	19°♄43'16		desc. node	4561 Nov 27 22:38	10°♄20'47	
behind sun end	4560 Dec 11 23:36	21°♄02'59		max. Earth dist.	4561 Nov 29 13:54	13°♄01'07	1.43282 AU
max. Earth dist.	4560 Dec 16 22:50	29°♄01'02	1.44586 AU	evening rise	4561 Dec 07 02:41	24°♄59'45	
	4560 Dec 17 13:42	0°♄			4561 Dec 10 08:25	0°♄	
evening rise	4560 Dec 27 14:51	15°♄39'34			4561 Dec 31 02:57	0°♄	
	4561 Jan 06 01:21	0°♄		greatest brilliancy	4562 Jan 02 07:30	2°♄47'29	-0.4m
greatest brilliancy	4561 Jan 18 04:43	17°♄28'08	-0.5m	evening max el	4562 Jan 07 04:08	8°♄20'32	21°35'11
evening max el	4561 Jan 24 06:42	24°♄46'15	20°24'28	retrograde	4562 Jan 16 03:43	13°♄40'31	
asc. node	4561 Jan 31 08:05	29°♄22'55		asc. node	4562 Jan 18 05:07	13°♄17'42	
retrograde	4561 Feb 01 06:12	29°♄27'31		evening set	4562 Jan 20 09:31	12°♄01'11	
evening set	4561 Feb 05 01:43	28°♄03'27		inferior conj	4562 Jan 25 18:51	5°♄42'09	2°19'53
inferior conj	4561 Feb 10 11:51	21°♄54'26	2°54'04	minimum elong	4562 Jan 25 16:26	5°♄50'32	2°19'08
minimum elong	4561 Feb 10 09:29	22°♄02'28	2°53'31	min. Earth dist.	4562 Jan 25 23:10	5°♄27'08	0.67941 AU
min. Earth dist.	4561 Feb 11 04:31	20°♄57'41	0.67435 AU		4562 Jan 30 09:03	30°♄	
morning rise	4561 Feb 15 16:44	15°♄38'18		morning rise	4562 Jan 30 23:02	29°♄27'50	
direct	4561 Feb 21 07:41	13°♄08'50		direct	4562 Feb 04 23:19	27°♄18'54	
morning max el	4561 Mar 04 16:44	19°♄57'06	24°32'12		4562 Feb 11 08:51	0°♄	
desc. node	4561 Mar 09 00:49	24°♄43'43		morning max el	4562 Feb 15 01:55	3°♄18'40	23°02'58
	4561 Mar 13 06:43	0°♄		greatest brilliancy	4562 Feb 19 22:32	8°♄44'28	-0.3m
	4561 Apr 02 13:47	0°♄		desc. node	4562 Feb 23 21:51	13°♄45'45	
morning set	4561 Apr 09 14:37	11°♄55'21			4562 Mar 07 10:13	0°♄	
max. Earth dist.	4561 Apr 13 06:58	18°♄29'50	1.37503 AU	morning set	4562 Mar 21 16:27	22°♄28'15	
	4561 Apr 19 10:25	0°♄		max. Earth dist.	4562 Mar 26 01:59	29°♄55'32	1.39691 AU
					4562 Mar 26 03:01	0°♄	
superior conj	4561 Apr 20 02:29	1°♄17'28	-1°-24'-3	superior conj	4562 Apr 02 19:07	13°♄40'41	-1°-48'-27
minimum elong	4561 Apr 20 06:55	1°♄38'56	1°23'26	minimum elong	4562 Apr 02 23:57	14°♄02'53	1°48'00
evening rise	4561 Apr 28 18:35	18°♄26'53			4562 Apr 11 10:35	0°♄	
asc. node	4561 Apr 29 07:25	19°♄30'33		evening rise	4562 Apr 12 11:08	1°♄57'35	
	4561 May 04 18:29	0°♄		asc. node	4562 Apr 16 04:26	9°♄01'00	
evening max el	4561 May 15 11:34	15°♄33'26	19°14'16	evening max el	4562 Apr 28 14:24	27°♄54'30	18°32'18
retrograde	4561 May 24 12:45	19°♄58'12			4562 May 01 03:31	0°♄	
evening set	4561 May 26 12:26	19°♄46'21		retrograde	4562 May 06 07:06	1°♄42'11	
inferior conj	4561 Jun 03 22:57	15°♄36'40	0°18'22	evening set	4562 May 08 12:45	1°♄24'00	
minimum elong	4561 Jun 03 23:43	15°♄35'23	0°18'05		4562 May 11 18:36	30°♄	
desc. node	4561 Jun 04 23:58	14°♄54'40		inferior conj	4562 May 16 03:42	26°♄54'51	1°50'58
min. Earth dist.	4561 Jun 06 18:58	13°♄33'33	0.56174 AU	minimum elong	4562 May 16 07:06	26°♄48'11	1°49'55
morning rise	4561 Jun 12 06:49	10°♄49'02		min. Earth dist.	4562 May 19 13:18	24°♄16'34	0.57990 AU
direct	4561 Jun 17 05:44	9°♄52'21		desc. node	4562 May 22 21:01	22°♄04'54	
morning max el	4561 Jul 01 10:18	17°♄06'58	25°23'59	morning rise	4562 May 23 20:59	21°♄33'19	
	4561 Jul 11 23:48	0°♄		direct	4562 May 29 18:14	20°♄05'11	
asc. node	4561 Jul 26 06:41	25°♄20'27		morning max el	4562 Jun 13 03:21	27°♄44'00	26°46'35
morning set	4561 Jul 28 07:27	29°♄35'08			4562 Jun 15 08:15	0°♄	
	4561 Jul 28 12:09	0°♄			4562 Jul 05 12:32	0°♄	
superior conj	4561 Aug 04 06:53	14°♄45'16	1°21'53	morning set	4562 Jul 12 17:32	14°♄21'10	
minimum elong	4561 Aug 04 04:37	14°♄32'48	1°21'35	asc. node	4562 Jul 13 03:44	15°♄15'00	
max. Earth dist.	4561 Aug 05 10:33	17°♄16'46	1.32461 AU	superior conj	4562 Jul 19 18:35	29°♄39'58	1°04'24
evening rise	4561 Aug 11 09:59	0°♄01'50		minimum elong	4562 Jul 19 16:20	29°♄27'31	1°04'02
	4561 Aug 11 09:38	0°♄			4562 Jul 19 22:13	0°♄	
	4561 Aug 28 00:32	0°♄		max. Earth dist.	4562 Jul 19 21:18	29°♄54'56	1.32031 AU
desc. node	4561 Aug 31 23:19	5°♄48'30		evening rise	4562 Jul 26 16:21	14°♄40'31	
evening max el	4561 Sep 12 14:40	19°♄38'32	27°21'32		4562 Aug 03 09:46	0°♄	
retrograde	4561 Sep 26 09:57	26°♄53'11		desc. node	4562 Aug 18 20:18	24°♄06'10	
evening set	4561 Oct 03 14:05	24°♄27'09			4562 Aug 23 23:13	0°♄	
min. Earth dist.	4561 Oct 07 04:56	21°♄33'57	0.62278 AU	evening max el	4562 Aug 25 18:12	1°♄46'29	26°45'44
inferior conj	4561 Oct 10 03:14	18°♄50'18	-3°-42'-12	retrograde	4562 Sep 08 16:20	8°♄56'25	
minimum elong	4561 Oct 10 09:10	18°♄36'26	3°40'27	evening set	4562 Sep 15 13:35	6°♄55'09	
morning rise	4561 Oct 17 07:13	13°♄44'58		min. Earth dist.	4562 Sep 19 08:12	4°♄18'47	0.60258 AU
direct	4561 Oct 19 14:35	13°♄21'22					

inferior conj	4562 Sep 22 13:40	1°♄40'55	-4°-34'-39	min. Earth dist.	4563 Sep 01 02:02	16°♊07'14	0.58201 AU
minimum elong	4562 Sep 22 19:27	1°♄29'04	4°33'30	inferior conj	4563 Sep 04 05:57	13°♊53'07	-5°-8'-44
	4562 Sep 24 16:27	30°♊		minimum elong	4563 Sep 04 08:51	13°♊47'59	5°08'31
morning rise	4562 Sep 30 04:37	26°♊57'20		morning rise	4563 Sep 12 06:26	9°♊33'15	
direct	4562 Oct 02 11:56	26°♊37'15		direct	4563 Sep 14 17:19	9°♊14'21	
asc. node	4562 Oct 09 02:57	29°♊31'44		morning max el	4563 Sep 23 03:57	13°♊15'36	18°46'16
	4562 Oct 09 15:29	0°♄		asc. node	4563 Sep 25 23:59	16°♊22'36	
morning max el	4562 Oct 09 22:43	0°♄17'13	18°08'25		4563 Oct 04 14:20	0°♄	
morning set	4562 Oct 25 16:43	25°♄15'22		morning set	4563 Oct 09 12:26	9°♄24'14	
	4562 Oct 28 05:22	0°♌					
superior conj	4562 Nov 04 08:50	13°♌08'47	1°09'27	superior conj	4563 Oct 18 03:24	26°♄07'42	1°30'06
minimum elong	4562 Nov 04 12:52	13°♌26'50	1°08'59	minimum elong	4563 Oct 18 06:23	26°♄21'52	1°29'51
max. Earth dist.	4562 Nov 12 00:25	26°♌27'26	1.41489 AU		4563 Oct 20 04:56	0°♌	
	4562 Nov 14 03:19	0°♊		max. Earth dist.	4563 Oct 25 06:23	9°♌10'30	1.39422 AU
desc. node	4562 Nov 14 19:38	1°♊07'20		evening rise	4563 Oct 29 06:47	16°♌07'57	
evening rise	4562 Nov 17 05:33	5°♊03'29		desc. node	4563 Nov 01 16:37	21°♌49'23	
	4562 Dec 03 15:01	0°♄			4563 Nov 06 19:11	0°♊	
greatest brilliancy	4562 Dec 15 13:51	16°♄01'09	-0.2m		4563 Nov 28 07:20	0°♄	
evening max el	4562 Dec 20 20:51	21°♄57'23	22°53'15	evening max el	4563 Dec 03 10:23	5°♄37'01	24°12'58
retrograde	4562 Dec 30 22:57	27°♄56'26		retrograde	4563 Dec 14 14:46	12°♄10'41	
evening set	4563 Jan 04 16:45	26°♄00'57		evening set	4563 Dec 19 21:48	9°♄59'16	
asc. node	4563 Jan 05 02:09	25°♄40'45		asc. node	4563 Dec 22 23:12	6°♄44'36	
inferior conj	4563 Jan 10 02:48	19°♄35'29	1°37'58	min. Earth dist.	4563 Dec 24 15:58	4°♄31'53	0.67818 AU
minimum elong	4563 Jan 10 00:48	19°♄42'25	1°37'13	inferior conj	4563 Dec 25 09:56	3°♄31'22	0°49'21
min. Earth dist.	4563 Jan 09 19:45	19°♄59'51	0.68063 AU	minimum elong	4563 Dec 25 08:47	3°♄35'14	0°48'53
morning rise	4563 Jan 15 08:50	13°♄24'49			4563 Dec 28 03:59	30°♊	
direct	4563 Jan 19 18:28	11°♄38'50		morning rise	4563 Dec 30 20:06	27°♊26'15	
morning max el	4563 Jan 28 15:26	16°♄49'09	21°37'02	direct	4564 Jan 03 16:02	26°♊02'42	
greatest brilliancy	4563 Feb 02 12:10	22°♄18'51	-0.4m		4564 Jan 10 23:30	0°♄	
	4563 Feb 08 08:46	0°♌		morning max el	4564 Jan 11 12:12	0°♄31'04	20°20'57
desc. node	4563 Feb 10 18:53	3°♌22'36		greatest brilliancy	4564 Jan 17 21:06	8°♄03'26	-0.5m
	4563 Feb 28 12:21	0°♋		desc. node	4564 Jan 28 15:54	23°♄24'10	
morning set	4563 Mar 01 13:35	1°♋39'59			4564 Feb 02 01:20	0°♌	
max. Earth dist.	4563 Mar 08 02:02	12°♋14'24	1.41813 AU	morning set	4564 Feb 08 12:53	9°♌55'18	
				max. Earth dist.	4564 Feb 18 09:34	25°♌27'23	1.43578 AU
superior conj	4563 Mar 15 15:55	25°♋06'38	-2°-4'-39		4564 Feb 21 04:59	0°♋	
minimum elong	4563 Mar 15 18:54	25°♋19'42	2°04'33	superior conj	4564 Feb 24 12:10	5°♋24'52	-2°-7'-21
	4563 Mar 18 10:39	0°♎		minimum elong	4564 Feb 24 10:12	5°♋16'46	2°07'20
evening rise	4563 Mar 26 15:17	14°♎50'04		evening rise	4564 Mar 08 02:45	26°♋54'55	
asc. node	4563 Apr 03 01:26	28°♎09'22			4564 Mar 09 21:10	0°♎	
	4563 Apr 04 03:41	0°♏		asc. node	4564 Mar 19 22:28	16°♎48'25	
evening max el	4563 Apr 11 23:41	10°♏44'42	18°10'22	evening max el	4564 Mar 25 12:04	23°♎55'09	18°07'57
retrograde	4563 Apr 18 19:56	14°♏12'06		retrograde	4564 Mar 31 23:10	27°♎17'41	
evening set	4563 Apr 21 08:00	13°♏44'56		evening set	4564 Apr 03 17:08	26°♎39'58	
inferior conj	4563 Apr 28 05:30	8°♏54'23	2°51'50	inferior conj	4564 Apr 10 01:01	21°♎29'01	3°24'22
minimum elong	4563 Apr 28 08:44	8°♏47'00	2°51'08	minimum elong	4564 Apr 10 02:46	21°♎24'29	3°24'10
min. Earth dist.	4563 May 01 13:35	5°♏53'09	0.60146 AU	min. Earth dist.	4564 Apr 12 22:23	18°♎29'20	0.62307 AU
morning rise	4563 May 05 05:50	3°♏07'17		morning rise	4564 Apr 16 09:50	15°♎26'07	
desc. node	4563 May 09 18:03	1°♏16'44		direct	4564 Apr 23 06:04	12°♎55'35	
direct	4563 May 11 19:01	1°♏04'57		desc. node	4564 Apr 25 15:05	13°♎12'14	
morning max el	4563 May 26 02:47	8°♏57'51	27°38'05	morning max el	4564 May 07 08:21	20°♎55'12	27°52'11
	4563 Jun 11 05:27	0°♐			4564 May 15 04:48	0°♏	
morning set	4563 Jun 27 00:19	28°♐55'17			4564 Jun 03 06:13	0°♐	
	4563 Jun 27 12:45	0°♑		morning set	4564 Jun 10 01:50	13°♐11'28	
asc. node	4563 Jun 30 00:44	5°♑18'01		max. Earth dist.	4564 Jun 15 16:38	24°♐57'46	1.32417 AU
max. Earth dist.	4563 Jul 03 08:38	12°♑32'45	1.32014 AU	asc. node	4564 Jun 15 21:45	25°♐25'23	
superior conj	4563 Jul 04 06:00	14°♑30'22	0°42'56	superior conj	4564 Jun 17 15:26	29°♐11'12	0°18'05
minimum elong	4563 Jul 04 04:14	14°♑20'37	0°42'35	minimum elong	4564 Jun 17 14:36	29°♐06'38	0°17'53
evening rise	4563 Jul 11 02:22	29°♑27'15			4564 Jun 18 00:24	0°♑	
	4563 Jul 11 08:32	0°♒		evening rise	4564 Jun 24 14:05	14°♑15'49	
	4563 Jul 27 21:05	0°♑			4564 Jul 02 11:00	0°♒	
desc. node	4563 Aug 05 17:18	11°♑12'16		evening max el	4564 Jul 19 03:37	23°♒41'13	24°08'12
evening max el	4563 Aug 07 14:03	13°♑04'31	25°38'12	desc. node	4564 Jul 22 14:19	26°♒38'44	
retrograde	4563 Aug 21 13:03	20°♑10'28			4564 Jul 28 20:46	0°♑	
evening set	4563 Aug 27 14:45	18°♑44'06		retrograde	4564 Aug 01 22:38	0°♑38'06	

	4564 Aug 06 01:48	30° \mathbb{R} Ω		asc. node	4565 Jun 02 18:47	15° \mathbb{I} 32'19	
evening set	4564 Aug 06 15:41	29° Ω 48'52		evening rise	4565 Jun 09 01:33	28° \mathbb{I} 59'06	
min. Earth dist.	4564 Aug 12 14:11	26° Ω 52'34	0.56391 AU		4565 Jun 09 13:07	0° \mathfrak{S}	
inferior conj	4564 Aug 15 02:02	25° Ω 19'53	-5°-9'-17		4565 Jun 27 00:36	0° Ω	
minimum elong	4564 Aug 14 23:04	25° Ω 24'30	5°09'06	evening max el	4565 Jun 30 17:22	4° Ω 03'27	22°30'52
morning rise	4564 Aug 23 09:54	21° Ω 20'42		desc. node	4565 Jul 09 11:22	9° Ω 50'38	
direct	4564 Aug 26 03:12	21° Ω 01'20		retrograde	4565 Jul 13 19:48	10° Ω 34'16	
morning max el	4564 Sep 04 23:02	25° Ω 35'54	19°45'50	evening set	4565 Jul 17 00:36	10° Ω 11'44	
	4564 Sep 08 21:52	0° \mathfrak{M}		min. Earth dist.	4565 Jul 25 00:43	6° Ω 41'49	0.55170 AU
asc. node	4564 Sep 11 21:02	4° \mathfrak{M} 10'52		inferior conj	4565 Jul 26 04:02	6° Ω 03'00	-4°-21'-33
morning set	4564 Sep 22 15:35	23° \mathfrak{M} 53'59		minimum elong	4565 Jul 25 19:54	6° Ω 14'35	4°19'48
	4564 Sep 25 15:44	0° $\underline{\Omega}$		morning rise	4565 Aug 03 17:29	2° Ω 13'01	
				direct	4565 Aug 06 19:38	1° Ω 51'14	
superior conj	4564 Sep 30 13:08	9° $\underline{\Omega}$ 51'10	1°41'05	morning max el	4565 Aug 18 06:08	7° Ω 10'49	21°06'31
minimum elong	4564 Sep 30 14:31	9° $\underline{\Omega}$ 58'04	1°41'02	asc. node	4565 Aug 29 18:04	22° Ω 43'00	
max. Earth dist.	4564 Oct 06 11:08	21° $\underline{\Omega}$ 16'05	1.37344 AU		4565 Sep 02 16:46	0° \mathfrak{M}	
evening rise	4564 Oct 10 06:32	28° $\underline{\Omega}$ 14'11		morning set	4565 Sep 06 23:33	8° \mathfrak{M} 37'11	
	4564 Oct 11 06:19	0° \mathfrak{M}					
desc. node	4564 Oct 18 13:38	12° \mathfrak{M} 22'54		superior conj	4565 Sep 14 09:35	24° \mathfrak{M} 05'51	1°43'52
	4564 Oct 30 04:22	0° \mathfrak{J}		minimum elong	4565 Sep 14 09:26	24° \mathfrak{M} 05'05	1°43'52
evening max el	4564 Nov 14 22:46	19° \mathfrak{J} 19'22	25°27'36		4565 Sep 17 07:01	0° $\underline{\Omega}$	
retrograde	4564 Nov 27 02:15	26° \mathfrak{J} 18'41		max. Earth dist.	4565 Sep 18 20:28	3° $\underline{\Omega}$ 06'57	1.35482 AU
evening set	4564 Dec 02 23:04	23° \mathfrak{J} 53'05		evening rise	4565 Sep 23 01:08	11° $\underline{\Omega}$ 13'01	
min. Earth dist.	4564 Dec 07 09:32	19° \mathfrak{J} 00'26	0.67219 AU		4565 Oct 03 18:15	0° \mathfrak{M}	
inferior conj	4564 Dec 08 14:26	17° \mathfrak{J} 27'27	0°-4'-57	desc. node	4565 Oct 05 10:40	2° \mathfrak{M} 42'46	
minimum elong	4564 Dec 08 14:33	17° \mathfrak{J} 27'03	0°04'54		4565 Oct 25 12:48	0° \mathfrak{J}	
transit middle	4564 Dec 08 14:33	17° \mathfrak{J} 27'03	0°04'54	evening max el	4565 Oct 28 11:23	3° \mathfrak{J} 00'53	26°29'46
transit begin	4564 Dec 08 11:53	17° \mathfrak{J} 35'38		retrograde	4565 Nov 10 08:39	10° \mathfrak{J} 14'27	
transit end	4564 Dec 08 17:13	17° \mathfrak{J} 18'27		evening set	4565 Nov 16 18:41	7° \mathfrak{J} 38'37	
asc. node	4564 Dec 08 20:15	17° \mathfrak{J} 08'42		min. Earth dist.	4565 Nov 20 22:10	3° \mathfrak{J} 21'39	0.66269 AU
morning rise	4564 Dec 14 06:51	11° \mathfrak{J} 30'04		inferior conj	4565 Nov 22 14:24	1° \mathfrak{J} 20'23	-1°-3'-50
direct	4564 Dec 17 14:43	10° \mathfrak{J} 26'16		minimum elong	4565 Nov 22 16:09	1° \mathfrak{J} 15'05	1°03'05
morning max el	4564 Dec 24 16:54	14° \mathfrak{J} 23'46	19°18'41		4565 Nov 23 17:23	30° \mathfrak{R} \mathfrak{M}	
greatest brilliancy	4565 Jan 03 01:25	26° \mathfrak{J} 21'34	-0.7m	asc. node	4565 Nov 25 17:18	27° \mathfrak{M} 49'25	
	4565 Jan 05 12:47	0° \mathfrak{Z}		morning rise	4565 Nov 28 15:00	25° \mathfrak{M} 33'21	
desc. node	4565 Jan 14 12:55	13° \mathfrak{Z} 43'43		direct	4565 Dec 01 12:51	24° \mathfrak{M} 45'38	
morning set	4565 Jan 17 12:28	18° \mathfrak{Z} 20'22		morning max el	4565 Dec 08 04:12	28° \mathfrak{M} 23'08	18°32'14
	4565 Jan 25 00:25	0° \approx			4565 Dec 09 16:19	0° \mathfrak{J}	
max. Earth dist.	4565 Jan 30 23:28	9° \approx 21'12	1.44780 AU	morning set	4565 Dec 28 10:58	27° \mathfrak{J} 58'56	
					4565 Dec 29 17:24	0° \mathfrak{Z}	
superior conj	4565 Feb 03 07:17	14° \approx 37'25	-1°-51'-33	desc. node	4566 Jan 01 09:57	4° \mathfrak{Z} 16'19	
minimum elong	4565 Feb 02 23:25	14° \approx 06'07	1°51'00				
	4565 Feb 12 19:53	0° \mathfrak{H}		superior conj	4566 Jan 13 11:01	23° \mathfrak{Z} 14'39	-1°-16'-47
evening rise	4565 Feb 17 17:11	8° \mathfrak{H} 03'50		minimum elong	4566 Jan 13 02:12	22° \mathfrak{Z} 40'01	1°15'47
	4565 Mar 03 06:40	0° \mathfrak{Y}		max. Earth dist.	4566 Jan 13 17:35	23° \mathfrak{Z} 40'22	1.45288 AU
asc. node	4565 Mar 06 19:31	4° \mathfrak{Y} 48'23			4566 Jan 17 18:24	0° \approx	
evening max el	4565 Mar 09 00:37	7° \mathfrak{Y} 17'43	18°24'22	evening rise	4566 Jan 29 08:23	18° \approx 16'20	
retrograde	4565 Mar 15 12:01	10° \mathfrak{Y} 48'32			4566 Feb 05 17:42	0° \mathfrak{H}	
evening set	4565 Mar 18 11:58	9° \mathfrak{Y} 59'08		evening max el	4566 Feb 20 10:53	20° \mathfrak{H} 47'22	18°58'32
inferior conj	4565 Mar 24 10:03	4° \mathfrak{Y} 29'25	3°34'50	asc. node	4566 Feb 21 16:34	21° \mathfrak{H} 58'09	
minimum elong	4565 Mar 24 10:06	4° \mathfrak{Y} 29'14	3°34'50	retrograde	4566 Feb 27 06:45	24° \mathfrak{H} 37'57	
min. Earth dist.	4565 Mar 26 16:36	1° \mathfrak{Y} 51'43	0.64244 AU	evening set	4566 Mar 02 13:23	23° \mathfrak{H} 35'51	
	4565 Mar 28 10:15	30° \mathfrak{R} \mathfrak{H}		inferior conj	4566 Mar 08 04:50	17° \mathfrak{H} 49'04	3°28'39
morning rise	4565 Mar 30 06:34	28° \mathfrak{H} 18'12		minimum elong	4566 Mar 08 03:33	17° \mathfrak{H} 53'04	3°28'32
direct	4565 Apr 06 01:33	25° \mathfrak{H} 31'40		min. Earth dist.	4566 Mar 09 19:49	15° \mathfrak{H} 46'35	0.65820 AU
desc. node	4565 Apr 12 12:08	27° \mathfrak{H} 34'30		morning rise	4566 Mar 13 16:42	11° \mathfrak{H} 34'07	
	4565 Apr 15 22:16	0° \mathfrak{Y}		direct	4566 Mar 20 03:54	8° \mathfrak{H} 45'32	
morning max el	4565 Apr 19 17:28	3° \mathfrak{Y} 28'31	27°29'40	desc. node	4566 Mar 30 09:11	13° \mathfrak{H} 50'06	
	4565 May 09 15:07	0° \mathfrak{B}		morning max el	4566 Apr 02 03:22	16° \mathfrak{H} 26'31	26°36'25
morning set	4565 May 24 19:25	27° \mathfrak{B} 00'42			4566 Apr 13 09:01	0° \mathfrak{Y}	
	4565 May 26 07:32	0° \mathbb{I}			4566 May 02 11:42	0° \mathfrak{B}	
max. Earth dist.	4565 May 29 17:06	6° \mathbb{I} 56'22	1.33265 AU	morning set	4566 May 08 01:45	10° \mathfrak{B} 13'14	
				max. Earth dist.	4566 May 12 06:54	18° \mathfrak{B} 23'19	1.34582 AU
superior conj	4565 Jun 01 20:55	13° \mathbb{I} 35'38	0°-9'-28				
minimum elong	4565 Jun 01 21:24	13° \mathbb{I} 38'12	0°09'24	superior conj	4566 May 16 20:15	27° \mathfrak{B} 37'23	0°-38'-40
behind sun begin	4565 Jun 01 16:59	13° \mathbb{I} 14'40		minimum elong	4566 May 16 22:20	27° \mathfrak{B} 48'08	0°38'17
behind sun end	4565 Jun 02 01:49	14° \mathbb{I} 01'47			4566 May 17 23:46	0° \mathbb{I}	

asc. node	4566 May 20 15:50	5°II35'02		asc. node	4567 May 07 12:53	25°829'12	
evening rise	4566 May 24 10:53	13°II31'26		evening rise	4567 May 08 15:52	27°846'05	
	4566 Jun 01 22:42	0°☿			4567 May 09 18:27	0°II	
evening max el	4566 Jun 12 15:15	14°☿44'23	21°00'54	evening max el	4567 May 26 01:15	26°II03'35	19°47'25
retrograde	4566 Jun 24 08:28	20°☿29'27			4567 May 31 15:17	0°☿	
desc. node	4566 Jun 26 08:24	20°☿20'03		retrograde	4567 Jun 05 01:02	0°☿56'03	
evening set	4566 Jun 26 13:31	20°☿17'58		evening set	4567 Jun 06 23:30	0°☿45'53	
inferior conj	4566 Jul 05 21:18	16°☿20'41	-2°-45'-40		4567 Jun 09 16:48	30°RII	
minimum elong	4566 Jul 05 13:51	16°☿31'11	2°43'12	desc. node	4567 Jun 13 05:24	28°II17'55	
min. Earth dist.	4566 Jul 06 11:46	16°☿00'15	0.54820 AU	inferior conj	4567 Jun 15 20:19	26°II43'58	0°-46'-49
morning rise	4566 Jul 14 13:52	12°☿21'38		minimum elong	4567 Jun 15 18:10	26°II47'17	0°46'02
direct	4566 Jul 18 04:58	11°☿53'17		min. Earth dist.	4567 Jun 18 00:33	25°II23'38	0.55429 AU
morning max el	4566 Jul 31 02:20	18°☿02'30	22°43'49	morning rise	4567 Jun 24 09:47	22°II17'21	
	4566 Aug 09 18:19	0°♂		direct	4567 Jun 28 19:42	21°II34'27	
asc. node	4566 Aug 16 15:06	11°♂48'28		morning max el	4567 Jul 12 16:38	28°II27'53	24°27'33
morning set	4566 Aug 22 10:17	23°♂28'09			4567 Jul 14 05:50	0°☿	
	4566 Aug 25 12:00	0°♍			4567 Aug 02 20:21	0°♂	
				asc. node	4567 Aug 03 12:08	1°♂18'50	
superior conj	4566 Aug 29 13:23	8°♍41'38	1°39'47	morning set	4567 Aug 06 22:05	8°♂22'08	
minimum elong	4566 Aug 29 12:03	8°♍34'31	1°39'42				
max. Earth dist.	4566 Sep 01 14:30	15°♍06'49	1.33983 AU	superior conj	4567 Aug 13 21:54	23°♂30'47	1°29'53
evening rise	4566 Sep 06 10:16	24°♍52'49		minimum elong	4567 Aug 13 19:50	23°♂19'31	1°29'40
	4566 Sep 09 01:58	0°♂		max. Earth dist.	4567 Aug 15 17:15	27°♂25'40	1.32895 AU
desc. node	4566 Sep 22 07:42	22°♂42'13			4567 Aug 16 22:01	0°♍	
	4566 Sep 27 06:14	0°♌		evening rise	4567 Aug 21 06:04	9°♍03'10	
evening max el	4566 Oct 11 00:05	16°♌32'19	27°11'51		4567 Sep 01 11:19	0°♂	
retrograde	4566 Oct 24 09:08	23°♌50'02		desc. node	4567 Sep 09 04:43	12°♂12'47	
evening set	4566 Oct 31 06:18	21°♌10'17		evening max el	4567 Sep 23 11:04	29°♂41'13	27°27'00
min. Earth dist.	4566 Nov 04 03:24	17°♌29'04	0.64976 AU		4567 Sep 23 19:03	0°♌	
inferior conj	4566 Nov 06 07:34	15°♌04'44	-2°-5'-40	retrograde	4567 Oct 07 03:11	6°♌57'25	
minimum elong	4566 Nov 06 11:09	14°♌54'47	2°04'15	evening set	4567 Oct 14 07:02	4°♌22'51	
morning rise	4566 Nov 12 17:59	9°♌31'13		min. Earth dist.	4567 Oct 17 23:08	1°♌14'28	0.63350 AU
asc. node	4566 Nov 12 14:21	9°♌35'26			4567 Oct 19 05:20	30°R♂	
direct	4566 Nov 15 08:11	8°♌55'37		inferior conj	4567 Oct 20 15:18	28°♂34'41	-3°-7'-51
morning max el	4566 Nov 21 19:38	12°♌22'43	18°02'30	minimum elong	4567 Oct 20 20:35	28°♂21'30	3°06'04
	4566 Dec 04 03:20	0°♊		morning rise	4567 Oct 27 12:45	23°♂18'12	
morning set	4566 Dec 09 15:03	9°♊05'46		direct	4567 Oct 29 21:51	22°♂51'06	
desc. node	4566 Dec 19 06:59	24°♊57'12		asc. node	4567 Oct 30 11:22	22°♂52'39	
	4566 Dec 22 10:21	0°♋		morning max el	4567 Nov 05 12:23	26°♂16'22	17°50'11
					4567 Nov 08 16:58	0°♌	
superior conj	4566 Dec 23 18:50	2°♋09'33	0°-30'-41	morning set	4567 Nov 21 20:35	21°♌26'17	
minimum elong	4566 Dec 23 15:02	1°♋54'27	0°30'10		4567 Nov 26 19:07	0°♊	
max. Earth dist.	4566 Dec 27 13:13	8°♋07'25	1.45052 AU				
evening rise	4567 Jan 09 03:20	27°♋43'40		superior conj	4567 Dec 04 00:03	12°♊09'26	0°15'06
	4567 Jan 10 14:41	0°♌		minimum elong	4567 Dec 04 01:37	12°♊15'53	0°14'53
greatest brilliancy	4567 Jan 27 10:56	25°♌17'38	-0.6m	behind sun begin	4567 Dec 03 21:57	12°♊00'44	
	4567 Jan 30 23:14	0°♋		behind sun end	4567 Dec 04 05:17	12°♊31'02	
evening max el	4567 Feb 03 16:52	4°♋19'39	19°48'58	desc. node	4567 Dec 06 04:01	15°♊43'05	
asc. node	4567 Feb 08 13:37	8°♋03'20		max. Earth dist.	4567 Dec 10 07:02	22°♊23'30	1.44106 AU
retrograde	4567 Feb 11 04:20	8°♋39'49			4567 Dec 15 02:19	0°♋	
evening set	4567 Feb 14 18:48	7°♋23'55		evening rise	4567 Dec 19 13:11	6°♋55'05	
inferior conj	4567 Feb 20 06:15	1°♋22'14	3°09'42		4568 Jan 03 22:59	0°♌	
minimum elong	4567 Feb 20 04:08	1°♋29'16	3°09'18	greatest brilliancy	4568 Jan 12 06:51	11°♌30'04	-0.5m
	4567 Feb 21 06:58	30°R♌		evening max el	4568 Jan 17 17:24	17°♌52'49	20°53'14
min. Earth dist.	4567 Feb 21 06:35	0°♋01'13	0.66974 AU	retrograde	4568 Jan 26 02:30	22°♌50'01	
morning rise	4567 Feb 25 12:49	25°♌06'10		asc. node	4568 Jan 26 10:39	22°♌49'23	
direct	4567 Mar 03 11:53	22°♌27'24		evening set	4568 Jan 30 02:16	21°♌19'20	
morning max el	4567 Mar 15 12:29	29°♌38'06	25°21'19	inferior conj	4568 Feb 04 11:50	15°♌05'29	2°40'35
	4567 Mar 15 21:04	0°♋		minimum elong	4568 Feb 04 09:23	15°♌13'53	2°39'55
desc. node	4567 Mar 17 06:13	1°♋27'34		min. Earth dist.	4568 Feb 04 23:00	14°♌27'02	0.67703 AU
	4567 Apr 07 05:52	0°♍		morning rise	4568 Feb 09 16:07	8°♌50'05	
morning set	4567 Apr 20 16:18	22°♍36'01		direct	4568 Feb 15 00:50	6°♌29'07	
max. Earth dist.	4567 Apr 24 09:45	29°♍27'54	1.36342 AU	morning max el	4568 Feb 25 21:10	12°♌57'08	23°54'25
	4567 Apr 24 16:34	0°♎		desc. node	4568 Mar 03 03:15	20°♌03'44	
					4568 Mar 10 14:59	0°♋	
superior conj	4567 Apr 30 10:38	11°♎08'30	-1°-8'00		4568 Mar 30 02:14	0°♍	
minimum elong	4567 Apr 30 14:19	11°♎26'51	1°07'23	morning set	4568 Apr 01 09:21	3°♍53'54	

max. Earth dist.	4568 Apr 05 05:49	10°♈37'31	1.38429 AU	morning set	4569 Mar 12 23:14	13°♋53'06	
				max. Earth dist.	4569 Mar 18 02:15	22°♋24'01	1.40612 AU
superior conj	4568 Apr 12 12:28	23°♈59'37	-1°-35'-7		4569 Mar 22 12:09	0°♈	
minimum elong	4568 Apr 12 17:16	24°♈22'20	1°34'31				
	4568 Apr 15 15:40	0°♋		superior conj	4569 Mar 25 21:21	6°♈00'18	-1°-56'-36
evening rise	4568 Apr 21 13:55	11°♋35'41		minimum elong	4569 Mar 26 01:45	6°♈20'07	1°56'18
asc. node	4568 Apr 23 09:55	15°♋10'05		evening rise	4569 Apr 05 01:46	24°♈52'01	
	4568 May 01 16:30	0°♊			4569 Apr 07 19:32	0°♋	
evening max el	4568 May 07 22:42	8°♊03'43	18°53'48	asc. node	4569 Apr 10 06:57	4°♋32'34	
retrograde	4568 May 16 08:50	12°♊11'10		evening max el	4569 Apr 21 04:45	20°♋39'00	18°20'32
evening set	4568 May 18 10:41	11°♊57'05		retrograde	4569 Apr 28 11:30	24°♋16'17	
inferior conj	4568 May 26 12:49	7°♊39'17	1°01'28	evening set	4569 Apr 30 19:46	23°♋54'42	
minimum elong	4568 May 26 15:07	7°♊35'10	1°00'40	inferior conj	4569 May 08 02:55	19°♋16'40	2°20'32
min. Earth dist.	4568 May 29 16:32	5°♊24'52	0.56880 AU	minimum elong	4569 May 08 06:30	19°♋09'09	2°19'34
desc. node	4568 May 30 02:26	5°♊08'07		min. Earth dist.	4569 May 11 13:29	16°♋25'17	0.58883 AU
morning rise	4568 Jun 03 15:04	2°♊36'24		morning rise	4569 May 15 12:59	13°♋42'38	
direct	4568 Jun 08 23:36	1°♊27'34		desc. node	4569 May 16 23:27	13°♋00'45	
morning max el	4568 Jun 23 07:28	8°♊53'54	26°02'22	direct	4569 May 21 17:53	11°♋59'38	
	4568 Jul 09 04:25	0°♉		morning max el	4569 Jun 05 03:20	19°♋46'23	27°12'44
asc. node	4568 Jul 20 09:10	21°♉06'18			4569 Jun 13 20:40	0°♊	
morning set	4568 Jul 21 09:15	23°♉12'48			4569 Jul 01 20:55	0°♉	
	4568 Jul 24 12:59	0°♏		morning set	4569 Jul 05 18:10	7°♉54'55	
				asc. node	4569 Jul 07 06:12	11°♉05'23	
superior conj	4568 Jul 28 08:59	8°♏25'22	1°15'00				
minimum elong	4568 Jul 28 06:39	8°♏12'34	1°14'39	superior conj	4569 Jul 12 20:48	23°♉19'23	0°55'46
max. Earth dist.	4568 Jul 29 01:58	9°♏58'53	1.32225 AU	minimum elong	4569 Jul 12 18:42	23°♉07'46	0°55'22
evening rise	4568 Aug 04 09:19	23°♏33'38		max. Earth dist.	4569 Jul 12 13:18	22°♉37'59	1.31972 AU
	4568 Aug 07 13:06	0°♎			4569 Jul 15 21:30	0°♏	
	4568 Aug 25 07:38	0°♎		evening rise	4569 Jul 19 17:30	8°♏16'41	
desc. node	4568 Aug 26 01:42	1°♎01'39			4569 Jul 30 23:49	0°♎	
evening max el	4568 Sep 04 17:45	12°♎13'24	27°10'20	desc. node	4569 Aug 12 22:43	18°♎51'54	
retrograde	4568 Sep 18 14:16	19°♎26'21		evening max el	4569 Aug 17 17:57	23°♎59'37	26°20'24
evening set	4568 Sep 25 17:03	17°♎08'56			4569 Aug 26 08:37	0°♎	
min. Earth dist.	4568 Sep 29 08:11	14°♎25'04	0.61438 AU	retrograde	4569 Aug 31 17:10	1°♎08'45	
inferior conj	4568 Oct 02 10:26	11°♎41'36	-4°-5'-57		4569 Sep 05 23:23	30°♎♎	
minimum elong	4568 Oct 02 16:34	11°♎28'02	4°04'23	evening set	4569 Sep 07 07:37	29°♎21'19	
morning rise	4568 Oct 09 19:15	6°♎45'32		min. Earth dist.	4569 Sep 11 07:13	26°♎46'58	0.59371 AU
direct	4568 Oct 12 02:11	6°♎23'46		inferior conj	4569 Sep 14 13:29	24°♎16'38	-4°-52'-12
asc. node	4568 Oct 16 08:24	7°♎42'08		minimum elong	4569 Sep 14 18:27	24°♎07'03	4°51'28
morning max el	4568 Oct 19 03:18	9°♎55'44	17°56'12	morning rise	4569 Sep 22 08:48	19°♎43'17	
	4568 Nov 01 07:34	0°♍		direct	4569 Sep 24 17:01	19°♎24'06	
morning set	4568 Nov 03 21:02	4°♍40'14		morning max el	4569 Oct 02 13:03	23°♎12'03	18°21'55
				asc. node	4569 Oct 03 05:27	23°♎53'02	
superior conj	4568 Nov 14 07:55	23°♍27'03	0°52'42		4569 Oct 07 23:55	0°♎	
minimum elong	4568 Nov 14 11:49	23°♍44'04	0°52'11	morning set	4569 Oct 18 10:57	18°♎32'21	
	4568 Nov 18 03:29	0°♌			4569 Oct 24 11:23	0°♍	
max. Earth dist.	4568 Nov 21 20:04	6°♌09'47	1.42561 AU				
desc. node	4568 Nov 22 01:01	6°♌30'09		superior conj	4569 Oct 27 15:19	5°♍53'06	1°19'30
evening rise	4568 Nov 28 05:47	16°♌29'12		minimum elong	4569 Oct 27 19:02	6°♍10'11	1°19'06
	4568 Dec 07 00:41	0°♋		max. Earth dist.	4569 Nov 04 03:49	19°♍15'16	1.40621 AU
greatest brilliancy	4568 Dec 25 19:04	26°♋07'30	-0.3m	evening rise	4569 Nov 08 17:40	26°♍57'14	
	4568 Dec 29 03:20	0°♌		desc. node	4569 Nov 08 22:01	27°♍15'05	
evening max el	4568 Dec 30 12:30	1°♌27'14	22°07'47		4569 Nov 10 14:24	0°♌	
retrograde	4569 Jan 08 23:21	7°♌04'43			4569 Nov 30 17:02	0°♋	
asc. node	4569 Jan 12 07:40	6°♌05'09		evening max el	4569 Dec 13 03:32	15°♋04'39	23°27'30
evening set	4569 Jan 13 10:03	5°♌18'28		retrograde	4569 Dec 23 17:21	21°♋19'53	
	4569 Jan 18 00:59	30°♌♋		evening set	4569 Dec 28 16:31	19°♋17'43	
inferior conj	4569 Jan 18 19:28	28°♋55'57	2°03'00	asc. node	4569 Dec 30 04:42	17°♋51'10	
minimum elong	4569 Jan 18 17:10	29°♋03'56	2°02'13	min. Earth dist.	4570 Jan 02 15:37	13°♋30'35	0.67991 AU
min. Earth dist.	4569 Jan 18 18:49	28°♋58'15	0.68030 AU	inferior conj	4570 Jan 03 03:17	12°♋50'33	1°18'06
morning rise	4569 Jan 24 00:08	22°♋42'52		minimum elong	4570 Jan 03 01:36	12°♋56'22	1°17'27
direct	4569 Jan 28 17:59	20°♋43'49		morning rise	4570 Jan 08 10:46	6°♋41'45	
morning max el	4569 Feb 07 07:55	26°♋22'41	22°25'39	direct	4570 Jan 12 14:24	5°♋05'26	
	4569 Feb 10 15:41	0°♌		morning max el	4570 Jan 21 00:09	9°♋57'13	21°03'10
greatest brilliancy	4569 Feb 11 21:20	1°♌27'53	-0.3m	greatest brilliancy	4570 Jan 26 09:37	16°♋09'07	-0.5m
desc. node	4569 Feb 18 00:17	9°♌22'02		desc. node	4570 Feb 04 21:17	29°♋10'10	
	4569 Mar 04 04:33	0°♋			4570 Feb 05 11:02	0°♌	

morning set	4570 Feb 20 09:12	22° \approx 34'35		greatest brilliancy	4571 Jan 11 08:46	2° \approx 41'17	-0.6m
	4570 Feb 25 01:34	0° \approx		desc. node	4571 Jan 22 18:19	19° \approx 20'20	
max. Earth dist.	4570 Feb 28 04:48	5° \approx 04'20	1.42614 AU		4571 Jan 29 17:48	0° \approx	
				morning set	4571 Jan 30 05:17	0° \approx 44'12	
superior conj	4570 Mar 07 08:08	16° \approx 58'15	-2°-7'-47	max. Earth dist.	4571 Feb 10 15:23	18° \approx 37'04	1.44171 AU
minimum elong	4570 Mar 07 09:24	17° \approx 03'39	2°07'47				
	4570 Mar 14 19:47	0° \approx		superior conj	4571 Feb 15 17:21	26° \approx 47'19	-2°-3'-7
evening rise	4570 Mar 18 23:20	7° \approx 24'58		minimum elong	4571 Feb 15 12:41	26° \approx 28'23	2°02'56
asc. node	4570 Mar 28 04:00	23° \approx 29'34			4571 Feb 17 16:37	0° \approx	
	4570 Apr 01 12:32	0° \approx		evening rise	4571 Mar 01 02:17	19° \approx 06'22	
evening max el	4570 Apr 04 15:50	3° \approx 39'18	18°07'04		4571 Mar 07 11:48	0° \approx	
retrograde	4570 Apr 11 06:52	7° \approx 02'36		asc. node	4571 Mar 15 01:02	11° \approx 53'13	
evening set	4570 Apr 13 21:30	6° \approx 31'07		evening max el	4571 Mar 19 04:41	16° \approx 55'56	18°12'43
inferior conj	4570 Apr 20 12:46	1° \approx 32'03	3°08'38	retrograde	4571 Mar 25 14:38	20° \approx 20'07	
minimum elong	4570 Apr 20 15:27	1° \approx 25'34	3°08'11	evening set	4571 Mar 28 11:14	19° \approx 37'23	
	4570 Apr 22 02:36	30° \approx 18'00		inferior conj	4571 Apr 03 14:30	14° \approx 18'12	3°31'06
min. Earth dist.	4570 Apr 23 17:14	28° \approx 28'26	0.61084 AU	minimum elong	4571 Apr 03 15:31	14° \approx 15'26	3°31'02
morning rise	4570 Apr 27 06:13	25° \approx 37'17		min. Earth dist.	4571 Apr 06 05:47	11° \approx 26'02	0.63175 AU
direct	4570 May 03 23:43	23° \approx 21'25		morning rise	4571 Apr 09 17:42	8° \approx 11'20	
desc. node	4570 May 03 20:30	23° \approx 21'28		direct	4571 Apr 16 14:27	5° \approx 32'27	
	4570 May 16 20:47	0° \approx		desc. node	4571 Apr 20 17:33	6° \approx 22'56	
morning max el	4570 May 18 05:24	1° \approx 18'19	27°48'34	morning max el	4571 Apr 30 12:35	13° \approx 31'13	27°46'47
	4570 Jun 08 01:57	0° \approx			4571 May 13 18:21	0° \approx	
morning set	4570 Jun 19 22:59	22° \approx 22'12			4571 May 31 14:24	0° \approx	
	4570 Jun 23 14:03	0° \approx		morning set	4571 Jun 03 21:29	6° \approx 27'50	
asc. node	4570 Jun 24 03:15	1° \approx 10'55		max. Earth dist.	4571 Jun 09 04:52	17° \approx 26'28	1.32729 AU
max. Earth dist.	4570 Jun 25 23:32	5° \approx 11'05	1.32136 AU	asc. node	4571 Jun 11 00:18	21° \approx 18'42	
superior conj	4570 Jun 27 07:38	8° \approx 06'43	0°32'48	superior conj	4571 Jun 11 15:40	22° \approx 41'30	0°06'42
minimum elong	4570 Jun 27 06:12	7° \approx 58'53	0°32'29	minimum elong	4571 Jun 11 15:20	22° \approx 39'44	0°06'36
evening rise	4570 Jul 04 04:30	23° \approx 05'09		behind sun begin	4571 Jun 11 10:30	22° \approx 13'41	
	4570 Jul 07 12:12	0° \approx		behind sun end	4571 Jun 11 20:10	23° \approx 05'49	
	4570 Jul 25 20:28	0° \approx			4571 Jun 15 00:32	0° \approx	
evening max el	4570 Jul 30 10:55	4° \approx 58'58	25°01'53	evening rise	4571 Jun 18 16:22	7° \approx 52'35	
desc. node	4570 Jul 30 19:44	5° \approx 19'51			4571 Jun 30 06:05	0° \approx	
retrograde	4570 Aug 13 09:28	12° \approx 01'56		evening max el	4571 Jul 11 23:43	15° \approx 26'01	23°26'41
evening set	4570 Aug 18 22:19	10° \approx 52'12		desc. node	4571 Jul 17 16:47	19° \approx 53'53	
min. Earth dist.	4570 Aug 23 22:31	8° \approx 08'51	0.57381 AU	retrograde	4571 Jul 25 13:10	22° \approx 13'35	
inferior conj	4570 Aug 26 21:21	6° \approx 10'43	-5°-14'-5	evening set	4571 Jul 29 14:34	21° \approx 37'34	
minimum elong	4570 Aug 26 22:01	6° \approx 09'37	5°14'05	min. Earth dist.	4571 Aug 05 09:22	18° \approx 28'45	0.55786 AU
morning rise	4570 Sep 04 01:11	2° \approx 00'00		inferior conj	4571 Aug 07 09:08	17° \approx 18'08	-4°-55'-27
direct	4570 Sep 06 14:24	1° \approx 41'07		minimum elong	4571 Aug 07 03:31	17° \approx 26'27	4°54'44
morning max el	4570 Sep 15 14:17	5° \approx 55'30	19°08'53	morning rise	4571 Aug 15 19:33	13° \approx 24'44	
asc. node	4570 Sep 20 02:29	11° \approx 10'19		direct	4571 Aug 18 16:37	13° \approx 04'27	
	4570 Sep 30 23:28	0° \approx		morning max el	4571 Aug 29 04:16	17° \approx 56'43	20°17'43
morning set	4570 Oct 02 10:15	2° \approx 51'35		asc. node	4571 Sep 06 23:32	29° \approx 18'53	
					4571 Sep 07 09:34	0° \approx	
superior conj	4570 Oct 10 16:58	19° \approx 12'53	1°35'52	morning set	4571 Sep 16 15:47	17° \approx 28'26	
minimum elong	4570 Oct 10 19:18	19° \approx 24'11	1°35'42		4571 Sep 22 18:06	0° \approx	
	4570 Oct 16 10:30	0° \approx					
max. Earth dist.	4570 Oct 17 08:42	1° \approx 40'56	1.38526 AU	superior conj	4571 Sep 24 07:45	3° \approx 11'15	1°43'11
evening rise	4570 Oct 21 04:55	8° \approx 29'36		minimum elong	4571 Sep 24 08:28	3° \approx 14'50	1°43'10
desc. node	4570 Oct 26 19:02	17° \approx 54'28		max. Earth dist.	4571 Sep 29 15:13	13° \approx 39'27	1.36518 AU
	4570 Nov 03 11:47	0° \approx		evening rise	4571 Oct 03 13:15	20° \approx 59'48	
evening max el	4570 Nov 25 16:33	28° \approx 46'41	24°45'55		4571 Oct 08 15:07	0° \approx	
	4570 Nov 26 23:16	0° \approx		desc. node	4571 Oct 13 16:04	8° \approx 23'12	
retrograde	4570 Dec 07 07:19	5° \approx 32'10			4571 Oct 28 10:19	0° \approx	
evening set	4570 Dec 12 20:09	3° \approx 14'41		evening max el	4571 Nov 08 05:05	12° \approx 29'59	25°56'00
	4570 Dec 15 22:07	30° \approx 18'00		retrograde	4571 Nov 20 16:32	19° \approx 35'54	
asc. node	4570 Dec 17 01:44	28° \approx 32'20		evening set	4571 Nov 26 19:14	17° \approx 05'20	
min. Earth dist.	4570 Dec 17 11:03	28° \approx 01'48	0.67604 AU	min. Earth dist.	4571 Dec 01 02:42	12° \approx 27'57	0.66864 AU
inferior conj	4570 Dec 18 09:32	26° \approx 47'20	0°26'58	inferior conj	4571 Dec 02 12:21	10° \approx 42'30	0°-29'-26
minimum elong	4570 Dec 18 08:53	26° \approx 49'31	0°26'42	minimum elong	4571 Dec 02 13:07	10° \approx 40'03	0°29'06
morning rise	4570 Dec 23 22:05	20° \approx 45'01		asc. node	4571 Dec 03 22:47	8° \approx 56'25	
direct	4570 Dec 27 12:46	19° \approx 30'03		morning rise	4571 Dec 08 08:02	4° \approx 49'18	
morning max el	4571 Jan 04 00:14	23° \approx 43'44	19°52'37	direct	4571 Dec 11 11:29	3° \approx 52'41	
	4571 Jan 09 08:36	0° \approx		morning max el	4571 Dec 18 08:00	7° \approx 39'57	18°56'57

	4572 Jan 03 09:00	0°☿		morning rise	4572 Nov 21 14:19	18°♌50'50	
morning set	4572 Jan 09 12:41	9°☿35'37		direct	4572 Nov 24 08:35	18°♌08'50	
desc. node	4572 Jan 09 15:21	9°☿46'02		morning max el	4572 Nov 30 21:26	21°♌40'37	18°17'30
	4572 Jan 22 13:45	0°♊			4572 Dec 07 10:35	0°♊	
max. Earth dist.	4572 Jan 24 07:58	2°♊45'45	1.45089 AU	morning set	4572 Dec 19 23:43	19°♊51'59	
					4572 Dec 26 06:42	0°☿	
superior conj	4572 Jan 26 03:54	5°♊38'38	-1°-38'-51	desc. node	4572 Dec 26 12:22	0°☿22'38	
minimum elong	4572 Jan 25 18:43	5°♊02'28	1°38'01				
evening rise	4572 Feb 10 06:51	29°♊50'53		superior conj	4573 Jan 04 06:40	14°☿15'58	0°-57'-53
	4572 Feb 10 09:05	0°♋		minimum elong	4573 Jan 03 23:32	13°☿47'55	0°57'00
asc. node	4572 Feb 29 22:04	29°♋33'16		max. Earth dist.	4573 Jan 06 03:03	17°☿10'14	1.45277 AU
	4572 Mar 01 08:02	0°♌			4573 Jan 14 07:50	0°♊	
evening max el	4572 Mar 01 16:29	0°♌21'49	18°36'48	evening rise	4573 Jan 20 12:35	9°♊41'35	
retrograde	4572 Mar 08 06:30	3°♌59'48			4573 Feb 02 14:52	0°♋	
evening set	4572 Mar 11 09:13	3°♌04'59		greatest brilliancy	4573 Feb 04 01:12	2°♋08'03	-0.7m
	4572 Mar 14 23:27	30°♌		evening max el	4573 Feb 13 00:58	13°♋52'09	19°18'08
inferior conj	4572 Mar 17 04:05	27°♋27'28	3°34'00	asc. node	4573 Feb 15 19:06	16°♋17'05	
minimum elong	4572 Mar 17 03:31	27°♋29'09	3°33'59	retrograde	4573 Feb 20 02:50	17°♋54'44	
min. Earth dist.	4572 Mar 19 03:50	25°♋03'52	0.64959 AU	evening set	4573 Feb 23 12:33	16°♋46'57	
morning rise	4572 Mar 22 20:29	21°♋14'15		inferior conj	4573 Mar 01 01:59	10°♋53'21	3°22'02
direct	4572 Mar 29 12:42	18°♋25'37		minimum elong	4573 Mar 01 00:18	10°♋58'50	3°21'47
desc. node	4572 Apr 06 14:36	21°♋37'35		min. Earth dist.	4573 Mar 02 10:33	9°♋08'03	0.66354 AU
morning max el	4572 Apr 11 22:30	26°♋17'03	27°10'28	morning rise	4573 Mar 06 11:11	4°♋37'25	
	4572 Apr 15 09:12	0°♌		direct	4573 Mar 12 17:28	1°♋51'50	
	4572 May 06 08:10	0°♍		desc. node	4573 Mar 24 11:37	8°♋31'10	
morning set	4572 May 17 10:49	20°♍03'21		morning max el	4573 Mar 25 08:21	9°♋22'34	26°06'41
max. Earth dist.	4572 May 22 01:28	29°♍13'50	1.33768 AU		4573 Apr 10 14:04	0°♌	
	4572 May 22 10:30	0°♎			4573 Apr 28 20:38	0°♍	
				morning set	4573 Apr 30 11:02	2°♍56'30	
superior conj	4572 May 25 18:51	6°♎57'32	0°-21'-43	max. Earth dist.	4573 May 04 10:26	10°♍29'03	1.35272 AU
minimum elong	4572 May 25 19:59	7°♎03'31	0°21'30				
asc. node	4572 May 27 21:21	11°♎24'47		superior conj	4573 May 09 14:41	20°♍46'50	0°-51'-13
evening rise	4572 Jun 02 03:13	22°♎32'46		minimum elong	4573 May 09 17:28	21°♍01'00	0°50'42
	4572 Jun 05 18:24	0°♏			4573 May 14 02:08	0°♎	
evening max el	4572 Jun 22 16:00	25°♏52'50	21°50'58	asc. node	4573 May 14 18:23	1°♎24'16	
	4572 Jun 27 22:43	0°♐		evening rise	4573 May 17 10:57	6°♎58'08	
desc. node	4572 Jul 03 13:49	2°♐00'05			4573 May 30 03:54	0°♏	
retrograde	4572 Jul 05 06:00	2°♐06'38		evening max el	4573 Jun 04 18:44	6°♏48'25	20°27'24
evening set	4572 Jul 07 22:41	1°♐50'19		retrograde	4573 Jun 15 19:05	12°♏11'35	
	4572 Jul 13 03:01	30°♐		evening set	4573 Jun 17 19:10	12°♏01'37	
inferior conj	4572 Jul 17 05:54	27°♏47'45	-3°-45'-53	desc. node	4573 Jun 20 10:51	11°♏20'07	
minimum elong	4572 Jul 16 21:13	27°♏59'54	3°43'30	inferior conj	4573 Jun 26 23:50	8°♏04'08	-1°-56'-2
min. Earth dist.	4572 Jul 16 19:39	28°♏02'07	0.54906 AU	minimum elong	4573 Jun 26 18:24	8°♏12'02	1°54'05
morning rise	4572 Jul 25 21:14	23°♏56'54		min. Earth dist.	4573 Jun 28 07:33	7°♏18'03	0.54957 AU
direct	4572 Jul 29 04:13	23°♏33'08		morning rise	4573 Jul 05 16:00	3°♏54'56	
morning max el	4572 Aug 10 06:28	29°♏13'09	21°46'20	direct	4573 Jul 09 14:01	3°♏21'48	
	4572 Aug 11 02:03	0°♑		morning max el	4573 Jul 22 23:35	9°♏51'36	23°27'56
asc. node	4572 Aug 23 20:35	18°♑06'53			4573 Aug 06 18:09	0°♑	
	4572 Aug 29 22:52	0°♒		asc. node	4573 Aug 10 17:37	7°♑23'52	
morning set	4572 Aug 31 01:11	2°♒16'18		morning set	4573 Aug 15 12:32	17°♑09'10	
					4573 Aug 21 11:58	0°♒	
superior conj	4572 Sep 07 07:44	17°♒36'45	1°42'54				
minimum elong	4572 Sep 07 07:02	17°♒33'04	1°42'53	superior conj	4573 Aug 22 13:50	2°♒19'26	1°36'14
max. Earth dist.	4572 Sep 11 04:07	25°♒32'52	1.34798 AU	minimum elong	4573 Aug 22 12:08	2°♒10'16	1°36'06
	4572 Sep 13 09:34	0°♓		max. Earth dist.	4573 Aug 25 01:43	7°♒39'06	1.33467 AU
evening rise	4572 Sep 15 14:33	4°♓17'41		evening rise	4573 Aug 30 04:38	18°♒11'46	
desc. node	4572 Sep 29 13:05	28°♓35'34			4573 Sep 05 09:02	0°♓	
	4572 Sep 30 10:42	0°♔		desc. node	4573 Sep 16 10:07	18°♓24'08	
evening max el	4572 Oct 20 17:39	26°♔07'55	26°50'21		4573 Sep 24 17:46	0°♔	
	4572 Oct 25 07:06	0°♕		evening max el	4573 Oct 03 05:41	9°♔30'56	27°21'50
retrograde	4572 Nov 02 20:25	3°♕24'24		retrograde	4573 Oct 16 18:33	16°♔49'23	
evening set	4572 Nov 09 11:44	0°♕45'37		evening set	4573 Oct 23 19:09	14°♔10'22	
	4572 Nov 10 09:04	30°♕		min. Earth dist.	4573 Oct 27 13:45	10°♔43'45	0.64322 AU
min. Earth dist.	4572 Nov 13 12:18	26°♕44'17	0.65768 AU	inferior conj	4573 Oct 29 23:10	8°♔11'24	-2°-32'-14
inferior conj	4572 Nov 15 09:40	24°♕32'12	-1°-29'-49	minimum elong	4573 Oct 30 03:32	7°♔59'49	2°30'37
minimum elong	4572 Nov 15 12:12	24°♕24'50	1°28'47	morning rise	4573 Nov 05 14:13	2°♕44'51	
asc. node	4572 Nov 19 19:49	19°♕59'53		asc. node	4573 Nov 06 16:51	2°♕23'08	

direct	4573 Nov 08 01:46	2°♄13'27		min. Earth dist.	4574 Oct 10 05:15	24°♄15'58	0.62563 AU
morning max el	4573 Nov 14 13:50	5°♄39'02	17°55'02	inferior conj	4574 Oct 13 01:59	21°♄33'00	-3°-33'-26
	4573 Nov 30 17:32	0°♄		minimum elong	4574 Oct 13 07:47	21°♄19'12	3°31'38
morning set	4573 Dec 01 15:24	1°♄32'43		morning rise	4574 Oct 20 04:16	16°♄24'32	
desc. node	4573 Dec 13 09:23	21°♄06'20		direct	4574 Oct 22 11:58	16°♄00'07	
				asc. node	4574 Oct 24 13:53	16°♄20'17	
superior conj	4573 Dec 14 22:14	23°♄35'33	0°-10'-38	morning max el	4574 Oct 29 06:10	19°♄27'33	17°50'20
minimum elong	4573 Dec 14 20:59	23°♄30'31	0°10'27		4574 Nov 06 00:00	0°♄	
behind sun begin	4573 Dec 14 13:08	22°♄58'48		morning set	4574 Nov 14 05:47	14°♄18'32	
behind sun end	4573 Dec 15 04:50	24°♄02'12			4574 Nov 23 04:23	0°♄	
	4573 Dec 18 22:14	0°♄					
max. Earth dist.	4573 Dec 19 21:41	1°♄33'02	1.44726 AU	superior conj	4574 Nov 25 14:45	4°♄08'27	0°32'18
evening rise	4573 Dec 31 01:50	18°♄57'41		minimum elong	4574 Nov 25 17:42	4°♄20'55	0°31'54
	4574 Jan 07 07:25	0°♄		desc. node	4574 Nov 30 06:23	11°♄53'09	
greatest brilliancy	4574 Jan 20 20:26	19°♄44'13	-0.6m	max. Earth dist.	4574 Dec 02 13:36	15°♄38'06	1.43514 AU
evening max el	4574 Jan 27 04:41	27°♄25'14	20°14'51	evening rise	4574 Dec 10 12:37	28°♄14'21	
	4574 Jan 30 01:43	0°♄			4574 Dec 11 15:55	0°♄	
asc. node	4574 Feb 02 16:07	1°♄50'42			4575 Jan 01 02:50	0°♄	
retrograde	4574 Feb 04 00:55	2°♄00'47		greatest brilliancy	4575 Jan 05 03:44	5°♄16'56	-0.4m
evening set	4574 Feb 07 19:03	0°♄38'55		evening max el	4575 Jan 10 02:57	10°♄59'22	21°24'03
	4574 Feb 08 14:25	30°♄		retrograde	4575 Jan 18 22:36	16°♄13'12	
inferior conj	4574 Feb 13 05:28	24°♄31'48	2°58'29	asc. node	4575 Jan 20 13:10	15°♄59'16	
minimum elong	4574 Feb 13 03:09	24°♄39'38	2°57'58	evening set	4575 Jan 23 02:49	14°♄36'06	
min. Earth dist.	4574 Feb 14 00:07	23°♄28'39	0.67331 AU	inferior conj	4575 Jan 28 12:09	8°♄18'25	2°25'33
morning rise	4574 Feb 18 10:42	18°♄15'37		minimum elong	4575 Jan 28 09:43	8°♄26'51	2°24'50
direct	4574 Feb 24 03:51	15°♄43'24		min. Earth dist.	4575 Jan 28 18:13	7°♄57'24	0.67895 AU
morning max el	4574 Mar 07 17:01	22°♄37'52	24°45'07	morning rise	4575 Feb 02 16:18	2°♄03'50	
desc. node	4574 Mar 11 08:38	26°♄36'15			4575 Feb 06 11:10	30°♄	
	4574 Mar 14 04:28	0°♄		direct	4575 Feb 07 18:49	29°♄51'39	
	4574 Apr 03 21:50	0°♄			4575 Feb 09 03:31	0°♄	
morning set	4574 Apr 12 17:09	14°♄53'48		morning max el	4575 Feb 18 01:55	5°♄58'37	23°16'14
max. Earth dist.	4574 Apr 16 09:06	21°♄29'33	1.37197 AU	greatest brilliancy	4575 Feb 23 07:10	11°♄50'09	-0.2m
	4574 Apr 20 22:03	0°♄		desc. node	4575 Feb 26 05:38	15°♄31'54	
					4575 Mar 08 15:23	0°♄	
superior conj	4574 Apr 23 00:11	4°♄02'06	-1°-19'-57	morning set	4575 Mar 24 23:07	25°♄38'53	
minimum elong	4574 Apr 23 04:27	4°♄22'54	1°19'19		4575 Mar 27 12:42	0°♄	
evening rise	4574 May 01 13:17	21°♄02'42		max. Earth dist.	4575 Mar 29 04:12	2°♄50'32	1.39367 AU
asc. node	4574 May 01 15:25	21°♄13'17					
	4574 May 06 03:11	0°♄		superior conj	4575 Apr 05 19:23	16°♄33'17	-1°-45'-10
evening max el	4574 May 18 09:55	18°♄25'32	19°22'11	minimum elong	4575 Apr 06 00:16	16°♄55'55	1°44'41
retrograde	4574 May 27 16:38	22°♄56'54			4575 Apr 12 21:32	0°♄	
evening set	4574 May 29 15:49	22°♄45'37		evening rise	4575 Apr 15 07:23	4°♄38'54	
inferior conj	4574 Jun 07 05:11	18°♄38'21	0°01'58	asc. node	4575 Apr 18 12:27	10°♄47'00	
minimum elong	4574 Jun 07 05:16	18°♄38'13	0°01'55		4575 Apr 30 19:00	0°♄	
transit middle	4574 Jun 07 05:16	18°♄38'13	0°01'55	evening max el	4575 May 01 11:30	0°♄41'49	18°37'12
transit begin	4574 Jun 07 01:26	18°♄44'29		retrograde	4575 May 09 08:15	4°♄34'02	
transit end	4574 Jun 07 09:06	18°♄31'56		evening set	4575 May 11 12:56	4°♄16'59	
desc. node	4574 Jun 07 07:52	18°♄33'58		inferior conj	4575 May 19 06:43	29°♄50'45	1°38'59
min. Earth dist.	4574 Jun 09 21:44	16°♄53'20	0.55958 AU	minimum elong	4575 May 19 09:56	29°♄44'36	1°37'58
morning rise	4574 Jun 15 14:44	13°♄56'16			4575 May 19 01:52	30°♄	
direct	4574 Jun 20 10:20	13°♄03'25		min. Earth dist.	4575 May 22 15:16	27°♄18'05	0.57689 AU
morning max el	4574 Jul 04 13:12	20°♄13'00	25°09'52	desc. node	4575 May 25 04:52	25°♄35'12	
	4574 Jul 12 22:00	0°♄		morning rise	4575 May 27 02:27	24°♄33'55	
asc. node	4574 Jul 28 14:39	27°♄02'01		direct	4575 Jun 01 20:36	23°♄11'01	
	4574 Jul 30 01:04	0°♄			4575 Jun 15 09:54	0°♄	
morning set	4574 Jul 31 00:14	2°♄01'56		morning max el	4575 Jun 16 05:32	0°♄46'40	26°36'08
					4575 Jul 06 21:33	0°♄	
superior conj	4574 Aug 06 23:40	17°♄11'34	1°24'08	morning set	4575 Jul 15 10:40	16°♄49'51	
minimum elong	4574 Aug 06 21:26	16°♄59'19	1°23'51	asc. node	4575 Jul 15 11:42	16°♄55'16	
max. Earth dist.	4574 Aug 08 07:14	20°♄04'02	1.32559 AU		4575 Jul 21 12:19	0°♄	
	4574 Aug 12 22:39	0°♄					
evening rise	4574 Aug 14 03:56	2°♄31'48		superior conj	4575 Jul 22 11:17	2°♄06'51	1°07'21
	4574 Aug 29 05:11	0°♄		minimum elong	4575 Jul 22 09:00	1°♄54'13	1°06'57
desc. node	4574 Sep 03 07:08	7°♄38'45		max. Earth dist.	4575 Jul 22 17:41	2°♄42'07	1.32067 AU
evening max el	4574 Sep 15 15:19	22°♄26'28	27°24'05	evening rise	4575 Jul 29 09:36	17°♄09'07	
retrograde	4574 Sep 29 09:52	29°♄41'22			4575 Aug 04 19:38	0°♄	
evening set	4574 Oct 06 14:10	27°♄12'52		desc. node	4575 Aug 21 04:09	26°♄05'39	

	4575 Aug 24 08:51	0°♄			4576 Jul 11 21:38	0°♄		
evening max el	4575 Aug 28 19:48	4°♄41'32	26°53'11	evening rise	4576 Jul 12 19:13	1°♄55'16		
retrograde	4575 Sep 11 17:25	11°♄51'59			4576 Jul 27 22:25	0°♄		
evening set	4575 Sep 18 16:35	9°♄46'10		desc. node	4576 Aug 07 01:12	13°♄24'21		
min. Earth dist.	4575 Sep 22 09:57	7°♄08'27	0.60569 AU	evening max el	4576 Aug 09 16:44	16°♄06'39	25°49'56	
inferior conj	4575 Sep 25 14:48	4°♄28'37	-4°-27'-39	retrograde	4576 Aug 23 15:51	23°♄13'40		
minimum elong	4575 Sep 25 20:46	4°♄16'10	4°26'22	evening set	4576 Aug 29 21:22	21°♄41'31		
	4575 Oct 02 06:56	30°♄		min. Earth dist.	4576 Sep 03 04:57	19°♄06'02	0.58499 AU	
morning rise	4575 Oct 03 04:13	29°♄41'43		inferior conj	4576 Sep 06 09:59	16°♄47'01	-5°-5'-21	
direct	4575 Oct 05 11:24	29°♄21'13		minimum elong	4576 Sep 06 13:31	16°♄40'36	5°05'02	
	4575 Oct 08 13:31	0°♄		morning rise	4576 Sep 14 09:13	12°♄23'49		
asc. node	4575 Oct 11 10:55	1°♄46'42		direct	4576 Sep 16 19:17	12°♄04'55		
morning max el	4575 Oct 12 19:18	2°♄58'42	18°04'37	morning max el	4576 Sep 25 01:51	16°♄02'16	18°39'19	
morning set	4575 Oct 28 12:40	27°♄51'35		asc. node	4576 Sep 27 07:58	18°♄27'36		
	4575 Oct 29 16:13	0°♄			4576 Oct 04 22:39	0°♄		
				morning set	4576 Oct 11 07:02	11°♄56'36		
superior conj	4575 Nov 07 09:20	15°♄57'43	1°05'24	superior conj	4576 Oct 20 01:13	28°♄48'58	1°27'38	
minimum elong	4575 Nov 07 13:23	16°♄15'46	1°04'53	minimum elong	4576 Oct 20 04:26	29°♄04'02	1°27'19	
max. Earth dist.	4575 Nov 15 01:00	29°♄10'54	1.41782 AU		4576 Oct 20 16:23	0°♄		
	4575 Nov 15 12:45	0°♄		max. Earth dist.	4576 Oct 27 07:19	11°♄59'45	1.39735 AU	
desc. node	4575 Nov 17 03:25	2°♄40'14		evening rise	4576 Oct 31 10:20	19°♄05'07		
evening rise	4575 Nov 20 12:34	8°♄10'00		desc. node	4576 Nov 03 00:28	23°♄23'29		
	4575 Dec 04 19:44	0°♄			4576 Nov 07 02:53	0°♄		
greatest brilliancy	4575 Dec 18 20:23	18°♄59'44	-0.3m		4576 Nov 28 03:27	0°♄		
evening max el	4575 Dec 23 20:14	24°♄35'31	22°41'20	evening max el	4576 Dec 05 10:04	8°♄14'46	24°01'16	
	4575 Dec 31 05:20	0°♄		retrograde	4576 Dec 16 10:48	14°♄44'09		
retrograde	4576 Jan 02 18:18	0°♄28'59		evening set	4576 Dec 21 15:47	12°♄35'02		
	4576 Jan 05 03:46	30°♄		asc. node	4576 Dec 24 07:13	9°♄50'30		
evening set	4576 Jan 07 10:15	28°♄35'48		min. Earth dist.	4576 Dec 26 11:08	7°♄02'31	0.67874 AU	
asc. node	4576 Jan 07 10:11	28°♄35'56		inferior conj	4576 Dec 27 03:30	6°♄07'04	0°57'08	
inferior conj	4576 Jan 12 20:07	22°♄10'57	1°44'44	minimum elong	4576 Dec 27 02:12	6°♄11'30	0°56'37	
minimum elong	4576 Jan 12 18:01	22°♄18'13	1°44'00	morning rise	4577 Jan 01 12:55	0°♄00'57		
min. Earth dist.	4576 Jan 12 14:40	22°♄29'48	0.68069 AU		4577 Jan 01 13:26	30°♄		
morning rise	4576 Jan 18 01:43	15°♄59'42		direct	4577 Jan 05 10:45	28°♄34'15		
direct	4576 Jan 22 13:27	14°♄10'24			4577 Jan 09 15:49	0°♄		
morning max el	4576 Jan 31 14:39	19°♄27'46	21°49'20	morning max el	4577 Jan 13 10:19	3°♄08'27	20°31'27	
greatest brilliancy	4576 Feb 05 08:14	24°♄47'05	-0.4m	greatest brilliancy	4577 Jan 19 12:26	10°♄17'06	-0.5m	
	4576 Feb 09 09:48	0°♄		desc. node	4577 Jan 29 23:42	25°♄02'39		
desc. node	4576 Feb 13 02:40	5°♄04'03			4577 Feb 02 07:32	0°♄		
	4576 Feb 29 20:07	0°♄		morning set	4577 Feb 11 02:01	13°♄23'15		
morning set	4576 Mar 04 00:31	5°♄02'32		max. Earth dist.	4577 Feb 20 09:37	28°♄06'34	1.43343 AU	
max. Earth dist.	4576 Mar 10 03:21	15°♄01'25	1.41510 AU		4577 Feb 21 13:40	0°♄		
				superior conj	4577 Feb 26 19:35	8°♄37'28	-2°-8'-3	
superior conj	4576 Mar 17 19:27	28°♄08'33	-2°-2'-56	minimum elong	4577 Feb 26 18:33	8°♄33'10	2°08'03	
minimum elong	4576 Mar 17 22:55	28°♄23'48	2°02'47	evening rise	4577 Mar 11 03:57	29°♄50'50		
	4576 Mar 18 20:44	0°♄			4577 Mar 11 06:02	0°♄		
evening rise	4576 Mar 28 13:41	17°♄38'04		asc. node	4577 Mar 22 06:32	18°♄43'54		
asc. node	4576 Apr 04 09:30	29°♄59'34		evening max el	4577 Mar 28 08:14	26°♄36'54	18°07'09	
	4576 Apr 04 09:36	0°♄		retrograde	4577 Apr 03 20:05	29°♄59'16		
evening max el	4576 Apr 13 20:03	13°♄28'34	18°12'23	evening set	4577 Apr 06 13:09	29°♄23'16		
retrograde	4576 Apr 20 18:44	16°♄58'13		inferior conj	4577 Apr 12 22:51	24°♄15'27	3°20'56	
evening set	4576 Apr 23 05:47	16°♄32'35		minimum elong	4577 Apr 13 00:51	24°♄10'20	3°20'41	
inferior conj	4576 Apr 30 05:39	11°♄45'09	2°44'30	min. Earth dist.	4577 Apr 15 22:14	21°♄13'56	0.61994 AU	
minimum elong	4576 Apr 30 09:01	11°♄37'36	2°43'45	morning rise	4577 Apr 19 09:48	18°♄14'17		
min. Earth dist.	4576 May 03 14:40	8°♄45'43	0.59813 AU	direct	4577 Apr 26 05:34	15°♄47'09		
morning rise	4576 May 07 08:28	6°♄01'03		desc. node	4577 Apr 27 22:55	15°♄55'53		
desc. node	4576 May 11 01:54	4°♄24'42		morning max el	4577 May 10 08:58	23°♄46'41	27°52'25	
direct	4576 May 13 19:41	4°♄03'41			4577 May 15 23:01	0°♄		
morning max el	4576 May 28 04:09	11°♄55'19	27°32'45	morning set	4577 Jun 04 15:40	0°♄		
	4576 Jun 11 08:44	0°♄		asc. node	4577 Jun 12 20:32	15°♄45'56		
morning set	4576 Jun 28 01:23	0°♄		max. Earth dist.	4577 Jun 18 05:48	27°♄05'00		
asc. node	4576 Jul 01 08:44	6°♄57'42			4577 Jun 18 13:51	27°♄48'26	1.32330 AU	
max. Earth dist.	4576 Jul 05 05:12	15°♄21'09	1.31989 AU		4577 Jun 19 14:08	0°♄		
				superior conj	4577 Jun 20 08:44	1°♄41'18	0°22'03	
superior conj	4576 Jul 05 22:53	16°♄58'32	0°46'28					
minimum elong	4576 Jul 05 21:00	16°♄48'13	0°46'04					

minimum elong	4577 Jun 20 07:43	1° \mathfrak{S} 35'48	0°21'50		4578 May 27 19:35	0° Π	
evening rise	4577 Jun 27 06:48	16° \mathfrak{S} 43'54		max. Earth dist.	4578 Jun 01 15:35	9° Π 51'10	1.33111 AU
	4577 Jul 03 19:58	0° \mathcal{Q}					
evening max el	4577 Jul 22 06:57	26° \mathcal{Q} 48'13	24°22'27	superior conj	4578 Jun 04 14:57	16° Π 08'48	0°-5'-10
desc. node	4577 Jul 24 22:13	29° \mathcal{Q} 07'53		minimum elong	4578 Jun 04 15:12	16° Π 10'10	0°05'08
	4577 Jul 26 01:25	0° \mathfrak{M}		behind sun begin	4578 Jun 04 10:05	15° Π 42'46	
retrograde	4577 Aug 05 03:20	3° \mathfrak{M} 47'18		behind sun end	4578 Jun 04 20:20	16° Π 37'36	
evening set	4577 Aug 10 01:43	2° \mathfrak{M} 53'01		asc. node	4578 Jun 05 02:51	17° Π 12'31	
min. Earth dist.	4577 Aug 15 17:52	0° \mathfrak{M} 00'27	0.56631 AU		4578 Jun 11 01:44	0° \mathfrak{S}	
	4577 Aug 15 18:10	30° \mathcal{R} \mathcal{Q}		evening rise	4578 Jun 11 18:26	1° \mathfrak{S} 28'33	
inferior conj	4577 Aug 18 09:04	28° \mathcal{Q} 20'43	-5°-12'-3		4578 Jun 27 16:56	0° \mathcal{Q}	
minimum elong	4577 Aug 18 07:04	28° \mathcal{Q} 23'52	5°12'00	evening max el	4578 Jul 03 20:15	7° \mathcal{Q} 11'04	22°45'13
morning rise	4577 Aug 26 15:56	24° \mathcal{Q} 18'48		desc. node	4578 Jul 11 19:13	12° \mathcal{Q} 42'41	
direct	4577 Aug 29 08:02	23° \mathcal{Q} 59'40		retrograde	4578 Jul 17 02:06	13° \mathcal{Q} 46'45	
morning max el	4577 Sep 07 22:36	28° \mathcal{Q} 28'45	19°35'36	evening set	4578 Jul 20 11:55	13° \mathcal{Q} 21'19	
	4577 Sep 09 10:48	0° \mathfrak{M}		min. Earth dist.	4578 Jul 28 04:28	9° \mathcal{Q} 57'17	0.55302 AU
asc. node	4577 Sep 14 05:01	6° \mathfrak{M} 08'04		inferior conj	4578 Jul 29 13:24	9° \mathcal{Q} 10'08	-4°-32'-15
morning set	4577 Sep 25 09:15	26° \mathfrak{M} 23'35		minimum elong	4578 Jul 29 05:45	9° \mathcal{Q} 21'07	4°30'44
	4577 Sep 27 04:09	0° \mathfrak{A}		morning rise	4578 Aug 07 02:05	5° \mathcal{Q} 19'43	
				direct	4578 Aug 10 02:52	4° \mathcal{Q} 58'22	
superior conj	4577 Oct 03 08:58	12° \mathfrak{A} 26'34	1°39'58	morning max el	4578 Aug 21 07:27	10° \mathcal{Q} 10'48	20°53'15
minimum elong	4577 Oct 03 10:37	12° \mathfrak{A} 34'39	1°39'54	asc. node	4578 Sep 01 02:04	24° \mathcal{Q} 34'49	
max. Earth dist.	4577 Oct 09 11:43	24° \mathfrak{A} 09'05	1.37642 AU		4578 Sep 04 02:26	0° \mathfrak{M}	
	4577 Oct 12 16:49	0° \mathfrak{M}		morning set	4578 Sep 09 16:39	11° \mathfrak{M} 05'40	
evening rise	4577 Oct 13 06:54	1° \mathfrak{M} 02'45					
desc. node	4577 Oct 20 21:31	13° \mathfrak{M} 58'50		superior conj	4578 Sep 17 04:04	26° \mathfrak{M} 37'37	1°43'54
	4577 Oct 31 08:07	0° \mathfrak{A}		minimum elong	4578 Sep 17 04:08	26° \mathfrak{M} 37'57	1°43'55
evening max el	4577 Nov 17 22:32	21° \mathfrak{A} 57'14	25°17'12		4578 Sep 18 19:44	0° \mathfrak{A}	
retrograde	4577 Nov 29 23:02	28° \mathfrak{A} 53'36		max. Earth dist.	4578 Sep 21 20:13	6° \mathfrak{A} 01'39	1.35740 AU
evening set	4577 Dec 05 17:44	26° \mathfrak{A} 30'03		evening rise	4578 Sep 25 23:00	13° \mathfrak{A} 55'01	
min. Earth dist.	4577 Dec 10 05:19	21° \mathfrak{A} 32'02	0.67326 AU		4578 Oct 05 02:14	0° \mathfrak{M}	
inferior conj	4577 Dec 11 08:32	20° \mathfrak{A} 03'43	0°03'39	desc. node	4578 Oct 07 18:32	4° \mathfrak{M} 21'31	
minimum elong	4577 Dec 11 08:26	20° \mathfrak{A} 04'02	0°03'36		4578 Oct 26 04:04	0° \mathfrak{A}	
transit middle	4577 Dec 11 08:26	20° \mathfrak{A} 04'02	0°03'36	evening max el	4578 Oct 31 11:14	5° \mathfrak{A} 40'04	26°21'38
transit begin	4577 Dec 11 05:43	20° \mathfrak{A} 12'52		retrograde	4578 Nov 13 06:09	12° \mathfrak{A} 51'49	
transit end	4577 Dec 11 11:09	19° \mathfrak{A} 55'13		evening set	4578 Nov 19 14:17	10° \mathfrak{A} 17'19	
asc. node	4577 Dec 11 04:16	20° \mathfrak{A} 17'37		min. Earth dist.	4578 Nov 23 18:49	5° \mathfrak{A} 54'58	0.66434 AU
morning rise	4577 Dec 16 23:53	14° \mathfrak{A} 04'54		inferior conj	4578 Nov 25 09:18	3° \mathfrak{A} 57'44	0°-54'-36
direct	4577 Dec 20 09:25	12° \mathfrak{A} 58'20		minimum elong	4578 Nov 25 10:47	3° \mathfrak{A} 53'12	0°53'59
morning max el	4577 Dec 27 13:50	16° \mathfrak{A} 59'50	19°26'58	asc. node	4578 Nov 28 01:17	0° \mathfrak{A} 52'30	
greatest brilliancy	4578 Jan 05 06:44	27° \mathfrak{A} 58'09	-0.7m		4578 Nov 28 22:14	30° \mathcal{R} \mathfrak{M}	
	4578 Jan 06 16:32	0° \mathfrak{S}		morning rise	4578 Dec 01 08:33	28° \mathfrak{M} 08'55	
desc. node	4578 Jan 16 20:44	15° \mathfrak{S} 20'06		direct	4578 Dec 04 07:49	27° \mathfrak{M} 18'57	
morning set	4578 Jan 20 23:52	21° \mathfrak{S} 42'09			4578 Dec 09 23:20	0° \mathfrak{A}	
	4578 Jan 26 08:11	0° \approx		morning max el	4578 Dec 11 00:14	0° \mathfrak{A} 58'38	18°38'07
max. Earth dist.	4578 Feb 02 22:32	11° \approx 54'57	1.44644 AU		4578 Dec 31 00:57	0° \mathfrak{S}	
				morning set	4578 Dec 31 18:09	1° \mathfrak{S} 08'03	
superior conj	4578 Feb 06 18:13	17° \approx 59'18	-1°-55'-15	desc. node	4579 Jan 03 17:47	5° \mathfrak{S} 51'19	
minimum elong	4578 Feb 06 11:04	17° \approx 30'45	1°54'48				
	4578 Feb 14 04:22	0° \mathfrak{H}		superior conj	4579 Jan 16 23:09	26° \mathfrak{S} 38'50	-1°-23'-2
evening rise	4578 Feb 20 21:44	11° \mathfrak{H} 08'29		minimum elong	4579 Jan 16 13:59	26° \mathfrak{S} 02'53	1°22'04
	4578 Mar 04 08:49	0° \mathfrak{Y}		max. Earth dist.	4579 Jan 16 16:26	26° \mathfrak{S} 12'28	1.45264 AU
asc. node	4578 Mar 09 03:35	6° \mathfrak{Y} 50'37			4579 Jan 19 02:25	0° \approx	
evening max el	4578 Mar 11 20:57	9° \mathfrak{Y} 58'20	18°20'46	evening rise	4579 Feb 01 16:22	21° \approx 29'15	
retrograde	4578 Mar 18 07:42	13° \mathfrak{Y} 26'58			4579 Feb 07 00:12	0° \mathfrak{H}	
evening set	4578 Mar 21 06:46	12° \mathfrak{Y} 39'21		evening max el	4579 Feb 23 07:41	23° \mathfrak{H} 27'22	18°52'19
inferior conj	4578 Mar 27 06:05	7° \mathfrak{Y} 12'25	3°34'23	asc. node	4579 Feb 24 00:36	24° \mathfrak{H} 08'48	
minimum elong	4578 Mar 27 06:24	7° \mathfrak{Y} 11'33	3°34'22	retrograde	4579 Mar 02 01:43	27° \mathfrak{H} 14'08	
min. Earth dist.	4578 Mar 29 14:59	4° \mathfrak{Y} 30'24	0.63981 AU	evening set	4579 Mar 05 07:21	26° \mathfrak{H} 13'53	
morning rise	4578 Apr 02 04:15	1° \mathfrak{Y} 02'13		inferior conj	4579 Mar 10 23:35	20° \mathfrak{H} 29'28	3°30'28
	4578 Apr 03 14:23	30° \mathcal{R} \mathfrak{H}		minimum elong	4579 Mar 10 22:29	20° \mathfrak{H} 32'53	3°30'22
direct	4578 Apr 08 23:58	28° \mathfrak{H} 17'06		min. Earth dist.	4579 Mar 12 16:49	18° \mathfrak{H} 21'19	0.65616 AU
desc. node	4578 Apr 14 19:57	29° \mathfrak{H} 58'01		morning rise	4579 Mar 16 12:33	14° \mathfrak{H} 14'57	
	4578 Apr 14 21:25	0° \mathfrak{Y}		direct	4579 Mar 23 01:14	11° \mathfrak{H} 25'59	
morning max el	4578 Apr 22 17:35	6° \mathfrak{Y} 14'51	27°35'05	desc. node	4579 Apr 01 17:00	15° \mathfrak{H} 58'37	
	4578 May 10 20:27	0° \mathfrak{B}		morning max el	4579 Apr 05 03:29	19° \mathfrak{H} 09'47	26°45'58
morning set	4578 May 27 15:29	29° \mathfrak{B} 39'46			4579 Apr 14 08:24	0° \mathfrak{Y}	

	4579 May 03 20:59	0°♄			4580 Apr 07 11:50	0°♅		
morning set	4579 May 10 23:44	12°♄58'25			4580 Apr 22 17:00	25°♅30'06		
max. Earth dist.	4579 May 15 07:12	21°♄23'17	1.34358 AU		4580 Apr 25 03:35	0°♄		
					max. Earth dist.	4580 Apr 26 11:44	2°♄31'11	1.36053 AU
superior conj	4579 May 19 15:21	0°♂14'26	0°-34'-12		superior conj	4580 May 02 07:16	13°♄51'00	-1°-3'-37
minimum elong	4579 May 19 17:10	0°♂23'55	0°33'50		minimum elong	4580 May 02 10:44	14°♄08'20	1°03'02
	4579 May 19 12:34	0°♂			asc. node	4580 May 08 20:55	27°♄12'13	
asc. node	4579 May 22 23:53	7°♂16'13			evening rise	4580 May 10 10:01	0°♂21'21	
evening rise	4579 May 27 04:12	16°♂03'05				4580 May 10 05:48	0°♂	
	4579 Jun 03 05:34	0°♄			evening max el	4580 May 28 00:35	29°♂00'38	19°57'08
evening max el	4579 Jun 15 16:30	17°♄47'31	21°13'23			4580 May 29 02:10	0°♄	
retrograde	4579 Jun 27 15:22	23°♄40'19			retrograde	4580 Jun 07 06:44	4°♄01'06	
desc. node	4579 Jun 28 16:14	23°♄37'48			evening set	4580 Jun 09 05:13	3°♄51'10	
evening set	4579 Jun 29 22:54	23°♄27'55			desc. node	4580 Jun 14 13:15	1°♄55'42	
inferior conj	4579 Jul 09 07:05	19°♄29'50	-3°-2'-33			4580 Jun 17 22:14	30°♂♂	
minimum elong	4579 Jul 08 23:06	19°♄41'01	3°00'00		inferior conj	4580 Jun 18 04:22	29°♂50'42	-1°-4'-51
min. Earth dist.	4579 Jul 09 15:08	19°♄18'32	0.54810 AU		minimum elong	4580 Jun 18 01:21	29°♂55'16	1°03'45
morning rise	4579 Jul 17 23:29	15°♄33'44			min. Earth dist.	4580 Jun 20 03:37	28°♂39'14	0.55278 AU
direct	4579 Jul 21 12:23	15°♄06'45			morning rise	4580 Jun 26 18:49	25°♂29'03	
morning max el	4579 Aug 03 05:01	21°♄08'20	22°28'38		direct	4580 Jul 01 01:23	24°♂49'08	
	4579 Aug 10 17:44	0°♂				4580 Jul 13 00:28	0°♄	
asc. node	4579 Aug 18 23:07	13°♂36'13			morning max el	4580 Jul 14 19:53	1°♄36'39	24°12'15
morning set	4579 Aug 25 03:05	25°♂56'10				4580 Aug 03 06:48	0°♂	
	4579 Aug 27 01:12	0°♂			asc. node	4580 Aug 04 20:10	3°♂03'28	
					morning set	4580 Aug 08 14:49	10°♂50'10	
superior conj	4579 Sep 01 06:56	11°♂11'01	1°40'47					
minimum elong	4579 Sep 01 05:45	11°♂04'44	1°40'44		superior conj	4580 Aug 15 14:54	25°♂58'47	1°31'43
max. Earth dist.	4579 Sep 04 13:00	18°♂00'10	1.34180 AU		minimum elong	4580 Aug 15 12:55	25°♂48'00	1°31'31
evening rise	4579 Sep 09 06:12	27°♂29'29				4580 Aug 17 11:33	0°♂	
	4579 Sep 10 13:18	0°♄			max. Earth dist.	4580 Aug 17 14:29	0°♂15'45	1.33030 AU
desc. node	4579 Sep 24 15:32	24°♄24'43			evening rise	4580 Aug 23 00:37	11°♂35'50	
	4579 Sep 28 08:44	0°♂				4580 Sep 01 19:21	0°♄	
evening max el	4579 Oct 13 23:56	19°♂13'40	27°07'05		desc. node	4580 Sep 10 12:33	14°♄00'18	
retrograde	4579 Oct 27 07:24	26°♂31'01				4580 Sep 23 00:52	0°♂	
evening set	4579 Nov 03 03:12	23°♂51'15			evening max el	4580 Sep 25 11:10	2°♂26'06	27°26'35
min. Earth dist.	4579 Nov 07 01:12	20°♂04'54	0.65195 AU		retrograde	4580 Oct 09 02:28	9°♂43'04	
inferior conj	4579 Nov 09 03:35	17°♂43'37	-1°-56'-11		evening set	4580 Oct 16 05:46	7°♂06'52	
minimum elong	4579 Nov 09 06:54	17°♂34'19	1°54'51		min. Earth dist.	4580 Oct 19 22:22	3°♂54'04	0.63615 AU
asc. node	4579 Nov 14 22:18	12°♂26'11			inferior conj	4580 Oct 22 12:53	1°♂15'47	-2°-58'-37
morning rise	4579 Nov 15 12:28	12°♂07'57			minimum elong	4580 Oct 22 17:57	1°♂02'56	2°56'50
direct	4579 Nov 18 03:41	11°♂30'46				4580 Oct 23 19:12	30°♂♂	
morning max el	4579 Nov 24 15:12	14°♂58'39	18°05'51		morning rise	4580 Oct 29 08:40	25°♄56'42	
	4579 Dec 05 09:51	0°♄			direct	4580 Oct 31 18:19	25°♄28'37	
morning set	4579 Dec 12 17:52	12°♄02'10			asc. node	4580 Oct 31 19:21	25°♄28'38	
desc. node	4579 Dec 21 14:48	26°♄31'14			morning max el	4580 Nov 07 07:57	28°♄53'35	17°50'50
	4579 Dec 23 18:47	0°♄				4580 Nov 08 09:10	0°♂	
					morning set	4580 Nov 23 19:56	24°♂12'26	
superior conj	4579 Dec 27 04:56	5°♄27'13	0°-37'-55			4580 Nov 27 04:31	0°♄	
minimum elong	4579 Dec 27 00:13	5°♄08'30	0°37'16					
max. Earth dist.	4579 Dec 30 12:10	10°♄40'04	1.45136 AU		superior conj	4580 Dec 06 06:17	15°♄15'35	0°08'35
	4580 Jan 11 21:49	0°♂			minimum elong	4580 Dec 06 07:13	15°♄19'22	0°08'28
evening rise	4580 Jan 12 13:49	1°♂01'56			behind sun begin	4580 Dec 05 22:54	14°♄45'10	
greatest brilliancy	4580 Jan 29 23:15	27°♂22'25	-0.6m		behind sun end	4580 Dec 06 15:32	15°♄53'30	
	4580 Jan 31 20:35	0°♄			desc. node	4580 Dec 07 11:48	17°♄16'24	
evening max el	4580 Feb 06 14:21	6°♄59'23	19°40'29		max. Earth dist.	4580 Dec 12 06:10	24°♄57'51	1.44285 AU
asc. node	4580 Feb 10 21:36	10°♄24'51				4580 Dec 15 10:25	0°♄	
retrograde	4580 Feb 13 23:06	11°♄14'44			evening rise	4580 Dec 21 23:55	10°♄12'42	
evening set	4580 Feb 17 12:19	10°♄00'53				4581 Jan 04 03:09	0°♂	
inferior conj	4580 Feb 23 00:11	4°♄01'08	3°13'17		greatest brilliancy	4581 Jan 14 00:08	13°♂51'39	-0.5m
minimum elong	4580 Feb 22 22:10	4°♄07'47	3°12'56		evening max el	4581 Jan 19 15:39	20°♂32'07	20°42'58
min. Earth dist.	4580 Feb 24 02:34	2°♄33'52	0.66826 AU		retrograde	4581 Jan 27 21:20	25°♂23'48	
	4580 Feb 26 03:39	30°♂♂			asc. node	4581 Jan 27 18:38	25°♂23'44	
morning rise	4580 Feb 28 07:21	27°♂45'04			evening set	4581 Jan 31 19:35	23°♂55'25	
direct	4580 Mar 05 08:21	25°♂04'22			inferior conj	4581 Feb 06 05:17	17°♂43'08	2°45'34
	4580 Mar 15 01:43	0°♄			minimum elong	4581 Feb 06 02:52	17°♂51'27	2°44'57
morning max el	4580 Mar 17 12:52	2°♄20'37	25°33'36		min. Earth dist.	4581 Feb 06 18:20	16°♂58'21	0.67614 AU
desc. node	4580 Mar 18 14:01	3°♄25'39						

morning rise	4581 Feb 11 09:43	11° \approx 27'24		morning rise	4582 Jan 26 17:12	25° \approx 19'11	
direct	4581 Feb 16 20:36	9° \approx 03'26		direct	4582 Jan 31 13:18	23° \approx 16'35	
morning max el	4581 Feb 27 21:31	15° \approx 38'50	24°07'45	morning max el	4582 Feb 10 07:39	29° \approx 02'56	22°38'35
desc. node	4581 Mar 05 11:02	21° \approx 54'09			4582 Feb 11 05:47	0° \approx	
	4581 Mar 11 16:47	0° \approx		greatest brilliancy	4582 Feb 14 21:48	4° \approx 09'56	-0.3m
	4581 Mar 31 10:51	0° \approx		desc. node	4582 Feb 20 08:03	11° \approx 06'48	
morning set	4581 Apr 04 13:40	6° \approx 58'51			4582 Mar 05 10:56	0° \approx	
max. Earth dist.	4581 Apr 08 08:16	13° \approx 37'24	1.38101 AU	morning set	4582 Mar 16 07:48	17° \approx 09'58	
				max. Earth dist.	4582 Mar 21 03:56	25° \approx 15'36	1.40292 AU
					4582 Mar 23 21:57	0° \approx	
superior conj	4581 Apr 15 11:13	26° \approx 48'39	-1°-31'-15				
minimum elong	4581 Apr 15 15:55	27° \approx 11'04	1°30'40	superior conj	4582 Mar 28 22:55	8° \approx 57'26	-1°-53'-54
	4581 Apr 17 03:03	0° \approx		minimum elong	4582 Mar 29 03:32	9° \approx 18'20	1°53'33
evening rise	4581 Apr 24 09:17	14° \approx 15'10		evening rise	4582 Apr 07 22:52	27° \approx 36'40	
asc. node	4581 Apr 25 17:57	16° \approx 55'23			4582 Apr 09 05:12	0° \approx	
	4581 May 02 19:45	0° \approx		asc. node	4582 Apr 12 14:59	6° \approx 20'50	
evening max el	4581 May 10 20:30	10° \approx 55'00	19°00'31	evening max el	4582 Apr 24 01:32	23° \approx 25'38	18°24'14
retrograde	4581 May 19 11:46	15° \approx 08'18		retrograde	4582 May 01 11:31	27° \approx 06'08	
evening set	4581 May 21 12:43	14° \approx 55'07		evening set	4582 May 03 18:51	26° \approx 45'48	
inferior conj	4581 May 29 17:50	10° \approx 40'16	0°46'40	inferior conj	4582 May 11 04:42	22° \approx 10'58	2°10'35
minimum elong	4581 May 29 19:39	10° \approx 37'05	0°46'01	minimum elong	4582 May 11 08:16	22° \approx 03'39	2°09'34
desc. node	4581 Jun 01 10:17	8° \approx 48'00		min. Earth dist.	4582 May 14 15:14	19° \approx 23'38	0.58567 AU
min. Earth dist.	4581 Jun 01 19:12	8° \approx 32'57	0.56621 AU	morning rise	4582 May 18 17:19	16° \approx 41'04	
morning rise	4581 Jun 06 22:09	5° \approx 42'33		desc. node	4582 May 19 07:18	16° \approx 23'29	
direct	4581 Jun 12 03:18	4° \approx 38'10		direct	4582 May 24 19:45	15° \approx 03'11	
morning max el	4581 Jun 26 10:19	12° \approx 00'49	25°49'23	morning max el	4582 Jun 08 05:08	22° \approx 47'27	27°04'16
	4581 Jul 10 08:40	0° \approx			4582 Jun 14 14:59	0° \approx	
asc. node	4581 Jul 22 17:12	22° \approx 48'36			4582 Jul 03 07:50	0° \approx	
morning set	4581 Jul 24 02:11	25° \approx 41'29		morning set	4582 Jul 08 11:34	10° \approx 25'02	
	4581 Jul 26 02:30	0° \approx		asc. node	4582 Jul 09 14:15	12° \approx 46'04	
superior conj	4581 Jul 31 01:45	10° \approx 52'59	1°17'34	superior conj	4582 Jul 15 13:36	25° \approx 47'24	0°58'58
minimum elong	4581 Jul 30 23:26	10° \approx 40'15	1°17'13	minimum elong	4582 Jul 15 11:26	25° \approx 35'26	0°58'33
max. Earth dist.	4581 Jul 31 22:26	12° \approx 46'37	1.32298 AU	max. Earth dist.	4582 Jul 15 09:35	25° \approx 25'17	1.31984 AU
evening rise	4581 Aug 07 02:57	26° \approx 03'48			4582 Jul 17 11:22	0° \approx	
	4581 Aug 09 01:01	0° \approx		evening rise	4582 Jul 22 10:34	10° \approx 45'30	
	4581 Aug 26 07:27	0° \approx			4582 Aug 01 07:09	0° \approx	
desc. node	4581 Aug 28 09:35	2° \approx 56'28		desc. node	4582 Aug 15 06:37	20° \approx 56'58	
evening max el	4581 Sep 07 18:41	15° \approx 04'37	27°14'57	evening max el	4582 Aug 20 20:06	26° \approx 58'35	26°29'55
retrograde	4581 Sep 21 14:53	22° \approx 18'22			4582 Aug 24 09:22	0° \approx	
evening set	4581 Sep 28 18:18	19° \approx 57'37		retrograde	4582 Sep 03 19:03	4° \approx 08'03	
min. Earth dist.	4581 Oct 02 09:09	17° \approx 10'48	0.61734 AU	evening set	4582 Sep 10 12:07	2° \approx 15'39	
inferior conj	4581 Oct 05 10:08	14° \approx 26'52	-3°-57'-47		4582 Sep 13 23:29	30° \approx 11'11	
minimum elong	4581 Oct 05 16:15	14° \approx 13'07	3°56'06	min. Earth dist.	4582 Sep 14 09:43	29° \approx 40'54	0.59678 AU
morning rise	4581 Oct 12 17:18	9° \approx 27'33		inferior conj	4582 Sep 17 15:51	27° \approx 07'36	-4°-46'-28
direct	4581 Oct 15 00:16	9° \approx 05'15		minimum elong	4582 Sep 17 21:11	26° \approx 57'06	4°45'35
asc. node	4581 Oct 18 16:24	10° \approx 04'44		morning rise	4582 Sep 25 09:41	22° \approx 30'36	
morning max el	4581 Oct 21 23:24	12° \approx 35'53	17°54'03	direct	4582 Sep 27 17:29	22° \approx 11'11	
	4581 Nov 02 16:31	0° \approx		morning max el	4582 Oct 05 10:09	25° \approx 56'15	18°16'46
morning set	4581 Nov 06 18:01	7° \approx 19'50		asc. node	4582 Oct 05 13:28	26° \approx 04'19	
					4582 Oct 08 22:25	0° \approx	
superior conj	4581 Nov 17 10:19	26° \approx 22'11	0°47'41	morning set	4582 Oct 21 06:19	21° \approx 07'32	
minimum elong	4581 Nov 17 14:04	26° \approx 13'82	0°47'10		4582 Oct 25 22:38	0° \approx	
	4581 Nov 19 13:08	0° \approx					
desc. node	4581 Nov 24 08:50	8° \approx 03'42		superior conj	4582 Oct 30 14:36	8° \approx 39'09	1°16'06
max. Earth dist.	4581 Nov 24 19:54	8° \approx 49'06	1.42821 AU	minimum elong	4582 Oct 30 18:27	8° \approx 56'43	1°15'41
evening rise	4581 Dec 01 14:36	19° \approx 41'24		max. Earth dist.	4582 Nov 07 04:33	22° \approx 01'47	1.40930 AU
	4581 Dec 08 07:09	0° \approx		desc. node	4582 Nov 11 05:52	28° \approx 49'23	
greatest brilliancy	4581 Dec 28 17:51	28° \approx 44'44	-0.3m	evening rise	4582 Nov 11 23:17	0° \approx 00'50	
	4581 Dec 29 18:45	0° \approx			4582 Nov 11 23:05	0° \approx	
evening max el	4582 Jan 02 11:33	4° \approx 06'27	21°56'16		4582 Dec 01 19:16	0° \approx	
retrograde	4582 Jan 11 18:30	9° \approx 37'59		evening max el	4582 Dec 16 03:10	17° \approx 43'38	23°15'32
asc. node	4582 Jan 14 15:40	8° \approx 53'33		retrograde	4582 Dec 26 12:56	23° \approx 53'15	
evening set	4582 Jan 16 03:25	7° \approx 54'11		evening set	4582 Dec 31 10:11	21° \approx 53'30	
inferior conj	4582 Jan 21 12:46	1° \approx 32'48	2°09'10	asc. node	4583 Jan 01 12:43	20° \approx 52'15	
minimum elong	4582 Jan 21 10:25	1° \approx 40'57	2°08'25	inferior conj	4583 Jan 05 20:41	15° \approx 26'53	1°25'21
min. Earth dist.	4582 Jan 21 13:50	1° \approx 29'03	0.68005 AU	minimum elong	4583 Jan 05 18:53	15° \approx 33'07	1°24'40
	4582 Jan 22 15:39	30° \approx 11'11					

min. Earth dist.	4583 Jan 05 10:39	16°☾01'26	0.68026 AU		4583 Dec 20 16:18	30°☿☿	
morning rise	4583 Jan 11 03:37	9°☾17'21		inferior conj	4583 Dec 21 03:17	29°☿23'19	0°35'07
direct	4583 Jan 15 09:20	7°☾37'36		minimum elong	4583 Dec 21 02:27	29°☿26'08	0°34'46
morning max el	4583 Jan 23 22:51	12°☾35'38	21°14'44	morning rise	4583 Dec 26 14:58	23°☿20'02	
greatest brilliancy	4583 Jan 29 03:23	18°☾31'04	-0.4m	direct	4583 Dec 30 07:29	22°☿02'05	
	4583 Feb 06 14:52	0°☿		morning max el	4584 Jan 06 21:46	26°☿20'29	20°02'10
desc. node	4583 Feb 07 05:05	0°☿50'52			4584 Jan 10 04:41	0°☾	
morning set	4583 Feb 23 21:25	26°☿00'53		greatest brilliancy	4584 Jan 13 21:20	4°☾45'13	-0.6m
	4583 Feb 26 09:46	0°☿		desc. node	4584 Jan 25 02:08	20°☾58'01	
max. Earth dist.	4583 Mar 03 05:27	7°☿47'46	1.42343 AU		4584 Jan 31 00:52	0°☿	
				morning set	4584 Feb 02 18:03	4°☿10'33	
superior conj	4583 Mar 10 13:18	20°☿05'08	-2°-7'00	max. Earth dist.	4584 Feb 13 15:09	21°☿14'15	1.43979 AU
minimum elong	4583 Mar 10 15:15	20°☿13'30	2°06'58				
	4583 Mar 16 05:32	0°☿		superior conj	4584 Feb 19 02:18	0°☿03'50	-2°-5'-3
evening rise	4583 Mar 21 22:48	10°☿16'16		minimum elong	4584 Feb 18 22:36	29°☿48'43	2°04'55
asc. node	4583 Mar 30 12:02	25°☿21'55			4584 Feb 19 01:22	0°☿	
	4583 Apr 02 10:27	0°☿		evening rise	4584 Mar 03 04:46	22°☿05'37	
evening max el	4583 Apr 07 12:05	6°☿22'36	18°07'53		4584 Mar 07 19:08	0°☿	
retrograde	4583 Apr 14 04:41	9°☿46'58		asc. node	4584 Mar 16 09:03	13°☿50'54	
evening set	4583 Apr 16 18:28	9°☿16'59		evening max el	4584 Mar 21 00:48	19°☿36'45	18°10'42
inferior conj	4583 Apr 23 11:49	4°☿20'53	3°03'09	retrograde	4584 Mar 27 10:57	23°☿00'07	
minimum elong	4583 Apr 23 14:43	4°☿14'00	3°02'36	evening set	4584 Mar 30 06:39	22°☿19'07	
min. Earth dist.	4583 Apr 26 17:44	1°☿17'38	0.60755 AU	inferior conj	4584 Apr 05 11:26	17°☿02'43	3°29'06
	4583 Apr 28 05:56	30°☿☿		minimum elong	4584 Apr 05 12:42	16°☿59'18	3°28'59
morning rise	4583 Apr 30 07:39	28°☿28'42		min. Earth dist.	4584 Apr 08 04:52	14°☿07'35	0.62874 AU
desc. node	4583 May 06 04:19	26°☿19'19		morning rise	4584 Apr 11 16:32	10°☿57'07	
direct	4583 May 06 23:52	26°☿17'25		direct	4584 Apr 18 13:13	8°☿20'59	
	4583 May 16 09:38	0°☿		desc. node	4584 Apr 22 01:20	8°☿57'19	
morning max el	4583 May 21 06:16	4°☿12'54	27°45'44	morning max el	4584 May 02 12:56	16°☿20'12	27°49'30
	4583 Jun 09 08:26	0°☿			4584 May 13 19:01	0°☿	
morning set	4583 Jun 22 17:09	24°☿55'11			4584 Jun 01 01:09	0°☿	
	4583 Jun 25 03:20	0°☿		morning set	4584 Jun 05 16:43	9°☿04'20	
asc. node	4583 Jun 26 11:19	2°☿51'07		max. Earth dist.	4584 Jun 11 02:45	20°☿19'57	1.32608 AU
max. Earth dist.	4583 Jun 28 20:22	8°☿00'56	1.32083 AU	asc. node	4584 Jun 12 08:20	22°☿58'38	
superior conj	4583 Jun 30 00:42	10°☿36'20	0°36'31	superior conj	4584 Jun 13 09:13	25°☿12'59	0°10'49
minimum elong	4583 Jun 29 23:09	10°☿27'46	0°36'11	minimum elong	4584 Jun 13 08:42	25°☿10'11	0°10'42
evening rise	4583 Jul 06 21:19	25°☿33'57		behind sun begin	4584 Jun 13 04:47	24°☿49'02	
	4583 Jul 08 23:59	0°☿		behind sun end	4584 Jun 13 12:36	25°☿31'21	
	4583 Jul 26 12:23	0°☿			4584 Jun 15 14:02	0°☿	
desc. node	4583 Aug 02 03:38	7°☿39'26		evening rise	4584 Jun 20 09:08	10°☿21'39	
evening max el	4583 Aug 02 14:09	8°☿04'54	25°15'01		4584 Jun 30 10:59	0°☿	
retrograde	4583 Aug 16 12:56	15°☿08'49		evening max el	4584 Jul 14 03:02	18°☿34'30	23°41'19
evening set	4583 Aug 22 06:34	13°☿53'18		desc. node	4584 Jul 19 00:39	22°☿32'49	
min. Earth dist.	4583 Aug 27 01:52	11°☿12'35	0.57663 AU	retrograde	4584 Jul 27 18:39	25°☿25'42	
inferior conj	4583 Aug 30 02:47	9°☿08'35	-5°-13'00	evening set	4584 Aug 01 01:38	24°☿45'14	
minimum elong	4583 Aug 30 04:17	9°☿06'00	5°12'58	min. Earth dist.	4584 Aug 07 12:59	21°☿41'08	0.55986 AU
morning rise	4583 Sep 07 05:28	4°☿54'41		inferior conj	4584 Aug 09 17:23	20°☿22'31	-5°-1'-32
direct	4583 Sep 09 17:52	4°☿35'47		minimum elong	4584 Aug 09 12:40	20°☿29'37	5°01'02
morning max el	4583 Sep 18 12:52	8°☿45'20	19°00'29	morning rise	4584 Aug 18 02:57	16°☿27'25	
asc. node	4583 Sep 22 10:31	13°☿12'37		direct	4584 Aug 20 22:41	16°☿07'29	
	4583 Oct 02 10:10	0°☿		morning max el	4584 Aug 31 04:38	20°☿53'09	20°06'05
morning set	4583 Oct 05 04:28	5°☿23'36			4584 Sep 07 12:37	0°☿	
				asc. node	4584 Sep 08 07:34	1°☿14'02	
superior conj	4583 Oct 13 13:54	21°☿52'05	1°33'58	morning set	4584 Sep 18 09:10	19°☿57'54	
minimum elong	4583 Oct 13 16:29	22°☿04'28	1°33'47		4584 Sep 23 06:50	0°☿	
	4583 Oct 17 21:38	0°☿					
max. Earth dist.	4583 Oct 20 09:53	4°☿33'58	1.38843 AU	superior conj	4584 Sep 26 02:58	5°☿45'18	1°42'35
evening rise	4583 Oct 24 07:06	11°☿23'44		minimum elong	4584 Sep 26 03:55	5°☿50'04	1°42'33
desc. node	4583 Oct 29 02:56	19°☿30'01		max. Earth dist.	4584 Oct 01 15:42	16°☿34'29	1.36804 AU
	4583 Nov 04 18:04	0°☿		evening rise	4584 Oct 05 12:29	23°☿45'28	
	4583 Nov 27 07:00	0°☿			4584 Oct 09 00:46	0°☿	
evening max el	4583 Nov 28 16:23	1°☿25'01	24°34'29	desc. node	4584 Oct 14 23:58	10°☿00'28	
retrograde	4583 Dec 10 03:32	8°☿06'19			4584 Oct 28 10:49	0°☿	
evening set	4583 Dec 15 14:21	5°☿50'54		evening max el	4584 Nov 10 04:49	15°☿07'55	25°46'20
asc. node	4583 Dec 19 09:44	1°☿40'34		retrograde	4584 Nov 22 13:32	22°☿11'47	
min. Earth dist.	4583 Dec 20 06:23	0°☿32'59	0.67692 AU	evening set	4584 Nov 28 14:14	19°☿42'47	

min. Earth dist.	4584 Dec 02 22:43	15° ♄ 00'07	0.66997 AU	retrograde	4585 Nov 05 18:21	6° ♄ 02'47	
inferior conj	4584 Dec 04 06:43	13° ♄ 18'52	0°-20'-32	evening set	4585 Nov 12 07:51	3° ♄ 24'49	
minimum elong	4584 Dec 04 07:15	13° ♄ 17'10	0°20'20		4585 Nov 15 18:45	30° ♄	
asc. node	4584 Dec 05 06:46	12° ♄ 03'30		min. Earth dist.	4585 Nov 16 09:24	29° ♄ 18'02	0.65949 AU
morning rise	4584 Dec 10 01:14	7° ♄ 24'14		inferior conj	4585 Nov 18 04:59	27° ♄ 09'32	-1°-20'-29
direct	4584 Dec 13 06:10	6° ♄ 25'13		minimum elong	4585 Nov 18 07:14	27° ♄ 02'54	1°19'33
morning max el	4584 Dec 20 04:31	10° ♄ 15'47	19°04'13	asc. node	4585 Nov 22 03:48	22° ♄ 57'28	
	4585 Jan 03 15:02	0° ♄		morning rise	4585 Nov 24 08:11	21° ♄ 26'10	
desc. node	4585 Jan 10 23:11	11° ♄ 21'52		direct	4585 Nov 27 03:38	20° ♄ 42'17	
morning set	4585 Jan 11 22:22	12° ♄ 52'05		morning max el	4585 Dec 03 17:15	24° ♄ 15'56	18°22'18
	4585 Jan 22 21:46	0° ♄			4585 Dec 08 11:09	0° ♄	
max. Earth dist.	4585 Jan 26 06:58	5° ♄ 18'41	1.44997 AU	morning set	4585 Dec 23 04:56	22° ♄ 54'53	
					4585 Dec 27 14:54	0° ♄	
superior conj	4585 Jan 28 15:39	9° ♄ 02'13	-1°-43'-45	desc. node	4585 Dec 28 20:13	1° ♄ 57'01	
minimum elong	4585 Jan 28 06:48	8° ♄ 27'12	1°43'02				
	4585 Feb 10 17:03	0° ♄		superior conj	4586 Jan 07 18:19	17° ♄ 38'14	-1°-4'-48
evening rise	4585 Feb 12 12:53	2° ♄ 59'07		minimum elong	4586 Jan 07 10:28	17° ♄ 07'25	1°03'51
	4585 Mar 01 21:26	0° ♄		max. Earth dist.	4586 Jan 09 01:37	19° ♄ 41'01	1.45295 AU
asc. node	4585 Mar 03 06:03	1° ♄ 38'18			4586 Jan 15 15:42	0° ♄	
evening max el	4585 Mar 04 12:53	3° ♄ 01'32	18°32'02	evening rise	4586 Jan 23 21:49	12° ♄ 57'00	
retrograde	4585 Mar 11 01:51	6° ♄ 36'50			4586 Feb 03 19:18	0° ♄	
evening set	4585 Mar 14 03:34	5° ♄ 43'58		greatest brilliancy	4586 Feb 06 06:47	3° ♄ 46'19	-0.7m
inferior conj	4585 Mar 19 23:28	0° ♄ 09'06	3°34'34	evening max el	4586 Feb 15 22:01	16° ♄ 31'37	19°10'54
minimum elong	4585 Mar 19 23:08	0° ♄ 10'07	3°34'34	asc. node	4586 Feb 18 03:05	18° ♄ 31'36	
	4585 Mar 20 02:32	30° ♄		retrograde	4586 Feb 22 21:40	20° ♄ 29'51	
min. Earth dist.	4585 Mar 22 01:36	27° ♄ 40'18	0.64717 AU	evening set	4586 Feb 26 06:15	19° ♄ 24'07	
morning rise	4585 Mar 25 17:15	23° ♄ 56'24		inferior conj	4586 Mar 03 20:21	13° ♄ 32'54	3°24'35
direct	4585 Apr 01 10:31	21° ♄ 08'15		minimum elong	4586 Mar 03 18:48	13° ♄ 37'52	3°24'24
desc. node	4585 Apr 08 22:21	23° ♄ 53'54		min. Earth dist.	4586 Mar 05 07:10	11° ♄ 41'22	0.66179 AU
morning max el	4585 Apr 14 22:40	29° ♄ 02'01	27°17'48	morning rise	4586 Mar 09 06:24	7° ♄ 17'11	
	4585 Apr 15 21:14	0° ♄		direct	4586 Mar 15 14:28	4° ♄ 30'15	
	4585 May 07 15:34	0° ♄		desc. node	4586 Mar 26 19:23	10° ♄ 34'24	
morning set	4585 May 20 07:34	22° ♄ 44'29		morning max el	4586 Mar 28 08:33	12° ♄ 05'02	26°17'26
	4585 May 23 23:05	0° ♄			4586 Apr 11 17:13	0° ♄	
max. Earth dist.	4585 May 25 00:42	2° ♄ 10'48	1.33581 AU		4586 Apr 30 06:55	0° ♄	
				morning set	4586 May 03 10:00	5° ♄ 44'29	
superior conj	4585 May 28 13:12	9° ♄ 31'36	0°-17'-19	max. Earth dist.	4586 May 07 11:15	13° ♄ 29'13	1.35022 AU
minimum elong	4585 May 28 14:06	9° ♄ 36'21	0°17'09				
asc. node	4585 May 30 05:22	13° ♄ 04'50		superior conj	4586 May 12 10:19	23° ♄ 25'10	0°-46'-45
evening rise	4585 Jun 04 20:11	25° ♄ 02'33		minimum elong	4586 May 12 12:51	23° ♄ 38'08	0°46'17
	4585 Jun 07 05:32	0° ♄			4586 May 15 14:48	0° ♄	
evening max el	4585 Jun 25 18:09	28° ♄ 58'17	22°04'44	asc. node	4586 May 17 02:23	3° ♄ 05'15	
	4585 Jun 26 20:30	0° ♄		evening rise	4586 May 20 04:30	9° ♄ 30'08	
desc. node	4585 Jul 05 21:37	5° ♄ 02'28			4586 May 31 03:51	0° ♄	
retrograde	4585 Jul 08 12:54	5° ♄ 18'39		evening max el	4586 Jun 07 19:06	9° ♄ 48'03	20°38'45
evening set	4585 Jul 11 09:30	5° ♄ 00'27		retrograde	4586 Jun 19 01:31	15° ♄ 18'56	
min. Earth dist.	4585 Jul 19 23:16	1° ♄ 18'56	0.54977 AU	evening set	4586 Jun 21 02:56	15° ♄ 08'39	
inferior conj	4585 Jul 20 15:40	0° ♄ 55'53	-3°-59'-37	desc. node	4586 Jun 22 18:36	14° ♄ 46'19	
minimum elong	4585 Jul 20 07:02	1° ♄ 08'01	3°57'24	inferior conj	4586 Jun 30 09:00	11° ♄ 11'41	-2°-14'-1
	4585 Jul 22 07:50	30° ♄		minimum elong	4586 Jun 30 02:46	11° ♄ 20'37	2°11'50
morning rise	4585 Jul 29 06:23	27° ♄ 05'46		min. Earth dist.	4586 Jul 01 10:54	10° ♄ 34'29	0.54885 AU
direct	4585 Aug 01 11:32	26° ♄ 42'49		morning rise	4586 Jul 09 01:25	7° ♄ 06'22	
	4585 Aug 10 14:37	0° ♄		direct	4586 Jul 12 20:55	6° ♄ 35'04	
morning max el	4585 Aug 13 08:29	2° ♄ 15'39	21°32'06	morning max el	4586 Jul 26 02:32	12° ♄ 58'04	23°12'31
asc. node	4585 Aug 26 04:37	19° ♄ 56'22			4586 Aug 08 00:21	0° ♄	
	4585 Aug 31 10:43	0° ♄		asc. node	4586 Aug 13 01:40	9° ♄ 09'26	
morning set	4585 Sep 02 18:04	4° ♄ 43'56		morning set	4586 Aug 18 05:16	19° ♄ 36'16	
					4586 Aug 23 01:42	0° ♄	
superior conj	4585 Sep 10 01:45	20° ♄ 06'58	1°43'23	superior conj	4586 Aug 25 07:06	4° ♄ 47'32	1°37'37
minimum elong	4585 Sep 10 01:15	20° ♄ 04'18	1°43'22	minimum elong	4586 Aug 25 05:31	4° ♄ 39'03	1°37'30
max. Earth dist.	4585 Sep 14 03:09	28° ♄ 25'53	1.35028 AU	max. Earth dist.	4586 Aug 27 23:31	10° ♄ 29'50	1.33635 AU
	4585 Sep 14 21:58	0° ♄		evening rise	4586 Sep 01 23:55	20° ♄ 46'06	
evening rise	4585 Sep 18 11:29	6° ♄ 56'36			4586 Sep 06 19:24	0° ♄	
desc. node	4585 Oct 01 20:58	0° ♄ 15'24		desc. node	4586 Sep 18 17:57	20° ♄ 08'02	
	4585 Oct 01 17:05	0° ♄			4586 Sep 25 15:38	0° ♄	
evening max el	4585 Oct 23 17:20	28° ♄ 46'53	26°43'36	evening max el	4586 Oct 06 05:41	12° ♄ 13'32	27°18'58
	4585 Oct 25 00:43	0° ♄					

retrograde	4586 Oct 19 17:23	19°♄31'54		4587 Aug 30 10:56	0°♄	
evening set	4586 Oct 26 16:50	16°♄52'29		desc. node	4587 Sep 05 14:58	9°♄28'22
min. Earth dist.	4586 Oct 30 12:17	13°♄20'44	0.64557 AU	evening max el	4587 Sep 18 15:53	25°♄14'03 27°25'51
inferior conj	4586 Nov 01 19:51	10°♄51'01	-2°-22'-47		4587 Sep 24 17:17	0°♄
minimum elong	4586 Nov 01 23:57	10°♄39'58	2°21'13	retrograde	4587 Oct 02 09:38	2°♄29'17
morning rise	4586 Nov 08 09:15	5°♄21'53		evening set	4587 Oct 09 13:56	29°♄58'30
asc. node	4586 Nov 09 00:51	5°♄07'14			4587 Oct 09 13:04	30°♄
direct	4586 Nov 10 21:40	4°♄49'06		min. Earth dist.	4587 Oct 13 05:19	26°♄57'44 0.62843 AU
morning max el	4586 Nov 17 09:23	8°♄15'07	17°57'15	inferior conj	4587 Oct 16 00:28	24°♄15'42 -3°-24'-27
	4586 Dec 02 01:54	0°♄		minimum elong	4587 Oct 16 06:07	24°♄02'02 3°22'38
morning set	4586 Dec 04 16:42	4°♄24'16		morning rise	4587 Oct 23 01:04	19°♄04'16
desc. node	4586 Dec 15 17:15	22°♄39'47		direct	4587 Oct 25 09:12	18°♄38'58
				asc. node	4587 Oct 26 21:55	18°♄50'04
superior conj	4586 Dec 18 06:51	26°♄48'24	0°-17'-43	morning max el	4587 Nov 01 01:56	22°♄05'26 17°49'53
minimum elong	4586 Dec 18 04:44	26°♄39'51	0°17'25		4587 Nov 07 04:08	0°♄
	4586 Dec 20 06:45	0°♄		morning set	4587 Nov 17 04:09	17°♄01'43
max. Earth dist.	4586 Dec 22 20:36	4°♄05'25	1.44857 AU		4587 Nov 24 14:12	0°♄
evening rise	4587 Jan 03 12:47	22°♄16'12				
	4587 Jan 08 13:51	0°♄		superior conj	4587 Nov 28 19:23	7°♄09'32 0°26'22
greatest brilliancy	4587 Jan 23 11:27	21°♄58'08	-0.6m	minimum elong	4587 Nov 28 21:55	7°♄20'06 0°26'00
evening max el	4587 Jan 30 02:35	0°♄04'31	20°05'31	desc. node	4587 Dec 02 14:16	13°♄26'12
	4587 Jan 30 00:49	0°♄		max. Earth dist.	4587 Dec 05 13:19	18°♄14'56 1.43737 AU
asc. node	4587 Feb 05 00:06	4°♄16'46			4587 Dec 12 23:38	0°♄
retrograde	4587 Feb 06 19:37	4°♄34'27		evening rise	4587 Dec 13 22:55	1°♄30'15
evening set	4587 Feb 10 12:27	3°♄14'43			4588 Jan 02 04:22	0°♄
	4587 Feb 13 18:48	30°♄		greatest brilliancy	4588 Jan 07 23:04	7°♄43'53 -0.4m
inferior conj	4587 Feb 15 23:11	27°♄09'31	3°02'39	evening max el	4588 Jan 13 01:40	13°♄38'23 21°13'06
minimum elong	4587 Feb 15 20:56	27°♄17'05	3°02'11	retrograde	4588 Jan 21 17:30	18°♄46'14
min. Earth dist.	4587 Feb 16 19:48	26°♄00'03	0.67219 AU	asc. node	4588 Jan 22 21:09	18°♄39'03
morning rise	4587 Feb 21 04:49	20°♄53'20		evening set	4588 Jan 25 20:11	17°♄11'19
direct	4587 Feb 27 00:08	18°♄18'37		inferior conj	4588 Jan 31 05:33	10°♄54'57 2°31'06
morning max el	4587 Mar 10 17:19	25°♄18'57	24°57'55	minimum elong	4588 Jan 31 03:06	11°♄03'25 2°30'24
desc. node	4587 Mar 13 16:27	28°♄30'03		min. Earth dist.	4588 Jan 31 13:23	10°♄27'55 0.67837 AU
	4587 Mar 14 23:36	0°♄		morning rise	4588 Feb 05 09:42	4°♄40'08
	4587 Apr 05 05:25	0°♄		direct	4588 Feb 10 14:24	2°♄24'48
morning set	4587 Apr 15 19:12	17°♄50'57		morning max el	4588 Feb 21 02:06	8°♄39'03 23°29'35
max. Earth dist.	4587 Apr 19 11:13	24°♄30'13	1.36895 AU	desc. node	4588 Feb 28 13:29	17°♄19'03
	4587 Apr 22 09:33	0°♄			4588 Mar 08 19:52	0°♄
superior conj	4587 Apr 25 21:37	6°♄46'13	-1°-15'-44	morning set	4588 Mar 27 05:14	28°♄48'08
minimum elong	4587 Apr 26 01:41	7°♄06'14	1°15'07		4588 Mar 27 22:11	0°♄
asc. node	4587 May 03 23:25	22°♄56'02		max. Earth dist.	4588 Mar 31 06:42	5°♄47'33 1.39038 AU
evening rise	4587 May 04 07:51	23°♄38'22				
	4587 May 07 12:56	0°♄		superior conj	4588 Apr 07 19:17	19°♄25'03 -1°-41'-43
evening max el	4587 May 21 08:33	21°♄18'59	19°30'34	minimum elong	4588 Apr 08 00:11	19°♄47'53 1°41'12
retrograde	4587 May 30 21:02	25°♄57'21			4588 Apr 13 08:42	0°♄
evening set	4587 Jun 01 19:50	25°♄46'32		evening rise	4588 Apr 17 03:27	7°♄19'54
desc. node	4587 Jun 09 15:38	22°♄13'36		asc. node	4588 Apr 19 20:28	12°♄32'38
inferior conj	4587 Jun 10 11:55	21°♄41'22	0°-15'-1		4588 Apr 30 07:09	0°♄
minimum elong	4587 Jun 10 11:15	21°♄42'26	0°14'47	evening max el	4588 May 03 08:49	3°♄30'15 18°42'35
transit middle	4587 Jun 10 11:15	21°♄42'26	0°14'47	retrograde	4588 May 11 10:00	7°♄27'32
transit begin	4587 Jun 10 09:46	21°♄44'49		evening set	4588 May 13 13:41	7°♄11'34
transit end	4587 Jun 10 12:45	21°♄40'03		inferior conj	4588 May 21 10:22	2°♄48'14 1°26'12
min. Earth dist.	4587 Jun 13 00:32	20°♄04'49	0.55757 AU	minimum elong	4588 May 21 13:19	2°♄42'43 1°25'14
morning rise	4587 Jun 18 23:00	17°♄04'54		min. Earth dist.	4588 May 24 17:30	0°♄21'39 0.57398 AU
direct	4587 Jun 23 15:15	16°♄15'41			4588 May 25 05:52	30°♄
morning max el	4587 Jul 07 16:12	23°♄19'50	24°55'24	desc. node	4588 May 26 12:41	29°♄08'55
	4587 Jul 13 16:13	0°♄		morning rise	4588 May 29 08:28	27°♄36'10
asc. node	4587 Jul 30 22:42	28°♄44'44		direct	4588 Jun 03 23:18	26°♄18'24
	4587 Jul 31 13:26	0°♄			4588 Jun 13 18:52	0°♄
morning set	4587 Aug 02 17:01	4°♄29'16		morning max el	4588 Jun 18 08:00	3°♄50'46 26°24'53
					4588 Jul 07 05:35	0°♄
superior conj	4587 Aug 09 16:31	19°♄38'26	1°26'18	asc. node	4588 Jul 16 19:45	18°♄36'02
minimum elong	4587 Aug 09 14:20	19°♄26'30	1°26'02	morning set	4588 Jul 17 03:46	19°♄18'18
max. Earth dist.	4587 Aug 11 04:08	22°♄52'29	1.32665 AU		4588 Jul 22 02:24	0°♄
	4587 Aug 14 11:52	0°♄		superior conj	4588 Jul 24 04:01	4°♄33'33 1°10'11
evening rise	4587 Aug 16 22:03	5°♄02'41		minimum elong	4588 Jul 24 01:43	4°♄20'49 1°09'48

max. Earth dist.	4588 Jul 24 14:07	5°Ω29'15	1.32116 AU	superior conj	4589 Jul 08 15:44	19°Ω26'03	0°49'52
evening rise	4588 Jul 31 02:57	19°Ω37'45		minimum elong	4589 Jul 08 13:46	19°Ω15'12	0°49'29
	4588 Aug 05 06:17	0°൬			4589 Jul 13 11:10	0°Ω	
desc. node	4588 Aug 22 11:59	28°൬03'11		evening rise	4589 Jul 15 12:07	4°Ω22'44	
	4588 Aug 24 00:27	0°Ω			4589 Jul 29 02:05	0°൬	
evening max el	4588 Aug 30 21:12	7°Ω34'55	26°59'50	desc. node	4589 Aug 09 09:01	15°൬33'25	
retrograde	4588 Sep 13 18:22	14°Ω46'04		evening max el	4589 Aug 12 19:12	19°൬06'56	26°01'05
evening set	4588 Sep 20 19:05	12°Ω35'56		retrograde	4589 Aug 26 18:26	26°൬14'53	
min. Earth dist.	4588 Sep 24 11:26	9°Ω56'27	0.60876 AU	evening set	4589 Sep 02 03:22	24°൬37'10	
inferior conj	4588 Sep 27 15:33	7°Ω15'01	-4°-20'-15	min. Earth dist.	4589 Sep 06 07:46	22°൬02'29	0.58800 AU
minimum elong	4588 Sep 27 21:37	7°Ω02'04	4°18'51	inferior conj	4589 Sep 09 13:30	19°൬39'08	-5°-1'-19
morning rise	4588 Oct 05 03:23	2°Ω24'53		minimum elong	4589 Sep 09 17:38	19°൬31'29	5°00'52
direct	4588 Oct 07 10:26	2°Ω03'59		morning rise	4589 Sep 17 11:26	15°൬12'28	
asc. node	4588 Oct 12 18:59	4°Ω03'14		direct	4589 Sep 19 20:45	14°൬53'33	
morning max el	4588 Oct 14 15:45	5°Ω39'15	18°01'17	morning max el	4589 Sep 27 23:29	18°൬47'24	18°32'51
morning set	4588 Oct 30 08:53	0°൬28'07		asc. node	4589 Sep 29 16:01	20°൬33'37	
	4588 Oct 30 02:49	0°൬			4589 Oct 06 05:31	0°Ω	
				morning set	4589 Oct 14 01:46	14°Ω28'42	
superior conj	4588 Nov 09 10:19	18°൬47'46	1°01'04		4589 Oct 22 03:59	0°൬	
minimum elong	4588 Nov 09 14:21	19°൬05'39	1°00'34				
	4588 Nov 15 22:24	0°♂		superior conj	4589 Oct 22 23:21	1°൬30'37	1°24'54
max. Earth dist.	4588 Nov 17 01:25	1°♂52'57	1.42062 AU	minimum elong	4589 Oct 23 02:46	1°൬46'29	1°24'35
desc. node	4588 Nov 18 11:18	4°♂13'09		max. Earth dist.	4589 Oct 30 08:07	14°൬47'18	1.40044 AU
evening rise	4588 Nov 22 20:04	11°♂17'35		evening rise	4589 Nov 03 14:21	22°൬03'10	
	4588 Dec 05 01:08	0°♂		desc. node	4589 Nov 05 08:20	24°൬57'09	
greatest brilliancy	4588 Dec 20 23:34	21°♂48'22	-0.3m		4589 Nov 08 11:04	0°♂	
evening max el	4588 Dec 25 19:33	27°♂13'42	22°29'31		4589 Nov 29 01:59	0°♂	
	4588 Dec 28 20:15	0°≈		evening max el	4589 Dec 08 09:42	10°♂52'15	23°49'30
retrograde	4589 Jan 04 13:40	3°≈01'38		retrograde	4589 Dec 19 06:44	17°♂17'06	
asc. node	4589 Jan 08 18:13	1°≈29'31		evening set	4589 Dec 24 09:39	15°♂10'22	
evening set	4589 Jan 09 03:46	1°≈10'49		asc. node	4589 Dec 26 15:14	12°♂54'57	
	4589 Jan 10 10:20	30°♂		inferior conj	4589 Dec 29 21:01	8°♂42'31	1°04'48
inferior conj	4589 Jan 14 13:26	24°♂46'38	1°51'26	minimum elong	4589 Dec 29 19:33	8°♂47'29	1°04'13
minimum elong	4589 Jan 14 11:16	24°♂54'10	1°50'40	min. Earth dist.	4589 Dec 29 06:16	9°♂32'42	0.67921 AU
min. Earth dist.	4589 Jan 14 09:37	24°♂59'52	0.68064 AU	morning rise	4590 Jan 04 05:42	2°♂35'22	
morning rise	4589 Jan 19 18:40	18°♂34'45		direct	4590 Jan 08 05:30	1°♂05'22	
direct	4589 Jan 24 08:31	16°♂42'06		morning max el	4590 Jan 16 08:34	5°♂45'39	20°42'17
morning max el	4589 Feb 02 14:06	22°♂06'51	22°01'50	greatest brilliancy	4590 Jan 22 04:26	12°♂32'44	-0.5m
greatest brilliancy	4589 Feb 07 05:22	27°♂18'30	-0.4m	desc. node	4590 Feb 01 07:34	26°♂41'26	
	4589 Feb 09 09:03	0°≈			4590 Feb 03 13:22	0°≈	
desc. node	4589 Feb 14 10:32	6°≈46'15		morning set	4590 Feb 14 15:04	16°≈50'47	
	4589 Mar 02 03:38	0°♂			4590 Feb 22 22:21	0°♂	
morning set	4589 Mar 07 10:57	8°♂23'46		max. Earth dist.	4590 Feb 23 09:41	0°♂45'48	1.43099 AU
max. Earth dist.	4589 Mar 13 04:52	17°♂49'40	1.41201 AU				
	4589 Mar 20 06:53	0°♀		superior conj	4590 Mar 02 02:26	11°♂48'11	-2°-8'-20
				minimum elong	4590 Mar 02 02:17	11°♂47'31	2°08'21
superior conj	4589 Mar 20 22:31	1°♀09'01	-2°00'-57		4590 Mar 12 15:23	0°♀	
minimum elong	4589 Mar 21 02:23	1°♀26'10	2°00'44	evening rise	4590 Mar 14 04:41	2°♀45'00	
evening rise	4589 Mar 31 11:46	20°♀25'03		asc. node	4590 Mar 24 14:32	20°♀37'40	
	4589 Apr 05 17:02	0°♂		evening max el	4590 Mar 31 04:23	29°♀18'19	18°06'43
asc. node	4589 Apr 06 17:30	1°♂48'42			4590 Mar 31 22:05	0°♂	
evening max el	4589 Apr 16 16:33	16°♂12'50	18°14'49	retrograde	4590 Apr 06 17:10	2°♂40'44	
retrograde	4589 Apr 23 17:52	19°♂44'56		evening set	4590 Apr 09 09:22	2°♂06'23	
evening set	4589 Apr 26 03:54	19°♂20'48			4590 Apr 12 16:37	30°♂♀	
inferior conj	4589 May 03 06:15	14°♂36'37	2°36'33	inferior conj	4590 Apr 15 20:56	27°♀01'40	3°17'00
minimum elong	4589 May 03 09:44	14°♂28'59	2°35'41	minimum elong	4590 Apr 15 23:11	26°♀56'01	3°16'40
min. Earth dist.	4589 May 06 16:00	11°♂39'29	0.59484 AU	min. Earth dist.	4590 Apr 18 22:15	23°♀58'51	0.61679 AU
morning rise	4589 May 10 11:35	8°♂55'44		morning rise	4590 Apr 22 10:06	21°♀02'30	
desc. node	4589 May 13 09:43	7°♂36'26		direct	4590 Apr 29 05:15	18°♀39'00	
direct	4589 May 16 20:42	7°♂03'22		desc. node	4590 Apr 30 06:45	18°♀42'18	
morning max el	4589 May 31 05:42	14°♂53'35	27°26'31	morning max el	4590 May 13 09:34	26°♀38'00	27°51'51
	4589 Jun 12 10:24	0°♂			4590 May 16 13:26	0°♂	
	4589 Jun 29 13:44	0°♂			4590 Jun 06 00:38	0°♂	
morning set	4589 Jul 01 11:46	3°♂56'56		morning set	4590 Jun 15 15:04	18°♂19'08	
asc. node	4589 Jul 03 16:47	8°♂37'13		asc. node	4590 Jun 20 13:49	28°♂43'50	
max. Earth dist.	4589 Jul 08 01:40	18°♂08'29	1.31976 AU		4590 Jun 21 03:55	0°♂	
				max. Earth dist.	4590 Jun 21 10:51	0°♂37'37	1.32251 AU

superior conj	4590 Jun 23 01:56	4°☿10'28	0°25'58		4591 May 29 07:27	0°♊	
minimum elong	4590 Jun 23 00:46	4°☿04'05	0°25'42	morning set	4591 May 30 11:19	2°♊17'26	
evening rise	4590 Jun 29 23:30	19°☿11'16		max. Earth dist.	4591 Jun 04 13:54	12°♊45'06	1.32963 AU
	4590 Jul 05 06:05	0°♊					
evening max el	4590 Jul 25 10:15	29°♊54'18	24°36'30	superior conj	4591 Jun 07 08:49	18°♊40'52	0°00'-52
	4590 Jul 25 12:38	0°♊		minimum elong	4591 Jun 07 08:52	18°♊41'06	0°00'53
desc. node	4590 Jul 27 06:01	1°♊33'28		behind sun begin	4591 Jun 07 03:32	18°♊12'31	
retrograde	4590 Aug 08 07:42	6°♊55'04		behind sun end	4591 Jun 07 14:12	19°♊09'43	
evening set	4590 Aug 13 11:17	5°♊55'33		asc. node	4591 Jun 07 10:51	18°♊51'44	
min. Earth dist.	4590 Aug 18 21:29	3°♊06'29	0.56882 AU		4591 Jun 12 14:46	0°☿	
inferior conj	4590 Aug 21 15:39	1°♊20'02	-5°-13'-49	evening rise	4591 Jun 14 11:14	3°☿57'16	
minimum elong	4590 Aug 21 14:38	1°♊21'41	5°13'48		4591 Jun 28 14:32	0°♊	
	4590 Aug 23 18:24	30°♊18'41		evening max el	4591 Jul 06 23:19	10°♊18'41	22°59'45
morning rise	4590 Aug 29 21:31	27°♊15'10		desc. node	4591 Jul 14 03:00	15°♊30'41	
direct	4590 Sep 01 12:31	26°♊56'10		retrograde	4591 Jul 20 08:10	16°♊58'49	
	4590 Sep 09 08:47	0°♊		evening set	4591 Jul 23 23:18	16°♊30'02	
morning max el	4590 Sep 10 21:51	1°♊20'01	19°25'48	min. Earth dist.	4591 Jul 31 08:10	13°♊11'40	0.55456 AU
asc. node	4590 Sep 16 13:03	8°♊06'08		inferior conj	4591 Aug 01 22:33	12°♊16'10	-4°-41'-41
morning set	4590 Sep 28 02:59	28°♊52'57		minimum elong	4591 Aug 01 15:31	12°♊26'22	4°40'28
	4590 Sep 28 16:22	0°♊		morning rise	4591 Aug 10 10:27	8°♊25'00	
				direct	4591 Aug 13 09:57	8°♊04'02	
superior conj	4590 Oct 06 05:01	15°♊01'59	1°38'40	morning max el	4591 Aug 24 08:31	13°♊09'15	20°40'21
minimum elong	4590 Oct 06 06:54	15°♊11'15	1°38'34	asc. node	4591 Sep 03 10:05	26°♊27'00	
max. Earth dist.	4590 Oct 12 12:24	27°♊01'14	1.37946 AU		4591 Sep 05 10:57	0°♊	
	4590 Oct 14 03:39	0°♊		morning set	4591 Sep 12 09:46	13°♊33'38	
evening rise	4590 Oct 16 07:41	3°♊51'57					
desc. node	4590 Oct 23 05:20	15°♊33'53		superior conj	4591 Sep 19 22:41	29°♊09'04	1°43'48
	4590 Nov 01 12:56	0°♊		minimum elong	4591 Sep 19 22:58	29°♊10'33	1°43'47
evening max el	4590 Nov 20 22:19	24°♊34'32	25°06'29		4591 Sep 20 08:40	0°♊	
	4590 Nov 27 19:46	0°♊		max. Earth dist.	4591 Sep 24 20:13	8°♊56'05	1.36009 AU
retrograde	4590 Dec 02 19:36	1°♊27'24		evening rise	4591 Sep 28 21:11	16°♊37'02	
	4590 Dec 07 07:36	30°♊18'41			4591 Oct 06 10:56	0°♊	
evening set	4590 Dec 08 12:11	29°♊06'01		desc. node	4591 Oct 10 02:21	5°♊58'55	
min. Earth dist.	4590 Dec 13 00:56	24°♊02'42	0.67429 AU		4591 Oct 26 23:14	0°♊	
asc. node	4590 Dec 13 12:16	23°♊25'45		evening max el	4591 Nov 03 11:01	8°♊17'50	26°13'00
inferior conj	4590 Dec 14 02:28	22°♊39'11	0°12'06	retrograde	4591 Nov 16 03:22	15°♊27'32	
minimum elong	4590 Dec 14 02:10	22°♊40'11	0°11'59	evening set	4591 Nov 22 09:38	12°♊54'21	
transit middle	4590 Dec 14 02:10	22°♊40'11	0°11'59	min. Earth dist.	4591 Nov 26 15:14	8°♊26'42	0.66595 AU
transit begin	4590 Dec 14 00:18	22°♊46'18		inferior conj	4591 Nov 28 03:59	6°♊33'35	0°-45'-32
transit end	4590 Dec 14 04:02	22°♊34'05		minimum elong	4591 Nov 28 05:12	6°♊29'48	0°45'01
morning rise	4590 Dec 19 16:47	16°♊39'03		asc. node	4591 Nov 30 09:17	3°♊55'26	
direct	4590 Dec 23 04:06	15°♊29'34		morning rise	4591 Dec 04 01:56	0°♊43'07	
morning max el	4590 Dec 30 10:50	19°♊35'09	19°35'37		4591 Dec 05 20:13	30°♊18'41	
greatest brilliancy	4591 Jan 07 15:01	29°♊45'31	-0.6m	direct	4591 Dec 07 02:39	29°♊50'52	
	4591 Jan 07 19:08	0°♊			4591 Dec 08 09:30	0°♊	
desc. node	4591 Jan 19 04:35	16°♊56'25		morning max el	4591 Dec 13 20:18	3°♊32'55	18°44'19
morning set	4591 Jan 24 11:42	25°♊04'43			4592 Jan 01 08:25	0°♊	
	4591 Jan 27 15:59	0°♊		morning set	4592 Jan 04 01:51	4°♊17'38	
max. Earth dist.	4591 Feb 05 21:43	14°♊28'45	1.44494 AU	desc. node	4592 Jan 06 01:37	7°♊25'42	
				max. Earth dist.	4592 Jan 19 15:17	28°♊43'45	1.45221 AU
superior conj	4591 Feb 10 04:40	21°♊19'18	-1°-58'-29				
minimum elong	4591 Feb 09 22:20	20°♊53'53	1°58'08	superior conj	4592 Jan 20 11:08	0°♊01'38	-1°-28'-59
	4591 Feb 15 13:04	0°♊		minimum elong	4592 Jan 20 01:48	29°♊24'59	1°28'02
evening rise	4591 Feb 24 01:42	14°♊10'55			4592 Jan 20 10:43	0°♊	
	4591 Mar 05 13:11	0°♊		evening rise	4592 Feb 04 23:45	24°♊39'42	
asc. node	4591 Mar 11 11:33	8°♊50'40			4592 Feb 08 07:25	0°♊	
evening max el	4591 Mar 14 17:11	12°♊38'18	18°17'35	evening max el	4592 Feb 26 04:20	26°♊06'20	18°46'32
retrograde	4591 Mar 21 03:27	16°♊05'00		asc. node	4592 Feb 26 08:34	26°♊16'59	
evening set	4591 Mar 24 01:40	15°♊19'06		retrograde	4592 Mar 03 20:45	29°♊49'43	
inferior conj	4591 Mar 30 02:18	9°♊54'54	3°33'31	evening set	4592 Mar 07 01:23	28°♊51'20	
minimum elong	4591 Mar 30 02:51	9°♊53'21	3°33'30	inferior conj	4592 Mar 12 18:28	23°♊09'15	3°31'57
min. Earth dist.	4591 Apr 01 13:30	7°♊08'56	0.63707 AU	minimum elong	4592 Mar 12 17:34	23°♊12'05	3°31'54
morning rise	4591 Apr 05 02:09	3°♊45'48		min. Earth dist.	4592 Mar 14 13:57	20°♊55'37	0.65396 AU
direct	4591 Apr 11 22:26	1°♊02'32		morning rise	4592 Mar 18 08:34	16°♊55'11	
desc. node	4591 Apr 17 03:46	2°♊23'27		direct	4592 Mar 24 22:36	14°♊06'08	
morning max el	4591 Apr 25 17:40	9°♊00'49	27°39'53	desc. node	4592 Apr 03 00:48	18°♊08'24	
	4591 May 12 00:54	0°♊		morning max el	4592 Apr 07 03:35	21°♊52'43	26°55'05

	4592 Apr 14 05:57	0°♄		desc. node	4593 Mar 20 21:51	5°♄24'29	
	4592 May 04 05:56	0°♄			4593 Apr 08 17:20	0°♄	
morning set	4592 May 12 21:23	15°♄42'00		morning set	4593 Apr 25 17:14	28°♄21'52	
max. Earth dist.	4592 May 17 07:17	24°♄22'25	1.34141 AU		4593 Apr 26 14:33	0°♄	
	4592 May 20 01:27	0°♄		max. Earth dist.	4593 Apr 29 13:29	5°♄33'20	1.35774 AU
superior conj	4592 May 21 10:14	2°♄50'12	0°-29'-43	superior conj	4593 May 05 03:38	16°♄31'37	0°-59'-12
minimum elong	4592 May 21 11:49	2°♄58'26	0°29'25	minimum elong	4593 May 05 06:51	16°♄47'53	0°58'39
asc. node	4592 May 24 07:52	8°♄56'15		asc. node	4593 May 11 04:55	28°♄53'46	
evening rise	4592 May 28 21:25	18°♄33'52			4593 May 11 17:48	0°♄	
	4592 Jun 03 14:04	0°♄		evening rise	4593 May 13 04:00	2°♄55'07	
evening max el	4592 Jun 17 18:01	20°♄51'00	21°26'17		4593 May 29 03:49	0°♄	
retrograde	4592 Jun 29 22:24	26°♄51'27		evening max el	4593 May 31 00:10	1°♄57'34	20°07'16
desc. node	4592 Jun 30 00:02	26°♄51'26		retrograde	4593 Jun 10 12:43	7°♄06'04	
evening set	4592 Jul 02 08:49	26°♄37'53		evening set	4593 Jun 12 11:28	6°♄56'15	
inferior conj	4592 Jul 11 16:59	22°♄38'31	-3°-18'-44	desc. node	4593 Jun 16 21:02	5°♄30'19	
minimum elong	4592 Jul 11 08:37	22°♄50'13	3°16'12	inferior conj	4593 Jun 21 12:46	2°♄57'02	-1°-23'-6
min. Earth dist.	4592 Jul 11 18:33	22°♄36'20	0.54822 AU	minimum elong	4593 Jun 21 08:53	3°♄02'50	1°21'40
morning rise	4592 Jul 20 09:06	18°♄44'50		min. Earth dist.	4593 Jun 23 06:49	1°♄54'24	0.55146 AU
direct	4592 Jul 23 19:51	18°♄19'06			4593 Jun 26 18:43	30°♄	
morning max el	4592 Aug 05 07:35	24°♄12'58	22°13'36	morning rise	4593 Jun 30 03:58	28°♄39'58	
	4592 Aug 10 13:02	0°♄		direct	4593 Jul 04 07:22	28°♄02'43	
asc. node	4592 Aug 20 07:08	15°♄23'48			4593 Jul 11 13:46	0°♄	
morning set	4592 Aug 26 19:54	28°♄23'33		morning max el	4593 Jul 17 23:08	4°♄44'16	23°56'53
	4592 Aug 27 14:17	0°♄			4593 Aug 04 16:33	0°♄	
superior conj	4592 Sep 03 00:37	13°♄39'58	1°41'40	asc. node	4593 Aug 07 04:12	4°♄47'28	
minimum elong	4592 Sep 02 23:35	13°♄34'35	1°41'37	morning set	4593 Aug 11 07:34	13°♄17'15	
max. Earth dist.	4592 Sep 06 11:42	20°♄52'59	1.34391 AU	superior conj	4593 Aug 18 08:00	28°♄26'10	1°33'27
evening rise	4592 Sep 11 02:25	0°♄06'02		minimum elong	4593 Aug 18 06:06	28°♄15'55	1°33'16
	4592 Sep 11 01:10	0°♄			4593 Aug 19 01:22	0°♄	
desc. node	4592 Sep 25 23:21	26°♄05'37		max. Earth dist.	4593 Aug 20 11:51	3°♄05'00	1.33172 AU
	4592 Sep 28 12:44	0°♄		evening rise	4593 Aug 25 19:23	14°♄08'11	
evening max el	4592 Oct 15 23:42	21°♄53'15	27°01'41		4593 Sep 03 04:22	0°♄	
retrograde	4592 Oct 29 05:32	29°♄10'19		desc. node	4593 Sep 12 20:22	15°♄46'02	
evening set	4592 Nov 04 23:53	26°♄30'42			4593 Sep 23 13:39	0°♄	
min. Earth dist.	4592 Nov 08 22:46	22°♄39'11	0.65405 AU	evening max el	4593 Sep 28 11:13	5°♄09'40	27°25'32
inferior conj	4592 Nov 10 23:24	20°♄21'00	-1°-46'-45	retrograde	4593 Oct 12 01:45	12°♄27'22	
minimum elong	4592 Nov 11 02:26	20°♄12'22	1°45'31	evening set	4593 Oct 19 04:15	9°♄49'51	
asc. node	4592 Nov 16 06:20	15°♄17'44		min. Earth dist.	4593 Oct 22 21:27	6°♄32'25	0.63868 AU
morning rise	4592 Nov 17 06:47	14°♄43'20		inferior conj	4593 Oct 25 10:15	3°♄55'54	-2°-49'-16
direct	4592 Nov 19 23:02	14°♄04'31		minimum elong	4593 Oct 25 15:05	3°♄43'28	2°47'32
morning max el	4592 Nov 26 10:49	17°♄33'27	18°09'34		4593 Oct 29 16:37	30°♄	
	4592 Dec 05 15:35	0°♄		morning rise	4593 Nov 01 04:23	28°♄34'14	
morning set	4592 Dec 14 21:14	14°♄59'01		asc. node	4593 Nov 03 03:25	28°♄06'11	
desc. node	4592 Dec 22 22:40	28°♄04'43		direct	4593 Nov 03 14:37	28°♄05'06	
	4592 Dec 24 03:24	0°♄			4593 Nov 08 10:48	0°♄	
superior conj	4592 Dec 29 15:28	8°♄45'12	0°-45'-5	morning max el	4593 Nov 10 03:35	1°♄30'06	17°51'56
minimum elong	4592 Dec 29 09:50	8°♄22'58	0°44'21	morning set	4593 Nov 26 19:50	26°♄59'27	
max. Earth dist.	4593 Jan 01 10:58	13°♄11'08	1.45199 AU		4593 Nov 28 13:54	0°♄	
	4593 Jan 12 05:25	0°♄		superior conj	4593 Dec 09 13:14	18°♄23'12	0°01'53
evening rise	4593 Jan 14 23:59	4°♄18'38		minimum elong	4593 Dec 09 13:26	18°♄24'01	0°01'52
greatest brilliancy	4593 Jan 31 10:29	29°♄22'14	-0.7m	behind sun begin	4593 Dec 09 03:37	17°♄43'55	
	4593 Jan 31 21:02	0°♄		behind sun end	4593 Dec 09 23:15	19°♄04'02	
evening max el	4593 Feb 08 11:41	9°♄38'09	19°32'20	desc. node	4593 Dec 09 19:42	18°♄49'36	
asc. node	4593 Feb 12 05:36	12°♄43'40		max. Earth dist.	4593 Dec 15 05:14	27°♄31'02	1.44451 AU
retrograde	4593 Feb 15 17:54	13°♄48'56			4593 Dec 16 18:48	0°♄	
evening set	4593 Feb 19 05:52	12°♄37'12		evening rise	4593 Dec 25 10:51	13°♄30'19	
inferior conj	4593 Feb 24 18:13	6°♄39'28	3°16'36		4594 Jan 05 08:16	0°♄	
minimum elong	4593 Feb 24 16:19	6°♄45'44	3°16'18	greatest brilliancy	4594 Jan 16 16:55	16°♄11'02	-0.5m
min. Earth dist.	4593 Feb 25 22:43	5°♄05'53	0.66668 AU	evening max el	4594 Jan 22 13:50	23°♄10'52	20°32'54
morning rise	4593 Mar 02 02:01	0°♄23'24		asc. node	4594 Jan 30 02:40	27°♄55'14	
	4593 Mar 02 12:49	30°♄		retrograde	4594 Jan 30 16:10	27°♄56'57	
direct	4593 Mar 08 04:54	27°♄40'52		evening set	4594 Feb 03 12:56	26°♄30'54	
	4593 Mar 14 15:10	0°♄		inferior conj	4594 Feb 08 22:50	20°♄20'21	2°50'23
morning max el	4593 Mar 20 13:14	5°♄02'30	25°45'32	minimum elong	4594 Feb 08 20:27	20°♄28'31	2°49'47

min. Earth dist.	4594 Feb 09 13:49	19° \approx 29'07	0.67522 AU		4595 Jan 27 09:46	30° \mathbb{R} \mathbb{Z}	
morning rise	4594 Feb 14 03:28	14° \approx 04'20		morning rise	4595 Jan 29 10:22	27° \mathbb{Z} 55'06	
direct	4594 Feb 19 16:33	11° \approx 37'23		direct	4595 Feb 03 08:44	25° \mathbb{Z} 49'02	
morning max el	4594 Mar 02 21:54	18° \approx 19'54	24°20'56		4595 Feb 11 12:30	0° \approx	
desc. node	4594 Mar 07 18:54	23° \approx 45'03		morning max el	4595 Feb 13 07:30	1° \approx 42'39	22°51'36
	4594 Mar 12 17:27	0° \mathbb{H}		greatest brilliancy	4595 Feb 18 00:02	6° \approx 56'26	-0.3m
	4594 Apr 01 19:23	0° \mathbb{Y}		desc. node	4595 Feb 22 15:57	12° \approx 51'58	
morning set	4594 Apr 07 17:21	10° \mathbb{Y} 01'06			4595 Mar 06 17:03	0° \mathbb{H}	
max. Earth dist.	4594 Apr 11 10:35	16° \mathbb{Y} 36'43	1.37780 AU	morning set	4595 Mar 19 15:40	20° \mathbb{H} 24'01	
				max. Earth dist.	4595 Mar 24 05:41	28° \mathbb{H} 07'24	1.39970 AU
					4595 Mar 25 07:49	0° \mathbb{Y}	
superior conj	4594 Apr 18 09:36	29° \mathbb{Y} 35'42	-1°-27'-19				
minimum elong	4594 Apr 18 14:10	29° \mathbb{Y} 57'40	1°26'42				
	4594 Apr 18 14:40	0° \mathbb{B}		superior conj	4595 Apr 01 00:01	11° \mathbb{Y} 52'24	-1°-50'-59
evening rise	4594 Apr 27 04:25	16° \mathbb{B} 52'53		minimum elong	4595 Apr 01 04:46	12° \mathbb{Y} 14'09	1°50'34
asc. node	4594 Apr 28 01:57	18° \mathbb{B} 39'10		evening rise	4595 Apr 10 19:38	0° \mathbb{B} 19'32	
	4594 May 04 01:44	0° \mathbb{H}			4595 Apr 10 15:32	0° \mathbb{B}	
evening max el	4594 May 13 18:31	13° \mathbb{H} 46'14	19°07'40	asc. node	4595 Apr 14 22:59	8° \mathbb{B} 07'37	
retrograde	4594 May 22 15:02	18° \mathbb{H} 05'33		evening max el	4595 Apr 26 22:27	26° \mathbb{B} 12'11	18°28'24
evening set	4594 May 24 15:14	17° \mathbb{H} 53'08		retrograde	4595 May 04 11:55	29° \mathbb{B} 56'22	
inferior conj	4594 Jun 01 23:18	13° \mathbb{H} 41'09	0°31'14	evening set	4595 May 06 18:20	29° \mathbb{B} 37'14	
minimum elong	4594 Jun 02 00:34	13° \mathbb{H} 39'00	0°30'47	inferior conj	4595 May 14 06:55	25° \mathbb{B} 05'28	1°59'57
desc. node	4594 Jun 03 18:05	12° \mathbb{H} 27'57		minimum elong	4595 May 14 10:25	24° \mathbb{B} 58'28	1°58'54
min. Earth dist.	4594 Jun 04 21:58	11° \mathbb{H} 41'17	0.56375 AU	min. Earth dist.	4595 May 17 17:06	22° \mathbb{B} 22'48	0.58253 AU
morning rise	4594 Jun 10 05:33	8° \mathbb{H} 48'48		morning rise	4595 May 21 22:04	19° \mathbb{B} 40'02	
direct	4594 Jun 15 07:24	7° \mathbb{H} 48'36		desc. node	4595 May 21 15:08	19° \mathbb{B} 49'00	
morning max el	4594 Jun 29 13:13	15° \mathbb{H} 07'11	25°36'01	direct	4595 May 27 21:47	18° \mathbb{B} 07'22	
	4594 Jul 11 11:10	0° \mathbb{G}		morning max el	4595 Jun 11 07:03	25° \mathbb{B} 48'47	26°55'06
asc. node	4594 Jul 25 01:15	24° \mathbb{G} 30'22			4595 Jun 15 05:01	0° \mathbb{H}	
morning set	4594 Jul 26 19:07	28° \mathbb{G} 09'25			4595 Jul 04 18:08	0° \mathbb{G}	
	4594 Jul 27 15:54	0° \mathbb{Q}		morning set	4595 Jul 11 04:52	12° \mathbb{G} 54'34	
				asc. node	4595 Jul 11 22:16	14° \mathbb{G} 26'24	
superior conj	4594 Aug 02 18:34	13° \mathbb{Q} 20'06	1°20'01				
minimum elong	4594 Aug 02 16:16	13° \mathbb{Q} 07'29	1°19'42	superior conj	4595 Jul 18 06:21	28° \mathbb{G} 15'00	1°02'03
max. Earth dist.	4594 Aug 03 18:58	15° \mathbb{Q} 33'57	1.32376 AU	minimum elong	4595 Jul 18 04:08	28° \mathbb{G} 02'44	1°01'40
evening rise	4594 Aug 09 20:44	28° \mathbb{Q} 33'51		max. Earth dist.	4595 Jul 18 05:55	28° \mathbb{G} 12'36	1.32004 AU
	4594 Aug 10 13:27	0° \mathbb{M}			4595 Jul 19 01:22	0° \mathbb{Q}	
	4594 Aug 27 09:26	0° \mathbb{A}		evening rise	4595 Jul 25 03:43	13° \mathbb{Q} 14'16	
desc. node	4594 Aug 30 17:23	4° \mathbb{A} 49'21			4595 Aug 02 15:35	0° \mathbb{M}	
evening max el	4594 Sep 10 19:34	17° \mathbb{A} 54'53	27°18'55	desc. node	4595 Aug 17 14:24	22° \mathbb{M} 59'44	
retrograde	4594 Sep 24 15:21	25° \mathbb{A} 09'17			4595 Aug 23 23:37	0° \mathbb{A}	
evening set	4594 Oct 01 19:14	22° \mathbb{A} 45'34		evening max el	4595 Aug 23 22:09	29° \mathbb{M} 56'33	26°38'47
min. Earth dist.	4594 Oct 05 10:00	19° \mathbb{A} 55'26	0.62026 AU	retrograde	4595 Sep 06 20:43	7° \mathbb{A} 06'14	
inferior conj	4594 Oct 08 09:35	17° \mathbb{A} 11'28	-3°-49'-17	evening set	4595 Sep 13 16:09	5° \mathbb{A} 09'00	
minimum elong	4594 Oct 08 15:37	16° \mathbb{A} 57'37	3°47'33	min. Earth dist.	4595 Sep 17 12:01	2° \mathbb{A} 33'33	0.59989 AU
morning rise	4594 Oct 15 15:03	12° \mathbb{A} 08'54		inferior conj	4595 Sep 20 17:51	29° \mathbb{M} 57'38	-4°-40'-13
direct	4594 Oct 17 22:10	11° \mathbb{A} 45'58		minimum elong	4595 Sep 20 23:28	29° \mathbb{M} 46'20	4°39'11
asc. node	4594 Oct 21 00:29	12° \mathbb{A} 29'06			4595 Sep 20 16:41	30° \mathbb{R} \mathbb{M}	
morning max el	4594 Oct 24 19:28	15° \mathbb{A} 15'24	17°52'21	morning rise	4595 Sep 28 10:10	25° \mathbb{M} 17'03	
	4594 Nov 04 00:40	0° \mathbb{M}		direct	4595 Sep 30 17:39	24° \mathbb{M} 57'18	
morning set	4594 Nov 09 15:24	10° \mathbb{M} 00'18		asc. node	4595 Oct 07 21:31	28° \mathbb{M} 17'02	
				morning max el	4595 Oct 08 07:05	28° \mathbb{M} 39'37	18°12'04
superior conj	4594 Nov 20 13:20	29° \mathbb{M} 18'44	0°42'23		4595 Oct 09 13:57	0° \mathbb{A}	
minimum elong	4594 Nov 20 16:52	29° \mathbb{M} 33'50	0°41'54	morning set	4595 Oct 24 01:54	23° \mathbb{A} 43'13	
	4594 Nov 20 22:59	0° \mathbb{J}			4595 Oct 27 09:47	0° \mathbb{M}	
desc. node	4594 Nov 26 16:42	9° \mathbb{J} 36'57					
max. Earth dist.	4594 Nov 27 19:42	11° \mathbb{J} 27'29	1.43076 AU	superior conj	4595 Nov 02 14:19	11° \mathbb{M} 26'18	1°12'29
evening rise	4594 Dec 04 23:56	22° \mathbb{J} 54'40		minimum elong	4595 Nov 02 18:17	11° \mathbb{M} 44'11	1°12'01
	4594 Dec 09 14:07	0° \mathbb{Z}		max. Earth dist.	4595 Nov 10 05:20	24° \mathbb{M} 47'37	1.41236 AU
	4594 Dec 30 14:29	0° \approx			4595 Nov 13 08:05	0° \mathbb{J}	
greatest brilliancy	4594 Dec 31 15:39	1° \approx 18'42	-0.4m	desc. node	4595 Nov 13 13:43	0° \mathbb{J} 23'14	
evening max el	4595 Jan 05 10:34	6° \approx 45'20	21°44'50	evening rise	4595 Nov 15 05:27	3° \mathbb{J} 05'43	
retrograde	4595 Jan 14 13:33	12° \approx 10'41			4595 Dec 02 22:37	0° \mathbb{Z}	
asc. node	4595 Jan 16 23:43	11° \approx 39'09		greatest brilliancy	4595 Dec 13 06:51	13° \mathbb{Z} 47'55	-0.2m
evening set	4595 Jan 18 20:47	10° \approx 29'18		evening max el	4595 Dec 19 02:47	20° \mathbb{Z} 22'28	23°03'30
inferior conj	4595 Jan 24 06:06	4° \approx 09'08	2°15'13	retrograde	4595 Dec 29 08:24	26° \mathbb{Z} 26'20	
minimum elong	4595 Jan 24 03:43	4° \approx 17'26	2°14'27	evening set	4596 Jan 03 03:48	24° \mathbb{Z} 28'54	
min. Earth dist.	4595 Jan 24 08:56	3° \approx 59'19	0.67978 AU	asc. node	4596 Jan 03 20:45	23° \mathbb{Z} 51'15	

min. Earth dist.	4596 Jan 08 05:37	18°♄31'58	0.68054 AU	asc. node	4596 Dec 20 17:46	4°♄47'50	
inferior conj	4596 Jan 08 14:03	18°♄02'53	1°32'27	min. Earth dist.	4596 Dec 22 01:35	3°♄03'57	0.67764 AU
minimum elong	4596 Jan 08 12:08	18°♄09'31	1°31'44	inferior conj	4596 Dec 22 20:56	1°♄59'07	0°43'06
morning rise	4596 Jan 13 20:28	11°♄52'42		minimum elong	4596 Dec 22 19:55	2°♄02'32	0°42'42
direct	4596 Jan 18 04:19	10°♄09'36			4596 Dec 24 09:06	30°♄	
morning max el	4596 Jan 26 21:44	15°♄14'02	21°26'34	morning rise	4596 Dec 28 07:46	25°♄54'53	
greatest brilliancy	4596 Jan 31 21:51	20°♄54'53	-0.4m	direct	4597 Jan 01 02:08	24°♄33'55	
	4596 Feb 07 17:50	0°♄		morning max el	4597 Jan 08 19:29	28°♄57'31	20°12'07
desc. node	4596 Feb 09 12:59	2°♄32'08			4597 Jan 09 19:36	0°♄	
morning set	4596 Feb 27 09:15	29°♄25'57		greatest brilliancy	4597 Jan 15 10:48	6°♄52'37	-0.6m
	4596 Feb 27 17:51	0°♄		desc. node	4597 Jan 26 10:00	22°♄36'22	
max. Earth dist.	4596 Mar 05 06:25	10°♄32'38	1.42060 AU		4597 Jan 31 07:35	0°♄	
				morning set	4597 Feb 05 07:05	7°♄38'06	
superior conj	4596 Mar 12 17:53	23°♄10'12	-2°-5'-51	max. Earth dist.	4597 Feb 15 15:05	23°♄52'35	1.43770 AU
minimum elong	4596 Mar 12 20:27	23°♄21'18	2°05'48		4597 Feb 19 10:03	0°♄	
	4596 Mar 16 15:27	0°♄					
evening rise	4596 Mar 23 21:53	13°♄06'19		superior conj	4597 Feb 21 10:46	3°♄19'22	-2°-6'-31
asc. node	4596 Mar 31 20:01	27°♄13'08		minimum elong	4597 Feb 21 08:02	3°♄08'07	2°06'28
	4596 Apr 02 12:32	0°♄		evening rise	4597 Mar 06 06:49	25°♄04'03	
evening max el	4596 Apr 09 08:22	9°♄05'57	18°09'04		4597 Mar 09 03:06	0°♄	
retrograde	4596 Apr 16 02:49	12°♄31'49		asc. node	4597 Mar 18 17:02	15°♄47'42	
evening set	4596 Apr 18 15:41	12°♄03'22		evening max el	4597 Mar 23 20:53	22°♄17'52	18°09'02
inferior conj	4596 Apr 25 11:13	7°♄10'15	2°57'01	retrograde	4597 Mar 30 07:27	25°♄40'40	
minimum elong	4596 Apr 25 14:19	7°♄03'04	2°56'23	evening set	4597 Apr 02 02:13	25°♄01'27	
min. Earth dist.	4596 Apr 28 18:23	4°♄07'53	0.60423 AU	inferior conj	4597 Apr 08 08:38	19°♄47'56	3°26'34
morning rise	4596 May 02 09:29	1°♄20'45		minimum elong	4597 Apr 08 10:10	19°♄43'53	3°26'25
	4596 May 05 00:42	30°♄		min. Earth dist.	4597 Apr 11 04:11	16°♄50'11	0.62570 AU
desc. node	4596 May 07 12:09	29°♄20'41		morning rise	4597 Apr 14 15:42	13°♄43'42	
direct	4596 May 09 00:06	29°♄14'17		direct	4597 Apr 21 12:12	11°♄10'32	
	4596 May 13 03:09	0°♄		desc. node	4597 Apr 24 09:12	11°♄34'58	
morning max el	4596 May 23 07:17	7°♄08'24	27°42'01	morning max el	4597 May 05 13:22	19°♄10'05	27°51'20
	4596 Jun 09 13:50	0°♄			4597 May 14 17:42	0°♄	
morning set	4596 Jun 24 11:07	27°♄27'17			4597 Jun 02 11:25	0°♄	
	4596 Jun 25 16:23	0°♄		morning set	4597 Jun 08 11:43	11°♄39'56	
asc. node	4596 Jun 27 19:17	4°♄30'41		max. Earth dist.	4597 Jun 14 00:19	23°♄12'08	1.32500 AU
max. Earth dist.	4596 Jun 30 17:05	10°♄50'15	1.32043 AU	asc. node	4597 Jun 14 16:18	24°♄38'00	
superior conj	4596 Jul 01 17:38	13°♄05'08	0°40'09	superior conj	4597 Jun 16 02:37	27°♄43'43	0°14'55
minimum elong	4596 Jul 01 15:57	12°♄55'53	0°39'48	minimum elong	4597 Jun 16 01:55	27°♄39'55	0°14'44
evening rise	4596 Jul 08 14:05	28°♄02'15		behind sun begin	4597 Jun 15 23:56	27°♄29'09	
	4596 Jul 09 12:20	0°♄		behind sun end	4597 Jun 16 03:54	27°♄50'40	
	4596 Jul 26 08:51	0°♄			4597 Jun 17 03:40	0°♄	
desc. node	4596 Aug 03 11:24	9°♄55'43		evening rise	4597 Jun 23 01:49	12°♄50'05	
evening max el	4596 Aug 04 17:10	11°♄09'15	25°27'40		4597 Jul 01 17:42	0°♄	
retrograde	4596 Aug 18 16:02	18°♄14'06		evening max el	4597 Jul 17 06:16	21°♄42'03	23°55'49
evening set	4596 Aug 24 14:11	16°♄52'42		desc. node	4597 Jul 21 08:25	25°♄07'38	
min. Earth dist.	4596 Aug 29 04:59	14°♄14'13	0.57955 AU	retrograde	4597 Jul 30 23:48	28°♄36'30	
inferior conj	4596 Sep 01 07:39	12°♄04'40	-5°-11'-6	evening set	4597 Aug 04 12:18	27°♄51'23	
minimum elong	4596 Sep 01 09:57	12°♄00'38	5°10'58	min. Earth dist.	4597 Aug 10 16:34	24°♄51'37	0.56199 AU
morning rise	4596 Sep 09 09:11	7°♄47'31		inferior conj	4597 Aug 13 01:07	23°♄25'20	-5°-6'-24
direct	4596 Sep 11 20:45	7°♄28'38		minimum elong	4597 Aug 12 21:21	23°♄31'06	5°06'05
morning max el	4596 Sep 20 11:07	11°♄33'34	18°52'36	morning rise	4597 Aug 21 09:48	19°♄28'10	
asc. node	4596 Sep 23 18:32	15°♄15'36		direct	4597 Aug 24 04:12	19°♄08'34	
	4596 Oct 02 20:09	0°♄		morning max el	4597 Sep 03 04:40	23°♄48'06	19°54'59
morning set	4596 Oct 06 22:44	7°♄55'18			4597 Sep 08 12:06	0°♄	
				asc. node	4597 Sep 10 15:33	3°♄09'48	
superior conj	4596 Oct 15 11:04	24°♄31'35	1°31'54	morning set	4597 Sep 21 02:36	22°♄27'15	
minimum elong	4596 Oct 15 13:53	24°♄44'58	1°31'40		4597 Sep 24 19:28	0°♄	
	4596 Oct 18 08:56	0°♄					
max. Earth dist.	4596 Oct 22 11:00	7°♄25'33	1.39156 AU	superior conj	4597 Sep 28 22:21	8°♄19'43	1°41'49
evening rise	4596 Oct 26 09:42	14°♄18'29		minimum elong	4597 Sep 28 23:33	8°♄25'41	1°41'46
desc. node	4596 Oct 30 10:43	21°♄04'35		max. Earth dist.	4597 Oct 04 16:08	19°♄28'35	1.37091 AU
	4596 Nov 05 00:58	0°♄		evening rise	4597 Oct 08 12:02	26°♄32'00	
	4596 Nov 26 21:13	0°♄			4597 Oct 10 10:46	0°♄	
evening max el	4596 Nov 30 16:08	4°♄02'59	24°22'58	desc. node	4597 Oct 17 07:44	11°♄36'51	
retrograde	4596 Dec 11 23:39	10°♄40'13			4597 Oct 29 12:40	0°♄	
evening set	4596 Dec 17 08:26	8°♄26'54		evening max el	4597 Nov 13 04:29	17°♄45'45	25°36'24

retrograde	4597 Nov 25 10:28	24° \mathring{A} 47'25		minimum elong	4598 Sep 12 19:36	22° \mathring{M} 36'21	1°43'42
evening set	4597 Dec 01 09:05	22° \mathring{A} 20'13			4598 Sep 16 10:28	0° \mathring{A}	
min. Earth dist.	4597 Dec 05 18:37	17° \mathring{A} 32'12	0.67118 AU	max. Earth dist.	4598 Sep 17 02:24	1° \mathring{A} 19'42	1.35267 AU
inferior conj	4597 Dec 07 00:57	15° \mathring{A} 55'17	0°-11'-49	evening rise	4598 Sep 21 08:43	9° \mathring{A} 36'50	
minimum elong	4597 Dec 07 01:15	15° \mathring{A} 54'19	0°11'41		4598 Oct 03 00:05	0° \mathring{M}	
transit middle	4597 Dec 07 01:15	15° \mathring{A} 54'19	0°11'41	desc. node	4598 Oct 04 04:44	1° \mathring{M} 54'42	
transit begin	4597 Dec 06 23:19	16° \mathring{A} 00'31			4598 Oct 25 06:20	0° \mathring{A}	
transit end	4597 Dec 07 03:12	15° \mathring{A} 48'06		evening max el	4598 Oct 26 17:04	1° \mathring{A} 26'17	26°36'21
asc. node	4597 Dec 07 14:48	15° \mathring{A} 11'12		retrograde	4598 Nov 08 16:10	8° \mathring{A} 41'06	
morning rise	4597 Dec 12 18:19	9° \mathring{A} 59'11		evening set	4598 Nov 15 03:47	6° \mathring{A} 04'14	
direct	4597 Dec 16 00:49	8° \mathring{A} 57'40		min. Earth dist.	4598 Nov 19 06:22	1° \mathring{A} 51'58	0.66125 AU
morning max el	4597 Dec 23 01:10	12° \mathring{A} 51'50	19°11'52		4598 Nov 20 19:54	30° \mathring{R} \mathring{M}	
greatest brilliancy	4598 Jan 02 04:22	26° \mathring{A} 01'18	-0.7m	inferior conj	4598 Nov 21 00:09	29° \mathring{M} 47'15	-1°-11'-12
	4598 Jan 04 20:19	0° \mathring{B}		minimum elong	4598 Nov 21 02:08	29° \mathring{M} 41'21	1°10'22
desc. node	4598 Jan 13 07:01	12° \mathring{B} 58'07		asc. node	4598 Nov 24 11:52	25° \mathring{M} 57'19	
morning set	4598 Jan 15 08:42	16° \mathring{B} 10'47		morning rise	4598 Nov 27 01:56	24° \mathring{M} 01'53	
	4598 Jan 24 05:38	0° \mathring{A}		direct	4598 Nov 29 22:39	23° \mathring{M} 15'58	
max. Earth dist.	4598 Jan 29 05:54	7° \mathring{A} 51'50	1.44888 AU	morning max el	4598 Dec 06 13:08	26° \mathring{M} 51'39	18°27'27
					4598 Dec 09 07:49	0° \mathring{A}	
superior conj	4598 Feb 01 03:11	12° \mathring{A} 25'37	-1°-48'-16	morning set	4598 Dec 26 10:48	26° \mathring{A} 00'06	
minimum elong	4598 Jan 31 18:48	11° \mathring{A} 52'25	1°47'37		4598 Dec 28 22:52	0° \mathring{B}	
	4598 Feb 12 01:11	0° \mathring{K}		desc. node	4598 Dec 31 04:01	3° \mathring{B} 31'40	
evening rise	4598 Feb 15 18:24	6° \mathring{K} 06'22					
	4598 Mar 02 17:52	0° \mathring{Y}		superior conj	4599 Jan 11 06:09	21° \mathring{B} 01'29	-1°-11'-31
asc. node	4598 Mar 05 14:05	3° \mathring{Y} 42'30		minimum elong	4599 Jan 10 21:43	20° \mathring{B} 28'22	1°10'32
evening max el	4598 Mar 07 09:15	5° \mathring{Y} 41'44	18°27'41	max. Earth dist.	4599 Jan 12 00:12	22° \mathring{B} 12'15	1.45300 AU
retrograde	4598 Mar 13 21:18	9° \mathring{Y} 14'31			4599 Jan 16 23:35	0° \mathring{A}	
evening set	4598 Mar 16 22:03	8° \mathring{Y} 23'33		evening rise	4599 Jan 27 06:36	16° \mathring{A} 11'40	
inferior conj	4598 Mar 22 19:05	2° \mathring{Y} 51'25	3°34'46		4599 Feb 05 00:36	0° \mathring{K}	
minimum elong	4598 Mar 22 18:58	2° \mathring{Y} 51'46	3°34'46	greatest brilliancy	4599 Feb 08 06:09	5° \mathring{K} 00'12	-0.7m
min. Earth dist.	4598 Mar 24 23:37	0° \mathring{Y} 17'39	0.64470 AU	evening max el	4599 Feb 18 19:00	19° \mathring{K} 11'40	19°04'05
	4598 Mar 25 05:50	30° \mathring{R} \mathring{K}		asc. node	4599 Feb 20 11:08	20° \mathring{K} 45'07	
morning rise	4598 Mar 28 14:19	26° \mathring{K} 39'23		retrograde	4599 Feb 25 16:34	23° \mathring{K} 05'39	
direct	4598 Apr 04 08:32	23° \mathring{K} 51'59		evening set	4599 Mar 01 00:05	22° \mathring{K} 01'53	
desc. node	4598 Apr 11 06:14	26° \mathring{K} 12'58		inferior conj	4599 Mar 06 14:53	16° \mathring{K} 13'04	3°26'54
	4598 Apr 16 02:09	0° \mathring{Y}		minimum elong	4599 Mar 06 13:29	16° \mathring{K} 17'30	3°26'45
morning max el	4598 Apr 17 22:48	1° \mathring{Y} 47'35	27°24'25	min. Earth dist.	4599 Mar 08 03:57	14° \mathring{K} 15'32	0.65992 AU
	4598 May 08 22:15	0° \mathring{B}		morning rise	4599 Mar 12 01:53	9° \mathring{K} 57'42	
morning set	4598 May 23 04:04	25° \mathring{B} 24'55		direct	4599 Mar 18 11:41	7° \mathring{K} 09'44	
	4598 May 25 11:28	0° \mathring{I}		desc. node	4599 Mar 29 03:16	12° \mathring{K} 39'56	
max. Earth dist.	4598 May 27 23:37	5° \mathring{I} 06'52	1.33405 AU	morning max el	4599 Mar 31 08:44	14° \mathring{K} 48'05	26°27'48
					4599 Apr 12 19:02	0° \mathring{Y}	
superior conj	4598 May 31 07:26	12° \mathring{I} 05'20	0°-12'-56		4599 May 01 16:46	0° \mathring{B}	
minimum elong	4598 May 31 08:06	12° \mathring{I} 08'52	0°12'50	morning set	4599 May 06 08:40	8° \mathring{B} 32'01	
behind sun begin	4598 May 31 04:48	11° \mathring{I} 51'24		max. Earth dist.	4599 May 10 11:54	16° \mathring{B} 29'48	1.34779 AU
behind sun end	4598 May 31 11:23	12° \mathring{I} 26'21					
asc. node	4598 Jun 01 13:20	14° \mathring{I} 44'34		superior conj	4599 May 15 05:48	26° \mathring{B} 03'41	0°-42'-16
evening rise	4598 Jun 07 13:06	27° \mathring{I} 32'09		minimum elong	4599 May 15 08:05	26° \mathring{B} 15'25	0°41'50
	4598 Jun 08 17:20	0° \mathring{B}			4599 May 17 03:29	0° \mathring{I}	
	4598 Jun 26 20:47	0° \mathring{Q}		asc. node	4599 May 19 10:24	4° \mathring{I} 46'36	
evening max el	4598 Jun 28 20:32	2° \mathring{Q} 04'30	22°18'43	evening rise	4599 May 22 22:01	12° \mathring{I} 02'37	
desc. node	4598 Jul 08 05:27	8° \mathring{Q} 00'57			4599 Jun 01 07:04	0° \mathring{B}	
retrograde	4598 Jul 11 19:38	8° \mathring{Q} 30'48		evening max el	4599 Jun 10 19:53	12° \mathring{B} 49'51	20°50'33
evening set	4598 Jul 14 20:30	8° \mathring{Q} 10'25		retrograde	4599 Jun 22 08:13	18° \mathring{B} 28'26	
min. Earth dist.	4598 Jul 23 02:57	4° \mathring{Q} 35'19	0.55068 AU	evening set	4599 Jun 24 11:23	18° \mathring{B} 17'36	
inferior conj	4598 Jul 24 01:18	4° \mathring{Q} 03'45	-4°-12'-16	desc. node	4599 Jun 25 02:28	18° \mathring{B} 10'26	
minimum elong	4598 Jul 23 16:53	4° \mathring{Q} 15'40	4°10'18	inferior conj	4599 Jul 03 18:31	14° \mathring{B} 20'41	-2°-31'-46
morning rise	4598 Aug 01 15:20	0° \mathring{Q} 13'56		minimum elong	4599 Jul 03 11:34	14° \mathring{B} 30'33	2°29'24
	4598 Aug 02 20:59	30° \mathring{R} \mathring{B}		min. Earth dist.	4599 Jul 04 14:19	13° \mathring{B} 52'32	0.54836 AU
direct	4598 Aug 04 18:50	29° \mathring{B} 51'39		morning rise	4599 Jul 12 11:01	10° \mathring{B} 18'59	
	4598 Aug 06 15:57	0° \mathring{Q}		direct	4599 Jul 16 04:09	9° \mathring{B} 49'18	
morning max el	4598 Aug 16 10:15	5° \mathring{Q} 17'26	21°18'12	morning max el	4599 Jul 29 05:27	16° \mathring{B} 05'03	22°57'04
asc. node	4598 Aug 28 12:36	21° \mathring{Q} 46'43			4599 Aug 09 04:23	0° \mathring{Q}	
	4598 Sep 01 21:51	0° \mathring{M}		asc. node	4599 Aug 15 09:39	10° \mathring{Q} 55'56	
morning set	4598 Sep 05 11:01	7° \mathring{M} 12'01		morning set	4599 Aug 20 22:02	22° \mathring{Q} 04'11	
					4599 Aug 24 15:14	0° \mathring{M}	
superior conj	4598 Sep 12 19:55	22° \mathring{M} 37'58	1°43'42				

superior conj	4599 Aug 28 00:30	7° $\mathring{\text{M}}$ 16'32	1°38'52	superior conj	4600 Aug 12 09:28	22° $\mathring{\text{O}}$ 06'18	1°28'20
minimum elong	4599 Aug 27 23:04	7° $\mathring{\text{M}}$ 08'48	1°38'47	minimum elong	4600 Aug 12 07:21	21° $\mathring{\text{O}}$ 54'43	1°28'06
max. Earth dist.	4599 Aug 30 21:36	13° $\mathring{\text{M}}$ 22'03	1.33817 AU	max. Earth dist.	4600 Aug 14 01:13	25° $\mathring{\text{O}}$ 42'14	1.32784 AU
evening rise	4599 Sep 04 19:28	23° $\mathring{\text{M}}$ 21'48			4600 Aug 16 01:13	0° $\mathring{\text{M}}$	
	4599 Sep 08 06:07	0° $\mathring{\text{A}}$		evening rise	4600 Aug 19 16:22	7° $\mathring{\text{M}}$ 34'49	
desc. node	4599 Sep 21 01:46	21° $\mathring{\text{A}}$ 51'34			4600 Aug 31 17:37	0° $\mathring{\text{A}}$	
	4599 Sep 26 15:34	0° $\mathring{\text{M}}$		desc. node	4600 Sep 07 22:48	11° $\mathring{\text{A}}$ 17'30	
evening max el	4599 Oct 09 05:39	14° $\mathring{\text{M}}$ 56'02	27°15'21	evening max el	4600 Sep 21 16:20	28° $\mathring{\text{A}}$ 01'03	27°26'46
retrograde	4599 Oct 22 15:59	22° $\mathring{\text{M}}$ 14'04			4600 Sep 23 21:38	0° $\mathring{\text{M}}$	
evening set	4599 Oct 29 14:14	19° $\mathring{\text{M}}$ 34'27		retrograde	4600 Oct 05 09:12	5° $\mathring{\text{M}}$ 16'42	
min. Earth dist.	4599 Nov 02 10:35	15° $\mathring{\text{M}}$ 57'33	0.64790 AU	evening set	4600 Oct 12 13:19	2° $\mathring{\text{M}}$ 43'49	
inferior conj	4599 Nov 04 16:19	13° $\mathring{\text{M}}$ 30'41	-2°-13'-15		4600 Oct 15 20:10	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
minimum elong	4599 Nov 04 20:08	13° $\mathring{\text{M}}$ 20'14	2°11'46	min. Earth dist.	4600 Oct 16 05:04	29° $\mathring{\text{A}}$ 39'02	0.63120 AU
morning rise	4599 Nov 11 04:07	7° $\mathring{\text{M}}$ 59'06		inferior conj	4600 Oct 18 22:38	26° $\mathring{\text{A}}$ 58'07	-3°-15'-18
asc. node	4599 Nov 11 08:54	7° $\mathring{\text{M}}$ 54'01		minimum elong	4600 Oct 19 04:06	26° $\mathring{\text{A}}$ 44'41	3°13'31
direct	4599 Nov 13 17:27	7° $\mathring{\text{M}}$ 24'51		morning rise	4600 Oct 25 21:32	21° $\mathring{\text{A}}$ 43'55	
morning max el	4599 Nov 20 04:56	10° $\mathring{\text{M}}$ 51'19	17°59'50	direct	4600 Oct 28 06:11	21° $\mathring{\text{A}}$ 17'40	
	4599 Dec 03 09:38	0° $\mathring{\text{A}}$		asc. node	4600 Oct 29 05:56	21° $\mathring{\text{A}}$ 22'23	
morning set	4599 Dec 07 18:30	7° $\mathring{\text{A}}$ 17'38		morning max el	4600 Nov 03 21:38	24° $\mathring{\text{A}}$ 43'24	17°49'50
desc. node	4599 Dec 18 01:03	24° $\mathring{\text{A}}$ 13'27			4600 Nov 08 05:17	0° $\mathring{\text{M}}$	
				morning set	4600 Nov 20 02:51	19° $\mathring{\text{M}}$ 46'18	
superior conj	4599 Dec 21 16:00	0° $\mathring{\text{Z}}$ 03'01	0°-24'-52		4600 Nov 25 23:50	0° $\mathring{\text{A}}$	
minimum elong	4599 Dec 21 12:57	29° $\mathring{\text{A}}$ 50'53	0°24'27	superior conj	4600 Dec 02 00:36	10° $\mathring{\text{A}}$ 12'50	0°20'12
	4599 Dec 21 15:14	0° $\mathring{\text{Z}}$		minimum elong	4600 Dec 02 02:37	10° $\mathring{\text{A}}$ 21'14	0°19'55
max. Earth dist.	4599 Dec 25 19:30	6° $\mathring{\text{Z}}$ 37'59	1.44974 AU	desc. node	4600 Dec 04 22:06	14° $\mathring{\text{A}}$ 59'39	
evening rise	4600 Jan 06 23:34	25° $\mathring{\text{Z}}$ 34'49		max. Earth dist.	4600 Dec 08 12:56	20° $\mathring{\text{A}}$ 51'39	1.43942 AU
	4600 Jan 09 20:32	0° $\mathring{\text{A}}$			4600 Dec 14 07:25	0° $\mathring{\text{Z}}$	
greatest brilliancy	4600 Jan 26 01:42	24° $\mathring{\text{A}}$ 09'42	-0.6m	evening rise	4600 Dec 17 09:26	4° $\mathring{\text{Z}}$ 47'22	
	4600 Jan 30 13:29	0° $\mathring{\text{H}}$			4601 Jan 03 06:59	0° $\mathring{\text{A}}$	
evening max el	4600 Feb 02 00:21	2° $\mathring{\text{H}}$ 44'14	19°56'31				
asc. node	4600 Feb 07 08:12	6° $\mathring{\text{H}}$ 41'32					
retrograde	4600 Feb 09 14:20	7° $\mathring{\text{H}}$ 08'48					
evening set	4600 Feb 13 05:54	5° $\mathring{\text{H}}$ 51'06					
inferior conj	4600 Feb 18 16:59	29° $\mathring{\text{A}}$ 47'48	3°06'38				
minimum elong	4600 Feb 18 14:49	29° $\mathring{\text{A}}$ 55'05	3°06'12				
	4600 Feb 18 13:21	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$					
min. Earth dist.	4600 Feb 19 15:36	28° $\mathring{\text{A}}$ 32'06	0.67092 AU				
morning rise	4600 Feb 23 23:06	23° $\mathring{\text{A}}$ 31'42					
direct	4600 Mar 01 20:28	20° $\mathring{\text{A}}$ 54'43					
morning max el	4600 Mar 13 17:39	28° $\mathring{\text{A}}$ 00'42	25°10'35				
	4600 Mar 15 14:58	0° $\mathring{\text{H}}$					
desc. node	4600 Mar 16 00:18	0° $\mathring{\text{H}}$ 25'39					
	4600 Apr 06 12:20	0° $\mathring{\text{Y}}$					
morning set	4600 Apr 18 20:48	20° $\mathring{\text{Y}}$ 47'32					
max. Earth dist.	4600 Apr 22 13:23	27° $\mathring{\text{Y}}$ 32'39	1.36594 AU				
	4600 Apr 23 20:48	0° $\mathring{\text{B}}$					
superior conj	4600 Apr 28 18:48	9° $\mathring{\text{B}}$ 30'25	-1°-11'-28				
minimum elong	4600 Apr 28 22:41	9° $\mathring{\text{B}}$ 49'33	1°10'51				
asc. node	4600 May 06 07:28	24° $\mathring{\text{B}}$ 39'27					
evening rise	4600 May 07 02:18	26° $\mathring{\text{B}}$ 14'34					
	4600 May 08 23:20	0° $\mathring{\text{II}}$					
evening max el	4600 May 24 07:29	24° $\mathring{\text{II}}$ 14'27	19°39'26				
retrograde	4600 Jun 03 01:58	29° $\mathring{\text{II}}$ 00'19					
evening set	4600 Jun 05 00:31	28° $\mathring{\text{II}}$ 49'53					
desc. node	4600 Jun 11 23:31	25° $\mathring{\text{II}}$ 53'45					
inferior conj	4600 Jun 13 19:12	24° $\mathring{\text{II}}$ 46'33	0°-32'-28				
minimum elong	4600 Jun 13 17:44	24° $\mathring{\text{II}}$ 48'51	0°31'57				
min. Earth dist.	4600 Jun 16 03:28	23° $\mathring{\text{II}}$ 18'40	0.55572 AU				
morning rise	4600 Jun 22 07:38	20° $\mathring{\text{II}}$ 15'30					
direct	4600 Jun 26 20:28	19° $\mathring{\text{II}}$ 29'46					
morning max el	4600 Jul 10 19:21	26° $\mathring{\text{II}}$ 28'09	24°40'35				
	4600 Jul 14 04:37	0° $\mathring{\text{B}}$					
asc. node	4600 Aug 02 06:42	0° $\mathring{\text{O}}$ 28'19					
	4600 Aug 02 01:05	0° $\mathring{\text{O}}$					
morning set	4600 Aug 05 09:50	6° $\mathring{\text{O}}$ 57'29					

superior conj	4600 Apr 28 18:48	9°♄30'25	-1°-11'-28	max. Earth dist.	4601 Apr 04 09:15	8°♄46'10	1.38710 AU
minimum elong	4600 Apr 28 22:41	9°♄49'33	1°10'51				
asc. node	4600 May 06 07:28	24°♄39'27		superior conj	4601 Apr 11 18:46	22°♄16'02	-1°-38'-7
evening rise	4600 May 07 02:18	26°♄14'34		minimum elong	4601 Apr 11 23:37	22°♄38'54	1°37'33
	4600 May 08 23:20	0°♄			4601 Apr 15 19:56	0°♄	
evening max el	4600 May 24 07:29	24°♄14'27	19°39'26	evening rise	4601 Apr 20 23:15	10°♄00'38	
retrograde	4600 Jun 03 01:58	29°♄00'19		asc. node	4601 Apr 23 04:31	14°♄18'37	
evening set	4600 Jun 05 00:31	28°♄49'53			4601 May 02 03:39	0°♄	
desc. node	4600 Jun 11 23:31	25°♄53'45		evening max el	4601 May 07 06:16	6°♄19'45	18°48'24
inferior conj	4600 Jun 13 19:12	24°♄46'33	0°-32'-28	retrograde	4601 May 15 12:09	10°♄22'24	
minimum elong	4600 Jun 13 17:44	24°♄48'51	0°31'57	evening set	4601 May 17 14:49	10°♄07'29	
min. Earth dist.	4600 Jun 16 03:28	23°♄18'40	0.55572 AU	inferior conj	4601 May 25 14:26	5°♄47'06	1°12'44
morning rise	4600 Jun 22 07:38	20°♄15'30		minimum elong	4601 May 25 17:03	5°♄42'19	1°11'50
direct	4600 Jun 26 20:28	19°♄29'46		min. Earth dist.	4601 May 28 19:52	3°♄26'55	0.57116 AU
morning max el	4600 Jul 10 19:21	26°♄28'09	24°40'35	desc. node	4601 May 29 20:33	2°♄45'07	
	4600 Jul 14 04:37	0°♄		morning rise	4601 Jun 02 14:48	0°♄39'53	
asc. node	4600 Aug 02 06:42	0°♄28'19			4601 Jun 04 10:13	30°♄	
	4600 Aug 02 01:05	0°♄		direct	4601 Jun 08 02:16	29°♄27'02	
morning set	4600 Aug 05 09:50	6°♄57'29			4601 Jun 11 19:09	0°♄	
				morning max el	4601 Jun 22 10:37	6°♄56'09	26°13'03
superior conj	4600 Aug 12 09:28	22°♄06'18	1°28'20		4601 Jul 09 12:19	0°♄	
minimum elong	4600 Aug 12 07:21	21°♄54'43	1°28'06	asc. node	4601 Jul 20 03:45	20°♄17'26	
max. Earth dist.	4600 Aug 14 01:13	25°♄42'14	1.32784 AU	morning set	4601 Jul 20 20:49	21°♄47'10	
	4600 Aug 16 01:13	0°♄			4601 Jul 24 16:16	0°♄	
evening rise	4600 Aug 19 16:22	7°♄34'49					
	4600 Aug 31 17:37	0°♄		superior conj	4601 Jul 27 20:44	7°♄00'50	1°12'55
desc. node	4600 Sep 07 22:48	11°♄17'30		minimum elong	4601 Jul 27 18:25	6°♄48'02	1°12'33
evening max el	4600 Sep 21 16:20	28°♄01'03	27°26'46	max. Earth dist.	4601 Jul 28 10:33	8°♄16'54	1.32170 AU
	4600 Sep 23 21:38	0°♄		evening rise	4601 Aug 03 20:23	22°♄07'07	
retrograde	4600 Oct 05 09:12	5°♄16'42			4601 Aug 07 17:25	0°♄	
evening set	4600 Oct 12 13:19	2°♄43'49		desc. node	4601 Aug 25 19:49	0°♄00'02	
	4600 Oct 15 20:10	30°♄			4601 Aug 25 19:49	0°♄	
min. Earth dist.	4600 Oct 16 05:04	29°♄39'02	0.63120 AU	evening max el	4601 Sep 03 22:24	10°♄27'50	27°05'49
inferior conj	4600 Oct 18 22:38	26°♄58'07	-3°-15'-18	retrograde	4601 Sep 17 19:10	17°♄39'55	
minimum elong	4600 Oct 19 04:06	26°♄44'41	3°13'31	evening set	4601 Sep 24 21:08	15°♄25'43	
morning rise	4600 Oct 25 21:32	21°♄43'55		min. Earth dist.	4601 Sep 28 12:44	12°♄44'05	0.61177 AU
direct	4600 Oct 28 06:11	21°♄17'40		inferior conj	4601 Oct 01 15:54	10°♄01'24	-4°-12'-34
asc. node	4600 Oct 29 05:56	21°♄22'23		minimum elong	4601 Oct 01 22:03	9°♄48'04	4°11'03
morning max el	4600 Nov 03 21:38	24°♄43'24	17°49'50	morning rise	4601 Oct 09 02:09	5°♄08'05	
	4600 Nov 08 05:17	0°♄		direct	4601 Oct 11 09:05	4°♄46'45	
morning set	4600 Nov 20 02:51	19°♄46'18		asc. node	4601 Oct 16 02:58	6°♄22'19	
	4600 Nov 25 23:50	0°♄		morning max el	4601 Oct 18 12:04	8°♄20'09	17°58'23
					4601 Nov 01 12:48	0°♄	
superior conj	4600 Dec 02 00:36	10°♄12'50	0°20'12	morning set	4601 Nov 03 05:21	3°♄06'09	
minimum elong	4600 Dec 02 02:37	10°♄21'14	0°19'55				
desc. node	4600 Dec 04 22:06	14°♄59'39		superior conj	4601 Nov 13 11:46	21°♄40'10	0°56'30
max. Earth dist.	4600 Dec 08 12:56	20°♄51'39	1.43942 AU	minimum elong	4601 Nov 13 15:45	21°♄57'38	0°55'59
	4600 Dec 14 07:25	0°♄			4601 Nov 18 07:56	0°♄	
evening rise	4600 Dec 17 09:26	4°♄47'22		max. Earth dist.	4601 Nov 21 01:39	4°♄34'40	1.42334 AU
	4601 Jan 03 06:59	0°♄		desc. node	4601 Nov 21 19:06	5°♄46'40	
greatest brilliancy	4601 Jan 10 17:34	10°♄09'03	-0.4m	evening rise	4601 Nov 27 04:03	14°♄27'25	
evening max el	4601 Jan 16 00:14	16°♄17'59	21°02'20		4601 Dec 07 06:50	0°♄	
retrograde	4601 Jan 24 12:23	21°♄20'03		greatest brilliancy	4601 Dec 25 00:41	24°♄32'06	-0.3m
asc. node	4601 Jan 25 05:13	21°♄17'23			4601 Dec 29 21:37	0°♄	
evening set	4601 Jan 28 13:31	19°♄47'23		evening max el	4601 Dec 29 18:43	29°♄52'42	22°17'45
inferior conj	4601 Feb 02 22:58	13°♄32'20	2°36'27	retrograde	4602 Jan 08 08:56	5°♄35'06	
minimum elong	4601 Feb 02 20:31	13°♄40'46	2°35'46	asc. node	4602 Jan 12 02:14	4°♄21'53	
min. Earth dist.	4601 Feb 03 08:34	12°♄59'12	0.67770 AU	evening set	4602 Jan 12 21:12	3°♄46'43	
morning rise	4601 Feb 08 03:09	7°♄17'13			4602 Jan 16 08:41	30°♄	
direct	4601 Feb 13 10:02	4°♄58'51		inferior conj	4602 Jan 18 06:43	27°♄23'20	1°57'56
morning max el	4601 Feb 24 02:22	11°♄20'29	23°42'57	minimum elong	4602 Jan 18 04:28	27°♄31'08	1°57'10
desc. node	4601 Mar 02 21:21	19°♄07'48		min. Earth dist.	4602 Jan 18 04:35	27°♄30'47	0.68052 AU
	4601 Mar 10 23:22	0°♄		morning rise	4602 Jan 23 11:37	21°♄10'48	
	4601 Mar 30 07:17	0°♄		direct	4602 Jan 28 03:37	19°♄14'43	
morning set	4601 Mar 31 10:41	1°♄56'07		morning max el	4602 Feb 06 13:40	24°♄47'02	22°14'32

greatest brilliancy	4602 Feb 11 03:33	29°☿53'59	-0.3m	desc. node	4603 Feb 04 15:23	28°☿21'22	
	4602 Feb 11 05:33	0°♊			4603 Feb 05 18:23	0°♊	
desc. node	4602 Feb 17 18:21	8°♊29'57		morning set	4603 Feb 19 03:50	20°♊18'24	
	4602 Mar 04 10:36	0°♋			4603 Feb 25 06:43	0°♋	
morning set	4602 Mar 11 20:43	11°♋43'59		max. Earth dist.	4603 Feb 27 09:49	3°♋26'30	1.42848 AU
max. Earth dist.	4602 Mar 17 06:21	20°♋39'15	1.40889 AU				
	4602 Mar 22 16:49	0°♌		superior conj	4603 Mar 06 08:39	14°♋57'53	-2°-8'-12
				minimum elong	4603 Mar 06 09:18	15°♋00'39	2°08'13
superior conj	4602 Mar 25 01:00	4°♌08'34	-1°-58'-40		4603 Mar 15 00:49	0°♌	
minimum elong	4602 Mar 25 05:12	4°♌27'19	1°58'25	evening rise	4603 Mar 18 04:54	5°♌38'22	
evening rise	4602 Apr 04 09:27	23°♌11'28		asc. node	4603 Mar 27 22:32	22°♌31'23	
	4602 Apr 08 01:25	0°♍			4603 Apr 02 04:28	0°♍	
asc. node	4602 Apr 10 01:32	3°♍38'02		evening max el	4603 Apr 04 00:31	2°♍00'39	18°06'43
evening max el	4602 Apr 20 13:05	18°♍58'03	18°17'42	retrograde	4603 Apr 10 14:25	5°♍23'23	
retrograde	4602 Apr 27 17:14	22°♍32'49		evening set	4603 Apr 13 05:46	4°♍50'36	
evening set	4602 Apr 30 02:17	22°♍10'06		inferior conj	4603 Apr 19 19:18	29°♌48'56	3°12'29
inferior conj	4602 May 07 07:12	17°♍29'14	2°27'52	minimum elong	4603 Apr 19 21:47	29°♌42'48	3°12'06
minimum elong	4602 May 07 10:45	17°♍21'37	2°26'57		4603 Apr 19 14:48	30°♌	
min. Earth dist.	4602 May 10 17:30	14°♍34'56	0.59159 AU	min. Earth dist.	4603 Apr 22 22:24	26°♌45'24	0.61361 AU
morning rise	4602 May 14 15:05	11°♍51'52		morning rise	4603 Apr 26 10:44	23°♌52'03	
desc. node	4602 May 16 17:34	10°♍52'15		direct	4603 May 03 05:05	21°♌32'31	
direct	4602 May 20 22:00	10°♍04'30		desc. node	4603 May 03 14:36	21°♌32'58	
morning max el	4602 Jun 04 07:18	17°♍53'03	27°19'30	morning max el	4603 May 17 10:11	29°♌30'32	27°50'28
	4602 Jun 14 09:43	0°♎			4603 May 17 21:54	0°♎	
	4602 Jul 02 01:29	0°♏			4603 Jun 08 08:40	0°♎	
morning set	4602 Jul 05 05:18	6°♏27'35		morning set	4603 Jun 19 09:25	20°♎52'29	
asc. node	4602 Jul 07 00:47	10°♏17'27		asc. node	4603 Jun 23 21:48	0°♏23'28	
					4603 Jun 23 17:27	0°♏	
superior conj	4602 Jul 12 08:31	21°♏54'07	0°53'12	max. Earth dist.	4603 Jun 25 07:44	3°♏27'11	1.32181 AU
minimum elong	4602 Jul 12 06:28	21°♏42'49	0°52'49				
max. Earth dist.	4602 Jul 11 21:58	20°♏55'54	1.31966 AU	superior conj	4603 Jun 26 19:03	6°♏40'06	0°29'49
	4602 Jul 16 00:46	0°♐		minimum elong	4603 Jun 26 17:44	6°♏32'53	0°29'31
evening rise	4602 Jul 19 05:01	6°♐50'59		evening rise	4603 Jul 03 16:12	21°♏39'28	
	4602 Jul 31 07:13	0°♑			4603 Jul 07 16:51	0°♐	
desc. node	4602 Aug 12 16:50	17°♑41'42			4603 Jul 26 15:55	0°♑	
evening max el	4602 Aug 16 21:34	22°♑07'34	26°11'50	evening max el	4603 Jul 29 13:37	3°♑01'10	24°50'22
retrograde	4602 Aug 30 20:51	29°♑16'20		desc. node	4603 Jul 30 13:51	3°♑57'29	
evening set	4602 Sep 06 08:54	27°♑33'16		retrograde	4603 Aug 12 11:47	10°♑03'12	
min. Earth dist.	4602 Sep 10 10:32	24°♑58'58	0.59101 AU	evening set	4603 Aug 17 20:27	8°♑58'14	
inferior conj	4602 Sep 13 16:40	22°♑31'39	-4°-56'-41	min. Earth dist.	4603 Aug 23 01:03	6°♑12'24	0.57144 AU
minimum elong	4602 Sep 13 21:17	22°♑22'53	4°56'03	inferior conj	4603 Aug 25 21:53	4°♑19'31	-5°-14'-30
morning rise	4602 Sep 21 13:13	18°♑01'27		minimum elong	4603 Aug 25 21:48	4°♑19'39	5°14'31
direct	4602 Sep 23 21:53	17°♑42'26		morning rise	4603 Sep 03 02:40	0°♑11'31	
morning max el	4602 Oct 01 20:57	21°♑33'03	18°26'47		4603 Sep 04 02:10	30°♑	
asc. node	4602 Oct 02 23:59	22°♑42'10		direct	4603 Sep 05 16:40	29°♑52'36	
	4602 Oct 08 09:54	0°♒			4603 Sep 07 06:29	0°♑	
morning set	4602 Oct 17 20:42	17°♒02'33		morning max el	4603 Sep 14 20:52	4°♑11'21	19°16'28
	4602 Oct 24 15:20	0°♓		asc. node	4603 Sep 19 21:02	10°♑06'05	
					4603 Oct 01 04:00	0°♒	
superior conj	4602 Oct 26 21:52	4°♓14'27	1°21'58	morning set	4603 Oct 01 20:53	1°♒23'50	
minimum elong	4602 Oct 27 01:27	4°♓31'02	1°21'35				
max. Earth dist.	4602 Nov 03 08:50	17°♓34'59	1.40355 AU	superior conj	4603 Oct 10 01:22	17°♒39'17	1°37'10
evening rise	4602 Nov 07 18:56	25°♓03'55		minimum elong	4603 Oct 10 03:31	17°♒49'42	1°37'02
desc. node	4602 Nov 08 16:07	26°♓31'23		max. Earth dist.	4603 Oct 16 13:20	29°♒54'35	1.38257 AU
	4602 Nov 10 19:19	0°♈			4603 Oct 16 14:32	0°♓	
	4602 Dec 01 02:02	0°♉		evening rise	4603 Oct 20 08:58	6°♓43'32	
evening max el	4602 Dec 12 09:20	13°♉30'51	23°37'36	desc. node	4603 Oct 26 13:08	17°♓09'21	
retrograde	4602 Dec 23 02:32	19°♉50'40			4603 Nov 03 18:16	0°♈	
evening set	4602 Dec 28 03:25	17°♉46'24		evening max el	4603 Nov 24 22:11	27°♈12'49	24°55'29
asc. node	4602 Dec 29 23:14	15°♉58'52			4603 Nov 27 23:58	0°♉	
min. Earth dist.	4603 Jan 02 01:21	12°♉03'36	0.67967 AU	retrograde	4603 Dec 06 16:01	4°♉01'45	
inferior conj	4603 Jan 02 14:27	11°♉18'50	1°12'17	evening set	4603 Dec 12 06:33	1°♉42'30	
minimum elong	4603 Jan 02 12:51	11°♉24'17	1°11'40		4603 Dec 14 00:52	30°♒	
morning rise	4603 Jan 07 22:28	5°♉10'44		asc. node	4603 Dec 16 20:16	26°♉34'38	
direct	4603 Jan 12 00:18	3°♉37'21		min. Earth dist.	4603 Dec 16 20:28	26°♉34'01	0.67529 AU
morning max el	4603 Jan 20 06:55	8°♉23'42	20°53'20	inferior conj	4603 Dec 17 20:21	25°♉15'19	0°20'28
greatest brilliancy	4603 Jan 25 21:01	14°♉51'08	-0.5m	minimum elong	4603 Dec 17 19:51	25°♉16'59	0°20'15

morning rise	4603 Dec 23 09:41	19° ♂ 13'58		asc. node	4604 Dec 02 17:20	7° ♂ 00'09	
direct	4603 Dec 26 22:48	18° ♂ 01'32		morning rise	4604 Dec 06 19:17	3° ♂ 17'48	
morning max el	4604 Jan 03 08:00	22° ♂ 11'21	19°44'35	direct	4604 Dec 09 21:28	2° ♂ 23'13	
	4604 Jan 09 19:46	0° ♂		morning max el	4604 Dec 16 16:33	6° ♂ 07'55	18°50'58
greatest brilliancy	4604 Jan 11 01:03	1° ♂ 40'13	-0.6m		4605 Jan 02 15:24	0° ♂	
desc. node	4604 Jan 22 12:24	18° ♂ 33'34		morning set	4605 Jan 07 10:21	7° ♂ 30'08	
morning set	4604 Jan 28 23:58	28° ♂ 29'22		desc. node	4605 Jan 08 09:25	9° ♂ 00'35	
	4604 Jan 29 23:27	0° ♂			4605 Jan 21 18:53	0° ♂	
max. Earth dist.	4604 Feb 09 21:10	17° ♂ 04'23	1.44328 AU	max. Earth dist.	4605 Jan 22 14:19	1° ♂ 16'16	1.45155 AU
superior conj	4604 Feb 14 14:39	24° ♂ 38'49	-2°-1'-15	superior conj	4605 Jan 23 23:10	3° ♂ 25'22	-1°-34'-35
minimum elong	4604 Feb 14 09:13	24° ♂ 16'52	2°01'00	minimum elong	4605 Jan 23 13:50	2° ♂ 48'41	1°33'42
	4604 Feb 17 21:40	0° ♂		evening rise	4605 Feb 08 06:45	27° ♂ 50'02	
evening rise	4604 Feb 28 05:11	17° ♂ 12'53			4605 Feb 09 14:53	0° ♂	
	4604 Mar 06 18:51	0° ♂		asc. node	4605 Feb 28 16:37	28° ♂ 24'37	
asc. node	4604 Mar 13 19:34	10° ♂ 50'32		evening max el	4605 Mar 01 00:57	28° ♂ 46'10	18°41'06
evening max el	4604 Mar 17 13:25	15° ♂ 19'15	18°14'46		4605 Mar 02 08:22	0° ♂	
retrograde	4604 Mar 23 23:23	18° ♂ 44'23		retrograde	4605 Mar 07 15:59	2° ♂ 26'31	
evening set	4604 Mar 26 20:44	18° ♂ 00'11		evening set	4605 Mar 10 19:35	1° ♂ 30'02	
inferior conj	4604 Apr 01 22:46	12° ♂ 38'42	3°32'17		4605 Mar 12 19:07	30° ♂	
minimum elong	4604 Apr 01 23:34	12° ♂ 36'28	3°32'14	inferior conj	4605 Mar 16 13:35	25° ♂ 50'22	3°33'10
min. Earth dist.	4604 Apr 04 12:11	9° ♂ 49'14	0.63424 AU	minimum elong	4605 Mar 16 12:52	25° ♂ 52'33	3°33'07
morning rise	4604 Apr 08 00:24	6° ♂ 30'46		min. Earth dist.	4605 Mar 18 11:22	23° ♂ 31'19	0.65166 AU
direct	4604 Apr 14 21:01	3° ♂ 49'46		morning rise	4605 Mar 22 04:55	19° ♂ 36'43	
desc. node	4604 Apr 19 11:38	4° ♂ 52'45		direct	4605 Mar 28 20:09	16° ♂ 47'49	
morning max el	4604 Apr 28 17:50	11° ♂ 48'23	27°43'57	desc. node	4605 Apr 06 08:40	20° ♂ 21'10	
	4604 May 13 03:57	0° ♂		morning max el	4605 Apr 11 03:46	24° ♂ 37'02	27°03'37
	4604 May 30 18:52	0° ♂			4605 Apr 16 00:39	0° ♂	
morning set	4604 Jun 02 06:54	4° ♂ 54'55			4605 May 06 14:16	0° ♂	
max. Earth dist.	4604 Jun 07 12:03	15° ♂ 39'10	1.32832 AU	morning set	4605 May 16 18:45	18° ♂ 25'09	
asc. node	4604 Jun 09 18:51	20° ♂ 31'24		max. Earth dist.	4605 May 21 07:13	27° ♂ 21'40	1.33939 AU
					4605 May 22 14:14	0° ♂	
superior conj	4604 Jun 10 02:36	21° ♂ 13'05	0°03'23	superior conj	4605 May 25 04:59	5° ♂ 25'42	0°-25'-15
minimum elong	4604 Jun 10 02:26	21° ♂ 12'11	0°03'20	minimum elong	4605 May 25 06:18	5° ♂ 32'41	0°25'00
behind sun begin	4604 Jun 09 21:13	20° ♂ 44'11		asc. node	4605 May 27 15:54	10° ♂ 36'34	
behind sun end	4604 Jun 10 07:38	21° ♂ 40'13		evening rise	4605 Jun 01 14:36	21° ♂ 04'42	
	4604 Jun 14 04:00	0° ♂			4605 Jun 05 23:46	0° ♂	
evening rise	4604 Jun 17 04:02	6° ♂ 26'26		evening max el	4605 Jun 21 19:44	23° ♂ 55'02	21°39'22
	4604 Jun 29 15:36	0° ♂		desc. node	4605 Jul 03 07:55	0° ♂ 00'58	
evening max el	4604 Jul 10 02:28	13° ♂ 26'40	23°14'15		4605 Jul 03 02:59	0° ♂	
desc. node	4604 Jul 16 10:52	18° ♂ 15'24		retrograde	4605 Jul 04 05:23	0° ♂ 02'51	
retrograde	4604 Jul 23 13:54	20° ♂ 10'52			4605 Jul 05 08:03	30° ♂	
evening set	4604 Jul 27 10:34	19° ♂ 38'18		evening set	4605 Jul 06 19:02	29° ♂ 47'54	
min. Earth dist.	4604 Aug 03 11:47	16° ♂ 25'14	0.55629 AU	inferior conj	4605 Jul 16 02:51	25° ♂ 46'56	-3°-34'-8
inferior conj	4604 Aug 05 07:21	15° ♂ 21'32	-4°-49'-54	minimum elong	4605 Jul 15 18:14	25° ♂ 58'58	3°31'39
minimum elong	4604 Aug 05 01:03	15° ♂ 30'46	4°48'57	min. Earth dist.	4605 Jul 15 22:02	25° ♂ 53'40	0.54860 AU
morning rise	4604 Aug 13 18:27	11° ♂ 29'17		morning rise	4605 Jul 24 18:34	21° ♂ 55'01	
direct	4604 Aug 16 16:39	11° ♂ 08'41		direct	4605 Jul 28 03:16	21° ♂ 30'23	
morning max el	4604 Aug 27 09:17	16° ♂ 06'46	20°27'56	morning max el	4605 Aug 09 09:59	27° ♂ 16'44	21°58'51
asc. node	4604 Sep 05 18:06	28° ♂ 20'05			4605 Aug 12 01:54	0° ♂	
	4604 Sep 06 17:51	0° ♂		asc. node	4605 Aug 23 15:09	17° ♂ 11'46	
morning set	4604 Sep 15 03:00	16° ♂ 02'12			4605 Aug 30 03:01	0° ♂	
	4604 Sep 21 21:36	0° ♂		morning set	4605 Aug 30 12:47	0° ♂ 50'52	
superior conj	4604 Sep 22 17:30	1° ♂ 41'22	1°43'29	superior conj	4605 Sep 06 18:26	16° ♂ 09'15	1°42'23
minimum elong	4604 Sep 22 18:02	1° ♂ 44'01	1°43'29	minimum elong	4605 Sep 06 17:35	16° ♂ 04'49	1°42'22
max. Earth dist.	4604 Sep 27 20:25	11° ♂ 50'52	1.36283 AU	max. Earth dist.	4605 Sep 10 10:30	23° ♂ 45'31	1.34604 AU
evening rise	4604 Oct 01 19:42	19° ♂ 20'17			4605 Sep 13 13:20	0° ♂	
	4604 Oct 07 20:02	0° ♂		evening rise	4605 Sep 14 22:52	2° ♂ 43'10	
desc. node	4604 Oct 12 10:09	7° ♂ 36'06		desc. node	4605 Sep 29 07:11	27° ♂ 45'59	
	4604 Oct 27 20:54	0° ♂			4605 Sep 30 17:46	0° ♂	
evening max el	4604 Nov 06 10:47	10° ♂ 55'46	26°04'03	evening max el	4605 Oct 19 23:26	24° ♂ 32'39	26°55'52
retrograde	4604 Nov 19 00:31	18° ♂ 03'28			4605 Oct 27 00:27	0° ♂	
evening set	4604 Nov 25 04:54	15° ♂ 31'40		retrograde	4605 Nov 02 03:39	1° ♂ 49'31	
min. Earth dist.	4604 Nov 29 11:31	10° ♂ 58'47	0.66742 AU		4605 Nov 07 17:18	30° ♂	
inferior conj	4604 Nov 30 22:35	9° ♂ 09'46	0°-36'-32	evening set	4605 Nov 08 20:25	29° ♂ 10'15	
minimum elong	4604 Nov 30 23:33	9° ♂ 06'43	0°36'07				

min. Earth dist.	4605 Nov 12 20:11	25° \mathbb{M} 13'31	0.65601 AU	inferior conj	4606 Oct 29 07:23	6° \mathbb{M} 35'42	-2°-39'-52
inferior conj	4605 Nov 14 19:05	22° \mathbb{M} 58'29	-1°-37'-19	minimum elong	4606 Oct 29 11:57	6° \mathbb{M} 23'42	2°38'11
minimum elong	4605 Nov 14 21:50	22° \mathbb{M} 50'33	1°36'12	morning rise	4606 Nov 04 23:51	1° \mathbb{M} 11'23	
asc. node	4605 Nov 19 14:23	18° \mathbb{M} 11'43		asc. node	4606 Nov 06 11:26	0° \mathbb{M} 45'54	
morning rise	4605 Nov 21 00:58	17° \mathbb{M} 18'52		direct	4606 Nov 07 10:45	0° \mathbb{M} 41'06	
direct	4605 Nov 23 18:18	16° \mathbb{M} 38'22		morning max el	4606 Nov 13 23:11	4° \mathbb{M} 06'21	17°53'25
morning max el	4605 Nov 30 06:34	20° \mathbb{M} 08'42	18°13'41	morning set	4606 Nov 30 20:11	29° \mathbb{M} 47'50	
	4605 Dec 07 19:51	0° \mathbb{Z}			4606 Nov 30 23:02	0° \mathbb{Z}	
morning set	4605 Dec 19 01:16	17° \mathbb{Z} 58'09		desc. node	4606 Dec 13 03:27	20° \mathbb{Z} 22'08	
desc. node	4605 Dec 26 06:26	29° \mathbb{Z} 38'11					
	4605 Dec 26 11:53	0° \mathbb{Z}		superior conj	4606 Dec 13 20:46	21° \mathbb{Z} 32'26	0°-5'-1
				minimum elong	4606 Dec 13 20:11	21° \mathbb{Z} 30'08	0°04'55
superior conj	4606 Jan 03 02:28	12° \mathbb{Z} 05'00	0°-52'-13	behind sun begin	4606 Dec 13 10:33	20° \mathbb{Z} 51'01	
minimum elong	4606 Jan 02 19:58	11° \mathbb{Z} 39'26	0°51'23	behind sun end	4606 Dec 14 05:49	22° \mathbb{Z} 09'11	
max. Earth dist.	4606 Jan 05 09:45	15° \mathbb{Z} 42'23	1.45245 AU	max. Earth dist.	4606 Dec 19 04:10	0° \mathbb{Z} 03'23	1.44607 AU
	4606 Jan 14 13:10	0° \mathbb{Z}			4606 Dec 19 03:18	0° \mathbb{Z}	
evening rise	4606 Jan 19 09:53	7° \mathbb{Z} 35'03		evening rise	4606 Dec 29 21:49	16° \mathbb{Z} 48'08	
	4606 Feb 02 23:24	0° \mathbb{H}			4607 Jan 07 14:01	0° \mathbb{Z}	
greatest brilliancy	4606 Feb 03 20:24	1° \mathbb{H} 17'05	-0.7m	greatest brilliancy	4607 Jan 20 09:11	18° \mathbb{Z} 28'41	-0.5m
evening max el	4606 Feb 12 08:58	12° \mathbb{H} 17'14	19°24'32	evening max el	4607 Jan 26 11:55	25° \mathbb{Z} 49'32	20°23'06
asc. node	4606 Feb 15 13:41	15° \mathbb{H} 01'02			4607 Feb 01 01:29	0° \mathbb{H}	
retrograde	4606 Feb 19 12:46	16° \mathbb{H} 23'33		asc. node	4607 Feb 02 10:43	0° \mathbb{H} 24'27	
evening set	4606 Feb 22 23:31	15° \mathbb{H} 13'56		retrograde	4607 Feb 03 10:58	0° \mathbb{H} 29'58	
inferior conj	4606 Feb 28 12:25	9° \mathbb{H} 18'23	3°19'41		4607 Feb 05 17:51	30° \mathbb{R}	
minimum elong	4606 Feb 28 10:38	9° \mathbb{H} 24'12	3°19'25	evening set	4607 Feb 07 06:17	29° \mathbb{Z} 06'10	
min. Earth dist.	4606 Mar 01 19:06	7° \mathbb{H} 38'27	0.66504 AU	inferior conj	4607 Feb 12 16:26	22° \mathbb{Z} 57'25	2°54'56
morning rise	4606 Mar 05 20:57	3° \mathbb{H} 02'17		minimum elong	4607 Feb 12 14:05	23° \mathbb{Z} 05'25	2°54'23
direct	4606 Mar 12 01:39	0° \mathbb{H} 18'05		min. Earth dist.	4607 Feb 13 09:23	21° \mathbb{Z} 59'46	0.67424 AU
desc. node	4606 Mar 24 05:42	7° \mathbb{H} 24'54		morning rise	4607 Feb 17 21:21	16° \mathbb{Z} 41'16	
morning max el	4606 Mar 24 13:37	7° \mathbb{H} 44'47	25°57'02	direct	4607 Feb 23 12:38	14° \mathbb{Z} 11'23	
	4606 Apr 10 22:05	0° \mathbb{Y}		morning max el	4607 Mar 06 22:15	21° \mathbb{Z} 00'35	24°33'59
	4606 Apr 29 01:18	0° \mathbb{B}		desc. node	4607 Mar 11 02:42	25° \mathbb{Z} 36'29	
morning set	4606 Apr 29 17:02	1° \mathbb{B} 12'17			4607 Mar 14 16:30	0° \mathbb{H}	
max. Earth dist.	4606 May 03 14:57	8° \mathbb{B} 34'56	1.35504 AU		4607 Apr 04 03:39	0° \mathbb{Y}	
				morning set	4607 Apr 11 20:27	13° \mathbb{Y} 01'18	
superior conj	4606 May 08 23:44	19° \mathbb{B} 11'24	0°-54'-46	max. Earth dist.	4607 Apr 15 12:43	19° \mathbb{Y} 35'47	1.37460 AU
minimum elong	4606 May 09 02:43	19° \mathbb{B} 26'31	0°54'14		4607 Apr 21 02:17	0° \mathbb{B}	
	4606 May 14 06:09	0° \mathbb{H}					
asc. node	4606 May 14 12:57	0° \mathbb{H} 35'07		superior conj	4607 Apr 22 07:39	2° \mathbb{B} 21'30	-1°-23'-16
evening rise	4606 May 16 21:51	5° \mathbb{H} 28'12		minimum elong	4607 Apr 22 12:03	2° \mathbb{B} 42'53	1°22'38
	4606 May 30 18:08	0° \mathbb{Z}		evening rise	4607 Apr 30 23:20	19° \mathbb{B} 29'41	
evening max el	4606 Jun 04 00:03	4° \mathbb{Z} 55'26	20°17'50	asc. node	4607 May 01 10:00	20° \mathbb{B} 22'40	
retrograde	4606 Jun 14 18:57	10° \mathbb{Z} 11'50			4607 May 06 09:30	0° \mathbb{H}	
evening set	4606 Jun 16 18:16	10° \mathbb{Z} 02'01		evening max el	4607 May 17 16:46	16° \mathbb{H} 38'23	19°15'19
desc. node	4606 Jun 20 04:57	9° \mathbb{Z} 02'06		retrograde	4607 May 26 18:44	21° \mathbb{H} 04'05	
inferior conj	4606 Jun 25 21:29	6° \mathbb{Z} 03'50	-1°-41'-17	evening set	4607 May 28 18:17	20° \mathbb{H} 52'21	
minimum elong	4606 Jun 25 16:44	6° \mathbb{Z} 10'50	1°39'34	inferior conj	4607 Jun 06 05:15	16° \mathbb{H} 43'01	0°15'12
min. Earth dist.	4606 Jun 27 10:05	5° \mathbb{Z} 10'04	0.55037 AU	minimum elong	4607 Jun 06 05:53	16° \mathbb{H} 41'57	0°14'57
morning rise	4606 Jul 04 13:16	1° \mathbb{Z} 51'08		transit middle	4607 Jun 06 05:53	16° \mathbb{H} 41'57	0°14'57
direct	4606 Jul 08 13:44	1° \mathbb{Z} 16'10		transit begin	4607 Jun 06 04:31	16° \mathbb{H} 44'15	
morning max el	4606 Jul 22 02:20	7° \mathbb{Z} 51'33	23°41'24	transit end	4607 Jun 06 07:16	16° \mathbb{H} 39'40	
	4606 Aug 07 01:13	0° \mathbb{Q}		desc. node	4607 Jun 07 01:57	16° \mathbb{H} 08'24	
asc. node	4606 Aug 10 12:11	6° \mathbb{Q} 31'34		min. Earth dist.	4607 Jun 09 00:47	14° \mathbb{H} 51'03	0.56141 AU
morning set	4606 Aug 15 00:18	15° \mathbb{Q} 44'04		morning rise	4607 Jun 14 13:19	11° \mathbb{H} 56'14	
	4606 Aug 21 15:14	0° \mathbb{H}		direct	4607 Jun 19 11:49	11° \mathbb{H} 00'02	
				morning max el	4607 Jul 03 16:09	18° \mathbb{H} 13'57	25°22'08
superior conj	4606 Aug 22 01:09	0° \mathbb{H} 53'36	1°35'03		4607 Jul 13 11:06	0° \mathbb{Z}	
minimum elong	4606 Aug 21 23:22	0° \mathbb{H} 43'56	1°34'54	asc. node	4607 Jul 28 09:13	26° \mathbb{Z} 12'13	
max. Earth dist.	4606 Aug 24 09:18	5° \mathbb{H} 54'22	1.33323 AU	morning set	4607 Jul 30 11:57	0° \mathbb{Q} 37'01	
evening rise	4606 Aug 29 14:19	16° \mathbb{H} 40'59			4607 Jul 30 04:57	0° \mathbb{Q}	
	4606 Sep 05 14:02	0° \mathbb{Z}					
desc. node	4606 Sep 16 04:14	17° \mathbb{Z} 31'02		superior conj	4607 Aug 06 11:22	15° \mathbb{Q} 47'04	1°22'23
	4606 Sep 25 06:51	0° \mathbb{M}		minimum elong	4607 Aug 06 09:06	15° \mathbb{Q} 34'39	1°22'04
evening max el	4606 Oct 02 11:13	7° \mathbb{M} 52'36	27°23'52	max. Earth dist.	4607 Aug 07 15:35	18° \mathbb{Q} 21'33	1.32470 AU
retrograde	4606 Oct 16 00:55	15° \mathbb{M} 10'52			4607 Aug 13 02:14	0° \mathbb{H}	
evening set	4606 Oct 23 02:27	12° \mathbb{M} 32'25		evening rise	4607 Aug 13 14:37	1° \mathbb{H} 04'09	
min. Earth dist.	4606 Oct 26 20:22	9° \mathbb{M} 10'07	0.64114 AU		4607 Aug 29 13:11	0° \mathbb{Z}	

desc. node	4607 Sep 03 01:16	6°♄40'58		max. Earth dist.	4608 Jul 21 02:18	0°♄59'57	1.32035 AU
evening max el	4607 Sep 14 20:18	20°♄43'42	27°22'00	evening rise	4608 Jul 27 20:53	15°♄42'47	
retrograde	4607 Sep 28 15:29	27°♄58'24			4608 Aug 04 00:58	0°♄	
evening set	4607 Oct 05 19:39	25°♄32'03		desc. node	4608 Aug 19 22:16	25°♄00'25	
min. Earth dist.	4607 Oct 09 10:32	22°♄38'19	0.62319 AU		4608 Aug 24 04:02	0°♄	
inferior conj	4607 Oct 12 08:37	19°♄54'46	-3°-40'-37	evening max el	4608 Aug 26 23:56	2°♄52'28	26°46'47
minimum elong	4607 Oct 12 14:32	19°♄40'53	3°38'50	retrograde	4608 Sep 09 21:58	10°♄02'21	
morning rise	4607 Oct 19 12:23	14°♄48'58		evening set	4608 Sep 16 19:31	8°♄00'25	
direct	4607 Oct 21 19:46	14°♄25'17		min. Earth dist.	4608 Sep 20 13:57	5°♄23'51	0.60305 AU
asc. node	4607 Oct 24 08:26	14°♄54'35		inferior conj	4608 Sep 23 19:19	2°♄45'45	-4°-33'-31
morning max el	4607 Oct 28 15:20	17°♄53'35	17°51'03	minimum elong	4608 Sep 24 01:10	2°♄33'45	4°32'20
	4607 Nov 06 07:44	0°♄			4608 Sep 27 10:08	30°♄♄	
morning set	4607 Nov 13 13:03	12°♄40'56		morning rise	4608 Oct 01 10:06	28°♄01'40	
	4607 Nov 23 08:59	0°♄		direct	4608 Oct 03 17:22	27°♄41'32	
					4608 Oct 09 14:41	0°♄	
superior conj	4607 Nov 24 16:50	2°♄16'02	0°36'53	asc. node	4608 Oct 10 05:27	0°♄30'14	
minimum elong	4607 Nov 24 20:04	2°♄29'46	0°36'25	morning max el	4608 Oct 11 03:45	1°♄21'11	18°07'50
desc. node	4607 Nov 30 00:31	11°♄09'26		morning set	4608 Oct 26 21:37	26°♄18'23	
max. Earth dist.	4607 Dec 01 19:21	14°♄04'21	1.43322 AU		4608 Oct 28 20:53	0°♄	
evening rise	4607 Dec 09 09:34	26°♄08'13					
	4607 Dec 11 21:31	0°♄		superior conj	4608 Nov 05 14:23	14°♄13'34	1°08'38
	4608 Jan 01 13:08	0°♄		minimum elong	4608 Nov 05 18:24	14°♄31'36	1°08'08
greatest brilliancy	4608 Jan 04 12:31	3°♄49'34	-0.4m	max. Earth dist.	4608 Nov 13 05:58	27°♄31'26	1.41534 AU
evening max el	4608 Jan 09 09:27	9°♄23'41	21°33'34		4608 Nov 14 17:29	0°♄	
retrograde	4608 Jan 18 08:28	14°♄42'46		desc. node	4608 Nov 15 21:33	1°♄56'06	
asc. node	4608 Jan 20 07:43	14°♄21'54		evening rise	4608 Nov 18 12:00	6°♄10'42	
evening set	4608 Jan 22 14:04	13°♄03'43			4608 Dec 04 02:58	0°♄	
inferior conj	4608 Jan 27 23:23	6°♄44'52	2°21'01	greatest brilliancy	4608 Dec 16 20:22	17°♄07'30	-0.2m
minimum elong	4608 Jan 27 20:58	6°♄53'15	2°20'17	evening max el	4608 Dec 22 02:14	23°♄00'31	22°51'34
min. Earth dist.	4608 Jan 28 03:58	6°♄29'00	0.67939 AU	retrograde	4609 Jan 01 03:47	28°♄58'46	
morning rise	4608 Feb 02 03:33	0°♄30'31		evening set	4609 Jan 05 21:19	27°♄03'36	
	4608 Feb 02 18:28	30°♄♄		asc. node	4609 Jan 06 04:43	26°♄47'51	
direct	4608 Feb 07 04:10	28°♄21'05		inferior conj	4609 Jan 11 07:21	20°♄38'11	1°39'23
	4608 Feb 12 01:54	0°♄		minimum elong	4609 Jan 11 05:20	20°♄45'11	1°38'39
morning max el	4608 Feb 17 07:23	4°♄21'50	23°04'47	min. Earth dist.	4609 Jan 11 00:31	21°♄01'50	0.68067 AU
greatest brilliancy	4608 Feb 22 04:48	9°♄50'01	-0.3m	morning rise	4609 Jan 16 13:19	14°♄27'28	
desc. node	4608 Feb 25 23:43	14°♄37'03		direct	4609 Jan 20 23:15	12°♄40'59	
	4608 Mar 07 22:43	0°♄		morning max el	4609 Jan 29 20:47	17°♄52'15	21°38'43
morning set	4608 Mar 22 22:53	23°♄35'55		greatest brilliancy	4609 Feb 03 17:06	23°♄20'31	-0.4m
	4608 Mar 26 17:38	0°♄			4609 Feb 08 19:46	0°♄	
max. Earth dist.	4608 Mar 27 07:42	1°♄00'36	1.39642 AU	desc. node	4609 Feb 11 20:46	4°♄13'02	
					4609 Mar 01 01:49	0°♄	
superior conj	4608 Apr 04 00:39	14°♄45'50	-1°-47'-51	morning set	4609 Mar 02 20:38	2°♄49'27	
minimum elong	4608 Apr 04 05:30	15°♄08'11	1°47'24	max. Earth dist.	4609 Mar 09 07:41	13°♄18'41	1.41769 AU
	4608 Apr 12 02:19	0°♄					
evening rise	4608 Apr 13 16:06	3°♄01'15		superior conj	4609 Mar 16 21:54	26°♄13'09	-2°-4'-24
asc. node	4608 Apr 17 07:02	9°♄53'54		minimum elong	4609 Mar 17 01:00	26°♄26'41	2°04'17
evening max el	4608 Apr 29 19:27	28°♄59'03	18°33'00		4609 Mar 19 01:33	0°♄	
	4608 Apr 30 22:17	0°♄		evening rise	4609 Mar 27 20:34	15°♄54'46	
retrograde	4608 May 07 12:44	2°♄47'26		asc. node	4609 Apr 04 04:03	29°♄03'15	
evening set	4608 May 09 18:13	2°♄29'26			4609 Apr 04 17:23	0°♄	
	4608 May 14 17:28	30°♄♄		evening max el	4609 Apr 13 04:39	11°♄48'51	18°10'40
inferior conj	4608 May 17 09:35	28°♄00'41	1°48'32	retrograde	4609 Apr 20 01:16	15°♄16'36	
minimum elong	4608 May 17 12:57	27°♄54'07	1°47'30	evening set	4609 Apr 22 13:09	14°♄49'41	
min. Earth dist.	4608 May 20 19:02	25°♄23'14	0.57941 AU	inferior conj	4609 Apr 29 10:59	9°♄59'35	2°50'15
desc. node	4608 May 23 22:58	23°♄17'19		minimum elong	4609 Apr 29 14:15	9°♄52'09	2°49'33
morning rise	4608 May 25 03:13	22°♄39'52		min. Earth dist.	4609 May 02 19:13	6°♄58'36	0.60093 AU
direct	4608 May 31 00:00	21°♄12'30		morning rise	4609 May 06 11:42	4°♄12'53	
morning max el	4608 Jun 14 09:06	28°♄50'50	26°45'13	desc. node	4609 May 10 19:58	2°♄24'53	
	4608 Jun 15 12:42	0°♄		direct	4609 May 13 00:33	2°♄11'20	
	4608 Jul 06 03:40	0°♄		morning max el	4609 May 27 08:28	10°♄04'08	27°37'27
morning set	4608 Jul 13 22:04	15°♄23'30			4609 Jun 11 18:11	0°♄	
asc. node	4608 Jul 14 06:15	16°♄06'40		morning set	4609 Jun 28 04:57	29°♄58'04	
					4609 Jun 28 05:20	0°♄	
superior conj	4608 Jul 20 23:04	0°♄42'02	1°05'04	asc. node	4609 Jul 01 03:19	6°♄09'51	
minimum elong	4608 Jul 20 20:48	0°♄29'33	1°04'40	max. Earth dist.	4609 Jul 04 13:41	13°♄38'07	1.32009 AU
	4608 Jul 20 15:27	0°♄					

superior conj	4609 Jul 05 10:30	15° \mathfrak{G} 32'41	0°43'43	superior conj	4610 Jun 19 19:59	0° \mathfrak{G} 13'21	0°18'55
minimum elong	4609 Jul 05 08:43	15° \mathfrak{G} 22'49	0°43'21	minimum elong	4610 Jun 19 19:06	0° \mathfrak{G} 08'35	0°18'43
evening rise	4609 Jul 12 06:51	0° \mathfrak{Q} 29'30			4610 Jun 19 17:32	0° \mathfrak{G}	
	4609 Jul 12 01:19	0° \mathfrak{Q}		evening rise	4610 Jun 26 18:31	15° \mathfrak{G} 17'36	
	4609 Jul 28 08:45	0° \mathfrak{M}			4610 Jul 04 02:03	0° \mathfrak{Q}	
desc. node	4609 Aug 06 19:16	12° \mathfrak{M} 09'00		evening max el	4610 Jul 21 09:36	24° \mathfrak{Q} 48'58	24°10'19
evening max el	4609 Aug 08 19:57	14° \mathfrak{M} 11'38	25°39'53	desc. node	4610 Jul 24 16:16	27° \mathfrak{Q} 38'52	
retrograde	4609 Aug 22 18:55	21° \mathfrak{M} 17'36			4610 Jul 28 08:46	0° \mathfrak{M}	
evening set	4609 Aug 28 21:15	19° \mathfrak{M} 50'19		retrograde	4610 Aug 04 04:50	1° \mathfrak{M} 46'15	
min. Earth dist.	4609 Sep 02 07:58	17° \mathfrak{M} 13'40	0.58247 AU	evening set	4610 Aug 08 22:45	0° \mathfrak{M} 56'15	
inferior conj	4609 Sep 05 12:02	14° \mathfrak{M} 58'53	-5°-8'-20		4610 Aug 11 05:29	30° \mathfrak{R} \mathfrak{Q}	
minimum elong	4609 Sep 05 15:03	14° \mathfrak{M} 53'29	5°08'07	min. Earth dist.	4610 Aug 14 20:15	28° \mathfrak{Q} 00'34	0.56421 AU
morning rise	4609 Sep 13 12:22	10° \mathfrak{M} 38'30		inferior conj	4610 Aug 17 08:34	26° \mathfrak{Q} 26'52	-5°-10'-10
direct	4609 Sep 15 23:06	10° \mathfrak{M} 19'37		minimum elong	4610 Aug 17 05:47	26° \mathfrak{Q} 31'13	5°10'00
morning max el	4609 Sep 24 09:09	14° \mathfrak{M} 20'17	18°45'13	morning rise	4610 Aug 25 16:17	22° \mathfrak{Q} 27'20	
asc. node	4609 Sep 27 02:30	17° \mathfrak{M} 19'04		direct	4610 Aug 28 09:25	22° \mathfrak{Q} 08'01	
	4609 Oct 05 05:18	0° \mathfrak{A}		morning max el	4610 Sep 07 04:31	26° \mathfrak{Q} 41'52	19°44'21
morning set	4609 Oct 10 17:07	10° \mathfrak{A} 26'40			4610 Sep 10 06:11	0° \mathfrak{M}	
				asc. node	4610 Sep 13 23:35	5° \mathfrak{M} 06'11	
superior conj	4609 Oct 19 08:32	27° \mathfrak{A} 11'20	1°29'35	morning set	4610 Sep 24 20:11	24° \mathfrak{M} 56'39	
minimum elong	4609 Oct 19 11:34	27° \mathfrak{A} 25'41	1°29'19		4610 Sep 27 08:03	0° \mathfrak{A}	
	4609 Oct 20 20:27	0° \mathfrak{M}		superior conj	4610 Oct 02 18:02	10° \mathfrak{A} 54'36	1°40'50
max. Earth dist.	4609 Oct 26 11:59	10° \mathfrak{M} 15'19	1.39469 AU	minimum elong	4610 Oct 02 19:28	11° \mathfrak{A} 01'45	1°40'47
evening rise	4609 Oct 30 12:44	17° \mathfrak{M} 13'51		max. Earth dist.	4610 Oct 08 16:45	22° \mathfrak{A} 22'14	1.37386 AU
desc. node	4609 Nov 02 18:34	22° \mathfrak{M} 38'27		evening rise	4610 Oct 12 12:05	29° \mathfrak{A} 19'34	
	4609 Nov 07 08:30	0° \mathfrak{A}			4610 Oct 12 21:10	0° \mathfrak{M}	
	4609 Nov 28 15:41	0° \mathfrak{C}		desc. node	4610 Oct 20 15:35	13° \mathfrak{M} 12'46	
evening max el	4609 Dec 04 15:48	6° \mathfrak{C} 40'11	24°11'21		4610 Oct 31 15:52	0° \mathfrak{A}	
retrograde	4609 Dec 15 19:42	13° \mathfrak{C} 13'21		evening max el	4610 Nov 17 04:14	20° \mathfrak{A} 23'12	25°26'07
evening set	4609 Dec 21 02:27	11° \mathfrak{C} 02'15		retrograde	4610 Nov 29 07:20	27° \mathfrak{A} 22'10	
asc. node	4609 Dec 24 01:45	7° \mathfrak{C} 54'01		evening set	4610 Dec 05 03:50	24° \mathfrak{A} 56'54	
min. Earth dist.	4609 Dec 25 20:45	5° \mathfrak{C} 34'11	0.67827 AU	min. Earth dist.	4610 Dec 09 14:27	20° \mathfrak{A} 03'30	0.67237 AU
inferior conj	4609 Dec 26 14:31	4° \mathfrak{C} 34'20	0°51'00	inferior conj	4610 Dec 10 19:08	18° \mathfrak{A} 31'06	0°-3'-7
minimum elong	4609 Dec 26 13:20	4° \mathfrak{C} 38'19	0°50'31	minimum elong	4610 Dec 10 19:12	18° \mathfrak{A} 30'51	0°03'06
	4609 Dec 30 07:29	30° \mathfrak{R} \mathfrak{A}		transit middle	4610 Dec 10 19:12	18° \mathfrak{A} 30'51	0°03'06
morning rise	4610 Jan 01 00:34	28° \mathfrak{A} 29'06		transit begin	4610 Dec 10 16:27	18° \mathfrak{A} 39'43	
direct	4610 Jan 04 20:47	27° \mathfrak{A} 05'05		transit end	4610 Dec 10 21:57	18° \mathfrak{A} 22'00	
	4610 Jan 11 00:52	0° \mathfrak{C}		asc. node	4610 Dec 10 22:47	18° \mathfrak{A} 19'17	
morning max el	4610 Jan 12 17:25	1° \mathfrak{C} 34'15	20°22'23	morning rise	4610 Dec 16 11:23	12° \mathfrak{A} 33'31	
greatest brilliancy	4610 Jan 19 01:18	9° \mathfrak{C} 03'04	-0.5m	direct	4610 Dec 19 19:30	11° \mathfrak{A} 29'19	
desc. node	4610 Jan 29 17:47	24° \mathfrak{C} 14'08		morning max el	4610 Dec 26 21:58	15° \mathfrak{A} 27'20	19°19'48
	4610 Feb 02 14:07	0° \mathfrak{A}		greatest brilliancy	4611 Jan 05 03:57	27° \mathfrak{A} 15'28	-0.7m
morning set	4610 Feb 09 20:13	11° \mathfrak{A} 05'34			4611 Jan 07 00:55	0° \mathfrak{C}	
max. Earth dist.	4610 Feb 19 15:04	26° \mathfrak{A} 30'49	1.43548 AU	desc. node	4611 Jan 16 14:50	14° \mathfrak{C} 33'40	
	4610 Feb 21 18:51	0° \mathfrak{H}		morning set	4611 Jan 19 19:34	19° \mathfrak{C} 30'14	
					4611 Jan 26 13:39	0° \mathfrak{A}	
superior conj	4610 Feb 25 18:41	6° \mathfrak{H} 32'51	-2°-7'-34	max. Earth dist.	4611 Feb 02 04:50	10° \mathfrak{A} 24'16	1.44766 AU
minimum elong	4610 Feb 25 16:54	6° \mathfrak{H} 25'28	2°07'33				
evening rise	4610 Mar 10 08:25	28° \mathfrak{H} 00'39		superior conj	4611 Feb 05 14:22	15° \mathfrak{A} 47'19	-1°-52'-19
	4610 Mar 11 11:45	0° \mathfrak{Y}		minimum elong	4611 Feb 05 06:36	15° \mathfrak{A} 16'28	1°51'47
asc. node	4610 Mar 22 01:05	17° \mathfrak{Y} 43'12			4611 Feb 14 09:43	0° \mathfrak{H}	
evening max el	4610 Mar 27 17:00	24° \mathfrak{Y} 58'39	18°07'48	evening rise	4611 Feb 19 23:23	9° \mathfrak{H} 11'17	
retrograde	4610 Apr 03 04:11	28° \mathfrak{Y} 21'06			4611 Mar 04 18:30	0° \mathfrak{Y}	
evening set	4610 Apr 05 22:01	27° \mathfrak{Y} 43'40		asc. node	4611 Mar 08 22:07	5° \mathfrak{Y} 44'46	
inferior conj	4610 Apr 12 06:10	22° \mathfrak{Y} 33'09	3°23'34	evening max el	4611 Mar 11 05:36	8° \mathfrak{Y} 21'24	18°23'46
minimum elong	4610 Apr 12 07:57	22° \mathfrak{Y} 28'29	3°23'21	retrograde	4611 Mar 17 16:52	11° \mathfrak{Y} 51'49	
min. Earth dist.	4610 Apr 15 03:49	19° \mathfrak{Y} 33'08	0.62264 AU	evening set	4611 Mar 20 16:42	11° \mathfrak{Y} 02'40	
morning rise	4610 Apr 18 15:17	16° \mathfrak{Y} 30'25		inferior conj	4611 Mar 26 14:57	5° \mathfrak{Y} 33'20	3°34'38
direct	4610 Apr 25 11:27	14° \mathfrak{Y} 00'24		minimum elong	4611 Mar 26 15:03	5° \mathfrak{Y} 33'01	3°34'37
desc. node	4610 Apr 27 17:00	14° \mathfrak{Y} 15'06		min. Earth dist.	4611 Mar 28 21:51	2° \mathfrak{Y} 54'55	0.64213 AU
morning max el	4610 May 09 13:54	22° \mathfrak{Y} 00'05	27°52'18		4611 Mar 31 18:08	30° \mathfrak{R} \mathfrak{H}	
	4610 May 16 14:08	0° \mathfrak{C}		morning rise	4611 Apr 01 11:43	29° \mathfrak{H} 22'11	
	4610 Jun 04 21:22	0° \mathfrak{H}		direct	4611 Apr 08 06:47	26° \mathfrak{H} 35'52	
morning set	4610 Jun 12 06:34	14° \mathfrak{H} 14'11		desc. node	4611 Apr 14 14:03	28° \mathfrak{H} 33'37	
max. Earth dist.	4610 Jun 17 21:41	26° \mathfrak{H} 02'34	1.32399 AU		4611 Apr 16 18:29	0° \mathfrak{Y}	
asc. node	4610 Jun 18 00:22	26° \mathfrak{H} 17'03		morning max el	4611 Apr 21 22:57	4° \mathfrak{Y} 32'51	27°30'26

	4611 May 11 04:19	0°♄		morning max el	4612 Apr 03 08:53	17°♄30'45	26°37'49
morning set	4611 May 27 00:22	28°♄04'06			4612 Apr 13 19:33	0°♄	
	4611 May 27 23:47	0°♄			4612 May 03 02:22	0°♄	
max. Earth dist.	4611 May 31 22:19	8°♄01'39	1.33239 AU	morning set	4612 May 09 07:00	11°♄18'03	
				max. Earth dist.	4612 May 13 12:26	19°♄29'58	1.34547 AU
superior conj	4611 Jun 04 01:36	14°♄38'17	0°-8'-36				
minimum elong	4611 Jun 04 02:02	14°♄40'36	0°08'31	superior conj	4612 May 18 01:07	28°♄41'10	0°-37'-45
behind sun begin	4611 Jun 03 21:24	14°♄15'59		minimum elong	4612 May 18 03:09	28°♄51'40	0°37'22
behind sun end	4611 Jun 04 06:39	15°♄05'16			4612 May 18 16:20	0°♄	
asc. node	4611 Jun 04 21:25	16°♄24'11		asc. node	4612 May 21 18:28	6°♄27'30	
evening rise	4611 Jun 11 06:02	0°♄01'09		evening rise	4612 May 25 15:28	14°♄34'24	
	4611 Jun 11 05:49	0°♄			4612 Jun 02 12:53	0°♄	
	4611 Jun 28 08:44	0°♄		evening max el	4612 Jun 13 20:56	15°♄51'57	21°02'40
evening max el	4611 Jul 02 23:16	5°♄11'14	22°32'57	retrograde	4612 Jun 25 15:00	21°♄38'13	
desc. node	4611 Jul 11 13:18	10°♄55'24		desc. node	4612 Jun 27 10:20	21°♄30'31	
retrograde	4611 Jul 16 02:15	11°♄42'50		evening set	4612 Jun 27 20:22	21°♄26'37	
evening set	4611 Jul 19 07:46	11°♄19'54		inferior conj	4612 Jul 07 04:13	17°♄29'16	-2°-49'-3
min. Earth dist.	4611 Jul 27 06:44	7°♄50'56	0.55181 AU	minimum elong	4612 Jul 06 20:39	17°♄39'56	2°46'33
inferior conj	4611 Jul 28 10:52	7°♄10'55	-4°-23'-55	min. Earth dist.	4612 Jul 07 17:45	17°♄10'11	0.54814 AU
minimum elong	4611 Jul 28 02:48	7°♄22'25	4°22'11	morning rise	4612 Jul 15 20:41	13°♄30'46	
morning rise	4611 Aug 06 00:09	3°♄20'58		direct	4612 Jul 19 11:32	13°♄02'34	
direct	4611 Aug 09 02:10	2°♄59'13		morning max el	4612 Aug 01 08:15	19°♄10'42	22°41'42
morning max el	4611 Aug 20 11:51	8°♄17'54	21°04'40		4612 Aug 10 06:01	0°♄	
asc. node	4611 Aug 31 20:39	23°♄37'31		asc. node	4612 Aug 17 17:43	12°♄42'31	
	4611 Sep 04 08:16	0°♄		morning set	4612 Aug 23 14:50	24°♄31'15	
morning set	4611 Sep 09 04:07	9°♄40'00			4612 Aug 26 04:46	0°♄	
superior conj	4611 Sep 16 14:19	25°♄09'04	1°43'51	superior conj	4612 Aug 30 18:00	9°♄44'49	1°39'59
minimum elong	4611 Sep 16 14:13	25°♄08'32	1°43'52	minimum elong	4612 Aug 30 16:42	9°♄37'53	1°39'54
	4611 Sep 18 23:15	0°♄		max. Earth dist.	4612 Sep 02 19:52	16°♄13'42	1.34009 AU
max. Earth dist.	4611 Sep 21 02:01	4°♄13'52	1.35517 AU	evening rise	4612 Sep 07 15:14	25°♄57'05	
evening rise	4611 Sep 25 06:21	12°♄17'46			4612 Sep 09 17:27	0°♄	
	4611 Oct 05 07:53	0°♄		desc. node	4612 Sep 23 09:38	23°♄33'44	
desc. node	4611 Oct 07 12:37	3°♄33'22			4612 Sep 27 17:28	0°♄	
	4611 Oct 26 18:56	0°♄		evening max el	4612 Oct 12 05:35	17°♄37'03	27°11'09
evening max el	4611 Oct 30 16:53	4°♄05'05	26°28'35	retrograde	4612 Oct 25 14:24	24°♄54'40	
retrograde	4611 Nov 12 13:50	11°♄18'22		evening set	4612 Nov 01 11:22	22°♄14'58	
evening set	4611 Nov 18 23:34	8°♄42'45		min. Earth dist.	4612 Nov 05 08:37	18°♄33'00	0.65012 AU
min. Earth dist.	4611 Nov 23 03:13	4°♄25'00	0.66299 AU	inferior conj	4612 Nov 07 12:32	16°♄09'04	-2°-3'-47
inferior conj	4611 Nov 24 19:13	2°♄24'15	-1°-1'-55	minimum elong	4612 Nov 07 16:05	15°♄59'14	2°02'23
minimum elong	4611 Nov 24 20:55	2°♄19'07	1°01'12	morning rise	4612 Nov 13 22:45	10°♄35'13	
	4611 Nov 26 20:35	30°♄		asc. node	4612 Nov 13 16:54	10°♄42'10	
asc. node	4611 Nov 27 19:51	28°♄58'36		direct	4612 Nov 16 13:05	9°♄59'25	
morning rise	4611 Nov 30 19:37	26°♄36'58		morning max el	4612 Nov 23 00:30	13°♄26'31	18°02'52
direct	4611 Dec 03 17:40	25°♄48'55			4612 Dec 04 16:51	0°♄	
morning max el	4611 Dec 10 09:07	29°♄26'39	18°32'57	morning set	4612 Dec 10 20:50	10°♄11'54	
	4611 Dec 10 22:08	0°♄		desc. node	4612 Dec 20 08:53	25°♄46'44	
morning set	4611 Dec 30 17:22	29°♄06'38			4612 Dec 22 23:53	0°♄	
	4611 Dec 31 06:48	0°♄		superior conj	4612 Dec 25 01:39	3°♄18'39	0°-32'-4
desc. node	4612 Jan 03 11:52	5°♄05'53		minimum elong	4612 Dec 24 21:42	3°♄02'52	0°31'31
superior conj	4612 Jan 15 18:10	24°♄24'32	-1°-18'00	max. Earth dist.	4612 Dec 28 18:28	9°♄10'07	1.45070 AU
minimum elong	4612 Jan 15 09:16	23°♄49'36	1°17'00	evening rise	4613 Jan 10 10:13	28°♄52'44	
max. Earth dist.	4612 Jan 15 22:51	24°♄42'53	1.45290 AU		4613 Jan 11 03:39	0°♄	
	4612 Jan 19 07:44	0°♄		greatest brilliancy	4613 Jan 28 14:53	26°♄17'02	-0.6m
evening rise	4612 Jan 31 14:58	19°♄24'38			4613 Jan 31 08:35	0°♄	
	4612 Feb 07 06:53	0°♄		evening max el	4613 Feb 04 21:58	5°♄23'25	19°47'46
evening max el	4612 Feb 22 15:55	21°♄51'06	18°57'38	asc. node	4613 Feb 09 16:10	9°♄03'54	
asc. node	4612 Feb 23 19:09	22°♄56'22		retrograde	4613 Feb 12 09:03	9°♄42'55	
retrograde	4612 Feb 29 11:31	25°♄41'05		evening set	4613 Feb 15 23:22	8°♄27'15	
evening set	4612 Mar 03 18:01	24°♄39'13		inferior conj	4613 Feb 21 10:51	2°♄25'52	3°10'22
inferior conj	4612 Mar 09 09:33	18°♄52'48	3°28'57	minimum elong	4613 Feb 21 08:46	2°♄32'49	3°10'00
minimum elong	4612 Mar 09 08:19	18°♄56'40	3°28'49	min. Earth dist.	4613 Feb 22 11:29	1°♄03'56	0.66954 AU
min. Earth dist.	4612 Mar 11 00:52	16°♄49'27	0.65792 AU		4613 Feb 23 07:05	30°♄	
morning rise	4612 Mar 14 21:35	12°♄37'53		morning rise	4613 Feb 26 17:30	26°♄09'47	
direct	4612 Mar 21 08:59	9°♄49'16		direct	4613 Mar 04 16:50	23°♄30'45	
desc. node	4612 Mar 31 11:05	14°♄46'31			4613 Mar 16 00:59	0°♄	

morning max el	4613 Mar 16 17:59	0° 4 42'17	25°23'04	minimum elong	4614 Feb 05 13:56	16° ≈ 17'48	2°40'56
desc. node	4613 Mar 18 08:06	2° 4 21'58		min. Earth dist.	4614 Feb 06 03:49	15° ≈ 30'05	0.67694 AU
	4613 Apr 07 18:48	0° 7		morning rise	4614 Feb 10 20:40	9° ≈ 53'57	
morning set	4613 Apr 21 21:53	23° 7 42'04		direct	4614 Feb 16 05:43	7° ≈ 32'34	
	4613 Apr 25 08:00	0° 8		morning max el	4614 Feb 27 02:41	14° ≈ 01'39	23°56'15
max. Earth dist.	4613 Apr 25 15:31	0° 8 35'18	1.36301 AU	desc. node	4614 Mar 05 05:07	20° ≈ 56'51	
					4614 Mar 12 02:00	0° 8	
superior conj	4613 May 01 15:40	12° 8 13'00	-1°-7'-7		4614 Mar 31 16:12	0° 7	
minimum elong	4613 May 01 19:19	12° 8 31'11	1°06'32	morning set	4614 Apr 03 15:25	5° 7 01'35	
asc. node	4613 May 08 15:29	26° 8 22'00		max. Earth dist.	4614 Apr 07 11:39	11° 7 44'35	1.38385 AU
evening rise	4613 May 09 20:33	28° 8 49'36					
	4613 May 10 10:29	0° 11		superior conj	4614 Apr 14 17:46	25° 7 05'04	-1°-34'-23
evening max el	4613 May 27 06:36	27° 11 10'00	19°48'44	minimum elong	4614 Apr 14 22:33	25° 7 27'46	1°33'48
	4613 May 30 18:39	0° 12			4614 Apr 17 07:22	0° 8	
retrograde	4613 Jun 06 07:17	2° 12 03'40		evening rise	4614 Apr 23 18:45	12° 8 39'50	
evening set	4613 Jun 08 05:43	1° 12 53'32		asc. node	4614 Apr 25 12:29	16° 8 03'24	
	4613 Jun 13 10:36	30° 12			4614 May 03 05:05	0° 11	
desc. node	4613 Jun 14 07:21	29° 12 32'02		evening max el	4614 May 10 03:50	9° 11 09'20	18°54'42
inferior conj	4613 Jun 17 02:54	27° 12 51'49	0°-50'-17	retrograde	4614 May 18 14:41	13° 11 17'37	
minimum elong	4613 Jun 17 00:35	27° 12 55'22	0°49'27	evening set	4614 May 20 16:22	13° 11 03'42	
min. Earth dist.	4613 Jun 19 06:26	26° 12 32'45	0.55408 AU	inferior conj	4614 May 28 18:57	8° 11 46'17	0°58'32
morning rise	4613 Jun 25 16:28	23° 12 25'56		minimum elong	4614 May 28 21:09	8° 11 42'21	0°57'46
direct	4613 Jun 30 01:57	22° 12 43'26		min. Earth dist.	4614 May 31 22:19	6° 11 32'54	0.56844 AU
morning max el	4613 Jul 13 22:33	29° 12 35'58	24°25'27	desc. node	4614 Jun 01 04:21	6° 11 22'41	
	4613 Jul 14 08:35	0° 12		morning rise	4614 Jun 05 21:28	3° 11 44'08	
	4613 Aug 03 12:09	0° 12		direct	4614 Jun 11 05:34	2° 11 35'55	
asc. node	4613 Aug 04 14:44	2° 12 11'55		morning max el	4614 Jun 25 13:19	10° 11 01'42	26°00'37
morning set	4613 Aug 08 02:34	9° 12 24'42			4614 Jul 10 17:44	0° 12	
				asc. node	4614 Jul 22 11:46	21° 12 58'58	
superior conj	4613 Aug 15 02:25	24° 12 33'17	1°30'17	morning set	4614 Jul 23 13:45	24° 12 15'24	
minimum elong	4613 Aug 15 00:22	24° 12 22'07	1°30'03		4614 Jul 26 05:59	0° 12	
max. Earth dist.	4613 Aug 16 22:21	28° 12 31'14	1.32911 AU				
	4613 Aug 17 14:52	0° 12		superior conj	4614 Jul 30 13:27	9° 12 27'47	1°15'33
evening rise	4613 Aug 22 10:47	10° 12 06'18		minimum elong	4614 Jul 30 11:08	9° 12 15'00	1°15'12
	4613 Sep 02 01:21	0° 12		max. Earth dist.	4614 Jul 31 06:56	11° 12 04'03	1.32232 AU
desc. node	4613 Sep 10 06:40	13° 12 05'08		evening rise	4614 Aug 06 13:53	24° 12 36'23	
	4613 Sep 23 21:25	0° 12			4614 Aug 09 05:09	0° 12	
evening max el	4613 Sep 24 16:35	0° 12 46'18	27°27'02		4614 Aug 26 18:14	0° 12	
retrograde	4613 Oct 08 08:37	8° 12 02'38		desc. node	4614 Aug 28 03:41	1° 12 55'28	
evening set	4613 Oct 15 12:22	5° 12 27'52		evening max el	4614 Sep 06 23:24	13° 12 19'26	27°11'06
min. Earth dist.	4613 Oct 19 04:32	2° 12 18'53	0.63385 AU	retrograde	4614 Sep 20 19:53	20° 12 32'32	
inferior conj	4613 Oct 21 20:29	29° 12 39'18	-3°-6'-9	evening set	4614 Sep 27 22:45	18° 12 14'39	
minimum elong	4613 Oct 22 01:44	29° 12 26'09	3°04'20	min. Earth dist.	4614 Oct 01 13:51	15° 12 30'23	0.61475 AU
	4613 Oct 21 12:15	30° 12		inferior conj	4614 Oct 04 15:54	12° 12 46'51	-4°-4'-34
morning rise	4613 Oct 28 17:43	24° 12 22'28		minimum elong	4614 Oct 04 22:03	12° 12 33'15	4°02'57
direct	4613 Oct 31 02:52	23° 12 55'15		morning rise	4614 Oct 12 00:30	7° 12 50'21	
asc. node	4613 Oct 31 13:56	23° 12 56'17		direct	4614 Oct 14 07:24	7° 12 28'33	
morning max el	4613 Nov 06 17:15	27° 12 20'29	17°50'14	asc. node	4614 Oct 18 10:58	8° 12 43'07	
	4613 Nov 09 01:57	0° 12		morning max el	4614 Oct 21 08:16	11° 12 00'23	17°55'54
morning set	4613 Nov 23 01:56	22° 12 31'26			4614 Nov 02 22:17	0° 12	
	4613 Nov 27 09:26	0° 12		morning set	4614 Nov 06 02:05	5° 12 44'45	
superior conj	4613 Dec 05 06:23	13° 12 17'28	0°13'50	superior conj	4614 Nov 16 13:44	24° 12 33'49	0°51'41
minimum elong	4613 Dec 05 07:50	13° 12 23'24	0°13'37	minimum elong	4614 Nov 16 17:37	24° 12 50'39	0°51'10
behind sun begin	4613 Dec 05 02:42	13° 12 02'11			4614 Nov 19 17:39	0° 12	
behind sun end	4613 Dec 05 12:58	13° 12 44'36		max. Earth dist.	4614 Nov 24 01:36	7° 12 14'34	1.42599 AU
desc. node	4613 Dec 07 05:55	16° 12 32'47		desc. node	4614 Nov 24 02:57	7° 12 20'06	
max. Earth dist.	4613 Dec 11 12:25	23° 12 27'15	1.44132 AU	evening rise	4614 Nov 30 12:31	17° 12 38'21	
	4613 Dec 15 15:31	0° 12			4614 Dec 08 13:07	0° 12	
evening rise	4613 Dec 20 20:09	8° 12 04'40		greatest brilliancy	4614 Dec 28 00:23	27° 12 11'36	-0.3m
	4614 Jan 04 10:42	0° 12			4614 Dec 30 09:31	0° 12	
greatest brilliancy	4614 Jan 13 11:23	12° 12 31'51	-0.5m	evening max el	4615 Jan 01 17:50	2° 12 31'31	22°06'05
evening max el	4614 Jan 18 22:38	18° 12 57'03	20°51'45	retrograde	4615 Jan 11 04:08	8° 12 08'10	
retrograde	4614 Jan 27 07:15	23° 12 53'27		asc. node	4615 Jan 14 10:12	7° 12 11'51	
asc. node	4614 Jan 27 13:11	23° 12 53'07		evening set	4615 Jan 15 14:35	6° 12 22'15	
evening set	4614 Jan 31 06:49	22° 12 23'04		inferior conj	4615 Jan 21 00:00	29° 12 59'53	2°04'16
inferior conj	4614 Feb 05 16:23	16° 12 09'25	2°41'34	minimum elong	4615 Jan 20 21:42	0° 12 07'53	2°03'30

	4615 Jan 20 23:58	30° $\text{R}\overline{\text{Z}}$		inferior conj	4616 Jan 05 07:52	13° $\overline{\text{Z}}54'47$	1°19'40
min. Earth dist.	4615 Jan 20 23:35	0° \approx 01'20	0.68034 AU	minimum elong	4616 Jan 05 06:09	14° $\overline{\text{Z}}00'41$	1°19'00
morning rise	4615 Jan 26 04:37	23° $\overline{\text{Z}}46'42$		min. Earth dist.	4616 Jan 04 20:25	14° $\overline{\text{Z}}34'04$	0.68004 AU
direct	4615 Jan 30 22:48	21° $\overline{\text{Z}}47'06$		morning rise	4616 Jan 10 15:16	7° $\overline{\text{Z}}45'52$	
morning max el	4615 Feb 09 13:20	27° $\overline{\text{Z}}26'58$	22°27'21	direct	4616 Jan 14 19:12	6° $\overline{\text{Z}}09'02$	
	4615 Feb 11 22:39	0° \approx		morning max el	4616 Jan 23 05:27	11° $\overline{\text{Z}}01'35$	21°04'42
greatest brilliancy	4615 Feb 14 02:50	2° \approx 32'19	-0.3m	greatest brilliancy	4616 Jan 28 14:14	17° $\overline{\text{Z}}11'10$	-0.5m
desc. node	4615 Feb 20 02:09	10° \approx 13'58		desc. node	4616 Feb 06 23:12	0° \approx 01'35	
	4615 Mar 05 17:18	0° H			4616 Feb 06 22:45	0° \approx	
morning set	4615 Mar 15 05:51	15° H 02'09		morning set	4616 Feb 22 16:23	23° \approx 45'25	
max. Earth dist.	4615 Mar 20 07:49	23° H 29'10	1.40571 AU		4616 Feb 26 15:00	0° H	
	4615 Mar 24 02:44	0° Y		max. Earth dist.	4616 Mar 01 10:18	6° H 08'49	1.42581 AU
superior conj	4615 Mar 28 02:59	7° Y 06'30	-1°-56'-9	superior conj	4616 Mar 08 14:20	18° H 06'12	-2°-7'-43
minimum elong	4615 Mar 28 07:26	7° Y 26'34	1°55'50	minimum elong	4616 Mar 08 15:44	18° H 12'11	2°07'42
evening rise	4615 Apr 07 06:48	25° Y 56'34			4616 Mar 15 10:28	0° Y	
	4615 Apr 09 10:40	0° B		evening rise	4616 Mar 20 04:45	8° Y 30'45	
asc. node	4615 Apr 12 09:31	5° B 26'21		asc. node	4616 Mar 29 06:33	24° Y 24'20	
evening max el	4615 Apr 23 09:43	21° B 43'45	18°21'03		4616 Apr 01 22:31	0° B	
retrograde	4615 Apr 30 16:56	25° B 21'30		evening max el	4616 Apr 05 20:45	4° B 43'46	18°07'09
evening set	4615 May 03 01:01	25° B 00'07		retrograde	4616 Apr 12 11:58	8° B 07'10	
inferior conj	4615 May 10 08:34	20° B 22'33	2°18'31	evening set	4616 Apr 15 02:29	7° B 35'55	
minimum elong	4615 May 10 12:09	20° B 15'04	2°17'33	inferior conj	4616 Apr 21 18:03	2° B 37'16	3°07'28
min. Earth dist.	4615 May 13 19:09	17° B 31'43	0.58834 AU	minimum elong	4616 Apr 21 20:46	2° B 30'42	3°06'59
morning rise	4615 May 17 18:59	14° B 49'07			4616 Apr 24 11:22	30° RY	
desc. node	4615 May 19 01:21	14° B 11'52		min. Earth dist.	4616 Apr 24 22:45	29° Y 33'38	0.61034 AU
direct	4615 May 23 23:32	13° B 06'49		morning rise	4616 Apr 28 11:50	26° Y 42'51	
morning max el	4615 Jun 07 09:00	20° B 53'19	27°11'43	desc. node	4616 May 04 22:23	24° Y 27'53	
	4615 Jun 15 06:13	0° II		direct	4616 May 05 05:08	24° Y 27'39	
	4615 Jul 03 12:41	0° S			4616 May 16 20:49	0° B	
morning set	4615 Jul 07 22:45	8° S 58'07		morning max el	4616 May 19 10:56	2° B 24'26	27°48'19
asc. node	4615 Jul 09 08:48	11° S 58'05			4616 Jun 08 15:44	0° II	
superior conj	4615 Jul 15 01:18	24° S 22'20	0°56'28	morning set	4616 Jun 21 03:40	23° II 25'49	
minimum elong	4615 Jul 14 23:11	24° S 10'39	0°56'04		4616 Jun 24 06:48	0° S	
max. Earth dist.	4615 Jul 14 18:16	23° S 43'33	1.31968 AU	asc. node	4616 Jun 25 05:50	2° S 03'34	
	4615 Jul 17 14:31	0° Q		max. Earth dist.	4616 Jun 27 04:35	6° S 17'08	1.32122 AU
evening rise	4615 Jul 21 22:01	9° Q 19'43		superior conj	4616 Jun 28 12:09	9° S 09'54	0°33'35
	4615 Aug 01 13:46	0° H		minimum elong	4616 Jun 28 10:42	9° S 01'55	0°33'17
desc. node	4615 Aug 15 00:41	19° H 48'14		evening rise	4616 Jul 05 08:57	24° S 08'10	
evening max el	4615 Aug 19 23:49	25° H 07'24	26°21'53		4616 Jul 08 04:17	0° Q	
	4615 Aug 26 08:00	0° A			4616 Jul 26 04:02	0° H	
retrograde	4615 Sep 02 23:00	2° A 16'35		evening max el	4616 Jul 31 16:56	6° H 07'41	25°03'50
evening set	4615 Sep 09 13:52	0° A 28'25		desc. node	4616 Jul 31 21:42	6° H 19'02	
	4615 Sep 10 10:11	30° RH		retrograde	4616 Aug 14 15:29	13° H 10'42	
min. Earth dist.	4615 Sep 13 13:09	27° H 54'02	0.59412 AU	evening set	4616 Aug 20 05:07	12° H 00'04	
inferior conj	4615 Sep 16 19:24	25° H 23'17	-4°-51'-20	min. Earth dist.	4616 Aug 25 04:31	9° H 17'10	0.57422 AU
minimum elong	4615 Sep 17 00:27	25° H 13'31	4°50'35	inferior conj	4616 Aug 28 03:41	7° H 18'12	-5°-14'-11
morning rise	4615 Sep 24 14:31	20° H 49'25		minimum elong	4616 Aug 28 04:30	7° H 16'48	5°14'11
direct	4615 Sep 26 22:39	20° H 30'13		morning rise	4616 Sep 05 07:22	3° H 07'00	
morning max el	4615 Oct 04 18:13	24° H 17'50	18°21'10	direct	4616 Sep 07 20:27	2° H 48'07	
asc. node	4615 Oct 05 08:01	24° H 52'11		morning max el	4616 Sep 16 19:39	7° H 01'50	19°07'37
	4615 Oct 09 11:06	0° A		asc. node	4616 Sep 21 05:05	12° H 07'28	
morning set	4615 Oct 20 15:50	19° A 36'46			4616 Oct 01 15:07	0° A	
	4615 Oct 26 02:43	0° M		morning set	4616 Oct 03 14:56	3° A 55'10	
superior conj	4615 Oct 29 20:46	6° M 59'04	1°18'46	superior conj	4616 Oct 11 22:01	20° A 17'25	1°35'27
minimum elong	4615 Oct 30 00:30	7° M 16'15	1°18'22	minimum elong	4616 Oct 12 00:24	20° A 28'56	1°35'17
max. Earth dist.	4615 Nov 06 09:29	20° M 21'23	1.40669 AU		4616 Oct 17 01:37	0° M	
desc. node	4615 Nov 10 23:59	28° M 05'34		max. Earth dist.	4616 Oct 18 14:23	2° M 47'33	1.38574 AU
evening rise	4615 Nov 11 00:02	28° M 05'46		evening rise	4616 Oct 22 10:43	9° M 36'16	
	4615 Nov 12 03:56	0° Z		desc. node	4616 Oct 27 21:01	18° M 44'58	
	4615 Dec 02 03:38	0° $\overline{\text{Z}}$			4616 Nov 04 00:16	0° Z	
evening max el	4615 Dec 15 08:59	16° $\overline{\text{Z}}$ 09'19	23°25'43	evening max el	4616 Nov 26 22:03	29° Z 51'06	24°44'19
retrograde	4615 Dec 25 22:14	22° $\overline{\text{Z}}$ 23'42			4616 Nov 27 01:40	0° $\overline{\text{Z}}$	
evening set	4615 Dec 30 21:07	20° $\overline{\text{Z}}$ 21'54		retrograde	4616 Dec 08 12:19	6° $\overline{\text{Z}}$ 36'02	
asc. node	4616 Jan 01 07:14	19° $\overline{\text{Z}}$ 00'53		evening set	4616 Dec 14 00:51	4° $\overline{\text{Z}}$ 18'51	

	4616 Dec 17 23:08	30° RA		retrograde	4617 Nov 21 21:38	20° A 39'53	
asc. node	4616 Dec 18 04:18	29° A 43'18		evening set	4617 Nov 28 00:03	18° A 09'33	
min. Earth dist.	4616 Dec 18 15:54	29° A 05'17	0.67618 AU	min. Earth dist.	4617 Dec 02 07:39	13° A 31'27	0.66883 AU
inferior conj	4616 Dec 19 14:11	27° A 51'27	0°28'43	inferior conj	4617 Dec 03 17:05	11° A 46'30	0°-27'-35
minimum elong	4616 Dec 19 13:29	27° A 53'45	0°28'25	minimum elong	4617 Dec 03 17:49	11° A 44'13	0°27'17
morning rise	4616 Dec 25 02:36	21° A 49'02		asc. node	4617 Dec 05 01:22	10° A 06'45	
direct	4616 Dec 28 17:32	20° A 33'37		morning rise	4617 Dec 09 12:35	5° A 53'09	
morning max el	4617 Jan 05 05:23	24° A 47'55	19°53'55	direct	4617 Dec 12 16:15	4° A 56'12	
	4617 Jan 09 17:54	0° C		morning max el	4617 Dec 19 12:59	8° A 43'52	18°57'55
greatest brilliancy	4617 Jan 12 12:30	3° C 40'15	-0.6m		4618 Jan 03 21:46	0° C	
desc. node	4617 Jan 23 20:15	20° C 11'19		morning set	4618 Jan 10 19:30	10° C 45'11	
	4617 Jan 30 06:37	0° A		desc. node	4618 Jan 10 17:17	10° C 36'32	
morning set	4617 Jan 31 12:36	1° A 55'27			4618 Jan 23 02:54	0° A	
max. Earth dist.	4617 Feb 11 20:53	19° A 41'25	1.44145 AU	max. Earth dist.	4618 Jan 25 13:20	3° A 49'24	1.45076 AU
superior conj	4617 Feb 17 00:09	27° A 57'14	-2°-3'-33	superior conj	4618 Jan 27 11:04	6° A 49'24	-1°-39'-50
minimum elong	4617 Feb 16 19:40	27° A 38'59	2°03'24	minimum elong	4618 Jan 27 01:55	6° A 13'21	1°39'01
	4617 Feb 18 06:17	0° H			4618 Feb 10 22:35	0° H	
evening rise	4617 Mar 02 08:11	20° H 13'54		evening rise	4618 Feb 11 13:15	0° H 59'36	
	4617 Mar 08 01:33	0° Y			4618 Mar 02 13:36	0° Y	
asc. node	4617 Mar 16 03:36	12° Y 49'31		asc. node	4618 Mar 03 00:39	0° Y 31'07	
evening max el	4617 Mar 20 09:38	18° Y 00'38	18°12'23	evening max el	4618 Mar 03 21:29	1° Y 26'19	18°36'03
retrograde	4617 Mar 26 19:35	21° Y 24'37		retrograde	4618 Mar 10 11:19	5° Y 03'52	
evening set	4617 Mar 29 16:03	20° Y 42'09		evening set	4618 Mar 13 13:54	4° Y 09'19	
inferior conj	4617 Apr 04 19:32	15° Y 23'21	3°30'35		4618 Mar 18 03:14	30° RH	
minimum elong	4617 Apr 04 20:35	15° Y 20'27	3°30'30	inferior conj	4618 Mar 19 08:53	28° H 32'10	3°33'59
min. Earth dist.	4617 Apr 07 11:07	12° Y 30'43	0.63133 AU	minimum elong	4618 Mar 19 08:23	28° H 33'42	3°33'58
morning rise	4617 Apr 10 23:01	9° Y 16'37		min. Earth dist.	4618 Mar 21 09:00	26° H 07'47	0.64929 AU
direct	4617 Apr 17 19:45	6° Y 38'10		morning rise	4618 Mar 25 01:30	22° H 18'57	
desc. node	4617 Apr 21 19:25	7° Y 25'15		direct	4618 Mar 31 17:50	19° H 30'24	
morning max el	4617 May 01 18:07	14° Y 37'03	27°47'15	desc. node	4618 Apr 08 16:27	22° H 36'13	
	4617 May 14 05:33	0° B		morning max el	4618 Apr 14 03:59	27° H 22'10	27°11'29
	4617 Jun 01 05:51	0° II			4618 Apr 16 15:35	0° Y	
morning set	4617 Jun 05 02:19	7° II 31'57			4618 May 07 21:56	0° B	
max. Earth dist.	4617 Jun 10 10:03	18° II 32'55	1.32709 AU	morning set	4618 May 19 15:49	21° B 07'40	
asc. node	4617 Jun 12 02:54	22° II 11'24			4618 May 24 02:51	0° II	
				max. Earth dist.	4618 May 24 06:48	0° II 20'12	1.33743 AU
superior conj	4617 Jun 12 20:15	23° II 44'57	0°07'33	superior conj	4618 May 27 23:32	8° II 00'53	0°-20'-49
minimum elong	4617 Jun 12 19:53	23° II 42'59	0°07'29	minimum elong	4618 May 28 00:37	8° II 06'37	0°20'37
behind sun begin	4617 Jun 12 15:12	23° II 17'42		asc. node	4618 May 29 23:56	12° II 17'08	
behind sun end	4617 Jun 13 00:34	24° II 08'17		evening rise	4618 Jun 04 07:42	23° II 35'27	
	4617 Jun 15 17:24	0° C			4618 Jun 07 10:20	0° C	
evening rise	4617 Jun 19 20:50	8° C 55'37		evening max el	4618 Jun 24 21:42	27° C 00'23	21°52'51
	4617 Jun 30 19:15	0° Q			4618 Jun 28 10:33	0° Q	
evening max el	4617 Jul 13 05:41	16° Q 34'48	23°28'47	desc. node	4618 Jul 05 15:42	3° Q 07'06	
desc. node	4617 Jul 18 18:42	20° Q 56'44		retrograde	4618 Jul 07 12:25	3° Q 15'12	
retrograde	4617 Jul 26 19:26	23° Q 22'54		evening set	4618 Jul 10 05:38	2° Q 58'38	
evening set	4617 Jul 30 21:43	22° Q 46'12			4618 Jul 17 14:30	30° RC	
min. Earth dist.	4617 Aug 06 15:23	19° Q 38'06	0.55815 AU	min. Earth dist.	4618 Jul 19 01:35	29° C 11'24	0.54911 AU
inferior conj	4617 Aug 08 15:49	18° Q 26'20	-4°-56'-57	inferior conj	4618 Jul 19 12:42	28° C 55'51	-3°-48'-39
minimum elong	4617 Aug 08 10:22	18° Q 34'28	4°56'15	minimum elong	4618 Jul 19 04:00	29° C 08'02	3°46'18
morning rise	4617 Aug 17 02:06	14° Q 32'43		morning rise	4618 Jul 28 03:53	25° C 05'11	
direct	4617 Aug 19 23:00	14° Q 12'29		direct	4618 Jul 31 10:39	24° C 41'31	
morning max el	4617 Aug 30 09:50	19° Q 03'46	20°16'00		4618 Aug 12 03:12	0° Q	
	4617 Sep 07 22:32	0° M		morning max el	4618 Aug 12 12:13	0° Q 20'37	21°44'25
asc. node	4617 Sep 08 02:09	0° M 14'34		asc. node	4618 Aug 25 23:11	19° Q 01'21	
morning set	4617 Sep 17 20:20	18° M 31'33			4618 Aug 31 15:06	0° M	
	4617 Sep 23 10:23	0° A		morning set	4618 Sep 02 05:41	3° M 19'16	
superior conj	4617 Sep 25 12:33	4° A 14'54	1°43'02	superior conj	4618 Sep 09 12:22	18° M 40'00	1°43'00
minimum elong	4617 Sep 25 13:18	4° A 18'43	1°43'01	minimum elong	4618 Sep 09 11:43	18° M 36'33	1°42'58
max. Earth dist.	4617 Sep 30 20:47	14° A 46'10	1.36560 AU	max. Earth dist.	4618 Sep 13 09:30	26° M 39'34	1.34824 AU
evening rise	4617 Oct 04 18:37	22° A 05'07			4618 Sep 15 01:31	0° A	
	4617 Oct 09 05:27	0° M		evening rise	4618 Sep 17 19:36	5° A 22'14	
desc. node	4617 Oct 14 18:03	9° M 13'53		desc. node	4618 Oct 01 15:03	29° A 26'55	
	4617 Oct 28 20:21	0° A			4618 Oct 01 23:28	0° M	
evening max el	4617 Nov 09 10:33	13° A 34'10	25°54'41				

evening max el	4618 Oct 22 23:08	27° \mathbb{M} 12'41	26°49'28		4619 Sep 26 02:57	0° \mathbb{M}	
	4618 Oct 26 02:41	0° \mathbb{Z}		evening max el	4619 Oct 05 11:11	10° \mathbb{M} 36'04	27°21'30
retrograde	4618 Nov 05 01:41	4° \mathbb{Z} 29'10		retrograde	4619 Oct 18 23:54	17° \mathbb{M} 54'34	
evening set	4618 Nov 11 16:43	1° \mathbb{Z} 50'31		evening set	4619 Oct 26 00:20	15° \mathbb{M} 15'32	
	4618 Nov 13 17:03	30° \mathbb{R} \mathbb{M}		min. Earth dist.	4619 Oct 29 19:04	11° \mathbb{M} 48'09	0.64356 AU
min. Earth dist.	4618 Nov 15 17:25	27° \mathbb{M} 48'25	0.65794 AU	inferior conj	4619 Nov 01 04:14	9° \mathbb{M} 16'08	-2°-30'-24
inferior conj	4618 Nov 17 14:34	25° \mathbb{M} 36'46	-1°-27'-56	minimum elong	4619 Nov 01 08:32	9° \mathbb{M} 04'39	2°28'46
minimum elong	4618 Nov 17 17:02	25° \mathbb{M} 29'33	1°26'54	morning rise	4619 Nov 07 19:03	3° \mathbb{M} 49'13	
asc. node	4618 Nov 21 22:23	21° \mathbb{M} 08'36		asc. node	4619 Nov 08 19:25	3° \mathbb{M} 28'47	
morning rise	4618 Nov 23 19:00	19° \mathbb{M} 55'08		direct	4619 Nov 10 06:43	3° \mathbb{M} 17'39	
direct	4618 Nov 26 13:26	19° \mathbb{M} 12'52		morning max el	4619 Nov 16 18:43	6° \mathbb{M} 43'15	17°55'17
morning max el	4618 Dec 03 02:22	22° \mathbb{M} 44'52	18°18'07		4619 Dec 02 07:34	0° \mathbb{Z}	
	4618 Dec 08 21:52	0° \mathbb{Z}		morning set	4619 Dec 03 21:02	2° \mathbb{Z} 38'40	
morning set	4618 Dec 22 05:55	20° \mathbb{Z} 59'49		desc. node	4619 Dec 15 11:21	21° \mathbb{Z} 56'15	
	4618 Dec 27 20:05	0° \mathbb{Z}					
desc. node	4618 Dec 28 14:19	1° \mathbb{Z} 13'00		superior conj	4619 Dec 17 04:54	24° \mathbb{Z} 44'28	0°-12'00
				minimum elong	4619 Dec 17 03:29	24° \mathbb{Z} 38'46	0°11'48
superior conj	4619 Jan 06 13:49	15° \mathbb{Z} 26'38	0°-59'-14	behind sun begin	4619 Dec 16 20:27	24° \mathbb{Z} 10'19	
minimum elong	4619 Jan 06 06:33	14° \mathbb{Z} 58'02	0°58'19	behind sun end	4619 Dec 17 10:32	25° \mathbb{Z} 07'11	
max. Earth dist.	4619 Jan 08 08:23	18° \mathbb{Z} 13'42	1.45283 AU		4619 Dec 20 11:39	0° \mathbb{Z}	
	4619 Jan 15 20:54	0° \approx		max. Earth dist.	4619 Dec 22 02:58	2° \mathbb{Z} 36'06	1.44752 AU
evening rise	4619 Jan 22 19:24	10° \approx 51'14		evening rise	4620 Jan 02 08:48	20° \mathbb{Z} 07'09	
	4619 Feb 04 03:03	0° \mathbb{H}			4620 Jan 08 20:01	0° \approx	
greatest brilliancy	4619 Feb 06 04:24	3° \mathbb{H} 05'03	-0.7m	greatest brilliancy	4620 Jan 23 00:44	20° \approx 44'57	-0.6m
evening max el	4619 Feb 15 06:04	14° \mathbb{H} 56'37	19°17'02	evening max el	4620 Jan 29 09:52	28° \approx 29'10	20°13'32
asc. node	4619 Feb 17 21:40	17° \mathbb{H} 16'51			4620 Jan 30 23:46	0° \mathbb{H}	
retrograde	4619 Feb 22 07:36	18° \mathbb{H} 58'31		asc. node	4620 Feb 04 18:40	2° \mathbb{H} 52'27	
evening set	4619 Feb 25 17:10	17° \mathbb{H} 51'00		retrograde	4620 Feb 06 05:39	3° \mathbb{H} 03'54	
inferior conj	4619 Mar 03 06:41	11° \mathbb{H} 57'45	3°22'27	evening set	4620 Feb 09 23:37	1° \mathbb{H} 42'19	
minimum elong	4619 Mar 03 05:01	12° \mathbb{H} 03'07	3°22'14		4620 Feb 11 21:11	30° \mathbb{R} \approx	
min. Earth dist.	4619 Mar 04 15:35	10° \mathbb{H} 11'31	0.66334 AU	inferior conj	4620 Feb 15 10:04	25° \approx 35'29	2°59'18
morning rise	4619 Mar 08 16:00	5° \mathbb{H} 41'47		minimum elong	4620 Feb 15 07:46	25° \approx 43'15	2°58'48
direct	4619 Mar 14 22:32	2° \mathbb{H} 56'01		min. Earth dist.	4620 Feb 16 05:00	24° \approx 31'23	0.67317 AU
desc. node	4619 Mar 26 13:30	9° \mathbb{H} 27'08		morning rise	4620 Feb 20 15:20	19° \approx 19'17	
morning max el	4619 Mar 27 13:53	10° \mathbb{H} 27'23	26°08'10	direct	4620 Feb 26 08:48	16° \approx 46'41	
	4619 Apr 12 01:49	0° \mathbb{Y}		morning max el	4620 Mar 08 22:33	23° \approx 42'05	24°46'56
	4619 Apr 30 11:37	0° \mathbb{B}		desc. node	4620 Mar 12 10:33	27° \approx 30'03	
morning set	4619 May 02 16:23	4° \mathbb{B} 01'55			4620 Mar 14 13:07	0° \mathbb{H}	
max. Earth dist.	4619 May 06 16:00	11° \mathbb{B} 36'00	1.35238 AU		4620 Apr 04 11:19	0° \mathbb{Y}	
				morning set	4620 Apr 13 22:58	16° \mathbb{Y} 00'38	
superior conj	4619 May 11 19:34	21° \mathbb{B} 50'57	0°-50'-19	max. Earth dist.	4620 Apr 17 14:51	22° \mathbb{Y} 36'35	1.37149 AU
minimum elong	4619 May 11 22:19	22° \mathbb{B} 04'53	0°49'49		4620 Apr 21 13:38	0° \mathbb{B}	
	4619 May 15 18:36	0° \mathbb{I}					
asc. node	4619 May 16 20:57	2° \mathbb{I} 16'47		superior conj	4620 Apr 24 05:20	5° \mathbb{B} 07'11	-1°-19'-8
evening rise	4619 May 19 15:32	8° \mathbb{I} 01'17		minimum elong	4620 Apr 24 09:35	5° \mathbb{B} 27'51	1°18'30
	4619 May 31 15:02	0° \mathbb{S}		evening rise	4620 May 02 18:02	22° \mathbb{B} 06'37	
evening max el	4619 Jun 07 00:13	7° \mathbb{S} 55'16	20°28'56	asc. node	4620 May 02 17:58	22° \mathbb{B} 06'15	
retrograde	4619 Jun 18 01:26	13° \mathbb{S} 19'32			4620 May 06 18:26	0° \mathbb{I}	
evening set	4619 Jun 20 01:39	13° \mathbb{S} 09'33		evening max el	4620 May 19 15:14	19° \mathbb{I} 32'06	19°23'24
desc. node	4619 Jun 22 12:43	12° \mathbb{S} 32'05		retrograde	4620 May 28 22:48	24° \mathbb{I} 04'33	
inferior conj	4619 Jun 29 06:32	9° \mathbb{S} 12'09	-1°-59'-30	evening set	4620 May 30 21:53	23° \mathbb{I} 53'20	
minimum elong	4619 Jun 29 00:57	9° \mathbb{S} 20'16	1°57'31	inferior conj	4620 Jun 08 11:40	19° \mathbb{I} 46'23	0°-1'-25
min. Earth dist.	4619 Jun 30 13:27	8° \mathbb{S} 27'19	0.54944 AU	minimum elong	4620 Jun 08 11:36	19° \mathbb{I} 46'29	0°01'25
morning rise	4619 Jul 07 22:41	5° \mathbb{S} 03'34		transit middle	4620 Jun 08 11:36	19° \mathbb{I} 46'29	0°01'25
direct	4619 Jul 11 20:26	4° \mathbb{S} 30'38		transit begin	4620 Jun 08 07:45	19° \mathbb{I} 52'46	
morning max el	4619 Jul 25 05:26	10° \mathbb{S} 59'30	23°25'52	transit end	4620 Jun 08 15:28	19° \mathbb{I} 40'11	
	4619 Aug 08 08:15	0° \mathbb{Q}		desc. node	4620 Jun 08 09:44	19° \mathbb{I} 49'32	
asc. node	4619 Aug 12 20:13	8° \mathbb{Q} 17'26		min. Earth dist.	4620 Jun 11 03:38	18° \mathbb{I} 02'39	0.55925 AU
morning set	4619 Aug 17 17:01	18° \mathbb{Q} 11'58		morning rise	4620 Jun 16 21:24	15° \mathbb{I} 05'12	
	4619 Aug 23 04:51	0° \mathbb{P}		direct	4620 Jun 21 16:33	14° \mathbb{I} 12'51	
				morning max el	4620 Jul 05 19:08	21° \mathbb{I} 21'34	25°07'50
superior conj	4619 Aug 24 18:22	3° \mathbb{P} 22'19	1°36'32		4620 Jul 13 07:38	0° \mathbb{S}	
minimum elong	4619 Aug 24 16:41	3° \mathbb{P} 13'18	1°36'24	asc. node	4620 Jul 29 17:15	27° \mathbb{S} 55'13	
max. Earth dist.	4619 Aug 27 06:55	8° \mathbb{P} 45'21	1.33485 AU		4620 Jul 30 17:28	0° \mathbb{Q}	
evening rise	4619 Sep 01 09:26	19° \mathbb{P} 15'33		morning set	4620 Aug 01 04:44	3° \mathbb{Q} 04'59	
	4619 Sep 06 23:59	0° \mathbb{A}					
desc. node	4619 Sep 18 12:03	19° \mathbb{A} 16'07		superior conj	4620 Aug 08 04:10	18° \mathbb{Q} 14'29	1°24'36

minimum elong	4620 Aug 08 01:57	18°02'19	1°24'20	asc. node	4621 Jul 16 14:17	17°04'34	
max. Earth dist.	4620 Aug 09 12:20	21°01'06	1.32574 AU		4621 Jul 22 05:29	0°0	
	4620 Aug 13 15:11	0°0					
evening rise	4620 Aug 15 08:36	3°03'516		superior conj	4621 Jul 23 15:45	3°09'07	1°07'57
	4620 Aug 29 18:08	0°0		minimum elong	4621 Jul 23 13:28	2°05'28	1°07'35
desc. node	4620 Sep 04 09:03	8°03'139		max. Earth dist.	4621 Jul 23 22:41	3°04'23	1.32075 AU
evening max el	4620 Sep 16 20:56	23°03'211	27°24'20	evening rise	4621 Jul 30 14:08	18°01'38	
	4620 Sep 26 10:05	0°0			4621 Aug 05 11:06	0°0	
retrograde	4620 Sep 30 15:21	0°04'703		desc. node	4621 Aug 22 06:04	26°05'34	
	4620 Oct 04 16:24	30°04			4621 Aug 24 16:04	0°0	
evening set	4620 Oct 07 19:39	28°01'816		evening max el	4621 Aug 30 01:31	5°04'30	26°54'08
min. Earth dist.	4620 Oct 11 10:47	25°02'046	0.62605 AU	retrograde	4621 Sep 12 23:02	12°05'56	
inferior conj	4620 Oct 14 07:17	22°03'757	-3°-31'-46	evening set	4621 Sep 19 22:26	10°05'129	
minimum elong	4620 Oct 14 13:05	22°04'209	3°29'58	min. Earth dist.	4621 Sep 23 15:40	8°01'30	0.60613 AU
morning rise	4620 Oct 21 09:21	17°04'2902		inferior conj	4621 Sep 26 20:24	5°03'30	-4°-26'-25
direct	4620 Oct 23 17:06	17°04'31		minimum elong	4621 Sep 27 02:25	5°02'056	4°25'07
asc. node	4620 Oct 25 16:28	17°04'2242		morning rise	4621 Oct 04 09:38	0°04'607	
morning max el	4620 Oct 30 11:04	20°03'147	17°50'13	direct	4621 Oct 06 16:45	0°02'535	
	4620 Nov 06 13:01	0°0		asc. node	4621 Oct 12 13:31	2°04'558	
morning set	4620 Nov 15 11:00	15°02'2314		morning max el	4621 Oct 14 00:17	4°02'46	18°04'06
	4620 Nov 23 18:46	0°0		morning set	4621 Oct 29 17:35	28°05'457	
					4621 Oct 30 07:33	0°0	
superior conj	4620 Nov 26 20:52	5°01'540	0°31'08	superior conj	4621 Nov 08 14:55	17°03'00	1°04'30
minimum elong	4620 Nov 26 23:44	5°02'746	0°30'44	minimum elong	4621 Nov 08 18:58	17°02'101	1°04'01
desc. node	4620 Dec 01 08:22	12°01'4252			4621 Nov 16 02:55	0°0	
max. Earth dist.	4620 Dec 03 19:02	16°01'4150	1.43550 AU	max. Earth dist.	4621 Nov 16 06:34	0°01'516	1.41820 AU
evening rise	4620 Dec 11 19:31	29°01'2333		desc. node	4621 Nov 18 05:23	3°02'937	
	4620 Dec 12 04:56	0°0		evening rise	4621 Nov 21 19:05	9°01'748	
	4621 Jan 01 13:30	0°0			4621 Dec 05 07:47	0°0	
greatest brilliancy	4621 Jan 06 08:32	6°01'906	-0.4m	greatest brilliancy	4621 Dec 20 02:32	20°05'39	-0.3m
evening max el	4621 Jan 11 08:15	12°03'15	21°22'29	evening max el	4621 Dec 25 01:37	25°03'921	22°39'40
retrograde	4621 Jan 20 03:21	17°01'1611			4621 Dec 30 07:08	0°0	
asc. node	4621 Jan 21 15:42	17°03'48		retrograde	4622 Jan 03 23:08	1°03'205	
evening set	4621 Jan 24 07:22	15°03'922			4622 Jan 08 04:13	30°03	
inferior conj	4621 Jan 29 16:42	9°02'150	2°26'43	evening set	4622 Jan 08 14:50	29°03'913	
minimum elong	4621 Jan 29 14:16	9°03'017	2°25'59	asc. node	4622 Jan 08 12:44	29°04'329	
min. Earth dist.	4621 Jan 29 23:01	8°05'959	0.67890 AU	inferior conj	4622 Jan 14 00:39	23°01'427	1°46'11
morning rise	4621 Feb 03 20:50	3°07'14		minimum elong	4622 Jan 13 22:33	23°02'145	1°45'25
direct	4621 Feb 08 23:40	0°05'435		min. Earth dist.	4622 Jan 13 19:26	23°03'233	0.68070 AU
morning max el	4621 Feb 19 07:25	7°02'32	23°18'04	morning rise	4622 Jan 19 06:12	17°03'07	
greatest brilliancy	4621 Feb 24 14:42	13°00'014	-0.2m	direct	4622 Jan 23 18:15	15°03'18	
desc. node	4621 Feb 27 07:36	16°02'2416		morning max el	4622 Feb 01 20:04	20°03'142	21°51'04
	4621 Mar 09 03:27	0°0		greatest brilliancy	4622 Feb 06 13:15	25°04'940	-0.4m
morning set	4621 Mar 26 05:28	26°04'4658			4622 Feb 09 19:59	0°0	
	4621 Mar 28 03:04	0°0		desc. node	4622 Feb 14 04:38	5°05'532	
max. Earth dist.	4621 Mar 30 10:02	3°05'5649	1.39320 AU		4622 Mar 02 09:20	0°0	
				morning set	4622 Mar 06 07:31	6°01'227	
superior conj	4621 Apr 07 00:52	17°03'855	-1°-44'-33	max. Earth dist.	4622 Mar 12 09:05	16°06'37	1.41471 AU
minimum elong	4621 Apr 07 05:45	18°01'39	1°44'03				
	4621 Apr 13 13:13	0°0		superior conj	4622 Mar 20 01:24	29°01'522	-2°-2'-37
evening rise	4621 Apr 16 12:20	5°04'306		minimum elong	4622 Mar 20 04:57	29°03'102	2°02'28
asc. node	4621 Apr 19 14:59	11°04'006			4622 Mar 20 11:32	0°0	
	4621 May 01 00:32	0°0		evening rise	4622 Mar 30 18:57	18°04'303	
evening max el	4621 May 02 16:36	1°04'704	18°37'58		4622 Apr 05 23:53	0°0	
retrograde	4621 May 10 14:00	5°04'004		asc. node	4622 Apr 06 12:02	0°05'310	
evening set	4621 May 12 18:31	5°04'2312		evening max el	4622 Apr 16 01:02	14°03'249	18°12'39
inferior conj	4621 May 20 12:43	0°05'722	1°36'25	retrograde	4622 Apr 23 00:05	18°02'46	
minimum elong	4621 May 20 15:53	0°05'120	1°35'24	evening set	4622 Apr 25 10:57	17°03'723	
	4621 May 21 18:41	30°03		inferior conj	4622 May 02 11:11	12°05'024	2°42'52
min. Earth dist.	4621 May 23 21:04	28°05'2536	0.57645 AU	minimum elong	4622 May 02 14:34	12°04'249	2°42'03
desc. node	4621 May 26 06:46	26°04'4851		min. Earth dist.	4622 May 05 20:18	9°05'114	0.59767 AU
morning rise	4621 May 28 08:47	25°04'4113		morning rise	4622 May 09 14:22	7°06'641	
direct	4621 Jun 03 02:27	24°01'906		desc. node	4622 May 13 03:49	5°03'328	
	4621 Jun 15 09:33	0°0		direct	4622 May 16 01:17	5°01'003	
morning max el	4621 Jun 17 11:21	1°05'414	26°34'36	morning max el	4622 May 30 09:50	13°01'30	27°31'59
	4621 Jul 07 12:14	0°0			4622 Jun 12 20:55	0°0	
morning set	4621 Jul 16 15:12	17°05'225					

	4622 Jun 29 17:51	0°☿		morning max el	4623 May 12 14:30	24°☿51'32	27°52'28
morning set	4622 Jun 30 22:43	2°☿29'01			4623 May 17 07:02	0°☿	
asc. node	4622 Jul 03 11:20	7°☿49'26			4623 Jun 06 06:35	0°☿	
max. Earth dist.	4622 Jul 07 10:11	16°☿25'53	1.31983 AU	morning set	4623 Jun 15 01:18	16°☿48'44	
				asc. node	4623 Jun 20 08:23	27°☿56'26	
superior conj	4622 Jul 08 03:23	18°☿00'36	0°47'11	max. Earth dist.	4623 Jun 20 18:56	28°☿53'20	1.32310 AU
minimum elong	4622 Jul 08 01:29	17°☿50'10	0°46'48		4623 Jun 21 07:14	0°☿	
	4622 Jul 13 14:36	0°☿					
evening rise	4622 Jul 14 23:42	2°☿57'15		superior conj	4623 Jun 22 13:18	2°☿43'35	0°22'53
	4622 Jul 29 11:00	0°☿		minimum elong	4623 Jun 22 12:16	2°☿37'54	0°22'39
desc. node	4622 Aug 09 03:05	14°☿20'21		evening rise	4623 Jun 29 11:16	17°☿45'52	
evening max el	4622 Aug 11 22:36	17°☿13'29	25°51'35		4623 Jul 05 11:27	0°☿	
retrograde	4622 Aug 25 21:43	24°☿20'37		evening max el	4623 Jul 24 12:59	27°☿56'16	24°24'35
evening set	4622 Sep 01 03:47	22°☿47'37			4623 Jul 26 20:25	0°☿	
min. Earth dist.	4622 Sep 05 10:52	20°☿12'17	0.58540 AU	desc. node	4623 Jul 27 00:06	0°☿07'32	
inferior conj	4622 Sep 08 16:00	17°☿52'40	-5°-4'-54	retrograde	4623 Aug 07 09:34	4°☿55'39	
minimum elong	4622 Sep 08 19:40	17°☿45'59	5°04'33	evening set	4623 Aug 12 08:46	4°☿00'34	
morning rise	4622 Sep 16 15:05	13°☿28'59		min. Earth dist.	4623 Aug 17 23:56	1°☿08'38	0.56662 AU
direct	4622 Sep 19 01:01	13°☿10'07			4623 Aug 19 19:29	30°☿	
morning max el	4622 Sep 27 07:02	17°☿06'59	18°38'21	inferior conj	4623 Aug 20 15:36	29°☿27'54	-5°-12'-47
asc. node	4622 Sep 29 10:36	19°☿24'49		minimum elong	4623 Aug 20 13:48	29°☿30'46	5°12'43
	4622 Oct 06 13:01	0°☿		morning rise	4623 Aug 28 22:20	25°☿25'36	
morning set	4622 Oct 13 11:45	12°☿59'18		direct	4623 Aug 31 14:15	25°☿06'29	
				morning max el	4623 Sep 10 04:05	29°☿34'54	19°34'08
superior conj	4622 Oct 22 06:24	29°☿52'59	1°27'03		4623 Sep 10 14:34	0°☿	
minimum elong	4622 Oct 22 09:39	0°☿08'12	1°26'45	asc. node	4623 Sep 16 07:38	7°☿04'01	
	4622 Oct 22 07:54	0°☿		morning set	4623 Sep 27 13:53	27°☿26'27	
max. Earth dist.	4622 Oct 29 12:56	13°☿04'45	1.39779 AU		4623 Sep 28 20:23	0°☿	
evening rise	4622 Nov 02 16:21	20°☿11'28					
desc. node	4622 Nov 05 02:23	24°☿12'41		superior conj	4623 Oct 05 13:56	13°☿30'12	1°39'41
	4622 Nov 08 16:20	0°☿		minimum elong	4623 Oct 05 15:37	13°☿38'32	1°39'35
	4622 Nov 29 12:43	0°☿		max. Earth dist.	4623 Oct 11 17:24	25°☿15'26	1.37688 AU
evening max el	4622 Dec 07 15:28	9°☿18'09	23°59'37		4623 Oct 14 07:47	0°☿	
retrograde	4622 Dec 18 15:43	15°☿46'58		evening rise	4623 Oct 15 12:33	2°☿08'24	
evening set	4622 Dec 23 20:24	13°☿38'11		desc. node	4623 Oct 22 23:25	14°☿48'24	
asc. node	4622 Dec 26 09:49	10°☿59'44			4623 Nov 01 20:03	0°☿	
min. Earth dist.	4622 Dec 28 15:56	8°☿04'58	0.67883 AU	evening max el	4623 Nov 20 04:01	23°☿00'44	25°15'37
inferior conj	4622 Dec 29 08:05	7°☿10'12	0°58'44	retrograde	4623 Dec 02 04:03	29°☿56'33	
minimum elong	4622 Dec 29 06:44	7°☿14'45	0°58'13	evening set	4623 Dec 07 22:26	27°☿33'20	
morning rise	4623 Jan 03 17:22	1°☿03'56		min. Earth dist.	4623 Dec 12 10:12	22°☿34'34	0.67349 AU
	4623 Jan 05 14:30	30°☿		asc. node	4623 Dec 13 06:52	21°☿27'27	
direct	4623 Jan 07 15:30	29°☿36'45		inferior conj	4623 Dec 13 13:11	21°☿06'52	0°05'24
	4623 Jan 09 18:39	0°☿		minimum elong	4623 Dec 13 13:03	21°☿07'19	0°05'21
morning max el	4623 Jan 15 15:31	4°☿11'46	20°32'55	transit middle	4623 Dec 13 13:03	21°☿07'19	0°05'21
greatest brilliancy	4623 Jan 21 16:43	11°☿17'09	-0.5m	transit begin	4623 Dec 13 10:25	21°☿15'52	
desc. node	4623 Feb 01 01:40	25°☿53'04		transit end	4623 Dec 13 15:41	20°☿58'46	
	4623 Feb 03 20:07	0°☿		morning rise	4623 Dec 19 04:23	15°☿07'51	
morning set	4623 Feb 13 09:20	14°☿33'33		direct	4623 Dec 22 14:11	14°☿00'51	
max. Earth dist.	4623 Feb 22 15:03	29°☿09'52	1.43313 AU	morning max el	4623 Dec 29 18:52	18°☿02'49	19°28'03
	4623 Feb 23 03:28	0°☿		greatest brilliancy	4624 Jan 07 09:52	28°☿53'50	-0.7m
					4624 Jan 08 04:21	0°☿	
superior conj	4623 Mar 01 02:01	9°☿45'17	-2°-8'-11	desc. node	4624 Jan 18 22:41	16°☿09'48	
minimum elong	4623 Mar 01 01:09	9°☿41'40	2°08'12	morning set	4624 Jan 23 06:54	22°☿51'14	
	4623 Mar 12 20:44	0°☿			4624 Jan 27 21:30	0°☿	
evening rise	4623 Mar 13 09:33	0°☿56'23		max. Earth dist.	4624 Feb 05 03:49	12°☿57'11	1.44627 AU
asc. node	4623 Mar 24 09:05	19°☿38'13					
evening max el	4623 Mar 30 13:08	27°☿40'20	18°07'02	superior conj	4624 Feb 09 01:06	19°☿08'04	-1°-55'-55
	4623 Apr 02 11:40	0°☿		minimum elong	4624 Feb 08 18:05	18°☿40'01	1°55'29
retrograde	4623 Apr 06 01:07	1°☿02'40			4624 Feb 15 18:19	0°☿	
evening set	4623 Apr 08 18:03	0°☿26'55		evening rise	4624 Feb 23 03:45	12°☿14'51	
	4623 Apr 09 15:39	30°☿			4624 Mar 04 21:38	0°☿	
inferior conj	4623 Apr 15 04:00	25°☿19'32	3°20'02	asc. node	4624 Mar 10 06:07	7°☿46'07	
minimum elong	4623 Apr 15 06:03	25°☿14'18	3°19'46	evening max el	4624 Mar 13 01:53	11°☿01'29	18°20'18
min. Earth dist.	4623 Apr 18 03:41	22°☿17'44	0.61950 AU	retrograde	4624 Mar 19 12:32	14°☿29'46	
morning rise	4623 Apr 21 15:16	19°☿18'35		evening set	4624 Mar 22 11:29	13°☿42'23	
direct	4623 Apr 28 10:56	16°☿51'58		inferior conj	4624 Mar 28 10:58	8°☿15'51	3°34'05
desc. node	4623 Apr 30 00:51	16°☿59'19		minimum elong	4624 Mar 28 11:20	8°☿14'50	3°34'05

min. Earth dist.	4624 Mar 30 20:13	5°Υ33'12	0.63942 AU	evening set	4625 Mar 06 11:58	27°✕16'44	
morning rise	4624 Apr 03 09:23	2°Υ05'44		inferior conj	4625 Mar 12 04:18	21°✕32'40	3°30'39
	4624 Apr 06 20:30	30°✕		minimum elong	4625 Mar 12 03:15	21°✕35'57	3°30'35
direct	4624 Apr 10 05:11	29°✕20'54		min. Earth dist.	4625 Mar 13 21:52	19°✕23'41	0.65584 AU
	4624 Apr 13 18:28	0°Υ		morning rise	4625 Mar 17 17:26	15°✕18'11	
desc. node	4624 Apr 15 21:53	0°Υ57'15		direct	4625 Mar 24 06:17	12°✕29'14	
morning max el	4624 Apr 23 23:02	7°Υ18'49	27°35'51	desc. node	4625 Apr 02 18:55	16°✕54'57	
	4624 May 11 09:19	0°♄		morning max el	4625 Apr 06 08:56	20°✕13'30	26°47'20
	4624 May 28 11:42	0°♅			4625 Apr 14 18:20	0°Υ	
morning set	4624 May 28 20:24	0°♅42'55			4625 May 04 11:33	0°♄	
max. Earth dist.	4624 Jun 02 20:49	10°♅56'28	1.33084 AU	morning set	4625 May 12 04:53	14°♄02'29	
				max. Earth dist.	4625 May 16 12:42	22°♄29'32	1.34325 AU
					4625 May 20 05:11	0°♅	
superior conj	4624 Jun 05 19:36	17°♅11'15	0°-4'-15				
minimum elong	4624 Jun 05 19:48	17°♅12'24	0°04'15				
behind sun begin	4624 Jun 05 14:36	16°♅44'33		superior conj	4625 May 20 20:08	1°♅17'29	0°-33'-16
behind sun end	4624 Jun 06 01:01	17°♅40'17		minimum elong	4625 May 20 21:54	1°♅26'44	0°32'56
asc. node	4624 Jun 06 05:24	18°♅03'45		asc. node	4625 May 24 02:25	8°♅07'41	
	4624 Jun 11 18:35	0°♄		evening rise	4625 May 28 08:44	17°♅05'24	
evening rise	4624 Jun 12 22:54	2°♄30'28			4625 Jun 03 20:31	0°♄	
	4624 Jun 28 03:16	0°♅		evening max el	4625 Jun 16 22:11	18°♄54'26	21°15'11
evening max el	4624 Jul 05 02:12	8°♅18'51	22°47'20	retrograde	4625 Jun 28 21:49	24°♄48'22	
desc. node	4624 Jul 12 21:07	13°♅46'33		desc. node	4625 Jun 29 18:07	24°♄46'41	
retrograde	4624 Jul 18 08:30	14°♅55'12		evening set	4625 Jul 01 05:47	24°♄35'47	
evening set	4624 Jul 21 19:07	14°♅29'16		inferior conj	4625 Jul 10 13:58	20°♄37'31	-3°-5'-45
min. Earth dist.	4624 Jul 29 10:31	11°♅06'08	0.55321 AU	minimum elong	4625 Jul 10 05:54	20°♄48'49	3°03'12
inferior conj	4624 Jul 30 20:14	10°♅17'47	-4°-34'-17	min. Earth dist.	4625 Jul 10 21:05	20°♄27'31	0.54811 AU
minimum elong	4624 Jul 30 12:41	10°♅28'38	4°32'51	morning rise	4625 Jul 19 06:16	16°♄41'48	
morning rise	4624 Aug 08 08:46	6°♅27'19		direct	4625 Jul 22 18:56	16°♄14'58	
direct	4624 Aug 11 09:24	6°♅06'00		morning max el	4625 Aug 04 10:52	22°♄15'23	22°26'32
morning max el	4624 Aug 22 13:09	11°♅17'25	20°51'24		4625 Aug 11 04:13	0°♅	
asc. node	4624 Sep 02 04:40	25°♅29'07		asc. node	4625 Aug 20 01:41	14°♅29'14	
	4624 Sep 04 17:34	0°♄		morning set	4625 Aug 26 07:35	26°♅58'09	
morning set	4624 Sep 10 21:12	12°♄07'58			4625 Aug 27 18:04	0°♄	
superior conj	4624 Sep 18 08:48	27°♄40'17	1°43'52	superior conj	4625 Sep 02 11:32	12°♄13'07	1°40'58
minimum elong	4624 Sep 18 08:55	27°♄40'53	1°43'51	minimum elong	4625 Sep 02 10:24	12°♄07'03	1°40'54
	4624 Sep 19 12:09	0°♅		max. Earth dist.	4625 Sep 05 18:20	19°♄05'43	1.34209 AU
max. Earth dist.	4624 Sep 23 01:46	7°♅07'53	1.35780 AU	evening rise	4625 Sep 10 11:11	28°♄32'43	
evening rise	4624 Sep 27 04:16	14°♅59'15			4625 Sep 11 05:10	0°♅	
	4624 Oct 05 16:16	0°♄		desc. node	4625 Sep 25 17:27	25°♅14'59	
desc. node	4624 Oct 08 20:26	5°♄11'14			4625 Sep 28 20:46	0°♄	
	4624 Oct 26 12:00	0°♄		evening max el	4625 Oct 15 05:25	20°♄17'16	27°06'20
evening max el	4624 Nov 01 16:41	6°♄43'21	26°20'23	retrograde	4625 Oct 28 12:39	27°♄34'34	
retrograde	4624 Nov 14 11:14	13°♄54'48		evening set	4625 Nov 04 08:14	24°♄54'52	
evening set	4624 Nov 20 19:07	11°♄20'31		min. Earth dist.	4625 Nov 08 06:21	21°♄07'49	0.65226 AU
min. Earth dist.	4624 Nov 24 23:49	6°♄57'24	0.66462 AU	inferior conj	4625 Nov 10 08:31	18°♄46'54	-1°-54'-18
inferior conj	4624 Nov 26 14:03	5°♄00'43	0°-52'-46	minimum elong	4625 Nov 10 11:47	18°♄37'43	1°53'00
minimum elong	4624 Nov 26 15:30	4°♄56'20	0°52'09	asc. node	4625 Nov 16 00:55	13°♄32'18	
asc. node	4624 Nov 29 03:53	2°♄00'56		morning rise	4625 Nov 16 17:12	13°♄10'58	
	4624 Dec 01 08:06	30°♄		direct	4625 Nov 19 08:33	12°♄33'34	
morning rise	4624 Dec 02 13:07	29°♄11'40		morning max el	4625 Nov 25 20:04	16°♄01'32	18°06'18
direct	4624 Dec 05 12:36	28°♄21'23			4625 Dec 05 23:13	0°♄	
	4624 Dec 09 21:02	0°♄		morning set	4625 Dec 13 23:45	13°♄07'47	
morning max el	4624 Dec 12 05:08	2°♄01'18	18°38'52	desc. node	4625 Dec 22 16:44	27°♄20'13	
	4624 Dec 31 14:25	0°♄			4625 Dec 24 08:30	0°♄	
morning set	4625 Jan 02 00:35	2°♄15'09					
desc. node	4625 Jan 04 19:43	6°♄40'27		superior conj	4625 Dec 28 11:51	6°♄35'51	0°-39'-17
				minimum elong	4625 Dec 28 06:58	6°♄16'27	0°38'38
superior conj	4625 Jan 18 06:13	27°♄47'53	-1°-24'-12	max. Earth dist.	4625 Dec 31 17:28	11°♄42'13	1.45148 AU
minimum elong	4625 Jan 17 21:00	27°♄11'44	1°23'13		4626 Jan 12 11:03	0°♄	
max. Earth dist.	4625 Jan 17 21:39	27°♄14'13	1.45260 AU	evening rise	4626 Jan 13 20:41	2°♄10'17	
	4625 Jan 19 15:54	0°♄		greatest brilliancy	4626 Jan 31 03:00	28°♄20'18	-0.6m
evening rise	4625 Feb 02 22:50	22°♄36'37			4626 Feb 01 07:24	0°♄	
	4625 Feb 07 13:42	0°✕		evening max el	4626 Feb 07 19:26	8°✕02'22	19°39'17
evening max el	4625 Feb 24 12:41	24°✕30'29	18°51'31	asc. node	4626 Feb 12 00:10	11°✕24'16	
asc. node	4625 Feb 25 03:09	25°✕06'08		retrograde	4626 Feb 15 03:48	12°✕17'00	
retrograde	4625 Mar 03 06:28	28°✕16'46		evening set	4626 Feb 18 16:52	11°✕03'26	

inferior conj	4626 Feb 24 04:47	5° K 03'57	3°13'53		4627 Jan 05 15:23	0° \approx	
minimum elong	4626 Feb 24 02:48	5° K 10'32	3°13'33	greatest brilliancy	4627 Jan 16 04:36	14° \approx 52'21	-0.5m
min. Earth dist.	4626 Feb 25 07:29	3° K 35'46	0.66808 AU	evening max el	4627 Jan 21 20:54	21° \approx 35'32	20°41'25
	4626 Feb 28 06:44	30° R \approx		asc. node	4627 Jan 29 21:12	26° \approx 26'08	
morning rise	4626 Mar 01 12:02	28° \approx 47'51		retrograde	4627 Jan 30 02:05	26° \approx 26'22	
direct	4626 Mar 07 13:17	26° \approx 06'54		evening set	4627 Feb 03 00:08	24° \approx 58'18	
	4626 Mar 16 01:26	0° K		inferior conj	4627 Feb 08 09:52	18° \approx 46'14	2°46'33
morning max el	4626 Mar 19 18:21	3° K 23'56	25°35'13	minimum elong	4627 Feb 08 07:27	18° \approx 54'31	2°45'56
desc. node	4626 Mar 20 15:57	4° K 19'35		min. Earth dist.	4627 Feb 08 23:11	18° \approx 00'31	0.67611 AU
	4626 Apr 09 00:44	0° Y		morning rise	4627 Feb 13 14:19	12° \approx 30'25	
morning set	4626 Apr 24 22:27	26° Y 34'38		direct	4627 Feb 19 01:31	10° \approx 06'00	
	4626 Apr 26 19:07	0° B		morning max el	4627 Mar 02 03:04	16° \approx 42'23	24°09'29
max. Earth dist.	4626 Apr 28 17:24	3° B 37'12	1.36016 AU	desc. node	4627 Mar 07 13:00	22° \approx 46'45	
					4627 Mar 13 03:39	0° K	
superior conj	4626 May 04 12:12	14° B 54'03	-1°-2'-46		4627 Apr 02 00:58	0° Y	
minimum elong	4626 May 04 15:37	15° B 11'12	1°02'10	morning set	4627 Apr 06 19:36	8° Y 04'54	
asc. node	4626 May 10 23:27	28° B 03'37		max. Earth dist.	4627 Apr 10 13:57	14° Y 42'44	1.38060 AU
	4626 May 11 22:13	0° II					
evening rise	4626 May 12 14:37	1° II 23'27		superior conj	4627 Apr 17 16:26	27° Y 52'34	-1°-30'-32
evening max el	4626 May 30 05:55	0° B 05'50	19°58'30	minimum elong	4627 Apr 17 21:07	28° Y 14'56	1°29'55
	4626 May 30 03:32	0° B			4627 Apr 18 18:59	0° B	
retrograde	4626 Jun 09 12:58	5° B 07'30		evening rise	4627 Apr 26 14:03	15° B 17'49	
evening set	4626 Jun 11 11:27	4° B 57'36		asc. node	4627 Apr 27 20:29	17° B 47'15	
desc. node	4626 Jun 16 15:08	3° B 08'03			4627 May 04 09:42	0° II	
inferior conj	4626 Jun 20 10:56	0° B 57'18	-1°-8'-23	evening max el	4627 May 13 01:38	11° II 59'27	19°01'30
minimum elong	4626 Jun 20 07:45	1° B 02'07	1°07'12	retrograde	4627 May 21 17:40	16° II 13'38	
	4626 Jun 22 00:49	30° R II		evening set	4627 May 23 18:27	16° II 00'35	
min. Earth dist.	4626 Jun 22 09:27	29° II 47'05	0.55256 AU	inferior conj	4627 Jun 01 00:00	11° II 46'09	0°43'41
morning rise	4626 Jun 29 01:25	26° II 36'20		minimum elong	4627 Jun 01 01:42	11° II 43'10	0°43'04
direct	4626 Jul 03 07:37	25° II 56'45		desc. node	4627 Jun 03 12:11	10° II 01'30	
	4626 Jul 13 20:32	0° B		min. Earth dist.	4627 Jun 04 01:00	9° II 39'52	0.56581 AU
morning max el	4626 Jul 17 01:46	2° B 43'29	24°10'15	morning rise	4627 Jun 09 04:33	6° II 49'14	
	4626 Aug 04 22:26	0° Q		direct	4627 Jun 14 09:17	5° II 45'24	
asc. node	4626 Aug 06 22:43	3° Q 55'30		morning max el	4627 Jun 28 16:08	13° II 07'32	25°47'41
morning set	4626 Aug 10 19:18	11° Q 51'52			4627 Jul 11 21:31	0° B	
				asc. node	4627 Jul 24 19:45	23° B 40'19	
superior conj	4626 Aug 17 19:25	27° Q 00'29	1°32'05	morning set	4627 Jul 26 06:42	26° B 43'23	
minimum elong	4626 Aug 17 17:27	26° Q 49'49	1°31'54		4627 Jul 27 19:32	0° Q	
	4626 Aug 19 04:37	0° M					
max. Earth dist.	4626 Aug 19 19:37	1° M 20'37	1.33043 AU	superior conj	4627 Aug 02 06:13	11° Q 54'44	1°18'05
evening rise	4626 Aug 25 05:22	12° M 38'17		minimum elong	4627 Aug 02 03:54	11° Q 42'02	1°17'45
	4626 Sep 03 09:54	0° A		max. Earth dist.	4627 Aug 03 03:25	13° Q 51'15	1.32302 AU
desc. node	4626 Sep 12 14:26	14° A 51'34		evening rise	4627 Aug 09 07:32	27° Q 05'57	
	4626 Sep 24 06:25	0° M			4627 Aug 10 17:22	0° M	
evening max el	4626 Sep 27 16:43	3° M 30'38	27°26'34		4627 Aug 27 19:03	0° A	
retrograde	4626 Oct 11 07:56	10° M 47'47		desc. node	4627 Aug 30 11:28	3° A 49'12	
evening set	4626 Oct 18 11:06	8° M 11'25		evening max el	4627 Sep 10 00:20	16° A 10'06	27°15'39
min. Earth dist.	4626 Oct 22 03:47	4° M 57'59	0.63647 AU	retrograde	4627 Sep 23 20:31	23° A 24'01	
inferior conj	4626 Oct 24 18:04	2° M 19'56	-2°-56'-48	evening set	4627 Oct 01 00:01	21° A 02'51	
minimum elong	4626 Oct 24 23:06	2° M 07'09	2°55'03	min. Earth dist.	4627 Oct 04 14:50	18° A 15'33	0.61773 AU
	4626 Oct 27 03:26	30° R A		inferior conj	4627 Oct 07 15:37	15° A 31'37	-3°-56'-15
morning rise	4626 Oct 31 13:38	27° A 00'29		minimum elong	4627 Oct 07 21:44	15° A 17'49	3°54'34
direct	4626 Nov 02 23:20	26° A 32'17		morning rise	4627 Oct 14 22:34	10° A 31'51	
asc. node	4626 Nov 02 21:57	26° A 32'18		direct	4627 Oct 17 05:31	10° A 09'29	
morning max el	4626 Nov 09 12:53	29° A 57'16	17°51'00	asc. node	4627 Oct 20 19:01	11° A 05'36	
	4626 Nov 09 13:59	0° M		morning max el	4627 Oct 24 04:24	13° A 39'58	17°53'47
morning set	4626 Nov 26 01:27	25° M 17'29			4627 Nov 04 07:06	0° M	
	4626 Nov 28 18:58	0° A		morning set	4627 Nov 08 23:10	8° M 23'53	
superior conj	4626 Dec 08 12:50	16° A 23'40	0°07'16	superior conj	4627 Nov 19 16:16	27° M 28'34	0°46'35
minimum elong	4626 Dec 08 13:37	16° A 26'52	0°07'09	minimum elong	4627 Nov 19 19:58	27° M 44'31	0°46'06
behind sun begin	4626 Dec 08 04:51	15° A 50'49			4627 Nov 21 03:34	0° A	
behind sun end	4626 Dec 08 22:24	17° A 02'51		desc. node	4627 Nov 26 10:46	8° A 52'50	
desc. node	4626 Dec 09 13:46	18° A 05'41		max. Earth dist.	4627 Nov 27 01:24	9° A 52'53	1.42862 AU
max. Earth dist.	4626 Dec 14 11:39	26° A 01'12	1.44313 AU	evening rise	4627 Dec 03 21:28	20° A 50'05	
	4626 Dec 16 23:51	0° B			4627 Dec 09 19:59	0° B	
evening rise	4626 Dec 24 07:01	11° B 22'03		greatest brilliancy	4627 Dec 30 23:03	29° B 47'36	-0.3m

	4627 Dec 31 03:06	0°♊				4628 Nov 12 13:01	0°♊	
evening max el	4628 Jan 04 16:56	5°♊10'00	21°54'35		evening rise	4628 Nov 13 05:40	1°♊08'14	
retrograde	4628 Jan 13 23:18	10°♊40'38				4628 Dec 02 06:36	0°♊	
asc. node	4628 Jan 16 18:16	9°♊58'59			evening max el	4628 Dec 17 08:38	18°♊47'20	23°13'49
evening set	4628 Jan 18 07:59	8°♊57'10			retrograde	4628 Dec 27 17:49	24°♊56'09	
inferior conj	4628 Jan 23 17:20	2°♊35'57	2°10'28		evening set	4629 Jan 01 14:48	22°♊56'43	
minimum elong	4628 Jan 23 14:59	2°♊44'08	2°09'41		asc. node	4629 Jan 02 15:20	22°♊00'32	
min. Earth dist.	4628 Jan 23 18:40	2°♊31'20	0.68008 AU		min. Earth dist.	4629 Jan 06 15:27	17°♊03'59	0.68033 AU
	4628 Jan 25 15:07	30°♊♊			inferior conj	4629 Jan 07 01:16	16°♊30'10	1°26'51
morning rise	4628 Jan 28 21:44	26°♊22'15			minimum elong	4629 Jan 06 23:26	16°♊36'29	1°26'10
direct	4628 Feb 02 18:10	24°♊19'09			morning rise	4629 Jan 12 08:07	10°♊20'33	
	4628 Feb 12 10:33	0°♊			direct	4629 Jan 16 14:09	8°♊40'19	
morning max el	4628 Feb 12 13:08	0°♊06'28	22°40'20		morning max el	4629 Jan 25 04:12	13°♊39'12	21°16'21
greatest brilliancy	4628 Feb 17 03:33	5°♊14'13	-0.3m		greatest brilliancy	4629 Jan 30 08:00	19°♊32'16	-0.4m
desc. node	4628 Feb 22 10:03	11°♊58'27				4629 Feb 07 02:28	0°♊	
	4628 Mar 05 23:45	0°♊			desc. node	4629 Feb 08 07:04	1°♊41'53	
morning set	4628 Mar 17 14:24	18°♊18'12			morning set	4629 Feb 25 04:38	27°♊11'09	
max. Earth dist.	4628 Mar 22 09:35	26°♊20'18	1.40249 AU			4629 Feb 26 23:18	0°♊	
	4628 Mar 24 12:40	0°♊			max. Earth dist.	4629 Mar 04 11:07	8°♊52'17	1.42305 AU
superior conj	4628 Mar 30 04:34	10°♊02'55	-1°-53'-23		superior conj	4629 Mar 11 19:29	21°♊12'30	-2°-6'-51
minimum elong	4628 Mar 30 09:13	10°♊24'02	1°53'02		minimum elong	4629 Mar 11 21:33	21°♊21'26	2°06'50
evening rise	4628 Apr 09 03:54	28°♊40'30				4629 Mar 16 20:23	0°♊	
	4628 Apr 09 20:42	0°♊			evening rise	4629 Mar 23 04:14	11°♊21'35	
asc. node	4628 Apr 13 17:32	7°♊13'39			asc. node	4629 Mar 31 14:36	26°♊15'55	
evening max el	4628 Apr 25 06:34	24°♊29'53	18°24'48			4629 Apr 02 22:28	0°♊	
retrograde	4628 May 02 17:02	28°♊10'57			evening max el	4629 Apr 08 17:03	7°♊26'38	18°07'57
evening set	4628 May 05 00:12	27°♊50'48			retrograde	4629 Apr 15 09:52	10°♊51'08	
inferior conj	4628 May 12 10:27	23°♊16'26	2°08'26		evening set	4629 Apr 17 23:30	10°♊21'24	
minimum elong	4628 May 12 14:00	23°♊09'10	2°07'25		inferior conj	4629 Apr 24 17:10	5°♊25'42	3°01'48
min. Earth dist.	4628 May 15 20:59	20°♊29'44	0.58517 AU		minimum elong	4629 Apr 24 20:06	5°♊18'46	3°01'14
morning rise	4628 May 19 23:26	17°♊47'12			min. Earth dist.	4629 Apr 27 23:16	2°♊22'33	0.60709 AU
desc. node	4628 May 20 09:14	17°♊34'46				4629 Apr 30 21:51	30°♊♊	
direct	4628 May 26 01:28	16°♊10'04			morning rise	4629 May 01 13:22	29°♊33'51	
morning max el	4628 Jun 09 10:52	23°♊54'00	27°03'07		desc. node	4629 May 07 06:17	27°♊25'57	
	4628 Jun 14 23:17	0°♊			direct	4629 May 08 05:21	27°♊23'17	
	4628 Jul 03 23:29	0°♊				4629 May 16 00:39	0°♊	
morning set	4628 Jul 09 16:08	11°♊27'32			morning max el	4629 May 22 11:51	5°♊18'35	27°45'17
asc. node	4628 Jul 10 16:49	13°♊37'52				4629 Jun 09 22:01	0°♊	
superior conj	4628 Jul 16 18:05	26°♊49'38	0°59'38		morning set	4629 Jun 23 21:47	25°♊57'38	
minimum elong	4628 Jul 16 15:54	26°♊37'35	0°59'14			4629 Jun 25 20:09	0°♊	
max. Earth dist.	4628 Jul 16 14:36	26°♊30'24	1.31982 AU		asc. node	4629 Jun 27 13:51	3°♊42'29	
	4628 Jul 18 04:33	0°♊			max. Earth dist.	4629 Jun 30 01:21	9°♊05'42	1.32076 AU
evening rise	4628 Jul 23 15:05	11°♊47'50			superior conj	4629 Jul 01 05:11	11°♊38'21	0°37'18
	4628 Aug 01 21:43	0°♊			minimum elong	4629 Jul 01 03:36	11°♊29'38	0°36'57
desc. node	4628 Aug 16 08:29	21°♊51'48			evening rise	4629 Jul 08 01:44	26°♊35'49	
evening max el	4628 Aug 22 01:58	28°♊05'24	26°31'16			4629 Jul 09 16:30	0°♊	
	4628 Aug 24 05:28	0°♊				4629 Jul 26 22:09	0°♊	
retrograde	4628 Sep 05 00:51	5°♊14'48			desc. node	4629 Aug 03 05:30	8°♊36'39	
evening set	4628 Sep 11 18:17	3°♊21'39			evening max el	4629 Aug 03 20:04	9°♊12'02	25°16'51
min. Earth dist.	4628 Sep 15 15:37	0°♊46'49	0.59724 AU		retrograde	4629 Aug 17 18:49	16°♊16'00	
	4628 Sep 16 15:54	30°♊♊			evening set	4629 Aug 23 13:11	14°♊59'37	
inferior conj	4628 Sep 18 21:42	28°♊13'09	-4°-45'-32		min. Earth dist.	4629 Aug 28 07:48	12°♊19'16	0.57703 AU
minimum elong	4628 Sep 19 03:06	28°♊02'29	4°44'36		inferior conj	4629 Aug 31 08:57	10°♊14'32	-5°-12'-59
morning rise	4628 Sep 26 15:21	23°♊35'36			minimum elong	4629 Aug 31 10:37	10°♊11'40	5°12'56
direct	4628 Sep 28 23:03	23°♊16'09			morning rise	4629 Sep 08 11:30	6°♊00'10	
morning max el	4628 Oct 06 15:16	27°♊00'51	18°16'02		direct	4629 Sep 10 23:45	5°♊41'17	
asc. node	4628 Oct 06 16:04	27°♊02'48			morning max el	4629 Sep 19 18:07	9°♊50'13	18°59'21
	4628 Oct 09 07:33	0°♊			asc. node	4629 Sep 23 13:06	14°♊08'53	
morning set	4628 Oct 22 11:10	22°♊10'47				4629 Oct 03 01:43	0°♊	
	4628 Oct 26 14:10	0°♊			morning set	4629 Oct 06 09:07	6°♊26'08	
superior conj	4628 Oct 31 20:03	9°♊44'01	1°15'21		superior conj	4629 Oct 14 18:56	22°♊55'39	1°33'32
minimum elong	4628 Oct 31 23:55	10°♊01'37	1°14'55		minimum elong	4629 Oct 14 21:34	23°♊08'13	1°33'20
max. Earth dist.	4628 Nov 08 10:11	23°♊06'31	1.40977 AU			4629 Oct 18 13:00	0°♊	
desc. node	4628 Nov 12 07:47	29°♊38'30			max. Earth dist.	4629 Oct 21 15:31	5°♊39'25	1.38886 AU

evening rise	4629 Oct 25 12:55	12° \mathbb{M} 29'31		minimum elong	4630 Sep 28 08:46	6° \mathbb{L} 53'24	1°42'22
desc. node	4629 Oct 30 04:48	20° \mathbb{M} 19'10		max. Earth dist.	4630 Oct 03 21:14	17° \mathbb{L} 40'34	1.36840 AU
	4629 Nov 05 06:59	0° \mathbb{J}		evening rise	4630 Oct 07 17:51	24° \mathbb{L} 50'18	
	4629 Nov 27 12:38	0° \mathbb{Z}			4630 Oct 10 15:22	0° \mathbb{M}	
evening max el	4629 Nov 29 21:51	2° \mathbb{Z} 28'42	24°32'56	desc. node	4630 Oct 17 01:48	10° \mathbb{M} 50'07	
retrograde	4629 Dec 11 08:30	9° \mathbb{Z} 09'33			4630 Oct 29 21:32	0° \mathbb{J}	
evening set	4629 Dec 16 19:02	6° \mathbb{Z} 54'26		evening max el	4630 Nov 12 10:14	16° \mathbb{J} 11'39	25°44'58
asc. node	4629 Dec 20 12:21	2° \mathbb{Z} 50'37		retrograde	4630 Nov 24 18:36	23° \mathbb{J} 15'16	
min. Earth dist.	4629 Dec 21 11:12	1° \mathbb{Z} 35'51	0.67700 AU	evening set	4630 Nov 30 18:59	20° \mathbb{J} 46'33	
inferior conj	4629 Dec 22 07:55	0° \mathbb{Z} 26'48	0°36'47	min. Earth dist.	4630 Dec 05 03:37	16° \mathbb{J} 03'10	0.67015 AU
minimum elong	4629 Dec 22 07:02	0° \mathbb{Z} 29'45	0°36'26	inferior conj	4630 Dec 06 11:24	14° \mathbb{J} 22'25	0°-18'-46
	4629 Dec 22 15:58	30° \mathbb{R} \mathbb{J}		minimum elong	4630 Dec 06 11:53	14° \mathbb{J} 20'52	0°18'33
morning rise	4629 Dec 27 19:27	24° \mathbb{J} 23'25		asc. node	4630 Dec 07 09:22	13° \mathbb{J} 13'22	
direct	4629 Dec 31 12:14	23° \mathbb{J} 05'01		morning rise	4630 Dec 12 05:45	8° \mathbb{J} 27'37	
morning max el	4630 Jan 08 02:57	27° \mathbb{J} 24'07	20°03'34	direct	4630 Dec 15 10:55	7° \mathbb{J} 28'15	
	4630 Jan 10 12:25	0° \mathbb{Z}		morning max el	4630 Dec 22 09:31	11° \mathbb{J} 19'15	19°05'14
greatest brilliancy	4630 Jan 15 01:10	5° \mathbb{Z} 44'07	-0.6m		4631 Jan 05 03:42	0° \mathbb{Z}	
desc. node	4630 Jan 26 04:05	21° \mathbb{Z} 48'36		desc. node	4631 Jan 13 01:04	12° \mathbb{Z} 11'45	
	4630 Jan 31 13:42	0° \approx		morning set	4631 Jan 14 05:14	14° \mathbb{Z} 01'19	
morning set	4630 Feb 04 01:28	5° \approx 21'41			4631 Jan 24 11:00	0° \approx	
max. Earth dist.	4630 Feb 14 20:43	22° \approx 18'26	1.43950 AU	max. Earth dist.	4631 Jan 28 12:17	6° \approx 21'39	1.44984 AU
	4630 Feb 19 15:08	0° \mathbb{X}					
superior conj	4630 Feb 20 09:05	1° \mathbb{X} 13'17	-2°-5'-24	superior conj	4631 Jan 30 22:43	10° \approx 12'09	-1°-44'-40
minimum elong	4630 Feb 20 05:33	0° \mathbb{X} 58'52	2°05'18	minimum elong	4631 Jan 30 13:56	9° \approx 37'24	1°43'56
evening rise	4630 Mar 05 10:39	23° \mathbb{X} 12'43			4631 Feb 12 06:45	0° \mathbb{X}	
	4630 Mar 09 09:16	0° \mathbb{Y}		evening rise	4631 Feb 14 19:08	4° \mathbb{X} 06'51	
asc. node	4630 Mar 18 11:38	14° \mathbb{Y} 46'34			4631 Mar 03 06:38	0° \mathbb{Y}	
evening max el	4630 Mar 23 05:46	20° \mathbb{Y} 41'00	18°10'22	asc. node	4631 Mar 05 08:40	2° \mathbb{Y} 35'26	
retrograde	4630 Mar 29 15:57	24° \mathbb{Y} 04'13		evening max el	4631 Mar 06 17:52	4° \mathbb{Y} 05'28	18°31'24
evening set	4630 Apr 01 11:29	23° \mathbb{Y} 23'30		retrograde	4631 Mar 13 06:41	7° \mathbb{Y} 40'23	
inferior conj	4630 Apr 07 16:31	18° \mathbb{Y} 07'28	3°28'25	evening set	4631 Mar 16 08:16	6° \mathbb{Y} 47'46	
minimum elong	4630 Apr 07 17:50	18° \mathbb{Y} 03'55	3°28'19	inferior conj	4631 Mar 22 04:19	1° \mathbb{Y} 13'18	3°34'30
min. Earth dist.	4630 Apr 10 10:15	15° \mathbb{Y} 11'56	0.62835 AU	minimum elong	4631 Mar 22 04:02	1° \mathbb{Y} 14'11	3°34'30
morning rise	4630 Apr 13 21:55	12° \mathbb{Y} 01'59			4631 Mar 23 04:54	30° \mathbb{R} \mathbb{X}	
direct	4630 Apr 20 18:33	9° \mathbb{Y} 26'19		min. Earth dist.	4631 Mar 24 06:49	28° \mathbb{X} 43'43	0.64683 AU
desc. node	4630 Apr 24 03:19	9° \mathbb{Y} 59'51		morning rise	4631 Mar 27 22:19	25° \mathbb{X} 00'38	
morning max el	4630 May 04 18:29	17° \mathbb{Y} 25'32	27°49'45	direct	4631 Apr 03 15:41	22° \mathbb{X} 12'38	
	4630 May 15 05:42	0° \mathbb{B}		desc. node	4631 Apr 11 00:19	24° \mathbb{X} 52'39	
	4630 Jun 02 16:34	0° \mathbb{I}		morning max el	4631 Apr 17 04:10	0° \mathbb{Y} 06'46	27°18'46
morning set	4630 Jun 07 21:30	10° \mathbb{I} 07'25			4631 Apr 17 01:29	0° \mathbb{Y}	
max. Earth dist.	4630 Jun 13 07:51	21° \mathbb{I} 25'08	1.32594 AU	morning set	4631 May 09 05:09	0° \mathbb{B}	
asc. node	4630 Jun 14 10:53	23° \mathbb{I} 50'06			4631 May 22 12:35	23° \mathbb{B} 48'39	
				max. Earth dist.	4631 May 25 15:23	0° \mathbb{I}	
superior conj	4630 Jun 15 13:47	26° \mathbb{I} 15'25	0°11'42		4631 May 27 06:02	3° \mathbb{I} 17'06	1.33553 AU
minimum elong	4630 Jun 15 13:13	26° \mathbb{I} 12'23	0°11'33	superior conj	4631 May 30 17:55	10° \mathbb{I} 34'55	0°-16'-24
behind sun begin	4630 Jun 15 09:36	25° \mathbb{I} 52'44		minimum elong	4631 May 30 18:45	10° \mathbb{I} 39'24	0°16'15
behind sun end	4630 Jun 15 16:51	26° \mathbb{I} 32'04		asc. node	4631 Jun 01 07:55	13° \mathbb{I} 56'47	
	4630 Jun 17 07:07	0° \mathbb{E}		evening rise	4631 Jun 07 00:41	26° \mathbb{I} 05'13	
evening rise	4630 Jun 22 13:34	11° \mathbb{E} 23'39			4631 Jun 08 21:47	0° \mathbb{E}	
	4630 Jul 02 01:07	0° \mathbb{Q}			4631 Jun 27 21:25	0° \mathbb{Q}	
evening max el	4630 Jul 16 08:55	19° \mathbb{Q} 41'54	23°43'19	evening max el	4631 Jun 27 23:58	0° \mathbb{Q} 06'15	22°06'43
desc. node	4630 Jul 21 02:32	23° \mathbb{Q} 33'44		desc. node	4631 Jul 07 23:33	6° \mathbb{Q} 08'57	
retrograde	4630 Jul 30 00:48	26° \mathbb{Q} 33'35		retrograde	4631 Jul 10 19:23	6° \mathbb{Q} 27'32	
evening set	4630 Aug 03 08:38	25° \mathbb{Q} 52'28		evening set	4631 Jul 13 16:35	6° \mathbb{Q} 09'02	
min. Earth dist.	4630 Aug 09 18:56	22° \mathbb{Q} 49'00	0.56013 AU	min. Earth dist.	4631 Jul 22 05:17	2° \mathbb{Q} 28'30	0.54987 AU
inferior conj	4630 Aug 11 23:54	21° \mathbb{Q} 29'21	-5°-2'-45	inferior conj	4631 Jul 22 22:33	2° \mathbb{Q} 04'13	-4°-2'-14
minimum elong	4630 Aug 11 19:21	21° \mathbb{Q} 36'14	5°02'18	minimum elong	4631 Jul 22 13:55	2° \mathbb{Q} 16'21	4°00'05
morning rise	4630 Aug 20 09:20	17° \mathbb{Q} 34'02			4631 Jul 26 19:13	30° \mathbb{R} \mathbb{E}	
direct	4630 Aug 23 04:54	17° \mathbb{Q} 14'09		morning rise	4631 Jul 31 13:06	28° \mathbb{E} 14'13	
morning max el	4630 Sep 02 10:07	21° \mathbb{Q} 59'01	20°04'34	direct	4631 Aug 03 18:04	27° \mathbb{E} 51'21	
	4630 Sep 09 00:30	0° \mathbb{P}			4631 Aug 11 02:52	0° \mathbb{Q}	
asc. node	4630 Sep 10 10:07	2° \mathbb{P} 08'57		morning max el	4631 Aug 15 14:15	3° \mathbb{Q} 23'14	21°30'09
morning set	4630 Sep 20 13:43	21° \mathbb{P} 00'21		asc. node	4631 Aug 28 07:08	20° \mathbb{Q} 50'38	
	4630 Sep 24 23:13	0° \mathbb{L}			4631 Sep 02 02:43	0° \mathbb{P}	
superior conj	4630 Sep 28 07:46	6° \mathbb{L} 48'23	1°42'24	morning set	4631 Sep 04 22:36	5° \mathbb{P} 46'55	

superior conj	4631 Sep 12 06:26	21° $\mathring{\text{M}}$ 10'19	1°43'26	superior conj	4632 Aug 26 11:41	5° $\mathring{\text{M}}$ 50'35	1°37'53
minimum elong	4631 Sep 12 05:58	21° $\mathring{\text{M}}$ 07'53	1°43'25	minimum elong	4632 Aug 26 10:08	5° $\mathring{\text{M}}$ 42'16	1°37'46
max. Earth dist.	4631 Sep 16 08:36	29° $\mathring{\text{M}}$ 32'46	1.35060 AU	max. Earth dist.	4632 Aug 29 04:45	11° $\mathring{\text{M}}$ 36'14	1.33663 AU
	4631 Sep 16 14:02	0° $\mathring{\text{A}}$		evening rise	4632 Sep 03 04:48	21° $\mathring{\text{M}}$ 50'09	
evening rise	4631 Sep 20 16:36	8° $\mathring{\text{A}}$ 01'19			4632 Sep 07 10:35	0° $\mathring{\text{A}}$	
	4631 Oct 03 06:12	0° $\mathring{\text{M}}$		desc. node	4632 Sep 19 19:53	20° $\mathring{\text{A}}$ 59'38	
desc. node	4631 Oct 03 22:50	1° $\mathring{\text{M}}$ 06'11			4632 Sep 26 01:48	0° $\mathring{\text{M}}$	
evening max el	4631 Oct 25 22:47	29° $\mathring{\text{M}}$ 51'24	26°42'33	evening max el	4632 Oct 07 11:10	13° $\mathring{\text{M}}$ 18'16	27°18'26
	4631 Oct 26 02:23	0° $\mathring{\text{A}}$		retrograde	4632 Oct 20 22:41	20° $\mathring{\text{M}}$ 36'34	
retrograde	4631 Nov 07 23:33	7° $\mathring{\text{A}}$ 07'11		evening set	4632 Oct 27 21:56	17° $\mathring{\text{M}}$ 57'12	
evening set	4631 Nov 14 12:46	4° $\mathring{\text{A}}$ 29'25		min. Earth dist.	4632 Oct 31 17:32	14° $\mathring{\text{M}}$ 24'41	0.64592 AU
min. Earth dist.	4631 Nov 18 14:29	0° $\mathring{\text{A}}$ 21'51	0.65979 AU	inferior conj	4632 Nov 03 00:51	11° $\mathring{\text{M}}$ 55'22	-2°-20'-53
	4631 Nov 18 21:58	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$		minimum elong	4632 Nov 03 04:53	11° $\mathring{\text{M}}$ 44'26	2°19'21
inferior conj	4631 Nov 20 09:49	28° $\mathring{\text{M}}$ 13'49	-1°-18'-34	morning rise	4632 Nov 09 14:02	6° $\mathring{\text{M}}$ 25'53	
minimum elong	4631 Nov 20 12:01	28° $\mathring{\text{M}}$ 07'20	1°17'39	asc. node	4632 Nov 10 03:24	6° $\mathring{\text{M}}$ 13'02	
asc. node	4631 Nov 24 06:22	24° $\mathring{\text{M}}$ 06'14		direct	4632 Nov 12 02:34	5° $\mathring{\text{M}}$ 52'55	
morning rise	4631 Nov 26 12:49	22° $\mathring{\text{M}}$ 30'08		morning max el	4632 Nov 18 14:14	9° $\mathring{\text{M}}$ 18'58	17°57'34
direct	4631 Nov 29 08:26	21° $\mathring{\text{M}}$ 45'59			4632 Dec 02 15:47	0° $\mathring{\text{A}}$	
morning max el	4631 Dec 05 22:09	25° $\mathring{\text{M}}$ 19'51	18°22'56	morning set	4632 Dec 05 22:22	5° $\mathring{\text{A}}$ 30'16	
	4631 Dec 09 21:12	0° $\mathring{\text{A}}$		desc. node	4632 Dec 16 19:09	23° $\mathring{\text{A}}$ 29'28	
morning set	4631 Dec 25 11:09	24° $\mathring{\text{A}}$ 02'24					
	4631 Dec 29 04:20	0° $\mathring{\text{C}}$		superior conj	4632 Dec 19 13:35	27° $\mathring{\text{A}}$ 57'27	0°-19'-5
desc. node	4631 Dec 30 22:06	2° $\mathring{\text{C}}$ 46'47		minimum elong	4632 Dec 19 11:17	27° $\mathring{\text{A}}$ 48'14	0°18'46
					4632 Dec 20 20:12	0° $\mathring{\text{C}}$	
superior conj	4632 Jan 10 01:24	18° $\mathring{\text{C}}$ 48'15	-1°-6'-5	max. Earth dist.	4632 Dec 24 01:52	5° $\mathring{\text{C}}$ 08'27	1.44877 AU
minimum elong	4632 Jan 09 17:26	18° $\mathring{\text{C}}$ 16'58	1°05'08	evening rise	4633 Jan 04 19:44	23° $\mathring{\text{C}}$ 25'44	
max. Earth dist.	4632 Jan 11 06:49	20° $\mathring{\text{C}}$ 43'38	1.45302 AU		4633 Jan 09 02:34	0° $\mathring{\text{A}}$	
	4632 Jan 17 04:54	0° $\mathring{\text{A}}$		greatest brilliancy	4633 Jan 24 15:36	22° $\mathring{\text{A}}$ 58'33	-0.6m
evening rise	4632 Jan 26 04:28	14° $\mathring{\text{A}}$ 05'40			4633 Jan 30 05:59	0° $\mathring{\text{H}}$	
	4632 Feb 05 07:58	0° $\mathring{\text{H}}$		evening max el	4633 Jan 31 07:44	1° $\mathring{\text{H}}$ 08'41	20°04'14
greatest brilliancy	4632 Feb 08 09:23	4° $\mathring{\text{H}}$ 40'32	-0.7m	asc. node	4633 Feb 06 02:42	5° $\mathring{\text{H}}$ 18'23	
evening max el	4632 Feb 18 03:03	17° $\mathring{\text{H}}$ 35'30	19°09'57	retrograde	4633 Feb 08 00:20	5° $\mathring{\text{H}}$ 37'48	
asc. node	4632 Feb 20 05:41	19° $\mathring{\text{H}}$ 30'37		evening set	4633 Feb 11 17:00	4° $\mathring{\text{H}}$ 18'19	
retrograde	4632 Feb 25 02:25	21° $\mathring{\text{H}}$ 33'06			4633 Feb 15 19:38	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
evening set	4632 Feb 28 10:52	20° $\mathring{\text{H}}$ 27'36		inferior conj	4633 Feb 17 03:46	28° $\mathring{\text{A}}$ 13'25	3°03'28
inferior conj	4632 Mar 05 01:02	14° $\mathring{\text{H}}$ 36'45	3°25'00	minimum elong	4633 Feb 17 01:32	28° $\mathring{\text{A}}$ 20'55	3°02'59
minimum elong	4632 Mar 04 23:31	14° $\mathring{\text{H}}$ 41'36	3°24'49	min. Earth dist.	4633 Feb 18 00:41	27° $\mathring{\text{A}}$ 03'00	0.67202 AU
min. Earth dist.	4632 Mar 06 12:11	12° $\mathring{\text{H}}$ 44'19	0.66153 AU	morning rise	4633 Feb 22 09:28	21° $\mathring{\text{A}}$ 57'14	
morning rise	4632 Mar 10 11:14	8° $\mathring{\text{H}}$ 21'03		direct	4633 Feb 28 05:04	19° $\mathring{\text{A}}$ 22'11	
direct	4632 Mar 16 19:32	5° $\mathring{\text{H}}$ 33'58		morning max el	4633 Mar 11 22:50	26° $\mathring{\text{A}}$ 23'21	24°59'44
desc. node	4632 Mar 27 21:21	11° $\mathring{\text{H}}$ 30'28		desc. node	4633 Mar 14 18:23	29° $\mathring{\text{A}}$ 24'22	
morning max el	4632 Mar 29 14:03	13° $\mathring{\text{H}}$ 09'23	26°18'56		4633 Mar 15 06:56	0° $\mathring{\text{H}}$	
	4632 Apr 12 04:34	0° $\mathring{\text{Y}}$			4633 Apr 05 18:38	0° $\mathring{\text{Y}}$	
	4632 Apr 30 21:45	0° $\mathring{\text{C}}$		morning set	4633 Apr 17 00:57	18° $\mathring{\text{Y}}$ 57'48	
morning set	4632 May 04 15:19	6° $\mathring{\text{C}}$ 49'51		max. Earth dist.	4633 Apr 20 17:01	25° $\mathring{\text{Y}}$ 37'49	1.36849 AU
max. Earth dist.	4632 May 08 16:49	14° $\mathring{\text{C}}$ 36'17	1.34982 AU		4633 Apr 23 01:02	0° $\mathring{\text{C}}$	
superior conj	4632 May 13 15:12	24° $\mathring{\text{C}}$ 29'22	0°-45'-51	superior conj	4633 Apr 27 02:44	7° $\mathring{\text{C}}$ 51'23	-1°-14'-55
minimum elong	4632 May 13 17:41	24° $\mathring{\text{C}}$ 42'06	0°45'23	minimum elong	4633 Apr 27 06:47	8° $\mathring{\text{C}}$ 11'15	1°14'17
	4632 May 16 07:17	0° $\mathring{\text{II}}$		asc. node	4633 May 05 02:01	23° $\mathring{\text{C}}$ 49'19	
asc. node	4632 May 18 04:57	3° $\mathring{\text{II}}$ 57'49		evening rise	4633 May 05 12:35	24° $\mathring{\text{C}}$ 42'25	
evening rise	4632 May 21 09:06	10° $\mathring{\text{II}}$ 33'30			4633 May 08 04:30	0° $\mathring{\text{II}}$	
	4632 May 31 16:24	0° $\mathring{\text{C}}$		evening max el	4633 May 22 13:54	22° $\mathring{\text{II}}$ 25'51	19°31'50
evening max el	4632 Jun 09 00:43	10° $\mathring{\text{C}}$ 55'48	20°40'27	retrograde	4633 Jun 01 03:15	27° $\mathring{\text{II}}$ 05'23	
retrograde	4632 Jun 20 08:01	16° $\mathring{\text{C}}$ 27'52		evening set	4633 Jun 03 01:59	26° $\mathring{\text{II}}$ 54'38	
evening set	4632 Jun 22 09:40	16° $\mathring{\text{C}}$ 17'30		desc. node	4633 Jun 10 17:36	23° $\mathring{\text{II}}$ 29'05	
desc. node	4632 Jun 23 20:35	15° $\mathring{\text{C}}$ 58'28		inferior conj	4633 Jun 11 18:29	22° $\mathring{\text{II}}$ 49'45	0°-18'-27
inferior conj	4632 Jul 01 15:54	12° $\mathring{\text{C}}$ 20'34	-2°-17'-33	minimum elong	4633 Jun 11 17:40	22° $\mathring{\text{II}}$ 51'03	0°18'10
minimum elong	4632 Jul 01 09:31	12° $\mathring{\text{C}}$ 29'42	2°15'19	min. Earth dist.	4633 Jun 14 06:27	21° $\mathring{\text{II}}$ 14'30	0.55728 AU
min. Earth dist.	4632 Jul 02 16:54	11° $\mathring{\text{C}}$ 44'44	0.54877 AU	morning rise	4633 Jun 20 05:43	18° $\mathring{\text{II}}$ 14'07	
morning rise	4632 Jul 10 08:15	8° $\mathring{\text{C}}$ 15'51		direct	4633 Jun 24 21:31	17° $\mathring{\text{II}}$ 25'24	
direct	4632 Jul 14 03:28	7° $\mathring{\text{C}}$ 44'44		morning max el	4633 Jul 08 22:09	24° $\mathring{\text{II}}$ 28'39	24°53'19
morning max el	4632 Jul 27 08:28	14° $\mathring{\text{C}}$ 06'38	23°10'17		4633 Jul 14 00:01	0° $\mathring{\text{C}}$	
	4632 Aug 08 13:39	0° $\mathring{\text{O}}$		asc. node	4633 Aug 01 01:15	29° $\mathring{\text{C}}$ 37'54	
asc. node	4632 Aug 14 04:11	10° $\mathring{\text{O}}$ 02'57			4633 Aug 01 05:36	0° $\mathring{\text{O}}$	
morning set	4632 Aug 19 09:45	20° $\mathring{\text{O}}$ 39'15		morning set	4633 Aug 03 21:32	5° $\mathring{\text{O}}$ 32'26	
	4632 Aug 23 18:33	0° $\mathring{\text{M}}$					

superior conj	4633 Aug 10 21:03	20° Ω 41'29	1°26'44	morning set	4634 Jul 19 08:20	20° Ω 21'20	
minimum elong	4633 Aug 10 18:52	20° Ω 29'37	1°26'29		4634 Jul 23 19:28	0° Ω	
max. Earth dist.	4633 Aug 12 09:16	23° Ω 58'44	1.32683 AU				
	4633 Aug 15 04:32	0° Π		superior conj	4634 Jul 26 08:30	5° Ω 36'20	1°10'46
evening rise	4633 Aug 18 02:46	6° Π 06'19		minimum elong	4634 Jul 26 06:11	5° Ω 23'35	1°10'24
	4633 Aug 31 00:20	0° Ω		max. Earth dist.	4634 Jul 26 19:07	6° Ω 34'57	1.32116 AU
desc. node	4633 Sep 06 16:54	10° Ω 21'08		evening rise	4634 Aug 02 07:31	20° Ω 40'48	
evening max el	4633 Sep 19 21:29	26° Ω 19'37	27°25'58		4634 Aug 06 21:54	0° Π	
	4633 Sep 24 07:15	0° Π		desc. node	4634 Aug 24 13:55	28° Π 57'44	
retrograde	4633 Oct 03 15:04	3° Π 34'47			4634 Aug 25 09:03	0° Ω	
evening set	4633 Oct 10 19:21	1° Π 03'43		evening max el	4634 Sep 02 02:56	8° Ω 41'48	27°00'50
	4633 Oct 12 05:12	30° Ω		retrograde	4634 Sep 16 00:02	15° Ω 53'08	
min. Earth dist.	4633 Oct 14 10:48	28° Ω 02'22	0.62884 AU	evening set	4634 Sep 23 00:58	13° Ω 42'23	
inferior conj	4633 Oct 17 05:43	25° Ω 20'31	-3°-22'-45	min. Earth dist.	4634 Sep 26 17:12	11° Ω 02'39	0.60916 AU
minimum elong	4633 Oct 17 11:21	25° Ω 06'53	3°20'57	inferior conj	4634 Sep 29 21:11	8° Ω 21'01	-4°-18'-59
morning rise	4633 Oct 24 06:06	20° Ω 08'40		minimum elong	4634 Sep 30 03:17	8° Ω 07'58	4°17'32
direct	4633 Oct 26 14:17	19° Ω 43'16		morning rise	4634 Oct 07 08:50	3° Ω 30'27	
asc. node	4633 Oct 28 00:28	19° Ω 52'54		direct	4634 Oct 09 15:49	3° Ω 09'31	
morning max el	4633 Nov 02 06:49	23° Ω 09'37	17°49'49	asc. node	4634 Oct 14 21:33	5° Ω 03'58	
	4633 Nov 07 16:08	0° Π		morning max el	4634 Oct 16 20:47	6° Ω 44'32	18°00'48
morning set	4633 Nov 18 09:24	18° Π 06'34			4634 Oct 31 17:49	0° Π	
	4633 Nov 25 04:34	0° Ω		morning set	4634 Nov 01 13:52	1° Π 32'43	
superior conj	4633 Nov 30 01:34	8° Ω 17'05	0°25'09	superior conj	4634 Nov 11 16:01	19° Π 54'26	1°00'08
minimum elong	4633 Nov 30 03:59	8° Ω 27'14	0°24'49	minimum elong	4634 Nov 11 20:02	20° Π 12'12	0°59'37
desc. node	4633 Dec 03 16:10	14° Ω 15'53			4634 Nov 17 12:25	0° Ω	
max. Earth dist.	4633 Dec 06 18:45	19° Ω 18'55	1.43767 AU	max. Earth dist.	4634 Nov 19 07:00	2° Ω 58'17	1.42104 AU
	4633 Dec 13 12:40	0° Ω		desc. node	4634 Nov 20 13:11	5° Ω 03'09	
evening rise	4633 Dec 15 05:50	2° Ω 39'44		evening rise	4634 Nov 25 02:42	12° Ω 26'42	
	4634 Jan 02 15:27	0° Ω			4634 Dec 06 13:11	0° Ω	
greatest brilliancy	4634 Jan 09 03:50	8° Ω 46'23	-0.4m	greatest brilliancy	4634 Dec 23 05:20	22° Ω 54'00	-0.3m
evening max el	4634 Jan 14 06:57	14° Ω 42'42	21°11'32	evening max el	4634 Dec 28 00:55	28° Ω 18'16	22°27'47
retrograde	4634 Jan 22 22:15	19° Ω 49'44			4634 Dec 29 19:24	0° Ω	
asc. node	4634 Jan 23 23:45	19° Ω 43'37		retrograde	4635 Jan 06 18:29	4° Ω 05'28	
evening set	4634 Jan 27 00:43	18° Ω 15'06		asc. node	4635 Jan 10 20:48	2° Ω 37'20	
inferior conj	4634 Feb 01 10:05	11° Ω 58'54	2°32'11	evening set	4635 Jan 11 08:20	2° Ω 14'58	
minimum elong	4634 Feb 01 07:39	12° Ω 07'21	2°31'29		4635 Jan 13 14:10	30° Ω	
min. Earth dist.	4634 Feb 01 18:09	11° Ω 31'02	0.67832 AU	inferior conj	4635 Jan 16 17:59	25° Ω 50'52	1°52'47
morning rise	4634 Feb 06 14:14	5° Ω 44'02		minimum elong	4635 Jan 16 15:48	25° Ω 58'28	1°52'01
direct	4634 Feb 11 19:15	3° Ω 28'16		min. Earth dist.	4635 Jan 16 14:24	26° Ω 03'19	0.68069 AU
morning max el	4634 Feb 22 07:36	9° Ω 43'32	23°31'25	morning rise	4635 Jan 21 23:10	19° Ω 38'53	
desc. node	4634 Mar 01 15:25	18° Ω 12'01		direct	4635 Jan 26 13:19	17° Ω 45'44	
	4634 Mar 10 07:30	0° Ω		morning max el	4635 Feb 04 19:31	23° Ω 11'30	22°03'33
morning set	4634 Mar 29 11:27	29° Ω 56'10		greatest brilliancy	4635 Feb 09 10:30	28° Ω 22'11	-0.4m
	4634 Mar 29 12:21	0° Ω			4635 Feb 10 18:08	0° Ω	
max. Earth dist.	4634 Apr 02 12:30	6° Ω 54'12	1.38996 AU	desc. node	4635 Feb 16 12:27	7° Ω 38'23	
					4635 Mar 03 16:32	0° Ω	
superior conj	4634 Apr 10 00:41	20° Ω 30'40	-1°-41'-4	morning set	4635 Mar 09 17:48	9° Ω 33'49	
minimum elong	4634 Apr 10 05:34	20° Ω 53'34	1°40'32	max. Earth dist.	4635 Mar 15 10:30	18° Ω 55'10	1.41162 AU
	4634 Apr 15 00:22	0° Ω			4635 Mar 21 21:30	0° Ω	
evening rise	4634 Apr 19 08:20	8° Ω 24'07		superior conj	4635 Mar 23 04:20	2° Ω 16'00	-2°00'-34
asc. node	4634 Apr 21 23:04	13° Ω 26'08		minimum elong	4635 Mar 23 08:17	2° Ω 33'31	2°00'22
	4634 May 01 16:42	0° Π		evening rise	4635 Apr 02 16:56	21° Ω 30'15	
evening max el	4634 May 05 13:53	4° Π 35'28	18°43'21		4635 Apr 07 07:38	0° Ω	
retrograde	4634 May 13 15:44	8° Π 33'31		asc. node	4635 Apr 08 20:06	2° Ω 42'59	
evening set	4634 May 15 19:13	8° Π 17'44		evening max el	4635 Apr 18 21:29	17° Ω 17'29	18°15'09
inferior conj	4634 May 23 16:20	3° Π 54'48	1°23'34	retrograde	4635 Apr 25 23:12	20° Ω 49'56	
minimum elong	4634 May 23 19:13	3° Π 49'25	1°22'36	evening set	4635 Apr 28 09:03	20° Ω 26'02	
min. Earth dist.	4634 May 26 23:15	1° Π 29'06	0.57355 AU	inferior conj	4635 May 05 11:46	15° Ω 42'18	2°34'44
desc. node	4634 May 28 14:38	0° Π 22'33		minimum elong	4635 May 05 15:16	15° Ω 34'40	2°33'53
	4634 May 29 05:08	30° Ω		min. Earth dist.	4635 May 08 21:38	12° Ω 45'28	0.59437 AU
morning rise	4634 May 31 14:44	28° Ω 43'26		morning rise	4635 May 12 17:28	10° Ω 01'51	
direct	4634 Jun 06 05:08	27° Ω 26'22		desc. node	4635 May 15 11:40	8° Ω 46'08	
	4634 Jun 14 07:44	0° Π		direct	4635 May 19 02:16	8° Ω 10'10	
morning max el	4634 Jun 20 13:48	4° Π 58'19	26°23'25	morning max el	4635 Jun 02 11:21	16° Ω 00'14	27°25'42
	4634 Jul 08 19:47	0° Ω			4635 Jun 13 21:39	0° Π	
asc. node	4634 Jul 18 22:20	19° Ω 28'43					

	4635 Jul 01 05:51	0°☿			4636 Jun 06 14:58	0°♄	
morning set	4635 Jul 03 16:22	5°☿00'08		morning set	4636 Jun 16 19:47	19°♄22'55	
asc. node	4635 Jul 05 19:21	9°☿29'41		asc. node	4636 Jun 21 16:23	29°♄36'24	
					4636 Jun 21 20:45	0°☿	
superior conj	4635 Jul 10 20:13	20°☿28'53	0°50'36	max. Earth dist.	4636 Jun 22 15:54	1°☿43'37	1.32236 AU
minimum elong	4635 Jul 10 18:14	20°☿17'57	0°50'12				
max. Earth dist.	4635 Jul 10 06:37	19°☿13'54	1.31965 AU	superior conj	4636 Jun 24 06:29	5°☿13'46	0°26'48
	4635 Jul 15 04:04	0°♄		minimum elong	4636 Jun 24 05:17	5°☿07'12	0°26'31
evening rise	4635 Jul 17 16:35	5°♄25'34		evening rise	4636 Jul 01 03:57	20°☿14'18	
	4635 Jul 30 15:06	0°♄			4636 Jul 05 21:43	0°♄	
desc. node	4635 Aug 11 10:57	16°♄30'24			4636 Jul 25 14:45	0°♄	
evening max el	4635 Aug 15 01:06	20°♄15'03	26°02'48	evening max el	4636 Jul 26 16:17	1°♄03'15	24°38'34
retrograde	4635 Aug 29 00:23	27°♄23'10		desc. node	4636 Jul 28 07:57	2°♄33'38	
evening set	4635 Sep 04 09:48	25°♄44'38		retrograde	4636 Aug 09 13:50	8°♄04'10	
min. Earth dist.	4635 Sep 08 13:43	23°♄10'07	0.58839 AU	evening set	4636 Aug 14 18:13	7°♄03'48	
inferior conj	4635 Sep 11 19:33	20°♄46'09	-5°00'-44	min. Earth dist.	4636 Aug 20 03:33	4°♄15'16	0.56918 AU
minimum elong	4635 Sep 11 23:47	20°♄38'16	5°00'14	inferior conj	4636 Aug 22 22:06	2°♄27'54	-5°-14'-16
morning rise	4635 Sep 19 17:19	16°♄19'00		minimum elong	4636 Aug 22 21:16	2°♄29'16	5°14'16
direct	4635 Sep 22 02:29	16°♄00'06			4636 Aug 27 00:20	30°♄♄	
morning max el	4635 Sep 30 04:43	19°♄53'32	18°31'54	morning rise	4636 Aug 31 03:48	28°♄22'34	
asc. node	4635 Oct 01 18:35	21°♄32'18		direct	4636 Sep 02 18:38	28°♄03'36	
	4635 Oct 07 18:48	0°♄			4636 Sep 09 00:28	0°♄	
morning set	4635 Oct 16 06:33	15°♄32'53		morning max el	4636 Sep 12 03:17	2°♄26'46	19°24'26
	4635 Oct 23 19:17	0°♄		asc. node	4636 Sep 17 15:36	9°♄02'54	
				morning set	4636 Sep 29 07:39	29°♄56'41	
superior conj	4635 Oct 25 04:39	2°♄36'09	1°24'17		4636 Sep 29 08:18	0°♄	
minimum elong	4635 Oct 25 08:05	2°♄52'10	1°23'56				
max. Earth dist.	4635 Nov 01 13:47	15°♄53'38	1.40093 AU	superior conj	4636 Oct 07 10:01	16°♄06'34	1°38'19
evening rise	4635 Nov 05 20:31	23°♄11'06		minimum elong	4636 Oct 07 11:57	16°♄16'04	1°38'13
desc. node	4635 Nov 07 10:12	25°♄47'13		max. Earth dist.	4636 Oct 13 18:06	28°♄08'18	1.37994 AU
	4635 Nov 10 00:24	0°♄			4636 Oct 14 18:34	0°♄	
	4635 Nov 30 11:43	0°♄		evening rise	4636 Oct 17 13:24	4°♄58'36	
evening max el	4635 Dec 10 15:08	11°♄56'38	23°47'46	desc. node	4636 Oct 24 07:14	16°♄24'09	
retrograde	4635 Dec 21 11:39	18°♄20'44			4636 Nov 02 00:58	0°♄	
evening set	4635 Dec 26 14:16	16°♄14'23		evening max el	4636 Nov 22 03:48	25°♄38'51	25°04'54
asc. node	4635 Dec 28 17:49	14°♄04'50			4636 Nov 27 07:29	0°♄	
min. Earth dist.	4635 Dec 31 11:04	10°♄35'59	0.67935 AU	retrograde	4636 Dec 04 00:35	2°♄31'09	
inferior conj	4636 Jan 01 01:35	9°♄46'31	1°06'21	evening set	4636 Dec 09 16:53	0°♄10'05	
minimum elong	4636 Jan 01 00:06	9°♄51'34	1°05'46		4636 Dec 09 21:35	30°♄♄	
morning rise	4636 Jan 06 10:10	3°♄39'14		min. Earth dist.	4636 Dec 14 05:48	25°♄06'02	0.67449 AU
direct	4636 Jan 10 10:16	2°♄08'44		asc. node	4636 Dec 14 14:50	24°♄36'34	
morning max el	4636 Jan 18 13:47	6°♄49'47	20°43'42	inferior conj	4636 Dec 15 07:07	23°♄43'09	0°13'51
greatest brilliancy	4636 Jan 24 08:49	13°♄33'59	-0.5m	minimum elong	4636 Dec 15 06:47	23°♄44'18	0°13'43
desc. node	4636 Feb 03 09:27	27°♄32'34		transit middle	4636 Dec 15 06:47	23°♄44'18	0°13'43
	4636 Feb 05 01:31	0°♄		transit begin	4636 Dec 15 05:18	23°♄49'07	
morning set	4636 Feb 16 22:18	18°♄01'42		transit end	4636 Dec 15 08:15	23°♄39'28	
	4636 Feb 24 11:51	0°♄		morning rise	4636 Dec 20 21:17	17°♄42'50	
max. Earth dist.	4636 Feb 25 15:06	1°♄49'58	1.43066 AU	direct	4636 Dec 24 08:52	16°♄32'56	
				morning max el	4636 Dec 31 15:54	20°♄39'00	19°36'45
superior conj	4636 Mar 03 08:46	12°♄56'35	-2°-8'-23		4637 Jan 08 06:04	0°♄	
minimum elong	4636 Mar 03 08:46	12°♄56'35	2°08'24	greatest brilliancy	4637 Jan 08 18:26	0°♄43'10	-0.6m
	4636 Mar 13 05:56	0°♄		desc. node	4637 Jan 20 06:28	17°♄46'50	
evening rise	4636 Mar 15 10:12	3°♄51'15		morning set	4637 Jan 25 18:49	26°♄14'58	
asc. node	4636 Mar 25 17:07	21°♄33'02			4637 Jan 28 05:00	0°♄	
	4636 Apr 01 00:14	0°♄		max. Earth dist.	4637 Feb 07 03:02	15°♄32'05	1.44473 AU
evening max el	4636 Apr 01 09:17	0°♄22'54	18°06'41				
retrograde	4636 Apr 07 22:13	3°♄45'19		superior conj	4637 Feb 11 11:30	22°♄28'54	-1°-59'-5
evening set	4636 Apr 10 14:17	3°♄11'12		minimum elong	4637 Feb 11 05:19	22°♄04'04	1°58'45
	4636 Apr 15 03:26	30°♄♄			4637 Feb 16 02:47	0°♄	
inferior conj	4636 Apr 17 02:07	28°♄06'57	3°15'58	evening rise	4637 Feb 25 07:40	15°♄18'11	
minimum elong	4636 Apr 17 04:25	28°♄01'11	3°15'38		4637 Mar 06 02:20	0°♄	
min. Earth dist.	4636 Apr 20 03:43	25°♄03'57	0.61632 AU	asc. node	4637 Mar 12 14:08	9°♄47'12	
morning rise	4636 Apr 23 15:37	22°♄08'03		evening max el	4637 Mar 15 22:08	13°♄42'35	18°17'10
direct	4636 Apr 30 10:39	19°♄45'08		retrograde	4637 Mar 22 08:19	17°♄09'01	
desc. node	4636 May 01 08:41	19°♄47'36		evening set	4637 Mar 25 06:25	16°♄23'21	
morning max el	4636 May 14 15:06	27°♄44'06	27°51'47	inferior conj	4637 Mar 31 07:14	10°♄59'32	3°33'10
	4636 May 16 19:10	0°♄		minimum elong	4637 Mar 31 07:50	10°♄57'51	3°33'08

min. Earth dist.	4637 Apr 02 18:45	8°♄13'03	0.63667 AU	minimum elong	4638 Mar 14 22:23	24°♄16'23	3°32'03
morning rise	4637 Apr 06 07:21	4°♄50'34		min. Earth dist.	4638 Mar 16 19:05	21°♄59'14	0.65367 AU
direct	4637 Apr 13 03:40	2°♄07'39		morning rise	4638 Mar 20 13:33	17°♄59'37	
desc. node	4637 Apr 18 05:42	3°♄24'28		direct	4638 Mar 27 03:43	15°♄10'38	
morning max el	4637 Apr 26 23:07	10°♄06'02	27°40'31	desc. node	4638 Apr 05 02:44	19°♄06'12	
	4637 May 12 13:02	0°♄		morning max el	4638 Apr 09 09:05	22°♄57'34	26°56'16
	4637 May 29 23:13	0°♄			4638 Apr 15 14:41	0°♄	
morning set	4637 May 31 16:09	3°♄21'18			4638 May 05 20:07	0°♄	
max. Earth dist.	4637 Jun 05 19:05	13°♄51'11	1.32945 AU	morning set	4638 May 15 02:28	16°♄46'29	
				max. Earth dist.	4638 May 19 12:45	25°♄29'11	1.34115 AU
					4638 May 21 17:54	0°♄	
superior conj	4637 Jun 08 13:26	19°♄44'07	0°00'01				
minimum elong	4637 Jun 08 13:25	19°♄44'04	0°00'01	superior conj	4638 May 23 14:58	3°♄53'41	0°-28'-49
behind sun begin	4637 Jun 08 08:22	19°♄16'56		minimum elong	4638 May 23 16:30	4°♄01'40	0°28'31
behind sun end	4637 Jun 08 18:29	20°♄11'14		asc. node	4638 May 26 10:27	9°♄48'33	
asc. node	4637 Jun 08 13:24	19°♄43'59		evening rise	4638 May 31 01:55	19°♄36'37	
	4637 Jun 13 07:34	0°♄			4638 Jun 05 05:26	0°♄	
evening rise	4637 Jun 15 15:41	4°♄59'58					
	4637 Jun 29 02:10	0°♄		evening max el	4638 Jun 19 23:40	21°♄58'12	21°28'02
evening max el	4637 Jul 08 05:11	11°♄26'45	23°01'44	retrograde	4638 Jul 02 04:47	27°♄59'42	
desc. node	4637 Jul 15 04:58	16°♄34'14		desc. node	4638 Jul 02 02:00	27°♄59'40	
retrograde	4637 Jul 21 14:22	18°♄07'25		evening set	4638 Jul 04 15:39	27°♄45'57	
evening set	4637 Jul 25 06:21	17°♄38'05		inferior conj	4638 Jul 13 23:46	23°♄46'21	-3°-21'-47
min. Earth dist.	4637 Aug 01 14:08	14°♄20'27	0.55479 AU	minimum elong	4638 Jul 13 15:20	23°♄58'09	3°19'14
inferior conj	4637 Aug 03 05:13	13°♄23'52	-4°-43'-31	min. Earth dist.	4638 Jul 14 00:27	23°♄45'25	0.54827 AU
minimum elong	4637 Aug 02 22:18	13°♄33'55	4°42'20	morning rise	4638 Jul 22 15:46	19°♄52'58	
morning rise	4637 Aug 11 16:58	9°♄32'35		direct	4638 Jul 26 02:19	19°♄27'20	
direct	4637 Aug 14 16:20	9°♄11'38		morning max el	4638 Aug 07 13:21	25°♄20'08	22°11'36
morning max el	4637 Aug 25 14:05	14°♄15'52	20°38'39		4638 Aug 11 21:17	0°♄	
asc. node	4637 Sep 04 12:38	27°♄21'44		asc. node	4638 Aug 22 09:40	16°♄17'20	
	4637 Sep 06 01:22	0°♄		morning set	4638 Aug 29 00:23	29°♄25'54	
morning set	4637 Sep 13 14:19	14°♄36'28			4638 Aug 29 06:54	0°♄	
superior conj	4637 Sep 21 03:26	0°♄12'21	1°43'42	superior conj	4638 Sep 05 05:12	14°♄42'32	1°41'48
minimum elong	4637 Sep 21 03:46	0°♄14'05	1°43'42	minimum elong	4638 Sep 05 04:13	14°♄37'21	1°41'46
	4637 Sep 21 01:00	0°♄		max. Earth dist.	4638 Sep 08 17:00	21°♄58'55	1.34415 AU
max. Earth dist.	4637 Sep 26 01:43	10°♄02'36	1.36044 AU		4638 Sep 12 17:02	0°♄	
evening rise	4637 Sep 30 02:27	17°♄41'57		evening rise	4638 Sep 13 07:22	1°♄09'45	
	4637 Oct 07 00:59	0°♄		desc. node	4638 Sep 28 01:18	26°♄56'36	
desc. node	4637 Oct 11 04:16	6°♄49'23			4638 Sep 30 01:01	0°♄	
	4637 Oct 27 07:59	0°♄		evening max el	4638 Oct 18 05:10	22°♄57'40	27°00'58
evening max el	4637 Nov 04 16:29	9°♄22'11	26°11'49		4638 Oct 29 06:35	0°♄	
retrograde	4637 Nov 17 08:30	16°♄31'40		retrograde	4638 Oct 31 10:48	0°♄14'46	
evening set	4637 Nov 23 14:29	13°♄58'44			4638 Nov 02 13:09	30°♄	
min. Earth dist.	4637 Nov 27 20:13	9°♄30'23	0.66614 AU	evening set	4638 Nov 07 04:54	27°♄35'13	
inferior conj	4637 Nov 29 08:45	7°♄37'45	0°-43'-39	min. Earth dist.	4638 Nov 11 03:54	23°♄43'01	0.65430 AU
minimum elong	4637 Nov 29 09:56	7°♄34'07	0°43'10	inferior conj	4638 Nov 13 04:19	21°♄25'12	-1°-44'-51
asc. node	4637 Dec 01 11:51	5°♄05'33		minimum elong	4638 Nov 13 07:18	21°♄16'42	1°43'39
morning rise	4637 Dec 05 06:31	1°♄47'07		asc. node	4638 Nov 18 08:54	16°♄25'18	
direct	4637 Dec 08 07:27	0°♄54'31		morning rise	4638 Nov 19 11:29	15°♄47'16	
morning max el	4637 Dec 15 01:16	4°♄36'52	18°45'14	direct	4638 Nov 22 03:53	15°♄08'14	
	4638 Jan 01 21:29	0°♄		morning max el	4638 Nov 28 15:44	18°♄37'21	18°10'08
morning set	4638 Jan 05 08:32	5°♄26'46			4638 Dec 07 04:15	0°♄	
desc. node	4638 Jan 07 03:30	8°♄15'48		morning set	4638 Dec 17 03:16	16°♄06'03	
	4638 Jan 20 23:54	0°♄		desc. node	4638 Dec 25 00:32	28°♄54'19	
max. Earth dist.	4638 Jan 20 20:41	29°♄47'20	1.45214 AU		4638 Dec 25 16:54	0°♄	
superior conj	4638 Jan 21 18:20	1°♄12'22	-1°-30'-5	superior conj	4638 Dec 31 22:30	9°♄55'10	0°-46'-28
minimum elong	4638 Jan 21 08:59	0°♄35'39	1°29'10	minimum elong	4638 Dec 31 16:43	9°♄32'17	0°45'42
evening rise	4638 Feb 06 06:16	25°♄48'31		max. Earth dist.	4639 Jan 03 16:22	14°♄14'32	1.45210 AU
	4638 Feb 08 20:46	0°♄			4639 Jan 13 18:30	0°♄	
asc. node	4638 Feb 27 11:10	27°♄15'14		evening rise	4639 Jan 17 06:52	5°♄27'57	
evening max el	4638 Feb 27 09:22	27°♄10'41	18°45'43		4639 Feb 02 08:27	0°♄	
	4638 Mar 02 22:09	0°♄		greatest brilliancy	4639 Feb 02 14:02	0°♄20'08	-0.7m
retrograde	4638 Mar 06 01:33	0°♄53'34		evening max el	4639 Feb 10 16:48	10°♄41'59	19°31'10
evening set	4638 Mar 09 06:03	29°♄55'25		asc. node	4639 Feb 14 08:12	13°♄43'33	
	4638 Mar 09 02:57	30°♄		retrograde	4639 Feb 17 22:39	14°♄52'03	
inferior conj	4638 Mar 14 23:15	24°♄13'42	3°32'07	evening set	4639 Feb 21 10:27	13°♄40'36	

inferior conj	4639 Feb 26 22:53	7° H 43'09	3°17'09		4640 Jan 06 20:37	0° \approx	
minimum elong	4639 Feb 26 21:00	7° H 49'19	3°16'52	greatest brilliancy	4640 Jan 18 21:22	17° \approx 12'06	-0.5m
min. Earth dist.	4639 Feb 28 03:41	6° H 08'39	0.66652 AU	evening max el	4640 Jan 24 19:04	24° \approx 14'43	20°31'27
morning rise	4639 Mar 04 06:47	1° H 27'01		asc. node	4640 Feb 01 05:15	28° \approx 57'39	
	4639 Mar 06 04:40	30° R \approx		retrograde	4640 Feb 01 20:55	28° \approx 59'58	
direct	4639 Mar 10 09:55	28° \approx 44'16		evening set	4640 Feb 05 17:29	27° \approx 34'12	
	4639 Mar 15 01:13	0° H		inferior conj	4640 Feb 11 03:25	21° \approx 23'53	2°51'16
desc. node	4639 Mar 22 23:46	6° H 19'20		minimum elong	4640 Feb 11 01:02	21° \approx 32'01	2°50'42
morning max el	4639 Mar 22 18:46	6° H 06'39	25°47'04	min. Earth dist.	4640 Feb 11 18:42	20° \approx 31'43	0.67514 AU
	4639 Apr 10 05:48	0° Y		morning rise	4640 Feb 16 08:06	15° \approx 07'49	
morning set	4639 Apr 27 22:39	29° Y 26'57		direct	4640 Feb 21 21:29	12° \approx 40'25	
	4639 Apr 28 05:51	0° B		morning max el	4640 Mar 04 03:27	19° \approx 23'52	24°22'42
max. Earth dist.	4639 May 01 19:05	6° B 39'44	1.35734 AU	desc. node	4640 Mar 08 20:48	24° \approx 38'06	
					4640 Mar 13 03:34	0° H	
superior conj	4639 May 07 08:33	17° B 35'19	0°-58'-21		4640 Apr 02 09:14	0° Y	
minimum elong	4639 May 07 11:44	17° B 51'22	0°57'47	morning set	4640 Apr 08 23:17	11° Y 07'42	
asc. node	4639 May 13 07:31	29° B 46'08		max. Earth dist.	4640 Apr 12 16:17	17° Y 42'45	1.37735 AU
	4639 May 13 10:13	0° II			4640 Apr 19 06:27	0° B	
evening rise	4639 May 15 08:36	3° II 57'53					
	4639 May 30 10:46	0° B		superior conj	4640 Apr 19 14:50	0° B 40'17	-1°-26'-33
evening max el	4639 Jun 02 05:36	3° B 03'57	20°08'47	minimum elong	4640 Apr 19 19:23	1° B 02'11	1°25'56
retrograde	4639 Jun 12 19:06	8° B 13'41		evening rise	4640 Apr 28 09:12	17° B 56'15	
evening set	4639 Jun 14 17:52	8° B 03'53		asc. node	4640 Apr 29 04:34	19° B 31'54	
desc. node	4639 Jun 18 23:01	6° B 43'16			4640 May 04 16:17	0° II	
inferior conj	4639 Jun 23 19:27	4° B 04'51	-1°-26'-36	evening max el	4640 May 14 23:43	14° II 51'41	19°08'43
minimum elong	4639 Jun 23 15:24	4° B 10'54	1°25'08	retrograde	4640 May 23 21:02	19° II 11'58	
min. Earth dist.	4639 Jun 25 12:43	3° B 03'31	0.55125 AU	evening set	4640 May 25 21:05	18° II 59'41	
	4639 Jul 01 19:56	30° R II		inferior conj	4640 Jun 03 05:35	14° II 48'07	0°28'07
morning rise	4639 Jul 02 10:40	29° II 48'30		minimum elong	4640 Jun 03 06:44	14° II 46'10	0°27'41
direct	4639 Jul 06 13:42	29° II 11'32		desc. node	4640 Jun 04 20:02	13° II 42'31	
	4639 Jul 11 05:24	0° B		min. Earth dist.	4640 Jun 06 03:50	12° II 49'22	0.56336 AU
morning max el	4639 Jul 20 05:03	5° B 52'15	23°54'47	morning rise	4640 Jun 11 12:04	9° II 56'37	
	4639 Aug 06 07:34	0° Q		direct	4640 Jun 16 13:27	8° II 56'58	
asc. node	4639 Aug 09 06:45	5° Q 40'30		morning max el	4640 Jun 30 19:05	16° II 14'54	25°34'09
morning set	4639 Aug 13 12:04	14° Q 19'52			4640 Jul 11 22:57	0° B	
				asc. node	4640 Jul 26 03:48	25° B 22'50	
superior conj	4639 Aug 20 12:31	29° Q 28'49	1°33'48	morning set	4640 Jul 27 23:37	29° B 11'55	
minimum elong	4639 Aug 20 10:39	29° Q 18'42	1°33'37		4640 Jul 28 08:41	0° Q	
	4639 Aug 20 18:18	0° H					
max. Earth dist.	4639 Aug 22 17:00	4° H 10'58	1.33189 AU	superior conj	4640 Aug 03 23:02	14° Q 22'27	1°20'32
evening rise	4639 Aug 28 00:09	15° H 11'37		minimum elong	4640 Aug 03 20:45	14° Q 09'53	1°20'12
	4639 Sep 04 19:01	0° Q		max. Earth dist.	4640 Aug 05 00:00	16° Q 39'20	1.32387 AU
desc. node	4639 Sep 14 22:20	16° Q 38'08		evening rise	4640 Aug 11 01:21	29° Q 36'38	
	4639 Sep 24 20:53	0° M			4640 Aug 11 05:52	0° H	
evening max el	4639 Sep 30 16:44	6° M 14'40	27°25'21		4640 Aug 27 21:39	0° Q	
retrograde	4639 Oct 14 07:10	13° M 32'31		desc. node	4640 Aug 31 19:21	5° Q 42'24	
evening set	4639 Oct 21 09:32	10° M 54'54		evening max el	4640 Sep 12 01:10	19° Q 00'14	27°19'22
min. Earth dist.	4639 Oct 25 02:51	7° M 36'45	0.63903 AU	retrograde	4640 Sep 25 20:52	26° Q 14'34	
inferior conj	4639 Oct 27 15:23	5° M 00'30	-2°-47'-28	evening set	4640 Oct 03 00:47	23° Q 50'30	
minimum elong	4639 Oct 27 20:10	4° M 48'08	2°45'44	min. Earth dist.	4640 Oct 06 15:35	20° Q 59'48	0.62069 AU
	4639 Nov 02 14:24	30° R Q		inferior conj	4640 Oct 09 14:57	18° Q 15'56	-3°-47'-45
morning rise	4639 Nov 03 09:18	29° Q 38'27		minimum elong	4640 Oct 09 20:59	18° Q 02'03	3°46'00
asc. node	4639 Nov 05 05:57	29° Q 10'48		morning rise	4640 Oct 16 20:12	13° Q 12'52	
direct	4639 Nov 05 19:36	29° Q 09'10		direct	4640 Oct 19 03:19	12° Q 49'51	
	4639 Nov 09 00:12	0° M		asc. node	4640 Oct 22 03:00	13° Q 30'06	
morning max el	4639 Nov 12 08:29	2° M 34'11	17°52'06	morning max el	4640 Oct 26 00:22	16° Q 19'08	17°52'06
morning set	4639 Nov 29 01:21	28° M 04'58			4640 Nov 04 14:50	0° M	
	4639 Nov 30 04:11	0° J		morning set	4640 Nov 10 20:30	11° M 04'05	
superior conj	4639 Dec 11 19:49	19° J 31'43	0°00'31	superior conj	4640 Nov 21 19:16	0° J 24'54	0°41'18
minimum elong	4639 Dec 11 19:52	19° J 31'58	0°00'32	minimum elong	4640 Nov 21 22:44	0° J 39'43	0°40'49
behind sun begin	4639 Dec 11 10:00	18° J 51'41			4640 Nov 21 13:27	0° J	
behind sun end	4639 Dec 12 05:44	20° J 12'10		desc. node	4640 Nov 27 18:37	10° J 26'03	
desc. node	4639 Dec 11 21:35	19° J 38'57		max. Earth dist.	4640 Nov 29 01:05	12° J 30'44	1.43112 AU
max. Earth dist.	4639 Dec 17 10:35	28° J 34'15	1.44478 AU	evening rise	4640 Dec 06 06:44	24° J 03'06	
	4639 Dec 18 08:12	0° B			4640 Dec 10 03:03	0° B	
evening rise	4639 Dec 27 17:55	14° B 39'56			4640 Dec 30 23:58	0° \approx	

greatest brilliancy	4641 Jan 01 20:49	2° \approx 21'43	-0.4m	max. Earth dist.	4641 Nov 11 10:51	25° \approx 51'36	1.41279 AU
evening max el	4641 Jan 06 15:55	7° \approx 49'05	21°43'16		4641 Nov 13 22:10	0° \approx	
retrograde	4641 Jan 15 18:20	13° \approx 13'33		desc. node	4641 Nov 14 15:37	1° \approx 12'07	
asc. node	4641 Jan 18 02:16	12° \approx 44'23		evening rise	4641 Nov 16 11:46	4° \approx 12'34	
evening set	4641 Jan 20 01:20	11° \approx 32'29			4641 Dec 03 10:20	0° \approx	
inferior conj	4641 Jan 25 10:39	5° \approx 12'31	2°16'25	greatest brilliancy	4641 Dec 14 15:23	15° \approx 00'42	-0.2m
minimum elong	4641 Jan 25 08:15	5° \approx 20'49	2°15'40	evening max el	4641 Dec 20 08:09	21° \approx 25'47	23°01'52
min. Earth dist.	4641 Jan 25 13:43	5° \approx 01'50	0.67973 AU	retrograde	4641 Dec 30 13:13	27° \approx 28'57	
	4641 Jan 29 13:07	30° \approx 30		evening set	4642 Jan 04 08:22	25° \approx 31'48	
morning rise	4641 Jan 30 14:53	28° \approx 58'26		asc. node	4642 Jan 04 23:18	24° \approx 58'55	
direct	4641 Feb 04 13:35	26° \approx 51'51		inferior conj	4642 Jan 09 18:35	19° \approx 05'52	1°33'54
	4641 Feb 11 12:07	0° \approx		minimum elong	4642 Jan 09 16:39	19° \approx 12'34	1°33'11
morning max el	4641 Feb 14 12:59	2° \approx 46'30	22°53'28	min. Earth dist.	4642 Jan 09 10:22	19° \approx 34'13	0.68055 AU
greatest brilliancy	4641 Feb 19 05:56	8° \approx 01'32	-0.3m	morning rise	4642 Jan 15 00:55	12° \approx 55'38	
desc. node	4641 Feb 23 17:50	13° \approx 43'46		direct	4642 Jan 19 09:04	11° \approx 12'01	
	4641 Mar 07 05:32	0° \approx		morning max el	4642 Jan 28 03:03	16° \approx 17'24	21°28'16
morning set	4641 Mar 20 22:16	21° \approx 32'48		greatest brilliancy	4642 Feb 02 02:30	21° \approx 56'02	-0.4m
max. Earth dist.	4641 Mar 25 11:31	29° \approx 13'24	1.39925 AU		4642 Feb 08 05:03	0° \approx	
	4641 Mar 25 22:21	0° \approx		desc. node	4642 Feb 10 14:50	3° \approx 22'43	
					4642 Feb 28 07:18	0° \approx	
superior conj	4641 Apr 02 05:40	12° \approx 58'29	-1°-50'-25	morning set	4642 Feb 28 16:23	0° \approx 35'57	
minimum elong	4641 Apr 02 10:27	13° \approx 20'23	1°50'00	max. Earth dist.	4642 Mar 07 12:07	11° \approx 37'20	1.42021 AU
	4641 Apr 11 07:06	0° \approx					
evening rise	4641 Apr 12 00:42	1° \approx 23'57		superior conj	4642 Mar 14 23:57	24° \approx 17'13	-2°-5'-40
asc. node	4641 Apr 16 01:36	9° \approx 01'04		minimum elong	4642 Mar 15 02:38	24° \approx 28'49	2°05'35
evening max el	4641 Apr 28 03:30	27° \approx 17'00	18°28'58		4642 Mar 18 06:17	0° \approx	
	4641 May 01 18:12	0° \approx		evening rise	4642 Mar 26 03:14	14° \approx 11'22	
retrograde	4641 May 05 17:29	1° \approx 01'44		asc. node	4642 Apr 02 22:37	28° \approx 07'04	
evening set	4641 May 07 23:44	0° \approx 42'47			4642 Apr 04 01:43	0° \approx	
	4641 May 09 21:09	30° \approx 30		evening max el	4642 Apr 11 13:19	10° \approx 09'52	18°09'13
inferior conj	4641 May 15 12:44	26° \approx 11'27	1°57'36	retrograde	4642 Apr 18 08:03	13° \approx 35'57	
minimum elong	4641 May 15 16:13	26° \approx 04'32	1°56'34	evening set	4642 Apr 20 20:45	13° \approx 07'44	
min. Earth dist.	4641 May 18 22:50	23° \approx 29'31	0.58208 AU	inferior conj	4642 Apr 27 16:38	8° \approx 14'59	2°55'33
desc. node	4641 May 22 17:03	21° \approx 01'16		minimum elong	4642 Apr 27 19:45	8° \approx 07'45	2°54'55
morning rise	4641 May 23 04:15	20° \approx 46'40		min. Earth dist.	4642 Apr 30 23:56	5° \approx 12'48	0.60379 AU
direct	4641 May 29 03:35	19° \approx 14'46		morning rise	4642 May 04 15:15	2° \approx 25'50	
morning max el	4641 Jun 12 12:48	26° \approx 55'43	26°53'47	desc. node	4642 May 09 14:03	0° \approx 27'50	
	4641 Jun 15 11:14	0° \approx		direct	4642 May 11 05:38	0° \approx 20'05	
	4641 Jul 05 09:28	0° \approx		morning max el	4642 May 25 12:54	8° \approx 13'58	27°41'26
morning set	4641 Jul 12 09:26	13° \approx 56'56			4642 Jun 11 03:01	0° \approx	
asc. node	4641 Jul 13 00:52	15° \approx 18'25		morning set	4642 Jun 26 15:45	28° \approx 12'26	
					4642 Jun 27 09:09	0° \approx	
superior conj	4641 Jul 19 10:49	29° \approx 17'03	1°02'43	asc. node	4642 Jun 29 21:54	5° \approx 22'11	
minimum elong	4641 Jul 19 08:35	29° \approx 04'44	1°02'18	max. Earth dist.	4642 Jul 02 22:03	11° \approx 54'34	1.32035 AU
max. Earth dist.	4641 Jul 19 10:54	29° \approx 17'31	1.32006 AU				
	4641 Jul 19 18:36	0° \approx		superior conj	4642 Jul 03 22:08	14° \approx 06'51	0°40'55
evening rise	4641 Jul 26 08:13	14° \approx 16'27		minimum elong	4642 Jul 03 20:25	13° \approx 57'28	0°40'34
	4641 Aug 03 06:34	0° \approx		evening rise	4642 Jul 10 18:31	29° \approx 03'51	
desc. node	4641 Aug 18 16:22	23° \approx 54'12			4642 Jul 11 05:06	0° \approx	
	4641 Aug 24 02:10	0° \approx			4642 Jul 27 19:59	0° \approx	
evening max el	4641 Aug 25 03:54	1° \approx 02'39	26°39'57	desc. node	4642 Aug 05 13:21	10° \approx 52'32	
retrograde	4641 Sep 08 02:21	8° \approx 12'15		evening max el	4642 Aug 06 23:04	12° \approx 16'12	25°29'30
evening set	4641 Sep 14 22:07	6° \approx 14'19		retrograde	4642 Aug 20 21:58	19° \approx 21'15	
min. Earth dist.	4641 Sep 18 17:48	3° \approx 38'43	0.60035 AU	evening set	4642 Aug 26 20:47	17° \approx 58'58	
inferior conj	4641 Sep 21 23:33	1° \approx 02'32	-4°-39'-10	min. Earth dist.	4642 Aug 31 10:55	15° \approx 20'52	0.57991 AU
minimum elong	4641 Sep 22 05:14	0° \approx 51'05	4°38'06	inferior conj	4642 Sep 03 13:47	13° \approx 10'34	-5°-10'-53
	4641 Sep 23 06:59	30° \approx 30		minimum elong	4642 Sep 03 16:14	13° \approx 06'16	5°10'45
morning rise	4641 Sep 29 15:41	26° \approx 21'25		morning rise	4642 Sep 11 15:11	8° \approx 53'01	
direct	4641 Oct 01 23:06	26° \approx 01'39		direct	4642 Sep 14 02:36	8° \approx 34'09	
asc. node	4641 Oct 09 00:03	29° \approx 15'19		morning max el	4642 Sep 22 16:23	12° \approx 38'33	18°51'32
morning max el	4641 Oct 09 12:06	29° \approx 43'34	18°11'24	asc. node	4642 Sep 25 21:06	16° \approx 12'09	
	4641 Oct 09 18:47	0° \approx			4642 Oct 04 11:21	0° \approx	
morning set	4641 Oct 25 06:42	24° \approx 45'59		morning set	4642 Oct 09 03:26	8° \approx 58'07	
	4641 Oct 28 01:19	0° \approx					
				superior conj	4642 Oct 17 16:11	25° \approx 35'30	1°31'23
superior conj	4641 Nov 03 19:43	12° \approx 30'42	1°11'42	minimum elong	4642 Oct 17 19:02	25° \approx 49'06	1°31'09
minimum elong	4641 Nov 03 23:41	12° \approx 48'35	1°11'14		4642 Oct 20 00:22	0° \approx	

max. Earth dist.	4642 Oct 24 16:41	8° \mathbb{M} 31'14	1.39201 AU	superior conj	4643 Oct 01 03:15	9° \mathbb{A} 22'59	1°41'35
evening rise	4642 Oct 28 15:37	15° \mathbb{M} 24'41		minimum elong	4643 Oct 01 04:30	9° \mathbb{A} 29'11	1°41'32
desc. node	4642 Nov 01 12:39	21° \mathbb{M} 53'58		max. Earth dist.	4643 Oct 06 21:48	20° \mathbb{A} 34'53	1.37133 AU
	4642 Nov 06 14:06	0° \mathbb{A}		evening rise	4643 Oct 10 17:34	27° \mathbb{A} 37'08	
	4642 Nov 28 04:42	0° \mathbb{B}			4643 Oct 12 01:35	0° \mathbb{M}	
evening max el	4642 Dec 02 21:34	5° \mathbb{B} 06'27	24°21'18	desc. node	4643 Oct 19 09:41	12° \mathbb{M} 26'36	
retrograde	4642 Dec 14 04:35	11° \mathbb{B} 43'08			4643 Oct 31 00:00	0° \mathbb{A}	
evening set	4642 Dec 19 13:05	9° \mathbb{B} 30'08		evening max el	4643 Nov 15 09:56	18° \mathbb{A} 49'07	25°34'53
asc. node	4642 Dec 22 20:18	5° \mathbb{B} 57'39		retrograde	4643 Nov 27 15:31	25° \mathbb{A} 50'25	
min. Earth dist.	4642 Dec 24 06:23	4° \mathbb{B} 06'28	0.67778 AU	evening set	4643 Dec 03 13:49	23° \mathbb{A} 23'29	
inferior conj	4642 Dec 25 01:31	3° \mathbb{B} 02'16	0°44'48	min. Earth dist.	4643 Dec 07 23:31	18° \mathbb{A} 34'43	0.67142 AU
minimum elong	4642 Dec 25 00:28	3° \mathbb{B} 05'48	0°44'21	inferior conj	4643 Dec 09 05:38	16° \mathbb{A} 58'22	0°-9'-58
	4642 Dec 27 10:01	30° \mathbb{R} \mathbb{A}		minimum elong	4643 Dec 09 05:54	16° \mathbb{A} 57'33	0°09'53
morning rise	4642 Dec 30 12:15	26° \mathbb{A} 57'55		transit middle	4643 Dec 09 05:54	16° \mathbb{A} 57'33	0°09'53
direct	4643 Jan 03 06:53	25° \mathbb{A} 36'30		transit begin	4643 Dec 09 03:40	17° \mathbb{A} 04'40	
morning max el	4643 Jan 11 00:40	0° \mathbb{B} 00'47	20°13'29	transit end	4643 Dec 09 08:07	16° \mathbb{A} 50'26	
	4643 Jan 11 00:21	0° \mathbb{B}		asc. node	4643 Dec 09 17:20	16° \mathbb{A} 21'04	
greatest brilliancy	4643 Jan 17 14:54	7° \mathbb{B} 52'01	-0.5m	morning rise	4643 Dec 14 22:50	11° \mathbb{A} 02'04	
desc. node	4643 Jan 28 11:52	23° \mathbb{B} 26'17		direct	4643 Dec 18 05:34	10° \mathbb{A} 00'09	
	4643 Feb 01 20:25	0° \mathbb{A}		morning max el	4643 Dec 25 06:11	13° \mathbb{A} 54'47	19°12'52
morning set	4643 Feb 07 14:24	8° \mathbb{A} 48'22		greatest brilliancy	4644 Jan 04 05:50	26° \mathbb{A} 50'30	-0.7m
max. Earth dist.	4643 Feb 17 20:33	24° \mathbb{A} 55'51	1.43741 AU		4644 Jan 06 08:52	0° \mathbb{B}	
	4643 Feb 20 23:55	0° \mathbb{H}		desc. node	4644 Jan 15 08:56	13° \mathbb{B} 47'24	
				morning set	4644 Jan 17 15:37	17° \mathbb{B} 19'21	
superior conj	4643 Feb 23 17:21	4° \mathbb{H} 27'35	-2°-6'-48		4644 Jan 25 19:03	0° \mathbb{A}	
minimum elong	4643 Feb 23 14:47	4° \mathbb{H} 17'03	2°06'45	max. Earth dist.	4644 Jan 31 11:08	8° \mathbb{A} 53'43	1.44874 AU
evening rise	4643 Mar 08 12:33	26° \mathbb{H} 10'00					
	4643 Mar 10 17:33	0° \mathbb{Y}		superior conj	4644 Feb 03 10:10	13° \mathbb{A} 34'31	-1°-49'-4
asc. node	4643 Mar 20 19:37	16° \mathbb{Y} 42'34		minimum elong	4644 Feb 03 01:53	13° \mathbb{A} 01'40	1°48'28
evening max el	4643 Mar 26 01:50	23° \mathbb{Y} 21'27	18°08'50		4644 Feb 13 15:07	0° \mathbb{H}	
retrograde	4643 Apr 01 12:28	26° \mathbb{Y} 44'11		evening rise	4644 Feb 18 00:33	7° \mathbb{H} 12'58	
evening set	4643 Apr 04 07:05	26° \mathbb{Y} 05'13			4644 Mar 03 05:04	0° \mathbb{Y}	
inferior conj	4643 Apr 10 13:45	20° \mathbb{Y} 52'08	3°25'51	asc. node	4644 Mar 06 16:37	4° \mathbb{Y} 38'29	
minimum elong	4643 Apr 10 15:20	20° \mathbb{Y} 47'57	3°25'41	evening max el	4644 Mar 08 14:12	6° \mathbb{Y} 44'55	18°27'09
min. Earth dist.	4643 Apr 13 09:37	17° \mathbb{Y} 53'59	0.62527 AU	retrograde	4644 Mar 15 02:09	10° \mathbb{Y} 17'21	
morning rise	4643 Apr 16 21:07	14° \mathbb{Y} 48'00		evening set	4644 Mar 18 02:46	9° \mathbb{Y} 26'38	
direct	4643 Apr 23 17:32	12° \mathbb{Y} 15'19		inferior conj	4644 Mar 23 23:57	3° \mathbb{Y} 54'57	3°34'40
desc. node	4643 Apr 26 11:04	12° \mathbb{Y} 37'23		minimum elong	4644 Mar 23 23:53	3° \mathbb{Y} 55'09	3°34'39
morning max el	4643 May 07 18:55	20° \mathbb{Y} 14'58	27°51'32	min. Earth dist.	4644 Mar 26 04:50	1° \mathbb{Y} 20'26	0.64428 AU
	4643 May 16 03:41	0° \mathbb{B}			4644 Mar 27 09:58	30° \mathbb{R} \mathbb{H}	
	4643 Jun 04 02:43	0° \mathbb{H}		morning rise	4644 Mar 29 19:25	27° \mathbb{H} 43'00	
morning set	4643 Jun 10 16:30	12° \mathbb{H} 42'42		direct	4644 Apr 05 13:44	24° \mathbb{H} 55'46	
max. Earth dist.	4643 Jun 16 05:27	24° \mathbb{H} 17'07	1.32483 AU	desc. node	4644 Apr 12 08:07	27° \mathbb{H} 11'24	
asc. node	4643 Jun 16 18:55	25° \mathbb{H} 29'31			4644 Apr 16 02:45	0° \mathbb{Y}	
				morning max el	4644 Apr 19 04:19	2° \mathbb{Y} 51'46	27°25'25
superior conj	4643 Jun 18 07:12	28° \mathbb{H} 45'53	0°15'45		4644 May 09 11:39	0° \mathbb{B}	
minimum elong	4643 Jun 18 06:28	28° \mathbb{H} 41'52	0°15'36	morning set	4644 May 24 09:05	26° \mathbb{B} 28'46	
behind sun begin	4643 Jun 18 05:25	28° \mathbb{H} 36'09			4644 May 26 03:44	0° \mathbb{H}	
behind sun end	4643 Jun 18 07:31	28° \mathbb{H} 47'35		max. Earth dist.	4644 May 29 04:59	6° \mathbb{H} 12'57	1.33376 AU
	4643 Jun 18 20:50	0° \mathbb{B}					
evening rise	4643 Jun 25 06:17	13° \mathbb{B} 51'54		superior conj	4644 Jun 01 12:09	13° \mathbb{H} 08'25	0°-12'-1
	4643 Jul 03 08:30	0° \mathbb{B}		minimum elong	4644 Jun 01 12:46	13° \mathbb{H} 11'41	0°11'54
evening max el	4643 Jul 19 12:16	22° \mathbb{B} 49'41	23°57'55	behind sun begin	4644 Jun 01 09:06	12° \mathbb{H} 52'10	
desc. node	4643 Jul 23 10:22	26° \mathbb{B} 08'05		behind sun end	4644 Jun 01 16:27	13° \mathbb{H} 31'13	
retrograde	4643 Aug 02 06:04	29° \mathbb{B} 44'33		asc. node	4644 Jun 02 15:57	15° \mathbb{H} 36'29	
evening set	4643 Aug 06 19:24	28° \mathbb{B} 58'42		evening rise	4644 Jun 08 17:38	28° \mathbb{H} 34'36	
min. Earth dist.	4643 Aug 12 22:36	25° \mathbb{B} 59'34	0.56227 AU		4644 Jun 09 09:54	0° \mathbb{B}	
inferior conj	4643 Aug 15 07:42	24° \mathbb{B} 32'14	-5°-7'-28		4644 Jun 27 02:54	0° \mathbb{B}	
minimum elong	4643 Aug 15 04:07	24° \mathbb{B} 37'45	5°07'10	evening max el	4644 Jun 30 02:29	3° \mathbb{B} 12'37	22°20'48
morning rise	4643 Aug 23 16:14	20° \mathbb{B} 34'47		desc. node	4644 Jul 09 07:23	9° \mathbb{B} 06'36	
direct	4643 Aug 26 10:28	20° \mathbb{B} 15'13		retrograde	4644 Jul 13 02:09	9° \mathbb{B} 39'43	
morning max el	4643 Sep 05 10:11	24° \mathbb{B} 54'00	19°53'29	evening set	4644 Jul 16 03:44	9° \mathbb{B} 18'56	
	4643 Sep 09 22:09	0° \mathbb{H}		min. Earth dist.	4644 Jul 24 09:03	5° \mathbb{B} 44'45	0.55086 AU
asc. node	4643 Sep 12 18:08	4° \mathbb{H} 04'49		inferior conj	4644 Jul 25 08:16	5° \mathbb{B} 11'56	-4°-14'-47
morning set	4643 Sep 23 07:13	23° \mathbb{H} 29'47		minimum elong	4644 Jul 24 23:53	5° \mathbb{B} 23'49	4°12'50
	4643 Sep 26 11:52	0° \mathbb{A}		morning rise	4644 Aug 02 22:08	1° \mathbb{B} 22'06	
				direct	4644 Aug 06 01:28	0° \mathbb{B} 59'53	

morning max el	4644 Aug 17 16:04	6°♂24'35	21°16'13	morning max el	4645 Jul 30 11:21	17°♂12'21	22°54'53
asc. node	4644 Aug 29 15:12	22°♂40'48			4645 Aug 09 17:02	0°♂	
	4644 Sep 02 13:40	0°♂		asc. node	4645 Aug 16 12:16	11°♂48'56	
morning set	4644 Sep 06 15:35	8°♂14'25		morning set	4645 Aug 22 02:32	23°♂06'02	
					4645 Aug 25 08:15	0°♂	
superior conj	4644 Sep 14 00:40	23°♂40'43	1°43'43	superior conj	4645 Aug 29 05:05	8°♂18'29	1°39'06
minimum elong	4644 Sep 14 00:24	23°♂39'20	1°43'43	minimum elong	4645 Aug 29 03:40	8°♂10'56	1°39'00
	4644 Sep 17 02:48	0°♂		max. Earth dist.	4645 Sep 01 02:51	14°♂27'19	1.33844 AU
max. Earth dist.	4644 Sep 18 07:54	2°♂25'48	1.35306 AU	evening rise	4645 Sep 06 00:22	24°♂24'45	
evening rise	4644 Sep 22 13:56	10°♂41'03			4645 Sep 08 21:44	0°♂	
	4644 Oct 03 13:44	0°♂		desc. node	4645 Sep 22 03:44	22°♂42'10	
desc. node	4644 Oct 05 06:43	2°♂44'50			4645 Sep 27 02:44	0°♂	
	4644 Oct 25 11:29	0°♂		evening max el	4645 Oct 10 11:11	15°♂59'51	27°14'49
evening max el	4644 Oct 27 22:33	2°♂29'47	26°35'13	retrograde	4645 Oct 23 21:18	23°♂17'48	
retrograde	4644 Nov 09 21:21	9°♂44'23		evening set	4645 Oct 30 19:20	20°♂38'13	
evening set	4644 Nov 16 08:41	7°♂07'46		min. Earth dist.	4645 Nov 03 15:50	17°♂00'37	0.64820 AU
min. Earth dist.	4644 Nov 20 11:26	2°♂54'42	0.66153 AU	inferior conj	4645 Nov 05 21:19	14°♂34'08	-2°-11'-25
inferior conj	4644 Nov 22 04:59	0°♂50'30	-1°-9'-17	minimum elong	4645 Nov 06 01:05	14°♂23'48	2°09'56
minimum elong	4644 Nov 22 06:54	0°♂44'46	1°08'29	morning rise	4645 Nov 12 08:53	9°♂02'15	
	4644 Nov 22 21:58	30°♂		asc. node	4645 Nov 12 11:28	8°♂59'27	
asc. node	4644 Nov 25 14:23	27°♂05'35		direct	4645 Nov 14 22:21	8°♂27'48	
morning rise	4644 Nov 28 06:34	25°♂04'52		morning max el	4645 Nov 21 09:49	11°♂54'20	18°00'14
direct	4644 Dec 01 03:28	24°♂18'40			4645 Dec 03 23:29	0°♂	
morning max el	4644 Dec 07 18:03	27°♂54'33	18°28'09	morning set	4645 Dec 09 00:17	8°♂23'11	
	4644 Dec 09 16:00	0°♂		desc. node	4645 Dec 19 03:00	25°♂02'34	
morning set	4644 Dec 27 17:09	27°♂07'05			4645 Dec 22 04:54	0°♂	
	4644 Dec 29 12:28	0°♂		superior conj	4645 Dec 22 22:51	1°♂11'44	0°-26'-16
desc. node	4645 Jan 01 05:58	4°♂20'50		minimum elong	4645 Dec 22 19:38	0°♂58'54	0°25'49
				max. Earth dist.	4645 Dec 27 00:54	7°♂40'44	1.44988 AU
superior conj	4645 Jan 12 13:18	22°♂10'51	-1°-12'-46	evening rise	4646 Jan 08 06:35	26°♂43'52	
minimum elong	4645 Jan 12 04:45	21°♂37'19	1°11'47		4646 Jan 10 09:33	0°♂	
max. Earth dist.	4645 Jan 13 05:25	23°♂14'00	1.45303 AU	greatest brilliancy	4646 Jan 27 05:43	25°♂08'58	-0.6m
	4645 Jan 17 13:01	0°♂			4646 Jan 30 21:51	0°♂	
evening rise	4645 Jan 28 13:14	17°♂19'30		evening max el	4646 Feb 03 05:31	3°♂47'48	19°55'12
	4645 Feb 05 13:46	0°♂		asc. node	4646 Feb 08 10:43	7°♂42'04	
greatest brilliancy	4645 Feb 09 07:12	5°♂47'28	-0.8m	retrograde	4646 Feb 10 19:04	8°♂11'34	
evening max el	4645 Feb 20 00:02	20°♂14'45	19°03'09	evening set	4646 Feb 14 10:28	6°♂54'08	
asc. node	4645 Feb 21 13:40	21°♂42'53		inferior conj	4646 Feb 19 21:36	0°♂51'06	3°07'21
retrograde	4645 Feb 26 21:18	24°♂08'07		minimum elong	4646 Feb 19 19:26	0°♂58'19	3°06'56
evening set	4645 Mar 02 04:41	23°♂04'35			4646 Feb 20 12:51	30°♂	
inferior conj	4645 Mar 07 19:34	17°♂16'08	3°27'14	min. Earth dist.	4646 Feb 20 20:30	29°♂34'30	0.67078 AU
minimum elong	4645 Mar 07 18:13	17°♂20'27	3°27'06	morning rise	4646 Feb 25 03:47	24°♂34'58	
min. Earth dist.	4645 Mar 09 08:59	15°♂17'42	0.65964 AU	direct	4646 Mar 03 01:25	21°♂57'42	
morning rise	4645 Mar 13 06:43	11°♂00'49		morning max el	4646 Mar 14 23:11	29°♂04'28	25°12'19
direct	4645 Mar 19 16:45	8°♂12'45			4646 Mar 15 20:43	0°♂	
desc. node	4645 Mar 30 05:10	13°♂35'25		desc. node	4646 Mar 17 02:12	1°♂19'23	
morning max el	4645 Apr 01 14:12	15°♂51'37	26°29'17		4646 Apr 07 01:34	0°♂	
	4645 Apr 13 06:05	0°♂		morning set	4646 Apr 20 02:25	21°♂52'52	
	4645 May 02 07:38	0°♂		max. Earth dist.	4646 Apr 23 19:08	28°♂39'01	1.36555 AU
morning set	4645 May 07 13:55	9°♂36'19			4646 Apr 24 12:26	0°♂	
max. Earth dist.	4645 May 11 17:28	17°♂36'05	1.34743 AU	superior conj	4646 Apr 29 23:50	10°♂34'07	-1°-10'-37
				minimum elong	4646 Apr 30 03:41	10°♂53'05	1°10'01
superior conj	4645 May 16 10:38	27°♂06'51	0°-41'-21	asc. node	4646 May 07 10:01	25°♂31'20	
minimum elong	4645 May 16 12:52	27°♂18'21	0°40'56	evening rise	4646 May 08 06:58	27°♂17'10	
	4645 May 17 20:08	0°♂			4646 May 09 15:24	0°♂	
asc. node	4645 May 20 12:59	5°♂38'20		evening max el	4646 May 25 12:47	25°♂19'49	19°40'42
evening rise	4645 May 24 02:34	13°♂04'57			4646 Jun 02 19:15	0°♂	
	4645 Jun 01 20:54	0°♂		retrograde	4646 Jun 04 08:10	0°♂06'49	
evening max el	4645 Jun 12 01:30	13°♂56'35	20°52'16		4646 Jun 05 21:44	30°♂	
retrograde	4645 Jun 23 14:39	19°♂36'20		evening set	4646 Jun 06 06:38	29°♂56'27	
evening set	4645 Jun 25 18:09	19°♂25'23		desc. node	4646 Jun 13 01:25	27°♂07'13	
desc. node	4645 Jun 26 04:24	19°♂20'41		inferior conj	4646 Jun 15 01:43	25°♂53'20	0°-35'-55
inferior conj	4645 Jul 05 01:24	15°♂28'27	-2°-35'-10	minimum elong	4646 Jun 15 00:05	25°♂55'53	0°35'19
minimum elong	4645 Jul 04 18:20	15°♂38'29	2°32'46	min. Earth dist.	4646 Jun 17 09:18	24°♂26'44	0.55546 AU
min. Earth dist.	4645 Jul 05 20:18	15°♂01'37	0.54832 AU				
morning rise	4645 Jul 13 17:51	11°♂27'15					
direct	4645 Jul 17 10:44	10°♂57'45					

morning rise	4646 Jun 23 14:15	21° Π 23'06		desc. node	4647 May 30 22:25	3° Π 58'27	
direct	4646 Jun 28 02:41	20° Π 37'47		morning rise	4647 Jun 03 21:05	1° Π 46'32	
morning max el	4646 Jul 12 01:14	27° Π 35'20	24°38'34	direct	4647 Jun 09 08:05	0° Π 34'19	
	4646 Jul 14 10:15	0° \mathfrak{S}		morning max el	4647 Jun 23 16:24	8° Π 03'04	26°11'31
	4646 Aug 02 17:12	0° Ω			4647 Jul 10 02:08	0° \mathfrak{S}	
asc. node	4646 Aug 03 09:19	1° Ω 20'44		asc. node	4647 Jul 21 06:20	21° \mathfrak{S} 09'40	
morning set	4646 Aug 06 14:19	7° Ω 59'20		morning set	4647 Jul 22 01:21	22° \mathfrak{S} 49'35	
					4647 Jul 25 09:21	0° Ω	
superior conj	4646 Aug 13 13:57	23° Ω 08'02	1°28'46	superior conj	4647 Jul 29 01:13	8° Ω 03'03	1°13'29
minimum elong	4646 Aug 13 11:51	22° Ω 56'33	1°28'31	minimum elong	4647 Jul 28 22:54	7° Ω 50'15	1°13'07
max. Earth dist.	4646 Aug 15 06:19	26° Ω 47'16	1.32797 AU	max. Earth dist.	4647 Jul 29 15:33	9° Ω 22'03	1.32170 AU
	4646 Aug 16 18:10	0° \mathfrak{M}		evening rise	4647 Aug 05 00:57	23° Ω 09'39	
evening rise	4646 Aug 20 21:03	8° \mathfrak{M} 37'13			4647 Aug 08 09:23	0° \mathfrak{M}	
	4646 Sep 01 07:37	0° \mathfrak{A}			4647 Aug 26 05:50	0° \mathfrak{A}	
desc. node	4646 Sep 09 00:45	12° \mathfrak{A} 09'16		desc. node	4647 Aug 26 21:45	0° \mathfrak{A} 53'49	
evening max el	4646 Sep 22 21:54	29° \mathfrak{A} 05'41	27°26'55	evening max el	4647 Sep 05 04:06	11° \mathfrak{A} 34'02	27°06'42
	4646 Sep 23 21:25	0° \mathfrak{M}		retrograde	4647 Sep 19 00:51	18° \mathfrak{A} 46'18	
retrograde	4646 Oct 06 14:39	6° \mathfrak{M} 21'27		evening set	4647 Sep 26 02:58	16° \mathfrak{A} 31'32	
evening set	4646 Oct 13 18:44	3° \mathfrak{M} 48'18		min. Earth dist.	4647 Sep 29 18:27	13° \mathfrak{A} 49'34	0.61220 AU
min. Earth dist.	4646 Oct 17 10:32	0° \mathfrak{M} 42'56	0.63157 AU	inferior conj	4647 Oct 02 21:29	11° \mathfrak{A} 06'42	-4°-11'-9
	4646 Oct 18 04:18	30° \mathfrak{R} \mathfrak{A}		minimum elong	4647 Oct 03 03:39	10° \mathfrak{A} 53'18	4°09'37
inferior conj	4646 Oct 20 03:53	28° \mathfrak{A} 02'11	-3°-13'-38	morning rise	4647 Oct 10 07:32	6° \mathfrak{A} 12'56	
minimum elong	4646 Oct 20 09:19	27° \mathfrak{A} 48'48	3°11'48	direct	4647 Oct 12 14:26	5° \mathfrak{A} 51'34	
morning rise	4646 Oct 27 02:34	22° \mathfrak{A} 47'37		asc. node	4647 Oct 17 05:33	7° \mathfrak{A} 22'52	
direct	4646 Oct 29 11:15	22° \mathfrak{A} 21'16		morning max el	4647 Oct 19 17:05	9° \mathfrak{A} 24'44	17°57'57
asc. node	4646 Oct 30 08:32	22° \mathfrak{A} 25'04			4647 Nov 02 03:48	0° \mathfrak{M}	
morning max el	4646 Nov 05 02:32	25° \mathfrak{A} 46'52	17°49'50	morning set	4647 Nov 04 10:22	4° \mathfrak{M} 10'07	
	4646 Nov 08 15:54	0° \mathfrak{M}					
morning set	4646 Nov 21 08:10	20° \mathfrak{M} 50'35		superior conj	4647 Nov 14 17:33	22° \mathfrak{M} 46'15	0°55'31
	4646 Nov 26 14:21	0° \mathfrak{A}		minimum elong	4647 Nov 14 21:31	23° \mathfrak{M} 03'35	0°55'00
superior conj	4646 Dec 03 06:52	11° \mathfrak{A} 19'54	0°18'57		4647 Nov 18 22:14	0° \mathfrak{A}	
minimum elong	4646 Dec 03 08:46	11° \mathfrak{A} 27'49	0°18'41	max. Earth dist.	4647 Nov 22 07:10	5° \mathfrak{A} 38'46	1.42379 AU
desc. node	4646 Dec 06 00:01	15° \mathfrak{A} 48'39		desc. node	4647 Nov 22 21:03	6° \mathfrak{A} 36'04	
max. Earth dist.	4646 Dec 09 18:23	21° \mathfrak{A} 54'50	1.43973 AU	evening rise	4647 Nov 28 10:46	15° \mathfrak{A} 35'49	
	4646 Dec 14 20:46	0° \mathfrak{S}			4647 Dec 07 19:21	0° \mathfrak{S}	
evening rise	4646 Dec 18 16:24	5° \mathfrak{S} 56'09		greatest brilliancy	4647 Dec 26 06:10	25° \mathfrak{S} 35'50	-0.3m
	4647 Jan 03 18:43	0° \approx			4647 Dec 30 02:26	0° \approx	
greatest brilliancy	4647 Jan 11 22:16	11° \approx 10'26	-0.5m	evening max el	4647 Dec 31 00:05	0° \approx 56'11	22°16'02
evening max el	4647 Jan 17 05:29	17° \approx 21'19	21°00'46	retrograde	4648 Jan 09 13:44	6° \approx 37'44	
retrograde	4647 Jan 25 17:08	22° \approx 22'35		asc. node	4648 Jan 13 04:47	5° \approx 28'06	
asc. node	4647 Jan 26 07:46	22° \approx 20'34		evening set	4648 Jan 14 01:45	4° \approx 49'41	
evening set	4647 Jan 29 18:03	20° \approx 50'11			4648 Jan 18 08:08	30° \mathfrak{R} \mathfrak{S}	
inferior conj	4647 Feb 04 03:30	14° \approx 35'20	2°37'28	inferior conj	4648 Jan 19 11:15	28° \mathfrak{S} 26'25	1°59'15
minimum elong	4647 Feb 04 01:04	14° \approx 43'45	2°36'48	minimum elong	4648 Jan 19 09:00	28° \mathfrak{S} 34'15	1°58'29
min. Earth dist.	4647 Feb 04 13:22	14° \approx 01'19	0.67766 AU	min. Earth dist.	4648 Jan 19 09:21	28° \mathfrak{S} 33'01	0.68057 AU
morning rise	4647 Feb 09 07:42	8° \approx 20'08		morning rise	4648 Jan 24 16:07	22° \mathfrak{S} 13'46	
direct	4647 Feb 14 14:53	6° \approx 01'20		direct	4648 Jan 29 08:25	20° \mathfrak{S} 17'11	
morning max el	4647 Feb 25 07:52	12° \approx 24'00	23°44'44	morning max el	4648 Feb 07 19:05	25° \mathfrak{S} 50'31	22°16'13
desc. node	4647 Mar 03 23:13	19° \approx 59'52			4648 Feb 11 13:47	0° \approx	
	4647 Mar 11 10:55	0° \mathfrak{H}		greatest brilliancy	4648 Feb 12 08:51	0° \approx 57'02	-0.3m
	4647 Mar 30 21:33	0° \mathfrak{Y}		desc. node	4648 Feb 18 20:15	9° \approx 21'07	
morning set	4647 Apr 01 16:47	3° \mathfrak{Y} 02'51			4648 Mar 03 23:38	0° \mathfrak{H}	
max. Earth dist.	4647 Apr 05 14:57	9° \mathfrak{Y} 51'35	1.38667 AU	morning set	4648 Mar 12 03:28	12° \mathfrak{H} 52'48	
				max. Earth dist.	4648 Mar 17 11:58	21° \mathfrak{H} 43'51	1.40846 AU
superior conj	4647 Apr 13 00:05	23° \mathfrak{Y} 20'28	-1°-37'-26		4648 Mar 22 07:34	0° \mathfrak{Y}	
minimum elong	4647 Apr 13 04:56	23° \mathfrak{Y} 43'21	1°36'52	superior conj	4648 Mar 25 06:44	5° \mathfrak{Y} 14'30	-1°-58'-16
	4647 Apr 16 11:48	0° \mathfrak{S}		minimum elong	4648 Mar 25 11:00	5° \mathfrak{Y} 33'34	1°57'59
evening rise	4647 Apr 22 04:05	11° \mathfrak{S} 03'46		evening rise	4648 Apr 04 14:34	24° \mathfrak{Y} 15'42	
asc. node	4647 Apr 24 07:04	15° \mathfrak{S} 10'56			4648 Apr 07 16:30	0° \mathfrak{S}	
	4647 May 02 15:36	0° Π		asc. node	4648 Apr 10 04:05	4° \mathfrak{S} 31'16	
evening max el	4647 May 08 11:20	7° Π 24'10	18°49'14	evening max el	4648 Apr 20 18:02	20° \mathfrak{S} 02'13	18°18'08
retrograde	4647 May 16 17:56	11° Π 27'41		retrograde	4648 Apr 27 22:37	23° \mathfrak{S} 37'24	
evening set	4647 May 18 20:24	11° Π 12'57		evening set	4648 Apr 30 07:30	23° \mathfrak{S} 14'54	
inferior conj	4647 May 26 20:27	6° Π 52'59	1°09'57	inferior conj	4648 May 07 12:47	18° \mathfrak{S} 34'32	2°25'58
minimum elong	4647 May 26 22:59	6° Π 48'22	1°09'05	minimum elong	4648 May 07 16:21	18° \mathfrak{S} 26'56	2°25'02
min. Earth dist.	4647 May 30 01:37	4° Π 33'44	0.57071 AU				

min. Earth dist.	4648 May 10 23:09	15°♄40'39	0.59109 AU	minimum elong	4649 Apr 20 03:06	0°♄47'46	3°10'58
morning rise	4648 May 14 21:01	12°♄57'42			4649 Apr 20 22:27	30°♄♂	
desc. node	4648 May 16 19:27	12°♄02'18		min. Earth dist.	4649 Apr 23 03:55	27°♂50'26	0.61313 AU
direct	4648 May 21 03:36	11°♄11'03		morning rise	4649 Apr 26 16:22	24°♂57'26	
morning max el	4648 Jun 04 12:58	18°♄59'25	27°18'34	direct	4649 May 03 10:33	22°♂38'33	
	4648 Jun 13 20:09	0°♂		desc. node	4649 May 03 16:28	22°♂38'43	
	4648 Jul 01 17:29	0°♂			4649 May 17 00:52	0°♄	
morning set	4648 Jul 05 09:53	7°♂30'16		morning max el	4649 May 17 15:45	0°♄36'26	27°50'15
asc. node	4648 Jul 07 03:21	11°♂09'26			4649 Jun 07 22:46	0°♂	
max. Earth dist.	4648 Jul 12 02:56	22°♂01'00	1.31960 AU	morning set	4649 Jun 19 14:06	21°♂55'36	
					4649 Jun 23 10:20	0°♂	
superior conj	4648 Jul 12 12:59	22°♂56'28	0°53'55	asc. node	4649 Jun 24 00:23	1°♂15'30	
minimum elong	4648 Jul 12 10:55	22°♂45'04	0°53'31	max. Earth dist.	4649 Jun 25 12:45	4°♂32'31	1.32171 AU
	4648 Jul 15 17:51	0°♂					
evening rise	4648 Jul 19 09:30	7°♂53'21		superior conj	4649 Jun 26 23:35	7°♂42'45	0°30'37
	4648 Jul 30 20:59	0°♂		minimum elong	4649 Jun 26 22:14	7°♂35'23	0°30'20
desc. node	4648 Aug 12 18:45	18°♂37'31		evening rise	4649 Jul 03 20:39	22°♂41'53	
evening max el	4648 Aug 17 03:24	23°♂14'39	26°13'20		4649 Jul 07 08:55	0°♂	
	4648 Aug 28 00:08	0°♂			4649 Jul 25 22:09	0°♂	
retrograde	4648 Aug 31 02:41	0°♂23'25		evening max el	4649 Jul 29 19:35	4°♂09'02	24°52'18
	4648 Sep 03 04:26	30°♂♂		desc. node	4649 Jul 30 15:45	4°♂56'09	
evening set	4648 Sep 06 15:10	28°♂39'35		retrograde	4649 Aug 12 17:46	11°♂11'08	
min. Earth dist.	4648 Sep 10 16:25	26°♂05'18	0.59145 AU	evening set	4649 Aug 18 03:14	10°♂05'18	
inferior conj	4648 Sep 13 22:34	23°♂37'32	-4°-55'-53	min. Earth dist.	4649 Aug 23 07:04	7°♂19'55	0.57184 AU
minimum elong	4648 Sep 14 03:18	23°♂28'33	4°55'15	inferior conj	4649 Aug 26 04:11	5°♂26'15	-5°-14'-47
morning rise	4648 Sep 21 18:57	19°♂06'46		minimum elong	4649 Aug 26 04:17	5°♂26'05	5°14'47
direct	4648 Sep 24 03:30	18°♂47'46		morning rise	4649 Sep 03 08:50	1°♂17'47	
morning max el	4648 Oct 02 02:06	22°♂38'00	18°25'57	direct	4649 Sep 05 22:41	0°♂58'52	
asc. node	4648 Oct 03 02:34	23°♂40'14		morning max el	4649 Sep 15 02:12	5°♂16'57	19°15'12
	4648 Oct 07 22:15	0°♂		asc. node	4649 Sep 19 23:37	11°♂02'23	
morning set	4648 Oct 18 01:29	18°♂05'47			4649 Sep 30 19:54	0°♂	
	4648 Oct 24 06:52	0°♂		morning set	4649 Oct 02 01:32	2°♂26'44	
superior conj	4648 Oct 27 03:11	5°♂19'07	1°21'17	superior conj	4649 Oct 10 06:22	18°♂43'05	1°36'47
minimum elong	4648 Oct 27 06:48	5°♂35'49	1°20'55	minimum elong	4649 Oct 10 08:33	18°♂53'43	1°36'39
max. Earth dist.	4648 Nov 03 14:26	18°♂39'57	1.40403 AU		4649 Oct 16 05:42	0°♂	
evening rise	4648 Nov 08 01:08	26°♂10'59		max. Earth dist.	4649 Oct 16 18:58	1°♂00'34	1.38302 AU
desc. node	4648 Nov 08 18:05	27°♂20'57		evening rise	4649 Oct 20 14:42	7°♂49'29	
	4648 Nov 10 09:01	0°♂		desc. node	4649 Oct 26 15:06	17°♂59'20	
	4648 Nov 30 12:36	0°♂			4649 Nov 03 06:44	0°♂	
evening max el	4648 Dec 12 14:46	14°♂34'26	23°35'56	evening max el	4649 Nov 25 03:39	28°♂16'42	24°53'56
retrograde	4648 Dec 23 07:26	20°♂53'31			4649 Nov 26 23:37	0°♂	
evening set	4648 Dec 28 08:01	18°♂49'36		retrograde	4649 Dec 06 21:00	5°♂05'07	
asc. node	4648 Dec 30 01:48	17°♂07'45		evening set	4649 Dec 12 11:15	2°♂46'12	
inferior conj	4649 Jan 02 19:02	12°♂22'04	1°13'52		4649 Dec 15 03:55	30°♂♂	
minimum elong	4649 Jan 02 17:24	12°♂27'37	1°13'13	asc. node	4649 Dec 16 22:50	27°♂45'07	
min. Earth dist.	4649 Jan 02 06:09	13°♂06'06	0.67976 AU	min. Earth dist.	4649 Dec 17 01:19	27°♂37'01	0.67543 AU
morning rise	4649 Jan 08 02:56	6°♂13'52		inferior conj	4649 Dec 18 01:00	26°♂18'57	0°22'12
direct	4649 Jan 12 05:06	4°♂39'58		minimum elong	4649 Dec 18 00:27	26°♂20'45	0°21'59
morning max el	4649 Jan 20 12:11	9°♂27'10	20°54'51	morning rise	4649 Dec 23 14:12	20°♂17'28	
greatest brilliancy	4649 Jan 26 01:32	15°♂52'02	-0.5m	direct	4649 Dec 27 03:35	19°♂04'36	
desc. node	4649 Feb 04 17:18	29°♂12'03		morning max el	4650 Jan 03 13:07	23°♂14'56	19°45'50
	4649 Feb 05 06:29	0°♂			4650 Jan 09 05:56	0°♂	
morning set	4649 Feb 19 11:05	21°♂28'49		greatest brilliancy	4650 Jan 11 04:46	2°♂38'38	-0.6m
	4649 Feb 24 20:19	0°♂		desc. node	4650 Jan 22 14:21	19°♂23'59	
max. Earth dist.	4649 Feb 27 15:20	4°♂30'30	1.42810 AU	morning set	4650 Jan 29 07:11	29°♂39'42	
					4650 Jan 29 12:27	0°♂	
superior conj	4649 Mar 06 14:56	16°♂05'40	-2°-8'-12	max. Earth dist.	4650 Feb 10 02:35	18°♂07'50	1.44306 AU
minimum elong	4649 Mar 06 15:44	16°♂09'04	2°08'12				
	4649 Mar 14 15:33	0°♂		superior conj	4650 Feb 14 21:26	25°♂48'00	-2°-1'-45
evening rise	4649 Mar 18 10:24	6°♂44'03		minimum elong	4650 Feb 14 16:10	25°♂26'42	2°01'32
asc. node	4649 Mar 28 01:06	23°♂25'57			4650 Feb 17 11:28	0°♂	
	4649 Apr 01 12:44	0°♂		evening rise	4650 Feb 28 11:05	18°♂19'42	
evening max el	4649 Apr 04 05:28	3°♂04'59	18°06'46		4650 Mar 07 08:32	0°♂	
retrograde	4649 Apr 10 19:33	6°♂27'46		asc. node	4650 Mar 14 22:08	11°♂46'19	
evening set	4649 Apr 13 10:45	5°♂55'13		evening max el	4650 Mar 18 18:22	16°♂23'10	18°14'24
inferior conj	4649 Apr 20 00:34	0°♂54'00	3°11'23	retrograde	4650 Mar 25 04:18	19°♂48'05	

evening set	4650 Mar 28 01:32	19° Υ 04'07		evening set	4651 Mar 12 00:15	2° Υ 33'51	
inferior conj	4650 Apr 03 03:45	13° Υ 43'00	3°31'47		4651 Mar 15 01:57	30° \Re H	
minimum elong	4650 Apr 03 04:37	13° Υ 40'38	3°31'45	inferior conj	4651 Mar 17 18:23	26° H 54'31	3°33'12
min. Earth dist.	4650 Apr 05 17:30	10° Υ 53'03	0.63386 AU	minimum elong	4651 Mar 17 17:43	26° H 56'34	3°33'10
morning rise	4650 Apr 09 05:40	7° Υ 35'10		min. Earth dist.	4651 Mar 19 16:30	24° H 34'39	0.65139 AU
direct	4650 Apr 16 02:16	4° Υ 54'35		morning rise	4651 Mar 23 09:55	20° H 40'51	
desc. node	4650 Apr 20 13:31	5° Υ 53'50		direct	4651 Mar 30 01:17	17° H 52'02	
morning max el	4650 Apr 29 23:19	12° Υ 53'14	27°44'25	desc. node	4651 Apr 07 10:35	21° H 19'02	
	4650 May 13 15:43	0° B		morning max el	4651 Apr 12 09:17	25° H 41'39	27°04'41
	4650 May 31 10:34	0° II			4651 Apr 16 08:14	0° Υ	
morning set	4650 Jun 03 11:43	5° II 58'12			4651 May 07 04:16	0° B	
max. Earth dist.	4650 Jun 08 17:13	16° II 44'40	1.32812 AU	morning set	4651 May 17 23:48	19° B 29'19	
asc. node	4650 Jun 10 21:26	21° II 23'19		max. Earth dist.	4651 May 22 12:35	28° B 27'52	1.33909 AU
					4651 May 23 06:40	0° II	
superior conj	4650 Jun 11 07:10	22° II 15'44	0°04'15				
minimum elong	4650 Jun 11 06:58	22° II 14'36	0°04'12	superior conj	4651 May 26 09:42	6° II 28'59	0°-24'-21
behind sun begin	4650 Jun 11 01:50	21° II 46'58		minimum elong	4651 May 26 10:59	6° II 35'42	0°24'06
behind sun end	4650 Jun 11 12:06	22° II 42'17		asc. node	4651 May 28 18:29	11° II 28'43	
	4650 Jun 14 20:57	0° S		evening rise	4651 Jun 02 19:06	22° II 07'19	
evening rise	4650 Jun 18 08:29	7° S 28'40			4651 Jun 06 15:32	0° S	
	4650 Jun 30 04:25	0° Ω		evening max el	4651 Jun 23 01:28	25° S 02'44	21°41'17
evening max el	4650 Jul 11 08:24	14° Ω 34'37	23°16'20		4651 Jun 30 00:29	0° Ω	
desc. node	4650 Jul 17 12:45	19° Ω 18'02		desc. node	4651 Jul 04 09:47	1° Ω 08'52	
retrograde	4650 Jul 24 20:10	21° Ω 19'26		retrograde	4651 Jul 05 11:54	1° Ω 11'39	
evening set	4650 Jul 28 17:41	20° Ω 46'17		evening set	4651 Jul 08 02:02	0° Ω 56'29	
min. Earth dist.	4650 Aug 04 17:46	17° Ω 33'58	0.55650 AU		4651 Jul 11 06:31	30° \Re S	
inferior conj	4650 Aug 06 14:01	16° Ω 29'09	-4°-51'-34	inferior conj	4651 Jul 17 09:43	26° S 55'18	-3°-37'-4
minimum elong	4650 Aug 06 07:52	16° Ω 38'12	4°50'39	minimum elong	4651 Jul 17 01:04	27° S 07'23	3°34'36
morning rise	4650 Aug 15 00:58	12° Ω 36'48		min. Earth dist.	4651 Jul 17 03:59	27° S 03'18	0.54861 AU
direct	4650 Aug 17 23:02	12° Ω 16'13		morning rise	4651 Jul 26 01:17	23° S 03'39	
morning max el	4650 Aug 28 14:52	17° Ω 13'26	20°26'18	direct	4651 Jul 29 09:45	22° S 39'08	
asc. node	4650 Sep 06 20:41	29° Ω 15'16		morning max el	4651 Aug 10 15:47	28° S 24'30	21°56'52
	4650 Sep 07 07:28	0° M			4651 Aug 12 06:33	0° Ω	
morning set	4650 Sep 16 07:35	17° M 05'16		asc. node	4651 Aug 24 17:45	18° Ω 06'10	
	4650 Sep 22 13:55	0° A			4651 Aug 30 19:21	0° M	
				morning set	4651 Aug 31 17:17	1° M 53'56	
superior conj	4650 Sep 23 22:18	2° A 45'00	1°43'23				
minimum elong	4650 Sep 23 22:52	2° A 47'54	1°43'22	superior conj	4651 Sep 07 23:03	17° M 12'34	1°42'31
max. Earth dist.	4650 Sep 29 02:01	12° A 57'56	1.36318 AU	minimum elong	4651 Sep 07 22:15	17° M 08'20	1°42'29
evening rise	4650 Oct 03 01:04	20° A 25'38		max. Earth dist.	4651 Sep 11 15:54	24° M 52'29	1.34632 AU
	4650 Oct 08 10:15	0° M			4651 Sep 14 05:13	0° A	
desc. node	4650 Oct 13 12:07	8° M 26'56		evening rise	4651 Sep 16 03:53	3° A 47'44	
	4650 Oct 28 06:26	0° J		desc. node	4651 Sep 30 09:07	28° A 37'21	
evening max el	4650 Nov 07 16:18	12° J 00'27	26°02'44		4651 Oct 01 06:19	0° M	
retrograde	4650 Nov 20 05:40	19° J 07'55		evening max el	4651 Oct 21 04:53	25° M 37'24	26°54'58
evening set	4650 Nov 26 09:44	16° J 36'21			4651 Oct 26 11:57	0° J	
min. Earth dist.	4650 Nov 30 16:29	12° J 02'45	0.66764 AU	retrograde	4651 Nov 03 08:54	2° J 54'17	
inferior conj	4650 Dec 02 03:21	10° J 14'14	0°-34'-38	evening set	4651 Nov 10 01:23	0° J 15'08	
minimum elong	4650 Dec 02 04:16	10° J 11'21	0°34'15		4651 Nov 10 08:48	30° \Re M	
asc. node	4650 Dec 03 19:53	8° J 10'55		min. Earth dist.	4651 Nov 14 01:18	26° M 17'38	0.65631 AU
morning rise	4650 Dec 07 23:52	4° J 22'06		inferior conj	4651 Nov 15 23:58	24° M 03'02	-1°-35'-26
direct	4650 Dec 11 02:16	3° J 27'10		minimum elong	4651 Nov 16 02:39	23° M 55'15	1°34'19
morning max el	4650 Dec 17 21:34	7° J 12'13	18°51'55	asc. node	4651 Nov 20 16:57	19° M 20'02	
	4651 Jan 03 04:17	0° S		morning rise	4651 Nov 22 05:39	18° M 23'08	
morning set	4651 Jan 08 17:09	8° S 39'43		direct	4651 Nov 24 23:07	17° M 42'25	
desc. node	4651 Jan 09 11:25	9° S 51'16		morning max el	4651 Dec 01 11:28	21° M 12'55	18°14'15
	4651 Jan 22 08:04	0° \approx			4651 Dec 08 07:43	0° J	
max. Earth dist.	4651 Jan 23 19:45	2° \approx 20'03	1.45152 AU	morning set	4651 Dec 20 07:23	19° J 05'39	
				desc. node	4651 Dec 27 08:26	0° S 28'38	
					4651 Dec 27 01:17	0° S	
superior conj	4651 Jan 25 06:23	4° \approx 36'09	-1°-35'-38				
minimum elong	4651 Jan 24 21:04	3° \approx 59'31	1°34'46	superior conj	4652 Jan 04 09:34	13° S 15'26	0°-53'-34
evening rise	4651 Feb 09 13:13	28° \approx 58'39		minimum elong	4652 Jan 04 02:56	12° S 49'17	0°52'44
	4651 Feb 10 04:22	0° H		max. Earth dist.	4652 Jan 06 15:02	16° S 45'36	1.45256 AU
asc. node	4651 Mar 01 19:10	29° H 22'12			4652 Jan 15 02:14	0° \approx	
evening max el	4651 Mar 02 05:58	29° H 50'14	18°40'18				
	4651 Mar 02 09:51	0° Υ		evening rise	4652 Jan 20 16:43	8° \approx 44'37	
retrograde	4651 Mar 08 20:47	3° Υ 30'05			4652 Feb 03 11:18	0° H	

greatest brilliancy	4652 Feb 04 23:46	2° K 14'43	-0.7m	greatest brilliancy	4653 Jan 20 13:32	19° \approx 30'10	-0.5m
evening max el	4652 Feb 13 14:02	13° K 21'26	19°23'25	evening max el	4653 Jan 26 17:07	26° \approx 54'03	20°21'43
asc. node	4652 Feb 16 16:12	16° K 00'50			4653 Jan 30 07:20	0° K	
retrograde	4652 Feb 20 17:31	17° K 27'05		asc. node	4653 Feb 02 13:15	1° K 27'06	
evening set	4652 Feb 24 04:06	16° K 17'45		retrograde	4653 Feb 03 15:41	1° K 33'39	
inferior conj	4652 Feb 29 17:05	10° K 22'32	3°20'11	evening set	4653 Feb 07 10:49	0° K 10'09	
minimum elong	4652 Feb 29 15:19	10° K 28'15	3°19'56		4653 Feb 07 16:11	30° R \approx	
min. Earth dist.	4652 Mar 02 00:05	8° K 41'38	0.66483 AU	inferior conj	4653 Feb 12 21:00	24° \approx 01'42	2°55'50
morning rise	4652 Mar 06 01:43	4° K 06'25		minimum elong	4653 Feb 12 18:40	24° \approx 09'39	2°55'17
direct	4652 Mar 12 06:40	1° K 21'59		min. Earth dist.	4653 Feb 13 14:14	23° \approx 03'05	0.67410 AU
desc. node	4652 Mar 24 07:39	8° K 20'40		morning rise	4653 Feb 18 01:58	17° \approx 45'31	
morning max el	4652 Mar 24 19:09	8° K 49'26	25°58'38	direct	4653 Feb 23 17:33	15° \approx 15'14	
	4652 Apr 10 10:05	0° Y		morning max el	4653 Mar 07 03:47	22° \approx 05'21	24°35'49
	4652 Apr 28 16:20	0° B		desc. node	4653 Mar 11 04:40	26° \approx 30'49	
morning set	4652 Apr 29 22:27	2° B 18'03			4653 Mar 14 01:34	0° K	
max. Earth dist.	4652 May 03 20:33	9° B 42'02	1.35463 AU		4653 Apr 03 17:07	0° Y	
				morning set	4653 Apr 12 02:18	14° Y 08'36	
superior conj	4652 May 09 04:40	20° B 15'48	0°-53'-52	max. Earth dist.	4653 Apr 15 18:31	20° Y 43'17	1.37419 AU
minimum elong	4652 May 09 07:36	20° B 30'42	0°53'21		4653 Apr 20 17:50	0° B	
	4652 May 13 22:32	0° II		superior conj	4653 Apr 22 12:50	3° B 26'52	-1°-22'-28
asc. node	4652 May 14 15:31	1° II 27'51		minimum elong	4653 Apr 22 17:13	3° B 48'09	1°21'51
evening rise	4652 May 17 02:28	6° II 31'41		evening rise	4653 May 01 04:06	20° B 33'47	
	4652 May 30 03:55	0° E		asc. node	4653 May 01 12:32	21° B 15'41	
evening max el	4652 Jun 04 05:32	6° E 02'47	20°19'25		4653 May 06 00:28	0° II	
retrograde	4652 Jun 15 01:24	11° E 20'25		evening max el	4653 May 17 22:00	17° II 44'33	19°16'22
evening set	4652 Jun 17 00:47	11° E 10'36		retrograde	4653 May 27 00:43	22° II 11'11	
desc. node	4652 Jun 20 06:49	10° E 15'26		evening set	4653 May 29 00:11	21° II 59'32	
inferior conj	4652 Jun 26 04:17	7° E 12'35	-1°-44'-54	inferior conj	4653 Jun 06 11:35	17° II 50'33	0°11'58
minimum elong	4652 Jun 25 23:22	7° E 19'49	1°43'07	minimum elong	4653 Jun 06 12:05	17° II 49'43	0°11'47
min. Earth dist.	4652 Jun 27 16:04	6° E 20'08	0.55019 AU	transit middle	4653 Jun 06 12:05	17° II 49'43	0°11'47
morning rise	4652 Jul 04 20:02	3° E 00'33		transit begin	4653 Jun 06 09:29	17° II 54'02	
direct	4652 Jul 08 20:09	2° E 25'52		transit end	4653 Jun 06 14:41	17° II 45'23	
morning max el	4652 Jul 22 08:17	9° E 00'20	23°39'13	desc. node	4653 Jun 07 03:51	17° II 23'26	
	4652 Aug 06 15:35	0° Q		min. Earth dist.	4653 Jun 09 06:37	15° II 59'45	0.56111 AU
asc. node	4652 Aug 10 14:48	7° Q 25'37		morning rise	4653 Jun 14 19:51	13° II 04'35	
morning set	4652 Aug 15 04:48	16° Q 47'19		direct	4653 Jun 19 17:57	12° II 08'54	
	4652 Aug 21 08:03	0° M		morning max el	4653 Jul 03 22:01	19° II 22'03	25°20'11
superior conj	4652 Aug 22 05:41	1° M 56'52	1°35'21		4653 Jul 12 21:41	0° E	
minimum elong	4652 Aug 22 03:55	1° M 47'21	1°35'13	asc. node	4653 Jul 28 11:49	27° E 05'13	
max. Earth dist.	4652 Aug 24 14:29	7° M 00'57	1.33345 AU		4653 Jul 29 21:30	0° Q	
evening rise	4652 Aug 29 19:07	17° M 45'05		morning set	4653 Jul 30 16:26	1° Q 39'44	
	4652 Sep 05 04:48	0° A		superior conj	4653 Aug 06 15:49	16° Q 49'38	1°22'50
desc. node	4652 Sep 16 06:06	18° A 23'05		minimum elong	4653 Aug 06 13:34	16° Q 37'16	1°22'33
	4652 Sep 24 15:20	0° M		max. Earth dist.	4653 Aug 07 20:35	19° Q 27'04	1.32482 AU
evening max el	4652 Oct 02 16:43	8° M 57'50	27°23'33		4653 Aug 12 18:43	0° M	
retrograde	4652 Oct 16 06:18	16° M 16'07		evening rise	4653 Aug 13 19:13	2° M 07'12	
evening set	4652 Oct 23 07:39	13° M 37'37			4653 Aug 29 01:51	0° A	
min. Earth dist.	4652 Oct 27 01:41	10° M 14'34	0.64151 AU	desc. node	4653 Sep 03 03:07	7° A 33'51	
inferior conj	4652 Oct 29 12:27	7° M 40'28	-2°-38'-3	evening max el	4653 Sep 15 01:53	21° A 49'26	27°22'26
minimum elong	4652 Oct 29 16:59	7° M 28'34	2°36'22	retrograde	4653 Sep 28 20:58	29° A 04'08	
morning rise	4652 Nov 05 04:42	2° M 15'46		evening set	4653 Oct 06 01:09	26° A 37'28	
asc. node	4652 Nov 06 14:01	1° M 51'09		min. Earth dist.	4653 Oct 09 16:05	23° A 43'11	0.62357 AU
direct	4652 Nov 07 15:40	1° M 45'20		inferior conj	4653 Oct 12 13:56	20° A 59'45	-3°-39'-1
morning max el	4652 Nov 14 04:02	5° M 10'36	17°53'36	minimum elong	4653 Oct 12 19:51	20° A 45'52	3°37'14
	4652 Nov 30 13:06	0° J		morning rise	4653 Oct 19 17:29	15° A 53'31	
morning set	4652 Dec 01 01:43	0° J 53'42		direct	4653 Oct 22 00:53	15° A 29'45	
desc. node	4652 Dec 13 05:25	21° J 12'21		asc. node	4653 Oct 24 11:03	15° A 56'46	
superior conj	4652 Dec 14 03:21	22° J 41'26	0°-6'-21	morning max el	4653 Oct 28 20:13	18° A 57'54	17°50'53
minimum elong	4652 Dec 14 02:37	22° J 38'27	0°06'16		4653 Nov 05 21:09	0° M	
behind sun begin	4652 Dec 13 17:16	22° J 00'29		morning set	4653 Nov 13 18:10	13° M 45'36	
behind sun end	4652 Dec 14 11:58	23° J 16'22			4653 Nov 22 23:17	0° J	
	4652 Dec 18 16:37	0° E		superior conj	4653 Nov 24 22:49	3° J 23'11	0°35'44
max. Earth dist.	4652 Dec 19 09:25	1° E 06'44	1.44629 AU	minimum elong	4653 Nov 25 01:58	3° J 36'35	0°35'18
evening rise	4652 Dec 30 04:48	17° E 58'03		desc. node	4653 Nov 30 02:25	11° J 59'22	
	4653 Jan 07 02:24	0° \approx					

max. Earth dist.	4653 Dec 02 00:46	15°♄08'35	1.43353 AU		4654 Oct 29 12:07	0°♍	
evening rise	4653 Dec 09 16:23	27°♄17'35					
	4653 Dec 11 10:20	0°♄		superior conj	4654 Nov 06 19:54	15°♍19'28	1°07'46
	4653 Dec 31 23:11	0°♄		minimum elong	4654 Nov 06 23:56	15°♍37'29	1°07'18
greatest brilliancy	4654 Jan 04 17:36	4°♄53'20	-0.4m	max. Earth dist.	4654 Nov 14 11:34	28°♍36'47	1.41576 AU
evening max el	4654 Jan 09 14:46	10°♄28'23	21°32'01		4654 Nov 15 07:26	0°♄	
retrograde	4654 Jan 18 13:14	15°♄46'38		desc. node	4654 Nov 16 23:26	2°♄45'57	
asc. node	4654 Jan 20 10:17	15°♄27'39		evening rise	4654 Nov 19 18:27	7°♄19'03	
evening set	4654 Jan 22 18:37	14°♄07'51			4654 Dec 04 14:41	0°♄	
inferior conj	4654 Jan 28 03:56	7°♄49'12	2°22'14	greatest brilliancy	4654 Dec 18 02:56	18°♄15'13	-0.2m
minimum elong	4654 Jan 28 01:30	7°♄57'36	2°21'29	evening max el	4654 Dec 23 07:37	24°♄04'48	22°49'52
min. Earth dist.	4654 Jan 28 08:44	7°♄32'30	0.67934 AU		4655 Jan 01 15:48	0°♄	
morning rise	4654 Feb 02 08:05	1°♄34'50		retrograde	4655 Jan 02 08:35	0°♄02'17	
	4654 Feb 04 17:16	30°♄			4655 Jan 03 01:07	30°♄	
direct	4654 Feb 07 09:01	29°♄24'55		evening set	4655 Jan 07 01:53	28°♄07'26	
	4654 Feb 10 05:07	0°♄		asc. node	4655 Jan 07 07:19	27°♄55'57	
morning max el	4654 Feb 17 12:52	5°♄26'43	23°06'39	inferior conj	4655 Jan 12 11:53	21°♄42'06	1°40'48
greatest brilliancy	4654 Feb 22 11:04	10°♄57'13	-0.3m	minimum elong	4655 Jan 12 09:51	21°♄49'09	1°40'04
desc. node	4654 Feb 26 01:40	15°♄30'13		min. Earth dist.	4655 Jan 12 05:16	22°♄04'59	0.68072 AU
	4654 Mar 08 10:41	0°♄		morning rise	4655 Jan 17 17:47	15°♄31'17	
morning set	4654 Mar 24 05:21	24°♄45'11		direct	4655 Jan 22 04:01	13°♄44'19	
	4654 Mar 27 07:51	0°♄		morning max el	4655 Jan 31 02:08	18°♄56'31	21°40'22
max. Earth dist.	4654 Mar 28 13:33	2°♄07'46	1.39601 AU	greatest brilliancy	4655 Feb 04 21:57	24°♄23'09	-0.4m
					4655 Feb 09 06:13	0°♄	
superior conj	4654 Apr 05 06:12	15°♄52'29	-1°-47'-16	desc. node	4655 Feb 12 22:42	5°♄04'49	
minimum elong	4654 Apr 05 11:04	16°♄14'57	1°46'48		4655 Mar 01 14:57	0°♄	
	4654 Apr 12 17:47	0°♄		morning set	4655 Mar 04 03:38	3°♄59'51	
evening rise	4654 Apr 14 21:06	4°♄06'19		max. Earth dist.	4655 Mar 10 13:17	14°♄23'56	1.41727 AU
asc. node	4654 Apr 18 09:33	10°♄47'38					
	4654 Apr 30 22:39	0°♄		superior conj	4655 Mar 18 03:51	27°♄20'35	-2°-4'-8
evening max el	4654 May 01 00:31	0°♄04'35	18°33'36	minimum elong	4655 Mar 18 07:03	27°♄34'34	2°04'01
retrograde	4654 May 08 18:21	3°♄53'34			4655 Mar 19 16:11	0°♄	
evening set	4654 May 10 23:39	3°♄35'46		evening rise	4655 Mar 29 01:50	17°♄00'23	
	4654 May 17 12:00	30°♄		asc. node	4655 Apr 05 06:35	29°♄57'43	
inferior conj	4654 May 18 15:27	29°♄07'22	1°46'07		4655 Apr 05 07:07	0°♄	
minimum elong	4654 May 18 18:46	29°♄00'53	1°45'04	evening max el	4655 Apr 14 09:37	12°♄53'47	18°10'56
min. Earth dist.	4654 May 22 00:45	26°♄30'43	0.57903 AU	retrograde	4655 Apr 21 06:34	16°♄21'53	
desc. node	4654 May 25 00:52	24°♄30'38		evening set	4655 Apr 23 18:17	15°♄55'11	
morning rise	4654 May 26 09:26	23°♄47'11		inferior conj	4655 Apr 30 16:28	11°♄05'32	2°48'41
direct	4654 Jun 01 05:49	22°♄20'32		minimum elong	4655 Apr 30 19:45	10°♄58'04	2°47'58
morning max el	4654 Jun 15 14:51	29°♄58'18	26°43'47	min. Earth dist.	4655 May 04 00:50	8°♄04'46	0.60043 AU
	4654 Jun 15 15:33	0°♄		morning rise	4655 May 07 17:32	5°♄19'13	
	4654 Jul 06 18:32	0°♄		desc. node	4655 May 11 21:54	3°♄33'52	
morning set	4654 Jul 15 02:36	16°♄26'15		direct	4655 May 14 06:04	3°♄18'24	
asc. node	4654 Jul 15 08:49	16°♄59'04		morning max el	4655 May 28 14:07	11°♄11'05	27°36'48
	4654 Jul 21 08:35	0°♄			4655 Jun 12 06:30	0°♄	
					4655 Jun 28 21:42	0°♄	
superior conj	4654 Jul 22 03:31	1°♄44'32	1°05'41	morning set	4655 Jun 29 09:37	1°♄01'40	
minimum elong	4654 Jul 22 01:15	1°♄32'00	1°05'17	asc. node	4655 Jul 02 05:51	7°♄02'15	
max. Earth dist.	4654 Jul 22 07:14	2°♄05'03	1.32038 AU	max. Earth dist.	4655 Jul 05 18:44	14°♄44'05	1.32001 AU
evening rise	4654 Jul 29 01:24	16°♄45'28					
	4654 Aug 04 16:11	0°♄		superior conj	4655 Jul 06 15:02	16°♄35'53	0°44'28
desc. node	4654 Aug 21 00:09	25°♄54'59		minimum elong	4655 Jul 06 13:13	16°♄25'52	0°44'06
	4654 Aug 24 09:39	0°♄			4655 Jul 12 18:01	0°♄	
evening max el	4654 Aug 28 05:40	3°♄59'09	26°47'56	evening rise	4655 Jul 13 11:21	1°♄32'37	
retrograde	4654 Sep 11 03:38	11°♄09'07			4655 Jul 28 20:33	0°♄	
evening set	4654 Sep 18 01:28	9°♄06'32		desc. node	4655 Aug 07 21:10	13°♄06'31	
min. Earth dist.	4654 Sep 21 19:43	6°♄29'49	0.60344 AU	evening max el	4655 Aug 10 01:55	15°♄19'54	25°41'37
inferior conj	4654 Sep 25 00:59	3°♄51'28	-4°-32'-23	retrograde	4655 Aug 24 00:53	22°♄25'59	
minimum elong	4654 Sep 25 06:53	3°♄39'20	4°31'11	evening set	4655 Aug 30 03:48	20°♄57'49	
	4654 Sep 30 11:25	30°♄		min. Earth dist.	4655 Sep 03 13:56	18°♄21'26	0.58287 AU
morning rise	4654 Oct 02 15:35	29°♄06'56		inferior conj	4655 Sep 06 18:10	16°♄05'57	-5°-8'00
direct	4654 Oct 04 22:48	28°♄46'47		minimum elong	4655 Sep 06 21:19	16°♄00'18	5°07'45
	4654 Oct 09 05:22	0°♄		morning rise	4655 Sep 14 18:21	11°♄45'06	
asc. node	4654 Oct 11 08:05	1°♄30'02		direct	4655 Sep 17 04:56	11°♄26'15	
morning max el	4654 Oct 12 08:46	2°♄26'06	18°07'17	morning max el	4655 Sep 25 14:26	15°♄26'26	18°44'13
morning set	4654 Oct 28 02:30	27°♄22'30		asc. node	4655 Sep 28 05:07	18°♄17'07	

	4655 Oct 05 19:48	0°♄		morning max el	4656 Sep 07 10:01	27°♄48'31	19°42'50
morning set	4655 Oct 11 21:54	11°♄30'45			4656 Sep 09 12:54	0°♄	
				asc. node	4656 Sep 14 02:10	6°♄02'13	
superior conj	4655 Oct 20 13:46	28°♄16'40	1°29'02	morning set	4656 Sep 25 00:49	25°♄59'47	
minimum elong	4655 Oct 20 16:51	28°♄31'11	1°28'45		4656 Sep 27 00:16	0°♄	
	4655 Oct 21 11:45	0°♄					
max. Earth dist.	4655 Oct 27 17:44	11°♄22'01	1.39516 AU	superior conj	4656 Oct 02 22:57	11°♄58'29	1°40'35
evening rise	4655 Oct 31 18:49	18°♄21'27		minimum elong	4656 Oct 03 00:26	12°♄05'52	1°40'30
desc. node	4655 Nov 03 20:29	23°♄28'39		max. Earth dist.	4656 Oct 08 22:19	23°♄28'32	1.37431 AU
	4655 Nov 07 21:37	0°♄			4656 Oct 12 12:00	0°♄	
	4655 Nov 29 00:05	0°♄		evening rise	4656 Oct 12 17:40	0°♄25'21	
evening max el	4655 Dec 05 21:15	7°♄44'32	24°09'37	desc. node	4656 Oct 20 17:31	14°♄02'51	
retrograde	4655 Dec 17 00:38	14°♄17'02			4656 Oct 31 03:28	0°♄	
evening set	4655 Dec 22 07:05	12°♄06'16		evening max el	4656 Nov 17 09:41	21°♄27'09	25°24'39
asc. node	4655 Dec 25 04:21	9°♄04'13		retrograde	4656 Nov 29 12:23	28°♄25'46	
min. Earth dist.	4655 Dec 27 01:34	6°♄37'28	0.67843 AU	evening set	4656 Dec 05 08:34	26°♄00'49	
inferior conj	4655 Dec 27 19:07	5°♄38'15	0°52'37	min. Earth dist.	4656 Dec 09 19:21	21°♄06'40	0.67254 AU
minimum elong	4655 Dec 27 17:54	5°♄42'22	0°52'08	inferior conj	4656 Dec 10 23:48	19°♄34'53	0°-1'-21
	4656 Jan 01 15:17	30°♄		minimum elong	4656 Dec 10 23:50	19°♄34'47	0°01'20
morning rise	4656 Jan 02 05:03	29°♄32'54		transit middle	4656 Dec 10 23:50	19°♄34'47	0°01'20
direct	4656 Jan 06 01:33	28°♄08'24		transit begin	4656 Dec 10 21:03	19°♄43'47	
	4656 Jan 10 21:31	0°♄		transit end	4656 Dec 11 02:37	19°♄25'47	
morning max el	4656 Jan 13 22:37	2°♄38'18	20°23'45	asc. node	4656 Dec 11 01:24	19°♄29'44	
greatest brilliancy	4656 Jan 20 05:36	10°♄03'50	-0.5m	morning rise	4656 Dec 16 15:54	13°♄37'06	
desc. node	4656 Jan 30 19:45	25°♄05'08		direct	4656 Dec 20 00:15	12°♄32'31	
	4656 Feb 03 02:38	0°♄		morning max el	4656 Dec 27 03:01	16°♄31'01	19°20'53
morning set	4656 Feb 11 03:29	12°♄16'18		greatest brilliancy	4657 Jan 05 06:41	28°♄10'17	-0.7m
max. Earth dist.	4656 Feb 20 20:27	27°♄34'31	1.43517 AU		4657 Jan 06 12:51	0°♄	
	4656 Feb 22 08:31	0°♄		desc. node	4657 Jan 16 16:48	15°♄24'05	
				morning set	4657 Jan 20 02:37	20°♄40'08	
					4657 Jan 26 02:47	0°♄	
superior conj	4656 Feb 27 01:08	7°♄41'20	-2°-7'-45	max. Earth dist.	4657 Feb 02 10:07	11°♄27'17	1.44748 AU
minimum elong	4656 Feb 26 23:31	7°♄34'38	2°07'45				
evening rise	4656 Mar 10 14:03	29°♄06'56					
	4656 Mar 11 02:11	0°♄		superior conj	4657 Feb 05 21:21	16°♄57'14	-1°-53'-4
asc. node	4656 Mar 22 03:38	18°♄38'30		minimum elong	4657 Feb 05 13:42	16°♄26'49	1°52'33
evening max el	4656 Mar 27 21:55	26°♄02'59	18°07'43		4657 Feb 13 23:27	0°♄	
retrograde	4656 Apr 03 09:13	29°♄25'25		evening rise	4657 Feb 20 05:29	10°♄18'49	
evening set	4656 Apr 06 02:54	28°♄48'13			4657 Mar 04 06:34	0°♄	
inferior conj	4656 Apr 12 11:17	23°♄38'11	3°22'44	asc. node	4657 Mar 09 00:41	6°♄41'31	
minimum elong	4656 Apr 12 13:08	23°♄33'24	3°22'31	evening max el	4657 Mar 11 10:33	9°♄25'33	18°23'16
min. Earth dist.	4656 Apr 15 09:15	20°♄37'51	0.62213 AU	retrograde	4657 Mar 17 21:43	12°♄55'38	
morning rise	4656 Apr 18 20:44	17°♄35'39		evening set	4657 Mar 20 21:26	12°♄06'44	
direct	4656 Apr 25 16:48	15°♄06'09		inferior conj	4657 Mar 26 19:50	6°♄37'49	3°34'23
desc. node	4656 Apr 27 18:57	15°♄19'03		minimum elong	4657 Mar 26 20:00	6°♄37'21	3°34'24
morning max el	4656 May 09 19:27	23°♄06'01	27°52'29	min. Earth dist.	4657 Mar 29 03:06	3°♄58'44	0.64172 AU
	4656 May 15 22:40	0°♄		morning rise	4657 Apr 01 16:51	0°♄26'46	
	4656 Jun 04 12:09	0°♄			4657 Apr 02 06:29	30°♄	
morning set	4656 Jun 12 11:21	15°♄18'10		direct	4657 Apr 08 12:00	27°♄40'41	
max. Earth dist.	4656 Jun 18 02:50	27°♄08'57	1.32382 AU	desc. node	4657 Apr 14 15:59	29°♄33'33	
asc. node	4656 Jun 18 02:53	27°♄09'17			4657 Apr 15 09:40	0°♄	
	4656 Jun 19 10:26	0°♄		morning max el	4657 Apr 22 04:26	5°♄37'54	27°31'18
					4657 May 10 17:09	0°♄	
superior conj	4656 Jun 20 00:33	1°♄16'47	0°19'47	morning set	4657 May 27 05:19	29°♄08'26	
minimum elong	4656 Jun 19 23:39	1°♄11'48	0°19'34		4657 May 27 15:45	0°♄	
evening rise	4656 Jun 26 23:00	16°♄20'41		max. Earth dist.	4657 Jun 01 03:37	9°♄08'16	1.33213 AU
	4656 Jul 03 17:04	0°♄					
evening max el	4656 Jul 21 15:37	25°♄57'48	24°12'23	superior conj	4657 Jun 04 06:15	15°♄41'51	0°-7'-40
desc. node	4656 Jul 24 18:12	28°♄39'49		minimum elong	4657 Jun 04 06:38	15°♄43'56	0°07'37
	4656 Jul 26 15:21	0°♄		behind sun begin	4657 Jun 04 01:51	15°♄18'22	
retrograde	4656 Aug 04 11:02	2°♄55'19		behind sun end	4657 Jun 04 11:26	16°♄09'31	
evening set	4656 Aug 09 05:47	2°♄04'32		asc. node	4657 Jun 04 23:57	17°♄16'24	
	4656 Aug 13 16:04	30°♄			4657 Jun 10 22:23	0°♄	
min. Earth dist.	4656 Aug 15 02:19	29°♄09'24	0.56458 AU	evening rise	4657 Jun 11 10:31	1°♄04'08	
inferior conj	4656 Aug 17 15:07	27°♄34'42	-5°-10'-58		4657 Jun 27 17:31	0°♄	
minimum elong	4656 Aug 17 12:30	27°♄38'47	5°10'49	evening max el	4657 Jul 03 05:11	6°♄19'51	22°35'02
morning rise	4656 Aug 25 22:42	23°♄34'45		desc. node	4657 Jul 11 15:13	12°♄00'45	
direct	4656 Aug 28 15:40	23°♄15'28		retrograde	4657 Jul 16 08:39	12°♄52'08	

evening set	4657 Jul 19 14:58	12°♎28'45		inferior conj	4658 Jul 08 11:01	18°♎37'06	-2°-52'-22
min. Earth dist.	4657 Jul 27 12:48	9°♎00'40	0.55203 AU	minimum elong	4658 Jul 08 03:20	18°♎47'54	2°49'51
inferior conj	4657 Jul 28 17:45	8°♎19'26	-4°-26'-7	min. Earth dist.	4658 Jul 08 23:38	18°♎19'19	0.54807 AU
minimum elong	4657 Jul 28 09:46	8°♎30'51	4°24'27	morning rise	4658 Jul 17 03:24	14°♎39'08	
morning rise	4657 Aug 06 06:53	4°♎29'25		direct	4658 Jul 20 18:01	14°♎11'05	
direct	4657 Aug 09 08:46	4°♎07'42		morning max el	4658 Aug 02 14:04	20°♎18'10	22°39'40
morning max el	4657 Aug 20 17:34	9°♎25'18	21°02'42		4658 Aug 10 17:18	0°♎	
asc. node	4657 Aug 31 23:12	24°♎32'09		asc. node	4658 Aug 18 20:15	13°♎35'59	
	4657 Sep 03 23:33	0°♎		morning set	4658 Aug 24 19:19	25°♎33'50	
morning set	4657 Sep 09 08:38	10°♎42'43			4658 Aug 26 21:34	0°♎	
superior conj	4657 Sep 16 19:01	26°♎12'09	1°43'51	superior conj	4658 Aug 31 22:34	10°♎47'31	1°40'11
minimum elong	4657 Sep 16 18:58	26°♎11'52	1°43'51	minimum elong	4658 Aug 31 21:18	10°♎40'47	1°40'07
	4657 Sep 18 15:33	0°♎		max. Earth dist.	4658 Sep 04 01:12	17°♎20'09	1.34033 AU
max. Earth dist.	4657 Sep 21 07:28	5°♎20'10	1.35557 AU	evening rise	4658 Sep 08 20:09	27°♎00'54	
evening rise	4657 Sep 25 11:33	13°♎22'21			4658 Sep 10 09:03	0°♎	
	4657 Oct 04 21:39	0°♎		desc. node	4658 Sep 24 11:31	24°♎24'47	
desc. node	4657 Oct 07 14:31	4°♎23'39			4658 Sep 28 04:58	0°♎	
	4657 Oct 26 01:49	0°♎		evening max el	4658 Oct 13 11:06	18°♎41'42	27°10'31
evening max el	4657 Oct 30 22:22	5°♎09'03	26°27'27	retrograde	4658 Oct 26 19:41	25°♎59'17	
retrograde	4657 Nov 12 18:59	12°♎22'04		evening set	4658 Nov 02 16:27	23°♎19'36	
evening set	4657 Nov 19 04:26	9°♎46'42		min. Earth dist.	4658 Nov 06 13:50	19°♎36'54	0.65044 AU
min. Earth dist.	4657 Nov 23 08:14	5°♎28'12	0.66322 AU	inferior conj	4658 Nov 08 17:31	17°♎13'22	-2°-1'-52
inferior conj	4657 Nov 25 00:00	3°♎27'58	-1°00'-3	minimum elong	4658 Nov 08 21:00	17°♎03'40	2°00'29
minimum elong	4657 Nov 25 01:39	3°♎22'58	0°59'21	asc. node	4658 Nov 14 19:29	11°♎48'56	
asc. node	4657 Nov 27 22:28	0°♎07'30		morning rise	4658 Nov 15 03:31	11°♎39'13	
	4657 Nov 28 01:26	30°♎		direct	4658 Nov 17 17:59	11°♎03'12	
morning rise	4657 Dec 01 00:12	27°♎40'26		morning max el	4658 Nov 24 05:23	14°♎30'21	18°03'17
direct	4657 Dec 03 22:28	26°♎52'04			4658 Dec 05 06:15	0°♎	
	4657 Dec 10 01:39	0°♎		morning set	4658 Dec 12 02:43	11°♎18'21	
morning max el	4657 Dec 10 14:02	0°♎30'03	18°33'44	desc. node	4658 Dec 21 10:49	26°♎36'23	
morning set	4657 Dec 30 23:49	0°♎14'37			4658 Dec 23 13:26	0°♎	
	4657 Dec 30 20:08	0°♎		superior conj	4658 Dec 26 08:36	4°♎28'09	0°-33'-28
desc. node	4658 Jan 03 13:48	5°♎55'45		minimum elong	4658 Dec 26 04:27	4°♎11'41	0°32'54
superior conj	4658 Jan 16 01:20	25°♎34'43	-1°-19'-12	max. Earth dist.	4658 Dec 29 23:52	10°♎13'20	1.45087 AU
minimum elong	4658 Jan 15 16:22	24°♎59'31	1°18'12	evening rise	4659 Jan 11 17:13	0°♎02'12	
max. Earth dist.	4658 Jan 16 04:11	25°♎45'53	1.45288 AU		4659 Jan 11 16:38	0°♎	
	4658 Jan 18 21:00	0°♎		greatest brilliancy	4659 Jan 29 18:49	27°♎16'17	-0.6m
evening rise	4658 Jan 31 21:34	20°♎33'13			4659 Jan 31 18:30	0°♎	
	4658 Feb 06 20:04	0°♎		evening max el	4659 Feb 06 03:07	6°♎27'12	19°46'29
evening max el	4658 Feb 22 20:57	22°♎54'56	18°56'41	asc. node	4659 Feb 10 18:46	10°♎04'22	
asc. node	4658 Feb 23 21:44	23°♎54'41		retrograde	4659 Feb 13 13:46	10°♎45'55	
retrograde	4658 Mar 01 16:14	26°♎44'17		evening set	4659 Feb 17 03:56	9°♎30'31	
evening set	4658 Mar 04 22:36	25°♎42'39		inferior conj	4659 Feb 22 15:27	3°♎29'23	3°11'03
inferior conj	4658 Mar 10 14:15	19°♎56'34	3°29'11	minimum elong	4659 Feb 22 13:24	3°♎36'14	3°10'40
minimum elong	4658 Mar 10 13:03	20°♎00'19	3°29'05	min. Earth dist.	4659 Feb 23 16:23	2°♎06'33	0.66941 AU
min. Earth dist.	4658 Mar 12 05:53	17°♎52'22	0.65768 AU		4659 Feb 25 08:00	30°♎	
morning rise	4658 Mar 16 02:26	13°♎41'39		morning rise	4659 Feb 27 22:12	27°♎13'15	
direct	4658 Mar 22 14:03	10°♎52'59		direct	4659 Mar 05 21:48	24°♎33'57	
desc. node	4658 Apr 01 13:02	15°♎43'04			4659 Mar 16 03:34	0°♎	
morning max el	4658 Apr 04 14:19	18°♎34'51	26°39'08	morning max el	4659 Mar 17 23:30	1°♎46'15	25°24'43
	4658 Apr 14 05:49	0°♎		desc. node	4659 Mar 19 10:04	3°♎16'20	
	4658 May 03 16:58	0°♎			4659 Apr 08 07:45	0°♎	
morning set	4658 May 10 12:08	12°♎22'13		morning set	4659 Apr 23 03:25	24°♎47'17	
max. Earth dist.	4658 May 14 17:51	20°♎36'00	1.34515 AU		4659 Apr 25 23:30	0°♎	
				max. Earth dist.	4659 Apr 26 21:10	1°♎41'28	1.36262 AU
superior conj	4658 May 19 05:52	29°♎44'18	0°-36'-52	superior conj	4659 May 02 20:39	13°♎16'40	-1°-6'-17
minimum elong	4658 May 19 07:51	29°♎54'33	0°36'29	minimum elong	4659 May 03 00:16	13°♎34'40	1°05'41
	4658 May 19 08:54	0°♎		asc. node	4659 May 09 18:02	27°♎13'58	
asc. node	4658 May 22 21:00	7°♎19'17		evening rise	4659 May 11 01:11	29°♎52'13	
evening rise	4658 May 26 19:57	15°♎36'43			4659 May 11 02:43	0°♎	
	4658 Jun 03 03:25	0°♎		evening max el	4659 May 28 11:54	28°♎15'35	19°50'03
evening max el	4658 Jun 15 02:32	16°♎58'49	21°04'26		4659 May 30 11:09	0°♎	
retrograde	4658 Jun 26 21:25	22°♎46'14		retrograde	4659 Jun 07 13:31	3°♎10'27	
desc. node	4658 Jun 28 12:13	22°♎40'04		evening set	4659 Jun 09 11:53	3°♎00'23	
evening set	4658 Jun 29 03:07	22°♎34'31					

desc. node	4659 Jun 15 09:15	0°☿45'13			4660 May 02 18:17	0°♊	
	4659 Jun 16 16:58	30°♊		evening max el	4660 May 10 08:59	10°♊14'27	18°55'38
inferior conj	4659 Jun 18 09:25	28°♊58'52	0°-53'-46	retrograde	4660 May 18 20:35	14°♊23'39	
minimum elong	4659 Jun 18 06:56	29°♊02'41	0°52'51	evening set	4660 May 20 22:05	14°♊09'52	
min. Earth dist.	4659 Jun 20 12:16	27°♊41'03	0.55380 AU	inferior conj	4660 May 29 01:07	9°♊52'54	0°55'38
morning rise	4659 Jun 26 23:03	24°♊33'47		minimum elong	4660 May 29 03:14	9°♊49'09	0°54'52
direct	4659 Jul 01 08:06	23°♊51'40		min. Earth dist.	4660 Jun 01 04:10	7°♊40'30	0.56802 AU
	4659 Jul 14 09:36	0°☿		desc. node	4660 Jun 01 06:17	7°♊36'55	
morning max el	4659 Jul 15 04:25	0°☿43'26	24°23'30	morning rise	4660 Jun 06 03:54	4°♊51'30	
	4659 Aug 04 03:52	0°♊		direct	4660 Jun 11 11:32	3°♊43'54	
asc. node	4659 Aug 05 17:16	3°♊04'32		morning max el	4660 Jun 25 19:11	11°♊09'13	25°58'55
morning set	4659 Aug 09 07:04	10°♊27'11			4660 Jul 10 06:53	0°☿	
				asc. node	4660 Jul 22 14:18	22°☿51'06	
superior conj	4659 Aug 16 06:54	25°♊35'41	1°30'39	morning set	4660 Jul 23 18:17	25°☿17'55	
minimum elong	4659 Aug 16 04:52	25°♊24'38	1°30'27		4660 Jul 25 22:59	0°♊	
max. Earth dist.	4659 Aug 18 03:29	29°♊37'01	1.32922 AU				
	4659 Aug 18 07:45	0°♊		superior conj	4660 Jul 30 17:56	10°♊30'06	1°16'06
evening rise	4659 Aug 23 15:29	11°♊09'24		minimum elong	4660 Jul 30 15:37	10°♊17'20	1°15'45
	4659 Sep 02 15:33	0°♊		max. Earth dist.	4660 Jul 31 11:58	12°♊09'22	1.32237 AU
desc. node	4659 Sep 11 08:31	13°♊57'04		evening rise	4660 Aug 06 18:29	25°♊39'03	
	4659 Sep 24 01:08	0°♊			4660 Aug 08 21:19	0°♊	
evening max el	4659 Sep 25 22:07	1°♊51'23	27°27'02		4660 Aug 26 05:15	0°♊	
retrograde	4659 Oct 09 14:03	9°♊07'51		desc. node	4660 Aug 28 05:33	2°♊48'39	
evening set	4659 Oct 16 17:42	6°♊32'52		evening max el	4660 Sep 07 05:04	14°♊25'15	27°11'48
min. Earth dist.	4659 Oct 20 09:57	3°♊23'16	0.63425 AU	retrograde	4660 Sep 21 01:31	21°♊38'26	
inferior conj	4659 Oct 23 01:41	0°♊43'50	-3°-4'-20	evening set	4660 Sep 28 04:28	19°♊20'03	
minimum elong	4659 Oct 23 06:54	0°♊30'45	3°02'33	min. Earth dist.	4660 Oct 01 19:31	16°♊35'21	0.61519 AU
	4659 Oct 23 19:17	30°♊		inferior conj	4660 Oct 04 21:24	13°♊51'46	-4°-3'-6
morning rise	4659 Oct 29 22:42	25°♊26'38		minimum elong	4660 Oct 05 03:34	13°♊38'06	4°01'28
direct	4659 Nov 01 07:55	24°♊59'18		morning rise	4660 Oct 12 05:48	8°♊54'46	
asc. node	4659 Nov 01 16:31	24°♊59'56		direct	4660 Oct 14 12:40	8°♊32'55	
morning max el	4659 Nov 07 22:10	28°♊24'26	17°50'15	asc. node	4660 Oct 18 13:32	9°♊43'43	
	4659 Nov 09 09:38	0°♊		morning max el	4660 Oct 21 13:15	12°♊04'34	17°55'32
morning set	4659 Nov 24 07:18	23°♊36'12			4660 Nov 02 13:04	0°♊	
	4659 Nov 27 23:52	0°♊		morning set	4660 Nov 06 07:08	6°♊48'28	
superior conj	4659 Dec 06 12:46	14°♊25'02	0°12'32	superior conj	4660 Nov 16 19:34	25°♊39'44	0°50'39
minimum elong	4659 Dec 06 14:04	14°♊30'28	0°12'22	minimum elong	4660 Nov 16 23:24	25°♊56'23	0°50'08
behind sun begin	4659 Dec 06 07:53	14°♊04'55			4660 Nov 19 08:03	0°♊	
behind sun end	4659 Dec 06 20:16	14°♊55'58		desc. node	4660 Nov 24 04:50	8°♊09'00	
desc. node	4659 Dec 08 07:49	17°♊21'54		max. Earth dist.	4660 Nov 24 07:04	8°♊18'09	1.42642 AU
max. Earth dist.	4659 Dec 12 17:45	24°♊30'08	1.44165 AU	evening rise	4660 Nov 30 19:14	18°♊46'31	
	4659 Dec 16 04:54	0°♊			4660 Dec 08 01:52	0°♊	
evening rise	4659 Dec 22 03:07	9°♊13'36		greatest brilliancy	4660 Dec 28 05:42	28°♊14'39	-0.3m
	4660 Jan 04 22:44	0°♊			4660 Dec 29 16:54	0°♊	
greatest brilliancy	4660 Jan 14 15:56	13°♊32'50	-0.5m	evening max el	4661 Jan 01 23:10	3°♊34'49	22°04'28
evening max el	4660 Jan 20 03:51	20°♊00'24	20°50'17	retrograde	4661 Jan 11 08:56	9°♊10'37	
retrograde	4660 Jan 28 11:59	24°♊56'01		asc. node	4661 Jan 14 12:49	8°♊17'23	
asc. node	4660 Jan 28 15:47	24°♊55'53		evening set	4661 Jan 15 19:09	7°♊25'01	
evening set	4660 Feb 01 11:21	23°♊25'55		inferior conj	4661 Jan 21 04:33	1°♊02'46	2°05'33
inferior conj	4660 Feb 06 20:56	17°♊12'30	2°42'36	minimum elong	4661 Jan 21 02:14	1°♊10'49	2°04'47
minimum elong	4660 Feb 06 18:30	17°♊20'52	2°41'57	min. Earth dist.	4661 Jan 21 04:22	1°♊03'24	0.68035 AU
min. Earth dist.	4660 Feb 07 08:39	16°♊32'14	0.67686 AU		4661 Jan 21 22:40	30°♊	
morning rise	4660 Feb 12 01:15	10°♊56'58		morning rise	4661 Jan 26 09:08	24°♊49'31	
direct	4660 Feb 17 10:35	8°♊35'09		direct	4661 Jan 31 03:39	22°♊49'24	
morning max el	4660 Feb 28 08:13	15°♊05'17	23°58'05	morning max el	4661 Feb 09 18:47	28°♊30'18	22°29'06
desc. node	4660 Mar 05 07:05	21°♊49'30			4661 Feb 11 05:07	0°♊	
	4660 Mar 11 13:07	0°♊		greatest brilliancy	4661 Feb 14 08:22	3°♊35'53	-0.3m
	4660 Mar 31 06:18	0°♊		desc. node	4661 Feb 20 04:06	11°♊05'18	
morning set	4660 Apr 03 21:31	6°♊08'35			4661 Mar 05 06:13	0°♊	
max. Earth dist.	4660 Apr 07 17:27	12°♊50'41	1.38337 AU	morning set	4661 Mar 15 12:31	16°♊10'37	
				max. Earth dist.	4661 Mar 20 13:31	24°♊34'03	1.40527 AU
superior conj	4660 Apr 14 23:05	26°♊09'51	-1°-33'-40		4661 Mar 23 17:27	0°♊	
minimum elong	4660 Apr 15 03:51	26°♊32'33	1°33'04				
	4660 Apr 16 23:12	0°♊		superior conj	4661 Mar 28 08:41	8°♊12'12	-1°-55'-41
evening rise	4660 Apr 23 23:36	13°♊43'21		minimum elong	4661 Mar 28 13:11	8°♊32'31	1°55'22
asc. node	4660 Apr 25 15:04	16°♊56'01		evening rise	4661 Apr 07 11:54	27°♊00'39	

	4661 Apr 09 02:03	0°♄		evening rise	4662 Mar 21 10:12	9°♃35'49	
asc. node	4661 Apr 12 12:06	6°♄19'27		asc. node	4662 Mar 30 09:09	25°♃18'16	
evening max el	4661 Apr 23 14:45	22°♄48'01	18°21'33		4662 Apr 02 09:38	0°♄	
retrograde	4661 Apr 30 22:24	26°♄26'13		evening max el	4662 Apr 07 01:43	5°♄47'26	18°07'12
evening set	4661 May 03 06:21	26°♄05'02		retrograde	4662 Apr 13 17:08	9°♄10'57	
inferior conj	4661 May 10 14:17	21°♄27'55	2°16'27	evening set	4662 Apr 16 07:30	8°♄39'55	
minimum elong	4661 May 10 17:51	21°♄20'28	2°15'28	inferior conj	4662 Apr 22 23:22	3°♄41'40	3°06'12
min. Earth dist.	4661 May 14 00:51	18°♄37'40	0.58789 AU	minimum elong	4662 Apr 23 02:08	3°♄35'01	3°05'43
morning rise	4661 May 18 01:04	15°♄55'03		min. Earth dist.	4662 Apr 26 04:17	0°♄38'03	0.60991 AU
desc. node	4661 May 19 03:20	15°♄22'32			4662 Apr 26 21:18	30°♃	
direct	4661 May 24 05:17	14°♄13'28		morning rise	4662 Apr 29 17:31	27°♃47'33	
morning max el	4661 Jun 07 14:42	21°♄59'36	27°10'35	direct	4662 May 06 10:37	25°♃33'02	
	4661 Jun 14 15:34	0°♂		desc. node	4662 May 06 00:22	25°♃33'34	
	4661 Jul 03 04:35	0°♂			4662 May 16 18:53	0°♄	
morning set	4661 Jul 08 03:19	10°♂00'04		morning max el	4662 May 20 16:31	3°♄29'32	27°47'57
asc. node	4661 Jul 09 11:21	12°♂49'20			4662 Jun 09 05:41	0°♂	
				morning set	4662 Jun 22 08:20	24°♂27'53	
superior conj	4661 Jul 15 05:46	25°♂23'59	0°57'09		4662 Jun 24 23:46	0°♂	
minimum elong	4661 Jul 15 03:38	25°♂12'13	0°56'45	asc. node	4662 Jun 26 08:24	2°♂54'34	
max. Earth dist.	4661 Jul 14 23:13	24°♂47'47	1.31968 AU	max. Earth dist.	4662 Jun 28 09:35	7°♂21'22	1.32114 AU
	4661 Jul 17 07:47	0°♂					
evening rise	4661 Jul 22 02:30	10°♂21'24		superior conj	4662 Jun 29 16:40	10°♂11'33	0°34'23
	4661 Aug 01 04:14	0°♂		minimum elong	4662 Jun 29 15:11	10°♂03'23	0°34'03
desc. node	4661 Aug 15 02:35	20°♂42'50		evening rise	4662 Jul 06 13:25	25°♂09'37	
evening max el	4661 Aug 20 05:37	26°♂13'30	26°23'17		4662 Jul 08 20:47	0°♂	
	4661 Aug 24 19:57	0°♂			4662 Jul 26 12:54	0°♂	
retrograde	4661 Sep 03 04:45	3°♂22'42		desc. node	4662 Aug 01 23:37	7°♂16'17	
evening set	4661 Sep 09 20:01	1°♂33'48		evening max el	4662 Aug 01 22:52	7°♂14'28	25°05'43
	4661 Sep 12 09:10	30°♃		retrograde	4662 Aug 15 21:27	14°♂17'34	
min. Earth dist.	4661 Sep 13 19:01	28°♂59'22	0.59452 AU	evening set	4662 Aug 21 11:48	13°♂06'05	
inferior conj	4661 Sep 17 01:13	26°♂28'17	-4°-50'-32	min. Earth dist.	4662 Aug 26 10:29	10°♂23'35	0.57457 AU
minimum elong	4661 Sep 17 06:21	26°♂18'18	4°49'43	inferior conj	4662 Aug 29 09:54	8°♂23'51	-5°-14'-18
morning rise	4661 Sep 24 20:09	21°♂53'53		minimum elong	4662 Aug 29 10:53	8°♂22'12	5°14'18
direct	4661 Sep 27 04:11	21°♂34'41		morning rise	4662 Sep 06 13:26	4°♂12'14	
morning max el	4661 Oct 04 23:18	25°♂21'57	18°20'27	direct	4662 Sep 09 02:24	3°♂53'20	
asc. node	4661 Oct 05 10:34	25°♂49'51		morning max el	4662 Sep 18 00:55	8°♂06'29	19°06'29
	4661 Oct 08 21:53	0°♂		asc. node	4662 Sep 22 07:38	13°♂03'06	
morning set	4661 Oct 20 20:39	20°♂39'40			4662 Oct 02 06:55	0°♂	
	4661 Oct 25 18:20	0°♂		morning set	4662 Oct 04 19:36	4°♂57'33	
superior conj	4661 Oct 30 02:08	8°♂03'31	1°18'04	superior conj	4662 Oct 13 03:03	21°♂20'47	1°35'02
minimum elong	4661 Oct 30 05:54	8°♂20'46	1°17'39	minimum elong	4662 Oct 13 05:29	21°♂32'31	1°34'52
max. Earth dist.	4661 Nov 06 15:06	21°♂26'02	1.40711 AU		4662 Oct 17 17:01	0°♂	
evening rise	4661 Nov 11 06:20	29°♂12'46		max. Earth dist.	4662 Oct 19 20:06	3°♂53'12	1.38615 AU
desc. node	4661 Nov 11 01:52	28°♂54'25		evening rise	4662 Oct 23 16:31	10°♂41'52	
	4661 Nov 11 17:50	0°♂		desc. node	4662 Oct 28 22:53	19°♂33'57	
	4661 Dec 01 14:45	0°♂			4662 Nov 04 13:07	0°♂	
evening max el	4661 Dec 15 14:26	17°♂12'52	23°24'01		4662 Nov 27 05:50	0°♂	
retrograde	4661 Dec 26 03:07	23°♂26'30		evening max el	4662 Nov 28 03:31	0°♂54'34	24°42'42
evening set	4661 Dec 31 01:44	21°♂25'02		retrograde	4662 Dec 09 17:17	7°♂38'56	
asc. node	4662 Jan 01 09:50	20°♂09'21		evening set	4662 Dec 15 05:32	5°♂22'03	
min. Earth dist.	4662 Jan 05 01:13	15°♂36'32	0.68012 AU	asc. node	4662 Dec 19 06:53	0°♂53'08	
inferior conj	4662 Jan 05 12:27	14°♂57'59	1°21'10		4662 Dec 19 23:06	30°♃	
minimum elong	4662 Jan 05 10:42	15°♂03'58	1°20'31	min. Earth dist.	4662 Dec 19 20:43	0°♂07'50	0.67634 AU
morning rise	4662 Jan 10 19:45	8°♂48'58		inferior conj	4662 Dec 20 18:48	28°♂54'34	0°30'24
direct	4662 Jan 15 00:00	7°♂11'38		minimum elong	4662 Dec 20 18:04	28°♂57'01	0°30'07
morning max el	4662 Jan 23 10:46	12°♂04'59	21°06'17	morning rise	4662 Dec 26 07:05	22°♂52'03	
greatest brilliancy	4662 Jan 28 18:50	18°♂12'09	-0.4m	direct	4662 Dec 29 22:18	21°♂36'12	
	4662 Feb 06 10:38	0°♂		morning max el	4663 Jan 06 10:31	25°♂51'04	19°55'13
desc. node	4662 Feb 07 01:09	0°♂52'12			4663 Jan 10 02:55	0°♂	
morning set	4662 Feb 22 23:38	24°♂55'29		greatest brilliancy	4663 Jan 13 16:21	4°♂38'37	-0.6m
	4662 Feb 26 04:38	0°♂		desc. node	4663 Jan 24 22:10	21°♂01'05	
max. Earth dist.	4662 Mar 02 15:53	7°♂12'45	1.42547 AU		4663 Jan 30 19:41	0°♂	
				morning set	4663 Feb 01 19:52	3°♂05'22	
superior conj	4662 Mar 09 20:33	19°♂13'23	-2°-7'-37	max. Earth dist.	4663 Feb 13 02:20	20°♂44'22	1.44125 AU
minimum elong	4662 Mar 09 22:05	19°♂19'57	2°07'37				
	4662 Mar 16 01:20	0°♂		superior conj	4663 Feb 18 06:52	29°♂05'31	-2°-3'-59

minimum elong	4663 Feb 18 02:33	28° \approx 47'57	2°03'49	minimum elong	4664 Jan 28 09:06	7° \approx 23'03	1°40'00
	4663 Feb 18 20:15	0° H			4664 Feb 11 12:22	0° H	
evening rise	4663 Mar 03 14:01	21° H 19'46		evening rise	4664 Feb 12 19:34	2° H 06'54	
	4663 Mar 08 15:44	0° Y			4664 Mar 01 21:18	0° Y	
asc. node	4663 Mar 17 06:11	13° Y 44'20		asc. node	4664 Mar 03 03:13	1° Y 27'35	
evening max el	4663 Mar 21 14:33	19° Y 03'37	18°12'02	evening max el	4664 Mar 04 02:26	2° Y 29'21	18°35'19
retrograde	4663 Mar 28 00:29	22° Y 27'26		retrograde	4664 Mar 10 16:06	6° Y 06'27	
evening set	4663 Mar 30 20:50	21° Y 45'12		evening set	4664 Mar 13 18:33	5° Y 12'11	
inferior conj	4663 Apr 06 00:31	16° Y 26'48	3°30'02		4664 Mar 19 05:28	30° R H	
minimum elong	4663 Apr 06 01:38	16° Y 23'45	3°29'57	inferior conj	4664 Mar 19 13:40	29° H 35'25	3°34'00
min. Earth dist.	4663 Apr 08 16:26	13° Y 33'40	0.63092 AU	minimum elong	4664 Mar 19 13:12	29° H 36'48	3°33'59
morning rise	4663 Apr 12 04:18	10° Y 20'09		min. Earth dist.	4664 Mar 21 14:08	27° H 10'12	0.64897 AU
direct	4663 Apr 19 00:59	7° Y 42'09		morning rise	4664 Mar 25 06:30	23° H 22'12	
desc. node	4663 Apr 22 21:24	8° Y 26'07		direct	4664 Mar 31 22:58	20° H 33'44	
morning max el	4663 May 02 23:38	15° Y 41'11	27°47'42	desc. node	4664 Apr 08 18:25	23° H 33'45	
	4663 May 14 16:56	0° B		morning max el	4664 Apr 14 09:28	28° H 25'56	27°12'33
	4663 Jun 01 21:31	0° II			4664 Apr 15 21:40	0° Y	
morning set	4663 Jun 06 07:08	8° II 34'38			4664 May 07 11:51	0° B	
max. Earth dist.	4663 Jun 11 15:13	19° II 37'53	1.32686 AU	morning set	4664 May 19 20:50	22° B 11'05	
asc. node	4663 Jun 13 05:28	23° II 02'31			4664 May 23 19:19	0° II	
				max. Earth dist.	4664 May 24 12:08	1° II 25'43	1.33712 AU
superior conj	4663 Jun 14 00:51	24° II 47'02	0°08'26				
minimum elong	4663 Jun 14 00:26	24° II 44'50	0°08'20	superior conj	4664 May 28 04:14	9° II 03'25	0°-19'-54
behind sun begin	4663 Jun 13 19:55	24° II 20'27		minimum elong	4664 May 28 05:16	9° II 08'53	0°19'43
behind sun end	4663 Jun 14 04:57	25° II 09'15		asc. node	4664 May 30 02:29	13° II 08'26	
	4663 Jun 16 10:32	0° S		evening rise	4664 Jun 04 12:10	24° II 37'20	
evening rise	4663 Jun 21 01:17	9° S 57'18			4664 Jun 07 02:33	0° S	
	4663 Jul 01 09:02	0° Q		evening max el	4664 Jun 25 03:30	28° S 07'37	21°54'51
evening max el	4663 Jul 14 11:41	17° Q 42'31	23°30'57		4664 Jun 27 05:23	0° Q	
desc. node	4663 Jul 19 20:39	21° Q 58'25		desc. node	4664 Jul 05 17:41	4° Q 13'39	
retrograde	4663 Jul 28 01:46	24° Q 31'11		retrograde	4664 Jul 07 18:55	4° Q 23'29	
evening set	4663 Aug 01 04:54	23° Q 53'47		evening set	4664 Jul 10 12:44	4° Q 06'38	
min. Earth dist.	4663 Aug 07 21:24	20° Q 46'27	0.55839 AU	inferior conj	4664 Jul 19 19:37	0° Q 03'36	-3°-51'-28
inferior conj	4663 Aug 09 22:32	19° Q 33'32	-4°-58'-22	minimum elong	4664 Jul 19 10:54	0° Q 15'48	3°49'08
minimum elong	4663 Aug 09 17:13	19° Q 41'27	4°57'44	min. Earth dist.	4664 Jul 19 07:36	0° Q 20'25	0.54919 AU
morning rise	4663 Aug 18 08:40	15° Q 39'44			4664 Jul 19 22:11	30° R S	
direct	4663 Aug 21 05:23	15° Q 19'32		morning rise	4664 Jul 28 10:39	26° S 13'05	
morning max el	4663 Aug 31 15:25	20° Q 09'54	20°14'21	direct	4664 Jul 31 17:12	25° S 49'31	
	4663 Sep 08 11:15	0° P			4664 Aug 11 01:33	0° Q	
asc. node	4663 Sep 09 04:41	1° P 09'09		morning max el	4664 Aug 12 18:01	1° Q 27'35	21°42'21
morning set	4663 Sep 19 00:55	19° P 33'58		asc. node	4664 Aug 26 01:43	19° Q 54'42	
	4663 Sep 24 02:51	0° A			4664 Aug 31 07:24	0° P	
				morning set	4664 Sep 02 10:10	4° P 21'13	
superior conj	4663 Sep 26 17:22	5° A 17'54	1°42'53				
minimum elong	4663 Sep 26 18:10	5° A 21'59	1°42'52	superior conj	4664 Sep 09 17:00	19° P 42'13	1°43'04
max. Earth dist.	4663 Oct 02 02:25	15° A 52'34	1.36599 AU	minimum elong	4664 Sep 09 16:23	19° P 38'59	1°43'03
evening rise	4663 Oct 06 00:01	23° A 09'52		max. Earth dist.	4664 Sep 13 14:51	27° P 45'06	1.34859 AU
	4663 Oct 09 20:02	0° M			4664 Sep 14 17:44	0° A	
desc. node	4663 Oct 15 19:55	10° M 03'24		evening rise	4664 Sep 18 00:39	6° A 25'41	
	4663 Oct 29 06:50	0° J		desc. node	4664 Oct 01 16:56	0° M 16'47	
evening max el	4663 Nov 10 16:00	14° J 37'41	25°53'17		4664 Oct 01 12:41	0° M	
retrograde	4663 Nov 23 02:43	21° J 43'08		evening max el	4664 Oct 23 04:33	28° M 15'57	26°48'31
evening set	4663 Nov 29 04:49	19° J 13'04			4664 Oct 25 01:56	0° J	
min. Earth dist.	4663 Dec 03 12:34	14° J 34'13	0.66906 AU	retrograde	4664 Nov 05 06:53	5° J 32'24	
inferior conj	4663 Dec 04 21:47	12° J 49'48	0°-25'-44	evening set	4664 Nov 11 21:38	2° J 53'54	
minimum elong	4663 Dec 04 22:28	12° J 47'40	0°25'27		4664 Nov 14 21:56	30° R M	
asc. node	4663 Dec 06 03:55	11° J 16'25		min. Earth dist.	4664 Nov 15 22:29	28° M 51'03	0.65820 AU
morning rise	4663 Dec 10 17:07	6° J 56'15		inferior conj	4664 Nov 17 19:24	26° M 39'50	-1°-26'-1
direct	4663 Dec 13 21:00	5° J 58'58		minimum elong	4664 Nov 17 21:48	26° M 32'46	1°25'02
morning max el	4663 Dec 20 17:58	9° J 47'00	18°58'53	asc. node	4664 Nov 22 00:57	22° M 15'51	
	4664 Jan 04 10:42	0° Z		morning rise	4664 Nov 23 23:37	20° M 57'57	
desc. node	4664 Jan 11 19:10	11° Z 25'53		direct	4664 Nov 26 18:12	20° M 15'26	
morning set	4664 Jan 12 02:19	11° Z 53'46		morning max el	4664 Dec 03 07:14	23° M 47'39	18°18'44
	4664 Jan 23 16:18	0° \approx			4664 Dec 08 09:03	0° J	
max. Earth dist.	4664 Jan 26 18:40	4° \approx 51'47	1.45069 AU	morning set	4664 Dec 22 12:03	22° J 06'17	
					4664 Dec 27 09:43	0° Z	
superior conj	4664 Jan 28 18:12	7° \approx 58'55	-1°-40'-48	desc. node	4664 Dec 28 16:11	2° Z 01'56	

superior conj	4665 Jan 06 20:54	16°☾36'01	-1°00'-33	behind sun begin	4665 Dec 17 03:56	25°☿21'48	
minimum elong	4665 Jan 06 13:29	16°☾06'52	0°59'39	behind sun end	4665 Dec 17 15:59	26°☿10'23	
max. Earth dist.	4665 Jan 08 13:36	19°☾15'44	1.45284 AU		4665 Dec 20 01:16	0°☾	
	4665 Jan 15 10:14	0°☿		max. Earth dist.	4665 Dec 22 08:16	3°☾38'34	1.44769 AU
evening rise	4665 Jan 23 02:10	11°☿59'42		evening rise	4666 Jan 02 15:45	21°☾15'57	
	4665 Feb 03 15:36	0°☿			4666 Jan 08 08:49	0°☿	
greatest brilliancy	4665 Feb 06 07:34	4°☿01'05	-0.7m	greatest brilliancy	4666 Jan 23 05:04	21°☿45'25	-0.6m
evening max el	4665 Feb 15 11:08	16°☿00'10	19°16'00	evening max el	4666 Jan 29 15:03	29°☿32'47	20°12'13
asc. node	4665 Feb 18 00:15	18°☿15'46			4666 Jan 30 01:52	0°☿	
retrograde	4665 Feb 22 12:20	20°☿01'25		asc. node	4666 Feb 04 21:17	3°☿53'50	
evening set	4665 Feb 25 21:45	18°☿54'11		retrograde	4666 Feb 06 10:23	4°☿06'42	
inferior conj	4665 Mar 03 11:20	13°☿01'19	3°22'55	evening set	4666 Feb 10 04:10	2°☿45'23	
minimum elong	4665 Mar 03 09:43	13°☿06'33	3°22'42		4666 Feb 13 00:19	30°☿	
min. Earth dist.	4665 Mar 04 20:34	11°☿14'06	0.66309 AU	inferior conj	4666 Feb 15 14:38	26°☿38'50	3°00'07
morning rise	4665 Mar 08 20:47	6°☿45'20		minimum elong	4666 Feb 15 12:21	26°☿46'33	2°59'37
direct	4665 Mar 15 03:33	3°☿59'23		min. Earth dist.	4666 Feb 16 09:51	25°☿33'50	0.67303 AU
desc. node	4665 Mar 26 15:25	10°☿22'31		morning rise	4666 Feb 20 19:58	20°☿22'38	
morning max el	4665 Mar 27 19:24	11°☿31'23	26°09'43	direct	4666 Feb 26 13:45	17°☿49'40	
	4665 Apr 11 13:33	0°☿		morning max el	4666 Mar 10 04:03	24°☿45'55	24°48'44
	4665 Apr 30 02:40	0°☿		desc. node	4666 Mar 13 12:26	28°☿23'28	
morning set	4665 May 02 21:43	5°☿06'44			4666 Mar 14 21:27	0°☿	
max. Earth dist.	4665 May 06 21:37	12°☿42'36	1.35204 AU		4666 Apr 05 00:50	0°☿	
				morning set	4666 Apr 15 04:43	17°☿06'37	
superior conj	4665 May 12 00:28	22°☿54'27	0°-49'-25	max. Earth dist.	4666 Apr 18 20:37	23°☿43'03	1.37111 AU
minimum elong	4665 May 12 03:09	23°☿08'10	0°48'55		4666 Apr 22 05:20	0°☿	
	4665 May 15 11:10	0°☿					
asc. node	4665 May 16 23:32	3°☿08'43		superior conj	4666 Apr 25 10:28	6°☿11'21	-1°-18'-19
evening rise	4665 May 19 20:07	9°☿03'51		minimum elong	4666 Apr 25 14:40	6°☿31'54	1°17'41
	4665 May 31 02:58	0°☿		evening rise	4666 May 03 22:46	23°☿09'35	
evening max el	4665 Jun 07 05:44	9°☿01'38	20°30'29	asc. node	4666 May 03 20:34	22°☿58'35	
retrograde	4665 Jun 18 07:48	14°☿27'01			4666 May 07 10:01	0°☿	
evening set	4665 Jun 20 08:12	14°☿16'59		evening max el	4666 May 20 20:27	20°☿37'15	19°24'29
desc. node	4665 Jun 22 14:40	13°☿43'23		retrograde	4666 May 30 04:49	25°☿10'40	
inferior conj	4665 Jun 29 13:19	10°☿19'42	-2°-3'-1	evening set	4666 Jun 01 03:48	24°☿59'33	
minimum elong	4665 Jun 29 07:34	10°☿28'01	2°00'58	desc. node	4666 Jun 09 11:41	21°☿03'08	
min. Earth dist.	4665 Jun 30 19:24	9°☿36'09	0.54935 AU	inferior conj	4666 Jun 09 18:00	20°☿52'52	0°-4'-40
morning rise	4665 Jul 08 05:25	6°☿11'43		minimum elong	4666 Jun 09 17:48	20°☿53'12	0°04'37
direct	4665 Jul 12 02:54	5°☿39'00		transit middle	4666 Jun 09 17:48	20°☿53'12	0°04'37
morning max el	4665 Jul 25 11:20	12°☿06'52	23°23'43	transit begin	4666 Jun 09 14:05	20°☿59'13	
	4665 Aug 07 22:16	0°☿		transit end	4666 Jun 09 21:30	20°☿47'10	
asc. node	4665 Aug 12 22:46	9°☿10'00		min. Earth dist.	4666 Jun 12 09:25	19°☿10'20	0.55898 AU
morning set	4665 Aug 17 21:30	19°☿13'51		morning rise	4666 Jun 18 03:55	16°☿12'31	
	4665 Aug 22 21:55	0°☿		direct	4666 Jun 22 22:39	15°☿20'38	
				morning max el	4666 Jul 07 00:57	22°☿28'34	25°05'57
superior conj	4665 Aug 24 22:54	4°☿24'15	1°36'48		4666 Jul 13 17:03	0°☿	
minimum elong	4665 Aug 24 21:15	4°☿15'23	1°36'41	asc. node	4666 Jul 30 19:49	28°☿47'17	
max. Earth dist.	4665 Aug 27 12:06	9°☿50'32	1.33509 AU		4666 Jul 31 10:00	0°☿	
evening rise	4665 Sep 01 14:15	20°☿18'23		morning set	4666 Aug 02 09:15	4°☿06'58	
	4665 Sep 06 15:16	0°☿					
desc. node	4665 Sep 18 13:58	20°☿06'54		superior conj	4666 Aug 09 08:40	19°☿16'23	1°25'04
	4665 Sep 25 12:52	0°☿		minimum elong	4666 Aug 09 06:27	19°☿04'17	1°24'47
evening max el	4665 Oct 05 16:40	11°☿39'59	27°21'07	max. Earth dist.	4666 Aug 10 17:22	22°☿14'59	1.32583 AU
retrograde	4665 Oct 19 05:14	18°☿58'26			4666 Aug 14 07:58	0°☿	
evening set	4665 Oct 26 05:29	16°☿19'23		evening rise	4666 Aug 16 13:15	4°☿37'45	
min. Earth dist.	4665 Oct 30 00:21	12°☿51'15	0.64389 AU		4666 Aug 30 07:27	0°☿	
inferior conj	4665 Nov 01 09:16	10°☿19'36	-2°-28'-34	desc. node	4666 Sep 05 10:59	9°☿24'01	
minimum elong	4665 Nov 01 13:32	10°☿08'13	2°26'57	evening max el	4666 Sep 18 02:33	24°☿37'29	27°24'43
morning rise	4665 Nov 07 23:52	4°☿52'18			4666 Sep 25 05:40	0°☿	
asc. node	4665 Nov 08 21:59	4°☿33'15		retrograde	4666 Oct 01 20:52	1°☿52'26	
direct	4665 Nov 10 11:37	4°☿20'34			4666 Oct 08 02:23	30°☿	
morning max el	4665 Nov 16 23:34	7°☿46'13	17°55'32	evening set	4666 Oct 09 01:10	29°☿23'22	
	4665 Dec 01 21:46	0°☿		min. Earth dist.	4666 Oct 12 16:20	26°☿25'21	0.62641 AU
morning set	4665 Dec 04 02:37	3°☿43'33		inferior conj	4666 Oct 15 12:38	23°☿42'39	-3°-30'-7
desc. node	4665 Dec 15 13:12	22°☿44'59		minimum elong	4666 Oct 15 18:24	23°☿28'52	3°28'18
				morning rise	4666 Oct 22 14:29	18°☿33'19	
superior conj	4665 Dec 17 11:32	25°☿52'28	0°-13'-22	direct	4666 Oct 24 22:16	18°☿08'42	
minimum elong	4665 Dec 17 09:57	25°☿46'06	0°13'08	asc. node	4666 Oct 26 19:01	18°☿24'59	

morning max el	4666 Oct 31 16:01	21° Ω 35'50	17°50'08	direct	4667 Oct 07 22:10	1° Ω 30'38	
	4666 Nov 07 01:47	0° \mathbb{M}		asc. node	4667 Oct 13 16:04	3° Ω 45'47	
morning set	4666 Nov 16 16:17	16° \mathbb{M} 27'52		morning max el	4667 Oct 15 05:21	5° Ω 07'32	18°03'37
	4666 Nov 24 09:14	0° \mathcal{A}		morning set	4667 Oct 30 22:35	29° Ω 58'59	
					4667 Oct 30 22:48	0° \mathbb{M}	
superior conj	4666 Nov 28 03:03	6° \mathcal{A} 22'52	0°29'56				
minimum elong	4666 Nov 28 05:49	6° \mathcal{A} 34'34	0°29'33	superior conj	4667 Nov 09 20:35	18° \mathbb{M} 08'58	1°03'37
desc. node	4666 Dec 02 10:15	13° \mathcal{A} 32'03		minimum elong	4667 Nov 10 00:38	18° \mathbb{M} 26'54	1°03'06
max. Earth dist.	4666 Dec 05 00:31	17° \mathcal{A} 45'37	1.43585 AU		4667 Nov 16 17:04	0° \mathcal{A}	
	4666 Dec 12 18:03	0° \mathcal{C}		max. Earth dist.	4667 Nov 17 12:12	1° \mathcal{A} 20'13	1.41865 AU
evening rise	4666 Dec 13 02:29	0° \mathcal{C} 32'42		desc. node	4667 Nov 19 07:18	4° \mathcal{A} 19'03	
	4667 Jan 02 00:25	0° \approx		evening rise	4667 Nov 23 01:40	10° \mathcal{A} 26'09	
greatest brilliancy	4667 Jan 07 13:26	7° \approx 21'25	-0.4m		4667 Dec 05 19:54	0° \mathcal{C}	
evening max el	4667 Jan 12 13:34	13° \approx 07'05	21°20'53	greatest brilliancy	4667 Dec 21 08:27	21° \mathcal{C} 10'55	-0.3m
retrograde	4667 Jan 21 08:06	18° \approx 19'09		evening max el	4667 Dec 26 07:01	26° \mathcal{C} 43'11	22°37'57
asc. node	4667 Jan 22 18:17	18° \approx 08'12			4667 Dec 29 23:19	0° \approx	
evening set	4667 Jan 25 11:56	16° \approx 42'36		retrograde	4668 Jan 05 03:59	2° \approx 35'07	
inferior conj	4667 Jan 30 21:16	10° \approx 25'16	2°27'49	evening set	4668 Jan 09 19:26	0° \approx 42'33	
minimum elong	4667 Jan 30 18:50	10° \approx 33'43	2°27'07	asc. node	4668 Jan 09 15:19	0° \approx 50'50	
min. Earth dist.	4667 Jan 31 03:50	10° \approx 02'33	0.67888 AU		4668 Jan 10 14:33	30° \mathbb{R} \mathcal{C}	
morning rise	4667 Feb 05 01:23	4° \approx 10'37		inferior conj	4668 Jan 15 05:14	24° \mathcal{C} 17'49	1°47'33
direct	4667 Feb 10 04:32	1° \approx 57'31		minimum elong	4668 Jan 15 03:06	24° \mathcal{C} 25'12	1°46'48
morning max el	4667 Feb 20 12:55	8° \approx 06'27	23°19'54	min. Earth dist.	4668 Jan 15 00:13	24° \mathcal{C} 35'11	0.68076 AU
greatest brilliancy	4667 Feb 25 22:17	14° \approx 10'28	-0.2m	morning rise	4668 Jan 20 10:42	18° \mathcal{C} 06'26	
desc. node	4667 Feb 28 09:29	17° \approx 16'24		direct	4668 Jan 24 23:04	16° \mathcal{C} 16'08	
	4667 Mar 09 15:26	0° \mathcal{H}		morning max el	4668 Feb 03 01:28	21° \mathcal{C} 35'32	21°52'44
morning set	4667 Mar 27 11:48	27° \mathcal{H} 54'52		greatest brilliancy	4668 Feb 07 18:21	26° \mathcal{C} 52'29	-0.4m
	4667 Mar 28 17:25	0° \mathcal{Y}			4668 Feb 10 05:54	0° \approx	
max. Earth dist.	4667 Mar 31 15:49	5° \mathcal{Y} 02'50	1.39275 AU	desc. node	4668 Feb 15 06:32	6° \approx 46'42	
					4668 Mar 01 22:29	0° \mathcal{H}	
superior conj	4667 Apr 08 06:19	18° \mathcal{Y} 44'21	-1°-43'-55	morning set	4668 Mar 06 14:28	7° \mathcal{H} 22'08	
minimum elong	4667 Apr 08 11:14	19° \mathcal{Y} 07'10	1°43'25	max. Earth dist.	4668 Mar 12 14:43	17° \mathcal{H} 11'29	1.41425 AU
	4667 Apr 14 04:56	0° \mathcal{B}					
evening rise	4667 Apr 17 17:16	6° \mathcal{B} 47'04		superior conj	4668 Mar 20 07:17	0° \mathcal{Y} 22'06	-2°-2'-18
asc. node	4667 Apr 20 17:36	12° \mathcal{B} 33'19		minimum elong	4668 Mar 20 10:56	0° \mathcal{Y} 38'10	2°02'08
	4667 May 01 08:06	0° \mathbb{I}			4668 Mar 20 02:15	0° \mathcal{Y}	
evening max el	4667 May 03 21:41	2° \mathbb{I} 51'56	18°38'42	evening rise	4668 Mar 31 00:10	19° \mathcal{Y} 48'03	
retrograde	4667 May 11 19:42	6° \mathbb{I} 45'42			4668 Apr 05 14:15	0° \mathcal{B}	
evening set	4667 May 14 00:02	6° \mathbb{I} 29'00		asc. node	4668 Apr 06 14:38	1° \mathcal{B} 47'23	
inferior conj	4667 May 21 18:40	2° \mathbb{I} 03'33	1°33'50	evening max el	4668 Apr 16 06:01	15° \mathcal{B} 37'33	18°13'03
minimum elong	4667 May 21 21:47	1° \mathbb{I} 57'39	1°32'50	retrograde	4668 Apr 23 05:27	19° \mathcal{B} 07'55	
	4667 May 24 11:51	30° \mathbb{R} \mathcal{B}		evening set	4668 Apr 25 16:09	18° \mathcal{B} 42'46	
min. Earth dist.	4667 May 25 02:49	29° \mathcal{B} 32'39	0.57601 AU	inferior conj	4668 May 02 16:44	13° \mathcal{B} 56'16	2°41'07
desc. node	4667 May 27 08:43	28° \mathcal{B} 02'00		minimum elong	4668 May 02 20:09	13° \mathcal{B} 48'41	2°40'19
morning rise	4667 May 29 15:03	26° \mathcal{B} 48'06		min. Earth dist.	4668 May 06 01:59	10° \mathcal{B} 57'27	0.59712 AU
direct	4667 Jun 04 08:15	25° \mathcal{B} 26'42		morning rise	4668 May 09 20:18	8° \mathcal{B} 13'01	
	4667 Jun 15 06:41	0° \mathbb{I}		desc. node	4668 May 13 05:45	6° \mathcal{B} 43'04	
morning max el	4667 Jun 18 17:08	3° \mathbb{I} 01'22	26°33'08	direct	4668 May 16 06:52	6° \mathcal{B} 17'09	
	4667 Jul 08 02:47	0° \mathcal{E}		morning max el	4668 May 30 15:33	14° \mathcal{B} 08'32	27°31'13
morning set	4667 Jul 17 19:45	18° \mathcal{E} 54'58			4668 Jun 12 08:36	0° \mathbb{I}	
asc. node	4667 Jul 17 16:51	18° \mathcal{E} 39'40			4668 Jun 29 10:04	0° \mathcal{E}	
	4667 Jul 22 22:40	0° \mathcal{Q}		morning set	4668 Jul 01 03:21	3° \mathcal{E} 32'26	
				asc. node	4668 Jul 03 13:55	8° \mathcal{E} 41'55	
superior conj	4667 Jul 24 20:14	4° \mathcal{Q} 11'25	1°08'35	max. Earth dist.	4668 Jul 07 15:14	17° \mathcal{E} 31'52	1.31979 AU
minimum elong	4667 Jul 24 17:56	3° \mathcal{Q} 58'44	1°08'11				
max. Earth dist.	4667 Jul 25 03:41	4° \mathcal{Q} 52'33	1.32076 AU	superior conj	4668 Jul 08 07:53	19° \mathcal{E} 03'37	0°47'56
evening rise	4667 Jul 31 18:42	19° \mathcal{Q} 14'11		minimum elong	4668 Jul 08 05:58	18° \mathcal{E} 53'04	0°47'33
	4667 Aug 06 02:40	0° \mathbb{N}			4668 Jul 13 07:27	0° \mathcal{Q}	
desc. node	4667 Aug 23 08:02	27° \mathbb{N} 53'56		evening rise	4668 Jul 15 04:12	4° \mathcal{Q} 00'13	
	4667 Aug 24 23:53	0° \mathcal{A}			4668 Jul 28 23:41	0° \mathbb{N}	
evening max el	4667 Aug 31 07:17	6° \mathcal{A} 53'58	26°55'11	desc. node	4668 Aug 09 05:02	15° \mathbb{N} 17'22	
retrograde	4667 Sep 14 04:44	14° \mathcal{A} 04'31		evening max el	4668 Aug 12 04:30	18° \mathbb{N} 21'17	25°53'13
evening set	4667 Sep 21 04:22	11° \mathcal{A} 57'26		retrograde	4668 Aug 26 03:37	25° \mathbb{N} 28'27	
min. Earth dist.	4667 Sep 24 21:26	9° \mathcal{A} 19'14	0.60654 AU	evening set	4668 Sep 01 10:14	23° \mathbb{N} 54'35	
inferior conj	4667 Sep 28 02:04	6° \mathcal{A} 39'01	-4°-25'-12	min. Earth dist.	4668 Sep 05 16:50	21° \mathbb{N} 19'23	0.58587 AU
minimum elong	4667 Sep 28 08:07	6° \mathcal{A} 26'20	4°23'51	inferior conj	4668 Sep 08 22:03	18° \mathbb{N} 59'10	-5°-4'-21
morning rise	4667 Oct 05 15:07	1° \mathcal{A} 51'11		minimum elong	4668 Sep 09 01:50	18° \mathbb{N} 52'15	5°03'59

morning rise	4668 Sep 16 20:59	14° \cap 34'57		minimum elong	4669 Aug 20 20:23	0° \cap 37'36	5°13'20
direct	4668 Sep 19 06:46	14° \cap 16'06			4669 Aug 21 20:07	30° \mathbb{R} Ω	
morning max el	4668 Sep 27 12:15	18° \cap 12'28	18°37'21	morning rise	4669 Aug 29 04:36	26° Ω 32'17	
asc. node	4668 Sep 29 13:07	20° \cap 22'29		direct	4669 Aug 31 20:22	26° Ω 13'12	
	4668 Oct 06 02:57	0° $\underline{\Omega}$			4669 Sep 09 15:19	0° \cap	
morning set	4668 Oct 13 16:30	14° $\underline{\Omega}$ 02'41		morning max el	4669 Sep 10 09:29	0° \cap 40'55	19°32'43
	4668 Oct 21 23:21	0° \mathbb{M}		asc. node	4669 Sep 16 10:10	7° \cap 59'55	
				morning set	4669 Sep 27 18:28	28° \cap 29'20	
					4669 Sep 28 12:30	0° $\underline{\Omega}$	
superior conj	4668 Oct 22 11:39	0° \mathbb{M} 57'42	1°26'28	superior conj	4669 Oct 05 18:49	14° $\underline{\Omega}$ 33'53	1°39'22
minimum elong	4668 Oct 22 14:56	1° \mathbb{M} 13'05	1°26'09	minimum elong	4669 Oct 05 20:34	14° $\underline{\Omega}$ 42'27	1°39'17
max. Earth dist.	4668 Oct 29 18:33	14° \mathbb{M} 10'16	1.39828 AU	max. Earth dist.	4669 Oct 11 22:56	26° $\underline{\Omega}$ 21'25	1.37732 AU
evening rise	4668 Nov 02 22:27	21° \mathbb{M} 18'32			4669 Oct 13 22:45	0° \mathbb{M}	
desc. node	4668 Nov 05 04:20	25° \mathbb{M} 02'26			4669 Oct 15 18:08	3° \mathbb{M} 14'07	
	4668 Nov 08 05:44	0° \mathbb{Z}		evening rise	4669 Oct 15 18:08	3° \mathbb{M} 14'07	
	4668 Nov 28 22:10	0° \mathbb{Z}		desc. node	4669 Oct 23 01:20	15° \mathbb{M} 38'28	
evening max el	4668 Dec 07 20:54	10° \mathbb{Z} 22'01	23°57'56		4669 Nov 01 08:00	0° \mathbb{Z}	
retrograde	4668 Dec 18 20:39	16° \mathbb{Z} 50'15		evening max el	4669 Nov 20 09:28	24° \mathbb{Z} 04'52	25°14'09
evening set	4668 Dec 24 01:02	14° \mathbb{Z} 41'48			4669 Nov 28 06:14	0° \mathbb{Z}	
asc. node	4668 Dec 26 12:22	12° \mathbb{Z} 09'33		retrograde	4669 Dec 02 09:06	1° \mathbb{Z} 00'16	
min. Earth dist.	4668 Dec 28 20:44	9° \mathbb{Z} 07'52	0.67894 AU		4669 Dec 06 03:43	30° \mathbb{R} \mathbb{Z}	
inferior conj	4668 Dec 29 12:40	8° \mathbb{Z} 13'49	1°00'21	evening set	4669 Dec 08 03:09	28° \mathbb{Z} 37'25	
minimum elong	4668 Dec 29 11:18	8° \mathbb{Z} 18'27	0°59'48	min. Earth dist.	4669 Dec 12 15:04	23° \mathbb{Z} 37'55	0.67362 AU
morning rise	4669 Jan 03 21:51	2° \mathbb{Z} 07'24		asc. node	4669 Dec 13 09:24	22° \mathbb{Z} 38'21	
direct	4669 Jan 07 20:15	0° \mathbb{Z} 39'44		inferior conj	4669 Dec 13 17:50	22° \mathbb{Z} 10'50	0°07'12
morning max el	4669 Jan 15 20:45	5° \mathbb{Z} 15'32	20°34'21	minimum elong	4669 Dec 13 17:39	22° \mathbb{Z} 11'26	0°07'07
greatest brilliancy	4669 Jan 21 21:02	12° \mathbb{Z} 17'46	-0.5m	transit middle	4669 Dec 13 17:39	22° \mathbb{Z} 11'26	0°07'07
desc. node	4669 Feb 01 03:34	26° \mathbb{Z} 43'45		transit begin	4669 Dec 13 15:09	22° \mathbb{Z} 19'35	
	4669 Feb 03 08:31	0° \approx		transit end	4669 Dec 13 20:09	22° \mathbb{Z} 03'18	
morning set	4669 Feb 13 16:37	15° \approx 44'18		morning rise	4669 Dec 19 08:52	16° \mathbb{Z} 11'40	
	4669 Feb 22 17:06	0° \mathbb{X}		direct	4669 Dec 22 18:56	15° \mathbb{Z} 04'14	
max. Earth dist.	4669 Feb 22 20:29	0° \mathbb{X} 13'39	1.43280 AU	morning max el	4669 Dec 29 23:56	19° \mathbb{Z} 06'45	19°29'16
				greatest brilliancy	4670 Jan 07 12:59	29° \mathbb{Z} 50'25	-0.6m
superior conj	4669 Mar 01 08:26	10° \mathbb{X} 53'36	-2°-8'-18		4670 Jan 07 15:40	0° \mathbb{Z}	
minimum elong	4669 Mar 01 07:44	10° \mathbb{X} 50'40	2°08'19	desc. node	4670 Jan 19 00:35	17° \mathbb{Z} 00'22	
	4669 Mar 12 11:18	0° \mathbb{Y}		morning set	4670 Jan 23 14:06	24° \mathbb{Z} 02'01	
evening rise	4669 Mar 13 15:09	2° \mathbb{Y} 02'32			4670 Jan 27 10:30	0° \approx	
asc. node	4669 Mar 24 11:41	20° \mathbb{Y} 33'22		max. Earth dist.	4670 Feb 05 09:14	14° \approx 01'05	1.44608 AU
evening max el	4669 Mar 30 18:04	28° \mathbb{Y} 44'35	18°06'57				
	4669 Apr 01 03:36	0° \mathbb{Z}		superior conj	4670 Feb 09 08:07	20° \approx 18'31	-1°-56'-35
retrograde	4669 Apr 06 06:09	2° \mathbb{Z} 06'54		minimum elong	4670 Feb 09 01:15	19° \approx 51'01	1°56'11
evening set	4669 Apr 08 22:57	1° \mathbb{Z} 31'24			4670 Feb 15 07:59	0° \mathbb{X}	
	4669 Apr 11 11:26	30° \mathbb{R} \mathbb{Y}		evening rise	4670 Feb 23 09:52	13° \mathbb{X} 22'49	
inferior conj	4669 Apr 15 09:10	26° \mathbb{Y} 24'28	3°19'07		4670 Mar 05 10:23	0° \mathbb{Y}	
minimum elong	4669 Apr 15 11:15	26° \mathbb{Y} 19'08	3°18'50	asc. node	4670 Mar 11 08:42	8° \mathbb{Y} 42'55	
min. Earth dist.	4669 Apr 18 09:08	23° \mathbb{Y} 22'26	0.61903 AU	evening max el	4670 Mar 14 06:51	12° \mathbb{Y} 05'58	18°19'46
morning rise	4669 Apr 21 20:46	20° \mathbb{Y} 23'46		retrograde	4670 Mar 20 17:23	15° \mathbb{Y} 33'53	
direct	4669 Apr 28 16:19	17° \mathbb{Y} 57'41		evening set	4670 Mar 23 16:13	14° \mathbb{Y} 46'44	
desc. node	4669 Apr 30 02:47	18° \mathbb{Y} 03'45		inferior conj	4670 Mar 29 15:54	9° \mathbb{Y} 20'35	3°33'48
morning max el	4669 May 12 20:02	25° \mathbb{Y} 57'16	27°52'29	minimum elong	4670 Mar 29 16:18	9° \mathbb{Y} 19'26	3°33'46
	4669 May 16 14:07	0° \mathbb{Z}		min. Earth dist.	4670 Apr 01 01:29	6° \mathbb{Y} 37'19	0.63907 AU
	4669 Jun 05 21:09	0° \mathbb{I}		morning rise	4670 Apr 04 14:34	3° \mathbb{Y} 10'34	
morning set	4669 Jun 15 06:00	17° \mathbb{I} 52'07		direct	4670 Apr 11 10:25	0° \mathbb{Y} 26'01	
asc. node	4669 Jun 20 10:57	28° \mathbb{I} 48'42		desc. node	4670 Apr 16 23:48	1° \mathbb{Y} 57'50	
max. Earth dist.	4669 Jun 20 23:58	29° \mathbb{I} 58'55	1.32297 AU	morning max el	4670 Apr 25 04:31	8° \mathbb{Y} 24'00	27°36'32
	4669 Jun 21 00:10	0° \mathbb{Z}			4670 May 11 21:45	0° \mathbb{Z}	
superior conj	4669 Jun 22 17:49	3° \mathbb{Z} 46'27	0°23'43		4670 May 29 03:35	0° \mathbb{I}	
minimum elong	4669 Jun 22 16:45	3° \mathbb{Z} 40'34	0°23'29	morning set	4670 May 30 01:17	1° \mathbb{I} 46'49	
evening rise	4669 Jun 29 15:42	18° \mathbb{Z} 48'23		max. Earth dist.	4670 Jun 04 02:00	12° \mathbb{I} 02'27	1.33063 AU
	4669 Jul 05 02:57	0° Ω					
evening max el	4669 Jul 24 18:56	29° Ω 04'22	24°26'35	superior conj	4670 Jun 07 00:12	18° \mathbb{I} 14'25	0°-3'-23
	4669 Jul 25 18:48	0° \cap		minimum elong	4670 Jun 07 00:23	18° \mathbb{I} 15'19	0°03'22
desc. node	4669 Jul 27 02:03	1° \cap 07'27		behind sun begin	4670 Jun 06 19:06	17° \mathbb{I} 47'07	
retrograde	4669 Aug 07 15:39	6° \cap 03'57		behind sun end	4670 Jun 07 05:39	18° \mathbb{I} 43'33	
evening set	4669 Aug 12 15:39	5° \cap 08'05		asc. node	4670 Jun 07 08:01	18° \mathbb{I} 56'12	
min. Earth dist.	4669 Aug 18 05:57	2° \cap 16'40	0.56699 AU		4670 Jun 12 11:20	0° \mathbb{Z}	
inferior conj	4669 Aug 20 22:00	0° \cap 35'01	-5°-13'-22	evening rise	4670 Jun 14 03:20	3° \mathbb{Z} 33'04	

	4670 Jun 28 14:01	0°♎		evening max el	4671 Jun 18 03:51	20°♎02'17	21°17'02
evening max el	4670 Jul 06 08:04	9°♎26'59	22°49'22	retrograde	4671 Jun 30 04:20	25°♎57'25	
desc. node	4670 Jul 13 23:04	14°♎50'44		desc. node	4671 Jun 30 20:04	25°♎56'24	
retrograde	4670 Jul 19 14:49	16°♎03'58		evening set	4671 Jul 02 12:41	25°♎44'41	
evening set	4670 Jul 23 02:13	15°♎37'33		inferior conj	4671 Jul 11 20:50	21°♎46'17	-3°-8'-59
min. Earth dist.	4670 Jul 30 16:28	12°♎15'16	0.55340 AU	minimum elong	4671 Jul 11 12:41	21°♎57'43	3°06'25
inferior conj	4670 Aug 01 02:58	11°♎25'45	-4°-36'-21	min. Earth dist.	4671 Jul 12 03:02	21°♎37'37	0.54806 AU
minimum elong	4670 Jul 31 19:30	11°♎36'29	4°34'56	morning rise	4671 Jul 20 13:01	17°♎51'02	
morning rise	4670 Aug 09 15:20	7°♎35'14		direct	4671 Jul 24 01:26	17°♎24'21	
direct	4670 Aug 12 15:50	7°♎13'56		morning max el	4671 Aug 05 16:43	23°♎23'42	22°24'29
morning max el	4670 Aug 23 18:45	12°♎24'24	20°49'37		4671 Aug 11 13:36	0°♎	
asc. node	4670 Sep 03 07:13	26°♎24'03		asc. node	4671 Aug 21 04:15	15°♎23'42	
	4670 Sep 05 08:17	0°♏		morning set	4671 Aug 27 12:06	28°♎01'35	
morning set	4670 Sep 12 01:42	13°♏10'51			4671 Aug 28 10:36	0°♏	
superior conj	4670 Sep 19 13:29	28°♏43'36	1°43'48	superior conj	4671 Sep 03 16:09	13°♏16'42	1°41'08
minimum elong	4670 Sep 19 13:39	28°♏44'26	1°43'49	minimum elong	4671 Sep 03 15:02	13°♏10'50	1°41'05
	4670 Sep 20 04:26	0°♐		max. Earth dist.	4671 Sep 06 23:43	20°♏13'05	1.34236 AU
max. Earth dist.	4670 Sep 24 07:16	8°♐14'43	1.35815 AU	evening rise	4671 Sep 11 16:09	29°♏37'27	
evening rise	4670 Sep 28 09:27	16°♐04'08			4671 Sep 11 20:47	0°♐	
	4670 Oct 06 06:09	0°♑		desc. node	4671 Sep 26 19:23	26°♐06'51	
desc. node	4670 Oct 09 22:20	6°♑01'56			4671 Sep 29 08:35	0°♑	
	4670 Oct 26 20:04	0°♑		evening max el	4671 Oct 16 10:53	21°♑22'21	27°05'33
evening max el	4670 Nov 02 22:08	7°♑47'44	26°19'12	retrograde	4671 Oct 29 17:54	28°♑39'37	
retrograde	4670 Nov 15 16:20	14°♑58'54		evening set	4671 Nov 05 13:16	25°♑59'58	
evening set	4670 Nov 21 23:56	12°♑24'51		min. Earth dist.	4671 Nov 09 11:31	22°♑12'10	0.65261 AU
min. Earth dist.	4670 Nov 26 04:48	8°♑01'01	0.66486 AU	inferior conj	4671 Nov 11 13:27	19°♑51'38	-1°-52'-24
inferior conj	4670 Nov 27 18:49	6°♑04'50	0°-50'-53	minimum elong	4671 Nov 11 16:40	19°♑42'36	1°51'06
minimum elong	4670 Nov 27 20:11	6°♑00'37	0°50'18	asc. node	4671 Nov 17 03:27	14°♑40'03	
asc. node	4670 Nov 30 06:26	3°♑10'41		morning rise	4671 Nov 17 21:56	14°♑15'26	
morning rise	4670 Dec 03 17:41	0°♑15'35		direct	4671 Nov 20 13:25	13°♑37'48	
	4670 Dec 04 05:46	30°♒		morning max el	4671 Nov 27 00:57	17°♑05'50	18°06'44
direct	4670 Dec 06 17:22	29°♒24'58			4671 Dec 06 12:06	0°♑	
	4670 Dec 09 06:27	0°♑		morning set	4671 Dec 15 05:38	14°♑14'38	
morning max el	4670 Dec 13 10:03	3°♑05'09	18°39'41	desc. node	4671 Dec 23 18:37	28°♑10'09	
	4671 Jan 01 03:33	0°♒			4671 Dec 24 21:56	0°♒	
morning set	4671 Jan 03 07:06	3°♒23'43		superior conj	4671 Dec 29 18:46	7°♒45'37	0°-40'-40
desc. node	4671 Jan 05 21:35	7°♒30'29		minimum elong	4671 Dec 29 13:42	7°♒25'34	0°39'58
max. Earth dist.	4671 Jan 19 02:59	28°♒17'35	1.45259 AU	max. Earth dist.	4672 Jan 01 22:43	12°♒45'18	1.45164 AU
superior conj	4671 Jan 19 13:21	28°♒58'17	-1°-25'-20		4672 Jan 13 00:00	0°♓	
minimum elong	4671 Jan 19 04:06	28°♒21'58	1°24'22	evening rise	4672 Jan 15 03:31	3°♓19'41	
	4671 Jan 20 05:05	0°♓		greatest brilliancy	4672 Feb 01 06:47	29°♓19'24	-0.6m
evening rise	4671 Feb 04 05:20	23°♓45'15			4672 Feb 01 18:15	0°♋	
	4671 Feb 08 02:58	0°♋		evening max el	4672 Feb 09 00:32	9°♋06'27	19°38'08
evening max el	4671 Feb 25 17:41	25°♋34'37	18°50'39	asc. node	4672 Feb 13 02:45	12°♋24'44	
asc. node	4671 Feb 26 05:44	26°♋04'26		retrograde	4672 Feb 16 08:32	13°♋20'28	
retrograde	4671 Mar 04 11:13	29°♋20'20		evening set	4672 Feb 19 21:26	12°♋07'08	
evening set	4671 Mar 07 16:36	28°♋20'33		inferior conj	4672 Feb 25 09:25	6°♋07'57	3°14'29
inferior conj	4671 Mar 13 09:02	22°♋36'49	3°30'52	minimum elong	4672 Feb 25 07:27	6°♋14'26	3°14'10
minimum elong	4671 Mar 13 08:01	22°♋39'58	3°30'47	min. Earth dist.	4672 Feb 26 12:25	4°♋38'49	0.66789 AU
min. Earth dist.	4671 Mar 15 02:55	20°♋27'01	0.65556 AU	morning rise	4672 Mar 01 16:45	29°♓51'48	
morning rise	4671 Mar 18 22:20	16°♋22'20			4672 Mar 01 13:10	30°♒	
direct	4671 Mar 25 11:22	13°♋33'24		direct	4672 Mar 07 18:15	27°♓10'37	
desc. node	4671 Apr 03 20:48	17°♋52'11			4672 Mar 14 21:18	0°♋	
morning max el	4671 Apr 07 14:25	21°♋18'06	26°48'37	morning max el	4672 Mar 19 23:52	4°♋28'27	25°36'53
	4671 Apr 15 03:41	0°♌		desc. node	4672 Mar 20 17:50	5°♋14'36	
	4671 May 05 01:51	0°♌			4672 Apr 08 13:13	0°♌	
morning set	4671 May 13 10:02	15°♌07'13		morning set	4672 Apr 25 03:58	27°♌40'44	
max. Earth dist.	4671 May 17 18:07	23°♌36'09	1.34292 AU		4672 Apr 26 10:19	0°♌	
	4671 May 20 21:37	0°♍		max. Earth dist.	4672 Apr 28 23:07	4°♌44'39	1.35973 AU
superior conj	4671 May 22 00:54	2°♍21'15	0°-32'-22	superior conj	4672 May 04 17:12	15°♌58'43	-1°-1'-53
minimum elong	4671 May 22 02:38	2°♍30'15	0°32'02	minimum elong	4672 May 04 20:35	16°♌15'40	1°01'19
asc. node	4671 May 25 05:01	9°♍00'19		asc. node	4672 May 11 02:03	28°♌56'42	
evening rise	4671 May 29 13:15	18°♍08'25			4672 May 11 14:25	0°♍	
	4671 Jun 04 11:31	0°♎		evening rise	4672 May 12 19:16	2°♍27'11	

	4672 May 29 07:04	0°☿		minimum elong	4673 Apr 18 02:23	29°☿20'37	1°29'10
evening max el	4672 May 30 11:20	1°☿12'55	19°59'57		4673 Apr 18 10:36	0°☿	
retrograde	4672 Jun 09 19:20	6°☿15'49		evening rise	4673 Apr 26 18:54	16°☿22'17	
evening set	4672 Jun 11 17:49	6°☿05'57		asc. node	4673 Apr 27 23:06	18°☿40'56	
desc. node	4672 Jun 16 17:05	4°☿22'16			4673 May 03 23:38	0°☿	
inferior conj	4672 Jun 20 17:37	2°☿05'51	-1°-11'-53	evening max el	4673 May 13 06:51	13°☿05'44	19°02'29
minimum elong	4672 Jun 20 14:16	2°☿10'55	1°10'40	retrograde	4673 May 21 23:37	17°☿20'47	
min. Earth dist.	4672 Jun 22 15:23	0°☿56'55	0.55233 AU	evening set	4673 May 24 00:15	17°☿07'53	
	4672 Jun 24 06:49	30°☿☿		inferior conj	4673 Jun 01 06:16	12°☿53'51	0°40'35
morning rise	4672 Jun 29 08:09	27°☿45'36		minimum elong	4673 Jun 01 07:52	12°☿51'04	0°40'01
direct	4672 Jul 03 13:56	27°☿06'22		desc. node	4673 Jun 03 14:06	11°☿16'57	
	4672 Jul 12 10:44	0°☿		min. Earth dist.	4673 Jun 04 06:52	10°☿48'40	0.56546 AU
morning max el	4672 Jul 17 07:43	3°☿52'14	24°08'08	morning rise	4673 Jun 09 11:03	7°☿57'43	
	4672 Aug 04 13:36	0°☿		direct	4673 Jun 14 15:22	6°☿54'26	
asc. node	4672 Aug 07 01:18	4°☿49'09		morning max el	4673 Jun 28 22:02	14°☿15'56	25°45'51
morning set	4672 Aug 10 23:49	12°☿55'07			4673 Jul 11 09:45	0°☿	
				asc. node	4673 Jul 24 22:22	24°☿33'23	
superior conj	4672 Aug 17 23:57	28°☿03'42	1°32'28	morning set	4673 Jul 26 11:13	27°☿46'27	
minimum elong	4672 Aug 17 22:00	27°☿53'10	1°32'16		4673 Jul 27 12:19	0°☿	
	4672 Aug 18 21:27	0°☿					
max. Earth dist.	4672 Aug 20 00:47	2°☿27'05	1.33062 AU	superior conj	4673 Aug 02 10:43	12°☿57'38	1°18'37
evening rise	4672 Aug 25 10:08	13°☿42'12		minimum elong	4673 Aug 02 08:25	12°☿44'58	1°18'17
	4672 Sep 03 00:17	0°☿		max. Earth dist.	4673 Aug 03 08:26	14°☿56'57	1.32312 AU
desc. node	4672 Sep 12 16:25	15°☿44'17		evening rise	4673 Aug 09 12:10	28°☿09'13	
	4672 Sep 23 12:28	0°☿			4673 Aug 10 09:38	0°☿	
evening max el	4672 Sep 27 22:14	4°☿36'00	27°26'24		4673 Aug 27 06:44	0°☿	
retrograde	4672 Oct 11 13:20	11°☿53'14		desc. node	4673 Aug 30 13:27	4°☿42'57	
evening set	4672 Oct 18 16:22	9°☿16'43		evening max el	4673 Sep 10 05:58	17°☿16'09	27°16'14
min. Earth dist.	4672 Oct 22 09:10	6°☿02'36	0.63685 AU	retrograde	4673 Sep 24 02:04	24°☿30'06	
inferior conj	4672 Oct 24 23:13	3°☿12'46	-2°-55'-2	evening set	4673 Oct 01 05:37	22°☿08'32	
minimum elong	4672 Oct 25 04:12	3°☿12'03	2°53'16	min. Earth dist.	4673 Oct 04 20:28	19°☿20'44	0.61812 AU
	4672 Oct 28 14:39	30°☿☿		inferior conj	4673 Oct 07 21:02	16°☿36'50	-3°-54'-46
morning rise	4672 Oct 31 18:34	28°☿04'58		minimum elong	4673 Oct 08 03:08	16°☿23'00	3°53'04
direct	4672 Nov 03 04:19	27°☿36'39		morning rise	4673 Oct 15 03:46	11°☿36'36	
asc. node	4672 Nov 03 00:29	27°☿36'46		direct	4673 Oct 17 10:42	11°☿14'10	
	4672 Nov 08 15:01	0°☿		asc. node	4673 Oct 20 21:33	12°☿07'02	
morning max el	4672 Nov 09 17:46	1°☿01'36	17°51'05	morning max el	4673 Oct 24 09:20	14°☿44'31	17°53'32
morning set	4672 Nov 26 06:51	26°☿22'54			4673 Nov 03 21:24	0°☿	
	4672 Nov 28 09:13	0°☿		morning set	4673 Nov 09 04:15	9°☿28'24	
superior conj	4672 Dec 08 19:15	17°☿32'00	0°05'58	superior conj	4673 Nov 19 22:09	28°☿35'24	0°45'33
minimum elong	4672 Dec 08 19:54	17°☿34'39	0°05'52	minimum elong	4673 Nov 20 01:48	28°☿51'07	0°45'02
behind sun begin	4672 Dec 08 10:46	16°☿57'09			4673 Nov 20 17:51	0°☿	
behind sun end	4672 Dec 09 05:02	18°☿12'04		desc. node	4673 Nov 26 12:43	9°☿42'50	
desc. node	4672 Dec 09 15:41	18°☿55'33		max. Earth dist.	4673 Nov 27 06:51	10°☿57'11	1.42898 AU
max. Earth dist.	4672 Dec 14 16:58	27°☿04'39	1.44340 AU	evening rise	4673 Dec 04 04:13	21°☿59'12	
	4672 Dec 16 13:07	0°☿			4673 Dec 09 08:39	0°☿	
evening rise	4672 Dec 24 13:58	12°☿31'38			4673 Dec 30 11:40	0°☿	
	4673 Jan 05 03:27	0°☿		greatest brilliancy	4673 Dec 31 04:13	0°☿51'16	-0.4m
greatest brilliancy	4673 Jan 16 09:05	15°☿54'02	-0.5m	evening max el	4674 Jan 04 22:14	6°☿14'16	21°52'57
evening max el	4673 Jan 22 02:06	22°☿39'48	20°40'01	retrograde	4674 Jan 14 04:04	11°☿44'02	
asc. node	4673 Jan 29 23:46	27°☿29'21		asc. node	4674 Jan 16 20:48	11°☿05'06	
retrograde	4673 Jan 30 06:50	27°☿29'49		evening set	4674 Jan 18 12:32	10°☿00'53	
evening set	4673 Feb 03 04:41	26°☿02'04		inferior conj	4674 Jan 23 21:52	3°☿39'50	2°11'41
inferior conj	4673 Feb 08 14:25	19°☿50'15	2°47'29	minimum elong	4674 Jan 23 19:30	3°☿48'03	2°10'56
minimum elong	4673 Feb 08 12:01	19°☿58'30	2°46'53	min. Earth dist.	4674 Jan 23 23:26	3°☿34'22	0.68009 AU
min. Earth dist.	4673 Feb 09 04:02	19°☿03'36	0.67599 AU		4674 Jan 26 15:47	30°☿☿	
morning rise	4673 Feb 13 18:55	13°☿34'23		morning rise	4674 Jan 29 02:14	27°☿26'05	
direct	4673 Feb 19 06:25	11°☿09'32		direct	4674 Feb 02 23:00	25°☿22'27	
morning max el	4673 Mar 02 08:36	17°☿47'01	24°11'20		4674 Feb 11 13:26	0°☿	
desc. node	4673 Mar 07 14:52	23°☿40'13		morning max el	4674 Feb 12 18:34	1°☿10'45	22°42'06
	4673 Mar 12 13:56	0°☿		greatest brilliancy	4674 Feb 17 09:16	6°☿19'17	-0.3m
	4673 Apr 01 14:42	0°☿		desc. node	4674 Feb 22 11:55	12°☿50'35	
morning set	4673 Apr 07 01:38	9°☿12'42			4674 Mar 06 12:14	0°☿	
max. Earth dist.	4673 Apr 10 19:48	15°☿50'10	1.38013 AU	morning set	4674 Mar 18 20:57	19°☿27'06	
				max. Earth dist.	4674 Mar 23 15:14	27°☿25'56	1.40207 AU
superior conj	4673 Apr 17 21:43	28°☿58'17	-1°-29'-47		4674 Mar 25 03:07	0°☿	

superior conj	4674 Mar 31 10:09	11° Υ 09'04	-1°-52'-53	superior conj	4675 Mar 13 01:33	22° Υ 20'01	-2°-6'-42
minimum elong	4674 Mar 31 14:51	11° Υ 30'23	1°52'30	minimum elong	4675 Mar 13 03:45	22° Υ 29'30	2°06'39
evening rise	4674 Apr 10 08:55	29° Υ 45'02			4675 Mar 17 11:04	0° Υ	
	4674 Apr 10 12:05	0° Υ		evening rise	4675 Mar 24 09:33	12° Υ 27'01	
asc. node	4674 Apr 14 20:08	8° Υ 07'25		asc. node	4675 Apr 01 17:09	27° Υ 10'18	
evening max el	4674 Apr 26 11:34	25° Υ 34'46	18°25'22		4675 Apr 03 10:53	0° Υ	
retrograde	4674 May 03 22:31	29° Υ 16'20		evening max el	4675 Apr 09 21:57	8° Υ 30'51	18°08'05
evening set	4674 May 06 05:32	28° Υ 56'23		retrograde	4675 Apr 16 15:01	11° Υ 55'33	
inferior conj	4674 May 13 16:11	24° Υ 22'25	2°06'14	evening set	4675 Apr 19 04:30	11° Υ 26'02	
minimum elong	4674 May 13 19:43	24° Υ 15'14	2°05'13	inferior conj	4675 Apr 25 22:29	6° Υ 30'45	3°00'28
min. Earth dist.	4674 May 17 02:40	21° Υ 36'23	0.58473 AU	minimum elong	4675 Apr 26 01:27	6° Υ 23'45	2°59'54
morning rise	4674 May 21 05:31	18° Υ 53'49		min. Earth dist.	4675 Apr 29 04:47	3° Υ 27'39	0.60662 AU
desc. node	4674 May 21 11:07	18° Υ 46'39		morning rise	4675 May 02 19:02	0° Υ 39'13	
direct	4674 May 27 07:11	17° Υ 17'25			4675 May 03 21:26	30° Υ	
morning max el	4674 Jun 10 16:33	25° Υ 00'55	27°01'57	desc. node	4675 May 08 08:09	28° Υ 32'55	
	4674 Jun 15 06:47	0° Υ		direct	4675 May 09 10:46	28° Υ 29'23	
	4674 Jul 04 14:54	0° Υ			4675 May 15 07:19	0° Υ	
morning set	4674 Jul 10 20:42	12° Υ 30'25		morning max el	4675 May 23 17:25	6° Υ 24'32	27°44'52
asc. node	4674 Jul 11 19:26	14° Υ 30'27			4675 Jun 10 11:18	0° Υ	
				morning set	4675 Jun 25 02:25	27° Υ 00'43	
superior conj	4674 Jul 17 22:33	27° Υ 52'15	1°00'18		4675 Jun 26 12:48	0° Υ	
minimum elong	4674 Jul 17 20:22	27° Υ 40'09	0°59'54	asc. node	4675 Jun 28 16:27	4° Υ 34'49	
max. Earth dist.	4674 Jul 17 19:32	27° Υ 35'37	1.31979 AU	max. Earth dist.	4675 Jul 01 06:22	10° Υ 11'11	1.32064 AU
	4674 Jul 18 21:41	0° Υ					
evening rise	4674 Jul 24 19:36	12° Υ 50'35		superior conj	4675 Jul 02 09:40	12° Υ 41'01	0°38'04
	4674 Aug 02 12:22	0° Υ		minimum elong	4675 Jul 02 08:03	12° Υ 32'09	0°37'44
desc. node	4674 Aug 17 10:27	22° Υ 47'25		evening rise	4675 Jul 09 06:11	27° Υ 38'22	
evening max el	4674 Aug 23 07:48	29° Υ 12'44	26°32'39		4675 Jul 10 08:58	0° Υ	
	4674 Aug 24 04:14	0° Υ			4675 Jul 27 08:13	0° Υ	
retrograde	4674 Sep 06 06:38	6° Υ 22'09		desc. node	4675 Aug 04 07:27	9° Υ 34'53	
evening set	4674 Sep 13 00:25	4° Υ 28'19		evening max el	4675 Aug 05 02:03	10° Υ 20'19	25°18'47
min. Earth dist.	4674 Sep 16 21:29	1° Υ 53'25	0.59762 AU	retrograde	4675 Aug 19 00:49	17° Υ 24'24	
	4674 Sep 19 07:12	30° Υ		evening set	4675 Aug 24 19:54	16° Υ 07'05	
inferior conj	4674 Sep 20 03:31	29° Υ 19'25	-4°-44'-32	min. Earth dist.	4675 Aug 29 13:47	13° Υ 27'09	0.57742 AU
minimum elong	4674 Sep 20 08:59	29° Υ 08'34	4°43'36	inferior conj	4675 Sep 01 15:12	11° Υ 21'37	-5°-12'-54
morning rise	4674 Sep 27 20:58	24° Υ 41'21		minimum elong	4675 Sep 01 17:01	11° Υ 18'28	5°12'50
direct	4674 Sep 30 04:36	24° Υ 21'53		morning rise	4675 Sep 09 17:36	7° Υ 06'47	
asc. node	4674 Oct 07 18:37	28° Υ 02'04		direct	4675 Sep 12 05:42	6° Υ 47'56	
morning max el	4674 Oct 07 20:22	28° Υ 06'16	18°15'22	morning max el	4675 Sep 20 23:25	10° Υ 56'14	18°58'11
	4674 Oct 09 15:01	0° Υ		asc. node	4675 Sep 24 15:41	15° Υ 06'09	
morning set	4674 Oct 23 16:03	23° Υ 15'08			4675 Oct 03 16:59	0° Υ	
	4674 Oct 27 05:30	0° Υ		morning set	4675 Oct 07 13:48	7° Υ 29'42	
superior conj	4674 Nov 02 01:31	10° Υ 50'00	1°14'35	superior conj	4675 Oct 16 00:02	24° Υ 00'17	1°33'04
minimum elong	4674 Nov 02 05:24	11° Υ 07'39	1°14'09	minimum elong	4675 Oct 16 02:42	24° Υ 13'04	1°32'52
max. Earth dist.	4674 Nov 09 15:52	24° Υ 12'34	1.41020 AU		4675 Oct 19 04:15	0° Υ	
desc. node	4674 Nov 13 09:45	0° Υ 28'55		max. Earth dist.	4675 Oct 22 21:16	6° Υ 46'09	1.38932 AU
	4674 Nov 13 02:45	0° Υ		evening rise	4675 Oct 26 18:48	13° Υ 36'23	
evening rise	4674 Nov 14 12:04	2° Υ 16'48		desc. node	4675 Oct 31 06:46	21° Υ 09'29	
	4674 Dec 02 17:47	0° Υ			4675 Nov 05 19:49	0° Υ	
evening max el	4674 Dec 18 14:05	19° Υ 52'00	23°12'02		4675 Nov 27 18:52	0° Υ	
retrograde	4674 Dec 28 22:40	25° Υ 59'58		evening max el	4675 Dec 01 03:18	3° Υ 32'54	24°31'15
evening set	4675 Jan 02 19:23	24° Υ 00'51		retrograde	4675 Dec 12 13:27	10° Υ 13'10	
asc. node	4675 Jan 03 17:50	23° Υ 09'51		evening set	4675 Dec 17 23:41	7° Υ 58'21	
inferior conj	4675 Jan 08 05:50	17° Υ 34'21	1°28'23	asc. node	4675 Dec 21 14:52	4° Υ 01'14	
minimum elong	4675 Jan 08 03:58	17° Υ 40'46	1°27'40	min. Earth dist.	4675 Dec 22 16:01	2° Υ 39'04	0.67716 AU
min. Earth dist.	4675 Jan 07 20:13	18° Υ 07'27	0.68044 AU	inferior conj	4675 Dec 23 12:30	1° Υ 30'40	0°38'31
morning rise	4675 Jan 13 12:35	11° Υ 24'40		minimum elong	4675 Dec 23 11:35	1° Υ 33'43	0°38'08
direct	4675 Jan 17 18:57	9° Υ 43'54			4675 Dec 24 15:58	30° Υ	
morning max el	4675 Jan 26 09:30	14° Υ 43'35	21°17'56	morning rise	4675 Dec 28 23:55	25° Υ 27'09	
greatest brilliancy	4675 Jan 31 12:43	20° Υ 34'35	-0.4m	direct	4676 Jan 01 16:58	24° Υ 08'18	
	4675 Feb 07 13:42	0° Υ		morning max el	4676 Jan 09 08:05	28° Υ 28'03	20°04'54
desc. node	4675 Feb 09 08:58	2° Υ 33'23			4676 Jan 10 19:01	0° Υ	
morning set	4675 Feb 26 11:45	28° Υ 21'42		greatest brilliancy	4676 Jan 16 05:04	6° Υ 43'28	-0.6m
	4675 Feb 27 12:37	0° Υ		desc. node	4676 Jan 27 06:00	22° Υ 39'21	
max. Earth dist.	4675 Mar 05 16:41	9° Υ 57'03	1.42273 AU		4676 Feb 01 02:26	0° Υ	
				morning set	4676 Feb 05 08:46	6° Υ 32'33	

max. Earth dist.	4676 Feb 16 02:09	23° \approx 22'16	1.43924 AU	max. Earth dist.	4677 Jan 28 17:34	7° \approx 24'32	1.44968 AU
	4676 Feb 20 04:50	0° H					
superior conj	4676 Feb 21 15:44	2° H 22'20	-2°-5'-45	superior conj	4677 Jan 31 05:50	11° \approx 22'18	-1°-45'-34
minimum elong	4676 Feb 21 12:23	2° H 08'38	2°05'40	minimum elong	4677 Jan 30 21:07	10° \approx 47'49	1°44'52
evening rise	4676 Mar 05 16:25	24° H 19'26		evening rise	4677 Feb 11 20:25	0° H	
	4676 Mar 08 23:26	0° Y			4677 Feb 15 01:26	5° H 14'49	
asc. node	4676 Mar 18 14:09	15° Y 42'02		asc. node	4677 Mar 02 16:37	0° Y	
evening max el	4676 Mar 23 10:40	21° Y 45'05	18°10'06	evening max el	4677 Mar 05 11:11	3° Y 32'22	
retrograde	4676 Mar 29 20:53	25° Y 08'11		retrograde	4677 Mar 06 22:50	5° Y 09'29	18°30'44
evening set	4676 Apr 01 16:17	24° Y 27'43		evening set	4677 Mar 13 11:30	8° Y 44'00	
inferior conj	4676 Apr 07 21:32	19° Y 12'07	3°27'49	inferior conj	4677 Mar 16 12:57	7° Y 51'39	
minimum elong	4676 Apr 07 22:55	19° Y 08'26	3°27'41	minimum elong	4677 Mar 22 09:09	2° Y 17'35	3°34'25
min. Earth dist.	4676 Apr 10 15:36	16° Y 16'08	0.62790 AU		4677 Mar 22 08:54	2° Y 18'19	3°34'25
morning rise	4676 Apr 14 03:14	13° Y 06'46		min. Earth dist.	4677 Mar 24 07:35	30° R H	
direct	4676 Apr 20 23:50	10° Y 31'33			4677 Mar 24 12:00	29° H 47'14	0.64648 AU
desc. node	4676 Apr 24 05:10	11° Y 02'20		morning rise	4677 Mar 28 03:22	26° H 04'57	
morning max el	4676 May 04 23:59	18° Y 30'56	27°50'08	direct	4677 Apr 03 20:51	23° H 17'04	
	4676 May 14 16:00	0° B		desc. node	4677 Apr 11 02:12	25° H 51'27	
	4676 Jun 02 07:47	0° II			4677 Apr 16 04:27	0° Y	
morning set	4676 Jun 08 02:17	11° II 11'07		morning max el	4677 Apr 17 09:39	1° Y 11'30	27°19'44
max. Earth dist.	4676 Jun 13 13:00	22° II 31'09	1.32574 AU		4677 May 08 18:36	0° B	
asc. node	4676 Jun 14 13:28	24° II 42'27		morning set	4677 May 22 17:33	24° B 52'35	
					4677 May 25 07:38	0° II	
superior conj	4676 Jun 15 18:21	27° II 18'30	0°12'33	max. Earth dist.	4677 May 27 11:21	4° II 23'11	1.33530 AU
minimum elong	4676 Jun 15 17:45	27° II 15'15	0°12'25				
behind sun begin	4676 Jun 15 14:27	26° II 57'23		superior conj	4677 May 30 22:35	11° II 37'56	0°-15'-29
behind sun end	4676 Jun 15 21:03	27° II 33'08		minimum elong	4677 May 30 23:23	11° II 42'11	0°15'21
	4676 Jun 17 00:05	0° S		behind sun begin	4677 May 30 21:50	11° II 33'57	
evening rise	4676 Jun 22 18:00	12° S 26'22		behind sun end	4677 May 31 00:56	11° II 50'24	
	4676 Jul 01 15:20	0° Q		asc. node	4677 Jun 01 10:29	14° II 48'41	
evening max el	4676 Jul 16 14:55	20° Q 50'35	23°45'28	evening rise	4677 Jun 07 05:09	27° II 07'34	
desc. node	4676 Jul 21 04:26	24° Q 35'37			4677 Jun 08 14:10	0° S	
retrograde	4676 Jul 30 07:05	27° Q 42'46			4677 Jun 27 00:48	0° Q	
evening set	4676 Aug 03 15:48	27° Q 00'53		evening max el	4677 Jun 28 05:44	1° Q 13'38	22°08'37
min. Earth dist.	4676 Aug 10 00:59	23° Q 58'07	0.56043 AU	desc. node	4677 Jul 08 01:27	7° Q 14'38	
inferior conj	4676 Aug 12 06:34	22° Q 37'21	-5°-4'-1	retrograde	4677 Jul 11 01:47	7° Q 35'45	
minimum elong	4676 Aug 12 02:11	22° Q 43'59	5°03'34	evening set	4677 Jul 13 23:36	7° Q 16'57	
morning rise	4676 Aug 20 15:52	18° Q 41'44		min. Earth dist.	4677 Jul 22 11:15	3° Q 37'20	0.55000 AU
direct	4676 Aug 23 11:15	18° Q 21'54		inferior conj	4677 Jul 23 05:21	3° Q 11'52	-4°-4'-48
morning max el	4676 Sep 02 15:40	23° Q 05'52	20°02'55	minimum elong	4677 Jul 22 20:44	3° Q 23'59	4°02'41
	4676 Sep 08 11:34	0° M			4677 Jul 29 17:00	30° R S	
asc. node	4676 Sep 10 12:43	3° M 04'41		morning rise	4677 Jul 31 19:45	29° S 21'57	
morning set	4676 Sep 20 18:18	22° M 03'23		direct	4677 Aug 04 00:33	28° S 59'08	
	4676 Sep 24 15:32	0° L			4677 Aug 09 02:15	0° Q	
superior conj	4676 Sep 28 12:37	7° L 52'02	1°42'12	morning max el	4677 Aug 15 19:59	4° Q 30'04	21°28'13
minimum elong	4676 Sep 28 13:40	7° L 57'18	1°42'10	asc. node	4677 Aug 28 09:45	21° Q 44'43	
max. Earth dist.	4676 Oct 04 02:50	18° L 47'08	1.36885 AU		4677 Sep 01 18:42	0° M	
evening rise	4676 Oct 07 23:19	25° L 55'43		morning set	4677 Sep 05 03:06	6° M 49'10	
	4676 Oct 10 06:00	0° M					
desc. node	4676 Oct 17 03:46	11° M 40'23		superior conj	4677 Sep 12 11:05	22° M 12'54	1°43'29
	4676 Oct 29 08:27	0° J		minimum elong	4677 Sep 12 10:40	22° M 10'42	1°43'28
evening max el	4676 Nov 12 15:41	17° J 15'29	25°43'33		4677 Sep 16 06:17	0° L	
retrograde	4676 Nov 24 23:41	24° J 18'49		max. Earth dist.	4677 Sep 16 13:58	0° L 38'37	1.35092 AU
evening set	4676 Nov 30 23:45	21° J 50'23		evening rise	4677 Sep 20 21:41	9° L 05'15	
min. Earth dist.	4676 Dec 05 08:31	17° J 06'14	0.67035 AU		4677 Oct 02 19:38	0° M	
inferior conj	4676 Dec 06 16:06	15° J 26'02	0°-16'-56	desc. node	4677 Oct 04 00:47	1° M 56'32	
minimum elong	4676 Dec 06 16:32	15° J 24'38	0°16'45		4677 Oct 25 05:45	0° J	
asc. node	4676 Dec 07 11:55	14° J 23'34		evening max el	4677 Oct 26 04:16	0° J 55'18	26°41'36
morning rise	4676 Dec 12 10:16	9° J 31'03		retrograde	4677 Nov 08 04:48	8° J 10'58	
direct	4676 Dec 15 15:39	8° J 31'19		evening set	4677 Nov 14 17:42	5° J 33'24	
morning max el	4676 Dec 22 14:30	12° J 22'45	19°06'15	min. Earth dist.	4677 Nov 18 19:34	1° J 25'04	0.66001 AU
	4677 Jan 04 16:15	0° S			4677 Nov 20 00:23	30° R M	
desc. node	4677 Jan 13 03:01	13° S 01'54		inferior conj	4677 Nov 20 14:40	29° M 17'31	-1°-16'-42
morning set	4677 Jan 14 12:09	15° S 10'42		minimum elong	4677 Nov 20 16:49	29° M 11'11	1°15'48
	4677 Jan 24 00:14	0° \approx		asc. node	4677 Nov 24 08:58	25° M 14'31	
				morning rise	4677 Nov 26 17:28	23° M 33'35	
				direct	4677 Nov 29 13:15	22° M 49'08	

morning max el	4677 Dec 06 03:05	26° M 23'16	18°23'38		4678 Dec 03 05:44	0° J	
	4677 Dec 09 06:41	0° J		morning set	4678 Dec 07 04:05	6° J 35'50	
morning set	4677 Dec 25 17:28	25° J 09'53		desc. node	4678 Dec 17 21:05	24° J 18'40	
	4677 Dec 28 17:50	0° Z					
desc. node	4677 Dec 31 00:03	3° Z 36'29		superior conj	4678 Dec 20 20:21	29° J 06'00	0°-20'-29
				minimum elong	4678 Dec 20 17:53	28° J 56'06	0°20'08
superior conj	4678 Jan 10 08:35	19° Z 58'27	-1°-7'-24		4678 Dec 21 09:50	0° Z	
minimum elong	4678 Jan 10 00:30	19° Z 26'43	1°06'25	max. Earth dist.	4678 Dec 25 07:12	6° Z 11'09	1.44897 AU
max. Earth dist.	4678 Jan 11 12:09	21° Z 46'31	1.45301 AU	evening rise	4679 Jan 06 02:42	24° Z 34'40	
	4678 Jan 16 18:09	0° \approx			4679 Jan 09 15:29	0° \approx	
evening rise	4678 Jan 26 11:14	15° \approx 14'39		greatest brilliancy	4679 Jan 25 19:49	23° \approx 58'26	-0.6m
	4678 Feb 04 20:44	0° H			4679 Jan 30 12:50	0° H	
greatest brilliancy	4678 Feb 08 11:58	5° H 34'38	-0.7m	evening max el	4679 Feb 01 12:55	2° H 12'09	20°02'57
evening max el	4678 Feb 18 08:10	18° H 39'39	19°08'57	asc. node	4679 Feb 07 05:17	6° H 19'12	
asc. node	4678 Feb 20 08:14	20° H 29'37		retrograde	4679 Feb 09 05:04	6° H 40'28	
retrograde	4678 Feb 25 07:12	22° H 36'35		evening set	4679 Feb 12 21:35	5° H 21'14	
evening set	4678 Feb 28 15:31	21° H 31'21			4679 Feb 17 19:27	30° R \approx	
inferior conj	4678 Mar 06 05:45	15° H 40'51	3°25'22	inferior conj	4679 Feb 18 08:23	29° \approx 16'36	3°04'11
minimum elong	4678 Mar 06 04:17	15° H 45'35	3°25'12	minimum elong	4679 Feb 18 06:10	29° \approx 24'02	3°03'45
min. Earth dist.	4678 Mar 07 17:14	13° H 47'31	0.66128 AU	min. Earth dist.	4679 Feb 19 05:36	28° \approx 05'17	0.67188 AU
morning rise	4678 Mar 11 16:06	9° H 25'09		morning rise	4679 Feb 23 14:09	23° \approx 00'24	
direct	4678 Mar 18 00:39	6° H 37'56		direct	4679 Mar 01 10:02	20° \approx 25'02	
desc. node	4678 Mar 28 23:15	12° H 26'33		morning max el	4679 Mar 13 04:22	27° \approx 27'01	25°01'29
morning max el	4678 Mar 30 19:35	14° H 13'53	26°20'24	desc. node	4679 Mar 15 20:17	0° H 17'50	
	4678 Apr 12 15:46	0° Y			4679 Mar 15 13:54	0° H	
	4678 May 01 12:36	0° B			4679 Apr 06 07:59	0° Y	
morning set	4678 May 05 20:37	7° B 54'41		morning set	4679 Apr 18 06:39	20° Y 03'35	
max. Earth dist.	4678 May 09 22:24	15° B 42'55	1.34952 AU	max. Earth dist.	4679 Apr 21 22:46	26° Y 44'13	1.36804 AU
					4679 Apr 23 16:39	0° B	
superior conj	4678 May 14 20:04	25° B 32'58	0°-44'-55				
minimum elong	4678 May 14 22:30	25° B 45'28	0°44'29	superior conj	4679 Apr 28 07:50	8° B 55'32	-1°-14'-5
	4678 May 16 23:51	0° II		minimum elong	4679 Apr 28 11:51	9° B 15'15	1°13'27
asc. node	4678 May 19 07:31	4° II 49'44		asc. node	4679 May 06 04:34	24° B 41'27	
evening rise	4678 May 22 13:40	11° II 36'08		evening rise	4679 May 06 17:17	25° B 45'27	
	4678 Jun 01 05:35	0° S			4679 May 08 20:21	0° II	
evening max el	4678 Jun 10 06:15	12° S 02'16	20°42'01	evening max el	4679 May 23 19:14	23° II 31'41	19°33'06
retrograde	4678 Jun 21 14:22	17° S 35'22		retrograde	4679 Jun 02 09:27	28° II 12'22	
evening set	4678 Jun 23 16:14	17° S 24'57		evening set	4679 Jun 04 08:06	28° II 01'41	
desc. node	4678 Jun 24 22:29	17° S 08'58		desc. node	4679 Jun 11 19:30	24° II 43'27	
inferior conj	4678 Jul 02 22:39	13° S 28'01	-2°-20'-56	inferior conj	4679 Jun 13 01:00	23° II 57'03	0°-21'-54
minimum elong	4678 Jul 02 16:08	13° S 37'20	2°18'41	minimum elong	4679 Jun 13 00:01	23° II 58'36	0°21'33
min. Earth dist.	4678 Jul 03 22:49	12° S 53'25	0.54871 AU	min. Earth dist.	4679 Jun 15 12:20	22° II 23'05	0.55698 AU
morning rise	4678 Jul 11 14:57	9° S 23'50		morning rise	4679 Jun 21 12:22	19° II 22'16	
direct	4678 Jul 15 09:56	8° S 52'52		direct	4679 Jun 26 03:43	18° II 34'01	
morning max el	4678 Jul 28 14:18	15° S 13'43	23°08'12	morning max el	4679 Jul 10 04:04	25° II 36'23	24°51'18
	4678 Aug 09 02:52	0° O			4679 Jul 14 07:15	0° S	
asc. node	4678 Aug 15 06:47	10° O 55'59			4679 Aug 01 21:48	0° O	
morning set	4678 Aug 20 14:14	21° O 41'13		asc. node	4679 Aug 02 03:50	0° O 30'30	
	4678 Aug 24 11:34	0° M		morning set	4679 Aug 05 02:03	6° O 34'50	
superior conj	4678 Aug 27 16:13	6° M 52'38	1°38'08	superior conj	4679 Aug 12 01:34	21° O 43'48	1°27'11
minimum elong	4678 Aug 27 14:42	6° M 44'29	1°38'01	minimum elong	4679 Aug 11 23:24	21° O 32'01	1°26'55
max. Earth dist.	4678 Aug 30 09:58	12° M 41'38	1.33683 AU	max. Earth dist.	4679 Aug 13 14:23	25° O 04'18	1.32697 AU
evening rise	4678 Sep 04 09:38	22° M 53'11			4679 Aug 15 21:21	0° M	
	4678 Sep 08 02:02	0° A		evening rise	4679 Aug 19 07:28	7° M 09'16	
desc. node	4678 Sep 20 21:48	21° A 50'37			4679 Aug 31 14:02	0° A	
	4678 Sep 26 12:27	0° M		desc. node	4679 Sep 07 18:50	11° A 13'23	
evening max el	4678 Oct 08 16:40	14° M 22'35	27°18'01	evening max el	4679 Sep 21 03:06	27° A 24'49	27°26'09
retrograde	4678 Oct 22 04:01	21° M 40'54			4679 Sep 24 02:15	0° M	
evening set	4678 Oct 29 03:05	19° M 01'33		retrograde	4679 Oct 04 20:34	4° M 40'02	
min. Earth dist.	4678 Nov 01 22:50	15° M 28'19	0.64623 AU	evening set	4679 Oct 12 00:48	2° M 08'42	
inferior conj	4678 Nov 04 05:54	12° M 59'21	-2°-19'-4		4679 Oct 14 17:04	30° R A	
minimum elong	4678 Nov 04 09:54	12° M 48'32	2°17'31	min. Earth dist.	4679 Oct 15 16:18	29° A 06'46	0.62925 AU
morning rise	4678 Nov 10 18:52	7° M 29'32		inferior conj	4679 Oct 18 11:01	26° A 25'03	-3°-21'-2
asc. node	4678 Nov 11 06:02	7° M 18'32		minimum elong	4679 Oct 18 16:37	26° A 11'28	3°19'13
direct	4678 Nov 13 07:30	6° M 56'23		morning rise	4679 Oct 25 11:10	21° A 12'49	
morning max el	4678 Nov 19 19:08	10° M 22'26	17°57'53	direct	4679 Oct 27 19:24	20° A 47'17	

asc. node	4679 Oct 29 03:04	20°♄55'34		direct	4680 Oct 09 21:07	4°♄13'30	
morning max el	4679 Nov 03 11:45	24°♄13'31	17°49'46	asc. node	4680 Oct 15 00:06	6°♄03'20	
	4679 Nov 08 03:43	0°♄		morning max el	4680 Oct 17 01:45	7°♄48'14	18°00'21
morning set	4679 Nov 19 14:43	19°♄11'07			4680 Oct 31 09:04	0°♄	
	4679 Nov 25 19:05	0°♄		morning set	4680 Nov 01 18:49	2°♄35'47	
superior conj	4679 Dec 01 07:49	9°♄24'17	0°23'56	superior conj	4680 Nov 11 21:41	20°♄59'34	0°59'12
minimum elong	4679 Dec 01 10:09	9°♄34'00	0°23'35	minimum elong	4680 Nov 12 01:42	21°♄17'14	0°58'41
desc. node	4679 Dec 04 18:08	15°♄05'07			4680 Nov 17 02:49	0°♄	
max. Earth dist.	4679 Dec 08 00:14	20°♄22'18	1.43803 AU	max. Earth dist.	4680 Nov 19 12:30	4°♄01'49	1.42145 AU
	4679 Dec 14 01:58	0°♄		desc. node	4680 Nov 20 15:10	5°♄52'09	
evening rise	4679 Dec 16 12:50	3°♄48'41		evening rise	4680 Nov 25 09:18	13°♄34'14	
	4680 Jan 03 02:57	0°♄			4680 Dec 06 01:42	0°♄	
greatest brilliancy	4680 Jan 10 08:32	9°♄47'39	-0.4m	greatest brilliancy	4680 Dec 23 11:01	23°♄57'59	-0.3m
evening max el	4680 Jan 15 12:14	15°♄46'00	21°09'58	evening max el	4680 Dec 28 06:16	29°♄21'26	22°26'07
retrograde	4680 Jan 24 03:00	20°♄52'08			4680 Dec 28 21:49	0°♄	
asc. node	4680 Jan 25 02:19	20°♄47'01		retrograde	4681 Jan 06 23:18	5°♄07'54	
evening set	4680 Jan 28 05:16	19°♄17'47		asc. node	4681 Jan 10 23:20	3°♄43'42	
inferior conj	4680 Feb 02 14:39	13°♄01'45	2°33'16	evening set	4681 Jan 11 12:54	3°♄17'43	
minimum elong	4680 Feb 02 12:12	13°♄10'11	2°32'34		4681 Jan 14 15:16	30°♄	
min. Earth dist.	4680 Feb 02 22:58	12°♄33'00	0.67829 AU	inferior conj	4681 Jan 16 22:31	26°♄53'43	1°54'10
morning rise	4680 Feb 07 18:47	6°♄46'49		minimum elong	4681 Jan 16 20:19	27°♄01'22	1°53'23
direct	4680 Feb 13 00:07	4°♄30'37		min. Earth dist.	4681 Jan 16 19:10	27°♄05'22	0.68070 AU
morning max el	4680 Feb 23 13:07	10°♄46'53	23°33'13	morning rise	4681 Jan 22 03:38	20°♄41'39	
desc. node	4680 Mar 01 17:21	19°♄03'54		direct	4681 Jan 26 18:06	18°♄47'59	
	4680 Mar 09 19:19	0°♄		morning max el	4681 Feb 05 00:57	24°♄14'51	22°05'18
	4680 Mar 29 02:43	0°♄		greatest brilliancy	4681 Feb 09 15:41	29°♄24'43	-0.3m
morning set	4680 Mar 29 17:41	1°♄03'16			4681 Feb 10 03:14	0°♄	
max. Earth dist.	4680 Apr 02 18:17	7°♄59'45	1.38946 AU	desc. node	4681 Feb 16 14:24	8°♄29'25	
					4681 Mar 03 05:42	0°♄	
superior conj	4680 Apr 10 06:05	21°♄35'27	-1°-40'-25	morning set	4681 Mar 10 00:42	10°♄42'56	
minimum elong	4680 Apr 10 10:59	21°♄58'24	1°39'52	max. Earth dist.	4681 Mar 15 16:10	19°♄59'45	1.41118 AU
	4680 Apr 14 16:13	0°♄			4681 Mar 21 12:19	0°♄	
evening rise	4680 Apr 19 13:14	9°♄27'34		superior conj	4681 Mar 23 10:11	3°♄22'06	-2°00'-12
asc. node	4680 Apr 22 01:36	14°♄18'37		minimum elong	4681 Mar 23 14:12	3°♄39'58	1°59'58
	4680 May 01 03:24	0°♄		evening rise	4681 Apr 02 22:08	22°♄34'37	
evening max el	4680 May 05 19:00	5°♄40'17	18°44'12		4681 Apr 06 22:33	0°♄	
retrograde	4680 May 13 21:32	9°♄39'12		asc. node	4681 Apr 08 22:38	3°♄36'09	
evening set	4680 May 16 00:51	9°♄23'36		evening max el	4681 Apr 19 02:28	18°♄21'33	18°15'33
inferior conj	4680 May 23 22:23	5°♄01'06	1°20'51	retrograde	4681 Apr 26 04:35	21°♄54'24	
minimum elong	4680 May 24 01:13	4°♄55'52	1°19'54	evening set	4681 Apr 28 14:16	21°♄30'43	
min. Earth dist.	4680 May 27 05:02	2°♄36'22	0.57307 AU	inferior conj	4681 May 05 17:22	16°♄47'29	2°32'56
desc. node	4680 May 28 16:32	1°♄36'16		minimum elong	4681 May 05 20:52	16°♄39'51	2°32'03
morning rise	4680 May 31 21:05	29°♄50'28		min. Earth dist.	4681 May 09 03:19	13°♄51'03	0.59387 AU
	4680 May 31 12:48	30°♄		morning rise	4681 May 12 23:26	11°♄07'32	
direct	4680 Jun 06 11:00	28°♄34'07		desc. node	4681 May 15 13:33	9°♄55'40	
	4680 Jun 12 11:13	0°♄		direct	4681 May 19 07:55	9°♄16'35	
morning max el	4680 Jun 20 19:38	6°♄05'40	26°21'50	morning max el	4681 Jun 02 17:03	17°♄06'28	27°24'49
	4680 Jul 08 09:52	0°♄			4681 Jun 13 08:46	0°♄	
asc. node	4680 Jul 19 00:53	20°♄20'42			4681 Jun 30 22:03	0°♄	
morning set	4680 Jul 19 12:51	21°♄23'44		morning set	4681 Jul 03 20:58	6°♄02'31	
	4680 Jul 23 12:37	0°♄		asc. node	4681 Jul 05 21:55	10°♄21'17	
superior conj	4680 Jul 26 12:58	6°♄38'27	1°11'22	max. Earth dist.	4681 Jul 10 11:35	20°♄18'39	1.31961 AU
minimum elong	4680 Jul 26 10:39	6°♄25'41	1°11'00	superior conj	4681 Jul 11 00:41	21°♄30'53	0°51'18
max. Earth dist.	4680 Jul 27 00:10	7°♄40'12	1.32123 AU	minimum elong	4681 Jul 10 22:41	21°♄19'51	0°50'55
evening rise	4680 Aug 02 12:05	21°♄43'12			4681 Jul 14 21:11	0°♄	
	4680 Aug 06 13:46	0°♄		evening rise	4681 Jul 17 21:03	6°♄27'29	
desc. node	4680 Aug 24 15:50	29°♄51'11			4681 Jul 30 04:39	0°♄	
	4680 Aug 24 18:30	0°♄		desc. node	4681 Aug 11 12:49	17°♄25'49	
evening max el	4680 Sep 02 08:37	9°♄47'23	27°01'39	evening max el	4681 Aug 15 06:55	21°♄21'33	26°04'21
retrograde	4680 Sep 16 05:37	16°♄58'44		retrograde	4681 Aug 29 06:11	28°♄29'43	
evening set	4680 Sep 23 06:45	14°♄47'22		evening set	4681 Sep 04 16:06	26°♄50'22	
min. Earth dist.	4680 Sep 26 22:53	12°♄07'16	0.60963 AU	min. Earth dist.	4681 Sep 08 19:37	24°♄15'54	0.58884 AU
inferior conj	4680 Sep 30 02:43	9°♄25'31	-4°-17'-36	inferior conj	4681 Sep 12 01:29	21°♄51'23	-5°00'-5
minimum elong	4680 Sep 30 08:51	9°♄12'23	4°16'10	minimum elong	4681 Sep 12 05:49	21°♄43'17	4°59'33
morning rise	4680 Oct 07 14:11	4°♄34'28					

morning rise	4681 Sep 19 23:05	17° \cap 23'43		minimum elong	4682 Aug 24 03:51	3° \cap 35'33	5°14'45
direct	4681 Sep 22 08:08	17° \cap 04'49			4682 Aug 30 17:11	30° \mathbb{R} Ω	
morning max el	4681 Sep 30 09:50	20° \cap 57'48	18°30'59	morning rise	4682 Sep 01 10:04	29° Ω 28'43	
asc. node	4681 Oct 01 21:09	22° \cap 29'28		direct	4682 Sep 04 00:44	29° Ω 09'46	
	4681 Oct 07 08:02	0° $\underline{\Omega}$			4682 Sep 08 03:24	0° \cap	
morning set	4681 Oct 16 11:16	16° $\underline{\Omega}$ 35'13		morning max el	4682 Sep 13 08:41	3° \cap 32'18	19°23'05
	4681 Oct 23 10:56	0° \mathbb{M}		asc. node	4682 Sep 18 18:12	9° \cap 58'46	
					4682 Sep 30 00:23	0° $\underline{\Omega}$	
superior conj	4681 Oct 25 09:51	3° \mathbb{M} 39'52	1°23'39	morning set	4682 Sep 30 12:17	0° $\underline{\Omega}$ 59'19	
minimum elong	4681 Oct 25 13:20	3° \mathbb{M} 56'00	1°23'19				
max. Earth dist.	4681 Nov 01 19:17	16° \mathbb{M} 57'44	1.40138 AU	superior conj	4682 Oct 08 14:59	17° $\underline{\Omega}$ 10'04	1°37'59
evening rise	4681 Nov 06 02:35	24° \mathbb{M} 17'12		minimum elong	4682 Oct 08 16:58	17° $\underline{\Omega}$ 19'48	1°37'52
desc. node	4681 Nov 07 12:09	26° \mathbb{M} 36'09		max. Earth dist.	4682 Oct 14 23:48	29° $\underline{\Omega}$ 14'29	1.38038 AU
	4681 Nov 09 14:09	0° \mathbb{M}			4682 Oct 15 09:45	0° \mathbb{M}	
	4681 Nov 29 22:05	0° \mathbb{Z}		evening rise	4682 Oct 18 19:05	6° \mathbb{M} 04'14	
evening max el	4681 Dec 10 20:32	12° \mathbb{Z} 59'40	23°46'07	desc. node	4682 Oct 25 09:09	17° \mathbb{M} 13'41	
retrograde	4681 Dec 21 16:32	19° \mathbb{Z} 23'09			4682 Nov 02 13:21	0° \mathbb{M}	
evening set	4681 Dec 26 18:51	17° \mathbb{Z} 17'08		evening max el	4682 Nov 23 09:17	26° \mathbb{M} 42'29	25°03'18
asc. node	4681 Dec 28 20:23	15° \mathbb{Z} 13'26			4682 Nov 27 02:16	0° \mathbb{Z}	
min. Earth dist.	4681 Dec 31 15:50	11° \mathbb{Z} 38'03	0.67942 AU	retrograde	4682 Dec 05 05:36	3° \mathbb{Z} 34'12	
inferior conj	4682 Jan 01 06:08	10° \mathbb{Z} 49'17	1°07'57	evening set	4682 Dec 10 21:35	1° \mathbb{Z} 13'28	
minimum elong	4682 Jan 01 04:37	10° \mathbb{Z} 54'27	1°07'21		4682 Dec 12 04:57	30° \mathbb{R} \mathbb{M}	
morning rise	4682 Jan 06 14:36	4° \mathbb{Z} 41'54		min. Earth dist.	4682 Dec 15 10:40	26° \mathbb{M} 08'42	0.67469 AU
direct	4682 Jan 10 15:00	3° \mathbb{Z} 10'54		asc. node	4682 Dec 15 17:25	25° \mathbb{M} 46'41	
morning max el	4682 Jan 18 19:00	7° \mathbb{Z} 52'46	20°45'13	inferior conj	4682 Dec 16 11:46	24° \mathbb{M} 46'26	0°15'37
greatest brilliancy	4682 Jan 24 13:13	14° \mathbb{Z} 34'07	-0.5m	minimum elong	4682 Dec 16 11:23	24° \mathbb{M} 47'43	0°15'28
desc. node	4682 Feb 03 11:24	28° \mathbb{Z} 22'50		transit middle	4682 Dec 16 11:23	24° \mathbb{M} 47'43	0°15'28
	4682 Feb 04 13:53	0° \approx		transit begin	4682 Dec 16 10:33	24° \mathbb{M} 50'24	
morning set	4682 Feb 17 05:34	19° \approx 11'41		transit end	4682 Dec 16 12:12	24° \mathbb{M} 45'01	
	4682 Feb 24 01:37	0° \mathbb{H}		morning rise	4682 Dec 22 01:47	18° \mathbb{M} 45'57	
max. Earth dist.	4682 Feb 25 20:35	2° \mathbb{H} 53'18	1.43034 AU	direct	4682 Dec 25 13:38	17° \mathbb{M} 35'36	
				morning max el	4683 Jan 01 20:58	21° \mathbb{M} 42'11	19°37'56
superior conj	4682 Mar 04 15:06	14° \mathbb{H} 03'55	-2°-8'-26		4683 Jan 08 16:56	0° \mathbb{Z}	
minimum elong	4682 Mar 04 15:15	14° \mathbb{H} 04'35	2°08'27	greatest brilliancy	4683 Jan 09 21:51	1° \mathbb{Z} 40'06	-0.6m
	4682 Mar 13 20:45	0° \mathbb{Y}		desc. node	4683 Jan 21 08:26	18° \mathbb{Z} 36'49	
evening rise	4682 Mar 16 15:44	4° \mathbb{Y} 56'22		morning set	4683 Jan 27 01:59	27° \mathbb{Z} 24'41	
asc. node	4682 Mar 26 19:40	22° \mathbb{Y} 26'55			4683 Jan 28 18:11	0° \approx	
	4682 Apr 01 05:58	0° \mathbb{Z}		max. Earth dist.	4683 Feb 08 08:27	16° \approx 34'57	1.44456 AU
evening max el	4682 Apr 02 14:12	1° \mathbb{Z} 26'09	18°06'37				
retrograde	4682 Apr 09 03:15	4° \mathbb{Z} 48'33		superior conj	4683 Feb 12 18:21	23° \approx 37'48	-1°-59'-39
evening set	4682 Apr 11 19:11	4° \mathbb{Z} 14'40		minimum elong	4683 Feb 12 12:20	23° \approx 13'34	1°59'20
	4682 Apr 17 11:24	30° \mathbb{R} \mathbb{Y}			4683 Feb 16 16:42	0° \mathbb{H}	
inferior conj	4682 Apr 18 07:19	29° \mathbb{Y} 10'49	3°14'56	evening rise	4683 Feb 26 13:38	16° \mathbb{H} 24'38	
minimum elong	4682 Apr 18 09:39	29° \mathbb{Y} 04'58	3°14'35		4683 Mar 06 15:54	0° \mathbb{Y}	
min. Earth dist.	4682 Apr 21 09:11	26° \mathbb{Y} 07'40	0.61589 AU	asc. node	4683 Mar 13 16:41	10° \mathbb{Y} 42'29	
morning rise	4682 Apr 24 21:09	23° \mathbb{Y} 12'12		evening max el	4683 Mar 17 03:04	14° \mathbb{Y} 45'50	18°16'43
direct	4682 May 01 16:03	20° \mathbb{Y} 49'50		retrograde	4683 Mar 23 13:11	18° \mathbb{Y} 11'57	
desc. node	4682 May 02 10:35	20° \mathbb{Y} 51'36		evening set	4683 Mar 26 11:10	17° \mathbb{Y} 26'32	
morning max el	4682 May 15 20:37	28° \mathbb{Y} 48'42	27°51'40	inferior conj	4683 Apr 01 12:10	12° \mathbb{Y} 03'05	3°32'45
	4682 May 17 00:32	0° \mathbb{Z}		minimum elong	4683 Apr 01 12:49	12° \mathbb{Y} 01'15	3°32'43
	4682 Jun 07 05:31	0° \mathbb{H}		min. Earth dist.	4683 Apr 04 00:00	9° \mathbb{Y} 16'03	0.63631 AU
morning set	4682 Jun 18 00:28	20° \mathbb{H} 25'07		morning rise	4683 Apr 07 12:34	5° \mathbb{Y} 54'11	
asc. node	4682 Jun 22 18:57	0° \mathbb{Z} 27'32		direct	4683 Apr 14 08:55	3° \mathbb{Y} 11'39	
	4682 Jun 22 13:50	0° \mathbb{Z}		desc. node	4683 Apr 19 07:37	4° \mathbb{Y} 24'23	
max. Earth dist.	4682 Jun 23 20:54	2° \mathbb{Z} 47'52	1.32219 AU	morning max el	4683 Apr 28 04:36	11° \mathbb{Y} 10'05	27°41'06
					4683 May 13 01:18	0° \mathbb{Z}	
superior conj	4682 Jun 25 10:59	6° \mathbb{Z} 15'29	0°27'36		4683 May 30 15:10	0° \mathbb{H}	
minimum elong	4682 Jun 25 09:45	6° \mathbb{Z} 08'45	0°27'20	morning set	4683 Jun 01 21:01	4° \mathbb{H} 24'03	
evening rise	4682 Jul 02 08:22	21° \mathbb{Z} 15'45		max. Earth dist.	4683 Jun 07 00:14	14° \mathbb{H} 55'58	1.32922 AU
	4682 Jul 06 13:45	0° Ω					
	4682 Jul 25 19:02	0° \cap		superior conj	4683 Jun 09 18:03	20° \mathbb{H} 46'14	0°00'55
evening max el	4682 Jul 27 22:17	2° \cap 10'46	24°40'40	minimum elong	4683 Jun 09 18:00	20° \mathbb{H} 45'59	0°00'53
desc. node	4682 Jul 29 09:49	3° \cap 32'10		behind sun begin	4683 Jun 09 12:41	20° \mathbb{H} 17'26	
retrograde	4682 Aug 10 19:58	9° \cap 11'54		behind sun end	4683 Jun 09 23:19	21° \mathbb{H} 14'34	
evening set	4682 Aug 16 01:08	8° \cap 10'43		asc. node	4683 Jun 09 15:58	20° \mathbb{H} 35'05	
min. Earth dist.	4682 Aug 21 09:34	5° \cap 22'45	0.56949 AU		4683 Jun 14 00:36	0° \mathbb{Z}	
inferior conj	4682 Aug 24 04:31	3° \cap 34'28	-5°-14'-45	evening rise	4683 Jun 16 20:09	6° \mathbb{Z} 01'38	

	4683 Jun 29 14:29	0°♎		evening max el	4684 Jun 20 05:25	23°♊05'34	21°29'54
evening max el	4683 Jul 09 11:09	12°♎34'24	23°03'53	retrograde	4684 Jul 02 11:18	29°♊08'13	
desc. node	4683 Jul 16 06:51	17°♎37'04		desc. node	4684 Jul 02 03:52	29°♊08'00	
retrograde	4683 Jul 22 20:44	19°♎15'45		evening set	4684 Jul 04 22:40	28°♊54'16	
evening set	4683 Jul 26 13:34	18°♎45'50		inferior conj	4684 Jul 14 06:42	24°♊54'28	-3°-24'-53
min. Earth dist.	4683 Aug 02 20:09	15°♎29'05	0.55497 AU	minimum elong	4684 Jul 13 22:13	25°♊06'21	3°22'20
inferior conj	4683 Aug 04 11:59	14°♎31'19	-4°-45'-21	min. Earth dist.	4684 Jul 14 06:27	24°♊54'49	0.54829 AU
minimum elong	4683 Aug 04 05:12	14°♎41'13	4°44'14	morning rise	4684 Jul 22 22:34	21°♊01'25	
morning rise	4683 Aug 12 23:35	10°♎39'58		direct	4684 Jul 26 08:53	20°♊35'55	
direct	4683 Aug 15 22:48	10°♎19'03		morning max el	4684 Aug 07 19:14	26°♊27'39	22°09'33
morning max el	4683 Aug 26 19:43	15°♎22'21	20°36'55		4684 Aug 11 04:28	0°♎	
asc. node	4683 Sep 05 15:14	28°♎16'23		asc. node	4684 Aug 22 12:17	17°♎11'04	
	4683 Sep 06 15:35	0°♐			4684 Aug 28 23:29	0°♐	
morning set	4683 Sep 14 18:54	15°♐39'04		morning set	4684 Aug 29 04:56	0°♐28'29	
	4683 Sep 21 17:27	0°♑					
superior conj	4683 Sep 22 08:13	1°♑15'23	1°43'38	superior conj	4684 Sep 05 09:52	15°♐45'18	1°41'57
minimum elong	4683 Sep 22 08:36	1°♑17'22	1°43'37	minimum elong	4684 Sep 05 08:55	15°♐40'20	1°41'55
max. Earth dist.	4683 Sep 27 07:22	11°♑09'21	1.36083 AU	max. Earth dist.	4684 Sep 08 22:25	23°♐05'11	1.34445 AU
evening rise	4683 Oct 01 07:47	18°♑46'39			4684 Sep 12 09:02	0°♑	
	4683 Oct 07 15:15	0°♒		evening rise	4684 Sep 13 12:25	2°♑13'40	
desc. node	4683 Oct 12 06:10	7°♒39'18		desc. node	4684 Sep 28 03:11	27°♑47'05	
	4683 Oct 27 17:18	0°♓			4684 Sep 29 13:33	0°♒	
evening max el	4683 Nov 05 21:57	10°♓25'48	26°10'28	evening max el	4684 Oct 18 10:39	24°♒01'40	27°00'06
retrograde	4683 Nov 18 13:35	17°♓34'59			4684 Oct 26 11:57	0°♓	
evening set	4683 Nov 24 19:18	15°♓02'16		retrograde	4684 Oct 31 16:03	1°♓18'44	
min. Earth dist.	4683 Nov 29 01:12	10°♓33'10	0.66643 AU		4684 Nov 05 10:25	30°♒♒	
inferior conj	4683 Nov 30 13:30	8°♓41'04	0°-41'-48	evening set	4684 Nov 07 09:55	28°♒39'17	
minimum elong	4683 Nov 30 14:38	8°♓37'36	0°41'19	min. Earth dist.	4684 Nov 11 09:03	24°♒46'20	0.65462 AU
asc. node	4683 Dec 02 14:27	6°♓14'43		inferior conj	4684 Nov 13 09:14	22°♒28'53	-1°-42'-57
morning rise	4683 Dec 06 11:06	2°♓50'13		minimum elong	4684 Nov 13 12:10	22°♒20'32	1°41'46
direct	4683 Dec 09 12:14	1°♓57'18		asc. node	4684 Nov 18 11:31	17°♒32'24	
morning max el	4683 Dec 16 06:13	5°♓39'54	18°46'03	morning rise	4684 Nov 19 16:12	16°♒50'43	
	4684 Jan 02 10:44	0°♈		direct	4684 Nov 22 08:45	16°♒11'26	
morning set	4684 Jan 06 15:07	6°♈34'32		morning max el	4684 Nov 28 20:38	19°♒40'40	18°10'37
desc. node	4684 Jan 08 05:28	9°♈05'18			4684 Dec 06 16:49	0°♓	
	4684 Jan 21 13:21	0°♉		morning set	4684 Dec 17 09:16	17°♓12'18	
max. Earth dist.	4684 Jan 22 01:56	0°♉49'24	1.45210 AU	desc. node	4684 Dec 25 02:30	29°♓43'43	
					4684 Dec 25 06:33	0°♈	
superior conj	4684 Jan 23 01:26	2°♉21'42	-1°-31'-11	superior conj	4685 Jan 01 05:30	11°♈04'20	0°-47'-49
minimum elong	4684 Jan 22 16:05	1°♉44'55	1°30'15	minimum elong	4684 Dec 31 23:33	10°♈40'50	0°47'03
evening rise	4684 Feb 07 12:41	26°♉55'58		max. Earth dist.	4685 Jan 03 21:38	15°♈16'49	1.45220 AU
	4684 Feb 09 10:23	0°♊			4685 Jan 13 07:44	0°♉	
evening max el	4684 Feb 28 14:21	28°♊13'55	18°44'57	evening rise	4685 Jan 17 13:41	6°♉36'31	
asc. node	4684 Feb 28 13:43	28°♊12'17			4685 Feb 01 20:14	0°♊	
	4684 Mar 01 13:22	0°♋		greatest brilliancy	4685 Feb 02 17:37	1°♊17'44	-0.7m
retrograde	4684 Mar 06 06:20	1°♋56'22		evening max el	4685 Feb 10 21:53	11°♊45'24	19°30'04
evening set	4684 Mar 09 10:42	0°♋58'28		asc. node	4685 Feb 14 10:46	14°♊42'56	
	4684 Mar 10 19:16	30°♒♊		retrograde	4685 Feb 18 03:23	15°♊54'49	
inferior conj	4684 Mar 15 04:01	25°♊17'06	3°32'13	evening set	4685 Feb 21 15:02	14°♊43'37	
minimum elong	4684 Mar 15 03:11	25°♊19'38	3°32'11	inferior conj	4685 Feb 27 03:31	8°♊46'31	3°17'43
min. Earth dist.	4684 Mar 17 00:10	23°♊01'48	0.65334 AU	minimum elong	4685 Feb 27 01:40	8°♊52'35	3°17'26
morning rise	4684 Mar 20 18:29	19°♊03'02		min. Earth dist.	4685 Feb 28 08:39	7°♊11'03	0.66629 AU
direct	4684 Mar 27 08:48	16°♊14'06		morning rise	4685 Mar 04 11:32	2°♊30'20	
desc. node	4684 Apr 05 04:41	20°♊03'12			4685 Mar 08 20:41	30°♒♉	
morning max el	4684 Apr 09 14:34	24°♊01'31	26°57'32	direct	4685 Mar 10 14:54	29°♉47'22	
	4684 Apr 14 23:14	0°♌			4685 Mar 12 10:50	0°♊	
	4684 May 05 10:21	0°♍		morning max el	4685 Mar 23 00:18	7°♊10'34	25°48'42
morning set	4684 May 15 07:37	17°♍50'38		desc. node	4685 Mar 23 01:44	7°♊14'12	
max. Earth dist.	4684 May 19 18:14	26°♍35'31	1.34083 AU		4685 Apr 09 18:10	0°♌	
	4684 May 21 10:26	0°♎			4685 Apr 27 21:05	0°♍	
superior conj	4684 May 23 19:46	4°♎56'52	0°-27'-52	morning set	4685 Apr 28 04:05	0°♍32'04	
minimum elong	4684 May 23 21:15	5°♎04'36	0°27'36	max. Earth dist.	4685 May 02 00:47	7°♍46'34	1.35697 AU
asc. node	4684 May 26 13:01	10°♎40'12					
evening rise	4684 May 31 06:29	20°♎39'08		superior conj	4685 May 07 13:29	18°♍39'02	0°-57'-27
	4684 Jun 04 21:03	0°♏		minimum elong	4685 May 07 16:38	18°♍54'52	0°56'54
				asc. node	4685 May 13 10:03	0°♎	

	4685 May 13 02:40	0°♂		superior conj	4686 Apr 20 20:00	1°♂44'46	-1°-25'-47
evening rise	4685 May 15 13:13	5°♂00'39		minimum elong	4686 Apr 21 00:31	2°♂06'35	1°25'10
	4685 May 29 19:09	0°♂		evening rise	4686 Apr 29 13:57	18°♂59'29	
evening max el	4685 Jun 02 11:01	4°♂10'03	20°10'12	asc. node	4686 Apr 30 07:05	20°♂24'13	
retrograde	4685 Jun 13 01:26	9°♂20'55			4686 May 05 07:04	0°♂	
evening set	4685 Jun 15 00:14	9°♂11'08		evening max el	4686 May 16 04:54	15°♂56'55	19°09'45
desc. node	4685 Jun 19 00:55	7°♂55'42		retrograde	4686 May 25 02:58	20°♂18'06	
inferior conj	4685 Jun 24 02:08	5°♂12'14	-1°-30'-9	evening set	4686 May 27 02:53	20°♂05'56	
minimum elong	4685 Jun 23 21:54	5°♂18'31	1°28'36	inferior conj	4686 Jun 04 11:50	15°♂54'43	0°25'00
min. Earth dist.	4685 Jun 25 18:37	4°♂12'10	0.55111 AU	minimum elong	4686 Jun 04 12:51	15°♂52'58	0°24'37
morning rise	4685 Jul 02 17:22	0°♂56'32		desc. node	4686 Jun 05 21:57	14°♂56'40	
direct	4685 Jul 06 20:04	0°♂19'49		min. Earth dist.	4686 Jun 07 09:38	13°♂57'06	0.56304 AU
morning max el	4685 Jul 20 10:58	6°♂59'39	23°52'41	morning rise	4686 Jun 12 18:32	11°♂04'01	
	4685 Aug 05 22:33	0°♂		direct	4686 Jun 17 19:30	10°♂04'54	
asc. node	4685 Aug 09 09:20	6°♂33'04		morning max el	4686 Jul 02 00:54	17°♂22'07	25°32'17
morning set	4685 Aug 13 16:33	15°♂21'50			4686 Jul 12 10:27	0°♂	
	4685 Aug 20 11:22	0°♂		asc. node	4686 Jul 27 06:21	26°♂14'55	
				morning set	4686 Jul 29 04:05	0°♂13'56	
superior conj	4685 Aug 20 17:03	0°♂30'48	1°34'07		4686 Jul 29 01:27	0°♂	
minimum elong	4685 Aug 20 15:12	0°♂20'49	1°33'57	superior conj	4686 Aug 05 03:29	15°♂24'22	1°21'01
max. Earth dist.	4685 Aug 22 22:08	5°♂16'00	1.33207 AU	minimum elong	4686 Aug 05 01:12	15°♂11'51	1°20'43
evening rise	4685 Aug 28 04:55	16°♂14'22		max. Earth dist.	4686 Aug 06 04:57	17°♂43'59	1.32396 AU
	4685 Sep 04 09:55	0°♂			4686 Aug 11 22:24	0°♂	
desc. node	4685 Sep 15 00:13	17°♂29'18		evening rise	4686 Aug 12 05:56	0°♂39'00	
	4685 Sep 24 04:54	0°♂			4686 Aug 28 10:09	0°♂	
evening max el	4685 Sep 30 22:15	7°♂19'08	27°25'13	desc. node	4686 Sep 01 21:14	6°♂34'58	
retrograde	4685 Oct 14 12:36	14°♂37'08		evening max el	4686 Sep 13 06:47	20°♂05'40	27°19'56
evening set	4685 Oct 21 14:47	11°♂59'26		retrograde	4686 Sep 27 02:26	27°♂20'06	
min. Earth dist.	4685 Oct 25 08:13	8°♂40'36	0.63934 AU	evening set	4686 Oct 04 06:22	24°♂55'42	
inferior conj	4685 Oct 27 20:31	6°♂04'38	-2°-45'-38	min. Earth dist.	4686 Oct 07 21:11	22°♂04'31	0.62105 AU
minimum elong	4685 Oct 28 01:15	5°♂52'21	2°43'56	inferior conj	4686 Oct 10 20:20	19°♂20'42	-3°-46'-11
morning rise	4685 Nov 03 14:12	0°♂42'14		minimum elong	4686 Oct 11 02:21	19°♂06'48	3°44'26
asc. node	4685 Nov 05 08:34	0°♂15'04		morning rise	4686 Oct 18 01:22	14°♂17'13	
direct	4685 Nov 06 00:33	0°♂12'50		direct	4686 Oct 20 08:29	13°♂54'07	
morning max el	4685 Nov 12 13:23	3°♂37'53	17°52'18	asc. node	4686 Oct 23 05:37	14°♂31'38	
morning set	4685 Nov 29 06:53	29°♂10'16		morning max el	4686 Oct 27 05:18	17°♂23'17	17°51'55
	4685 Nov 29 18:29	0°♂			4686 Nov 05 04:44	0°♂	
desc. node	4685 Dec 11 23:31	20°♂28'24		morning set	4686 Nov 12 01:39	12°♂08'33	
					4686 Nov 22 03:51	0°♂	
superior conj	4685 Dec 12 02:23	20°♂40'09	0°00'-50	superior conj	4686 Nov 23 01:16	1°♂31'48	0°40'10
minimum elong	4685 Dec 12 02:17	20°♂39'43	0°00'49	minimum elong	4686 Nov 23 04:40	1°♂46'20	0°39'43
behind sun begin	4685 Dec 11 16:23	19°♂59'22		desc. node	4686 Nov 28 20:31	11°♂15'33	
behind sun end	4685 Dec 12 12:11	21°♂20'00		max. Earth dist.	4686 Nov 30 06:35	13°♂34'54	1.43148 AU
max. Earth dist.	4685 Dec 17 15:58	29°♂37'30	1.44501 AU	evening rise	4686 Dec 07 13:36	25°♂12'17	
	4685 Dec 17 21:38	0°♂			4686 Dec 10 15:55	0°♂	
evening rise	4685 Dec 28 00:56	15°♂49'24			4686 Dec 31 09:40	0°♂	
	4686 Jan 06 09:01	0°♂		greatest brilliancy	4687 Jan 03 01:52	3°♂24'45	-0.4m
greatest brilliancy	4686 Jan 19 01:46	18°♂13'08	-0.5m	evening max el	4687 Jan 07 21:14	8°♂53'06	21°41'35
evening max el	4686 Jan 25 00:17	25°♂18'36	20°30'00	retrograde	4687 Jan 16 23:05	14°♂16'38	
asc. node	4686 Feb 01 07:49	0°♂00'02		asc. node	4687 Jan 19 04:51	13°♂49'41	
	4686 Feb 01 07:44	0°♂		evening set	4687 Jan 21 05:52	12°♂35'53	
retrograde	4686 Feb 02 01:39	0°♂03'01		inferior conj	4687 Jan 26 15:10	6°♂16'05	2°17'38
	4686 Feb 02 19:19	30°♂		minimum elong	4687 Jan 26 12:46	6°♂24'25	2°16'53
evening set	4686 Feb 05 22:02	28°♂37'33		min. Earth dist.	4687 Jan 26 18:29	6°♂04'34	0.67976 AU
inferior conj	4686 Feb 11 07:59	22°♂27'30	2°52'12	morning rise	4687 Jan 31 19:24	0°♂01'58	
minimum elong	4686 Feb 11 05:37	22°♂35'35	2°51'38		4687 Jan 31 20:18	30°♂	
min. Earth dist.	4686 Feb 11 23:33	21°♂34'24	0.67506 AU	direct	4687 Feb 05 18:25	27°♂54'53	
morning rise	4686 Feb 16 12:42	16°♂11'24			4687 Feb 11 07:31	0°♂	
direct	4686 Feb 22 02:25	13°♂43'32		morning max el	4687 Feb 15 18:25	3°♂50'26	22°55'13
morning max el	4686 Mar 05 08:58	20°♂27'57	24°24'29	greatest brilliancy	4687 Feb 20 11:59	9°♂07'17	-0.3m
desc. node	4686 Mar 09 22:46	25°♂31'33		desc. node	4687 Feb 24 19:47	14°♂36'01	
	4686 Mar 13 13:20	0°♂			4687 Mar 07 17:54	0°♂	
	4686 Apr 02 22:58	0°♂		morning set	4687 Mar 22 04:41	22°♂40'59	
morning set	4686 Apr 10 05:08	12°♂14'12		max. Earth dist.	4687 Mar 26 17:09	0°♂18'43	1.39882 AU
max. Earth dist.	4686 Apr 13 22:00	18°♂49'00	1.37694 AU		4687 Mar 26 12:48	0°♂	
	4686 Apr 19 22:10	0°♂					

superior conj	4687 Apr 03 11:10	14° Υ 04'02	-1°-49'-52	morning set	4688 Feb 29 23:28	1° Υ 46'19	
minimum elong	4687 Apr 03 15:59	14° Υ 26'07	1°49'27	max. Earth dist.	4688 Mar 07 17:44	12° Υ 42'15	1.41983 AU
	4687 Apr 11 22:39	0° Υ					
evening rise	4687 Apr 13 05:38	2° Υ 27'56		superior conj	4688 Mar 15 05:59	25° Υ 24'35	-2°-5'-26
asc. node	4687 Apr 17 04:07	9° Υ 54'09		minimum elong	4688 Mar 15 08:46	25° Υ 36'41	2°05'21
evening max el	4687 Apr 29 08:30	28° Υ 21'39	18°29'37		4688 Mar 17 20:59	0° Υ	
	4687 May 01 06:14	0° Υ		evening rise	4688 Mar 26 08:32	15° Υ 16'46	
retrograde	4687 May 06 23:01	2° Υ 07'02		asc. node	4688 Apr 03 01:09	29° Υ 01'18	
evening set	4687 May 09 05:06	1° Υ 48'16			4688 Apr 03 15:06	0° Υ	
	4687 May 13 01:40	30° Υ		evening max el	4688 Apr 11 18:14	11° Υ 14'16	18°09'24
inferior conj	4687 May 16 18:31	27° Υ 17'22	1°55'19	retrograde	4688 Apr 18 13:15	14° Υ 40'37	
minimum elong	4687 May 16 21:57	27° Υ 10'32	1°54'17	evening set	4688 Apr 21 01:47	14° Υ 12'38	
min. Earth dist.	4687 May 20 04:31	24° Υ 36'09	0.58159 AU	inferior conj	4688 Apr 27 22:00	9° Υ 20'20	2°54'05
desc. node	4687 May 23 18:58	22° Υ 13'28		minimum elong	4688 Apr 28 01:09	9° Υ 13'03	2°53'26
morning rise	4687 May 24 10:22	21° Υ 53'16		min. Earth dist.	4688 May 01 05:28	6° Υ 18'18	0.60329 AU
direct	4687 May 30 09:16	20° Υ 22'07		morning rise	4688 May 04 20:58	3° Υ 31'32	
morning max el	4687 Jun 13 18:30	28° Υ 02'41	26°52'33	desc. node	4688 May 09 16:00	1° Υ 35'42	
	4687 Jun 15 16:23	0° Υ		direct	4688 May 11 11:05	1° Υ 26'31	
	4687 Jul 06 00:33	0° Υ		morning max el	4688 May 25 18:29	9° Υ 20'19	27°40'56
morning set	4687 Jul 13 13:58	14° Υ 59'50			4688 Jun 10 15:45	0° Υ	
asc. node	4687 Jul 14 03:22	16° Υ 10'38		morning set	4688 Jun 26 20:22	29° Υ 32'40	
	4687 Jul 20 11:42	0° Υ			4688 Jun 27 01:38	0° Υ	
				asc. node	4688 Jun 30 00:24	6° Υ 14'14	
superior conj	4687 Jul 20 15:16	0° Υ 19'42	1°03'21	max. Earth dist.	4688 Jul 03 03:04	13° Υ 00'16	1.32025 AU
minimum elong	4687 Jul 20 13:02	0° Υ 07'20	1°02'58				
max. Earth dist.	4687 Jul 20 15:53	0° Υ 23'06	1.32005 AU	superior conj	4688 Jul 04 02:36	15° Υ 09'40	0°41'41
evening rise	4687 Jul 27 12:43	15° Υ 19'18		minimum elong	4688 Jul 04 00:52	15° Υ 00'09	0°41'19
	4687 Aug 03 21:33	0° Υ		evening rise	4688 Jul 10 22:57	0° Υ 06'33	
desc. node	4687 Aug 19 18:14	24° Υ 49'14			4688 Jul 10 21:44	0° Υ	
	4687 Aug 24 05:48	0° Υ			4688 Jul 27 07:14	0° Υ	
evening max el	4687 Aug 26 09:43	2° Υ 09'52	26°41'12	desc. node	4688 Aug 05 15:15	11° Υ 50'09	
retrograde	4687 Sep 09 08:05	9° Υ 19'26		evening max el	4688 Aug 07 04:58	13° Υ 24'07	25°31'17
evening set	4687 Sep 16 04:11	7° Υ 20'48		retrograde	4688 Aug 21 03:50	20° Υ 29'15	
min. Earth dist.	4687 Sep 19 23:38	4° Υ 45'03	0.60079 AU	evening set	4688 Aug 27 03:20	19° Υ 06'04	
inferior conj	4687 Sep 23 05:19	2° Υ 08'36	-4°-38'-6	min. Earth dist.	4688 Aug 31 16:51	16° Υ 28'15	0.58035 AU
minimum elong	4687 Sep 23 11:03	1° Υ 56'59	4°36'59	inferior conj	4688 Sep 03 19:55	14° Υ 17'14	-5°-10'-39
	4687 Sep 25 23:51	30° Υ		minimum elong	4688 Sep 03 22:30	14° Υ 12'40	5°10'29
morning rise	4687 Sep 30 21:16	27° Υ 26'57		morning rise	4688 Sep 11 21:10	9° Υ 59'12	
direct	4687 Oct 03 04:36	27° Υ 07'09		direct	4688 Sep 14 08:27	9° Υ 40'21	
	4687 Oct 09 19:53	0° Υ		morning max el	4688 Sep 22 21:37	13° Υ 44'09	18°50'26
asc. node	4687 Oct 10 02:38	0° Υ 14'50		asc. node	4688 Sep 25 23:39	17° Υ 09'25	
morning max el	4687 Oct 10 17:10	0° Υ 48'43	18°10'46		4688 Oct 04 02:14	0° Υ	
morning set	4687 Oct 26 11:36	25° Υ 50'06		morning set	4688 Oct 09 08:06	10° Υ 01'21	
	4687 Oct 28 16:39	0° Υ					
				superior conj	4688 Oct 17 21:17	26° Υ 39'53	1°30'54
superior conj	4687 Nov 05 01:15	13° Υ 36'34	1°10'53	minimum elong	4688 Oct 18 00:11	26° Υ 53'39	1°30'39
minimum elong	4687 Nov 05 05:14	13° Υ 54'28	1°10'25		4688 Oct 19 15:44	0° Υ	
max. Earth dist.	4687 Nov 12 16:31	26° Υ 57'10	1.41325 AU	max. Earth dist.	4688 Oct 24 22:16	9° Υ 36'57	1.39247 AU
	4687 Nov 14 12:06	0° Υ		evening rise	4688 Oct 28 21:31	16° Υ 31'16	
desc. node	4687 Nov 15 17:32	2° Υ 01'53		desc. node	4688 Nov 01 14:33	22° Υ 43'41	
evening rise	4687 Nov 17 18:14	5° Υ 20'59			4688 Nov 06 03:12	0° Υ	
	4687 Dec 03 21:56	0° Υ			4688 Nov 27 12:30	0° Υ	
greatest brilliancy	4687 Dec 15 23:13	16° Υ 12'08	-0.2m	evening max el	4688 Dec 03 03:00	6° Υ 10'29	24°19'42
evening max el	4687 Dec 21 13:35	22° Υ 30'05	23°00'06	retrograde	4688 Dec 14 09:32	12° Υ 46'42	
retrograde	4687 Dec 31 18:04	28° Υ 32'24		evening set	4688 Dec 19 17:44	10° Υ 34'01	
evening set	4688 Jan 05 12:57	26° Υ 35'34		asc. node	4688 Dec 22 22:55	7° Υ 07'53	
asc. node	4688 Jan 06 01:53	26° Υ 07'17		min. Earth dist.	4688 Dec 24 11:12	5° Υ 09'40	0.67786 AU
inferior conj	4688 Jan 10 23:08	20° Υ 09'42	1°35'21	inferior conj	4688 Dec 25 06:08	4° Υ 06'07	0°46'25
minimum elong	4688 Jan 10 21:10	20° Υ 16'28	1°34'38	minimum elong	4688 Dec 25 05:02	4° Υ 09'46	0°46'00
min. Earth dist.	4688 Jan 10 15:08	20° Υ 37'19	0.68064 AU		4688 Dec 28 12:51	30° Υ	
morning rise	4688 Jan 16 05:24	13° Υ 59'24		morning rise	4688 Dec 30 16:43	28° Υ 01'39	
direct	4688 Jan 20 13:51	12° Υ 15'16		direct	4689 Jan 03 11:37	26° Υ 39'48	
morning max el	4688 Jan 29 08:24	17° Υ 21'33	21°29'54		4689 Jan 10 02:37	0° Υ	
greatest brilliancy	4688 Feb 03 07:16	22° Υ 58'15	-0.4m	morning max el	4689 Jan 11 05:51	1° Υ 04'51	20°14'55
	4688 Feb 08 15:53	0° Υ		greatest brilliancy	4689 Jan 17 18:57	8° Υ 52'04	-0.5m
desc. node	4688 Feb 11 16:48	4° Υ 14'21		desc. node	4689 Jan 28 13:49	24° Υ 17'22	
	4688 Feb 28 20:33	0° Υ			4689 Feb 01 08:58	0° Υ	

morning set	4689 Feb 07 21:48	9° \approx 59'54		greatest brilliancy	4690 Jan 04 07:21	27° \approx 40'56	-0.7m
max. Earth dist.	4689 Feb 18 02:03	26° \approx 00'20	1.43709 AU		4690 Jan 05 20:59	0° \approx	
	4689 Feb 20 13:30	0° \approx		desc. node	4690 Jan 15 10:49	14° \approx 37'51	
				morning set	4690 Jan 17 22:36	18° \approx 29'26	
superior conj	4689 Feb 24 00:00	5° \approx 37'07	-2°-7'-4		4690 Jan 25 08:07	0° \approx	
minimum elong	4689 Feb 23 21:37	5° \approx 27'18	2°07'02	max. Earth dist.	4690 Jan 31 16:30	9° \approx 57'25	1.44857 AU
evening rise	4689 Mar 08 18:20	27° \approx 17'17					
	4689 Mar 10 07:47	0° \approx		superior conj	4690 Feb 03 17:13	14° \approx 45'00	-1°-49'-55
asc. node	4689 Mar 20 22:12	17° \approx 38'35		minimum elong	4690 Feb 03 09:02	14° \approx 12'32	1°49'17
evening max el	4689 Mar 26 06:47	24° \approx 26'16	18°08'37		4690 Feb 13 04:43	0° \approx	
retrograde	4689 Apr 01 17:30	27° \approx 48'55		evening rise	4690 Feb 18 06:46	8° \approx 21'12	
evening set	4689 Apr 04 11:58	27° \approx 10'14			4690 Mar 03 16:24	0° \approx	
inferior conj	4689 Apr 10 18:52	21° \approx 57'34	3°25'04	asc. node	4690 Mar 07 19:16	5° \approx 36'00	
minimum elong	4689 Apr 10 20:30	21° \approx 53'15	3°24'54	evening max el	4690 Mar 09 19:12	7° \approx 49'33	18°26'34
min. Earth dist.	4689 Apr 13 15:03	18° \approx 59'03	0.62483 AU	retrograde	4690 Mar 16 07:00	11° \approx 21'35	
morning rise	4689 Apr 17 02:33	15° \approx 53'36		evening set	4690 Mar 19 07:31	10° \approx 31'07	
direct	4689 Apr 23 22:54	13° \approx 21'24		inferior conj	4690 Mar 25 04:51	4° \approx 59'50	3°34'28
desc. node	4689 Apr 26 13:02	13° \approx 41'15		minimum elong	4690 Mar 25 04:50	4° \approx 59'54	3°34'28
morning max el	4689 May 08 00:29	21° \approx 21'06	27°51'43	min. Earth dist.	4690 Mar 27 10:05	2° \approx 24'37	0.64395 AU
	4689 May 15 12:54	0° \approx			4690 Mar 29 16:33	30° \approx	
	4689 Jun 03 17:38	0° \approx		morning rise	4690 Mar 31 00:33	28° \approx 47'57	
morning set	4689 Jun 10 21:16	13° \approx 46'34		direct	4690 Apr 06 18:58	26° \approx 00'54	
max. Earth dist.	4689 Jun 16 10:34	25° \approx 23'12	1.32468 AU	desc. node	4690 Apr 13 10:04	28° \approx 11'17	
asc. node	4689 Jun 16 21:27	26° \approx 21'45			4690 Apr 16 00:21	0° \approx	
				morning max el	4690 Apr 20 09:49	3° \approx 57'08	27°26'14
superior conj	4689 Jun 18 11:46	29° \approx 49'06	0°16'37		4690 May 10 00:40	0° \approx	
minimum elong	4689 Jun 18 10:59	29° \approx 44'53	0°16'26	morning set	4690 May 25 14:02	27° \approx 33'03	
	4689 Jun 18 13:46	0° \approx			4690 May 26 19:47	0° \approx	
evening rise	4689 Jun 25 10:44	14° \approx 54'45		max. Earth dist.	4690 May 30 10:14	7° \approx 19'14	1.33353 AU
	4689 Jul 02 23:16	0° \approx					
evening max el	4689 Jul 19 18:13	23° \approx 58'05	23°59'58	superior conj	4690 Jun 02 16:49	14° \approx 11'53	0°-11'-7
desc. node	4689 Jul 23 12:17	27° \approx 09'12		minimum elong	4690 Jun 02 17:23	14° \approx 14'54	0°11'01
	4689 Jul 28 16:18	0° \approx		behind sun begin	4690 Jun 02 13:24	13° \approx 53'44	
retrograde	4689 Aug 02 12:15	0° \approx 53'20		behind sun end	4690 Jun 02 21:23	14° \approx 36'06	
evening set	4689 Aug 07 02:25	0° \approx 06'45		asc. node	4690 Jun 03 18:31	16° \approx 28'46	
	4689 Aug 07 10:22	30° \approx		evening rise	4690 Jun 09 22:07	29° \approx 37'26	
min. Earth dist.	4689 Aug 13 04:36	27° \approx 08'14	0.56259 AU		4690 Jun 10 02:24	0° \approx	
inferior conj	4689 Aug 15 14:14	25° \approx 03'52	-5°-8'-25		4690 Jun 27 10:06	0° \approx	
minimum elong	4689 Aug 15 10:49	25° \approx 04'58	5°08'11	evening max el	4690 Jul 01 08:20	4° \approx 20'48	22°22'46
morning rise	4689 Aug 23 22:38	21° \approx 04'20		desc. node	4690 Jul 10 09:18	10° \approx 12'13	
direct	4689 Aug 26 16:41	21° \approx 02'34		retrograde	4690 Jul 14 08:34	10° \approx 04'39	
morning max el	4689 Sep 05 15:40	26° \approx 00'35	19°51'57	evening set	4690 Jul 17 10:49	10° \approx 02'32	
	4689 Sep 09 06:58	0° \approx		min. Earth dist.	4690 Jul 25 15:04	6° \approx 54'15	0.55098 AU
asc. node	4689 Sep 12 20:41	5° \approx 00'37		inferior conj	4690 Jul 26 15:04	6° \approx 20'16	-4°-17'-10
morning set	4689 Sep 23 11:47	24° \approx 32'49		minimum elong	4690 Jul 26 06:44	6° \approx 32'05	4°15'16
	4689 Sep 26 04:07	0° \approx		morning rise	4690 Aug 04 04:46	2° \approx 30'28	
				direct	4690 Aug 07 07:56	2° \approx 08'17	
superior conj	4689 Oct 01 08:05	10° \approx 26'43	1°41'21	morning max el	4690 Aug 18 21:46	7° \approx 32'05	21°14'22
minimum elong	4689 Oct 01 09:23	10° \approx 33'10	1°41'18	asc. node	4690 Aug 30 17:44	23° \approx 03'52	
max. Earth dist.	4689 Oct 07 03:20	21° \approx 41'15	1.37175 AU		4690 Sep 03 05:09	0° \approx	
evening rise	4689 Oct 10 23:02	28° \approx 42'40		morning set	4690 Sep 07 20:08	9° \approx 17'41	
	4689 Oct 11 16:19	0° \approx					
desc. node	4689 Oct 19 11:34	13° \approx 16'42		superior conj	4690 Sep 15 05:21	24° \approx 44'23	1°43'44
	4689 Oct 30 11:18	0° \approx		minimum elong	4690 Sep 15 05:08	24° \approx 43'15	1°43'44
evening max el	4689 Nov 15 15:23	19° \approx 53'16	25°33'31		4690 Sep 17 18:57	0° \approx	
retrograde	4689 Nov 27 20:36	26° \approx 54'16		max. Earth dist.	4690 Sep 19 13:23	3° \approx 33'03	1.35337 AU
evening set	4689 Dec 03 18:35	24° \approx 27'38		evening rise	4690 Sep 23 19:06	11° \approx 46'13	
min. Earth dist.	4689 Dec 08 04:25	19° \approx 38'09	0.67157 AU		4690 Oct 04 03:11	0° \approx	
inferior conj	4689 Dec 09 10:20	18° \approx 02'21	0°-8'-12	desc. node	4690 Oct 06 08:36	3° \approx 35'56	
minimum elong	4689 Dec 09 10:33	18° \approx 01'40	0°08'07		4690 Oct 25 16:57	0° \approx	
transit middle	4689 Dec 09 10:33	18° \approx 01'40	0°08'07	evening max el	4690 Oct 29 04:02	3° \approx 34'47	26°34'09
transit begin	4689 Dec 09 08:07	18° \approx 09'28		retrograde	4690 Nov 11 02:34	10° \approx 49'13	
transit end	4689 Dec 09 12:58	17° \approx 53'54		evening set	4690 Nov 17 13:36	8° \approx 12'49	
asc. node	4689 Dec 09 19:58	17° \approx 31'33		min. Earth dist.	4690 Nov 21 16:31	3° \approx 58'58	0.66180 AU
morning rise	4689 Dec 15 03:22	12° \approx 05'52		inferior conj	4690 Nov 23 09:49	1° \approx 55'16	-1°-7'-22
direct	4689 Dec 18 10:19	11° \approx 03'34		minimum elong	4690 Nov 23 11:41	1° \approx 49'41	1°06'35
morning max el	4689 Dec 25 11:13	14° \approx 58'42	19°13'56		4690 Nov 25 01:11	30° \approx	

asc. node	4690 Nov 26 16:59	28° \mathbb{M} 15'22		asc. node	4691 Nov 13 14:00	10° \mathbb{M} 06'23	
morning rise	4690 Nov 29 11:12	26° \mathbb{M} 09'21		direct	4691 Nov 16 03:15	9° \mathbb{M} 32'07	
direct	4690 Dec 02 08:18	25° \mathbb{M} 22'51		morning max el	4691 Nov 22 14:41	12° \mathbb{M} 58'40	18°00'36
morning max el	4690 Dec 08 23:00	28° \mathbb{M} 58'58	18°28'52		4691 Dec 04 12:58	0° \mathbb{M}	
	4690 Dec 09 22:19	0° \mathbb{M}		morning set	4691 Dec 10 06:04	9° \mathbb{M} 29'52	
morning set	4690 Dec 28 23:33	28° \mathbb{M} 15'36		desc. node	4691 Dec 20 04:55	25° \mathbb{M} 52'37	
	4690 Dec 30 01:43	0° \mathbb{M}			4691 Dec 22 18:20	0° \mathbb{M}	
desc. node	4691 Jan 02 07:53	5° \mathbb{M} 11'11					
				superior conj	4691 Dec 24 05:41	2° \mathbb{M} 21'25	0°-27'-39
superior conj	4691 Jan 13 20:29	23° \mathbb{M} 21'39	-1°-14'-1	minimum elong	4691 Dec 24 02:18	2° \mathbb{M} 07'53	0°27'11
minimum elong	4691 Jan 13 11:51	22° \mathbb{M} 47'46	1°13'02	max. Earth dist.	4691 Dec 28 06:11	8° \mathbb{M} 44'06	1.45008 AU
max. Earth dist.	4691 Jan 14 10:43	24° \mathbb{M} 17'26	1.45307 AU	evening rise	4692 Jan 09 13:32	27° \mathbb{M} 53'38	
	4691 Jan 18 02:08	0° \mathbb{M}			4692 Jan 10 22:20	0° \mathbb{M}	
evening rise	4691 Jan 29 19:54	18° \mathbb{M} 28'47		greatest brilliancy	4692 Jan 28 09:42	26° \mathbb{M} 08'53	-0.6m
	4691 Feb 06 02:41	0° \mathbb{M}			4692 Jan 31 06:42	0° \mathbb{M}	
greatest brilliancy	4691 Feb 10 07:36	6° \mathbb{M} 33'27	-0.8m	evening max el	4692 Feb 04 10:39	4° \mathbb{M} 52'02	19°53'57
evening max el	4691 Feb 21 05:06	21° \mathbb{M} 19'13	19°02'12	asc. node	4692 Feb 09 13:18	8° \mathbb{M} 43'19	
asc. node	4691 Feb 22 16:18	22° \mathbb{M} 42'05		retrograde	4692 Feb 11 23:46	9° \mathbb{M} 15'01	
retrograde	4691 Feb 28 02:04	25° \mathbb{M} 11'58		evening set	4692 Feb 15 15:01	7° \mathbb{M} 57'51	
evening set	4691 Mar 03 09:20	24° \mathbb{M} 08'40		inferior conj	4692 Feb 21 02:11	1° \mathbb{M} 55'06	3°08'05
inferior conj	4691 Mar 09 00:18	18° \mathbb{M} 20'34	3°27'33	minimum elong	4692 Feb 21 00:03	2° \mathbb{M} 02'14	3°07'40
minimum elong	4691 Mar 08 22:59	18° \mathbb{M} 24'45	3°27'25	min. Earth dist.	4692 Feb 22 01:23	0° \mathbb{M} 37'33	0.67060 AU
min. Earth dist.	4691 Mar 10 14:02	16° \mathbb{M} 21'15	0.65940 AU		4692 Feb 22 12:46	30° \mathbb{M}	
morning rise	4691 Mar 14 11:36	12° \mathbb{M} 05'15		morning rise	4692 Feb 26 08:28	25° \mathbb{M} 38'56	
direct	4691 Mar 20 21:51	9° \mathbb{M} 17'07		direct	4692 Mar 03 06:22	23° \mathbb{M} 01'23	
desc. node	4691 Mar 31 07:07	14° \mathbb{M} 32'19		morning max el	4692 Mar 15 04:42	0° \mathbb{M} 09'01	25°14'06
morning max el	4691 Apr 02 19:43	16° \mathbb{M} 56'27	26°30'40		4692 Mar 15 01:08	0° \mathbb{M}	
	4691 Apr 13 16:34	0° \mathbb{M}		desc. node	4692 Mar 17 04:10	2° \mathbb{M} 14'08	
	4691 May 02 22:11	0° \mathbb{M}			4692 Apr 06 14:27	0° \mathbb{M}	
morning set	4691 May 08 19:10	10° \mathbb{M} 41'40		morning set	4692 Apr 20 08:05	22° \mathbb{M} 59'35	
max. Earth dist.	4691 May 12 22:58	18° \mathbb{M} 43'08	1.34708 AU	max. Earth dist.	4692 Apr 24 00:56	29° \mathbb{M} 46'48	1.36508 AU
					4692 Apr 24 03:45	0° \mathbb{M}	
superior conj	4691 May 17 15:29	28° \mathbb{M} 11'07	0°-40'-27				
minimum elong	4691 May 17 17:40	28° \mathbb{M} 22'22	0°40'01	superior conj	4692 Apr 30 04:55	11° \mathbb{M} 39'15	-1°-9'-47
	4691 May 18 12:34	0° \mathbb{M}		minimum elong	4692 Apr 30 08:43	11° \mathbb{M} 58'03	1°09'09
asc. node	4691 May 21 15:34	6° \mathbb{M} 31'05		asc. node	4692 May 07 12:36	26° \mathbb{M} 24'38	
evening rise	4691 May 25 07:09	14° \mathbb{M} 08'22		evening rise	4692 May 08 11:40	28° \mathbb{M} 21'15	
	4691 Jun 02 10:49	0° \mathbb{M}			4692 May 09 07:17	0° \mathbb{M}	
evening max el	4691 Jun 13 07:08	15° \mathbb{M} 04'23	20°53'59	evening max el	4692 May 25 18:10	26° \mathbb{M} 27'00	19°42'03
retrograde	4691 Jun 24 21:06	20° \mathbb{M} 45'16			4692 May 30 13:03	0° \mathbb{M}	
evening set	4691 Jun 27 00:54	20° \mathbb{M} 34'14		retrograde	4692 Jun 04 14:28	1° \mathbb{M} 15'16	
desc. node	4691 Jun 27 06:20	20° \mathbb{M} 31'50		evening set	4692 Jun 06 12:53	1° \mathbb{M} 04'57	
inferior conj	4691 Jul 06 08:15	16° \mathbb{M} 37'15	-2°-38'-36		4692 Jun 10 00:07	30° \mathbb{M}	
minimum elong	4691 Jul 06 01:03	16° \mathbb{M} 47'28	2°36'10	desc. node	4692 Jun 13 03:22	28° \mathbb{M} 22'40	
min. Earth dist.	4691 Jul 07 02:15	16° \mathbb{M} 11'44	0.54825 AU	inferior conj	4692 Jun 15 08:21	27° \mathbb{M} 02'06	0°-39'-27
morning rise	4691 Jul 15 00:37	12° \mathbb{M} 36'36		minimum elong	4692 Jun 15 06:33	27° \mathbb{M} 04'54	0°38'48
direct	4691 Jul 18 17:14	12° \mathbb{M} 07'16		min. Earth dist.	4692 Jun 17 15:13	25° \mathbb{M} 36'50	0.55518 AU
morning max el	4691 Jul 31 17:13	18° \mathbb{M} 20'46	22°52'47	morning rise	4692 Jun 23 21:00	22° \mathbb{M} 32'42	
	4691 Aug 10 04:54	0° \mathbb{M}		direct	4692 Jun 28 08:59	21° \mathbb{M} 47'50	
asc. node	4691 Aug 17 14:47	12° \mathbb{M} 42'51		morning max el	4692 Jul 12 07:13	28° \mathbb{M} 44'30	24°36'26
morning set	4691 Aug 23 07:02	24° \mathbb{M} 09'19			4692 Jul 13 13:53	0° \mathbb{M}	
	4691 Aug 26 00:58	0° \mathbb{M}			4692 Aug 02 08:54	0° \mathbb{M}	
				asc. node	4692 Aug 03 11:51	2° \mathbb{M} 14'17	
superior conj	4691 Aug 30 09:40	9° \mathbb{M} 21'53	1°39'19	morning set	4692 Aug 06 18:49	9° \mathbb{M} 02'48	
minimum elong	4691 Aug 30 08:17	9° \mathbb{M} 14'30	1°39'14				
max. Earth dist.	4691 Sep 02 08:09	15° \mathbb{M} 34'14	1.33869 AU	superior conj	4692 Aug 13 18:28	24° \mathbb{M} 11'22	1°29'10
evening rise	4691 Sep 07 05:16	25° \mathbb{M} 29'13		minimum elong	4692 Aug 13 16:23	23° \mathbb{M} 59'59	1°28'56
	4691 Sep 09 13:07	0° \mathbb{M}		max. Earth dist.	4692 Aug 15 11:28	27° \mathbb{M} 53'58	1.32816 AU
desc. node	4691 Sep 23 05:38	23° \mathbb{M} 34'00			4692 Aug 16 10:52	0° \mathbb{M}	
	4691 Sep 27 13:45	0° \mathbb{M}		evening rise	4692 Aug 21 01:46	9° \mathbb{M} 41'11	
evening max el	4691 Oct 11 16:40	17° \mathbb{M} 05'05	27°14'13		4692 Aug 31 21:28	0° \mathbb{M}	
retrograde	4691 Oct 25 02:35	24° \mathbb{M} 22'58		desc. node	4692 Sep 09 02:38	13° \mathbb{M} 02'00	
evening set	4691 Nov 01 00:25	21° \mathbb{M} 43'26			4692 Sep 22 22:41	0° \mathbb{M}	
min. Earth dist.	4691 Nov 04 21:03	18° \mathbb{M} 05'06	0.64855 AU	evening max el	4692 Sep 23 03:27	0° \mathbb{M} 11'21	27°26'54
inferior conj	4691 Nov 07 02:18	15° \mathbb{M} 39'00	-2°-9'-29	retrograde	4692 Oct 06 20:02	7° \mathbb{M} 27'06	
minimum elong	4691 Nov 07 06:01	15° \mathbb{M} 28'47	2°08'03	evening set	4692 Oct 14 00:04	4° \mathbb{M} 53'42	
morning rise	4691 Nov 13 13:39	10° \mathbb{M} 06'46		min. Earth dist.	4692 Oct 17 15:58	1° \mathbb{M} 47'41	0.63199 AU

	4692 Oct 19 11:50	30° $\text{R}\Omega$		inferior conj	4693 Oct 03 03:00	12° Ω 11'59	-4°-9'-48
inferior conj	4692 Oct 20 09:04	29° Ω 07'09	-3°-11'-52	minimum elong	4693 Oct 03 09:10	11° Ω 58'30	4°08'14
minimum elong	4692 Oct 20 14:28	28° Ω 53'48	3°10'03	morning rise	4693 Oct 10 12:50	7° Ω 17'46	
morning rise	4692 Oct 27 07:33	23° Ω 52'11		direct	4693 Oct 12 19:41	6° Ω 56'22	
direct	4692 Oct 29 16:16	23° Ω 25'43		asc. node	4693 Oct 17 08:06	8° Ω 23'31	
asc. node	4692 Oct 30 11:03	23° Ω 28'41		morning max el	4693 Oct 19 22:03	10° Ω 29'20	17°57'33
morning max el	4692 Nov 05 07:23	26° Ω 51'13	17°49'49		4693 Nov 01 18:37	0° M	
	4692 Nov 08 01:19	0° M		morning set	4693 Nov 04 15:21	5° M 14'15	
morning set	4692 Nov 21 13:27	21° M 55'43					
	4692 Nov 26 04:41	0° J		superior conj	4693 Nov 14 23:16	23° M 52'34	0°54'32
				minimum elong	4693 Nov 15 03:12	24° M 09'45	0°54'01
superior conj	4692 Dec 03 13:08	12° J 27'51	0°17'42		4693 Nov 18 12:27	0° J	
minimum elong	4692 Dec 03 14:55	12° J 35'17	0°17'27	max. Earth dist.	4693 Nov 22 12:36	6° J 43'10	1.42416 AU
desc. node	4692 Dec 06 01:55	16° J 38'25		desc. node	4693 Nov 22 22:55	7° J 25'39	
max. Earth dist.	4692 Dec 09 23:46	22° J 58'40	1.44003 AU	evening rise	4693 Nov 28 17:24	16° J 44'34	
	4692 Dec 14 09:56	0° C			4693 Dec 07 07:46	0° C	
evening rise	4692 Dec 18 23:20	7° C 05'44		greatest brilliancy	4693 Dec 26 11:41	26° C 40'33	-0.3m
	4693 Jan 03 06:19	0° \approx			4693 Dec 29 08:05	0° \approx	
greatest brilliancy	4693 Jan 12 02:52	12° \approx 12'26	-0.5m	evening max el	4693 Dec 31 05:25	2° \approx 00'31	22°14'23
evening max el	4693 Jan 17 10:43	18° \approx 25'32	20°59'16	retrograde	4694 Jan 09 18:32	7° \approx 41'20	
retrograde	4693 Jan 25 21:51	23° \approx 25'59		asc. node	4694 Jan 13 07:21	6° \approx 35'12	
asc. node	4693 Jan 26 10:19	23° \approx 24'31		evening set	4694 Jan 14 06:18	5° \approx 53'36	
evening set	4693 Jan 29 22:34	21° \approx 53'53			4694 Jan 19 07:17	30° RC	
inferior conj	4693 Feb 04 08:02	15° \approx 39'12	2°38'32	inferior conj	4694 Jan 19 15:47	29° C 30'29	2°00'34
minimum elong	4693 Feb 04 05:35	15° \approx 47'37	2°37'51	minimum elong	4694 Jan 19 13:31	29° C 38'22	1°59'48
min. Earth dist.	4693 Feb 04 18:09	15° \approx 04'20	0.67758 AU	min. Earth dist.	4694 Jan 19 14:08	29° C 36'15	0.68057 AU
morning rise	4693 Feb 09 12:14	9° \approx 23'58		morning rise	4694 Jan 24 20:35	23° C 17'44	
direct	4693 Feb 14 19:44	7° \approx 04'43		direct	4694 Jan 29 13:12	21° C 20'37	
morning max el	4693 Feb 25 13:23	13° \approx 28'28	23°46'35	morning max el	4694 Feb 08 00:30	26° C 55'00	22°18'00
desc. node	4693 Mar 04 01:11	20° \approx 53'08			4694 Feb 10 21:03	0° \approx	
	4693 Mar 10 22:02	0° K		greatest brilliancy	4694 Feb 12 14:07	2° \approx 00'59	-0.3m
	4693 Mar 30 11:31	0° Y		desc. node	4694 Feb 18 22:11	10° \approx 13'21	
morning set	4693 Apr 01 22:55	4° Y 10'45			4694 Mar 04 12:21	0° K	
max. Earth dist.	4693 Apr 05 20:45	10° Y 58'27	1.38622 AU	morning set	4694 Mar 13 10:15	14° K 02'36	
				max. Earth dist.	4694 Mar 18 17:38	22° K 49'33	1.40806 AU
					4694 Mar 22 22:06	0° Y	
superior conj	4693 Apr 13 05:24	24° Y 26'03	-1°-36'-44	superior conj	4694 Mar 26 12:30	6° Y 21'17	-1°-57'-48
minimum elong	4693 Apr 13 10:15	24° Y 48'57	1°36'10	minimum elong	4694 Mar 26 16:49	6° Y 40'39	1°57'33
	4693 Apr 16 03:27	0° B		evening rise	4694 Apr 05 19:42	25° Y 20'45	
evening rise	4693 Apr 22 08:56	12° B 08'01			4694 Apr 08 07:32	0° B	
asc. node	4693 Apr 24 09:37	16° B 04'21		asc. node	4694 Apr 11 06:39	5° B 25'14	
	4693 May 02 03:52	0° II		evening max el	4694 Apr 21 23:01	21° B 06'57	18°18'32
evening max el	4693 May 08 16:27	8° II 29'48	18°50'07	retrograde	4694 Apr 29 04:00	24° B 42'32	
retrograde	4693 May 16 23:46	12° II 34'09		evening set	4694 May 01 12:43	24° B 20'15	
evening set	4693 May 19 02:03	12° II 19'35		inferior conj	4694 May 08 18:24	19° B 40'18	2°24'00
inferior conj	4693 May 27 02:33	8° II 00'03	1°07'08	minimum elong	4694 May 08 21:58	19° B 32'44	2°23'03
minimum elong	4693 May 27 05:01	7° II 55'36	1°06'17	min. Earth dist.	4694 May 12 04:50	16° B 46'53	0.59065 AU
min. Earth dist.	4693 May 30 07:24	5° II 41'48	0.57031 AU	morning rise	4694 May 16 03:00	14° B 03'59	
desc. node	4693 May 31 00:24	5° II 12'57		desc. node	4694 May 17 21:25	13° B 12'52	
morning rise	4693 Jun 04 03:28	2° II 54'20		direct	4694 May 22 09:16	12° B 18'02	
direct	4693 Jun 09 14:02	1° II 42'46		morning max el	4694 Jun 05 18:38	20° B 06'06	27°17'33
morning max el	4693 Jun 23 22:15	9° II 11'03	26°09'50		4694 Jun 14 06:06	0° II	
	4693 Jul 09 15:33	0° S			4694 Jul 02 09:22	0° S	
asc. node	4693 Jul 21 08:53	22° S 02'18		morning set	4694 Jul 06 14:27	8° S 32'59	
morning set	4693 Jul 22 05:51	23° S 52'26		asc. node	4694 Jul 08 05:55	12° S 01'32	
	4693 Jul 25 02:19	0° Ω					
superior conj	4693 Jul 29 05:40	9° Ω 05'40	1°14'03	superior conj	4694 Jul 13 17:28	23° S 58'53	0°54'37
minimum elong	4693 Jul 29 03:21	8° Ω 52'53	1°13'41	minimum elong	4694 Jul 13 15:23	23° S 47'24	0°54'13
max. Earth dist.	4693 Jul 29 20:32	10° Ω 27'33	1.32177 AU	max. Earth dist.	4694 Jul 13 07:52	23° S 05'58	1.31956 AU
evening rise	4693 Aug 05 05:30	24° Ω 12'33			4694 Jul 16 10:56	0° Ω	
	4693 Aug 08 01:21	0° np		evening rise	4694 Jul 20 13:59	8° Ω 55'46	
	4693 Aug 25 16:11	0° Ω			4694 Jul 31 10:58	0° np	
desc. node	4693 Aug 26 23:39	1° Ω 47'41		desc. node	4694 Aug 13 20:41	19° np 33'23	
evening max el	4693 Sep 05 09:44	12° Ω 40'11	27°07'30	evening max el	4694 Aug 18 09:15	24° np 21'53	26°14'53
retrograde	4693 Sep 19 06:26	19° Ω 52'36			4694 Aug 26 04:06	0° Ω	
evening set	4693 Sep 26 08:42	17° Ω 37'18		retrograde	4694 Sep 01 08:32	1° Ω 30'43	
min. Earth dist.	4693 Sep 30 00:07	14° Ω 54'57	0.61261 AU				

	4694 Sep 07 10:25	30° \mathbb{R} \mathbb{M}		desc. node	4695 Jul 31 17:43	5° \mathbb{M} 55'17	
evening set	4694 Sep 07 21:26	29° \mathbb{M} 46'08		retrograde	4695 Aug 13 23:53	12° \mathbb{M} 19'46	
min. Earth dist.	4694 Sep 11 22:19	27° \mathbb{M} 11'54	0.59185 AU	evening set	4695 Aug 19 10:07	11° \mathbb{M} 13'04	
inferior conj	4694 Sep 15 04:29	24° \mathbb{M} 43'39	-4°-55'-11	min. Earth dist.	4695 Aug 24 13:08	8° \mathbb{M} 28'11	0.57219 AU
minimum elong	4694 Sep 15 09:18	24° \mathbb{M} 34'27	4°54'29	inferior conj	4695 Aug 27 10:36	6° \mathbb{M} 33'40	-5°-15'-1
morning rise	4694 Sep 23 00:42	20° \mathbb{M} 12'22		minimum elong	4695 Aug 27 10:52	6° \mathbb{M} 33'13	5°15'02
direct	4694 Sep 25 09:07	19° \mathbb{M} 53'22		morning rise	4695 Sep 04 15:05	2° \mathbb{M} 24'45	
morning max el	4694 Oct 03 07:15	23° \mathbb{M} 43'15	18°25'07	direct	4695 Sep 07 04:48	2° \mathbb{M} 05'52	
asc. node	4694 Oct 04 05:09	24° \mathbb{M} 38'39		morning max el	4695 Sep 16 07:37	6° \mathbb{M} 23'17	19°13'55
	4694 Oct 08 09:55	0° \mathbb{A}		asc. node	4695 Sep 21 02:11	11° \mathbb{M} 59'07	
morning set	4694 Oct 19 06:17	19° \mathbb{A} 09'25			4695 Oct 01 11:40	0° \mathbb{A}	
	4694 Oct 24 22:20	0° \mathbb{M}		morning set	4695 Oct 03 06:14	3° \mathbb{A} 30'18	
superior conj	4694 Oct 28 08:30	6° \mathbb{M} 24'12	1°20'37	superior conj	4695 Oct 11 11:26	19° \mathbb{A} 47'33	1°36'23
minimum elong	4694 Oct 28 12:09	6° \mathbb{M} 40'59	1°20'14	minimum elong	4695 Oct 11 13:40	19° \mathbb{A} 58'25	1°36'15
max. Earth dist.	4694 Nov 04 20:03	19° \mathbb{M} 45'30	1.40449 AU		4695 Oct 16 20:53	0° \mathbb{M}	
evening rise	4694 Nov 09 07:21	27° \mathbb{M} 18'32		max. Earth dist.	4695 Oct 18 00:45	2° \mathbb{M} 07'31	1.38351 AU
desc. node	4694 Nov 09 19:56	28° \mathbb{M} 10'27		evening rise	4695 Oct 21 20:31	8° \mathbb{M} 56'05	
	4694 Nov 10 22:40	0° \mathbb{X}		desc. node	4695 Oct 27 16:59	18° \mathbb{M} 49'09	
	4694 Nov 30 23:14	0° \mathbb{Z}			4695 Nov 03 19:16	0° \mathbb{X}	
evening max el	4694 Dec 13 20:12	15° \mathbb{Z} 38'30	23°34'13	evening max el	4695 Nov 26 09:08	29° \mathbb{X} 20'43	24°52'16
retrograde	4694 Dec 24 12:19	21° \mathbb{Z} 56'47			4695 Nov 27 01:22	0° \mathbb{Z}	
evening set	4694 Dec 29 12:37	19° \mathbb{Z} 53'13		retrograde	4695 Dec 08 01:58	6° \mathbb{Z} 08'30	
asc. node	4694 Dec 31 04:24	18° \mathbb{Z} 16'52		evening set	4695 Dec 13 15:56	3° \mathbb{Z} 49'52	
inferior conj	4695 Jan 03 23:35	13° \mathbb{Z} 25'43	1°15'22		4695 Dec 17 05:21	30° \mathbb{R} \mathbb{X}	
minimum elong	4695 Jan 03 21:56	13° \mathbb{Z} 31'21	1°14'45	asc. node	4695 Dec 18 01:26	28° \mathbb{X} 55'29	
min. Earth dist.	4695 Jan 03 10:56	14° \mathbb{Z} 09'01	0.67987 AU	min. Earth dist.	4695 Dec 18 06:10	28° \mathbb{X} 39'58	0.67564 AU
morning rise	4695 Jan 09 07:24	7° \mathbb{Z} 17'23		inferior conj	4695 Dec 19 05:39	27° \mathbb{X} 22'32	0°23'55
direct	4695 Jan 13 09:52	5° \mathbb{Z} 42'58		minimum elong	4695 Dec 19 05:03	27° \mathbb{X} 24'28	0°23'41
morning max el	4695 Jan 21 17:26	10° \mathbb{Z} 30'58	20°56'21	morning rise	4695 Dec 24 18:42	21° \mathbb{X} 20'54	
greatest brilliancy	4695 Jan 27 06:00	16° \mathbb{Z} 53'11	-0.5m	direct	4695 Dec 28 08:21	20° \mathbb{X} 07'36	
desc. node	4695 Feb 05 19:11	0° \approx 02'55		morning max el	4696 Jan 04 18:13	24° \mathbb{X} 18'25	19°47'01
	4695 Feb 05 18:23	0° \approx			4696 Jan 09 15:42	0° \mathbb{Z}	
morning set	4695 Feb 20 18:18	22° \approx 39'17		greatest brilliancy	4696 Jan 12 08:27	3° \mathbb{Z} 36'47	-0.6m
	4695 Feb 25 09:50	0° \mathbb{X}		desc. node	4696 Jan 23 16:13	20° \mathbb{Z} 13'58	
max. Earth dist.	4695 Feb 28 20:50	5° \mathbb{X} 34'35	1.42777 AU		4696 Jan 30 01:29	0° \approx	
				morning set	4696 Jan 30 14:22	0° \approx 49'40	
superior conj	4695 Mar 07 21:10	17° \mathbb{X} 13'24	-2°-8'-10	max. Earth dist.	4696 Feb 11 07:56	19° \approx 10'46	1.44285 AU
minimum elong	4695 Mar 07 22:07	17° \mathbb{X} 17'26	2°08'11				
	4695 Mar 15 06:16	0° \mathbb{Y}		superior conj	4696 Feb 16 04:11	26° \approx 56'50	-2°-2'-16
evening rise	4695 Mar 19 15:51	7° \mathbb{Y} 49'39		minimum elong	4696 Feb 15 23:05	26° \approx 36'11	2°02'01
asc. node	4695 Mar 29 03:42	24° \mathbb{Y} 20'36			4696 Feb 18 01:18	0° \mathbb{X}	
	4695 Apr 01 22:16	0° \mathbb{B}		evening rise	4696 Feb 29 16:58	19° \mathbb{X} 26'11	
evening max el	4695 Apr 05 10:23	4° \mathbb{B} 09'04	18°06'47		4696 Mar 06 22:23	0° \mathbb{Y}	
retrograde	4695 Apr 12 00:37	7° \mathbb{B} 31'54		asc. node	4696 Mar 15 00:44	12° \mathbb{Y} 42'00	
evening set	4695 Apr 14 15:42	6° \mathbb{B} 59'34		evening max el	4696 Mar 18 23:17	17° \mathbb{Y} 26'51	18°14'04
inferior conj	4695 Apr 21 05:48	1° \mathbb{B} 58'47	3°10'13	retrograde	4696 Mar 25 09:13	20° \mathbb{Y} 51'35	
minimum elong	4695 Apr 21 08:23	1° \mathbb{B} 52'28	3°09'48	evening set	4696 Mar 28 06:20	20° \mathbb{Y} 07'51	
	4695 Apr 23 06:10	30° \mathbb{R} \mathbb{Y}		inferior conj	4696 Apr 03 08:43	14° \mathbb{Y} 47'07	3°31'21
min. Earth dist.	4695 Apr 24 09:24	28° \mathbb{Y} 55'08	0.61265 AU	minimum elong	4696 Apr 03 09:38	14° \mathbb{Y} 44'36	3°31'17
morning rise	4695 Apr 27 21:57	26° \mathbb{Y} 02'30		min. Earth dist.	4696 Apr 05 22:47	11° \mathbb{Y} 56'39	0.63342 AU
direct	4695 May 04 15:59	23° \mathbb{Y} 44'15		morning rise	4696 Apr 09 10:55	8° \mathbb{Y} 39'25	
desc. node	4695 May 04 18:26	23° \mathbb{Y} 44'17		direct	4696 Apr 16 07:31	5° \mathbb{Y} 59'12	
	4695 May 17 02:24	0° \mathbb{B}		desc. node	4696 Apr 20 15:28	6° \mathbb{Y} 54'57	
morning max el	4695 May 18 21:18	1° \mathbb{B} 42'02	27°50'05	morning max el	4696 Apr 30 04:48	13° \mathbb{Y} 57'59	27°45'00
	4695 Jun 08 12:46	0° \mathbb{I}			4696 May 13 03:15	0° \mathbb{B}	
morning set	4695 Jun 20 18:49	22° \mathbb{I} 58'48			4696 May 31 02:12	0° \mathbb{I}	
	4695 Jun 24 03:11	0° \mathbb{Z}		morning set	4696 Jun 03 16:35	7° \mathbb{I} 01'41	
asc. node	4695 Jun 25 02:58	2° \mathbb{Z} 07'30		max. Earth dist.	4696 Jun 08 22:25	17° \mathbb{I} 50'27	1.32791 AU
max. Earth dist.	4695 Jun 26 17:48	5° \mathbb{Z} 37'55	1.32156 AU	asc. node	4696 Jun 11 00:00	22° \mathbb{I} 15'06	
superior conj	4695 Jun 28 04:08	8° \mathbb{Z} 45'32	0°31'26	superior conj	4696 Jun 11 11:47	23° \mathbb{I} 18'34	0°05'09
minimum elong	4695 Jun 28 02:45	8° \mathbb{Z} 37'59	0°31'08	minimum elong	4696 Jun 11 11:33	23° \mathbb{I} 17'13	0°05'05
evening rise	4695 Jul 05 01:08	23° \mathbb{Z} 44'26		behind sun begin	4696 Jun 11 06:30	22° \mathbb{I} 50'03	
	4695 Jul 08 01:04	0° \mathbb{Q}		behind sun end	4696 Jun 11 16:35	23° \mathbb{I} 44'25	
	4695 Jul 26 05:15	0° \mathbb{M}			4696 Jun 14 13:57	0° \mathbb{Z}	
evening max el	4695 Jul 31 01:38	5° \mathbb{M} 17'32	24°54'20	evening rise	4696 Jun 18 12:57	8° \mathbb{Z} 31'04	

	4696 Jun 29 17:35	0°♈		evening max el	4697 Jun 23 07:12	26°♊09'57	21°43'09
evening max el	4696 Jul 11 14:22	15°♈42'44	23°18'25		4697 Jun 28 02:48	0°♈	
desc. node	4696 Jul 17 14:46	20°♈20'45		desc. node	4697 Jul 04 11:46	2°♈16'04	
retrograde	4696 Jul 25 02:27	22°♈28'06		retrograde	4697 Jul 05 18:20	2°♈19'52	
evening set	4696 Jul 29 00:51	21°♈54'18		evening set	4697 Jul 08 09:01	2°♈04'28	
min. Earth dist.	4696 Aug 04 23:47	18°♈42'45	0.55676 AU		4697 Jul 14 01:51	30°♊♊	
inferior conj	4696 Aug 06 20:45	17°♈36'47	-4°-53'-8	inferior conj	4697 Jul 17 16:34	28°♊02'59	-3°-39'-59
minimum elong	4696 Aug 06 14:44	17°♈45'39	4°52'17	minimum elong	4697 Jul 17 07:53	28°♊15'08	3°37'32
morning rise	4696 Aug 15 07:34	13°♈44'16		min. Earth dist.	4697 Jul 17 09:56	28°♊12'16	0.54870 AU
direct	4696 Aug 18 05:29	13°♈23'44		morning rise	4697 Jul 26 08:00	24°♊11'33	
morning max el	4696 Aug 28 20:29	18°♈19'58	20°24'36	direct	4697 Jul 29 16:18	23°♊47'07	
asc. node	4696 Sep 06 23:14	0°♏09'57		morning max el	4697 Aug 10 21:35	29°♊31'25	21°54'51
	4696 Sep 06 20:48	0°♏			4697 Aug 11 09:40	0°♈	
morning set	4696 Sep 16 12:10	18°♏07'55		asc. node	4697 Aug 24 20:17	18°♈59'24	
	4696 Sep 22 06:23	0°♏			4697 Aug 30 11:48	0°♏	
				morning set	4697 Aug 31 21:47	2°♏55'56	
superior conj	4696 Sep 24 03:07	3°♏48'08	1°43'15				
minimum elong	4696 Sep 24 03:44	3°♏51'17	1°43'15	superior conj	4697 Sep 08 03:41	18°♏14'50	1°42'37
max. Earth dist.	4696 Sep 29 07:36	14°♏04'15	1.36358 AU	minimum elong	4697 Sep 08 02:55	18°♏10'49	1°42'36
evening rise	4696 Oct 03 06:26	21°♏30'24		max. Earth dist.	4697 Sep 11 21:15	25°♏58'05	1.34661 AU
	4696 Oct 08 00:43	0°♏			4697 Sep 13 21:23	0°♏	
desc. node	4696 Oct 13 14:02	9°♏16'51		evening rise	4697 Sep 16 08:55	4°♏51'12	
	4696 Oct 27 16:30	0°♏		desc. node	4697 Sep 30 11:04	29°♏27'41	
evening max el	4696 Nov 07 21:45	13°♏04'04	26°01'24		4697 Sep 30 19:19	0°♏	
retrograde	4696 Nov 20 10:46	20°♏11'16		evening max el	4697 Oct 21 10:21	26°♏41'04	26°54'08
evening set	4696 Nov 26 14:33	17°♏39'57			4697 Oct 25 06:07	0°♏	
min. Earth dist.	4696 Nov 30 21:26	13°♏05'39	0.66787 AU	retrograde	4697 Nov 03 14:08	3°♏57'57	
inferior conj	4696 Dec 02 08:06	11°♏17'37	0°-32'-46	evening set	4697 Nov 10 06:22	1°♏18'56	
minimum elong	4696 Dec 02 08:58	11°♏14'54	0°32'25		4697 Nov 11 18:10	30°♏♏	
asc. node	4696 Dec 03 22:28	9°♏20'30		min. Earth dist.	4697 Nov 14 06:24	27°♏20'42	0.65657 AU
morning rise	4696 Dec 08 04:27	5°♏25'19		inferior conj	4697 Nov 16 04:51	25°♏06'31	-1°-33'-31
direct	4696 Dec 11 07:03	4°♏30'04		minimum elong	4697 Nov 16 07:29	24°♏58'52	1°32'26
morning max el	4696 Dec 18 02:33	8°♏15'26	18°52'48	asc. node	4697 Nov 20 19:30	20°♏27'25	
	4697 Jan 02 17:19	0°♏		morning rise	4697 Nov 22 10:19	19°♏26'21	
morning set	4697 Jan 08 23:51	9°♏48'06		direct	4697 Nov 25 03:56	18°♏45'24	
desc. node	4697 Jan 09 13:16	10°♏40'37		morning max el	4697 Dec 01 16:22	22°♏16'07	18°14'51
	4697 Jan 21 21:26	0°♏			4697 Dec 07 19:30	0°♏	
max. Earth dist.	4697 Jan 24 01:03	3°♏22'33	1.45142 AU	morning set	4697 Dec 20 13:28	20°♏12'12	
					4697 Dec 26 14:56	0°♏	
superior conj	4697 Jan 25 13:29	5°♏45'48	-1°-36'-39	desc. node	4697 Dec 27 10:18	1°♏17'39	
minimum elong	4697 Jan 25 04:11	5°♏09'14	1°35'48				
evening rise	4697 Feb 09 19:34	0°♏06'19		superior conj	4698 Jan 04 16:38	14°♏24'51	0°-54'-56
	4697 Feb 09 18:01	0°♏		minimum elong	4698 Jan 04 09:50	13°♏58'06	0°54'03
asc. node	4697 Mar 01 21:47	0°♏19'27		max. Earth dist.	4698 Jan 06 20:22	17°♏48'08	1.45264 AU
	4697 Mar 01 14:37	0°♏			4698 Jan 14 15:31	0°♏	
evening max el	4697 Mar 02 10:57	0°♏53'50	18°39'35	evening rise	4698 Jan 20 23:32	9°♏53'10	
retrograde	4697 Mar 09 01:35	4°♏33'16			4698 Feb 02 23:37	0°♏	
evening set	4697 Mar 12 04:56	3°♏37'17		greatest brilliancy	4698 Feb 05 03:06	3°♏11'15	-0.7m
	4697 Mar 16 06:02	30°♏♏		evening max el	4698 Feb 13 19:06	14°♏24'39	19°22'18
inferior conj	4697 Mar 17 23:11	27°♏58'20	3°33'17	asc. node	4698 Feb 16 18:48	16°♏59'44	
minimum elong	4697 Mar 17 22:33	28°♏00'14	3°33'15	retrograde	4698 Feb 20 22:13	18°♏29'37	
min. Earth dist.	4697 Mar 19 21:39	25°♏37'38	0.65104 AU	evening set	4698 Feb 24 08:40	17°♏20'33	
morning rise	4697 Mar 23 14:54	21°♏44'40		inferior conj	4698 Mar 01 21:42	11°♏25'40	3°20'39
direct	4697 Mar 30 06:24	18°♏55'56		minimum elong	4698 Mar 01 19:59	11°♏31'17	3°20'25
desc. node	4697 Apr 07 12:29	22°♏16'42		min. Earth dist.	4698 Mar 03 05:02	9°♏43'50	0.66465 AU
morning max el	4697 Apr 12 14:47	26°♏46'00	27°05'51	morning rise	4698 Mar 07 06:28	5°♏09'30	
	4697 Apr 15 15:16	0°♏		direct	4698 Mar 13 11:41	2°♏24'51	
	4697 May 06 18:12	0°♏		desc. node	4698 Mar 25 09:30	9°♏15'17	
morning set	4697 May 18 04:52	20°♏33'22		morning max el	4698 Mar 26 00:38	9°♏52'59	26°00'07
	4697 May 22 23:05	0°♏			4698 Apr 10 22:10	0°♏	
max. Earth dist.	4697 May 22 18:02	29°♏34'19	1.33881 AU		4698 Apr 29 07:31	0°♏	
				morning set	4698 May 01 03:45	3°♏22'15	
superior conj	4697 May 26 14:25	7°♏32'03	0°-23'-26	max. Earth dist.	4698 May 05 02:04	10°♏47'37	1.35427 AU
minimum elong	4697 May 26 15:39	7°♏38'31	0°23'11				
asc. node	4697 May 28 21:03	12°♏20'34		superior conj	4698 May 10 09:30	21°♏18'40	0°-53'-1
evening rise	4697 Jun 02 23:36	23°♏09'42		minimum elong	4698 May 10 12:24	21°♏33'21	0°52'29
	4697 Jun 06 07:29	0°♏			4698 May 14 15:08	0°♏	

asc. node	4698 May 15 18:06	2°II19'30		superior conj	4699 Apr 23 17:56	4°830'32	-1°-21'-41
evening rise	4698 May 18 07:00	7°II33'38		minimum elong	4699 Apr 23 22:18	4°851'42	1°21'04
	4698 May 30 14:53	0°☿		evening rise	4699 May 02 08:48	21°836'13	
evening max el	4698 Jun 05 10:57	7°☿08'29	20°20'57	asc. node	4699 May 02 15:07	22°807'41	
retrograde	4698 Jun 16 07:44	12°☿27'16			4699 May 06 15:52	0°II	
evening set	4698 Jun 18 07:12	12°☿17'27		evening max el	4699 May 19 03:10	18°II49'16	19°17'29
desc. node	4698 Jun 21 08:45	11°☿26'42		retrograde	4699 May 28 06:41	23°II16'55	
inferior conj	4698 Jun 27 10:56	8°☿19'34	-1°-48'-23	evening set	4699 May 30 06:03	23°II05'22	
minimum elong	4698 Jun 27 05:52	8°☿27'00	1°46'32	inferior conj	4699 Jun 07 17:52	18°II56'45	0°08'46
min. Earth dist.	4698 Jun 28 21:56	7°☿28'21	0.55002 AU	minimum elong	4699 Jun 07 18:14	18°II56'08	0°08'37
morning rise	4698 Jul 06 02:40	4°☿08'10		transit middle	4699 Jun 07 18:14	18°II56'08	0°08'37
direct	4698 Jul 10 02:29	3°☿33'42		transit begin	4699 Jun 07 15:00	19°II01'30	
morning max el	4698 Jul 23 14:07	10°☿07'17	23°37'10	transit end	4699 Jun 07 21:29	18°II50'45	
	4698 Aug 07 06:01	0°♊		desc. node	4699 Jun 08 05:46	18°II36'59	
asc. node	4698 Aug 11 17:20	8°♊17'58		min. Earth dist.	4699 Jun 10 12:26	17°II07'06	0.56075 AU
morning set	4698 Aug 16 09:16	17°♊49'09		morning rise	4699 Jun 16 02:20	14°II11'38	
	4698 Aug 22 01:07	0°♋		direct	4699 Jun 20 23:59	13°II16'28	
				morning max el	4699 Jul 05 03:49	20°II28'56	25°18'21
superior conj	4698 Aug 23 10:12	2°♋58'47	1°35'40		4699 Jul 13 08:04	0°☿	
minimum elong	4698 Aug 23 08:28	2°♋49'25	1°35'32	asc. node	4699 Jul 29 14:22	27°☿57'12	
max. Earth dist.	4698 Aug 25 19:37	8°♋06'05	1.33362 AU		4699 Jul 30 14:08	0°♌	
evening rise	4698 Aug 30 23:54	18°♋47'52		morning set	4699 Jul 31 20:54	2°♌41'38	
	4698 Sep 05 19:57	0°♍					
desc. node	4698 Sep 17 08:04	19°♍14'25		superior conj	4699 Aug 07 20:16	17°♌51'26	1°23'20
	4698 Sep 25 00:34	0°♎		minimum elong	4699 Aug 07 18:02	17°♌39'07	1°23'02
evening max el	4698 Oct 03 22:14	10°♎02'16	27°23'19	max. Earth dist.	4699 Aug 09 01:37	20°♌32'00	1.32490 AU
retrograde	4698 Oct 17 11:42	17°♎20'41			4699 Aug 13 11:25	0°♏	
evening set	4698 Oct 24 12:52	14°♎42'09		evening rise	4699 Aug 14 23:49	3°♏09'31	
min. Earth dist.	4698 Oct 28 07:02	11°♎18'22	0.64181 AU		4699 Aug 29 14:55	0°♐	
inferior conj	4698 Oct 30 17:32	8°♎44'34	-2°-36'-11	desc. node	4699 Sep 04 05:05	8°♐26'17	
minimum elong	4698 Oct 30 22:02	8°♎32'45	2°34'31	evening max el	4699 Sep 16 07:30	22°♐54'33	27°22'51
morning rise	4698 Nov 06 09:34	3°♎19'31			4699 Sep 28 06:09	0°♑	
asc. node	4698 Nov 07 16:32	2°♎55'55		retrograde	4699 Sep 30 02:29	0°♑09'14	
direct	4698 Nov 08 20:38	2°♎48'55			4699 Oct 01 21:58	30°♑♌	
morning max el	4698 Nov 15 08:56	6°♎14'14	17°53'52	evening set	4699 Oct 07 06:40	27°♐42'13	
	4698 Dec 01 03:20	0°♒		min. Earth dist.	4699 Oct 10 21:39	24°♐47'25	0.62397 AU
morning set	4698 Dec 02 07:21	1°♒59'12		inferior conj	4699 Oct 13 19:16	22°♐04'05	-3°-37'-25
desc. node	4698 Dec 14 07:20	22°♒01'32		minimum elong	4699 Oct 14 01:10	21°♐50'12	3°35'37
				morning rise	4699 Oct 20 22:36	16°♐57'22	
superior conj	4698 Dec 15 10:04	23°♒50'02	0°-7'-45	direct	4699 Oct 23 06:01	16°♐33'30	
minimum elong	4698 Dec 15 09:10	23°♒46'25	0°07'37	asc. node	4699 Oct 25 13:34	16°♐58'12	
behind sun begin	4698 Dec 15 00:11	23°♒10'01		morning max el	4699 Oct 30 01:08	20°♐01'32	17°50'44
behind sun end	4698 Dec 15 18:09	24°♒22'47			4699 Nov 06 10:31	0°♒	
	4698 Dec 19 06:10	0°♓		morning set	4699 Nov 14 23:22	14°♒49'36	
max. Earth dist.	4698 Dec 20 14:48	2°♓09'42	1.44654 AU		4699 Nov 23 13:52	0°♈	
evening rise	4698 Dec 31 11:55	19°♓07'31					
	4699 Jan 07 15:05	0°♉		superior conj	4699 Nov 26 04:54	4°♈29'41	0°34'35
greatest brilliancy	4699 Jan 21 17:50	20°♉30'25	-0.5m	minimum elong	4699 Nov 26 07:59	4°♈42'45	0°34'09
evening max el	4699 Jan 27 22:19	27°♉57'32	20°20'15	desc. node	4699 Dec 01 04:21	12°♈48'17	
	4699 Jan 30 02:53	0°♊		max. Earth dist.	4699 Dec 03 06:14	16°♈11'55	1.43389 AU
asc. node	4699 Feb 03 15:48	2°♊28'34		evening rise	4699 Dec 10 23:18	28°♈26'13	
retrograde	4699 Feb 04 20:23	2°♊36'13			4699 Dec 11 23:29	0°♉	
evening set	4699 Feb 08 15:22	1°♊13'01			4700 Jan 01 09:50	0°♊	
	4699 Feb 10 01:11	30°♊♋		greatest brilliancy	4700 Jan 05 22:35	5°♊55'30	-0.4m
inferior conj	4699 Feb 14 01:34	25°♊04'50	2°56'39	evening max el	4700 Jan 10 20:06	11°♊31'52	21°30'25
minimum elong	4699 Feb 13 23:15	25°♊12'43	2°56'08	retrograde	4700 Jan 19 18:00	16°♊49'13	
min. Earth dist.	4699 Feb 14 19:06	24°♊05'15	0.67405 AU	asc. node	4700 Jan 21 12:49	16°♊32'04	
morning rise	4699 Feb 19 06:36	18°♊48'36		evening set	4700 Jan 23 23:11	15°♊10'43	
direct	4699 Feb 24 22:30	16°♊17'54		inferior conj	4700 Jan 29 08:29	8°♊52'16	2°23'23
morning max el	4699 Mar 08 09:17	23°♊08'49	24°37'32	minimum elong	4700 Jan 29 06:03	9°♊00'40	2°22'39
desc. node	4699 Mar 12 06:32	27°♊23'40		min. Earth dist.	4700 Jan 29 13:32	8°♊34'43	0.67931 AU
	4699 Mar 14 10:40	0°♋		morning rise	4700 Feb 03 12:37	2°♊37'52	
	4699 Apr 04 06:51	0°♌		direct	4700 Feb 08 13:53	0°♊27'28	
morning set	4699 Apr 13 08:05	15°♌14'09		morning max el	4700 Feb 18 18:23	6°♊30'16	23°08'30
max. Earth dist.	4699 Apr 17 00:10	21°♌48'39	1.37378 AU	greatest brilliancy	4700 Feb 23 17:40	12°♊04'01	-0.3m
	4699 Apr 21 09:38	0°♍		desc. node	4700 Feb 27 03:35	16°♊21'54	
					4700 Mar 08 22:56	0°♋	

morning set	4700 Mar 25 11:47	25° Υ 53'02		direct	4701 Jan 23 08:49	14° Z 46'40	
	4700 Mar 27 22:20	0° Υ		morning max el	4701 Feb 01 07:31	19° Z 59'52	21°42'06
max. Earth dist.	4700 Mar 29 19:22	3° Υ 13'24	1.39556 AU	greatest brilliancy	4701 Feb 06 02:47	25° Z 24'42	-0.4m
					4701 Feb 09 16:43	0° \approx	
superior conj	4700 Apr 06 11:44	16° Υ 57'46	-1°-46'-39	desc. node	4701 Feb 14 00:36	5° \approx 55'31	
minimum elong	4700 Apr 06 16:38	17° Υ 20'22	1°46'11		4701 Mar 02 04:16	0° Υ	
	4700 Apr 13 09:32	0° B		morning set	4701 Mar 05 10:43	5° Υ 09'38	
evening rise	4700 Apr 16 02:05	5° B 10'03		max. Earth dist.	4701 Mar 11 19:02	15° Υ 28'47	1.41686 AU
asc. node	4700 Apr 19 12:09	11° B 40'29					
	4700 May 01 03:00	0° II		superior conj	4701 Mar 19 09:52	28° Υ 27'21	-2°-3'-51
evening max el	4700 May 02 05:35	1° II 09'02	18°34'16	minimum elong	4701 Mar 19 13:10	28° Υ 41'47	2°03'43
retrograde	4700 May 09 23:59	4° II 58'42			4701 Mar 20 07:00	0° Υ	
evening set	4700 May 12 05:07	4° II 41'05		evening rise	4701 Mar 30 07:10	18° Υ 05'18	
inferior conj	4700 May 19 21:21	0° II 13'07	1°43'37		4701 Apr 05 21:19	0° B	
minimum elong	4700 May 20 00:38	0° II 06'45	1°42'35	asc. node	4701 Apr 06 09:12	0° B 51'24	
	4700 May 20 04:06	30° R B		evening max el	4701 Apr 15 14:36	13° B 57'46	18°11'09
min. Earth dist.	4700 May 23 06:29	27° B 37'17	0.57857 AU	retrograde	4701 Apr 22 11:53	17° B 26'10	
desc. node	4700 May 26 02:47	25° B 43'07		evening set	4701 Apr 24 23:25	16° B 59'44	
morning rise	4700 May 27 15:40	24° B 53'38		inferior conj	4701 May 01 21:57	12° B 10'29	2°47'04
direct	4700 Jun 02 11:37	23° B 27'45		minimum elong	4701 May 02 01:16	12° B 02'59	2°46'19
	4700 Jun 15 17:03	0° II		min. Earth dist.	4701 May 05 06:27	9° B 09'59	0.59999 AU
morning max el	4700 Jun 16 20:38	1° II 05'05	26°42'24	morning rise	4701 May 08 23:24	6° B 24'33	
	4700 Jul 07 09:24	0° Z		desc. node	4701 May 12 23:49	4° B 41'58	
morning set	4700 Jul 16 07:09	17° Z 28'27		direct	4701 May 15 11:39	4° B 24'27	
asc. node	4700 Jul 16 11:25	17° Z 51'00		morning max el	4701 May 29 19:47	12° B 16'53	27°36'03
	4700 Jul 22 01:50	0° Q			4701 Jun 12 18:54	0° II	
					4701 Jun 29 14:15	0° Z	
superior conj	4700 Jul 23 07:59	2° Q 46'26	1°06'19	morning set	4701 Jun 30 14:13	2° Z 03'39	
minimum elong	4700 Jul 23 05:42	2° Q 33'52	1°05'55	asc. node	4701 Jul 03 08:28	7° Z 53'40	
max. Earth dist.	4700 Jul 23 12:15	3° Q 10'00	1.32040 AU	max. Earth dist.	4701 Jul 06 23:41	15° Z 48'14	1.31998 AU
evening rise	4700 Jul 30 05:55	17° Q 47'36					
	4700 Aug 05 07:39	0° P		superior conj	4701 Jul 07 19:31	17° Z 37'26	0°45'13
desc. node	4700 Aug 22 02:05	26° P 49'00		minimum elong	4701 Jul 07 17:41	17° Z 27'18	0°44'50
	4700 Aug 24 16:25	0° Z			4701 Jul 13 11:02	0° Q	
evening max el	4700 Aug 29 11:25	5° Z 05'08	26°49'02	evening rise	4701 Jul 14 15:49	2° Q 34'04	
retrograde	4700 Sep 12 09:15	12° Z 15'04			4701 Jul 29 09:05	0° P	
evening set	4700 Sep 19 07:25	10° Z 11'49		desc. node	4701 Aug 08 23:07	14° P 02'28	
min. Earth dist.	4700 Sep 23 01:30	7° Z 34'53	0.60391 AU	evening max el	4701 Aug 11 07:45	16° P 26'16	25°43'18
inferior conj	4700 Sep 26 06:40	4° Z 56'17	-4°-31'-13	retrograde	4701 Aug 25 06:45	23° P 32'30	
minimum elong	4700 Sep 26 12:36	4° Z 44'02	4°29'58	evening set	4701 Aug 31 10:15	22° P 03'30	
morning rise	4700 Oct 03 21:05	0° Z 11'15		min. Earth dist.	4701 Sep 04 19:49	19° P 27'20	0.58326 AU
	4700 Oct 04 15:45	30° R P		inferior conj	4701 Sep 08 00:11	17° P 11'14	-5°-7'-36
direct	4700 Oct 06 04:14	29° P 51'04		minimum elong	4701 Sep 08 03:29	17° P 05'19	5°07'20
	4700 Oct 07 16:11	0° Z		morning rise	4701 Sep 16 00:14	12° P 49'56	
asc. node	4700 Oct 12 10:38	2° Z 28'44		direct	4701 Sep 18 10:41	12° P 31'06	
morning max el	4700 Oct 13 13:48	3° Z 30'01	18°06'41	morning max el	4701 Sep 26 19:38	16° P 30'49	18°43'14
morning set	4700 Oct 29 07:23	28° Z 25'23		asc. node	4701 Sep 29 07:41	19° P 13'39	
	4700 Oct 30 03:36	0° M			4701 Oct 06 10:22	0° Z	
				morning set	4701 Oct 13 02:37	12° Z 33'08	
superior conj	4700 Nov 08 01:26	16° M 24'08	1°06'56				
minimum elong	4700 Nov 08 05:27	16° M 42'07	1°06'26	superior conj	4701 Oct 21 18:55	29° Z 20'17	1°28'29
max. Earth dist.	4700 Nov 15 17:06	29° M 40'38	1.41619 AU	minimum elong	4701 Oct 21 22:02	29° Z 34'58	1°28'13
	4700 Nov 15 21:43	0° X			4701 Oct 22 03:21	0° M	
desc. node	4700 Nov 18 01:22	3° X 34'44		max. Earth dist.	4701 Oct 28 23:19	12° M 26'49	1.39558 AU
evening rise	4700 Nov 21 00:54	8° X 26'09		evening rise	4701 Nov 02 00:46	19° M 27'21	
	4700 Dec 05 02:50	0° Z		desc. node	4701 Nov 04 22:24	24° M 17'39	
greatest brilliancy	4700 Dec 19 09:33	19° Z 21'59	-0.3m		4701 Nov 08 11:06	0° X	
evening max el	4700 Dec 24 13:01	25° Z 08'03	22°48'14		4701 Nov 29 09:13	0° Z	
	4700 Dec 30 16:04	0° \approx		evening max el	4701 Dec 07 02:41	8° Z 47'53	24°08'01
retrograde	4701 Jan 03 13:26	1° \approx 04'49		retrograde	4701 Dec 18 05:35	15° Z 19'53	
	4701 Jan 07 02:58	30° R Z		evening set	4701 Dec 23 11:45	13° Z 09'26	
evening set	4701 Jan 08 06:29	29° Z 10'15		asc. node	4701 Dec 26 06:55	10° Z 13'46	
asc. node	4701 Jan 08 09:52	29° Z 03'10		inferior conj	4701 Dec 28 23:43	6° Z 41'23	0°54'16
inferior conj	4701 Jan 13 16:27	22° Z 44'59	1°42'13	minimum elong	4701 Dec 28 22:28	6° Z 45'36	0°53'46
minimum elong	4701 Jan 13 14:24	22° Z 52'06	1°41'29	min. Earth dist.	4701 Dec 28 06:23	7° Z 39'57	0.67849 AU
min. Earth dist.	4701 Jan 13 10:03	23° Z 07'08	0.68073 AU	morning rise	4702 Jan 03 09:32	0° Z 35'54	
morning rise	4701 Jan 18 22:16	16° Z 34'07			4702 Jan 04 07:37	30° R X	

direct	4702 Jan 07 06:19	29° ♄ 10'57		minimum elong	4702 Dec 13 04:27	20° ♄ 38'06	0°00'27
	4702 Jan 10 09:23	0° ♄		transit middle	4702 Dec 13 04:27	20° ♄ 38'06	0°00'27
morning max el	4702 Jan 15 03:51	3° ♄ 41'39	20°25'14	transit begin	4702 Dec 13 01:39	20° ♄ 47'08	
greatest brilliancy	4702 Jan 21 09:49	11° ♄ 03'40	-0.5m	transit end	4702 Dec 13 07:15	20° ♄ 29'04	
desc. node	4702 Jan 31 21:38	25° ♄ 55'17		asc. node	4702 Dec 13 03:57	20° ♄ 39'44	
	4702 Feb 03 15:15	0° ♄		morning rise	4702 Dec 18 20:24	14° ♄ 40'05	
morning set	4702 Feb 12 10:54	13° ♄ 27'06		direct	4702 Dec 22 05:00	13° ♄ 35'05	
max. Earth dist.	4702 Feb 22 02:01	28° ♄ 38'26	1.43484 AU	morning max el	4702 Dec 29 08:03	17° ♄ 34'04	19°21'59
	4702 Feb 22 22:15	0° ♄		greatest brilliancy	4703 Jan 07 09:33	29° ♄ 04'58	-0.7m
					4703 Jan 08 00:46	0° ♄	
superior conj	4702 Feb 28 07:43	8° ♄ 49'52	-2°-7'-57	desc. node	4703 Jan 18 18:40	16° ♄ 13'34	
minimum elong	4702 Feb 28 06:17	8° ♄ 43'54	2°07'56	morning set	4703 Jan 22 09:38	21° ♄ 49'16	
evening rise	4702 Mar 12 19:47	0° ♄ 13'14			4703 Jan 27 16:04	0° ♄	
	4702 Mar 12 16:46	0° ♄		max. Earth dist.	4703 Feb 04 15:24	12° ♄ 29'36	1.44732 AU
asc. node	4702 Mar 24 06:14	19° ♄ 33'29					
evening max el	4702 Mar 30 02:55	27° ♄ 07'02	18°07'33	superior conj	4703 Feb 08 04:17	18° ♄ 06'16	-1°-53'-47
	4702 Apr 03 04:16	0° ♄		minimum elong	4703 Feb 07 20:46	17° ♄ 36'20	1°53'18
retrograde	4702 Apr 05 14:17	0° ♄ 29'24			4703 Feb 15 13:20	0° ♄	
evening set	4702 Apr 08 07:50	29° ♄ 52'27		evening rise	4703 Feb 22 11:33	11° ♄ 25'29	
	4702 Apr 08 00:40	30° ♄			4703 Mar 05 19:08	0° ♄	
inferior conj	4702 Apr 14 16:29	24° ♄ 42'52	3°21'53	asc. node	4703 Mar 11 03:15	7° ♄ 37'28	
minimum elong	4702 Apr 14 18:23	24° ♄ 37'58	3°21'38	evening max el	4703 Mar 13 15:30	10° ♄ 28'59	18°22'47
min. Earth dist.	4702 Apr 17 14:45	21° ♄ 42'14	0.62172 AU	retrograde	4703 Mar 20 02:35	13° ♄ 58'44	
morning rise	4702 Apr 21 02:16	18° ♄ 40'31		evening set	4703 Mar 23 02:10	13° ♄ 10'04	
direct	4702 Apr 27 22:14	16° ♄ 11'32		inferior conj	4703 Mar 29 00:44	7° ♄ 41'35	3°34'11
desc. node	4702 Apr 29 20:51	16° ♄ 22'41		minimum elong	4703 Mar 29 00:57	7° ♄ 40'58	3°34'10
morning max el	4702 May 12 01:03	24° ♄ 11'22	27°52'29	min. Earth dist.	4703 Mar 31 08:20	5° ♄ 01'50	0.64132 AU
	4702 May 17 06:56	0° ♄		morning rise	4703 Apr 03 22:00	1° ♄ 30'39	
	4702 Jun 06 03:04	0° ♄			4703 Apr 06 02:42	30° ♄	
morning set	4702 Jun 14 16:06	16° ♄ 20'52		direct	4703 Apr 10 17:14	28° ♄ 44'47	
asc. node	4702 Jun 20 05:31	28° ♄ 00'49			4703 Apr 15 16:40	0° ♄	
max. Earth dist.	4702 Jun 20 07:55	28° ♄ 13'45	1.32372 AU	desc. node	4703 Apr 16 17:52	0° ♄ 32'47	
	4702 Jun 21 03:34	0° ♄		morning max el	4703 Apr 24 09:55	6° ♄ 42'17	27°32'10
					4703 May 12 06:00	0° ♄	
superior conj	4702 Jun 22 05:08	2° ♄ 18'54	0°20'37	morning set	4703 May 29 10:17	0° ♄ 12'12	
minimum elong	4702 Jun 22 04:11	2° ♄ 13'44	0°20'24		4703 May 29 07:48	0° ♄	
evening rise	4702 Jun 29 03:28	17° ♄ 22'26		max. Earth dist.	4703 Jun 03 08:54	10° ♄ 14'09	1.33186 AU
	4702 Jul 05 08:33	0° ♄					
evening max el	4702 Jul 23 21:34	27° ♄ 04'58	24°14'21	superior conj	4703 Jun 06 10:56	16° ♄ 44'53	0°-6'-46
desc. node	4702 Jul 26 20:08	29° ♄ 39'10		minimum elong	4703 Jun 06 11:17	16° ♄ 46'43	0°06'43
	4702 Jul 27 07:00	0° ♄		behind sun begin	4703 Jun 06 06:20	16° ♄ 20'21	
retrograde	4702 Aug 06 17:11	4° ♄ 02'45		behind sun end	4703 Jun 06 16:13	17° ♄ 13'06	
evening set	4702 Aug 11 12:42	3° ♄ 11'13		asc. node	4703 Jun 07 02:33	18° ♄ 08'19	
min. Earth dist.	4702 Aug 17 08:19	0° ♄ 16'39	0.56489 AU		4703 Jun 12 15:09	0° ♄	
	4702 Aug 17 19:09	30° ♄		evening rise	4703 Jun 13 15:01	2° ♄ 06'35	
inferior conj	4702 Aug 19 21:33	28° ♄ 41'01	-5°-11'-45		4703 Jun 29 03:16	0° ♄	
minimum elong	4702 Aug 19 19:07	28° ♄ 44'50	5°11'38	evening max el	4703 Jul 05 11:08	7° ♄ 28'00	22°37'07
morning rise	4702 Aug 28 05:00	24° ♄ 40'42		desc. node	4703 Jul 13 17:09	13° ♄ 05'29	
direct	4702 Aug 30 21:46	24° ♄ 21'27		retrograde	4703 Jul 18 15:05	14° ♄ 01'00	
morning max el	4702 Sep 09 15:26	28° ♄ 53'52	19°41'26	evening set	4703 Jul 21 22:11	13° ♄ 37'10	
	4702 Sep 10 18:13	0° ♄		min. Earth dist.	4703 Jul 29 18:52	10° ♄ 09'58	0.55221 AU
asc. node	4702 Sep 16 04:44	6° ♄ 57'19		inferior conj	4703 Jul 31 00:38	9° ♄ 27'34	-4°-28'-23
morning set	4702 Sep 27 05:25	27° ♄ 02'04		minimum elong	4703 Jul 30 16:43	9° ♄ 38'52	4°26'44
	4702 Sep 28 16:37	0° ♄		morning rise	4703 Aug 08 13:37	5° ♄ 37'30	
				direct	4703 Aug 11 15:20	5° ♄ 15'49	
superior conj	4702 Oct 05 03:50	13° ♄ 01'33	1°40'18	morning max el	4703 Aug 22 23:17	10° ♄ 32'24	21°00'47
minimum elong	4702 Oct 05 05:23	13° ♄ 09'11	1°40'14	asc. node	4703 Sep 03 01:47	25° ♄ 26'37	
max. Earth dist.	4702 Oct 11 03:57	24° ♄ 34'24	1.37471 AU		4703 Sep 05 14:42	0° ♄	
	4702 Oct 14 03:02	0° ♄		morning set	4703 Sep 11 13:10	11° ♄ 45'22	
evening rise	4702 Oct 14 23:13	1° ♄ 30'23					
desc. node	4702 Oct 22 19:26	14° ♄ 52'24		superior conj	4703 Sep 18 23:44	27° ♄ 15'11	1°43'49
	4702 Nov 01 15:22	0° ♄		minimum elong	4703 Sep 18 23:44	27° ♄ 15'09	1°43'49
evening max el	4702 Nov 19 15:07	22° ♄ 30'35	25°23'10		4703 Sep 20 07:54	0° ♄	
retrograde	4702 Dec 01 17:25	29° ♄ 28'47		max. Earth dist.	4703 Sep 23 12:58	6° ♄ 26'39	1.35595 AU
evening set	4702 Dec 07 13:17	27° ♄ 04'09		evening rise	4703 Sep 27 16:47	14° ♄ 26'56	
min. Earth dist.	4702 Dec 12 00:14	22° ♄ 09'15	0.67274 AU		4703 Oct 06 11:33	0° ♄	
inferior conj	4702 Dec 13 04:28	20° ♄ 38'03	0°00'27	desc. node	4703 Oct 09 16:28	5° ♄ 14'04	

	4703 Oct 27 09:18	0°♊		evening max el	4704 Oct 14 16:34	19°♌45'44	27°09'48
evening max el	4703 Nov 02 03:49	6°♊12'55	26°26'15	retrograde	4704 Oct 28 00:55	27°♌03'12	
retrograde	4703 Nov 15 00:07	13°♊25'40		evening set	4704 Nov 03 21:27	24°♌23'34	
evening set	4703 Nov 21 09:16	10°♊50'33		min. Earth dist.	4704 Nov 07 18:59	20°♌40'08	0.65077 AU
min. Earth dist.	4703 Nov 25 13:14	6°♊31'17	0.66350 AU	inferior conj	4704 Nov 09 22:26	18°♌17'01	-2°00'-1
inferior conj	4703 Nov 27 04:46	4°♊31'34	0°-58'-9	minimum elong	4704 Nov 10 01:52	18°♌07'27	1°58'38
minimum elong	4703 Nov 27 06:22	4°♊26'44	0°57'29	asc. node	4704 Nov 15 22:00	12°♌55'11	
asc. node	4703 Nov 30 00:58	1°♊16'34		morning rise	4704 Nov 16 08:13	12°♌42'35	
	4703 Dec 01 09:29	30°♋♌		direct	4704 Nov 18 22:49	12°♌06'22	
morning rise	4703 Dec 03 04:47	28°♌43'48		morning max el	4704 Nov 25 10:13	15°♌33'36	18°03'43
direct	4703 Dec 06 03:15	27°♌55'07			4704 Dec 05 19:36	0°♊	
	4703 Dec 11 01:30	0°♊		morning set	4704 Dec 13 08:31	12°♊24'17	
morning max el	4703 Dec 12 18:56	1°♊33'18	18°34'29	desc. node	4704 Dec 22 12:45	27°♊25'52	
	4704 Jan 01 09:31	0°♋			4704 Dec 24 03:02	0°♋	
morning set	4704 Jan 02 06:14	1°♋22'12					
desc. node	4704 Jan 05 15:42	6°♋45'13		superior conj	4704 Dec 27 15:28	5°♋37'12	0°-34'-51
				minimum elong	4704 Dec 27 11:09	5°♋20'03	0°34'15
superior conj	4704 Jan 18 08:27	26°♋44'19	-1°-20'-24	max. Earth dist.	4704 Dec 31 05:10	11°♋16'07	1.45098 AU
minimum elong	4704 Jan 17 23:24	26°♋08'50	1°19'24		4705 Jan 12 05:40	0°♌	
max. Earth dist.	4704 Jan 18 09:23	26°♋48'00	1.45290 AU	evening rise	4705 Jan 13 00:06	1°♌11'16	
	4704 Jan 20 10:21	0°♌		greatest brilliancy	4705 Jan 30 22:40	28°♌15'17	-0.6m
evening rise	4704 Feb 03 04:04	21°♌41'04			4705 Feb 01 04:50	0°♋	
	4704 Feb 08 09:24	0°♋		evening max el	4705 Feb 07 08:13	7°♋30'59	19°45'16
evening max el	4704 Feb 25 01:56	23°♋58'15	18°55'51	asc. node	4705 Feb 11 21:16	11°♋04'44	
asc. node	4704 Feb 26 00:15	24°♋52'21		retrograde	4705 Feb 14 18:29	11°♋49'00	
retrograde	4704 Mar 02 20:57	27°♋47'03		evening set	4705 Feb 18 08:28	10°♋33'51	
evening set	4704 Mar 06 03:12	26°♋45'38		inferior conj	4705 Feb 23 20:02	4°♋32'59	3°11'41
inferior conj	4704 Mar 11 18:56	20°♋59'54	3°29'27	minimum elong	4705 Feb 23 18:00	4°♋39'46	3°11'20
minimum elong	4704 Mar 11 17:47	21°♋03'32	3°29'21	min. Earth dist.	4705 Feb 24 21:16	3°♋09'14	0.66921 AU
min. Earth dist.	4704 Mar 13 10:55	18°♋54'50	0.65737 AU		4705 Feb 27 10:19	30°♋♌	
morning rise	4704 Mar 17 07:17	14°♋45'01		morning rise	4705 Mar 01 02:52	28°♌16'51	
direct	4704 Mar 23 19:05	11°♋56'20		direct	4705 Mar 07 02:44	25°♌37'16	
desc. node	4704 Apr 02 14:54	16°♋39'15			4705 Mar 16 04:08	0°♋	
morning max el	4704 Apr 05 19:46	19°♋38'41	26°40'33	morning max el	4705 Mar 19 05:01	2°♋50'26	25°26'28
	4704 Apr 14 15:51	0°♌		desc. node	4705 Mar 20 11:55	4°♋10'45	
	4704 May 04 07:28	0°♍			4705 Apr 08 20:28	0°♌	
morning set	4704 May 11 17:20	13°♍26'52		morning set	4705 Apr 24 08:58	25°♌53'10	
max. Earth dist.	4704 May 15 23:24	21°♍42'49	1.34476 AU		4705 Apr 26 14:50	0°♍	
				max. Earth dist.	4705 Apr 28 02:55	2°♍48'42	1.36220 AU
superior conj	4704 May 20 10:40	0°♎47'56	0°-35'-56				
minimum elong	4704 May 20 12:36	0°♎57'56	0°35'34	superior conj	4705 May 04 01:39	14°♍21'01	-1°-5'-25
	4704 May 20 01:24	0°♎		minimum elong	4705 May 04 05:13	14°♍38'50	1°04'49
asc. node	4704 May 23 23:34	8°♎11'29		asc. node	4705 May 10 20:35	28°♍06'35	
evening rise	4704 May 28 00:29	16°♎39'35			4705 May 11 18:53	0°♎	
	4704 Jun 03 18:07	0°♏		evening rise	4705 May 12 05:50	0°♎55'34	
evening max el	4704 Jun 16 08:14	18°♏06'31	21°06'17	evening max el	4705 May 29 17:17	29°♎22'08	19°51'27
retrograde	4704 Jun 28 03:56	23°♏55'10			4705 May 30 09:18	0°♏	
desc. node	4704 Jun 29 14:10	23°♏50'22		retrograde	4705 Jun 08 19:50	4°♏18'13	
evening set	4704 Jun 30 10:03	23°♏43'18		evening set	4705 Jun 10 18:11	4°♏08'12	
inferior conj	4704 Jul 09 17:59	19°♏45'45	-2°-55'-41	desc. node	4705 Jun 16 11:09	1°♏59'27	
minimum elong	4704 Jul 09 10:12	19°♏56'42	2°53'10	inferior conj	4705 Jun 19 16:04	0°♏06'53	0°-57'-18
min. Earth dist.	4704 Jul 10 05:37	19°♏29'22	0.54806 AU	minimum elong	4705 Jun 19 13:25	0°♏10'56	0°56'20
morning rise	4704 Jul 18 10:16	15°♏48'16			4705 Jun 19 20:33	30°♎♎	
direct	4704 Jul 22 00:38	15°♏20'23		min. Earth dist.	4705 Jun 21 18:09	28°♎50'24	0.55356 AU
morning max el	4704 Aug 03 19:59	21°♏26'16	22°37'26	morning rise	4705 Jun 28 05:46	25°♎42'34	
	4704 Aug 11 03:57	0°♏		direct	4705 Jul 02 14:25	25°♎00'50	
asc. node	4704 Aug 19 22:49	14°♏29'41			4705 Jul 14 07:46	0°♏	
morning set	4704 Aug 25 23:48	26°♏36'22		morning max el	4705 Jul 16 10:21	1°♏51'43	24°21'22
	4704 Aug 27 14:19	0°♐			4705 Aug 04 19:22	0°♏	
				asc. node	4705 Aug 06 19:52	3°♏57'44	
superior conj	4704 Sep 02 03:09	11°♐50'10	1°40'23	morning set	4705 Aug 10 11:33	11°♏29'49	
minimum elong	4704 Sep 02 01:55	11°♐43'37	1°40'18				
max. Earth dist.	4704 Sep 05 06:31	18°♐26'18	1.34066 AU	superior conj	4705 Aug 17 11:25	26°♏38'15	1°31'03
evening rise	4704 Sep 10 01:05	28°♐04'37		minimum elong	4705 Aug 17 09:24	26°♏27'19	1°30'50
	4704 Sep 11 00:47	0°♑			4705 Aug 19 00:40	0°♐	
desc. node	4704 Sep 25 13:29	25°♑15'51		max. Earth dist.	4705 Aug 19 08:37	0°♐42'52	1.32942 AU
	4704 Sep 28 16:48	0°♒		evening rise	4705 Aug 24 20:13	12°♐12'39	

	4705 Sep 03 05:54	0°♄		max. Earth dist.	4706 Aug 02 16:59	13°♄14'54	1.32238 AU
desc. node	4705 Sep 12 10:30	14°♄49'14		evening rise	4706 Aug 08 23:04	26°♄42'06	
	4705 Sep 24 06:02	0°♄			4706 Aug 10 13:30	0°♄	
evening max el	4705 Sep 27 03:38	2°♄56'11	27°26'57		4706 Aug 27 16:26	0°♄	
retrograde	4705 Oct 10 19:26	10°♄12'45		desc. node	4706 Aug 30 07:29	3°♄42'39	
evening set	4705 Oct 17 23:00	7°♄37'35		evening max el	4706 Sep 09 10:46	15°♄31'50	27°12'35
min. Earth dist.	4705 Oct 21 15:21	4°♄27'19	0.63464 AU	retrograde	4706 Sep 23 07:12	22°♄45'11	
inferior conj	4705 Oct 24 06:51	1°♄48'06	-3°-2'-36	evening set	4706 Sep 30 10:14	20°♄26'20	
minimum elong	4705 Oct 24 12:02	1°♄35'04	3°00'48	min. Earth dist.	4706 Oct 04 01:14	17°♄41'15	0.61559 AU
	4705 Oct 26 03:03	30°♄		inferior conj	4706 Oct 07 02:57	14°♄57'34	-4°-1'-37
morning rise	4705 Oct 31 03:39	26°♄30'32		minimum elong	4706 Oct 07 09:06	14°♄43'50	3°59'58
direct	4705 Nov 02 12:54	26°♄03'06		morning rise	4706 Oct 14 11:08	10°♄00'06	
asc. node	4705 Nov 02 19:04	26°♄03'26		direct	4706 Oct 16 17:58	9°♄38'12	
morning max el	4705 Nov 09 03:01	29°♄28'10	17°50'18	asc. node	4706 Oct 20 16:08	10°♄45'19	
	4705 Nov 09 15:29	0°♄		morning max el	4706 Oct 23 18:16	13°♄09'42	17°55'11
morning set	4705 Nov 25 12:38	24°♄40'56			4706 Nov 04 03:33	0°♄	
	4705 Nov 28 14:17	0°♄		morning set	4706 Nov 08 12:13	7°♄53'15	
superior conj	4705 Dec 07 19:06	15°♄32'42	0°11'16	superior conj	4706 Nov 19 01:27	26°♄46'46	0°49'36
minimum elong	4705 Dec 07 20:17	15°♄37'36	0°11'06	minimum elong	4706 Nov 19 05:15	27°♄03'14	0°49'06
behind sun begin	4705 Dec 07 13:16	15°♄08'40			4706 Nov 20 22:19	0°♄	
behind sun end	4705 Dec 08 03:17	16°♄06'29		desc. node	4706 Nov 26 06:48	8°♄59'07	
desc. node	4705 Dec 09 09:46	18°♄11'28		max. Earth dist.	4706 Nov 26 12:35	9°♄22'54	1.42685 AU
max. Earth dist.	4705 Dec 13 23:06	25°♄33'20	1.44192 AU	evening rise	4706 Dec 03 02:02	19°♄55'53	
	4705 Dec 16 18:14	0°♄			4706 Dec 09 14:27	0°♄	
evening rise	4705 Dec 23 10:04	10°♄22'47		greatest brilliancy	4706 Dec 30 11:02	29°♄18'44	-0.3m
	4706 Jan 05 10:44	0°♄			4706 Dec 31 00:38	0°♄	
greatest brilliancy	4706 Jan 15 20:31	14°♄34'27	-0.5m	evening max el	4707 Jan 04 04:32	4°♄39'08	22°02'45
evening max el	4706 Jan 21 09:04	21°♄04'15	20°48'47	retrograde	4707 Jan 13 13:44	10°♄14'02	
retrograde	4706 Jan 29 16:43	25°♄59'05		asc. node	4707 Jan 16 15:22	9°♄23'55	
asc. node	4706 Jan 29 18:19	25°♄59'04		evening set	4707 Jan 17 23:43	8°♄28'47	
evening set	4706 Feb 02 15:53	24°♄29'18		inferior conj	4707 Jan 23 09:06	2°♄06'41	2°06'50
inferior conj	4706 Feb 08 01:28	18°♄16'06	2°43'33	minimum elong	4707 Jan 23 06:47	2°♄14'46	2°06'04
minimum elong	4706 Feb 07 23:03	18°♄24'26	2°42'56	min. Earth dist.	4707 Jan 23 09:10	2°♄06'27	0.68039 AU
min. Earth dist.	4706 Feb 08 13:26	17°♄34'55	0.67678 AU		4707 Jan 24 22:02	30°♄	
morning rise	4706 Feb 13 05:48	12°♄00'30		morning rise	4707 Jan 28 13:39	25°♄53'21	
direct	4706 Feb 18 15:26	9°♄38'14		direct	4707 Feb 02 08:29	23°♄52'43	
morning max el	4706 Mar 01 13:43	16°♄09'26	23°59'53	morning max el	4707 Feb 12 00:13	29°♄34'36	22°30'49
desc. node	4706 Mar 07 08:57	22°♄42'25			4707 Feb 12 10:12	0°♄	
	4706 Mar 12 23:52	0°♄		greatest brilliancy	4707 Feb 16 13:54	4°♄40'24	-0.3m
	4706 Apr 01 20:13	0°♄		desc. node	4707 Feb 22 06:01	11°♄57'24	
morning set	4706 Apr 06 03:32	7°♄15'41			4707 Mar 06 18:50	0°♄	
max. Earth dist.	4706 Apr 09 23:09	13°♄56'52	1.38295 AU	morning set	4707 Mar 17 19:10	17°♄19'48	
				max. Earth dist.	4707 Mar 22 19:10	25°♄39'32	1.40485 AU
superior conj	4706 Apr 17 04:20	27°♄14'43	-1°-32'-57		4707 Mar 25 07:57	0°♄	
minimum elong	4706 Apr 17 09:06	27°♄37'23	1°32'21	superior conj	4707 Mar 30 14:21	9°♄18'32	-1°-55'-13
	4706 Apr 18 14:55	0°♄		minimum elong	4707 Mar 30 18:54	9°♄39'07	1°54'52
evening rise	4706 Apr 26 04:24	14°♄46'56		evening rise	4707 Apr 09 16:58	28°♄05'18	
asc. node	4706 Apr 27 17:37	17°♄48'52			4707 Apr 10 17:19	0°♄	
	4706 May 04 07:50	0°♄		asc. node	4707 Apr 14 14:40	7°♄13'08	
evening max el	4706 May 12 14:05	11°♄19'32	18°56'33	evening max el	4707 Apr 25 19:44	23°♄52'46	18°22'02
retrograde	4706 May 21 02:25	15°♄29'36		retrograde	4707 May 03 03:49	27°♄31'25	
evening set	4706 May 23 03:44	15°♄15'59		evening set	4707 May 05 11:36	27°♄10'26	
inferior conj	4706 May 31 07:13	10°♄59'26	0°52'41	inferior conj	4707 May 12 19:56	22°♄33'46	2°14'23
minimum elong	4706 May 31 09:14	10°♄55'52	0°51'59	minimum elong	4707 May 12 23:30	22°♄26'22	2°13'23
desc. node	4706 Jun 03 08:09	8°♄51'04		min. Earth dist.	4707 May 16 06:31	19°♄44'03	0.58741 AU
min. Earth dist.	4706 Jun 03 09:58	8°♄48'00	0.56761 AU	morning rise	4707 May 20 07:05	17°♄01'28	
morning rise	4706 Jun 08 10:14	5°♄58'49		desc. node	4707 May 21 05:12	16°♄33'50	
direct	4706 Jun 13 17:25	4°♄51'47		direct	4707 May 26 10:57	15°♄20'37	
morning max el	4706 Jun 28 00:59	12°♄16'39	25°57'18	morning max el	4707 Jun 09 20:23	23°♄06'28	27°09'34
	4706 Jul 11 19:43	0°♄			4707 Jun 16 00:08	0°♄	
asc. node	4706 Jul 24 16:55	23°♄43'55			4707 Jul 04 20:09	0°♄	
morning set	4706 Jul 25 22:50	26°♄20'47		morning set	4707 Jul 10 07:54	11°♄03'15	
	4706 Jul 27 15:52	0°♄		asc. node	4707 Jul 11 13:57	13°♄42'00	
superior conj	4706 Aug 01 22:26	11°♄32'49	1°16'39	superior conj	4707 Jul 17 10:15	26°♄26'53	0°57'50
minimum elong	4706 Aug 01 20:07	11°♄20'05	1°16'18				

minimum elong	4707 Jul 17 08:07	26°☿15'02	0°57'26	asc. node	4708 Jun 27 10:59	3°☿47'19	
max. Earth dist.	4707 Jul 17 04:12	25°☿53'24	1.31960 AU	max. Earth dist.	4708 Jun 29 14:38	8°☿27'29	1.32103 AU
	4707 Jul 19 00:51	0°♌					
evening rise	4707 Jul 24 07:00	11°♌24'24		superior conj	4708 Jun 30 21:11	11°☿14'53	0°35'10
	4707 Aug 02 18:34	0°♍		minimum elong	4708 Jun 30 19:41	11°☿06'34	0°34'52
desc. node	4707 Aug 17 04:31	21°♍38'59		evening rise	4708 Jul 07 17:53	26°☿12'47	
evening max el	4707 Aug 22 11:31	27°♍21'25	26°24'48		4708 Jul 09 13:03	0°♌	
	4707 Aug 25 12:49	0°♎			4708 Jul 26 21:53	0°♍	
retrograde	4707 Sep 05 10:37	4°♎30'39		evening max el	4708 Aug 03 04:52	8°♍23'15	25°07'39
evening set	4707 Sep 12 02:17	2°♎41'00		desc. node	4708 Aug 03 01:31	8°♍15'11	
min. Earth dist.	4707 Sep 16 00:58	0°♎06'34	0.59494 AU	retrograde	4708 Aug 17 03:26	15°♍26'25	
	4707 Sep 16 04:29	30°♏♍		evening set	4708 Aug 22 18:34	14°♍14'03	
inferior conj	4707 Sep 19 07:08	27°♏35'03	-4°-49'-36	min. Earth dist.	4708 Aug 27 16:30	11°♍31'58	0.57497 AU
minimum elong	4707 Sep 19 12:21	27°♏24'53	4°48'47	inferior conj	4708 Aug 30 16:12	9°♍31'26	-5°-14'-22
morning rise	4707 Sep 27 01:54	23°♏00'07		minimum elong	4708 Aug 30 17:21	9°♍29'29	5°14'21
direct	4707 Sep 29 09:49	22°♏40'55		morning rise	4708 Sep 07 19:36	5°♍19'20	
morning max el	4707 Oct 07 04:29	26°♏27'48	18°19'40	direct	4708 Sep 10 08:26	5°♍00'27	
asc. node	4707 Oct 07 13:11	26°♏49'15		morning max el	4708 Sep 19 06:16	9°♍12'56	19°05'16
	4707 Oct 10 07:17	0°♐		asc. node	4708 Sep 23 10:14	14°♍00'33	
morning set	4707 Oct 23 01:31	21°♐43'58			4708 Oct 02 22:20	0°♐	
	4707 Oct 27 09:43	0°♑		morning set	4708 Oct 06 00:18	6°♐01'25	
superior conj	4707 Nov 01 07:34	9°♑09'21	1°17'19	superior conj	4708 Oct 14 08:08	22°♐25'37	1°34'36
minimum elong	4707 Nov 01 11:21	9°♑26'40	1°16'55	minimum elong	4708 Oct 14 10:37	22°♐37'34	1°34'25
max. Earth dist.	4707 Nov 08 20:47	22°♑32'03	1.40762 AU		4708 Oct 18 08:12	0°♑	
desc. node	4707 Nov 13 03:50	29°♑44'43		max. Earth dist.	4708 Oct 21 01:48	5°♑00'04	1.38663 AU
	4707 Nov 13 07:33	0°♒		evening rise	4708 Oct 24 22:23	11°♑48'54	
evening rise	4707 Nov 13 12:40	0°♒21'02		desc. node	4708 Oct 30 00:52	20°♑24'30	
	4707 Dec 03 01:45	0°♓			4708 Nov 05 01:47	0°♒	
evening max el	4707 Dec 17 19:53	18°♓17'10	23°22'16		4708 Nov 27 10:42	0°♓	
retrograde	4707 Dec 28 07:59	24°♓30'00		evening max el	4708 Nov 29 08:59	1°♓59'00	24°41'03
evening set	4708 Jan 02 06:21	22°♓28'51		retrograde	4708 Dec 10 22:15	8°♓42'46	
asc. node	4708 Jan 03 12:24	21°♓18'31		evening set	4708 Dec 16 10:12	6°♓26'12	
inferior conj	4708 Jan 07 17:02	16°♓01'51	1°22'43	asc. node	4708 Dec 20 09:27	2°♓03'59	
minimum elong	4708 Jan 07 15:16	16°♓07'56	1°22'02	min. Earth dist.	4708 Dec 21 01:34	1°♓11'17	0.67651 AU
min. Earth dist.	4708 Jan 07 06:01	16°♓39'39	0.68024 AU	inferior conj	4708 Dec 21 23:26	29°♒58'39	0°32'08
morning rise	4708 Jan 13 00:15	9°♓52'45		minimum elong	4708 Dec 21 22:40	0°♓01'13	0°31'49
direct	4708 Jan 17 04:48	8°♓14'54			4708 Dec 21 23:02	30°♒♒	
morning max el	4708 Jan 25 16:04	13°♓09'05	21°07'47	morning rise	4708 Dec 27 11:35	23°♒56'00	
greatest brilliancy	4708 Jan 30 23:25	19°♓13'49	-0.4m	direct	4708 Dec 31 03:04	22°♒39'42	
	4708 Feb 07 22:09	0°♈		morning max el	4709 Jan 07 15:39	26°♒55'08	19°56'28
desc. node	4708 Feb 09 03:04	1°♈43'35			4709 Jan 10 10:55	0°♓	
morning set	4708 Feb 25 06:47	26°♈06'08		greatest brilliancy	4709 Jan 14 20:13	5°♓38'02	-0.6m
	4708 Feb 27 18:00	0°♉		desc. node	4709 Jan 26 00:07	21°♓52'05	
max. Earth dist.	4708 Mar 03 21:23	8°♉17'17	1.42509 AU		4709 Jan 31 08:27	0°♈	
superior conj	4708 Mar 11 02:43	20°♉21'18	-2°-7'-32	morning set	4709 Feb 03 03:07	4°♈16'12	
minimum elong	4708 Mar 11 04:23	20°♉28'28	2°07'31	max. Earth dist.	4709 Feb 14 07:45	21°♈48'15	1.44100 AU
	4708 Mar 16 15:58	0°♊			4709 Feb 19 09:54	0°♉	
evening rise	4708 Mar 22 15:36	10°♊41'44		superior conj	4709 Feb 19 13:34	0°♉14'54	-2°-4'-23
asc. node	4708 Mar 31 11:42	26°♊13'04		minimum elong	4709 Feb 19 09:25	29°♈58'01	2°04'15
	4708 Apr 02 21:06	0°♋		evening rise	4709 Mar 04 19:50	22°♉26'52	
evening max el	4708 Apr 08 06:39	6°♋52'14	18°07'20		4709 Mar 09 05:41	0°♊	
retrograde	4708 Apr 14 22:18	10°♋15'54		asc. node	4709 Mar 18 08:44	14°♊40'17	
evening set	4708 Apr 17 12:32	9°♋45'06		evening max el	4709 Mar 22 19:28	20°♊08'02	18°11'43
inferior conj	4708 Apr 24 04:41	4°♋47'16	3°04'57	retrograde	4709 Mar 29 05:26	23°♊31'43	
minimum elong	4708 Apr 24 07:29	4°♋40'33	3°04'27	evening set	4709 Apr 01 01:38	22°♊49'44	
min. Earth dist.	4708 Apr 27 09:48	1°♋43'43	0.60940 AU	inferior conj	4709 Apr 07 05:32	17°♊31'44	3°29'27
	4708 Apr 29 10:28	30°♌♊		minimum elong	4709 Apr 07 06:42	17°♊28'33	3°29'22
morning rise	4708 Apr 30 23:11	28°♊53'31		min. Earth dist.	4709 Apr 09 21:46	14°♊38'09	0.63050 AU
desc. node	4708 May 07 02:14	26°♊40'39		morning rise	4709 Apr 13 09:35	11°♊25'13	
direct	4708 May 07 16:05	26°♊39'41		direct	4709 Apr 20 06:13	8°♊47'39	
	4708 May 16 12:48	0°♌		desc. node	4709 Apr 23 23:16	9°♊28'30	
morning max el	4708 May 21 22:05	4°♌36'04	27°47'39	morning max el	4709 May 04 05:06	16°♊46'46	27°48'05
	4708 Jun 09 19:06	0°♍			4709 May 15 03:37	0°♋	
morning set	4708 Jun 23 13:01	25°♍31'39			4709 Jun 02 12:48	0°♌	
	4708 Jun 25 16:24	0°☿		morning set	4709 Jun 07 11:54	9°♌38'24	

max. Earth dist.	4709 Jun 12 20:22	20°II43'59	1.32670 AU	morning set	4710 May 22 01:49	23°815'24	
asc. node	4709 Jun 14 08:01	23°II54'50			4710 May 25 11:31	0°II	
				max. Earth dist.	4710 May 26 17:26	2°II32'06	1.33687 AU
superior conj	4709 Jun 15 05:24	25°II50'09	0°09'18				
minimum elong	4709 Jun 15 04:57	25°II47'44	0°09'12	superior conj	4710 May 30 08:53	10°II06'49	0°-19'00
behind sun begin	4709 Jun 15 00:37	25°II24'21		minimum elong	4710 May 30 09:53	10°II12'03	0°18'49
behind sun end	4709 Jun 15 09:16	26°II11'07		asc. node	4710 Jun 01 05:02	14°II00'42	
	4709 Jun 17 03:28	0°☿		evening rise	4710 Jun 06 16:37	25°II40'05	
evening rise	4709 Jun 22 05:42	11°☿00'01			4710 Jun 08 18:42	0°☿	
	4709 Jul 01 22:52	0°♂		evening max el	4710 Jun 27 09:13	29°☿15'24	21°56'45
evening max el	4709 Jul 15 17:35	18°♂50'44	23°32'58		4710 Jun 28 04:02	0°♂	
desc. node	4709 Jul 20 22:31	23°♂00'28		desc. node	4710 Jul 07 19:32	5°♂20'26	
retrograde	4709 Jul 29 07:57	25°♂39'52		retrograde	4710 Jul 10 01:20	5°♂32'11	
evening set	4709 Aug 02 11:56	25°♂01'50		evening set	4710 Jul 12 19:42	5°♂15'04	
min. Earth dist.	4709 Aug 09 03:21	21°♂55'10	0.55865 AU	min. Earth dist.	4710 Jul 21 13:32	1°♂29'48	0.54927 AU
inferior conj	4709 Aug 11 05:05	20°♂41'10	-4°-59'-46	inferior conj	4710 Jul 22 02:24	1°♂11'46	-3°-54'-10
minimum elong	4709 Aug 10 23:56	20°♂48'52	4°59'09	minimum elong	4710 Jul 21 17:41	1°♂23'59	3°51'52
morning rise	4709 Aug 19 15:05	16°♂47'09			4710 Jul 24 06:23	30°♂☿	
direct	4709 Aug 22 11:39	16°♂27'00		morning rise	4710 Jul 30 17:17	27°☿21'23	
morning max el	4709 Sep 01 20:56	21°♂16'32	20°12'48	direct	4710 Aug 02 23:38	26°☿57'54	
	4709 Sep 08 23:16	0°♂			4710 Aug 11 19:04	0°♂	
asc. node	4709 Sep 10 07:16	2°♂04'42		morning max el	4710 Aug 14 23:44	2°♂34'59	21°40'26
morning set	4709 Sep 20 05:28	20°♂37'08		asc. node	4710 Aug 28 04:18	20°♂49'10	
	4709 Sep 24 19:09	0°♂			4710 Sep 01 23:26	0°♂	
				morning set	4710 Sep 04 14:39	5°♂24'05	
superior conj	4709 Sep 27 22:10	6°♂21'42	1°42'44				
minimum elong	4709 Sep 27 23:01	6°♂26'02	1°42'42	superior conj	4710 Sep 11 21:37	20°♂45'24	1°43'09
max. Earth dist.	4709 Oct 03 07:59	16°♂59'29	1.36635 AU	minimum elong	4710 Sep 11 21:02	20°♂42'23	1°43'08
evening rise	4709 Oct 07 05:24	24°♂15'25		max. Earth dist.	4710 Sep 15 20:12	28°♂51'42	1.34886 AU
	4709 Oct 10 10:29	0°♂			4710 Sep 16 09:47	0°♂	
desc. node	4709 Oct 16 21:52	10°♂54'12		evening rise	4710 Sep 20 05:40	7°♂30'12	
	4709 Oct 29 17:14	0°♂			4710 Oct 03 01:44	0°♂	
evening max el	4709 Nov 11 21:28	15°♂42'23	25°51'57	desc. node	4710 Oct 03 18:51	1°♂07'59	
retrograde	4709 Nov 24 07:49	22°♂47'37		evening max el	4710 Oct 25 09:59	29°♂20'42	26°47'37
evening set	4709 Nov 30 09:37	20°♂17'47			4710 Oct 26 02:37	0°♂	
min. Earth dist.	4709 Dec 04 17:30	15°♂38'14	0.66924 AU	retrograde	4710 Nov 07 12:07	6°♂37'11	
inferior conj	4709 Dec 06 02:31	13°♂54'21	0°-23'-53	evening set	4710 Nov 14 02:35	3°♂58'52	
minimum elong	4709 Dec 06 03:08	13°♂52'22	0°23'37	min. Earth dist.	4710 Nov 18 03:34	29°♂55'14	0.65844 AU
asc. node	4709 Dec 07 06:28	12°♂27'25			4710 Nov 18 01:55	30°♂♂	
morning rise	4709 Dec 11 21:40	8°♂00'37		inferior conj	4710 Nov 20 00:14	27°♂44'29	-1°-24'-9
direct	4709 Dec 15 01:46	7°♂02'58		minimum elong	4710 Nov 20 02:36	27°♂37'33	1°23'10
morning max el	4709 Dec 21 22:59	10°♂51'27	18°59'54	asc. node	4710 Nov 24 03:31	23°♂24'43	
	4710 Jan 04 23:14	0°♂		morning rise	4710 Nov 26 04:15	22°♂02'18	
desc. node	4710 Jan 12 21:09	12°♂16'51		direct	4710 Nov 28 23:00	21°♂19'32	
morning set	4710 Jan 13 09:13	13°♂03'55		morning max el	4710 Dec 05 12:08	24°♂51'59	18°19'25
	4710 Jan 24 05:22	0°♂			4710 Dec 09 19:19	0°♂	
max. Earth dist.	4710 Jan 28 00:05	5°♂55'50	1.45060 AU	morning set	4710 Dec 24 18:17	23°♂14'23	
					4710 Dec 28 23:04	0°♂	
superior conj	4710 Jan 30 01:23	9°♂09'58	-1°-41'-46	desc. node	4710 Dec 30 18:09	2°♂52'27	
minimum elong	4710 Jan 29 16:20	8°♂34'17	1°40'59				
	4710 Feb 12 01:51	0°♂		superior conj	4711 Jan 09 04:04	17°♂46'50	-1°-1'-54
evening rise	4710 Feb 14 01:57	3°♂15'42		minimum elong	4711 Jan 08 20:31	17°♂17'10	1°00'58
	4710 Mar 03 05:47	0°♂		max. Earth dist.	4711 Jan 10 18:53	20°♂19'11	1.45293 AU
asc. node	4710 Mar 05 05:45	2°♂25'12			4711 Jan 16 23:18	0°♂	
evening max el	4710 Mar 06 07:24	3°♂33'49	18°34'35	evening rise	4711 Jan 25 08:57	13°♂09'17	
retrograde	4710 Mar 12 20:54	7°♂10'28			4711 Feb 05 04:02	0°♂	
evening set	4710 Mar 15 23:13	6°♂16'28		greatest brilliancy	4711 Feb 08 10:31	4°♂57'07	-0.7m
inferior conj	4710 Mar 21 18:29	0°♂40'04	3°33'57	evening max el	4711 Feb 17 16:11	17°♂04'25	19°14'56
minimum elong	4710 Mar 21 18:04	0°♂41'19	3°33'57	asc. node	4711 Feb 20 02:46	19°♂15'13	
	4710 Mar 22 07:48	30°♂♂		retrograde	4711 Feb 24 17:03	21°♂04'59	
min. Earth dist.	4710 Mar 23 19:18	28°♂14'04	0.64867 AU	evening set	4711 Feb 28 02:20	19°♂58'00	
morning rise	4710 Mar 27 11:31	24°♂26'52		inferior conj	4711 Mar 05 16:00	14°♂05'29	3°23'20
direct	4710 Apr 03 04:08	21°♂38'30		minimum elong	4711 Mar 05 14:25	14°♂10'37	3°23'08
desc. node	4710 Apr 10 20:20	24°♂32'36		min. Earth dist.	4711 Mar 07 01:35	12°♂17'20	0.66290 AU
morning max el	4710 Apr 16 14:58	29°♂31'04	27°13'32	morning rise	4711 Mar 11 01:35	7°♂49'29	
	4710 Apr 17 02:21	0°♂		direct	4711 Mar 17 08:36	5°♂03'20	
	4710 May 09 01:22	0°♂		desc. node	4711 Mar 28 17:22	11°♂18'35	

morning max el	4711 Mar 30 00:53	12° ✕ 35'56	26°11'12	direct	4712 Feb 28 18:42	18° ≈ 53'23	
	4711 Apr 13 00:58	0° Υ		morning max el	4712 Mar 11 09:35	25° ≈ 50'27	24°50'30
	4711 May 01 17:30	0° ♄		desc. node	4712 Mar 14 14:24	29° ≈ 17'47	
morning set	4711 May 05 03:02	6° ♄ 12'02			4712 Mar 15 05:03	0° ✕	
max. Earth dist.	4711 May 09 03:08	13° ♄ 49'18	1.35165 AU		4712 Apr 05 14:06	0° Υ	
				morning set	4712 Apr 16 10:29	18° Υ 13'21	
superior conj	4711 May 14 05:19	23° ♄ 58'30	0°-48'-31	max. Earth dist.	4712 Apr 20 02:23	24° Υ 50'13	1.37068 AU
minimum elong	4711 May 14 07:58	24° ♄ 11'59	0°48'02		4712 Apr 22 20:50	0° ♄	
	4711 May 17 03:37	0° ♁					
asc. node	4711 May 19 02:04	4° ♁ 01'10		superior conj	4712 Apr 26 15:36	7° ♄ 16'20	-1°-17'-30
evening rise	4711 May 22 00:40	10° ♁ 07'00		minimum elong	4712 Apr 26 19:47	7° ♄ 36'46	1°16'52
	4711 Jun 01 15:13	0° ♄		asc. node	4712 May 04 23:06	23° ♄ 51'22	
evening max el	4711 Jun 09 11:15	10° ♄ 08'59	20°32'09	evening rise	4712 May 05 03:30	24° ♄ 13'23	
retrograde	4711 Jun 20 14:14	15° ♄ 35'36			4712 May 08 01:33	0° ♁	
evening set	4711 Jun 22 14:48	15° ♄ 25'32		evening max el	4712 May 22 01:45	21° ♁ 43'34	19°25'39
desc. node	4711 Jun 24 16:33	14° ♄ 55'43		retrograde	4712 May 31 10:56	26° ♁ 18'03	
inferior conj	4711 Jul 01 20:07	11° ♄ 28'23	-2°-6'-33	evening set	4712 Jun 02 09:50	26° ♁ 07'01	
minimum elong	4711 Jul 01 14:13	11° ♄ 36'54	2°04'27	desc. node	4712 Jun 10 13:36	22° ♁ 18'10	
min. Earth dist.	4711 Jul 03 01:22	10° ♄ 46'07	0.54919 AU	inferior conj	4712 Jun 11 00:27	22° ♁ 00'39	0°-8'-1
morning rise	4711 Jul 10 12:11	7° ♄ 21'02		minimum elong	4712 Jun 11 00:06	22° ♁ 01'13	0°07'55
direct	4711 Jul 14 09:21	6° ♄ 48'33		transit middle	4712 Jun 11 00:06	22° ♁ 01'13	0°07'55
morning max el	4711 Jul 27 17:14	13° ♄ 15'27	23°21'33	transit begin	4712 Jun 10 20:43	22° ♁ 06'40	
	4711 Aug 09 11:41	0° ♁		transit end	4712 Jun 11 03:28	21° ♁ 55'45	
asc. node	4711 Aug 15 01:20	10° ♁ 04'01		min. Earth dist.	4712 Jun 13 15:17	20° ♁ 19'22	0.55867 AU
morning set	4711 Aug 20 01:59	20° ♁ 17'03		morning rise	4712 Jun 19 10:31	17° ♁ 21'10	
	4711 Aug 24 14:43	0° ♄		direct	4712 Jun 24 04:51	16° ♁ 29'47	
				morning max el	4712 Jul 08 06:52	23° ♁ 36'54	25°03'57
superior conj	4711 Aug 27 03:26	5° ♄ 27'32	1°37'05		4712 Jul 14 01:29	0° ♄	
minimum elong	4711 Aug 27 01:49	5° ♄ 18'50	1°36'58	asc. node	4712 Jul 31 22:23	29° ♄ 40'22	
max. Earth dist.	4711 Aug 29 17:19	10° ♄ 57'15	1.33531 AU		4712 Aug 01 02:14	0° ♁	
evening rise	4711 Sep 03 19:05	21° ♄ 22'36		morning set	4712 Aug 03 13:44	5° ♁ 09'53	
	4711 Sep 08 06:22	0° ♁					
desc. node	4711 Sep 20 15:52	20° ♁ 58'55		superior conj	4712 Aug 10 13:09	20° ♁ 19'09	1°25'31
	4711 Sep 26 22:44	0° ♁		minimum elong	4712 Aug 10 10:57	20° ♁ 07'07	1°25'15
evening max el	4711 Oct 07 22:12	12° ♁ 45'20	27°20'43	max. Earth dist.	4712 Aug 11 22:28	23° ♁ 21'03	1.32598 AU
retrograde	4711 Oct 21 10:36	20° ♁ 03'45			4712 Aug 15 00:38	0° ♄	
evening set	4711 Oct 28 10:39	17° ♁ 24'42		evening rise	4712 Aug 17 17:55	5° ♄ 41'05	
min. Earth dist.	4711 Nov 01 05:40	13° ♁ 55'49	0.64424 AU		4712 Aug 30 20:48	0° ♁	
inferior conj	4711 Nov 03 14:19	11° ♁ 24'31	-2°-26'-43	desc. node	4712 Sep 06 12:53	10° ♁ 16'43	
minimum elong	4711 Nov 03 18:32	11° ♁ 13'14	2°25'06	evening max el	4712 Sep 19 08:08	25° ♁ 43'01	27°24'57
morning rise	4711 Nov 10 04:41	5° ♁ 56'50			4712 Sep 24 15:25	0° ♁	
asc. node	4711 Nov 11 00:34	5° ♁ 39'15		retrograde	4712 Oct 03 02:19	2° ♁ 57'55	
direct	4711 Nov 12 16:33	5° ♁ 24'55		evening set	4712 Oct 10 06:36	0° ♁ 28'32	
morning max el	4711 Nov 19 04:26	8° ♁ 50'35	17°55'48		4712 Oct 10 22:35	30° ♁	
	4711 Dec 03 11:38	0° ♄		min. Earth dist.	4712 Oct 13 21:51	27° ♁ 29'55	0.62683 AU
morning set	4711 Dec 06 08:15	4° ♄ 49'52		inferior conj	4712 Oct 16 17:55	24° ♁ 47'23	-3°-28'-26
desc. node	4711 Dec 17 15:10	23° ♄ 35'12		minimum elong	4712 Oct 16 23:39	24° ♁ 33'38	3°26'38
				morning rise	4712 Oct 23 19:33	19° ♁ 37'38	
superior conj	4711 Dec 19 18:15	27° ♄ 01'52	0°-14'-44	direct	4712 Oct 26 03:21	19° ♁ 12'55	
minimum elong	4711 Dec 19 16:30	26° ♄ 54'50	0°14'30	asc. node	4712 Oct 27 21:37	19° ♁ 27'28	
behind sun begin	4711 Dec 19 11:56	26° ♄ 36'24		morning max el	4712 Nov 01 20:54	22° ♁ 39'53	17°50'00
behind sun end	4711 Dec 19 21:05	27° ♄ 13'14			4712 Nov 07 14:04	0° ♁	
	4711 Dec 21 14:39	0° ♄		morning set	4712 Nov 17 21:28	17° ♁ 32'23	
max. Earth dist.	4711 Dec 24 13:36	4° ♄ 42'07	1.44791 AU		4712 Nov 24 23:40	0° ♄	
evening rise	4712 Jan 04 22:47	22° ♄ 25'59					
	4712 Jan 09 21:25	0° ≈		superior conj	4712 Nov 29 09:08	7° ♄ 29'59	0°28'45
greatest brilliancy	4712 Jan 25 09:19	22° ≈ 46'21	-0.6m	minimum elong	4712 Nov 29 11:49	7° ♄ 41'18	0°28'23
	4712 Jan 31 06:03	0° ✕		desc. node	4712 Dec 03 12:11	14° ♄ 21'43	
evening max el	4712 Jan 31 20:15	0° ✕ 37'13	20°10'51	max. Earth dist.	4712 Dec 06 05:55	18° ♄ 49'19	1.43616 AU
asc. node	4712 Feb 06 23:50	4° ✕ 55'52			4712 Dec 13 07:08	0° ♄	
retrograde	4712 Feb 08 15:06	5° ✕ 10'16		evening rise	4712 Dec 14 09:21	1° ♄ 41'51	
evening set	4712 Feb 12 08:44	3° ✕ 49'13			4713 Jan 02 11:24	0° ≈	
	4712 Feb 16 01:46	30° ♁		greatest brilliancy	4713 Jan 08 18:23	8° ≈ 24'24	-0.4m
inferior conj	4712 Feb 17 19:14	27° ≈ 42'57	3°00'55	evening max el	4713 Jan 13 18:52	14° ≈ 11'24	21°19'22
minimum elong	4712 Feb 17 16:58	27° ≈ 50'36	3°00'26	retrograde	4713 Jan 22 12:53	19° ≈ 22'41	
min. Earth dist.	4712 Feb 18 14:44	26° ≈ 37'01	0.67291 AU	asc. node	4713 Jan 23 20:53	19° ≈ 13'06	
morning rise	4712 Feb 23 00:38	21° ≈ 26'43		evening set	4713 Jan 26 16:31	17° ≈ 46'23	

inferior conj	4713 Feb 01 01:50	11° \approx 29'16	2°28'58	evening set	4714 Jan 11 00:00	1° \approx 45'57	
minimum elong	4713 Jan 31 23:23	11° \approx 37'42	2°28'15	asc. node	4714 Jan 10 17:56	1° \approx 58'04	
min. Earth dist.	4713 Feb 01 08:38	11° \approx 05'42	0.67879 AU		4714 Jan 12 19:35	30° \approx 14'35	
morning rise	4713 Feb 06 05:56	5° \approx 14'35		inferior conj	4714 Jan 16 09:46	25° \approx 21'18	1°48'56
direct	4713 Feb 11 09:24	3° \approx 01'00		minimum elong	4714 Jan 16 07:37	25° \approx 28'44	1°48'11
morning max el	4713 Feb 21 18:27	9° \approx 11'02	23°21'49	min. Earth dist.	4714 Jan 16 04:58	25° \approx 37'53	0.68076 AU
greatest brilliancy	4713 Feb 27 05:57	15° \approx 21'30	-0.2m	morning rise	4714 Jan 21 15:10	19° \approx 09'49	
desc. node	4713 Mar 01 11:26	18° \approx 09'23		direct	4714 Jan 26 03:50	17° \approx 19'02	
	4713 Mar 10 03:07	0° \approx		morning max el	4714 Feb 04 06:51	22° \approx 39'27	21°54'28
morning set	4713 Mar 28 18:13	29° \approx 03'42		greatest brilliancy	4714 Feb 08 23:22	27° \approx 55'10	-0.4m
	4713 Mar 29 07:34	0° \approx			4714 Feb 10 15:24	0° \approx	
max. Earth dist.	4713 Apr 01 21:44	6° \approx 10'01	1.39230 AU	desc. node	4714 Feb 16 08:27	7° \approx 38'13	
					4714 Mar 03 11:32	0° \approx	
superior conj	4713 Apr 09 11:51	19° \approx 50'41	-1°-43'-16	morning set	4714 Mar 08 21:24	8° \approx 32'03	
minimum elong	4713 Apr 09 16:47	20° \approx 13'35	1°42'45	max. Earth dist.	4714 Mar 14 20:25	18° \approx 16'47	1.41383 AU
	4713 Apr 14 20:32	0° \approx			4714 Mar 21 16:55	0° \approx	
evening rise	4713 Apr 18 22:17	7° \approx 51'55					
asc. node	4713 Apr 21 20:10	13° \approx 26'50		superior conj	4714 Mar 22 13:11	1° \approx 29'00	-2°-1'-58
	4713 May 01 16:56	0° \approx		minimum elong	4714 Mar 22 16:55	1° \approx 45'28	2°01'47
evening max el	4713 May 05 02:48	3° \approx 15'73	18°39'22	evening rise	4714 Apr 02 05:23	20° \approx 53'09	
retrograde	4713 May 13 01:26	7° \approx 51'58			4714 Apr 07 04:48	0° \approx	
evening set	4713 May 15 05:34	7° \approx 35'28		asc. node	4714 Apr 08 17:12	2° \approx 41'17	
inferior conj	4713 May 23 00:40	3° \approx 10'23	1°31'14	evening max el	4714 Apr 18 10:59	16° \approx 42'02	18°13'21
minimum elong	4713 May 23 03:43	3° \approx 04'36	1°30'14	retrograde	4714 Apr 25 10:47	20° \approx 12'44	
min. Earth dist.	4713 May 26 08:35	0° \approx 40'22	0.57562 AU	evening set	4714 Apr 27 21:19	19° \approx 47'49	
	4713 May 27 07:39	30° \approx 14'35		inferior conj	4714 May 04 22:16	15° \approx 01'46	2°39'24
desc. node	4713 May 28 10:38	29° \approx 15'56		minimum elong	4714 May 05 01:42	14° \approx 54'10	2°38'35
morning rise	4713 May 30 21:22	27° \approx 55'37		min. Earth dist.	4714 May 08 07:37	12° \approx 03'13	0.59666 AU
direct	4713 Jun 05 14:08	26° \approx 34'54		morning rise	4714 May 12 02:11	9° \approx 18'55	
	4713 Jun 14 23:47	0° \approx		desc. node	4714 May 15 07:40	7° \approx 52'17	
morning max el	4713 Jun 19 22:58	4° \approx 09'01	26°31'37	direct	4714 May 18 12:27	7° \approx 23'45	
	4713 Jul 08 17:06	0° \approx		morning max el	4714 Jun 01 21:13	15° \approx 14'56	27°30'25
asc. node	4713 Jul 18 19:26	19° \approx 32'02			4714 Jun 13 20:09	0° \approx	
morning set	4713 Jul 19 00:18	19° \approx 57'41			4714 Jul 01 02:19	0° \approx	
	4713 Jul 23 15:48	0° \approx		morning set	4714 Jul 03 07:58	4° \approx 35'10	
				asc. node	4714 Jul 05 16:29	9° \approx 33'44	
superior conj	4713 Jul 26 00:43	5° \approx 13'52	1°09'10	max. Earth dist.	4714 Jul 09 20:13	18° \approx 36'47	1.31971 AU
minimum elong	4713 Jul 25 22:25	5° \approx 01'10	1°08'47				
max. Earth dist.	4713 Jul 26 08:41	5° \approx 57'46	1.32081 AU	superior conj	4714 Jul 10 12:23	20° \approx 05'56	0°48'40
evening rise	4713 Aug 01 23:15	20° \approx 16'50		minimum elong	4714 Jul 10 10:27	19° \approx 55'16	0°48'17
	4713 Aug 06 18:20	0° \approx			4714 Jul 15 00:28	0° \approx	
desc. node	4713 Aug 24 09:55	28° \approx 47'53		evening rise	4714 Jul 17 08:41	5° \approx 02'28	
	4713 Aug 25 08:21	0° \approx			4714 Jul 30 12:45	0° \approx	
evening max el	4713 Sep 01 12:58	8° \approx 00'07	26°56'09	desc. node	4714 Aug 11 06:55	16° \approx 13'38	
retrograde	4713 Sep 15 10:20	15° \approx 10'44		evening max el	4714 Aug 14 10:24	19° \approx 28'37	25°54'54
evening set	4713 Sep 22 10:13	13° \approx 03'02		retrograde	4714 Aug 28 09:33	26° \approx 35'57	
min. Earth dist.	4713 Sep 26 03:08	10° \approx 24'36	0.60697 AU	evening set	4714 Sep 03 16:40	25° \approx 01'15	
inferior conj	4713 Sep 29 07:40	7° \approx 44'10	-4°-23'-56	min. Earth dist.	4714 Sep 07 22:46	22° \approx 26'13	0.58624 AU
minimum elong	4713 Sep 29 13:45	7° \approx 31'22	4°22'34	inferior conj	4714 Sep 11 04:05	20° \approx 05'25	-5°-3'-51
morning rise	4713 Oct 06 20:31	2° \approx 55'53		minimum elong	4714 Sep 11 08:00	19° \approx 58'15	5°03'27
direct	4713 Oct 09 03:32	2° \approx 35'18		morning rise	4714 Sep 19 02:51	15° \approx 40'44	
asc. node	4713 Oct 14 18:41	4° \approx 45'32		direct	4714 Sep 21 12:29	15° \approx 21'54	
morning max el	4713 Oct 16 10:21	6° \approx 11'55	18°03'06	morning max el	4714 Sep 29 17:28	19° \approx 17'53	18°36'27
	4713 Oct 31 14:01	0° \approx		asc. node	4714 Oct 01 15:43	21° \approx 20'20	
morning set	4713 Nov 01 03:29	1° \approx 02'34			4714 Oct 07 16:34	0° \approx	
				morning set	4714 Oct 15 21:17	15° \approx 06'15	
superior conj	4713 Nov 11 02:10	19° \approx 14'26	1°02'43		4714 Oct 23 14:49	0° \approx	
minimum elong	4713 Nov 11 06:12	19° \approx 32'19	1°02'13				
	4713 Nov 17 07:16	0° \approx		superior conj	4714 Oct 24 16:54	2° \approx 02'38	1°25'52
max. Earth dist.	4713 Nov 18 17:41	2° \approx 24'30	1.41905 AU	minimum elong	4714 Oct 24 20:13	2° \approx 18'09	1°25'32
desc. node	4713 Nov 20 09:12	5° \approx 08'26		max. Earth dist.	4714 Nov 01 00:16	15° \approx 16'23	1.39873 AU
evening rise	4713 Nov 24 08:09	11° \approx 34'00		evening rise	4714 Nov 05 04:34	22° \approx 25'50	
	4713 Dec 06 08:07	0° \approx		desc. node	4714 Nov 07 06:14	25° \approx 52'11	
greatest brilliancy	4713 Dec 22 14:25	22° \approx 16'22	-0.3m		4714 Nov 09 19:11	0° \approx	
evening max el	4713 Dec 27 12:22	27° \approx 46'59	22°36'18		4714 Nov 30 07:51	0° \approx	
	4713 Dec 29 21:06	0° \approx		evening max el	4714 Dec 10 02:20	11° \approx 26'00	23°56'11
retrograde	4714 Jan 06 08:48	3° \approx 38'12		retrograde	4714 Dec 21 01:33	17° \approx 53'32	

evening set	4714 Dec 26 05:39	15°☾45'26		evening max el	4715 Nov 22 14:55	25°☾08'27	25°12'33
asc. node	4714 Dec 28 14:56	13°☾19'11			4715 Nov 28 13:10	0°☾	
min. Earth dist.	4714 Dec 31 01:31	10°☾10'46	0.67909 AU	retrograde	4715 Dec 04 14:05	2°☾03'21	
inferior conj	4714 Dec 31 17:15	9°☾17'23	1°01'58		4715 Dec 09 22:26	30°☾☿	
minimum elong	4714 Dec 31 15:51	9°☾22'09	1°01'24	evening set	4715 Dec 10 07:50	29°☾40'50	
morning rise	4715 Jan 06 02:19	3°☾10'50		min. Earth dist.	4715 Dec 14 19:56	24°☾40'35	0.67383 AU
direct	4715 Jan 10 01:01	1°☾42'40		asc. node	4715 Dec 15 11:57	23°☾48'27	
morning max el	4715 Jan 18 01:59	6°☾19'15	20°35'46	inferior conj	4715 Dec 15 22:28	23°☾14'08	0°08'57
greatest brilliancy	4715 Jan 24 01:26	13°☾18'33	-0.5m	minimum elong	4715 Dec 15 22:15	23°☾14'52	0°08'52
desc. node	4715 Feb 03 05:30	27°☾34'26		transit middle	4715 Dec 15 22:15	23°☾14'52	0°08'52
	4715 Feb 04 20:53	0°☾		transit begin	4715 Dec 15 19:55	23°☾22'28	
morning set	4715 Feb 15 23:52	16°☾54'40		transit end	4715 Dec 16 00:34	23°☾07'17	
	4715 Feb 24 06:45	0°☾		morning rise	4715 Dec 21 13:21	17°☾14'46	
max. Earth dist.	4715 Feb 25 01:53	1°☾17'08	1.43249 AU	direct	4715 Dec 24 23:40	16°☾06'56	
				morning max el	4716 Jan 01 04:58	20°☾09'54	19°30'23
superior conj	4715 Mar 03 14:48	12°☾01'27	-2°-8'-24		4716 Jan 09 02:58	0°☾	
minimum elong	4715 Mar 03 14:16	11°☾59'12	2°08'25	greatest brilliancy	4716 Jan 09 16:16	0°☾46'53	-0.6m
	4715 Mar 14 01:56	0°☾		desc. node	4716 Jan 21 02:32	17°☾50'21	
evening rise	4715 Mar 15 20:42	3°☾08'10		morning set	4716 Jan 25 21:10	25°☾11'26	
asc. node	4715 Mar 26 14:13	21°☾27'59			4716 Jan 28 23:42	0°☾	
evening max el	4715 Apr 01 22:59	29°☾48'26	18°06'55	max. Earth dist.	4716 Feb 07 14:28	15°☾03'21	1.44590 AU
	4715 Apr 02 03:43	0°☾					
retrograde	4715 Apr 08 11:11	3°☾10'44		superior conj	4716 Feb 11 14:59	21°☾27'26	-1°-57'-14
evening set	4715 Apr 11 03:51	2°☾35'28		minimum elong	4716 Feb 11 08:14	21°☾00'28	1°56'51
	4715 Apr 14 23:38	30°☾☿			4716 Feb 16 21:51	0°☾	
inferior conj	4715 Apr 17 14:20	27°☾28'59	3°18'09	evening rise	4716 Feb 25 15:50	14°☾29'19	
minimum elong	4715 Apr 17 16:29	27°☾23'32	3°17'51		4716 Mar 05 23:34	0°☾	
min. Earth dist.	4715 Apr 20 14:36	24°☾26'44	0.61855 AU	asc. node	4716 Mar 12 11:14	9°☾38'36	
morning rise	4715 Apr 24 02:16	21°☾28'32		evening max el	4716 Mar 15 11:46	13°☾09'23	18°19'20
direct	4715 Apr 30 21:43	19°☾02'59		retrograde	4716 Mar 21 22:13	16°☾37'01	
desc. node	4715 May 02 04:42	19°☾07'54		evening set	4716 Mar 24 20:57	15°☾50'06	
morning max el	4715 May 15 01:34	27°☾02'35	27°52'30	inferior conj	4716 Mar 30 20:47	10°☾24'22	3°33'28
	4715 May 17 20:39	0°☾		minimum elong	4716 Mar 30 21:14	10°☾23'04	3°33'27
	4715 Jun 07 11:42	0°☾		min. Earth dist.	4716 Apr 02 06:43	7°☾40'28	0.63864 AU
morning set	4715 Jun 17 10:43	18°☾55'11		morning rise	4716 Apr 05 19:42	4°☾14'28	
asc. node	4715 Jun 22 13:29	29°☾40'18		direct	4716 Apr 12 15:37	1°☾30'14	
	4715 Jun 22 17:08	0°☾		desc. node	4716 Apr 18 01:44	2°☾57'42	
max. Earth dist.	4715 Jun 23 05:01	1°☾04'10	1.32281 AU	morning max el	4716 Apr 26 09:57	9°☾28'24	27°37'19
					4716 May 12 10:08	0°☾	
superior conj	4715 Jun 24 22:22	4°☾49'01	0°24'34		4716 May 29 19:27	0°☾	
minimum elong	4715 Jun 24 21:15	4°☾42'57	0°24'19	morning set	4716 May 31 06:11	2°☾50'30	
evening rise	4715 Jul 01 20:09	19°☾50'39		max. Earth dist.	4716 Jun 05 07:16	13°☾08'30	1.33037 AU
	4715 Jul 06 18:40	0°☾					
	4715 Jul 26 19:46	0°☾		superior conj	4716 Jun 08 04:51	19°☾17'26	0°-2'-28
evening max el	4715 Jul 27 00:57	0°☾12'33	24°28'40	minimum elong	4716 Jun 08 04:58	19°☾18'05	0°02'28
desc. node	4715 Jul 29 03:56	2°☾07'03		behind sun begin	4716 Jun 07 23:39	18°☾49'38	
retrograde	4715 Aug 09 21:48	7°☾12'20		behind sun end	4716 Jun 08 10:17	19°☾46'33	
evening set	4715 Aug 14 22:38	6°☾15'38		asc. node	4716 Jun 08 10:31	19°☾47'47	
min. Earth dist.	4715 Aug 20 12:01	3°☾24'46	0.56733 AU		4716 Jun 13 04:10	0°☾	
inferior conj	4715 Aug 23 04:29	1°☾42'11	-5°-13'-58	evening rise	4716 Jun 15 07:48	4°☾35'33	
minimum elong	4715 Aug 23 03:02	1°☾44'29	5°13'56		4716 Jun 29 01:22	0°☾	
	4715 Aug 25 22:50	30°☾☿		evening max el	4716 Jul 07 14:03	10°☾35'21	22°51'31
morning rise	4715 Aug 31 10:56	27°☾39'00		desc. node	4716 Jul 15 00:56	15°☾54'51	
direct	4715 Sep 03 02:32	27°☾19'57		retrograde	4716 Jul 20 21:11	17°☾12'58	
	4715 Sep 10 11:38	0°☾		evening set	4716 Jul 24 09:28	16°☾46'01	
morning max el	4715 Sep 12 14:55	1°☾46'57	19°31'18	min. Earth dist.	4716 Jul 31 22:32	13°☾24'35	0.55363 AU
asc. node	4715 Sep 18 12:44	8°☾55'48		inferior conj	4716 Aug 02 09:49	12°☾33'50	-4°-38'-20
morning set	4715 Sep 29 23:06	29°☾32'12		minimum elong	4716 Aug 02 02:28	12°☾44'27	4°36'59
	4715 Sep 30 04:39	0°☾		morning rise	4716 Aug 10 22:03	8°☾43'13	
				direct	4716 Aug 13 22:27	8°☾21'56	
superior conj	4715 Oct 07 23:47	15°☾37'35	1°39'04	morning max el	4716 Aug 25 00:27	13°☾31'20	20°47'43
minimum elong	4715 Oct 08 01:34	15°☾46'23	1°38'58	asc. node	4716 Sep 04 09:47	27°☾18'31	
max. Earth dist.	4715 Oct 14 04:36	27°☾27'40	1.37778 AU		4716 Sep 05 22:53	0°☾	
	4715 Oct 15 13:51	0°☾		morning set	4716 Sep 13 06:15	14°☾13'20	
evening rise	4715 Oct 17 23:47	4°☾19'51					
desc. node	4715 Oct 25 03:15	16°☾28'10		superior conj	4716 Sep 20 18:15	29°☾46'29	1°43'45
	4715 Nov 02 20:11	0°☾		minimum elong	4716 Sep 20 18:27	29°☾47'35	1°43'45

	4716 Sep 20 20:53	0°♄		max. Earth dist.	4717 Sep 08 05:03	21°♄18'39	1.34262 AU
max. Earth dist.	4716 Sep 25 12:48	9°♄20'53	1.35858 AU	evening rise	4717 Sep 12 21:06	0°♄40'36	
evening rise	4716 Sep 29 14:45	17°♄08'36			4717 Sep 12 12:47	0°♄	
	4716 Oct 06 20:21	0°♄		desc. node	4717 Sep 27 21:15	26°♄56'57	
desc. node	4716 Oct 11 00:14	6°♄51'42			4717 Sep 29 21:00	0°♄	
	4716 Oct 27 04:53	0°♄		evening max el	4717 Oct 17 16:22	22°♄26'04	27°04'51
evening max el	4716 Nov 04 03:37	8°♄51'15	26°17'57	retrograde	4717 Oct 30 23:10	29°♄43'20	
retrograde	4716 Nov 16 21:27	16°♄02'05		evening set	4717 Nov 06 18:18	27°♄03'45	
evening set	4716 Nov 23 04:45	13°♄28'16		min. Earth dist.	4717 Nov 10 16:42	23°♄15'14	0.65288 AU
min. Earth dist.	4716 Nov 27 09:46	9°♄03'41	0.66511 AU	inferior conj	4717 Nov 12 18:24	20°♄55'06	-1°-50'-30
inferior conj	4716 Nov 28 23:34	7°♄08'03	0°-49'-2	minimum elong	4717 Nov 12 21:33	20°♄46'12	1°49'14
minimum elong	4716 Nov 29 00:53	7°♄03'58	0°48'27	asc. node	4717 Nov 18 06:04	15°♄46'32	
asc. node	4716 Dec 01 09:00	4°♄19'32		morning rise	4717 Nov 19 02:39	15°♄18'38	
morning rise	4716 Dec 04 22:15	1°♄18'34		direct	4717 Nov 21 18:17	14°♄40'47	
direct	4716 Dec 07 22:08	0°♄27'37		morning max el	4717 Nov 28 05:51	18°♄08'56	18°07'15
morning max el	4716 Dec 14 14:58	4°♄08'05	18°40'31		4717 Dec 07 01:05	0°♄	
	4717 Jan 01 16:53	0°♄		morning set	4717 Dec 16 11:37	15°♄20'47	
morning set	4717 Jan 04 13:39	4°♄31'30		desc. node	4717 Dec 24 20:33	28°♄59'20	
desc. node	4717 Jan 06 23:33	8°♄20'01			4717 Dec 25 11:38	0°♄	
superior conj	4717 Jan 20 20:32	0°♄07'58	-1°-26'-29	superior conj	4717 Dec 31 01:47	8°♄54'52	0°-42'-2
minimum elong	4717 Jan 20 11:14	29°♄31'29	1°25'31	minimum elong	4717 Dec 30 20:33	8°♄34'08	0°41'21
max. Earth dist.	4717 Jan 20 08:19	29°♄20'03	1.45254 AU	max. Earth dist.	4718 Jan 03 04:07	13°♄48'01	1.45174 AU
	4717 Jan 20 18:30	0°♄			4718 Jan 13 13:12	0°♄	
evening rise	4717 Feb 05 11:51	24°♄53'09		evening rise	4718 Jan 16 10:28	4°♄28'40	
	4717 Feb 08 16:27	0°♄			4718 Feb 02 05:36	0°♄	
evening max el	4717 Feb 26 22:41	26°♄37'58	18°49'47	greatest brilliancy	4718 Feb 02 10:32	0°♄17'40	-0.6m
asc. node	4717 Feb 27 08:16	27°♄01'50		evening max el	4718 Feb 10 05:39	10°♄09'57	19°36'55
	4717 Mar 03 14:54	0°♄		asc. node	4718 Feb 14 05:20	13°♄24'28	
retrograde	4717 Mar 05 15:57	0°♄23'08		retrograde	4718 Feb 17 13:17	14°♄23'15	
	4717 Mar 07 16:04	30°♄		evening set	4718 Feb 21 02:01	13°♄10'12	
evening set	4717 Mar 08 21:12	29°♄23'36		inferior conj	4718 Feb 26 14:03	7°♄11'18	3°15'06
inferior conj	4717 Mar 14 13:45	23°♄40'12	3°31'03	minimum elong	4718 Feb 26 12:07	7°♄17'42	3°14'47
minimum elong	4717 Mar 14 12:47	23°♄43'13	3°30'59	min. Earth dist.	4718 Feb 27 17:21	5°♄41'15	0.66772 AU
min. Earth dist.	4717 Mar 16 07:59	21°♄29'34	0.65527 AU	morning rise	4718 Mar 03 21:30	0°♄55'07	
morning rise	4717 Mar 20 03:13	17°♄25'43			4718 Mar 05 00:27	30°♄	
direct	4717 Mar 26 16:26	14°♄36'49		direct	4718 Mar 09 23:15	28°♄13'40	
desc. node	4717 Apr 04 22:46	18°♄48'54			4718 Mar 15 12:06	0°♄	
morning max el	4717 Apr 08 19:53	22°♄21'57	26°49'53	morning max el	4718 Mar 22 05:25	5°♄32'16	25°38'30
	4717 Apr 15 12:55	0°♄		desc. node	4718 Mar 22 19:49	6°♄09'09	
	4717 May 05 16:13	0°♄			4718 Apr 10 01:51	0°♄	
morning set	4717 May 14 15:08	16°♄11'02		morning set	4718 Apr 27 09:26	28°♄45'29	
max. Earth dist.	4717 May 18 23:35	24°♄42'09	1.34262 AU		4718 Apr 28 01:43	0°♄	
	4717 May 21 14:11	0°♄		max. Earth dist.	4718 May 01 04:46	5°♄50'39	1.35938 AU
superior conj	4717 May 23 05:39	3°♄24'04	0°-31'-27	superior conj	4718 May 06 22:09	17°♄01'56	-1°-1'-1
minimum elong	4717 May 23 07:19	3°♄32'48	0°31'08	minimum elong	4718 May 07 01:29	17°♄18'41	1°00'27
asc. node	4717 May 26 07:32	9°♄51'38		asc. node	4718 May 13 04:35	29°♄48'08	
evening rise	4717 May 30 17:45	19°♄10'28			4718 May 13 06:54	0°♄	
	4717 Jun 05 02:54	0°♄		evening rise	4718 May 14 23:53	3°♄29'25	
evening max el	4717 Jun 19 09:30	21°♄08'56	21°18'49		4718 May 30 13:15	0°♄	
retrograde	4717 Jul 01 10:46	27°♄05'11		evening max el	4718 Jun 01 16:42	2°♄18'14	20°01'19
desc. node	4717 Jul 01 21:58	27°♄04'40		retrograde	4718 Jun 12 01:36	7°♄22'19	
evening set	4717 Jul 03 19:32	26°♄52'17		evening set	4718 Jun 14 00:05	7°♄12'29	
inferior conj	4717 Jul 13 03:41	22°♄53'42	-3°-12'-9	desc. node	4718 Jun 18 19:01	5°♄34'27	
minimum elong	4717 Jul 12 19:26	23°♄05'14	3°09'35	inferior conj	4718 Jun 23 00:12	3°♄12'34	-1°-15'-24
min. Earth dist.	4717 Jul 13 08:56	22°♄46'20	0.54807 AU	minimum elong	4718 Jun 22 20:41	3°♄17'52	1°14'07
morning rise	4717 Jul 21 19:45	18°♄58'51		min. Earth dist.	4718 Jun 24 21:15	2°♄04'52	0.55213 AU
direct	4717 Jul 25 07:57	18°♄32'17			4718 Jun 28 17:36	30°♄	
morning max el	4717 Aug 06 22:32	24°♄30'32	22°22'26	morning rise	4718 Jul 01 14:46	28°♄53'00	
	4717 Aug 11 22:37	0°♄		direct	4718 Jul 05 20:10	28°♄14'06	
asc. node	4717 Aug 22 06:49	16°♄16'44			4718 Jul 12 17:42	0°♄	
morning set	4717 Aug 28 16:36	29°♄03'28		morning max el	4718 Jul 19 13:35	4°♄59'08	24°06'07
	4717 Aug 29 03:22	0°♄			4718 Aug 06 04:54	0°♄	
				asc. node	4718 Aug 09 03:51	5°♄41'19	
superior conj	4717 Sep 04 20:44	14°♄18'43	1°41'17	morning set	4718 Aug 13 04:18	13°♄56'51	
minimum elong	4717 Sep 04 19:40	14°♄13'03	1°41'15				

superior conj	4718 Aug 20 04:27	29°05'25	1°32'48	morning set	4719 Jul 28 15:45	28°04'42	
minimum elong	4718 Aug 20 02:32	28°05'00	1°32'38		4719 Jul 29 05:11	0°00	
	4718 Aug 20 14:32	0°00					
max. Earth dist.	4718 Aug 22 05:54	3°03'158	1.33075 AU	superior conj	4719 Aug 04 15:13	13°05'45	1°19'09
evening rise	4718 Aug 27 14:51	14°04'38		minimum elong	4719 Aug 04 12:55	13°04'07	1°18'49
	4718 Sep 04 15:05	0°00		max. Earth dist.	4719 Aug 05 13:29	16°02'05	1.32317 AU
desc. node	4718 Sep 14 18:17	16°03'520		evening rise	4719 Aug 11 16:47	29°01'146	
	4718 Sep 24 19:36	0°00			4719 Aug 12 02:06	0°00	
evening max el	4718 Sep 30 03:45	5°04'021	27°26'21		4719 Aug 28 18:51	0°00	
retrograde	4718 Oct 13 18:48	12°05'747		desc. node	4719 Sep 01 15:19	5°03'545	
evening set	4718 Oct 20 21:42	10°02'106		evening max el	4719 Sep 12 11:39	18°02'151	27°16'52
min. Earth dist.	4718 Oct 24 14:34	7°06'021	0.63719 AU	retrograde	4719 Sep 26 07:41	25°03'551	
inferior conj	4718 Oct 27 04:23	4°02'842	-2°-53'-14	evening set	4719 Oct 03 11:18	23°01'352	
minimum elong	4718 Oct 27 09:20	4°01'1604	2°51'28	min. Earth dist.	4719 Oct 07 02:08	20°02'535	0.61856 AU
	4718 Nov 01 07:15	30°00		inferior conj	4719 Oct 10 02:30	17°04'141	-3°-53'-13
morning rise	4718 Nov 02 23:31	29°08'33		minimum elong	4719 Oct 10 08:37	17°02'748	3°51'30
direct	4718 Nov 05 09:20	28°04'006		morning rise	4719 Oct 17 09:02	12°04'056	
asc. node	4718 Nov 05 03:08	28°04'026		direct	4719 Oct 19 15:56	12°01'827	
	4718 Nov 09 10:07	0°00		asc. node	4719 Oct 23 00:09	13°08'007	
morning max el	4718 Nov 11 22:41	2°05'003	17°51'11	morning max el	4719 Oct 26 14:19	15°04'838	17°53'13
morning set	4718 Nov 28 12:19	27°02'730			4719 Nov 05 11:42	0°00	
	4718 Nov 29 23:42	0°00		morning set	4719 Nov 11 09:22	10°03'218	
superior conj	4718 Dec 11 01:44	18°03'3933	0°04'38	superior conj	4719 Nov 22 04:06	29°04'135	0°44'27
minimum elong	4718 Dec 11 02:14	18°04'136	0°04'35	minimum elong	4719 Nov 22 07:42	29°05'704	0°43'58
behind sun begin	4718 Dec 10 16:49	18°02'59			4719 Nov 22 08:23	0°00	
behind sun end	4718 Dec 11 11:39	19°02'008		desc. node	4719 Nov 28 14:36	10°03'135	
desc. node	4718 Dec 11 17:33	19°04'16		max. Earth dist.	4719 Nov 29 12:20	12°00'044	1.42941 AU
max. Earth dist.	4718 Dec 16 22:19	28°07'15	1.44368 AU	evening rise	4719 Dec 06 11:03	23°07'36	
	4718 Dec 18 02:41	0°00			4719 Dec 10 21:37	0°00	
evening rise	4718 Dec 26 20:59	13°04'022			4719 Dec 31 21:03	0°00	
	4719 Jan 06 15:54	0°00		greatest brilliancy	4720 Jan 02 09:27	1°05'401	-0.4m
greatest brilliancy	4719 Jan 18 13:37	16°05'441	-0.5m	evening max el	4720 Jan 07 03:35	7°01'730	21°51'18
evening max el	4719 Jan 24 07:20	23°04'257	20°38'34	retrograde	4720 Jan 16 08:51	12°04'621	
retrograde	4719 Feb 01 11:35	28°03'210		asc. node	4720 Jan 18 23:26	12°09'58	
asc. node	4719 Feb 01 02:24	28°03'123		evening set	4720 Jan 20 17:05	11°03'31	
evening set	4719 Feb 05 09:15	27°04'42		inferior conj	4720 Jan 26 02:25	4°04'237	2°12'54
inferior conj	4719 Feb 10 19:00	20°05'308	2°48'26	minimum elong	4720 Jan 26 00:03	4°05'051	2°12'09
minimum elong	4719 Feb 10 16:37	21°01'21	2°47'50	min. Earth dist.	4720 Jan 26 04:14	4°03'619	0.68011 AU
min. Earth dist.	4719 Feb 11 08:53	20°05'33	0.67591 AU		4720 Jan 29 17:51	30°00	
morning rise	4719 Feb 15 23:31	14°03'712		morning rise	4720 Jan 31 06:46	28°02'848	
direct	4719 Feb 21 11:20	12°01'155		direct	4720 Feb 05 03:51	26°02'439	
morning max el	4719 Mar 04 14:08	18°05'023	24°13'07		4720 Feb 12 14:39	0°00	
desc. node	4719 Mar 09 16:50	24°03'249		morning max el	4720 Feb 15 00:01	2°01'357	22°43'50
	4719 Mar 14 00:21	0°00		greatest brilliancy	4720 Feb 19 14:59	7°02'313	-0.3m
	4719 Apr 03 04:40	0°00		desc. node	4720 Feb 24 13:51	13°04'154	
morning set	4719 Apr 09 07:36	10°01'858			4720 Mar 07 00:54	0°00	
max. Earth dist.	4719 Apr 13 01:32	16°05'550	1.37968 AU	morning set	4720 Mar 20 03:30	20°03'504	
				max. Earth dist.	4720 Mar 24 20:54	28°03'040	1.40162 AU
					4720 Mar 25 17:45	0°00	
superior conj	4719 Apr 20 02:58	0°08'028	-1°-29'-2	superior conj	4720 Apr 01 15:46	12°01'424	-1°-52'-22
minimum elong	4719 Apr 20 07:37	0°08'244	1°28'25	minimum elong	4720 Apr 01 20:30	12°03'556	1°51'59
	4719 Apr 20 02:27	0°00			4720 Apr 11 03:41	0°00	
evening rise	4719 Apr 28 23:41	17°02'512		evening rise	4720 Apr 11 13:58	0°04'848	
asc. node	4719 Apr 30 01:39	19°03'257		asc. node	4720 Apr 15 22:42	9°08'0014	
	4719 May 05 14:08	0°00		evening max el	4720 Apr 27 16:36	26°03'901	18°25'56
evening max el	4719 May 15 12:01	14°02'1033	19°03'29		4720 May 02 20:38	0°00	
retrograde	4719 May 24 05:32	18°02'2631		retrograde	4720 May 05 04:02	0°02'107	
evening set	4719 May 26 06:02	18°02'1345		evening set	4720 May 07 10:53	0°02'0122	
inferior conj	4719 Jun 03 12:29	14°02'0009	0°37'34		4720 May 07 12:47	30°00	
minimum elong	4719 Jun 03 13:58	13°02'5734	0°37'01	inferior conj	4720 May 14 21:56	25°02'750	2°04'02
desc. node	4719 Jun 05 16:03	12°02'3051		minimum elong	4720 May 15 01:27	25°02'043	2°03'00
min. Earth dist.	4719 Jun 06 12:43	11°02'5601	0.56506 AU	min. Earth dist.	4720 May 18 08:21	22°04'229	0.58425 AU
morning rise	4719 Jun 11 17:30	9°02'0450		morning rise	4720 May 22 11:37	19°05'593	
direct	4719 Jun 16 21:22	8°02'0208		desc. node	4720 May 22 13:05	19°05'800	
morning max el	4719 Jul 01 03:53	15°02'2307	25°44'06	direct	4720 May 28 12:54	18°02'413	
	4719 Jul 12 21:53	0°00					
asc. node	4719 Jul 27 00:54	25°02'2516					

morning max el	4720 Jun 11 22:15	26°♄07'19	27°00'45	desc. node	4721 May 09 10:06	29°♄39'51	
	4720 Jun 15 13:44	0°♄		direct	4721 May 10 16:15	29°♄35'19	
	4720 Jul 05 06:20	0°♄			4721 May 13 16:16	0°♄	
morning set	4720 Jul 12 01:15	13°♄32'34		morning max el	4721 May 24 23:01	7°♄30'15	27°44'23
asc. node	4720 Jul 12 21:56	15°♄21'47			4721 Jun 11 00:30	0°♄	
				morning set	4721 Jun 26 07:03	28°♄03'10	
superior conj	4720 Jul 19 03:01	28°♄54'08	1°00'58		4721 Jun 27 05:31	0°♄	
minimum elong	4720 Jul 19 00:49	28°♄41'58	1°00'34	asc. node	4721 Jun 29 18:58	5°♄26'08	
max. Earth dist.	4720 Jul 19 00:30	28°♄40'15	1.31980 AU	max. Earth dist.	4721 Jul 02 11:22	11°♄16'00	1.32058 AU
	4720 Jul 19 14:56	0°♄					
evening rise	4720 Jul 26 00:05	13°♄52'35		superior conj	4721 Jul 03 14:09	13°♄43'01	0°38'51
	4720 Aug 03 03:20	0°♄		minimum elong	4721 Jul 03 12:31	13°♄34'01	0°38'30
desc. node	4720 Aug 18 12:21	23°♄41'49		evening rise	4721 Jul 10 10:37	28°♄40'14	
	4720 Aug 24 05:40	0°♄			4721 Jul 11 01:40	0°♄	
evening max el	4720 Aug 24 13:33	0°♄18'51	26°33'54		4721 Jul 27 19:03	0°♄	
retrograde	4720 Sep 07 12:18	7°♄28'13		desc. node	4721 Aug 05 09:22	10°♄31'52	
evening set	4720 Sep 14 06:28	5°♄33'41		evening max el	4721 Aug 06 07:57	11°♄27'15	25°20'33
min. Earth dist.	4720 Sep 18 03:18	2°♄58'41	0.59807 AU	retrograde	4721 Aug 20 06:42	18°♄31'24	
inferior conj	4720 Sep 21 09:15	0°♄24'23	-4°-43'-34	evening set	4721 Aug 26 02:28	17°♄13'12	
minimum elong	4720 Sep 21 14:48	0°♄13'22	4°42'34	min. Earth dist.	4721 Aug 30 19:40	14°♄33'37	0.57782 AU
	4720 Sep 21 21:33	30°♄		inferior conj	4721 Sep 02 21:19	12°♄27'20	-5°-12'-47
morning rise	4720 Sep 29 02:32	25°♄45'47		minimum elong	4721 Sep 02 23:17	12°♄23'56	5°12'43
direct	4720 Oct 01 10:06	25°♄26'18		morning rise	4721 Sep 10 23:35	8°♄12'05	
asc. node	4720 Oct 08 21:09	29°♄00'09		direct	4721 Sep 13 11:34	7°♄53'13	
morning max el	4720 Oct 09 01:25	29°♄10'19	18°14'42	morning max el	4721 Sep 22 04:38	12°♄00'56	18°57'05
	4720 Oct 09 21:01	0°♄		asc. node	4721 Sep 25 18:11	16°♄02'12	
morning set	4720 Oct 24 20:53	24°♄18'01			4721 Oct 04 08:17	0°♄	
	4720 Oct 27 21:06	0°♄		morning set	4721 Oct 08 18:27	8°♄32'10	
superior conj	4720 Nov 03 06:57	11°♄54'30	1°13'50	superior conj	4721 Oct 17 05:05	25°♄03'49	1°32'37
minimum elong	4720 Nov 03 10:51	12°♄12'12	1°13'22	minimum elong	4721 Oct 17 07:48	25°♄16'48	1°32'23
max. Earth dist.	4720 Nov 10 21:25	25°♄16'47	1.41066 AU		4721 Oct 19 19:44	0°♄	
	4720 Nov 13 16:51	0°♄		max. Earth dist.	4721 Oct 24 02:53	7°♄51'28	1.38975 AU
desc. node	4720 Nov 14 11:38	1°♄17'39		evening rise	4721 Oct 28 00:38	14°♄42'08	
evening rise	4720 Nov 15 18:24	3°♄23'48		desc. node	4721 Nov 01 08:38	21°♄58'32	
	4720 Dec 03 05:27	0°♄			4721 Nov 06 08:58	0°♄	
evening max el	4720 Dec 19 19:29	20°♄55'17	23°10'22		4721 Nov 28 02:02	0°♄	
retrograde	4720 Dec 30 03:29	27°♄02'28		evening max el	4721 Dec 02 08:44	4°♄36'21	24°29'38
evening set	4721 Jan 03 23:58	25°♄03'41		retrograde	4721 Dec 13 18:22	11°♄16'05	
asc. node	4721 Jan 04 20:26	24°♄17'32		evening set	4721 Dec 19 04:19	9°♄01'34	
inferior conj	4721 Jan 09 10:23	18°♄37'16	1°29'50	asc. node	4721 Dec 22 17:27	5°♄10'56	
minimum elong	4721 Jan 09 08:30	18°♄43'45	1°29'08	min. Earth dist.	4721 Dec 23 20:47	3°♄41'37	0.67728 AU
min. Earth dist.	4721 Jan 09 00:59	19°♄09'36	0.68050 AU	inferior conj	4721 Dec 24 17:06	2°♄33'48	0°40'10
morning rise	4721 Jan 14 17:03	12°♄27'30		minimum elong	4721 Dec 24 16:08	2°♄37'00	0°39'47
direct	4721 Jan 18 23:43	10°♄46'14			4721 Dec 26 16:28	30°♄	
morning max el	4721 Jan 27 14:49	15°♄46'46	21°19'34	morning rise	4721 Dec 30 04:23	26°♄30'12	
greatest brilliancy	4721 Feb 01 17:24	21°♄35'41	-0.4m	direct	4722 Jan 02 21:42	25°♄10'55	
	4721 Feb 08 01:05	0°♄		morning max el	4722 Jan 10 13:14	29°♄31'21	20°06'16
desc. node	4721 Feb 10 10:53	3°♄23'57			4722 Jan 11 00:31	0°♄	
morning set	4721 Feb 27 18:54	29°♄31'34		greatest brilliancy	4722 Jan 17 09:06	7°♄42'40	-0.6m
	4721 Feb 28 02:07	0°♄		desc. node	4722 Jan 28 07:53	23°♄29'24	
max. Earth dist.	4721 Mar 06 22:17	11°♄01'09	1.42232 AU		4722 Feb 01 15:17	0°♄	
				morning set	4722 Feb 06 16:03	7°♄42'47	
superior conj	4721 Mar 14 07:40	23°♄27'00	-2°-6'-32	max. Earth dist.	4722 Feb 17 07:39	24°♄25'42	1.43899 AU
minimum elong	4721 Mar 14 09:59	23°♄37'01	2°06'29		4722 Feb 20 18:40	0°♄	
	4721 Mar 18 01:53	0°♄					
evening rise	4721 Mar 25 14:56	13°♄32'02		superior conj	4722 Feb 22 22:20	3°♄30'39	-2°-6'-5
asc. node	4721 Apr 02 19:44	28°♄04'16		minimum elong	4722 Feb 22 19:10	3°♄17'39	2°06'00
	4721 Apr 03 23:51	0°♄		evening rise	4722 Mar 07 22:10	25°♄25'25	
evening max el	4721 Apr 11 02:54	9°♄34'50	18°08'14		4722 Mar 10 13:48	0°♄	
retrograde	4721 Apr 17 20:14	12°♄59'45		asc. node	4722 Mar 20 16:45	16°♄37'01	
evening set	4721 Apr 20 09:34	12°♄30'28		evening max el	4722 Mar 25 15:34	22°♄48'27	18°09'50
inferior conj	4721 Apr 27 03:52	7°♄35'36	2°59'03	retrograde	4722 Apr 01 01:50	26°♄11'25	
minimum elong	4721 Apr 27 06:52	7°♄28'32	2°58'29	evening set	4722 Apr 03 21:06	25°♄31'13	
min. Earth dist.	4721 Apr 30 10:20	4°♄32'39	0.60614 AU	inferior conj	4722 Apr 10 02:35	20°♄16'01	3°27'07
morning rise	4721 May 04 00:47	1°♄44'26		minimum elong	4722 Apr 10 04:00	20°♄12'12	3°26'59
	4721 May 07 18:18	30°♄		min. Earth dist.	4722 Apr 12 20:57	17°♄19'37	0.62749 AU

morning rise	4722 Apr 16 08:35	14°♈10'46		inferior conj	4723 Mar 24 13:59	3°♈21'22	3°34'20
direct	4722 Apr 23 05:07	11°♈36'02		minimum elong	4723 Mar 24 13:47	3°♈21'57	3°34'19
desc. node	4722 Apr 26 07:07	12°♈04'14		min. Earth dist.	4723 Mar 26 17:11	0°♈50'14	0.64617 AU
morning max el	4722 May 07 05:31	19°♈35'32	27°50'24		4723 Mar 27 10:55	30°♈	
	4722 May 16 02:13	0°♈		morning rise	4723 Mar 30 08:25	27°♈08'45	
	4722 Jun 03 23:05	0°♈		direct	4723 Apr 06 02:01	24°♈20'59	
morning set	4722 Jun 10 07:03	12°♈13'50		desc. node	4723 Apr 13 04:09	26°♈49'56	
max. Earth dist.	4722 Jun 15 18:05	23°♈36'05	1.32553 AU		4723 Apr 17 06:05	0°♈	
asc. node	4722 Jun 16 16:01	25°♈33'48		morning max el	4723 Apr 19 15:08	2°♈15'45	27°20'40
					4723 May 10 08:01	0°♈	
superior conj	4722 Jun 17 22:53	28°♈20'36	0°13'24	morning set	4723 May 24 22:32	25°♈56'11	
minimum elong	4722 Jun 17 22:15	28°♈17'10	0°13'16		4723 May 26 23:52	0°♈	
behind sun begin	4722 Jun 17 19:20	28°♈01'22		max. Earth dist.	4723 May 29 16:37	5°♈28'41	1.33500 AU
behind sun end	4722 Jun 18 01:10	28°♈32'58					
	4722 Jun 18 17:11	0°♈		superior conj	4723 Jun 02 03:15	12°♈40'44	0°-14'-36
evening rise	4722 Jun 24 22:25	13°♈28'07		minimum elong	4723 Jun 02 04:00	12°♈44'43	0°14'27
	4722 Jul 03 05:59	0°♈		behind sun begin	4723 Jun 02 01:38	12°♈32'10	
evening max el	4722 Jul 18 20:53	21°♈58'18	23°47'37	behind sun end	4723 Jun 02 06:22	12°♈57'16	
desc. node	4722 Jul 23 06:22	25°♈36'34		asc. node	4723 Jun 03 13:04	15°♈40'26	
retrograde	4722 Aug 01 13:20	28°♈50'59		evening rise	4723 Jun 09 09:37	28°♈09'45	
evening set	4722 Aug 05 22:54	28°♈08'24			4723 Jun 10 06:40	0°♈	
min. Earth dist.	4722 Aug 12 06:59	25°♈06'19	0.56069 AU		4723 Jun 28 05:52	0°♈	
inferior conj	4722 Aug 14 13:10	23°♈44'28	-5°-5'-10	evening max el	4723 Jun 30 11:35	2°♈21'29	22°10'42
minimum elong	4722 Aug 14 08:57	23°♈50'52	5°04'47	desc. node	4723 Jul 10 03:24	8°♈20'43	
morning rise	4722 Aug 22 22:18	19°♈48'36		retrograde	4723 Jul 13 08:17	8°♈44'33	
direct	4722 Aug 25 17:29	19°♈28'49		evening set	4723 Jul 16 06:45	8°♈25'25	
morning max el	4722 Sep 04 21:11	24°♈11'59	20°01'22	min. Earth dist.	4723 Jul 24 17:18	4°♈46'47	0.55008 AU
	4722 Sep 09 22:00	0°♈		inferior conj	4723 Jul 25 12:15	4°♈20'06	-4°-7'-26
asc. node	4722 Sep 12 15:14	3°♈59'39		minimum elong	4723 Jul 25 03:40	4°♈32'12	4°05'20
morning set	4722 Sep 22 22:52	23°♈06'05		morning rise	4723 Aug 03 02:30	0°♈30'16	
	4722 Sep 26 07:54	0°♈		direct	4723 Aug 06 07:05	0°♈07'32	
superior conj	4722 Sep 30 17:27	8°♈55'27	1°42'01	morning max el	4723 Aug 18 01:46	5°♈37'30	21°26'15
minimum elong	4722 Sep 30 18:33	9°♈00'58	1°41'58	asc. node	4723 Aug 30 12:17	22°♈38'52	
max. Earth dist.	4722 Oct 06 08:27	19°♈53'44	1.36924 AU		4723 Sep 03 10:29	0°♈	
evening rise	4722 Oct 10 04:46	27°♈01'00		morning set	4723 Sep 07 07:37	7°♈51'56	
	4722 Oct 11 20:45	0°♈		superior conj	4723 Sep 14 15:46	23°♈16'00	1°43'30
desc. node	4722 Oct 19 05:39	12°♈30'20		minimum elong	4723 Sep 14 15:23	23°♈14'02	1°43'31
	4722 Oct 30 19:32	0°♈			4723 Sep 17 22:30	0°♈	
evening max el	4722 Nov 14 21:08	18°♈19'30	25°42'07	max. Earth dist.	4723 Sep 18 19:25	1°♈45'12	1.35126 AU
retrograde	4722 Nov 27 04:46	25°♈22'37		evening rise	4723 Sep 23 02:49	10°♈09'46	
evening set	4722 Dec 03 04:31	22°♈54'27			4723 Oct 04 09:06	0°♈	
min. Earth dist.	4722 Dec 07 13:26	18°♈09'33	0.67056 AU	desc. node	4723 Oct 06 02:41	2°♈47'06	
inferior conj	4722 Dec 08 20:48	16°♈29'55	0°-15'-4		4723 Oct 26 10:08	0°♈	
minimum elong	4722 Dec 08 21:11	16°♈28'41	0°14'55	evening max el	4723 Oct 28 09:44	1°♈59'28	26°40'32
transit middle	4722 Dec 08 21:11	16°♈28'41	0°14'55	retrograde	4723 Nov 10 10:00	9°♈14'59	
transit begin	4722 Dec 08 20:06	16°♈32'07		evening set	4723 Nov 16 22:37	6°♈37'38	
transit end	4722 Dec 08 22:16	16°♈25'14		min. Earth dist.	4723 Nov 21 00:38	2°♈28'31	0.66030 AU
asc. node	4722 Dec 09 14:27	15°♈34'07		inferior conj	4723 Nov 22 19:30	0°♈21'27	-1°-14'-46
morning rise	4722 Dec 14 14:47	10°♈34'44		minimum elong	4723 Nov 22 21:35	0°♈15'16	1°13'55
direct	4722 Dec 17 20:24	9°♈34'38			4723 Nov 23 02:45	30°♈	
morning max el	4722 Dec 24 19:32	13°♈26'31	19°07'17	asc. node	4723 Nov 26 11:31	26°♈23'11	
	4723 Jan 06 04:42	0°♈		morning rise	4723 Nov 28 22:05	24°♈37'14	
desc. node	4723 Jan 15 04:55	13°♈51'56		direct	4723 Dec 01 18:04	23°♈52'31	
morning set	4723 Jan 16 19:06	16°♈20'16		morning max el	4723 Dec 08 07:59	27°♈26'52	18°24'18
	4723 Jan 25 13:27	0°♈			4723 Dec 10 15:09	0°♈	
max. Earth dist.	4723 Jan 30 22:54	8°♈27'33	1.44960 AU	morning set	4723 Dec 27 23:45	26°♈17'27	
					4723 Dec 30 07:17	0°♈	
superior conj	4723 Feb 02 12:57	12°♈32'22	-1°-46'-27	desc. node	4724 Jan 02 01:57	4°♈26'13	
minimum elong	4723 Feb 02 04:19	11°♈58'12	1°45'45				
	4723 Feb 13 10:09	0°♈		superior conj	4724 Jan 12 15:45	21°♈08'40	-1°-8'-41
evening rise	4723 Feb 17 07:42	6°♈22'29		minimum elong	4724 Jan 12 07:33	20°♈36'28	1°07'43
	4723 Mar 04 03:23	0°♈		max. Earth dist.	4724 Jan 13 17:23	22°♈49'09	1.45305 AU
asc. node	4723 Mar 07 13:47	4°♈29'04			4724 Jan 18 07:23	0°♈	
evening max el	4723 Mar 09 03:47	6°♈13'03	18°30'04	evening rise	4724 Jan 28 17:58	16°♈23'35	
retrograde	4723 Mar 15 16:19	9°♈47'08			4724 Feb 06 09:35	0°♈	
evening set	4723 Mar 18 17:38	8°♈55'02		greatest brilliancy	4724 Feb 10 14:24	6°♈28'12	-0.7m

evening max el	4724 Feb 20 13:14	19° ✕ 43'41	19°07'57	asc. node	4725 Feb 08 07:52	7° ✕ 20'48	
asc. node	4724 Feb 22 10:49	21° ✕ 28'35		retrograde	4725 Feb 10 09:48	7° ✕ 44'00	
retrograde	4724 Feb 27 11:56	23° ✕ 39'57		evening set	4725 Feb 14 02:09	6° ✕ 25'01	
evening set	4724 Mar 01 20:07	22° ✕ 34'59		inferior conj	4725 Feb 19 12:59	0° ✕ 20'41	3°04'58
inferior conj	4724 Mar 07 10:27	16° ✕ 44'52	3°25'46	minimum elong	4725 Feb 19 10:47	0° ✕ 28'02	3°04'31
minimum elong	4724 Mar 07 09:00	16° ✕ 49'29	3°25'36		4725 Feb 19 19:08	30° ℞	
min. Earth dist.	4724 Mar 08 22:16	14° ✕ 50'36	0.66103 AU	min. Earth dist.	4725 Feb 20 10:28	29° ≈ 08'28	0.67170 AU
morning rise	4724 Mar 12 20:56	10° ✕ 29'11		morning rise	4725 Feb 24 18:49	24° ≈ 04'29	
direct	4724 Mar 19 05:43	7° ✕ 41'50		direct	4725 Mar 02 15:00	21° ≈ 28'47	
desc. node	4724 Mar 30 01:12	13° ✕ 22'49		morning max el	4725 Mar 14 09:54	28° ≈ 31'38	25°03'18
morning max el	4724 Apr 01 01:06	15° ✕ 18'21	26°21'54		4725 Mar 15 19:47	0° ✕	
	4724 Apr 13 02:42	0° ♊		desc. node	4725 Mar 16 22:13	1° ✕ 12'21	
	4724 May 02 03:19	0° ♋			4725 Apr 06 21:01	0° ♊	
morning set	4724 May 07 01:57	8° ♋ 59'57		morning set	4725 Apr 19 12:22	21° ♊ 10'13	
max. Earth dist.	4724 May 11 03:59	16° ♋ 49'55	1.34916 AU	max. Earth dist.	4725 Apr 23 04:35	27° ♊ 51'47	1.36766 AU
					4725 Apr 24 08:04	0° ♋	
superior conj	4724 May 16 00:57	26° ♋ 37'03	0°-44'-1				
minimum elong	4724 May 16 03:21	26° ♋ 49'18	0°43'34	superior conj	4725 Apr 29 12:57	10° ♋ 00'27	-1°-13'-14
	4724 May 17 16:21	0° ♌		minimum elong	4725 Apr 29 16:55	10° ♋ 20'01	1°12'37
asc. node	4724 May 20 10:08	5° ♌ 42'19		asc. node	4725 May 07 07:10	25° ♋ 34'27	
evening rise	4724 May 23 18:16	12° ♌ 39'19		evening rise	4725 May 07 22:01	26° ♋ 49'13	
	4724 Jun 01 19:03	0° ♍			4725 May 09 12:11	0° ♌	
evening max el	4724 Jun 11 11:52	13° ♍ 09'42	20°43'41	evening max el	4725 May 25 00:31	24° ♌ 37'51	19°34'15
retrograde	4724 Jun 22 20:50	18° ♍ 43'58		retrograde	4725 Jun 03 15:35	29° ♌ 19'34	
evening set	4724 Jun 24 22:57	18° ♍ 33'28		evening set	4725 Jun 05 14:09	29° ♌ 08'58	
desc. node	4724 Jun 26 00:25	18° ♍ 20'28		desc. node	4725 Jun 12 21:28	25° ♌ 57'43	
inferior conj	4724 Jul 04 05:31	14° ♍ 36'36	-2°-24'-27	inferior conj	4725 Jun 14 07:27	25° ♌ 04'32	0°-25'-15
minimum elong	4724 Jul 03 22:52	14° ♍ 46'06	2°22'08	minimum elong	4725 Jun 14 06:19	25° ♌ 06'20	0°24'51
min. Earth dist.	4724 Jul 05 04:48	14° ♍ 03'20	0.54861 AU	min. Earth dist.	4725 Jun 16 18:10	23° ♌ 31'49	0.55675 AU
morning rise	4724 Jul 12 21:46	10° ♍ 33'01		morning rise	4725 Jun 22 18:58	20° ♌ 30'34	
direct	4724 Jul 16 16:30	10° ♍ 02'15		direct	4725 Jun 27 09:55	19° ♌ 42'45	
morning max el	4724 Jul 29 20:14	16° ♍ 22'04	23°06'03	morning max el	4725 Jul 11 09:57	26° ♌ 44'13	24°49'19
	4724 Aug 09 15:30	0° ♎			4725 Jul 14 13:28	0° ♍	
asc. node	4724 Aug 16 09:22	11° ♎ 49'39			4725 Aug 02 13:52	0° ♎	
morning set	4724 Aug 21 18:46	22° ♎ 44'09		asc. node	4725 Aug 03 06:25	1° ♎ 23'19	
	4724 Aug 25 04:25	0° ♏		morning set	4725 Aug 06 06:33	7° ♎ 37'23	
superior conj	4724 Aug 28 20:48	7° ♏ 55'38	1°38'22	superior conj	4725 Aug 13 06:03	22° ♎ 46'13	1°27'36
minimum elong	4724 Aug 28 19:19	7° ♏ 47'40	1°38'17	minimum elong	4725 Aug 13 03:55	22° ♎ 34'32	1°27'21
max. Earth dist.	4724 Aug 31 15:15	13° ♏ 48'09	1.33709 AU	max. Earth dist.	4725 Aug 14 19:26	26° ♎ 09'45	1.32708 AU
evening rise	4724 Sep 05 14:32	23° ♏ 57'09			4725 Aug 16 14:10	0° ♏	
	4724 Sep 08 17:26	0° ♐		evening rise	4725 Aug 20 12:08	8° ♏ 12'17	
desc. node	4724 Sep 21 23:42	22° ♐ 42'01			4725 Sep 01 03:49	0° ♐	
	4724 Sep 26 23:14	0° ♑		desc. node	4725 Sep 08 20:45	12° ♐ 05'53	
evening max el	4724 Oct 09 22:11	15° ♑ 27'18	27°17'30	evening max el	4725 Sep 22 08:40	28° ♐ 30'18	27°26'23
retrograde	4724 Oct 23 09:19	22° ♑ 45'30			4725 Sep 24 00:16	0° ♑	
evening set	4724 Oct 30 08:12	20° ♑ 06'10		retrograde	4725 Oct 06 02:01	5° ♑ 45'38	
min. Earth dist.	4724 Nov 03 04:06	16° ♑ 32'10	0.64658 AU	evening set	4725 Oct 13 06:14	3° ♑ 14'02	
inferior conj	4724 Nov 05 10:55	14° ♑ 03'36	-2°-17'-10	min. Earth dist.	4725 Oct 16 21:47	0° ♑ 11'33	0.62960 AU
minimum elong	4724 Nov 05 14:51	13° ♑ 52'54	2°15'39		4725 Oct 17 02:41	30° ℞	
morning rise	4724 Nov 11 23:39	8° ♑ 33'26		inferior conj	4725 Oct 19 16:17	27° ♐ 29'59	-3°-19'-21
asc. node	4724 Nov 12 08:35	8° ♑ 24'26		minimum elong	4725 Oct 19 21:51	27° ♐ 16'25	3°17'31
direct	4724 Nov 14 12:25	8° ♑ 00'05		morning rise	4725 Oct 26 16:13	22° ♐ 17'23	
morning max el	4724 Nov 20 23:59	11° ♑ 26'10	17°58'11	direct	4725 Oct 29 00:30	21° ♐ 51'45	
	4724 Dec 03 19:31	0° ♒		asc. node	4725 Oct 30 05:38	21° ♐ 58'47	
morning set	4724 Dec 08 09:46	7° ♒ 41'41		morning max el	4725 Nov 04 16:39	25° ♐ 17'52	17°49'44
desc. node	4724 Dec 18 22:58	25° ♒ 08'11			4725 Nov 08 14:28	0° ♑	
	4724 Dec 21 23:21	0° ♓		morning set	4725 Nov 20 19:59	20° ♑ 16'12	
					4725 Nov 26 09:27	0° ♒	
superior conj	4724 Dec 22 03:05	0° ♓ 14'58	0°-21'-52				
minimum elong	4724 Dec 22 00:26	0° ♓ 04'22	0°21'29	superior conj	4725 Dec 02 14:01	10° ♒ 32'04	0°22'41
max. Earth dist.	4724 Dec 26 12:30	7° ♓ 14'11	1.44914 AU	minimum elong	4725 Dec 02 16:15	10° ♒ 41'21	0°22'23
evening rise	4725 Jan 07 09:39	25° ♓ 44'08		desc. node	4725 Dec 05 19:59	15° ♒ 54'44	
	4725 Jan 10 04:16	0° ♈		max. Earth dist.	4725 Dec 09 05:40	21° ♒ 26'25	1.43832 AU
greatest brilliancy	4725 Jan 27 00:02	24° ≈ 59'07	-0.6m		4725 Dec 14 15:04	0° ♓	
	4725 Jan 30 20:28	0° ♈		evening rise	4725 Dec 17 19:46	4° ♓ 58'20	
evening max el	4725 Feb 02 18:06	3° ♈ 16'27	20°01'40		4726 Jan 03 14:18	0° ♈	

greatest brilliancy	4726 Jan 11 13:18	10° \approx 50'19	-0.4m	greatest brilliancy	4726 Dec 25 16:36	25° \approx 02'54	-0.3m
evening max el	4726 Jan 16 17:31	16° \approx 50'31	21°08'26		4726 Dec 30 01:33	0° \approx	
retrograde	4726 Jan 25 07:45	21° \approx 55'52		evening max el	4726 Dec 30 11:37	0° \approx 25'46	22°24'24
asc. node	4726 Jan 26 04:54	21° \approx 51'40		retrograde	4727 Jan 09 04:06	6° \approx 11'24	
evening set	4726 Jan 29 09:50	20° \approx 21'48		asc. node	4727 Jan 13 01:54	4° \approx 51'00	
inferior conj	4726 Feb 03 19:12	14° \approx 05'57	2°34'20	evening set	4727 Jan 13 17:27	4° \approx 21'33	
minimum elong	4726 Feb 03 16:46	14° \approx 14'24	2°33'39		4727 Jan 17 15:22	30° \approx 00'	
min. Earth dist.	4726 Feb 04 03:47	13° \approx 36'21	0.67822 AU	inferior conj	4727 Jan 19 03:03	27° \approx 57'38	1°55'28
morning rise	4726 Feb 08 23:21	7° \approx 50'59		minimum elong	4727 Jan 19 00:49	28° \approx 05'20	1°54'43
direct	4726 Feb 14 04:59	5° \approx 34'20		min. Earth dist.	4727 Jan 18 23:55	28° \approx 08'29	0.68075 AU
morning max el	4726 Feb 24 18:38	11° \approx 51'41	23°35'05	morning rise	4727 Jan 24 08:06	21° \approx 45'28	
desc. node	4726 Mar 03 19:14	19° \approx 57'05		direct	4727 Jan 28 22:53	19° \approx 05'17	
	4726 Mar 11 06:37	0° \approx		morning max el	4727 Feb 07 06:20	25° \approx 19'10	22°06'59
	4726 Mar 30 16:41	0° \approx			4727 Feb 11 11:29	0° \approx	
morning set	4726 Mar 31 23:56	2° \approx 11'46		greatest brilliancy	4727 Feb 11 20:55	0° \approx 28'28	-0.3m
max. Earth dist.	4726 Apr 05 00:08	9° \approx 07'00	1.38903 AU	desc. node	4727 Feb 18 16:15	9° \approx 21'12	
					4727 Mar 04 18:31	0° \approx	
superior conj	4726 Apr 12 11:29	22° \approx 41'30	-1°-39'-43	morning set	4727 Mar 12 07:29	11° \approx 52'42	
minimum elong	4726 Apr 12 16:23	23° \approx 04'30	1°39'11	max. Earth dist.	4727 Mar 17 21:46	21° \approx 05'05	1.41074 AU
	4726 Apr 16 07:47	0° \approx			4727 Mar 23 02:49	0° \approx	
evening rise	4726 Apr 21 18:09	10° \approx 32'14					
asc. node	4726 Apr 24 04:11	15° \approx 12'20		superior conj	4727 Mar 25 15:56	4° \approx 28'58	-1°-59'-48
	4726 May 02 14:39	0° \approx		minimum elong	4727 Mar 25 20:02	4° \approx 47'10	1°59'34
evening max el	4726 May 08 00:06	6° \approx 45'54	18°44'58	evening rise	4727 Apr 05 03:15	23° \approx 39'48	
retrograde	4726 May 16 03:17	10° \approx 45'37			4727 Apr 08 13:20	0° \approx	
evening set	4726 May 18 06:25	10° \approx 30'11		asc. node	4727 Apr 11 01:13	4° \approx 30'33	
inferior conj	4726 May 26 04:25	6° \approx 08'04	1°18'07	evening max el	4727 Apr 21 07:26	19° \approx 26'41	18°16'00
minimum elong	4726 May 26 07:10	6° \approx 02'59	1°17'11	retrograde	4727 Apr 28 09:58	22° \approx 59'57	
min. Earth dist.	4726 May 29 10:49	3° \approx 44'14	0.57270 AU	evening set	4727 Apr 30 19:29	22° \approx 36'30	
desc. node	4726 May 30 18:29	2° \approx 50'28		inferior conj	4727 May 07 22:57	17° \approx 53'47	2°31'03
morning rise	4726 Jun 03 03:25	0° \approx 58'06		minimum elong	4727 May 08 02:28	17° \approx 46'09	2°30'10
	4726 Jun 06 00:53	30° \approx 00'		min. Earth dist.	4727 May 11 08:58	14° \approx 57'45	0.59334 AU
direct	4726 Jun 08 16:51	29° \approx 42'25		morning rise	4727 May 15 05:22	12° \approx 14'20	
	4726 Jun 11 09:21	0° \approx		desc. node	4727 May 17 15:29	11° \approx 06'23	
morning max el	4726 Jun 23 01:27	7° \approx 13'26	26°20'13	direct	4727 May 21 13:32	10° \approx 24'08	
	4726 Jul 09 23:39	0° \approx		morning max el	4727 Jun 04 22:44	18° \approx 13'54	27°23'56
asc. node	4726 Jul 21 03:26	21° \approx 13'15			4727 Jun 14 19:09	0° \approx	
morning set	4726 Jul 21 17:22	22° \approx 26'30			4727 Jul 02 13:53	0° \approx	
	4726 Jul 25 05:38	0° \approx		morning set	4727 Jul 06 01:34	7° \approx 06'13	
				asc. node	4727 Jul 08 00:28	11° \approx 14'05	
superior conj	4726 Jul 28 17:26	7° \approx 40'59	1°11'57	max. Earth dist.	4727 Jul 12 16:36	21° \approx 24'50	1.31957 AU
minimum elong	4726 Jul 28 15:07	7° \approx 28'13	1°11'34				
max. Earth dist.	4726 Jul 29 05:07	8° \approx 45'27	1.32127 AU	superior conj	4727 Jul 13 05:11	22° \approx 34'16	0°52'03
evening rise	4726 Aug 04 16:37	22° \approx 46'00		minimum elong	4727 Jul 13 03:09	22° \approx 23'07	0°51'39
	4726 Aug 08 05:38	0° \approx			4727 Jul 16 14:05	0° \approx	
	4726 Aug 26 04:11	0° \approx		evening rise	4727 Jul 20 01:33	7° \approx 30'51	
desc. node	4726 Aug 26 17:47	0° \approx 45'28			4727 Jul 31 18:08	0° \approx	
evening max el	4726 Sep 04 14:19	10° \approx 53'54	27°02'36	desc. node	4727 Aug 13 14:47	18° \approx 22'54	
retrograde	4726 Sep 18 11:17	18° \approx 05'26		evening max el	4727 Aug 17 12:49	22° \approx 29'45	26°05'55
evening set	4726 Sep 25 12:34	15° \approx 53'30		retrograde	4727 Aug 31 12:03	29° \approx 37'57	
min. Earth dist.	4726 Sep 29 04:35	13° \approx 13'09	0.61001 AU	evening set	4727 Sep 06 22:28	27° \approx 57'47	
inferior conj	4726 Oct 02 08:18	10° \approx 31'12	-4°-16'-19	min. Earth dist.	4727 Sep 11 01:34	25° \approx 23'21	0.58928 AU
minimum elong	4726 Oct 02 14:27	10° \approx 17'59	4°14'50	inferior conj	4727 Sep 14 07:28	22° \approx 58'20	-4°-59'-23
morning rise	4726 Oct 09 19:33	5° \approx 39'44		minimum elong	4727 Sep 14 11:55	22° \approx 50'00	4°58'50
direct	4726 Oct 12 02:26	5° \approx 18'45		morning rise	4727 Sep 22 04:54	18° \approx 30'07	
asc. node	4726 Oct 17 02:39	7° \approx 04'01		direct	4727 Sep 24 13:49	18° \approx 11'14	
morning max el	4726 Oct 19 06:46	8° \approx 53'17	17°59'56	morning max el	4727 Oct 02 15:02	22° \approx 03'48	18°30'06
	4726 Nov 01 23:59	0° \approx		asc. node	4727 Oct 03 23:41	23° \approx 28'07	
morning set	4726 Nov 03 23:49	3° \approx 40'20			4727 Oct 08 20:25	0° \approx	
				morning set	4727 Oct 18 16:04	17° \approx 39'26	
					4727 Oct 25 02:19	0° \approx	
superior conj	4726 Nov 14 03:23	22° \approx 06'11	0°58'15				
minimum elong	4726 Nov 14 07:23	22° \approx 23'45	0°57'44	superior conj	4727 Oct 27 15:11	4° \approx 45'31	1°23'00
	4726 Nov 18 16:57	0° \approx		minimum elong	4727 Oct 27 18:41	5° \approx 01'47	1°22'39
max. Earth dist.	4726 Nov 21 18:05	5° \approx 07'08	1.42186 AU	max. Earth dist.	4727 Nov 04 00:56	18° \approx 03'55	1.40187 AU
desc. node	4726 Nov 22 17:01	6° \approx 41'58		evening rise	4727 Nov 08 08:48	25° \approx 25'17	
evening rise	4726 Nov 27 15:56	14° \approx 43'15		desc. node	4727 Nov 09 14:03	27° \approx 26'23	
	4726 Dec 07 13:57	0° \approx					

	4727 Nov 11 03:38	0°♊		desc. node	4728 Oct 26 11:05	18°♌03'59	
	4727 Dec 01 08:15	0°♋			4728 Nov 03 01:41	0°♊	
evening max el	4727 Dec 13 01:58	14°♋04'08	23°44'22	evening max el	4728 Nov 24 14:45	27°♊46'47	25°01'47
retrograde	4727 Dec 23 21:25	20°♋26'54			4728 Nov 27 00:26	0°♋	
evening set	4727 Dec 28 23:27	18°♋21'14		retrograde	4728 Dec 06 10:36	4°♋37'59	
asc. node	4727 Dec 30 22:55	16°♋23'25		evening set	4728 Dec 12 02:17	2°♋17'35	
inferior conj	4728 Jan 03 10:42	11°♋53'24	1°09'30		4728 Dec 14 09:15	30°♌♊	
minimum elong	4728 Jan 03 09:10	11°♋58'39	1°08'55	min. Earth dist.	4728 Dec 16 15:31	27°♊12'07	0.67482 AU
min. Earth dist.	4728 Jan 02 20:37	12°♋41'24	0.67956 AU	asc. node	4728 Dec 16 19:57	26°♊57'38	
morning rise	4728 Jan 08 19:04	5°♋45'51		inferior conj	4728 Dec 17 16:25	25°♊50'29	0°17'23
direct	4728 Jan 12 19:46	4°♋14'21		minimum elong	4728 Dec 17 15:59	25°♊51'54	0°17'12
morning max el	4728 Jan 21 00:15	8°♋57'00	20°46'41	morning rise	4728 Dec 23 06:16	19°♊49'52	
greatest brilliancy	4728 Jan 26 17:39	15°♋35'35	-0.5m	direct	4728 Dec 26 18:23	18°♊39'05	
desc. node	4728 Feb 05 13:17	29°♋13'58		morning max el	4729 Jan 03 02:03	22°♊46'12	19°39'11
	4728 Feb 06 01:52	0°♌			4729 Jan 09 03:11	0°♋	
morning set	4728 Feb 19 12:48	20°♌22'37		greatest brilliancy	4729 Jan 11 01:20	2°♋38'07	-0.6m
	4728 Feb 25 15:03	0°♌		desc. node	4729 Jan 22 10:19	19°♋27'31	
max. Earth dist.	4728 Feb 28 01:58	3°♌57'18	1.43000 AU	morning set	4729 Jan 28 09:14	28°♋35'42	
					4729 Jan 29 07:04	0°♌	
superior conj	4728 Mar 05 21:23	15°♌12'13	-2°-8'-28	max. Earth dist.	4729 Feb 09 13:53	17°♌39'02	1.44432 AU
minimum elong	4728 Mar 05 21:42	15°♌13'31	2°08'29				
	4728 Mar 14 11:19	0°♍		superior conj	4729 Feb 14 01:16	24°♌48'02	-2°00'-13
evening rise	4728 Mar 17 21:13	6°♍02'29		minimum elong	4729 Feb 13 19:24	24°♌24'26	1°59'56
asc. node	4728 Mar 27 22:14	23°♍22'09			4729 Feb 17 06:19	0°♌	
	4728 Apr 01 13:14	0°♎		evening rise	4729 Feb 27 19:39	17°♌32'26	
evening max el	4728 Apr 03 19:06	2°♎30'46	18°06'39		4729 Mar 07 05:18	0°♍	
retrograde	4728 Apr 10 08:19	5°♎53'14		asc. node	4729 Mar 14 19:16	11°♍39'13	
evening set	4728 Apr 13 00:07	5°♎19'34		evening max el	4729 Mar 18 08:02	15°♍50'33	18°16'17
inferior conj	4728 Apr 19 12:30	0°♎16'11	3°13'54	retrograde	4729 Mar 24 18:05	19°♍16'23	
minimum elong	4728 Apr 19 14:54	0°♎10'14	3°13'32	evening set	4729 Mar 27 15:56	18°♍31'11	
	4728 Apr 19 19:00	30°♌♍		inferior conj	4729 Apr 02 17:08	13°♍08'09	3°32'22
min. Earth dist.	4728 Apr 22 14:39	27°♍12'54	0.61538 AU	minimum elong	4729 Apr 02 17:50	13°♍06'10	3°32'19
morning rise	4728 Apr 26 02:41	24°♍17'53		min. Earth dist.	4729 Apr 05 05:18	10°♍20'33	0.63590 AU
direct	4728 May 02 21:26	21°♍56'08		morning rise	4729 Apr 08 17:48	6°♍59'22	
desc. node	4728 May 03 12:31	21°♍57'18		direct	4729 Apr 15 14:10	4°♍17'11	
morning max el	4728 May 17 02:08	29°♍54'57	27°51'36	desc. node	4729 Apr 20 09:32	5°♍25'56	
	4728 May 17 04:10	0°♎		morning max el	4729 Apr 29 10:06	12°♍15'43	27°41'43
	4728 Jun 07 19:31	0°♏			4729 May 13 12:57	0°♎	
morning set	4728 Jun 19 05:10	21°♏29'05			4729 May 31 06:43	0°♏	
	4728 Jun 23 06:34	0°♐		morning set	4729 Jun 03 01:53	5°♏28'20	
asc. node	4728 Jun 23 21:30	1°♐20'14		max. Earth dist.	4729 Jun 08 05:28	16°♏02'36	1.32901 AU
max. Earth dist.	4728 Jun 25 01:58	3°♐54'12	1.32206 AU				
				superior conj	4729 Jun 10 22:39	21°♏49'47	0°01'48
superior conj	4728 Jun 26 15:31	7°♐19'00	0°28'26	minimum elong	4729 Jun 10 22:34	21°♏49'20	0°01'46
minimum elong	4728 Jun 26 14:15	7°♐12'04	0°28'09	behind sun begin	4729 Jun 10 17:16	21°♏20'53	
evening rise	4728 Jul 03 12:49	22°♐18'59		behind sun end	4729 Jun 11 03:52	22°♏17'49	
	4728 Jul 07 05:35	0°♑		asc. node	4729 Jun 10 18:33	21°♏27'43	
	4728 Jul 26 00:09	0°♒			4729 Jun 14 17:24	0°♐	
evening max el	4728 Jul 29 04:16	3°♒19'35	24°42'39	evening rise	4729 Jun 18 00:36	7°♐04'42	
desc. node	4728 Jul 30 11:48	4°♒32'11			4729 Jun 30 02:53	0°♑	
retrograde	4728 Aug 12 02:01	10°♒20'47		evening max el	4729 Jul 10 17:06	13°♑43'10	23°05'57
evening set	4728 Aug 17 08:00	9°♒18'45		desc. node	4729 Jul 17 08:49	18°♑40'57	
min. Earth dist.	4728 Aug 22 15:36	6°♒31'15	0.56992 AU	retrograde	4729 Jul 24 03:02	20°♑25'04	
inferior conj	4728 Aug 25 10:54	4°♒42'06	-5°-15'-5	evening set	4729 Jul 27 20:43	19°♑54'34	
minimum elong	4728 Aug 25 10:25	4°♒42'53	5°15'06	min. Earth dist.	4729 Aug 04 02:09	16°♑38'37	0.55522 AU
morning rise	4728 Sep 02 16:20	0°♒35'51		inferior conj	4729 Aug 05 18:44	15°♑39'40	-4°-47'-8
direct	4728 Sep 05 06:52	0°♒16'55		minimum elong	4729 Aug 05 12:04	15°♑49'23	4°46'03
morning max el	4728 Sep 14 14:03	4°♒38'44	19°21'42	morning rise	4729 Aug 14 06:12	11°♑48'11	
asc. node	4728 Sep 19 20:43	10°♒55'20		direct	4729 Aug 17 05:16	11°♑27'18	
	4728 Sep 30 16:14	0°♓		morning max el	4729 Aug 28 01:20	16°♑29'34	20°35'08
morning set	4728 Oct 01 16:54	2°♓02'40		asc. node	4729 Sep 06 17:47	29°♑11'38	
					4729 Sep 07 05:18	0°♒	
superior conj	4728 Oct 09 19:57	18°♓14'15	1°37'38	morning set	4729 Sep 15 23:26	16°♒42'08	
minimum elong	4728 Oct 09 21:59	18°♓24'13	1°37'31		4729 Sep 22 09:47	0°♓	
max. Earth dist.	4728 Oct 16 05:22	0°♔20'44	1.38086 AU				
	4728 Oct 16 00:51	0°♕		superior conj	4729 Sep 23 12:57	2°♓18'54	1°43'31
evening rise	4728 Oct 20 00:46	7°♕10'30		minimum elong	4729 Sep 23 13:23	2°♓21'08	1°43'31

max. Earth dist.	4729 Sep 28 12:54	12°♄16'13	1.36123 AU	minimum elong	4730 Sep 07 13:35	16°♎43'59	1°42'03
evening rise	4729 Oct 02 13:03	19°♄51'47		max. Earth dist.	4730 Sep 11 03:48	24°♎12'18	1.34471 AU
	4729 Oct 08 05:28	0°♌			4730 Sep 14 00:54	0°♄	
desc. node	4729 Oct 13 08:07	8°♌30'01		evening rise	4730 Sep 15 17:25	3°♄18'19	
	4729 Oct 28 02:44	0°♊		desc. node	4730 Sep 30 05:09	28°♄38'46	
evening max el	4729 Nov 07 03:25	11°♊30'08	26°09'14		4730 Oct 01 02:02	0°♌	
retrograde	4729 Nov 19 18:42	18°♊39'03		evening max el	4730 Oct 20 16:08	25°♌06'38	26°59'16
evening set	4729 Nov 26 00:08	16°♊06'34			4730 Oct 26 18:24	0°♊	
min. Earth dist.	4729 Nov 30 06:10	11°♊36'45	0.66664 AU	retrograde	4730 Nov 02 21:20	2°♊23'43	
inferior conj	4729 Dec 01 18:16	9°♊45'10	0°-39'-56		4730 Nov 09 06:53	30°♌	
minimum elong	4729 Dec 01 19:20	9°♊41'51	0°39'29	evening set	4730 Nov 09 14:56	29°♌44'22	
asc. node	4729 Dec 03 17:01	7°♊24'50		min. Earth dist.	4730 Nov 13 14:12	25°♌50'39	0.65493 AU
morning rise	4729 Dec 07 15:41	3°♊54'08		inferior conj	4730 Nov 15 14:10	23°♌33'36	-1°-41'-2
direct	4729 Dec 10 17:01	3°♊00'53		minimum elong	4730 Nov 15 17:03	23°♌25'24	1°39'51
morning max el	4729 Dec 17 11:11	6°♊43'48	18°46'56	asc. node	4730 Nov 20 14:03	18°♌40'44	
	4730 Jan 02 23:42	0°♊		morning rise	4730 Nov 21 20:56	17°♌55'09	
morning set	4730 Jan 07 21:47	7°♊43'34		direct	4730 Nov 24 13:37	17°♌15'40	
desc. node	4730 Jan 09 07:20	9°♊55'26		morning max el	4730 Dec 01 01:33	20°♌45'01	18°11'08
	4730 Jan 22 02:31	0°♐			4730 Dec 08 04:52	0°♊	
max. Earth dist.	4730 Jan 23 07:20	1°♐53'05	1.45203 AU	morning set	4730 Dec 19 15:18	18°♊19'36	
					4730 Dec 26 20:00	0°♊	
superior conj	4730 Jan 24 08:36	3°♐32'18	-1°-32'-15	desc. node	4730 Dec 27 04:24	0°♊33'44	
minimum elong	4730 Jan 23 23:14	2°♐55'29	1°31'20				
evening rise	4730 Feb 08 19:09	28°♐04'42		superior conj	4731 Jan 03 12:33	12°♊14'34	0°-49'-12
	4730 Feb 09 23:46	0°♏		minimum elong	4731 Jan 03 06:26	11°♊50'26	0°48'24
asc. node	4730 Mar 01 16:20	29°♏10'26		max. Earth dist.	4731 Jan 06 02:56	16°♊20'02	1.45233 AU
evening max el	4730 Mar 01 19:22	29°♏18'13	18°44'07		4731 Jan 14 20:48	0°♐	
	4730 Mar 02 12:29	0°♏		evening rise	4731 Jan 19 20:34	7°♐46'04	
retrograde	4730 Mar 08 11:08	3°♏00'10			4731 Feb 03 08:01	0°♏	
evening set	4730 Mar 11 15:22	2°♏02'30		greatest brilliancy	4731 Feb 04 21:15	2°♏16'13	-0.7m
	4730 Mar 14 04:03	30°♏		evening max el	4731 Feb 13 02:59	12°♏49'30	19°28'54
inferior conj	4730 Mar 17 08:47	26°♏21'27	3°32'20	asc. node	4731 Feb 16 13:22	15°♏42'57	
minimum elong	4730 Mar 17 08:00	26°♏23'51	3°32'17	retrograde	4731 Feb 20 08:07	16°♏58'14	
min. Earth dist.	4730 Mar 19 05:16	24°♏05'22	0.65307 AU	evening set	4731 Feb 23 19:38	15°♏47'19	
morning rise	4730 Mar 22 23:27	20°♏07'23		inferior conj	4731 Mar 01 08:10	9°♏50'31	3°18'13
direct	4730 Mar 29 13:55	17°♏18'29		minimum elong	4731 Mar 01 06:21	9°♏56'29	3°17'57
desc. node	4730 Apr 07 06:33	21°♏01'00		min. Earth dist.	4731 Mar 02 13:38	8°♏14'05	0.66611 AU
morning max el	4730 Apr 11 20:04	25°♏06'18	26°58'41	morning rise	4731 Mar 06 16:17	3°♏34'17	
	4730 Apr 16 07:03	0°♏		direct	4731 Mar 12 19:54	0°♏51'04	
	4730 May 07 00:19	0°♏		morning max el	4731 Mar 25 05:49	8°♏14'59	25°50'16
morning set	4730 May 17 12:41	18°♏55'01		desc. node	4731 Mar 25 03:36	8°♏09'24	
max. Earth dist.	4730 May 21 23:36	27°♏41'50	1.34052 AU		4731 Apr 11 06:16	0°♏	
	4730 May 23 02:49	0°♏			4731 Apr 29 12:10	0°♏	
superior conj	4730 May 26 00:29	6°♏00'17	0°-26'-59	morning set	4731 Apr 30 09:31	1°♏37'33	
minimum elong	4730 May 26 01:55	6°♏07'46	0°26'42	max. Earth dist.	4731 May 04 06:24	8°♏53'19	1.35658 AU
asc. node	4730 May 28 15:37	11°♏32'40					
evening rise	4730 Jun 02 10:58	21°♏41'52		superior conj	4731 May 09 18:25	19°♏43'05	0°-56'-35
	4730 Jun 06 12:42	0°♏		minimum elong	4731 May 09 21:31	19°♏58'43	0°56'02
evening max el	4730 Jun 22 11:06	24°♏13'12	21°31'47		4731 May 14 19:05	0°♏	
	4730 Jul 02 01:42	0°♏		asc. node	4731 May 15 12:40	1°♏30'38	
desc. node	4730 Jul 04 05:49	0°♏16'26		evening rise	4731 May 17 17:50	6°♏03'46	
retrograde	4730 Jul 04 17:48	0°♏17'01			4731 May 31 04:28	0°♏	
evening set	4730 Jul 07 05:36	0°♏02'52		evening max el	4731 Jun 04 16:26	5°♏16'40	20°11'41
	4730 Jul 07 11:29	30°♏		retrograde	4731 Jun 15 07:46	10°♏28'45	
inferior conj	4730 Jul 16 13:33	26°♏02'55	-3°-27'-56	evening set	4731 Jun 17 06:37	10°♏18'59	
minimum elong	4730 Jul 16 05:00	26°♏14'52	3°25'24	desc. node	4731 Jun 21 02:50	9°♏08'37	
min. Earth dist.	4730 Jul 16 12:24	26°♏04'31	0.54827 AU	inferior conj	4731 Jun 26 08:48	6°♏20'17	-1°-33'-39
morning rise	4730 Jul 25 05:17	22°♏10'11		minimum elong	4731 Jun 26 04:25	6°♏26'47	1°32'04
direct	4730 Jul 28 15:21	21°♏44'50		min. Earth dist.	4731 Jun 28 00:31	5°♏21'27	0.55088 AU
morning max el	4730 Aug 10 01:02	27°♏35'34	22°07'34	morning rise	4731 Jul 05 00:02	2°♏05'15	
	4730 Aug 12 10:09	0°♏		direct	4731 Jul 09 02:23	1°♏28'50	
asc. node	4730 Aug 24 14:51	18°♏05'24		morning max el	4731 Jul 22 16:52	8°♏07'52	23°50'38
	4730 Aug 30 15:51	0°♏			4731 Aug 07 13:05	0°♏	
morning set	4730 Aug 31 09:27	1°♏31'43		asc. node	4731 Aug 11 11:54	7°♏26'33	
				morning set	4731 Aug 15 21:03	16°♏24'52	
superior conj	4730 Sep 07 14:29	16°♏48'44	1°42'05		4731 Aug 22 04:14	0°♏	

superior conj	4731 Aug 22 21:35	1° $\overline{\text{m}}$ 33'52	1°34'28	morning set	4732 Jul 30 08:35	1° Ω 16'46	
minimum elong	4731 Aug 22 19:46	1° $\overline{\text{m}}$ 24'01	1°34'17				
max. Earth dist.	4731 Aug 25 03:19	6° $\overline{\text{m}}$ 22'26	1.33223 AU	superior conj	4732 Aug 06 07:58	16° Ω 27'03	1°21'32
evening rise	4731 Aug 30 09:42	17° $\overline{\text{m}}$ 18'14		minimum elong	4732 Aug 06 05:42	16° Ω 14'34	1°21'13
	4731 Sep 06 00:43	0° $\underline{\text{a}}$		max. Earth dist.	4732 Aug 07 09:59	18° Ω 49'41	1.32407 AU
desc. node	4731 Sep 17 02:10	18° $\underline{\text{a}}$ 21'42			4732 Aug 12 14:54	0° $\overline{\text{m}}$	
	4731 Sep 25 13:09	0° $\overline{\text{m}}$		evening rise	4732 Aug 13 10:33	1° $\overline{\text{m}}$ 42'08	
evening max el	4731 Oct 03 03:46	8° $\overline{\text{m}}$ 24'25	27°24'59		4732 Aug 28 22:44	0° $\underline{\text{a}}$	
retrograde	4731 Oct 16 18:00	15° $\overline{\text{m}}$ 42'29		desc. node	4732 Sep 02 23:10	7° $\underline{\text{a}}$ 28'10	
evening set	4731 Oct 23 20:01	13° $\overline{\text{m}}$ 04'40		evening max el	4732 Sep 14 12:23	21° $\underline{\text{a}}$ 11'23	27°20'24
min. Earth dist.	4731 Oct 27 13:34	9° $\overline{\text{m}}$ 45'08	0.63973 AU	retrograde	4732 Sep 28 07:55	28° $\underline{\text{a}}$ 25'50	
inferior conj	4731 Oct 30 01:37	7° $\overline{\text{m}}$ 09'25	-2°-43'-49	evening set	4732 Oct 05 11:54	26° $\underline{\text{a}}$ 01'05	
minimum elong	4731 Oct 30 06:19	6° $\overline{\text{m}}$ 57'13	2°42'06	min. Earth dist.	4732 Oct 09 02:46	23° $\underline{\text{a}}$ 09'21	0.62147 AU
morning rise	4731 Nov 05 19:05	1° $\overline{\text{m}}$ 46'37		inferior conj	4732 Oct 12 01:41	20° $\underline{\text{a}}$ 25'37	-3°-44'-37
asc. node	4731 Nov 07 11:05	1° $\overline{\text{m}}$ 20'03		minimum elong	4732 Oct 12 07:42	20° $\underline{\text{a}}$ 11'41	3°42'51
direct	4731 Nov 08 05:32	1° $\overline{\text{m}}$ 17'04		morning rise	4732 Oct 19 06:31	15° $\underline{\text{a}}$ 21'38	
morning max el	4731 Nov 14 18:16	4° $\overline{\text{m}}$ 42'08	17°52'26	direct	4732 Oct 21 13:38	14° $\underline{\text{a}}$ 58'28	
	4731 Dec 01 08:41	0° $\overline{\text{x}}$		asc. node	4732 Oct 24 08:08	15° $\underline{\text{a}}$ 33'17	
morning set	4731 Dec 01 12:22	0° $\overline{\text{x}}$ 15'46		morning max el	4732 Oct 28 10:12	18° $\underline{\text{a}}$ 27'27	17°51'41
					4732 Nov 05 18:23	0° $\overline{\text{m}}$	
superior conj	4731 Dec 14 08:54	21° $\overline{\text{x}}$ 48'33	0°-2'-10	morning set	4732 Nov 13 06:45	13° $\overline{\text{m}}$ 12'48	
minimum elong	4731 Dec 14 08:40	21° $\overline{\text{x}}$ 47'34	0°02'09		4732 Nov 22 18:18	0° $\overline{\text{x}}$	
behind sun begin	4731 Dec 13 22:47	21° $\overline{\text{x}}$ 07'21					
behind sun end	4731 Dec 14 18:32	22° $\overline{\text{x}}$ 27'43		superior conj	4732 Nov 24 07:13	2° $\overline{\text{x}}$ 38'25	0°39'04
desc. node	4731 Dec 14 01:26	21° $\overline{\text{x}}$ 18'06		minimum elong	4732 Nov 24 10:33	2° $\overline{\text{x}}$ 52'39	0°38'36
	4731 Dec 19 11:03	0° $\overline{\text{z}}$		desc. node	4732 Nov 29 22:27	12° $\overline{\text{x}}$ 05'04	
max. Earth dist.	4731 Dec 19 21:15	0° $\overline{\text{z}}$ 40'34	1.44529 AU	max. Earth dist.	4732 Dec 01 11:57	14° $\overline{\text{x}}$ 38'29	1.43186 AU
evening rise	4731 Dec 30 07:55	16° $\overline{\text{z}}$ 58'48		evening rise	4732 Dec 08 20:23	26° $\overline{\text{x}}$ 21'01	
	4732 Jan 07 21:27	0° \approx			4732 Dec 11 04:52	0° $\overline{\text{z}}$	
greatest brilliancy	4732 Jan 21 06:10	19° \approx 14'12	-0.5m		4732 Dec 31 19:45	0° \approx	
evening max el	4732 Jan 27 05:28	26° \approx 22'29	20°28'38	greatest brilliancy	4733 Jan 04 06:52	4° \approx 27'24	-0.4m
	4732 Jan 31 15:22	0° H		evening max el	4733 Jan 09 02:31	9° \approx 56'48	21°40'00
asc. node	4732 Feb 03 10:21	1° H 02'19		retrograde	4733 Jan 18 03:49	15° \approx 19'27	
retrograde	4732 Feb 04 06:23	1° H 06'04		asc. node	4733 Jan 20 07:22	14° \approx 54'41	
	4732 Feb 07 15:40	30° $\text{R}\approx$		evening set	4733 Jan 22 10:23	13° \approx 38'59	
evening set	4732 Feb 08 02:35	29° \approx 40'54		inferior conj	4733 Jan 27 19:41	7° \approx 19'23	2°18'49
inferior conj	4732 Feb 13 12:33	23° \approx 31'08	2°53'04	minimum elong	4733 Jan 27 17:17	7° \approx 27'44	2°18'04
minimum elong	4732 Feb 13 10:12	23° \approx 39'10	2°52'31	min. Earth dist.	4733 Jan 27 23:15	7° \approx 07'01	0.67973 AU
min. Earth dist.	4732 Feb 14 04:24	22° \approx 37'04	0.67494 AU	morning rise	4733 Feb 01 23:53	1° \approx 05'13	
morning rise	4732 Feb 18 17:19	17° \approx 14'58			4733 Feb 03 11:11	30° $\text{R}\overline{\text{z}}$	
direct	4732 Feb 24 07:20	14° \approx 46'42		direct	4733 Feb 06 23:15	28° $\overline{\text{z}}$ 57'38	
morning max el	4732 Mar 06 14:30	21° \approx 32'08	24°26'18		4733 Feb 10 18:54	0° \approx	
desc. node	4732 Mar 11 00:38	26° \approx 24'53		morning max el	4733 Feb 16 23:51	4° \approx 54'10	22°57'02
	4732 Mar 13 22:46	0° H		greatest brilliancy	4733 Feb 21 18:03	10° \approx 12'50	-0.3m
	4732 Apr 03 12:34	0° Y		desc. node	4733 Feb 25 21:39	15° \approx 27'53	
morning set	4732 Apr 11 11:04	13° Y 21'17			4733 Mar 08 06:10	0° H	
max. Earth dist.	4732 Apr 15 03:47	19° Y 55'53	1.37647 AU	morning set	4733 Mar 23 11:08	23° H 49'12	
	4732 Apr 20 13:46	0° $\overline{\text{z}}$			4733 Mar 27 03:12	0° Y	
				max. Earth dist.	4733 Mar 27 22:52	1° Y 24'21	1.39838 AU
superior conj	4732 Apr 22 01:13	2° $\overline{\text{z}}$ 49'54	-1°-25'00				
minimum elong	4732 Apr 22 05:44	3° $\overline{\text{z}}$ 11'38	1°24'23	superior conj	4733 Apr 04 16:41	15° Y 09'41	-1°-49'-18
evening rise	4732 Apr 30 18:44	20° $\overline{\text{z}}$ 03'24		minimum elong	4733 Apr 04 21:32	15° Y 31'55	1°48'52
asc. node	4732 May 01 09:41	21° $\overline{\text{z}}$ 17'23			4733 Apr 12 14:14	0° $\overline{\text{z}}$	
	4732 May 05 21:58	0° II		evening rise	4733 Apr 14 10:36	3° $\overline{\text{z}}$ 32'02	
evening max el	4732 May 17 10:08	17° II 02'58	19°10'50	asc. node	4733 Apr 18 06:41	10° $\overline{\text{z}}$ 47'22	
retrograde	4732 May 26 08:58	21° II 25'06		evening max el	4733 Apr 30 13:32	29° $\overline{\text{z}}$ 26'22	18°30'15
evening set	4732 May 28 08:46	21° II 13'02			4733 May 01 03:50	0° II	
inferior conj	4732 Jun 05 18:09	17° II 02'12	0°21'46	retrograde	4733 May 08 04:36	3° II 12'22	
minimum elong	4732 Jun 05 19:03	17° II 00'41	0°21'27	evening set	4733 May 10 10:31	2° II 53'47	
desc. node	4732 Jun 06 23:51	16° II 11'51			4733 May 15 21:45	30° $\text{R}\overline{\text{z}}$	
min. Earth dist.	4732 Jun 08 15:29	15° II 05'45	0.56268 AU	inferior conj	4733 May 18 00:20	28° $\overline{\text{z}}$ 23'15	1°52'57
morning rise	4732 Jun 14 01:04	12° II 12'21		minimum elong	4733 May 18 03:45	28° $\overline{\text{z}}$ 16'30	1°51'55
direct	4732 Jun 19 01:38	11° II 13'45		min. Earth dist.	4733 May 21 10:13	25° $\overline{\text{z}}$ 42'49	0.58117 AU
morning max el	4732 Jul 03 06:47	18° II 30'16	25°30'24	desc. node	4733 May 24 20:52	23° $\overline{\text{z}}$ 25'49	
	4732 Jul 12 21:20	0° $\overline{\text{z}}$		morning rise	4733 May 25 16:32	22° $\overline{\text{z}}$ 59'48	
asc. node	4732 Jul 28 08:57	27° $\overline{\text{z}}$ 07'50		direct	4733 May 31 15:02	21° $\overline{\text{z}}$ 29'24	
	4732 Jul 29 18:02	0° Ω		morning max el	4733 Jun 15 00:12	29° $\overline{\text{z}}$ 09'25	26°51'12

	4733 Jun 15 20:31	0°♊	direct	4734 May 13 16:35	2°♊32'29	
	4733 Jul 06 15:36	0°♋	morning max el	4734 May 28 00:07	10°♊26'05	27°40'20
morning set	4733 Jul 14 18:29	16°♋01'59		4734 Jun 12 04:27	0°♊	
asc. node	4733 Jul 15 05:58	17°♋02'39		4734 Jun 28 18:13	0°♋	
	4733 Jul 21 04:57	0°♌	morning set	4734 Jun 29 00:59	0°♋35'00	
			asc. node	4734 Jul 02 03:00	7°♋05'56	
superior conj	4733 Jul 21 19:43	1°♌21'35	max. Earth dist.	4734 Jul 05 08:03	14°♋04'55	1.32018 AU
minimum elong	4733 Jul 21 17:28	1°♌09'10				
max. Earth dist.	4733 Jul 21 20:49	1°♌27'39	1.32007 AU	superior conj	4734 Jul 06 07:05	16°♋11'34
evening rise	4733 Jul 28 17:13	16°♌21'21		minimum elong	4734 Jul 06 05:20	16°♋01'55
	4733 Aug 04 12:50	0°♍			4734 Jul 12 14:36	0°♌
desc. node	4733 Aug 20 20:11	25°♍43'35	evening rise	4734 Jul 13 03:25	1°♌08'23	
	4733 Aug 24 10:58	0°♎		4734 Jul 28 19:07	0°♍	
evening max el	4733 Aug 27 15:28	3°♎16'01	26°42'25	desc. node	4734 Aug 07 17:11	12°♍46'51
retrograde	4733 Sep 10 13:45	10°♎25'37		evening max el	4734 Aug 09 10:54	14°♍31'12
evening set	4733 Sep 17 10:10	8°♎26'19		retrograde	4734 Aug 23 09:45	21°♍36'27
min. Earth dist.	4733 Sep 21 05:24	5°♎50'26	0.60118 AU	evening set	4734 Aug 29 09:53	20°♍12'21
inferior conj	4733 Sep 24 10:59	3°♎13'43	-4°-37'00	min. Earth dist.	4734 Sep 02 22:47	17°♍34'50
minimum elong	4733 Sep 24 16:47	3°♎01'57	4°35'53	inferior conj	4734 Sep 06 02:01	15°♍23'08
	4733 Sep 28 20:36	30°♎		minimum elong	4734 Sep 06 04:46	15°♍18'18
morning rise	4733 Oct 02 02:45	28°♎31'35		morning rise	4734 Sep 14 03:08	11°♍04'38
direct	4733 Oct 04 10:02	28°♎11'45		direct	4734 Sep 16 14:15	10°♍45'49
	4733 Oct 09 15:46	0°♏		morning max el	4734 Sep 25 02:51	14°♍49'04
asc. node	4733 Oct 11 05:10	1°♏13'37		asc. node	4734 Sep 28 02:14	18°♍06'10
morning max el	4733 Oct 11 22:11	1°♏53'02	18°10'12		4734 Oct 05 17:03	0°♏
morning set	4733 Oct 27 16:29	26°♏53'37		morning set	4734 Oct 11 12:49	11°♏04'14
	4733 Oct 29 08:05	0°♐				
			superior conj	4734 Oct 20 02:26	27°♏43'58	1°30'22
superior conj	4733 Nov 06 06:45	14°♐41'50	1°10'04	minimum elong	4734 Oct 20 05:22	27°♏57'55
minimum elong	4733 Nov 06 10:44	14°♐59'46	1°09'36		4734 Oct 21 07:14	0°♐
max. Earth dist.	4733 Nov 13 22:09	28°♐02'10	1.41366 AU	max. Earth dist.	4734 Oct 27 04:00	10°♐42'50
	4733 Nov 15 02:11	0°♑		evening rise	4734 Oct 31 03:28	17°♐37'40
desc. node	4733 Nov 16 19:29	2°♑51'29		desc. node	4734 Nov 03 16:30	23°♐33'15
evening rise	4733 Nov 19 00:40	6°♑28'50			4734 Nov 07 16:29	0°♑
	4733 Dec 04 09:43	0°♒			4734 Nov 28 20:54	0°♒
greatest brilliancy	4733 Dec 17 06:35	17°♒21'56	-0.2m	evening max el	4734 Dec 05 08:26	7°♒14'10
evening max el	4733 Dec 22 19:00	23°♒34'07	22°58'23	retrograde	4734 Dec 16 14:28	13°♒49'50
retrograde	4734 Jan 01 22:54	29°♒35'38		evening set	4734 Dec 21 22:23	11°♒37'28
evening set	4734 Jan 06 17:31	27°♒39'07		asc. node	4734 Dec 25 01:26	8°♒17'52
asc. node	4734 Jan 07 04:23	27°♒15'35		min. Earth dist.	4734 Dec 26 16:00	6°♒12'25
inferior conj	4734 Jan 12 03:41	21°♒13'17	1°36'50	inferior conj	4734 Dec 27 10:43	5°♒09'30
minimum elong	4734 Jan 12 01:42	21°♒20'09	1°36'06	minimum elong	4734 Dec 27 09:36	5°♒13'17
min. Earth dist.	4734 Jan 11 19:53	21°♒40'12	0.68070 AU		4734 Dec 31 18:32	30°♒
morning rise	4734 Jan 17 09:52	15°♒02'56		morning rise	4735 Jan 01 21:11	29°♒04'54
direct	4734 Jan 21 18:39	13°♒18'19		direct	4735 Jan 05 16:22	27°♒42'35
morning max el	4734 Jan 30 13:45	18°♒25'29	21°31'34		4735 Jan 11 01:43	0°♒
greatest brilliancy	4734 Feb 04 12:07	24°♒00'27	-0.4m	morning max el	4735 Jan 13 11:03	2°♒08'22
	4734 Feb 09 02:36	0°♓		greatest brilliancy	4735 Jan 19 23:05	9°♒51'42
desc. node	4734 Feb 12 18:42	5°♓05'30		desc. node	4735 Jan 30 15:44	25°♒07'38
	4734 Mar 01 09:49	0°♈			4735 Feb 02 21:41	0°♓
morning set	4734 Mar 03 06:33	2°♈56'25		morning set	4735 Feb 10 05:07	11°♓10'16
max. Earth dist.	4734 Mar 09 23:24	13°♈47'08	1.41947 AU	max. Earth dist.	4735 Feb 20 07:30	27°♓03'36
					4735 Feb 22 03:18	0°♈
superior conj	4734 Mar 17 12:00	26°♈31'33	-2°-5'-12	superior conj	4735 Feb 26 06:33	6°♈45'17
minimum elong	4734 Mar 17 14:54	26°♈44'09	2°05'07	minimum elong	4735 Feb 26 04:21	6°♈36'11
	4734 Mar 19 11:43	0°♉		evening rise	4735 Mar 11 00:02	28°♈23'07
evening rise	4734 Mar 28 13:50	16°♉21'46			4735 Mar 11 22:19	0°♉
asc. node	4734 Apr 05 03:42	29°♉55'05		asc. node	4735 Mar 23 00:44	18°♉33'07
	4734 Apr 05 04:51	0°♊		evening max el	4735 Mar 28 11:41	25°♉29'38
evening max el	4734 Apr 13 23:10	12°♊18'16	18°09'36	retrograde	4735 Apr 03 22:28	28°♉52'12
retrograde	4734 Apr 20 18:29	15°♊44'52		evening set	4735 Apr 06 16:48	28°♉13'47
evening set	4734 Apr 23 06:52	15°♊17'07		inferior conj	4735 Apr 12 23:56	23°♉01'33
inferior conj	4734 Apr 30 03:25	10°♊25'13	2°52'36	minimum elong	4735 Apr 13 01:37	22°♉57'07
minimum elong	4734 Apr 30 06:36	10°♊17'53	2°51'55		4735 Apr 15 20:26	20°♉02'40
min. Earth dist.	4734 May 03 11:03	7°♊23'22	0.60283 AU	min. Earth dist.	4735 Apr 19 07:57	16°♉57'45
morning rise	4734 May 07 02:45	4°♊36'46		morning rise	4735 Apr 26 04:13	14°♉26'02
desc. node	4734 May 11 17:54	2°♊43'15		direct		

desc. node	4735 Apr 28 14:56	14° Υ 43'46		minimum elong	4736 Mar 26 09:44	6° Υ 03'26	3°34'18
morning max el	4735 May 10 06:01	22° Υ 25'53	27°51'57	min. Earth dist.	4736 Mar 28 15:19	3° Υ 27'33	0.64358 AU
	4735 May 16 22:03	0° ♄		morning rise	4736 Apr 01 05:39	29° ♄ 51'42	
	4735 Jun 05 08:41	0° ♂			4736 Apr 01 01:40	30° ♄	
morning set	4735 Jun 13 02:04	14° ♂ 49'32		direct	4736 Apr 08 00:10	27° ♄ 04'50	
max. Earth dist.	4735 Jun 18 15:40	26° ♂ 28'20	1.32447 AU	desc. node	4736 Apr 14 11:58	29° ♄ 10'04	
asc. node	4735 Jun 19 00:03	27° ♂ 13'24			4736 Apr 15 18:56	0° Υ	
	4735 Jun 20 06:52	0° ♄		morning max el	4736 Apr 21 15:18	5° Υ 01'19	27°27'09
					4736 May 10 13:47	0° ♄	
superior conj	4735 Jun 20 16:21	0° ♄ 51'31	0°17'28	morning set	4736 May 26 19:00	28° ♄ 36'34	
minimum elong	4735 Jun 20 15:32	0° ♄ 47'04	0°17'17		4736 May 27 11:56	0° ♂	
evening rise	4735 Jun 27 15:11	15° ♄ 56'47		max. Earth dist.	4736 May 31 15:32	8° ♂ 24'55	1.33327 AU
	4735 Jul 04 14:24	0° ♂					
evening max el	4735 Jul 22 00:14	25° ♂ 06'10	24°02'07	superior conj	4736 Jun 03 21:30	15° ♂ 14'35	0°-10'-12
desc. node	4735 Jul 25 14:12	28° ♂ 09'45		minimum elong	4736 Jun 03 22:01	15° ♂ 17'21	0°10'07
	4735 Jul 28 10:38	0° ♄		behind sun begin	4736 Jun 03 17:46	14° ♂ 54'45	
retrograde	4735 Aug 04 18:31	2° ♄ 01'51		behind sun end	4736 Jun 04 02:16	15° ♂ 39'59	
evening set	4735 Aug 09 09:33	1° ♄ 14'30		asc. node	4736 Jun 04 21:05	17° ♂ 20'16	
	4735 Aug 12 08:31	30° ♄			4736 Jun 10 19:07	0° ♄	
min. Earth dist.	4735 Aug 15 10:41	28° ♄ 16'38	0.56290 AU	evening rise	4736 Jun 11 02:35	0° ♄ 39'30	
inferior conj	4735 Aug 17 20:51	26° ♄ 47'11	-5°-9'-26		4736 Jun 27 18:34	0° ♂	
minimum elong	4735 Aug 17 17:37	26° ♄ 52'12	5°09'12	evening max el	4736 Jul 02 14:12	5° ♂ 28'23	22°24'49
morning rise	4735 Aug 26 05:07	22° ♄ 49'05		desc. node	4736 Jul 11 11:14	11° ♂ 17'05	
direct	4735 Aug 28 22:59	22° ♄ 29'36		retrograde	4736 Jul 15 15:01	11° ♂ 57'00	
morning max el	4735 Sep 07 21:13	27° ♄ 06'50	19°50'24	evening set	4736 Jul 18 17:59	11° ♂ 35'30	
	4735 Sep 10 14:42	0° ♄		min. Earth dist.	4736 Jul 26 21:06	8° ♄ 03'09	0.55114 AU
asc. node	4735 Sep 14 23:18	5° ♄ 56'07		inferior conj	4736 Jul 27 21:57	7° ♄ 27'57	-4°-19'-32
morning set	4735 Sep 25 16:24	25° ♄ 35'31		minimum elong	4736 Jul 27 13:39	7° ♄ 39'43	4°17'41
	4735 Sep 27 20:29	0° ♄		morning rise	4736 Aug 05 11:31	3° ♄ 38'10	
				direct	4736 Aug 08 14:31	3° ♄ 16'01	
superior conj	4735 Oct 03 13:00	11° ♄ 30'06	1°41'06	morning max el	4736 Aug 20 03:31	8° ♄ 38'49	21°12'24
minimum elong	4735 Oct 03 14:21	11° ♄ 36'48	1°41'03	asc. node	4736 Aug 31 20:22	24° ♄ 29'31	
max. Earth dist.	4735 Oct 09 08:58	22° ♄ 47'23	1.37219 AU		4736 Sep 03 20:41	0° ♄	
evening rise	4735 Oct 13 04:35	29° ♄ 47'56		morning set	4736 Sep 09 00:39	10° ♄ 19'41	
	4735 Oct 13 07:17	0° ♄					
desc. node	4735 Oct 21 13:31	14° ♄ 06'26		superior conj	4736 Sep 16 10:03	25° ♄ 46'43	1°43'44
	4735 Oct 31 22:58	0° ♄		minimum elong	4736 Sep 16 09:52	25° ♄ 45'49	1°43'43
evening max el	4735 Nov 17 20:51	20° ♄ 56'46	25°32'01		4736 Sep 18 11:24	0° ♄	
retrograde	4735 Nov 30 01:40	27° ♄ 57'24		max. Earth dist.	4736 Sep 20 18:49	4° ♄ 38'42	1.35374 AU
evening set	4735 Dec 05 23:20	25° ♄ 31'05		evening rise	4736 Sep 25 00:15	12° ♄ 49'57	
min. Earth dist.	4735 Dec 10 09:20	20° ♄ 40'49	0.67177 AU		4736 Oct 04 17:07	0° ♄	
inferior conj	4735 Dec 11 15:01	19° ♄ 05'37	0°-6'-23	desc. node	4736 Oct 07 10:33	4° ♄ 25'46	
minimum elong	4735 Dec 11 15:11	19° ♄ 05'05	0°06'19		4736 Oct 25 23:45	0° ♄	
transit middle	4735 Dec 11 15:11	19° ♄ 05'05	0°06'19	evening max el	4736 Oct 30 09:31	4° ♄ 38'05	26°33'05
transit begin	4735 Dec 11 12:36	19° ♄ 13'23		retrograde	4736 Nov 12 07:45	11° ♄ 52'17	
transit end	4735 Dec 11 17:46	18° ♄ 56'49		evening set	4736 Nov 18 18:30	9° ♄ 16'06	
asc. node	4735 Dec 11 22:31	18° ♄ 41'37		min. Earth dist.	4736 Nov 22 21:34	5° ♄ 01'29	0.66204 AU
morning rise	4735 Dec 17 07:53	13° ♄ 08'56		inferior conj	4736 Nov 24 14:38	2° ♄ 58'18	-1°-5'-31
direct	4735 Dec 20 15:05	12° ♄ 06'15		minimum elong	4736 Nov 24 16:26	2° ♄ 52'52	1°04'45
morning max el	4735 Dec 27 16:15	16° ♄ 01'50	19°15'00		4736 Nov 27 05:05	30° ♄	
greatest brilliancy	4736 Jan 06 09:11	28° ♄ 31'47	-0.7m	asc. node	4736 Nov 27 19:34	29° ♄ 23'25	
	4736 Jan 07 09:11	0° ♄		morning rise	4736 Nov 30 15:49	27° ♄ 12'08	
desc. node	4736 Jan 17 12:46	15° ♄ 27'34		direct	4736 Dec 03 13:05	26° ♄ 25'20	
morning set	4736 Jan 20 05:37	19° ♄ 38'38		morning max el	4736 Dec 10 03:54	0° ♄ 01'42	18°29'35
	4736 Jan 26 21:25	0° ♄			4736 Dec 10 03:14	0° ♄	
max. Earth dist.	4736 Feb 02 21:47	10° ♄ 59'46	1.44842 AU	morning set	4736 Dec 30 05:54	29° ♄ 22'40	
					4736 Dec 30 15:16	0° ♄	
superior conj	4736 Feb 06 00:17	15° ♄ 54'29	-1°-50'-42	desc. node	4737 Jan 03 09:48	6° ♄ 00'21	
minimum elong	4736 Feb 05 16:12	15° ♄ 22'25	1°50'07				
	4736 Feb 14 18:34	0° ♄		superior conj	4737 Jan 15 03:38	24° ♄ 31'13	-1°-15'-16
evening rise	4736 Feb 20 12:57	9° ♄ 28'19		minimum elong	4737 Jan 14 18:54	23° ♄ 56'59	1°14'16
	4736 Mar 04 04:26	0° Υ		max. Earth dist.	4737 Jan 15 16:00	25° ♄ 19'42	1.45302 AU
asc. node	4736 Mar 08 21:47	6° Υ 32'01			4737 Jan 18 15:31	0° ♄	
evening max el	4736 Mar 11 00:10	8° Υ 52'57	18°25'59	evening rise	4737 Jan 31 02:33	19° ♄ 37'00	
retrograde	4736 Mar 17 11:50	12° Υ 24'36			4737 Feb 06 15:53	0° ♄	
evening set	4736 Mar 20 12:12	11° Υ 34'23		greatest brilliancy	4737 Feb 11 07:10	7° ♄ 15'15	-0.8m
inferior conj	4736 Mar 26 09:43	6° Υ 03'31	3°34'18	evening max el	4737 Feb 22 10:11	22° ♄ 22'56	19°01'17

asc. node	4737 Feb 23 18:50	23° ✕ 40'17		retrograde	4738 Feb 13 04:28	10° ✕ 17'31	
retrograde	4737 Mar 01 06:50	26° ✕ 15'03		evening set	4738 Feb 16 19:35	9° ✕ 00'34	
evening set	4737 Mar 04 13:58	25° ✕ 12'01		inferior conj	4738 Feb 22 06:47	2° ✕ 58'06	3°08'44
inferior conj	4737 Mar 10 05:01	19° ✕ 24'16	3°27'50	minimum elong	4738 Feb 22 04:40	3° ✕ 05'09	3°08'21
minimum elong	4737 Mar 10 03:44	19° ✕ 28'20	3°27'44	min. Earth dist.	4738 Feb 23 06:16	1° ✕ 39'40	0.67043 AU
min. Earth dist.	4737 Mar 11 19:05	17° ✕ 24'06	0.65911 AU		4738 Feb 24 12:59	30° ℞	
morning rise	4737 Mar 15 16:29	13° ✕ 08'59		morning rise	4738 Feb 27 13:07	26° ≈ 41'56	
direct	4737 Mar 22 02:57	10° ✕ 20'47		direct	4738 Mar 05 11:18	24° ≈ 04'05	
desc. node	4737 Apr 01 08:59	15° ✕ 28'27			4738 Mar 16 04:40	0° ✕	
morning max el	4737 Apr 04 01:13	18° ✕ 00'37	26°32'07	morning max el	4738 Mar 17 10:12	1° ✕ 12'30	25°15'50
	4737 Apr 14 03:00	0° ℣		desc. node	4738 Mar 19 06:01	3° ✕ 07'41	
	4737 May 03 12:49	0° ♄			4738 Apr 08 03:28	0° ℣	
morning set	4737 May 10 00:25	11° ♄ 46'09		morning set	4738 Apr 22 13:40	24° ℣ 04'50	
max. Earth dist.	4737 May 14 04:32	19° ♄ 49'40	1.34678 AU		4738 Apr 25 19:16	0° ♄	
				max. Earth dist.	4738 Apr 26 06:39	0° ♄ 53'06	1.36468 AU
superior conj	4737 May 18 20:19	29° ♄ 14'28	0°-39'-30	superior conj	4738 May 02 09:56	12° ♄ 42'53	-1°-8'-55
minimum elong	4737 May 18 22:27	29° ♄ 25'29	0°39'07	minimum elong	4738 May 02 13:41	13° ♄ 01'32	1°08'19
	4737 May 19 05:09	0° ♅		asc. node	4738 May 09 15:09	27° ♄ 16'28	
asc. node	4737 May 22 18:07	7° ♅ 22'47		evening rise	4738 May 10 16:19	29° ♄ 23'51	
evening rise	4737 May 26 11:43	15° ♅ 10'51			4738 May 10 23:29	0° ♅	
	4737 Jun 03 01:15	0° ♄		evening max el	4738 May 27 23:28	27° ♅ 32'24	19°43'20
evening max el	4737 Jun 14 12:44	16° ♄ 10'58	20°55'37		4738 May 30 22:15	0° ♄	
retrograde	4737 Jun 26 03:31	21° ♄ 52'56		retrograde	4738 Jun 06 20:39	2° ♄ 21'50	
evening set	4737 Jun 28 07:37	21° ♄ 41'46		evening set	4738 Jun 08 19:01	2° ♄ 11'35	
desc. node	4737 Jun 28 08:14	21° ♄ 41'31			4738 Jun 14 12:12	30° ℞ ♅	
inferior conj	4737 Jul 07 15:04	17° ♄ 44'43	-2°-41'-54	desc. node	4738 Jun 15 05:13	29° ♅ 36'03	
minimum elong	4737 Jul 07 07:45	17° ♄ 55'04	2°39'28	inferior conj	4738 Jun 17 14:51	28° ♅ 08'57	0°-42'-56
min. Earth dist.	4737 Jul 08 08:11	17° ♄ 20'29	0.54825 AU	minimum elong	4738 Jun 17 12:54	28° ♅ 12'00	0°42'12
morning rise	4737 Jul 16 07:22	13° ♄ 44'34		min. Earth dist.	4738 Jun 19 21:03	26° ♅ 44'57	0.55492 AU
direct	4737 Jul 19 23:46	13° ♄ 15'22		morning rise	4738 Jun 26 03:36	23° ♅ 40'19	
morning max el	4737 Aug 01 23:04	19° ♄ 27'43	22°50'38	direct	4738 Jun 30 15:09	22° ♅ 55'54	
	4737 Aug 10 16:41	0° ♅		morning max el	4738 Jul 14 13:05	29° ♅ 51'43	24°34'25
asc. node	4737 Aug 18 17:23	13° ♅ 35'44			4738 Jul 14 16:34	0° ♄	
morning set	4737 Aug 24 11:31	25° ♅ 11'01			4738 Aug 04 00:45	0° ♅	
	4737 Aug 26 17:57	0° ♄		asc. node	4738 Aug 05 14:25	3° ♅ 06'35	
superior conj	4737 Aug 31 14:13	10° ♄ 23'40	1°39'33	morning set	4738 Aug 08 23:18	10° ♅ 04'46	
minimum elong	4737 Aug 31 12:52	10° ♄ 16'29	1°39'27	superior conj	4738 Aug 15 22:58	25° ♅ 13'17	1°29'35
max. Earth dist.	4737 Sep 03 13:23	16° ♄ 39'26	1.33895 AU	minimum elong	4738 Aug 15 20:53	25° ♅ 02'01	1°29'21
evening rise	4737 Sep 08 10:09	26° ♄ 32'03		max. Earth dist.	4738 Aug 17 16:34	28° ♅ 59'04	1.32829 AU
	4737 Sep 10 04:54	0° ♅			4738 Aug 18 03:52	0° ♄	
desc. node	4737 Sep 24 07:34	24° ♅ 24'27		evening rise	4738 Aug 23 06:28	10° ♄ 43'47	
	4737 Sep 28 01:26	0° ♄			4738 Sep 02 11:44	0° ♅	
evening max el	4737 Oct 12 22:09	18° ♄ 08'44	27°13'40	desc. node	4738 Sep 11 04:34	13° ♅ 53'51	
retrograde	4737 Oct 26 07:51	25° ♄ 26'34			4738 Sep 24 01:50	0° ♄	
evening set	4737 Nov 02 05:30	22° ♄ 47'05		evening max el	4738 Sep 25 09:01	1° ♄ 16'11	27°27'00
min. Earth dist.	4737 Nov 06 02:17	19° ♄ 08'01	0.64885 AU	retrograde	4738 Oct 09 01:31	8° ♄ 32'05	
inferior conj	4737 Nov 08 07:16	16° ♄ 42'17	-2°-7'-39	evening set	4738 Oct 16 05:27	5° ♄ 58'28	
minimum elong	4737 Nov 08 10:56	16° ♄ 32'12	2°06'12	min. Earth dist.	4738 Oct 19 21:24	2° ♄ 51'52	0.63235 AU
morning rise	4737 Nov 14 18:25	11° ♄ 09'46		inferior conj	4738 Oct 22 14:18	0° ♄ 11'30	-3°-10'-6
asc. node	4737 Nov 14 16:37	11° ♄ 11'49		minimum elong	4738 Oct 22 19:40	29° ♅ 58'12	3°08'17
direct	4737 Nov 17 08:08	10° ♄ 34'54			4738 Oct 22 18:57	30° ℞ ♅	
morning max el	4737 Nov 23 19:32	14° ♄ 01'30	18°00'58	morning rise	4738 Oct 29 12:33	24° ♅ 56'10	
	4737 Dec 05 02:41	0° ♄		direct	4738 Oct 31 21:21	24° ♅ 29'35	
morning set	4737 Dec 11 11:48	10° ♄ 35'05		asc. node	4738 Nov 01 13:37	24° ♅ 31'49	
desc. node	4737 Dec 21 06:50	26° ♄ 41'28		morning max el	4738 Nov 07 12:19	27° ♅ 55'01	17°49'52
	4737 Dec 23 08:05	0° ♄			4738 Nov 09 09:45	0° ♄	
superior conj	4737 Dec 25 12:28	3° ♄ 29'39	0°-29'-2	morning set	4738 Nov 23 18:50	23° ♄ 00'28	
minimum elong	4737 Dec 25 08:55	3° ♄ 15'26	0°28'32		4738 Nov 27 19:12	0° ♄	
max. Earth dist.	4737 Dec 29 11:29	9° ♄ 46'18	1.45023 AU	superior conj	4738 Dec 05 19:30	13° ♄ 35'23	0°16'25
evening rise	4738 Jan 10 20:26	29° ♄ 02'07		minimum elong	4738 Dec 05 21:10	13° ♄ 42'20	0°16'11
	4738 Jan 11 11:27	0° ≈		desc. node	4738 Dec 08 03:53	17° ♄ 27'43	
greatest brilliancy	4738 Jan 29 13:47	27° ≈ 08'09	-0.6m	max. Earth dist.	4738 Dec 12 05:14	24° ♄ 02'01	1.44036 AU
	4738 Jan 31 16:28	0° ✕			4738 Dec 15 23:21	0° ♄	
evening max el	4738 Feb 05 15:47	5° ✕ 55'15	19°52'43	evening rise	4738 Dec 21 06:22	8° ♄ 14'50	
asc. node	4738 Feb 10 15:52	9° ✕ 43'28					

	4739 Jan 04 18:17	0°♊			4739 Dec 30 15:01	0°♊	
greatest brilliancy	4739 Jan 14 07:27	13°♊13'23	-0.5m	evening max el	4740 Jan 02 10:46	3°♊03'51	22°12'42
evening max el	4739 Jan 19 15:58	19°♊28'50	20°57'42	retrograde	4740 Jan 11 23:20	8°♊43'51	
retrograde	4739 Jan 28 02:36	24°♊28'25		asc. node	4740 Jan 15 09:53	7°♊41'11	
asc. node	4739 Jan 28 12:52	24°♊27'25		evening set	4740 Jan 16 10:52	6°♊56'28	
evening set	4739 Feb 01 03:06	22°♊56'37		inferior conj	4740 Jan 21 20:20	0°♊33'27	2°01'55
inferior conj	4739 Feb 06 12:34	16°♊42'07	2°39'33	minimum elong	4740 Jan 21 18:03	0°♊41'23	2°01'08
minimum elong	4739 Feb 06 10:08	16°♊50'30	2°38'53	min. Earth dist.	4740 Jan 21 18:54	0°♊38'24	0.68059 AU
min. Earth dist.	4739 Feb 06 22:57	16°♊06'20	0.67753 AU		4740 Jan 22 05:58	30°♊♌	
morning rise	4739 Feb 11 16:48	10°♊26'48		morning rise	4740 Jan 27 01:05	24°♌20'38	
direct	4739 Feb 17 00:36	8°♊07'07		direct	4740 Jan 31 18:01	22°♌22'58	
morning max el	4739 Feb 27 18:54	14°♊31'55	23°48'23	morning max el	4740 Feb 10 05:57	27°♌58'25	22°19'45
desc. node	4739 Mar 06 03:04	21°♊45'13			4740 Feb 12 03:58	0°♊	
	4739 Mar 12 09:18	0°♋		greatest brilliancy	4740 Feb 14 19:32	3°♊04'17	-0.3m
	4739 Apr 01 01:40	0°♌		desc. node	4740 Feb 21 00:08	11°♊04'40	
morning set	4739 Apr 04 05:02	5°♌17'30			4740 Mar 05 01:17	0°♋	
max. Earth dist.	4739 Apr 08 02:31	12°♌04'06	1.38574 AU	morning set	4740 Mar 14 17:00	15°♋11'23	
				max. Earth dist.	4740 Mar 19 23:15	23°♋54'03	1.40759 AU
superior conj	4739 Apr 15 10:43	25°♌30'33	-1°-36'-3		4740 Mar 23 12:47	0°♌	
minimum elong	4739 Apr 15 15:34	25°♌53'27	1°35'28				
	4739 Apr 17 19:17	0°♍		superior conj	4740 Mar 27 18:14	7°♌27'12	-1°-57'-23
evening rise	4739 Apr 24 13:46	13°♍11'14		minimum elong	4740 Mar 27 22:37	7°♌46'51	1°57'05
asc. node	4739 Apr 26 12:10	16°♍56'41		evening rise	4740 Apr 07 00:49	26°♌24'59	
	4739 May 03 16:51	0°♎			4740 Apr 08 22:47	0°♍	
evening max el	4739 May 10 21:33	9°♎34'35	18°51'03	asc. node	4740 Apr 12 09:11	6°♍18'25	
retrograde	4739 May 19 05:36	13°♎39'49		evening max el	4740 Apr 23 04:02	22°♍11'25	18°19'04
evening set	4739 May 21 07:42	13°♎25'25		retrograde	4740 Apr 30 09:28	25°♍47'29	
inferior conj	4739 May 29 08:39	9°♎06'20	1°04'15	evening set	4740 May 02 18:01	25°♍25'24	
minimum elong	4739 May 29 11:01	9°♎02'03	1°03'26	inferior conj	4740 May 10 00:05	20°♍45'58	2°22'02
min. Earth dist.	4739 Jun 01 13:12	6°♎49'05	0.56985 AU	minimum elong	4740 May 10 03:39	20°♍38'26	2°21'04
desc. node	4739 Jun 02 02:14	6°♎26'53		min. Earth dist.	4740 May 13 10:33	17°♍53'04	0.59011 AU
morning rise	4739 Jun 06 09:50	4°♎01'23		morning rise	4740 May 17 09:03	15°♍10'15	
direct	4739 Jun 11 19:56	2°♎50'28		desc. node	4740 May 18 23:17	14°♍23'42	
morning max el	4739 Jun 26 04:05	10°♎18'20	26°08'12	direct	4740 May 23 14:57	13°♍25'03	
	4739 Jul 11 04:51	0°♏		morning max el	4740 Jun 07 00:22	21°♍12'53	27°16'34
asc. node	4739 Jul 23 11:26	22°♏54'25			4740 Jun 14 15:36	0°♎	
morning set	4739 Jul 24 10:22	24°♏54'51			4740 Jul 03 01:08	0°♏	
	4739 Jul 26 19:19	0°♐		morning set	4740 Jul 07 19:03	9°♏35'55	
				asc. node	4740 Jul 09 08:29	12°♏53'42	
superior conj	4739 Jul 31 10:08	10°♐07'52	1°14'37				
minimum elong	4739 Jul 31 07:49	9°♐55'06	1°14'16	superior conj	4740 Jul 14 21:57	25°♏01'29	0°55'19
max. Earth dist.	4739 Aug 01 01:33	11°♐32'50	1.32182 AU	minimum elong	4740 Jul 14 19:51	24°♏49'55	0°54'56
evening rise	4739 Aug 07 10:04	25°♐15'05		max. Earth dist.	4740 Jul 14 12:53	24°♏11'24	1.31953 AU
	4739 Aug 09 17:32	0°♑			4740 Jul 17 04:03	0°♐	
	4739 Aug 27 03:02	0°♑		evening rise	4740 Jul 21 18:29	9°♐58'23	
desc. node	4739 Aug 29 01:34	2°♑41'05			4740 Aug 01 01:09	0°♑	
evening max el	4739 Sep 07 15:24	13°♑45'57	27°08'16	desc. node	4740 Aug 14 22:34	20°♑28'59	
retrograde	4739 Sep 21 12:03	20°♑58'28		evening max el	4740 Aug 19 15:07	25°♑29'02	26°16'21
evening set	4739 Sep 28 14:27	18°♑42'39			4740 Aug 25 08:47	0°♒	
min. Earth dist.	4739 Oct 02 05:49	15°♑59'53	0.61306 AU	retrograde	4740 Sep 02 14:21	2°♑37'50	
inferior conj	4739 Oct 05 08:31	13°♑16'51	-4°-8'-20	evening set	4740 Sep 09 03:43	0°♑52'29	
minimum elong	4739 Oct 05 14:42	13°♑03'18	4°06'45		4740 Sep 10 16:27	30°♑♌	
morning rise	4739 Oct 12 18:09	8°♑22'09		min. Earth dist.	4740 Sep 13 04:15	28°♑18'13	0.59234 AU
direct	4739 Oct 15 00:57	8°♑00'43		inferior conj	4740 Sep 16 10:25	25°♑49'30	-4°-54'-20
asc. node	4739 Oct 19 10:40	9°♑23'48		minimum elong	4740 Sep 16 15:19	25°♑40'06	4°53'37
morning max el	4739 Oct 22 03:02	11°♑33'28	17°57'10	morning rise	4740 Sep 24 06:28	21°♑17'40	
	4739 Nov 03 09:30	0°♓		direct	4740 Sep 26 14:46	20°♑58'39	
morning set	4739 Nov 06 20:23	6°♓17'55		morning max el	4740 Oct 04 12:23	24°♑48'07	18°24'14
				asc. node	4740 Oct 05 07:44	25°♑36'46	
superior conj	4739 Nov 17 05:04	24°♓58'25	0°53'32		4740 Oct 08 20:58	0°♒	
minimum elong	4739 Nov 17 08:58	25°♓15'27	0°53'01	morning set	4740 Oct 20 11:04	20°♒12'27	
	4739 Nov 20 02:54	0°♓			4740 Oct 25 13:56	0°♓	
max. Earth dist.	4739 Nov 24 18:06	7°♓46'55	1.42459 AU				
desc. node	4739 Nov 25 00:54	8°♓14'58		superior conj	4740 Oct 29 13:50	7°♓28'42	1°19'55
evening rise	4739 Dec 01 00:07	17°♓52'45		minimum elong	4740 Oct 29 17:30	7°♓45'35	1°19'32
	4739 Dec 08 20:29	0°♔		max. Earth dist.	4740 Nov 06 01:34	20°♓50'00	1.40499 AU
greatest brilliancy	4739 Dec 28 17:05	27°♔43'55	-0.3m	evening rise	4740 Nov 10 13:34	28°♓25'30	

desc. node	4740 Nov 10 21:54	28° \mathbb{M} 59'52		evening rise	4741 Oct 23 02:16	10° \mathbb{M} 02'06	
	4740 Nov 11 12:33	0° \mathbb{X}		desc. node	4741 Oct 28 18:54	19° \mathbb{M} 38'55	
	4740 Dec 01 10:14	0° \mathbb{Z}			4741 Nov 04 07:58	0° \mathbb{X}	
evening max el	4740 Dec 15 01:38	16° \mathbb{Z} 42'00	23°32'32		4741 Nov 27 04:41	0° \mathbb{Z}	
retrograde	4740 Dec 25 17:12	22° \mathbb{Z} 59'34		evening max el	4741 Nov 27 14:38	0° \mathbb{Z} 24'43	24°50'41
evening set	4740 Dec 30 17:14	20° \mathbb{Z} 56'22		retrograde	4741 Dec 09 06:58	7° \mathbb{Z} 11'58	
asc. node	4741 Jan 01 06:57	19° \mathbb{Z} 25'37		evening set	4741 Dec 14 20:39	4° \mathbb{Z} 53'38	
min. Earth dist.	4741 Jan 04 15:44	15° \mathbb{Z} 11'28	0.67995 AU	asc. node	4741 Dec 19 04:01	0° \mathbb{Z} 06'00	
inferior conj	4741 Jan 05 04:10	14° \mathbb{Z} 28'54	1°16'57		4741 Dec 19 05:52	30° \mathbb{R} \mathbb{X}	
minimum elong	4741 Jan 05 02:29	14° \mathbb{Z} 34'38	1°16'18	min. Earth dist.	4741 Dec 19 11:02	29° \mathbb{X} 43'04	0.67580 AU
morning rise	4741 Jan 10 11:52	8° \mathbb{Z} 20'29		inferior conj	4741 Dec 20 10:17	28° \mathbb{X} 26'15	0°25'40
direct	4741 Jan 14 14:39	6° \mathbb{Z} 45'34		minimum elong	4741 Dec 20 09:40	28° \mathbb{X} 28'20	0°25'25
morning max el	4741 Jan 22 22:43	11° \mathbb{Z} 34'22	20°57'54	morning rise	4741 Dec 25 23:12	22° \mathbb{X} 24'30	
greatest brilliancy	4741 Jan 28 10:31	17° \mathbb{Z} 54'00	-0.5m	direct	4741 Dec 29 13:08	21° \mathbb{X} 10'45	
	4741 Feb 06 06:17	0° \approx		morning max el	4742 Jan 05 23:21	25° \mathbb{X} 22'10	19°48'18
desc. node	4741 Feb 06 21:10	0° \approx 53'47			4742 Jan 10 00:52	0° \mathbb{Z}	
morning set	4741 Feb 22 01:33	23° \approx 49'38		greatest brilliancy	4742 Jan 13 12:04	4° \mathbb{Z} 34'55	-0.6m
	4741 Feb 25 23:24	0° \mathbb{X}		desc. node	4742 Jan 24 18:12	21° \mathbb{Z} 04'41	
max. Earth dist.	4741 Mar 02 02:23	6° \mathbb{X} 38'36	1.42742 AU		4742 Jan 30 14:24	0° \approx	
				morning set	4742 Jan 31 21:41	2° \approx 00'26	
superior conj	4741 Mar 09 03:26	18° \mathbb{X} 21'00	-2°-8'-7	max. Earth dist.	4742 Feb 12 13:28	20° \approx 14'45	1.44263 AU
minimum elong	4741 Mar 09 04:32	18° \mathbb{X} 25'39	2°08'08				
	4741 Mar 15 21:01	0° \mathbb{Y}		superior conj	4742 Feb 17 11:03	28° \approx 06'24	-2°-2'-44
evening rise	4741 Mar 20 21:21	8° \mathbb{Y} 55'06		minimum elong	4742 Feb 17 06:07	27° \approx 46'25	2°02'32
asc. node	4741 Mar 30 06:14	25° \mathbb{Y} 14'45			4742 Feb 18 15:03	0° \mathbb{X}	
	4741 Apr 02 08:50	0° \mathbb{X}		evening rise	4742 Mar 02 22:56	20° \mathbb{X} 33'21	
evening max el	4741 Apr 06 15:20	5° \mathbb{X} 13'01	18°06'48		4742 Mar 08 12:16	0° \mathbb{Y}	
retrograde	4741 Apr 13 05:44	8° \mathbb{X} 35'55		asc. node	4742 Mar 17 03:17	13° \mathbb{Y} 37'39	
evening set	4741 Apr 15 20:41	8° \mathbb{X} 03'49		evening max el	4742 Mar 21 04:15	18° \mathbb{Y} 30'52	18°13'37
inferior conj	4741 Apr 22 11:05	3° \mathbb{X} 03'26	3°09'04	retrograde	4742 Mar 27 14:08	21° \mathbb{Y} 55'20	
minimum elong	4741 Apr 22 13:42	2° \mathbb{X} 57'02	3°08'37	evening set	4742 Mar 30 11:07	21° \mathbb{Y} 11'52	
min. Earth dist.	4741 Apr 25 14:55	29° \mathbb{Y} 59'44	0.61220 AU	inferior conj	4742 Apr 05 13:43	15° \mathbb{Y} 51'29	3°30'49
	4741 Apr 25 14:48	30° \mathbb{R} \mathbb{Y}		minimum elong	4742 Apr 05 14:41	15° \mathbb{Y} 48'50	3°30'45
morning rise	4741 Apr 29 03:34	27° \mathbb{Y} 07'28		min. Earth dist.	4742 Apr 08 04:05	13° \mathbb{Y} 00'32	0.63306 AU
direct	4741 May 05 21:26	24° \mathbb{Y} 49'52		morning rise	4742 Apr 11 16:12	9° \mathbb{Y} 43'51	
desc. node	4741 May 05 20:21	24° \mathbb{Y} 49'52		direct	4742 Apr 18 12:48	7° \mathbb{Y} 04'04	
	4741 May 17 02:01	0° \mathbb{X}		desc. node	4742 Apr 22 17:24	7° \mathbb{Y} 56'19	
morning max el	4741 May 20 02:51	2° \mathbb{X} 47'28	27°49'50	morning max el	4742 May 02 10:19	15° \mathbb{Y} 02'53	27°45'28
	4741 Jun 09 02:40	0° \mathbb{II}			4742 May 14 14:34	0° \mathbb{X}	
morning set	4741 Jun 21 23:29	24° \mathbb{II} 01'29			4742 Jun 01 17:46	0° \mathbb{II}	
	4741 Jun 24 20:03	0° \mathbb{Z}		morning set	4742 Jun 05 21:25	8° \mathbb{II} 04'52	
asc. node	4741 Jun 26 05:32	2° \mathbb{Z} 59'09		max. Earth dist.	4742 Jun 11 03:33	18° \mathbb{II} 55'40	1.32771 AU
max. Earth dist.	4741 Jun 27 22:49	6° \mathbb{Z} 42'51	1.32144 AU	asc. node	4742 Jun 13 02:34	23° \mathbb{II} 06'43	
superior conj	4741 Jun 29 08:38	9° \mathbb{Z} 47'45	0°32'14	superior conj	4742 Jun 13 16:23	24° \mathbb{II} 21'08	0°06'01
minimum elong	4741 Jun 29 07:14	9° \mathbb{Z} 40'02	0°31'56	minimum elong	4742 Jun 13 16:06	24° \mathbb{II} 19'33	0°05'56
evening rise	4741 Jul 06 05:34	24° \mathbb{Z} 46'27		behind sun begin	4742 Jun 13 11:10	23° \mathbb{II} 52'56	
	4741 Jul 08 17:24	0° \mathbb{Q}		behind sun end	4742 Jun 13 21:02	24° \mathbb{II} 46'11	
	4741 Jul 26 13:23	0° \mathbb{M}			4742 Jun 16 06:59	0° \mathbb{Z}	
evening max el	4741 Aug 01 07:37	6° \mathbb{M} 25'15	24°56'19	evening rise	4742 Jun 20 17:24	9° \mathbb{Z} 33'09	
desc. node	4741 Aug 01 19:35	6° \mathbb{M} 53'28			4742 Jul 01 07:06	0° \mathbb{Q}	
retrograde	4741 Aug 15 05:55	13° \mathbb{M} 27'35		evening max el	4742 Jul 13 20:17	16° \mathbb{Q} 50'36	23°20'30
evening set	4741 Aug 20 16:55	12° \mathbb{M} 20'02		desc. node	4742 Jul 19 16:36	21° \mathbb{Q} 22'56	
min. Earth dist.	4741 Aug 25 19:07	9° \mathbb{M} 35'39	0.57256 AU	retrograde	4742 Jul 27 08:42	23° \mathbb{Q} 36'34	
inferior conj	4741 Aug 28 16:55	7° \mathbb{M} 40'17	-5°-15'-16	evening set	4742 Jul 31 07:58	23° \mathbb{Q} 02'08	
minimum elong	4741 Aug 28 17:21	7° \mathbb{M} 39'32	5°15'16	min. Earth dist.	4742 Aug 07 05:46	19° \mathbb{Q} 51'22	0.55696 AU
morning rise	4741 Sep 05 21:16	3° \mathbb{M} 30'55		inferior conj	4742 Aug 09 03:24	18° \mathbb{Q} 44'18	-4°-54'-44
direct	4741 Sep 08 10:49	3° \mathbb{M} 12'03		minimum elong	4742 Aug 08 21:32	18° \mathbb{Q} 52'58	4°53'55
morning max el	4741 Sep 17 12:57	7° \mathbb{M} 28'49	19°12'39	morning rise	4742 Aug 17 14:04	14° \mathbb{Q} 51'38	
asc. node	4741 Sep 22 04:48	12° \mathbb{M} 55'31		direct	4742 Aug 20 11:48	14° \mathbb{Q} 31'09	
	4741 Oct 02 03:25	0° \mathbb{Q}		morning max el	4742 Aug 31 02:03	19° \mathbb{Q} 26'30	20°22'59
morning set	4741 Oct 04 10:53	4° \mathbb{Q} 33'11			4742 Sep 08 09:38	0° \mathbb{M}	
				asc. node	4742 Sep 09 01:50	1° \mathbb{M} 05'11	
superior conj	4741 Oct 12 16:26	20° \mathbb{Q} 51'23	1°36'00	morning set	4742 Sep 18 16:44	19° \mathbb{M} 10'52	
minimum elong	4741 Oct 12 18:43	21° \mathbb{Q} 02'27	1°35'51		4742 Sep 23 22:45	0° \mathbb{Q}	
	4741 Oct 17 12:11	0° \mathbb{M}					
max. Earth dist.	4741 Oct 19 06:26	3° \mathbb{M} 13'44	1.38396 AU	superior conj	4742 Sep 26 07:53	4° \mathbb{Q} 51'36	1°43'08

minimum elong	4742 Sep 26 08:34	4°♄55'00	1°43'07	superior conj	4743 Sep 10 08:20	19°♄18'23	1°42'43
max. Earth dist.	4742 Oct 01 13:14	15°♄11'17	1.36395 AU	minimum elong	4743 Sep 10 07:37	19°♄14'35	1°42'42
evening rise	4742 Oct 05 11:46	22°♄35'36		max. Earth dist.	4743 Sep 14 02:40	27°♄05'12	1.34690 AU
	4742 Oct 09 15:09	0°♄			4743 Sep 15 13:22	0°♄	
desc. node	4742 Oct 15 15:54	10°♄07'05		evening rise	4743 Sep 18 13:58	5°♄55'59	
	4742 Oct 29 02:40	0°♄			4743 Oct 02 08:10	0°♄	
evening max el	4742 Nov 10 03:12	14°♄08'14	26°00'03	desc. node	4743 Oct 02 12:56	0°♄18'46	
retrograde	4742 Nov 22 15:51	21°♄15'11		evening max el	4743 Oct 23 15:48	27°♄45'47	26°53'11
evening set	4742 Nov 28 19:21	18°♄44'06			4743 Oct 26 03:21	0°♄	
min. Earth dist.	4742 Dec 03 02:22	14°♄09'05	0.66812 AU	retrograde	4743 Nov 05 19:22	5°♄02'37	
inferior conj	4742 Dec 04 12:49	12°♄21'33	0°-30'-57	evening set	4743 Nov 12 11:19	2°♄23'44	
minimum elong	4742 Dec 04 13:39	12°♄18'59	0°30'36		4743 Nov 15 00:49	30°♄♄	
asc. node	4742 Dec 06 01:04	10°♄30'34		min. Earth dist.	4743 Nov 16 11:30	28°♄24'44	0.65689 AU
morning rise	4742 Dec 10 09:00	6°♄29'04		inferior conj	4743 Nov 18 09:43	26°♄10'57	-1°-31'-37
direct	4742 Dec 13 11:49	5°♄33'29		minimum elong	4743 Nov 18 12:18	26°♄03'27	1°30'33
morning max el	4742 Dec 20 07:31	9°♄19'10	18°53'42	asc. node	4743 Nov 22 22:05	21°♄35'45	
	4743 Jan 04 06:10	0°♄		morning rise	4743 Nov 24 14:59	20°♄30'31	
morning set	4743 Jan 11 06:34	10°♄56'58		direct	4743 Nov 27 08:46	19°♄49'18	
desc. node	4743 Jan 11 15:13	11°♄30'48		morning max el	4743 Dec 03 21:16	23°♄20'11	18°15'22
	4743 Jan 23 10:41	0°♄			4743 Dec 09 06:39	0°♄	
max. Earth dist.	4743 Jan 26 06:19	4°♄25'22	1.45137 AU	morning set	4743 Dec 22 19:32	21°♄19'22	
					4743 Dec 28 04:23	0°♄	
superior conj	4743 Jan 27 20:35	6°♄55'49	-1°-37'-40	desc. node	4743 Dec 29 12:13	2°♄07'39	
minimum elong	4743 Jan 27 11:19	6°♄19'21	1°36'49				
	4743 Feb 11 07:35	0°♄		superior conj	4744 Jan 06 23:39	15°♄34'47	0°-56'-16
evening rise	4743 Feb 12 01:56	1°♄14'17		minimum elong	4744 Jan 06 16:43	15°♄07'29	0°55'23
	4743 Mar 02 21:19	0°♄		max. Earth dist.	4744 Jan 09 01:34	18°♄50'54	1.45274 AU
asc. node	4743 Mar 04 00:19	1°♄16'41			4744 Jan 16 04:39	0°♄	
evening max el	4743 Mar 04 15:55	1°♄57'34	18°38'51	evening rise	4744 Jan 23 06:16	11°♄02'07	
retrograde	4743 Mar 11 06:23	5°♄36'35			4744 Feb 04 11:53	0°♄	
evening set	4743 Mar 14 09:35	4°♄40'53		greatest brilliancy	4744 Feb 07 06:24	4°♄08'19	-0.7m
	4743 Mar 19 08:46	30°♄♄		evening max el	4744 Feb 16 00:08	15°♄28'32	19°21'15
inferior conj	4743 Mar 20 03:57	29°♄02'18	3°33'17	asc. node	4744 Feb 18 21:21	17°♄59'09	
minimum elong	4743 Mar 20 03:22	29°♄04'03	3°33'17	retrograde	4744 Feb 23 02:56	19°♄32'49	
min. Earth dist.	4743 Mar 22 02:46	26°♄40'46	0.65072 AU	evening set	4744 Feb 26 13:14	18°♄24'02	
morning rise	4743 Mar 25 19:52	22°♄48'38		inferior conj	4744 Mar 03 02:21	12°♄29'30	3°21'08
direct	4743 Apr 01 11:30	19°♄59'59		minimum elong	4744 Mar 03 00:39	12°♄35'01	3°20'54
desc. node	4743 Apr 09 14:26	23°♄14'43		min. Earth dist.	4744 Mar 04 10:00	10°♄46'43	0.66442 AU
morning max el	4743 Apr 14 20:16	27°♄50'31	27°06'59	morning rise	4744 Mar 08 11:13	6°♄13'19	
	4743 Apr 16 21:32	0°♄		direct	4744 Mar 14 16:40	3°♄28'28	
	4743 May 08 07:58	0°♄		desc. node	4744 Mar 26 11:27	10°♄10'59	
morning set	4743 May 20 09:57	21°♄37'45		morning max el	4744 Mar 27 06:08	10°♄57'22	26°01'41
	4743 May 24 15:24	0°♄			4744 Apr 11 09:51	0°♄	
max. Earth dist.	4743 May 24 23:25	0°♄40'44	1.33848 AU		4744 Apr 29 22:25	0°♄	
				morning set	4744 May 02 09:07	4°♄27'47	
superior conj	4743 May 28 19:09	8°♄35'30	0°-22'-30	max. Earth dist.	4744 May 06 07:41	11°♄54'51	1.35388 AU
minimum elong	4743 May 28 20:20	8°♄41'43	0°22'17				
asc. node	4743 May 30 23:36	13°♄12'35		superior conj	4744 May 11 14:24	22°♄22'55	0°-52'-6
evening rise	4743 Jun 05 04:07	24°♄12'30		minimum elong	4744 May 11 17:15	22°♄37'23	0°51'36
	4743 Jun 07 23:30	0°♄			4744 May 15 07:32	0°♄	
evening max el	4743 Jun 25 12:58	27°♄17'54	21°45'06	asc. node	4744 May 16 20:37	3°♄11'53	
	4743 Jun 28 16:18	0°♄		evening rise	4744 May 19 11:36	8°♄36'58	
desc. node	4743 Jul 06 13:38	3°♄23'54			4744 May 31 02:14	0°♄	
retrograde	4743 Jul 08 00:52	3°♄28'57		evening max el	4744 Jun 06 16:27	8°♄15'41	20°22'31
evening set	4743 Jul 10 16:04	3°♄13'18		retrograde	4744 Jun 17 14:08	13°♄35'37	
	4743 Jul 18 12:44	30°♄♄		evening set	4744 Jun 19 13:43	13°♄25'47	
inferior conj	4743 Jul 19 23:29	29°♄11'38	-3°-42'-53	desc. node	4744 Jun 22 10:40	12°♄39'25	
minimum elong	4743 Jul 19 14:46	29°♄23'50	3°40'28	inferior conj	4744 Jun 28 17:43	9°♄28'01	-1°-51'-56
min. Earth dist.	4743 Jul 19 15:57	29°♄22'11	0.54871 AU	minimum elong	4744 Jun 28 12:28	9°♄35'41	1°50'02
morning rise	4743 Jul 28 14:46	25°♄20'28		min. Earth dist.	4744 Jun 30 03:52	8°♄38'07	0.54989 AU
direct	4743 Jul 31 22:50	24°♄56'09		morning rise	4744 Jul 07 09:25	5°♄17'15	
	4743 Aug 12 09:54	0°♄		direct	4744 Jul 11 08:56	4°♄43'01	
morning max el	4743 Aug 13 03:25	0°♄39'29	21°52'51	morning max el	4744 Jul 24 20:02	11°♄15'38	23°35'01
asc. node	4743 Aug 26 22:52	19°♄53'58			4744 Aug 07 19:57	0°♄	
	4743 Sep 01 03:57	0°♄		asc. node	4744 Aug 12 19:52	9°♄11'24	
morning set	4743 Sep 03 02:19	3°♄59'14		morning set	4744 Aug 17 13:44	18°♄51'59	
					4744 Aug 22 18:01	0°♄	

superior conj	4744 Aug 24 14:44	4° \cap 01'40	1°35'58		4745 Jul 13 17:35	0° \ominus	
minimum elong	4744 Aug 24 13:01	3° \cap 52'27	1°35'50	asc. node	4745 Jul 30 16:54	28° \ominus 49'58	
max. Earth dist.	4744 Aug 27 00:47	9° \cap 12'12	1.33384 AU		4745 Jul 31 06:31	0° Ω	
evening rise	4744 Sep 01 04:42	19° \cap 51'37		morning set	4745 Aug 02 01:23	3° Ω 44'21	
	4744 Sep 06 11:01	0° $\underline{\Omega}$					
desc. node	4744 Sep 18 09:57	20° $\underline{\Omega}$ 06'09		superior conj	4745 Aug 09 00:45	18° Ω 54'03	1°23'47
	4744 Sep 25 09:59	0° \cap		minimum elong	4745 Aug 08 22:31	18° Ω 41'49	1°23'31
evening max el	4744 Oct 05 03:43	11° \cap 07'13	27°23'00	max. Earth dist.	4745 Aug 10 06:38	21° Ω 37'30	1.32504 AU
retrograde	4744 Oct 18 17:03	18° \cap 25'41			4745 Aug 14 04:03	0° \cap	
evening set	4744 Oct 25 18:03	15° \cap 47'07		evening rise	4745 Aug 16 04:28	4° \cap 12'41	
min. Earth dist.	4744 Oct 29 12:21	12° \cap 22'36	0.64215 AU		4745 Aug 30 04:01	0° $\underline{\Omega}$	
inferior conj	4744 Oct 31 22:35	9° \cap 49'09	-2°-34'-21	desc. node	4745 Sep 05 06:58	9° $\underline{\Omega}$ 19'08	
minimum elong	4744 Nov 01 03:02	9° \cap 37'26	2°32'42	evening max el	4745 Sep 17 13:06	24° $\underline{\Omega}$ 00'15	27°23'14
morning rise	4744 Nov 07 14:23	4° \cap 23'43			4745 Sep 25 22:46	0° \cap	
asc. node	4744 Nov 08 19:06	4° \cap 01'11		retrograde	4745 Oct 01 07:58	1° \cap 14'57	
direct	4744 Nov 10 01:32	3° \cap 52'58			4745 Oct 06 10:44	30° \cap $\underline{\Omega}$	
morning max el	4744 Nov 16 13:46	7° \cap 18'19	17°54'06	evening set	4745 Oct 08 12:09	28° $\underline{\Omega}$ 47'40	
	4744 Dec 01 17:23	0° \propto		min. Earth dist.	4745 Oct 12 03:11	25° $\underline{\Omega}$ 52'18	0.62433 AU
morning set	4744 Dec 03 12:54	3° \propto 05'02		inferior conj	4745 Oct 15 00:35	23° $\underline{\Omega}$ 09'06	-3°-35'-47
desc. node	4744 Dec 15 09:15	22° \propto 51'28		minimum elong	4745 Oct 15 06:28	22° $\underline{\Omega}$ 55'13	3°33'59
				morning rise	4745 Oct 22 03:41	18° $\underline{\Omega}$ 01'57	
superior conj	4744 Dec 16 16:40	24° \propto 58'57	0°-9'-6	direct	4745 Oct 24 11:08	17° $\underline{\Omega}$ 37'59	
minimum elong	4744 Dec 16 15:36	24° \propto 54'40	0°08'57	asc. node	4745 Oct 26 16:09	18° $\underline{\Omega}$ 00'33	
behind sun begin	4744 Dec 16 07:06	24° \propto 20'14		morning max el	4745 Oct 31 06:01	21° $\underline{\Omega}$ 05'54	17°50'38
behind sun end	4744 Dec 17 00:06	25° \propto 29'03			4745 Nov 06 23:20	0° \cap	
	4744 Dec 19 19:33	0° \propto		morning set	4745 Nov 16 04:34	15° \cap 54'34	
max. Earth dist.	4744 Dec 21 20:05	3° \propto 13'03	1.44676 AU		4745 Nov 24 04:14	0° \propto	
evening rise	4745 Jan 01 18:53	20° \propto 17'15					
	4745 Jan 08 03:35	0° \approx		superior conj	4745 Nov 27 10:58	5° \propto 37'10	0°33'25
greatest brilliancy	4745 Jan 22 22:09	21° \approx 31'39	-0.5m	minimum elong	4745 Nov 27 13:58	5° \propto 49'54	0°33'00
evening max el	4745 Jan 29 03:29	29° \approx 01'51	20°18'54	desc. node	4745 Dec 02 06:16	13° \propto 38'15	
	4745 Jan 30 03:05	0° \propto		max. Earth dist.	4745 Dec 04 11:42	17° \propto 16'20	1.43422 AU
asc. node	4745 Feb 04 18:22	3° \propto 30'54		evening rise	4745 Dec 12 06:11	29° \propto 35'52	
retrograde	4745 Feb 06 01:06	3° \propto 39'44			4745 Dec 12 12:24	0° \propto	
evening set	4745 Feb 09 19:53	2° \propto 16'47			4746 Jan 01 20:24	0° \approx	
	4745 Feb 12 05:48	30° \cap \approx		greatest brilliancy	4746 Jan 07 03:27	6° \approx 58'30	-0.4m
inferior conj	4745 Feb 15 06:08	26° \approx 08'54	2°57'31	evening max el	4746 Jan 12 01:24	12° \approx 36'22	21°28'47
minimum elong	4745 Feb 15 03:49	26° \approx 16'44	2°57'00	retrograde	4746 Jan 20 22:44	17° \approx 52'47	
min. Earth dist.	4745 Feb 15 23:57	25° \approx 08'23	0.67392 AU	asc. node	4746 Jan 22 15:25	17° \approx 37'19	
morning rise	4745 Feb 20 11:12	19° \approx 52'40		evening set	4746 Jan 25 03:43	16° \approx 14'35	
direct	4745 Feb 26 03:25	17° \approx 21'34		inferior conj	4746 Jan 30 13:00	9° \approx 56'19	2°24'33
morning max el	4745 Mar 09 14:47	24° \approx 13'23	24°39'20	minimum elong	4746 Jan 30 10:35	10° \approx 04'43	2°23'49
desc. node	4745 Mar 13 08:29	28° \approx 17'51		min. Earth dist.	4746 Jan 30 18:19	9° \approx 37'56	0.67931 AU
	4745 Mar 14 19:00	0° \propto		morning rise	4746 Feb 04 17:08	3° \approx 41'52	
	4745 Apr 04 20:09	0° \propto		direct	4746 Feb 09 18:44	1° \approx 31'00	
morning set	4745 Apr 14 13:52	16° \propto 21'11		morning max el	4746 Feb 19 23:50	7° \approx 34'44	23°10'17
max. Earth dist.	4745 Apr 18 05:54	22° \propto 55'53	1.37336 AU	greatest brilliancy	4746 Feb 25 00:26	13° \approx 12'21	-0.3m
	4745 Apr 22 01:06	0° \propto		desc. node	4746 Feb 28 05:31	17° \approx 14'45	
					4746 Mar 09 10:48	0° \propto	
superior conj	4745 Apr 24 23:05	5° \propto 35'43	-1°-20'-54	morning set	4746 Mar 26 18:07	27° \propto 01'21	
minimum elong	4745 Apr 25 03:25	5° \propto 56'47	1°20'15		4746 Mar 28 12:32	0° \propto	
evening rise	4745 May 03 13:32	22° \propto 40'14		max. Earth dist.	4746 Mar 31 01:06	4° \propto 19'37	1.39516 AU
asc. node	4745 May 03 17:38	23° \propto 00'42					
	4745 May 07 07:09	0° \cap		superior conj	4746 Apr 07 17:10	18° \propto 03'32	-1°-46'-4
evening max el	4745 May 20 08:25	19° \cap 55'36	19°18'36	minimum elong	4746 Apr 07 22:05	18° \propto 26'15	1°45'34
retrograde	4745 May 29 12:44	24° \cap 24'14			4746 Apr 14 01:06	0° \propto	
evening set	4745 May 31 11:59	24° \cap 12'46		evening rise	4746 Apr 17 07:00	6° \propto 14'19	
inferior conj	4745 Jun 09 00:15	20° \cap 04'26	0°05'29	asc. node	4746 Apr 20 14:41	12° \propto 33'52	
minimum elong	4745 Jun 09 00:29	20° \cap 04'03	0°05'24		4746 May 01 09:25	0° \cap	
transit middle	4745 Jun 09 00:29	20° \cap 04'03	0°05'24	evening max el	4746 May 03 10:35	2° \cap 14'03	18°34'57
transit begin	4745 Jun 08 20:51	20° \cap 10'02		retrograde	4746 May 11 05:35	6° \cap 04'25	
transit end	4745 Jun 09 04:06	19° \cap 58'03		evening set	4746 May 13 10:33	5° \cap 46'58	
desc. node	4745 Jun 09 07:41	19° \cap 52'08		inferior conj	4746 May 21 03:12	1° \cap 19'24	1°41'11
min. Earth dist.	4745 Jun 11 18:16	18° \cap 16'00	0.56046 AU	minimum elong	4746 May 21 06:26	1° \cap 13'09	1°40'09
morning rise	4745 Jun 17 08:54	15° \cap 20'10			4746 May 22 20:08	30° \cap \propto	
direct	4745 Jun 22 06:08	14° \cap 25'29		min. Earth dist.	4746 May 24 12:11	28° \propto 44'23	0.57813 AU
morning max el	4745 Jul 06 09:41	21° \cap 37'05	25°16'22	desc. node	4746 May 27 04:42	26° \propto 56'08	

morning rise	4746 May 28 21:50	26°♄00'36		min. Earth dist.	4747 May 06 12:01	10°♄15'46	0.59950 AU
direct	4746 Jun 03 17:20	24°♄35'28		morning rise	4747 May 10 05:11	7°♄30'31	
	4746 Jun 15 16:09	0°♄		desc. node	4747 May 14 01:46	5°♄50'46	
morning max el	4746 Jun 18 02:22	2°♄12'24	26°41'03	direct	4747 May 16 17:10	5°♄31'07	
	4746 Jul 07 23:55	0°♄		morning max el	4747 May 31 01:25	13°♄23'28	27°35'25
morning set	4746 Jul 17 11:41	18°♄31'30			4747 Jun 13 06:46	0°♄	
asc. node	4746 Jul 17 13:58	18°♄43'30			4747 Jun 30 06:29	0°♄	
	4746 Jul 22 18:55	0°♄		morning set	4747 Jul 01 18:50	3°♄07'00	
				asc. node	4747 Jul 04 11:00	8°♄45'59	
superior conj	4746 Jul 24 12:27	3°♄49'13	1°06'56	max. Earth dist.	4747 Jul 08 04:40	16°♄53'59	1.31987 AU
minimum elong	4746 Jul 24 10:10	3°♄36'37	1°06'33				
max. Earth dist.	4746 Jul 24 17:14	4°♄15'41	1.32039 AU	superior conj	4747 Jul 08 23:59	18°♄40'23	0°45'58
evening rise	4746 Jul 31 10:27	18°♄50'38		minimum elong	4747 Jul 08 22:08	18°♄30'09	0°45'35
	4746 Aug 05 23:04	0°♄			4747 Jul 14 03:50	0°♄	
desc. node	4746 Aug 23 03:59	27°♄43'54		evening rise	4747 Jul 15 20:16	3°♄36'58	
	4746 Aug 24 23:35	0°♄			4747 Jul 29 21:31	0°♄	
evening max el	4746 Aug 30 17:13	6°♄12'23	26°50'11	desc. node	4747 Aug 10 01:01	14°♄59'55	
retrograde	4746 Sep 13 14:58	13°♄22'24		evening max el	4747 Aug 12 13:40	17°♄34'28	25°45'05
evening set	4746 Sep 20 13:24	11°♄18'28		retrograde	4747 Aug 26 12:40	24°♄40'53	
min. Earth dist.	4746 Sep 24 07:18	8°♄41'22	0.60430 AU	evening set	4747 Sep 01 16:47	23°♄11'00	
inferior conj	4746 Sep 27 12:22	6°♄02'33	-4°-30'-2	min. Earth dist.	4747 Sep 06 01:47	20°♄35'04	0.58368 AU
minimum elong	4746 Sep 27 18:21	5°♄50'09	4°28'45	inferior conj	4747 Sep 09 06:18	18°♄18'16	-5°-7'-12
morning rise	4746 Oct 05 02:35	1°♄17'02		minimum elong	4747 Sep 09 09:44	18°♄12'07	5°06'54
direct	4746 Oct 07 09:41	0°♄56'49		morning rise	4747 Sep 17 06:13	13°♄56'30	
asc. node	4746 Oct 13 13:12	3°♄29'02		direct	4747 Sep 19 16:30	13°♄37'42	
morning max el	4746 Oct 14 18:52	4°♄35'29	18°06'10	morning max el	4747 Sep 28 00:53	17°♄36'53	18°42'12
morning set	4746 Oct 30 12:21	29°♄30'09		asc. node	4747 Sep 30 10:16	20°♄11'45	
	4746 Oct 30 18:44	0°♄			4747 Oct 07 00:21	0°♄	
				morning set	4747 Oct 14 07:21	13°♄36'58	
superior conj	4746 Nov 09 07:04	17°♄30'48	1°06'03		4747 Oct 22 18:44	0°♄	
minimum elong	4746 Nov 09 11:05	17°♄48'45	1°05'34				
	4746 Nov 16 11:42	0°♄		superior conj	4747 Oct 23 00:07	0°♄25'21	1°27'56
max. Earth dist.	4746 Nov 16 22:49	0°♄46'46	1.41661 AU	minimum elong	4747 Oct 23 03:16	0°♄40'12	1°27'38
desc. node	4746 Nov 19 03:17	4°♄25'02		max. Earth dist.	4747 Oct 30 04:58	13°♄33'00	1.39606 AU
evening rise	4746 Nov 22 07:29	9°♄35'22		evening rise	4747 Nov 03 06:48	20°♄34'42	
	4746 Dec 05 14:40	0°♄		desc. node	4747 Nov 06 00:18	25°♄07'44	
greatest brilliancy	4746 Dec 20 15:58	20°♄29'39	-0.3m		4747 Nov 09 00:23	0°♄	
evening max el	4746 Dec 25 18:27	26°♄12'55	22°46'27		4747 Nov 29 18:20	0°♄	
	4746 Dec 30 03:17	0°♄		evening max el	4747 Dec 08 08:08	9°♄52'14	24°06'21
retrograde	4747 Jan 04 18:17	2°♄08'53		retrograde	4747 Dec 19 10:32	16°♄23'41	
evening set	4747 Jan 09 11:04	0°♄14'37		evening set	4747 Dec 24 16:24	14°♄13'34	
asc. node	4747 Jan 09 12:27	0°♄11'45		asc. node	4747 Dec 27 09:31	11°♄24'05	
	4747 Jan 09 17:58	30°♄		min. Earth dist.	4747 Dec 29 11:12	8°♄43'22	0.67860 AU
inferior conj	4747 Jan 14 21:01	23°♄49'24	1°43'39	inferior conj	4747 Dec 30 04:19	7°♄45'29	0°55'53
minimum elong	4747 Jan 14 18:56	23°♄56'35	1°42'54	minimum elong	4747 Dec 30 03:02	7°♄49'49	0°55'23
min. Earth dist.	4747 Jan 14 14:49	24°♄10'49	0.68081 AU	morning rise	4748 Jan 04 14:00	1°♄39'52	
morning rise	4747 Jan 20 02:45	17°♄38'28		direct	4748 Jan 08 11:03	0°♄14'27	
direct	4747 Jan 24 13:38	15°♄50'30		morning max el	4748 Jan 16 09:03	4°♄45'55	20°26'39
morning max el	4747 Feb 02 12:56	21°♄04'39	21°43'46	greatest brilliancy	4748 Jan 22 14:01	12°♄04'23	-0.5m
greatest brilliancy	4747 Feb 07 07:46	26°♄28'01	-0.4m	desc. node	4748 Feb 01 23:35	26°♄46'38	
	4747 Feb 10 02:33	0°♄			4748 Feb 04 03:33	0°♄	
desc. node	4747 Feb 15 02:33	6°♄47'43		morning set	4748 Feb 13 18:15	14°♄38'33	
	4747 Mar 02 17:15	0°♄			4748 Feb 23 11:45	0°♄	
morning set	4747 Mar 06 17:43	6°♄20'07		max. Earth dist.	4748 Feb 23 07:27	29°♄42'43	1.43451 AU
max. Earth dist.	4747 Mar 13 00:41	16°♄34'15	1.41650 AU				
				superior conj	4748 Feb 29 14:14	9°♄59'01	-2°-8'-7
superior conj	4747 Mar 20 15:48	29°♄34'43	-2°-3'-33	minimum elong	4748 Feb 29 12:58	9°♄53'45	2°08'07
minimum elong	4747 Mar 20 19:12	29°♄49'35	2°03'25		4748 Mar 12 07:08	0°♄	
	4747 Mar 20 21:35	0°♄		evening rise	4748 Mar 13 01:27	1°♄20'09	
evening rise	4747 Mar 31 12:24	19°♄10'45		asc. node	4748 Mar 24 08:47	20°♄29'11	
	4747 Apr 06 11:31	0°♄		evening max el	4748 Mar 30 07:50	28°♄11'46	18°07'24
asc. node	4747 Apr 07 11:44	1°♄45'42			4748 Apr 01 10:39	0°♄	
evening max el	4747 Apr 16 19:31	15°♄02'22	18°11'24	retrograde	4748 Apr 05 19:18	1°♄34'06	
retrograde	4747 Apr 23 17:08	18°♄31'03		evening set	4748 Apr 08 12:43	0°♄57'25	
evening set	4747 Apr 26 04:30	18°♄04'51			4748 Apr 10 05:29	30°♄	
inferior conj	4747 May 03 03:23	13°♄16'03	2°45'28	inferior conj	4748 Apr 14 21:37	25°♄48'16	3°20'59
minimum elong	4747 May 03 06:43	13°♄08'32	2°44'42	minimum elong	4748 Apr 14 23:34	25°♄43'15	3°20'45

min. Earth dist.	4748 Apr 17 20:11	22° Υ 47'20	0.62126 AU	asc. node	4749 Mar 11 05:50	8° Υ 34'38	
morning rise	4748 Apr 21 07:43	19° Υ 46'07		evening max el	4749 Mar 13 20:29	11° Υ 33'41	18°22'15
direct	4748 Apr 28 03:36	17° Υ 17'39		retrograde	4749 Mar 20 07:26	15° Υ 03'02	
desc. node	4748 Apr 29 22:48	17° Υ 27'14		evening set	4749 Mar 23 06:54	14° Υ 14'37	
morning max el	4748 May 12 06:35	25° Υ 17'31	27°52'35	inferior conj	4749 Mar 29 05:38	8° Υ 46'33	3°33'54
	4748 May 16 14:17	0° X		minimum elong	4749 Mar 29 05:54	8° Υ 45'47	3°33'54
	4748 Jun 05 17:36	0° Π		min. Earth dist.	4749 Mar 31 13:35	6° Υ 06'09	0.64095 AU
morning set	4748 Jun 14 20:51	17° Π 24'48		morning rise	4749 Apr 04 03:09	2° Υ 35'41	
asc. node	4748 Jun 20 08:03	28° Π 53'14			4749 Apr 09 05:36	30° R X	
max. Earth dist.	4748 Jun 20 13:00	29° Π 19'55	1.32356 AU	direct	4749 Apr 10 22:28	29° X 50'05	
	4748 Jun 20 20:25	0° S			4749 Apr 12 16:32	0° Υ	
				desc. node	4749 Apr 16 19:49	1° Υ 33'21	
superior conj	4748 Jun 22 09:40	3° S 22'15	0°21'28	morning max el	4749 Apr 24 15:24	7° Υ 47'42	27°32'54
minimum elong	4748 Jun 22 08:41	3° S 16'53	0°21'14		4749 May 11 18:26	0° X	
evening rise	4748 Jun 29 07:54	18° S 25'26			4749 May 28 23:38	0° Π	
	4748 Jul 04 23:54	0° Ω		morning set	4749 May 29 15:10	1° Π 16'17	
evening max el	4748 Jul 24 03:34	28° Ω 13'47	24°16'26	max. Earth dist.	4749 Jun 03 14:07	11° Π 20'22	1.33168 AU
	4748 Jul 26 02:33	0° P					
desc. node	4748 Jul 26 22:02	0° P 39'52		superior conj	4749 Jun 06 15:34	17° Π 48'13	0°-5'-52
retrograde	4748 Aug 06 23:22	5° P 11'49		minimum elong	4749 Jun 06 15:51	17° Π 49'47	0°05'50
evening set	4748 Aug 11 19:43	4° P 19'31		behind sun begin	4749 Jun 06 10:48	17° Π 22'47	
min. Earth dist.	4748 Aug 17 14:21	1° P 25'32	0.56524 AU	behind sun end	4749 Jun 06 20:55	18° Π 16'50	
	4748 Aug 19 21:01	30° R Ω		asc. node	4749 Jun 07 05:05	19° Π 00'27	
inferior conj	4748 Aug 20 04:04	29° Ω 48'54	-5°-12'-30		4749 Jun 12 07:51	0° S	
minimum elong	4748 Aug 20 01:49	29° Ω 52'27	5°12'24	evening rise	4749 Jun 13 19:27	3° S 09'17	
morning rise	4748 Aug 28 11:23	25° Ω 48'11			4749 Jun 28 13:40	0° Ω	
direct	4748 Aug 31 03:59	25° Ω 28'57		evening max el	4749 Jul 05 16:58	8° Ω 35'55	22°39'03
	4748 Sep 09 20:38	0° P		desc. node	4749 Jul 13 19:03	14° Ω 09'50	
morning max el	4748 Sep 09 20:54	0° P 00'38	19°39'55	retrograde	4749 Jul 18 21:21	15° Ω 09'31	
asc. node	4748 Sep 16 07:18	7° P 53'39		evening set	4749 Jul 22 05:12	14° Ω 45'14	
morning set	4748 Sep 27 10:00	28° P 05'21		min. Earth dist.	4749 Jul 30 00:49	11° Ω 18'51	0.55240 AU
	4748 Sep 28 08:43	0° A		inferior conj	4749 Jul 31 07:20	10° Ω 35'20	-4°-30'-29
				minimum elong	4749 Jul 30 23:29	10° Ω 46'32	4°28'54
superior conj	4748 Oct 05 08:44	14° A 05'35	1°40'01	morning rise	4749 Aug 08 20:10	6° Ω 45'14	
minimum elong	4748 Oct 05 10:19	14° A 13'28	1°39'56	direct	4749 Aug 11 21:44	6° Ω 23'35	
max. Earth dist.	4748 Oct 11 09:31	25° A 40'54	1.37517 AU	morning max el	4749 Aug 23 04:54	11° Ω 39'12	20°59'01
	4748 Oct 13 17:57	0° M		asc. node	4749 Sep 03 04:19	26° Ω 21'10	
evening rise	4748 Oct 15 04:46	2° M 36'20			4749 Sep 05 05:35	0° P	
desc. node	4748 Oct 22 21:19	15° M 42'30		morning set	4749 Sep 11 17:41	12° P 48'07	
	4748 Nov 01 03:13	0° J					
evening max el	4748 Nov 19 20:35	23° J 34'44	25°21'42	superior conj	4749 Sep 19 04:25	28° P 18'20	1°43'47
	4748 Nov 28 22:33	0° Z		minimum elong	4749 Sep 19 04:28	28° P 18'33	1°43'47
retrograde	4748 Dec 01 22:28	0° Z 32'31			4749 Sep 20 00:14	0° A	
	4748 Dec 04 17:55	30° R J		max. Earth dist.	4749 Sep 23 18:26	7° A 33'15	1.35628 AU
evening set	4748 Dec 07 18:01	28° J 08'11		evening rise	4749 Sep 27 21:57	15° A 31'39	
min. Earth dist.	4748 Dec 12 05:07	23° J 12'33	0.67290 AU		4749 Oct 06 01:28	0° M	
inferior conj	4748 Dec 13 09:08	21° J 41'57	0°02'12	desc. node	4749 Oct 09 18:20	6° M 04'30	
minimum elong	4748 Dec 13 09:04	21° J 42'09	0°02'11		4749 Oct 26 17:09	0° J	
transit middle	4748 Dec 13 09:04	21° J 42'09	0°02'11	evening max el	4749 Nov 02 09:17	7° J 17'20	26°25'08
transit begin	4748 Dec 13 06:18	21° J 51'06		retrograde	4749 Nov 15 05:15	14° J 29'52	
transit end	4748 Dec 13 11:50	21° J 33'12		evening set	4749 Nov 21 14:08	11° J 54'59	
asc. node	4748 Dec 13 06:33	21° J 50'17		min. Earth dist.	4749 Nov 25 18:16	7° J 34'58	0.66373 AU
morning rise	4748 Dec 19 00:54	15° J 43'48		inferior conj	4749 Nov 27 09:33	5° J 35'47	0°-56'-16
direct	4748 Dec 22 09:45	14° J 38'23		minimum elong	4749 Nov 27 11:06	5° J 31'06	0°55'37
morning max el	4748 Dec 29 13:04	18° J 37'54	19°23'06	asc. node	4749 Nov 30 03:34	2° J 26'09	
greatest brilliancy	4749 Jan 07 12:16	29° J 59'59	-0.7m	morning rise	4749 Dec 03 09:23	29° M 47'46	
	4749 Jan 07 12:16	0° Z			4749 Dec 03 00:59	30° R M	
desc. node	4749 Jan 18 20:35	17° Z 04'08		direct	4749 Dec 06 08:02	28° M 58'46	
morning set	4749 Jan 22 16:42	22° Z 59'34			4749 Dec 09 17:29	0° J	
	4749 Jan 27 05:05	0° \approx		morning max el	4749 Dec 12 23:52	2° J 37'12	18°35'17
max. Earth dist.	4749 Feb 04 20:45	13° \approx 33'16	1.44710 AU		4749 Dec 31 22:43	0° Z	
				morning set	4750 Jan 02 12:44	2° Z 30'46	
superior conj	4749 Feb 08 11:17	19° \approx 16'39	-1°-54'-31	desc. node	4750 Jan 05 17:36	7° Z 35'21	
minimum elong	4749 Feb 08 03:54	18° \approx 47'12	1°54'02				
	4749 Feb 15 02:57	0° X		superior conj	4750 Jan 18 15:39	27° Z 54'59	-1°-21'-35
evening rise	4749 Feb 22 17:41	12° X 33'34		minimum elong	4750 Jan 18 06:32	27° Z 19'16	1°20'36
	4749 Mar 05 07:40	0° Υ		max. Earth dist.	4750 Jan 18 14:43	27° Z 51'23	1.45287 AU

	4750 Jan 19 23:31	0°♊		greatest brilliancy	4751 Feb 01 02:28	29°♊14'08	-0.6m
evening rise	4750 Feb 03 10:40	22°♊50'06			4751 Feb 01 15:33	0°♋	
	4750 Feb 07 22:34	0°♋		evening max el	4751 Feb 08 13:19	8°♋34'45	19°44'04
evening max el	4750 Feb 25 06:59	25°♋02'40	18°54'57	asc. node	4751 Feb 12 23:52	12°♋05'06	
asc. node	4750 Feb 26 02:51	25°♋51'05		retrograde	4751 Feb 15 23:12	12°♋52'03	
retrograde	4750 Mar 04 01:43	28°♋50'53		evening set	4751 Feb 19 13:02	11°♋37'10	
evening set	4750 Mar 07 07:51	27°♋49'43		inferior conj	4751 Feb 25 00:39	5°♋36'35	3°12'21
inferior conj	4750 Mar 12 23:40	22°♋04'19	3°29'42	minimum elong	4751 Feb 24 22:39	5°♋43'16	3°11'59
minimum elong	4750 Mar 12 22:34	22°♋07'48	3°29'36	min. Earth dist.	4751 Feb 26 02:11	4°♋11'52	0.66902 AU
min. Earth dist.	4750 Mar 14 15:59	19°♋58'24	0.65710 AU		4751 Mar 01 14:55	30°♌	
morning rise	4750 Mar 18 12:12	15°♋49'27		morning rise	4751 Mar 02 07:34	29°♌20'23	
direct	4750 Mar 25 00:11	13°♋00'44		direct	4751 Mar 08 07:42	26°♌40'34	
desc. node	4750 Apr 03 16:51	17°♋36'35			4751 Mar 16 02:05	0°♌	
morning max el	4750 Apr 07 01:16	20°♋43'29	26°41'53	morning max el	4751 Mar 20 10:33	3°♌54'34	25°28'10
	4750 Apr 15 01:21	0°♍		desc. node	4751 Mar 21 13:53	5°♌05'22	
	4750 May 04 21:45	0°♎			4751 Apr 09 09:06	0°♍	
morning set	4750 May 12 22:30	14°♎31'41		morning set	4751 Apr 25 14:32	26°♍59'03	
max. Earth dist.	4750 May 17 04:52	22°♎49'39	1.34447 AU		4751 Apr 27 06:06	0°♎	
	4750 May 20 17:49	0°♏		max. Earth dist.	4751 Apr 29 08:39	3°♎55'52	1.36174 AU
superior conj	4750 May 21 15:27	1°♏51'41	0°-35'-1	superior conj	4751 May 05 06:39	15°♎25'24	-1°-4'-33
minimum elong	4750 May 21 17:20	2°♏01'26	0°34'40	minimum elong	4751 May 05 10:11	15°♎43'01	1°03'57
asc. node	4750 May 25 02:06	9°♏03'44		asc. node	4751 May 11 23:09	28°♎59'10	
evening rise	4750 May 29 05:01	17°♏42'32			4751 May 12 11:05	0°♏	
	4750 Jun 04 09:02	0°♐		evening rise	4751 May 13 10:29	1°♏58'58	
evening max el	4750 Jun 17 13:49	19°♐13'43	21°07'59		4751 May 30 11:08	0°♐	
retrograde	4750 Jun 29 10:18	25°♐03'27		evening max el	4751 May 30 22:41	0°♐28'54	19°52'55
desc. node	4750 Jun 30 16:04	24°♐59'49		retrograde	4751 Jun 10 02:12	5°♐26'17	
evening set	4750 Jul 01 16:47	24°♐51'26		evening set	4751 Jun 12 00:31	5°♐16'19	
inferior conj	4750 Jul 11 00:46	20°♐53'45	-2°-58'-57	desc. node	4751 Jun 17 13:06	3°♐13'52	
minimum elong	4750 Jul 10 16:53	21°♐04'50	2°56'24	inferior conj	4751 Jun 20 22:45	1°♐15'14	-1°00'-53
min. Earth dist.	4750 Jul 11 11:31	20°♐38'37	0.54805 AU	minimum elong	4751 Jun 20 19:56	1°♐19'32	0°59'51
morning rise	4750 Jul 19 16:57	16°♐56'41		min. Earth dist.	4751 Jun 23 00:04	0°♐00'05	0.55329 AU
direct	4750 Jul 23 07:06	16°♐28'56			4751 Jun 23 00:08	30°♑	
morning max el	4750 Aug 05 01:46	22°♐33'42	22°35'23	morning rise	4751 Jun 29 12:31	26°♑51'41	
	4750 Aug 11 14:00	0°♒		direct	4751 Jul 03 20:45	26°♑10'21	
asc. node	4750 Aug 21 01:20	15°♒23'08			4751 Jul 14 02:12	0°♒	
morning set	4750 Aug 27 04:16	27°♒38'54		morning max el	4751 Jul 17 16:20	3°♒00'22	24°19'14
	4750 Aug 28 07:01	0°♓			4751 Aug 05 10:39	0°♒	
superior conj	4750 Sep 03 07:42	12°♓52'49	1°40'33	asc. node	4751 Aug 07 22:23	4°♒50'49	
minimum elong	4750 Sep 03 06:30	12°♓46'28	1°40'30	morning set	4751 Aug 11 16:03	12°♒32'49	
max. Earth dist.	4750 Sep 06 11:46	19°♓32'25	1.34089 AU	superior conj	4751 Aug 18 15:56	27°♒41'11	1°31'25
evening rise	4750 Sep 11 05:58	29°♓08'22		minimum elong	4751 Aug 18 13:57	27°♒30'22	1°31'14
	4750 Sep 11 16:33	0°♔			4751 Aug 19 17:33	0°♓	
desc. node	4750 Sep 26 15:21	26°♔06'52		max. Earth dist.	4751 Aug 20 13:48	1°♓49'14	1.32960 AU
	4750 Sep 29 04:43	0°♕		evening rise	4751 Aug 26 00:58	13°♓16'17	
evening max el	4750 Oct 15 22:01	20°♕50'20	27°09'10		4751 Sep 03 20:20	0°♕	
retrograde	4750 Oct 29 06:11	28°♕07'50		desc. node	4751 Sep 13 12:23	15°♕41'24	
evening set	4750 Nov 05 02:30	25°♕28'15			4751 Sep 24 11:43	0°♕	
min. Earth dist.	4750 Nov 09 00:09	21°♕44'07	0.65107 AU	evening max el	4751 Sep 28 09:11	4°♕01'25	27°26'52
inferior conj	4750 Nov 11 03:23	19°♕21'21	-1°-58'-6	retrograde	4751 Oct 12 00:51	11°♕18'03	
minimum elong	4750 Nov 11 06:45	19°♕11'55	1°56'45	evening set	4751 Oct 19 04:19	8°♕42'40	
asc. node	4750 Nov 17 00:35	14°♕02'13		min. Earth dist.	4751 Oct 22 20:46	5°♕31'44	0.63504 AU
morning rise	4750 Nov 17 12:57	13°♕46'40		inferior conj	4751 Oct 25 12:01	2°♕52'45	-3°00'-48
direct	4750 Nov 20 03:41	13°♕10'13		minimum elong	4751 Oct 25 17:10	2°♕39'46	2°59'00
morning max el	4750 Nov 26 15:05	16°♕37'32	18°04'10		4751 Oct 28 12:58	30°♖	
	4750 Dec 06 08:42	0°♗		morning rise	4751 Nov 01 08:36	27°♖34'47	
morning set	4750 Dec 14 14:24	13°♗30'53		direct	4751 Nov 03 17:55	27°♖07'14	
desc. node	4750 Dec 23 14:37	28°♗15'28		asc. node	4751 Nov 03 21:37	27°♖07'22	
	4750 Dec 24 16:34	0°♘			4751 Nov 09 18:25	0°♖	
superior conj	4750 Dec 28 22:23	6°♘46'44	0°-36'-14	morning max el	4751 Nov 10 07:55	0°♖32'15	17°50'22
minimum elong	4750 Dec 28 17:53	6°♘28'54	0°35'38	morning set	4751 Nov 26 18:02	25°♖46'02	
max. Earth dist.	4751 Jan 01 10:30	12°♘19'14	1.45115 AU		4751 Nov 29 04:40	0°♗	
	4751 Jan 12 18:40	0°♙		superior conj	4751 Dec 09 01:31	16°♗40'43	0°09'57
evening rise	4751 Jan 14 07:00	2°♙20'33		minimum elong	4751 Dec 09 02:34	16°♗45'04	0°09'49

behind sun begin	4751 Dec 08 18:53	16°♂13'23			4752 Nov 20 12:48	0°♂	
behind sun end	4751 Dec 09 10:15	17°♂16'42		desc. node	4752 Nov 26 08:41	9°♂48'02	
desc. node	4751 Dec 10 11:39	19°♂00'48		max. Earth dist.	4752 Nov 26 17:57	10°♂26'08	1.42722 AU
max. Earth dist.	4751 Dec 15 04:29	26°♂36'41	1.44222 AU	evening rise	4752 Dec 03 08:44	21°♂04'00	
	4751 Dec 17 07:37	0°♂			4752 Dec 09 03:17	0°♂	
evening rise	4751 Dec 24 17:05	11°♂32'09			4752 Dec 30 09:09	0°♂	
	4752 Jan 05 22:52	0°♂		greatest brilliancy	4752 Dec 30 16:23	0°♂22'13	-0.3m
greatest brilliancy	4752 Jan 17 01:02	15°♂35'38	-0.5m	evening max el	4753 Jan 04 09:53	5°♂42'46	22°01'08
evening max el	4752 Jan 22 14:17	22°♂07'57	20°47'18	retrograde	4753 Jan 13 18:32	11°♂16'52	
retrograde	4752 Jan 30 21:28	27°♂01'58		asc. node	4753 Jan 16 17:57	10°♂29'42	
asc. node	4752 Jan 30 20:54	27°♂01'58		evening set	4753 Jan 18 04:16	9°♂31'56	
evening set	4752 Feb 03 20:26	25°♂32'28		inferior conj	4753 Jan 23 13:38	3°♂10'02	2°08'06
inferior conj	4752 Feb 09 06:02	19°♂19'29	2°44'33	minimum elong	4753 Jan 23 11:18	3°♂18'08	2°07'20
minimum elong	4752 Feb 09 03:37	19°♂27'47	2°43'56	min. Earth dist.	4753 Jan 23 13:57	3°♂08'56	0.68036 AU
min. Earth dist.	4752 Feb 09 18:16	18°♂37'23	0.67671 AU		4753 Jan 25 22:01	30°♂	
morning rise	4752 Feb 14 10:23	13°♂03'49		morning rise	4753 Jan 28 18:08	26°♂56'37	
direct	4752 Feb 19 20:20	10°♂41'05		direct	4753 Feb 02 13:18	24°♂55'27	
morning max el	4752 Mar 01 19:16	17°♂13'21	24°01'42		4753 Feb 11 14:07	0°♂	
desc. node	4752 Mar 07 10:55	23°♂35'19		morning max el	4753 Feb 12 05:40	0°♂38'23	22°32'39
	4752 Mar 12 10:30	0°♂		greatest brilliancy	4753 Feb 16 19:23	5°♂44'14	-0.3m
	4752 Apr 01 10:08	0°♂		desc. node	4753 Feb 22 07:57	12°♂49'08	
morning set	4752 Apr 06 09:35	8°♂22'45			4753 Mar 06 07:29	0°♂	
max. Earth dist.	4752 Apr 10 04:55	15°♂03'02	1.38247 AU	morning set	4753 Mar 18 01:54	18°♂28'51	
				max. Earth dist.	4753 Mar 23 00:54	26°♂44'54	1.40442 AU
superior conj	4752 Apr 17 09:38	28°♂19'38	-1°-32'-13		4753 Mar 24 22:30	0°♂	
minimum elong	4752 Apr 17 14:23	28°♂42'17	1°31'37				
	4752 Apr 18 06:40	0°♂		superior conj	4753 Mar 30 20:05	10°♂24'44	-1°-54'-42
evening rise	4752 Apr 26 09:14	15°♂50'36		minimum elong	4753 Mar 31 00:41	10°♂45'33	1°54'22
asc. node	4752 Apr 27 20:12	18°♂41'41		evening rise	4753 Apr 09 22:06	29°♂09'48	
	4752 May 03 21:44	0°♂			4753 Apr 10 08:44	0°♂	
evening max el	4752 May 12 19:16	12°♂25'03	18°57'33	asc. node	4753 Apr 14 17:16	8°♂06'33	
retrograde	4752 May 21 08:22	16°♂36'02		evening max el	4753 Apr 26 00:46	24°♂57'20	18°22'31
evening set	4752 May 23 09:31	16°♂22'34		retrograde	4753 May 03 09:18	28°♂36'27	
inferior conj	4752 May 31 13:27	12°♂06'27	0°49'43	evening set	4753 May 05 16:56	28°♂15'40	
minimum elong	4752 May 31 15:21	12°♂03'05	0°49'02	inferior conj	4753 May 13 01:40	23°♂39'26	2°12'15
desc. node	4752 Jun 03 10:09	10°♂05'44		minimum elong	4753 May 13 05:13	23°♂32'05	2°11'15
min. Earth dist.	4752 Jun 03 15:49	9°♂56'07	0.56719 AU	min. Earth dist.	4753 May 16 12:15	20°♂50'17	0.58696 AU
morning rise	4752 Jun 08 16:43	7°♂06'39		morning rise	4753 May 20 13:10	18°♂07'45	
direct	4752 Jun 13 23:28	6°♂00'13		desc. node	4753 May 21 07:11	17°♂45'03	
morning max el	4752 Jun 28 06:52	13°♂24'33	25°55'31	direct	4753 May 26 16:41	16°♂27'37	
	4752 Jul 11 08:14	0°♂		morning max el	4753 Jun 10 02:07	24°♂13'04	27°08'26
asc. node	4752 Jul 24 19:27	24°♂36'10			4753 Jun 15 08:14	0°♂	
morning set	4752 Jul 26 03:20	27°♂23'24			4753 Jul 04 11:44	0°♂	
	4752 Jul 27 08:44	0°♂		morning set	4753 Jul 10 12:29	12°♂05'40	
				asc. node	4753 Jul 11 16:31	14°♂33'41	
superior conj	4752 Aug 02 02:54	12°♂35'14	1°17'12				
minimum elong	4752 Aug 02 00:35	12°♂22'31	1°16'51	superior conj	4753 Jul 17 14:44	27°♂28'59	0°58'31
max. Earth dist.	4752 Aug 02 22:00	14°♂20'18	1.32249 AU	minimum elong	4753 Jul 17 12:35	27°♂17'04	0°58'07
evening rise	4752 Aug 09 03:40	27°♂44'51		max. Earth dist.	4753 Jul 17 09:10	26°♂58'11	1.31959 AU
	4752 Aug 10 05:50	0°♂			4753 Jul 18 18:05	0°♂	
	4752 Aug 27 04:07	0°♂		evening rise	4753 Jul 24 11:30	12°♂26'32	
desc. node	4752 Aug 30 09:25	4°♂35'50			4753 Aug 02 09:17	0°♂	
evening max el	4752 Sep 09 16:23	16°♂37'18	27°13'12	desc. node	4753 Aug 17 06:27	22°♂33'53	
retrograde	4752 Sep 23 12:45	23°♂50'41		evening max el	4753 Aug 22 17:20	28°♂27'54	26°26'09
evening set	4752 Sep 30 15:53	21°♂31'24			4753 Aug 24 10:09	0°♂	
min. Earth dist.	4752 Oct 04 06:52	18°♂45'48	0.61604 AU	retrograde	4753 Sep 05 16:22	5°♂37'02	
inferior conj	4752 Oct 07 08:23	16°♂02'06	-4°00'-9	evening set	4753 Sep 12 08:25	3°♂46'39	
minimum elong	4752 Oct 07 14:33	15°♂48'20	3°58'28	min. Earth dist.	4753 Sep 16 06:48	1°♂12'11	0.59538 AU
morning rise	4752 Oct 14 16:23	11°♂04'10			4753 Sep 17 20:25	30°♂	
direct	4752 Oct 16 23:11	10°♂42'13		inferior conj	4753 Sep 19 12:57	28°♂40'17	-4°-48'-43
asc. node	4752 Oct 20 18:40	11°♂45'45		minimum elong	4753 Sep 19 18:15	28°♂29'56	4°47'51
morning max el	4752 Oct 23 23:12	14°♂13'31	17°54'50	morning rise	4753 Sep 27 07:33	24°♂04'47	
	4752 Nov 03 18:08	0°♂		direct	4753 Sep 29 15:22	23°♂45'34	
morning set	4752 Nov 08 17:14	8°♂56'46		morning max el	4753 Oct 07 09:33	27°♂32'05	18°18'53
				asc. node	4753 Oct 07 15:44	27°♂47'12	
superior conj	4752 Nov 19 07:15	27°♂52'33	0°48'35		4753 Oct 09 15:50	0°♂	
minimum elong	4752 Nov 19 11:01	28°♂08'48	0°48'04	morning set	4753 Oct 23 06:19	22°♂46'47	

	4753 Oct 27 01:20	0°♄		morning set	4754 Oct 07 04:59	7°♄04'23	
superior conj	4753 Nov 01 12:55	10°♄13'41	1°16'36	superior conj	4754 Oct 15 13:12	23°♄29'34	1°34'09
minimum elong	4753 Nov 01 16:43	10°♄31'04	1°16'11	minimum elong	4754 Oct 15 15:44	23°♄41'43	1°33'58
max. Earth dist.	4753 Nov 09 02:21	23°♄36'28	1.40806 AU		4754 Oct 18 23:36	0°♄	
	4753 Nov 12 21:34	0°♂		max. Earth dist.	4754 Oct 22 07:33	6°♄06'21	1.38709 AU
desc. node	4753 Nov 13 05:42	0°♂33'31		evening rise	4754 Oct 26 04:13	12°♄55'03	
evening rise	4753 Nov 13 18:55	1°♂27'51		desc. node	4754 Oct 31 02:44	21°♄13'48	
	4753 Dec 02 13:11	0°♂			4754 Nov 05 14:45	0°♂	
evening max el	4753 Dec 18 01:17	19°♂20'33	23°20'36		4754 Nov 27 16:47	0°♂	
retrograde	4753 Dec 28 12:50	25°♂32'35		evening max el	4754 Nov 30 14:26	3°♂02'32	24°39'22
evening set	4754 Jan 02 10:55	23°♂31'46		retrograde	4754 Dec 12 03:10	9°♂45'42	
asc. node	4754 Jan 03 15:00	22°♂26'32		evening set	4754 Dec 17 14:52	7°♂29'25	
inferior conj	4754 Jan 07 21:34	17°♂04'49	1°24'10	asc. node	4754 Dec 21 12:00	3°♂13'52	
minimum elong	4754 Jan 07 19:46	17°♂10'59	1°23'31	min. Earth dist.	4754 Dec 22 06:22	2°♂13'48	0.67670 AU
min. Earth dist.	4754 Jan 07 10:46	17°♂41'55	0.68031 AU	inferior conj	4754 Dec 23 04:02	1°♂01'47	0°33'49
morning rise	4754 Jan 13 04:41	10°♂55'38		minimum elong	4754 Dec 23 03:14	1°♂04'30	0°33'30
direct	4754 Jan 17 09:34	9°♂17'17			4754 Dec 23 22:44	30°♄♂	
morning max el	4754 Jan 25 21:20	14°♂12'18	21°09'23	morning rise	4754 Dec 28 16:03	24°♂59'00	
greatest brilliancy	4754 Jan 31 03:57	20°♂14'34	-0.4m	direct	4755 Jan 01 07:49	23°♂42'16	
	4754 Feb 07 09:45	0°♄		morning max el	4755 Jan 08 20:46	27°♂58'17	19°57'43
desc. node	4754 Feb 09 04:57	2°♄34'00			4755 Jan 10 18:18	0°♂	
morning set	4754 Feb 25 13:58	27°♄16'03		greatest brilliancy	4755 Jan 16 00:03	6°♂36'26	-0.6m
	4754 Feb 27 07:31	0°♄		desc. node	4755 Jan 27 01:58	22°♂41'45	
max. Earth dist.	4754 Mar 05 03:00	9°♄21'22	1.42475 AU		4755 Jan 31 21:25	0°♄	
				morning set	4755 Feb 04 10:20	5°♄26'00	
superior conj	4754 Mar 12 08:52	21°♄28'21	-2°-7'-25	max. Earth dist.	4755 Feb 15 13:08	22°♄51'03	1.44077 AU
minimum elong	4754 Mar 12 10:41	21°♄36'04	2°07'24		4755 Feb 19 23:47	0°♄	
	4754 Mar 17 06:47	0°♄					
evening rise	4754 Mar 23 21:01	11°♄46'40		superior conj	4755 Feb 20 20:13	1°♄23'06	-2°-4'-47
asc. node	4754 Apr 01 14:18	27°♄06'59		minimum elong	4755 Feb 20 16:14	1°♄06'55	2°04'39
	4754 Apr 03 09:26	0°♄		evening rise	4755 Mar 06 01:38	23°♄32'44	
evening max el	4754 Apr 09 11:35	7°♄55'45	18°07'23		4755 Mar 09 19:58	0°♄	
retrograde	4754 Apr 16 03:25	11°♄19'31		asc. node	4755 Mar 19 11:19	15°♄35'13	
evening set	4754 Apr 18 17:30	10°♄48'57		evening max el	4755 Mar 24 00:22	21°♄11'11	18°11'26
inferior conj	4754 Apr 25 09:58	5°♄51'31	3°03'39	retrograde	4755 Mar 30 10:21	24°♄34'44	
minimum elong	4754 Apr 25 12:48	5°♄44'43	3°03'08	evening set	4755 Apr 02 06:25	23°♄53'00	
min. Earth dist.	4754 Apr 28 15:18	2°♄47'59	0.60896 AU	inferior conj	4755 Apr 08 10:31	18°♄35'22	3°28'52
morning rise	4754 May 02 04:50	29°♄58'03		minimum elong	4755 Apr 08 11:45	18°♄32'03	3°28'46
	4754 May 02 03:39	30°♄♄		min. Earth dist.	4755 Apr 11 03:04	15°♄41'20	0.63008 AU
desc. node	4754 May 08 04:11	27°♄46'26		morning rise	4755 Apr 14 14:52	12°♄28'58	
direct	4754 May 08 21:32	27°♄44'55		direct	4755 Apr 21 11:28	9°♄51'49	
	4754 May 16 02:07	0°♄		desc. node	4755 Apr 25 01:12	10°♄29'44	
morning max el	4754 May 23 03:39	5°♄41'08	27°47'20	morning max el	4755 May 05 10:35	17°♄51'02	27°48'30
	4754 Jun 10 08:41	0°♄			4755 May 15 14:23	0°♄	
morning set	4754 Jun 24 17:41	26°♄33'58			4755 Jun 03 04:15	0°♄	
	4754 Jun 26 09:14	0°♄		morning set	4755 Jun 08 16:43	10°♄41'09	
asc. node	4754 Jun 28 13:34	4°♄38'36		max. Earth dist.	4755 Jun 14 01:30	21°♄48'55	1.32648 AU
max. Earth dist.	4754 Jun 30 19:38	9°♄31'59	1.32088 AU	asc. node	4755 Jun 15 10:35	24°♄46'06	
superior conj	4754 Jul 02 01:42	12°♄16'47	0°35'58	superior conj	4755 Jun 16 09:58	26°♄52'16	0°10'10
minimum elong	4754 Jul 02 00:10	12°♄08'19	0°35'38	minimum elong	4755 Jun 16 09:29	26°♄49'38	0°10'03
evening rise	4754 Jul 08 22:19	27°♄14'31		behind sun begin	4755 Jun 16 05:23	26°♄27'26	
	4754 Jul 10 05:39	0°♄		behind sun end	4755 Jun 16 13:35	27°♄11'51	
	4754 Jul 27 07:51	0°♄			4755 Jun 17 20:35	0°♄	
desc. node	4754 Aug 04 03:28	9°♄12'57		evening rise	4755 Jun 23 10:09	12°♄01'47	
evening max el	4754 Aug 04 10:52	9°♄30'49	25°09'39		4755 Jul 02 13:10	0°♄	
retrograde	4754 Aug 18 09:27	16°♄34'09		evening max el	4755 Jul 16 23:33	19°♄58'29	23°35'08
evening set	4754 Aug 24 01:21	15°♄20'53		desc. node	4755 Jul 22 00:29	24°♄02'00	
min. Earth dist.	4754 Aug 28 22:31	12°♄39'17	0.57532 AU	retrograde	4755 Jul 30 14:15	26°♄48'14	
inferior conj	4754 Aug 31 22:30	10°♄37'56	-5°-14'-24	evening set	4755 Aug 03 19:07	26°♄09'30	
minimum elong	4754 Aug 31 23:49	10°♄35'42	5°14'23	min. Earth dist.	4755 Aug 10 09:23	23°♄03'34	0.55889 AU
morning rise	4754 Sep 09 01:45	6°♄25'25		inferior conj	4755 Aug 12 11:46	21°♄48'27	-5°-1'-7
direct	4754 Sep 11 14:26	6°♄06'34		minimum elong	4755 Aug 12 06:47	21°♄55'55	5°00'33
morning max el	4754 Sep 20 11:36	10°♄18'24	19°04'04	morning rise	4755 Aug 20 21:38	17°♄54'15	
asc. node	4754 Sep 24 12:46	14°♄56'54		direct	4755 Aug 23 18:01	17°♄34'08	
	4754 Oct 03 13:48	0°♄		morning max el	4755 Sep 03 02:31	22°♄22'48	20°11'10

	4755 Sep 09 10:51	0°♎			4756 Aug 10 05:25	0°♏	
asc. node	4755 Sep 11 09:48	2°♎59'25		morning max el	4756 Aug 15 05:32	3°♏42'00	21°38'26
morning set	4755 Sep 21 10:04	21°♎39'42		asc. node	4756 Aug 28 06:51	21°♏42'40	
	4755 Sep 25 11:37	0°♏			4756 Sep 01 15:31	0°♎	
				morning set	4756 Sep 04 19:11	6°♎26'16	
superior conj	4755 Sep 29 03:00	7°♏24'51	1°42'33				
minimum elong	4755 Sep 29 03:55	7°♏29'26	1°42'32	superior conj	4756 Sep 12 02:18	21°♎47'55	1°43'12
max. Earth dist.	4755 Oct 04 13:38	18°♏05'51	1.36677 AU	minimum elong	4756 Sep 12 01:46	21°♎45'08	1°43'12
evening rise	4755 Oct 08 10:50	25°♏20'17		max. Earth dist.	4756 Sep 16 01:37	29°♎57'36	1.34920 AU
	4755 Oct 11 01:14	0°♌			4756 Sep 16 02:06	0°♏	
desc. node	4755 Oct 17 23:46	11°♌43'48		evening rise	4756 Sep 20 10:47	8°♏34'01	
	4755 Oct 30 04:11	0°♍			4756 Oct 02 15:13	0°♌	
evening max el	4755 Nov 13 02:55	16°♍45'41	25°50'31	desc. node	4756 Oct 03 20:47	1°♌58'04	
retrograde	4755 Nov 25 12:53	23°♍50'37			4756 Oct 25 05:28	0°♍	
evening set	4755 Dec 01 14:23	21°♍21'02		evening max el	4756 Oct 25 15:27	0°♍24'15	26°46'37
min. Earth dist.	4755 Dec 05 22:24	16°♍40'45	0.66949 AU	retrograde	4756 Nov 07 17:19	7°♍40'37	
inferior conj	4755 Dec 07 07:13	14°♍57'21	0°-22'-1	evening set	4756 Nov 14 07:30	5°♍02'28	
minimum elong	4755 Dec 07 07:47	14°♍55'32	0°21'48	min. Earth dist.	4756 Nov 18 08:40	0°♍58'03	0.65873 AU
asc. node	4755 Dec 08 09:01	13°♍36'54			4756 Nov 19 04:34	30°♌	
morning rise	4755 Dec 13 02:12	9°♍03'27		inferior conj	4756 Nov 20 05:05	28°♌47'46	-1°-22'-13
direct	4755 Dec 16 06:31	8°♍05'27		minimum elong	4756 Nov 20 07:23	28°♌41'00	1°21'16
morning max el	4755 Dec 23 03:58	11°♍54'18	19°00'49	asc. node	4756 Nov 24 06:03	24°♌32'26	
	4756 Jan 05 12:04	0°♎		morning rise	4756 Nov 26 08:54	23°♌05'18	
desc. node	4756 Jan 13 23:00	13°♎05'56		direct	4756 Nov 29 03:48	22°♌22'16	
morning set	4756 Jan 14 15:58	14°♎12'04		morning max el	4756 Dec 05 17:02	25°♌54'56	18°20'02
	4756 Jan 24 18:46	0°♏			4756 Dec 09 05:18	0°♍	
max. Earth dist.	4756 Jan 29 05:18	6°♏57'43	1.45049 AU	morning set	4756 Dec 25 00:28	24°♍20'54	
					4756 Dec 28 12:44	0°♎	
superior conj	4756 Jan 31 08:24	10°♏18'59	-1°-42'-41	desc. node	4756 Dec 30 20:02	3°♎41'22	
minimum elong	4756 Jan 30 23:24	9°♏43'31	1°41'56				
	4756 Feb 12 15:39	0°♏		superior conj	4757 Jan 09 11:09	18°♎56'04	-1°-3'-12
evening rise	4756 Feb 15 08:11	4°♏22'36		minimum elong	4757 Jan 09 03:28	18°♎25'53	1°02'16
	4756 Mar 02 15:36	0°♐		max. Earth dist.	4757 Jan 11 00:07	21°♎21'06	1.45297 AU
asc. node	4756 Mar 05 08:19	3°♐21'39			4757 Jan 16 12:41	0°♏	
evening max el	4756 Mar 06 12:21	4°♐36'56	18°33'57	evening rise	4757 Jan 25 15:40	14°♏17'23	
retrograde	4756 Mar 13 01:42	8°♐13'12			4757 Feb 04 16:52	0°♏	
evening set	4756 Mar 16 03:52	7°♐19'27		greatest brilliancy	4757 Feb 08 13:29	5°♏52'04	-0.7m
inferior conj	4756 Mar 21 23:16	1°♐43'29	3°33'57	evening max el	4757 Feb 17 21:14	18°♏07'33	19°13'54
minimum elong	4756 Mar 21 22:54	1°♐44'35	3°33'56	asc. node	4757 Feb 20 05:20	20°♏13'34	
	4756 Mar 23 09:45	30°♌		retrograde	4757 Feb 24 21:47	22°♏07'28	
min. Earth dist.	4756 Mar 24 00:27	29°♏16'39	0.64830 AU	evening set	4757 Feb 28 06:55	21°♏00'45	
morning rise	4756 Mar 27 16:31	25°♏30'17		inferior conj	4757 Mar 05 20:39	15°♏08'34	3°23'46
direct	4756 Apr 03 09:14	22°♏42'03		minimum elong	4757 Mar 05 19:06	15°♏13'35	3°23'34
desc. node	4756 Apr 10 22:13	25°♏30'23		min. Earth dist.	4757 Mar 07 06:33	13°♏19'31	0.66266 AU
	4756 Apr 16 06:20	0°♐		morning rise	4757 Mar 11 06:22	8°♏52'35	
morning max el	4756 Apr 16 20:27	0°♐35'05	27°14'38	direct	4757 Mar 17 13:38	6°♏06'15	
	4756 May 08 14:59	0°♑		desc. node	4757 Mar 28 19:15	12°♏13'39	
morning set	4756 May 22 06:51	24°♑19'09		morning max el	4757 Mar 30 06:22	13°♏39'29	26°12'41
	4756 May 25 03:50	0°♒			4757 Apr 12 12:26	0°♐	
max. Earth dist.	4756 May 26 22:50	3°♒38'10	1.33658 AU		4757 May 01 08:27	0°♑	
				morning set	4757 May 05 08:19	7°♑16'16	
superior conj	4756 May 30 13:36	11°♒09'42	0°-18'-5	max. Earth dist.	4757 May 09 08:40	14°♑55'12	1.35131 AU
minimum elong	4756 May 30 14:32	11°♒14'40	0°17'54				
asc. node	4756 Jun 01 07:37	14°♒52'24		superior conj	4757 May 14 10:09	25°♑01'30	0°-47'-38
evening rise	4756 Jun 06 21:08	26°♒42'19		minimum elong	4757 May 14 12:45	25°♑14'45	0°47'09
	4756 Jun 08 11:05	0°♓			4757 May 16 20:14	0°♒	
	4756 Jun 27 05:48	0°♑		asc. node	4757 May 19 04:39	4°♒52'50	
evening max el	4756 Jun 27 15:03	0°♑22'53	21°58'44	evening rise	4757 May 22 05:13	11°♒09'07	
desc. node	4756 Jul 07 21:29	6°♑26'48			4757 Jun 01 04:15	0°♓	
retrograde	4756 Jul 10 07:50	6°♑40'36		evening max el	4757 Jun 09 16:45	11°♓14'59	20°33'43
evening set	4756 Jul 13 02:48	6°♑23'12		retrograde	4757 Jun 20 20:35	16°♓42'41	
inferior conj	4756 Jul 22 09:18	2°♑19'37	-3°-56'-56	evening set	4757 Jun 22 21:20	16°♓32'35	
minimum elong	4756 Jul 22 00:35	2°♑31'50	3°54'39	desc. node	4757 Jun 24 18:30	16°♓06'16	
min. Earth dist.	4756 Jul 21 19:33	2°♑38'54	0.54938 AU	inferior conj	4757 Jul 02 02:51	12°♓35'28	-2°-10'00
	4756 Jul 26 19:03	30°♌		minimum elong	4757 Jul 01 20:48	12°♓44'12	2°07'52
morning rise	4756 Jul 31 00:02	28°♓29'21		min. Earth dist.	4757 Jul 03 07:16	11°♓54'28	0.54910 AU
direct	4756 Aug 03 06:12	28°♓05'55		morning rise	4757 Jul 10 18:53	8°♓28'42	

direct	4757 Jul 14 15:46	7° \mathfrak{G} 56'24		transit middle	4758 Jun 12 06:20	23° \mathbb{I} 07'54	0°11'10
morning max el	4757 Jul 27 23:05	14° \mathfrak{G} 22'17	23°19'28	transit begin	4758 Jun 12 03:33	23° \mathbb{I} 12'24	
	4757 Aug 09 01:10	0° \mathcal{Q}		transit end	4758 Jun 12 09:07	23° \mathbb{I} 03'25	
asc. node	4757 Aug 15 03:54	10° \mathcal{Q} 56'26		min. Earth dist.	4758 Jun 14 21:06	21° \mathbb{I} 27'01	0.55837 AU
morning set	4757 Aug 20 06:28	21° \mathcal{Q} 18'44		morning rise	4758 Jun 20 17:04	18° \mathbb{I} 28'27	
	4757 Aug 24 07:49	0° \mathfrak{M}		direct	4758 Jun 25 10:58	17° \mathbb{I} 37'32	
				morning max el	4758 Jul 09 12:42	24° \mathbb{I} 43'51	25°02'01
superior conj	4757 Aug 27 07:59	6° \mathfrak{M} 29'18	1°37'21		4758 Jul 14 09:32	0° \mathfrak{G}	
minimum elong	4757 Aug 27 06:24	6° \mathfrak{M} 20'46	1°37'14		4758 Aug 01 18:34	0° \mathcal{Q}	
max. Earth dist.	4757 Aug 29 22:29	12° \mathfrak{M} 02'10	1.33551 AU	asc. node	4758 Aug 02 00:57	0° \mathcal{Q} 32'26	
evening rise	4757 Sep 03 23:55	22° \mathfrak{M} 25'20		morning set	4758 Aug 04 18:13	6° \mathcal{Q} 11'40	
	4757 Sep 07 21:53	0° \mathfrak{A}					
desc. node	4757 Sep 20 17:48	21° \mathfrak{A} 49'45		superior conj	4758 Aug 11 17:37	21° \mathcal{Q} 20'51	1°25'58
	4757 Sep 26 09:19	0° \mathfrak{M}		minimum elong	4758 Aug 11 15:25	21° \mathcal{Q} 08'53	1°25'42
evening max el	4757 Oct 08 03:43	13° \mathfrak{M} 49'31	27°20'23	max. Earth dist.	4758 Aug 13 03:31	24° \mathcal{Q} 25'51	1.32608 AU
retrograde	4757 Oct 21 15:59	21° \mathfrak{M} 07'59			4758 Aug 15 17:31	0° \mathfrak{M}	
evening set	4757 Oct 28 15:50	18° \mathfrak{M} 28'58		evening rise	4758 Aug 18 22:33	6° \mathfrak{M} 43'23	
min. Earth dist.	4757 Nov 01 10:59	14° \mathfrak{M} 59'22	0.64453 AU		4758 Aug 31 10:31	0° \mathfrak{A}	
inferior conj	4757 Nov 03 19:23	12° \mathfrak{M} 28'26	-2°-24'-50	desc. node	4758 Sep 07 14:50	11° \mathfrak{A} 08'53	
minimum elong	4757 Nov 03 23:33	12° \mathfrak{M} 17'15	2°23'15	evening max el	4758 Sep 20 13:45	26° \mathfrak{A} 48'05	27°25'17
morning rise	4757 Nov 10 09:31	7° \mathfrak{M} 00'25			4758 Sep 24 08:01	0° \mathfrak{M}	
asc. node	4757 Nov 11 03:06	6° \mathfrak{M} 44'27		retrograde	4758 Oct 04 07:50	4° \mathfrak{M} 03'04	
direct	4757 Nov 12 21:30	6° \mathfrak{M} 28'19		evening set	4758 Oct 11 12:06	1° \mathfrak{M} 33'23	
morning max el	4757 Nov 19 09:20	9° \mathfrak{M} 54'02	17°56'09		4758 Oct 13 12:43	30° \mathfrak{R} \mathfrak{A}	
	4757 Dec 03 01:41	0° \mathfrak{A}		min. Earth dist.	4758 Oct 15 03:23	28° \mathfrak{A} 34'14	0.62719 AU
morning set	4757 Dec 06 13:59	5° \mathfrak{A} 55'35		inferior conj	4758 Oct 17 23:14	25° \mathfrak{A} 51'51	-3°-26'-48
desc. node	4757 Dec 17 17:04	24° \mathfrak{A} 24'21		minimum elong	4758 Oct 18 04:58	25° \mathfrak{A} 38'06	3°24'58
				morning rise	4758 Oct 25 00:38	20° \mathfrak{A} 41'40	
superior conj	4757 Dec 20 01:04	28° \mathfrak{A} 10'44	0°-16'-9	direct	4758 Oct 27 08:29	20° \mathfrak{A} 16'51	
minimum elong	4757 Dec 19 23:08	28° \mathfrak{A} 03'00	0°15'52	asc. node	4758 Oct 29 00:11	20° \mathfrak{A} 29'44	
behind sun begin	4757 Dec 19 21:13	27° \mathfrak{A} 55'17		morning max el	4758 Nov 03 01:50	23° \mathfrak{A} 43'44	17°49'57
behind sun end	4757 Dec 20 01:03	28° \mathfrak{A} 10'43			4758 Nov 08 01:56	0° \mathfrak{M}	
	4757 Dec 21 04:16	0° \mathfrak{B}		morning set	4758 Nov 19 02:45	18° \mathfrak{M} 36'55	
max. Earth dist.	4757 Dec 24 19:00	5° \mathfrak{B} 45'09	1.44811 AU		4758 Nov 25 14:13	0° \mathfrak{A}	
evening rise	4758 Jan 05 05:52	23° \mathfrak{B} 35'29		superior conj	4758 Nov 30 15:20	8° \mathfrak{A} 37'10	0°27'33
	4758 Jan 09 10:16	0° \mathfrak{A}		minimum elong	4758 Nov 30 17:56	8° \mathfrak{A} 48'04	0°27'11
greatest brilliancy	4758 Jan 25 13:31	23° \mathfrak{A} 46'23	-0.6m	desc. node	4758 Dec 04 14:06	15° \mathfrak{A} 10'51	
	4758 Jan 30 12:10	0° \mathfrak{H}		max. Earth dist.	4758 Dec 07 11:29	19° \mathfrak{A} 53'16	1.43650 AU
evening max el	4758 Feb 01 01:27	1° \mathfrak{H} 40'55	20°09'27		4758 Dec 13 20:21	0° \mathfrak{B}	
asc. node	4758 Feb 07 02:23	5° \mathfrak{H} 57'04		evening rise	4758 Dec 15 16:21	2° \mathfrak{B} 51'04	
retrograde	4758 Feb 08 19:49	6° \mathfrak{H} 13'05			4759 Jan 02 22:43	0° \mathfrak{A}	
evening set	4758 Feb 12 13:17	4° \mathfrak{H} 52'18		greatest brilliancy	4759 Jan 09 23:13	9° \mathfrak{A} 26'27	-0.4m
	4758 Feb 17 01:51	30° \mathfrak{R} \mathfrak{A}		evening max el	4759 Jan 15 00:12	15° \mathfrak{A} 15'10	21°17'44
inferior conj	4758 Feb 17 23:50	28° \mathfrak{A} 46'20	3°01'43	retrograde	4759 Jan 23 17:39	20° \mathfrak{A} 25'32	
minimum elong	4758 Feb 17 21:35	28° \mathfrak{A} 53'54	3°01'14	asc. node	4759 Jan 24 23:26	20° \mathfrak{A} 17'13	
min. Earth dist.	4758 Feb 18 19:38	27° \mathfrak{A} 39'27	0.67282 AU	evening set	4759 Jan 27 21:04	18° \mathfrak{A} 49'32	
morning rise	4758 Feb 23 05:18	22° \mathfrak{A} 30'03		inferior conj	4759 Feb 02 06:23	12° \mathfrak{A} 32'33	2°30'04
direct	4758 Feb 28 23:41	19° \mathfrak{A} 56'23		minimum elong	4759 Feb 02 03:57	12° \mathfrak{A} 41'00	2°29'22
morning max el	4758 Mar 12 15:06	26° \mathfrak{A} 54'11	24°52'14	min. Earth dist.	4759 Feb 02 13:26	12° \mathfrak{A} 08'09	0.67878 AU
desc. node	4758 Mar 15 16:18	0° \mathfrak{H} 11'12		morning rise	4759 Feb 07 10:30	6° \mathfrak{A} 17'51	
	4758 Mar 15 12:21	0° \mathfrak{H}		direct	4759 Feb 12 14:17	4° \mathfrak{A} 03'49	
	4758 Apr 06 03:29	0° \mathfrak{Y}		morning max el	4759 Feb 22 23:59	10° \mathfrak{A} 14'51	23°23'37
morning set	4758 Apr 17 16:12	19° \mathfrak{Y} 18'55		greatest brilliancy	4759 Feb 28 14:32	16° \mathfrak{A} 34'38	-0.2m
max. Earth dist.	4758 Apr 21 08:06	25° \mathfrak{Y} 56'14	1.37029 AU	desc. node	4759 Mar 02 13:20	19° \mathfrak{A} 01'26	
	4758 Apr 23 12:28	0° \mathfrak{B}			4759 Mar 10 14:54	0° \mathfrak{H}	
superior conj	4758 Apr 27 20:41	8° \mathfrak{B} 20'07	-1°-16'-41		4759 Mar 29 21:51	0° \mathfrak{Y}	
minimum elong	4758 Apr 28 00:50	8° \mathfrak{B} 40'24	1°16'03	morning set	4759 Mar 30 00:30	0° \mathfrak{Y} 11'10	
evening rise	4758 May 06 08:11	25° \mathfrak{B} 15'58		max. Earth dist.	4759 Apr 03 03:30	7° \mathfrak{Y} 15'41	1.39186 AU
asc. node	4758 May 06 01:41	24° \mathfrak{B} 43'26					
	4758 May 08 17:24	0° \mathbb{I}		superior conj	4759 Apr 10 17:17	20° \mathfrak{Y} 55'42	-1°-42'-37
evening max el	4758 May 23 06:59	22° \mathbb{I} 48'36	19°26'49	minimum elong	4759 Apr 10 22:13	21° \mathfrak{Y} 18'40	1°42'06
retrograde	4758 Jun 01 16:59	27° \mathbb{I} 24'09			4759 Apr 15 12:17	0° \mathfrak{B}	
evening set	4758 Jun 03 15:48	27° \mathbb{I} 13'12		evening rise	4759 Apr 20 03:11	8° \mathfrak{B} 55'30	
desc. node	4758 Jun 11 15:32	23° \mathbb{I} 31'41		asc. node	4759 Apr 22 22:44	14° \mathfrak{B} 19'37	
inferior conj	4758 Jun 12 06:50	23° \mathbb{I} 07'06	0°-11'-19		4759 May 02 03:08	0° \mathbb{I}	
minimum elong	4758 Jun 12 06:20	23° \mathbb{I} 07'54	0°11'10	evening max el	4759 May 06 07:51	5° \mathbb{I} 02'06	18°40'08

retrograde	4759 May 14 07:08	8° Π 57'20			4760 Apr 06 19:31	0° \mathcal{B}	
evening set	4759 May 16 11:05	8° Π 41'01		asc. node	4760 Apr 08 19:47	3° \mathcal{B} 35'08	
inferior conj	4759 May 24 06:36	4° Π 16'22	1°28'37	evening max el	4760 Apr 18 15:57	17° \mathcal{B} 46'24	18°13'39
minimum elong	4759 May 24 09:36	4° Π 10'43	1°27'38	retrograde	4760 Apr 25 16:07	21° \mathcal{B} 17'28	
min. Earth dist.	4759 May 27 14:19	1° Π 47'14	0.57514 AU	evening set	4760 Apr 28 02:27	20° \mathcal{B} 52'48	
desc. node	4759 May 29 12:33	0° Π 29'00		inferior conj	4760 May 05 03:47	16° \mathcal{B} 07'12	2°37'39
	4759 May 30 07:38	30° \mathcal{R} \mathcal{B}		minimum elong	4760 May 05 07:14	15° \mathcal{B} 59'35	2°36'49
morning rise	4759 Jun 01 03:37	29° \mathcal{B} 02'19		min. Earth dist.	4760 May 08 13:15	13° \mathcal{B} 08'59	0.59618 AU
direct	4759 Jun 06 19:56	27° \mathcal{B} 42'20		morning rise	4760 May 12 08:04	10° \mathcal{B} 24'48	
	4759 Jun 14 11:17	0° Π		desc. node	4760 May 15 09:34	9° \mathcal{B} 01'38	
morning max el	4759 Jun 21 04:45	5° \mathcal{B} 16'05	26°30'10	direct	4760 May 18 18:01	8° \mathcal{B} 30'21	
	4759 Jul 09 07:16	0° \mathcal{B}		morning max el	4760 Jun 02 02:52	16° \mathcal{B} 21'22	27°29'37
asc. node	4759 Jul 19 22:00	20° \mathcal{B} 24'17			4760 Jun 13 07:22	0° Π	
morning set	4759 Jul 20 04:50	21° \mathcal{B} 00'16			4760 Jun 30 18:27	0° \mathcal{B}	
	4759 Jul 24 08:55	0° \mathcal{Q}		morning set	4760 Jul 03 12:33	5° \mathcal{B} 37'52	
				asc. node	4760 Jul 05 19:02	10° \mathcal{B} 25'44	
superior conj	4759 Jul 27 05:11	6° \mathcal{Q} 16'10	1°09'47	max. Earth dist.	4760 Jul 10 01:10	19° \mathcal{B} 41'49	1.31967 AU
minimum elong	4759 Jul 27 02:53	6° \mathcal{Q} 03'27	1°09'24				
max. Earth dist.	4759 Jul 27 13:42	7° \mathcal{Q} 03'10	1.32082 AU	superior conj	4760 Jul 10 16:51	21° \mathcal{B} 08'14	0°49'24
evening rise	4759 Aug 03 03:47	21° \mathcal{Q} 19'25		minimum elong	4760 Jul 10 14:54	20° \mathcal{B} 57'28	0°49'00
	4759 Aug 07 10:07	0° \mathcal{M}			4760 Jul 14 17:29	0° \mathcal{Q}	
desc. node	4759 Aug 25 11:52	29° \mathcal{M} 42'07		evening rise	4760 Jul 17 13:08	6° \mathcal{Q} 04'42	
	4759 Aug 25 17:21	0° \mathcal{A}			4760 Jul 30 02:05	0° \mathcal{M}	
evening max el	4759 Sep 02 18:42	9° \mathcal{A} 06'32	26°57'10	desc. node	4760 Aug 11 08:52	17° \mathcal{M} 09'54	
retrograde	4759 Sep 16 16:00	16° \mathcal{A} 17'14		evening max el	4760 Aug 14 16:13	20° \mathcal{M} 35'35	25°56'30
evening set	4759 Sep 23 16:07	14° \mathcal{A} 08'53		retrograde	4760 Aug 28 15:23	27° \mathcal{M} 43'00	
min. Earth dist.	4759 Sep 27 08:54	11° \mathcal{A} 30'12	0.60742 AU	evening set	4760 Sep 03 23:01	26° \mathcal{M} 07'30	
inferior conj	4759 Sep 30 13:19	8° \mathcal{A} 49'33	-4°-22'-39	min. Earth dist.	4760 Sep 08 04:38	23° \mathcal{M} 32'35	0.58667 AU
minimum elong	4759 Sep 30 19:26	8° \mathcal{A} 36'38	4°21'15	inferior conj	4760 Sep 11 10:02	21° \mathcal{M} 11'12	-5°-3'-16
morning rise	4759 Oct 08 01:59	4° \mathcal{A} 00'48		minimum elong	4760 Sep 11 14:04	21° \mathcal{M} 03'48	5°02'50
direct	4759 Oct 10 08:56	3° \mathcal{A} 40'11		morning rise	4760 Sep 19 08:40	16° \mathcal{M} 46'01	
asc. node	4759 Oct 15 21:13	5° \mathcal{A} 45'21		direct	4760 Sep 21 18:09	16° \mathcal{M} 27'12	
morning max el	4759 Oct 17 15:23	7° \mathcal{A} 16'28	18°02'34	morning max el	4760 Sep 29 22:37	20° \mathcal{M} 22'45	18°35'30
	4759 Nov 01 05:12	0° \mathcal{M}		asc. node	4760 Oct 01 18:15	22° \mathcal{M} 17'43	
morning set	4759 Nov 02 08:26	2° \mathcal{M} 06'17			4760 Oct 07 05:53	0° \mathcal{A}	
				morning set	4760 Oct 16 01:59	16° \mathcal{A} 09'06	
superior conj	4759 Nov 12 07:49	20° \mathcal{M} 20'08	1°01'48		4760 Oct 23 06:24	0° \mathcal{M}	
minimum elong	4759 Nov 12 11:50	20° \mathcal{M} 37'56	1°01'18				
	4759 Nov 17 21:33	0° \mathcal{A}		superior conj	4760 Oct 24 22:05	3° \mathcal{M} 06'48	1°25'15
max. Earth dist.	4759 Nov 19 23:15	3° \mathcal{A} 28'56	1.41950 AU	minimum elong	4760 Oct 25 01:26	3° \mathcal{M} 22'28	1°24'56
desc. node	4759 Nov 21 11:07	5° \mathcal{A} 57'44		max. Earth dist.	4760 Nov 01 05:47	16° \mathcal{M} 21'11	1.39918 AU
evening rise	4759 Nov 25 14:45	12° \mathcal{A} 42'09		evening rise	4760 Nov 05 10:35	23° \mathcal{M} 32'19	
	4759 Dec 06 20:26	0° \mathcal{B}		desc. node	4760 Nov 07 08:09	26° \mathcal{M} 41'35	
greatest brilliancy	4759 Dec 23 20:26	23° \mathcal{B} 21'50	-0.3m		4760 Nov 09 08:49	0° \mathcal{A}	
evening max el	4759 Dec 28 17:46	28° \mathcal{B} 50'44	22°34'35		4760 Nov 29 17:55	0° \mathcal{B}	
	4759 Dec 29 22:10	0° \approx		evening max el	4760 Dec 10 07:45	12° \mathcal{B} 29'40	23°54'35
retrograde	4760 Jan 07 13:38	4° \approx 41'13		retrograde	4760 Dec 21 06:29	18° \mathcal{B} 56'38	
asc. node	4760 Jan 11 20:29	3° \approx 05'17		evening set	4760 Dec 26 10:16	16° \mathcal{B} 48'53	
evening set	4760 Jan 12 04:35	2° \approx 49'17		asc. node	4760 Dec 28 17:30	14° \mathcal{B} 28'43	
	4760 Jan 14 21:46	30° \mathcal{R} \mathcal{B}		inferior conj	4760 Dec 31 21:49	10° \mathcal{B} 20'51	1°03'33
inferior conj	4760 Jan 17 14:19	26° \mathcal{B} 24'43	1°50'18	minimum elong	4760 Dec 31 20:23	10° \mathcal{B} 25'42	1°03'00
minimum elong	4760 Jan 17 12:09	26° \mathcal{B} 32'12	1°49'33	min. Earth dist.	4760 Dec 31 06:19	11° \mathcal{B} 13'31	0.67914 AU
min. Earth dist.	4760 Jan 17 09:45	26° \mathcal{B} 40'31	0.68080 AU	morning rise	4761 Jan 06 06:46	4° \mathcal{B} 14'11	
morning rise	4760 Jan 22 19:40	20° \mathcal{B} 13'08		direct	4761 Jan 10 05:46	2° \mathcal{B} 45'32	
direct	4760 Jan 27 08:38	18° \mathcal{B} 21'51		morning max el	4761 Jan 18 07:12	7° \mathcal{B} 22'58	20°37'18
morning max el	4760 Feb 05 12:16	23° \mathcal{B} 43'19	21°56'11	greatest brilliancy	4761 Jan 24 05:45	14° \mathcal{B} 19'08	-0.5m
greatest brilliancy	4760 Feb 10 04:21	28° \mathcal{B} 57'40	-0.4m	desc. node	4761 Feb 03 07:21	28° \mathcal{B} 25'05	
	4760 Feb 11 00:34	0° \approx			4761 Feb 04 09:07	0° \approx	
desc. node	4760 Feb 17 10:21	8° \approx 29'28		morning set	4761 Feb 16 07:16	18° \approx 05'55	
	4760 Mar 03 00:34	0° \mathcal{H}			4761 Feb 23 20:16	0° \mathcal{H}	
morning set	4760 Mar 09 04:22	9° \mathcal{H} 41'50		max. Earth dist.	4761 Feb 25 07:27	2° \mathcal{H} 21'36	1.43212 AU
max. Earth dist.	4760 Mar 15 02:04	19° \mathcal{H} 21'43	1.41341 AU				
	4760 Mar 21 07:35	0° \mathcal{Y}		superior conj	4761 Mar 03 21:17	13° \mathcal{H} 10'17	-2°-8'-31
				minimum elong	4761 Mar 03 20:55	13° \mathcal{H} 08'44	2°08'31
superior conj	4760 Mar 22 19:05	2° \mathcal{Y} 35'46	-2°-1'-37		4761 Mar 13 16:28	0° \mathcal{Y}	
minimum elong	4760 Mar 22 22:54	2° \mathcal{Y} 52'37	2°01'26	evening rise	4761 Mar 16 02:20	4° \mathcal{Y} 14'48	
evening rise	4760 Apr 02 10:38	21° \mathcal{Y} 58'09		asc. node	4761 Mar 26 16:48	22° \mathcal{Y} 23'20	

	4761 Apr 01 07:33	0°♄		max. Earth dist.	4762 Feb 07 19:49	16°≈06'45	1.44570 AU
evening max el	4761 Apr 02 03:57	0°♄53'08	18°06'49				
retrograde	4761 Apr 08 16:16	4°♄15'24		superior conj	4762 Feb 11 21:52	22°≈37'06	-1°-57'-52
evening set	4761 Apr 11 08:48	3°♄40'22		minimum elong	4762 Feb 11 15:16	22°≈10'42	1°57'30
	4761 Apr 16 08:59	30°♄			4762 Feb 16 11:32	0°♄	
inferior conj	4761 Apr 17 19:33	28°♄34'21	3°17'10	evening rise	4762 Feb 25 21:51	15°♄36'37	
minimum elong	4761 Apr 17 21:44	28°♄28'48	3°16'51		4762 Mar 06 12:47	0°♄	
min. Earth dist.	4761 Apr 20 20:06	25°♄31'55	0.61811 AU	asc. node	4762 Mar 13 13:49	10°♄35'05	
morning rise	4761 Apr 24 07:50	22°♄34'08		evening max el	4762 Mar 16 16:43	14°♄13'36	18°18'54
direct	4761 May 01 03:10	20°♄09'11		retrograde	4762 Mar 23 03:07	17°♄40'56	
desc. node	4761 May 02 06:35	20°♄13'02		evening set	4762 Mar 26 01:43	16°♄54'15	
morning max el	4761 May 15 07:08	28°♄08'41	27°52'23	inferior conj	4762 Apr 01 01:43	11°♄28'54	3°33'07
	4761 May 17 02:06	0°♄		minimum elong	4762 Apr 01 02:14	11°♄27'27	3°33'06
	4761 Jun 07 02:02	0°♄		min. Earth dist.	4762 Apr 03 11:59	8°♄44'27	0.63826 AU
morning set	4761 Jun 17 15:26	19°♄58'28		morning rise	4762 Apr 07 00:55	5°♄19'07	
	4761 Jun 22 10:02	0°♄		direct	4762 Apr 13 20:53	2°♄35'13	
asc. node	4761 Jun 22 16:04	0°♄32'26		desc. node	4762 Apr 19 03:35	3°♄58'16	
max. Earth dist.	4761 Jun 23 10:03	2°♄09'34	1.32272 AU	morning max el	4762 Apr 27 15:27	10°♄33'29	27°37'59
					4762 May 12 22:13	0°♄	
superior conj	4761 Jun 25 02:53	5°♄51'45	0°25'23		4762 May 30 11:11	0°♄	
minimum elong	4761 Jun 25 01:45	5°♄45'30	0°25'08	morning set	4762 Jun 01 11:04	3°♄54'23	
evening rise	4761 Jul 02 00:35	20°♄53'01		max. Earth dist.	4762 Jun 06 12:28	14°♄14'30	1.33015 AU
	4761 Jul 06 10:30	0°♄					
	4761 Jul 25 22:44	0°♄		superior conj	4762 Jun 09 09:28	20°♄20'38	0°-1'-35
evening max el	4761 Jul 27 06:53	1°♄20'20	24°30'37	minimum elong	4762 Jun 09 09:33	20°♄21'03	0°01'34
desc. node	4761 Jul 29 05:53	3°♄06'25		behind sun begin	4762 Jun 09 04:13	19°♄52'28	
retrograde	4761 Aug 10 03:51	8°♄20'13		behind sun end	4762 Jun 09 14:53	20°♄49'40	
evening set	4761 Aug 15 05:28	7°♄22'45		asc. node	4762 Jun 09 13:07	20°♄40'09	
min. Earth dist.	4761 Aug 20 17:59	4°♄32'22	0.56769 AU		4762 Jun 13 20:59	0°♄	
inferior conj	4761 Aug 23 10:50	2°♄48'55	-5°-14'-30	evening rise	4762 Jun 16 12:16	5°♄38'14	
minimum elong	4761 Aug 23 09:34	2°♄50'57	5°14'29		4762 Jun 29 13:11	0°♄	
	4761 Aug 28 07:06	30°♄		evening max el	4762 Jul 08 19:58	11°♄43'44	22°53'34
morning rise	4761 Aug 31 17:09	28°♄45'18		desc. node	4762 Jul 16 02:52	16°♄58'55	
direct	4761 Sep 03 08:34	28°♄26'17		retrograde	4762 Jul 22 03:30	18°♄21'58	
	4761 Sep 09 00:11	0°♄		evening set	4762 Jul 25 16:37	17°♄54'29	
morning max el	4761 Sep 12 20:16	2°♄52'38	19°29'57	min. Earth dist.	4762 Aug 02 04:33	14°♄33'53	0.55383 AU
asc. node	4761 Sep 18 15:17	9°♄51'39		inferior conj	4762 Aug 03 16:35	13°♄42'01	-4°-40'-19
	4761 Sep 29 20:42	0°♄		minimum elong	4762 Aug 03 09:20	13°♄52'29	4°39'01
morning set	4761 Sep 30 03:41	0°♄34'55		morning rise	4762 Aug 12 04:40	9°♄51'19	
				direct	4762 Aug 15 04:55	9°♄30'04	
superior conj	4761 Oct 08 04:40	16°♄41'07	1°38'44	morning max el	4762 Aug 26 06:05	14°♄38'29	20°45'57
minimum elong	4761 Oct 08 06:31	16°♄50'10	1°38'39	asc. node	4762 Sep 05 12:19	28°♄13'32	
max. Earth dist.	4761 Oct 14 10:11	28°♄33'44	1.37820 AU		4762 Sep 06 13:05	0°♄	
	4761 Oct 15 04:58	0°♄		morning set	4762 Sep 14 10:48	15°♄16'30	
evening rise	4761 Oct 18 05:22	5°♄25'26					
desc. node	4761 Oct 25 05:10	17°♄18'08		superior conj	4762 Sep 21 22:59	0°♄50'07	1°43'41
	4761 Nov 02 08:25	0°♄		minimum elong	4762 Sep 21 23:14	0°♄51'27	1°43'41
evening max el	4761 Nov 22 20:20	26°♄12'21	25°11'05		4762 Sep 21 13:12	0°♄	
	4761 Nov 27 05:14	0°♄		max. Earth dist.	4762 Sep 26 18:20	10°♄28'00	1.35893 AU
retrograde	4761 Dec 04 19:04	3°♄06'47		evening rise	4762 Sep 30 20:01	18°♄13'52	
evening set	4761 Dec 10 12:31	0°♄44'35			4762 Oct 07 10:25	0°♄	
	4761 Dec 11 08:17	30°♄		desc. node	4762 Oct 12 02:13	7°♄42'46	
min. Earth dist.	4761 Dec 15 00:47	25°♄43'37	0.67398 AU		4762 Oct 27 13:43	0°♄	
asc. node	4761 Dec 15 14:30	24°♄58'57		evening max el	4762 Nov 05 09:06	9°♄55'54	26°16'42
inferior conj	4761 Dec 16 03:06	24°♄17'47	0°10'43	retrograde	4762 Nov 18 02:34	17°♄06'29	
minimum elong	4761 Dec 16 02:50	24°♄18'40	0°10'37	evening set	4762 Nov 24 09:35	14°♄32'55	
transit middle	4761 Dec 16 02:50	24°♄18'40	0°10'37	min. Earth dist.	4762 Nov 28 14:45	10°♄07'36	0.66537 AU
transit begin	4761 Dec 16 00:44	24°♄25'31		inferior conj	4762 Nov 30 04:20	8°♄12'27	0°-47'-6
transit end	4761 Dec 16 04:56	24°♄11'50		minimum elong	4762 Nov 30 05:36	8°♄08'32	0°46'35
morning rise	4761 Dec 21 17:50	18°♄18'16		asc. node	4762 Dec 02 11:31	5°♄29'52	
direct	4761 Dec 25 04:25	17°♄09'59		morning rise	4762 Dec 06 02:50	2°♄22'46	
morning max el	4762 Jan 01 10:00	21°♄13'29	19°31'33	direct	4762 Dec 09 02:56	1°♄31'29	
	4762 Jan 08 13:53	0°♄		morning max el	4762 Dec 15 19:55	5°♄12'10	18°41'21
greatest brilliancy	4762 Jan 09 19:33	1°♄43'50	-0.6m		4763 Jan 02 05:57	0°♄	
desc. node	4762 Jan 21 04:23	18°♄40'26		morning set	4763 Jan 05 20:13	5°♄40'19	
morning set	4762 Jan 26 04:17	26°♄21'35		desc. node	4763 Jan 08 01:27	9°♄10'15	
	4762 Jan 28 12:45	0°♄			4763 Jan 21 07:41	0°♄	

max. Earth dist.	4763 Jan 21 13:37	0° \approx 23'14	1.45254 AU		4763 Dec 26 01:06	0° \approx	
superior conj	4763 Jan 22 03:41	1° \approx 18'26	-1°-27'-37	superior conj	4764 Jan 01 08:46	10° \approx 04'52	0°-43'-25
minimum elong	4763 Jan 21 18:21	0° \approx 41'50	1°26'39	minimum elong	4764 Jan 01 03:21	9° \approx 43'29	0°42'42
evening rise	4763 Feb 06 18:20	26° \approx 01'42		max. Earth dist.	4764 Jan 04 09:26	14° \approx 51'22	1.45185 AU
	4763 Feb 09 05:47	0° \approx			4764 Jan 14 02:12	0° \approx	
evening max el	4763 Feb 28 03:41	27° \approx 42'01	18°48'58	evening rise	4764 Jan 17 17:21	5° \approx 38'16	
asc. node	4763 Feb 28 10:50	27° \approx 59'53			4764 Feb 02 16:58	0° \approx	
	4763 Mar 02 19:54	0° \approx		greatest brilliancy	4764 Feb 03 14:12	1° \approx 16'27	-0.7m
retrograde	4763 Mar 06 20:43	1° \approx 26'41		evening max el	4764 Feb 11 10:45	11° \approx 14'14	19°35'45
evening set	4763 Mar 10 01:51	0° \approx 27'23		asc. node	4764 Feb 15 07:51	14° \approx 24'51	
	4763 Mar 10 18:11	30° \approx		retrograde	4764 Feb 18 18:01	15° \approx 26'50	
inferior conj	4763 Mar 15 18:30	24° \approx 44'20	3°31'12	evening set	4764 Feb 22 06:36	14° \approx 14'04	
minimum elong	4763 Mar 15 17:34	24° \approx 47'13	3°31'09	inferior conj	4764 Feb 27 18:40	8° \approx 15'28	3°15'41
min. Earth dist.	4763 Mar 17 13:04	22° \approx 32'50	0.65498 AU	minimum elong	4764 Feb 27 16:46	8° \approx 21'46	3°15'23
morning rise	4763 Mar 21 08:09	18° \approx 29'51		min. Earth dist.	4764 Feb 28 22:18	6° \approx 44'28	0.66750 AU
direct	4763 Mar 27 21:30	15° \approx 40'59		morning rise	4764 Mar 04 02:13	1° \approx 59'15	
desc. node	4763 Apr 06 00:38	19° \approx 46'12			4764 Mar 07 00:12	30° \approx	
morning max el	4763 Apr 10 01:22	23° \approx 26'34	26°51'10	direct	4764 Mar 10 04:14	29° \approx 17'33	
	4763 Apr 15 21:30	0° \approx			4764 Mar 13 13:58	0° \approx	
	4763 May 06 06:18	0° \approx		morning max el	4764 Mar 22 10:58	6° \approx 37'02	25°40'13
morning set	4763 May 15 20:17	17° \approx 15'56		desc. node	4764 Mar 22 21:42	7° \approx 04'27	
max. Earth dist.	4763 May 20 05:04	25° \approx 49'15	1.34226 AU		4764 Apr 09 14:02	0° \approx	
	4763 May 22 06:32	0° \approx		morning set	4764 Apr 27 14:59	29° \approx 51'52	
					4764 Apr 27 16:46	0° \approx	
superior conj	4763 May 24 10:26	4° \approx 28'00	0°-30'-32	max. Earth dist.	4764 May 01 10:30	6° \approx 58'24	1.35894 AU
minimum elong	4763 May 24 12:03	4° \approx 36'30	0°30'13				
asc. node	4763 May 27 10:09	10° \approx 44'23		superior conj	4764 May 07 03:09	18° \approx 06'52	-1°00'-8
evening rise	4763 May 31 22:17	20° \approx 13'43		minimum elong	4764 May 07 06:27	18° \approx 23'25	0°59'34
	4763 Jun 05 18:15	0° \approx			4764 May 12 23:08	0° \approx	
evening max el	4763 Jun 20 15:14	22° \approx 17'10	21°20'43	asc. node	4764 May 13 07:12	0° \approx 41'23	
retrograde	4763 Jul 02 17:19	28° \approx 14'38		evening rise	4764 May 15 04:33	4° \approx 33'23	
desc. node	4763 Jul 02 23:54	28° \approx 14'27			4764 May 29 20:23	0° \approx	
evening set	4763 Jul 05 02:32	28° \approx 01'33		evening max el	4764 Jun 01 22:10	3° \approx 25'45	20°02'48
inferior conj	4763 Jul 14 10:38	24° \approx 02'48	-3°-15'-20	retrograde	4764 Jun 12 08:03	8° \approx 31'06	
minimum elong	4763 Jul 14 02:19	24° \approx 14'27	3°12'46	evening set	4764 Jun 14 06:31	8° \approx 21'18	
min. Earth dist.	4763 Jul 14 14:55	23° \approx 56'47	0.54807 AU	desc. node	4764 Jun 18 20:54	6° \approx 49'04	
morning rise	4763 Jul 23 02:36	20° \approx 08'21		inferior conj	4764 Jun 23 06:58	4° \approx 21'34	-1°-19'-1
direct	4763 Jul 26 14:32	19° \approx 41'56		minimum elong	4764 Jun 23 03:17	4° \approx 27'07	1°17'39
morning max el	4763 Aug 08 04:25	25° \approx 39'05	22°20'18	min. Earth dist.	4764 Jun 25 03:13	3° \approx 15'13	0.55191 AU
	4763 Aug 12 06:12	0° \approx		morning rise	4764 Jul 01 21:34	0° \approx 02'45	
asc. node	4763 Aug 23 09:23	17° \approx 11'10			4764 Jul 02 01:20	30° \approx	
morning set	4763 Aug 29 21:06	0° \approx 06'47		direct	4764 Jul 06 02:34	29° \approx 24'11	
	4763 Aug 29 19:49	0° \approx			4764 Jul 10 02:29	0° \approx	
				morning max el	4764 Jul 19 19:35	6° \approx 08'20	24°03'55
superior conj	4763 Sep 06 01:21	15° \approx 22'12	1°41'28		4764 Aug 05 19:40	0° \approx	
minimum elong	4763 Sep 06 00:19	15° \approx 16'43	1°41'24	asc. node	4764 Aug 09 06:28	6° \approx 35'22	
max. Earth dist.	4763 Sep 09 10:26	22° \approx 25'45	1.34294 AU	morning set	4764 Aug 13 08:49	15° \approx 00'17	
	4763 Sep 13 04:36	0° \approx					
evening rise	4763 Sep 14 02:06	1° \approx 45'13		superior conj	4764 Aug 20 09:00	0° \approx 08'49	1°33'10
desc. node	4763 Sep 28 23:14	27° \approx 48'42		minimum elong	4764 Aug 20 07:06	29° \approx 58'32	1°32'59
	4763 Sep 30 09:17	0° \approx			4764 Aug 20 07:22	0° \approx	
evening max el	4763 Oct 18 21:51	23° \approx 30'51	27°04'01	max. Earth dist.	4764 Aug 22 11:05	4° \approx 38'42	1.33097 AU
	4763 Oct 28 04:08	0° \approx		evening rise	4764 Aug 27 19:39	15° \approx 48'45	
retrograde	4763 Nov 01 04:24	0° \approx 48'03			4764 Sep 04 05:43	0° \approx	
	4763 Nov 04 22:43	30° \approx		desc. node	4764 Sep 14 20:14	17° \approx 27'53	
evening set	4763 Nov 07 23:18	28° \approx 08'32			4764 Sep 24 03:01	0° \approx	
min. Earth dist.	4763 Nov 11 21:50	24° \approx 19'15	0.65321 AU	evening max el	4764 Sep 30 09:15	6° \approx 45'37	27°26'08
inferior conj	4763 Nov 13 23:18	21° \approx 59'33	-1°-48'-36	retrograde	4764 Oct 14 00:10	14° \approx 03'05	
minimum elong	4763 Nov 14 02:24	21° \approx 50'46	1°47'21	evening set	4764 Oct 21 02:56	11° \approx 26'17	
asc. node	4763 Nov 19 08:34	16° \approx 54'11		min. Earth dist.	4764 Oct 24 19:56	8° \approx 10'48	0.63759 AU
morning rise	4763 Nov 20 07:21	16° \approx 22'47		inferior conj	4764 Oct 27 09:30	5° \approx 33'25	-2°-51'-27
direct	4763 Nov 22 23:07	15° \approx 44'44		minimum elong	4764 Oct 27 14:25	5° \approx 20'51	2°49'41
morning max el	4763 Nov 29 10:43	19° \approx 13'00	18°07'44	morning rise	4764 Nov 03 04:25	0° \approx 12'54	
	4763 Dec 07 13:36	0° \approx			4764 Nov 03 19:34	30° \approx	
morning set	4763 Dec 17 17:33	16° \approx 27'45		asc. node	4764 Nov 05 05:39	29° \approx 44'58	
desc. node	4763 Dec 25 22:31	29° \approx 49'34		direct	4764 Nov 05 14:18	29° \approx 44'19	

	4764 Nov 07 08:50	0°♄		asc. node	4765 Oct 23 02:44	14°♊10'04	
morning max el	4764 Nov 12 03:32	3°♄09'14	17°51'17	morning max el	4765 Oct 26 19:16	16°♊53'30	17°52'56
morning set	4764 Nov 28 17:43	28°♄32'51			4765 Nov 05 01:34	0°♄	
	4764 Nov 29 13:57	0°♂		morning set	4765 Nov 11 14:26	11°♄37'06	
					4765 Nov 21 22:41	0°♂	
superior conj	4764 Dec 11 08:09	19°♂47'51	0°03'20				
minimum elong	4764 Dec 11 08:31	19°♂49'21	0°03'17	superior conj	4765 Nov 22 10:00	0°♂48'43	0°43'22
behind sun begin	4764 Dec 10 22:54	19°♂09'56		minimum elong	4765 Nov 22 13:32	1°♂03'57	0°42'53
behind sun end	4764 Dec 11 18:08	20°♂28'41		desc. node	4765 Nov 28 16:32	11°♂21'49	
desc. node	4764 Dec 11 19:33	20°♂34'26		max. Earth dist.	4765 Nov 29 17:46	13°♂05'17	1.42978 AU
max. Earth dist.	4764 Dec 17 03:33	29°♂10'27	1.44392 AU	evening rise	4765 Dec 06 17:49	24°♂17'02	
	4764 Dec 17 16:01	0°♂			4765 Dec 10 10:19	0°♂	
evening rise	4764 Dec 27 03:55	14°♂49'56			4765 Dec 31 06:21	0°♄	
	4765 Jan 06 04:06	0°♄		greatest brilliancy	4766 Jan 02 14:40	2°♄58'09	-0.4m
greatest brilliancy	4765 Jan 18 18:06	17°♄56'27	-0.5m	evening max el	4766 Jan 07 08:55	8°♄22'09	21°49'40
evening max el	4765 Jan 24 12:31	24°♄47'14	20°37'09	retrograde	4766 Jan 16 13:37	13°♄50'06	
asc. node	4765 Feb 01 04:54	29°♄34'28		asc. node	4766 Jan 19 01:56	13°♄16'18	
retrograde	4765 Feb 01 16:18	29°♄35'41		evening set	4766 Jan 20 21:38	12°♄07'35	
evening set	4765 Feb 05 13:46	28°♄08'31		inferior conj	4766 Jan 26 06:57	5°♄46'51	2°14'09
inferior conj	4765 Feb 10 23:32	21°♄57'13	2°49'21	minimum elong	4766 Jan 26 04:34	5°♄55'07	2°13'23
minimum elong	4765 Feb 10 21:10	22°♄05'22	2°48'47	min. Earth dist.	4766 Jan 26 09:00	5°♄39'43	0.68010 AU
min. Earth dist.	4765 Feb 11 13:43	21°♄08'40	0.67579 AU		4766 Jan 30 23:19	30°♄	
morning rise	4765 Feb 16 04:05	15°♄41'13		morning rise	4766 Jan 31 11:15	29°♂33'00	
direct	4765 Feb 21 16:12	13°♄15'29		direct	4766 Feb 05 08:41	27°♂28'19	
morning max el	4765 Mar 04 19:38	19°♄54'59	24°14'58		4766 Feb 11 11:52	0°♄	
desc. node	4765 Mar 09 18:44	25°♄26'33		morning max el	4766 Feb 15 05:27	3°♄18'37	22°45'38
	4765 Mar 13 10:06	0°♂		greatest brilliancy	4766 Feb 19 20:42	8°♄28'41	-0.3m
	4765 Apr 02 18:15	0°♂		desc. node	4766 Feb 24 15:46	14°♄34'37	
morning set	4765 Apr 09 13:34	11°♂26'26			4766 Mar 07 13:06	0°♂	
max. Earth dist.	4765 Apr 13 07:17	18°♂02'47	1.37925 AU	morning set	4766 Mar 21 10:03	21°♂44'26	
	4765 Apr 19 18:01	0°♂		max. Earth dist.	4766 Mar 26 02:39	29°♂37'04	1.40120 AU
					4766 Mar 26 08:00	0°♂	
superior conj	4765 Apr 20 08:12	1°♂07'49	-1°-28'-16				
minimum elong	4765 Apr 20 12:50	1°♂30'02	1°27'40	superior conj	4766 Apr 02 21:22	13°♂21'00	-1°-51'-50
evening rise	4765 Apr 29 04:29	18°♂29'17		minimum elong	4766 Apr 03 02:09	13°♂42'43	1°51'26
asc. node	4765 Apr 30 04:13	20°♂26'12			4766 Apr 11 19:03	0°♂	
	4765 May 05 04:39	0°♄		evening rise	4766 Apr 12 18:59	1°♂53'44	
evening max el	4765 May 15 17:10	15°♄16'24	19°04'27	asc. node	4766 Apr 17 01:14	9°♂54'02	
retrograde	4765 May 24 11:26	19°♄33'16		evening max el	4766 Apr 28 21:35	27°♂44'12	18°26'28
evening set	4765 May 26 11:47	19°♄20'37			4766 May 01 17:24	0°♄	
inferior conj	4765 Jun 03 18:41	15°♄07'25	0°34'28	retrograde	4766 May 06 09:30	1°♄26'48	
minimum elong	4765 Jun 03 20:04	15°♄05'02	0°33'58	evening set	4766 May 08 16:12	1°♄07'14	
desc. node	4765 Jun 05 17:56	13°♄45'49			4766 May 11 07:43	30°♄	
min. Earth dist.	4765 Jun 06 18:33	13°♄04'20	0.56470 AU	inferior conj	4766 May 16 03:40	26°♂34'06	2°01'48
morning rise	4765 Jun 11 23:57	10°♄12'54		minimum elong	4766 May 16 07:09	26°♂27'03	2°00'46
direct	4765 Jun 17 03:23	9°♄10'45		min. Earth dist.	4766 May 19 14:01	23°♂49'24	0.58382 AU
morning max el	4765 Jul 01 09:43	16°♄31'07	25°42'18	morning rise	4766 May 23 17:42	21°♂06'46	
	4765 Jul 12 09:26	0°♄		desc. node	4766 May 23 14:57	21°♂10'20	
asc. node	4765 Jul 27 03:31	26°♄18'28		direct	4766 May 29 18:37	19°♂31'50	
morning set	4765 Jul 28 20:15	29°♄51'39		morning max el	4766 Jun 13 03:56	27°♂14'30	26°59'33
	4765 Jul 28 21:50	0°♄			4766 Jun 15 19:32	0°♄	
					4766 Jul 05 21:27	0°♄	
superior conj	4765 Aug 04 19:41	15°♄02'33	1°19'39	morning set	4766 Jul 13 05:48	14°♄35'36	
minimum elong	4765 Aug 04 17:23	14°♄49'57	1°19'20	asc. node	4766 Jul 14 00:32	16°♄14'31	
max. Earth dist.	4765 Aug 05 18:28	17°♄07'41	1.32324 AU				
evening rise	4765 Aug 11 21:22	0°♄14'57		superior conj	4766 Jul 20 07:28	29°♄56'53	1°01'37
	4765 Aug 11 18:29	0°♄		minimum elong	4766 Jul 20 05:15	29°♄44'40	1°01'13
	4765 Aug 28 07:01	0°♄		max. Earth dist.	4766 Jul 20 05:27	29°♄45'43	1.31977 AU
desc. node	4765 Sep 01 17:15	6°♄29'25			4766 Jul 20 08:02	0°♄	
evening max el	4765 Sep 12 17:17	19°♄28'08	27°17'29	evening rise	4766 Jul 27 04:35	14°♄55'29	
retrograde	4765 Sep 26 13:18	26°♄42'14			4766 Aug 03 18:14	0°♄	
evening set	4765 Oct 03 16:57	24°♄19'52		desc. node	4766 Aug 19 14:15	24°♄37'21	
min. Earth dist.	4765 Oct 07 07:46	21°♄31'07	0.61895 AU		4766 Aug 24 08:16	0°♄	
inferior conj	4765 Oct 10 07:56	18°♄47'12	-3°-51'-41	evening max el	4766 Aug 25 19:23	1°♄26'24	26°35'17
minimum elong	4765 Oct 10 14:03	18°♄33'18	3°49'57	retrograde	4766 Sep 08 18:04	8°♄35'48	
morning rise	4765 Oct 17 14:15	13°♄46'00		evening set	4766 Sep 15 12:35	6°♄40'33	
direct	4765 Oct 19 21:09	13°♄23'27		min. Earth dist.	4766 Sep 19 09:10	4°♄05'29	0.59848 AU

inferior conj	4766 Sep 22 15:04	1°♄30'51	-4°-42'-32	min. Earth dist.	4767 Sep 01 01:40	15°♄41'53	0.57822 AU
minimum elong	4766 Sep 22 20:41	1°♄19'40	4°41'31	inferior conj	4767 Sep 04 03:33	13°♄34'50	-5°-12'-39
	4766 Sep 24 13:49	30°♄		minimum elong	4767 Sep 04 05:41	13°♄31'08	5°12'33
morning rise	4766 Sep 30 08:10	26°♄51'45		morning rise	4767 Sep 12 05:41	9°♄19'07	
direct	4766 Oct 02 15:38	26°♄32'14		direct	4767 Sep 14 17:32	9°♄00'16	
asc. node	4766 Oct 09 23:46	29°♄59'53		morning max el	4767 Sep 23 09:57	13°♄07'24	18°55'58
	4766 Oct 09 23:49	0°♄		asc. node	4767 Sep 26 20:47	17°♄00'03	
morning max el	4766 Oct 10 06:30	0°♄15'54	18°14'00		4767 Oct 04 23:10	0°♄	
morning set	4766 Oct 26 01:45	25°♄22'22		morning set	4767 Oct 09 23:11	9°♄36'13	
	4766 Oct 28 12:25	0°♄					
superior conj	4766 Nov 04 12:24	13°♄00'29	1°13'01	superior conj	4767 Oct 18 10:14	26°♄08'58	1°32'06
minimum elong	4766 Nov 04 16:19	13°♄18'13	1°12'35	minimum elong	4767 Oct 18 13:00	26°♄22'08	1°31'53
max. Earth dist.	4766 Nov 12 03:06	26°♄22'50	1.41113 AU		4767 Oct 20 11:02	0°♄	
	4766 Nov 14 06:42	0°♄		max. Earth dist.	4767 Oct 25 08:37	8°♄58'23	1.39025 AU
desc. node	4766 Nov 15 13:33	2°♄07'54		evening rise	4767 Oct 29 06:36	15°♄49'30	
evening rise	4766 Nov 17 00:47	4°♄32'17		desc. node	4767 Nov 02 10:35	22°♄48'57	
	4766 Dec 03 16:54	0°♄			4767 Nov 06 21:56	0°♄	
greatest brilliancy	4766 Dec 13 21:52	13°♄49'12	-0.2m		4767 Nov 28 09:29	0°♄	
evening max el	4766 Dec 21 00:53	21°♄59'41	23°08'36	evening max el	4767 Dec 03 14:11	5°♄40'40	24°27'54
retrograde	4766 Dec 31 08:18	28°♄06'01		retrograde	4767 Dec 14 23:18	12°♄19'47	
evening set	4767 Jan 05 04:32	26°♄07'31		evening set	4767 Dec 20 08:58	10°♄05'35	
asc. node	4767 Jan 05 22:58	25°♄26'16		asc. node	4767 Dec 23 20:00	6°♄21'27	
min. Earth dist.	4767 Jan 10 05:44	20°♄12'46	0.68061 AU	min. Earth dist.	4767 Dec 25 01:36	4°♄44'54	0.67747 AU
inferior conj	4767 Jan 10 14:55	19°♄41'10	1°31'19	inferior conj	4767 Dec 25 21:42	3°♄37'43	0°41'51
minimum elong	4767 Jan 10 13:01	19°♄47'44	1°30'36	minimum elong	4767 Dec 25 20:42	3°♄41'02	0°41'27
morning rise	4767 Jan 15 21:30	13°♄31'19			4767 Dec 28 18:34	30°♄	
direct	4767 Jan 20 04:29	11°♄49'33		morning rise	4767 Dec 31 08:51	27°♄33'59	
morning max el	4767 Jan 28 20:06	16°♄50'55	21°21'07	direct	4768 Jan 04 02:27	26°♄14'15	
greatest brilliancy	4767 Feb 02 22:02	22°♄37'39	-0.4m		4768 Jan 11 03:53	0°♄	
	4767 Feb 08 12:00	0°♄		morning max el	4768 Jan 11 18:23	0°♄35'18	20°07'33
desc. node	4767 Feb 11 12:47	4°♄15'28		greatest brilliancy	4768 Jan 18 13:10	8°♄42'40	-0.6m
	4767 Feb 28 15:19	0°♄		desc. node	4768 Jan 29 09:49	24°♄20'13	
morning set	4767 Mar 01 01:58	0°♄41'58			4768 Feb 02 03:56	0°♄	
max. Earth dist.	4767 Mar 08 03:47	12°♄05'50	1.42195 AU	morning set	4768 Feb 07 23:17	8°♄53'26	
				max. Earth dist.	4768 Feb 18 13:00	25°♄29'13	1.43872 AU
superior conj	4767 Mar 15 13:42	24°♄34'33	-2°-6'-22		4768 Feb 21 08:18	0°♄	
minimum elong	4767 Mar 15 16:08	24°♄45'05	2°06'18	superior conj	4768 Feb 24 04:54	4°♄39'27	-2°-6'-23
	4767 Mar 18 16:28	0°♄		minimum elong	4768 Feb 24 01:54	4°♄27'09	2°06'19
evening rise	4767 Mar 26 20:14	14°♄37'37		evening rise	4768 Mar 08 03:53	26°♄31'58	
asc. node	4767 Apr 03 22:15	28°♄58'45			4768 Mar 10 04:02	0°♄	
	4767 Apr 04 12:58	0°♄		asc. node	4768 Mar 20 19:16	17°♄32'28	
evening max el	4767 Apr 12 07:49	10°♄39'28	18°08'25	evening max el	4768 Mar 25 20:28	23°♄52'39	18°09'38
retrograde	4767 Apr 19 01:25	14°♄04'37		retrograde	4768 Apr 01 06:47	27°♄15'34	
evening set	4767 Apr 21 14:35	13°♄35'34		evening set	4768 Apr 04 01:56	26°♄35'37	
inferior conj	4767 Apr 28 09:12	8°♄41'06	2°57'42	inferior conj	4768 Apr 10 07:37	21°♄20'51	3°26'27
minimum elong	4767 Apr 28 12:14	8°♄33'59	2°57'05	minimum elong	4768 Apr 10 09:06	21°♄16'54	3°26'19
min. Earth dist.	4767 May 01 15:50	5°♄38'16	0.60563 AU	min. Earth dist.	4768 Apr 13 02:19	18°♄24'01	0.62702 AU
morning rise	4767 May 05 06:28	2°♄50'17		morning rise	4768 Apr 16 13:55	15°♄15'45	
desc. node	4767 May 10 11:58	0°♄47'33		direct	4768 Apr 23 10:22	12°♄41'29	
direct	4767 May 11 21:42	0°♄41'53		desc. node	4768 Apr 26 09:00	13°♄07'11	
morning max el	4767 May 26 04:35	8°♄36'41	27°44'00	morning max el	4768 May 07 11:01	20°♄41'09	27°50'45
	4767 Jun 11 13:16	0°♄			4768 May 15 11:45	0°♄	
morning set	4767 Jun 27 11:42	29°♄06'46			4768 Jun 03 14:03	0°♄	
	4767 Jun 27 21:58	0°♄		morning set	4768 Jun 10 11:49	13°♄17'40	
asc. node	4767 Jun 30 21:32	6°♄18'45		max. Earth dist.	4768 Jun 15 23:15	24°♄42'21	1.32536 AU
max. Earth dist.	4767 Jul 03 16:23	12°♄21'57	1.32046 AU	asc. node	4768 Jun 16 18:33	26°♄26'00	
superior conj	4767 Jul 04 18:40	14°♄46'13	0°39'37	superior conj	4768 Jun 18 03:27	29°♄23'49	0°14'16
minimum elong	4767 Jul 04 17:00	14°♄37'04	0°39'17	minimum elong	4768 Jun 18 02:46	29°♄20'09	0°14'07
evening rise	4767 Jul 11 15:05	29°♄43'20		behind sun begin	4768 Jun 18 00:20	29°♄06'57	
	4767 Jul 11 18:13	0°♄		behind sun end	4768 Jun 18 05:12	29°♄33'21	
	4767 Jul 28 05:57	0°♄			4768 Jun 18 10:07	0°♄	
desc. node	4767 Aug 06 11:15	11°♄30'13		evening rise	4768 Jun 25 02:52	14°♄30'56	
evening max el	4767 Aug 07 13:55	12°♄35'55	25°22'27		4768 Jul 02 20:39	0°♄	
retrograde	4767 Aug 21 12:40	19°♄40'13		evening max el	4768 Jul 19 02:50	23°♄06'46	23°49'40
evening set	4767 Aug 27 09:09	18°♄21'06		desc. node	4768 Jul 23 08:16	26°♄38'03	

retrograde	4768 Aug 01 19:33	29°♄59'50		asc. node	4769 Jun 03 15:36	16°♄32'29	
evening set	4768 Aug 06 05:57	29°♄16'32		evening rise	4769 Jun 09 14:06	29°♄12'25	
min. Earth dist.	4768 Aug 12 12:59	26°♄15'04	0.56100 AU		4769 Jun 09 23:09	0°♄	
inferior conj	4768 Aug 14 19:44	24°♄52'09	-5°-6'-18		4769 Jun 27 12:18	0°♄	
minimum elong	4768 Aug 14 15:41	24°♄58'18	5°05'56	evening max el	4769 Jun 30 17:24	3°♄29'23	22°12'40
morning rise	4768 Aug 23 04:45	20°♄55'58		desc. node	4769 Jul 10 05:18	9°♄26'31	
direct	4768 Aug 25 23:46	20°♄36'13		retrograde	4769 Jul 13 14:41	9°♄53'14	
morning max el	4768 Sep 05 02:42	25°♄18'35	19°59'49	evening set	4769 Jul 16 13:50	9°♄33'44	
	4768 Sep 09 07:25	0°♄		min. Earth dist.	4769 Jul 24 23:18	5°♄55'59	0.55023 AU
asc. node	4768 Sep 12 17:49	4°♄55'20		inferior conj	4769 Jul 25 19:04	5°♄28'07	-4°-9'-54
morning set	4768 Sep 23 03:28	24°♄09'09		minimum elong	4769 Jul 25 10:31	5°♄40'11	4°07'51
	4768 Sep 26 00:13	0°♄		morning rise	4769 Aug 03 09:10	1°♄38'17	
				direct	4769 Aug 06 13:35	1°♄15'36	
superior conj	4768 Sep 30 22:19	9°♄59'12	1°41'48	morning max el	4769 Aug 18 07:28	6°♄44'32	21°24'19
minimum elong	4768 Sep 30 23:28	10°♄04'58	1°41'45	asc. node	4769 Aug 30 14:52	23°♄33'05	
max. Earth dist.	4768 Oct 06 14:02	21°♄00'16	1.36965 AU		4769 Sep 03 02:09	0°♄	
evening rise	4768 Oct 10 10:15	28°♄06'32		morning set	4769 Sep 07 12:07	8°♄54'22	
	4768 Oct 11 11:31	0°♄					
desc. node	4768 Oct 19 07:36	13°♄20'41		superior conj	4769 Sep 14 20:25	24°♄18'48	1°43'33
	4768 Oct 30 06:47	0°♄		minimum elong	4769 Sep 14 20:05	24°♄17'03	1°43'32
evening max el	4768 Nov 15 02:35	19°♄23'39	25°40'43		4769 Sep 17 14:48	0°♄	
retrograde	4768 Nov 27 09:51	26°♄26'29		max. Earth dist.	4769 Sep 19 00:47	2°♄51'14	1.35158 AU
evening set	4768 Dec 03 09:18	23°♄58'36		evening rise	4769 Sep 23 07:55	11°♄13'57	
min. Earth dist.	4768 Dec 07 18:22	19°♄12'59	0.67074 AU		4769 Oct 03 22:43	0°♄	
inferior conj	4768 Dec 09 01:30	17°♄33'54	0°-13'-15	desc. node	4769 Oct 06 04:38	3°♄37'41	
minimum elong	4768 Dec 09 01:51	17°♄32'48	0°13'07		4769 Oct 25 15:28	0°♄	
transit middle	4768 Dec 09 01:51	17°♄32'48	0°13'07	evening max el	4769 Oct 28 15:11	3°♄03'37	26°39'34
transit begin	4768 Dec 09 00:12	17°♄38'03		retrograde	4769 Nov 10 15:13	10°♄19'04	
transit end	4768 Dec 09 03:30	17°♄27'34		evening set	4769 Nov 17 03:33	7°♄41'57	
asc. node	4768 Dec 09 17:03	16°♄44'41		min. Earth dist.	4769 Nov 21 05:43	3°♄32'03	0.66052 AU
morning rise	4768 Dec 14 19:20	11°♄38'31		inferior conj	4769 Nov 23 00:21	1°♄25'28	-1°-12'-54
direct	4768 Dec 18 01:10	10°♄38'02		minimum elong	4769 Nov 23 02:22	1°♄19'26	1°12'03
morning max el	4768 Dec 25 00:34	14°♄30'25	19°08'20		4769 Nov 24 05:32	30°♄	
greatest brilliancy	4769 Jan 04 20:21	28°♄42'57	-0.7m	asc. node	4769 Nov 26 14:07	27°♄31'56	
	4769 Jan 05 16:58	0°♄		morning rise	4769 Nov 29 02:43	25°♄41'00	
desc. node	4769 Jan 15 06:52	14°♄42'20		direct	4769 Dec 01 22:53	24°♄56'00	
morning set	4769 Jan 17 02:03	17°♄30'02		morning max el	4769 Dec 08 12:54	28°♄30'35	18°25'01
	4769 Jan 25 02:36	0°♄			4769 Dec 09 22:22	0°♄	
max. Earth dist.	4769 Jan 31 04:16	9°♄30'56	1.44946 AU	morning set	4769 Dec 28 06:05	27°♄25'16	
					4769 Dec 29 20:43	0°♄	
superior conj	4769 Feb 02 20:03	13°♄42'42	-1°-47'-19	desc. node	4770 Jan 02 03:54	5°♄16'10	
minimum elong	4769 Feb 02 11:29	13°♄08'50	1°46'39				
	4769 Feb 12 23:46	0°♄		superior conj	4770 Jan 12 22:56	22°♄19'00	-1°-9'-59
evening rise	4769 Feb 17 13:57	7°♄30'32		minimum elong	4770 Jan 12 14:37	21°♄46'23	1°08'59
	4769 Mar 03 14:31	0°♄		max. Earth dist.	4770 Jan 13 22:41	23°♄52'09	1.45309 AU
asc. node	4769 Mar 07 16:19	5°♄26'07			4770 Jan 17 20:36	0°♄	
evening max el	4769 Mar 09 08:46	7°♄17'15	18°29'27	evening rise	4770 Jan 29 00:41	17°♄32'31	
retrograde	4769 Mar 15 21:09	10°♄50'56			4770 Feb 05 22:32	0°♄	
evening set	4769 Mar 18 22:20	9°♄59'07		greatest brilliancy	4770 Feb 10 16:35	7°♄20'38	-0.7m
inferior conj	4769 Mar 24 18:50	4°♄25'51	3°34'11	evening max el	4770 Feb 20 18:17	20°♄47'29	19°06'55
minimum elong	4769 Mar 24 18:41	4°♄26'18	3°34'12	asc. node	4770 Feb 22 13:23	22°♄27'13	
min. Earth dist.	4769 Mar 26 22:24	1°♄53'58	0.64582 AU	retrograde	4770 Feb 27 16:40	24°♄43'05	
	4769 Mar 28 15:58	30°♄		evening set	4770 Mar 03 00:43	23°♄38'21	
morning rise	4769 Mar 30 13:30	28°♄13'17		inferior conj	4770 Mar 08 15:08	17°♄48'35	3°26'04
direct	4769 Apr 06 07:14	25°♄25'40		minimum elong	4770 Mar 08 13:44	17°♄53'04	3°25'55
desc. node	4769 Apr 13 06:03	27°♄49'07		min. Earth dist.	4770 Mar 10 03:18	15°♄53'24	0.66084 AU
	4769 Apr 16 05:20	0°♄		morning rise	4770 Mar 14 01:46	11°♄32'54	
morning max el	4769 Apr 19 20:38	3°♄20'45	27°21'36	direct	4770 Mar 20 10:47	8°♄45'25	
	4769 May 09 21:09	0°♄		desc. node	4770 Mar 31 03:06	14°♄18'43	
morning set	4769 May 25 03:30	27°♄00'23		morning max el	4770 Apr 02 06:34	16°♄22'21	26°23'16
	4769 May 26 15:57	0°♄			4770 Apr 13 13:31	0°♄	
max. Earth dist.	4769 May 29 21:55	6°♄35'03	1.33475 AU		4770 May 02 18:02	0°♄	
				morning set	4770 May 08 07:09	10°♄04'18	
superior conj	4769 Jun 02 07:55	13°♄44'03	0°-13'-40	max. Earth dist.	4770 May 12 09:25	17°♄55'50	1.34881 AU
minimum elong	4769 Jun 02 08:38	13°♄47'48	0°13'33				
behind sun begin	4769 Jun 02 05:41	13°♄32'14		superior conj	4770 May 17 05:45	27°♄40'16	0°-43'-7
behind sun end	4769 Jun 02 11:34	14°♄03'22		minimum elong	4770 May 17 08:06	27°♄52'17	0°42'41

	4770 May 18 08:54	0°♂		minimum elong	4771 Apr 30 21:57	11°♂23'50	1°11'47
asc. node	4770 May 21 12:40	6°♂34'06		asc. node	4771 May 08 09:42	26°♂26'28	
evening rise	4770 May 24 22:47	13°♂41'40		evening rise	4771 May 09 02:41	27°♂52'03	
	4770 Jun 02 08:58	0°♂			4771 May 10 04:13	0°♂	
evening max el	4770 Jun 12 17:25	14°♂16'25	20°45'23	evening max el	4771 May 26 05:47	25°♂43'23	19°35'29
retrograde	4770 Jun 24 03:14	19°♂51'52			4771 Jun 01 22:15	0°♂	
evening set	4770 Jun 26 05:37	19°♂41'17		retrograde	4771 Jun 04 21:43	0°♂26'16	
desc. node	4770 Jun 27 02:18	19°♂31'05		evening set	4771 Jun 06 20:13	0°♂15'44	
inferior conj	4770 Jul 05 12:19	15°♂44'28	-2°-27'-52		4771 Jun 07 23:51	30°♂♂	
minimum elong	4770 Jul 05 05:31	15°♂54'09	2°25'32	desc. node	4771 Jun 13 23:20	27°♂11'37	
min. Earth dist.	4770 Jul 06 10:43	15°♂12'29	0.54849 AU	inferior conj	4771 Jun 15 13:54	26°♂11'36	0°-28'-41
morning rise	4770 Jul 14 04:30	11°♂41'28		minimum elong	4771 Jun 15 12:37	26°♂13'38	0°28'13
direct	4770 Jul 17 22:58	11°♂10'53		min. Earth dist.	4771 Jun 17 23:59	24°♂40'07	0.55642 AU
morning max el	4770 Jul 31 02:05	17°♂29'41	23°03'57	morning rise	4771 Jun 24 01:32	21°♂38'29	
	4770 Aug 10 03:49	0°♂		direct	4771 Jun 28 16:03	20°♂51'07	
asc. node	4770 Aug 17 11:56	12°♂43'03		morning max el	4771 Jul 12 15:49	27°♂51'50	24°47'21
morning set	4770 Aug 22 23:14	23°♂46'41			4771 Jul 14 18:37	0°♂	
	4770 Aug 25 21:17	0°♂			4771 Aug 03 05:48	0°♂	
				asc. node	4771 Aug 04 08:58	2°♂15'59	
superior conj	4770 Aug 30 01:21	8°♂58'17	1°38'37	morning set	4771 Aug 07 11:02	8°♂39'49	
minimum elong	4770 Aug 29 23:54	8°♂50'29	1°38'31				
max. Earth dist.	4770 Sep 01 20:30	14°♂54'19	1.33730 AU	superior conj	4771 Aug 14 10:31	23°♂48'32	1°28'01
evening rise	4770 Sep 06 19:23	25°♂00'50		minimum elong	4771 Aug 14 08:24	23°♂36'56	1°27'47
	4770 Sep 09 08:57	0°♂		max. Earth dist.	4771 Aug 16 00:34	27°♂15'32	1.32721 AU
desc. node	4770 Sep 23 01:38	23°♂33'26			4771 Aug 17 07:02	0°♂	
	4770 Sep 27 10:18	0°♂		evening rise	4771 Aug 21 16:48	9°♂15'15	
evening max el	4770 Oct 11 03:44	16°♂32'12	27°17'02		4771 Sep 01 17:48	0°♂	
retrograde	4770 Oct 24 14:41	23°♂50'20		desc. node	4771 Sep 09 22:38	12°♂58'02	
evening set	4770 Oct 31 13:21	21°♂11'01		evening max el	4771 Sep 23 14:13	29°♂35'21	27°26'31
min. Earth dist.	4770 Nov 04 09:23	17°♂36'18	0.64691 AU		4771 Sep 24 00:45	0°♂	
inferior conj	4770 Nov 06 15:57	15°♂08'06	-2°-15'-17	retrograde	4771 Oct 07 07:26	6°♂50'43	
minimum elong	4770 Nov 06 19:50	14°♂57'31	2°13'46	evening set	4771 Oct 14 11:37	4°♂18'50	
morning rise	4770 Nov 13 04:28	9°♂37'34		min. Earth dist.	4771 Oct 18 03:15	1°♂15'44	0.63002 AU
asc. node	4770 Nov 13 11:09	9°♂30'40			4771 Oct 19 10:40	30°♂♂	
direct	4770 Nov 15 17:21	9°♂04'01		inferior conj	4771 Oct 20 21:31	28°♂34'20	-3°-17'-36
morning max el	4770 Nov 22 04:52	12°♂30'09	17°58'32	minimum elong	4771 Oct 21 03:04	28°♂20'48	3°15'47
	4770 Dec 04 09:12	0°♂		morning rise	4771 Oct 27 21:14	23°♂21'19	
morning set	4770 Dec 09 15:33	8°♂48'01		direct	4771 Oct 30 05:34	22°♂55'34	
desc. node	4770 Dec 20 00:57	25°♂58'03		asc. node	4771 Oct 31 08:12	23°♂01'28	
	4770 Dec 22 12:54	0°♂		morning max el	4771 Nov 05 21:31	26°♂21'32	17°49'40
					4771 Nov 09 00:34	0°♂	
superior conj	4770 Dec 23 09:57	1°♂24'24	0°-23'-15	morning set	4771 Nov 22 01:14	21°♂20'31	
minimum elong	4770 Dec 23 07:08	1°♂13'07	0°22'52		4771 Nov 27 00:00	0°♂	
max. Earth dist.	4770 Dec 27 17:56	8°♂17'38	1.44935 AU				
evening rise	4771 Jan 08 16:44	26°♂53'56		superior conj	4771 Dec 03 20:14	11°♂39'06	0°21'28
	4771 Jan 10 17:08	0°♂		minimum elong	4771 Dec 03 22:21	11°♂47'55	0°21'10
greatest brilliancy	4771 Jan 28 04:09	25°♂59'03	-0.6m	desc. node	4771 Dec 06 21:57	16°♂44'02	
	4771 Jan 31 05:04	0°♂		max. Earth dist.	4771 Dec 10 11:03	22°♂29'32	1.43864 AU
evening max el	4771 Feb 03 23:17	4°♂20'21	20°00'17		4771 Dec 15 04:25	0°♂	
asc. node	4771 Feb 09 10:25	8°♂21'49		evening rise	4771 Dec 19 02:42	6°♂07'09	
retrograde	4771 Feb 11 14:31	8°♂47'02			4772 Jan 04 02:00	0°♂	
evening set	4771 Feb 15 06:43	7°♂28'19		greatest brilliancy	4772 Jan 12 18:04	11°♂52'08	-0.4m
inferior conj	4771 Feb 20 17:35	1°♂24'14	3°05'41	evening max el	4772 Jan 17 22:47	17°♂54'08	21°06'55
minimum elong	4771 Feb 20 15:25	1°♂31'31	3°05'15	retrograde	4772 Jan 26 12:31	22°♂58'42	
min. Earth dist.	4771 Feb 21 15:22	0°♂11'06	0.67161 AU	asc. node	4772 Jan 27 07:27	22°♂55'20	
	4771 Feb 21 18:42	30°♂♂		evening set	4772 Jan 30 14:23	21°♂24'54	
morning rise	4771 Feb 25 23:30	25°♂08'00		inferior conj	4772 Feb 04 23:45	15°♂09'16	2°35'26
direct	4771 Mar 03 19:58	22°♂32'00		minimum elong	4772 Feb 04 21:18	15°♂17'41	2°34'45
morning max el	4771 Mar 15 15:26	29°♂35'36	25°04'59	min. Earth dist.	4772 Feb 05 08:35	14°♂38'46	0.67813 AU
	4771 Mar 16 00:59	0°♂		morning rise	4772 Feb 10 03:53	8°♂54'15	
desc. node	4771 Mar 18 00:09	2°♂06'18		direct	4772 Feb 15 09:50	6°♂37'09	
	4771 Apr 07 10:07	0°♂		morning max el	4772 Feb 26 00:10	12°♂55'36	23°36'59
morning set	4771 Apr 20 18:01	22°♂15'50		desc. node	4772 Mar 03 21:11	20°♂49'39	
max. Earth dist.	4771 Apr 24 10:17	28°♂58'01	1.36725 AU		4772 Mar 10 18:00	0°♂	
	4771 Apr 24 23:35	0°♂			4772 Mar 30 06:47	0°♂	
				morning set	4772 Apr 01 06:13	3°♂19'32	
superior conj	4771 Apr 30 18:00	11°♂04'25	-1°-12'-24	max. Earth dist.	4772 Apr 05 05:59	10°♂13'23	1.38857 AU

superior conj	4772 Apr 12 16:55	23° Υ 46'52	-1°-39'-3		4773 Mar 22 17:29	0° Υ	
minimum elong	4772 Apr 12 21:50	24° Υ 09'54	1°38'29				
	4772 Apr 15 23:31	0° Υ		superior conj	4773 Mar 25 21:46	5° Υ 35'20	-1°-59'-24
evening rise	4772 Apr 21 23:04	11° Υ 36'12		minimum elong	4773 Mar 26 01:56	5° Υ 53'53	1°59'09
asc. node	4772 Apr 24 06:44	16° Υ 05'06		evening rise	4773 Apr 05 08:26	24° Υ 44'26	
	4772 May 02 02:45	0° Π			4773 Apr 08 04:24	0° Υ	
evening max el	4772 May 08 05:12	7° Π 50'56	18°45'45	asc. node	4773 Apr 11 03:45	5° Υ 23'53	
retrograde	4772 May 16 09:06	11° Π 51'27		evening max el	4773 Apr 21 12:26	20° Υ 30'58	18°16'22
evening set	4772 May 18 12:01	11° Π 36'12		retrograde	4773 Apr 28 15:21	24° Υ 04'36	
inferior conj	4772 May 26 10:28	7° Π 14'30	1°15'21	evening set	4773 May 01 00:42	23° Υ 41'22	
minimum elong	4772 May 26 13:08	7° Π 09'34	1°14'26	inferior conj	4773 May 08 04:34	18° Υ 59'05	2°29'10
min. Earth dist.	4772 May 29 16:36	4° Π 51'37	0.57228 AU	minimum elong	4773 May 08 08:05	18° Υ 51'29	2°28'16
desc. node	4772 May 30 20:21	4° Π 04'24		min. Earth dist.	4773 May 11 14:39	16° Υ 03'29	0.59291 AU
morning rise	4772 Jun 03 09:46	2° Π 05'17		morning rise	4773 May 15 11:22	13° Υ 20'07	
direct	4772 Jun 08 22:44	0° Π 50'16		desc. node	4773 May 17 17:23	12° Υ 16'14	
morning max el	4772 Jun 23 07:17	8° Π 20'48	26°18'36	direct	4773 May 21 19:12	11° Υ 30'38	
	4772 Jul 09 13:19	0° Θ		morning max el	4773 Jun 05 04:26	19° Υ 20'06	27°22'55
asc. node	4772 Jul 21 06:00	22° Θ 05'23			4773 Jun 14 05:33	0° Π	
morning set	4772 Jul 21 21:53	23° Θ 28'54			4773 Jul 02 05:56	0° Θ	
	4772 Jul 24 22:42	0° Ω		morning set	4773 Jul 06 06:08	8° Θ 08'13	
				asc. node	4773 Jul 08 03:01	12° Θ 05'24	
superior conj	4772 Jul 28 21:53	8° Ω 43'07	1°12'31	superior conj	4773 Jul 13 09:38	23° Θ 35'53	0°52'44
minimum elong	4772 Jul 28 19:34	8° Ω 30'21	1°12'09	minimum elong	4773 Jul 13 07:36	23° Θ 24'39	0°52'21
max. Earth dist.	4772 Jul 29 10:06	9° Ω 50'29	1.32132 AU	max. Earth dist.	4773 Jul 12 21:31	22° Θ 29'00	1.31954 AU
evening rise	4772 Aug 04 21:09	23° Ω 48'22			4773 Jul 16 07:18	0° Ω	
	4772 Aug 07 21:42	0° Π		evening rise	4773 Jul 20 06:01	8° Ω 32'27	
	4772 Aug 25 14:29	0° Ω			4773 Jul 31 08:12	0° Π	
desc. node	4772 Aug 26 19:37	1° Ω 38'47		desc. node	4773 Aug 13 16:38	19° Π 17'54	
evening max el	4772 Sep 04 19:57	11° Ω 59'36	27°03'28	evening max el	4773 Aug 17 18:39	23° Π 36'06	26°07'28
retrograde	4772 Sep 18 16:52	19° Ω 11'13			4773 Aug 27 10:40	0° Ω	
evening set	4772 Sep 25 18:21	16° Ω 58'42		retrograde	4773 Aug 31 17:54	0° Ω 44'23	
min. Earth dist.	4772 Sep 29 10:15	14° Ω 18'01	0.61046 AU		4773 Sep 04 23:55	30° Π	
inferior conj	4772 Oct 02 13:50	11° Ω 35'55	-4°-14'-56	evening set	4773 Sep 07 04:45	29° Π 03'27	
minimum elong	4772 Oct 02 20:01	11° Ω 22'36	4°13'26	min. Earth dist.	4773 Sep 11 07:27	26° Π 29'06	0.58967 AU
morning rise	4772 Oct 10 00:54	6° Ω 43'58		inferior conj	4773 Sep 14 13:22	24° Π 03'36	-4°-58'-44
direct	4772 Oct 12 07:44	6° Ω 22'57		minimum elong	4773 Sep 14 17:56	23° Π 55'03	4°58'08
asc. node	4772 Oct 17 05:14	8° Ω 03'49		morning rise	4773 Sep 22 10:39	19° Π 34'53	
morning max el	4772 Oct 19 11:44	9° Ω 57'13	17°59'27	direct	4773 Sep 24 19:26	19° Π 16'01	
	4772 Nov 01 15:03	0° Π		morning max el	4773 Oct 02 20:10	23° Π 08'15	18°29'16
morning set	4772 Nov 04 04:44	4° Π 43'30		asc. node	4773 Oct 04 02:16	24° Π 25'36	
					4773 Oct 08 08:35	0° Ω	
superior conj	4772 Nov 14 09:02	23° Π 11'21	0°57'17	morning set	4773 Oct 18 20:50	18° Ω 42'17	
minimum elong	4772 Nov 14 13:00	23° Π 28'48	0°56'47		4773 Oct 24 17:58	0° Π	
	4772 Nov 18 07:23	0° Υ		superior conj	4773 Oct 27 20:27	5° Π 49'49	1°22'21
max. Earth dist.	4772 Nov 21 23:29	6° Υ 10'28	1.42227 AU	minimum elong	4773 Oct 27 23:59	6° Π 06'11	1°22'00
desc. node	4772 Nov 22 18:56	7° Υ 30'53		max. Earth dist.	4773 Nov 04 06:34	19° Π 08'57	1.40230 AU
evening rise	4772 Nov 27 22:28	15° Υ 50'43		evening rise	4773 Nov 08 14:57	26° Π 32'02	
	4772 Dec 07 02:34	0° Θ		desc. node	4773 Nov 09 15:57	28° Π 15'29	
greatest brilliancy	4772 Dec 25 22:14	26° Θ 06'53	-0.3m		4773 Nov 10 17:27	0° Υ	
	4772 Dec 29 07:01	0° \approx			4773 Nov 30 18:56	0° Θ	
evening max el	4772 Dec 30 16:57	1° \approx 29'01	22°22'48	evening max el	4773 Dec 13 07:24	15° Θ 07'40	23°42'41
retrograde	4773 Jan 09 08:54	7° \approx 13'56		retrograde	4773 Dec 24 02:19	21° Θ 29'44	
asc. node	4773 Jan 13 04:28	5° \approx 57'16		evening set	4773 Dec 29 04:04	19° Θ 24'24	
evening set	4773 Jan 13 22:00	5° \approx 24'24		asc. node	4773 Dec 31 01:30	17° Θ 32'21	
	4773 Jan 18 14:25	30° Υ		min. Earth dist.	4774 Jan 03 01:25	13° Θ 43'52	0.67965 AU
inferior conj	4773 Jan 19 07:34	29° Θ 00'35	1°56'50	inferior conj	4774 Jan 03 15:16	12° Θ 56'35	1°11'05
minimum elong	4773 Jan 19 05:20	29° Θ 08'20	1°56'04	minimum elong	4774 Jan 03 13:42	13° Θ 01'57	1°10'29
min. Earth dist.	4773 Jan 19 04:41	29° Θ 10'39	0.68072 AU	morning rise	4774 Jan 08 23:32	6° Θ 48'55	
morning rise	4773 Jan 24 12:34	22° Θ 48'21		direct	4774 Jan 13 00:33	5° Θ 16'53	
direct	4773 Jan 29 03:40	20° Θ 53'39		morning max el	4774 Jan 21 05:30	10° Θ 00'22	20°48'13
morning max el	4773 Feb 07 11:45	26° Θ 22'37	22°08'47	greatest brilliancy	4774 Jan 26 22:06	16° Θ 36'10	-0.5m
	4773 Feb 10 19:27	0° \approx		desc. node	4774 Feb 05 15:14	0° \approx 04'33	
greatest brilliancy	4773 Feb 12 02:05	1° \approx 31'10	-0.3m		4774 Feb 05 13:59	0° \approx	
desc. node	4773 Feb 18 18:12	10° \approx 12'31		morning set	4774 Feb 19 20:06	21° \approx 32'55	
	4773 Mar 04 07:28	0° Υ			4774 Feb 25 04:40	0° Υ	
morning set	4773 Mar 12 14:21	13° Υ 02'03					
max. Earth dist.	4773 Mar 18 03:30	22° Υ 10'16	1.41030 AU				

max. Earth dist.	4774 Feb 28 07:29	5° K 01'04	1.42966 AU	morning set	4775 Jan 29 16:24	29° Z 45'11	
					4775 Jan 29 20:15	0° \approx	
superior conj	4774 Mar 07 03:43	16° K 19'50	-2°-8'-28	max. Earth dist.	4775 Feb 10 19:11	18° \approx 41'20	1.44414 AU
minimum elong	4774 Mar 07 04:11	16° K 21'48	2°08'30				
	4774 Mar 15 02:03	0° Y		superior conj	4775 Feb 15 08:04	25° \approx 56'32	-2°00'-46
evening rise	4774 Mar 19 02:44	7° Y 07'56		minimum elong	4775 Feb 15 02:22	25° \approx 33'32	2°00'29
asc. node	4774 Mar 29 00:46	24° Y 16'21			4775 Feb 17 20:14	0° K	
	4774 Apr 01 22:16	0° B		evening rise	4775 Mar 01 01:33	18° K 38'30	
evening max el	4774 Apr 05 00:04	3° B 34'37	18°06'39		4775 Mar 07 19:09	0° Y	
retrograde	4774 Apr 11 13:25	6° B 57'05		asc. node	4775 Mar 15 21:49	12° Y 34'20	
evening set	4774 Apr 14 05:06	6° B 23'40		evening max el	4775 Mar 19 12:57	16° Y 53'44	18°15'55
inferior conj	4774 Apr 20 17:47	1° B 20'42	3°12'47	retrograde	4775 Mar 25 22:58	20° Y 19'22	
minimum elong	4774 Apr 20 20:12	1° B 14'39	3°12'25	evening set	4775 Mar 28 20:43	19° Y 34'23	
	4774 Apr 22 02:05	30° R Y		inferior conj	4775 Apr 03 22:05	14° Y 11'45	3°31'56
min. Earth dist.	4774 Apr 23 20:09	28° Y 17'20	0.61493 AU	minimum elong	4775 Apr 03 22:50	14° Y 09'37	3°31'54
morning rise	4774 Apr 27 08:18	25° Y 22'40		min. Earth dist.	4775 Apr 06 10:36	11° Y 23'35	0.63546 AU
direct	4774 May 04 02:55	23° Y 01'32		morning rise	4775 Apr 09 23:01	8° Y 03'06	
desc. node	4774 May 04 14:26	23° Y 02'13		direct	4775 Apr 16 19:23	5° Y 21'17	
	4774 May 17 06:55	0° B		desc. node	4775 Apr 21 11:29	6° Y 26'16	
morning max el	4774 May 18 07:43	1° B 00'12	27°51'24	morning max el	4775 Apr 30 15:35	13° Y 19'58	27°42'24
	4774 Jun 08 09:42	0° II			4775 May 14 00:43	0° B	
morning set	4774 Jun 20 09:52	22° II 31'32			4775 May 31 22:25	0° II	
	4774 Jun 23 23:32	0° S		morning set	4775 Jun 04 06:47	6° II 31'44	
asc. node	4774 Jun 25 00:03	2° S 11'23		max. Earth dist.	4775 Jun 09 10:44	17° II 08'23	1.32875 AU
max. Earth dist.	4774 Jun 26 06:59	4° S 58'45	1.32196 AU	asc. node	4775 Jun 11 21:06	22° II 19'10	
superior conj	4774 Jun 27 20:03	8° S 21'00	0°29'15	superior conj	4775 Jun 12 03:19	22° II 52'35	0°02'43
minimum elong	4774 Jun 27 18:45	8° S 13'54	0°28'58	minimum elong	4775 Jun 12 03:11	22° II 51'52	0°02'40
evening rise	4774 Jul 04 17:17	23° S 20'43		behind sun begin	4775 Jun 11 21:55	22° II 23'36	
	4774 Jul 07 21:52	0° Q		behind sun end	4775 Jun 12 08:26	23° II 20'09	
	4774 Jul 26 06:55	0° P			4775 Jun 15 10:25	0° S	
evening max el	4774 Jul 30 10:16	4° P 26'55	24°44'37	evening rise	4775 Jun 19 05:06	8° S 07'01	
desc. node	4774 Jul 31 13:40	5° P 30'21			4775 Jun 30 15:53	0° Q	
retrograde	4774 Aug 13 08:04	11° P 28'13		evening max el	4775 Jul 11 23:08	14° Q 51'27	23°08'07
evening set	4774 Aug 18 14:50	10° P 25'22		desc. node	4775 Jul 18 10:42	19° Q 44'03	
min. Earth dist.	4774 Aug 23 21:38	7° P 38'21	0.57026 AU	retrograde	4775 Jul 25 09:26	21° Q 33'57	
inferior conj	4774 Aug 26 17:15	5° P 48'23	-5°-15'-29	evening set	4775 Jul 29 04:00	21° Q 02'52	
minimum elong	4774 Aug 26 16:57	5° P 48'53	5°15'29	min. Earth dist.	4775 Aug 05 08:13	17° Q 47'44	0.55547 AU
morning rise	4774 Sep 03 22:32	1° P 41'42		inferior conj	4775 Aug 07 01:35	16° Q 47'34	-4°-48'-53
direct	4774 Sep 06 12:55	1° P 22'47		minimum elong	4775 Aug 06 19:02	16° Q 57'07	4°47'52
morning max el	4774 Sep 15 19:25	5° P 43'57	19°20'26	morning rise	4775 Aug 15 12:54	12° Q 55'58	
asc. node	4774 Sep 20 23:18	11° P 51'03		direct	4775 Aug 18 11:49	12° Q 35'07	
	4774 Oct 01 08:13	0° A		morning max el	4775 Aug 29 07:02	17° Q 36'22	20°33'19
morning set	4774 Oct 02 21:33	3° A 05'14		asc. node	4775 Sep 07 20:22	0° P 06'19	
					4775 Sep 07 18:50	0° P	
superior conj	4774 Oct 11 00:57	19° A 17'42	1°37'17	morning set	4775 Sep 17 04:01	17° P 44'45	
minimum elong	4774 Oct 11 03:02	19° A 27'54	1°37'08		4775 Sep 23 02:17	0° A	
	4774 Oct 16 16:12	0° M					
max. Earth dist.	4774 Oct 17 11:04	1° M 26'42	1.38129 AU	superior conj	4775 Sep 24 17:45	3° A 22'00	1°43'25
evening rise	4774 Oct 21 06:30	8° M 16'08		minimum elong	4775 Sep 24 18:15	3° A 24'29	1°43'25
desc. node	4774 Oct 27 12:59	18° M 53'15		max. Earth dist.	4775 Sep 29 18:31	13° A 22'41	1.36165 AU
	4774 Nov 03 14:20	0° J		evening rise	4775 Oct 03 18:25	20° A 56'30	
evening max el	4774 Nov 25 20:13	28° J 50'17	25°00'10		4775 Oct 08 19:58	0° M	
	4774 Nov 27 01:27	0° Z		desc. node	4775 Oct 14 10:00	9° M 19'40	
retrograde	4774 Dec 07 15:34	5° Z 40'56			4775 Oct 28 12:44	0° J	
evening set	4774 Dec 13 06:58	3° Z 20'51		evening max el	4775 Nov 08 08:55	12° J 33'42	26°07'53
	4774 Dec 16 11:15	30° R J		retrograde	4775 Nov 20 23:48	19° J 42'17	
asc. node	4774 Dec 17 22:32	28° J 07'36		evening set	4775 Nov 27 04:56	17° J 10'02	
min. Earth dist.	4774 Dec 17 20:22	28° J 14'41	0.67502 AU	min. Earth dist.	4775 Dec 01 11:07	12° J 39'29	0.66690 AU
inferior conj	4774 Dec 18 21:03	26° J 53'39	0°19'07	inferior conj	4775 Dec 02 23:00	10° J 48'26	0°-38'-5
minimum elong	4774 Dec 18 20:34	26° J 55'13	0°18'56	minimum elong	4775 Dec 03 00:01	10° J 45'16	0°37'38
morning rise	4774 Dec 24 10:46	20° J 52'53		asc. node	4775 Dec 04 19:36	8° J 34'05	
direct	4774 Dec 27 23:09	19° J 41'40		morning rise	4775 Dec 08 20:14	4° J 57'12	
morning max el	4775 Jan 04 07:08	23° J 49'15	19°40'22	direct	4775 Dec 11 21:47	4° J 03'37	
	4775 Jan 09 13:20	0° Z		morning max el	4775 Dec 18 16:08	7° J 46'50	18°47'49
greatest brilliancy	4775 Jan 12 04:57	3° Z 35'37	-0.6m		4776 Jan 03 12:52	0° Z	
desc. node	4775 Jan 23 12:16	20° Z 17'21		morning set	4776 Jan 09 04:26	8° Z 51'37	

desc. node	4776 Jan 10 09:18	10°☾44'57		morning max el	4776 Dec 01 06:25	21°♌47'58	18°11'40
	4776 Jan 22 15:57	0°♊			4776 Dec 07 16:54	0°♊	
max. Earth dist.	4776 Jan 24 12:40	2°♊55'24	1.45198 AU	morning set	4776 Dec 19 21:18	19°♊25'46	
					4776 Dec 26 09:41	0°☾	
superior conj	4776 Jan 25 15:45	4°♊41'47	-1°-33'-19	desc. node	4776 Dec 27 06:18	1°☾22'53	
minimum elong	4776 Jan 25 06:22	4°♊04'58	1°32'25				
evening rise	4776 Feb 10 01:34	29°♊12'11		superior conj	4777 Jan 03 19:34	13°☾23'48	0°-50'-33
	4776 Feb 10 13:26	0°♋		minimum elong	4777 Jan 03 13:17	12°☾59'02	0°49'45
asc. node	4776 Mar 01 18:52	0°♈07'14		max. Earth dist.	4777 Jan 06 08:12	17°☾22'22	1.45240 AU
	4776 Mar 01 16:06	0°♈			4777 Jan 14 10:03	0°♊	
evening max el	4776 Mar 02 00:21	0°♈21'19	18°43'20	evening rise	4777 Jan 20 03:24	8°♊54'47	
retrograde	4776 Mar 08 15:54	4°♈02'47			4777 Feb 02 20:08	0°♋	
evening set	4776 Mar 11 19:59	3°♈05'23		greatest brilliancy	4777 Feb 05 00:49	3°♋13'50	-0.7m
	4776 Mar 15 08:47	30°♋		evening max el	4777 Feb 13 08:03	13°♋53'00	19°27'46
inferior conj	4776 Mar 17 13:32	27°♋24'42	3°32'27	asc. node	4777 Feb 16 15:55	16°♋42'17	
minimum elong	4776 Mar 17 12:47	27°♋26'57	3°32'24	retrograde	4777 Feb 20 12:51	18°♋01'06	
min. Earth dist.	4776 Mar 19 10:22	25°♋07'45	0.65273 AU	evening set	4777 Feb 24 00:12	16°♋50'27	
morning rise	4776 Mar 23 04:22	21°♋10'37		inferior conj	4777 Mar 01 12:47	10°♋53'59	3°18'47
direct	4776 Mar 29 19:00	18°♋21'48		minimum elong	4777 Mar 01 11:00	10°♋59'51	3°18'30
desc. node	4776 Apr 07 08:32	21°♋58'05		min. Earth dist.	4777 Mar 02 18:34	9°♋16'36	0.66590 AU
morning max el	4776 Apr 12 01:33	26°♋10'07	26°59'56	morning rise	4777 Mar 06 21:02	4°♋37'43	
	4776 Apr 15 14:36	0°♈		direct	4777 Mar 13 00:53	1°♋54'16	
	4776 May 06 14:22	0°♉		desc. node	4777 Mar 25 05:33	9°♋04'26	
morning set	4776 May 17 17:47	19°♉58'56		morning max el	4777 Mar 25 11:19	9°♋18'57	25°51'53
max. Earth dist.	4776 May 22 05:04	28°♉48'03	1.34019 AU		4777 Apr 10 18:20	0°♈	
	4776 May 22 19:16	0°♊			4777 Apr 29 03:17	0°♉	
				morning set	4777 Apr 30 14:56	2°♉42'29	
superior conj	4776 May 26 05:14	7°♊03'15	0°-26'-3	max. Earth dist.	4777 May 04 12:01	9°♉59'43	1.35621 AU
minimum elong	4776 May 26 06:37	7°♊10'29	0°25'48				
asc. node	4776 May 28 18:08	12°♊24'01		superior conj	4777 May 09 23:20	20°♉46'36	0°-55'-41
evening rise	4776 Jun 02 15:29	22°♊44'08		minimum elong	4777 May 10 02:23	21°♉02'01	0°55'09
	4776 Jun 06 04:37	0°♊			4777 May 14 11:35	0°♊	
evening max el	4776 Jun 22 16:52	25°♊20'33	21°33'42	asc. node	4777 May 15 15:10	2°♊22'17	
	4776 Jun 29 01:23	0°♋		evening rise	4777 May 17 22:26	7°♊06'19	
desc. node	4776 Jul 04 07:45	1°♋24'22			4777 May 30 14:52	0°♊	
retrograde	4776 Jul 05 00:21	1°♋25'29		evening max el	4777 Jun 04 21:51	6°♊22'43	20°13'10
evening set	4776 Jul 07 12:38	1°♋11'08		retrograde	4777 Jun 15 14:07	11°♊35'59	
	4776 Jul 11 08:21	30°♋		evening set	4777 Jun 17 13:02	11°♊26'13	
inferior conj	4776 Jul 16 20:30	27°♋10'56	-3°-30'-58	desc. node	4777 Jun 21 04:46	10°♊20'46	
minimum elong	4776 Jul 16 11:54	27°♋22'57	3°28'27	inferior conj	4777 Jun 26 15:29	7°♊27'40	-1°-37'-12
min. Earth dist.	4776 Jul 16 18:23	27°♋13'53	0.54833 AU	minimum elong	4777 Jun 26 10:56	7°♊34'24	1°35'33
morning rise	4776 Jul 25 12:07	23°♋18'30		min. Earth dist.	4777 Jun 28 06:26	6°♊30'06	0.55072 AU
direct	4776 Jul 28 21:57	22°♋53'16		morning rise	4777 Jul 05 06:43	3°♊13'17	
morning max el	4776 Aug 10 06:54	28°♋42'53	22°05'26	direct	4777 Jul 09 08:42	2°♊37'09	
	4776 Aug 11 14:32	0°♋		morning max el	4777 Jul 22 22:45	9°♊15'15	23°48'30
asc. node	4776 Aug 24 17:25	18°♋58'47			4777 Aug 07 03:36	0°♋	
	4776 Aug 30 08:20	0°♌		asc. node	4777 Aug 11 14:26	8°♋19'03	
morning set	4776 Aug 31 13:57	2°♌33'48		morning set	4777 Aug 16 01:31	17°♋26'48	
					4777 Aug 21 21:18	0°♌	
superior conj	4776 Sep 07 19:06	17°♌51'01	1°42'12				
minimum elong	4776 Sep 07 18:14	17°♌46'28	1°42'10	superior conj	4777 Aug 23 02:05	2°♌35'50	1°34'46
max. Earth dist.	4776 Sep 11 09:10	25°♌18'03	1.34504 AU	minimum elong	4777 Aug 23 00:18	2°♌26'07	1°34'37
	4776 Sep 13 17:04	0°♌		max. Earth dist.	4777 Aug 25 08:26	7°♌27'31	1.33243 AU
evening rise	4776 Sep 15 22:25	4°♌21'46		evening rise	4777 Aug 30 14:28	18°♌20'58	
desc. node	4776 Sep 30 07:01	29°♌28'48			4777 Sep 05 15:50	0°♌	
	4776 Sep 30 15:00	0°♍		desc. node	4777 Sep 17 04:02	19°♌12'41	
evening max el	4776 Oct 20 21:35	26°♍10'07	26°58'26		4777 Sep 24 22:12	0°♍	
	4776 Oct 25 10:08	0°♍		evening max el	4777 Oct 03 09:15	9°♍28'38	27°24'46
retrograde	4776 Nov 03 02:33	3°♍27'13		retrograde	4777 Oct 16 23:24	16°♍46'47	
evening set	4776 Nov 09 19:55	0°♍47'58		evening set	4777 Oct 24 01:15	14°♍08'54	
	4776 Nov 10 18:34	30°♍		min. Earth dist.	4777 Oct 27 18:54	10°♍48'40	0.64006 AU
min. Earth dist.	4776 Nov 13 19:20	26°♍53'31	0.65522 AU	inferior conj	4777 Oct 30 06:43	8°♍13'14	-2°-41'-59
inferior conj	4776 Nov 15 19:04	24°♍36'53	-1°-39'-8	minimum elong	4777 Oct 30 11:23	8°♍01'07	2°40'17
minimum elong	4776 Nov 15 21:52	24°♍28'48	1°37'59	morning rise	4777 Nov 05 23:58	2°♍50'04	
asc. node	4776 Nov 20 16:39	19°♍47'32		asc. node	4777 Nov 07 13:42	2°♍24'10	
morning rise	4776 Nov 22 01:36	18°♍58'10		direct	4777 Nov 08 10:28	2°♍20'23	
direct	4776 Nov 24 18:25	18°♍18'28		morning max el	4777 Nov 14 23:07	5°♍45'28	17°52'36

	4777 Nov 30 23:01	0°♊		asc. node	4778 Oct 25 10:42	16°♊35'16	
morning set	4777 Dec 01 17:51	1°♊20'34		morning max el	4778 Oct 29 15:10	19°♊31'55	17°51'29
desc. node	4777 Dec 14 03:18	22°♊07'01			4778 Nov 06 07:45	0°♋	
				morning set	4778 Nov 14 11:56	14°♋17'25	
superior conj	4777 Dec 14 15:26	22°♊56'26	0°-3'-32		4778 Nov 23 08:47	0°♋	
minimum elong	4777 Dec 14 15:01	22°♊54'47	0°03'28				
behind sun begin	4777 Dec 14 05:15	22°♊14'58		superior conj	4778 Nov 25 13:16	3°♋45'28	0°37'55
behind sun end	4777 Dec 15 00:48	23°♊34'31		minimum elong	4778 Nov 25 16:32	3°♋59'24	0°37'28
	4777 Dec 19 00:37	0°♌		desc. node	4778 Dec 01 00:20	12°♋54'22	
max. Earth dist.	4777 Dec 20 02:32	1°♌43'09	1.44553 AU	max. Earth dist.	4778 Dec 02 17:29	15°♋42'40	1.43227 AU
evening rise	4777 Dec 30 14:53	18°♌07'42		evening rise	4778 Dec 10 03:17	27°♋30'14	
	4778 Jan 07 10:04	0°♍			4778 Dec 11 17:53	0°♌	
greatest brilliancy	4778 Jan 21 10:36	20°♍14'53	-0.5m		4779 Jan 01 06:07	0°♍	
evening max el	4778 Jan 27 10:39	27°♍25'55	20°27'12	greatest brilliancy	4779 Jan 05 11:56	5°♍30'17	-0.4m
	4778 Jan 30 06:56	0°♎		evening max el	4779 Jan 10 07:51	11°♍00'38	21°38'20
asc. node	4778 Feb 03 12:58	2°♎04'04		retrograde	4779 Jan 19 08:34	16°♍22'21	
retrograde	4778 Feb 04 11:05	2°♎08'40		asc. node	4779 Jan 21 09:58	15°♍59'36	
evening set	4778 Feb 08 07:06	0°♎43'47		evening set	4779 Jan 23 14:56	14°♍42'10	
	4778 Feb 09 04:21	30°♏		inferior conj	4779 Jan 29 00:13	8°♍22'45	2°19'59
inferior conj	4778 Feb 13 17:06	24°♏34'17	2°53'57	minimum elong	4779 Jan 28 21:49	8°♍31'06	2°19'15
minimum elong	4778 Feb 13 14:45	24°♏42'17	2°53'24	min. Earth dist.	4779 Jan 29 04:02	8°♍09'32	0.67976 AU
min. Earth dist.	4778 Feb 14 09:13	23°♏39'17	0.67485 AU	morning rise	4779 Feb 03 04:25	2°♍08'32	
morning rise	4778 Feb 18 21:53	18°♏18'05		direct	4779 Feb 08 04:06	0°♍00'28	
direct	4778 Feb 24 12:13	15°♏49'25		morning max el	4779 Feb 18 05:19	5°♍57'57	22°58'46
morning max el	4778 Mar 07 19:58	22°♏35'44	24°28'03	greatest brilliancy	4779 Feb 23 00:09	11°♍18'29	-0.3m
desc. node	4778 Mar 12 02:33	27°♏18'00		desc. node	4779 Feb 26 23:35	16°♍19'54	
	4778 Mar 14 07:59	0°♐			4779 Mar 08 18:22	0°♎	
	4778 Apr 04 02:12	0°♐		morning set	4779 Mar 24 17:33	24°♎57'13	
morning set	4778 Apr 12 16:53	14°♐27'19			4779 Mar 27 17:35	0°♑	
max. Earth dist.	4778 Apr 16 09:27	21°♐01'41	1.37606 AU	max. Earth dist.	4779 Mar 29 04:33	2°♐29'42	1.39796 AU
	4778 Apr 21 05:28	0°♒					
superior conj	4778 Apr 23 06:22	3°♒53'59	-1°-24'-14	superior conj	4779 Apr 05 22:12	16°♐15'08	-1°-48'-44
minimum elong	4778 Apr 23 10:50	4°♒15'37	1°23'36	minimum elong	4779 Apr 06 03:05	16°♐37'31	1°48'17
evening rise	4778 May 01 23:27	21°♒06'13		evening rise	4779 Apr 13 05:52	0°♓	
asc. node	4778 May 02 12:13	22°♒09'28		asc. node	4779 Apr 19 09:15	11°♒40'25	
	4778 May 06 13:12	0°♑			4779 May 01 06:15	0°♑	
evening max el	4778 May 18 15:16	18°♑07'50	19°11'51	evening max el	4779 May 01 18:32	0°♑30'53	18°30'52
retrograde	4778 May 27 14:52	22°♑30'54		retrograde	4779 May 09 10:08	4°♑17'29	
evening set	4778 May 29 14:33	22°♑18'57		evening set	4779 May 11 15:53	3°♑59'05	
inferior conj	4778 Jun 07 00:22	18°♑08'30	0°18'40		4779 May 18 14:16	30°♒	
minimum elong	4778 Jun 07 01:08	18°♑07'12	0°18'22	inferior conj	4779 May 19 06:07	29°♒28'58	1°50'36
desc. node	4778 Jun 08 01:46	17°♑25'35		minimum elong	4779 May 19 09:30	29°♒22'19	1°49'34
min. Earth dist.	4778 Jun 09 21:16	16°♑13'09	0.56232 AU	min. Earth dist.	4779 May 22 15:53	26°♒49'17	0.58070 AU
morning rise	4778 Jun 15 07:28	13°♑19'30		desc. node	4779 May 25 22:48	24°♒37'56	
direct	4778 Jun 20 07:38	12°♑21'25		morning rise	4779 May 26 22:39	24°♒06'12	
morning max el	4778 Jul 04 12:35	19°♑37'21	25°28'39	direct	4779 Jun 01 20:45	22°♒36'32	
	4778 Jul 13 07:58	0°♓			4779 Jun 15 23:14	0°♑	
asc. node	4778 Jul 29 11:27	27°♓59'54		morning max el	4779 Jun 16 05:54	0°♑16'08	26°49'58
	4778 Jul 30 10:38	0°♑			4779 Jul 07 06:27	0°♓	
morning set	4778 Jul 31 13:05	2°♑19'04		morning set	4779 Jul 15 23:01	17°♓04'35	
				asc. node	4779 Jul 16 08:29	17°♓54'32	
superior conj	4778 Aug 07 12:26	17°♑29'15	1°22'01		4779 Jul 21 22:06	0°♒	
minimum elong	4778 Aug 07 10:10	17°♑16'50	1°21'43	superior conj	4779 Jul 23 00:10	2°♑23'57	1°04'38
max. Earth dist.	4778 Aug 08 15:01	19°♑54'56	1.32412 AU	minimum elong	4779 Jul 22 21:55	2°♑11'29	1°04'14
	4778 Aug 13 07:32	0°♑		max. Earth dist.	4779 Jul 23 01:47	2°♑32'51	1.32005 AU
evening rise	4778 Aug 14 15:10	2°♑44'52		evening rise	4779 Jul 29 21:43	17°♑23'55	
	4778 Aug 29 11:36	0°♒			4779 Aug 05 04:09	0°♑	
desc. node	4778 Sep 04 01:03	8°♒21'00		desc. node	4779 Aug 21 22:05	26°♑38'20	
evening max el	4778 Sep 15 18:03	22°♒17'17	27°20'57		4779 Aug 24 16:56	0°♒	
retrograde	4778 Sep 29 13:30	29°♒31'47		evening max el	4779 Aug 28 21:14	4°♒22'50	26°43'38
evening set	4778 Oct 06 17:31	27°♒06'40		retrograde	4779 Sep 11 19:26	11°♒32'27	
min. Earth dist.	4778 Oct 10 08:24	24°♒14'26	0.62187 AU	evening set	4779 Sep 18 16:10	9°♒32'29	
inferior conj	4778 Oct 13 07:06	21°♒30'46	-3°-42'-59	min. Earth dist.	4779 Sep 22 11:12	6°♒56'28	0.60162 AU
minimum elong	4778 Oct 13 13:06	21°♒16'50	3°41'13	inferior conj	4779 Sep 25 16:43	4°♒19'27	-4°-35'-54
morning rise	4778 Oct 20 11:42	16°♒26'19		minimum elong	4779 Sep 25 22:34	4°♒07'32	4°34'44
direct	4778 Oct 22 18:50	16°♒03'04					




































































































































	4779 Oct 02 05:28	30° \mathbb{R} \mathbb{M}		min. Earth dist.	4780 Sep 03 04:42	18° \mathbb{M} 42'03	0.58114 AU
morning rise	4779 Oct 03 08:18	29° \mathbb{M} 36'50		inferior conj	4780 Sep 06 08:08	16° \mathbb{M} 29'39	-5°-10'-5
direct	4779 Oct 05 15:31	29° \mathbb{M} 16'58		minimum elong	4780 Sep 06 11:01	16° \mathbb{M} 24'33	5°09'53
	4779 Oct 08 22:47	0° \mathbb{L}		morning rise	4780 Sep 14 09:06	12° \mathbb{M} 10'41	
asc. node	4779 Oct 12 07:43	2° \mathbb{L} 12'56		direct	4780 Sep 16 20:05	11° \mathbb{M} 51'52	
morning max el	4779 Oct 13 03:15	2° \mathbb{L} 57'53	18°09'35	morning max el	4780 Sep 25 08:05	15° \mathbb{M} 54'35	18°48'23
morning set	4779 Oct 28 21:23	27° \mathbb{L} 57'27		asc. node	4780 Sep 28 04:46	19° \mathbb{M} 03'22	
	4779 Oct 29 23:27	0° \mathbb{M}			4780 Oct 05 07:33	0° \mathbb{L}	
				morning set	4780 Oct 11 17:32	12° \mathbb{L} 07'33	
superior conj	4779 Nov 07 12:17	15° \mathbb{M} 47'23	1°09'14				
minimum elong	4779 Nov 07 16:16	16° \mathbb{M} 05'18	1°08'45	superior conj	4780 Oct 20 07:35	28° \mathbb{L} 48'29	1°29'52
max. Earth dist.	4779 Nov 15 03:44	29° \mathbb{M} 07'05	1.41413 AU	minimum elong	4780 Oct 20 10:34	29° \mathbb{L} 02'36	1°29'35
	4779 Nov 15 16:18	0° \mathbb{J}			4780 Oct 20 22:42	0° \mathbb{M}	
desc. node	4779 Nov 17 21:22	3° \mathbb{J} 40'52		max. Earth dist.	4780 Oct 27 09:39	11° \mathbb{M} 48'44	1.39336 AU
evening rise	4779 Nov 20 07:07	7° \mathbb{J} 36'48		evening rise	4780 Oct 31 09:26	18° \mathbb{M} 44'25	
	4779 Dec 04 21:38	0° \mathbb{Z}		desc. node	4780 Nov 03 18:24	24° \mathbb{M} 22'58	
greatest brilliancy	4779 Dec 18 13:39	18° \mathbb{Z} 30'39	-0.2m		4780 Nov 07 05:46	0° \mathbb{J}	
evening max el	4779 Dec 24 00:24	24° \mathbb{Z} 37'55	22°56'41		4780 Nov 28 05:36	0° \mathbb{Z}	
	4779 Dec 31 04:12	0° \mathbb{W}		evening max el	4780 Dec 05 13:53	8° \mathbb{Z} 18'13	24°16'22
retrograde	4780 Jan 03 03:43	0° \mathbb{W} 38'39		retrograde	4780 Dec 16 19:25	14° \mathbb{Z} 53'20	
	4780 Jan 05 22:29	30° \mathbb{R} \mathbb{Z}		evening set	4780 Dec 22 03:03	12° \mathbb{Z} 41'17	
evening set	4780 Jan 07 22:06	28° \mathbb{Z} 42'26		asc. node	4780 Dec 25 04:02	9° \mathbb{Z} 28'01	
asc. node	4780 Jan 08 06:59	28° \mathbb{Z} 23'21		min. Earth dist.	4780 Dec 26 20:49	7° \mathbb{Z} 15'32	0.67811 AU
inferior conj	4780 Jan 13 08:14	22° \mathbb{Z} 16'41	1°38'16	inferior conj	4780 Dec 27 15:20	6° \mathbb{Z} 13'14	0°49'45
minimum elong	4780 Jan 13 06:14	22° \mathbb{Z} 23'37	1°37'32	minimum elong	4780 Dec 27 14:10	6° \mathbb{Z} 17'08	0°49'17
min. Earth dist.	4780 Jan 13 00:40	22° \mathbb{Z} 42'51	0.68077 AU	morning rise	4781 Jan 02 01:40	0° \mathbb{Z} 08'32	
morning rise	4780 Jan 18 14:21	16° \mathbb{Z} 06'16			4781 Jan 02 06:29	30° \mathbb{R} \mathbb{J}	
direct	4780 Jan 22 23:26	14° \mathbb{Z} 21'09		direct	4781 Jan 05 21:08	28° \mathbb{J} 45'46	
morning max el	4780 Jan 31 19:06	19° \mathbb{Z} 29'14	21°33'11		4781 Jan 09 18:10	0° \mathbb{Z}	
greatest brilliancy	4780 Feb 05 16:58	25° \mathbb{Z} 02'33	-0.4m	morning max el	4781 Jan 13 16:15	3° \mathbb{Z} 12'17	20°17'42
	4780 Feb 09 13:07	0° \mathbb{W}		greatest brilliancy	4781 Jan 20 03:16	10° \mathbb{Z} 52'01	-0.5m
desc. node	4780 Feb 13 20:38	5° \mathbb{W} 56'44		desc. node	4781 Jan 30 17:39	25° \mathbb{Z} 58'27	
	4780 Feb 29 23:02	0° \mathbb{H}			4781 Feb 02 10:12	0° \mathbb{W}	
morning set	4780 Mar 03 13:35	4° \mathbb{H} 06'26		morning set	4781 Feb 10 12:26	12° \mathbb{W} 21'14	
max. Earth dist.	4780 Mar 10 05:00	14° \mathbb{H} 51'48	1.41905 AU	max. Earth dist.	4781 Feb 20 13:00	28° \mathbb{W} 07'46	1.43654 AU
					4781 Feb 21 16:54	0° \mathbb{H}	
superior conj	4780 Mar 17 18:00	27° \mathbb{H} 38'40	-2°-4'-57				
minimum elong	4780 Mar 17 21:00	27° \mathbb{H} 51'44	2°04'52	superior conj	4781 Feb 26 13:06	7° \mathbb{H} 54'07	-2°-7'-33
	4780 Mar 19 02:23	0° \mathbb{Y}		minimum elong	4781 Feb 26 11:04	7° \mathbb{H} 45'43	2°07'31
evening rise	4780 Mar 28 19:07	17° \mathbb{Y} 27'02		evening rise	4781 Mar 11 05:44	29° \mathbb{H} 29'43	
	4780 Apr 04 18:46	0° \mathbb{X}			4781 Mar 11 12:42	0° \mathbb{Y}	
asc. node	4780 Apr 05 06:17	0° \mathbb{X} 49'25		asc. node	4781 Mar 23 03:20	19° \mathbb{Y} 28'40	
evening max el	4780 Apr 14 04:07	13° \mathbb{X} 22'48	18°09'51	evening max el	4781 Mar 28 16:37	26° \mathbb{Y} 33'55	18°08'13
retrograde	4780 Apr 20 23:46	16° \mathbb{X} 49'45		retrograde	4781 Apr 04 03:29	29° \mathbb{Y} 56'24	
evening set	4780 Apr 23 11:59	16° \mathbb{X} 22'14		evening set	4781 Apr 06 21:40	29° \mathbb{Y} 18'14	
inferior conj	4780 Apr 30 08:52	11° \mathbb{X} 30'47	2°51'03	inferior conj	4781 Apr 13 05:03	24° \mathbb{Y} 06'27	3°23'31
minimum elong	4780 Apr 30 12:04	11° \mathbb{X} 23'24	2°50'22	minimum elong	4781 Apr 13 06:47	24° \mathbb{Y} 01'54	3°23'19
min. Earth dist.	4780 May 03 16:38	8° \mathbb{X} 29'08	0.60233 AU	min. Earth dist.	4781 Apr 16 01:51	21° \mathbb{Y} 07'14	0.62396 AU
morning rise	4780 May 07 08:34	5° \mathbb{X} 42'42		morning rise	4781 Apr 19 13:23	18° \mathbb{Y} 02'49	
desc. node	4780 May 11 19:50	3° \mathbb{X} 51'38		direct	4781 Apr 26 09:34	15° \mathbb{Y} 31'36	
direct	4780 May 13 22:05	3° \mathbb{X} 39'10		desc. node	4781 Apr 28 16:53	15° \mathbb{Y} 47'21	
morning max el	4780 May 28 05:45	11° \mathbb{X} 32'38	27°39'44	morning max el	4781 May 10 11:33	23° \mathbb{Y} 31'32	27°52'04
	4780 Jun 11 16:44	0° \mathbb{I}			4781 May 16 06:29	0° \mathbb{X}	
	4780 Jun 28 10:34	0° \mathbb{S}			4781 Jun 04 23:28	0° \mathbb{I}	
morning set	4780 Jun 29 05:37	1° \mathbb{S} 38'13		morning set	4781 Jun 13 06:47	15° \mathbb{I} 52'49	
asc. node	4780 Jul 02 05:32	7° \mathbb{S} 58'03		max. Earth dist.	4781 Jun 18 20:44	27° \mathbb{I} 33'48	1.32434 AU
max. Earth dist.	4780 Jul 05 13:04	15° \mathbb{S} 10'34	1.32011 AU	asc. node	4781 Jun 19 02:36	28° \mathbb{I} 05'22	
					4781 Jun 19 23:49	0° \mathbb{S}	
superior conj	4780 Jul 06 11:34	17° \mathbb{S} 14'20	0°43'12				
minimum elong	4780 Jul 06 09:48	17° \mathbb{S} 04'32	0°42'50	superior conj	4781 Jun 20 20:52	1° \mathbb{S} 54'13	0°18'19
	4780 Jul 12 07:23	0° \mathbb{Q}		minimum elong	4781 Jun 20 20:01	1° \mathbb{S} 49'35	0°18'07
evening rise	4780 Jul 13 07:53	2° \mathbb{Q} 11'03		evening rise	4781 Jun 27 19:36	16° \mathbb{S} 59'07	
	4780 Jul 28 07:10	0° \mathbb{M}			4781 Jul 04 05:37	0° \mathbb{Q}	
desc. node	4780 Aug 07 19:06	13° \mathbb{M} 44'07		evening max el	4781 Jul 22 06:10	26° \mathbb{Q} 14'09	24°04'09
evening max el	4780 Aug 09 16:48	15° \mathbb{M} 38'57	25°34'49	desc. node	4781 Jul 25 16:07	29° \mathbb{Q} 10'14	
retrograde	4780 Aug 23 15:39	22° \mathbb{M} 44'17			4781 Jul 26 20:03	0° \mathbb{M}	
evening set	4780 Aug 29 16:25	21° \mathbb{M} 19'18		retrograde	4781 Aug 05 00:40	3° \mathbb{M} 10'10	

evening set	4781 Aug 09 16:31	2° \mathbb{M} 22'05		asc. node	4782 Jun 05 23:39	18° \mathbb{I} 12'26	
	4781 Aug 14 16:53	30° \mathbb{R} Ω			4782 Jun 11 11:45	0° \mathfrak{S}	
min. Earth dist.	4781 Aug 15 16:41	29° Ω 24'47	0.56319 AU	evening rise	4782 Jun 12 07:02	1° \mathfrak{S} 42'02	
inferior conj	4781 Aug 18 03:20	27° Ω 54'23	-5°-10'-20		4782 Jun 28 03:44	0° Ω	
minimum elong	4781 Aug 18 00:16	27° Ω 59'08	5°10'08	evening max el	4782 Jul 03 20:01	6° Ω 36'22	22°26'49
morning rise	4781 Aug 26 11:27	23° Ω 55'55		desc. node	4782 Jul 12 13:09	12° Ω 22'14	
direct	4781 Aug 29 05:07	23° Ω 36'29		retrograde	4782 Jul 16 21:22	13° Ω 05'46	
morning max el	4781 Sep 08 02:39	28° Ω 13'01	19°48'57	evening set	4782 Jul 20 01:03	12° Ω 43'52	
	4781 Sep 09 20:49	0° \mathbb{M}		min. Earth dist.	4782 Jul 28 03:05	9° Ω 12'25	0.55127 AU
asc. node	4781 Sep 15 01:49	6° \mathbb{M} 51'41		inferior conj	4782 Jul 29 04:43	8° Ω 36'05	-4°-21'-53
morning set	4781 Sep 25 20:59	26° \mathbb{M} 38'32		minimum elong	4782 Jul 28 20:29	8° Ω 47'45	4°20'04
	4781 Sep 27 12:42	0° \mathfrak{A}		morning rise	4782 Aug 06 18:07	4° Ω 46'18	
				direct	4782 Aug 09 20:59	4° Ω 24'12	
superior conj	4781 Oct 03 17:52	12° \mathfrak{A} 33'54	1°40'52	morning max el	4782 Aug 21 09:11	9° Ω 46'03	21°10'33
minimum elong	4781 Oct 03 19:15	12° \mathfrak{A} 40'51	1°40'48	asc. node	4782 Sep 01 22:53	25° Ω 24'08	
max. Earth dist.	4781 Oct 09 14:33	23° \mathfrak{A} 53'59	1.37257 AU		4782 Sep 04 11:49	0° \mathbb{M}	
	4781 Oct 12 22:09	0° \mathbb{M}		morning set	4782 Sep 10 05:08	11° \mathbb{M} 22'39	
evening rise	4781 Oct 13 10:06	0° \mathbb{M} 53'41					
desc. node	4781 Oct 21 15:25	14° \mathbb{M} 56'43		superior conj	4782 Sep 17 14:42	26° \mathbb{M} 50'03	1°43'43
	4781 Oct 31 10:33	0° \mathfrak{A}		minimum elong	4782 Sep 17 14:34	26° \mathbb{M} 49'24	1°43'44
evening max el	4781 Nov 18 02:18	22° \mathfrak{A} 01'18	25°30'36		4782 Sep 19 03:39	0° \mathfrak{A}	
retrograde	4781 Nov 30 06:45	29° \mathfrak{A} 01'41		max. Earth dist.	4782 Sep 22 00:15	5° \mathfrak{A} 45'29	1.35406 AU
evening set	4781 Dec 06 04:06	26° \mathfrak{A} 35'41		evening rise	4782 Sep 26 05:23	13° \mathfrak{A} 54'48	
min. Earth dist.	4781 Dec 10 14:15	21° \mathfrak{A} 44'40	0.67193 AU		4782 Oct 05 06:50	0° \mathbb{M}	
inferior conj	4781 Dec 11 19:43	20° \mathfrak{A} 10'02	0°-4'-33	desc. node	4782 Oct 08 12:25	5° \mathbb{M} 16'35	
minimum elong	4781 Dec 11 19:50	20° \mathfrak{A} 09'40	0°04'30		4782 Oct 26 06:40	0° \mathfrak{A}	
transit middle	4781 Dec 11 19:50	20° \mathfrak{A} 09'40	0°04'30	evening max el	4782 Oct 31 14:58	5° \mathfrak{A} 42'45	26°32'00
transit begin	4781 Dec 11 17:08	20° \mathfrak{A} 18'20		retrograde	4782 Nov 13 12:55	12° \mathfrak{A} 56'47	
transit end	4781 Dec 11 22:31	20° \mathfrak{A} 01'02		evening set	4782 Nov 19 23:22	10° \mathfrak{A} 20'50	
asc. node	4781 Dec 12 01:04	19° \mathfrak{A} 52'53		min. Earth dist.	4782 Nov 24 02:35	6° \mathfrak{A} 05'28	0.66228 AU
morning rise	4781 Dec 17 12:24	14° \mathfrak{A} 13'09		inferior conj	4782 Nov 25 19:25	4° \mathfrak{A} 02'47	-1°-3'-36
direct	4781 Dec 20 19:50	13° \mathfrak{A} 10'05		minimum elong	4782 Nov 25 21:10	3° \mathfrak{A} 57'30	1°02'52
morning max el	4781 Dec 27 21:18	17° \mathfrak{A} 06'11	19°16'08	asc. node	4782 Nov 28 22:06	0° \mathfrak{A} 33'05	
greatest brilliancy	4782 Jan 06 11:16	29° \mathfrak{A} 24'41	-0.7m		4782 Nov 29 12:00	30° \mathbb{R} \mathbb{M}	
	4782 Jan 06 20:56	0° \mathfrak{S}		morning rise	4782 Dec 01 20:24	28° \mathbb{M} 16'22	
desc. node	4782 Jan 17 14:42	16° \mathfrak{S} 18'21		direct	4782 Dec 04 17:53	27° \mathbb{M} 29'14	
morning set	4782 Jan 20 12:42	20° \mathfrak{S} 49'18			4782 Dec 10 04:33	0° \mathfrak{A}	
	4782 Jan 26 10:26	0° \approx		morning max el	4782 Dec 11 08:48	1° \mathfrak{A} 05'51	18°30'21
max. Earth dist.	4782 Feb 03 03:10	12° \approx 03'38	1.44829 AU		4782 Dec 31 04:29	0° \mathfrak{S}	
				morning set	4782 Dec 31 12:19	0° \mathfrak{S} 31'14	
superior conj	4782 Feb 06 07:24	17° \approx 05'17	-1°-51'-30	desc. node	4783 Jan 04 11:41	6° \mathfrak{S} 50'38	
minimum elong	4782 Feb 05 23:25	16° \approx 33'39	1°50'56				
	4782 Feb 14 08:09	0° \mathfrak{H}		superior conj	4783 Jan 16 10:50	25° \mathfrak{S} 42'05	-1°-16'-30
evening rise	4782 Feb 20 19:11	10° \mathfrak{H} 36'38		minimum elong	4783 Jan 16 02:01	25° \mathfrak{S} 07'31	1°15'30
	4782 Mar 04 16:33	0° \mathbb{Y}		max. Earth dist.	4783 Jan 16 21:18	26° \mathfrak{S} 23'08	1.45305 AU
asc. node	4782 Mar 10 00:23	7° \mathbb{Y} 29'08			4783 Jan 19 04:38	0° \approx	
evening max el	4782 Mar 12 05:08	9° \mathbb{Y} 57'18	18°25'20	evening rise	4783 Feb 01 09:12	20° \approx 46'17	
retrograde	4782 Mar 18 16:40	13° \mathbb{Y} 28'32			4783 Feb 07 04:53	0° \mathfrak{H}	
evening set	4782 Mar 21 16:55	12° \mathbb{Y} 38'34		greatest brilliancy	4783 Feb 12 03:47	7° \mathfrak{H} 46'31	-0.8m
inferior conj	4782 Mar 27 14:35	7° \mathbb{Y} 08'06	3°34'07	evening max el	4783 Feb 23 15:12	23° \mathfrak{H} 27'20	19°00'19
minimum elong	4782 Mar 27 14:40	7° \mathbb{Y} 07'51	3°34'06	asc. node	4783 Feb 24 21:24	24° \mathfrak{H} 39'15	
min. Earth dist.	4782 Mar 29 20:32	4° \mathbb{Y} 31'25	0.64328 AU	retrograde	4783 Mar 02 11:33	27° \mathfrak{H} 18'48	
morning rise	4782 Apr 02 10:46	0° \mathbb{Y} 56'20		evening set	4783 Mar 05 18:34	26° \mathfrak{H} 16'01	
	4782 Apr 03 16:45	30° \mathbb{R} \mathfrak{H}		inferior conj	4783 Mar 11 09:43	20° \mathfrak{H} 28'38	3°28'10
direct	4782 Apr 09 05:23	28° \mathfrak{H} 09'39		minimum elong	4783 Mar 11 08:28	20° \mathfrak{H} 32'34	3°28'02
	4782 Apr 15 07:06	0° \mathbb{Y}		min. Earth dist.	4783 Mar 13 00:07	18° \mathfrak{H} 27'33	0.65886 AU
desc. node	4782 Apr 15 13:56	0° \mathbb{Y} 09'52		morning rise	4783 Mar 16 21:20	14° \mathfrak{H} 13'21	
morning max el	4782 Apr 22 20:46	6° \mathbb{Y} 06'18	27°27'56	direct	4783 Mar 23 08:00	11° \mathfrak{H} 25'05	
	4782 May 11 02:33	0° \mathfrak{S}		desc. node	4783 Apr 02 10:57	16° \mathfrak{H} 25'31	
morning set	4782 May 27 23:55	29° \mathfrak{S} 40'29		morning max el	4783 Apr 05 06:42	19° \mathfrak{H} 05'23	26°33'31
	4782 May 28 03:54	0° \mathbb{I}			4783 Apr 14 12:57	0° \mathbb{Y}	
max. Earth dist.	4782 Jun 01 20:44	9° \mathbb{I} 30'45	1.33303 AU		4783 May 04 03:11	0° \mathfrak{S}	
				morning set	4783 May 11 05:39	12° \mathfrak{S} 51'26	
superior conj	4782 Jun 05 02:08	16° \mathbb{I} 17'44	0°-9'-19	max. Earth dist.	4783 May 15 10:02	20° \mathfrak{S} 56'46	1.34642 AU
minimum elong	4782 Jun 05 02:36	16° \mathbb{I} 20'15	0°09'14		4783 May 19 21:31	0° \mathbb{I}	
behind sun begin	4782 Jun 04 22:08	15° \mathbb{I} 56'26					
behind sun end	4782 Jun 05 07:05	16° \mathbb{I} 44'05		superior conj	4783 May 20 01:08	0° \mathbb{I} 18'40	0°-38'-36

minimum elong	4783 May 20 03:14	0° Π 29'26	0°38'12	minimum elong	4784 May 02 18:42	14° 8 06'29	1°07'27
asc. node	4783 May 23 20:41	8° Π 15'31		asc. node	4784 May 09 17:43	28° 8 09'40	
evening rise	4783 May 27 16:15	16° Π 14'11		evening rise	4784 May 10 21:00	0° Π 27'54	
	4783 Jun 03 15:43	0° 8			4784 May 10 15:29	0° Π	
evening max el	4783 Jun 15 18:21	17° 8 18'53	20°57'23	evening max el	4784 May 28 04:48	28° Π 39'16	19°44'37
retrograde	4783 Jun 27 10:00	23° 8 02'03			4784 May 29 16:26	0° 8	
desc. node	4783 Jun 29 10:11	22° 8 52'31		retrograde	4784 Jun 07 02:54	3° 8 29'52	
evening set	4783 Jun 29 14:25	22° 8 50'48		evening set	4784 Jun 09 01:13	3° 8 19'40	
inferior conj	4783 Jul 08 21:57	18° 8 53'43	-2°-45'-20	desc. node	4784 Jun 15 07:13	0° 8 50'39	
minimum elong	4783 Jul 08 14:30	19° 8 04'15	2°42'51		4784 Jun 16 17:36	30° R Π	
min. Earth dist.	4783 Jul 09 14:08	18° 8 30'51	0.54816 AU	inferior conj	4784 Jun 17 21:25	29° Π 17'14	0°-46'-22
morning rise	4783 Jul 17 14:10	14° 8 54'09		minimum elong	4784 Jun 17 19:18	29° Π 20'31	0°45'36
direct	4783 Jul 21 06:19	14° 8 25'08		min. Earth dist.	4784 Jun 20 02:55	27° Π 54'31	0.55469 AU
morning max el	4783 Aug 03 04:57	20° 8 36'25	22°48'29	morning rise	4784 Jun 26 10:16	24° Π 49'23	
	4783 Aug 11 03:29	0° 8		direct	4784 Jun 30 21:24	24° Π 05'22	
asc. node	4783 Aug 19 19:55	14° 8 30'01			4784 Jul 13 16:40	0° 8	
morning set	4783 Aug 25 16:00	26° 8 14'26		morning max el	4784 Jul 14 19:00	1° 8 00'17	24°32'19
	4783 Aug 27 10:34	0° 8			4784 Aug 03 16:14	0° 8	
				asc. node	4784 Aug 05 16:57	3° 8 59'52	
superior conj	4783 Sep 01 18:46	11° 8 27'09	1°39'44	morning set	4784 Aug 09 03:47	11° 8 07'46	
minimum elong	4783 Sep 01 17:28	11° 8 20'09	1°39'40				
max. Earth dist.	4783 Sep 04 18:43	17° 8 46'41	1.33922 AU	superior conj	4784 Aug 16 03:26	26° 8 16'10	1°29'58
evening rise	4783 Sep 09 15:02	27° 8 36'35		minimum elong	4784 Aug 16 01:23	26° 8 04'59	1°29'44
	4783 Sep 10 20:26	0° 8			4784 Aug 17 20:42	0° 8	
desc. node	4783 Sep 25 09:26	25° 8 16'12		max. Earth dist.	4784 Aug 17 21:39	0° 8 05'07	1.32846 AU
	4783 Sep 28 12:54	0° 8		evening rise	4784 Aug 23 11:09	11° 8 47'17	
evening max el	4783 Oct 14 03:38	19° 8 13'53	27°13'01		4784 Sep 02 01:57	0° 8	
retrograde	4783 Oct 27 13:06	26° 8 31'36		desc. node	4784 Sep 11 06:29	14° 8 46'24	
evening set	4783 Nov 03 10:33	23° 8 52'08			4784 Sep 23 05:57	0° 8	
min. Earth dist.	4783 Nov 07 07:29	20° 8 12'19	0.64921 AU	evening max el	4784 Sep 25 14:30	2° 8 21'28	27°27'01
inferior conj	4783 Nov 09 12:14	17° 8 47'00	-2°-5'-45	retrograde	4784 Oct 09 06:54	9° 8 37'29	
minimum elong	4783 Nov 09 15:50	17° 8 37'02	2°04'19	evening set	4784 Oct 16 10:46	7° 8 03'39	
morning rise	4783 Nov 15 23:09	12° 8 14'09		min. Earth dist.	4784 Oct 20 02:48	3° 8 56'26	0.63273 AU
asc. node	4783 Nov 15 19:09	12° 8 18'47		inferior conj	4784 Oct 22 19:29	1° 8 16'13	-3°-8'-23
direct	4783 Nov 18 13:00	11° 8 39'05		minimum elong	4784 Oct 23 00:49	1° 8 02'58	3°06'34
morning max el	4783 Nov 25 00:22	15° 8 05'42	18°01'20		4784 Oct 24 02:39	30° R 8	
	4783 Dec 05 15:56	0° 8		morning rise	4784 Oct 29 17:31	26° 8 00'33	
morning set	4783 Dec 12 17:33	11° 8 41'40		direct	4784 Nov 01 02:21	25° 8 33'51	
desc. node	4783 Dec 22 08:41	27° 8 31'23		asc. node	4784 Nov 01 16:10	25° 8 35'28	
	4783 Dec 23 21:31	0° 8		morning max el	4784 Nov 07 17:09	28° 8 59'11	17°49'52
					4784 Nov 08 16:22	0° 8	
superior conj	4783 Dec 26 19:17	4° 8 39'19	0°-30'-25	morning set	4784 Nov 24 00:06	24° 8 05'28	
minimum elong	4783 Dec 26 15:33	4° 8 24'25	0°29'54		4784 Nov 27 09:33	0° 8	
max. Earth dist.	4783 Dec 30 16:47	10° 8 49'46	1.45038 AU				
evening rise	4784 Jan 12 03:21	0° \approx 11'57		superior conj	4784 Dec 06 01:44	14° 8 43'12	0°15'09
	4784 Jan 12 00:15	0° \approx		minimum elong	4784 Dec 06 03:17	14° 8 49'39	0°14'57
greatest brilliancy	4784 Jan 30 17:48	28° \approx 08'27	-0.6m	behind sun begin	4784 Dec 05 23:45	14° 8 34'59	
	4784 Feb 01 02:19	0° 8		behind sun end	4784 Dec 06 06:50	15° 8 04'19	
evening max el	4784 Feb 06 20:55	6° 8 59'47	19°51'29	desc. node	4784 Dec 08 05:42	18° 8 17'18	
asc. node	4784 Feb 11 18:26	10° 8 44'51		max. Earth dist.	4784 Dec 12 10:31	25° 8 05'33	1.44062 AU
retrograde	4784 Feb 14 09:12	11° 8 21'20			4784 Dec 15 12:34	0° 8	
evening set	4784 Feb 18 00:08	10° 8 04'38		evening rise	4784 Dec 21 13:15	9° 8 24'17	
inferior conj	4784 Feb 23 11:22	4° 8 02'27	3°09'27		4785 Jan 04 06:03	0° \approx	
minimum elong	4784 Feb 23 09:17	4° 8 09'24	3°09'04	greatest brilliancy	4785 Jan 14 12:07	14° \approx 15'51	-0.5m
min. Earth dist.	4784 Feb 24 11:09	2° 8 43'05	0.67024 AU	evening max el	4785 Jan 19 21:12	20° \approx 33'21	20°56'16
	4784 Feb 26 14:43	30° R \approx		retrograde	4785 Jan 28 07:21	25° \approx 32'12	
morning rise	4784 Feb 28 17:48	27° \approx 46'15		asc. node	4785 Jan 28 15:27	25° \approx 31'35	
direct	4784 Mar 05 16:15	25° \approx 08'07		evening set	4785 Feb 01 07:39	24° \approx 00'41	
	4784 Mar 15 06:01	0° 8		inferior conj	4785 Feb 06 17:07	17° \approx 46'25	2°40'33
morning max el	4784 Mar 17 15:43	2° 8 17'23	25°17'36	minimum elong	4785 Feb 06 14:41	17° \approx 54'47	2°39'55
desc. node	4784 Mar 19 07:57	4° 8 02'48		min. Earth dist.	4785 Feb 07 03:46	17° \approx 09'43	0.67740 AU
	4784 Apr 07 16:04	0° 8		morning rise	4785 Feb 11 21:20	11° \approx 31'03	
morning set	4784 Apr 22 19:18	25° 8 11'33		direct	4785 Feb 17 05:27	9° \approx 10'55	
	4784 Apr 25 10:27	0° 8		morning max el	4785 Feb 28 00:26	15° \approx 36'51	23°50'19
max. Earth dist.	4784 Apr 26 12:26	2° 8 00'59	1.36427 AU	desc. node	4785 Mar 06 04:57	22° \approx 38'46	
					4785 Mar 11 19:56	0° 8	
superior conj	4784 May 02 14:59	13° 8 48'01	-1°-8'-4		4785 Mar 31 15:22	0° 8	




























































































































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max. Earth dist.	4785 Apr 08 08:25	13°Υ11'56	1.38528 AU	morning set	4786 Mar 15 23:43	16°Ϡ20'55	
				max. Earth dist.	4786 Mar 21 04:54	24°Ϡ59'41	1.40715 AU
superior conj	4785 Apr 15 16:06	26°Υ36'50	-1°-35'-19		4786 Mar 24 03:12	0°Υ	
minimum elong	4785 Apr 15 20:56	26°Υ59'44	1°34'44				
	4785 Apr 17 10:47	0°Ϡ		superior conj	4786 Mar 28 23:57	8°Υ33'53	-1°-56'-56
evening rise	4785 Apr 24 18:40	14°Ϡ16'10		minimum elong	4786 Mar 29 04:23	8°Υ53'48	1°56'38
asc. node	4785 Apr 26 14:45	17°Ϡ50'37		evening rise	4786 Apr 08 05:55	27°Υ30'00	
	4785 May 03 05:58	0°Π			4786 Apr 09 13:55	0°Ϡ	
evening max el	4785 May 11 02:42	10°Π40'47	18°51'54	asc. node	4786 Apr 13 11:47	7°Ϡ12'40	
retrograde	4785 May 19 11:28	14°Π46'51		evening max el	4786 Apr 24 09:01	23°Ϡ16'32	18°19'33
evening set	4785 May 21 13:23	14°Π32'36		retrograde	4786 May 01 14:54	26°Ϡ53'01	
inferior conj	4785 May 29 14:48	10°Π13'53	1°01'22	evening set	4786 May 03 23:17	26°Ϡ31'09	
minimum elong	4785 May 29 17:05	10°Π09'47	1°00'34	inferior conj	4786 May 11 05:45	21°Ϡ52'11	2°19'59
min. Earth dist.	4785 Jun 01 19:02	7°Π57'37	0.56950 AU	minimum elong	4786 May 11 09:18	21°Ϡ44'41	2°19'02
desc. node	4785 Jun 02 04:13	7°Π41'59		min. Earth dist.	4786 May 14 16:14	18°Ϡ59'48	0.58963 AU
morning rise	4785 Jun 06 16:16	5°Π09'38		morning rise	4786 May 18 15:04	16°Ϡ17'02	
direct	4785 Jun 12 01:54	3°Π59'21		desc. node	4786 May 20 01:13	15°Ϡ35'03	
morning max el	4785 Jun 26 09:57	11°Π26'37	26°06'26	direct	4786 May 24 20:39	14°Ϡ32'33	
	4785 Jul 10 17:43	0°Ϡ		morning max el	4786 Jun 08 06:04	22°Ϡ20'07	27°15'34
asc. node	4785 Jul 23 13:59	23°Ϡ47'08			4786 Jun 15 00:27	0°Π	
morning set	4785 Jul 24 14:53	25°Ϡ57'49			4786 Jul 03 16:42	0°Ϡ	
	4785 Jul 26 12:12	0°Ω		morning set	4786 Jul 08 23:40	10°Ϡ39'15	
				asc. node	4786 Jul 10 11:03	13°Ϡ46'15	
superior conj	4785 Jul 31 14:37	11°Ω10'37	1°15'11	max. Earth dist.	4786 Jul 15 17:52	25°Ϡ17'05	1.31949 AU
minimum elong	4785 Jul 31 12:18	10°Ω57'51	1°14'49				
max. Earth dist.	4785 Aug 01 06:32	12°Ω38'17	1.32191 AU	superior conj	4786 Jul 16 02:28	26°Ϡ04'31	0°56'02
evening rise	4785 Aug 07 14:39	26°Ω18'07		minimum elong	4786 Jul 16 00:21	25°Ϡ52'53	0°55'37
	4785 Aug 09 09:42	0°൬			4786 Jul 17 21:07	0°Ω	
	4785 Aug 26 14:07	0°♄		evening rise	4786 Jul 22 23:00	11°Ω01'27	
desc. node	4785 Aug 29 03:31	3°♄35'01			4786 Aug 01 15:26	0°൬	
evening max el	4785 Sep 07 21:03	14°♄52'07	27°09'01	desc. node	4786 Aug 16 00:32	21°൬25'20	
retrograde	4785 Sep 21 17:40	22°♄04'45		evening max el	4786 Aug 20 21:00	26°൬36'48	26°17'50
evening set	4785 Sep 28 20:09	19°♄48'26			4786 Aug 24 22:05	0°♄	
min. Earth dist.	4785 Oct 02 11:28	17°♄05'17	0.61345 AU	retrograde	4786 Sep 03 20:11	3°♄45'37	
inferior conj	4785 Oct 05 13:59	14°♄22'10	-4°-6'-57	evening set	4786 Sep 10 09:59	1°♄59'31	
minimum elong	4785 Oct 05 20:12	14°♄08'33	4°05'21		4786 Sep 13 14:53	30°℞൬	
morning rise	4785 Oct 12 23:26	9°♄27'01		min. Earth dist.	4786 Sep 14 10:12	29°൬25'14	0.59275 AU
direct	4785 Oct 15 06:11	9°♄05'33		inferior conj	4786 Sep 17 16:20	26°൬56'06	-4°-53'-30
asc. node	4785 Oct 19 13:12	10°♄24'42		minimum elong	4786 Sep 17 21:20	26°൬46'30	4°52'46
morning max el	4785 Oct 22 08:00	12°♄38'09	17°56'49	morning rise	4786 Sep 25 12:12	22°൬23'44	
	4785 Nov 03 00:07	0°℞		direct	4786 Sep 27 20:24	22°൬04'43	
morning set	4785 Nov 07 01:23	7°℞22'15		morning max el	4786 Oct 05 17:33	25°൬53'49	18°23'27
				asc. node	4786 Oct 06 10:15	26°൬35'38	
superior conj	4785 Nov 17 10:49	26°℞04'55	0°52'32		4786 Oct 09 06:54	0°♄	
minimum elong	4785 Nov 17 14:42	26°℞21'47	0°52'01	morning set	4786 Oct 21 15:55	21°♄16'43	
	4785 Nov 19 17:11	0°♂			4786 Oct 26 05:22	0°℞	
max. Earth dist.	4785 Nov 24 23:35	8°♂51'33	1.42498 AU				
desc. node	4785 Nov 25 02:45	9°♂04'35		superior conj	4786 Oct 30 19:14	8°℞34'28	1°19'13
evening rise	4785 Dec 01 06:45	19°♂01'34		minimum elong	4786 Oct 30 22:55	8°℞51'26	1°18'49
	4785 Dec 08 09:02	0°Ϡ		max. Earth dist.	4786 Nov 07 07:16	21°℞56'09	1.40545 AU
greatest brilliancy	4785 Dec 28 22:30	28°Ϡ48'15	-0.3m	evening rise	4786 Nov 11 19:53	29°℞33'46	
	4785 Dec 29 22:22	0°≈		desc. node	4786 Nov 11 23:49	29°℞49'59	
evening max el	4786 Jan 02 16:06	4°≈08'05	22°11'03		4786 Nov 12 02:15	0°♂	
retrograde	4786 Jan 12 04:08	9°≈47'16			4786 Dec 01 21:07	0°Ϡ	
asc. node	4786 Jan 15 12:29	8°≈47'51		evening max el	4786 Dec 16 07:04	17°Ϡ46'27	23°30'45
evening set	4786 Jan 16 15:24	8°≈00'12		retrograde	4786 Dec 26 22:04	24°Ϡ03'11	
inferior conj	4786 Jan 22 00:51	1°≈37'19	2°03'09	evening set	4786 Dec 31 21:49	22°Ϡ00'19	
minimum elong	4786 Jan 21 22:34	1°≈45'17	2°02'24	asc. node	4787 Jan 02 09:30	20°Ϡ35'06	
min. Earth dist.	4786 Jan 21 23:40	1°≈41'26	0.68060 AU	inferior conj	4787 Jan 06 08:43	15°Ϡ32'54	1°18'28
	4786 Jan 23 05:05	30°℞Ϡ		minimum elong	4787 Jan 06 07:01	15°Ϡ38'44	1°17'49
morning rise	4786 Jan 27 05:34	25°Ϡ24'24		min. Earth dist.	4787 Jan 05 20:31	16°Ϡ14'43	0.68009 AU
direct	4786 Jan 31 22:50	23°Ϡ26'13		morning rise	4787 Jan 11 16:21	9°Ϡ24'22	
morning max el	4786 Feb 10 11:22	29°Ϡ02'44	22°21'30	direct	4787 Jan 15 19:26	7°Ϡ48'55	
	4786 Feb 11 09:35	0°≈		morning max el	4787 Jan 24 03:59	12°Ϡ38'28	20°59'24
greatest brilliancy	4786 Feb 15 00:56	4°≈08'27	-0.3m	greatest brilliancy	4787 Jan 29 15:04	18°Ϡ55'40	-0.5m
desc. node	4786 Feb 21 01:59	11°≈56'34			4787 Feb 06 17:55	0°≈	

desc. node	4787 Feb 07 23:02	1° \approx 44'50		4788 Jan 10 09:22	0° \approx	
morning set	4787 Feb 23 08:44	25° \approx 00'09		greatest brilliancy	4788 Jan 14 15:44	5° \approx 33'20 -0.6m
	4787 Feb 26 12:48	0° \approx		desc. node	4788 Jan 25 20:05	21° \approx 55'02
max. Earth dist.	4787 Mar 03 07:48	7° \approx 42'34	1.42708 AU		4788 Jan 31 03:16	0° \approx
				morning set	4788 Feb 02 04:54	3° \approx 10'54
superior conj	4787 Mar 10 09:38	19° \approx 28'44	-2°-8'-5	max. Earth dist.	4788 Feb 13 18:52	21° \approx 18'16 1.44239 AU
minimum elong	4787 Mar 10 10:52	19° \approx 33'59	2°08'04			
	4787 Mar 16 11:39	0° \approx		superior conj	4788 Feb 18 17:48	29° \approx 15'38 -2°-3'-12
evening rise	4787 Mar 22 02:45	10° \approx 00'42		minimum elong	4788 Feb 18 13:02	28° \approx 56'19 2°03'01
asc. node	4787 Mar 31 08:49	26° \approx 09'32			4788 Feb 19 04:45	0° \approx
	4787 Apr 02 20:02	0° \approx		evening rise	4788 Mar 03 04:48	21° \approx 40'12
evening max el	4787 Apr 07 20:15	6° \approx 17'20	18°06'54		4788 Mar 08 02:12	0° \approx
retrograde	4787 Apr 14 10:50	9° \approx 40'21		asc. node	4788 Mar 17 05:51	14° \approx 33'32
evening set	4787 Apr 17 01:40	9° \approx 08'29		evening max el	4788 Mar 21 09:10	19° \approx 34'56 18°13'17
inferior conj	4787 Apr 23 16:21	4° \approx 08'31	3°07'53	retrograde	4788 Mar 27 19:02	22° \approx 59'14
minimum elong	4787 Apr 23 19:00	4° \approx 02'02	3°07'26	evening set	4788 Mar 30 15:53	22° \approx 16'00
min. Earth dist.	4787 Apr 26 20:24	1° \approx 04'47	0.61169 AU	inferior conj	4788 Apr 05 18:41	16° \approx 56'01 3°30'20
	4787 Apr 28 01:27	30° \approx 00'00		minimum elong	4788 Apr 05 19:42	16° \approx 53'14 3°30'15
morning rise	4787 Apr 30 09:11	28° \approx 00'00		min. Earth dist.	4788 Apr 08 09:24	14° \approx 04'33 0.63261 AU
desc. node	4787 May 06 22:16	25° \approx 00'00		morning rise	4788 Apr 11 21:27	10° \approx 48'31
direct	4787 May 07 02:51	25° \approx 00'00		direct	4788 Apr 18 18:01	8° \approx 09'09
	4787 May 16 22:40	0° \approx		desc. node	4788 Apr 22 19:17	8° \approx 58'01
morning max el	4787 May 21 08:23	3° \approx 53'25	27°49'40	morning max el	4788 May 02 15:48	16° \approx 08'08 27°46'02
	4787 Jun 09 16:14	0° \approx			4788 May 14 01:29	0° \approx
morning set	4787 Jun 23 04:11	25° \approx 00'00			4788 Jun 01 09:06	0° \approx
	4787 Jun 25 12:42	0° \approx		morning set	4788 Jun 06 02:15	9° \approx 08'49
asc. node	4787 Jun 27 08:06	3° \approx 51'35		max. Earth dist.	4788 Jun 11 08:46	20° \approx 02'06 1.32748 AU
max. Earth dist.	4787 Jun 29 03:53	7° \approx 48'53	1.32129 AU	asc. node	4788 Jun 13 05:09	23° \approx 00'00
superior conj	4787 Jun 30 13:10	10° \approx 50'56	0°33'03	superior conj	4788 Jun 13 20:59	25° \approx 00'00 0°06'54
minimum elong	4787 Jun 30 11:44	10° \approx 43'03	0°32'44	minimum elong	4788 Jun 13 20:39	25° \approx 00'00 0°06'49
evening rise	4787 Jul 07 10:01	25° \approx 49'26		behind sun begin	4788 Jun 13 15:50	24° \approx 00'00
	4787 Jul 09 09:40	0° \approx		behind sun end	4788 Jun 14 01:27	25° \approx 00'00
	4787 Jul 26 21:58	0° \approx			4788 Jun 15 23:53	0° \approx
evening max el	4787 Aug 02 13:39	7° \approx 34'01	24°58'20	evening rise	4788 Jun 20 21:51	10° \approx 36'01
desc. node	4787 Aug 02 21:34	7° \approx 52'48			4788 Jun 30 20:45	0° \approx
retrograde	4787 Aug 16 11:59	14° \approx 36'25		evening max el	4788 Jul 14 02:18	17° \approx 59'25 23°22'40
evening set	4787 Aug 21 23:46	13° \approx 27'59		desc. node	4788 Jul 19 18:33	22° \approx 00'00
min. Earth dist.	4787 Aug 27 01:10	10° \approx 44'04	0.57297 AU	retrograde	4788 Jul 27 15:02	24° \approx 45'54
inferior conj	4787 Aug 29 23:17	8° \approx 47'49	-5°-15'-23	evening set	4788 Jul 31 15:12	24° \approx 00'00
minimum elong	4787 Aug 29 23:54	8° \approx 46'47	5°15'24	min. Earth dist.	4788 Aug 07 11:48	21° \approx 00'00 0.55725 AU
morning rise	4787 Sep 07 03:31	4° \approx 37'59		inferior conj	4788 Aug 09 10:09	19° \approx 52'31 -4°-56'-17
direct	4787 Sep 09 16:56	4° \approx 19'06		minimum elong	4788 Aug 09 04:26	20° \approx 00'00 4°55'30
morning max el	4787 Sep 18 18:20	8° \approx 35'11	19°11'20	morning rise	4788 Aug 17 20:42	15° \approx 59'39
asc. node	4787 Sep 23 07:19	13° \approx 52'19		direct	4788 Aug 20 18:16	15° \approx 39'12
	4787 Oct 02 18:57	0° \approx		morning max el	4788 Aug 31 07:39	20° \approx 33'32 20°21'13
morning set	4787 Oct 05 15:33	5° \approx 36'37			4788 Sep 07 21:56	0° \approx
				asc. node	4788 Sep 09 04:22	2° \approx 00'00
superior conj	4787 Oct 13 21:28	21° \approx 55'43	1°35'35	morning set	4788 Sep 18 21:17	20° \approx 00'00 13°46
minimum elong	4787 Oct 13 23:48	22° \approx 00'01	1°35'26		4788 Sep 23 15:09	0° \approx
	4787 Oct 18 03:28	0° \approx				
max. Earth dist.	4787 Oct 20 12:06	4° \approx 20'09	1.38445 AU	superior conj	4788 Sep 26 12:40	5° \approx 55'01 1°42'58
evening rise	4787 Oct 24 08:04	11° \approx 08'33		minimum elong	4788 Sep 26 13:24	5° \approx 58'41 1°42'58
desc. node	4787 Oct 29 20:51	20° \approx 29'02		max. Earth dist.	4788 Oct 01 18:49	16° \approx 17'57 1.36439 AU
	4787 Nov 04 20:42	0° \approx		evening rise	4788 Oct 05 17:08	23° \approx 40'41
	4787 Nov 27 09:11	0° \approx			4788 Oct 09 05:44	0° \approx
evening max el	4787 Nov 28 20:06	1° \approx 28'44	24°49'04	desc. node	4788 Oct 15 17:52	10° \approx 57'21
retrograde	4787 Dec 10 11:56	8° \approx 15'23			4788 Oct 28 13:12	0° \approx
evening set	4787 Dec 16 01:19	5° \approx 57'23		evening max el	4788 Nov 10 08:39	15° \approx 11'58 25°58'42
asc. node	4787 Dec 20 06:32	1° \approx 16'34		retrograde	4788 Nov 22 20:55	22° \approx 18'39
min. Earth dist.	4787 Dec 20 15:51	0° \approx 46'07	0.67597 AU	evening set	4788 Nov 29 00:07	19° \approx 47'47
	4787 Dec 21 05:49	30° \approx 00'00		min. Earth dist.	4788 Dec 03 07:18	15° \approx 12'01 0.66834 AU
inferior conj	4787 Dec 21 14:54	29° \approx 29'55	0°27'24	inferior conj	4788 Dec 04 17:32	13° \approx 25'02 0°-29'-5
minimum elong	4787 Dec 21 14:14	29° \approx 32'08	0°27'07	minimum elong	4788 Dec 04 18:18	13° \approx 22'37 0°28'46
morning rise	4787 Dec 27 03:41	23° \approx 28'03		asc. node	4788 Dec 06 03:35	11° \approx 40'23
direct	4787 Dec 30 17:53	22° \approx 13'51		morning rise	4788 Dec 10 13:32	7° \approx 32'22
morning max el	4788 Jan 07 04:26	26° \approx 25'50	19°49'32	direct	4788 Dec 13 16:34	6° \approx 36'26

































































































































morning max el	4788 Dec 20 12:28	10°  22'29	18°54'37	asc. node	4789 Nov 23 00:37	22°  43'49	
	4789 Jan 03 19:01	0° 		morning rise	4789 Nov 24 19:40	21°  34'11	
morning set	4789 Jan 11 13:17	12°  05'41		direct	4789 Nov 27 13:35	20°  52'44	
desc. node	4789 Jan 11 17:06	12°  20'34		morning max el	4789 Dec 04 02:10	24°  23'48	18°15'59
	4789 Jan 22 23:57	0° 			4789 Dec 08 17:25	0° 	
max. Earth dist.	4789 Jan 26 11:39	5°  28'19	1.45126 AU	morning set	4789 Dec 23 01:41	22°  26'28	
					4789 Dec 27 17:57	0° 	
superior conj	4789 Jan 28 03:42	8°  05'49	-1°-38'-39	desc. node	4789 Dec 29 14:07	2°  57'12	
minimum elong	4789 Jan 27 18:28	7°  29'27	1°37'50				
	4789 Feb 10 21:11	0° 		superior conj	4790 Jan 07 06:46	16°  44'46	0°-57'-37
evening rise	4789 Feb 12 08:18	2°  22'18		minimum elong	4790 Jan 06 23:41	16°  36'53	0°56'43
	4789 Mar 02 05:26	0° 		max. Earth dist.	4790 Jan 09 06:51	19°  53'36	1.45281 AU
asc. node	4789 Mar 04 02:53	2°  13'54			4790 Jan 15 17:52	0° 	
evening max el	4789 Mar 04 20:53	3°  01'18	18°38'04	evening rise	4790 Jan 23 13:06	12°  11'11	
retrograde	4789 Mar 11 11:10	6°  39'52			4790 Feb 04 00:22	0° 	
evening set	4789 Mar 14 14:13	5°  44'25		greatest brilliancy	4790 Feb 07 09:44	5°  05'18	-0.7m
inferior conj	4789 Mar 20 08:43	0°  06'12	3°33'20	evening max el	4790 Feb 16 05:13	16°  32'16	19°20'07
minimum elong	4789 Mar 20 08:11	0°  07'49	3°33'18	asc. node	4790 Feb 18 23:54	18°  58'18	
	4789 Mar 20 10:45	30°  R 		retrograde	4790 Feb 23 07:40	20°  35'52	
min. Earth dist.	4789 Mar 22 07:52	27°  K43'53	0.65042 AU	evening set	4790 Feb 26 17:49	19°  K27'21	
morning rise	4789 Mar 26 00:50	23°  K52'32		inferior conj	4790 Mar 04 07:00	13°  K33'10	3°21'35
direct	4789 Apr 01 16:36	21°  K03'57		minimum elong	4790 Mar 04 05:20	13°  K38'34	3°21'22
desc. node	4789 Apr 09 16:18	24°  K12'36		min. Earth dist.	4790 Mar 05 15:00	11°  K49'25	0.66423 AU
morning max el	4789 Apr 15 01:44	28°  K54'52	27°08'04	morning rise	4790 Mar 09 16:00	7°  K16'57	
	4789 Apr 16 03:00	0° 		direct	4790 Mar 15 21:42	4°  K31'53	
	4789 May 07 21:39	0° 		desc. node	4790 Mar 27 13:20	11°  K06'12	
morning set	4789 May 20 14:57	22°  B41'32		morning max el	4790 Mar 28 11:37	12°  K01'23	26°03'11
	4789 May 24 07:42	0° 			4790 Apr 11 21:30	0° 	
max. Earth dist.	4789 May 25 04:44	1°  II46'32	1.33822 AU		4790 Apr 30 13:23	0° 	
				morning set	4790 May 03 14:27	5°  B32'26	
superior conj	4789 May 28 23:50	9°  II38'20	0°-21'-37	max. Earth dist.	4790 May 07 13:14	13°  B00'58	1.35354 AU
minimum elong	4789 May 29 00:58	9°  II44'18	0°21'24				
asc. node	4789 May 31 02:10	14°  II04'27		superior conj	4790 May 12 19:16	23°  B26'12	0°-51'-13
evening rise	4789 Jun 05 08:34	25°  II14'40		minimum elong	4790 May 12 22:05	23°  B40'27	0°50'43
	4789 Jun 07 15:41	0° 			4790 May 16 00:06	0° 	
evening max el	4789 Jun 25 18:40	28°  B25'00	21°47'00	asc. node	4790 May 17 23:12	4°  II03'48	
	4789 Jun 27 12:15	0° 		evening rise	4790 May 20 16:09	9°  II39'18	
desc. node	4789 Jul 06 15:33	4°  Q30'39			4790 May 31 14:25	0° 	
retrograde	4789 Jul 08 07:17	4°  Q37'05		evening max el	4790 Jun 07 21:53	9°  B21'38	20°24'01
evening set	4789 Jul 10 23:01	4°  Q21'12		retrograde	4790 Jun 18 20:26	14°  B42'42	
inferior conj	4789 Jul 20 06:17	0°  Q19'19	-3°-45'-45	evening set	4790 Jun 20 20:09	14°  B32'50	
minimum elong	4789 Jul 19 21:33	0°  Q31'33	3°43'20	desc. node	4790 Jun 23 12:34	13°  B50'38	
min. Earth dist.	4789 Jul 19 21:53	0°  Q31'04	0.54876 AU	inferior conj	4790 Jun 30 00:22	10°  B35'14	-1°-55'-23
	4789 Jul 20 20:06	30°  R 		minimum elong	4790 Jun 29 18:58	10°  B43'07	1°53'27
morning rise	4789 Jul 28 21:25	26°  B28'20		min. Earth dist.	4790 Jul 01 09:46	9°  B46'33	0.54973 AU
direct	4789 Aug 01 05:16	26°  B04'08		morning rise	4790 Jul 08 16:03	6°  B25'06	
	4789 Aug 11 07:11	0° 		direct	4790 Jul 12 15:17	5°  B51'05	
morning max el	4789 Aug 13 09:10	1°  Q46'30	21°50'54	morning max el	4790 Jul 26 01:53	12°  B22'51	23°32'59
asc. node	4789 Aug 27 01:25	20°  Q47'43			4790 Aug 08 09:48	0° 	
	4789 Aug 31 20:08	0° 		asc. node	4790 Aug 13 22:27	10°  Q04'16	
morning set	4789 Sep 03 06:48	5°  B01'37		morning set	4790 Aug 18 18:13	19°  Q54'08	
					4790 Aug 23 11:02	0° 	
superior conj	4789 Sep 10 12:57	20°  B21'02	1°42'48	superior conj	4790 Aug 25 19:15	5°  B03'53	1°36'16
minimum elong	4789 Sep 10 12:16	20°  B17'28	1°42'48	minimum elong	4790 Aug 25 17:34	4°  B54'49	1°36'07
max. Earth dist.	4789 Sep 14 08:01	28°  B11'18	1.34718 AU	max. Earth dist.	4790 Aug 28 05:57	10°  B17'44	1.33400 AU
	4789 Sep 15 05:33	0° 		evening rise	4790 Sep 02 09:28	20°  B54'43	
evening rise	4789 Sep 18 19:00	6°  B59'54			4790 Sep 07 02:18	0° 	
	4789 Oct 01 21:20	0° 		desc. node	4790 Sep 19 11:53	20°  B57'36	
desc. node	4789 Oct 02 14:52	1°  B09'29			4790 Sep 25 19:55	0° 	
evening max el	4789 Oct 23 21:15	28°  B49'55	26°52'18	evening max el	4790 Oct 06 09:13	12°  B11'52	27°22'43
	4789 Oct 25 03:21	0° 		retrograde	4790 Oct 19 22:27	19°  B30'22	
retrograde	4789 Nov 06 00:37	6°  B06'46		evening set	4790 Oct 26 23:15	16°  B51'46	
evening set	4789 Nov 12 16:18	3°  B28'01		min. Earth dist.	4790 Oct 30 17:41	13°  B26'32	0.64249 AU
	4789 Nov 16 05:22	30°  R 		inferior conj	4790 Nov 02 03:41	10°  B53'23	-2°-32'-31
min. Earth dist.	4789 Nov 16 16:37	29°  B28'16	0.65715 AU	minimum elong	4790 Nov 02 08:04	10°  B41'45	2°30'51
inferior conj	4789 Nov 18 14:36	27°  B14'53	-1°-29'-42	morning rise	4790 Nov 08 19:15	5°  B27'34	
minimum elong	4789 Nov 18 17:08	27°  B07'32	1°28'39				

asc. node	4790 Nov 09 21:39	5°♄06'14		retrograde	4791 Oct 02 13:28	2°♄20'25	
direct	4790 Nov 11 06:30	4°♄56'38		evening set	4791 Oct 09 17:41	29°♄52'48	
morning max el	4790 Nov 17 18:40	8°♄22'01	17°54'19		4791 Oct 09 13:23	30°♄	
	4790 Dec 02 07:31	0°♄		min. Earth dist.	4791 Oct 13 08:46	26°♄56'53	0.62476 AU
morning set	4790 Dec 04 18:30	4°♄10'24		inferior conj	4791 Oct 16 05:56	24°♄13'47	-3°-34'-8
desc. node	4790 Dec 16 11:08	23°♄40'33		minimum elong	4791 Oct 16 11:48	23°♄59'55	3°32'19
				morning rise	4791 Oct 23 08:50	19°♄06'11	
superior conj	4790 Dec 17 23:19	26°♄07'17	0°-10'-28	direct	4791 Oct 25 16:18	18°♄42'07	
minimum elong	4790 Dec 17 22:05	26°♄02'21	0°10'18	asc. node	4791 Oct 27 18:42	19°♄02'34	
behind sun begin	4790 Dec 17 14:12	25°♄30'25		morning max el	4791 Nov 01 10:57	22°♄09'51	17°50'28
behind sun end	4790 Dec 18 05:59	26°♄34'15			4791 Nov 07 11:56	0°♄	
	4790 Dec 20 09:10	0°♄		morning set	4791 Nov 17 09:46	16°♄58'47	
max. Earth dist.	4790 Dec 23 01:25	4°♄15'49	1.44702 AU		4791 Nov 24 18:49	0°♄	
evening rise	4791 Jan 03 01:52	21°♄26'14					
	4791 Jan 08 16:22	0°♄		superior conj	4791 Nov 28 17:04	6°♄43'53	0°32'15
greatest brilliancy	4791 Jan 24 02:29	22°♄31'54	-0.5m	minimum elong	4791 Nov 28 19:59	6°♄56'14	0°31'50
	4791 Jan 30 06:38	0°♄		desc. node	4791 Dec 03 08:11	14°♄27'16	
evening max el	4791 Jan 30 08:40	0°♄05'14	20°17'33	max. Earth dist.	4791 Dec 05 17:09	18°♄19'39	1.43461 AU
asc. node	4791 Feb 05 20:55	4°♄32'08			4791 Dec 13 01:38	0°♄	
retrograde	4791 Feb 07 05:50	4°♄42'15		evening rise	4791 Dec 13 13:06	0°♄44'33	
evening set	4791 Feb 11 00:27	3°♄19'35			4792 Jan 02 07:29	0°♄	
	4791 Feb 14 07:34	30°♄		greatest brilliancy	4792 Jan 08 08:21	8°♄00'22	-0.4m
inferior conj	4791 Feb 16 10:43	27°♄11'58	2°58'19	evening max el	4792 Jan 13 06:43	13°♄39'41	21°27'12
minimum elong	4791 Feb 16 08:26	27°♄19'44	2°57'49	retrograde	4792 Jan 22 03:29	18°♄55'13	
min. Earth dist.	4791 Feb 17 04:49	26°♄10'32	0.67381 AU	asc. node	4792 Jan 23 17:58	18°♄41'23	
morning rise	4791 Feb 21 15:51	20°♄55'42		evening set	4792 Jan 26 08:16	17°♄17'17	
direct	4791 Feb 27 08:23	18°♄24'14		inferior conj	4792 Jan 31 17:34	10°♄59'11	2°25'40
morning max el	4791 Mar 10 20:18	25°♄16'56	24°41'06	minimum elong	4792 Jan 31 15:08	11°♄07'36	2°24'57
desc. node	4791 Mar 14 10:21	29°♄10'52		min. Earth dist.	4792 Jan 31 23:07	10°♄39'56	0.67929 AU
	4791 Mar 15 03:12	0°♄		morning rise	4792 Feb 05 21:41	4°♄44'41	
	4791 Apr 05 09:39	0°♄		direct	4792 Feb 10 23:35	2°♄33'21	
morning set	4791 Apr 15 19:41	17°♄27'11		morning max el	4792 Feb 21 05:19	8°♄38'02	23°12'05
max. Earth dist.	4791 Apr 19 11:38	24°♄02'01	1.37291 AU	greatest brilliancy	4792 Feb 26 07:14	14°♄19'37	-0.2m
	4791 Apr 22 16:44	0°♄		desc. node	4792 Feb 29 07:24	18°♄06'18	
					4792 Mar 08 22:51	0°♄	
superior conj	4791 Apr 26 04:14	6°♄39'56	-1°-20'-5	morning set	4792 Mar 27 00:29	28°♄08'51	
minimum elong	4791 Apr 26 08:33	7°♄00'53	1°19'27		4792 Mar 28 02:55	0°♄	
evening rise	4791 May 04 18:16	23°♄43'15		max. Earth dist.	4792 Mar 31 06:51	5°♄24'58	1.39469 AU
asc. node	4791 May 04 20:14	23°♄53'02					
	4791 May 07 22:45	0°♄		superior conj	4792 Apr 07 22:40	19°♄08'37	-1°-45'-26
evening max el	4791 May 21 13:41	21°♄01'05	19°19'45	minimum elong	4792 Apr 08 03:36	19°♄31'26	1°44'57
retrograde	4791 May 30 18:49	25°♄30'44			4792 Apr 13 16:51	0°♄	
evening set	4791 Jun 01 17:57	25°♄19'22		evening rise	4792 Apr 17 11:57	7°♄17'57	
inferior conj	4791 Jun 10 06:38	21°♄11'22	0°02'11	asc. node	4792 Apr 20 17:16	13°♄26'36	
minimum elong	4791 Jun 10 06:43	21°♄11'13	0°02'09		4792 Apr 30 17:46	0°♄	
transit middle	4791 Jun 10 06:43	21°♄11'13	0°02'09	evening max el	4792 May 03 15:40	3°♄18'37	18°35'40
transit begin	4791 Jun 10 02:54	21°♄17'30		retrograde	4792 May 11 11:17	7°♄09'43	
transit end	4791 Jun 10 10:33	21°♄04'55		evening set	4792 May 13 16:04	6°♄52'27	
desc. node	4791 Jun 10 09:36	21°♄06'29		inferior conj	4792 May 21 09:08	2°♄25'17	1°38'39
min. Earth dist.	4791 Jun 13 00:07	19°♄24'10	0.56012 AU	minimum elong	4792 May 21 12:19	2°♄19'09	1°37'38
morning rise	4791 Jun 18 15:28	16°♄28'00		min. Earth dist.	4792 May 24 17:55	29°♄51'07	0.57768 AU
direct	4791 Jun 23 12:17	15°♄33'49			4792 May 24 13:05	30°♄	
morning max el	4791 Jul 07 15:33	22°♄44'39	25°14'28	desc. node	4792 May 27 06:38	28°♄08'56	
	4791 Jul 14 02:42	0°♄		morning rise	4792 May 29 04:06	27°♄07'10	
asc. node	4791 Jul 31 19:29	29°♄42'29		direct	4792 Jun 03 23:08	25°♄42'46	
	4791 Jul 31 22:55	0°♄			4792 Jun 14 12:42	0°♄	
morning set	4791 Aug 03 05:54	4°♄46'46		morning max el	4792 Jun 18 08:08	3°♄19'12	26°39'36
					4792 Jul 07 14:27	0°♄	
superior conj	4791 Aug 10 05:15	19°♄56'21	1°24'17	morning set	4792 Jul 17 16:13	19°♄33'31	
minimum elong	4791 Aug 10 03:02	19°♄44'10	1°23'59	asc. node	4792 Jul 17 16:32	19°♄35'15	
max. Earth dist.	4791 Aug 11 11:43	22°♄42'59	1.32514 AU		4792 Jul 22 12:10	0°♄	
	4791 Aug 14 20:49	0°♄					
evening rise	4791 Aug 17 09:07	5°♄15'32		superior conj	4792 Jul 24 16:54	4°♄50'58	1°07'33
	4791 Aug 30 17:25	0°♄		minimum elong	4792 Jul 24 14:37	4°♄38'20	1°07'10
desc. node	4791 Sep 06 08:55	10°♄11'45		max. Earth dist.	4792 Jul 24 22:13	5°♄20'18	1.32044 AU
evening max el	4791 Sep 18 18:43	25°♄05'43	27°23'35	evening rise	4792 Jul 31 14:59	19°♄52'35	
	4791 Sep 25 02:04	0°♄			4792 Aug 05 14:50	0°♄	

desc. node	4792 Aug 23 05:57	28° \cap 37'37		evening rise	4793 Jul 16 00:43	4° Ω 38'33	
	4792 Aug 24 07:54	0° $\underline{\Delta}$			4793 Jul 29 10:38	0° \cap	
evening max el	4792 Aug 30 22:55	7° $\underline{\Delta}$ 17'58	26°51'12	desc. node	4793 Aug 10 02:57	15° \cap 55'42	
retrograde	4792 Sep 13 20:36	14° $\underline{\Delta}$ 28'01		evening max el	4793 Aug 12 19:30	18° \cap 40'51	25°46'43
evening set	4792 Sep 20 19:17	12° $\underline{\Delta}$ 23'27		retrograde	4793 Aug 26 18:31	25° \cap 47'21	
min. Earth dist.	4792 Sep 24 13:00	9° $\underline{\Delta}$ 46'09	0.60473 AU	evening set	4793 Sep 01 23:10	24° \cap 16'36	
inferior conj	4792 Sep 27 17:59	7° $\underline{\Delta}$ 07'05	-4°-28'-49	min. Earth dist.	4793 Sep 06 07:41	21° \cap 40'49	0.58408 AU
minimum elong	4792 Sep 28 00:00	6° $\underline{\Delta}$ 54'35	4°27'31	inferior conj	4793 Sep 09 12:17	19° \cap 23'27	-5°-6'-44
morning rise	4792 Oct 05 08:01	2° $\underline{\Delta}$ 21'08		minimum elong	4793 Sep 09 15:51	19° \cap 17'02	5°06'25
direct	4792 Oct 07 15:04	2° $\underline{\Delta}$ 00'53		morning rise	4793 Sep 17 12:03	15° \cap 01'11	
asc. node	4792 Oct 13 15:45	4° $\underline{\Delta}$ 27'47		direct	4793 Sep 19 22:11	14° \cap 42'25	
morning max el	4792 Oct 14 23:52	5° $\underline{\Delta}$ 39'15	18°05'39	morning max el	4793 Sep 28 06:02	18° \cap 41'07	18°41'15
	4792 Oct 30 10:09	0° \cap		asc. node	4793 Sep 30 12:49	21° \cap 08'18	
morning set	4792 Oct 30 17:16	0° \cap 33'11			4793 Oct 06 14:21	0° $\underline{\Delta}$	
				morning set	4793 Oct 14 12:02	14° $\underline{\Delta}$ 39'18	
					4793 Oct 22 10:25	0° \cap	
superior conj	4792 Nov 09 12:39	18° \cap 35'43	1°05'11	superior conj	4793 Oct 23 05:16	1° \cap 29'01	1°27'21
minimum elong	4792 Nov 09 16:40	18° \cap 53'38	1°04'41	minimum elong	4793 Oct 23 08:27	1° \cap 44'02	1°27'04
	4792 Nov 16 02:04	0° \times		max. Earth dist.	4793 Oct 30 10:34	14° \cap 37'54	1.39647 AU
max. Earth dist.	4792 Nov 17 04:23	1° \times 50'49	1.41702 AU	evening rise	4793 Nov 03 12:47	21° \cap 40'44	
desc. node	4792 Nov 19 05:14	5° \times 14'00		desc. node	4793 Nov 06 02:15	25° \cap 56'53	
evening rise	4792 Nov 22 13:59	10° \times 42'46			4793 Nov 08 14:02	0° \times	
	4792 Dec 05 02:58	0° $\overline{\Sigma}$			4793 Nov 29 04:04	0° $\overline{\Sigma}$	
greatest brilliancy	4792 Dec 20 22:11	21° $\overline{\Sigma}$ 35'23	-0.3m	evening max el	4793 Dec 08 13:32	10° $\overline{\Sigma}$ 55'31	24°04'41
evening max el	4792 Dec 25 23:50	27° $\overline{\Sigma}$ 16'19	22°44'46	retrograde	4793 Dec 19 15:27	17° $\overline{\Sigma}$ 26'26	
	4792 Dec 28 23:14	0° \approx		evening set	4793 Dec 24 21:00	15° $\overline{\Sigma}$ 16'39	
retrograde	4793 Jan 04 23:07	3° \approx 11'31		asc. node	4793 Dec 27 12:02	12° $\overline{\Sigma}$ 33'28	
evening set	4793 Jan 09 15:39	1° \approx 17'34		min. Earth dist.	4793 Dec 29 15:58	9° $\overline{\Sigma}$ 45'45	0.67871 AU
asc. node	4793 Jan 09 14:59	1° \approx 18'56		inferior conj	4793 Dec 30 08:53	8° $\overline{\Sigma}$ 48'32	0°57'32
	4793 Jan 11 00:40	30° $\overline{\Sigma}$		minimum elong	4793 Dec 30 07:34	8° $\overline{\Sigma}$ 52'59	0°57'00
inferior conj	4793 Jan 15 01:33	24° $\overline{\Sigma}$ 52'25	1°45'04	morning rise	4794 Jan 04 18:27	2° $\overline{\Sigma}$ 42'47	
minimum elong	4793 Jan 14 23:28	24° $\overline{\Sigma}$ 59'40	1°44'19	direct	4794 Jan 08 15:47	1° $\overline{\Sigma}$ 16'53	
min. Earth dist.	4793 Jan 14 19:35	25° $\overline{\Sigma}$ 13'05	0.68083 AU	morning max el	4794 Jan 16 14:16	5° $\overline{\Sigma}$ 49'10	20°28'07
morning rise	4793 Jan 20 07:14	18° $\overline{\Sigma}$ 41'24		greatest brilliancy	4794 Jan 22 18:16	13° $\overline{\Sigma}$ 04'16	-0.5m
direct	4793 Jan 24 18:25	16° $\overline{\Sigma}$ 52'57		desc. node	4794 Feb 02 01:29	27° $\overline{\Sigma}$ 36'41	
morning max el	4793 Feb 02 18:19	22° $\overline{\Sigma}$ 08'06	21°45'29		4794 Feb 03 16:06	0° \approx	
greatest brilliancy	4793 Feb 07 12:46	27° $\overline{\Sigma}$ 30'08	-0.4m	morning set	4794 Feb 14 01:33	15° \approx 48'43	
	4793 Feb 09 12:26	0° \approx			4794 Feb 23 01:29	0° \times	
desc. node	4793 Feb 15 04:27	7° \approx 38'29		max. Earth dist.	4794 Feb 23 12:55	0° \times 45'57	1.43424 AU
	4793 Mar 02 06:28	0° \times					
morning set	4793 Mar 07 00:45	7° \times 29'42		superior conj	4794 Mar 01 20:41	11° \times 06'42	-2°-8'-16
max. Earth dist.	4793 Mar 13 06:25	17° \times 39'00	1.41609 AU	minimum elong	4794 Mar 01 19:35	11° \times 02'09	2°08'16
					4794 Mar 12 21:50	0° \cap	
superior conj	4793 Mar 20 21:46	0° \cap 41'14	-2°-3'-16	evening rise	4794 Mar 14 07:04	2° \cap 25'31	
minimum elong	4793 Mar 21 01:16	0° \cap 56'32	2°03'06	asc. node	4794 Mar 25 11:20	21° \cap 23'19	
	4793 Mar 20 12:21	0° \cap		evening max el	4794 Mar 31 12:43	29° \cap 14'53	18°07'15
evening rise	4793 Mar 31 17:41	20° \cap 15'26			4794 Apr 01 07:54	0° $\overline{\Sigma}$	
	4793 Apr 06 02:05	0° $\overline{\Sigma}$		retrograde	4794 Apr 07 00:18	2° $\overline{\Sigma}$ 37'08	
asc. node	4793 Apr 07 14:19	2° $\overline{\Sigma}$ 39'10		evening set	4794 Apr 09 17:34	2° $\overline{\Sigma}$ 00'42	
evening max el	4793 Apr 17 00:30	16° $\overline{\Sigma}$ 06'18	18°11'40		4794 Apr 12 19:53	30° $\overline{\Sigma}$	
retrograde	4793 Apr 23 22:27	19° $\overline{\Sigma}$ 35'18		inferior conj	4794 Apr 16 02:44	26° \cap 52'00	3°20'07
evening set	4793 Apr 26 09:39	19° $\overline{\Sigma}$ 09'21		minimum elong	4794 Apr 16 04:43	26° \cap 46'52	3°19'51
inferior conj	4793 May 03 08:54	14° $\overline{\Sigma}$ 20'59	2°43'49	min. Earth dist.	4794 Apr 19 01:36	23° \cap 50'46	0.62083 AU
minimum elong	4793 May 03 12:15	14° $\overline{\Sigma}$ 13'26	2°43'02	morning rise	4794 Apr 22 13:09	20° \cap 50'04	
min. Earth dist.	4793 May 06 17:39	11° $\overline{\Sigma}$ 20'58	0.59903 AU	direct	4794 Apr 29 08:57	18° \cap 22'05	
morning rise	4793 May 10 11:03	8° $\overline{\Sigma}$ 35'50		desc. node	4794 May 01 00:40	18° \cap 30'12	
desc. node	4793 May 14 03:39	6° $\overline{\Sigma}$ 59'08		morning max el	4794 May 13 12:05	26° \cap 22'00	27°52'39
direct	4793 May 16 22:43	6° $\overline{\Sigma}$ 37'11			4794 May 16 21:32	0° $\overline{\Sigma}$	
morning max el	4793 May 31 07:05	14° $\overline{\Sigma}$ 29'22	27°34'40		4794 Jun 06 08:20	0° \cap	
	4793 Jun 12 18:38	0° \cap		morning set	4794 Jun 16 01:34	18° \cap 27'10	
	4793 Jun 29 22:51	0° $\overline{\Sigma}$		asc. node	4794 Jun 21 10:38	29° \cap 44'34	
morning set	4793 Jul 01 23:26	4° $\overline{\Sigma}$ 09'07		max. Earth dist.	4794 Jun 21 18:01	0° $\overline{\Sigma}$ 24'19	1.32336 AU
asc. node	4793 Jul 04 13:36	9° $\overline{\Sigma}$ 37'27			4794 Jun 21 13:30	0° $\overline{\Sigma}$	
max. Earth dist.	4793 Jul 08 09:39	17° $\overline{\Sigma}$ 58'25	1.31982 AU				
				superior conj	4794 Jun 23 14:12	4° $\overline{\Sigma}$ 24'06	0°22'17
superior conj	4793 Jul 09 04:28	19° $\overline{\Sigma}$ 42'04	0°46'42	minimum elong	4794 Jun 23 13:10	4° $\overline{\Sigma}$ 18'32	0°22'04
minimum elong	4793 Jul 09 02:35	19° $\overline{\Sigma}$ 31'43	0°46'19				
	4793 Jul 13 20:56	0° Ω					

evening rise	4794 Jun 30 12:19	19°  26'56		max. Earth dist.	4795 Jun 04 19:19	12°  25'31	1.33141 AU
	4794 Jul 05 15:40	0° 					
evening max el	4794 Jul 25 09:32	29°  21'20	24°18'34	superior conj	4795 Jun 07 20:11	18°  50'35	0°-4'-58
	4794 Jul 26 01:57	0° 		minimum elong	4795 Jun 07 20:26	18°  51'55	0°04'57
desc. node	4794 Jul 27 23:57	1°  39'18		behind sun begin	4795 Jun 07 15:16	18°  24'22	
retrograde	4794 Aug 08 05:32	6°  19'43		behind sun end	4795 Jun 08 01:35	19°  19'30	
evening set	4794 Aug 13 02:44	5°  26'38		asc. node	4795 Jun 08 07:39	19°  51'55	
min. Earth dist.	4794 Aug 18 20:23	2°  33'15	0.56554 AU		4795 Jun 13 00:45	0° 	
inferior conj	4794 Aug 21 10:34	0°  55'39	-5°-13'-15	evening rise	4795 Jun 14 23:54	4°  21'06	
minimum elong	4794 Aug 21 08:30	0°  58'54	5°13'10		4795 Jun 29 00:48	0° 	
	4794 Aug 22 22:21	30°  R 		evening max el	4795 Jul 06 22:53	9°  43'40	22°41'11
morning rise	4794 Aug 29 17:44	26°  54'33		desc. node	4795 Jul 14 20:57	15°  13'54	
direct	4794 Sep 01 10:09	26°  35'21		retrograde	4795 Jul 20 03:47	16°  17'59	
	4794 Sep 09 20:05	0° 		evening set	4795 Jul 23 12:24	15°  45'31	
morning max el	4794 Sep 11 02:21	1°  06'20	19°38'28	min. Earth dist.	4795 Jul 31 06:50	12°  27'49	0.55256 AU
asc. node	4794 Sep 17 09:52	8°  49'04		inferior conj	4795 Aug 01 14:10	11°  43'04	-4°-32'-39
morning set	4794 Sep 28 14:35	29°  07'50		minimum elong	4795 Aug 01 06:25	11°  45'10	4°31'07
	4794 Sep 29 00:57	0° 		morning rise	4795 Aug 10 02:51	7°  52'57	
				direct	4795 Aug 13 04:17	7°  31'20	
superior conj	4794 Oct 06 13:37	15°  48'51	1°39'44	morning max el	4795 Aug 24 10:36	12°  45'58	20°57'07
minimum elong	4794 Oct 06 15:16	15°  46'58	1°39'39	asc. node	4795 Sep 04 06:54	27°  15'33	
max. Earth dist.	4794 Oct 12 15:07	26°  46'52	1.37560 AU		4795 Sep 05 20:20	0° 	
	4794 Oct 14 09:06	0° 		morning set	4795 Sep 12 22:12	13°  45'06	
evening rise	4794 Oct 16 10:20	3°  41'36					
desc. node	4794 Oct 23 23:16	16°  32'15		superior conj	4795 Sep 20 09:07	29°  21'02	1°43'45
	4794 Nov 01 15:23	0° 		minimum elong	4795 Sep 20 09:12	29°  21'29	1°43'45
evening max el	4794 Nov 21 02:02	24°  38'18	25°20'11		4795 Sep 20 16:42	0° 	
	4794 Nov 27 20:33	0° 		max. Earth dist.	4795 Sep 24 23:57	8°  43'30	1.35668 AU
retrograde	4794 Dec 03 03:30	1°  35'39		evening rise	4795 Sep 29 03:10	16°  43'51	
	4794 Dec 07 21:30	30°  R 			4795 Oct 06 15:39	0° 	
evening set	4794 Dec 08 22:43	29°  31'40		desc. node	4795 Oct 10 20:17	6°  45'35	
min. Earth dist.	4794 Dec 13 09:59	24°  31'17	0.67309 AU		4795 Oct 27 01:44	0° 	
asc. node	4794 Dec 14 09:04	23°  30'03		evening max el	4795 Nov 03 14:44	8°  42'08	26°23'57
inferior conj	4794 Dec 14 13:46	22°  45'18	0°04'01	retrograde	4795 Nov 16 10:21	15°  43'03	
minimum elong	4794 Dec 14 13:40	22°  45'38	0°03'59	evening set	4795 Nov 22 18:57	12°  45'23	
transit middle	4794 Dec 14 13:40	22°  45'38	0°03'59	min. Earth dist.	4795 Nov 26 23:15	8°  43'36	0.66399 AU
transit begin	4794 Dec 14 10:58	22°  45'24		inferior conj	4795 Nov 28 14:19	6°  43'58	0°-54'-24
transit end	4794 Dec 14 16:22	22°  43'52		minimum elong	4795 Nov 28 15:48	6°  43'26	0°53'46
morning rise	4794 Dec 20 05:23	16°  46'57		asc. node	4795 Dec 01 06:06	3°  43'50	
direct	4794 Dec 23 14:29	15°  41'07		morning rise	4795 Dec 04 13:56	0°  45'04	
morning max el	4794 Dec 30 18:06	19°  41'06	19°24'13	direct	4795 Dec 07 12:48	0° 	
	4795 Jan 07 23:44	0° 		morning max el	4795 Dec 14 04:45	3°  40'05	18°36'04
greatest brilliancy	4795 Jan 08 15:09	0°  55'01	-0.7m		4796 Jan 01 12:06	0° 	
desc. node	4795 Jan 19 22:30	17°  53'57		morning set	4796 Jan 03 19:10	3°  38'17	
morning set	4795 Jan 23 23:47	24°  09'06		desc. node	4796 Jan 06 19:32	8°  32'49	
	4795 Jan 27 18:18	0° 					
max. Earth dist.	4795 Feb 06 02:03	14°  35'47	1.44696 AU	superior conj	4796 Jan 19 22:47	29°  30'40	-1°-22'-46
				minimum elong	4796 Jan 19 13:36	28°  32'42	1°21'46
superior conj	4795 Feb 09 18:15	20°  35'56	-1°-55'-13	max. Earth dist.	4796 Jan 19 20:00	28°  33'48	1.45282 AU
minimum elong	4795 Feb 09 11:00	19°  36'59	1°54'46		4796 Jan 20 12:53	0° 	
	4795 Feb 15 16:47	0° 		evening rise	4796 Feb 04 17:13	23°  35'14	
evening rise	4795 Feb 23 23:46	13°  40'21			4796 Feb 08 11:56	0° 	
	4795 Mar 05 20:44	0° 		evening max el	4796 Feb 26 12:00	26°  40'24	18°54'04
asc. node	4795 Mar 12 08:21	9°  30'15		asc. node	4796 Feb 27 05:22	26°  40'56	
evening max el	4795 Mar 15 01:24	12°  36'54	18°21'43	retrograde	4796 Mar 04 06:29	29°  40'03	
retrograde	4795 Mar 21 12:14	16°  30'53		evening set	4796 Mar 07 12:28	28°  40'08	
evening set	4795 Mar 24 11:35	15°  30'42		inferior conj	4796 Mar 13 04:23	23°  40'06	3°29'54
inferior conj	4795 Mar 30 10:29	9°  35'02	3°33'38	minimum elong	4796 Mar 13 03:19	23°  40'11	3°29'50
minimum elong	4795 Mar 30 10:48	9°  34'07	3°33'37	min. Earth dist.	4796 Mar 14 21:02	21°  40'11	0.65679 AU
min. Earth dist.	4795 Apr 01 18:48	7°  30'58	0.64060 AU	morning rise	4796 Mar 18 17:05	16°  40'15	
morning rise	4795 Apr 05 08:16	3°  39'15		direct	4796 Mar 25 05:15	14°  40'33	
direct	4795 Apr 12 03:40	0° 		desc. node	4796 Apr 03 18:43	18°  40'33	
desc. node	4795 Apr 17 21:42	2°  32'29		morning max el	4796 Apr 07 06:45	21°  40'47	26°43'16
morning max el	4795 Apr 25 20:50	8° 31'39	27°33'40		4796 Apr 14 10:38	0°	
	4795 May 12 07:02	0°			4796 May 04 12:03	0°	
	4795 May 29 15:37	0°		morning set	4796 May 13 03:42	15° 40'36	
morning set	4795 May 30 20:03	2° 19'22		max. Earth dist.	4796 May 17 10:24	23° 40'56	1.34416 AU

	4796 May 20 10:17	0°♂		max. Earth dist.	4797 Apr 29 14:25	5°♂02'58	1.36137 AU
superior conj	4796 May 21 20:16	2°♂55'14	0°-34'-5	superior conj	4797 May 05 11:39	16°♂29'28	-1°-3'-40
minimum elong	4796 May 21 22:06	3°♂04'44	0°33'45	minimum elong	4797 May 05 15:09	16°♂46'54	1°03'05
asc. node	4796 May 25 04:40	9°♂55'46		asc. node	4797 May 12 01:42	29°♂51'24	
evening rise	4796 May 29 09:34	18°♂45'17			4797 May 12 03:23	0°♂	
	4796 Jun 04 00:14	0°♂		evening rise	4797 May 13 15:08	3°♂02'02	
evening max el	4796 Jun 17 19:30	20°♂20'57	21°09'44		4797 May 29 15:50	0°♂	
retrograde	4796 Jun 29 16:47	26°♂11'48		evening max el	4797 May 31 04:02	1°♂34'49	19°54'12
desc. node	4796 Jun 30 17:57	26°♂09'12		retrograde	4797 Jun 10 08:26	6°♂33'21	
evening set	4796 Jul 01 23:39	25°♂59'38		evening set	4797 Jun 12 06:44	6°♂23'25	
inferior conj	4796 Jul 11 07:39	22°♂01'49	-3°-2'-11	desc. node	4797 Jun 17 14:58	4°♂27'04	
minimum elong	4796 Jul 10 23:40	22°♂13'01	2°59'38	inferior conj	4797 Jun 21 05:19	2°♂22'30	-1°-4'-24
min. Earth dist.	4796 Jul 11 17:29	21°♂48'00	0.54806 AU	minimum elong	4797 Jun 21 02:20	2°♂27'03	1°03'17
morning rise	4796 Jul 19 23:45	18°♂05'11		min. Earth dist.	4797 Jun 23 05:56	1°♂08'34	0.55311 AU
direct	4796 Jul 23 13:39	17°♂37'35			4797 Jun 25 05:34	30°♂♂	
morning max el	4796 Aug 05 07:38	23°♂41'12	22°33'16	morning rise	4797 Jun 29 19:09	27°♂59'38	
	4796 Aug 10 23:23	0°♂		direct	4797 Jul 04 02:59	27°♂18'40	
asc. node	4796 Aug 21 03:57	16°♂16'42			4797 Jul 12 15:51	0°♂	
morning set	4796 Aug 27 08:46	28°♂41'14		morning max el	4797 Jul 17 22:14	4°♂07'49	24°17'11
	4796 Aug 27 23:45	0°♂			4797 Aug 05 01:57	0°♂	
				asc. node	4797 Aug 08 01:00	5°♂43'34	
superior conj	4796 Sep 03 12:18	13°♂55'15	1°40'45	morning set	4797 Aug 11 20:33	13°♂34'58	
minimum elong	4796 Sep 03 11:08	13°♂49'06	1°40'41				
max. Earth dist.	4796 Sep 06 17:06	20°♂38'23	1.34118 AU	superior conj	4797 Aug 18 20:27	28°♂43'18	1°31'48
evening rise	4796 Sep 11 10:55	0°♂11'54		minimum elong	4797 Aug 18 18:29	28°♂32'36	1°31'36
	4796 Sep 11 08:29	0°♂			4797 Aug 19 10:35	0°♂	
desc. node	4796 Sep 26 17:17	26°♂57'38		max. Earth dist.	4797 Aug 20 18:53	2°♂54'20	1.32974 AU
	4796 Sep 28 17:00	0°♂		evening rise	4797 Aug 26 05:42	14°♂19'05	
evening max el	4796 Oct 16 03:29	21°♂54'11	27°08'27		4797 Sep 03 11:01	0°♂	
retrograde	4796 Oct 29 11:25	29°♂11'37		desc. node	4797 Sep 13 14:18	16°♂33'10	
evening set	4796 Nov 05 07:31	26°♂32'05			4797 Sep 23 18:20	0°♂	
min. Earth dist.	4796 Nov 09 05:19	22°♂47'13	0.65139 AU	evening max el	4797 Sep 28 14:43	5°♂06'18	27°26'53
inferior conj	4796 Nov 11 08:18	20°♂24'51	-1°-56'-15	retrograde	4797 Oct 12 06:19	12°♂23'07	
minimum elong	4796 Nov 11 11:38	20°♂15'32	1°54'54	evening set	4797 Oct 19 09:40	9°♂47'34	
asc. node	4796 Nov 17 03:09	15°♂08'27		min. Earth dist.	4797 Oct 23 02:10	6°♂36'02	0.63536 AU
morning rise	4796 Nov 17 17:41	14°♂49'52		inferior conj	4797 Oct 25 17:13	3°♂57'13	-2°-59'-2
direct	4796 Nov 20 08:33	14°♂13'13		minimum elong	4797 Oct 25 22:19	3°♂44'19	2°57'14
morning max el	4796 Nov 26 19:56	17°♂40'35	18°04'35		4797 Oct 30 02:53	30°♂♂	
	4796 Dec 05 21:48	0°♂		morning rise	4797 Nov 01 13:34	28°♂38'56	
morning set	4796 Dec 14 20:13	14°♂36'32		direct	4797 Nov 03 22:56	28°♂11'16	
desc. node	4796 Dec 23 16:34	29°♂04'46		asc. node	4797 Nov 04 00:13	28°♂11'16	
	4796 Dec 24 06:16	0°♂			4797 Nov 08 16:40	0°♂	
				morning max el	4797 Nov 10 12:50	1°♂36'16	17°50'29
superior conj	4796 Dec 29 05:13	7°♂55'27	0°-37'-36	morning set	4797 Nov 26 23:29	26°♂51'15	
minimum elong	4796 Dec 29 00:34	7°♂36'56	0°36'58		4797 Nov 28 19:04	0°♂	
max. Earth dist.	4797 Jan 01 15:45	13°♂21'30	1.45126 AU				
	4797 Jan 12 07:48	0°♂		superior conj	4797 Dec 09 07:57	17°♂48'51	0°08'39
evening rise	4797 Jan 14 13:52	3°♂29'14		minimum elong	4797 Dec 09 08:52	17°♂52'39	0°08'31
	4797 Feb 01 02:39	0°♂		behind sun begin	4797 Dec 09 00:38	17°♂18'41	
greatest brilliancy	4797 Feb 01 06:23	0°♂13'10	-0.6m	behind sun end	4797 Dec 09 17:07	18°♂26'33	
evening max el	4797 Feb 08 18:26	9°♂38'22	19°42'54	desc. node	4797 Dec 10 13:37	19°♂50'31	
asc. node	4797 Feb 13 02:24	13°♂05'12		max. Earth dist.	4797 Dec 15 09:55	27°♂40'17	1.44249 AU
retrograde	4797 Feb 16 03:56	13°♂55'02			4797 Dec 16 21:01	0°♂	
evening set	4797 Feb 19 17:37	12°♂40'24		evening rise	4797 Dec 25 00:06	12°♂41'39	
inferior conj	4797 Feb 25 05:16	6°♂40'07	3°12'57		4798 Jan 05 11:02	0°♂	
minimum elong	4797 Feb 25 03:17	6°♂46'43	3°12'38	greatest brilliancy	4798 Jan 17 05:34	16°♂37'06	-0.5m
min. Earth dist.	4797 Feb 26 07:06	5°♂14'29	0.66881 AU	evening max el	4798 Jan 22 19:32	23°♂11'55	20°45'49
morning rise	4797 Mar 02 12:16	0°♂23'54		asc. node	4798 Jan 30 23:27	28°♂05'02	
	4797 Mar 02 23:17	30°♂♂		retrograde	4798 Jan 31 02:13	28°♂05'07	
direct	4797 Mar 08 12:38	27°♂43'49		evening set	4798 Feb 04 00:59	26°♂35'56	
	4797 Mar 14 19:49	0°♂		inferior conj	4798 Feb 09 10:36	20°♂23'10	2°45'32
morning max el	4797 Mar 20 16:04	4°♂58'39	25°29'54	minimum elong	4798 Feb 09 08:11	20°♂31'26	2°44'55
desc. node	4797 Mar 21 15:46	5°♂59'51		min. Earth dist.	4798 Feb 09 23:07	19°♂40'09	0.67663 AU
	4797 Apr 08 21:37	0°♂		morning rise	4798 Feb 14 14:58	14°♂07'26	
morning set	4797 Apr 25 20:04	28°♂04'41		direct	4798 Feb 20 01:14	11°♂44'16	
	4797 Apr 26 21:21	0°♂		morning max el	4798 Mar 03 00:48	18°♂17'36	24°03'32

desc. node	4798 Mar 08 12:50	24°  28'26		morning max el	4799 Feb 13 11:06	1°  42'23	22°34'22
	4798 Mar 12 20:49	0° 		greatest brilliancy	4799 Feb 18 00:59	6° 	-0.3m
	4798 Apr 01 23:54	0° 		desc. node	4799 Feb 23 09:53	13° 	41'10
morning set	4798 Apr 07 15:38	9° 	30'02		4799 Mar 06 19:59	0° 	
max. Earth dist.	4798 Apr 11 10:43	16° 	09'43 1.38202 AU	morning set	4799 Mar 19 08:30	19° 	37'42
				max. Earth dist.	4799 Mar 24 06:28	27° 	49'57 1.40396 AU
superior conj	4798 Apr 18 14:55	29° 	24'44 -1°-31'-29		4799 Mar 25 12:55	0° 	
minimum elong	4798 Apr 18 19:39	29° 	47'20 1°30'52				
	4798 Apr 18 22:18	0° 		superior conj	4799 Apr 01 01:42	11° 	30'51 -1°-54'-13
evening rise	4798 Apr 27 14:03	16° 	54'24	minimum elong	4799 Apr 01 06:22	11° 	51'54 1°53'52
asc. node	4798 Apr 28 22:44	19° 	34'29	evening rise	4799 Apr 11 03:07	0° 	8'14'18
	4798 May 04 11:54	0° 			4799 Apr 11 00:05	0° 	
evening max el	4798 May 14 00:25	13° 	30'34 18°58'30	asc. node	4799 Apr 15 19:46	9° 	8'00'01
retrograde	4798 May 22 14:16	17° 	42'24	evening max el	4799 Apr 27 05:46	26° 	8'02'21 18°23'07
evening set	4798 May 24 15:15	17° 	29'05	retrograde	4799 May 04 14:48	29° 	8'42'02
inferior conj	4798 Jun 01 19:38	13° 	13'24 0°46'41	evening set	4799 May 06 22:15	29° 	8'21'27
minimum elong	4798 Jun 01 21:27	13° 	10'13 0°46'03	inferior conj	4799 May 14 07:23	24° 	8'45'41 2°10'08
desc. node	4798 Jun 04 12:01	11° 	20'28	minimum elong	4799 May 14 10:56	24° 	8'38'23 2°09'07
min. Earth dist.	4798 Jun 04 21:39	11° 	04'07 0.56681 AU	min. Earth dist.	4799 May 17 17:58	21° 	8'57'11 0.58643 AU
morning rise	4798 Jun 09 23:10	8° 	14'22	morning rise	4799 May 21 19:15	19° 	8'14'40
direct	4798 Jun 15 05:28	7° 	11'08'31	desc. node	4799 May 22 09:03	18° 	8'57'08
morning max el	4798 Jun 29 12:44	14° 	32'19 25°53'44	direct	4799 May 27 22:23	17° 	8'35'18
	4798 Jul 11 20:26	0° 		morning max el	4799 Jun 11 07:49	25° 	8'20'26 27°07'20
asc. node	4798 Jul 25 22:02	25° 	28'47		4799 Jun 15 15:23	0° 	
morning set	4798 Jul 27 07:51	28° 	26'01		4799 Jul 05 02:58	0° 	
	4798 Jul 28 01:32	0° 		morning set	4799 Jul 11 17:04	13° 	26'09'06
				asc. node	4799 Jul 12 19:04	15° 	26'26'26
superior conj	4798 Aug 03 07:22	13° 	37'42 1°17'44				
minimum elong	4798 Aug 03 05:04	13° 	25'00 1°17'24	superior conj	4799 Jul 18 19:13	28° 	26'32'10 0°59'11
max. Earth dist.	4798 Aug 04 03:00	15° 	25'37 1.32256 AU	minimum elong	4799 Jul 18 17:03	28° 	26'20'10 0°58'48
evening rise	4798 Aug 10 08:16	28° 	14'47'41	max. Earth dist.	4799 Jul 18 14:10	28° 	26'04'14 1.31958 AU
	4798 Aug 10 22:13	0° 			4799 Jul 19 11:07	0° 	
	4798 Aug 27 16:00	0° 		evening rise	4799 Jul 25 16:01	13° 	26'29'49
desc. node	4798 Aug 31 11:20	5° 	29'16		4799 Aug 02 23:56	0° 	
evening max el	4798 Sep 10 22:03	17° 	43'23 27°13'55	desc. node	4799 Aug 18 08:20	23° 	26'29'43
retrograde	4798 Sep 24 18:22	24° 	56'54	evening max el	4799 Aug 23 23:11	29° 	26'35'38 26°27'32
evening set	4798 Oct 01 21:36	22° 	37'11		4799 Aug 24 09:36	0° 	
min. Earth dist.	4798 Oct 05 12:34	19° 	51'08 0.61643 AU	retrograde	4799 Sep 06 22:09	6° 	26'44'43
inferior conj	4798 Oct 08 13:52	17° 	47'26 -3°-58'-38	evening set	4799 Sep 13 14:36	4° 	26'53'36
minimum elong	4798 Oct 08 20:03	16° 	53'36 3°56'57	min. Earth dist.	4799 Sep 17 12:43	2° 	26'19'02 0.59586 AU
morning rise	4798 Oct 15 21:39	12° 	49'02	inferior conj	4799 Sep 20 18:49	29° 	26'46'45 -4°-47'-44
direct	4798 Oct 18 04:25	11° 	47'02	minimum elong	4799 Sep 21 00:11	29° 	26'36'13 4°46'50
asc. node	4798 Oct 21 21:16	12° 	47'07		4799 Sep 20 12:05	30° 	26'36'13
morning max el	4798 Oct 25 04:11	15° 	18'11 17°54'32	morning rise	4799 Sep 28 13:14	25° 	26'36'13
	4798 Nov 04 08:24	0° 		direct	4799 Sep 30 20:58	24° 	26'51'27
morning set	4798 Nov 09 22:20	10° 	01'18	morning max el	4799 Oct 08 14:40	28° 	26'37'35 18°18'06
				asc. node	4799 Oct 08 18:19	28° 	26'46'27
superior conj	4798 Nov 20 13:09	28° 	59'22 0°47'31		4799 Oct 09 22:23	0° 	
minimum elong	4798 Nov 20 16:52	29° 	15'24 0°47'01	morning set	4799 Oct 24 11:08	23° 	26'50'46
	4798 Nov 21 03:12	0° 			4799 Oct 27 16:46	0° 	
desc. node	4798 Nov 27 10:39	10° 	37'55				
max. Earth dist.	4798 Nov 27 23:29	11° 	30'41 1.42763 AU	superior conj	4799 Nov 02 18:20	11° 	26'19'13 1°15'51
evening rise	4798 Dec 04 15:32	22° 	37'13'08	minimum elong	4799 Nov 02 22:09	11° 	26'36'39 1°15'26
	4798 Dec 09 16:02	0° 		max. Earth dist.	4799 Nov 10 07:56	24° 	26'41'51 1.40856 AU
	4798 Dec 30 17:59	0° 			4799 Nov 13 11:28	0° 	
greatest brilliancy	4798 Dec 31 21:39	1° 	25'54 -0.3m	desc. node	4799 Nov 14 07:39	1° 	26'23'33
evening max el	4799 Jan 05 15:13	6° 	46'48 21°59'27	evening rise	4799 Nov 15 01:15	2° 	26'35'53
retrograde	4799 Jan 14 23:19	12° 	20'01		4799 Dec 03 00:32	0° 	
asc. node	4799 Jan 17 20:29	11° 	35'44	evening max el	4799 Dec 19 06:43	20° 	26'24'45 23°18'52
evening set	4799 Jan 19 08:49	10° 	35'24	retrograde	4799 Dec 29 17:41	26° 	26'35'57
inferior conj	4799 Jan 24 18:11	4° 	33'38 2°09'23	evening set	4800 Jan 03 15:30	24° 	26'35'29
minimum elong	4799 Jan 24 15:50	4° 	21'46 2°08'36	asc. node	4800 Jan 04 17:32	23° 	26'35'26
min. Earth dist.	4799 Jan 24 18:44	4° 	11'41 0.68041 AU	min. Earth dist.	4800 Jan 08 15:32	18° 	26'44'56 0.68041 AU
	4799 Jan 27 23:28	30° 		inferior conj	4800 Jan 09 02:07	18° 	26'08'35 1°25'42
morning rise	4799 Jan 29 22:39	28° 	20'09	minimum elong	4800 Jan 09 00:18	18° 	26'14'50 1°25'01
direct	4799 Feb 03 18:08	25° 	58'27	morning rise	4800 Jan 14 09:09	11° 	26'59'19
	4799 Feb 11 16:05	0° 		direct	4800 Jan 18 14:20	10° 	26'20'27

morning max el	4800 Jan 27 02:36	15°☾16'16	21°10'57	morning rise	4800 Dec 28 20:31	26°☾02'49	
greatest brilliancy	4800 Feb 01 08:31	21°☾16'13	-0.4m	direct	4801 Jan 01 12:32	24°☾45'38	
	4800 Feb 07 21:00	0°☾		morning max el	4801 Jan 09 01:54	29°☾02'20	19°59'05
desc. node	4800 Feb 10 06:55	3°☾25'31			4801 Jan 10 00:12	0°☾	
morning set	4800 Feb 26 21:08	28°☾26'39		greatest brilliancy	4801 Jan 16 03:50	7°☾35'36	-0.6m
	4800 Feb 27 20:49	0°☾		desc. node	4801 Jan 27 03:55	23°☾32'54	
max. Earth dist.	4800 Mar 05 08:31	10°☾25'51	1.42437 AU		4801 Jan 31 10:04	0°☾	
				morning set	4801 Feb 04 17:41	6°☾37'22	
superior conj	4800 Mar 12 15:01	22°☾36'07	-2°-7'-17	max. Earth dist.	4801 Feb 15 18:39	23°☾55'34	1.44049 AU
minimum elong	4800 Mar 12 16:58	22°☾44'25	2°07'16		4801 Feb 19 13:20	0°☾	
	4800 Mar 16 21:23	0°☾					
evening rise	4800 Mar 24 02:23	12°☾52'23		superior conj	4801 Feb 21 02:58	2°☾32'55	-2°-5'-10
asc. node	4800 Apr 01 16:48	28°☾01'26		minimum elong	4801 Feb 20 23:10	2°☾17'26	2°05'03
	4800 Apr 02 21:58	0°☾		evening rise	4801 Mar 06 07:30	24°☾40'14	
evening max el	4800 Apr 09 16:29	9°☾00'18	18°07'29		4801 Mar 09 10:00	0°☾	
retrograde	4800 Apr 16 08:33	12°☾24'14		asc. node	4801 Mar 19 13:50	16°☾31'15	
evening set	4800 Apr 18 22:30	11°☾53'54		evening max el	4801 Mar 24 05:18	22°☾15'50	18°11'05
inferior conj	4800 Apr 25 15:16	6°☾56'54	3°02'24	retrograde	4801 Mar 30 15:18	25°☾39'14	
minimum elong	4800 Apr 25 18:08	6°☾50'02	3°01'51	evening set	4801 Apr 02 11:14	24°☾57'45	
min. Earth dist.	4800 Apr 28 20:48	3°☾53'25	0.60845 AU	inferior conj	4801 Apr 08 15:33	19°☾40'31	3°28'15
morning rise	4800 May 02 10:28	1°☾03'47		minimum elong	4801 Apr 08 16:49	19°☾37'04	3°28'08
	4800 May 04 07:26	30°☾		min. Earth dist.	4801 Apr 11 08:24	16°☾46'02	0.62966 AU
desc. node	4800 May 08 06:05	28°☾53'33		morning rise	4801 Apr 14 20:12	13°☾34'13	
direct	4800 May 09 02:56	28°☾51'22		direct	4801 Apr 21 16:45	10°☾57'31	
	4800 May 14 04:09	0°☾		desc. node	4801 Apr 25 03:07	11°☾32'32	
morning max el	4800 May 23 09:12	6°☾47'27	27°47'00	morning max el	4801 May 05 16:06	18°☾56'50	27°48'52
	4800 Jun 09 21:45	0°☾			4801 May 15 00:27	0°☾	
morning set	4800 Jun 24 22:19	27°☾37'30			4801 Jun 02 19:21	0°☾	
	4800 Jun 26 01:45	0°☾		morning set	4801 Jun 08 21:30	11°☾45'01	
asc. node	4800 Jun 28 16:05	5°☾30'56		max. Earth dist.	4801 Jun 14 06:37	22°☾55'00	1.32631 AU
max. Earth dist.	4800 Jul 01 00:40	10°☾38'01	1.32079 AU	asc. node	4801 Jun 15 13:06	25°☾38'18	
superior conj	4800 Jul 02 06:11	13°☾19'51	0°36'45	superior conj	4801 Jun 16 14:32	27°☾55'29	0°11'03
minimum elong	4800 Jul 02 04:37	13°☾11'14	0°36'25	minimum elong	4801 Jun 16 14:00	27°☾52'37	0°10'54
evening rise	4800 Jul 09 02:45	28°☾17'26		behind sun begin	4801 Jun 16 10:09	27°☾31'47	
	4800 Jul 09 22:06	0°☾		behind sun end	4801 Jun 16 17:51	28°☾13'29	
	4800 Jul 26 18:02	0°☾			4801 Jun 17 13:30	0°☾	
desc. node	4800 Aug 04 05:19	10°☾11'18		evening rise	4801 Jun 23 14:34	13°☾04'33	
evening max el	4800 Aug 04 16:48	10°☾39'08	25°11'31		4801 Jul 02 03:29	0°☾	
retrograde	4800 Aug 18 15:24	17°☾42'30		evening max el	4801 Jul 17 05:28	21°☾06'54	23°37'12
evening set	4800 Aug 24 08:01	16°☾28'19		desc. node	4801 Jul 22 02:21	25°☾03'57	
min. Earth dist.	4800 Aug 29 04:27	13°☾47'08	0.57576 AU	retrograde	4801 Jul 30 20:26	27°☾57'09	
inferior conj	4800 Sep 01 04:43	11°☾44'59	-5°-14'-24	evening set	4801 Aug 04 02:10	27°☾17'44	
minimum elong	4800 Sep 01 06:12	11°☾42'28	5°14'21	min. Earth dist.	4801 Aug 10 15:21	24°☾12'30	0.55917 AU
morning rise	4800 Sep 09 07:51	7°☾31'59		inferior conj	4801 Aug 12 18:22	22°☾56'17	-5°-2'-25
direct	4800 Sep 11 20:23	7°☾13'09		minimum elong	4801 Aug 12 13:32	23°☾03'32	5°01'53
morning max el	4800 Sep 20 16:52	11°☾24'19	19°02'51	morning rise	4801 Aug 21 04:05	19°☾01'51	
asc. node	4800 Sep 24 15:21	15°☾54'02		direct	4801 Aug 24 00:16	18°☾41'48	
	4800 Oct 03 05:00	0°☾		morning max el	4801 Sep 03 08:01	23°☾29'35	20°09'33
morning set	4800 Oct 07 09:37	8°☾07'40			4801 Sep 08 21:32	0°☾	
				asc. node	4801 Sep 11 12:22	3°☾55'09	
superior conj	4800 Oct 15 18:13	24°☾33'52	1°33'43	morning set	4801 Sep 21 14:35	22°☾42'49	
minimum elong	4800 Oct 15 20:48	24°☾46'13	1°33'31		4801 Sep 25 03:54	0°☾	
	4800 Oct 18 14:57	0°☾					
max. Earth dist.	4800 Oct 22 13:11	7°☾12'34	1.38757 AU	superior conj	4801 Sep 29 07:46	8°☾28'34	1°42'23
evening rise	4800 Oct 26 10:00	14°☾01'31		minimum elong	4801 Sep 29 08:44	8°☾33'24	1°42'21
desc. node	4800 Oct 31 04:39	22°☾03'54		max. Earth dist.	4801 Oct 04 19:10	19°☾12'38	1.36717 AU
	4800 Nov 05 03:41	0°☾		evening rise	4801 Oct 08 16:11	26°☾25'45	
	4800 Nov 26 23:21	0°☾			4801 Oct 10 15:52	0°☾	
evening max el	4800 Nov 30 19:53	4°☾06'42	24°37'46	desc. node	4801 Oct 18 01:38	12°☾34'15	
retrograde	4800 Dec 12 08:07	10°☾49'22			4801 Oct 29 15:04	0°☾	
evening set	4800 Dec 17 19:31	8°☾33'22		evening max el	4801 Nov 13 08:19	17°☾49'57	25°49'09
asc. node	4800 Dec 21 14:34	4°☾24'23		retrograde	4801 Nov 25 17:56	24°☾54'40	
min. Earth dist.	4800 Dec 22 11:10	3°☾17'05	0.67681 AU	evening set	4801 Dec 01 19:08	22°☾25'21	
inferior conj	4800 Dec 23 08:38	2°☾05'42	0°35'31	min. Earth dist.	4801 Dec 06 03:18	17°☾44'20	0.66969 AU
minimum elong	4800 Dec 23 07:47	2°☾08'32	0°35'10	inferior conj	4801 Dec 07 11:54	16°☾01'28	0°-20'-15
	4800 Dec 24 23:11	30°☾		minimum elong	4801 Dec 07 12:26	15°☾59'47	0°20'00

asc. node	4801 Dec 08 11:37	14°♊47'19		inferior conj	4802 Nov 21 09:57	29°♍52'38	-1°-20'-19
morning rise	4801 Dec 13 06:43	10°♊07'22		minimum elong	4802 Nov 21 12:12	29°♍46'01	1°19'22
direct	4801 Dec 16 11:15	9°♊09'02			4802 Nov 21 07:28	30°♍	
morning max el	4801 Dec 23 08:56	12°♊58'18	19°01'48	asc. node	4802 Nov 25 08:38	25°♍41'44	
	4802 Jan 05 00:30	0°♊		morning rise	4802 Nov 27 13:34	24°♍09'53	
desc. node	4802 Jan 14 00:55	13°♋56'29		direct	4802 Nov 30 08:39	23°♍26'35	
morning set	4802 Jan 14 22:47	15°♋21'38		morning max el	4802 Dec 06 21:57	26°♍59'27	18°20'38
	4802 Jan 24 07:52	0°♋			4802 Dec 09 14:00	0°♊	
max. Earth dist.	4802 Jan 29 10:36	8°♋01'05	1.45038 AU	morning set	4802 Dec 26 06:40	25°♊28'52	
					4802 Dec 29 02:05	0°♋	
superior conj	4802 Jan 31 15:28	11°♋29'22	-1°-43'-37	desc. node	4802 Dec 31 21:58	4°♋31'47	
minimum elong	4802 Jan 31 06:32	10°♋54'07	1°42'51				
	4802 Feb 12 05:11	0°♋		superior conj	4803 Jan 10 18:15	20°♋06'36	-1°-4'-31
evening rise	4802 Feb 15 14:27	5°♋30'50		minimum elong	4803 Jan 10 10:27	19°♋35'57	1°03'33
	4802 Mar 03 01:49	0°♌		max. Earth dist.	4803 Jan 12 05:22	22°♋24'19	1.45307 AU
asc. node	4802 Mar 06 10:53	4°♌19'04			4803 Jan 17 01:46	0°♋	
evening max el	4802 Mar 07 17:19	5°♌41'09	18°33'16	evening rise	4803 Jan 26 22:22	15°♋26'38	
retrograde	4802 Mar 14 06:30	9°♌17'00			4803 Feb 05 05:31	0°♋	
evening set	4802 Mar 17 08:33	8°♌23'31		greatest brilliancy	4803 Feb 09 16:24	6°♋47'55	-0.7m
inferior conj	4802 Mar 23 04:05	2°♌47'55	3°33'51	evening max el	4803 Feb 19 02:17	19°♋11'47	19°12'54
minimum elong	4802 Mar 23 03:46	2°♌48'53	3°33'52	asc. node	4803 Feb 21 07:56	21°♋12'57	
min. Earth dist.	4802 Mar 25 05:37	0°♌20'18	0.64798 AU	retrograde	4803 Feb 26 02:31	23°♋11'01	
	4802 Mar 25 12:38	30°♌		evening set	4803 Mar 01 11:31	22°♋04'34	
morning rise	4802 Mar 28 21:33	26°♌34'44		inferior conj	4803 Mar 07 01:20	16°♋12'45	3°24'08
direct	4802 Apr 04 14:22	23°♌46'36		minimum elong	4803 Mar 06 23:49	16°♋17'38	3°23'57
desc. node	4802 Apr 12 00:08	26°♌29'16		min. Earth dist.	4803 Mar 08 11:34	14°♋22'45	0.66244 AU
	4802 Apr 16 08:37	0°♌		morning rise	4803 Mar 12 11:11	9°♋56'44	
morning max el	4802 Apr 18 01:55	1°♌39'58	27°15'37	direct	4803 Mar 18 18:42	7°♋10'15	
	4802 May 09 04:16	0°♍		desc. node	4803 Mar 29 21:11	13°♋09'53	
morning set	4802 May 23 11:50	25°♍23'31		morning max el	4803 Mar 31 11:52	14°♋44'05	26°14'09
	4802 May 25 19:56	0°♎			4803 Apr 12 23:25	0°♌	
max. Earth dist.	4802 May 28 04:08	4°♎44'29	1.33628 AU		4803 May 01 23:06	0°♍	
				morning set	4803 May 06 13:37	8°♍21'41	
superior conj	4802 May 31 18:17	12°♎13'11	0°-17'-10	max. Earth dist.	4803 May 10 14:12	16°♍02'09	1.35093 AU
minimum elong	4802 May 31 19:10	12°♎17'54	0°17'01				
asc. node	4802 Jun 02 10:09	15°♎44'36		superior conj	4803 May 15 15:02	26°♍05'45	0°-46'-43
evening rise	4802 Jun 08 01:36	27°♎45'09		minimum elong	4803 May 15 17:35	26°♍18'46	0°46'15
	4802 Jun 09 03:24	0°♏			4803 May 17 12:39	0°♎	
	4802 Jun 27 09:25	0°♏		asc. node	4803 May 20 07:12	5°♎45'23	
evening max el	4802 Jun 28 20:50	1°♏31'06	22°00'44	evening rise	4803 May 23 09:49	12°♎12'28	
desc. node	4802 Jul 08 23:21	7°♏33'46			4803 Jun 01 17:25	0°♏	
retrograde	4802 Jul 11 14:19	7°♏49'50		evening max el	4803 Jun 10 22:18	12°♏22'32	20°35'22
evening set	4802 Jul 14 09:53	7°♏32'08		retrograde	4803 Jun 22 03:01	17°♏51'24	
min. Earth dist.	4802 Jul 23 01:33	3°♏48'52	0.54942 AU	evening set	4803 Jun 24 03:58	17°♏41'14	
inferior conj	4802 Jul 23 16:10	3°♏28'21	-3°-59'-36	desc. node	4803 Jun 25 20:24	17°♏18'24	
minimum elong	4802 Jul 23 07:27	3°♏40'35	3°57'23	inferior conj	4803 Jul 03 09:39	13°♏44'12	-2°-13'-31
	4802 Jul 30 23:18	30°♏		minimum elong	4803 Jul 03 03:27	13°♏53'08	2°11'20
morning rise	4802 Aug 01 06:44	29°♏38'16		min. Earth dist.	4803 Jul 04 13:13	13°♏04'31	0.54896 AU
direct	4802 Aug 04 12:42	29°♏14'55		morning rise	4803 Jul 12 01:38	9°♏38'04	
	4802 Aug 08 21:57	0°♏		direct	4803 Jul 15 22:16	9°♏05'57	
morning max el	4802 Aug 16 11:19	4°♏50'06	21°36'30	morning max el	4803 Jul 29 04:59	15°♏30'52	23°17'22
asc. node	4802 Aug 29 09:24	22°♏37'35			4803 Aug 09 13:54	0°♏	
	4802 Sep 02 07:13	0°♐		asc. node	4803 Aug 16 06:27	11°♏50'22	
morning set	4802 Sep 05 23:43	7°♐29'49		morning set	4803 Aug 21 10:58	22°♏22'06	
					4803 Aug 25 00:36	0°♐	
superior conj	4802 Sep 13 06:58	22°♐51'49	1°43'16	superior conj	4803 Aug 28 12:33	7°♐32'45	1°37'37
minimum elong	4802 Sep 13 06:28	22°♐49'16	1°43'15	minimum elong	4803 Aug 28 11:00	7°♐24'23	1°37'31
	4802 Sep 16 18:11	0°♑		max. Earth dist.	4803 Aug 31 03:45	13°♐09'09	1.33574 AU
max. Earth dist.	4802 Sep 17 07:04	1°♑05'06	1.34950 AU	evening rise	4803 Sep 05 04:47	23°♐29'45	
evening rise	4802 Sep 21 15:53	9°♑39'17			4803 Sep 08 13:10	0°♑	
	4802 Oct 03 04:27	0°♑		desc. node	4803 Sep 21 19:42	22°♑41'48	
desc. node	4802 Oct 04 22:40	2°♑49'30			4803 Sep 26 19:48	0°♑	
	4802 Oct 25 08:56	0°♑		evening max el	4803 Oct 09 09:13	14°♑54'52	27°19'55
evening max el	4802 Oct 26 20:56	1°♑29'24	26°45'36	retrograde	4803 Oct 22 21:19	22°♑13'17	
retrograde	4802 Nov 08 22:34	8°♑45'38		evening set	4803 Oct 29 20:59	19°♑34'17	
evening set	4802 Nov 15 12:27	6°♑07'40		min. Earth dist.	4803 Nov 02 16:16	16°♑03'54	0.64490 AU
min. Earth dist.	4802 Nov 19 13:45	2°♑02'29	0.65904 AU				

inferior conj	4803 Nov 05 00:25	13° \mathbb{M} 33'21	-2°-22'-57		4804 Sep 23 04:12	0° \mathbb{M}	
minimum elong	4803 Nov 05 04:32	13° \mathbb{M} 22'16	2°21'22	retrograde	4804 Oct 04 13:16	5° \mathbb{M} 08'51	
morning rise	4803 Nov 11 14:20	8° \mathbb{M} 04'57		evening set	4804 Oct 11 17:31	2° \mathbb{M} 38'53	
asc. node	4803 Nov 12 05:41	7° \mathbb{M} 50'40			4804 Oct 14 23:50	30° \mathbb{R} $\underline{\mathbb{A}}$	
direct	4803 Nov 14 02:26	7° \mathbb{M} 32'40		min. Earth dist.	4804 Oct 15 08:52	29° $\underline{\mathbb{A}}$ 39'11	0.62759 AU
morning max el	4803 Nov 20 14:12	10° \mathbb{M} 58'23	17°56'24	inferior conj	4804 Oct 18 04:30	26° $\underline{\mathbb{A}}$ 56'56	-3°-25'-4
	4803 Dec 03 15:26	0° \mathbb{A}		minimum elong	4804 Oct 18 10:12	26° $\underline{\mathbb{A}}$ 43'13	3°23'15
morning set	4803 Dec 07 19:38	7° \mathbb{A} 01'48		morning rise	4804 Oct 25 05:41	21° $\underline{\mathbb{A}}$ 46'20	
desc. node	4803 Dec 18 19:01	25° \mathbb{A} 14'29		direct	4804 Oct 27 13:34	21° $\underline{\mathbb{A}}$ 21'24	
				asc. node	4804 Oct 29 02:44	21° $\underline{\mathbb{A}}$ 32'43	
superior conj	4803 Dec 21 07:45	29° \mathbb{A} 19'57	0°-17'-31	morning max el	4804 Nov 03 06:42	24° $\underline{\mathbb{A}}$ 48'09	17°49'52
minimum elong	4803 Dec 21 05:40	29° \mathbb{A} 11'33	0°17'14		4804 Nov 07 13:00	0° \mathbb{M}	
	4803 Dec 21 17:43	0° \mathbb{B}		morning set	4804 Nov 19 07:58	19° \mathbb{M} 41'56	
max. Earth dist.	4803 Dec 26 00:16	6° \mathbb{B} 48'26	1.44834 AU		4804 Nov 25 04:37	0° \mathbb{A}	
evening rise	4804 Jan 06 12:50	24° \mathbb{B} 45'13					
	4804 Jan 09 22:57	0° \approx		superior conj	4804 Nov 30 21:29	9° \mathbb{A} 44'49	0°26'21
greatest brilliancy	4804 Jan 26 17:44	24° \approx 47'11	-0.6m	minimum elong	4804 Nov 30 23:59	9° \mathbb{A} 55'19	0°26'00
	4804 Jan 30 19:15	0° \mathbb{H}		desc. node	4804 Dec 04 16:01	16° \mathbb{A} 00'47	
evening max el	4804 Feb 02 06:37	2° \mathbb{H} 45'10	20°08'09	max. Earth dist.	4804 Dec 07 16:54	20° \mathbb{A} 57'21	1.43683 AU
asc. node	4804 Feb 08 04:57	6° \mathbb{H} 58'51			4804 Dec 13 09:27	0° \mathbb{B}	
retrograde	4804 Feb 10 00:32	7° \mathbb{H} 16'32		evening rise	4804 Dec 15 23:15	4° \mathbb{B} 00'37	
evening set	4804 Feb 13 17:50	5° \mathbb{H} 56'00			4805 Jan 02 09:58	0° \approx	
inferior conj	4804 Feb 19 04:25	29° \approx 50'18	3°02'30	greatest brilliancy	4805 Jan 10 03:57	10° \approx 28'49	-0.4m
minimum elong	4804 Feb 19 02:11	29° \approx 57'49	3°02'02	evening max el	4805 Jan 15 05:27	16° \approx 19'26	21°16'10
	4804 Feb 19 01:32	30° \mathbb{R} \approx		retrograde	4805 Jan 23 22:22	21° \approx 28'56	
min. Earth dist.	4804 Feb 20 00:30	28° \approx 42'30	0.67268 AU	asc. node	4805 Jan 25 01:59	21° \approx 21'48	
morning rise	4804 Feb 24 09:56	23° \approx 34'02		evening set	4805 Jan 28 01:35	19° \approx 53'13	
direct	4804 Mar 01 04:37	21° \approx 00'01		inferior conj	4805 Feb 02 10:54	13° \approx 36'26	2°31'11
morning max el	4804 Mar 12 20:37	27° \approx 58'41	24°54'01	minimum elong	4805 Feb 02 08:28	13° \approx 44'52	2°30'29
	4804 Mar 14 18:40	0° \mathbb{H}		min. Earth dist.	4805 Feb 02 18:12	13° \approx 11'11	0.67874 AU
desc. node	4804 Mar 15 18:15	1° \mathbb{H} 05'36		morning rise	4805 Feb 07 15:01	7° \approx 21'40	
	4804 Apr 05 16:31	0° \mathbb{Y}		direct	4805 Feb 12 19:07	5° \approx 07'12	
morning set	4804 Apr 17 21:57	20° \mathbb{Y} 25'50		morning max el	4805 Feb 23 05:27	11° \approx 19'13	23°25'26
max. Earth dist.	4804 Apr 21 13:52	27° \mathbb{Y} 03'39	1.36984 AU	greatest brilliancy	4805 Mar 01 00:06	17° \approx 51'30	-0.2m
	4804 Apr 23 03:49	0° \mathbb{B}		desc. node	4805 Mar 02 15:17	19° \approx 54'26	
					4805 Mar 10 02:21	0° \mathbb{H}	
superior conj	4804 Apr 28 01:49	9° \mathbb{B} 25'20	-1°-15'-52		4805 Mar 29 11:53	0° \mathbb{Y}	
minimum elong	4804 Apr 28 05:56	9° \mathbb{B} 45'29	1°15'13	morning set	4805 Mar 30 06:44	1° \mathbb{Y} 19'13	
asc. node	4804 May 06 04:15	25° \mathbb{B} 36'35		max. Earth dist.	4805 Apr 03 09:18	8° \mathbb{Y} 22'17	1.39143 AU
evening rise	4804 May 06 12:55	26° \mathbb{B} 20'04					
	4804 May 08 09:06	0° \mathbb{I}		superior conj	4805 Apr 10 22:40	22° \mathbb{Y} 01'19	-1°-41'-59
evening max el	4804 May 23 12:17	23° \mathbb{I} 55'20	19°28'02	minimum elong	4805 Apr 11 03:37	22° \mathbb{Y} 24'21	1°41'27
retrograde	4804 Jun 01 23:09	28° \mathbb{I} 31'58			4805 Apr 15 03:53	0° \mathbb{B}	
evening set	4804 Jun 03 21:53	28° \mathbb{I} 21'05		evening rise	4805 Apr 20 08:04	9° \mathbb{B} 59'41	
desc. node	4804 Jun 11 17:26	24° \mathbb{I} 47'03		asc. node	4805 Apr 23 01:16	15° \mathbb{B} 12'51	
inferior conj	4804 Jun 12 13:19	24° \mathbb{I} 15'15	0°-14'-45		4805 May 01 14:03	0° \mathbb{I}	
minimum elong	4804 Jun 12 12:40	24° \mathbb{I} 16'18	0°14'31	evening max el	4805 May 06 12:54	6° \mathbb{I} 07'13	18°40'53
transit middle	4804 Jun 12 12:40	24° \mathbb{I} 16'18	0°14'31	retrograde	4805 May 14 12:49	10° \mathbb{I} 03'14	
transit begin	4804 Jun 12 11:02	24° \mathbb{I} 18'56		evening set	4805 May 16 16:35	9° \mathbb{I} 47'04	
transit end	4804 Jun 12 14:18	24° \mathbb{I} 13'40		inferior conj	4805 May 24 12:33	5° \mathbb{I} 22'49	1°26'01
min. Earth dist.	4804 Jun 15 02:59	22° \mathbb{I} 36'26	0.55807 AU	minimum elong	4805 May 24 15:29	5° \mathbb{I} 17'19	1°25'02
morning rise	4804 Jun 20 23:42	19° \mathbb{I} 37'28		min. Earth dist.	4805 May 27 20:03	2° \mathbb{I} 54'34	0.57473 AU
direct	4804 Jun 25 17:10	18° \mathbb{I} 47'01		desc. node	4805 May 29 14:28	1° \mathbb{I} 42'34	
morning max el	4804 Jul 09 18:36	25° \mathbb{I} 52'26	25°00'01	morning rise	4805 Jun 01 09:52	0° \mathbb{I} 09'26	
	4804 Jul 13 16:15	0° \mathbb{B}			4805 Jun 01 18:21	30° \mathbb{R} \mathbb{B}	
	4804 Aug 01 10:33	0° \mathbb{Q}		direct	4805 Jun 07 01:44	28° \mathbb{B} 50'10	
asc. node	4804 Aug 02 03:31	1° \mathbb{Q} 25'40			4805 Jun 12 11:05	0° \mathbb{I}	
morning set	4804 Aug 04 22:43	7° \mathbb{Q} 14'50		morning max el	4805 Jun 21 10:32	6° \mathbb{I} 23'27	26°28'40
					4805 Jul 08 21:12	0° \mathbb{B}	
superior conj	4804 Aug 11 22:07	22° \mathbb{Q} 23'53	1°26'24	morning set	4805 Jul 20 09:21	22° \mathbb{B} 02'53	
minimum elong	4804 Aug 11 19:57	22° \mathbb{Q} 12'00	1°26'09	asc. node	4805 Jul 20 00:33	21° \mathbb{B} 16'36	
max. Earth dist.	4804 Aug 13 08:36	25° \mathbb{Q} 31'59	1.32622 AU		4805 Jul 24 01:58	0° \mathbb{Q}	
	4804 Aug 15 10:15	0° \mathbb{H}					
evening rise	4804 Aug 19 03:14	7° \mathbb{H} 46'59		superior conj	4805 Jul 27 09:37	7° \mathbb{Q} 18'30	1°10'22
	4804 Aug 31 00:10	0° $\underline{\mathbb{A}}$		minimum elong	4805 Jul 27 07:19	7° \mathbb{Q} 05'46	1°10'00
desc. node	4804 Sep 07 16:43	12° $\underline{\mathbb{A}}$ 01'41		max. Earth dist.	4805 Jul 27 18:39	8° \mathbb{Q} 08'21	1.32083 AU
evening max el	4804 Sep 20 19:20	27° $\underline{\mathbb{A}}$ 53'53	27°25'31	evening rise	4805 Aug 03 08:18	22° \mathbb{Q} 22'00	

	4805 Aug 07 01:58	0°♎				4806 Jul 15 10:31	0°♏	
	4805 Aug 25 02:48	0°♎			evening rise	4806 Jul 18 17:33	7°♏06'57	
desc. node	4805 Aug 25 13:43	0°♎36'10				4806 Jul 30 15:37	0°♎	
evening max el	4805 Sep 03 00:24	10°♎13'01	26°58'13		desc. node	4806 Aug 12 10:45	18°♎06'12	
retrograde	4805 Sep 16 21:38	17°♎23'52			evening max el	4806 Aug 15 22:04	21°♎43'01	25°58'13
evening set	4805 Sep 23 21:59	15°♎14'53			retrograde	4806 Aug 29 21:15	28°♎50'36	
min. Earth dist.	4805 Sep 27 14:37	12°♎35'57	0.60779 AU		evening set	4806 Sep 05 05:25	27°♎14'15	
inferior conj	4805 Sep 30 18:54	9°♎55'07	-4°-21'-22		min. Earth dist.	4806 Sep 09 10:34	24°♎39'29	0.58705 AU
minimum elong	4805 Oct 01 01:03	9°♎42'06	4°19'57		inferior conj	4806 Sep 12 16:02	22°♎17'31	-5°-2'-44
morning rise	4805 Oct 08 07:22	5°♎05'55			minimum elong	4806 Sep 12 20:11	22°♎09'52	5°02'15
direct	4805 Oct 10 14:16	4°♎45'17			morning rise	4806 Sep 20 14:30	17°♎51'50	
asc. node	4805 Oct 15 23:47	6°♎45'39			direct	4806 Sep 22 23:52	17°♎33'03	
morning max el	4805 Oct 17 20:22	8°♎21'19	18°02'08		morning max el	4806 Oct 01 03:48	21°♎28'10	18°34'35
	4805 Oct 31 20:12	0°♎			asc. node	4806 Oct 02 20:49	23°♎15'45	
morning set	4805 Nov 02 13:23	3°♎10'39				4806 Oct 07 18:39	0°♎	
					morning set	4806 Oct 17 06:44	17°♎12'41	
superior conj	4805 Nov 12 13:29	21°♎26'34	1°00'52			4806 Oct 23 21:53	0°♎	
minimum elong	4805 Nov 12 17:29	21°♎44'18	1°00'22					
	4805 Nov 17 11:43	0°♎			superior conj	4806 Oct 26 03:19	4°♎11'45	1°24'39
max. Earth dist.	4805 Nov 20 04:52	4°♎34'26	1.41988 AU		minimum elong	4806 Oct 26 06:42	4°♎27'33	1°24'19
desc. node	4805 Nov 21 13:01	6°♎47'44			max. Earth dist.	4806 Nov 02 11:24	17°♎27'01	1.39963 AU
evening rise	4805 Nov 25 21:21	13°♎51'07			evening rise	4806 Nov 06 16:41	24°♎39'41	
	4805 Dec 06 08:38	0°♎			desc. node	4806 Nov 08 10:01	27°♎31'18	
greatest brilliancy	4805 Dec 24 02:16	24°♎27'39	-0.3m			4806 Nov 09 22:22	0°♎	
evening max el	4805 Dec 28 23:08	29°♎55'20	22°32'50			4806 Nov 30 04:03	0°♎	
	4805 Dec 29 01:00	0°♎			evening max el	4806 Dec 11 13:11	13°♎33'50	23°52'51
retrograde	4806 Jan 07 18:27	5°♎45'02			retrograde	4806 Dec 22 11:23	20°♎00'09	
asc. node	4806 Jan 11 23:01	4°♎13'12			evening set	4806 Dec 27 14:53	17°♎52'45	
evening set	4806 Jan 12 09:08	3°♎53'25			asc. node	4806 Dec 29 20:04	15°♎38'32	
	4806 Jan 15 22:29	30°♎			min. Earth dist.	4807 Jan 01 11:06	12°♎16'39	0.67926 AU
inferior conj	4806 Jan 17 18:51	27°♎28'55	1°51'43		inferior conj	4807 Jan 02 02:23	11°♎24'42	1°05'09
minimum elong	4806 Jan 17 16:40	27°♎36'28	1°50'57		minimum elong	4807 Jan 02 00:55	11°♎29'40	1°04'35
min. Earth dist.	4806 Jan 17 14:31	27°♎43'57	0.68086 AU		morning rise	4807 Jan 07 11:13	5°♎17'53	
morning rise	4806 Jan 23 00:08	21°♎17'15			direct	4807 Jan 11 10:30	3°♎48'44	
direct	4806 Jan 27 13:25	19°♎25'27			morning max el	4807 Jan 19 12:25	8°♎26'57	20°38'46
morning max el	4806 Feb 05 17:41	24°♎47'55	21°57'53		greatest brilliancy	4807 Jan 25 10:03	15°♎19'59	-0.5m
	4806 Feb 10 09:04	0°♎			desc. node	4807 Feb 04 09:18	29°♎16'14	
greatest brilliancy	4806 Feb 10 09:28	0°♎01'16	-0.4m			4807 Feb 04 21:13	0°♎	
desc. node	4806 Feb 17 12:18	9°♎21'39			morning set	4807 Feb 17 14:33	19°♎16'48	
	4806 Mar 03 13:24	0°♎				4807 Feb 24 09:46	0°♎	
morning set	4806 Mar 10 11:15	10°♎51'50			max. Earth dist.	4807 Feb 26 12:51	3°♎25'26	1.43181 AU
max. Earth dist.	4806 Mar 16 07:43	20°♎27'06	1.41305 AU					
	4806 Mar 21 22:07	0°♎			superior conj	4807 Mar 05 03:40	14°♎18'35	-2°-8'-34
					minimum elong	4807 Mar 05 03:27	14°♎17'42	2°08'36
superior conj	4806 Mar 24 00:55	3°♎42'37	-2°-1'-15			4807 Mar 14 07:03	0°♎	
minimum elong	4806 Mar 24 04:49	3°♎59'51	2°01'03		evening rise	4807 Mar 17 07:54	5°♎20'50	
evening rise	4806 Apr 03 15:48	23°♎03'10			asc. node	4807 Mar 27 19:19	23°♎18'07	
	4806 Apr 07 10:17	0°♎				4807 Apr 01 14:01	0°♎	
asc. node	4806 Apr 09 22:17	4°♎28'56			evening max el	4807 Apr 03 08:50	1°♎57'12	18°06'44
evening max el	4806 Apr 19 20:52	18°♎50'45	18°13'57		retrograde	4807 Apr 09 21:16	5°♎19'27	
retrograde	4806 Apr 26 21:24	22°♎22'08			evening set	4807 Apr 12 13:40	4°♎44'40	
evening set	4806 Apr 29 07:34	21°♎57'41				4807 Apr 18 16:23	30°♎	
inferior conj	4806 May 06 09:16	17°♎12'33	2°35'54		inferior conj	4807 Apr 19 00:42	29°♎39'06	3°16'10
minimum elong	4806 May 06 12:44	17°♎04'56	2°35'03		minimum elong	4807 Apr 19 02:56	29°♎33'26	3°15'50
min. Earth dist.	4806 May 09 18:51	14°♎14'38	0.59573 AU		min. Earth dist.	4807 Apr 22 01:32	26°♎36'26	0.61766 AU
morning rise	4806 May 13 13:55	11°♎30'35			morning rise	4807 Apr 25 13:19	23°♎39'08	
desc. node	4806 May 16 11:30	10°♎10'56			direct	4807 May 02 08:32	21°♎14'44	
direct	4806 May 19 23:35	9°♎36'49			desc. node	4807 May 03 08:32	21°♎17'41	
morning max el	4806 Jun 03 08:30	17°♎27'40	27°28'47		morning max el	4807 May 16 12:39	29°♎14'11	27°52'21
	4806 Jun 13 18:15	0°♎				4807 May 17 06:44	0°♎	
	4806 Jul 01 10:29	0°♎				4807 Jun 07 16:15	0°♎	
morning set	4806 Jul 04 17:07	6°♎40'31			morning set	4807 Jun 18 20:08	21°♎01'45	
asc. node	4806 Jul 06 21:34	11°♎17'37				4807 Jun 23 02:54	0°♎	
					asc. node	4807 Jun 23 18:35	1°♎24'17	
superior conj	4806 Jul 11 21:17	22°♎10'32	0°50'07		max. Earth dist.	4807 Jun 24 15:06	3°♎15'03	1.32256 AU
minimum elong	4806 Jul 11 19:19	21°♎59'39	0°49'43					
max. Earth dist.	4806 Jul 11 06:05	20°♎46'41	1.31958 AU		superior conj	4807 Jun 26 07:25	6°♎54'32	0°26'14

minimum elong	4807 Jun 26 06:14	6° \mathfrak{D} 48'06	0°25'57	morning set	4808 Jun 01 15:56	4° \mathbb{I} 58'00	
evening rise	4807 Jul 03 05:01	21° \mathfrak{D} 55'32		max. Earth dist.	4808 Jun 06 17:41	15° \mathbb{I} 20'22	1.32997 AU
	4807 Jul 07 02:26	0° \mathcal{Q}					
	4807 Jul 26 03:06	0° \mathfrak{P}		superior conj	4808 Jun 09 14:06	21° \mathbb{I} 23'35	0°00'-39
evening max el	4807 Jul 28 12:54	2° \mathfrak{P} 28'49	24°32'43	minimum elong	4808 Jun 09 14:08	21° \mathbb{I} 23'43	0°00'41
desc. node	4807 Jul 30 07:46	4° \mathfrak{P} 06'06		behind sun begin	4808 Jun 09 08:47	20° \mathbb{I} 55'05	
retrograde	4807 Aug 11 10:01	9° \mathfrak{P} 28'53		behind sun end	4808 Jun 09 19:28	21° \mathbb{I} 52'23	
evening set	4807 Aug 16 12:26	8° \mathfrak{P} 30'36		asc. node	4808 Jun 09 15:37	21° \mathbb{I} 31'45	
min. Earth dist.	4807 Aug 22 00:03	5° \mathfrak{P} 40'47	0.56804 AU		4808 Jun 13 13:54	0° \mathfrak{D}	
inferior conj	4807 Aug 24 17:18	3° \mathfrak{P} 56'23	-5°-15'-2	evening rise	4808 Jun 16 16:44	6° \mathfrak{D} 40'36	
minimum elong	4807 Aug 24 16:13	3° \mathfrak{P} 58'08	5°15'01		4808 Jun 29 01:34	0° \mathcal{Q}	
	4807 Sep 01 11:30	30° \mathfrak{R} \mathcal{Q}		evening max el	4808 Jul 09 01:52	12° \mathcal{Q} 51'30	22°55'34
morning rise	4807 Sep 01 23:29	29° \mathcal{Q} 52'19		desc. node	4808 Jul 16 04:48	18° \mathcal{Q} 02'13	
direct	4807 Sep 04 14:45	29° \mathcal{Q} 33'19		retrograde	4808 Jul 22 09:47	19° \mathcal{Q} 30'17	
	4807 Sep 07 15:27	0° \mathfrak{P}		evening set	4808 Jul 25 23:43	19° \mathcal{Q} 02'16	
morning max el	4807 Sep 14 01:42	3° \mathfrak{P} 58'58	19°28'32	min. Earth dist.	4808 Aug 02 10:32	15° \mathcal{Q} 42'27	0.55407 AU
asc. node	4807 Sep 19 17:51	10° \mathfrak{P} 47'57		inferior conj	4808 Aug 03 23:19	14° \mathcal{Q} 49'27	-4°-42'-10
	4807 Sep 30 12:41	0° \mathfrak{D}		minimum elong	4808 Aug 03 16:10	14° \mathcal{Q} 59'47	4°40'56
morning set	4807 Oct 01 08:19	1° \mathfrak{D} 38'04		morning rise	4808 Aug 12 11:15	10° \mathcal{Q} 58'39	
				direct	4808 Aug 15 11:21	10° \mathcal{Q} 37'26	
superior conj	4807 Oct 09 09:38	17° \mathfrak{D} 45'04	1°38'25	morning max el	4808 Aug 26 11:42	15° \mathcal{Q} 44'50	20°44'11
minimum elong	4807 Oct 09 11:31	17° \mathfrak{D} 54'21	1°38'18	asc. node	4808 Sep 05 14:53	29° \mathcal{Q} 07'51	
max. Earth dist.	4807 Oct 15 15:50	29° \mathfrak{D} 40'09	1.37867 AU		4808 Sep 06 03:10	0° \mathfrak{P}	
	4807 Oct 15 20:09	0° \mathfrak{M}		morning set	4808 Sep 14 15:20	16° \mathfrak{P} 18'48	
evening rise	4807 Oct 19 11:02	6° \mathfrak{M} 31'24			4808 Sep 21 05:44	0° \mathfrak{D}	
desc. node	4807 Oct 26 07:02	18° \mathfrak{M} 07'46					
	4807 Nov 02 20:48	0° \mathfrak{X}		superior conj	4808 Sep 22 03:43	1° \mathfrak{D} 52'49	1°43'37
evening max el	4807 Nov 24 01:49	27° \mathfrak{X} 16'15	25°09'32	minimum elong	4808 Sep 22 04:01	1° \mathfrak{D} 54'23	1°43'36
	4807 Nov 27 02:04	0° \mathfrak{D}		max. Earth dist.	4808 Sep 26 23:51	11° \mathfrak{D} 34'03	1.35930 AU
retrograde	4807 Dec 06 00:05	4° \mathfrak{D} 10'08		evening rise	4808 Oct 01 01:16	19° \mathfrak{D} 18'08	
evening set	4807 Dec 11 17:14	1° \mathfrak{D} 48'15			4808 Oct 07 00:49	0° \mathfrak{M}	
	4807 Dec 13 13:48	30° \mathfrak{R} \mathfrak{X}		desc. node	4808 Oct 12 04:04	8° \mathfrak{M} 32'25	
min. Earth dist.	4807 Dec 16 05:39	26° \mathfrak{X} 46'33	0.67416 AU		4808 Oct 26 23:14	0° \mathfrak{X}	
asc. node	4807 Dec 16 17:06	26° \mathfrak{X} 09'14		evening max el	4808 Nov 05 14:33	10° \mathfrak{X} 59'30	26°15'32
inferior conj	4807 Dec 17 07:45	25° \mathfrak{X} 21'20	0°12'28	retrograde	4808 Nov 18 07:41	18° \mathfrak{X} 09'51	
minimum elong	4807 Dec 17 07:27	25° \mathfrak{X} 22'22	0°12'21	evening set	4808 Nov 24 14:26	15° \mathfrak{X} 36'30	
transit middle	4807 Dec 17 07:27	25° \mathfrak{X} 22'22	0°12'21	min. Earth dist.	4808 Nov 28 19:45	11° \mathfrak{X} 10'28	0.66557 AU
transit begin	4807 Dec 17 05:39	25° \mathfrak{X} 28'14		inferior conj	4808 Nov 30 09:06	9° \mathfrak{X} 15'51	0°-45'-16
transit end	4807 Dec 17 09:14	25° \mathfrak{X} 16'30		minimum elong	4808 Nov 30 10:20	9° \mathfrak{X} 12'05	0°44'44
morning rise	4807 Dec 22 22:19	19° \mathfrak{X} 21'38		asc. node	4808 Dec 02 14:09	6° \mathfrak{X} 38'56	
direct	4807 Dec 26 09:10	18° \mathfrak{X} 12'55		morning rise	4808 Dec 06 07:25	3° \mathfrak{X} 25'57	
morning max el	4808 Jan 02 15:04	22° \mathfrak{X} 16'56	19°32'44	direct	4808 Dec 09 07:43	2° \mathfrak{X} 34'21	
	4808 Jan 09 00:30	0° \mathfrak{D}		morning max el	4808 Dec 16 00:52	6° \mathfrak{X} 15'19	18°42'14
greatest brilliancy	4808 Jan 10 22:45	2° \mathfrak{D} 40'16	-0.6m		4809 Jan 01 19:10	0° \mathfrak{D}	
desc. node	4808 Jan 22 06:19	19° \mathfrak{D} 30'41		morning set	4809 Jan 06 02:49	6° \mathfrak{D} 48'30	
morning set	4808 Jan 27 11:27	27° \mathfrak{D} 31'40		desc. node	4809 Jan 08 03:20	9° \mathfrak{D} 59'43	
	4808 Jan 29 01:49	0° \approx			4809 Jan 20 21:01	0° \approx	
max. Earth dist.	4808 Feb 09 01:12	17° \approx 09'58	1.44548 AU				
				superior conj	4809 Jan 22 10:52	2° \approx 28'28	-1°-28'-45
superior conj	4808 Feb 13 04:48	23° \approx 46'44	-1°-58'-30	minimum elong	4809 Jan 22 01:30	1° \approx 51'45	1°27'47
minimum elong	4808 Feb 12 22:21	23° \approx 20'54	1°58'08	max. Earth dist.	4809 Jan 21 18:57	1° \approx 26'03	1.45245 AU
	4808 Feb 17 01:16	0° \mathfrak{X}		evening rise	4809 Feb 07 00:51	27° \approx 10'01	
evening rise	4808 Feb 27 03:53	16° \mathfrak{X} 43'52			4809 Feb 08 19:14	0° \mathfrak{X}	
	4808 Mar 06 02:12	0° \mathfrak{Y}		evening max el	4809 Feb 28 08:44	28° \mathfrak{X} 46'03	18°48'09
asc. node	4808 Mar 13 16:22	11° \mathfrak{Y} 31'16		asc. node	4809 Feb 28 13:26	28° \mathfrak{X} 57'51	
evening max el	4808 Mar 16 21:41	15° \mathfrak{Y} 17'40	18°18'26		4809 Mar 01 16:04	0° \mathfrak{Y}	
retrograde	4808 Mar 23 07:58	18° \mathfrak{Y} 44'41		retrograde	4809 Mar 07 01:32	2° \mathfrak{Y} 30'14	
evening set	4808 Mar 26 06:28	17° \mathfrak{Y} 58'14		evening set	4809 Mar 10 06:32	1° \mathfrak{Y} 31'10	
inferior conj	4808 Apr 01 06:39	12° \mathfrak{Y} 33'17	3°32'46		4809 Mar 12 05:36	30° \mathfrak{R} \mathfrak{X}	
minimum elong	4808 Apr 01 07:13	12° \mathfrak{Y} 31'42	3°32'44	inferior conj	4809 Mar 15 23:17	25° \mathfrak{X} 48'27	3°31'23
min. Earth dist.	4808 Apr 03 17:15	9° \mathfrak{Y} 48'15	0.63786 AU	minimum elong	4809 Mar 15 22:24	25° \mathfrak{X} 51'12	3°31'19
morning rise	4808 Apr 07 06:06	6° \mathfrak{Y} 23'37		min. Earth dist.	4809 Mar 17 18:11	23° \mathfrak{X} 36'09	0.65466 AU
direct	4808 Apr 14 02:07	3° \mathfrak{Y} 40'03		morning rise	4809 Mar 21 13:07	19° \mathfrak{X} 34'00	
desc. node	4808 Apr 19 05:34	4° \mathfrak{Y} 58'58		direct	4809 Mar 28 02:38	16° \mathfrak{X} 45'09	
morning max el	4808 Apr 27 20:55	11° \mathfrak{Y} 38'25	27°38'40	desc. node	4809 Apr 06 02:36	20° \mathfrak{X} 43'42	
	4808 May 12 10:08	0° \mathfrak{X}		morning max el	4809 Apr 10 06:53	24° \mathfrak{X} 31'08	26°52'27
	4808 May 30 02:53	0° \mathbb{I}			4809 Apr 15 05:40	0° \mathfrak{Y}	

	4809 May 05 20:21	0°♄			4810 Apr 10 02:22	0°♅		
morning set	4809 May 16 01:26	18°♄20'19			4810 Apr 28 07:58	0°♄		
max. Earth dist.	4809 May 20 10:35	26°♄55'55	1.34200 AU	morning set	4810 Apr 28 20:26	0°♄56'45		
	4809 May 21 22:57	0°♂		max. Earth dist.	4810 May 02 16:09	8°♄04'45	1.35853 AU	
superior conj	4809 May 24 15:12	5°♂31'20	0°-29'-36	superior conj	4810 May 08 08:05	19°♄10'19	0°-59'-16	
minimum elong	4809 May 24 16:47	5°♂39'34	0°29'18	minimum elong	4810 May 08 11:20	19°♄26'40	0°58'41	
asc. node	4809 May 27 12:40	11°♂36'05			4810 May 13 15:36	0°♂		
evening rise	4809 Jun 01 02:49	21°♂16'18		asc. node	4810 May 14 09:45	1°♂33'12		
	4809 Jun 05 09:55	0°♄		evening rise	4810 May 16 09:09	5°♂35'53		
evening max el	4809 Jun 20 20:54	23°♄24'03	21°22'26		4810 May 30 05:14	0°♄		
retrograde	4809 Jul 02 23:43	29°♄22'34		evening max el	4810 Jun 03 03:34	4°♄31'45	20°04'17	
desc. node	4809 Jul 03 01:50	29°♄22'33		retrograde	4810 Jun 13 14:24	9°♄38'19		
evening set	4809 Jul 05 09:23	29°♄09'18		evening set	4810 Jun 15 12:53	9°♄28'32		
inferior conj	4809 Jul 14 17:28	25°♄10'19	-3°-18'-26	desc. node	4810 Jun 19 22:51	8°♄01'47		
minimum elong	4809 Jul 14 09:04	25°♄22'04	3°15'52	inferior conj	4810 Jun 24 13:38	5°♄29'00	-1°-22'-35	
min. Earth dist.	4809 Jul 14 20:52	25°♄05'34	0.54813 AU	minimum elong	4810 Jun 24 09:47	5°♄34'47	1°21'09	
morning rise	4809 Jul 23 09:19	21°♄16'12		min. Earth dist.	4810 Jun 26 09:07	4°♄23'57	0.55170 AU	
direct	4809 Jul 26 21:03	20°♄49'54		morning rise	4810 Jul 03 04:16	1°♄10'54		
morning max el	4809 Aug 08 10:13	26°♄45'55	22°18'14	direct	4810 Jul 07 08:54	0°♄32'38		
	4809 Aug 11 13:10	0°♂		morning max el	4810 Jul 21 01:30	7°♄15'57	24°01'48	
asc. node	4809 Aug 23 11:55	18°♂04'05			4810 Aug 06 10:28	0°♂		
	4809 Aug 29 12:27	0°♄		asc. node	4810 Aug 10 08:58	7°♂27'43		
morning set	4809 Aug 30 01:35	1°♄08'36		morning set	4810 Aug 14 13:17	16°♂02'26		
					4810 Aug 21 00:25	0°♄		
superior conj	4809 Sep 06 05:56	16°♄24'11	1°41'36	superior conj	4810 Aug 21 13:31	1°♄10'59	1°33'30	
minimum elong	4809 Sep 06 04:56	16°♄18'55	1°41'34	minimum elong	4810 Aug 21 11:38	1°♄00'49	1°33'20	
max. Earth dist.	4809 Sep 09 15:42	23°♄31'00	1.34320 AU	max. Earth dist.	4810 Aug 23 16:14	5°♄44'10	1.33115 AU	
	4809 Sep 12 20:44	0°♂		evening rise	4810 Aug 29 00:24	16°♄51'41		
evening rise	4809 Sep 14 07:02	2°♄48'19			4810 Sep 04 20:41	0°♂		
desc. node	4809 Sep 29 01:07	28°♄38'51		desc. node	4810 Sep 15 22:09	18°♄19'20		
	4809 Sep 29 22:01	0°♄			4810 Sep 24 11:17	0°♄		
evening max el	4809 Oct 19 03:18	24°♄34'34	27°03'20	evening max el	4810 Oct 01 14:46	7°♄50'12	27°25'59	
	4809 Oct 26 03:36	0°♄		retrograde	4810 Oct 15 05:35	15°♄07'48		
retrograde	4809 Nov 01 09:40	1°♄51'49		evening set	4810 Oct 22 08:13	12°♄30'52		
	4809 Nov 07 02:11	30°♄		min. Earth dist.	4810 Oct 26 01:19	9°♄14'41	0.63795 AU	
evening set	4809 Nov 08 04:19	29°♄12'23		inferior conj	4810 Oct 28 14:39	6°♄37'35	-2°-49'-36	
min. Earth dist.	4809 Nov 12 02:59	25°♄22'25	0.65347 AU	minimum elong	4810 Oct 28 19:31	6°♄25'05	2°47'51	
inferior conj	4809 Nov 14 04:14	23°♄03'03	-1°-46'-42	morning rise	4810 Nov 04 09:20	1°♄16'40		
minimum elong	4809 Nov 14 07:16	22°♄54'25	1°45'29	asc. node	4810 Nov 06 08:12	0°♄49'01		
asc. node	4809 Nov 19 11:11	18°♄00'54		direct	4810 Nov 06 19:16	0°♄47'58		
morning rise	4809 Nov 20 12:04	17°♄26'04		morning max el	4810 Nov 13 08:26	4°♄12'53	17°51'26	
direct	4809 Nov 23 03:59	16°♄47'47		morning set	4810 Nov 29 23:13	29°♄37'51		
morning max el	4809 Nov 29 15:36	20°♄16'10	18°08'15		4810 Nov 30 04:21	0°♄		
	4809 Dec 07 02:07	0°♄						
morning set	4809 Dec 17 23:30	17°♄33'51		superior conj	4810 Dec 12 14:42	20°♄55'56	0°01'58	
	4809 Dec 25 14:49	0°♄		minimum elong	4810 Dec 12 14:55	20°♄56'48	0°01'58	
desc. node	4809 Dec 26 00:22	0°♄38'28		behind sun begin	4810 Dec 12 05:10	20°♄16'52		
				behind sun end	4810 Dec 13 00:40	21°♄36'38		
superior conj	4810 Jan 01 15:43	11°♄13'54	0°-44'-48	desc. node	4810 Dec 12 21:26	21°♄23'26		
minimum elong	4810 Jan 01 10:09	10°♄51'52	0°44'03		4810 Dec 18 05:35	0°♄		
max. Earth dist.	4810 Jan 04 14:45	15°♄53'51	1.45196 AU	max. Earth dist.	4810 Dec 18 08:57	0°♄13'26	1.44421 AU	
	4810 Jan 13 15:26	0°♄		evening rise	4810 Dec 28 10:59	15°♄59'06		
evening rise	4810 Jan 18 00:12	6°♄46'51			4811 Jan 06 16:38	0°♄		
	4810 Feb 02 04:49	0°♄		greatest brilliancy	4811 Jan 19 22:33	18°♄57'02	-0.5m	
greatest brilliancy	4810 Feb 03 17:54	2°♄14'21	-0.7m	evening max el	4811 Jan 25 17:44	25°♄50'30	20°35'39	
evening max el	4810 Feb 11 15:51	12°♄17'30	19°34'36		4811 Jan 31 03:34	0°♄		
asc. node	4810 Feb 15 10:29	15°♄24'20		asc. node	4811 Feb 02 07:30	0°♄36'22		
retrograde	4810 Feb 18 22:45	16°♄29'25		retrograde	4811 Feb 02 21:02	0°♄38'06		
evening set	4810 Feb 22 11:10	15°♄16'55			4811 Feb 05 11:04	30°♄		
inferior conj	4810 Feb 27 23:18	9°♄18'37	3°16'15	evening set	4811 Feb 06 18:18	29°♄11'13		
minimum elong	4810 Feb 27 21:25	9°♄24'49	3°15'57	inferior conj	4811 Feb 12 04:06	23°♄00'09	2°50'17	
min. Earth dist.	4810 Mar 01 03:15	7°♄46'39	0.66731 AU	minimum elong	4811 Feb 12 01:43	23°♄08'16	2°49'42	
morning rise	4810 Mar 05 06:57	3°♄02'19		min. Earth dist.	4811 Feb 12 18:33	22°♄10'40	0.67574 AU	
direct	4810 Mar 11 09:13	0°♄20'23		morning rise	4811 Feb 17 08:40	16°♄44'06		
morning max el	4810 Mar 23 16:29	7°♄40'41	25°41'50	direct	4811 Feb 22 21:07	14°♄17'54		
desc. node	4810 Mar 23 23:37	7°♄58'50						

morning max el	4811 Mar 06 01:09	20° \approx 58'22	24°16'44		4812 Feb 11 04:04	0° \approx	
desc. node	4811 Mar 10 20:40	26° \approx 19'08		morning max el	4812 Feb 16 10:53	4° \approx 21'49	22°47'28
	4811 Mar 13 19:57	0° H		greatest brilliancy	4812 Feb 21 02:28	9° \approx 32'53	-0.3m
	4811 Apr 03 08:03	0° Y		desc. node	4812 Feb 25 17:41	15° \approx 26'02	
morning set	4811 Apr 10 19:29	12° Y 32'34			4812 Mar 07 01:35	0° H	
max. Earth dist.	4811 Apr 14 12:56	19° Y 08'09	1.37877 AU	morning set	4812 Mar 21 16:37	22° H 52'34	
	4811 Apr 20 09:46	0° B			4812 Mar 25 22:31	0° Y	
				max. Earth dist.	4812 Mar 26 08:20	0° Y 42'01	1.40074 AU
superior conj	4811 Apr 21 13:24	2° B 11'55	-1°-27'-31				
minimum elong	4811 Apr 21 18:01	2° B 34'03	1°26'54	superior conj	4812 Apr 03 02:59	14° Y 26'27	-1°-51'-16
evening rise	4811 Apr 30 09:14	19° B 32'08		minimum elong	4812 Apr 03 07:48	14° Y 48'22	1°50'53
asc. node	4811 May 01 06:47	21° B 18'21			4812 Apr 11 10:40	0° B	
	4811 May 05 19:35	0° II		evening rise	4812 Apr 13 00:00	2° B 57'32	
evening max el	4811 May 16 22:20	16° II 21'22	19°05'31	asc. node	4812 Apr 17 03:49	10° B 46'58	
retrograde	4811 May 25 17:24	20° II 39'12		evening max el	4812 Apr 29 02:37	28° B 48'32	18°27'04
evening set	4811 May 27 17:35	20° II 26'41			4812 Apr 30 10:32	0° II	
inferior conj	4811 Jun 05 00:55	16° II 13'55	0°31'24	retrograde	4812 May 06 15:02	2° II 31'44	
minimum elong	4811 Jun 05 02:11	16° II 11'44	0°30'55	evening set	4812 May 08 21:34	2° II 12'21	
desc. node	4811 Jun 06 19:53	14° II 59'56			4812 May 13 07:17	30° R B	
min. Earth dist.	4811 Jun 08 00:22	14° II 11'58	0.56429 AU	inferior conj	4812 May 16 09:27	27° B 39'40	1°59'31
morning rise	4811 Jun 13 06:24	11° II 20'15		minimum elong	4812 May 16 12:55	27° B 32'41	1°58'29
direct	4811 Jun 18 09:24	10° II 18'40		min. Earth dist.	4812 May 19 19:44	24° B 55'39	0.58332 AU
morning max el	4811 Jul 02 15:34	17° II 38'27	25°40'29	morning rise	4812 May 23 23:49	22° B 13'00	
	4811 Jul 12 20:46	0° S		desc. node	4812 May 23 16:54	22° B 22'04	
asc. node	4811 Jul 28 06:01	27° S 10'21		direct	4812 May 30 00:21	20° B 38'50	
	4811 Jul 29 14:32	0° Q		morning max el	4812 Jun 13 09:39	28° B 21'05	26°58'20
morning set	4811 Jul 30 00:44	0° Q 53'52			4812 Jun 15 00:35	0° II	
					4812 Jul 05 12:34	0° S	
superior conj	4811 Aug 06 00:08	16° Q 04'37	1°20'11	morning set	4812 Jul 13 10:21	15° S 37'55	
minimum elong	4811 Aug 05 21:51	15° Q 52'04	1°19'51	asc. node	4812 Jul 14 03:04	17° S 06'11	
max. Earth dist.	4811 Aug 06 23:29	18° Q 12'49	1.32334 AU				
	4811 Aug 12 11:05	0° np		superior conj	4812 Jul 20 11:55	0° Q 58'54	1°02'17
evening rise	4811 Aug 13 01:57	1° np 17'27		minimum elong	4812 Jul 20 09:42	0° Q 46'38	1°01'53
	4811 Aug 28 19:40	0° Q			4812 Jul 20 01:16	0° Q	
desc. node	4811 Sep 02 19:09	7° Q 22'04		max. Earth dist.	4812 Jul 20 10:26	0° Q 50'40	1.31977 AU
evening max el	4811 Sep 13 22:52	20° Q 33'15	27°17'59	evening rise	4812 Jul 27 09:04	15° Q 57'38	
retrograde	4811 Sep 27 18:48	27° Q 47'20			4812 Aug 03 09:28	0° np	
evening set	4811 Oct 04 22:30	25° Q 24'36		desc. node	4812 Aug 19 16:09	25° np 31'46	
min. Earth dist.	4811 Oct 08 13:21	22° Q 35'18	0.61941 AU		4812 Aug 23 12:42	0° Q	
inferior conj	4811 Oct 11 13:19	19° Q 51'26	-3°-50'-7	evening max el	4812 Aug 26 01:10	2° Q 32'39	26°36'31
minimum elong	4811 Oct 11 19:25	19° Q 37'30	3°48'22	retrograde	4812 Sep 08 23:44	9° Q 41'56	
morning rise	4811 Oct 18 19:25	14° Q 49'45		evening set	4812 Sep 15 18:37	7° Q 45'58	
direct	4811 Oct 21 02:19	14° Q 27'07		min. Earth dist.	4812 Sep 19 14:57	5° Q 10'47	0.59896 AU
asc. node	4811 Oct 24 05:14	15° Q 10'42		inferior conj	4812 Sep 22 20:48	2° Q 35'50	-4°-41'-30
morning max el	4811 Oct 28 00:10	17° Q 56'59	17°52'39	minimum elong	4812 Sep 23 02:29	2° Q 24'29	4°40'26
	4811 Nov 05 15:32	0° ml			4812 Sep 26 08:05	30° R np	
morning set	4811 Nov 12 19:30	12° ml 40'28		morning rise	4812 Sep 30 13:44	27° np 56'10	
	4811 Nov 22 13:20	0° J		direct	4812 Oct 02 21:07	27° np 36'38	
					4812 Oct 08 23:04	0° Q	
superior conj	4811 Nov 23 15:53	1° J 54'25	0°42'17	asc. node	4812 Oct 10 02:16	0° Q 58'02	
minimum elong	4811 Nov 23 19:22	2° J 09'23	0°41'48	morning max el	4812 Oct 10 11:32	1° Q 19'54	18°13'16
desc. node	4811 Nov 29 18:26	12° J 10'27		morning set	4812 Oct 26 06:32	26° Q 25'00	
max. Earth dist.	4811 Nov 30 23:06	14° J 08'00	1.43017 AU		4812 Oct 28 04:00	0° ml	
evening rise	4811 Dec 08 00:35	25° J 24'58					
	4811 Dec 10 23:27	0° S		superior conj	4812 Nov 04 17:47	14° ml 04'43	1°12'16
	4811 Dec 31 16:26	0° \approx		minimum elong	4812 Nov 04 21:42	14° ml 22'28	1°11'48
greatest brilliancy	4812 Jan 03 19:48	4° \approx 00'33	-0.4m	max. Earth dist.	4812 Nov 12 08:36	27° ml 26'44	1.41159 AU
evening max el	4812 Jan 08 14:13	9° \approx 25'16	21°48'04		4812 Nov 13 20:58	0° J	
retrograde	4812 Jan 17 18:22	14° \approx 52'20		desc. node	4812 Nov 15 15:25	2° J 56'29	
asc. node	4812 Jan 20 04:30	14° \approx 20'57		evening rise	4812 Nov 17 07:05	5° J 38'58	
evening set	4812 Jan 22 02:09	13° \approx 10'09			4812 Dec 03 04:51	0° S	
inferior conj	4812 Jan 27 11:27	6° \approx 49'38	2°15'21	greatest brilliancy	4812 Dec 15 01:17	16° S 00'43	-0.2m
minimum elong	4812 Jan 27 09:04	6° \approx 57'53	2°14'37	evening max el	4812 Dec 21 06:16	23° S 02'45	23°06'57
min. Earth dist.	4812 Jan 27 13:46	6° \approx 41'36	0.68008 AU	retrograde	4812 Dec 31 13:07	29° S 08'20	
morning rise	4812 Feb 01 15:44	0° \approx 35'43		evening set	4813 Jan 05 09:05	27° S 10'08	
	4812 Feb 02 09:38	30° R S		asc. node	4813 Jan 06 01:32	26° S 33'39	
direct	4812 Feb 06 13:30	28° S 30'31		inferior conj	4813 Jan 10 19:26	20° S 43'51	1°32'45

minimum elong	4813 Jan 10 17:31	20°☿50'29	1°32'03	minimum elong	4813 Dec 26 01:16	4°☿44'23	0°43'07
min. Earth dist.	4813 Jan 10 10:28	21°☿14'45	0.68065 AU		4813 Dec 29 22:47	30°☿	
morning rise	4813 Jan 16 01:57	14°☿33'58		morning rise	4813 Dec 31 13:20	28°☿37'05	
direct	4813 Jan 20 09:14	12°☿51'42		direct	4814 Jan 04 07:12	27°☿16'55	
morning max el	4813 Jan 29 01:24	17°☿53'59	21°22'47		4814 Jan 10 04:45	0°☿	
greatest brilliancy	4813 Feb 03 02:41	23°☿38'34	-0.4m	morning max el	4814 Jan 11 23:33	1°☿38'39	20°08'53
	4813 Feb 07 23:02	0°☿		greatest brilliancy	4814 Jan 18 17:10	9°☿41'49	-0.6m
desc. node	4813 Feb 11 14:41	5°☿05'59		desc. node	4814 Jan 29 11:42	25°☿10'16	
	4813 Feb 28 04:43	0°☿			4814 Feb 01 16:41	0°☿	
morning set	4813 Mar 01 09:05	1°☿51'43		morning set	4814 Feb 08 06:36	10°☿03'46	
max. Earth dist.	4813 Mar 08 09:28	13°☿10'16	1.42157 AU	max. Earth dist.	4814 Feb 18 18:28	26°☿32'34	1.43846 AU
					4814 Feb 20 22:04	0°☿	
superior conj	4813 Mar 15 19:47	25°☿41'20	-2°-6'-10	superior conj	4814 Feb 24 11:32	5°☿47'50	-2°-6'-41
minimum elong	4813 Mar 15 22:20	25°☿52'24	2°06'06	minimum elong	4814 Feb 24 08:42	5°☿36'15	2°06'37
	4813 Mar 18 07:15	0°☿		evening rise	4814 Mar 09 09:40	27°☿38'05	
evening rise	4813 Mar 27 01:35	15°☿42'26			4814 Mar 10 18:29	0°☿	
asc. node	4813 Apr 04 00:51	29°☿52'28		asc. node	4814 Mar 21 21:52	18°☿27'25	
	4813 Apr 04 02:38	0°☿		evening max el	4814 Mar 27 01:24	24°☿56'07	18°09'22
evening max el	4813 Apr 12 12:45	11°☿43'07	18°08'33	retrograde	4814 Apr 02 11:47	28°☿18'56	
retrograde	4813 Apr 19 06:36	15°☿08'28		evening set	4814 Apr 05 06:46	27°☿39'14	
evening set	4813 Apr 21 19:37	14°☿39'39		inferior conj	4814 Apr 11 12:41	22°☿24'52	3°25'44
inferior conj	4813 Apr 28 14:34	9°☿45'35	2°56'15	minimum elong	4814 Apr 11 14:13	22°☿20'47	3°25'34
minimum elong	4813 Apr 28 17:38	9°☿38'24	2°55'38	min. Earth dist.	4814 Apr 14 07:42	19°☿27'38	0.62662 AU
min. Earth dist.	4813 May 01 21:22	6°☿42'54	0.60518 AU	morning rise	4814 Apr 17 19:18	16°☿19'53	
morning rise	4813 May 05 12:11	3°☿55'05		direct	4814 Apr 24 15:41	13°☿46'04	
desc. node	4813 May 10 13:55	1°☿54'19		desc. node	4814 Apr 27 10:57	14°☿09'24	
direct	4813 May 12 03:11	1°☿47'24		morning max el	4814 May 08 16:32	21°☿45'47	27°50'58
morning max el	4813 May 26 10:11	9°☿42'01	27°43'29		4814 May 15 21:12	0°☿	
	4813 Jun 11 02:10	0°☿			4814 Jun 04 05:11	0°☿	
morning set	4813 Jun 27 16:20	0°☿08'52		morning set	4814 Jun 11 16:36	14°☿20'16	
	4813 Jun 27 14:37	0°☿		max. Earth dist.	4814 Jun 17 04:19	25°☿46'58	1.32518 AU
asc. node	4813 Jul 01 00:06	7°☿09'57		asc. node	4814 Jun 17 21:09	27°☿17'19	
max. Earth dist.	4813 Jul 03 21:22	13°☿26'16	1.32036 AU				
superior conj	4813 Jul 04 23:08	15°☿47'52	0°40'24	superior conj	4814 Jun 19 08:01	0°☿25'48	0°15'07
minimum elong	4813 Jul 04 21:27	15°☿38'35	0°40'02	minimum elong	4814 Jun 19 07:18	0°☿21'56	0°14'58
	4813 Jul 11 11:06	0°☿		behind sun begin	4814 Jun 19 05:30	0°☿12'11	
evening rise	4813 Jul 11 19:31	0°☿44'51		behind sun end	4814 Jun 19 09:06	0°☿31'42	
	4813 Jul 27 17:39	0°☿			4814 Jun 19 03:16	0°☿	
desc. node	4813 Aug 06 13:11	12°☿27'03		evening rise	4814 Jun 26 07:19	15°☿32'35	
evening max el	4813 Aug 07 19:51	13°☿42'56	25°24'20		4814 Jul 03 11:46	0°☿	
retrograde	4813 Aug 21 18:35	20°☿47'23		evening max el	4814 Jul 20 08:48	24°☿14'15	23°51'47
evening set	4813 Aug 27 15:46	19°☿27'23		desc. node	4814 Jul 24 10:13	27°☿38'33	
min. Earth dist.	4813 Sep 01 07:37	16°☿48'33	0.57858 AU		4814 Jul 28 14:55	0°☿	
inferior conj	4813 Sep 04 09:43	14°☿40'46	-5°-12'-30	retrograde	4814 Aug 03 01:48	1°☿07'51	
minimum elong	4813 Sep 04 12:00	14°☿36'47	5°12'23	evening set	4814 Aug 07 13:02	0°☿23'51	
morning rise	4813 Sep 12 11:42	10°☿24'37			4814 Aug 08 15:54	30°☿	
direct	4813 Sep 14 23:24	10°☿05'48		min. Earth dist.	4814 Aug 13 19:00	27°☿23'03	0.56124 AU
morning max el	4813 Sep 23 15:12	14°☿12'20	18°54'52	inferior conj	4814 Aug 16 02:18	25°☿59'05	-5°-7'-25
asc. node	4813 Sep 26 23:19	17°☿56'25		minimum elong	4814 Aug 15 22:26	26°☿04'59	5°07'05
	4813 Oct 04 14:07	0°☿		morning rise	4814 Aug 24 11:10	22°☿02'40	
morning set	4813 Oct 10 03:52	10°☿38'55		direct	4814 Aug 27 06:00	21°☿42'57	
				morning max el	4814 Sep 06 08:13	26°☿24'36	19°58'19
superior conj	4813 Oct 18 15:20	27°☿12'46	1°31'37		4814 Sep 09 15:57	0°☿	
minimum elong	4813 Oct 18 18:08	27°☿26'08	1°31'23	asc. node	4814 Sep 13 20:22	5°☿50'22	
	4813 Oct 20 02:36	0°☿		morning set	4814 Sep 24 08:04	25°☿11'50	
max. Earth dist.	4813 Oct 25 14:19	10°☿04'07	1.39069 AU		4814 Sep 26 16:36	0°☿	
evening rise	4813 Oct 29 12:29	16°☿55'34		superior conj	4814 Oct 02 03:11	11°☿02'34	1°41'34
desc. node	4813 Nov 02 12:27	23°☿38'05		minimum elong	4814 Oct 02 04:23	11°☿08'35	1°41'32
	4813 Nov 06 11:14	0°☿		max. Earth dist.	4814 Oct 07 19:41	22°☿06'43	1.37004 AU
	4813 Nov 27 17:42	0°☿		evening rise	4814 Oct 11 15:44	29°☿11'45	
evening max el	4813 Dec 03 19:37	6°☿44'10	24°26'14		4814 Oct 12 02:27	0°☿	
retrograde	4813 Dec 15 04:15	13°☿22'47		desc. node	4814 Oct 20 09:29	14°☿10'21	
evening set	4813 Dec 20 13:37	11°☿08'53			4814 Oct 30 18:19	0°☿	
asc. node	4813 Dec 23 22:33	7°☿31'18		evening max el	4814 Nov 16 08:02	20°☿27'18	25°39'14
min. Earth dist.	4813 Dec 25 06:24	5°☿47'31	0.67761 AU	retrograde	4814 Nov 28 14:55	27°☿29'49	
inferior conj	4813 Dec 26 02:18	4°☿40'57	0°43'31				

evening set	4814 Dec 04 14:03	25°♂02'13		evening rise	4815 Sep 24 13:06	12°♂18'34	
min. Earth dist.	4814 Dec 08 23:16	20°♂15'51	0.67098 AU		4815 Oct 04 12:27	0°♂	
inferior conj	4814 Dec 10 06:12	18°♂37'18	0°-11'-25	desc. node	4815 Oct 07 06:32	4°♂28'07	
minimum elong	4814 Dec 10 06:30	18°♂36'21	0°11'18		4815 Oct 25 21:37	0°♂	
transit middle	4814 Dec 10 06:30	18°♂36'21	0°11'18	evening max el	4815 Oct 29 20:40	4°♂07'44	26°38'28
transit begin	4814 Dec 10 04:29	18°♂42'46		retrograde	4815 Nov 11 20:24	11°♂22'59	
transit end	4814 Dec 10 08:30	18°♂29'57		evening set	4815 Nov 18 08:27	8°♂46'04	
asc. node	4814 Dec 10 19:36	17°♂54'45		min. Earth dist.	4815 Nov 22 10:47	4°♂35'22	0.66082 AU
morning rise	4814 Dec 15 23:51	12°♂41'43		inferior conj	4815 Nov 24 05:10	2°♂29'18	-1°-10'-58
direct	4814 Dec 19 05:56	11°♂40'52		minimum elong	4815 Nov 24 07:09	2°♂23'25	1°10'09
morning max el	4814 Dec 26 05:35	15°♂33'40	19°09'18		4815 Nov 26 09:13	30°♂♂	
greatest brilliancy	4815 Jan 05 18:43	29°♂20'46	-0.7m	asc. node	4815 Nov 27 16:39	28°♂40'41	
	4815 Jan 06 05:17	0°♂		morning rise	4815 Nov 30 07:21	26°♂44'33	
desc. node	4815 Jan 16 08:44	15°♂31'49		direct	4815 Dec 03 03:41	25°♂59'15	
morning set	4815 Jan 18 08:56	18°♂38'51		morning max el	4815 Dec 09 17:48	29°♂34'03	18°25'41
	4815 Jan 25 15:54	0°♂			4815 Dec 10 03:59	0°♂	
max. Earth dist.	4815 Feb 01 09:30	10°♂33'10	1.44935 AU	morning set	4815 Dec 29 12:21	28°♂32'32	
					4815 Dec 30 10:12	0°♂	
superior conj	4815 Feb 04 03:03	14°♂51'57	-1°-48'-9	desc. node	4816 Jan 03 05:46	6°♂05'31	
minimum elong	4815 Feb 03 18:35	14°♂18'27	1°47'30				
	4815 Feb 13 13:34	0°♂		superior conj	4816 Jan 14 06:02	23°♂28'41	-1°-11'-14
evening rise	4815 Feb 18 20:08	8°♂37'32		minimum elong	4816 Jan 13 21:37	22°♂55'39	1°10'14
	4815 Mar 04 02:18	0°♂		max. Earth dist.	4816 Jan 15 03:54	24°♂54'26	1.45314 AU
asc. node	4815 Mar 08 18:54	6°♂22'29			4816 Jan 18 09:54	0°♂	
evening max el	4815 Mar 10 13:43	8°♂20'37	18°28'52	evening rise	4816 Jan 30 07:18	18°♂40'48	
retrograde	4815 Mar 17 01:57	11°♂53'55			4816 Feb 06 11:36	0°♂	
evening set	4815 Mar 20 03:01	11°♂02'20		greatest brilliancy	4816 Feb 11 18:36	8°♂12'11	-0.7m
inferior conj	4815 Mar 25 23:40	5°♂29'32	3°34'06	evening max el	4816 Feb 21 23:18	21°♂51'00	19°05'58
minimum elong	4815 Mar 25 23:34	5°♂29'49	3°34'05	asc. node	4816 Feb 23 15:56	23°♂25'34	
min. Earth dist.	4815 Mar 28 03:36	2°♂56'52	0.64545 AU	retrograde	4816 Feb 28 21:23	25°♂45'58	
	4815 Mar 30 23:01	30°♂♂		evening set	4816 Mar 03 05:18	24°♂41'29	
morning rise	4815 Mar 31 18:34	29°♂17'00		inferior conj	4816 Mar 08 19:48	18°♂52'04	3°26'26
direct	4815 Apr 07 12:23	26°♂29'34		minimum elong	4816 Mar 08 18:26	18°♂56'26	3°26'17
desc. node	4815 Apr 14 07:59	28°♂47'43		min. Earth dist.	4816 Mar 10 08:18	16°♂56'00	0.66057 AU
	4815 Apr 16 02:06	0°♂		morning rise	4816 Mar 14 06:35	12°♂36'25	
morning max el	4815 Apr 21 02:08	4°♂25'03	27°22'35	direct	4816 Mar 20 15:50	9°♂48'50	
	4815 May 10 10:16	0°♂		desc. node	4816 Mar 31 05:01	15°♂14'39	
morning set	4815 May 26 08:31	28°♂04'17		morning max el	4816 Apr 02 12:02	17°♂26'21	26°24'44
	4815 May 27 08:03	0°♂			4816 Apr 13 00:04	0°♂	
max. Earth dist.	4815 May 31 03:15	7°♂41'05	1.33446 AU		4816 May 02 08:37	0°♂	
				morning set	4816 May 08 12:25	11°♂09'05	
superior conj	4815 Jun 03 12:38	14°♂47'10	0°-12'-46	max. Earth dist.	4816 May 12 14:58	19°♂02'29	1.34846 AU
minimum elong	4815 Jun 03 13:18	14°♂50'39	0°12'39				
behind sun begin	4815 Jun 03 09:55	14°♂32'42		superior conj	4816 May 17 10:35	28°♂43'55	0°-42'-13
behind sun end	4815 Jun 03 16:41	15°♂08'36		minimum elong	4816 May 17 12:53	28°♂55'42	0°41'47
asc. node	4815 Jun 04 18:12	17°♂24'25			4816 May 18 01:23	0°♂	
evening rise	4815 Jun 10 18:37	0°♂14'54		asc. node	4816 May 21 15:14	7°♂26'17	
	4815 Jun 10 15:47	0°♂		evening rise	4816 May 25 03:21	14°♂44'29	
	4815 Jun 27 19:57	0°♂			4816 Jun 01 23:09	0°♂	
evening max el	4815 Jul 01 23:17	4°♂37'23	22°14'42	evening max el	4816 Jun 12 23:00	15°♂23'27	20°47'03
desc. node	4815 Jul 11 07:15	10°♂32'19		retrograde	4816 Jun 24 09:39	21°♂00'02	
retrograde	4815 Jul 14 21:12	11°♂02'05		evening set	4816 Jun 26 12:18	20°♂49'21	
evening set	4815 Jul 17 21:00	10°♂42'16		desc. node	4816 Jun 27 04:17	20°♂41'44	
min. Earth dist.	4815 Jul 26 05:21	7°♂05'28	0.55034 AU	inferior conj	4816 Jul 05 19:08	16°♂52'30	-2°-31'-17
inferior conj	4815 Jul 27 01:59	6°♂36'23	-4°-12'-29	minimum elong	4816 Jul 05 12:12	17°♂02'22	2°28'54
minimum elong	4815 Jul 26 17:28	6°♂48'24	4°10'27	min. Earth dist.	4816 Jul 06 16:40	16°♂21'50	0.54846 AU
morning rise	4815 Aug 04 15:55	2°♂46'37		morning rise	4816 Jul 14 11:16	12°♂50'02	
direct	4815 Aug 07 20:09	2°♂23'59		direct	4816 Jul 18 05:29	12°♂19'38	
morning max el	4815 Aug 19 13:16	7°♂51'58	21°22'23	morning max el	4816 Jul 31 07:57	18°♂37'18	23°01'47
asc. node	4815 Aug 31 17:26	24°♂27'21			4816 Aug 09 15:44	0°♂	
	4815 Sep 03 17:39	0°♂		asc. node	4816 Aug 17 14:29	13°♂36'11	
morning set	4815 Sep 08 16:41	9°♂57'13		morning set	4816 Aug 23 03:43	24°♂48'55	
					4816 Aug 25 14:11	0°♂	
superior conj	4815 Sep 16 01:08	25°♂21'59	1°43'33				
minimum elong	4815 Sep 16 00:50	25°♂20'29	1°43'34	superior conj	4816 Aug 30 05:54	10°♂00'36	1°38'51
	4815 Sep 18 07:09	0°♂		minimum elong	4816 Aug 30 04:28	9°♂52'58	1°38'46
max. Earth dist.	4815 Sep 20 06:18	3°♂57'58	1.35193 AU	max. Earth dist.	4816 Sep 02 01:42	15°♂59'52	1.33756 AU

evening rise	4816 Sep 07 00:14	26° \cap 04'09		minimum elong	4817 Aug 14 12:52	24° Ω 39'11	1°28'12
	4816 Sep 09 00:37	0° Δ		max. Earth dist.	4817 Aug 16 05:36	28° Ω 20'48	1.32737 AU
desc. node	4816 Sep 23 03:34	24° Δ 24'31			4817 Aug 16 23:58	0° \cap	
	4816 Sep 26 21:43	0° \cap		evening rise	4817 Aug 21 21:27	10° \cap 18'02	
evening max el	4816 Oct 11 09:13	17° \cap 36'31	27°16'33		4817 Sep 01 07:57	0° Δ	
retrograde	4816 Oct 24 19:59	24° \cap 54'39		desc. node	4817 Sep 10 00:35	13° Δ 50'21	
evening set	4816 Oct 31 18:27	22° \cap 15'23			4817 Sep 23 02:58	0° \cap	
min. Earth dist.	4816 Nov 04 14:37	18° \cap 39'57	0.64720 AU	evening max el	4817 Sep 23 19:46	0° \cap 40'25	27°26'42
inferior conj	4816 Nov 06 20:56	16° \cap 12'07	-2°-13'-25	retrograde	4817 Oct 07 12:52	7° \cap 55'53	
minimum elong	4816 Nov 07 00:46	16° \cap 01'38	2°11'55	evening set	4817 Oct 14 16:59	5° \cap 23'44	
morning rise	4816 Nov 13 09:13	10° \cap 41'17		min. Earth dist.	4817 Oct 18 08:41	2° \cap 20'04	0.63036 AU
asc. node	4816 Nov 13 13:41	10° \cap 36'35			4817 Oct 20 18:08	30° \cap Δ	
direct	4816 Nov 15 22:14	10° \cap 07'32		inferior conj	4817 Oct 21 02:44	29° Δ 38'51	-3°-15'-56
morning max el	4816 Nov 22 09:43	13° \cap 33'42	17°58'54	minimum elong	4817 Oct 21 08:15	29° Δ 25'21	3°14'06
	4816 Dec 03 22:49	0° \nearrow		morning rise	4817 Oct 28 02:13	24° Δ 25'28	
morning set	4816 Dec 09 21:16	9° \nearrow 54'00		direct	4817 Oct 30 10:35	23° Δ 59'37	
desc. node	4816 Dec 20 02:48	26° \nearrow 47'26		asc. node	4817 Oct 31 10:44	24° Δ 04'28	
	4816 Dec 22 02:29	0° \Leftarrow		morning max el	4817 Nov 06 02:23	27° Δ 25'30	17°49'42
					4817 Nov 08 09:30	0° \cap	
superior conj	4816 Dec 23 16:44	2° \Leftarrow 33'30	0°-24'-40	morning set	4817 Nov 22 06:31	22° \cap 25'27	
minimum elong	4816 Dec 23 13:45	2° \Leftarrow 21'31	0°24'14		4817 Nov 26 14:26	0° \nearrow	
max. Earth dist.	4816 Dec 27 23:15	9° \Leftarrow 20'44	1.44950 AU				
evening rise	4817 Jan 08 23:42	28° \Leftarrow 03'26		superior conj	4817 Dec 04 02:28	12° \nearrow 46'51	0°20'13
	4817 Jan 10 06:00	0° \approx		minimum elong	4817 Dec 04 04:29	12° \nearrow 55'12	0°19'56
greatest brilliancy	4817 Jan 28 08:11	26° \approx 59'00	-0.6m	desc. node	4817 Dec 06 23:49	17° \nearrow 33'34	
	4817 Jan 30 14:14	0° \times		max. Earth dist.	4817 Dec 10 16:32	23° \nearrow 33'41	1.43892 AU
evening max el	4817 Feb 04 04:25	5° \times 24'24	19°58'59		4817 Dec 14 17:39	0° \Leftarrow	
asc. node	4817 Feb 09 12:58	9° \times 22'59		evening rise	4817 Dec 19 09:39	7° \Leftarrow 16'44	
retrograde	4817 Feb 11 19:13	9° \times 50'18			4818 Jan 03 13:38	0° \approx	
evening set	4817 Feb 15 11:15	8° \times 31'50		greatest brilliancy	4818 Jan 12 22:44	12° \approx 54'16	-0.4m
inferior conj	4817 Feb 20 22:09	2° \times 28'02	3°06'25	evening max el	4818 Jan 18 04:01	18° \approx 58'18	21°05'19
minimum elong	4817 Feb 20 20:00	2° \times 35'15	3°06'00	retrograde	4818 Jan 26 17:14	24° \approx 02'01	
min. Earth dist.	4817 Feb 21 20:14	1° \times 13'59	0.67146 AU	asc. node	4818 Jan 27 09:59	23° \approx 59'23	
	4817 Feb 22 18:43	30° \cap \approx		evening set	4818 Jan 30 18:53	22° \approx 28'30	
morning rise	4817 Feb 26 04:09	26° \approx 11'46		inferior conj	4818 Feb 05 04:16	16° \approx 13'02	2°36'27
direct	4817 Mar 04 00:53	23° \approx 35'28		minimum elong	4818 Feb 05 01:50	16° \approx 21'26	2°35'47
	4817 Mar 15 04:55	0° \times		min. Earth dist.	4818 Feb 05 13:20	15° \approx 41'41	0.67810 AU
morning max el	4817 Mar 15 20:55	0° \times 39'51	25°06'44	morning rise	4818 Feb 10 08:25	9° \approx 57'58	
desc. node	4817 Mar 18 02:01	3° \times 00'32		direct	4818 Feb 15 14:40	7° \approx 40'25	
	4817 Apr 06 22:59	0° Υ		morning max el	4818 Feb 26 05:40	13° \approx 59'54	23°38'47
morning set	4817 Apr 20 23:38	23° Υ 21'54		desc. node	4818 Mar 04 23:02	21° \approx 42'21	
max. Earth dist.	4817 Apr 24 16:02	0° Υ 05'09	1.36686 AU		4818 Mar 11 05:05	0° \times	
	4817 Apr 24 14:55	0° Υ			4818 Mar 30 20:45	0° Υ	
				morning set	4818 Apr 02 12:19	4° Υ 27'01	
superior conj	4817 Apr 30 23:02	12° Υ 08'50	-1°-11'-33	max. Earth dist.	4818 Apr 06 11:42	11° Υ 19'32	1.38815 AU
minimum elong	4817 May 01 02:56	12° Υ 28'06	1°10'56				
asc. node	4817 May 08 12:15	27° Υ 19'08		superior conj	4818 Apr 13 22:14	24° Υ 52'00	-1°-38'-21
evening rise	4817 May 09 07:21	28° Υ 55'22		minimum elong	4818 Apr 14 03:08	25° Υ 15'03	1°37'48
	4817 May 09 20:12	0° Π			4818 Apr 16 15:10	0° Υ	
evening max el	4817 May 26 11:03	26° Π 49'23	19°36'44	evening rise	4818 Apr 23 03:53	12° Υ 39'58	
	4817 May 30 13:47	0° Θ		asc. node	4818 Apr 25 09:17	16° Υ 58'14	
retrograde	4817 Jun 05 03:52	1° Θ 33'24			4818 May 02 15:20	0° Π	
evening set	4817 Jun 07 02:18	1° Θ 22'56		evening max el	4818 May 09 10:14	8° Π 55'55	18°46'34
	4817 Jun 11 04:21	30° \cap Π		retrograde	4818 May 17 14:49	12° Π 57'15	
desc. node	4817 Jun 14 01:17	28° Π 25'44		evening set	4818 May 19 17:32	12° Π 42'10	
inferior conj	4817 Jun 15 20:23	27° Π 19'02	0°-32'-4	inferior conj	4818 May 27 16:26	8° Π 20'54	1°12'36
minimum elong	4817 Jun 15 18:56	27° Π 21'18	0°31'34	minimum elong	4818 May 27 19:02	8° Π 16'08	1°11'43
min. Earth dist.	4817 Jun 18 05:48	25° Π 48'49	0.55618 AU	min. Earth dist.	4818 May 30 22:19	5° Π 58'56	0.57184 AU
morning rise	4817 Jun 24 08:08	22° Π 46'43		desc. node	4818 May 31 22:16	5° Π 18'07	
direct	4817 Jun 28 22:14	21° Π 59'48		morning rise	4818 Jun 04 16:01	3° Π 12'25	
morning max el	4817 Jul 12 21:41	28° Π 59'38	24°45'17	direct	4818 Jun 10 04:32	1° Π 58'04	
	4817 Jul 13 22:21	0° Θ		morning max el	4818 Jun 24 13:03	9° Π 28'15	26°17'05
	4817 Aug 02 21:36	0° Ω			4818 Jul 10 02:38	0° Θ	
asc. node	4817 Aug 04 11:30	3° Ω 08'37		asc. node	4818 Jul 22 08:33	22° Θ 58'02	
morning set	4817 Aug 07 15:29	9° Ω 42'05		morning set	4818 Jul 23 02:23	24° Θ 31'48	
					4818 Jul 25 15:38	0° Ω	
superior conj	4817 Aug 14 14:58	24° Ω 50'42	1°28'27				

superior conj	4818 Jul 30 02:20	9°♌45'48	1°13'07	max. Earth dist.	4819 Jul 14 02:29	23°♎34'43	1.31947 AU
minimum elong	4818 Jul 30 00:01	9°♌33'02	1°12'44				
max. Earth dist.	4818 Jul 30 15:05	10°♌56'08	1.32133 AU	superior conj	4819 Jul 14 14:06	24°♎38'52	0°53'28
evening rise	4818 Aug 06 01:42	24°♌51'22		minimum elong	4819 Jul 14 12:03	24°♎27'33	0°53'03
	4818 Aug 08 13:43	0°♍			4819 Jul 17 00:18	0°♌	
	4818 Aug 26 00:56	0°♌		evening rise	4819 Jul 21 10:28	9°♌35'25	
desc. node	4818 Aug 27 21:36	2°♌33'14			4819 Jul 31 22:09	0°♍	
evening max el	4818 Sep 06 01:38	13°♌06'14	27°04'22	desc. node	4819 Aug 14 18:37	20°♍14'39	
retrograde	4818 Sep 19 22:30	20°♌18'03		evening max el	4819 Aug 19 00:29	24°♍43'57	26°09'03
evening set	4818 Sep 27 00:10	18°♌04'58			4819 Aug 26 01:52	0°♌	
min. Earth dist.	4818 Sep 30 15:58	15°♌23'57	0.61087 AU	retrograde	4819 Sep 01 23:46	1°♌52'16	
inferior conj	4818 Oct 03 19:24	12°♌41'41	-4°-13'-35	evening set	4819 Sep 08 11:04	0°♌10'34	
minimum elong	4818 Oct 04 01:36	12°♌28'18	4°12'02		4819 Sep 08 19:11	30°♍	
morning rise	4818 Oct 11 06:16	7°♌49'18		min. Earth dist.	4819 Sep 12 13:22	27°♍36'17	0.59011 AU
direct	4818 Oct 13 13:03	7°♌28'15		inferior conj	4819 Sep 15 19:19	25°♍10'15	-4°-57'-58
asc. node	4818 Oct 18 07:46	9°♌04'39		minimum elong	4819 Sep 15 23:59	25°♍01'28	4°57'22
morning max el	4818 Oct 20 16:44	11°♌02'16	17°59'02	morning rise	4819 Sep 23 16:27	20°♍40'59	
	4818 Nov 02 05:49	0°♍		direct	4819 Sep 26 01:06	20°♍22'07	
morning set	4818 Nov 05 09:45	5°♍48'03		morning max el	4819 Oct 04 01:20	24°♍13'57	18°28'22
				asc. node	4819 Oct 05 04:49	25°♍24'11	
superior conj	4818 Nov 15 14:47	24°♍18'03	0°56'20		4819 Oct 08 19:48	0°♌	
minimum elong	4818 Nov 15 18:44	24°♍35'22	0°55'48	morning set	4819 Oct 20 01:37	19°♌46'03	
	4818 Nov 18 21:38	0°♍			4819 Oct 25 09:27	0°♍	
max. Earth dist.	4818 Nov 23 05:02	7°♍15'28	1.42269 AU				
desc. node	4818 Nov 23 20:51	8°♍20'54		superior conj	4819 Oct 29 01:44	6°♍54'57	1°21'41
evening rise	4818 Nov 29 05:09	16°♍59'51		minimum elong	4819 Oct 29 05:18	7°♍11'27	1°21'20
	4818 Dec 07 14:59	0°♎		max. Earth dist.	4819 Nov 05 12:06	20°♍14'21	1.40279 AU
greatest brilliancy	4818 Dec 27 03:52	27°♎11'57	-0.3m	evening rise	4819 Nov 09 21:06	27°♍39'32	
	4818 Dec 29 13:07	0°♎		desc. node	4819 Nov 10 17:53	29°♍05'32	
evening max el	4818 Dec 31 22:19	2°♎33'27	22°21'04		4819 Nov 11 07:08	0°♍	
retrograde	4819 Jan 10 13:43	8°♎17'34			4819 Dec 01 05:36	0°♎	
asc. node	4819 Jan 14 07:01	7°♎04'36		evening max el	4819 Dec 14 12:50	16°♎11'55	23°41'02
evening set	4819 Jan 15 02:34	6°♎28'22		retrograde	4819 Dec 25 07:14	22°♎33'17	
inferior conj	4819 Jan 20 12:06	0°♎04'41	1°58'09	evening set	4819 Dec 30 08:41	20°♎28'19	
minimum elong	4819 Jan 20 09:52	0°♎12'28	1°57'24	asc. node	4820 Jan 01 04:03	18°♎42'03	
min. Earth dist.	4819 Jan 20 09:27	0°♎13'53	0.68076 AU	inferior conj	4820 Jan 04 19:51	14°♎00'31	1°12'40
	4819 Jan 20 13:27	30°♏		minimum elong	4820 Jan 04 18:15	14°♎05'59	1°12'02
morning rise	4819 Jan 25 17:03	23°♎52'18		min. Earth dist.	4820 Jan 04 06:13	14°♎47'05	0.67972 AU
direct	4819 Jan 30 08:27	21°♎57'06		morning rise	4820 Jan 10 04:00	7°♎52'46	
morning max el	4819 Feb 08 17:10	27°♎27'06	22°10'30	direct	4820 Jan 14 05:19	6°♎20'13	
	4819 Feb 11 02:23	0°♎		morning max el	4820 Jan 22 10:46	11°♎04'33	20°49'45
greatest brilliancy	4819 Feb 13 07:17	2°♎34'54	-0.3m	greatest brilliancy	4820 Jan 28 02:31	17°♎37'30	-0.5m
desc. node	4819 Feb 19 20:04	11°♎04'28			4820 Feb 06 01:45	0°♎	
	4819 Mar 04 20:09	0°♏		desc. node	4820 Feb 06 17:06	0°♎55'48	
morning set	4819 Mar 13 21:10	14°♏11'53		morning set	4820 Feb 21 03:25	22°♎44'23	
max. Earth dist.	4819 Mar 19 09:06	23°♏15'34	1.40989 AU		4820 Feb 25 17:59	0°♏	
	4819 Mar 23 07:56	0°♏		max. Earth dist.	4820 Feb 29 13:02	6°♏05'57	1.42928 AU
superior conj	4819 Mar 27 03:33	6°♏42'11	-1°-58'-59	superior conj	4820 Mar 07 10:05	17°♏28'43	-2°-8'-30
minimum elong	4819 Mar 27 07:47	7°♏01'02	1°58'44	minimum elong	4820 Mar 07 10:42	17°♏31'20	2°08'30
evening rise	4819 Apr 06 13:35	25°♏49'30			4820 Mar 14 16:32	0°♏	
	4819 Apr 08 19:24	0°♐		evening rise	4820 Mar 19 08:18	8°♏14'40	
asc. node	4819 Apr 12 06:19	6°♐17'59		asc. node	4820 Mar 29 03:22	25°♏11'55	
evening max el	4819 Apr 22 17:22	21°♐35'43	18°16'45		4820 Apr 01 08:00	0°♐	
retrograde	4819 Apr 29 20:42	25°♐09'45		evening max el	4820 Apr 05 05:02	4°♐39'47	18°06'39
evening set	4819 May 02 05:52	24°♐46'44		retrograde	4820 Apr 11 18:32	8°♐02'17	
inferior conj	4819 May 09 10:07	20°♐04'56	2°27'16	evening set	4820 Apr 14 10:05	7°♐29'06	
minimum elong	4819 May 09 13:38	19°♐57'20	2°26'22	inferior conj	4820 Apr 20 23:02	2°♐26'35	3°11'41
min. Earth dist.	4819 May 12 20:18	17°♐09'42	0.59242 AU	minimum elong	4820 Apr 21 01:31	2°♐20'27	3°11'17
morning rise	4819 May 16 17:16	14°♐26'29			4820 Apr 23 10:14	30°♏	
desc. node	4819 May 18 19:18	13°♐26'42		min. Earth dist.	4820 Apr 24 01:40	29°♏23'08	0.61445 AU
direct	4819 May 23 00:47	12°♐37'41		morning rise	4820 Apr 27 13:55	26°♏28'51	
morning max el	4819 Jun 06 10:04	20°♐26'58	27°22'03	direct	4820 May 04 08:23	24°♏08'21	
	4819 Jun 14 15:15	0°♐		desc. node	4820 May 04 16:19	24°♏08'40	
	4819 Jul 02 21:38	0°♑			4820 May 16 07:22	0°♐	
morning set	4819 Jul 07 10:43	9°♑11'32		morning max el	4820 May 18 13:18	2°♐06'53	27°51'14
asc. node	4819 Jul 09 05:35	12°♑58'03			4820 Jun 07 23:23	0°♐	

morning set	4820 Jun 20 14:34	23° Π 35'28			4821 May 31 13:49	0° Π	
	4820 Jun 23 16:12	0° \mathfrak{G}		morning set	4821 Jun 04 11:37	7° Π 35'48	
asc. node	4820 Jun 25 02:38	3° \mathfrak{G} 04'14		max. Earth dist.	4821 Jun 09 15:54	18° Π 14'38	1.32858 AU
max. Earth dist.	4820 Jun 26 12:02	6° \mathfrak{G} 04'57	1.32186 AU	asc. node	4821 Jun 11 23:42	23° Π 11'49	
superior conj	4820 Jun 28 00:35	9° \mathfrak{G} 24'26	0°30'04	superior conj	4821 Jun 12 07:54	23° Π 55'58	0°03'35
minimum elong	4820 Jun 27 23:16	9° \mathfrak{G} 17'09	0°29'47	minimum elong	4821 Jun 12 07:44	23° Π 55'01	0°03'33
evening rise	4820 Jul 04 21:45	24° \mathfrak{G} 23'53		behind sun begin	4821 Jun 12 02:32	23° Π 27'03	
	4820 Jul 07 13:58	0° \mathfrak{Q}		behind sun end	4821 Jun 12 12:56	24° Π 23'01	
	4820 Jul 25 14:11	0° \mathfrak{M}			4821 Jun 15 03:16	0° \mathfrak{G}	
evening max el	4820 Jul 30 16:15	5° \mathfrak{M} 35'37	24°46'35	evening rise	4821 Jun 19 09:33	9° \mathfrak{G} 09'55	
desc. node	4820 Jul 31 15:37	6° \mathfrak{M} 29'58			4821 Jun 30 05:05	0° \mathfrak{Q}	
retrograde	4820 Aug 13 14:06	12° \mathfrak{M} 36'59		evening max el	4821 Jul 12 05:01	15° \mathfrak{Q} 59'49	23°10'08
evening set	4820 Aug 18 21:41	11° \mathfrak{M} 33'17		desc. node	4821 Jul 18 12:37	20° \mathfrak{Q} 47'16	
min. Earth dist.	4820 Aug 24 03:39	8° \mathfrak{M} 46'45	0.57066 AU	retrograde	4821 Jul 25 15:38	22° \mathfrak{Q} 42'52	
inferior conj	4820 Aug 26 23:37	6° \mathfrak{M} 55'56	-5°-15'-46	evening set	4821 Jul 29 11:05	22° \mathfrak{Q} 11'11	
minimum elong	4820 Aug 26 23:29	6° \mathfrak{M} 56'09	5°15'47	min. Earth dist.	4821 Aug 05 14:12	18° \mathfrak{Q} 56'48	0.55570 AU
morning rise	4820 Sep 04 04:46	2° \mathfrak{M} 48'47		inferior conj	4821 Aug 07 08:14	17° \mathfrak{Q} 55'33	-4°-50'-36
direct	4820 Sep 06 19:00	2° \mathfrak{M} 29'53		minimum elong	4821 Aug 07 01:50	18° \mathfrak{Q} 04'55	4°49'37
morning max el	4820 Sep 16 00:47	6° \mathfrak{M} 50'21	19°19'05	morning rise	4821 Aug 15 19:25	14° \mathfrak{Q} 03'49	
asc. node	4820 Sep 21 01:52	12° \mathfrak{M} 47'52		direct	4821 Aug 18 18:11	13° \mathfrak{Q} 43'00	
	4820 Sep 30 23:54	0° \mathfrak{A}		morning max el	4821 Aug 29 12:35	18° \mathfrak{Q} 43'20	20°31'39
morning set	4820 Oct 03 02:11	4° \mathfrak{A} 08'41			4821 Sep 07 07:48	0° \mathfrak{M}	
superior conj	4820 Oct 11 05:55	20° \mathfrak{A} 22'01	1°36'54	asc. node	4821 Sep 07 22:55	1° \mathfrak{M} 01'40	
minimum elong	4820 Oct 11 08:03	20° \mathfrak{A} 32'26	1°36'46	morning set	4821 Sep 17 08:34	18° \mathfrak{M} 48'02	
	4820 Oct 16 07:23	0° \mathfrak{M}			4821 Sep 22 18:37	0° \mathfrak{A}	
max. Earth dist.	4820 Oct 17 16:43	2° \mathfrak{M} 33'21	1.38177 AU	superior conj	4821 Sep 24 22:31	4° \mathfrak{A} 25'47	1°43'18
evening rise	4820 Oct 21 12:11	9° \mathfrak{M} 22'30		minimum elong	4821 Sep 24 23:03	4° \mathfrak{A} 28'31	1°43'18
desc. node	4820 Oct 27 14:56	19° \mathfrak{M} 43'41		max. Earth dist.	4821 Sep 30 00:04	14° \mathfrak{A} 29'51	1.36200 AU
	4820 Nov 03 02:52	0° \mathfrak{A}		evening rise	4821 Oct 03 23:44	22° \mathfrak{A} 01'59	
evening max el	4820 Nov 26 01:41	29° \mathfrak{A} 54'33	24°58'38		4821 Oct 08 10:18	0° \mathfrak{M}	
	4820 Nov 26 03:54	0° \mathfrak{B}		desc. node	4821 Oct 14 11:58	10° \mathfrak{M} 10'47	
retrograde	4820 Dec 07 20:33	6° \mathfrak{B} 44'40			4821 Oct 27 22:37	0° \mathfrak{A}	
evening set	4820 Dec 13 11:40	4° \mathfrak{B} 24'53		evening max el	4821 Nov 08 14:23	13° \mathfrak{A} 38'31	26°06'36
	4820 Dec 17 12:17	30° \mathfrak{R} \mathfrak{A}		retrograde	4821 Nov 21 04:55	20° \mathfrak{A} 46'54	
min. Earth dist.	4820 Dec 18 01:14	29° \mathfrak{A} 18'01	0.67517 AU	evening set	4821 Nov 27 09:46	18° \mathfrak{A} 14'53	
asc. node	4820 Dec 18 01:06	29° \mathfrak{A} 18'28		min. Earth dist.	4821 Dec 01 16:05	13° \mathfrak{A} 43'38	0.66712 AU
inferior conj	4820 Dec 19 01:41	27° \mathfrak{A} 57'38	0°20'52	inferior conj	4821 Dec 03 03:45	11° \mathfrak{A} 53'03	0°-36'-10
minimum elong	4820 Dec 19 01:11	27° \mathfrak{A} 59'19	0°20'39	minimum elong	4821 Dec 03 04:44	11° \mathfrak{A} 50'02	0°35'46
morning rise	4820 Dec 24 15:16	21° \mathfrak{A} 56'43		asc. node	4821 Dec 04 22:07	9° \mathfrak{A} 44'59	
direct	4820 Dec 28 03:55	20° \mathfrak{A} 45'03		morning rise	4821 Dec 09 00:48	6° \mathfrak{A} 01'39	
morning max el	4821 Jan 04 12:13	24° \mathfrak{A} 53'11	19°41'35	direct	4821 Dec 12 02:35	5° \mathfrak{A} 07'43	
	4821 Jan 08 22:42	0° \mathfrak{B}		morning max el	4821 Dec 18 21:07	8° \mathfrak{A} 51'15	18°48'44
greatest brilliancy	4821 Jan 12 08:28	4° \mathfrak{B} 33'43	-0.6m		4822 Jan 03 01:38	0° \mathfrak{B}	
desc. node	4821 Jan 23 14:09	21° \mathfrak{B} 07'59		morning set	4822 Jan 09 11:09	10° \mathfrak{B} 01'10	
	4821 Jan 29 09:05	0° \mathfrak{A}		desc. node	4822 Jan 10 11:12	11° \mathfrak{B} 35'35	
morning set	4821 Jan 29 23:36	0° \mathfrak{A} 55'57			4822 Jan 22 05:02	0° \mathfrak{A}	
max. Earth dist.	4821 Feb 11 00:36	19° \mathfrak{A} 45'21	1.44389 AU	max. Earth dist.	4822 Jan 24 18:00	3° \mathfrak{A} 59'07	1.45194 AU
superior conj	4821 Feb 15 14:54	27° \mathfrak{A} 06'29	-2°-1'-18	superior conj	4822 Jan 25 22:56	5° \mathfrak{A} 52'42	-1°-34'-23
minimum elong	4821 Feb 15 09:21	26° \mathfrak{A} 44'08	2°01'02	minimum elong	4822 Jan 25 13:33	5° \mathfrak{A} 15'53	1°33'29
	4821 Feb 17 09:48	0° \mathfrak{H}		evening rise	4822 Feb 10 08:01	0° \mathfrak{H} 21'05	
evening rise	4821 Mar 01 07:31	19° \mathfrak{H} 46'10			4822 Feb 10 02:48	0° \mathfrak{H}	
	4821 Mar 07 08:46	0° \mathfrak{Y}			4822 Mar 01 21:39	0° \mathfrak{Y}	
asc. node	4821 Mar 16 00:25	13° \mathfrak{Y} 31'03		asc. node	4822 Mar 02 21:25	1° \mathfrak{Y} 05'18	
evening max el	4821 Mar 19 17:56	17° \mathfrak{Y} 58'30	18°15'32	evening max el	4822 Mar 03 05:21	1° \mathfrak{Y} 25'46	18°42'32
retrograde	4821 Mar 26 03:54	21° \mathfrak{Y} 23'55		retrograde	4822 Mar 09 20:41	5° \mathfrak{Y} 06'45	
evening set	4821 Mar 29 01:31	20° \mathfrak{Y} 39'11		evening set	4822 Mar 13 00:39	4° \mathfrak{Y} 09'37	
inferior conj	4821 Apr 04 03:04	15° \mathfrak{Y} 16'54	3°31'29		4822 Mar 17 12:09	30° \mathfrak{R} \mathfrak{H}	
minimum elong	4821 Apr 04 03:53	15° \mathfrak{Y} 14'38	3°31'26	inferior conj	4822 Mar 18 18:18	28° \mathfrak{H} 29'16	3°32'31
min. Earth dist.	4821 Apr 06 15:54	12° \mathfrak{Y} 28'16	0.63506 AU	minimum elong	4822 Mar 18 17:37	28° \mathfrak{H} 31'24	3°32'29
morning rise	4821 Apr 10 04:17	9° \mathfrak{Y} 08'22		min. Earth dist.	4822 Mar 20 15:29	26° \mathfrak{H} 11'29	0.65243 AU
direct	4821 Apr 17 00:39	6° \mathfrak{Y} 26'57		morning rise	4822 Mar 24 09:21	22° \mathfrak{H} 15'11	
desc. node	4821 Apr 21 13:21	7° \mathfrak{Y} 28'05		direct	4822 Mar 31 00:06	19° \mathfrak{H} 26'25	
morning max el	4821 Apr 30 21:04	14° \mathfrak{Y} 25'40	27°42'57	desc. node	4822 Apr 08 10:24	22° \mathfrak{H} 56'15	
	4821 May 13 11:54	0° \mathfrak{B}		morning max el	4822 Apr 13 07:03	27° \mathfrak{H} 15'10	27°01'06

	4822 Apr 15 21:06	0°♄		direct	4823 Mar 14 05:53	2°♄58'01	
	4822 May 07 04:02	0°♄		desc. node	4823 Mar 26 07:26	9°♄59'57	
morning set	4822 May 18 22:52	21°♄03'44		morning max el	4823 Mar 26 16:51	10°♄23'32	25°53'30
	4822 May 23 11:28	0°♄			4823 Apr 11 06:03	0°♄	
max. Earth dist.	4822 May 23 10:30	29°♄55'04	1.33988 AU		4823 Apr 29 18:08	0°♄	
				morning set	4823 May 01 20:21	3°♄48'23	
superior conj	4822 May 27 09:58	8°♄07'06	0°-25'-9	max. Earth dist.	4823 May 05 17:38	11°♄06'57	1.35577 AU
minimum elong	4822 May 27 11:18	8°♄14'04	0°24'53				
asc. node	4822 May 29 20:44	13°♄16'47		superior conj	4823 May 11 04:15	21°♄51'07	0°-54'-47
evening rise	4822 Jun 03 19:59	23°♄47'17		minimum elong	4823 May 11 07:16	22°♄06'19	0°54'16
	4822 Jun 06 20:28	0°♄			4823 May 15 03:54	0°♄	
evening max el	4822 Jun 23 22:34	26°♄28'34	21°35'35	asc. node	4823 May 16 17:45	3°♄15'15	
	4822 Jun 28 06:36	0°♄		evening rise	4823 May 19 03:01	8°♄09'54	
desc. node	4822 Jul 05 09:38	2°♄32'46			4823 May 31 01:42	0°♄	
retrograde	4822 Jul 06 06:48	2°♄34'36		evening max el	4823 Jun 06 03:21	7°♄30'17	20°14'46
evening set	4822 Jul 08 19:35	2°♄20'02		retrograde	4823 Jun 16 20:35	12°♄44'48	
	4822 Jul 15 01:35	30°♄		evening set	4823 Jun 18 19:33	12°♄35'03	
inferior conj	4822 Jul 18 03:21	28°♄19'36	-3°-33'-58	desc. node	4823 Jun 22 06:39	11°♄34'32	
minimum elong	4822 Jul 17 18:42	28°♄31'42	3°31'27	inferior conj	4823 Jun 27 22:17	8°♄36'40	-1°-40'-48
min. Earth dist.	4822 Jul 18 00:19	28°♄23'50	0.54835 AU	minimum elong	4823 Jun 27 17:34	8°♄43'39	1°39'06
morning rise	4822 Jul 26 18:50	24°♄27'28		min. Earth dist.	4823 Jun 29 12:24	7°♄40'27	0.55051 AU
direct	4822 Jul 30 04:27	24°♄02'20		morning rise	4823 Jul 06 13:31	4°♄23'00	
morning max el	4822 Aug 11 12:42	29°♄50'56	22°03'25	direct	4823 Jul 10 15:08	3°♄47'09	
	4822 Aug 11 16:35	0°♄		morning max el	4823 Jul 24 04:42	10°♄24'21	23°46'18
asc. node	4822 Aug 25 19:58	19°♄53'16			4823 Aug 07 17:32	0°♄	
	4822 Aug 31 00:30	0°♄		asc. node	4823 Aug 12 17:01	9°♄13'10	
morning set	4822 Sep 01 18:26	3°♄37'00		morning set	4823 Aug 17 06:00	18°♄30'15	
					4823 Aug 22 14:07	0°♄	
superior conj	4822 Sep 08 23:42	18°♄54'26	1°42'20				
minimum elong	4822 Sep 08 22:53	18°♄50'07	1°42'18	superior conj	4823 Aug 24 06:37	3°♄39'17	1°35'05
max. Earth dist.	4822 Sep 12 14:31	26°♄25'02	1.34531 AU	minimum elong	4823 Aug 24 04:50	3°♄29'43	1°34'56
	4822 Sep 14 09:03	0°♄		max. Earth dist.	4823 Aug 26 13:37	8°♄34'23	1.33265 AU
evening rise	4822 Sep 17 03:25	5°♄26'23		evening rise	4823 Aug 31 19:15	19°♄25'15	
desc. node	4822 Oct 01 08:58	0°♄20'25			4823 Sep 06 06:48	0°♄	
	4822 Oct 01 03:47	0°♄		desc. node	4823 Sep 18 05:58	20°♄05'06	
evening max el	4822 Oct 22 03:01	27°♄15'00	26°57'35		4823 Sep 25 07:19	0°♄	
	4822 Oct 25 05:38	0°♄		evening max el	4823 Oct 04 14:44	10°♄33'57	27°24'27
retrograde	4822 Nov 04 07:47	4°♄32'06		retrograde	4823 Oct 18 04:45	17°♄52'08	
evening set	4822 Nov 11 00:53	1°♄52'58		evening set	4823 Oct 25 06:26	15°♄14'11	
	4822 Nov 13 02:47	30°♄		min. Earth dist.	4823 Oct 29 00:13	11°♄53'11	0.64045 AU
min. Earth dist.	4822 Nov 15 00:25	27°♄57'45	0.65551 AU	inferior conj	4823 Oct 31 11:47	9°♄18'03	-2°-40'-10
inferior conj	4822 Nov 16 23:55	25°♄41'32	-1°-37'-14	minimum elong	4823 Oct 31 16:24	9°♄06'01	2°38'27
minimum elong	4822 Nov 17 02:41	25°♄33'36	1°36'06	morning rise	4823 Nov 07 04:49	3°♄54'30	
asc. node	4822 Nov 21 19:09	20°♄55'57		asc. node	4823 Nov 08 16:12	3°♄29'23	
morning rise	4822 Nov 23 06:16	20°♄02'33		direct	4823 Nov 09 15:24	3°♄24'39	
direct	4822 Nov 25 23:14	19°♄22'37		morning max el	4823 Nov 16 03:57	6°♄49'43	17°52'45
morning max el	4822 Dec 02 11:18	22°♄52'18	18°12'14		4823 Dec 01 13:07	0°♄	
	4822 Dec 08 04:13	0°♄		morning set	4823 Dec 02 23:20	2°♄26'15	
morning set	4822 Dec 21 03:21	20°♄33'15		desc. node	4823 Dec 15 05:14	22°♄57'05	
	4822 Dec 26 23:06	0°♄					
desc. node	4822 Dec 28 08:14	2°♄13'14		superior conj	4823 Dec 15 21:57	24°♄05'06	0°-4'-52
				minimum elong	4823 Dec 15 21:24	24°♄02'52	0°04'48
superior conj	4823 Jan 05 02:37	14°♄34'09	0°-51'-56	behind sun begin	4823 Dec 15 11:48	23°♄23'48	
minimum elong	4823 Jan 04 20:11	14°♄08'48	0°51'05	behind sun end	4823 Dec 16 07:00	24°♄41'52	
max. Earth dist.	4823 Jan 07 13:30	18°♄25'44	1.45252 AU		4823 Dec 19 14:01	0°♄	
	4823 Jan 14 23:05	0°♄		max. Earth dist.	4823 Dec 21 07:46	2°♄46'17	1.44578 AU
evening rise	4823 Jan 21 10:13	10°♄04'18		evening rise	4823 Dec 31 21:51	19°♄17'22	
	4823 Feb 03 08:12	0°♄			4824 Jan 07 22:32	0°♄	
greatest brilliancy	4823 Feb 06 04:14	4°♄11'38	-0.7m	greatest brilliancy	4824 Jan 22 14:56	21°♄16'05	-0.5m
evening max el	4823 Feb 14 13:06	14°♄57'07	19°26'39	evening max el	4824 Jan 28 15:49	28°♄30'03	20°25'48
asc. node	4823 Feb 17 18:25	17°♄42'04			4824 Jan 30 05:14	0°♄	
retrograde	4823 Feb 21 17:34	19°♄04'31		asc. node	4824 Feb 04 15:27	3°♄06'25	
evening set	4823 Feb 25 04:45	17°♄54'10		retrograde	4824 Feb 05 15:47	3°♄11'58	
inferior conj	4823 Mar 02 17:25	11°♄58'01	3°19'16	evening set	4824 Feb 09 11:37	1°♄47'22	
minimum elong	4823 Mar 02 15:39	12°♄03'46	3°19'01		4824 Feb 11 10:33	30°♄	
min. Earth dist.	4823 Mar 03 23:31	10°♄19'40	0.66570 AU	inferior conj	4824 Feb 14 21:38	25°♄38'09	2°54'49
morning rise	4823 Mar 08 01:46	5°♄41'42		minimum elong	4824 Feb 14 19:18	25°♄46'05	2°54'17

min. Earth dist.	4824 Feb 15 14:03	24° \approx 42'11	0.67474 AU	asc. node	4825 Jan 21 12:29	17° \approx 04'57	
morning rise	4824 Feb 20 02:28	19° \approx 21'55		evening set	4825 Jan 23 19:28	15° \approx 45'49	
direct	4824 Feb 25 17:07	16° \approx 52'49		inferior conj	4825 Jan 29 04:45	9° \approx 26'34	2°21'10
morning max el	4824 Mar 08 01:28	23° \approx 40'03	24°29'52	minimum elong	4825 Jan 29 02:20	9° \approx 34'56	2°20'26
desc. node	4824 Mar 12 04:28	28° \approx 11'46		min. Earth dist.	4825 Jan 29 08:48	9° \approx 12'31	0.67971 AU
	4824 Mar 13 16:37	0° H		morning rise	4825 Feb 03 08:55	3° \approx 12'20	
	4824 Apr 03 15:35	0° Y		direct	4825 Feb 08 08:55	1° \approx 03'46	
morning set	4824 Apr 12 22:44	15° Y 34'20		morning max el	4825 Feb 18 10:46	7° \approx 02'17	23°00'39
max. Earth dist.	4824 Apr 16 15:10	22° Y 08'30	1.37561 AU	greatest brilliancy	4825 Feb 23 06:14	12° \approx 24'40	-0.3m
	4824 Apr 20 20:57	0° B		desc. node	4825 Feb 27 01:29	17° \approx 12'26	
					4825 Mar 08 06:18	0° H	
superior conj	4824 Apr 23 11:32	4° B 59'04	-1°-23'-26	morning set	4825 Mar 25 00:02	26° H 06'05	
minimum elong	4824 Apr 23 15:59	5° B 20'37	1°22'49		4825 Mar 27 07:46	0° Y	
evening rise	4824 May 02 04:12	22° B 10'04		max. Earth dist.	4825 Mar 29 10:24	3° Y 36'18	1.39753 AU
asc. node	4824 May 02 14:45	23° B 02'25					
	4824 May 06 04:24	0° II		superior conj	4825 Apr 06 03:46	17° Y 21'22	-1°-48'-8
evening max el	4824 May 18 20:29	19° II 13'56	19°12'57	minimum elong	4825 Apr 06 08:40	17° Y 43'53	1°47'41
retrograde	4824 May 27 20:53	23° II 37'59			4825 Apr 12 21:23	0° B	
evening set	4824 May 29 20:26	23° II 26'08		evening rise	4825 Apr 15 20:35	5° B 40'35	
inferior conj	4824 Jun 07 06:42	19° II 16'03	0°15'26	asc. node	4825 Apr 19 11:47	12° B 33'50	
minimum elong	4824 Jun 07 07:20	19° II 14'59	0°15'11		4825 Apr 30 11:26	0° II	
transit middle	4824 Jun 07 07:20	19° II 14'59	0°15'11	evening max el	4825 May 01 23:35	1° II 35'59	18°31'27
transit begin	4824 Jun 07 06:07	19° II 17'01		retrograde	4825 May 09 15:43	5° II 23'11	
transit end	4824 Jun 07 08:34	19° II 12'56		evening set	4825 May 11 21:18	5° II 04'58	
desc. node	4824 Jun 08 03:40	18° II 40'44		inferior conj	4825 May 19 11:58	0° II 35'14	1°48'12
min. Earth dist.	4824 Jun 10 03:08	17° II 21'53	0.56197 AU	minimum elong	4825 May 19 15:18	0° II 28'40	1°47'10
morning rise	4824 Jun 15 14:01	14° II 27'54			4825 May 20 05:49	30° R B	
direct	4824 Jun 20 13:44	13° II 30'22		min. Earth dist.	4825 May 22 21:35	27° B 56'19	0.58029 AU
morning max el	4824 Jul 04 18:27	20° II 45'33	25°26'43	desc. node	4825 May 26 00:42	25° B 50'47	
	4824 Jul 12 17:52	0° B		morning rise	4825 May 27 04:50	25° B 13'06	
asc. node	4824 Jul 29 14:03	28° B 52'57		direct	4825 Jun 02 02:32	23° B 44'10	
	4824 Jul 30 03:03	0° Q			4825 Jun 15 00:06	0° II	
morning set	4824 Jul 31 17:34	3° Q 21'53		morning max el	4825 Jun 16 11:39	1° II 23'17	26°48'36
					4825 Jul 06 21:07	0° B	
superior conj	4824 Aug 07 16:54	18° Q 31'55	1°22'30	morning set	4825 Jul 16 03:34	18° B 07'11	
minimum elong	4824 Aug 07 14:39	18° Q 19'33	1°22'12	asc. node	4825 Jul 16 11:05	18° B 46'50	
max. Earth dist.	4824 Aug 08 20:02	21° Q 00'37	1.32424 AU		4825 Jul 21 15:17	0° Q	
	4824 Aug 13 00:09	0° H					
evening rise	4824 Aug 14 19:46	3° H 48'00		superior conj	4825 Jul 23 04:38	3° Q 26'15	1°05'16
	4824 Aug 29 00:38	0° A		minimum elong	4825 Jul 23 02:23	3° Q 13'45	1°04'52
desc. node	4824 Sep 04 02:59	9° A 14'07		max. Earth dist.	4825 Jul 23 06:45	3° Q 37'56	1.32007 AU
evening max el	4824 Sep 15 23:38	23° A 22'59	27°21'23	evening rise	4825 Jul 30 02:14	18° Q 26'24	
	4824 Sep 26 00:25	0° M			4825 Aug 04 19:39	0° H	
retrograde	4824 Sep 29 19:00	0° M 37'26		desc. node	4825 Aug 22 00:00	27° H 32'50	
	4824 Oct 03 10:24	30° R A			4825 Aug 23 23:52	0° A	
evening set	4824 Oct 06 23:02	28° A 11'59		evening max el	4825 Aug 29 03:00	5° A 29'21	26°44'48
min. Earth dist.	4824 Oct 10 13:57	25° A 19'13	0.62228 AU	retrograde	4825 Sep 12 01:05	12° A 38'59	
inferior conj	4824 Oct 13 12:26	22° A 35'38	-3°-41'-24	evening set	4825 Sep 18 22:09	10° A 38'20	
minimum elong	4824 Oct 13 18:25	22° A 21'42	3°39'36	min. Earth dist.	4825 Sep 22 16:59	8° A 02'10	0.60203 AU
morning rise	4824 Oct 20 16:49	17° A 30'42		inferior conj	4825 Sep 25 22:25	5° A 24'54	-4°-34'-45
direct	4824 Oct 22 23:58	17° A 07'22		minimum elong	4825 Sep 26 04:19	5° A 12'51	4°33'34
asc. node	4824 Oct 25 13:16	17° A 37'07		morning rise	4825 Oct 03 13:48	0° A 41'48	
morning max el	4824 Oct 29 20:03	20° A 36'04	17°51'16	direct	4825 Oct 05 20:58	0° A 21'54	
	4824 Nov 05 20:49	0° M		asc. node	4825 Oct 12 10:19	3° A 12'15	
morning set	4824 Nov 14 17:02	15° M 21'44		morning max el	4825 Oct 13 08:17	4° A 02'28	18°09'00
	4824 Nov 22 23:15	0° A		morning set	4825 Oct 29 02:16	29° A 01'05	
					4825 Oct 29 14:48	0° M	
superior conj	4824 Nov 25 19:12	4° A 52'12	0°36'48				
minimum elong	4824 Nov 25 22:24	5° A 05'49	0°36'21	superior conj	4825 Nov 07 17:47	16° M 52'46	1°08'23
desc. node	4824 Dec 01 02:16	13° A 44'05		minimum elong	4825 Nov 07 21:46	17° M 10'40	1°07'55
max. Earth dist.	4824 Dec 02 22:52	16° A 46'27	1.43261 AU		4825 Nov 15 06:29	0° A	
evening rise	4824 Dec 10 10:05	28° A 39'11		max. Earth dist.	4825 Nov 15 09:21	0° A 12'06	1.41455 AU
	4824 Dec 11 06:52	0° B		desc. node	4825 Nov 17 23:17	4° A 30'26	
	4824 Dec 31 16:36	0° \approx		evening rise	4825 Nov 20 13:32	8° A 44'39	
greatest brilliancy	4825 Jan 05 17:01	6° \approx 33'36	-0.4m		4825 Dec 04 09:37	0° B	
evening max el	4825 Jan 10 13:09	12° \approx 04'52	21°36'46	greatest brilliancy	4825 Dec 18 20:46	19° B 39'36	-0.2m
retrograde	4825 Jan 19 13:19	17° \approx 25'41		evening max el	4825 Dec 24 05:46	25° B 41'47	22°54'58

	4825 Dec 29 09:09	0°♊		evening max el	4826 Dec 06 19:20	9°♊22'01	24°14'38
retrograde	4826 Jan 03 08:32	1°♊41'45		retrograde	4826 Dec 18 00:21	15°♊56'30	
	4826 Jan 07 19:35	30°♊♊		evening set	4826 Dec 23 07:40	13°♊44'46	
evening set	4826 Jan 08 02:40	29°♊45'48		asc. node	4826 Dec 26 06:35	10°♊37'50	
asc. node	4826 Jan 08 09:33	29°♊31'10		min. Earth dist.	4826 Dec 28 01:36	8°♊18'17	0.67828 AU
min. Earth dist.	4826 Jan 13 05:24	23°♊45'33	0.68084 AU	inferior conj	4826 Dec 28 19:55	7°♊16'38	0°51'24
inferior conj	4826 Jan 13 12:46	23°♊20'08	1°39'41	minimum elong	4826 Dec 28 18:44	7°♊20'39	0°50'55
minimum elong	4826 Jan 13 10:45	23°♊27'07	1°38'57	morning rise	4827 Jan 03 06:09	1°♊11'47	
morning rise	4826 Jan 18 18:49	17°♊09'37			4827 Jan 05 15:30	30°♊♊	
direct	4826 Jan 23 04:12	15°♊24'01		direct	4827 Jan 07 01:53	29°♊48'34	
morning max el	4826 Feb 01 00:26	20°♊33'01	21°34'50		4827 Jan 08 13:16	0°♊	
greatest brilliancy	4826 Feb 05 21:44	26°♊04'27	-0.4m	morning max el	4827 Jan 14 21:26	4°♊15'46	20°19'01
	4826 Feb 08 23:21	0°♊		greatest brilliancy	4827 Jan 21 07:30	11°♊52'04	-0.5m
desc. node	4826 Feb 13 22:31	6°♊47'53		desc. node	4827 Jan 31 19:34	26°♊48'45	
	4826 Mar 01 12:12	0°♊			4827 Feb 02 22:47	0°♊	
morning set	4826 Mar 04 20:36	5°♊16'16		morning set	4827 Feb 11 19:40	13°♊31'18	
max. Earth dist.	4826 Mar 11 10:37	15°♊56'28	1.41868 AU	max. Earth dist.	4827 Feb 21 18:21	29°♊10'46	1.43626 AU
					4827 Feb 22 06:36	0°♊	
superior conj	4826 Mar 18 23:58	28°♊45'30	-2°-4'-43	superior conj	4827 Feb 27 19:34	9°♊02'01	-2°-7'-45
minimum elong	4826 Mar 19 03:04	28°♊59'03	2°04'36	minimum elong	4827 Feb 27 17:43	8°♊54'20	2°07'44
	4826 Mar 19 17:03	0°♊		evening rise	4827 Mar 12 11:22	0°♊35'23	
evening rise	4826 Mar 30 00:24	18°♊32'00			4827 Mar 12 03:15	0°♊	
	4826 Apr 05 08:57	0°♊		asc. node	4827 Mar 24 05:52	20°♊23'15	
asc. node	4826 Apr 06 08:50	1°♊43'12		evening max el	4827 Mar 29 21:30	27°♊37'24	18°08'05
evening max el	4826 Apr 15 09:03	14°♊26'48	18°10'03		4827 Apr 01 21:44	0°♊	
retrograde	4826 Apr 22 05:00	17°♊54'01		retrograde	4827 Apr 05 08:27	0°♊59'50	
evening set	4826 Apr 24 17:03	17°♊26'45		evening set	4827 Apr 08 02:30	0°♊21'55	
inferior conj	4826 May 01 14:15	12°♊35'42	2°49'33		4827 Apr 08 19:51	30°♊♊	
minimum elong	4826 May 01 17:29	12°♊28'17	2°48'50	inferior conj	4827 Apr 14 10:08	25°♊10'35	3°22'44
min. Earth dist.	4826 May 04 22:11	9°♊34'14	0.60185 AU	minimum elong	4827 Apr 14 11:55	25°♊05'55	3°22'31
morning rise	4826 May 08 14:19	6°♊48'00		min. Earth dist.	4827 Apr 17 07:15	22°♊10'59	0.62349 AU
desc. node	4826 May 12 21:43	4°♊59'27		morning rise	4827 Apr 20 18:46	19°♊07'07	
direct	4826 May 15 03:34	4°♊45'09		direct	4827 Apr 27 14:52	16°♊36'23	
morning max el	4826 May 29 11:21	12°♊38'29	27°39'11	desc. node	4827 Apr 29 18:45	16°♊50'15	
	4826 Jun 12 04:55	0°♊		morning max el	4827 May 11 17:03	24°♊36'26	27°52'17
	4826 Jun 29 02:58	0°♊			4827 May 16 14:34	0°♊	
morning set	4826 Jun 30 10:16	2°♊40'58			4827 Jun 05 14:15	0°♊	
asc. node	4826 Jul 03 08:08	8°♊49'57		morning set	4827 Jun 14 11:32	16°♊55'52	
max. Earth dist.	4826 Jul 06 18:04	16°♊15'32	1.32000 AU	max. Earth dist.	4827 Jun 20 01:50	28°♊39'07	1.32415 AU
				asc. node	4827 Jun 20 05:09	28°♊57'01	
superior conj	4826 Jul 07 16:05	18°♊16'41	0°43'57		4827 Jun 20 16:50	0°♊	
minimum elong	4826 Jul 07 14:17	18°♊06'46	0°43'35				
	4826 Jul 13 00:19	0°♊		superior conj	4827 Jun 22 01:25	2°♊56'41	0°19'10
evening rise	4826 Jul 14 12:21	3°♊13'19		minimum elong	4827 Jun 22 00:32	2°♊51'51	0°18'58
	4826 Jul 28 19:37	0°♊		evening rise	4827 Jun 29 00:03	18°♊01'14	
desc. node	4826 Aug 08 21:01	14°♊41'11			4827 Jul 04 21:04	0°♊	
evening max el	4826 Aug 10 22:44	16°♊46'38	25°36'39	evening max el	4827 Jul 23 12:10	27°♊22'12	24°06'16
retrograde	4826 Aug 24 21:37	23°♊52'12		desc. node	4827 Jul 26 18:02	0°♊10'33	
evening set	4826 Aug 30 23:01	22°♊26'20			4827 Jul 26 12:33	0°♊	
min. Earth dist.	4826 Sep 04 10:41	19°♊49'23	0.58151 AU	retrograde	4827 Aug 06 06:54	4°♊18'34	
inferior conj	4826 Sep 07 14:17	17°♊36'16	-5°-9'-46	evening set	4827 Aug 10 23:34	3°♊29'43	
minimum elong	4826 Sep 07 17:19	17°♊30'54	5°09'32	min. Earth dist.	4827 Aug 16 22:43	0°♊33'03	0.56351 AU
morning rise	4826 Sep 15 15:07	13°♊16'52			4827 Aug 17 20:19	30°♊♊	
direct	4826 Sep 18 01:57	12°♊58'05		inferior conj	4827 Aug 19 09:53	29°♊01'37	-5°-11'-14
morning max el	4826 Sep 26 13:22	17°♊00'17	18°47'21	minimum elong	4827 Aug 19 07:00	29°♊06'06	5°11'03
asc. node	4826 Sep 29 07:22	20°♊00'56		morning rise	4827 Aug 27 17:52	25°♊02'47	
	4826 Oct 05 21:47	0°♊		direct	4827 Aug 30 11:21	24°♊43'24	
morning set	4826 Oct 12 22:17	13°♊11'05		morning max el	4827 Sep 09 08:09	29°♊19'11	19°47'26
					4827 Sep 10 01:02	0°♊	
superior conj	4826 Oct 21 12:46	29°♊53'12	1°29'18	asc. node	4827 Sep 16 04:25	7°♊47'15	
minimum elong	4826 Oct 21 15:48	0°♊07'30	1°29'03	morning set	4827 Sep 27 01:36	27°♊41'13	
	4826 Oct 21 14:13	0°♊			4827 Sep 28 05:00	0°♊	
max. Earth dist.	4826 Oct 28 15:23	12°♊54'58	1.39383 AU				
evening rise	4826 Nov 01 15:27	19°♊51'23		superior conj	4827 Oct 04 22:45	13°♊37'20	1°40'36
desc. node	4826 Nov 04 20:20	25°♊12'48		minimum elong	4827 Oct 05 00:12	13°♊44'32	1°40'32
	4826 Nov 07 19:09	0°♊		max. Earth dist.	4827 Oct 10 20:10	25°♊00'09	1.37301 AU
	4826 Nov 28 14:42	0°♊					

	4827 Oct 13 13:14	0°♄		asc. node	4828 Sep 02 01:27	26°♄18'09	
evening rise	4827 Oct 14 15:38	1°♄58'59			4828 Sep 04 02:56	0°♄	
desc. node	4827 Oct 22 17:22	15°♄46'31		morning set	4828 Sep 10 09:39	12°♄24'44	
	4827 Oct 31 22:31	0°♄					
evening max el	4827 Nov 19 07:45	23°♄04'45	25°29'07	superior conj	4828 Sep 17 19:23	27°♄52'31	1°43'43
	4827 Nov 30 08:50	0°♄		minimum elong	4828 Sep 17 19:18	27°♄52'05	1°43'43
retrograde	4827 Dec 01 11:47	0°♄04'44			4828 Sep 18 20:09	0°♄	
	4827 Dec 02 14:05	30°♄39'02		max. Earth dist.	4828 Sep 22 05:40	6°♄51'11	1.35444 AU
evening set	4827 Dec 07 08:49	27°♄39'02		evening rise	4828 Sep 26 10:33	14°♄58'45	
min. Earth dist.	4827 Dec 11 19:08	22°♄47'16	0.67214 AU		4828 Oct 04 20:57	0°♄	
inferior conj	4827 Dec 13 00:23	21°♄13'15	0°-2'-45	desc. node	4828 Oct 08 14:22	6°♄06'33	
minimum elong	4827 Dec 13 00:27	21°♄13'01	0°02'44		4828 Oct 25 14:34	0°♄	
transit middle	4827 Dec 13 00:27	21°♄13'01	0°02'44	evening max el	4828 Oct 31 20:25	6°♄46'11	26°30'54
transit begin	4827 Dec 12 21:41	21°♄21'54		retrograde	4828 Nov 13 18:03	14°♄00'00	
transit end	4827 Dec 13 03:12	21°♄04'08		evening set	4828 Nov 20 04:13	11°♄24'18	
asc. node	4827 Dec 13 03:37	21°♄02'49		min. Earth dist.	4828 Nov 24 07:36	7°♄08'09	0.66253 AU
morning rise	4827 Dec 18 16:54	15°♄16'09		inferior conj	4828 Nov 26 00:12	5°♄06'00	-1°-1'-44
direct	4827 Dec 22 00:34	14°♄12'41		minimum elong	4828 Nov 26 01:54	5°♄00'52	1°01'00
morning max el	4827 Dec 29 02:19	18°♄09'16	19°17'10	asc. node	4828 Nov 29 00:39	1°♄41'30	
	4828 Jan 07 08:48	0°♄			4828 Nov 30 23:19	30°♄	
greatest brilliancy	4828 Jan 07 13:35	0°♄17'23	-0.7m	morning rise	4828 Dec 02 00:58	29°♄19'20	
desc. node	4828 Jan 18 16:37	17°♄08'05		direct	4828 Dec 04 22:39	28°♄31'54	
morning set	4828 Jan 21 19:39	21°♄58'18			4828 Dec 09 01:03	0°♄	
	4828 Jan 26 23:41	0°♄		morning max el	4828 Dec 11 13:41	2°♄08'43	18°31'06
max. Earth dist.	4828 Feb 04 08:25	13°♄05'55	1.44812 AU		4828 Dec 30 17:58	0°♄	
				morning set	4828 Dec 31 18:41	1°♄38'29	
superior conj	4828 Feb 07 14:20	18°♄14'27	-1°-52'-15	desc. node	4829 Jan 04 13:39	7°♄40'04	
minimum elong	4828 Feb 07 06:29	17°♄43'14	1°51'43				
	4828 Feb 14 21:58	0°♄		superior conj	4829 Jan 16 17:58	26°♄51'36	-1°-17'-44
evening rise	4828 Feb 22 01:17	11°♄43'29		minimum elong	4829 Jan 16 09:04	26°♄16'43	1°16'43
	4828 Mar 04 05:09	0°♄		max. Earth dist.	4829 Jan 17 02:34	27°♄25'19	1.45305 AU
asc. node	4828 Mar 10 02:53	8°♄25'10			4829 Jan 18 18:02	0°♄	
evening max el	4828 Mar 12 10:04	11°♄00'46	18°24'50	evening rise	4829 Feb 01 15:47	21°♄54'15	
retrograde	4828 Mar 18 21:29	14°♄31'38			4829 Feb 06 18:13	0°♄	
evening set	4828 Mar 21 21:36	13°♄41'55		evening max el	4829 Feb 23 20:12	24°♄30'30	18°59'22
inferior conj	4828 Mar 27 19:26	8°♄11'52	3°33'53	asc. node	4829 Feb 24 23:55	25°♄36'52	
minimum elong	4828 Mar 27 19:34	8°♄11'29	3°33'53	retrograde	4829 Mar 02 16:15	28°♄21'20	
min. Earth dist.	4828 Mar 30 01:44	5°♄34'31	0.64288 AU	evening set	4829 Mar 05 23:08	27°♄18'46	
morning rise	4828 Apr 02 15:51	2°♄00'12		inferior conj	4829 Mar 11 14:22	21°♄31'44	3°28'24
	4828 Apr 05 19:52	30°♄		minimum elong	4829 Mar 11 13:10	21°♄35'32	3°28'18
direct	4828 Apr 09 10:34	29°♄13'44		min. Earth dist.	4829 Mar 13 05:07	19°♄29'47	0.65862 AU
	4828 Apr 13 06:53	0°♄		morning rise	4829 Mar 17 02:10	15°♄16'28	
desc. node	4828 Apr 15 15:47	1°♄08'56		direct	4829 Mar 23 13:02	12°♄28'08	
morning max el	4828 Apr 23 02:14	7°♄10'39	27°28'50	desc. node	4829 Apr 02 12:50	17°♄21'18	
	4828 May 10 15:16	0°♄		morning max el	4829 Apr 05 12:06	20°♄08'49	26°34'51
	4828 May 27 19:51	0°♄			4829 Apr 13 22:56	0°♄	
morning set	4828 May 28 04:51	0°♄44'09			4829 May 03 17:43	0°♄	
max. Earth dist.	4828 Jun 02 02:00	10°♄36'38	1.33278 AU	morning set	4829 May 11 10:46	13°♄55'05	
				max. Earth dist.	4829 May 15 15:28	22°♄02'19	1.34611 AU
superior conj	4828 Jun 05 06:47	17°♄20'36	0°-8'-24		4829 May 19 14:06	0°♄	
minimum elong	4828 Jun 05 07:12	17°♄22'53	0°08'20				
behind sun begin	4828 Jun 05 02:32	16°♄58'00		superior conj	4829 May 20 05:53	1°♄21'14	0°-37'-42
behind sun end	4828 Jun 05 11:53	17°♄47'47		minimum elong	4829 May 20 07:55	1°♄31'45	0°37'19
asc. node	4828 Jun 06 02:11	19°♄04'08		asc. node	4829 May 23 23:12	9°♄06'47	
	4828 Jun 11 04:31	0°♄		evening rise	4829 May 27 20:43	17°♄15'56	
evening rise	4828 Jun 12 11:29	2°♄44'18			4829 Jun 03 06:43	0°♄	
	4828 Jun 27 13:47	0°♄		evening max el	4829 Jun 15 23:53	18°♄24'58	20°59'05
evening max el	4828 Jul 04 01:54	7°♄44'09	22°28'51	retrograde	4829 Jun 27 16:20	24°♄09'17	
desc. node	4828 Jul 12 15:01	13°♄26'52		evening set	4829 Jun 29 21:05	23°♄57'54	
retrograde	4828 Jul 17 03:44	14°♄14'13		desc. node	4829 Jun 29 12:01	24°♄01'26	
evening set	4828 Jul 20 08:11	13°♄51'53		inferior conj	4829 Jul 09 04:42	20°♄00'45	-2°-48'-37
min. Earth dist.	4828 Jul 28 09:06	10°♄21'18	0.55147 AU	minimum elong	4829 Jul 08 21:08	20°♄11'26	2°46'06
inferior conj	4828 Jul 29 11:33	9°♄43'47	-4°-24'-9	min. Earth dist.	4829 Jul 09 19:59	19°♄39'09	0.54812 AU
minimum elong	4828 Jul 29 03:23	9°♄55'23	4°22'23	morning rise	4829 Jul 17 20:49	16°♄01'40	
morning rise	4828 Aug 07 00:48	5°♄53'57		direct	4829 Jul 21 12:44	15°♄32'49	
direct	4828 Aug 10 03:31	5°♄31'54		morning max el	4829 Aug 03 10:44	21°♄43'02	22°46'27
morning max el	4828 Aug 21 14:52	10°♄52'41	21°08'37		4829 Aug 10 14:11	0°♄	

asc. node	4829 Aug 19 22:29	15°♄22'51			4830 Jul 13 14:44	0°♄	
morning set	4829 Aug 25 20:27	27°♄16'07		morning max el	4830 Jul 16 00:51	2°♄07'15	24°30'21
	4829 Aug 27 03:27	0°♄			4830 Aug 04 07:48	0°♄	
superior conj	4829 Sep 01 23:19	12°♄28'58	1°39'57	asc. node	4830 Aug 06 19:31	4°♄52'10	
minimum elong	4829 Sep 01 22:02	12°♄22'09	1°39'53	morning set	4830 Aug 10 08:14	12°♄09'37	
max. Earth dist.	4829 Sep 04 23:57	18°♄51'57	1.33944 AU	superior conj	4830 Aug 17 07:54	27°♄17'55	1°30'21
evening rise	4829 Sep 09 19:54	28°♄39'29		minimum elong	4830 Aug 17 05:52	27°♄06'51	1°30'08
	4829 Sep 10 12:22	0°♄			4830 Aug 18 13:45	0°♄	
desc. node	4829 Sep 25 11:21	26°♄06'43		max. Earth dist.	4830 Aug 19 02:45	1°♄10'15	1.32857 AU
	4829 Sep 28 00:57	0°♄		evening rise	4830 Aug 24 15:49	12°♄49'44	
evening max el	4829 Oct 14 09:08	20°♄17'55	27°12'29		4830 Sep 02 16:30	0°♄	
retrograde	4829 Oct 27 18:24	27°♄35'39		desc. node	4830 Sep 12 08:21	15°♄37'54	
evening set	4829 Nov 03 15:38	24°♄56'12			4830 Sep 23 11:23	0°♄	
min. Earth dist.	4829 Nov 07 12:41	21°♄15'42	0.64948 AU	evening max el	4830 Sep 26 20:02	3°♄26'05	27°27'06
inferior conj	4829 Nov 09 17:12	18°♄50'46	-2°-3'-52	retrograde	4830 Oct 10 12:19	10°♄42'15	
minimum elong	4829 Nov 09 20:46	18°♄40'55	2°02'27	evening set	4830 Oct 17 16:07	8°♄08'11	
asc. node	4829 Nov 15 21:42	13°♄24'56		min. Earth dist.	4830 Oct 21 08:14	5°♄00'21	0.63310 AU
morning rise	4829 Nov 16 03:54	13°♄17'37		inferior conj	4830 Oct 24 00:41	2°♄20'19	-3°-6'-37
direct	4829 Nov 18 17:53	12°♄42'20		minimum elong	4830 Oct 24 05:59	2°♄07'07	3°04'48
morning max el	4829 Nov 25 05:15	16°♄09'03	18°01'48		4830 Oct 26 11:32	30°♄	
	4829 Dec 05 05:17	0°♄		morning rise	4830 Oct 30 22:30	27°♄04'17	
morning set	4829 Dec 12 23:26	12°♄47'47		direct	4830 Nov 02 07:23	26°♄37'29	
desc. node	4829 Dec 22 10:40	28°♄20'55		asc. node	4830 Nov 02 18:46	26°♄38'34	
	4829 Dec 23 11:13	0°♄			4830 Nov 08 20:57	0°♄	
superior conj	4829 Dec 27 02:14	5°♄48'35	0°-31'-49	morning max el	4830 Nov 08 22:03	0°♄02'44	17°49'54
minimum elong	4829 Dec 26 22:19	5°♄32'59	0°31'18	morning set	4830 Nov 25 05:28	25°♄09'58	
max. Earth dist.	4829 Dec 30 22:14	11°♄52'55	1.45054 AU		4830 Nov 28 00:07	0°♄	
	4830 Jan 11 13:19	0°♄		superior conj	4830 Dec 07 08:05	15°♄50'35	0°13'53
evening rise	4830 Jan 12 10:23	1°♄21'19		minimum elong	4830 Dec 07 09:31	15°♄56'31	0°13'41
greatest brilliancy	4830 Jan 30 21:41	29°♄07'18	-0.6m	behind sun begin	4830 Dec 07 04:29	15°♄35'38	
	4830 Jan 31 12:54	0°♄		behind sun end	4830 Dec 07 14:34	16°♄17'23	
evening max el	4830 Feb 07 02:04	8°♄03'18	19°50'08	desc. node	4830 Dec 09 07:40	19°♄06'27	
asc. node	4830 Feb 11 20:57	11°♄45'01		max. Earth dist.	4830 Dec 13 15:57	26°♄08'37	1.44093 AU
retrograde	4830 Feb 14 13:54	12°♄24'02			4830 Dec 16 02:04	0°♄	
evening set	4830 Feb 18 04:41	11°♄07'36		evening rise	4830 Dec 22 20:16	10°♄33'14	
inferior conj	4830 Feb 23 15:58	5°♄05'40	3°10'07		4831 Jan 04 18:12	0°♄	
minimum elong	4830 Feb 23 13:54	5°♄12'33	3°09'45	greatest brilliancy	4831 Jan 15 16:45	15°♄17'03	-0.5m
min. Earth dist.	4830 Feb 24 16:03	3°♄45'23	0.67012 AU	evening max el	4831 Jan 21 02:27	21°♄36'45	20°54'44
	4830 Feb 27 17:53	30°♄		retrograde	4831 Jan 29 12:07	26°♄34'49	
morning rise	4830 Feb 28 22:29	28°♄49'26		asc. node	4831 Jan 29 18:00	26°♄34'30	
direct	4830 Mar 06 21:13	26°♄11'01		evening set	4831 Feb 02 12:13	25°♄03'36	
	4830 Mar 15 05:37	0°♄		inferior conj	4831 Feb 07 21:41	18°♄49'32	2°41'36
morning max el	4830 Mar 18 21:15	3°♄21'02	25°19'16	minimum elong	4831 Feb 07 19:16	18°♄57'52	2°40'57
desc. node	4830 Mar 20 09:53	4°♄56'46		min. Earth dist.	4831 Feb 08 08:36	18°♄11'56	0.67734 AU
	4830 Apr 08 04:54	0°♄		morning rise	4831 Feb 13 01:55	12°♄34'06	
morning set	4830 Apr 24 00:50	26°♄16'26		direct	4831 Feb 18 10:20	10°♄13'31	
	4830 Apr 26 01:53	0°♄		morning max el	4831 Mar 01 05:59	16°♄40'32	23°52'08
max. Earth dist.	4830 Apr 27 18:05	3°♄06'51	1.36389 AU	desc. node	4831 Mar 07 06:55	23°♄31'20	
					4831 Mar 12 06:47	0°♄	
superior conj	4830 May 03 19:57	14°♄51'18	-1°-7'-12		4831 Apr 01 05:22	0°♄	
minimum elong	4830 May 03 23:38	15°♄09'35	1°06'37	morning set	4831 Apr 05 17:21	7°♄33'04	
asc. node	4830 May 10 20:14	29°♄01'08		max. Earth dist.	4831 Apr 09 14:11	14°♄17'43	1.38482 AU
	4830 May 11 07:49	0°♄					
evening rise	4830 May 12 01:37	1°♄30'07		superior conj	4831 Apr 16 21:26	27°♄41'29	-1°-34'-36
evening max el	4830 May 29 10:04	29°♄44'21	19°45'55	minimum elong	4831 Apr 17 02:16	28°♄04'23	1°34'01
	4830 May 29 16:34	0°♄			4831 Apr 18 02:34	0°♄	
retrograde	4830 Jun 08 09:04	4°♄36'07		evening rise	4831 Apr 25 23:31	15°♄19'30	
evening set	4830 Jun 10 07:20	4°♄25'59		asc. node	4831 Apr 27 17:16	18°♄42'48	
desc. node	4830 Jun 16 09:03	2°♄03'31			4831 May 03 19:47	0°♄	
inferior conj	4830 Jun 19 03:54	0°♄23'47	0°-49'-51	evening max el	4831 May 12 07:49	11°♄45'32	18°52'47
minimum elong	4830 Jun 19 01:37	0°♄27'19	0°49'01	retrograde	4831 May 20 17:20	15°♄52'28	
	4830 Jun 19 19:14	30°♄		evening set	4831 May 22 19:03	15°♄38'24	
min. Earth dist.	4830 Jun 21 08:43	29°♄02'19	0.55441 AU	inferior conj	4831 May 30 20:55	11°♄20'07	0°58'29
morning rise	4830 Jun 27 16:50	25°♄56'44		minimum elong	4831 May 30 23:06	11°♄16'12	0°57'42
direct	4830 Jul 02 03:33	25°♄13'06		min. Earth dist.	4831 Jun 03 00:52	9°♄04'50	0.56907 AU

desc. node	4831 Jun 03 06:06	8°II55'53		min. Earth dist.	4832 May 14 21:56	20°805'54	0.58918 AU
morning rise	4831 Jun 07 22:39	6°II16'39		morning rise	4832 May 18 21:07	17°823'08	
direct	4831 Jun 13 07:49	5°II06'59		desc. node	4832 May 20 03:09	16°845'52	
morning max el	4831 Jun 27 15:48	12°II33'48	26°04'47	direct	4832 May 25 02:22	15°839'24	
	4831 Jul 11 06:32	0°☿		morning max el	4832 Jun 08 11:47	23°826'37	27°14'27
asc. node	4831 Jul 24 16:33	24°☿39'13			4832 Jun 14 09:01	0°II	
morning set	4831 Jul 25 19:24	27°☿00'08			4832 Jul 03 08:21	0°☿	
	4831 Jul 27 05:09	0°♂		morning set	4832 Jul 09 04:14	11°☿41'27	
				asc. node	4832 Jul 10 13:35	14°☿37'42	
superior conj	4831 Aug 01 19:05	12°♂12'43	1°15'44	superior conj	4832 Jul 16 06:55	27°☿06'22	0°56'42
minimum elong	4831 Aug 01 16:46	11°♂59'58	1°15'23	minimum elong	4832 Jul 16 04:48	26°☿54'39	0°56'18
max. Earth dist.	4831 Aug 02 11:32	13°♂43'20	1.32195 AU	max. Earth dist.	4832 Jul 15 22:49	26°☿21'34	1.31950 AU
evening rise	4831 Aug 08 19:13	27°♂20'31			4832 Jul 17 14:22	0°♂	
	4831 Aug 10 02:03	0°♍		evening rise	4832 Jul 23 03:29	12°♂03'19	
	4831 Aug 27 01:40	0°♂			4832 Aug 01 06:09	0°♍	
desc. node	4831 Aug 30 05:22	4°♂28'05		desc. node	4832 Aug 16 02:24	22°♍20'02	
evening max el	4831 Sep 09 02:43	15°♂57'49	27°09'48	evening max el	4832 Aug 21 02:48	27°♍43'04	26°19'15
retrograde	4831 Sep 22 23:18	23°♂10'33			4832 Aug 23 17:11	0°♂	
evening set	4831 Sep 30 01:54	20°♂53'44		retrograde	4832 Sep 04 01:57	4°♂51'51	
min. Earth dist.	4831 Oct 03 17:09	18°♂10'11	0.61390 AU	evening set	4832 Sep 10 16:09	3°♂05'01	
inferior conj	4831 Oct 06 19:31	15°♂26'57	-4°-5'-28	min. Earth dist.	4832 Sep 14 16:03	0°♂30'43	0.59317 AU
minimum elong	4831 Oct 07 01:44	15°♂13'16	4°03'51		4832 Sep 15 08:31	30°♍	
morning rise	4831 Oct 14 04:46	10°♂31'19		inferior conj	4832 Sep 17 22:10	28°♍01'12	-4°-52'-41
direct	4831 Oct 16 11:28	10°♂09'48		minimum elong	4832 Sep 18 03:15	27°♍51'24	4°51'54
asc. node	4831 Oct 20 15:49	11°♂25'06		morning rise	4832 Sep 25 17:52	23°♍28'17	
morning max el	4831 Oct 23 12:59	13°♂42'11	17°56'23	direct	4832 Sep 28 01:57	23°♍09'17	
	4831 Nov 03 14:48	0°♍		morning max el	4832 Oct 05 22:38	26°♍58'02	18°22'40
morning set	4831 Nov 08 06:23	8°♍25'41		asc. node	4832 Oct 06 12:51	27°♍33'24	
					4832 Oct 08 16:06	0°♂	
superior conj	4831 Nov 18 16:36	27°♍10'31	0°51'31	morning set	4832 Oct 21 20:42	22°♂19'27	
minimum elong	4831 Nov 18 20:26	27°♍27'12	0°51'01		4832 Oct 25 21:02	0°♍	
	4831 Nov 20 07:44	0°♂		superior conj	4832 Oct 31 00:33	9°♍38'41	1°18'31
max. Earth dist.	4831 Nov 26 05:00	9°♂54'52	1.42540 AU	minimum elong	4832 Oct 31 04:15	9°♍55'45	1°18'07
desc. node	4831 Nov 26 04:41	9°♂53'31		max. Earth dist.	4832 Nov 07 12:50	23°♍00'40	1.40589 AU
evening rise	4831 Dec 02 13:26	20°♂09'28			4832 Nov 11 16:17	0°♂	
	4831 Dec 08 21:54	0°☿		evening rise	4832 Nov 12 02:05	0°♂40'27	
greatest brilliancy	4831 Dec 30 03:59	29°☿51'48	-0.3m	desc. node	4832 Nov 12 01:42	0°♂38'54	
	4831 Dec 30 06:41	0°≈			4832 Dec 01 08:27	0°☿	
evening max el	4832 Jan 03 21:27	5°≈11'25	22°09'26	evening max el	4832 Dec 16 12:29	18°☿49'53	23°29'07
retrograde	4832 Jan 13 08:57	10°≈49'47		retrograde	4832 Dec 27 02:56	25°☿05'54	
asc. node	4832 Jan 16 15:04	9°≈53'37		evening set	4833 Jan 01 02:26	23°☿03'22	
evening set	4832 Jan 17 19:59	9°≈03'03		asc. node	4833 Jan 02 12:06	21°☿43'29	
inferior conj	4832 Jan 23 05:25	2°≈40'19	2°04'29	min. Earth dist.	4833 Jan 06 01:18	17°☿17'05	0.68014 AU
minimum elong	4832 Jan 23 03:07	2°≈48'19	2°03'43	inferior conj	4833 Jan 06 13:17	16°☿36'00	1°20'00
min. Earth dist.	4832 Jan 23 04:28	2°≈43'36	0.68059 AU	minimum elong	4833 Jan 06 11:34	16°☿41'55	1°19'21
	4832 Jan 25 04:35	30°♍☿		morning rise	4833 Jan 11 20:48	10°☿27'23	
morning rise	4832 Jan 28 10:04	26°☿27'20		direct	4833 Jan 16 00:12	8°☿51'25	
direct	4832 Feb 02 03:40	24°☿28'38		morning max el	4833 Jan 24 09:16	13°☿41'51	21°01'01
morning max el	4832 Feb 11 16:48	0°≈06'12	22°23'16	greatest brilliancy	4833 Jan 29 19:34	19°☿56'24	-0.5m
	4832 Feb 11 14:20	0°≈			4833 Feb 06 05:35	0°≈	
greatest brilliancy	4832 Feb 16 06:17	5°≈11'38	-0.3m	desc. node	4833 Feb 08 00:59	2°≈35'36	
desc. node	4832 Feb 22 03:57	12°≈48'03		morning set	4833 Feb 23 16:02	26°≈10'43	
	4832 Mar 05 02:37	0°♂			4833 Feb 26 02:15	0°♂	
morning set	4832 Mar 16 06:30	17°♂29'57		max. Earth dist.	4833 Mar 03 13:25	8°♂46'56	1.42670 AU
max. Earth dist.	4832 Mar 21 10:38	26°♂04'52	1.40669 AU				
	4832 Mar 23 17:45	0°♀		superior conj	4833 Mar 10 15:55	20°♂36'34	-2°-8'00
superior conj	4832 Mar 29 05:44	9°♀40'04	-1°-56'-28	minimum elong	4833 Mar 10 17:18	20°♂42'26	2°08'00
minimum elong	4832 Mar 29 10:14	10°♀00'17	1°56'09		4833 Mar 16 02:20	0°♀	
evening rise	4832 Apr 08 11:04	28°♀34'30		evening rise	4833 Mar 22 08:15	11°♀06'27	
	4832 Apr 09 05:17	0°♂		asc. node	4833 Mar 31 11:23	27°♀03'51	
asc. node	4832 Apr 13 14:20	8°♂05'47			4833 Apr 02 07:55	0°♂	
evening max el	4832 Apr 24 14:03	24°♂21'00	18°19'59	evening max el	4833 Apr 08 01:14	7°♂21'40	18°06'56
retrograde	4832 May 01 20:21	27°♂57'55		retrograde	4833 Apr 14 16:01	10°♂44'46	
evening set	4832 May 04 04:35	27°♂36'15		evening set	4833 Apr 17 06:42	10°♂13'07	
inferior conj	4832 May 11 11:26	22°♂57'45	2°17'58	inferior conj	4833 Apr 23 21:40	5°♂13'34	3°06'38
minimum elong	4832 May 11 14:59	22°♂50'17	2°16'59				

minimum elong	4833 Apr 24 00:22	5°♄07'00	3°06'10	evening set	4834 Mar 31 20:40	23°♃19'33	
min. Earth dist.	4833 Apr 27 01:56	2°♄09'53	0.61124 AU	inferior conj	4834 Apr 06 23:40	17°♃59'59	3°29'46
	4833 Apr 29 15:25	30°♄♂		minimum elong	4834 Apr 07 00:44	17°♃57'03	3°29'42
morning rise	4833 Apr 30 14:52	29°♃18'16		min. Earth dist.	4834 Apr 09 14:42	15°♃08'00	0.63218 AU
direct	4833 May 07 08:22	27°♃02'00		morning rise	4834 Apr 13 02:43	11°♃52'35	
desc. node	4833 May 07 00:11	27°♃02'20		direct	4834 Apr 19 23:14	9°♃13'39	
	4833 May 15 15:28	0°♄		desc. node	4834 Apr 23 21:13	9°♃59'18	
morning max el	4833 May 21 13:59	4°♄59'15	27°49'19	morning max el	4834 May 03 21:17	17°♃12'47	27°46'32
	4833 Jun 09 05:46	0°♂			4834 May 14 12:17	0°♄	
morning set	4833 Jun 23 08:51	26°♂07'44			4834 Jun 02 00:28	0°♂	
	4833 Jun 25 05:29	0°♄		morning set	4834 Jun 07 07:05	10°♂12'10	
asc. node	4833 Jun 27 10:38	4°♄42'57		max. Earth dist.	4834 Jun 12 13:58	21°♂07'48	1.32725 AU
max. Earth dist.	4833 Jun 29 08:53	8°♄53'41	1.32124 AU	asc. node	4834 Jun 14 07:40	24°♂50'41	
superior conj	4833 Jun 30 17:41	11°♄53'07	0°33'51	superior conj	4834 Jun 15 01:34	26°♂27'08	0°07'47
minimum elong	4833 Jun 30 16:13	11°♄45'04	0°33'32	minimum elong	4834 Jun 15 01:12	26°♂25'05	0°07'41
evening rise	4833 Jul 07 14:29	26°♄51'23		behind sun begin	4834 Jun 14 20:32	25°♂59'58	
	4833 Jul 09 02:13	0°♂		behind sun end	4834 Jun 15 05:51	26°♂50'14	
	4833 Jul 26 07:36	0°♄			4834 Jun 16 16:53	0°♄	
desc. node	4833 Aug 02 23:26	8°♄50'19		evening rise	4834 Jun 22 02:18	11°♄38'19	
evening max el	4833 Aug 02 19:33	8°♄41'06	25°00'09		4834 Jul 01 10:49	0°♂	
retrograde	4833 Aug 16 17:53	15°♄43'32		evening max el	4834 Jul 15 08:16	19°♂07'39	23°24'48
evening set	4833 Aug 22 06:26	14°♄34'16		desc. node	4834 Jul 20 20:26	23°♂28'14	
min. Earth dist.	4833 Aug 27 07:06	11°♄50'45	0.57335 AU	retrograde	4834 Jul 28 21:20	25°♂54'44	
inferior conj	4833 Aug 30 05:30	9°♄53'45	-5°-15'-33	evening set	4834 Aug 01 22:22	25°♂18'59	
minimum elong	4833 Aug 30 06:17	9°♄52'26	5°15'32	min. Earth dist.	4834 Aug 08 17:48	22°♂09'45	0.55749 AU
morning rise	4833 Sep 07 09:35	5°♄43'28		inferior conj	4834 Aug 10 16:52	21°♂00'18	-4°-57'-45
direct	4833 Sep 09 22:53	5°♄24'36		minimum elong	4834 Aug 10 11:18	21°♂08'33	4°57'02
morning max el	4833 Sep 18 23:36	9°♄40'04	19°10'09	morning rise	4834 Aug 19 03:16	17°♂07'16	
asc. node	4833 Sep 23 09:53	14°♄48'15		direct	4834 Aug 22 00:40	16°♂46'52	
	4833 Oct 02 10:33	0°♄		morning max el	4834 Sep 01 13:15	21°♂40'17	20°19'31
morning set	4833 Oct 05 20:11	6°♄39'05			4834 Sep 08 09:43	0°♄	
				asc. node	4834 Sep 10 06:55	2°♄55'29	
superior conj	4833 Oct 14 02:27	22°♄59'07	1°35'11	morning set	4834 Sep 20 01:50	21°♄16'39	
minimum elong	4833 Oct 14 04:50	23°♄10'37	1°35'01		4834 Sep 24 07:33	0°♄	
	4833 Oct 17 18:56	0°♄		superior conj	4834 Sep 27 17:28	6°♄58'29	1°42'51
max. Earth dist.	4833 Oct 20 17:44	5°♄25'45	1.38486 AU	minimum elong	4834 Sep 27 18:14	7°♄02'23	1°42'49
evening rise	4833 Oct 24 13:47	12°♄14'08		max. Earth dist.	4834 Oct 03 00:25	17°♄24'43	1.36479 AU
desc. node	4833 Oct 29 22:43	21°♄18'17		evening rise	4834 Oct 06 22:30	24°♄45'51	
	4833 Nov 04 09:40	0°♄			4834 Oct 09 20:23	0°♄	
	4833 Nov 26 14:48	0°♄		desc. node	4834 Oct 16 19:44	11°♄47'26	
evening max el	4833 Nov 29 01:31	2°♄32'15	24°47'28		4834 Oct 28 23:54	0°♄	
retrograde	4833 Dec 10 16:51	9°♄18'23		evening max el	4834 Nov 11 14:05	16°♄15'59	25°57'18
evening set	4833 Dec 16 05:57	7°♄00'40		retrograde	4834 Nov 24 01:59	23°♄22'22	
asc. node	4833 Dec 20 09:08	2°♄26'23		evening set	4834 Nov 30 04:53	20°♄51'46	
min. Earth dist.	4833 Dec 20 20:39	1°♄48'44	0.67612 AU	min. Earth dist.	4834 Dec 04 12:12	16°♄15'16	0.66858 AU
inferior conj	4833 Dec 21 19:30	0°♄33'08	0°29'05	inferior conj	4834 Dec 05 22:13	14°♄28'47	0°-27'-15
minimum elong	4833 Dec 21 18:47	0°♄35'29	0°28'49	minimum elong	4834 Dec 05 22:57	14°♄26'31	0°26'56
	4833 Dec 22 05:32	30°♄♂		asc. node	4834 Dec 07 06:08	12°♄50'25	
morning rise	4833 Dec 27 08:08	24°♄31'08		morning rise	4834 Dec 11 18:03	8°♄35'56	
direct	4833 Dec 30 22:36	23°♄16'31		direct	4834 Dec 14 21:18	7°♄39'39	
morning max el	4834 Jan 07 09:31	27°♄29'02	19°50'49	morning max el	4834 Dec 21 17:26	11°♄26'05	18°55'33
	4834 Jan 09 17:12	0°♄			4835 Jan 04 07:45	0°♄	
greatest brilliancy	4834 Jan 14 19:32	6°♄31'42	-0.6m	morning set	4835 Jan 12 20:02	13°♄14'30	
desc. node	4834 Jan 25 22:00	22°♄45'06		desc. node	4835 Jan 12 19:01	13°♄10'34	
	4834 Jan 30 16:14	0°♄			4835 Jan 23 13:12	0°♄	
morning set	4834 Feb 02 12:06	4°♄20'51		max. Earth dist.	4835 Jan 27 16:58	6°♄31'06	1.45120 AU
max. Earth dist.	4834 Feb 14 00:14	22°♄21'14	1.44217 AU				
	4834 Feb 18 18:32	0°♄		superior conj	4835 Jan 29 10:47	9°♄15'38	-1°-39'-39
superior conj	4834 Feb 19 00:30	0°♄24'11	-2°-3'-39	minimum elong	4835 Jan 29 01:35	8°♄39'24	1°38'49
minimum elong	4834 Feb 18 19:54	0°♄05'32	2°03'28		4835 Feb 11 10:48	0°♄	
evening rise	4834 Mar 04 10:37	22°♄46'24		evening rise	4835 Feb 13 14:36	3°♄29'55	
	4834 Mar 08 16:19	0°♄			4835 Mar 02 14:38	0°♄	
asc. node	4834 Mar 18 08:24	15°♄28'45		asc. node	4835 Mar 05 05:25	3°♄10'46	
evening max el	4834 Mar 22 14:04	20°♄38'23	18°12'58	evening max el	4835 Mar 06 01:48	4°♄04'43	18°37'22
retrograde	4834 Mar 28 23:56	24°♄02'33		retrograde	4835 Mar 12 15:55	7°♄42'51	

evening set	4835 Mar 15 18:50	6° Υ 47'40		greatest brilliancy	4836 Feb 08 13:02	6° Υ 02'19	-0.7m
inferior conj	4835 Mar 21 13:28	1° Υ 09'49	3°33'20	evening max el	4836 Feb 17 10:15	17° Υ 36'07	19°19'04
minimum elong	4835 Mar 21 12:59	1° Υ 11'18	3°33'19	asc. node	4836 Feb 20 02:27	19° Υ 57'35	
	4835 Mar 22 12:30	30° \Re Υ		retrograde	4836 Feb 24 12:23	21° Υ 39'06	
min. Earth dist.	4835 Mar 23 12:59	28° Υ 46'40	0.65008 AU	evening set	4836 Feb 27 22:22	20° Υ 30'51	
morning rise	4835 Mar 27 05:47	24° Υ 56'09		inferior conj	4836 Mar 04 11:37	14° Υ 37'01	3°22'03
direct	4835 Apr 02 21:41	22° Υ 07'39		minimum elong	4836 Mar 04 09:59	14° Υ 42'18	3°21'50
desc. node	4835 Apr 10 18:15	25° Υ 10'28		min. Earth dist.	4836 Mar 05 19:57	12° Υ 52'18	0.66399 AU
	4835 Apr 16 07:34	0° Υ		morning rise	4836 Mar 09 20:45	8° Υ 20'47	
morning max el	4835 Apr 16 07:12	29° Υ 59'05	27°09'12	direct	4836 Mar 16 02:41	5° Υ 35'30	
	4835 May 08 11:13	0° Υ		desc. node	4836 Mar 27 15:17	12° Υ 02'00	
morning set	4835 May 21 19:59	23° Υ 45'40		morning max el	4836 Mar 28 17:06	13° Υ 05'43	26°04'47
	4835 May 24 23:55	0° Υ			4836 Apr 11 08:50	0° Υ	
max. Earth dist.	4835 May 26 10:06	2° Υ 52'51	1.33787 AU		4836 Apr 30 04:09	0° Υ	
				morning set	4836 May 03 19:49	6° Υ 37'54	
superior conj	4835 May 30 04:31	10° Υ 41'36	0°-20'-41	max. Earth dist.	4836 May 07 18:50	14° Υ 07'58	1.35314 AU
minimum elong	4835 May 30 05:37	10° Υ 47'19	0°20'29				
asc. node	4835 Jun 01 04:41	14° Υ 56'17		superior conj	4836 May 13 00:10	24° Υ 30'23	0°-50'-19
evening rise	4835 Jun 06 13:02	26° Υ 17'18		minimum elong	4836 May 13 02:56	24° Υ 44'23	0°49'49
	4835 Jun 08 07:54	0° Υ			4836 May 15 16:30	0° Υ	
evening max el	4835 Jun 27 00:28	29° Υ 33'09	21°49'03	asc. node	4836 May 18 01:44	4° Υ 56'13	
	4835 Jun 27 11:39	0° Υ		evening rise	4836 May 20 20:45	10° Υ 42'34	
desc. node	4835 Jul 07 17:28	5° Υ 38'18			4836 May 31 02:55	0° Υ	
retrograde	4835 Jul 09 13:52	5° Υ 46'19		evening max el	4836 Jun 08 03:24	10° Υ 28'54	20°25'38
evening set	4835 Jul 12 06:09	5° Υ 30'11		retrograde	4836 Jun 19 02:52	15° Υ 51'11	
min. Earth dist.	4835 Jul 21 03:54	1° Υ 41'08	0.54882 AU	evening set	4836 Jun 21 02:43	15° Υ 41'17	
inferior conj	4835 Jul 21 13:15	1° Υ 28'03	-3°-48'-37	desc. node	4836 Jun 23 14:29	15° Υ 03'11	
minimum elong	4835 Jul 21 04:29	1° Υ 40'18	3°46'14	inferior conj	4836 Jun 30 07:11	11° Υ 43'48	-1°-58'-59
	4835 Jul 24 05:35	30° \Re Υ		minimum elong	4836 Jun 30 01:37	11° Υ 51'54	1°56'59
morning rise	4835 Jul 30 04:15	27° Υ 37'17		min. Earth dist.	4836 Jul 01 15:44	10° Υ 56'25	0.54959 AU
direct	4835 Aug 02 11:50	27° Υ 13'11		morning rise	4836 Jul 08 22:50	7° Υ 34'18	
	4835 Aug 10 23:00	0° Υ		direct	4836 Jul 12 21:45	7° Υ 00'32	
morning max el	4835 Aug 14 15:00	2° Υ 54'29	21°48'47	morning max el	4836 Jul 26 07:49	13° Υ 31'19	23°30'47
asc. node	4835 Aug 28 03:56	21° Υ 41'54			4836 Aug 07 23:09	0° Υ	
	4835 Sep 01 12:07	0° Υ		asc. node	4836 Aug 14 01:00	10° Υ 57'45	
morning set	4835 Sep 04 11:18	6° Υ 04'28		morning set	4836 Aug 18 22:43	20° Υ 57'03	
					4836 Aug 23 03:56	0° Υ	
superior conj	4835 Sep 11 17:35	21° Υ 24'10	1°42'54	superior conj	4836 Aug 25 23:48	6° Υ 06'52	1°36'32
minimum elong	4835 Sep 11 16:57	21° Υ 20'49	1°42'53	minimum elong	4836 Aug 25 22:09	5° Υ 57'57	1°36'25
max. Earth dist.	4835 Sep 15 13:25	29° Υ 17'58	1.34755 AU	max. Earth dist.	4836 Aug 28 11:09	11° Υ 23'59	1.33425 AU
	4835 Sep 15 21:44	0° Υ		evening rise	4836 Sep 02 14:19	21° Υ 58'35	
evening rise	4835 Sep 20 00:03	8° Υ 04'17			4836 Sep 06 17:35	0° Υ	
	4835 Oct 02 10:37	0° Υ		desc. node	4836 Sep 19 13:46	21° Υ 49'07	
desc. node	4835 Oct 03 16:45	2° Υ 00'08			4836 Sep 25 06:07	0° Υ	
evening max el	4835 Oct 25 02:40	29° Υ 53'54	26°51'19	evening max el	4836 Oct 06 14:43	13° Υ 16'40	27°22'19
	4835 Oct 25 05:13	0° Υ		retrograde	4836 Oct 20 03:48	20° Υ 35'07	
retrograde	4835 Nov 07 05:48	7° Υ 10'41		evening set	4836 Oct 27 04:25	17° Υ 56'31	
evening set	4835 Nov 13 21:12	4° Υ 32'06		min. Earth dist.	4836 Oct 30 22:59	14° Υ 30'31	0.64286 AU
min. Earth dist.	4835 Nov 17 21:41	0° Υ 31'33	0.65746 AU	inferior conj	4836 Nov 02 08:44	11° Υ 57'42	-2°-30'-38
	4835 Nov 18 08:40	30° \Re Υ		minimum elong	4836 Nov 02 13:04	11° Υ 46'11	2°29'00
inferior conj	4835 Nov 19 19:25	28° Υ 18'38	-1°-27'-48	morning rise	4836 Nov 09 00:05	6° Υ 31'31	
minimum elong	4835 Nov 19 21:54	28° Υ 11'26	1°26'47	asc. node	4836 Nov 10 00:14	6° Υ 11'27	
asc. node	4835 Nov 24 03:10	23° Υ 51'36		direct	4836 Nov 11 11:25	6° Υ 00'25	
morning rise	4835 Nov 26 00:17	22° Υ 37'39		morning max el	4836 Nov 17 23:30	9° Υ 25'49	17°54'31
direct	4835 Nov 28 18:21	21° Υ 55'58			4836 Dec 01 21:32	0° Υ	
morning max el	4835 Dec 05 07:01	25° Υ 27'13	18°16'33	morning set	4836 Dec 05 00:02	5° Υ 15'52	
	4835 Dec 09 03:35	0° Υ		desc. node	4836 Dec 16 13:03	24° Υ 30'12	
morning set	4835 Dec 24 07:45	23° Υ 33'19					
	4835 Dec 28 07:30	0° Υ		superior conj	4836 Dec 18 05:54	27° Υ 15'50	0°-11'-49
desc. node	4835 Dec 30 16:03	3° Υ 46'59		minimum elong	4836 Dec 18 04:31	27° Υ 10'14	0°11'38
				behind sun begin	4836 Dec 17 21:24	26° Υ 41'25	
superior conj	4836 Jan 08 13:49	17° Υ 54'31	0°-58'-56	behind sun end	4836 Dec 18 11:39	27° Υ 39'01	
minimum elong	4836 Jan 08 06:35	17° Υ 26'05	0°58'02		4836 Dec 19 22:41	0° Υ	
max. Earth dist.	4836 Jan 10 12:02	20° Υ 56'02	1.45287 AU	max. Earth dist.	4836 Dec 23 06:40	5° Υ 18'43	1.44722 AU
	4836 Jan 16 07:04	0° Υ		evening rise	4837 Jan 03 08:49	22° Υ 35'37	
evening rise	4836 Jan 24 19:50	13° Υ 20'03			4837 Jan 08 05:02	0° Υ	
	4836 Feb 04 12:53	0° Υ					

greatest brilliancy	4837 Jan 24 06:49	23° \approx 32'54	-0.5m	minimum elong	4837 Nov 29 02:02	8° \approx 03'40	0°30'40
	4837 Jan 29 11:48	0° \approx		desc. node	4837 Dec 03 10:04	15° \approx 17'12	
evening max el	4837 Jan 30 13:51	1° \approx 09'19	20°16'12	max. Earth dist.	4837 Dec 05 22:41	19° \approx 24'24	1.43497 AU
asc. node	4837 Feb 05 23:30	5° \approx 34'03			4837 Dec 12 14:38	0° \approx	
retrograde	4837 Feb 07 10:31	5° \approx 45'30		evening rise	4837 Dec 13 20:02	1° \approx 54'25	
evening set	4837 Feb 11 04:59	4° \approx 23'07			4838 Jan 01 18:25	0° \approx	
	4837 Feb 15 08:07	30° \approx		greatest brilliancy	4838 Jan 08 13:17	9° \approx 03'34	-0.4m
inferior conj	4837 Feb 16 15:16	28° \approx 15'47	2°59'09	evening max el	4838 Jan 13 12:02	14° \approx 44'13	21°25'34
minimum elong	4837 Feb 16 13:00	28° \approx 23'30	2°58'39	retrograde	4838 Jan 22 08:14	19° \approx 58'51	
min. Earth dist.	4837 Feb 17 09:40	27° \approx 13'25	0.67368 AU	asc. node	4838 Jan 23 20:33	19° \approx 46'31	
morning rise	4837 Feb 21 20:27	21° \approx 59'30		evening set	4838 Jan 26 12:49	18° \approx 21'11	
direct	4837 Feb 27 13:17	19° \approx 27'39		inferior conj	4838 Jan 31 22:06	12° \approx 03'16	2°26'48
morning max el	4837 Mar 11 01:47	26° \approx 21'13	24°42'53	minimum elong	4838 Jan 31 19:41	12° \approx 11'41	2°26'05
	4837 Mar 14 10:35	0° \approx		min. Earth dist.	4838 Feb 01 03:54	11° \approx 43'11	0.67929 AU
desc. node	4837 Mar 14 12:19	0° \approx 04'58		morning rise	4838 Feb 06 02:13	5° \approx 48'44	
	4837 Apr 04 22:51	0° \approx		direct	4838 Feb 11 04:27	3° \approx 36'56	
morning set	4837 Apr 16 01:26	18° \approx 33'45		morning max el	4838 Feb 21 10:48	9° \approx 42'36	23°13'52
max. Earth dist.	4837 Apr 19 17:23	25° \approx 08'55	1.37251 AU	greatest brilliancy	4838 Feb 26 14:07	15° \approx 28'22	-0.2m
	4837 Apr 22 08:11	0° \approx		desc. node	4838 Mar 01 09:21	18° \approx 59'17	
					4838 Mar 09 10:28	0° \approx	
superior conj	4837 Apr 26 09:21	7° \approx 44'39	-1°-19'-17	morning set	4838 Mar 28 06:48	29° \approx 17'15	
minimum elong	4837 Apr 26 13:38	8° \approx 05'29	1°18'39		4838 Mar 28 16:59	0° \approx	
evening rise	4837 May 04 22:59	24° \approx 46'44		max. Earth dist.	4838 Apr 01 12:36	6° \approx 31'20	1.39428 AU
asc. node	4837 May 04 22:47	24° \approx 45'43					
	4837 May 07 14:22	0° \approx		superior conj	4838 Apr 09 04:07	20° \approx 14'30	-1°-44'-49
evening max el	4837 May 21 18:53	22° \approx 06'46	19°20'50	minimum elong	4838 Apr 09 09:04	20° \approx 37'25	1°44'19
retrograde	4837 May 31 00:47	26° \approx 37'24			4838 Apr 14 08:24	0° \approx	
evening set	4837 Jun 01 23:50	26° \approx 26'07		evening rise	4838 Apr 18 16:53	8° \approx 22'21	
desc. node	4837 Jun 10 11:31	22° \approx 20'46		asc. node	4838 Apr 21 19:50	14° \approx 20'04	
inferior conj	4837 Jun 10 12:56	22° \approx 18'27	0°-1'-2		4838 May 01 03:11	0° \approx	
minimum elong	4837 Jun 10 12:53	22° \approx 18'31	0°01'03	evening max el	4838 May 04 20:42	4° \approx 23'42	18°36'20
transit middle	4837 Jun 10 12:53	22° \approx 18'31	0°01'03	retrograde	4838 May 12 16:54	8° \approx 15'29	
transit begin	4837 Jun 10 09:02	22° \approx 24'50		evening set	4838 May 14 21:29	7° \approx 58'24	
transit end	4837 Jun 10 16:45	22° \approx 12'11		inferior conj	4838 May 22 14:59	3° \approx 31'35	1°36'10
min. Earth dist.	4837 Jun 13 05:55	20° \approx 32'24	0.55981 AU	minimum elong	4838 May 22 18:07	3° \approx 25'34	1°35'09
morning rise	4837 Jun 18 21:56	17° \approx 35'54		min. Earth dist.	4838 May 25 23:36	0° \approx 58'14	0.57725 AU
direct	4837 Jun 23 18:22	16° \approx 42'12			4838 May 27 08:54	30° \approx	
morning max el	4837 Jul 07 21:23	23° \approx 52'19	25°12'37	desc. node	4838 May 28 08:34	29° \approx 22'02	
	4837 Jul 13 11:03	0° \approx		morning rise	4838 May 30 10:16	28° \approx 14'09	
asc. node	4837 Jul 31 22:03	0° \approx 35'13		direct	4838 Jun 05 04:54	26° \approx 50'26	
	4837 Jul 31 15:08	0° \approx			4838 Jun 14 04:51	0° \approx	
morning set	4837 Aug 03 10:25	5° \approx 49'31		morning max el	4838 Jun 19 13:52	4° \approx 26'25	26°38'15
					4838 Jul 08 04:38	0° \approx	
superior conj	4837 Aug 10 09:44	20° \approx 58'59	1°24'43	morning set	4838 Jul 18 20:45	20° \approx 36'28	
minimum elong	4837 Aug 10 07:32	20° \approx 46'52	1°24'27	asc. node	4838 Jul 18 19:05	20° \approx 27'40	
max. Earth dist.	4837 Aug 11 16:47	23° \approx 48'41	1.32521 AU		4838 Jul 23 05:13	0° \approx	
	4837 Aug 14 13:33	0° \approx		superior conj	4838 Jul 25 21:22	5° \approx 53'39	1°08'10
evening rise	4837 Aug 17 13:46	6° \approx 18'45		minimum elong	4838 Jul 25 19:04	5° \approx 41'00	1°07'46
	4837 Aug 30 06:51	0° \approx		max. Earth dist.	4838 Jul 26 03:11	6° \approx 25'47	1.32041 AU
desc. node	4837 Sep 06 10:47	11° \approx 04'39		evening rise	4838 Aug 01 19:30	20° \approx 55'31	
evening max el	4837 Sep 19 00:22	26° \approx 11'50	27°24'01		4838 Aug 06 06:29	0° \approx	
	4837 Sep 23 14:45	0° \approx		desc. node	4838 Aug 24 07:50	29° \approx 32'26	
retrograde	4837 Oct 02 19:01	3° \approx 26'37			4838 Aug 24 16:23	0° \approx	
evening set	4837 Oct 09 23:13	0° \approx 58'40		evening max el	4838 Sep 01 04:41	8° \approx 25'12	26°52'23
	4837 Oct 11 07:15	30° \approx		retrograde	4838 Sep 15 02:19	15° \approx 35'24	
min. Earth dist.	4837 Oct 13 14:21	28° \approx 02'14	0.62513 AU	evening set	4838 Sep 22 01:16	13° \approx 30'11	
inferior conj	4837 Oct 16 11:18	25° \approx 19'16	-3°-32'-27	min. Earth dist.	4838 Sep 25 18:47	10° \approx 52'43	0.60513 AU
minimum elong	4837 Oct 16 17:09	25° \approx 05'25	3°30'38	inferior conj	4838 Sep 28 23:41	8° \approx 13'24	-4°-27'-36
morning rise	4837 Oct 23 13:58	20° \approx 11'14		minimum elong	4838 Sep 29 05:45	8° \approx 00'46	4°26'16
direct	4837 Oct 25 21:28	19° \approx 47'05		morning rise	4838 Oct 06 13:32	3° \approx 26'59	
asc. node	4837 Oct 27 21:17	20° \approx 05'32		direct	4838 Oct 08 20:31	3° \approx 06'43	
morning max el	4837 Nov 01 15:54	23° \approx 14'41	17°50'20	asc. node	4838 Oct 14 18:20	5° \approx 28'20	
	4837 Nov 06 23:50	0° \approx		morning max el	4838 Oct 16 04:56	6° \approx 44'47	18°05'06
morning set	4837 Nov 17 15:00	18° \approx 04'03			4838 Oct 31 01:13	0° \approx	
	4837 Nov 24 09:13	0° \approx		morning set	4838 Oct 31 22:13	1° \approx 37'52	
superior conj	4837 Nov 28 23:11	7° \approx 51'40	0°31'04				

superior conj	4838 Nov 10 18:16	19° \mathbb{M} 42'16	1°04'17		4839 Oct 23 01:49	0° \mathbb{M}	
minimum elong	4838 Nov 10 22:16	20° \mathbb{M} 00'08	1°03'47				
	4838 Nov 16 16:10	0° \mathbb{M}		superior conj	4839 Oct 24 10:30	2° \mathbb{M} 34'27	1°26'47
max. Earth dist.	4838 Nov 18 10:01	2° \mathbb{M} 56'33	1.41748 AU	minimum elong	4839 Oct 24 13:44	2° \mathbb{M} 49'37	1°26'28
desc. node	4838 Nov 20 07:06	6° \mathbb{M} 03'59		max. Earth dist.	4839 Oct 31 16:15	15° \mathbb{M} 44'26	1.39696 AU
evening rise	4838 Nov 23 20:32	11° \mathbb{M} 51'44		evening rise	4839 Nov 04 18:52	22° \mathbb{M} 48'29	
	4838 Dec 05 15:02	0° \mathbb{M}		desc. node	4839 Nov 07 04:07	26° \mathbb{M} 47'01	
greatest brilliancy	4838 Dec 22 04:17	22° \mathbb{M} 41'48	-0.3m		4839 Nov 09 03:25	0° \mathbb{M}	
evening max el	4838 Dec 27 05:13	28° \mathbb{M} 20'43	22°43'00		4839 Nov 29 13:44	0° \mathbb{M}	
	4838 Dec 28 22:40	0° \mathbb{M}		evening max el	4839 Dec 09 18:58	11° \mathbb{M} 59'58	24°02'57
retrograde	4839 Jan 06 03:56	4° \mathbb{M} 15'07		retrograde	4839 Dec 20 20:22	18° \mathbb{M} 30'15	
evening set	4839 Jan 10 20:13	2° \mathbb{M} 21'28		evening set	4839 Dec 26 01:38	16° \mathbb{M} 20'48	
asc. node	4839 Jan 10 17:35	2° \mathbb{M} 26'49		asc. node	4839 Dec 28 14:37	13° \mathbb{M} 43'42	
	4839 Jan 13 04:07	30° \mathbb{R} \mathbb{M}		min. Earth dist.	4839 Dec 30 20:46	10° \mathbb{M} 49'10	0.67885 AU
inferior conj	4839 Jan 16 06:06	25° \mathbb{M} 56'22	1°46'27	inferior conj	4839 Dec 31 13:28	9° \mathbb{M} 52'38	0°59'07
minimum elong	4839 Jan 16 03:59	26° \mathbb{M} 03'41	1°45'42	minimum elong	4839 Dec 31 12:07	9° \mathbb{M} 57'12	0°58'36
min. Earth dist.	4839 Jan 16 00:21	26° \mathbb{M} 16'17	0.68093 AU	morning rise	4840 Jan 05 22:55	3° \mathbb{M} 46'44	
morning rise	4839 Jan 21 11:43	19° \mathbb{M} 45'16		direct	4840 Jan 09 20:32	2° \mathbb{M} 20'22	
direct	4839 Jan 25 23:12	17° \mathbb{M} 56'20		morning max el	4840 Jan 17 19:28	6° \mathbb{M} 53'24	20°29'30
morning max el	4839 Feb 03 23:41	23° \mathbb{M} 12'25	21°47'05	greatest brilliancy	4840 Jan 23 22:35	14° \mathbb{M} 05'20	-0.5m
greatest brilliancy	4839 Feb 08 17:44	28° \mathbb{M} 33'10	-0.4m	desc. node	4840 Feb 03 03:23	28° \mathbb{M} 27'53	
	4839 Feb 09 21:40	0° \mathbb{M}			4840 Feb 04 04:17	0° \mathbb{M}	
desc. node	4839 Feb 16 06:22	8° \mathbb{M} 30'19		morning set	4840 Feb 15 08:49	16° \mathbb{M} 59'44	
	4839 Mar 02 19:22	0° \mathbb{M}			4840 Feb 23 14:56	0° \mathbb{M}	
morning set	4839 Mar 08 07:39	8° \mathbb{M} 39'44		max. Earth dist.	4840 Feb 24 18:19	1° \mathbb{M} 50'02	1.43393 AU
max. Earth dist.	4839 Mar 14 11:57	18° \mathbb{M} 44'00	1.41567 AU				
	4839 Mar 21 02:51	0° \mathbb{Y}		superior conj	4840 Mar 02 03:06	12° \mathbb{M} 15'24	-2°-8'-24
				minimum elong	4840 Mar 02 02:10	12° \mathbb{M} 11'31	2°08'25
superior conj	4839 Mar 22 03:38	1° \mathbb{Y} 48'20	-2°-2'-56		4840 Mar 12 12:15	0° \mathbb{Y}	
minimum elong	4839 Mar 22 07:13	2° \mathbb{Y} 04'03	2°02'47	evening rise	4840 Mar 14 12:39	3° \mathbb{Y} 32'01	
evening rise	4839 Apr 01 22:52	21° \mathbb{Y} 20'46		asc. node	4840 Mar 25 13:53	22° \mathbb{Y} 18'48	
	4839 Apr 06 16:33	0° \mathbb{Y}			4840 Mar 31 09:56	0° \mathbb{Y}	
asc. node	4839 Apr 08 16:52	3° \mathbb{Y} 33'36		evening max el	4840 Mar 31 17:37	0° \mathbb{Y} 19'24	18°07'09
evening max el	4839 Apr 18 05:25	17° \mathbb{Y} 11'08	18°11'59	retrograde	4840 Apr 07 05:17	3° \mathbb{Y} 41'37	
retrograde	4839 Apr 25 03:44	20° \mathbb{Y} 40'31		evening set	4840 Apr 09 22:26	3° \mathbb{Y} 05'27	
evening set	4839 Apr 27 14:46	20° \mathbb{Y} 14'48			4840 Apr 14 06:13	30° \mathbb{R} \mathbb{Y}	
inferior conj	4839 May 04 14:22	15° \mathbb{Y} 26'54	2°42'08	inferior conj	4840 Apr 16 07:51	27° \mathbb{Y} 57'12	3°19'12
minimum elong	4839 May 04 17:44	15° \mathbb{Y} 19'20	2°41'21	minimum elong	4840 Apr 16 09:53	27° \mathbb{Y} 51'58	3°18'56
min. Earth dist.	4839 May 07 23:15	12° \mathbb{Y} 27'08	0.59852 AU	min. Earth dist.	4840 Apr 19 07:01	24° \mathbb{Y} 55'43	0.62037 AU
morning rise	4839 May 11 16:52	9° \mathbb{Y} 42'10		morning rise	4840 Apr 22 18:36	21° \mathbb{Y} 55'29	
desc. node	4839 May 15 05:35	8° \mathbb{Y} 08'33		direct	4840 Apr 29 14:17	19° \mathbb{Y} 28'03	
direct	4839 May 18 04:13	7° \mathbb{Y} 44'14		desc. node	4840 May 01 02:37	19° \mathbb{Y} 34'50	
morning max el	4839 Jun 01 12:42	15° \mathbb{Y} 36'19	27°34'00	morning max el	4840 May 13 17:35	27° \mathbb{Y} 27'59	27°52'41
	4839 Jun 13 05:50	0° \mathbb{I}			4840 May 16 03:29	0° \mathbb{Y}	
	4839 Jun 30 14:51	0° \mathbb{I}			4840 Jun 05 22:37	0° \mathbb{I}	
morning set	4839 Jul 03 04:03	5° \mathbb{I} 12'44		morning set	4840 Jun 16 06:15	19° \mathbb{I} 30'49	
asc. node	4839 Jul 05 16:07	10° \mathbb{I} 30'00			4840 Jun 21 06:18	0° \mathbb{I}	
max. Earth dist.	4839 Jul 09 14:39	19° \mathbb{I} 04'28	1.31974 AU	asc. node	4840 Jun 21 13:08	0° \mathbb{I} 36'47	
				max. Earth dist.	4840 Jun 21 23:02	1° \mathbb{I} 30'11	1.32324 AU
superior conj	4839 Jul 10 08:57	20° \mathbb{I} 45'16	0°47'27				
minimum elong	4839 Jul 10 07:03	20° \mathbb{I} 34'48	0°47'03	superior conj	4840 Jun 23 18:41	5° \mathbb{I} 27'13	0°23'08
	4839 Jul 14 13:47	0° \mathbb{I}		minimum elong	4840 Jun 23 17:38	5° \mathbb{I} 21'27	0°22'54
evening rise	4839 Jul 17 05:11	5° \mathbb{I} 41'43		evening rise	4840 Jun 30 16:43	20° \mathbb{I} 29'41	
	4839 Jul 29 23:36	0° \mathbb{I}			4840 Jul 05 07:20	0° \mathbb{I}	
desc. node	4839 Aug 11 04:51	16° \mathbb{I} 53'05			4840 Jul 25 03:20	0° \mathbb{I}	
evening max el	4839 Aug 14 01:25	19° \mathbb{I} 49'11	25°48'27	evening max el	4840 Jul 25 15:27	0° \mathbb{I} 29'36	24°20'33
retrograde	4839 Aug 28 00:26	26° \mathbb{I} 55'48		desc. node	4840 Jul 28 01:52	2° \mathbb{I} 39'27	
evening set	4839 Sep 03 05:39	25° \mathbb{I} 24'11		retrograde	4840 Aug 08 11:35	7° \mathbb{I} 28'09	
min. Earth dist.	4839 Sep 07 13:37	22° \mathbb{I} 48'37	0.58449 AU	evening set	4840 Aug 13 09:35	6° \mathbb{I} 34'18	
inferior conj	4839 Sep 10 18:22	20° \mathbb{I} 30'34	-5°-6'-17	min. Earth dist.	4840 Aug 19 02:22	3° \mathbb{I} 41'25	0.56589 AU
minimum elong	4839 Sep 10 22:02	20° \mathbb{I} 23'55	5°05'56	inferior conj	4840 Aug 21 16:56	2° \mathbb{I} 02'55	-5°-13'-53
morning rise	4839 Sep 18 17:58	16° \mathbb{I} 07'49		minimum elong	4840 Aug 21 15:03	2° \mathbb{I} 05'54	5°13'50
direct	4839 Sep 21 03:57	15° \mathbb{I} 49'04			4840 Aug 25 02:53	30° \mathbb{R} \mathbb{I}	
morning max el	4839 Sep 29 11:16	19° \mathbb{I} 47'18	18°40'17	morning rise	4840 Aug 29 23:58	28° \mathbb{I} 01'23	
asc. node	4839 Oct 01 15:21	22° \mathbb{I} 06'36		direct	4840 Sep 01 16:14	27° \mathbb{I} 42'13	
	4839 Oct 07 03:37	0° \mathbb{I}			4840 Sep 08 13:53	0° \mathbb{I}	
morning set	4839 Oct 15 16:48	15° \mathbb{I} 43'26		morning max el	4840 Sep 11 07:43	2° \mathbb{I} 12'31	19°37'05

asc. node	4840 Sep 17 12:22	9°♎45'03		inferior conj	4841 Aug 01 20:52	12°♌50'55	-4°-34'-42
morning set	4840 Sep 28 19:10	0°♊10'59		minimum elong	4841 Aug 01 13:12	13°♌01'54	4°33'12
	4840 Sep 28 16:59	0°♊		morning rise	4841 Aug 10 09:24	9°♌00'44	
				direct	4841 Aug 13 10:43	8°♌39'08	
superior conj	4840 Oct 06 18:30	16°♊12'49	1°39'26	morning max el	4841 Aug 24 16:11	13°♌52'46	20°55'19
minimum elong	4840 Oct 06 20:12	16°♊21'11	1°39'21	asc. node	4841 Sep 04 09:24	28°♌10'07	
max. Earth dist.	4840 Oct 12 20:40	27°♊53'18	1.37600 AU		4841 Sep 05 10:42	0°♎	
	4840 Oct 14 00:09	0°♎		morning set	4841 Sep 13 02:40	14°♎53'05	
evening rise	4840 Oct 16 15:54	4°♎47'35			4841 Sep 20 09:05	0°♊	
desc. node	4840 Oct 24 01:08	17°♎22'26					
	4840 Nov 01 03:27	0°♏		superior conj	4841 Sep 20 13:46	0°♊24'05	1°43'42
evening max el	4840 Nov 21 07:28	25°♏42'48	25°18'44	minimum elong	4841 Sep 20 13:54	0°♊24'47	1°43'43
	4840 Nov 26 08:55	0°♏		max. Earth dist.	4841 Sep 25 05:21	9°♊45'50	1.35700 AU
retrograde	4840 Dec 03 08:31	2°♏39'46		evening rise	4841 Sep 29 08:18	17°♊40'28	
evening set	4840 Dec 09 03:26	0°♏16'08			4841 Oct 06 05:45	0°♎	
	4840 Dec 09 10:54	30°♎R♏		desc. node	4841 Oct 10 22:09	7°♎45'05	
min. Earth dist.	4840 Dec 13 14:52	25°♏19'01	0.67323 AU		4841 Oct 26 10:26	0°♏	
asc. node	4840 Dec 14 11:37	24°♏11'45		evening max el	4841 Nov 03 20:11	9°♏25'16	26°22'51
inferior conj	4840 Dec 14 18:26	23°♏49'38	0°05'48	retrograde	4841 Nov 16 15:29	16°♏37'19	
minimum elong	4840 Dec 14 18:17	23°♏50'08	0°05'45	evening set	4841 Nov 22 23:48	14°♏02'53	
transit middle	4840 Dec 14 18:17	23°♏50'08	0°05'45	min. Earth dist.	4841 Nov 27 04:14	9°♏41'24	0.66419 AU
transit begin	4840 Dec 14 15:40	23°♏58'35		inferior conj	4841 Nov 28 19:04	7°♏43'14	0°-52'-31
transit end	4840 Dec 14 20:53	23°♏41'40		minimum elong	4841 Nov 28 20:30	7°♏38'52	0°51'55
morning rise	4840 Dec 20 09:52	17°♏51'08		asc. node	4841 Dec 01 08:40	4°♏44'40	
direct	4840 Dec 23 19:14	16°♏44'52		morning rise	4841 Dec 04 18:30	1°♏54'47	
morning max el	4840 Dec 30 23:09	20°♏45'23	19°25'25	direct	4841 Dec 07 17:34	1°♏05'08	
	4841 Jan 07 10:38	0°♏		morning max el	4841 Dec 14 09:40	4°♏44'06	18°36'55
greatest brilliancy	4841 Jan 08 18:10	1°♏51'28	-0.7m		4842 Jan 01 01:12	0°♏	
desc. node	4841 Jan 20 00:24	18°♏44'48		morning set	4842 Jan 04 01:43	4°♏47'10	
morning set	4841 Jan 24 06:56	25°♏20'02		desc. node	4842 Jan 06 21:24	9°♏15'01	
	4841 Jan 27 07:13	0°♏					
max. Earth dist.	4841 Feb 06 07:25	15°♏39'45	1.44679 AU	superior conj	4842 Jan 20 05:59	0°♏15'32	-1°-23'-56
				minimum elong	4842 Jan 19 20:46	29°♏39'22	1°22'57
superior conj	4841 Feb 10 01:17	21°♏36'36	-1°-55'-55	max. Earth dist.	4842 Jan 20 01:24	29°♏57'33	1.45281 AU
minimum elong	4841 Feb 09 18:09	21°♏08'11	1°55'28		4842 Jan 20 02:01	0°♏	
	4841 Feb 15 06:19	0°♏		evening rise	4842 Feb 04 23:48	25°♏07'20	
evening rise	4841 Feb 24 05:53	14°♏48'32			4842 Feb 08 01:08	0°♏	
	4841 Mar 05 09:41	0°♏		evening max el	4842 Feb 26 17:01	27°♏10'41	18°53'09
asc. node	4841 Mar 12 10:55	10°♏27'16		asc. node	4842 Feb 27 07:58	27°♏47'28	
evening max el	4841 Mar 15 06:21	13°♏41'29	18°21'09		4842 Mar 02 04:49	0°♏	
retrograde	4841 Mar 21 17:04	17°♏10'07		retrograde	4842 Mar 05 11:13	0°♏57'43	
evening set	4841 Mar 24 16:18	16°♏22'10		evening set	4842 Mar 08 17:05	29°♏57'02	
inferior conj	4841 Mar 30 15:23	10°♏54'53	3°33'20		4842 Mar 08 15:09	30°♏R♏	
minimum elong	4841 Mar 30 15:45	10°♏53'49	3°33'19	inferior conj	4842 Mar 14 09:07	24°♏12'20	3°30'07
min. Earth dist.	4841 Apr 02 00:02	8°♏13'11	0.64026 AU	minimum elong	4842 Mar 14 08:05	24°♏15'33	3°30'02
morning rise	4841 Apr 05 13:25	4°♏44'12		min. Earth dist.	4842 Mar 16 02:05	22°♏04'44	0.65656 AU
direct	4841 Apr 12 08:53	1°♏59'07		morning rise	4842 Mar 19 21:59	17°♏57'28	
desc. node	4841 Apr 17 23:39	3°♏33'12		direct	4842 Mar 26 10:20	15°♏08'46	
morning max el	4841 Apr 26 02:17	9°♏56'56	27°34'21	desc. node	4842 Apr 04 20:40	19°♏30'36	
	4841 May 11 19:08	0°♏		morning max el	4842 Apr 08 12:14	22°♏52'23	26°44'31
	4841 May 29 07:17	0°♏			4842 Apr 14 19:27	0°♏	
morning set	4841 May 31 00:55	3°♏23'21			4842 May 05 02:10	0°♏	
max. Earth dist.	4841 Jun 05 00:29	13°♏31'36	1.33121 AU	morning set	4842 May 14 08:49	16°♏40'49	
				max. Earth dist.	4842 May 18 15:49	25°♏02'50	1.34384 AU
superior conj	4841 Jun 08 00:46	19°♏53'50	0°-4'-5		4842 May 21 02:39	0°♏	
minimum elong	4841 Jun 08 00:58	19°♏54'55	0°04'04	superior conj	4842 May 23 01:01	3°♏58'46	0°-33'-12
behind sun begin	4841 Jun 07 19:44	19°♏26'56		minimum elong	4842 May 23 02:48	4°♏08'01	0°32'51
behind sun end	4841 Jun 08 06:13	20°♏22'56		asc. node	4842 May 26 07:14	10°♏48'05	
asc. node	4841 Jun 08 10:11	20°♏44'09		evening rise	4842 May 30 14:04	19°♏48'02	
	4841 Jun 12 17:30	0°♏			4842 Jun 04 15:33	0°♏	
evening rise	4841 Jun 15 04:19	5°♏13'46		evening max el	4842 Jun 19 01:07	21°♏28'25	21°11'32
	4841 Jun 28 12:18	0°♏		retrograde	4842 Jun 30 23:15	27°♏20'28	
evening max el	4841 Jul 07 04:42	10°♏51'42	22°43'11	desc. node	4842 Jul 01 19:55	27°♏18'43	
desc. node	4841 Jul 14 22:53	16°♏18'09		evening set	4842 Jul 03 06:29	27°♏08'10	
retrograde	4841 Jul 20 10:01	17°♏26'38		inferior conj	4842 Jul 12 14:29	23°♏10'14	-3°-5'-27
evening set	4841 Jul 23 19:27	17°♏01'25		minimum elong	4842 Jul 12 06:24	23°♏21'34	3°02'52
min. Earth dist.	4841 Jul 31 12:47	13°♏36'48	0.55276 AU				

min. Earth dist.	4842 Jul 12 23:23	22° \mathfrak{C} 57'45	0.54800 AU	desc. node	4843 Jun 18 16:57	5° \mathfrak{C} 40'45	
morning rise	4842 Jul 21 06:29	19° \mathfrak{C} 14'06		inferior conj	4843 Jun 22 11:56	3° \mathfrak{C} 30'29	-1°-7'-53
direct	4842 Jul 24 20:08	18° \mathfrak{C} 46'40		minimum elong	4843 Jun 22 08:47	3° \mathfrak{C} 35'16	1°06'44
morning max el	4842 Aug 06 13:27	24° \mathfrak{C} 49'13	22°31'12	min. Earth dist.	4843 Jun 24 11:50	2° \mathfrak{C} 17'50	0.55288 AU
	4842 Aug 11 07:43	0° \mathfrak{Q}			4843 Jun 28 19:08	30° \mathfrak{R} II	
asc. node	4842 Aug 22 06:28	17° \mathfrak{Q} 10'38		morning rise	4843 Jul 01 01:49	29° \mathfrak{II} 08'22	
morning set	4842 Aug 28 13:15	29° \mathfrak{Q} 44'16		direct	4843 Jul 05 09:13	28° \mathfrak{II} 27'45	
	4842 Aug 28 16:15	0° \mathfrak{M}			4843 Jul 11 19:28	0° \mathfrak{C}	
				morning max el	4843 Jul 19 04:08	5° \mathfrak{C} 16'05	24°15'05
superior conj	4842 Sep 04 16:52	14° \mathfrak{M} 58'25	1°40'55		4843 Aug 05 16:54	0° \mathfrak{Q}	
minimum elong	4842 Sep 04 15:44	14° \mathfrak{M} 52'27	1°40'52	asc. node	4843 Aug 09 03:31	6° \mathfrak{Q} 36'38	
max. Earth dist.	4842 Sep 07 22:26	21° \mathfrak{M} 45'19	1.34143 AU	morning set	4843 Aug 13 01:02	14° \mathfrak{Q} 37'47	
	4842 Sep 12 00:19	0° \mathfrak{Q}					
evening rise	4842 Sep 12 15:50	1° \mathfrak{Q} 16'11		superior conj	4843 Aug 20 00:57	29° \mathfrak{Q} 46'03	1°32'10
desc. node	4842 Sep 27 19:11	27° \mathfrak{Q} 49'07		minimum elong	4843 Aug 19 23:00	29° \mathfrak{Q} 35'29	1°31'58
	4842 Sep 29 05:12	0° \mathfrak{M}			4843 Aug 20 03:31	0° \mathfrak{M}	
evening max el	4842 Oct 17 08:58	22° \mathfrak{M} 59'07	27°07'46	max. Earth dist.	4843 Aug 22 00:01	4° \mathfrak{M} 00'23	1.32992 AU
	4842 Oct 28 08:51	0° \mathfrak{X}		evening rise	4843 Aug 27 10:25	15° \mathfrak{M} 22'31	
retrograde	4842 Oct 30 16:40	0° \mathfrak{X} 16'32			4843 Sep 04 01:42	0° \mathfrak{Q}	
	4842 Nov 01 22:26	30° \mathfrak{R} III		desc. node	4843 Sep 14 16:14	17° \mathfrak{Q} 25'22	
evening set	4842 Nov 06 12:34	27° \mathfrak{M} 37'02			4843 Sep 24 01:33	0° \mathfrak{M}	
min. Earth dist.	4842 Nov 10 10:30	23° \mathfrak{M} 51'26	0.65170 AU	evening max el	4843 Sep 29 20:12	6° \mathfrak{M} 11'11	27°26'46
inferior conj	4842 Nov 12 13:15	21° \mathfrak{M} 29'27	-1°-54'-19	retrograde	4843 Oct 13 11:41	13° \mathfrak{M} 28'06	
minimum elong	4842 Nov 12 16:32	21° \mathfrak{M} 20'16	1°53'00	evening set	4843 Oct 20 14:56	10° \mathfrak{M} 52'22	
asc. node	4842 Nov 18 05:42	16° \mathfrak{M} 15'56		min. Earth dist.	4843 Oct 24 07:32	7° \mathfrak{M} 40'09	0.63575 AU
morning rise	4842 Nov 18 22:24	15° \mathfrak{M} 54'11		inferior conj	4843 Oct 26 22:21	5° \mathfrak{M} 01'32	-2°-57'-14
direct	4842 Nov 21 13:25	15° \mathfrak{M} 17'18		minimum elong	4843 Oct 27 03:25	4° \mathfrak{M} 48'42	2°55'27
morning max el	4842 Nov 28 00:48	18° \mathfrak{M} 44'45	18°05'03		4843 Nov 02 02:37	30° \mathfrak{R} II	
	4842 Dec 06 10:28	0° \mathfrak{X}		morning rise	4843 Nov 02 18:30	29° \mathfrak{Q} 42'53	
morning set	4842 Dec 16 02:07	15° \mathfrak{X} 43'29		direct	4843 Nov 05 03:55	29° \mathfrak{Q} 15'06	
desc. node	4842 Dec 24 18:26	29° \mathfrak{X} 54'39		asc. node	4843 Nov 05 02:44	29° \mathfrak{Q} 15'07	
	4842 Dec 24 19:46	0° \mathfrak{C}			4843 Nov 08 04:26	0° \mathfrak{M}	
				morning max el	4843 Nov 11 17:41	2° \mathfrak{M} 40'02	17°50'32
superior conj	4842 Dec 30 12:11	9° \mathfrak{C} 05'28	0°-39'00	morning set	4843 Nov 28 04:49	27° \mathfrak{M} 55'59	
minimum elong	4842 Dec 30 07:21	8° \mathfrak{C} 46'17	0°38'21		4843 Nov 29 09:29	0° \mathfrak{X}	
max. Earth dist.	4843 Jan 02 21:07	14° \mathfrak{C} 25'06	1.45139 AU				
	4843 Jan 12 20:45	0° \mathfrak{Q}		superior conj	4843 Dec 10 14:17	18° \mathfrak{X} 56'30	0°07'22
evening rise	4843 Jan 15 20:49	4° \mathfrak{Q} 39'06		minimum elong	4843 Dec 10 15:04	18° \mathfrak{X} 59'44	0°07'16
	4843 Feb 01 13:50	0° \mathfrak{X}		behind sun begin	4843 Dec 10 06:23	18° \mathfrak{X} 23'58	
greatest brilliancy	4843 Feb 02 10:15	1° \mathfrak{X} 12'41	-0.6m	behind sun end	4843 Dec 10 23:46	19° \mathfrak{X} 35'26	
evening max el	4843 Feb 09 23:34	10° \mathfrak{X} 42'44	19°41'40	desc. node	4843 Dec 11 15:29	20° \mathfrak{X} 39'47	
asc. node	4843 Feb 14 05:01	14° \mathfrak{X} 05'58		max. Earth dist.	4843 Dec 16 15:09	28° \mathfrak{X} 43'03	1.44274 AU
retrograde	4843 Feb 17 08:41	14° \mathfrak{X} 58'40			4843 Dec 17 10:28	0° \mathfrak{C}	
evening set	4843 Feb 20 22:12	13° \mathfrak{X} 44'18		evening rise	4843 Dec 26 07:00	13° \mathfrak{C} 50'39	
inferior conj	4843 Feb 26 09:54	7° \mathfrak{X} 44'18	3°13'35		4844 Jan 05 23:16	0° \mathfrak{Q}	
minimum elong	4843 Feb 26 07:56	7° \mathfrak{X} 50'48	3°13'15	greatest brilliancy	4844 Jan 18 10:09	17° \mathfrak{Q} 38'46	-0.5m
min. Earth dist.	4843 Feb 27 12:02	6° \mathfrak{X} 17'44	0.66864 AU	evening max el	4844 Jan 24 00:45	24° \mathfrak{Q} 15'53	20°44'25
morning rise	4843 Mar 03 17:00	1° \mathfrak{X} 28'02		retrograde	4844 Feb 01 06:58	29° \mathfrak{Q} 08'20	
	4843 Mar 05 15:36	30° \mathfrak{R} II		asc. node	4844 Feb 01 02:02	29° \mathfrak{Q} 08'07	
direct	4843 Mar 09 17:38	28° \mathfrak{Q} 47'40		evening set	4844 Feb 05 05:32	27° \mathfrak{Q} 39'26	
	4843 Mar 14 05:19	0° \mathfrak{X}		inferior conj	4844 Feb 10 15:09	21° \mathfrak{Q} 26'56	2°46'29
morning max el	4843 Mar 21 21:37	6° \mathfrak{X} 03'19	25°31'33	minimum elong	4844 Feb 10 12:45	21° \mathfrak{Q} 35'10	2°45'53
desc. node	4843 Mar 22 17:42	6° \mathfrak{X} 55'00		min. Earth dist.	4844 Feb 11 03:57	20° \mathfrak{Q} 42'58	0.67648 AU
	4843 Apr 09 09:55	0° \mathfrak{Y}		morning rise	4844 Feb 15 19:32	15° \mathfrak{Q} 11'08	
morning set	4843 Apr 27 01:37	29° \mathfrak{Y} 10'39		direct	4844 Feb 21 06:06	12° \mathfrak{Q} 47'32	
	4843 Apr 27 12:27	0° \mathfrak{C}		morning max el	4844 Mar 03 06:20	19° \mathfrak{Q} 21'58	24°05'27
max. Earth dist.	4843 Apr 30 20:07	6° \mathfrak{C} 10'03	1.36098 AU	desc. node	4844 Mar 08 14:43	25° \mathfrak{Q} 21'44	
					4844 Mar 12 06:49	0° \mathfrak{X}	
superior conj	4843 May 06 16:40	17° \mathfrak{C} 33'54	-1°-2'-48		4844 Apr 01 13:32	0° \mathfrak{Y}	
minimum elong	4843 May 06 20:07	17° \mathfrak{C} 51'09	1°02'13	morning set	4844 Apr 07 21:44	10° \mathfrak{Y} 37'55	
	4843 May 12 19:40	0° \mathfrak{II}		max. Earth dist.	4844 Apr 11 16:36	17° \mathfrak{Y} 17'02	1.38154 AU
asc. node	4843 May 13 04:18	0° \mathfrak{II} 44'08					
evening rise	4843 May 14 19:48	4° \mathfrak{II} 05'29		superior conj	4844 Apr 18 20:15	0° \mathfrak{C} 30'26	-1°-30'-43
	4843 May 29 22:15	0° \mathfrak{C}		minimum elong	4844 Apr 19 00:59	0° \mathfrak{C} 53'00	1°30'07
evening max el	4843 Jun 01 09:24	2° \mathfrak{C} 41'20	19°55'34		4844 Apr 18 13:52	0° \mathfrak{C}	
retrograde	4843 Jun 11 14:45	7° \mathfrak{C} 41'04		evening rise	4844 Apr 27 18:56	17° \mathfrak{C} 58'47	
evening set	4843 Jun 13 13:01	7° \mathfrak{C} 31'11		asc. node	4844 Apr 29 01:21	20° \mathfrak{C} 27'56	

	4844 May 04 02:17	0°♊		evening rise	4845 Apr 11 08:11	1°♊18'52	
evening max el	4844 May 14 05:36	14°♊36'29	18°59'25	asc. node	4845 Apr 15 22:22	9°♊53'43	
retrograde	4844 May 22 20:10	18°♊49'11		evening max el	4845 Apr 27 10:47	27°♊07'12	18°23'39
evening set	4844 May 24 21:01	18°♊36'00			4845 May 01 10:08	0°♊	
inferior conj	4844 Jun 02 01:51	14°♊20'44	0°43'39	retrograde	4845 May 04 20:17	0°♊47'20	
minimum elong	4844 Jun 02 03:33	14°♊17'44	0°43'02	evening set	4845 May 07 03:35	0°♊26'56	
desc. node	4844 Jun 04 13:58	12°♊35'29			4845 May 08 09:28	30°♊	
min. Earth dist.	4844 Jun 05 03:30	12°♊12'29	0.56646 AU	inferior conj	4845 May 14 13:08	25°♊51'36	2°07'55
morning rise	4844 Jun 10 05:38	9°♊22'27		minimum elong	4845 May 14 16:39	25°♊44'22	2°06'55
direct	4844 Jun 15 11:31	8°♊17'12		min. Earth dist.	4845 May 17 23:39	23°♊03'45	0.58599 AU
morning max el	4844 Jun 29 18:37	15°♊40'22	25°51'54	morning rise	4845 May 22 01:21	20°♊21'11	
	4844 Jul 11 08:16	0°♊		desc. node	4845 May 22 10:58	20°♊08'51	
asc. node	4844 Jul 26 00:35	26°♊21'15		direct	4845 May 28 04:08	18°♊42'33	
morning set	4844 Jul 27 12:22	29°♊28'40		morning max el	4845 Jun 11 13:31	26°♊27'14	27°06'08
	4844 Jul 27 18:17	0°♊			4845 Jun 14 21:58	0°♊	
					4845 Jul 04 18:15	0°♊	
superior conj	4844 Aug 03 11:51	14°♊40'08	1°18'16	morning set	4845 Jul 11 21:37	14°♊11'30	
minimum elong	4844 Aug 03 09:33	14°♊27'28	1°17'55	asc. node	4845 Jul 12 21:38	16°♊18'20	
max. Earth dist.	4844 Aug 04 07:59	16°♊30'52	1.32266 AU				
evening rise	4844 Aug 10 12:51	29°♊50'27		superior conj	4845 Jul 18 23:41	29°♊34'16	0°59'52
	4844 Aug 10 14:41	0°♊		minimum elong	4845 Jul 18 21:30	29°♊22'13	0°59'28
	4844 Aug 27 04:13	0°♊		max. Earth dist.	4845 Jul 18 19:06	29°♊08'55	1.31958 AU
desc. node	4844 Aug 31 13:15	6°♊22'28			4845 Jul 19 04:20	0°♊	
evening max el	4844 Sep 11 03:39	18°♊48'56	27°14'31	evening rise	4845 Jul 25 20:30	14°♊32'00	
retrograde	4844 Sep 24 23:55	26°♊02'28			4845 Aug 02 14:58	0°♊	
evening set	4844 Oct 02 03:12	23°♊42'20		desc. node	4845 Aug 18 10:16	24°♊24'39	
min. Earth dist.	4844 Oct 05 18:09	20°♊55'49	0.61685 AU		4845 Aug 23 11:30	0°♊	
inferior conj	4844 Oct 08 19:16	18°♊12'05	-3°-57'-10	evening max el	4845 Aug 24 04:58	0°♊42'11	26°28'53
minimum elong	4844 Oct 09 01:27	17°♊58'14	3°55'27	retrograde	4845 Sep 07 03:53	7°♊51'16	
morning rise	4844 Oct 16 02:51	13°♊13'12		evening set	4845 Sep 13 20:43	5°♊59'27	
direct	4844 Oct 18 09:36	12°♊51'10		min. Earth dist.	4845 Sep 17 18:34	3°♊24'50	0.59626 AU
asc. node	4844 Oct 21 23:47	13°♊47'52		inferior conj	4845 Sep 21 00:36	0°♊52'14	-4°-46'-48
morning max el	4844 Oct 25 09:06	16°♊22'08	17°54'12	minimum elong	4845 Sep 21 06:03	0°♊41'31	4°45'52
	4844 Nov 03 22:36	0°♊			4845 Sep 22 03:28	30°♊	
morning set	4844 Nov 10 03:20	11°♊04'57		morning rise	4845 Sep 28 18:51	26°♊15'39	
				direct	4845 Oct 01 02:29	25°♊56'24	
superior conj	4844 Nov 20 18:56	0°♊05'13	0°46'29	asc. node	4845 Oct 08 20:49	29°♊44'49	
minimum elong	4844 Nov 20 22:35	0°♊21'02	0°45'59	morning max el	4845 Oct 08 19:44	29°♊42'11	18°17'24
	4844 Nov 20 17:43	0°♊			4845 Oct 09 02:59	0°♊	
desc. node	4844 Nov 27 12:30	11°♊26'57		morning set	4845 Oct 24 15:58	24°♊54'13	
max. Earth dist.	4844 Nov 28 04:50	12°♊34'05	1.42800 AU		4845 Oct 27 08:17	0°♊	
evening rise	4844 Dec 04 22:10	23°♊21'12					
	4844 Dec 09 04:57	0°♊		superior conj	4845 Nov 02 23:43	12°♊24'15	1°15'06
	4844 Dec 30 03:21	0°♊		minimum elong	4845 Nov 03 03:34	12°♊41'45	1°14'40
greatest brilliancy	4845 Jan 01 02:56	2°♊29'19	-0.3m	max. Earth dist.	4845 Nov 10 13:33	25°♊47'03	1.40899 AU
evening max el	4845 Jan 05 20:31	7°♊50'22	21°57'54		4845 Nov 13 01:29	0°♊	
retrograde	4845 Jan 15 04:05	13°♊22'46		desc. node	4845 Nov 14 09:32	2°♊12'57	
asc. node	4845 Jan 17 23:03	12°♊41'14		evening rise	4845 Nov 15 07:34	3°♊43'29	
evening set	4845 Jan 19 13:21	11°♊38'28			4845 Dec 02 12:05	0°♊	
inferior conj	4845 Jan 24 22:41	5°♊16'52	2°10'35	evening max el	4845 Dec 19 12:07	21°♊28'36	23°17'07
minimum elong	4845 Jan 24 20:20	5°♊25'01	2°09'51	retrograde	4845 Dec 29 22:29	27°♊38'59	
min. Earth dist.	4845 Jan 24 23:29	5°♊14'04	0.68036 AU	evening set	4846 Jan 03 20:04	25°♊38'49	
	4845 Jan 29 03:02	30°♊		asc. node	4846 Jan 04 20:03	24°♊43'56	
morning rise	4845 Jan 30 03:07	29°♊03'19		inferior conj	4846 Jan 09 06:39	19°♊11'59	1°27'12
direct	4845 Feb 03 22:56	27°♊01'05		minimum elong	4846 Jan 09 04:48	19°♊18'19	1°26'30
	4845 Feb 10 15:28	0°♊		min. Earth dist.	4846 Jan 08 20:17	19°♊47'36	0.68051 AU
morning max el	4845 Feb 13 16:31	2°♊46'06	22°36'12	morning rise	4846 Jan 14 13:36	13°♊02'38	
greatest brilliancy	4845 Feb 18 06:29	7°♊52'37	-0.3m	direct	4846 Jan 18 19:06	11°♊23'15	
desc. node	4845 Feb 23 11:44	14°♊32'47		morning max el	4846 Jan 27 07:53	16°♊19'51	21°12'32
	4845 Mar 06 08:26	0°♊		greatest brilliancy	4846 Feb 01 13:09	22°♊17'36	-0.4m
morning set	4845 Mar 19 15:08	20°♊46'39			4846 Feb 07 08:12	0°♊	
max. Earth dist.	4845 Mar 24 12:13	28°♊55'40	1.40350 AU	desc. node	4846 Feb 10 08:46	4°♊16'13	
	4845 Mar 25 03:18	0°♊		morning set	4846 Feb 27 04:14	29°♊36'37	
					4846 Feb 27 10:11	0°♊	
superior conj	4845 Apr 01 07:22	12°♊37'03	-1°-53'-42	max. Earth dist.	4846 Mar 06 14:01	11°♊29'49	1.42402 AU
minimum elong	4845 Apr 01 12:04	12°♊58'20	1°53'21				
	4845 Apr 10 15:30	0°♊		superior conj	4846 Mar 13 21:06	23°♊43'09	-2°-7'-10

minimum elong	4846 Mar 13 23:10	23° ✕ 52'00	2°07'07		4847 Feb 20 03:08	0° ✕	
	4846 Mar 17 12:05	0° Υ					
evening rise	4846 Mar 25 07:43	13° Υ 57'22		superior conj	4847 Feb 22 09:35	3° ✕ 41'07	-2°-5'-32
asc. node	4846 Apr 02 19:22	28° Υ 55'31		minimum elong	4847 Feb 22 05:58	3° ✕ 26'20	2°05'26
	4846 Apr 03 11:03	0° ♄		evening rise	4847 Mar 07 13:14	25° ✕ 46'05	
evening max el	4846 Apr 10 21:24	10° ♄ 04'10	18°07'38		4847 Mar 10 00:20	0° Υ	
retrograde	4846 Apr 17 13:42	13° ♄ 28'19		asc. node	4847 Mar 20 16:23	17° Υ 26'07	
evening set	4846 Apr 20 03:31	12° ♄ 58'11		evening max el	4847 Mar 25 10:11	23° Υ 19'09	18°10'50
inferior conj	4846 Apr 26 20:35	8° ♄ 01'35	3°01'03	retrograde	4847 Mar 31 20:13	26° Υ 42'26	
minimum elong	4846 Apr 26 23:29	7° ♄ 54'39	3°00'30	evening set	4847 Apr 03 16:01	26° Υ 01'13	
min. Earth dist.	4846 Apr 30 02:18	4° ♄ 58'10	0.60796 AU	inferior conj	4847 Apr 09 20:32	20° Υ 44'24	3°27'40
morning rise	4846 May 03 16:09	2° ♄ 08'49		minimum elong	4847 Apr 09 21:52	20° Υ 40'49	3°27'32
desc. node	4846 May 09 07:59	0° ♄ 00'04		min. Earth dist.	4847 Apr 12 13:44	17° Υ 49'26	0.62919 AU
	4846 May 09 08:17	30° ♁ Υ		morning rise	4847 Apr 16 01:28	14° Υ 38'14	
direct	4846 May 10 08:23	29° Υ 57'05		direct	4847 Apr 22 21:59	12° Υ 01'59	
	4846 May 11 08:44	0° ♄		desc. node	4847 Apr 26 05:01	12° Υ 34'15	
morning max el	4846 May 24 14:45	7° ♄ 52'58	27°46'38	morning max el	4847 May 06 21:37	20° Υ 01'32	27°49'21
	4846 Jun 10 10:51	0° ♄			4847 May 15 10:26	0° ♄	
morning set	4846 Jun 26 02:58	28° ♄ 40'08			4847 Jun 03 10:29	0° ♄	
	4846 Jun 26 18:23	0° ♄		morning set	4847 Jun 10 02:19	12° ♄ 48'22	
asc. node	4846 Jun 29 18:39	6° ♄ 22'39		max. Earth dist.	4847 Jun 15 11:49	24° ♄ 00'49	1.32607 AU
max. Earth dist.	4846 Jul 02 05:40	11° ♄ 43'01	1.32068 AU	asc. node	4847 Jun 16 15:41	26° ♄ 30'08	
superior conj	4846 Jul 03 10:41	14° ♄ 22'05	0°37'33	superior conj	4847 Jun 17 19:07	28° ♄ 58'14	0°11'55
minimum elong	4846 Jul 03 09:05	14° ♄ 13'18	0°37'12	minimum elong	4847 Jun 17 18:33	28° ♄ 55'09	0°11'47
evening rise	4846 Jul 10 07:12	29° ♄ 19'32		behind sun begin	4847 Jun 17 14:59	28° ♄ 35'54	
	4846 Jul 10 14:49	0° ♄		behind sun end	4847 Jun 17 22:06	29° ♄ 14'24	
	4846 Jul 27 04:57	0° ♄			4847 Jun 18 06:31	0° ♄	
desc. node	4846 Aug 05 07:17	11° ♄ 09'03		evening rise	4847 Jun 24 19:02	14° ♄ 06'55	
evening max el	4846 Aug 05 22:47	11° ♄ 46'46	25°13'26		4847 Jul 02 18:08	0° ♄	
retrograde	4846 Aug 19 21:22	18° ♄ 50'15		evening max el	4847 Jul 18 11:31	22° ♄ 15'24	23°39'23
evening set	4846 Aug 25 14:43	17° ♄ 35'11		desc. node	4847 Jul 23 04:17	26° ♄ 05'47	
min. Earth dist.	4846 Aug 30 10:25	14° ♄ 54'24	0.57615 AU	retrograde	4847 Aug 01 02:47	29° ♄ 06'08	
inferior conj	4846 Sep 02 10:58	12° ♄ 51'27	-5°-14'-20	evening set	4847 Aug 05 09:24	28° ♄ 26'00	
minimum elong	4846 Sep 02 12:36	12° ♄ 48'38	5°14'17	min. Earth dist.	4847 Aug 11 21:25	25° ♄ 21'29	0.55947 AU
morning rise	4846 Sep 10 13:57	8° ♄ 38'00		inferior conj	4847 Aug 14 01:05	24° ♄ 04'06	-5°-3'-43
direct	4846 Sep 13 02:21	8° ♄ 19'10		minimum elong	4847 Aug 13 20:26	24° ♄ 11'06	5°03'13
morning max el	4846 Sep 21 22:10	12° ♄ 29'43	19°01'40	morning rise	4847 Aug 22 10:41	20° ♄ 09'23	
asc. node	4846 Sep 25 17:52	16° ♄ 50'27		direct	4847 Aug 25 06:41	19° ♄ 49'22	
	4846 Oct 03 20:10	0° ♄		morning max el	4847 Sep 04 13:37	24° ♄ 36'14	20°07'51
morning set	4846 Oct 08 14:17	9° ♄ 10'34			4847 Sep 09 07:33	0° ♄	
				asc. node	4847 Sep 12 14:55	4° ♄ 50'18	
superior conj	4846 Oct 16 23:17	25° ♄ 37'47	1°33'15	morning set	4847 Sep 22 19:11	23° ♄ 45'31	
minimum elong	4846 Oct 17 01:54	25° ♄ 50'21	1°33'03		4847 Sep 25 20:20	0° ♄	
	4846 Oct 19 06:27	0° ♄					
max. Earth dist.	4846 Oct 23 18:53	8° ♄ 18'32	1.38804 AU	superior conj	4847 Sep 30 12:38	9° ♄ 31'53	1°42'10
evening rise	4846 Oct 27 15:51	15° ♄ 07'39		minimum elong	4847 Sep 30 13:39	9° ♄ 36'58	1°42'09
desc. node	4846 Nov 01 06:33	22° ♄ 53'21		max. Earth dist.	4847 Oct 06 00:48	20° ♄ 19'02	1.36764 AU
	4846 Nov 05 16:51	0° ♄		evening rise	4847 Oct 09 21:40	27° ♄ 30'49	
	4846 Nov 27 06:46	0° ♄			4847 Oct 11 06:47	0° ♄	
evening max el	4846 Dec 02 01:19	5° ♄ 10'14	24°36'05	desc. node	4847 Oct 19 03:34	13° ♄ 23'57	
retrograde	4846 Dec 13 13:02	11° ♄ 52'17			4847 Oct 30 02:26	0° ♄	
evening set	4846 Dec 19 00:08	9° ♄ 36'36		evening max el	4847 Nov 14 13:45	18° ♄ 53'16	25°47'41
asc. node	4846 Dec 22 17:05	5° ♄ 34'16		retrograde	4847 Nov 26 22:59	25° ♄ 57'40	
min. Earth dist.	4846 Dec 23 15:57	4° ♄ 19'36	0.67699 AU	evening set	4847 Dec 02 23:53	23° ♄ 28'38	
inferior conj	4846 Dec 24 13:13	3° ♄ 08'50	0°37'13	min. Earth dist.	4847 Dec 07 08:13	18° ♄ 46'50	0.66992 AU
minimum elong	4846 Dec 24 12:19	3° ♄ 11'47	0°36'51	inferior conj	4847 Dec 08 16:35	17° ♄ 04'32	0°-18'-23
	4846 Dec 27 00:24	30° ♁ ♄		minimum elong	4847 Dec 08 17:04	17° ♄ 03'01	0°18'11
morning rise	4846 Dec 30 00:58	27° ♄ 05'50		asc. node	4847 Dec 09 14:08	15° ♄ 56'59	
direct	4847 Jan 02 17:16	25° ♄ 48'13		morning rise	4847 Dec 14 11:14	11° ♄ 10'14	
	4847 Jan 10 04:48	0° ♄		direct	4847 Dec 17 15:59	10° ♄ 11'33	
morning max el	4847 Jan 10 07:00	0° ♄ 05'30	20°00'22	morning max el	4847 Dec 24 13:55	14° ♄ 01'14	19°02'46
greatest brilliancy	4847 Jan 17 07:45	8° ♄ 34'20	-0.6m		4848 Jan 05 13:07	0° ♄	
desc. node	4847 Jan 28 05:48	24° ♄ 22'46		desc. node	4848 Jan 15 02:49	14° ♄ 45'50	
	4847 Jan 31 22:56	0° ♄		morning set	4848 Jan 16 05:37	16° ♄ 30'09	
morning set	4847 Feb 06 00:54	7° ♄ 47'15			4848 Jan 24 21:14	0° ♄	
max. Earth dist.	4847 Feb 17 00:02	24° ♄ 58'25	1.44024 AU	max. Earth dist.	4848 Jan 30 15:52	9° ♄ 03'17	1.45026 AU

superior conj	4848 Feb 01 22:33	12° \approx 38'45	-1°-44'-31	superior conj	4849 Jan 11 01:23	21° \approx 16'05	-1°-5'-49
minimum elong	4848 Feb 01 13:41	12° \approx 03'44	1°43'48	minimum elong	4849 Jan 10 17:27	20° \approx 44'56	1°04'51
	4848 Feb 12 18:58	0° \approx		max. Earth dist.	4849 Jan 12 10:37	23° \approx 26'26	1.45309 AU
evening rise	4848 Feb 16 20:44	6° \approx 38'02			4849 Jan 16 15:08	0° \approx	
	4848 Mar 02 12:53	0° \approx		evening rise	4849 Jan 27 05:07	16° \approx 35'02	
asc. node	4848 Mar 06 13:25	5° \approx 15'23			4849 Feb 04 18:29	0° \approx	
evening max el	4848 Mar 07 22:15	6° \approx 44'22	18°32'36	greatest brilliancy	4849 Feb 09 19:20	7° \approx 42'51	-0.7m
retrograde	4848 Mar 14 11:18	10° \approx 19'49		evening max el	4849 Feb 19 07:22	20° \approx 15'16	19°11'52
evening set	4848 Mar 17 13:12	9° \approx 26'35		asc. node	4849 Feb 21 10:29	22° \approx 11'26	
inferior conj	4848 Mar 23 08:52	3° \approx 51'24	3°33'50	retrograde	4849 Feb 26 07:15	24° \approx 13'50	
minimum elong	4848 Mar 23 08:36	3° \approx 52'13	3°33'49	evening set	4849 Mar 01 16:07	23° \approx 07'38	
min. Earth dist.	4848 Mar 25 10:46	1° \approx 23'00	0.64763 AU	inferior conj	4849 Mar 07 06:01	17° \approx 16'11	3°24'32
	4848 Mar 26 16:13	30° \approx		minimum elong	4849 Mar 07 04:32	17° \approx 20'58	3°24'21
morning rise	4848 Mar 29 02:33	27° \approx 38'15		min. Earth dist.	4849 Mar 08 16:35	15° \approx 25'16	0.66221 AU
direct	4848 Apr 04 19:30	24° \approx 50'12		morning rise	4849 Mar 12 16:00	11° \approx 00'11	
desc. node	4848 Apr 12 02:03	27° \approx 27'18		direct	4849 Mar 18 23:45	8° \approx 13'32	
	4848 Apr 15 09:32	0° \approx		desc. node	4849 Mar 29 23:05	14° \approx 05'19	
morning max el	4848 Apr 18 07:23	2° \approx 43'59	27°16'41	morning max el	4849 Mar 31 17:21	15° \approx 47'55	26°15'38
	4848 May 08 17:38	0° \approx			4849 Apr 12 10:25	0° \approx	
morning set	4848 May 23 16:51	26° \approx 27'06			4849 May 01 13:53	0° \approx	
	4848 May 25 12:08	0° \approx		morning set	4849 May 06 18:55	9° \approx 26'04	
max. Earth dist.	4848 May 28 09:27	5° \approx 50'10	1.33599 AU	max. Earth dist.	4849 May 10 19:45	17° \approx 08'13	1.35060 AU
superior conj	4848 May 31 22:58	13° \approx 15'51	0°-16'-16	superior conj	4849 May 15 19:53	27° \approx 08'51	0°-45'-49
minimum elong	4848 May 31 23:48	13° \approx 20'19	0°16'06	minimum elong	4849 May 15 22:24	27° \approx 21'38	0°45'21
asc. node	4848 Jun 02 12:43	16° \approx 36'08			4849 May 17 05:14	0° \approx	
evening rise	4848 Jun 08 06:04	28° \approx 14'10		asc. node	4849 May 20 09:46	6° \approx 37'01	
	4848 Jun 08 19:58	0° \approx		evening rise	4849 May 23 14:22	13° \approx 14'38	
	4848 Jun 26 15:04	0° \approx			4849 Jun 01 07:15	0° \approx	
evening max el	4848 Jun 29 02:37	2° \approx 38'22	22°02'43	evening max el	4849 Jun 11 03:49	13° \approx 28'36	20°36'56
desc. node	4848 Jul 09 01:19	8° \approx 39'36		retrograde	4849 Jun 22 09:21	18° \approx 58'33	
retrograde	4848 Jul 11 20:46	8° \approx 58'01		evening set	4849 Jun 24 10:31	18° \approx 48'20	
evening set	4848 Jul 14 16:57	8° \approx 40'01		desc. node	4849 Jun 25 22:21	18° \approx 28'43	
inferior conj	4848 Jul 23 23:02	4° \approx 35'58	-4°-2'-17	inferior conj	4849 Jul 03 16:24	14° \approx 51'22	-2°-16'-55
minimum elong	4848 Jul 23 14:20	4° \approx 48'12	4°00'05	minimum elong	4849 Jul 03 10:03	15° \approx 00'30	2°14'43
min. Earth dist.	4848 Jul 23 07:34	4° \approx 57'42	0.54954 AU	min. Earth dist.	4849 Jul 04 19:08	14° \approx 12'56	0.54887 AU
morning rise	4848 Aug 01 13:28	0° \approx 45'58		morning rise	4849 Jul 12 08:19	10° \approx 45'48	
direct	4848 Aug 04 19:14	0° \approx 22'42		direct	4849 Jul 16 04:43	10° \approx 13'53	
morning max el	4848 Aug 16 17:06	5° \approx 56'52	21°34'30	morning max el	4849 Jul 29 10:50	16° \approx 37'48	23°15'16
asc. node	4848 Aug 29 11:59	23° \approx 31'08			4849 Aug 09 02:39	0° \approx	
	4848 Sep 01 23:05	0° \approx		asc. node	4849 Aug 16 09:02	12° \approx 42'59	
morning set	4848 Sep 06 04:13	8° \approx 31'48		morning set	4849 Aug 21 15:27	23° \approx 23'49	
					4849 Aug 24 17:39	0° \approx	
superior conj	4848 Sep 13 11:37	23° \approx 54'05	1°43'19	superior conj	4849 Aug 28 17:05	8° \approx 34'33	1°37'53
minimum elong	4848 Sep 13 11:10	23° \approx 51'45	1°43'18	minimum elong	4849 Aug 28 15:33	8° \approx 26'21	1°37'46
	4848 Sep 16 10:37	0° \approx		max. Earth dist.	4849 Aug 31 08:57	14° \approx 14'17	1.33594 AU
max. Earth dist.	4848 Sep 17 12:27	2° \approx 10'37	1.34984 AU	evening rise	4849 Sep 05 09:36	24° \approx 32'30	
evening rise	4848 Sep 21 20:59	10° \approx 42'51			4849 Sep 08 04:50	0° \approx	
	4848 Oct 02 18:12	0° \approx		desc. node	4849 Sep 21 21:39	23° \approx 32'36	
desc. node	4848 Oct 05 00:37	3° \approx 39'28			4849 Sep 26 06:59	0° \approx	
	4848 Oct 24 14:06	0° \approx		evening max el	4849 Oct 09 14:44	15° \approx 58'56	27°19'32
evening max el	4848 Oct 27 02:23	2° \approx 32'48	26°44'39	retrograde	4849 Oct 23 02:40	23° \approx 17'20	
retrograde	4848 Nov 09 03:48	9° \approx 48'57		evening set	4849 Oct 30 02:09	20° \approx 38'20	
evening set	4848 Nov 15 17:24	7° \approx 11'11		min. Earth dist.	4849 Nov 02 21:34	17° \approx 07'15	0.64522 AU
min. Earth dist.	4848 Nov 19 18:50	3° \approx 05'14	0.65929 AU	inferior conj	4849 Nov 05 05:28	14° \approx 37'01	-2°-21'-6
inferior conj	4848 Nov 21 14:48	0° \approx 55'51	-1°-18'-25	minimum elong	4849 Nov 05 09:32	14° \approx 26'04	2°19'31
minimum elong	4848 Nov 21 17:00	0° \approx 49'23	1°17'30	morning rise	4849 Nov 11 19:10	9° \approx 08'17	
	4848 Nov 22 09:54	30° \approx		asc. node	4849 Nov 12 08:15	8° \approx 55'48	
asc. node	4848 Nov 25 11:12	26° \approx 49'31		direct	4849 Nov 14 07:22	8° \approx 35'49	
morning rise	4848 Nov 27 18:12	25° \approx 12'50		morning max el	4849 Nov 20 19:04	12° \approx 01'34	17°56'41
direct	4848 Nov 30 13:28	24° \approx 29'15			4849 Dec 03 05:24	0° \approx	
morning max el	4848 Dec 07 02:51	28° \approx 02'21	18°21'16	morning set	4849 Dec 08 01:17	8° \approx 06'57	
	4848 Dec 08 22:06	0° \approx		desc. node	4849 Dec 18 20:53	26° \approx 03'12	
morning set	4848 Dec 26 12:53	26° \approx 35'35			4849 Dec 21 07:28	0° \approx	
	4848 Dec 28 15:44	0° \approx		superior conj	4849 Dec 21 14:27	0° \approx 28'06	0°-18'-54
desc. node	4848 Dec 31 23:51	5° \approx 20'46					

minimum elong	4849 Dec 21 12:12	0°☿19'02	0°18'34	superior conj	4850 Dec 02 03:41	10°♄51'54	0°25'08
max. Earth dist.	4849 Dec 26 05:37	7°☿51'00	1.44856 AU	minimum elong	4850 Dec 02 06:05	11°♄01'58	0°24'47
evening rise	4850 Jan 06 19:48	25°☿53'54		desc. node	4850 Dec 05 17:56	16°♄49'51	
	4850 Jan 09 11:56	0°♄		max. Earth dist.	4850 Dec 08 22:22	22°♄00'47	1.43720 AU
greatest brilliancy	4850 Jan 26 21:59	25°♄46'59	-0.6m		4850 Dec 13 22:49	0°☿	
	4850 Jan 30 03:37	0°♄		evening rise	4850 Dec 17 06:13	5°☿09'31	
evening max el	4850 Feb 02 11:47	3°♄48'20	20°06'48		4851 Jan 02 21:37	0°♄	
asc. node	4850 Feb 08 07:32	7°♄59'26		greatest brilliancy	4851 Jan 11 08:42	11°♄30'17	-0.4m
retrograde	4850 Feb 10 05:14	8°♄18'52		evening max el	4851 Jan 16 10:43	17°♄22'41	21°14'34
evening set	4850 Feb 13 22:23	6°♄58'36		retrograde	4851 Jan 25 03:06	22°♄31'19	
inferior conj	4850 Feb 19 08:59	0°♄53'09	3°03'13	asc. node	4851 Jan 26 04:32	22°♄25'15	
minimum elong	4850 Feb 19 06:47	1°♄00'36	3°02'47	evening set	4851 Jan 29 06:07	20°♄55'52	
min. Earth dist.	4850 Feb 20 05:21	29°♄44'28	0.67257 AU	inferior conj	4851 Feb 03 15:26	14°♄39'15	2°32'13
	4850 Feb 20 00:44	30°♄		minimum elong	4851 Feb 03 13:00	14°♄47'40	2°31'33
morning rise	4850 Feb 24 14:35	24°♄36'52		min. Earth dist.	4851 Feb 03 22:59	14°♄13'08	0.67873 AU
direct	4850 Mar 02 09:33	22°♄02'32		morning rise	4851 Feb 08 19:33	8°♄24'25	
morning max el	4850 Mar 14 02:06	29°♄02'00	24°55'44	direct	4851 Feb 13 23:57	6°♄09'30	
	4850 Mar 15 00:34	0°♄		morning max el	4851 Feb 24 10:55	12°♄22'31	23°27'12
desc. node	4850 Mar 16 20:06	1°♄58'38		greatest brilliancy	4851 Mar 02 10:58	19°♄11'23	-0.2m
	4850 Apr 06 05:45	0°♄		desc. node	4851 Mar 03 17:08	20°♄46'05	
morning set	4850 Apr 19 03:37	21°♄31'06			4851 Mar 10 13:56	0°♄	
max. Earth dist.	4850 Apr 22 19:32	28°♄09'23	1.36943 AU		4851 Mar 30 02:06	0°♄	
	4850 Apr 23 19:23	0°♄		morning set	4851 Mar 31 12:57	2°♄26'12	
				max. Earth dist.	4851 Apr 04 15:00	9°♄27'29	1.39097 AU
superior conj	4850 Apr 29 06:53	10°♄28'57	-1°-15'-2				
minimum elong	4850 Apr 29 10:58	10°♄48'58	1°14'24	superior conj	4851 Apr 12 04:03	23°♄05'57	-1°-41'-19
asc. node	4850 May 07 06:49	26°♄28'30		minimum elong	4851 Apr 12 09:00	23°♄29'02	1°40'47
evening rise	4850 May 07 17:35	27°♄22'33			4851 Apr 15 19:40	0°♄	
	4850 May 09 01:08	0°♄		evening rise	4851 Apr 21 12:56	11°♄02'57	
evening max el	4850 May 24 17:31	25°♄00'24	19°29'13	asc. node	4851 Apr 24 03:51	16°♄05'24	
retrograde	4850 Jun 03 05:14	29°♄38'07			4851 May 02 01:54	0°♄	
evening set	4850 Jun 05 03:52	29°♄27'19		evening max el	4851 May 07 17:56	7°♄11'36	18°41'39
desc. node	4850 Jun 12 19:20	26°♄00'32		retrograde	4851 May 15 18:32	11°♄08'27	
inferior conj	4850 Jun 13 19:42	25°♄21'46	0°-18'-5	evening set	4851 May 17 22:06	10°♄52'28	
minimum elong	4850 Jun 13 18:54	25°♄23'03	0°17'49	inferior conj	4851 May 25 18:30	6°♄28'39	1°23'20
min. Earth dist.	4850 Jun 16 08:47	23°♄44'11	0.55775 AU	minimum elong	4851 May 25 21:21	6°♄23'16	1°22'23
morning rise	4850 Jun 22 06:13	20°♄44'51		min. Earth dist.	4851 May 29 01:46	4°♄01'16	0.57427 AU
direct	4850 Jun 26 23:16	19°♄54'51		desc. node	4851 May 30 16:21	2°♄55'38	
morning max el	4850 Jul 11 00:26	26°♄59'30	24°58'07	morning rise	4851 Jun 02 16:06	1°♄15'58	
	4850 Jul 13 22:26	0°♄			4851 Jun 07 06:59	30°♄	
	4850 Aug 02 02:37	0°♄		direct	4851 Jun 08 07:29	29°♄57'24	
asc. node	4850 Aug 03 06:04	2°♄17'56			4851 Jun 09 08:04	0°♄	
morning set	4850 Aug 06 03:13	8°♄16'57		morning max el	4851 Jun 22 16:17	7°♄30'17	26°27'11
					4851 Jul 09 11:00	0°♄	
superior conj	4850 Aug 13 02:36	23°♄25'55	1°26'52	asc. node	4851 Jul 21 03:06	22°♄08'33	
minimum elong	4850 Aug 13 00:26	23°♄14'07	1°26'35	morning set	4851 Jul 21 13:51	23°♄05'08	
max. Earth dist.	4850 Aug 14 13:41	26°♄37'16	1.32631 AU		4851 Jul 24 19:04	0°♄	
	4850 Aug 16 03:11	0°♄					
evening rise	4850 Aug 20 07:54	8°♄49'39		superior conj	4851 Jul 28 14:04	8°♄20'30	1°10'58
	4850 Aug 31 14:09	0°♄		minimum elong	4851 Jul 28 11:45	8°♄07'45	1°10'35
desc. node	4850 Sep 08 18:41	12°♄54'03		max. Earth dist.	4851 Jul 28 23:38	9°♄13'19	1.32086 AU
evening max el	4850 Sep 22 00:56	28°♄59'08	27°25'47	evening rise	4851 Aug 04 12:49	23°♄24'16	
	4850 Sep 23 03:25	0°♄			4851 Aug 07 18:01	0°♄	
retrograde	4850 Oct 05 18:45	6°♄14'11			4851 Aug 25 12:52	0°♄	
evening set	4850 Oct 12 22:59	3°♄43'56		desc. node	4851 Aug 26 15:41	1°♄29'58	
min. Earth dist.	4850 Oct 16 14:24	0°♄43'40	0.62798 AU	evening max el	4851 Sep 04 06:05	11°♄18'51	26°59'08
	4850 Oct 17 08:54	30°♄		retrograde	4851 Sep 18 03:15	18°♄29'47	
inferior conj	4850 Oct 19 09:48	28°♄01'32	-3°-23'-22	evening set	4851 Sep 25 03:47	16°♄20'12	
minimum elong	4850 Oct 19 15:29	27°♄47'50	3°21'32	min. Earth dist.	4851 Sep 28 20:18	13°♄41'00	0.60823 AU
morning rise	4850 Oct 26 10:46	22°♄50'32		inferior conj	4851 Oct 02 00:28	10°♄59'58	-4°-20'-2
direct	4850 Oct 28 18:42	22°♄25'30		minimum elong	4851 Oct 02 06:38	10°♄46'52	4°18'36
asc. node	4850 Oct 30 05:16	22°♄35'18		morning rise	4851 Oct 09 12:44	6°♄10'18	
morning max el	4850 Nov 04 11:38	25°♄52'05	17°49'47	direct	4851 Oct 11 19:35	5°♄49'38	
	4850 Nov 07 23:29	0°♄		asc. node	4851 Oct 17 02:18	7°♄45'11	
morning set	4850 Nov 20 13:15	20°♄46'25		morning max el	4851 Oct 19 01:21	9°♄25'25	18°01'40
	4850 Nov 25 19:13	0°♄			4851 Nov 01 11:20	0°♄	
				morning set	4851 Nov 03 18:20	4°♄14'03	

superior conj	4851 Nov 13 19:08	22° \mathbb{M} 31'58	0°59'57		4852 Oct 23 13:33	0° \mathbb{M}	
minimum elong	4851 Nov 13 23:07	22° \mathbb{M} 49'36	0°59'26				
	4851 Nov 18 02:10	0° \mathbb{X}		superior conj	4852 Oct 26 08:32	5° \mathbb{M} 15'56	1°24'01
max. Earth dist.	4851 Nov 21 10:23	5° \mathbb{X} 38'24	1.42031 AU	minimum elong	4852 Oct 26 11:57	5° \mathbb{M} 31'51	1°23'41
desc. node	4851 Nov 22 14:59	7° \mathbb{X} 36'55		max. Earth dist.	4852 Nov 02 16:57	18° \mathbb{M} 31'51	1.40007 AU
evening rise	4851 Nov 27 03:54	14° \mathbb{X} 58'52		evening rise	4852 Nov 06 22:45	25° \mathbb{M} 46'15	
	4851 Dec 06 21:11	0° \mathbb{Z}		desc. node	4852 Nov 08 11:59	28° \mathbb{M} 20'49	
greatest brilliancy	4851 Dec 25 07:57	25° \mathbb{Z} 31'52	-0.3m		4852 Nov 09 12:10	0° \mathbb{X}	
	4851 Dec 29 05:49	0° \mathbb{X}			4852 Nov 29 14:35	0° \mathbb{Z}	
evening max el	4851 Dec 30 04:29	0° \mathbb{X} 58'39	22°31'10	evening max el	4852 Dec 11 18:34	14° \mathbb{Z} 37'22	23°51'12
retrograde	4852 Jan 08 23:15	6° \mathbb{X} 47'34		retrograde	4852 Dec 22 16:16	21° \mathbb{Z} 03'06	
asc. node	4852 Jan 13 01:32	5° \mathbb{X} 19'48		evening set	4852 Dec 27 19:29	18° \mathbb{Z} 56'02	
evening set	4852 Jan 13 13:41	4° \mathbb{X} 56'17		asc. node	4852 Dec 29 22:34	16° \mathbb{Z} 47'53	
	4852 Jan 17 21:49	30° \mathbb{R} \mathbb{Z}		min. Earth dist.	4853 Jan 01 15:53	13° \mathbb{Z} 19'14	0.67934 AU
inferior conj	4852 Jan 18 23:22	28° \mathbb{Z} 31'52	1°53'04	inferior conj	4853 Jan 02 06:56	12° \mathbb{Z} 27'59	1°06'46
minimum elong	4852 Jan 18 21:11	28° \mathbb{Z} 39'28	1°52'18	minimum elong	4853 Jan 02 05:27	12° \mathbb{Z} 33'04	1°06'10
min. Earth dist.	4852 Jan 18 19:15	28° \mathbb{Z} 46'07	0.68088 AU	morning rise	4853 Jan 07 15:39	6° \mathbb{Z} 21'03	
morning rise	4852 Jan 24 04:36	22° \mathbb{Z} 20'07		direct	4853 Jan 11 15:14	4° \mathbb{Z} 51'24	
direct	4852 Jan 28 18:12	20° \mathbb{Z} 27'49		morning max el	4853 Jan 19 17:39	9° \mathbb{Z} 30'27	20°40'16
morning max el	4852 Feb 06 23:04	25° \mathbb{Z} 51'20	21°59'37	greatest brilliancy	4853 Jan 25 14:26	16° \mathbb{Z} 20'33	-0.5m
	4852 Feb 10 17:22	0° \mathbb{X}		desc. node	4853 Feb 04 11:12	0° \mathbb{X} 06'45	
greatest brilliancy	4852 Feb 11 14:39	1° \mathbb{X} 03'56	-0.4m		4853 Feb 04 09:22	0° \mathbb{X}	
desc. node	4852 Feb 18 14:10	10° \mathbb{X} 12'34		morning set	4853 Feb 17 21:50	20° \mathbb{X} 27'16	
	4852 Mar 03 02:24	0° \mathbb{X}			4853 Feb 23 23:19	0° \mathbb{X}	
morning set	4852 Mar 10 18:08	12° \mathbb{X} 01'04		max. Earth dist.	4853 Feb 26 18:20	4° \mathbb{X} 29'11	1.43150 AU
max. Earth dist.	4852 Mar 16 13:22	21° \mathbb{X} 31'47	1.41260 AU				
	4852 Mar 21 12:45	0° \mathbb{Y}		superior conj	4853 Mar 05 10:01	15° \mathbb{X} 26'26	-2°-8'-39
superior conj	4852 Mar 24 06:45	4° \mathbb{Y} 48'54	-2°00'-54	minimum elong	4853 Mar 05 09:58	15° \mathbb{X} 26'13	2°08'39
minimum elong	4852 Mar 24 10:44	5° \mathbb{Y} 06'30	2°00'41		4853 Mar 13 21:41	0° \mathbb{Y}	
evening rise	4852 Apr 03 20:58	24° \mathbb{Y} 07'43		evening rise	4853 Mar 17 13:26	6° \mathbb{Y} 26'28	
	4852 Apr 07 01:15	0° \mathbb{X}		asc. node	4853 Mar 27 21:53	24° \mathbb{Y} 12'35	
asc. node	4852 Apr 10 00:51	5° \mathbb{X} 22'31			4853 Mar 31 22:19	0° \mathbb{X}	
evening max el	4852 Apr 20 01:50	19° \mathbb{X} 55'01	18°14'20	evening max el	4853 Apr 03 13:45	3° \mathbb{X} 00'56	18°06'40
retrograde	4852 Apr 27 02:46	23° \mathbb{X} 26'47		retrograde	4853 Apr 10 02:19	6° \mathbb{X} 23'11	
evening set	4852 Apr 29 12:45	23° \mathbb{X} 02'34		evening set	4853 Apr 12 18:35	5° \mathbb{X} 48'38	
inferior conj	4852 May 06 14:50	18° \mathbb{X} 17'56	2°34'05	inferior conj	4853 Apr 19 05:53	0° \mathbb{X} 43'29	3°15'10
minimum elong	4852 May 06 18:18	18° \mathbb{X} 10'19	2°33'13	minimum elong	4853 Apr 19 08:10	0° \mathbb{X} 37'44	3°14'49
min. Earth dist.	4852 May 10 00:29	15° \mathbb{X} 20'24	0.59523 AU		4853 Apr 19 23:04	30° \mathbb{R} \mathbb{Y}	
morning rise	4852 May 13 19:50	12° \mathbb{X} 36'26		min. Earth dist.	4853 Apr 22 06:59	27° \mathbb{Y} 40'40	0.61723 AU
desc. node	4852 May 16 13:21	11° \mathbb{X} 20'35		morning rise	4853 Apr 25 18:50	24° \mathbb{Y} 43'47	
direct	4852 May 20 05:11	10° \mathbb{X} 43'25		direct	4853 May 02 13:56	22° \mathbb{Y} 19'57	
morning max el	4852 Jun 03 14:10	18° \mathbb{X} 34'08	27°27'56	desc. node	4853 May 03 10:23	22° \mathbb{Y} 22'06	
	4852 Jun 13 04:46	0° \mathbb{II}			4853 May 16 10:21	0° \mathbb{X}	
	4852 Jul 01 02:26	0° \mathbb{Z}		morning max el	4853 May 16 18:10	0° \mathbb{X} 19'17	27°52'15
morning set	4852 Jul 04 21:41	7° \mathbb{Z} 43'07			4853 Jun 07 06:26	0° \mathbb{II}	
asc. node	4852 Jul 07 00:08	12° \mathbb{Z} 09'36		morning set	4853 Jun 19 00:48	22° \mathbb{II} 04'20	
max. Earth dist.	4852 Jul 11 11:03	21° \mathbb{Z} 51'42	1.31955 AU		4853 Jun 22 19:48	0° \mathbb{Z}	
				asc. node	4853 Jun 23 21:11	2° \mathbb{Z} 16'02	
superior conj	4852 Jul 12 01:45	23° \mathbb{Z} 12'44	0°50'50	max. Earth dist.	4853 Jun 24 20:04	4° \mathbb{Z} 19'41	1.32242 AU
minimum elong	4852 Jul 11 23:45	23° \mathbb{Z} 01'46	0°50'27				
	4852 Jul 15 03:37	0° \mathbb{Q}		superior conj	4853 Jun 26 11:54	7° \mathbb{Z} 56'39	0°27'01
evening rise	4852 Jul 18 22:00	8° \mathbb{Q} 09'06		minimum elong	4853 Jun 26 10:42	7° \mathbb{Z} 50'01	0°26'46
	4852 Jul 30 05:27	0° \mathbb{P}		evening rise	4853 Jul 03 09:25	22° \mathbb{Z} 57'20	
desc. node	4852 Aug 12 12:40	19° \mathbb{P} 02'05			4853 Jul 06 18:35	0° \mathbb{Q}	
evening max el	4852 Aug 16 03:53	22° \mathbb{P} 49'49	25°59'47		4853 Jul 25 08:57	0° \mathbb{P}	
retrograde	4852 Aug 30 03:04	29° \mathbb{P} 57'27		evening max el	4853 Jul 28 18:51	3° \mathbb{P} 36'27	24°34'46
evening set	4852 Sep 05 11:44	28° \mathbb{P} 20'17		desc. node	4853 Jul 30 09:40	5° \mathbb{P} 05'02	
min. Earth dist.	4852 Sep 09 16:27	25° \mathbb{P} 45'35	0.58749 AU	retrograde	4853 Aug 11 16:05	10° \mathbb{P} 36'44	
inferior conj	4852 Sep 12 21:58	23° \mathbb{P} 23'05	-5°-2'-5	evening set	4853 Aug 16 19:19	9° \mathbb{P} 37'39	
minimum elong	4852 Sep 13 02:14	23° \mathbb{P} 15'12	5°01'35	min. Earth dist.	4853 Aug 22 06:03	6° \mathbb{P} 48'22	0.56836 AU
morning rise	4852 Sep 20 20:17	18° \mathbb{P} 56'53		inferior conj	4853 Aug 24 23:41	5° \mathbb{P} 03'06	-5°-15'-32
direct	4852 Sep 23 05:29	18° \mathbb{P} 38'07		minimum elong	4853 Aug 24 22:46	5° \mathbb{P} 04'33	5°15'32
morning max el	4852 Oct 01 08:55	22° \mathbb{P} 32'48	18°33'41	morning rise	4853 Sep 02 05:43	0° \mathbb{P} 58'37	
asc. node	4852 Oct 02 23:20	24° \mathbb{P} 13'03		direct	4853 Sep 04 20:50	0° \mathbb{P} 39'38	
	4852 Oct 07 07:03	0° \mathbb{Q}		morning max el	4853 Sep 14 07:04	5° \mathbb{P} 04'39	19°27'11
morning set	4852 Oct 17 11:27	18° \mathbb{Q} 15'27		asc. node	4853 Sep 19 20:25	11° \mathbb{P} 43'54	
					4853 Sep 30 04:37	0° \mathbb{Q}	

morning set	4853 Oct 01 12:55	2°♄40'54		morning rise	4854 Aug 13 17:52	12°♂06'30	
				direct	4854 Aug 16 17:48	11°♂45'20	
superior conj	4853 Oct 09 14:34	18°♄48'47	1°38'04	morning max el	4854 Aug 27 17:20	16°♂51'48	20°42'25
minimum elong	4853 Oct 09 16:30	18°♄58'18	1°37'58	asc. node	4854 Sep 06 17:29	0°♄02'58	
	4853 Oct 15 11:23	0°♄			4854 Sep 06 16:46	0°♄	
max. Earth dist.	4853 Oct 15 21:27	0°♄46'25	1.37908 AU	morning set	4854 Sep 15 19:52	17°♄21'45	
evening rise	4853 Oct 19 16:40	7°♄37'16			4854 Sep 21 22:08	0°♄	
desc. node	4853 Oct 26 09:00	18°♄57'59					
	4853 Nov 02 09:16	0°♄		superior conj	4854 Sep 23 08:27	2°♄56'12	1°43'32
evening max el	4853 Nov 24 07:18	28°♄20'30	25°08'00	minimum elong	4854 Sep 23 08:48	2°♄58'02	1°43'32
	4853 Nov 26 01:41	0°♄		max. Earth dist.	4854 Sep 28 05:26	12°♄41'07	1.35967 AU
retrograde	4853 Dec 06 05:07	5°♄13'54		evening rise	4854 Oct 02 06:31	20°♄23'09	
evening set	4853 Dec 11 21:57	2°♄52'22			4854 Oct 07 15:09	0°♄	
	4853 Dec 14 16:58	30°♄		desc. node	4854 Oct 13 06:01	9°♄23'06	
min. Earth dist.	4853 Dec 16 10:31	27°♄49'57	0.67432 AU		4854 Oct 27 08:52	0°♄	
asc. node	4853 Dec 16 19:36	27°♄20'21		evening max el	4854 Nov 06 20:02	12°♄03'49	26°14'16
inferior conj	4853 Dec 17 12:24	26°♄25'22	0°14'17	retrograde	4854 Nov 19 12:48	19°♄13'53	
minimum elong	4853 Dec 17 12:03	26°♄26'32	0°14'08	evening set	4854 Nov 25 19:16	16°♄40'45	
transit middle	4853 Dec 17 12:03	26°♄26'32	0°14'08	min. Earth dist.	4854 Nov 30 00:44	12°♄13'59	0.66583 AU
transit begin	4853 Dec 17 10:42	26°♄30'57		inferior conj	4854 Dec 01 13:51	10°♄19'53	0°-43'-23
transit end	4853 Dec 17 13:24	26°♄22'06		minimum elong	4854 Dec 01 15:02	10°♄16'17	0°42'53
morning rise	4853 Dec 23 02:49	20°♄25'31		asc. node	4854 Dec 03 16:41	7°♄48'56	
direct	4853 Dec 26 13:56	19°♄16'21		morning rise	4854 Dec 07 11:58	4°♄29'47	
morning max el	4854 Jan 02 20:09	23°♄20'52	19°33'57	direct	4854 Dec 10 12:30	3°♄37'51	
	4854 Jan 08 10:38	0°♄		morning max el	4854 Dec 17 05:48	7°♄19'06	18°43'04
greatest brilliancy	4854 Jan 11 02:03	3°♄37'29	-0.6m		4855 Jan 02 08:11	0°♄	
desc. node	4854 Jan 22 08:15	20°♄21'20		morning set	4855 Jan 07 09:25	7°♄57'14	
morning set	4854 Jan 27 18:41	28°♄42'20		desc. node	4855 Jan 09 05:17	10°♄50'02	
	4854 Jan 28 14:47	0°♄			4855 Jan 21 10:14	0°♄	
max. Earth dist.	4854 Feb 09 06:38	18°♄13'40	1.44532 AU	max. Earth dist.	4855 Jan 23 00:18	2°♄29'18	1.45241 AU
superior conj	4854 Feb 13 11:45	24°♄56'41	-1°-59'-5	superior conj	4855 Jan 23 18:02	3°♄38'57	-1°-29'-51
minimum elong	4854 Feb 13 05:28	24°♄31'28	1°58'46	minimum elong	4855 Jan 23 08:40	3°♄02'08	1°28'54
	4854 Feb 16 14:56	0°♄		evening rise	4855 Feb 08 07:22	28°♄18'41	
evening rise	4854 Feb 27 09:56	17°♄51'17			4855 Feb 09 08:37	0°♄	
	4854 Mar 06 15:44	0°♄		evening max el	4855 Mar 01 13:45	29°♄50'14	18°47'19
asc. node	4854 Mar 14 18:54	12°♄27'15		asc. node	4855 Mar 01 15:57	29°♄55'47	
evening max el	4854 Mar 18 02:38	16°♄21'37	18°17'55		4855 Mar 01 17:38	0°♄	
retrograde	4854 Mar 24 12:50	19°♄48'17		retrograde	4855 Mar 08 06:19	3°♄33'54	
evening set	4854 Mar 27 11:12	19°♄02'05		evening set	4855 Mar 11 11:10	2°♄35'05	
inferior conj	4854 Apr 02 11:35	13°♄37'30	3°32'23		4855 Mar 14 11:59	30°♄	
minimum elong	4854 Apr 02 12:12	13°♄35'46	3°32'21	inferior conj	4855 Mar 17 04:02	26°♄52'43	3°31'31
min. Earth dist.	4854 Apr 04 22:31	10°♄51'53	0.63753 AU	minimum elong	4855 Mar 17 03:11	26°♄55'20	3°31'28
morning rise	4854 Apr 08 11:19	7°♄27'54		min. Earth dist.	4855 Mar 18 23:15	24°♄39'36	0.65435 AU
direct	4854 Apr 15 07:21	4°♄44'40		morning rise	4855 Mar 22 18:03	20°♄38'16	
desc. node	4854 Apr 20 07:26	5°♄59'24		direct	4855 Mar 29 07:44	17°♄49'28	
morning max el	4854 Apr 29 02:24	12°♄43'04	27°39'16	desc. node	4855 Apr 07 04:30	21°♄41'24	
	4854 May 12 21:55	0°♄		morning max el	4855 Apr 11 12:24	25°♄35'56	26°53'44
	4854 May 30 18:33	0°♄			4855 Apr 15 13:13	0°♄	
morning set	4854 Jun 02 20:48	6°♄01'21			4855 May 06 10:13	0°♄	
max. Earth dist.	4854 Jun 07 22:51	16°♄25'46	1.32974 AU	morning set	4855 May 17 06:36	19°♄25'14	
				max. Earth dist.	4855 May 21 16:04	28°♄02'52	1.34168 AU
					4855 May 22 15:15	0°♄	
superior conj	4854 Jun 10 18:42	22°♄26'14	0°00'13				
minimum elong	4854 Jun 10 18:42	22°♄26'10	0°00'12	superior conj	4855 May 25 20:00	6°♄35'15	0°-28'-40
behind sun begin	4854 Jun 10 13:22	21°♄57'36		minimum elong	4855 May 25 21:32	6°♄43'14	0°28'24
behind sun end	4854 Jun 11 00:01	22°♄54'46		asc. node	4855 May 28 15:16	12°♄28'35	
asc. node	4854 Jun 10 18:13	22°♄23'37		evening rise	4855 Jun 02 07:22	22°♄19'28	
	4854 Jun 14 06:51	0°♄			4855 Jun 06 01:36	0°♄	
evening rise	4854 Jun 17 21:10	7°♄42'47		evening max el	4855 Jun 22 02:37	24°♄32'03	21°24'17
	4854 Jun 29 14:19	0°♄			4855 Jun 30 15:16	0°♄	
evening max el	4854 Jul 10 07:48	13°♄59'33	22°57'41	retrograde	4855 Jul 04 06:15	0°♄31'44	
desc. node	4854 Jul 17 06:42	19°♄05'40		desc. node	4855 Jul 04 03:43	0°♄31'42	
retrograde	4854 Jul 23 16:08	20°♄39'00		evening set	4855 Jul 06 16:21	0°♄18'17	
evening set	4854 Jul 27 06:53	20°♄10'28			4855 Jul 08 00:23	30°♄	
min. Earth dist.	4854 Aug 03 16:31	16°♄51'33	0.55424 AU				
inferior conj	4854 Aug 05 06:04	15°♄57'21	-4°-44'-7	inferior conj	4855 Jul 16 00:23	26°♄19'09	-3°-21'-33
minimum elong	4854 Aug 04 23:03	16°♄07'32	4°42'54	minimum elong	4855 Jul 15 15:55	26°♄30'59	3°19'00

min. Earth dist.	4855 Jul 16 02:51	26°☿15'42	0.54813 AU	minimum elong	4856 Jun 24 16:17	6°☿43'18	1°24'37
morning rise	4855 Jul 24 16:07	22°☿25'24		min. Earth dist.	4856 Jun 26 15:02	5°☿33'29	0.55155 AU
direct	4855 Jul 28 03:35	21°☿59'16		morning rise	4856 Jul 03 10:58	2°☿19'49	
morning max el	4855 Aug 09 16:05	27°☿54'13	22°16'08	direct	4856 Jul 07 15:14	1°☿41'52	
	4855 Aug 11 18:20	0°♊		morning max el	4856 Jul 21 07:25	8°☿24'16	23°59'39
asc. node	4855 Aug 24 14:32	18°♊58'41			4856 Aug 06 00:56	0°♊	
	4855 Aug 30 04:46	0°♊		asc. node	4856 Aug 10 11:34	8°♊21'11	
morning set	4855 Aug 31 06:06	2°♊11'52		morning set	4856 Aug 14 17:45	17°♊05'08	
					4856 Aug 20 17:22	0°♊	
superior conj	4855 Sep 07 10:33	17°♊27'35	1°41'45	superior conj	4856 Aug 21 18:01	2°♊13'40	1°33'50
minimum elong	4855 Sep 07 09:36	17°♊22'31	1°41'42	minimum elong	4856 Aug 21 16:10	2°♊03'39	1°33'40
max. Earth dist.	4855 Sep 10 21:05	24°♊38'04	1.34350 AU	max. Earth dist.	4856 Aug 23 21:19	6°♊49'52	1.33134 AU
	4855 Sep 13 12:42	0°♋		evening rise	4856 Aug 29 05:08	17°♊55'06	
evening rise	4855 Sep 15 12:02	3°♋52'51			4856 Sep 04 11:38	0°♋	
desc. node	4855 Sep 30 03:02	29°♋30'14		desc. node	4856 Sep 16 00:03	19°♋11'20	
	4855 Sep 30 10:39	0°♌			4856 Sep 23 19:51	0°♌	
evening max el	4855 Oct 20 08:45	25°♌39'10	27°02'29	evening max el	4856 Oct 01 20:15	8°♌55'13	27°25'51
	4855 Oct 25 15:13	0°♍		retrograde	4856 Oct 15 10:59	16°♌12'57	
retrograde	4855 Nov 02 14:53	2°♍56'24		evening set	4856 Oct 22 13:27	13°♌35'55	
evening set	4855 Nov 09 09:19	0°♍17'02		min. Earth dist.	4856 Oct 26 06:39	10°♌19'04	0.63828 AU
	4855 Nov 09 17:44	30°♌		inferior conj	4856 Oct 28 19:45	7°♌42'12	-2°-47'-49
min. Earth dist.	4855 Nov 13 08:07	26°♌26'18	0.65381 AU	minimum elong	4856 Oct 29 00:34	7°♌29'47	2°46'04
inferior conj	4855 Nov 15 09:08	24°♌07'20	-1°-44'-50	morning rise	4856 Nov 04 14:13	2°♌20'56	
minimum elong	4855 Nov 15 12:07	23°♌58'50	1°43'36	asc. node	4856 Nov 06 10:47	1°♌53'40	
asc. node	4855 Nov 20 13:45	19°♌08'31		direct	4856 Nov 07 00:12	1°♌52'06	
morning rise	4855 Nov 21 16:46	18°♌30'05		morning max el	4856 Nov 13 13:17	5°♌17'03	17°51'34
direct	4855 Nov 24 08:49	17°♌51'35			4856 Nov 29 18:33	0°♍	
morning max el	4855 Nov 30 20:28	21°♌20'03	18°08'42	morning set	4856 Nov 30 04:38	0°♍43'20	
	4855 Dec 07 14:07	0°♍					
morning set	4855 Dec 19 05:25	18°♍40'32		superior conj	4856 Dec 12 21:07	22°♍04'20	0°00'39
	4855 Dec 26 04:20	0°♎		minimum elong	4856 Dec 12 21:12	22°♍04'40	0°00'39
desc. node	4855 Dec 27 02:18	1°♎28'30		behind sun begin	4856 Dec 12 11:23	21°♍24'32	
				behind sun end	4856 Dec 13 07:01	22°♍44'43	
superior conj	4856 Jan 02 22:39	12°♎23'35	0°-46'-10	desc. node	4856 Dec 12 23:20	22°♍13'22	
minimum elong	4856 Jan 02 16:55	12°♎00'55	0°45'24		4856 Dec 17 18:56	0°♏	
max. Earth dist.	4856 Jan 05 19:58	16°♎56'40	1.45206 AU	max. Earth dist.	4856 Dec 18 14:14	1°♏16'55	1.44444 AU
	4856 Jan 14 04:28	0°♐		evening rise	4856 Dec 28 17:55	17°♏08'45	
evening rise	4856 Jan 19 07:01	7°♐56'09			4857 Jan 06 04:56	0°♐	
	4856 Feb 02 16:35	0°♑		greatest brilliancy	4857 Jan 20 03:00	19°♐58'51	-0.5m
greatest brilliancy	4856 Feb 04 21:38	3°♑13'23	-0.7m	evening max el	4857 Jan 25 22:56	26°♐54'57	20°34'16
evening max el	4856 Feb 12 20:56	13°♑21'45	19°33'29		4857 Jan 29 11:57	0°♑	
asc. node	4856 Feb 16 12:59	16°♑24'34		asc. node	4857 Feb 02 10:01	1°♑39'24	
retrograde	4856 Feb 20 03:29	17°♑33'02		retrograde	4857 Feb 03 01:45	1°♑41'44	
evening set	4856 Feb 23 15:45	16°♑20'48		evening set	4857 Feb 06 22:50	0°♑15'09	
inferior conj	4856 Feb 29 03:56	10°♑22'50	3°16'48		4857 Feb 07 06:37	30°♑	
minimum elong	4856 Feb 29 02:04	10°♑28'56	3°16'32	inferior conj	4857 Feb 12 08:39	24°♑04'22	2°51'11
min. Earth dist.	4856 Mar 01 08:11	8°♑49'54	0.66707 AU	minimum elong	4857 Feb 12 06:17	24°♑12'27	2°50'37
morning rise	4856 Mar 05 11:40	4°♑06'30		min. Earth dist.	4857 Feb 12 23:23	23°♑13'56	0.67560 AU
direct	4856 Mar 11 14:10	1°♑24'20		morning rise	4857 Feb 17 13:14	17°♑48'16	
morning max el	4856 Mar 23 22:00	8°♑45'28	25°43'32	direct	4857 Feb 23 02:00	15°♑21'39	
desc. node	4856 Mar 24 01:31	8°♑54'24		morning max el	4857 Mar 06 06:40	22°♑03'10	24°18'35
	4856 Apr 09 14:15	0°♒		desc. node	4857 Mar 10 22:32	27°♑13'05	
	4856 Apr 27 22:52	0°♒			4857 Mar 13 05:02	0°♒	
morning set	4856 Apr 29 01:55	2°♒02'59		morning set	4857 Apr 02 21:24	0°♒	
max. Earth dist.	4856 May 02 21:54	9°♒12'37	1.35814 AU	max. Earth dist.	4857 Apr 11 01:25	13°♒40'18	
					4857 Apr 14 18:44	20°♒15'44	1.37833 AU
superior conj	4856 May 08 13:03	20°♒15'03	0°-58'-21		4857 Apr 20 01:10	0°♓	
minimum elong	4856 May 08 16:16	20°♒31'11	0°57'48	superior conj	4857 Apr 21 18:37	3°♓17'35	-1°-26'-44
	4856 May 13 07:53	0°♔		minimum elong	4857 Apr 21 23:13	3°♓39'39	1°26'07
asc. node	4856 May 14 12:17	2°♔25'59		evening rise	4857 Apr 30 14:01	20°♓36'32	
evening rise	4856 May 16 13:48	6°♔39'39		asc. node	4857 May 01 09:18	22°♓11'40	
	4856 May 29 14:49	0°♕			4857 May 05 10:26	0°♕	
evening max el	4856 Jun 03 08:58	5°♕38'41	20°05'41	evening max el	4857 May 17 03:32	17°♕27'41	19°06'32
retrograde	4856 Jun 13 20:42	10°♕46'25		retrograde	4857 May 25 23:20	21°♕46'22	
evening set	4856 Jun 15 19:14	10°♕36'39		evening set	4857 May 27 23:24	21°♕33'58	
desc. node	4856 Jun 20 00:45	9°♕15'17					
inferior conj	4856 Jun 24 20:18	6°♕37'17	-1°-26'-6				

inferior conj	4857 Jun 05 07:11	17°II21'34	0°28'14	retrograde	4858 May 07 20:34	3°II37'34	
minimum elong	4857 Jun 05 08:20	17°II19'36	0°27'49	evening set	4858 May 10 02:55	3°II18'22	
desc. node	4857 Jun 06 21:45	16°II15'20			4858 May 16 01:30	30°R8	
min. Earth dist.	4857 Jun 08 06:11	15°II20'46	0.56397 AU	inferior conj	4858 May 17 15:12	28°846'07	1°57'15
morning rise	4857 Jun 13 12:54	12°II28'43		minimum elong	4858 May 17 18:38	28°839'12	1°56'13
direct	4857 Jun 18 15:30	11°II27'39		min. Earth dist.	4858 May 21 01:25	26°802'50	0.58283 AU
morning max el	4857 Jul 02 21:24	18°II46'42	25°38'35	desc. node	4858 May 24 18:45	23°834'51	
	4857 Jul 12 07:27	0°☾		morning rise	4858 May 25 05:55	23°820'08	
asc. node	4857 Jul 28 08:35	28°☾03'17		direct	4858 May 31 06:02	21°846'43	
	4857 Jul 29 07:03	0°♂		morning max el	4858 Jun 14 15:20	29°828'33	26°57'08
morning set	4857 Jul 30 05:13	1°♂56'39			4858 Jun 15 04:02	0°II	
					4858 Jul 06 03:18	0°☾	
superior conj	4857 Aug 06 04:35	17°♂07'16	1°20'40	morning set	4858 Jul 14 14:53	16°☾41'21	
minimum elong	4857 Aug 06 02:18	16°♂54'45	1°20'21	asc. node	4858 Jul 15 05:36	17°☾59'01	
max. Earth dist.	4857 Aug 07 04:27	19°♂18'15	1.32346 AU		4858 Jul 20 18:17	0°♂	
	4857 Aug 12 03:37	0°♐					
evening rise	4857 Aug 13 06:33	2°♐20'32		superior conj	4858 Jul 21 16:23	2°♂02'05	1°02'56
	4857 Aug 28 08:22	0°♌		minimum elong	4858 Jul 21 14:09	1°♂49'46	1°02'32
desc. node	4857 Sep 02 21:04	8°♌15'21		max. Earth dist.	4858 Jul 21 15:25	1°♂56'41	1.31976 AU
evening max el	4857 Sep 14 04:28	21°♌39'12	27°18'33	evening rise	4858 Jul 28 13:35	17°♂01'00	
retrograde	4857 Sep 28 00:20	28°♌53'20			4858 Aug 04 00:36	0°♐	
evening set	4857 Oct 05 04:04	26°♌30'15		desc. node	4858 Aug 20 18:04	26°♐27'22	
min. Earth dist.	4857 Oct 08 18:57	23°♌40'27	0.61977 AU		4858 Aug 23 17:47	0°♌	
inferior conj	4857 Oct 11 18:41	20°♌56'40	-3°-48'-34	evening max el	4858 Aug 27 06:58	3°♌40'19	26°37'47
minimum elong	4857 Oct 12 00:46	20°♌42'43	3°46'49	retrograde	4858 Sep 10 05:28	10°♌49'34	
morning rise	4857 Oct 19 00:34	15°♌54'32		evening set	4858 Sep 17 00:42	8°♌52'54	
direct	4857 Oct 21 07:27	15°♌31'50		min. Earth dist.	4858 Sep 20 20:48	6°♌17'36	0.59940 AU
asc. node	4857 Oct 24 07:49	16°♌12'36		inferior conj	4858 Sep 24 02:35	3°♌42'19	-4°-40'-23
morning max el	4857 Oct 28 05:04	19°♌01'34	17°52'27	minimum elong	4858 Sep 24 08:19	3°♌30'49	4°39'19
	4857 Nov 05 04:58	0°♍			4858 Sep 29 10:05	30°R♐	
morning set	4857 Nov 13 00:36	13°♍45'17		morning rise	4858 Oct 01 19:19	29°♐02'08	
	4857 Nov 22 03:43	0°♊		direct	4858 Oct 04 02:39	28°♐42'35	
					4858 Oct 08 13:44	0°♌	
superior conj	4857 Nov 23 21:48	3°♊01'36	0°41'11	asc. node	4858 Oct 11 04:51	1°♌57'52	
minimum elong	4857 Nov 24 01:14	3°♊16'18	0°40'43	morning max el	4858 Oct 11 16:37	2°♌25'29	18°12'37
desc. node	4857 Nov 29 20:21	13°♊00'33		morning set	4858 Oct 27 11:26	27°♌29'29	
max. Earth dist.	4857 Dec 01 04:35	15°♊12'39	1.43054 AU		4858 Oct 28 19:17	0°♍	
evening rise	4857 Dec 08 07:22	26°♊34'26					
	4857 Dec 10 12:16	0°♎		superior conj	4858 Nov 05 23:17	15°♍10'53	1°11'27
	4857 Dec 31 02:23	0°♏		minimum elong	4858 Nov 06 03:13	15°♍28'39	1°10'59
greatest brilliancy	4858 Jan 04 00:53	5°♏04'10	-0.4m	max. Earth dist.	4858 Nov 13 14:15	28°♍32'35	1.41206 AU
evening max el	4858 Jan 08 19:31	10°♏29'39	21°46'24		4858 Nov 14 10:57	0°♊	
retrograde	4858 Jan 17 23:05	15°♏55'50		desc. node	4858 Nov 16 17:23	3°♊46'51	
asc. node	4858 Jan 20 07:02	15°♏26'44		evening rise	4858 Nov 18 13:31	6°♊47'38	
evening set	4858 Jan 22 06:39	14°♏13'56			4858 Dec 03 16:30	0°♎	
inferior conj	4858 Jan 27 15:57	7°♏53'35	2°16'34	greatest brilliancy	4858 Dec 16 11:18	17°♎19'16	-0.2m
minimum elong	4858 Jan 27 13:34	8°♏01'52	2°15'49	evening max el	4858 Dec 22 11:40	24°♎07'17	23°05'10
min. Earth dist.	4858 Jan 27 18:31	7°♏44'42	0.68010 AU		4858 Dec 31 02:36	0°♏	
morning rise	4858 Feb 01 20:13	1°♏39'37		retrograde	4859 Jan 01 17:56	0°♏12'01	
	4858 Feb 04 11:36	30°R♎			4859 Jan 03 07:45	30°R♎	
direct	4858 Feb 06 18:18	29°♎33'54		evening set	4859 Jan 06 13:39	28°♎14'08	
	4858 Feb 09 04:11	0°♏		asc. node	4859 Jan 07 04:04	27°♎42'23	
morning max el	4858 Feb 16 16:18	5°♏26'09	22°49'13	inferior conj	4859 Jan 11 23:58	21°♎47'54	1°34'14
greatest brilliancy	4858 Feb 21 08:18	10°♏38'26	-0.3m	minimum elong	4859 Jan 11 22:01	21°♎54'37	1°33'30
desc. node	4858 Feb 25 19:35	16°♏18'33		min. Earth dist.	4859 Jan 11 15:13	22°♎18'04	0.68076 AU
	4858 Mar 07 13:39	0°♐		morning rise	4859 Jan 17 06:24	15°♎37'56	
morning set	4858 Mar 22 23:04	24°♐01'19		direct	4859 Jan 21 14:00	13°♎55'11	
	4858 Mar 26 12:42	0°♑		morning max el	4859 Jan 30 06:43	18°♎58'17	21°24'22
max. Earth dist.	4858 Mar 27 13:56	1°♑47'39	1.40030 AU	greatest brilliancy	4859 Feb 04 07:26	24°♎40'59	-0.4m
					4859 Feb 08 09:31	0°♏	
superior conj	4858 Apr 04 08:30	15°♑32'36	-1°-50'-45	desc. node	4859 Feb 12 16:38	5°♏57'46	
minimum elong	4858 Apr 04 13:21	15°♑54'41	1°50'19		4859 Feb 28 17:49	0°♐	
	4858 Apr 12 02:05	0°♑		morning set	4859 Mar 02 16:08	3°♐02'08	
evening rise	4858 Apr 14 04:57	4°♑02'07		max. Earth dist.	4859 Mar 09 15:01	14°♐15'03	1.42120 AU
asc. node	4858 Apr 18 06:19	11°♑40'35					
	4858 Apr 30 10:10	0°II		superior conj	4859 Mar 17 01:47	26°♐48'47	-2°-5'-58
evening max el	4858 Apr 30 07:36	29°♑53'45	18°27'42	minimum elong	4859 Mar 17 04:28	27°♐00'22	2°05'54

	4859 Mar 18 21:48	0°♿		minimum elong	4860 Feb 25 15:31	6°♿46'20	2°06'55
evening rise	4859 Mar 28 06:52	16°♿47'55		evening rise	4860 Mar 09 15:25	28°♿45'12	
	4859 Apr 04 16:19	0°♿			4860 Mar 10 08:42	0°♿	
asc. node	4859 Apr 05 03:21	0°♿46'49		asc. node	4860 Mar 22 00:24	19°♿23'12	
evening max el	4859 Apr 13 17:39	12°♿47'39	18°08'45	evening max el	4860 Mar 27 06:19	26°♿00'46	18°09'08
retrograde	4859 Apr 20 11:46	16°♿13'16		retrograde	4860 Apr 02 16:46	29°♿23'29	
evening set	4859 Apr 23 00:38	15°♿44'41		evening set	4860 Apr 05 11:36	28°♿44'04	
inferior conj	4859 Apr 29 19:54	10°♿51'03	2°54'51	inferior conj	4860 Apr 11 17:46	23°♿30'07	3°25'00
minimum elong	4859 Apr 29 23:00	10°♿43'49	2°54'13	minimum elong	4860 Apr 11 19:21	23°♿25'55	3°24'50
min. Earth dist.	4859 May 03 02:53	7°♿48'27	0.60465 AU	min. Earth dist.	4860 Apr 14 13:05	20°♿32'30	0.62616 AU
morning rise	4859 May 06 17:52	5°♿00'55		morning rise	4860 Apr 18 00:40	17°♿25'18	
desc. node	4859 May 11 15:48	3°♿02'14		direct	4860 Apr 24 21:01	14°♿51'56	
direct	4859 May 13 08:36	2°♿53'57		desc. node	4860 Apr 27 12:51	15°♿12'58	
morning max el	4859 May 27 15:45	10°♿48'31	27°43'05	morning max el	4860 May 08 22:04	22°♿51'48	27°51'16
	4859 Jun 11 14:29	0°♿			4860 May 15 05:48	0°♿	
	4859 Jun 28 06:53	0°♿			4860 Jun 03 19:53	0°♿	
morning set	4859 Jun 28 20:58	1°♿12'34		morning set	4860 Jun 11 21:23	15°♿24'22	
asc. node	4859 Jul 02 02:38	8°♿02'30		max. Earth dist.	4860 Jun 17 09:27	26°♿53'20	1.32499 AU
max. Earth dist.	4859 Jul 05 02:24	14°♿32'33	1.32024 AU	asc. node	4860 Jun 17 23:41	28°♿09'45	
					4860 Jun 18 20:07	0°♿	
superior conj	4859 Jul 06 03:37	16°♿51'09	0°41'10	superior conj	4860 Jun 19 12:35	1°♿29'16	0°15'59
minimum elong	4859 Jul 06 01:54	16°♿41'42	0°40'49	minimum elong	4860 Jun 19 11:50	1°♿25'11	0°15'49
	4859 Jul 12 03:46	0°♿		behind sun begin	4860 Jun 19 11:13	1°♿21'54	
evening rise	4859 Jul 12 23:57	1°♿48'02		behind sun end	4860 Jun 19 12:26	1°♿28'28	
	4859 Jul 28 05:20	0°♿		evening rise	4860 Jun 26 11:45	16°♿35'37	
desc. node	4859 Aug 07 15:05	13°♿25'14			4860 Jul 03 02:46	0°♿	
evening max el	4859 Aug 09 01:48	14°♿51'31	25°26'11	evening max el	4860 Jul 20 14:46	25°♿23'05	23°53'53
retrograde	4859 Aug 23 00:32	21°♿56'03		desc. node	4860 Jul 24 12:05	28°♿40'04	
evening set	4859 Aug 28 22:24	20°♿35'07			4860 Jul 26 13:20	0°♿	
min. Earth dist.	4859 Sep 02 13:35	17°♿56'37	0.57903 AU	retrograde	4860 Aug 03 08:01	2°♿17'05	
inferior conj	4859 Sep 05 15:55	15°♿48'03	-5°-12'-17	evening set	4860 Aug 07 20:07	1°♿32'20	
minimum elong	4859 Sep 05 18:21	15°♿43'48	5°12'08		4860 Aug 11 10:35	30°♿	
morning rise	4859 Sep 13 17:47	11°♿31'25		min. Earth dist.	4860 Aug 14 01:02	28°♿32'11	0.56156 AU
direct	4859 Sep 16 05:18	11°♿12'37		inferior conj	4860 Aug 16 08:54	27°♿07'08	-5°-8'-28
morning max el	4859 Sep 24 20:29	15°♿18'30	18°53'42	minimum elong	4860 Aug 16 05:12	27°♿12'47	5°08'10
asc. node	4859 Sep 28 01:54	18°♿54'08		morning rise	4860 Aug 24 17:39	23°♿10'24	
	4859 Oct 05 04:37	0°♿		direct	4860 Aug 27 12:17	22°♿50'44	
morning set	4859 Oct 11 08:33	11°♿42'32		morning max el	4860 Sep 06 13:44	27°♿31'32	19°56'42
					4860 Sep 08 22:50	0°♿	
superior conj	4859 Oct 19 20:26	28°♿17'28	1°31'07	asc. node	4860 Sep 13 22:57	6°♿46'25	
minimum elong	4859 Oct 19 23:16	28°♿31'01	1°30'53	morning set	4860 Sep 24 12:38	26°♿15'00	
	4859 Oct 20 18:02	0°♿			4860 Sep 26 08:50	0°♿	
max. Earth dist.	4859 Oct 26 19:58	11°♿10'22	1.39118 AU	superior conj	4860 Oct 02 08:01	12°♿06'25	1°41'22
evening rise	4859 Oct 30 18:22	18°♿02'25		minimum elong	4860 Oct 02 09:16	12°♿12'40	1°41'18
desc. node	4859 Nov 03 14:24	24°♿28'19		max. Earth dist.	4860 Oct 08 01:13	23°♿13'15	1.37049 AU
	4859 Nov 07 00:27	0°♿		evening rise	4860 Oct 11 21:12	0°♿17'22	
	4859 Nov 28 02:07	0°♿			4860 Oct 11 17:21	0°♿	
evening max el	4859 Dec 05 01:03	7°♿48'18	24°24'37	desc. node	4860 Oct 20 11:25	15°♿00'43	
retrograde	4859 Dec 16 09:11	14°♿26'23			4860 Oct 30 05:54	0°♿	
evening set	4859 Dec 21 18:16	12°♿12'47		evening max el	4860 Nov 16 13:28	21°♿31'20	25°37'50
asc. node	4859 Dec 25 01:08	8°♿41'38		retrograde	4860 Nov 28 19:59	28°♿33'33	
min. Earth dist.	4859 Dec 26 11:12	6°♿50'44	0.67772 AU	evening set	4860 Dec 04 18:48	26°♿06'15	
inferior conj	4859 Dec 27 06:54	5°♿44'47	0°45'12	min. Earth dist.	4860 Dec 09 04:10	21°♿19'07	0.67116 AU
minimum elong	4859 Dec 27 05:50	5°♿48'21	0°44'45	inferior conj	4860 Dec 10 10:53	19°♿41'08	0°-9'-38
	4860 Jan 01 07:41	30°♿		minimum elong	4860 Dec 10 11:08	19°♿40'20	0°09'32
morning rise	4860 Jan 01 17:48	29°♿40'50		transit middle	4860 Dec 10 11:08	19°♿40'20	0°09'32
direct	4860 Jan 05 11:56	28°♿20'13		transit begin	4860 Dec 10 08:52	19°♿47'35	
	4860 Jan 10 00:28	0°♿		transit end	4860 Dec 10 13:24	19°♿33'05	
morning max el	4860 Jan 13 04:43	2°♿42'41	20°10'16	asc. node	4860 Dec 10 22:12	19°♿05'07	
greatest brilliancy	4860 Jan 19 21:10	10°♿41'40	-0.6m	morning rise	4860 Dec 16 04:22	13°♿45'21	
desc. node	4860 Jan 30 13:40	26°♿01'26		direct	4860 Dec 19 10:40	12°♿44'09	
	4860 Feb 02 05:11	0°♿		morning max el	4860 Dec 26 10:35	16°♿37'24	19°10'19
morning set	4860 Feb 09 13:56	11°♿15'00			4861 Jan 05 17:16	0°♿	
max. Earth dist.	4860 Feb 19 23:56	27°♿36'50	1.43815 AU	greatest brilliancy	4861 Jan 05 18:29	0°♿04'29	-0.7m
	4860 Feb 21 11:35	0°♿		desc. node	4861 Jan 16 10:41	16°♿22'19	
superior conj	4860 Feb 25 18:09	6°♿57'12	-2°-6'-58				

morning set	4861 Jan 18 15:50	19°☿48'27			4861 Dec 09 06:51	0°☿	
	4861 Jan 25 05:00	0°☿		morning max el	4861 Dec 09 22:44	0°☿38'08	18°26'22
max. Earth dist.	4861 Feb 01 14:47	11°☿36'21	1.44919 AU	morning set	4861 Dec 29 18:41	29°☿40'37	
					4861 Dec 29 23:32	0°☿	
superior conj	4861 Feb 04 10:04	16°☿02'06	-1°-48'-59	desc. node	4862 Jan 03 07:43	6°☿55'48	
minimum elong	4861 Feb 04 01:42	15°☿28'56	1°48'21				
	4861 Feb 13 03:10	0°☿		superior conj	4862 Jan 14 13:11	24°☿39'10	-1°-12'-30
evening rise	4861 Feb 19 02:20	9°☿45'29		minimum elong	4862 Jan 14 04:40	24°☿05'45	1°11'30
	4861 Mar 03 14:14	0°☿		max. Earth dist.	4862 Jan 15 09:13	25°☿57'39	1.45319 AU
asc. node	4861 Mar 08 21:28	7°☿19'30			4862 Jan 17 23:04	0°☿	
evening max el	4861 Mar 10 18:40	9°☿24'47	18°28'14	evening rise	4862 Jan 30 13:59	19°☿49'49	
retrograde	4861 Mar 17 06:46	12°☿57'40			4862 Feb 06 00:36	0°☿	
evening set	4861 Mar 20 07:42	12°☿06'21		greatest brilliancy	4862 Feb 11 20:26	9°☿03'32	-0.7m
inferior conj	4861 Mar 26 04:30	6°☿33'56	3°33'54	evening max el	4862 Feb 22 04:21	22°☿55'04	19°04'58
minimum elong	4861 Mar 26 04:27	6°☿34'05	3°33'54	asc. node	4862 Feb 23 18:30	24°☿24'20	
min. Earth dist.	4861 Mar 28 08:47	4°☿00'32	0.64513 AU	retrograde	4862 Mar 01 02:07	26°☿49'20	
morning rise	4861 Mar 31 23:37	0°☿21'27		evening set	4862 Mar 04 09:54	25°☿45'07	
	4861 Apr 01 10:16	30°☿		inferior conj	4862 Mar 10 00:29	19°☿56'02	3°26'44
direct	4861 Apr 07 17:33	27°☿34'09		minimum elong	4862 Mar 09 23:09	20°☿00'16	3°26'36
desc. node	4861 Apr 14 09:54	29°☿47'03		min. Earth dist.	4862 Mar 11 13:18	17°☿59'05	0.66035 AU
	4861 Apr 14 18:08	0°☿		morning rise	4862 Mar 15 11:25	13°☿40'22	
morning max el	4861 Apr 21 07:34	5°☿29'51	27°23'27	direct	4862 Mar 21 20:54	10°☿52'41	
	4861 May 09 23:07	0°☿		desc. node	4862 Apr 01 06:56	16°☿11'03	
morning set	4861 May 26 13:27	29°☿08'10		morning max el	4862 Apr 03 17:30	18°☿30'40	26°26'07
	4861 May 27 00:01	0°☿			4862 Apr 13 10:16	0°☿	
max. Earth dist.	4861 May 31 08:29	8°☿46'55	1.33422 AU		4862 May 02 23:05	0°☿	
				morning set	4862 May 09 17:38	12°☿13'45	
superior conj	4861 Jun 03 17:16	15°☿50'12	0°-11'-52	max. Earth dist.	4862 May 13 20:25	20°☿08'47	1.34813 AU
minimum elong	4861 Jun 03 17:53	15°☿53'27	0°11'46				
behind sun begin	4861 Jun 03 14:08	15°☿33'36		superior conj	4862 May 18 15:24	29°☿47'29	0°-41'-18
behind sun end	4861 Jun 03 21:37	16°☿13'18		minimum elong	4862 May 18 17:38	29°☿59'01	0°40'53
asc. node	4861 Jun 04 20:44	18°☿16'20			4862 May 18 17:50	0°☿	
	4861 Jun 10 08:25	0°☿		asc. node	4862 May 22 17:46	8°☿18'18	
evening rise	4861 Jun 10 23:03	1°☿17'18		evening rise	4862 May 26 07:52	15°☿47'10	
	4861 Jun 27 04:34	0°☿			4862 Jun 02 13:37	0°☿	
evening max el	4861 Jul 02 05:04	5°☿45'07	22°16'41	evening max el	4862 Jun 14 04:32	16°☿30'19	20°48'42
desc. node	4861 Jul 11 09:06	11°☿37'42		retrograde	4862 Jun 25 16:01	22°☿08'01	
retrograde	4861 Jul 15 03:35	12°☿10'39		evening set	4862 Jun 27 18:55	21°☿57'16	
evening set	4861 Jul 18 04:02	11°☿50'30		desc. node	4862 Jun 28 06:08	21°☿52'06	
min. Earth dist.	4861 Jul 26 11:19	8°☿14'39	0.55043 AU	inferior conj	4862 Jul 07 01:53	18°☿00'24	-2°-34'-40
inferior conj	4861 Jul 27 08:45	7°☿44'24	-4°-14'-54	minimum elong	4862 Jul 06 18:49	18°☿10'27	2°32'16
minimum elong	4861 Jul 27 00:16	7°☿56'22	4°12'56	min. Earth dist.	4862 Jul 07 22:32	17°☿31'00	0.54835 AU
morning rise	4861 Aug 04 22:32	3°☿54'42		morning rise	4862 Jul 15 17:55	13°☿58'31	
direct	4861 Aug 08 02:37	3°☿32'07		direct	4862 Jul 19 11:53	13°☿28'17	
morning max el	4861 Aug 19 18:57	8°☿59'13	21°20'31	morning max el	4862 Aug 01 13:45	19°☿44'56	22°59'46
asc. node	4861 Aug 31 20:00	25°☿21'58			4862 Aug 10 03:04	0°☿	
	4861 Sep 03 08:54	0°☿		asc. node	4862 Aug 18 17:01	14°☿29'47	
morning set	4861 Sep 08 21:11	11°☿00'10		morning set	4862 Aug 24 08:11	25°☿51'43	
					4862 Aug 26 06:57	0°☿	
superior conj	4861 Sep 16 05:48	26°☿25'19	1°43'35				
minimum elong	4861 Sep 16 05:33	26°☿24'03	1°43'35	superior conj	4862 Aug 31 10:26	11°☿03'29	1°39'05
	4861 Sep 17 23:26	0°☿		minimum elong	4862 Aug 31 09:03	10°☿56'03	1°39'00
max. Earth dist.	4861 Sep 20 11:44	5°☿04'48	1.35223 AU	max. Earth dist.	4862 Sep 03 06:59	17°☿06'25	1.33776 AU
evening rise	4861 Sep 24 18:13	13°☿23'21		evening rise	4862 Sep 08 05:06	27°☿08'06	
	4861 Oct 04 02:11	0°☿			4862 Sep 09 16:15	0°☿	
desc. node	4861 Oct 07 08:25	5°☿19'00		desc. node	4862 Sep 24 05:25	25°☿15'56	
	4861 Oct 25 04:16	0°☿			4862 Sep 27 09:12	0°☿	
evening max el	4861 Oct 30 02:09	5°☿12'26	26°37'26	evening max el	4862 Oct 12 14:42	18°☿41'28	27°16'01
retrograde	4861 Nov 12 01:37	12°☿27'31		retrograde	4862 Oct 26 01:15	25°☿59'33	
evening set	4861 Nov 18 13:22	9°☿50'48		evening set	4862 Nov 01 23:32	23°☿20'19	
min. Earth dist.	4861 Nov 22 15:51	5°☿39'21	0.66108 AU	min. Earth dist.	4862 Nov 05 19:51	19°☿44'08	0.64755 AU
inferior conj	4861 Nov 24 10:00	3°☿33'45	-1°-9'-5	inferior conj	4862 Nov 08 01:55	17°☿16'41	-2°-11'-30
minimum elong	4861 Nov 24 11:55	3°☿28'01	1°08'16	minimum elong	4862 Nov 08 05:43	17°☿06'19	2°10'01
asc. node	4861 Nov 27 19:14	29°☿50'02		morning rise	4862 Nov 14 14:00	11°☿45'30	
	4861 Nov 27 15:04	30°☿		asc. node	4862 Nov 14 16:15	11°☿43'04	
morning rise	4861 Nov 30 11:59	27°☿48'42		direct	4862 Nov 17 03:08	11°☿11'33	
direct	4861 Dec 03 08:30	27°☿03'06		morning max el	4862 Nov 23 14:34	14°☿37'43	17°59'15

	4862 Dec 04 12:17	0°♊		morning rise	4863 Oct 29 07:13	25°♊29'45	
morning set	4862 Dec 11 03:00	11°♊00'10		direct	4863 Oct 31 15:39	25°♊03'47	
desc. node	4862 Dec 21 04:44	27°♊37'11		asc. node	4863 Nov 01 13:17	25°♊07'41	
	4862 Dec 22 16:04	0°♋		morning max el	4863 Nov 07 07:15	28°♊29'33	17°49'40
					4863 Nov 08 17:00	0°♌	
superior conj	4862 Dec 24 23:31	3°♋42'37	0°-26'-2	morning set	4863 Nov 23 11:48	23°♌30'11	
minimum elong	4862 Dec 24 20:21	3°♋29'56	0°25'36		4863 Nov 27 04:55	0°♊	
max. Earth dist.	4862 Dec 29 04:32	10°♋23'40	1.44973 AU				
evening rise	4863 Jan 10 06:38	29°♋12'43		superior conj	4863 Dec 05 08:43	13°♊54'18	0°18'58
	4863 Jan 10 18:55	0°♌		minimum elong	4863 Dec 05 10:36	14°♊02'11	0°18'42
greatest brilliancy	4863 Jan 29 12:14	27°♌58'43	-0.6m	desc. node	4863 Dec 08 01:44	18°♊22'58	
	4863 Jan 31 00:01	0°♍		max. Earth dist.	4863 Dec 11 21:55	24°♊37'03	1.43926 AU
evening max el	4863 Feb 05 09:33	6°♍28'05	19°57'43		4863 Dec 15 07:00	0°♋	
asc. node	4863 Feb 10 15:31	10°♍23'44		evening rise	4863 Dec 20 16:35	8°♋25'50	
retrograde	4863 Feb 12 23:54	10°♍53'13			4864 Jan 04 01:30	0°♌	
evening set	4863 Feb 16 15:47	9°♍34'59		greatest brilliancy	4864 Jan 14 03:19	13°♌55'35	-0.4m
inferior conj	4863 Feb 22 02:44	3°♍31'27	3°07'08	evening max el	4864 Jan 19 09:15	20°♌01'53	21°03'48
minimum elong	4863 Feb 22 00:36	3°♍38'35	3°06'43	retrograde	4864 Jan 27 21:57	25°♌04'45	
min. Earth dist.	4863 Feb 23 01:06	2°♍16'29	0.67131 AU	asc. node	4864 Jan 28 12:32	25°♌02'45	
	4863 Feb 24 19:29	30°♎		evening set	4864 Jan 31 23:24	23°♌31'32	
morning rise	4863 Feb 27 08:48	27°♎15'11		inferior conj	4864 Feb 06 08:47	17°♌16'14	2°37'31
direct	4863 Mar 05 05:49	24°♎38'35		minimum elong	4864 Feb 06 06:21	17°♌24'37	2°36'51
	4863 Mar 15 07:32	0°♏		min. Earth dist.	4864 Feb 06 18:07	16°♌44'01	0.67803 AU
morning max el	4863 Mar 17 02:25	1°♏43'46	25°08'29	morning rise	4864 Feb 11 12:57	11°♌01'06	
desc. node	4863 Mar 19 03:59	3°♏54'42		direct	4864 Feb 16 19:31	8°♌43'07	
	4863 Apr 07 11:49	0°♐		morning max el	4864 Feb 27 11:09	15°♌03'39	23°40'36
morning set	4863 Apr 22 05:16	24°♐27'54		desc. node	4864 Mar 05 01:00	22°♌34'59	
	4863 Apr 25 06:14	0°♑			4864 Mar 10 16:09	0°♍	
max. Earth dist.	4863 Apr 25 21:45	1°♑11'56	1.36640 AU		4864 Mar 30 10:43	0°♎	
				morning set	4864 Apr 02 18:28	5°♎34'18	
superior conj	4863 May 02 04:05	13°♑13'14	-1°-10'-43	max. Earth dist.	4864 Apr 06 17:30	12°♎25'47	1.38768 AU
minimum elong	4863 May 02 07:57	13°♑32'20	1°10'06				
asc. node	4863 May 09 14:47	28°♑11'33		superior conj	4864 Apr 14 03:34	25°♎56'59	-1°-37'-41
evening rise	4863 May 10 12:01	29°♑58'42		minimum elong	4864 Apr 14 08:28	26°♎20'03	1°37'06
	4863 May 10 12:16	0°♒			4864 Apr 16 06:51	0°♏	
evening max el	4863 May 27 16:22	27°♒55'37	19°38'02	evening rise	4864 Apr 23 08:44	13°♏43'38	
	4863 May 30 02:19	0°♓		asc. node	4864 Apr 25 11:48	17°♏50'51	
retrograde	4863 Jun 06 10:05	2°♓40'50			4864 May 02 04:28	0°♒	
evening set	4863 Jun 08 08:27	2°♓30'26		evening max el	4864 May 09 15:20	10°♒00'56	18°47'26
	4863 Jun 14 13:39	30°♒		retrograde	4864 May 17 20:37	14°♒03'06	
desc. node	4863 Jun 15 03:09	29°♒40'14		evening set	4864 May 19 23:10	13°♒48'11	
inferior conj	4863 Jun 17 02:54	28°♒26'46	0°-35'-35	inferior conj	4864 May 27 22:30	9°♒27'20	1°09'50
minimum elong	4863 Jun 17 01:18	28°♒29'18	0°34'59	minimum elong	4864 May 28 01:01	9°♒22'43	1°08'57
min. Earth dist.	4863 Jun 19 11:40	26°♒57'51	0.55588 AU	min. Earth dist.	4864 May 31 04:06	7°♒06'21	0.57143 AU
morning rise	4863 Jun 25 14:47	23°♒55'16		desc. node	4864 Jun 01 00:12	6°♒32'01	
direct	4863 Jun 30 04:26	23°♒08'49		morning rise	4864 Jun 04 22:22	4°♒19'34	
morning max el	4863 Jul 14 03:35	0°♓07'47	24°43'15	direct	4864 Jun 10 10:26	3°♒05'53	
	4863 Jul 14 00:17	0°♔		morning max el	4864 Jun 24 18:52	10°♒35'34	26°15'25
	4863 Aug 03 13:12	0°♕			4864 Jul 09 15:49	0°♓	
asc. node	4863 Aug 05 14:03	4°♕01'33		asc. node	4864 Jul 22 11:04	23°♓49'54	
morning set	4863 Aug 08 19:58	10°♕44'51		morning set	4864 Jul 23 06:53	25°♓33'57	
					4864 Jul 25 08:38	0°♖	
superior conj	4863 Aug 15 19:27	25°♖53'21	1°28'50				
minimum elong	4863 Aug 15 17:22	25°♖41'56	1°28'37	superior conj	4864 Jul 30 06:46	10°♖47'41	1°13'40
max. Earth dist.	4863 Aug 17 10:42	29°♖26'44	1.32751 AU	minimum elong	4864 Jul 30 04:27	10°♖34'55	1°13'18
	4863 Aug 17 16:51	0°♗		max. Earth dist.	4864 Jul 30 20:03	12°♖00'53	1.32141 AU
evening rise	4863 Aug 23 02:08	11°♗21'19		evening rise	4864 Aug 06 06:14	25°♖53'32	
	4863 Sep 01 22:10	0°♘			4864 Aug 08 06:00	0°♗	
desc. node	4863 Sep 11 02:25	14°♘42'31			4864 Aug 25 12:03	0°♙	
	4863 Sep 23 06:29	0°♚		desc. node	4864 Aug 27 23:27	3°♙26'17	
evening max el	4863 Sep 25 01:19	1°♚45'45	27°26'47	evening max el	4864 Sep 06 07:16	14°♙11'42	27°05'12
retrograde	4863 Oct 08 18:17	9°♚01'15		retrograde	4864 Sep 20 04:05	21°♙23'38	
evening set	4863 Oct 15 22:21	6°♚28'51		evening set	4864 Sep 27 05:54	19°♙10'00	
min. Earth dist.	4863 Oct 19 14:07	3°♚24'35	0.63077 AU	min. Earth dist.	4864 Sep 30 21:38	16°♙28'37	0.61127 AU
inferior conj	4863 Oct 22 07:57	0°♚43'31	-3°-14'-9	inferior conj	4864 Oct 04 00:53	13°♙46'16	-4°-12'-12
minimum elong	4863 Oct 22 13:26	0°♚30'04	3°12'19	minimum elong	4864 Oct 04 07:07	13°♙32'48	4°10'39
	4863 Oct 23 01:48	30°♛		morning rise	4864 Oct 11 11:33	8°♙53'25	

direct	4864 Oct 13 18:16	8°♄32'21		inferior conj	4865 Sep 16 01:12	26°♄15'24	-4°-57'-17
asc. node	4864 Oct 18 10:19	10°♄04'35		minimum elong	4865 Sep 16 05:58	26°♄06'24	4°56'37
morning max el	4864 Oct 20 21:41	12°♄06'11	17°58'40	morning rise	4865 Sep 23 22:09	21°♄45'38	
	4864 Nov 01 20:41	0°♄		direct	4865 Sep 26 06:41	21°♄26'46	
morning set	4864 Nov 05 14:43	6°♄51'35		morning max el	4865 Oct 04 06:27	25°♄18'14	18°27'33
				asc. node	4865 Oct 05 07:23	26°♄21'40	
superior conj	4864 Nov 15 20:30	25°♄23'48	0°55'21		4865 Oct 08 06:32	0°♄	
minimum elong	4864 Nov 16 00:25	25°♄40'58	0°54'50	morning set	4865 Oct 20 06:22	20°♄48'49	
	4864 Nov 18 12:06	0°♄			4865 Oct 25 01:08	0°♄	
max. Earth dist.	4864 Nov 23 10:32	8°♄19'35	1.42306 AU				
desc. node	4864 Nov 23 22:45	9°♄10'03		superior conj	4865 Oct 29 07:01	7°♄59'10	1°21'02
evening rise	4864 Nov 29 11:47	18°♄08'03		minimum elong	4865 Oct 29 10:36	8°♄15'46	1°20'39
	4864 Dec 07 03:40	0°♄		max. Earth dist.	4865 Nov 05 17:41	21°♄19'06	1.40321 AU
greatest brilliancy	4864 Dec 27 09:25	28°♄16'14	-0.3m	evening rise	4865 Nov 10 03:16	28°♄46'16	
	4864 Dec 28 20:16	0°♄		desc. node	4865 Nov 10 19:46	29°♄54'31	
evening max el	4865 Jan 01 03:40	3°♄37'14	22°19'23		4865 Nov 10 21:05	0°♄	
retrograde	4865 Jan 10 18:31	9°♄20'35			4865 Nov 30 16:38	0°♄	
asc. node	4865 Jan 14 09:34	8°♄11'12		evening max el	4865 Dec 14 18:15	17°♄15'30	23°39'20
evening set	4865 Jan 15 07:07	7°♄31'43		retrograde	4865 Dec 25 12:07	23°♄36'09	
inferior conj	4865 Jan 20 16:38	1°♄08'08	1°59'30	evening set	4865 Dec 30 13:17	21°♄31'33	
minimum elong	4865 Jan 20 14:23	1°♄15'58	1°58'44	asc. node	4866 Jan 01 06:38	19°♄50'51	
min. Earth dist.	4865 Jan 20 14:13	1°♄16'33	0.68077 AU	min. Earth dist.	4866 Jan 04 11:00	15°♄49'37	0.67982 AU
	4865 Jan 21 12:20	30°♄		inferior conj	4866 Jan 05 00:24	15°♄03'47	1°14'12
morning rise	4865 Jan 25 21:32	24°♄55'41		minimum elong	4866 Jan 04 22:47	15°♄09'20	1°13'35
direct	4865 Jan 30 13:16	22°♄59'57		morning rise	4866 Jan 10 08:27	8°♄55'54	
morning max el	4865 Feb 08 22:36	28°♄31'00	22°12'16	direct	4866 Jan 14 10:05	7°♄22'51	
	4865 Feb 10 08:41	0°♄		morning max el	4866 Jan 22 16:00	12°♄07'57	20°51'17
greatest brilliancy	4865 Feb 13 12:35	3°♄38'18	-0.3m	greatest brilliancy	4866 Jan 28 06:57	18°♄38'09	-0.5m
desc. node	4865 Feb 19 22:02	11°♄56'12			4866 Feb 05 13:38	0°♄	
	4865 Mar 04 08:55	0°♄		desc. node	4866 Feb 06 19:03	1°♄46'27	
morning set	4865 Mar 14 03:59	15°♄21'10		morning set	4866 Feb 21 10:41	23°♄54'33	
max. Earth dist.	4865 Mar 19 14:47	24°♄20'39	1.40949 AU		4866 Feb 25 07:32	0°♄	
	4865 Mar 22 22:29	0°♄		max. Earth dist.	4866 Mar 01 18:31	7°♄09'28	1.42898 AU
superior conj	4865 Mar 27 09:20	7°♄48'25	-1°-58'-34	superior conj	4866 Mar 08 16:22	18°♄36'06	-2°-8'-28
minimum elong	4865 Mar 27 13:38	8°♄07'36	1°58'18	minimum elong	4866 Mar 08 17:08	18°♄39'21	2°08'29
evening rise	4865 Apr 06 18:44	26°♄54'00			4866 Mar 15 07:17	0°♄	
	4865 Apr 08 10:37	0°♄		evening rise	4866 Mar 20 13:47	9°♄19'48	
asc. node	4865 Apr 12 08:51	7°♄11'13		asc. node	4866 Mar 30 05:55	26°♄05'49	
evening max el	4865 Apr 22 22:21	22°♄39'53	18°17'09		4866 Apr 01 19:02	0°♄	
retrograde	4865 Apr 30 02:05	26°♄14'17		evening max el	4866 Apr 06 09:56	5°♄43'09	18°06'37
evening set	4865 May 02 11:05	25°♄51'30		retrograde	4866 Apr 12 23:35	9°♄05'40	
inferior conj	4865 May 09 15:43	21°♄10'08	2°25'22	evening set	4866 Apr 15 14:59	8°♄32'43	
minimum elong	4865 May 09 19:15	21°♄02'34	2°24'26	inferior conj	4866 Apr 22 04:14	3°♄30'37	3°10'33
min. Earth dist.	4865 May 13 01:57	18°♄15'22	0.59198 AU	minimum elong	4866 Apr 22 06:45	3°♄24'23	3°10'09
morning rise	4865 May 16 23:15	15°♄32'11		min. Earth dist.	4866 Apr 25 07:08	0°♄27'02	0.61401 AU
desc. node	4865 May 18 21:15	14°♄36'39			4866 Apr 25 18:48	30°♄	
direct	4865 May 23 06:27	13°♄44'06		morning rise	4866 Apr 28 19:27	27°♄33'10	
morning max el	4865 Jun 06 15:44	21°♄33'05	27°21'04	direct	4866 May 05 13:47	25°♄13'17	
	4865 Jun 14 00:45	0°♄		desc. node	4866 May 05 18:17	25°♄13'23	
	4865 Jul 02 13:27	0°♄			4866 May 16 06:25	0°♄	
morning set	4865 Jul 07 15:17	10°♄13'37		morning max el	4866 May 19 18:49	3°♄11'41	27°51'05
asc. node	4865 Jul 09 08:07	13°♄49'22			4866 Jun 08 13:18	0°♄	
superior conj	4865 Jul 14 18:34	25°♄40'37	0°54'09	morning set	4866 Jun 21 19:16	24°♄37'56	
minimum elong	4865 Jul 14 16:30	25°♄29'12	0°53'45		4866 Jun 24 09:05	0°♄	
max. Earth dist.	4865 Jul 14 07:24	24°♄38'59	1.31945 AU	asc. node	4866 Jun 26 05:11	3°♄55'23	
	4865 Jul 16 17:33	0°♄		max. Earth dist.	4866 Jun 27 17:04	7°♄09'35	1.32169 AU
evening rise	4865 Jul 21 14:56	10°♄37'08		superior conj	4866 Jun 29 05:07	10°♄26'26	0°30'53
	4865 Jul 31 12:37	0°♄		minimum elong	4866 Jun 29 03:45	10°♄19'00	0°30'35
desc. node	4865 Aug 14 20:29	21°♄09'37		evening rise	4866 Jul 06 02:11	25°♄25'39	
evening max el	4865 Aug 19 06:18	25°♄50'15	26°10'34		4866 Jul 08 06:24	0°♄	
	4865 Aug 24 10:33	0°♄			4866 Jul 25 22:36	0°♄	
retrograde	4865 Sep 02 05:33	2°♄58'38		evening max el	4866 Jul 31 22:17	6°♄43'23	24°48'39
evening set	4865 Sep 08 17:19	1°♄16'10		desc. node	4866 Aug 01 17:31	7°♄28'23	
	4865 Sep 10 21:45	30°♄		retrograde	4866 Aug 14 20:13	13°♄44'54	
min. Earth dist.	4865 Sep 12 19:14	28°♄41'54	0.59051 AU	evening set	4866 Aug 20 04:34	12°♄40'21	





























































































































min. Earth dist.	4866 Aug 25 09:41	9° \cap 54'22	0.57100 AU	retrograde	4867 Jul 26 21:57	23° Ω 51'11	
inferior conj	4866 Aug 28 06:01	8° \cap 02'39	-5°-16'-5	evening set	4867 Jul 30 18:16	23° Ω 18'53	
minimum elong	4866 Aug 28 06:04	8° \cap 02'34	5°16'06	min. Earth dist.	4867 Aug 06 20:12	20° Ω 05'18	0.55593 AU
morning rise	4866 Sep 05 11:02	3° \cap 55'03		inferior conj	4867 Aug 08 14:59	19° Ω 02'54	-4°-52'-13
direct	4866 Sep 08 01:06	3° \cap 36'10		minimum elong	4867 Aug 08 08:42	19° Ω 12'05	4°51'18
morning max el	4866 Sep 17 06:11	7° \cap 55'59	19°17'46	morning rise	4867 Aug 17 02:01	15° Ω 11'01	
asc. node	4866 Sep 22 04:26	13° \cap 43'55		direct	4867 Aug 20 00:37	14° Ω 50'16	
	4866 Oct 01 15:39	0° $\underline{\cap}$		morning max el	4867 Aug 30 18:12	19° Ω 49'35	20°29'54
morning set	4866 Oct 04 06:50	5° $\underline{\cap}$ 11'26			4867 Sep 07 20:32	0° \cap	
				asc. node	4867 Sep 09 01:28	1° \cap 56'02	
superior conj	4866 Oct 12 10:55	21° $\underline{\cap}$ 25'38	1°36'31	morning set	4867 Sep 18 13:07	19° \cap 50'14	
minimum elong	4866 Oct 12 13:06	21° $\underline{\cap}$ 36'16	1°36'22		4867 Sep 23 11:11	0° $\underline{\cap}$	
	4866 Oct 16 22:49	0° \cap					
max. Earth dist.	4866 Oct 18 22:25	3° \cap 39'27	1.38222 AU	superior conj	4867 Sep 26 03:16	5° $\underline{\cap}$ 28'26	1°43'11
evening rise	4866 Oct 22 17:55	10° \cap 28'14		minimum elong	4867 Sep 26 03:51	5° $\underline{\cap}$ 31'25	1°43'11
desc. node	4866 Oct 28 16:47	20° \cap 32'55		max. Earth dist.	4867 Oct 01 05:38	15° $\underline{\cap}$ 35'54	1.36241 AU
	4866 Nov 03 15:44	0° \sphericalcap		evening rise	4867 Oct 05 05:02	23° $\underline{\cap}$ 06'15	
	4866 Nov 26 08:01	0° $\overline{\sphericalcap}$			4867 Oct 09 01:02	0° \cap	
evening max el	4866 Nov 27 07:09	0° $\overline{\sphericalcap}$ 58'06	24°57'02	desc. node	4867 Oct 15 13:49	11° \cap 00'09	
retrograde	4866 Dec 09 01:32	7° $\overline{\sphericalcap}$ 47'38			4867 Oct 28 09:13	0° \sphericalcap	
evening set	4866 Dec 14 16:21	5° $\overline{\sphericalcap}$ 28'09		evening max el	4867 Nov 09 19:48	14° \sphericalcap 41'37	26°05'18
asc. node	4866 Dec 19 03:41	0° $\overline{\sphericalcap}$ 28'22		retrograde	4867 Nov 22 09:59	21° \sphericalcap 49'43	
min. Earth dist.	4866 Dec 19 06:04	0° $\overline{\sphericalcap}$ 20'35	0.67536 AU	evening set	4867 Nov 28 14:33	19° \sphericalcap 17'56	
	4866 Dec 19 12:21	30° \cap \sphericalcap		min. Earth dist.	4867 Dec 02 21:01	14° \sphericalcap 45'57	0.66735 AU
inferior conj	4866 Dec 20 06:19	29° \sphericalcap 00'48	0°22'35	inferior conj	4867 Dec 04 08:28	12° \sphericalcap 55'53	0°-34'-21
minimum elong	4866 Dec 20 05:46	29° \sphericalcap 02'39	0°22'22	minimum elong	4867 Dec 04 09:23	12° \sphericalcap 53'02	0°33'57
morning rise	4866 Dec 25 19:44	22° \sphericalcap 59'45		asc. node	4867 Dec 06 00:42	10° \sphericalcap 53'49	
direct	4866 Dec 29 08:39	21° \sphericalcap 47'39		morning rise	4867 Dec 10 05:20	7° \sphericalcap 04'18	
morning max el	4867 Jan 05 17:18	25° \sphericalcap 56'19	19°42'48	direct	4867 Dec 13 07:19	6° \sphericalcap 10'03	
	4867 Jan 09 07:44	0° $\overline{\sphericalcap}$		morning max el	4867 Dec 20 02:02	9° \sphericalcap 53'53	18°49'36
greatest brilliancy	4867 Jan 13 11:56	5° $\overline{\sphericalcap}$ 30'51	-0.6m		4868 Jan 03 14:43	0° $\overline{\sphericalcap}$	
desc. node	4867 Jan 24 16:04	21° $\overline{\sphericalcap}$ 57'53		morning set	4868 Jan 10 17:46	11° $\overline{\sphericalcap}$ 08'58	
	4867 Jan 29 22:08	0° \approx		desc. node	4868 Jan 11 13:05	12° $\overline{\sphericalcap}$ 24'43	
morning set	4867 Jan 31 06:48	2° \approx 05'49			4868 Jan 22 18:27	0° \approx	
max. Earth dist.	4867 Feb 12 06:01	20° \approx 48'20	1.44369 AU	max. Earth dist.	4868 Jan 25 23:16	5° \approx 01'14	1.45182 AU
superior conj	4867 Feb 16 21:44	28° \approx 15'21	-2°-1'-50	superior conj	4868 Jan 27 06:01	7° \approx 02'02	-1°-35'-25
minimum elong	4867 Feb 16 16:21	27° \approx 53'38	2°01'34	minimum elong	4868 Jan 26 20:39	6° \approx 25'15	1°34'32
	4867 Feb 17 23:37	0° X			4868 Feb 10 16:26	0° X	
evening rise	4867 Mar 02 13:27	20° X 52'37		evening rise	4868 Feb 11 14:24	1° X 28'36	
	4867 Mar 07 22:45	0° Υ			4868 Mar 01 05:11	0° Υ	
asc. node	4867 Mar 17 02:58	14° Υ 26'19		asc. node	4868 Mar 03 00:00	2° Υ 02'26	
evening max el	4867 Mar 20 22:51	19° Υ 01'52	18°15'07	evening max el	4868 Mar 03 10:19	2° Υ 29'14	18°41'48
retrograde	4867 Mar 27 08:46	22° Υ 27'00		retrograde	4868 Mar 10 01:29	6° Υ 09'50	
evening set	4867 Mar 30 06:16	21° Υ 42'31		evening set	4868 Mar 13 05:18	5° Υ 12'57	
inferior conj	4867 Apr 05 08:00	16° Υ 20'37	3°31'00	inferior conj	4868 Mar 18 23:04	29° X 32'59	3°32'35
minimum elong	4867 Apr 05 08:52	16° Υ 18'12	3°30'58	minimum elong	4868 Mar 18 22:25	29° X 34'57	3°32'33
min. Earth dist.	4867 Apr 07 21:09	13° Υ 31'27	0.63466 AU		4868 Mar 18 14:11	30° \cap X	
morning rise	4867 Apr 11 09:30	10° Υ 12'10		min. Earth dist.	4868 Mar 20 20:36	27° X 14'22	0.65208 AU
direct	4867 Apr 18 05:53	7° Υ 31'09		morning rise	4868 Mar 24 14:18	23° X 18'55	
desc. node	4867 Apr 22 15:19	8° Υ 28'43		direct	4868 Mar 31 05:11	20° X 30'12	
morning max el	4867 May 02 02:33	15° Υ 29'59	27°43'32	desc. node	4868 Apr 08 12:19	23° X 53'51	
	4867 May 13 23:12	0° B		morning max el	4868 Apr 13 12:32	28° X 19'25	27°02'20
	4867 Jun 01 05:22	0° Π			4868 Apr 15 03:06	0° Υ	
morning set	4867 Jun 05 16:28	8° Π 38'47			4868 May 06 17:46	0° B	
max. Earth dist.	4867 Jun 10 21:05	19° Π 19'51	1.32836 AU	morning set	4868 May 19 03:57	22° B 07'49	
asc. node	4867 Jun 13 02:12	24° Π 02'54			4868 May 23 03:47	0° Π	
				max. Earth dist.	4868 May 23 15:57	1° Π 01'29	1.33961 AU
superior conj	4867 Jun 13 12:30	24° Π 58'19	0°04'29				
minimum elong	4867 Jun 13 12:17	24° Π 57'08	0°04'25	superior conj	4868 May 27 14:42	9° Π 10'10	0°-24'-13
behind sun begin	4867 Jun 13 07:10	24° Π 29'33		minimum elong	4868 May 27 15:59	9° Π 16'53	0°23'58
behind sun end	4867 Jun 13 17:25	25° Π 24'44		asc. node	4868 May 29 23:15	14° Π 08'18	
	4867 Jun 15 20:20	0° S		evening rise	4868 Jun 04 00:29	24° Π 49'41	
evening rise	4867 Jun 20 13:59	10° S 11'48			4868 Jun 06 12:37	0° S	
	4867 Jun 30 18:48	0° Ω		evening max el	4868 Jun 24 04:17	27° S 35'38	21°37'25
evening max el	4867 Jul 13 10:59	17° Ω 07'32	23°12'15		4868 Jun 26 22:19	0° Ω	
desc. node	4867 Jul 19 14:34	21° Ω 49'39		desc. node	4868 Jul 05 11:34	3° Ω 40'01	

retrograde	4868 Jul 06 13:15	3°♂42'43		evening max el	4869 Jun 06 08:45	8°♂36'09	20°16'15
evening set	4868 Jul 09 02:33	3°♂27'54		retrograde	4869 Jun 17 02:53	13°♂51'47	
	4868 Jul 17 10:43	30°♂♂		evening set	4869 Jun 19 01:56	13°♂42'02	
inferior conj	4868 Jul 18 10:13	29°♂27'13	-3°-36'-55	desc. node	4869 Jun 22 08:34	12°♂46'09	
minimum elong	4868 Jul 18 01:31	29°♂39'23	3°34'25	inferior conj	4869 Jun 28 04:56	9°♂43'48	-1°-44'-21
min. Earth dist.	4868 Jul 18 06:17	29°♂32'43	0.54844 AU	minimum elong	4869 Jun 28 00:03	9°♂51'01	1°42'33
morning rise	4868 Jul 27 01:34	25°♂35'19		min. Earth dist.	4869 Jun 29 18:16	8°♂48'51	0.55037 AU
direct	4868 Jul 30 10:59	25°♂10'18		morning rise	4869 Jul 06 20:10	5°♂30'47	
	4868 Aug 10 16:31	0°♂		direct	4869 Jul 10 21:30	4°♂55'09	
morning max el	4868 Aug 11 18:30	0°♂57'49	22°01'21	morning max el	4869 Jul 24 10:34	11°♂31'28	23°44'12
asc. node	4868 Aug 25 22:29	20°♂46'20			4869 Aug 07 07:35	0°♂	
	4868 Aug 30 16:50	0°♂		asc. node	4869 Aug 12 19:31	10°♂05'24	
morning set	4868 Sep 01 22:55	4°♂38'51		morning set	4869 Aug 17 10:27	19°♂32'03	
					4869 Aug 22 07:12	0°♂	
superior conj	4868 Sep 09 04:18	19°♂56'32	1°42'25	superior conj	4869 Aug 24 11:07	4°♂41'09	1°35'23
minimum elong	4868 Sep 09 03:32	19°♂52'25	1°42'24	minimum elong	4869 Aug 24 09:23	4°♂31'44	1°35'15
max. Earth dist.	4868 Sep 12 19:49	27°♂30'23	1.34562 AU	max. Earth dist.	4869 Aug 26 18:44	9°♂39'24	1.33283 AU
	4868 Sep 14 01:22	0°♂		evening rise	4869 Sep 01 00:01	20°♂27'58	
evening rise	4868 Sep 17 08:25	6°♂29'39			4869 Sep 05 22:09	0°♂	
	4868 Sep 30 17:04	0°♂		desc. node	4869 Sep 18 07:51	20°♂56'06	
desc. node	4868 Oct 01 10:51	1°♂10'21			4869 Sep 24 17:10	0°♂	
evening max el	4868 Oct 22 08:27	28°♂18'23	26°56'44	evening max el	4869 Oct 04 20:14	11°♂38'19	27°24'15
	4868 Oct 24 04:49	0°♂		retrograde	4869 Oct 18 10:09	18°♂56'38	
retrograde	4868 Nov 04 12:59	5°♂35'28		evening set	4869 Oct 25 11:40	16°♂18'39	
evening set	4868 Nov 11 05:50	2°♂56'25		min. Earth dist.	4869 Oct 29 05:34	12°♂56'55	0.64076 AU
	4868 Nov 14 07:58	30°♂♂		inferior conj	4869 Oct 31 16:53	10°♂22'06	-2°-38'-17
min. Earth dist.	4868 Nov 15 05:30	29°♂00'29	0.65579 AU	minimum elong	4869 Oct 31 21:27	10°♂10'09	2°36'36
inferior conj	4868 Nov 17 04:47	26°♂44'39	-1°-35'-19	morning rise	4869 Nov 07 09:40	4°♂58'10	
minimum elong	4868 Nov 17 07:29	26°♂36'52	1°34'13	asc. node	4869 Nov 08 18:45	4°♂33'57	
asc. node	4868 Nov 21 21:44	22°♂02'48		direct	4869 Nov 09 20:20	4°♂28'11	
morning rise	4868 Nov 23 10:55	21°♂05'25		morning max el	4869 Nov 16 08:50	7°♂53'19	17°53'00
direct	4868 Nov 26 04:02	20°♂25'14			4869 Dec 01 03:21	0°♂	
morning max el	4868 Dec 02 16:09	23°♂55'05	18°12'46	morning set	4869 Dec 03 04:55	3°♂31'38	
	4868 Dec 07 15:27	0°♂		desc. node	4869 Dec 15 07:08	23°♂46'14	
morning set	4868 Dec 21 09:20	21°♂39'12					
	4868 Dec 26 12:51	0°♂		superior conj	4869 Dec 16 04:37	25°♂13'35	0°-6'-14
desc. node	4868 Dec 28 10:06	3°♂02'01		minimum elong	4869 Dec 16 03:54	25°♂10'41	0°06'08
superior conj	4869 Jan 05 09:35	15°♂43'00	0°-53'-16	behind sun begin	4869 Dec 15 18:33	24°♂32'44	
minimum elong	4869 Jan 05 02:59	15°♂17'02	0°52'25	behind sun end	4869 Dec 16 13:14	25°♂48'34	
max. Earth dist.	4869 Jan 07 18:43	19°♂27'41	1.45258 AU		4869 Dec 19 03:38	0°♂	
	4869 Jan 14 12:25	0°♂		max. Earth dist.	4869 Dec 21 13:09	3°♂49'21	1.44603 AU
evening rise	4869 Jan 21 16:59	11°♂12'28		evening rise	4870 Jan 01 04:55	20°♂26'43	
	4869 Feb 02 20:41	0°♂			4870 Jan 07 11:14	0°♂	
greatest brilliancy	4869 Feb 06 07:44	5°♂08'45	-0.7m	greatest brilliancy	4870 Jan 22 19:17	22°♂16'35	-0.5m
evening max el	4869 Feb 14 18:09	16°♂00'16	19°25'34	evening max el	4870 Jan 28 21:01	29°♂33'33	20°24'21
asc. node	4869 Feb 17 21:01	18°♂41'00			4870 Jan 29 07:30	0°♂	
retrograde	4869 Feb 21 22:16	20°♂07'00		asc. node	4870 Feb 04 18:01	4°♂08'02	
evening set	4869 Feb 25 09:18	18°♂56'55		retrograde	4870 Feb 05 20:29	4°♂14'35	
inferior conj	4869 Mar 02 22:01	13°♂01'08	3°19'47	evening set	4870 Feb 09 16:08	2°♂50'16	
minimum elong	4869 Mar 02 20:18	13°♂06'47	3°19'32		4870 Feb 12 13:13	30°♂♂	
min. Earth dist.	4869 Mar 04 04:27	11°♂21'50	0.66547 AU	inferior conj	4870 Feb 15 02:12	26°♂41'19	2°55'41
morning rise	4869 Mar 08 06:29	6°♂44'47		minimum elong	4870 Feb 14 23:53	26°♂49'12	2°55'09
direct	4869 Mar 14 10:51	4°♂00'53		min. Earth dist.	4870 Feb 15 18:54	25°♂44'25	0.67467 AU
desc. node	4869 Mar 26 09:20	10°♂54'43		morning rise	4870 Feb 20 07:05	20°♂25'03	
morning max el	4869 Mar 26 22:19	11°♂27'10	25°55'05	direct	4870 Feb 25 22:03	17°♂55'31	
	4869 Apr 10 17:50	0°♂		morning max el	4870 Mar 09 06:58	24°♂43'38	24°31'38
	4869 Apr 29 09:07	0°♂		desc. node	4870 Mar 13 06:23	29°♂04'51	
morning set	4869 May 02 01:43	4°♂53'02			4870 Mar 14 01:04	0°♂	
max. Earth dist.	4869 May 05 23:15	12°♂13'15	1.35540 AU		4870 Apr 04 05:06	0°♂	
				morning set	4870 Apr 14 04:33	16°♂40'17	
superior conj	4869 May 11 09:08	22°♂54'24	0°-53'-55	max. Earth dist.	4870 Apr 17 20:49	23°♂14'12	1.37518 AU
minimum elong	4869 May 11 12:06	23°♂09'22	0°53'23		4870 Apr 21 12:34	0°♂	
	4869 May 14 20:26	0°♂		superior conj	4870 Apr 24 16:40	6°♂03'06	-1°-22'-40
asc. node	4869 May 16 20:17	4°♂06'55		minimum elong	4870 Apr 24 21:06	6°♂24'33	1°22'01
evening rise	4869 May 19 07:35	9°♂12'14		evening rise	4870 May 03 08:55	23°♂12'53	
	4869 May 30 13:34	0°♂					

asc. node	4870 May 03 17:19	23°♄54'36		superior conj	4871 Apr 07 09:17	18°♃26'46	-1°47'-32
	4870 May 06 19:56	0°♂		minimum elong	4871 Apr 07 14:13	18°♃49'25	1°47'05
evening max el	4870 May 20 01:40	20°♂19'03	19°14'04		4871 Apr 13 13:02	0°♄	
retrograde	4870 May 29 02:52	24°♂44'06		evening rise	4871 Apr 17 01:32	6°♄44'26	
evening set	4870 May 31 02:18	24°♂32'21		asc. node	4871 Apr 20 14:21	13°♄26'50	
inferior conj	4870 Jun 08 12:59	20°♂22'38	0°12'14		4871 Apr 30 18:47	0°♂	
minimum elong	4870 Jun 08 13:30	20°♂21'47	0°12'02	evening max el	4871 May 03 04:38	2°♂40'41	18°32'09
transit middle	4870 Jun 08 13:30	20°♂21'47	0°12'02	retrograde	4871 May 10 21:20	6°♂28'36	
transit begin	4870 Jun 08 10:58	20°♂26'00		evening set	4871 May 13 02:45	6°♂10'34	
transit end	4870 Jun 08 16:02	20°♂17'32		inferior conj	4871 May 20 17:50	1°♂41'16	1°45'47
desc. node	4870 Jun 09 05:36	19°♂54'46		minimum elong	4871 May 20 21:07	1°♂34'49	1°44'45
min. Earth dist.	4870 Jun 11 08:57	18°♂29'38	0.56161 AU		4871 May 22 21:25	30°♂	
morning rise	4870 Jun 16 20:30	15°♂35'22		min. Earth dist.	4871 May 24 03:20	29°♂03'09	0.57978 AU
direct	4870 Jun 21 19:47	14°♂38'20		desc. node	4871 May 27 02:39	27°♂03'30	
morning max el	4870 Jul 06 00:16	21°♂52'48	25°24'51	morning rise	4871 May 28 11:02	26°♂19'51	
	4870 Jul 13 03:26	0°♄		direct	4871 Jun 03 08:17	24°♂51'43	
asc. node	4870 Jul 30 16:33	29°♄45'02			4871 Jun 14 22:42	0°♂	
	4870 Jul 30 19:28	0°♂		morning max el	4871 Jun 17 17:25	2°♂30'27	26°47'18
morning set	4870 Aug 01 22:03	4°♂24'05			4871 Jul 07 11:36	0°♄	
				morning set	4871 Jul 17 08:07	19°♄10'03	
superior conj	4870 Aug 08 21:21	19°♂34'02	1°22'59	asc. node	4871 Jul 17 13:37	19°♄39'04	
minimum elong	4870 Aug 08 19:07	19°♂21'43	1°22'42		4871 Jul 22 08:23	0°♂	
max. Earth dist.	4870 Aug 10 01:03	22°♂05'46	1.32433 AU				
	4870 Aug 13 16:55	0°♂		superior conj	4871 Jul 24 09:06	4°♂28'50	1°05'54
evening rise	4870 Aug 16 00:23	4°♂50'38		minimum elong	4871 Jul 24 06:50	4°♂16'18	1°05'30
	4870 Aug 29 13:58	0°♂		max. Earth dist.	4871 Jul 24 11:47	4°♂43'39	1.32007 AU
desc. node	4870 Sep 05 04:53	10°♂06'38		evening rise	4871 Jul 31 06:46	19°♂29'12	
evening max el	4870 Sep 17 05:15	24°♂28'25	27°21'49		4871 Aug 05 11:12	0°♂	
	4870 Sep 24 15:45	0°♂		desc. node	4871 Aug 23 01:54	28°♂27'27	
retrograde	4870 Oct 01 00:32	1°♂42'53			4871 Aug 24 07:28	0°♂	
	4870 Oct 07 00:54	30°♂		evening max el	4871 Aug 30 08:48	6°♂36'12	26°45'57
evening set	4870 Oct 08 04:35	29°♂17'07		retrograde	4871 Sep 13 06:47	13°♂45'47	
min. Earth dist.	4870 Oct 11 19:32	26°♂23'48	0.62269 AU	evening set	4871 Sep 20 04:09	11°♂44'26	
inferior conj	4870 Oct 14 17:48	23°♂40'18	-3°-39'-46	min. Earth dist.	4871 Sep 23 22:47	9°♂08'06	0.60252 AU
minimum elong	4870 Oct 14 23:47	23°♂26'22	3°37'58	inferior conj	4871 Sep 27 04:09	6°♂30'32	-4°-33'-36
morning rise	4870 Oct 21 21:58	18°♂34'55		minimum elong	4871 Sep 27 10:06	6°♂18'21	4°32'21
direct	4870 Oct 24 05:08	18°♂11'30		morning rise	4871 Oct 04 19:21	1°♂46'55	
asc. node	4870 Oct 26 15:48	18°♂38'49		direct	4871 Oct 07 02:27	1°♂27'00	
morning max el	4870 Oct 31 00:59	21°♂40'03	17°51'05	asc. node	4871 Oct 13 12:51	4°♂11'35	
	4870 Nov 06 09:36	0°♂		morning max el	4871 Oct 14 13:20	5°♂07'11	18°08'20
morning set	4870 Nov 15 22:13	16°♂25'59		morning set	4871 Oct 30 07:08	0°♂04'36	
	4870 Nov 23 13:52	0°♂			4871 Oct 30 06:09	0°♂	
superior conj	4870 Nov 27 01:15	5°♂58'54	0°35'39	superior conj	4871 Nov 08 23:18	17°♂58'02	1°07'34
minimum elong	4870 Nov 27 04:23	6°♂12'11	0°35'13	minimum elong	4871 Nov 09 03:17	18°♂15'55	1°07'04
desc. node	4870 Dec 02 04:09	14°♂33'08			4871 Nov 15 20:46	0°♂	
max. Earth dist.	4870 Dec 04 04:19	17°♂50'03	1.43299 AU	max. Earth dist.	4871 Nov 16 14:55	1°♂16'41	1.41503 AU
evening rise	4870 Dec 11 16:58	29°♂48'02		desc. node	4871 Nov 19 01:10	5°♂19'34	
	4870 Dec 11 20:03	0°♂		evening rise	4871 Nov 21 19:59	9°♂52'21	
	4871 Jan 01 03:28	0°♂			4871 Dec 04 21:47	0°♂	
greatest brilliancy	4871 Jan 06 21:59	7°♂35'58	-0.4m	greatest brilliancy	4871 Dec 20 03:45	20°♂47'54	-0.2m
evening max el	4871 Jan 11 18:29	13°♂08'29	21°35'08	evening max el	4871 Dec 25 11:10	26°♂45'26	22°53'17
retrograde	4871 Jan 20 18:04	18°♂28'23			4871 Dec 29 02:12	0°♂	
asc. node	4871 Jan 22 15:04	18°♂09'31		retrograde	4872 Jan 04 13:22	2°♂44'38	
evening set	4871 Jan 25 00:01	16°♂48'48		evening set	4872 Jan 09 07:15	0°♂48'59	
inferior conj	4871 Jan 30 09:17	10°♂29'45	2°22'20	asc. node	4872 Jan 09 12:07	0°♂38'43	
minimum elong	4871 Jan 30 06:52	10°♂38'07	2°21'36		4872 Jan 10 04:57	30°♂	
min. Earth dist.	4871 Jan 30 13:35	10°♂14'50	0.67971 AU	inferior conj	4872 Jan 14 17:19	24°♂23'22	1°41'06
morning rise	4871 Feb 04 13:26	4°♂15'28		minimum elong	4872 Jan 14 15:17	24°♂30'26	1°40'22
direct	4871 Feb 09 13:46	2°♂06'25		min. Earth dist.	4872 Jan 14 10:10	24°♂48'04	0.68088 AU
morning max el	4871 Feb 19 16:14	8°♂05'53	23°02'26	morning rise	4872 Jan 19 23:17	18°♂12'49	
greatest brilliancy	4871 Feb 24 12:34	13°♂30'49	-0.3m	direct	4872 Jan 24 08:58	16°♂26'43	
desc. node	4871 Feb 28 03:26	18°♂04'24		morning max el	4872 Feb 02 05:48	21°♂36'41	21°36'30
	4871 Mar 08 18:21	0°♂		greatest brilliancy	4872 Feb 07 02:32	27°♂06'17	-0.4m
morning set	4871 Mar 26 06:28	27°♂14'02			4872 Feb 09 09:20	0°♂	
	4871 Mar 27 22:05	0°♂		desc. node	4872 Feb 15 00:27	7°♂39'04	
max. Earth dist.	4871 Mar 30 16:06	4°♂41'36	1.39707 AU		4872 Mar 01 01:19	0°♂	

morning set	4872 Mar 05 03:39	6° ✕ 26'16		max. Earth dist.	4873 Feb 21 23:51	0° ✕ 14'55	1.43595 AU
max. Earth dist.	4872 Mar 11 16:18	17° ✕ 01'23	1.41827 AU				
superior conj	4872 Mar 19 05:59	29° ✕ 52'33	-2°-4'-26	superior conj	4873 Feb 28 02:09	10° ✕ 10'59	-2°-7'-58
minimum elong	4872 Mar 19 09:11	0° ✕ 06'33	2°04'20	minimum elong	4873 Feb 28 00:28	10° ✕ 04'01	2°07'57
	4872 Mar 19 07:41	0° ✕			4873 Mar 11 17:40	0° ✕	
evening rise	4872 Mar 30 05:42	19° ✕ 37'11		evening rise	4873 Mar 12 17:06	1° ✕ 42'07	
	4872 Apr 04 23:18	0° ✕		asc. node	4873 Mar 24 08:28	21° ✕ 18'42	
asc. node	4872 Apr 06 11:25	2° ✕ 37'14		evening max el	4873 Mar 30 02:26	28° ✕ 41'41	18°07'51
evening max el	4872 Apr 15 14:00	15° ✕ 31'05	18°10'15		4873 Mar 31 13:18	0° ✕	
retrograde	4872 Apr 22 10:16	18° ✕ 58'34		retrograde	4873 Apr 05 13:28	2° ✕ 04'02	
evening set	4872 Apr 24 22:08	18° ✕ 31'33		evening set	4873 Apr 08 07:22	1° ✕ 26'22	
inferior conj	4872 May 01 19:41	13° ✕ 40'56	2°47'57		4873 Apr 10 15:29	30° ✕ ✕	
minimum elong	4872 May 01 22:56	13° ✕ 33'29	2°47'14	inferior conj	4873 Apr 14 15:14	26° ✕ 15'28	3°21'53
min. Earth dist.	4872 May 05 03:45	10° ✕ 39'41	0.60138 AU	minimum elong	4873 Apr 14 17:05	26° ✕ 10'40	3°21'40
morning rise	4872 May 08 20:06	7° ✕ 53'36		min. Earth dist.	4873 Apr 17 12:40	23° ✕ 15'32	0.62309 AU
desc. node	4872 May 12 23:41	6° ✕ 07'41		morning rise	4873 Apr 21 00:12	20° ✕ 12'09	
direct	4872 May 15 09:04	5° ✕ 51'29		direct	4873 Apr 27 20:13	17° ✕ 41'53	
morning max el	4872 May 29 16:58	13° ✕ 44'40	27°38'34	desc. node	4873 Apr 29 20:42	17° ✕ 54'00	
	4872 Jun 11 16:47	0° ✕		morning max el	4873 May 11 22:35	25° ✕ 41'56	27°52'22
	4872 Jun 28 19:13	0° ✕			4873 May 15 21:53	0° ✕	
morning set	4872 Jun 30 14:52	3° ✕ 43'43			4873 Jun 05 04:50	0° ✕	
asc. node	4872 Jul 03 10:40	9° ✕ 41'43		morning set	4873 Jun 14 16:16	17° ✕ 58'59	
max. Earth dist.	4872 Jul 06 23:03	17° ✕ 20'37	1.31993 AU	asc. node	4873 Jun 20 07:43	29° ✕ 48'49	
					4873 Jun 20 09:47	0° ✕	
superior conj	4872 Jul 07 20:33	19° ✕ 18'59	0°44'43	max. Earth dist.	4873 Jun 20 06:52	29° ✕ 44'14	1.32400 AU
minimum elong	4872 Jul 07 18:44	19° ✕ 08'57	0°44'20				
	4872 Jul 12 17:16	0° ✕		superior conj	4873 Jun 22 05:57	3° ✕ 59'12	0°20'00
evening rise	4872 Jul 14 16:47	4° ✕ 15'31		minimum elong	4873 Jun 22 05:01	3° ✕ 54'10	0°19'47
	4872 Jul 28 08:23	0° ✕		evening rise	4873 Jun 29 04:28	19° ✕ 03'22	
desc. node	4872 Aug 08 22:56	15° ✕ 37'58			4873 Jul 04 12:40	0° ✕	
evening max el	4872 Aug 11 04:36	17° ✕ 53'52	25°38'22	evening max el	4873 Jul 23 18:03	28° ✕ 29'54	24°08'17
retrograde	4872 Aug 25 03:29	24° ✕ 59'34			4873 Jul 25 09:28	0° ✕	
evening set	4872 Aug 31 05:30	23° ✕ 32'50		desc. node	4873 Jul 26 19:58	1° ✕ 10'38	
min. Earth dist.	4872 Sep 04 16:35	20° ✕ 56'09	0.58192 AU	retrograde	4873 Aug 06 13:01	5° ✕ 26'36	
inferior conj	4872 Sep 07 20:21	18° ✕ 42'21	-5°-9'-25	evening set	4873 Aug 11 06:29	4° ✕ 37'02	
minimum elong	4872 Sep 07 23:31	18° ✕ 36'44	5°09'10	min. Earth dist.	4873 Aug 17 04:40	1° ✕ 40'57	0.56380 AU
morning rise	4872 Sep 15 21:02	14° ✕ 22'30		inferior conj	4873 Aug 19 16:18	0° ✕ 08'33	-5°-12'-3
direct	4872 Sep 18 07:43	14° ✕ 03'45		minimum elong	4873 Aug 19 13:36	0° ✕ 12'46	5°11'55
morning max el	4872 Sep 26 18:34	18° ✕ 05'25	18°46'18		4873 Aug 19 21:49	30° ✕ ✕	
asc. node	4872 Sep 29 09:54	20° ✕ 57'59		morning rise	4873 Aug 28 00:09	26° ✕ 09'24	
	4872 Oct 05 11:47	0° ✕		direct	4873 Aug 30 17:28	25° ✕ 50'02	
morning set	4872 Oct 13 02:57	14° ✕ 14'02			4873 Sep 09 02:33	0° ✕	
	4872 Oct 21 05:47	0° ✕		morning max el	4873 Sep 09 13:34	0° ✕ 25'10	19°46'00
				asc. node	4873 Sep 16 06:56	8° ✕ 42'47	
superior conj	4872 Oct 21 17:53	0° ✕ 57'23	1°28'46	morning set	4873 Sep 27 06:09	28° ✕ 44'02	
minimum elong	4872 Oct 21 20:57	1° ✕ 11'51	1°28'30		4873 Sep 27 21:11	0° ✕	
max. Earth dist.	4872 Oct 28 20:58	14° ✕ 00'28	1.39428 AU				
evening rise	4872 Nov 01 21:22	20° ✕ 57'50		superior conj	4873 Oct 05 03:35	14° ✕ 40'53	1°40'20
desc. node	4872 Nov 04 22:12	26° ✕ 02'11		minimum elong	4873 Oct 05 05:05	14° ✕ 48'19	1°40'16
	4872 Nov 07 08:39	0° ✕		max. Earth dist.	4873 Oct 11 01:43	26° ✕ 06'27	1.37341 AU
	4872 Nov 28 00:07	0° ✕			4873 Oct 13 04:17	0° ✕	
evening max el	4872 Dec 07 00:44	10° ✕ 25'50	24°13'01	evening rise	4873 Oct 14 21:06	3° ✕ 04'26	
retrograde	4872 Dec 18 05:17	16° ✕ 59'50		desc. node	4873 Oct 22 19:13	16° ✕ 36'25	
evening set	4872 Dec 23 12:19	14° ✕ 48'25			4873 Oct 31 10:28	0° ✕	
asc. node	4872 Dec 26 09:09	11° ✕ 47'48		evening max el	4873 Nov 19 13:09	24° ✕ 08'45	25°27'40
min. Earth dist.	4872 Dec 28 06:24	9° ✕ 21'14	0.67838 AU		4873 Nov 27 06:09	0° ✕	
inferior conj	4872 Dec 29 00:30	8° ✕ 20'16	0°53'01	retrograde	4873 Dec 01 16:49	1° ✕ 08'21	
minimum elong	4872 Dec 28 23:17	8° ✕ 24'23	0°52'33		4873 Dec 05 18:10	30° ✕ ✕	
morning rise	4873 Jan 03 10:36	2° ✕ 15'17		evening set	4873 Dec 07 13:32	28° ✕ 42'58	
direct	4873 Jan 07 06:36	0° ✕ 51'36		min. Earth dist.	4873 Dec 11 23:59	23° ✕ 50'29	0.67233 AU
morning max el	4873 Jan 15 02:37	5° ✕ 19'35	20°20'28	inferior conj	4873 Dec 13 05:01	22° ✕ 17'01	0°00'-58
greatest brilliancy	4873 Jan 21 11:38	12° ✕ 52'09	-0.5m	minimum elong	4873 Dec 13 05:03	22° ✕ 16'57	0°00'57
desc. node	4873 Jan 31 21:27	27° ✕ 39'27		transit middle	4873 Dec 13 05:03	22° ✕ 16'57	0°00'57
	4873 Feb 02 11:11	0° ✕		transit begin	4873 Dec 13 02:15	22° ✕ 15'57	
morning set	4873 Feb 12 03:02	14° ✕ 42'27		transit end	4873 Dec 13 07:50	22° ✕ 07'57	
	4873 Feb 21 20:08	0° ✕		asc. node	4873 Dec 13 06:11	22° ✕ 13'17	
				morning rise	4873 Dec 18 21:23	16° ✕ 19'45	

direct	4873 Dec 22 05:18	15°♊15'52		morning rise	4874 Dec 03 05:34	0°♊23'29	
morning max el	4873 Dec 29 07:19	19°♊12'56	19°18'14		4874 Dec 04 01:40	30°♊♌	
	4874 Jan 06 20:16	0°♊		direct	4874 Dec 06 03:26	29°♌35'44	
greatest brilliancy	4874 Jan 07 16:04	1°♊11'19	-0.7m		4874 Dec 08 06:07	0°♊	
desc. node	4874 Jan 18 18:27	17°♊58'05		morning max el	4874 Dec 12 18:35	3°♊12'46	18°31'49
morning set	4874 Jan 22 02:37	23°♊07'57			4874 Dec 31 07:10	0°♊	
	4874 Jan 26 12:46	0°♊		morning set	4875 Jan 02 01:03	2°♊46'40	
max. Earth dist.	4874 Feb 04 13:41	14°♊08'56	1.44799 AU	desc. node	4875 Jan 05 15:29	8°♊29'59	
superior conj	4874 Feb 07 21:16	19°♋24'08	-1°-53'00	superior conj	4875 Jan 18 01:03	28°♋01'53	-1°-18'-55
minimum elong	4874 Feb 07 13:32	18°♋53'23	1°52'28	minimum elong	4875 Jan 17 16:05	27°♋26'42	1°17'55
	4874 Feb 14 11:37	0°♋		max. Earth dist.	4875 Jan 18 07:47	28°♋28'16	1.45309 AU
evening rise	4874 Feb 22 07:21	12°♋50'50			4875 Jan 19 07:11	0°♋	
	4874 Mar 04 17:53	0°♋		evening rise	4875 Feb 02 22:19	23°♋02'53	
asc. node	4874 Mar 11 05:29	9°♋21'48			4875 Feb 07 07:22	0°♋	
evening max el	4874 Mar 13 14:59	12°♋04'38	18°24'17	evening max el	4875 Feb 25 01:12	25°♋34'30	18°58'29
retrograde	4874 Mar 20 02:17	15°♋35'07		asc. node	4875 Feb 26 02:29	26°♋35'23	
evening set	4874 Mar 23 02:17	14°♋45'38		retrograde	4875 Mar 03 20:58	29°♋24'45	
inferior conj	4874 Mar 29 00:16	9°♋16'01	3°33'41	evening set	4875 Mar 07 03:43	28°♋22'25	
minimum elong	4874 Mar 29 00:27	9°♋15'29	3°33'40	inferior conj	4875 Mar 12 19:03	22°♋35'42	3°28'40
min. Earth dist.	4874 Mar 31 06:56	6°♋37'57	0.64252 AU	minimum elong	4875 Mar 12 17:53	22°♋39'23	3°28'34
morning rise	4874 Apr 03 20:56	3°♋04'24		min. Earth dist.	4875 Mar 14 10:07	20°♋32'55	0.65835 AU
direct	4874 Apr 10 15:45	0°♋18'09		morning rise	4875 Mar 18 07:00	16°♋20'28	
desc. node	4874 Apr 16 17:42	2°♋08'32		direct	4875 Mar 24 18:05	13°♋32'06	
morning max el	4874 Apr 24 07:41	8°♋15'20	27°29'39	desc. node	4875 Apr 03 14:43	18°♋18'06	
	4874 May 11 03:45	0°♋		morning max el	4875 Apr 06 17:33	21°♋13'15	26°36'14
	4874 May 28 11:40	0°♋			4875 Apr 14 08:18	0°♋	
morning set	4874 May 29 09:46	1°♋48'04			4875 May 04 07:54	0°♋	
max. Earth dist.	4874 Jun 03 07:13	11°♋42'31	1.33251 AU	morning set	4875 May 12 15:57	15°♋00'05	
				max. Earth dist.	4875 May 16 20:57	23°♋09'17	1.34575 AU
superior conj	4874 Jun 06 11:25	18°♋23'47	0°-7'-30		4875 May 20 06:26	0°♋	
minimum elong	4874 Jun 06 11:48	18°♋25'49	0°07'27	superior conj	4875 May 21 10:40	2°♋25'13	0°-36'-47
behind sun begin	4874 Jun 06 06:57	18°♋00'03		minimum elong	4875 May 21 12:39	2°♋35'30	0°36'24
behind sun end	4874 Jun 06 16:38	18°♋51'37		asc. node	4875 May 25 01:46	9°♋59'27	
asc. node	4874 Jun 07 04:45	19°♋56'17		evening rise	4875 May 29 01:15	18°♋19'09	
	4874 Jun 11 21:15	0°♋			4875 Jun 03 21:41	0°♋	
evening rise	4874 Jun 13 15:56	3°♋46'53		evening max el	4875 Jun 17 05:31	19°♋32'46	21°00'51
	4874 Jun 28 00:21	0°♋		retrograde	4875 Jun 28 22:46	25°♋18'15	
evening max el	4874 Jul 05 07:46	8°♋52'26	22°30'55	desc. node	4875 Jun 30 14:00	25°♋11'55	
desc. node	4874 Jul 13 16:59	14°♋31'59		evening set	4875 Jul 01 03:53	25°♋06'44	
retrograde	4874 Jul 18 10:09	15°♋23'15		inferior conj	4875 Jul 10 11:34	21°♋09'30	-2°-51'-57
evening set	4874 Jul 21 15:19	15°♋00'31		minimum elong	4875 Jul 10 03:53	21°♋20'19	2°49'25
min. Earth dist.	4874 Jul 29 15:06	11°♋30'51	0.55159 AU	min. Earth dist.	4875 Jul 11 01:56	20°♋49'13	0.54808 AU
inferior conj	4874 Jul 30 18:21	10°♋52'09	-4°-26'-27	morning rise	4875 Jul 19 03:36	17°♋10'54	
minimum elong	4874 Jul 30 10:15	11°♋03'40	4°24'43	direct	4875 Jul 22 19:15	16°♋42'13	
morning rise	4874 Aug 08 07:27	7°♋02'21		morning max el	4875 Aug 04 16:35	22°♋51'17	22°44'19
direct	4874 Aug 11 09:59	6°♋40'20			4875 Aug 10 23:49	0°♋	
morning max el	4874 Aug 22 20:33	12°♋00'11	21°06'47	asc. node	4875 Aug 21 01:00	16°♋16'44	
asc. node	4874 Sep 03 03:58	27°♋12'58		morning set	4875 Aug 27 00:56	28°♋19'09	
	4874 Sep 04 17:37	0°♋			4875 Aug 27 20:03	0°♋	
morning set	4874 Sep 11 14:10	13°♋28'00		superior conj	4875 Sep 03 03:52	13°♋32'06	1°40'09
superior conj	4874 Sep 19 00:04	28°♋56'10	1°43'41	minimum elong	4875 Sep 03 02:38	13°♋25'29	1°40'05
minimum elong	4874 Sep 19 00:02	28°♋55'59	1°43'42	max. Earth dist.	4875 Sep 06 05:14	19°♋58'35	1.33972 AU
	4874 Sep 19 12:27	0°♋		evening rise	4875 Sep 11 00:49	29°♋43'41	
max. Earth dist.	4874 Sep 23 11:11	7°♋58'32	1.35478 AU		4875 Sep 11 04:08	0°♋	
evening rise	4874 Sep 27 15:44	16°♋03'57		desc. node	4875 Sep 26 13:18	26°♋58'23	
	4874 Oct 05 10:52	0°♋			4875 Sep 28 12:56	0°♋	
desc. node	4874 Oct 09 16:15	6°♋57'32		evening max el	4875 Oct 15 14:35	21°♋22'39	27°11'49
	4874 Oct 25 22:32	0°♋		retrograde	4875 Oct 28 23:38	28°♋40'20	
evening max el	4874 Nov 02 01:51	7°♋50'52	26°29'44	evening set	4875 Nov 04 20:39	26°♋00'56	
retrograde	4874 Nov 14 23:11	15°♋04'26		min. Earth dist.	4875 Nov 08 17:51	22°♋19'42	0.64981 AU
evening set	4874 Nov 21 09:04	12°♋28'58		inferior conj	4875 Nov 10 22:07	19°♋55'09	-2°-1'-57
min. Earth dist.	4874 Nov 25 12:37	8°♋12'03	0.66282 AU	minimum elong	4875 Nov 11 01:38	19°♋45'26	2°00'34
inferior conj	4874 Nov 27 04:58	6°♋10'24	0°-59'-48	morning rise	4875 Nov 17 08:37	14°♋21'43	
minimum elong	4874 Nov 27 06:37	6°♋05'26	0°59'07	asc. node	4875 Nov 17 00:12	14°♋31'50	
asc. node	4874 Nov 30 03:11	2°♋51'16					

direct	4875 Nov 19 22:44	13°  46'13		minimum elong	4876 Oct 24 11:06	3°  11'53	3°03'03
morning max el	4875 Nov 26 10:04	17°  12'59	18°02'12		4876 Oct 27 23:32	30°  R $\frac{1}{2}$	
	4875 Dec 05 18:18	0°  ♿		morning rise	4876 Oct 31 03:26	28°  ♿08'38	
morning set	4875 Dec 14 05:12	13°  ♿54'15		direct	4876 Nov 02 12:22	27°  ♿41'43	
desc. node	4875 Dec 23 12:32	29°  ♿10'44		asc. node	4876 Nov 02 21:16	27°  ♿42'23	
	4875 Dec 24 00:44	0°  ♿			4876 Nov 07 21:34	0°  ♿	
superior conj	4875 Dec 28 09:03	6°  ♿58'04	0°-33'-13	morning max el	4876 Nov 09 02:54	1°  ♿06'55	17°49'59
minimum elong	4875 Dec 28 04:58	6°  ♿41'47	0°32'39	morning set	4876 Nov 25 10:48	26°  ♿15'14	
max. Earth dist.	4876 Jan 01 03:30	12°  ♿56'08	1.45069 AU		4876 Nov 27 14:28	0°  ♿	
	4876 Jan 12 02:13	0°  ♿		superior conj	4876 Dec 07 14:24	16°  ♿58'45	0°12'36
evening rise	4876 Jan 13 17:16	2°  ♿30'50		minimum elong	4876 Dec 07 15:43	17°  ♿04'10	0°12'25
	4876 Jan 31 23:35	0°  ♿		behind sun begin	4876 Dec 07 09:37	16°  ♿38'55	
greatest brilliancy	4876 Feb 01 01:34	0°  ♿06'55	-0.6m	behind sun end	4876 Dec 07 21:49	17°  ♿29'22	
evening max el	4876 Feb 08 07:09	9°  ♿07'31	19°48'55	desc. node	4876 Dec 09 09:34	19°  ♿56'21	
asc. node	4876 Feb 12 23:30	12°  ♿45'58		max. Earth dist.	4876 Dec 13 21:20	27°  ♿12'33	1.44118 AU
retrograde	4876 Feb 15 18:35	13°  ♿27'32			4876 Dec 15 15:21	0°  ♿	
evening set	4876 Feb 19 09:13	12°  ♿11'21		evening rise	4876 Dec 23 03:13	11°  ♿42'58	
inferior conj	4876 Feb 24 20:32	6°  ♿09'42	3°10'46		4877 Jan 04 06:09	0°  ♿	
minimum elong	4876 Feb 24 18:30	6°  ♿16'30	3°10'25	greatest brilliancy	4877 Jan 15 21:18	16°  ♿19'06	-0.5m
min. Earth dist.	4876 Feb 25 20:55	4°  ♿48'30	0.66993 AU	evening max el	4877 Jan 21 07:40	22°  ♿41'08	20°53'14
morning rise	4876 Mar 01 03:08	29°  ♿53'26		retrograde	4877 Jan 29 16:50	27°  ♿38'24	
	4876 Mar 01 00:15	30°  R $\frac{1}{2}$		asc. node	4877 Jan 29 20:32	27°  ♿38'16	
direct	4876 Mar 07 02:07	27°  ♿14'46		evening set	4877 Feb 02 16:44	26°  ♿07'29	
	4876 Mar 14 01:25	0°  ♿		inferior conj	4877 Feb 08 02:12	19°  ♿53'38	2°42'34
morning max el	4876 Mar 19 02:44	4°  ♿25'38	25°21'00	minimum elong	4877 Feb 07 23:48	20°  ♿01'56	2°41'56
desc. node	4876 Mar 20 11:45	5°  ♿51'36		min. Earth dist.	4877 Feb 08 13:23	19°  ♿15'08	0.67727 AU
	4876 Apr 07 17:17	0°  ♿		morning rise	4877 Feb 13 06:28	13°  ♿38'08	
morning set	4876 Apr 24 06:24	27°  ♿22'50		direct	4877 Feb 18 15:11	11°  ♿17'06	
	4876 Apr 25 16:58	0°  ♿		morning max el	4877 Mar 01 11:29	17°  ♿45'11	23°53'58
max. Earth dist.	4876 Apr 27 23:51	4°  ♿14'36	1.36347 AU	desc. node	4877 Mar 07 08:47	24°  ♿24'40	
					4877 Mar 11 17:05	0°  ♿	
superior conj	4876 May 04 00:58	15°  ♿56'10	-1°-6'-21		4877 Mar 31 19:02	0°  ♿	
minimum elong	4876 May 04 04:37	16°  ♿14'17	1°05'45	morning set	4877 Apr 05 23:23	8°  ♿40'43	
asc. node	4876 May 10 22:49	29°  ♿54'25		max. Earth dist.	4877 Apr 09 19:56	15°  ♿24'29	1.38441 AU
	4876 May 10 23:55	0°  ♿					
evening rise	4876 May 12 06:16	2°  ♿33'59		superior conj	4877 Apr 17 02:42	28°  ♿46'52	-1°-33'-53
	4876 May 28 19:17	0°  ♿		minimum elong	4877 Apr 17 07:32	29°  ♿09'45	1°33'18
evening max el	4876 May 29 15:26	0°  ♿51'15	19°47'16		4877 Apr 17 18:06	0°  ♿	
retrograde	4876 Jun 08 15:20	5°  ♿44'13		evening rise	4877 Apr 26 04:20	16°  ♿23'34	
evening set	4876 Jun 10 13:34	5°  ♿34'09		asc. node	4877 Apr 27 19:52	19°  ♿36'16	
desc. node	4876 Jun 16 11:00	3°  ♿18'06			4877 May 03 09:43	0°  ♿	
inferior conj	4876 Jun 19 10:30	1°  ♿32'08	0°-53'-21	evening max el	4877 May 12 12:55	12°  ♿51'00	18°53'39
minimum elong	4876 Jun 19 08:03	1°  ♿35'55	0°52'27	retrograde	4877 May 20 23:08	16°  ♿58'46	
min. Earth dist.	4876 Jun 21 14:35	0°  ♿11'58	0.55419 AU	evening set	4877 May 23 00:41	16°  ♿44'51	
	4876 Jun 21 22:33	30°  R $\frac{1}{2}$		inferior conj	4877 May 31 03:00	12°  ♿27'00	0°55'35
morning rise	4876 Jun 27 23:31	27°  ♿05'50		minimum elong	4877 May 31 05:05	12°  ♿23'15	0°54'50
direct	4876 Jul 02 09:50	26°  ♿22'36		desc. node	4877 Jun 03 08:01	10°  ♿10'18	
	4876 Jul 12 08:18	0°  ♿		min. Earth dist.	4877 Jun 03 06:38	10°  ♿12'41	0.56868 AU
morning max el	4876 Jul 16 06:46	3°  ♿15'51	24°28'14	morning rise	4877 Jun 08 04:59	7°  ♿24'17	
	4876 Aug 03 22:58	0°  ♿		direct	4877 Jun 13 13:44	6°  ♿15'12	
asc. node	4876 Aug 06 22:04	5°  ♿45'30		morning max el	4877 Jun 27 21:36	13°  ♿41'34	26°03'08
morning set	4876 Aug 10 12:43	13°  ♿12'35			4877 Jul 10 18:52	0°  ♿	
				asc. node	4877 Jul 24 19:09	25°  ♿32'08	
superior conj	4876 Aug 17 12:24	28°  ♿20'48	1°30'45	morning set	4877 Jul 25 23:55	28°  ♿03'04	
minimum elong	4876 Aug 17 10:23	28°  ♿09'50	1°30'32		4877 Jul 26 21:54	0°  ♿	
	4876 Aug 18 06:40	0°  ♿					
max. Earth dist.	4876 Aug 19 07:51	2°  ♿16'18	1.32876 AU	superior conj	4877 Aug 01 23:32	13°  ♿15'28	1°16'17
evening rise	4876 Aug 24 20:32	13°  ♿53'16		minimum elong	4877 Aug 01 21:14	13°  ♿02'44	1°15'56
	4876 Sep 02 07:01	0°  ♿		max. Earth dist.	4877 Aug 02 16:30	14°  ♿48'52	1.32198 AU
desc. node	4876 Sep 12 10:19	16°  ♿30'30		evening rise	4877 Aug 08 23:47	28°  ♿23'35	
	4876 Sep 22 17:25	0°  ♿			4877 Aug 09 18:22	0°  ♿	
evening max el	4876 Sep 27 01:33	4°  ♿31'22	27°27'06		4877 Aug 26 13:18	0°  ♿	
retrograde	4876 Oct 10 17:43	11°  ♿47'37		desc. node	4877 Aug 30 07:20	5°  ♿22'13	
evening set	4876 Oct 17 21:25	9°  ♿13'19		evening max el	4877 Sep 09 08:22	17°  ♿04'19	27°10'37
min. Earth dist.	4876 Oct 21 13:37	6° ♿04'51	0.63346 AU	retrograde	4877 Sep 23 04:56	24° ♿17'14	
inferior conj	4876 Oct 24 05:51	3° ♿25'02	-3°-4'-52	evening set	4877 Sep 30 07:39	21° ♿59'56	

min. Earth dist.	4877 Oct 03 22:50	19°♄15'59	0.61427 AU	retrograde	4878 Sep 05 07:48	5°♄59'40	
inferior conj	4877 Oct 07 01:01	16°♄32'41	-4°-4'-3	evening set	4878 Sep 11 22:24	4°♄12'04	
minimum elong	4877 Oct 07 07:15	16°♄18'56	4°02'24	min. Earth dist.	4878 Sep 15 21:57	1°♄37'48	0.59358 AU
morning rise	4877 Oct 14 10:03	11°♄36'36			4878 Sep 18 01:13	30°♄	
direct	4877 Oct 16 16:44	11°♄15'03		inferior conj	4878 Sep 19 04:04	29°♄07'49	-4°-51'-48
asc. node	4877 Oct 20 18:21	12°♄26'31		minimum elong	4878 Sep 19 09:15	28°♄57'49	4°51'00
morning max el	4877 Oct 23 17:58	14°♄47'15	17°56'04	morning rise	4878 Sep 26 23:36	24°♄34'22	
	4877 Nov 03 05:04	0°♄		direct	4878 Sep 29 07:34	24°♄15'21	
morning set	4877 Nov 08 11:26	9°♄30'33		morning max el	4878 Oct 07 03:47	28°♄03'43	18°21'51
				asc. node	4878 Oct 07 15:24	28°♄32'30	
superior conj	4877 Nov 18 22:25	28°♄17'39	0°50'30		4878 Oct 08 23:29	0°♄	
minimum elong	4877 Nov 19 02:13	28°♄34'09	0°49'59	morning set	4878 Oct 23 01:30	23°♄23'30	
	4877 Nov 19 22:02	0°♄			4878 Oct 26 12:28	0°♄	
desc. node	4877 Nov 26 06:36	10°♄43'49		superior conj	4878 Nov 01 05:53	10°♄44'13	1°17'48
max. Earth dist.	4877 Nov 26 10:31	10°♄59'57	1.42577 AU	minimum elong	4878 Nov 01 09:37	11°♄01'22	1°17'23
evening rise	4877 Dec 02 20:11	21°♄19'02		max. Earth dist.	4878 Nov 08 18:27	24°♄06'30	1.40636 AU
	4877 Dec 08 10:28	0°♄			4878 Nov 12 06:07	0°♄	
	4877 Dec 29 15:01	0°♄		evening rise	4878 Nov 13 08:19	1°♄48'26	
greatest brilliancy	4877 Dec 30 09:24	0°♄56'37	-0.3m	desc. node	4878 Nov 13 03:38	1°♄29'05	
evening max el	4878 Jan 04 02:49	6°♄16'15	22°07'43		4878 Dec 01 19:38	0°♄	
retrograde	4878 Jan 13 13:45	11°♄53'47		evening max el	4878 Dec 17 17:55	19°♄54'20	23°27'25
asc. node	4878 Jan 16 17:35	11°♄00'49		retrograde	4878 Dec 28 07:49	26°♄09'33	
evening set	4878 Jan 18 00:32	10°♄07'23		evening set	4879 Jan 02 07:01	24°♄07'21	
inferior conj	4878 Jan 23 09:57	3°♄44'47	2°05'46	asc. node	4879 Jan 03 14:38	22°♄52'54	
minimum elong	4878 Jan 23 07:38	3°♄52'49	2°05'00	inferior conj	4879 Jan 07 17:51	17°♄40'01	1°21'32
min. Earth dist.	4878 Jan 23 09:15	3°♄47'12	0.68062 AU	minimum elong	4879 Jan 07 16:05	17°♄46'02	1°20'51
	4878 Jan 26 05:36	30°♄		min. Earth dist.	4879 Jan 07 06:04	18°♄20'23	0.68023 AU
morning rise	4878 Jan 28 14:34	27°♄31'42		morning rise	4879 Jan 13 01:16	11°♄31'19	
direct	4878 Feb 02 08:29	25°♄32'28		direct	4879 Jan 17 04:58	9°♄54'50	
	4878 Feb 10 16:55	0°♄		morning max el	4879 Jan 25 14:31	14°♄46'05	21°02'34
morning max el	4878 Feb 11 22:15	1°♄11'02	22°25'01	greatest brilliancy	4879 Jan 31 00:00	20°♄57'56	-0.5m
greatest brilliancy	4878 Feb 16 11:42	6°♄16'19	-0.3m		4879 Feb 06 16:51	0°♄	
desc. node	4878 Feb 22 05:50	13°♄40'32		desc. node	4879 Feb 09 02:51	3°♄27'02	
	4878 Mar 05 14:59	0°♄		morning set	4879 Feb 24 23:15	27°♄21'50	
morning set	4878 Mar 17 13:12	18°♄39'40			4879 Feb 26 15:27	0°♄	
max. Earth dist.	4878 Mar 22 16:16	27°♄10'38	1.40631 AU	max. Earth dist.	4879 Mar 04 18:57	9°♄51'48	1.42633 AU
	4878 Mar 24 08:02	0°♄					
superior conj	4878 Mar 30 11:25	10°♄46'50	-1°-55'-59	superior conj	4879 Mar 11 22:08	21°♄44'55	-2°-7'-56
minimum elong	4878 Mar 30 15:58	11°♄07'18	1°55'40	minimum elong	4879 Mar 11 23:40	21°♄51'23	2°07'55
evening rise	4878 Apr 09 16:09	29°♄39'30			4879 Mar 16 16:49	0°♄	
	4878 Apr 09 20:30	0°♄		evening rise	4879 Mar 23 13:41	12°♄12'41	
asc. node	4878 Apr 14 16:54	8°♄59'50		asc. node	4879 Apr 01 13:55	27°♄58'54	
evening max el	4878 Apr 25 19:00	25°♄25'51	18°20'25		4879 Apr 02 20:06	0°♄	
retrograde	4878 May 03 01:43	29°♄03'11		evening max el	4879 Apr 09 06:09	8°♄26'32	18°07'00
evening set	4878 May 05 09:47	28°♄41'44		retrograde	4879 Apr 15 21:07	11°♄49'44	
inferior conj	4878 May 12 17:03	24°♄03'39	2°15'54	evening set	4879 Apr 18 11:39	11°♄18'20	
minimum elong	4878 May 12 20:35	23°♄56'14	2°14'56	inferior conj	4879 Apr 25 02:56	6°♄19'12	3°05'25
min. Earth dist.	4878 May 16 03:36	21°♄12'18	0.58873 AU	minimum elong	4879 Apr 25 05:41	6°♄12'33	3°04'55
morning rise	4878 May 20 03:06	18°♄29'37		min. Earth dist.	4879 Apr 28 07:25	3°♄15'30	0.61075 AU
desc. node	4878 May 21 05:03	17°♄57'06		morning rise	4879 May 01 20:29	0°♄24'13	
direct	4878 May 26 08:00	16°♄46'35			4879 May 02 11:40	30°♄	
morning max el	4878 Jun 09 17:25	24°♄33'28	27°13'26	desc. node	4879 May 08 02:04	28°♄09'20	
	4878 Jun 14 16:45	0°♄		direct	4879 May 08 13:48	28°♄08'38	
	4878 Jul 03 23:42	0°♄			4879 May 15 01:12	0°♄	
morning set	4878 Jul 10 08:47	12°♄44'31		morning max el	4879 May 22 19:32	6°♄05'44	27°49'03
asc. node	4878 Jul 11 16:11	15°♄30'22			4879 Jun 09 18:53	0°♄	
				morning set	4879 Jun 24 13:31	27°♄11'28	
superior conj	4878 Jul 17 11:22	28°♄09'09	0°57'24		4879 Jun 25 21:59	0°♄	
minimum elong	4878 Jul 17 09:14	27°♄57'22	0°56'59	asc. node	4879 Jun 28 13:12	5°♄35'41	
max. Earth dist.	4878 Jul 17 03:44	27°♄26'59	1.31943 AU	max. Earth dist.	4879 Jun 30 13:55	9°♄59'46	1.32113 AU
	4878 Jul 18 07:26	0°♄					
evening rise	4878 Jul 24 07:56	13°♄06'10		superior conj	4879 Jul 01 22:11	12°♄56'24	0°34'39
	4878 Aug 01 20:46	0°♄		minimum elong	4879 Jul 01 20:42	12°♄48'12	0°34'20
desc. node	4878 Aug 17 04:22	23°♄16'17		evening rise	4879 Jul 08 18:55	27°♄54'29	
evening max el	4878 Aug 22 08:39	28°♄50'50	26°20'47		4879 Jul 09 18:38	0°♄	
	4878 Aug 23 14:53	0°♄			4879 Jul 26 17:24	0°♄	

evening max el	4879 Aug 04 01:33	9° $\overline{\text{M}}$ 49'52	25°02'07	evening rise	4880 Jun 22 06:44	12° $\overline{\text{S}}$ 41'07	
desc. node	4879 Aug 04 01:22	9° $\overline{\text{M}}$ 49'24			4880 Jul 01 01:02	0° $\overline{\text{Q}}$	
retrograde	4879 Aug 17 23:53	16° $\overline{\text{M}}$ 52'23		evening max el	4880 Jul 15 14:08	20° $\overline{\text{Q}}$ 15'43	23°26'46
evening set	4879 Aug 23 13:13	15° $\overline{\text{M}}$ 42'12		desc. node	4880 Jul 20 22:21	24° $\overline{\text{Q}}$ 30'20	
min. Earth dist.	4879 Aug 28 13:07	12° $\overline{\text{M}}$ 59'08	0.57375 AU	retrograde	4880 Jul 29 03:30	27° $\overline{\text{Q}}$ 03'16	
inferior conj	4879 Aug 31 11:49	11° $\overline{\text{M}}$ 01'19	-5°-15'-37	evening set	4880 Aug 02 05:24	26° $\overline{\text{Q}}$ 26'52	
minimum elong	4879 Aug 31 12:46	10° $\overline{\text{M}}$ 59'43	5°15'37	min. Earth dist.	4880 Aug 08 23:45	23° $\overline{\text{Q}}$ 18'17	0.55779 AU
morning rise	4879 Sep 08 15:46	6° $\overline{\text{M}}$ 50'34		inferior conj	4880 Aug 10 23:26	22° $\overline{\text{Q}}$ 07'46	-4°-59'-10
direct	4879 Sep 11 04:55	6° $\overline{\text{M}}$ 31'43		minimum elong	4880 Aug 10 18:01	22° $\overline{\text{Q}}$ 15'49	4°58'30
morning max el	4879 Sep 20 04:56	10° $\overline{\text{M}}$ 46'28	19°08'53	morning rise	4880 Aug 19 09:43	18° $\overline{\text{Q}}$ 14'32	
asc. node	4879 Sep 24 12:26	15° $\overline{\text{M}}$ 45'27		direct	4880 Aug 22 06:57	17° $\overline{\text{Q}}$ 54'10	
	4879 Oct 03 01:48	0° $\overline{\text{A}}$		morning max el	4880 Sep 01 18:45	22° $\overline{\text{Q}}$ 46'41	20°17'53
morning set	4879 Oct 07 00:50	7° $\overline{\text{A}}$ 42'42			4880 Sep 07 20:54	0° $\overline{\text{M}}$	
				asc. node	4880 Sep 10 09:27	3° $\overline{\text{M}}$ 50'36	
superior conj	4879 Oct 15 07:29	24° $\overline{\text{A}}$ 03'40	1°34'45	morning set	4880 Sep 20 06:22	22° $\overline{\text{M}}$ 19'25	
minimum elong	4879 Oct 15 09:55	24° $\overline{\text{A}}$ 15'23	1°34'35		4880 Sep 23 23:57	0° $\overline{\text{A}}$	
	4879 Oct 18 10:16	0° $\overline{\text{M}}$					
max. Earth dist.	4879 Oct 21 23:25	6° $\overline{\text{M}}$ 32'29	1.38536 AU	superior conj	4880 Sep 27 22:14	8° $\overline{\text{A}}$ 01'48	1°42'41
evening rise	4879 Oct 25 19:34	13° $\overline{\text{M}}$ 20'49		minimum elong	4880 Sep 27 23:03	8° $\overline{\text{A}}$ 05'57	1°42'40
desc. node	4879 Oct 31 00:39	22° $\overline{\text{M}}$ 08'32		max. Earth dist.	4880 Oct 03 05:55	18° $\overline{\text{A}}$ 31'02	1.36517 AU
	4879 Nov 04 22:33	0° $\overline{\text{A}}$		evening rise	4880 Oct 07 03:50	25° $\overline{\text{A}}$ 50'52	
	4879 Nov 26 21:01	0° $\overline{\text{S}}$			4880 Oct 09 11:06	0° $\overline{\text{M}}$	
evening max el	4879 Nov 30 06:57	3° $\overline{\text{S}}$ 36'22	24°45'52	desc. node	4880 Oct 16 21:40	12° $\overline{\text{M}}$ 37'48	
retrograde	4879 Dec 11 21:47	10° $\overline{\text{S}}$ 21'55			4880 Oct 28 10:47	0° $\overline{\text{A}}$	
evening set	4879 Dec 17 10:37	8° $\overline{\text{S}}$ 04'29		evening max el	4880 Nov 11 19:31	17° $\overline{\text{A}}$ 20'01	25°56'00
asc. node	4879 Dec 21 11:39	3° $\overline{\text{S}}$ 36'57		retrograde	4880 Nov 24 07:03	24° $\overline{\text{A}}$ 26'12	
min. Earth dist.	4879 Dec 22 01:28	2° $\overline{\text{S}}$ 51'50	0.67628 AU	evening set	4880 Nov 30 09:39	21° $\overline{\text{A}}$ 55'50	
inferior conj	4879 Dec 23 00:06	1° $\overline{\text{S}}$ 36'53	0°30'48	min. Earth dist.	4880 Dec 04 17:07	17° $\overline{\text{A}}$ 18'38	0.66877 AU
minimum elong	4879 Dec 22 23:21	1° $\overline{\text{S}}$ 39'21	0°30'30	inferior conj	4880 Dec 06 02:56	15° $\overline{\text{A}}$ 32'38	0°-25'-23
	4879 Dec 24 05:44	30° $\overline{\text{R}}$ $\overline{\text{A}}$		minimum elong	4880 Dec 06 03:36	15° $\overline{\text{A}}$ 30'32	0°25'06
morning rise	4879 Dec 28 12:36	25° $\overline{\text{A}}$ 34'45		asc. node	4880 Dec 07 08:40	14° $\overline{\text{A}}$ 00'41	
direct	4880 Jan 01 03:20	24° $\overline{\text{A}}$ 19'41		morning rise	4880 Dec 11 22:35	9° $\overline{\text{A}}$ 39'37	
morning max el	4880 Jan 08 14:36	28° $\overline{\text{A}}$ 32'47	19°52'04	direct	4880 Dec 15 02:03	8° $\overline{\text{A}}$ 43'00	
	4880 Jan 09 23:47	0° $\overline{\text{S}}$		morning max el	4880 Dec 21 22:25	12° $\overline{\text{A}}$ 29'49	18°56'32
greatest brilliancy	4880 Jan 15 23:12	7° $\overline{\text{S}}$ 30'16	-0.6m		4881 Jan 03 20:22	0° $\overline{\text{S}}$	
desc. node	4880 Jan 26 23:52	23° $\overline{\text{S}}$ 35'40		desc. node	4881 Jan 12 20:54	14° $\overline{\text{S}}$ 00'39	
	4880 Jan 31 04:58	0° \approx		morning set	4881 Jan 13 02:49	14° $\overline{\text{S}}$ 23'47	
morning set	4880 Feb 03 19:20	5° \approx 31'35			4881 Jan 23 02:22	0° \approx	
max. Earth dist.	4880 Feb 15 05:38	23° \approx 24'59	1.44188 AU	max. Earth dist.	4881 Jan 27 22:17	7° \approx 34'20	1.45108 AU
	4880 Feb 19 08:06	0° $\overline{\text{K}}$					
				superior conj	4881 Jan 29 17:55	10° \approx 26'00	-1°-40'-37
superior conj	4880 Feb 20 07:14	1° $\overline{\text{K}}$ 33'42	-2°-4'-5	minimum elong	4881 Jan 29 08:45	9° \approx 49'55	1°39'49
minimum elong	4880 Feb 20 02:49	1° $\overline{\text{K}}$ 15'45	2°03'55		4881 Feb 11 00:19	0° $\overline{\text{K}}$	
evening rise	4880 Mar 04 16:29	23° $\overline{\text{K}}$ 53'40		evening rise	4881 Feb 13 20:57	4° $\overline{\text{K}}$ 38'13	
	4880 Mar 08 06:17	0° $\overline{\text{Y}}$			4881 Mar 02 00:29	0° $\overline{\text{Y}}$	
asc. node	4880 Mar 18 10:57	16° $\overline{\text{Y}}$ 24'55		asc. node	4881 Mar 05 07:58	4° $\overline{\text{Y}}$ 08'16	
evening max el	4880 Mar 22 19:00	21° $\overline{\text{Y}}$ 42'58	18°12'39	evening max el	4881 Mar 06 06:48	5° $\overline{\text{Y}}$ 08'59	18°36'40
retrograde	4880 Mar 29 04:52	25° $\overline{\text{Y}}$ 06'59		retrograde	4881 Mar 12 20:44	8° $\overline{\text{Y}}$ 46'41	
evening set	4880 Apr 01 01:28	24° $\overline{\text{Y}}$ 24'14		evening set	4881 Mar 15 23:31	7° $\overline{\text{Y}}$ 51'46	
inferior conj	4880 Apr 07 04:40	19° $\overline{\text{Y}}$ 05'03	3°29'15	inferior conj	4881 Mar 21 18:17	2° $\overline{\text{Y}}$ 14'19	3°33'20
minimum elong	4880 Apr 07 05:47	19° $\overline{\text{Y}}$ 01'59	3°29'09	minimum elong	4881 Mar 21 17:50	2° $\overline{\text{Y}}$ 15'39	3°33'19
min. Earth dist.	4880 Apr 09 20:00	16° $\overline{\text{Y}}$ 12'38	0.63173 AU		4881 Mar 23 14:52	30° $\overline{\text{R}}$ $\overline{\text{K}}$	
morning rise	4880 Apr 13 07:59	12° $\overline{\text{Y}}$ 57'47		min. Earth dist.	4881 Mar 23 18:08	29° $\overline{\text{K}}$ 50'20	0.64973 AU
direct	4880 Apr 20 04:29	10° $\overline{\text{Y}}$ 19'16		morning rise	4881 Mar 27 10:48	26° $\overline{\text{K}}$ 00'39	
desc. node	4880 Apr 23 23:05	11° $\overline{\text{Y}}$ 01'44		direct	4881 Apr 03 02:49	23° $\overline{\text{K}}$ 12'15	
morning max el	4880 May 04 02:46	18° $\overline{\text{Y}}$ 18'28	27°47'00	desc. node	4881 Apr 10 20:06	26° $\overline{\text{K}}$ 09'03	
	4880 May 13 22:30	0° $\overline{\text{S}}$			4881 Apr 15 10:38	0° $\overline{\text{Y}}$	
	4880 Jun 01 15:33	0° $\overline{\text{II}}$		morning max el	4881 Apr 16 12:42	1° $\overline{\text{Y}}$ 04'05	27°10'18
morning set	4880 Jun 07 11:52	11° $\overline{\text{II}}$ 16'05			4881 May 08 00:32	0° $\overline{\text{S}}$	
max. Earth dist.	4880 Jun 12 19:07	22° $\overline{\text{II}}$ 14'04	1.32711 AU	morning set	4881 May 22 01:00	24° $\overline{\text{S}}$ 50'08	
asc. node	4880 Jun 14 10:13	25° $\overline{\text{II}}$ 43'02			4881 May 24 16:01	0° $\overline{\text{II}}$	
				max. Earth dist.	4881 May 26 15:30	3° $\overline{\text{II}}$ 59'38	1.33760 AU
superior conj	4880 Jun 15 06:08	27° $\overline{\text{II}}$ 30'21	0°08'39				
minimum elong	4880 Jun 15 05:43	27° $\overline{\text{II}}$ 28'05	0°08'33	superior conj	4881 May 30 09:13	11° $\overline{\text{II}}$ 45'06	0°-19'-46
behind sun begin	4880 Jun 15 01:14	27° $\overline{\text{II}}$ 03'55		minimum elong	4881 May 30 10:15	11° $\overline{\text{II}}$ 50'33	0°19'35
behind sun end	4880 Jun 15 10:12	27° $\overline{\text{II}}$ 52'18		asc. node	4881 Jun 01 07:15	15° $\overline{\text{II}}$ 48'35	
	4880 Jun 16 09:47	0° $\overline{\text{S}}$		evening rise	4881 Jun 06 17:31	27° $\overline{\text{II}}$ 20'06	

	4881 Jun 08 00:12	0°☿				4882 May 16 08:59	0°♊	
	4881 Jun 26 13:55	0°♊			asc. node	4882 May 19 04:18	5°♊48'27	
evening max el	4881 Jun 27 06:12	0°♊40'49	21°50'55		evening rise	4882 May 22 01:18	11°♊45'19	
desc. node	4881 Jul 07 19:22	6°♊45'10				4882 May 31 15:57	0°☿	
retrograde	4881 Jul 09 20:17	6°♊54'54			evening max el	4882 Jun 09 08:56	11°☿35'54	20°27'18
evening set	4881 Jul 12 13:07	6°♊38'29			retrograde	4882 Jun 20 09:20	16°☿59'25	
inferior conj	4881 Jul 21 20:04	2°♊36'04	-3°-51'-23		evening set	4882 Jun 22 09:20	16°☿49'29	
minimum elong	4881 Jul 21 11:17	2°♊48'22	3°49'01		desc. node	4882 Jun 24 16:23	16°☿15'22	
min. Earth dist.	4881 Jul 21 09:50	2°♊50'24	0.54893 AU		inferior conj	4882 Jul 01 14:00	12°☿52'08	-2°-2'-31
	4881 Jul 26 20:24	30°☿☿			minimum elong	4882 Jul 01 08:17	13°☿00'26	2°00'29
morning rise	4881 Jul 30 10:55	28°☿45'26			min. Earth dist.	4882 Jul 02 21:42	12°☿06'05	0.54942 AU
direct	4881 Aug 02 18:20	28°☿21'25			morning rise	4882 Jul 10 05:37	8°☿43'17	
	4881 Aug 09 06:24	0°♊			direct	4882 Jul 14 04:13	8°☿09'45	
morning max el	4881 Aug 14 20:45	4°♊01'42	21°46'47		morning max el	4882 Jul 27 13:44	14°☿39'33	23°28'37
asc. node	4881 Aug 28 06:30	22°♊35'50				4882 Aug 08 12:12	0°♊	
	4881 Sep 01 04:03	0°♊			asc. node	4882 Aug 15 03:33	11°♊51'15	
morning set	4881 Sep 04 15:46	7°♊06'50			morning set	4882 Aug 20 03:12	21°♊59'51	
						4882 Aug 23 20:50	0°♊	
superior conj	4881 Sep 11 22:11	22°♊26'50	1°42'58		superior conj	4882 Aug 27 04:21	7°♊09'43	1°36'50
minimum elong	4881 Sep 11 21:35	22°♊23'42	1°42'57		minimum elong	4882 Aug 27 02:43	7°♊00'58	1°36'42
	4881 Sep 15 14:01	0°♊			max. Earth dist.	4882 Aug 29 16:23	12°♊30'18	1.33448 AU
max. Earth dist.	4881 Sep 15 18:44	0°♊23'54	1.34784 AU		evening rise	4882 Sep 03 19:09	23°♊02'22	
evening rise	4881 Sep 20 05:04	9°♊08'13				4882 Sep 07 08:59	0°♊	
	4881 Oct 02 00:03	0°♊			desc. node	4882 Sep 20 15:44	22°♊40'54	
desc. node	4881 Oct 03 18:42	2°♊50'54				4882 Sep 25 16:38	0°♊	
	4881 Oct 24 08:27	0°♊			evening max el	4882 Oct 07 20:14	14°♊21'30	27°21'55
evening max el	4881 Oct 25 08:06	0°♊58'02	26°50'26		retrograde	4882 Oct 21 09:09	21°♊39'55	
retrograde	4881 Nov 07 11:01	8°♊14'50			evening set	4882 Oct 28 09:35	19°♊01'19	
evening set	4881 Nov 14 02:09	5°♊36'23			min. Earth dist.	4882 Nov 01 04:18	15°♊34'33	0.64323 AU
min. Earth dist.	4881 Nov 18 02:46	1°♊35'05	0.65770 AU		inferior conj	4882 Nov 03 13:47	13°♊02'04	-2°-28'-46
	4881 Nov 19 11:29	30°♊♊			minimum elong	4882 Nov 03 18:05	12°♊50'39	2°27'08
inferior conj	4881 Nov 20 00:16	29°♊22'37	-1°-25'-55		morning rise	4882 Nov 10 04:55	7°♊35'31	
minimum elong	4881 Nov 20 02:41	29°♊15'33	1°24'54		asc. node	4882 Nov 11 02:46	7°♊16'51	
asc. node	4881 Nov 24 05:43	24°♊59'48			direct	4882 Nov 12 16:22	7°♊04'14	
morning rise	4881 Nov 26 04:55	23°♊41'21			morning max el	4882 Nov 19 04:22	10°♊29'37	17°54'45
direct	4881 Nov 28 23:09	22°♊59'25				4882 Dec 02 11:31	0°♊	
morning max el	4881 Dec 05 11:54	26°♊30'55	18°17'12		morning set	4882 Dec 06 05:39	6°♊21'28	
	4881 Dec 08 12:57	0°♊			desc. node	4882 Dec 17 15:00	25°♊19'43	
morning set	4881 Dec 24 13:55	24°♊40'32						
	4881 Dec 27 21:02	0°♊			superior conj	4882 Dec 19 12:35	28°♊24'28	0°-13'-12
desc. node	4881 Dec 30 17:56	4°♊36'37			minimum elong	4882 Dec 19 11:02	28°♊18'13	0°12'59
					behind sun begin	4882 Dec 19 04:55	27°♊53'29	
superior conj	4882 Jan 08 20:54	19°♊04'27	-1°00'-16		behind sun end	4882 Dec 19 17:10	28°♊42'56	
minimum elong	4882 Jan 08 13:32	18°♊35'29	0°59'20			4882 Dec 20 12:18	0°♊	
max. Earth dist.	4882 Jan 10 17:20	21°♊58'53	1.45295 AU		max. Earth dist.	4882 Dec 24 11:58	6°♊21'31	1.44748 AU
	4882 Jan 15 20:16	0°♊			evening rise	4883 Jan 04 15:50	23°♊44'58	
evening rise	4882 Jan 25 02:35	14°♊28'52				4883 Jan 08 17:50	0°♊	
	4882 Feb 04 01:34	0°♊			greatest brilliancy	4883 Jan 25 11:06	24°♊33'13	-0.6m
greatest brilliancy	4882 Feb 08 16:10	6°♊58'29	-0.7m			4883 Jan 29 18:32	0°♊	
evening max el	4882 Feb 17 15:18	18°♊39'43	19°18'01		evening max el	4883 Jan 31 19:02	2°♊12'55	20°14'48
asc. node	4882 Feb 20 04:59	20°♊56'29			asc. node	4883 Feb 07 02:02	6°♊35'19	
retrograde	4882 Feb 24 17:06	22°♊42'00			retrograde	4883 Feb 08 15:13	6°♊48'12	
evening set	4882 Feb 28 02:57	21°♊34'01			evening set	4883 Feb 12 09:31	5°♊26'05	
inferior conj	4882 Mar 05 16:17	15°♊40'31	3°22'28			4883 Feb 17 07:43	30°♊♊	
minimum elong	4882 Mar 05 14:41	15°♊45'42	3°22'16		inferior conj	4883 Feb 17 19:51	29°♊19'02	2°59'56
min. Earth dist.	4882 Mar 07 00:56	13°♊54'53	0.66378 AU		minimum elong	4883 Feb 17 17:35	29°♊26'41	2°59'27
morning rise	4882 Mar 11 01:32	9°♊24'17			min. Earth dist.	4883 Feb 18 14:32	28°♊15'43	0.67359 AU
direct	4882 Mar 17 07:44	6°♊38'47			morning rise	4883 Feb 23 01:05	23°♊02'42	
desc. node	4882 Mar 28 17:09	12°♊57'15			direct	4883 Feb 28 18:13	20°♊30'29	
morning max el	4882 Mar 29 22:36	14°♊09'41	26°06'18		morning max el	4883 Mar 12 07:17	27°♊24'51	24°44'38
	4882 Apr 11 20:06	0°♊				4883 Mar 14 17:34	0°♊	
	4882 Apr 30 18:55	0°♊			desc. node	4883 Mar 15 14:12	0°♊58'15	
morning set	4882 May 05 01:09	7°♊42'50				4883 Apr 05 12:09	0°♊	
max. Earth dist.	4882 May 09 00:21	15°♊14'16	1.35272 AU		morning set	4883 Apr 17 07:13	19°♊39'42	
					max. Earth dist.	4883 Apr 20 23:04	26°♊14'55	1.37205 AU
superior conj	4882 May 14 05:02	25°♊34'03	0°-49'-25			4883 Apr 22 23:42	0°♊	
minimum elong	4882 May 14 07:45	25°♊47'50	0°48'56					

superior conj	4883 Apr 27 14:29	8°♄48'51	-1°-18'-28		4884 Mar 28 07:11	0°♄	
minimum elong	4883 Apr 27 18:44	9°♄09'34	1°17'50	morning set	4884 Mar 28 13:12	0°♄25'11	
evening rise	4883 May 06 03:42	25°♄49'46		max. Earth dist.	4884 Apr 01 18:26	7°♄37'22	1.39382 AU
asc. node	4883 May 06 01:21	25°♄38'01					
	4883 May 08 06:10	0°♄		superior conj	4884 Apr 09 09:38	21°♄19'57	-1°-44'-11
evening max el	4883 May 23 00:08	23°♄12'26	19°22'02	minimum elong	4884 Apr 09 14:35	21°♄42'57	1°43'40
retrograde	4883 Jun 01 06:53	27°♄44'10			4884 Apr 14 00:06	0°♄	
evening set	4883 Jun 03 05:50	27°♄32'58		evening rise	4884 Apr 18 21:51	9°♄26'17	
inferior conj	4883 Jun 11 19:21	23°♄25'38	0°-4'-23	asc. node	4884 Apr 21 22:23	15°♄12'54	
minimum elong	4883 Jun 11 19:09	23°♄25'57	0°04'20		4884 Apr 30 13:46	0°♄	
transit middle	4883 Jun 11 19:09	23°♄25'57	0°04'20	evening max el	4884 May 05 01:46	5°♄28'26	18°37'01
transit begin	4883 Jun 11 15:26	23°♄32'02		retrograde	4884 May 12 22:34	9°♄20'55	
transit end	4883 Jun 11 22:53	23°♄19'51		evening set	4884 May 15 02:59	9°♄04'02	
desc. node	4883 Jun 11 13:25	23°♄35'19		inferior conj	4884 May 22 20:55	4°♄37'38	1°33'35
min. Earth dist.	4883 Jun 14 11:47	21°♄40'49	0.55943 AU	minimum elong	4884 May 22 23:59	4°♄31'44	1°32'35
morning rise	4883 Jun 20 04:31	18°♄43'59		min. Earth dist.	4884 May 26 05:20	2°♄05'07	0.57680 AU
direct	4883 Jun 25 00:29	17°♄50'49		desc. node	4884 May 28 10:26	0°♄35'09	
morning max el	4883 Jul 09 03:16	25°♄00'10	25°10'41		4884 May 29 10:12	30°♄	
	4883 Jul 13 18:39	0°♄		morning rise	4884 May 30 16:31	29°♄20'52	
	4883 Aug 01 07:16	0°♄		direct	4884 Jun 05 10:42	27°♄57'54	
asc. node	4883 Aug 02 00:37	1°♄27'55			4884 Jun 12 14:32	0°♄	
morning set	4883 Aug 04 14:54	6°♄52'05		morning max el	4884 Jun 19 19:39	5°♄33'26	26°36'50
					4884 Jul 07 18:45	0°♄	
superior conj	4883 Aug 11 14:13	22°♄01'25	1°25'12	asc. node	4884 Jul 18 21:40	21°♄19'46	
minimum elong	4883 Aug 11 12:01	21°♄49'23	1°24'55	morning set	4884 Jul 19 01:17	21°♄38'49	
max. Earth dist.	4883 Aug 12 21:52	24°♄54'27	1.32535 AU		4884 Jul 22 22:22	0°♄	
	4883 Aug 15 06:23	0°♄					
evening rise	4883 Aug 18 18:25	7°♄21'44		superior conj	4884 Jul 26 01:49	6°♄55'42	1°08'46
	4883 Aug 30 20:35	0°♄		minimum elong	4884 Jul 25 23:32	6°♄43'01	1°08'23
desc. node	4883 Sep 07 12:44	11°♄57'14		max. Earth dist.	4884 Jul 26 08:11	7°♄30'49	1.32044 AU
evening max el	4883 Sep 20 05:57	27°♄17'02	27°24'16	evening rise	4884 Aug 02 00:01	21°♄57'46	
	4883 Sep 23 09:11	0°♄			4884 Aug 05 22:25	0°♄	
retrograde	4883 Oct 04 00:28	4°♄31'43		desc. node	4884 Aug 24 09:44	0°♄26'14	
evening set	4883 Oct 11 04:40	2°♄03'28			4884 Aug 24 01:44	0°♄	
	4883 Oct 13 19:54	30°♄		evening max el	4884 Sep 01 10:23	9°♄31'05	26°53'24
min. Earth dist.	4883 Oct 14 19:52	29°♄06'27	0.62559 AU	retrograde	4884 Sep 15 07:54	16°♄41'19	
inferior conj	4883 Oct 17 16:36	26°♄23'36	-3°-30'-47	evening set	4884 Sep 22 07:08	14°♄35'27	
minimum elong	4883 Oct 17 22:25	26°♄09'46	3°28'57	min. Earth dist.	4884 Sep 26 00:31	11°♄57'45	0.60558 AU
morning rise	4883 Oct 24 19:03	21°♄15'06		inferior conj	4884 Sep 29 05:18	9°♄18'11	-4°-26'-19
direct	4883 Oct 27 02:35	20°♄50'51		minimum elong	4884 Sep 29 11:24	9°♄05'26	4°24'58
asc. node	4883 Oct 28 23:49	21°♄07'25		morning rise	4884 Oct 06 18:57	4°♄31'18	
morning max el	4883 Nov 02 20:47	24°♄18'16	17°50'09	direct	4884 Oct 09 01:53	4°♄11'00	
	4883 Nov 07 11:26	0°♄		asc. node	4884 Oct 14 20:53	6°♄27'28	
morning set	4883 Nov 18 20:09	19°♄07'54		morning max el	4884 Oct 16 09:54	7°♄48'43	18°04'32
	4883 Nov 24 23:52	0°♄			4884 Oct 30 16:30	0°♄	
				morning set	4884 Nov 01 03:05	2°♄40'50	
superior conj	4883 Nov 30 05:14	8°♄58'03	0°29'54				
minimum elong	4883 Nov 30 07:59	9°♄09'39	0°29'31	superior conj	4884 Nov 10 23:47	20°♄47'06	1°03'24
desc. node	4883 Dec 04 12:02	16°♄06'20		minimum elong	4884 Nov 11 03:47	21°♄04'54	1°02'55
max. Earth dist.	4883 Dec 07 04:03	20°♄27'23	1.43532 AU		4884 Nov 16 06:37	0°♄	
	4883 Dec 13 03:58	0°♄		max. Earth dist.	4884 Nov 18 15:30	4°♄00'21	1.41791 AU
evening rise	4883 Dec 15 02:52	3°♄02'48		desc. node	4884 Nov 20 09:02	6°♄52'59	
	4884 Jan 02 05:49	0°♄		evening rise	4884 Nov 24 02:58	12°♄58'56	
greatest brilliancy	4884 Jan 09 18:13	10°♄05'39	-0.4m		4884 Dec 05 03:30	0°♄	
evening max el	4884 Jan 14 17:18	15°♄47'38	21°24'01	greatest brilliancy	4884 Dec 22 10:26	23°♄47'13	-0.3m
retrograde	4884 Jan 23 12:58	21°♄01'24		evening max el	4884 Dec 27 10:32	29°♄23'48	22°41'20
asc. node	4884 Jan 24 23:04	20°♄50'33			4884 Dec 28 01:08	0°♄	
evening set	4884 Jan 27 17:21	19°♄24'02		retrograde	4885 Jan 06 08:43	5°♄17'30	
inferior conj	4884 Feb 02 02:37	13°♄06'18	2°27'55	asc. node	4885 Jan 10 20:06	3°♄33'31	
minimum elong	4884 Feb 02 00:12	13°♄14'42	2°27'13	evening set	4885 Jan 11 00:45	3°♄24'09	
min. Earth dist.	4884 Feb 02 08:40	12°♄45'22	0.67922 AU		4885 Jan 14 05:00	30°♄	
morning rise	4884 Feb 07 06:44	6°♄51'44		inferior conj	4885 Jan 16 10:36	26°♄59'08	1°47'50
direct	4884 Feb 12 09:16	4°♄39'28		minimum elong	4885 Jan 16 08:29	27°♄06'30	1°47'05
morning max el	4884 Feb 22 16:17	10°♄46'13	23°15'45	min. Earth dist.	4885 Jan 16 05:04	27°♄18'17	0.68095 AU
greatest brilliancy	4884 Feb 27 21:08	16°♄36'33	-0.2m	morning rise	4885 Jan 21 16:09	20°♄47'57	
desc. node	4884 Mar 01 11:15	19°♄51'15		direct	4885 Jan 26 03:56	18°♄58'32	
	4884 Mar 08 22:11	0°♄		morning max el	4885 Feb 04 05:02	24°♄15'37	21°48'47

greatest brilliancy	4885 Feb 08 22:38	29°☿34'56	-0.4m	desc. node	4886 Feb 03 05:18	29°☿18'06	
	4885 Feb 09 06:48	0°♊			4886 Feb 03 16:39	0°♊	
desc. node	4885 Feb 16 08:16	9°♊21'07		morning set	4886 Feb 15 16:03	18°♊09'40	
	4885 Mar 02 08:28	0°♋			4886 Feb 23 04:35	0°♋	
morning set	4885 Mar 08 14:34	9°♋48'55		max. Earth dist.	4886 Feb 24 23:43	2°♋53'07	1.43365 AU
max. Earth dist.	4885 Mar 14 17:36	19°♋48'25	1.41528 AU				
	4885 Mar 20 17:32	0°♌		superior conj	4886 Mar 03 09:29	13°♋22'53	-2°-8'-32
				minimum elong	4886 Mar 03 08:43	13°♋19'43	2°08'32
superior conj	4885 Mar 22 09:31	2°♌54'30	-2°-2'-38		4886 Mar 13 02:56	0°♌	
minimum elong	4885 Mar 22 13:11	3°♌10'37	2°02'27	evening rise	4886 Mar 15 18:13	4°♌37'16	
evening rise	4885 Apr 02 04:05	22°♌25'08		asc. node	4886 Mar 26 16:24	23°♌12'52	
	4885 Apr 06 07:23	0°♍			4886 Mar 31 15:33	0°♍	
asc. node	4885 Apr 08 19:24	4°♍26'47		evening max el	4886 Apr 01 22:30	1°♍22'37	18°07'03
evening max el	4885 Apr 18 10:20	18°♍14'42	18°12'14	retrograde	4886 Apr 08 10:16	4°♍44'48	
retrograde	4885 Apr 25 09:01	21°♍44'24		evening set	4886 Apr 11 03:17	4°♍08'51	
evening set	4885 Apr 27 19:52	21°♍18'55			4886 Apr 16 13:39	30°♎♌	
inferior conj	4885 May 04 19:49	16°♍31'26	2°40'28	inferior conj	4886 Apr 17 12:58	29°♌01'03	3°18'17
minimum elong	4885 May 04 23:12	16°♍23'52	2°39'39	minimum elong	4886 Apr 17 15:03	28°♌55'42	3°17'59
min. Earth dist.	4885 May 08 04:49	13°♍31'56	0.59807 AU	min. Earth dist.	4886 Apr 20 12:26	25°♌59'18	0.61994 AU
morning rise	4885 May 11 22:41	10°♍47'06		morning rise	4886 Apr 24 00:02	22°♌59'32	
desc. node	4885 May 15 07:27	9°♍16'44		direct	4886 Apr 30 19:38	20°♌32'38	
direct	4885 May 18 09:45	8°♍49'51		desc. node	4886 May 02 04:29	20°♌38'11	
morning max el	4885 Jun 01 18:19	16°♍41'46	27°33'16	morning max el	4886 May 14 23:05	28°♌32'34	27°52'42
	4885 Jun 12 17:09	0°♎			4886 May 16 09:05	0°♎	
	4885 Jun 30 07:04	0°♏			4886 Jun 06 13:05	0°♎	
morning set	4885 Jul 03 08:38	6°♏14'42		morning set	4886 Jun 17 10:57	20°♎33'09	
asc. node	4885 Jul 05 18:42	11°♏21'24			4886 Jun 21 23:19	0°♏	
max. Earth dist.	4885 Jul 09 19:34	20°♏08'35	1.31963 AU	asc. node	4886 Jun 22 15:42	1°♏28'01	
				max. Earth dist.	4886 Jun 23 04:03	2°♏34'34	1.32307 AU
superior conj	4885 Jul 10 13:24	21°♏46'51	0°48'10				
minimum elong	4885 Jul 10 11:29	21°♏36'16	0°47'47	superior conj	4886 Jun 24 23:13	6°♏29'02	0°23'57
	4885 Jul 14 06:58	0°♐		minimum elong	4886 Jun 24 22:07	6°♏23'05	0°23'43
evening rise	4885 Jul 17 09:36	6°♐43'13		evening rise	4886 Jul 01 21:08	21°♏31'12	
	4885 Jul 29 13:11	0°♑			4886 Jul 05 23:24	0°♐	
desc. node	4885 Aug 11 06:44	17°♑48'57			4886 Jul 25 06:55	0°♑	
evening max el	4885 Aug 14 07:17	20°♑55'59	25°50'13	evening max el	4886 Jul 26 21:27	1°♑37'11	24°22'41
retrograde	4885 Aug 28 06:22	28°♑02'50		desc. node	4886 Jul 29 03:44	3°♑38'34	
evening set	4885 Sep 03 12:07	26°♑30'22		retrograde	4886 Aug 09 17:46	8°♑36'01	
min. Earth dist.	4885 Sep 07 19:31	23°♑55'02	0.58485 AU	evening set	4886 Aug 14 16:34	7°♑41'22	
inferior conj	4885 Sep 11 00:24	21°♑36'20	-5°-5'-47	min. Earth dist.	4886 Aug 20 08:24	4°♑49'05	0.56618 AU
minimum elong	4885 Sep 11 04:13	21°♑29'25	5°05'25	inferior conj	4886 Aug 22 23:24	3°♑09'39	-5°-14'-35
morning rise	4885 Sep 18 23:51	17°♑13'08		minimum elong	4886 Aug 22 21:42	3°♑12'21	5°14'32
direct	4885 Sep 21 09:41	16°♑54'25			4886 Aug 28 15:33	30°♎♐	
morning max el	4885 Sep 29 16:28	20°♑52'14	18°39'20	morning rise	4886 Aug 31 06:18	29°♐07'42	
asc. node	4885 Oct 01 17:55	23°♑03'52		direct	4886 Sep 02 22:22	28°♐48'35	
	4885 Oct 06 16:45	0°♒			4886 Sep 07 21:49	0°♑	
morning set	4885 Oct 15 21:31	16°♒46'24		morning max el	4886 Sep 12 13:09	3°♑18'14	19°35'42
	4885 Oct 22 17:28	0°♓		asc. node	4886 Sep 18 14:57	10°♑40'42	
					4886 Sep 29 09:07	0°♒	
superior conj	4885 Oct 24 15:42	3°♓38'45	1°26'11	morning set	4886 Sep 29 23:48	1°♒13'38	
minimum elong	4885 Oct 24 18:58	3°♓54'03	1°25'53				
max. Earth dist.	4885 Oct 31 21:55	16°♓49'54	1.39741 AU	superior conj	4886 Oct 07 23:26	17°♒16'18	1°39'08
evening rise	4885 Nov 05 00:54	23°♓55'08		minimum elong	4886 Oct 08 01:11	17°♒24'54	1°39'02
desc. node	4885 Nov 07 06:03	27°♓36'28		max. Earth dist.	4886 Oct 14 02:22	28°♒59'39	1.37644 AU
	4885 Nov 08 17:08	0°♈			4886 Oct 14 15:26	0°♓	
	4885 Nov 28 23:55	0°♉		evening rise	4886 Oct 17 21:31	5°♓53'06	
evening max el	4885 Dec 10 00:23	13°♉03'29	24°01'13	desc. node	4886 Oct 25 03:04	18°♓12'05	
retrograde	4885 Dec 21 01:16	19°♉33'06			4886 Nov 01 15:53	0°♈	
evening set	4885 Dec 26 06:14	17°♉24'00		evening max el	4886 Nov 22 12:56	26°♈46'17	25°17'09
asc. node	4885 Dec 28 17:07	14°♉53'06			4886 Nov 26 04:06	0°♉	
min. Earth dist.	4885 Dec 31 01:32	11°♉51'39	0.67900 AU	retrograde	4886 Dec 04 13:31	3°♉42'44	
inferior conj	4885 Dec 31 18:02	10°♉55'47	1°00'46	evening set	4886 Dec 10 08:08	1°♉19'24	
minimum elong	4885 Dec 31 16:39	11°♉00'28	1°00'13		4886 Dec 11 17:55	30°♎♉	
morning rise	4886 Jan 06 03:22	4°♉49'45		min. Earth dist.	4886 Dec 14 19:44	26°♉21'32	0.67346 AU
direct	4886 Jan 10 01:17	3°♉22'53		inferior conj	4886 Dec 15 23:04	24°♉52'47	0°07'35
morning max el	4886 Jan 18 00:40	7°♉56'40	20°30'53	minimum elong	4886 Dec 15 22:53	24°♉53'25	0°07'31
greatest brilliancy	4886 Jan 24 02:54	15°♉05'32	-0.5m	transit middle	4886 Dec 15 22:53	24°♉53'25	0°07'31

transit begin	4886 Dec 15 20:25	25° ♂ 01'26		min. Earth dist.	4887 Nov 28 09:14	10° ♂ 44'16	0.66445 AU
transit end	4886 Dec 16 01:21	24° ♂ 45'24		inferior conj	4887 Nov 29 23:50	8° ♂ 46'38	0°-50'-38
asc. node	4886 Dec 15 14:09	25° ♂ 21'47		minimum elong	4887 Nov 30 01:13	8° ♂ 42'25	0°50'03
morning rise	4886 Dec 21 14:21	18° ♂ 54'04		asc. node	4887 Dec 02 11:13	5° ♂ 53'43	
direct	4886 Dec 24 23:58	17° ♂ 47'23		morning rise	4887 Dec 05 23:05	2° ♂ 57'57	
morning max el	4887 Jan 01 04:11	21° ♂ 48'22	19°26'29	direct	4887 Dec 08 22:22	2° ♂ 07'58	
	4887 Jan 07 21:36	0° ♂		morning max el	4887 Dec 15 14:36	5° ♂ 47'09	18°37'43
greatest brilliancy	4887 Jan 09 21:16	2° ♂ 47'04	-0.7m		4888 Jan 01 14:31	0° ♂	
desc. node	4887 Jan 21 02:20	19° ♂ 34'29		morning set	4888 Jan 05 08:13	5° ♂ 54'50	
morning set	4887 Jan 25 13:58	26° ♂ 29'04		desc. node	4888 Jan 07 23:22	10° ♂ 04'35	
	4887 Jan 27 20:27	0° ♂			4888 Jan 20 15:26	0° ♂	
max. Earth dist.	4887 Feb 07 12:40	16° ♂ 41'53	1.44664 AU				
				superior conj	4888 Jan 21 13:08	1° ♂ 25'05	-1°-25'-6
superior conj	4887 Feb 11 08:09	22° ♂ 45'19	-1°-56'-34	minimum elong	4888 Jan 21 03:52	0° ♂ 48'45	1°24'07
minimum elong	4887 Feb 11 01:10	22° ♂ 17'25	1°56'09	max. Earth dist.	4888 Jan 21 06:40	0° ♂ 59'44	1.45280 AU
	4887 Feb 15 20:10	0° ♂		evening rise	4888 Feb 06 06:19	26° ♂ 15'07	
evening rise	4887 Feb 25 11:53	15° ♂ 54'52			4888 Feb 08 14:38	0° ♂	
	4887 Mar 05 23:07	0° ♂		evening max el	4888 Feb 27 22:01	28° ♂ 13'53	18°52'17
asc. node	4887 Mar 13 13:25	11° ♂ 22'39		asc. node	4888 Feb 28 10:28	28° ♂ 44'42	
evening max el	4887 Mar 16 11:16	14° ♂ 44'37	18°20'42		4888 Feb 29 20:47	0° ♂	
retrograde	4887 Mar 22 21:54	18° ♂ 12'56		retrograde	4888 Mar 05 15:57	2° ♂ 00'24	
evening set	4887 Mar 25 21:01	17° ♂ 25'14		evening set	4888 Mar 08 21:42	0° ♂ 59'57	
inferior conj	4887 Mar 31 20:15	11° ♂ 58'20	3°33'01		4888 Mar 10 06:17	30° ♂	
minimum elong	4887 Mar 31 20:40	11° ♂ 57'08	3°33'01	inferior conj	4888 Mar 14 13:49	25° ♂ 15'35	3°30'18
min. Earth dist.	4887 Apr 03 05:14	9° ♂ 16'02	0.63986 AU	minimum elong	4888 Mar 14 12:50	25° ♂ 18'40	3°30'14
morning rise	4887 Apr 06 18:33	5° ♂ 47'47		min. Earth dist.	4888 Mar 16 07:08	23° ♂ 07'08	0.65627 AU
direct	4887 Apr 13 14:05	3° ♂ 03'00		morning rise	4888 Mar 20 02:52	19° ♂ 00'44	
desc. node	4887 Apr 19 01:31	4° ♂ 32'37		direct	4888 Mar 26 15:23	16° ♂ 12'03	
morning max el	4887 Apr 27 07:44	11° ♂ 01'00	27°35'09	desc. node	4888 Apr 04 22:35	23° ♂ 27'03	
	4887 May 12 07:18	0° ♂		morning max el	4888 Apr 08 17:41	23° ♂ 56'06	26°45'50
	4887 May 29 23:04	0° ♂			4888 Apr 14 04:04	0° ♂	
morning set	4887 Jun 01 05:49	4° ♂ 26'41			4888 May 04 16:22	0° ♂	
max. Earth dist.	4887 Jun 06 05:43	14° ♂ 37'08	1.33097 AU	morning set	4888 May 14 13:57	17° ♂ 44'42	
				max. Earth dist.	4888 May 18 21:19	26° ♂ 08'58	1.34354 AU
superior conj	4887 Jun 09 05:25	20° ♂ 56'30	0°-3'-10		4888 May 20 19:07	0° ♂	
minimum elong	4887 Jun 09 05:34	20° ♂ 57'21	0°03'10				
behind sun begin	4887 Jun 09 00:17	20° ♂ 29'02		superior conj	4888 May 23 05:46	5° ♂ 01'39	0°-32'-16
behind sun end	4887 Jun 09 10:52	21° ♂ 25'41		minimum elong	4888 May 23 07:30	5° ♂ 10'39	0°31'57
asc. node	4887 Jun 09 12:44	21° ♂ 35'37		asc. node	4888 May 26 09:45	11° ♂ 39'28	
	4887 Jun 13 10:27	0° ♂		evening rise	4888 May 30 18:34	20° ♂ 50'10	
evening rise	4887 Jun 16 08:47	6° ♂ 15'54			4888 Jun 04 07:11	0° ♂	
	4887 Jun 29 00:27	0° ♂		evening max el	4888 Jun 19 06:45	22° ♂ 35'01	21°13'17
evening max el	4887 Jul 08 10:39	11° ♂ 59'37	22°45'16	retrograde	4888 Jul 01 05:39	28° ♂ 28'12	
desc. node	4887 Jul 16 00:45	17° ♂ 21'57		desc. node	4888 Jul 01 21:47	28° ♂ 27'08	
retrograde	4887 Jul 21 16:23	18° ♂ 35'12		evening set	4888 Jul 03 13:18	28° ♂ 15'44	
evening set	4887 Jul 25 02:39	18° ♂ 09'29		inferior conj	4888 Jul 12 21:19	24° ♂ 17'38	-3°-8'-36
min. Earth dist.	4887 Aug 01 18:50	14° ♂ 45'43	0.55296 AU	minimum elong	4888 Jul 12 13:09	24° ♂ 29'05	3°06'01
inferior conj	4887 Aug 03 03:42	13° ♂ 58'40	-4°-36'-47	min. Earth dist.	4888 Jul 13 05:17	24° ♂ 06'26	0.54803 AU
minimum elong	4887 Aug 02 20:08	14° ♂ 09'31	4°35'20	morning rise	4888 Jul 21 13:13	20° ♂ 21'54	
morning rise	4887 Aug 11 16:05	10° ♂ 08'24		direct	4888 Jul 25 02:39	19° ♂ 54'36	
direct	4887 Aug 14 17:15	9° ♂ 46'50		morning max el	4888 Aug 06 19:17	25° ♂ 56'02	22°29'07
morning max el	4887 Aug 25 21:52	14° ♂ 59'27	20°53'29		4888 Aug 10 15:29	0° ♂	
asc. node	4887 Sep 05 12:00	29° ♂ 04'34		asc. node	4888 Aug 22 09:04	18° ♂ 03'45	
	4887 Sep 06 00:55	0° ♂			4888 Aug 28 08:56	0° ♂	
morning set	4887 Sep 14 07:14	15° ♂ 55'34		morning set	4888 Aug 28 17:44	0° ♂ 46'02	
	4887 Sep 21 01:38	0° ♂					
superior conj	4887 Sep 21 18:32	1° ♂ 26'59	1°43'39	superior conj	4888 Sep 04 21:26	16° ♂ 00'19	1°41'05
minimum elong	4887 Sep 21 18:43	1° ♂ 27'55	1°43'39	minimum elong	4888 Sep 04 20:21	15° ♂ 54'33	1°41'02
max. Earth dist.	4887 Sep 26 10:54	10° ♂ 52'08	1.35739 AU	max. Earth dist.	4888 Sep 08 03:42	22° ♂ 50'33	1.34169 AU
evening rise	4887 Sep 30 13:35	18° ♂ 44'56			4888 Sep 11 16:29	0° ♂	
	4887 Oct 06 20:09	0° ♂		evening rise	4888 Sep 12 20:45	2° ♂ 19'10	
desc. node	4887 Oct 12 00:05	8° ♂ 35'04		desc. node	4888 Sep 27 21:06	28° ♂ 39'24	
	4887 Oct 26 19:47	0° ♂			4888 Sep 28 17:55	0° ♂	
evening max el	4887 Nov 05 01:40	10° ♂ 28'57	26°21'37	evening max el	4888 Oct 17 14:27	24° ♂ 02'56	27°07'08
retrograde	4887 Nov 17 20:37	17° ♂ 40'41			4888 Oct 25 15:27	0° ♂	
evening set	4887 Nov 24 04:39	15° ♂ 06'30		retrograde	4888 Oct 30 21:57	1° ♂ 20'23	
					4888 Nov 04 18:43	30° ♂	

evening set	4888 Nov 06 17:37	28° M 40'57		4889 Sep 23 09:35	0° M	
min. Earth dist.	4888 Nov 10 15:40	24° M 54'39	0.65195 AU	evening max el	4889 Sep 30 01:42	7° M 15'35 27°26'46
inferior conj	4888 Nov 12 18:12	22° M 33'03	-1°-52'-27	retrograde	4889 Oct 13 17:06	14° M 32'43
minimum elong	4888 Nov 12 21:25	22° M 24'00	1°51'08	evening set	4889 Oct 20 20:14	11° M 56'50
asc. node	4888 Nov 18 08:17	17° M 22'29		min. Earth dist.	4889 Oct 24 12:55	8° M 43'58 0.63607 AU
morning rise	4888 Nov 19 03:07	16° M 57'32		inferior conj	4889 Oct 27 03:30	6° M 05'34 -2°-55'-28
direct	4888 Nov 21 18:16	16° M 20'26		minimum elong	4889 Oct 27 08:32	5° M 52'48 2°53'41
morning max el	4888 Nov 28 05:41	19° M 48'01	18°05'34	morning rise	4889 Nov 02 23:25	0° M 46'35
	4888 Dec 05 23:06	0° M		direct	4889 Nov 05 08:53	0° M 18'41
morning set	4888 Dec 16 08:03	16° M 49'48		asc. node	4889 Nov 05 05:21	0° M 18'47
	4888 Dec 24 09:27	0° M		morning max el	4889 Nov 11 22:33	3° M 43'37 17°50'39
desc. node	4888 Dec 24 20:24	0° M 44'11		morning set	4889 Nov 28 10:14	29° M 00'51
					4889 Nov 28 23:54	0° M
superior conj	4888 Dec 30 19:11	10° M 14'55	0°-40'-24	superior conj	4889 Dec 10 20:43	20° M 04'23 0°06'03
minimum elong	4888 Dec 30 14:10	9° M 55'04	0°39'43	minimum elong	4889 Dec 10 21:22	20° M 07'04 0°05'58
max. Earth dist.	4889 Jan 03 02:33	15° M 28'14	1.45149 AU	behind sun begin	4889 Dec 10 12:19	19° M 29'49
	4889 Jan 12 09:53	0° M		behind sun end	4889 Dec 11 06:26	20° M 44'15
evening rise	4889 Jan 16 03:47	5° M 48'23		desc. node	4889 Dec 11 17:24	21° M 29'09
	4889 Feb 01 01:25	0° M			4889 Dec 16 23:58	0° M
greatest brilliancy	4889 Feb 02 13:58	2° M 11'08	-0.6m	max. Earth dist.	4889 Dec 16 20:32	29° M 46'21 1.44299 AU
evening max el	4889 Feb 10 04:42	11° M 46'29	19°40'25	evening rise	4889 Dec 26 14:01	14° M 59'59
asc. node	4889 Feb 14 07:31	15° M 05'56			4890 Jan 05 11:38	0° M
retrograde	4889 Feb 17 13:25	16° M 01'40		greatest brilliancy	4890 Jan 18 14:42	18° M 40'08 -0.5m
evening set	4889 Feb 21 02:46	14° M 47'36		evening max el	4890 Jan 24 05:59	25° M 19'40 20°42'54
inferior conj	4889 Feb 26 14:31	8° M 47'52	3°14'12		4890 Jan 31 00:30	0° M
minimum elong	4889 Feb 26 12:35	8° M 54'16	3°13'52	retrograde	4890 Feb 01 11:42	0° M 11'18
min. Earth dist.	4889 Feb 27 16:58	7° M 20'22	0.66848 AU	asc. node	4890 Feb 01 04:35	0° M 10'50
morning rise	4889 Mar 03 21:43	2° M 31'32			4890 Feb 02 21:51	30° M
	4889 Mar 08 11:05	30° M		evening set	4890 Feb 05 10:05	28° M 42'42
direct	4889 Mar 09 22:37	29° M 50'56		inferior conj	4890 Feb 10 19:42	22° M 30'26 2°47'27
	4889 Mar 11 11:22	0° M		minimum elong	4890 Feb 10 17:19	22° M 38'38 2°46'51
morning max el	4889 Mar 22 03:09	7° M 07'22	25°33'12	min. Earth dist.	4890 Feb 11 08:47	21° M 45'32 0.67642 AU
desc. node	4889 Mar 22 19:38	7° M 49'39		morning rise	4890 Feb 16 00:07	16° M 14'33
	4889 Apr 08 22:14	0° M		direct	4890 Feb 21 10:59	13° M 50'30
morning set	4889 Apr 27 07:06	0° M 15'44		morning max el	4890 Mar 04 11:51	20° M 25'56 24°07'13
	4889 Apr 27 03:38	0° M		desc. node	4890 Mar 09 16:39	26° M 14'49
max. Earth dist.	4889 May 01 01:47	7° M 16'30	1.36062 AU		4890 Mar 12 16:39	0° M
superior conj	4889 May 06 21:36	18° M 37'27	-1°-1'-55		4890 Apr 02 03:13	0° M
minimum elong	4889 May 07 01:01	18° M 54'30	1°01'21	morning set	4890 Apr 09 03:42	11° M 44'36
	4889 May 12 12:04	0° M		max. Earth dist.	4890 Apr 12 22:16	18° M 22'49 1.38112 AU
asc. node	4889 May 13 06:48	1° M 35'47			4890 Apr 19 05:31	0° M
evening rise	4889 May 15 00:24	5° M 08'00		superior conj	4890 Apr 20 01:29	1° M 34'56 -1°-29'-59
	4889 May 29 06:24	0° M		minimum elong	4890 Apr 20 06:11	1° M 57'27 1°29'22
evening max el	4889 Jun 01 14:44	3° M 46'55	19°56'55	evening rise	4890 Apr 28 23:42	1° M 01'59
retrograde	4889 Jun 11 21:00	8° M 47'49		asc. node	4890 Apr 30 03:51	21° M 20'09
evening set	4889 Jun 13 19:15	8° M 37'59			4890 May 04 17:02	0° M
desc. node	4889 Jun 18 18:50	6° M 53'24		evening max el	4890 May 15 10:42	15° M 41'22 19°00'22
inferior conj	4889 Jun 22 18:30	4° M 37'27	-1°-11'-23	retrograde	4890 May 24 02:01	19° M 54'57
minimum elong	4889 Jun 22 15:11	4° M 42'30	1°10'10	evening set	4890 May 26 02:41	19° M 41'55
min. Earth dist.	4889 Jun 24 17:40	3° M 26'04	0.55268 AU	inferior conj	4890 Jun 03 07:59	15° M 27'04 0°40'40
morning rise	4889 Jul 01 08:26	0° M 16'04		minimum elong	4890 Jun 03 09:34	15° M 24'17 0°40'05
	4889 Jul 02 07:57	30° M		desc. node	4890 Jun 05 15:50	13° M 49'28
direct	4889 Jul 05 15:28	29° M 35'47		min. Earth dist.	4890 Jun 06 09:18	13° M 19'50 0.56606 AU
	4889 Jul 08 22:12	0° M		morning rise	4890 Jun 11 12:00	10° M 29'37
morning max el	4889 Jul 19 10:00	6° M 23'16	24°13'00	direct	4890 Jun 16 17:26	9° M 24'55
	4889 Aug 05 07:51	0° M		morning max el	4890 Jul 01 00:24	16° M 47'36 25°50'12
asc. node	4889 Aug 09 06:06	7° M 02'07			4890 Jul 11 19:49	0° M
morning set	4889 Aug 13 05:28	15° M 03'34		asc. node	4890 Jul 27 03:07	27° M 13'32
	4889 Aug 19 20:37	0° M			4890 Jul 28 10:58	0° M
superior conj	4889 Aug 20 05:25	0° M 47'47	1°32'30	morning set	4890 Jul 28 16:51	0° M 31'05
minimum elong	4889 Aug 20 03:29	0° M 37'20	1°32'19	superior conj	4890 Aug 04 16:18	15° M 42'25 1°18'47
max. Earth dist.	4889 Aug 22 05:05	5° M 05'16	1.33008 AU	minimum elong	4890 Aug 04 14:00	15° M 29'47 1°18'27
evening rise	4889 Aug 27 15:06	16° M 24'57		max. Earth dist.	4890 Aug 05 12:58	17° M 36'05 1.32271 AU
	4889 Sep 03 16:42	0° M			4890 Aug 11 07:13	0° M
desc. node	4889 Sep 14 18:07	18° M 16'40				

evening rise	4890 Aug 11 17:25	0° \cap 53'09		superior conj	4891 Jul 20 04:07	0° Ω 36'42	1°00'32
	4890 Aug 27 16:38	0° $\underline{\Delta}$		minimum elong	4891 Jul 20 01:55	0° Ω 24'35	1°00'08
desc. node	4890 Sep 01 15:08	7° $\underline{\Delta}$ 15'39		max. Earth dist.	4891 Jul 20 00:02	0° Ω 14'10	1.31957 AU
evening max el	4890 Sep 12 09:17	19° $\underline{\Delta}$ 54'50	27°15'12	evening rise	4891 Jul 27 00:58	15° Ω 34'33	
retrograde	4890 Sep 26 05:31	27° $\underline{\Delta}$ 08'28			4891 Aug 03 06:02	0° \cap	
evening set	4890 Oct 03 08:52	24° $\underline{\Delta}$ 47'54		desc. node	4891 Aug 19 12:08	25° \cap 19'42	
min. Earth dist.	4890 Oct 06 23:48	22° $\underline{\Delta}$ 00'56	0.61728 AU		4891 Aug 23 14:50	0° $\underline{\Delta}$	
inferior conj	4890 Oct 10 00:44	19° $\underline{\Delta}$ 17'11	-3°-55'-36	evening max el	4891 Aug 25 10:44	1° $\underline{\Delta}$ 49'02	26°30'12
minimum elong	4890 Oct 10 06:54	19° $\underline{\Delta}$ 03'16	3°53'53	retrograde	4891 Sep 08 09:34	8° $\underline{\Delta}$ 58'03	
morning rise	4890 Oct 17 08:06	14° $\underline{\Delta}$ 17'48		evening set	4891 Sep 15 02:47	7° $\underline{\Delta}$ 05'32	
direct	4890 Oct 19 14:49	13° $\underline{\Delta}$ 55'42		min. Earth dist.	4891 Sep 19 00:23	4° $\underline{\Delta}$ 30'49	0.59672 AU
asc. node	4890 Oct 23 02:23	14° $\underline{\Delta}$ 49'09		inferior conj	4891 Sep 22 06:22	1° $\underline{\Delta}$ 57'53	-4°-45'-48
morning max el	4890 Oct 26 14:03	17° $\underline{\Delta}$ 26'31	17°53'53	minimum elong	4891 Sep 22 11:53	1° $\underline{\Delta}$ 47'00	4°44'51
	4890 Nov 04 12:32	0° \cap			4891 Sep 24 20:41	30° \cap	
morning set	4890 Nov 11 08:24	12° \cap 09'05		morning rise	4891 Sep 30 00:26	27° \cap 20'46	
	4890 Nov 21 08:15	0° \nearrow		direct	4891 Oct 02 07:59	27° \cap 01'31	
					4891 Oct 09 04:17	0° $\underline{\Delta}$	
superior conj	4890 Nov 22 00:47	1° \nearrow 11'37	0°45'24	asc. node	4891 Oct 09 23:23	0° $\underline{\Delta}$ 43'32	
minimum elong	4890 Nov 22 04:24	1° \nearrow 27'13	0°44'56	morning max el	4891 Oct 10 00:47	0° $\underline{\Delta}$ 46'54	18°16'40
desc. node	4890 Nov 28 14:25	12° \nearrow 16'25		morning set	4891 Oct 25 20:45	25° $\underline{\Delta}$ 57'31	
max. Earth dist.	4890 Nov 29 10:16	13° \nearrow 37'55	1.42841 AU		4891 Oct 27 23:48	0° \cap	
evening rise	4890 Dec 06 04:55	24° \nearrow 29'54					
	4890 Dec 09 17:53	0° $\overline{\Sigma}$		superior conj	4891 Nov 04 05:05	13° \cap 29'06	1°14'21
	4890 Dec 30 13:01	0° \approx		minimum elong	4891 Nov 04 08:56	13° \cap 46'38	1°13'54
greatest brilliancy	4891 Jan 02 08:15	3° \approx 32'55	-0.3m	max. Earth dist.	4891 Nov 11 19:05	26° \cap 51'45	1.40946 AU
evening max el	4891 Jan 07 01:51	8° \approx 54'14	21°56'14		4891 Nov 13 15:36	0° \nearrow	
retrograde	4891 Jan 16 08:51	14° \approx 25'43		desc. node	4891 Nov 15 11:26	3° \nearrow 02'23	
asc. node	4891 Jan 19 01:38	13° \approx 46'53		evening rise	4891 Nov 16 13:49	4° \nearrow 50'45	
evening set	4891 Jan 20 17:53	12° \approx 41'45			4891 Dec 02 23:46	0° $\overline{\Sigma}$	
inferior conj	4891 Jan 26 03:13	6° \approx 20'19	2°11'51	evening max el	4891 Dec 20 17:30	22° $\overline{\Sigma}$ 32'19	23°15'30
minimum elong	4891 Jan 26 00:51	6° \approx 28'30	2°11'05	retrograde	4891 Dec 31 03:19	28° $\overline{\Sigma}$ 41'58	
min. Earth dist.	4891 Jan 26 04:15	6° \approx 16'40	0.68037 AU	evening set	4892 Jan 05 00:38	26° $\overline{\Sigma}$ 42'06	
morning rise	4891 Jan 31 07:36	0° \approx 06'43		asc. node	4892 Jan 05 22:38	25° $\overline{\Sigma}$ 52'08	
	4891 Jan 31 10:46	30° \cap $\overline{\Sigma}$		inferior conj	4892 Jan 10 11:11	20° $\overline{\Sigma}$ 15'21	1°28'41
direct	4891 Feb 05 03:45	28° $\overline{\Sigma}$ 03'57		minimum elong	4892 Jan 10 09:19	20° $\overline{\Sigma}$ 21'46	1°27'59
	4891 Feb 10 10:23	0° \approx		min. Earth dist.	4892 Jan 10 01:02	20° $\overline{\Sigma}$ 50'14	0.68054 AU
morning max el	4891 Feb 14 21:57	3° \approx 49'59	22°37'58	morning rise	4892 Jan 15 18:02	14° $\overline{\Sigma}$ 05'57	
greatest brilliancy	4891 Feb 19 12:01	8° \approx 56'46	-0.3m	direct	4892 Jan 19 23:51	12° $\overline{\Sigma}$ 26'03	
desc. node	4891 Feb 24 13:40	15° \approx 24'50		morning max el	4892 Jan 28 13:10	17° $\overline{\Sigma}$ 23'34	21°14'11
	4891 Mar 06 20:46	0° H		greatest brilliancy	4892 Feb 02 17:42	23° $\overline{\Sigma}$ 18'56	-0.4m
morning set	4891 Mar 20 21:45	21° H 55'32			4892 Feb 07 19:09	0° \approx	
max. Earth dist.	4891 Mar 25 17:54	0° Υ 01'06	1.40306 AU	desc. node	4892 Feb 11 10:42	5° \approx 07'31	
	4891 Mar 25 17:38	0° Υ			4892 Feb 27 23:23	0° H	
				morning set	4892 Feb 28 11:27	0° H 47'26	
superior conj	4891 Apr 02 13:01	13° Υ 43'11	-1°-53'-12	max. Earth dist.	4892 Mar 06 19:38	12° H 34'48	1.42359 AU
minimum elong	4891 Apr 02 17:45	14° Υ 04'41	1°52'49				
	4891 Apr 11 06:57	0° B		superior conj	4892 Mar 14 03:17	24° H 51'12	-2°-7'-1
evening rise	4891 Apr 12 13:13	2° B 23'19		minimum elong	4892 Mar 14 05:28	25° H 00'37	2°06'58
asc. node	4891 Apr 17 00:53	10° B 46'57			4892 Mar 17 02:36	0° Υ	
evening max el	4891 Apr 28 15:46	28° B 11'53	18°24'09	evening rise	4892 Mar 25 13:08	15° Υ 03'25	
	4891 Apr 30 18:59	0° II		asc. node	4892 Apr 02 21:55	29° Υ 50'17	
retrograde	4891 May 06 01:44	1° II 52'31			4892 Apr 03 00:15	0° B	
evening set	4891 May 08 08:52	1° II 32'19		evening max el	4892 Apr 11 02:22	11° B 09'11	18°07'47
	4891 May 11 16:22	30° \cap B		retrograde	4892 Apr 17 18:55	14° B 33'31	
inferior conj	4891 May 15 18:49	26° B 57'26	2°05'47	evening set	4892 Apr 20 08:34	14° B 03'38	
minimum elong	4891 May 15 22:19	26° B 50'15	2°04'45	inferior conj	4892 Apr 27 01:57	9° B 07'27	2°59'40
min. Earth dist.	4891 May 19 05:18	24° B 10'12	0.58552 AU	minimum elong	4892 Apr 27 04:54	9° B 00'27	2°59'06
morning rise	4891 May 23 07:23	21° B 27'38		min. Earth dist.	4892 Apr 30 07:51	6° B 04'10	0.60747 AU
desc. node	4891 May 23 12:52	21° B 20'33		morning rise	4892 May 03 21:53	3° B 15'02	
direct	4891 May 29 09:48	19° B 49'45		desc. node	4892 May 09 09:53	1° B 07'58	
morning max el	4891 Jun 12 19:11	27° B 34'04	27°05'00	direct	4892 May 10 13:53	1° B 04'02	
	4891 Jun 15 03:36	0° II		morning max el	4892 May 24 20:22	8° B 59'42	27°46'11
	4891 Jun 05 09:20	0° $\overline{\Sigma}$			4892 Jun 09 23:30	0° II	
morning set	4891 Jul 13 02:09	15° $\overline{\Sigma}$ 14'14		morning set	4892 Jun 26 07:37	29° II 43'33	
asc. node	4891 Jul 14 00:08	17° $\overline{\Sigma}$ 10'20			4892 Jun 26 10:47	0° $\overline{\Sigma}$	
	4891 Jul 19 21:28	0° Ω		asc. node	4892 Jun 29 21:10	7° $\overline{\Sigma}$ 14'49	
				max. Earth dist.	4892 Jul 02 10:41	12° $\overline{\Sigma}$ 48'47	1.32063 AU

superior conj	4892 Jul 03 15:10	15° \mathfrak{G} 25'02	0°38'20	superior conj	4893 Jun 17 23:40	0° \mathfrak{G} 01'15	0°12'47
minimum elong	4892 Jul 03 13:33	15° \mathfrak{G} 16'07	0°37'59	minimum elong	4893 Jun 17 23:04	29° \mathfrak{H} 57'58	0°12'38
evening rise	4892 Jul 10 11:39	0° \mathfrak{Q} 22'19		behind sun begin	4893 Jun 17 19:51	29° \mathfrak{H} 40'33	
	4892 Jul 10 07:28	0° \mathfrak{Q}		behind sun end	4893 Jun 18 02:17	0° \mathfrak{G} 15'23	
	4892 Jul 26 16:11	0° \mathfrak{M}			4893 Jun 17 23:26	0° \mathfrak{G}	
desc. node	4892 Aug 05 09:09	12° \mathfrak{M} 06'49		evening rise	4893 Jun 24 23:27	15° \mathfrak{G} 09'34	
evening max el	4892 Aug 06 04:40	12° \mathfrak{M} 54'34	25°15'12		4893 Jul 02 08:56	0° \mathfrak{Q}	
retrograde	4892 Aug 20 03:15	19° \mathfrak{M} 58'05		evening max el	4893 Jul 18 17:27	23° \mathfrak{Q} 23'47	23°41'28
evening set	4892 Aug 25 21:19	18° \mathfrak{M} 42'09		desc. node	4893 Jul 23 06:09	27° \mathfrak{Q} 07'25	
min. Earth dist.	4892 Aug 30 16:21	16° \mathfrak{M} 01'42	0.57657 AU		4893 Jul 29 19:30	0° \mathfrak{M}	
inferior conj	4892 Sep 02 17:07	13° \mathfrak{M} 58'01	-5°-14'-16	retrograde	4893 Aug 01 09:01	0° \mathfrak{M} 15'01	
minimum elong	4892 Sep 02 18:55	13° \mathfrak{M} 54'56	5°14'12		4893 Aug 03 23:13	30° \mathfrak{R} \mathfrak{Q}	
morning rise	4892 Sep 10 19:58	9° \mathfrak{M} 44'07		evening set	4893 Aug 05 16:29	29° \mathfrak{Q} 34'11	
direct	4892 Sep 13 08:14	9° \mathfrak{M} 25'18		min. Earth dist.	4893 Aug 12 03:23	26° \mathfrak{Q} 30'20	0.55974 AU
morning max el	4892 Sep 22 03:24	13° \mathfrak{M} 35'13	19°00'31	inferior conj	4893 Aug 14 07:40	25° \mathfrak{Q} 11'52	-5°-4'-56
asc. node	4892 Sep 25 20:24	17° \mathfrak{M} 47'19		minimum elong	4893 Aug 14 03:11	25° \mathfrak{Q} 18'38	5°04'29
	4892 Oct 03 11:05	0° \mathfrak{A}		morning rise	4893 Aug 22 17:08	21° \mathfrak{Q} 16'55	
morning set	4892 Oct 08 18:56	10° \mathfrak{A} 13'40		direct	4893 Aug 25 12:57	20° \mathfrak{Q} 56'56	
				morning max el	4893 Sep 04 19:08	25° \mathfrak{Q} 43'00	20°06'17
superior conj	4892 Oct 17 04:19	26° \mathfrak{A} 41'54	1°32'48		4893 Sep 08 16:28	0° \mathfrak{M}	
minimum elong	4892 Oct 17 06:58	26° \mathfrak{A} 54'39	1°32'35	asc. node	4893 Sep 12 17:27	5° \mathfrak{M} 45'56	
	4892 Oct 18 21:56	0° \mathfrak{M}		morning set	4893 Sep 22 23:45	24° \mathfrak{M} 48'47	
max. Earth dist.	4892 Oct 24 00:29	9° \mathfrak{M} 24'27	1.38849 AU		4893 Sep 25 12:36	0° \mathfrak{A}	
evening rise	4892 Oct 27 21:39	16° \mathfrak{M} 13'55					
desc. node	4892 Nov 01 08:27	23° \mathfrak{M} 43'09		superior conj	4893 Sep 30 17:27	10° \mathfrak{A} 35'50	1°42'00
	4892 Nov 05 06:00	0° \mathfrak{A}		minimum elong	4893 Sep 30 18:31	10° \mathfrak{A} 41'10	1°41'57
	4892 Nov 26 14:33	0° \mathfrak{C}		max. Earth dist.	4893 Oct 06 06:23	21° \mathfrak{A} 26'04	1.36801 AU
evening max el	4892 Dec 02 06:43	6° \mathfrak{C} 14'07	24°34'29	evening rise	4893 Oct 10 03:05	28° \mathfrak{A} 36'34	
retrograde	4892 Dec 13 17:57	12° \mathfrak{C} 55'40			4893 Oct 10 21:33	0° \mathfrak{M}	
evening set	4892 Dec 19 04:46	10° \mathfrak{C} 40'17		desc. node	4893 Oct 19 05:28	14° \mathfrak{M} 14'32	
asc. node	4892 Dec 22 19:40	6° \mathfrak{C} 44'23			4893 Oct 29 13:40	0° \mathfrak{A}	
min. Earth dist.	4892 Dec 23 20:44	5° \mathfrak{C} 22'37	0.67712 AU	evening max el	4893 Nov 14 19:13	19° \mathfrak{A} 57'53	25°46'17
inferior conj	4892 Dec 24 17:48	4° \mathfrak{C} 12'26	0°38'53	retrograde	4893 Nov 27 04:04	27° \mathfrak{A} 02'03	
minimum elong	4892 Dec 24 16:52	4° \mathfrak{C} 15'32	0°38'31	evening set	4893 Dec 03 04:39	24° \mathfrak{A} 33'17	
	4892 Dec 28 03:40	30° \mathfrak{R} \mathfrak{A}		min. Earth dist.	4893 Dec 07 13:08	19° \mathfrak{A} 50'46	0.67013 AU
morning rise	4892 Dec 30 05:25	28° \mathfrak{A} 09'20		inferior conj	4893 Dec 08 21:17	18° \mathfrak{A} 08'59	0°-16'-33
direct	4893 Jan 02 21:59	26° \mathfrak{A} 51'18		minimum elong	4893 Dec 08 21:43	18° \mathfrak{A} 07'37	0°16'22
	4893 Jan 09 06:52	0° \mathfrak{C}		asc. node	4893 Dec 09 16:42	17° \mathfrak{A} 08'00	
morning max el	4893 Jan 10 12:07	1° \mathfrak{C} 09'13	20°01'41	morning rise	4893 Dec 14 15:46	12° \mathfrak{A} 14'30	
greatest brilliancy	4893 Jan 17 11:44	9° \mathfrak{C} 33'55	-0.6m	direct	4893 Dec 17 20:44	11° \mathfrak{A} 15'27	
desc. node	4893 Jan 28 07:43	25° \mathfrak{C} 13'30		morning max el	4893 Dec 24 18:56	15° \mathfrak{A} 05'35	19°03'47
	4893 Jan 31 11:35	0° \mathfrak{A}			4894 Jan 05 01:16	0° \mathfrak{C}	
morning set	4893 Feb 06 08:09	8° \mathfrak{A} 57'55		desc. node	4894 Jan 15 04:47	15° \mathfrak{C} 36'38	
max. Earth dist.	4893 Feb 17 05:26	26° \mathfrak{A} 02'12	1.43997 AU	morning set	4894 Jan 16 12:30	17° \mathfrak{C} 40'06	
	4893 Feb 19 16:43	0° \mathfrak{H}			4894 Jan 24 10:18	0° \mathfrak{A}	
				max. Earth dist.	4894 Jan 30 21:13	10° \mathfrak{A} 06'54	1.45019 AU
superior conj	4893 Feb 22 16:12	4° \mathfrak{H} 50'06	-2°-5'-53				
minimum elong	4893 Feb 22 12:45	4° \mathfrak{H} 36'01	2°05'47	superior conj	4894 Feb 02 05:39	13° \mathfrak{A} 49'19	-1°-45'-26
evening rise	4893 Mar 07 19:00	26° \mathfrak{H} 52'51		minimum elong	4894 Feb 01 20:51	13° \mathfrak{A} 14'35	1°44'42
	4893 Mar 09 14:31	0° \mathfrak{Y}			4894 Feb 12 08:29	0° \mathfrak{H}	
asc. node	4893 Mar 20 18:57	18° \mathfrak{Y} 21'53		evening rise	4894 Feb 17 03:00	7° \mathfrak{H} 46'17	
evening max el	4893 Mar 25 15:06	24° \mathfrak{Y} 23'26	18°10'36		4894 Mar 03 00:11	0° \mathfrak{Y}	
retrograde	4893 Apr 01 01:11	27° \mathfrak{Y} 46'39		asc. node	4894 Mar 07 15:59	6° \mathfrak{Y} 12'40	
evening set	4893 Apr 03 20:51	27° \mathfrak{Y} 05'40		evening max el	4894 Mar 09 03:13	7° \mathfrak{Y} 48'32	18°31'56
inferior conj	4893 Apr 10 01:36	21° \mathfrak{Y} 49'16	3°26'58	retrograde	4894 Mar 15 16:06	11° \mathfrak{Y} 23'32	
minimum elong	4893 Apr 10 02:58	21° \mathfrak{Y} 45'33	3°26'51	evening set	4894 Mar 18 17:53	10° \mathfrak{Y} 30'35	
min. Earth dist.	4893 Apr 12 19:05	18° \mathfrak{Y} 53'52	0.62875 AU	inferior conj	4894 Mar 24 13:42	4° \mathfrak{Y} 55'47	3°33'43
morning rise	4893 Apr 16 06:49	15° \mathfrak{Y} 43'13		minimum elong	4894 Mar 24 13:28	4° \mathfrak{Y} 56'28	3°33'43
direct	4893 Apr 23 03:16	13° \mathfrak{Y} 07'25		min. Earth dist.	4894 Mar 26 15:56	2° \mathfrak{Y} 26'35	0.64730 AU
desc. node	4893 Apr 26 06:56	13° \mathfrak{Y} 37'01			4894 Mar 28 21:55	30° \mathfrak{R} \mathfrak{H}	
morning max el	4893 May 07 03:07	21° \mathfrak{Y} 07'05	27°49'40	morning rise	4894 Mar 30 07:35	28° \mathfrak{H} 42'39	
	4893 May 14 19:50	0° \mathfrak{B}		direct	4894 Apr 06 00:40	25° \mathfrak{H} 54'44	
	4893 Jun 03 01:24	0° \mathfrak{H}		desc. node	4894 Apr 13 04:00	28° \mathfrak{H} 26'19	
morning set	4893 Jun 10 07:05	13° \mathfrak{H} 52'03			4894 Apr 15 07:43	0° \mathfrak{Y}	
max. Earth dist.	4893 Jun 15 16:57	25° \mathfrak{H} 06'48	1.32589 AU	morning max el	4894 Apr 19 12:53	3° \mathfrak{Y} 48'55	27°17'40
asc. node	4893 Jun 16 18:13	27° \mathfrak{H} 22'13			4894 May 09 06:39	0° \mathfrak{B}	
				morning set	4894 May 24 21:51	27° \mathfrak{B} 31'32	

	4894 May 26 04:07	0°♊			4895 Apr 12 20:54	0°♑		
max. Earth dist.	4894 May 29 14:45	6°♊56'37	1.33568 AU		4895 May 02 04:20	0°♋		
				morning set	4895 May 08 00:14	10°♋31'45		
superior conj	4894 Jun 02 03:39	14°♊19'28	0°-15'-21	max. Earth dist.	4895 May 12 01:18	18°♋15'27	1.35020 AU	
minimum elong	4894 Jun 02 04:27	14°♊23'40	0°15'13					
behind sun begin	4894 Jun 02 02:44	14°♊14'34		superior conj	4895 May 17 00:46	28°♋13'21	0°-44'-54	
behind sun end	4894 Jun 02 06:10	14°♊32'47		minimum elong	4895 May 17 03:13	28°♋25'54	0°44'27	
asc. node	4894 Jun 03 15:16	17°♊28'28			4895 May 17 21:34	0°♊		
evening rise	4894 Jun 09 10:33	29°♊50'08		asc. node	4895 May 21 12:19	7°♊29'48		
	4894 Jun 09 12:25	0°♌		evening rise	4895 May 24 18:56	14°♊18'14		
	4894 Jun 26 21:42	0°♌			4895 Jun 01 21:04	0°♌		
evening max el	4894 Jun 30 08:28	3°♌46'55	22°04'46	evening max el	4895 Jun 12 09:24	14°♌36'34	20°38'39	
desc. node	4894 Jul 10 03:12	9°♌46'29		retrograde	4895 Jun 23 15:50	20°♌07'46		
retrograde	4894 Jul 13 03:17	10°♌07'31		evening set	4895 Jun 25 17:14	19°♌57'28		
evening set	4894 Jul 16 00:06	9°♌49'13		desc. node	4895 Jun 27 00:14	19°♌41'02		
min. Earth dist.	4894 Jul 24 13:36	6°♌07'54	0.54961 AU	inferior conj	4895 Jul 04 23:16	16°♌00'36	-2°-20'-30	
inferior conj	4894 Jul 25 05:57	5°♌44'56	-4°-4'-56	minimum elong	4895 Jul 04 16:47	16°♌09'55	2°18'13	
minimum elong	4894 Jul 24 21:16	5°♌57'08	4°02'46	min. Earth dist.	4895 Jul 06 01:07	15°♌23'30	0.54874 AU	
morning rise	4894 Aug 02 20:13	1°♌55'02		morning rise	4895 Jul 13 15:09	11°♌55'40		
direct	4894 Aug 06 01:45	1°♌31'51		direct	4895 Jul 17 11:15	11°♌23'57		
morning max el	4894 Aug 17 22:52	7°♌05'02	21°32'31	morning max el	4895 Jul 30 16:46	17°♌46'51	23°13'05	
asc. node	4894 Aug 30 14:31	24°♌26'00			4895 Aug 09 14:31	0°♌		
	4894 Sep 02 14:29	0°♍		asc. node	4895 Aug 17 11:35	13°♌37'15		
morning set	4894 Sep 07 08:44	9°♍35'14		morning set	4895 Aug 22 19:57	24°♌27'22		
					4895 Aug 25 10:21	0°♍		
superior conj	4894 Sep 14 16:17	24°♍57'50	1°43'21					
minimum elong	4894 Sep 14 15:53	24°♍55'45	1°43'21	superior conj	4895 Aug 29 21:39	9°♍38'10	1°38'07	
	4894 Sep 17 02:49	0°♎		minimum elong	4895 Aug 29 20:09	9°♍30'08	1°38'02	
max. Earth dist.	4894 Sep 18 17:53	3°♎17'56	1.35018 AU	max. Earth dist.	4895 Sep 01 14:13	15°♍21'26	1.33620 AU	
evening rise	4894 Sep 23 02:05	11°♎48'00		evening rise	4895 Sep 06 14:28	25°♍37'05		
	4894 Oct 03 07:44	0°♏			4895 Sep 08 20:16	0°♎		
desc. node	4894 Oct 06 02:29	4°♏30'37		desc. node	4895 Sep 22 23:30	24°♎24'27		
	4894 Oct 24 19:36	0°♏			4895 Sep 26 18:01	0°♏		
evening max el	4894 Oct 28 07:50	3°♏37'34	26°43'35	evening max el	4895 Oct 10 20:14	17°♏04'14	27°19'01	
retrograde	4894 Nov 10 08:59	10°♏53'36		retrograde	4895 Oct 24 07:58	24°♏22'30		
evening set	4894 Nov 16 22:18	8°♏16'02		evening set	4895 Oct 31 07:15	21°♏43'30		
min. Earth dist.	4894 Nov 20 23:54	4°♏09'16	0.65959 AU	min. Earth dist.	4895 Nov 04 02:49	18°♏11'40	0.64560 AU	
inferior conj	4894 Nov 22 19:37	2°♏00'23	-1°-16'-30	inferior conj	4895 Nov 06 10:28	15°♏41'48	-2°-19'-12	
minimum elong	4894 Nov 22 21:46	1°♏54'03	1°15'36	minimum elong	4895 Nov 06 14:29	15°♏30'57	2°17'39	
	4894 Nov 24 13:29	30°♐♌		morning rise	4895 Nov 12 23:57	10°♏12'42		
asc. node	4894 Nov 26 13:45	27°♏58'37		asc. node	4895 Nov 13 10:49	10°♏02'04		
morning rise	4894 Nov 28 22:49	26°♏17'04		direct	4895 Nov 15 12:16	9°♏40'01		
direct	4894 Dec 01 18:15	25°♏33'14		morning max el	4895 Nov 21 23:54	13°♏05'46	17°56'56	
morning max el	4894 Dec 08 07:44	29°♏06'31	18°21'55		4895 Dec 03 18:59	0°♏		
	4894 Dec 09 04:16	0°♏		morning set	4895 Dec 09 06:53	9°♏13'04		
morning set	4894 Dec 27 19:07	27°♏43'31		desc. node	4895 Dec 19 22:47	26°♏53'16		
	4894 Dec 29 05:05	0°♑			4895 Dec 21 20:57	0°♑		
desc. node	4895 Jan 02 01:48	6°♑11'13						
				superior conj	4895 Dec 22 21:08	1°♑37'16	0°-20'-16	
superior conj	4895 Jan 12 08:30	22°♑26'39	-1°-7'-6	minimum elong	4895 Dec 22 18:42	1°♑27'31	0°19'55	
minimum elong	4895 Jan 12 00:27	21°♑55'02	1°06'08	max. Earth dist.	4895 Dec 27 10:52	8°♑54'13	1.44876 AU	
max. Earth dist.	4895 Jan 13 15:49	24°♑29'29	1.45315 AU	evening rise	4896 Jan 08 02:43	27°♑03'35		
	4895 Jan 17 04:13	0°♒			4896 Jan 10 00:40	0°♒		
evening rise	4895 Jan 28 11:50	17°♒44'21		greatest brilliancy	4896 Jan 28 02:09	26°♒47'45	-0.6m	
	4895 Feb 05 07:16	0°♓			4896 Jan 30 12:18	0°♓		
greatest brilliancy	4895 Feb 10 22:04	8°♓38'05	-0.7m	evening max el	4896 Feb 03 16:55	4°♓52'42	20°05'30	
evening max el	4895 Feb 20 12:23	21°♓19'32	19°10'51	asc. node	4896 Feb 09 10:04	9°♓01'08		
asc. node	4895 Feb 22 13:01	23°♓10'41		retrograde	4896 Feb 11 09:55	9°♓22'24		
retrograde	4895 Feb 27 11:58	25°♓17'26		evening set	4896 Feb 15 02:54	8°♓02'23		
evening set	4895 Mar 02 20:41	24°♓11'30		inferior conj	4896 Feb 20 13:32	1°♓57'15	3°04'01	
inferior conj	4895 Mar 08 10:40	18°♓20'24	3°24'55	minimum elong	4896 Feb 20 11:21	2°♓04'37	3°03'34	
minimum elong	4895 Mar 08 09:13	18°♓25'04	3°24'45	min. Earth dist.	4896 Feb 21 10:12	0°♓47'38	0.67241 AU	
min. Earth dist.	4895 Mar 09 21:35	16°♓28'32	0.66197 AU		4896 Feb 22 00:30	30°♒♌		
morning rise	4895 Mar 13 20:48	12°♓04'25		morning rise	4896 Feb 25 19:11	25°♒40'57		
direct	4895 Mar 20 04:46	9°♓17'37		direct	4896 Mar 02 14:27	23°♒06'17		
desc. node	4895 Mar 31 01:03	15°♓01'54			4896 Mar 14 04:58	0°♓		
morning max el	4895 Apr 01 22:50	16°♓52'35	26°17'09	morning max el	4896 Mar 14 07:35	0°♓06'36	24°57'31	


























































































































desc. node	4896 Mar 16 22:04	2° Υ 53'24		direct	4897 Feb 14 04:47	7° \approx 13'11	
	4896 Apr 05 18:32	0° Υ		morning max el	4897 Feb 24 16:24	13° \approx 27'15	23°29'03
morning set	4896 Apr 19 09:18	22° Υ 37'51		desc. node	4897 Mar 03 19:04	21° \approx 39'28	
max. Earth dist.	4896 Apr 23 01:18	29° Υ 16'56	1.36902 AU		4897 Mar 10 00:58	0° Υ	
	4896 Apr 23 10:36	0° Υ			4897 Mar 29 15:55	0° Υ	
				morning set	4897 Mar 31 19:11	3° Υ 34'40	
superior conj	4896 Apr 29 11:57	11° Υ 34'00	-1°-14'-12	max. Earth dist.	4897 Apr 04 20:48	10° Υ 34'33	1.39055 AU
minimum elong	4896 Apr 29 16:00	11° Υ 53'52	1°13'34				
asc. node	4896 May 07 09:20	27° Υ 21'25		superior conj	4897 Apr 12 09:27	24° Υ 11'57	-1°-40'-39
evening rise	4896 May 07 22:17	28° Υ 26'26		minimum elong	4897 Apr 12 14:24	24° Υ 35'05	1°40'07
	4896 May 08 16:59	0° Υ			4897 Apr 15 11:09	0° Υ	
evening max el	4896 May 24 22:47	26° Υ 06'48	19°30'23	evening rise	4897 Apr 21 17:49	12° Υ 07'33	
	4896 May 30 14:08	0° Υ		asc. node	4897 Apr 24 06:22	16° Υ 58'52	
retrograde	4896 Jun 03 11:19	0° Υ 45'36			4897 May 01 14:05	0° Υ	
evening set	4896 Jun 05 09:53	0° Υ 34'53		evening max el	4897 May 07 22:59	8° Υ 17'02	18°42'23
	4896 Jun 07 13:11	30° Υ		retrograde	4897 May 16 00:13	12° Υ 14'37	
desc. node	4896 Jun 12 21:17	27° Υ 15'15		evening set	4897 May 18 03:36	11° Υ 58'49	
inferior conj	4896 Jun 14 02:07	26° Υ 29'35	0°-21'-26	inferior conj	4897 May 26 00:26	7° Υ 35'21	1°20'42
minimum elong	4896 Jun 14 01:10	26° Υ 31'07	0°21'07	minimum elong	4897 May 26 03:14	7° Υ 30'08	1°19'45
min. Earth dist.	4896 Jun 16 14:35	24° Υ 53'15	0.55747 AU	min. Earth dist.	4897 May 29 07:29	5° Υ 08'52	0.57389 AU
morning rise	4896 Jun 22 12:48	21° Υ 53'30		desc. node	4897 May 30 18:18	4° Υ 09'29	
direct	4896 Jun 27 05:26	21° Υ 03'59		morning rise	4897 Jun 02 22:21	2° Υ 23'22	
morning max el	4896 Jul 11 06:18	28° Υ 07'48	24°56'08	direct	4897 Jun 08 13:17	1° Υ 05'27	
	4896 Jul 13 03:03	0° Υ		morning max el	4897 Jun 22 22:02	8° Υ 37'49	26°25'39
	4896 Aug 01 18:22	0° Υ			4897 Jul 09 00:26	0° Υ	
asc. node	4896 Aug 03 08:36	3° Υ 11'01		asc. node	4897 Jul 21 05:37	23° Υ 00'57	
morning set	4896 Aug 06 07:41	9° Υ 19'53		morning set	4897 Jul 21 18:21	24° Υ 07'55	
					4897 Jul 24 12:01	0° Υ	
superior conj	4896 Aug 13 07:03	24° Υ 28'41	1°27'16	superior conj	4897 Jul 28 18:30	9° Υ 23'02	1°11'33
minimum elong	4896 Aug 13 04:55	24° Υ 16'59	1°27'01	minimum elong	4897 Jul 28 16:11	9° Υ 10'16	1°11'10
max. Earth dist.	4896 Aug 14 18:45	27° Υ 43'15	1.32644 AU	max. Earth dist.	4897 Jul 29 04:34	10° Υ 18'33	1.32089 AU
	4896 Aug 15 20:01	0° Υ		evening rise	4897 Aug 04 17:20	24° Υ 27'03	
evening rise	4896 Aug 20 12:32	9° Υ 53'01			4897 Aug 07 10:03	0° Υ	
	4896 Aug 31 04:07	0° Υ			4897 Aug 24 23:09	0° Υ	
desc. node	4896 Sep 08 20:31	13° Υ 46'42		desc. node	4897 Aug 26 17:33	2° Υ 24'07	
	4896 Sep 22 04:26	0° Υ		evening max el	4897 Sep 04 11:45	12° Υ 25'22	27°00'08
evening max el	4896 Sep 22 06:29	0° Υ 04'52	27°26'02	retrograde	4897 Sep 18 08:53	19° Υ 36'30	
retrograde	4896 Oct 06 00:11	7° Υ 19'59		evening set	4897 Sep 25 09:37	17° Υ 26'19	
evening set	4896 Oct 13 04:24	4° Υ 49'27		min. Earth dist.	4897 Sep 29 01:59	14° Υ 46'52	0.60861 AU
min. Earth dist.	4896 Oct 16 19:52	1° Υ 48'37	0.62836 AU	inferior conj	4897 Oct 02 06:02	12° Υ 05'38	-4°-18'-45
	4896 Oct 18 17:08	30° Υ		minimum elong	4897 Oct 02 12:14	11° Υ 52'26	4°17'16
inferior conj	4896 Oct 19 15:03	29° Υ 06'38	-3°-21'-39	morning rise	4897 Oct 09 18:07	7° Υ 15'33	
minimum elong	4896 Oct 19 20:42	28° Υ 52'59	3°19'49	direct	4897 Oct 12 00:54	6° Υ 54'51	
morning rise	4896 Oct 26 15:48	23° Υ 55'15		asc. node	4897 Oct 17 04:52	8° Υ 45'46	
direct	4896 Oct 28 23:46	23° Υ 30'06		morning max el	4897 Oct 19 06:21	10° Υ 30'23	18°01'13
asc. node	4896 Oct 30 07:51	23° Υ 38'34			4897 Nov 01 02:10	0° Υ	
morning max el	4896 Nov 04 16:30	26° Υ 56'33	17°49'42	morning set	4897 Nov 03 23:16	5° Υ 18'25	
	4896 Nov 07 08:48	0° Υ					
morning set	4896 Nov 20 18:27	21° Υ 51'29		superior conj	4897 Nov 14 00:46	23° Υ 38'21	0°59'00
	4896 Nov 25 09:36	0° Υ		minimum elong	4897 Nov 14 04:45	23° Υ 55'52	0°58'30
superior conj	4896 Dec 02 09:49	11° Υ 59'37	0°23'54		4897 Nov 17 16:25	0° Υ	
minimum elong	4896 Dec 02 12:07	12° Υ 09'16	0°23'35	max. Earth dist.	4897 Nov 21 15:55	6° Υ 43'30	1.42072 AU
desc. node	4896 Dec 05 19:47	17° Υ 39'40		desc. node	4897 Nov 22 16:48	8° Υ 26'35	
max. Earth dist.	4896 Dec 09 03:47	23° Υ 05'01	1.43751 AU	evening rise	4897 Nov 27 10:28	16° Υ 07'38	
	4896 Dec 13 11:57	0° Υ			4897 Dec 06 09:34	0° Υ	
evening rise	4896 Dec 17 13:06	6° Υ 19'09		greatest brilliancy	4897 Dec 25 13:38	26° Υ 36'59	-0.3m
	4897 Jan 02 09:04	0° Υ			4897 Dec 28 11:27	0° Υ	
greatest brilliancy	4897 Jan 11 13:30	12° \approx 33'12	-0.4m	evening max el	4897 Dec 30 09:49	2° \approx 02'53	22°29'27
evening max el	4897 Jan 16 15:58	18° \approx 27'13	21°13'01	retrograde	4898 Jan 09 04:02	7° \approx 51'00	
retrograde	4897 Jan 25 07:49	23° \approx 35'02		asc. node	4898 Jan 13 04:08	6° \approx 27'01	
asc. node	4897 Jan 26 07:06	23° \approx 29'58		evening set	4898 Jan 13 18:13	6° \approx 00'02	
evening set	4897 Jan 29 10:38	21° \approx 59'51			4898 Jan 18 20:52	30° Υ	
inferior conj	4897 Feb 03 19:57	15° \approx 43'25	2°33'19	inferior conj	4898 Jan 19 03:53	29° Υ 35'41	1°54'23
minimum elong	4897 Feb 03 17:31	15° \approx 51'50	2°32'38	minimum elong	4898 Jan 19 01:40	29° Υ 43'20	1°53'38
min. Earth dist.	4897 Feb 04 03:45	15° \approx 16'27	0.67867 AU	min. Earth dist.	4898 Jan 19 00:00	29° Υ 49'10	0.68094 AU
morning rise	4897 Feb 09 00:04	9° \approx 28'34		morning rise	4898 Jan 24 09:03	23° Υ 23'49	

direct	4898 Jan 28 22:57	21°☾31'02		morning rise	4899 Jan 08 20:07	7°☾24'47	
morning max el	4898 Feb 07 04:26	26°☾55'31	22°01'16	direct	4899 Jan 12 20:01	5°☾54'37	
	4898 Feb 10 00:44	0°☾		morning max el	4899 Jan 20 22:52	10°☾34'25	20°41'41
greatest brilliancy	4898 Feb 11 19:46	2°☾07'19	-0.4m	greatest brilliancy	4899 Jan 26 18:52	17°☾21'45	-0.5m
desc. node	4898 Feb 18 16:04	11°☾04'25			4899 Feb 04 21:17	0°☾	
	4898 Mar 03 15:07	0°☾		desc. node	4899 Feb 05 13:06	0°☾57'42	
morning set	4898 Mar 12 00:54	13°☾10'38		morning set	4899 Feb 19 05:03	21°☾37'48	
max. Earth dist.	4898 Mar 17 18:55	22°☾36'45	1.41220 AU		4899 Feb 24 12:44	0°☾	
	4898 Mar 22 03:12	0°☾		max. Earth dist.	4899 Feb 27 23:43	5°☾32'53	1.43119 AU
superior conj	4898 Mar 25 12:31	5°☾55'31	-2°00'-31	superior conj	4899 Mar 06 16:19	16°☾34'23	-2°-8'-41
minimum elong	4898 Mar 25 16:34	6°☾13'29	2°00'18	minimum elong	4899 Mar 06 16:25	16°☾34'50	2°08'42
evening rise	4898 Apr 05 02:06	25°☾12'37			4899 Mar 14 12:15	0°☾	
	4898 Apr 07 16:11	0°☾		evening rise	4899 Mar 18 18:56	7°☾32'14	
asc. node	4898 Apr 11 03:24	6°☾16'32		asc. node	4899 Mar 29 00:26	25°☾07'27	
evening max el	4898 Apr 21 06:44	20°☾59'35	18°14'43		4899 Apr 01 07:44	0°☾	
retrograde	4898 Apr 28 08:04	24°☾31'44		evening max el	4899 Apr 04 18:38	4°☾05'04	18°06'40
evening set	4898 Apr 30 17:53	24°☾07'45		retrograde	4899 Apr 11 07:20	7°☾27'19	
inferior conj	4898 May 07 20:20	19°☾23'34	2°32'16	evening set	4899 Apr 13 23:28	6°☾53'01	
minimum elong	4898 May 07 23:48	19°☾15'58	2°31'24	inferior conj	4899 Apr 20 11:02	1°☾48'18	3°14'07
min. Earth dist.	4898 May 11 06:06	16°☾26'22	0.59473 AU	minimum elong	4899 Apr 20 13:22	1°☾42'27	3°13'46
morning rise	4898 May 15 01:41	13°☾42'33			4899 Apr 22 05:59	30°☾☾	
desc. node	4898 May 17 15:18	12°☾30'25		min. Earth dist.	4899 Apr 23 12:25	28°☾45'19	0.61674 AU
direct	4898 May 21 10:43	11°☾50'14		morning rise	4899 Apr 27 00:19	25°☾48'53	
morning max el	4898 Jun 04 19:48	19°☾40'48	27°27'08	direct	4899 May 03 19:19	23°☾25'37	
	4898 Jun 13 14:47	0°☾		desc. node	4899 May 04 12:21	23°☾27'07	
	4898 Jul 01 18:12	0°☾			4899 May 16 12:19	0°☾	
morning set	4898 Jul 06 02:17	8°☾46'20		morning max el	4899 May 17 23:40	1°☾24'57	27°52'13
asc. node	4898 Jul 08 02:39	13°☾01'48			4899 Jun 07 20:19	0°☾	
max. Earth dist.	4898 Jul 12 16:01	22°☾57'16	1.31947 AU	morning set	4899 Jun 20 05:30	23°☾07'45	
					4899 Jun 23 12:32	0°☾	
superior conj	4898 Jul 13 06:13	24°☾15'37	0°51'34	asc. node	4899 Jun 24 23:41	3°☾08'01	
minimum elong	4898 Jul 13 04:13	24°☾04'32	0°51'10	max. Earth dist.	4899 Jun 26 01:06	5°☾25'22	1.32227 AU
	4898 Jul 15 20:39	0°☾					
evening rise	4898 Jul 20 02:29	9°☾11'58		superior conj	4899 Jun 27 16:26	8°☾59'36	0°27'52
	4898 Jul 30 19:21	0°☾		minimum elong	4899 Jun 27 15:11	8°☾52'47	0°27'35
desc. node	4898 Aug 13 14:34	19°☾58'48		evening rise	4899 Jul 04 13:51	24°☾00'00	
evening max el	4898 Aug 17 09:47	23°☾57'49	26°01'26		4899 Jul 07 10:43	0°☾	
	4898 Aug 26 02:52	0°☾			4899 Jul 25 15:40	0°☾	
retrograde	4898 Aug 31 08:59	1°☾05'33		evening max el	4899 Jul 30 00:50	4°☾44'49	24°36'47
	4898 Sep 05 13:42	30°☾☾		desc. node	4899 Jul 31 11:37	6°☾04'36	
evening set	4898 Sep 06 18:08	29°☾27'34		retrograde	4899 Aug 12 22:08	11°☾45'13	
min. Earth dist.	4898 Sep 10 22:23	26°☾53'00	0.58788 AU	evening set	4899 Aug 18 02:11	10°☾45'18	
inferior conj	4898 Sep 14 03:59	24°☾29'56	-5°-1'-28	min. Earth dist.	4899 Aug 23 12:05	7°☾56'30	0.56874 AU
minimum elong	4898 Sep 14 08:21	24°☾21'49	5°00'56	inferior conj	4899 Aug 26 06:04	6°☾10'22	-5°-15'-56
morning rise	4898 Sep 22 02:07	20°☾03'12		minimum elong	4899 Aug 26 05:21	6°☾11'33	5°15'57
direct	4898 Sep 24 11:11	19°☾44'27		morning rise	4899 Sep 03 11:59	2°☾05'26	
morning max el	4898 Oct 02 14:08	23°☾38'45	18°32'47	direct	4899 Sep 06 02:56	1°☾46'27	
asc. node	4898 Oct 04 01:53	25°☾11'35		morning max el	4899 Sep 15 12:28	6°☾10'46	19°25'50
	4898 Oct 07 18:35	0°☾		asc. node	4899 Sep 20 22:56	12°☾40'05	
morning set	4898 Oct 18 16:15	19°☾19'36			4899 Sep 30 20:27	0°☾	
	4898 Oct 24 05:02	0°☾		morning set	4899 Oct 02 17:34	3°☾44'02	
superior conj	4898 Oct 27 13:51	6°☾21'28	1°23'23	superior conj	4899 Oct 10 19:32	19°☾52'44	1°37'44
minimum elong	4898 Oct 27 17:18	6°☾37'31	1°23'02	minimum elong	4899 Oct 10 21:31	20°☾02'29	1°37'37
max. Earth dist.	4898 Nov 03 22:39	19°☾38'11	1.40056 AU		4899 Oct 16 02:41	0°☾	
evening rise	4898 Nov 08 04:56	26°☾54'11		max. Earth dist.	4899 Oct 17 03:04	1°☾52'39	1.37954 AU
desc. node	4898 Nov 09 13:51	29°☾10'44		evening rise	4899 Oct 20 22:20	8°☾43'16	
	4898 Nov 10 01:49	0°☾		desc. node	4899 Oct 27 10:53	19°☾47'48	
	4898 Nov 30 01:05	0°☾			4899 Nov 02 21:52	0°☾	
evening max el	4898 Dec 13 00:00	15°☾41'40	23°49'26	evening max el	4899 Nov 25 12:46	29°☾24'29	25°06'28
retrograde	4898 Dec 23 21:10	22°☾06'38			4899 Nov 26 03:27	0°☾	
evening set	4898 Dec 29 00:05	19°☾59'56		retrograde	4899 Dec 07 10:06	6°☾17'23	
asc. node	4898 Dec 31 01:09	17°☾57'33		evening set	4899 Dec 13 02:39	3°☾56'11	
inferior conj	4899 Jan 03 11:30	13°☾31'52	1°08'19		4899 Dec 16 18:28	30°☾☾	
minimum elong	4899 Jan 03 09:59	13°☾37'03	1°07'44	min. Earth dist.	4899 Dec 17 15:23	28°☾53'03	0.67449 AU
min. Earth dist.	4899 Jan 02 20:40	14°☾22'24	0.67950 AU	asc. node	4899 Dec 17 22:11	28°☾30'53	

inferior conj	4899 Dec 18 17:04	27° ♂ 29'05	0°16'02	retrograde	4900 Nov 20 17:55	20° ♂ 17'31	
minimum elong	4899 Dec 18 16:39	27° ♂ 30'24	0°15'52	evening set	4900 Nov 27 00:05	17° ♂ 44'35	
transit middle	4899 Dec 18 16:39	27° ♂ 30'24	0°15'52	min. Earth dist.	4900 Dec 01 05:41	13° ♂ 17'08	0.66603 AU
transit begin	4899 Dec 18 16:07	27° ♂ 32'11		inferior conj	4900 Dec 02 18:36	11° ♂ 23'31	0°-41'-30
transit end	4899 Dec 18 17:12	27° ♂ 28'37		minimum elong	4900 Dec 02 19:43	11° ♂ 20'04	0°41'02
morning rise	4899 Dec 24 07:18	21° ♂ 29'04		asc. node	4900 Dec 04 19:15	8° ♂ 58'30	
direct	4899 Dec 27 18:42	20° ♂ 19'29		morning rise	4900 Dec 08 16:32	5° ♂ 33'15	
morning max el	4900 Jan 04 01:13	24° ♂ 24'30	19°35'08	direct	4900 Dec 11 17:16	4° ♂ 40'59	
	4900 Jan 08 20:23	0° ♂		morning max el	4900 Dec 18 10:45	8° ♂ 22'32	18°43'57
greatest brilliancy	4900 Jan 12 05:29	4° ♂ 34'54	-0.6m		4901 Jan 02 21:14	0° ♂	
desc. node	4900 Jan 23 10:09	21° ♂ 11'36		morning set	4901 Jan 08 16:03	9° ♂ 05'45	
morning set	4900 Jan 29 01:51	29° ♂ 52'37		desc. node	4901 Jan 10 07:10	11° ♂ 39'45	
	4900 Jan 29 03:46	0° ♂			4901 Jan 21 23:30	0° ♂	
max. Earth dist.	4900 Feb 10 11:59	19° ♂ 16'56	1.44511 AU	max. Earth dist.	4901 Jan 24 05:42	3° ♂ 32'31	1.45236 AU
superior conj	4900 Feb 14 18:38	26° ♂ 06'16	-1°-59'-42	superior conj	4901 Jan 25 01:13	4° ♂ 49'08	-1°-30'-57
minimum elong	4900 Feb 14 12:30	25° ♂ 41'39	1°59'22	minimum elong	4901 Jan 24 15:49	4° ♂ 12'16	1°30'01
	4900 Feb 17 04:36	0° ♂		evening rise	4901 Feb 09 13:52	29° ♂ 27'01	
evening rise	4900 Feb 28 15:55	18° ♂ 58'27			4901 Feb 09 22:05	0° ♂	
	4900 Mar 07 05:22	0° ♂			4901 Mar 01 22:24	0° ♂	
asc. node	4900 Mar 15 21:30	13° ♂ 23'30		asc. node	4901 Mar 02 18:33	0° ♂ 53'24	
evening max el	4900 Mar 19 07:33	17° ♂ 25'40	18°17'30	evening max el	4901 Mar 02 18:44	0° ♂ 53'53	18°46'26
retrograde	4900 Mar 25 17:41	20° ♂ 52'05		retrograde	4901 Mar 09 11:04	4° ♂ 37'01	
evening set	4900 Mar 28 15:57	20° ♂ 06'06		evening set	4901 Mar 12 15:47	3° ♂ 38'28	
inferior conj	4900 Apr 03 16:30	14° ♂ 41'55	3°31'59		4901 Mar 16 15:36	30° ♂	
minimum elong	4900 Apr 03 17:10	14° ♂ 40'01	3°31'57	inferior conj	4901 Mar 18 08:45	27° ♂ 56'25	3°31'38
min. Earth dist.	4900 Apr 06 03:46	11° ♂ 55'43	0.63712 AU	minimum elong	4901 Mar 18 07:57	27° ♂ 58'53	3°31'35
morning rise	4900 Apr 09 16:30	8° ♂ 32'26		min. Earth dist.	4901 Mar 20 04:19	25° ♂ 42'27	0.65409 AU
direct	4900 Apr 16 12:34	5° ♂ 49'32		morning rise	4901 Mar 23 22:57	21° ♂ 41'56	
desc. node	4900 Apr 21 09:23	7° ♂ 00'18		direct	4901 Mar 30 12:48	18° ♂ 53'11	
morning max el	4900 Apr 30 07:51	13° ♂ 48'00	27°39'56	desc. node	4901 Apr 08 06:25	22° ♂ 38'36	
	4900 May 13 09:22	0° ♂		morning max el	4901 Apr 12 17:51	26° ♂ 40'01	26°54'54
	4900 May 31 10:02	0° ♂			4901 Apr 15 20:23	0° ♂	
morning set	4900 Jun 04 01:39	7° ♂ 05'05			4901 May 07 00:08	0° ♂	
max. Earth dist.	4900 Jun 09 04:04	17° ♂ 31'51	1.32953 AU	morning set	4901 May 18 11:38	20° ♂ 28'53	
				max. Earth dist.	4901 May 22 21:25	29° ♂ 08'32	1.34139 AU
superior conj	4900 Jun 11 23:18	23° ♂ 29'15	0°01'07		4901 May 23 07:37	0° ♂	
minimum elong	4900 Jun 11 23:15	23° ♂ 28'59	0°01'06	superior conj	4901 May 27 00:41	7° ♂ 37'56	0°-27'-47
behind sun begin	4900 Jun 11 17:55	23° ♂ 00'24		minimum elong	4901 May 27 02:10	7° ♂ 45'40	0°27'30
behind sun end	4900 Jun 12 04:35	23° ♂ 57'36		asc. node	4901 May 29 17:48	13° ♂ 20'12	
asc. node	4900 Jun 11 20:44	23° ♂ 15'31		evening rise	4901 Jun 03 11:49	23° ♂ 21'25	
	4900 Jun 14 23:45	0° ♂			4901 Jun 06 17:35	0° ♂	
evening rise	4900 Jun 19 01:36	8° ♂ 45'19		evening max el	4901 Jun 23 08:15	25° ♂ 38'47	21°26'07
	4900 Jun 30 03:24	0° ♂			4901 Jun 29 03:02	0° ♂	
evening max el	4900 Jul 11 13:42	15° ♂ 07'40	22°59'44	desc. node	4901 Jul 05 05:38	1° ♂ 39'23	
desc. node	4900 Jul 18 08:38	20° ♂ 09'03		retrograde	4901 Jul 05 12:40	1° ♂ 39'35	
retrograde	4900 Jul 24 22:24	21° ♂ 47'40		evening set	4901 Jul 07 23:11	1° ♂ 25'58	
evening set	4900 Jul 28 14:01	21° ♂ 18'34			4901 Jul 12 09:21	30° ♂	
min. Earth dist.	4900 Aug 04 22:30	18° ♂ 00'26	0.55449 AU	inferior conj	4901 Jul 17 07:10	27° ♂ 26'39	-3°-24'-39
inferior conj	4900 Aug 06 12:48	17° ♂ 05'04	-4°-45'-54	minimum elong	4901 Jul 16 22:38	27° ♂ 38'35	3°22'05
minimum elong	4900 Aug 06 05:54	17° ♂ 15'05	4°44'45	min. Earth dist.	4901 Jul 17 08:43	27° ♂ 24'29	0.54811 AU
morning rise	4900 Aug 15 00:28	13° ♂ 14'05		morning rise	4901 Jul 25 22:47	23° ♂ 33'17	
direct	4900 Aug 18 00:17	12° ♂ 52'57		direct	4901 Jul 29 10:01	23° ♂ 07'16	
morning max el	4900 Aug 28 22:56	17° ♂ 58'22	20°40'37	morning max el	4901 Aug 10 21:51	29° ♂ 01'12	22°14'09
	4900 Sep 07 06:05	0° ♂			4901 Aug 11 22:14	0° ♂	
asc. node	4900 Sep 07 19:59	0° ♂ 57'24		asc. node	4901 Aug 25 17:02	19° ♂ 51'58	
morning set	4900 Sep 17 00:23	18° ♂ 24'09			4901 Aug 30 21:09	0° ♂	
	4900 Sep 22 14:38	0° ♂		morning set	4901 Sep 01 10:34	3° ♂ 14'05	
superior conj	4900 Sep 24 13:10	3° ♂ 59'04	1°43'26	superior conj	4901 Sep 08 15:07	18° ♂ 30'00	1°41'52
minimum elong	4900 Sep 24 13:34	4° ♂ 01'08	1°43'26	minimum elong	4901 Sep 08 14:12	18° ♂ 25'09	1°41'51
max. Earth dist.	4900 Sep 29 10:55	13° ♂ 47'14	1.36005 AU	max. Earth dist.	4901 Sep 12 02:24	25° ♂ 44'07	1.34375 AU
evening rise	4900 Oct 03 11:46	21° ♂ 27'36			4901 Sep 14 04:52	0° ♂	
	4900 Oct 08 05:41	0° ♂		evening rise	4901 Sep 16 16:58	4° ♂ 56'27	
desc. node	4900 Oct 14 07:55	10° ♂ 13'06			4901 Sep 30 23:36	0° ♂	
	4900 Oct 27 18:55	0° ♂		desc. node	4901 Oct 01 04:56	0° ♂ 20'57	
evening max el	4900 Nov 08 01:30	13° ♂ 07'41	26°13'04				

evening max el	4901 Oct 21 14:12	26° \mathbb{M} 43'24	27°01'46		4902 Sep 25 05:00	0° \mathbb{M}	
	4901 Oct 25 09:02	0° \mathbb{J}		evening max el	4902 Oct 04 01:43	9° \mathbb{M} 59'44	27°25'41
retrograde	4901 Nov 03 20:08	4° \mathbb{J} 00'42		retrograde	4902 Oct 17 16:22	17° \mathbb{M} 17'36	
evening set	4901 Nov 10 14:20	1° \mathbb{J} 21'24		evening set	4902 Oct 24 18:41	14° \mathbb{M} 40'26	
	4901 Nov 12 03:38	30° \mathbb{R} \mathbb{M}		min. Earth dist.	4902 Oct 28 11:59	11° \mathbb{M} 22'53	0.63865 AU
min. Earth dist.	4901 Nov 14 13:15	27° \mathbb{M} 29'57	0.65407 AU	inferior conj	4902 Oct 31 00:51	8° \mathbb{M} 46'15	-2°-45'-59
inferior conj	4901 Nov 16 14:02	25° \mathbb{M} 11'22	-1°-42'-53	minimum elong	4902 Oct 31 05:38	8° \mathbb{M} 33'55	2°44'14
minimum elong	4901 Nov 16 16:59	25° \mathbb{M} 03'00	1°41'42	morning rise	4902 Nov 06 19:05	3° \mathbb{M} 24'36	
asc. node	4901 Nov 21 16:16	20° \mathbb{M} 16'02		asc. node	4902 Nov 08 13:18	2° \mathbb{M} 57'49	
morning rise	4901 Nov 22 21:27	19° \mathbb{M} 33'51		direct	4902 Nov 09 05:10	2° \mathbb{M} 55'38	
direct	4901 Nov 25 13:39	18° \mathbb{M} 55'07		morning max el	4902 Nov 15 18:08	6° \mathbb{M} 20'34	17°51'42
morning max el	4901 Dec 02 01:21	22° \mathbb{M} 23'45	18°09'16		4902 Dec 01 08:54	0° \mathbb{J}	
	4901 Dec 08 01:50	0° \mathbb{J}		morning set	4902 Dec 02 10:04	1° \mathbb{J} 48'07	
morning set	4901 Dec 20 11:26	19° \mathbb{J} 47'25					
	4901 Dec 26 17:56	0° \mathbb{Z}		superior conj	4902 Dec 15 03:37	23° \mathbb{J} 12'11	0°00'-42
desc. node	4901 Dec 28 04:11	2° \mathbb{Z} 18'04		minimum elong	4902 Dec 15 03:32	23° \mathbb{J} 11'50	0°00'41
				behind sun begin	4902 Dec 14 17:42	22° \mathbb{J} 31'39	
superior conj	4902 Jan 04 05:44	13° \mathbb{Z} 33'34	0°-47'-33	behind sun end	4902 Dec 15 13:22	23° \mathbb{J} 51'57	
minimum elong	4902 Jan 03 23:50	13° \mathbb{Z} 10'15	0°46'46	desc. node	4902 Dec 15 01:12	23° \mathbb{J} 02'16	
max. Earth dist.	4902 Jan 07 01:20	17° \mathbb{Z} 59'50	1.45218 AU		4902 Dec 19 08:33	0° \mathbb{Z}	
	4902 Jan 14 17:37	0° \approx		max. Earth dist.	4902 Dec 20 19:30	2° \mathbb{Z} 19'24	1.44470 AU
evening rise	4902 Jan 20 13:59	9° \approx 05'38		evening rise	4902 Dec 31 00:53	18° \mathbb{Z} 17'38	
	4902 Feb 03 04:39	0° \mathbb{H}			4903 Jan 07 17:33	0° \approx	
greatest brilliancy	4902 Feb 06 01:17	4° \mathbb{H} 11'36	-0.7m	greatest brilliancy	4903 Jan 22 07:28	20° \approx 59'41	-0.5m
evening max el	4902 Feb 14 02:02	14° \mathbb{H} 25'31	19°32'14	evening max el	4903 Jan 28 04:08	27° \approx 58'28	20°32'52
asc. node	4902 Feb 17 15:34	17° \mathbb{H} 24'17			4903 Jan 30 08:04	0° \mathbb{H}	
retrograde	4902 Feb 21 08:13	18° \mathbb{H} 36'05		asc. node	4903 Feb 04 12:35	2° \mathbb{H} 41'25	
evening set	4902 Feb 24 20:18	17° \mathbb{H} 24'08		retrograde	4903 Feb 05 06:29	2° \mathbb{H} 44'25	
inferior conj	4902 Mar 02 08:33	11° \mathbb{H} 26'27	3°17'22	evening set	4903 Feb 09 03:23	1° \mathbb{H} 18'08	
minimum elong	4902 Mar 02 06:43	11° \mathbb{H} 32'27	3°17'05		4903 Feb 10 14:50	30° \mathbb{R} \approx	
min. Earth dist.	4902 Mar 03 13:07	9° \mathbb{H} 52'35	0.66692 AU	inferior conj	4903 Feb 14 13:12	25° \approx 07'38	2°52'06
morning rise	4902 Mar 07 16:24	5° \mathbb{H} 10'04		minimum elong	4903 Feb 14 10:51	25° \approx 15'40	2°51'32
direct	4902 Mar 13 19:10	2° \mathbb{H} 27'38		min. Earth dist.	4903 Feb 15 04:14	24° \approx 16'15	0.67549 AU
morning max el	4902 Mar 26 03:31	9° \mathbb{H} 49'30	25°45'06	morning rise	4903 Feb 19 17:50	18° \approx 51'29	
desc. node	4902 Mar 26 03:26	9° \mathbb{H} 49'17		direct	4903 Feb 25 06:54	16° \approx 24'27	
	4902 Apr 11 02:14	0° \mathbb{Y}		morning max el	4903 Mar 08 12:11	23° \approx 06'58	24°20'26
	4902 Apr 29 13:55	0° \mathbb{Z}		desc. node	4903 Mar 13 00:27	28° \approx 06'09	
morning set	4902 May 01 07:20	3° \mathbb{Z} 07'48			4903 Mar 14 14:04	0° \mathbb{H}	
max. Earth dist.	4902 May 05 03:28	10° \mathbb{Z} 18'33	1.35778 AU	morning set	4903 Apr 04 10:57	0° \mathbb{Y}	
				max. Earth dist.	4903 Apr 13 07:24	14° \mathbb{Y} 47'06	
superior conj	4902 May 10 17:58	21° \mathbb{Z} 18'24	0°-57'-29		4903 Apr 17 00:32	21° \mathbb{Y} 22'10	1.37788 AU
minimum elong	4902 May 10 21:08	21° \mathbb{Z} 34'19	0°56'56		4903 Apr 21 16:46	0° \mathbb{Z}	
	4902 May 15 00:22	0° \mathbb{H}		superior conj	4903 Apr 23 23:52	4° \mathbb{Z} 22'19	-1°-25'-57
asc. node	4902 May 16 14:51	3° \mathbb{H} 17'49		minimum elong	4903 Apr 24 04:26	4° \mathbb{Z} 44'19	1°25'20
evening rise	4902 May 18 18:22	7° \mathbb{H} 42'01		evening rise	4903 May 02 18:49	21° \mathbb{Z} 39'58	
	4902 May 31 01:36	0° \mathbb{Z}		asc. node	4903 May 03 11:52	23° \mathbb{Z} 04'13	
evening max el	4902 Jun 05 14:18	6° \mathbb{Z} 44'20	20°07'06		4903 May 07 01:40	0° \mathbb{H}	
retrograde	4902 Jun 16 02:58	11° \mathbb{Z} 53'15		evening max el	4903 May 19 08:43	18° \mathbb{H} 33'02	19°07'32
evening set	4902 Jun 18 01:31	11° \mathbb{Z} 43'31		retrograde	4903 May 28 05:16	22° \mathbb{H} 52'39	
desc. node	4902 Jun 22 02:40	10° \mathbb{Z} 27'16		evening set	4903 May 30 05:13	22° \mathbb{H} 40'22	
inferior conj	4902 Jun 27 02:53	7° \mathbb{Z} 44'20	-1°-29'-35	inferior conj	4903 Jun 07 13:27	18° \mathbb{H} 28'22	0°25'06
minimum elong	4902 Jun 26 22:42	7° \mathbb{Z} 50'36	1°28'04	minimum elong	4903 Jun 07 14:29	18° \mathbb{H} 26'37	0°24'42
min. Earth dist.	4902 Jun 28 20:53	6° \mathbb{Z} 41'45	0.55132 AU	desc. node	4903 Jun 08 23:41	17° \mathbb{H} 29'44	
morning rise	4902 Jul 05 17:33	3° \mathbb{Z} 27'34		min. Earth dist.	4903 Jun 10 12:02	16° \mathbb{H} 28'40	0.56362 AU
direct	4902 Jul 09 21:26	2° \mathbb{Z} 49'55		morning rise	4903 Jun 15 19:24	13° \mathbb{H} 36'20	
morning max el	4902 Jul 23 13:15	9° \mathbb{Z} 31'32	23°57'38	direct	4903 Jun 20 21:34	12° \mathbb{H} 35'49	
	4902 Aug 07 15:17	0° \mathbb{Q}		morning max el	4903 Jul 05 03:16	19° \mathbb{H} 54'14	25°36'43
asc. node	4902 Aug 12 14:04	9° \mathbb{Q} 13'44			4903 Jul 13 17:53	0° \mathbb{Z}	
morning set	4902 Aug 16 22:12	18° \mathbb{Q} 07'18		asc. node	4903 Jul 30 11:07	28° \mathbb{Z} 55'26	
	4902 Aug 22 10:23	0° \mathbb{H}			4903 Jul 30 23:36	0° \mathbb{Q}	
superior conj	4902 Aug 23 22:29	3° \mathbb{H} 15'50	1°34'10	morning set	4903 Aug 01 09:42	2° \mathbb{Q} 58'54	
minimum elong	4902 Aug 23 20:39	3° \mathbb{H} 05'57	1°34'00				
max. Earth dist.	4902 Aug 26 02:26	7° \mathbb{H} 55'20	1.33148 AU	superior conj	4903 Aug 08 09:02	18° \mathbb{Q} 09'22	1°21'11
evening rise	4902 Aug 31 09:51	18° \mathbb{H} 58'01		minimum elong	4903 Aug 08 06:46	17° \mathbb{Q} 56'54	1°20'52
	4902 Sep 06 02:47	0° \mathbb{Q}		max. Earth dist.	4903 Aug 09 09:27	20° \mathbb{Q} 23'21	1.32355 AU
desc. node	4902 Sep 18 01:56	20° \mathbb{Q} 02'50			4903 Aug 13 20:20	0° \mathbb{H}	

evening rise	4903 Aug 15 11:08	3° \cap 23'03		max. Earth dist.	4904 Jul 22 20:20	3° Ω 00'58	1.31982 AU
	4903 Aug 29 21:26	0° $\underline{\Delta}$		evening rise	4904 Jul 29 18:05	18° Ω 02'44	
desc. node	4903 Sep 04 22:57	9° $\underline{\Delta}$ 07'58			4904 Aug 04 16:12	0° \cap	
evening max el	4903 Sep 16 10:05	22° $\underline{\Delta}$ 44'31	27°19'04	desc. node	4904 Aug 21 20:00	27° \cap 21'19	
retrograde	4903 Sep 30 05:51	29° $\underline{\Delta}$ 58'39			4904 Aug 24 00:27	0° $\underline{\Delta}$	
evening set	4903 Oct 07 09:38	27° $\underline{\Delta}$ 35'11		evening max el	4904 Aug 28 12:42	4° $\underline{\Delta}$ 45'59	26°38'59
min. Earth dist.	4903 Oct 11 00:32	24° $\underline{\Delta}$ 44'52	0.62021 AU	retrograde	4904 Sep 11 11:07	11° $\underline{\Delta}$ 55'14	
inferior conj	4903 Oct 14 00:03	22° $\underline{\Delta}$ 01'07	-3°-47'-1	evening set	4904 Sep 18 06:40	9° $\underline{\Delta}$ 57'55	
minimum elong	4903 Oct 14 06:09	21° $\underline{\Delta}$ 47'08	3°45'13	min. Earth dist.	4904 Sep 22 02:34	7° $\underline{\Delta}$ 22'28	0.59981 AU
morning rise	4903 Oct 21 05:44	16° $\underline{\Delta}$ 58'28		inferior conj	4904 Sep 25 08:16	4° $\underline{\Delta}$ 46'57	-4°-39'-21
direct	4903 Oct 23 12:37	16° $\underline{\Delta}$ 35'43		minimum elong	4904 Sep 25 14:03	4° $\underline{\Delta}$ 35'17	4°38'14
asc. node	4903 Oct 26 10:20	17° $\underline{\Delta}$ 13'40		morning rise	4904 Oct 03 00:49	0° $\underline{\Delta}$ 06'17	
morning max el	4903 Oct 30 09:59	20° $\underline{\Delta}$ 05'16	17°52'10		4904 Oct 03 10:41	30° \mathbb{R} \cap	
	4903 Nov 06 18:22	0° \mathbb{M}		direct	4904 Oct 05 08:05	29° \cap 46'41	
morning set	4903 Nov 15 05:40	14° \mathbb{M} 48'50			4904 Oct 07 04:38	0° $\underline{\Delta}$	
	4903 Nov 23 18:23	0° \mathbb{X}		asc. node	4904 Oct 12 07:22	2° $\underline{\Delta}$ 56'01	
				morning max el	4904 Oct 12 21:38	3° $\underline{\Delta}$ 29'17	18°12'01
superior conj	4903 Nov 26 03:41	4° \mathbb{X} 07'27	0°40'05	morning set	4904 Oct 28 16:17	28° $\underline{\Delta}$ 32'22	
minimum elong	4903 Nov 26 07:03	4° \mathbb{X} 21'52	0°39'37		4904 Oct 29 10:51	0° \mathbb{M}	
desc. node	4903 Dec 01 22:12	13° \mathbb{X} 49'11		superior conj	4904 Nov 07 04:44	16° \mathbb{M} 15'28	1°10'39
max. Earth dist.	4903 Dec 03 09:57	16° \mathbb{X} 15'40	1.43093 AU	minimum elong	4904 Nov 07 08:40	16° \mathbb{M} 33'15	1°10'11
evening rise	4903 Dec 10 14:06	27° \mathbb{X} 42'25		max. Earth dist.	4904 Nov 14 19:49	29° \mathbb{M} 36'55	1.41247 AU
	4903 Dec 12 01:27	0° \mathbb{Z}			4904 Nov 15 01:17	0° \mathbb{X}	
	4904 Jan 01 12:58	0° \approx		desc. node	4904 Nov 17 19:15	4° \mathbb{X} 35'36	
greatest brilliancy	4904 Jan 06 06:01	6° \approx 06'45	-0.4m	evening rise	4904 Nov 19 19:53	7° \mathbb{X} 54'44	
evening max el	4904 Jan 11 00:49	11° \approx 32'54	21°44'52		4904 Dec 04 04:35	0° \mathbb{Z}	
retrograde	4904 Jan 20 03:50	16° \approx 58'12		greatest brilliancy	4904 Dec 17 20:20	18° \mathbb{Z} 33'41	-0.2m
asc. node	4904 Jan 22 09:36	16° \approx 31'21		evening max el	4904 Dec 23 17:04	25° \mathbb{Z} 10'44	23°03'30
evening set	4904 Jan 24 11:12	15° \approx 16'36			4904 Dec 29 17:04	0° \approx	
inferior conj	4904 Jan 29 20:29	8° \approx 56'25	2°17'44	retrograde	4905 Jan 02 22:45	1° \approx 14'42	
minimum elong	4904 Jan 29 18:05	9° \approx 04'44	2°17'01		4905 Jan 06 19:14	30° \mathbb{R} \mathbb{Z}	
min. Earth dist.	4904 Jan 29 23:17	8° \approx 46'43	0.68005 AU	evening set	4905 Jan 07 18:14	29° \mathbb{Z} 17'07	
morning rise	4904 Feb 04 00:43	2° \approx 42'26		asc. node	4905 Jan 08 06:37	28° \mathbb{Z} 50'04	
direct	4904 Feb 08 23:08	0° \approx 36'13		inferior conj	4905 Jan 13 04:31	22° \mathbb{Z} 50'57	1°35'40
morning max el	4904 Feb 18 21:45	6° \approx 29'31	22°51'04	minimum elong	4905 Jan 13 02:33	22° \mathbb{Z} 57'44	1°34'58
greatest brilliancy	4904 Feb 23 14:06	11° \approx 42'51	-0.3m	min. Earth dist.	4905 Jan 12 19:58	23° \mathbb{Z} 20'23	0.68080 AU
desc. node	4904 Feb 27 21:27	17° \approx 10'02		morning rise	4905 Jan 18 10:52	16° \mathbb{Z} 40'55	
	4904 Mar 08 01:51	0° \mathbb{X}		direct	4905 Jan 22 18:47	14° \mathbb{Z} 57'39	
morning set	4904 Mar 24 05:37	25° \mathbb{X} 09'41		morning max el	4905 Jan 31 12:02	20° \mathbb{Z} 01'40	21°26'03
	4904 Mar 27 03:02	0° \mathbb{Y}		greatest brilliancy	4905 Feb 05 12:10	25° \mathbb{Z} 42'24	-0.4m
max. Earth dist.	4904 Mar 28 19:44	2° \mathbb{Y} 53'21	1.39984 AU		4905 Feb 08 20:02	0° \approx	
				desc. node	4905 Feb 13 18:30	6° \approx 48'22	
superior conj	4904 Apr 05 14:07	16° \mathbb{Y} 38'22	-1°-50'-10		4905 Mar 01 07:05	0° \mathbb{X}	
minimum elong	4904 Apr 05 18:59	17° \mathbb{Y} 00'37	1°49'45	morning set	4905 Mar 03 23:16	4° \mathbb{X} 12'03	
	4904 Apr 12 17:41	0° \mathbb{Z}		max. Earth dist.	4905 Mar 10 20:40	15° \mathbb{X} 19'32	1.42081 AU
evening rise	4904 Apr 15 09:59	5° \mathbb{Z} 06'18					
asc. node	4904 Apr 19 08:54	12° \mathbb{Z} 33'44		superior conj	4905 Mar 18 07:52	27° \mathbb{X} 55'44	-2°-5'-45
	4904 Apr 30 13:59	0° \mathbb{I}		minimum elong	4905 Mar 18 10:39	28° \mathbb{X} 07'48	2°05'40
evening max el	4904 May 01 12:40	0° \mathbb{I} 58'28	18°28'18		4905 Mar 19 12:29	0° \mathbb{Y}	
retrograde	4904 May 09 02:09	4° \mathbb{I} 42'50		evening rise	4905 Mar 29 12:13	17° \mathbb{Y} 52'55	
evening set	4904 May 11 08:20	4° \mathbb{I} 23'50			4905 Apr 05 06:25	0° \mathbb{Z}	
inferior conj	4904 May 18 21:02	29° \mathbb{Z} 51'57	1°54'53	asc. node	4905 Apr 06 05:56	1° \mathbb{Z} 40'41	
minimum elong	4904 May 19 00:27	29° \mathbb{Z} 45'08	1°53'51	evening max el	4905 Apr 14 22:37	13° \mathbb{Z} 51'40	18°08'56
	4904 May 18 17:00	30° \mathbb{R} \mathbb{Z}		retrograde	4905 Apr 21 17:02	17° \mathbb{Z} 17'33	
min. Earth dist.	4904 May 22 07:07	27° \mathbb{Z} 09'28	0.58242 AU	evening set	4905 Apr 24 05:45	16° \mathbb{Z} 49'12	
desc. node	4904 May 25 20:43	24° \mathbb{Z} 47'04		inferior conj	4905 May 01 01:20	11° \mathbb{Z} 55'58	2°53'20
morning rise	4904 May 26 12:07	24° \mathbb{Z} 26'38		minimum elong	4905 May 01 04:28	11° \mathbb{Z} 48'42	2°52'41
direct	4904 Jun 01 11:51	22° \mathbb{Z} 53'58		min. Earth dist.	4905 May 04 08:28	8° \mathbb{Z} 53'34	0.60419 AU
	4904 Jun 15 06:25	0° \mathbb{I}		morning rise	4905 May 07 23:40	6° \mathbb{Z} 06'12	
morning max el	4904 Jun 15 21:05	0° \mathbb{I} 35'15	26°55'45	desc. node	4905 May 12 17:44	4° \mathbb{Z} 09'44	
	4904 Jul 06 18:10	0° \mathbb{S}		direct	4905 May 14 14:06	3° \mathbb{Z} 59'57	
morning set	4904 Jul 15 19:25	17° \mathbb{S} 43'14		morning max el	4905 May 28 21:23	11° \mathbb{Z} 54'17	27°42'29
asc. node	4904 Jul 16 08:09	18° \mathbb{S} 50'28			4905 Jun 12 02:52	0° \mathbb{I}	
	4904 Jul 21 11:34	0° Ω			4905 Jun 28 23:22	0° \mathbb{S}	
				morning set	4905 Jun 30 01:36	2° \mathbb{S} 14'50	
superior conj	4904 Jul 22 20:50	3° Ω 03'42	1°03'35	asc. node	4905 Jul 03 05:12	8° \mathbb{S} 53'53	
minimum elong	4904 Jul 22 18:36	2° Ω 51'19	1°03'10				

max. Earth dist.	4905 Jul 06 07:25	15°  37'07	1.32020 AU	morning set	4906 Jun 14 02:11	16°  27'20	
				max. Earth dist.	4906 Jun 19 14:35	27°  58'35	1.32477 AU
superior conj	4905 Jul 07 08:07	17°  52'57	0°41'56	asc. node	4906 Jun 20 02:16	29°  01'20	
minimum elong	4905 Jul 07 06:23	17°  43'23	0°41'34		4906 Jun 20 13:09	0° 	
	4905 Jul 12 20:46	0° 					
evening rise	4905 Jul 14 04:26	2°  49'44		superior conj	4906 Jun 21 17:09	2°  31'39	0°16'51
	4905 Jul 28 17:49	0° 		minimum elong	4906 Jun 21 16:22	2°  27'21	0°16'40
desc. node	4905 Aug 08 17:02	14°  11'42		evening rise	4906 Jun 28 16:13	17°  37'38	
evening max el	4905 Aug 10 07:41	15°  18'09	25°27'54		4906 Jul 04 18:10	0° 	
retrograde	4905 Aug 24 06:24	23°  02'46		evening max el	4906 Jul 22 20:47	26°  31'10	23°56'02
evening set	4905 Aug 30 04:56	21°  14'05'7		desc. node	4906 Jul 26 14:03	29°  04'48	
min. Earth dist.	4905 Sep 03 19:28	19°  10'24'5	0.57942 AU		4906 Jul 27 00:47	0° 	
inferior conj	4905 Sep 06 22:00	16°  15'30'3	-5°-12'-2	retrograde	4906 Aug 05 14:19	3°  12'53'6	
minimum elong	4905 Sep 07 00:35	16°  14'48'59	5°11'53	evening set	4906 Aug 10 03:15	2°  14'40'6	
morning rise	4905 Sep 14 23:43	12°  13'36'24			4906 Aug 15 18:01	30°  18'0	
direct	4905 Sep 17 11:07	12°  11'7'38		min. Earth dist.	4906 Aug 16 07:06	29°  14'40'37	0.56187 AU
morning max el	4905 Sep 26 01:42	16°  12'22'59	18°52'40	inferior conj	4906 Aug 18 15:32	28°  14'43'0	-5°-9'-29
asc. node	4905 Sep 29 04:26	19°  11'50'15		minimum elong	4906 Aug 18 12:01	28°  19'53	5°09'13
	4905 Oct 05 19:12	0° 		morning rise	4906 Aug 27 00:09	24°  17'25	
morning set	4905 Oct 12 13:13	12°  14'44'53		direct	4906 Aug 29 18:35	23°  15'7'49	
				morning max el	4906 Sep 08 19:17	28°  13'7'49	19°55'06
superior conj	4905 Oct 21 01:31	29°  12'20'59	1°30'37		4906 Sep 10 04:17	0° 	
minimum elong	4905 Oct 21 04:24	29°  13'44'42	1°30'23	asc. node	4906 Sep 16 01:30	7°  14'13'8	
	4905 Oct 21 09:44	0° 		morning set	4906 Sep 26 17:13	27°  11'7'35	
max. Earth dist.	4905 Oct 28 01:37	12°  11'15'36	1.39160 AU		4906 Sep 28 01:10	0° 	
evening rise	4905 Nov 01 00:15	19°  11'08'11					
desc. node	4905 Nov 04 16:17	25°  11'17'16		superior conj	4906 Oct 04 12:53	13°  12'09'41	1°41'06
	4905 Nov 07 14:00	0° 		minimum elong	4906 Oct 04 14:11	13°  16'12	1°41'04
	4905 Nov 28 11:12	0° 		max. Earth dist.	4906 Oct 10 06:50	24°  19'26	1.37094 AU
evening max el	4905 Dec 06 06:28	8°  15'1'34	24°22'58		4906 Oct 13 08:27	0° 	
retrograde	4905 Dec 17 14:06	15°  12'29'06		evening rise	4906 Oct 14 02:42	1°  11'22'29	
evening set	4905 Dec 22 22:53	13°  12'15'49		desc. node	4906 Oct 22 13:20	15°  11'50'18	
asc. node	4905 Dec 26 03:40	9°  12'51'06			4906 Oct 31 17:49	0° 	
min. Earth dist.	4905 Dec 27 15:58	7°  12'53'04	0.67786 AU	evening max el	4906 Nov 18 18:53	22°  12'34'40	25°36'21
inferior conj	4905 Dec 28 11:28	6°  12'47'45	0°46'50	retrograde	4906 Dec 01 01:00	29°  12'36'33	
minimum elong	4905 Dec 28 10:22	6°  12'51'25	0°46'24	evening set	4906 Dec 06 23:31	27°  12'30'9'33	
morning rise	4906 Jan 02 22:14	0° 		min. Earth dist.	4906 Dec 11 09:03	22°  12'21'40	0.67137 AU
	4906 Jan 04 03:01	30°  18'3'17		inferior conj	4906 Dec 12 15:32	20°  12'24'41'5	0°-7'-48
direct	4906 Jan 06 16:39	29°  12'22'36		minimum elong	4906 Dec 12 15:44	20°  12'24'33'7	0°07'44
	4906 Jan 09 09:29	0° 		transit middle	4906 Dec 12 15:44	20°  12'24'33'7	0°07'44
morning max el	4906 Jan 14 09:52	3°  12'45'45	20°11'37	transit begin	4906 Dec 12 13:16	20°  12'24'51'31	
greatest brilliancy	4906 Jan 21 01:16	11°  12'40'54	-0.6m	transit end	4906 Dec 12 18:12	20°  12'24'35'44	
desc. node	4906 Jan 31 15:32	26°  12'51'11		asc. node	4906 Dec 13 00:42	20°  12'24'15'02	
	4906 Feb 02 17:55	0° 		morning rise	4906 Dec 18 08:51	14°  12'24'48'16	
morning set	4906 Feb 10 21:12	12°  12'22'45'2		direct	4906 Dec 21 15:22	13°  12'24'46'42	
max. Earth dist.	4906 Feb 21 05:21	28°  12'22'39'43	1.43790 AU	morning max el	4906 Dec 28 15:34	17°  12'24'40'24	19°11'21
	4906 Feb 22 01:22	0° 			4907 Jan 07 05:17	0° 	
superior conj	4906 Feb 27 00:42	8°  12'22'04'59	-2°-7'-14	greatest brilliancy	4907 Jan 07 19:13	0°  12'22'51'09	-0.7m
minimum elong	4906 Feb 26 22:13	7°  12'22'54'50	2°07'11	desc. node	4907 Jan 18 12:33	17°  12'22'31'14'3	
evening rise	4906 Mar 11 21:06	29°  12'22'50'41		morning set	4907 Jan 20 22:45	20°  12'22'35'7'20	
	4906 Mar 11 23:15	0° 			4907 Jan 26 18:17	0° 	
asc. node	4906 Mar 24 02:58	20°  12'22'17'42		max. Earth dist.	4907 Feb 03 20:01	12°  12'22'22'38'31	1.44906 AU
evening max el	4906 Mar 29 11:13	27°  12'22'10'3'52	18°08'57				
	4906 Apr 02 15:09	0° 		superior conj	4907 Feb 06 17:05	17°  12'22'11'22	-1°-49'-48
retrograde	4906 Apr 04 21:43	0° 		minimum elong	4907 Feb 06 08:48	16°  12'22'38'34	1°49'11
	4906 Apr 07 04:28	30°  18'3'17			4907 Feb 14 16:57	0° 	
evening set	4906 Apr 07 16:25	29°  18'3'47'21		evening rise	4907 Feb 21 08:30	10°  18'3'52'24	
inferior conj	4906 Apr 13 22:49	24°  18'3'33'51	3°24'17		4907 Mar 05 02:41	0° 	
minimum elong	4906 Apr 14 00:27	24°  18'3'29'31	3°24'06	asc. node	4907 Mar 11 00:00	8°  18'3'15'31	
min. Earth dist.	4906 Apr 16 18:27	21°  18'3'35'49	0.62570 AU	evening max el	4907 Mar 12 23:35	10°  18'3'27'56	18°27'39
morning rise	4906 Apr 20 06:01	18°  18'3'29'11		retrograde	4907 Mar 19 11:33	14°  18'3'00'26	
direct	4906 Apr 27 02:17	15°  18'3'56'18		evening set	4907 Mar 22 12:21	13°  18'3'09'22	
desc. node	4906 Apr 29 14:46	16°  18'3'15'11		inferior conj	4907 Mar 28 09:18	7°  18'3'37'21	3°33'47
morning max el	4906 May 11 03:36	23° 18'3'56'23	27°51'34	minimum elong	4907 Mar 28 09:18	7° 18'3'37'21	3°33'46
	4906 May 16 14:20	0°		min. Earth dist.	4907 Mar 30 13:57	5° 18'3'03'12	0.64476 AU
	4906 Jun 05 10:45	0°		morning rise	4907 Apr 03 04:39	1° 18'3'24'57	
					4907 Apr 05 04:27	30° 18'3'18	

direct	4907 Apr 09 22:42	28° Υ 37'47		minimum elong	4908 Mar 11 03:50	21° Υ 03'38	3°26'55
	4907 Apr 15 02:54	0° Υ		min. Earth dist.	4908 Mar 12 18:17	19° Υ 01'40	0.66007 AU
desc. node	4907 Apr 16 11:48	0° Υ 45'34		morning rise	4908 Mar 16 16:13	14° Υ 43'52	
morning max el	4907 Apr 23 13:01	6° Υ 33'49	27°24'25	direct	4908 Mar 23 01:54	11° Υ 56'06	
	4907 May 11 11:58	0° Υ		desc. node	4908 Apr 02 08:47	17° Υ 07'00	
morning set	4907 May 28 18:24	0° Π 11'47		morning max el	4908 Apr 04 22:56	19° Υ 34'36	26°27'36
	4907 May 28 16:00	0° Π			4908 Apr 13 20:16	0° Υ	
max. Earth dist.	4907 Jun 02 13:45	9° Π 52'38	1.33391 AU		4908 May 03 13:31	0° Υ	
				morning set	4908 May 10 22:51	13° Υ 18'21	
superior conj	4907 Jun 05 21:56	16° Π 53'00	0°-10'-57	max. Earth dist.	4908 May 15 01:57	21° Υ 15'20	1.34778 AU
minimum elong	4907 Jun 05 22:29	16° Π 56'00	0°10'52		4908 May 19 10:17	0° Π	
behind sun begin	4907 Jun 05 18:27	16° Π 34'31					
behind sun end	4907 Jun 06 02:32	17° Π 17'30		superior conj	4908 May 19 20:12	0° Π 50'57	0°-40'-23
asc. node	4907 Jun 06 23:18	19° Π 08'01		minimum elong	4908 May 19 22:24	1° Π 02'14	0°39'59
	4907 Jun 12 01:09	0° Σ		asc. node	4908 May 23 20:19	9° Π 10'23	
evening rise	4907 Jun 13 03:30	2° Σ 19'30		evening rise	4908 May 27 12:24	16° Π 49'45	
	4907 Jun 28 14:06	0° Ω			4908 Jun 03 04:21	0° Σ	
evening max el	4907 Jul 04 10:56	6° Ω 53'01	22°18'46	evening max el	4908 Jun 15 10:06	17° Σ 37'12	20°50'23
desc. node	4907 Jul 13 11:04	12° Ω 43'07		retrograde	4908 Jun 26 22:24	23° Σ 16'02	
retrograde	4907 Jul 17 10:03	13° Ω 19'24		evening set	4908 Jun 29 01:37	23° Σ 05'11	
evening set	4907 Jul 20 11:13	12° Ω 58'52		desc. node	4908 Jun 29 08:04	23° Σ 02'20	
min. Earth dist.	4907 Jul 28 17:22	9° Ω 23'59	0.55058 AU	inferior conj	4908 Jul 08 08:42	19° Σ 08'18	-2°-38'-2
inferior conj	4907 Jul 29 15:39	8° Ω 52'30	-4°-17'-23	minimum elong	4908 Jul 08 01:30	19° Σ 18'31	2°35'37
minimum elong	4907 Jul 29 07:14	9° Ω 04'25	4°15'26	min. Earth dist.	4908 Jul 09 04:27	18° Σ 40'13	0.54830 AU
morning rise	4907 Aug 07 05:18	5° Ω 02'51		morning rise	4908 Jul 17 00:40	15° Σ 06'58	
direct	4907 Aug 10 09:12	4° Ω 40'20		direct	4908 Jul 20 18:24	14° Σ 36'54	
morning max el	4907 Aug 22 00:43	10° Ω 06'23	21°18'29	morning max el	4908 Aug 02 19:37	20° Σ 52'27	22°57'37
asc. node	4907 Sep 02 22:32	26° Ω 16'00			4908 Aug 10 13:58	0° Ω	
	4907 Sep 05 00:05	0° \cap		asc. node	4908 Aug 19 19:34	15° Ω 22'57	
morning set	4907 Sep 11 01:41	12° \cap 02'26		morning set	4908 Aug 25 12:39	26° Ω 53'55	
					4908 Aug 26 23:47	0° \cap	
superior conj	4907 Sep 18 10:27	27° \cap 27'54	1°43'35				
minimum elong	4907 Sep 18 10:15	27° \cap 26'52	1°43'35	superior conj	4908 Sep 01 14:59	12° \cap 05'46	1°39'18
	4907 Sep 19 15:55	0° Δ		minimum elong	4908 Sep 01 13:37	11° \cap 58'31	1°39'13
max. Earth dist.	4907 Sep 22 17:08	6° Δ 10'42	1.35263 AU	max. Earth dist.	4908 Sep 04 12:14	18° \cap 12'12	1.33803 AU
evening rise	4907 Sep 26 23:21	14° Δ 27'20		evening rise	4908 Sep 09 09:58	28° \cap 11'24	
	4907 Oct 05 16:15	0° \cap			4908 Sep 10 08:06	0° Δ	
desc. node	4907 Oct 09 10:22	6° \cap 09'06		desc. node	4908 Sep 25 07:23	26° Δ 06'56	
	4907 Oct 26 11:54	0° Δ			4908 Sep 27 21:07	0° \cap	
evening max el	4907 Nov 01 07:34	6° Δ 15'46	26°36'20	evening max el	4908 Oct 13 20:10	19° \cap 45'31	27°15'27
retrograde	4907 Nov 14 06:46	13° Δ 30'38		retrograde	4908 Oct 27 06:30	27° \cap 03'30	
evening set	4907 Nov 20 18:13	10° Δ 54'09		evening set	4908 Nov 03 04:36	24° \cap 24'16	
min. Earth dist.	4907 Nov 24 20:51	6° Δ 41'55	0.66136 AU	min. Earth dist.	4908 Nov 07 01:04	20° \cap 47'23	0.64789 AU
inferior conj	4907 Nov 26 14:46	4° Δ 36'49	-1°-7'-10	inferior conj	4908 Nov 09 06:53	18° \cap 20'19	-2°-9'-38
minimum elong	4907 Nov 26 16:38	4° Δ 31'15	1°06'24	minimum elong	4908 Nov 09 10:37	18° \cap 10'04	2°08'10
asc. node	4907 Nov 29 21:44	0° Δ 58'08		morning rise	4908 Nov 15 18:45	12° \cap 48'49	
	4907 Nov 30 23:56	30° \cap		asc. node	4908 Nov 15 18:47	12° \cap 48'46	
morning rise	4907 Dec 02 16:33	28° \cap 51'32		direct	4908 Nov 18 08:00	12° \cap 14'40	
direct	4907 Dec 05 13:15	28° \cap 05'38		morning max el	4908 Nov 24 19:24	15° \cap 40'51	17°59'34
	4907 Dec 10 06:07	0° Δ			4908 Dec 05 01:45	0° Δ	
morning max el	4907 Dec 12 03:34	1° Δ 40'53	18°27'02	morning set	4908 Dec 12 08:40	12° Δ 05'32	
	4907 Dec 31 13:04	0° Σ		desc. node	4908 Dec 22 06:36	28° Δ 26'17	
morning set	4908 Jan 01 00:55	0° Σ 47'24			4908 Dec 23 05:47	0° Σ	
desc. node	4908 Jan 05 09:35	7° Σ 44'52					
				superior conj	4908 Dec 26 06:14	4° Σ 51'00	0°-27'-25
superior conj	4908 Jan 16 20:15	25° Σ 48'28	-1°-13'-44	minimum elong	4908 Dec 26 02:54	4° Σ 37'39	0°26'56
minimum elong	4908 Jan 16 11:37	25° Σ 14'40	1°12'44	max. Earth dist.	4908 Dec 30 09:49	11° Σ 26'14	1.44989 AU
max. Earth dist.	4908 Jan 17 14:23	26° Σ 59'35	1.45318 AU		4909 Jan 11 07:56	0° \approx	
	4908 Jan 19 12:26	0° \approx		evening rise	4909 Jan 11 13:30	0° \approx 21'27	
evening rise	4908 Feb 01 20:34	20° \approx 57'50		greatest brilliancy	4909 Jan 30 16:19	28° \approx 58'22	-0.6m
	4908 Feb 07 13:48	0° Υ			4909 Jan 31 10:19	0° Υ	
greatest brilliancy	4908 Feb 13 22:08	9° Υ 53'46	-0.7m	evening max el	4909 Feb 06 14:39	7° Υ 31'32	19°56'27
evening max el	4908 Feb 24 09:21	23° Υ 58'33	19°04'03	asc. node	4909 Feb 11 18:03	11° Υ 24'12	
asc. node	4908 Feb 25 21:02	25° Υ 22'30		retrograde	4909 Feb 14 04:35	11° Υ 55'54	
retrograde	4908 Mar 02 06:48	27° Υ 52'12		evening set	4909 Feb 17 20:18	10° Υ 37'56	
evening set	4908 Mar 05 14:28	26° Υ 48'13		inferior conj	4909 Feb 23 07:17	4° Υ 34'40	3°07'48
inferior conj	4908 Mar 11 05:08	20° Υ 59'30	3°27'03	minimum elong	4909 Feb 23 05:10	4° Υ 41'44	3°07'25

min. Earth dist.	4909 Feb 24 05:56	3° H 18'49	0.67115 AU	asc. node	4910 Jan 29 15:04	26° \approx 06'22	
	4909 Feb 26 21:34	30° R \approx		evening set	4910 Feb 02 03:56	24° \approx 34'53	
morning rise	4909 Feb 28 13:25	28° \approx 18'23		inferior conj	4910 Feb 07 13:19	18° \approx 19'47	2°38'31
direct	4909 Mar 06 10:42	25° \approx 41'29		minimum elong	4910 Feb 07 10:54	18° \approx 28'08	2°37'52
	4909 Mar 15 08:18	0° H		min. Earth dist.	4910 Feb 07 22:55	17° \approx 46'39	0.67801 AU
morning max el	4909 Mar 18 07:52	2° H 47'30	25°10'12	morning rise	4910 Feb 12 17:30	12° \approx 04'34	
desc. node	4909 Mar 20 05:48	4° H 48'29		direct	4910 Feb 18 00:22	9° \approx 46'09	
	4909 Apr 08 00:34	0° Y		morning max el	4910 Feb 28 16:39	16° \approx 07'42	23°42'22
morning set	4909 Apr 23 10:50	25° Y 33'22		desc. node	4910 Mar 07 02:51	23° \approx 27'32	
	4909 Apr 25 21:32	0° B			4910 Mar 12 02:57	0° H	
max. Earth dist.	4909 Apr 27 03:25	2° B 18'18	1.36602 AU		4910 Apr 01 00:35	0° Y	
				morning set	4910 Apr 05 00:35	6° Y 41'34	
superior conj	4909 May 03 09:05	14° B 17'06	-1°-9'-52	max. Earth dist.	4910 Apr 08 23:13	13° Y 31'45	1.38724 AU
minimum elong	4909 May 03 12:55	14° B 36'02	1°09'15				
asc. node	4909 May 10 17:21	29° B 03'51		superior conj	4910 Apr 16 08:52	27° Y 01'57	-1°-36'-59
	4909 May 11 04:27	0° II		minimum elong	4910 Apr 16 13:47	27° Y 25'02	1°36'24
evening rise	4909 May 11 16:39	1° II 01'30			4910 Apr 17 22:29	0° B	
evening max el	4909 May 28 21:37	29° II 01'06	19°39'15	evening rise	4910 Apr 25 13:34	14° B 47'16	
	4909 May 29 23:03	0° S		asc. node	4910 Apr 27 14:23	18° B 43'49	
retrograde	4909 Jun 07 16:12	3° S 47'26			4910 May 03 17:58	0° II	
evening set	4909 Jun 09 14:30	3° S 37'06		evening max el	4910 May 11 20:23	11° II 05'50	18°48'17
desc. node	4909 Jun 16 05:03	0° S 53'37		retrograde	4910 May 20 02:22	15° II 08'51	
	4909 Jun 17 16:27	30° R II		evening set	4910 May 22 04:44	14° II 54'06	
inferior conj	4909 Jun 18 09:19	29° II 33'39	0°-38'-58	inferior conj	4910 May 30 04:31	10° II 33'40	1°07'01
minimum elong	4909 Jun 18 07:33	29° II 36'25	0°38'19	minimum elong	4910 May 30 06:57	10° II 29'13	1°06'11
min. Earth dist.	4909 Jun 20 17:26	28° II 05'58	0.55561 AU	min. Earth dist.	4910 Jun 02 09:51	8° II 13'35	0.57100 AU
morning rise	4909 Jun 26 21:18	25° II 02'59		desc. node	4910 Jun 03 02:04	7° II 45'50	
direct	4909 Jul 01 10:32	24° II 16'55		morning rise	4910 Jun 07 04:38	5° II 26'37	
	4909 Jul 14 00:22	0° S		direct	4910 Jun 12 16:14	4° II 13'33	
morning max el	4909 Jul 15 09:24	1° S 15'06	24°41'21	morning max el	4910 Jun 27 00:39	11° II 42'50	26°13'52
	4909 Aug 04 04:45	0° Q			4910 Jul 11 04:41	0° S	
asc. node	4909 Aug 06 16:37	4° Q 54'15		asc. node	4910 Jul 24 13:39	24° S 42'28	
morning set	4909 Aug 10 00:27	11° Q 47'15		morning set	4910 Jul 25 11:23	26° S 36'40	
					4910 Jul 27 01:30	0° Q	
superior conj	4909 Aug 16 23:57	26° Q 55'41	1°29'16	superior conj	4910 Aug 01 11:13	11° Q 50'12	1°14'14
minimum elong	4909 Aug 16 21:52	26° Q 44'23	1°29'02	minimum elong	4910 Aug 01 08:54	11° Q 37'26	1°13'53
	4909 Aug 18 09:50	0° M		max. Earth dist.	4910 Aug 02 01:01	13° Q 06'18	1.32140 AU
max. Earth dist.	4909 Aug 18 15:48	0° M 32'17	1.32760 AU	evening rise	4910 Aug 08 10:46	26° Q 56'21	
evening rise	4909 Aug 24 06:48	12° M 24'20			4910 Aug 09 22:15	0° M	
	4909 Sep 02 12:35	0° A			4910 Aug 26 23:15	0° A	
desc. node	4909 Sep 12 04:23	15° A 35'02		desc. node	4910 Aug 30 01:25	4° A 20'29	
	4909 Sep 23 11:07	0° M		evening max el	4910 Sep 08 12:57	15° A 18'14	27°06'07
evening max el	4909 Sep 26 06:52	2° M 51'10	27°26'57	retrograde	4910 Sep 22 09:46	22° A 30'21	
retrograde	4909 Oct 09 23:45	10° M 06'51		evening set	4910 Sep 29 11:42	20° A 16'10	
evening set	4909 Oct 17 03:45	7° M 34'13		min. Earth dist.	4910 Oct 03 03:20	17° A 34'29	0.61167 AU
min. Earth dist.	4909 Oct 20 19:35	4° M 29'23	0.63113 AU	inferior conj	4910 Oct 06 06:27	14° A 51'58	-4°-10'-47
inferior conj	4909 Oct 23 13:12	1° M 48'27	-3°-12'-25	minimum elong	4910 Oct 06 12:41	14° A 38'25	4°09'12
minimum elong	4909 Oct 23 18:39	1° M 35'02	3°10'34	morning rise	4910 Oct 13 16:55	9° A 58'39	
	4909 Oct 25 10:33	30° R A		direct	4910 Oct 15 23:35	9° A 37'33	
morning rise	4909 Oct 30 12:15	26° A 34'19		asc. node	4910 Oct 20 12:52	11° A 05'33	
direct	4909 Nov 01 20:44	26° A 08'14		morning max el	4910 Oct 23 02:42	13° A 11'11	17°58'16
asc. node	4909 Nov 02 15:49	26° A 11'17			4910 Nov 03 11:16	0° M	
morning max el	4909 Nov 08 12:11	29° A 33'55	17°49'40	morning set	4910 Nov 07 19:45	7° M 56'05	
	4909 Nov 08 22:27	0° M					
morning set	4909 Nov 24 17:09	24° M 35'23		superior conj	4910 Nov 18 02:17	26° M 30'23	0°54'22
	4909 Nov 27 19:23	0° A		minimum elong	4910 Nov 18 06:10	26° M 47'25	0°53'50
superior conj	4909 Dec 06 15:02	15° A 02'16	0°17'42		4910 Nov 20 02:29	0° A	
minimum elong	4909 Dec 06 16:48	15° A 09'40	0°17'27	max. Earth dist.	4910 Nov 25 16:05	9° A 24'24	1.42350 AU
desc. node	4909 Dec 09 03:39	19° A 12'41		desc. node	4910 Nov 26 00:42	9° A 59'57	
max. Earth dist.	4909 Dec 13 03:22	25° A 40'58	1.43960 AU	evening rise	4910 Dec 01 18:28	19° A 16'56	
	4909 Dec 15 20:20	0° S			4910 Dec 08 16:17	0° S	
evening rise	4909 Dec 21 23:36	9° S 35'26		greatest brilliancy	4910 Dec 29 14:53	29° S 20'27	-0.3m
	4910 Jan 04 13:24	0° \approx			4910 Dec 30 03:59	0° \approx	
greatest brilliancy	4910 Jan 15 07:56	14° \approx 57'17	-0.4m	evening max el	4911 Jan 03 09:01	4° \approx 41'16	22°17'41
evening max el	4910 Jan 20 14:30	21° \approx 05'47	21°02'13	retrograde	4911 Jan 12 23:20	10° \approx 23'46	
retrograde	4910 Jan 29 02:41	26° \approx 07'49		asc. node	4911 Jan 16 12:06	9° \approx 17'57	

evening set	4911 Jan 17 11:40	8° \approx 35'14		retrograde	4911 Dec 27 16:59	24° \approx 39'43	
inferior conj	4911 Jan 22 21:11	2° \approx 11'46	2°00'49	evening set	4912 Jan 01 17:54	22° \approx 35'27	
minimum elong	4911 Jan 22 18:55	2° \approx 19'38	2°00'03	asc. node	4912 Jan 03 09:09	21° \approx 00'30	
min. Earth dist.	4911 Jan 22 19:00	2° \approx 19'21	0.68082 AU	min. Earth dist.	4912 Jan 06 15:48	16° \approx 52'49	0.67992 AU
	4911 Jan 24 11:42	30° \approx 3		inferior conj	4912 Jan 07 04:59	16° \approx 07'43	1°15'47
morning rise	4911 Jan 28 02:02	25° \approx 59'13		minimum elong	4912 Jan 07 03:20	16° \approx 13'23	1°15'08
direct	4911 Feb 01 18:05	24° \approx 02'58		morning rise	4912 Jan 12 12:55	9° \approx 59'43	
morning max el	4911 Feb 11 04:01	29° \approx 35'04	22°13'57	direct	4912 Jan 16 14:51	8° \approx 26'10	
	4911 Feb 11 13:50	0° \approx		morning max el	4912 Jan 24 21:16	13° \approx 12'04	20°52'47
greatest brilliancy	4911 Feb 15 17:57	4° \approx 42'09	-0.3m	greatest brilliancy	4912 Jan 30 11:25	19° \approx 39'34	-0.5m
desc. node	4911 Feb 21 23:55	12° \approx 47'53			4912 Feb 07 01:12	0° \approx	
	4911 Mar 05 21:33	0° \approx		desc. node	4912 Feb 08 20:58	2° \approx 37'43	
morning set	4911 Mar 16 10:43	16° \approx 30'30		morning set	4912 Feb 23 17:55	25° \approx 05'27	
max. Earth dist.	4911 Mar 21 20:23	25° \approx 25'44	1.40904 AU		4912 Feb 26 20:50	0° \approx	
	4911 Mar 24 12:53	0° \approx		max. Earth dist.	4912 Mar 02 23:59	8° \approx 13'49	1.42864 AU
superior conj	4911 Mar 29 15:04	8° \approx 54'54	-1°-58'-8	superior conj	4912 Mar 09 22:39	19° \approx 44'20	-2°-8'-27
minimum elong	4911 Mar 29 19:26	9° \approx 14'23	1°57'52	minimum elong	4912 Mar 09 23:34	19° \approx 48'13	2°08'27
evening rise	4911 Apr 08 23:50	27° \approx 58'48			4912 Mar 15 21:48	0° \approx	
	4911 Apr 10 01:47	0° \approx		evening rise	4912 Mar 21 19:16	10° \approx 25'53	
asc. node	4911 Apr 14 11:25	8° \approx 05'09		asc. node	4912 Mar 31 08:27	27° \approx 00'42	
evening max el	4911 Apr 25 03:20	23° \approx 44'48	18°17'38		4912 Apr 02 06:28	0° \approx	
retrograde	4911 May 02 07:29	27° \approx 19'38		evening max el	4912 Apr 07 14:51	6° \approx 47'41	18°06'38
evening set	4911 May 04 16:20	26° \approx 57'04		retrograde	4912 Apr 14 04:40	10° \approx 10'16	
inferior conj	4911 May 11 21:21	22° \approx 16'12	2°23'24	evening set	4912 Apr 16 19:56	9° \approx 37'33	
minimum elong	4911 May 12 00:52	22° \approx 08'40	2°22'28	inferior conj	4912 Apr 23 09:28	4° \approx 35'51	3°09'26
min. Earth dist.	4911 May 15 07:38	19° \approx 21'55	0.59145 AU	minimum elong	4912 Apr 23 12:02	4° \approx 29'32	3°09'00
morning rise	4911 May 19 05:13	16° \approx 38'49		min. Earth dist.	4912 Apr 26 12:36	1° \approx 32'14	0.61355 AU
desc. node	4911 May 20 23:06	15° \approx 47'44			4912 Apr 28 06:12	30° \approx 8'0	
direct	4911 May 25 12:06	14° \approx 51'28		morning rise	4912 Apr 30 01:02	28° \approx 38'45	
morning max el	4911 Jun 08 21:25	22° \approx 40'15	27°20'07	direct	4912 May 06 19:12	26° \approx 19'29	
	4911 Jun 15 09:26	0° \approx		desc. node	4912 May 06 20:09	26° \approx 19'29	
	4911 Jul 04 04:54	0° \approx			4912 May 16 01:49	0° \approx	
morning set	4911 Jul 09 19:52	11° \approx 16'59		morning max el	4912 May 21 00:19	4° \approx 17'42	27°50'52
asc. node	4911 Jul 11 10:42	14° \approx 42'10			4912 Jun 09 02:44	0° \approx	
superior conj	4911 Jul 16 23:02	26° \approx 43'39	0°54'51	morning set	4912 Jun 22 23:54	25° \approx 11'12	
minimum elong	4911 Jul 16 20:57	26° \approx 32'09	0°54'28		4912 Jun 25 01:42	0° \approx	
max. Earth dist.	4911 Jul 16 12:23	25° \approx 44'48	1.31940 AU	asc. node	4912 Jun 27 07:45	4° \approx 47'48	
	4911 Jul 18 10:35	0° \approx		max. Earth dist.	4912 Jun 28 22:03	8° \approx 15'07	1.32160 AU
evening rise	4911 Jul 23 19:25	11° \approx 40'11		superior conj	4912 Jun 30 09:35	11° \approx 29'15	0°31'40
	4911 Aug 02 02:59	0° \approx		minimum elong	4912 Jun 30 08:12	11° \approx 21'38	0°31'23
desc. node	4911 Aug 16 22:25	22° \approx 06'01		evening rise	4912 Jul 07 06:35	26° \approx 28'13	
evening max el	4911 Aug 21 12:10	26° \approx 58'03	26°12'06		4912 Jul 08 22:45	0° \approx	
	4911 Aug 25 01:40	0° \approx			4912 Jul 26 07:32	0° \approx	
retrograde	4911 Sep 04 11:23	4° \approx 06'26		evening max el	4912 Aug 02 04:12	7° \approx 51'24	24°50'34
evening set	4911 Sep 10 23:36	2° \approx 23'11		desc. node	4912 Aug 02 19:25	8° \approx 27'11	
	4911 Sep 14 19:02	30° \approx 8'0		retrograde	4912 Aug 16 02:11	14° \approx 52'59	
min. Earth dist.	4911 Sep 15 01:11	29° \approx 48'55	0.59095 AU	evening set	4912 Aug 21 11:18	13° \approx 47'37	
inferior conj	4911 Sep 18 07:08	27° \approx 21'58	-4°-56'-28	min. Earth dist.	4912 Aug 26 15:38	11° \approx 02'04	0.57137 AU
minimum elong	4911 Sep 18 12:00	27° \approx 12'45	4°55'48	inferior conj	4912 Aug 29 12:17	9° \approx 09'33	-5°-16'-20
morning rise	4911 Sep 26 03:55	22° \approx 51'38		minimum elong	4912 Aug 29 12:30	9° \approx 09'10	5°16'21
direct	4911 Sep 28 12:20	22° \approx 32'47		morning rise	4912 Sep 06 17:09	5° \approx 01'30	
morning max el	4911 Oct 06 11:35	26° \approx 23'50	18°26'42	direct	4912 Sep 09 07:05	4° \approx 42'37	
asc. node	4911 Oct 07 09:56	27° \approx 20'21		morning max el	4912 Sep 18 11:28	9° \approx 01'48	19°16'31
	4911 Oct 09 15:58	0° \approx		asc. node	4912 Sep 23 06:59	14° \approx 40'30	
morning set	4911 Oct 22 11:10	21° \approx 52'43			4912 Oct 02 07:10	0° \approx	
	4911 Oct 26 16:39	0° \approx		morning set	4912 Oct 05 11:26	6° \approx 14'37	
superior conj	4911 Oct 31 12:21	9° \approx 04'33	1°20'20	superior conj	4912 Oct 13 15:52	22° \approx 29'45	1°36'08
minimum elong	4911 Oct 31 15:57	9° \approx 21'15	1°19'58	minimum elong	4912 Oct 13 18:06	22° \approx 40'36	1°36'00
max. Earth dist.	4911 Nov 07 23:17	22° \approx 24'51	1.40369 AU		4912 Oct 17 14:09	0° \approx	
evening rise	4911 Nov 12 09:29	29° \approx 54'06		max. Earth dist.	4912 Oct 20 04:00	4° \approx 45'50	1.38263 AU
	4911 Nov 12 10:55	0° \approx		evening rise	4912 Oct 23 23:36	11° \approx 34'32	
desc. node	4911 Nov 12 21:44	0° \approx 44'44		desc. node	4912 Oct 29 18:45	21° \approx 23'22	
	4911 Dec 02 03:38	0° \approx			4912 Nov 04 04:28	0° \approx	
evening max el	4911 Dec 16 23:41	18° \approx 19'48	23°37'37		4912 Nov 26 12:48	0° \approx	

evening max el	4912 Nov 28 12:37	2°☾02'42	24°55'30	desc. node	4913 Oct 16 15:44	11°♊50'56	
retrograde	4912 Dec 10 06:31	8°☾51'44			4913 Oct 28 19:40	0°☾	
evening set	4912 Dec 15 21:02	6°☾32'35		evening max el	4913 Nov 11 01:13	15°☾46'07	26°04'03
asc. node	4912 Dec 20 06:11	1°☾39'43		retrograde	4913 Nov 23 15:02	22°☾54'03	
min. Earth dist.	4912 Dec 20 10:54	1°☾24'20	0.67548 AU	evening set	4913 Nov 29 19:19	20°☾22'27	
inferior conj	4912 Dec 21 10:56	0°☾05'11	0°24'21	min. Earth dist.	4913 Dec 04 01:55	15°☾49'47	0.66755 AU
minimum elong	4912 Dec 21 10:21	0°☾07'09	0°24'07	inferior conj	4913 Dec 05 13:10	14°☾00'14	0°-32'-30
	4912 Dec 21 12:31	30°☾☿		minimum elong	4913 Dec 05 14:02	13°☾57'32	0°32'07
morning rise	4912 Dec 27 00:13	24°☾04'00		asc. node	4913 Dec 07 03:14	12°☾04'21	
direct	4912 Dec 30 13:25	22°☾51'27		morning rise	4913 Dec 11 09:51	8°☾08'27	
morning max el	4913 Jan 06 22:24	27°☾00'42	19°44'07	direct	4913 Dec 14 12:03	7°☾13'52	
	4913 Jan 09 15:38	0°☾		morning max el	4913 Dec 21 06:59	10°☾58'04	18°50'33
greatest brilliancy	4913 Jan 14 15:29	6°☾29'26	-0.6m		4914 Jan 04 03:21	0°☾	
desc. node	4913 Jan 25 18:00	22°☾49'06		morning set	4914 Jan 12 00:29	12°☾18'32	
	4913 Jan 30 10:51	0°☾		desc. node	4914 Jan 12 15:00	13°☾15'25	
morning set	4913 Feb 01 14:07	3°☾17'18			4914 Jan 23 07:31	0°☾	
max. Earth dist.	4913 Feb 13 11:31	21°☾52'53	1.44348 AU	max. Earth dist.	4914 Jan 27 04:38	6°☾05'06	1.45176 AU
superior conj	4913 Feb 18 04:38	29°☾25'43	-2°-2'-19	superior conj	4914 Jan 28 13:10	8°☾12'57	-1°-36'-28
minimum elong	4913 Feb 17 23:25	29°☾04'41	2°02'06	minimum elong	4914 Jan 28 03:50	7°☾36'13	1°35'35
	4913 Feb 18 13:07	0°☾			4914 Feb 11 05:48	0°☾	
evening rise	4913 Mar 03 19:27	22°☾00'31		evening rise	4914 Feb 12 20:50	2°☾37'29	
	4913 Mar 08 12:31	0°☾			4914 Mar 02 13:37	0°☾	
asc. node	4913 Mar 18 05:29	15°☾22'37		asc. node	4914 Mar 05 02:30	3°☾00'17	
evening max el	4913 Mar 22 03:47	20°☾06'27	18°14'38	evening max el	4914 Mar 05 15:17	3°☾33'38	18°41'00
retrograde	4913 Mar 28 13:38	23°☾31'19		retrograde	4914 Mar 12 06:15	7°☾13'45	
evening set	4913 Mar 31 11:00	22°☾47'05		evening set	4914 Mar 15 09:56	6°☾17'08	
inferior conj	4913 Apr 06 12:57	17°☾25'34	3°30'32	inferior conj	4914 Mar 21 03:49	0°☾37'30	3°32'37
minimum elong	4913 Apr 06 13:53	17°☾23'01	3°30'28	minimum elong	4914 Mar 21 03:13	0°☾39'20	3°32'36
min. Earth dist.	4913 Apr 09 02:26	14°☾35'51	0.63431 AU		4914 Mar 21 16:05	30°☾☿	
morning rise	4913 Apr 12 14:44	11°☾17'12		min. Earth dist.	4914 Mar 23 01:41	28°☾18'05	0.65179 AU
direct	4913 Apr 19 11:07	8°☾36'35		morning rise	4914 Mar 26 19:15	24°☾23'26	
desc. node	4913 Apr 23 17:11	9°☾30'34		direct	4914 Apr 02 10:17	21°☾34'47	
morning max el	4913 May 03 08:01	16°☾35'26	27°44'01	desc. node	4914 Apr 10 14:12	24°☾52'14	
	4913 May 14 09:56	0°☾		morning max el	4914 Apr 15 18:01	29°☾24'26	27°03'28
	4913 Jun 01 20:36	0°☾			4914 Apr 16 07:57	0°☾	
morning set	4913 Jun 06 21:16	9°☾42'31			4914 May 08 07:13	0°☾	
max. Earth dist.	4913 Jun 12 02:13	20°☾25'47	1.32818 AU	morning set	4914 May 21 09:00	23°☾12'32	
asc. node	4913 Jun 14 04:46	24°☾55'16			4914 May 24 19:53	0°☾	
				max. Earth dist.	4914 May 25 21:18	2°☾08'08	1.33929 AU
superior conj	4913 Jun 14 17:04	26°☾01'22	0°05'21	superior conj	4914 May 29 19:24	10°☾13'55	0°-23'-18
minimum elong	4913 Jun 14 16:48	25°☾59'57	0°05'17	minimum elong	4914 May 29 20:38	10°☾20'23	0°23'04
behind sun begin	4913 Jun 14 11:46	25°☾32'52		asc. node	4914 Jun 01 01:48	15°☾00'50	
behind sun end	4913 Jun 14 21:50	26°☾27'04		evening rise	4914 Jun 06 04:58	25°☾52'45	
	4913 Jun 16 13:13	0°☾			4914 Jun 08 04:42	0°☾	
evening rise	4913 Jun 21 18:23	11°☾14'23		evening max el	4914 Jun 26 10:00	28°☾43'47	21°39'20
	4913 Jul 01 08:37	0°☾			4914 Jun 27 18:53	0°☾	
evening max el	4913 Jul 14 16:51	18°☾15'43	23°14'18	desc. node	4914 Jul 07 13:26	4°☾48'15	
desc. node	4913 Jul 20 16:26	22°☾52'24		retrograde	4914 Jul 08 19:45	4°☾52'00	
retrograde	4913 Jul 28 04:10	24°☾59'56		evening set	4914 Jul 11 09:32	4°☾36'59	
evening set	4913 Aug 01 01:19	24°☾27'02		inferior conj	4914 Jul 20 17:05	0°☾36'08	-3°-39'-51
min. Earth dist.	4913 Aug 08 02:07	21°☾14'13	0.55616 AU	minimum elong	4914 Jul 20 08:21	0°☾48'20	3°37'23
inferior conj	4913 Aug 09 21:36	20°☾10'41	-4°-53'-52	min. Earth dist.	4914 Jul 20 12:15	0°☾42'54	0.54845 AU
minimum elong	4913 Aug 09 15:28	20°☾19'41	4°52'59		4914 Jul 21 19:02	30°☾☿	
morning rise	4913 Aug 18 08:30	16°☾18'40		morning rise	4914 Jul 29 08:19	26°☾44'31	
direct	4913 Aug 21 06:56	15°☾57'57		direct	4914 Aug 01 17:27	26°☾19'38	
morning max el	4913 Aug 31 23:44	20°☾56'20	20°28'13		4914 Aug 11 12:06	0°☾	
	4913 Sep 08 08:33	0°☾		morning max el	4914 Aug 14 00:18	2°☾06'10	21°59'19
asc. node	4913 Sep 10 04:02	2°☾51'27		asc. node	4914 Aug 28 01:03	21°☾41'12	
morning set	4913 Sep 19 17:36	20°☾53'14			4914 Sep 01 08:45	0°☾	
	4913 Sep 24 03:32	0°☾		morning set	4914 Sep 04 03:24	5°☾42'19	
superior conj	4913 Sep 27 07:58	6°☾31'55	1°43'04	superior conj	4914 Sep 11 08:54	21°☾00'12	1°42'32
minimum elong	4913 Sep 27 08:36	6°☾35'09	1°43'03	minimum elong	4914 Sep 11 08:10	20°☾56'19	1°42'30
max. Earth dist.	4913 Oct 02 11:09	16°☾42'48	1.36276 AU	max. Earth dist.	4914 Sep 15 01:12	28°☾37'42	1.34592 AU
evening rise	4913 Oct 06 10:17	24°☾11'23			4914 Sep 15 17:25	0°☾	
	4913 Oct 09 15:34	0°☾					

evening rise	4914 Sep 19 13:24	7°♄34'32		evening rise	4915 Sep 03 04:48	21°♄31'57	
	4914 Oct 02 06:06	0°♄			4915 Sep 07 13:21	0°♄	
desc. node	4914 Oct 03 12:45	2°♄01'59		desc. node	4915 Sep 20 09:47	21°♄48'18	
evening max el	4914 Oct 24 13:52	29°♄23'16	26°55'50		4915 Sep 26 03:06	0°♄	
	4914 Oct 25 05:26	0°♄		evening max el	4915 Oct 07 01:43	12°♄43'26	27°23'56
retrograde	4914 Nov 06 18:12	6°♄40'20		retrograde	4915 Oct 20 15:30	20°♄01'44	
evening set	4914 Nov 13 10:47	4°♄01'24		evening set	4915 Oct 27 16:50	17°♄23'41	
min. Earth dist.	4914 Nov 17 10:36	0°♄04'41	0.65610 AU	min. Earth dist.	4915 Oct 31 10:52	14°♄01'13	0.64113 AU
	4914 Nov 17 12:15	30°♄		inferior conj	4915 Nov 02 21:56	11°♄26'42	-2°-36'-28
inferior conj	4914 Nov 19 09:39	27°♄49'15	-1°-33'-27	minimum elong	4915 Nov 03 02:27	11°♄14'52	2°34'47
minimum elong	4914 Nov 19 12:18	27°♄41'37	1°32'20	morning rise	4915 Nov 09 14:30	6°♄02'24	
asc. node	4914 Nov 24 00:16	23°♄11'16		asc. node	4915 Nov 10 21:18	5°♄39'09	
morning rise	4914 Nov 25 15:34	22°♄09'45		direct	4915 Nov 12 01:15	5°♄32'16	
direct	4914 Nov 28 08:50	21°♄29'20		morning max el	4915 Nov 18 13:40	8°♄57'24	17°53'10
morning max el	4914 Dec 04 21:00	24°♄59'20	18°13'18		4915 Dec 02 17:22	0°♄	
	4914 Dec 09 01:44	0°♄		morning set	4915 Dec 05 10:24	4°♄37'10	
morning set	4914 Dec 23 15:21	22°♄46'34		desc. node	4915 Dec 17 09:04	24°♄36'12	
	4914 Dec 28 02:16	0°♄					
desc. node	4914 Dec 30 12:01	3°♄52'21		superior conj	4915 Dec 18 11:06	26°♄22'05	0°-7'-34
				minimum elong	4915 Dec 18 10:14	26°♄18'34	0°07'27
superior conj	4915 Jan 07 16:35	16°♄53'17	0°-54'-37	behind sun begin	4915 Dec 18 01:15	25°♄42'05	
minimum elong	4915 Jan 07 09:51	16°♄26'44	0°53'44	behind sun end	4915 Dec 18 19:13	26°♄54'59	
max. Earth dist.	4915 Jan 09 23:54	20°♄30'46	1.45267 AU		4915 Dec 20 17:06	0°♄	
	4915 Jan 16 01:26	0°♄		max. Earth dist.	4915 Dec 23 18:22	4°♄52'25	1.44625 AU
evening rise	4915 Jan 23 23:45	12°♄21'59		evening rise	4916 Jan 03 11:49	21°♄36'09	
	4915 Feb 04 08:57	0°♄			4916 Jan 08 23:47	0°♄	
greatest brilliancy	4915 Feb 08 11:13	6°♄07'06	-0.7m	greatest brilliancy	4916 Jan 24 23:43	23°♄18'10	-0.5m
evening max el	4915 Feb 16 23:13	17°♄04'42	19°24'29		4916 Jan 30 11:42	0°♄	
asc. node	4915 Feb 19 23:32	19°♄41'00		evening max el	4916 Jan 31 02:11	0°♄37'56	20°23'03
retrograde	4915 Feb 24 03:00	21°♄10'48		asc. node	4916 Feb 06 20:33	5°♄10'29	
evening set	4915 Feb 27 13:53	20°♄00'59		retrograde	4916 Feb 08 01:13	5°♄18'09	
inferior conj	4915 Mar 05 02:40	14°♄05'32	3°20'15	evening set	4916 Feb 11 20:41	3°♄54'07	
minimum elong	4915 Mar 05 00:58	14°♄11'05	3°20'02		4916 Feb 15 14:23	30°♄	
min. Earth dist.	4915 Mar 06 09:26	12°♄25'16	0.66523 AU	inferior conj	4916 Feb 17 06:45	27°♄45'27	2°56'31
morning rise	4915 Mar 10 11:14	7°♄49'09		minimum elong	4916 Feb 17 04:27	27°♄53'17	2°56'01
direct	4915 Mar 16 15:51	5°♄05'01		min. Earth dist.	4916 Feb 17 23:45	26°♄47'37	0.67449 AU
desc. node	4915 Mar 28 11:14	11°♄50'43		morning rise	4916 Feb 22 11:41	21°♄29'11	
morning max el	4915 Mar 29 03:50	12°♄32'02	25°56'42	direct	4916 Feb 28 02:58	18°♄59'14	
	4915 Apr 12 05:07	0°♄		morning max el	4916 Mar 10 12:29	25°♄48'23	24°33'32
	4915 Apr 30 23:47	0°♄		desc. node	4916 Mar 14 08:16	29°♄58'59	
morning set	4915 May 04 07:07	5°♄59'05			4916 Mar 14 08:37	0°♄	
max. Earth dist.	4915 May 08 04:54	13°♄20'52	1.35501 AU		4916 Apr 04 18:11	0°♄	
				morning set	4916 Apr 15 10:27	17°♄47'59	
superior conj	4915 May 13 14:04	23°♄59'06	0°-53'00	max. Earth dist.	4916 Apr 19 02:40	24°♄22'08	1.37471 AU
minimum elong	4915 May 13 16:59	24°♄13'51	0°52'29		4916 Apr 22 03:52	0°♄	
	4915 May 16 12:44	0°♄					
asc. node	4915 May 18 22:49	4°♄59'46		superior conj	4916 Apr 25 21:53	7°♄08'55	-1°-21'-51
evening rise	4915 May 21 12:12	10°♄15'59		minimum elong	4916 Apr 26 02:18	7°♄30'15	1°21'12
	4915 Jun 01 01:40	0°♄		evening rise	4916 May 04 13:42	24°♄17'27	
evening max el	4915 Jun 08 14:13	9°♄43'35	20°17'46	asc. node	4916 May 04 19:52	24°♄48'04	
retrograde	4915 Jun 19 09:15	15°♄00'23			4916 May 07 11:19	0°♄	
evening set	4915 Jun 21 08:25	14°♄50'37		evening max el	4916 May 21 06:57	21°♄25'50	19°15'10
desc. node	4915 Jun 24 10:28	13°♄59'17		retrograde	4916 May 30 08:55	25°♄51'50	
inferior conj	4915 Jun 30 11:41	10°♄52'33	-1°-47'-52	evening set	4916 Jun 01 08:15	25°♄40'11	
minimum elong	4915 Jun 30 06:38	10°♄59'58	1°46'03	inferior conj	4916 Jun 09 19:23	21°♄30'46	0°08'55
min. Earth dist.	4915 Jul 02 00:13	9°♄58'52	0.55022 AU	minimum elong	4916 Jun 09 19:45	21°♄30'09	0°08'47
morning rise	4915 Jul 09 02:54	6°♄40'10		transit middle	4916 Jun 09 19:45	21°♄30'09	0°08'47
direct	4915 Jul 13 03:55	6°♄04'49		transit begin	4916 Jun 09 16:33	21°♄35'30	
morning max el	4915 Jul 26 16:29	12°♄40'12	23°42'02	transit end	4916 Jun 09 22:58	21°♄24'47	
	4915 Aug 08 21:02	0°♄		desc. node	4916 Jun 10 07:28	21°♄10'34	
asc. node	4915 Aug 14 22:05	10°♄59'14		min. Earth dist.	4916 Jun 12 14:49	19°♄39'00	0.56132 AU
morning set	4915 Aug 19 14:56	20°♄35'11		morning rise	4916 Jun 18 03:06	16°♄44'20	
	4915 Aug 24 00:04	0°♄		direct	4916 Jun 23 01:59	15°♄47'48	
				morning max el	4916 Jul 07 06:10	23°♄01'26	25°22'51
superior conj	4915 Aug 26 15:38	5°♄44'20	1°35'42		4916 Jul 13 12:04	0°♄	
minimum elong	4915 Aug 26 13:55	5°♄35'04	1°35'33		4916 Jul 31 11:40	0°♄	
max. Earth dist.	4915 Aug 28 23:54	10°♄45'49	1.33306 AU	asc. node	4916 Jul 31 19:08	0°♄38'11	

morning set	4916 Aug 03 02:33	5°♂27'07		morning max el	4917 Jun 18 23:09	3°♂37'50	26°45'58
					4917 Jul 08 01:51	0°♂	
superior conj	4916 Aug 10 01:51	20°♂36'55	1°23'28	morning set	4917 Jul 18 12:40	20°♂13'03	
minimum elong	4916 Aug 09 23:37	20°♂24'40	1°23'10	asc. node	4917 Jul 18 16:12	20°♂31'41	
max. Earth dist.	4916 Aug 11 06:05	23°♂11'34	1.32449 AU		4917 Jul 23 01:28	0°♂	
	4916 Aug 14 09:38	0°♂					
evening rise	4916 Aug 17 05:02	5°♂54'01		superior conj	4917 Jul 25 13:35	5°♂31'34	1°06'31
	4916 Aug 30 03:22	0°♂		minimum elong	4917 Jul 25 11:18	5°♂19'00	1°06'08
desc. node	4916 Sep 06 06:48	10°♂59'41		max. Earth dist.	4917 Jul 25 16:46	5°♂49'13	1.32007 AU
evening max el	4916 Sep 18 10:50	25°♂34'09	27°22'12	evening rise	4917 Aug 01 11:18	20°♂32'09	
	4916 Sep 23 23:52	0°♂			4917 Aug 06 02:51	0°♂	
retrograde	4916 Oct 02 06:00	2°♂48'36		desc. node	4917 Aug 24 03:48	29°♂22'14	
evening set	4916 Oct 09 10:04	0°♂22'32			4917 Aug 24 15:40	0°♂	
	4916 Oct 09 23:05	30°♂		evening max el	4917 Aug 31 14:34	7°♂43'14	26°47'06
min. Earth dist.	4916 Oct 13 01:05	27°♂28'39	0.62309 AU	retrograde	4917 Sep 14 12:29	14°♂52'52	
inferior conj	4916 Oct 15 23:07	24°♂45'18	-3°-38'-8	evening set	4917 Sep 21 10:09	12°♂50'51	
minimum elong	4916 Oct 16 05:04	24°♂31'21	3°36'20	min. Earth dist.	4917 Sep 25 04:34	10°♂14'21	0.60292 AU
morning rise	4916 Oct 23 03:04	19°♂39'28		inferior conj	4917 Sep 28 09:51	7°♂36'32	-4°-32'-22
direct	4916 Oct 25 10:15	19°♂15'57		minimum elong	4917 Sep 28 15:51	7°♂24'13	4°31'07
asc. node	4916 Oct 27 18:22	19°♂41'01		morning rise	4917 Oct 06 00:52	2°♂52'26	
morning max el	4916 Nov 01 05:52	22°♂44'20	17°50'55	direct	4917 Oct 08 07:54	2°♂32'29	
	4916 Nov 06 21:50	0°♂		asc. node	4917 Oct 14 15:26	5°♂11'32	
morning set	4916 Nov 17 03:21	17°♂30'36		morning max el	4917 Oct 15 18:23	6°♂12'22	18°07'46
	4916 Nov 24 04:21	0°♂			4917 Oct 30 21:20	0°♂	
				morning set	4917 Oct 31 12:03	1°♂08'56	
superior conj	4916 Nov 28 07:14	7°♂05'57	0°34'31				
minimum elong	4916 Nov 28 10:18	7°♂18'55	0°34'05	superior conj	4917 Nov 10 04:53	19°♂04'12	1°06'41
desc. node	4916 Dec 03 06:06	15°♂23'03		minimum elong	4917 Nov 10 08:52	19°♂22'03	1°06'12
max. Earth dist.	4916 Dec 05 09:44	18°♂54'05	1.43334 AU		4917 Nov 16 10:56	0°♂	
	4916 Dec 12 09:06	0°♂		max. Earth dist.	4917 Nov 17 20:35	2°♂22'22	1.41546 AU
evening rise	4916 Dec 12 23:47	0°♂57'12		desc. node	4917 Nov 20 03:08	6°♂09'45	
	4917 Jan 01 14:20	0°♂		evening rise	4917 Nov 23 02:30	11°♂01'02	
greatest brilliancy	4917 Jan 08 02:56	8°♂38'56	-0.4m		4917 Dec 05 09:50	0°♂	
evening max el	4917 Jan 12 23:45	14°♂12'38	21°33'33	greatest brilliancy	4917 Dec 21 10:18	21°♂55'40	-0.2m
retrograde	4917 Jan 21 22:47	19°♂31'39		evening max el	4917 Dec 26 16:34	27°♂49'51	22°51'29
asc. node	4917 Jan 23 17:36	19°♂14'33			4917 Dec 29 00:02	0°♂	
evening set	4917 Jan 26 04:31	17°♂52'20		retrograde	4918 Jan 05 18:10	3°♂48'12	
inferior conj	4917 Jan 31 13:48	11°♂33'29	2°23'29	evening set	4918 Jan 10 11:48	1°♂52'52	
minimum elong	4917 Jan 31 11:23	11°♂41'51	2°22'46	asc. node	4918 Jan 10 14:38	1°♂46'56	
min. Earth dist.	4917 Jan 31 18:20	11°♂17'42	0.67968 AU		4918 Jan 12 09:44	30°♂	
morning rise	4917 Feb 05 17:56	5°♂19'08		inferior conj	4918 Jan 15 21:51	25°♂27'17	1°42'33
direct	4917 Feb 10 18:35	3°♂09'37		minimum elong	4918 Jan 15 19:47	25°♂34'25	1°41'48
morning max el	4917 Feb 20 21:40	9°♂10'03	23°04'15	min. Earth dist.	4918 Jan 15 14:54	25°♂51'16	0.68098 AU
greatest brilliancy	4917 Feb 25 18:52	14°♂37'34	-0.3m	morning rise	4918 Jan 21 03:45	19°♂16'39	
desc. node	4917 Mar 01 05:19	18°♂56'52		direct	4918 Jan 25 13:45	17°♂30'03	
	4917 Mar 09 06:04	0°♂		morning max el	4918 Feb 03 11:08	22°♂40'55	21°38'07
morning set	4917 Mar 27 12:51	28°♂22'31		greatest brilliancy	4918 Feb 08 07:28	28°♂09'05	-0.4m
	4917 Mar 28 12:09	0°♂			4918 Feb 09 18:50	0°♂	
max. Earth dist.	4917 Mar 31 21:49	5°♂47'44	1.39662 AU	desc. node	4918 Feb 16 02:23	8°♂30'44	
					4918 Mar 02 14:18	0°♂	
superior conj	4917 Apr 08 14:47	19°♂32'43	-1°-46'-58	morning set	4918 Mar 07 10:37	7°♂36'14	
minimum elong	4917 Apr 08 19:43	19°♂55'29	1°46'28	max. Earth dist.	4918 Mar 13 21:53	18°♂06'10	1.41791 AU
	4917 Apr 14 04:32	0°♂			4918 Mar 20 22:14	0°♂	
evening rise	4917 Apr 18 06:28	7°♂48'52					
asc. node	4917 Apr 21 16:54	14°♂20'18		superior conj	4918 Mar 21 11:53	0°♂59'26	-2°-4'-10
	4917 May 01 03:29	0°♂		minimum elong	4918 Mar 21 15:12	1°♂13'53	2°04'03
evening max el	4917 May 04 09:39	3°♂45'53	18°32'50	evening rise	4918 Apr 01 10:55	20°♂42'09	
retrograde	4917 May 12 02:57	7°♂34'29			4918 Apr 06 13:45	0°♂	
evening set	4917 May 14 08:11	7°♂16'38		asc. node	4918 Apr 08 13:55	3°♂31'03	
inferior conj	4917 May 21 23:41	2°♂47'43	1°43'20	evening max el	4918 Apr 17 18:53	16°♂35'16	18°10'31
minimum elong	4917 May 22 02:56	2°♂41'22	1°42'18	retrograde	4918 Apr 24 15:29	20°♂03'04	
min. Earth dist.	4917 May 25 09:02	0°♂10'24	0.57933 AU	evening set	4918 Apr 27 03:11	19°♂36'17	
	4917 May 25 14:42	30°♂		inferior conj	4918 May 04 01:05	14°♂46'06	2°46'25
desc. node	4917 May 28 04:30	28°♂16'47		minimum elong	4918 May 04 04:22	14°♂38'38	2°45'40
morning rise	4917 May 29 17:13	27°♂26'59		min. Earth dist.	4918 May 07 09:18	11°♂45'02	0.60086 AU
direct	4917 Jun 04 14:02	25°♂59'34		morning rise	4918 May 11 01:51	8°♂59'09	
	4917 Jun 14 18:05	0°♂		desc. node	4918 May 15 01:33	7°♂16'02	

direct	4918 May 17 14:32	6°♄57'45		desc. node	4919 May 01 22:35	18°♄57'36	
morning max el	4918 May 31 22:35	14°♄50'53	27°38'01	morning max el	4919 May 14 04:04	26°♄47'17	27°52'34
	4918 Jun 13 04:20	0°♄			4919 May 17 04:33	0°♄	
	4918 Jun 30 11:20	0°♄			4919 Jun 06 19:15	0°♄	
morning set	4918 Jul 02 19:29	4°♄46'51		morning set	4919 Jun 16 21:00	19°♄02'30	
asc. node	4918 Jul 05 13:13	10°♄33'57		asc. node	4919 Jun 22 10:14	0°♄40'50	
max. Earth dist.	4918 Jul 09 04:03	18°♄26'14	1.31980 AU		4919 Jun 22 02:38	0°♄	
				max. Earth dist.	4919 Jun 22 11:56	0°♄50'00	1.32380 AU
superior conj	4918 Jul 10 01:01	20°♄21'42	0°45'27				
minimum elong	4918 Jul 09 23:11	20°♄11'32	0°45'05	superior conj	4919 Jun 24 10:29	5°♄02'09	0°20'51
	4918 Jul 14 10:11	0°♄		minimum elong	4919 Jun 24 09:31	4°♄56'55	0°20'38
evening rise	4918 Jul 16 21:14	5°♄18'10		evening rise	4919 Jul 01 08:53	20°♄05'58	
	4918 Jul 29 21:19	0°♄			4919 Jul 06 04:18	0°♄	
desc. node	4918 Aug 11 00:49	16°♄35'14		evening max el	4919 Jul 26 00:04	29°♄38'35	24°10'27
evening max el	4918 Aug 13 10:33	19°♄02'01	25°40'13		4919 Jul 26 09:04	0°♄	
retrograde	4918 Aug 27 09:26	26°♄07'52		desc. node	4919 Jul 28 21:49	2°♄11'10	
evening set	4918 Sep 02 12:05	24°♄40'13		retrograde	4919 Aug 08 19:14	6°♄35'37	
min. Earth dist.	4918 Sep 06 22:33	22°♄03'48	0.58233 AU	evening set	4919 Aug 13 13:34	5°♄45'15	
inferior conj	4918 Sep 10 02:30	19°♄49'17	-5°-9'-1	min. Earth dist.	4919 Aug 19 10:44	2°♄49'47	0.56413 AU
minimum elong	4918 Sep 10 05:48	19°♄43'24	5°08'44	inferior conj	4919 Aug 21 22:53	1°♄16'21	-5°-12'-54
morning rise	4918 Sep 18 03:03	15°♄28'56		minimum elong	4919 Aug 21 20:22	1°♄20'17	5°12'46
direct	4918 Sep 20 13:33	15°♄10'13			4919 Aug 24 00:58	30°♄	
morning max el	4918 Sep 28 23:50	19°♄11'19	18°45'13	morning rise	4919 Aug 30 06:36	27°♄16'48	
asc. node	4918 Oct 01 12:29	21°♄55'51		direct	4919 Sep 01 23:44	26°♄57'29	
	4918 Oct 07 01:20	0°♄			4919 Sep 09 23:54	0°♄	
morning set	4918 Oct 15 07:40	15°♄17'35		morning max el	4919 Sep 11 19:04	1°♄31'49	19°44'27
	4918 Oct 22 21:19	0°♄		asc. node	4919 Sep 18 09:31	9°♄38'54	
				morning set	4919 Sep 29 10:44	29°♄47'05	
superior conj	4918 Oct 23 23:03	2°♄02'09	1°28'12		4919 Sep 29 13:18	0°♄	
minimum elong	4918 Oct 24 02:09	2°♄16'46	1°27'56				
max. Earth dist.	4918 Oct 31 02:39	15°♄06'36	1.39478 AU	superior conj	4919 Oct 07 08:29	15°♄44'40	1°40'04
evening rise	4918 Nov 04 03:22	22°♄04'52		minimum elong	4919 Oct 07 10:02	15°♄52'21	1°39'59
desc. node	4918 Nov 07 00:08	26°♄52'08		max. Earth dist.	4919 Oct 13 07:19	27°♄12'49	1.37389 AU
	4918 Nov 08 22:10	0°♄			4919 Oct 14 19:26	0°♄	
	4918 Nov 29 09:47	0°♄		evening rise	4919 Oct 17 02:40	4°♄10'08	
evening max el	4918 Dec 09 06:09	11°♄29'40	24°11'17	desc. node	4919 Oct 24 21:07	17°♄26'19	
retrograde	4918 Dec 20 10:11	18°♄03'06			4919 Nov 01 22:40	0°♄	
evening set	4918 Dec 25 16:55	15°♄52'00		evening max el	4919 Nov 21 18:36	25°♄12'25	25°26'08
asc. node	4918 Dec 28 11:41	12°♄57'40			4919 Nov 27 14:22	0°♄	
min. Earth dist.	4918 Dec 30 11:11	10°♄24'06	0.67853 AU	retrograde	4919 Dec 03 21:50	2°♄11'35	
inferior conj	4918 Dec 31 05:04	9°♄23'47	0°54'41		4919 Dec 09 11:41	30°♄	
minimum elong	4918 Dec 31 03:48	9°♄28'02	0°54'10	evening set	4919 Dec 09 18:14	29°♄46'31	
morning rise	4919 Jan 05 15:02	3°♄18'40		min. Earth dist.	4919 Dec 14 04:51	24°♄53'16	0.67254 AU
direct	4919 Jan 09 11:19	1°♄54'32		inferior conj	4919 Dec 15 09:40	23°♄20'24	0°00'48
morning max el	4919 Jan 17 07:47	6°♄23'17	20°21'50	minimum elong	4919 Dec 15 09:39	23°♄20'28	0°00'48
greatest brilliancy	4919 Jan 23 15:45	13°♄52'09	-0.5m	transit middle	4919 Dec 15 09:39	23°♄20'28	0°00'48
desc. node	4919 Feb 02 23:25	28°♄30'17		transit begin	4919 Dec 15 06:51	23°♄29'29	
	4919 Feb 03 23:33	0°♄		transit end	4919 Dec 15 12:27	23°♄11'27	
morning set	4919 Feb 14 10:18	15°♄53'01		asc. node	4919 Dec 15 08:44	23°♄23'24	
	4919 Feb 23 09:41	0°♄		morning rise	4919 Dec 21 01:52	17°♄22'56	
max. Earth dist.	4919 Feb 24 05:14	1°♄18'24	1.43565 AU	direct	4919 Dec 24 10:02	16°♄18'39	
				morning max el	4919 Dec 31 12:18	20°♄16'10	19°19'17
superior conj	4919 Mar 02 08:37	11°♄19'20	-2°-8'-8		4920 Jan 08 07:37	0°♄	
minimum elong	4919 Mar 02 07:06	11°♄13'05	2°08'09	greatest brilliancy	4920 Jan 09 18:34	2°♄05'01	-0.7m
	4919 Mar 13 08:08	0°♄		desc. node	4920 Jan 20 20:25	18°♄48'14	
evening rise	4919 Mar 14 22:44	2°♄48'13		morning set	4920 Jan 24 09:36	24°♄17'20	
asc. node	4919 Mar 26 10:57	22°♄13'30			4920 Jan 28 01:56	0°♄	
evening max el	4919 Apr 01 07:18	29°♄45'34	18°07'42	max. Earth dist.	4920 Feb 06 18:56	15°♄11'30	1.44782 AU
	4919 Apr 01 13:13	0°♄					
retrograde	4919 Apr 07 18:25	3°♄07'52		superior conj	4920 Feb 10 04:14	20°♄33'40	-1°-53'-44
evening set	4919 Apr 10 12:11	2°♄30'28		minimum elong	4920 Feb 09 20:37	20°♄03'21	1°53'14
	4919 Apr 14 03:16	30°♄			4920 Feb 16 01:20	0°♄	
inferior conj	4919 Apr 16 20:19	27°♄20'00	3°21'03	evening rise	4920 Feb 24 13:28	13°♄58'03	
minimum elong	4919 Apr 16 22:12	27°♄15'06	3°20'49		4920 Mar 05 06:52	0°♄	
min. Earth dist.	4919 Apr 19 18:03	24°♄19'44	0.62261 AU	asc. node	4920 Mar 12 07:59	10°♄17'55	
morning rise	4919 Apr 23 05:34	21°♄16'54		evening max el	4920 Mar 14 19:54	13°♄08'18	18°23'43
direct	4919 Apr 30 01:32	18°♄47'07		retrograde	4920 Mar 21 07:04	16°♄38'25	

evening set	4920 Mar 24 06:58	15° Υ 49'11		evening set	4921 Mar 07 06:18	30° \mathbb{R} \mathbb{X}	
inferior conj	4920 Mar 30 05:06	10° Υ 19'57	3°33'25	inferior conj	4921 Mar 08 08:20	29° \mathbb{X} 25'44	
minimum elong	4920 Mar 30 05:20	10° Υ 19'16	3°33'25	minimum elong	4921 Mar 13 23:46	23° \mathbb{X} 39'22	3°28'54
min. Earth dist.	4920 Apr 01 12:07	7° Υ 41'13	0.64217 AU	min. Earth dist.	4921 Mar 13 22:38	23° \mathbb{X} 42'54	3°28'48
morning rise	4920 Apr 05 02:01	4° Υ 08'26		morning rise	4921 Mar 15 15:09	21° \mathbb{X} 35'44	0.65810 AU
direct	4920 Apr 11 20:55	1° Υ 22'24		direct	4921 Mar 19 11:53	17° \mathbb{X} 24'07	
desc. node	4920 Apr 17 19:38	3° Υ 08'04		desc. node	4921 Mar 25 23:09	14° \mathbb{X} 35'44	
morning max el	4920 Apr 25 13:06	9° Υ 19'42	27°30'27	morning max el	4921 Apr 04 16:40	19° \mathbb{X} 14'40	
	4920 May 11 16:06	0° \mathbb{B}			4921 Apr 07 23:01	22° \mathbb{X} 17'18	26°37'33
	4920 May 29 03:29	0° \mathbb{H}			4921 Apr 14 17:30	0° Υ	
morning set	4920 May 30 14:39	2° \mathbb{H} 51'27			4921 May 04 22:11	0° \mathbb{B}	
max. Earth dist.	4920 Jun 04 12:25	12° \mathbb{H} 48'00	1.33229 AU	morning set	4921 May 13 21:06	16° \mathbb{B} 04'05	
				max. Earth dist.	4921 May 18 02:23	24° \mathbb{B} 15'11	1.34547 AU
					4921 May 20 22:54	0° \mathbb{H}	
superior conj	4920 Jun 07 16:01	19° \mathbb{H} 26'24	0°-6'-35	superior conj	4921 May 22 15:26	3° \mathbb{H} 28'09	0°-35'-52
minimum elong	4920 Jun 07 16:21	19° \mathbb{H} 28'11	0°06'34	minimum elong	4921 May 22 17:23	3° \mathbb{H} 38'11	0°35'31
behind sun begin	4920 Jun 07 11:22	19° \mathbb{H} 01'39		asc. node	4921 May 26 04:17	10° \mathbb{H} 50'46	
behind sun end	4920 Jun 07 21:20	19° \mathbb{H} 54'44		evening rise	4921 May 30 05:45	19° \mathbb{H} 21'15	
asc. node	4920 Jun 08 07:15	20° \mathbb{H} 47'41			4921 Jun 04 13:04	0° \mathbb{B}	
	4920 Jun 12 14:07	0° \mathbb{B}		evening max el	4921 Jun 18 11:05	20° \mathbb{B} 39'02	21°02'31
evening rise	4920 Jun 14 20:21	4° \mathbb{B} 48'53		retrograde	4921 Jun 30 05:07	26° \mathbb{B} 25'36	
	4920 Jun 28 11:42	0° \mathbb{Q}		desc. node	4921 Jul 01 15:52	26° \mathbb{B} 20'37	
evening max el	4920 Jul 06 13:35	9° \mathbb{Q} 59'48	22°32'54	evening set	4921 Jul 02 10:34	26° \mathbb{B} 13'57	
desc. node	4920 Jul 14 18:50	15° \mathbb{Q} 35'58		inferior conj	4921 Jul 11 18:18	22° \mathbb{B} 16'37	-2°-55'-11
retrograde	4920 Jul 19 16:28	16° \mathbb{Q} 31'17		minimum elong	4921 Jul 11 10:30	22° \mathbb{B} 27'35	2°52'38
evening set	4920 Jul 22 22:21	16° \mathbb{Q} 08'08		min. Earth dist.	4921 Jul 12 07:48	21° \mathbb{B} 57'35	0.54804 AU
min. Earth dist.	4920 Jul 30 21:02	12° \mathbb{Q} 39'20	0.55176 AU	morning rise	4921 Jul 20 10:14	18° \mathbb{B} 18'30	
inferior conj	4920 Aug 01 01:04	11° \mathbb{Q} 59'29	-4°-28'-37	direct	4921 Jul 24 01:40	17° \mathbb{B} 49'57	
minimum elong	4920 Jul 31 17:03	12° \mathbb{Q} 10'55	4°26'57	morning max el	4921 Aug 05 22:21	23° \mathbb{B} 57'56	22°42'18
morning rise	4920 Aug 09 14:01	8° \mathbb{Q} 09'41			4921 Aug 11 09:05	0° \mathbb{Q}	
direct	4920 Aug 12 16:27	7° \mathbb{Q} 47'41		asc. node	4921 Aug 22 03:33	17° \mathbb{Q} 09'40	
morning max el	4920 Aug 24 02:11	13° \mathbb{Q} 06'36	21°04'58	morning set	4921 Aug 28 05:24	29° \mathbb{Q} 21'02	
asc. node	4920 Sep 04 06:32	28° \mathbb{Q} 07'08			4921 Aug 28 12:48	0° \mathbb{B}	
	4920 Sep 05 08:15	0° \mathbb{B}					
morning set	4920 Sep 12 18:40	14° \mathbb{B} 30'12					
superior conj	4920 Sep 20 04:45	29° \mathbb{B} 58'46	1°43'40	superior conj	4921 Sep 04 08:25	14° \mathbb{B} 34'05	1°40'20
minimum elong	4920 Sep 20 04:45	29° \mathbb{B} 58'49	1°43'40	minimum elong	4921 Sep 04 07:12	14° \mathbb{B} 27'38	1°40'16
	4920 Sep 20 04:59	0° \mathbb{H}		max. Earth dist.	4921 Sep 07 10:29	21° \mathbb{B} 04'05	1.33993 AU
max. Earth dist.	4920 Sep 24 16:37	9° \mathbb{H} 04'30	1.35511 AU		4921 Sep 11 20:11	0° \mathbb{H}	
evening rise	4920 Sep 28 20:53	17° \mathbb{H} 08'02		evening rise	4921 Sep 12 05:41	0° \mathbb{H} 46'45	
	4920 Oct 06 01:07	0° \mathbb{M}		desc. node	4921 Sep 27 15:09	27° \mathbb{H} 48'49	
desc. node	4920 Oct 10 18:08	7° \mathbb{M} 47'27			4921 Sep 29 01:20	0° \mathbb{M}	
	4920 Oct 26 07:16	0° \mathbb{X}		evening max el	4921 Oct 16 20:03	22° \mathbb{M} 26'44	27°11'16
evening max el	4920 Nov 03 07:19	8° \mathbb{X} 54'42	26°28'39	retrograde	4921 Oct 30 04:55	29° \mathbb{M} 44'27	
retrograde	4920 Nov 16 04:20	16° \mathbb{X} 08'02		evening set	4921 Nov 06 01:44	27° \mathbb{M} 05'06	
evening set	4920 Nov 22 13:56	13° \mathbb{X} 32'47		min. Earth dist.	4921 Nov 09 23:03	23° \mathbb{M} 23'10	0.65010 AU
min. Earth dist.	4920 Nov 26 17:38	9° \mathbb{X} 15'08	0.66305 AU	inferior conj	4921 Nov 12 03:06	20° \mathbb{M} 58'58	-2°00'-5
inferior conj	4920 Nov 28 09:46	7° \mathbb{X} 13'59	0°-57'-56	minimum elong	4921 Nov 12 06:33	20° \mathbb{M} 49'22	1°58'41
minimum elong	4920 Nov 28 11:22	7° \mathbb{X} 09'10	0°57'15	asc. node	4921 Nov 18 02:49	15° \mathbb{M} 38'11	
asc. node	4920 Dec 01 05:47	4° \mathbb{X} 00'08		morning rise	4921 Nov 18 13:22	15° \mathbb{M} 25'15	
morning rise	4920 Dec 04 10:09	1° \mathbb{X} 26'49		direct	4921 Nov 21 03:38	14° \mathbb{M} 49'32	
direct	4920 Dec 07 08:13	0° \mathbb{X} 38'46		morning max el	4921 Nov 27 14:57	18° \mathbb{M} 16'21	18°02'38
morning max el	4920 Dec 13 23:30	4° \mathbb{X} 16'02	18°32'36		4921 Dec 06 07:19	0° \mathbb{X}	
	4920 Dec 31 20:32	0° \mathbb{B}		morning set	4921 Dec 15 11:02	15° \mathbb{X} 00'10	
morning set	4921 Jan 03 07:29	3° \mathbb{B} 54'26		desc. node	4921 Dec 24 14:26	29° \mathbb{X} 59'55	
desc. node	4921 Jan 06 17:26	9° \mathbb{B} 19'42			4921 Dec 24 14:28	0° \mathbb{B}	
superior conj	4921 Jan 19 08:13	29° \mathbb{B} 11'51	-1°-20'-8	superior conj	4921 Dec 29 15:56	8° \mathbb{B} 06'58	0°-34'-36
minimum elong	4921 Jan 18 23:11	28° \mathbb{B} 36'24	1°19'08	minimum elong	4921 Dec 29 11:40	7° \mathbb{B} 50'00	0°34'01
max. Earth dist.	4921 Jan 19 13:08	29° \mathbb{B} 31'05	1.45308 AU	max. Earth dist.	4922 Jan 02 08:52	13° \mathbb{B} 58'51	1.45087 AU
	4921 Jan 19 20:30	0° \mathbb{X}			4922 Jan 12 15:22	0° \mathbb{X}	
evening rise	4921 Feb 04 04:56	24° \mathbb{X} 11'19		evening rise	4922 Jan 15 00:12	3° \mathbb{X} 39'40	
	4921 Feb 07 20:41	0° \mathbb{X}			4922 Feb 01 10:51	0° \mathbb{X}	
evening max el	4921 Feb 26 06:14	26° \mathbb{X} 38'11	18°57'33	greatest brilliancy	4922 Feb 02 05:28	1° \mathbb{X} 05'39	-0.6m
asc. node	4921 Feb 27 05:01	27° \mathbb{X} 33'21		evening max el	4922 Feb 09 12:17	10° \mathbb{X} 10'46	19°47'41
	4921 Mar 02 19:49	0° Υ		asc. node	4922 Feb 14 02:05	13° \mathbb{X} 45'51	
retrograde	4921 Mar 05 01:43	0° Υ 27'49		retrograde	4922 Feb 16 23:19	14° \mathbb{X} 30'03	

evening set	4922 Feb 20 13:47	13° ✕ 14'08		evening rise	4922 Dec 25 10:13	12° ☾ 51'50	
inferior conj	4922 Feb 26 01:09	7° ✕ 12'45	3°11'25		4923 Jan 05 18:29	0° ☾	
minimum elong	4922 Feb 25 23:08	7° ✕ 19'27	3°11'03	greatest brilliancy	4923 Jan 18 01:49	17° ☾ 19'48	-0.5m
min. Earth dist.	4922 Feb 27 01:50	5° ✕ 50'37	0.66979 AU	evening max el	4923 Jan 23 12:54	23° ☾ 44'18	20°51'43
morning rise	4922 Mar 03 07:51	0° ✕ 56'26		retrograde	4923 Jan 31 21:34	28° ☾ 40'42	
	4922 Mar 04 11:31	30° ☾		asc. node	4923 Jan 31 23:08	28° ☾ 40'41	
direct	4922 Mar 09 07:05	28° ☾ 17'30		evening set	4923 Feb 04 21:16	27° ☾ 10'05	
	4922 Mar 14 16:12	0° ✕		inferior conj	4923 Feb 10 06:46	20° ☾ 56'25	2°43'33
morning max el	4922 Mar 21 08:15	5° ✕ 29'08	25°22'39	minimum elong	4923 Feb 10 04:21	21° ☾ 04'42	2°42'56
desc. node	4922 Mar 22 13:42	6° ✕ 45'36		min. Earth dist.	4923 Feb 10 18:12	20° ☾ 17'01	0.67721 AU
	4922 Apr 09 05:52	0° ☾		morning rise	4923 Feb 15 11:02	14° ☾ 40'50	
morning set	4922 Apr 26 11:56	28° ☾ 27'52		direct	4923 Feb 20 20:04	12° ☾ 19'23	
	4922 Apr 27 08:14	0° ☾		morning max el	4923 Mar 03 17:00	18° ☾ 48'29	23°55'44
max. Earth dist.	4922 Apr 30 05:32	5° ☾ 20'44	1.36306 AU	desc. node	4923 Mar 09 10:44	25° ☾ 16'59	
					4923 Mar 13 03:32	0° ✕	
superior conj	4922 May 06 05:58	16° ☾ 59'40	-1°-5'-29		4923 Apr 02 08:55	0° ☾	
minimum elong	4922 May 06 09:34	17° ☾ 17'36	1°04'53	morning set	4923 Apr 08 05:26	9° ☾ 47'09	
	4922 May 12 16:18	0° ☾		max. Earth dist.	4923 Apr 12 01:40	16° ☾ 29'58	1.38394 AU
asc. node	4922 May 13 01:20	0° ☾ 46'02					
evening rise	4922 May 14 10:55	3° ☾ 36'30		superior conj	4923 Apr 19 07:59	29° ☾ 51'10	-1°-33'-10
	4922 May 30 00:50	0° ☾		minimum elong	4923 Apr 19 12:48	0° ☾ 14'01	1°32'34
evening max el	4922 May 31 20:45	1° ☾ 56'48	19°48'36		4923 Apr 19 09:51	0° ☾	
retrograde	4922 Jun 10 21:35	6° ☾ 51'01		evening rise	4923 Apr 28 09:09	17° ☾ 26'36	
evening set	4922 Jun 12 19:47	6° ☾ 40'59		asc. node	4923 Apr 29 22:24	20° ☾ 28'20	
desc. node	4922 Jun 18 12:54	4° ☾ 31'17			4923 May 05 00:10	0° ☾	
inferior conj	4922 Jun 21 17:04	2° ☾ 39'11	0°-56'-52	evening max el	4923 May 14 18:02	13° ☾ 55'43	18°54'36
minimum elong	4922 Jun 21 14:26	2° ☾ 43'13	0°55'54	retrograde	4923 May 23 04:59	18° ☾ 04'20	
min. Earth dist.	4922 Jun 23 20:27	1° ☾ 20'17	0.55392 AU	evening set	4923 May 25 06:22	17° ☾ 50'35	
	4922 Jun 26 04:23	30° ☾		inferior conj	4923 Jun 02 09:07	13° ☾ 33'11	0°52'40
morning rise	4922 Jun 30 06:08	28° ☾ 13'39		minimum elong	4923 Jun 02 11:07	13° ☾ 29'37	0°51'57
direct	4922 Jul 04 16:01	27° ☾ 30'50		desc. node	4923 Jun 05 09:56	11° ☾ 24'08	
	4922 Jul 12 20:42	0° ☾		min. Earth dist.	4923 Jun 05 12:25	11° ☾ 19'54	0.56827 AU
morning max el	4922 Jul 18 12:39	4° ☾ 23'16	24°26'12	morning rise	4923 Jun 10 11:22	8° ☾ 31'15	
	4922 Aug 05 14:09	0° ☾		direct	4923 Jun 15 19:40	7° ☾ 22'46	
asc. node	4922 Aug 09 00:36	6° ☾ 37'51		morning max el	4923 Jun 30 03:25	14° ☾ 48'40	26°01'24
morning set	4922 Aug 12 17:12	14° ☾ 14'45			4923 Jul 12 07:05	0° ☾	
				asc. node	4923 Jul 26 21:38	26° ☾ 23'45	
superior conj	4922 Aug 19 16:54	29° ☾ 22'55	1°31'07	morning set	4923 Jul 28 04:24	29° ☾ 05'02	
minimum elong	4922 Aug 19 14:55	29° ☾ 12'04	1°30'55		4923 Jul 28 14:46	0° ☾	
	4922 Aug 19 23:43	0° ☾					
max. Earth dist.	4922 Aug 21 12:59	3° ☾ 21'41	1.32889 AU	superior conj	4923 Aug 04 03:59	14° ☾ 17'14	1°16'49
evening rise	4922 Aug 27 01:15	14° ☾ 56'04		minimum elong	4923 Aug 04 01:41	14° ☾ 04'31	1°16'29
	4922 Sep 03 21:48	0° ☾		max. Earth dist.	4923 Aug 04 21:29	15° ☾ 53'35	1.32207 AU
desc. node	4922 Sep 14 12:11	17° ☾ 22'06		evening rise	4923 Aug 11 04:20	29° ☾ 25'41	
	4922 Sep 24 00:25	0° ☾			4923 Aug 11 10:56	0° ☾	
evening max el	4922 Sep 29 07:06	5° ☾ 36'11	27°27'07		4923 Aug 28 01:32	0° ☾	
retrograde	4922 Oct 12 23:09	12° ☾ 52'34		desc. node	4923 Sep 01 09:13	6° ☾ 14'51	
evening set	4922 Oct 20 02:46	10° ☾ 18'03		evening max el	4923 Sep 11 13:58	18° ☾ 09'22	27°11'18
min. Earth dist.	4922 Oct 23 19:02	7° ☾ 08'59	0.63384 AU	retrograde	4923 Sep 25 10:28	25° ☾ 22'22	
inferior conj	4922 Oct 26 11:03	4° ☾ 29'18	-3°-3'-3	evening set	4923 Oct 02 13:17	23° ☾ 04'36	
minimum elong	4922 Oct 26 16:16	4° ☾ 16'14	3°01'15	min. Earth dist.	4923 Oct 06 04:28	20° ☾ 20'10	0.61469 AU
	4922 Oct 31 17:39	30° ☾		inferior conj	4923 Oct 09 06:27	17° ☾ 36'51	-4°-2'-34
morning rise	4922 Nov 02 08:25	29° ☾ 12'32		minimum elong	4923 Oct 09 12:41	17° ☾ 23'03	4°00'54
direct	4922 Nov 04 17:24	28° ☾ 45'30		morning rise	4923 Oct 16 15:17	12° ☾ 40'18	
asc. node	4922 Nov 04 23:51	28° ☾ 45'51		direct	4923 Oct 18 21:55	12° ☾ 18'42	
	4922 Nov 08 15:32	0° ☾		asc. node	4923 Oct 22 20:53	13° ☾ 26'32	
morning max el	4922 Nov 11 07:48	2° ☾ 10'39	17°50'01	morning max el	4923 Oct 25 22:53	15° ☾ 50'44	17°55'44
morning set	4922 Nov 27 16:11	27° ☾ 19'53			4923 Nov 04 19:30	0° ☾	
	4922 Nov 29 05:00	0° ☾		morning set	4923 Nov 10 16:27	10° ☾ 33'47	
superior conj	4922 Dec 09 20:47	18° ☾ 06'13	0°11'18	superior conj	4923 Nov 21 04:12	29° ☾ 23'07	0°49'28
minimum elong	4922 Dec 09 21:58	18° ☾ 11'07	0°11'09	minimum elong	4923 Nov 21 07:57	29° ☾ 39'26	0°48'58
behind sun begin	4922 Dec 09 15:02	17° ☾ 42'26			4923 Nov 21 12:42	0° ☾	
behind sun end	4922 Dec 10 04:54	18° ☾ 39'45		desc. node	4923 Nov 28 08:31	11° ☾ 32'36	
desc. node	4922 Dec 11 11:29	20° ☾ 45'23		max. Earth dist.	4923 Nov 28 15:56	12° ☾ 03'08	1.42615 AU
max. Earth dist.	4922 Dec 16 02:44	28° ☾ 15'33	1.44151 AU	evening rise	4923 Dec 05 02:51	22° ☾ 26'49	
	4922 Dec 17 04:55	0° ☾			4923 Dec 09 23:29	0° ☾	

	4923 Dec 31 00:15	0°♊		minimum elong	4924 Nov 02 14:56	12°♌05'26	1°16'40
greatest brilliancy	4924 Jan 01 14:45	1°♊59'47	-0.3m	max. Earth dist.	4924 Nov 09 23:56	25°♌10'36	1.40679 AU
evening max el	4924 Jan 06 08:08	7°♊19'28	22°06'06		4924 Nov 12 20:18	0°♋	
retrograde	4924 Jan 15 18:32	12°♊56'12		desc. node	4924 Nov 14 05:30	2°♋17'52	
asc. node	4924 Jan 18 20:09	12°♊06'15		evening rise	4924 Nov 14 14:30	2°♋54'57	
evening set	4924 Jan 20 05:05	11°♊10'07			4924 Dec 02 07:17	0°♋	
inferior conj	4924 Jan 25 14:28	4°♋47'41	2°07'03	evening max el	4924 Dec 18 23:18	20°♋57'38	23°25'45
minimum elong	4924 Jan 25 12:09	4°♋55'45	2°06'17	retrograde	4924 Dec 29 12:38	27°♋12'06	
min. Earth dist.	4924 Jan 25 14:01	4°♋49'15	0.68061 AU	evening set	4925 Jan 03 11:35	25°♋10'15	
	4924 Jan 29 07:55	30°♋♊		asc. node	4925 Jan 04 17:11	24°♋01'01	
morning rise	4924 Jan 30 19:02	28°♋34'31		inferior conj	4925 Jan 08 22:22	18°♋42'59	1°23'02
direct	4924 Feb 04 13:17	26°♋34'44		minimum elong	4925 Jan 08 20:35	18°♋49'05	1°22'22
	4924 Feb 11 17:52	0°♋		min. Earth dist.	4925 Jan 08 10:48	19°♋22'37	0.68029 AU
morning max el	4924 Feb 14 03:40	2°♋14'23	22°26'50	morning rise	4925 Jan 14 05:41	12°♋34'12	
greatest brilliancy	4924 Feb 18 17:09	7°♋19'38	-0.3m	direct	4925 Jan 18 09:43	10°♋57'12	
desc. node	4924 Feb 24 07:47	14°♋31'56		morning max el	4925 Jan 26 19:46	15°♋49'16	21°04'10
	4924 Mar 06 03:36	0°♋		greatest brilliancy	4925 Feb 01 04:32	21°♋58'41	-0.5m
morning set	4924 Mar 18 19:55	19°♋48'21			4925 Feb 07 04:15	0°♋	
max. Earth dist.	4924 Mar 23 21:56	28°♋15'27	1.40586 AU	desc. node	4925 Feb 10 04:47	4°♋17'39	
	4924 Mar 24 22:32	0°♋		morning set	4925 Feb 26 06:26	28°♋31'47	
					4925 Feb 27 04:53	0°♋	
superior conj	4924 Mar 31 17:08	11°♋52'40	-1°-55'-31	max. Earth dist.	4925 Mar 06 00:30	10°♋55'42	1.42600 AU
minimum elong	4924 Mar 31 21:44	12°♋13'24	1°55'11				
	4924 Apr 10 11:58	0°♋		superior conj	4925 Mar 13 04:19	22°♋51'59	-2°-7'-49
evening rise	4924 Apr 10 21:14	0°♋43'39		minimum elong	4925 Mar 13 05:58	22°♋59'03	2°07'49
asc. node	4924 Apr 15 19:26	9°♋52'50			4925 Mar 17 07:33	0°♋	
evening max el	4924 Apr 27 00:00	26°♋30'06	18°20'55	evening rise	4925 Mar 24 19:06	13°♋17'35	
	4924 May 02 21:45	0°♋		asc. node	4925 Apr 02 16:28	28°♋52'37	
retrograde	4924 May 04 07:10	0°♋07'54			4925 Apr 03 09:03	0°♋	
	4924 May 05 17:03	30°♋♋		evening max el	4925 Apr 10 11:03	9°♋29'54	18°07'01
evening set	4924 May 06 15:04	29°♋46'40		retrograde	4925 Apr 17 02:11	12°♋53'12	
inferior conj	4924 May 13 22:44	25°♋09'02	2°13'50	evening set	4925 Apr 19 16:36	12°♋22'01	
minimum elong	4924 May 14 02:16	25°♋01'39	2°12'50	inferior conj	4925 Apr 26 08:11	7°♋23'17	3°04'09
min. Earth dist.	4924 May 17 09:17	22°♋18'15	0.58826 AU	minimum elong	4925 Apr 26 10:57	7°♋16'34	3°03'39
morning rise	4924 May 21 09:09	19°♋35'36		min. Earth dist.	4925 Apr 29 12:53	4°♋19'35	0.61032 AU
desc. node	4924 May 22 06:58	19°♋08'01		morning rise	4925 May 03 02:05	1°♋28'36	
direct	4924 May 27 13:41	17°♋53'18			4925 May 05 20:39	30°♋♋	
morning max el	4924 Jun 10 23:06	25°♋39'48	27°12'19	desc. node	4925 May 09 04:00	29°♋14'52	
	4924 Jun 15 00:00	0°♋		direct	4925 May 09 19:12	29°♋13'41	
	4924 Jul 04 15:05	0°♋			4925 May 13 21:47	0°♋	
morning set	4924 Jul 11 13:19	13°♋46'38		morning max el	4925 May 24 01:03	7°♋10'35	27°48'44
asc. node	4924 Jul 12 18:41	16°♋21'44			4925 Jun 10 08:12	0°♋	
				morning set	4925 Jun 25 18:09	28°♋13'33	
superior conj	4924 Jul 18 15:49	29°♋10'57	0°58'04		4925 Jun 26 14:42	0°♋	
minimum elong	4924 Jul 18 13:40	28°♋59'05	0°57'40	asc. node	4925 Jun 29 15:44	6°♋26'43	
max. Earth dist.	4924 Jul 18 08:40	28°♋31'27	1.31944 AU	max. Earth dist.	4925 Jul 01 18:53	11°♋04'05	1.32099 AU
	4924 Jul 19 00:41	0°♋					
evening rise	4924 Jul 25 12:24	14°♋07'59		superior conj	4925 Jul 03 02:39	13°♋58'03	0°35'26
	4924 Aug 02 11:48	0°♋		minimum elong	4925 Jul 03 01:08	13°♋49'41	0°35'06
desc. node	4924 Aug 18 06:13	24°♋10'45		evening rise	4925 Jul 09 23:19	28°♋55'57	
evening max el	4924 Aug 23 14:24	29°♋56'52	26°22'09		4925 Jul 10 11:22	0°♋	
	4924 Aug 23 15:43	0°♋			4925 Jul 27 04:07	0°♋	
retrograde	4924 Sep 06 13:29	7°♋05'38		desc. node	4925 Aug 05 03:14	10°♋46'51	
evening set	4924 Sep 13 04:30	5°♋17'19		evening max el	4925 Aug 05 07:30	10°♋57'08	25°04'06
min. Earth dist.	4924 Sep 17 03:46	2°♋42'59	0.59403 AU	retrograde	4925 Aug 19 05:53	17°♋59'47	
inferior conj	4924 Sep 20 09:50	0°♋12'38	-4°-50'-56	evening set	4925 Aug 24 19:57	16°♋48'44	
minimum elong	4924 Sep 20 15:06	0°♋02'26	4°50'05	min. Earth dist.	4925 Aug 29 19:03	14°♋06'10	0.57410 AU
	4924 Sep 20 16:22	30°♋♋		inferior conj	4925 Sep 01 18:04	12°♋07'31	-5°-15'-43
morning rise	4924 Sep 28 05:12	25°♋38'38		minimum elong	4925 Sep 01 19:12	12°♋05'38	5°15'42
direct	4924 Sep 30 13:05	25°♋19'37		morning rise	4925 Sep 09 21:53	7°♋56'20	
morning max el	4924 Oct 08 08:49	29°♋07'37	18°21'05	direct	4925 Sep 12 10:52	7°♋37'30	
asc. node	4924 Oct 08 17:56	29°♋30'04		morning max el	4925 Sep 21 10:13	11°♋51'38	19°07'39
	4924 Oct 09 05:31	0°♋		asc. node	4925 Sep 25 14:58	16°♋41'33	
morning set	4924 Oct 24 06:14	24°♋26'00			4925 Oct 03 17:04	0°♋	
	4924 Oct 27 04:10	0°♋		morning set	4925 Oct 08 05:27	8°♋45'19	
superior conj	4924 Nov 02 11:11	11°♋48'13	1°17'05	superior conj	4925 Oct 16 12:28	25°♋07'16	1°34'20

minimum elong	4925 Oct 16 14:57	25°♄19'12	1°34'09		4926 Sep 25 16:23	0°♄	
	4925 Oct 19 01:49	0°♄					
max. Earth dist.	4925 Oct 23 05:06	7°♄38'28	1.38580 AU	superior conj	4926 Sep 30 03:01	9°♄05'02	1°42'31
evening rise	4925 Oct 27 01:19	14°♄26'36		minimum elong	4926 Sep 30 03:54	9°♄09'27	1°42'29
desc. node	4925 Nov 01 02:30	22°♄57'51		max. Earth dist.	4926 Oct 05 11:32	19°♄37'39	1.36558 AU
	4925 Nov 05 11:42	0°♄		evening rise	4926 Oct 09 09:13	26°♄55'49	
	4925 Nov 27 04:04	0°♄			4926 Oct 11 01:58	0°♄	
evening max el	4925 Dec 01 12:24	4°♄40'04	24°44'14	desc. node	4926 Oct 18 23:32	13°♄27'30	
retrograde	4925 Dec 13 02:43	11°♄25'05			4926 Oct 29 22:00	0°♄	
evening set	4925 Dec 18 15:16	9°♄07'56		evening max el	4926 Nov 14 00:56	18°♄23'33	25°54'35
asc. node	4925 Dec 22 14:12	4°♄47'03		retrograde	4926 Nov 26 12:06	25°♄29'29	
min. Earth dist.	4925 Dec 23 06:16	3°♄54'37	0.67644 AU	evening set	4926 Dec 02 14:25	22°♄59'22	
inferior conj	4925 Dec 24 04:42	2°♄40'16	0°32'31	min. Earth dist.	4926 Dec 06 22:01	18°♄21'24	0.66901 AU
minimum elong	4925 Dec 24 03:55	2°♄42'53	0°32'12	inferior conj	4926 Dec 08 07:37	16°♄35'56	0°-23'-33
	4925 Dec 26 06:36	30°♄		minimum elong	4926 Dec 08 08:14	16°♄34'00	0°23'18
morning rise	4925 Dec 29 17:03	26°♄38'02		asc. node	4926 Dec 09 11:14	15°♄10'19	
direct	4926 Jan 02 08:04	25°♄22'31		morning rise	4926 Dec 14 03:06	10°♄42'45	
morning max el	4926 Jan 09 19:42	29°♄36'13	19°53'22	direct	4926 Dec 17 06:47	9°♄45'47	
	4926 Jan 10 05:06	0°♄		morning max el	4926 Dec 24 03:22	13°♄32'58	18°57'28
greatest brilliancy	4926 Jan 17 02:52	8°♄28'26	-0.6m		4927 Jan 05 09:00	0°♄	
desc. node	4926 Jan 28 01:47	24°♄25'58		desc. node	4927 Jan 14 22:49	14°♄50'22	
	4926 Jan 31 17:48	0°♄		morning set	4927 Jan 15 09:34	15°♄32'22	
morning set	4926 Feb 05 02:37	6°♄41'59			4927 Jan 24 15:39	0°♄	
max. Earth dist.	4926 Feb 16 11:06	24°♄28'30	1.44167 AU	max. Earth dist.	4927 Jan 30 03:31	8°♄36'44	1.45096 AU
	4926 Feb 19 21:49	0°♄					
superior conj	4926 Feb 21 13:59	2°♄42'37	-2°-4'-30	superior conj	4927 Feb 01 01:00	11°♄35'43	-1°-41'-35
minimum elong	4926 Feb 21 09:44	2°♄25'20	2°04'21	minimum elong	4927 Jan 31 15:53	10°♄59'48	1°40'47
evening rise	4926 Mar 06 22:20	25°♄00'09			4927 Feb 12 13:57	0°♄	
	4926 Mar 09 20:30	0°♄		evening rise	4927 Feb 16 03:16	5°♄45'55	
asc. node	4926 Mar 20 13:29	17°♄20'03			4927 Mar 03 11:06	0°♄	
evening max el	4926 Mar 24 23:54	22°♄46'27	18°12'17	asc. node	4927 Mar 07 10:31	5°♄05'18	
retrograde	4926 Mar 31 09:46	26°♄10'16		evening max el	4927 Mar 08 11:46	6°♄12'44	18°35'59
evening set	4926 Apr 03 06:14	25°♄27'47		retrograde	4927 Mar 15 01:32	9°♄50'03	
inferior conj	4926 Apr 09 09:38	20°♄08'57	3°28'38	evening set	4927 Mar 18 04:11	8°♄55'24	
minimum elong	4926 Apr 09 10:49	20°♄05'45	3°28'33	inferior conj	4927 Mar 23 23:04	3°♄18'21	3°33'20
min. Earth dist.	4926 Apr 12 01:17	17°♄16'04	0.63135 AU	minimum elong	4927 Mar 23 22:40	3°♄19'32	3°33'18
morning rise	4926 Apr 15 13:15	14°♄01'47		min. Earth dist.	4927 Mar 25 23:18	0°♄53'33	0.64936 AU
direct	4926 Apr 22 09:44	11°♄23'41			4927 Mar 26 17:51	30°♄	
desc. node	4926 Apr 26 01:02	12°♄03'09		morning rise	4927 Mar 29 15:48	27°♄04'42	
morning max el	4926 May 06 08:15	19°♄22'59	27°47'26	direct	4927 Apr 05 07:56	24°♄16'24	
	4926 May 15 08:45	0°♄		desc. node	4927 Apr 12 22:04	27°♄07'29	
	4926 Jun 03 06:47	0°♄			4927 Apr 16 12:21	0°♄	
morning set	4926 Jun 09 16:40	12°♄18'55		morning max el	4927 Apr 18 18:12	2°♄08'41	27°11'26
max. Earth dist.	4926 Jun 15 00:14	23°♄19'02	1.32689 AU		4927 May 09 13:48	0°♄	
asc. node	4926 Jun 16 12:45	26°♄34'15		morning set	4927 May 24 06:05	25°♄54'31	
					4927 May 26 08:07	0°♄	
superior conj	4926 Jun 17 10:42	28°♄32'34	0°09'32	max. Earth dist.	4927 May 28 20:55	5°♄06'15	1.33732 AU
minimum elong	4926 Jun 17 10:14	28°♄30'06	0°09'25				
behind sun begin	4926 Jun 17 05:58	28°♄06'58		superior conj	4927 Jun 01 13:58	12°♄48'33	0°-18'-50
behind sun end	4926 Jun 17 14:31	28°♄53'14		minimum elong	4927 Jun 01 14:57	12°♄53'45	0°18'40
	4926 Jun 18 02:52	0°♄		asc. node	4927 Jun 03 09:47	16°♄40'31	
evening rise	4926 Jun 24 11:09	13°♄42'56		evening rise	4927 Jun 08 22:03	28°♄22'54	
	4926 Jul 02 15:40	0°♄			4927 Jun 09 16:37	0°♄	
evening max el	4926 Jul 17 20:06	21°♄23'34	23°28'57		4927 Jun 27 18:12	0°♄	
desc. node	4926 Jul 23 00:16	25°♄32'01		evening max el	4927 Jun 29 12:00	1°♄48'42	21°52'51
retrograde	4926 Jul 31 09:48	28°♄11'45		desc. node	4927 Jul 09 21:17	7°♄52'08	
evening set	4926 Aug 04 12:34	27°♄34'40		retrograde	4927 Jul 12 02:47	8°♄03'46	
min. Earth dist.	4926 Aug 11 05:46	24°♄26'52	0.55801 AU	evening set	4927 Jul 14 20:13	7°♄47'06	
inferior conj	4926 Aug 13 06:08	23°♄15'14	-5°00'-35	min. Earth dist.	4927 Jul 23 15:52	4°♄00'00	0.54902 AU
minimum elong	4926 Aug 13 00:52	23°♄23'03	4°59'57	inferior conj	4927 Jul 24 02:58	3°♄44'26	-3°-54'-11
morning rise	4926 Aug 21 16:16	19°♄21'49		minimum elong	4927 Jul 23 18:12	3°♄56'44	3°51'51
direct	4926 Aug 24 13:18	19°♄01'31			4927 Aug 01 08:01	30°♄	
morning max el	4926 Sep 04 00:20	23°♄53'09	20°16'13	morning rise	4927 Aug 01 17:42	29°♄53'58	
	4926 Sep 09 07:23	0°♄		direct	4927 Aug 05 00:54	29°♄30'02	
asc. node	4926 Sep 12 12:00	4°♄45'34			4927 Aug 08 15:09	0°♄	
morning set	4926 Sep 22 10:55	23°♄22'06		morning max el	4927 Aug 17 02:35	5°♄09'19	21°44'46
				asc. node	4927 Aug 30 09:03	23°♄29'51	

	4927 Sep 02 19:51	0°♍		asc. node	4928 Aug 16 06:06	12°♌44'11	
morning set	4927 Sep 06 20:18	8°♍09'34		morning set	4928 Aug 21 07:40	23°♌02'09	
					4928 Aug 24 13:48	0°♍	
superior conj	4927 Sep 14 02:51	23°♍29'51	1°43'02	superior conj	4928 Aug 28 08:53	8°♍12'04	1°37'05
minimum elong	4927 Sep 14 02:18	23°♍26'57	1°43'02	minimum elong	4928 Aug 28 07:17	8°♍03'29	1°36'59
	4927 Sep 17 06:21	0°♌		max. Earth dist.	4928 Aug 30 21:32	13°♍35'47	1.33470 AU
max. Earth dist.	4927 Sep 18 00:08	1°♌30'18	1.34818 AU	evening rise	4928 Sep 04 23:57	24°♍05'37	
evening rise	4927 Sep 22 10:09	10°♌12'31			4928 Sep 08 00:34	0°♌	
	4927 Oct 03 13:38	0°♍		desc. node	4928 Sep 21 17:36	23°♌32'02	
desc. node	4927 Oct 05 20:33	3°♍41'15			4928 Sep 26 03:32	0°♍	
	4927 Oct 25 12:53	0°♌		evening max el	4928 Oct 09 01:44	15°♍26'07	27°21'37
evening max el	4927 Oct 27 13:33	2°♌02'02	26°49'27	retrograde	4928 Oct 22 14:31	22°♍44'37	
retrograde	4927 Nov 09 16:14	9°♌18'43		evening set	4928 Oct 29 14:46	20°♍06'01	
evening set	4927 Nov 16 07:04	6°♌40'26		min. Earth dist.	4928 Nov 02 09:37	16°♍38'32	0.64353 AU
min. Earth dist.	4927 Nov 20 07:50	2°♌38'21	0.65801 AU	inferior conj	4928 Nov 04 18:50	14°♍06'24	-2°-26'-53
inferior conj	4927 Nov 22 05:07	0°♌26'19	-1°-23'-59	minimum elong	4928 Nov 04 23:05	13°♍55'06	2°25'17
minimum elong	4927 Nov 22 07:29	0°♌19'25	1°23'01	morning rise	4928 Nov 11 09:45	8°♍39'31	
	4927 Nov 22 14:09	30°♍		asc. node	4928 Nov 12 05:20	8°♍22'19	
asc. node	4927 Nov 26 08:17	26°♍07'45		direct	4928 Nov 13 21:18	8°♍08'04	
morning rise	4927 Nov 28 09:34	24°♍44'46		morning max el	4928 Nov 20 09:15	11°♍33'30	17°55'03
direct	4927 Dec 01 03:57	24°♍02'35			4928 Dec 03 01:24	0°♌	
morning max el	4927 Dec 07 16:47	27°♍34'16	18°17'45	morning set	4928 Dec 07 11:17	7°♌27'22	
	4927 Dec 09 21:26	0°♌		desc. node	4928 Dec 18 16:52	26°♌09'15	
morning set	4927 Dec 26 20:01	25°♌47'14					
	4927 Dec 29 10:38	0°♌		superior conj	4928 Dec 20 19:16	29°♌33'27	0°-14'-35
desc. node	4928 Jan 01 19:50	5°♌26'01		minimum elong	4928 Dec 20 17:33	29°♌26'31	0°14'20
				behind sun begin	4928 Dec 20 12:48	29°♌07'21	
superior conj	4928 Jan 11 03:55	20°♌13'55	-1°-1'-34	behind sun end	4928 Dec 20 22:18	29°♌45'41	
minimum elong	4928 Jan 10 20:25	19°♌44'25	1°00'39		4928 Dec 21 01:51	0°♌	
max. Earth dist.	4928 Jan 12 22:30	23°♌01'04	1.45300 AU	max. Earth dist.	4928 Dec 25 17:18	7°♌24'54	1.44768 AU
	4928 Jan 17 09:32	0°♌		evening rise	4929 Jan 05 22:51	24°♌54'40	
evening rise	4928 Jan 27 09:17	15°♌37'22			4929 Jan 09 06:33	0°♌	
	4928 Feb 05 14:20	0°♌		greatest brilliancy	4929 Jan 26 15:22	25°♌34'05	-0.6m
greatest brilliancy	4928 Feb 10 19:26	7°♌55'06	-0.7m		4929 Jan 30 02:06	0°♌	
evening max el	4928 Feb 19 20:21	19°♌43'30	19°17'01	evening max el	4929 Feb 02 00:12	3°♌17'04	20°13'26
asc. node	4928 Feb 22 07:34	21°♌55'34		asc. node	4929 Feb 08 04:36	7°♌37'08	
retrograde	4928 Feb 26 21:50	23°♌45'09		retrograde	4929 Feb 09 19:56	7°♌51'32	
evening set	4928 Mar 01 07:32	22°♌37'26		evening set	4929 Feb 13 14:03	6°♌29'41	
inferior conj	4928 Mar 06 20:56	16°♌44'19	3°22'56	inferior conj	4929 Feb 19 00:24	0°♌22'55	3°00'45
minimum elong	4928 Mar 06 19:22	16°♌49'23	3°22'43	minimum elong	4929 Feb 18 22:10	0°♌30'29	3°00'16
min. Earth dist.	4928 Mar 08 05:55	14°♌57'43	0.66350 AU		4929 Feb 19 07:10	30°♌	
morning rise	4928 Mar 12 06:18	10°♌28'04		min. Earth dist.	4929 Feb 19 19:23	29°♌18'40	0.67347 AU
direct	4928 Mar 18 12:45	7°♌42'24		morning rise	4929 Feb 24 05:42	24°♌06'34	
desc. node	4928 Mar 29 19:06	13°♌53'09		direct	4929 Mar 01 23:09	21°♌33'59	
morning max el	4928 Mar 31 04:06	15°♌14'02	26°07'53	morning max el	4929 Mar 13 12:47	28°♌29'12	24°46'25
	4928 Apr 12 07:02	0°♌			4929 Mar 14 23:34	0°♌	
	4928 May 01 09:32	0°♌		desc. node	4929 Mar 16 16:08	1°♌52'23	
morning set	4928 May 06 06:30	8°♌48'12			4929 Apr 06 01:09	0°♌	
max. Earth dist.	4928 May 10 05:59	16°♌21'28	1.35237 AU	morning set	4929 Apr 18 12:57	20°♌46'18	
				max. Earth dist.	4929 Apr 22 04:47	27°♌21'52	1.37163 AU
superior conj	4928 May 15 09:56	26°♌38'08	0°-48'-31		4929 Apr 23 15:01	0°♌	
minimum elong	4928 May 15 12:36	26°♌51'40	0°48'01				
	4928 May 17 01:23	0°♌		superior conj	4929 Apr 28 19:35	9°♌53'39	-1°-17'-39
asc. node	4928 May 20 06:50	6°♌40'43		minimum elong	4929 Apr 28 23:48	10°♌14'14	1°17'01
evening rise	4928 May 23 05:53	12°♌48'28		evening rise	4929 May 07 08:24	26°♌53'23	
	4928 Jun 01 05:22	0°♌		asc. node	4929 May 07 03:53	26°♌30'49	
evening max el	4928 Jun 10 14:26	12°♌42'49	20°28'50		4929 May 08 21:56	0°♌	
retrograde	4928 Jun 21 15:42	18°♌07'23		evening max el	4929 May 24 05:22	24°♌18'28	19°23'12
evening set	4928 Jun 23 15:52	17°♌57'26		retrograde	4929 Jun 02 12:57	28°♌51'15	
desc. node	4928 Jun 25 18:20	17°♌27'01		evening set	4929 Jun 04 11:49	28°♌40'09	
inferior conj	4928 Jul 02 20:46	14°♌00'07	-2°-6'-2	desc. node	4929 Jun 12 15:22	24°♌49'57	
minimum elong	4928 Jul 02 14:53	14°♌08'38	2°03'56	inferior conj	4929 Jun 13 01:44	24°♌33'05	0°-7'-41
min. Earth dist.	4928 Jul 04 03:37	13°♌15'22	0.54935 AU	minimum elong	4929 Jun 13 01:24	24°♌33'38	0°07'36
morning rise	4928 Jul 11 12:21	9°♌51'52		transit middle	4929 Jun 13 01:24	24°♌33'38	0°07'36
direct	4928 Jul 15 10:42	9°♌18'31		transit begin	4929 Jun 12 22:00	24°♌39'11	
morning max el	4928 Jul 28 19:37	15°♌47'18	23°26'28	transit end	4929 Jun 13 04:49	24°♌28'04	
	4928 Aug 09 01:00	0°♌					

min. Earth dist.	4929 Jun 15 17:37	22°II49'30	0.55915 AU	minimum elong	4930 May 25 05:49	5°II38'24	1°30'02
morning rise	4929 Jun 21 11:05	19°II52'17		min. Earth dist.	4930 May 28 11:03	3°II12'31	0.57631 AU
direct	4929 Jun 26 06:38	18°II59'35		desc. node	4930 May 30 12:22	1°II48'41	
morning max el	4929 Jul 10 09:07	26°II08'04	25°08'41	morning rise	4930 Jun 01 22:42	0°II28'08	
	4929 Jul 14 01:18	0°☿			4930 Jun 03 01:03	30°R8	
	4929 Aug 01 23:16	0°♂		direct	4930 Jun 07 16:26	29°805'55	
asc. node	4929 Aug 03 03:08	2°♂20'30			4930 Jun 12 09:37	0°II	
morning set	4929 Aug 05 19:22	7°♂54'36		morning max el	4930 Jun 22 01:24	6°II41'06	26°35'26
					4930 Jul 09 08:26	0°☿	
superior conj	4929 Aug 12 18:40	23°♂03'50	1°25'38	morning set	4930 Jul 21 05:48	22°☿42'09	
minimum elong	4929 Aug 12 16:29	22°♂51'52	1°25'22	asc. node	4930 Jul 21 00:10	22°☿12'26	
max. Earth dist.	4929 Aug 14 02:53	25°♂59'51	1.32548 AU		4930 Jul 24 15:17	0°♂	
	4929 Aug 15 23:14	0°♍					
evening rise	4929 Aug 19 23:03	8°♍24'42		superior conj	4930 Jul 28 06:16	7°♂58'45	1°09'23
	4929 Aug 31 10:26	0°♂		minimum elong	4930 Jul 28 03:58	7°♂46'03	1°09'00
desc. node	4929 Sep 08 14:38	12°♂49'48		max. Earth dist.	4930 Jul 28 13:12	8°♂37'00	1.32044 AU
evening max el	4929 Sep 21 11:32	28°♂22'37	27°24'36	evening rise	4930 Aug 04 04:33	23°♂01'06	
	4929 Sep 23 06:46	0°♍			4930 Aug 07 14:13	0°♍	
retrograde	4929 Oct 05 05:57	5°♍37'21			4930 Aug 25 11:13	0°♂	
evening set	4929 Oct 12 10:09	3°♍08'49		desc. node	4930 Aug 26 11:39	1°♂21'09	
min. Earth dist.	4929 Oct 16 01:23	0°♍11'16	0.62595 AU	evening max el	4930 Sep 03 16:08	10°♂38'20	26°54'27
	4929 Oct 16 06:16	30°R♂		retrograde	4930 Sep 17 13:34	17°♂48'38	
inferior conj	4929 Oct 18 21:54	27°♂28'32	-3°-29'-7	evening set	4930 Sep 24 13:03	15°♂42'05	
minimum elong	4929 Oct 19 03:42	27°♂14'43	3°27'17	min. Earth dist.	4930 Sep 28 06:16	13°♂04'09	0.60604 AU
morning rise	4929 Oct 26 00:07	22°♂19'38		inferior conj	4930 Oct 01 10:57	10°♂24'22	-4°-25'-3
direct	4929 Oct 28 07:41	21°♂55'17		minimum elong	4930 Oct 01 17:06	10°♂11'30	4°23'39
asc. node	4929 Oct 30 02:23	22°♂10'04		morning rise	4930 Oct 09 00:25	5°♂36'59	
morning max el	4929 Nov 04 01:40	25°♂22'34	17°50'04	direct	4930 Oct 11 07:17	5°♂16'39	
	4929 Nov 07 22:10	0°♍		asc. node	4930 Oct 16 23:24	7°♂27'55	
morning set	4929 Nov 20 01:22	20°♍12'49		morning max el	4930 Oct 18 14:56	8°♂54'02	18°03'59
	4929 Nov 25 14:21	0°♂			4930 Nov 01 07:29	0°♍	
				morning set	4930 Nov 03 08:00	3°♍45'13	
superior conj	4929 Dec 01 11:21	10°♂05'33	0°28'42				
minimum elong	4929 Dec 01 14:01	10°♂16'47	0°28'20	superior conj	4930 Nov 13 05:24	21°♍53'25	1°02'30
desc. node	4929 Dec 05 13:53	16°♂55'53		minimum elong	4930 Nov 13 09:24	22°♍11'09	1°02'00
max. Earth dist.	4929 Dec 08 09:33	21°♂31'44	1.43566 AU		4930 Nov 17 20:52	0°♂	
	4929 Dec 13 17:07	0°☿		max. Earth dist.	4930 Nov 20 21:05	5°♂05'38	1.41837 AU
evening rise	4929 Dec 16 09:47	4°☿12'23		desc. node	4930 Nov 22 10:54	7°♂42'46	
	4930 Jan 02 17:07	0°≈		evening rise	4930 Nov 26 09:31	14°♂07'41	
greatest brilliancy	4930 Jan 10 23:01	11°≈08'12	-0.4m		4930 Dec 06 15:47	0°☿	
evening max el	4930 Jan 15 22:35	16°≈51'49	21°22'22	greatest brilliancy	4930 Dec 24 16:32	24°☿53'35	-0.3m
retrograde	4930 Jan 24 17:41	22°≈04'41			4930 Dec 29 04:54	0°≈	
asc. node	4930 Jan 26 01:39	21°≈55'09		evening max el	4930 Dec 29 15:54	0°≈28'04	22°39'35
evening set	4930 Jan 28 21:51	20°≈27'36		retrograde	4931 Jan 08 13:31	6°≈20'58	
inferior conj	4930 Feb 03 07:08	14°≈10'01	2°29'01	asc. node	4931 Jan 12 22:40	4°≈41'09	
minimum elong	4930 Feb 03 04:42	14°≈18'26	2°28'19	evening set	4931 Jan 13 05:18	4°≈27'56	
min. Earth dist.	4930 Feb 03 13:25	13°≈48'15	0.67923 AU		4931 Jan 17 05:00	30°R☿	
morning rise	4930 Feb 08 11:14	7°≈55'24		inferior conj	4931 Jan 18 15:07	28°☿02'59	1°49'11
direct	4930 Feb 13 14:05	5°≈42'42		minimum elong	4931 Jan 18 12:59	28°☿10'25	1°48'27
morning max el	4930 Feb 23 21:44	11°≈50'23	23°17'30	min. Earth dist.	4931 Jan 18 09:49	28°☿21'22	0.68102 AU
greatest brilliancy	4930 Mar 01 04:35	17°≈46'46	-0.2m	morning rise	4931 Jan 23 20:36	21°☿51'43	
desc. node	4930 Mar 03 13:09	20°≈43'53		direct	4931 Jan 28 08:42	20°☿01'47	
	4930 Mar 10 09:36	0°♂		morning max el	4931 Feb 06 10:23	25°☿19'54	21°50'28
	4930 Mar 29 21:10	0°♀			4931 Feb 10 15:07	0°≈	
morning set	4930 Mar 30 19:27	1°♀33'07		greatest brilliancy	4931 Feb 11 03:35	0°≈37'50	-0.4m
max. Earth dist.	4930 Apr 04 00:07	8°♀43'17	1.39337 AU	desc. node	4931 Feb 18 10:09	10°≈12'55	
					4931 Mar 03 21:16	0°♂	
superior conj	4930 Apr 11 15:01	22°♀25'27	-1°-43'-33	morning set	4931 Mar 10 21:29	10°♂58'59	
minimum elong	4930 Apr 11 20:00	22°♀48'32	1°43'02	max. Earth dist.	4931 Mar 16 23:10	20°♂53'31	1.41487 AU
	4930 Apr 15 15:38	0°8			4931 Mar 22 07:58	0°♀	
evening rise	4930 Apr 21 02:43	10°830'21					
asc. node	4930 Apr 24 00:55	16°806'14		superior conj	4931 Mar 24 15:23	4°♀01'34	-2°-2'-17
	4930 May 02 01:00	0°II		minimum elong	4931 Mar 24 19:09	4°♀18'05	2°02'07
evening max el	4930 May 07 06:46	6°II33'32	18°37'47	evening rise	4931 Apr 04 09:17	23°♀30'24	
retrograde	4930 May 15 04:13	10°II26'50			4931 Apr 07 22:07	0°8	
evening set	4930 May 17 08:27	10°II10'08		asc. node	4931 Apr 10 21:57	5°821'03	
inferior conj	4930 May 25 02:48	5°II44'10	1°31'02	evening max el	4931 Apr 20 15:14	19°819'23	18°12'33

retrograde	4931 Apr 27 14:17	22°♄49'25		evening set	4932 Apr 12 08:10	5°♄13'55	
evening set	4931 Apr 30 00:57	22°♄24'11		inferior conj	4932 Apr 18 18:07	0°♄06'34	3°17'18
inferior conj	4931 May 07 01:15	17°♄37'11	2°38'45	minimum elong	4932 Apr 18 20:15	0°♄01'07	3°17'01
minimum elong	4931 May 07 04:39	17°♄29'36	2°37'57		4932 Apr 18 20:41	30°♄	
min. Earth dist.	4931 May 10 10:23	14°♄37'58	0.59755 AU	min. Earth dist.	4932 Apr 21 17:53	27°♄04'34	0.61949 AU
morning rise	4931 May 14 04:29	11°♄53'18		morning rise	4932 Apr 25 05:32	24°♄05'17	
desc. node	4931 May 17 09:24	10°♄26'14		direct	4932 May 02 01:01	21°♄38'55	
direct	4931 May 20 15:15	9°♄56'45		desc. node	4932 May 03 06:25	21°♄43'22	
morning max el	4931 Jun 03 23:56	17°♄48'37	27°32'35	morning max el	4932 May 16 04:37	29°♄38'47	27°52'42
	4931 Jun 14 03:42	0°♄			4932 May 16 13:03	0°♄	
	4931 Jul 01 22:52	0°♄			4932 Jun 07 03:04	0°♄	
morning set	4931 Jul 05 13:13	7°♄18'12		morning set	4932 Jun 18 15:40	21°♄36'58	
asc. node	4931 Jul 07 21:11	12°♄13'50			4932 Jun 22 16:01	0°♄	
max. Earth dist.	4931 Jul 12 00:32	21°♄14'30	1.31956 AU	asc. node	4932 Jun 23 18:14	2°♄20'28	
				max. Earth dist.	4932 Jun 24 09:05	3°♄40'33	1.32294 AU
superior conj	4931 Jul 12 17:51	22°♄49'57	0°48'55				
minimum elong	4931 Jul 12 15:55	22°♄39'15	0°48'31	superior conj	4932 Jun 26 03:44	7°♄32'18	0°24'48
	4931 Jul 15 23:53	0°♄		minimum elong	4932 Jun 26 02:36	7°♄26'10	0°24'32
evening rise	4931 Jul 19 14:02	7°♄46'14		evening rise	4932 Jul 03 01:34	22°♄34'06	
	4931 Jul 31 02:41	0°♄			4932 Jul 06 15:18	0°♄	
desc. node	4931 Aug 13 08:40	18°♄46'09			4932 Jul 25 11:33	0°♄	
evening max el	4931 Aug 16 13:07	22°♄03'57	25°51'53	evening max el	4932 Jul 28 03:23	2°♄45'43	24°24'42
retrograde	4931 Aug 30 12:12	29°♄10'54		desc. node	4932 Jul 30 05:41	4°♄38'47	
evening set	4931 Sep 05 18:31	27°♄37'35		retrograde	4932 Aug 10 23:52	9°♄44'44	
min. Earth dist.	4931 Sep 10 01:26	25°♄02'23	0.58530 AU	evening set	4932 Aug 15 23:28	8°♄49'19	
inferior conj	4931 Sep 13 06:24	22°♄43'04	-5°-5'-14	min. Earth dist.	4932 Aug 21 14:23	5°♄57'35	0.56653 AU
minimum elong	4931 Sep 13 10:20	22°♄35'55	5°04'50	inferior conj	4932 Aug 24 05:49	4°♄17'12	-5°-15'-8
morning rise	4931 Sep 21 05:43	18°♄19'22		minimum elong	4932 Aug 24 04:17	4°♄19'38	5°15'07
direct	4931 Sep 23 15:24	18°♄00'39		morning rise	4932 Sep 01 12:35	0°♄14'51	
morning max el	4931 Oct 01 21:39	21°♄57'59	18°38'19		4932 Sep 02 22:40	30°♄	
asc. node	4931 Oct 03 20:25	24°♄01'54		direct	4932 Sep 04 04:29	29°♄55'45	
	4931 Oct 08 05:11	0°♄			4932 Sep 05 09:54	0°♄	
morning set	4931 Oct 18 02:13	17°♄49'58		morning max el	4932 Sep 13 18:33	4°♄24'43	19°34'16
	4931 Oct 24 08:59	0°♄		asc. node	4932 Sep 19 17:27	11°♄36'59	
					4932 Sep 30 01:00	0°♄	
superior conj	4931 Oct 26 20:52	4°♄43'36	1°25'36	morning set	4932 Oct 01 04:22	2°♄16'55	
minimum elong	4931 Oct 27 00:10	4°♄59'03	1°25'16				
max. Earth dist.	4931 Nov 03 03:26	17°♄55'26	1.39789 AU	superior conj	4932 Oct 09 04:19	18°♄20'21	1°38'49
evening rise	4931 Nov 07 06:55	25°♄02'15		minimum elong	4932 Oct 09 06:07	18°♄29'11	1°38'43
desc. node	4931 Nov 09 07:55	28°♄26'19			4932 Oct 15 06:35	0°♄	
	4931 Nov 10 06:45	0°♄		max. Earth dist.	4932 Oct 15 07:55	0°♄06'10	1.37688 AU
	4931 Nov 30 10:08	0°♄		evening rise	4932 Oct 19 03:04	6°♄59'07	
evening max el	4931 Dec 12 05:46	14°♄07'34	23°59'36	desc. node	4932 Oct 26 04:57	19°♄02'21	
retrograde	4931 Dec 23 06:09	20°♄36'38			4932 Nov 02 04:14	0°♄	
evening set	4931 Dec 28 10:50	18°♄27'52		evening max el	4932 Nov 23 18:22	27°♄50'36	25°15'41
asc. node	4931 Dec 30 19:41	16°♄02'59			4932 Nov 26 02:24	0°♄	
inferior conj	4932 Jan 02 22:35	11°♄59'39	1°02'20	retrograde	4932 Dec 05 18:32	4°♄46'35	
minimum elong	4932 Jan 02 21:10	12°♄04'25	1°01'48	evening set	4932 Dec 11 12:50	2°♄23'34	
min. Earth dist.	4932 Jan 02 06:19	12°♄54'48	0.67908 AU		4932 Dec 13 22:08	30°♄	
morning rise	4932 Jan 08 07:48	5°♄53'28		min. Earth dist.	4932 Dec 16 00:35	27°♄24'59	0.67363 AU
direct	4932 Jan 12 06:00	4°♄26'09		asc. node	4932 Dec 16 16:43	26°♄32'38	
morning max el	4932 Jan 20 05:51	9°♄00'44	20°32'22	inferior conj	4932 Dec 17 03:43	25°♄56'50	0°09'21
greatest brilliancy	4932 Jan 26 07:10	16°♄06'22	-0.5m	minimum elong	4932 Dec 17 03:29	25°♄57'37	0°09'16
desc. node	4932 Feb 05 07:10	0°♄09'13		transit middle	4932 Dec 17 03:29	25°♄57'37	0°09'16
	4932 Feb 05 04:40	0°♄		transit begin	4932 Dec 17 01:12	26°♄05'02	
morning set	4932 Feb 17 23:22	19°♄21'05		transit end	4932 Dec 17 05:46	25°♄50'11	
	4932 Feb 24 17:55	0°♄		morning rise	4932 Dec 22 18:51	19°♄57'57	
max. Earth dist.	4932 Feb 27 05:10	3°♄57'33	1.43330 AU	direct	4932 Dec 26 04:43	18°♄50'50	
				morning max el	4933 Jan 02 09:13	22°♄52'19	19°27'37
superior conj	4932 Mar 04 15:56	14°♄31'57	-2°-8'-39		4933 Jan 08 07:56	0°♄	
minimum elong	4932 Mar 04 15:20	14°♄29'27	2°08'39	greatest brilliancy	4933 Jan 11 00:23	3°♄43'42	-0.7m
	4932 Mar 13 17:19	0°♄		desc. node	4933 Jan 22 04:11	20°♄24'56	
evening rise	4932 Mar 16 23:50	5°♄44'08		morning set	4933 Jan 26 21:01	27°♄39'24	
asc. node	4932 Mar 27 19:00	24°♄08'36			4933 Jan 28 09:22	0°♄	
	4932 Mar 31 22:40	0°♄		max. Earth dist.	4933 Feb 08 18:02	17°♄45'38	1.44645 AU
evening max el	4932 Apr 03 03:25	2°♄27'28	18°06'56				
retrograde	4932 Apr 09 15:18	5°♄49'37		superior conj	4933 Feb 12 15:02	23°♄55'20	-1°-57'-14

minimum elong	4933 Feb 12 08:12	23° \approx 27'59	1°56'49	max. Earth dist.	4934 Jan 22 11:59	2° \approx 03'19	1.45281 AU
	4933 Feb 16 09:42	0° H		evening rise	4934 Feb 07 12:52	27° \approx 24'07	
evening rise	4933 Feb 26 17:55	17° H 02'33			4934 Feb 09 03:53	0° H	
	4933 Mar 06 12:25	0° Y		evening max el	4934 Mar 01 03:02	29° H 18'11	18°51'25
asc. node	4933 Mar 14 16:02	12° Y 19'32		asc. node	4934 Mar 01 13:04	29° H 43'10	
evening max el	4933 Mar 17 16:13	15° Y 49'02	18°20'13		4934 Mar 01 20:07	0° Y	
retrograde	4933 Mar 24 02:44	19° Y 17'00		retrograde	4934 Mar 07 20:42	3° Y 04'09	
evening set	4933 Mar 27 01:45	18° Y 29'32		evening set	4934 Mar 11 02:20	2° Y 03'56	
inferior conj	4933 Apr 02 01:09	13° Y 03'02	3°32'41		4934 Mar 13 14:28	30° R H	
minimum elong	4933 Apr 02 01:38	13° Y 01'41	3°32'40	inferior conj	4934 Mar 16 18:33	26° H 19'53	3°30'29
min. Earth dist.	4933 Apr 04 10:28	10° Y 20'07	0.63951 AU	minimum elong	4934 Mar 16 17:36	26° H 22'50	3°30'24
morning rise	4933 Apr 07 23:42	6° Y 52'33		min. Earth dist.	4934 Mar 18 12:11	24° H 10'37	0.65601 AU
direct	4933 Apr 14 19:19	4° Y 08'04		morning rise	4934 Mar 22 07:46	20° H 05'02	
desc. node	4933 Apr 20 03:26	5° Y 33'19		direct	4934 Mar 28 20:28	17° H 16'21	
morning max el	4933 Apr 28 13:11	12° Y 06'09	27°35'49	desc. node	4934 Apr 07 00:28	21° H 24'31	
	4933 May 12 19:01	0° B		morning max el	4934 Apr 10 23:09	25° H 00'48	26°47'05
	4933 May 30 14:37	0° II			4934 Apr 15 11:55	0° Y	
morning set	4933 Jun 02 10:41	5° II 30'36			4934 May 06 06:14	0° B	
max. Earth dist.	4933 Jun 07 10:53	15° II 43'03	1.33074 AU	morning set	4934 May 16 19:05	18° B 49'29	
				max. Earth dist.	4934 May 21 02:44	27° B 15'41	1.34321 AU
superior conj	4933 Jun 10 10:01	21° II 59'42	0°-2'-17		4934 May 22 11:22	0° II	
minimum elong	4933 Jun 10 10:08	22° II 00'20	0°02'17				
behind sun begin	4933 Jun 10 04:48	21° II 31'48		superior conj	4934 May 25 10:32	6° II 05'27	0°-31'-22
behind sun end	4933 Jun 10 15:28	22° II 28'53		minimum elong	4934 May 25 12:13	6° II 14'12	0°31'02
asc. node	4933 Jun 10 15:19	22° II 28'03		asc. node	4934 May 28 12:21	12° II 32'08	
	4933 Jun 14 03:16	0° E		evening rise	4934 Jun 01 23:05	21° II 53'14	
evening rise	4933 Jun 17 13:13	7° E 18'34			4934 Jun 05 22:48	0° E	
	4933 Jun 29 12:51	0° O		evening max el	4934 Jun 21 12:24	23° E 42'45	21°15'05
evening max el	4933 Jul 09 16:32	13° O 07'59	22°47'20	retrograde	4934 Jul 03 12:05	29° E 37'06	
desc. node	4933 Jul 17 02:42	18° O 26'14		desc. node	4934 Jul 03 23:44	29° E 36'32	
retrograde	4933 Jul 22 22:43	19° O 44'14		evening set	4934 Jul 05 20:09	29° E 24'28	
evening set	4933 Jul 26 09:46	19° O 18'02		inferior conj	4934 Jul 15 04:09	25° E 26'14	-3°-11'-49
min. Earth dist.	4933 Aug 03 00:49	15° O 55'08	0.55311 AU	minimum elong	4934 Jul 14 19:53	25° E 37'49	3°09'13
inferior conj	4933 Aug 04 10:26	15° O 06'57	-4°-38'-48	min. Earth dist.	4934 Jul 15 11:13	25° E 16'19	0.54798 AU
minimum elong	4933 Aug 04 02:58	15° O 17'40	4°37'24	morning rise	4934 Jul 23 19:56	21° E 30'56	
morning rise	4933 Aug 12 22:40	11° O 16'40		direct	4934 Jul 27 09:07	21° E 03'47	
direct	4933 Aug 15 23:40	10° O 55'08		morning max el	4934 Aug 09 01:06	27° E 04'11	22°27'05
morning max el	4933 Aug 27 03:30	16° O 06'49	20°51'44		4934 Aug 11 21:37	0° O	
asc. node	4933 Sep 06 14:31	29° O 59'41		asc. node	4934 Aug 24 11:35	18° O 57'55	
	4933 Sep 06 14:35	0° P			4934 Aug 30 01:16	0° P	
morning set	4933 Sep 15 11:47	16° P 59'02		morning set	4934 Aug 30 22:14	1° P 49'21	
	4933 Sep 21 17:58	0° A					
superior conj	4933 Sep 22 23:15	2° A 30'53	1°43'35	superior conj	4934 Sep 07 02:01	17° P 03'48	1°41'14
minimum elong	4933 Sep 22 23:29	2° A 32'04	1°43'36	minimum elong	4934 Sep 07 00:59	16° P 58'14	1°41'12
max. Earth dist.	4933 Sep 27 16:28	11° A 59'45	1.35772 AU	max. Earth dist.	4934 Sep 10 09:03	23° P 57'40	1.34194 AU
evening rise	4933 Oct 01 18:49	19° A 50'28			4934 Sep 13 08:25	0° A	
	4933 Oct 07 10:20	0° M		evening rise	4934 Sep 15 01:43	3° A 23'47	
desc. node	4933 Oct 13 02:00	9° M 26'15		desc. node	4934 Sep 29 23:02	29° A 31'12	
	4933 Oct 27 05:03	0° J			4934 Sep 30 06:25	0° M	
evening max el	4933 Nov 06 07:09	11° J 33'58	26°20'25	evening max el	4934 Oct 19 19:55	25° M 08'01	27°06'22
retrograde	4933 Nov 19 01:45	18° J 45'28			4934 Oct 25 21:49	0° J	
evening set	4933 Nov 25 09:30	16° J 11'30		retrograde	4934 Nov 02 03:12	2° J 25'27	
min. Earth dist.	4933 Nov 29 14:14	11° J 48'31	0.66472 AU	evening set	4934 Nov 08 22:38	29° M 46'04	
inferior conj	4933 Dec 01 04:38	9° J 51'24	0°-48'-42		4934 Nov 08 15:23	30° R M	
minimum elong	4933 Dec 01 05:58	9° J 47'21	0°48'09	min. Earth dist.	4934 Nov 12 20:49	25° M 59'03	0.65229 AU
asc. node	4933 Dec 03 13:44	7° J 04'20		inferior conj	4934 Nov 14 23:07	23° M 37'49	-1°-50'-29
morning rise	4933 Dec 07 03:41	4° J 02'29		minimum elong	4934 Nov 15 02:17	23° M 28'54	1°49'13
direct	4933 Dec 10 03:10	3° J 12'11		asc. node	4934 Nov 20 10:47	18° M 30'25	
morning max el	4933 Dec 16 19:33	6° J 51'36	18°38'31	morning rise	4934 Nov 21 07:50	18° M 02'01	
	4934 Jan 02 03:30	0° Z		direct	4934 Nov 23 23:08	17° M 24'42	
morning set	4934 Jan 06 14:45	7° Z 03'51		morning max el	4934 Nov 30 10:34	20° M 52'21	18°06'01
desc. node	4934 Jan 09 01:14	10° Z 54'57			4934 Dec 07 11:12	0° J	
	4934 Jan 21 04:32	0° \approx		morning set	4934 Dec 18 13:57	17° J 56'48	
					4934 Dec 25 22:57	0° Z	
				desc. node	4934 Dec 26 22:17	1° Z 34'13	
superior conj	4934 Jan 22 20:18	2° \approx 35'54	-1°-26'-14				
minimum elong	4934 Jan 22 10:59	1° \approx 59'23	1°25'16	superior conj	4935 Jan 02 02:07	11° Z 24'53	0°-41'-47

minimum elong	4935 Jan 01 20:56	11°☿04'22	0°41'05	desc. node	4935 Dec 13 19:17	22°♄18'58	
max. Earth dist.	4935 Jan 05 07:49	16°☿31'30	1.45165 AU		4935 Dec 18 13:22	0°☿	
	4935 Jan 13 22:52	0°♊		max. Earth dist.	4935 Dec 19 01:51	0°☿49'51	1.44326 AU
evening rise	4935 Jan 18 10:39	6°♊57'59		evening rise	4935 Dec 28 20:58	16°☿09'36	
	4935 Feb 02 13:02	0°♋			4936 Jan 06 23:54	0°♊	
greatest brilliancy	4935 Feb 04 17:41	3°♋10'04	-0.6m	greatest brilliancy	4936 Jan 20 19:08	19°♊41'38	-0.5m
evening max el	4935 Feb 12 09:46	12°♋50'37	19°39'14	evening max el	4936 Jan 26 11:09	26°♊23'46	20°41'27
asc. node	4935 Feb 16 10:05	16°♋06'19			4936 Jan 30 19:00	0°♋	
retrograde	4935 Feb 19 18:07	17°♋05'06		asc. node	4936 Feb 03 07:06	1°♋13'46	
evening set	4935 Feb 23 07:19	15°♋51'17		retrograde	4936 Feb 03 16:24	1°♋14'35	
inferior conj	4935 Feb 28 19:07	9°♋51'51	3°14'47		4936 Feb 07 07:01	30°♌	
minimum elong	4935 Feb 28 17:13	9°♋58'11	3°14'29	evening set	4936 Feb 07 14:35	29°♌46'17	
min. Earth dist.	4935 Mar 01 21:53	8°♋23'24	0.66828 AU	inferior conj	4936 Feb 13 00:13	23°♌34'17	2°48'22
morning rise	4935 Mar 06 02:24	3°♋35'29		minimum elong	4936 Feb 12 21:51	23°♌42'25	2°47'47
direct	4935 Mar 12 03:34	0°♋54'38		min. Earth dist.	4936 Feb 13 13:35	22°♌48'26	0.67633 AU
morning max el	4935 Mar 24 08:40	8°♋11'55	25°34'53	morning rise	4936 Feb 18 04:39	17°♌18'20	
desc. node	4935 Mar 24 21:31	8°♋44'46		direct	4936 Feb 23 15:51	14°♌53'49	
	4935 Apr 10 10:13	0°♍		morning max el	4936 Mar 05 17:21	21°♌30'18	24°09'03
	4935 Apr 28 18:33	0°♎		desc. node	4936 Mar 10 18:32	27°♌08'14	
morning set	4935 Apr 29 12:37	1°♎21'52			4936 Mar 13 02:02	0°♏	
max. Earth dist.	4935 May 03 07:31	8°♎24'02	1.36018 AU		4936 Apr 02 16:41	0°♍	
				morning set	4936 Apr 10 09:40	12°♍51'52	
superior conj	4935 May 09 02:35	19°♎42'07	-1°-1'-3	max. Earth dist.	4936 Apr 14 04:00	19°♍29'30	1.38068 AU
minimum elong	4935 May 09 05:57	19°♎58'58	1°00'29		4936 Apr 19 20:59	0°♏	
	4935 May 14 04:19	0°♐					
asc. node	4935 May 15 09:24	2°♐28'55		superior conj	4936 Apr 21 06:42	2°♏40'04	-1°-29'-13
evening rise	4935 May 17 05:03	6°♐11'43		minimum elong	4936 Apr 21 11:23	3°♏02'31	1°28'37
	4935 May 30 15:20	0°♑		evening rise	4936 Apr 30 04:28	20°♏05'50	
evening max el	4935 Jun 03 20:08	4°♑53'59	19°58'22	asc. node	4936 May 01 06:25	22°♏13'18	
retrograde	4935 Jun 14 03:20	9°♑56'08			4936 May 05 07:52	0°♐	
evening set	4935 Jun 16 01:35	9°♑46'19		evening max el	4936 May 16 15:50	16°♐46'59	19°01'20
desc. node	4935 Jun 20 20:45	8°♑07'33		retrograde	4936 May 25 07:54	21°♐01'26	
inferior conj	4935 Jun 25 01:10	5°♑46'00	-1°-14'-57	evening set	4936 May 27 08:25	20°♐48'32	
minimum elong	4935 Jun 24 21:41	5°♑51'17	1°13'40	inferior conj	4936 Jun 04 14:09	16°♐34'05	0°37'37
min. Earth dist.	4935 Jun 26 23:34	4°♑35'56	0.55245 AU	minimum elong	4936 Jun 04 15:39	16°♐31'29	0°37'05
morning rise	4935 Jul 03 15:09	1°♑25'20		desc. node	4936 Jun 06 17:46	15°♐04'06	
direct	4935 Jul 07 21:47	0°♑45'24		min. Earth dist.	4936 Jun 07 15:05	14°♐27'56	0.56571 AU
morning max el	4935 Jul 21 15:56	7°♑32'02	24°10'52	morning rise	4936 Jun 12 18:26	11°♐37'25	
	4935 Aug 06 22:19	0°♒		direct	4936 Jun 17 23:27	10°♐33'16	
asc. node	4935 Aug 11 08:39	8°♒22'41		morning max el	4936 Jul 02 06:13	17°♐55'18	25°48'22
morning set	4935 Aug 15 09:57	16°♒42'42			4936 Jul 12 06:54	0°♑	
	4935 Aug 21 13:31	0°♓		asc. node	4936 Jul 28 05:41	28°♑06'07	
					4936 Jul 29 03:33	0°♒	
superior conj	4935 Aug 22 09:55	1°♓50'53	1°32'52	morning set	4936 Jul 29 21:18	1°♒33'31	
minimum elong	4935 Aug 22 08:01	1°♓40'33	1°32'41				
max. Earth dist.	4935 Aug 24 10:13	6°♓11'38	1.33026 AU	superior conj	4936 Aug 05 20:43	16°♒44'41	1°19'18
evening rise	4935 Aug 29 19:50	17°♓28'45		minimum elong	4936 Aug 05 18:25	16°♒32'05	1°18'58
	4935 Sep 05 07:33	0°♈		max. Earth dist.	4936 Aug 06 17:54	18°♒41'06	1.32280 AU
desc. node	4935 Sep 16 20:02	19°♈09'05			4936 Aug 11 23:48	0°♓	
	4935 Sep 24 17:49	0°♉		evening rise	4936 Aug 12 21:57	1°♓55'45	
evening max el	4935 Oct 02 07:11	8°♉20'53	27°26'38		4936 Aug 28 05:18	0°♈	
retrograde	4935 Oct 15 22:29	15°♉38'07		desc. node	4936 Sep 02 17:03	8°♈08'53	
evening set	4935 Oct 23 01:29	13°♉02'03		evening max el	4936 Sep 13 14:52	21°♈00'29	27°15'51
min. Earth dist.	4935 Oct 26 18:16	9°♉48'30	0.63644 AU	retrograde	4936 Sep 27 11:03	28°♈14'13	
inferior conj	4935 Oct 29 08:37	7°♉10'21	-2°-53'-40	evening set	4936 Oct 04 14:28	25°♈53'15	
minimum elong	4935 Oct 29 13:36	6°♉57'39	2°51'53	min. Earth dist.	4936 Oct 08 05:23	23°♈05'49	0.61764 AU
morning rise	4935 Nov 05 04:18	1°♉50'58		inferior conj	4936 Oct 11 06:07	20°♈22'04	-3°-54'-8
asc. node	4935 Nov 07 07:50	1°♉23'16		minimum elong	4936 Oct 11 12:17	20°♈08'07	3°52'23
direct	4935 Nov 07 13:50	1°♉22'57		morning rise	4936 Oct 18 13:16	15°♈22'15	
morning max el	4935 Nov 14 03:24	4°♉47'52	17°50'45	direct	4936 Oct 20 19:58	15°♈00'05	
morning set	4935 Nov 30 15:37	0°♊06'15		asc. node	4936 Oct 24 04:53	15°♈50'20	
	4935 Nov 30 14:10	0°♋		morning max el	4936 Oct 27 18:57	18°♈30'45	17°53'37
					4936 Nov 05 02:12	0°♌	
superior conj	4935 Dec 13 03:08	21°♊12'47	0°04'44	morning set	4936 Nov 12 13:26	13°♌13'25	
minimum elong	4935 Dec 13 03:38	21°♊14'52	0°04'41		4936 Nov 21 22:43	0°♋	
behind sun begin	4935 Dec 12 18:18	20°♊36'28					
behind sun end	4935 Dec 13 12:59	21°♊53'10		superior conj	4936 Nov 23 06:38	2°♊18'19	0°44'21

minimum elong	4936 Nov 23 10:12	2°♂33'40	0°43'51	asc. node	4937 Oct 11 01:56	1°♂42'10	
desc. node	4936 Nov 29 16:18	13°♂06'08		morning set	4937 Oct 27 01:34	27°♂00'55	
max. Earth dist.	4936 Nov 30 15:41	14°♂42'10	1.42874 AU		4937 Oct 28 15:17	0°♂	
evening rise	4936 Dec 07 11:40	25°♂39'02					
	4936 Dec 10 06:44	0°♂		superior conj	4937 Nov 05 10:27	14°♂34'06	1°13'35
	4936 Dec 30 22:48	0°♂		minimum elong	4937 Nov 05 14:19	14°♂51'41	1°13'08
greatest brilliancy	4937 Jan 03 13:28	4°♂36'53	-0.3m	max. Earth dist.	4937 Nov 13 00:41	27°♂56'54	1.40988 AU
evening max el	4937 Jan 08 07:11	9°♂58'42	21°54'35		4937 Nov 14 05:44	0°♂	
retrograde	4937 Jan 17 13:37	15°♂29'20		desc. node	4937 Nov 16 13:20	3°♂51'52	
asc. node	4937 Jan 20 04:07	14°♂53'09		evening rise	4937 Nov 17 20:06	5°♂58'17	
evening set	4937 Jan 21 22:25	13°♂45'41			4937 Dec 03 11:32	0°♂	
inferior conj	4937 Jan 27 07:44	7°♂24'26	2°13'05	evening max el	4937 Dec 21 22:54	23°♂36'19	23°13'47
minimum elong	4937 Jan 27 05:22	7°♂32'38	2°12'20	retrograde	4938 Jan 01 08:08	29°♂45'10	
min. Earth dist.	4937 Jan 27 09:01	7°♂19'55	0.68037 AU	evening set	4938 Jan 06 05:12	27°♂45'36	
morning rise	4937 Feb 01 12:05	1°♂10'46		asc. node	4938 Jan 07 01:10	27°♂00'38	
	4937 Feb 03 03:52	30°♂		min. Earth dist.	4938 Jan 11 05:46	21°♂53'05	0.68063 AU
direct	4937 Feb 06 08:34	29°♂07'28		inferior conj	4938 Jan 11 15:42	21°♂18'55	1°30'09
	4937 Feb 09 19:34	0°♂		minimum elong	4938 Jan 11 13:49	21°♂25'25	1°29'27
morning max el	4937 Feb 16 03:23	4°♂54'29	22°39'47	morning rise	4938 Jan 16 22:28	15°♂09'26	
greatest brilliancy	4937 Feb 20 17:39	10°♂01'47	-0.3m	direct	4938 Jan 21 04:36	13°♂29'02	
desc. node	4937 Feb 25 15:32	16°♂17'13		morning max el	4938 Jan 29 18:27	18°♂27'24	21°15'47
	4937 Mar 07 08:53	0°♂		greatest brilliancy	4938 Feb 03 22:16	24°♂20'22	-0.4m
morning set	4937 Mar 22 04:20	23°♂04'44			4938 Feb 08 05:54	0°♂	
	4937 Mar 26 07:50	0°♂		desc. node	4938 Feb 12 12:33	5°♂58'33	
max. Earth dist.	4937 Mar 26 23:36	1°♂07'03	1.40267 AU		4938 Feb 28 12:35	0°♂	
				morning set	4938 Mar 01 18:35	1°♂57'47	
superior conj	4937 Apr 03 18:38	14°♂49'32	-1°-52'-39	max. Earth dist.	4938 Mar 09 01:14	13°♂39'26	1.42324 AU
minimum elong	4937 Apr 03 23:25	15°♂11'13	1°52'17				
	4937 Apr 11 22:22	0°♂		superior conj	4938 Mar 16 09:23	25°♂58'36	-2°-6'-51
evening rise	4937 Apr 13 18:15	3°♂27'56		minimum elong	4938 Mar 16 11:42	26°♂08'34	2°06'48
asc. node	4937 Apr 18 03:25	11°♂40'29			4938 Mar 18 17:12	0°♂	
evening max el	4937 Apr 29 20:45	29°♂16'34	18°24'39	evening rise	4938 Mar 27 18:30	16°♂08'46	
	4937 Apr 30 15:27	0°♂			4938 Apr 04 13:53	0°♂	
retrograde	4937 May 07 07:10	2°♂57'41		asc. node	4938 Apr 05 00:27	0°♂44'24	
evening set	4937 May 09 14:08	2°♂37'40		evening max el	4938 Apr 13 07:16	12°♂13'14	18°07'53
	4937 May 14 12:36	30°♂		retrograde	4938 Apr 20 00:03	15°♂37'44	
inferior conj	4937 May 17 00:30	28°♂03'10	2°03'34	evening set	4938 Apr 22 13:33	15°♂08'05	
minimum elong	4937 May 17 03:59	27°♂56'04	2°02'33	inferior conj	4938 Apr 29 07:15	10°♂12'18	2°58'19
min. Earth dist.	4937 May 20 10:58	25°♂16'34	0.58511 AU	minimum elong	4938 Apr 29 10:14	10°♂05'15	2°57'44
morning rise	4937 May 24 13:26	22°♂33'59		min. Earth dist.	4938 May 02 13:20	7°♂09'06	0.60700 AU
desc. node	4937 May 24 14:47	22°♂32'13		morning rise	4938 May 06 03:32	4°♂20'12	
direct	4937 May 30 15:30	20°♂56'49		desc. node	4938 May 11 11:47	2°♂14'54	
morning max el	4937 Jun 14 00:51	28°♂40'39	27°03'47	direct	4938 May 12 19:19	2°♂09'55	
	4937 Jun 15 08:16	0°♂		morning max el	4938 May 27 01:56	10°♂05'27	27°45'48
	4937 Jun 06 00:19	0°♂			4938 Jun 11 12:08	0°♂	
morning set	4937 Jul 14 06:39	16°♂16'33			4938 Jun 28 03:15	0°♂	
asc. node	4937 Jul 15 02:42	18°♂02'23		morning set	4938 Jun 28 12:16	0°♂46'25	
	4937 Jul 20 14:40	0°♂		asc. node	4938 Jul 01 23:44	8°♂06'44	
				max. Earth dist.	4938 Jul 04 15:42	13°♂53'56	1.32051 AU
superior conj	4937 Jul 21 08:32	1°♂38'44	1°01'11				
minimum elong	4937 Jul 21 06:20	1°♂26'33	1°00'47	superior conj	4938 Jul 05 19:40	16°♂27'29	0°39'07
max. Earth dist.	4937 Jul 21 04:56	1°♂18'50	1.31956 AU	minimum elong	4938 Jul 05 18:01	16°♂18'25	0°38'46
evening rise	4937 Jul 28 05:26	16°♂36'41			4938 Jul 12 00:16	0°♂	
	4937 Aug 03 21:20	0°♂		evening rise	4938 Jul 12 16:06	1°♂24'38	
desc. node	4937 Aug 20 14:05	26°♂14'38			4938 Jul 28 03:52	0°♂	
	4937 Aug 23 19:34	0°♂		desc. node	4938 Aug 07 11:06	13°♂04'40	
evening max el	4937 Aug 26 16:31	2°♂55'39	26°31'34	evening max el	4938 Aug 08 10:39	14°♂02'30	25°17'08
retrograde	4937 Sep 09 15:17	10°♂04'39		retrograde	4938 Aug 22 09:12	21°♂06'10	
evening set	4937 Sep 16 08:51	8°♂11'24		evening set	4938 Aug 28 04:01	19°♂49'18	
min. Earth dist.	4937 Sep 20 06:11	5°♂36'39	0.59712 AU	min. Earth dist.	4938 Sep 01 22:20	17°♂09'16	0.57695 AU
inferior conj	4937 Sep 23 12:07	3°♂03'21	-4°-44'-50	inferior conj	4938 Sep 04 23:21	15°♂04'48	-5°-14'-8
minimum elong	4937 Sep 23 17:43	2°♂52'18	4°43'50	minimum elong	4938 Sep 05 01:19	15°♂01'26	5°14'04
	4937 Sep 27 17:59	30°♂		morning rise	4938 Sep 13 02:05	10°♂50'27	
morning rise	4937 Oct 01 06:01	28°♂25'43		direct	4938 Sep 15 14:12	10°♂31'39	
direct	4937 Oct 03 13:29	28°♂06'26		morning max el	4938 Sep 24 08:43	14°♂40'55	18°59'21
	4937 Oct 09 00:15	0°♂		asc. node	4938 Sep 27 22:58	18°♂44'15	
morning max el	4937 Oct 11 05:50	1°♂51'29	18°15'59		4938 Oct 05 01:50	0°♂	

morning set	4938 Oct 10 23:37	11°♂16'52		direct	4939 Aug 27 19:16	22°♂03'55	
				morning max el	4939 Sep 07 00:41	26°♂49'09	20°04'41
superior conj	4938 Oct 19 09:25	27°♂46'07	1°32'19		4939 Sep 10 00:27	0°♂	
minimum elong	4938 Oct 19 12:07	27°♂59'04	1°32'06	asc. node	4939 Sep 14 20:02	6°♂40'54	
	4938 Oct 20 13:30	0°♂		morning set	4939 Sep 25 04:19	25°♂51'10	
max. Earth dist.	4938 Oct 26 06:11	10°♂30'38	1.38897 AU		4939 Sep 27 05:03	0°♂	
evening rise	4938 Oct 30 03:31	17°♂20'18					
desc. node	4938 Nov 03 10:22	24°♂32'47		superior conj	4939 Oct 02 22:17	11°♂38'50	1°41'47
	4938 Nov 06 19:19	0°♂		minimum elong	4939 Oct 02 23:24	11°♂44'25	1°41'45
	4938 Nov 27 22:55	0°♂		max. Earth dist.	4939 Oct 08 11:56	22°♂31'49	1.36844 AU
evening max el	4938 Dec 04 12:09	7°♂17'45	24°32'50	evening rise	4939 Oct 12 08:30	29°♂41'16	
retrograde	4938 Dec 15 22:53	13°♂58'43			4939 Oct 12 12:39	0°♂	
evening set	4938 Dec 21 09:25	11°♂43'38		desc. node	4939 Oct 21 07:26	15°♂04'14	
asc. node	4938 Dec 24 22:12	7°♂54'19			4939 Oct 31 01:24	0°♂	
min. Earth dist.	4938 Dec 26 01:32	6°♂25'15	0.67727 AU	evening max el	4939 Nov 17 00:38	21°♂01'08	25°44'55
inferior conj	4938 Dec 26 22:24	5°♂15'42	0°40'34	retrograde	4939 Nov 29 09:08	28°♂05'01	
minimum elong	4938 Dec 26 21:26	5°♂18'55	0°40'10	evening set	4939 Dec 05 09:25	25°♂36'31	
	4938 Dec 31 10:07	30°♂		min. Earth dist.	4939 Dec 09 18:02	20°♂53'16	0.67032 AU
morning rise	4939 Jan 01 09:53	29°♂12'29		inferior conj	4939 Dec 11 01:59	19°♂12'00	0°-14'-43
direct	4939 Jan 05 02:43	27°♂54'00		minimum elong	4939 Dec 11 02:22	19°♂10'47	0°14'34
	4939 Jan 10 05:22	0°♂		transit middle	4939 Dec 11 02:22	19°♂10'47	0°14'34
morning max el	4939 Jan 12 17:15	2°♂12'33	20°03'00	transit begin	4939 Dec 11 01:09	19°♂14'39	
greatest brilliancy	4939 Jan 19 15:37	10°♂32'44	-0.6m	transit end	4939 Dec 11 03:35	19°♂06'55	
desc. node	4939 Jan 30 09:35	26°♂03'35		asc. node	4939 Dec 11 19:15	18°♂17'36	
	4939 Feb 02 00:18	0°♂		morning rise	4939 Dec 16 20:17	13°♂17'20	
morning set	4939 Feb 08 15:26	10°♂08'18		direct	4939 Dec 20 01:28	12°♂17'56	
max. Earth dist.	4939 Feb 19 10:51	27°♂05'30	1.43968 AU	morning max el	4939 Dec 26 23:55	16°♂08'29	19°04'46
	4939 Feb 21 06:23	0°♂			4940 Jan 06 13:36	0°♂	
				desc. node	4940 Jan 17 06:38	16°♂25'59	
superior conj	4939 Feb 24 22:52	5°♂58'49	-2°-6'-13	morning set	4940 Jan 18 19:20	18°♂48'43	
minimum elong	4939 Feb 24 19:36	5°♂45'27	2°06'08		4940 Jan 25 23:36	0°♂	
evening rise	4939 Mar 10 00:48	27°♂59'19		max. Earth dist.	4940 Feb 02 02:28	11°♂09'12	1.45001 AU
	4939 Mar 11 04:50	0°♂					
asc. node	4939 Mar 22 21:30	19°♂17'09		superior conj	4940 Feb 04 12:41	14°♂58'43	-1°-46'-18
evening max el	4939 Mar 27 20:02	25°♂27'22	18°10'21	minimum elong	4940 Feb 04 03:57	14°♂24'16	1°45'36
retrograde	4939 Apr 03 06:09	28°♂50'29			4940 Feb 13 22:12	0°♂	
evening set	4939 Apr 06 01:40	28°♂09'47		evening rise	4940 Feb 19 09:14	8°♂53'36	
inferior conj	4939 Apr 12 06:38	22°♂53'46	3°26'20		4940 Mar 03 12:01	0°♂	
minimum elong	4939 Apr 12 08:04	22°♂49'56	3°26'11	asc. node	4940 Mar 08 18:32	7°♂09'21	
min. Earth dist.	4939 Apr 15 00:27	19°♂57'58	0.62829 AU	evening max el	4940 Mar 10 08:11	8°♂52'16	18°31'21
morning rise	4939 Apr 18 12:10	16°♂47'53		retrograde	4940 Mar 16 20:56	12°♂26'54	
direct	4939 Apr 25 08:33	14°♂12'32		evening set	4940 Mar 19 22:35	11°♂34'12	
desc. node	4939 Apr 28 08:49	14°♂39'33		inferior conj	4940 Mar 25 18:32	5°♂59'50	3°33'38
morning max el	4939 May 09 08:38	22°♂12'19	27°50'03	minimum elong	4940 Mar 25 18:21	6°♂00'22	3°33'38
	4939 May 16 04:55	0°♂		min. Earth dist.	4940 Mar 27 21:08	3°♂29'52	0.64691 AU
	4939 Jun 04 16:17	0°♂			4940 Mar 31 06:26	30°♂	
morning set	4939 Jun 12 11:54	14°♂55'29		morning rise	4940 Mar 31 12:38	29°♂46'45	
max. Earth dist.	4939 Jun 17 22:07	26°♂12'34	1.32572 AU	direct	4940 Apr 07 05:50	26°♂58'59	
asc. node	4939 Jun 18 20:46	28°♂14'01		desc. node	4940 Apr 14 05:50	29°♂24'59	
	4939 Jun 19 16:25	0°♂			4940 Apr 15 02:39	0°♂	
				morning max el	4940 Apr 20 18:23	4°♂53'34	27°18'42
superior conj	4939 Jun 20 04:15	1°♂04'02	0°13'39		4940 May 09 19:36	0°♂	
minimum elong	4939 Jun 20 03:36	1°♂00'31	0°13'30	morning set	4940 May 26 02:51	28°♂35'37	
behind sun begin	4939 Jun 20 00:48	0°♂45'21			4940 May 26 20:06	0°♂	
behind sun end	4939 Jun 20 06:24	1°♂15'42		max. Earth dist.	4940 May 30 20:08	8°♂03'04	1.33543 AU
evening rise	4939 Jun 27 03:55	16°♂11'57					
	4939 Jul 04 00:02	0°♂		superior conj	4940 Jun 03 08:21	15°♂22'38	0°-14'-26
evening max el	4939 Jul 20 23:24	24°♂31'41	23°43'31	minimum elong	4940 Jun 03 09:06	15°♂26'35	0°14'17
desc. node	4939 Jul 25 08:08	28°♂08'36		behind sun begin	4940 Jun 03 06:36	15°♂13'23	
	4939 Jul 28 14:03	0°♂		behind sun end	4940 Jun 03 11:35	15°♂39'49	
retrograde	4939 Aug 03 15:14	1°♂23'21		asc. node	4940 Jun 04 17:50	18°♂20'23	
evening set	4939 Aug 07 23:33	0°♂41'49			4940 Jun 10 05:03	0°♂	
	4939 Aug 09 20:57	30°♂		evening rise	4940 Jun 10 15:02	0°♂52'38	
min. Earth dist.	4939 Aug 14 09:24	27°♂38'37	0.56005 AU		4940 Jun 27 05:45	0°♂	
inferior conj	4939 Aug 16 14:17	26°♂19'04	-5°-6'-6	evening max el	4940 Jul 01 14:16	4°♂54'29	22°06'41
minimum elong	4939 Aug 16 09:58	26°♂25'36	5°05'41	desc. node	4940 Jul 11 05:08	10°♂52'08	
morning rise	4939 Aug 24 23:37	22°♂23'51		retrograde	4940 Jul 14 09:43	11°♂15'52	

evening set	4940 Jul 17 07:10	10°♌57'14		desc. node	4941 Jun 28 02:06	20°♎51'33	
min. Earth dist.	4940 Jul 25 19:35	7°♌16'49	0.54979 AU	inferior conj	4941 Jul 06 06:04	17°♎08'10	-2°-23'-56
inferior conj	4940 Jul 26 12:47	6°♌52'38	-4°-7'-30	minimum elong	4941 Jul 05 23:25	17°♎17'41	2°21'38
minimum elong	4940 Jul 26 04:08	7°♌04'49	4°05'22	min. Earth dist.	4941 Jul 07 07:02	16°♎32'23	0.54863 AU
morning rise	4940 Aug 04 02:55	3°♌02'45		morning rise	4941 Jul 14 21:52	13°♎03'51	
direct	4940 Aug 07 08:18	2°♌39'37		direct	4941 Jul 18 17:42	12°♎32'19	
morning max el	4940 Aug 19 04:37	8°♌11'46	21°30'30	morning max el	4941 Jul 31 22:37	18°♎54'09	23°10'56
asc. node	4940 Aug 31 17:04	25°♌19'35			4941 Aug 10 02:17	0°♌	
	4940 Sep 03 06:01	0°♍		asc. node	4941 Aug 18 14:07	14°♌30'12	
morning set	4940 Sep 08 13:13	10°♍37'04		morning set	4941 Aug 24 00:24	25°♌29'26	
					4941 Aug 26 03:15	0°♍	
superior conj	4940 Sep 15 20:55	26°♍00'01	1°43'24	superior conj	4941 Aug 31 02:10	10°♍40'20	1°38'23
minimum elong	4940 Sep 15 20:33	25°♍58'09	1°43'23	minimum elong	4941 Aug 31 00:42	10°♍32'28	1°38'17
	4940 Sep 17 19:20	0°♎		max. Earth dist.	4941 Sep 02 19:25	16°♍27'01	1.33644 AU
max. Earth dist.	4940 Sep 19 23:14	4°♎23'17	1.35052 AU	evening rise	4941 Sep 07 19:18	26°♍40'16	
evening rise	4940 Sep 24 07:10	12°♎51'32			4941 Sep 09 12:04	0°♎	
	4940 Oct 03 21:44	0°♏		desc. node	4941 Sep 24 01:27	25°♎15'33	
desc. node	4940 Oct 07 04:28	5°♏20'42			4941 Sep 27 05:37	0°♏	
	4940 Oct 25 02:21	0°♐		evening max el	4941 Oct 12 01:44	18°♏08'31	27°18'33
evening max el	4940 Oct 29 13:16	4°♐40'56	26°42'38	retrograde	4941 Oct 25 13:17	25°♏26'45	
retrograde	4940 Nov 11 14:10	11°♐56'53		evening set	4941 Nov 01 12:22	22°♏47'47	
evening set	4940 Nov 18 03:12	9°♐19'31		min. Earth dist.	4941 Nov 05 08:05	19°♏15'12	0.64592 AU
min. Earth dist.	4940 Nov 22 04:58	5°♐11'58	0.65983 AU	inferior conj	4941 Nov 07 15:29	16°♏45'43	-2°-17'-19
inferior conj	4940 Nov 24 00:26	3°♐03'34	-1°-14'-37	minimum elong	4941 Nov 07 19:27	16°♏34'59	2°15'46
minimum elong	4940 Nov 24 02:31	2°♐57'24	1°13'44	morning rise	4941 Nov 14 04:44	11°♏16'16	
	4940 Nov 26 18:02	30°♑		asc. node	4941 Nov 14 13:19	11°♏07'40	
asc. node	4940 Nov 27 16:17	29°♑06'31		direct	4941 Nov 16 17:11	10°♏43'24	
morning rise	4940 Nov 30 03:26	27°♑19'59		morning max el	4941 Nov 23 04:45	14°♏09'10	17°57'17
direct	4940 Dec 02 23:01	26°♑35'52			4941 Dec 04 08:41	0°♐	
	4940 Dec 09 08:49	0°♐		morning set	4941 Dec 10 12:37	10°♐18'44	
morning max el	4940 Dec 09 12:37	0°♐09'24	18°22'35	desc. node	4941 Dec 21 00:44	27°♐42'34	
morning set	4940 Dec 29 01:20	28°♐50'13			4941 Dec 22 10:41	0°♑	
	4940 Dec 29 18:42	0°♑		superior conj	4941 Dec 24 03:56	2°♑46'01	0°-21'-40
desc. node	4941 Jan 03 03:41	7°♑00'16		minimum elong	4941 Dec 24 01:20	2°♑35'35	0°21'18
superior conj	4941 Jan 13 15:35	23°♑35'55	-1°-8'-23	max. Earth dist.	4941 Dec 28 16:13	9°♑57'01	1.44898 AU
minimum elong	4941 Jan 13 07:24	23°♑03'51	1°07'24	evening rise	4942 Jan 09 09:45	28°♑12'48	
max. Earth dist.	4941 Jan 14 21:05	25°♑31'36	1.45319 AU		4942 Jan 10 13:39	0°♑	
	4941 Jan 17 17:36	0°♒		greatest brilliancy	4942 Jan 29 06:16	27°♒47'15	-0.6m
evening rise	4941 Jan 29 18:29	18°♒52'22			4942 Jan 30 21:55	0°♒	
	4941 Feb 05 20:24	0°♓		evening max el	4942 Feb 04 22:04	5°♓56'00	20°04'07
greatest brilliancy	4941 Feb 12 00:44	9°♓31'52	-0.7m	asc. node	4942 Feb 10 12:35	10°♓01'38	
evening max el	4941 Feb 21 17:25	22°♓22'39	19°09'51	retrograde	4942 Feb 12 14:35	10°♓24'50	
asc. node	4941 Feb 23 15:34	24°♓08'45		evening set	4942 Feb 16 07:25	9°♓05'04	
retrograde	4941 Feb 28 16:40	26°♓19'54		inferior conj	4942 Feb 21 18:05	3°♓00'12	3°04'43
evening set	4941 Mar 04 01:15	25°♓14'13		minimum elong	4942 Feb 21 15:55	3°♓07'30	3°04'17
inferior conj	4941 Mar 09 15:19	19°♓23'28	3°25'14	min. Earth dist.	4942 Feb 22 15:03	1°♓49'39	0.67232 AU
minimum elong	4941 Mar 09 13:54	19°♓28'00	3°25'06		4942 Feb 24 00:34	30°♒	
min. Earth dist.	4941 Mar 11 02:33	17°♓30'42	0.66173 AU	morning rise	4942 Feb 26 23:49	26°♒43'51	
morning rise	4941 Mar 15 01:35	13°♓07'29		direct	4942 Mar 04 19:22	24°♒08'52	
direct	4941 Mar 21 09:48	10°♓20'32			4942 Mar 15 08:37	0°♓	
desc. node	4941 Apr 01 02:52	15°♓57'04		morning max el	4942 Mar 16 13:04	1°♓09'55	24°59'14
morning max el	4941 Apr 03 04:17	17°♓56'03	26°18'37	desc. node	4942 Mar 18 23:56	3°♓46'36	
	4941 Apr 13 07:27	0°♔			4942 Apr 07 07:34	0°♔	
	4941 May 02 18:57	0°♕		morning set	4942 Apr 21 14:57	23°♔43'04	
morning set	4941 May 09 05:28	11°♕35'56			4942 Apr 25 02:03	0°♕	
max. Earth dist.	4941 May 13 06:46	19°♕21'14	1.34983 AU	max. Earth dist.	4942 Apr 25 06:57	0°♕22'36	1.36858 AU
superior conj	4941 May 18 05:34	29°♕16'22	0°-44'00	superior conj	4942 May 01 17:00	12°♕37'33	-1°-13'-22
minimum elong	4941 May 18 07:58	29°♕28'40	0°43'33	minimum elong	4942 May 01 21:00	12°♕57'16	1°12'45
	4941 May 18 14:05	0°♖		asc. node	4942 May 09 11:53	28°♕13'17	
asc. node	4941 May 22 14:52	8°♖21'32		evening rise	4942 May 10 02:55	29°♕28'51	
evening rise	4941 May 25 23:27	15°♖20'22			4942 May 10 09:08	0°♖	
	4941 Jun 02 11:29	0°♗		evening max el	4942 May 27 04:01	27°♖12'00	19°31'39
evening max el	4941 Jun 13 14:55	15°♗43'00	20°40'20		4942 May 30 15:53	0°♗	
retrograde	4941 Jun 24 22:14	21°♗15'22		retrograde	4942 Jun 05 17:26	1°♗51'59	
evening set	4941 Jun 26 23:51	21°♗05'00					

evening set	4942 Jun 07 15:55	1° $\overline{54}$ 1'20		evening max el	4943 May 10 04:03	9° \overline{II} 21'44	18°43'12
	4942 Jun 12 07:38	30° \overline{R} \overline{II}		retrograde	4943 May 18 05:59	13° \overline{II} 20'08	
desc. node	4942 Jun 14 23:07	28° \overline{II} 28'59		evening set	4943 May 20 09:10	13° \overline{II} 04'32	
inferior conj	4942 Jun 16 08:33	27° \overline{II} 36'21	0°-24'-52	inferior conj	4943 May 28 06:27	8° \overline{II} 41'31	1°17'57
minimum elong	4942 Jun 16 07:26	27° \overline{II} 38'08	0°24'28	minimum elong	4943 May 28 09:10	8° \overline{II} 36'26	1°17'02
min. Earth dist.	4942 Jun 18 20:24	26° \overline{II} 01'17	0.55712 AU	min. Earth dist.	4943 May 31 13:15	6° \overline{II} 15'57	0.57341 AU
morning rise	4942 Jun 24 19:21	23° \overline{II} 01'08		desc. node	4943 Jun 01 20:09	5° \overline{II} 23'08	
direct	4942 Jun 29 11:32	22° \overline{II} 12'07		morning rise	4943 Jun 05 04:39	3° \overline{II} 30'16	
morning max el	4942 Jul 13 12:09	29° \overline{II} 15'11	24°54'11	direct	4943 Jun 10 19:08	2° \overline{II} 13'04	
	4942 Jul 14 06:35	0° $\overline{5}$		morning max el	4943 Jun 25 03:51	9° \overline{II} 45'04	26°24'08
	4942 Aug 03 10:07	0° \overline{O}			4943 Jul 10 13:45	0° $\overline{5}$	
asc. node	4942 Aug 05 11:09	4° \overline{O} 03'33		asc. node	4943 Jul 23 08:12	23° $\overline{5}$ 53'16	
morning set	4942 Aug 08 12:09	10° \overline{O} 22'07		morning set	4943 Jul 23 22:52	25° $\overline{5}$ 10'27	
					4943 Jul 26 05:00	0° \overline{O}	
superior conj	4942 Aug 15 11:31	25° \overline{O} 30'49	1°27'43	superior conj	4943 Jul 30 22:57	10° \overline{O} 25'17	1°12'08
minimum elong	4942 Aug 15 09:23	25° \overline{O} 19'12	1°27'28	minimum elong	4943 Jul 30 20:39	10° \overline{O} 12'32	1°11'46
max. Earth dist.	4942 Aug 16 23:51	28° \overline{O} 48'50	1.32656 AU	max. Earth dist.	4943 Jul 31 09:35	11° \overline{O} 23'55	1.32091 AU
	4942 Aug 17 12:59	0° $\overline{7}$		evening rise	4943 Aug 06 21:52	25° \overline{O} 29'34	
evening rise	4942 Aug 22 17:11	10° $\overline{7}$ 55'47			4943 Aug 09 02:15	0° $\overline{7}$	
	4942 Sep 01 18:23	0° \overline{A}			4943 Aug 26 09:58	0° \overline{A}	
desc. node	4942 Sep 10 22:27	14° \overline{A} 38'52		desc. node	4943 Aug 28 19:27	3° \overline{A} 17'48	
	4942 Sep 23 07:21	0° \overline{M}		evening max el	4943 Sep 06 17:26	13° \overline{A} 31'22	27°01'02
evening max el	4942 Sep 24 12:03	1° \overline{M} 09'52	27°26'11	retrograde	4943 Sep 20 14:29	20° \overline{A} 42'36	
retrograde	4942 Oct 08 05:37	8° \overline{M} 24'58		evening set	4943 Sep 27 15:27	18° \overline{A} 31'49	
evening set	4942 Oct 15 09:48	5° \overline{M} 54'08		min. Earth dist.	4943 Oct 01 07:42	15° \overline{A} 52'02	0.60909 AU
min. Earth dist.	4942 Oct 19 01:20	2° \overline{M} 52'43	0.62880 AU	inferior conj	4943 Oct 04 11:37	13° \overline{A} 10'37	-4°-17'-21
inferior conj	4942 Oct 21 20:18	0° \overline{M} 10'53	-3°-19'-56	minimum elong	4943 Oct 04 17:51	12° \overline{A} 57'19	4°15'51
minimum elong	4942 Oct 22 01:55	29° \overline{A} 57'15	3°18'05	morning rise	4943 Oct 11 23:31	8° \overline{A} 20'03	
	4942 Oct 22 00:47	30° \overline{R} \overline{A}		direct	4943 Oct 14 06:14	7° \overline{A} 59'20	
morning rise	4942 Oct 28 20:50	24° \overline{A} 59'04		asc. node	4943 Oct 19 07:25	9° \overline{A} 45'38	
direct	4942 Oct 31 04:51	24° \overline{A} 33'49		morning max el	4943 Oct 21 11:20	11° \overline{A} 34'33	18°00'41
asc. node	4942 Nov 01 10:22	24° \overline{A} 41'00			4943 Nov 02 17:08	0° \overline{M}	
morning max el	4942 Nov 06 21:22	28° \overline{A} 00'06	17°49'37	morning set	4943 Nov 06 04:11	6° \overline{M} 21'39	
	4942 Nov 08 17:10	0° \overline{M}		superior conj	4943 Nov 16 06:24	24° \overline{M} 43'35	0°58'04
morning set	4942 Nov 22 23:41	22° \overline{M} 55'32		minimum elong	4943 Nov 16 10:21	25° \overline{M} 01'00	0°57'33
	4942 Nov 27 00:16	0° \overline{J}			4943 Nov 19 06:59	0° \overline{J}	
superior conj	4942 Dec 04 15:59	13° \overline{J} 06'20	0°22'42	max. Earth dist.	4943 Nov 23 21:21	7° \overline{J} 47'04	1.42118 AU
minimum elong	4942 Dec 04 18:11	13° \overline{J} 15'32	0°22'22	desc. node	4943 Nov 24 18:45	9° \overline{J} 15'41	
desc. node	4942 Dec 07 21:45	18° \overline{J} 28'45		evening rise	4943 Nov 29 17:01	17° \overline{J} 15'11	
max. Earth dist.	4942 Dec 11 09:10	24° \overline{J} 07'56	1.43787 AU		4943 Dec 07 22:18	0° \overline{Z}	
	4942 Dec 15 01:26	0° \overline{Z}		greatest brilliancy	4943 Dec 27 19:22	27° \overline{Z} 41'12	-0.3m
evening rise	4942 Dec 19 20:00	7° \overline{Z} 27'40			4943 Dec 29 18:23	0° $\overline{\approx}$	
	4943 Jan 03 20:59	0° $\overline{\approx}$		evening max el	4944 Jan 01 15:08	3° $\overline{\approx}$ 06'00	22°27'48
greatest brilliancy	4943 Jan 13 18:14	13° $\overline{\approx}$ 34'34	-0.4m	retrograde	4944 Jan 11 08:50	8° $\overline{\approx}$ 53'23	
evening max el	4943 Jan 18 21:13	19° $\overline{\approx}$ 30'23	21°11'28	asc. node	4944 Jan 15 06:38	7° $\overline{\approx}$ 33'17	
retrograde	4943 Jan 27 12:33	24° $\overline{\approx}$ 37'23		evening set	4944 Jan 15 22:46	7° $\overline{\approx}$ 02'44	
asc. node	4943 Jan 28 09:36	24° $\overline{\approx}$ 33'14		inferior conj	4944 Jan 21 08:24	0° $\overline{\approx}$ 38'30	1°55'45
evening set	4943 Jan 31 15:09	23° $\overline{\approx}$ 02'29		minimum elong	4944 Jan 21 06:11	0° $\overline{\approx}$ 46'12	1°54'59
inferior conj	4943 Feb 06 00:28	16° $\overline{\approx}$ 46'14	2°34'24	min. Earth dist.	4944 Jan 21 04:45	0° $\overline{\approx}$ 51'10	0.68095 AU
minimum elong	4943 Feb 05 22:02	16° $\overline{\approx}$ 54'37	2°33'43		4944 Jan 21 19:31	30° \overline{R} \overline{Z}	
min. Earth dist.	4943 Feb 06 08:31	16° $\overline{\approx}$ 18'24	0.67861 AU	morning rise	4944 Jan 26 13:31	24° \overline{Z} 26'33	
morning rise	4943 Feb 11 04:35	10° $\overline{\approx}$ 31'19		direct	4944 Jan 31 03:43	22° \overline{Z} 33'15	
direct	4943 Feb 16 09:36	8° $\overline{\approx}$ 15'30		morning max el	4944 Feb 09 09:49	27° \overline{Z} 58'49	22°03'00
morning max el	4943 Feb 26 21:54	14° $\overline{\approx}$ 30'40	23°30'54		4944 Feb 11 07:40	0° $\overline{\approx}$	
desc. node	4943 Mar 05 20:58	22° $\overline{\approx}$ 31'26		greatest brilliancy	4944 Feb 14 00:52	3° $\overline{\approx}$ 09'40	-0.4m
	4943 Mar 11 12:14	0° \overline{H}		desc. node	4944 Feb 20 18:00	11° $\overline{\approx}$ 55'30	
	4943 Mar 31 05:58	0° \overline{Y}			4944 Mar 04 04:00	0° \overline{H}	
morning set	4943 Apr 03 01:26	4° \overline{Y} 41'55		morning set	4944 Mar 13 07:46	14° \overline{H} 19'47	
max. Earth dist.	4943 Apr 07 02:35	11° \overline{Y} 40'14	1.39007 AU	max. Earth dist.	4944 Mar 19 00:34	23° \overline{H} 41'26	1.41176 AU
					4944 Mar 22 17:46	0° \overline{Y}	
superior conj	4943 Apr 14 14:51	25° \overline{Y} 16'50	-1°-39'-59	superior conj	4944 Mar 26 18:21	7° \overline{Y} 01'43	-2°00'-8
minimum elong	4943 Apr 14 19:48	25° \overline{Y} 40'01	1°39'26	minimum elong	4944 Mar 26 22:28	7° \overline{Y} 20'01	1°59'53
	4943 Apr 17 02:52	0° $\overline{8}$		evening rise	4944 Apr 06 07:17	26° \overline{Y} 17'05	
evening rise	4943 Apr 23 22:43	13° $\overline{8}$ 11'02			4944 Apr 08 07:21	0° $\overline{8}$	
asc. node	4943 Apr 26 08:54	17° $\overline{8}$ 51'23					
	4943 May 03 03:00	0° \overline{II}					

asc. node	4944 Apr 12 05:56	7°♄09'44		asc. node	4945 Mar 30 02:59	26°♄01'45	
evening max el	4944 Apr 22 11:43	22°♄03'38	18°15'04		4945 Apr 01 18:14	0°♄	
retrograde	4944 Apr 29 13:25	25°♄36'09		evening max el	4945 Apr 05 23:35	5°♄08'56	18°06'35
evening set	4944 May 01 23:05	25°♄12'24		retrograde	4945 Apr 12 12:24	8°♄31'09	
inferior conj	4944 May 09 01:53	20°♄28'40	2°30'27	evening set	4945 Apr 15 04:24	7°♄57'05	
minimum elong	4944 May 09 05:22	20°♄21'04	2°29'33	inferior conj	4945 Apr 21 16:15	2°♄52'48	3°13'04
min. Earth dist.	4944 May 12 11:45	17°♄31'50	0.59427 AU	minimum elong	4945 Apr 21 18:37	2°♄46'51	3°12'41
morning rise	4944 May 16 07:37	14°♄48'07		min. Earth dist.	4945 Apr 24 17:53	29°♄49'40	0.61632 AU
desc. node	4944 May 18 17:11	13°♄39'57			4945 Apr 24 13:35	30°♄	
direct	4944 May 22 16:20	12°♄56'29		morning rise	4945 Apr 28 05:53	26°♄53'38	
morning max el	4944 Jun 06 01:27	20°♄46'49	27°26'14	direct	4945 May 05 00:44	24°♄30'57	
	4944 Jun 14 00:37	0°♄		desc. node	4945 May 05 14:14	24°♄31'53	
	4944 Jul 02 10:02	0°♄			4945 May 16 12:43	0°♄	
morning set	4944 Jul 07 06:52	9°♄48'30		morning max el	4945 May 19 05:12	2°♄30'08	27°52'04
asc. node	4944 Jul 09 05:14	13°♄53'24			4945 Jun 08 10:14	0°♄	
				morning set	4945 Jun 21 10:12	24°♄10'17	
superior conj	4944 Jul 14 10:41	25°♄17'25	0°52'16		4945 Jun 24 05:24	0°♄	
minimum elong	4944 Jul 14 08:39	25°♄06'14	0°51'52	asc. node	4945 Jun 26 02:16	3°♄59'29	
max. Earth dist.	4944 Jul 13 20:57	24°♄01'37	1.31942 AU	max. Earth dist.	4945 Jun 27 06:06	6°♄29'56	1.32215 AU
	4944 Jul 16 13:53	0°♄					
evening rise	4944 Jul 21 06:56	10°♄13'42		superior conj	4945 Jun 28 20:57	10°♄01'39	0°28'40
	4944 Jul 31 09:42	0°♄		minimum elong	4945 Jun 28 19:41	9°♄54'40	0°28'24
desc. node	4944 Aug 14 16:28	20°♄54'13		evening rise	4945 Jul 05 18:17	25°♄01'46	
evening max el	4944 Aug 18 15:37	25°♄04'26	26°03'03		4945 Jul 08 03:08	0°♄	
	4944 Aug 25 02:03	0°♄			4945 Jul 25 23:35	0°♄	
retrograde	4944 Sep 01 14:51	2°♄12'16		evening max el	4945 Jul 31 06:48	5°♄52'18	24°38'47
evening set	4944 Sep 08 00:27	0°♄33'31		desc. node	4945 Aug 01 13:29	7°♄03'05	
	4944 Sep 09 01:33	30°♄		retrograde	4945 Aug 14 04:13	12°♄52'51	
min. Earth dist.	4944 Sep 12 04:17	27°♄59'04	0.58828 AU	evening set	4945 Aug 19 09:02	11°♄52'08	
inferior conj	4944 Sep 15 09:55	25°♄35'27	-5°00'-47	min. Earth dist.	4945 Aug 24 18:04	9°♄03'52	0.56905 AU
minimum elong	4944 Sep 15 14:24	25°♄27'07	5°00'14	inferior conj	4945 Aug 27 12:25	7°♄16'53	-5°-16'-24
morning rise	4944 Sep 23 07:55	21°♄08'14		minimum elong	4945 Aug 27 11:53	7°♄17'46	5°16'24
direct	4944 Sep 25 16:50	20°♄49'30		morning rise	4945 Sep 04 18:11	3°♄11'31	
morning max el	4944 Oct 03 19:17	24°♄43'26	18°31'54	direct	4945 Sep 07 08:58	2°♄52'35	
asc. node	4944 Oct 05 04:28	26°♄09'11		morning max el	4945 Sep 16 17:49	7°♄16'16	19°24'33
	4944 Oct 08 05:40	0°♄		asc. node	4945 Sep 22 01:31	13°♄36'07	
morning set	4944 Oct 19 21:00	20°♄22'30			4945 Oct 01 12:15	0°♄	
	4944 Oct 24 20:44	0°♄		morning set	4945 Oct 03 22:11	4°♄46'51	
superior conj	4944 Oct 28 19:05	7°♄25'46	1°22'44	superior conj	4945 Oct 12 00:29	20°♄56'25	1°37'22
minimum elong	4944 Oct 28 22:34	7°♄41'57	1°22'23	minimum elong	4945 Oct 12 02:31	21°♄06'24	1°37'15
max. Earth dist.	4944 Nov 05 04:14	20°♄43'12	1.40101 AU		4945 Oct 16 18:05	0°♄	
evening rise	4944 Nov 09 11:03	28°♄00'55		max. Earth dist.	4945 Oct 18 08:46	2°♄59'05	1.37996 AU
desc. node	4944 Nov 10 15:47	0°♄00'08		evening rise	4945 Oct 22 04:00	9°♄49'05	
	4944 Nov 10 15:45	0°♄		desc. node	4945 Oct 28 12:48	20°♄37'36	
	4944 Nov 30 12:00	0°♄			4945 Nov 03 10:38	0°♄	
evening max el	4944 Dec 14 05:26	16°♄45'19	23°47'45		4945 Nov 26 06:48	0°♄	
retrograde	4944 Dec 25 02:04	23°♄09'36		evening max el	4945 Nov 26 18:13	0°♄28'19	25°04'53
evening set	4944 Dec 30 04:42	21°♄03'15		retrograde	4945 Dec 08 15:05	7°♄20'41	
asc. node	4945 Jan 01 03:41	19°♄06'46		evening set	4945 Dec 14 07:20	4°♄59'47	
min. Earth dist.	4945 Jan 04 01:27	15°♄25'01	0.67960 AU		4945 Dec 18 18:59	30°♄	
inferior conj	4945 Jan 04 16:05	14°♄35'11	1°09'55	min. Earth dist.	4945 Dec 18 20:14	29°♄55'57	0.67470 AU
minimum elong	4945 Jan 04 14:32	14°♄40'28	1°09'19	asc. node	4945 Dec 19 00:44	29°♄41'16	
morning rise	4945 Jan 10 00:35	8°♄27'59		inferior conj	4945 Dec 19 21:41	28°♄32'37	0°17'47
direct	4945 Jan 14 00:47	6°♄57'19		minimum elong	4945 Dec 19 21:15	28°♄34'04	0°17'37
morning max el	4945 Jan 22 04:07	11°♄37'56	20°43'11	morning rise	4945 Dec 25 11:48	22°♄32'26	
greatest brilliancy	4945 Jan 27 23:17	18°♄22'23	-0.5m	direct	4945 Dec 28 23:27	21°♄22'25	
	4945 Feb 05 09:14	0°♄		morning max el	4946 Jan 05 06:16	25°♄27'55	19°36'17
desc. node	4945 Feb 06 15:02	1°♄48'23			4946 Jan 09 05:40	0°♄	
morning set	4945 Feb 20 12:20	22°♄48'16		greatest brilliancy	4946 Jan 13 08:56	5°♄32'13	-0.6m
	4945 Feb 25 02:14	0°♄		desc. node	4946 Jan 24 12:04	22°♄01'44	
max. Earth dist.	4945 Mar 01 05:14	6°♄36'45	1.43087 AU		4946 Jan 29 16:47	0°♄	
				morning set	4946 Jan 30 08:57	1°♄02'21	
superior conj	4945 Mar 07 22:41	17°♄42'17	-2°-8'-43	max. Earth dist.	4946 Feb 11 17:18	20°♄19'43	1.44496 AU
minimum elong	4945 Mar 07 22:57	17°♄43'24	2°08'44				
	4945 Mar 15 02:53	0°♄		superior conj	4946 Feb 16 01:26	27°♄15'12	-2°00'-15
evening rise	4945 Mar 20 00:30	8°♄37'57		minimum elong	4946 Feb 15 19:28	26°♄51'11	1°59'57

	4946 Feb 17 18:20	0°♄			4947 Feb 10 11:34	0°♄		
evening rise	4946 Mar 01 21:51	20°♄04'59		evening rise	4947 Feb 10 20:16	0°♄34'58		
	4946 Mar 07 19:12	0°♄			4947 Mar 02 05:07	0°♄		
asc. node	4946 Mar 17 00:00	14°♄18'56		asc. node	4947 Mar 03 21:02	1°♄50'38		
evening max el	4946 Mar 20 12:28	18°♄29'08	18°17'05	evening max el	4947 Mar 03 23:41	1°♄57'24	18°45'38	
retrograde	4946 Mar 26 22:33	21°♄55'16		retrograde	4947 Mar 10 15:47	5°♄40'03		
evening set	4946 Mar 29 20:41	21°♄09'32		evening set	4947 Mar 13 20:23	4°♄41'45		
inferior conj	4946 Apr 04 21:25	15°♄45'44	3°31'34		4947 Mar 18 17:50	30°♄		
minimum elong	4946 Apr 04 22:08	15°♄43'42	3°31'32	inferior conj	4947 Mar 19 13:28	29°♄00'04	3°31'43	
min. Earth dist.	4946 Apr 07 09:01	12°♄58'59	0.63672 AU	minimum elong	4947 Mar 19 12:42	29°♄02'23	3°31'41	
morning rise	4946 Apr 10 21:41	9°♄36'22		min. Earth dist.	4947 Mar 21 09:22	26°♄45'15	0.65378 AU	
direct	4946 Apr 17 17:47	6°♄53'50		morning rise	4947 Mar 25 03:51	22°♄45'35		
desc. node	4946 Apr 22 11:16	8°♄00'43		direct	4947 Mar 31 17:50	19°♄56'52		
morning max el	4946 May 01 13:18	14°♄52'27	27°40'37	desc. node	4947 Apr 09 08:18	23°♄35'56		
	4946 May 13 20:42	0°♄		morning max el	4947 Apr 13 23:18	27°♄44'12	26°56'09	
	4946 Jun 01 01:31	0°♄			4947 Apr 16 02:49	0°♄		
morning set	4946 Jun 05 06:32	8°♄08'34			4947 May 07 13:50	0°♄		
max. Earth dist.	4946 Jun 10 09:16	18°♄37'30	1.32928 AU	morning set	4947 May 19 16:43	21°♄33'15		
asc. node	4946 Jun 12 23:19	24°♄07'21			4947 May 23 23:50	0°♄		
				max. Earth dist.	4947 May 24 02:52	0°♄15'13	1.34105 AU	
superior conj	4946 Jun 13 03:56	24°♄32'09	0°02'01					
minimum elong	4946 Jun 13 03:50	24°♄31'36	0°01'59	superior conj	4947 May 28 05:24	8°♄41'20	0°-26'-51	
behind sun begin	4946 Jun 12 22:31	24°♄03'08		minimum elong	4947 May 28 06:50	8°♄48'49	0°26'36	
behind sun end	4946 Jun 13 09:08	25°♄00'06		asc. node	4947 May 30 20:19	14°♄12'10		
	4946 Jun 15 16:43	0°♄		evening rise	4947 Jun 04 16:18	24°♄24'10		
evening rise	4946 Jun 20 06:04	9°♄47'41			4947 Jun 07 09:34	0°♄		
	4946 Jun 30 16:51	0°♄		evening max el	4947 Jun 24 13:56	26°♄46'27	21°28'00	
evening max el	4946 Jul 12 19:39	16°♄15'55	23°01'52		4947 Jun 28 11:23	0°♄		
desc. node	4946 Jul 19 10:30	21°♄12'21		desc. node	4947 Jul 06 07:32	2°♄47'51		
retrograde	4946 Jul 26 04:43	22°♄56'36		retrograde	4947 Jul 06 19:09	2°♄48'24		
evening set	4946 Jul 29 21:13	22°♄26'55		evening set	4947 Jul 09 06:09	2°♄34'35		
min. Earth dist.	4946 Aug 06 04:32	19°♄09'37	0.55468 AU		4947 Jul 16 00:06	30°♄		
inferior conj	4946 Aug 07 19:35	18°♄13'07	-4°-47'-45	inferior conj	4947 Jul 18 14:03	28°♄35'03	-3°-27'-40	
minimum elong	4946 Aug 07 12:48	18°♄22'58	4°46'38	minimum elong	4947 Jul 18 05:28	28°♄47'03	3°25'08	
morning rise	4946 Aug 16 07:06	14°♄22'03		min. Earth dist.	4947 Jul 18 14:39	28°♄34'12	0.54815 AU	
direct	4946 Aug 19 06:45	14°♄00'57		morning rise	4947 Jul 27 05:33	24°♄42'00		
morning max el	4946 Aug 30 04:34	19°♄05'24	20°38'52	direct	4947 Jul 30 16:34	24°♄16'06		
	4946 Sep 07 18:53	0°♄			4947 Aug 11 23:48	0°♄		
asc. node	4946 Sep 08 22:34	1°♄52'34		morning max el	4947 Aug 12 03:41	0°♄08'57	22°12'02	
morning set	4946 Sep 18 04:57	19°♄27'16		asc. node	4947 Aug 26 19:36	20°♄45'57		
	4946 Sep 23 07:05	0°♄			4947 Aug 31 13:23	0°♄		
				morning set	4947 Sep 02 15:02	4°♄16'41		
superior conj	4946 Sep 25 17:56	5°♄02'37	1°43'21					
minimum elong	4946 Sep 25 18:23	5°♄04'56	1°43'20	superior conj	4947 Sep 09 19:42	19°♄32'47	1°42'01	
max. Earth dist.	4946 Sep 30 16:31	14°♄54'20	1.36043 AU	minimum elong	4947 Sep 09 18:49	19°♄28'09	1°41'58	
evening rise	4946 Oct 04 17:05	22°♄32'48		max. Earth dist.	4947 Sep 13 07:43	26°♄50'21	1.34405 AU	
	4946 Oct 08 20:12	0°♄			4947 Sep 14 21:02	0°♄		
desc. node	4946 Oct 15 09:49	11°♄03'35		evening rise	4947 Sep 17 21:55	6°♄00'23		
	4946 Oct 28 05:07	0°♄			4947 Oct 01 12:39	0°♄		
evening max el	4946 Nov 09 06:57	14°♄11'54	26°11'44	desc. node	4947 Oct 02 06:50	1°♄11'51		
retrograde	4946 Nov 21 23:00	21°♄21'27		evening max el	4947 Oct 22 19:38	27°♄47'37	27°00'58	
evening set	4946 Nov 28 04:53	18°♄48'45			4947 Oct 25 06:28	0°♄		
min. Earth dist.	4946 Dec 02 10:38	14°♄20'34	0.66631 AU	retrograde	4947 Nov 05 01:21	5°♄04'55		
inferior conj	4946 Dec 03 23:20	12°♄27'28	0°-39'-38	evening set	4947 Nov 11 19:18	2°♄25'43		
minimum elong	4946 Dec 04 00:24	12°♄24'10	0°39'10		4947 Nov 14 10:21	30°♄		
asc. node	4946 Dec 05 21:47	10°♄08'27		min. Earth dist.	4947 Nov 15 18:21	28°♄33'32	0.65436 AU	
morning rise	4946 Dec 09 21:05	6°♄36'59		inferior conj	4947 Nov 17 18:54	26°♄15'20	-1°-41'00	
direct	4946 Dec 12 22:02	5°♄44'23		minimum elong	4947 Nov 17 21:47	26°♄07'07	1°39'49	
morning max el	4946 Dec 19 15:40	9°♄26'12	18°44'47	asc. node	4947 Nov 22 18:49	21°♄23'30		
	4947 Jan 03 10:11	0°♄		morning rise	4947 Nov 24 02:06	20°♄37'34		
morning set	4947 Jan 09 22:37	10°♄14'10		direct	4947 Nov 26 18:26	19°♄58'37		
desc. node	4947 Jan 11 09:06	12°♄29'47		morning max el	4947 Dec 03 06:11	23°♄27'24	18°09'47	
	4947 Jan 22 12:46	0°♄			4947 Dec 08 13:05	0°♄		
max. Earth dist.	4947 Jan 25 10:57	4°♄35'11	1.45234 AU	morning set	4947 Dec 21 17:24	20°♄54'11		
					4947 Dec 27 07:30	0°♄		
superior conj	4947 Jan 26 08:19	5°♄59'03	-1°-32'-2	desc. node	4947 Dec 29 06:07	3°♄08'02		
minimum elong	4947 Jan 25 22:55	5°♄22'08	1°31'06					

superior conj	4948 Jan 05 12:42	14°☿43'22	0°-48'-55	behind sun end	4948 Dec 15 19:42	24°♄59'51	
minimum elong	4948 Jan 05 06:38	14°☿19'26	0°48'07	desc. node	4948 Dec 15 03:07	23°♄52'13	
max. Earth dist.	4948 Jan 08 06:37	19°☿02'54	1.45226 AU		4948 Dec 18 22:00	0°☿	
	4948 Jan 15 06:42	0°≈		max. Earth dist.	4948 Dec 21 00:48	3°☿22'51	1.44492 AU
evening rise	4948 Jan 21 20:48	10°≈14'57		evening rise	4948 Dec 31 07:52	19°☿27'27	
	4948 Feb 03 16:45	0°☿			4949 Jan 07 05:59	0°≈	
greatest brilliancy	4948 Feb 07 04:50	5°☿09'50	-0.7m	greatest brilliancy	4949 Jan 22 11:54	22°≈01'17	-0.5m
evening max el	4948 Feb 15 07:05	15°☿29'33	19°31'05	evening max el	4949 Jan 28 09:19	29°≈02'46	20°31'24
asc. node	4948 Feb 18 18:04	18°☿24'09			4949 Jan 29 08:31	0°☿	
retrograde	4948 Feb 22 12:54	19°☿39'26		asc. node	4949 Feb 04 15:06	3°☿44'07	
evening set	4948 Feb 26 00:50	18°☿27'47		retrograde	4949 Feb 05 11:11	3°☿47'53	
inferior conj	4948 Mar 02 13:08	12°☿30'26	3°17'53	evening set	4949 Feb 09 07:53	2°☿21'54	
minimum elong	4948 Mar 02 11:21	12°☿36'19	3°17'37		4949 Feb 11 18:57	30°☿≈	
min. Earth dist.	4948 Mar 03 18:02	10°☿55'36	0.66671 AU	inferior conj	4949 Feb 14 17:44	26°≈11'40	2°52'59
morning rise	4948 Mar 07 21:06	6°☿14'00		minimum elong	4949 Feb 14 15:23	26°≈19'39	2°52'26
direct	4948 Mar 14 00:08	3°☿31'20		min. Earth dist.	4949 Feb 15 09:02	25°≈19'20	0.67541 AU
desc. node	4948 Mar 26 05:20	10°☿44'43		morning rise	4949 Feb 19 22:24	19°≈55'28	
morning max el	4948 Mar 26 09:01	10°☿54'01	25°46'44	direct	4949 Feb 25 11:47	17°≈27'59	
	4948 Apr 10 13:52	0°☿		morning max el	4949 Mar 08 17:40	24°≈11'25	24°22'13
	4948 Apr 29 04:43	0°☿		desc. node	4949 Mar 13 02:22	29°≈00'00	
morning set	4948 May 01 12:44	4°☿13'27			4949 Mar 13 22:26	0°☿	
max. Earth dist.	4948 May 05 09:06	11°☿25'42	1.35740 AU		4949 Apr 04 00:15	0°☿	
				morning set	4949 Apr 13 13:14	15°☿53'57	
superior conj	4948 May 10 22:52	22°☿22'36	0°-56'-35	max. Earth dist.	4949 Apr 17 06:11	22°☿28'37	1.37749 AU
minimum elong	4948 May 11 01:59	22°☿38'19	0°56'03		4949 Apr 21 08:11	0°☿	
	4948 May 14 16:42	0°☿					
asc. node	4948 May 16 17:20	4°☿10'14		superior conj	4949 Apr 24 05:01	5°☿27'09	-1°-25'-11
evening rise	4948 May 18 22:57	8°☿45'16		minimum elong	4949 Apr 24 09:34	5°☿49'03	1°24'33
	4948 May 30 12:50	0°☿		evening rise	4949 May 02 23:32	22°☿43'30	
evening max el	4948 Jun 05 19:43	7°☿51'06	20°08'34	asc. node	4949 May 03 14:22	23°☿56'54	
retrograde	4948 Jun 16 09:19	13°☿01'11			4949 May 06 16:58	0°☿	
evening set	4948 Jun 18 07:53	12°☿51'28		evening max el	4949 May 19 13:49	19°☿38'27	19°08'32
desc. node	4948 Jun 22 04:32	11°☿40'23		retrograde	4949 May 28 11:08	23°☿58'59	
inferior conj	4948 Jun 27 09:34	8°☿52'27	-1°-33'-9	evening set	4949 May 30 10:57	23°☿46'49	
minimum elong	4948 Jun 27 05:12	8°☿58'57	1°31'33	inferior conj	4949 Jun 07 19:38	19°☿35'12	0°21'58
min. Earth dist.	4948 Jun 29 02:46	7°☿51'10	0.55116 AU	minimum elong	4949 Jun 07 20:32	19°☿33'41	0°21'38
morning rise	4948 Jul 06 00:15	4°☿36'22		desc. node	4949 Jun 09 01:32	18°☿44'09	
direct	4948 Jul 10 03:47	3°☿59'00		min. Earth dist.	4949 Jun 10 17:48	17°☿36'35	0.56326 AU
morning max el	4948 Jul 23 19:08	10°☿39'41	23°55'28	morning rise	4949 Jun 16 01:47	14°☿44'01	
	4948 Aug 07 05:15	0°☿		direct	4949 Jun 21 03:31	13°☿44'02	
asc. node	4948 Aug 12 16:38	10°☿07'00		morning max el	4949 Jul 05 09:03	21°☿01'50	25°34'57
morning set	4948 Aug 17 02:39	19°☿09'49			4949 Jul 13 03:41	0°☿	
	4948 Aug 22 03:21	0°☿		asc. node	4949 Jul 30 13:40	29°☿48'16	
					4949 Jul 30 15:57	0°☿	
superior conj	4948 Aug 24 02:58	4°☿18'22	1°34'29	morning set	4949 Aug 01 14:11	4°☿01'43	
minimum elong	4948 Aug 24 01:10	4°☿08'37	1°34'20				
max. Earth dist.	4948 Aug 26 07:31	9°☿00'58	1.33169 AU	superior conj	4949 Aug 08 13:29	19°☿12'04	1°21'40
evening rise	4948 Aug 31 14:35	20°☿01'19		minimum elong	4949 Aug 08 11:14	18°☿59'39	1°21'22
	4948 Sep 05 17:59	0°☿		max. Earth dist.	4949 Aug 09 14:27	21°☿28'59	1.32361 AU
desc. node	4948 Sep 18 03:50	20°☿54'35			4949 Aug 13 12:59	0°☿	
	4948 Sep 24 14:31	0°☿		evening rise	4949 Aug 15 15:43	4°☿26'14	
evening max el	4948 Oct 04 07:11	11°☿04'29	27°25'31		4949 Aug 29 10:31	0°☿	
retrograde	4948 Oct 17 21:44	18°☿22'28		desc. node	4949 Sep 05 00:50	10°☿01'22	
evening set	4948 Oct 24 23:53	15°☿45'14		evening max el	4949 Sep 16 15:43	23°☿50'52	27°19'40
min. Earth dist.	4948 Oct 28 17:18	12°☿26'58	0.63897 AU		4949 Sep 25 10:43	0°☿	
inferior conj	4948 Oct 31 05:55	9°☿50'37	-2°-44'-10	retrograde	4949 Sep 30 11:26	1°☿05'04	
minimum elong	4948 Oct 31 10:39	9°☿38'22	2°42'26		4949 Oct 05 06:52	30°☿☿	
morning rise	4948 Nov 06 23:56	4°☿28'37		evening set	4949 Oct 07 15:15	28°☿41'14	
asc. node	4948 Nov 08 15:52	4°☿02'24		min. Earth dist.	4949 Oct 11 06:10	25°☿50'26	0.62058 AU
direct	4948 Nov 09 10:04	3°☿59'30		inferior conj	4949 Oct 14 05:28	23°☿06'43	-3°-45'-23
morning max el	4948 Nov 15 22:57	7°☿24'28	17°51'53	minimum elong	4949 Oct 14 11:33	22°☿52'44	3°43'36
	4948 Nov 30 23:04	0°☿		morning rise	4949 Oct 21 10:55	18°☿03'37	
morning set	4948 Dec 02 15:32	2°☿53'36		direct	4949 Oct 23 17:49	17°☿40'46	
				asc. node	4949 Oct 26 12:55	18°☿16'02	
superior conj	4948 Dec 15 10:06	24°☿20'42	0°-2'-2	morning max el	4949 Oct 30 14:56	21°☿10'12	17°51'57
minimum elong	4948 Dec 15 09:53	24°☿19'48	0°02'01		4949 Nov 06 07:08	0°☿	
behind sun begin	4948 Dec 15 00:03	23°☿39'42		morning set	4949 Nov 15 10:49	15°☿53'57	

	4949 Nov 23 08:49	0°♊		morning set	4950 Oct 29 21:09	29°♊36'43	
					4950 Oct 30 02:06	0°♊	
superior conj	4949 Nov 26 09:41	5°♊15'00	0°38'58				
minimum elong	4949 Nov 26 12:59	5°♊29'07	0°38'31	superior conj	4950 Nov 08 10:13	17°♊21'27	1°09'49
desc. node	4949 Dec 02 00:09	14°♊39'29		minimum elong	4950 Nov 08 14:10	17°♊39'14	1°09'21
max. Earth dist.	4949 Dec 03 15:27	17°♊20'30	1.43129 AU		4950 Nov 15 15:24	0°♊	
evening rise	4949 Dec 10 20:58	28°♊52'15		max. Earth dist.	4950 Nov 16 01:26	0°♊42'32	1.41294 AU
	4949 Dec 11 14:22	0°♊		desc. node	4950 Nov 18 21:10	5°♊25'45	
	4949 Dec 31 23:23	0°♊		evening rise	4950 Nov 21 02:16	9°♊03'07	
greatest brilliancy	4950 Jan 06 11:11	7°♊10'45	-0.4m		4950 Dec 04 16:29	0°♊	
evening max el	4950 Jan 11 06:10	12°♊37'41	21°43'12	greatest brilliancy	4950 Dec 19 04:52	19°♊47'30	-0.2m
retrograde	4950 Jan 20 08:37	18°♊02'02		evening max el	4950 Dec 24 22:28	26°♊15'08	23°01'49
asc. node	4950 Jan 22 12:09	17°♊37'22			4950 Dec 29 05:50	0°♊	
evening set	4950 Jan 24 15:45	16°♊20'45		retrograde	4951 Jan 04 03:35	2°♊18'21	
inferior conj	4950 Jan 30 01:01	10°♊00'46	2°18'58	evening set	4951 Jan 08 22:49	0°♊21'03	
minimum elong	4950 Jan 29 22:38	10°♊09'04	2°18'13	asc. node	4951 Jan 09 09:12	29°♊58'35	
min. Earth dist.	4950 Jan 30 04:04	9°♊50'11	0.68006 AU		4951 Jan 09 08:35	30°♊	
morning rise	4950 Feb 04 05:14	3°♊46'42		inferior conj	4951 Jan 14 09:04	23°♊54'58	1°37'08
direct	4950 Feb 09 03:59	1°♊40'00		minimum elong	4951 Jan 14 07:05	24°♊01'50	1°36'24
morning max el	4950 Feb 19 03:12	7°♊34'16	22°52'52	min. Earth dist.	4951 Jan 14 00:45	24°♊23'40	0.68085 AU
greatest brilliancy	4950 Feb 23 20:02	12°♊48'54	-0.3m	morning rise	4951 Jan 19 15:20	17°♊44'52	
desc. node	4950 Feb 27 23:24	18°♊03'00		direct	4951 Jan 23 23:33	16°♊01'07	
	4950 Mar 08 13:39	0°♊		morning max el	4951 Feb 01 17:23	21°♊06'03	21°27'41
morning set	4950 Mar 25 12:07	26°♊18'48		greatest brilliancy	4951 Feb 06 16:51	26°♊44'39	-0.4m
	4950 Mar 27 17:06	0°♊			4951 Feb 09 05:59	0°♊	
max. Earth dist.	4950 Mar 30 01:28	3°♊59'42	1.39943 AU	desc. node	4951 Feb 14 20:27	7°♊40'21	
					4951 Mar 01 20:00	0°♊	
superior conj	4950 Apr 06 19:41	17°♊44'47	-1°-49'-36	morning set	4951 Mar 05 06:23	5°♊33'03	
minimum elong	4950 Apr 07 00:35	18°♊07'12	1°49'09	max. Earth dist.	4951 Mar 12 02:18	16°♊25'02	1.42038 AU
	4950 Apr 13 09:06	0°♊					
evening rise	4950 Apr 16 14:59	6°♊11'04		superior conj	4951 Mar 19 13:56	29°♊03'50	-2°-5'-31
asc. node	4950 Apr 20 11:25	13°♊27'18		minimum elong	4951 Mar 19 16:50	29°♊16'26	2°05'26
	4950 Apr 30 20:05	0°♊			4951 Mar 20 02:53	0°♊	
evening max el	4950 May 02 17:39	2°♊03'34	18°28'51	evening rise	4951 Mar 30 17:33	18°♊59'08	
retrograde	4950 May 10 07:38	5°♊48'30			4951 Apr 05 20:24	0°♊	
evening set	4950 May 12 13:40	5°♊29'41		asc. node	4951 Apr 07 08:28	2°♊35'33	
inferior conj	4950 May 20 02:47	0°♊58'13	1°52'36	evening max el	4951 Apr 16 03:34	14°♊56'59	18°09'08
minimum elong	4950 May 20 06:09	0°♊51'29	1°51'33	retrograde	4951 Apr 22 22:18	18°♊23'09	
	4950 May 21 07:52	30°♊		evening set	4951 Apr 25 10:50	17°♊55'03	
min. Earth dist.	4950 May 23 12:47	28°♊16'25	0.58197 AU	inferior conj	4951 May 02 06:46	13°♊02'15	2°51'51
desc. node	4950 May 26 22:36	25°♊59'43		minimum elong	4951 May 02 09:55	12°♊54'56	2°51'10
morning rise	4950 May 27 18:12	25°♊33'32		min. Earth dist.	4951 May 05 14:03	10°♊00'02	0.60369 AU
direct	4950 Jun 02 17:33	24°♊01'37		morning rise	4951 May 09 05:27	7°♊12'51	
	4950 Jun 15 06:39	0°♊		desc. node	4951 May 13 19:38	5°♊18'46	
morning max el	4950 Jun 17 02:46	1°♊42'30	26°54'33	direct	4951 May 15 19:37	5°♊07'21	
	4950 Jul 07 08:38	0°♊		morning max el	4951 May 30 03:01	13°♊01'31	27°41'57
morning set	4950 Jul 16 23:57	18°♊46'25			4951 Jun 12 14:36	0°♊	
asc. node	4950 Jul 17 10:41	19°♊43'04			4951 Jun 29 15:27	0°♊	
	4950 Jul 22 04:36	0°♊		morning set	4951 Jul 01 06:14	3°♊18'43	
				asc. node	4951 Jul 04 07:44	9°♊46'34	
superior conj	4950 Jul 24 01:17	4°♊06'35	1°04'13	max. Earth dist.	4951 Jul 07 12:26	16°♊43'24	1.32013 AU
minimum elong	4950 Jul 23 23:02	3°♊54'10	1°03'49				
max. Earth dist.	4950 Jul 24 01:18	4°♊06'44	1.31978 AU	superior conj	4951 Jul 08 12:37	18°♊56'23	0°42'42
evening rise	4950 Jul 30 22:34	19°♊05'50		minimum elong	4951 Jul 08 10:52	18°♊46'41	0°42'20
	4950 Aug 05 07:37	0°♊			4951 Jul 13 13:32	0°♊	
desc. node	4950 Aug 22 21:52	28°♊16'39		evening rise	4951 Jul 15 08:54	3°♊53'03	
	4950 Aug 24 07:23	0°♊			4951 Jul 29 06:11	0°♊	
evening max el	4950 Aug 29 18:30	5°♊53'34	26°40'16	desc. node	4951 Aug 09 18:53	15°♊19'33	
retrograde	4950 Sep 12 16:50	13°♊02'50		evening max el	4951 Aug 11 13:36	17°♊06'35	25°29'40
evening set	4950 Sep 19 12:44	11°♊04'49		retrograde	4951 Aug 25 12:20	24°♊11'19	
min. Earth dist.	4950 Sep 23 08:24	8°♊29'16	0.60024 AU	evening set	4951 Aug 31 11:31	22°♊48'38	
inferior conj	4950 Sep 26 14:02	5°♊53'26	-4°-38'-13	min. Earth dist.	4951 Sep 05 01:26	20°♊10'43	0.57984 AU
minimum elong	4950 Sep 26 19:54	5°♊41'37	4°37'05	inferior conj	4951 Sep 08 04:09	18°♊00'44	-5°-11'-46
morning rise	4950 Oct 04 06:25	1°♊12'15		minimum elong	4951 Sep 08 06:53	17°♊55'57	5°11'35
direct	4950 Oct 06 13:36	0°♊52'39		morning rise	4951 Sep 16 05:45	13°♊43'11	
asc. node	4950 Oct 13 09:58	3°♊56'02		direct	4951 Sep 18 17:00	13°♊24'26	
morning max el	4950 Oct 14 02:43	4°♊34'51	18°11'20	morning max el	4951 Sep 27 06:58	17°♊29'13	18°51'33

asc. node	4951 Sep 30 07:00	20° \mathring{M} 48'09		direct	4952 Aug 30 00:44	25° \mathring{O} 04'58	
	4951 Oct 06 09:09	0° \mathring{A}		morning max el	4952 Sep 09 00:42	29° \mathring{O} 44'14	19°53'37
morning set	4951 Oct 13 17:55	13° \mathring{A} 48'45			4952 Sep 09 07:22	0° \mathring{M}	
				asc. node	4952 Sep 16 04:02	8° \mathring{M} 37'28	
superior conj	4951 Oct 22 06:39	0° \mathring{M} 25'58	1°30'06	morning set	4952 Sep 26 21:46	28° \mathring{M} 20'41	
minimum elong	4951 Oct 22 09:34	0° \mathring{M} 39'53	1°29'51		4952 Sep 27 17:20	0° \mathring{A}	
	4951 Oct 22 01:11	0° \mathring{M}					
max. Earth dist.	4951 Oct 29 07:15	13° \mathring{M} 22'03	1.39209 AU	superior conj	4952 Oct 04 17:42	14° \mathring{A} 13'33	1°40'53
evening rise	4951 Nov 02 06:11	20° \mathring{M} 15'22		minimum elong	4952 Oct 04 19:03	14° \mathring{A} 20'18	1°40'49
desc. node	4951 Nov 05 18:12	26° \mathring{M} 07'31		max. Earth dist.	4952 Oct 10 12:22	25° \mathring{A} 26'01	1.37132 AU
	4951 Nov 08 03:20	0° \mathring{A}			4952 Oct 12 23:27	0° \mathring{M}	
	4951 Nov 28 20:17	0° \mathring{B}		evening rise	4952 Oct 14 08:09	2° \mathring{M} 28'13	
evening max el	4951 Dec 07 11:53	9° \mathring{B} 55'54	24°21'19	desc. node	4952 Oct 22 15:12	16° \mathring{M} 40'41	
retrograde	4951 Dec 18 19:02	16° \mathring{B} 32'52			4952 Oct 31 05:38	0° \mathring{A}	
evening set	4951 Dec 24 03:32	14° \mathring{B} 19'53		evening max el	4952 Nov 19 00:19	23° \mathring{A} 39'12	25°34'57
asc. node	4951 Dec 27 06:15	11° \mathring{B} 01'29			4952 Nov 27 20:19	0° \mathring{B}	
min. Earth dist.	4951 Dec 28 20:46	8° \mathring{B} 56'25	0.67799 AU	retrograde	4952 Dec 01 06:03	0° \mathring{B} 40'48	
inferior conj	4951 Dec 29 16:04	7° \mathring{B} 51'44	0°48'29		4952 Dec 04 10:13	30° \mathring{R} \mathring{A}	
minimum elong	4951 Dec 29 14:56	7° \mathring{B} 55'32	0°48'02	evening set	4952 Dec 07 04:15	28° \mathring{A} 14'06	
morning rise	4952 Jan 04 02:43	1° \mathring{B} 47'32		min. Earth dist.	4952 Dec 11 13:56	23° \mathring{A} 25'29	0.67154 AU
direct	4952 Jan 07 21:24	0° \mathring{B} 26'01		inferior conj	4952 Dec 12 20:12	21° \mathring{A} 48'38	0°-6'00
morning max el	4952 Jan 15 15:02	4° \mathring{B} 49'53	20°12'58	minimum elong	4952 Dec 12 20:22	21° \mathring{A} 48'09	0°05'56
greatest brilliancy	4952 Jan 22 05:22	12° \mathring{B} 41'16	-0.5m	transit middle	4952 Dec 12 20:22	21° \mathring{A} 48'09	0°05'56
desc. node	4952 Feb 01 17:28	27° \mathring{B} 42'24		transit begin	4952 Dec 12 17:45	21° \mathring{A} 56'31	
	4952 Feb 03 06:16	0° \mathring{A}		transit end	4952 Dec 12 22:58	21° \mathring{A} 39'47	
morning set	4952 Feb 12 04:28	13° \mathring{A} 36'01		asc. node	4952 Dec 13 03:16	21° \mathring{A} 26'03	
max. Earth dist.	4952 Feb 22 10:46	29° \mathring{A} 43'54	1.43757 AU	morning rise	4952 Dec 18 13:21	15° \mathring{A} 52'27	
	4952 Feb 22 14:47	0° \mathring{H}		direct	4952 Dec 21 20:07	14° \mathring{A} 50'29	
				morning max el	4952 Dec 28 20:35	18° \mathring{A} 44'41	19°12'26
superior conj	4952 Feb 28 07:15	9° \mathring{H} 14'14	-2°-7'-29		4953 Jan 06 16:47	0° \mathring{B}	
minimum elong	4952 Feb 28 04:58	9° \mathring{H} 04'48	2°07'27	greatest brilliancy	4953 Jan 07 20:27	1° \mathring{B} 40'52	-0.7m
	4952 Mar 11 13:30	0° \mathring{Y}		desc. node	4953 Jan 18 14:30	18° \mathring{B} 02'37	
evening rise	4952 Mar 12 02:49	0° \mathring{Y} 57'46		morning set	4953 Jan 21 05:45	22° \mathring{B} 07'42	
asc. node	4952 Mar 24 05:31	21° \mathring{Y} 13'36			4953 Jan 26 07:15	0° \mathring{A}	
evening max el	4952 Mar 29 16:08	28° \mathring{Y} 08'41	18°08'45	max. Earth dist.	4953 Feb 04 01:22	13° \mathring{A} 42'16	1.44893 AU
	4952 Mar 31 20:30	0° \mathring{B}					
retrograde	4952 Apr 05 02:43	1° \mathring{B} 31'17		superior conj	4953 Feb 07 00:09	18° \mathring{A} 22'01	-1°-50'-37
evening set	4952 Apr 07 21:17	0° \mathring{B} 52'22		minimum elong	4953 Feb 06 15:58	17° \mathring{A} 49'37	1°50'01
	4952 Apr 09 09:51	30° \mathring{R} \mathring{Y}			4953 Feb 14 06:27	0° \mathring{H}	
inferior conj	4952 Apr 14 03:54	25° \mathring{Y} 39'19	3°23'29	evening rise	4953 Feb 21 14:42	12° \mathring{H} 00'41	
minimum elong	4952 Apr 14 05:35	25° \mathring{Y} 34'52	3°23'18		4953 Mar 04 15:06	0° \mathring{Y}	
min. Earth dist.	4952 Apr 16 23:51	22° \mathring{Y} 40'55	0.62524 AU	asc. node	4953 Mar 11 02:32	9° \mathring{Y} 12'42	
morning rise	4952 Apr 20 11:25	19° \mathring{Y} 34'48		evening max el	4953 Mar 13 04:32	11° \mathring{Y} 32'23	18°27'02
direct	4952 Apr 27 07:36	17° \mathring{Y} 02'24		retrograde	4953 Mar 19 16:22	15° \mathring{Y} 04'29	
desc. node	4952 Apr 29 16:41	17° \mathring{Y} 19'14		evening set	4953 Mar 22 17:02	14° \mathring{Y} 13'40	
morning max el	4952 May 11 09:07	25° \mathring{Y} 02'33	27°51'46	inferior conj	4953 Mar 28 14:08	8° \mathring{Y} 42'03	3°33'34
	4952 May 15 21:48	0° \mathring{B}		minimum elong	4953 Mar 28 14:11	8° \mathring{Y} 41'55	3°33'34
	4952 Jun 05 01:11	0° \mathring{II}		min. Earth dist.	4953 Mar 30 19:08	6° \mathring{Y} 07'11	0.64441 AU
morning set	4952 Jun 14 06:54	17° \mathring{II} 31'15		morning rise	4953 Apr 03 09:44	2° \mathring{Y} 29'42	
max. Earth dist.	4952 Jun 19 19:41	29° \mathring{II} 04'48	1.32465 AU		4953 Apr 07 22:40	30° \mathring{R} \mathring{H}	
asc. node	4952 Jun 20 04:46	29° \mathring{II} 53'37		direct	4953 Apr 10 03:53	29° \mathring{H} 42'43	
	4952 Jun 20 05:57	0° \mathring{B}			4953 Apr 12 11:15	0° \mathring{Y}	
				desc. node	4953 Apr 16 13:44	1° \mathring{Y} 45'26	
superior conj	4952 Jun 21 21:41	3° \mathring{B} 34'55	0°17'43	morning max el	4953 Apr 23 18:29	7° \mathring{Y} 39'01	27°25'18
minimum elong	4952 Jun 21 20:51	3° \mathring{B} 30'26	0°17'31		4953 May 11 00:24	0° \mathring{B}	
evening rise	4952 Jun 28 20:38	18° \mathring{B} 40'32			4953 May 28 07:44	0° \mathring{II}	
	4952 Jul 04 09:33	0° \mathring{O}		morning set	4953 May 28 23:20	1° \mathring{II} 16'06	
evening max el	4952 Jul 23 02:41	27° \mathring{O} 39'27	23°58'01	max. Earth dist.	4953 Jun 02 18:59	10° \mathring{II} 58'58	1.33366 AU
	4952 Jul 25 18:19	0° \mathring{M}					
desc. node	4952 Jul 26 15:54	0° \mathring{M} 41'37		superior conj	4953 Jun 06 02:33	17° \mathring{II} 56'31	0°-10'-2
retrograde	4952 Aug 05 20:27	4° \mathring{M} 34'11		minimum elong	4953 Jun 06 03:04	17° \mathring{II} 59'15	0°09'58
evening set	4952 Aug 10 10:12	3° \mathring{M} 47'59		behind sun begin	4953 Jun 05 22:46	17° \mathring{II} 36'23	
min. Earth dist.	4952 Aug 16 13:02	0° \mathring{M} 49'04	0.56219 AU	behind sun end	4953 Jun 06 07:23	18° \mathring{II} 22'08	
	4952 Aug 17 21:17	30° \mathring{R} \mathring{O}		asc. node	4953 Jun 07 01:48	20° \mathring{II} 00'15	
inferior conj	4952 Aug 18 21:59	29° \mathring{O} 21'57	-5°-10'-26		4953 Jun 11 17:48	0° \mathring{B}	
minimum elong	4952 Aug 18 18:39	29° \mathring{O} 27'05	5°10'12	evening rise	4953 Jun 13 07:56	3° \mathring{B} 22'20	
morning rise	4952 Aug 27 06:28	25° \mathring{O} 24'32			4953 Jun 28 00:12	0° \mathring{O}	

evening max el	4953 Jul 04 16:44	8°01'15	22°20'46	evening max el	4954 Jun 16 15:42	18°04'57	20°52'10
desc. node	4953 Jul 13 12:55	13°04'35		retrograde	4954 Jun 28 04:52	24°02'50	
retrograde	4953 Jul 17 16:24	14°02'28		evening set	4954 Jun 30 08:23	24°01'40	
evening set	4953 Jul 20 18:16	14°00'27		desc. node	4954 Jun 30 09:57	24°01'32	
min. Earth dist.	4953 Jul 28 23:20	10°03'27	0.55073 AU	inferior conj	4954 Jul 09 15:34	20°01'12	-2°-41'-30
inferior conj	4953 Jul 29 22:26	10°00'48	-4°-19'-44	minimum elong	4954 Jul 09 08:15	20°02'35	2°39'02
minimum elong	4953 Jul 29 14:03	10°01'39	4°17'51	min. Earth dist.	4954 Jul 10 10:24	19°05'02	0.54819 AU
morning rise	4953 Aug 07 11:55	6°01'09		morning rise	4954 Jul 18 07:28	16°01'27	
direct	4953 Aug 10 15:39	5°04'40		direct	4954 Jul 22 00:56	15°04'35	
morning max el	4953 Aug 22 06:22	11°01'34	21°16'35	morning max el	4954 Aug 04 01:30	22°00'03	22°55'27
asc. node	4953 Sep 03 01:03	27°01'04			4954 Aug 10 23:58	0°01	
	4953 Sep 04 14:53	0°00		asc. node	4954 Aug 20 22:05	16°01'02	
morning set	4953 Sep 11 06:09	13°00'51		morning set	4954 Aug 26 17:08	27°01'57	
					4954 Aug 27 16:22	0°00	
superior conj	4953 Sep 18 15:04	28°00'31	1°43'35	superior conj	4954 Sep 02 19:31	13°00'09	1°39'30
minimum elong	4953 Sep 18 14:55	28°00'30	1°43'36	minimum elong	4954 Sep 02 18:12	13°00'02	1°39'26
	4953 Sep 19 08:16	0°00		max. Earth dist.	4954 Sep 05 17:31	19°00'19	1.33830 AU
max. Earth dist.	4953 Sep 22 22:31	7°00'17	1.35296 AU	evening rise	4954 Sep 10 14:50	29°00'15	
evening rise	4953 Sep 27 04:26	15°00'32			4954 Sep 10 23:50	0°00	
	4953 Oct 05 06:12	0°00		desc. node	4954 Sep 26 09:13	26°00'58	
desc. node	4953 Oct 09 12:12	6°00'59			4954 Sep 28 08:58	0°00	
	4953 Oct 25 19:40	0°00		evening max el	4954 Oct 15 01:39	20°00'50	27°14'50
evening max el	4953 Nov 01 12:58	7°00'20	26°35'17	retrograde	4954 Oct 28 11:46	28°00'08	
retrograde	4953 Nov 14 11:53	14°00'35		evening set	4954 Nov 04 09:40	25°00'29	
evening set	4953 Nov 20 23:03	11°00'58		min. Earth dist.	4954 Nov 08 06:16	21°00'51	0.64826 AU
min. Earth dist.	4953 Nov 25 01:52	7°00'45	0.66160 AU	inferior conj	4954 Nov 10 11:50	19°00'24	-2°-7'-43
inferior conj	4953 Nov 26 19:33	5°00'41	-1°-5'-18	minimum elong	4954 Nov 10 15:32	19°00'14	2°06'16
minimum elong	4953 Nov 26 21:21	5°00'35	1°04'32	morning rise	4954 Nov 16 23:29	13°00'53	
asc. node	4953 Nov 30 00:18	2°00'07		asc. node	4954 Nov 16 21:20	13°00'55	
morning rise	4953 Dec 02 21:07	29°00'55		direct	4954 Nov 19 12:52	13°00'18	
	4953 Dec 02 17:54	30°00'00		morning max el	4954 Nov 26 00:14	16°00'44	17°59'54
direct	4953 Dec 05 18:01	29°00'09			4954 Dec 05 14:53	0°00	
	4953 Dec 08 19:51	0°00		morning set	4954 Dec 13 14:22	13°00'11	
morning max el	4953 Dec 12 08:27	2°00'44	18°27'47	desc. node	4954 Dec 23 08:30	29°00'16	
	4953 Dec 31 02:19	0°00			4954 Dec 23 19:21	0°00	
morning set	4954 Jan 01 07:16	1°00'55		superior conj	4954 Dec 27 13:00	6°00'00	0°-28'-47
desc. node	4954 Jan 05 11:30	8°00'35		minimum elong	4954 Dec 27 09:30	5°00'46	0°28'18
superior conj	4954 Jan 17 03:24	26°00'59	-1°-14'-58	max. Earth dist.	4954 Dec 31 15:07	12°00'29	1.45009 AU
minimum elong	4954 Jan 16 18:41	26°00'24	1°13'58		4955 Jan 11 20:50	0°00	
max. Earth dist.	4954 Jan 17 19:39	28°00'02	1.45322 AU	evening rise	4955 Jan 12 20:25	1°00'30	
	4954 Jan 19 01:33	0°00			4955 Jan 31 20:51	0°00	
evening rise	4954 Feb 02 03:12	22°00'06		greatest brilliancy	4955 Jan 31 20:19	29°00'58	-0.6m
	4954 Feb 07 02:51	0°00		evening max el	4955 Feb 07 19:46	8°00'35	19°55'11
greatest brilliancy	4954 Feb 13 23:08	10°00'42	-0.8m	asc. node	4955 Feb 12 20:36	12°00'25	
evening max el	4954 Feb 24 14:22	25°00'02	19°03'04	retrograde	4955 Feb 15 09:16	12°00'59	
asc. node	4954 Feb 25 23:34	26°00'21		evening set	4955 Feb 19 00:50	11°00'41	
retrograde	4954 Mar 03 11:30	28°00'55		inferior conj	4955 Feb 24 11:51	5°00'38	3°08'31
evening set	4954 Mar 06 19:02	27°00'51		minimum elong	4955 Feb 24 09:46	5°00'45	3°08'07
inferior conj	4954 Mar 12 09:48	22°00'03	3°27'21	min. Earth dist.	4955 Feb 25 10:47	4°00'21	0.67099 AU
minimum elong	4954 Mar 12 08:32	22°00'07	3°27'13		4955 Mar 01 02:07	30°00'00	
min. Earth dist.	4954 Mar 13 23:18	20°00'04	0.65983 AU	morning rise	4955 Mar 01 18:04	29°00'22	
morning rise	4954 Mar 17 21:02	15°00'47		direct	4955 Mar 07 15:38	26°00'44	
direct	4954 Mar 24 06:57	13°00'00			4955 Mar 15 06:09	0°00	
desc. node	4954 Apr 03 10:45	18°00'03		morning max el	4955 Mar 19 13:22	3°00'51	25°11'56
morning max el	4954 Apr 06 04:23	20°00'39	26°29'01	desc. node	4955 Mar 21 07:47	5°00'43	
	4954 Apr 14 05:50	0°00			4955 Apr 08 13:06	0°00	
	4954 May 04 03:44	0°00		morning set	4955 Apr 24 16:27	26°00'39	
morning set	4954 May 12 04:04	14°00'23			4955 Apr 26 12:42	0°00	
max. Earth dist.	4954 May 16 07:25	22°00'22	1.34740 AU	max. Earth dist.	4955 Apr 28 09:08	3°00'25	1.36558 AU
	4954 May 20 02:36	0°00		superior conj	4955 May 04 14:07	15°00'21	-1°-9'-1
superior conj	4954 May 21 01:00	1°00'54	0°-39'-28	minimum elong	4955 May 04 17:54	15°00'40	1°08'24
minimum elong	4954 May 21 03:09	2°00'05	0°39'04	asc. node	4955 May 11 19:52	29°00'56	
asc. node	4954 May 24 22:50	10°00'02			4955 May 11 20:36	0°00	
evening rise	4954 May 28 16:54	17°00'52		evening rise	4955 May 12 21:18	2°00'04	
	4954 Jun 03 19:11	0°00					

	4955 May 29 23:54	0°☿		evening rise	4956 Apr 25 18:28	15°♄51'31	
evening max el	4955 May 30 02:56	0°☿07'28	19°40'34	asc. node	4956 Apr 27 16:56	19°♄36'57	
retrograde	4955 Jun 08 22:25	4°☿55'00			4956 May 03 07:46	0°♄	
evening set	4955 Jun 10 20:40	4°☿44'44		evening max el	4956 May 12 01:30	12°♄11'16	18°49'06
desc. node	4955 Jun 17 07:00	2°☿07'58		retrograde	4956 May 20 08:12	16°♄15'06	
inferior conj	4955 Jun 19 15:52	0°☿41'32	0°-42'-25	evening set	4956 May 22 10:22	16°♄00'31	
minimum elong	4955 Jun 19 13:56	0°☿44'33	0°41'44	inferior conj	4956 May 30 10:36	11°♄40'29	1°04'12
	4955 Jun 20 18:20	30°♄		minimum elong	4956 May 30 12:57	11°♄36'12	1°03'22
min. Earth dist.	4955 Jun 21 23:17	29°♄15'09	0.55532 AU	min. Earth dist.	4956 Jun 02 15:39	9°♄21'21	0.57061 AU
morning rise	4955 Jun 28 03:56	26°♄11'40		desc. node	4956 Jun 03 04:02	9°♄00'09	
direct	4955 Jul 02 16:45	25°♄26'03		morning rise	4956 Jun 07 11:00	6°♄34'08	
	4955 Jul 13 21:15	0°☿		direct	4956 Jun 12 22:10	5°♄21'42	
morning max el	4955 Jul 16 15:18	2°☿23'25	24°39'18	morning max el	4956 Jun 27 06:29	12°♄50'28	26°12'13
	4955 Aug 04 20:01	0°♄			4956 Jul 10 17:17	0°☿	
asc. node	4955 Aug 07 19:07	5°♄47'11		asc. node	4956 Jul 24 16:11	25°☿34'37	
morning set	4955 Aug 11 04:55	12°♄50'06		morning set	4956 Jul 25 15:55	27°☿39'16	
					4956 Jul 26 18:22	0°♄	
superior conj	4955 Aug 18 04:25	27°♄58'22	1°29'39	superior conj	4956 Aug 01 15:42	12°♄52'34	1°14'48
minimum elong	4955 Aug 18 02:22	27°♄47'10	1°29'26	minimum elong	4956 Aug 01 13:23	12°♄39'49	1°14'26
	4955 Aug 19 02:46	0°♄		max. Earth dist.	4956 Aug 02 06:00	14°♄11'25	1.32146 AU
max. Earth dist.	4955 Aug 19 20:55	1°♄38'22	1.32777 AU	evening rise	4956 Aug 08 15:20	27°♄58'58	
evening rise	4955 Aug 25 11:29	13°♄27'39			4956 Aug 09 14:39	0°♄	
	4955 Sep 03 03:05	0°♄			4956 Aug 26 10:54	0°♄	
desc. node	4955 Sep 13 06:15	16°♄27'13		desc. node	4956 Aug 30 03:18	5°♄13'53	
	4955 Sep 23 16:46	0°♄		evening max el	4956 Sep 08 18:35	16°♄24'03	27°06'55
evening max el	4955 Sep 27 12:23	3°♄56'16	27°27'00	retrograde	4956 Sep 22 15:22	23°♄36'16	
retrograde	4955 Oct 11 05:08	11°♄12'00		evening set	4956 Sep 29 17:26	21°♄21'34	
evening set	4955 Oct 18 09:05	8°♄39'07		min. Earth dist.	4956 Oct 03 08:59	18°♄39'30	0.61208 AU
min. Earth dist.	4955 Oct 22 01:00	5°♄33'39	0.63154 AU	inferior conj	4956 Oct 06 11:57	15°♄56'52	-4°-9'-22
inferior conj	4955 Oct 24 18:23	2°♄52'53	-3°-10'-38	minimum elong	4956 Oct 06 18:12	15°♄43'15	4°07'46
minimum elong	4955 Oct 24 23:48	2°♄39'32	3°08'48	morning rise	4956 Oct 13 22:13	11°♄03'06	
	4955 Oct 27 21:08	30°♄		direct	4956 Oct 16 04:51	10°♄41'57	
morning rise	4955 Oct 31 17:14	27°♄38'23		asc. node	4956 Oct 20 15:25	12°♄05'54	
direct	4955 Nov 03 01:45	27°♄12'12		morning max el	4956 Oct 23 07:39	14°♄15'23	17°57'52
asc. node	4955 Nov 03 18:22	27°♄14'31			4956 Nov 03 01:50	0°♄	
	4955 Nov 09 01:06	0°♄		morning set	4956 Nov 08 00:42	8°♄59'44	
morning max el	4955 Nov 09 17:01	0°♄37'44	17°49'38				
morning set	4955 Nov 25 22:23	25°♄39'53		superior conj	4956 Nov 18 07:58	27°♄36'09	0°53'22
	4955 Nov 28 09:53	0°♄		minimum elong	4956 Nov 18 11:50	27°♄53'02	0°52'52
superior conj	4955 Dec 07 21:13	16°♄09'31	0°16'27		4956 Nov 19 17:01	0°♄	
minimum elong	4955 Dec 07 22:53	16°♄16'27	0°16'14	max. Earth dist.	4956 Nov 25 21:31	10°♄28'16	1.42389 AU
desc. node	4955 Dec 10 05:32	20°♄01'58		desc. node	4956 Nov 26 02:33	10°♄49'03	
max. Earth dist.	4955 Dec 14 08:41	26°♄44'06	1.43989 AU	evening rise	4956 Dec 02 01:04	20°♄25'02	
	4955 Dec 16 09:45	0°☿			4956 Dec 08 05:05	0°☿	
evening rise	4955 Dec 23 06:28	10°☿44'21			4956 Dec 29 12:22	0°☿	
	4956 Jan 05 01:25	0°☿		greatest brilliancy	4956 Dec 29 20:21	0°☿24'22	-0.3m
greatest brilliancy	4956 Jan 16 12:37	15°☿59'14	-0.5m	evening max el	4957 Jan 03 14:20	5°☿44'52	22°16'02
evening max el	4956 Jan 21 19:43	22°☿09'37	21°00'45	retrograde	4957 Jan 13 04:06	11°☿26'35	
retrograde	4956 Jan 30 07:25	27°☿10'54		asc. node	4957 Jan 16 14:42	10°☿24'03	
asc. node	4956 Jan 30 17:39	27°☿09'55		evening set	4957 Jan 17 16:12	9°☿38'22	
evening set	4956 Feb 03 08:28	25°☿38'15		inferior conj	4957 Jan 23 01:41	3°☿15'01	2°02'05
inferior conj	4956 Feb 08 17:51	19°☿23'21	2°39'34	minimum elong	4957 Jan 22 23:25	3°☿22'56	2°01'20
minimum elong	4956 Feb 08 15:26	19°☿31'42	2°38'55	min. Earth dist.	4957 Jan 22 23:45	3°☿21'48	0.68084 AU
min. Earth dist.	4956 Feb 09 03:42	18°☿49'20	0.67791 AU		4957 Jan 25 11:45	30°☿	
morning rise	4956 Feb 13 22:01	13°☿08'05		morning rise	4957 Jan 28 06:29	27°☿02'23	
direct	4956 Feb 19 05:12	10°☿49'13		direct	4957 Feb 01 22:51	25°☿05'37	
morning max el	4956 Feb 29 22:09	17°☿11'54	23°44'16		4957 Feb 10 17:41	0°☿	
desc. node	4956 Mar 07 04:48	24°☿20'37		morning max el	4957 Feb 11 09:24	0°☿38'43	22°15'40
	4956 Mar 11 13:29	0°☿		greatest brilliancy	4957 Feb 15 23:15	5°☿45'27	-0.3m
	4956 Mar 31 14:19	0°☿		desc. node	4957 Feb 22 01:49	13°☿39'25	
morning set	4956 Apr 05 06:46	7°☿49'29			4957 Mar 05 10:11	0°☿	
max. Earth dist.	4956 Apr 09 05:03	14°☿38'34	1.38679 AU	morning set	4957 Mar 16 17:27	17°☿39'26	
				max. Earth dist.	4957 Mar 22 02:01	26°☿30'40	1.40863 AU
superior conj	4956 Apr 16 14:15	28°☿07'32	-1°-36'-16		4957 Mar 24 03:20	0°☿	
minimum elong	4956 Apr 16 19:09	28°☿30'38	1°35'41	superior conj	4957 Mar 29 20:47	10°☿00'56	-1°-57'-42
	4956 Apr 17 14:03	0°☿					

minimum elong	4957 Mar 30 01:13	10° Υ 20'43	1°57'25	minimum elong	4958 Mar 11 05:54	20° Υ 56'01	2°08'25
evening rise	4957 Apr 09 04:56	29° Υ 03'07			4958 Mar 16 12:28	0° Υ	
	4957 Apr 09 17:06	0° Υ		evening rise	4958 Mar 23 00:40	11° Υ 30'54	
asc. node	4957 Apr 14 13:59	8° Υ 58'31		asc. node	4958 Apr 01 11:00	27° Υ 54'47	
evening max el	4957 Apr 25 08:17	24° Υ 48'54	18°18'02		4958 Apr 02 18:40	0° Υ	
retrograde	4957 May 02 12:50	28° Υ 24'08		evening max el	4958 Apr 08 19:44	7° Υ 51'13	18°06'40
evening set	4957 May 04 21:31	28° Υ 01'46		retrograde	4958 Apr 15 09:43	11° Υ 13'52	
inferior conj	4957 May 12 02:55	23° Υ 21'22	2°21'26	evening set	4958 Apr 18 00:51	10° Υ 41'22	
minimum elong	4957 May 12 06:27	23° Υ 13'51	2°20'29	inferior conj	4958 Apr 24 14:40	5° Υ 40'05	3°08'14
min. Earth dist.	4957 May 15 13:16	20° Υ 27'30	0.59100 AU	minimum elong	4958 Apr 24 17:16	5° Υ 33'41	3°07'49
morning rise	4957 May 19 11:09	17° Υ 44'29		min. Earth dist.	4958 Apr 27 18:02	2° Υ 36'24	0.61308 AU
desc. node	4957 May 21 01:03	16° Υ 57'48			4958 Apr 30 20:59	30° Υ	
direct	4957 May 25 17:43	15° Υ 57'50		morning rise	4958 May 01 06:35	29° Υ 43'16	
morning max el	4957 Jun 09 03:04	23° Υ 46'21	27°19'11	desc. node	4958 May 07 22:05	27° Υ 24'41	
	4957 Jun 14 17:51	0° Υ		direct	4958 May 08 00:36	27° Υ 24'39	
	4957 Jul 03 20:28	0° Υ			4958 May 15 17:12	0° Υ	
morning set	4957 Jul 10 00:27	12° Υ 19'21		morning max el	4958 May 22 05:49	5° Υ 22'44	27°50'42
asc. node	4957 Jul 11 13:14	15° Υ 33'42			4958 Jun 09 16:14	0° Υ	
max. Earth dist.	4957 Jul 16 17:19	26° Υ 49'24	1.31933 AU	morning set	4958 Jun 24 04:34	26° Υ 43'47	
					4958 Jun 25 18:24	0° Υ	
superior conj	4957 Jul 17 03:31	27° Υ 45'43	0°55'33	asc. node	4958 Jun 28 10:16	5° Υ 39'08	
minimum elong	4957 Jul 17 01:25	27° Υ 34'07	0°55'09	max. Earth dist.	4958 Jun 30 03:02	9° Υ 19'53	1.32145 AU
	4957 Jul 18 03:49	0° Υ					
evening rise	4957 Jul 23 23:53	12° Υ 42'15		superior conj	4958 Jul 01 14:05	12° Υ 31'25	0°32'30
	4957 Aug 01 17:43	0° Υ		minimum elong	4958 Jul 01 12:40	12° Υ 23'38	0°32'11
desc. node	4957 Aug 17 00:19	23° Υ 01'30		evening rise	4958 Jul 08 11:01	27° Υ 30'10	
evening max el	4957 Aug 21 18:02	28° Υ 05'08	26°13'42		4958 Jul 09 15:20	0° Υ	
	4957 Aug 23 21:36	0° Υ			4958 Jul 26 17:15	0° Υ	
retrograde	4957 Sep 04 17:15	5° Υ 13'36		evening max el	4958 Aug 03 10:11	8° Υ 59'15	24°52'37
evening set	4957 Sep 11 05:54	3° Υ 29'35		desc. node	4958 Aug 03 21:21	9° Υ 25'36	
min. Earth dist.	4957 Sep 15 07:06	0° Υ 55'23	0.59132 AU	retrograde	4958 Aug 17 08:13	16° Υ 00'59	
	4957 Sep 16 12:52	30° Υ		evening set	4958 Aug 22 18:09	14° Υ 54'44	
inferior conj	4957 Sep 18 13:04	28° Υ 27'57	-4°-55'-43	min. Earth dist.	4958 Aug 27 21:39	12° Υ 09'42	0.57172 AU
minimum elong	4957 Sep 18 18:01	28° Υ 18'32	4°54'59	inferior conj	4958 Aug 30 18:38	10° Υ 16'19	-5°-16'-32
morning rise	4957 Sep 26 09:41	23° Υ 57'06		minimum elong	4958 Aug 30 19:02	10° Υ 15'40	5°16'34
direct	4957 Sep 28 17:57	23° Υ 38'16		morning rise	4958 Sep 07 23:22	6° Υ 07'50	
morning max el	4957 Oct 06 16:45	27° Υ 28'58	18°25'54	direct	4958 Sep 10 13:10	5° Υ 48'58	
asc. node	4957 Oct 07 12:28	28° Υ 18'35		morning max el	4958 Sep 19 16:50	10° Υ 07'29	19°15'14
	4957 Oct 09 00:17	0° Υ		asc. node	4958 Sep 24 09:30	15° Υ 36'38	
morning set	4957 Oct 22 15:58	22° Υ 56'18			4958 Oct 02 22:38	0° Υ	
	4957 Oct 26 08:15	0° Υ		morning set	4958 Oct 06 16:06	7° Υ 17'34	
superior conj	4957 Oct 31 17:41	10° Υ 09'36	1°19'40	superior conj	4958 Oct 14 20:52	23° Υ 33'35	1°35'44
minimum elong	4957 Oct 31 21:19	10° Υ 26'23	1°19'16	minimum elong	4958 Oct 14 23:09	23° Υ 44'40	1°35'35
max. Earth dist.	4957 Nov 08 04:59	23° Υ 30'34	1.40415 AU		4958 Oct 18 05:39	0° Υ	
	4957 Nov 12 00:53	0° Υ		max. Earth dist.	4958 Oct 21 09:42	5° Υ 52'03	1.38310 AU
evening rise	4957 Nov 12 15:43	1° Υ 01'37		evening rise	4958 Oct 25 05:21	12° Υ 40'31	
desc. node	4957 Nov 12 23:35	1° Υ 34'09		desc. node	4958 Oct 30 20:37	22° Υ 12'47	
	4957 Dec 01 14:53	0° Υ			4958 Nov 04 17:30	0° Υ	
evening max el	4957 Dec 17 05:06	19° Υ 23'40	23°35'52		4958 Nov 26 18:50	0° Υ	
retrograde	4957 Dec 27 21:51	25° Υ 42'46		evening max el	4958 Nov 29 18:04	3° Υ 06'15	24°53'51
evening set	4958 Jan 01 22:29	23° Υ 38'50		retrograde	4958 Dec 11 11:27	9° Υ 54'42	
asc. node	4958 Jan 03 11:43	22° Υ 09'22		evening set	4958 Dec 17 01:41	7° Υ 35'51	
inferior conj	4958 Jan 07 09:32	17° Υ 11'08	1°17'18	asc. node	4958 Dec 21 08:44	2° Υ 49'41	
minimum elong	4958 Jan 07 07:51	17° Υ 16'53	1°16'40	min. Earth dist.	4958 Dec 21 15:43	2° Υ 26'53	0.67568 AU
min. Earth dist.	4958 Jan 06 20:34	17° Υ 55'30	0.68006 AU	inferior conj	4958 Dec 22 15:33	1° Υ 08'21	0°26'05
morning rise	4958 Jan 12 17:23	11° Υ 03'00		minimum elong	4958 Dec 22 14:54	1° Υ 10'28	0°25'49
direct	4958 Jan 16 19:38	9° Υ 28'55			4958 Dec 23 12:26	30° Υ	
morning max el	4958 Jan 25 02:30	14° Υ 15'35	20°54'15	morning rise	4958 Dec 28 04:41	25° Υ 07'02	
greatest brilliancy	4958 Jan 30 15:55	20° Υ 40'32	-0.5m	direct	4958 Dec 31 18:08	23° Υ 54'03	
	4958 Feb 06 12:48	0° Υ		morning max el	4959 Jan 08 03:27	28° Υ 03'47	19°45'19
desc. node	4958 Feb 08 22:51	3° Υ 28'20			4959 Jan 09 22:59	0° Υ	
morning set	4958 Feb 24 01:04	26° Υ 15'23		greatest brilliancy	4959 Jan 15 19:07	7° Υ 27'11	-0.6m
	4958 Feb 26 10:16	0° Υ		desc. node	4959 Jan 26 19:53	23° Υ 38'55	
max. Earth dist.	4958 Mar 04 05:25	9° Υ 17'18	1.42833 AU		4959 Jan 30 23:49	0° Υ	
				morning set	4959 Feb 02 21:17	4° Υ 27'00	
superior conj	4958 Mar 11 04:50	20° Υ 51'31	-2°-8'-24	max. Earth dist.	4959 Feb 14 16:50	22° Υ 55'30	1.44326 AU

superior conj	4959 Feb 19 11:21	0° K 34'16	-2°-2'-49	superior conj	4960 Jan 29 20:18	9° \approx 22'32	-1°-37'-28
minimum elong	4959 Feb 19 06:19	0° K 13'53	2°02'36	minimum elong	4960 Jan 29 10:59	8° \approx 45'53	1°36'37
	4959 Feb 19 02:52	0° K			4960 Feb 11 19:27	0° K	
evening rise	4959 Mar 05 01:17	23° K 06'42		evening rise	4960 Feb 14 03:13	3° K 45'04	
	4959 Mar 09 02:38	0° Y			4960 Mar 01 23:18	0° Y	
asc. node	4959 Mar 19 08:01	16° Y 17'52		asc. node	4960 Mar 05 05:03	3° Y 57'05	
evening max el	4959 Mar 23 08:40	21° Y 09'47	18°14'18	evening max el	4960 Mar 05 20:14	4° Y 36'51	18°40'13
retrograde	4959 Mar 29 18:30	24° Y 34'29		retrograde	4960 Mar 12 11:00	8° Y 16'29	
evening set	4959 Apr 01 15:45	23° Y 50'29		evening set	4960 Mar 15 14:32	7° Y 20'09	
inferior conj	4959 Apr 07 17:53	18° Y 29'22	3°30'02	inferior conj	4960 Mar 21 08:33	1° Y 40'53	3°32'41
minimum elong	4959 Apr 07 18:52	18° Y 26'40	3°29'58	minimum elong	4960 Mar 21 08:00	1° Y 42'35	3°32'39
min. Earth dist.	4959 Apr 10 07:42	15° Y 39'08	0.63387 AU		4960 Mar 22 17:39	30° R K	
morning rise	4959 Apr 13 19:57	12° Y 21'07		min. Earth dist.	4960 Mar 23 06:46	29° K 20'38	0.65147 AU
direct	4959 Apr 20 16:18	9° Y 40'54		morning rise	4960 Mar 27 00:11	25° K 26'48	
desc. node	4959 Apr 24 19:06	10° Y 31'32		direct	4960 Apr 02 15:22	22° K 38'14	
morning max el	4959 May 04 13:28	17° Y 39'54	27°44'36	desc. node	4960 Apr 10 16:08	25° K 49'41	
	4959 May 14 20:37	0° B			4960 Apr 15 12:07	0° Y	
	4959 Jun 02 11:53	0° II		morning max el	4960 Apr 15 23:28	0° Y 28'19	27°04'36
morning set	4959 Jun 08 02:05	10° II 45'46			4960 May 07 20:47	0° B	
max. Earth dist.	4959 Jun 13 07:25	21° II 31'30	1.32796 AU	morning set	4960 May 21 14:00	24° B 15'57	
asc. node	4959 Jun 15 07:17	25° II 46'49			4960 May 24 12:09	0° II	
				max. Earth dist.	4960 May 26 02:39	3° II 13'46	1.33902 AU
superior conj	4959 Jun 15 21:38	27° II 03'57	0°06'14	superior conj	4960 May 30 00:04	11° II 16'23	0°-22'-24
minimum elong	4959 Jun 15 21:20	27° II 02'19	0°06'10	minimum elong	4960 May 30 01:15	11° II 22'35	0°22'10
behind sun begin	4959 Jun 15 16:25	26° II 35'50		asc. node	4960 Jun 01 04:19	15° II 52'06	
behind sun end	4959 Jun 16 02:15	27° II 28'50		evening rise	4960 Jun 06 09:24	26° II 54'31	
	4959 Jun 17 06:13	0° S			4960 Jun 07 21:06	0° S	
evening rise	4959 Jun 22 22:49	12° S 16'33		evening max el	4960 Jun 26 15:40	29° S 50'24	21°41'12
	4959 Jul 01 22:50	0° Q			4960 Jun 26 19:36	0° Q	
evening max el	4959 Jul 15 22:48	19° Q 23'42	23°16'25	desc. node	4960 Jul 07 15:22	5° Q 54'41	
desc. node	4959 Jul 21 18:20	23° Q 54'44		retrograde	4960 Jul 09 02:10	5° Q 59'38	
retrograde	4959 Jul 29 10:27	26° Q 08'28		evening set	4960 Jul 11 16:27	5° Q 44'23	
evening set	4959 Aug 02 08:29	25° Q 34'56		inferior conj	4960 Jul 20 23:53	1° Q 43'18	-3°-42'-45
min. Earth dist.	4959 Aug 09 08:07	22° Q 22'53	0.55643 AU	minimum elong	4960 Jul 20 15:07	1° Q 55'33	3°40'17
inferior conj	4959 Aug 11 04:19	21° Q 18'10	-4°-55'-26	min. Earth dist.	4960 Jul 20 18:09	1° Q 51'18	0.54852 AU
minimum elong	4959 Aug 10 22:20	21° Q 26'57	4°54'36		4960 Jul 24 04:00	30° R S	
morning rise	4959 Aug 19 15:06	17° Q 25'58		morning rise	4960 Jul 29 14:58	27° S 51'54	
direct	4959 Aug 22 13:22	17° Q 05'17		direct	4960 Aug 01 23:54	27° S 27'07	
morning max el	4959 Sep 02 05:19	22° Q 02'42	20°26'29		4960 Aug 10 03:04	0° Q	
	4959 Sep 08 20:11	0° M		morning max el	4960 Aug 14 06:03	3° Q 12'38	21°57'19
asc. node	4959 Sep 11 06:32	3° M 45'54		asc. node	4960 Aug 28 03:34	22° Q 34'12	
morning set	4959 Sep 20 22:08	21° M 55'34			4960 Sep 01 00:53	0° M	
	4959 Sep 24 20:04	0° A		morning set	4960 Sep 04 07:52	6° M 43'59	
superior conj	4959 Sep 28 12:44	7° A 34'47	1°42'55	superior conj	4960 Sep 11 13:29	22° M 02'08	1°42'37
minimum elong	4959 Sep 28 13:26	7° A 38'16	1°42'55	minimum elong	4960 Sep 11 12:47	21° M 58'28	1°42'37
max. Earth dist.	4959 Oct 03 16:42	17° A 48'52	1.36318 AU		4960 Sep 15 09:51	0° A	
evening rise	4959 Oct 07 15:37	25° A 15'55		max. Earth dist.	4960 Sep 15 06:30	29° M 42'59	1.34620 AU
	4959 Oct 10 06:26	0° M		evening rise	4960 Sep 19 18:23	8° A 37'42	
desc. node	4959 Oct 17 17:37	12° M 40'29			4960 Oct 01 19:41	0° M	
	4959 Oct 29 06:40	0° J		desc. node	4960 Oct 03 14:38	2° M 51'53	
evening max el	4959 Nov 12 06:40	16° J 49'32	26°02'43		4960 Oct 24 08:14	0° J	
retrograde	4959 Nov 24 20:07	23° J 57'11		evening max el	4960 Oct 24 19:18	0° J 26'50	26°55'02
evening set	4959 Dec 01 00:06	21° J 25'50		retrograde	4960 Nov 06 23:26	7° J 43'59	
min. Earth dist.	4959 Dec 05 06:50	16° J 52'25	0.66778 AU	evening set	4960 Nov 13 15:45	5° J 05'12	
inferior conj	4959 Dec 06 17:53	15° J 03'23	0°-30'-37	min. Earth dist.	4960 Nov 17 15:42	1° J 07'44	0.65633 AU
minimum elong	4959 Dec 06 18:42	15° J 00'50	0°30'17		4960 Nov 18 15:19	30° R M	
asc. node	4959 Dec 08 05:46	13° J 13'45		inferior conj	4960 Nov 19 14:31	28° M 52'44	-1°-31'-31
morning rise	4959 Dec 12 14:22	9° J 11'26		minimum elong	4960 Nov 19 17:07	28° M 45'14	1°30'27
direct	4959 Dec 15 16:47	8° J 16'30		asc. node	4960 Nov 24 02:49	24° M 18'42	
morning max el	4959 Dec 22 11:55	12° J 01'03	18°51'28	morning rise	4960 Nov 25 20:13	23° M 12'57	
	4960 Jan 04 16:14	0° S		direct	4960 Nov 28 13:38	22° M 32'19	
morning set	4960 Jan 13 07:11	13° S 26'48		morning max el	4960 Dec 05 01:54	26° M 02'32	18°13'56
desc. node	4960 Jan 13 16:53	14° S 04'47			4960 Dec 08 11:39	0° J	
	4960 Jan 23 20:53	0° \approx		morning set	4960 Dec 23 21:30	23° J 53'25	
max. Earth dist.	4960 Jan 28 09:58	7° \approx 07'37	1.45167 AU		4960 Dec 27 15:56	0° S	

desc. node	4960 Dec 30 13:54	4°♄41'35		superior conj	4961 Dec 18 17:43	27°♄30'12	0°-8'-57
				minimum elong	4961 Dec 18 16:41	27°♄26'01	0°08'47
superior conj	4961 Jan 07 23:44	18°♄03'10	0°-55'-59	behind sun begin	4961 Dec 18 08:10	26°♄51'26	
minimum elong	4961 Jan 07 16:50	17°♄36'02	0°55'06	behind sun end	4961 Dec 19 01:13	28°♄00'33	
max. Earth dist.	4961 Jan 10 05:15	21°♄33'32	1.45272 AU		4961 Dec 20 06:49	0°♄	
	4961 Jan 15 14:43	0°♄		max. Earth dist.	4961 Dec 23 23:42	5°♄55'06	1.44648 AU
evening rise	4961 Jan 24 06:39	13°♄31'08		evening rise	4962 Jan 03 18:49	22°♄45'12	
	4961 Feb 03 21:33	0°♄			4962 Jan 08 12:36	0°♄	
greatest brilliancy	4961 Feb 08 14:38	7°♄04'13	-0.7m	greatest brilliancy	4962 Jan 25 04:07	24°♄18'46	-0.5m
evening max el	4961 Feb 17 04:18	18°♄08'21	19°23'19		4962 Jan 29 17:50	0°♄	
asc. node	4961 Feb 20 02:05	20°♄40'08		evening max el	4962 Jan 31 07:24	1°♄41'29	20°21'39
retrograde	4961 Feb 24 07:44	22°♄13'45		asc. node	4962 Feb 06 23:09	6°♄11'59	
evening set	4961 Feb 27 18:27	21°♄04'13		retrograde	4962 Feb 08 05:57	6°♄20'50	
inferior conj	4961 Mar 05 07:19	15°♄09'06	3°20'45	evening set	4962 Feb 12 01:15	4°♄57'05	
minimum elong	4961 Mar 05 05:39	15°♄14'32	3°20'31		4962 Feb 16 14:14	30°♄	
min. Earth dist.	4961 Mar 06 14:24	13°♄27'52	0.66506 AU	inferior conj	4962 Feb 17 11:20	28°♄48'43	2°57'22
morning rise	4961 Mar 10 16:00	8°♄52'40		minimum elong	4962 Feb 17 09:03	28°♄56'29	2°56'51
direct	4961 Mar 16 20:52	6°♄08'18		min. Earth dist.	4962 Feb 18 04:37	27°♄49'55	0.67440 AU
desc. node	4961 Mar 28 13:10	12°♄45'55		morning rise	4962 Feb 22 16:19	22°♄32'23	
morning max el	4961 Mar 29 09:20	13°♄35'58	25°58'14	direct	4962 Feb 28 07:54	20°♄02'04	
	4961 Apr 11 16:32	0°♄		morning max el	4962 Mar 11 18:01	26°♄52'05	24°35'18
	4961 Apr 30 14:38	0°♄			4962 Mar 14 15:57	0°♄	
morning set	4961 May 04 12:29	7°♄03'36		desc. node	4962 Mar 15 10:11	0°♄52'12	
max. Earth dist.	4961 May 08 10:26	14°♄26'43	1.35468 AU		4962 Apr 05 07:30	0°♄	
				morning set	4962 Apr 16 16:18	18°♄54'08	
superior conj	4961 May 13 18:56	25°♄02'11	0°-52'-7	max. Earth dist.	4962 Apr 20 08:25	25°♄28'15	1.37429 AU
minimum elong	4961 May 13 21:48	25°♄16'43	0°51'36		4962 Apr 22 19:23	0°♄	
	4961 May 16 05:18	0°♄					
asc. node	4961 May 19 01:22	5°♄51'17		superior conj	4962 Apr 27 03:04	8°♄13'10	-1°-21'-2
evening rise	4961 May 21 16:45	11°♄18'05		minimum elong	4962 Apr 27 07:26	8°♄34'23	1°20'24
	4961 May 31 14:39	0°♄		evening rise	4962 May 05 18:27	25°♄20'27	
evening max el	4961 Jun 08 19:37	10°♄49'11	20°19'14	asc. node	4962 May 05 22:26	25°♄40'14	
retrograde	4961 Jun 19 15:33	16°♄07'08			4962 May 08 03:04	0°♄	
evening set	4961 Jun 21 14:48	15°♄57'22		evening max el	4962 May 22 12:09	22°♄31'02	19°16'15
desc. node	4961 Jun 24 12:24	15°♄10'18		retrograde	4962 May 31 14:55	26°♄58'01	
inferior conj	4961 Jun 30 18:20	11°♄59'26	-1°-51'-21	evening set	4962 Jun 02 14:09	26°♄46'28	
minimum elong	4961 Jun 30 13:07	12°♄07'05	1°49'28	inferior conj	4962 Jun 11 01:42	22°♄37'26	0°05'43
min. Earth dist.	4961 Jul 02 06:06	11°♄06'59	0.55007 AU	minimum elong	4962 Jun 11 01:56	22°♄37'02	0°05'36
morning rise	4961 Jul 09 09:32	7°♄47'42		transit middle	4962 Jun 11 01:56	22°♄37'02	0°05'36
direct	4961 Jul 13 10:14	7°♄12'35		transit begin	4962 Jun 10 22:21	22°♄43'01	
morning max el	4961 Jul 26 22:20	13°♄47'05	23°39'57	transit end	4962 Jun 11 05:32	22°♄31'03	
	4961 Aug 08 10:31	0°♄		desc. node	4962 Jun 11 09:26	22°♄24'33	
asc. node	4961 Aug 15 00:37	11°♄51'33		min. Earth dist.	4962 Jun 13 20:38	20°♄46'49	0.56097 AU
morning set	4961 Aug 19 19:22	21°♄36'51		morning rise	4962 Jun 19 09:37	17°♄51'52	
	4961 Aug 23 17:08	0°♄		direct	4962 Jun 24 08:04	16°♄55'51	
				morning max el	4962 Jul 08 12:01	24°♄08'47	25°20'59
superior conj	4961 Aug 26 20:07	6°♄46'02	1°35'59		4962 Jul 13 20:21	0°♄	
minimum elong	4961 Aug 26 18:26	6°♄36'55	1°35'51		4962 Aug 01 03:55	0°♄	
max. Earth dist.	4961 Aug 29 05:00	11°♄50'43	1.33323 AU	asc. node	4962 Aug 01 21:40	1°♄30'19	
evening rise	4961 Sep 03 09:32	22°♄34'30		morning set	4962 Aug 04 07:03	6°♄29'24	
	4961 Sep 07 04:55	0°♄					
desc. node	4961 Sep 20 11:40	22°♄39'09		superior conj	4962 Aug 11 06:19	21°♄39'03	1°23'56
	4961 Sep 25 13:40	0°♄		minimum elong	4962 Aug 11 04:06	21°♄26'52	1°23'39
evening max el	4961 Oct 07 07:12	13°♄47'36	27°23'43	max. Earth dist.	4962 Aug 12 11:09	24°♄16'55	1.32458 AU
retrograde	4961 Oct 20 20:54	21°♄05'59			4962 Aug 15 02:30	0°♄	
evening set	4961 Oct 27 22:03	18°♄27'54		evening rise	4962 Aug 18 09:40	6°♄56'42	
min. Earth dist.	4961 Oct 31 16:12	15°♄04'45	0.64145 AU		4962 Aug 30 17:03	0°♄	
inferior conj	4961 Nov 03 03:01	12°♄30'31	-2°-34'-37	desc. node	4962 Sep 07 08:43	11°♄52'14	
minimum elong	4961 Nov 03 07:30	12°♄18'45	2°32'57	evening max el	4962 Sep 19 16:28	26°♄39'37	27°22'37
morning rise	4961 Nov 09 19:22	7°♄05'51			4962 Sep 23 15:28	0°♄	
asc. node	4961 Nov 10 23:52	6°♄43'40		retrograde	4962 Oct 03 11:31	3°♄54'04	
direct	4961 Nov 12 06:13	6°♄35'32		evening set	4962 Oct 10 15:36	1°♄27'39	
morning max el	4961 Nov 18 18:33	10°♄00'43	17°53'23		4962 Oct 12 14:30	30°♄	
	4961 Dec 02 07:33	0°♄		min. Earth dist.	4962 Oct 14 06:41	28°♄33'15	0.62352 AU
morning set	4961 Dec 05 15:57	5°♄42'12		inferior conj	4962 Oct 17 04:29	25°♄49'58	-3°-36'-30
desc. node	4961 Dec 17 10:55	25°♄24'59		minimum elong	4962 Oct 17 10:26	25°♄36'02	3°34'39
				morning rise	4962 Oct 24 08:14	20°♄43'40	

direct	4962 Oct 26 15:26	20°♂20'04		minimum elong	4963 Sep 29 21:31	8°♂28'56	4°29'54
asc. node	4962 Oct 28 20:54	20°♂42'53		morning rise	4963 Oct 07 06:19	3°♂56'49	
morning max el	4962 Nov 02 10:47	23°♂48'15	17°50'42	direct	4963 Oct 09 13:18	3°♂36'51	
	4962 Nov 07 09:42	0°♂		asc. node	4963 Oct 15 17:55	6°♂10'23	
morning set	4962 Nov 18 08:30	18°♂34'38		morning max el	4963 Oct 16 23:23	7°♂16'24	18°07'12
	4962 Nov 24 19:02	0°♂			4963 Oct 31 12:40	0°♂	
				morning set	4963 Nov 01 16:55	2°♂12'03	
superior conj	4962 Nov 29 13:16	8°♂12'24	0°33'21	superior conj	4963 Nov 11 10:23	20°♂09'07	1°05'51
minimum elong	4962 Nov 29 16:14	8°♂25'01	0°32'57	minimum elong	4963 Nov 11 14:22	20°♂26'56	1°05'20
desc. node	4962 Dec 04 07:57	16°♂11'49			4963 Nov 17 01:23	0°♂	
max. Earth dist.	4962 Dec 06 15:10	19°♂57'26	1.43373 AU	max. Earth dist.	4963 Nov 19 02:05	3°♂26'27	1.41589 AU
	4962 Dec 12 22:25	0°♂		desc. node	4963 Nov 21 05:00	6°♂58'37	
evening rise	4962 Dec 14 06:38	2°♂05'42		evening rise	4963 Nov 24 08:54	12°♂08'21	
	4963 Jan 02 01:37	0°♂			4963 Dec 05 22:13	0°♂	
greatest brilliancy	4963 Jan 09 08:00	9°♂41'25	-0.4m	greatest brilliancy	4963 Dec 22 16:49	23°♂02'21	-0.2m
evening max el	4963 Jan 14 05:04	15°♂16'04	21°31'58	evening max el	4963 Dec 27 21:55	28°♂53'12	22°49'50
retrograde	4963 Jan 23 03:33	20°♂34'13			4963 Dec 29 01:20	0°♂	
asc. node	4963 Jan 24 20:12	20°♂18'49		retrograde	4964 Jan 06 22:59	4°♂50'51	
evening set	4963 Jan 27 09:05	18°♂55'10		evening set	4964 Jan 11 16:22	2°♂55'49	
inferior conj	4963 Feb 01 18:20	12°♂36'30	2°24'36	asc. node	4964 Jan 11 17:12	2°♂54'05	
minimum elong	4963 Feb 01 15:55	12°♂44'52	2°23'54		4964 Jan 14 11:33	30°♂	
min. Earth dist.	4963 Feb 01 23:08	12°♂19'53	0.67965 AU	inferior conj	4964 Jan 17 02:22	26°♂30'18	1°43'55
morning rise	4963 Feb 06 22:27	6°♂22'08		minimum elong	4964 Jan 17 00:17	26°♂37'30	1°43'11
direct	4963 Feb 11 23:26	4°♂12'08		min. Earth dist.	4964 Jan 16 19:39	26°♂53'31	0.68099 AU
morning max el	4963 Feb 22 03:09	10°♂13'36	23°06'05	morning rise	4964 Jan 22 08:12	20°♂19'36	
greatest brilliancy	4963 Feb 27 01:08	15°♂43'26	-0.3m	direct	4964 Jan 26 18:30	18°♂32'31	
desc. node	4963 Mar 02 07:12	19°♂48'39		morning max el	4964 Feb 04 16:29	23°♂44'23	21°39'50
	4963 Mar 09 17:51	0°♂		greatest brilliancy	4964 Feb 09 12:19	29°♂10'59	-0.4m
morning set	4963 Mar 28 19:18	29°♂30'37			4964 Feb 10 04:08	0°♂	
	4963 Mar 29 02:20	0°♂		desc. node	4964 Feb 17 04:14	9°♂21'34	
max. Earth dist.	4963 Apr 02 03:36	6°♂53'28	1.39614 AU		4964 Mar 02 03:19	0°♂	
				morning set	4964 Mar 07 17:40	8°♂46'15	
superior conj	4963 Apr 09 20:20	20°♂38'20	-1°-46'-20	max. Earth dist.	4964 Mar 14 03:32	19°♂11'00	1.41745 AU
minimum elong	4963 Apr 10 01:18	21°♂01'14	1°45'51		4964 Mar 20 12:47	0°♂	
	4963 Apr 14 20:10	0°♂		superior conj	4964 Mar 21 17:53	2°♂06'30	-2°-3'-53
evening rise	4963 Apr 19 11:28	8°♂52'59		minimum elong	4964 Mar 21 21:18	2°♂21'24	2°03'45
asc. node	4963 Apr 22 19:29	15°♂13'25		evening rise	4964 Apr 01 16:13	21°♂47'25	
	4963 May 01 13:30	0°♂			4964 Apr 06 04:21	0°♂	
evening max el	4963 May 05 14:43	4°♂50'45	18°33'30	asc. node	4964 Apr 08 16:31	4°♂25'17	
retrograde	4963 May 13 08:36	8°♂40'02		evening max el	4964 Apr 17 23:52	17°♂39'52	18°10'47
evening set	4963 May 15 13:39	8°♂22'22		retrograde	4964 Apr 24 20:48	21°♂08'01	
inferior conj	4963 May 23 05:34	3°♂53'51	1°40'50	evening set	4964 Apr 27 08:20	20°♂41'28	
minimum elong	4963 May 23 08:46	3°♂47'37	1°39'49	inferior conj	4964 May 04 06:35	15°♂51'44	2°44'44
min. Earth dist.	4963 May 26 14:45	1°♂17'23	0.57888 AU	minimum elong	4964 May 04 09:53	15°♂44'14	2°43'59
	4963 May 28 11:09	30°♂		min. Earth dist.	4964 May 07 14:56	12°♂50'55	0.60037 AU
desc. node	4963 May 29 06:28	29°♂29'42		morning rise	4964 May 11 07:42	10°♂05'11	
morning rise	4963 May 30 23:26	28°♂33'49		desc. node	4964 May 15 03:28	8°♂25'02	
direct	4963 Jun 05 19:50	27°♂07'08		direct	4964 May 17 20:05	8°♂04'31	
	4963 Jun 14 09:04	0°♂		morning max el	4964 Jun 01 04:14	15°♂57'29	27°37'18
morning max el	4963 Jun 20 04:54	4°♂44'53	26°44'33		4964 Jun 12 15:34	0°♂	
	4963 Jul 08 16:01	0°♂			4964 Jun 30 03:25	0°♂	
morning set	4963 Jul 19 17:11	21°♂15'25		morning set	4964 Jul 03 00:05	5°♂49'41	
asc. node	4963 Jul 19 18:43	21°♂23'26		asc. node	4964 Jul 05 15:45	11°♂25'50	
	4963 Jul 23 18:36	0°♂		max. Earth dist.	4964 Jul 09 09:03	19°♂31'27	1.31978 AU
superior conj	4963 Jul 26 18:02	6°♂33'38	1°07'10	superior conj	4964 Jul 10 05:30	21°♂24'04	0°46'13
minimum elong	4963 Jul 26 15:45	6°♂21'02	1°06'45	minimum elong	4964 Jul 10 03:38	21°♂13'47	0°45'50
max. Earth dist.	4963 Jul 26 21:44	6°♂54'09	1.32013 AU		4964 Jul 14 03:14	0°♂	
evening rise	4963 Aug 02 15:48	21°♂34'24		evening rise	4964 Jul 17 01:41	6°♂20'26	
	4963 Aug 06 18:45	0°♂			4964 Jul 29 10:40	0°♂	
desc. node	4963 Aug 25 05:45	0°♂16'17		desc. node	4964 Aug 11 02:46	17°♂31'41	
	4963 Aug 25 00:43	0°♂		evening max el	4964 Aug 13 16:22	20°♂08'57	25°41'50
evening max el	4963 Sep 01 20:16	8°♂49'08	26°48'09	retrograde	4964 Aug 27 15:16	27°♂14'50	
retrograde	4963 Sep 15 18:06	15°♂58'48		evening set	4964 Sep 02 18:28	25°♂46'19	
evening set	4963 Sep 22 16:02	13°♂56'08		min. Earth dist.	4964 Sep 07 04:24	23°♂10'07	0.58276 AU
min. Earth dist.	4963 Sep 26 10:18	11°♂19'26	0.60337 AU				
inferior conj	4963 Sep 29 15:28	8°♂41'23	-4°-31'-11				

inferior conj	4964 Sep 10 08:29	20° $\mathring{\text{M}}$ 54'57	-5°-8'-34	min. Earth dist.	4965 Aug 19 16:47	3° $\mathring{\text{M}}$ 58'12	0.56444 AU
minimum elong	4964 Sep 10 11:55	20° $\mathring{\text{M}}$ 48'49	5°08'17	inferior conj	4965 Aug 22 05:24	2° $\mathring{\text{M}}$ 23'47	-5°-13'-40
morning rise	4964 Sep 18 08:54	16° $\mathring{\text{M}}$ 34'07		minimum elong	4965 Aug 22 03:04	2° $\mathring{\text{M}}$ 27'26	5°13'33
direct	4964 Sep 20 19:15	16° $\mathring{\text{M}}$ 15'25			4965 Aug 26 08:10	30° $\mathring{\text{R}}$ $\mathring{\text{L}}$	
morning max el	4964 Sep 29 04:59	20° $\mathring{\text{M}}$ 16'03	18°44'14	morning rise	4965 Aug 30 12:58	28° $\mathring{\text{L}}$ 23'51	
asc. node	4964 Oct 01 14:57	22° $\mathring{\text{M}}$ 52'35		direct	4965 Sep 02 05:54	28° $\mathring{\text{L}}$ 04'34	
	4964 Oct 06 14:40	0° $\mathring{\text{L}}$			4965 Sep 08 14:47	0° $\mathring{\text{M}}$	
morning set	4964 Oct 15 12:19	16° $\mathring{\text{L}}$ 20'14		morning max el	4965 Sep 12 00:31	2° $\mathring{\text{M}}$ 38'11	19°42'57
	4964 Oct 22 13:00	0° $\mathring{\text{M}}$		asc. node	4965 Sep 18 12:00	10° $\mathring{\text{M}}$ 34'40	
					4965 Sep 29 05:21	0° $\mathring{\text{L}}$	
superior conj	4964 Oct 24 04:10	3° $\mathring{\text{M}}$ 06'04	1°27'39	morning set	4965 Sep 29 15:19	0° $\mathring{\text{L}}$ 50'07	
minimum elong	4964 Oct 24 07:18	3° $\mathring{\text{M}}$ 20'51	1°27'22				
max. Earth dist.	4964 Oct 31 08:12	16° $\mathring{\text{M}}$ 11'43	1.39520 AU	superior conj	4965 Oct 07 13:21	16° $\mathring{\text{L}}$ 48'30	1°39'46
evening rise	4964 Nov 04 09:17	23° $\mathring{\text{M}}$ 11'04		minimum elong	4965 Oct 07 14:57	16° $\mathring{\text{L}}$ 56'26	1°39'42
desc. node	4964 Nov 07 02:01	27° $\mathring{\text{M}}$ 41'26		max. Earth dist.	4965 Oct 13 12:55	28° $\mathring{\text{L}}$ 19'27	1.37432 AU
	4964 Nov 08 11:52	0° $\mathring{\text{M}}$			4965 Oct 14 10:36	0° $\mathring{\text{M}}$	
	4964 Nov 28 19:48	0° $\mathring{\text{L}}$		evening rise	4965 Oct 17 08:13	5° $\mathring{\text{M}}$ 15'58	
evening max el	4964 Dec 09 11:31	12° $\mathring{\text{L}}$ 33'13	24°09'39	desc. node	4965 Oct 24 23:03	18° $\mathring{\text{M}}$ 16'33	
retrograde	4964 Dec 20 15:04	19° $\mathring{\text{L}}$ 06'05			4965 Nov 01 10:54	0° $\mathring{\text{M}}$	
evening set	4964 Dec 25 21:30	16° $\mathring{\text{L}}$ 55'20		evening max el	4965 Nov 22 00:01	26° $\mathring{\text{M}}$ 16'33	25°24'38
asc. node	4964 Dec 28 14:12	14° $\mathring{\text{L}}$ 07'14			4965 Nov 26 06:47	0° $\mathring{\text{L}}$	
min. Earth dist.	4964 Dec 30 15:55	11° $\mathring{\text{L}}$ 26'44	0.67863 AU	retrograde	4965 Dec 04 02:51	3° $\mathring{\text{L}}$ 15'20	
inferior conj	4964 Dec 31 09:36	10° $\mathring{\text{L}}$ 27'04	0°56'17	evening set	4965 Dec 09 22:56	0° $\mathring{\text{L}}$ 50'36	
minimum elong	4964 Dec 31 08:19	10° $\mathring{\text{L}}$ 31'25	0°55'47		4965 Dec 10 21:16	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
morning rise	4965 Jan 05 19:28	4° $\mathring{\text{L}}$ 21'49		min. Earth dist.	4965 Dec 14 09:43	25° $\mathring{\text{M}}$ 56'35	0.67274 AU
direct	4965 Jan 09 16:01	2° $\mathring{\text{L}}$ 57'13		asc. node	4965 Dec 15 11:13	24° $\mathring{\text{M}}$ 34'20	
morning max el	4965 Jan 17 12:57	7° $\mathring{\text{L}}$ 26'44	20°23'15	inferior conj	4965 Dec 15 14:18	24° $\mathring{\text{M}}$ 24'20	0°02'38
greatest brilliancy	4965 Jan 23 20:00	14° $\mathring{\text{L}}$ 52'20	-0.5m	minimum elong	4965 Dec 15 14:14	24° $\mathring{\text{M}}$ 24'33	0°02'36
desc. node	4965 Feb 03 01:14	29° $\mathring{\text{L}}$ 20'30		transit middle	4965 Dec 15 14:14	24° $\mathring{\text{M}}$ 24'33	0°02'36
	4965 Feb 03 11:54	0° $\mathring{\text{M}}$		transit begin	4965 Dec 15 11:29	24° $\mathring{\text{M}}$ 33'28	
morning set	4965 Feb 14 17:34	17° $\mathring{\text{M}}$ 03'24		transit end	4965 Dec 15 17:00	24° $\mathring{\text{M}}$ 15'39	
	4965 Feb 22 23:14	0° $\mathring{\text{M}}$		morning rise	4965 Dec 21 06:21	18° $\mathring{\text{M}}$ 26'40	
max. Earth dist.	4965 Feb 24 10:39	2° $\mathring{\text{M}}$ 21'56	1.43537 AU	direct	4965 Dec 24 14:45	17° $\mathring{\text{M}}$ 21'59	
				morning max el	4965 Dec 31 17:19	21° $\mathring{\text{M}}$ 19'59	19°20'24
superior conj	4965 Mar 02 15:03	12° $\mathring{\text{M}}$ 27'24	-2°-8'-20		4966 Jan 07 18:32	0° $\mathring{\text{L}}$	
minimum elong	4965 Mar 02 13:43	12° $\mathring{\text{M}}$ 21'51	2°08'19	greatest brilliancy	4966 Jan 09 21:14	2° $\mathring{\text{L}}$ 59'47	-0.7m
	4965 Mar 12 22:38	0° $\mathring{\text{M}}$		desc. node	4966 Jan 20 22:16	19° $\mathring{\text{L}}$ 38'27	
evening rise	4965 Mar 15 04:20	3° $\mathring{\text{M}}$ 54'02		morning set	4966 Jan 24 16:38	25° $\mathring{\text{L}}$ 27'20	
asc. node	4965 Mar 26 13:31	23° $\mathring{\text{M}}$ 08'24			4966 Jan 27 14:58	0° $\mathring{\text{M}}$	
	4965 Mar 31 17:15	0° $\mathring{\text{L}}$		max. Earth dist.	4966 Feb 07 00:13	16° $\mathring{\text{M}}$ 14'35	1.44770 AU
evening max el	4965 Apr 01 12:11	0° $\mathring{\text{L}}$ 49'17	18°07'35				
retrograde	4965 Apr 07 23:24	4° $\mathring{\text{L}}$ 11'31		superior conj	4966 Feb 10 11:13	21° $\mathring{\text{M}}$ 43'32	-1°-54'-27
evening set	4965 Apr 10 17:02	3° $\mathring{\text{L}}$ 34'22		minimum elong	4966 Feb 10 03:43	21° $\mathring{\text{M}}$ 13'44	1°53'59
	4965 Apr 15 11:38	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$			4966 Feb 15 14:57	0° $\mathring{\text{M}}$	
inferior conj	4965 Apr 17 01:24	28° $\mathring{\text{M}}$ 24'22	3°20'11	evening rise	4966 Feb 24 19:34	15° $\mathring{\text{M}}$ 05'27	
minimum elong	4965 Apr 17 03:20	28° $\mathring{\text{M}}$ 19'21	3°19'56		4966 Mar 05 20:00	0° $\mathring{\text{M}}$	
min. Earth dist.	4965 Apr 19 23:27	25° $\mathring{\text{M}}$ 23'47	0.62216 AU	asc. node	4966 Mar 13 10:32	11° $\mathring{\text{M}}$ 14'17	
morning rise	4965 Apr 23 10:59	22° $\mathring{\text{M}}$ 21'27		evening max el	4966 Mar 16 00:49	14° $\mathring{\text{M}}$ 12'03	18°23'10
direct	4965 Apr 30 06:52	19° $\mathring{\text{M}}$ 52'11		retrograde	4966 Mar 22 11:52	17° $\mathring{\text{M}}$ 41'48	
desc. node	4965 May 02 00:28	20° $\mathring{\text{M}}$ 01'07		evening set	4966 Mar 25 11:38	16° $\mathring{\text{M}}$ 52'48	
morning max el	4965 May 14 09:35	27° $\mathring{\text{M}}$ 52'28	27°52'42	inferior conj	4966 Mar 31 09:57	11° $\mathring{\text{M}}$ 23'57	3°33'10
	4965 May 16 10:30	0° $\mathring{\text{L}}$		minimum elong	4966 Mar 31 10:14	11° $\mathring{\text{M}}$ 23'08	3°33'09
	4965 Jun 06 09:37	0° $\mathring{\text{L}}$		min. Earth dist.	4966 Apr 02 17:19	8° $\mathring{\text{M}}$ 44'33	0.64182 AU
morning set	4965 Jun 17 01:44	20° $\mathring{\text{L}}$ 05'38		morning rise	4966 Apr 06 07:07	5° $\mathring{\text{M}}$ 12'32	
	4965 Jun 21 19:31	0° $\mathring{\text{L}}$		direct	4966 Apr 13 02:05	2° $\mathring{\text{M}}$ 26'43	
max. Earth dist.	4965 Jun 22 16:59	1° $\mathring{\text{L}}$ 55'17	1.32361 AU	desc. node	4966 Apr 18 21:30	4° $\mathring{\text{M}}$ 07'41	
asc. node	4965 Jun 22 12:48	1° $\mathring{\text{L}}$ 32'48		morning max el	4966 Apr 26 18:31	10° $\mathring{\text{M}}$ 24'12	27°31'16
					4966 May 12 04:15	0° $\mathring{\text{L}}$	
superior conj	4965 Jun 24 15:00	6° $\mathring{\text{L}}$ 04'45	0°21'41		4966 May 29 19:10	0° $\mathring{\text{L}}$	
minimum elong	4965 Jun 24 14:00	5° $\mathring{\text{L}}$ 59'19	0°21'28	morning set	4966 May 31 19:33	3° $\mathring{\text{L}}$ 55'17	
evening rise	4965 Jul 01 13:18	21° $\mathring{\text{L}}$ 08'12		max. Earth dist.	4966 Jun 05 17:37	13° $\mathring{\text{L}}$ 53'50	1.33200 AU
	4965 Jul 05 20:09	0° $\mathring{\text{L}}$					
	4965 Jul 25 11:04	0° $\mathring{\text{M}}$		superior conj	4966 Jun 08 20:39	20° $\mathring{\text{L}}$ 29'31	0°-5'-43
evening max el	4965 Jul 26 06:03	0° $\mathring{\text{M}}$ 46'51	24°12'36	minimum elong	4966 Jun 08 20:56	20° $\mathring{\text{L}}$ 31'04	0°05'40
desc. node	4965 Jul 28 23:45	3° $\mathring{\text{M}}$ 11'26		behind sun begin	4966 Jun 08 15:50	20° $\mathring{\text{L}}$ 03'53	
retrograde	4965 Aug 09 01:25	7° $\mathring{\text{M}}$ 44'12		behind sun end	4966 Jun 09 02:02	20° $\mathring{\text{L}}$ 58'16	
evening set	4965 Aug 13 20:36	6° $\mathring{\text{M}}$ 53'04		asc. node	4966 Jun 09 09:50	21° $\mathring{\text{L}}$ 39'56	

	4966 Jun 13 06:55	0°☿		evening rise	4967 May 31 10:18	20°♊24'35	
evening rise	4966 Jun 16 00:48	5°☿51'27			4967 Jun 05 04:24	0°☿	
	4966 Jun 28 23:22	0°♊		evening max el	4967 Jun 19 16:45	21°☿47'01	21°04'18
evening max el	4966 Jul 07 19:30	11°♊08'22	22°35'04	retrograde	4967 Jul 01 11:37	27°☿34'47	
desc. node	4966 Jul 15 20:46	16°♊41'04		desc. node	4967 Jul 02 17:47	27°☿31'02	
retrograde	4966 Jul 20 22:54	17°♊40'39		evening set	4967 Jul 03 17:26	27°☿23'00	
evening set	4966 Jul 24 05:35	17°♊17'04		inferior conj	4967 Jul 13 01:12	23°☿25'34	-2°-58'-31
min. Earth dist.	4966 Aug 01 03:05	13°♊49'14	0.55190 AU	minimum elong	4967 Jul 12 17:19	23°☿36'41	2°55'57
inferior conj	4966 Aug 02 07:57	13°♊08'09	-4°-30'-54	min. Earth dist.	4967 Jul 13 13:45	23°☿07'54	0.54800 AU
minimum elong	4966 Aug 02 00:01	13°♊19'29	4°29'16	morning rise	4967 Jul 21 17:04	19°☿27'59	
morning rise	4966 Aug 10 20:45	9°♊18'21		direct	4967 Jul 25 08:14	18°☿59'36	
direct	4966 Aug 13 23:01	8°♊56'24		morning max el	4967 Aug 07 04:15	25°☿06'29	22°40'10
morning max el	4966 Aug 25 07:55	14°♊14'19	21°03'02		4967 Aug 11 17:02	0°♊	
asc. node	4966 Sep 05 09:04	29°♊02'07		asc. node	4967 Aug 23 06:08	18°♊04'00	
	4966 Sep 05 22:25	0°♊		morning set	4967 Aug 29 09:55	0°♊24'20	
morning set	4966 Sep 13 23:12	15°♊33'25			4967 Aug 29 05:17	0°♊	
	4966 Sep 20 21:22	0°♊		superior conj	4967 Sep 05 13:01	15°♊37'28	1°40'31
superior conj	4966 Sep 21 09:27	1°♊02'21	1°43'38	minimum elong	4967 Sep 05 11:51	15°♊31'14	1°40'28
minimum elong	4966 Sep 21 09:30	1°♊02'40	1°43'38	max. Earth dist.	4967 Sep 08 15:50	22°♊11'10	1.34022 AU
max. Earth dist.	4966 Sep 25 22:08	10°♊11'42	1.35551 AU		4967 Sep 12 12:05	0°♊	
evening rise	4966 Sep 30 02:06	18°♊13'11		evening rise	4967 Sep 13 10:38	1°♊51'13	
	4966 Oct 06 15:18	0°♊		desc. node	4967 Sep 28 17:06	28°♊40'29	
desc. node	4966 Oct 11 20:04	8°♊38'22			4967 Sep 29 13:41	0°♊	
	4966 Oct 26 16:11	0°♊		evening max el	4967 Oct 18 01:32	23°♊31'33	27°10'33
evening max el	4966 Nov 04 12:47	9°♊59'02	26°27'26		4967 Oct 27 07:55	0°♊	
retrograde	4966 Nov 17 09:27	17°♊12'03		retrograde	4967 Oct 31 10:09	0°♊49'10	
evening set	4966 Nov 23 18:46	14°♊37'02			4967 Nov 04 06:26	30°♊	
min. Earth dist.	4966 Nov 27 22:37	10°♊18'37	0.66335 AU	evening set	4967 Nov 07 06:46	28°♊09'50	
inferior conj	4966 Nov 29 14:32	8°♊18'00	0°-56'-1	min. Earth dist.	4967 Nov 11 04:14	24°♊27'10	0.65046 AU
minimum elong	4966 Nov 29 16:04	8°♊13'20	0°55'22	inferior conj	4967 Nov 13 08:03	22°♊03'21	-1°-58'-10
asc. node	4966 Dec 02 08:16	5°♊09'42		minimum elong	4967 Nov 13 11:27	21°♊53'54	1°56'48
morning rise	4966 Dec 05 14:43	2°♊30'35		asc. node	4967 Nov 19 05:20	16°♊45'17	
direct	4966 Dec 08 13:00	1°♊42'12		morning rise	4967 Nov 19 18:06	16°♊29'20	
morning max el	4966 Dec 15 04:23	5°♊19'41	18°33'20	direct	4967 Nov 22 08:30	15°♊53'25	
	4967 Jan 01 09:44	0°♊		morning max el	4967 Nov 28 19:48	19°♊20'15	18°03'00
morning set	4967 Jan 04 13:53	5°♊02'29			4967 Dec 06 19:56	0°♊	
desc. node	4967 Jan 07 19:19	10°♊09'39		morning set	4967 Dec 16 16:49	16°♊06'30	
	4967 Jan 20 09:43	0°♊			4967 Dec 25 04:02	0°♊	
superior conj	4967 Jan 20 15:21	0°♊22'05	-1°-21'-19	desc. node	4967 Dec 25 16:21	0°♊49'47	
minimum elong	4967 Jan 20 06:14	29°♊46'22	1°20'19	superior conj	4967 Dec 30 22:45	9°♊16'18	0°-35'-58
max. Earth dist.	4967 Jan 20 18:22	0°♊33'55	1.45307 AU	minimum elong	4967 Dec 30 18:19	8°♊58'40	0°35'21
evening rise	4967 Feb 05 11:30	25°♊19'59		max. Earth dist.	4968 Jan 03 14:08	15°♊01'54	1.45101 AU
	4967 Feb 08 09:55	0°♊			4968 Jan 13 04:20	0°♊	
evening max el	4967 Feb 27 11:14	27°♊42'17	18°56'39	evening rise	4968 Jan 16 07:03	4°♊49'02	
asc. node	4967 Feb 28 07:33	28°♊31'44			4968 Feb 01 22:06	0°♊	
	4967 Mar 02 02:48	0°♊		greatest brilliancy	4968 Feb 03 09:26	2°♊05'27	-0.6m
retrograde	4967 Mar 06 06:26	1°♊31'20		evening max el	4968 Feb 10 17:23	11°♊14'56	19°46'29
evening set	4967 Mar 09 12:56	0°♊29'30		asc. node	4968 Feb 15 04:36	14°♊46'34	
	4967 Mar 10 06:02	30°♊		retrograde	4968 Feb 18 04:02	15°♊33'33	
inferior conj	4967 Mar 15 04:27	24°♊43'29	3°29'09	evening set	4968 Feb 21 18:20	14°♊17'53	
minimum elong	4967 Mar 15 03:22	24°♊46'53	3°29'03	inferior conj	4968 Feb 27 05:44	8°♊16'47	3°12'03
min. Earth dist.	4967 Mar 16 20:10	22°♊38'59	0.65781 AU	minimum elong	4968 Feb 27 03:45	8°♊23'24	3°11'42
morning rise	4967 Mar 20 16:44	18°♊28'15		min. Earth dist.	4968 Feb 28 06:43	6°♊53'44	0.66959 AU
direct	4967 Mar 27 04:11	15°♊39'51		morning rise	4968 Mar 03 12:30	2°♊00'27	
desc. node	4967 Apr 05 18:32	20°♊11'42			4968 Mar 06 11:59	30°♊	
morning max el	4967 Apr 09 04:29	23°♊21'55	26°38'58	direct	4968 Mar 09 12:01	29°♊21'14	
	4967 Apr 15 02:04	0°♊			4968 Mar 12 17:15	0°♊	
	4967 May 05 12:10	0°♊		morning max el	4968 Mar 21 13:45	6°♊33'45	25°24'23
morning set	4967 May 15 02:19	17°♊09'14		desc. node	4968 Mar 22 15:34	7°♊40'35	
max. Earth dist.	4967 May 19 07:55	25°♊22'23	1.34512 AU		4968 Apr 08 18:01	0°♊	
	4967 May 21 15:10	0°♊		morning set	4968 Apr 26 17:29	29°♊34'05	
superior conj	4967 May 23 20:15	4°♊32'17	0°-34'-57		4968 Apr 26 23:13	0°♊	
minimum elong	4967 May 23 22:09	4°♊42'03	0°34'35	max. Earth dist.	4968 Apr 30 11:16	6°♊28'13	1.36267 AU
asc. node	4967 May 27 06:53	11°♊43'34		superior conj	4968 May 06 10:57	18°♊04'19	-1°-4'-37

minimum elong	4968 May 06 14:31	18°♄22'03	1°04'01	morning set	4969 Apr 08 11:28	10°♃55'00	
	4968 May 12 08:30	0°♄		max. Earth dist.	4969 Apr 12 07:26	17°♃37'04	1.38352 AU
asc. node	4968 May 13 03:55	1°♄38'58			4969 Apr 19 01:16	0°♄	
evening rise	4968 May 14 15:33	4°♄40'07					
	4968 May 29 07:48	0°♄		superior conj	4969 Apr 19 13:15	0°♄56'45	-1°-32'-25
evening max el	4968 Jun 01 02:04	3°♄03'14	19°49'53	minimum elong	4969 Apr 19 18:03	1°♄19'34	1°31'50
retrograde	4968 Jun 11 03:48	7°♄58'36		evening rise	4969 Apr 28 13:57	18°♄30'52	
evening set	4968 Jun 13 01:57	7°♄48'37		asc. node	4969 Apr 30 00:56	21°♄21'44	
desc. node	4968 Jun 18 14:49	5°♄45'03			4969 May 04 14:36	0°♄	
inferior conj	4968 Jun 21 23:35	3°♄47'01	-1°00'-18	evening max el	4969 May 14 23:07	15°♄01'21	18°55'28
minimum elong	4968 Jun 21 20:48	3°♄51'17	0°59'17	retrograde	4969 May 23 10:47	19°♄10'49	
min. Earth dist.	4968 Jun 24 02:18	2°♄29'21	0.55371 AU	evening set	4969 May 25 12:00	18°♄57'12	
	4968 Jun 28 19:44	30°♄		inferior conj	4969 Jun 02 15:12	14°♄40'12	0°49'43
morning rise	4968 Jun 30 12:44	29°♄22'13		minimum elong	4969 Jun 02 17:07	14°♄36'49	0°49'02
direct	4968 Jul 04 22:13	28°♄39'45		desc. node	4969 Jun 05 11:50	12°♄38'45	
	4968 Jul 10 21:49	0°♄		min. Earth dist.	4969 Jun 05 18:11	12°♄27'53	0.56791 AU
morning max el	4968 Jul 18 18:32	5°♄31'21	24°24'11	morning rise	4969 Jun 10 17:43	9°♄38'59	
	4968 Aug 05 05:01	0°♄		direct	4969 Jun 16 01:35	8°♄31'05	
asc. node	4968 Aug 09 03:12	7°♄31'13		morning max el	4969 Jun 30 09:13	15°♄56'26	25°59'42
morning set	4968 Aug 12 21:42	15°♄17'35			4969 Jul 11 18:45	0°♄	
				asc. node	4969 Jul 27 00:13	27°♄16'38	
superior conj	4968 Aug 19 21:24	0°♄25'41	1°31'30	morning set	4969 Jul 28 08:52	0°♄07'50	
minimum elong	4968 Aug 19 19:26	0°♄14'57	1°31'17		4969 Jul 28 07:24	0°♄	
	4968 Aug 19 16:41	0°♄					
max. Earth dist.	4968 Aug 21 18:04	4°♄27'31	1.32902 AU	superior conj	4969 Aug 04 08:25	15°♄19'52	1°17'22
evening rise	4968 Aug 27 05:57	15°♄59'29		minimum elong	4969 Aug 04 06:07	15°♄07'11	1°17'01
	4968 Sep 03 12:34	0°♄		max. Earth dist.	4969 Aug 05 02:26	16°♄58'58	1.32211 AU
desc. node	4968 Sep 14 14:08	18°♄14'39		evening rise	4969 Aug 11 08:53	0°♄28'40	
	4968 Sep 23 07:47	0°♄			4969 Aug 11 03:23	0°♄	
evening max el	4968 Sep 29 12:37	6°♄41'40	27°27'11		4969 Aug 27 13:44	0°♄	
retrograde	4968 Oct 13 04:36	13°♄58'16		desc. node	4969 Sep 01 11:09	7°♄08'51	
evening set	4968 Oct 20 08:07	11°♄23'34		evening max el	4969 Sep 11 19:36	19°♄15'51	27°12'05
min. Earth dist.	4968 Oct 24 00:26	8°♄13'54	0.63417 AU	retrograde	4969 Sep 25 16:07	26°♄29'00	
inferior conj	4968 Oct 26 16:14	5°♄34'23	-3°-1'-18	evening set	4969 Oct 02 18:59	24°♄10'47	
minimum elong	4968 Oct 26 21:26	5°♄21'22	2°59'28	min. Earth dist.	4969 Oct 06 10:06	21°♄25'59	0.61506 AU
morning rise	4968 Nov 02 13:23	0°♄17'17		inferior conj	4969 Oct 09 11:56	18°♄42'35	-4°-1'-6
	4968 Nov 03 12:13	30°♄		minimum elong	4969 Oct 09 18:10	18°♄28'44	3°59'25
direct	4968 Nov 04 22:26	29°♄50'08		morning rise	4969 Oct 16 20:33	13°♄45'34	
asc. node	4968 Nov 05 02:24	29°♄50'16		direct	4969 Oct 19 03:08	13°♄23'55	
	4968 Nov 06 08:28	0°♄		asc. node	4969 Oct 22 23:26	14°♄28'11	
morning max el	4968 Nov 11 12:42	3°♄15'14	17°50'05	morning max el	4969 Oct 26 03:51	16°♄55'50	17°55'25
morning set	4968 Nov 27 21:33	28°♄25'31			4969 Nov 04 09:25	0°♄	
	4968 Nov 28 19:18	0°♄		morning set	4969 Nov 10 21:29	11°♄38'37	
superior conj	4968 Dec 10 03:09	19°♄14'46	0°10'01	superior conj	4969 Nov 21 10:01	0°♄30'11	0°48'26
minimum elong	4968 Dec 10 04:12	19°♄19'07	0°09'52	minimum elong	4969 Nov 21 13:44	0°♄46'17	0°47'56
behind sun begin	4968 Dec 09 20:35	18°♄47'39			4969 Nov 21 03:05	0°♄	
behind sun end	4968 Dec 10 11:49	19°♄50'31		desc. node	4969 Nov 28 10:25	12°♄22'45	
desc. node	4968 Dec 11 13:23	21°♄35'30		max. Earth dist.	4969 Nov 28 21:26	13°♄08'10	1.42656 AU
max. Earth dist.	4968 Dec 16 08:07	29°♄19'39	1.44178 AU	evening rise	4969 Dec 05 09:34	23°♄36'12	
	4968 Dec 16 18:13	0°♄			4969 Dec 09 12:12	0°♄	
evening rise	4968 Dec 25 17:12	14°♄01'53			4969 Dec 30 09:30	0°♄	
	4969 Jan 05 06:32	0°♄		greatest brilliancy	4970 Jan 01 20:03	3°♄04'01	-0.3m
greatest brilliancy	4969 Jan 18 06:22	18°♄22'00	-0.5m	evening max el	4970 Jan 06 13:27	8°♄23'52	22°04'24
evening max el	4969 Jan 23 18:08	24°♄48'53	20°50'13	retrograde	4970 Jan 15 23:17	13°♄59'41	
retrograde	4969 Feb 01 02:18	29°♄44'29		asc. node	4970 Jan 18 22:40	13°♄12'43	
asc. node	4969 Feb 01 01:38	29°♄44'29		evening set	4970 Jan 20 09:36	12°♄13'56	
evening set	4969 Feb 05 01:48	28°♄14'10		inferior conj	4970 Jan 25 18:58	5°♄51'38	2°08'17
inferior conj	4969 Feb 10 11:18	22°♄00'45	2°44'31	minimum elong	4970 Jan 25 16:39	5°♄59'44	2°07'32
minimum elong	4969 Feb 10 08:54	22°♄08'59	2°43'55	min. Earth dist.	4970 Jan 25 18:46	5°♄52'22	0.68066 AU
min. Earth dist.	4969 Feb 10 23:02	21°♄20'24	0.67714 AU	morning rise	4970 Jan 30 23:30	29°♄38'23	
morning rise	4969 Feb 15 15:36	15°♄45'04			4970 Jan 30 13:46	30°♄	
direct	4969 Feb 21 00:56	13°♄23'10		direct	4970 Feb 04 18:05	27°♄38'05	
morning max el	4969 Mar 03 22:31	19°♄53'19	23°57'33		4970 Feb 10 14:47	0°♄	
desc. node	4969 Mar 09 12:36	26°♄10'36		morning max el	4970 Feb 14 09:04	3°♄18'43	22°28'31
	4969 Mar 12 13:16	0°♄		greatest brilliancy	4970 Feb 18 22:37	8°♄24'09	-0.3m
	4969 Apr 01 22:23	0°♄		desc. node	4970 Feb 24 09:37	15°♄24'05	

	4970 Mar 06 15:51	0° H		greatest brilliancy	4971 Feb 02 09:05	23° Z 00'31	-0.4m
morning set	4970 Mar 20 02:29	20° H 57'29			4971 Feb 07 15:12	0° \approx	
max. Earth dist.	4970 Mar 25 03:29	29° H 20'49	1.40543 AU	desc. node	4971 Feb 11 06:39	5° \approx 09'06	
	4970 Mar 25 12:43	0° Y		morning set	4971 Feb 27 13:34	29° \approx 42'30	
					4971 Feb 27 18:02	0° H	
superior conj	4970 Apr 01 22:44	12° Y 59'03	-1°-55'-2	max. Earth dist.	4971 Mar 07 05:57	12° H 00'06	1.42563 AU
minimum elong	4970 Apr 02 03:24	13° Y 20'01	1°54'41				
	4970 Apr 11 03:14	0° B		superior conj	4971 Mar 14 10:27	23° H 59'54	-2°-7'-43
evening rise	4970 Apr 12 02:15	1° B 48'24		minimum elong	4971 Mar 14 12:14	24° H 07'33	2°07'42
asc. node	4970 Apr 16 21:58	10° B 46'45			4971 Mar 17 22:00	0° Y	
evening max el	4970 Apr 28 04:57	27° B 35'10	18°21'27	evening rise	4971 Mar 26 00:27	14° Y 23'25	
	4970 May 01 07:02	0° II		asc. node	4971 Apr 03 18:59	29° Y 47'23	
retrograde	4970 May 05 12:34	1° II 13'27			4971 Apr 03 22:03	0° B	
evening set	4970 May 07 20:19	0° II 52'24		evening max el	4971 Apr 11 15:56	10° B 34'34	18°07'08
	4970 May 09 22:46	30° R B		retrograde	4971 Apr 18 07:18	13° B 58'02	
inferior conj	4970 May 15 04:22	26° B 15'15	2°11'44	evening set	4971 Apr 20 21:34	13° B 27'04	
minimum elong	4970 May 15 07:53	26° B 07'55	2°10'45	inferior conj	4971 Apr 27 13:26	8° B 28'45	3°02'55
min. Earth dist.	4970 May 18 14:54	23° B 25'03	0.58776 AU	minimum elong	4971 Apr 27 16:15	8° B 21'58	3°02'23
morning rise	4970 May 22 15:07	20° B 42'26		min. Earth dist.	4971 Apr 30 18:21	5° B 25'05	0.60980 AU
desc. node	4970 May 23 08:50	20° B 19'51		morning rise	4971 May 04 07:41	2° B 34'26	
direct	4970 May 28 19:20	19° B 00'51		desc. node	4971 May 10 05:51	0° B 21'59	
morning max el	4970 Jun 12 04:44	26° B 47'04	27°11'17	direct	4971 May 11 00:35	0° B 20'12	
	4970 Jun 15 06:06	0° II		morning max el	4971 May 25 06:34	8° B 16'57	27°48'28
	4970 Jul 05 06:04	0° S			4971 Jun 10 20:55	0° II	
morning set	4970 Jul 12 17:52	14° S 50'04		morning set	4971 Jun 26 22:46	29° II 17'13	
asc. node	4970 Jul 13 21:14	17° S 14'37			4971 Jun 27 07:03	0° S	
				asc. node	4971 Jun 30 18:15	7° S 19'21	
superior conj	4970 Jul 19 20:16	0° Q 14'06	0°58'45	max. Earth dist.	4971 Jul 02 23:53	12° S 10'11	1.32089 AU
minimum elong	4970 Jul 19 18:06	0° Q 02'10	0°58'21				
max. Earth dist.	4970 Jul 19 13:37	29° S 37'21	1.31940 AU	superior conj	4971 Jul 04 07:07	15° S 01'16	0°36'13
	4970 Jul 19 17:43	0° Q		minimum elong	4971 Jul 04 05:34	14° S 52'44	0°35'54
evening rise	4970 Jul 26 16:52	15° Q 11'14		evening rise	4971 Jul 11 03:44	29° S 58'59	
	4970 Aug 03 02:40	0° M			4971 Jul 11 03:55	0° Q	
desc. node	4970 Aug 19 08:09	25° M 06'59			4971 Jul 27 14:57	0° M	
	4970 Aug 23 17:41	0° A		desc. node	4971 Aug 06 05:09	11° M 45'31	
evening max el	4970 Aug 24 20:13	1° A 04'46	26°23'36	evening max el	4971 Aug 06 13:25	12° M 05'29	25°05'58
retrograde	4970 Sep 07 19:15	8° A 13'32		retrograde	4971 Aug 20 11:47	19° M 08'10	
evening set	4970 Sep 14 10:41	6° A 24'30		evening set	4971 Aug 26 02:37	17° M 56'14	
min. Earth dist.	4970 Sep 18 09:40	3° A 50'06	0.59446 AU	min. Earth dist.	4971 Aug 31 01:00	15° M 14'02	0.57453 AU
inferior conj	4970 Sep 21 15:41	1° A 19'22	-4°-49'-59	inferior conj	4971 Sep 03 00:17	13° M 14'36	-5°-15'-43
minimum elong	4970 Sep 21 21:02	1° A 08'59	4°49'07	minimum elong	4971 Sep 03 01:34	13° M 12'25	5°15'42
	4970 Sep 23 09:28	30° R M		morning rise	4971 Sep 11 03:58	9° M 02'56	
morning rise	4970 Sep 29 10:52	26° M 44'50		direct	4971 Sep 13 16:49	8° M 44'07	
direct	4970 Oct 01 18:39	26° M 25'48		morning max el	4971 Sep 22 15:29	12° M 57'35	19°06'27
	4970 Oct 09 08:16	0° A		asc. node	4971 Sep 26 17:30	17° M 38'33	
morning max el	4970 Oct 09 13:55	0° A 13'25	18°20'20		4971 Oct 04 08:02	0° A	
asc. node	4970 Oct 09 20:28	0° A 29'27		morning set	4971 Oct 09 10:05	9° A 48'42	
morning set	4970 Oct 25 11:04	25° A 30'23					
	4970 Oct 27 19:34	0° M		superior conj	4971 Oct 17 17:29	26° A 11'38	1°33'53
				minimum elong	4971 Oct 17 20:00	26° A 23'46	1°33'43
superior conj	4970 Nov 03 16:35	12° M 54'10	1°16'20		4971 Oct 19 17:16	0° M	
minimum elong	4970 Nov 03 20:21	13° M 11'26	1°15'56	max. Earth dist.	4971 Oct 24 10:42	8° M 44'44	1.38625 AU
max. Earth dist.	4970 Nov 11 05:34	26° M 16'39	1.40728 AU	evening rise	4971 Oct 28 07:05	15° M 33'08	
	4970 Nov 13 10:14	0° J		desc. node	4971 Nov 02 04:28	23° M 48'14	
desc. node	4970 Nov 15 07:27	3° J 08'17			4971 Nov 06 00:46	0° J	
evening rise	4970 Nov 15 20:49	4° J 03'24			4971 Nov 27 11:28	0° Z	
	4970 Dec 02 18:41	0° Z		evening max el	4971 Dec 02 17:51	5° Z 44'26	24°42'39
evening max el	4970 Dec 20 04:43	22° Z 02'09	23°23'59	retrograde	4971 Dec 14 07:40	12° Z 28'54	
retrograde	4970 Dec 30 17:27	28° Z 15'47		evening set	4971 Dec 19 19:55	10° Z 12'05	
evening set	4971 Jan 04 16:09	26° Z 14'15		asc. node	4971 Dec 23 16:43	5° Z 57'55	
asc. node	4971 Jan 05 19:41	25° Z 10'19		min. Earth dist.	4971 Dec 24 11:04	4° Z 58'05	0.67656 AU
min. Earth dist.	4971 Jan 09 15:34	20° Z 25'55	0.68041 AU	inferior conj	4971 Dec 25 09:18	3° Z 44'20	0°34'15
inferior conj	4971 Jan 10 02:54	19° Z 47'03	1°24'33	minimum elong	4971 Dec 25 08:28	3° Z 47'05	0°33'54
minimum elong	4971 Jan 10 01:06	19° Z 53'13	1°23'52		4971 Dec 28 09:11	30° R J	
morning rise	4971 Jan 15 10:08	13° Z 38'09		morning rise	4971 Dec 30 21:30	27° J 42'00	
direct	4971 Jan 19 14:28	12° Z 00'39		direct	4972 Jan 03 12:48	26° J 26'03	
morning max el	4971 Jan 28 01:01	16° Z 53'29	21°05'42		4972 Jan 10 08:09	0° Z	

morning max el	4972 Jan 11 00:50	0°☿40'23	19°54'43	morning max el	4972 Dec 24 08:20	14°♄36'55	18°58'28
greatest brilliancy	4972 Jan 18 06:41	9°☿27'46	-0.6m		4973 Jan 04 21:19	0°☿	
desc. node	4972 Jan 29 03:42	25°☿16'59		desc. node	4973 Jan 15 00:43	15°☿40'51	
	4972 Feb 01 06:24	0°♁		morning set	4973 Jan 15 16:24	16°☿42'01	
morning set	4972 Feb 06 09:56	7°♁53'18			4973 Jan 24 04:45	0°♁	
max. Earth dist.	4972 Feb 17 16:35	25°♁32'52	1.44141 AU	max. Earth dist.	4973 Jan 30 08:54	9°♁40'27	1.45085 AU
	4972 Feb 20 11:17	0°♂					
superior conj	4972 Feb 22 20:45	3°♂52'27	-2°-4'-54	superior conj	4973 Feb 01 08:08	12°♁46'23	-1°-42'-32
minimum elong	4972 Feb 22 16:40	3°♂35'54	2°04'46	minimum elong	4973 Jan 31 23:04	12°♁10'40	1°41'45
evening rise	4972 Mar 07 04:12	26°♂07'38			4973 Feb 12 03:25	0°♂	
	4972 Mar 09 10:31	0°♀		evening rise	4973 Feb 16 09:38	6°♂54'28	
asc. node	4972 Mar 20 16:01	18°♀16'08			4973 Mar 02 22:06	0°♀	
evening max el	4972 Mar 25 04:49	23°♀51'03	18°11'57	asc. node	4973 Mar 07 13:04	6°♀02'43	
retrograde	4972 Mar 31 14:41	27°♀14'42		evening max el	4973 Mar 08 16:44	7°♀16'57	18°35'15
evening set	4972 Apr 03 11:01	26°♀32'28		retrograde	4973 Mar 15 06:20	10°♀53'49	
inferior conj	4972 Apr 09 14:38	21°♀14'03	3°28'04	evening set	4973 Mar 18 08:51	9°♀59'27	
minimum elong	4972 Apr 09 15:52	21°♀10'42	3°27'57	inferior conj	4973 Mar 24 03:52	4°♀22'45	3°33'15
min. Earth dist.	4972 Apr 12 06:37	18°♀20'40	0.63092 AU	minimum elong	4973 Mar 24 03:31	4°♀23'48	3°33'15
morning rise	4972 Apr 15 18:33	15°♀06'58		min. Earth dist.	4973 Mar 26 04:26	1°♀57'10	0.64908 AU
direct	4972 Apr 22 15:00	12°♀29'19			4973 Mar 27 22:20	30°♁♂	
desc. node	4972 Apr 26 02:53	13°♀05'47		morning rise	4973 Mar 29 20:48	28°♂09'07	
morning max el	4972 May 06 13:46	20°♀28'43	27°47'51	direct	4973 Apr 05 13:05	25°♂20'53	
	4972 May 14 18:18	0°♄		desc. node	4973 Apr 12 23:55	28°♂06'07	
	4972 Jun 02 21:40	0°♂			4973 Apr 15 11:57	0°♀	
morning set	4972 Jun 09 21:27	13°♂22'49		morning max el	4973 Apr 18 23:41	3°♀13'31	27°12'26
max. Earth dist.	4972 Jun 15 05:23	24°♂25'19	1.32671 AU		4973 May 09 02:54	0°♄	
asc. node	4972 Jun 16 15:18	27°♂26'42		morning set	4973 May 24 11:04	26°♄58'38	
					4973 May 26 00:08	0°♂	
superior conj	4972 Jun 17 15:15	29°♂35'49	0°10'24	max. Earth dist.	4973 May 29 02:11	6°♂12'14	1.33703 AU
minimum elong	4972 Jun 17 14:45	29°♂33'06	0°10'17				
behind sun begin	4972 Jun 17 10:42	29°♂11'12		superior conj	4973 Jun 01 18:38	13°♂51'44	0°-17'-56
behind sun end	4972 Jun 17 18:48	29°♂55'01		minimum elong	4973 Jun 01 19:34	13°♂56'41	0°17'46
	4972 Jun 17 19:43	0°♅		asc. node	4973 Jun 03 12:21	17°♂32'40	
evening rise	4972 Jun 24 15:34	14°♅45'43		evening rise	4973 Jun 09 02:30	29°♂25'25	
	4972 Jul 02 06:19	0°♆			4973 Jun 09 09:05	0°♅	
evening max el	4972 Jul 18 02:01	22°♆32'00	23°31'01		4973 Jun 27 00:04	0°♆	
desc. node	4972 Jul 23 02:10	26°♆34'09		evening max el	4973 Jun 29 17:45	2°♆56'29	21°54'50
retrograde	4972 Jul 31 16:00	29°♆20'38		desc. node	4973 Jul 09 23:10	8°♆58'53	
evening set	4972 Aug 04 19:38	28°♆42'53		retrograde	4973 Jul 12 09:15	9°♆12'36	
min. Earth dist.	4972 Aug 11 11:42	25°♆35'46	0.55830 AU	evening set	4973 Jul 15 03:15	8°♆55'39	
inferior conj	4972 Aug 13 12:44	24°♆23'00	-5°-1'-57	inferior conj	4973 Jul 24 09:49	4°♆52'48	-3°-56'-55
minimum elong	4972 Aug 13 07:38	24°♆30'36	5°01'21	minimum elong	4973 Jul 24 01:02	5°♆05'07	3°54'37
morning rise	4972 Aug 21 22:45	20°♆29'21		min. Earth dist.	4973 Jul 23 21:52	5°♆09'34	0.54906 AU
direct	4972 Aug 24 19:36	20°♆09'05		morning rise	4973 Aug 02 00:23	1°♆02'30	
morning max el	4972 Sep 04 05:50	24°♆59'47	20°14'34	direct	4973 Aug 05 07:22	0°♆38'40	
	4972 Sep 08 16:54	0°♇		morning max el	4973 Aug 17 08:21	6°♆17'01	21°42'48
asc. node	4972 Sep 12 14:33	5°♇41'00		asc. node	4973 Aug 30 11:37	24°♆24'25	
morning set	4972 Sep 22 15:25	24°♇24'54			4973 Sep 02 11:24	0°♇	
	4972 Sep 25 08:44	0°♈		morning set	4973 Sep 07 00:47	9°♇12'37	
superior conj	4972 Sep 30 07:46	10°♈08'25	1°42'21				
minimum elong	4972 Sep 30 08:41	10°♈13'04	1°42'19	superior conj	4973 Sep 14 07:29	24°♇33'12	1°43'06
max. Earth dist.	4972 Oct 05 17:02	20°♈44'04	1.36597 AU	minimum elong	4973 Sep 14 06:58	24°♇30'31	1°43'05
evening rise	4972 Oct 09 14:32	28°♈00'53			4973 Sep 16 22:37	0°♈	
	4972 Oct 10 16:49	0°♉		max. Earth dist.	4973 Sep 18 05:31	2°♈37'10	1.34847 AU
desc. node	4972 Oct 19 01:29	14°♉18'01		evening rise	4973 Sep 22 15:12	11°♈17'10	
	4972 Oct 29 09:15	0°♊			4973 Oct 03 03:12	0°♉	
evening max el	4972 Nov 14 06:21	19°♊27'42	25°53'18	desc. node	4973 Oct 05 22:30	4°♉32'33	
retrograde	4972 Nov 26 17:11	26°♊33'28			4973 Oct 24 18:01	0°♊	
evening set	4972 Dec 02 19:12	24°♊03'35		evening max el	4973 Oct 27 19:01	3°♊06'44	26°48'31
min. Earth dist.	4972 Dec 07 02:56	19°♊24'55	0.66918 AU	retrograde	4973 Nov 09 21:28	10°♊23'22	
inferior conj	4972 Dec 08 12:19	17°♊39'59	0°-21'-43	evening set	4973 Nov 16 12:02	7°♊45'15	
minimum elong	4972 Dec 08 12:53	17°♊38'11	0°21'29	min. Earth dist.	4973 Nov 20 12:56	3°♊42'24	0.65829 AU
asc. node	4972 Dec 09 13:47	16°♊20'48		inferior conj	4973 Nov 22 09:59	1°♊30'48	-1°-22'-5
morning rise	4972 Dec 14 07:37	11°♊46'36		minimum elong	4973 Nov 22 12:18	1°♊24'02	1°21'07
direct	4972 Dec 17 11:30	10°♊49'18			4973 Nov 23 17:33	30°♁♂	
				asc. node	4973 Nov 26 10:50	27°♂16'39	
				morning rise	4973 Nov 28 14:13	25°♂48'58	

direct	4973 Dec 01 08:47	25° \mathbb{M} 06'30		morning max el	4974 Nov 21 14:05	12° \mathbb{M} 37'19	17°55'16
morning max el	4973 Dec 07 21:41	28° \mathbb{M} 38'24	18°18'23		4974 Dec 03 15:12	0° \mathbb{M}	
	4973 Dec 09 04:23	0° \mathbb{M}		morning set	4974 Dec 08 16:51	8° \mathbb{M} 32'53	
morning set	4973 Dec 27 02:12	26° \mathbb{M} 54'59		desc. node	4974 Dec 19 18:49	26° \mathbb{M} 58'56	
	4973 Dec 29 00:04	0° \mathbb{M}			4974 Dec 21 15:30	0° \mathbb{M}	
desc. node	4974 Jan 01 21:47	6° \mathbb{M} 16'17					
				superior conj	4974 Dec 22 01:53	0° \mathbb{M} 41'56	0°-15'-56
superior conj	4974 Jan 11 11:04	21° \mathbb{M} 24'28	-1°-2'-54	minimum elong	4974 Dec 22 00:00	0° \mathbb{M} 34'20	0°15'41
minimum elong	4974 Jan 11 03:26	20° \mathbb{M} 54'28	1°01'57	behind sun begin	4974 Dec 21 21:32	0° \mathbb{M} 24'22	
max. Earth dist.	4974 Jan 13 03:47	24° \mathbb{M} 04'16	1.45307 AU	behind sun end	4974 Dec 22 02:29	0° \mathbb{M} 44'19	
	4974 Jan 16 22:39	0° \mathbb{M}		max. Earth dist.	4974 Dec 26 22:33	8° \mathbb{M} 27'37	1.44791 AU
evening rise	4974 Jan 27 16:06	16° \mathbb{M} 46'53		evening rise	4975 Jan 07 05:46	26° \mathbb{M} 03'47	
	4974 Feb 05 03:04	0° \mathbb{M}			4975 Jan 09 19:23	0° \mathbb{M}	
greatest brilliancy	4974 Feb 10 22:37	8° \mathbb{M} 51'57	-0.7m	greatest brilliancy	4975 Jan 27 19:41	26° \mathbb{M} 34'48	-0.6m
evening max el	4974 Feb 20 01:27	20° \mathbb{M} 47'47	19°15'56		4975 Jan 30 10:34	0° \mathbb{M}	
asc. node	4974 Feb 22 10:06	22° \mathbb{M} 54'57		evening max el	4975 Feb 03 05:22	4° \mathbb{M} 20'58	20°12'09
retrograde	4974 Feb 27 02:34	24° \mathbb{M} 48'44		asc. node	4975 Feb 09 07:07	8° \mathbb{M} 38'35	
evening set	4974 Mar 02 12:08	23° \mathbb{M} 41'17		retrograde	4975 Feb 11 00:39	8° \mathbb{M} 54'37	
inferior conj	4974 Mar 08 01:36	17° \mathbb{M} 48'31	3°23'17	evening set	4975 Feb 14 18:36	7° \mathbb{M} 33'01	
minimum elong	4974 Mar 08 00:05	17° \mathbb{M} 53'27	3°23'07	inferior conj	4975 Feb 20 04:59	1° \mathbb{M} 26'33	3°01'32
min. Earth dist.	4974 Mar 09 10:56	16° \mathbb{M} 00'58	0.66330 AU	minimum elong	4975 Feb 20 02:45	1° \mathbb{M} 34'04	3°01'04
morning rise	4974 Mar 13 11:07	11° \mathbb{M} 32'14		min. Earth dist.	4975 Feb 21 00:14	0° \mathbb{M} 21'23	0.67330 AU
direct	4974 Mar 19 17:48	8° \mathbb{M} 46'23			4975 Feb 21 06:36	30° \mathbb{M}	
desc. node	4974 Mar 30 20:58	14° \mathbb{M} 49'09		morning rise	4975 Feb 25 10:20	25° \mathbb{M} 10'13	
morning max el	4974 Apr 01 09:36	16° \mathbb{M} 18'35	26°09'22	direct	4975 Mar 03 04:05	22° \mathbb{M} 37'16	
	4974 Apr 12 17:43	0° \mathbb{M}		morning max el	4975 Mar 14 18:18	29° \mathbb{M} 33'25	24°48'17
	4974 May 02 00:04	0° \mathbb{M}			4975 Mar 15 04:43	0° \mathbb{M}	
morning set	4974 May 07 11:51	9° \mathbb{M} 53'26		desc. node	4975 Mar 17 18:01	2° \mathbb{M} 46'18	
max. Earth dist.	4974 May 11 11:32	17° \mathbb{M} 28'09	1.35201 AU		4975 Apr 06 14:04	0° \mathbb{M}	
				morning set	4975 Apr 19 18:47	21° \mathbb{M} 53'12	
superior conj	4974 May 16 14:49	27° \mathbb{M} 42'06	0°-47'-35	max. Earth dist.	4975 Apr 23 10:36	28° \mathbb{M} 29'13	1.37117 AU
minimum elong	4974 May 16 17:26	27° \mathbb{M} 55'24	0°47'07		4975 Apr 24 06:18	0° \mathbb{M}	
	4974 May 17 17:48	0° \mathbb{M}					
asc. node	4974 May 21 09:24	7° \mathbb{M} 33'01		superior conj	4975 Apr 30 00:46	10° \mathbb{M} 58'48	-1°-16'-48
evening rise	4974 May 24 10:28	13° \mathbb{M} 51'28		minimum elong	4975 Apr 30 04:57	11° \mathbb{M} 19'14	1°16'10
	4974 Jun 01 19:10	0° \mathbb{M}		asc. node	4975 May 08 06:26	27° \mathbb{M} 23'40	
evening max el	4974 Jun 11 19:56	13° \mathbb{M} 49'42	20°30'24	evening rise	4975 May 08 13:09	27° \mathbb{M} 57'19	
retrograde	4974 Jun 22 22:03	19° \mathbb{M} 15'25			4975 May 09 13:46	0° \mathbb{M}	
evening set	4974 Jun 24 22:23	19° \mathbb{M} 05'25		evening max el	4975 May 25 10:40	25° \mathbb{M} 24'53	19°24'21
desc. node	4974 Jun 26 20:12	18° \mathbb{M} 38'38		retrograde	4975 Jun 03 19:05	29° \mathbb{M} 58'43	
inferior conj	4974 Jul 04 03:30	15° \mathbb{M} 08'15	-2°-9'-30	evening set	4975 Jun 05 17:51	29° \mathbb{M} 47'41	
minimum elong	4974 Jul 03 21:28	15° \mathbb{M} 16'59	2°07'22	desc. node	4975 Jun 13 17:12	26° \mathbb{M} 05'08	
min. Earth dist.	4974 Jul 05 09:33	14° \mathbb{M} 24'46	0.54919 AU	inferior conj	4975 Jun 14 08:12	25° \mathbb{M} 40'54	0°-11'-7
morning rise	4974 Jul 12 19:03	11° \mathbb{M} 00'39		minimum elong	4975 Jun 14 07:42	25° \mathbb{M} 41'42	0°10'57
direct	4974 Jul 16 17:07	10° \mathbb{M} 27'31		transit middle	4975 Jun 14 07:42	25° \mathbb{M} 41'42	0°10'57
morning max el	4974 Jul 30 01:30	16° \mathbb{M} 55'22	23°24'22	transit begin	4975 Jun 14 04:53	25° \mathbb{M} 46'17	
	4974 Aug 09 13:18	0° \mathbb{M}		transit end	4975 Jun 14 10:32	25° \mathbb{M} 37'06	
asc. node	4974 Aug 17 08:40	13° \mathbb{M} 37'49		min. Earth dist.	4975 Jun 16 23:28	23° \mathbb{M} 58'36	0.55885 AU
morning set	4974 Aug 22 12:09	24° \mathbb{M} 05'00		morning rise	4975 Jun 22 17:43	21° \mathbb{M} 00'58	
	4974 Aug 25 06:38	0° \mathbb{M}		direct	4975 Jun 27 12:50	20° \mathbb{M} 08'46	
				morning max el	4975 Jul 11 15:01	27° \mathbb{M} 16'22	25°06'40
superior conj	4974 Aug 29 13:24	9° \mathbb{M} 15'00	1°37'23		4975 Jul 14 06:52	0° \mathbb{M}	
minimum elong	4974 Aug 29 11:50	9° \mathbb{M} 06'35	1°37'15		4975 Aug 02 15:07	0° \mathbb{M}	
max. Earth dist.	4974 Sep 01 02:46	14° \mathbb{M} 42'14	1.33490 AU	asc. node	4975 Aug 04 05:42	3° \mathbb{M} 13'30	
evening rise	4974 Sep 06 04:46	25° \mathbb{M} 09'29		morning set	4975 Aug 06 23:52	8° \mathbb{M} 57'21	
	4974 Sep 08 16:06	0° \mathbb{M}					
desc. node	4974 Sep 22 19:31	24° \mathbb{M} 23'51		superior conj	4975 Aug 13 23:09	24° \mathbb{M} 06'26	1°26'05
	4974 Sep 26 14:34	0° \mathbb{M}		minimum elong	4975 Aug 13 20:59	23° \mathbb{M} 54'33	1°25'49
evening max el	4974 Oct 10 07:13	16° \mathbb{M} 31'04	27°21'12	max. Earth dist.	4975 Aug 15 07:57	27° \mathbb{M} 05'37	1.32563 AU
retrograde	4974 Oct 23 19:50	23° \mathbb{M} 49'28			4975 Aug 16 16:07	0° \mathbb{M}	
evening set	4974 Oct 30 19:54	21° \mathbb{M} 10'50		evening rise	4975 Aug 21 03:42	9° \mathbb{M} 27'52	
min. Earth dist.	4974 Nov 03 14:54	17° \mathbb{M} 42'36	0.64391 AU		4975 Sep 01 00:27	0° \mathbb{M}	
inferior conj	4974 Nov 05 23:52	15° \mathbb{M} 10'49	-2°-25'-1	desc. node	4975 Sep 09 16:31	13° \mathbb{M} 42'17	
minimum elong	4974 Nov 06 04:04	14° \mathbb{M} 59'37	2°23'25	evening max el	4975 Sep 22 17:06	29° \mathbb{M} 27'58	27°24'51
morning rise	4974 Nov 12 14:33	9° \mathbb{M} 43'31			4975 Sep 23 06:51	0° \mathbb{M}	
asc. node	4974 Nov 13 07:53	9° \mathbb{M} 27'55		retrograde	4975 Oct 06 11:22	6° \mathbb{M} 42'41	
direct	4974 Nov 15 02:13	9° \mathbb{M} 11'53		evening set	4975 Oct 13 15:34	4° \mathbb{M} 13'52	

min. Earth dist.	4975 Oct 17 06:52	1° \mathbb{M} 15'44	0.62637 AU	evening set	4976 Sep 24 18:53	16° \mathbb{A} 47'22	
	4975 Oct 18 15:01	30° \mathbb{R} \mathbb{A}		min. Earth dist.	4976 Sep 28 11:57	14° \mathbb{A} 09'12	0.60644 AU
inferior conj	4975 Oct 20 03:09	28° \mathbb{A} 33'08	-3°-27'-25	inferior conj	4976 Oct 01 16:32	11° \mathbb{A} 29'12	-4°-23'-45
minimum elong	4975 Oct 20 08:56	28° \mathbb{A} 19'20	3°25'34	minimum elong	4976 Oct 01 22:42	11° \mathbb{A} 16'14	4°22'21
morning rise	4975 Oct 27 05:11	23° \mathbb{A} 23'49		morning rise	4976 Oct 09 05:48	6° \mathbb{A} 41'23	
direct	4975 Oct 29 12:47	22° \mathbb{A} 59'21		direct	4976 Oct 11 12:37	6° \mathbb{A} 21'02	
asc. node	4975 Oct 31 04:55	23° \mathbb{A} 12'27		asc. node	4976 Oct 17 01:57	8° \mathbb{A} 27'25	
morning max el	4975 Nov 05 06:32	26° \mathbb{A} 26'27	17°49'56	morning max el	4976 Oct 18 19:54	9° \mathbb{A} 58'09	18°03'31
	4975 Nov 08 08:08	0° \mathbb{M}			4976 Oct 31 22:34	0° \mathbb{M}	
morning set	4975 Nov 21 06:32	21° \mathbb{M} 17'05		morning set	4976 Nov 03 12:54	4° \mathbb{M} 48'44	
	4975 Nov 26 04:57	0° \mathbb{A}					
superior conj	4975 Dec 02 17:24	11° \mathbb{A} 12'19	0°27'31	superior conj	4976 Nov 13 11:00	22° \mathbb{M} 58'55	1°01'35
minimum elong	4975 Dec 02 19:59	11° \mathbb{A} 23'09	0°27'09	minimum elong	4976 Nov 13 14:59	23° \mathbb{M} 16'35	1°01'05
desc. node	4975 Dec 06 15:49	17° \mathbb{A} 45'17			4976 Nov 17 11:19	0° \mathbb{A}	
max. Earth dist.	4975 Dec 09 14:53	22° \mathbb{A} 34'57	1.43601 AU	max. Earth dist.	4976 Nov 21 02:39	6° \mathbb{A} 10'12	1.41876 AU
	4975 Dec 14 06:27	0° \mathbb{B}		desc. node	4976 Nov 22 12:50	8° \mathbb{A} 32'11	
evening rise	4975 Dec 17 16:37	5° \mathbb{B} 21'01		evening rise	4976 Nov 26 16:02	15° \mathbb{A} 15'40	
	4976 Jan 03 04:43	0° \mathbb{A}			4976 Dec 06 04:17	0° \mathbb{B}	
greatest brilliancy	4976 Jan 12 03:49	12° \mathbb{A} 10'09	-0.4m	greatest brilliancy	4976 Dec 24 22:27	25° \mathbb{B} 58'54	-0.3m
evening max el	4976 Jan 17 03:49	17° \mathbb{A} 55'20	21°20'51		4976 Dec 28 10:09	0° \mathbb{A}	
retrograde	4976 Jan 25 22:23	23° \mathbb{A} 07'22		evening max el	4976 Dec 29 21:15	1° \mathbb{A} 31'52	22°37'52
asc. node	4976 Jan 27 04:08	22° \mathbb{A} 59'06		retrograde	4977 Jan 08 18:19	7° \mathbb{A} 23'58	
evening set	4976 Jan 30 02:22	21° \mathbb{A} 30'32		evening set	4977 Jan 13 09:50	5° \mathbb{A} 31'15	
inferior conj	4976 Feb 04 11:38	15° \mathbb{A} 13'10	2°30'08	asc. node	4977 Jan 13 01:10	5° \mathbb{A} 48'22	
minimum elong	4976 Feb 04 09:12	15° \mathbb{A} 21'34	2°29'26		4977 Jan 18 04:07	30° \mathbb{R} \mathbb{B}	
min. Earth dist.	4976 Feb 04 18:10	14° \mathbb{A} 50'32	0.67916 AU	inferior conj	4977 Jan 18 19:38	29° \mathbb{B} 06'21	1°50'36
morning rise	4976 Feb 09 15:43	8° \mathbb{A} 58'30		minimum elong	4977 Jan 18 17:28	29° \mathbb{B} 13'50	1°49'50
direct	4976 Feb 14 18:53	6° \mathbb{A} 45'20		min. Earth dist.	4977 Jan 18 14:32	29° \mathbb{B} 23'59	0.68106 AU
morning max el	4976 Feb 25 03:11	12° \mathbb{A} 54'04	23°19'23	morning rise	4977 Jan 24 01:03	22° \mathbb{B} 54'59	
greatest brilliancy	4976 Mar 01 12:07	18° \mathbb{A} 56'46	-0.2m	direct	4977 Jan 28 13:28	21° \mathbb{B} 04'34	
desc. node	4976 Mar 03 15:03	21° \mathbb{A} 36'08		morning max el	4977 Feb 06 15:45	26° \mathbb{B} 23'40	21°52'10
	4976 Mar 09 20:58	0° \mathbb{H}			4977 Feb 09 23:01	0° \mathbb{A}	
	4976 Mar 29 11:10	0° \mathbb{Y}		greatest brilliancy	4977 Feb 11 08:40	1° \mathbb{A} 40'36	-0.4m
morning set	4976 Mar 31 01:45	2° \mathbb{Y} 41'04		desc. node	4977 Feb 18 12:05	11° \mathbb{A} 04'17	
max. Earth dist.	4976 Apr 04 05:55	9° \mathbb{Y} 49'32	1.39289 AU		4977 Mar 03 10:09	0° \mathbb{H}	
superior conj	4976 Apr 11 20:28	23° \mathbb{Y} 30'57	-1°-42'-54	morning set	4977 Mar 11 04:23	12° \mathbb{H} 08'26	
minimum elong	4976 Apr 12 01:27	23° \mathbb{Y} 54'06	1°42'22	max. Earth dist.	4977 Mar 17 04:49	21° \mathbb{H} 58'16	1.41447 AU
	4976 Apr 15 07:13	0° \mathbb{B}			4977 Mar 21 22:31	0° \mathbb{Y}	
evening rise	4976 Apr 21 07:38	11° \mathbb{B} 34'26		superior conj	4977 Mar 24 21:14	5° \mathbb{Y} 07'56	-2°-1'-57
asc. node	4976 Apr 24 03:26	16° \mathbb{B} 59'10		minimum elong	4977 Mar 25 01:05	5° \mathbb{Y} 24'51	2°01'45
	4976 May 01 12:59	0° \mathbb{I}		evening rise	4977 Apr 04 14:27	24° \mathbb{Y} 34'57	
evening max el	4976 May 07 11:50	7° \mathbb{I} 38'36	18°38'32		4977 Apr 07 13:04	0° \mathbb{B}	
retrograde	4976 May 15 09:56	11° \mathbb{I} 32'40		asc. node	4977 Apr 11 00:26	6° \mathbb{B} 14'20	
evening set	4976 May 17 13:58	11° \mathbb{I} 16'08		evening max el	4977 Apr 20 20:10	20° \mathbb{B} 23'23	18°12'53
inferior conj	4976 May 25 08:46	6° \mathbb{I} 50'34	1°28'24	retrograde	4977 Apr 27 19:35	23° \mathbb{B} 53'46	
minimum elong	4976 May 25 11:44	6° \mathbb{I} 44'56	1°27'25	evening set	4977 Apr 30 06:05	23° \mathbb{B} 28'46	
min. Earth dist.	4976 May 28 16:48	4° \mathbb{I} 19'49	0.57589 AU	inferior conj	4977 May 07 06:45	18° \mathbb{B} 42'14	2°37'02
desc. node	4976 May 30 14:14	3° \mathbb{I} 02'21		minimum elong	4977 May 07 10:10	18° \mathbb{B} 34'38	2°36'12
morning rise	4976 Jun 02 05:00	1° \mathbb{I} 35'13		min. Earth dist.	4977 May 10 16:00	15° \mathbb{B} 43'18	0.59707 AU
direct	4976 Jun 07 22:15	0° \mathbb{I} 13'43		morning rise	4977 May 14 10:20	12° \mathbb{B} 58'46	
morning max el	4976 Jun 22 07:11	7° \mathbb{I} 48'22	26°33'53	desc. node	4977 May 17 11:16	11° \mathbb{B} 35'14	
	4976 Jul 08 22:05	0° \mathbb{B}		direct	4977 May 20 20:49	11° \mathbb{B} 02'56	
morning set	4976 Jul 21 10:18	23° \mathbb{B} 44'24		morning max el	4977 Jun 04 05:35	18° \mathbb{B} 54'39	27°31'48
asc. node	4976 Jul 21 02:44	23° \mathbb{B} 04'30			4977 Jun 13 14:11	0° \mathbb{I}	
	4976 Jul 24 08:20	0° \mathbb{Q}			4977 Jul 01 14:48	0° \mathbb{B}	
superior conj	4976 Jul 28 10:42	9° \mathbb{Q} 00'43	1°09'58	morning set	4977 Jul 05 17:48	8° \mathbb{B} 20'35	
minimum elong	4976 Jul 28 08:24	8° \mathbb{Q} 48'00	1°09'36	asc. node	4977 Jul 07 23:45	13° \mathbb{B} 05'27	
max. Earth dist.	4976 Jul 28 18:08	9° \mathbb{Q} 41'47	1.32050 AU	max. Earth dist.	4977 Jul 12 05:30	22° \mathbb{B} 19'13	1.31949 AU
evening rise	4976 Aug 04 09:03	24° \mathbb{Q} 03'18		superior conj	4977 Jul 12 22:19	23° \mathbb{B} 51'56	0°49'38
	4976 Aug 07 06:21	0° \mathbb{M}		minimum elong	4977 Jul 12 20:21	23° \mathbb{B} 41'07	0°49'15
	4976 Aug 24 21:30	0° \mathbb{A}			4977 Jul 15 17:03	0° \mathbb{Q}	
desc. node	4976 Aug 26 13:31	2° \mathbb{A} 14'41		evening rise	4977 Jul 19 18:29	8° \mathbb{Q} 48'10	
evening max el	4976 Sep 03 21:48	11° \mathbb{A} 44'09	26°55'27		4977 Jul 30 16:41	0° \mathbb{M}	
retrograde	4976 Sep 17 19:11	18° \mathbb{A} 54'32		desc. node	4977 Aug 13 10:31	19° \mathbb{M} 41'58	
				evening max el	4977 Aug 16 18:59	23° \mathbb{M} 10'55	25°53'34

	4977 Aug 28 00:25	0°♄			4978 Jul 25 17:38	0°♍	
retrograde	4977 Aug 30 18:05	0°♄17'58		evening max el	4978 Jul 29 09:26	3°♍54'01	24°26'51
	4977 Sep 02 11:23	30°♍		desc. node	4978 Jul 31 07:33	5°♍38'16	
evening set	4977 Sep 06 00:56	28°♍43'49		retrograde	4978 Aug 12 06:04	10°♍53'17	
min. Earth dist.	4977 Sep 10 07:21	26°♍08'46	0.58570 AU	evening set	4978 Aug 17 06:31	9°♍57'03	
inferior conj	4977 Sep 13 12:25	23°♍48'52	-5°-4'-42	min. Earth dist.	4978 Aug 22 20:29	7°♍05'55	0.56687 AU
minimum elong	4977 Sep 13 16:29	23°♍41'27	5°04'15	inferior conj	4978 Aug 25 12:21	5°♍24'33	-5°-15'-45
morning rise	4977 Sep 21 11:34	19°♍24'39		minimum elong	4978 Aug 25 11:01	5°♍26'41	5°15'43
direct	4977 Sep 23 21:06	19°♍05'58		morning rise	4978 Sep 02 18:59	1°♍21'46	
morning max el	4977 Oct 02 02:49	23°♍02'50	18°37'22	direct	4978 Sep 05 10:43	1°♍02'42	
asc. node	4977 Oct 03 23:00	24°♍59'20		morning max el	4978 Sep 15 00:02	5°♍30'56	19°32'48
	4977 Oct 07 17:17	0°♄		asc. node	4978 Sep 20 20:04	12°♍33'05	
morning set	4977 Oct 18 06:56	18°♄52'51			4978 Sep 30 16:57	0°♄	
	4977 Oct 24 00:42	0°♌		morning set	4978 Oct 02 09:00	3°♄19'47	
superior conj	4977 Oct 27 02:04	5°♌47'51	1°24'59	superior conj	4978 Oct 10 09:17	19°♄24'00	1°38'29
minimum elong	4977 Oct 27 05:24	6°♌03'26	1°24'40	minimum elong	4978 Oct 10 11:08	19°♄33'05	1°38'23
max. Earth dist.	4977 Nov 03 09:04	19°♌00'43	1.39835 AU		4978 Oct 15 21:59	0°♌	
evening rise	4977 Nov 07 12:58	26°♌08'53		max. Earth dist.	4978 Oct 16 13:35	1°♌12'20	1.37738 AU
desc. node	4977 Nov 09 09:50	29°♌15'36		evening rise	4978 Oct 20 08:45	8°♌04'49	
	4977 Nov 09 20:37	0°♊		desc. node	4978 Oct 27 06:51	19°♌51'50	
	4977 Nov 29 20:46	0°♊			4978 Nov 02 16:56	0°♊	
evening max el	4977 Dec 12 11:10	15°♊11'01	23°57'52	evening max el	4978 Nov 24 23:50	28°♊54'01	25°14'05
retrograde	4977 Dec 23 11:02	21°♊39'27			4978 Nov 26 03:31	0°♊	
evening set	4977 Dec 28 15:26	19°♊31'02		retrograde	4978 Dec 06 23:32	5°♊49'27	
asc. node	4977 Dec 30 22:13	17°♊12'10		evening set	4978 Dec 12 17:32	3°♊26'47	
min. Earth dist.	4978 Jan 02 11:05	13°♊57'14	0.67921 AU		4978 Dec 16 00:07	30°♊	
inferior conj	4978 Jan 03 03:08	13°♊02'47	1°03'57	min. Earth dist.	4978 Dec 17 05:27	28°♊27'26	0.67385 AU
minimum elong	4978 Jan 03 01:41	13°♊07'41	1°03'23	asc. node	4978 Dec 17 19:17	27°♊42'30	
morning rise	4978 Jan 08 12:14	6°♊56'28		inferior conj	4978 Dec 18 08:21	26°♊59'55	0°11'07
direct	4978 Jan 12 10:43	5°♊28'38		minimum elong	4978 Dec 18 08:04	27°♊00'50	0°11'01
morning max el	4978 Jan 20 11:03	10°♊04'01	20°33'48	transit middle	4978 Dec 18 08:04	27°♊00'50	0°11'01
greatest brilliancy	4978 Jan 26 11:27	17°♊06'27	-0.5m	transit begin	4978 Dec 18 06:02	27°♊07'28	
	4978 Feb 04 16:51	0°♐		transit end	4978 Dec 18 10:07	26°♊54'12	
desc. node	4978 Feb 05 09:07	0°♐59'40		morning rise	4978 Dec 23 23:19	21°♊00'51	
morning set	4978 Feb 18 06:38	20°♐31'07		direct	4978 Dec 27 09:28	19°♊53'19	
	4978 Feb 24 07:30	0°♏		morning max el	4979 Jan 03 14:14	23°♊55'15	19°28'44
max. Earth dist.	4978 Feb 27 10:32	5°♏00'31	1.43301 AU		4979 Jan 08 18:08	0°♊	
superior conj	4978 Mar 05 22:19	15°♏39'28	-2°-8'-44	greatest brilliancy	4979 Jan 12 03:32	4°♊39'28	-0.6m
minimum elong	4978 Mar 05 21:53	15°♏37'40	2°08'45	desc. node	4979 Jan 23 06:08	21°♊14'47	
	4978 Mar 14 07:58	0°♑		morning set	4979 Jan 28 04:06	28°♊48'41	
evening rise	4978 Mar 18 05:23	6°♑49'24			4979 Jan 28 22:33	0°♑	
asc. node	4978 Mar 28 21:29	25°♑02'35		max. Earth dist.	4979 Feb 09 23:19	18°♑47'57	1.44627 AU
	4978 Apr 01 07:42	0°♒		superior conj	4979 Feb 13 21:57	25°♑04'14	-1°-57'-52
evening max el	4978 Apr 04 08:18	3°♒30'47	18°06'51	minimum elong	4979 Feb 13 15:14	24°♑37'26	1°57'29
retrograde	4978 Apr 10 20:18	6°♒52'55			4979 Feb 16 23:31	0°♒	
evening set	4978 Apr 13 13:02	6°♒17'28		evening rise	4979 Feb 27 23:56	18°♒09'03	
inferior conj	4978 Apr 19 23:14	1°♒10'33	3°16'22		4979 Mar 07 02:07	0°♑	
minimum elong	4978 Apr 20 01:25	1°♒05'00	3°16'03	asc. node	4979 Mar 15 18:32	13°♑14'54	
	4978 Apr 21 02:47	30°♒		evening max el	4979 Mar 18 21:08	16°♑52'17	18°19'44
min. Earth dist.	4978 Apr 22 23:17	28°♑08'19	0.61901 AU	retrograde	4979 Mar 25 07:33	20°♑19'55	
morning rise	4978 Apr 26 10:58	25°♑09'32		evening set	4979 Mar 28 06:27	19°♑32'41	
direct	4978 May 03 06:21	22°♑43'41		inferior conj	4979 Apr 03 06:02	14°♑06'34	3°32'21
desc. node	4978 May 04 08:19	22°♑47'09		minimum elong	4979 Apr 03 06:33	14°♑05'05	3°32'20
	4978 May 16 16:19	0°♓		min. Earth dist.	4979 Apr 05 15:42	11°♑23'02	0.63910 AU
morning max el	4978 May 17 10:07	0°♓43'37	27°52'48	morning rise	4979 Apr 09 04:50	7°♑56'12	
	4978 Jun 07 17:11	0°♐		direct	4979 Apr 16 00:30	5°♑12'00	
morning set	4978 Jun 19 20:24	22°♐39'55		desc. node	4979 Apr 21 05:22	6°♑33'04	
	4978 Jun 23 08:53	0°♑		morning max el	4979 Apr 29 18:37	13°♑10'14	27°36'36
asc. node	4978 Jun 24 20:47	3°♑11'58			4979 May 13 06:47	0°♓	
max. Earth dist.	4978 Jun 25 14:09	4°♑45'40	1.32274 AU		4979 May 31 06:15	0°♐	
superior conj	4978 Jun 27 08:17	8°♑34'45	0°25'38	morning set	4979 Jun 03 15:35	6°♐33'51	
minimum elong	4978 Jun 27 07:07	8°♑28'26	0°25'22	max. Earth dist.	4979 Jun 08 16:07	16°♐48'34	1.33049 AU
evening rise	4978 Jul 04 06:00	23°♑36'16		superior conj	4979 Jun 11 14:39	23°♐02'17	0°-1'-22
	4978 Jul 07 07:30	0°♑		minimum elong	4979 Jun 11 14:43	23°♐02'38	0°01'24

behind sun begin	4979 Jun 11 09:22	22° Π 33'59		superior conj	4980 May 25 15:17	7° Π 08'24	0°-30'-26
behind sun end	4979 Jun 11 20:04	23° Π 31'19		minimum elong	4980 May 25 16:55	7° Π 16'54	0°30'08
asc. node	4979 Jun 11 17:49	23° Π 19'13		asc. node	4980 May 28 14:51	13° Π 23'26	
	4979 Jun 14 20:15	0° \mathfrak{S}		evening rise	4980 Jun 02 03:36	22° Π 55'25	
evening rise	4979 Jun 18 17:40	8° \mathfrak{S} 20'34			4980 Jun 05 14:43	0° \mathfrak{S}	
	4979 Jun 30 01:51	0° Ω		evening max el	4980 Jun 21 18:02	24° \mathfrak{S} 49'26	21°16'51
evening max el	4979 Jul 10 22:28	14° Ω 15'45	22°49'26		4980 Jun 29 11:37	0° Ω	
desc. node	4979 Jul 18 04:36	19° Ω 29'40		retrograde	4980 Jul 03 18:31	0° Ω 44'53	
retrograde	4979 Jul 24 05:05	20° Ω 52'39		desc. node	4980 Jul 04 01:37	0° Ω 44'40	
evening set	4979 Jul 27 16:57	20° Ω 25'57		evening set	4980 Jul 06 02:59	0° Ω 32'05	
min. Earth dist.	4979 Aug 04 06:49	17° Ω 03'55	0.55332 AU		4980 Jul 08 06:03	30° \mathfrak{R} \mathfrak{S}	
inferior conj	4979 Aug 05 17:15	16° Ω 14'31	-4°-40'-45	inferior conj	4980 Jul 15 10:58	26° \mathfrak{S} 33'40	-3°-14'-56
minimum elong	4979 Aug 05 09:53	16° Ω 25'07	4°39'25	minimum elong	4980 Jul 15 02:38	26° \mathfrak{S} 45'21	3°12'21
morning rise	4979 Aug 14 05:21	12° Ω 24'11		min. Earth dist.	4980 Jul 15 17:08	26° \mathfrak{S} 25'02	0.54800 AU
direct	4979 Aug 17 06:12	12° Ω 02'41		morning rise	4980 Jul 24 02:39	22° \mathfrak{S} 38'45	
morning max el	4979 Aug 28 09:10	17° Ω 13'21	20°49'52	direct	4980 Jul 27 15:35	22° \mathfrak{S} 11'44	
	4979 Sep 07 04:11	0° \mathfrak{M}		morning max el	4980 Aug 09 06:54	28° \mathfrak{S} 11'02	22°25'02
asc. node	4979 Sep 07 17:06	0° \mathfrak{M} 54'02			4980 Aug 11 02:49	0° Ω	
morning set	4979 Sep 16 16:19	18° \mathfrak{M} 01'14		asc. node	4980 Aug 24 14:07	19° Ω 50'57	
	4979 Sep 22 10:35	0° \mathfrak{A}			4980 Aug 29 17:47	0° \mathfrak{M}	
				morning set	4980 Aug 31 02:42	2° \mathfrak{M} 51'14	
superior conj	4979 Sep 24 03:59	3° \mathfrak{A} 33'28	1°43'31				
minimum elong	4979 Sep 24 04:15	3° \mathfrak{A} 34'54	1°43'31	superior conj	4980 Sep 07 06:36	18° \mathfrak{M} 05'49	1°41'24
max. Earth dist.	4979 Sep 28 21:59	13° \mathfrak{A} 05'47	1.35812 AU	minimum elong	4980 Sep 07 05:35	18° \mathfrak{M} 00'27	1°41'21
evening rise	4979 Oct 03 00:04	20° \mathfrak{A} 54'35		max. Earth dist.	4980 Sep 10 14:21	25° \mathfrak{M} 03'10	1.34221 AU
	4979 Oct 08 00:58	0° \mathfrak{M}			4980 Sep 13 00:41	0° \mathfrak{A}	
desc. node	4979 Oct 14 03:53	10° \mathfrak{M} 15'52		evening rise	4980 Sep 15 06:38	4° \mathfrak{A} 26'56	
	4979 Oct 27 15:07	0° \mathfrak{A}			4980 Sep 29 19:27	0° \mathfrak{M}	
evening max el	4979 Nov 07 12:37	12° \mathfrak{A} 37'19	26°19'12	desc. node	4980 Sep 30 00:55	0° \mathfrak{M} 21'25	
retrograde	4979 Nov 20 06:51	19° \mathfrak{A} 48'32		evening max el	4980 Oct 20 01:21	26° \mathfrak{M} 11'41	27°05'40
evening set	4979 Nov 26 14:20	17° \mathfrak{A} 14'47			4980 Oct 24 13:23	0° \mathfrak{A}	
min. Earth dist.	4979 Nov 30 19:14	12° \mathfrak{A} 51'05	0.66497 AU	retrograde	4980 Nov 02 08:27	3° \mathfrak{A} 29'10	
inferior conj	4979 Dec 02 09:24	10° \mathfrak{A} 54'28	0°-46'-52	evening set	4980 Nov 09 03:39	0° \mathfrak{A} 49'51	
minimum elong	4979 Dec 02 10:40	10° \mathfrak{A} 50'34	0°46'18		4980 Nov 10 03:27	30° \mathfrak{R} \mathfrak{M}	
asc. node	4979 Dec 04 16:21	8° \mathfrak{A} 13'04		min. Earth dist.	4980 Nov 13 01:58	27° \mathfrak{M} 02'08	0.65258 AU
morning rise	4979 Dec 08 08:15	5° \mathfrak{A} 05'21		inferior conj	4980 Nov 15 04:02	24° \mathfrak{M} 41'15	-1°-48'-37
direct	4979 Dec 11 07:57	4° \mathfrak{A} 14'44		minimum elong	4980 Nov 15 07:09	24° \mathfrak{M} 32'28	1°47'20
morning max el	4979 Dec 18 00:28	7° \mathfrak{A} 54'24	18°39'18	asc. node	4980 Nov 20 13:23	19° \mathfrak{M} 36'57	
	4980 Jan 02 16:46	0° \mathfrak{S}		morning rise	4980 Nov 21 12:33	19° \mathfrak{M} 05'13	
morning set	4980 Jan 07 21:14	8° \mathfrak{S} 11'20		direct	4980 Nov 24 03:59	18° \mathfrak{M} 27'41	
desc. node	4980 Jan 10 03:10	11° \mathfrak{S} 44'17		morning max el	4980 Nov 30 15:25	21° \mathfrak{M} 55'25	18°06'29
	4980 Jan 21 17:57	0° \approx			4980 Dec 06 23:17	0° \mathfrak{A}	
max. Earth dist.	4980 Jan 23 17:18	3° \approx 05'38	1.45276 AU	morning set	4980 Dec 18 19:50	19° \mathfrak{A} 02'37	
					4980 Dec 25 12:43	0° \mathfrak{S}	
superior conj	4980 Jan 24 03:24	3° \approx 45'18	-1°-27'-23	desc. node	4980 Dec 27 00:11	2° \mathfrak{S} 23'17	
minimum elong	4980 Jan 23 18:04	3° \approx 08'39	1°26'24				
evening rise	4980 Feb 08 19:21	28° \approx 31'54		superior conj	4981 Jan 02 09:01	12° \mathfrak{S} 33'41	0°-43'-9
	4980 Feb 09 17:24	0° \mathfrak{H}		minimum elong	4981 Jan 02 03:40	12° \mathfrak{S} 12'31	0°42'26
	4980 Feb 29 23:41	0° \mathfrak{Y}		max. Earth dist.	4981 Jan 05 13:06	17° \mathfrak{S} 33'49	1.45178 AU
evening max el	4980 Mar 01 08:02	0° \mathfrak{Y} 21'36	18°50'34		4981 Jan 13 12:07	0° \approx	
asc. node	4980 Mar 01 15:36	0° \mathfrak{Y} 40'31		evening rise	4981 Jan 18 17:30	8° \approx 06'30	
retrograde	4980 Mar 08 01:28	4° \mathfrak{Y} 07'02			4981 Feb 02 01:06	0° \mathfrak{H}	
evening set	4980 Mar 11 06:57	3° \mathfrak{Y} 07'04		greatest brilliancy	4981 Feb 04 21:28	4° \mathfrak{H} 08'17	-0.6m
	4980 Mar 14 18:52	30° \mathfrak{R} \mathfrak{H}		evening max el	4981 Feb 12 14:51	13° \mathfrak{H} 53'43	19°38'02
inferior conj	4980 Mar 16 23:16	27° \mathfrak{H} 23'22	3°30'37	asc. node	4981 Feb 16 12:39	17° \mathfrak{H} 05'40	
minimum elong	4980 Mar 16 22:22	27° \mathfrak{H} 26'10	3°30'34	retrograde	4981 Feb 19 22:49	18° \mathfrak{H} 07'32	
min. Earth dist.	4980 Mar 18 17:14	25° \mathfrak{H} 13'17	0.65570 AU	evening set	4981 Feb 23 11:51	16° \mathfrak{H} 53'59	
morning rise	4980 Mar 22 12:40	21° \mathfrak{H} 08'31		inferior conj	4981 Feb 28 23:42	10° \mathfrak{H} 54'51	3°15'20
direct	4980 Mar 29 01:32	18° \mathfrak{H} 19'52		minimum elong	4981 Feb 28 21:49	11° \mathfrak{H} 01'03	3°15'02
desc. node	4980 Apr 07 02:23	22° \mathfrak{H} 21'22		min. Earth dist.	4981 Mar 02 02:46	9° \mathfrak{H} 25'26	0.66812 AU
morning max el	4980 Apr 11 04:37	26° \mathfrak{H} 04'47	26°48'24	morning rise	4981 Mar 06 07:06	4° \mathfrak{H} 38'24	
	4980 Apr 14 19:28	0° \mathfrak{Y}		direct	4981 Mar 12 08:30	1° \mathfrak{H} 57'19	
	4980 May 05 20:11	0° \mathfrak{S}		morning max el	4981 Mar 24 14:08	9° \mathfrak{H} 15'22	25°36'29
morning set	4980 May 17 00:12	19° \mathfrak{S} 53'28		desc. node	4981 Mar 24 23:25	9° \mathfrak{H} 39'01	
max. Earth dist.	4980 May 21 08:12	28° \mathfrak{S} 21'47	1.34292 AU		4981 Apr 09 22:20	0° \mathfrak{Y}	
	4980 May 22 03:44	0° Π			4981 Apr 28 09:38	0° \mathfrak{S}	
				morning set	4981 Apr 29 18:02	2° \mathfrak{S} 26'29	

max. Earth dist.	4981 May 03 13:06	9°♄29'54	1.35980 AU		4982 Apr 03 06:18	0°♄	
				morning set	4982 Apr 11 15:34	13°♄58'03	
superior conj	4981 May 09 07:29	20°♄45'16	-1°00'-11	max. Earth dist.	4982 Apr 15 09:39	20°♄35'00	1.38025 AU
minimum elong	4981 May 09 10:49	21°♄01'54	0°59'37		4982 Apr 20 12:36	0°♄	
	4981 May 13 20:48	0°♄					
asc. node	4981 May 15 11:54	3°♄20'21		superior conj	4982 Apr 22 11:53	3°♄44'12	-1°-28'-29
evening rise	4981 May 17 09:37	7°♄13'54		minimum elong	4982 Apr 22 16:33	4°♄06'35	1°27'51
	4981 May 30 01:39	0°♄		evening rise	4982 May 01 09:12	21°♄08'42	
evening max el	4981 Jun 04 01:26	5°♄59'22	19°59'45	asc. node	4982 May 02 08:55	23°♄05'20	
retrograde	4981 Jun 14 09:33	11°♄02'43			4982 May 05 23:03	0°♄	
evening set	4981 Jun 16 07:49	10°♄52'56		evening max el	4982 May 17 20:56	17°♄51'45	19°02'20
desc. node	4981 Jun 20 22:36	9°♄19'47		retrograde	4982 May 26 13:45	22°♄07'05	
inferior conj	4981 Jun 25 07:43	6°♄52'50	-1°-18'-28	evening set	4982 May 28 14:07	21°♄54'19	
minimum elong	4981 Jun 25 04:03	6°♄58'21	1°17'07	inferior conj	4982 Jun 05 20:18	17°♄40'18	0°34'35
min. Earth dist.	4981 Jun 27 05:25	5°♄43'58	0.55221 AU	minimum elong	4982 Jun 05 21:40	17°♄37'55	0°34'05
morning rise	4981 Jul 03 21:43	2°♄32'52		desc. node	4982 Jun 07 19:38	16°♄17'58	
direct	4981 Jul 08 03:58	1°♄53'16		min. Earth dist.	4982 Jun 08 20:51	15°♄35'13	0.56531 AU
morning max el	4981 Jul 21 21:47	8°♄39'07	24°08'53	morning rise	4982 Jun 14 00:47	12°♄44'28	
	4981 Aug 06 12:50	0°♄		direct	4982 Jun 19 05:24	11°♄40'52	
asc. node	4981 Aug 11 11:09	9°♄15'00		morning max el	4982 Jul 03 12:00	19°♄02'23	25°46'39
morning set	4981 Aug 15 14:25	17°♄44'46			4982 Jul 12 17:41	0°♄	
	4981 Aug 21 06:35	0°♄		asc. node	4982 Jul 29 08:10	28°♄58'06	
					4982 Jul 29 20:06	0°♄	
superior conj	4981 Aug 22 14:24	2°♄52'58	1°33'13	morning set	4982 Jul 31 01:46	2°♄35'45	
minimum elong	4981 Aug 22 12:32	2°♄42'46	1°33'02				
max. Earth dist.	4981 Aug 24 15:20	7°♄16'56	1.33038 AU	superior conj	4982 Aug 07 01:09	17°♄46'47	1°19'48
evening rise	4981 Aug 30 00:33	18°♄31'35		minimum elong	4982 Aug 06 22:52	17°♄34'13	1°19'29
	4981 Sep 04 22:42	0°♄		max. Earth dist.	4982 Aug 07 22:52	19°♄46'11	1.32285 AU
desc. node	4981 Sep 16 21:55	20°♄00'38			4982 Aug 12 16:29	0°♄	
	4981 Sep 24 02:44	0°♄		evening rise	4982 Aug 14 02:30	2°♄58'17	
evening max el	4981 Oct 02 12:42	9°♄25'45	27°26'35		4982 Aug 28 18:14	0°♄	
retrograde	4981 Oct 16 03:56	16°♄43'11		desc. node	4982 Sep 03 18:55	9°♄01'45	
evening set	4981 Oct 23 06:47	14°♄06'58		evening max el	4982 Sep 14 20:28	22°♄06'08	27°16'30
min. Earth dist.	4981 Oct 26 23:39	10°♄52'46	0.63679 AU	retrograde	4982 Sep 28 16:36	29°♄19'57	
inferior conj	4981 Oct 29 13:46	8°♄14'49	-2°-51'-48	evening set	4982 Oct 05 20:04	26°♄58'36	
minimum elong	4981 Oct 29 18:43	8°♄02'12	2°50'02	min. Earth dist.	4982 Oct 09 11:01	24°♄10'39	0.61805 AU
morning rise	4981 Nov 05 09:14	2°♄55'04		inferior conj	4982 Oct 12 11:31	21°♄26'56	-3°-52'-32
asc. node	4981 Nov 07 10:24	2°♄27'32		minimum elong	4982 Oct 12 17:41	21°♄12'57	3°50'47
direct	4981 Nov 07 18:50	2°♄26'55		morning rise	4982 Oct 19 18:27	16°♄26'37	
morning max el	4981 Nov 14 08:18	5°♄51'51	17°50'53	direct	4982 Oct 22 01:09	16°♄04'24	
	4981 Nov 30 04:32	0°♄		asc. node	4982 Oct 25 07:25	16°♄51'33	
morning set	4981 Nov 30 21:06	1°♄11'28		morning max el	4982 Oct 28 23:52	19°♄34'55	17°53'22
					4982 Nov 05 15:39	0°♄	
superior conj	4981 Dec 13 09:38	22°♄20'56	0°03'24	morning set	4982 Nov 13 18:32	14°♄17'31	
minimum elong	4981 Dec 13 10:00	22°♄22'28	0°03'21		4982 Nov 22 13:21	0°♄	
behind sun begin	4981 Dec 13 00:27	21°♄43'15					
behind sun end	4981 Dec 13 19:34	23°♄01'36		superior conj	4982 Nov 24 12:33	3°♄24'45	0°43'15
desc. node	4981 Dec 13 21:14	23°♄08'25		minimum elong	4982 Nov 24 16:04	3°♄39'51	0°42'47
	4981 Dec 18 02:56	0°♄		desc. node	4982 Nov 30 18:13	13°♄55'27	
max. Earth dist.	4981 Dec 19 07:16	1°♄53'10	1.44357 AU	max. Earth dist.	4982 Dec 01 21:08	15°♄45'56	1.42915 AU
evening rise	4981 Dec 29 04:02	17°♄18'59		evening rise	4982 Dec 08 18:28	26°♄47'42	
	4982 Jan 06 12:25	0°♄			4982 Dec 10 19:49	0°♄	
greatest brilliancy	4982 Jan 20 23:34	20°♄42'23	-0.5m		4982 Dec 31 09:05	0°♄	
evening max el	4982 Jan 26 16:22	27°♄27'12	20°39'56	greatest brilliancy	4983 Jan 04 18:36	5°♄39'48	-0.3m
	4982 Jan 29 11:39	0°♄		evening max el	4983 Jan 09 12:29	11°♄02'19	21°52'56
asc. node	4982 Feb 03 09:39	2°♄15'54		retrograde	4983 Jan 18 18:22	16°♄32'03	
retrograde	4982 Feb 03 21:07	2°♄17'08		asc. node	4983 Jan 21 06:40	15°♄58'23	
evening set	4982 Feb 07 19:05	0°♄49'09		evening set	4983 Jan 23 02:56	14°♄48'43	
	4982 Feb 08 18:24	30°♄		inferior conj	4983 Jan 28 12:15	8°♄27'39	2°14'20
inferior conj	4982 Feb 13 04:45	24°♄37'22	2°49'18	minimum elong	4983 Jan 28 09:53	8°♄35'53	2°13'34
minimum elong	4982 Feb 13 02:23	24°♄45'29	2°48'43	min. Earth dist.	4983 Jan 28 13:48	8°♄22'16	0.68038 AU
min. Earth dist.	4982 Feb 13 18:24	23°♄50'35	0.67629 AU	morning rise	4983 Feb 02 16:34	2°♄13'55	
morning rise	4982 Feb 18 09:14	18°♄21'21		direct	4983 Feb 07 13:24	0°♄10'07	
direct	4982 Feb 23 20:44	15°♄56'25		morning max el	4983 Feb 17 08:49	5°♄58'08	22°41'34
morning max el	4982 Mar 06 22:51	22°♄33'51	24°10'47	greatest brilliancy	4983 Feb 21 23:22	11°♄06'15	-0.3m
desc. node	4982 Mar 11 20:27	28°♄01'01		desc. node	4983 Feb 26 17:30	17°♄09'07	
	4982 Mar 13 11:20	0°♄			4983 Mar 07 21:06	0°♄	

morning set	4983 Mar 23 10:54	24° Υ 13'11		morning max el	4984 Jan 30 23:46	19° Υ 31'16	21°17'25
	4983 Mar 26 22:07	0° Υ		greatest brilliancy	4984 Feb 05 02:56	25° Υ 22'06	-0.4m
max. Earth dist.	4983 Mar 28 05:14	2° Υ 12'05	1.40222 AU		4984 Feb 08 16:26	0° \approx	
				desc. node	4984 Feb 13 14:31	6° \approx 49'57	
superior conj	4983 Apr 05 00:14	15° Υ 55'18	-1°-52'-8		4984 Feb 29 01:44	0° Υ	
minimum elong	4983 Apr 05 05:03	16° Υ 17'12	1°51'44	morning set	4984 Mar 02 01:45	3° Υ 08'16	
	4983 Apr 12 13:52	0° Υ		max. Earth dist.	4984 Mar 09 06:53	14° Υ 44'19	1.42288 AU
evening rise	4983 Apr 14 23:16	4° Υ 32'06					
asc. node	4983 Apr 19 05:57	12° Υ 33'37		superior conj	4984 Mar 16 15:30	27° Υ 06'07	-2°-6'-39
	4983 Apr 30 17:14	0° Υ		minimum elong	4984 Mar 16 17:57	27° Υ 16'37	2°06'37
evening max el	4983 May 01 01:45	0° Υ 21'14	18°25'14		4984 Mar 18 07:44	0° Υ	
retrograde	4983 May 08 12:41	4° Υ 02'56		evening rise	4984 Mar 27 23:52	17° Υ 14'14	
evening set	4983 May 10 19:29	3° Υ 43'07			4984 Apr 04 03:44	0° Υ	
	4983 May 17 04:51	30° Υ		asc. node	4984 Apr 05 03:00	1° Υ 38'33	
inferior conj	4983 May 18 06:15	29° Υ 09'03	2°01'20	evening max el	4984 Apr 13 12:12	13° Υ 17'26	18°07'59
minimum elong	4983 May 18 09:43	29° Υ 02'01	2°00'18	retrograde	4984 Apr 20 05:13	16° Υ 42'08	
min. Earth dist.	4983 May 21 16:40	26° Υ 23'09	0.58462 AU	evening set	4984 Apr 22 18:34	16° Υ 12'43	
morning rise	4983 May 25 19:32	23° Υ 40'33		inferior conj	4984 Apr 29 12:36	11° Υ 17'20	2°56'54
desc. node	4983 May 25 16:41	23° Υ 44'18		minimum elong	4984 Apr 29 15:36	11° Υ 10'13	2°56'18
direct	4983 May 31 21:12	22° Υ 04'09		min. Earth dist.	4984 May 02 18:52	8° Υ 14'14	0.60656 AU
	4983 Jun 15 11:36	0° Υ		morning rise	4984 May 06 09:14	5° Υ 25'33	
morning max el	4983 Jun 15 06:32	29° Υ 47'33	27°02'35	desc. node	4984 May 11 13:44	3° Υ 22'08	
	4983 Jul 06 15:06	0° Υ		direct	4984 May 13 00:46	3° Υ 16'00	
morning set	4983 Jul 15 11:11	17° Υ 19'14		morning max el	4984 May 27 07:30	11° Υ 11'19	27°45'18
asc. node	4983 Jul 16 05:13	18° Υ 54'24			4984 Jun 11 00:32	0° Υ	
	4983 Jul 21 07:48	0° Υ			4984 Jun 27 19:38	0° Υ	
				morning set	4984 Jun 28 16:51	1° Υ 48'59	
superior conj	4983 Jul 22 12:59	2° Υ 41'08	1°01'50	asc. node	4984 Jul 02 02:16	8° Υ 58'20	
minimum elong	4983 Jul 22 10:46	2° Υ 28'54	1°01'27	max. Earth dist.	4984 Jul 04 20:39	14° Υ 58'50	1.32044 AU
max. Earth dist.	4983 Jul 22 09:54	2° Υ 24'06	1.31957 AU				
evening rise	4983 Jul 29 09:54	17° Υ 39'13		superior conj	4984 Jul 06 00:07	17° Υ 29'35	0°39'53
	4983 Aug 04 12:42	0° Υ		minimum elong	4984 Jul 05 22:27	17° Υ 20'23	0°39'31
desc. node	4983 Aug 21 15:55	27° Υ 09'22			4984 Jul 11 17:09	0° Υ	
	4983 Aug 24 01:19	0° Υ		evening rise	4984 Jul 12 20:30	2° Υ 26'37	
evening max el	4983 Aug 27 22:18	4° Υ 02'24	26°32'52		4984 Jul 27 15:59	0° Υ	
retrograde	4983 Sep 10 20:59	11° Υ 11'20		desc. node	4984 Aug 07 12:57	14° Υ 01'47	
evening set	4983 Sep 17 14:55	9° Υ 17'24		evening max el	4984 Aug 08 16:32	15° Υ 09'49	25°18'58
min. Earth dist.	4983 Sep 21 12:00	6° Υ 42'32	0.59757 AU	retrograde	4984 Aug 22 15:06	22° Υ 13'35	
inferior conj	4983 Sep 24 17:53	4° Υ 08'54	-4°-43'-49	evening set	4984 Aug 28 10:36	20° Υ 55'50	
minimum elong	4983 Sep 24 23:33	3° Υ 57'41	4°42'47	min. Earth dist.	4984 Sep 02 04:14	18° Υ 16'11	0.57733 AU
	4983 Oct 01 02:02	30° Υ		inferior conj	4984 Sep 05 05:29	16° Υ 10'58	-5°-14'-3
morning rise	4983 Oct 02 11:35	29° Υ 30'44		minimum elong	4984 Sep 05 07:37	16° Υ 07'19	5°13'57
direct	4983 Oct 04 18:59	29° Υ 11'25		morning rise	4984 Sep 13 08:05	11° Υ 56'10	
	4983 Oct 08 08:31	0° Υ		direct	4984 Sep 15 20:03	11° Υ 37'24	
asc. node	4983 Oct 12 04:28	2° Υ 40'53		morning max el	4984 Sep 24 13:56	15° Υ 46'05	18°58'15
morning max el	4983 Oct 12 10:52	2° Υ 56'07	18°15'17	asc. node	4984 Sep 28 01:31	19° Υ 40'56	
morning set	4983 Oct 28 06:22	28° Υ 04'20			4984 Oct 04 16:22	0° Υ	
	4983 Oct 29 06:46	0° Υ		morning set	4984 Oct 11 04:16	12° Υ 19'48	
superior conj	4983 Nov 06 15:52	15° Υ 39'08	1°12'48	superior conj	4984 Oct 19 14:27	28° Υ 50'09	1°31'51
minimum elong	4983 Nov 06 19:44	15° Υ 56'44	1°12'21	minimum elong	4984 Oct 19 17:12	29° Υ 03'18	1°31'37
max. Earth dist.	4983 Nov 14 06:14	29° Υ 01'43	1.41033 AU		4984 Oct 20 05:04	0° Υ	
	4983 Nov 14 19:58	0° Υ		max. Earth dist.	4984 Oct 26 11:51	11° Υ 36'41	1.38937 AU
desc. node	4983 Nov 17 15:13	4° Υ 41'17		evening rise	4984 Oct 30 09:20	18° Υ 26'35	
evening rise	4983 Nov 19 02:25	7° Υ 05'49		desc. node	4984 Nov 03 12:14	25° Υ 22'27	
	4983 Dec 03 23:26	0° Υ			4984 Nov 06 08:40	0° Υ	
evening max el	4983 Dec 23 04:19	24° Υ 40'16	23°12'05		4984 Nov 27 07:32	0° Υ	
	4983 Dec 30 03:46	0° Υ		evening max el	4984 Dec 04 17:36	8° Υ 22'00	24°31'15
retrograde	4984 Jan 02 12:58	0° Υ 48'20		retrograde	4984 Dec 16 03:51	15° Υ 02'32	
	4984 Jan 05 16:06	30° Υ		evening set	4984 Dec 21 14:05	12° Υ 47'43	
evening set	4984 Jan 07 09:47	28° Υ 49'06		asc. node	4984 Dec 25 00:46	9° Υ 04'58	
asc. node	4984 Jan 08 03:43	28° Υ 09'01		min. Earth dist.	4984 Dec 26 06:21	7° Υ 28'40	0.67737 AU
inferior conj	4984 Jan 12 20:15	22° Υ 22'28	1°31'38	inferior conj	4984 Dec 27 03:00	6° Υ 19'45	0°42'15
minimum elong	4984 Jan 12 18:20	22° Υ 29'03	1°30'56	minimum elong	4984 Dec 27 02:00	6° Υ 23'05	0°41'51
min. Earth dist.	4984 Jan 12 10:32	22° Υ 55'55	0.68068 AU	morning rise	4985 Jan 01 14:21	0° Υ 16'25	
morning rise	4984 Jan 18 02:56	16° Υ 12'56			4985 Jan 02 00:05	30° Υ	
direct	4984 Jan 22 09:22	14° Υ 32'02		direct	4985 Jan 05 07:28	28° Υ 57'28	

	4985 Jan 08 19:58	0°☿		transit middle	4985 Dec 11 06:59	20°☿14'56	0°12'46
morning max el	4985 Jan 12 22:25	3°☿16'46	20°04'25	transit begin	4985 Dec 11 05:16	20°☿20'26	
greatest brilliancy	4985 Jan 19 19:29	11°☿32'14	-0.6m	transit end	4985 Dec 11 08:43	20°☿09'28	
desc. node	4985 Jan 30 11:33	26°☿54'45		asc. node	4985 Dec 11 21:49	19°☿28'05	
	4985 Feb 01 12:47	0°♊		morning rise	4985 Dec 17 00:46	14°☿21'09	
morning set	4985 Feb 08 22:50	11°♊19'49		direct	4985 Dec 20 06:12	13°☿21'23	
max. Earth dist.	4985 Feb 19 16:25	28°♊10'06	1.43943 AU	morning max el	4985 Dec 27 04:54	17°☿12'23	19°05'48
	4985 Feb 20 19:51	0°♋			4986 Jan 06 01:30	0°☿	
				desc. node	4986 Jan 17 08:33	17°☿16'27	
superior conj	4985 Feb 25 05:36	7°♋08'28	-2°-6'-32	morning set	4986 Jan 19 02:14	19°☿58'30	
minimum elong	4985 Feb 25 02:31	6°♋55'49	2°06'28		4986 Jan 25 12:40	0°♌	
evening rise	4985 Mar 10 06:39	29°♋06'35		max. Earth dist.	4986 Feb 02 07:44	12°♌12'27	1.44988 AU
	4985 Mar 10 19:03	0°♍					
asc. node	4985 Mar 23 00:03	20°♍12'49		superior conj	4986 Feb 04 19:46	16°♌09'13	-1°-47'-11
evening max el	4985 Mar 28 00:58	26°♍31'40	18°10'00	minimum elong	4986 Feb 04 11:08	15°♌35'04	1°46'30
retrograde	4985 Apr 03 11:07	29°♍54'36			4986 Feb 13 11:43	0°♎	
evening set	4985 Apr 06 06:29	29°♍14'11		evening rise	4986 Feb 19 15:30	10°♎01'52	
inferior conj	4985 Apr 12 11:41	23°♍58'34	3°25'36		4986 Mar 04 00:00	0°♏	
minimum elong	4985 Apr 12 13:10	23°♍54'36	3°25'27	asc. node	4986 Mar 09 21:06	8°♏06'40	
min. Earth dist.	4985 Apr 15 05:48	21°♍02'20	0.62793 AU	evening max el	4986 Mar 11 13:09	9°♏56'37	18°30'42
morning rise	4985 Apr 18 17:31	17°♍52'46		retrograde	4986 Mar 18 01:45	13°♏30'52	
direct	4985 Apr 25 13:52	15°♍17'52		evening set	4986 Mar 21 03:15	12°♏38'26	
desc. node	4985 Apr 28 10:47	15°♍42'28		inferior conj	4986 Mar 26 23:21	7°♏04'29	3°33'31
morning max el	4985 May 09 14:10	23°♍17'42	27°50'17	minimum elong	4986 Mar 26 23:14	7°♏04'52	3°33'31
	4985 May 15 13:30	0°♐		min. Earth dist.	4986 Mar 29 02:20	4°♏33'44	0.64656 AU
	4985 Jun 04 07:03	0°♑		morning rise	4986 Apr 01 17:42	0°♏51'26	
morning set	4985 Jun 12 16:39	15°♑58'41			4986 Apr 02 20:23	30°♐♋	
max. Earth dist.	4985 Jun 18 03:11	27°♑17'46	1.32556 AU	direct	4986 Apr 08 11:00	28°♐03'48	
asc. node	4985 Jun 18 23:19	29°♑05'44			4986 Apr 14 15:42	0°♒	
	4985 Jun 19 09:23	0°♓		desc. node	4986 Apr 15 07:49	0°♒24'31	
				morning max el	4986 Apr 21 23:53	5°♒58'43	27°19'42
superior conj	4985 Jun 20 08:48	2°♓06'36	0°14'31		4986 May 10 08:16	0°♓	
minimum elong	4985 Jun 20 08:07	2°♓02'53	0°14'20	morning set	4986 May 27 07:52	29°♓40'15	
behind sun begin	4985 Jun 20 05:49	1°♓50'27			4986 May 27 11:55	0°♔	
behind sun end	4985 Jun 20 10:24	2°♓15'19		max. Earth dist.	4986 Jun 01 01:28	9°♔09'47	1.33515 AU
evening rise	4985 Jun 27 08:20	17°♓14'07					
	4985 Jul 03 15:18	0°♕		superior conj	4986 Jun 04 13:03	16°♔26'24	0°-13'-30
evening max el	4985 Jul 21 05:18	25°♕39'33	23°45'35	minimum elong	4986 Jun 04 13:45	16°♔30'06	0°13'23
desc. node	4985 Jul 25 10:00	29°♕09'31		behind sun begin	4986 Jun 04 10:43	16°♔14'01	
	4985 Jul 26 16:56	0°♖		behind sun end	4986 Jun 04 16:47	16°♔46'12	
retrograde	4985 Aug 03 21:26	2°♖31'44		asc. node	4986 Jun 05 20:21	19°♔12'40	
evening set	4985 Aug 08 06:35	1°♖49'30			4986 Jun 10 21:37	0°♗	
	4985 Aug 12 11:47	30°♖♕		evening rise	4986 Jun 11 19:32	1°♗55'44	
min. Earth dist.	4985 Aug 14 15:22	28°♕46'59	0.56030 AU		4986 Jun 27 14:31	0°♘	
inferior conj	4985 Aug 16 20:49	27°♕26'24	-5°-7'-15	evening max el	4986 Jul 02 20:06	6°♘02'56	22°08'40
minimum elong	4985 Aug 16 16:40	27°♕32'41	5°06'52	desc. node	4986 Jul 12 07:02	11°♘58'35	
morning rise	4985 Aug 25 06:02	23°♕30'56		retrograde	4986 Jul 15 16:11	12°♘25'11	
direct	4985 Aug 28 01:28	23°♕11'04		evening set	4986 Jul 18 14:16	12°♘06'15	
morning max el	4985 Sep 07 06:10	27°♕55'31	20°03'08	min. Earth dist.	4986 Jul 27 01:37	8°♘26'50	0.54989 AU
	4985 Sep 09 06:51	0°♗		inferior conj	4986 Jul 27 19:40	8°♘01'26	-4°-10'-4
asc. node	4985 Sep 14 22:34	7°♗36'23		minimum elong	4986 Jul 27 11:02	8°♘13'35	4°07'58
morning set	4985 Sep 25 08:51	26°♗54'05		morning rise	4986 Aug 05 09:39	4°♘11'41	
	4985 Sep 26 21:19	0°♙		direct	4986 Aug 08 14:51	3°♘48'37	
				morning max el	4986 Aug 20 10:24	9°♘19'49	21°28'31
superior conj	4985 Oct 03 03:04	12°♙42'24	1°41'35	asc. node	4986 Sep 01 19:36	26°♘14'24	
minimum elong	4985 Oct 03 04:14	12°♙48'14	1°41'32		4986 Sep 03 21:05	0°♚	
max. Earth dist.	4985 Oct 08 17:29	23°♙38'26	1.36882 AU	morning set	4986 Sep 09 17:43	11°♚40'24	
	4985 Oct 12 03:37	0°♛					
evening rise	4985 Oct 12 13:54	0°♛46'37		superior conj	4986 Sep 17 01:34	27°♚03'40	1°43'25
desc. node	4985 Oct 21 09:15	15°♛54'16		minimum elong	4986 Sep 17 01:15	27°♚02'03	1°43'25
	4985 Oct 30 13:03	0°♜			4986 Sep 18 11:38	0°♞	
evening max el	4985 Nov 17 06:02	22°♜05'16	25°43'32	max. Earth dist.	4986 Sep 21 04:39	5°♞30'27	1.35087 AU
retrograde	4985 Nov 29 14:11	29°♜08'56		evening rise	4986 Sep 25 12:16	13°♞56'33	
evening set	4985 Dec 05 14:10	26°♜40'43			4986 Oct 04 11:31	0°♟	
min. Earth dist.	4985 Dec 09 22:55	21°♜56'43	0.67050 AU	desc. node	4986 Oct 08 06:17	6°♟11'33	
inferior conj	4985 Dec 11 06:39	20°♜16'00	0°-12'-55		4986 Oct 25 09:16	0°♠	
minimum elong	4985 Dec 11 06:59	20°♜14'56	0°12'46	evening max el	4986 Oct 30 18:42	5°♠45'32	26°41'34

retrograde	4986 Nov 12 19:20	13°♂01'17		retrograde	4987 Oct 26 18:32	26°♂31'29	
evening set	4986 Nov 19 08:04	10°♂24'07		evening set	4987 Nov 02 17:26	23°♂52'33	
min. Earth dist.	4986 Nov 23 10:00	6°♂15'47	0.66013 AU	min. Earth dist.	4987 Nov 06 13:18	20°♂19'15	0.64625 AU
inferior conj	4986 Nov 25 05:14	4°♂07'51	-1°-12'-42	inferior conj	4987 Nov 08 20:27	17°♂50'08	-2°-15'-25
minimum elong	4986 Nov 25 07:16	4°♂01'50	1°11'51	minimum elong	4987 Nov 09 00:22	17°♂39'31	2°13'54
asc. node	4986 Nov 28 18:51	0°♂15'30		morning rise	4987 Nov 15 09:29	12°♂20'21	
	4986 Nov 29 01:45	30°♂		asc. node	4987 Nov 15 15:51	12°♂13'49	
morning rise	4986 Dec 01 08:02	28°♂23'59		direct	4987 Nov 17 22:02	11°♂47'18	
direct	4986 Dec 04 03:48	27°♂39'34		morning max el	4987 Nov 24 09:34	15°♂13'05	17°57'35
	4986 Dec 09 09:38	0°♂			4987 Dec 04 22:04	0°♂	
morning max el	4986 Dec 10 17:28	1°♂13'18	18°23'12	morning set	4987 Dec 11 18:14	11°♂24'47	
morning set	4986 Dec 30 07:31	29°♂57'48		desc. node	4987 Dec 22 02:34	28°♂32'18	
	4986 Dec 30 08:04	0°♂			4987 Dec 23 00:13	0°♂	
desc. node	4987 Jan 04 05:33	7°♂50'14					
				superior conj	4987 Dec 25 10:35	3°♂55'05	0°-23'-2
superior conj	4987 Jan 14 22:36	24°♂46'01	-1°-9'-39	minimum elong	4987 Dec 25 07:49	3°♂43'58	0°22'38
minimum elong	4987 Jan 14 14:20	24°♂13'32	1°08'40	max. Earth dist.	4987 Dec 29 21:27	11°♂00'11	1.44915 AU
max. Earth dist.	4987 Jan 16 02:14	26°♂34'22	1.45322 AU	evening rise	4988 Jan 10 16:38	29°♂22'21	
	4987 Jan 18 06:44	0°♂			4988 Jan 11 02:25	0°♂	
evening rise	4987 Jan 31 01:06	20°♂01'14		greatest brilliancy	4988 Jan 30 10:25	28°♂48'01	-0.6m
	4987 Feb 06 09:18	0°♂			4988 Jan 31 07:40	0°♂	
greatest brilliancy	4987 Feb 13 03:21	10°♂26'32	-0.7m	evening max el	4988 Feb 06 03:11	7°♂00'23	20°02'52
evening max el	4987 Feb 22 22:26	23°♂26'57	19°08'55	asc. node	4988 Feb 11 15:08	11°♂03'17	
asc. node	4987 Feb 24 18:08	25°♂07'58		retrograde	4988 Feb 13 19:16	11°♂28'28	
retrograde	4987 Mar 01 21:23	27°♂23'34		evening set	4988 Feb 17 11:56	10°♂08'57	
evening set	4987 Mar 05 05:50	26°♂18'08		inferior conj	4988 Feb 22 22:38	4°♂04'22	3°05'28
inferior conj	4987 Mar 10 19:58	20°♂27'45	3°25'38	minimum elong	4988 Feb 22 20:29	4°♂11'35	3°05'03
minimum elong	4987 Mar 10 18:35	20°♂32'10	3°25'28	min. Earth dist.	4988 Feb 23 19:53	2°♂52'53	0.67212 AU
min. Earth dist.	4987 Mar 12 07:33	18°♂34'05	0.66144 AU		4988 Feb 26 02:08	30°♂	
morning rise	4987 Mar 16 06:22	14°♂11'47		morning rise	4988 Feb 28 04:26	27°♂48'01	
direct	4987 Mar 22 14:50	11°♂24'43		direct	4988 Mar 05 00:16	25°♂12'42	
desc. node	4987 Apr 02 04:49	16°♂53'51			4988 Mar 14 10:01	0°♂	
morning max el	4987 Apr 04 09:45	19°♂00'53	26°20'10	morning max el	4988 Mar 16 18:32	2°♂14'38	25°01'05
	4987 Apr 13 17:21	0°♂		desc. node	4988 Mar 19 01:49	4°♂41'23	
	4987 May 03 09:10	0°♂			4988 Apr 06 20:04	0°♂	
morning set	4987 May 10 10:46	12°♂41'43		morning set	4988 Apr 21 20:38	24°♂50'11	
max. Earth dist.	4987 May 14 12:21	20°♂28'58	1.34946 AU		4988 Apr 24 17:05	0°♂	
				max. Earth dist.	4988 Apr 25 12:44	1°♂30'37	1.36813 AU
superior conj	4987 May 19 10:26	0°♂20'59	0°-43'-4	superior conj	4988 May 01 22:04	13°♂42'59	-1°-12'-31
minimum elong	4987 May 19 12:47	0°♂33'02	0°42'38	minimum elong	4988 May 02 02:03	14°♂02'32	1°11'53
	4987 May 19 06:20	0°♂		asc. node	4988 May 09 14:25	29°♂06'39	
asc. node	4987 May 23 17:23	9°♂14'15		evening rise	4988 May 10 07:36	0°♂33'10	
evening rise	4987 May 27 04:01	16°♂24'05			4988 May 10 01:00	0°♂	
	4987 Jun 03 01:53	0°♂		evening max el	4988 May 27 09:19	28°♂19'03	19°32'55
evening max el	4987 Jun 14 20:30	16°♂50'51	20°41'58		4988 May 29 07:04	0°♂	
retrograde	4987 Jun 26 04:38	22°♂24'18		retrograde	4988 Jun 05 23:37	3°♂00'10	
evening set	4987 Jun 28 06:31	22°♂13'52		evening set	4988 Jun 07 22:02	2°♂49'35	
desc. node	4987 Jun 29 04:04	22°♂03'11			4988 Jun 14 14:42	30°♂	
inferior conj	4987 Jul 07 12:53	18°♂17'01	-2°-27'-24	desc. node	4988 Jun 15 01:04	29°♂44'18	
minimum elong	4987 Jul 07 06:06	18°♂26'43	2°25'03	inferior conj	4988 Jun 16 15:04	28°♂44'49	0°-28'-18
min. Earth dist.	4987 Jul 08 12:58	17°♂42'34	0.54859 AU	minimum elong	4988 Jun 16 13:48	28°♂46'50	0°27'51
morning rise	4987 Jul 16 04:39	14°♂13'16		min. Earth dist.	4988 Jun 19 02:15	27°♂11'03	0.55687 AU
direct	4987 Jul 20 00:13	13°♂41'55		morning rise	4988 Jun 25 02:00	24°♂10'25	
morning max el	4987 Aug 02 04:29	20°♂02'37	23°08'44	direct	4988 Jun 29 17:45	23°♂21'50	
	4987 Aug 10 13:18	0°♂			4988 Jul 13 07:51	0°♂	
asc. node	4987 Aug 19 16:37	15°♂23'50		morning max el	4988 Jul 13 18:03	0°♂23'57	24°52'04
morning set	4987 Aug 25 04:52	26°♂32'21			4988 Aug 03 01:33	0°♂	
	4987 Aug 26 19:58	0°♂		asc. node	4988 Aug 05 13:39	4°♂56'39	
				morning set	4988 Aug 08 16:37	11°♂25'10	
superior conj	4987 Sep 01 06:42	11°♂43'17	1°38'36	superior conj	4988 Aug 15 15:59	26°♂33'45	1°28'07
minimum elong	4987 Sep 01 05:16	11°♂35'36	1°38'31	minimum elong	4988 Aug 15 13:52	26°♂22'13	1°27'53
max. Earth dist.	4987 Sep 04 00:37	17°♂33'18	1.33671 AU	max. Earth dist.	4988 Aug 17 04:54	29°♂54'49	1.32675 AU
evening rise	4987 Sep 09 00:08	27°♂44'12			4988 Aug 17 05:51	0°♂	
	4987 Sep 10 03:46	0°♂		evening rise	4988 Aug 22 21:51	11°♂59'18	
desc. node	4987 Sep 25 03:20	26°♂07'03			4988 Sep 01 08:40	0°♂	
	4987 Sep 27 17:14	0°♂					
evening max el	4987 Oct 13 07:11	19°♂13'17	27°18'04				

desc. node	4988 Sep 11 00:21	15°♄31'32		4989 Aug 25 20:53	0°♄	
	4988 Sep 22 11:19	0°♄		desc. node	4989 Aug 28 21:22	4°♄12'28
evening max el	4988 Sep 24 17:35	2°♄15'22	27°26'19	evening max el	4989 Sep 06 23:08	14°♄38'29 27°01'59
retrograde	4988 Oct 08 11:01	9°♄30'31		retrograde	4989 Sep 20 20:09	21°♄49'51
evening set	4988 Oct 15 15:09	6°♄59'26		evening set	4989 Sep 27 21:17	19°♄38'28
min. Earth dist.	4988 Oct 19 06:46	3°♄57'26	0.62918 AU	min. Earth dist.	4989 Oct 01 13:26	16°♄58'23 0.60951 AU
inferior conj	4988 Oct 22 01:30	1°♄15'46	-3°-18'-12	inferior conj	4989 Oct 04 17:13	14°♄16'47 -4°-15'-59
minimum elong	4988 Oct 22 07:06	1°♄02'10	3°16'22	minimum elong	4989 Oct 04 23:28	14°♄03'24 4°14'27
	4988 Oct 23 09:11	30°♄		morning rise	4989 Oct 12 04:55	9°♄25'45
morning rise	4988 Oct 29 01:49	26°♄03'35		direct	4989 Oct 14 11:35	9°♄05'00
direct	4988 Oct 31 09:53	25°♄38'13		asc. node	4989 Oct 19 09:56	10°♄46'43
asc. node	4988 Nov 01 12:53	25°♄44'15		morning max el	4989 Oct 21 16:21	12°♄39'58 18°00'14
morning max el	4988 Nov 07 02:13	29°♄04'24	17°49'36		4989 Nov 02 07:43	0°♄
	4988 Nov 07 23:34	0°♄		morning set	4989 Nov 06 09:10	7°♄26'26
morning set	4988 Nov 23 04:55	24°♄00'40				
	4988 Nov 26 14:42	0°♄		superior conj	4989 Nov 16 12:08	25°♄50'28 0°57'06
superior conj	4988 Dec 04 22:09	14°♄14'10	0°21'27	minimum elong	4989 Nov 16 16:03	26°♄07'46 0°56'35
minimum elong	4988 Dec 05 00:15	14°♄22'56	0°21'10		4989 Nov 18 21:17	0°♄
desc. node	4988 Dec 07 23:36	19°♄18'31		max. Earth dist.	4989 Nov 24 02:56	8°♄52'29 1.42161 AU
max. Earth dist.	4988 Dec 11 14:36	25°♄12'11	1.43816 AU	desc. node	4989 Nov 24 20:38	10°♄05'46
	4988 Dec 14 14:40	0°♄		evening rise	4989 Nov 29 23:40	18°♄24'29
evening rise	4988 Dec 20 02:54	8°♄37'22			4989 Dec 07 10:46	0°♄
	4989 Jan 03 08:39	0°♄		greatest brilliancy	4989 Dec 28 01:04	28°♄46'41 -0.3m
greatest brilliancy	4989 Jan 13 22:53	14°♄36'54	-0.4m		4989 Dec 29 01:33	0°♄
evening max el	4989 Jan 19 02:27	20°♄34'45	21°09'54	evening max el	4990 Jan 01 20:30	4°♄10'35 22°26'02
retrograde	4989 Jan 27 17:15	25°♄40'53		retrograde	4990 Jan 11 13:38	9°♄57'10
asc. node	4989 Jan 28 12:10	25°♄37'32		asc. node	4990 Jan 15 09:12	8°♄40'46
evening set	4989 Jan 31 19:39	24°♄06'17		evening set	4990 Jan 16 03:18	8°♄06'50
inferior conj	4989 Feb 06 04:58	17°♄50'12	2°35'26	inferior conj	4990 Jan 21 12:55	1°♄42'42 1°57'04
minimum elong	4989 Feb 06 02:32	17°♄58'34	2°34'46	minimum elong	4990 Jan 21 10:41	1°♄50'26 1°56'19
min. Earth dist.	4989 Feb 06 13:16	17°♄21'30	0.67857 AU	min. Earth dist.	4990 Jan 21 09:30	1°♄54'33 0.68102 AU
morning rise	4989 Feb 11 09:05	11°♄35'13			4990 Jan 22 18:48	30°♄
direct	4989 Feb 16 14:25	9°♄18'58		morning rise	4990 Jan 26 17:59	25°♄30'38
morning max el	4989 Feb 27 03:21	15°♄35'08	23°32'43	direct	4990 Jan 31 08:30	23°♄36'49
desc. node	4989 Mar 05 22:51	23°♄24'30		morning max el	4990 Feb 09 15:13	29°♄03'24 22°04'41
	4989 Mar 10 22:59	0°♄			4990 Feb 10 13:11	0°♄
	4989 Mar 30 19:42	0°♄		greatest brilliancy	4990 Feb 14 06:03	4°♄13'29 -0.3m
morning set	4989 Apr 03 07:35	5°♄49'53		desc. node	4990 Feb 20 19:53	12°♄47'39
max. Earth dist.	4989 Apr 07 08:18	12°♄46'45	1.38963 AU		4990 Mar 04 16:32	0°♄
				morning set	4990 Mar 14 14:34	15°♄29'38
superior conj	4989 Apr 14 20:10	26°♄22'25	-1°-39'-19	max. Earth dist.	4990 Mar 20 06:08	24°♄46'39 1.41137 AU
minimum elong	4989 Apr 15 01:08	26°♄45'39	1°38'45		4990 Mar 23 08:05	0°♄
	4989 Apr 16 18:20	0°♄		superior conj	4990 Mar 28 00:07	8°♄08'33 -1°-59'-43
evening rise	4989 Apr 24 03:32	14°♄15'14		minimum elong	4990 Mar 28 04:19	8°♄27'12 1°59'29
asc. node	4989 Apr 26 11:27	18°♄44'56		evening rise	4990 Apr 07 12:24	27°♄22'09
	4989 May 02 16:09	0°♄			4990 Apr 08 22:23	0°♄
evening max el	4989 May 10 09:05	10°♄27'10	18°44'02	asc. node	4990 Apr 13 08:30	8°♄03'54
retrograde	4989 May 18 11:42	14°♄26'25		evening max el	4990 Apr 23 16:38	23°♄08'21 18°15'27
evening set	4989 May 20 14:42	14°♄10'59		retrograde	4990 Apr 30 18:44	26°♄41'15
inferior conj	4989 May 28 12:25	9°♄48'24	1°15'15	evening set	4990 May 03 04:13	26°♄17'44
minimum elong	4989 May 28 15:04	9°♄43'28	1°14'21	inferior conj	4990 May 10 07:24	21°♄34'28 2°28'35
min. Earth dist.	4989 May 31 18:59	7°♄23'44	0.57295 AU	minimum elong	4990 May 10 10:54	21°♄26'53 2°27'41
desc. node	4989 Jun 01 22:05	6°♄37'19		min. Earth dist.	4990 May 13 17:21	18°♄37'59 0.59376 AU
morning rise	4989 Jun 05 10:54	4°♄37'52		morning rise	4990 May 17 13:29	15°♄54'25
direct	4989 Jun 11 00:55	3°♄21'21		desc. node	4990 May 19 19:08	14°♄50'14
morning max el	4989 Jun 25 09:38	10°♄52'59	26°22'39	direct	4990 May 23 21:54	14°♄03'29
	4989 Jul 10 02:36	0°♄		morning max el	4990 Jun 07 07:05	21°♄53'41 27°25'28
asc. node	4989 Jul 23 10:43	24°♄46'06			4990 Jun 14 09:40	0°♄
morning set	4989 Jul 24 03:24	26°♄13'50			4990 Jul 03 01:31	0°♄
	4989 Jul 25 21:47	0°♄		morning set	4990 Jul 08 11:27	10°♄52'04
				asc. node	4990 Jul 10 07:45	14°♄46'02
superior conj	4989 Jul 31 03:25	11°♄28'25	1°12'43	max. Earth dist.	4990 Jul 15 01:55	25°♄07'35 1.31931 AU
minimum elong	4989 Jul 31 01:06	11°♄15'39	1°12'21			
max. Earth dist.	4989 Jul 31 14:36	12°♄30'04	1.32093 AU	superior conj	4990 Jul 15 15:09	26°♄20'38 0°53'00
evening rise	4989 Aug 07 02:25	26°♄33'00		minimum elong	4990 Jul 15 13:07	26°♄09'22 0°52'35
	4989 Aug 08 18:23	0°♄			4990 Jul 17 06:53	0°♄

evening rise	4990 Jul 22 11:23	11°Ω16'53		superior conj	4991 Jun 30 01:28	11°Ω05'00	0°29'30
	4990 Jul 31 23:54	0°൬		minimum elong	4991 Jun 30 00:10	10°Ω57'50	0°29'13
desc. node	4990 Aug 15 18:24	21°൬51'16		evening rise	4991 Jul 06 22:43	26°Ω04'50	
evening max el	4990 Aug 19 21:30	26°൬12'44	26°04'43		4991 Jul 08 19:23	0°Ω	
	4990 Aug 24 12:16	0°Ω			4991 Jul 26 07:52	0°൬	
retrograde	4990 Sep 02 20:44	3°Ω20'41		evening max el	4991 Aug 01 12:49	7°൬01'14	24°40'51
evening set	4990 Sep 09 06:51	1°Ω41'07		desc. node	4991 Aug 02 15:25	8°൬02'55	
	4990 Sep 12 03:27	30°൬൬		retrograde	4991 Aug 15 10:19	14°൬01'53	
min. Earth dist.	4990 Sep 13 10:15	29°൬06'45	0.58872 AU	evening set	4991 Aug 20 15:56	13°൬00'19	
inferior conj	4990 Sep 16 15:57	26°൬42'34	-5°00'-5	min. Earth dist.	4991 Aug 26 00:06	10°൬12'36	0.56943 AU
minimum elong	4990 Sep 16 20:32	26°൬34'00	4°59'30	inferior conj	4991 Aug 28 18:51	8°൬24'41	-5°-16'-44
morning rise	4990 Sep 24 13:47	22°൬14'49		minimum elong	4991 Aug 28 18:29	8°൬25'16	5°16'45
direct	4990 Sep 26 22:34	21°൬56'06		morning rise	4991 Sep 06 00:29	4°൬18'51	
morning max el	4990 Oct 05 00:30	25°൬49'34	18°30'56	direct	4991 Sep 08 15:07	3°൬59'55	
asc. node	4990 Oct 06 07:00	27°൬07'59		morning max el	4991 Sep 17 23:14	8°൬22'55	19°23'09
	4990 Oct 08 15:30	0°Ω		asc. node	4991 Sep 23 04:03	14°൬32'50	
morning set	4990 Oct 21 01:46	21°Ω26'33			4991 Oct 02 03:47	0°Ω	
	4990 Oct 25 12:14	0°൬		morning set	4991 Oct 05 02:48	5°Ω50'20	
superior conj	4990 Oct 30 00:22	8°൬31'10	1°22'05	superior conj	4991 Oct 13 05:26	22°Ω00'44	1°37'00
minimum elong	4990 Oct 30 03:52	8°൬47'27	1°21'43	minimum elong	4991 Oct 13 07:32	22°Ω10'56	1°36'53
max. Earth dist.	4990 Nov 06 09:49	21°൬49'02	1.40152 AU		4991 Oct 17 09:26	0°൬	
evening rise	4990 Nov 10 17:12	29°൬08'39		max. Earth dist.	4991 Oct 19 14:24	4°൬05'47	1.38045 AU
	4990 Nov 11 05:33	0°♂		evening rise	4991 Oct 23 09:41	10°൬55'27	
desc. node	4990 Nov 11 17:40	0°♂50'07		desc. node	4991 Oct 29 14:41	21°൬27'43	
	4990 Nov 30 22:53	0°Ω			4991 Nov 03 23:23	0°♂	
evening max el	4990 Dec 15 10:51	17°Ω49'33	23°46'03		4991 Nov 26 11:13	0°Ω	
retrograde	4990 Dec 26 06:58	24°Ω13'07		evening max el	4991 Nov 27 23:40	1°Ω32'29	25°03'19
evening set	4990 Dec 31 09:18	22°Ω07'07		retrograde	4991 Dec 09 20:03	8°Ω24'16	
asc. node	4991 Jan 02 06:15	20°Ω16'25		evening set	4991 Dec 15 12:01	6°Ω03'40	
inferior conj	4991 Jan 05 20:39	15°Ω39'05	1°11'28	min. Earth dist.	4991 Dec 20 01:04	0°Ω59'08	0.67488 AU
minimum elong	4991 Jan 05 19:04	15°Ω44'28	1°10'51	asc. node	4991 Dec 20 03:18	0°Ω51'54	
min. Earth dist.	4991 Jan 05 06:15	16°Ω28'10	0.67971 AU		4991 Dec 20 19:08	30°൬♂	
morning rise	4991 Jan 11 05:02	9°Ω31'46		inferior conj	4991 Dec 21 02:19	29°♂36'24	0°19'32
direct	4991 Jan 15 05:32	8°Ω00'36		minimum elong	4991 Dec 21 01:50	29°♂37'59	0°19'20
morning max el	4991 Jan 23 09:20	12°Ω41'59	20°44'38	morning rise	4991 Dec 26 16:17	23°♂36'04	
greatest brilliancy	4991 Jan 29 03:38	19°Ω23'31	-0.5m	direct	4991 Dec 30 04:12	22°♂25'37	
	4991 Feb 05 20:52	0°≈		morning max el	4992 Jan 06 11:19	26°♂31'37	19°37'27
desc. node	4991 Feb 07 16:55	2°≈39'36			4992 Jan 09 14:08	0°Ω	
morning set	4991 Feb 21 19:36	23°≈59'20		greatest brilliancy	4992 Jan 14 12:18	6°Ω29'37	-0.6m
	4991 Feb 25 15:30	0°♂		desc. node	4992 Jan 25 13:56	22°Ω52'08	
max. Earth dist.	4991 Mar 02 10:39	7°♂40'59	1.43052 AU		4992 Jan 30 05:39	0°≈	
superior conj	4991 Mar 09 05:01	18°♂50'49	-2°-8'-44	morning set	4992 Jan 31 16:05	2°≈12'39	
minimum elong	4991 Mar 09 05:27	18°♂52'36	2°08'45	max. Earth dist.	4992 Feb 12 22:41	21°≈23'22	1.44474 AU
	4991 Mar 15 17:19	0°൬		superior conj	4992 Feb 17 08:16	28°≈24'50	-2°00'-48
evening rise	4991 Mar 21 06:01	9°൬44'19		minimum elong	4992 Feb 17 02:27	28°≈01'27	2°00'31
asc. node	4991 Mar 31 05:33	26°൬57'04			4992 Feb 18 07:54	0°♂	
	4991 Apr 02 05:14	0°♂		evening rise	4992 Mar 02 03:50	21°♂12'20	
evening max el	4991 Apr 07 04:29	6°♂13'38	18°06'34		4992 Mar 07 08:58	0°൬	
retrograde	4991 Apr 13 17:27	9°♂35'53		asc. node	4992 Mar 17 02:35	15°൬15'17	
evening set	4991 Apr 16 09:19	9°♂02'02		evening max el	4992 Mar 20 17:24	19°൬33'23	18°16'37
inferior conj	4991 Apr 22 21:26	3°♂58'12	3°11'58	retrograde	4992 Mar 27 03:24	22°൬59'14	
minimum elong	4991 Apr 22 23:52	3°♂52'09	3°11'35	evening set	4992 Mar 30 01:25	22°൬13'45	
min. Earth dist.	4991 Apr 25 23:21	0°♂54'55	0.61584 AU	inferior conj	4992 Apr 05 02:20	16°൬50'19	3°31'08
	4991 Apr 26 23:07	30°൬൬		minimum elong	4992 Apr 05 03:06	16°൬48'08	3°31'05
morning rise	4991 Apr 29 11:24	27°൬59'19		min. Earth dist.	4992 Apr 07 14:14	14°൬03'02	0.63634 AU
direct	4991 May 06 06:08	25°൬37'14		morning rise	4992 Apr 11 02:52	10°൬41'02	
desc. node	4991 May 06 16:09	25°൬37'45		direct	4992 Apr 17 22:59	7°൬58'52	
	4991 May 16 10:11	0°♂		desc. node	4992 Apr 22 13:11	9°൬01'58	
morning max el	4991 May 20 10:44	3°♂36'19	27°52'01	morning max el	4992 May 01 18:45	15°൬57'33	27°41'12
	4991 Jun 08 23:43	0°൬			4992 May 13 07:38	0°♂	
morning set	4991 Jun 22 14:54	25°൬14'08			4992 May 31 16:48	0°൬	
	4991 Jun 24 21:58	0°Ω		morning set	4992 Jun 05 11:20	9°൬12'08	
asc. node	4991 Jun 27 04:49	4°Ω52'02		max. Earth dist.	4992 Jun 10 14:24	19°൬43'12	1.32910 AU
max. Earth dist.	4991 Jun 28 11:09	7°Ω36'04	1.32200 AU	superior conj	4992 Jun 13 08:29	25°൬35'01	0°02'54

minimum elong	4992 Jun 13 08:21	25° Π 34'16	0°02'51	superior conj	4993 May 28 10:06	9° Π 44'29	0°-25'-57
behind sun begin	4992 Jun 13 03:05	25° Π 06'01		minimum elong	4993 May 28 11:29	9° Π 51'42	0°25'41
behind sun end	4992 Jun 13 13:37	26° Π 02'32		asc. node	4993 May 30 22:53	15° Π 04'11	
asc. node	4992 Jun 13 01:51	24° Π 59'22		evening rise	4993 Jun 04 20:46	25° Π 26'36	
	4992 Jun 15 09:37	0° \mathfrak{E}			4993 Jun 07 01:42	0° \mathfrak{E}	
evening rise	4992 Jun 20 10:29	10° \mathfrak{E} 50'04		evening max el	4993 Jun 24 19:33	27° \mathfrak{E} 53'26	21°29'48
	4992 Jun 30 06:34	0° \mathcal{Q}			4993 Jun 27 04:34	0° \mathcal{Q}	
evening max el	4992 Jul 13 01:31	17° \mathcal{Q} 23'49	23°03'54	desc. node	4993 Jul 06 09:27	3° \mathcal{Q} 55'25	
desc. node	4992 Jul 19 12:26	22° \mathcal{Q} 15'18		retrograde	4993 Jul 07 01:31	3° \mathcal{Q} 56'29	
retrograde	4992 Jul 26 10:56	24° \mathcal{Q} 05'04		evening set	4993 Jul 09 12:59	3° \mathcal{Q} 42'28	
evening set	4992 Jul 30 04:16	23° \mathcal{Q} 34'50			4993 Jul 18 08:27	30° $\mathcal{R}\mathfrak{E}$	
min. Earth dist.	4992 Aug 06 10:28	20° \mathcal{Q} 18'18	0.55489 AU	inferior conj	4993 Jul 18 20:48	29° \mathfrak{E} 42'44	-3°-30'-42
inferior conj	4992 Aug 08 02:13	19° \mathcal{Q} 20'42	-4°-49'-29	minimum elong	4993 Jul 18 12:10	29° \mathfrak{E} 54'49	3°28'09
minimum elong	4992 Aug 07 19:34	19° \mathcal{Q} 30'23	4°48'26	min. Earth dist.	4993 Jul 18 20:33	29° \mathfrak{E} 43'06	0.54816 AU
morning rise	4992 Aug 16 13:35	15° \mathcal{Q} 29'32		morning rise	4993 Jul 27 12:10	25° \mathfrak{E} 50'00	
direct	4992 Aug 19 13:05	15° \mathcal{Q} 08'28		direct	4993 Jul 30 22:58	25° \mathfrak{E} 24'13	
morning max el	4992 Aug 30 10:07	20° \mathcal{Q} 11'59	20°37'11		4993 Aug 10 22:47	0° \mathcal{Q}	
	4992 Sep 07 07:15	0° \mathfrak{M}		morning max el	4993 Aug 12 09:25	1° \mathcal{Q} 16'05	22°10'05
asc. node	4992 Sep 09 01:04	2° \mathfrak{M} 47'21		asc. node	4993 Aug 26 22:06	21° \mathcal{Q} 39'31	
morning set	4992 Sep 18 09:28	20° \mathfrak{M} 30'08			4993 Aug 31 05:31	0° \mathfrak{M}	
	4992 Sep 22 23:31	0° \mathfrak{A}		morning set	4993 Sep 02 19:30	5° \mathfrak{M} 19'11	
superior conj	4992 Sep 25 22:39	6° \mathfrak{A} 05'57	1°43'14	superior conj	4993 Sep 10 00:16	20° \mathfrak{M} 35'30	1°42'07
minimum elong	4992 Sep 25 23:09	6° \mathfrak{A} 08'31	1°43'14	minimum elong	4993 Sep 09 23:25	20° \mathfrak{M} 31'04	1°42'06
max. Earth dist.	4992 Sep 30 22:03	16° \mathfrak{A} 01'09	1.36077 AU	max. Earth dist.	4993 Sep 13 13:01	27° \mathfrak{M} 56'32	1.34428 AU
evening rise	4992 Oct 04 22:20	23° \mathfrak{A} 37'48			4993 Sep 14 13:16	0° \mathfrak{A}	
	4992 Oct 08 10:48	0° \mathfrak{M}		evening rise	4993 Sep 18 02:52	7° \mathfrak{A} 04'16	
desc. node	4992 Oct 15 11:43	11° \mathfrak{M} 54'03			4993 Oct 01 01:49	0° \mathfrak{M}	
	4992 Oct 27 15:32	0° \mathfrak{A}		desc. node	4993 Oct 02 08:44	2° \mathfrak{M} 02'47	
evening max el	4992 Nov 09 12:24	15° \mathfrak{A} 16'16	26°10'30	evening max el	4993 Oct 23 01:04	28° \mathfrak{M} 52'03	27°00'11
retrograde	4992 Nov 22 04:05	22° \mathfrak{A} 25'37			4993 Oct 24 06:17	0° \mathfrak{A}	
evening set	4992 Nov 28 09:42	19° \mathfrak{A} 53'08		retrograde	4993 Nov 05 06:35	6° \mathfrak{A} 09'24	
min. Earth dist.	4992 Dec 02 15:36	15° \mathfrak{A} 24'14	0.66653 AU	evening set	4993 Nov 12 00:16	3° \mathfrak{A} 30'16	
inferior conj	4992 Dec 04 04:05	13° \mathfrak{A} 31'38	0°-37'-44		4993 Nov 15 15:17	30° $\mathcal{R}\mathfrak{M}$	
minimum elong	4992 Dec 04 05:06	13° \mathfrak{A} 28'29	0°37'18	min. Earth dist.	4993 Nov 15 23:26	29° \mathfrak{M} 37'22	0.65464 AU
asc. node	4992 Dec 06 00:18	11° \mathfrak{A} 18'46		inferior conj	4993 Nov 17 23:47	27° \mathfrak{M} 19'33	-1°-39'-4
morning rise	4992 Dec 10 01:39	7° \mathfrak{A} 40'58		minimum elong	4993 Nov 18 02:37	27° \mathfrak{M} 11'28	1°37'55
direct	4992 Dec 13 02:48	6° \mathfrak{A} 48'02		asc. node	4993 Nov 22 21:19	22° \mathfrak{M} 31'23	
morning max el	4992 Dec 19 20:38	10° \mathfrak{A} 30'08	18°45'41	morning rise	4993 Nov 24 06:46	21° \mathfrak{M} 41'30	
	4993 Jan 02 23:01	0° \mathfrak{E}		direct	4993 Nov 26 23:15	21° \mathfrak{M} 02'19	
morning set	4993 Jan 10 05:17	11° \mathfrak{E} 23'11		morning max el	4993 Dec 03 11:04	24° \mathfrak{M} 31'15	18°10'20
desc. node	4993 Jan 11 10:57	13° \mathfrak{E} 19'52			4993 Dec 07 23:49	0° \mathfrak{A}	
	4993 Jan 22 01:56	0° \approx		morning set	4993 Dec 21 23:24	22° \mathfrak{A} 01'05	
max. Earth dist.	4993 Jan 25 16:18	5° \approx 38'35	1.45230 AU		4993 Dec 26 21:05	0° \mathfrak{E}	
				desc. node	4993 Dec 29 07:58	3° \mathfrak{E} 57'32	
superior conj	4993 Jan 26 15:29	7° \approx 09'35	-1°-33'-6	superior conj	4994 Jan 05 19:42	15° \mathfrak{E} 53'07	0°-50'-17
minimum elong	4993 Jan 26 06:05	6° \approx 32'39	1°32'12	minimum elong	4994 Jan 05 13:29	15° \mathfrak{E} 28'34	0°49'28
	4993 Feb 10 00:58	0° \mathfrak{H}		max. Earth dist.	4994 Jan 08 11:54	20° \mathfrak{E} 05'46	1.45239 AU
evening rise	4993 Feb 11 02:45	1° \mathfrak{H} 43'35			4994 Jan 14 19:52	0° \approx	
	4993 Mar 01 13:04	0° \mathfrak{Y}		evening rise	4994 Jan 22 03:38	11° \approx 23'58	
asc. node	4993 Mar 03 23:36	2° \mathfrak{Y} 48'26			4994 Feb 03 05:06	0° \mathfrak{H}	
evening max el	4993 Mar 04 04:40	3° \mathfrak{Y} 01'25	18°44'48	greatest brilliancy	4994 Feb 07 08:19	6° \mathfrak{H} 07'27	-0.7m
retrograde	4993 Mar 10 20:33	6° \mathfrak{Y} 43'35		evening max el	4994 Feb 15 12:08	16° \mathfrak{H} 33'07	19°29'57
evening set	4993 Mar 14 01:00	5° \mathfrak{Y} 45'32		asc. node	4994 Feb 18 20:37	19° \mathfrak{H} 23'33	
inferior conj	4993 Mar 19 18:12	0° \mathfrak{Y} 04'10	3°31'50	retrograde	4994 Feb 22 17:36	20° \mathfrak{H} 42'18	
minimum elong	4993 Mar 19 17:30	0° \mathfrak{Y} 06'22	3°31'47	evening set	4994 Feb 26 05:23	19° \mathfrak{H} 30'55	
	4993 Mar 19 19:34	30° $\mathcal{R}\mathfrak{H}$		inferior conj	4994 Mar 03 17:45	13° \mathfrak{H} 33'53	3°18'24
min. Earth dist.	4993 Mar 21 14:27	27° \mathfrak{H} 48'33	0.65351 AU	minimum elong	4994 Mar 03 15:59	13° \mathfrak{H} 39'40	3°18'09
morning rise	4993 Mar 25 08:47	23° \mathfrak{H} 49'41		min. Earth dist.	4994 Mar 04 22:59	11° \mathfrak{H} 58'05	0.66652 AU
direct	4993 Mar 31 22:55	21° \mathfrak{H} 01'01		morning rise	4994 Mar 09 01:49	7° \mathfrak{H} 17'24	
desc. node	4993 Apr 09 10:12	24° \mathfrak{H} 33'42		direct	4994 Mar 15 05:06	4° \mathfrak{H} 34'30	
morning max el	4993 Apr 14 04:45	28° \mathfrak{H} 48'44	26°57'19	desc. node	4994 Mar 27 07:13	11° \mathfrak{H} 39'37	
	4993 Apr 15 08:20	0° \mathfrak{Y}		morning max el	4994 Mar 27 14:31	11° \mathfrak{H} 57'58	25°48'19
	4993 May 07 03:25	0° \mathfrak{E}			4994 Apr 11 01:29	0° \mathfrak{Y}	
morning set	4993 May 19 21:46	22° \mathfrak{E} 37'23			4994 Apr 29 19:33	0° \mathfrak{E}	
	4993 May 23 16:02	0° Π		morning set	4994 May 02 18:09	5° \mathfrak{E} 18'37	
max. Earth dist.	4993 May 24 08:14	1° Π 21'24	1.34078 AU				

max. Earth dist.	4994 May 06 14:42	12°♄32'17	1.35698 AU		4995 Apr 04 13:38	0°♄	
				morning set	4995 Apr 14 19:07	17°♄00'21	
superior conj	4994 May 12 03:46	23°♄26'23	0°-55'-43	max. Earth dist.	4995 Apr 18 11:53	23°♄34'39	1.37702 AU
minimum elong	4994 May 12 06:51	23°♄41'53	0°55'10		4995 Apr 21 23:41	0°♄	
	4994 May 15 09:07	0°♄					
asc. node	4994 May 17 19:54	5°♄02'30		superior conj	4995 Apr 25 10:12	6°♄31'36	-1°-24'-23
evening rise	4994 May 20 03:32	9°♄48'06		minimum elong	4995 Apr 25 14:43	6°♄53'25	1°23'46
	4994 May 31 00:48	0°♄		evening rise	4995 May 04 04:17	23°♄46'45	
evening max el	4994 Jun 07 01:08	8°♄57'39	20°10'06	asc. node	4995 May 04 16:57	24°♄49'26	
retrograde	4994 Jun 17 15:41	14°♄08'56			4995 May 07 08:29	0°♄	
evening set	4994 Jun 19 14:18	13°♄59'14		evening max el	4995 May 20 19:02	20°♄43'56	19°09'37
desc. node	4994 Jun 23 06:28	12°♄53'08		retrograde	4995 May 29 17:08	25°♄05'26	
inferior conj	4994 Jun 28 16:16	10°♄00'25	-1°-36'-42	evening set	4995 May 31 16:49	24°♄53'22	
minimum elong	4994 Jun 28 11:44	10°♄07'08	1°35'03	inferior conj	4995 Jun 09 01:56	20°♄42'08	0°18'48
min. Earth dist.	4994 Jun 30 08:41	9°♄00'26	0.55095 AU	minimum elong	4995 Jun 09 02:42	20°♄40'49	0°18'30
morning rise	4994 Jul 07 06:57	5°♄45'02		desc. node	4995 Jun 10 03:30	19°♄58'39	
direct	4994 Jul 11 10:10	5°♄07'56		min. Earth dist.	4995 Jun 11 23:39	18°♄44'42	0.56291 AU
morning max el	4994 Jul 25 01:03	11°♄47'47	23°53'20	morning rise	4995 Jun 17 08:18	15°♄51'48	
	4994 Aug 07 18:59	0°♄		direct	4995 Jun 22 09:37	14°♄52'21	
asc. node	4994 Aug 13 19:09	11°♄00'02		morning max el	4995 Jul 06 14:54	22°♄09'24	25°33'02
morning set	4994 Aug 18 07:07	20°♄12'27			4995 Jul 13 13:02	0°♄	
	4994 Aug 22 20:19	0°♄			4995 Jul 31 08:19	0°♄	
				asc. node	4995 Jul 31 16:12	0°♄40'27	
superior conj	4994 Aug 25 07:28	5°♄21'01	1°34'49	morning set	4995 Aug 02 18:39	5°♄03'52	
minimum elong	4994 Aug 25 05:42	5°♄11'24	1°34'39				
max. Earth dist.	4994 Aug 27 12:41	10°♄06'58	1.33188 AU	superior conj	4995 Aug 09 17:56	20°♄14'05	1°22'10
evening rise	4994 Sep 01 19:20	21°♄04'46		minimum elong	4995 Aug 09 15:41	20°♄01'42	1°21'51
	4994 Sep 06 09:16	0°♄		max. Earth dist.	4995 Aug 10 19:26	22°♄33'55	1.32374 AU
desc. node	4994 Sep 19 05:45	21°♄46'24			4995 Aug 14 05:49	0°♄	
	4994 Sep 25 00:23	0°♄		evening rise	4995 Aug 16 20:19	5°♄28'42	
evening max el	4994 Oct 05 12:41	12°♄09'23	27°25'18		4995 Aug 30 00:01	0°♄	
retrograde	4994 Oct 19 03:07	19°♄27'27		desc. node	4995 Sep 06 02:48	10°♄53'55	
evening set	4994 Oct 26 05:07	16°♄50'07		evening max el	4995 Sep 17 21:17	24°♄55'52	27°20'07
min. Earth dist.	4994 Oct 29 22:39	13°♄31'07	0.63934 AU		4995 Sep 24 11:46	0°♄	
inferior conj	4994 Nov 01 11:00	10°♄55'03	-2°-42'-20	retrograde	4995 Oct 01 16:55	2°♄10'03	
minimum elong	4994 Nov 01 15:42	10°♄42'53	2°40'36	evening set	4995 Oct 08 20:45	29°♄45'54	
morning rise	4994 Nov 08 04:48	5°♄32'39			4995 Oct 08 12:02	30°♄	
asc. node	4994 Nov 09 18:21	5°♄07'08		min. Earth dist.	4995 Oct 12 11:43	26°♄54'32	0.62099 AU
direct	4994 Nov 10 15:01	5°♄03'24		inferior conj	4995 Oct 15 10:48	24°♄10'55	-3°-43'-49
morning max el	4994 Nov 17 03:49	8°♄28'21	17°52'02	minimum elong	4995 Oct 15 16:52	23°♄56'55	3°42'00
	4994 Dec 01 13:16	0°♄		morning rise	4995 Oct 22 16:02	19°♄07'21	
morning set	4994 Dec 03 21:01	3°♄58'53		direct	4995 Oct 24 22:56	18°♄44'25	
desc. node	4994 Dec 16 04:59	24°♄41'29		asc. node	4995 Oct 27 15:25	19°♄17'04	
				morning max el	4995 Oct 31 19:48	22°♄13'42	17°51'45
superior conj	4994 Dec 16 16:39	25°♄29'02	0°-3'-24		4995 Nov 06 19:47	0°♄	
minimum elong	4994 Dec 16 16:16	25°♄27'28	0°03'20	morning set	4995 Nov 16 15:54	16°♄57'42	
behind sun begin	4994 Dec 16 06:32	24°♄47'45			4995 Nov 23 23:32	0°♄	
behind sun end	4994 Dec 17 02:00	26°♄07'06					
	4994 Dec 19 11:37	0°♄		superior conj	4995 Nov 27 15:38	6°♄21'10	0°37'51
max. Earth dist.	4994 Dec 22 06:06	4°♄25'46	1.44520 AU	minimum elong	4995 Nov 27 18:52	6°♄35'00	0°37'24
evening rise	4995 Jan 01 14:52	20°♄36'40		desc. node	4995 Dec 03 02:03	15°♄28'27	
	4995 Jan 07 18:38	0°♄		max. Earth dist.	4995 Dec 04 20:51	18°♄23'47	1.43163 AU
greatest brilliancy	4995 Jan 23 16:16	23°♄01'58	-0.5m	evening rise	4995 Dec 12 03:46	0°♄00'43	
evening max el	4995 Jan 29 14:29	0°♄06'18	20°29'59		4995 Dec 12 03:35	0°♄	
	4995 Jan 29 12:02	0°♄			4996 Jan 01 10:17	0°♄	
asc. node	4995 Feb 05 17:39	4°♄45'57		greatest brilliancy	4996 Jan 07 16:16	8°♄13'33	-0.4m
retrograde	4995 Feb 06 15:53	4°♄50'35		evening max el	4996 Jan 12 11:29	13°♄41'24	21°41'35
evening set	4995 Feb 10 12:24	3°♄24'52		retrograde	4996 Jan 21 13:22	19°♄04'52	
	4995 Feb 13 20:27	30°♄		asc. node	4996 Jan 23 14:41	18°♄42'17	
inferior conj	4995 Feb 15 22:16	27°♄14'54	2°53'50	evening set	4996 Jan 25 20:17	17°♄23'53	
minimum elong	4995 Feb 15 19:57	27°♄22'49	2°53'19	inferior conj	4996 Jan 31 05:33	11°♄04'05	2°20'08
min. Earth dist.	4995 Feb 16 13:52	26°♄21'37	0.67531 AU	minimum elong	4996 Jan 31 03:09	11°♄12'24	2°19'24
morning rise	4995 Feb 21 02:59	20°♄58'39		min. Earth dist.	4996 Jan 31 08:50	10°♄52'39	0.68002 AU
direct	4995 Feb 26 16:42	18°♄30'44		morning rise	4996 Feb 05 09:43	4°♄49'59	
morning max el	4995 Mar 09 23:10	25°♄15'07	24°24'00	direct	4996 Feb 10 08:48	2°♄42'46	
desc. node	4995 Mar 14 04:14	29°♄53'00		morning max el	4996 Feb 20 08:40	8°♄38'01	22°54'44
	4995 Mar 14 06:37	0°♄		greatest brilliancy	4996 Feb 25 02:01	13°♄54'14	-0.3m

desc. node	4996 Feb 29 01:16	18° \approx 54'50		direct	4997 Jan 24 04:19	17° Z 03'38	
	4996 Mar 08 01:35	0° X		morning max el	4997 Feb 01 22:42	22° Z 09'31	21°29'22
morning set	4996 Mar 25 18:39	27° X 27'15		greatest brilliancy	4997 Feb 06 21:34	27° Z 46'04	-0.4m
	4996 Mar 27 07:18	0° Y			4997 Feb 08 15:53	0° \approx	
max. Earth dist.	4996 Mar 30 07:16	5° Y 05'28	1.39900 AU	desc. node	4997 Feb 14 22:18	8° \approx 31'01	
					4997 Mar 01 09:09	0° X	
superior conj	4996 Apr 07 01:17	18° Y 50'33	-1°-49'00	morning set	4997 Mar 05 13:28	6° X 32'51	
minimum elong	4996 Apr 07 06:13	19° Y 13'07	1°48'34	max. Earth dist.	4997 Mar 12 07:59	17° X 29'36	1.42002 AU
	4996 Apr 13 00:42	0° Z					
evening rise	4996 Apr 16 20:00	7° Z 15'12		superior conj	4997 Mar 19 19:58	0° Y 10'34	-2°-5'-17
asc. node	4996 Apr 20 14:00	14° Z 20'24		minimum elong	4997 Mar 19 22:59	0° Y 23'38	2°05'11
	4996 Apr 30 04:12	0° II			4997 Mar 19 17:31	0° Y	
evening max el	4996 May 02 22:42	3° II 08'08	18°29'26	evening rise	4997 Mar 30 22:52	20° Y 03'51	
retrograde	4996 May 10 13:12	6° II 53'40			4997 Apr 05 10:53	0° Z	
evening set	4996 May 12 19:04	6° II 35'02		asc. node	4997 Apr 07 11:02	3° Z 29'05	
inferior conj	4996 May 20 08:36	2° II 03'58	1°50'11	evening max el	4997 Apr 16 08:29	16° Z 00'31	18°09'17
minimum elong	4996 May 20 11:57	1° II 57'19	1°49'10	retrograde	4997 Apr 23 03:29	19° Z 26'54	
	4996 May 22 23:05	30° R Z		evening set	4997 Apr 25 15:51	18° Z 59'03	
min. Earth dist.	4996 May 23 18:30	29° Z 22'54	0.58154 AU	inferior conj	4997 May 02 12:07	14° Z 06'39	2°50'20
desc. node	4996 May 27 00:31	27° Z 12'00		minimum elong	4997 May 02 15:18	13° Z 59'17	2°49'39
morning rise	4996 May 28 00:22	26° Z 39'56		min. Earth dist.	4997 May 05 19:34	11° Z 04'35	0.60323 AU
direct	4996 Jun 02 23:19	25° Z 08'45		morning rise	4997 May 09 11:10	8° Z 17'35	
	4996 Jun 14 04:48	0° II		desc. node	4997 May 13 21:32	6° Z 25'58	
morning max el	4996 Jun 17 08:31	2° II 49'08	26°53'13	direct	4997 May 16 01:05	6° Z 12'47	
	4996 Jul 06 23:09	0° Z		morning max el	4997 May 30 08:37	14° Z 06'50	27°41'26
morning set	4996 Jul 17 04:29	19° Z 48'30			4997 Jun 12 02:33	0° II	
asc. node	4996 Jul 17 13:16	20° Z 34'48			4997 Jun 29 07:47	0° Z	
	4996 Jul 21 21:50	0° Z		morning set	4997 Jul 01 10:52	4° Z 20'54	
				asc. node	4997 Jul 04 10:19	10° Z 38'00	
superior conj	4996 Jul 24 05:44	5° Z 08'22	1°04'51	max. Earth dist.	4997 Jul 07 17:24	17° Z 47'49	1.32000 AU
minimum elong	4996 Jul 24 03:29	4° Z 55'54	1°04'27				
max. Earth dist.	4996 Jul 24 06:16	5° Z 11'21	1.31982 AU	superior conj	4997 Jul 08 17:06	19° Z 58'08	0°43'27
evening rise	4996 Jul 31 03:04	20° Z 07'46		minimum elong	4997 Jul 08 15:19	19° Z 48'18	0°43'05
	4996 Aug 04 23:26	0° Z			4997 Jul 13 06:37	0° Z	
desc. node	4996 Aug 22 23:49	29° Z 10'41		evening rise	4997 Jul 15 13:19	4° Z 54'42	
	4996 Aug 23 15:32	0° Z			4997 Jul 28 19:12	0° Z	
evening max el	4996 Aug 30 00:15	6° Z 59'25	26°41'26	desc. node	4997 Aug 09 20:50	16° Z 16'18	
retrograde	4996 Sep 12 22:28	14° Z 08'38		evening max el	4997 Aug 11 19:31	18° Z 13'47	25°31'33
evening set	4996 Sep 19 18:41	12° Z 09'55		retrograde	4997 Aug 25 18:16	25° Z 18'44	
min. Earth dist.	4996 Sep 23 14:09	9° Z 34'13	0.60067 AU	evening set	4997 Aug 31 18:07	23° Z 55'08	
inferior conj	4996 Sep 26 19:43	6° Z 58'06	-4°-37'-7	min. Earth dist.	4997 Sep 05 07:23	21° Z 17'35	0.58021 AU
minimum elong	4996 Sep 27 01:37	6° Z 46'09	4°35'56	inferior conj	4997 Sep 08 10:19	19° Z 06'51	-5°-11'-27
morning rise	4996 Oct 04 11:54	2° Z 16'26		minimum elong	4997 Sep 08 13:12	19° Z 01'47	5°11'16
direct	4996 Oct 06 19:01	1° Z 56'48		morning rise	4997 Sep 16 11:46	14° Z 48'52	
asc. node	4996 Oct 13 12:29	4° Z 54'22		direct	4997 Sep 18 22:51	14° Z 30'09	
morning max el	4996 Oct 14 07:43	5° Z 38'39	18°10'43	morning max el	4997 Sep 27 12:13	18° Z 34'21	18°50'28
	4996 Oct 29 17:34	0° Z		asc. node	4997 Sep 30 09:32	21° Z 44'57	
morning set	4996 Oct 30 01:58	0° Z			4997 Oct 05 23:03	0° Z	
				morning set	4997 Oct 13 22:36	14° Z 51'35	
superior conj	4996 Nov 08 15:39	18° Z 25'59	1°09'01		4997 Oct 21 16:53	0° Z	
minimum elong	4996 Nov 08 19:36	18° Z 43'46	1°08'32				
	4996 Nov 15 05:50	0° Z		superior conj	4997 Oct 22 11:45	1° Z 29'57	1°29'34
max. Earth dist.	4996 Nov 16 07:00	1° Z 46'49	1.41334 AU	minimum elong	4997 Oct 22 14:43	1° Z 44'02	1°29'19
desc. node	4996 Nov 18 23:04	6° Z 14'37		max. Earth dist.	4997 Oct 29 12:55	14° Z 27'43	1.39255 AU
evening rise	4996 Nov 21 08:37	10° Z 10'10		evening rise	4997 Nov 02 12:06	21° Z 21'36	
	4996 Dec 04 04:46	0° Z		desc. node	4997 Nov 05 20:06	26° Z 56'52	
greatest brilliancy	4996 Dec 19 12:54	20° Z 58'54	-0.2m		4997 Nov 07 16:58	0° Z	
evening max el	4996 Dec 25 03:51	27° Z 18'37	23°00'08		4997 Nov 28 05:56	0° Z	
	4996 Dec 28 02:09	0° \approx		evening max el	4997 Dec 07 17:18	10° Z 59'18	24°19'38
retrograde	4997 Jan 04 08:25	3° \approx 21'05		retrograde	4997 Dec 18 23:57	17° Z 35'45	
evening set	4997 Jan 09 03:23	1° \approx 24'04		evening set	4997 Dec 24 08:10	15° Z 23'05	
asc. node	4997 Jan 09 11:44	1° \approx 06'10		asc. node	4997 Dec 27 08:45	12° Z 11'11	
	4997 Jan 10 14:46	30° R Z		min. Earth dist.	4997 Dec 29 01:34	9° Z 58'54	0.67813 AU
min. Earth dist.	4997 Jan 14 05:29	25° Z 26'02	0.68090 AU	inferior conj	4997 Dec 29 20:38	8° Z 54'52	0°50'09
inferior conj	4997 Jan 14 13:35	24° Z 58'03	1°38'33	minimum elong	4997 Dec 29 19:28	8° Z 58'47	0°49'41
minimum elong	4997 Jan 14 11:35	25° Z 04'59	1°37'50	morning rise	4998 Jan 04 07:09	2° Z 50'31	
morning rise	4997 Jan 19 19:47	18° Z 47'53		direct	4998 Jan 08 02:07	1° Z 28'34	

morning max el	4998 Jan 15 20:11	5°☿53'09	20°14'20	minimum elong	4998 Dec 14 00:58	22°♄51'13	0°04'09
greatest brilliancy	4998 Jan 22 09:25	13°☿40'33	-0.5m	transit middle	4998 Dec 14 00:58	22°♄51'13	0°04'09
desc. node	4998 Feb 01 19:19	28°☿32'22		transit begin	4998 Dec 13 22:15	22°♄59'55	
	4998 Feb 02 18:49	0°≈		transit end	4998 Dec 14 03:40	22°♄42'32	
morning set	4998 Feb 12 11:46	14°≈46'18		asc. node	4998 Dec 14 05:46	22°♄35'49	
	4998 Feb 22 04:25	0°♄		morning rise	4998 Dec 19 17:50	16°♄55'11	
max. Earth dist.	4998 Feb 22 16:10	0°♄47'04	1.43729 AU	direct	4998 Dec 23 00:50	15°♄52'49	
				morning max el	4998 Dec 30 01:33	19°♄47'29	19°13'26
superior conj	4998 Feb 28 13:49	10°♄22'26	-2°-7'-44		4999 Jan 07 04:24	0°☿	
minimum elong	4998 Feb 28 11:42	10°♄13'44	2°07'42	greatest brilliancy	4999 Jan 08 22:01	2°☿30'33	-0.7m
	4998 Mar 12 04:00	0°♄		desc. node	4999 Jan 19 16:22	18°☿51'58	
evening rise	4998 Mar 13 08:31	2°♄03'41		morning set	4999 Jan 22 12:38	23°☿16'22	
asc. node	4998 Mar 25 08:03	22°♄08'15			4999 Jan 26 20:32	0°≈	
evening max el	4998 Mar 30 21:02	29°♄12'08	18°08'33	max. Earth dist.	4999 Feb 05 06:34	14°≈44'18	1.44875 AU
	4998 Mar 31 17:23	0°♄					
retrograde	4998 Apr 06 07:41	2°♄34'39		superior conj	4999 Feb 08 07:06	19°≈31'06	-1°-51'-23
evening set	4998 Apr 09 02:06	1°♄56'00		minimum elong	4999 Feb 07 23:02	18°≈59'06	1°50'49
	4998 Apr 12 00:07	30°♄			4999 Feb 14 20:12	0°♄	
inferior conj	4998 Apr 15 08:58	26°♄43'22	3°22'43	evening rise	4999 Feb 22 20:49	13°♄07'33	
minimum elong	4998 Apr 15 10:42	26°♄38'48	3°22'31		4999 Mar 05 03:59	0°♄	
min. Earth dist.	4998 Apr 18 05:14	23°♄44'35	0.62481 AU	asc. node	4999 Mar 12 05:04	10°♄08'51	
morning rise	4998 Apr 21 16:47	20°♄39'00		evening max el	4999 Mar 14 09:28	12°♄35'55	18°26'31
direct	4998 Apr 28 12:54	18°♄07'04		retrograde	4999 Mar 20 21:10	16°♄07'39	
desc. node	4998 Apr 30 18:33	18°♄21'57		evening set	4999 Mar 23 21:44	15°♄17'05	
morning max el	4998 May 12 14:37	26°♄07'18	27°51'59	inferior conj	4999 Mar 29 18:59	9°♄45'55	3°33'24
	4998 May 16 05:06	0°♄		minimum elong	4999 Mar 29 19:05	9°♄45'38	3°33'24
	4998 Jun 05 15:48	0°♄		min. Earth dist.	4999 Apr 01 00:20	7°♄10'20	0.64400 AU
morning set	4998 Jun 15 11:40	18°♄34'01		morning rise	4999 Apr 04 14:48	3°♄33'39	
	4998 Jun 20 22:57	0°☿		direct	4999 Apr 11 09:03	0°♄46'52	
max. Earth dist.	4998 Jun 21 00:46	0°☿09'44	1.32446 AU	desc. node	4999 Apr 17 15:33	2°♄44'30	
asc. node	4998 Jun 21 07:20	0°☿45'05		morning max el	4999 Apr 24 23:57	8°♄43'29	27°26'15
					4999 May 11 12:49	0°♄	
superior conj	4998 Jun 23 02:13	4°☿37'06	0°18'33		4999 May 28 23:31	0°♄	
minimum elong	4998 Jun 23 01:22	4°☿32'24	0°18'22	morning set	4999 May 30 04:17	2°♄19'59	
evening rise	4998 Jun 30 01:03	19°☿42'21		max. Earth dist.	4999 Jun 04 00:18	12°♄05'09	1.33341 AU
	4998 Jul 05 01:18	0°♄					
evening max el	4998 Jul 24 08:40	28°♄47'14	24°00'10	superior conj	4999 Jun 07 07:14	18°♄59'36	0°-9'-8
	4998 Jul 25 16:07	0°♄		minimum elong	4999 Jun 07 07:42	19°♄02'05	0°09'03
desc. node	4998 Jul 27 17:51	1°♄41'53		behind sun begin	4999 Jun 07 03:09	18°♄37'59	
retrograde	4998 Aug 07 02:41	5°♄42'24		behind sun end	4999 Jun 07 12:14	19°♄26'12	
evening set	4998 Aug 11 17:17	4°♄55'27		asc. node	4999 Jun 08 04:21	20°♄52'10	
min. Earth dist.	4998 Aug 17 19:05	1°♄57'12	0.56248 AU		4999 Jun 12 10:35	0°☿	
inferior conj	4998 Aug 20 04:34	0°♄29'02	-5°-11'-23	evening rise	4999 Jun 14 12:25	4°☿24'47	
minimum elong	4998 Aug 20 01:25	0°♄33'54	5°11'11		4999 Jun 28 11:06	0°♄	
	4998 Aug 20 23:31	30°♄		evening max el	4999 Jul 05 22:37	9°♄09'09	22°22'47
morning rise	4998 Aug 28 12:55	26°♄31'19		desc. node	4999 Jul 14 14:50	14°♄53'31	
direct	4998 Aug 31 06:59	26°♄11'47		retrograde	4999 Jul 18 22:49	15°♄36'57	
	4998 Sep 09 07:38	0°♄		evening set	4999 Jul 22 01:24	15°♄15'38	
morning max el	4998 Sep 10 06:13	0°♄50'19	19°52'04	min. Earth dist.	4999 Jul 30 05:21	11°♄42'32	0.55092 AU
asc. node	4998 Sep 17 06:34	9°♄32'41		inferior conj	4999 Jul 31 05:17	11°♄08'40	-4°-22'-7
morning set	4998 Sep 28 02:20	29°♄23'12		minimum elong	4999 Jul 30 20:57	11°♄20'28	4°20'15
	4998 Sep 28 09:37	0°♄		morning rise	4999 Aug 08 18:37	7°♄19'00	
				direct	4999 Aug 11 22:12	6°♄56'33	
superior conj	4998 Oct 05 22:34	15°♄16'46	1°40'37	morning max el	4999 Aug 23 12:05	12°♄20'34	21°14'38
minimum elong	4998 Oct 05 23:58	15°♄23'46	1°40'34	asc. node	4999 Sep 04 03:36	28°♄04'39	
max. Earth dist.	4998 Oct 11 17:59	26°♄32'07	1.37177 AU		4999 Sep 05 05:39	0°♄	
	4998 Oct 13 14:43	0°♄		morning set	4999 Sep 12 10:39	14°♄07'31	
evening rise	4998 Oct 15 13:38	3°♄33'16					
desc. node	4998 Oct 23 17:08	17°♄30'20		superior conj	4999 Sep 19 19:45	29°♄33'43	1°43'35
	4998 Oct 31 17:53	0°♄		minimum elong	4999 Sep 19 19:39	29°♄33'10	1°43'35
evening max el	4998 Nov 20 05:44	24°♄42'25	25°33'27		4999 Sep 20 00:50	0°♄	
	4998 Nov 26 21:20	0°☿		max. Earth dist.	4999 Sep 24 03:57	8°♄23'15	1.35334 AU
retrograde	4998 Dec 02 11:05	1°☿43'36		evening rise	4999 Sep 28 09:36	16°♄36'05	
	4998 Dec 07 10:53	30°♄			4999 Oct 05 20:30	0°♄	
evening set	4998 Dec 08 08:58	29°♄17'12		desc. node	4999 Oct 10 14:10	7°♄49'54	
min. Earth dist.	4998 Dec 12 18:47	24°♄27'50	0.67176 AU		4999 Oct 26 04:15	0°♄	
inferior conj	4998 Dec 14 00:51	22°♄51'34	0°-4'-10	evening max el	4999 Nov 02 18:25	8°♄23'45	26°34'11

retrograde	4999 Nov 15 17:01	15°♂38'14		min. Earth dist.	5000 Nov 09 11:28	22°♂55'02	0.64853 AU
evening set	4999 Nov 22 03:54	13°♂02'13		inferior conj	5000 Nov 11 16:49	20°♂28'43	-2°-5'-51
min. Earth dist.	4999 Nov 26 06:53	8°♂48'26	0.66188 AU	minimum elong	5000 Nov 11 20:27	20°♂18'44	2°04'24
inferior conj	4999 Nov 28 00:19	6°♂44'22	-1°-3'-24	asc. node	5000 Nov 17 23:51	15°♂01'38	
minimum elong	4999 Nov 28 02:04	6°♂39'06	1°02'39	morning rise	5000 Nov 18 04:14	14°♂56'36	
asc. node	4999 Dec 01 02:48	3°♂15'54		direct	5000 Nov 20 17:46	14°♂22'02	
morning rise	4999 Dec 04 01:41	0°♂58'33		morning max el	5000 Nov 27 05:05	17°♂48'18	18°00'21
direct	4999 Dec 06 22:47	0°♂12'04			5000 Dec 06 04:00	0°♂	
morning max el	4999 Dec 13 13:19	3°♂47'44	18°28'29	morning set	5000 Dec 14 20:12	14°♂17'55	
	4999 Dec 31 15:49	0°♂		desc. node	5000 Dec 24 10:27	0°♂05'38	
morning set	5000 Jan 02 13:34	3°♂02'39			5000 Dec 24 09:03	0°♂	
desc. node	5000 Jan 06 13:24	9°♂24'22					
				superior conj	5000 Dec 28 19:55	7°♂09'33	0°-30'-12
superior conj	5000 Jan 18 10:28	28°♂08'23	-1°-16'-12	minimum elong	5000 Dec 28 16:13	6°♂54'50	0°29'41
minimum elong	5000 Jan 18 01:40	27°♂33'53	1°15'12	max. Earth dist.	5001 Jan 01 20:31	13°♂32'37	1.45024 AU
max. Earth dist.	5000 Jan 19 00:51	29°♂04'45	1.45323 AU		5001 Jan 12 09:52	0°♂	
	5000 Jan 19 14:57	0°♂		evening rise	5001 Jan 14 03:27	2°♂40'26	
evening rise	5000 Feb 03 09:47	23°♂14'48			5001 Feb 01 07:47	0°♂	
	5000 Feb 07 16:10	0°♂		greatest brilliancy	5001 Feb 02 00:15	0°♂57'27	-0.6m
greatest brilliancy	5000 Feb 14 23:48	11°♂28'05	-0.8m	evening max el	5001 Feb 09 00:55	9°♂39'18	19°53'51
evening max el	5000 Feb 25 19:21	26°♂05'55	19°02'09	asc. node	5001 Feb 13 23:06	13°♂25'36	
asc. node	5000 Feb 27 02:05	27°♂19'01		retrograde	5001 Feb 16 13:58	14°♂02'05	
retrograde	5000 Mar 04 16:13	29°♂58'20		evening set	5001 Feb 20 05:22	12°♂44'37	
evening set	5000 Mar 07 23:36	28°♂54'50		inferior conj	5001 Feb 25 16:26	6°♂41'53	3°09'10
inferior conj	5000 Mar 13 14:27	23°♂06'49	3°27'37	minimum elong	5001 Feb 25 14:22	6°♂48'47	3°08'48
minimum elong	5000 Mar 13 13:14	23°♂10'40	3°27'31	min. Earth dist.	5001 Feb 26 15:41	5°♂24'11	0.67086 AU
min. Earth dist.	5000 Mar 15 04:17	21°♂07'12	0.65955 AU	morning rise	5001 Mar 02 22:44	0°♂25'31	
morning rise	5000 Mar 19 01:51	16°♂51'13			5001 Mar 03 10:31	30°♂	
direct	5000 Mar 25 11:58	14°♂03'17		direct	5001 Mar 08 20:34	27°♂48'04	
desc. node	5000 Apr 04 12:35	18°♂59'38			5001 Mar 14 23:52	0°♂	
morning max el	5000 Apr 07 09:49	21°♂42'46	26°30'27	morning max el	5001 Mar 20 18:53	4°♂55'40	25°13'38
	5000 Apr 14 15:14	0°♂		desc. node	5001 Mar 22 09:39	6°♂37'10	
	5000 May 04 18:00	0°♂			5001 Apr 09 01:38	0°♂	
morning set	5000 May 13 09:16	15°♂27'45		morning set	5001 Apr 25 22:02	27°♂44'55	
max. Earth dist.	5000 May 17 12:55	23°♂28'26	1.34707 AU		5001 Apr 27 03:53	0°♂	
	5000 May 20 19:00	0°♂		max. Earth dist.	5001 Apr 29 14:51	4°♂31'52	1.36518 AU
superior conj	5000 May 22 05:47	2°♂58'09	0°-38'-33	superior conj	5001 May 05 19:07	16°♂25'28	-1°-8'-9
minimum elong	5000 May 22 07:53	3°♂08'56	0°38'10	minimum elong	5001 May 05 22:52	16°♂44'03	1°07'33
asc. node	5000 May 26 01:23	10°♂54'35		asc. node	5001 May 12 22:25	0°♂48'28	
evening rise	5000 May 29 21:25	18°♂55'16			5001 May 12 12:51	0°♂	
	5000 Jun 04 10:25	0°♂		evening rise	5001 May 14 01:56	3°♂07'43	
evening max el	5000 Jun 17 21:15	19°♂51'36	20°53'51		5001 May 30 03:57	0°♂	
retrograde	5000 Jun 29 11:14	25°♂32'48		evening max el	5001 May 31 08:13	1°♂13'07	19°41'52
desc. node	5000 Jul 01 11:49	25°♂23'03		retrograde	5001 Jun 10 04:36	6°♂01'51	
evening set	5000 Jul 01 15:05	25°♂21'43		evening set	5001 Jun 12 02:47	5°♂51'38	
inferior conj	5000 Jul 10 22:21	21°♂24'47	-2°-44'-49	desc. node	5001 Jun 18 08:52	3°♂21'34	
minimum elong	5000 Jul 10 14:55	21°♂35'19	2°42'20	inferior conj	5001 Jun 20 22:22	1°♂48'40	0°-45'-54
min. Earth dist.	5000 Jul 11 16:18	20°♂59'20	0.54817 AU	minimum elong	5001 Jun 20 20:16	1°♂51'56	0°45'08
morning rise	5000 Jul 19 14:11	17°♂24'31		min. Earth dist.	5001 Jun 23 05:07	0°♂23'33	0.55505 AU
direct	5000 Jul 23 07:24	16°♂54'49			5001 Jun 23 20:45	30°♂	
morning max el	5000 Aug 05 07:19	23°♂08'09	22°53'20	morning rise	5001 Jun 29 10:32	27°♂19'37	
	5000 Aug 11 09:39	0°♂		direct	5001 Jul 03 22:56	26°♂34'26	
asc. node	5000 Aug 22 00:39	17°♂10'05			5001 Jul 13 14:27	0°♂	
morning set	5000 Aug 27 21:35	28°♂59'06		morning max el	5001 Jul 17 21:11	3°♂30'58	24°37'16
	5000 Aug 28 09:08	0°♂			5001 Aug 05 11:15	0°♂	
				asc. node	5001 Aug 08 21:42	6°♂39'57	
superior conj	5000 Sep 04 00:04	14°♂11'09	1°39'43	morning set	5001 Aug 12 09:23	13°♂52'19	
minimum elong	5000 Sep 03 22:47	14°♂04'16	1°39'39				
max. Earth dist.	5000 Sep 06 22:44	20°♂24'34	1.33855 AU	superior conj	5001 Aug 19 08:53	29°♂00'30	1°30'03
evening rise	5000 Sep 11 19:43	0°♂18'53		minimum elong	5001 Aug 19 06:51	28°♂49'24	1°29'50
	5000 Sep 11 15:53	0°♂			5001 Aug 19 19:49	0°♂	
desc. node	5000 Sep 27 11:10	27°♂49'15		max. Earth dist.	5001 Aug 21 02:00	2°♂43'48	1.32790 AU
	5000 Sep 28 21:20	0°♂		evening rise	5001 Aug 26 16:09	14°♂30'27	
evening max el	5000 Oct 16 07:08	21°♂54'40	27°14'18		5001 Sep 03 17:48	0°♂	
retrograde	5000 Oct 29 17:03	29°♂12'32		desc. node	5001 Sep 14 08:11	17°♂19'15	
evening set	5000 Nov 05 14:45	26°♂33'23			5001 Sep 23 23:19	0°♂	

evening max el	5001 Sep 28 17:56	5° \mathbb{M} 01'16	27°27'06		5002 Aug 27 22:44	0° \mathbb{L}	
retrograde	5001 Oct 12 10:34	12° \mathbb{M} 17'07		desc. node	5002 Sep 01 05:12	6° \mathbb{L} 07'50	
evening set	5001 Oct 19 14:28	9° \mathbb{M} 43'59		evening max el	5002 Sep 11 00:16	17° \mathbb{L} 30'29	27°07'44
min. Earth dist.	5001 Oct 23 06:26	6° \mathbb{M} 37'55	0.63191 AU	retrograde	5002 Sep 24 21:00	24° \mathbb{L} 42'50	
inferior conj	5001 Oct 25 23:37	3° \mathbb{M} 57'20	-3°-8'-54	evening set	5002 Oct 01 23:12	22° \mathbb{L} 27'36	
minimum elong	5001 Oct 26 05:00	3° \mathbb{M} 44'01	3°07'03	min. Earth dist.	5002 Oct 05 14:41	19° \mathbb{L} 45'09	0.61254 AU
	5001 Oct 30 12:03	30° \mathbb{R} \mathbb{L}		inferior conj	5002 Oct 08 17:30	17° \mathbb{L} 02'22	-4°-7'-54
morning rise	5001 Nov 01 22:14	28° \mathbb{L} 42'27		minimum elong	5002 Oct 08 23:46	16° \mathbb{L} 48'41	4°06'16
direct	5001 Nov 04 06:47	28° \mathbb{L} 16'09		morning rise	5002 Oct 16 03:35	12° \mathbb{L} 08'07	
asc. node	5001 Nov 04 20:56	28° \mathbb{L} 17'50		direct	5002 Oct 18 10:09	11° \mathbb{L} 46'56	
	5001 Nov 08 22:45	0° \mathbb{M}		asc. node	5002 Oct 22 17:59	13° \mathbb{L} 06'52	
morning max el	5001 Nov 10 21:55	1° \mathbb{M} 41'37	17°49'39	morning max el	5002 Oct 25 12:39	15° \mathbb{L} 20'07	17°57'24
morning set	5001 Nov 27 03:43	26° \mathbb{M} 44'38			5002 Nov 04 16:11	0° \mathbb{M}	
	5001 Nov 29 00:25	0° \mathbb{J}		morning set	5002 Nov 10 05:42	10° \mathbb{M} 03'46	
superior conj	5001 Dec 09 03:32	17° \mathbb{J} 17'06	0°15'11	superior conj	5002 Nov 20 13:43	28° \mathbb{M} 42'19	0°52'22
minimum elong	5001 Dec 09 05:04	17° \mathbb{J} 23'31	0°14'58	minimum elong	5002 Nov 20 17:33	28° \mathbb{M} 59'02	0°51'52
behind sun begin	5001 Dec 09 01:36	17° \mathbb{J} 09'04			5002 Nov 21 07:32	0° \mathbb{J}	
behind sun end	5001 Dec 09 08:33	17° \mathbb{J} 37'57		max. Earth dist.	5002 Nov 28 02:56	11° \mathbb{J} 32'15	1.42434 AU
desc. node	5001 Dec 11 07:28	20° \mathbb{J} 51'26		desc. node	5002 Nov 28 04:30	11° \mathbb{J} 38'41	
max. Earth dist.	5001 Dec 15 14:08	27° \mathbb{J} 47'42	1.44020 AU	evening rise	5002 Dec 04 07:43	21° \mathbb{J} 33'29	
	5001 Dec 16 23:15	0° \mathbb{Z}			5002 Dec 09 17:55	0° \mathbb{Z}	
evening rise	5001 Dec 24 13:26	11° \mathbb{Z} 53'33			5002 Dec 30 21:12	0° \approx	
	5002 Jan 05 13:34	0° \approx		greatest brilliancy	5003 Jan 01 01:53	1° \approx 28'35	-0.3m
greatest brilliancy	5002 Jan 17 17:16	17° \approx 00'47	-0.5m	evening max el	5003 Jan 05 19:40	6° \approx 48'36	22°14'22
evening max el	5002 Jan 23 00:58	23° \approx 13'18	20°59'12	retrograde	5003 Jan 15 08:54	12° \approx 29'31	
retrograde	5002 Jan 31 12:10	28° \approx 13'45		asc. node	5003 Jan 18 17:14	11° \approx 30'20	
asc. node	5002 Jan 31 20:10	28° \approx 13'09		evening set	5003 Jan 19 20:45	10° \approx 41'38	
evening set	5002 Feb 04 13:00	26° \approx 41'24		inferior conj	5003 Jan 25 06:13	4° \approx 18'25	2°03'24
inferior conj	5002 Feb 09 22:23	20° \approx 26'41	2°40'33	minimum elong	5003 Jan 25 03:56	4° \approx 26'22	2°02'38
minimum elong	5002 Feb 09 19:58	20° \approx 35'00	2°39'55	min. Earth dist.	5003 Jan 25 04:31	4° \approx 24'20	0.68086 AU
min. Earth dist.	5002 Feb 10 08:30	19° \approx 51'47	0.67786 AU		5003 Jan 28 13:20	30° \mathbb{R} \mathbb{Z}	
morning rise	5002 Feb 15 02:34	14° \approx 11'21		morning rise	5003 Jan 30 10:58	28° \mathbb{Z} 05'40	
direct	5002 Feb 20 10:03	11° \approx 52'03		direct	5003 Feb 04 03:38	26° \mathbb{Z} 08'23	
morning max el	5002 Mar 03 03:40	18° \approx 15'48	23°46'03		5003 Feb 11 19:33	0° \approx	
desc. node	5002 Mar 09 06:42	25° \approx 13'12		morning max el	5003 Feb 13 14:48	1° \approx 42'33	22°17'25
	5002 Mar 12 23:55	0° \mathbb{X}		greatest brilliancy	5003 Feb 18 04:27	6° \approx 48'39	-0.3m
	5002 Apr 02 04:05	0° \mathbb{Y}		desc. node	5003 Feb 24 03:44	14° \approx 31'09	
morning set	5002 Apr 07 12:53	8° \mathbb{Y} 56'38			5003 Mar 06 22:41	0° \mathbb{X}	
max. Earth dist.	5002 Apr 11 10:46	15° \mathbb{Y} 44'22	1.38633 AU	morning set	5003 Mar 19 00:12	18° \mathbb{X} 48'46	
				max. Earth dist.	5003 Mar 24 07:38	27° \mathbb{X} 35'43	1.40818 AU
superior conj	5002 Apr 18 19:34	29° \mathbb{Y} 12'24	-1°-35'-33		5003 Mar 25 17:40	0° \mathbb{Y}	
minimum elong	5002 Apr 19 00:28	29° \mathbb{Y} 35'29	1°34'59	superior conj	5003 Apr 01 02:33	11° \mathbb{Y} 07'26	-1°-57'-15
	5002 Apr 19 05:39	0° \mathbb{B}		minimum elong	5003 Apr 01 07:02	11° \mathbb{Y} 27'29	1°56'57
evening rise	5002 Apr 27 23:17	16° \mathbb{B} 55'04		evening rise	5003 Apr 11 10:04	0° \mathbb{B} 07'55	
asc. node	5002 Apr 29 19:28	20° \mathbb{B} 29'36			5003 Apr 11 08:22	0° \mathbb{B}	
	5002 May 04 21:56	0° \mathbb{I}		asc. node	5003 Apr 16 16:30	9° \mathbb{B} 52'05	
evening max el	5002 May 14 06:35	13° \mathbb{I} 16'19	18°50'00	evening max el	5003 Apr 27 13:15	25° \mathbb{B} 53'38	18°18'28
retrograde	5002 May 22 14:01	17° \mathbb{I} 21'01		retrograde	5003 May 04 18:13	29° \mathbb{B} 29'18	
evening set	5002 May 24 15:59	17° \mathbb{I} 06'37		evening set	5003 May 07 02:44	29° \mathbb{B} 07'09	
inferior conj	5002 Jun 01 16:39	12° \mathbb{I} 47'03	1°01'19	inferior conj	5003 May 14 08:31	24° \mathbb{B} 27'13	2°19'28
minimum elong	5002 Jun 01 18:55	12° \mathbb{I} 42'56	1°00'32	minimum elong	5003 May 14 12:03	24° \mathbb{B} 19'44	2°18'30
min. Earth dist.	5002 Jun 04 21:26	10° \mathbb{I} 28'54	0.57015 AU	min. Earth dist.	5003 May 17 18:56	21° \mathbb{B} 33'49	0.59051 AU
desc. node	5002 Jun 05 05:54	10° \mathbb{I} 14'23		morning rise	5003 May 21 17:07	18° \mathbb{B} 50'54	
morning rise	5002 Jun 09 17:20	7° \mathbb{I} 41'30		desc. node	5003 May 23 02:56	18° \mathbb{B} 08'51	
direct	5002 Jun 15 04:03	6° \mathbb{I} 29'42		direct	5003 May 27 23:20	17° \mathbb{B} 04'59	
morning max el	5002 Jun 29 12:18	13° \mathbb{I} 58'06	26°10'38	morning max el	5003 Jun 11 08:43	24° \mathbb{B} 53'13	27°18'12
	5002 Jul 12 05:31	0° \mathbb{E}			5003 Jun 16 01:23	0° \mathbb{I}	
asc. node	5002 Jul 26 18:45	26° \mathbb{E} 27'24			5003 Jul 05 11:44	0° \mathbb{E}	
morning set	5002 Jul 27 20:26	28° \mathbb{E} 42'13		morning set	5003 Jul 12 05:00	13° \mathbb{E} 22'22	
	5002 Jul 28 11:06	0° \mathbb{O}		asc. node	5003 Jul 13 15:47	16° \mathbb{E} 26'02	
superior conj	5002 Aug 03 20:09	13° \mathbb{O} 55'17	1°15'21	superior conj	5003 Jul 19 07:58	28° \mathbb{E} 48'23	0°56'15
minimum elong	5002 Aug 03 17:51	13° \mathbb{O} 42'33	1°15'00	minimum elong	5003 Jul 19 05:51	28° \mathbb{E} 36'43	0°55'51
max. Earth dist.	5002 Aug 04 11:01	15° \mathbb{O} 17'14	1.32149 AU	max. Earth dist.	5003 Jul 18 22:15	27° \mathbb{E} 54'49	1.31930 AU
evening rise	5002 Aug 10 19:54	29° \mathbb{O} 02'01			5003 Jul 19 20:55	0° \mathbb{O}	
	5002 Aug 11 07:02	0° \mathbb{P}					

evening rise	5003 Jul 26 04:21	13°♌44'56		superior conj	5004 Jul 02 18:34	13°♌34'12	0°33'17
	5003 Aug 03 08:30	0°♍		minimum elong	5004 Jul 02 17:07	13°♌26'16	0°32'58
desc. node	5003 Aug 19 02:13	23°♍57'18		evening rise	5004 Jul 09 15:25	28°♌32'43	
evening max el	5003 Aug 23 23:49	29°♍12'20	26°15'09		5004 Jul 10 07:52	0°♌	
	5003 Aug 24 20:25	0°♍			5004 Jul 27 03:25	0°♍	
retrograde	5003 Sep 06 23:01	6°♍20'46		evening max el	5004 Aug 04 16:06	10°♍07'13	24°54'31
evening set	5003 Sep 13 12:06	4°♍36'02		desc. node	5004 Aug 04 23:13	10°♍24'06	
min. Earth dist.	5003 Sep 17 12:57	2°♍01'49	0.59178 AU	retrograde	5004 Aug 18 14:10	17°♍09'00	
	5003 Sep 20 05:20	30°♍		evening set	5004 Aug 24 00:50	16°♍01'55	
inferior conj	5003 Sep 20 18:55	29°♍33'56	-4°-54'-51	min. Earth dist.	5004 Aug 29 03:35	13°♍17'19	0.57210 AU
minimum elong	5003 Sep 20 23:58	29°♍24'19	4°54'07	inferior conj	5004 Sep 01 00:52	11°♍23'10	-5°-16'-44
morning rise	5003 Sep 28 15:23	25°♍02'33		minimum elong	5004 Sep 01 01:26	11°♍22'13	5°16'44
direct	5003 Sep 30 23:32	24°♍43'43		morning rise	5004 Sep 09 05:29	7°♍14'14	
morning max el	5003 Oct 08 21:51	28°♍34'02	18°25'02	direct	5004 Sep 11 19:07	6°♍55'23	
asc. node	5003 Oct 09 15:01	29°♍17'02		morning max el	5004 Sep 20 22:06	11°♍13'14	19°13'59
	5003 Oct 10 06:58	0°♍		asc. node	5004 Sep 25 12:03	16°♍33'18	
morning set	5003 Oct 24 20:43	23°♍59'38			5004 Oct 03 13:53	0°♍	
	5003 Oct 27 23:50	0°♍		morning set	5004 Oct 07 20:41	8°♍20'41	
superior conj	5003 Nov 02 22:57	11°♍14'23	1°18'57	superior conj	5004 Oct 16 01:49	24°♍37'37	1°35'20
minimum elong	5003 Nov 03 02:37	11°♍31'15	1°18'34	minimum elong	5004 Oct 16 04:08	24°♍48'55	1°35'10
max. Earth dist.	5003 Nov 10 10:30	24°♍35'35	1.40462 AU		5004 Oct 18 21:06	0°♍	
	5003 Nov 13 14:54	0°♍		max. Earth dist.	5004 Oct 22 15:19	6°♍58'27	1.38354 AU
evening rise	5003 Nov 14 21:52	2°♍08'49		evening rise	5004 Oct 26 11:02	13°♍46'41	
desc. node	5003 Nov 15 01:31	2°♍23'55		desc. node	5004 Oct 31 22:31	23°♍02'57	
	5003 Dec 03 02:15	0°♍			5004 Nov 05 06:28	0°♍	
evening max el	5003 Dec 19 10:30	20°♍27'36	23°34'13		5004 Nov 27 01:21	0°♍	
retrograde	5003 Dec 30 02:43	26°♍45'58		evening max el	5004 Nov 30 23:28	4°♍10'22	24°52'17
evening set	5004 Jan 04 03:03	24°♍42'23		retrograde	5004 Dec 12 16:22	10°♍58'17	
asc. node	5004 Jan 05 14:15	23°♍18'25		evening set	5004 Dec 18 06:19	8°♍39'45	
min. Earth dist.	5004 Jan 09 01:19	18°♍58'21	0.68013 AU	asc. node	5004 Dec 22 11:16	4°♍00'16	
inferior conj	5004 Jan 09 14:04	18°♍14'43	1°18'51	min. Earth dist.	5004 Dec 22 20:31	3°♍30'06	0.67584 AU
minimum elong	5004 Jan 09 12:22	18°♍20'33	1°18'11	inferior conj	5004 Dec 23 20:08	2°♍12'11	0°27'48
morning rise	5004 Jan 14 21:49	12°♍06'31		minimum elong	5004 Dec 23 19:27	2°♍14'25	0°27'31
direct	5004 Jan 19 00:22	10°♍31'55			5004 Dec 25 13:06	30°♍	
morning max el	5004 Jan 27 07:45	15°♍19'25	20°55'49	morning rise	5004 Dec 29 09:07	26°♍10'44	
greatest brilliancy	5004 Feb 01 20:22	21°♍41'42	-0.5m	direct	5005 Jan 01 22:51	24°♍57'19	
	5004 Feb 08 00:06	0°♍		morning max el	5005 Jan 09 08:31	29°♍07'36	19°46'33
desc. node	5004 Feb 11 00:45	4°♍19'33			5005 Jan 10 04:50	0°♍	
morning set	5004 Feb 26 08:20	27°♍26'22		greatest brilliancy	5005 Jan 16 22:46	8°♍25'46	-0.6m
	5004 Feb 27 23:30	0°♍		desc. node	5005 Jan 27 21:46	24°♍29'36	
max. Earth dist.	5004 Mar 05 10:58	10°♍22'00	1.42795 AU		5005 Jan 31 12:33	0°♍	
superior conj	5004 Mar 12 11:07	21°♍59'51	-2°-8'-21	morning set	5005 Feb 04 04:27	5°♍37'30	
minimum elong	5004 Mar 12 12:20	22°♍04'59	2°08'21	max. Earth dist.	5005 Feb 15 22:12	23°♍59'10	1.44305 AU
	5004 Mar 17 02:56	0°♍			5005 Feb 19 16:24	0°♍	
evening rise	5004 Mar 24 06:10	12°♍37'07		superior conj	5005 Feb 20 18:04	1°♍43'34	-2°-3'-16
asc. node	5004 Apr 02 13:32	28°♍49'36		minimum elong	5005 Feb 20 13:11	1°♍23'51	2°03'05
	5004 Apr 03 07:05	0°♍		evening rise	5005 Mar 06 07:08	24°♍13'40	
evening max el	5004 Apr 10 00:40	8°♍55'55	18°06'40		5005 Mar 09 16:36	0°♍	
retrograde	5004 Apr 16 14:48	12°♍18'37		asc. node	5005 Mar 20 10:33	17°♍13'43	
evening set	5004 Apr 19 05:48	11°♍46'21		evening max el	5005 Mar 24 13:34	22°♍13'52	18°13'56
inferior conj	5004 Apr 25 19:55	6°♍45'29	3°07'04	retrograde	5005 Mar 30 23:23	25°♍38'23	
minimum elong	5004 Apr 25 22:34	6°♍39'00	3°06'36	evening set	5005 Apr 02 20:30	24°♍54'37	
min. Earth dist.	5004 Apr 28 23:31	3°♍41'46	0.61263 AU	inferior conj	5005 Apr 08 22:50	19°♍33'51	3°29'30
morning rise	5004 May 02 12:11	0°♍48'58		minimum elong	5005 Apr 08 23:52	19°♍31'01	3°29'26
	5004 May 03 20:05	30°♍		min. Earth dist.	5005 Apr 11 12:57	16°♍43'09	0.63347 AU
desc. node	5004 May 08 23:57	28°♍31'12		morning rise	5005 Apr 15 01:10	13°♍25'43	
direct	5004 May 09 06:02	28°♍31'00		direct	5005 Apr 21 21:31	10°♍45'54	
	5004 May 14 23:45	0°♍		desc. node	5005 Apr 25 20:58	11°♍33'12	
morning max el	5004 May 23 11:22	6°♍28'54	27°50'26	morning max el	5005 May 05 18:55	18°♍44'59	27°45'08
	5004 Jun 10 05:20	0°♍			5005 May 15 06:48	0°♍	
morning set	5004 Jun 25 09:13	27°♍47'03			5005 Jun 03 02:57	0°♍	
	5004 Jun 26 10:55	0°♍		morning set	5005 Jun 09 06:53	11°♍49'28	
asc. node	5004 Jun 29 12:48	6°♍31'19		max. Earth dist.	5005 Jun 14 12:33	22°♍37'22	1.32773 AU
max. Earth dist.	5004 Jul 01 08:01	10°♍25'21	1.32136 AU	asc. node	5005 Jun 16 09:50	26°♍39'00	

superior conj	5005 Jun 17 02:12	28° Π 07'03	0°07'07	superior conj	5006 Jun 01 04:46	12° Π 20'05	0°-21'-28
minimum elong	5005 Jun 17 01:51	28° Π 05'10	0°07'02	minimum elong	5006 Jun 01 05:54	12° Π 26'02	0°21'16
behind sun begin	5005 Jun 16 21:04	27° Π 39'23		asc. node	5006 Jun 03 06:52	16° Π 44'33	
behind sun end	5005 Jun 17 06:38	28° Π 30'58		evening rise	5006 Jun 08 13:53	27° Π 57'35	
	5005 Jun 17 23:07	0° \mathfrak{E}			5006 Jun 09 13:22	0° \mathfrak{E}	
evening rise	5005 Jun 24 03:14	13° \mathfrak{E} 19'12			5006 Jun 27 22:14	0° \mathfrak{Q}	
	5005 Jul 02 13:10	0° \mathfrak{Q}		evening max el	5006 Jun 28 21:25	0° \mathfrak{Q} 58'45	21°43'11
evening max el	5005 Jul 17 04:43	20° \mathfrak{Q} 32'14	23°18'33	desc. node	5006 Jul 09 17:14	7° \mathfrak{Q} 02'43	
desc. node	5005 Jul 22 20:13	24° \mathfrak{Q} 57'31		retrograde	5006 Jul 11 08:41	7° \mathfrak{Q} 09'04	
retrograde	5005 Jul 30 16:43	27° \mathfrak{Q} 17'39		evening set	5006 Jul 13 23:30	6° \mathfrak{Q} 53'35	
evening set	5005 Aug 03 15:38	26° \mathfrak{Q} 43'29		inferior conj	5006 Jul 23 06:47	2° \mathfrak{Q} 52'16	-3°-45'-38
min. Earth dist.	5005 Aug 10 14:06	23° \mathfrak{Q} 32'14	0.55663 AU	minimum elong	5006 Jul 22 21:59	3° \mathfrak{Q} 04'34	3°43'12
inferior conj	5005 Aug 12 10:59	22° \mathfrak{Q} 26'23	-4°-57'-1	min. Earth dist.	5006 Jul 23 00:08	3° \mathfrak{Q} 01'34	0.54854 AU
minimum elong	5005 Aug 12 05:09	22° \mathfrak{Q} 34'59	4°56'13		5006 Jul 28 22:14	30° \mathfrak{R} \mathfrak{E}	
morning rise	5005 Aug 20 21:38	18° \mathfrak{Q} 34'04		morning rise	5006 Jul 31 21:44	29° \mathfrak{E} 01'06	
direct	5005 Aug 23 19:44	18° \mathfrak{Q} 13'26		direct	5006 Aug 04 06:26	28° \mathfrak{E} 36'25	
morning max el	5005 Sep 03 10:54	23° \mathfrak{Q} 09'58	20°24'49		5006 Aug 10 06:40	0° \mathfrak{Q}	
	5005 Sep 09 06:51	0° \mathfrak{M}		morning max el	5006 Aug 16 11:52	4° \mathfrak{Q} 20'57	21°55'17
asc. node	5005 Sep 12 09:05	4° \mathfrak{M} 41'39		asc. node	5006 Aug 30 06:08	23° \mathfrak{Q} 28'57	
morning set	5005 Sep 22 02:41	22° \mathfrak{M} 59'10			5006 Sep 02 16:34	0° \mathfrak{M}	
	5005 Sep 25 12:21	0° \mathfrak{A}		morning set	5006 Sep 06 12:22	7° \mathfrak{M} 47'24	
superior conj	5005 Sep 29 17:31	8° \mathfrak{A} 38'56	1°42'48	superior conj	5006 Sep 13 18:07	23° \mathfrak{M} 05'51	1°42'43
minimum elong	5005 Sep 29 18:15	8° \mathfrak{A} 42'40	1°42'46	minimum elong	5006 Sep 13 17:28	23° \mathfrak{M} 02'24	1°42'42
max. Earth dist.	5005 Oct 04 22:18	18° \mathfrak{A} 56'28	1.36355 AU		5006 Sep 17 02:02	0° \mathfrak{A}	
evening rise	5005 Oct 08 20:58	26° \mathfrak{A} 21'48		max. Earth dist.	5006 Sep 17 11:54	0° \mathfrak{A} 50'17	1.34651 AU
	5005 Oct 10 21:04	0° \mathfrak{M}		evening rise	5006 Sep 21 23:25	9° \mathfrak{A} 42'40	
desc. node	5005 Oct 18 19:33	13° \mathfrak{M} 31'35			5006 Oct 03 09:01	0° \mathfrak{M}	
	5005 Oct 29 17:28	0° \mathfrak{A}		desc. node	5006 Oct 05 16:34	3° \mathfrak{M} 43'26	
evening max el	5005 Nov 13 12:07	17° \mathfrak{A} 54'22	26°01'20		5006 Oct 25 11:46	0° \mathfrak{A}	
retrograde	5005 Nov 26 01:12	25° \mathfrak{A} 01'46		evening max el	5006 Oct 27 00:45	1° \mathfrak{A} 31'44	26°54'06
evening set	5005 Dec 02 04:53	22° \mathfrak{A} 30'39		retrograde	5006 Nov 09 04:39	8° \mathfrak{A} 48'50	
min. Earth dist.	5005 Dec 06 11:46	17° \mathfrak{A} 56'31	0.66804 AU	evening set	5006 Nov 15 20:42	6° \mathfrak{A} 10'10	
inferior conj	5005 Dec 07 22:35	16° \mathfrak{A} 07'58	0°-28'-45	min. Earth dist.	5006 Nov 19 20:48	2° \mathfrak{A} 11'56	0.65665 AU
minimum elong	5005 Dec 07 23:21	16° \mathfrak{A} 05'34	0°28'25	inferior conj	5006 Nov 21 19:22	29° \mathfrak{M} 57'22	-1°-29'-36
asc. node	5005 Dec 09 08:17	14° \mathfrak{A} 24'42		minimum elong	5006 Nov 21 21:55	29° \mathfrak{M} 50'01	1°28'33
morning rise	5005 Dec 13 18:55	10° \mathfrak{A} 15'50			5006 Nov 21 18:28	30° \mathfrak{R} \mathfrak{M}	
direct	5005 Dec 16 21:33	9° \mathfrak{A} 20'33		asc. node	5006 Nov 26 05:20	25° \mathfrak{M} 27'23	
morning max el	5005 Dec 23 16:53	13° \mathfrak{A} 05'26	18°52'22	morning rise	5006 Nov 28 00:52	24° \mathfrak{M} 17'18	
	5006 Jan 05 04:42	0° \mathfrak{E}		direct	5006 Nov 30 18:26	23° \mathfrak{M} 36'25	
morning set	5006 Jan 14 13:53	14° \mathfrak{E} 36'14		morning max el	5006 Dec 07 06:46	27° \mathfrak{M} 06'50	18°14'30
desc. node	5006 Jan 14 18:49	14° \mathfrak{E} 55'30			5006 Dec 09 20:20	0° \mathfrak{A}	
	5006 Jan 24 09:57	0° \mathfrak{A}		morning set	5006 Dec 26 03:34	25° \mathfrak{A} 00'57	
max. Earth dist.	5006 Jan 29 15:15	8° \mathfrak{A} 11'00	1.45164 AU	desc. node	5006 Dec 29 05:22	0° \mathfrak{E}	
					5007 Jan 01 15:52	5° \mathfrak{E} 32'08	
superior conj	5006 Jan 31 03:23	10° \mathfrak{A} 33'04	-1°-38'-29	superior conj	5007 Jan 10 06:46	19° \mathfrak{E} 13'34	0°-57'-19
minimum elong	5006 Jan 30 18:06	9° \mathfrak{A} 56'31	1°37'38	minimum elong	5007 Jan 09 23:44	18° \mathfrak{E} 45'52	0°56'25
	5006 Feb 12 08:51	0° \mathfrak{H}		max. Earth dist.	5007 Jan 12 10:30	22° \mathfrak{E} 36'46	1.45282 AU
evening rise	5006 Feb 15 09:33	4° \mathfrak{H} 53'28			5007 Jan 17 03:45	0° \mathfrak{A}	
	5006 Mar 03 09:25	0° \mathfrak{Y}		evening rise	5007 Jan 26 13:26	14° \mathfrak{A} 40'38	
asc. node	5006 Mar 07 07:34	4° \mathfrak{Y} 54'35			5007 Feb 05 10:02	0° \mathfrak{H}	
evening max el	5006 Mar 08 01:11	5° \mathfrak{Y} 40'57	18°39'29	greatest brilliancy	5007 Feb 10 17:57	8° \mathfrak{H} 01'51	-0.7m
retrograde	5006 Mar 14 15:45	9° \mathfrak{Y} 20'08		evening max el	5007 Feb 19 09:21	19° \mathfrak{H} 12'40	19°22'14
evening set	5006 Mar 17 19:10	8° \mathfrak{Y} 24'03		asc. node	5007 Feb 22 04:36	21° \mathfrak{H} 39'51	
inferior conj	5006 Mar 23 13:18	2° \mathfrak{Y} 45'09	3°32'40	retrograde	5007 Feb 26 12:26	23° \mathfrak{H} 17'23	
minimum elong	5006 Mar 23 12:48	2° \mathfrak{Y} 46'42	3°32'39	evening set	5007 Mar 01 23:00	22° \mathfrak{H} 08'08	
min. Earth dist.	5006 Mar 25 11:53	0° \mathfrak{Y} 24'03	0.65116 AU	inferior conj	5007 Mar 07 11:56	16° \mathfrak{H} 13'22	3°21'12
	5006 Mar 25 20:03	30° \mathfrak{R} \mathfrak{H}		minimum elong	5007 Mar 07 10:18	16° \mathfrak{H} 18'41	3°20'59
morning rise	5006 Mar 29 05:08	26° \mathfrak{H} 31'02		min. Earth dist.	5007 Mar 08 19:22	14° \mathfrak{H} 31'10	0.66483 AU
direct	5006 Apr 04 20:26	23° \mathfrak{H} 42'34		morning rise	5007 Mar 12 20:45	9° \mathfrak{H} 56'55	
desc. node	5006 Apr 12 18:00	26° \mathfrak{H} 47'59		direct	5007 Mar 19 01:52	7° \mathfrak{H} 12'20	
	5006 Apr 16 14:38	0° \mathfrak{Y}		desc. node	5007 Mar 30 15:04	13° \mathfrak{H} 41'59	
morning max el	5006 Apr 18 04:56	1° \mathfrak{Y} 33'05	27°05'43	morning max el	5007 Mar 31 14:50	14° \mathfrak{H} 40'45	25°59'49
	5006 May 09 10:00	0° \mathfrak{E}			5007 Apr 13 03:27	0° \mathfrak{Y}	
morning set	5006 May 23 19:03	25° \mathfrak{E} 20'33			5007 May 02 05:08	0° \mathfrak{E}	
	5006 May 26 04:09	0° \mathfrak{H}		morning set	5007 May 06 17:52	8° \mathfrak{E} 09'34	
max. Earth dist.	5006 May 28 08:02	4° \mathfrak{H} 20'32	1.33869 AU				

max. Earth dist.	5007 May 10 16:02	15°♄34'08	1.35427 AU		5008 Apr 05 20:26	0°♄	
				morning set	5008 Apr 17 22:05	20°♄01'10	
superior conj	5007 May 15 23:51	26°♄06'51	0°-51'-12	max. Earth dist.	5008 Apr 21 14:09	26°♄35'25	1.37388 AU
minimum elong	5007 May 16 02:40	26°♄21'09	0°50'42		5008 Apr 23 10:37	0°♄	
	5007 May 17 21:34	0°♄					
asc. node	5007 May 21 03:54	6°♄44'13		superior conj	5008 Apr 28 08:11	9°♄18'18	-1°-20'-14
evening rise	5007 May 23 21:21	12°♄21'50		minimum elong	5008 Apr 28 12:32	9°♄39'24	1°19'36
	5007 Jun 02 03:41	0°♄		evening rise	5008 May 06 23:09	26°♄24'19	
evening max el	5007 Jun 11 01:08	11°♄56'54	20°20'50	asc. node	5008 May 07 00:56	26°♄33'10	
retrograde	5007 Jun 21 22:00	17°♄16'02			5008 May 08 18:43	0°♄	
evening set	5007 Jun 23 21:21	17°♄06'15		evening max el	5008 May 23 17:20	23°♄37'03	19°17'19
desc. node	5007 Jun 26 14:15	16°♄23'31		retrograde	5008 Jun 01 20:53	28°♄05'01	
inferior conj	5007 Jul 03 01:08	13°♄08'26	-1°-54'-57	evening set	5008 Jun 03 20:01	27°♄53'33	
minimum elong	5007 Jul 02 19:45	13°♄16'18	1°53'00	inferior conj	5008 Jun 12 08:00	23°♄44'50	0°02'27
min. Earth dist.	5007 Jul 04 12:04	12°♄17'19	0.54992 AU	minimum elong	5008 Jun 12 08:06	23°♄44'40	0°02'24
morning rise	5007 Jul 11 16:19	8°♄57'21		transit middle	5008 Jun 12 08:06	23°♄44'40	0°02'24
direct	5007 Jul 15 16:41	8°♄22'28		transit begin	5008 Jun 12 04:18	23°♄50'58	
morning max el	5007 Jul 29 04:15	14°♄55'59	23°37'46	transit end	5008 Jun 12 11:54	23°♄38'22	
	5007 Aug 09 23:17	0°♄		desc. node	5008 Jun 12 11:18	23°♄39'21	
asc. node	5007 Aug 17 03:12	12°♄45'38		min. Earth dist.	5008 Jun 15 02:27	21°♄55'22	0.56066 AU
morning set	5007 Aug 21 23:52	22°♄40'10		morning rise	5008 Jun 20 16:06	19°♄00'06	
	5007 Aug 25 09:57	0°♄		direct	5008 Jun 25 14:08	18°♄04'36	
				morning max el	5008 Jul 09 17:51	25°♄16'45	25°19'06
superior conj	5007 Aug 29 00:40	7°♄49'23	1°36'17		5008 Jul 14 03:37	0°♄	
minimum elong	5007 Aug 28 23:00	7°♄40'26	1°36'09		5008 Aug 01 19:54	0°♄	
max. Earth dist.	5007 Aug 31 10:11	12°♄57'21	1.33346 AU	asc. node	5008 Aug 03 00:15	2°♄23'25	
evening rise	5007 Sep 05 14:21	23°♄38'43		morning set	5008 Aug 05 11:31	7°♄32'12	
	5007 Sep 08 20:18	0°♄					
desc. node	5007 Sep 22 13:34	23°♄31'14		superior conj	5008 Aug 12 10:46	22°♄41'45	1°24'23
	5007 Sep 27 00:13	0°♄		minimum elong	5008 Aug 12 08:34	22°♄29'38	1°24'07
evening max el	5007 Oct 09 12:41	14°♄52'53	27°23'24	max. Earth dist.	5008 Aug 13 16:09	25°♄22'35	1.32467 AU
retrograde	5007 Oct 23 02:15	22°♄11'17			5008 Aug 15 19:18	0°♄	
evening set	5007 Oct 30 03:13	19°♄33'11		evening rise	5008 Aug 19 14:15	7°♄59'54	
min. Earth dist.	5007 Nov 02 21:30	16°♄09'16	0.64180 AU		5008 Aug 31 06:46	0°♄	
inferior conj	5007 Nov 05 08:04	13°♄35'21	-2°-32'-46	desc. node	5008 Sep 08 10:35	12°♄45'12	
minimum elong	5007 Nov 05 12:30	13°♄23'42	2°31'06	evening max el	5008 Sep 20 22:05	27°♄45'41	27°23'05
morning rise	5007 Nov 12 00:11	8°♄10'19			5008 Sep 23 11:01	0°♄	
asc. node	5007 Nov 13 02:25	7°♄49'19		retrograde	5008 Oct 04 17:02	5°♄00'11	
direct	5007 Nov 14 11:08	7°♄39'51		evening set	5008 Oct 11 21:07	2°♄33'26	
morning max el	5007 Nov 20 23:23	11°♄05'02	17°53'36		5008 Oct 15 02:39	30°♄	
	5007 Dec 03 21:23	0°♄		min. Earth dist.	5008 Oct 15 12:14	29°♄38'31	0.62388 AU
morning set	5007 Dec 07 21:29	6°♄48'15		inferior conj	5008 Oct 18 09:50	26°♄55'20	-3°-34'-50
desc. node	5007 Dec 19 12:53	26°♄15'21		minimum elong	5008 Oct 18 15:45	26°♄41'24	3°33'00
				morning rise	5008 Oct 25 13:20	21°♄48'36	
superior conj	5007 Dec 21 00:19	28°♄39'20	0°-10'-17	direct	5008 Oct 27 20:33	21°♄24'54	
minimum elong	5007 Dec 20 23:07	28°♄34'30	0°10'08	asc. node	5008 Oct 29 23:29	21°♄45'40	
behind sun begin	5007 Dec 20 15:12	28°♄02'21		morning max el	5008 Nov 03 15:41	24°♄52'58	17°50'34
behind sun end	5007 Dec 21 07:03	29°♄06'37			5008 Nov 07 20:40	0°♄	
	5007 Dec 21 20:16	0°♄		morning set	5008 Nov 19 13:40	19°♄39'49	
max. Earth dist.	5007 Dec 26 04:58	6°♄58'34	1.44670 AU		5008 Nov 25 09:29	0°♄	
evening rise	5008 Jan 06 01:49	23°♄55'16					
	5008 Jan 10 01:10	0°♄		superior conj	5008 Nov 30 19:19	9°♄20'08	0°32'11
greatest brilliancy	5008 Jan 27 08:26	25°♄20'15	-0.5m	minimum elong	5008 Nov 30 22:12	9°♄32'24	0°31'47
	5008 Jan 31 00:44	0°♄		desc. node	5008 Dec 05 09:53	17°♄02'07	
evening max el	5008 Feb 02 12:35	2°♄46'02	20°20'15	max. Earth dist.	5008 Dec 07 20:40	21°♄02'18	1.43405 AU
asc. node	5008 Feb 09 01:39	7°♄14'25			5008 Dec 13 11:26	0°♄	
retrograde	5008 Feb 10 10:38	7°♄24'33		evening rise	5008 Dec 15 13:31	3°♄15'40	
evening set	5008 Feb 14 05:46	6°♄01'04			5009 Jan 02 12:39	0°♄	
inferior conj	5008 Feb 19 15:53	29°♄52'59	2°58'12	greatest brilliancy	5009 Jan 10 13:00	10°♄45'10	-0.4m
minimum elong	5008 Feb 19 13:37	0°♄00'42	2°57'42	evening max el	5009 Jan 15 10:23	16°♄21'02	21°30'20
	5008 Feb 19 13:49	30°♄		retrograde	5009 Jan 24 08:18	21°♄38'16	
min. Earth dist.	5008 Feb 20 09:27	28°♄53'15	0.67428 AU	asc. node	5009 Jan 25 22:43	21°♄24'31	
morning rise	5008 Feb 24 20:54	23°♄36'39		evening set	5009 Jan 28 13:37	19°♄59'31	
direct	5008 Mar 01 12:49	21°♄05'55		inferior conj	5009 Feb 02 22:52	13°♄41'01	2°25'47
morning max el	5008 Mar 12 23:30	27°♄56'47	24°37'06	minimum elong	5009 Feb 02 20:27	13°♄49'23	2°25'04
	5008 Mar 14 22:13	0°♄		min. Earth dist.	5009 Feb 03 03:54	13°♄23'34	0.67964 AU
desc. node	5008 Mar 16 12:07	1°♄46'39		morning rise	5009 Feb 08 02:58	7°♄26'37	

direct	5009 Feb 13 04:17	5° \approx 16'08		minimum elong	5010 Jan 18 04:47	27° \approx 41'32	1°44'35
morning max el	5009 Feb 23 08:38	11° \approx 18'37	23°07'55	min. Earth dist.	5010 Jan 18 00:23	27° \approx 56'45	0.68106 AU
greatest brilliancy	5009 Feb 28 07:39	16° \approx 51'31	-0.3m	morning rise	5010 Jan 23 12:38	21° \approx 23'29	
desc. node	5009 Mar 03 09:09	20° \approx 42'02		direct	5010 Jan 27 23:15	19° \approx 35'55	
	5009 Mar 10 05:09	0° \approx		morning max el	5010 Feb 05 21:49	24° \approx 48'45	21°41'30
	5009 Mar 29 16:11	0° \approx		greatest brilliancy	5010 Feb 10 17:07	0° \approx 13'35	-0.4m
morning set	5009 Mar 30 01:41	0° \approx 39'35			5010 Feb 10 12:41	0° \approx	
max. Earth dist.	5009 Apr 03 09:24	8° \approx 00'25	1.39576 AU	desc. node	5010 Feb 18 06:09	10° \approx 13'34	
					5010 Mar 03 16:05	0° \approx	
superior conj	5009 Apr 11 01:49	21° \approx 44'40	-1°-45'-43	morning set	5010 Mar 10 00:39	9° \approx 56'43	
minimum elong	5009 Apr 11 06:48	22° \approx 07'40	1°45'13	max. Earth dist.	5010 Mar 16 09:07	20° \approx 16'18	1.41705 AU
	5009 Apr 15 11:35	0° \approx			5010 Mar 22 03:08	0° \approx	
evening rise	5009 Apr 20 16:25	9° \approx 57'42					
asc. node	5009 Apr 23 21:58	16° \approx 06'50		superior conj	5010 Mar 23 23:49	3° \approx 13'59	-2°-3'-35
	5009 May 02 00:15	0° \approx		minimum elong	5010 Mar 24 03:20	3° \approx 29'20	2°03'26
evening max el	5009 May 06 19:43	5° \approx 55'55	18°34'05	evening rise	5010 Apr 03 21:27	22° \approx 53'03	
retrograde	5009 May 14 14:09	9° \approx 45'49			5010 Apr 07 18:55	0° \approx	
evening set	5009 May 16 19:02	9° \approx 28'21		asc. node	5010 Apr 10 19:00	5° \approx 19'32	
inferior conj	5009 May 24 11:23	5° \approx 00'12	1°38'23	evening max el	5010 Apr 20 04:46	18° \approx 44'43	18°11'03
minimum elong	5009 May 24 14:32	4° \approx 54'05	1°37'22	retrograde	5010 Apr 27 02:04	22° \approx 13'11	
min. Earth dist.	5009 May 27 20:25	2° \approx 24'30	0.57848 AU	evening set	5010 Apr 29 13:24	21° \approx 46'54	
desc. node	5009 May 30 08:21	0° \approx 42'52		inferior conj	5010 May 06 12:00	16° \approx 57'36	2°43'07
	5009 May 31 14:23	30° \approx 8		minimum elong	5010 May 06 15:20	16° \approx 50'05	2°42'21
morning rise	5009 Jun 01 05:34	29° \approx 840'48		min. Earth dist.	5010 May 09 20:30	13° \approx 57'02	0.59988 AU
direct	5009 Jun 07 01:34	28° \approx 814'51		morning rise	5010 May 13 13:29	11° \approx 11'27	
	5009 Jun 13 16:09	0° \approx		desc. node	5010 May 17 05:22	9° \approx 34'20	
morning max el	5009 Jun 21 10:37	5° \approx 52'08	26°43'12	direct	5010 May 20 01:35	9° \approx 11'29	
	5009 Jul 09 05:54	0° \approx		morning max el	5010 Jun 03 09:51	17° \approx 04'19	27°36'39
morning set	5009 Jul 20 21:41	22° \approx 18'13			5010 Jun 14 02:21	0° \approx	
asc. node	5009 Jul 20 21:15	22° \approx 15'54			5010 Jul 01 19:16	0° \approx	
	5009 Jul 24 11:36	0° \approx		morning set	5010 Jul 05 04:41	6° \approx 53'08	
				asc. node	5010 Jul 07 18:15	12° \approx 18'09	
superior conj	5009 Jul 27 22:27	7° \approx 36'09	1°07'45	max. Earth dist.	5010 Jul 11 14:01	20° \approx 37'13	1.31970 AU
minimum elong	5009 Jul 27 20:10	7° \approx 23'32	1°07'22				
max. Earth dist.	5009 Jul 28 02:40	7° \approx 59'29	1.32011 AU	superior conj	5010 Jul 12 09:58	22° \approx 27'06	0°46'58
evening rise	5009 Aug 03 20:17	22° \approx 37'09		minimum elong	5010 Jul 12 08:05	22° \approx 16'42	0°46'34
	5009 Aug 07 10:36	0° \approx			5010 Jul 15 20:11	0° \approx	
	5009 Aug 25 10:00	0° \approx		evening rise	5010 Jul 19 06:08	7° \approx 23'25	
desc. node	5009 Aug 26 07:36	1° \approx 10'55			5010 Jul 31 00:05	0° \approx	
evening max el	5009 Sep 03 02:00	9° \approx 56'11	26°49'22	desc. node	5010 Aug 13 04:37	18° \approx 28'52	
retrograde	5009 Sep 16 23:45	17° \approx 05'58		evening max el	5010 Aug 15 22:16	21° \approx 17'07	25°43'36
evening set	5009 Sep 23 22:00	15° \approx 02'37		retrograde	5010 Aug 29 21:12	28° \approx 23'10	
min. Earth dist.	5009 Sep 27 16:04	12° \approx 25'47	0.60377 AU	evening set	5010 Sep 05 00:59	26° \approx 53'47	
inferior conj	5009 Sep 30 21:10	9° \approx 47'26	-4°-29'-58	min. Earth dist.	5010 Sep 09 10:21	24° \approx 17'48	0.58317 AU
minimum elong	5009 Oct 01 03:15	9° \approx 34'52	4°28'39	inferior conj	5010 Sep 12 14:35	22° \approx 01'57	-5°-8'-8
morning rise	5009 Oct 08 11:49	5° \approx 02'25		minimum elong	5010 Sep 12 18:09	21° \approx 55'34	5°07'49
direct	5009 Oct 10 18:44	4° \approx 42'25		morning rise	5010 Sep 20 14:51	17° \approx 40'39	
asc. node	5009 Oct 16 20:32	7° \approx 10'39		direct	5010 Sep 23 01:03	17° \approx 21'59	
morning max el	5009 Oct 18 04:24	8° \approx 21'37	18°06'37	morning max el	5010 Oct 01 10:13	21° \approx 22'07	18°43'13
	5009 Nov 01 03:43	0° \approx		asc. node	5010 Oct 03 17:32	23° \approx 50'47	
morning set	5009 Nov 02 21:48	3° \approx 16'19			5010 Oct 08 03:20	0° \approx	
				morning set	5010 Oct 17 17:03	17° \approx 24'07	
superior conj	5009 Nov 12 15:55	21° \approx 15'13	1°04'57		5010 Oct 24 04:33	0° \approx	
minimum elong	5009 Nov 12 19:53	21° \approx 32'59	1°04'28				
	5009 Nov 17 15:38	0° \approx		superior conj	5010 Oct 26 09:21	4° \approx 11'10	1°27'05
max. Earth dist.	5009 Nov 20 07:42	4° \approx 32'00	1.41632 AU	minimum elong	5010 Oct 26 12:32	4° \approx 26'07	1°26'47
desc. node	5009 Nov 22 06:53	7° \approx 48'36		max. Earth dist.	5010 Nov 02 13:51	17° \approx 17'56	1.39569 AU
evening rise	5009 Nov 25 15:22	13° \approx 16'53		evening rise	5010 Nov 06 15:19	24° \approx 18'25	
	5009 Dec 06 10:25	0° \approx		desc. node	5010 Nov 09 03:54	28° \approx 31'24	
greatest brilliancy	5009 Dec 23 23:24	24° \approx 10'18	-0.3m		5010 Nov 10 01:28	0° \approx	
evening max el	5009 Dec 29 03:17	29° \approx 57'35	22°48'07		5010 Nov 30 05:54	0° \approx	
	5009 Dec 29 04:15	0° \approx		evening max el	5010 Dec 11 16:56	13° \approx 37'18	24°07'56
retrograde	5010 Jan 08 03:47	5° \approx 54'28		retrograde	5010 Dec 22 19:58	20° \approx 09'31	
evening set	5010 Jan 12 20:55	3° \approx 59'43		evening set	5010 Dec 28 02:07	17° \approx 59'06	
asc. node	5010 Jan 12 19:45	4° \approx 02'06		asc. node	5010 Dec 30 16:47	15° \approx 17'04	
	5010 Jan 16 12:05	30° \approx 8		min. Earth dist.	5011 Jan 01 20:42	12° \approx 29'45	0.67877 AU
inferior conj	5010 Jan 18 06:53	27° \approx 34'17	1°45'20	inferior conj	5011 Jan 02 14:10	11° \approx 30'46	0°57'53

minimum elong	5011 Jan 02 12:51	11°☿35'14	0°57'22		5011 Dec 14 02:40	30°♊♊	
morning rise	5011 Jan 07 23:54	5°☿25'22		min. Earth dist.	5011 Dec 16 14:35	26°♊♊59'40	0.67289 AU
direct	5011 Jan 11 20:45	4°☿00'18		inferior conj	5011 Dec 17 18:58	25°♊♊28'02	0°04'24
morning max el	5011 Jan 19 18:07	8°☿30'33	20°24'38	minimum elong	5011 Dec 17 18:51	25°♊♊28'24	0°04'22
greatest brilliancy	5011 Jan 26 00:14	15°☿52'52	-0.5m	transit middle	5011 Dec 17 18:51	25°♊♊28'24	0°04'22
desc. node	5011 Feb 05 03:10	0°♊11'28		transit begin	5011 Dec 17 16:09	25°♊♊37'06	
	5011 Feb 05 00:04	0°♊		transit end	5011 Dec 17 21:32	25°♊♊19'42	
morning set	5011 Feb 17 00:49	18°♊14'11		asc. node	5011 Dec 17 13:48	25°♊♊44'44	
	5011 Feb 24 12:38	0°♊		morning rise	5011 Dec 23 10:50	19°♊♊30'10	
max. Earth dist.	5011 Feb 26 16:01	3°♊25'39	1.43502 AU	direct	5011 Dec 26 19:29	18°♊♊25'04	
				morning max el	5012 Jan 02 22:21	22°♊♊23'35	19°21'32
superior conj	5011 Mar 04 21:30	13°♊36'01	-2°-8'-29		5012 Jan 09 05:12	0°☿	
minimum elong	5011 Mar 04 20:20	13°♊31'10	2°08'29	greatest brilliancy	5012 Jan 12 00:03	3°☿54'51	-0.7m
	5011 Mar 14 13:02	0°♊		desc. node	5012 Jan 23 00:12	20°☿28'46	
evening rise	5011 Mar 17 09:57	5°♊00'28		morning set	5012 Jan 26 23:42	26°☿37'17	
asc. node	5011 Mar 28 16:02	24°♊03'39			5012 Jan 29 04:01	0°♊	
	5011 Apr 01 23:30	0°♊		max. Earth dist.	5012 Feb 09 05:32	17°♊♊17'46	1.44750 AU
evening max el	5011 Apr 03 17:06	1°♊53'47	18°07'29				
retrograde	5011 Apr 10 04:24	5°♊15'59		superior conj	5012 Feb 12 18:11	22°♊♊53'25	-1°-55'-11
evening set	5011 Apr 12 21:54	4°♊39'06		minimum elong	5012 Feb 12 10:49	22°♊♊24'06	1°54'42
	5011 Apr 18 18:42	30°♊♊			5012 Feb 17 04:33	0°♊	
inferior conj	5011 Apr 19 06:32	29°♊29'34	3°19'17	evening rise	5012 Feb 27 01:39	16°♊♊12'58	
minimum elong	5011 Apr 19 08:31	29°♊24'26	3°19'02		5012 Mar 06 09:14	0°♊	
min. Earth dist.	5011 Apr 22 04:52	26°♊28'41	0.62167 AU	asc. node	5012 Mar 14 13:04	12°♊♊10'50	
morning rise	5011 Apr 25 16:26	23°♊26'52		evening max el	5012 Mar 17 05:46	15°♊♊16'15	18°22'41
direct	5011 May 02 12:12	20°♊58'08		retrograde	5012 Mar 23 16:43	18°♊♊45'39	
desc. node	5011 May 04 02:24	21°♊05'40		evening set	5012 Mar 26 16:22	17°♊♊56'54	
morning max el	5011 May 16 15:06	28°♊58'27	27°52'48	inferior conj	5012 Apr 01 14:50	12°♊♊28'28	3°32'52
	5011 May 17 15:13	0°♊		minimum elong	5012 Apr 01 15:11	12°♊♊27'30	3°32'52
	5011 Jun 07 23:40	0°♊		min. Earth dist.	5012 Apr 03 22:33	9°♊♊48'25	0.64142 AU
morning set	5011 Jun 19 06:27	21°♊09'22		morning rise	5012 Apr 07 12:15	6°♊♊17'09	
	5011 Jun 23 12:15	0°♊		direct	5012 Apr 14 07:19	3°♊♊31'35	
asc. node	5011 Jun 24 15:16	2°♊24'46		desc. node	5012 Apr 19 23:26	5°♊♊07'58	
max. Earth dist.	5011 Jun 24 22:04	3°♊01'22	1.32349 AU	morning max el	5012 Apr 28 00:00	11°♊♊29'15	27°32'05
					5012 May 12 16:05	0°♊	
superior conj	5011 Jun 26 19:32	7°♊07'53	0°22'33		5012 May 30 10:43	0°♊	
minimum elong	5011 Jun 26 18:30	7°♊02'16	0°22'18	morning set	5012 Jun 02 00:28	4°♊♊59'21	
evening rise	5011 Jul 03 17:43	22°♊10'59		max. Earth dist.	5012 Jun 06 22:52	15°♊♊00'08	1.33178 AU
	5011 Jul 07 12:03	0°♊					
	5011 Jul 26 14:47	0°♊		superior conj	5012 Jun 10 01:17	21°♊♊32'50	0°-4'-47
evening max el	5011 Jul 28 11:59	1°♊55'04	24°14'34	minimum elong	5012 Jun 10 01:31	21°♊♊34'07	0°04'46
desc. node	5011 Jul 31 01:38	4°♊11'30		behind sun begin	5012 Jun 09 20:20	21°♊♊06'25	
retrograde	5011 Aug 11 07:31	8°♊52'35		behind sun end	5012 Jun 10 06:43	22°♊♊01'50	
evening set	5011 Aug 16 03:30	8°♊00'41		asc. node	5012 Jun 10 12:19	22°♊♊31'48	
min. Earth dist.	5011 Aug 21 22:46	5°♊06'20	0.56481 AU		5012 Jun 13 23:43	0°♊	
inferior conj	5011 Aug 24 11:49	3°♊30'58	-5°-14'-21	evening rise	5012 Jun 17 05:15	6°♊♊54'08	
minimum elong	5011 Aug 24 09:40	3°♊34'21	5°14'16		5012 Jun 29 11:34	0°♊	
	5011 Aug 31 03:36	30°♊♊		evening max el	5012 Jul 09 01:22	12°♊♊16'28	22°37'05
morning rise	5011 Sep 01 19:16	29°♊30'36		desc. node	5012 Jul 16 22:39	17°♊♊45'24	
direct	5011 Sep 04 12:02	29°♊11'21		retrograde	5012 Jul 22 05:12	18°♊♊49'21	
	5011 Sep 08 15:34	0°♊		evening set	5012 Jul 25 12:42	18°♊♊25'17	
morning max el	5011 Sep 14 05:55	3°♊44'15	19°41'31	min. Earth dist.	5012 Aug 02 09:06	14°♊♊58'16	0.55213 AU
asc. node	5011 Sep 20 14:33	11°♊30'26		inferior conj	5012 Aug 03 14:44	14°♊♊16'02	-4°-32'-58
	5011 Sep 30 21:24	0°♊		minimum elong	5012 Aug 03 06:53	14°♊♊27'15	4°31'24
morning set	5011 Oct 01 19:53	1°♊52'55		morning rise	5012 Aug 12 03:24	10°♊♊26'09	
				direct	5012 Aug 15 05:31	10°♊♊04'14	
superior conj	5011 Oct 09 18:14	17°♊52'05	1°39'30	morning max el	5012 Aug 26 13:33	15°♊♊21'04	21°01'08
minimum elong	5011 Oct 09 19:53	18°♊00'15	1°39'24	asc. node	5012 Sep 06 11:35	29°♊♊56'23	
max. Earth dist.	5011 Oct 15 18:28	29°♊25'29	1.37475 AU		5012 Sep 06 12:26	0°♊	
	5011 Oct 16 01:53	0°♊		morning set	5012 Sep 15 03:40	16°♊♊35'42	
evening rise	5011 Oct 19 13:45	6°♊21'29			5012 Sep 21 13:55	0°♊	
desc. node	5011 Oct 27 00:55	19°♊06'21					
	5011 Nov 02 23:19	0°♊		superior conj	5012 Sep 22 14:06	2°♊♊05'02	1°43'36
evening max el	5011 Nov 24 05:27	27°♊20'28	25°23'11	minimum elong	5012 Sep 22 14:13	2°♊♊05'35	1°43'36
	5011 Nov 27 03:47	0°☿		max. Earth dist.	5012 Sep 27 03:32	11°♊♊17'34	1.35588 AU
retrograde	5011 Dec 06 07:52	4°☿18'51		evening rise	5012 Oct 01 07:15	19°♊♊17'23	
evening set	5011 Dec 12 03:39	1°☿54'25			5012 Oct 07 05:44	0°♊	

desc. node	5012 Oct 12 21:57	9°♄28'21			5013 Sep 30 02:20	0°♄	
	5012 Oct 27 01:38	0°♄		evening max el	5013 Oct 19 07:02	24°♄36'04	27°09'52
evening max el	5012 Nov 05 18:14	11°♄02'53	26°26'20		5013 Oct 26 06:54	0°♄	
retrograde	5012 Nov 18 14:35	18°♄15'43		retrograde	5013 Nov 01 15:26	1°♄53'37	
evening set	5012 Nov 24 23:37	15°♄40'56			5013 Nov 07 10:31	30°♄	
min. Earth dist.	5012 Nov 29 03:37	11°♄21'47	0.66356 AU	evening set	5013 Nov 08 11:49	29°♄14'19	
inferior conj	5012 Nov 30 19:18	9°♄21'40	0°-54'-9	min. Earth dist.	5013 Nov 12 09:25	25°♄30'55	0.65079 AU
minimum elong	5012 Nov 30 20:47	9°♄17'10	0°53'31	inferior conj	5013 Nov 14 13:00	23°♄07'30	-1°-56'-13
asc. node	5012 Dec 03 10:51	6°♄18'47		minimum elong	5013 Nov 14 16:21	22°♄58'10	1°54'53
morning rise	5012 Dec 06 19:17	3°♄34'02		asc. node	5013 Nov 20 07:54	17°♄52'12	
direct	5012 Dec 09 17:47	2°♄45'20		morning rise	5013 Nov 20 22:50	17°♄33'11	
morning max el	5012 Dec 16 09:18	6°♄23'04	18°34'09	direct	5013 Nov 23 13:23	16°♄57'03	
	5013 Jan 01 22:59	0°♄		morning max el	5013 Nov 30 00:40	20°♄23'57	18°03'26
morning set	5013 Jan 05 20:22	6°♄10'32			5013 Dec 07 08:24	0°♄	
desc. node	5013 Jan 08 21:13	10°♄59'23		morning set	5013 Dec 17 22:41	17°♄12'49	
	5013 Jan 20 23:00	0°♄			5013 Dec 25 17:44	0°♄	
				desc. node	5013 Dec 26 18:16	1°♄39'17	
superior conj	5013 Jan 21 22:30	1°♄32'10	-1°-22'-30				
minimum elong	5013 Jan 21 13:20	0°♄56'14	1°21'30	superior conj	5014 Jan 01 05:42	10°♄25'42	0°-37'-21
max. Earth dist.	5013 Jan 21 23:42	1°♄36'50	1.45307 AU	minimum elong	5014 Jan 01 01:05	10°♄07'22	0°36'44
evening rise	5013 Feb 06 18:04	26°♄28'23		max. Earth dist.	5014 Jan 04 19:31	16°♄04'58	1.45118 AU
	5013 Feb 08 23:15	0°♄			5014 Jan 13 17:27	0°♄	
evening max el	5013 Feb 28 16:15	28°♄45'52	18°55'44	evening rise	5014 Jan 17 14:02	5°♄58'19	
asc. node	5013 Mar 01 10:08	29°♄29'38			5014 Feb 02 09:46	0°♄	
	5013 Mar 01 23:33	0°♄		greatest brilliancy	5014 Feb 04 13:17	3°♄04'15	-0.6m
retrograde	5013 Mar 07 11:09	2°♄34'19		evening max el	5014 Feb 11 22:30	12°♄18'29	19°45'11
evening set	5013 Mar 10 17:32	1°♄32'42		asc. node	5014 Feb 16 07:11	15°♄46'34	
	5013 Mar 12 16:22	30°♄		retrograde	5014 Feb 19 08:44	16°♄36'19	
inferior conj	5013 Mar 16 09:09	25°♄47'00	3°29'20	evening set	5014 Feb 22 22:52	15°♄20'55	
minimum elong	5013 Mar 16 08:06	25°♄50'17	3°29'16	inferior conj	5014 Feb 28 10:20	9°♄20'04	3°12'40
min. Earth dist.	5013 Mar 18 01:12	23°♄41'39	0.65757 AU	minimum elong	5014 Feb 28 08:22	9°♄26'36	3°12'20
morning rise	5013 Mar 21 21:36	19°♄31'46		min. Earth dist.	5014 Mar 01 11:36	7°♄56'06	0.66945 AU
direct	5013 Mar 28 09:15	16°♄43'21		morning rise	5014 Mar 05 17:12	3°♄03'40	
desc. node	5013 Apr 06 20:28	21°♄08'16		direct	5014 Mar 11 16:58	0°♄24'12	
morning max el	5013 Apr 10 09:56	24°♄25'47	26°40'16	morning max el	5014 Mar 23 19:16	7°♄37'30	25°26'02
	5013 Apr 15 10:26	0°♄		desc. node	5014 Mar 24 17:31	8°♄34'55	
	5013 May 06 02:14	0°♄			5014 Apr 10 06:19	0°♄	
morning set	5013 May 16 07:27	18°♄13'21		morning set	5014 Apr 28 23:01	0°♄39'09	
max. Earth dist.	5013 May 20 13:21	26°♄28'24	1.34477 AU		5014 Apr 28 14:21	0°♄	
	5013 May 22 07:31	0°♄		max. Earth dist.	5014 May 02 16:54	7°♄34'16	1.36225 AU
superior conj	5013 May 25 01:00	5°♄35'22	0°-34'-2	superior conj	5014 May 08 15:56	19°♄07'53	-1°-3'-45
minimum elong	5013 May 25 02:51	5°♄44'53	0°33'41	minimum elong	5014 May 08 19:27	19°♄25'26	1°03'10
asc. node	5013 May 28 09:24	12°♄35'13			5014 May 14 00:54	0°♄	
evening rise	5013 Jun 01 14:47	21°♄26'53		asc. node	5014 May 15 06:27	2°♄30'46	
	5013 Jun 05 20:02	0°♄		evening rise	5014 May 16 20:11	5°♄42'40	
evening max el	5013 Jun 20 22:22	22°♄54'05	21°06'08		5014 May 30 16:23	0°♄	
retrograde	5013 Jul 02 18:05	28°♄43'05		evening max el	5014 Jun 03 07:24	4°♄08'58	19°51'16
desc. node	5013 Jul 03 19:40	28°♄40'23		retrograde	5014 Jun 13 10:05	9°♄05'34	
evening set	5013 Jul 05 00:16	28°♄31'10		evening set	5014 Jun 15 08:10	8°♄55'39	
inferior conj	5013 Jul 14 08:04	24°♄33'39	-3°-1'-50	desc. node	5014 Jun 20 16:43	6°♄58'14	
minimum elong	5013 Jul 14 00:04	24°♄44'54	2°59'14	inferior conj	5014 Jun 24 06:09	4°♄54'18	-1°-3'-51
min. Earth dist.	5013 Jul 14 19:41	24°♄17'19	0.54793 AU	minimum elong	5014 Jun 24 03:12	4°♄58'49	1°02'45
morning rise	5013 Jul 22 23:49	20°♄36'34		min. Earth dist.	5014 Jun 26 08:09	3°♄37'55	0.55342 AU
direct	5013 Jul 26 14:45	20°♄08'21		morning rise	5014 Jul 02 19:22	0°♄30'18	
morning max el	5013 Aug 08 10:06	26°♄14'11	22°38'04		5014 Jul 04 21:18	30°♄	
	5013 Aug 12 00:11	0°♄		direct	5014 Jul 07 04:25	29°♄48'14	
asc. node	5013 Aug 24 08:39	18°♄57'28			5014 Jul 09 11:13	0°♄	
	5013 Aug 29 21:46	0°♄		morning max el	5014 Jul 21 00:25	6°♄39'04	24°22'09
morning set	5013 Aug 30 14:23	1°♄26'56			5014 Aug 06 19:45	0°♄	
				asc. node	5014 Aug 11 05:41	8°♄23'48	
superior conj	5013 Sep 06 17:35	16°♄40'13	1°40'42	morning set	5014 Aug 15 02:10	16°♄20'03	
minimum elong	5013 Sep 06 16:27	16°♄34'10	1°40'39		5014 Aug 21 09:42	0°♄	
max. Earth dist.	5013 Sep 09 21:10	23°♄17'37	1.34048 AU				
	5013 Sep 13 04:10	0°♄		superior conj	5014 Aug 22 01:53	1°♄28'04	1°31'51
evening rise	5013 Sep 14 15:33	2°♄55'05		minimum elong	5014 Aug 21 23:56	1°♄17'27	1°31'40
desc. node	5013 Sep 29 18:58	29°♄31'24		max. Earth dist.	5014 Aug 23 23:12	5°♄33'23	1.32918 AU

evening rise	5014 Aug 29 10:39	17° \cap 02'34		minimum elong	5015 Aug 06 10:34	16° Ω 09'19	1°17'33
	5014 Sep 05 03:32	0° Δ		max. Earth dist.	5015 Aug 07 07:24	18° Ω 03'58	1.32217 AU
desc. node	5014 Sep 16 15:59	19° Δ 06'20			5015 Aug 12 20:01	0° \cap	
	5014 Sep 24 15:58	0° \cap		evening rise	5015 Aug 13 13:26	1° \cap 31'06	
evening max el	5014 Oct 01 18:06	7° \cap 46'22	27°27'06		5015 Aug 29 02:22	0° Δ	
retrograde	5014 Oct 15 09:58	15° \cap 03'04		desc. node	5015 Sep 03 13:00	8° Δ 01'38	
evening set	5014 Oct 22 13:24	12° \cap 28'10		evening max el	5015 Sep 14 01:13	20° Δ 21'17	27°12'46
min. Earth dist.	5014 Oct 26 05:50	9° \cap 17'48	0.63460 AU	retrograde	5015 Sep 27 21:40	27° Δ 34'29	
inferior conj	5014 Oct 28 21:23	6° \cap 38'30	-2°-59'-27	evening set	5015 Oct 05 00:38	25° Δ 15'49	
minimum elong	5014 Oct 29 02:33	6° \cap 25'33	2°57'39	min. Earth dist.	5015 Oct 08 15:43	22° Δ 30'34	0.61551 AU
morning rise	5014 Nov 04 18:20	1° \cap 21'00		inferior conj	5015 Oct 11 17:22	19° Δ 47'06	-3°-59'-35
direct	5014 Nov 07 03:25	0° \cap 53'45		minimum elong	5015 Oct 11 23:36	19° Δ 33'12	3°57'52
asc. node	5014 Nov 07 04:56	0° \cap 53'46		morning rise	5015 Oct 19 01:47	14° Δ 49'36	
morning max el	5014 Nov 13 17:33	4° \cap 18'44	17°50'05	direct	5015 Oct 21 08:21	14° Δ 27'54	
morning set	5014 Nov 30 02:52	29° \cap 29'49		asc. node	5015 Oct 25 01:58	15° Δ 28'40	
	5014 Nov 30 09:49	0° \bowtie		morning max el	5015 Oct 28 08:46	17° Δ 59'37	17°55'02
					5015 Nov 05 23:23	0° \cap	
superior conj	5014 Dec 12 09:28	20° \bowtie 21'56	0°08'44	morning set	5015 Nov 13 02:28	12° \cap 41'57	
minimum elong	5014 Dec 12 10:23	20° \bowtie 25'45	0°08'36		5015 Nov 22 17:47	0° \bowtie	
behind sun begin	5014 Dec 12 02:13	19° \bowtie 52'03		superior conj	5015 Nov 23 15:46	1° \bowtie 35'41	0°47'24
behind sun end	5014 Dec 12 18:33	20° \bowtie 59'22		minimum elong	5015 Nov 23 19:27	1° \bowtie 51'36	0°46'54
desc. node	5014 Dec 13 15:17	22° \bowtie 24'26		desc. node	5015 Nov 30 12:16	13° \bowtie 11'27	
	5014 Dec 18 07:51	0° \bowtie		max. Earth dist.	5015 Dec 01 02:47	14° \bowtie 11'15	1.42696 AU
max. Earth dist.	5014 Dec 18 13:23	0° \bowtie 22'05	1.44208 AU	evening rise	5015 Dec 07 16:12	24° \bowtie 43'59	
evening rise	5014 Dec 28 00:07	15° \bowtie 10'26			5015 Dec 11 01:18	0° \bowtie	
	5015 Jan 06 19:00	0° \approx			5015 Dec 31 19:26	0° \approx	
greatest brilliancy	5015 Jan 20 10:57	19° \approx 23'02	-0.5m	greatest brilliancy	5016 Jan 04 01:20	4° \approx 07'00	-0.3m
evening max el	5015 Jan 25 23:19	25° \approx 52'06	20°48'46	evening max el	5016 Jan 08 18:44	9° \approx 27'01	22°02'48
	5015 Jan 31 05:33	0° \bowtie		retrograde	5016 Jan 18 04:02	15° \approx 02'00	
retrograde	5015 Feb 03 07:01	0° \bowtie 46'56		asc. node	5016 Jan 21 01:13	14° \approx 17'52	
asc. node	5015 Feb 03 04:12	0° \bowtie 46'51		evening set	5016 Jan 22 14:06	13° \approx 16'34	
	5015 Feb 06 04:06	30° \cap \approx		inferior conj	5016 Jan 27 23:28	6° \approx 54'27	2°09'32
evening set	5015 Feb 07 06:19	29° \approx 16'54		minimum elong	5016 Jan 27 21:08	7° \approx 02'34	2°08'47
inferior conj	5015 Feb 12 15:49	23° \approx 03'43	2°45'30	min. Earth dist.	5016 Jan 27 23:30	6° \approx 54'20	0.68065 AU
minimum elong	5015 Feb 12 13:26	23° \approx 11'56	2°44'54	morning rise	5016 Feb 02 03:57	0° \approx 41'08	
min. Earth dist.	5015 Feb 13 03:49	22° \approx 22'26	0.67703 AU		5016 Feb 03 01:12	30° \cap \bowtie	
morning rise	5015 Feb 17 20:08	16° \approx 47'59		direct	5016 Feb 06 22:52	28° \bowtie 40'18	
direct	5015 Feb 23 05:46	14° \approx 25'38			5016 Feb 11 05:54	0° \approx	
morning max el	5015 Mar 06 04:01	20° \approx 56'53	23°59'25	morning max el	5016 Feb 16 14:27	4° \approx 21'58	22°30'18
desc. node	5015 Mar 11 14:33	27° \approx 03'20		greatest brilliancy	5016 Feb 21 04:04	9° \approx 27'33	-0.3m
	5015 Mar 13 23:05	0° \bowtie		desc. node	5016 Feb 26 11:33	16° \approx 15'31	
	5015 Apr 03 12:03	0° \cap			5016 Mar 07 04:17	0° \bowtie	
morning set	5015 Apr 10 17:33	12° \cap 02'00		morning set	5016 Mar 21 09:07	22° \bowtie 05'55	
max. Earth dist.	5015 Apr 14 13:11	18° \cap 43'04	1.38304 AU		5016 Mar 26 03:06	0° \cap	
	5015 Apr 20 16:52	0° \bowtie		max. Earth dist.	5016 Mar 26 09:11	0° \cap 25'49	1.40500 AU
				superior conj	5016 Apr 03 04:24	14° \cap 04'42	-1°-54'-31
superior conj	5015 Apr 21 18:34	2° \bowtie 01'32	-1°-31'-41	minimum elong	5016 Apr 03 09:06	14° \cap 25'54	1°54'10
minimum elong	5015 Apr 21 23:21	2° \bowtie 24'19	1°31'04		5016 Apr 11 18:45	0° \bowtie	
evening rise	5015 Apr 30 18:47	19° \bowtie 34'20		evening rise	5016 Apr 13 07:18	2° \bowtie 52'22	
asc. node	5015 May 02 03:29	22° \bowtie 14'11		asc. node	5016 Apr 18 00:30	11° \bowtie 39'37	
	5015 May 06 05:26	0° \cap		evening max el	5016 Apr 29 09:55	28° \bowtie 39'12	18°21'55
evening max el	5015 May 17 04:15	16° \cap 06'24	18°56'23		5016 Apr 30 22:32	0° \cap	
retrograde	5015 May 25 16:39	20° \cap 16'44		retrograde	5016 May 06 17:59	2° \cap 17'55	
evening set	5015 May 27 17:42	20° \cap 03'16		evening set	5016 May 09 01:34	1° \cap 57'03	
inferior conj	5015 Jun 04 21:21	15° \cap 46'42	0°46'45		5016 May 12 23:02	30° \cap \bowtie	
minimum elong	5015 Jun 04 23:09	15° \cap 43'31	0°46'05	inferior conj	5016 May 16 10:01	27° \bowtie 20'19	2°09'37
desc. node	5015 Jun 07 13:45	13° \cap 52'57		minimum elong	5016 May 16 13:32	27° \bowtie 13'02	2°08'37
min. Earth dist.	5015 Jun 08 00:01	13° \cap 35'24	0.56750 AU	min. Earth dist.	5016 May 19 20:33	24° \bowtie 30'42	0.58734 AU
morning rise	5015 Jun 13 00:06	10° \cap 46'17		morning rise	5016 May 23 21:08	21° \bowtie 48'04	
direct	5015 Jun 18 07:33	9° \cap 38'58		desc. node	5016 May 24 10:46	21° \bowtie 30'32	
morning max el	5015 Jul 02 15:03	17° \cap 03'47	25°57'59	direct	5016 May 30 01:01	20° \bowtie 07'12	
	5015 Jul 13 06:12	0° \bowtie		morning max el	5016 Jun 13 10:24	27° \bowtie 53'00	27°10'09
asc. node	5015 Jul 29 02:44	28° \bowtie 08'36			5016 Jun 15 11:46	0° \cap	
	5015 Jul 30 00:04	0° Ω			5016 Jul 05 21:16	0° \bowtie	
morning set	5015 Jul 30 13:22	1° Ω 10'09		morning set	5016 Jul 13 22:23	15° \bowtie 51'47	
superior conj	5015 Aug 06 12:52	16° Ω 21'58	1°17'53				

asc. node	5016 Jul 14 23:45	18° ♊ 05'43		morning set	5017 Jun 28 03:24	0° ♊ 19'13	
	5016 Jul 20 11:01	0° ♊		asc. node	5017 Jul 01 20:47	8° ♊ 10'19	
				max. Earth dist.	5017 Jul 04 04:50	13° ♊ 14'19	1.32079 AU
superior conj	5016 Jul 21 00:41	1° ♊ 15'31	0°59'25				
minimum elong	5016 Jul 20 22:31	1° ♊ 03'31	0°59'01	superior conj	5017 Jul 05 11:36	16° ♊ 02'51	0°37'01
max. Earth dist.	5016 Jul 20 18:30	0° ♊ 41'20	1.31938 AU	minimum elong	5017 Jul 05 10:01	15° ♊ 54'11	0°36'40
evening rise	5016 Jul 27 21:19	16° ♊ 12'44			5017 Jul 11 20:50	0° ♊	
	5016 Aug 03 18:03	0° ♊		evening rise	5017 Jul 12 08:09	1° ♊ 00'25	
desc. node	5016 Aug 20 10:01	26° ♊ 01'20			5017 Jul 28 02:38	0° ♊	
	5016 Aug 23 21:48	0° ♊		desc. node	5017 Aug 07 07:03	12° ♊ 42'39	
evening max el	5016 Aug 26 02:01	2° ♊ 10'55	26°25'03	evening max el	5017 Aug 07 19:21	13° ♊ 12'29	25°07'54
retrograde	5016 Sep 09 01:00	9° ♊ 19'42		retrograde	5017 Aug 21 17:44	20° ♊ 15'20	
evening set	5016 Sep 15 16:49	7° ♊ 29'57		evening set	5017 Aug 27 09:18	19° ♊ 02'32	
min. Earth dist.	5016 Sep 19 15:29	4° ♊ 55'33	0.59484 AU	min. Earth dist.	5017 Sep 01 06:57	16° ♊ 20'46	0.57485 AU
inferior conj	5016 Sep 22 21:29	2° ♊ 24'26	-4°-49'-6	inferior conj	5017 Sep 04 06:30	14° ♊ 20'33	-5°-15'-45
minimum elong	5016 Sep 23 02:55	2° ♊ 13'52	4°48'11	minimum elong	5017 Sep 04 07:57	14° ♊ 18'06	5°15'43
	5016 Sep 26 04:15	30° ♊		morning rise	5017 Sep 12 10:02	10° ♊ 08'29	
morning rise	5016 Sep 30 16:29	27° ♊ 49'23		direct	5017 Sep 14 22:46	9° ♊ 49'41	
direct	5016 Oct 03 00:10	27° ♊ 30'21		morning max el	5017 Sep 23 20:46	14° ♊ 02'34	19°05'19
	5016 Oct 09 07:36	0° ♊		asc. node	5017 Sep 27 20:01	18° ♊ 34'37	
asc. node	5016 Oct 10 22:59	1° ♊ 27'24			5017 Oct 04 22:59	0° ♊	
morning max el	5016 Oct 10 18:59	1° ♊ 17'38	18°19'37	morning set	5017 Oct 10 14:45	10° ♊ 51'24	
morning set	5016 Oct 26 15:52	26° ♊ 33'22					
	5016 Oct 28 11:11	0° ♊		superior conj	5017 Oct 18 22:32	27° ♊ 15'19	1°33'27
				minimum elong	5017 Oct 19 01:05	27° ♊ 27'40	1°33'15
superior conj	5016 Nov 04 21:55	13° ♊ 58'42	1°15'36		5017 Oct 20 08:56	0° ♊	
minimum elong	5016 Nov 05 01:43	14° ♊ 16'02	1°15'11	max. Earth dist.	5017 Oct 25 16:25	9° ♊ 50'44	1.38668 AU
max. Earth dist.	5016 Nov 12 11:12	27° ♊ 21'34	1.40771 AU	evening rise	5017 Oct 29 12:54	16° ♊ 39'03	
	5016 Nov 14 00:29	0° ♊		desc. node	5017 Nov 03 06:19	24° ♊ 37'20	
desc. node	5016 Nov 16 09:17	3° ♊ 57'12			5017 Nov 06 14:08	0° ♊	
evening rise	5016 Nov 17 03:04	5° ♊ 10'28			5017 Nov 27 19:38	0° ♊	
	5016 Dec 03 06:31	0° ♊		evening max el	5017 Dec 03 23:17	6° ♊ 47'55	24°40'59
evening max el	5016 Dec 21 10:07	23° ♊ 05'41	23°22'16	retrograde	5017 Dec 15 12:36	13° ♊ 31'50	
retrograde	5016 Dec 31 22:17	29° ♊ 18'32		evening set	5017 Dec 21 00:33	11° ♊ 15'18	
evening set	5017 Jan 05 20:43	27° ♊ 17'18		asc. node	5017 Dec 24 19:16	7° ♊ 07'43	
asc. node	5017 Jan 06 22:14	26° ♊ 18'30		min. Earth dist.	5017 Dec 25 15:51	6° ♊ 00'37	0.67674 AU
inferior conj	5017 Jan 11 07:26	20° ♊ 50'10	1°26'02	inferior conj	5017 Dec 26 13:53	4° ♊ 47'29	0°35'55
minimum elong	5017 Jan 11 05:36	20° ♊ 56'26	1°25'22	minimum elong	5017 Dec 26 13:01	4° ♊ 50'21	0°35'35
min. Earth dist.	5017 Jan 10 20:19	21° ♊ 28'19	0.68052 AU		5017 Dec 30 14:02	30° ♊	
morning rise	5017 Jan 16 14:34	14° ♊ 41'11		morning rise	5018 Jan 01 01:58	28° ♊ 45'01	
direct	5017 Jan 20 19:14	13° ♊ 03'10		direct	5018 Jan 04 17:32	27° ♊ 28'37	
morning max el	5017 Jan 29 06:17	17° ♊ 56'49	21°07'15		5018 Jan 10 08:35	0° ♊	
greatest brilliancy	5017 Feb 03 13:38	24° ♊ 01'26	-0.4m	morning max el	5018 Jan 12 05:56	1° ♊ 43'31	19°55'58
	5017 Feb 08 02:13	0° ♊		greatest brilliancy	5018 Jan 19 10:33	10° ♊ 26'20	-0.6m
desc. node	5017 Feb 12 08:34	5° ♊ 59'45		desc. node	5018 Jan 30 05:35	26° ♊ 06'51	
	5017 Feb 28 07:22	0° ♊			5018 Feb 01 19:14	0° ♊	
morning set	5017 Feb 28 20:43	0° ♊ 52'19		morning set	5018 Feb 07 17:09	9° ♊ 03'07	
max. Earth dist.	5017 Mar 08 11:29	13° ♊ 04'00	1.42531 AU	max. Earth dist.	5018 Feb 18 21:56	26° ♊ 35'34	1.44119 AU
					5018 Feb 21 01:01	0° ♊	
superior conj	5017 Mar 15 16:35	25° ♊ 06'50	-2°-7'-35				
minimum elong	5017 Mar 15 18:30	25° ♊ 15'03	2°07'34	superior conj	5018 Feb 24 03:24	5° ♊ 00'40	-2°-5'-17
	5017 Mar 18 12:39	0° ♊		minimum elong	5018 Feb 23 23:30	4° ♊ 44'48	2°05'10
evening rise	5017 Mar 27 05:50	15° ♊ 28'17		evening rise	5018 Mar 09 09:59	27° ♊ 13'31	
	5017 Apr 04 11:38	0° ♊			5018 Mar 11 00:52	0° ♊	
asc. node	5017 Apr 04 21:31	0° ♊ 41'04		asc. node	5018 Mar 22 18:34	19° ♊ 10'59	
evening max el	5017 Apr 12 20:50	11° ♊ 38'04	18°07'13	evening max el	5018 Mar 27 09:42	24° ♊ 54'15	18°11'39
retrograde	5017 Apr 19 12:25	15° ♊ 01'39		retrograde	5018 Apr 02 19:36	28° ♊ 17'48	
evening set	5017 Apr 22 02:32	14° ♊ 30'56		evening set	5018 Apr 05 15:47	27° ♊ 35'49	
inferior conj	5017 Apr 28 18:43	9° ♊ 32'59	3°01'34	inferior conj	5018 Apr 11 19:37	22° ♊ 17'48	3°27'27
minimum elong	5017 Apr 28 21:34	9° ♊ 26'08	3°01'02	minimum elong	5018 Apr 11 20:54	22° ♊ 14'19	3°27'20
min. Earth dist.	5017 May 01 23:49	6° ♊ 29'23	0.60937 AU	min. Earth dist.	5018 Apr 14 11:56	19° ♊ 23'57	0.63048 AU
morning rise	5017 May 05 13:19	3° ♊ 38'58		morning rise	5018 Apr 17 23:49	16° ♊ 10'52	
desc. node	5017 May 11 07:48	1° ♊ 27'55		direct	5018 Apr 24 20:12	13° ♊ 33'38	
direct	5017 May 12 06:02	1° ♊ 25'26		desc. node	5018 Apr 28 04:50	14° ♊ 07'22	
morning max el	5017 May 26 12:05	9° ♊ 21'56	27°48'05	morning max el	5018 May 08 19:15	21° ♊ 33'14	27°48'19
	5017 Jun 11 09:49	0° ♊			5018 May 16 03:47	0° ♊	
	5017 Jun 27 23:40	0° ♊			5018 Jun 04 12:40	0° ♊	

morning set	5018 Jun 12 02:16	14° Π 25'57		5019 Apr 16 09:11	0° Υ	
max. Earth dist.	5018 Jun 17 10:34	25° Π 30'49	1.32650 AU	morning max el	5019 Apr 21 05:09	4° Υ 17'37 27°13'31
asc. node	5018 Jun 18 17:50	28° Π 18'06			5019 May 10 16:00	0° \mathcal{B}
				morning set	5019 May 26 16:04	28° \mathcal{B} 02'22
superior conj	5018 Jun 19 19:50	0° \mathcal{B} 38'18	0°11'17		5019 May 27 16:10	0° Π
minimum elong	5018 Jun 19 19:18	0° \mathcal{B} 35'23	0°11'09	max. Earth dist.	5019 May 31 07:32	7° Π 18'12 1.33674 AU
behind sun begin	5018 Jun 19 15:30	0° \mathcal{B} 14'54				
behind sun end	5018 Jun 19 23:05	0° \mathcal{B} 55'52		superior conj	5019 Jun 03 23:18	14° Π 54'35 0°-17'-1
	5018 Jun 19 12:45	0° \mathcal{B}		minimum elong	5019 Jun 04 00:12	14° Π 59'16 0°16'52
evening rise	5018 Jun 26 20:01	15° \mathcal{B} 47'51		asc. node	5019 Jun 05 14:52	18° Π 24'11
	5018 Jul 03 21:22	0° \mathcal{Q}		evening rise	5019 Jun 11 06:57	0° \mathcal{B} 27'36
evening max el	5018 Jul 20 08:00	23° \mathcal{Q} 40'01	23°33'08		5019 Jun 11 01:43	0° \mathcal{B}
desc. node	5018 Jul 25 04:05	27° \mathcal{Q} 35'41			5019 Jun 28 07:23	0° \mathcal{Q}
	5018 Jul 30 08:31	0° \mathcal{M}		evening max el	5019 Jul 01 23:31	4° \mathcal{Q} 03'54 21°56'47
retrograde	5018 Aug 02 22:19	0° \mathcal{M} 29'11		desc. node	5019 Jul 12 01:08	10° \mathcal{Q} 05'01
	5018 Aug 06 13:37	30° \mathcal{R} \mathcal{Q}		retrograde	5019 Jul 14 15:42	10° \mathcal{Q} 20'55
evening set	5018 Aug 07 02:48	29° \mathcal{Q} 50'45		evening set	5019 Jul 17 10:18	10° \mathcal{Q} 03'41
min. Earth dist.	5018 Aug 13 17:44	26° \mathcal{Q} 44'21	0.55857 AU	min. Earth dist.	5019 Jul 26 03:50	6° \mathcal{Q} 18'35 0.54918 AU
inferior conj	5018 Aug 15 19:25	25° \mathcal{Q} 30'27	-5°-3'-16	inferior conj	5019 Jul 26 16:41	6° \mathcal{Q} 00'34 -3°-59'-38
minimum elong	5018 Aug 15 14:29	25° \mathcal{Q} 37'49	5°02'43	minimum elong	5019 Jul 26 07:54	6° \mathcal{Q} 12'53 3°57'21
morning rise	5018 Aug 24 05:18	21° \mathcal{Q} 36'34		morning rise	5019 Aug 04 07:07	2° \mathcal{Q} 10'22
direct	5018 Aug 27 01:58	21° \mathcal{Q} 16'21		direct	5019 Aug 07 13:53	1° \mathcal{Q} 46'38
morning max el	5018 Sep 06 11:26	26° \mathcal{Q} 06'12	20°12'55	morning max el	5019 Aug 19 14:07	7° \mathcal{Q} 23'56 21°40'46
	5018 Sep 10 01:33	0° \mathcal{M}		asc. node	5019 Sep 01 14:08	25° \mathcal{Q} 17'53
asc. node	5018 Sep 14 17:05	6° \mathcal{M} 35'53			5019 Sep 04 03:00	0° \mathcal{M}
morning set	5018 Sep 24 20:01	25° \mathcal{M} 27'34		morning set	5019 Sep 09 05:16	10° \mathcal{M} 14'35
	5018 Sep 27 01:11	0° \mathcal{A}				
superior conj	5018 Oct 02 12:36	11° \mathcal{A} 11'42	1°42'09	superior conj	5019 Sep 16 12:06	25° \mathcal{M} 35'26 1°43'09
minimum elong	5018 Oct 02 13:35	11° \mathcal{A} 16'36	1°42'08	minimum elong	5019 Sep 16 11:38	25° \mathcal{M} 33'00 1°43'09
max. Earth dist.	5018 Oct 07 22:39	21° \mathcal{A} 50'29	1.36638 AU	max. Earth dist.	5019 Sep 18 15:07	0° \mathcal{A}
evening rise	5018 Oct 11 19:58	29° \mathcal{A} 05'54		evening rise	5019 Sep 20 10:51	3° \mathcal{A} 42'38 1.34880 AU
	5018 Oct 12 07:53	0° \mathcal{M}			5019 Sep 24 20:14	12° \mathcal{A} 20'41
desc. node	5018 Oct 21 03:20	15° \mathcal{M} 07'36		desc. node	5019 Oct 04 17:09	0° \mathcal{M}
	5018 Oct 30 20:51	0° \mathcal{A}			5019 Oct 08 00:23	5° \mathcal{M} 22'28
evening max el	5018 Nov 16 11:48	20° \mathcal{A} 31'19	25°51'53	evening max el	5019 Oct 26 00:21	0° \mathcal{A}
retrograde	5018 Nov 28 22:15	27° \mathcal{A} 36'48		retrograde	5019 Oct 30 00:25	4° \mathcal{A} 10'16 26°47'37
evening set	5018 Dec 04 23:57	25° \mathcal{A} 07'10		evening set	5019 Nov 12 02:40	11° \mathcal{A} 26'55
min. Earth dist.	5018 Dec 09 07:50	20° \mathcal{A} 27'46	0.66941 AU	min. Earth dist.	5019 Nov 18 16:57	8° \mathcal{A} 48'58
inferior conj	5018 Dec 10 17:01	18° \mathcal{A} 43'21	0°-19'-52	inferior conj	5019 Nov 22 18:01	4° \mathcal{A} 45'21 0.65851 AU
minimum elong	5018 Dec 10 17:32	18° \mathcal{A} 41'42	0°19'39	minimum elong	5019 Nov 24 14:49	2° \mathcal{A} 34'13 -1°-20'-10
asc. node	5018 Dec 11 16:19	17° \mathcal{A} 30'39			5019 Nov 24 17:04	2° \mathcal{A} 27'36 1°19'14
morning rise	5018 Dec 16 12:08	12° \mathcal{A} 49'46		asc. node	5019 Nov 26 21:37	30° \mathcal{R} \mathcal{M}
direct	5018 Dec 19 16:15	11° \mathcal{A} 52'07		morning rise	5019 Nov 28 13:22	28° \mathcal{M} 24'30
morning max el	5018 Dec 26 13:19	15° \mathcal{A} 40'08	18°59'26	direct	5019 Nov 30 18:50	26° \mathcal{M} 52'08
	5019 Jan 06 09:43	0° \mathcal{B}		morning max el	5019 Dec 03 13:33	26° \mathcal{M} 09'25
desc. node	5019 Jan 17 02:37	16° \mathcal{B} 30'22			5019 Dec 10 02:33	29° \mathcal{M} 41'32 18°19'02
morning set	5019 Jan 17 23:12	17° \mathcal{B} 50'40		morning set	5019 Dec 10 09:51	0° \mathcal{A}
	5019 Jan 25 18:03	0° \approx			5019 Dec 29 08:23	28° \mathcal{A} 01'59
max. Earth dist.	5019 Feb 01 14:11	10° \approx 42'52	1.45076 AU	desc. node	5019 Dec 30 13:39	0° \mathcal{B}
					5020 Jan 03 23:38	7° \mathcal{B} 05'35
superior conj	5019 Feb 03 15:13	13° \approx 55'55	-1°-43'-28	superior conj	5020 Jan 13 18:11	22° \mathcal{B} 34'21 -1°-4'-13
minimum elong	5019 Feb 03 06:13	13° \approx 20'25	1°42'42	minimum elong	5020 Jan 13 10:24	22° \mathcal{B} 03'49 1°03'16
	5019 Feb 13 17:07	0° \mathcal{H}		max. Earth dist.	5020 Jan 15 09:02	25° \mathcal{B} 06'49 1.45308 AU
evening rise	5019 Feb 18 15:55	8° \mathcal{H} 01'48			5020 Jan 18 11:54	0° \approx
	5019 Mar 04 09:46	0° Υ		evening rise	5020 Jan 29 22:52	17° \approx 55'47
asc. node	5019 Mar 09 15:36	6° Υ 59'13			5020 Feb 06 15:57	0° \mathcal{H}
evening max el	5019 Mar 10 21:40	8° Υ 20'12	18°34'34	greatest brilliancy	5020 Feb 13 01:41	9° \mathcal{H} 47'57 -0.7m
retrograde	5019 Mar 17 11:06	11° Υ 56'38		evening max el	5020 Feb 22 06:29	21° \mathcal{H} 51'37 19°14'52
evening set	5019 Mar 20 13:28	11° Υ 02'32		asc. node	5020 Feb 24 12:40	23° \mathcal{H} 53'55
inferior conj	5019 Mar 26 08:38	5° Υ 26'15	3°33'14	retrograde	5020 Feb 29 07:17	25° \mathcal{H} 51'54
minimum elong	5019 Mar 26 08:20	5° Υ 27'09	3°33'13	evening set	5020 Mar 03 16:42	24° \mathcal{H} 44'43
min. Earth dist.	5019 Mar 28 09:34	2° Υ 59'51	0.64873 AU	inferior conj	5020 Mar 09 06:15	18° \mathcal{H} 52'19 3°23'43
	5019 Mar 31 04:39	30° \mathcal{R} \mathcal{H}		minimum elong	5020 Mar 09 04:45	18° \mathcal{H} 57'08 3°23'32
morning rise	5019 Apr 01 01:47	29° \mathcal{H} 12'38		min. Earth dist.	5020 Mar 10 15:55	17° \mathcal{H} 03'50 0.66308 AU
direct	5019 Apr 07 18:12	26° \mathcal{H} 24'31		morning rise	5020 Mar 14 15:54	12° \mathcal{H} 36'03
desc. node	5019 Apr 15 01:53	29° \mathcal{H} 04'13		direct	5020 Mar 20 22:49	9° \mathcal{H} 50'00

desc. node	5020 Mar 31 22:53	15° Υ 45'02			5021 Mar 15 08:44	0° Υ	
morning max el	5020 Apr 02 15:05	17° Υ 22'47	26°10'53	morning max el	5021 Mar 15 23:47	0° Υ 37'30	24°50'02
	5020 Apr 13 04:13	0° Υ		desc. node	5021 Mar 18 19:54	3° Υ 40'11	
	5020 May 02 14:34	0° Υ			5021 Apr 07 02:56	0° Υ	
morning set	5020 May 08 17:08	10° Υ 58'19		morning set	5021 Apr 21 00:28	22° Υ 59'15	
max. Earth dist.	5020 May 12 17:05	18° Υ 34'40	1.35167 AU	max. Earth dist.	5021 Apr 24 16:18	29° Υ 35'42	1.37078 AU
					5021 Apr 24 21:35	0° Υ	
superior conj	5020 May 17 19:40	28° Υ 45'41	0°-46'-41	superior conj	5021 May 01 05:50	12° Υ 03'05	-1°-15'-59
minimum elong	5020 May 17 22:13	28° Υ 58'45	0°46'13	minimum elong	5021 May 01 09:59	12° Υ 23'23	1°15'21
	5020 May 18 10:13	0° Υ			5021 May 09 08:58	28° Υ 16'07	
asc. node	5020 May 22 11:55	8° Υ 25'00		asc. node	5021 May 09 17:49	29° Υ 00'24	
evening rise	5020 May 25 15:01	14° Υ 54'06		evening rise	5021 May 10 05:45	0° Υ	
	5020 Jun 02 09:21	0° Υ			5021 May 26 15:51	26° Υ 30'18	19°25'28
evening max el	5020 Jun 13 01:24	14° Υ 56'12	20°31'58	evening max el	5021 May 31 10:45	0° Υ	
retrograde	5020 Jun 24 04:23	20° Υ 23'03		retrograde	5021 Jun 05 01:05	1° Υ 05'10	
evening set	5020 Jun 26 04:55	20° Υ 13'00		evening set	5021 Jun 06 23:45	0° Υ 54'14	
desc. node	5020 Jun 27 22:09	19° Υ 49'36			5021 Jun 09 22:11	30° Υ	
inferior conj	5020 Jul 05 10:14	16° Υ 15'55	-2°-12'-58	desc. node	5021 Jun 14 19:08	27° Υ 18'56	
minimum elong	5020 Jul 05 04:03	16° Υ 24'51	2°10'48	inferior conj	5021 Jun 15 14:30	26° Υ 47'46	0°-14'-23
min. Earth dist.	5020 Jul 06 15:28	15° Υ 33'42	0.54911 AU	minimum elong	5021 Jun 15 13:52	26° Υ 48'47	0°14'11
morning rise	5020 Jul 14 01:45	12° Υ 08'55		transit middle	5021 Jun 15 13:52	26° Υ 48'47	0°14'11
direct	5020 Jul 17 23:33	11° Υ 36'00		transit begin	5021 Jun 15 12:04	26° Υ 51'42	
morning max el	5020 Jul 31 07:20	18° Υ 02'49	23°22'12	transit end	5021 Jun 15 15:40	26° Υ 45'52	
	5020 Aug 10 01:20	0° Υ		min. Earth dist.	5021 Jun 18 05:14	25° Υ 06'40	0.55854 AU
asc. node	5020 Aug 18 11:10	14° Υ 30'35		morning rise	5021 Jun 24 00:11	22° Υ 08'42	
morning set	5020 Aug 23 16:35	25° Υ 06'58		direct	5021 Jun 28 18:53	21° Υ 16'59	
	5020 Aug 25 23:33	0° Υ		morning max el	5021 Jul 12 20:50	28° Υ 23'51	25°04'47
superior conj	5020 Aug 30 17:54	10° Υ 17'02	1°37'37		5021 Jul 14 11:24	0° Υ	
minimum elong	5020 Aug 30 16:21	10° Υ 08'46	1°37'31		5021 Aug 03 06:53	0° Υ	
max. Earth dist.	5020 Sep 02 07:53	15° Υ 47'29	1.33514 AU	asc. node	5021 Aug 05 08:12	4° Υ 05'59	
evening rise	5020 Sep 07 09:33	26° Υ 12'26		morning set	5021 Aug 08 04:19	9° Υ 59'53	
	5020 Sep 09 07:52	0° Υ					
desc. node	5020 Sep 23 21:25	25° Υ 14'46		superior conj	5021 Aug 15 03:36	25° Υ 08'50	1°26'32
	5020 Sep 27 02:05	0° Υ		minimum elong	5021 Aug 15 01:26	24° Υ 57'02	1°26'16
evening max el	5020 Oct 11 12:42	17° Υ 35'16	27°20'51	max. Earth dist.	5021 Aug 16 13:00	28° Υ 11'17	1.32572 AU
retrograde	5020 Oct 25 01:11	24° Υ 53'39			5021 Aug 17 09:02	0° Υ	
evening set	5020 Nov 01 01:02	22° Υ 15'02		evening rise	5021 Aug 22 08:19	10° Υ 30'54	
min. Earth dist.	5020 Nov 04 20:09	18° Υ 46'05	0.64421 AU		5021 Sep 01 14:35	0° Υ	
inferior conj	5020 Nov 07 04:53	16° Υ 14'39	-2°-23'-10	desc. node	5021 Sep 10 18:26	14° Υ 35'03	
minimum elong	5020 Nov 07 09:02	16° Υ 03'33	2°21'34		5021 Sep 23 08:38	0° Υ	
morning rise	5020 Nov 13 19:20	10° Υ 47'00		evening max el	5021 Sep 23 22:41	0° Υ 33'41	27°25'10
asc. node	5020 Nov 14 10:25	10° Υ 33'04		retrograde	5021 Oct 07 16:50	7° Υ 48'28	
direct	5020 Nov 16 07:06	10° Υ 15'12		evening set	5021 Oct 14 21:02	5° Υ 19'19	
morning max el	5020 Nov 22 18:54	13° Υ 40'40	17°55'33	min. Earth dist.	5021 Oct 18 12:23	2° Υ 20'39	0.62677 AU
	5020 Dec 04 04:57	0° Υ			5021 Oct 20 23:23	30° Υ	
morning set	5020 Dec 09 22:27	9° Υ 38'19		inferior conj	5021 Oct 21 08:27	29° Υ 38'11	-3°-25'-42
desc. node	5020 Dec 20 20:38	27° Υ 48'03		minimum elong	5021 Oct 21 14:13	29° Υ 24'24	3°23'51
	5020 Dec 22 05:10	0° Υ		morning rise	5021 Oct 28 10:15	24° Υ 28'25	
superior conj	5020 Dec 23 08:32	1° Υ 50'30	0°-17'-19	direct	5021 Oct 30 17:54	24° Υ 03'52	
minimum elong	5020 Dec 23 06:29	1° Υ 42'15	0°17'01	asc. node	5021 Nov 01 07:26	24° Υ 15'21	
max. Earth dist.	5020 Dec 28 03:53	9° Υ 30'41	1.44808 AU	morning max el	5021 Nov 06 11:26	27° Υ 30'48	17°49'49
evening rise	5021 Jan 08 12:44	27° Υ 13'10			5021 Nov 08 16:53	0° Υ	
	5021 Jan 10 08:13	0° Υ		morning set	5021 Nov 22 11:44	22° Υ 21'54	
greatest brilliancy	5021 Jan 28 23:57	27° Υ 35'28	-0.6m		5021 Nov 26 19:30	0° Υ	
	5021 Jan 30 19:40	0° Υ		superior conj	5021 Dec 03 23:32	12° Υ 19'44	0°26'19
evening max el	5021 Feb 04 10:32	5° Υ 24'56	20°10'46	minimum elong	5021 Dec 04 02:01	12° Υ 30'09	0°25'58
asc. node	5021 Feb 10 09:42	9° Υ 40'02		desc. node	5021 Dec 07 17:41	18° Υ 34'43	
retrograde	5021 Feb 12 05:20	9° Υ 57'44		max. Earth dist.	5021 Dec 10 20:20	23° Υ 38'58	1.43637 AU
evening set	5021 Feb 15 23:07	8° Υ 36'24			5021 Dec 14 19:44	0° Υ	
inferior conj	5021 Feb 21 09:31	2° Υ 30'12	3°02'18	evening rise	5021 Dec 18 23:31	6° Υ 30'22	
minimum elong	5021 Feb 21 07:19	2° Υ 37'39	3°01'50		5022 Jan 03 16:19	0° Υ	
min. Earth dist.	5021 Feb 22 05:04	1° Υ 24'07	0.67319 AU	greatest brilliancy	5022 Jan 13 08:43	13° Υ 12'50	-0.4m
	5021 Feb 23 06:27	30° Υ		evening max el	5022 Jan 18 09:06	18° Υ 59'25	21°19'16
morning rise	5021 Feb 26 14:56	26° Υ 13'50		retrograde	5022 Jan 27 03:07	24° Υ 10'36	
direct	5021 Mar 04 08:59	23° Υ 40'33		asc. node	5022 Jan 28 06:43	24° Υ 03'30	

evening set	5022 Jan 31 06:53	22° \approx 34'02		evening set	5023 Jan 15 14:23	6° \approx 34'43	
inferior conj	5022 Feb 05 16:09	16° \approx 16'51	2°31'12	inferior conj	5023 Jan 21 00:09	0° \approx 09'55	1°51'56
minimum elong	5022 Feb 05 13:44	16° \approx 25'14	2°30'31	minimum elong	5023 Jan 20 21:59	0° \approx 17'26	1°51'12
min. Earth dist.	5022 Feb 05 22:56	15° \approx 53'22	0.67912 AU	min. Earth dist.	5023 Jan 20 19:18	0° \approx 26'45	0.68107 AU
morning rise	5022 Feb 10 20:14	10° \approx 02'09			5023 Jan 21 03:01	30° \approx 03'	
direct	5022 Feb 15 23:43	7° \approx 48'31		morning rise	5023 Jan 26 05:30	23° \approx 58'28	
morning max el	5022 Feb 26 08:40	13° \approx 58'19	23°21'13	direct	5023 Jan 30 18:13	22° \approx 07'33	
greatest brilliancy	5022 Mar 03 19:47	20° \approx 07'38	-0.2m	morning max el	5023 Feb 08 21:08	27° \approx 27'42	21°53'53
desc. node	5022 Mar 05 16:54	22° \approx 28'42			5023 Feb 11 06:06	0° \approx	
	5022 Mar 11 08:04	0° \approx		greatest brilliancy	5023 Feb 13 13:43	2° \approx 43'35	-0.4m
	5022 Mar 31 01:01	0° \approx		desc. node	5023 Feb 20 13:56	11° \approx 55'50	
morning set	5022 Apr 02 08:03	3° \approx 49'16			5023 Mar 04 22:50	0° \approx	
max. Earth dist.	5022 Apr 06 11:40	10° \approx 55'51	1.39244 AU	morning set	5023 Mar 13 11:20	13° \approx 18'42	
				max. Earth dist.	5023 Mar 19 10:27	23° \approx 03'41	1.41399 AU
					5023 Mar 23 12:50	0° \approx	
superior conj	5022 Apr 14 01:54	24° \approx 36'42	-1°-42'-14	superior conj	5023 Mar 27 03:08	6° \approx 15'17	-2°-1'-35
minimum elong	5022 Apr 14 06:53	24° \approx 59'56	1°41'43	minimum elong	5023 Mar 27 07:03	6° \approx 32'36	2°01'23
	5022 Apr 16 22:43	0° \approx		evening rise	5023 Apr 06 19:40	25° \approx 40'35	
evening rise	5022 Apr 23 12:32	12° \approx 38'44			5023 Apr 09 03:54	0° \approx	
asc. node	5022 Apr 26 06:00	17° \approx 52'35		asc. node	5023 Apr 13 03:02	7° \approx 09'01	
	5022 May 03 01:28	0° \approx		evening max el	5023 Apr 23 01:09	21° \approx 28'44	18°13'16
evening max el	5022 May 09 16:52	8° \approx 43'47	18°39'15	retrograde	5023 Apr 30 00:58	24° \approx 59'32	
retrograde	5022 May 17 15:36	12° \approx 38'36		evening set	5023 May 02 11:17	24° \approx 34'46	
evening set	5022 May 19 19:26	12° \approx 22'15		inferior conj	5023 May 09 12:19	19° \approx 48'43	2°35'12
inferior conj	5022 May 27 14:40	7° \approx 57'06	1°25'46	minimum elong	5023 May 09 15:45	19° \approx 41'07	2°34'22
minimum elong	5022 May 27 17:34	7° \approx 51'36	1°24'48	min. Earth dist.	5023 May 12 21:40	16° \approx 50'08	0.59655 AU
min. Earth dist.	5022 May 30 22:30	5° \approx 27'12	0.57544 AU	morning rise	5023 May 16 16:16	14° \approx 05'43	
desc. node	5022 Jun 01 16:09	4° \approx 16'00		desc. node	5023 May 19 13:10	12° \approx 45'52	
morning rise	5022 Jun 04 11:12	2° \approx 42'27		direct	5023 May 23 02:25	12° \approx 10'38	
direct	5022 Jun 10 04:01	1° \approx 21'39		morning max el	5023 Jun 06 11:16	20° \approx 02'10	27°30'59
morning max el	5022 Jun 24 12:56	8° \approx 55'52	26°32'27		5023 Jun 14 23:53	0° \approx	
	5022 Jul 10 11:23	0° \approx			5023 Jul 03 06:23	0° \approx	
asc. node	5022 Jul 23 05:14	23° \approx 56'55		morning set	5023 Jul 07 22:24	9° \approx 24'16	
morning set	5022 Jul 23 14:49	24° \approx 47'23		asc. node	5023 Jul 10 02:17	13° \approx 58'11	
	5022 Jul 26 01:14	0° \approx		max. Earth dist.	5023 Jul 14 10:30	23° \approx 25'22	1.31947 AU
superior conj	5022 Jul 30 15:08	10° \approx 03'26	1°10'35	superior conj	5023 Jul 15 02:48	24° \approx 55'11	0°50'22
minimum elong	5022 Jul 30 12:50	9° \approx 50'43	1°10'12	minimum elong	5023 Jul 15 00:49	24° \approx 44'17	0°49'59
max. Earth dist.	5022 Jul 30 23:06	10° \approx 47'25	1.32051 AU		5023 Jul 17 10:02	0° \approx	
evening rise	5022 Aug 06 13:34	25° \approx 06'16		evening rise	5023 Jul 21 22:58	9° \approx 51'22	
	5022 Aug 08 22:26	0° \approx			5023 Aug 01 06:39	0° \approx	
	5022 Aug 26 07:56	0° \approx		desc. node	5023 Aug 15 12:28	20° \approx 38'53	
desc. node	5022 Aug 28 15:27	3° \approx 09'17		evening max el	5023 Aug 19 00:51	24° \approx 18'45	25°55'09
evening max el	5022 Sep 06 03:29	12° \approx 50'49	26°56'27		5023 Aug 26 22:57	0° \approx	
retrograde	5022 Sep 20 00:48	20° \approx 01'21		retrograde	5023 Sep 01 23:57	1° \approx 25'49	
evening set	5022 Sep 27 00:44	17° \approx 53'35			5023 Sep 07 23:36	30° \approx 03'	
min. Earth dist.	5022 Sep 30 17:39	15° \approx 15'10	0.60689 AU	evening set	5023 Sep 08 07:17	29° \approx 50'50	
inferior conj	5022 Oct 03 22:08	12° \approx 34'55	-4°-22'-27	min. Earth dist.	5023 Sep 12 13:16	27° \approx 15'54	0.58616 AU
minimum elong	5022 Oct 04 04:20	12° \approx 21'51	4°21'00	inferior conj	5023 Sep 15 18:24	24° \approx 55'25	-5°-4'-4
morning rise	5022 Oct 11 11:13	7° \approx 46'40		minimum elong	5023 Sep 15 22:34	24° \approx 47'47	5°03'36
direct	5022 Oct 13 17:59	7° \approx 26'17		morning rise	5023 Sep 23 17:24	20° \approx 30'40	
asc. node	5022 Oct 19 04:27	9° \approx 27'39		direct	5023 Sep 26 02:47	20° \approx 12'01	
morning max el	5022 Oct 21 00:54	11° \approx 03'05	18°02'59	morning max el	5023 Oct 04 07:59	24° \approx 08'27	18°36'24
	5022 Nov 02 13:27	0° \approx		asc. node	5023 Oct 06 01:29	25° \approx 57'19	
morning set	5022 Nov 05 17:49	5° \approx 52'47			5023 Oct 09 04:30	0° \approx	
superior conj	5022 Nov 15 16:36	24° \approx 04'53	1°00'41	morning set	5023 Oct 20 11:39	19° \approx 56'25	
minimum elong	5022 Nov 15 20:34	24° \approx 22'27	1°00'10		5023 Oct 25 16:17	0° \approx	
	5022 Nov 19 01:43	0° \approx		superior conj	5023 Oct 29 07:17	6° \approx 52'46	1°24'22
max. Earth dist.	5022 Nov 23 08:08	7° \approx 14'45	1.41922 AU	minimum elong	5023 Oct 29 10:38	7° \approx 08'29	1°24'02
desc. node	5022 Nov 24 14:43	9° \approx 21'46		max. Earth dist.	5023 Nov 05 14:38	20° \approx 06'24	1.39882 AU
evening rise	5022 Nov 28 22:33	16° \approx 23'55		evening rise	5023 Nov 09 19:01	27° \approx 16'08	
	5022 Dec 07 16:47	0° \approx		desc. node	5023 Nov 11 11:45	0° \approx 05'35	
greatest brilliancy	5022 Dec 27 04:19	27° \approx 04'15	-0.3m		5023 Nov 11 10:23	0° \approx	
	5022 Dec 29 16:21	0° \approx			5023 Dec 01 07:24	0° \approx	
evening max el	5023 Jan 01 02:35	2° \approx 35'46	22°36'13	evening max el	5023 Dec 14 16:34	16° \approx 15'10	23°56'13
retrograde	5023 Jan 10 23:07	8° \approx 27'07					
asc. node	5023 Jan 15 03:43	6° \approx 55'35					

retrograde	5023 Dec 25 15:56	22°☿42'58			5024 Nov 26 05:49	0°☿	
evening set	5023 Dec 30 20:02	20°☿34'53		retrograde	5024 Dec 08 04:33	6°☿53'43	
asc. node	5024 Jan 02 00:45	18°☿22'03		evening set	5024 Dec 13 22:14	4°☿31'23	
min. Earth dist.	5024 Jan 04 15:52	15°☿00'23	0.67931 AU		5024 Dec 18 01:24	30°☿☿	
inferior conj	5024 Jan 05 07:42	14°☿06'37	1°05'32	min. Earth dist.	5024 Dec 18 10:19	29°☿31'19	0.67401 AU
minimum elong	5024 Jan 05 06:13	14°☿11'37	1°04'58	asc. node	5024 Dec 18 21:47	28°☿54'04	
morning rise	5024 Jan 10 16:41	8°☿00'10		inferior conj	5024 Dec 19 13:00	28°☿04'26	0°12'55
direct	5024 Jan 14 15:28	6°☿31'51		minimum elong	5024 Dec 19 12:41	28°☿05'29	0°12'47
morning max el	5024 Jan 22 16:15	11°☿08'02	20°35'15	transit middle	5024 Dec 19 12:41	28°☿05'29	0°12'47
greatest brilliancy	5024 Jan 28 15:50	18°☿07'35	-0.5m	transit begin	5024 Dec 19 10:58	28°☿11'02	
	5024 Feb 06 04:43	0°☿		transit end	5024 Dec 19 14:23	27°☿59'56	
desc. node	5024 Feb 07 10:58	1°☿50'37		morning rise	5024 Dec 25 03:49	22°☿05'11	
morning set	5024 Feb 20 13:53	21°☿42'06		direct	5024 Dec 28 14:13	20°☿57'13	
	5024 Feb 25 20:49	0°☿		morning max el	5025 Jan 04 19:18	24°☿59'40	19°29'56
max. Earth dist.	5024 Feb 29 15:59	6°☿04'46	1.43267 AU		5025 Jan 09 03:24	0°☿	
				greatest brilliancy	5025 Jan 13 06:44	5°☿36'50	-0.6m
superior conj	5024 Mar 07 04:41	16°☿48'02	-2°-8'-49	desc. node	5025 Jan 24 08:01	22°☿05'43	
minimum elong	5024 Mar 07 04:25	16°☿46'55	2°08'50	morning set	5025 Jan 29 11:17	29°☿59'44	
	5024 Mar 14 22:22	0°☿			5025 Jan 29 11:21	0°☿	
evening rise	5024 Mar 19 10:57	7°☿55'49		max. Earth dist.	5025 Feb 11 04:42	19°☿51'59	1.44612 AU
asc. node	5024 Mar 30 00:04	25°☿58'03					
	5024 Apr 01 17:27	0°☿		superior conj	5025 Feb 15 04:54	26°☿14'43	-1°-58'-29
evening max el	5024 Apr 05 13:13	4°☿35'28	18°06'49	minimum elong	5025 Feb 14 22:21	25°☿48'31	1°58'08
retrograde	5024 Apr 12 01:21	7°☿57'34			5025 Feb 17 12:58	0°☿	
evening set	5024 Apr 14 17:57	7°☿22'22		evening rise	5025 Mar 01 06:00	19°☿17'02	
inferior conj	5024 Apr 21 04:25	2°☿15'55	3°15'21		5025 Mar 07 15:37	0°☿	
minimum elong	5024 Apr 21 06:39	2°☿10'15	3°15'02	asc. node	5025 Mar 16 21:06	14°☿11'36	
	5024 Apr 23 09:51	30°☿☿		evening max el	5025 Mar 20 02:04	17°☿56'45	18°19'12
min. Earth dist.	5024 Apr 24 04:45	29°☿13'29	0.61854 AU	retrograde	5025 Mar 26 12:24	21°☿24'03	
morning rise	5024 Apr 27 16:29	26°☿15'09		evening set	5025 Mar 29 11:10	20°☿37'03	
direct	5024 May 04 11:46	23°☿49'52		inferior conj	5025 Apr 04 10:56	15°☿11'19	3°32'00
desc. node	5024 May 05 10:12	23°☿52'27		minimum elong	5025 Apr 04 11:30	15°☿09'40	3°31'57
	5024 May 16 17:31	0°☿		min. Earth dist.	5025 Apr 06 20:56	12°☿27'09	0.63875 AU
morning max el	5024 May 18 15:39	1°☿49'45	27°52'45	morning rise	5025 Apr 10 10:00	9°☿01'02	
	5024 Jun 08 06:54	0°☿		direct	5025 Apr 17 05:43	6°☿17'08	
morning set	5024 Jun 21 01:05	23°☿43'34		desc. node	5025 Apr 22 07:15	7°☿34'00	
	5024 Jun 24 01:31	0°☿		morning max el	5025 May 01 00:04	14°☿15'26	27°37'17
asc. node	5024 Jun 25 23:21	4°☿04'31			5025 May 13 18:02	0°☿	
max. Earth dist.	5024 Jun 26 19:10	5°☿51'30	1.32261 AU		5025 May 31 21:36	0°☿	
				morning set	5025 Jun 04 20:27	7°☿37'58	
superior conj	5024 Jun 28 12:47	9°☿37'53	0°26'27	max. Earth dist.	5025 Jun 09 21:18	17°☿54'45	1.33024 AU
minimum elong	5024 Jun 28 11:36	9°☿31'23	0°26'12				
evening rise	5024 Jul 05 10:26	24°☿39'04		superior conj	5025 Jun 12 19:15	24°☿05'41	0°00'-29
	5024 Jul 07 23:39	0°☿		minimum elong	5025 Jun 12 19:17	24°☿05'48	0°00'30
	5024 Jul 26 00:35	0°☿		behind sun begin	5025 Jun 12 13:55	23°☿37'07	
evening max el	5024 Jul 30 15:24	5°☿02'31	24°28'53	behind sun end	5025 Jun 13 00:38	24°☿34'31	
desc. node	5024 Aug 01 09:29	6°☿38'10		asc. node	5025 Jun 12 20:24	24°☿11'49	
retrograde	5024 Aug 13 12:08	12°☿01'56			5025 Jun 15 13:05	0°☿	
evening set	5024 Aug 18 13:24	11°☿04'53		evening rise	5025 Jun 19 22:06	9°☿23'28	
min. Earth dist.	5024 Aug 24 02:30	8°☿14'16	0.56722 AU		5025 Jun 30 14:58	0°☿	
inferior conj	5024 Aug 26 18:45	6°☿32'02	-5°-16'-15	evening max el	5025 Jul 12 04:22	15°☿24'25	22°51'32
minimum elong	5024 Aug 26 17:36	6°☿33'53	5°16'15	desc. node	5025 Jul 19 06:31	20°☿33'56	
morning rise	5024 Sep 04 01:15	2°☿28'49		retrograde	5025 Jul 25 11:24	22°☿02'00	
direct	5024 Sep 06 16:49	2°☿09'46		evening set	5025 Jul 29 00:06	21°☿34'47	
morning max el	5024 Sep 16 05:24	6°☿37'19	19°31'25	min. Earth dist.	5025 Aug 05 12:48	18°☿13'37	0.55349 AU
asc. node	5024 Sep 21 22:34	13°☿29'27		inferior conj	5025 Aug 07 00:00	17°☿23'03	-4°-42'-45
	5024 Oct 01 08:39	0°☿		minimum elong	5025 Aug 06 16:45	17°☿33'30	4°41'27
morning set	5024 Oct 03 13:36	4°☿23'10		morning rise	5025 Aug 15 11:58	13°☿32'40	
				direct	5025 Aug 18 12:41	13°☿11'13	
superior conj	5024 Oct 11 14:12	20°☿28'14	1°38'09	morning max el	5025 Aug 29 14:48	18°☿20'54	20°48'04
minimum elong	5024 Oct 11 16:05	20°☿37'33	1°38'03		5025 Sep 07 17:04	0°☿	
	5024 Oct 16 13:16	0°☿		asc. node	5025 Sep 08 19:38	1°☿49'26	
max. Earth dist.	5024 Oct 17 19:10	2°☿19'05	1.37780 AU	morning set	5025 Sep 17 20:49	19°☿04'40	
evening rise	5024 Oct 21 14:21	9°☿11'09			5025 Sep 23 02:56	0°☿	
desc. node	5024 Oct 28 08:47	20°☿42'23					
	5024 Nov 03 05:28	0°☿		superior conj	5025 Sep 25 08:41	4°☿37'19	1°43'26
evening max el	5024 Nov 26 05:17	29°☿58'43	25°12'34	minimum elong	5025 Sep 25 09:00	4°☿39'00	1°43'27

max. Earth dist.	5025 Sep 30 03:31	14°♄13'13	1.35849 AU	minimum elong	5026 Sep 09 10:13	19°♄04'29	1°41'30
evening rise	5025 Oct 04 05:17	22°♄00'04		max. Earth dist.	5026 Sep 12 19:44	26°♄10'50	1.34250 AU
	5025 Oct 08 15:21	0°♄			5026 Sep 14 16:40	0°♄	
desc. node	5025 Oct 15 05:48	11°♄06'56		evening rise	5026 Sep 17 11:36	5°♄31'53	
	5025 Oct 28 01:02	0°♄			5026 Oct 01 08:13	0°♄	
evening max el	5025 Nov 08 18:04	13°♄42'05	26°17'57	desc. node	5026 Oct 02 02:49	1°♄13'17	
retrograde	5025 Nov 21 11:57	20°♄53'01		evening max el	5026 Oct 22 06:48	27°♄16'47	27°04'51
evening set	5025 Nov 27 19:09	18°♄19'28			5026 Oct 25 08:45	0°♄	
min. Earth dist.	5025 Dec 02 00:11	13°♄55'03	0.66524 AU	retrograde	5026 Nov 04 13:39	4°♄34'12	
inferior conj	5025 Dec 03 14:08	11°♄58'57	0°-44'-57	evening set	5026 Nov 11 08:38	1°♄54'56	
minimum elong	5025 Dec 03 15:21	11°♄55'12	0°44'26		5026 Nov 13 12:00	30°♄	
asc. node	5025 Dec 05 18:50	9°♄23'28		min. Earth dist.	5026 Nov 15 07:05	28°♄06'27	0.65294 AU
morning rise	5025 Dec 09 12:48	6°♄09'37		inferior conj	5026 Nov 17 08:56	25°♄45'57	-1°-46'-41
direct	5025 Dec 12 12:42	5°♄18'40		minimum elong	5026 Nov 17 12:00	25°♄37'19	1°45'26
morning max el	5025 Dec 19 05:22	8°♄58'36	18°40'08	asc. node	5026 Nov 22 15:53	20°♄44'56	
	5026 Jan 03 05:38	0°♄		morning rise	5026 Nov 23 17:14	20°♄09'37	
morning set	5026 Jan 09 03:46	9°♄20'17		direct	5026 Nov 26 08:48	19°♄31'53	
desc. node	5026 Jan 11 05:02	12°♄34'42		morning max el	5026 Dec 02 20:15	22°♄59'40	18°06'54
	5026 Jan 22 07:03	0°♄			5026 Dec 08 10:38	0°♄	
				morning set	5026 Dec 21 01:41	20°♄09'29	
superior conj	5026 Jan 25 10:33	4°♄56'02	-1°-28'-30		5026 Dec 27 02:12	0°♄	
minimum elong	5026 Jan 25 01:11	4°♄19'16	1°27'32	desc. node	5026 Dec 29 02:03	3°♄13'22	
max. Earth dist.	5026 Jan 24 22:36	4°♄09'11	1.45275 AU				
evening rise	5026 Feb 10 01:52	29°♄40'50		superior conj	5027 Jan 04 15:54	13°♄43'31	0°-44'-31
	5026 Feb 10 06:39	0°♄		minimum elong	5027 Jan 04 10:23	13°♄21'42	0°43'46
	5026 Mar 02 05:15	0°♄		max. Earth dist.	5027 Jan 07 18:19	18°♄36'56	1.45192 AU
evening max el	5026 Mar 03 13:00	1°♄25'54	18°49'42		5027 Jan 15 01:06	0°♄	
asc. node	5026 Mar 03 18:08	1°♄38'46		evening rise	5027 Jan 21 00:19	9°♄15'59	
retrograde	5026 Mar 10 06:11	5°♄10'48			5027 Feb 03 13:01	0°♄	
evening set	5026 Mar 13 11:32	4°♄11'05		greatest brilliancy	5027 Feb 07 01:12	5°♄07'28	-0.6m
	5026 Mar 17 21:45	30°♄		evening max el	5027 Feb 14 19:53	14°♄57'55	19°36'52
inferior conj	5026 Mar 19 03:58	28°♄27'42	3°30'47	asc. node	5027 Feb 18 15:09	18°♄05'58	
minimum elong	5026 Mar 19 03:07	28°♄30'23	3°30'44	retrograde	5027 Feb 22 03:30	19°♄11'04	
min. Earth dist.	5026 Mar 20 22:16	26°♄16'46	0.65542 AU	evening set	5027 Feb 25 16:22	17°♄57'48	
morning rise	5026 Mar 24 17:33	22°♄12'51		inferior conj	5027 Mar 03 04:17	11°♄58'57	3°15'54
direct	5026 Mar 31 06:34	19°♄24'14		minimum elong	5027 Mar 03 02:26	12°♄05'05	3°15'37
desc. node	5026 Apr 09 04:17	23°♄19'07		min. Earth dist.	5027 Mar 04 07:40	10°♄28'37	0.66791 AU
morning max el	5026 Apr 13 10:05	27°♄09'38	26°49'43	morning rise	5027 Mar 08 11:46	5°♄42'29	
	5026 Apr 16 02:04	0°♄		direct	5027 Mar 14 13:25	3°♄01'08	
	5026 May 07 09:47	0°♄		morning max el	5027 Mar 26 19:37	10°♄20'03	25°38'10
morning set	5026 May 19 05:21	20°♄58'35		desc. node	5027 Mar 27 01:17	10°♄34'27	
max. Earth dist.	5026 May 23 13:39	29°♄28'55	1.34256 AU		5027 Apr 11 09:58	0°♄	
	5026 May 23 19:51	0°♄			5027 Apr 30 00:21	0°♄	
				morning set	5027 May 01 23:30	3°♄32'39	
superior conj	5026 May 27 20:03	8°♄12'32	0°-29'-31	max. Earth dist.	5027 May 05 18:46	10°♄37'24	1.35939 AU
minimum elong	5026 May 27 21:38	8°♄20'46	0°29'13				
asc. node	5026 May 30 17:26	14°♄16'20		superior conj	5027 May 11 12:26	21°♄49'57	0°-59'-17
evening rise	5026 Jun 04 08:06	23°♄58'48		minimum elong	5027 May 11 15:43	22°♄06'23	0°58'44
	5026 Jun 07 06:31	0°♄			5027 May 15 13:02	0°♄	
evening max el	5026 Jun 23 23:44	25°♄57'47	21°18'44	asc. node	5027 May 17 14:27	4°♄13'20	
	5026 Jun 29 05:07	0°♄		evening rise	5027 May 19 14:13	8°♄17'37	
retrograde	5026 Jul 06 01:03	1°♄54'28			5027 May 31 12:23	0°♄	
desc. node	5026 Jul 06 03:32	1°♄54'26		evening max el	5027 Jun 06 06:49	7°♄06'23	20°01'10
evening set	5026 Jul 08 09:56	1°♄41'30		retrograde	5027 Jun 16 15:52	12°♄10'56	
	5026 Jul 13 10:17	30°♄		evening set	5027 Jun 18 14:08	12°♄01'11	
inferior conj	5026 Jul 17 17:53	27°♄42'57	-3°-18'-9	desc. node	5027 Jun 23 00:33	10°♄33'30	
minimum elong	5026 Jul 17 09:28	27°♄54'44	3°15'33	inferior conj	5027 Jun 27 14:21	8°♄01'16	-1°-21'-57
min. Earth dist.	5026 Jul 17 23:05	27°♄35'40	0.54795 AU	minimum elong	5027 Jun 27 10:31	8°♄07'02	1°20'34
morning rise	5026 Jul 26 09:27	23°♄48'29		min. Earth dist.	5027 Jun 29 11:18	6°♄53'41	0.55201 AU
direct	5026 Jul 29 22:08	23°♄21'37		morning rise	5027 Jul 06 04:24	3°♄42'00	
morning max el	5026 Aug 11 12:46	29°♄19'52	22°22'55	direct	5027 Jul 10 10:15	3°♄02'44	
	5026 Aug 12 05:36	0°♄		morning max el	5027 Jul 24 03:41	9°♄47'43	24°06'45
asc. node	5026 Aug 26 16:41	20°♄45'46			5027 Aug 08 02:51	0°♄	
	5026 Aug 31 09:52	0°♄		asc. node	5027 Aug 13 13:42	10°♄08'37	
morning set	5026 Sep 02 07:12	3°♄54'56		morning set	5027 Aug 17 18:52	18°♄47'49	
					5027 Aug 22 23:29	0°♄	
superior conj	5026 Sep 09 11:11	19°♄09'38	1°41'32				

superior conj	5027 Aug 24 18:53	3° \mathbb{M} 55'58	1°33'34	morning set	5028 Aug 01 06:15	3° Ω 38'31	
minimum elong	5027 Aug 24 17:02	3° \mathbb{M} 45'54	1°33'22				
max. Earth dist.	5027 Aug 26 20:25	8° \mathbb{M} 23'04	1.33057 AU	superior conj	5028 Aug 08 05:36	18° Ω 49'24	1°20'20
evening rise	5027 Sep 01 05:16	19° \mathbb{M} 35'17		minimum elong	5028 Aug 08 03:19	18° Ω 36'52	1°20'00
	5027 Sep 06 13:48	0° $\underline{\Omega}$		max. Earth dist.	5028 Aug 09 03:50	20° Ω 51'34	1.32294 AU
desc. node	5027 Sep 18 23:51	20° $\underline{\Omega}$ 53'04			5028 Aug 13 09:10	0° \mathbb{M}	
	5027 Sep 25 11:54	0° \mathbb{M}		evening rise	5028 Aug 15 07:05	4° \mathbb{M} 01'19	
evening max el	5027 Oct 04 18:10	10° \mathbb{M} 30'57	27°26'28		5028 Aug 29 07:17	0° $\underline{\Omega}$	
retrograde	5027 Oct 18 09:18	17° \mathbb{M} 48'30		desc. node	5028 Sep 04 20:52	9° $\underline{\Omega}$ 55'15	
evening set	5027 Oct 25 12:01	15° \mathbb{M} 12'10		evening max el	5028 Sep 16 02:05	23° $\underline{\Omega}$ 12'08	27°17'07
min. Earth dist.	5027 Oct 29 04:59	11° \mathbb{M} 57'18	0.63715 AU		5028 Sep 26 18:32	0° \mathbb{M}	
inferior conj	5027 Oct 31 18:52	9° \mathbb{M} 19'33	-2°-50'-1	retrograde	5028 Sep 29 22:09	0° \mathbb{M} 26'00	
minimum elong	5027 Oct 31 23:47	9° \mathbb{M} 07'01	2°48'14		5028 Oct 02 23:42	30° \mathbb{R} $\underline{\Omega}$	
morning rise	5027 Nov 07 14:07	3° \mathbb{M} 59'27		evening set	5028 Oct 07 01:40	28° $\underline{\Omega}$ 04'16	
direct	5027 Nov 09 23:46	3° \mathbb{M} 31'10		min. Earth dist.	5028 Oct 10 16:37	25° $\underline{\Omega}$ 15'50	0.61843 AU
asc. node	5027 Nov 09 12:54	3° \mathbb{M} 32'12		inferior conj	5028 Oct 13 16:55	22° $\underline{\Omega}$ 32'08	-3°-51'-1
morning max el	5027 Nov 16 13:07	6° \mathbb{M} 56'04	17°50'58	minimum elong	5028 Oct 13 23:05	22° $\underline{\Omega}$ 18'08	3°49'14
	5027 Dec 01 18:44	0° \mathbb{M}		morning rise	5028 Oct 20 23:38	17° $\underline{\Omega}$ 31'21	
morning set	5027 Dec 03 02:27	2° \mathbb{M} 16'51		direct	5028 Oct 23 06:18	17° $\underline{\Omega}$ 09'04	
				asc. node	5028 Oct 26 09:57	17° $\underline{\Omega}$ 53'14	
superior conj	5027 Dec 15 16:01	23° \mathbb{M} 29'19	0°02'05	morning max el	5028 Oct 30 04:47	20° $\underline{\Omega}$ 39'27	17°53'07
minimum elong	5027 Dec 15 16:14	23° \mathbb{M} 30'13	0°02'04		5028 Nov 06 04:41	0° \mathbb{M}	
behind sun begin	5027 Dec 15 06:33	22° \mathbb{M} 50'29		morning set	5028 Nov 14 23:36	15° \mathbb{M} 22'04	
behind sun end	5027 Dec 16 01:56	24° \mathbb{M} 09'52			5028 Nov 23 03:52	0° \mathbb{M}	
desc. node	5027 Dec 15 23:05	23° \mathbb{M} 58'14					
	5027 Dec 19 16:22	0° \mathbb{M}		superior conj	5028 Nov 25 18:26	4° \mathbb{M} 31'38	0°42'11
max. Earth dist.	5027 Dec 21 12:29	2° \mathbb{M} 56'30	1.44382 AU	minimum elong	5028 Nov 25 21:53	4° \mathbb{M} 46'28	0°41'42
evening rise	5027 Dec 31 10:56	18° \mathbb{M} 28'35		desc. node	5028 Dec 01 20:07	14° \mathbb{M} 45'17	
	5028 Jan 08 00:46	0° \mathbb{M}		max. Earth dist.	5028 Dec 03 02:36	16° \mathbb{M} 50'25	1.42952 AU
greatest brilliancy	5028 Jan 23 04:03	21° \mathbb{M} 44'14	-0.5m	evening rise	5028 Dec 10 01:12	27° \mathbb{M} 56'50	
evening max el	5028 Jan 28 21:32	28° \mathbb{M} 31'33	20°38'31		5028 Dec 11 08:46	0° \mathbb{M}	
	5028 Jan 30 10:13	0° \mathbb{M}			5028 Dec 31 19:26	0° \mathbb{M}	
asc. node	5028 Feb 05 12:10	3° \mathbb{M} 18'57		greatest brilliancy	5029 Jan 05 23:45	6° \mathbb{M} 43'28	-0.4m
retrograde	5028 Feb 06 01:49	3° \mathbb{M} 20'41		evening max el	5029 Jan 10 17:47	12° \mathbb{M} 06'32	21°51'17
evening set	5028 Feb 09 23:36	1° \mathbb{M} 53'00		retrograde	5029 Jan 19 23:06	17° \mathbb{M} 35'20	
	5028 Feb 12 00:05	30° \mathbb{R} \mathbb{M}		asc. node	5029 Jan 22 09:12	17° \mathbb{M} 04'05	
inferior conj	5028 Feb 15 09:17	25° \mathbb{M} 41'29	2°50'11	evening set	5029 Jan 24 07:27	15° \mathbb{M} 52'19	
minimum elong	5028 Feb 15 06:55	25° \mathbb{M} 49'33	2°49'38	inferior conj	5029 Jan 29 16:45	9° \mathbb{M} 31'24	2°15'30
min. Earth dist.	5028 Feb 15 23:12	24° \mathbb{M} 53'45	0.67617 AU	minimum elong	5029 Jan 29 14:22	9° \mathbb{M} 39'39	2°14'46
morning rise	5028 Feb 20 13:47	19° \mathbb{M} 25'24		min. Earth dist.	5029 Jan 29 18:32	9° \mathbb{M} 25'12	0.68040 AU
direct	5028 Feb 26 01:36	17° \mathbb{M} 00'02		morning rise	5029 Feb 03 21:03	3° \mathbb{M} 17'37	
morning max el	5028 Mar 08 04:20	23° \mathbb{M} 38'31	24°12'38	direct	5029 Feb 08 18:12	1° \mathbb{M} 13'18	
desc. node	5028 Mar 12 22:17	28° \mathbb{M} 54'45		morning max el	5029 Feb 18 14:13	7° \mathbb{M} 02'16	22°43'18
	5028 Mar 13 19:53	0° \mathbb{M}		greatest brilliancy	5029 Feb 23 05:05	12° \mathbb{M} 11'15	-0.3m
	5028 Apr 03 19:31	0° \mathbb{M}		desc. node	5029 Feb 27 19:19	18° \mathbb{M} 01'13	
morning set	5028 Apr 12 21:31	15° \mathbb{M} 05'43			5029 Mar 08 09:04	0° \mathbb{M}	
max. Earth dist.	5028 Apr 16 15:26	21° \mathbb{M} 42'22	1.37981 AU	morning set	5029 Mar 24 17:22	25° \mathbb{M} 21'48	
	5028 Apr 21 03:55	0° \mathbb{M}			5029 Mar 27 12:14	0° \mathbb{M}	
				max. Earth dist.	5029 Mar 29 10:52	3° \mathbb{M} 17'37	1.40181 AU
superior conj	5028 Apr 23 17:06	4° \mathbb{M} 49'47	-1°-27'-41				
minimum elong	5028 Apr 23 21:46	5° \mathbb{M} 12'06	1°27'05	superior conj	5029 Apr 06 05:47	17° \mathbb{M} 01'16	-1°-51'-35
evening rise	5028 May 02 13:59	22° \mathbb{M} 12'59		minimum elong	5029 Apr 06 10:38	17° \mathbb{M} 23'20	1°51'11
asc. node	5028 May 03 11:28	23° \mathbb{M} 58'42			5029 Apr 13 05:18	0° \mathbb{M}	
	5028 May 06 14:09	0° \mathbb{M}		evening rise	5029 Apr 16 04:14	5° \mathbb{M} 36'26	
evening max el	5028 May 19 02:06	18° \mathbb{M} 57'46	19°03'17	asc. node	5029 Apr 20 08:30	13° \mathbb{M} 27'08	
retrograde	5028 May 27 19:38	23° \mathbb{M} 13'58			5029 Apr 30 22:08	0° \mathbb{M}	
evening set	5028 May 29 19:52	23° \mathbb{M} 01'19		evening max el	5029 May 02 06:43	1° \mathbb{M} 25'59	18°25'48
inferior conj	5028 Jun 07 02:30	18° \mathbb{M} 47'41	0°31'29	retrograde	5029 May 09 18:08	5° \mathbb{M} 08'12	
minimum elong	5028 Jun 07 03:45	18° \mathbb{M} 45'30	0°31'01	evening set	5029 May 12 00:47	4° \mathbb{M} 48'35	
desc. node	5028 Jun 08 21:33	17° \mathbb{M} 33'00		inferior conj	5029 May 19 11:57	0° \mathbb{M} 14'56	1°59'05
min. Earth dist.	5028 Jun 10 02:39	16° \mathbb{M} 43'40	0.56498 AU	minimum elong	5029 May 19 15:23	0° \mathbb{M} 07'58	1°58'04
morning rise	5028 Jun 15 07:13	13° \mathbb{M} 52'36			5029 May 19 19:19	30° \mathbb{R} \mathbb{M}	
direct	5028 Jun 20 11:25	12° \mathbb{M} 49'33		min. Earth dist.	5029 May 22 22:17	27° \mathbb{M} 29'42	0.58416 AU
morning max el	5028 Jul 04 17:49	20° \mathbb{M} 10'24	25°44'49	desc. node	5029 May 26 18:33	24° \mathbb{M} 56'22	
	5028 Jul 13 03:47	0° \mathbb{M}		morning rise	5029 May 27 01:34	24° \mathbb{M} 47'04	
asc. node	5028 Jul 30 10:44	29° \mathbb{M} 50'55		direct	5029 Jun 02 02:53	23° \mathbb{M} 11'23	
	5028 Jul 30 12:29	0° \mathbb{M}			5029 Jun 15 13:23	0° \mathbb{M}	

morning max el	5029 Jun 16 12:12	0° Π 54'24	27°01'26	morning max el	5030 May 29 13:03	12° C 17'13	27°44'55
	5029 Jul 07 05:43	0° C			5030 Jun 12 12:39	0° Π	
morning set	5029 Jul 16 15:44	18° C 22'08			5030 Jun 29 11:53	0° C	
asc. node	5029 Jul 17 07:47	19° C 46'50		morning set	5030 Jun 30 21:29	2° C 52'07	
	5029 Jul 22 00:54	0° Ω		asc. node	5030 Jul 04 04:49	9° C 50'32	
				max. Earth dist.	5030 Jul 07 01:40	16° C 04'25	1.32031 AU
superior conj	5029 Jul 23 17:27	3° Ω 43'47	1°02'30	superior conj	5030 Jul 08 04:36	18° C 32'17	0°40'39
minimum elong	5029 Jul 23 15:13	3° Ω 31'30	1°02'06	minimum elong	5030 Jul 08 02:54	18° C 22'56	0°40'18
max. Earth dist.	5029 Jul 23 14:51	3° Ω 29'25	1.31954 AU		5030 Jul 13 10:00	0° Ω	
evening rise	5029 Jul 30 14:24	18° Ω 42'01		evening rise	5030 Jul 15 00:56	3° Ω 29'12	
	5029 Aug 05 04:10	0° C			5030 Jul 29 04:19	0° C	
desc. node	5029 Aug 22 17:53	28° C 04'50		desc. node	5030 Aug 09 14:54	14° C 59'38	
	5029 Aug 24 07:50	0° C		evening max el	5030 Aug 10 22:29	16° C 17'53	25°20'51
evening max el	5029 Aug 29 04:07	5° C 09'46	26°34'14	retrograde	5030 Aug 24 21:04	23° C 21'47	
retrograde	5029 Sep 12 02:44	12° C 18'45		evening set	5030 Aug 30 17:15	22° C 03'08	
evening set	5029 Sep 18 21:02	10° C 24'07		min. Earth dist.	5030 Sep 04 10:11	19° C 23'50	0.57773 AU
min. Earth dist.	5029 Sep 22 17:51	7° C 49'10	0.59796 AU	inferior conj	5030 Sep 07 11:42	17° C 17'50	-5°-13'-50
inferior conj	5029 Sep 25 23:41	5° C 15'13	-4°-42'-44	minimum elong	5030 Sep 07 13:59	17° C 13'55	5°13'44
minimum elong	5029 Sep 26 05:25	5° C 03'49	4°41'41	morning rise	5030 Sep 15 14:10	13° C 02'35	
morning rise	5029 Oct 03 17:12	0° C 36'32		direct	5030 Sep 18 01:59	12° C 43'50	
direct	5029 Oct 06 00:32	0° C 17'12		morning max el	5030 Sep 26 19:14	16° C 51'55	18°57'06
asc. node	5029 Oct 13 07:00	3° C 40'21		asc. node	5030 Sep 30 04:04	20° C 38'07	
morning max el	5029 Oct 13 15:58	4° C 01'32	18°14'38		5030 Oct 06 06:36	0° C	
morning set	5029 Oct 29 11:16	29° C 08'40		morning set	5030 Oct 13 08:57	13° C 23'10	
	5029 Oct 29 22:07	0° C					
superior conj	5029 Nov 07 21:22	16° C 45'08	1°12'00	superior conj	5030 Oct 21 19:33	29° C 54'36	1°31'21
minimum elong	5029 Nov 08 01:15	17° C 02'46	1°11'33	minimum elong	5030 Oct 21 22:20	0° C 07'56	1°31'07
	5029 Nov 15 10:07	0° C			5030 Oct 21 20:41	0° C	
max. Earth dist.	5029 Nov 15 11:55	0° C 07'38	1.41079 AU	max. Earth dist.	5030 Oct 28 17:31	12° C 42'53	1.38984 AU
desc. node	5029 Nov 18 17:11	5° C 31'28		evening rise	5030 Nov 01 15:13	19° C 33'13	
evening rise	5029 Nov 20 08:51	8° C 14'20		desc. node	5030 Nov 05 14:13	26° C 12'30	
	5029 Dec 04 11:18	0° C			5030 Nov 07 22:07	0° C	
evening max el	5029 Dec 24 09:44	25° C 44'37	23°10'18		5030 Nov 28 16:34	0° C	
	5029 Dec 29 10:53	0° \approx		evening max el	5030 Dec 06 23:03	9° C 25'57	24°29'35
retrograde	5030 Jan 03 17:47	1° \approx 51'49		retrograde	5030 Dec 18 08:47	16° C 05'54	
	5030 Jan 08 10:53	30° C		evening set	5030 Dec 23 18:44	13° C 51'24	
evening set	5030 Jan 08 14:21	29° C 52'53		asc. node	5030 Dec 27 03:17	10° C 15'16	
asc. node	5030 Jan 09 06:14	29° C 17'41		min. Earth dist.	5030 Dec 28 11:09	8° C 31'40	0.67752 AU
min. Earth dist.	5030 Jan 13 15:18	23° C 59'01	0.68080 AU	inferior conj	5030 Dec 29 07:36	7° C 23'20	0°43'57
inferior conj	5030 Jan 14 00:47	23° C 26'19	1°33'07	minimum elong	5030 Dec 29 06:33	7° C 26'48	0°43'32
minimum elong	5030 Jan 13 22:52	23° C 32'58	1°32'24	morning rise	5031 Jan 03 18:49	1° C 19'54	
morning rise	5030 Jan 19 07:24	17° C 16'40		direct	5031 Jan 07 12:12	0° C 00'31	
direct	5030 Jan 23 14:09	15° C 35'16		morning max el	5031 Jan 15 03:34	4° C 20'28	20°05'44
morning max el	5030 Feb 01 05:03	20° C 35'18	21°18'59	greatest brilliancy	5031 Jan 21 23:28	12° C 31'43	-0.6m
greatest brilliancy	5030 Feb 06 07:39	26° C 24'06	-0.4m	desc. node	5031 Feb 01 13:26	27° C 45'16	
	5030 Feb 09 02:39	0° \approx			5031 Feb 03 01:20	0° \approx	
desc. node	5030 Feb 14 16:23	7° \approx 41'09		morning set	5031 Feb 11 06:07	12° \approx 30'27	
	5030 Mar 01 14:49	0° C		max. Earth dist.	5031 Feb 21 21:51	29° \approx 13'44	1.43915 AU
morning set	5030 Mar 04 08:48	4° C 18'22			5031 Feb 22 09:24	0° C	
max. Earth dist.	5030 Mar 11 12:23	15° C 48'37	1.42253 AU				
superior conj	5030 Mar 18 21:32	28° C 13'16	-2°-6'-29	superior conj	5031 Feb 27 12:13	8° C 17'16	-2°-6'-50
minimum elong	5030 Mar 19 00:06	28° C 24'17	2°06'25	minimum elong	5031 Feb 27 09:18	8° C 05'21	2°06'47
	5030 Mar 19 22:15	0° C			5031 Mar 12 09:22	0° C	
evening rise	5030 Mar 30 05:10	18° C 19'23		evening rise	5031 Mar 12 12:24	0° C 13'04	
	5030 Apr 05 17:47	0° C		asc. node	5031 Mar 25 02:34	21° C 08'01	
asc. node	5030 Apr 07 05:32	2° C 32'40		evening max el	5031 Mar 30 05:51	27° C 35'36	18°09'46
evening max el	5030 Apr 15 17:05	14° C 21'31	18°08'09		5031 Apr 02 06:57	0° C	
retrograde	5030 Apr 22 10:23	17° C 46'28		retrograde	5031 Apr 05 16:03	0° C 58'27	
evening set	5030 Apr 24 23:34	17° C 17'17		evening set	5031 Apr 08 11:17	0° C 18'17	
inferior conj	5030 May 01 17:55	12° C 22'18	2°55'31	inferior conj	5031 Apr 14 16:43	25° C 03'06	3°24'55
minimum elong	5030 May 01 20:57	12° C 15'08	2°54'54	minimum elong	5031 Apr 14 18:14	24° C 59'00	3°24'45
min. Earth dist.	5030 May 05 00:22	9° C 19'18	0.60605 AU	min. Earth dist.	5031 Apr 17 11:09	22° C 06'26	0.62747 AU
morning rise	5030 May 08 14:54	6° C 30'53		morning rise	5031 Apr 20 22:51	18° C 57'26	
desc. node	5030 May 13 15:35	4° C 29'28		direct	5031 Apr 27 19:08	16° C 23'00	
direct	5030 May 15 06:10	4° C 22'01		desc. node	5031 Apr 30 12:37	16° C 45'14	

morning max el	5031 May 11 19:40	24° Υ 23'00	27°50'37	evening set	5032 Mar 22 07:53	13° Υ 41'52	
	5031 May 16 21:35	0° \mathcal{B}		inferior conj	5032 Mar 28 04:08	8° Υ 08'19	3°33'22
	5031 Jun 05 21:40	0° Π		minimum elong	5032 Mar 28 04:04	8° Υ 08'33	3°33'22
morning set	5031 Jun 14 21:25	17° Π 02'09		min. Earth dist.	5032 Mar 30 07:28	5° Υ 36'48	0.64624 AU
max. Earth dist.	5031 Jun 20 08:18	28° Π 23'38	1.32537 AU	morning rise	5032 Apr 02 22:42	1° Υ 55'18	
asc. node	5031 Jun 21 01:52	29° Π 57'51			5032 Apr 05 21:04	30° \mathcal{R} \mathcal{H}	
	5031 Jun 21 02:16	0° \mathcal{E}		direct	5032 Apr 09 16:08	29° \mathcal{H} 07'46	
					5032 Apr 13 17:40	0° Υ	
superior conj	5031 Jun 22 13:20	3° \mathcal{E} 09'26	0°15'22	desc. node	5032 Apr 16 09:39	1° Υ 23'09	
minimum elong	5031 Jun 22 12:36	3° \mathcal{E} 05'30	0°15'12	morning max el	5032 Apr 23 05:18	7° Υ 02'57	27°20'37
behind sun begin	5031 Jun 22 11:02	2° \mathcal{E} 57'00			5032 May 10 20:59	0° \mathcal{B}	
behind sun end	5031 Jun 22 14:11	3° \mathcal{E} 14'01			5032 May 28 03:49	0° Π	
evening rise	5031 Jun 29 12:45	18° \mathcal{E} 16'33		morning set	5032 May 28 12:47	0° Π 43'34	
	5031 Jul 05 06:41	0° Ω		max. Earth dist.	5032 Jun 02 06:40	10° Π 15'01	1.33491 AU
evening max el	5031 Jul 23 11:16	26° Ω 47'48	23°47'41				
desc. node	5031 Jul 27 11:53	0° \mathcal{H} 10'37		superior conj	5032 Jun 05 17:39	17° Π 28'51	0°-12'-36
	5031 Jul 27 05:58	0° \mathcal{H}		minimum elong	5032 Jun 05 18:18	17° Π 32'18	0°12'30
retrograde	5031 Aug 06 03:40	3° \mathcal{H} 40'22		behind sun begin	5032 Jun 05 14:51	17° Π 13'58	
evening set	5031 Aug 10 13:40	2° \mathcal{H} 57'25		behind sun end	5032 Jun 05 21:46	17° Π 50'39	
	5031 Aug 16 18:21	30° \mathcal{R} Ω		asc. node	5032 Jun 06 22:54	20° Π 04'12	
min. Earth dist.	5031 Aug 16 21:22	29° Ω 55'31	0.56063 AU		5032 Jun 11 14:24	0° \mathcal{E}	
inferior conj	5031 Aug 19 03:25	28° Ω 33'52	-5°-8'-22	evening rise	5032 Jun 12 23:56	2° \mathcal{E} 57'31	
minimum elong	5031 Aug 18 23:26	28° Ω 39'54	5°08'01		5032 Jun 28 00:25	0° Ω	
morning rise	5031 Aug 27 12:30	24° Ω 38'03		evening max el	5032 Jul 04 01:49	7° Ω 09'56	22°10'38
direct	5031 Aug 30 07:45	24° Ω 18'14		desc. node	5032 Jul 13 08:53	13° Ω 03'26	
morning max el	5031 Sep 09 11:40	29° Ω 01'49	20°01'30	retrograde	5032 Jul 16 22:31	13° Ω 33'03	
	5031 Sep 10 11:29	0° \mathcal{H}		evening set	5032 Jul 19 21:15	13° Ω 13'46	
asc. node	5031 Sep 17 01:07	8° \mathcal{H} 31'43		min. Earth dist.	5032 Jul 28 07:33	9° Ω 35'17	0.54999 AU
morning set	5031 Sep 27 13:23	27° \mathcal{H} 56'35		inferior conj	5032 Jul 29 02:24	9° Ω 08'43	-4°-12'-34
	5031 Sep 28 13:38	0° \mathcal{A}		minimum elong	5032 Jul 28 17:48	9° Ω 20'51	4°10'30
				morning rise	5032 Aug 06 16:15	5° Ω 19'03	
superior conj	5031 Oct 05 07:52	13° \mathcal{A} 45'35	1°41'21	direct	5032 Aug 09 21:16	4° Ω 56'03	
minimum elong	5031 Oct 05 09:05	13° \mathcal{A} 51'39	1°41'19	morning max el	5032 Aug 21 16:03	10° Ω 26'18	21°26'37
max. Earth dist.	5031 Oct 10 23:01	24° \mathcal{A} 44'26	1.36925 AU	asc. node	5032 Sep 02 22:10	27° Ω 08'17	
	5031 Oct 13 18:48	0° \mathcal{M}			5032 Sep 04 12:11	0° \mathcal{H}	
evening rise	5031 Oct 14 19:19	1° \mathcal{M} 51'34		morning set	5032 Sep 10 22:10	12° \mathcal{H} 42'24	
desc. node	5031 Oct 23 11:13	16° \mathcal{M} 44'14					
	5031 Nov 01 01:02	0° \mathcal{J}		superior conj	5032 Sep 18 06:10	28° \mathcal{H} 06'01	1°43'26
evening max el	5031 Nov 19 11:27	23° \mathcal{J} 08'49	25°42'09	minimum elong	5032 Sep 18 05:54	28° \mathcal{H} 04'37	1°43'26
	5031 Nov 29 23:04	0° \mathcal{Z}			5032 Sep 19 04:10	0° \mathcal{A}	
retrograde	5031 Dec 01 19:14	0° \mathcal{Z} 12'14		max. Earth dist.	5032 Sep 22 09:59	6° \mathcal{A} 36'05	1.35117 AU
	5031 Dec 03 13:43	30° \mathcal{R} \mathcal{J}		evening rise	5032 Sep 26 17:19	15° \mathcal{A} 00'18	
evening set	5031 Dec 07 18:54	27° \mathcal{J} 44'17			5032 Oct 05 01:39	0° \mathcal{M}	
min. Earth dist.	5031 Dec 12 03:48	22° \mathcal{J} 59'32	0.67068 AU	desc. node	5032 Oct 09 08:13	7° \mathcal{M} 01'48	
inferior conj	5031 Dec 13 11:19	21° \mathcal{J} 19'24	0°-11'-5		5032 Oct 25 17:03	0° \mathcal{J}	
minimum elong	5031 Dec 13 11:37	21° \mathcal{J} 18'29	0°10'58	evening max el	5032 Nov 01 00:08	6° \mathcal{J} 49'22	26°40'36
transit middle	5031 Dec 13 11:37	21° \mathcal{J} 18'29	0°10'58	retrograde	5032 Nov 14 00:32	14° \mathcal{J} 05'02	
transit begin	5031 Dec 13 09:33	21° \mathcal{J} 25'04		evening set	5032 Nov 20 12:58	11° \mathcal{J} 28'04	
transit end	5031 Dec 13 13:41	21° \mathcal{J} 11'54		min. Earth dist.	5032 Nov 24 15:02	7° \mathcal{J} 18'58	0.66035 AU
asc. node	5031 Dec 14 00:20	20° \mathcal{J} 38'11		inferior conj	5032 Nov 26 10:03	5° \mathcal{J} 11'32	-1°-10'-49
morning rise	5031 Dec 19 05:16	15° \mathcal{J} 24'20		minimum elong	5032 Nov 26 12:01	5° \mathcal{J} 05'40	1°09'58
direct	5031 Dec 22 10:54	14° \mathcal{J} 24'12		asc. node	5032 Nov 29 21:22	1° \mathcal{J} 24'04	
morning max el	5031 Dec 29 09:52	18° \mathcal{J} 15'40	19°06'50		5032 Dec 01 14:55	30° \mathcal{R} \mathcal{M}	
	5032 Jan 07 13:23	0° \mathcal{Z}		morning rise	5032 Dec 02 12:37	29° \mathcal{M} 27'24	
desc. node	5032 Jan 19 10:28	18° \mathcal{Z} 06'25		direct	5032 Dec 05 08:35	28° \mathcal{M} 42'42	
morning set	5032 Jan 21 09:08	21° \mathcal{Z} 07'44			5032 Dec 09 04:34	0° \mathcal{J}	
	5032 Jan 27 01:51	0° \approx		morning max el	5032 Dec 11 22:21	2° \mathcal{J} 16'40	18°23'56
max. Earth dist.	5032 Feb 04 13:03	13° \approx 15'18	1.44973 AU		5032 Dec 30 21:31	0° \mathcal{Z}	
				morning set	5032 Dec 31 13:50	1° \mathcal{Z} 05'25	
superior conj	5032 Feb 07 02:51	17° \approx 19'08	-1°-48'-2	desc. node	5033 Jan 05 07:29	8° \mathcal{Z} 40'01	
minimum elong	5032 Feb 06 18:17	16° \approx 45'18	1°47'23				
	5032 Feb 15 01:21	0° \mathcal{H}		superior conj	5033 Jan 16 05:49	25° \mathcal{Z} 56'19	-1°-10'-57
evening rise	5032 Feb 21 21:46	11° \mathcal{H} 09'33		minimum elong	5033 Jan 15 21:25	25° \mathcal{Z} 23'24	1°09'57
	5032 Mar 04 12:26	0° Υ		max. Earth dist.	5033 Jan 17 07:33	27° \mathcal{Z} 37'15	1.45324 AU
asc. node	5032 Mar 10 23:36	9° Υ 03'07			5033 Jan 18 19:59	0° \approx	
evening max el	5032 Mar 12 18:05	11° Υ 00'14	18°30'01	evening rise	5033 Feb 01 07:52	21° \approx 10'17	
retrograde	5032 Mar 19 06:31	14° Υ 34'03			5033 Feb 06 22:23	0° \mathcal{H}	

greatest brilliancy	5033 Feb 14 05:46	11° ✕ 19'56	-0.7m	evening max el	5034 Feb 07 08:20	8° ✕ 03'47	20°01'36
evening max el	5033 Feb 24 03:30	24° ✕ 30'51	19°07'52	asc. node	5034 Feb 12 17:39	12° ✕ 03'46	
asc. node	5033 Feb 25 20:37	26° ✕ 06'29		retrograde	5034 Feb 14 23:58	12° ✕ 31'05	
retrograde	5033 Mar 03 02:06	28° ✕ 26'45		evening set	5034 Feb 18 16:30	11° ✕ 11'49	
evening set	5033 Mar 06 10:25	27° ✕ 21'34		inferior conj	5034 Feb 24 03:13	5° ✕ 07'30	3°06'11
inferior conj	5033 Mar 12 00:38	21° ✕ 31'33	3°25'56	minimum elong	5034 Feb 24 01:05	5° ✕ 14'39	3°05'47
minimum elong	5033 Mar 11 23:18	21° ✕ 35'50	3°25'48	min. Earth dist.	5034 Feb 25 00:45	3° ✕ 55'08	0.67196 AU
min. Earth dist.	5033 Mar 13 12:33	19° ✕ 36'57	0.66123 AU		5034 Feb 28 05:12	30° ℞	
morning rise	5033 Mar 17 11:12	15° ✕ 15'34		morning rise	5034 Mar 01 09:05	28° ≈ 51'09	
direct	5033 Mar 23 19:53	12° ✕ 28'22		direct	5034 Mar 07 05:12	26° ≈ 15'31	
desc. node	5033 Apr 03 06:42	17° ✕ 49'52			5034 Mar 15 09:39	0° ✕	
morning max el	5033 Apr 05 15:13	20° ✕ 04'58	26°21'34	morning max el	5034 Mar 19 00:03	3° ✕ 18'20	25°02'52
	5033 Apr 14 03:13	0° ℣		desc. node	5034 Mar 21 03:44	5° ✕ 35'06	
	5033 May 03 23:33	0° ♄			5034 Apr 08 08:48	0° ℣	
morning set	5033 May 11 16:00	13° ♄ 46'02		morning set	5034 Apr 24 02:20	25° ℣ 56'01	
max. Earth dist.	5033 May 15 17:50	21° ♄ 34'56	1.34916 AU		5034 Apr 26 08:20	0° ♄	
	5033 May 19 22:47	0° ♅		max. Earth dist.	5034 Apr 27 18:29	2° ♄ 37'10	1.36770 AU
superior conj	5033 May 20 15:14	1° ♅ 24'05	0°-42'-9	superior conj	5034 May 04 03:09	14° ♄ 47'09	-1°-11'-39
minimum elong	5033 May 20 17:32	1° ♅ 35'54	0°41'44	minimum elong	5034 May 04 07:06	15° ♄ 06'33	1°11'03
asc. node	5033 May 24 19:54	10° ♅ 05'50		asc. node	5034 May 11 16:56	29° ♄ 58'41	
evening rise	5033 May 28 08:32	17° ♅ 26'14			5034 May 11 17:12	0° ♅	
	5033 Jun 03 16:50	0° ♄		evening rise	5034 May 12 12:18	1° ♅ 36'12	
evening max el	5033 Jun 16 01:58	17° ♄ 56'55	20°43'32	evening max el	5034 May 29 14:37	29° ♅ 24'48	19°34'09
retrograde	5033 Jun 27 10:56	23° ♄ 31'29			5034 May 30 05:28	0° ♄	
evening set	5033 Jun 29 13:03	23° ♄ 20'58		retrograde	5034 Jun 08 05:47	4° ♄ 07'03	
desc. node	5033 Jun 30 05:54	23° ♄ 12'54		evening set	5034 Jun 10 04:08	3° ♄ 56'32	
inferior conj	5033 Jul 08 19:34	19° ♄ 24'10	-2°-30'-45	desc. node	5034 Jun 17 02:56	0° ♄ 58'22	
minimum elong	5033 Jul 08 12:39	19° ♄ 34'02	2°28'23	inferior conj	5034 Jun 18 21:33	29° ♅ 52'01	0°-31'-46
min. Earth dist.	5033 Jul 09 18:49	18° ♄ 50'57	0.54849 AU	minimum elong	5034 Jun 18 20:07	29° ♅ 54'17	0°31'15
morning rise	5033 Jul 17 11:17	15° ♄ 20'59			5034 Jun 18 16:31	30° ℞ ♅	
direct	5033 Jul 21 06:37	14° ♄ 49'49		min. Earth dist.	5034 Jun 21 08:06	28° ♅ 19'32	0.55658 AU
morning max el	5033 Aug 03 10:17	21° ♄ 09'32	23°06'41	morning rise	5034 Jun 27 08:37	25° ♅ 18'28	
	5033 Aug 11 00:04	0° ♄		direct	5034 Jul 01 23:57	24° ♅ 30'21	
asc. node	5033 Aug 20 19:11	16° ♄ 16'51			5034 Jul 14 07:20	0° ♄	
morning set	5033 Aug 26 09:18	27° ♄ 34'17		morning max el	5034 Jul 15 23:56	1° ♄ 31'35	24°50'03
	5033 Aug 27 12:48	0° ♅			5034 Aug 04 17:01	0° ♄	
superior conj	5033 Sep 02 11:11	12° ♅ 45'18	1°38'51	asc. node	5034 Aug 07 16:13	5° ♄ 49'14	
minimum elong	5033 Sep 02 09:47	12° ♅ 37'48	1°38'45	morning set	5034 Aug 10 21:06	12° ♄ 27'27	
max. Earth dist.	5033 Sep 05 05:49	18° ♅ 38'52	1.33691 AU	superior conj	5034 Aug 17 20:27	27° ♄ 35'54	1°28'33
evening rise	5033 Sep 10 04:56	28° ♅ 47'13		minimum elong	5034 Aug 17 18:22	27° ♄ 24'29	1°28'18
	5033 Sep 10 19:41	0° ♄			5034 Aug 18 22:54	0° ♅	
desc. node	5033 Sep 26 05:13	26° ♄ 57'54		max. Earth dist.	5034 Aug 19 09:59	1° ♅ 00'17	1.32688 AU
	5033 Sep 28 05:16	0° ♅		evening rise	5034 Aug 25 02:31	13° ♅ 02'06	
evening max el	5033 Oct 14 12:38	20° ♅ 17'28	27°17'36		5034 Sep 02 23:15	0° ♄	
retrograde	5033 Oct 27 23:48	27° ♅ 35'37		desc. node	5034 Sep 13 02:14	16° ♄ 23'28	
evening set	5033 Nov 03 22:31	24° ♅ 56'42			5034 Sep 23 16:34	0° ♅	
min. Earth dist.	5033 Nov 07 18:32	21° ♅ 22'40	0.64659 AU	evening max el	5034 Sep 26 23:07	3° ♅ 20'17	27°26'28
inferior conj	5033 Nov 10 01:26	18° ♅ 53'55	-2°-13'-34	retrograde	5034 Oct 10 16:27	10° ♅ 35'31	
minimum elong	5033 Nov 10 05:18	18° ♅ 43'25	2°12'02	evening set	5034 Oct 17 20:32	8° ♅ 04'10	
morning rise	5033 Nov 16 14:14	13° ♅ 23'47		min. Earth dist.	5034 Oct 21 12:13	5° ♅ 01'35	0.62959 AU
asc. node	5033 Nov 16 18:24	13° ♅ 19'25		inferior conj	5034 Oct 24 06:45	2° ♅ 20'02	-3°-16'-27
direct	5033 Nov 19 02:55	12° ♅ 50'32		minimum elong	5034 Oct 24 12:19	2° ♅ 06'29	3°14'36
morning max el	5033 Nov 25 14:24	16° ♅ 16'20	17°57'55		5034 Oct 26 18:50	30° ℞ ♄	
	5033 Dec 05 11:31	0° ♄		morning rise	5034 Oct 31 06:51	27° ♄ 07'28	
morning set	5033 Dec 12 23:54	12° ♄ 30'09		direct	5034 Nov 02 14:57	26° ♄ 41'59	
desc. node	5033 Dec 23 04:30	29° ♄ 21'29		asc. node	5034 Nov 03 15:27	26° ♄ 46'57	
	5033 Dec 23 14:00	0° ♄			5034 Nov 09 03:49	0° ♅	
superior conj	5033 Dec 26 17:19	5° ♄ 03'27	0°-24'-25	morning max el	5034 Nov 09 07:06	0° ♅ 08'01	17°49'31
minimum elong	5033 Dec 26 14:22	4° ♄ 51'39	0°24'00	morning set	5034 Nov 25 10:09	25° ♅ 04'46	
max. Earth dist.	5033 Dec 31 02:46	12° ♄ 02'44	1.44935 AU		5034 Nov 28 05:22	0° ♄	
evening rise	5034 Jan 11 23:33	0° ≈ 31'06		superior conj	5034 Dec 07 04:20	15° ♄ 20'55	0°20'14
	5034 Jan 11 15:29	0° ≈		minimum elong	5034 Dec 07 06:19	15° ♄ 29'13	0°19'57
greatest brilliancy	5034 Jan 31 14:34	29° ≈ 47'44	-0.6m	desc. node	5034 Dec 10 01:32	20° ♄ 07'31	
	5034 Jan 31 18:09	0° ✕		max. Earth dist.	5034 Dec 13 19:56	26° ♄ 14'57	1.43851 AU

	5034 Dec 16 04:14	0°☿			5035 Dec 08 23:39	0°☿	
evening rise	5034 Dec 22 09:47	9°☿45'46			5035 Dec 30 09:46	0°≈	
	5035 Jan 04 20:46	0°≈		greatest brilliancy	5035 Dec 30 06:41	29°☿50'40	-0.3m
greatest brilliancy	5035 Jan 16 03:34	15°≈38'05	-0.4m	evening max el	5036 Jan 04 01:50	5°≈13'53	22°24'23
evening max el	5035 Jan 21 07:41	21°≈37'51	21°08'24	retrograde	5036 Jan 13 18:25	10°≈59'42	
retrograde	5035 Jan 29 21:58	26°≈43'12		asc. node	5036 Jan 17 11:44	9°≈47'00	
asc. node	5035 Jan 30 14:41	26°≈40'35		evening set	5036 Jan 18 07:51	9°≈09'42	
evening set	5035 Feb 03 00:11	25°≈08'52		inferior conj	5036 Jan 23 17:26	2°≈45'40	1°58'25
inferior conj	5035 Feb 08 09:29	18°≈52'58	2°36'29	minimum elong	5036 Jan 23 15:12	2°≈53'27	1°57'39
minimum elong	5035 Feb 08 07:04	19°≈01'20	2°35'49	min. Earth dist.	5036 Jan 23 14:15	2°≈56'43	0.68102 AU
min. Earth dist.	5035 Feb 08 18:03	18°≈23'23	0.67849 AU		5036 Jan 25 18:21	30°☿	
morning rise	5035 Feb 13 13:36	12°≈37'56		morning rise	5036 Jan 28 22:26	26°☿33'31	
direct	5035 Feb 18 19:15	10°≈21'14		direct	5036 Feb 02 13:17	24°☿39'11	
morning max el	5035 Mar 01 08:51	16°≈38'31	23°34'34		5036 Feb 11 17:53	0°≈	
desc. node	5035 Mar 08 00:46	24°≈16'36		morning max el	5036 Feb 11 20:37	0°≈06'51	22°06'27
	5035 Mar 12 09:51	0°☿		greatest brilliancy	5036 Feb 16 11:17	5°≈16'21	-0.3m
	5035 Apr 01 09:35	0°☿		desc. node	5036 Feb 22 21:49	13°≈38'52	
morning set	5035 Apr 05 13:50	6°☿57'17			5036 Mar 05 05:16	0°☿	
max. Earth dist.	5035 Apr 09 14:07	13°☿52'47	1.38912 AU	morning set	5036 Mar 15 21:26	16°☿38'51	
				max. Earth dist.	5036 Mar 21 11:50	25°☿51'32	1.41092 AU
superior conj	5035 Apr 17 01:35	27°☿27'31	-1°-38'-37		5036 Mar 23 22:33	0°☿	
minimum elong	5035 Apr 17 06:32	27°☿50'46	1°38'03				
	5035 Apr 18 09:58	0°☿		superior conj	5036 Mar 29 05:57	9°☿14'49	-1°-59'-19
evening rise	5035 Apr 26 08:27	15°☿19'01		minimum elong	5036 Mar 29 10:13	9°☿33'47	1°59'03
asc. node	5035 Apr 28 13:58	19°☿37'29		evening rise	5036 Apr 08 17:35	28°☿26'40	
	5035 May 04 05:50	0°☿			5036 Apr 09 13:39	0°☿	
evening max el	5035 May 12 14:13	11°☿32'17	18°44'53	asc. node	5036 Apr 14 11:01	8°☿57'07	
retrograde	5035 May 20 17:32	15°☿32'23		evening max el	5036 Apr 24 21:38	24°☿12'41	18°15'52
evening set	5035 May 22 20:21	15°☿17'06		retrograde	5036 May 02 00:08	27°☿45'58	
inferior conj	5035 May 30 18:30	10°☿54'57	1°12'27	evening set	5036 May 04 09:27	27°☿22'40	
minimum elong	5035 May 30 21:05	10°☿50'10	1°11'33	inferior conj	5036 May 11 13:01	22°☿39'54	2°26'42
min. Earth dist.	5035 Jun 03 00:47	8°☿31'16	0.57252 AU	minimum elong	5036 May 11 16:31	22°☿32'20	2°25'46
desc. node	5035 Jun 03 23:58	7°☿51'28		min. Earth dist.	5036 May 14 23:02	19°☿43'51	0.59328 AU
morning rise	5035 Jun 07 17:17	5°☿45'08		morning rise	5036 May 18 19:27	17°☿00'21	
direct	5035 Jun 13 06:49	4°☿29'18		desc. node	5036 May 20 21:00	16°☿00'26	
morning max el	5035 Jun 27 15:29	12°☿00'25	26°20'58	direct	5036 May 25 03:34	15°☿10'09	
	5035 Jul 11 15:25	0°☿		morning max el	5036 Jun 08 12:47	23°☿00'07	27°24'31
asc. node	5035 Jul 25 13:15	25°☿38'00			5036 Jun 14 18:25	0°☿	
morning set	5035 Jul 26 07:54	27°☿16'01			5036 Jul 03 17:05	0°☿	
	5035 Jul 27 14:43	0°☿		morning set	5036 Jul 09 16:02	11°☿54'26	
				asc. node	5036 Jul 11 10:18	15°☿37'37	
superior conj	5035 Aug 02 07:52	12°☿30'20	1°13'17				
minimum elong	5035 Aug 02 05:34	12°☿17'34	1°12'56	superior conj	5036 Jul 16 19:38	27°☿22'38	0°53'41
max. Earth dist.	5035 Aug 02 19:35	13°☿34'53	1.32102 AU	minimum elong	5036 Jul 16 17:34	27°☿11'16	0°53'18
evening rise	5035 Aug 09 06:58	27°☿35'10		max. Earth dist.	5036 Jul 16 06:53	26°☿12'17	1.31930 AU
	5035 Aug 10 10:50	0°☿			5036 Jul 18 00:07	0°☿	
	5035 Aug 27 08:31	0°☿		evening rise	5036 Jul 23 15:52	12°☿18'51	
desc. node	5035 Aug 30 23:16	5°☿05'31			5036 Aug 01 14:38	0°☿	
evening max el	5035 Sep 09 04:47	15°☿43'47	27°02'47	desc. node	5036 Aug 16 20:16	22°☿46'22	
retrograde	5035 Sep 23 01:44	22°☿55'12		evening max el	5036 Aug 21 03:18	27°☿19'09	26°06'13
evening set	5035 Sep 30 03:02	20°☿43'16			5036 Aug 24 05:44	0°☿	
min. Earth dist.	5035 Oct 03 19:05	18°☿02'50	0.60994 AU	retrograde	5036 Sep 04 02:31	4°☿27'05	
inferior conj	5035 Oct 06 22:43	15°☿21'07	-4°-14'-35	evening set	5036 Sep 10 13:06	2°☿46'44	
minimum elong	5035 Oct 07 05:00	15°☿07'39	4°13'03	min. Earth dist.	5036 Sep 14 16:08	0°☿12'23	0.58915 AU
morning rise	5035 Oct 14 10:13	10°☿29'38			5036 Sep 14 23:00	30°☿	
direct	5035 Oct 16 16:50	10°☿08'51		inferior conj	5036 Sep 17 21:50	27°☿47'43	-4°-59'-21
asc. node	5035 Oct 21 12:29	11°☿46'15		minimum elong	5036 Sep 18 02:32	27°☿38'56	4°58'44
morning max el	5035 Oct 23 21:18	13°☿43'36	17°59'49	morning rise	5036 Sep 25 19:31	23°☿19'26	
	5035 Nov 03 22:30	0°☿		direct	5036 Sep 28 04:10	23°☿00'44	
morning set	5035 Nov 08 14:07	8°☿29'33		morning max el	5036 Oct 06 05:35	26°☿53'47	18°30'05
				asc. node	5036 Oct 07 09:33	28°☿05'20	
superior conj	5035 Nov 18 17:47	26°☿55'41	0°56'08		5036 Oct 09 00:42	0°☿	
minimum elong	5035 Nov 18 21:42	27°☿12'51	0°55'38	morning set	5036 Oct 22 06:29	22°☿29'04	
	5035 Nov 20 11:57	0°☿			5036 Oct 26 04:01	0°☿	
max. Earth dist.	5035 Nov 26 08:25	9°☿56'08	1.42200 AU				
desc. node	5035 Nov 26 22:34	10°☿54'46		superior conj	5036 Oct 31 05:35	9°☿35'06	1°21'25
evening rise	5035 Dec 02 06:14	19°☿32'05		minimum elong	5036 Oct 31 09:07	9°☿51'30	1°21'04

max. Earth dist.	5036 Nov 07 15:21	22° \mathbb{M} 53'33	1.40195 AU		5037 Oct 18 00:56	0° \mathbb{M}	
evening rise	5036 Nov 11 23:17	0° \mathbb{A} 15'02		max. Earth dist.	5037 Oct 20 20:04	5° \mathbb{M} 12'04	1.38092 AU
	5036 Nov 11 19:40	0° \mathbb{A}		evening rise	5037 Oct 24 15:22	12° \mathbb{M} 01'21	
desc. node	5036 Nov 12 19:35	1° \mathbb{A} 39'11		desc. node	5037 Oct 30 16:35	22° \mathbb{M} 17'24	
	5036 Dec 01 10:12	0° \mathbb{B}			5037 Nov 04 12:22	0° \mathbb{A}	
evening max el	5036 Dec 16 16:14	18° \mathbb{B} 52'50	23°44'23		5037 Nov 26 16:47	0° \mathbb{B}	
retrograde	5036 Dec 27 11:49	25° \mathbb{B} 15'45		evening max el	5037 Nov 29 05:07	2° \mathbb{B} 36'10	25°01'42
evening set	5037 Jan 01 13:52	23° \mathbb{B} 10'06		retrograde	5037 Dec 11 01:01	9° \mathbb{B} 27'21	
asc. node	5037 Jan 03 08:47	21° \mathbb{B} 25'03		evening set	5037 Dec 16 16:40	7° \mathbb{B} 07'05	
min. Earth dist.	5037 Jan 06 11:00	17° \mathbb{B} 30'27	0.67981 AU	min. Earth dist.	5037 Dec 21 05:53	2° \mathbb{B} 01'49	0.67508 AU
inferior conj	5037 Jan 07 01:10	16° \mathbb{B} 42'05	1°13'02	asc. node	5037 Dec 21 05:50	2° \mathbb{B} 02'01	
minimum elong	5037 Jan 06 23:34	16° \mathbb{B} 47'34	1°12'25	inferior conj	5037 Dec 22 06:55	0° \mathbb{B} 39'43	0°21'16
morning rise	5037 Jan 12 09:27	10° \mathbb{B} 34'38		minimum elong	5037 Dec 22 06:24	0° \mathbb{B} 41'27	0°21'04
direct	5037 Jan 16 10:15	9° \mathbb{B} 02'57			5037 Dec 22 19:04	30° \mathbb{R} \mathbb{A}	
morning max el	5037 Jan 24 14:32	13° \mathbb{B} 45'09	20°46'09	morning rise	5037 Dec 27 20:43	24° \mathbb{A} 39'14	
greatest brilliancy	5037 Jan 30 08:01	20° \mathbb{B} 23'50	-0.5m	direct	5037 Dec 31 08:55	23° \mathbb{A} 28'21	
	5037 Feb 06 08:38	0° \mathbb{A}		morning max el	5038 Jan 07 16:21	27° \mathbb{A} 34'50	19°38'38
desc. node	5037 Feb 08 18:51	3° \mathbb{A} 30'03			5038 Jan 09 21:55	0° \mathbb{B}	
morning set	5037 Feb 23 02:49	25° \mathbb{A} 09'17		greatest brilliancy	5038 Jan 15 15:44	7° \mathbb{B} 26'48	-0.6m
	5037 Feb 26 04:58	0° \mathbb{H}		desc. node	5038 Jan 26 15:52	23° \mathbb{B} 42'17	
max. Earth dist.	5037 Mar 03 16:05	8° \mathbb{H} 44'14	1.43022 AU		5038 Jan 30 18:38	0° \mathbb{A}	
				morning set	5038 Feb 01 23:13	3° \mathbb{A} 22'27	
superior conj	5037 Mar 10 11:18	19° \mathbb{H} 58'04	-2°-8'-44	max. Earth dist.	5038 Feb 14 04:01	22° \mathbb{A} 26'11	1.44456 AU
minimum elong	5037 Mar 10 11:53	20° \mathbb{H} 00'30	2°08'45				
	5037 Mar 16 07:59	0° \mathbb{Y}		superior conj	5038 Feb 18 15:04	29° \mathbb{A} 33'44	-2°-1'-20
evening rise	5037 Mar 22 11:29	10° \mathbb{Y} 49'20		minimum elong	5038 Feb 18 09:25	29° \mathbb{A} 10'58	2°01'04
asc. node	5037 Apr 01 08:03	27° \mathbb{Y} 50'51			5038 Feb 18 21:36	0° \mathbb{H}	
	5037 Apr 02 17:11	0° \mathbb{B}		evening rise	5038 Mar 04 09:44	22° \mathbb{H} 18'48	
evening max el	5037 Apr 08 09:22	7° \mathbb{B} 16'55	18°06'32		5038 Mar 08 22:58	0° \mathbb{Y}	
retrograde	5037 Apr 14 22:28	10° \mathbb{B} 39'12		asc. node	5038 Mar 19 05:05	16° \mathbb{Y} 10'29	
evening set	5037 Apr 17 14:12	10° \mathbb{B} 05'36		evening max el	5038 Mar 22 22:17	20° \mathbb{Y} 36'41	18°16'12
inferior conj	5037 Apr 24 02:36	5° \mathbb{B} 02'10	3°10'53	retrograde	5038 Mar 29 08:13	24° \mathbb{Y} 02'16	
minimum elong	5037 Apr 24 05:04	4° \mathbb{B} 56'02	3°10'30	evening set	5038 Apr 01 06:06	23° \mathbb{Y} 17'01	
min. Earth dist.	5037 Apr 27 04:47	1° \mathbb{B} 58'45	0.61537 AU	inferior conj	5038 Apr 07 07:13	17° \mathbb{Y} 53'57	3°30'41
	5037 Apr 29 10:44	30° \mathbb{R} \mathbb{Y}		minimum elong	5038 Apr 07 08:02	17° \mathbb{Y} 51'39	3°30'38
morning rise	5037 Apr 30 16:55	29° \mathbb{Y} 03'36		min. Earth dist.	5038 Apr 09 19:28	15° \mathbb{Y} 06'07	0.63595 AU
direct	5037 May 07 11:30	26° \mathbb{Y} 42'06		morning rise	5038 Apr 13 08:01	11° \mathbb{Y} 44'46	
desc. node	5037 May 07 18:02	26° \mathbb{Y} 42'19		direct	5038 Apr 20 04:09	9° \mathbb{Y} 02'58	
	5037 May 16 04:55	0° \mathbb{B}		desc. node	5038 Apr 24 15:04	10° \mathbb{Y} 02'25	
morning max el	5037 May 21 16:13	4° \mathbb{B} 41'07	27°51'57	morning max el	5038 May 04 00:11	17° \mathbb{Y} 01'47	27°41'50
	5037 Jun 09 13:19	0° \mathbb{II}			5038 May 14 18:30	0° \mathbb{B}	
morning set	5037 Jun 23 19:36	26° \mathbb{II} 16'49			5038 Jun 02 08:08	0° \mathbb{II}	
	5037 Jun 25 14:41	0° \mathbb{B}		morning set	5038 Jun 07 16:11	10° \mathbb{II} 15'22	
asc. node	5037 Jun 28 07:21	5° \mathbb{B} 43'29		max. Earth dist.	5038 Jun 12 19:35	20° \mathbb{II} 48'42	1.32883 AU
max. Earth dist.	5037 Jun 29 16:10	8° \mathbb{B} 40'54	1.32181 AU	asc. node	5038 Jun 15 04:21	25° \mathbb{II} 50'46	
superior conj	5037 Jul 01 05:59	12° \mathbb{B} 07'13	0°30'19	superior conj	5038 Jun 15 13:05	26° \mathbb{II} 37'38	0°03'48
minimum elong	5037 Jul 01 04:39	11° \mathbb{B} 59'53	0°30'01	minimum elong	5038 Jun 15 12:53	26° \mathbb{II} 36'37	0°03'44
evening rise	5037 Jul 08 03:09	27° \mathbb{B} 06'48		behind sun begin	5038 Jun 15 07:41	26° \mathbb{II} 08'41	
	5037 Jul 09 11:55	0° \mathbb{Q}		behind sun end	5038 Jun 15 18:05	27° \mathbb{II} 04'35	
	5037 Jul 26 17:09	0° \mathbb{H}			5038 Jun 17 02:36	0° \mathbb{B}	
evening max el	5037 Aug 02 18:50	8° \mathbb{H} 09'17	24°42'57	evening rise	5038 Jun 22 14:54	11° \mathbb{B} 52'12	
desc. node	5037 Aug 03 17:17	9° \mathbb{H} 01'36			5038 Jul 01 20:38	0° \mathbb{Q}	
retrograde	5037 Aug 16 16:26	15° \mathbb{H} 10'08		evening max el	5038 Jul 15 07:29	18° \mathbb{Q} 32'05	23°06'05
evening set	5037 Aug 21 22:52	14° \mathbb{H} 07'43		desc. node	5038 Jul 21 14:18	23° \mathbb{Q} 18'18	
min. Earth dist.	5037 Aug 27 06:09	11° \mathbb{H} 20'34	0.56977 AU	retrograde	5038 Jul 28 17:19	25° \mathbb{Q} 14'00	
inferior conj	5037 Aug 30 01:17	9° \mathbb{H} 31'44	-5°-17'-6	evening set	5038 Aug 01 11:30	24° \mathbb{Q} 43'11	
minimum elong	5037 Aug 30 01:06	9° \mathbb{H} 32'02	5°17'07	min. Earth dist.	5038 Aug 08 16:28	21° \mathbb{Q} 27'32	0.55510 AU
morning rise	5037 Sep 07 06:47	5° \mathbb{H} 25'28		inferior conj	5038 Aug 10 09:00	20° \mathbb{Q} 28'42	-4°-51'-14
direct	5037 Sep 09 21:15	5° \mathbb{H} 06'33		minimum elong	5038 Aug 10 02:29	20° \mathbb{Q} 38'12	4°50'13
morning max el	5037 Sep 19 04:37	9° \mathbb{H} 28'52	19°21'46	morning rise	5038 Aug 18 20:15	16° \mathbb{Q} 37'27	
asc. node	5037 Sep 24 06:37	15° \mathbb{H} 29'10		direct	5038 Aug 21 19:34	16° \mathbb{Q} 16'26	
	5037 Oct 02 19:19	0° \mathbb{B}		morning max el	5038 Sep 01 15:46	21° \mathbb{Q} 18'58	20°35'22
morning set	5037 Oct 06 07:26	6° \mathbb{B} 53'15			5038 Sep 08 19:04	0° \mathbb{H}	
				asc. node	5038 Sep 11 03:38	3° \mathbb{H} 42'23	
superior conj	5037 Oct 14 10:24	23° \mathbb{B} 04'30	1°36'38	morning set	5038 Sep 20 14:00	21° \mathbb{H} 32'55	
minimum elong	5037 Oct 14 12:32	23° \mathbb{B} 14'56	1°36'30		5038 Sep 24 16:00	0° \mathbb{B}	

superior conj	5038 Sep 28 03:23	7°♄09'11	1°43'08	superior conj	5039 Sep 12 04:53	21°♄38'25	1°42'14
minimum elong	5038 Sep 28 03:57	7°♄12'00	1°43'07	minimum elong	5039 Sep 12 04:05	21°♄34'12	1°42'13
max. Earth dist.	5038 Oct 03 03:39	17°♄07'59	1.36120 AU	max. Earth dist.	5039 Sep 15 18:22	29°♄02'55	1.34460 AU
evening rise	5038 Oct 07 03:38	24°♄42'39			5039 Sep 16 05:33	0°♄	
	5038 Oct 10 01:34	0°♄		evening rise	5039 Sep 20 07:52	8°♄08'22	
desc. node	5038 Oct 17 13:36	12°♄44'05			5039 Oct 02 15:11	0°♄	
	5038 Oct 29 02:20	0°♄		desc. node	5039 Oct 04 10:36	2°♄53'28	
evening max el	5038 Nov 11 17:49	16°♄19'53	26°09'10		5039 Oct 25 08:07	0°♄	
retrograde	5038 Nov 24 09:08	23°♄28'55		evening max el	5039 Oct 25 06:29	29°♄56'06	26°59'19
evening set	5038 Nov 30 14:28	20°♄56'39		retrograde	5039 Nov 07 11:48	7°♄13'27	
min. Earth dist.	5038 Dec 04 20:31	16°♄27'00	0.66680 AU	evening set	5039 Nov 14 05:14	4°♄34'26	
inferior conj	5038 Dec 06 08:47	14°♄34'56	0°-35'-53	min. Earth dist.	5039 Nov 18 04:32	0°♄40'47	0.65495 AU
minimum elong	5038 Dec 06 09:45	14°♄31'57	0°35'28		5039 Nov 18 18:58	30°♄	
asc. node	5038 Dec 08 02:51	12°♄28'05		inferior conj	5039 Nov 20 04:40	28°♄23'20	-1°-37'-10
morning rise	5038 Dec 12 06:10	8°♄44'04		minimum elong	5039 Nov 20 07:26	28°♄15'24	1°36'02
direct	5038 Dec 15 07:32	7°♄50'48		asc. node	5039 Nov 24 23:54	23°♄38'49	
morning max el	5038 Dec 22 01:31	11°♄33'12	18°46'30	morning rise	5039 Nov 26 11:27	22°♄45'02	
	5039 Jan 04 11:55	0°♄		direct	5039 Nov 29 04:04	22°♄05'38	
morning set	5039 Jan 12 11:49	12°♄31'07		morning max el	5039 Dec 05 15:55	25°♄34'41	18°10'49
desc. node	5039 Jan 13 12:53	14°♄09'36			5039 Dec 09 10:00	0°♄	
	5039 Jan 23 15:15	0°♄		morning set	5039 Dec 24 05:21	23°♄07'28	
max. Earth dist.	5039 Jan 27 21:32	6°♄40'58	1.45222 AU		5039 Dec 28 10:44	0°♄	
				desc. node	5039 Dec 31 09:54	4°♄47'11	
superior conj	5039 Jan 28 22:32	8°♄19'06	-1°-34'-10	superior conj	5040 Jan 08 02:39	17°♄02'26	0°-51'-37
minimum elong	5039 Jan 28 13:08	7°♄42'10	1°33'15	minimum elong	5040 Jan 07 20:16	16°♄37'16	0°50'48
	5039 Feb 11 14:29	0°♄		max. Earth dist.	5040 Jan 10 17:05	21°♄08'07	1.45248 AU
evening rise	5039 Feb 13 09:07	2°♄51'19			5040 Jan 16 09:04	0°♄	
	5039 Mar 02 22:11	0°♄		evening rise	5040 Jan 24 10:24	12°♄32'43	
asc. node	5039 Mar 06 02:06	3°♄45'38			5040 Feb 04 17:32	0°♄	
evening max el	5039 Mar 06 09:37	4°♄04'59	18°44'02	greatest brilliancy	5040 Feb 09 11:56	7°♄05'34	-0.7m
retrograde	5039 Mar 13 01:18	7°♄46'43		evening max el	5040 Feb 17 17:11	17°♄36'45	19°28'50
evening set	5039 Mar 16 05:36	6°♄48'55		asc. node	5040 Feb 20 23:09	20°♄22'58	
inferior conj	5039 Mar 21 22:55	1°♄07'55	3°31'53	retrograde	5040 Feb 24 22:18	21°♄45'18	
minimum elong	5039 Mar 21 22:15	1°♄09'58	3°31'51	evening set	5040 Feb 28 09:56	20°♄34'10	
	5039 Mar 22 20:59	30°♄		inferior conj	5040 Mar 04 22:21	14°♄37'29	3°18'54
min. Earth dist.	5039 Mar 23 19:30	28°♄51'28	0.65317 AU	minimum elong	5040 Mar 04 20:37	14°♄43'10	3°18'39
morning rise	5039 Mar 27 13:41	24°♄53'27		min. Earth dist.	5040 Mar 06 03:54	13°♄00'43	0.66631 AU
direct	5039 Apr 03 03:57	22°♄04'50		morning rise	5040 Mar 10 06:32	8°♄20'56	
desc. node	5039 Apr 11 12:06	25°♄31'19		direct	5040 Mar 16 10:02	5°♄37'49	
morning max el	5039 Apr 16 10:12	29°♄53'03	26°58'34	desc. node	5040 Mar 28 09:08	12°♄34'54	
	5039 Apr 16 12:57	0°♄		morning max el	5040 Mar 28 19:59	13°♄02'03	25°49'56
	5039 May 08 16:52	0°♄			5040 Apr 11 12:51	0°♄	
morning set	5039 May 22 02:50	23°♄41'46			5040 Apr 30 10:16	0°♄	
	5039 May 25 08:09	0°♄		morning set	5040 May 03 23:31	6°♄23'47	
max. Earth dist.	5039 May 26 13:39	2°♄27'58	1.34046 AU	max. Earth dist.	5040 May 07 20:19	13°♄39'00	1.35662 AU
superior conj	5039 May 30 14:50	10°♄47'53	0°-25'-1	superior conj	5040 May 13 08:39	24°♄30'10	0°-54'-49
minimum elong	5039 May 30 16:10	10°♄54'51	0°24'47	minimum elong	5040 May 13 11:41	24°♄45'26	0°54'17
asc. node	5039 Jun 02 01:23	15°♄56'02			5040 May 16 01:31	0°♄	
evening rise	5039 Jun 07 01:16	26°♄29'18		asc. node	5040 May 18 22:24	5°♄54'29	
	5039 Jun 08 17:55	0°♄		evening rise	5040 May 21 08:06	10°♄50'55	
evening max el	5039 Jun 27 01:16	29°♄01'05	21°31'41		5040 May 31 13:21	0°♄	
	5039 Jun 28 02:22	0°♄		evening max el	5040 Jun 08 06:30	10°♄03'48	20°11'31
desc. node	5039 Jul 08 11:18	5°♄03'29		retrograde	5040 Jun 18 21:56	15°♄16'14	
retrograde	5039 Jul 09 08:01	5°♄05'15		evening set	5040 Jun 20 20:37	15°♄06'32	
evening set	5039 Jul 11 19:58	4°♄51'01		desc. node	5040 Jun 24 08:20	14°♄05'13	
inferior conj	5039 Jul 21 03:41	0°♄51'05	-3°-33'-42	inferior conj	5040 Jun 29 22:52	11°♄07'53	-1°-40'-13
minimum elong	5039 Jul 20 19:00	1°♄03'15	3°31'10	minimum elong	5040 Jun 29 18:10	11°♄14'50	1°38'30
min. Earth dist.	5039 Jul 21 02:31	0°♄52'44	0.54819 AU	min. Earth dist.	5040 Jul 01 14:32	10°♄09'07	0.55079 AU
	5039 Jul 22 16:28	30°♄		morning rise	5040 Jul 08 13:33	6°♄53'08	
morning rise	5039 Jul 29 18:56	26°♄58'38		direct	5040 Jul 12 16:26	6°♄16'18	
direct	5039 Aug 02 05:28	26°♄33'00		morning max el	5040 Jul 26 06:54	12°♄55'19	23°51'18
	5039 Aug 11 17:37	0°♄			5040 Aug 08 08:30	0°♄	
morning max el	5039 Aug 14 15:15	2°♄23'48	22°08'01	asc. node	5040 Aug 14 21:42	11°♄52'59	
asc. node	5039 Aug 29 00:39	22°♄33'29		morning set	5040 Aug 19 11:35	21°♄14'52	
	5039 Sep 01 21:33	0°♄			5040 Aug 23 13:18	0°♄	
morning set	5039 Sep 04 23:59	6°♄21'53					

superior conj	5040 Aug 26 11:59	6° $\mathring{\text{M}}$ 23'31	1°35'07		5041 Jul 13 21:41	0° $\mathring{\text{E}}$	
minimum elong	5040 Aug 26 10:14	6° $\mathring{\text{M}}$ 14'03	1°34'58		5041 Aug 01 00:30	0° $\mathring{\text{O}}$	
max. Earth dist.	5040 Aug 28 17:47	11° $\mathring{\text{M}}$ 12'34	1.33203 AU	asc. node	5041 Aug 01 18:44	1° $\mathring{\text{O}}$ 33'01	
evening rise	5040 Sep 03 00:06	22° $\mathring{\text{M}}$ 08'05		morning set	5041 Aug 03 23:07	6° $\mathring{\text{O}}$ 06'28	
	5040 Sep 07 00:41	0° $\mathring{\text{A}}$					
desc. node	5040 Sep 20 07:37	22° $\mathring{\text{A}}$ 38'01		superior conj	5041 Aug 10 22:23	21° $\mathring{\text{O}}$ 16'34	1°22'38
	5040 Sep 25 10:34	0° $\mathring{\text{M}}$		minimum elong	5041 Aug 10 20:08	21° $\mathring{\text{O}}$ 04'15	1°22'21
evening max el	5040 Oct 06 18:12	13° $\mathring{\text{M}}$ 14'32	27°25'10	max. Earth dist.	5041 Aug 12 00:25	23° $\mathring{\text{O}}$ 39'21	1.32380 AU
retrograde	5040 Oct 20 08:33	20° $\mathring{\text{M}}$ 32'44			5041 Aug 14 22:36	0° $\mathring{\text{M}}$	
evening set	5040 Oct 27 10:22	17° $\mathring{\text{M}}$ 55'19		evening rise	5041 Aug 18 00:54	6° $\mathring{\text{M}}$ 31'42	
min. Earth dist.	5040 Oct 31 04:01	14° $\mathring{\text{M}}$ 35'40	0.63965 AU		5041 Aug 30 13:32	0° $\mathring{\text{A}}$	
inferior conj	5040 Nov 02 16:08	11° $\mathring{\text{M}}$ 59'51	-2°-40'-27	desc. node	5041 Sep 07 04:39	11° $\mathring{\text{A}}$ 46'58	
minimum elong	5040 Nov 02 20:47	11° $\mathring{\text{M}}$ 47'47	2°38'44	evening max el	5041 Sep 19 02:55	26° $\mathring{\text{A}}$ 02'03	27°20'41
morning rise	5040 Nov 09 09:42	6° $\mathring{\text{M}}$ 37'05			5041 Sep 23 23:09	0° $\mathring{\text{M}}$	
asc. node	5040 Nov 10 20:56	6° $\mathring{\text{M}}$ 12'20		retrograde	5041 Oct 02 22:28	3° $\mathring{\text{M}}$ 16'21	
direct	5040 Nov 11 19:59	6° $\mathring{\text{M}}$ 07'41		evening set	5041 Oct 10 02:21	0° $\mathring{\text{M}}$ 51'52	
morning max el	5040 Nov 18 08:43	9° $\mathring{\text{M}}$ 32'42	17°52'15		5041 Oct 11 07:32	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$	
	5040 Dec 02 03:19	0° $\mathring{\text{A}}$		min. Earth dist.	5041 Oct 13 17:20	28° $\mathring{\text{A}}$ 00'00	0.62136 AU
morning set	5040 Dec 05 02:34	5° $\mathring{\text{A}}$ 04'49		inferior conj	5041 Oct 16 16:12	25° $\mathring{\text{A}}$ 16'27	-3°-42'-10
desc. node	5040 Dec 17 06:56	25° $\mathring{\text{A}}$ 31'30		minimum elong	5041 Oct 16 22:15	25° $\mathring{\text{A}}$ 02'26	3°40'21
				morning rise	5041 Oct 23 21:12	20° $\mathring{\text{A}}$ 12'26	
superior conj	5040 Dec 17 23:14	26° $\mathring{\text{A}}$ 37'58	0°-4'-45	direct	5041 Oct 26 04:08	19° $\mathring{\text{A}}$ 49'26	
minimum elong	5040 Dec 17 22:42	26° $\mathring{\text{A}}$ 35'48	0°04'41	asc. node	5041 Oct 28 18:00	20° $\mathring{\text{A}}$ 19'34	
behind sun begin	5040 Dec 17 13:08	25° $\mathring{\text{A}}$ 56'49		morning max el	5041 Nov 02 00:45	23° $\mathring{\text{A}}$ 18'33	17°51'34
behind sun end	5040 Dec 18 08:16	27° $\mathring{\text{A}}$ 14'43			5041 Nov 07 07:40	0° $\mathring{\text{M}}$	
	5040 Dec 20 01:07	0° $\mathring{\text{E}}$		morning set	5041 Nov 17 21:05	18° $\mathring{\text{M}}$ 02'48	
max. Earth dist.	5040 Dec 23 11:29	5° $\mathring{\text{E}}$ 29'33	1.44545 AU		5041 Nov 24 14:02	0° $\mathring{\text{A}}$	
evening rise	5041 Jan 02 21:54	21° $\mathring{\text{E}}$ 46'39					
	5041 Jan 08 07:11	0° $\mathring{\text{A}}$		superior conj	5041 Nov 28 21:39	7° $\mathring{\text{A}}$ 28'41	0°36'42
greatest brilliancy	5041 Jan 24 20:39	24° $\mathring{\text{A}}$ 03'16	-0.5m	minimum elong	5041 Nov 29 00:49	7° $\mathring{\text{A}}$ 42'12	0°36'16
	5041 Jan 29 17:10	0° $\mathring{\text{H}}$		desc. node	5041 Dec 04 03:57	16° $\mathring{\text{A}}$ 18'25	
evening max el	5041 Jan 30 19:42	1° $\mathring{\text{H}}$ 10'32	20°28'32	max. Earth dist.	5041 Dec 06 02:22	19° $\mathring{\text{A}}$ 28'30	1.43203 AU
asc. node	5041 Feb 06 20:11	5° $\mathring{\text{H}}$ 48'21			5041 Dec 12 16:38	0° $\mathring{\text{E}}$	
retrograde	5041 Feb 07 20:36	5° $\mathring{\text{H}}$ 53'55		evening rise	5041 Dec 13 10:39	1° $\mathring{\text{E}}$ 10'24	
evening set	5041 Feb 11 16:56	4° $\mathring{\text{H}}$ 28'30			5042 Jan 01 21:09	0° $\mathring{\text{A}}$	
	5041 Feb 15 20:49	30° $\mathring{\text{R}}$ $\mathring{\text{A}}$		greatest brilliancy	5042 Jan 08 21:16	9° $\mathring{\text{A}}$ 16'47	-0.4m
inferior conj	5041 Feb 17 02:50	28° $\mathring{\text{A}}$ 18'47	2°54'44	evening max el	5042 Jan 13 16:48	14° $\mathring{\text{A}}$ 45'43	21°39'55
minimum elong	5041 Feb 17 00:31	28° $\mathring{\text{A}}$ 26'40	2°54'11	retrograde	5042 Jan 22 18:06	20° $\mathring{\text{A}}$ 08'15	
min. Earth dist.	5041 Feb 17 18:43	27° $\mathring{\text{A}}$ 24'34	0.67525 AU	asc. node	5042 Jan 24 17:15	19° $\mathring{\text{A}}$ 47'36	
morning rise	5041 Feb 22 07:36	22° $\mathring{\text{A}}$ 02'30		evening set	5042 Jan 27 00:49	18° $\mathring{\text{A}}$ 27'33	
direct	5041 Feb 27 21:37	19° $\mathring{\text{A}}$ 34'10		inferior conj	5042 Feb 01 10:04	12° $\mathring{\text{A}}$ 07'56	2°21'19
morning max el	5041 Mar 11 04:41	26° $\mathring{\text{A}}$ 19'28	24°25'45	minimum elong	5042 Feb 01 07:40	12° $\mathring{\text{A}}$ 16'16	2°20'35
	5041 Mar 14 14:03	0° $\mathring{\text{H}}$		min. Earth dist.	5042 Feb 01 13:37	11° $\mathring{\text{A}}$ 55'39	0.68006 AU
desc. node	5041 Mar 15 06:11	0° $\mathring{\text{H}}$ 46'52		morning rise	5042 Feb 06 14:15	5° $\mathring{\text{A}}$ 53'47	
	5041 Apr 05 02:47	0° $\mathring{\text{Y}}$		direct	5042 Feb 11 13:39	3° $\mathring{\text{A}}$ 46'05	
morning set	5041 Apr 16 00:56	18° $\mathring{\text{Y}}$ 07'01		morning max el	5042 Feb 21 14:07	9° $\mathring{\text{A}}$ 42'16	22°56'28
max. Earth dist.	5041 Apr 19 17:35	24° $\mathring{\text{Y}}$ 41'09	1.37661 AU	greatest brilliancy	5042 Feb 26 08:07	15° $\mathring{\text{A}}$ 00'21	-0.3m
	5041 Apr 22 15:03	0° $\mathring{\text{E}}$		desc. node	5042 Mar 02 03:14	19° $\mathring{\text{A}}$ 47'29	
					5042 Mar 09 13:15	0° $\mathring{\text{H}}$	
superior conj	5041 Apr 26 15:20	7° $\mathring{\text{E}}$ 36'20	-1°-23'-37	morning set	5042 Mar 28 01:04	28° $\mathring{\text{H}}$ 35'44	
minimum elong	5041 Apr 26 19:51	7° $\mathring{\text{E}}$ 58'02	1°22'58		5042 Mar 28 21:19	0° $\mathring{\text{Y}}$	
evening rise	5041 May 05 09:00	24° $\mathring{\text{E}}$ 50'13		max. Earth dist.	5042 Apr 01 12:53	6° $\mathring{\text{Y}}$ 11'06	1.39855 AU
asc. node	5041 May 05 19:27	25° $\mathring{\text{E}}$ 41'59					
	5041 May 08 00:02	0° $\mathring{\text{H}}$		superior conj	5042 Apr 09 06:47	19° $\mathring{\text{Y}}$ 56'29	-1°-48'-26
evening max el	5041 May 22 00:11	21° $\mathring{\text{H}}$ 49'26	19°10'39	minimum elong	5042 Apr 09 11:44	20° $\mathring{\text{Y}}$ 19'11	1°47'58
retrograde	5041 May 30 23:02	26° $\mathring{\text{H}}$ 11'50			5042 Apr 14 16:09	0° $\mathring{\text{E}}$	
evening set	5041 Jun 01 22:36	25° $\mathring{\text{H}}$ 59'53		evening rise	5042 Apr 19 00:56	8° $\mathring{\text{E}}$ 19'35	
inferior conj	5041 Jun 10 08:09	21° $\mathring{\text{H}}$ 49'01	0°15'38	asc. node	5042 Apr 22 16:30	15° $\mathring{\text{E}}$ 13'48	
minimum elong	5041 Jun 10 08:48	21° $\mathring{\text{H}}$ 47'55	0°15'23		5042 May 01 13:26	0° $\mathring{\text{H}}$	
transit middle	5041 Jun 10 08:48	21° $\mathring{\text{H}}$ 47'55	0°15'23	evening max el	5042 May 05 03:42	4° $\mathring{\text{H}}$ 13'18	18°30'06
transit begin	5041 Jun 10 07:44	21° $\mathring{\text{H}}$ 49'43		retrograde	5042 May 12 18:46	7° $\mathring{\text{H}}$ 59'31	
transit end	5041 Jun 10 09:52	21° $\mathring{\text{H}}$ 46'07		evening set	5042 May 15 00:27	7° $\mathring{\text{H}}$ 41'04	
desc. node	5041 Jun 11 05:23	21° $\mathring{\text{H}}$ 13'01		inferior conj	5042 May 22 14:24	3° $\mathring{\text{H}}$ 10'25	1°47'50
min. Earth dist.	5041 Jun 13 05:25	19° $\mathring{\text{H}}$ 52'42	0.56257 AU	minimum elong	5042 May 22 17:42	3° $\mathring{\text{H}}$ 03'52	1°46'48
morning rise	5041 Jun 18 14:43	16° $\mathring{\text{H}}$ 59'30		min. Earth dist.	5042 May 26 00:11	0° $\mathring{\text{H}}$ 30'07	0.58104 AU
direct	5041 Jun 23 15:39	16° $\mathring{\text{H}}$ 00'34			5042 May 26 16:35	30° $\mathring{\text{R}}$ $\mathring{\text{E}}$	
morning max el	5041 Jul 07 20:41	23° $\mathring{\text{H}}$ 16'56	25°31'14	desc. node	5042 May 29 02:25	28° $\mathring{\text{E}}$ 25'06	

morning rise	5042 May 30 06:30	27° ♄ 47'05		min. Earth dist.	5043 May 08 01:06	12° ♄ 10'26	0.60274 AU
direct	5042 Jun 05 05:01	26° ♄ 16'40		morning rise	5043 May 11 16:53	9° ♄ 23'39	
	5042 Jun 14 23:09	0° ♄		desc. node	5043 May 15 23:28	7° ♄ 34'36	
morning max el	5042 Jun 19 14:12	3° ♄ 56'37	26°51'57	direct	5043 May 18 06:32	7° ♄ 19'35	
	5042 Jul 08 13:13	0° ♄		morning max el	5043 Jun 01 14:12	15° ♄ 13'30	27°40'52
morning set	5042 Jul 19 09:01	20° ♄ 51'48			5043 Jun 13 13:50	0° ♄	
asc. node	5042 Jul 19 15:46	21° ♄ 27'25			5043 Jun 30 23:44	0° ♄	
	5042 Jul 23 14:48	0° ♄		morning set	5043 Jul 03 15:26	5° ♄ 24'15	
				asc. node	5043 Jul 06 12:48	11° ♄ 30'13	
superior conj	5042 Jul 26 10:11	6° ♄ 11'24	1°05'29	max. Earth dist.	5043 Jul 09 22:23	18° ♄ 53'39	1.31994 AU
minimum elong	5042 Jul 26 07:55	5° ♄ 58'54	1°05'06				
max. Earth dist.	5042 Jul 26 11:15	6° ♄ 17'20	1.31981 AU	superior conj	5043 Jul 10 21:32	21° ♄ 01'01	0°44'13
evening rise	5042 Aug 02 07:34	21° ♄ 11'00		minimum elong	5043 Jul 10 19:43	20° ♄ 51'03	0°43'50
	5042 Aug 06 15:05	0° ♄			5043 Jul 14 23:30	0° ♄	
	5042 Aug 24 23:51	0° ♄		evening rise	5043 Jul 17 17:43	5° ♄ 57'29	
desc. node	5042 Aug 25 01:40	0° ♄ 05'48			5043 Jul 30 08:14	0° ♄	
evening max el	5042 Sep 01 06:02	8° ♄ 06'52	26°42'40	desc. node	5043 Aug 11 22:42	17° ♄ 13'34	
retrograde	5042 Sep 15 04:10	15° ♄ 16'06		evening max el	5043 Aug 14 01:22	19° ♄ 21'35	25°33'17
evening set	5042 Sep 22 00:43	13° ♄ 16'42		retrograde	5043 Aug 28 00:06	26° ♄ 26'36	
min. Earth dist.	5042 Sep 25 19:57	10° ♄ 40'51	0.60112 AU	evening set	5043 Sep 03 00:34	25° ♄ 02'07	
inferior conj	5042 Sep 29 01:27	8° ♄ 04'26	-4°-35'-57	min. Earth dist.	5043 Sep 07 13:15	22° ♄ 24'49	0.58063 AU
minimum elong	5042 Sep 29 07:24	7° ♄ 52'20	4°34'44	inferior conj	5043 Sep 10 16:21	20° ♄ 13'24	-5°-11'-9
morning rise	5042 Oct 06 17:27	3° ♄ 22'16		minimum elong	5043 Sep 10 19:23	20° ♄ 08'04	5°10'56
direct	5042 Oct 09 00:30	3° ♄ 02'36		morning rise	5043 Sep 18 17:41	15° ♄ 54'56	
asc. node	5042 Oct 15 15:02	5° ♄ 54'24		direct	5043 Sep 21 04:36	15° ♄ 36'15	
morning max el	5042 Oct 16 12:45	6° ♄ 44'06	18°10'06	morning max el	5043 Sep 29 17:24	19° ♄ 39'54	18°49'25
	5042 Oct 31 08:44	0° ♄		asc. node	5043 Oct 02 12:03	22° ♄ 42'25	
morning set	5042 Nov 01 06:51	1° ♄ 43'55			5043 Oct 07 12:24	0° ♄	
				morning set	5043 Oct 16 03:15	15° ♄ 54'56	
superior conj	5042 Nov 10 21:11	19° ♄ 32'10	1°08'10		5043 Oct 23 08:27	0° ♄	
minimum elong	5042 Nov 11 01:07	19° ♄ 49'56	1°07'42				
	5042 Nov 16 20:03	0° ♄		superior conj	5043 Oct 24 16:50	2° ♄ 34'31	1°29'03
max. Earth dist.	5042 Nov 18 12:37	2° ♄ 52'31	1.41381 AU	minimum elong	5043 Oct 24 19:50	2° ♄ 48'46	1°28'47
desc. node	5042 Nov 21 00:58	7° ♄ 04'40		max. Earth dist.	5043 Oct 31 18:30	15° ♄ 33'43	1.39297 AU
evening rise	5042 Nov 23 15:05	11° ♄ 18'50		evening rise	5043 Nov 04 17:58	22° ♄ 28'26	
	5042 Dec 05 16:50	0° ♄		desc. node	5043 Nov 07 21:58	27° ♄ 46'49	
greatest brilliancy	5042 Dec 21 20:18	22° ♄ 09'17	-0.2m		5043 Nov 09 06:29	0° ♄	
evening max el	5042 Dec 27 09:16	28° ♄ 23'08	22°58'22		5043 Nov 29 15:35	0° ♄	
	5042 Dec 29 01:43	0° ♄		evening max el	5043 Dec 09 22:42	12° ♄ 03'45	24°18'02
retrograde	5043 Jan 06 13:14	4° ♄ 24'46		retrograde	5043 Dec 21 04:52	18° ♄ 39'45	
evening set	5043 Jan 11 07:57	2° ♄ 28'04		evening set	5043 Dec 26 12:47	16° ♄ 27'23	
asc. node	5043 Jan 11 14:18	2° ♄ 14'35		asc. node	5043 Dec 29 11:19	13° ♄ 21'46	
	5043 Jan 13 17:58	30° ♄		min. Earth dist.	5043 Dec 31 06:20	11° ♄ 02'31	0.67821 AU
inferior conj	5043 Jan 16 18:07	26° ♄ 02'06	1°40'00	inferior conj	5044 Jan 01 01:12	9° ♄ 59'08	0°51'47
minimum elong	5043 Jan 16 16:06	26° ♄ 09'06	1°39'16	minimum elong	5044 Jan 01 00:00	10° ♄ 03'10	0°51'19
min. Earth dist.	5043 Jan 16 10:14	26° ♄ 29'21	0.68098 AU	morning rise	5044 Jan 06 11:35	3° ♄ 54'40	
morning rise	5043 Jan 22 00:14	19° ♄ 51'52		direct	5044 Jan 10 06:49	2° ♄ 32'15	
direct	5043 Jan 26 09:05	18° ♄ 07'07		morning max el	5044 Jan 18 01:22	6° ♄ 57'38	20°15'48
morning max el	5043 Feb 04 04:02	23° ♄ 13'54	21°31'00	greatest brilliancy	5044 Jan 24 13:27	14° ♄ 41'01	-0.5m
greatest brilliancy	5043 Feb 09 02:22	28° ♄ 48'42	-0.4m	desc. node	5044 Feb 03 21:15	29° ♄ 23'53	
	5043 Feb 10 01:09	0° ♄			5044 Feb 04 06:57	0° ♄	
desc. node	5043 Feb 17 00:15	9° ♄ 22'59		morning set	5044 Feb 14 19:10	15° ♄ 58'13	
	5043 Mar 02 22:00	0° ♄			5044 Feb 23 17:42	0° ♄	
morning set	5043 Mar 07 20:31	7° ♄ 43'24		max. Earth dist.	5044 Feb 24 21:41	1° ♄ 51'57	1.43700 AU
max. Earth dist.	5043 Mar 14 13:34	18° ♄ 34'45	1.41963 AU				
	5043 Mar 21 07:54	0° ♄		superior conj	5044 Mar 01 20:26	11° ♄ 32'13	-2°-7'-57
				minimum elong	5044 Mar 01 18:30	11° ♄ 24'14	2°07'56
superior conj	5043 Mar 22 01:57	1° ♄ 18'08	-2°-5'-1		5044 Mar 12 18:13	0° ♄	
minimum elong	5043 Mar 22 05:05	1° ♄ 31'42	2°04'55	evening rise	5044 Mar 14 14:17	3° ♄ 11'08	
evening rise	5043 Apr 02 04:09	21° ♄ 09'31		asc. node	5044 Mar 26 10:35	23° ♄ 04'09	
	5043 Apr 07 01:15	0° ♄			5044 Mar 31 19:14	0° ♄	
asc. node	5043 Apr 09 13:33	4° ♄ 23'31		evening max el	5044 Apr 01 01:56	0° ♄ 16'56	18°08'17
evening max el	5043 Apr 18 13:23	17° ♄ 05'15	18°09'29	retrograde	5044 Apr 07 12:39	3° ♄ 39'19	
retrograde	5043 Apr 25 08:41	20° ♄ 31'55		evening set	5044 Apr 10 06:55	3° ♄ 00'57	
evening set	5043 Apr 27 20:53	20° ♄ 04'18			5044 Apr 14 10:06	30° ♄	
inferior conj	5043 May 04 17:29	15° ♄ 12'20	2°48'48	inferior conj	5044 Apr 16 14:02	27° ♄ 48'45	3°21'52
minimum elong	5043 May 04 20:42	15° ♄ 04'57	2°48'06	minimum elong	5044 Apr 16 15:49	27° ♄ 44'03	3°21'40

min. Earth dist.	5044 Apr 19 10:36	24° Υ 49'36	0.62440 AU	asc. node	5045 Mar 13 07:38	11° Υ 06'07	
morning rise	5044 Apr 22 22:11	21° Υ 44'32		evening max el	5045 Mar 15 14:25	13° Υ 40'28	18°25'54
direct	5044 Apr 29 18:14	19° Υ 13'04		retrograde	5045 Mar 22 01:58	17° Υ 11'48	
desc. node	5044 May 01 20:29	19° Υ 26'09		evening set	5045 Mar 25 02:24	16° Υ 21'29	
morning max el	5044 May 13 20:07	27° Υ 13'20	27°52'07	inferior conj	5045 Mar 30 23:49	10° Υ 50'43	3°33'09
	5044 May 16 11:15	0° ♄		minimum elong	5045 Mar 30 23:58	10° Υ 50'16	3°33'09
	5044 Jun 06 06:02	0° ♂		min. Earth dist.	5045 Apr 02 05:32	8° Υ 14'24	0.64369 AU
morning set	5044 Jun 16 16:22	19° ♂ 37'41		morning rise	5045 Apr 05 19:54	4° Υ 38'30	
	5044 Jun 21 15:42	0° ♄		direct	5045 Apr 12 14:14	1° Υ 51'54	
max. Earth dist.	5044 Jun 22 05:47	1° ♄ 15'27	1.32431 AU	desc. node	5045 Apr 18 17:30	3° Υ 44'41	
asc. node	5044 Jun 22 09:49	1° ♄ 37'13		morning max el	5045 Apr 26 05:24	9° Υ 48'41	27°27'04
					5045 May 12 00:54	0° ♄	
superior conj	5044 Jun 24 06:43	5° ♄ 40'08	0°19'25		5045 May 29 15:07	0° ♂	
minimum elong	5044 Jun 24 05:49	5° ♄ 35'14	0°19'11	morning set	5045 May 31 09:12	3° ♂ 24'14	
evening rise	5044 Jul 01 05:26	20° ♄ 44'58		max. Earth dist.	5045 Jun 05 05:30	13° ♂ 11'20	1.33316 AU
	5044 Jul 05 16:59	0° ♄					
evening max el	5044 Jul 25 14:32	29° ♄ 55'27	24°02'12	superior conj	5045 Jun 08 11:51	20° ♂ 03'03	0°-8'-13
	5044 Jul 25 16:26	0° ♄		minimum elong	5045 Jun 08 12:16	20° ♂ 05'17	0°08'10
desc. node	5044 Jul 28 19:43	2° ♄ 42'29		behind sun begin	5045 Jun 08 07:33	19° ♂ 40'11	
retrograde	5044 Aug 08 08:46	6° ♄ 50'58		behind sun end	5045 Jun 08 17:00	20° ♂ 30'25	
evening set	5044 Aug 13 00:12	6° ♄ 03'17		asc. node	5045 Jun 09 06:52	21° ♂ 44'22	
min. Earth dist.	5044 Aug 19 01:02	3° ♄ 05'37	0.56278 AU		5045 Jun 13 03:18	0° ♄	
inferior conj	5044 Aug 21 11:00	1° ♄ 36'28	-5°-12'-16	evening rise	5045 Jun 15 16:51	5° ♄ 27'36	
minimum elong	5044 Aug 21 08:01	1° ♄ 41'04	5°12'05		5045 Jun 28 22:25	0° ♄	
	5044 Aug 24 03:41	30° ♄		evening max el	5045 Jul 07 04:27	10° ♄ 17'31	22°24'49
morning rise	5044 Aug 29 19:14	27° ♄ 38'23		desc. node	5045 Jul 15 16:44	15° ♄ 58'55	
direct	5044 Sep 01 13:07	27° ♄ 18'55		retrograde	5045 Jul 20 05:13	16° ♄ 46'07	
	5044 Sep 09 03:03	0° ♄		evening set	5045 Jul 23 08:30	16° ♄ 24'26	
morning max el	5044 Sep 11 11:37	1° ♄ 56'42	19°50'34	min. Earth dist.	5045 Jul 31 11:20	12° ♄ 52'17	0.55103 AU
asc. node	5044 Sep 18 09:05	10° ♄ 28'34		inferior conj	5045 Aug 01 12:05	12° ♄ 17'15	-4°-24'-25
morning set	5044 Sep 29 06:51	0° ♄ 26'11		minimum elong	5045 Aug 01 03:49	12° ♄ 28'57	4°22'38
	5044 Sep 29 01:40	0° ♄		morning rise	5045 Aug 10 01:16	8° ♄ 27'38	
				direct	5045 Aug 13 04:41	8° ♄ 05'14	
superior conj	5044 Oct 07 03:20	16° ♄ 20'27	1°40'22	morning max el	5045 Aug 24 17:47	13° ♄ 28'21	21°12'46
minimum elong	5044 Oct 07 04:47	16° ♄ 27'41	1°40'18	asc. node	5045 Sep 05 06:06	28° ♄ 59'40	
max. Earth dist.	5044 Oct 12 23:26	27° ♄ 38'23	1.37216 AU		5045 Sep 05 19:53	0° ♄	
	5044 Oct 14 05:50	0° ♄		morning set	5045 Sep 13 15:09	15° ♄ 10'56	
evening rise	5044 Oct 16 19:02	4° ♄ 38'48			5045 Sep 20 17:10	0° ♄	
desc. node	5044 Oct 24 18:58	18° ♄ 20'29					
	5044 Nov 01 05:59	0° ♄		superior conj	5045 Sep 21 00:25	0° ♄ 37'31	1°43'34
evening max el	5044 Nov 21 11:07	25° ♄ 46'43	25°32'05	minimum elong	5045 Sep 21 00:21	0° ♄ 37'12	1°43'34
	5044 Nov 26 10:26	0° ♄		max. Earth dist.	5045 Sep 25 09:25	9° ♄ 30'42	1.35367 AU
retrograde	5044 Dec 03 16:06	2° ♄ 47'39		evening rise	5045 Sep 29 14:44	17° ♄ 41'23	
evening set	5044 Dec 09 13:40	0° ♄ 21'34			5045 Oct 06 10:34	0° ♄	
	5044 Dec 09 23:36	30° ♄		desc. node	5045 Oct 11 16:00	8° ♄ 40'58	
min. Earth dist.	5044 Dec 13 23:39	25° ♄ 31'28	0.67191 AU		5045 Oct 26 12:48	0° ♄	
inferior conj	5044 Dec 15 05:30	23° ♄ 55'45	0°-2'-25	evening max el	5045 Nov 03 23:52	9° ♄ 28'42	26°33'04
minimum elong	5044 Dec 15 05:33	23° ♄ 55'34	0°02'23	retrograde	5045 Nov 16 22:11	16° ♄ 42'56	
transit middle	5044 Dec 15 05:33	23° ♄ 55'34	0°02'23	evening set	5045 Nov 23 08:47	14° ♄ 07'07	
transit begin	5044 Dec 15 02:47	24° ♄ 04'29		min. Earth dist.	5045 Nov 27 11:54	9° ♄ 52'34	0.66215 AU
transit end	5044 Dec 15 08:19	23° ♄ 46'40		inferior conj	5045 Nov 29 05:07	7° ♄ 49'00	-1°-1'-29
asc. node	5044 Dec 15 08:21	23° ♄ 46'35		minimum elong	5045 Nov 29 06:49	7° ♄ 43'53	1°00'46
morning rise	5044 Dec 20 22:18	17° ♄ 59'12		asc. node	5045 Dec 02 05:22	4° ♄ 25'43	
direct	5044 Dec 24 05:32	16° ♄ 56'27		morning rise	5045 Dec 05 06:17	2° ♄ 02'55	
morning max el	5044 Dec 31 06:32	20° ♄ 51'36	19°14'33	direct	5045 Dec 08 03:34	1° ♄ 16'06	
	5045 Jan 07 15:24	0° ♄		morning max el	5045 Dec 14 18:13	4° ♄ 52'00	18°29'12
greatest brilliancy	5045 Jan 09 23:45	3° ♄ 22'14	-0.7m		5046 Jan 01 04:58	0° ♄	
desc. node	5045 Jan 20 18:14	19° ♄ 42'43		morning set	5046 Jan 03 19:55	4° ♄ 11'03	
morning set	5045 Jan 23 19:38	24° ♄ 26'48		desc. node	5046 Jan 07 15:16	10° ♄ 14'41	
	5045 Jan 27 09:27	0° ♄					
max. Earth dist.	5045 Feb 06 11:53	15° ♄ 48'08	1.44860 AU	superior conj	5046 Jan 19 17:35	29° ♄ 19'04	-1°-17'-25
				minimum elong	5046 Jan 19 08:42	28° ♄ 44'16	1°16'25
superior conj	5045 Feb 09 14:08	20° ♄ 41'49	-1°-52'-11		5046 Jan 20 04:02	0° ♄	
minimum elong	5045 Feb 09 06:11	20° ♄ 10'15	1°51'37	max. Earth dist.	5046 Jan 20 06:07	0° ♄ 08'11	1.45325 AU
	5045 Feb 15 09:38	0° ♄		evening rise	5046 Feb 04 16:23	24° ♄ 24'02	
evening rise	5045 Feb 24 03:00	14° ♄ 15'55			5046 Feb 08 05:13	0° ♄	
	5045 Mar 05 16:47	0° ♄		greatest brilliancy	5046 Feb 15 23:35	12° ♄ 11'50	-0.8m

evening max el	5046 Feb 27 00:24	27° K 10'29	19°01'14	evening rise	5047 Jan 15 10:18	3° \approx 49'48	
asc. node	5046 Feb 28 04:40	28° K 18'06			5047 Feb 01 18:51	0° K	
	5046 Mar 02 11:19	0° Y		greatest brilliancy	5047 Feb 03 04:17	1° K 57'35	-0.6m
retrograde	5046 Mar 05 20:57	1° Y 02'15		evening max el	5047 Feb 10 06:01	10° K 43'30	19°52'40
evening set	5046 Mar 09 04:13	29° K 59'00		asc. node	5047 Feb 15 01:41	14° K 26'38	
	5046 Mar 09 03:35	30° R K		retrograde	5047 Feb 17 18:40	15° K 05'35	
inferior conj	5046 Mar 14 19:10	24° K 11'19	3°27'54	evening set	5047 Feb 21 09:55	13° K 48'22	
minimum elong	5046 Mar 14 17:59	24° K 15'03	3°27'47	inferior conj	5047 Feb 26 21:01	7° K 45'56	3°09'52
min. Earth dist.	5046 Mar 16 09:18	22° K 10'51	0.65928 AU	minimum elong	5047 Feb 26 18:58	7° K 52'45	3°09'30
morning rise	5046 Mar 20 06:43	17° K 55'44		min. Earth dist.	5047 Feb 27 20:33	6° K 27'17	0.67064 AU
direct	5046 Mar 26 17:03	15° K 07'45		morning rise	5047 Mar 04 03:24	1° K 29'33	
desc. node	5046 Apr 05 14:32	19° K 56'56			5047 Mar 06 03:08	30° R \approx	
morning max el	5046 Apr 08 15:18	22° K 47'43	26°31'51	direct	5047 Mar 10 01:29	28° \approx 51'48	
	5046 Apr 14 23:57	0° Y			5047 Mar 14 08:55	0° K	
	5046 May 05 07:57	0° B		morning max el	5047 Mar 22 00:23	6° K 00'19	25°15'28
morning set	5046 May 14 14:29	16° B 33'08		desc. node	5047 Mar 23 11:34	7° K 32'09	
max. Earth dist.	5046 May 18 18:26	24° B 35'41	1.34673 AU		5047 Apr 09 13:47	0° Y	
	5046 May 21 11:12	0° II		morning set	5047 Apr 27 03:41	28° Y 51'48	
					5047 Apr 27 18:48	0° B	
superior conj	5046 May 23 10:37	4° II 02'28	0°-37'-38	max. Earth dist.	5047 Apr 30 20:40	5° B 39'57	1.36473 AU
minimum elong	5046 May 23 12:40	4° II 13'00	0°37'15				
asc. node	5046 May 27 03:55	11° II 47'13		superior conj	5047 May 07 00:12	17° B 30'45	-1°-7'-18
evening rise	5046 May 31 01:59	19° II 58'44		minimum elong	5047 May 07 03:54	17° B 49'10	1°06'40
	5046 Jun 05 01:38	0° B			5047 May 13 04:56	0° II	
evening max el	5046 Jun 19 02:53	20° B 59'27	20°55'33	asc. node	5047 May 14 00:59	1° II 41'46	
retrograde	5046 Jun 30 17:40	26° B 41'47		evening rise	5047 May 15 06:39	4° II 11'58	
evening set	5046 Jul 02 21:50	26° B 30'36			5047 May 30 09:39	0° B	
desc. node	5046 Jul 02 13:47	26° B 33'45		evening max el	5047 Jun 01 13:35	2° B 20'17	19°43'11
inferior conj	5046 Jul 12 05:12	22° B 33'35	-2°-48'-12	retrograde	5047 Jun 11 10:53	7° B 10'14	
minimum elong	5046 Jul 11 21:38	22° B 44'17	2°45'41	evening set	5047 Jun 13 09:02	7° B 00'04	
min. Earth dist.	5046 Jul 12 22:14	22° B 09'28	0.54812 AU	desc. node	5047 Jun 19 10:48	4° B 36'37	
morning rise	5046 Jul 20 20:57	18° B 33'52		inferior conj	5047 Jun 22 04:59	2° B 57'19	0°-49'-26
direct	5046 Jul 24 13:55	18° B 04'19		minimum elong	5047 Jun 22 02:43	3° B 00'50	0°48'37
morning max el	5046 Aug 06 13:10	24° B 16'33	22°51'13	min. Earth dist.	5047 Jun 24 11:02	1° B 33'30	0.55482 AU
	5046 Aug 11 18:12	0° B			5047 Jun 27 04:32	30° R II	
asc. node	5046 Aug 23 03:09	18° B 03'59		morning rise	5047 Jun 30 17:15	28° II 29'01	
morning set	5046 Aug 29 02:04	0° B 02'18		direct	5047 Jul 05 05:13	27° II 44'16	
	5046 Aug 29 01:38	0° B			5047 Jul 13 00:27	0° B	
				morning max el	5047 Jul 19 03:08	4° B 39'51	24°35'07
					5047 Aug 06 02:07	0° B	
superior conj	5046 Sep 05 04:37	15° B 14'26	1°39'55	asc. node	5047 Aug 10 00:13	7° B 23'10	
minimum elong	5046 Sep 05 03:22	15° B 07'44	1°39'51	morning set	5047 Aug 13 13:52	14° B 55'25	
max. Earth dist.	5046 Sep 08 04:01	21° B 31'27	1.33881 AU				
	5046 Sep 12 07:46	0° B					
evening rise	5046 Sep 13 00:36	1° B 23'14		superior conj	5047 Aug 20 13:23	0° B 03'29	1°30'26
desc. node	5046 Sep 28 13:03	28° B 40'52		minimum elong	5047 Aug 20 11:23	29° B 52'30	1°30'13
	5046 Sep 29 09:35	0° B			5047 Aug 20 12:45	0° B	
evening max el	5046 Oct 17 12:35	22° B 59'35	27°13'41	max. Earth dist.	5047 Aug 22 07:06	3° B 49'53	1.32810 AU
	5046 Oct 28 12:32	0° B		evening rise	5047 Aug 27 20:52	15° B 34'03	
retrograde	5046 Oct 30 22:17	0° B 17'23			5047 Sep 04 08:33	0° B	
	5046 Nov 02 05:56	30° R B		desc. node	5047 Sep 15 10:05	18° B 11'35	
evening set	5046 Nov 06 19:47	27° B 38'15			5047 Sep 24 06:27	0° B	
min. Earth dist.	5046 Nov 10 16:39	23° B 59'10	0.64889 AU	evening max el	5047 Sep 29 23:26	6° B 06'29	27°27'06
inferior conj	5046 Nov 12 21:46	21° B 33'14	-2°-3'-54	retrograde	5047 Oct 13 15:57	13° B 22'24	
minimum elong	5046 Nov 13 01:21	21° B 23'22	2°02'30	evening set	5047 Oct 20 19:46	10° B 49'02	
morning rise	5046 Nov 19 08:58	16° B 00'48		min. Earth dist.	5047 Oct 24 11:49	7° B 42'22	0.63230 AU
asc. node	5046 Nov 19 02:23	16° B 08'31		inferior conj	5047 Oct 27 04:46	5° B 01'57	-3°-7'-6
direct	5046 Nov 21 22:38	15° B 26'01		minimum elong	5047 Oct 27 10:07	4° B 48'42	3°05'17
morning max el	5046 Nov 28 09:55	18° B 52'17	18°00'42		5047 Nov 02 14:07	30° R B	
	5046 Dec 06 16:45	0° B		morning rise	5047 Nov 03 03:10	29° B 46'42	
morning set	5046 Dec 16 01:55	15° B 24'11		direct	5047 Nov 05 11:47	29° B 20'18	
	5046 Dec 24 22:39	0° B		asc. node	5047 Nov 05 23:27	29° B 21'26	
desc. node	5046 Dec 25 12:19	0° B 55'25			5047 Nov 08 08:33	0° B	
				morning max el	5047 Nov 12 02:45	2° B 45'41	17°49'41
superior conj	5046 Dec 30 02:40	8° B 18'47	0°-31'-34	morning set	5047 Nov 28 09:00	27° B 49'36	
minimum elong	5046 Dec 29 22:48	8° B 03'23	0°31'02		5047 Nov 29 14:51	0° B	
max. Earth dist.	5047 Jan 03 01:45	14° B 35'36	1.45041 AU				
	5047 Jan 12 22:47	0° \approx		superior conj	5047 Dec 10 09:47	18° B 24'52	0°13'55

minimum elong	5047 Dec 10 11:12	18° ♄ 30'47	0°13'44	minimum elong	5048 Nov 20 23:15	0° ♄ 05'14	0°50'51
behind sun begin	5047 Dec 10 06:15	18° ♄ 10'12			5048 Nov 20 22:03	0° ♄	
behind sun end	5047 Dec 10 16:10	18° ♄ 51'21		desc. node	5048 Nov 28 06:21	12° ♄ 28'15	
desc. node	5047 Dec 12 09:20	21° ♄ 41'01		max. Earth dist.	5048 Nov 28 08:25	12° ♄ 36'48	1.42471 AU
max. Earth dist.	5047 Dec 16 19:29	28° ♄ 51'17	1.44048 AU	evening rise	5048 Dec 04 14:23	22° ♄ 42'17	
	5047 Dec 17 12:40	0° ♄			5048 Dec 09 06:42	0° ♄	
evening rise	5047 Dec 25 20:21	13° ♄ 02'54			5048 Dec 30 06:17	0° ♄	
	5048 Jan 06 01:39	0° ♄		greatest brilliancy	5049 Jan 01 07:20	2° ♄ 33'02	-0.3m
greatest brilliancy	5048 Jan 18 21:49	18° ♄ 02'33	-0.5m	evening max el	5049 Jan 06 00:59	7° ♄ 52'47	22°12'40
evening max el	5048 Jan 24 06:10	24° ♄ 17'21	20°57'42	retrograde	5049 Jan 15 13:39	13° ♄ 32'53	
retrograde	5048 Feb 01 16:52	29° ♄ 16'59		asc. node	5049 Jan 18 19:45	12° ♄ 36'56	
asc. node	5048 Feb 01 22:43	29° ♄ 16'40		evening set	5049 Jan 20 01:16	11° ♄ 45'20	
evening set	5048 Feb 05 17:30	27° ♄ 44'56		inferior conj	5049 Jan 25 10:43	5° ♄ 22'15	2°04'41
inferior conj	5048 Feb 11 02:53	21° ♄ 30'26	2°41'34	minimum elong	5049 Jan 25 08:25	5° ♄ 30'14	2°03'55
minimum elong	5048 Feb 11 00:29	21° ♄ 38'43	2°40'56	min. Earth dist.	5049 Jan 25 09:15	5° ♄ 27'20	0.68089 AU
min. Earth dist.	5048 Feb 11 13:17	20° ♄ 54'37	0.67777 AU		5049 Jan 29 17:31	30° ♄	
morning rise	5048 Feb 16 07:05	15° ♄ 15'01		morning rise	5049 Jan 30 15:25	29° ♄ 09'24	
direct	5048 Feb 21 14:53	12° ♄ 55'16		direct	5049 Feb 04 08:25	27° ♄ 11'35	
morning max el	5048 Mar 03 09:10	19° ♄ 20'06	23°47'55		5049 Feb 10 18:22	0° ♄	
desc. node	5048 Mar 09 08:36	26° ♄ 06'23		morning max el	5049 Feb 13 20:12	2° ♄ 46'45	22°19'09
	5048 Mar 12 09:56	0° ♄		greatest brilliancy	5049 Feb 18 09:46	7° ♄ 52'33	-0.3m
	5048 Apr 01 17:38	0° ♄		desc. node	5049 Feb 24 05:37	15° ♄ 23'11	
morning set	5048 Apr 07 18:59	10° ♄ 04'20			5049 Mar 06 11:03	0° ♄	
max. Earth dist.	5048 Apr 11 16:33	16° ♄ 51'10	1.38587 AU	morning set	5049 Mar 19 06:53	19° ♄ 57'57	
	5048 Apr 18 21:06	0° ♄		max. Earth dist.	5049 Mar 24 13:12	28° ♄ 40'46	1.40779 AU
					5049 Mar 25 07:56	0° ♄	
superior conj	5048 Apr 19 00:52	0° ♄ 17'49	-1°-34'-51	superior conj	5049 Apr 01 08:13	12° ♄ 13'39	-1°-56'-46
minimum elong	5048 Apr 19 05:45	0° ♄ 40'54	1°34'15	minimum elong	5049 Apr 01 12:46	12° ♄ 33'59	1°56'29
evening rise	5048 Apr 28 04:07	17° ♄ 59'09			5049 Apr 10 23:40	0° ♄	
asc. node	5048 Apr 29 22:01	21° ♄ 22'52		evening rise	5049 Apr 11 15:07	1° ♄ 12'23	
	5048 May 04 12:16	0° ♄		asc. node	5049 Apr 16 19:02	10° ♄ 45'37	
evening max el	5048 May 14 11:41	14° ♄ 21'48	18°50'52	evening max el	5049 Apr 27 18:10	26° ♄ 57'59	18°18'54
retrograde	5048 May 22 19:49	18° ♄ 27'20			5049 May 02 02:57	0° ♄	
evening set	5048 May 24 21:37	18° ♄ 13'05		retrograde	5049 May 04 23:34	0° ♄ 34'03	
inferior conj	5048 Jun 01 22:45	13° ♄ 53'57	0°58'27	evening set	5049 May 07 07:55	0° ♄ 12'07	
minimum elong	5048 Jun 02 00:55	13° ♄ 50'01	0°57'41		5049 May 07 22:07	30° ♄	
min. Earth dist.	5048 Jun 05 03:12	11° ♄ 36'47	0.56975 AU	inferior conj	5049 May 14 14:06	25° ♄ 32'37	2°17'26
desc. node	5048 Jun 05 07:50	11° ♄ 28'50		minimum elong	5049 May 14 17:37	25° ♄ 25'10	2°16'29
morning rise	5048 Jun 09 23:41	8° ♄ 49'08		min. Earth dist.	5049 May 18 00:33	22° ♄ 39'43	0.59004 AU
direct	5048 Jun 15 09:58	7° ♄ 37'58		morning rise	5049 May 21 23:03	19° ♄ 56'52	
morning max el	5048 Jun 29 18:08	15° ♄ 05'52	26°08'56	desc. node	5049 May 23 04:52	19° ♄ 19'26	
	5048 Jul 11 17:26	0° ♄		direct	5049 May 28 04:57	18° ♄ 11'38	
asc. node	5048 Jul 26 21:17	27° ♄ 19'49		morning max el	5049 Jun 11 14:20	25° ♄ 59'34	27°17'14
morning set	5048 Jul 28 00:56	29° ♄ 44'53			5049 Jun 15 08:21	0° ♄	
	5048 Jul 28 03:47	0° ♄			5049 Jul 05 02:56	0° ♄	
superior conj	5048 Aug 04 00:36	14° ♄ 05'43	1°15'54	morning set	5049 Jul 12 09:32	14° ♄ 24'59	
minimum elong	5048 Aug 03 22:17	14° ♄ 45'00	1°15'33	asc. node	5049 Jul 13 18:18	17° ♄ 18'01	
max. Earth dist.	5048 Aug 04 15:59	16° ♄ 22'31	1.32156 AU	max. Earth dist.	5049 Jul 19 03:10	28° ♄ 59'44	1.31924 AU
	5048 Aug 10 23:31	0° ♄		superior conj	5049 Jul 19 12:23	29° ♄ 50'42	0°56'56
evening rise	5048 Aug 11 00:26	0° ♄ 04'45		minimum elong	5049 Jul 19 10:16	29° ♄ 38'57	0°56'32
	5048 Aug 27 10:54	0° ♄			5049 Jul 19 14:04	0° ♄	
desc. node	5048 Sep 01 07:05	7° ♄ 01'23		evening rise	5049 Jul 26 08:47	14° ♄ 47'17	
evening max el	5048 Sep 11 05:54	18° ♄ 36'31	27°08'32		5049 Aug 02 23:28	0° ♄	
retrograde	5048 Sep 25 02:35	25° ♄ 49'00		desc. node	5049 Aug 19 04:07	24° ♄ 52'57	
evening set	5048 Oct 02 04:55	23° ♄ 33'16			5049 Aug 23 21:28	0° ♄	
min. Earth dist.	5048 Oct 05 20:21	20° ♄ 50'25	0.61294 AU	evening max el	5049 Aug 24 05:39	0° ♄ 19'35	26°16'43
inferior conj	5048 Oct 08 22:59	18° ♄ 07'33	-4°-6'-29	retrograde	5049 Sep 07 04:50	7° ♄ 28'04	
minimum elong	5048 Oct 09 05:16	17° ♄ 53'48	4°04'49	evening set	5049 Sep 13 18:21	5° ♄ 42'34	
morning rise	5048 Oct 16 08:51	13° ♄ 12'51		min. Earth dist.	5049 Sep 17 18:50	3° ♄ 08'24	0.59219 AU
direct	5048 Oct 18 15:23	12° ♄ 51'38		inferior conj	5049 Sep 21 00:50	0° ♄ 40'02	-4°-54'-2
asc. node	5048 Oct 22 20:30	14° ♄ 07'39		minimum elong	5049 Sep 21 05:58	0° ♄ 30'13	4°53'15
morning max el	5048 Oct 25 17:35	16° ♄ 24'38	17°57'02		5049 Sep 21 21:56	30° ♄	
	5048 Nov 04 06:20	0° ♄		morning rise	5049 Sep 28 21:07	26° ♄ 08'07	
morning set	5048 Nov 10 10:40	11° ♄ 07'55		direct	5049 Oct 01 05:09	25° ♄ 49'16	
				morning max el	5049 Oct 09 02:58	29° ♄ 39'11	18°24'11
superior conj	5048 Nov 20 19:27	29° ♄ 48'42	0°51'22				

	5049 Oct 09 11:27	0°♄		morning max el	5050 Sep 22 03:28	12°♏19'19	19°12'40
asc. node	5049 Oct 09 17:33	0°♄15'30		asc. node	5050 Sep 26 14:34	17°♏29'56	
morning set	5049 Oct 25 01:28	25°♄03'06			5050 Oct 04 05:00	0°♄	
	5049 Oct 27 15:24	0°♌		morning set	5050 Oct 09 01:20	9°♄23'51	
superior conj	5049 Nov 03 04:15	12°♌19'17	1°18'15	superior conj	5050 Oct 17 06:50	25°♄41'42	1°34'54
minimum elong	5049 Nov 03 07:56	12°♌36'14	1°17'51	minimum elong	5050 Oct 17 09:12	25°♄53'12	1°34'45
max. Earth dist.	5049 Nov 10 16:04	25°♌40'48	1.40510 AU		5050 Oct 19 12:39	0°♌	
	5049 Nov 13 04:59	0°♊		max. Earth dist.	5050 Oct 23 21:02	8°♌04'50	1.38405 AU
evening rise	5049 Nov 15 04:04	3°♊16'11		evening rise	5050 Oct 27 16:48	14°♌52'51	
desc. node	5049 Nov 15 03:22	3°♊13'17		desc. node	5050 Nov 02 00:23	23°♌52'25	
	5049 Dec 02 13:47	0°♋			5050 Nov 05 19:40	0°♊	
evening max el	5049 Dec 19 15:54	21°♋31'21	23°32'28		5050 Nov 27 08:42	0°♋	
retrograde	5049 Dec 30 07:32	27°♋48'55		evening max el	5050 Dec 02 04:55	5°♋13'57	24°50'38
evening set	5050 Jan 04 07:37	25°♋45'40		retrograde	5050 Dec 13 21:17	12°♋01'14	
asc. node	5050 Jan 05 16:47	24°♋27'03		evening set	5050 Dec 19 10:58	9°♋42'59	
inferior conj	5050 Jan 09 18:35	19°♋18'03	1°20'20	asc. node	5050 Dec 23 13:49	5°♋10'07	
minimum elong	5050 Jan 09 16:51	19°♋23'59	1°19'42	min. Earth dist.	5050 Dec 24 01:19	4°♋32'38	0.67604 AU
min. Earth dist.	5050 Jan 09 06:03	20°♋00'57	0.68025 AU	inferior conj	5050 Dec 25 00:43	3°♋15'20	0°29'29
morning rise	5050 Jan 15 02:13	13°♋09'44		minimum elong	5050 Dec 25 00:00	3°♋17'42	0°29'13
direct	5050 Jan 19 05:06	11°♋34'37			5050 Dec 27 14:43	30°♏♊	
morning max el	5050 Jan 27 12:57	16°♋22'54	20°57'20	morning rise	5050 Dec 30 13:35	27°♊13'45	
greatest brilliancy	5050 Feb 02 00:46	22°♋42'29	-0.5m	direct	5051 Jan 03 03:35	25°♊59'53	
	5050 Feb 07 11:21	0°♎			5051 Jan 10 09:15	0°♋	
desc. node	5050 Feb 11 02:38	5°♎10'20		morning max el	5051 Jan 10 13:35	0°♋10'43	19°47'45
morning set	5050 Feb 26 15:30	28°♎36'37		greatest brilliancy	5051 Jan 18 02:22	9°♋23'28	-0.6m
	5050 Feb 27 12:47	0°♏		desc. node	5051 Jan 28 23:38	25°♋19'28	
max. Earth dist.	5050 Mar 06 16:24	11°♏25'48	1.42760 AU		5051 Feb 01 01:26	0°♎	
				morning set	5051 Feb 05 11:36	6°♎47'19	
superior conj	5050 Mar 13 17:19	23°♏07'22	-2°-8'-17	max. Earth dist.	5051 Feb 17 03:34	25°♎02'07	1.44281 AU
minimum elong	5050 Mar 13 18:40	23°♏13'06	2°08'17		5051 Feb 20 06:05	0°♏	
	5050 Mar 17 17:29	0°♑					
evening rise	5050 Mar 25 11:34	13°♑42'30		superior conj	5051 Feb 22 00:48	2°♏52'15	-2°-3'-44
asc. node	5050 Apr 03 16:04	29°♑43'55		minimum elong	5051 Feb 21 20:05	2°♏33'13	2°03'33
	5050 Apr 03 20:02	0°♒		evening rise	5051 Mar 07 12:59	25°♏20'04	
evening max el	5050 Apr 11 05:33	9°♒59'52	18°06'43		5051 Mar 10 06:46	0°♑	
retrograde	5050 Apr 17 19:51	13°♒22'39		asc. node	5051 Mar 21 13:06	18°♑09'06	
evening set	5050 Apr 20 10:43	12°♒50'37		evening max el	5051 Mar 25 18:27	23°♑17'28	18°13'35
inferior conj	5050 Apr 27 01:07	7°♒50'10	3°05'52	retrograde	5051 Apr 01 04:15	26°♑41'47	
minimum elong	5050 Apr 27 03:48	7°♒43'37	3°05'23	evening set	5051 Apr 04 01:14	25°♑58'17	
min. Earth dist.	5050 Apr 30 04:58	4°♒46'24	0.61213 AU	inferior conj	5051 Apr 10 03:46	20°♑37'54	3°29'00
morning rise	5050 May 03 17:43	1°♒53'58		minimum elong	5051 Apr 10 04:51	20°♑34'56	3°28'54
	5050 May 07 16:22	30°♏♑		min. Earth dist.	5051 Apr 12 18:12	17°♑46'42	0.63303 AU
direct	5050 May 10 11:24	29°♑36'39		morning rise	5051 Apr 16 06:23	14°♑29'52	
desc. node	5050 May 10 01:52	29°♑37'07		direct	5051 Apr 23 02:43	11°♑50'27	
	5050 May 13 08:33	0°♒		desc. node	5051 Apr 26 22:54	12°♑34'36	
morning max el	5050 May 24 16:52	7°♒34'26	27°50'17	morning max el	5051 May 07 00:22	19°♑49'41	27°45'40
	5050 Jun 10 18:20	0°♓			5051 May 15 16:48	0°♒	
morning set	5050 Jun 26 13:53	28°♓50'14			5051 Jun 03 18:02	0°♓	
	5050 Jun 27 03:25	0°♔		morning set	5051 Jun 10 11:41	12°♓52'40	
asc. node	5050 Jun 30 15:19	7°♔23'13		max. Earth dist.	5051 Jun 15 17:42	23°♓42'51	1.32754 AU
max. Earth dist.	5050 Jul 02 13:03	11°♔30'55	1.32121 AU	asc. node	5051 Jun 17 12:21	27°♓30'27	
superior conj	5050 Jul 03 23:04	14°♔36'56	0°34'06	superior conj	5051 Jun 18 06:46	29°♓09'34	0°08'00
minimum elong	5050 Jul 03 21:35	14°♔28'50	0°33'46	minimum elong	5051 Jun 18 06:22	29°♓07'28	0°07'54
evening rise	5050 Jul 10 19:51	29°♔35'15		behind sun begin	5051 Jun 18 01:45	28°♓42'32	
	5050 Jul 11 00:30	0°♕		behind sun end	5051 Jun 18 11:00	29°♓32'27	
	5050 Jul 27 14:04	0°♎			5051 Jun 18 16:06	0°♔	
evening max el	5050 Aug 05 22:07	11°♎15'39	24°56'34	evening rise	5051 Jun 25 07:40	14°♔21'16	
desc. node	5050 Aug 06 01:08	11°♎22'50			5051 Jul 03 03:53	0°♕	
retrograde	5050 Aug 19 20:13	18°♎17'32		evening max el	5051 Jul 18 10:37	21°♕39'54	23°20'36
evening set	5050 Aug 25 07:41	17°♎09'33		desc. node	5051 Jul 23 22:10	25°♕59'22	
min. Earth dist.	5050 Aug 30 09:36	14°♎25'27	0.57249 AU	retrograde	5051 Jul 31 22:56	28°♕25'50	
inferior conj	5050 Sep 02 07:14	12°♎30'24	-5°-16'-51	evening set	5051 Aug 04 22:42	27°♕51'01	
minimum elong	5050 Sep 02 07:59	12°♎29'10	5°16'52	min. Earth dist.	5051 Aug 11 20:03	24°♕40'29	0.55690 AU
morning rise	5050 Sep 10 11:43	8°♎21'00		inferior conj	5051 Aug 13 17:37	23°♕33'31	-4°-58'-29
direct	5050 Sep 13 01:11	8°♎02'10		minimum elong	5051 Aug 13 11:56	23°♕41'55	4°57'44

morning rise	5051 Aug 22 04:08	19°041'01		morning rise	5052 Aug 01 04:23	0°08'37	
direct	5051 Aug 25 02:03	19°020'26		direct	5052 Aug 01 20:18	30°08'00	
morning max el	5051 Sep 04 16:26	24°016'02	20°23'09	direct	5052 Aug 04 12:54	29°044'02	
	5051 Sep 09 17:04	0°00			5052 Aug 07 04:10	0°00	
asc. node	5051 Sep 13 11:36	5°036'06		morning max el	5052 Aug 16 17:37	5°027'35	21°53'18
morning set	5051 Sep 23 07:14	24°001'26		asc. node	5052 Aug 30 08:38	24°022'06	
	5051 Sep 26 04:53	0°00			5052 Sep 02 08:25	0°00	
				morning set	5052 Sep 06 16:50	8°049'16	
superior conj	5051 Sep 30 22:17	9°041'42	1°42'38	superior conj	5052 Sep 13 22:43	24°007'59	1°42'48
minimum elong	5051 Sep 30 23:04	9°045'41	1°42'37	minimum elong	5052 Sep 13 22:06	24°004'45	1°42'47
max. Earth dist.	5051 Oct 06 03:50	20°002'24	1.36394 AU		5052 Sep 16 18:32	0°00	
evening rise	5051 Oct 10 02:17	27°026'13			5052 Sep 17 17:12	1°055'41	1.34678 AU
	5051 Oct 11 12:06	0°00		max. Earth dist.	5052 Sep 22 04:25	10°046'01	
desc. node	5051 Oct 19 21:26	14°021'08		evening rise	5052 Oct 02 22:50	0°00	
	5051 Oct 30 04:52	0°00		desc. node	5052 Oct 05 18:28	4°033'34	
evening max el	5051 Nov 14 17:31	18°057'43	26°00'02		5052 Oct 24 16:50	0°00	
retrograde	5051 Nov 27 06:16	26°004'56		evening max el	5052 Oct 27 06:11	2°035'23	26°53'16
evening set	5051 Dec 03 09:40	23°034'03		retrograde	5052 Nov 09 09:54	9°052'31	
min. Earth dist.	5051 Dec 07 16:41	18°059'12	0.66824 AU	evening set	5052 Nov 16 01:40	7°013'59	
inferior conj	5051 Dec 09 03:18	17°011'09	0°-26'-54	min. Earth dist.	5052 Nov 20 01:53	3°015'01	0.65690 AU
minimum elong	5051 Dec 09 04:01	17°008'55	0°26'36	inferior conj	5052 Nov 22 00:14	1°000'51	-1°-27'-41
asc. node	5051 Dec 10 10:51	15°034'13		minimum elong	5052 Nov 22 02:44	0°053'39	1°26'39
morning rise	5051 Dec 14 23:27	11°018'51			5052 Nov 22 21:26	30°00	
direct	5051 Dec 18 02:18	10°023'15		asc. node	5052 Nov 26 07:53	26°035'01	
morning max el	5051 Dec 24 21:51	14°008'29	18°53'18	morning rise	5052 Nov 28 05:32	25°020'31	
	5052 Jan 05 17:22	0°00		direct	5052 Nov 30 23:15	24°039'23	
morning set	5052 Jan 15 20:37	15°044'37		morning max el	5052 Dec 07 11:40	28°010'00	18°15'05
desc. node	5052 Jan 15 20:39	15°044'48			5052 Dec 09 04:15	0°00	
	5052 Jan 24 23:16	0°00		morning set	5052 Dec 26 09:40	26°007'28	
max. Earth dist.	5052 Jan 30 20:32	9°013'29	1.45153 AU		5052 Dec 28 19:04	0°00	
				desc. node	5053 Jan 01 17:41	6°021'00	
superior conj	5052 Feb 01 10:30	11°042'42	-1°-39'-28	superior conj	5053 Jan 10 13:49	20°022'51	0°-58'-39
minimum elong	5052 Feb 01 01:14	11°006'17	1°38'38	minimum elong	5053 Jan 10 06:38	19°054'35	0°57'44
	5052 Feb 12 22:29	0°00		max. Earth dist.	5053 Jan 12 15:47	23°039'08	1.45291 AU
evening rise	5052 Feb 16 15:55	6°001'09			5053 Jan 16 17:05	0°00	
	5052 Mar 02 20:19	0°00		evening rise	5053 Jan 26 20:12	15°048'59	
asc. node	5052 Mar 07 10:08	5°051'34			5053 Feb 04 22:54	0°00	
evening max el	5052 Mar 08 06:09	6°044'29	18°38'45	greatest brilliancy	5053 Feb 10 21:16	8°058'15	-0.7m
retrograde	5052 Mar 14 20:33	10°023'15		evening max el	5053 Feb 19 14:24	20°015'48	19°21'09
evening set	5052 Mar 17 23:49	9°027'26		asc. node	5053 Feb 22 07:11	22°038'26	
inferior conj	5052 Mar 23 18:05	3°048'54	3°32'42	retrograde	5053 Feb 26 17:09	24°019'49	
minimum elong	5052 Mar 23 17:37	3°050'19	3°32'40	evening set	5053 Mar 02 03:34	23°010'50	
min. Earth dist.	5052 Mar 25 17:00	1°027'01	0.65083 AU	inferior conj	5053 Mar 07 16:34	17°016'24	3°21'37
	5052 Mar 26 23:18	30°00		minimum elong	5053 Mar 07 14:58	17°021'37	3°21'25
morning rise	5052 Mar 29 10:07	27°034'49		min. Earth dist.	5053 Mar 09 00:20	15°033'16	0.66464 AU
direct	5052 Apr 05 01:33	24°046'24		morning rise	5053 Mar 13 01:31	10°059'55	
desc. node	5052 Apr 12 19:55	27°045'55		direct	5053 Mar 19 06:53	8°015'08	
	5052 Apr 15 15:40	0°00		desc. node	5053 Mar 30 16:56	14°036'45	
morning max el	5052 Apr 18 10:25	2°037'21	27°06'50	morning max el	5053 Mar 31 20:19	15°044'14	26°01'18
	5052 May 08 23:16	0°00			5053 Apr 12 14:31	0°00	
morning set	5052 May 24 00:04	26°024'20			5053 May 01 19:52	0°00	
	5052 May 25 20:15	0°00		morning set	5053 May 06 23:11	9°013'51	
max. Earth dist.	5052 May 28 13:25	5°026'31	1.33842 AU	max. Earth dist.	5053 May 10 21:33	16°039'52	1.35389 AU
				superior conj	5053 May 16 04:42	27°009'51	0°-50'-19
superior conj	5052 Jun 01 09:28	13°022'53	0°-20'-33	minimum elong	5053 May 16 07:28	27°023'55	0°49'49
minimum elong	5052 Jun 01 10:33	13°028'34	0°20'21		5053 May 17 14:05	0°00	
asc. node	5052 Jun 03 09:24	17°036'03		asc. node	5053 May 21 06:28	7°035'50	
evening rise	5052 Jun 08 18:22	28°059'41		evening rise	5053 May 24 01:53	13°023'53	
	5052 Jun 09 05:54	0°00			5053 Jun 01 17:27	0°00	
	5052 Jun 27 03:17	0°00		evening max el	5053 Jun 11 06:35	13°002'52	20°22'24
evening max el	5052 Jun 29 03:07	2°005'36	21°45'02	retrograde	5053 Jun 22 04:21	18°023'09	
desc. node	5052 Jul 09 19:12	8°009'02		evening set	5053 Jun 24 03:49	18°013'21	
retrograde	5052 Jul 11 15:04	8°016'54		desc. node	5053 Jun 26 16:12	17°034'39	
evening set	5052 Jul 14 06:26	8°001'10		inferior conj	5053 Jul 03 07:50	14°015'41	-1°-58'-26
inferior conj	5052 Jul 23 13:34	3°059'36	-3°-48'-28				
minimum elong	5052 Jul 23 04:46	4°011'56	3°46'02				
min. Earth dist.	5052 Jul 23 06:04	4°010'06	0.54862 AU				

minimum elong	5053 Jul 03 02:17	14° \mathfrak{G} 23'46	1°56'27	inferior conj	5054 Jun 13 14:19	24° \mathbb{I} 51'23	0°00'-48
min. Earth dist.	5053 Jul 04 17:57	13° \mathfrak{G} 25'50	0.54975 AU	minimum elong	5054 Jun 13 14:17	24° \mathbb{I} 51'27	0°00'49
morning rise	5053 Jul 11 22:59	10° \mathfrak{G} 05'16		transit middle	5054 Jun 13 14:17	24° \mathbb{I} 51'27	0°00'49
direct	5053 Jul 15 23:05	9° \mathfrak{G} 30'36		transit begin	5054 Jun 13 10:26	24° \mathbb{I} 57'47	
morning max el	5053 Jul 29 10:07	16° \mathfrak{G} 03'14	23°35'41	transit end	5054 Jun 13 18:08	24° \mathbb{I} 45'05	
	5053 Aug 09 12:00	0° \mathcal{Q}		desc. node	5054 Jun 13 13:13	24° \mathbb{I} 53'12	
asc. node	5053 Aug 17 05:42	13° \mathcal{Q} 38'09		min. Earth dist.	5054 Jun 16 08:15	23° \mathbb{I} 03'09	0.56030 AU
morning set	5053 Aug 22 04:20	23° \mathcal{Q} 42'15		morning rise	5054 Jun 21 22:36	20° \mathbb{I} 07'33	
	5053 Aug 25 02:56	0° \mathfrak{M}		direct	5054 Jun 26 20:12	19° \mathbb{I} 12'33	
				morning max el	5054 Jul 10 23:39	26° \mathbb{I} 23'57	25°17'12
superior conj	5053 Aug 29 05:11	8° \mathfrak{M} 51'33	1°36'34		5054 Jul 14 10:14	0° \mathfrak{G}	
minimum elong	5053 Aug 29 03:33	8° \mathfrak{M} 42'44	1°36'26		5054 Aug 02 11:55	0° \mathcal{Q}	
max. Earth dist.	5053 Aug 31 15:22	14° \mathfrak{M} 02'54	1.33364 AU	asc. node	5054 Aug 04 02:45	3° \mathcal{Q} 15'29	
evening rise	5053 Sep 05 19:09	24° \mathfrak{M} 41'48		morning set	5054 Aug 06 15:58	8° \mathcal{Q} 34'16	
	5053 Sep 08 11:59	0° \mathfrak{A}					
desc. node	5053 Sep 22 15:31	24° \mathfrak{A} 22'35		superior conj	5054 Aug 13 15:12	23° \mathcal{Q} 43'41	1°24'52
	5053 Sep 26 11:18	0° \mathfrak{M}		minimum elong	5054 Aug 13 13:01	23° \mathcal{Q} 31'38	1°24'35
evening max el	5053 Oct 09 18:12	15° \mathfrak{M} 57'27	27°23'06	max. Earth dist.	5054 Aug 14 21:11	26° \mathcal{Q} 27'41	1.32478 AU
retrograde	5053 Oct 23 07:38	23° \mathfrak{M} 15'54			5054 Aug 16 12:16	0° \mathfrak{M}	
evening set	5053 Oct 30 08:25	20° \mathfrak{M} 37'46		evening rise	5054 Aug 20 18:52	9° \mathfrak{M} 02'23	
min. Earth dist.	5053 Nov 03 02:51	17° \mathfrak{M} 13'06	0.64214 AU		5054 Aug 31 20:51	0° \mathfrak{A}	
inferior conj	5053 Nov 05 13:09	14° \mathfrak{M} 39'32	-2°-30'-52	desc. node	5054 Sep 09 12:31	13° \mathfrak{A} 37'33	
minimum elong	5053 Nov 05 17:31	14° \mathfrak{M} 27'58	2°29'13	evening max el	5054 Sep 22 03:38	28° \mathfrak{A} 50'40	27°23'25
morning rise	5053 Nov 12 05:02	9° \mathfrak{M} 14'06			5054 Sep 23 09:59	0° \mathfrak{M}	
asc. node	5053 Nov 13 04:55	8° \mathfrak{M} 54'25		retrograde	5054 Oct 05 22:28	6° \mathfrak{M} 05'08	
direct	5053 Nov 14 16:04	8° \mathfrak{M} 43'28		evening set	5054 Oct 13 02:35	3° \mathfrak{M} 38'05	
morning max el	5053 Nov 21 04:15	12° \mathfrak{M} 08'40	17°53'50	min. Earth dist.	5054 Oct 16 17:44	0° \mathfrak{M} 42'36	0.62430 AU
	5053 Dec 03 11:22	0° \mathfrak{X}			5054 Oct 17 12:13	30° \mathfrak{R} \mathfrak{A}	
morning set	5053 Dec 08 03:06	7° \mathfrak{X} 53'37		inferior conj	5054 Oct 19 15:06	27° \mathfrak{A} 59'32	-3°-33'-10
desc. node	5053 Dec 19 14:45	27° \mathfrak{X} 04'22		minimum elong	5054 Oct 19 21:01	27° \mathfrak{A} 45'36	3°31'19
				morning rise	5054 Oct 26 18:24	22° \mathfrak{A} 52'20	
superior conj	5053 Dec 21 06:59	29° \mathfrak{X} 47'44	0°-11'-41	direct	5054 Oct 29 01:39	22° \mathfrak{A} 28'32	
minimum elong	5053 Dec 21 05:38	29° \mathfrak{X} 42'15	0°11'29	asc. node	5054 Oct 31 01:57	22° \mathfrak{A} 47'15	
behind sun begin	5053 Dec 20 22:27	29° \mathfrak{X} 13'10		morning max el	5054 Nov 04 20:33	25° \mathfrak{A} 56'26	17°50'25
behind sun end	5053 Dec 21 12:49	0° \mathfrak{Z} 11'17			5054 Nov 08 07:10	0° \mathfrak{M}	
	5053 Dec 21 10:01	0° \mathfrak{Z}		morning set	5054 Nov 20 18:49	20° \mathfrak{M} 43'41	
max. Earth dist.	5053 Dec 26 10:19	8° \mathfrak{Z} 01'23	1.44697 AU		5054 Nov 26 00:13	0° \mathfrak{X}	
evening rise	5054 Jan 06 08:51	25° \mathfrak{Z} 04'24					
	5054 Jan 09 14:04	0° \mathfrak{A}		superior conj	5054 Dec 02 01:21	10° \mathfrak{X} 26'31	0°31'02
greatest brilliancy	5054 Jan 27 12:45	26° \mathfrak{A} 20'22	-0.5m	minimum elong	5054 Dec 02 04:10	10° \mathfrak{X} 38'25	0°30'38
	5054 Jan 30 08:58	0° \mathfrak{H}		desc. node	5054 Dec 06 11:47	17° \mathfrak{X} 51'01	
evening max el	5054 Feb 02 17:45	3° \mathfrak{H} 49'17	20°18'50	max. Earth dist.	5054 Dec 09 02:03	22° \mathfrak{X} 05'22	1.43441 AU
asc. node	5054 Feb 09 04:13	8° \mathfrak{H} 15'25			5054 Dec 14 00:51	0° \mathfrak{Z}	
retrograde	5054 Feb 10 15:20	8° \mathfrak{H} 26'54		evening rise	5054 Dec 16 20:22	4° \mathfrak{Z} 24'07	
evening set	5054 Feb 14 10:17	7° \mathfrak{H} 03'42			5055 Jan 03 00:13	0° \mathfrak{A}	
inferior conj	5054 Feb 19 20:26	0° \mathfrak{H} 55'52	2°58'59	greatest brilliancy	5055 Jan 11 17:52	11° \mathfrak{A} 47'02	-0.4m
minimum elong	5054 Feb 19 18:11	1° \mathfrak{H} 03'31	2°58'30	evening max el	5055 Jan 16 15:40	17° \mathfrak{A} 24'22	21°28'44
min. Earth dist.	5054 Feb 20 14:18	29° \mathfrak{A} 55'12	0.67421 AU	retrograde	5055 Jan 25 13:00	22° \mathfrak{A} 40'43	
	5054 Feb 20 12:53	30° \mathfrak{R} \mathfrak{A}		asc. node	5055 Jan 27 01:13	22° \mathfrak{A} 28'30	
morning rise	5054 Feb 25 01:31	24° \mathfrak{A} 39'30		evening set	5055 Jan 29 18:08	21° \mathfrak{A} 02'15	
direct	5054 Mar 02 17:44	22° \mathfrak{A} 08'23		inferior conj	5055 Feb 04 03:22	14° \mathfrak{A} 43'57	2°26'54
morning max el	5054 Mar 14 04:59	29° \mathfrak{A} 00'05	24°38'49	minimum elong	5055 Feb 04 00:57	14° \mathfrak{A} 52'19	2°26'12
	5054 Mar 15 04:10	0° \mathfrak{H}		min. Earth dist.	5055 Feb 04 08:39	14° \mathfrak{A} 25'39	0.67960 AU
desc. node	5054 Mar 17 13:58	2° \mathfrak{H} 39'29		morning rise	5055 Feb 09 07:28	8° \mathfrak{A} 29'30	
	5054 Apr 06 09:38	0° \mathfrak{Y}		direct	5055 Feb 14 09:05	6° \mathfrak{A} 18'34	
morning set	5054 Apr 19 03:50	21° \mathfrak{Y} 06'43		morning max el	5055 Feb 24 14:05	12° \mathfrak{A} 22'03	23°09'46
max. Earth dist.	5054 Apr 22 19:46	27° \mathfrak{Y} 40'48	1.37344 AU	greatest brilliancy	5055 Mar 01 14:20	17° \mathfrak{A} 58'36	-0.3m
	5054 Apr 24 02:04	0° \mathfrak{Z}		desc. node	5055 Mar 04 11:00	21° \mathfrak{A} 33'45	
					5055 Mar 10 16:42	0° \mathfrak{H}	
superior conj	5054 Apr 29 13:18	10° \mathfrak{Z} 22'05	-1°-19'-25		5055 Mar 30 06:16	0° \mathfrak{Y}	
minimum elong	5054 Apr 29 17:37	10° \mathfrak{Z} 43'04	1°18'47	morning set	5055 Mar 31 08:04	1° \mathfrak{Y} 47'22	
evening rise	5054 May 08 03:51	27° \mathfrak{Z} 26'55		max. Earth dist.	5055 Apr 04 15:11	9° \mathfrak{Y} 06'02	1.39529 AU
asc. node	5054 May 08 03:31	27° \mathfrak{Z} 25'14					
	5054 May 09 10:41	0° \mathbb{I}		superior conj	5055 Apr 12 07:18	22° \mathfrak{Y} 49'56	-1°-45'-5
evening max el	5054 May 24 22:32	24° \mathbb{I} 42'07	19°18'28	minimum elong	5055 Apr 12 12:18	23° \mathfrak{Y} 13'02	1°44'35
retrograde	5054 Jun 03 02:54	29° \mathbb{I} 11'08			5055 Apr 16 03:12	0° \mathfrak{Z}	
evening set	5054 Jun 05 01:55	28° \mathbb{I} 59'46		evening rise	5055 Apr 21 21:21	11° \mathfrak{Z} 01'28	

asc. node	5055 Apr 25 00:33	16°♄59'45		superior conj	5056 Mar 24 05:45	4°♃20'35	-2°-3'-16
	5055 May 02 11:59	0°♂		minimum elong	5056 Mar 24 09:21	4°♃36'21	2°03'06
evening max el	5055 May 08 00:45	7°♂00'28	18°34'47	evening rise	5056 Apr 04 02:42	23°♃57'47	
retrograde	5055 May 15 19:47	10°♂51'07			5056 Apr 07 09:48	0°♄	
evening set	5055 May 18 00:29	10°♂33'50		asc. node	5056 Apr 10 21:33	6°♄13'06	
inferior conj	5055 May 25 17:16	6°♂06'07	1°35'49	evening max el	5056 Apr 20 09:41	19°♄48'31	18°11'16
minimum elong	5055 May 25 20:22	6°♂00'07	1°34'49	retrograde	5056 Apr 27 07:19	23°♄17'16	
min. Earth dist.	5055 May 29 02:08	3°♂31'15	0.57801 AU	evening set	5056 Apr 29 18:29	22°♄51'14	
desc. node	5055 May 31 10:13	1°♂55'48		inferior conj	5056 May 06 17:26	18°♄02'22	2°41'27
morning rise	5055 Jun 02 11:47	0°♂47'24		minimum elong	5056 May 06 20:46	17°♄54'50	2°40'40
	5055 Jun 04 10:46	30°♂♄		min. Earth dist.	5056 May 10 02:03	15°♄02'03	0.59944 AU
direct	5055 Jun 08 07:19	29°♄22'13		morning rise	5056 May 13 19:17	12°♄16'36	
	5055 Jun 12 05:19	0°♂		desc. node	5056 May 17 07:15	10°♄42'39	
morning max el	5055 Jun 22 16:22	6°♂59'04	26°41'46	direct	5056 May 20 07:07	10°♄17'21	
	5055 Jul 09 19:41	0°♄		morning max el	5056 Jun 03 15:28	18°♄10'00	27°35'55
asc. node	5055 Jul 21 23:48	23°♄07'53			5056 Jun 13 13:07	0°♂	
morning set	5055 Jul 22 02:11	23°♄20'29			5056 Jul 01 11:16	0°♄	
	5055 Jul 25 04:40	0°♂		morning set	5056 Jul 05 09:15	7°♄55'13	
				asc. node	5056 Jul 07 20:50	13°♄09'43	
superior conj	5055 Jul 29 02:52	8°♂38'05	1°08'22	max. Earth dist.	5056 Jul 11 18:55	21°♄41'29	1.31962 AU
minimum elong	5055 Jul 29 00:35	8°♂25'26	1°07'59				
max. Earth dist.	5055 Jul 29 07:39	9°♂04'28	1.32015 AU	superior conj	5056 Jul 12 14:24	23°♄28'46	0°47'41
evening rise	5055 Aug 05 00:46	23°♂39'18		minimum elong	5056 Jul 12 12:29	23°♄18'15	0°47'18
	5055 Aug 08 02:42	0°♄			5056 Jul 15 13:22	0°♂	
	5055 Aug 25 20:03	0°♄		evening rise	5056 Jul 19 10:32	8°♂24'58	
desc. node	5055 Aug 27 09:31	2°♄04'45			5056 Jul 30 14:00	0°♄	
evening max el	5055 Sep 04 07:41	11°♄01'59	26°50'24	desc. node	5056 Aug 13 06:32	19°♄24'56	
retrograde	5055 Sep 18 05:20	18°♄11'46		evening max el	5056 Aug 16 04:06	22°♄23'53	25°45'21
evening set	5055 Sep 25 03:51	16°♄07'45		retrograde	5056 Aug 30 03:03	29°♄30'08	
min. Earth dist.	5055 Sep 28 21:45	13°♄30'41	0.60422 AU	evening set	5056 Sep 05 07:25	27°♄59'55	
inferior conj	5055 Oct 02 02:45	10°♄52'07	-4°-28'-44	min. Earth dist.	5056 Sep 09 16:15	25°♄24'09	0.58354 AU
minimum elong	5055 Oct 02 08:53	10°♄39'26	4°27'24	inferior conj	5056 Sep 12 20:36	23°♄07'40	-5°-7'-40
morning rise	5055 Oct 09 17:14	6°♄06'36		minimum elong	5056 Sep 13 00:18	23°♄01'01	5°07'19
direct	5055 Oct 12 00:05	5°♄46'35		morning rise	5056 Sep 20 20:43	18°♄45'54	
asc. node	5055 Oct 17 23:00	8°♄09'29		direct	5056 Sep 23 06:46	18°♄27'16	
morning max el	5055 Oct 19 09:21	9°♄25'26	18°06'03	morning max el	5056 Oct 01 15:23	22°♄26'55	18°42'13
	5055 Nov 01 18:56	0°♄		asc. node	5056 Oct 03 20:03	24°♄47'49	
morning set	5055 Nov 04 02:37	4°♄19'13			5056 Oct 07 15:43	0°♄	
				morning set	5056 Oct 17 21:44	18°♄26'53	
superior conj	5055 Nov 13 21:24	22°♄19'58	1°04'06		5056 Oct 23 20:16	0°♄	
minimum elong	5055 Nov 14 01:22	22°♄37'41	1°03'36				
	5055 Nov 18 06:12	0°♄		superior conj	5056 Oct 26 14:29	5°♄15'14	1°26'30
max. Earth dist.	5055 Nov 21 13:11	5°♄35'58	1.41673 AU	minimum elong	5056 Oct 26 17:41	5°♄30'20	1°26'12
desc. node	5055 Nov 23 08:47	8°♄37'32		max. Earth dist.	5056 Nov 02 19:26	18°♄23'13	1.39612 AU
evening rise	5055 Nov 26 21:46	14°♄24'05		evening rise	5056 Nov 06 21:16	25°♄24'49	
	5055 Dec 06 22:59	0°♄		desc. node	5056 Nov 09 05:48	29°♄20'51	
greatest brilliancy	5055 Dec 25 05:51	25°♄16'49	-0.3m		5056 Nov 09 15:19	0°♄	
	5055 Dec 29 09:01	0°♄			5056 Nov 29 16:21	0°♄	
evening max el	5055 Dec 30 08:37	1°♄00'58	22°46'27	evening max el	5056 Dec 11 22:20	14°♄41'01	24°06'18
retrograde	5056 Jan 09 08:35	6°♄57'08		retrograde	5056 Dec 23 00:53	21°♄12'44	
asc. node	5056 Jan 13 22:14	5°♄09'13		evening set	5056 Dec 28 06:44	19°♄02'39	
evening set	5056 Jan 14 01:27	5°♄02'41		asc. node	5056 Dec 30 19:16	16°♄26'57	
	5056 Jan 18 11:23	30°♄♄		min. Earth dist.	5057 Jan 02 01:29	13°♄32'36	0.67886 AU
inferior conj	5056 Jan 19 11:23	28°♄37'19	1°46'44	inferior conj	5057 Jan 02 18:44	12°♄34'17	0°59'33
minimum elong	5056 Jan 19 09:16	28°♄44'38	1°45'59	minimum elong	5057 Jan 02 17:23	12°♄38'52	0°59'00
min. Earth dist.	5056 Jan 19 05:06	28°♄59'02	0.68107 AU	morning rise	5057 Jan 08 04:20	6°♄28'45	
morning rise	5056 Jan 24 17:04	22°♄26'28		direct	5057 Jan 12 01:28	5°♄03'12	
direct	5056 Jan 29 03:59	20°♄38'23		morning max el	5057 Jan 19 23:18	9°♄34'15	20°26'06
morning max el	5056 Feb 07 03:10	25°♄52'16	21°43'14	greatest brilliancy	5057 Jan 26 04:24	16°♄52'59	-0.5m
	5056 Feb 10 20:59	0°♄			5057 Feb 04 12:12	0°♄	
greatest brilliancy	5056 Feb 11 22:00	1°♄15'32	-0.4m	desc. node	5057 Feb 05 05:02	1°♄02'02	
desc. node	5056 Feb 19 08:01	11°♄04'30		morning set	5057 Feb 17 08:10	19°♄25'07	
	5056 Mar 03 05:01	0°♄			5057 Feb 24 02:05	0°♄	
morning set	5056 Mar 10 07:39	11°♄06'24		max. Earth dist.	5057 Feb 26 21:29	4°♄29'31	1.43473 AU
max. Earth dist.	5056 Mar 16 14:49	21°♄21'09	1.41666 AU				
	5056 Mar 21 17:39	0°♄		superior conj	5057 Mar 05 04:01	14°♄44'33	-2°-8'-38
				minimum elong	5057 Mar 05 03:01	14°♄40'25	2°08'38

	5057 Mar 14 03:31	0°♿			5058 Jan 28 17:07	0°♿	
evening rise	5057 Mar 17 15:37	6°♿06'44		max. Earth dist.	5058 Feb 09 10:48	18°♿20'31	1.44732 AU
asc. node	5057 Mar 28 18:34	24°♿58'29					
	5057 Apr 01 07:40	0°♿		superior conj	5058 Feb 13 01:07	24°♿02'55	-1°-55'-52
evening max el	5057 Apr 03 22:00	2°♿57'41	18°07'18	minimum elong	5058 Feb 12 17:53	23°♿34'07	1°55'25
retrograde	5057 Apr 10 09:24	6°♿19'50			5058 Feb 16 18:11	0°♿	
evening set	5057 Apr 13 02:46	5°♿43'11		evening rise	5058 Feb 27 07:43	17°♿20'10	
inferior conj	5057 Apr 19 11:39	0°♿34'05	3°18'23		5058 Mar 06 22:39	0°♿	
minimum elong	5057 Apr 19 13:41	0°♿28'50	3°18'06	asc. node	5058 Mar 15 15:36	13°♿07'06	
	5057 Apr 20 00:48	30°♿		evening max el	5058 Mar 18 10:43	16°♿20'14	18°22'12
min. Earth dist.	5057 Apr 22 10:18	27°♿32'55	0.62127 AU	retrograde	5058 Mar 24 21:33	19°♿49'17	
morning rise	5057 Apr 25 21:53	24°♿31'34		evening set	5058 Mar 27 21:05	19°♿00'47	
direct	5057 May 02 17:34	22°♿03'20		inferior conj	5058 Apr 02 19:44	13°♿32'46	3°32'36
desc. node	5057 May 04 04:16	22°♿09'34		minimum elong	5058 Apr 02 20:07	13°♿31'39	3°32'35
	5057 May 16 19:10	0°♿		min. Earth dist.	5058 Apr 05 03:46	10°♿52'04	0.64101 AU
morning max el	5057 May 16 20:37	0°♿03'36	27°52'49	morning rise	5058 Apr 08 17:23	7°♿21'33	
	5057 Jun 07 13:49	0°♿		direct	5058 Apr 15 12:32	4°♿36'16	
morning set	5057 Jun 19 11:10	22°♿12'07		desc. node	5058 Apr 21 01:18	6°♿08'05	
	5057 Jun 23 05:07	0°♿		morning max el	5058 Apr 29 05:29	12°♿34'10	27°32'56
asc. node	5057 Jun 24 17:52	3°♿16'28			5058 May 13 03:45	0°♿	
max. Earth dist.	5057 Jun 25 03:05	4°♿06'06	1.32334 AU		5058 May 31 02:13	0°♿	
				morning set	5058 Jun 03 05:25	6°♿03'32	
superior conj	5057 Jun 27 00:03	8°♿10'06	0°23'22	max. Earth dist.	5058 Jun 08 04:10	16°♿06'33	1.33153 AU
minimum elong	5057 Jun 26 22:59	8°♿04'17	0°23'08				
evening rise	5057 Jul 03 22:09	23°♿12'51		superior conj	5058 Jun 11 05:58	22°♿36'18	0°-3'-52
	5057 Jul 07 04:14	0°♿		minimum elong	5058 Jun 11 06:09	22°♿37'20	0°03'51
	5057 Jul 25 20:08	0°♿		behind sun begin	5058 Jun 11 00:53	22°♿09'13	
evening max el	5057 Jul 28 17:57	3°♿02'49	24°16'39	behind sun end	5058 Jun 11 11:25	23°♿05'29	
desc. node	5057 Jul 31 03:33	5°♿11'03		asc. node	5058 Jun 11 14:54	23°♿24'06	
retrograde	5057 Aug 11 13:42	10°♿00'39			5058 Jun 14 16:34	0°♿	
evening set	5057 Aug 16 10:28	9°♿08'00		evening rise	5058 Jun 18 09:45	7°♿57'01	
min. Earth dist.	5057 Aug 22 04:46	6°♿14'17	0.56509 AU		5058 Jun 30 00:10	0°♿	
inferior conj	5057 Aug 24 18:17	4°♿37'58	-5°-15'-4	evening max el	5058 Jul 10 07:19	13°♿25'00	22°39'08
minimum elong	5057 Aug 24 16:19	4°♿41'04	5°15'00	desc. node	5058 Jul 18 00:35	18°♿50'01	
morning rise	5057 Sep 02 01:36	0°♿37'14		retrograde	5058 Jul 23 11:37	19°♿58'32	
direct	5057 Sep 04 18:11	0°♿18'02		evening set	5058 Jul 26 19:53	19°♿34'00	
morning max el	5057 Sep 14 11:22	4°♿50'18	19°40'05	min. Earth dist.	5058 Aug 03 15:08	16°♿07'53	0.55232 AU
asc. node	5057 Sep 20 17:06	12°♿26'14		inferior conj	5058 Aug 04 21:35	15°♿24'28	-4°-35'-8
	5057 Sep 30 13:22	0°♿		minimum elong	5058 Aug 04 13:49	15°♿35'34	4°33'36
morning set	5057 Oct 02 00:29	2°♿55'47		morning rise	5058 Aug 13 10:06	11°♿34'32	
				direct	5058 Aug 16 12:03	11°♿12'40	
superior conj	5057 Oct 09 23:08	18°♿55'44	1°39'11	morning max el	5058 Aug 27 19:16	16°♿28'29	20°59'16
minimum elong	5057 Oct 10 00:50	19°♿04'08	1°39'06		5058 Sep 07 02:01	0°♿	
	5057 Oct 15 17:14	0°♿		asc. node	5058 Sep 07 14:10	0°♿51'20	
max. Earth dist.	5057 Oct 16 00:05	0°♿31'56	1.37518 AU	morning set	5058 Sep 16 08:14	17°♿38'48	
evening rise	5057 Oct 19 19:19	7°♿27'06			5058 Sep 22 06:24	0°♿	
desc. node	5057 Oct 27 02:51	19°♿56'19					
	5057 Nov 02 11:53	0°♿		superior conj	5058 Sep 23 18:51	3°♿08'30	1°43'32
evening max el	5057 Nov 24 10:54	28°♿24'16	25°21'39	minimum elong	5058 Sep 23 19:00	3°♿09'17	1°43'32
	5057 Nov 26 03:41	0°♿		max. Earth dist.	5058 Sep 28 09:06	12°♿24'36	1.35626 AU
retrograde	5057 Dec 06 12:53	5°♿22'10		evening rise	5058 Oct 02 12:30	20°♿22'24	
evening set	5057 Dec 12 08:21	2°♿58'04			5058 Oct 07 20:10	0°♿	
	5057 Dec 15 05:38	30°♿		desc. node	5058 Oct 13 23:53	10°♿19'01	
min. Earth dist.	5057 Dec 16 19:27	28°♿02'34	0.67311 AU		5058 Oct 27 11:18	0°♿	
inferior conj	5057 Dec 17 23:36	26°♿31'32	0°06'12	evening max el	5058 Nov 06 23:41	12°♿07'05	26°25'06
minimum elong	5057 Dec 17 23:26	26°♿32'02	0°06'08	retrograde	5058 Nov 19 19:41	19°♿19'36	
transit middle	5057 Dec 17 23:26	26°♿32'02	0°06'08	evening set	5058 Nov 26 04:27	16°♿45'03	
transit begin	5057 Dec 17 20:52	26°♿40'24		min. Earth dist.	5058 Nov 30 08:37	12°♿25'09	0.66385 AU
transit end	5057 Dec 18 02:01	26°♿23'41		inferior conj	5058 Dec 02 00:04	10°♿25'33	0°-52'-15
asc. node	5057 Dec 17 16:19	26°♿55'08		minimum elong	5058 Dec 02 01:30	10°♿21'12	0°51'38
morning rise	5057 Dec 23 15:19	20°♿33'28		asc. node	5058 Dec 04 13:22	7°♿28'20	
direct	5057 Dec 27 00:14	19°♿27'56		morning rise	5058 Dec 07 23:52	4°♿37'40	
morning max el	5058 Jan 03 03:22	23°♿26'56	19°22'36	direct	5058 Dec 10 22:33	3°♿48'39	
	5058 Jan 08 15:31	0°♿		morning max el	5058 Dec 17 14:11	7°♿26'35	18°34'53
greatest brilliancy	5058 Jan 12 02:53	4°♿49'50	-0.7m		5059 Jan 02 12:09	0°♿	
desc. node	5058 Jan 23 02:05	21°♿18'42		morning set	5059 Jan 07 02:46	7°♿18'21	
morning set	5058 Jan 27 06:43	27°♿46'50		desc. node	5059 Jan 09 23:07	11°♿49'10	

	5059 Jan 21 12:16	0°♊			5059 Dec 26 07:20	0°♋	
				desc. node	5059 Dec 27 20:10	2°♋29'10	
superior conj	5059 Jan 23 05:35	2°♊41'58	-1°-23'-40				
minimum elong	5059 Jan 22 20:22	2°♊05'49	1°22'40	superior conj	5060 Jan 02 12:34	11°♋35'19	0°-38'-45
max. Earth dist.	5059 Jan 23 04:54	2°♊39'17	1.45306 AU	minimum elong	5060 Jan 02 07:47	11°♋16'20	0°38'06
evening rise	5059 Feb 08 00:34	27°♊36'34		max. Earth dist.	5060 Jan 06 00:49	17°♋08'13	1.45130 AU
	5059 Feb 09 12:35	0°♋			5060 Jan 14 06:26	0°♋	
evening max el	5059 Mar 01 21:14	29°♋49'42	18°54'54	evening rise	5060 Jan 18 20:55	7°♋07'53	
	5059 Mar 02 01:19	0°♌			5060 Feb 02 21:24	0°♋	
asc. node	5059 Mar 02 12:38	0°♌27'35		greatest brilliancy	5060 Feb 05 17:04	4°♋03'30	-0.6m
retrograde	5059 Mar 08 15:53	3°♌37'38		evening max el	5060 Feb 13 03:35	13°♋22'39	19°43'58
evening set	5059 Mar 11 22:08	2°♌36'15		asc. node	5060 Feb 17 09:40	16°♋47'04	
	5059 Mar 14 22:07	30°♌		retrograde	5060 Feb 20 13:25	17°♋39'46	
inferior conj	5059 Mar 17 13:50	26°♌50'54	3°29'33	evening set	5060 Feb 24 03:24	16°♋24'38	
minimum elong	5059 Mar 17 12:50	26°♌54'03	3°29'29	inferior conj	5060 Feb 29 14:54	10°♋24'05	3°13'16
min. Earth dist.	5059 Mar 19 06:14	24°♌44'42	0.65723 AU	minimum elong	5060 Feb 29 12:58	10°♋30'31	3°12'57
morning rise	5059 Mar 23 02:27	20°♌35'43		min. Earth dist.	5060 Mar 01 16:29	8°♋59'09	0.66925 AU
direct	5059 Mar 29 14:17	17°♌47'17		morning rise	5060 Mar 05 21:52	4°♋07'38	
desc. node	5059 Apr 07 22:20	22°♌05'18		direct	5060 Mar 11 21:53	1°♋27'54	
morning max el	5059 Apr 11 15:24	25°♌30'15	26°41'42	morning max el	5060 Mar 24 00:46	8°♋42'03	25°27'45
	5059 Apr 15 18:05	0°♍		desc. node	5060 Mar 24 19:22	9°♋29'54	
	5059 May 06 16:01	0°♎			5060 Apr 09 18:12	0°♍	
morning set	5059 May 17 12:38	19°♎18'26			5060 Apr 28 05:10	0°♎	
max. Earth dist.	5059 May 21 18:53	27°♎35'43	1.34443 AU	morning set	5060 Apr 29 04:31	1°♎45'17	
	5059 May 22 23:41	0°♏		max. Earth dist.	5060 May 02 22:38	8°♎41'50	1.36184 AU
superior conj	5059 May 26 05:48	6°♏39'25	0°-33'-6	superior conj	5060 May 08 20:53	20°♎12'27	-1°-2'-52
minimum elong	5059 May 26 07:35	6°♏48'40	0°32'46	minimum elong	5060 May 09 00:22	20°♎29'48	1°02'17
asc. node	5059 May 29 11:56	13°♏27'43			5060 May 13 17:06	0°♏	
evening rise	5059 Jun 02 19:20	22°♏30'09		asc. node	5060 May 15 08:58	3°♏23'33	
	5059 Jun 06 11:41	0°♐		evening rise	5060 May 17 00:47	6°♏46'13	
evening max el	5059 Jun 22 04:01	24°♐01'52	21°07'54		5060 May 30 01:46	0°♐	
retrograde	5059 Jul 04 00:32	29°♐52'00		evening max el	5060 Jun 03 12:44	5°♐15'41	19°52'40
desc. node	5059 Jul 04 21:36	29°♐50'10		retrograde	5060 Jun 13 16:20	10°♐13'30	
evening set	5059 Jul 06 07:07	29°♐39'55		evening set	5060 Jun 15 14:26	10°♐03'37	
inferior conj	5059 Jul 15 14:57	25°♐42'15	-3°-5'-2	desc. node	5060 Jun 20 18:36	8°♐12'17	
minimum elong	5059 Jul 15 06:51	25°♐53'37	3°02'28	inferior conj	5060 Jun 24 12:45	6°♐02'28	-1°-7'-22
min. Earth dist.	5059 Jul 16 01:37	25°♐27'15	0.54796 AU	minimum elong	5060 Jun 24 09:38	6°♐07'14	1°06'13
morning rise	5059 Jul 24 06:37	21°♐45'34		min. Earth dist.	5060 Jun 26 14:00	4°♐47'23	0.55320 AU
direct	5059 Jul 27 21:18	21°♐17'31		morning rise	5060 Jul 03 02:02	1°♐39'12	
morning max el	5059 Aug 09 15:58	27°♐22'09	22°35'53	direct	5060 Jul 07 10:42	0°♐57'30	
	5059 Aug 12 06:03	0°♑		morning max el	5060 Jul 21 06:19	7°♐47'28	24°20'00
asc. node	5059 Aug 25 11:13	19°♑51'19			5060 Aug 06 10:10	0°♑	
	5059 Aug 30 14:11	0°♒		asc. node	5060 Aug 11 08:15	9°♑17'09	
morning set	5059 Aug 31 18:52	2°♒29'32		morning set	5060 Aug 15 06:36	17°♑22'45	
					5060 Aug 21 02:40	0°♒	
superior conj	5059 Sep 07 22:09	17°♒42'55	1°40'52	superior conj	5060 Aug 22 06:21	2°♒30'43	1°32'14
minimum elong	5059 Sep 07 21:03	17°♒37'04	1°40'49	minimum elong	5060 Aug 22 04:25	2°♒20'14	1°32'02
max. Earth dist.	5059 Sep 11 02:25	24°♒23'37	1.34077 AU	max. Earth dist.	5060 Aug 24 04:17	6°♒39'14	1.32937 AU
	5059 Sep 13 20:19	0°♓		evening rise	5060 Aug 29 15:20	18°♒05'55	
evening rise	5059 Sep 15 20:28	3°♓58'50			5060 Sep 04 18:34	0°♓	
desc. node	5059 Sep 30 20:55	0°♔22'36		desc. node	5060 Sep 16 17:55	19°♓58'37	
	5059 Sep 30 15:08	0°♕			5060 Sep 24 00:32	0°♔	
evening max el	5059 Oct 20 12:29	25°♕40'25	27°09'12	evening max el	5060 Oct 01 23:36	8°♔51'28	27°27'04
	5059 Oct 25 18:38	0°♖		retrograde	5060 Oct 15 15:22	16°♔08'18	
retrograde	5059 Nov 02 20:40	2°♖58'00		evening set	5060 Oct 22 18:41	13°♔33'13	
evening set	5059 Nov 09 16:50	0°♖18'46		min. Earth dist.	5060 Oct 26 11:12	10°♔22'13	0.63494 AU
	5059 Nov 10 02:13	30°♗		inferior conj	5060 Oct 29 02:31	7°♔43'07	-2°-57'-42
min. Earth dist.	5059 Nov 13 14:34	26°♗34'40	0.65108 AU	minimum elong	5060 Oct 29 07:38	7°♔30'14	2°55'53
inferior conj	5059 Nov 15 17:55	24°♗11'36	-1°-54'-21	morning rise	5060 Nov 04 23:14	2°♔25'17	
minimum elong	5059 Nov 15 21:13	24°♗02'25	1°53'01	direct	5060 Nov 07 08:22	1°♔57'55	
asc. node	5059 Nov 21 10:25	18°♗59'14		asc. node	5060 Nov 07 07:28	1°♔57'55	
morning rise	5059 Nov 22 03:32	18°♗37'03		morning max el	5060 Nov 13 22:23	5°♔22'53	17°50'11
direct	5059 Nov 24 18:13	18°♗00'42		morning set	5060 Nov 30 08:13	0°♗35'07	
morning max el	5059 Dec 01 05:30	21°♗27'42	18°03'53		5060 Nov 30 00:08	0°♗	
	5059 Dec 07 20:29	0°♘					
morning set	5059 Dec 19 04:31	18°♘19'21					

superior conj	5060 Dec 12 15:49	21°♂30'13	0°07'26	morning set	5061 Nov 13 07:30	13°♂46'49	
minimum elong	5060 Dec 12 16:37	21°♂33'28	0°07'20		5061 Nov 22 08:14	0°♂	
behind sun begin	5060 Dec 12 07:59	20°♂57'55					
behind sun end	5060 Dec 13 01:14	22°♂08'56		superior conj	5061 Nov 23 21:37	2°♂42'49	0°46'20
desc. node	5060 Dec 13 17:11	23°♂14'22		minimum elong	5061 Nov 24 01:15	2°♂58'30	0°45'51
	5060 Dec 17 21:17	0°♂		desc. node	5061 Nov 30 14:13	14°♂01'44	
max. Earth dist.	5060 Dec 18 18:45	1°♂25'58	1.44235 AU	max. Earth dist.	5061 Dec 01 08:13	15°♂15'53	1.42740 AU
evening rise	5060 Dec 28 07:04	16°♂20'11		evening rise	5061 Dec 07 22:57	25°♂53'25	
	5061 Jan 06 07:15	0°♂			5061 Dec 10 14:09	0°♂	
greatest brilliancy	5061 Jan 20 15:28	20°♂24'52	-0.5m		5061 Dec 31 05:18	0°♂	
evening max el	5061 Jan 26 04:30	26°♂56'17	20°47'14	greatest brilliancy	5062 Jan 04 06:38	5°♂11'13	-0.3m
	5061 Jan 29 16:13	0°♂		evening max el	5062 Jan 09 00:03	10°♂31'26	22°01'05
retrograde	5061 Feb 03 11:43	1°♂50'17		retrograde	5062 Jan 18 08:47	16°♂05'30	
asc. node	5061 Feb 03 06:42	1°♂50'03		asc. node	5062 Jan 21 03:44	15°♂24'10	
evening set	5061 Feb 07 10:48	0°♂20'34		evening set	5062 Jan 22 18:37	14°♂20'24	
	5061 Feb 07 21:05	30°♂		inferior conj	5062 Jan 28 03:58	7°♂58'27	2°10'47
inferior conj	5061 Feb 12 20:19	24°♂07'35	2°46'25	minimum elong	5062 Jan 28 01:38	8°♂06'35	2°10'02
minimum elong	5061 Feb 12 17:57	24°♂15'46	2°45'50	min. Earth dist.	5062 Jan 28 04:15	7°♂57'27	0.68069 AU
min. Earth dist.	5061 Feb 13 08:35	23°♂25'24	0.67699 AU	morning rise	5062 Feb 02 08:25	1°♂45'02	
morning rise	5061 Feb 18 00:39	17°♂51'47			5062 Feb 05 08:34	30°♂	
direct	5061 Feb 23 10:36	15°♂28'59		direct	5062 Feb 07 03:39	29°♂43'42	
morning max el	5061 Mar 06 09:29	22°♂01'16	24°01'10		5062 Feb 09 00:41	0°♂	
desc. node	5061 Mar 11 16:23	27°♂56'38		morning max el	5062 Feb 16 19:51	5°♂26'20	22°32'02
	5061 Mar 13 08:18	0°♂		greatest brilliancy	5062 Feb 21 09:31	10°♂32'01	-0.3m
	5061 Apr 03 01:26	0°♂		desc. node	5062 Feb 26 13:26	17°♂07'55	
morning set	5061 Apr 10 23:30	13°♂09'07			5062 Mar 07 16:20	0°♂	
max. Earth dist.	5061 Apr 14 18:48	19°♂49'10	1.38261 AU	morning set	5062 Mar 22 15:43	23°♂15'09	
	5061 Apr 20 08:16	0°♂			5062 Mar 26 17:12	0°♂	
				max. Earth dist.	5062 Mar 27 14:45	1°♂31'14	1.40458 AU
superior conj	5061 Apr 21 23:45	3°♂06'30	-1°-30'-57				
minimum elong	5061 Apr 22 04:32	3°♂29'15	1°30'20	superior conj	5062 Apr 04 10:01	15°♂11'09	-1°-54'-2
evening rise	5061 Apr 30 23:31	20°♂38'01		minimum elong	5062 Apr 04 14:46	15°♂32'35	1°53'39
asc. node	5061 May 02 06:00	23°♂07'11			5062 Apr 12 10:04	0°♂	
	5061 May 05 20:19	0°♂		evening rise	5062 Apr 14 12:19	3°♂57'07	
evening max el	5061 May 17 09:19	17°♂11'50	18°57'21	asc. node	5062 Apr 19 03:01	12°♂33'21	
retrograde	5061 May 25 22:28	21°♂23'03		evening max el	5062 Apr 30 14:52	29°♂44'08	18°22'25
evening set	5061 May 27 23:20	21°♂09'45			5062 Apr 30 21:28	0°♂	
inferior conj	5061 Jun 05 03:26	16°♂53'37	0°43'45	retrograde	5062 May 07 23:22	3°♂23'20	
minimum elong	5061 Jun 05 05:08	16°♂50'37	0°43'09	evening set	5062 May 10 06:47	3°♂02'41	
desc. node	5061 Jun 07 15:35	15°♂07'33			5062 May 15 16:55	30°♂	
min. Earth dist.	5061 Jun 08 05:45	14°♂43'21	0.56707 AU	inferior conj	5062 May 17 15:38	28°♂26'23	2°07'30
morning rise	5061 Jun 13 06:25	11°♂54'02		minimum elong	5062 May 17 19:08	28°♂19'10	2°06'30
direct	5061 Jun 18 13:26	10°♂47'17		min. Earth dist.	5062 May 21 02:11	25°♂37'20	0.58684 AU
morning max el	5061 Jul 02 20:48	18°♂11'40	25°56'20	morning rise	5062 May 25 03:06	22°♂54'46	
	5061 Jul 12 17:01	0°♂		desc. node	5062 May 25 12:37	22°♂42'26	
asc. node	5061 Jul 29 05:17	29°♂01'46		direct	5062 May 31 06:37	21°♂14'38	
	5061 Jul 29 16:29	0°♂		morning max el	5062 Jun 14 16:01	29°♂00'07	27°09'08
morning set	5061 Jul 30 17:51	2°♂13'23			5062 Jun 15 15:53	0°♂	
					5062 Jul 06 11:58	0°♂	
superior conj	5061 Aug 06 17:19	17°♂25'04	1°18'25	morning set	5062 Jul 15 02:56	16°♂55'14	
minimum elong	5061 Aug 06 15:01	17°♂12'26	1°18'05	asc. node	5062 Jul 16 02:18	18°♂58'35	
max. Earth dist.	5061 Aug 07 12:23	19°♂10'02	1.32220 AU		5062 Jul 21 04:01	0°♂	
	5061 Aug 12 12:32	0°♂		superior conj	5062 Jul 22 05:07	2°♂18'41	1°00'05
evening rise	5061 Aug 13 17:59	2°♂34'34		minimum elong	5062 Jul 22 02:56	2°♂06'37	0°59'41
	5061 Aug 28 14:58	0°♂		max. Earth dist.	5062 Jul 21 23:27	1°♂47'20	1.31932 AU
desc. node	5061 Sep 03 14:55	8°♂55'50		evening rise	5062 Jul 29 01:46	17°♂15'59	
evening max el	5061 Sep 14 06:51	21°♂28'04	27°13'30		5062 Aug 04 09:12	0°♂	
retrograde	5061 Sep 28 03:16	28°♂41'24		desc. node	5062 Aug 21 11:56	26°♂57'26	
evening set	5061 Oct 05 06:19	26°♂22'17			5062 Aug 24 02:30	0°♂	
min. Earth dist.	5061 Oct 08 21:23	23°♂36'35	0.61593 AU	evening max el	5062 Aug 27 07:49	3°♂18'49	26°26'28
inferior conj	5061 Oct 11 22:51	20°♂53'03	-3°-58'-2	retrograde	5062 Sep 10 06:46	10°♂27'33	
minimum elong	5061 Oct 12 05:05	20°♂39'07	3°56'19	evening set	5062 Sep 16 22:58	8°♂37'04	
morning rise	5061 Oct 19 07:03	15°♂55'04		min. Earth dist.	5062 Sep 20 21:20	6°♂02'38	0.59529 AU
direct	5061 Oct 21 13:36	15°♂33'19		inferior conj	5062 Sep 24 03:19	3°♂31'06	-4°-48'-5
asc. node	5061 Oct 25 04:30	16°♂30'38		minimum elong	5062 Sep 24 08:49	3°♂20'21	4°47'09
morning max el	5061 Oct 28 13:43	19°♂04'50	17°54'41		5062 Sep 29 06:21	30°♂	
	5061 Nov 05 12:47	0°♂					

morning rise	5062 Oct 01 22:09	28° \mathbb{M} 55'30		minimum elong	5063 Sep 05 14:20	15° \mathbb{M} 25'07	5°15'40
direct	5062 Oct 04 05:44	28° \mathbb{M} 36'26		morning rise	5063 Sep 13 16:08	11° \mathbb{M} 15'19	
	5062 Oct 08 22:46	0° \mathbb{A}		direct	5063 Sep 16 04:43	10° \mathbb{M} 56'32	
morning max el	5062 Oct 12 00:04	2° \mathbb{A} 23'20	18°18'49	morning max el	5063 Sep 25 02:02	15° \mathbb{M} 08'45	19°04'07
asc. node	5062 Oct 12 01:32	2° \mathbb{A} 26'53		asc. node	5063 Sep 28 22:35	19° \mathbb{M} 32'01	
morning set	5062 Oct 27 20:40	27° \mathbb{A} 37'29			5063 Oct 05 13:30	0° \mathbb{A}	
	5062 Oct 29 02:35	0° \mathbb{M}		morning set	5063 Oct 11 19:23	11° \mathbb{A} 54'59	
superior conj	5062 Nov 06 03:17	15° \mathbb{M} 04'20	1°14'51	superior conj	5063 Oct 20 03:33	28° \mathbb{A} 19'53	1°32'59
minimum elong	5062 Nov 06 07:06	15° \mathbb{M} 21'43	1°14'25	minimum elong	5063 Oct 20 06:09	28° \mathbb{A} 32'25	1°32'48
max. Earth dist.	5062 Nov 13 16:45	28° \mathbb{M} 27'09	1.40821 AU		5063 Oct 21 00:26	0° \mathbb{M}	
	5062 Nov 14 14:34	0° \mathbb{A}		max. Earth dist.	5063 Oct 26 22:03	10° \mathbb{M} 57'18	1.38715 AU
desc. node	5062 Nov 17 11:14	4° \mathbb{A} 47'29		evening rise	5063 Oct 30 18:40	17° \mathbb{M} 45'44	
evening rise	5062 Nov 18 09:20	6° \mathbb{A} 18'30		desc. node	5063 Nov 04 08:16	25° \mathbb{M} 27'47	
	5062 Dec 03 18:12	0° \mathbb{A}			5063 Nov 07 03:22	0° \mathbb{A}	
evening max el	5062 Dec 22 15:31	24° \mathbb{A} 10'01	23°20'35		5063 Nov 28 03:59	0° \mathbb{A}	
	5062 Dec 30 20:50	0° \mathbb{A}		evening max el	5063 Dec 05 04:41	7° \mathbb{A} 52'11	24°39'24
retrograde	5063 Jan 02 03:07	0° \mathbb{A} 22'04		retrograde	5063 Dec 16 17:31	14° \mathbb{A} 35'34	
	5063 Jan 04 06:35	30° \mathbb{R} \mathbb{A}		evening set	5063 Dec 22 05:12	12° \mathbb{A} 19'19	
evening set	5063 Jan 07 01:17	28° \mathbb{A} 21'10		asc. node	5063 Dec 25 21:49	8° \mathbb{A} 18'22	
asc. node	5063 Jan 08 00:46	27° \mathbb{A} 27'30		min. Earth dist.	5063 Dec 26 20:40	7° \mathbb{A} 03'58	0.67688 AU
inferior conj	5063 Jan 12 11:58	21° \mathbb{A} 54'05	1°27'33	inferior conj	5063 Dec 27 18:29	5° \mathbb{A} 51'26	0°37'38
minimum elong	5063 Jan 12 10:07	22° \mathbb{A} 00'26	1°26'51	minimum elong	5063 Dec 27 17:35	5° \mathbb{A} 54'26	0°37'15
min. Earth dist.	5063 Jan 12 01:04	22° \mathbb{A} 31'31	0.68059 AU	morning rise	5064 Jan 02 06:26	29° \mathbb{A} 48'51	
morning rise	5063 Jan 17 19:01	15° \mathbb{A} 45'02			5064 Jan 02 00:17	30° \mathbb{R} \mathbb{A}	
direct	5063 Jan 21 23:59	14° \mathbb{A} 06'31		direct	5064 Jan 05 22:15	28° \mathbb{A} 32'01	
morning max el	5063 Jan 30 11:33	19° \mathbb{A} 01'02	21°08'50		5064 Jan 10 03:10	0° \mathbb{A}	
greatest brilliancy	5063 Feb 04 18:11	25° \mathbb{A} 03'15	-0.4m	morning max el	5064 Jan 13 11:02	2° \mathbb{A} 47'32	19°57'15
	5063 Feb 08 12:45	0° \mathbb{A}		greatest brilliancy	5064 Jan 20 14:24	11° \mathbb{A} 25'42	-0.6m
desc. node	5063 Feb 13 10:28	6° \mathbb{A} 51'24		desc. node	5064 Jan 31 07:30	26° \mathbb{A} 57'52	
	5063 Feb 28 20:22	0° \mathbb{A}			5064 Feb 02 07:45	0° \mathbb{A}	
morning set	5063 Mar 02 03:53	2° \mathbb{A} 03'22		morning set	5064 Feb 09 00:22	10° \mathbb{A} 13'59	
max. Earth dist.	5063 Mar 09 17:05	14° \mathbb{A} 09'11	1.42492 AU	max. Earth dist.	5064 Feb 20 03:21	27° \mathbb{A} 39'40	1.44093 AU
					5064 Feb 21 14:27	0° \mathbb{A}	
superior conj	5063 Mar 16 22:45	26° \mathbb{A} 15'08	-2°-7'-28	superior conj	5064 Feb 25 10:03	6° \mathbb{A} 10'01	-2°-5'-39
minimum elong	5063 Mar 17 00:48	26° \mathbb{A} 23'56	2°07'25	minimum elong	5064 Feb 25 06:19	5° \mathbb{A} 54'52	2°05'33
	5063 Mar 19 03:01	0° \mathbb{A}		evening rise	5064 Mar 09 15:48	28° \mathbb{A} 20'39	
evening rise	5063 Mar 28 11:14	16° \mathbb{A} 34'33			5064 Mar 10 14:59	0° \mathbb{A}	
	5063 Apr 05 01:09	0° \mathbb{A}		asc. node	5064 Mar 22 21:06	20° \mathbb{A} 06'54	
asc. node	5063 Apr 06 00:03	1° \mathbb{A} 36'01		evening max el	5064 Mar 27 14:37	25° \mathbb{A} 58'41	18°11'21
evening max el	5063 Apr 14 01:46	12° \mathbb{A} 43'06	18°07'18	retrograde	5064 Apr 03 00:32	29° \mathbb{A} 22'06	
retrograde	5063 Apr 20 17:33	16° \mathbb{A} 06'51		evening set	5064 Apr 05 20:35	28° \mathbb{A} 40'23	
evening set	5063 Apr 23 07:32	15° \mathbb{A} 36'21		inferior conj	5064 Apr 12 00:38	23° \mathbb{A} 22'44	3°26'48
inferior conj	5063 Apr 30 00:01	10° \mathbb{A} 38'50	3°00'16	minimum elong	5064 Apr 12 01:58	23° \mathbb{A} 19'08	3°26'41
minimum elong	5063 Apr 30 02:54	10° \mathbb{A} 31'55	2°59'42	min. Earth dist.	5064 Apr 14 17:14	20° \mathbb{A} 28'27	0.63008 AU
min. Earth dist.	5063 May 03 05:19	7° \mathbb{A} 35'17	0.60888 AU	morning rise	5064 Apr 18 05:07	17° \mathbb{A} 15'54	
morning rise	5063 May 06 18:59	4° \mathbb{A} 45'08		direct	5064 Apr 25 01:28	14° \mathbb{A} 39'07	
desc. node	5063 May 12 09:39	2° \mathbb{A} 35'40		desc. node	5064 Apr 28 06:42	15° \mathbb{A} 10'05	
direct	5063 May 13 11:28	2° \mathbb{A} 32'19		morning max el	5064 May 09 00:43	22° \mathbb{A} 38'45	27°48'39
morning max el	5063 May 27 17:40	10° \mathbb{A} 28'39	27°47'44		5064 May 15 12:33	0° \mathbb{A}	
	5063 Jun 11 22:06	0° \mathbb{A}			5064 Jun 04 03:22	0° \mathbb{A}	
	5063 Jun 28 15:53	0° \mathbb{A}		morning set	5064 Jun 12 07:01	15° \mathbb{A} 29'33	
morning set	5063 Jun 29 08:02	1° \mathbb{A} 22'57		max. Earth dist.	5064 Jun 17 15:39	26° \mathbb{A} 36'32	1.32633 AU
asc. node	5063 Jul 02 23:20	9° \mathbb{A} 03'01		asc. node	5064 Jun 18 20:23	29° \mathbb{A} 10'19	
max. Earth dist.	5063 Jul 05 09:51	14° \mathbb{A} 20'25	1.32070 AU		5064 Jun 19 05:37	0° \mathbb{A}	
superior conj	5063 Jul 06 16:05	17° \mathbb{A} 06'08	0°37'47	superior conj	5064 Jun 20 00:22	1° \mathbb{A} 41'15	0°12'08
minimum elong	5063 Jul 06 14:29	16° \mathbb{A} 57'18	0°37'27	minimum elong	5064 Jun 19 23:47	1° \mathbb{A} 38'06	0°12'00
	5063 Jul 12 13:31	0° \mathbb{A}		behind sun begin	5064 Jun 19 20:18	1° \mathbb{A} 19'15	
evening rise	5063 Jul 13 12:35	2° \mathbb{A} 03'31		behind sun end	5064 Jun 20 03:16	1° \mathbb{A} 56'58	
	5063 Jul 28 14:18	0° \mathbb{A}		evening rise	5064 Jun 27 00:26	16° \mathbb{A} 50'23	
desc. node	5063 Aug 08 08:56	13° \mathbb{A} 41'08			5064 Jul 03 12:27	0° \mathbb{A}	
evening max el	5063 Aug 09 01:17	14° \mathbb{A} 21'00	25°09'47	evening max el	5064 Jul 20 13:53	24° \mathbb{A} 08'10	23°35'12
retrograde	5063 Aug 22 23:39	21° \mathbb{A} 23'54		desc. node	5064 Jul 25 05:57	28° \mathbb{A} 37'18	
evening set	5063 Aug 28 15:58	20° \mathbb{A} 10'12			5064 Jul 27 15:06	0° \mathbb{A}	
min. Earth dist.	5063 Sep 02 12:54	17° \mathbb{A} 28'51	0.57526 AU	retrograde	5064 Aug 03 04:30	1° \mathbb{A} 37'53	
inferior conj	5063 Sep 05 12:43	15° \mathbb{A} 27'51	-5°-15'-42				

evening set	5064 Aug 07 09:50	0° $\mathring{\text{M}}$ 58'47		evening max el	5065 Jul 02 05:15	5° $\mathring{\text{Q}}$ 11'46	21°58'43
	5064 Aug 09 23:52	30° $\mathring{\text{R}}$ $\mathring{\text{Q}}$		desc. node	5065 Jul 12 02:58	11° $\mathring{\text{Q}}$ 11'24	
min. Earth dist.	5064 Aug 13 23:41	27° $\mathring{\text{Q}}$ 53'04	0.55880 AU	retrograde	5065 Jul 14 22:07	11° $\mathring{\text{Q}}$ 29'42	
inferior conj	5064 Aug 16 01:57	26° $\mathring{\text{Q}}$ 38'07	-5°-4'-35	evening set	5065 Jul 17 17:17	11° $\mathring{\text{Q}}$ 12'12	
minimum elong	5064 Aug 15 21:11	26° $\mathring{\text{Q}}$ 45'16	5°04'03	inferior conj	5065 Jul 26 23:28	7° $\mathring{\text{Q}}$ 08'51	-4°-2'-16
morning rise	5064 Aug 24 11:42	22° $\mathring{\text{Q}}$ 44'03		minimum elong	5065 Jul 26 14:42	7° $\mathring{\text{Q}}$ 21'09	4°00'02
direct	5064 Aug 27 08:12	22° $\mathring{\text{Q}}$ 23'53		min. Earth dist.	5065 Jul 26 09:46	7° $\mathring{\text{Q}}$ 28'03	0.54924 AU
morning max el	5064 Sep 06 16:55	27° $\mathring{\text{Q}}$ 12'56	20°11'23	morning rise	5065 Aug 04 13:45	3° $\mathring{\text{Q}}$ 18'47	
	5064 Sep 09 08:44	0° $\mathring{\text{M}}$		direct	5065 Aug 07 20:20	2° $\mathring{\text{Q}}$ 55'07	
asc. node	5064 Sep 14 19:38	7° $\mathring{\text{M}}$ 31'37		morning max el	5065 Aug 19 19:49	8° $\mathring{\text{Q}}$ 31'31	21°38'51
morning set	5064 Sep 25 00:34	26° $\mathring{\text{M}}$ 30'53		asc. node	5065 Sep 01 16:41	26° $\mathring{\text{Q}}$ 12'31	
	5064 Sep 26 17:26	0° $\mathring{\text{A}}$			5065 Sep 03 18:11	0° $\mathring{\text{M}}$	
				morning set	5065 Sep 09 09:44	11° $\mathring{\text{M}}$ 17'38	
superior conj	5064 Oct 02 17:24	12° $\mathring{\text{A}}$ 15'40	1°41'59	superior conj	5065 Sep 16 16:43	26° $\mathring{\text{M}}$ 38'51	1°43'12
minimum elong	5064 Oct 02 18:25	12° $\mathring{\text{A}}$ 20'49	1°41'57	minimum elong	5065 Sep 16 16:17	26° $\mathring{\text{M}}$ 36'38	1°43'12
max. Earth dist.	5064 Oct 08 04:13	22° $\mathring{\text{A}}$ 57'35	1.36674 AU		5065 Sep 18 07:27	0° $\mathring{\text{A}}$	
	5064 Oct 11 22:48	0° $\mathring{\text{M}}$		max. Earth dist.	5065 Sep 20 16:13	4° $\mathring{\text{A}}$ 49'33	1.34909 AU
evening rise	5064 Oct 12 01:21	0° $\mathring{\text{M}}$ 11'38		evening rise	5065 Sep 25 01:17	13° $\mathring{\text{A}}$ 25'27	
desc. node	5064 Oct 21 05:17	15° $\mathring{\text{M}}$ 58'31			5065 Oct 04 06:55	0° $\mathring{\text{M}}$	
	5064 Oct 30 08:20	0° $\mathring{\text{A}}$		desc. node	5065 Oct 08 02:17	6° $\mathring{\text{M}}$ 13'40	
evening max el	5064 Nov 16 17:14	21° $\mathring{\text{A}}$ 36'04	25°50'31		5065 Oct 25 06:55	0° $\mathring{\text{A}}$	
retrograde	5064 Nov 29 03:20	28° $\mathring{\text{A}}$ 41'19		evening max el	5065 Oct 30 05:51	5° $\mathring{\text{A}}$ 15'02	26°46'39
evening set	5064 Dec 05 04:44	26° $\mathring{\text{A}}$ 11'57		retrograde	5065 Nov 12 07:51	12° $\mathring{\text{A}}$ 31'36	
min. Earth dist.	5064 Dec 09 12:45	21° $\mathring{\text{A}}$ 31'49	0.66961 AU	evening set	5065 Nov 18 21:51	9° $\mathring{\text{A}}$ 53'50	
inferior conj	5064 Dec 10 21:43	19° $\mathring{\text{A}}$ 47'54	0°-18'-1	min. Earth dist.	5065 Nov 22 23:04	5° $\mathring{\text{A}}$ 49'26	0.65880 AU
minimum elong	5064 Dec 10 22:12	19° $\mathring{\text{A}}$ 46'25	0°17'49	inferior conj	5065 Nov 24 19:37	3° $\mathring{\text{A}}$ 38'46	-1°-18'-16
asc. node	5064 Dec 11 18:51	18° $\mathring{\text{A}}$ 41'48		minimum elong	5065 Nov 24 21:50	3° $\mathring{\text{A}}$ 32'18	1°17'20
morning rise	5064 Dec 16 16:40	13° $\mathring{\text{A}}$ 54'09			5065 Nov 28 04:14	30° $\mathring{\text{R}}$ $\mathring{\text{M}}$	
direct	5064 Dec 19 21:00	12° $\mathring{\text{A}}$ 56'08		asc. node	5065 Nov 28 15:54	29° $\mathring{\text{M}}$ 33'33	
morning max el	5064 Dec 26 18:19	16° $\mathring{\text{A}}$ 44'33	19°00'25	morning rise	5065 Nov 30 23:26	27° $\mathring{\text{M}}$ 56'22	
	5065 Jan 05 21:40	0° $\mathring{\text{B}}$		direct	5065 Dec 03 18:19	27° $\mathring{\text{M}}$ 13'23	
desc. node	5065 Jan 17 04:34	17° $\mathring{\text{B}}$ 21'17			5065 Dec 09 12:12	0° $\mathring{\text{A}}$	
morning set	5065 Jan 18 06:03	19° $\mathring{\text{B}}$ 00'38		morning max el	5065 Dec 10 07:25	0° $\mathring{\text{A}}$ 45'43	18°19'40
	5065 Jan 25 07:03	0° $\mathring{\text{A}}$		morning set	5065 Dec 29 14:34	29° $\mathring{\text{A}}$ 09'45	
max. Earth dist.	5065 Feb 01 19:31	11° $\mathring{\text{A}}$ 46'35	1.45068 AU		5065 Dec 30 03:02	0° $\mathring{\text{B}}$	
superior conj	5065 Feb 03 22:20	15° $\mathring{\text{A}}$ 06'41	-1°-44'-23	desc. node	5066 Jan 04 01:35	7° $\mathring{\text{B}}$ 55'59	
minimum elong	5065 Feb 03 13:24	14° $\mathring{\text{A}}$ 31'26	1°43'38	superior conj	5066 Jan 14 01:16	23° $\mathring{\text{B}}$ 44'43	-1°-5'-31
	5065 Feb 13 06:32	0° $\mathring{\text{H}}$		minimum elong	5066 Jan 13 17:22	23° $\mathring{\text{B}}$ 13'43	1°04'33
evening rise	5065 Feb 18 22:14	9° $\mathring{\text{H}}$ 10'20		max. Earth dist.	5066 Jan 15 14:15	26° $\mathring{\text{B}}$ 09'52	1.45317 AU
	5065 Mar 03 21:32	0° $\mathring{\text{Y}}$			5066 Jan 18 01:01	0° $\mathring{\text{A}}$	
asc. node	5065 Mar 09 18:08	7° $\mathring{\text{Y}}$ 56'34		evening rise	5066 Jan 30 05:34	19° $\mathring{\text{A}}$ 04'54	
evening max el	5065 Mar 11 02:38	9° $\mathring{\text{Y}}$ 24'32	18°33'51		5066 Feb 06 04:48	0° $\mathring{\text{H}}$	
retrograde	5065 Mar 17 15:54	13° $\mathring{\text{Y}}$ 00'31		greatest brilliancy	5066 Feb 13 04:34	10° $\mathring{\text{H}}$ 43'38	-0.7m
evening set	5065 Mar 20 18:08	12° $\mathring{\text{Y}}$ 06'40		evening max el	5066 Feb 22 11:30	22° $\mathring{\text{H}}$ 55'37	19°13'51
inferior conj	5065 Mar 26 13:26	6° $\mathring{\text{Y}}$ 30'47	3°33'07	asc. node	5066 Feb 24 15:09	24° $\mathring{\text{H}}$ 52'53	
minimum elong	5065 Mar 26 13:11	6° $\mathring{\text{Y}}$ 31'32	3°33'07	retrograde	5066 Mar 01 11:58	26° $\mathring{\text{H}}$ 55'12	
min. Earth dist.	5065 Mar 28 14:43	4° $\mathring{\text{Y}}$ 03'34	0.64842 AU	evening set	5066 Mar 04 21:15	25° $\mathring{\text{H}}$ 48'17	
morning rise	5065 Apr 01 06:48	0° $\mathring{\text{Y}}$ 17'09		inferior conj	5066 Mar 10 10:52	19° $\mathring{\text{H}}$ 56'14	3°24'05
	5065 Apr 01 15:08	30° $\mathring{\text{R}}$ $\mathring{\text{H}}$		minimum elong	5066 Mar 10 09:25	20° $\mathring{\text{H}}$ 00'56	3°23'55
direct	5065 Apr 07 23:20	27° $\mathring{\text{H}}$ 29'08		min. Earth dist.	5066 Mar 11 20:53	18° $\mathring{\text{H}}$ 06'49	0.66285 AU
desc. node	5065 Apr 15 03:45	0° $\mathring{\text{Y}}$ 03'13		morning rise	5066 Mar 15 20:40	13° $\mathring{\text{H}}$ 39'57	
	5065 Apr 15 01:48	0° $\mathring{\text{Y}}$		direct	5066 Mar 22 03:50	10° $\mathring{\text{H}}$ 53'44	
morning max el	5065 Apr 21 10:37	5° $\mathring{\text{Y}}$ 22'36	27°14'29	desc. node	5066 Apr 02 00:48	16° $\mathring{\text{H}}$ 41'09	
	5065 May 10 04:45	0° $\mathring{\text{B}}$		morning max el	5066 Apr 03 20:33	18° $\mathring{\text{H}}$ 27'09	26°12'24
morning set	5065 May 26 21:03	29° $\mathring{\text{B}}$ 06'40			5066 Apr 13 14:23	0° $\mathring{\text{Y}}$	
	5065 May 27 08:00	0° $\mathring{\text{H}}$			5066 May 03 04:54	0° $\mathring{\text{B}}$	
max. Earth dist.	5065 May 31 12:50	8° $\mathring{\text{H}}$ 24'32	1.33647 AU	morning set	5066 May 09 22:26	12° $\mathring{\text{B}}$ 03'38	
superior conj	5065 Jun 04 03:58	15° $\mathring{\text{H}}$ 58'00	0°-16'-6	max. Earth dist.	5066 May 13 22:35	19° $\mathring{\text{B}}$ 41'26	1.35127 AU
minimum elong	5065 Jun 04 04:49	16° $\mathring{\text{H}}$ 02'26	0°15'58	superior conj	5066 May 19 00:30	29° $\mathring{\text{B}}$ 49'47	0°-45'-46
behind sun begin	5065 Jun 04 04:27	16° $\mathring{\text{H}}$ 00'32		minimum elong	5066 May 19 03:01	0° $\mathring{\text{H}}$ 02'37	0°45'19
behind sun end	5065 Jun 04 05:10	16° $\mathring{\text{H}}$ 04'21			5066 May 19 02:31	0° $\mathring{\text{H}}$	
asc. node	5065 Jun 05 17:25	19° $\mathring{\text{H}}$ 16'26		asc. node	5066 May 23 14:26	9° $\mathring{\text{H}}$ 17'26	
	5065 Jun 10 18:16	0° $\mathring{\text{B}}$		evening rise	5066 May 26 19:33	15° $\mathring{\text{H}}$ 57'19	
evening rise	5065 Jun 11 11:25	1° $\mathring{\text{B}}$ 30'20			5066 Jun 02 23:40	0° $\mathring{\text{B}}$	
	5065 Jun 27 15:36	0° $\mathring{\text{Q}}$					

evening max el	5066 Jun 14 06:56	16°☿03'39	20°33'38	evening max el	5067 May 27 21:05	27°♊36'23	19°26'40
retrograde	5066 Jun 25 10:48	21°☿31'42			5067 May 30 18:15	0°☿	
evening set	5066 Jun 27 11:32	21°☿21'36		retrograde	5067 Jun 06 07:09	2°☿12'21	
desc. node	5066 Jun 28 23:59	21°☿01'33		evening set	5067 Jun 08 05:45	2°☿01'29	
inferior conj	5066 Jul 06 17:02	17°☿24'35	-2°-16'-30		5067 Jun 13 11:14	30°♊	
minimum elong	5066 Jul 06 10:42	17°☿33'43	2°14'16	desc. node	5067 Jun 15 21:01	28°♊33'34	
min. Earth dist.	5066 Jul 07 21:24	16°☿43'42	0.54897 AU	inferior conj	5067 Jun 16 20:55	27°♊55'18	0°-17'-46
morning rise	5066 Jul 15 08:31	13°☿18'13		minimum elong	5067 Jun 16 20:08	27°♊56'34	0°17'30
direct	5066 Jul 19 06:00	12°☿45'31		min. Earth dist.	5067 Jun 19 11:03	26°♊15'27	0.55824 AU
morning max el	5066 Aug 01 13:13	19°☿11'18	23°20'01	morning rise	5067 Jun 25 06:45	23°♊17'04	
	5066 Aug 10 12:39	0°♊		direct	5067 Jun 30 01:02	22°♊25'51	
asc. node	5066 Aug 19 13:44	15°♊24'33		morning max el	5067 Jul 14 02:41	29°♊31'51	25°02'45
morning set	5066 Aug 24 21:02	26°♊10'01			5067 Jul 14 14:20	0°☿	
	5066 Aug 26 16:16	0°♊			5067 Aug 03 22:28	0°♊	
				asc. node	5067 Aug 06 10:45	4°♊58'49	
superior conj	5066 Aug 31 22:24	11°♊20'07	1°37'52	morning set	5067 Aug 09 08:45	11°♊02'20	
minimum elong	5066 Aug 31 20:54	11°♊12'02	1°37'46				
max. Earth dist.	5066 Sep 03 13:04	16°♊54'00	1.33538 AU	superior conj	5067 Aug 16 08:01	26°♊11'09	1°26'57
evening rise	5066 Sep 08 14:21	27°♊16'29		minimum elong	5067 Aug 16 05:53	25°♊59'26	1°26'42
	5066 Sep 09 23:32	0°♊		max. Earth dist.	5067 Aug 17 18:02	29°♊16'46	1.32587 AU
desc. node	5066 Sep 24 23:16	26°♊06'25			5067 Aug 18 01:59	0°♊	
	5066 Sep 27 13:35	0°♊		evening rise	5067 Aug 23 12:55	11°♊33'46	
evening max el	5066 Oct 12 18:09	18°♊40'15	27°20'25		5067 Sep 02 04:55	0°♊	
retrograde	5066 Oct 26 06:27	25°♊58'36		desc. node	5067 Sep 11 20:17	15°♊27'14	
evening set	5066 Nov 02 06:08	23°♊20'00			5067 Sep 23 12:04	0°♊	
min. Earth dist.	5066 Nov 06 01:24	19°♊50'17	0.64457 AU	evening max el	5067 Sep 25 04:13	1°♊38'49	27°25'25
inferior conj	5066 Nov 08 09:52	17°♊19'12	-2°-21'-17	retrograde	5067 Oct 08 22:14	8°♊53'35	
minimum elong	5066 Nov 08 13:58	17°♊08'13	2°19'42	evening set	5067 Oct 16 02:25	6°♊24'09	
morning rise	5066 Nov 15 00:06	11°♊51'12		min. Earth dist.	5067 Oct 19 17:50	3°♊24'55	0.62716 AU
asc. node	5066 Nov 15 12:57	11°♊39'02		inferior conj	5067 Oct 22 13:41	0°♊42'36	-3°-24'00
direct	5066 Nov 17 11:59	11°♊19'12		minimum elong	5067 Oct 22 19:25	0°♊28'51	3°22'09
morning max el	5066 Nov 23 23:43	14°♊44'40	17°55'49		5067 Oct 23 07:33	30°♊	
	5066 Dec 04 18:28	0°♊		morning rise	5067 Oct 29 15:15	25°♊32'26	
morning set	5066 Dec 11 04:02	10°♊44'17		direct	5067 Oct 31 22:56	25°♊07'46	
desc. node	5066 Dec 21 22:34	28°♊38'02		asc. node	5067 Nov 02 10:00	25°♊17'49	
	5066 Dec 22 18:45	0°♊		morning max el	5067 Nov 07 16:16	28°♊34'36	17°49'45
					5067 Nov 09 00:17	0°♊	
superior conj	5066 Dec 24 15:12	2°♊59'30	0°-18'-41	morning set	5067 Nov 23 16:54	23°♊26'20	
minimum elong	5066 Dec 24 12:59	2°♊50'34	0°18'22		5067 Nov 27 10:04	0°♊	
max. Earth dist.	5066 Dec 29 09:07	10°♊33'46	1.44830 AU				
evening rise	5067 Jan 09 19:41	28°♊22'44		superior conj	5067 Dec 05 05:37	13°♊26'50	0°25'07
	5067 Jan 10 21:01	0°♊		minimum elong	5067 Dec 05 08:00	13°♊36'51	0°24'47
greatest brilliancy	5067 Jan 30 04:05	28°♊35'53	-0.6m	desc. node	5067 Dec 08 19:35	19°♊24'17	
	5067 Jan 31 05:14	0°♊		max. Earth dist.	5067 Dec 12 01:45	24°♊42'46	1.43665 AU
evening max el	5067 Feb 05 15:40	6°♊28'56	20°09'27		5067 Dec 15 09:04	0°♊	
asc. node	5067 Feb 11 12:11	10°♊41'26		evening rise	5067 Dec 20 06:23	7°♊39'32	
retrograde	5067 Feb 13 09:59	11°♊00'54			5068 Jan 04 03:59	0°♊	
evening set	5067 Feb 17 03:37	9°♊39'49		greatest brilliancy	5068 Jan 14 13:33	14°♊15'29	-0.4m
inferior conj	5067 Feb 22 14:03	3°♊33'54	3°03'04	evening max el	5068 Jan 19 14:22	20°♊03'38	21°17'42
minimum elong	5067 Feb 22 11:52	3°♊41'17	3°02'37	retrograde	5068 Jan 28 07:51	25°♊14'00	
min. Earth dist.	5067 Feb 23 09:54	2°♊26'53	0.67305 AU	asc. node	5068 Jan 29 09:14	25°♊07'59	
	5067 Feb 25 07:11	30°♊		evening set	5068 Feb 01 11:24	23°♊37'43	
morning rise	5067 Feb 27 19:32	27°♊17'31		inferior conj	5068 Feb 06 20:39	17°♊20'41	2°32'19
direct	5067 Mar 05 13:53	24°♊43'52		minimum elong	5068 Feb 06 18:14	17°♊29'04	2°31'38
	5067 Mar 15 11:16	0°♊		min. Earth dist.	5068 Feb 07 03:41	16°♊56'22	0.67905 AU
morning max el	5067 Mar 17 05:14	1°♊41'38	24°51'50	morning rise	5068 Feb 12 00:44	11°♊05'57	
desc. node	5067 Mar 19 21:50	4°♊34'24		direct	5068 Feb 17 04:32	8°♊51'52	
	5067 Apr 07 15:39	0°♊		morning max el	5068 Feb 27 14:09	15°♊02'44	23°23'07
morning set	5067 Apr 22 06:10	24°♊05'40		greatest brilliancy	5068 Mar 04 04:06	21°♊20'38	-0.2m
	5067 Apr 25 12:44	0°♊		desc. node	5068 Mar 05 18:50	23°♊21'42	
max. Earth dist.	5067 Apr 25 22:01	0°♊42'40	1.37035 AU		5068 Mar 10 18:58	0°♊	
					5068 Mar 30 14:48	0°♊	
superior conj	5067 May 02 10:54	13°♊07'45	-1°-15'-9	morning set	5068 Apr 02 14:21	4°♊57'33	
minimum elong	5067 May 02 15:01	13°♊27'55	1°14'31	max. Earth dist.	5068 Apr 06 17:32	12°♊02'40	1.39202 AU
asc. node	5067 May 10 11:27	29°♊08'36					
evening rise	5067 May 10 22:29	0°♊03'54		superior conj	5068 Apr 14 07:20	25°♊42'28	-1°-41'-35
	5067 May 10 21:43	0°♊		minimum elong	5068 Apr 14 12:20	26°♊05'45	1°41'02

	5068 Apr 16 14:13	0°♄		superior conj	5069 Mar 27 08:59	7°♃21'50	-2°-1'-13
evening rise	5068 Apr 23 17:27	13°♄43'00		minimum elong	5069 Mar 27 12:59	7°♃39'31	2°01'00
asc. node	5068 Apr 26 08:29	18°♄45'31		evening rise	5069 Apr 07 00:52	26°♃45'19	
	5068 May 02 14:28	0°♂			5069 Apr 08 18:59	0°♄	
evening max el	5068 May 09 21:55	9°♂48'47	18°39'57	asc. node	5069 Apr 13 05:32	8°♄02'26	
retrograde	5068 May 17 21:16	13°♂44'19		evening max el	5069 Apr 23 06:04	22°♄32'49	18°13'34
evening set	5068 May 20 00:55	13°♂28'09		retrograde	5069 Apr 30 06:15	26°♄03'57	
inferior conj	5068 May 27 20:36	9°♂03'22	1°23'09	evening set	5069 May 02 16:23	25°♄39'26	
minimum elong	5068 May 27 23:26	8°♂58'00	1°22'11	inferior conj	5069 May 09 17:48	20°♄53'49	2°33'27
min. Earth dist.	5068 May 31 04:12	6°♂34'21	0.57505 AU	minimum elong	5069 May 09 21:14	20°♄46'13	2°32'36
desc. node	5068 Jun 01 18:03	5°♂29'29		min. Earth dist.	5069 May 13 03:16	17°♄55'32	0.59608 AU
morning rise	5068 Jun 04 17:26	3°♂49'23		morning rise	5069 May 16 22:06	15°♄11'16	
direct	5068 Jun 10 09:50	2°♂29'16		desc. node	5069 May 19 15:05	13°♄55'06	
morning max el	5068 Jun 24 18:42	10°♂03'00	26°30'55	direct	5069 May 23 07:58	13°♄16'51	
	5068 Jul 10 00:36	0°♅		morning max el	5069 Jun 06 16:53	21°♄08'13	27°30'13
asc. node	5068 Jul 23 07:46	24°♅48'57			5069 Jun 14 09:30	0°♂	
morning set	5068 Jul 23 19:19	25°♅49'40			5069 Jul 02 22:06	0°♅	
	5068 Jul 25 18:12	0°♆		morning set	5069 Jul 08 03:01	10°♅26'52	
				asc. node	5069 Jul 10 04:49	14°♅49'48	
superior conj	5068 Jul 30 19:34	11°♆05'25	1°11'09	max. Earth dist.	5069 Jul 14 15:27	24°♅30'09	1.31937 AU
minimum elong	5068 Jul 30 17:16	10°♆52'41	1°10'47				
max. Earth dist.	5068 Jul 31 04:03	11°♆52'14	1.32055 AU	superior conj	5069 Jul 15 07:17	25°♅57'25	0°51'06
evening rise	5068 Aug 06 18:04	26°♆08'30		minimum elong	5069 Jul 15 05:17	25°♅46'24	0°50'42
	5068 Aug 08 14:44	0°♇			5069 Jul 17 03:13	0°♆	
	5068 Aug 25 18:58	0°♁		evening rise	5069 Jul 22 03:26	10°♆53'32	
desc. node	5068 Aug 28 17:19	4°♁02'47			5069 Jul 31 21:01	0°♇	
evening max el	5068 Sep 06 09:08	13°♁56'40	26°57'26	desc. node	5069 Aug 15 14:20	21°♇34'55	
retrograde	5068 Sep 20 06:23	21°♁07'18		evening max el	5069 Aug 19 06:44	25°♇26'06	25°56'51
evening set	5068 Sep 27 06:33	18°♁58'55			5069 Aug 25 02:27	0°♁	
min. Earth dist.	5068 Sep 30 23:21	16°♁20'14	0.60729 AU	retrograde	5069 Sep 02 05:52	2°♁33'20	
inferior conj	5068 Oct 04 03:41	13°♁39'48	-4°-21'-8	evening set	5069 Sep 08 13:43	0°♁57'33	
minimum elong	5068 Oct 04 09:56	13°♁26'38	4°19'40		5069 Sep 10 07:53	30°♇♂	
morning rise	5068 Oct 11 16:36	8°♁51'06		min. Earth dist.	5069 Sep 12 19:12	28°♇22'47	0.58654 AU
direct	5068 Oct 13 23:17	8°♁30'42		inferior conj	5069 Sep 16 00:26	26°♇01'41	-5°-3'-28
asc. node	5068 Oct 19 07:02	10°♁27'24		minimum elong	5069 Sep 16 04:44	25°♇53'48	5°02'58
morning max el	5068 Oct 21 05:52	12°♁07'13	18°02'30	morning rise	5069 Sep 23 23:17	21°♇36'27	
	5068 Nov 02 04:21	0°♂		direct	5069 Sep 26 08:31	21°♇17'49	
morning set	5068 Nov 05 22:42	6°♂56'11		morning max el	5069 Oct 04 13:13	25°♇13'50	18°35'28
				asc. node	5069 Oct 06 04:05	26°♇55'19	
superior conj	5068 Nov 15 22:10	25°♂10'16	0°59'45		5069 Oct 08 15:02	0°♁	
minimum elong	5068 Nov 16 02:07	25°♂27'45	0°59'15	morning set	5069 Oct 20 16:25	20°♁59'50	
	5068 Nov 18 16:16	0°♂			5069 Oct 25 07:59	0°♂	
max. Earth dist.	5068 Nov 23 13:37	8°♂19'01	1.41961 AU				
desc. node	5068 Nov 24 16:35	10°♂10'59		superior conj	5069 Oct 29 12:32	7°♂57'30	1°23'44
evening rise	5068 Nov 29 05:02	17°♂31'43		minimum elong	5069 Oct 29 15:56	8°♂13'21	1°23'24
	5068 Dec 07 05:26	0°♄		max. Earth dist.	5069 Nov 05 20:17	21°♂12'01	1.39930 AU
greatest brilliancy	5068 Dec 27 10:18	28°♄09'46	-0.3m	evening rise	5069 Nov 10 01:08	28°♂23'11	
	5068 Dec 28 23:26	0°♅			5069 Nov 11 00:21	0°♂	
evening max el	5069 Jan 01 07:55	3°♅39'27	22°34'33	desc. node	5069 Nov 11 13:38	0°♂55'02	
retrograde	5069 Jan 11 03:54	9°♅30'07			5069 Nov 30 18:21	0°♄	
asc. node	5069 Jan 15 06:17	8°♅02'30		evening max el	5069 Dec 14 22:00	17°♄18'48	23°54'29
evening set	5069 Jan 15 18:56	7°♅38'01		retrograde	5069 Dec 25 20:50	23°♄45'52	
inferior conj	5069 Jan 21 04:40	1°♅13'18	1°53'18	evening set	5069 Dec 31 00:38	21°♄38'09	
minimum elong	5069 Jan 21 02:28	1°♅20'53	1°52'33	asc. node	5070 Jan 02 03:20	19°♄31'08	
min. Earth dist.	5069 Jan 21 00:02	1°♅29'22	0.68109 AU	min. Earth dist.	5070 Jan 04 20:38	16°♄02'54	0.67945 AU
	5069 Jan 22 01:55	30°♇♄		inferior conj	5070 Jan 05 12:15	15°♄09'52	1°07'07
morning rise	5069 Jan 26 09:57	25°♄01'45		minimum elong	5070 Jan 05 10:45	15°♄14'57	1°06'32
direct	5069 Jan 30 22:58	23°♄10'20		morning rise	5070 Jan 10 21:08	9°♄03'16	
morning max el	5069 Feb 09 02:30	28°♄31'32	21°55'37	direct	5070 Jan 14 20:13	7°♄34'27	
	5069 Feb 10 12:23	0°♅		morning max el	5070 Jan 22 21:28	12°♄11'23	20°36'40
greatest brilliancy	5069 Feb 13 18:41	3°♅46'07	-0.4m	greatest brilliancy	5070 Jan 28 20:11	19°♄08'00	-0.5m
desc. node	5069 Feb 20 15:52	12°♅47'23			5070 Feb 05 16:39	0°♅	
	5069 Mar 04 11:33	0°♆		desc. node	5070 Feb 07 12:54	2°♅41'10	
morning set	5069 Mar 13 18:13	14°♆28'17		morning set	5070 Feb 20 21:08	22°♅52'18	
max. Earth dist.	5069 Mar 19 16:04	24°♆08'32	1.41359 AU		5070 Feb 25 10:16	0°♆	
	5069 Mar 23 03:15	0°♇		max. Earth dist.	5070 Mar 01 21:23	7°♆08'04	1.43234 AU

superior conj	5070 Mar 08 11:03	17° X 55'48	-2°-8'-53	desc. node	5071 Jan 25 09:57	22° Z 55'29	
minimum elong	5070 Mar 08 10:57	17° X 55'22	2°08'54		5071 Jan 30 00:28	0° \approx	
	5070 Mar 15 12:57	0° Y		morning set	5071 Jan 30 18:20	1° \approx 08'58	
evening rise	5070 Mar 20 16:29	9° Y 01'23		max. Earth dist.	5071 Feb 12 09:58	20° \approx 54'19	1.44591 AU
asc. node	5070 Mar 31 02:35	26° Y 52'26					
	5070 Apr 02 04:18	0° Z		superior conj	5071 Feb 16 11:44	27° \approx 23'30	-1°-59'-6
evening max el	5070 Apr 06 18:08	5° Z 39'17	18°06'47	minimum elong	5071 Feb 16 05:20	26° \approx 57'52	1°58'45
retrograde	5070 Apr 13 06:22	9° Z 01'23			5071 Feb 18 02:42	0° X	
evening set	5070 Apr 15 22:51	8° Z 26'25		evening rise	5071 Mar 02 11:58	20° X 23'31	
inferior conj	5070 Apr 22 09:35	3° Z 20'25	3°14'20		5071 Mar 08 05:26	0° Y	
minimum elong	5070 Apr 22 11:52	3° Z 14'39	3°14'00	asc. node	5071 Mar 17 23:38	15° Y 07'14	
min. Earth dist.	5070 Apr 25 10:11	0° Z 17'47	0.61806 AU	evening max el	5071 Mar 21 06:59	19° Y 00'18	18°18'49
	5070 Apr 25 17:37	30° R Y		retrograde	5071 Mar 27 17:15	22° Y 27'20	
morning rise	5070 Apr 28 21:59	27° Y 19'54		evening set	5071 Mar 30 15:54	21° Y 40'35	
direct	5070 May 05 17:09	24° Y 55'11		inferior conj	5071 Apr 05 15:50	16° Y 15'15	3°31'36
desc. node	5070 May 06 12:07	24° Y 57'02		minimum elong	5071 Apr 05 16:28	16° Y 13'28	3°31'34
	5070 May 16 17:04	0° Z		min. Earth dist.	5071 Apr 08 02:10	13° Y 30'32	0.63831 AU
morning max el	5070 May 19 21:10	2° Z 55'03	27°52'46	morning rise	5071 Apr 11 15:10	10° Y 05'05	
	5070 Jun 08 20:39	0° II		direct	5071 Apr 18 10:55	7° Y 21'32	
morning set	5070 Jun 22 05:48	24° II 46'36		desc. node	5071 Apr 23 09:09	8° Y 34'22	
	5070 Jun 24 18:15	0° Z		morning max el	5071 May 02 05:31	15° Y 20'01	27°38'03
asc. node	5070 Jun 27 01:50	4° Z 55'56			5071 May 14 05:12	0° Z	
max. Earth dist.	5070 Jun 28 00:14	6° Z 56'48	1.32246 AU		5071 Jun 01 12:58	0° II	
				morning set	5071 Jun 06 01:19	8° II 41'35	
superior conj	5070 Jun 29 17:19	10° Z 40'25	0°27'18	max. Earth dist.	5071 Jun 11 02:33	19° II 00'47	1.33002 AU
minimum elong	5070 Jun 29 16:06	10° Z 33'43	0°27'01				
evening rise	5070 Jul 06 14:52	25° Z 41'17		superior conj	5071 Jun 13 23:52	25° II 08'36	0°00'26
	5070 Jul 08 16:03	0° Z		minimum elong	5071 Jun 13 23:51	25° II 08'30	0°00'24
	5070 Jul 26 08:38	0° Z		behind sun begin	5071 Jun 13 18:30	24° II 39'50	
evening max el	5070 Jul 31 21:24	6° Z 10'30	24°30'55	behind sun end	5071 Jun 14 05:12	25° II 37'12	
desc. node	5070 Aug 02 11:23	7° Z 37'17		asc. node	5071 Jun 13 22:52	25° II 03'16	
retrograde	5070 Aug 14 18:16	13° Z 10'03			5071 Jun 16 06:00	0° Z	
evening set	5070 Aug 19 20:20	12° Z 12'11		evening rise	5071 Jun 21 02:33	10° Z 25'52	
min. Earth dist.	5070 Aug 25 08:32	9° Z 22'06	0.56759 AU		5071 Jul 01 04:34	0° Z	
inferior conj	5070 Aug 28 01:12	7° Z 38'57	-5°-16'-44	evening max el	5071 Jul 13 10:17	16° Z 32'26	22°53'36
minimum elong	5070 Aug 28 00:13	7° Z 40'31	5°16'44	desc. node	5071 Jul 20 08:23	21° Z 37'15	
morning rise	5070 Sep 05 07:34	3° Z 35'17		retrograde	5071 Jul 26 17:40	23° Z 10'34	
direct	5070 Sep 07 22:56	3° Z 16'16		evening set	5071 Jul 30 07:16	22° Z 42'47	
morning max el	5070 Sep 17 10:50	7° Z 43'07	19°30'00	min. Earth dist.	5071 Aug 06 18:49	19° Z 22'25	0.55376 AU
asc. node	5070 Sep 23 01:07	14° Z 25'15		inferior conj	5071 Aug 08 06:47	18° Z 30'41	-4°-44'-36
	5070 Oct 02 00:27	0° Z		minimum elong	5071 Aug 07 23:39	18° Z 40'59	4°43'22
morning set	5070 Oct 04 18:13	5° Z 25'49		morning rise	5071 Aug 16 18:37	14° Z 40'10	
				direct	5071 Aug 19 19:11	14° Z 18'44	
superior conj	5070 Oct 12 19:08	21° Z 31'41	1°37'50	morning max el	5071 Aug 30 20:25	19° Z 27'21	20°46'13
minimum elong	5070 Oct 12 21:05	21° Z 41'13	1°37'42		5071 Sep 08 05:48	0° Z	
	5070 Oct 17 04:48	0° Z		asc. node	5071 Sep 09 22:09	2° Z 43'36	
max. Earth dist.	5070 Oct 19 00:49	3° Z 25'02	1.37827 AU	morning set	5071 Sep 19 01:20	20° Z 06'45	
evening rise	5070 Oct 22 19:59	10° Z 16'35			5071 Sep 23 19:33	0° Z	
desc. node	5070 Oct 29 10:40	21° Z 31'47					
	5070 Nov 03 18:24	0° Z		superior conj	5071 Sep 26 13:23	5° Z 39'50	1°43'22
	5070 Nov 26 09:59	0° Z		minimum elong	5071 Sep 26 13:46	5° Z 41'45	1°43'21
evening max el	5070 Nov 27 10:43	1° Z 02'02	25°11'01	max. Earth dist.	5071 Oct 01 08:59	15° Z 18'55	1.35890 AU
retrograde	5070 Dec 09 09:31	7° Z 56'30		evening rise	5071 Oct 05 10:31	23° Z 04'09	
evening set	5070 Dec 15 02:55	5° Z 34'29			5071 Oct 09 06:10	0° Z	
min. Earth dist.	5070 Dec 19 15:10	0° Z 33'41	0.67421 AU	desc. node	5071 Oct 16 07:41	11° Z 56'31	
asc. node	5070 Dec 20 00:21	0° Z 03'50			5071 Oct 28 11:39	0° Z	
	5070 Dec 20 01:32	30° R Z		evening max el	5071 Nov 09 23:30	14° Z 45'23	26°16'44
inferior conj	5070 Dec 20 17:38	29° Z 07'25	0°14'40	retrograde	5071 Nov 22 17:01	21° Z 56'03	
minimum elong	5070 Dec 20 17:16	29° Z 08'37	0°14'31	evening set	5071 Nov 28 23:56	19° Z 22'45	
transit middle	5070 Dec 20 17:16	29° Z 08'37	0°14'31	min. Earth dist.	5071 Dec 03 05:07	14° Z 57'37	0.66546 AU
transit begin	5070 Dec 20 16:02	29° Z 12'37		inferior conj	5071 Dec 04 18:51	13° Z 02'00	0°-43'-5
transit end	5070 Dec 20 18:29	29° Z 04'38		minimum elong	5071 Dec 04 20:01	12° Z 58'25	0°42'35
morning rise	5070 Dec 26 08:17	23° Z 08'01		asc. node	5071 Dec 06 21:24	10° Z 32'20	
direct	5070 Dec 29 18:57	21° Z 59'37		morning rise	5071 Dec 10 17:20	7° Z 12'29	
morning max el	5071 Jan 06 00:20	26° Z 02'32	19°31'03	direct	5071 Dec 13 17:27	6° Z 21'12	
	5071 Jan 09 12:31	0° Z		morning max el	5071 Dec 20 10:16	10° Z 01'24	18°40'58
greatest brilliancy	5071 Jan 14 10:00	6° Z 33'01	-0.6m		5072 Jan 03 18:46	0° Z	

morning set	5072 Jan 10 10:18	10°☿27'57		direct	5072 Nov 26 13:37	20°♊35'00	
desc. node	5072 Jan 12 06:58	13°☿24'06		morning max el	5072 Dec 03 01:07	24°♊02'57	18°07'27
	5072 Jan 22 20:27	0°♊			5072 Dec 07 21:48	0°♊	
max. Earth dist.	5072 Jan 26 03:54	5°♊11'29	1.45271 AU	morning set	5072 Dec 21 07:39	21°♊15'53	
					5072 Dec 26 15:57	0°☿	
superior conj	5072 Jan 26 17:40	6°♊05'28	-1°-29'-37	desc. node	5072 Dec 29 03:58	4°☿02'45	
minimum elong	5072 Jan 26 08:16	5°♊28'36	1°28'39				
	5072 Feb 10 20:12	0°♋		superior conj	5073 Jan 04 22:56	14°☿53'00	0°-45'-54
evening rise	5072 Feb 11 08:19	0°♋48'29		minimum elong	5073 Jan 04 17:15	14°☿30'32	0°45'09
	5072 Mar 01 12:50	0°♌		max. Earth dist.	5073 Jan 07 23:42	19°☿39'51	1.45204 AU
evening max el	5072 Mar 03 17:58	2°♌28'57	18°48'50		5073 Jan 14 14:20	0°♊	
asc. node	5072 Mar 03 20:40	2°♌35'47		evening rise	5073 Jan 21 07:16	10°♊25'04	
retrograde	5072 Mar 10 10:53	6°♌13'21			5073 Feb 03 01:19	0°♋	
evening set	5072 Mar 13 16:07	5°♌13'52		greatest brilliancy	5073 Feb 07 04:50	6°♋05'20	-0.6m
	5072 Mar 18 23:13	30°♌		evening max el	5073 Feb 15 00:58	16°♋01'17	19°35'37
inferior conj	5072 Mar 19 08:39	29°♋30'50	3°30'54	asc. node	5073 Feb 18 17:41	19°♋05'19	
minimum elong	5072 Mar 19 07:50	29°♋33'23	3°30'51	retrograde	5073 Feb 22 08:12	20°♋13'41	
min. Earth dist.	5072 Mar 21 03:18	27°♋19'03	0.65513 AU	evening set	5073 Feb 25 20:54	19°♋00'42	
morning rise	5072 Mar 24 22:24	23°♋15'59		inferior conj	5073 Mar 03 08:52	13°♋02'08	3°16'28
direct	5072 Mar 31 11:35	20°♋27'23		minimum elong	5073 Mar 03 07:03	13°♋08'10	3°16'10
desc. node	5072 Apr 09 06:11	24°♋15'49		min. Earth dist.	5073 Mar 04 12:34	11°♋30'51	0.66776 AU
morning max el	5072 Apr 13 15:30	28°♋13'12	26°50'58	morning rise	5073 Mar 08 16:28	6°♋45'36	
	5072 Apr 15 08:21	0°♌		direct	5073 Mar 14 18:23	4°♋04'00	
	5072 May 06 23:33	0°♍		morning max el	5073 Mar 27 01:07	11°♋23'41	25°39'45
morning set	5072 May 19 10:24	22°♍02'09		desc. node	5073 Mar 27 03:14	11°♋29'01	
	5072 May 23 12:08	0°♎			5073 Apr 10 21:47	0°♌	
max. Earth dist.	5072 May 23 19:03	0°♎34'40	1.34225 AU		5073 Apr 29 15:18	0°♍	
				morning set	5073 May 02 04:55	4°♍37'11	
superior conj	5072 May 28 00:44	9°♎15'06	0°-28'-36	max. Earth dist.	5073 May 06 00:19	11°♍43'04	1.35901 AU
minimum elong	5072 May 28 02:16	9°♎23'05	0°28'19				
asc. node	5072 May 30 19:55	15°♎07'32		superior conj	5073 May 11 17:20	22°♍53'01	0°-58'-25
evening rise	5072 Jun 04 12:32	25°♎00'39		minimum elong	5073 May 11 20:34	23°♍09'15	0°57'52
	5072 Jun 06 22:41	0°☿			5073 May 15 05:32	0°♎	
evening max el	5072 Jun 24 05:20	27°☿04'21	21°20'34	asc. node	5073 May 17 16:57	5°♎04'43	
	5072 Jun 27 16:37	0°♏		evening rise	5073 May 19 18:47	9°♎19'42	
retrograde	5072 Jul 06 07:28	3°♏02'11			5073 May 31 00:11	0°☿	
desc. node	5072 Jul 06 05:23	3°♏02'10		evening max el	5073 Jun 06 12:08	8°☿11'49	20°02'36
evening set	5072 Jul 08 16:46	2°♏49'03		retrograde	5073 Jun 16 22:09	13°☿17'34	
	5072 Jul 15 22:14	30°♏		evening set	5073 Jun 18 20:23	13°☿07'52	
inferior conj	5072 Jul 18 00:41	28°☿50'19	-3°-21'-16	desc. node	5073 Jun 23 02:25	11°☿45'33	
minimum elong	5072 Jul 17 16:11	29°☿02'12	3°18'40	inferior conj	5073 Jun 27 20:55	9°☿08'10	-1°-25'-30
min. Earth dist.	5072 Jul 18 04:57	28°☿44'20	0.54795 AU	minimum elong	5073 Jun 27 16:56	9°☿14'10	1°24'02
morning rise	5072 Jul 26 16:08	24°☿56'14		min. Earth dist.	5073 Jun 29 17:08	8°☿01'50	0.55177 AU
direct	5072 Jul 30 04:35	24°☿29'31		morning rise	5073 Jul 06 10:59	4°☿49'38	
	5072 Aug 11 06:51	0°♏		direct	5073 Jul 10 16:28	4°☿10'40	
morning max el	5072 Aug 11 18:33	0°♏26'43	22°20'52	morning max el	5073 Jul 24 09:31	10°☿54'54	24°04'43
asc. node	5072 Aug 26 19:11	21°♏38'49			5073 Aug 07 16:51	0°♏	
	5072 Aug 31 02:10	0°♐		asc. node	5073 Aug 13 16:12	11°♏01'02	
morning set	5072 Sep 02 11:38	4°♐56'50		morning set	5073 Aug 17 23:19	19°♏49'50	
					5073 Aug 22 16:32	0°♐	
superior conj	5072 Sep 09 15:44	20°♐11'43	1°41'40	superior conj	5073 Aug 24 23:21	4°♐57'59	1°33'53
minimum elong	5072 Sep 09 14:48	20°♐06'47	1°41'39	minimum elong	5073 Aug 24 21:31	4°♐48'03	1°33'43
max. Earth dist.	5072 Sep 13 01:01	27°♐16'26	1.34276 AU	max. Earth dist.	5073 Aug 27 01:32	9°♐28'28	1.33071 AU
	5072 Sep 14 09:02	0°♑		evening rise	5073 Sep 01 09:58	20°♐38'05	
evening rise	5072 Sep 17 16:31	6°♑35'08			5073 Sep 06 05:10	0°♑	
	5072 Sep 30 21:31	0°♒		desc. node	5073 Sep 19 01:40	21°♑44'16	
desc. node	5072 Oct 02 04:40	2°♒03'30			5073 Sep 24 21:42	0°♒	
evening max el	5072 Oct 22 12:15	28°♒20'38	27°04'08	evening max el	5073 Oct 04 23:38	11°♒35'28	27°26'21
	5072 Oct 24 07:42	0°♓		retrograde	5073 Oct 18 14:41	18°♒53'10	
retrograde	5072 Nov 04 18:53	5°♓38'05		evening set	5073 Oct 25 17:16	16°♒16'41	
evening set	5072 Nov 11 13:38	2°♓58'53		min. Earth dist.	5073 Oct 29 10:21	13°♒01'08	0.63752 AU
	5072 Nov 14 17:42	30°♓		inferior conj	5073 Oct 31 23:59	10°♒23'37	-2°-48'-9
min. Earth dist.	5072 Nov 15 12:13	29°♓09'40	0.65322 AU	minimum elong	5073 Nov 01 04:51	10°♒11'09	2°46'23
inferior conj	5072 Nov 17 13:50	26°♓49'34	-1°-44'-46	morning rise	5073 Nov 07 19:01	5°♓03'08	
minimum elong	5072 Nov 17 16:50	26°♓41'04	1°43'32	asc. node	5073 Nov 09 15:28	4°♓36'15	
asc. node	5072 Nov 22 18:26	21°♓51'53		direct	5073 Nov 10 04:44	4°♓34'44	
morning rise	5072 Nov 23 21:55	21°♓12'58					

morning max el	5073 Nov 16 17:59	7° \mathbb{M} 59'35	17°51'05	minimum elong	5074 Oct 15 04:30	23° \mathbb{A} 22'57	3°47'37
	5073 Dec 01 09:05	0° \mathbb{A}		morning rise	5074 Oct 22 04:51	18° \mathbb{A} 35'41	
morning set	5073 Dec 03 07:53	3° \mathbb{A} 21'33		direct	5074 Oct 24 11:31	18° \mathbb{A} 13'20	
				asc. node	5074 Oct 27 12:30	18° \mathbb{A} 54'34	
superior conj	5073 Dec 15 22:27	24° \mathbb{A} 36'54	0°00'45	morning max el	5074 Oct 31 09:43	21° \mathbb{A} 43'31	17°52'47
minimum elong	5073 Dec 15 22:33	24° \mathbb{A} 37'17	0°00'45		5074 Nov 06 17:29	0° \mathbb{M}	
behind sun begin	5073 Dec 15 12:47	23° \mathbb{A} 57'19		morning set	5074 Nov 16 04:39	16° \mathbb{M} 25'53	
behind sun end	5073 Dec 16 08:18	25° \mathbb{A} 17'10			5074 Nov 23 18:35	0° \mathbb{A}	
desc. node	5073 Dec 16 00:58	24° \mathbb{A} 47'13					
	5073 Dec 19 06:04	0° \mathbb{C}		superior conj	5074 Nov 27 00:18	5° \mathbb{A} 37'43	0°41'04
max. Earth dist.	5073 Dec 21 17:46	3° \mathbb{C} 58'59	1.44411 AU	minimum elong	5074 Nov 27 03:42	5° \mathbb{A} 52'17	0°40'37
evening rise	5073 Dec 31 17:54	19° \mathbb{C} 37'23		desc. node	5074 Dec 02 21:59	15° \mathbb{A} 34'09	
	5074 Jan 07 13:27	0° \mathbb{M}		max. Earth dist.	5074 Dec 04 07:59	17° \mathbb{A} 53'44	1.42994 AU
greatest brilliancy	5074 Jan 23 08:31	22° \mathbb{M} 44'57	-0.5m	evening rise	5074 Dec 11 07:57	29° \mathbb{A} 05'06	
evening max el	5074 Jan 29 02:43	29° \mathbb{M} 34'47	20°37'04		5074 Dec 11 22:00	0° \mathbb{C}	
	5074 Jan 29 12:43	0° \mathbb{H}			5075 Jan 01 06:16	0° \mathbb{M}	
asc. node	5074 Feb 05 14:43	4° \mathbb{H} 20'47		greatest brilliancy	5075 Jan 07 04:57	7° \mathbb{M} 46'17	-0.4m
retrograde	5074 Feb 06 06:31	4° \mathbb{H} 23'07		evening max el	5075 Jan 11 23:06	13° \mathbb{M} 09'55	21°49'41
evening set	5074 Feb 10 04:07	2° \mathbb{H} 55'43		retrograde	5075 Jan 21 03:51	18° \mathbb{M} 37'48	
	5074 Feb 13 02:20	30° \mathbb{R} \mathbb{M}		asc. node	5075 Jan 23 11:47	18° \mathbb{M} 08'51	
inferior conj	5074 Feb 15 13:49	26° \mathbb{M} 44'28	2°51'07	evening set	5075 Jan 25 11:59	16° \mathbb{M} 55'05	
minimum elong	5074 Feb 15 11:28	26° \mathbb{M} 52'29	2°50'33	inferior conj	5075 Jan 30 21:16	10° \mathbb{M} 34'21	2°16'43
min. Earth dist.	5074 Feb 16 04:01	25° \mathbb{M} 55'47	0.67608 AU	minimum elong	5075 Jan 30 18:53	10° \mathbb{M} 42'37	2°15'58
morning rise	5074 Feb 20 18:21	20° \mathbb{M} 28'20		min. Earth dist.	5075 Jan 30 23:18	10° \mathbb{M} 27'18	0.68039 AU
direct	5074 Feb 26 06:28	18° \mathbb{M} 02'31		morning rise	5075 Feb 05 01:32	4° \mathbb{M} 20'31	
morning max el	5074 Mar 09 09:49	24° \mathbb{M} 42'00	24°14'26	direct	5075 Feb 09 23:02	2° \mathbb{M} 15'42	
desc. node	5074 Mar 14 00:15	29° \mathbb{M} 47'42		morning max el	5075 Feb 19 19:38	8° \mathbb{M} 05'40	22°45'05
	5074 Mar 14 04:23	0° \mathbb{H}		greatest brilliancy	5075 Feb 24 10:47	13° \mathbb{M} 15'28	-0.3m
	5074 Apr 04 08:57	0° \mathbb{Y}		desc. node	5075 Feb 28 21:16	18° \mathbb{M} 52'59	
morning set	5074 Apr 14 03:28	16° \mathbb{Y} 12'08			5075 Mar 08 21:06	0° \mathbb{H}	
max. Earth dist.	5074 Apr 17 21:07	22° \mathbb{Y} 48'02	1.37935 AU	morning set	5075 Mar 25 23:55	26° \mathbb{H} 30'08	
	5074 Apr 21 19:26	0° \mathbb{B}			5075 Mar 28 02:26	0° \mathbb{Y}	
				max. Earth dist.	5075 Mar 30 16:36	4° \mathbb{Y} 23'01	1.40135 AU
superior conj	5074 Apr 24 22:19	5° \mathbb{B} 54'08	-1°-26'-56				
minimum elong	5074 Apr 25 02:58	6° \mathbb{B} 16'22	1°26'18	superior conj	5075 Apr 07 11:24	18° \mathbb{Y} 06'59	-1°-51'-1
evening rise	5074 May 03 18:45	23° \mathbb{B} 16'03		minimum elong	5075 Apr 07 16:17	18° \mathbb{Y} 29'14	1°50'37
asc. node	5074 May 04 13:59	24° \mathbb{B} 50'49			5075 Apr 13 20:51	0° \mathbb{B}	
	5074 May 07 05:36	0° \mathbb{I}		evening rise	5075 Apr 17 09:16	6° \mathbb{B} 40'33	
evening max el	5074 May 20 07:14	20° \mathbb{I} 02'48	19°04'18	asc. node	5075 Apr 21 11:02	14° \mathbb{B} 20'05	
retrograde	5074 May 29 01:33	24° \mathbb{I} 19'57			5075 May 01 05:18	0° \mathbb{I}	
evening set	5074 May 31 01:38	24° \mathbb{I} 07'26		evening max el	5075 May 03 11:44	2° \mathbb{I} 30'31	18°26'21
inferior conj	5074 Jun 08 08:43	19° \mathbb{I} 54'14	0°28'25	retrograde	5075 May 10 23:39	6° \mathbb{I} 13'17	
minimum elong	5074 Jun 08 09:51	19° \mathbb{I} 52'15	0°27'58	evening set	5075 May 13 06:07	5° \mathbb{I} 53'50	
desc. node	5074 Jun 09 23:28	18° \mathbb{I} 47'12		inferior conj	5075 May 20 17:42	1° \mathbb{I} 20'36	1°56'49
min. Earth dist.	5074 Jun 11 08:29	17° \mathbb{I} 51'18	0.56458 AU	minimum elong	5075 May 20 21:07	1° \mathbb{I} 13'43	1°55'47
morning rise	5074 Jun 16 13:39	15° \mathbb{I} 00'01			5075 May 22 09:27	30° \mathbb{R} \mathbb{B}	
direct	5074 Jun 21 17:25	13° \mathbb{I} 57'32		min. Earth dist.	5075 May 24 03:58	28° \mathbb{B} 36'04	0.58372 AU
morning max el	5074 Jul 05 23:39	21° \mathbb{I} 17'48	25°43'03	desc. node	5075 May 27 20:31	26° \mathbb{B} 08'14	
	5074 Jul 13 13:33	0° \mathbb{C}		morning rise	5075 May 28 07:41	25° \mathbb{B} 53'22	
	5074 Jul 31 04:52	0° \mathbb{Q}		direct	5075 Jun 03 08:37	24° \mathbb{B} 18'26	
asc. node	5074 Jul 31 13:15	0° \mathbb{Q} 43'05			5075 Jun 15 13:23	0° \mathbb{I}	
morning set	5074 Aug 02 10:45	4° \mathbb{Q} 40'58		morning max el	5075 Jun 17 17:54	2° \mathbb{I} 01'00	27°00'12
					5075 Jul 07 20:16	0° \mathbb{C}	
superior conj	5074 Aug 09 10:03	19° \mathbb{Q} 51'42	1°20'49	morning set	5075 Jul 17 20:16	19° \mathbb{C} 24'21	
minimum elong	5074 Aug 09 07:47	19° \mathbb{Q} 39'13	1°20'31	asc. node	5075 Jul 18 10:17	20° \mathbb{C} 38'20	
max. Earth dist.	5074 Aug 10 08:51	21° \mathbb{Q} 56'55	1.32301 AU		5075 Jul 22 18:06	0° \mathbb{Q}	
	5074 Aug 14 01:57	0° \mathbb{M}					
evening rise	5074 Aug 16 11:40	5° \mathbb{M} 04'02		superior conj	5075 Jul 24 21:53	4° \mathbb{Q} 45'41	1°03'09
	5074 Aug 29 20:38	0° \mathbb{A}		minimum elong	5075 Jul 24 19:39	4° \mathbb{Q} 33'21	1°02'44
desc. node	5074 Sep 05 22:43	10° \mathbb{A} 47'58		max. Earth dist.	5075 Jul 24 19:47	4° \mathbb{Q} 34'07	1.31955 AU
evening max el	5074 Sep 17 07:43	24° \mathbb{A} 17'50	27°17'41	evening rise	5075 Jul 31 18:53	19° \mathbb{Q} 44'04	
	5074 Sep 25 03:08	0° \mathbb{M}			5075 Aug 05 19:54	0° \mathbb{M}	
retrograde	5074 Oct 01 03:44	1° \mathbb{M} 31'43		desc. node	5075 Aug 23 19:46	28° \mathbb{M} 59'05	
	5074 Oct 06 21:18	30° \mathbb{R} \mathbb{A}			5075 Aug 24 15:28	0° \mathbb{A}	
evening set	5074 Oct 08 07:17	29° \mathbb{A} 09'35		evening max el	5075 Aug 30 09:52	6° \mathbb{A} 16'00	26°35'29
min. Earth dist.	5074 Oct 11 22:14	26° \mathbb{A} 20'40	0.61888 AU	retrograde	5075 Sep 13 08:24	13° \mathbb{A} 24'57	
inferior conj	5074 Oct 14 22:20	23° \mathbb{A} 36'58	-3°-49'-24	evening set	5075 Sep 20 03:03	11° \mathbb{A} 29'37	

min. Earth dist.	5075 Sep 23 23:39	8°♄54'34	0.59839 AU	min. Earth dist.	5076 Sep 04 16:04	20°♄30'27	0.57809 AU
inferior conj	5075 Sep 27 05:24	6°♄20'20	-4°-41'-42	inferior conj	5076 Sep 07 17:47	18°♄23'44	-5°-13'-40
minimum elong	5075 Sep 27 11:12	6°♄08'47	4°40'36	minimum elong	5076 Sep 07 20:13	18°♄19'33	5°13'32
morning rise	5075 Oct 04 22:45	1°♄41'09		morning rise	5076 Sep 15 20:07	14°♄08'05	
direct	5075 Oct 07 05:59	1°♄21'48		direct	5076 Sep 18 07:48	13°♄49'21	
asc. node	5075 Oct 14 09:32	4°♄38'52		morning max el	5076 Sep 27 00:26	17°♄56'53	18°56'02
morning max el	5075 Oct 14 20:59	5°♄05'47	18°13'58	asc. node	5076 Sep 30 06:35	21°♄34'39	
morning set	5075 Oct 30 16:05	0°♄11'48			5076 Oct 05 20:37	0°♄	
	5075 Oct 30 13:35	0°♄		morning set	5076 Oct 13 13:36	14°♄26'00	
					5076 Oct 21 12:22	0°♄	
superior conj	5075 Nov 09 02:46	17°♄49'55	1°11'13	superior conj	5076 Oct 22 00:36	0°♄58'32	1°30'52
minimum elong	5075 Nov 09 06:39	18°♄07'33	1°10'45	minimum elong	5076 Oct 22 03:26	1°♄12'03	1°30'37
	5075 Nov 16 00:31	0°♄		max. Earth dist.	5076 Oct 28 23:09	13°♄48'38	1.39026 AU
max. Earth dist.	5075 Nov 16 17:30	1°♄12'20	1.41123 AU	evening rise	5076 Nov 01 21:03	20°♄39'23	
desc. node	5075 Nov 19 19:01	6°♄20'25		desc. node	5076 Nov 05 16:02	27°♄01'48	
evening rise	5075 Nov 21 15:10	9°♄21'36			5076 Nov 07 11:41	0°♄	
	5075 Dec 04 23:28	0°♄			5076 Nov 28 01:58	0°♄	
evening max el	5075 Dec 25 15:07	26°♄48'17	23°08'37	evening max el	5076 Dec 07 04:26	10°♄29'41	24°27'56
	5075 Dec 29 04:37	0°♄		retrograde	5076 Dec 18 13:41	17°♄09'07	
retrograde	5076 Jan 04 22:36	2°♄54'44		evening set	5076 Dec 23 23:21	14°♄54'55	
evening set	5076 Jan 09 18:55	0°♄56'05		asc. node	5076 Dec 27 05:50	11°♄25'08	
asc. node	5076 Jan 10 08:48	0°♄25'33		min. Earth dist.	5076 Dec 28 15:54	9°♄34'30	0.67766 AU
	5076 Jan 10 19:26	30°♄		inferior conj	5076 Dec 29 12:09	8°♄26'48	0°45'35
inferior conj	5076 Jan 15 05:20	24°♄29'36	1°34'33	minimum elong	5076 Dec 29 11:05	8°♄30'23	0°45'10
minimum elong	5076 Jan 15 03:22	24°♄36'19	1°33'51	morning rise	5077 Jan 03 23:15	2°♄23'14	
min. Earth dist.	5076 Jan 14 20:03	25°♄01'34	0.68086 AU	direct	5077 Jan 07 16:55	1°♄03'24	
morning rise	5076 Jan 20 11:51	18°♄19'53		morning max el	5077 Jan 15 08:41	5°♄24'02	20°07'04
direct	5076 Jan 24 18:55	16°♄37'59		greatest brilliancy	5077 Jan 22 03:31	13°♄31'20	-0.6m
morning max el	5076 Feb 02 10:22	21°♄38'55	21°20'38	desc. node	5077 Feb 01 15:18	28°♄35'37	
greatest brilliancy	5076 Feb 07 12:17	27°♄25'31	-0.4m		5077 Feb 02 13:50	0°♄	
	5076 Feb 09 12:41	0°♄		morning set	5077 Feb 11 13:20	13°♄40'47	
desc. node	5076 Feb 15 18:18	8°♄32'14			5077 Feb 21 22:57	0°♄	
	5076 Mar 01 03:54	0°♄		max. Earth dist.	5077 Feb 22 03:14	0°♄17'05	1.43891 AU
morning set	5076 Mar 04 15:56	5°♄28'36		superior conj	5077 Feb 27 18:46	9°♄25'39	-2°-7'-8
max. Earth dist.	5076 Mar 11 18:01	16°♄53'18	1.42215 AU	minimum elong	5077 Feb 27 16:02	9°♄14'26	2°07'04
					5077 Mar 11 23:44	0°♄	
superior conj	5076 Mar 19 03:38	29°♄20'35	-2°-6'-16	evening rise	5077 Mar 12 18:06	1°♄19'10	
minimum elong	5076 Mar 19 06:19	29°♄32'09	2°06'12	asc. node	5077 Mar 25 05:08	22°♄03'05	
	5076 Mar 19 12:46	0°♄		evening max el	5077 Mar 30 10:43	28°♄39'09	18°09'31
evening rise	5076 Mar 30 10:32	19°♄24'45			5077 Mar 31 22:42	0°♄	
	5076 Apr 05 08:02	0°♄		retrograde	5077 Apr 05 20:59	2°♄01'55	
asc. node	5076 Apr 07 08:06	3°♄26'45		evening set	5077 Apr 08 16:04	1°♄22'00	
evening max el	5076 Apr 15 22:02	15°♄25'43	18°08'16		5077 Apr 10 20:20	30°♄	
retrograde	5076 Apr 22 15:35	18°♄50'52		inferior conj	5077 Apr 14 21:43	26°♄07'15	3°24'10
evening set	5076 Apr 25 04:37	18°♄21'56		minimum elong	5077 Apr 14 23:18	26°♄03'01	3°24'01
inferior conj	5076 May 01 23:16	13°♄27'20	2°54'02	min. Earth dist.	5077 Apr 17 16:30	23°♄10'08	0.62703 AU
minimum elong	5076 May 02 02:21	13°♄20'08	2°53'24	morning rise	5077 Apr 21 04:09	20°♄01'43	
min. Earth dist.	5076 May 05 05:53	10°♄24'29	0.60561 AU	direct	5077 Apr 28 00:22	17°♄27'44	
morning rise	5076 May 08 20:37	7°♄36'15		desc. node	5077 Apr 30 14:34	17°♄47'48	
desc. node	5076 May 13 17:33	5°♄36'57		morning max el	5077 May 12 01:09	25°♄27'53	27°50'56
direct	5076 May 15 11:39	5°♄28'06			5077 May 16 05:11	0°♄	
morning max el	5076 May 29 18:38	13°♄23'04	27°44'24		5077 Jun 05 12:14	0°♄	
	5076 Jun 12 00:35	0°♄		morning set	5077 Jun 15 02:10	18°♄05'20	
	5076 Jun 29 04:09	0°♄		max. Earth dist.	5077 Jun 20 13:24	29°♄29'03	1.32516 AU
morning set	5076 Jul 01 02:06	3°♄54'36			5077 Jun 20 19:10	0°♄	
asc. node	5076 Jul 04 07:20	10°♄41'56		asc. node	5077 Jun 21 04:23	0°♄49'29	
max. Earth dist.	5076 Jul 07 06:38	17°♄09'06	1.32025 AU	superior conj	5077 Jun 22 17:52	4°♄12'01	0°16'14
				minimum elong	5077 Jun 22 17:06	4°♄07'52	0°16'03
superior conj	5076 Jul 08 09:04	19°♄34'20	0°41'25	evening rise	5077 Jun 29 17:10	19°♄18'46	
minimum elong	5076 Jul 08 07:21	19°♄24'50	0°41'03		5077 Jul 04 22:16	0°♄	
	5076 Jul 13 03:01	0°♄		evening max el	5077 Jul 23 17:13	27°♄55'59	23°49'50
evening rise	5076 Jul 15 05:22	4°♄31'06			5077 Jul 26 00:39	0°♄	
	5076 Jul 28 17:10	0°♄		desc. node	5077 Jul 27 13:49	1°♄11'38	
desc. node	5076 Aug 09 16:48	15°♄56'26		retrograde	5077 Aug 06 09:55	4°♄49'02	
evening max el	5076 Aug 11 04:20	17°♄24'53	25°22'38				
retrograde	5076 Aug 25 02:55	24°♄28'55					
evening set	5076 Aug 30 23:47	23°♄09'25					

evening set	5077 Aug 10 20:45	4° \cap 05'22		asc. node	5078 Jun 08 01:24	20° \cap 56'13	
min. Earth dist.	5077 Aug 17 03:22	1° \cap 04'10	0.56088 AU		5078 Jun 12 07:05	0° \ominus	
	5077 Aug 18 21:48	30° \mathbb{R} 0		evening rise	5078 Jun 14 04:22	4° \ominus 00'05	
inferior conj	5077 Aug 19 09:59	29° \mathbb{Q} 41'26	-5°-9'-26		5078 Jun 28 10:48	0° \mathbb{Q}	
minimum elong	5077 Aug 19 06:11	29° \mathbb{Q} 47'13	5°09'07	evening max el	5078 Jul 05 07:39	8° \mathbb{Q} 18'10	22°12'42
morning rise	5077 Aug 27 18:56	25° \mathbb{Q} 45'22		desc. node	5078 Jul 14 10:50	14° \mathbb{Q} 09'21	
direct	5077 Aug 30 13:59	25° \mathbb{Q} 25'35		retrograde	5078 Jul 18 04:58	14° \mathbb{Q} 42'08	
morning max el	5077 Sep 09 17:10	0° \cap 08'26	19°59'58	evening set	5078 Jul 21 04:22	14° \mathbb{Q} 22'30	
	5077 Sep 09 13:32	0° \cap		min. Earth dist.	5078 Jul 29 13:33	10° \mathbb{Q} 44'58	0.55011 AU
asc. node	5077 Sep 17 03:37	9° \cap 27'14		inferior conj	5078 Jul 30 09:16	10° \mathbb{Q} 17'12	-4°-15'-4
morning set	5077 Sep 27 17:57	28° \cap 59'45		minimum elong	5078 Jul 30 00:42	10° \mathbb{Q} 29'16	4°13'03
	5077 Sep 28 05:49	0° \mathbb{Q}		morning rise	5078 Aug 07 22:58	6° \mathbb{Q} 27'33	
				direct	5078 Aug 11 03:46	6° \mathbb{Q} 04'37	
superior conj	5077 Oct 05 12:42	14° \mathbb{Q} 49'27	1°41'08	morning max el	5078 Aug 22 21:47	11° \mathbb{Q} 33'52	21°24'38
minimum elong	5077 Oct 05 13:58	14° \mathbb{Q} 55'46	1°41'05	asc. node	5078 Sep 04 00:39	28° \mathbb{Q} 02'38	
max. Earth dist.	5077 Oct 11 04:38	25° \mathbb{Q} 51'26	1.36965 AU		5078 Sep 05 02:54	0° \cap	
	5077 Oct 13 09:54	0° \mathbb{M}		morning set	5078 Sep 12 02:39	13° \cap 45'13	
evening rise	5077 Oct 15 00:46	2° \mathbb{M} 57'17					
desc. node	5077 Oct 23 13:04	17° \mathbb{M} 34'25		superior conj	5078 Sep 19 10:48	29° \cap 09'10	1°43'27
	5077 Oct 31 12:59	0° \mathbb{X}		minimum elong	5078 Sep 19 10:35	29° \cap 08'01	1°43'27
evening max el	5077 Nov 19 16:52	24° \mathbb{X} 13'05	25°40'41		5078 Sep 19 20:36	0° \mathbb{Q}	
	5077 Nov 27 06:13	0° \mathbb{Z}		max. Earth dist.	5078 Sep 23 15:22	7° \mathbb{Q} 42'40	1.35153 AU
retrograde	5077 Dec 02 00:16	1° \mathbb{Z} 16'11		evening rise	5078 Sep 27 22:24	16° \mathbb{Q} 04'52	
	5077 Dec 06 08:01	30° \mathbb{R} 0			5078 Oct 05 15:45	0° \mathbb{M}	
evening set	5077 Dec 07 23:37	28° \mathbb{X} 48'31		desc. node	5078 Oct 10 10:06	7° \mathbb{M} 52'27	
min. Earth dist.	5077 Dec 12 08:40	24° \mathbb{X} 03'02	0.67091 AU		5078 Oct 26 01:10	0° \mathbb{X}	
inferior conj	5077 Dec 13 15:59	22° \mathbb{X} 23'26	0°-9'-15	evening max el	5078 Nov 02 05:32	7° \mathbb{X} 53'33	26°39'33
minimum elong	5077 Dec 13 16:13	22° \mathbb{X} 22'40	0°09'09	retrograde	5078 Nov 15 05:40	15° \mathbb{X} 09'03	
transit middle	5077 Dec 13 16:13	22° \mathbb{X} 22'40	0°09'09	evening set	5078 Nov 21 17:49	12° \mathbb{X} 32'19	
transit begin	5077 Dec 13 13:54	22° \mathbb{X} 30'04		min. Earth dist.	5078 Nov 25 20:03	8° \mathbb{X} 22'27	0.66062 AU
transit end	5077 Dec 13 18:32	22° \mathbb{X} 15'17		inferior conj	5078 Nov 27 14:49	6° \mathbb{X} 15'30	-1°-8'-53
asc. node	5077 Dec 14 02:51	21° \mathbb{X} 48'55		minimum elong	5078 Nov 27 16:44	6° \mathbb{X} 09'47	1°08'05
morning rise	5077 Dec 19 09:45	16° \mathbb{X} 28'09		asc. node	5078 Nov 30 23:52	2° \mathbb{X} 32'59	
direct	5077 Dec 22 15:37	15° \mathbb{X} 27'39		morning rise	5078 Dec 03 17:11	0° \mathbb{X} 31'07	
morning max el	5077 Dec 29 14:51	19° \mathbb{X} 19'34	19°07'49		5078 Dec 04 23:31	30° \mathbb{R} 0	
	5078 Jan 07 00:54	0° \mathbb{Z}		direct	5078 Dec 06 13:20	29° \mathbb{M} 46'07	
greatest brilliancy	5078 Jan 09 11:11	3° \mathbb{Z} 33'44	-0.7m		5078 Dec 08 03:35	0° \mathbb{X}	
desc. node	5078 Jan 19 12:19	18° \mathbb{Z} 56'35		morning max el	5078 Dec 13 03:12	3° \mathbb{X} 20'18	18°24'37
morning set	5078 Jan 21 16:00	22° \mathbb{Z} 17'15			5078 Dec 31 10:52	0° \mathbb{Z}	
	5078 Jan 26 14:56	0° \approx		morning set	5079 Jan 01 20:04	2° \mathbb{Z} 13'07	
max. Earth dist.	5078 Feb 04 18:18	14° \approx 18'17	1.44965 AU	desc. node	5079 Jan 06 09:21	9° \mathbb{Z} 29'56	
superior conj	5078 Feb 07 09:51	18° \approx 29'04	-1°-48'-53	superior conj	5079 Jan 17 12:54	27° \mathbb{Z} 06'35	-1°-12'-11
minimum elong	5078 Feb 07 01:23	17° \approx 55'36	1°48'14	minimum elong	5079 Jan 17 04:24	26° \mathbb{Z} 33'15	1°11'12
	5078 Feb 14 14:55	0° \mathbb{X}		max. Earth dist.	5079 Jan 18 12:44	28° \mathbb{Z} 40'02	1.45326 AU
evening rise	5078 Feb 22 03:55	12° \mathbb{X} 17'08			5079 Jan 19 09:08	0° \approx	
	5078 Mar 05 01:02	0° \mathbb{Y}		evening rise	5079 Feb 02 14:30	22° \approx 19'16	
asc. node	5078 Mar 12 02:09	9° \mathbb{Y} 59'49			5079 Feb 07 11:24	0° \mathbb{X}	
evening max el	5078 Mar 13 22:58	12° \mathbb{Y} 03'54	18°29'24	greatest brilliancy	5079 Feb 15 08:01	12° \mathbb{X} 13'12	-0.7m
retrograde	5078 Mar 20 11:16	15° \mathbb{Y} 37'17		evening max el	5079 Feb 25 08:30	25° \mathbb{X} 35'00	19°06'53
evening set	5078 Mar 23 12:31	14° \mathbb{Y} 45'23		asc. node	5079 Feb 26 23:10	27° \mathbb{X} 05'25	
inferior conj	5078 Mar 29 08:55	9° \mathbb{Y} 12'13	3°33'14	retrograde	5079 Mar 04 06:47	29° \mathbb{X} 30'16	
minimum elong	5078 Mar 29 08:53	9° \mathbb{Y} 12'19	3°33'13	evening set	5079 Mar 07 14:58	28° \mathbb{X} 25'20	
min. Earth dist.	5078 Mar 31 12:36	6° \mathbb{Y} 39'57	0.64590 AU	inferior conj	5079 Mar 13 05:16	22° \mathbb{X} 35'39	3°26'17
morning rise	5078 Apr 04 03:43	2° \mathbb{Y} 59'15		minimum elong	5079 Mar 13 03:58	22° \mathbb{X} 39'50	3°26'08
direct	5078 Apr 10 21:15	0° \mathbb{Y} 11'53		min. Earth dist.	5079 Mar 14 17:31	20° \mathbb{X} 40'10	0.66098 AU
desc. node	5078 Apr 17 11:35	2° \mathbb{Y} 22'09		morning rise	5079 Mar 18 15:59	16° \mathbb{X} 19'43	
morning max el	5078 Apr 24 10:44	8° \mathbb{Y} 07'24	27°21'34	direct	5079 Mar 25 00:53	13° \mathbb{X} 32'24	
	5078 May 11 09:26	0° \mathbb{Z}		desc. node	5079 Apr 04 08:35	18° \mathbb{X} 46'30	
	5078 May 28 19:33	0° \mathbb{I}		morning max el	5079 Apr 06 20:39	21° \mathbb{X} 09'31	26°23'03
morning set	5078 May 29 17:42	1° \mathbb{I} 47'33			5079 Apr 14 12:33	0° \mathbb{Y}	
max. Earth dist.	5078 Jun 03 11:54	11° \mathbb{I} 21'02	1.33461 AU		5079 May 04 13:38	0° \mathbb{Z}	
				morning set	5079 May 12 21:13	14° \mathbb{Z} 51'18	
superior conj	5078 Jun 06 22:17	18° \mathbb{I} 32'02	0°-11'-42	max. Earth dist.	5079 May 16 23:21	22° \mathbb{Z} 42'02	1.34881 AU
minimum elong	5078 Jun 06 22:53	18° \mathbb{I} 35'14	0°11'36		5079 May 20 15:01	0° \mathbb{I}	
behind sun begin	5078 Jun 06 19:04	18° \mathbb{I} 15'02					
behind sun end	5078 Jun 07 02:42	18° \mathbb{I} 55'28		superior conj	5079 May 21 20:03	2° \mathbb{I} 28'12	0°-41'-15

minimum elong	5079 May 21 22:18	2° Π 39'46	0°40'49	minimum elong	5080 May 04 12:05	16° C 11'08	1°10'11
asc. node	5079 May 25 22:27	10° Π 58'30			5080 May 11 09:16	0° Π	
evening rise	5079 May 29 13:03	18° Π 29'29		asc. node	5080 May 11 19:29	0° Π 51'38	
	5079 Jun 04 07:46	0° C		evening rise	5080 May 12 16:57	2° Π 39'48	
evening max el	5079 Jun 17 07:31	19° C 04'27	20°45'13		5080 May 29 07:33	0° C	
retrograde	5079 Jun 28 17:18	24° C 40'10		evening max el	5080 May 29 19:50	0° C 30'48	19°35'18
evening set	5079 Jun 30 19:44	24° C 29'34		retrograde	5080 Jun 08 11:51	5° C 14'07	
desc. node	5079 Jul 01 07:50	24° C 23'58		evening set	5080 Jun 10 10:07	5° C 03'41	
inferior conj	5079 Jul 10 02:23	20° C 32'46	-2°-34'-12	desc. node	5080 Jun 17 04:52	2° C 12'16	
minimum elong	5079 Jul 09 19:20	20° C 42'49	2°31'47	inferior conj	5080 Jun 19 03:56	0° C 59'24	0°-35'-6
min. Earth dist.	5079 Jul 11 00:44	20° C 00'52	0.54843 AU	minimum elong	5080 Jun 19 02:21	1° C 01'54	0°34'33
morning rise	5079 Jul 18 18:02	16° C 30'09			5080 Jun 20 17:25	30° R Π	
direct	5079 Jul 22 13:07	15° C 59'10		min. Earth dist.	5080 Jun 21 13:52	29° Π 28'07	0.55633 AU
morning max el	5079 Aug 04 16:08	22° C 17'47	23°04'30	morning rise	5080 Jun 27 15:07	26° Π 26'39	
	5079 Aug 11 09:55	0° Ω		direct	5080 Jul 02 06:03	25° Π 38'58	
asc. node	5079 Aug 21 21:42	17° Ω 10'30			5080 Jul 13 03:40	0° C	
morning set	5079 Aug 27 13:45	28° Ω 37'04		morning max el	5080 Jul 16 05:46	2° C 39'25	24°48'07
	5079 Aug 28 05:26	0° η			5080 Aug 04 08:13	0° Ω	
				asc. node	5080 Aug 07 18:45	6° Ω 42'14	
superior conj	5079 Sep 03 15:43	13° η 48'10	1°39'03	morning set	5080 Aug 11 01:34	13° Ω 30'12	
minimum elong	5079 Sep 03 14:20	13° η 40'50	1°38'59				
max. Earth dist.	5079 Sep 06 11:01	19° η 45'05	1.33718 AU	superior conj	5080 Aug 18 00:55	28° Ω 38'32	1°28'57
evening rise	5079 Sep 11 09:46	29° η 51'04		minimum elong	5080 Aug 17 22:50	28° Ω 27'12	1°28'43
	5079 Sep 11 11:35	0° $\underline{\Delta}$			5080 Aug 18 15:51	0° η	
desc. node	5079 Sep 27 07:07	27° $\underline{\Delta}$ 49'20		max. Earth dist.	5080 Aug 19 15:03	2° η 06'05	1.32699 AU
	5079 Sep 28 17:22	0° \mathbb{M}		evening rise	5080 Aug 25 07:09	14° η 05'22	
evening max el	5079 Oct 15 18:06	21° \mathbb{M} 22'09	27°17'06		5080 Sep 02 13:48	0° $\underline{\Delta}$	
retrograde	5079 Oct 29 05:04	28° \mathbb{M} 40'13		desc. node	5080 Sep 13 04:09	17° $\underline{\Delta}$ 16'11	
evening set	5079 Nov 05 03:35	26° \mathbb{M} 01'19			5080 Sep 22 22:26	0° \mathbb{M}	
min. Earth dist.	5079 Nov 08 23:44	22° \mathbb{M} 26'33	0.64690 AU	evening max el	5080 Sep 27 04:40	4° \mathbb{M} 26'00	27°26'42
inferior conj	5079 Nov 11 06:23	19° \mathbb{M} 58'11	-2°-11'-40	retrograde	5080 Oct 10 21:53	11° \mathbb{M} 41'22	
minimum elong	5079 Nov 11 10:12	19° \mathbb{M} 47'48	2°10'10	evening set	5080 Oct 18 01:57	9° \mathbb{M} 09'44	
morning rise	5079 Nov 17 18:58	14° \mathbb{M} 27'44		min. Earth dist.	5080 Oct 21 17:40	6° \mathbb{M} 06'36	0.62994 AU
asc. node	5079 Nov 17 20:55	14° \mathbb{M} 25'38		inferior conj	5080 Oct 24 11:59	3° \mathbb{M} 25'12	-3°-14'-43
direct	5079 Nov 20 07:46	13° \mathbb{M} 54'17		minimum elong	5080 Oct 24 17:31	3° \mathbb{M} 11'41	3°12'52
morning max el	5079 Nov 26 19:12	17° \mathbb{M} 20'07	17°58'16		5080 Oct 28 08:00	30° R $\underline{\Delta}$	
	5079 Dec 06 00:37	0° Z		morning rise	5080 Oct 31 11:52	28° $\underline{\Delta}$ 12'15	
morning set	5079 Dec 14 05:34	13° Z 36'19		direct	5080 Nov 02 20:01	27° $\underline{\Delta}$ 46'41	
desc. node	5079 Dec 24 06:21	0° Z 11'16		asc. node	5080 Nov 03 17:59	27° $\underline{\Delta}$ 50'41	
	5079 Dec 24 03:35	0° Z			5080 Nov 08 03:49	0° \mathbb{M}	
				morning max el	5080 Nov 09 11:59	1° \mathbb{M} 12'36	17°49'31
superior conj	5079 Dec 28 00:02	6° Z 12'46	0°-25'-48	morning set	5080 Nov 25 15:26	26° \mathbb{M} 10'10	
minimum elong	5079 Dec 27 20:55	6° Z 00'17	0°25'21		5080 Nov 27 19:46	0° Z	
max. Earth dist.	5080 Jan 01 08:05	13° Z 06'14	1.44949 AU				
	5080 Jan 12 04:18	0° \approx		superior conj	5080 Dec 07 10:33	16° Z 29'04	0°18'58
evening rise	5080 Jan 13 06:30	1° \approx 40'57		minimum elong	5080 Dec 07 12:26	16° Z 36'54	0°18'43
	5080 Feb 01 04:39	0° H		desc. node	5080 Dec 10 03:23	20° Z 57'29	
greatest brilliancy	5080 Feb 01 18:40	0° H 48'22	-0.6m	max. Earth dist.	5080 Dec 14 01:23	27° Z 19'26	1.43880 AU
evening max el	5080 Feb 08 13:28	9° H 08'18	20°00'17		5080 Dec 15 17:30	0° Z	
asc. node	5080 Feb 13 20:13	13° H 05'20		evening rise	5080 Dec 22 16:44	10° Z 55'44	
retrograde	5080 Feb 16 04:40	13° H 34'49			5081 Jan 04 08:35	0° \approx	
evening set	5080 Feb 19 21:01	12° H 15'48		greatest brilliancy	5081 Jan 16 08:20	16° \approx 41'01	-0.4m
inferior conj	5080 Feb 25 07:46	6° H 11'46	3°06'54	evening max el	5081 Jan 21 12:57	22° \approx 42'36	21°06'50
minimum elong	5080 Feb 25 05:40	6° H 18'50	3°06'30	retrograde	5081 Jan 30 02:44	27° \approx 47'09	
min. Earth dist.	5080 Feb 26 05:35	4° H 58'29	0.67181 AU	asc. node	5081 Jan 30 17:15	27° \approx 45'10	
	5080 Mar 01 11:41	30° R \approx		evening set	5081 Feb 03 04:44	26° \approx 13'05	
morning rise	5080 Mar 01 13:42	29° \approx 55'23		inferior conj	5081 Feb 08 14:02	19° \approx 57'24	2°37'31
direct	5080 Mar 07 10:06	27° \approx 19'28		minimum elong	5081 Feb 08 11:37	20° \approx 05'44	2°36'52
	5080 Mar 14 05:17	0° H		min. Earth dist.	5081 Feb 08 22:51	19° \approx 26'55	0.67843 AU
morning max el	5080 Mar 19 05:33	4° H 23'06	25°04'37	morning rise	5081 Feb 13 18:09	13° \approx 42'17	
desc. node	5080 Mar 21 05:37	6° H 29'57		direct	5081 Feb 19 00:06	11° \approx 25'08	
	5080 Apr 07 21:07	0° Y		morning max el	5081 Mar 01 14:22	17° \approx 43'29	23°36'25
morning set	5080 Apr 24 07:57	27° Y 02'27		desc. node	5081 Mar 08 02:39	25° \approx 10'07	
	5080 Apr 25 23:20	0° C			5081 Mar 11 20:06	0° H	
max. Earth dist.	5080 Apr 28 00:14	3° C 44'36	1.36734 AU		5081 Mar 31 23:07	0° Y	
				morning set	5081 Apr 05 20:01	8° Y 05'41	
superior conj	5080 May 04 08:11	15° C 51'54	-1°-10'-49	max. Earth dist.	5081 Apr 09 19:54	14° Y 59'49	1.38871 AU

superior conj	5081 Apr 17 06:57	28° Υ 33'30	-1°-37'-54		5082 Mar 24 12:41	0° Υ	
minimum elong	5081 Apr 17 11:55	28° Υ 56'46	1°37'21				
	5081 Apr 18 01:21	0° \mathcal{B}		superior conj	5082 Mar 30 11:44	10° Υ 22'06	-1°-58'-53
evening rise	5081 Apr 26 13:19	16° \mathcal{B} 23'35		minimum elong	5082 Mar 30 16:04	10° Υ 41'24	1°58'38
asc. node	5081 Apr 28 16:32	20° \mathcal{B} 31'08		evening rise	5082 Apr 09 22:43	29° Υ 32'16	
	5081 May 03 19:41	0° Π			5082 Apr 10 04:41	0° \mathcal{B}	
evening max el	5081 May 12 19:15	12° Π 37'45	18°45'38	asc. node	5082 Apr 15 13:35	9° \mathcal{B} 51'44	
retrograde	5081 May 20 23:15	16° Π 38'36		evening max el	5082 Apr 26 02:36	25° \mathcal{B} 18'13	18°16'18
evening set	5081 May 23 01:51	16° Π 23'31		retrograde	5082 May 03 05:31	28° \mathcal{B} 51'56	
inferior conj	5081 May 31 00:28	12° Π 01'45	1°09'42	evening set	5082 May 05 14:40	28° \mathcal{B} 28'51	
minimum elong	5081 May 31 02:58	11° Π 57'09	1°08'50	inferior conj	5082 May 12 18:37	23° \mathcal{B} 46'35	2°24'44
min. Earth dist.	5081 Jun 03 06:31	9° Π 38'57	0.57214 AU	minimum elong	5082 May 12 22:07	23° \mathcal{B} 39'02	2°23'49
desc. node	5081 Jun 04 01:54	9° Π 05'37		min. Earth dist.	5082 May 16 04:42	20° \mathcal{B} 50'58	0.59277 AU
morning rise	5081 Jun 07 23:32	6° Π 52'39		morning rise	5082 May 20 01:25	18° \mathcal{B} 07'34	
direct	5081 Jun 13 12:38	5° Π 37'26		desc. node	5082 May 21 22:55	17° \mathcal{B} 11'58	
morning max el	5081 Jun 27 21:14	13° Π 08'05	26°19'25	direct	5082 May 26 09:11	16° \mathcal{B} 18'06	
	5081 Jul 11 03:47	0° \mathcal{E}		morning max el	5082 Jun 09 18:27	24° \mathcal{B} 07'51	27°23'35
asc. node	5081 Jul 25 15:47	26° \mathcal{E} 30'43			5082 Jun 15 02:09	0° Π	
morning set	5081 Jul 26 12:24	28° \mathcal{E} 19'00			5082 Jul 04 08:15	0° \mathcal{E}	
	5081 Jul 27 07:25	0° \mathcal{Q}		morning set	5082 Jul 10 20:37	12° \mathcal{E} 58'17	
				asc. node	5082 Jul 12 12:50	16° \mathcal{E} 30'34	
superior conj	5081 Aug 02 12:18	13° \mathcal{Q} 33'04	1°13'52	max. Earth dist.	5082 Jul 17 11:52	27° \mathcal{E} 18'34	1.31928 AU
minimum elong	5081 Aug 02 10:00	13° \mathcal{Q} 20'20	1°13'30				
max. Earth dist.	5081 Aug 03 00:30	14° \mathcal{Q} 40'23	1.32103 AU	superior conj	5082 Jul 18 00:06	28° \mathcal{E} 26'06	0°54'25
evening rise	5081 Aug 09 11:29	28° \mathcal{Q} 38'12		minimum elong	5082 Jul 17 22:01	28° \mathcal{E} 14'39	0°54'00
	5081 Aug 10 03:11	0° \mathcal{M}			5082 Jul 18 17:06	0° \mathcal{Q}	
	5081 Aug 26 20:07	0° \mathcal{A}		evening rise	5082 Jul 24 20:20	13° \mathcal{Q} 22'19	
desc. node	5081 Aug 31 01:12	5° \mathcal{A} 59'59			5082 Aug 02 05:12	0° \mathcal{M}	
evening max el	5081 Sep 09 10:27	16° \mathcal{A} 50'35	27°03'45	desc. node	5082 Aug 17 22:13	23° \mathcal{M} 43'10	
retrograde	5081 Sep 23 07:23	24° \mathcal{A} 02'13		evening max el	5082 Aug 22 09:10	28° \mathcal{M} 27'17	26°07'45
evening set	5081 Sep 30 08:50	21° \mathcal{A} 49'44			5082 Aug 24 02:14	0° \mathcal{A}	
min. Earth dist.	5081 Oct 04 00:46	19° \mathcal{A} 09'02	0.61033 AU	retrograde	5082 Sep 05 08:22	5° \mathcal{A} 35'13	
inferior conj	5081 Oct 07 04:18	16° \mathcal{A} 27'05	-4°-13'-13	evening set	5082 Sep 11 19:24	3° \mathcal{A} 54'05	
minimum elong	5081 Oct 07 10:35	16° \mathcal{A} 13'33	4°11'38	min. Earth dist.	5082 Sep 15 22:02	1° \mathcal{A} 19'45	0.58960 AU
morning rise	5081 Oct 14 15:36	11° \mathcal{A} 35'10			5082 Sep 17 17:09	30° \mathcal{R} \mathcal{M}	
direct	5081 Oct 16 22:09	11° \mathcal{A} 14'22		inferior conj	5082 Sep 19 03:46	28° \mathcal{M} 54'36	-4°-58'-35
asc. node	5081 Oct 21 15:02	12° \mathcal{A} 47'25		minimum elong	5082 Sep 19 08:34	28° \mathcal{M} 45'36	4°57'56
morning max el	5081 Oct 24 02:18	14° \mathcal{A} 48'53	17°59'22	morning rise	5082 Sep 27 01:17	24° \mathcal{M} 25'46	
	5081 Nov 03 12:51	0° \mathcal{M}		direct	5082 Sep 29 09:48	24° \mathcal{M} 07'04	
morning set	5081 Nov 08 19:05	9° \mathcal{M} 34'10		morning max el	5082 Oct 07 10:44	27° \mathcal{M} 59'44	18°29'11
				asc. node	5082 Oct 08 12:03	29° \mathcal{M} 04'08	
superior conj	5081 Nov 18 23:29	28° \mathcal{M} 02'18	0°55'10		5082 Oct 09 08:01	0° \mathcal{A}	
minimum elong	5081 Nov 19 03:21	28° \mathcal{M} 19'20	0°54'39	morning set	5082 Oct 23 11:14	23° \mathcal{A} 33'09	
	5081 Nov 20 02:22	0° \mathcal{X}			5082 Oct 26 19:31	0° \mathcal{M}	
max. Earth dist.	5081 Nov 26 13:54	11° \mathcal{X} 01'05	1.42242 AU				
desc. node	5081 Nov 27 00:26	11° \mathcal{X} 44'41		superior conj	5082 Nov 01 10:52	10° \mathcal{M} 40'37	1°20'45
evening rise	5081 Dec 02 12:49	20° \mathcal{X} 40'59		minimum elong	5082 Nov 01 14:26	10° \mathcal{M} 57'07	1°20'23
	5081 Dec 08 12:17	0° \mathcal{Z}		max. Earth dist.	5082 Nov 08 20:57	23° \mathcal{M} 59'33	1.40244 AU
	5081 Dec 29 18:07	0° \approx			5082 Nov 12 09:34	0° \mathcal{X}	
greatest brilliancy	5081 Dec 30 12:18	0° \approx 55'44	-0.3m	evening rise	5082 Nov 13 05:27	1° \mathcal{X} 22'56	
evening max el	5082 Jan 04 07:10	6° \approx 18'13	22°22'43	desc. node	5082 Nov 13 21:28	2° \mathcal{X} 29'21	
retrograde	5082 Jan 13 23:13	12° \approx 03'15			5082 Dec 01 21:21	0° \mathcal{Z}	
asc. node	5082 Jan 17 14:17	10° \approx 54'06		evening max el	5082 Dec 17 21:38	19° \mathcal{Z} 57'11	23°42'40
evening set	5082 Jan 18 12:24	10° \approx 13'34		retrograde	5082 Dec 28 16:40	26° \mathcal{Z} 19'20	
inferior conj	5082 Jan 23 21:58	3° \approx 49'39	1°59'42	evening set	5083 Jan 02 18:27	24° \mathcal{Z} 14'00	
minimum elong	5082 Jan 23 19:43	3° \approx 57'28	1°58'57	asc. node	5083 Jan 04 11:19	22° \mathcal{Z} 34'38	
min. Earth dist.	5082 Jan 23 19:01	3° \approx 59'52	0.68104 AU	min. Earth dist.	5083 Jan 07 15:45	18° \mathcal{Z} 33'38	0.67992 AU
	5082 Jan 26 19:24	30° \mathcal{R} \mathcal{Z}		inferior conj	5083 Jan 08 05:43	17° \mathcal{Z} 46'00	1°14'34
morning rise	5082 Jan 29 02:54	27° \mathcal{Z} 37'23		minimum elong	5083 Jan 08 04:05	17° \mathcal{Z} 51'34	1°13'57
direct	5082 Feb 02 18:03	25° \mathcal{Z} 42'33		morning rise	5083 Jan 13 13:54	11° \mathcal{Z} 38'26	
	5082 Feb 10 20:30	0° \approx		direct	5083 Jan 17 15:00	10° \mathcal{Z} 06'13	
morning max el	5082 Feb 12 02:00	1° \approx 11'16	22°08'10	morning max el	5083 Jan 25 19:45	14° \mathcal{Z} 49'13	20°47'37
greatest brilliancy	5082 Feb 16 16:26	6° \approx 20'02	-0.3m	greatest brilliancy	5083 Jan 31 12:26	21° \mathcal{Z} 25'10	-0.5m
desc. node	5082 Feb 22 23:40	14° \approx 30'58			5083 Feb 06 20:00	0° \approx	
	5082 Mar 05 17:38	0° \mathcal{H}		desc. node	5083 Feb 09 20:42	4° \approx 21'14	
morning set	5082 Mar 17 04:15	17° \mathcal{H} 49'00		morning set	5083 Feb 24 10:01	26° \approx 20'12	
max. Earth dist.	5082 Mar 22 17:26	26° \mathcal{H} 57'15	1.41045 AU		5083 Feb 26 18:09	0° \mathcal{H}	

max. Earth dist.	5083 Mar 04 21:30	9° 48 '32	1.42984 AU		5084 Jan 31 07:20	0° ≈	
				morning set	5084 Feb 03 06:27	4° ≈ 33'26	
superior conj	5083 Mar 11 17:34	21° 4 '06'28	-2°-8'-45	max. Earth dist.	5084 Feb 15 09:24	23° ≈ 30'09	1.44433 AU
minimum elong	5083 Mar 11 18:18	21° 4 '09'33	2°08'45		5084 Feb 19 11:03	0° 4	
	5083 Mar 16 22:21	0° 4					
evening rise	5083 Mar 23 16:58	11° 4 '55'39		superior conj	5084 Feb 19 21:55	0° 4 '43'46	-2°-1'-52
asc. node	5083 Apr 02 10:36	28° 4 '46'11		minimum elong	5084 Feb 19 16:26	0° 4 '21'40	2°01'37
	5083 Apr 03 05:16	0° 8		evening rise	5084 Mar 04 15:41	23° 4 '26'25	
evening max el	5083 Apr 09 14:17	8° 8 '21'50	18°06'35		5084 Mar 08 12:47	0° 4	
retrograde	5083 Apr 16 03:32	11° 8 '44'10		asc. node	5084 Mar 19 07:38	17° 4 '06'55	
evening set	5083 Apr 18 19:08	11° 8 '10'48		evening max el	5084 Mar 23 03:11	21° 4 '41'10	18°15'46
inferior conj	5083 Apr 25 07:49	6° 8 '07'49	3°09'46	retrograde	5084 Mar 29 13:05	25° 4 '06'32	
minimum elong	5083 Apr 25 10:19	6° 8 '01'35	3°09'21	evening set	5084 Apr 01 10:51	24° 4 '21'31	
min. Earth dist.	5083 Apr 28 10:14	3° 8 '04'20	0.61487 AU	inferior conj	5084 Apr 07 12:08	18° 4 '58'50	3°30'14
morning rise	5083 May 01 22:27	0° 8 '09'34		minimum elong	5084 Apr 07 13:01	18° 4 '56'23	3°30'10
	5083 May 02 04:06	30° 8 ' 4 ' 4		min. Earth dist.	5084 Apr 10 00:43	16° 4 '10'27	0.63554 AU
direct	5083 May 08 16:54	27° 4 '48'42		morning rise	5084 Apr 13 13:13	12° 4 '49'45	
desc. node	5083 May 08 19:56	27° 4 '48'45		direct	5084 Apr 20 09:22	10° 4 '08'20	
	5083 May 15 17:14	0° 8		desc. node	5084 Apr 24 16:57	11° 4 '04'11	
morning max el	5083 May 22 21:44	5° 8 '47'36	27°51'49	morning max el	5084 May 04 05:37	18° 4 '07'13	27°42'27
	5083 Jun 10 02:22	0° 8			5084 May 14 04:46	0° 8	
morning set	5083 Jun 25 00:15	27° 8 '20'39			5084 Jun 01 23:09	0° 8	
	5083 Jun 26 07:05	0° 8		morning set	5084 Jun 07 20:59	11° 8 '19'25	
asc. node	5083 Jun 29 09:52	6° 8 '36'05		max. Earth dist.	5084 Jun 13 00:45	21° 8 '55'05	1.32862 AU
max. Earth dist.	5083 Jun 30 21:11	9° 8 '47'04	1.32173 AU	asc. node	5084 Jun 15 06:54	26° 8 '43'17	
superior conj	5083 Jul 02 10:28	13° 8 '10'34	0°31'08	superior conj	5084 Jun 15 17:38	27° 8 '40'58	0°04'40
minimum elong	5083 Jul 02 09:06	13° 8 '03'04	0°30'50	minimum elong	5084 Jun 15 17:24	27° 8 '39'44	0°04'37
evening rise	5083 Jul 09 07:33	28° 8 '09'52		behind sun begin	5084 Jun 15 12:17	27° 8 '12'13	
	5083 Jul 10 04:20	0° 8		behind sun end	5084 Jun 15 22:32	28° 8 '07'17	
	5083 Jul 27 02:50	0° 8			5084 Jun 16 19:26	0° 8	
evening max el	5083 Aug 04 00:44	9° 8 '17'37	24°44'50	evening rise	5084 Jun 22 19:18	12° 8 '55'04	
desc. node	5083 Aug 04 19:13	10° 8 '00'54			5084 Jul 01 10:48	0° 8	
retrograde	5083 Aug 17 22:22	16° 8 '18'29		evening max el	5084 Jul 15 13:21	19° 8 '40'32	23°08'08
evening set	5083 Aug 23 05:36	15° 8 '15'14		desc. node	5084 Jul 21 16:13	24° 8 '21'29	
min. Earth dist.	5083 Aug 28 12:06	12° 8 '28'30	0.57019 AU	retrograde	5084 Jul 28 23:32	26° 8 '23'00	
inferior conj	5083 Aug 31 07:33	10° 8 '38'51	-5°-17'-20	evening set	5084 Aug 01 18:35	25° 8 '51'35	
minimum elong	5083 Aug 31 07:32	10° 8 '38'52	5°17'21	min. Earth dist.	5084 Aug 08 22:24	22° 8 '36'43	0.55535 AU
morning rise	5083 Sep 08 12:55	6° 8 '32'07		inferior conj	5084 Aug 10 15:40	21° 8 '36'43	-4°-52'-55
direct	5083 Sep 11 03:15	6° 8 '13'13		minimum elong	5084 Aug 10 09:17	21° 8 '46'02	4°51'56
morning max el	5083 Sep 20 09:54	10° 8 '34'49	19°20'27	morning rise	5084 Aug 19 02:47	17° 8 '45'19	
asc. node	5083 Sep 25 09:05	16° 8 '25'34		direct	5084 Aug 22 01:58	17° 8 '24'21	
	5083 Oct 03 10:37	0° 8		morning max el	5084 Sep 01 21:19	22° 8 '25'53	20°33'37
morning set	5083 Oct 07 12:00	7° 8 '56'22			5084 Sep 08 06:12	0° 8	
				asc. node	5084 Sep 11 06:08	4° 8 '37'29	
superior conj	5083 Oct 15 15:19	24° 8 '08'30	1°36'15	morning set	5084 Sep 20 18:28	22° 8 '35'45	
minimum elong	5083 Oct 15 17:30	24° 8 '19'09	1°36'07		5084 Sep 24 08:24	0° 8	
	5083 Oct 18 16:23	0° 8					
max. Earth dist.	5083 Oct 22 01:36	6° 8 '18'12	1.38136 AU	superior conj	5084 Sep 28 08:05	8° 8 '12'30	1°43'00
evening rise	5083 Oct 25 21:00	13° 8 '07'27		minimum elong	5084 Sep 28 08:41	8° 8 '15'34	1°43'00
desc. node	5083 Oct 31 18:29	23° 8 '07'35		max. Earth dist.	5084 Oct 03 09:06	18° 8 '14'32	1.36159 AU
	5083 Nov 05 01:18	0° 8		evening rise	5084 Oct 07 08:51	25° 8 '47'35	
	5083 Nov 26 22:53	0° 8			5084 Oct 09 16:20	0° 8	
evening max el	5083 Nov 30 10:32	3° 8 '40'27	25°00'11	desc. node	5084 Oct 17 15:30	13° 8 '34'36	
retrograde	5083 Dec 12 05:57	10° 8 '31'10			5084 Oct 28 13:13	0° 8	
evening set	5083 Dec 17 21:19	8° 8 '11'13		evening max el	5084 Nov 11 23:13	17° 8 '24'04	26°07'54
asc. node	5083 Dec 22 08:19	3° 8 '12'59		retrograde	5084 Nov 24 14:11	24° 8 '32'52	
min. Earth dist.	5083 Dec 22 10:42	3° 8 '05'16	0.67521 AU	evening set	5084 Nov 30 19:14	22° 8 '00'49	
inferior conj	5083 Dec 23 11:31	1° 8 '43'47	0°23'01	min. Earth dist.	5084 Dec 05 01:25	17° 8 '30'29	0.66701 AU
minimum elong	5083 Dec 23 10:57	1° 8 '45'39	0°22'47	inferior conj	5084 Dec 06 13:28	15° 8 '38'54	0°-34'-1
	5083 Dec 24 19:36	30° 8 ' 4 ' 4		minimum elong	5084 Dec 06 14:23	15° 8 '36'04	0°33'38
morning rise	5083 Dec 29 01:10	25° 8 '43'10		asc. node	5084 Dec 08 05:22	13° 8 '38'13	
direct	5084 Jan 01 13:38	24° 8 '43'10		morning rise	5084 Dec 12 10:40	9° 8 '47'52	
morning max el	5084 Jan 08 21:24	28° 8 '43'51	19°39'54	direct	5084 Dec 15 12:15	8° 8 '47'16	
	5084 Jan 10 04:20	0° 8		morning max el	5084 Dec 22 06:26	12° 8 '37'00	18°47'26
greatest brilliancy	5084 Jan 16 19:14	8° 8 '25'01	-0.6m		5085 Jan 04 00:34	0° 8	
desc. node	5084 Jan 27 17:43	24° 8 '33'02		morning set	5085 Jan 12 18:28	13° 8 '40'07	

desc. node	5085 Jan 13 14:44	14°☿59'41		morning max el	5085 Dec 05 20:46	26°♄38'40	18°11'19
	5085 Jan 23 04:23	0°♊			5085 Dec 08 19:14	0°♊	
max. Earth dist.	5085 Jan 28 02:54	7°♊44'29	1.45217 AU	morning set	5085 Dec 24 11:20	24°♊14'22	
					5085 Dec 28 00:17	0°☿	
superior conj	5085 Jan 29 05:39	9°♊29'32	-1°-35'-12	desc. node	5085 Dec 31 11:46	5°☿36'56	
minimum elong	5085 Jan 28 20:15	8°♊52'37	1°34'19				
	5085 Feb 11 03:53	0°♋		superior conj	5086 Jan 08 09:38	18°☿12'15	0°-52'-59
evening rise	5085 Feb 13 15:32	3°♋59'48		minimum elong	5086 Jan 08 03:06	17°☿46'29	0°52'07
	5085 Mar 02 07:58	0°♌		max. Earth dist.	5086 Jan 10 22:18	22°☿10'55	1.45261 AU
asc. node	5085 Mar 06 04:39	4°♌43'16			5086 Jan 15 22:12	0°♊	
evening max el	5085 Mar 06 14:34	5°♌08'57	18°43'14	evening rise	5086 Jan 24 17:12	13°♊41'50	
retrograde	5085 Mar 13 06:02	8°♌50'09			5086 Feb 04 06:02	0°♋	
evening set	5085 Mar 16 10:13	7°♌52'38		greatest brilliancy	5086 Feb 09 15:30	8°♋03'39	-0.7m
inferior conj	5085 Mar 22 03:39	2°♌11'58	3°31'57	evening max el	5086 Feb 17 22:14	18°♋40'33	19°27'43
minimum elong	5085 Mar 22 03:01	2°♌13'52	3°31'55	asc. node	5086 Feb 21 01:42	21°♋22'27	
	5085 Mar 23 22:48	30°♌		retrograde	5086 Feb 25 03:01	22°♋48'25	
min. Earth dist.	5085 Mar 24 00:34	29°♋54'40	0.65288 AU	evening set	5086 Feb 28 14:29	21°♋37'35	
morning rise	5085 Mar 27 18:36	25°♋57'27		inferior conj	5086 Mar 06 02:58	15°♋41'12	3°19'23
direct	5085 Apr 03 09:02	23°♋08'54		minimum elong	5086 Mar 06 01:16	15°♋46'46	3°19'09
desc. node	5085 Apr 11 13:58	26°♋29'09		min. Earth dist.	5086 Mar 07 08:50	14°♋03'29	0.66611 AU
	5085 Apr 15 16:21	0°♌		morning rise	5086 Mar 11 11:15	9°♋24'37	
morning max el	5085 Apr 16 15:40	0°♌57'34	26°59'45	direct	5086 Mar 17 15:01	6°♋41'15	
	5085 May 08 06:12	0°♍		desc. node	5086 Mar 29 11:00	13°♋30'07	
morning set	5085 May 22 07:54	24°♍46'08		morning max el	5086 Mar 30 01:28	14°♋06'13	25°51'30
	5085 May 25 00:12	0°♎			5086 Apr 12 00:02	0°♌	
max. Earth dist.	5085 May 26 19:01	3°♎34'21	1.34012 AU		5086 May 01 00:54	0°♍	
				morning set	5086 May 05 04:56	7°♍29'07	
superior conj	5085 May 30 19:32	11°♎51'18	0°-24'-7	max. Earth dist.	5086 May 09 01:53	14°♍45'29	1.35620 AU
minimum elong	5085 May 30 20:49	11°♎58'01	0°23'52				
asc. node	5085 Jun 02 03:57	16°♎48'23		superior conj	5086 May 14 13:35	25°♍34'07	0°-53'-55
evening rise	5085 Jun 07 05:43	27°♎32'02		minimum elong	5086 May 14 16:33	25°♍49'10	0°53'24
	5085 Jun 08 10:10	0°☿			5086 May 16 17:53	0°♎	
	5085 Jun 27 03:19	0°♏		asc. node	5086 May 20 00:59	6°♎46'56	
evening max el	5085 Jun 27 06:58	0°♏09'00	21°33'39	evening rise	5086 May 22 12:41	11°♎53'56	
desc. node	5085 Jul 08 13:14	6°♏11'43			5086 Jun 01 02:18	0°☿	
retrograde	5085 Jul 09 14:33	6°♏14'21		evening max el	5086 Jun 09 11:57	11°☿10'35	20°13'04
evening set	5085 Jul 12 02:58	5°♏59'55		retrograde	5086 Jun 20 04:19	16°☿24'14	
inferior conj	5085 Jul 21 10:35	1°♏59'49	-3°-36'-44	evening set	5086 Jun 22 03:04	16°☿14'32	
minimum elong	5085 Jul 21 01:51	2°♏12'02	3°34'13	desc. node	5086 Jun 25 10:16	15°☿17'54	
min. Earth dist.	5085 Jul 21 08:28	2°♏02'46	0.54818 AU	inferior conj	5086 Jul 01 05:35	12°☿16'04	-1°-43'-44
	5085 Jul 25 03:47	30°♏		minimum elong	5086 Jul 01 00:43	12°☿23'15	1°41'59
morning rise	5085 Jul 30 01:42	28°☿07'41		min. Earth dist.	5086 Jul 02 20:29	11°☿18'34	0.55057 AU
direct	5085 Aug 02 11:59	27°☿42'11		morning rise	5086 Jul 09 20:15	8°☿02'01	
	5085 Aug 10 05:51	0°♏		direct	5086 Jul 13 22:47	7°☿25'28	
morning max el	5085 Aug 14 21:04	3°♏31'59	22°05'57	morning max el	5086 Jul 27 12:48	14°☿03'37	23°49'11
asc. node	5085 Aug 29 03:11	23°♏27'53			5086 Aug 08 21:34	0°♏	
	5085 Sep 01 13:20	0°♐		asc. node	5086 Aug 16 00:14	12°♏46'23	
morning set	5085 Sep 05 04:28	7°♐25'07		morning set	5086 Aug 20 16:04	22°♏17'47	
					5086 Aug 24 06:12	0°♐	
superior conj	5085 Sep 12 09:28	22°♐41'51	1°42'21				
minimum elong	5085 Sep 12 08:43	22°♐37'51	1°42'19	superior conj	5086 Aug 27 16:30	7°♐26'26	1°35'26
	5085 Sep 15 21:47	0°♑		minimum elong	5086 Aug 27 14:47	7°♐17'07	1°35'17
max. Earth dist.	5085 Sep 15 23:46	0°♑10'07	1.34489 AU	max. Earth dist.	5086 Aug 29 22:58	12°♐18'50	1.33223 AU
evening rise	5085 Sep 20 12:51	9°♑13'01		evening rise	5086 Sep 04 04:52	23°♐11'48	
	5085 Oct 02 04:33	0°♒			5086 Sep 07 16:08	0°♑	
desc. node	5085 Oct 04 12:32	3°♒44'54		desc. node	5086 Sep 21 09:35	23°♑30'03	
	5085 Oct 24 11:08	0°♊			5086 Sep 25 21:05	0°♒	
evening max el	5085 Oct 25 11:55	1°♊00'46	26°58'26	evening max el	5086 Oct 07 23:40	14°♒19'22	27°24'51
retrograde	5085 Nov 07 17:00	8°♊18'06		retrograde	5086 Oct 21 13:55	21°♒37'35	
evening set	5085 Nov 14 10:12	5°♊39'10		evening set	5086 Oct 28 15:33	19°♒00'06	
min. Earth dist.	5085 Nov 18 09:39	1°♊44'44	0.65529 AU	min. Earth dist.	5086 Nov 01 09:20	15°♒39'43	0.64005 AU
	5085 Nov 19 22:19	30°♒		inferior conj	5086 Nov 03 21:12	13°♒04'10	-2°-38'-36
inferior conj	5085 Nov 20 09:32	29°♒27'42	-1°-35'-14	minimum elong	5086 Nov 04 01:49	12°♒52'11	2°36'53
minimum elong	5085 Nov 20 12:15	29°♒19'55	1°34'07	morning rise	5086 Nov 10 14:33	7°♒41'01	
asc. node	5085 Nov 25 02:24	24°♒47'02		asc. node	5086 Nov 11 23:26	7°♒17'09	
morning rise	5085 Nov 26 16:07	23°♒49'06		direct	5086 Nov 13 00:56	7°♒11'28	
direct	5085 Nov 29 08:53	23°♒09'29		morning max el	5086 Nov 19 13:33	10°♒36'27	17°52'21

	5086 Dec 02 17:25	0°♄		min. Earth dist.	5087 Oct 14 22:53	29°♄04'31	0.62178 AU
morning set	5086 Dec 06 08:00	6°♄09'50		inferior conj	5087 Oct 17 21:32	26°♄21'03	-3°-40'-33
desc. node	5086 Dec 18 08:50	26°♄20'51		minimum elong	5087 Oct 18 03:34	26°♄07'02	3°38'43
				morning rise	5087 Oct 25 02:19	21°♄16'33	
superior conj	5086 Dec 19 05:43	27°♄45'57	0°-6'-5	direct	5087 Oct 27 09:15	20°♄53'28	
minimum elong	5086 Dec 19 05:01	27°♄43'08	0°06'00	asc. node	5087 Oct 29 20:30	21°♄21'11	
behind sun begin	5086 Dec 18 19:42	27°♄05'12		morning max el	5087 Nov 03 05:38	24°♄22'24	17°51'20
behind sun end	5086 Dec 19 14:21	28°♄21'01			5087 Nov 07 19:12	0°♄	
	5086 Dec 20 14:47	0°♄		morning set	5087 Nov 19 02:10	19°♄06'44	
max. Earth dist.	5086 Dec 24 16:41	6°♄32'01	1.44571 AU		5087 Nov 25 04:44	0°♄	
evening rise	5087 Jan 04 04:49	22°♄55'35					
	5087 Jan 08 19:55	0°♄		superior conj	5087 Nov 30 03:35	8°♄35'00	0°35'35
greatest brilliancy	5087 Jan 26 01:04	25°♄04'12	-0.5m	minimum elong	5087 Nov 30 06:40	8°♄48'11	0°35'08
	5087 Jan 29 23:48	0°♄		desc. node	5087 Dec 05 05:52	17°♄07'38	
evening max el	5087 Feb 01 00:52	2°♄14'11	20°27'10	max. Earth dist.	5087 Dec 07 07:46	20°♄31'57	1.43240 AU
asc. node	5087 Feb 07 22:43	6°♄50'08			5087 Dec 13 05:56	0°♄	
retrograde	5087 Feb 09 01:18	6°♄56'44		evening rise	5087 Dec 14 17:25	2°♄18'49	
evening set	5087 Feb 12 21:27	5°♄31'37			5088 Jan 02 08:24	0°♄	
	5087 Feb 17 20:16	30°♄		greatest brilliancy	5088 Jan 10 02:18	10°♄19'21	-0.4m
inferior conj	5087 Feb 18 07:22	29°♄22'11	2°55'33	evening max el	5088 Jan 14 22:04	15°♄49'12	21°38'20
minimum elong	5087 Feb 18 05:04	29°♄30'01	2°55'02	retrograde	5088 Jan 23 22:48	21°♄10'51	
min. Earth dist.	5087 Feb 18 23:33	28°♄27'01	0.67511 AU	asc. node	5088 Jan 25 19:45	20°♄52'05	
morning rise	5087 Feb 23 12:10	23°♄05'52		evening set	5088 Jan 28 05:19	19°♄30'25	
direct	5087 Mar 01 02:30	20°♄37'08		inferior conj	5088 Feb 02 14:34	13°♄10'59	2°22'27
morning max el	5087 Mar 12 10:10	27°♄23'24	24°27'36	minimum elong	5088 Feb 02 12:10	13°♄19'19	2°21'44
	5087 Mar 14 20:57	0°♄		min. Earth dist.	5088 Feb 02 18:20	12°♄57'52	0.68004 AU
desc. node	5087 Mar 16 08:02	1°♄40'11		morning rise	5088 Feb 07 18:43	6°♄56'48	
	5087 Apr 05 15:54	0°♄		direct	5088 Feb 12 18:27	4°♄48'37	
morning set	5087 Apr 17 06:51	19°♄13'56		morning max el	5088 Feb 22 19:32	10°♄45'48	22°58'16
max. Earth dist.	5087 Apr 20 23:22	25°♄47'59	1.37616 AU	greatest brilliancy	5088 Feb 27 14:09	16°♄05'42	-0.3m
	5087 Apr 23 06:22	0°♄		desc. node	5088 Mar 02 05:04	20°♄39'12	
					5088 Mar 09 00:57	0°♄	
superior conj	5087 Apr 27 20:34	8°♄41'20	-1°-22'-48	morning set	5088 Mar 28 07:27	29°♄43'37	
minimum elong	5087 Apr 28 01:02	9°♄02'56	1°22'10		5088 Mar 28 11:24	0°♄	
evening rise	5087 May 06 13:47	25°♄53'56		max. Earth dist.	5088 Apr 01 18:36	7°♄16'35	1.39813 AU
asc. node	5087 May 06 22:02	26°♄34'53					
	5087 May 08 15:42	0°♄		superior conj	5088 Apr 09 12:16	21°♄01'49	-1°-47'-50
evening max el	5087 May 23 05:25	22°♄55'16	19°11'42	minimum elong	5088 Apr 09 17:15	21°♄24'39	1°47'22
retrograde	5087 Jun 01 05:01	27°♄18'37			5088 Apr 14 07:43	0°♄	
evening set	5087 Jun 03 04:28	27°♄06'46		evening rise	5088 Apr 19 05:53	9°♄23'23	
inferior conj	5087 Jun 11 14:28	22°♄56'14	0°12'24	asc. node	5088 Apr 22 19:03	16°♄06'42	
minimum elong	5087 Jun 11 14:59	22°♄55'22	0°12'12		5088 Apr 30 23:57	0°♄	
transit middle	5087 Jun 11 14:59	22°♄55'22	0°12'12	evening max el	5088 May 05 08:41	5°♄17'37	18°30'42
transit begin	5087 Jun 11 12:30	22°♄59'33		retrograde	5088 May 13 00:18	9°♄04'26	
transit end	5087 Jun 11 17:27	22°♄51'12		evening set	5088 May 15 05:49	8°♄46'10	
desc. node	5087 Jun 12 07:16	22°♄27'50		inferior conj	5088 May 22 20:11	4°♄15'53	1°45'24
min. Earth dist.	5087 Jun 14 11:15	21°♄01'05	0.56223 AU	minimum elong	5088 May 22 23:26	4°♄09'26	1°44'24
morning rise	5087 Jun 19 21:14	18°♄07'34		min. Earth dist.	5088 May 26 05:50	1°♄36'21	0.58062 AU
direct	5087 Jun 24 21:45	17°♄09'09			5088 May 28 13:24	30°♄	
morning max el	5087 Jul 09 02:33	24°♄24'47	25°29'21	desc. node	5088 May 29 04:18	29°♄37'12	
	5087 Jul 14 05:38	0°♄		morning rise	5088 May 30 12:36	28°♄53'12	
	5087 Aug 01 16:37	0°♄		direct	5088 Jun 05 10:45	27°♄23'29	
asc. node	5087 Aug 02 21:18	2°♄25'38			5088 Jun 13 13:03	0°♄	
morning set	5087 Aug 05 03:37	7°♄09'02		morning max el	5088 Jun 19 19:53	5°♄02'58	26°50'40
					5088 Jul 08 03:22	0°♄	
superior conj	5087 Aug 12 02:52	22°♄18'58	1°23'08	morning set	5088 Jul 19 13:32	21°♄53'49	
minimum elong	5087 Aug 12 00:38	22°♄06'43	1°22'49	asc. node	5088 Jul 19 18:21	22°♄19'14	
max. Earth dist.	5087 Aug 13 05:27	24°♄44'47	1.32391 AU		5088 Jul 23 07:58	0°♄	
	5087 Aug 15 15:29	0°♄					
evening rise	5087 Aug 19 05:31	7°♄34'35		superior conj	5088 Jul 26 14:36	7°♄13'09	1°06'06
	5087 Aug 31 03:19	0°♄		minimum elong	5088 Jul 26 12:20	7°♄00'37	1°05'43
desc. node	5087 Sep 08 06:36	12°♄39'47		max. Earth dist.	5088 Jul 26 16:10	7°♄21'45	1.31979 AU
evening max el	5087 Sep 20 08:31	27°♄07'30	27°21'08	evening rise	5088 Aug 02 12:03	22°♄12'56	
	5087 Sep 23 16:45	0°♄			5088 Aug 06 07:05	0°♄	
retrograde	5087 Oct 04 03:57	4°♄21'45			5088 Aug 24 09:06	0°♄	
evening set	5087 Oct 11 07:51	1°♄56'54		desc. node	5088 Aug 25 03:36	1°♄00'01	
	5087 Oct 13 21:23	30°♄		evening max el	5088 Sep 01 11:46	9°♄13'08	26°43'55

retrograde	5088 Sep 15 09:51	16°♄22'28		evening max el	5089 Aug 14 07:16	20°♎28'44	25°35'08
evening set	5088 Sep 22 06:42	14°♄22'24		retrograde	5089 Aug 28 06:02	27°♎33'56	
min. Earth dist.	5088 Sep 26 01:43	11°♄46'27	0.60149 AU	evening set	5089 Sep 03 07:08	26°♎08'33	
inferior conj	5088 Sep 29 07:08	9°♄09'44	-4°-34'-47	min. Earth dist.	5089 Sep 07 19:10	23°♎31'34	0.58099 AU
minimum elong	5088 Sep 29 13:09	8°♄57'30	4°33'33	inferior conj	5089 Sep 10 22:28	21°♎19'26	-5°-10'-48
morning rise	5088 Oct 06 22:57	4°♄27'06		minimum elong	5089 Sep 11 01:38	21°♎13'50	5°10'33
direct	5088 Oct 09 05:57	4°♄07'25		morning rise	5089 Sep 18 23:38	17°♎00'31	
asc. node	5088 Oct 15 17:33	6°♄53'30		direct	5089 Sep 21 10:24	16°♎41'51	
morning max el	5088 Oct 16 17:47	7°♄48'36	18°09'31	morning max el	5089 Sep 29 22:37	20°♎45'00	18°48'24
	5088 Oct 31 00:00	0°♌		asc. node	5089 Oct 02 14:35	23°♎39'23	
morning set	5088 Nov 01 11:44	2°♌47'33			5089 Oct 07 01:30	0°♌	
				morning set	5089 Oct 16 07:57	16°♌57'55	
superior conj	5088 Nov 11 02:41	20°♌37'35	1°07'19		5089 Oct 23 00:11	0°♌	
minimum elong	5088 Nov 11 06:38	20°♌55'19	1°06'50				
	5088 Nov 16 10:29	0°♌		superior conj	5089 Oct 24 21:58	3°♌38'44	1°28'29
max. Earth dist.	5088 Nov 18 18:15	3°♌57'38	1.41423 AU	minimum elong	5089 Oct 25 01:01	3°♌53'09	1°28'14
desc. node	5088 Nov 21 02:53	7°♌54'13		max. Earth dist.	5089 Nov 01 00:12	16°♌39'34	1.39343 AU
evening rise	5088 Nov 23 21:31	12°♌26'46		evening rise	5089 Nov 04 23:56	23°♌34'55	
	5088 Dec 05 05:09	0°♍		desc. node	5089 Nov 07 23:54	28°♌36'22	
greatest brilliancy	5088 Dec 22 03:22	23°♍18'04	-0.2m		5089 Nov 08 20:15	0°♍	
evening max el	5088 Dec 27 14:38	29°♍26'54	22°56'36		5089 Nov 29 01:44	0°♍	
	5088 Dec 28 04:00	0°♍		evening max el	5089 Dec 10 04:07	13°♍07'15	24°16'17
retrograde	5089 Jan 06 18:01	5°♍27'43		retrograde	5089 Dec 21 09:46	19°♍42'38	
evening set	5089 Jan 11 12:29	3°♍31'20		evening set	5089 Dec 26 17:23	17°♍30'35	
asc. node	5089 Jan 11 16:46	3°♍22'19		asc. node	5089 Dec 29 13:47	14°♍31'25	
	5089 Jan 14 18:54	30°♌♍		min. Earth dist.	5089 Dec 31 11:06	12°♍05'00	0.67838 AU
inferior conj	5089 Jan 16 22:38	27°♍05'24	1°41'26	inferior conj	5090 Jan 01 05:45	11°♍02'15	0°53'28
minimum elong	5089 Jan 16 20:35	27°♍12'28	1°40'42	minimum elong	5090 Jan 01 04:31	11°♍06'25	0°52'58
min. Earth dist.	5089 Jan 16 14:57	27°♍31'55	0.68108 AU	morning rise	5090 Jan 06 16:01	4°♍57'39	
morning rise	5089 Jan 22 04:41	20°♍55'05		direct	5090 Jan 10 11:32	3°♍34'47	
direct	5089 Jan 26 13:50	19°♍09'51		morning max el	5090 Jan 18 06:30	8°♍00'52	20°17'09
morning max el	5089 Feb 04 09:21	24°♍17'30	21°32'36	greatest brilliancy	5090 Jan 24 17:36	15°♍40'38	-0.5m
	5089 Feb 09 10:13	0°♍		desc. node	5090 Feb 03 23:08	0°♍14'00	
greatest brilliancy	5089 Feb 09 07:13	29°♍50'41	-0.4m		5090 Feb 03 19:22	0°♍	
desc. node	5089 Feb 17 02:06	10°♍13'52		morning set	5090 Feb 15 02:24	17°♍08'10	
	5089 Mar 02 11:01	0°♎			5090 Feb 23 07:18	0°♎	
morning set	5089 Mar 08 03:28	8°♎52'49		max. Earth dist.	5090 Feb 25 03:03	2°♎54'51	1.43673 AU
max. Earth dist.	5089 Mar 14 19:06	19°♎38'52	1.41928 AU				
	5089 Mar 20 22:27	0°♎		superior conj	5090 Mar 03 02:54	12°♎40'00	-2°-8'-9
superior conj	5089 Mar 22 07:52	2°♎24'30	-2°-4'-46	minimum elong	5090 Mar 03 01:09	12°♎32'44	2°08'09
minimum elong	5089 Mar 22 11:06	2°♎38'31	2°04'39		5090 Mar 13 08:44	0°♎	
evening rise	5089 Apr 02 09:22	22°♎13'59		evening rise	5090 Mar 15 19:54	4°♎16'38	
	5089 Apr 06 15:58	0°♏		asc. node	5090 Mar 27 13:04	23°♎58'26	
asc. node	5089 Apr 09 16:04	5°♏16'52			5090 Apr 01 00:45	0°♏	
evening max el	5089 Apr 18 18:15	18°♏08'45	18°09'42	evening max el	5090 Apr 02 06:47	1°♏20'10	18°08'07
retrograde	5089 Apr 25 13:53	21°♏35'44		retrograde	5090 Apr 08 17:35	4°♏42'29	
evening set	5089 Apr 28 01:55	21°♏08'21		evening set	5090 Apr 11 11:42	4°♏04'23	
inferior conj	5089 May 04 22:51	16°♏16'48	2°47'16	inferior conj	5090 Apr 17 19:04	28°♎52'38	3°21'05
minimum elong	5089 May 05 02:05	16°♏09'22	2°46'32	minimum elong	5090 Apr 17 20:54	28°♎47'50	3°20'51
min. Earth dist.	5089 May 08 06:37	13°♏15'04	0.60227 AU	min. Earth dist.	5090 Apr 20 15:57	25°♎53'08	0.62394 AU
morning rise	5089 May 11 22:36	10°♏28'28		morning rise	5090 Apr 24 03:31	22°♎48'37	
desc. node	5089 May 16 01:18	8°♏42'06		direct	5090 Apr 30 23:31	20°♎17'38	
direct	5089 May 18 11:57	8°♏25'05		desc. node	5090 May 02 22:20	20°♎29'00	
morning max el	5089 Jun 01 19:45	16°♏18'52	27°40'18	morning max el	5090 May 15 01:36	28°♎18'04	27°52'21
	5089 Jun 13 01:09	0°♐			5090 May 16 16:59	0°♏	
	5089 Jun 30 15:51	0°♐		morning set	5090 Jun 06 20:21	0°♐	
morning set	5089 Jul 03 20:01	6°♐26'25			5090 Jun 17 21:06	20°♐40'36	
asc. node	5089 Jul 06 15:22	12°♐21'45			5090 Jun 22 08:34	0°♐	
max. Earth dist.	5089 Jul 10 03:19	19°♐58'07	1.31983 AU	max. Earth dist.	5090 Jun 23 10:51	2°♐20'40	1.32412 AU
				asc. node	5090 Jun 23 12:23	2°♐28'51	
superior conj	5089 Jul 11 01:58	22°♐02'46	0°44'57				
minimum elong	5089 Jul 11 00:08	21°♐52'40	0°44'35	superior conj	5090 Jun 25 11:14	6°♐42'29	0°20'15
	5089 Jul 14 16:39	0°♑		minimum elong	5090 Jun 25 10:18	6°♐37'23	0°20'02
evening rise	5089 Jul 17 22:08	6°♑59'10		evening rise	5090 Jul 02 09:51	21°♐46'58	
	5089 Jul 29 21:46	0°♑			5090 Jul 06 08:58	0°♑	
desc. node	5089 Aug 12 00:36	18°♑10'05			5090 Jul 25 19:03	0°♑	

evening max el	5090 Jul 26 20:32	1° \cap 03'28	24°04'21	minimum elong	5091 Jun 09 16:50	21° \cap 07'26	0°07'16
desc. node	5090 Jul 29 21:36	3° \cap 42'33		behind sun begin	5091 Jun 09 11:57	20° \cap 41'28	
retrograde	5090 Aug 09 14:59	7° \cap 59'18		behind sun end	5091 Jun 09 21:43	21° \cap 33'26	
evening set	5090 Aug 14 07:16	7° \cap 10'51		asc. node	5091 Jun 10 09:24	22° \cap 35'44	
min. Earth dist.	5090 Aug 20 07:04	4° \cap 13'47	0.56311 AU		5091 Jun 13 20:13	0° \ominus	
inferior conj	5090 Aug 22 17:34	2° \cap 43'36	-5°-13'-10	evening rise	5091 Jun 16 21:16	6° \ominus 29'23	
minimum elong	5090 Aug 22 14:46	2° \cap 47'56	5°12'59		5091 Jun 29 10:31	0° \cap	
	5090 Aug 27 13:44	30° \cap 0		evening max el	5091 Jul 08 10:15	11° \cap 24'43	22°26'49
morning rise	5090 Aug 31 01:39	28° \cap 45'09		desc. node	5091 Jul 16 18:37	17° \cap 02'55	
direct	5090 Sep 02 19:20	28° \cap 25'42		retrograde	5091 Jul 21 11:31	17° \cap 54'01	
	5090 Sep 08 14:40	0° \cap		evening set	5091 Jul 24 15:34	17° \cap 31'56	
morning max el	5090 Sep 12 17:06	3° \cap 02'43	19°49'02	min. Earth dist.	5091 Aug 01 17:18	14° \cap 00'40	0.55121 AU
asc. node	5090 Sep 19 11:38	11° \cap 23'59		inferior conj	5091 Aug 02 18:51	13° \cap 24'28	-4°-26'-41
	5090 Sep 29 17:50	0° \cap		minimum elong	5091 Aug 02 10:39	13° \cap 36'06	4°24'56
morning set	5090 Sep 30 11:25	1° \cap 28'41		morning rise	5091 Aug 11 07:54	9° \cap 34'50	
				direct	5091 Aug 14 11:11	9° \cap 12'29	
superior conj	5090 Oct 08 08:13	17° \cap 23'42	1°40'06	morning max el	5091 Aug 25 23:27	14° \cap 34'35	21°10'51
minimum elong	5090 Oct 08 09:43	17° \cap 31'11	1°40'02	asc. node	5091 Sep 06 08:41	29° \cap 53'30	
max. Earth dist.	5090 Oct 14 05:02	28° \cap 44'22	1.37261 AU		5091 Sep 06 10:11	0° \cap	
	5090 Oct 14 21:14	0° \cap		morning set	5091 Sep 14 19:38	16° \cap 12'41	
evening rise	5090 Oct 18 00:34	5° \cap 43'58			5091 Sep 21 09:51	0° \cap	
desc. node	5090 Oct 25 20:54	19° \cap 10'08					
	5090 Nov 01 18:30	0° \cap		superior conj	5091 Sep 22 05:04	1° \cap 39'36	1°43'33
evening max el	5090 Nov 22 16:33	26° \cap 50'07	25°30'35	minimum elong	5091 Sep 22 05:03	1° \cap 39'32	1°43'33
	5090 Nov 26 05:55	0° \cap		max. Earth dist.	5091 Sep 26 14:47	10° \cap 35'59	1.35402 AU
retrograde	5090 Dec 04 21:08	3° \cap 50'41		evening rise	5091 Sep 30 19:51	18° \cap 44'55	
evening set	5090 Dec 10 18:23	1° \cap 24'54			5091 Oct 07 01:07	0° \cap	
	5090 Dec 12 06:27	30° \cap 0		desc. node	5091 Oct 12 17:56	9° \cap 30'41	
min. Earth dist.	5090 Dec 15 04:31	26° \cap 34'01	0.67211 AU		5091 Oct 26 22:15	0° \cap	
inferior conj	5090 Dec 16 10:08	24° \cap 58'56	0°00'-35	evening max el	5091 Nov 05 05:19	10° \cap 32'06	26°32'03
minimum elong	5090 Dec 16 10:09	24° \cap 58'53	0°00'35	retrograde	5091 Nov 18 03:21	17° \cap 46'10	
transit middle	5090 Dec 16 10:09	24° \cap 58'53	0°00'35	evening set	5091 Nov 24 13:39	15° \cap 10'35	
transit begin	5090 Dec 16 07:21	25° \cap 07'53		min. Earth dist.	5091 Nov 28 16:55	10° \cap 55'17	0.66236 AU
transit end	5090 Dec 16 12:57	24° \cap 49'53		inferior conj	5091 Nov 30 09:54	8° \cap 52'13	0°-59'-37
asc. node	5090 Dec 16 10:51	24° \cap 56'40		minimum elong	5091 Nov 30 11:33	8° \cap 47'16	0°58'54
morning rise	5090 Dec 22 02:46	19° \cap 02'09		asc. node	5091 Dec 03 07:55	5° \cap 34'15	
direct	5090 Dec 25 10:15	17° \cap 59'00		morning rise	5091 Dec 06 10:51	3° \cap 05'55	
morning max el	5091 Jan 01 11:32	21° \cap 54'38	19°15'38	direct	5091 Dec 09 08:21	2° \cap 18'47	
	5091 Jan 08 02:25	0° \cap		morning max el	5091 Dec 15 23:06	5° \cap 54'56	18°29'59
greatest brilliancy	5091 Jan 11 01:49	4° \cap 13'57	-0.7m		5092 Jan 01 18:22	0° \cap	
desc. node	5091 Jan 21 20:10	20° \cap 32'27		morning set	5092 Jan 05 02:20	5° \cap 18'40	
morning set	5091 Jan 25 02:37	25° \cap 35'57		desc. node	5092 Jan 08 17:12	11° \cap 04'11	
	5091 Jan 27 22:40	0° \cap			5092 Jan 20 17:22	0° \cap	
max. Earth dist.	5091 Feb 07 17:08	16° \cap 50'25	1.44845 AU				
				superior conj	5092 Jan 21 00:48	0° \cap 29'07	-1°-18'-40
superior conj	5091 Feb 10 21:09	21° \cap 51'09	-1°-52'-56	minimum elong	5092 Jan 20 15:50	29° \cap 53'59	1°17'39
minimum elong	5091 Feb 10 13:18	21° \cap 20'02	1°52'24	max. Earth dist.	5092 Jan 21 11:28	1° \cap 10'56	1.45321 AU
	5091 Feb 15 23:22	0° \cap		evening rise	5092 Feb 05 23:04	25° \cap 32'39	
evening rise	5091 Feb 25 09:09	15° \cap 22'53			5092 Feb 08 18:32	0° \cap	
	5091 Mar 06 06:04	0° \cap		greatest brilliancy	5092 Feb 16 21:39	12° \cap 47'59	-0.8m
asc. node	5091 Mar 14 10:06	12° \cap 01'51		evening max el	5092 Feb 28 05:27	28° \cap 14'16	19°00'15
evening max el	5091 Mar 16 19:19	14° \cap 43'43	18°25'18	asc. node	5092 Feb 29 07:10	29° \cap 16'07	
retrograde	5091 Mar 23 06:45	18° \cap 14'40			5092 Mar 01 03:46	0° \cap	
evening set	5091 Mar 26 07:03	17° \cap 24'36		retrograde	5092 Mar 06 01:41	2° \cap 05'23	
inferior conj	5091 Apr 01 04:38	11° \cap 54'14	3°32'57	evening set	5092 Mar 09 08:50	1° \cap 02'22	
minimum elong	5091 Apr 01 04:50	11° \cap 53'39	3°32'56		5092 Mar 10 17:55	30° \cap 0	
min. Earth dist.	5091 Apr 03 10:42	9° \cap 17'14	0.64333 AU	inferior conj	5092 Mar 14 23:51	25° \cap 15'04	3°28'08
morning rise	5091 Apr 07 00:57	5° \cap 42'07		minimum elong	5092 Mar 14 22:43	25° \cap 18'39	3°28'02
direct	5091 Apr 13 19:23	2° \cap 55'43		min. Earth dist.	5092 Mar 16 14:20	23° \cap 13'43	0.65904 AU
desc. node	5091 Apr 19 19:23	4° \cap 43'41		morning rise	5092 Mar 20 11:34	18° \cap 59'28	
morning max el	5091 Apr 27 10:49	10° \cap 52'41	27°27'56	direct	5092 Mar 26 22:07	16° \cap 11'27	
	5091 May 12 13:03	0° \cap		desc. node	5092 Apr 05 16:25	20° \cap 53'21	
	5091 May 30 06:50	0° \cap		morning max el	5092 Apr 08 20:46	23° \cap 51'48	26°33'14
morning set	5091 Jun 01 14:06	4° \cap 27'26			5092 Apr 14 08:31	0° \cap	
max. Earth dist.	5091 Jun 06 10:43	14° \cap 16'38	1.33292 AU		5092 May 04 22:03	0° \cap	
				morning set	5092 May 14 19:40	17° \cap 37'16	
superior conj	5091 Jun 09 16:28	21° \cap 05'27	0°-7'-19	max. Earth dist.	5092 May 18 23:56	25° \cap 41'48	1.34645 AU

	5092 May 21 03:34	0°♂		morning set	5093 Apr 27 09:15	29°♂57'09	
					5093 Apr 27 09:53	0°♂	
superior conj	5092 May 23 15:24	5°♂05'29	0°-36'-42	max. Earth dist.	5093 May 01 02:21	6°♂46'16	1.36434 AU
minimum elong	5092 May 23 17:24	5°♂15'46	0°36'21				
asc. node	5092 May 27 06:26	12°♂38'41		superior conj	5093 May 07 05:12	18°♂34'31	-1°-6'-25
evening rise	5092 May 31 06:29	21°♂00'52		minimum elong	5093 May 07 08:52	18°♂52'44	1°05'49
	5092 Jun 04 17:16	0°♂			5093 May 12 21:17	0°♂	
evening max el	5092 Jun 19 08:25	22°♂05'41	20°57'11	asc. node	5093 May 14 03:30	2°♂33'36	
retrograde	5092 Jul 01 00:01	27°♂49'07		evening rise	5093 May 15 11:17	5°♂14'40	
desc. node	5092 Jul 02 15:39	27°♂42'38			5093 May 29 17:28	0°♂	
evening set	5092 Jul 03 04:30	27°♂37'49		evening max el	5093 Jun 01 18:52	3°♂25'48	19°44'27
inferior conj	5092 Jul 12 11:57	23°♂40'45	-2°-51'-26	retrograde	5093 Jun 11 17:05	8°♂16'54	
minimum elong	5092 Jul 12 04:16	23°♂51'35	2°48'55	evening set	5093 Jun 13 15:09	8°♂06'49	
min. Earth dist.	5092 Jul 13 04:06	23°♂17'54	0.54809 AU	desc. node	5093 Jun 19 12:39	5°♂49'49	
morning rise	5092 Jul 21 03:38	19°♂41'33		inferior conj	5093 Jun 22 11:28	4°♂04'17	0°-52'-55
direct	5092 Jul 24 20:22	19°♂12'10		minimum elong	5093 Jun 22 09:03	4°♂08'03	0°52'01
morning max el	5092 Aug 06 18:58	25°♂23'19	22°49'07	min. Earth dist.	5093 Jun 24 16:51	2°♂41'43	0.55455 AU
	5092 Aug 11 02:19	0°♂			5093 Jun 29 21:50	30°♂♂	
asc. node	5092 Aug 23 05:44	18°♂56'58		morning rise	5093 Jun 30 23:49	29°♂36'47	
	5092 Aug 28 18:19	0°♂		direct	5093 Jul 05 11:22	28°♂52'26	
morning set	5092 Aug 29 06:31	1°♂03'59			5093 Jul 10 22:50	0°♂	
				morning max el	5093 Jul 19 08:59	5°♂47'14	24°33'07
superior conj	5092 Sep 05 09:08	16°♂16'12	1°40'07		5093 Aug 05 16:59	0°♂	
minimum elong	5092 Sep 05 07:55	16°♂09'41	1°40'03	asc. node	5093 Aug 10 02:46	8°♂25'45	
max. Earth dist.	5092 Sep 08 09:15	22°♂36'44	1.33905 AU	morning set	5093 Aug 13 18:20	15°♂57'39	
	5092 Sep 12 00:00	0°♂			5093 Aug 20 05:49	0°♂	
evening rise	5092 Sep 13 05:26	2°♂26'02					
desc. node	5092 Sep 28 14:58	29°♂31'20		superior conj	5093 Aug 20 17:52	1°♂05'39	1°30'50
	5092 Sep 28 22:21	0°♂		minimum elong	5093 Aug 20 15:52	0°♂54'46	1°30'37
evening max el	5092 Oct 17 18:03	24°♂03'25	27°13'09	max. Earth dist.	5093 Aug 22 12:11	4°♂55'19	1.32822 AU
	5092 Oct 25 19:22	0°♂		evening rise	5093 Aug 28 01:33	16°♂36'54	
retrograde	5092 Oct 31 03:33	1°♂21'13			5093 Sep 03 23:31	0°♂	
	5092 Nov 05 02:10	30°♂♂		desc. node	5093 Sep 15 11:59	19°♂03'34	
evening set	5092 Nov 07 00:51	28°♂42'07			5093 Sep 23 14:18	0°♂	
min. Earth dist.	5092 Nov 10 21:52	25°♂02'20	0.64918 AU	evening max el	5093 Sep 30 04:58	7°♂11'26	27°27'10
inferior conj	5092 Nov 13 02:44	22°♂36'46	-2°-2'-4	retrograde	5093 Oct 13 21:23	14°♂27'32	
minimum elong	5092 Nov 13 06:16	22°♂27'02	2°00'38	evening set	5093 Oct 21 01:07	11°♂53'57	
asc. node	5092 Nov 19 04:59	17°♂14'29		min. Earth dist.	5093 Oct 24 17:14	8°♂46'41	0.63269 AU
morning rise	5092 Nov 19 13:43	17°♂04'02		inferior conj	5093 Oct 27 09:59	6°♂06'23	-3°-5'-19
direct	5092 Nov 22 03:30	16°♂29'03		minimum elong	5093 Oct 27 15:17	5°♂53'12	3°03'29
morning max el	5092 Nov 28 14:46	19°♂55'23	18°01'06	morning rise	5093 Nov 03 08:10	0°♂50'48	
	5092 Dec 06 05:30	0°♂		direct	5093 Nov 05 16:50	0°♂24'17	
morning set	5092 Dec 16 07:41	16°♂29'47		asc. node	5093 Nov 06 02:00	0°♂24'59	
	5092 Dec 24 12:27	0°♂		morning max el	5093 Nov 12 07:39	3°♂49'33	17°49'40
desc. node	5092 Dec 25 14:13	1°♂44'34		morning set	5093 Nov 28 14:19	28°♂54'13	
					5093 Nov 29 05:23	0°♂	
superior conj	5092 Dec 30 09:29	9°♂27'27	0°-32'-57				
minimum elong	5092 Dec 30 05:27	9°♂11'22	0°32'23	superior conj	5093 Dec 10 16:05	19°♂32'16	0°12'39
max. Earth dist.	5093 Jan 03 07:07	15°♂38'22	1.45055 AU	minimum elong	5093 Dec 10 17:23	19°♂37'40	0°12'28
	5093 Jan 12 11:56	0°♂		behind sun begin	5093 Dec 10 11:21	19°♂12'40	
evening rise	5093 Jan 15 17:14	4°♂58'42		behind sun end	5093 Dec 10 23:25	20°♂02'38	
	5093 Feb 01 06:21	0°♂		desc. node	5093 Dec 12 11:16	22°♂30'19	
greatest brilliancy	5093 Feb 03 08:20	2°♂57'00	-0.6m	max. Earth dist.	5093 Dec 17 00:50	29°♂54'17	1.44081 AU
evening max el	5093 Feb 10 11:09	11°♂47'02	19°51'24		5093 Dec 17 02:15	0°♂	
asc. node	5093 Feb 15 04:14	15°♂26'49		evening rise	5093 Dec 26 03:17	14°♂11'47	
retrograde	5093 Feb 17 23:24	16°♂08'23			5094 Jan 05 14:00	0°♂	
evening set	5093 Feb 21 14:29	14°♂51'25		greatest brilliancy	5094 Jan 19 02:26	19°♂03'48	-0.5m
inferior conj	5093 Feb 27 01:36	8°♂49'14	3°10'29	evening max el	5094 Jan 24 11:23	25°♂20'44	20°56'12
minimum elong	5093 Feb 26 23:36	8°♂55'57	3°10'08		5094 Jan 30 22:41	0°♂	
min. Earth dist.	5093 Feb 28 01:26	7°♂29'42	0.67049 AU	retrograde	5094 Feb 01 21:35	0°♂19'34	
morning rise	5093 Mar 04 08:04	2°♂32'49		asc. node	5094 Feb 02 01:15	0°♂19'26	
	5093 Mar 09 03:40	30°♂♂			5094 Feb 03 18:36	30°♂♂	
direct	5093 Mar 10 06:26	29°♂54'47		evening set	5094 Feb 05 22:02	28°♂47'48	
	5093 Mar 11 09:55	0°♂		inferior conj	5094 Feb 11 07:25	22°♂33'30	2°42'32
morning max el	5093 Mar 22 05:54	7°♂04'08	25°17'10	minimum elong	5094 Feb 11 05:01	22°♂41'46	2°41'55
desc. node	5093 Mar 23 13:27	8°♂26'12		min. Earth dist.	5094 Feb 11 18:05	21°♂56'46	0.67770 AU
	5093 Apr 09 02:06	0°♂		morning rise	5094 Feb 16 11:38	16°♂18'00	

direct	5094 Feb 21 19:43	13° \approx 57'50		direct	5095 Feb 05 13:12	28° \approx 14'05	
morning max el	5094 Mar 04 14:39	20° \approx 23'44	23°49'44		5095 Feb 10 12:42	0° \approx	
desc. node	5094 Mar 10 10:29	26° \approx 58'53		morning max el	5095 Feb 15 01:35	3° \approx 50'21	22°20'56
	5094 Mar 12 19:53	0° \approx		greatest brilliancy	5095 Feb 19 15:09	8° \approx 56'03	-0.3m
	5094 Apr 02 07:16	0° \approx		desc. node	5095 Feb 25 07:32	16° \approx 14'48	
morning set	5094 Apr 09 01:05	11° \approx 11'30			5095 Mar 06 23:25	0° \approx	
max. Earth dist.	5094 Apr 12 22:18	17° \approx 57'10	1.38538 AU	morning set	5095 Mar 20 13:37	21° \approx 07'08	
	5094 Apr 19 12:37	0° \approx			5095 Mar 25 22:10	0° \approx	
				max. Earth dist.	5095 Mar 25 18:51	29° \approx 45'57	1.40731 AU
superior conj	5094 Apr 20 06:11	1° \approx 22'45	-1°-34'-7	superior conj	5095 Apr 02 13:57	13° \approx 20'02	-1°-56'-19
minimum elong	5094 Apr 20 11:04	1° \approx 45'49	1°33'31	minimum elong	5095 Apr 02 18:32	13° \approx 40'38	1°55'59
evening rise	5094 Apr 29 08:57	19° \approx 02'47			5095 Apr 11 14:59	0° \approx	
asc. node	5094 May 01 00:32	22° \approx 15'25		evening rise	5095 Apr 12 20:12	2° \approx 17'06	
	5094 May 05 02:55	0° \approx		asc. node	5095 Apr 17 21:33	11° \approx 39'10	
evening max el	5094 May 15 16:47	15° \approx 26'57	18°51'46	evening max el	5095 Apr 28 23:10	28° \approx 02'55	18°19'25
retrograde	5094 May 24 01:38	19° \approx 33'22			5095 May 01 07:38	0° \approx	
evening set	5094 May 26 03:15	19° \approx 19'17		retrograde	5095 May 06 05:00	1° \approx 39'27	
inferior conj	5094 Jun 03 04:50	15° \approx 00'35	0°55'32	evening set	5095 May 08 13:12	1° \approx 17'44	
minimum elong	5094 Jun 03 06:55	14° \approx 56'50	0°54'47		5095 May 11 08:37	30° \approx 08	
desc. node	5094 Jun 06 09:41	12° \approx 43'13		inferior conj	5095 May 15 19:46	26° \approx 38'43	2°15'23
min. Earth dist.	5094 Jun 06 08:59	12° \approx 44'24	0.56933 AU	minimum elong	5095 May 15 23:16	26° \approx 31'18	2°14'24
morning rise	5094 Jun 11 06:02	9° \approx 56'32		min. Earth dist.	5095 May 19 06:13	23° \approx 46'23	0.58954 AU
direct	5094 Jun 16 15:51	8° \approx 45'59		morning rise	5095 May 23 05:04	21° \approx 03'34	
morning max el	5094 Jun 30 23:56	16° \approx 13'25	26°07'15	desc. node	5095 May 24 06:42	20° \approx 31'06	
	5094 Jul 12 05:03	0° \approx		direct	5095 May 29 10:38	19° \approx 19'05	
asc. node	5094 Jul 27 23:47	28° \approx 12'02		morning max el	5095 Jun 12 20:02	27° \approx 06'43	27°16'10
	5094 Jul 28 20:25	0° \approx			5095 Jun 15 14:17	0° \approx	
morning set	5094 Jul 29 05:24	0° \approx 47'23			5095 Jun 05 17:56	0° \approx	
				morning set	5095 Jul 13 14:05	15° \approx 27'55	
superior conj	5094 Aug 05 05:02	16° \approx 00'01	1°16'27	asc. node	5095 Jul 14 20:50	18° \approx 10'14	
minimum elong	5094 Aug 05 02:44	15° \approx 04'19	1°16'06		5095 Jul 20 07:11	0° \approx	
max. Earth dist.	5094 Aug 05 20:57	17° \approx 02'45	1.32164 AU				
	5094 Aug 11 16:07	0° \approx		superior conj	5095 Jul 20 16:50	0° \approx 53'17	0°57'37
evening rise	5094 Aug 12 04:59	1° \approx 07'22		minimum elong	5095 Jul 20 14:42	0° \approx 41'28	0°57'13
	5094 Aug 27 23:23	0° \approx		max. Earth dist.	5095 Jul 20 08:07	0° \approx 05'07	1.31925 AU
desc. node	5094 Sep 02 08:59	7° \approx 54'41		evening rise	5095 Jul 27 13:15	15° \approx 04'53	
evening max el	5094 Sep 12 11:30	19° \approx 42'10	27°09'15		5095 Aug 03 14:36	0° \approx	
retrograde	5094 Sep 26 08:09	26° \approx 54'43		desc. node	5095 Aug 20 05:59	25° \approx 04'48'12	
evening set	5094 Oct 03 10:34	24° \approx 38'30			5095 Aug 24 00:22	0° \approx	
min. Earth dist.	5094 Oct 07 01:58	21° \approx 55'14	0.61338 AU	evening max el	5095 Aug 25 11:25	1° \approx 26'22	26°18'05
inferior conj	5094 Oct 10 04:26	19° \approx 12'18	-4°-4'-58	retrograde	5095 Sep 08 10:31	8° \approx 34'47	
minimum elong	5094 Oct 10 10:43	18° \approx 58'30	4°03'19	evening set	5095 Sep 15 00:28	6° \approx 48'33	
morning rise	5094 Oct 17 14:06	14° \approx 17'07		min. Earth dist.	5095 Sep 19 00:40	4° \approx 14'18	0.59266 AU
direct	5094 Oct 19 20:35	13° \approx 55'52		inferior conj	5095 Sep 22 06:37	1° \approx 45'33	-4°-53'-7
asc. node	5094 Oct 23 23:01	15° \approx 08'07		minimum elong	5095 Sep 22 11:51	1° \approx 35'32	4°52'19
morning max el	5094 Oct 26 22:31	17° \approx 28'41	17°56'40		5095 Sep 24 15:38	30° \approx 08	
	5094 Nov 04 20:23	0° \approx		morning rise	5095 Sep 30 02:44	27° \approx 03'05	
morning set	5094 Nov 11 15:39	12° \approx 11'32		direct	5095 Oct 02 10:41	26° \approx 05'41'14	
	5094 Nov 21 12:43	0° \approx			5095 Oct 09 12:55	0° \approx	
superior conj	5094 Nov 22 01:11	0° \approx 54'29	0°50'21	morning max el	5095 Oct 10 08:00	0° \approx 43'44	18°23'22
minimum elong	5094 Nov 22 04:57	1° \approx 10'51	0°49'51	asc. node	5095 Oct 10 20:04	1° \approx 13'37	
desc. node	5094 Nov 29 08:18	13° \approx 17'38		morning set	5095 Oct 26 06:11	26° \approx 06'04	
max. Earth dist.	5094 Nov 29 13:50	13° \approx 40'27	1.42513 AU		5095 Oct 28 07:01	0° \approx	
evening rise	5094 Dec 05 21:00	23° \approx 50'21					
	5094 Dec 09 19:43	0° \approx		superior conj	5095 Nov 04 09:30	13° \approx 03'44	1°17'33
	5094 Dec 30 15:55	0° \approx		minimum elong	5095 Nov 04 13:12	13° \approx 40'46	1°17'09
greatest brilliancy	5095 Jan 02 12:42	3° \approx 36'32	-0.3m	max. Earth dist.	5095 Nov 11 21:32	26° \approx 04'53'23	1.40555 AU
evening max el	5095 Jan 07 06:17	8° \approx 56'15	22°11'03		5095 Nov 13 19:12	0° \approx	
retrograde	5095 Jan 16 18:25	14° \approx 35'31		evening rise	5095 Nov 16 10:12	4° \approx 23'05	
asc. node	5095 Jan 19 22:15	13° \approx 42'43		desc. node	5095 Nov 16 05:18	4° \approx 02'49	
evening set	5095 Jan 21 05:47	12° \approx 48'18			5095 Dec 03 01:29	0° \approx	
inferior conj	5095 Jan 26 15:13	6° \approx 25'21	2°05'59	evening max el	5095 Dec 20 21:15	22° \approx 34'59	23°30'49
minimum elong	5095 Jan 26 12:54	6° \approx 33'22	2°05'13	retrograde	5095 Dec 31 12:20	28° \approx 51'50	
min. Earth dist.	5095 Jan 26 13:59	6° \approx 29'36	0.68088 AU	evening set	5096 Jan 05 12:09	26° \approx 48'55	
morning rise	5095 Jan 31 19:52	0° \approx 12'26		asc. node	5096 Jan 06 19:17	25° \approx 35'39	
	5095 Feb 01 01:54	30° \approx 08		inferior conj	5096 Jan 10 23:05	20° \approx 21'22	1°21'53

minimum elong	5096 Jan 10 21:20	20°☿27'23	1°21'13	minimum elong	5096 Dec 25 04:33	4°☿21'47	0°30'55
min. Earth dist.	5096 Jan 10 10:47	21°☿03'31	0.68032 AU		5096 Dec 28 18:39	30°☿21'47	
morning rise	5096 Jan 16 06:38	14°☿12'57		morning rise	5096 Dec 30 18:01	28°☿17'35	
direct	5096 Jan 20 09:49	12°☿37'20		direct	5097 Jan 03 08:18	27°☿03'18	
morning max el	5096 Jan 28 18:10	17°☿26'25	20°58'53		5097 Jan 09 10:49	0°☿	
greatest brilliancy	5096 Feb 03 05:15	23°☿43'31	-0.5m	morning max el	5097 Jan 10 18:40	1°☿14'42	19°49'02
	5096 Feb 07 22:23	0°☿		greatest brilliancy	5097 Jan 18 06:01	10°☿22'07	-0.6m
desc. node	5096 Feb 12 04:33	6°☿01'24		desc. node	5097 Jan 29 01:35	26°☿10'30	
morning set	5096 Feb 27 22:39	29°☿46'53			5097 Jan 31 14:04	0°☿	
	5096 Feb 28 02:00	0°☿		morning set	5097 Feb 05 18:51	7°☿58'12	
max. Earth dist.	5096 Mar 06 21:53	12°☿29'50	1.42727 AU	max. Earth dist.	5097 Feb 17 09:01	26°☿06'09	1.44261 AU
					5097 Feb 19 19:34	0°☿	
superior conj	5096 Mar 13 23:29	24°☿14'52	-2°-8'-12	superior conj	5097 Feb 22 07:33	4°☿01'47	-2°-4'-9
minimum elong	5096 Mar 14 00:59	24°☿21'13	2°08'12	minimum elong	5097 Feb 22 03:01	3°☿43'26	2°04'00
	5096 Mar 17 07:59	0°☿		evening rise	5097 Mar 07 18:52	26°☿27'12	
evening rise	5096 Mar 25 16:58	14°☿47'53			5097 Mar 09 20:50	0°☿	
	5096 Apr 03 09:17	0°☿		asc. node	5097 Mar 21 15:36	19°☿04'44	
asc. node	5096 Apr 03 18:34	0°☿38'06		evening max el	5097 Mar 25 23:21	24°☿21'30	18°13'11
evening max el	5096 Apr 11 10:26	11°☿03'51	18°06'46	retrograde	5097 Apr 01 09:08	27°☿45'37	
retrograde	5096 Apr 18 00:56	14°☿26'45		evening set	5097 Apr 04 05:59	27°☿02'21	
evening set	5096 Apr 20 15:39	13°☿54'56		inferior conj	5097 Apr 10 08:44	21°☿42'21	3°28'24
inferior conj	5096 Apr 27 06:21	8°☿54'53	3°04'39	minimum elong	5097 Apr 10 09:51	21°☿39'15	3°28'19
minimum elong	5096 Apr 27 09:04	8°☿48'15	3°04'09	min. Earth dist.	5097 Apr 12 23:29	18°☿50'38	0.63265 AU
min. Earth dist.	5096 Apr 30 10:25	5°☿51'06	0.61167 AU	morning rise	5097 Apr 16 11:37	15°☿34'24	
morning rise	5096 May 03 23:18	2°☿59'01		direct	5097 Apr 23 07:56	12°☿55'24	
desc. node	5096 May 10 03:44	0°☿43'13		desc. node	5097 Apr 27 00:47	13°☿36'27	
direct	5096 May 10 16:48	0°☿42'21		morning max el	5097 May 07 05:51	20°☿54'44	27°46'09
morning max el	5096 May 24 22:22	8°☿39'56	27°50'02		5097 May 15 02:21	0°☿	
	5096 Jun 10 07:10	0°☿			5097 Jun 03 08:56	0°☿	
morning set	5096 Jun 26 18:31	29°☿53'06		morning set	5097 Jun 10 16:29	13°☿56'13	
	5096 Jun 26 19:52	0°☿		max. Earth dist.	5097 Jun 15 22:50	24°☿48'34	1.32731 AU
asc. node	5096 Jun 30 17:52	8°☿15'08		asc. node	5097 Jun 17 14:54	28°☿22'27	
max. Earth dist.	5096 Jul 02 18:01	12°☿36'01	1.32108 AU				
superior conj	5096 Jul 04 03:32	15°☿39'21	0°34'53	superior conj	5097 Jun 18 11:20	0°☿12'29	0°08'52
minimum elong	5096 Jul 04 02:01	15°☿31'05	0°34'34	minimum elong	5097 Jun 18 10:54	0°☿10'10	0°08'45
	5096 Jul 10 17:13	0°☿		behind sun begin	5097 Jun 18 06:27	29°☿46'11	
evening rise	5096 Jul 11 00:15	0°☿37'29		behind sun end	5097 Jun 18 15:21	0°☿34'11	
	5096 Jul 27 01:14	0°☿			5097 Jun 18 09:01	0°☿	
evening max el	5096 Aug 06 04:03	12°☿23'36	24°58'33	evening rise	5097 Jun 25 12:05	15°☿23'46	
desc. node	5096 Aug 06 02:58	12°☿21'00			5097 Jul 02 18:41	0°☿	
retrograde	5096 Aug 20 02:12	19°☿25'38		evening max el	5097 Jul 18 16:35	22°☿48'28	23°22'46
evening set	5096 Aug 25 14:26	18°☿16'47		desc. node	5097 Jul 24 00:00	27°☿01'48	
min. Earth dist.	5096 Aug 30 15:33	15°☿33'11	0.57285 AU	retrograde	5097 Aug 01 05:15	29°☿35'02	
inferior conj	5096 Sep 02 13:30	13°☿37'17	-5°-17'00	evening set	5097 Aug 05 05:53	28°☿59'34	
minimum elong	5096 Sep 02 14:25	13°☿35'45	5°16'59	min. Earth dist.	5097 Aug 12 02:02	25°☿49'50	0.55710 AU
morning rise	5096 Sep 10 17:51	9°☿27'27		inferior conj	5097 Aug 14 00:19	24°☿41'43	-4°-59'-59
direct	5096 Sep 13 07:11	9°☿08'38		minimum elong	5097 Aug 13 18:47	24°☿49'54	4°59'17
morning max el	5096 Sep 22 08:45	13°☿25'09	19°11'25	morning rise	5097 Aug 22 10:42	20°☿49'04	
asc. node	5096 Sep 26 17:07	18°☿26'43		direct	5097 Aug 25 08:25	20°☿28'32	
	5096 Oct 03 19:53	0°☿		morning max el	5097 Sep 04 22:01	25°☿23'14	20°21'29
morning set	5096 Oct 09 05:56	10°☿27'03			5097 Sep 09 02:04	0°☿	
				asc. node	5097 Sep 13 14:10	6°☿31'54	
superior conj	5096 Oct 17 11:48	26°☿45'50	1°34'30	morning set	5097 Sep 23 11:46	25°☿04'49	
minimum elong	5096 Oct 17 14:13	26°☿57'33	1°34'19		5097 Sep 25 21:11	0°☿	
	5096 Oct 19 04:12	0°☿		superior conj	5097 Oct 01 03:03	10°☿45'39	1°42'29
max. Earth dist.	5096 Oct 24 02:40	9°☿11'16	1.38449 AU	minimum elong	5097 Oct 01 03:54	10°☿49'53	1°42'27
evening rise	5096 Oct 27 22:31	15°☿59'11		max. Earth dist.	5097 Oct 06 09:28	21°☿09'53	1.36435 AU
desc. node	5096 Nov 02 02:17	24°☿42'33		evening rise	5097 Oct 10 07:38	28°☿31'52	
	5096 Nov 05 08:51	0°☿			5097 Oct 11 02:58	0°☿	
	5096 Nov 26 16:23	0°☿		desc. node	5097 Oct 19 23:18	15°☿11'43	
evening max el	5096 Dec 02 10:21	6°☿18'13	24°49'01		5097 Oct 29 16:10	0°☿	
retrograde	5096 Dec 14 02:14	13°☿04'57		evening max el	5097 Nov 14 22:57	20°☿02'04	25°58'38
evening set	5096 Dec 19 15:37	10°☿47'00		retrograde	5097 Nov 27 11:19	27°☿08'59	
asc. node	5096 Dec 23 16:20	6°☿20'52		evening set	5097 Dec 03 14:26	24°☿38'21	
min. Earth dist.	5096 Dec 24 06:06	5°☿35'59	0.67620 AU	min. Earth dist.	5097 Dec 07 21:36	20°☿02'45	0.66850 AU
inferior conj	5096 Dec 25 05:19	4°☿19'17	0°31'14				

inferior conj	5097 Dec 09 08:00	18°♊15'13	0°-25'-4	inferior conj	5098 Nov 23 05:05	2°♊05'16	-1°-25'-47
minimum elong	5097 Dec 09 08:40	18°♊13'08	0°24'46	minimum elong	5098 Nov 23 07:31	1°♊58'13	1°24'46
asc. node	5097 Dec 10 13:24	16°♊44'34		asc. node	5098 Nov 25 01:29	30°♋♌	
morning rise	5097 Dec 15 03:58	12°♊22'43		morning rise	5098 Nov 27 10:28	27°♌43'34	
direct	5097 Dec 18 07:01	11°♊26'47		direct	5098 Nov 29 10:10	26°♌24'39	
morning max el	5097 Dec 25 02:47	15°♊12'21	18°54'11	morning max el	5098 Dec 02 04:03	25°♌43'17	
	5098 Jan 05 05:41	0°♋		morning max el	5098 Dec 08 16:31	29°♌14'02	18°15'36
desc. node	5098 Jan 15 22:37	16°♋35'20			5098 Dec 09 10:16	0°♌	
morning set	5098 Jan 16 03:18	16°♋53'39		morning set	5098 Dec 27 15:42	27°♌14'39	
	5098 Jan 24 12:24	0°♌			5098 Dec 29 08:32	0°♋	
max. Earth dist.	5098 Jan 31 01:47	10°♌16'31	1.45145 AU	desc. node	5099 Jan 02 19:37	7°♋11'15	
superior conj	5098 Feb 01 17:34	12°♌52'56	-1°-40'-27	superior conj	5099 Jan 11 20:47	21°♋32'48	0°-59'-58
minimum elong	5098 Feb 01 08:21	12°♌16'38	1°39'37	minimum elong	5099 Jan 11 13:28	21°♋04'01	0°59'02
	5098 Feb 12 11:56	0°♍		max. Earth dist.	5099 Jan 13 20:55	24°♋41'47	1.45299 AU
evening rise	5098 Feb 16 22:15	7°♍09'22			5099 Jan 17 06:12	0°♌	
	5098 Mar 03 07:31	0°♎		evening rise	5099 Jan 28 02:53	16°♌58'02	
asc. node	5098 Mar 08 12:39	6°♎48'54			5099 Feb 05 11:35	0°♍	
evening max el	5098 Mar 09 11:06	7°♎48'32	18°38'02	greatest brilliancy	5099 Feb 12 00:39	9°♍55'56	-0.7m
retrograde	5098 Mar 16 01:20	11°♎26'53		evening max el	5099 Feb 20 19:26	21°♍19'56	19°20'07
evening set	5098 Mar 19 04:27	10°♎31'21		asc. node	5099 Feb 23 09:42	23°♍37'53	
inferior conj	5098 Mar 24 22:50	4°♎53'12	3°32'40	retrograde	5099 Feb 27 21:50	25°♍23'18	
minimum elong	5098 Mar 24 22:25	4°♎54'28	3°32'39	evening set	5099 Mar 03 08:07	24°♍14'35	
min. Earth dist.	5098 Mar 26 22:06	2°♎30'29	0.65049 AU	inferior conj	5099 Mar 08 21:11	18°♍20'32	3°22'04
	5098 Mar 29 04:27	30°♋♌		minimum elong	5099 Mar 08 19:37	18°♍25'38	3°21'52
morning rise	5098 Mar 30 15:04	28°♋39'07		min. Earth dist.	5099 Mar 10 05:17	16°♍36'26	0.66439 AU
direct	5098 Apr 06 06:38	25°♋50'47		morning rise	5099 Mar 14 06:15	12°♍04'02	
desc. node	5098 Apr 13 21:51	28°♋44'34		direct	5099 Mar 20 11:51	9°♍19'04	
	5098 Apr 15 14:09	0°♎		desc. node	5099 Mar 31 18:53	15°♍33'00	
morning max el	5098 Apr 19 15:53	3°♎42'13	27°07'59	morning max el	5099 Apr 02 01:46	16°♍48'51	26°02'54
	5098 May 09 12:12	0°♏			5099 Apr 13 00:58	0°♎	
morning set	5098 May 25 05:08	27°♏29'07			5099 May 02 10:12	0°♏	
	5098 May 26 12:08	0°♐		morning set	5099 May 08 04:31	10°♏19'37	
max. Earth dist.	5098 May 29 18:47	6°♐33'17	1.33810 AU	max. Earth dist.	5099 May 12 03:10	17°♏47'19	1.35352 AU
superior conj	5098 Jun 02 14:12	14°♐26'44	0°-19'-37	superior conj	5099 May 17 09:34	28°♏14'18	0°-49'-24
minimum elong	5098 Jun 02 15:14	14°♐32'11	0°19'27	minimum elong	5099 May 17 12:18	28°♏28'08	0°48'55
asc. node	5098 Jun 04 11:56	18°♐28'25			5099 May 18 06:20	0°♐	
evening rise	5098 Jun 09 22:52	0°♑02'53		asc. node	5099 May 22 08:57	8°♐28'21	
	5098 Jun 09 22:19	0°♒		evening rise	5099 May 25 06:28	14°♐27'24	
	5098 Jun 27 09:23	0°♓			5099 Jun 02 07:17	0°♑	
evening max el	5098 Jun 30 08:53	3°♓14'02	21°47'00	evening max el	5099 Jun 12 12:02	14°♑10'05	20°23'55
desc. node	5098 Jul 10 21:03	9°♓16'47		retrograde	5099 Jun 23 10:39	19°♑31'29	
retrograde	5098 Jul 12 21:36	9°♓26'24		evening set	5099 Jun 25 10:17	19°♑21'39	
evening set	5098 Jul 15 13:31	9°♓10'25		desc. node	5099 Jun 27 18:06	18°♑46'52	
inferior conj	5098 Jul 24 20:29	5°♓08'40	-3°-51'-18	inferior conj	5099 Jul 04 14:32	15°♑24'07	-2°-1'-56
minimum elong	5098 Jul 24 11:40	5°♓21'01	3°48'55	minimum elong	5099 Jul 04 08:50	15°♑32'25	1°59'54
min. Earth dist.	5098 Jul 24 12:06	5°♓20'25	0.54866 AU	min. Earth dist.	5099 Jul 05 23:52	14°♑35'31	0.54963 AU
morning rise	5098 Aug 02 11:10	1°♓17'54		morning rise	5099 Jul 13 05:40	11°♑14'19	
direct	5098 Aug 05 19:26	0°♓53'26		direct	5099 Jul 17 05:29	10°♑39'52	
morning max el	5098 Aug 17 23:27	6°♓35'59	21°51'16	morning max el	5099 Jul 30 15:59	17°♑11'32	23°33'33
asc. node	5098 Aug 31 11:13	25°♓17'03			5099 Aug 10 00:05	0°♓	
	5098 Sep 02 23:49	0°♑		asc. node	5099 Aug 18 08:15	14°♓31'47	
morning set	5098 Sep 07 21:22	9°♑52'48		morning set	5099 Aug 23 08:47	24°♓45'09	
					5099 Aug 25 19:45	0°♑	
superior conj	5098 Sep 15 03:22	25°♑11'45	1°42'52	superior conj	5099 Aug 30 09:41	9°♑54'30	1°36'50
minimum elong	5098 Sep 15 02:48	25°♑08'45	1°42'51	minimum elong	5099 Aug 30 08:05	9°♑45'51	1°36'43
	5098 Sep 17 10:49	0°♒		max. Earth dist.	5099 Sep 01 20:30	15°♑09'00	1.33385 AU
max. Earth dist.	5098 Sep 18 22:36	3°♒02'57	1.34711 AU	evening rise	5099 Sep 06 23:55	25°♑45'36	
evening rise	5098 Sep 23 09:29	11°♒51'02			5099 Sep 09 03:36	0°♒	
	5098 Oct 03 12:27	0°♓		desc. node	5099 Sep 23 17:22	25°♒14'19	
desc. node	5098 Oct 06 20:20	5°♓24'44			5099 Sep 26 22:27	0°♓	
	5098 Oct 24 22:20	0°♊		evening max el	5099 Oct 10 23:41	17°♓02'38	27°22'50
evening max el	5098 Oct 28 11:36	3°♊40'06	26°52'18	retrograde	5099 Oct 24 12:59	24°♓21'07	
retrograde	5098 Nov 10 15:05	10°♊57'09		evening set	5099 Oct 31 13:35	21°♓42'57	
evening set	5098 Nov 17 06:35	8°♊18'46		min. Earth dist.	5099 Nov 04 08:08	18°♓17'35	0.64246 AU
min. Earth dist.	5098 Nov 21 06:58	4°♊19'02	0.65722 AU				

inferior conj	5099 Nov 06 18:11	15° \mathbb{M} 44'19	-2°-29'00	evening rise	5100 Aug 21 23:27	10° \mathbb{M} 05'33	
minimum elong	5099 Nov 06 22:31	15° \mathbb{M} 32'53	2°27'21		5100 Sep 01 10:54	0° \mathbb{A}	
morning rise	5099 Nov 13 09:51	10° \mathbb{M} 18'32		desc. node	5100 Sep 10 14:23	14° \mathbb{A} 30'23	
asc. node	5099 Nov 14 07:30	10° \mathbb{M} 00'12			5100 Sep 23 10:40	0° \mathbb{M}	
direct	5099 Nov 15 20:59	9° \mathbb{M} 47'44		evening max el	5100 Sep 23 09:12	29° \mathbb{A} 56'33	27°23'50
morning max el	5099 Nov 22 09:05	13° \mathbb{M} 12'58	17°54'04	retrograde	5100 Oct 07 03:56	7° \mathbb{M} 11'06	
	5099 Dec 04 01:02	0° \mathbb{A}		evening set	5100 Oct 14 08:02	4° \mathbb{M} 43'46	
morning set	5099 Dec 09 08:38	8° \mathbb{A} 59'42		min. Earth dist.	5100 Oct 17 23:14	1° \mathbb{M} 47'46	0.62465 AU
desc. node	5099 Dec 20 16:38	27° \mathbb{A} 54'31			5100 Oct 19 21:12	30° \mathbb{R} \mathbb{A}	
	5099 Dec 21 23:31	0° \mathbb{C}		inferior conj	5100 Oct 20 20:24	29° \mathbb{A} 04'48	-3°-31'-29
				minimum elong	5100 Oct 21 02:17	28° \mathbb{A} 50'53	3°29'39
superior conj	5099 Dec 22 13:34	0° \mathbb{C} 56'50	0°-13'-2	morning rise	5100 Oct 27 23:27	23° \mathbb{A} 57'12	
minimum elong	5099 Dec 22 12:03	0° \mathbb{C} 50'42	0°12'49	direct	5100 Oct 30 06:45	23° \mathbb{A} 33'18	
behind sun begin	5099 Dec 22 05:49	0° \mathbb{C} 25'32		asc. node	5100 Nov 01 04:31	23° \mathbb{A} 50'09	
behind sun end	5099 Dec 22 18:16	1° \mathbb{C} 15'50		morning max el	5100 Nov 06 01:25	27° \mathbb{A} 01'03	17°50'19
max. Earth dist.	5099 Dec 27 15:37	9° \mathbb{C} 05'06	1.44718 AU		5100 Nov 08 16:22	0° \mathbb{M}	
evening rise	5100 Jan 07 15:48	26° \mathbb{C} 14'20		morning set	5100 Nov 21 23:59	21° \mathbb{M} 48'50	
	5100 Jan 10 02:41	0° \mathbb{A}			5100 Nov 26 14:42	0° \mathbb{A}	
greatest brilliancy	5100 Jan 28 17:02	27° \mathbb{A} 21'47	-0.5m				
	5100 Jan 30 17:30	0° \mathbb{H}		superior conj	5100 Dec 03 07:24	11° \mathbb{A} 34'11	0°29'50
evening max el	5100 Feb 03 22:54	4° \mathbb{H} 53'50	20°17'28	minimum elong	5100 Dec 03 10:08	11° \mathbb{A} 45'43	0°29'28
asc. node	5100 Feb 10 06:44	9° \mathbb{H} 17'41		desc. node	5100 Dec 07 13:39	18° \mathbb{A} 41'02	
retrograde	5100 Feb 11 20:01	9° \mathbb{H} 30'36		max. Earth dist.	5100 Dec 10 07:31	23° \mathbb{A} 09'59	1.43475 AU
evening set	5100 Feb 15 14:48	8° \mathbb{H} 07'40			5100 Dec 14 14:00	0° \mathbb{C}	
inferior conj	5100 Feb 21 00:58	2° \mathbb{H} 00'08	2°59'48	evening rise	5100 Dec 18 03:13	5° \mathbb{C} 33'51	
minimum elong	5100 Feb 20 22:44	2° \mathbb{H} 07'43	2°59'19		5101 Jan 03 11:34	0° \mathbb{A}	
min. Earth dist.	5100 Feb 21 19:07	0° \mathbb{H} 58'32	0.67409 AU				
	5100 Feb 22 12:35	30° \mathbb{R} \mathbb{A}					
morning rise	5100 Feb 26 06:07	25° \mathbb{A} 43'44					
direct	5100 Mar 03 22:38	23° \mathbb{A} 12'15					
	5100 Mar 15 08:32	0° \mathbb{H}					
morning max el	5100 Mar 15 10:27	0° \mathbb{H} 04'49	24°40'37				
desc. node	5100 Mar 18 15:54	3° \mathbb{H} 34'03					
	5100 Apr 06 22:20	0° \mathbb{Y}					
morning set	5100 Apr 20 09:35	22° \mathbb{Y} 13'44					
max. Earth dist.	5100 Apr 24 01:29	28° \mathbb{Y} 48'13	1.37304 AU				
	5100 Apr 24 17:09	0° \mathbb{C}					
superior conj	5100 Apr 30 18:24	11° \mathbb{C} 27'17	-1°-18'-36				
minimum elong	5100 Apr 30 22:41	11° \mathbb{C} 48'08	1°17'58				
evening rise	5100 May 09 08:32	28° \mathbb{C} 30'55					
asc. node	5100 May 09 05:59	28° \mathbb{C} 18'10					
	5100 May 10 02:27	0° \mathbb{I}					
evening max el	5100 May 26 03:44	25° \mathbb{I} 48'20	19°19'33				
	5100 Jun 01 22:35	0° \mathbb{C}					
retrograde	5100 Jun 04 08:52	0° \mathbb{C} 18'18					
evening set	5100 Jun 06 07:48	0° \mathbb{C} 07'01					
	5100 Jun 06 20:55	30° \mathbb{R} \mathbb{I}					
inferior conj	5100 Jun 14 20:37	25° \mathbb{I} 58'55	0°-4'-4				
minimum elong	5100 Jun 14 20:26	25° \mathbb{I} 59'12	0°04'02				
transit middle	5100 Jun 14 20:26	25° \mathbb{I} 59'12	0°04'02				
transit begin	5100 Jun 14 16:43	26° \mathbb{I} 05'20					
transit end	5100 Jun 15 00:10	25° \mathbb{I} 53'03					
desc. node	5100 Jun 14 15:07	26° \mathbb{I} 07'58					
min. Earth dist.	5100 Jun 17 14:00	24° \mathbb{I} 11'53	0.56003 AU				
morning rise	5100 Jun 23 05:04	21° \mathbb{I} 15'54					
direct	5100 Jun 28 02:17	20° \mathbb{I} 21'23					
morning max el	5100 Jul 12 05:27	27° \mathbb{I} 31'56	25°15'16				
	5100 Jul 14 15:32	0° \mathbb{C}					
	5100 Aug 03 03:39	0° \mathbb{Q}					
asc. node	5100 Aug 05 05:15	4° \mathbb{Q} 08'19					
morning set	5100 Aug 07 20:25	9° \mathbb{Q} 36'59					
superior conj	5100 Aug 14 19:38	24° \mathbb{Q} 46'17	1°25'18				
minimum elong	5100 Aug 14 17:27	24° \mathbb{Q} 34'18	1°25'02				
max. Earth dist.	5100 Aug 16 02:09	27° \mathbb{Q} 33'13	1.32490 AU				
	5100 Aug 17 05:09	0° \mathbb{M}					